

# **PROJECT MANUAL**

**Notice Inviting Bids  
Instructions to Bidders  
Proposal Requirements  
Conditions and Bid Procedures  
Award and Execution of Contract  
Bid Proposal and Schedule  
Sample Construction Agreement  
General Requirements  
Special Provisions  
Technical Specification  
Attachments  
and  
Project Plans**

For

## **TRAFFIC SIGNAL UPGRADES PROJECT**

**PW No. 07-24-18**

**Sealed proposals are due at 2:00 P.M., Tuesday, January 13, 2025**

950 W Mall Square, Suite 110  
Alameda CA 94501  
Project Manager: Cody Lim  
Telephone: 510-747-7939  
Email: [clim@alamedaca.gov](mailto:clim@alamedaca.gov)

Scott Wikstrom, P.E.  
City Engineer

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# 1 NOTICE INVITING BIDS

CITY OF ALAMEDA  
STATE OF CALIFORNIA  
**PW No. 07-24-18**

## **Traffic Signal Upgrades Project**

The City of Alameda (“City”) will accept sealed bids for its Traffic Signal Upgrades Project (“Project”), **by or before Tuesday, January 13, 2025 at 2:00 p.m., at the City’s Public Works Office, located at 950 W Mall Square, Suite 110, Alameda, CA 94501 at which time the bids will be publicly opened at 2:01 p.m.** No bids will be accepted unless submitted on the Bid Proposal and Schedule form provided in the Project Manual.

The Project includes, but is not limited to, performing the following Work:

Furnishing all labor, tools, equipment, materials, except as herein specified; and doing all work associated with the Traffic Signal Upgrades Project.

Approximate cost of construction: **\$697,000**

The Contractor shall begin Work no later than five working days following the start date specified in the Notice to Proceed, which may be hand delivered or sent by email. **The Contractor shall complete all Work on the Project within Forty-five (45) Working days after the above start date.**

The Contractor, and all Subcontractors, shall pay all workers not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations (“DIR”), State of California, for the Work performed, pursuant to sections 1770 *et seq.* of the California Labor Code. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by the DIR, are on file at the City. Prevailing wage rates are also available online at: <http://www.dir.ca.gov>.

Each Contractor and Subcontractor must pay no less than the specified rates to all workers employed to work on the Project. The schedule of per diem wages is based upon a working day of eight (8) hours. The rate for holiday and overtime work shall be at least time and one-half.

Pursuant to Public Contract Code (“PCC”) section 4104, no contractor or subcontractor shall be qualified to bid on, or be listed in a bid proposal unless currently registered to perform public work pursuant to Section 1725.5.

No bids will be accepted from a Contractor who has not been licensed in accordance with Business and Professions Code section 7000 and following. The General Contractor shall possess a valid Class A construction license issued by the California Contractors State License Board for this Project.

Printed or electronic copies of the plans, specifications, and contract documents, including the Project Manual, and/or any issued addenda may be obtained from BPX Printing & Graphics located at 4903 Central Avenue, Richmond, CA 94804 for a non-refundable cost of \$45 per set, exclusive of shipping and handling. Copies of the documents may be viewed and ordered at

<https://www.alamedaplanroom.com/> or by contacting BPX at (510) 559-8299 or at [Richmond@bpxprinting.com](mailto:Richmond@bpxprinting.com). Please contact BPX for ordering or downloading questions. To ensure receipt of any subsequent communications (e.g., an Addenda), each prospective bidder is responsible for confirming that their firm appears on the BPX plan holders' list.

**Bidders are responsible for obtaining any and all changes to the plans, specifications, proposal forms, addenda, other project notifications, and documents during the bid process. A bid is invalid if the Bidder has not deposited it at the designated location prior to the time and date for receipt of bids indicated in this Notice Inviting Bids or prior to any addendum extension thereof.**

The City reserves the right to reject any or all bids; to waive minor defects or technicalities; or to solicit new bids. As per PCC section 20170, all bids shall be submitted under seal and accompanied by cash, a bidder's bond executed by an admitted surety insurer, a cashier's check, or certified check payable to the City of Alameda in an amount equal to 10% of the total amount bid (PCC 20171).

Upon award of the contract, the successful Bidder shall furnish a bond for faithful performance in the amount of 100% of the total bid. The successful Bidder shall also furnish a bond to secure the payment of all claims for labor and material in the amount of 100% of the total bid. Further, the successful Bidder, and all subcontractors, shall pay for and obtain a City of Alameda Business License.

Retention: The Contractor may elect to receive 100% of payments due under the contract from time to time, without the City retaining any portion of the payment, by depositing securities of equivalent value with the City or in an escrow agent pursuant to PCC section 22300. Such securities, if deposited by the Contractor, shall be valued by the City's Risk Manager whose decision on valuation of the securities shall be final.

The Contractor's attention is called to the Business and Professions Code section 7108.5, which generally requires subcontractors to be paid not later than seven days after receipt of each progress payment.

**Please direct any Project questions to Cody Lim. Questions must be by written email to [clim@alamedaca.gov](mailto:clim@alamedaca.gov) and received by 5:00 p.m. Tuesday January 6, 2026.**

CITY OF ALAMEDA

Erin Smith  
Public Works Director

Dated: December 4, 2025

**2 PUBLIC CONTRACT CODE INSTRUCTIONS TO BIDDERS**

**2-1 ADDENDA**

Addenda are written or graphic instruments issued before the opening of the bids, which modify or interpret the Project Manual, by additions, deletions, clarifications or corrections. Addenda will become part of the Contract Documents when the Contract is executed.

**2-2 INTERPRETATION OF CONTRACT DOCUMENTS**

If any person contemplating the submission of a bid for the proposed construction finds discrepancies in or omissions from, or is in doubt as to the true meaning of any part of the Project Manual, the person shall request an interpretation in writing, on or before 5:00 p.m. on Tuesday, January 6, 2026. Any interpretation or correction will be issued as an Addendum by the Engineer. Only a written interpretation or correction by Addendum is binding.

**2-3 APPROVAL OF MATERIALS**

Each Bidder represents that the Bidder’s bid is based upon the materials, services, and equipment described in the Project Manual. No substitution will be considered unless it has been identified in the bid and substantiation is submitted in accordance with General Requirement 4-2, Substitution of Equals.

**2-4 SUBMISSION OF BID**

All bids must be prepared on the forms provided by the City and submitted in accordance with the Instructions to Bidders. A bid is invalid if it has not been deposited at the designated location before the time and date for receipt of bids indicated in the Notice Inviting Bids, or any extension issued to the Bidders in writing.

The ability of the Bidder to meet the expected schedule is required to have the bid considered valid and responsive.

Unless otherwise provided in the Project Manual, no Bidder shall modify, withdraw, or cancel the Bidder’s bid or any part of it for 90 days after the time designated for the receipt of bids in the Notice Inviting Bids. Before the receipt of bids, if Addenda are issued, the Addenda will be mailed or delivered to each person or firm recorded on the plan holder list. It is the responsibility of each prospective bidder to confirm the Bidder’s firm is on the plan holders’ list held at BPXpress to ensure receipt of any subsequent communications, such as an Addenda.

Enclose the Bid Proposal and Schedule, with attachments, in a sealed envelope with the following address and identification on the face:

(Name of Bidder)

Bid Proposal for  
 PW NO. 07-24-18  
**Traffic Signal Upgrades Project**  
 IN ALAMEDA COUNTY  
 ALAMEDA, CALIFORNIA

**2-5 BID MODIFICATION**

Any Bidder may modify the Bidder’s bid by email or written communication at any time before the scheduled closing time for receipt of bids if: (1) the communication is received by the City before the closing time; and (2) the City is satisfied that a written confirmation of the modification

over the signature of the Bidder was mailed before the closing time. The communication should not reveal the bid price but should provide the addition or subtraction or other modification so that the final prices or terms will not be known by the City until the sealed bid is opened. If written confirmation is not received within two days before closing time, the City will not consider the modification.

### **3 PROPOSAL REQUIREMENTS, CONDITIONS AND BID PROCEDURES**

#### **3-1 EXAMINATION OF PLANS, SPECIFICATIONS, CONTRACT, AND SITE OF WORK**

The Bidder shall examine carefully the site of the Work and this Project Manual. The submission of a bid shall be conclusive evidence that the Bidder has investigated and is satisfied as to the conditions to be encountered, the character, quality and quantities of Work to be performed and materials to be furnished, and the requirements of the Contract.

#### **3-2 ENGINEER'S ESTIMATE OF QUANTITIES**

When given, the quantities in the Project Manual are approximate only, being given as a basis for the comparison of bids, and the Engineer does not expressly or by implication, agree that the actual amount of Work will correspond with those quantities, but reserves the right to increase or decrease the amount of any class or portion of the Work, or to omit portions of the Work, as may be deemed necessary or advisable.

#### **3-3 PROPOSAL FORMS**

All proposals must be made upon the "Bid Proposal and Schedule" in the Project Manual. The Bidder shall completely fill out the form in a clear and legible manner and properly sign and guarantee it.

All proposals shall be submitted as directed in the "Notice Inviting Bids" under sealed cover plainly marked as a proposal, and identifying the Project to which the proposal relates and the date of the bid opening. The City may reject proposals that are not properly marked or sealed.

#### **3-4 PROPOSAL GUARANTEE**

The Proposal Guarantee (Bid Bond) shall be forfeited to the City of Alameda if the Bidder does not, within ten calendar days after receipt of written notice that the contract has been awarded to them, enter into a contract with the City for the Work. Unless otherwise specified in the Special Provisions, all proposals or bids shall be accompanied by cash, cashier's or certified check, or Bidder's bond executed by a corporate surety insurer, all payable to the City of Alameda, in an amount equal to 10% of the total amount bid.

#### **3-5 ADDENDA**

The Engineer may, when deemed necessary, and at a time before the bid opening, issue addenda to the Project Manual to amend, clarify or correct information in them. The addenda shall constitute a part of the Project Manual and shall be equally binding with it. Any/all addenda that are issued will be uploaded onto the project's two bidding portals; BPX Printing & Graphics, and City of Alameda's 'planroom'. All bidders are responsible for obtaining any and all changes to the plans, specifications, project manual, addenda, etc., during the bid process. See Section 1 NOTICE INVITING BIDS to obtain timely access to these bidding portals

#### **3-6 SUBSTITUTION OF EQUALS**

Each Bidder represents that the Bidder's bid is based upon the materials, services and equipment described in the bidding documents. No substitution will be considered unless the Bidder submits a written request to the Engineer for approval, before the award of the Contract as required by PCC section 3400. Each such request shall include a complete description of the proposed substitute; the name of the material, service or equipment for which it is to be substituted; drawings, cuts,

performance and test data; and any other substantiating detail. The Engineer will issue approval of substitution requests in writing only, and only those manufacturers, materials and equipment approved in the Project Manual or by written notice will be acceptable for use on this Project. (See also General Requirements Sections 4-1 and 4-2.)

Any substitute material shall be identified in the proposal.

### **3-7 PROJECT STABILIZATION AGREEMENT**

#### **NOT USED**

### **3-8 WITHDRAWAL OF BIDS**

The Contractor may withdraw its bid, in writing, at any time before the time fixed in the Notice Inviting Bids for the opening of bids. The withdrawal of a bid does not prejudice the right of a Bidder to file a new bid. Bids will not be received, and may not be withdrawn, after the time and date fixed in the Notice Inviting Bids.

### **3-9 OPENING OF BIDS**

Bids will be opened and read publicly at the time and place indicated in the Notice Inviting Bids. Bidders or their authorized agents are invited to be present.

### **3-10 RELIEF OF BIDDERS**

Attention is directed to PCC sections 5100-5110, inclusive, concerning relief of Bidders, including the requirement that if the Bidder claims a mistake was made in his or her bid, the Bidder shall give the City written notice within five days of the opening of the bids of the alleged mistake, specifying in the notice, in detail, how the mistake occurred.

### **3-11 SUBCONTRACTORS**

The Bidder shall comply with and be bound by the requirements of the "Subletting and Subcontracting Fair Practices Act" of the PCC section 4100 and following, for bidding, bid shopping and bid peddling, requiring accurate listing of all subcontractors, and requiring subcontractors to be licensed.

If the Bidder violates a provision of that chapter, the violation shall be deemed a breach of the Bidder and the City shall have all remedies provided by California law, including but not limited to those provided in PCC section 4110, allowing termination of the Contract or a penalty assessment of 10% of the subcontract.

As required under PCC section 4104 and following, a person making a bid shall in his or her bid set forth: (a) the name and location of the place of business of each subcontractor who will perform Work or labor or render service to the Contractor in or about the construction of the Work, or a subcontractor licensed by the State of California who, under subcontract to the Contractor specially fabricates and installs a portion of the Work according to detailed Drawings contained in the plans and Specifications, in an amount in excess of 0.5% of the total bid; (b) the portion of the Work which will be done by each such subcontractor under this act. The Bidder shall list only one subcontractor for each portion as defined by the Bidder in their bid.

### **3-12 BIDS FOR TRENCHING AND EXCAVATION WORK**

In accordance with the provisions of California Labor Code section 6707, whenever the Project calls for the construction of a pipeline, sewer, sewage disposal system, boring or jacking pits, or similar trenches or open excavations, which are five feet deep or deeper, each bid submitted in

response shall contain, as a bid item, adequate sheeting, shoring, and bracing or equipment method, for the protection of life or limb, which shall conform to applicable safety orders.

### **3-13 INSURANCE**

Bidders' attention is directed to the insurance requirements set forth in Special Provisions Section 2. It is highly recommended that Bidders confer with their respective insurance carriers or brokers to determine in advance of bid submission the availability of the required insurance certificates and endorsements. If an apparent low Bidder fails to comply strictly with the insurance requirements, that Bidder may be disqualified from award of the contract.

### **3-14 CITY'S DETERMINATION OF LOWEST RESPONSIBLE BIDDER AND BIDDER RESPONSIBILITY**

#### **3-14.1 General**

The lowest responsible Bidder is that person who is the lowest monetary Bidder and:

1. whose bid is responsive (prepared and submitted in accordance with the requirements of the Bid Documents); and
2. who is responsible. In this case, "responsible" means the Bidder is responsible to perform the Work by demonstrating that it possesses: (1) the capacity to perform the Work required by the Contract Documents with respect to financial strength, resources available, and experience; and (2) the integrity and trustworthiness to complete performance of the Work in accordance with the Contract Documents. The City Engineer shall review "responsibility" of bidders based upon the criteria set forth in Section 3-14.3 below, Process for Determination.

#### **3-14.2 Responsibility**

In determining whether or not a Bidder is responsible, the City may consider the following factors in relation to the Work to be performed:

1. Demonstrated financial strength including, but not limited to, resources available, bonding capacity, and available insurance.
2. Demonstrated safety record.
3. Successful completion of projects of similar scope and size. In reviewing this factor, the City may consider elements including, but not limited to, contract amount of completed projects, experience on public works projects, experience implementing prevailing wage certified payroll requirements, timeliness of performance, and, if necessary, evaluation of Bidder's work by previous cities, clients, design professionals, or subcontractors.
4. Sufficiency of contract administration and construction management systems including, but not limited to, proposed scheduling tools, proposed subcontract forms, proposed progress payment applications, and proposed certification of payroll documents.
5. History of claims, litigation, and termination or disqualification from projects.

The City will make its determination of responsibility based upon information submitted by bidders contained in the Bidders Statement of Financial Responsibility, Technical Ability and Experience included in the Bid Documents, and, if necessary, interviews with previous cities, clients, design professionals, or subcontractors with whom the bidder has worked. If a non-responsive or non-responsible Bidder submits additional evidence under Section 3-14.3 (7) of the Process for Determination, then that additional evidence shall be considered by the City Engineer in making its recommendation to the City Council.

**3-14.3 Process for Determination**

The City will determine the lowest responsible Bidder as follows:

1. City will determine the lowest monetary Bidder on the basis of the bid amount, in accordance with the calculation criteria set forth in the Bid Documents.
2. The lowest monetary Bidder's bid will be evaluated to determine whether or not that Bid is responsive (being prepared and submitted in accordance with the requirements of the Bid Documents).
3. If the lowest monetary Bidder's bid is responsive, the City Engineer will evaluate that Bidder's qualifications to determine whether or not the bidder is responsible to perform the Work.
4. If the City Engineer finds that the lowest monetary Bidder submitted a responsive bid, and that the Bidder is responsible, then that Bidder shall be deemed the apparent lowest responsible bidder, and the City Engineer shall report the findings as recommendations to the City Council.
5. If the City Engineer finds that the lowest monetary Bidder's bid is not responsive, or that the lowest monetary bidder is not responsible, then the Engineer may review the responsiveness and responsibility of the next low monetary Bidder. If the City Engineer finds that the next low monetary Bidder is responsive and responsible, then that next low Bidder shall be deemed the apparent lowest responsible Bidder, and the City Engineer shall report its findings as recommendations to the City Council.
6. This process may continue until the City Engineer finds the lowest monetary bidder which is also responsive and responsible.
7. If one or more low monetary Bidders are found by the City Engineer to be non-responsive or non-responsible, those Bidders will be given notice and a reasonable opportunity to present additional relevant evidence to the City Engineer, within five working days after the Bidder receives the notice.
8. The City may investigate the responsibility and qualifications of all Bidders to whom the award is contemplated for a period not to exceed 60 days after the bid opening. The 60-day review period may be extended upon the written request by the City Engineer and written approval by the affected Bidders.
9. The City Engineer shall report his or her findings as recommendations to the City Council.
10. The City Council reserves the right to reject any or all bids, and to waive any irregularity. No bid is binding upon the City until after the Contract is signed by both the Contractor and the City.
11. If the City Council determines that it is in the City's best interest to award the Contract, a Notice of Award shall be sent to the lowest responsible Bidder as determined by the City Council. The City Council's decision is final.

## 4 AWARD AND EXECUTION OF CONTRACT

### 4-1 AWARD OF CONTRACT

City reserves the right to reject any and all bids, accept or reject alternates, and waive irregularities or informalities in the bid and bidding.

Bids will be compared on the basis of the Engineer's estimate of the quantities of Work to be done. The decision of whether or not alternates will be used will be recommended by the City Engineer to City Council at the time of award. The value of alternates shall not be used in the determination of the low Bidder.

The award of the Contract, if it be awarded, will be to the lowest responsible Bidder (under Bid Documents Section 3-14) within 90 days after the proposals have been publicly opened.

The City reserves the right to increase or decrease the amount of any class or portion of the Work, or to omit any portion(s) of the Work (including complete base bid items), at the contract price, as the Engineer deems necessary or advisable. Price negotiations on the contract prices are optional (at the request of either party) if the actual amount of the Work is different from the above estimates by 25% or greater.

### 4-2 CONTRACT BONDS

#### 4-2.1 General

Before the City executes the contract, the Contractor shall file with the City surety bonds satisfactory to the City in the amounts and for the purposes noted in this Section. Bonds shall be duly executed by a responsible corporate surety, authorized to issue such bonds in the State of California and secured through an authorized agent with an office in California. The Contractor shall pay all bond premiums, costs, and incidentals.

Each bond shall be signed by both the Contractor and surety and the signature of the authorized agent of the Surety shall be notarized.

The Contractor shall provide two good and sufficient surety bonds: the payment bond and the faithful performance bond. Sample bonds are including in **Attachment A**.

#### 4-2.2 Payment Bond

The Payment Bond (material and labor) shall be for not less than 100% of the contract price plus the construction contingency, to satisfy claims of material suppliers and of mechanics and laborers employed on the Work. The bond shall be maintained by the Contractor in full force and effect until the completed Work is accepted by the City, and until all claims for materials and labor are paid.

#### 4-2.3 Faithful Performance Bond

The Faithful Performance Bond shall be for 100% of the contract price plus the construction contingency to guarantee faithful performance of all Work, within the time prescribed, in a manner satisfactory to the City, and that all materials and Workmanship will be free from original or developed defects. The bond shall be maintained by the Contractor in full force and effect until the completed Work is accepted by the City and until all claims for materials and labor are paid.

**4-2.4 Bond Renewal and Extension**

If any bond becomes insufficient, the Contractor shall immediately replace the bond with a substitute upon request from the City, and the effective date of the bond shall be from the beginning of Work.

If any surety at any time is unsatisfactory to the City, City will give notice to the Contractor. No further payments shall be deemed due or will be made under the contract until a new surety qualifies and is accepted by the City.

Changes in the Work, or extensions of time, made under the Contract, shall not release the Contractor or surety from their obligations. The surety must waive notice of such changes or extensions.

**4-3 EXECUTION OF CONTRACT**

The successful bidder will receive contracts in preparation for bid award by the City Council. The successful bidder shall sign the Contract and return it, together with the insurance certificate and necessary endorsements, within 5 calendar days after receiving the Contract Documents. The contract will not be considered fully executed until all parties sign the Contract Documents following Council award.

**4-4 RETURN OF PROPOSAL GUARANTIES**

Within ten calendar days after the execution of the contract, or the decision to reject all bids, the City will return the proposal guaranties accompanying those proposals not to be further considered.

BIDDER: \_\_\_\_\_

PROPOSAL FOR PW 07-24-18

## 5 BID PROPOSAL TO THE CITY OF ALAMEDA

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

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

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

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

The Work for which this proposal is submitted is for construction in accordance with the Contract Documents.

The Project plans for the Work to be done were approved and are entitled:

**Traffic Signal Upgrades Project**  
**PW NO. 07-24-18**  
CITY OF ALAMEDA  
ALAMEDA COUNTY, CALIFORNIA

Bids are to be submitted for the entire Work. The amount of the bid for comparison purposes will be the total of bid items, including revocable bid items.

Bid     bond     or     check.                      Accompanying     this     proposal     is  
\_\_\_\_\_, [Insert: Cash \$\_\_\_\_\_, Cashier's Check,  
Certified Check, or Bidder's Bond, as the case may be] in an amount equal to at least 10% of the  
total of the bid.

Execution within ten days. The Bidder agrees to execute the required contract(s), with necessary bonds, within ten calendar days of notification that the City has accepted the bid and the contract is ready for signature. If the Bidder fails to do so, the City may, at its option, determine that the Bidder has abandoned the contract. The penalty for default is forfeiture to the City of Alameda of the proceeds of the proposal guarantee accompanying this bid.

Addenda. This proposal is submitted to include the changes to the Contract Documents as Addendum numbers \_\_\_\_\_. [Fill in if addenda have been issued.] If addenda issued, print, sign and date each addenda and include with this bid proposal.

Warning. If the City has issued an addendum or addenda, the City may reject this Proposal if all addenda are not noted above as being received by the Bidder.

License. The Bidder is licensed in accordance with the State of California Contractor's License Law.

License No. \_\_\_\_\_

**BIDDER:** \_\_\_\_\_

**PROPOSAL FOR PW 07-24-18**

Class \_\_\_\_\_

Expiration Date \_\_\_\_\_

Bidder's status. If an individual, so state. If a firm co partnership, state the firm name and give the names of all individuals or copartners composing the firm. If a corporation, state legal names of corporation and also names of President, Secretary, Treasurer and Manager.

The names of all persons interested in the Bid Proposal as principals are as follows:

[ Note: If Bidder or other interested person is a corporation, state legal name of the corporation, also names of the president, secretary, treasurer, and manager; if a co-partnership, state name of firm, also names of all individual co-partners composing firm; if Bidder or other interested person is an individual, state first and last names in full. Use additional pages if necessary.]

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Documents included in Bid Proposal and Schedule. The following are attached and included in the Bid Proposal and Schedule:

- € 5 Bid Proposal
- € 5-1 Bid Schedule
- € 5-2 Proposed Subcontractor Form
- € 5-3 Equal Opportunity Employment Certification – **NOT USED**
- € 5-4 Non-collusion Declaration
- € 5-5 Questionnaire to General Contractors
- € 5-6 Bidder's Statement of Financial Responsibility, Technical Ability and Experience
- € 5-7 Bidder's Bond
- € 5-8 Bidder's Request for Material Substitution
- € 5-9 Guaranty
- € 5-10 Executed Agreement to be Bound to Project Stabilization Agreement – **NOT USED**

Signature. Under penalty of perjury, I declare that to the best of my knowledge and belief: the representations made in these Bid Documents are true, correct and complete.

SIGNATURE OF BIDDER \_\_\_\_\_

Print or Type Name, Address and Telephone Number:

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

DATED: \_\_\_\_\_, 2026

BIDDER: \_\_\_\_\_

PROPOSAL FOR PW 07-24-18

**5-1 BID SCHEDULE FOR TRAFFIC SIGNAL UPGRADES PROJECT**

TO: CITY COUNCIL, CITY OF ALAMEDA, CALIFORNIA

The undersigned Bidder declares that Bidder has carefully examined the Project Manual, and is satisfied as to the field conditions the Bidder will encounter. The Bidder proposes to furnish all materials, labor and equipment and to do all Work required to complete the Work in accordance with the Project Manual, for the prices set forth in the following schedule (including all applicable taxes):

<b>Bid Item</b>	<b>Description</b>	<b>Unit of Measure</b>	<b>Quantity</b>	<b>Unit Price</b>	<b>Total Price</b>
1	Mobilization	LS	1		
2	Water Pollution Control	LS	1		
3	Traffic Control	LS	1		
4	Traffic Signal Modification – Broadway and Central Avenue	LS	1		
5	Traffic Signal Modification – Broadway and Santa Clara Avenue	LS	1		
6	Traffic Signal Modification – Webster Street and Lincoln Avenue	LS	1		
7	Remove and Install New Concrete Curb Ramp	EA	2		

TOTAL BID AMOUNT: \_\_\_\_\_

**BIDDER:** \_\_\_\_\_

**PROPOSAL FOR PW 07-24-18**

Entire Work. Bids are required for the entire Work, including the alternative bid items if any. The amount of the bid for the purposes of the award will be the total of the amount of all the base bid items. The City will determine which additional alternate(s), if any, will be awarded. All items are based on an “in place” condition.

Item price and total. The Bidder shall set forth for each unit basis item of Work an item price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for this purpose. In the case of unit basis items, the amount set forth under the “total” column shall be the extension of the item price bid on the basis of the estimated quantity for the item.

Discrepancies. In the case of discrepancy between the item price and the total set forth for a unit basis item, the item price shall prevail. However, if the amount set forth as an item price is ambiguous, unintelligible or uncertain for any cause, or is omitted, or is the same amount as the entry in the “total” column, then the amount set forth in the “total” column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the item price.

Quantities. The foregoing quantities are approximate only, being given as a basis for the comparison of bids. The City does not, expressly or by implication, agree that the actual amount of Work will correspond with the quantities, but reserves the right to increase or decrease the amount of any class or portion of the Work, or to omit any portion(s) (this includes complete base bid items) of the Work, as the Engineer deems necessary or advisable, at the contract price. Price negotiations on the contract prices are optional if the actual amount of Work is different from the above estimates by 25% or greater.

BIDDER: \_\_\_\_\_

PROPOSAL FOR PW 07-24-18

**5-2 PROPOSED SUBCONTRACTOR FORM**

A subcontractor is any entity, not a direct employee of the prime Contractor, which performs any work on the Project in excess of one half of one percent (.5%) of the prime Contractor's total bid. Per California PCC section 4104, for each subcontractor to perform work or labor or render service to the prime Contractor in or about the construction of the Project, the Bidder is **required** to state the name, location of the place of business, the California contractor license number, and public works contractor registration number issued pursuant to Section 1725.5 of the Labor Code (noted as DIR No. in the table below). If no subcontractors, sign form with none listed and include form with Bid Proposal.

SUBCONTRACTOR'S NAME	CA LICENSE NO.	BUSINESS ADDRESS	DESCRIPTION OF WORK	DIR NO.

*(This form may be duplicated if necessary to list additional subcontractors)*

Signed: \_\_\_\_\_

**5-3 EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION – NOT USED**

**5-4 NON-COLLUSION DECLARATION**

Title 23 United States Code section 112, and  
PCC section 7106

The undersigned declares:

I am the \_\_\_\_\_ of \_\_\_\_\_, the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted this bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

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

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on \_\_\_\_\_, 2026, at \_\_\_\_\_ (city), California.”

\_\_\_\_\_  
(Signature of representative of Bidder)

**5-5 QUESTIONNAIRE TO GENERAL CONTRACTORS**

1. Bid depository or registry services. Were bid depository or registry services used in obtaining subcontractor bid figures in order to compute your bid?

YES [ ] NO [ ]

If the answer to No. 1 is "yes," please forward a copy of the rules of each bid depository you used with this questionnaire.

2. Other source of subcontractors. Did you have any source of subcontractor bids other than bid depositories?

YES [ ] NO [ ]

3. Threats of boycott or other sanctions. Has any person or group threatened you with subcontractor boycotts, union boycotts, or other sanctions to attempt to convince you to use the services or abide by the rules of one or more bid depository?

YES [ ] NO [ ]

If the answer to No. 4 is "yes," please explain the following details:

- a. Date:
- b. Name of person or group:
- c. Job involved (if applicable):
- d. Nature of threat:
- e. Additional comments (use additional paper if necessary):

4. Disqualification or removal. Have you, any officer of Bidder, or any employee who has a proprietary interest in 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? If so, explain the circumstances. (PCC §10162.)

YES [ ] NO [ ]

5. Federal court action. No more than one final, un-appealable finding of contempt of court by a federal court has been issued against the Bidder 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. (For purposes of this section, a finding of contempt does not include any finding which has been vacated, dismissed, or otherwise removed by the court because the contractor has complied with the order which was the basis for the finding.) (PCC §10232.)

TRUE? [ ]

6. No convictions. Neither the Bidder nor any proposed subcontractor (nor the partner, member, officer, director, responsible managing officer, or responsible managing employee

of either of them) has been convicted of any of the following offenses within the prior three years: 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 with any public entity. (PCC §10285.1.)

TRUE? [  ]

7. Non-discrimination program. Bidder has developed a non-discrimination program, as required by Title 2 California Code of Regulations section 8104 (unless exempt under Section 8115). (2 Cal. Code Regs 8103.)

YES [  ]                      NO [  ]

8. The Bidder and all subcontractors are registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement).

TRUE [  ]

9. Litigation. Please provide the following information on all state or federal litigation in which Bidder or any proposed subcontractor was a named party:

- a. Case name
- b. Case location (including county and state for state litigation, or district for federal litigation)
- c. Year case was filed
- d. Whether case is pending or resolved

SIGNED: \_\_\_\_\_

Please return this form with your bid proposal.

**5-6 BIDDER’S STATEMENT OF FINANCIAL RESPONSIBILITY TECHNICAL ABILITY AND EXPERIENCE**

The Bidder is required to state what work of a similar character to that included in the proposed contract the Bidder has successfully performed and give reference which will enable the City Council to judge his responsibility, experience skill, and business standing.

The Bidder shall have at least three years of experience as a licensed Contractor and shall submit with the bid a list of five similar installations in the Bay Area installed during the three-year period. At least three of the similar installations shall include work that included installations.

The Bidder shall submit with the bid proposal a statement of the work of a similar size and character to that included in the proposed contract which the Bidder has successfully performed.

Agency for Whom Work Was Done	Contact Name w/ Phone #	Project	Completion Date	Contract Price

SIGNED: \_\_\_\_\_

**5-7 BIDDER’S BOND**

We: \_\_\_\_\_ as Principal,  
and \_\_\_\_\_ as Surety, are bound to the City of Alameda in the penal sum of ten percent (10%) of the total amount of the bid of the Principal, for the payment in United States dollars, to be made to the City of Alameda. We bind ourselves, our heirs, executors, administrators and successors, jointly and severally, by this Bidder’s Bond. In no case shall the liability of the surety under this bond exceed \$ \_\_\_\_\_. Bid: This bond is based on the fact that the Principal has submitted a bid to the City of Alameda for certain construction specifically described as \_\_\_\_\_.

The bids are to be opened at City Hall West, Alameda, California on \_\_\_\_\_, 2023.

NOW, THEREFORE,

- a) If the bid is rejected or awarded to another bidder, then this obligation is void.
- b) If the Principal is awarded the contract and, within the time and manner required under the Contract Documents enters into a written contract in the prescribed form, in accordance with the bid, and files two bonds with the City, one to guarantee faithful performance, and the other to guarantee payment for labor and materials as required by law, then this obligation shall be void; otherwise, it remains in effect.
- c) The Surety agrees that its obligations and those of the bond shall not be impaired or affected by any extension of the time within which the City of Alameda may accept the bid; and the Surety here waives notice of any such extension.
- d) If the City brings suit on this bond, the surety shall pay reasonable attorney’s fees and costs incurred by the City, in addition to the bond amount.

Signatures. We have executed this Bidder’s Bond (and seals) on \_\_\_\_\_, 2023.

_____ (SEAL)	_____ (SEAL)
_____ (SEAL)	_____ (SEAL)

\_\_\_\_\_  
PRINCIPAL ADDRESS

\_\_\_\_\_  
SURETY ADDRESS

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

**5-8 BIDDER’S REQUEST FOR MATERIAL SUBSTITUTION**

The Bidder has 15 calendar days after award of the contract for submission of data substantiating a request for a substitution of “an equal” item(s). (See Bid Documents, Section 3-5.) A request for a substitution of material must be identified on this sheet and submitted as part of the Bid Proposal. If no material substitution requests, leave the table blank, sign the form and submit with bid.

The Bidder here submits a list of substitute material for consideration as “an equal”.

Trade Name/Model or Catalog Number as Specified in Special Provisions	Substitute Trade Name/Model or Catalog Number

Signed: \_\_\_\_\_

**5-9 GUARANTEE**

**CITY OF ALAMEDA**

A. The Bidder guarantees the construction and installation all of the Work included in this Project.

B. If within 12 months after the City accepts the Work under the Contract:

- (a) any of the materials or equipment prove defective; or
- (b) the Work as a whole proves defective due to faulty workmanship, material furnished or methods of installation; or
- (c) the Work or any part of it fails to operate properly as originally intended and in accordance with the Contract Documents;

the Bidder/Contractor agrees to the following:

- 1. to reimburse the City, upon demand, for its expenses incurred in restoring the Work to the condition contemplated in the Project, including the cost of any equipment or materials replaced and the cost of removing and replacing any other Work necessary to make the replacement or repairs; or
- 2. upon demand by the City, to replace any such material and to repair the Work completely without cost to the City so that the Work will function successfully as originally contemplated.

C. The City has the unqualified option to make any needed replacements or repairs itself or to have those replacements or repairs done by the Bidder/Contractor. If the City chooses to have the Work performed by the Bidder/Contractor, the Bidder/Contractor agrees that the Bidder/Contractor will make the repairs and furnish the materials as are necessary, within a reasonable time after City's demand. If Bidder/Contractor fails or refuses to comply with the Bidder/Contractor's obligations under this guaranty, the City is entitled to all costs and expenses, including attorneys' fees, reasonably incurred by reason of that failure or refusal.

\_\_\_\_\_  
Bidder/Contractor

\_\_\_\_\_  
Date

Bidder \_\_\_\_\_

Proposal for PW NO. 07-24-18

**5-10 AGREEMENT TO BE BOUND TO PROJECT STABILIZATION AGREEMENT**

**NOT USED**

## 6 CONSTRUCTION AGREEMENT

THIS CONSTRUCTION AGREEMENT (“**Agreement**”) is entered into this \_\_\_\_ day of \_\_\_\_\_ 2026, by and between the CITY OF ALAMEDA, a municipal corporation (“**the City**”), and COMPANY, a (California corporation, LP, GP, sole proprietor/individual) whose address is Address, (“**Contractor**”), in reference to the following:

### RECITALS:

A. The City is a municipal corporation duly organized and validly existing under the laws of the State of California with the power to carry on its business as it is now being conducted under the statutes of the State of California and the City’s Charter.

B. The City is in need of the following services: Traffic Signal Upgrades Project. City staff issued plans and specifications on December 9, 2025, after a submittal period of thirty-five days received NUMBER of timely submitted bids, and the bids were opened on Tuesday, January 13, 2026. Staff reviewed the bids and selected the lowest responsive and responsible bidder.

C. Contractor possesses the skill, experience, ability, background, certification and knowledge to provide the services described in this Agreement, and desires to perform and assume responsibility for those services on the terms and conditions described herein. Contractor has obtained, and delivers concurrently herewith, a performance bond, a payment bond, and all insurance documentation, as required by this Agreement.

D. Contractor possesses the skill, experience, ability, background, certification and knowledge to provide the services described in this Agreement on the terms and conditions described herein.

E. Whereas, the City Council authorized the City Manager to execute this agreement on \_\_\_\_\_.

F. The City and Contractor desire to enter into an agreement for the Traffic Signal Upgrades Project, upon the terms and conditions herein.

NOW, THEREFORE, in consideration of the forgoing, which are incorporated herein by reference, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

### 1. TERM:

Contractor shall have Forty-five (45) consecutive working days from the date the work is to commence pursuant to the Notice to Proceed to diligently prosecute the work to completion. This term is extended by said number of consecutive working days pursuant a Change Order granting any extension per Project No. 07-24-18 Specifications General Requirements Section 5-7.2.

**2. SERVICES TO BE PERFORMED:**

Contractor agrees, at its own cost and expense, to furnish all labor, tools, equipment, materials, except as otherwise specified, and to do all work strictly in accordance with the Specifications, Special Provisions and Plans, which Specifications, Special Provisions and Plans are hereby referred to and expressly made a part hereof with the same force and effect as if the same were fully incorporated herein. Contractor acknowledges that the work plan included in Exhibit A is tentative and does not commit the City to request Contractor to perform all tasks included therein.

**3. COMPENSATION TO CONTRACTOR:**

Contractor shall be compensated for services performed pursuant to this Agreement in the amount and manner set forth in Contractor's bid, which is attached hereto as Exhibit A and incorporated herein by this reference. Payment will be made in the same manner that claims of a like character are paid by the City, with checks drawn on the treasury of the City.

Payment will be made by the City in the following manner: On the first day of each month, Contractor shall submit a written estimate of the total amount of work done the previous month. However, the City reserves the right to adjust budget within and between tasks. Pricing and accounting of charges are to be according to the bid packet pricing, unless mutually agreed to in writing.

Payment shall be made for 95% of the value of the work completed as determined by the City. The City shall retain 5% of the value of the work as partial security for the completion of the work by Contractor. Retained amounts shall be paid to Contractor within sixty days of acceptance by the City of the project. Payment shall not be construed as acceptance of defective work. No interest will be paid to Contractor on retained funds.

Total compensation for work is \$ \_\_\_\_\_, with a \_\_\_\_\_ percent contingency in the amount of \$ \_\_\_\_\_ for a total not to exceed of \$ \_\_\_\_\_. Use of contingency shall be for items of work outside the original scope and requires prior written authorization by the City.

Prompt Payment Of Withheld Funds To Subcontractors: The City shall hold retainage from the prime contractor and shall, as determined by the City, make prompt and regular incremental acceptances of portions of the contract work and pay retainage to the prime contractor based on these acceptances. The prime contractor or subcontractor shall return all monies withheld in retention from all subcontractors within 30 days after receiving payment for work satisfactorily completed and accepted by the City, including incremental acceptances of portions of the contract work. Any delay or postponement of payment may take place only for good cause and with the City's prior written approval. Any violation of these provisions shall subject the violating prime contractor to the penalties, sanctions, and other remedies specified in Section 7108.5 of the California Business Professions Code. This requirement shall not be construed to limit or impair any contractual, administrative or judicial remedies otherwise available to the prime contractor or subcontractor in the event of a dispute involving (a) late payment or nonpayment by the prime contractor, (b) deficient subcontractor performance, or (c) noncompliance by a subcontractor with

the contract, including but not limited to remedies under California Public Contract Code Section 9204. This clause applies to both DBE and non-DBE subcontractors.

**4. TIME IS OF THE ESSENCE:**

Contractor and the City agree that time is of the essence regarding the performance of this Agreement.

It is agreed by the parties to this Agreement that if all the work called for under the Agreement is not completed before or upon the expiration of the time limit as set forth in Paragraph 1 above, damage will be sustained by the City, and it is and will be impracticable to determine the actual damage which the City will sustain in the event of and by reason of such delay. It is therefore agreed that Contractor will pay the City the sum of ONE THOUSAND ONE HUNDRED DOLLARS (\$1,100.00) per day as liquidated damages for each and every day's delay beyond the time prescribed to complete the work; and Contractor agrees to pay such liquidated damages as herein provided, and in case the same are not paid, agrees that the City may deduct the amount thereof from any money due or that may become due Contractor under the Agreement.

It is further agreed that in case the work called for under the Agreement is not finished and completed in all parts and requirements within the time specified, the City shall have the right to extend the time for completion or not, as may seem best to serve the interest of the City; and if the City decides to extend the time limit for the completion of the Agreement, it shall further have the right to charge Contractor, its successors, heirs, assigns or sureties, and to deduct from the final payment for the work, all or any part, as it may deem proper, of the actual costs and overhead expenses which are directly chargeable to the Agreement, and which accrue during the period of such extensions.

Contractor shall not be assessed with liquidated damages during any delay in the completion of the work caused by an act of God or of the public enemy, acts of the City, fire, flood, epidemic, quarantine restriction, strikes, freight embargoes, and unusually severe weather or delays of subcontractors due to such causes; provided that Contractor shall, within one (1) day from the beginning of such delay, notify the City in writing of the causes of delay. The City shall ascertain the facts in good faith and the extent of the delay, and its findings of the facts thereon shall be final and conclusive.

**5. STANDARD OF CARE:**

Contractor shall perform all services under this Agreement in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Contractor represents that it is skilled in the professional calling necessary to perform all services contracted for in this Agreement. Contractor further represents that all of its employees and subcontractors shall have sufficient skill and experience to perform the duties assigned to them pursuant to and in furtherance this Agreement. Contractor further represents that it (and its employees and subcontractors) have all licenses, permits, qualifications, and approvals of whatever nature that are legally required to perform the services (including a City Business License, as needed); and that such licenses and approvals shall be maintained throughout the term of this Agreement. As provided for in the indemnification provisions of this Agreement, Contractor shall perform (at its own cost and expense and without reimbursement from the City) any services necessary to correct errors or omissions which are

caused by Contractor's failure to comply with the standard of care provided for herein. Any employee of the Contractor or its subcontractors who is determined by the City to be uncooperative, incompetent, a threat to the adequate or timely completion of any services under this Agreement, or a threat to the safety of persons or property (or any employee who fails or refuses to perform the services in a manner acceptable to the City) shall be promptly removed by the Contractor and shall not be re-employed to perform any further services under this Agreement.

**6. INDEPENDENT PARTIES:**

Contractor hereby declares that it is engaged as an independent business and it agrees to perform its services as an independent contractor. The manner and means of conducting the work are under the control of Contractor, except to the extent they are limited by statute, rule or regulation and the express terms of this Agreement. No civil service status or other right of employment will be acquired by virtue of Contractor's services and work. None of the benefits provided by the City to its employees, including but not limited to unemployment insurance, workers' compensation plans, vacation and sick leave are available from the City to Contractor, its employees, subcontractors, suppliers or agents. Deductions shall not be made for any state or federal taxes, FICA payments, PERS payments, or other purposes normally associated with an employer-employee relationship from any fees due Contractor. Payments of the above items, if required, are the responsibility of Contractor. Any personnel performing the services under this Agreement on behalf of Contractor shall also not be employees of City and shall at all times be under Contractor's exclusive direction and control.

**7. IMMIGRATION REFORM AND CONTROL ACT (IRCA):**

Contractor assumes any and all responsibility for verifying the identity and employment authorization of all of its employees performing work hereunder, pursuant to all applicable IRCA or other federal, or state rules and regulations. Contractor shall indemnify, defend (with counsel acceptable to the City) and hold the City harmless from and against any loss, damage, liability, costs or expenses arising from any noncompliance of this provision by Contractor.

**8. NON-DISCRIMINATION:**

Consistent with the City's policy and state and federal law that harassment and discrimination are unacceptable employer/employee conduct, neither Contractor nor Contractor's employees, agents, subcontractors or suppliers shall harass or discriminate against any job applicant, City employee, or any person on the basis of any kind of any statutorily (federal, state or local) protected class, including but not limited to race, religious creed, color, national origin, ancestry, disability (both mental and physical), including HIV and AIDS, medical condition (e.g.. cancer), genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, pregnancy, political affiliation, military and veteran status or legitimate union activities. Such non-discrimination shall include but not be limited to all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff, or termination. Contractor agrees that any violations of this provision shall constitute a material breach of this Agreement.

**9. HOLD HARMLESS:**

To the fullest extent permitted by law, Contractor shall indemnify, defend (with counsel acceptable to the City) and hold harmless the City, its City Council, boards, commissions, officials, employees, agents and volunteers ("Indemnitees") from and against any and all loss, damages,

liability, obligations, claims, suits, judgments, costs and expenses whatsoever, including reasonable attorney's fees and costs of litigation ("Claims"), arising from or in any manner connected to Contractor's performance of its obligations under this Agreement or out of the operations conducted by Contractor even if the City is found to have been negligent. If the Claims filed against Indemnitees allege negligence, recklessness or willful misconduct on the part of Contractor, Contractor shall have no right of reimbursement against Indemnitees for the costs of defense even if negligence, recklessness or willful misconduct is not found on the part of Contractor. Contractor shall not have any obligations to indemnify Indemnitees if the loss or damage is found to have resulted solely from the negligence or the willful misconduct of the City. The defense and indemnification obligations of this Agreement are undertaken in addition to, and shall not in any way be limited by, the insurance obligations contained in this Agreement.

As to Claims for professional liability only, Contractor's obligation to defend Indemnitees (as set forth above) is limited as provided in California Civil Code Section 2782.8.

Contractor's obligation to indemnify, defend and hold harmless Indemnitees shall expressly survive the expiration or early termination of this Agreement.

#### 10. INSURANCE:

a. On or before the commencement of the terms of this Agreement, Contractor shall furnish City's Risk Manager with certificates showing the type, amount, class of operations covered, effective dates and dates of expiration of insurance coverage in compliance with paragraphs 10.b. (1) through (5). Such certificates, which do not limit Contractor's indemnification, shall also contain substantially the following statement:

"Should any of the above insurance covered by this certificate be canceled or coverage reduced before the expiration date thereof, the insurer affording coverage shall provide thirty (30) days advance written notice to the City of Alameda, Attention: Risk Manager."

Contractor shall maintain in force at all times during the performance of this Agreement all appropriate coverage of insurance required by this Agreement with an insurance company licensed to offer insurance business in the State of California with a current A.M. Best's rating of no less than A:VII or Standard & Poor's Rating (if rated) of at least BBB unless otherwise acceptable to the City. Endorsements naming the City, its City Council, boards, commissions, officials, employees, agents and volunteers as additional insured shall be submitted with the insurance certificates.

#### b. COVERAGE:

Contractor shall maintain insurance coverage and limits at least as broad as:

- (1) Workers' Compensation:  
Statutory coverage as required by the State of California.
- (2) Liability:  
Commercial general liability coverage in the following minimum limits:
 

Bodily Injury:	\$1,000,000 each occurrence
	\$2,000,000 aggregate - all other

Property Damage:     \$1,000,000 each occurrence  
                               \$2,000,000 aggregate

If submitted, combined single limit policy with per occurrence limits in the amounts of \$2,000,000 and aggregate limits in the amounts of \$4,000,000 will be considered equivalent to the required minimum limits shown above. Additional Insured Endorsement naming the City, its City Council, boards, commissions, officials, employees, agents, and volunteers is required.

(3) Automotive:

Comprehensive automobile liability coverage (any auto) in the following minimum limits:

Bodily injury:                     \$1,000,000 each occurrence  
 Property Damage:                 \$1,000,000 each occurrence

or

Combined Single Limit:         \$2,000,000 each occurrence

Additional Insured Endorsement naming the City, its City Council, boards, commissions, officials, employees, agents, and volunteers is required.

(4) Pollution Prevention:

Legal liability required for hazardous materials excavation in the amount of \$2,000,000 each occurrence. Additional Insured Endorsement naming the City, its City Council, boards, commissions, officials, employees, agents, and volunteers is required.

(5) Builders Risk:

Insurance utilizing an “All Risk” (Special Perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions. The coverage and limits shall be (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of the coverage carried by or available to the Contractor; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to the City.

c. SUBROGATION WAIVER:

Contractor hereby agrees to waive rights of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether the City has received a waiver of subrogation endorsement from the insurer. The Workers’ Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Contractor, its employees, agents and subcontractors.

d. FAILURE TO SECURE:

If Contractor at any time during the term hereof should fail to secure or maintain the foregoing insurance, the City shall be permitted to obtain such insurance in Contractor's name or as an agent of Contractor and shall be compensated by Contractor for the costs of the insurance premiums at the maximum rate permitted by law and computed from the date written notice is received that the premiums have not been paid.

e. ADDITIONAL INSURED:

The City, its City Council, boards, commissions, officials, employees and volunteers shall be named as an additional insured under all insurance coverages, except worker's compensation insurance. The naming of an additional insured shall not affect any recovery to which such additional insured would be entitled under this policy if not named as such additional insured. An additional insured named herein shall not be held liable for any premium, deductible portion of any loss, or expense of any nature on this policy or any extension thereof. Any other insurance held by an additional insured shall not be required to contribute anything toward any loss or expense covered by the insurance provided by this policy. The additional insured coverage under the Contractor's policy shall be primary and non-contributory and will not seek contribution from the City's insurance or self-insurance.

f. SUFFICIENCY OF INSURANCE:

The insurance limits required by the City are not represented as being sufficient to protect Contractor. Contractor is advised to consult Contractor's insurance broker to determine adequate coverage for Contractor.

g. EXCESS OR UMBRELLA LIABILITY:

If any Excess or Umbrella Liability policies are used to meet the limits of liability required by this Agreement, then said policies shall be true "following form" of the underlying policy coverage, terms, conditions, and provisions and shall meet all of the insurance requirements stated in this Agreement, including but not limited to, the additional insured, SIR, and primary insurance requirements stated therein. No insurance policies maintained by the indemnified parties or Additional Insureds, whether primary or excess, and which also apply to a loss covered hereunder, shall be called upon to contribute to a loss until all the primary and excess liability policies carried by or available to the Contractor are exhausted. **If a Provider is using an Excess Liability policy to supplement any insurance coverage required by this Agreement, they must submit the Excess Liability policy in full.**

11. BONDS:

Contractor shall furnish the following bonds from a bonding company acceptable to the City's Risk Manager:

A. Faithful Performance: A bond in the amount of 100% of the total contract price guaranteeing the faithful performance of this contract, and

B. Labor and Materials: A bond for labor and materials in the amount of 100% of the total contract price.

Faithful Performance Bond and Labor and Material Bond are only required for work over \$25,000. Therefore, those estimates that are under \$25,000 will not need to budget for the bond premiums and those estimates over \$25,000 will need to budget for the bond premiums.

**12. PROHIBITION AGAINST TRANSFERS:**

Contractor shall not assign, sublease, hypothecate, or transfer this Agreement, or any interest therein, directly or indirectly, by operation of law or otherwise, without prior written consent of the City Manager. Any attempt to do so without said consent shall be null and void, and any assignee, sublessee, hypothecate or transferee shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer. However, Contractor's claims for money from the City under this Agreement may be assigned to a bank, trust company or other financial institution without prior written consent. Written notice of such assignment shall be promptly furnished to the City by Contractor.

The sale, assignment, transfer or other disposition of any of the issued and outstanding capital stock of Contractor, or of the interest of any general partner or joint venturer or syndicate member or cotenant, if Contractor is a partnership or joint venture or syndicate or cotenancy, which shall result in changing the control of Contractor, shall be construed as an assignment of this Agreement. Control means fifty percent (50%) or more of the voting power of the entity.

**13. SUBCONTRACTOR APPROVAL:**

Unless prior written consent from the City is obtained, only those people and subcontractors whose names are listed in Contractor's bid shall be used in the performance of this Agreement.

Requests for additional subcontracting shall be submitted in writing, describing the scope of work to be subcontracted and the name of the proposed subcontractor. Such request shall set forth the total price or hourly rates used in preparing estimated costs for the subcontractor's services. Approval of the subcontractor may, at the option of the City, be issued in the form of a Work Order.

In the event that Contractor employs subcontractors, such subcontractors shall be required to furnish proof of workers' compensation insurance and shall also be required to carry general and automobile liability insurance in reasonable conformity to the insurance carried by Contractor. In addition, any work or services subcontracted hereunder shall be subject to each provision of this Agreement.

**14. PERMITS AND LICENSES:**

Contractor, at its sole expense, shall obtain and maintain during the term of this Agreement, all appropriate permits, certificates and licenses, including a City Business License that may be required in connection with the performance of services and work hereunder.

**15. REPORTS:**

Each and every report, draft, work product, map, record and other document reproduced, prepared or caused to be prepared by Contractor pursuant to or in connection with this Agreement shall be the exclusive property of the City.

No report, information nor other data given to or prepared or assembled by Contractor pursuant to this Agreement shall be made available to any individual or organization by Contractor without prior approval by the City.

Contractor shall, at such time and in such form as the City may require, furnish reports concerning the status of services and work required under this Agreement.

**16. RECORDS:**

Generally, the City has the right to conduct audits of Contractor's financial, performance and compliance records maintained in connection with Contractor's operations and services performed under the Agreement. In the event of such audit, Contractor agrees to provide the City with reasonable access to Contractor's employees and make all such financial (including annual financial statements signed by an independent CPA), performance and compliance records available to the City. City agrees to provide Contractor an opportunity to discuss and respond to any findings before a final audit report is filed.

Contractor shall maintain complete and accurate records with respect to sales, costs, expenses, receipts and other such information required by the City that relate to the performance of services and work under this Agreement.

Contractor shall maintain adequate records of services and work provided in sufficient detail to permit an evaluation of services and work. All such records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible. Contractor shall provide free access to such books and records to the representatives of the City or its designees, and gives the City the right to examine and audit same, and to make transcripts therefrom as necessary, and to allow inspection of all work, data, documents, proceedings and activities related to this Agreement. Such records, together with supporting documents, shall be kept separate from other documents and records and shall be maintained for a period of three (3) years after receipt of final payment.

If supplemental examination or audit of the records is necessary due to concerns raised by the City's preliminary examination or audit of records, and the City's supplemental examination or audit of the records discloses a failure to adhere to appropriate internal financial controls, or other breach of contract or failure to act in good faith, then Contractor shall reimburse the City for all reasonable costs and expenses associated with the supplemental examination or audit.

**17. NOTICES:**

All notices, demands, requests or approvals to be given under this Agreement shall be given in writing and conclusively shall be deemed served when delivered personally or on the second business day after the deposit thereof in the United States Mail, postage prepaid, registered or certified, addressed as hereinafter provided.

All notices, demands, requests, or approvals from Contractor to the City shall be addressed to the City at:

City of Alameda  
[Department]  
[Address]

Alameda, CA 94501  
 ATTENTION: [Title]  
 Ph: (510) [xxx-xxxx] / Fax: (510) [xxx-xxxx]  
 Email:

All notices, demands, requests, or approvals from the City to Contractor shall be addressed to Contractor at:

[Contractor Name]  
 [Department]  
 [Address]  
 Alameda, CA 94501  
 ATTENTION; [Title]  
 Ph: (510) xxx-xxxx / Fax: (510) xxx-xxxx  
 Email:

**18. SAFETY:**

Contractor will be solely and completely responsible for conditions of all vehicles owned or operated by Contractor, including the safety of all persons and property during performance of the services and work under this Agreement. This requirement will apply continuously and not be limited to normal working hours. In addition, Contractor will comply with all safety provisions in conformance with U.S. Department of Labor standards, Cal/OSHA requirements Act, and all other applicable federal, state, county and local laws, ordinances, codes, and any regulations that may be detailed in other parts of the Agreement. Where any of these are in conflict, the more stringent requirements will be followed. Contractor's failure to thoroughly familiarize itself with the aforementioned safety provisions will not relieve it from compliance with the obligations and penalties set forth herein.

Contractor shall immediately notify the City's Risk Manager within 24 hours of any incident of death, serious personal injury or substantial property damage that occurs in connection with the performance of this Agreement. Contractor will promptly submit to the City a written report of all incidents that occur in connection with this Agreement. This report must include the following information: (i) name and address of injured or deceased person(s); (ii) name and address of Contractor's employee(s) involved in the incident; (iii) name and address of Contractor's liability insurance carrier; (iv) a detailed description of the incident; and (v) a police report.

**19. COMPLIANCE WITH ALL APPLICABLE LAWS:**

During the term of this Agreement, Contractor shall keep fully informed of all existing and future state and federal laws and all municipal ordinances and regulations of the City of Alameda which affect the manner in which the services or tasks are to be performed by Contractor, as well as all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. Contractor shall comply with all applicable laws, state and federal and all ordinances, rules and regulations enacted or issued by the City. Contractor shall defend, indemnify, and hold City (including its officials, directors, officers, employees, and agents) free and harmless from any claim or liability arising out of any failure or alleged failure to comply with such laws and regulations pursuant to the indemnification provisions of this Agreement.

**20. HEALTH AND SAFETY REQUIREMENTS.**

Contractor acknowledges that the City shall have the right to impose, at the City's sole discretion, requirements that it deems are necessary to protect the health and safety of the City employees, residents, and visitors. Contractor agrees to comply with all such requirements, including, but not limited to, mandatory vaccinations, the use of personal protective equipment (e.g. masks), physical distancing, and health screenings. Contractor also agrees to make available to the City, at the City's request, records to demonstrate Contractor's compliance with this Section.

**21. PREVAILING WAGES:**

Contractor is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq. as well as California Code of Regulations, Title 8, Section 1600, et seq., ("Prevailing Wage Laws") which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. Contractor agrees to fully comply with such Prevailing Wage Laws if the services are being performed as part of an applicable "public works" or "maintenance" project as defined by the Prevailing Wage Laws and if the total compensation is \$1,000 or more. City, upon Contractor's request, shall provide Contractor with a copy of the prevailing rates of per diem wages in effect at the commencement of this Agreement. Contractor shall make copies of the prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the services available to interested parties upon request; and shall post copies at the Contractor's principal place of business and at the project site. Contractor shall defend, indemnify, and hold the City (its elected officials, officers, employees, and agents) free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

**22. DEPARTMENT OF INDUSTRIAL RELATIONS COMPLIANCE AND PREVAILING WAGE REQUIREMENTS ON PUBLIC WORKS PROJECTS:**

a. For purposes of Sections 22 through 24 of this Agreement, the terms "claim", "contractor", "public works project" and "subcontractor" shall have the same meanings set forth in Public Contract Code Section 9204.

b. No contractor or subcontractor may be listed on a bid proposal for a public works project, nor engage in the performance of any public work contract, unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5 (with the limited exceptions for certain bids pursuant to Labor code Section 1771.1(a)). Registration instructions may be found at the following website: <https://www.dir.ca.gov/Public-Works/Contractor-Registration.html>

c. Contractor and each subcontractor shall keep an accurate payroll record, 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, or other employee employed by him or her in connection with the public work. The payroll records shall be certified and shall be available for inspection at all reasonable hours at the principal office of Contractor in the manner provided in Labor Code section 1776. In the event of noncompliance with the requirements of this section, Contractor shall have 10 days in which to

comply subsequent to receipt of written notice specifying in what respects such Contractor must comply with this section. Should noncompliance still be evident after such 10-day period, Contractor shall, as a penalty to City, forfeit not more than \$100.00 for each calendar day or portion thereof, for each worker, until strict compliance is effectuated. The amount of the forfeiture is to be determined by the Labor Commissioner. A contractor who is found to have violated the provisions of law regarding wages on Public Works with the intent to defraud shall be ineligible to bid on Public Works contracts for a period of one to three years as determined by the Labor Commissioner. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments then due. The responsibility for compliance with this section is on Contractor. The requirement to submit certified payroll records directly to the Labor Commissioner under Labor Code section 1771.4 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Section 1771.4. All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner at the following website: <https://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html>

d. Contractor is required to all post job site notices as prescribed by State law. (See 8 Cal. Code Regs, Section 16451(d).)

e. The project that is governed by this Agreement is subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be the Contractor's sole responsibility to evaluate and pay the cost of complying with all labor compliance requirements under this Contract and applicable law. Any stop orders issued by the Department of Industrial Relations against Contractor or any subcontractor that affect Contractor's performance of Work, including any delay, shall be Contractor's sole responsibility. Any delay arising out of or resulting from such stop orders shall be considered Contractor caused delay subject to any applicable liquidated damages and shall not be compensable by the City. Contractor shall defend, indemnify and hold the City, its officials, officers, employees and agents free and harmless from any claim or liability arising out of stop orders issued by the Department of Industrial Relations against Contractor or any subcontractor.

f. In executing this Agreement, Contractor acknowledges and agrees that the work authorized by this Agreement may be subject to compliance monitoring and enforcement by the Department of Industrial Relations.

### **23. HOURS OF LABOR:**

As provided in Article 3 (commencing at section 1810), Chapter 1, Part 7, Division 2 of the Labor Code, eight (8) hours of labor shall constitute a legal day's work. The time of service of any worker employed at any time by Contractor or by any subcontractor on any subcontract under this Agreement, upon the work or upon any part of the work contemplated by this Agreement, is limited and restricted to eight (8) hours during any one calendar day and forty (40) hours during any one calendar week, except as hereinafter provided. Notwithstanding the provision hereinabove set forth, work performed by employees of Contractor in excess of eight (8) hours per day and forty (40) hours during any one week shall be permitted upon this public work, provided that the employees' compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half (1-1/2) times the basic rate of pay.

Contractor shall pay the City a penalty of Twenty-five Dollars (\$25.00) for each worker employed in the execution of this Agreement by Contractor, or by any subcontractor, for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day and forty (40) hours in any one (1) calendar week, in violation of the provisions of Article 3 (commencing at section 1810), Chapter 1, Part 7, Division 2 of the Labor Code, unless compensation for the workers so employed by Contractor is not less than one and one-half (1-1/2) times the basic rate of pay for all hours worked in excess of eight (8) hours per day.

Holiday and overtime work, when permitted by law, shall be paid for at a rate of at least one and one-half (1½) times the above specified rate of *per diem* wages, unless otherwise specified. Holidays shall be defined in the Collective Bargaining Contract applicable to each particular craft, classification, or type of worker employed.

#### **24. APPRENTICES:**

Attention is directed to the provisions in Sections 1777.5 and 1777.6 of the Labor Code concerning the employment of apprentices by Contractor or any subcontractor under it on contracts greater than \$30,000 or 20 working days. Contractor and any subcontractor under it shall comply with the requirements of Sections 1777.5 and 1777.6 in the employment of apprentices.

Section 1777.5 of the Labor Code requires Contractor or subcontractor employing workers in any apprenticeable occupation to apply to the joint apprenticeship committee nearest the site of the public works project, and which administers the apprenticeship program in that trade, for a certificate of approval, if they have not previously applied and are covered by the local apprenticeship standards.

Contractor is required to make contributions to funds established for the administration of apprenticeship programs if: (1) Contractor employs registered apprentices or journeymen in any apprenticeable trade on such contracts and if other contractors on the public works site are making such contributions; or (2) if Contractor is not a signatory to an apprenticeship fund and if the funds administrator is unable to accept Contractor' required contribution. Contractor or subcontractor shall pay a like amount to the California Apprenticeship Council.

Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex-officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

#### **25. LABOR DISCRIMINATION:**

No discrimination shall be made in the employment of persons upon public works because of the race, color, sex, religion, age, national origin, sexual orientation or physical disability of such persons and every Contractor for public works violating this section is subject to all the penalties imposed for a violation of the provisions of the Labor Code, and, in particular, Section 1735.

**26. REGISTRATION OF CONTRACTORS:**

Before submitting bids for any work authorized by this Agreement, contractors shall be licensed in accordance with the provisions of Chapter 9, Division 3, of the Business and Professions Code of the State of California. Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work. Notwithstanding the foregoing, the contractor registration requirements mandated by Labor Code Sections 1725.5 and 1771.1 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Sections 1725.5 and 1771.1.

**27. URBAN RUNOFF MANAGEMENT:**

Contractor shall avoid creating excess dust when breaking asphalt or concrete and during excavation and grading. If water is used for dust control, Contractor shall use as little as necessary. Contractor shall take all steps necessary to keep wash water out of the streets, gutters and storm drains.

Contractor shall develop and implement erosion and sediment control to prevent pollution of storm drains. Such control includes but is not limited to:

- a. Use storm drain inlet protection devices such as sand bag barriers, filter fabric fences, block and gravel filters. (Block storm drain inlets prior to the start of the rainy season (October 15), on site de-watering activities and saw-cutting activities; shovel or vacuum saw-cut slurry and remove from the site.)
- b. Cover exposed piles of soil or construction material with plastic sheeting. All construction materials must be stored in containers.
- c. Sweep and remove all materials from paved surfaces that drain to streets, gutters and storm drains prior to rain as well as at the end of the each work day. At the completion of the project, the street shall be washed and the wash water shall be collected and disposed of offsite in an appropriate location.
- d. After breaking old pavement, Contractor shall remove all debris to avoid contact with rainfall or runoff.
- e. Contractor shall maintain a clean work area by removing trash, litter, and debris at the end of each workday. Contractor shall also clean up any leaks, drips, and other spills as they occur.

The objective is to ensure that the City and County of Alameda County-Wide Clean Water Program is adequately enforced. These controls should be implemented prior to the start of construction, up-graded as required, maintained during construction phases to provide adequate protection, and removed at the end of construction.

These recommendations are intended to be used in conjunction with the State's Best Management Practices Municipal and Construction Handbooks, local program guidance materials from municipalities, Section 7.1.01 of the Standard Specifications and any other appropriate documents on storm water quality controls for construction.

Failure to comply with this program will result in the issuance of noncompliance notices, citations, project stop orders or fines. The fine for noncompliance of the above program is two hundred and fifty dollars (\$250.00) per occurrence per day. The State under the Federal Clean Water Act can also impose a fine on the contractor, pursuant to Cal. Water Code Section 13385.

**28. COMPLIANCE WITH MARSH CRUST ORDINANCE (NOT USED):**

**29. COMPLIANCE WITH THE CITY'S INTEGRATED PEST MANAGEMENT POLICY (NOT USED):**

**30. PURCHASES OF MINED MATERIALS REQUIREMENT:**

Contractor shall ensure that all purchases of mined materials such as construction aggregate, sand and gravel, crushed stone, road base, fill materials, and any other mineral materials must originate from a surface mining operation identified on the AB3098 List per the Surface Mining and Reclamation Act of 1975 (SMARA).

Within five days of award of contract, Contractor shall submit a report to the City which lists the intended suppliers for the above materials and demonstrates that the suppliers are in compliance with the SMARA requirements. The AB3098 List is maintained by the Department of Conservation's Office of Mine Reclamation (OMR) and can be viewed at: [www.conservation.ca.gov/OMR/ab\\_3098\\_list/index.htm](http://www.conservation.ca.gov/OMR/ab_3098_list/index.htm). Note that the list changes periodically and should be reviewed accordingly.

**31. CALIFORNIA AIR RESOURCES BOARD COMPLIANCE:**

Contractor, shall comply, and shall ensure all subcontractors comply, with all applicable requirements of the most current version of the California Air Resources Board regulations including, without limitation, Title 13, California Code of Regulations Division 3, Chapter 9 and all pending amendments ("CARB Regulations").

Throughout the Project, and for three (3) years thereafter, Contractor shall make available for inspection and copying any and all documents or information associated with Contractor's and subcontractors' fleet including, without limitation, Certificates of Reported Compliance, fuel/refueling records, maintenance records, emissions records, and any other information the Contractor is required to produce, keep or maintain pursuant to the CARB Regulations upon two (2) calendar days' notice from the City.

Contractor shall be solely liable for any and all costs associated with complying with the CARB Regulations as well as for any and all penalties, fines, damages, or costs associated with any and all violations, or failures to comply with the CARB Regulations. Contractor shall defend, indemnify and hold harmless the City, its officials, officers, employees and authorized volunteers

free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the CARB Regulations.

**32. TERMINATION:**

In the event Contractor fails or refuses to perform any of the provisions hereof at the time and in the manner required hereunder, Contractor shall be deemed in default in the performance of this Agreement. If such default is not cured within a period of two (2) business days after receipt by Contractor from the City of written notice of default, specifying the nature of such default and the steps necessary to cure such default, the City may terminate the Agreement forthwith by giving to Contractor written notice thereof.

The City shall have the option, at its sole discretion and without cause, of terminating this Agreement by giving seven (7) days' prior written notice to Contractor as provided herein. Upon termination of this Agreement, each party shall pay to the other party that portion of compensation specified in this Agreement that is earned and unpaid prior to the effective date of termination.

**33. ATTORNEYS' FEES AND COSTS:**

In the event of any litigation, including administrative proceedings, relating to this Agreement, including but not limited to any action or suit by any party, assignee or beneficiary against any other party, beneficiary or assignee, to enforce, interpret or seek relief from any provision or obligation arising out of this Agreement, the parties and litigants shall bear their own attorney's fees and costs. No party or litigant shall be entitled to recover any attorneys' fees or costs from any other party or litigant, regardless of which party or litigant might prevail.

**34. PUBLIC CONTRACT CODE SECTION 9204 SUMMARY:**

Notwithstanding anything else to the contrary stated in the Information For Bidders (IFB) or other documents associated with this Agreement, all claims, regardless of dollar amount, submitted between January 1, 2017 and January 1, 2027 related to work performed or scheduled to be performed pursuant to this Agreement shall be governed by Public Contract Code Section 9204 and this section. The following provisions and procedures shall apply:

a. Contractor shall submit each Claim (whether for a time extension, payment for money or damages) in writing and in compliance with Public Contract Code Section 9204. Contractor must include reasonable documentation to support each claim.

b. Upon receipt of a claim, the City shall conduct a reasonable review and respond in writing within 45 days of receipt and shall identify in a written statement what portions of the claim are disputed and undisputed. Undisputed portions of the claim shall be process and paid within 60 days of the written statement. Undisputed amounts not paid in a timely manner shall bear interest at 7% per annum. The City and Contractor may mutually agree to extend the 45 day response time.

c. If the City needs approval from the City Council to provide a written statement, the 45 days may be extended to 3 days following the next duly noticed public meeting pursuant to Public Contract Code Section 9204(d)(1)(C).

d. If the City fails to timely respond to a claim or if Contractor disputes the City's response, Contractor may submit a written demand for an informal meet and confer conference with the City to settle the issues in dispute. The demand must be sent via registered or certified mail, return receipt requested. Upon receipt, the City shall schedule the conference within 30 days.

e. Within 10 business days following the informal meet and confer conference, the City shall submit to Contractor a written statement describing any issues remaining in dispute and that portion which is undisputed. Undisputed portions of the claim shall be processed and paid within 60 days of the written statement. Undisputed amounts not paid in a timely manner shall bear interest at 7% per annum. The issues remaining in dispute shall be submitted to non-binding mediation. If the City and Contractor mutually agree on a mediator, each party shall pay equal portions of all associated costs. If within 10 business days, the City and Contractor cannot agree on a mediator, each party shall select a mediator (paying all costs associated with their selected mediator), and those mediators shall select a qualified neutral third party to mediate the disputed issues. The City and Contractor shall pay equal portions of all associated costs of such third party mediator.

f. Unless otherwise agreed by the City and Contractor, any mediation conducted hereunder shall excuse any further obligation under Public Contract Code Section 20104.4 to mediate after litigation has commenced.

g. The City reserves all rights and remedies that it has pursuant to this Agreement, any associated plans and specifications, or at law or in equity which are not in conflict with Public Contract Code 9204.

**35. CONFLICT OF LAW:**

This Agreement shall be interpreted under, and enforced by the laws of the State of California excepting any choice of law rules which may direct the application of laws of another jurisdiction. The Agreement and obligations of the parties are subject to all valid laws, orders, rules, and regulations of the authorities having jurisdiction over this Agreement (or the successors of those authorities.) Any suits brought pursuant to this Agreement shall be filed with the courts of the County of Alameda, State of California.

**36. ADVERTISEMENT:**

Contractor shall not post, exhibit, display or allow to be posted, exhibited, displayed any signs, advertising, show bills, lithographs, posters or cards of any kind pertaining to the services performed under this Agreement unless prior written approval has been secured from the City to do otherwise.

**37. WAIVER:**

A waiver by the City of any breach of any term, covenant, or condition contained herein, shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant, or condition contained herein, whether of the same or a different character.

**38. INTEGRATED CONTRACT:**

Subject to the language of Section 43, the Recitals and exhibits are a material part of this Agreement and are expressly incorporated herein. This Agreement represents the full and complete understanding of every kind or nature whatsoever between the parties hereto, and all preliminary negotiations and agreements of whatsoever kind or nature are merged herein. No verbal agreement or implied covenant shall be held to vary the provisions hereof. Any modification of this Agreement will be effective only by written execution signed by both the City and Contractor.

**39. INSERTED PROVISIONS:**

Each provision and clause required by law to be inserted into the Agreement shall be deemed to be enacted herein, and the Agreement shall be read and enforced as though each were included herein. If through mistake or otherwise, any such provision is not inserted or is not correctly inserted, the Agreement shall be amended to make such insertion on application by either party.

**40. CAPTIONS:**

The captions in this Agreement are for convenience only, are not a part of the Agreement and in no way affect, limit or amplify the terms or provisions of this Agreement.

**41. COUNTERPARTS:**

This Agreement may be executed in any number of counterparts (including by fax, PDF, DocuSign, or other electronic means), each of which shall be deemed an original, but all of which shall constitute one and the same instrument.

**42. SIGNATORY:**

By signing this Agreement, each signatory warrants and represents that he/she executed this Agreement in his/her authorized capacity and that by his/her signature on this Agreement, he/she or the entity upon behalf of which he/she acted, executed this Agreement.

**43. CONTROLLING AGREEMENT:**

In the event of a conflict between the terms and conditions of this Agreement (as amended, supplemented, restated or otherwise modified from time to time) and any other terms and conditions wherever contained, including, without limitation, terms and conditions included within exhibits, the terms and conditions of this Agreement shall control and be primary.

**[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]**

IN WITNESS WHEREOF, the parties have caused the Agreement to be executed on the day and year first above written.

COMPANY NAME  
a (California corporation, LP, GP,  
sole proprietor/individual)

CITY OF ALAMEDA,  
a municipal corporation

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

\_\_\_\_\_  
Jennifer Ott  
City Manager

RECOMMENDED FOR APPROVAL

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

\_\_\_\_\_  
Erin Smith  
Public Works Director

Contractor License No. \_\_\_\_\_

APPROVED AS TO FORM:  
City Attorney

DIR No. \_\_\_\_\_

\_\_\_\_\_  
Len Aslanian  
Assistant City Attorney

## **GENERAL REQUIREMENTS**

### **C. GENERAL REQUIREMENTS**

## GENERAL REQUIREMENTS

# 1 TERMS AND DEFINITIONS

## 1-1 TERMS

The Project Plans and Specifications are of the abbreviated, simplified or streamlined type and may include incomplete sentences. Whenever this occurs, omission of words or phrases such as “The Contractor shall,” “in conformity with,” “shall be,” “as noted on the Plans,” “according to the plans,” “a,” “an,” “the,” and “all” is intentional. Omitted words or phrases shall be supplied by inference in the same manner as they are when a “note” occurs on the Plans.

Unless otherwise stated, the words “directed,” “required,” “permitted,” “ordered,” “instructed,” “designated,” “considered,” “necessary,” “prescribed,” “approved,” “acceptable,” “satisfactory,” or words of similar meaning, refer to actions, expressions, and prerogatives of the Engineer.

Whenever the words “reviewed,” “approved,” “satisfactory,” “directed,” “submitted,” “inspected,” or similar words or phrases are used, it shall be assumed that the words “Engineer or his representative” follows the verb as the object of the clause, such as “approved by the Engineer or his representative.”

All references to manufacturer’s installation directions mean the latest edition.

## 1-2 DEFINITIONS

Addenda – Written or graphic instruments issued before the opening of the bids, which modify or interpret the Project Manual by additions, deletions, clarifications or corrections. (See Instruction to Bidders, Section 2-1.)

Architect/Engineer or A/E or Design Professional – The person or City consultant who created the intended project concept into a constructible design suitable to the City, and who developed the Project Plans and Specifications. The registered professional architect or engineer who is responsible for the overall aesthetic and technical design of the Project.

As Required – In accordance with Contract Documents, applicable codes, industry standards, or manufacturers recommendations.

Bid Documents – The Notice Inviting Bids; Instruction to Bidders; Proposal Requirements, Conditions and Bid Procedures; Award and Execution of Contract; Bid Proposal and Schedule (with all attachments); Contract form; and Addenda.

Bidder – Any individual, firm, partnership, corporation, or combination of them, submitting a proposal for the Work contemplated, acting directly or through an authorized representative.

Building Code – The latest edition of the California Codes, published by the California Building Standards Commission and as adopted and modified by City ordinance.

California Test – Whenever reference is made to a California Test by number, it shall mean the California Test developed by the State of California, Department of Transportation, in effect on the day the Notice Inviting Bids is dated.

City – The City of Alameda, County of Alameda, State of California.

City Engineer or Engineer – The City Engineer of the City of Alameda or his or her designee acting within the scope of the duties delegated to them.

Change order – (See General Requirements Section 2-6.)

## GENERAL REQUIREMENTS

Claim - Contractor's request for: (a) the payment of any additional compensation for any cause; (b) an extension of time for the performance of Work; or (c) any other relief with reference to the terms of the Contract, including any dispute or question related to the Contract Documents. (See General Requirements Section 6-7.)

Code – The most recent version or latest edition of the applicable codes, laws, regulations, Municipal Code, zoning ordinance, and protective covenants governing the site of the Work. In case of conflict, the strictest of the codes shall govern.

Construction Schedule or Schedule – a detailed schedule, with bar chart, showing the sequence of events for completion of the Work, and identifying the critical path items. (See General Requirements Section 5-2, Progress Schedule.)

Contract – The contract form, including the Contract Documents.

Contract Documents or Project Documents – All of the documents governing the Project, in the following order of precedence:

1. Change Orders and Written Orders
2. Addenda
1. Contract
2. Bid Proposal and Schedule (see Definition above)
3. Permits from other agencies
4. Special Provisions
5. Technical Specifications
6. Project Plans
7. City-approved Shop Drawings
8. General Requirements
9. Utility owner standards (e.g., AMP, PG&E, EBMUD, etc.)
10. State Standards Specifications
11. State Standard Plans

Contractor – The individual, partnership, corporation, joint venture, or other legal entity entering into a contract with the City to perform the Work. It includes the Contractor's employees and agents. In the case of Work being done under permit issued by the City or other authorization granted by the City, the Permittee shall be construed to be the Contractor.

Day – a calendar day, unless stated otherwise. (See General Requirements Section 5-6 regarding working day.)

Extra Work – (See General Requirements Sections 2-7 and 6-3.)

General Requirements – General commercial and administrative requirements that apply to the Project as a whole, found in this Section III of the Project Manual. (May be abbreviated in references as “GR”.)

Inspector – The person employed by the City to inspect the Work for compliance with the Contract Documents. This person shall act under the direction of the City, but shall coordinate and submit reports to all participating members of the Project team.

Laboratory – The designated materials testing laboratory authorized by the City Engineer to test materials and Work involved in the Contract.

## GENERAL REQUIREMENTS

Modifications – Modifications to the Contract Documents may be in one of the following forms: (See General Requirements Section 2-2.)

1. Addenda (See Bid Document Section 2-1)
2. Change Order (See General Requirements Section 2-6)
3. Written Order, issued by the Engineer for a minor change in the Work

Or Approved – Indicates that a different material, product, or manufacturer may be used in place of the one specified, if it has first been approved by the Engineer.

Plans - Generally will indicate dimensions, position and kind of construction.

Project or Work – See Work.

Project Manager – The authorized representative (agent) of the City, and the official point of contact between the City, A/E, and Contractor.

Project Manual – The Bid Documents, General Requirements, Special Provisions, Technical Specifications, Project Plans and Addenda. (Once the Contract is signed, the completed set of documents concerning the Project is called the Contract Documents.)

Regional Sewer Standards – Whenever the words “Regional Sewer Standards”, “Regional Standards” or “Sewer Standards” with reference to any sanitary sewer Specifications, they shall be understood to refer to the current edition of the Regional Standards for Sanitary Sewer System Installation, Rehabilitation and Repair.

Scope of Work – Work described in the Project Documents. See also Section 2 of these General Requirements (Scope of Work).

Shop Drawings – The City-approved manufacturer’s Drawings submitted to City by Contractor.

Special Provisions – Specific clauses setting forth conditions or requirements peculiar to the Work and supplementary to the General Requirements, or modifications of the General Requirements.

Specifications – Generally indicate qualities and methods of construction shown on the Plans. Includes the Technical Specifications and State Standard Specifications, in the order of precedence listed under “Contract Documents”.

State Standard Specifications – Whenever the words “State Standard Specifications” or “State of California” or “Caltrans” with reference to any Specifications, they shall be understood to refer to the current edition of the State of California Department of Transportation’s Standard Specifications.

Subcontractor – A person, firm or corporation having a direct contract with the Contractor or one of Contractor’s subcontractors. It includes one who furnishes material worked to a special design according to the Contract Documents. It does not include one who furnishes material only.

Technical Specifications – The Technical Specifications are divided under various headings in order to make the explanation of Work clearer and to set forth the different parts to be furnished or installed. The Technical Specifications are not considered as limits of Work required by any trade. All Work shall be completed, however, to the satisfaction of the A/E and City.

Work or Project – The entire Project which is the subject of the Contract. The term “Work” as applied to the Contractor includes labor and/or materials and any necessary tools and equipment.

## **GENERAL REQUIREMENTS**

Written Notice – Shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to any office of the corporation for whom it is intended, or if sent by registered mail to the last business address known to the one who gives the notice.

Written Order – An order issued by the Engineer regarding a change in the Contract Documents. Includes a response to a request for information or clarification. (See General Requirements Section 2-6.)

## **GENERAL REQUIREMENTS**

### **2 SCOPE OF WORK**

#### **2-1 INTENT OF PLANS AND SPECIFICATIONS**

The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. Work not covered in the Contract Documents will not be required unless it is consistent and is reasonably inferable from those Contract Documents as being necessary to produce the intended results. Words and abbreviations which have well-known technical or trade meanings are used in the Contract Documents in accordance with those recognized meanings.

The organization of the Project Manual into divisions, sections and articles, and the arrangement of Plans shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

The intent of the Plans and Specifications is to describe the details for the construction and completion of the Work that the Contractor undertakes to perform in accordance with the terms of the Contract. Where the Plans or Specifications describe portions of the Work in general terms but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used. Unless otherwise specifically stated, the Contractor shall furnish all tools, equipment and incidentals and perform all Work that is to be performed in the best workmanlike manner to assure that the completed Work will be in accordance with the Plans and Specifications. The Contractor is responsible for verifying all measurements and existing conditions related to his scope of Work before the start of any Work.

If materials and/or equipment are to be furnished by the City, as designated in the Special Provisions or as agreed on, this shall not relieve the Contractor of the above requirements to furnish all other labor, materials and equipment to complete the Contract.

By executing the Contract, the Contractor represents they have visited the site, familiarized himself with the local conditions under which the Work is to be performed, and correlated his observations with the requirements of the Contract Documents. The Contractor shall, upon discovering any error or omission in the plans or Specifications, immediately call it to the attention of the Engineer.

#### **2-2 MODIFICATIONS GENERALLY**

Modifications to the Contract Documents may be in one of the following forms:

1. Addenda (See Bid Documents Section 2-1)
2. Change Order (See General Requirements Section 2-6)
3. Written Order, issued by the Engineer for a minor change in the Work

#### **2-3 CHANGES INITIATED BY THE CITY**

The Work is subject to change by additions, deletions, suspensions, or revisions by the City as directed to the Contractor in writing. Additions, deletions, suspensions and revisions are within the contemplation of the parties and will not be the basis of a compensable delay. Such Change Orders or Written Orders shall not invalidate the Contract. The Contractor shall not make any changes or modifications in the Work described or in any way cause or allow the Work to deviate from the Contract Documents without the written direction from the City. If the Contractor makes any changes or other modifications in the Work described without written direction from City, such change or modification constitutes an agreement by Contractor that it will not be paid for that changed Work, even if it received verbal directions from City or any of City's representatives. In

## **GENERAL REQUIREMENTS**

addition, Contractor is liable for any and all losses, costs, expenses, damages and liability arising out of any change or modification it makes without the City's written direction. It is further understood that no change, modification to, or deviation from the Contract Documents shall release or exonerate, in whole or in part, any bond or any surety on any bond given in connection with the Project, and no notice is required to be given by the City to such surety of any change, modification or deviation.

When changes are initiated by the City through revisions to the Contract Documents, it will be assumed that the change in the scope of Work is insignificant unless the Contractor submits a claim for it within ten working days, or the City initiates a Change Order.

### **2-4 CHANGES REQUESTED BY THE CONTRACTOR**

Contractor may request a change in the Contract Documents, in writing. Approved changes shall be made by written Change Orders except when emergency conditions dictate prompt action. Nothing here shall be construed as granting a right to the Contractor to demand acceptance of such proposed changes.

### **2-5 COMPENSATION**

The unit prices set forth in the Contractor's accepted Bid Proposal shall be used in determining increases or decreases in compensation to be made for any alterations, deviations, additions or deletions. Where the unit price does not apply, compensation shall be based on one or more of the following methods:

1. By unit price bid in the Contractor's accepted proposal or as subsequently agreed upon.
2. By cost plus percentage or by cost plus a fixed fee.
3. By an agreed on lump sum price.
4. By Change Order as set forth in Section 2-6 below.
5. By Extra Work, as set forth in Sections 2-7 and 6-3.4 below.

### **2-6 CHANGE ORDERS; WRITTEN ORDERS**

Either the City or the Contractor may initiate a Change Order. Change orders shall be in writing and state the dollar value of the change or establish a method of payment, any adjustment in contract time, and shall be signed by the Contractor indicating his acceptance. If no emergency or protest exists, a contract Change Order will not become effective until the City Engineer signs it.

The Engineer may issue a Change Order to the Contractor at any time. If the Contractor disagrees with any term in the Change Order, which he has not, or refuses to execute, he shall submit a written protest to the Engineer within 15 days after the receipt of the Change Order and shall state the reasons for the protest.

The Engineer may issue a Written Order regarding a change in the Contract Documents, or a response to a request for information or clarification. A Written Order may or may not lead to a follow-up Change Order.

### **2-7 EXTRA WORK**

New and unforeseen Work will be classed as Extra Work when: (a) the Engineer determines that the Work is not covered by any of the various items for which there is a bid price or by combinations of such items; and (b) the Work is specifically designated as Extra Work in the Contract Documents.

## **GENERAL REQUIREMENTS**

The Contractor shall do such Extra Work (and furnish labor, materials and equipment for it) upon receipt of an approved Change Order or Written Order. The Contractor is not entitled to payment without an approved Change Order or Written Order.

Extra Work will be paid for under this Section 2 or Section 6-3.

In addition to the requirements of any other Contract provision, the time allowed and the price agreed upon for changed and Extra Work shall be conclusive. Any cost of the Work, direct or indirect, and any consequences of added time on the Project, direct or indirect, shall be included in the signed Change Order.

### **2-8 CLAIMS FOR CONCEALED OR UNKNOWN CONDITIONS**

If conditions are encountered at the site which are (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents, or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then the observing party shall promptly give notice to the other party before conditions are disturbed and in no event later than 21 calendar days after the first observance of the conditions. The Engineer will promptly investigate the conditions, and, if they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of the Work, will recommend an equitable adjustment in the Contract sum or Contract time, or both. If the Engineer determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Engineer shall so notify the Contractor in writing, stating the reasons. Claims by either party in opposition to such determination must be made within 21 days after the Engineer has given notice of the decision. If the City and Contractor cannot agree on an adjustment in the Contract sum or Contract time, the adjustment shall be referred to the Engineer for initial determination, subject to further proceedings under General Requirements Section 2-6.

### **2-9 SITE CONDITIONS**

It is believed that information pertaining to conditions that may affect the cost of the proposed Work is shown on the Plans or indicated in the Specifications; however, the City does not warrant the completeness or accuracy of that information. Where an investigation of subsurface conditions has been made, it is for design only. No guarantee, express or implied, is made about the adequacy or sufficiency of those investigations. It is the Contractor's responsibility to ascertain the existence of any conditions affecting the cost of the Work that would have been disclosed by reasonable examination of the site.

The Contractor shall maintain in operation during the duration of the Contract, drainage lines, storm drains, gas, electrical, steam, and other utility service lines within the working area.

Contractor shall remove and dispose of existing improvements visible at the job site, for which no specific disposition is made on the Plans, but which could reasonably be assumed to interfere with the satisfactory completion of the Work.

### **2-10 SITE ACCESS**

The City will provide rights of way or easements for Work to be constructed. The Contractor shall make his own arrangements and pay all expenses for additional area required by him outside of the limits of rights of way or easements unless otherwise specifically provided.

## **GENERAL REQUIREMENTS**

The Contractor may not store construction equipment or materials within the public right-of-way without written permission of the Engineer. Contractor shall locate and use an appropriate area for storage of equipment and materials at his cost. Contractor must obtain permission from property owner before storing equipment or materials within private property.

## GENERAL REQUIREMENTS

### 3 CONTROL OF WORK

#### 3-1 AUTHORITY OF CITY ENGINEER

The City Engineer shall decide all questions which may arise as to: the quality or acceptability of materials furnished and Work performed; the manner of performance and rate of progress of the Work; the interpretation of the Contract Documents; the Contractor's acceptable fulfillment of the contract; and compensation. His decision shall be final and he has the authority to enforce and make effective the decisions and orders which the Contractor fails to promptly carry out.

#### 3-2 PLANS AND WORKING DRAWINGS

The successful Contractor will be furnished, free of charge, three complete hard copy sets and an electronic (PDF) complete set of Plans and Specifications and revisions to them. Additional sets may be obtained from the Engineer for the cost of reproduction. All Modifications affecting the Contract Documents shall be in writing.

In general, the Plans will indicate dimensions, position and kind of construction, and the Specifications, qualities and methods. Any Work indicated on the Plans and not mentioned in the Specifications shall be the same as similar parts that are detailed, marked or specified. When an item is necessary for the operation of the equipment drawn or specified, the Contractor shall furnish a suitable item that will allow the system to function properly at no extra charge.

Should an error appear in the Plans or Specifications, or the Work done by others affecting this Work, the Contractor shall notify the Engineer who will issue a Written Orders how to correct the error. If the Contractor proceeds with the Work suggested without instruction from the Engineer, it shall make good any resulting damage or defect. This includes typographical errors in the Specifications and notational errors on the Plans where doubtful of interpretation.

Working drawings or plans not included in Plans furnished by the Engineer shall be approved by the Engineer before any Work involving these plans is performed, unless the Engineer waives approval in writing. If the Engineer furnishes additional details to more fully explain the Work, they shall be considered a part of the Contract. If any details are, in the opinion of the Contractor, more elaborate than scale drawings and specifications warrant and indicate Extra Work, the Contractor shall give written notice to the Engineer within five days of receipt. The claim will then be considered and, if justified, the drawings will be amended or the Extra Work authorized. Failure to give such notice relieves the City of any claim.

Full compensation for Contractor furnishing all working drawings shall be considered as included in the prices paid for the contract items of work to which the drawings relate and no additional compensation will be allowed.

The Contractor shall keep at the Work site a copy of the Plans and Specifications, and the Engineer shall have access to them at all times.

If there is a conflict between the Contract Documents, the precedence shall be as set forth in General Requirements Section 1-2, Definitions (Contract Documents).

#### 3-3 SHOP DRAWINGS

Refer to the Special Provisions for additional shop drawing and submittal information. When shop drawings or other drawings are necessary to adequately control the Work or are required by the Plans or Specifications, or requested by the Engineer, the Contractor shall prepare them in accordance with current modern engineering/architectural practice and at the Contractor's

## **GENERAL REQUIREMENTS**

expense. The drawings shall show completely the work to be done, expanding on the Contract Plans for details not previously shown, field conditions and condition of the Work. Drawings shall be of a size and scale to show clearly all necessary details and shall be transmitted by letter to the Engineer for prompt review and acceptance, allowing sufficient time for that activity, return to the designer and distribution to Contractor and inspection personnel. Resolution of unforeseen field problems will be expedited to minimize adverse effects on construction.

Materials shall not be furnished or fabricated nor any work done for which drawings are required before review and acceptance of the drawings.

When first submitted, the Contractor shall submit electronic copies of each drawing through the project web-based project document platform. Shop drawings shall be clearly marked with the name of the Project, the Contractor and the Subcontractor or supplier making the submittals. The drawing shall be stamped and signed by the Contractor certifying to such check and accompanied by a signed letter of transmittal. This requirement is mandatory and the Engineer will not review submissions without such certification.

If accepted without change or correction, an electronic copy with approval-stamped will be furnished to the Contractor. Contractor shall furnish a copy of the approved shop drawings and keep at the Work Site with the copy of Plans and Specifications, and the Engineer shall have access to them at all times. If extensive additions or corrections are required, the Engineer will return one marked-up electronic copy to the Contractor.

Review and acceptance of shop drawings by the Engineer shall not relieve the Contractor from the responsibility for errors or omissions in those drawings or from deviations from the Contract Documents unless such deviations were specifically called to the attention of the Engineer in the letter of transmittal submitted with the drawings. The Contractor shall be responsible for the correctness of the drawings, for shop fits and field connections, and for the results obtained by use of such drawing. The Contractor shall check all dimensions at the job and shall be responsible for all discrepancies between the dimensions between the dimensions of the actual Work and those shown on the documents or shop drawings. The Contractor shall be solely responsible for all quantities of materials or equipment for to properly complete the Work.

### **3-4 PROJECT RECORDS DOCUMENTS**

The Project Records Documents are the Engineer's construction documents for the Project that have been modified by the Engineer to show the actual conditions of in-place construction installed by the Contractor as accurately as possible. They include:

1. Drawings marked where required to show changes in dimension or configuration between the original design and final construction;
2. Specifications marked to indicate changes of materials, products, or methods of installation;
3. Modifications to Specifications issued during the course of construction (including Addenda, Change Orders, or Written Orders);
4. Approved Shop Drawings and product data; and
5. Field test records and reports.

Contractor shall prepare record documents as the Work progresses. Do not conceal in place construction until field verifications are made for record purposes.

Locate internal utilities and concealed in the construction, referenced to visible and accessible features of the structure. Note field changes of dimension and detail, and changes made by Change Order. Sketch details not on the original Drawings.

## **GENERAL REQUIREMENTS**

For Specifications and Addenda, legibly mark each section to record the manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed. Note changes made by Change Order.

Submit an electronic copy (ex. PDF) and not less than two sets of project record document, marked up plans and specifications to the City at the end of the Work, before final payment is made.

### **3-5 LINES AND GRADES – NOT USED**

Stakes or marks will be set by the City Engineer as he determines them to be necessary to establish the basic horizontal and vertical control as required for the work.

The Contractor shall give at least 48-hours' notice in writing when he will require the services of the City Engineer.

The Contractor shall preserve all stakes and points provided for the City for control of the project including but not limited to permanent survey monuments, bench marks or boundary markers, in their proper places until the City Engineer authorizes their removal. The Contractor shall pay any expenses incurred in replacing stakes that have been removed without proper authority, and those expenses will be deducted from any monies due or to become due the Contractor.

All other survey work necessary to construct the project shall be performed by the Contractor's Surveyor as provided for in Special Provision 11 – Lines and Grades.

### **3-6 PROTECTION OF WORKERS IN TRENCH EXCAVATIONS**

As required by Labor Code section 6705 (and in addition to it), whenever Work under the Contract involves the excavation of any trench or trenches five feet or more in depth, the Contractor shall submit for acceptance by the City (or by a registered civil or structural engineer employed by the City, to whom authority to accept has been delegated), in advance of excavation, a detailed plan showing the design of shoring, bracing, slopes, or other provisions to be made for worker protection from the hazard of caving ground during the excavation, of such trench or trenches. If the plan varies from the shoring system standards established by the Construction Safety Orders of the Division of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer employed by the Contractor, and all costs shall be included in the Contract price. Nothing in this section shall be deemed to allow the use of a shoring, slopes, or other protective system less effective than that required by the Construction Safety Orders. Nothing in this section shall be construed to impose tort liability on the City, the Engineer, nor any of their officers, agents, representatives, or employees.

### **3-7 SUPERINTENDENT**

The Contractor is solely responsible for the Work done by his subcontractors or other employees, and all orders or instructions from the Engineer shall be through the Contractor.

At all times during the progress of the Work, the Contractor shall have a competent, authorized superintendent present at the construction site who has complete authority to represent and to act for the Contractor. The Contractor shall not change the superintendent except with consent of the City Engineer, unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ. The superintendent shall represent the Contractor in his absence and all directions given to him shall be binding as if given to the Contractor.

Whenever the Contractor or the superintendent is not present on any particular part of the Work where the Engineer may wish to give direction, the Engineer may order the Work to stop, or not pay for the work done during that time.

## **GENERAL REQUIREMENTS**

The Contractor shall coordinate the Work of his subcontractors. The Contractor is responsible for the specific scheduling of the Work of his Subcontractors at the proper time to avoid delay or injury to either work or materials.

### **3-8 EMERGENCY PROVISIONS**

Before initial Work is begun, the Contractor and his superintendent shall file with the City Engineer, addresses and telephone numbers where they can be reached during hours when the Work is not in progress. The Contractor shall furnish to the City 24-hour telephone numbers of all key personnel, including key personnel of subcontractors, for use in case of any emergencies.

### **3-9 CHARACTER OF WORKERS**

The Contractor shall at all times enforce strict discipline and good order among his subcontractors and employees, and shall not employ on the Work any unfit person or anyone not skilled in the Work assigned to him, nor anyone incompetent or unfit for his duties. When advised by the City, the Contractor shall dismiss such person and shall not again, without permission, employ that person on the Project.

### **3-10 CONTRACTOR'S EQUIPMENT AND FACILITIES**

The Contractor shall furnish and maintain in good condition all equipment and facilities required for the proper execution and inspection of the Work. The equipment and facilities shall meet all code requirements.

### **3-11 CLEAN-UP**

The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. Before final inspection of the Work, the Contractor shall clean the construction area, material sites, and all ground occupied by him in connection with the Work of all rubbish, excess materials, form lumber, etc. All parts of the Work shall be left in a neat and presentable condition.

#### **3-11.1 Dust control**

Whenever the presence of dust becomes a problem, the Contractor shall apply dust control materials as necessary to alleviate the problem. If, in the opinion of the Engineer, the presence of dust has become a problem, Engineer will specify a dust palliative according to these Specifications, which the Contractor shall apply as necessary to alleviate the problem. No separate payment shall be made for the application of materials for dust control and full compensation for furnishing all labor, materials, tools, equipment, and incidentals and doing all the Work involved in applying the materials or palliatives as specified or required by the Engineer shall be considered as included in the prices paid for various contract items of Work.

#### **3-11.2 Watering**

Full compensation for developing water supply and applying water, including water used for dust control, shall be considered as included in the various items of Work and no separate payment will be made thereof. The Contractor shall not draw water from any fire hydrant, except to extinguish a fire, without first obtaining permission from the water agency concerned.

#### **3-11.3 Daily Site Clean-Up**

The Contractor shall promptly clean the Work as it progresses. As directed during construction, debris and rubbish shall be removed. Site clean-up must occur on a daily basis. The Contractor is responsible for providing the debris container(s). If the City observes the accumulation of trash

## **GENERAL REQUIREMENTS**

and debris, the construction manager will send the Contractor a 24-hour written notice to mitigate the condition. If the Contractor fails to perform the required clean-up, or if the Engineer deems the clean-up is unsatisfactory, the City will then perform the clean-up. All costs associated with any City clean-up work (including all travel, payroll burden, and costs for supervision) will be deducted from the Contractor's total contract amount.

### **3-11.4 Floors and Pavements**

Interior floors and pavements shall be vacuum-cleaned or swept daily. Exterior floors, pavements, and decks shall be swept daily.

### **3-11.5 Daily Street Clean-Up**

Streets shall be cleaned daily of all spilled dirt, gravel, or other foreign material caused by the construction operations. Cleaning shall be by grader and front-end loader supplemented by washing with water, power brushing, and hand labor. All clean-up work shall comply with the stormwater and pollution prevention requirements of Special Provisions Section 9.

### **3-11.6 Finished Building Surfaces and Appurtenances**

Clean, free from labels, stains, and soil of all kinds wherever located. Hardware shall be polished, without paint or dirt marks, and in perfect operation and adjustment. Glass and plastics shall be clean and polished with all labels removed. Fixtures and equipment shall be clean and in perfect operation and adjustment.

### **3-11.7 Removal of USA markings**

Contractor shall remove USA markings as part of the final clean-up.

## **3-12 INSPECTION**

All Work and materials are subject to inspection and approval of the Engineer. The Contractor shall notify the Engineer before noon of the working day before the working day inspection is required. Unless otherwise authorized, work shall be done only in the presence of the Engineer. Any work done without proper inspection is subject to rejection. The Engineer shall at all times have access to the Work during its construction at off-site shops and yards as well as the Project site. The Contractor shall provide every reasonable facility for ascertaining that the materials and workmanship are in accordance with the Contract Documents. City inspection of the Work shall not relieve the Contractor of the obligation to fulfill all conditions of the Contract.

The Contractor shall, without additional cost to the City, replace any material or correct any workmanship found not to conform to the Contract requirements, unless the City consents to accept such material or workmanship with an adjustment in Contract price. The Contractor shall immediately separate and remove the rejected material from the site.

If the Contractor does not promptly replace rejected material or correct rejected workmanship, the City may: replace such material or correct the workmanship and charge the cost to the Contractor; or terminate the Contractor's right to proceed according to the Contract termination clause in General Requirements Section 5.4.

No portion of any Work or installed materials shall be covered or concealed in any manner whatsoever without first obtaining an inspection. The Contractor shall assume the cost of uncovering and replacing Work and materials not inspected.

Projects financed in whole or in part with County, State or Federal funds are subject to inspection at all times by the agency involved.

## **GENERAL REQUIREMENTS**

### **3-13 FINAL INSPECTION**

Whenever the Work has been satisfactorily completed and the final cleaning up performed, the Contractor shall request in writing a final inspection. The City Engineer will make the final inspection with reasonable promptness.

Should the Engineer consider that the Work is incomplete or defective, he will promptly notify the Contractor in writing listing the incomplete or defective work. The Contractor will immediately remedy the deficiencies and send a second written notice that the Work is complete and ready for a re-inspection. When the Engineer determines that the Work is complete, the Contractor shall proceed with closeout submittals. The Contractor may be held liable for the cost of re-inspection if the engineer is required to make more than two inspections to determine if the Work is complete.

## GENERAL REQUIREMENTS

### 4 CONTROL OF MATERIALS

#### 4-1 EQUIVALENTS AND ALTERNATIVES

##### 4-1.1 Option to propose equivalent within 15 days

Except as provided below, and in accordance with the PCC section 3400, the Contractor may supply any of the materials specified or offer an equivalent. The Contractor has a period of up to 15 days after award of the contract to submit data substantiating a request for a substitution of “an equal” item.

The Engineer shall determine whether the material offered is equivalent to that specified. Recycled materials, if deemed acceptable by the Engineer, for the requirements of these specifications will be considered for building materials.

If a substitute offered by the Contractor is found to be not equal to the specified material, the Contractor shall furnish and install the specified material. The specified contract completion time shall not be affected by any circumstance developing from the provisions of this subsection.

##### 4-1.2 City-designated material

The City may call for a designated material, product, thing or service by specific brand or trade name and is not obligated to allow substitutes: (a) where the product is designated to match others in use on a particular public improvement either completed or in the course of completion; or (b) if the City Council adopts a resolution making findings that a particular material, product, thing or service is designated by specific brand or trade name in order that a field test or experiment may be made to determine the product’s suitability for future use.

##### 4-1.3 Evaluation of alternatives

Except as provided above, whenever a particular material, process, or equipment is indicated by patent, proprietary or brand name, or by name of the manufacturer, that 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. The Contractor may offer any material, process or equipment that he considers to be equivalent to that indicated, and it will be evaluated according to the following procedures:

1. The Contractor shall, at their expense, furnish data concerning items offered by him as equivalent to those specified. He shall 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 item will fulfill its intended function.
2. Test methods are subject to the Engineer’s approval. Test results shall be reported promptly to the Engineer, who will evaluate the results and determine if the substitute item is equivalent. His findings shall be in writing and are final. Installation and use of a substitute item shall not be made until approved by the Engineer.
3. The Contractor assumes the cost of any redesign necessitated by the substitution.

#### 4-2 SUBSTITUTION OF EQUALS

Once construction has begun, Contractor is liable for the cost of additional Work on the part of the Engineer related to substitutions which the Engineer has not approved in writing before construction. (See also General Requirements Section 2-4.)

## **GENERAL REQUIREMENTS**

Within 35 days after the date of the Contract, the City may, at its option, consider formal requests from the General Contractor for substitution of materials in lieu of those specified, or having received prior approval, when submitted in accordance with the following requirements. (PCC section 3400.) One or more of these conditions must also be documented.

1. The substitution is required for compliance with final interpretation of code requirements or insurance regulations.
2. The substitution is due to the unavailability of the specified products, through no fault of the Contractor.
3. Subsequent information discloses the inability of the specified products to perform properly or to fit in the designated space.
4. The manufacturer or fabricator's refusal to certify or guarantee performance of the specified product as required.
5. In the Engineer's judgment, a substitution would be substantially to the City's best interests in terms of cost or time.

The approval of different materials or products shall be determined by the methods set forth in this Section 4. No product or material shall be arbitrarily presumed to be "acceptable" without having first been so judged by appropriate procedures.

### **4-3 DEFECTIVE WORK AND MATERIALS AND UNAUTHORIZED WORK**

All materials, parts and equipment furnished by the Contractor in the Work shall be new, high grade, and free from defects. Workmanship shall be in accordance with the generally accepted standards. Material and Workmanship are subject to the Engineer's approval.

Materials and Workmanship not conforming to the requirements of these Specifications shall be considered defective and is subject to rejection. Defective Work or material, whether in place or not, shall be removed immediately from the site by the Contractor, at his expense, when so directed by the Engineer. If the Contractor fails to replace any defective or damaged Work or material after reasonable notice, the Engineer may cause the Work or materials to be replaced. The replacement expense will be deducted from the amount to be paid to the Contractor.

Used or secondhand materials, parts and equipment may be used only if permitted by the Engineer.

Any Work done beyond the lines and grades shown on the approved plans, or established by the Engineer, without written authority, will be considered unauthorized and will not be paid for.

If the Contractor fails to comply promptly with any Engineer's Order made under this article 6, the Engineer has the authority to cause the defective Work to be remedied, or removed and replaced, and unauthorized Work to be removed, and to deduct (back charge) the costs from any moneys due or to become due the Contractor.

### **4-4 CITY-FURNISHED MATERIALS**

Materials furnished by the City will be made available at locations designated in the Special Provisions. The cost of handling and placing City-furnished materials is considered as included in the price paid for the contract item.

The Contractor is responsible for all materials furnished and shall pay all demurrage and storage charges. The Contractor shall replace City-furnished materials lost or damaged. The Contractor is liable to the City for the cost of replacing City-furnished material and those costs may be deducted from any moneys due to the Contractor.

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### **4-5 STORAGE OF MATERIALS**

Materials shall be stored in such a manner as to insure the preservation of their quality and fitness for the Work. When considered necessary by the Engineer, materials shall be placed on platforms or other hard, clean surfaces and covered when directed. Materials shall be stored so as to facilitate inspection.

The Contractor shall promptly inspect all material as delivered and return defective materials without waiting for rejection by the Engineer.

The Contractor, at their expense, shall select and maintain locations and arrangements for storage sites for materials and equipment outside the right of way or limits of Work, unless otherwise designated in the Contract Documents. Full compensation for furnishing such storage sites is considered as included in the unit price bid for various items of Work and no additional compensation will be allowed.

### **4-6 SAMPLES AND TESTS**

Before incorporation in the Work, the Contractor shall submit samples of materials, as specified and as the Engineer may require, at no cost to the City. The Contractor, at his own expense, shall deliver the materials for testing to the place and at the time designated by the Engineer. Unless otherwise provided, the initial testing shall be at no expense to the Contractor. Any re-testing due to failing to pass tests shall be at the Contractor's expense. When required by the Engineer, the Contractor shall furnish at no cost to the City the manufacturer's Certificate of Compliance and other documents which state that tests and quality have been passed.

The Contractor shall notify the City in writing at least 15 days in advance of his intention to use materials for which tests are specified, to allow sufficient time to perform the tests. The notice shall name the proposed supplier and source of material.

### **4-7 WARRANTY**

The Contractor warrants to the City that all materials and equipment furnished under this Contract will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Engineer, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. This warranty is not limited by the provisions of any portions of the Contract Documents or by any requirements of code, law, ordinance or statute.

The entire Work shall be warranted against defects in materials and workmanship for a period of one year from the date of final acceptance by the City, unless a longer period is indicated in the Contract Documents. The warranty shall specifically provide that all defects in materials and workmanship will be remedied to the satisfaction of the Engineer, at no additional cost to the City. Contractor shall furnish a Warranty Bond by an approved bonding company for the warranty period.

Contractor further warrants all corrective action against defects in design (when design is not provided by the City), during the one-year warranty period (subject to the limitations of Civil Code section 2782.8).

## GENERAL REQUIREMENTS

# 5 PROGRESS OF WORK

## 5-1 BEGINNING OF WORK

The Contractor shall begin Work within five days after receiving notice to proceed and shall diligently and continuously pursue the Work to completion without interruption within the time limit provided in the Contract Documents.

If the Contractor begins Work in advance of receiving the notice to proceed, any Work performed in advance of the that date shall be considered as having been done by him at his own risk and as a volunteer, unless the Contract Documents provide otherwise.

## 5-2 PROGRESS SCHEDULE

### 5-2.1 Requirements

Within ten days after the Notice of Award, or on returning the signed contract, whichever is sooner, the Contractor shall submit to the Engineer a detailed Construction Schedule and Construction Logistics Plan.

The Construction Schedule shall show: the order in which the Contractor proposes to carry out the Work; the dates on which he will start the several salient features of the Work (including procurement of materials, plant and equipment); the contemplated dates for completing each feature; and the critical path items. The accompanying bar chart shall show in detail and in order sequence all activities, their descriptions, duration and sequence, necessary and required to complete all Work and any separable parts of it. The activity listing shall show the following information for each activity on the network diagram:

- Identification by description
- Duration
- Start and finish dates
- Critical Path
- Total float time

The Construction Schedule shall be complete in all respects, covering in addition to activities at the site of Work, off site activities such as design, fabrication, procurement and delivery supported by schedules from subcontractors and sub-suppliers, and the scheduled job site delivery dates of equipment to be furnished by the City, if any. The Contractor is required to prepare and submit an electronic full size executed black line print of this schedule through the web-based project document platform to the Engineer for approval before the first application for payment.

1. The Construction Logistics shall depict: the general location and areas of Work in sequence, the planned temporary detours, including durations, to maintain access to affected residents and businesses the Work will be sequenced and access to residents and businesses in the project area, and depict the necessary sequences of Work to protect the existing active utility systems during construction until utility services are cut-over to the new utilities.

### 5-2.2 City acceptance

The City shall have fifteen working days to accept or reject the Schedule and Logistics Plan. Contractor shall update the Schedule and Logistics Plan as required by the Engineer. The Contractor shall keep the Engineer advised of the progress of the Work and shall notify the

## **GENERAL REQUIREMENTS**

Engineer immediately in writing of any delay, and the causes for it, which may prevent the Project from being completed within the specified time.

Contractor's Construction Schedule may be rejected by the City if the Schedule does not show the separable tasks to be performed in sufficient detail to determine the progress of the Work. It may also be rejected if the Schedule does not show the critical path when a network analysis is required, or show the sequence of tasks and dependencies. No Schedule will be accepted that shows a completion date that is before the contract date. The Schedule may show an early finish, provided that the free float is available to the City or the Contractor, whoever has need to use it first. The count of working days stops when the Work is complete and a final inspection is called for. The time required to correct deficiencies after the final inspection is not part of the contract time and is additional time as defined in the Contract Documents.

### **5-2.3 Schedule changes**

The Contractor shall promptly inform the City of any proposed change in the schedule and narrative and shall furnish the City with a revised Schedule within ten calendar days after approval by the City of the change. The schedule and logistics plan shall be kept up to date, taking into account the actual progress of Work and shall be revised, if necessary every 30 calendar days. The revised schedule and logistics plan shall, as determined by the City, be sufficient to meet the requirements for the completion of the separable parts of any and all Work as set forth in the Contract.

When the Schedule is changed, Schedule updates must be submitted as a condition of receiving the monthly progress payment. No change will be allowed to the critical path without the City's written consent. Schedule updates must show the as-built progress of Work completed before the date of the update.

## **5-3 TEMPORARY SUSPENSION OF WORK**

### **5-3.1 Suspension by Engineer**

If the Engineer determines that the Work is not proceeding in accordance with the Contract Documents or any applicable rules and regulations, the Engineer may order the cessation of further Work until the Work proceeds in compliance with those requirements. Delays in the Work occasioned by such stoppage do not relieve the Contractor of any duty to perform the Work or serve to extend the time for its completion.

The Engineer has the authority to suspend the Work wholly or in part, for a period as he deems necessary, due to unsuitable weather, or to other conditions that are considered unfavorable for the suitable prosecution of the Work. Such a temporary suspension will be considered as justification for time extensions to the Contract in an amount equal to the period of the suspension.

If a suspension of Work is ordered under this Section, the Contractor, at his expense, shall do all work necessary to provide safe conditions in accordance with General Requirements Section 7.15, Public Convenience and Safety, during the period of the suspension. If the Contractor fails to perform the work as specified, the City will perform that work and the cost will be charged against the Contractor and will be deducted from moneys due the Contractor.

### **5-3.2 Abnormal weather conditions**

Weather days will be recorded by the Contractor and forwarded to the Construction Manager within five days of occurrence. Weather day delays are calculated by subtracting the 10-year average disruptive weather, as described above, from the actual encountered/report days.

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Contractor's schedule should include normal weather days. There shall be no increase in the contract sum or remuneration of any kind by City to Contractor for extensions due to abnormal weather day delays.

A rain, windstorm, high water or other natural phenomenon, which might reasonably have been anticipated from historical records of the general locality, shall not be construed as abnormal. It is hereby agreed that all disruptive weather events with an average interval of ten years or more between their occurrence and the occurrence of a similar event of equal or greater magnitude cannot be reasonably anticipated. For the purposes of this contract, weather information and historical data for an area in question shall be assumed to be the same as that measured at the nearest or most applicable record station of the Environmental Data Service of the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

Information on measuring stations of the National Oceanic and Atmospheric Administration (NOAA) can be found in the "Climatological Data" published by NOAA. This publication may be found in public libraries or contact:

National Climatic Data Center Telephone: (828) 271-4800  
Federal Building Website: www.ncdc.noaa.gov  
151 Patton Avenue  
Asheville, NC 28801-5001

### **5-4 TERMINATION OF CONTRACT FOR DEFAULT**

#### **5-4.1 Grounds for termination**

The City Council may terminate the Contract at any time upon a determination that the Contractor has:

1. failed or refuses to supply either properly skilled workers, a sufficient work force, proper materials or suitable equipment for the Work; or
2. disregarded laws, ordinances, rules and regulations, or orders of a public authority having jurisdiction; or
3. failed to prosecute the Work diligently and in compliance with the schedule in accordance with the terms of the Contract Documents; or
4. otherwise materially breached the terms and conditions of the Contract.

The decision to terminate the Contract for the reasons set forth in this section shall be made by the City Council and such decision shall be final and binding on the parties to the Contract. City shall provide written notice of termination to both the Contractor and its surety.

#### **5-4.2 Upon termination**

Upon termination, the Contractor shall cease all operations on the Project and the City, without prejudice to any other rights or remedies, may:

1. take possession of all or any part of the Contractor's materials, tools, equipment and appliances upon the premises and use them for the purpose of completing the Work; and/or
2. hire such forces and buy or rent such additional machinery, tools, appliances and equipment and buy such additional materials and supplies at Contractor's expense as may be necessary for the proper completion of the Work; and/or

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3. employ other parties to carry out the Contract to completion, employ the necessary workers, substitute other machinery and materials and purchase the materials contracted for in such a manner as the City may deem proper, and/or
4. annul and cancel the Contract and re-let the Work or any portion of it.

If requested by City, Contractor agrees to promptly assign to City such subcontracts, equipment rental contracts, materials, purchase contracts, and other contracts with third parties who were furnishing property and/or services for construction of the Project.

### **5-4.3 Costs after termination**

When the City terminates the Contract for any of the reasons stated above, neither Contractor nor its surety shall be entitled to receive any further payments until the Work has been finally completed. All costs and expenses, including costs of administering the Contract incurred in the completion of the Work, shall be charged to the Contractor and its surety. Any excess of costs arising over and above the Contract price shall be the responsibility of the Contractor and its sureties. The Contractor will be credited with the surplus, if any, remaining after all just claims have been satisfied and costs of completion have been paid.

## **5-5 RIGHT-OF-WAY DELAYS**

If through the failure of the City to acquire or clear rights of way (except for utility delays, which will be governed by Section 5-10.4, Utility Relocation and Rearrangement), the Contractor sustains loss which could not have been avoided by the judicious handling of forces, equipment, and plant, the City shall pay the Contractor the amount as the Engineer finds to be fair and reasonable compensation for the part of the Contractor's actual loss as, in the opinion of the Engineer, was unavoidable.

Actual loss shall be understood to include no items of expense other than idle time of equipment at prevailing rates in the area and necessary payments for idle time of workers, cost of extra moving of equipment, and cost of longer hauls, with no markup in any case for overhead or profit.

If performance of the Contractor's Work is delayed as the result of the failure of the City to acquire or clear rights of way, the City will grant an extension of time determined under these General Requirements. (See also General Requirements Section 6-7.3, Delays.)

## **5-6 TIME OF COMPLETION**

The Contractor shall complete all of the Work called for under the contract within the number of working days set forth in the Contract Documents.

A "working day" is defined as any day, except: (a) Saturdays, Sundays and legal holidays; (b) days on which the Contractor is specifically required by the Contract Documents to suspend operations; (c) days on which the Contractor is prevented by inclement weather or conditions resulting immediately from it, adverse to the current controlling operation(s), as determined by the Engineer, from proceeding with at least 75% of the normal labor and equipment force engaged on the operation(s) for at least five hours toward completion of the operation(s).

If the Contractor prepares to begin Work at the regular starting time in the morning of any day on which inclement weather or the conditions resulting from the weather, or the condition of the Work, prevents the Work from beginning at the usual starting time, and the crew is dismissed as a result, and the Contractor does not proceed with at least 75% of the normal labor and equipment force engaged in the current controlling operation(s) for at least five hours toward completion of the operation(s), the Contractor will not be charged for a working day, whether or not conditions

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change later during the day and the major portion of the day could be considered to be suitable for the construction operations.

The “current controlling operation(s)” as used in the above paragraph includes any feature of the Work considered at the time by the Engineer and the Contractor, which, if delayed, will delay the time of completion of the contract.

Determination of each non-working day, except Saturdays, Sundays, legal holidays, and days on which the Contractor is specifically required by the Contract Documents to suspend construction operations, shall be made and agreed upon during the day by conference between the Engineer and the Contractor, and if they fail to agree, the Contractor will be allowed ten days in which to file a written protest setting forth in what respects he differs from the Engineer. Otherwise the decision of the Engineer shall be deemed to have been accepted by the Contractor as correct.

### **5-7 LIQUIDATED DAMAGES**

#### **5-7.1 General**

The parties agree that: time is of the essence in the completion of this Work; and if all the Work is not completed before or upon the completion date, the City will sustain damages; and it is impracticable to determine the actual damage which the City will sustain; the Contractor will pay to the City the sum set forth in the Contract Documents per day for each and every day’s delay beyond the time prescribed to complete the Work; and the Contractor will pay such liquidated damages; and, if those damages are not paid, the City may deduct the amount from any money due or that may become due the Contractor.

It is further agreed that if the Work called is not completed within the number of working days specified, the Engineer has the right to increase the number of working days or not, as he may deem best to serve the City’s interests. If he decides to extend the number of working days, he may charge the Contractor, or sureties, and deduct from the final payment for the Work, all or any part, as he deems proper, of the actual cost of engineering, inspection, superintendence and other overhead expenses which are directly chargeable to the Contract, and which accrue during the period of the extension. However, the cost of final surveys and preparation of final estimate shall not be included in those charges.

#### **5-7.2 Extensions**

The Contractor will be granted an extension of time and will not be assessed with liquidated damages or the cost of engineering and inspection for any portion of the delay in completion of the Work beyond the time named in the Contract Documents caused by acts of God or of the public enemy, fire, floods, epidemics, quarantine restrictions, strikes, shortage of materials and freight embargoes. The Contractor has the responsibility for applying for extensions of time for delays arising from these causes within ten days from the beginning of any such delay. The Contractor has the burden of documenting, as the Engineer may require, the basis for the request for extension of time. The request shall be submitted to the Engineer whose findings shall be final and conclusive.

Upon the Contractor’s submission of satisfactory proof to the Engineer, shortage of material will be acceptable as grounds for increasing the number of working days. In order that such proof may be satisfactory and acceptable to the City Engineer, there must be a showing that the Contractor has made every effort to obtain such materials from all known sources within reasonable reach of the proposed Work. The Engineer may decide whether or not an increase in the number of working days will be granted, and his decision is final. If the increase is granted, the Contractor will not be

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assessed with liquidated damages nor the cost of engineering and inspection during the increase. Only the physical shortage of material will be considered as a cause for extension of time, and no consideration will be given to any claim that material could not be obtained at a reasonable, practical, or economical cost or price, unless it is shown to the satisfaction of the Engineer that the material could have been obtained only at exorbitant prices entirely out of line with current rates, taking into account the quantities involved and usual practices in obtaining those quantities.

If the Contractor is delayed in the completion of the Work by reason of changes made under Section 4 (Scope of Work), or by failure of the City to acquire or clear right of way, or by any act of the Engineer not contemplated by the Contract, an extension of time commensurate with the delay so caused will be granted and the Contractor shall be relieved from any claim for liquidated damages, or engineering and inspection charges or other penalties for the period covered by that extension of time. However, the Contractor shall notify the Engineer in writing of the causes of the delay within ten days from the beginning of any such delay. The Engineer shall ascertain the facts and the extent of the delay, and his findings shall be final.

### **5-8 SUBCONTRACTING**

The Contractor shall give his personal attention to the fulfillment of the Contract and shall keep the Work under his control. No subcontractor will be recognized as such, and all persons engaged in the Work of construction will be considered as employees of the Contractor and he will be held responsible for their Work.

### **5-9 ASSIGNMENT**

The City and the Contractor each binds himself, his partners, successors, assigns and legal representatives to the other party and to the partners, successors, assigns and legal representatives of the other party in respect to the terms of the Contract Documents. Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any moneys due or to become due to him under the Contract without the City's prior written consent.

A consolidation or merger of Contractor or a change in ownership of 25% or more of Contractor's capital stock shall constitute an assignment by Contractor requiring the written consent of City.

### **5-10 PROTECTION OF EXISTING UTILITIES**

#### **5-10.1 Notice**

In accordance with the requirements of Government Code sections 4216 and 4216.9, Contractor shall give notice to the Regional Notification Center, USA Underground Service Alert Regional Notification Center (USA) at 1-800-227-2600, at least two working days before beginning any excavation work.

The Contractor shall immediately notify the Engineer and utility owner of any damage to a utility.

#### **5-10.2 Location**

No utility lines are shown on the Plans. Records of existing utilities locations, as received from the various utility companies, are on file at the Public Services Department – Engineering Division office and may be examined by the Contractor at any time before or after the job is bid.

Before beginning Work, the Contractor shall mark the area of proposed excavation with white paint or other suitable marking, as required by code, before calling USA. Where it is not possible to adequately delineate the work area, the Contractor shall include in his notification a request for a field meeting with representatives with a plan showing the Work area as needed to expedite

## **GENERAL REQUIREMENTS**

marking of facilities. A valid inquiry number shall be maintained and re-validated upon expiration for the duration of the excavation Work. The Contractor shall further request the utility owners to mark or otherwise indicate the approximate location of their installations and cooperate with them in the necessary arrangements.

It is the Contractor's responsibility to determine the exact location and depth of all utilities, including service connections, which have been marked by the respective utility owners and which Contractor believes may affect or be affected by its operations.

### **5-10.3 Damage and Protection**

Contractor shall exercise extreme care and caution in the performance of all underground Work to avoid damage to any facility. No compensation for any necessary rearrangement of underground facilities shall be allowed. Where it is necessary to construct or relocate underground utilities in the construction area, such Work shall be done by the respective utility owner, or their agent, unless otherwise noted. Unless otherwise permitted by the owner of the underground facility, the Contractor shall hand dig wherever he is within 24" (horizontally) of any marked utility line. Damage to any of the facilities shall be repaired by the owner of the utility at the Contractor's expense.

If an existing sanitary sewer lateral is damaged, repairs must be arranged for immediately by a qualified Contractor. This entails securing a repair permit at the District office. All repairs must be completed at the Contractor's expense and must be inspected by a District Inspector.

All Work on this Project shall be so conducted as to permit utility companies to maintain their services or if necessary, to install any additional facilities without interruption.

The Contractor shall immediately notify the Engineer and utility City of any damage to a utility. The cost of repairing and/or relocating any damaged utilities is the Contractor's responsibility when the locations are shown on the Project plans or marked by the utility, or when the Contractor fails to call USA or request a remarking of obliterated marks.

### **5-10.4 Utility Relocation and Rearrangement**

The right is reserved to the City and the utility owners (or their authorized agents) to the Work area for the purpose of making such changes as are necessary for the rearrangement of their facilities or for making necessary connections or repairs to their properties. The Contractor shall cooperate with forces engaged in such work and shall conduct his operation in such a manner as to avoid any unnecessary delay or hindrance to the work being performed by those forces, and shall allow the respective utilities time to relocate their facilities.

The Contractor assumes responsibility for the removal, relocation, or protection of existing facilities when facilities are identified by the Contract Documents. It is the Contractor's duty to coordinate with the owner of utility facilities for the rearrangement of those facilities.

If certain underground utilities not known to the City or in a different location than shown on the plans or special provisions are found to exist, the Contractor shall: (1) immediately notify the Engineer of the existence of the facilities; and (2) take steps to ascertain the exact location of all underground facilities before doing work that may damage the facilities.

Requests for extensions of time arising out of utility rearrangement delays shall be governed by the procedure set forth in Section 5.5, right-of-way delays. In accordance with Government Code section 4215, the Contractor shall not be assessed liquidated damages for delay in completion of

## **GENERAL REQUIREMENTS**

the Project when the delay was caused by the failure of the public agency or owner of the facilities to provide for removal or relocation of the existing facilities.

Where the Engineer determines that the rearrangement of an underground main, the existence of which is not shown in the Contract Documents, is essential to accommodate the contemplated improvement, the Engineer will provide for the rearrangement of the facility by other forces. Alternatively, those rearrangements shall be performed by the Contractor and will be paid for as Extra Work.

When the Contract Documents indicate that a utility is to be relocated, altered or constructed by others, the City will conduct all negotiations with the owners and the work will be done at no cost to the Contractor.

Temporary or permanent relocation or alteration of utilities desired by the Contractor for his own convenience are his responsibility, and he shall arrange and bear all costs.

Some existing utility facilities may require relocation during construction of the Project. The following procedure shall be used to determine if relocation is necessary: Contractor shall notify U.S.A. for underground utility locating and locating shall be completed.

Contractor to determine locations of potential conflict between existing utilities and proposed underground construction. In case of conflicts, the Contractor and Engineer shall decide if existing utilities or the proposed improvements should be relocated. If conflicts with utilities occur and utility relocations are necessary, it shall be the responsibility of the Contractor to coordinate all necessary utility relocations with the appropriate utility companies. Contractor shall schedule Work so that during such conflict and relocation there shall not be any Work stoppage including labor, tools, and equipment and consequently no extra cost shall be charged for idle time.

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### 6 MEASUREMENT AND PAYMENT

#### 6-1 MEASUREMENT OF QUANTITIES

##### 6-1.1 Methods of Measurement

Materials and items of Work which are to be paid for on the basis of measurement shall be measured in accordance with the methods stipulated in the particular sections involved.

##### 6-1.2 Certified Weights

When payment is to be made on the basis of weight, the weighing shall be done on certified platform scales or, when approved by the Engineer, on a completely automated weighing and recording system. The Contractor shall furnish the Engineer with duplicate licensed weighmaster's certificates showing the actual net weights. The City will accept the certificate as evidence of the weights delivered.

##### 6-1.3 Units of Measurement

Measurements shall be in accordance with U.S. Standard Measures. A pound is an avoirdupois pound. A ton is 2,000 pounds avoirdupois. The unit of liquid measure is the U.S. gallon.

Material not used from a transporting vehicle shall be determined by the Engineer and deducted from the certified tag.

When material is to be measured and paid for on a volume basis and it would be impractical to determine the volume, or when requested by the Contractor in writing and approved by the Engineer in writing, the material will be weighted and converted to volume measurement for payment purposes. The Engineer shall determine factors for conversion from weight measurement to volume measurement and the Contractor shall agree them before that method of measurement of pay quantities will be adopted.

Full compensation for all expense involved in conforming to the above requirements for measuring and weighing materials is included in the unit prices paid for the materials being measured or weighed and no additional allowance will be made.

The City will not pay for the following and they will be deducted from the final total quantities: quantities of material wasted or disposed of in a manner not called for under the contract; rejected loads of material, including material rejected after it has been placed by reason of the failure of the Contractor to conform to the contract; material not unloaded from the transporting vehicle; material placed outside the lines indicated on the plans or given by the Engineer; material remaining on hand after completion of the contract. No compensation will be allowed for hauling rejected material.

#### 6-2 SCOPE OF PAYMENT

The Contractor shall accept the compensation, as provided in the Contract Documents, as full payment for: furnishing all labor, materials, tools, equipment, disposal and incidentals necessary to the completed Work; performing all Work contemplated under the contract; loss or damage arising from the nature of the Work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the Work; expenses incurred in consequence of the suspension or discontinuance of the Work as specified in the Contract Documents; and for completing the Work according to the Contract Documents. Neither the

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payment of any estimate nor of any retained percentage shall relieve the Contractor of any obligation to make good any defective Work or material.

No compensation will be made for loss of anticipated profits. Increased or decreased Work involving Change Orders or Engineer's Orders will be paid for as provided in those documents.

Payment for items called out elsewhere in the Plans and Specifications, but not specifically listed as a bid or pay item, shall be considered to be included in other items of Work and no additional compensation will be allowed for them.

### **6-3 EXTRA WORK**

#### **6-3.1 General**

New or unforeseen Work will be classed as Extra Work when the Engineer determines that it is not covered by Contract unit prices or stipulated unit prices. (See also Section 2-7.)

#### **6-3.2 Payment**

When the price for the Extra Work cannot be agreed upon, the City will issue a Written Order and pay for the Extra Work based on the accumulation of costs as provided here.

#### **6-3.3 Daily Reports by Contractor**

At the close of each working day, the Contractor shall submit a daily report to the Engineer, on forms approved by the City, together with applicable delivery tickets, listing all labor, materials and equipment involved for that day, and for other services and expenditures when authorized. The parties shall attempt to reach agreement or reconcile the report daily, and both shall sign it. If there is disagreement, pertinent notes shall be entered by each party to explain points that cannot be resolved immediately. Each party shall retain a signed copy of the report. Reports by subcontractors or others shall be submitted through the Contractor.

#### **6-3.4 Basis for Establishing Costs**

##### **6-3.4A Labor**

The report shall show names of workers, classification and hours worked. The costs of labor will be the actual cost for wages prevailing locally for each craft or type of worker at the time the Extra Work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. The use of a labor classification that would increase the Extra Work cost will not be permitted unless the Contractor establishes the necessity for the additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental. The labor surcharge for all payments required by State and Federal law shall be taken from the current State of California Labor Surcharge and Equipment Rental Rate publication.

##### **6-3.4B Material**

The report shall describe and list quantities of materials used. The cost of materials reported shall be at invoice or lowest current price at which the materials are locally available and delivered to the job site in the quantities involved, plus sales tax, freight and delivery.

The City reserves the right to approve materials and sources of supply, or to supply materials to the Contractor if necessary for the progress of the Work. No markup shall be applied to any material provided by the City.

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### **6-3.4C Equipment**

The report shall show type of equipment, size, identification number, hours of operation, including loading and transportation, if applicable.

### **6-3.4D Tool and equipment rental**

No payment will be made for the use of tools that are not listed on the current State Labor Surcharge and Equipment Rental Rate publication. The rates shall be taken from the current edition of the Rate publication, except modified as follows:

Regardless of ownership, the rates to be used in determining equipment rental costs shall not exceed listed rates prevailing locally at equipment rental agencies, or distributors, at the time the Work is performed.

The rental rates paid shall include: the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance; depreciation, storage; insurance; necessary loading and transportation costs; and all incidentals. Operators of rented equipment will be paid for as provided for under "Labor" above.

If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the City than holding it at the Work site, it shall be returned, unless the Contractor elects to keep it at the Work site at no expense to the City.

All equipment shall be acceptable to the Engineer, in good working condition, and suitable for the purpose for which it is to be used. Manufacturer's ratings and manufacturer's approved modifications shall be used to classify equipment and it shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

The reported rental time for equipment already at the job site shall be the duration of its use on the Extra Work, beginning at the time it is first put into actual operation on the Extra Work, plus the time required to move it from its previous site and back, or to a closer site.

### **6-3.4E Other services and expenditures**

Other services and expenditures shall be described in such detail as the City may require.

### **6-3.4F Other Items**

The City may authorize other items that may be required on the Extra Work. Such items include labor, services, material and equipment which are different in their nature from those required for the Work specified in the Contract and which are of a type not ordinarily available from the Contractor or any of his subcontractors. Invoices covering all such items in detail shall be submitted with the request for payment.

### **6-3.5 Invoices; Mark-up**

Vendors' invoices for material, equipment rental, and other expenditures, shall be submitted with the request for payment. If the request for payment is not substantiated by invoices or other documentation, the City may establish the cost of the item involved at the lowest price that was current at the time of the report.

Except any markup prohibitions in Section 6.3, a markup not to exceed 10% of total Contractor costs is allowed for overhead and profit. A markup not to exceed 5% of the total Subcontractor costs is allowed for overhead and profit.

## **GENERAL REQUIREMENTS**

### **6-4 PARTIAL PAYMENTS**

To arrive at agreement on partial payments for items bid as lump sum, the Contractor shall submit a proposed breakdown of values of the various elements of work comprising the lump sum. The Engineer shall, once each month, prepare an estimate (on forms furnished by the Engineer) of the total amount of Work done and acceptable materials on hand (materials furnished and delivered by the Contractor on the ground and not used). The Contractor shall review and sign the Engineer's monthly estimate. Upon the Engineer's approval of the monthly estimate, the City shall retain 5% of the estimated value of the Work done and materials on hand, and shall monthly pay to the Contractor, while carrying on the Work, the balance not retained, after deducting all previous payments and all sums to be kept or retained under the Contract. No such estimate or payment is required when, in the Engineer's judgment, the Work is not proceeding in accordance with the Contract, or when in his judgment the total value of the Work done since the last estimate amounts to less than \$1,000.00.

### **6-5 PAYMENT WITHHELD**

The City may withhold or nullify (on account of later discovered evidence) all or part of any payment made to the Contractor by the City as to the amount determined to be due the Contractor, to the extent and period of time only as is necessary to protect the City from loss on account of:

Defective Work not remedied, or uncompleted Work:

1. Claims filed or reasonable evidence indicating probable filing;
2. Failure to properly pay Subcontractors or for material or labor;
3. Reasonable doubt that the Work can be completed for the balance then unpaid;
4. Failure to achieve sufficient progress with the Work to meet the required completion date; or
5. Damage to another contractor or third party, other than damage due to delays.

### **6-6 ACCEPTANCE OF THE WORK AND FINAL ESTIMATE AND PAYMENT**

Whenever City Council has accepted the work as complete, the City will file a Notice of Completion with the County Recorder within 15 days. (Civil Code section 9204.) Retention will be held sixty days after the Notice of Completion is filed or until a recorded copy of the Notice of Completion is returned from the County, whichever is first.

#### **6-6.1 Final measurements**

The payment due the Contractor shall be determined from the final measurements made by the Engineer and the unit prices bid, or provided, by the Contractor, including the authorized Extra Work. All prior partial quantities and payments are subject to correction in the final payment, and no payment shall be construed to be an acceptance of any defective work or improper materials.

#### **6-6.2 Deductions**

From the total amount of the Work, the City will deduct: (a) 5%; and, (b) from the remainder, all amounts due to the City from the Contractor in accordance with the Contract.

From the balance thus determined, the City will deduct the total amount of all previous payments made to the Contractor. The remainder will be the amount to be paid to the Contractor.

#### **6-6.3 Payment of retained amounts**

The final payment of retained amounts is due within 60 days of completion of the Work. "Completion" means City's use of the Work; (2) acceptance of the Work; or (3) other factors set forth in PCC section 7107. (See Civil Code section 9200 regarding definition of "completion.")

## **GENERAL REQUIREMENTS**

The City shall not certify that the Contract has been completed until 60 days or more after the City files the Notice of Completion.

### **6-6.4 Contractor's release of claims**

Payment of undisputed contract amounts is contingent upon the Contractor's furnishing City with a release of all claims against City arising from the performance of Work relative to those amounts. Contractor may only exclude from the release those claims in the amounts stated which have been properly noticed.

### **6-6.5 Substitute security**

Under PCC section 22300, the Contractor may substitute securities for any money held by the City to ensure performance of the Contract. Securities eligible under this section are limited to those listed in Government Code section 16430, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit, or other security mutually agreed upon by the Contractor and the Engineer.

## **6-7 CLAIMS**

### **6-7.1 Definition; Submittal**

Contractor's request: (a) for the payment of any additional compensation for any cause; (b) an extension of time for the performance of Work; or (c) any other relief with reference to the terms of the Contract, including any dispute or question relative to the Contract Documents; is a "Claim".

The Contractor must submit a Claim to the Engineer in writing for consideration. Notices of potential claim are not acceptable for the purpose of timely notice to the City of a Claim.

Each Claims shall contain sufficient detail to enable the Engineer to evaluate the basis, validity and computation of the Claim including, but not limited to, evidence supporting the alleged Claim and a current schedule showing the effect of the occurrence on the critical path.

Submittal of a claim properly certified, with all required supporting documentation, and City's written rejection or denial of all or part of the claim, is a condition precedent to any action, proceeding, litigation, suit or demand for arbitration by the Contractor.

### **6-7.2 Timing**

When a Claim is based on an act or failure to act by the City, its agents, employees or representatives, the Contractor must present the claim to the Engineer before the Contractor performs the work. In all other instances Claims must be presented in writing within ten days after the occurrence of the event giving rise to the Claim. Contractor's noncompliance with any of the time and notice requirements in this section shall render the Claim(s) invalid.

### **6-7.3 Delays**

There is no compensable delay unless there is a delay to the critical path and the Project completion is delayed beyond the Contract completion date. Except for the additional compensation provided for in Section 5.5, Right of Way Delays, and except as provided in this Section 6.7, Claims, the Contractor has no claim for damage or compensation for any delay or hindrance. It is recognized that changes to the contract are expressly within the contemplation of the parties.

### **6-7.4 Claim certification**

All claims submitted to the City must be certified as follows:

## GENERAL REQUIREMENTS

I, \_\_\_\_\_, being the \_\_\_\_\_ (must be an officer) of \_\_\_\_\_ (General Contractor), declare under penalty of perjury under the laws of the state of California, and do personally certify and attest that: I have thoroughly reviewed the attached claim for additional compensation and/or extension of time, and know its contents, and said claim is made in good faith; the supporting data is truthful and accurate; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the City is liable; and further, that I am familiar with Government Code Section 12560 – 12656 (False Claims Act) and Penal Code section 72 pertaining to false claims, and further know and understand that the submission or certification of a false claim may lead to fines, imprisonment and/or other severe legal consequence.

### **6-7.5 Subcontracts**

Contractor shall include the following provisions in all subcontracts.

The Contractor and the City contemplate that the completion of the Work may be delayed by weather, force majeure, minor changes in Plans and Specifications, and actions of utilities and other third parties. The Contractor shall have no claim for damages or compensation for delay in completion of the Work:

1. Caused by any person or entity other than the City or due to any reason beyond the complete control of the City.
2. Caused by the City, unless the delay is unreasonable under the circumstances. Any such delay shall be presumed to be reasonable unless the delay results from a cause that was reasonably foreseeable to the City and the City negligently or through willful misconduct failed to prevent the delay.
3. If the Work is completed within the number of work days stated in the Contract Documents, regardless of whether the Contractor's schedule indicated an earlier completion date.
4. Resulting from a Change Order.
5. If there was no delay in the critical path of the Work.

If the Contractor is entitled to bring a claim for delay under this section, any compensation or damages shall be limited to the Contractor's actual loss. "Actual loss" does not include any expense other than idle time of equipment, necessary payments for idle time of day labor, the cost of extra moving of equipment and the cost of longer hauls. Compensation, if any, for idle equipment and day labor shall be determined under the State of California Standard Specifications Section 8-1.07C. In no event is the Contractor entitled to compensation or damages which include profit, mark-ups, overhead (including but not limited to central office overhead and salaries of salaried employees), and costs for non-working days.

### **6-7.6 Tort Claims Act**

Before filing a construction claim under PCC section 20104-20104.6, the Contractor must first file a tort claim under Government Code section 900, et seq.

## GENERAL REQUIREMENTS

# 7 LEGAL RELATIONS AND RESPONSIBILITY

## 7-1 LAWS TO BE OBSERVED

The Contractor shall stay fully informed of and comply with all existing and future County, State and Federal laws and regulations and all municipal ordinances and regulations of the City which affect those employed in the Work, or the materials used, or which affect the conduct of the Work, and of all the orders and decrees of bodies or tribunals having jurisdiction or authority over the Work. If a discrepancy or inconsistency is discovered in the Contract Documents in relation to a law, ordinance, regulation, order or decree, the Contractor shall promptly report it in writing to the Engineer.

## 7-2 LABOR

### 7-2.1 General

The Contractor is bound by and shall comply with the applicable provisions of the Labor Code and with Federal, State and local laws related to labor.

### 7-2.2 No Discrimination

Under Labor Code section 1735, the Contractor shall not discriminate in the employment of persons because of their race, religious creed, color, national origin, ancestry, physical disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age or sexual orientation of any person, except as provided in Government Code Section 12940. A Contractor violating this section is subject to all the penalties imposed for a violation.

### 7-2.3 Apprentices

Attention is directed to Labor Code sections 1777.5, 1777.6 and 1777.7 and to Title 8, California Administrative Code section 227 and following. To ensure compliance and complete understanding of the law regarding apprentices, and specifically the required ratio, the Contractor (and subcontractors) should, where some question exists, contact the Division of Apprenticeship Standards before beginning the Work. The Contractor is responsible for compliance with this paragraph.

### 7-2.4 State Wage Determination

As required by Labor Code sections 1770 and following, the Contractor shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Copies of the prevailing rates are on file at the City offices, and will be made available to any interested party on request. The Contractor shall post a copy of the prevailing rates at each job site.

As provided in Labor Code Section 1775 (and subject to that section), the Contractor shall, as a penalty to the City, forfeit up to \$200 for each calendar day, or portion of a day, for each worker paid less than the prevailing rates, whether the worker is employed by Contractor or a subcontractor.

## **GENERAL REQUIREMENTS**

### **7-2.5 Payroll Records; Retention; Inspection; Noncompliance Penalties; Rules and Regulations**

#### **7-2.5A Payroll records**

As required by Labor Code section 1776, each Contractor and subcontractor shall keep an accurate payroll record, 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, or other employee employed by him or her in connection with the Project. These payroll records shall be certified and shall be available for inspection at all reasonable hours at the Contractor's principal office on the following basis:

A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.

A certified copy of all employee payroll records shall be made available for inspection or furnished upon request to the City, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations. The Contractor and each subcontractor shall file a certified copy of the requested payroll records within ten days after receiving a written request.

#### **7-2.5B Public inspection**

A certified copy of all payroll records shall be made available upon request by the public for inspection or copies. However, a request by the public shall be made through the City, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided under subparagraph 1(b), above, the requesting party shall, before receiving the records, reimburse the costs of preparation by the Contractor, subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal offices of the Contractor.

No disclosure of individuals. Any copy of records made available for inspection and copies furnished upon request to the public or any public agency by the City, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of the Contractor awarded the contract or performing the contract shall not be marked or obliterated.

#### **7-2.5C Location of records**

The Contractor shall inform the City of the location of the payroll records including the street address, city and county, and shall, within five working days, provide a notice of change of location and address.

#### **7-2.5D Notice and penalty for non-compliance**

In the event of noncompliance with the requirements of this section 7-2.5, the Contractor shall have ten days in which to comply after receiving written notice specifying in what respects the Contractor must comply. If Contractor has not complied within the ten-day period, the Contractor shall, as a penalty to the City, forfeit \$100.00 for each calendar day, or portion of a day, for each worker, until strict compliance occurs. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. Contractor is responsible for compliance with this section.

## **GENERAL REQUIREMENTS**

### **7-2.5E Department of Industrial Relations Requirements**

As required by Labor Code section 1725.5, the Contractor and subcontractors shall be registered with the Department of Industrial Relations. All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner per Labor Code section 1771.4. The Department of Industrial Relations will monitor and enforce compliance with prevailing wage requirements.

### **7-2.6 Working Hours**

The Contractor shall comply with the applicable provisions of Labor Code sections 1810 to 1815 relating to working hours. The Contractor shall, as a penalty of the City, forfeit \$25.00 for each worker employed on the Project by the Contractor or by any subcontractor for each calendar day during which the worker is required or permitted to work more than eight hours in any one calendar day and 40 hours in any one calendar week, unless the worker receives compensation for the hours worked in excess of eight hours at not less than one and one-half times the basic rate of pay.

### **7-2.7 Workers' Compensation**

In accordance with Labor Code section 1860, the Contractor's attention is directed to the requirement that (under Labor Code section 3700) every Contractor is required to secure the payment of compensation of his or her employees. In accordance with the Labor Code section 1861, each Contractor shall sign and file with the City the following certification before performing the Work: "I am aware of the provisions of Labor Code section 3700 which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this contract."

### **7-3 (NOT USED)**

### **7-4 CONTRACTOR'S LICENSING LAWS**

Attention is directed to the provisions of the California Business and Professions Code concerning the licensing of Contractors. All Contractors shall be licensed in accordance with the laws of the State of California and any Contractor not so licensed is subject to the penalties imposed by those laws.

### **7-5 PERMITS AND LICENSES**

The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the lawful prosecution of the Work. On contracts let by the City, fees and charges required by City permit will be waived. A City of Alameda Business License from the City of Alameda, 2263 Santa Clara Avenue, Finance Department, Room 220, Alameda is required. See Section 14 Special Provisions.

### **7-6 USE OF EXPLOSIVES**

Each person engaged in the activities of receiving, storing, using, handling or transporting any explosives must obtain a permit from the Contra Costa County Fire Prevention District; and all Work shall be governed by the Health and Safety Code and the California Fire Code, both as adopted by the City and the District.

## **GENERAL REQUIREMENTS**

### **7-7 SAFETY NOTICES**

The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.

### **7-8 DISPOSAL OF MATERIAL OUTSIDE THE PROJECT LIMITS**

The Contractor shall arrange for disposal of materials outside the Project limits. Contractor shall pay all costs involved.

When any material is to be disposed of outside the Project limits, the Contractor shall first obtain a written permit from the property owner on whose property the disposal is to be made and he shall file with the Engineer the permit or a certified copy of it together with a written release from the property owner absolving the City from responsibility in connection with the disposal of material on the property.

When material is disposed of, the Contractor shall conform to the requirements of the City Municipal Code regarding grading, hauling and filling of earth. Any permits so required shall be no-fee, but the Engineer may require a bond.

The Contractor shall comply with the City's Municipal Code Section 13-10: Alameda Green Building Standards.

The Contractor shall also comply with the City's waste management requirements as outlined in the following City Municipal Code Sections:

#### **21-2.3(b) – Containers**

Every person engaged in construction is hereby required to provide user disposal containers at each construction site for the deposit of solid waste, recyclable materials, and organic materials by the employees or workers engaged in such construction. The container shall be kept closed by a close-fitting cover except when in use. Every person who consumes food on the premises shall deposit all food scraps in an organic materials container provided at the site. Casting aside any unconsumed food scraps or solid waste on the premises or public rights-of-way is forbidden.

#### **21-24: Waste Management Plans**

Concrete, rock, brick, asphalt and other similar materials are highly recyclable, and must be source separated as much as possible on the project site and delivered to a processor as separate materials. The diversion requirement for concrete and asphalt is 95%. For all other construction and demolition debris the diversion requirement is 65% or, if higher, the minimum percent required by the California Green Building Standards Code. Contractors are encouraged to reuse or divert as much material as possible. Additionally, upon award of contract, the Contractor shall prepare and submit, as part of the Initial Project Submittal Package (outlined in Section 18), a Waste Management Plan via <http://alameda.wastetracking.com/>.

Proof of an approved Waste Management Plan must be provided to the City Engineer before construction starts and proof of meeting project diversion requirements must be provided before project completion.

Noncompliant projects shall be assessed a fine and penalty in an amount annually established by the Public Works Director for each ton of material that was to be diverted as set forth in the Waste Management Plan, but was not demonstrated by Contractor to have been diverted.

## **GENERAL REQUIREMENTS**

### **7-9 CONTRACTOR'S RESPONSIBILITY FOR THE WORK AND MATERIALS**

Until City's acceptance of the Work, the Contractor shall have the charge and care of all the Work and the related materials and equipment, whether in storage on or off the site, under the care, custody or control of the Contractor or any of his subcontractors or sub-subcontractors. Contractor shall bear the risk of injury, loss, or damage to any part of them (regardless of whether partial payments have been made on such damaged portions of the Work) by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the Work. The Contractor shall rebuild, repair, restore, and make good all injuries, losses, or damages to any portion of the Work or the materials occasioned by any cause before its completion and acceptance, and shall bear the expense, except for the injuries, losses or damage directly and proximately caused by the City's sole negligence or willful misconduct. (See also Sections 6-5 and 6-7; Civil Code section 2782(b).)

### **7-10 VEHICLE CODE**

Vehicles and equipment traveling to and from the "limits of Work" or "job site" on a public way shall conform to the applicable provisions of the Vehicle Code.

### **7-11 WEIGHT LIMITATIONS**

Unless expressly permitted elsewhere in the Contract Documents, construction equipment or vehicles shall not exceed the maximum weight and size limitations set forth in the California Vehicle Code and Alameda Municipal Code, unless approved by the Engineer in writing. The Contractor shall repair the facilities damaged by overloaded equipment or vehicles.

### **7-12 PATENTS**

The Contractor assumes responsibilities arising from the use of patented materials, equipment, devices or processes used on or incorporated in the Work, and agrees to indemnify and hold harmless the City, its officers, employees and agents, from all suits at law, or actions of any nature, for or on account of the use of any patented materials, equipment, devices or processes.

### **7-13 SAFETY PROVISIONS**

The Contractor shall conform to the regulations pertaining to safety established by the California Division of Industrial Safety and the California and Federal Office of Safety and Health Administration. According to generally accepted construction practices, the Contractor will be solely and completely responsible for the conditions of the job site, including safety of all persons and property during performance of the Work. This requirement will apply continuously and not be limited to normal working hours.

The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to all employees on the Work and all other persons who may be affected by it. The duty of the City or its representatives to conduct construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures in, on, or near the construction site. Contractor is solely responsible for the Implementation and maintenance of safety programs.

The Contractor shall insure that all scaffolding, staging, temporary floors, runways, and similar devices furnished by himself or his subcontractors be built and maintained to safely support required loads.

The Contractor shall insure that all cranes, hoists, towers, and other lifting equipment necessary for the movement and erection of materials have operators trained and experienced in the

## **GENERAL REQUIREMENTS**

equipment being used, and are properly equipped with guys, bracing and safety devices as required by applicable codes.

The Contractor shall comply with all applicable local safety codes and specifically the Occupational Safety and Health Act for the construction industry.

The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities.

The Contractor shall perform all Work in a fire-safe manner and supply and maintain adequate first aid and fire-fighting equipment capable of extinguishing incipient fires. It shall comply with applicable local and state fire prevention regulations and where the regulations do not cover, with applicable parts of the National Fire Prevention Standards for "Safeguarding Construction, Alteration and Demolition Operations," (NFPA No. 241).

### **7-14 INDEMNIFICATION**

Contractor shall, to the fullest extent permitted by law, indemnify, defend (with independent counsel approved by the City), and hold harmless the City from and against any claims arising out of Contractor's performance or failure to comply with obligations under this Agreement, except to the extent caused by the sole negligence, active negligence or willful misconduct of the City. (Civil Code section 2782.) Contractor also shall require all subcontractors to indemnify City as provided in this section.

- "City" means the City, its officials, officers, agents, employees and volunteers;
- "Contractor" means the Contractor, its employees, agents and subcontractors;
- "Claims" includes claims, demands, actions, losses, damages, injuries, and liability, direct or indirect (including any and all related costs and expenses) and any allegations of these. Claims includes but is not limited to: personal injury, bodily injury, emotional injury, sickness or death; penalties imposed; infringement of patents, copyrights or trademark rights; stop notices or bond claims; insurance claims; violation or infraction;
- "Arising out of" includes "pertaining to" and "relating to"; and
- "Defend" means defend claims at Contractor's cost, pay and satisfy any judgment arising from a claim, reimburse the City for legal expenses incurred.

The provisions of this section survive completion of the services or the termination of this contract, and are not limited by the provisions of Special Provisions section 2 relating to insurance.

### **7-15 PUBLIC CONVENIENCE AND SAFETY**

#### **7-15.1 General**

The Contractor shall so conduct his operations as to offer the least possible obstruction and inconvenience to the public and he shall have under construction no greater length or amount of Work than he can prosecute properly with due regard for the rights of the public.

#### **7-15.2 Traffic; Work In or Upon Streets**

Travel lanes. Unless otherwise provided in the Contract Documents, one 11-foot lane in each direction for public traffic shall be permitted to pass through or around the Work with as little inconvenience and delay as possible. While subgrade and paving operations are underway, public traffic shall be permitted to use the shoulders and, if half-width paving methods are used, shall

## **GENERAL REQUIREMENTS**

also be permitted to use the side of the roadbed opposite the one under construction. See **Attachment D** for Pedestrian and Traffic Control plan requirements.

### **7-15.2A Signals; signs**

Existing traffic signal and highway lighting systems shall be kept in operation for the benefit of the traveling public during progress of the Work. Others will continue routine maintenance of existing systems. The Contractor may be required to cover certain signs that regulate or direct public traffic to roadways that are not open to traffic. The Engineer will determine which signs shall be covered.

In order to expedite the passage of public traffic through or around the Work and where ordered by the Engineer, the Contractor shall install signs, lights, flares, barricades, and other facilities for the sole convenience and direction of public traffic. Also, where directed by the Engineer, the Contractor shall furnish competent flagmen whose sole duties shall consist of directing the movement of public traffic through or around the Work.

If the Contractor appears to be neglectful or negligent in furnishing warning and protective measures, the Engineer may direct attention to the existence of a hazard and the Contractor shall furnish and install the necessary warning and protective measures at his expense. If the Engineer points out the inadequacy of warning and protective measures, that action on the part of the Engineer shall not relieve the Contractor from responsibility for public safety or abrogate his obligation to furnish and pay for these devices.

### **7-15.2B Removing spillage**

Contractor, at his expense, shall immediately remove spillage resulting from hauling operations along or across any public traveled way.

### **7-15.2C Excavation and embankments**

Roadway excavation and the construction of embankments shall be conducted in such manner as to provide a reasonably smooth and even surface satisfactory for use by public traffic at all times; sufficient fill at culverts and bridges to permit traffic to cross shall be placed in advance of other grading operations.

### **7-15.2D Contractor's equipment**

At locations where traffic is being routed through construction under one-way controls and when ordered by the Engineer, the movement of the Contractor's equipment from one portion of the Work to another shall be governed in accordance with such one-way controls.

### **7-15.2E Completed portions**

Whenever a portion of the Project has been completed, the Contractor shall open it to use by the public if the Engineer so orders, or may open it to use by the public if the Engineer so consents. In either case the Contractor will not be allowed any compensation due to any delay, damage or inconvenience to his operations caused by the public use but will be relieved of responsibility for damage or wear and tear to the completed Work. The Contractor will not be relieved of any other responsibility under the contract nor will he be relieved of cleanup and finishing operations.

### **7-15.3 Adjacent Property**

Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners. Contractor shall maintain convenient access to driveways, houses, and buildings along the line of and adjacent to the Work, and temporary approaches to

## **GENERAL REQUIREMENTS**

crossings or intersecting highways. When the abutting property owner's access across the right of way line is to be eliminated, or to be replaced under the Contract by other access facilities, the existing access shall not be closed until the replacement access facilities are usable.

The Contractor shall exercise precautions necessary to protect all buildings, landscaping and other construction on adjacent buildings, property and construction, on account of operations under this Contract, and restore to pre-construction conditions to the satisfaction of the Engineer.

The Contractor shall give reasonable notice to occupants or owners of adjacent property to permit them to salvage or relocate plants, trees, fences, sprinklers and other improvements within the right of way which are designated for removal and would be destroyed because of the Work.

### **7-15.4 Storage of Material and Equipment**

No material or equipment shall be stored where it will interfere with the free and safe passage of the public. At the end of each day's work, and at other times when construction operations are suspended for any reason, the Contractor shall remove the equipment and other obstructions from that portion of the roadway open for public use.

## **7-16 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS**

The Contractor is responsible for the protection of public and private property adjacent to the Work and shall exercise due caution to avoid damage to that property.

The Contractor shall repair or replace all existing improvements within the right of way which are not designated for removal (e.g., curbs, sidewalks, survey points, fences, walls, signs, utility installations, pavements, structures, etc.) which are damaged or removed as a result of his operations. When a portion of a sprinkler system within the right-of-way must be removed, the Contractor shall cap the remaining lines. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

Trees, lawns, and shrubbery that are not to be removed shall be protected from damage or injury. If damaged or removed because of the Contractor's operations, they shall be restored or replaced in as nearly the original condition and location as is reasonably possible. Lawns shall be re-seeded and covered with suitable mulch.

## **7-17 ACCEPTANCE OF CONTRACT**

When the City Engineer has made the final inspection and determines that the Contract has been completed in all respects in accordance with the Contract Documents, the Engineer will recommend that the City Council formally accept the contract. Immediately upon recording the acceptance, the Contractor will be relieved of the duty of maintaining and protecting the Work as a whole, and he will not be required to perform any further Work; and the Contractor will be relieved of his responsibility for injury to persons or property or damage to the Work, except as provided in the Contract Documents pertaining to the warranty period.

## **7-18 PAYMENT OF TAXES**

The contract prices paid for the Work includes full compensation for all taxes which the Contractor is required to pay, whether imposed by Federal, State or local government, including, without being limited to, Federal excise tax. The City will not furnish any tax exemption certificate or any document designed to exempt the Contractor from payment of any tax (on labor, services, materials, transportation, or any other items).

## **GENERAL REQUIREMENTS**

### **7-19 SUBCONTRACTORS AND SUPPLIERS**

Upon Engineer's request, Contractor shall provide unpriced copies of subcontracts and purchase orders.

### **7-20 LIMITATION OF DESIGN PROFESSIONAL'S RESPONSIBILITY**

The Architect/Engineer is not responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, and he will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The Architect/Engineer will not be responsible for or have control or charge over the acts or omissions of the Contractor, subcontractors, or any of their agents or employees, or any other persons performing any of the Work.

### **7-21 PROJECT STABILIZATION AGREEMENT- NOT USED**

**SPECIAL PROVISIONS**

**D. SPECIAL PROVISIONS**

## **SPECIAL PROVISIONS**

### **1 GENERAL**

#### **1-1 LOCATION**

The Work is located on the following streets throughout the City of Alameda:

Traffic signal modifications are to be performed at Broadway and Central Avenue, Broadway and Santa Clara Avenue, and Webster Street and Lincoln Avenue per the Contract documents.

#### **1-2 DESCRIPTION OF WORK**

The Work includes, but is not limited to:

Installing new traffic signal equipment, traffic signal poles, pull boxes, traffic signal conduit, conductors and cables, controller cabinets and foundations, service pedestals, curb ramps, concrete sidewalk, concrete curb and gutter, asphalt, and minor concrete.

#### **1-3 SPECIFICATIONS**

The Work shall comply in all aspects with the latest edition of the:

- Standard Plans of the City of Alameda
- California Department of Transportation Standard Specifications
- California Department of Transportation Standard Plans
- California Manual on Uniform Traffic Control Devices (CA MUTCD)

It is further expressly agreed by and between the parties hereto that the Notice to Contractors, Contract Proposal, Contract Plans, Contract Specifications and Standard Specifications are all essential parts of this Contract and are specifically referred to, and by such reference, are integral parts of this contract.

If a discrepancy is found or confusion arises, submit a Request for Information (RFI).

#### **1-4 PROPOSAL REQUIREMENTS**

Proposal requirements, conditions and bid procedures shall be as set forth in the Bid Documents, Section 3, "Proposal Requirements, Conditions and Bid Procedures," except as modified in these Special Provisions.

**SPECIAL PROVISIONS**

**2 INSURANCE REQUIREMENTS FOR CONTRACTORS**

On or before the commencement of the work, Contractor shall furnish the City’s Risk Manager with certificates showing the type, amount, class of operations covered, effective dates and dates of expiration of insurance coverage in compliance with minimum insurance coverage below.

Such certificates, which do not limit Contractor's indemnification, shall also contain substantially the following statement: “Should any of the above insurance covered by this certificate be canceled or coverage reduced before the expiration date thereof, the insurer affording coverage shall provide thirty (30) days advance written notice to the City of Alameda, Attention: Risk Manager.”

Contractor shall maintain in force at all times during the performance of this Agreement all appropriate coverage of insurance required by this Agreement with an insurance company licensed to offer insurance business in the State of California with a current A.M. Best’s rating of no less than A:VII or Standard & Poor’s Rating (if rated) of at least BBB unless otherwise acceptable to the City.

Endorsements naming the City, its City Council, boards, commissions, officials, employees, agents and volunteers as additional insured shall be submitted with the insurance certificates.

**2-1 MINIMUM SCOPE AND EXTENT OF INSURANCE**

Contractor shall maintain insurance coverage and limits at least as broad as:

1. Workers’ Compensation:

Statutory coverage as required by the State of California.

2. Liability:

Commercial general liability coverage in the following minimum limits:

Bodily Injury:           \$1,000,000 each occurrence  
                                  \$2,000,000 aggregate - all other

Property Damage:     \$1,000,000 each occurrence  
                                  \$2,000,000 aggregate

If submitted, combined single limit policy with per occurrence limits in the amounts of \$2,000,000 and aggregate limits in the amounts of \$4,000,000 will be considered equivalent to the required minimum limits shown above. Additional Insured Endorsement naming the City, its City Council, boards, commissions, officials, employees, agents, and volunteers is required.

3. Automotive:

Comprehensive automobile liability coverage (any auto) in the following minimum limits:

Bodily injury:           \$1,000,000 each occurrence  
Property Damage:       \$1,000,000 each occurrence

## SPECIAL PROVISIONS

or

Combined Single Limit: \$2,000,000 each occurrence

Additional Insured Endorsement naming the City, its City Council, boards, commissions, officials, employees, agents, and volunteers is required.

### 4. Pollution Prevention:

Legal liability required for hazardous materials excavation in the amount of \$2,000,000 each occurrence. Additional Insured Endorsement naming the City, its City Council, boards, commissions, officials, employees, agents, and volunteers is required.

The coverage and limits shall be (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of the coverage carried by or available to the Contractor; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to the City.

### 5. Builders Risk:

Insurance utilizing an "All Risk" (Special Perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions.

The coverage and limits shall be (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of the coverage carried by or available to the Contractor; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to the City.

## **2-2 SUBROGATION WAIVER**

Contractor hereby agrees to waive rights of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether the City has received a waiver of subrogation endorsement from the insurer. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Contractor, its employees, agents and subcontractors.

## **2-3 FAILURE TO SECURE**

If Contractor at any time during the term hereof should fail to secure or maintain the foregoing insurance, the City shall be permitted to obtain such insurance in Contractor's name or as an agent of Contractor and shall be compensated by Contractor for the costs of the insurance premiums at the maximum rate permitted by law and computed from the date written notice is received that the premiums have not been paid.

## **2-4 ADDITIONAL INSURED**

City, its City Council, boards, commissions, officials, employees and volunteers shall be named as an additional insured under all insurance coverages, except worker's compensation insurance. The naming of an additional insured shall not affect any recovery to which such additional insured would be entitled under this policy if not named as such additional insured. An additional insured

## **SPECIAL PROVISIONS**

named herein shall not be held liable for any premium, deductible portion of any loss, or expense of any nature on this policy or any extension thereof. Any other insurance held by an additional insured shall not be required to contribute anything toward any loss or expense covered by the insurance provided by this policy. The additional insured coverage under the Contractor's policy shall be primary and non-contributory and will not seek contribution from the City's insurance or self-insurance.

### **2-5 SUFFICIENCY OF INSURANCE**

Contractor shall furnish the following bonds from a bonding company acceptable to the City's Risk Manager. Faithful Performance Bond and Labor and Material Bond are only required for work over \$25,000. Therefore, those estimates that are under \$25,000 will not need to budget for the bond premiums and those estimates over \$25,000 will need to be sure to budget for the bond premiums.

The insurance limits required by the City are not represented as being sufficient to protect Contractor. Contractor is advised to consult Contractor's insurance broker to determine adequate coverage for Contractor.

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**3 LEGAL RELATIONSHIPS AND RESPONSIBILITY**

(See Also General Requirements, Section 7)

**3-1 CONTRACTORS LICENSING LAWS**

The following paragraph shall be considered to be added to the City of Alameda General Requirements Section 7-4, Contractor's Licensing Laws:

In accordance with California Business and Professional Code, the City has determined that the Contractor shall possess a valid:

Class [A] General Engineering Contractor license at the time that the contract is awarded.

Failure to possess the specified license shall render the bid as not responsible and shall act as a bar to award of the contract.

**3-2 CONCURRENT ACTIVITIES**

The City reserves the right to perform Work related to the Project with its own or contract forces, and to award separate contracts in connection with other portions of the Project or other Work on the site under these or similar conditions of the Contract. If the Contractor claims that delay or additional cost is involved because of such action by the City, he shall make such claim as provided elsewhere in the Contract Documents. A separate overlay operation may be underway on streets immediately adjacent to this Work. The Contractor shall make accommodations necessary to coordinate the Work with a minimum of conflict.

**SPECIAL PROVISIONS**

**4 PROSECUTION AND PROGRESS OF WORK**

(See also General Requirements Section 5.)

**4-1 TIME OF COMPLETION AND LIQUIDATED DAMAGES**

The Contractor shall commence the Work within five working days after receiving Notice to Proceed and shall diligently pursue the Work to completion within the number of working days specified in Special Provisions Section 6-1 plus any authorized time extensions. The working days shall start accruing the day the Contractor commences the Work but not later than five working days after he received the Notice to Proceed.

The Contractor shall forfeit to the City of Alameda \$2,000.00 for each calendar day that Work remains uncompleted in excess of the time specified for completion of the Project.

If for any reason the Contractor does not utilize a working day to pursue the Work in this contract, the Contractor shall seek the approval of the Engineer before recommencement of the Work.

## 5 MEASUREMENT AND PAYMENT

Payment on all items listed below shall include furnishing all materials, labor, tools, fittings, accessories, trenching, backfill and compaction, and equipment necessary to perform the work as specified herein. All work is paid for through corresponding bid items and no additional compensation shall be provided.

### 1. MOBILIZATION (BID ITEM #1)

The Contract lump sum price paid for “Mobilization” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in mobilization and demobilization, complete in place, including preparatory work and operations for the movement of personnel, equipment, supplies, and incidentals to the project site; for the establishment of all field offices, and other facilities necessary for work on the project; and for all other work and operations which must be performed or costs incurred prior to beginning work and post completion of work on the various contract items on the project site, as shown on the drawings, in accordance with California Public Contract Code § 10104, as specified in Section 9-1.16D “Mobilization” of the Caltrans Standard Specifications, and as directed by the Engineer.

Partial payments will be made under California Public Contract Code § 10264

### 2. WATER POLLUTION CONTROL (BID ITEM #2)

The contract lump sum price paid for “Water Pollution Control” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in water pollution control, complete in place, including development of a plan and implementation, as shown on the plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer.

The City pays for water pollution control as follows:

1. Total of 50 percent of the item total upon authorization of the Water Pollution Control Plan.
2. Total of 90 percent of the item total upon work completion
3. Total of 100 percent of the item total upon Contract acceptance

### 3. TRAFFIC CONTROL (BID ITEM #3)

The contract lump sum price paid for “Traffic Control” shall include full compensation for furnishing all labor (including preparation of the Traffic Control Plans, and flaggers when necessary), materials (including barricades, changeable message signs, door hangers and temporary traffic delineation), tools, equipment, and incidentals and for doing all the work complete in place for each phase of construction, including all work necessary to provide for the convenience & safety of the public and to facilitate the performance of the contract work as shown on the Plans, as specified in the Caltrans Standard Specifications, the Project Specifications, and as directed by the Engineer.

## **SPECIAL PROVISIONS**

The Contractor shall be paid on pro rata basis for the work done per month, and said payment shall be for providing all labor, material, equipment, devices, supervision, and all incidentals as are needed to provide traffic control as specified herein, and as may be required to complete the work.

### **4. TRAFFIC SIGNAL MODIFICATION – BROADWAY AND CENTRAL AVENUE (BID ITEM #4)**

The contract lump sum price paid for “Traffic Signal Modification – Broadway and Central Avenue” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals for all the work involved in, but not limited to, installing traffic signal poles, trenching and installing conduit, jacking and boring and installing conduit, installing and terminating conductors and cables, controller cabinet removals and installations, traffic signal controllers, vehicle detection system installations, battery back-up system installations, pull boxes, luminaires, vehicular and pedestrian heads and framework, accessible pedestrian signal systems, EVP/TSP systems, service pedestal installation and connection, removal and disposal of traffic signal equipment, and concrete foundations as specified in the Caltrans Specifications, these Special Provisions, and as shown on the project plans.

### **5. TRAFFIC SIGNAL MODIFICATION – BROADWAY AND SANTA CLARA AVENUE (BID ITEM #5)**

The contract lump sum price paid for “Traffic Signal Modification – Broadway and Santa Clara Avenue” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals for all the work involved in, but not limited to, installing traffic signal poles, trenching and installing conduit, jacking and boring and installing conduit, installing and terminating conductors and cables, controller cabinet removals and installations, traffic signal controllers, vehicle detection system installations, battery back-up system installations, pull boxes, luminaires, vehicular and pedestrian heads and framework, accessible pedestrian signal systems, EVP/TSP systems, service pedestal installation and connection, removal and disposal of traffic signal equipment, and concrete foundations as specified in the Caltrans Specifications, these Special Provisions, and as shown on the project plans.

### **6. TRAFFIC SIGNAL MODIFICATION – WEBSTER STREET AND LINCOLN AVENUE (BID ITEM #6)**

The contract lump sum price paid for “Traffic Signal Modification – Webster Street and Lincoln Avenue” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals for all the work involved in, but not limited to trenching and installing conduit, jacking and boring and installing conduit, installing and terminating conductors and cables, vehicle detection system installations, pull boxes, vehicular heads and framework, and removal and disposal of traffic signal equipment as specified in the Caltrans Specifications, these Special Provisions, and as shown on the project plans.

### **7. REMOVE AND INSTALL NEW CONCRETE CURB RAMP (BID ITEM #7)**

The contract unit price shall include all labor, materials, tools, equipment, and incidentals necessary to layout of the work, geometrical layout, remove and dispose concrete improvements (e.g., concrete curb, curb and gutter, curb ramp, or sidewalk), including, but not limited to,

## SPECIAL PROVISIONS

sawcutting, breaking and removing concrete improvements, sawcutting and removing existing asphalt concrete, and loading and transporting to a disposal or recycling facility, excavation and disposal of surplus materials, grading, subgrade preparation and compaction, furnishing, placing and compaction of aggregate base, layout and placing of formwork, furnishing and placing concrete, concrete reinforcement, furnishing and installation of dowels, finishing, curing, and protection, HMA plug and as required by the project plans and specifications, and as directed by the Engineer.

This bid item includes the removal of concrete improvements to the bottom of the existing concrete improvements. The thickness of the existing concrete improvements shall be assumed to be as shown on the City of Alameda Standard Plans for the various concrete improvements. The work required to place the improvements as shown on the plans shall be included in the various related items.

Curb ramps shall be constructed in accordance with the latest ADA requirements and accepted by the Engineer, for complete replacement of curb ramps. The area to be measured for payment for curb ramps assumes the curb ramp area as shown on the plans including flares, landing, PCC gutter pan between the outside limits of the flares on both side, HMA plug in front of the PCC gutter pan, new concrete sidewalk, and the retaining curb at the back or edge of walk, if present. Curb ramp work shall also include the detectable warning surfaces, adjustment of utility facilities that are located within the limit of the curb ramp work to grade, if needed, cutting detectable warning surface to fit existing utilities and other site constraints, if needed, relocation of street sign posts, HMA plug, and coordination with utility agencies, and replacement of any K-71 bollards or striping removed as part of construction as shown on the Plans, as specified in the Standard Construction Specifications, these specifications, and as directed by the Engineer and no additional compensation will be allowed therefor.

## 6 CONTRACT TIME AND PERMITTED WORKING HOURS

(See also General Requirements Section 5.)

### 6-1 DAYS

From the beginning of the Work, the Contractor shall not exceed forty-five (45) Working Days to complete all of the Work. The charging of working days is suspended when the Work is complete and the Engineer schedules a final inspection. After the final inspection by the Engineer and the preparation of a deficiency list (“punch list”), five working days will be allowed for the correction of deficiencies, in addition to the Contract days specified. (See General Requirements Sections 5.5 and 6-7.3 regarding Delays, and Section 6-6 regarding Acceptance of the Work.)

No Work is allowed on legal holidays.

#### 6-1.1 Holidays

Thanksgiving Day	November 27, 2025
Day After Thanksgiving Day	November 28, 2025
Christmas Day	December 25, 2025
New Year's Day	January 1, 2026
Martin Luther King, Jr.	January 19, 2026

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Presidents’ Day	February 16, 2026
Memorial Day	Monday, May 25, 2026
Juneteenth	June 19, 2026
Independence Day	July 4, 2026
Labor Day	September 7, 2026
Veteran’s Day	November 11, 2026

**6-1.2 Closure Days**

Not used

**6-1.3 Holiday Moratorium**

Not used

**6-2 HOURS**

Working hours and days shall be as follows: 8:00 A.M. to 5:00 P.M. Monday through Friday.

**6-3 SOUND CONTROL REQUIREMENTS**

Sound control shall conform to Section 4-10 of the Alameda Municipal Code, which prohibits weekday construction activities between 7:00 pm and 7:00 am.

## 7 PROJECT CLOSEOUT – SCOPE

(See also General Requirements Section 5-6.)

### 7-1 SUBSTANTIAL COMPLETION

When the Contractor considers the Work substantially complete, he shall submit to the Engineer a written notice that the Work (or designated portion of it) is substantially complete, together with a list of minor work to be completed or corrected. Within a reasonable time after receipt of this notice, the Engineer will perform an inspection to determine the actual status of completion.

If the Engineer determines that the Work is in fact not substantially complete, he will promptly notify the Contractor in writing, giving the reasons. The Contractor shall remedy the deficiencies in the Work, and send a second written notice of substantial completion to the Engineer.

The Contractor will be allowed no longer than 30 calendar days from the date of substantial completion to request that the Engineer make his final inspection.

### 7-2 COMPLETION

When the Contractor considers the Work complete, he shall submit a letter to the Engineer stating that the Contract Documents have been reviewed, and that the Work has been inspected for compliance with the Contract Documents.

Contractor's submission implies that:

1. the Contractor has, to the best of his knowledge, completed the Work in accordance with the Contractor Documents, including "punch list" items;
2. equipment and systems have been tested in the presence of the City's representatives and are operational; and
3. the Work is completed and ready for final inspection, and for certificate of occupancy by the Community Development Department.

The Engineer will perform an inspection to verify the status of completion with reasonable promptness after receipt of the Contractor's letter.

If the Engineer considers that the Work is incomplete or defective, he will promptly notify the Contractor in writing, listing the incomplete or defective work. The Contractor shall then take immediate steps to remedy the stated deficiencies, and send a second written notice indicating that the Work is complete. The City will re-inspect the Work. When the Project is determined to be acceptable under the Contract Documents, the Contractor may proceed with closeout submittals.

The Contractor may be held liable for the cost of additional inspections if the Engineer is forced to make more than two field inspections to determine whether the Project is complete.

### 7-3 CLOSEOUT SUBMITTALS

Contractor's closeout submittals include:

1. Project record documents;
2. Warranties and bonds;
3. Evidence of payment, release of liens and final wage certificates; and
4. Certificate of insurance for products and completed operations.
5. Final Waste Management Report via <http://alameda.wastetracking.com/>, including all weight tickets/receipts.

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Final payment and/or release of the retainer will be withheld until all closeout submittals have been received and approved by the City.

## 8 PROJECT MEETINGS

In order to effectively manage the construction process, the City requires that certain meetings be held during the course of the Work at which time all members of the construction team are expected to attend.

A pre-construction meeting will be held as soon as the City has obtained the Contractor's executed bonds and certificate of insurance. At that time, representatives of the City, the Contractor, and the Engineer will discuss in detail certain procedural aspects of the Work, including:

1. Administrative procedures for transmittals, approvals, Change Orders and similar items;
2. Review of the method of application for payment, progress payments, retention, and final payment; and
3. Review of the Contractor's construction schedule, list of proposed subcontractors, and the schedule of values.

Not less than **once every week** during the course of Work, the Contractor's superintendent, the Engineer's Project manager, and representatives from the City shall meet to discuss the progress of the Work in general. At that time, any adjustment to the progress schedule will be transmitted to the City, together with an explanation of the time saved or lost.

In addition to the meetings described above, the City reserves the right to call meetings spontaneously when it believes necessary in order to effectively manage Work on the Project, to prevent misunderstandings, or to disseminate information.

## 9 STORM WATER AND POLLUTION PREVENTION

Within five (5) business days of the date the work is to commence pursuant to the NTP the Contractor shall submit a Water Pollution Control Program (WPCP) to the City Engineer for review. The WPCP shall include appropriate erosion and sediment control measures similar to those reflected on the Construction Plans to effectively prevent the entry of soil, dirt, debris and other pollutants to storm water runoff, the storm drain system, lagoons and the bay/estuary during construction. No work in the field under this Contract may begin until the City Engineer has approved the Contractor's WPCP.

Erosion and sediment control plans/sheets shall indicate the specifications and maintenance schedules for the installation and upkeep of the erosion control mechanisms. Specifications shall be provided for the erosion control practices, perimeter protection(s), any silt fencing and fiber rolls to be used, storm drain inlet protections, stabilized construction entrance(s) and exits, site and excavation dewatering activities, vehicle tire wash area(s), vehicle and equipment servicing area(s), and the materials handling and storage area(s). These specifications should meet the same level of erosion and sediment control effectiveness established by practices identified in the San Francisco Bay Regional Water Quality Control Board's Erosion and Sediment Control Field Manual (510-622-2465), the Association of Bay Area Government's Manual of Standards for Erosion and Sediment Control (510-464-7900) and/or the California Stormwater Quality Association's Stormwater Best Management Practice Handbook – Construction (2009) ([www.cabmphandbooks.com](http://www.cabmphandbooks.com)). Contact City Public Works Department Clean Water Program Specialist Jim Barse (510-747-7930) for additional assistance in obtaining copies of these reference documents.

The Contractor is responsible for ensuring that all of his/her workers and subcontractors are aware of and implement the specific stormwater quality control measures under the approved WPCP. The Contractor(s) shall avoid creating excess dust when breaking asphalt/concrete and during excavation and grading. If water is to be used as a measure for dust control, use as little as possible. All wash water shall be kept out of streets, gutters and storm drains. Controls shall be implemented before construction begins and maintained until the end of construction at which time they shall be removed.

Failure to comply with the following approved construction Best Management Practices ("BMPs") shall result in the issuance of correction notices, citations and/or a project stop order:

1. Gather all construction debris on a regular basis and place it in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution. After breaking old pavement, remove all pieces to avoid contact with rainfall or runoff.
2. Remove on-site piles from the site on a regular basis. Only temporary storage is allowed. All temporary soil or other stockpiles on site shall be securely covered with a tarp, plastic sheeting or similar material.
3. Remove all dirt/mud, gravel, rubbish, refuse and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site daily and prior to rain. Clean up leaks, drips and spills immediately. Avoid unnecessary driving on unpaved areas during wet weather.

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4. Install and maintain stabilized construction entrances to minimize the tracking of dirt, mud, dust and debris onto the public right-of-way.
5. Broom-sweep the sidewalk and public street pavement adjoining the project site daily and prior to rain. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the completion of work the street shall be washed and the wash water collected and disposed offsite.
6. Install filter materials (such as block and gravel bags, sandbags, filter fabric) at the storm drain inlets surrounding the project site. Such inlet protections shall be installed before: the start of the rainy season (October 1<sup>st</sup>), site de-watering activities, saw-cutting activities, or any other activity that may result in the discharge of material to the storm drain. Filter materials shall be maintained and/or replaced as necessary to minimize short-cutting and to remove sediment deposits and buildup. Accumulated sediment/debris shall be disposed of properly.
7. Vacuum saw-cutting slurry and remove from site. Do not allow saw-cut slurry to enter the storm water conveyance system.
8. Create a contained and covered area on the site for the storage of cement bags, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by wind, exposure to rainfall or in the event of a material spill.
9. Never clean machinery, tools, brushes, etc. or rinse containers into a street, gutter, storm drain or stream. See the *Building Maintenance and Remodeling* BMP flyer and ACCWP BMP brochures for more information. Contact the Public Works Department at 747-7930 for assistance with obtaining these documents.
10. Ensure that concrete/gunite supply trucks or concrete/plaster finishing operations do not discharge wash water into street gutters or drains. Concrete trucks shall have a self-contained washout system or discharge to a dedicated, secure site washout in order to avoid the possibility of debris on city streets or discharge of wash water to the storm water conveyance system.
11. Minimize removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Re-plant the area, and stabilize all cut and fill slopes as soon as possible after grading is completed. At a minimum, 4,000 pounds/acre of straw with tackifier should be placed on all exposed soils including those within active work areas and flat lots. **No site grading shall occur between October 1 and May 31 unless approved erosion and sedimentation control measures are in place.**
12. Provide erosion “prevention” and perimeter protection measures (soil stabilization) such as fiber rolls, silt fence, and/or sediment traps or basins. Ensure control measures are adequately maintained and in operable condition. Sediment controls, including inlet protection, are necessary but should be a secondary defense behind good erosion control and site perimeter measures.
13. Design site de-watering operations to prevent the discharge of any sediment, debris or other pollutants to the municipal storm water conveyance system.
14. Maintain and if necessary, repair, all erosion prevention and sediment control measures throughout the contract term. Replacement supplies should be kept on site. Site inspections shall be conducted before and after each storm event, and every 24 hours for extended storm events, to identify areas that contribute to erosion and sediment problems or any other pollutant discharges. If additional measures are needed, inform the City Engineer immediately and document all inspection findings and actions taken.

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15. Conduct visual observations before, during, and after storm events. Any breach, malfunction, leakage, or spill observed that could result in the discharge of pollutants to surface waters that might not be visually detectable in stormwater shall trigger the collection of a sample of discharge. The following procedures shall be followed during sampling:

### Sampling Procedures:

- For all construction activity, identify a sampling and analysis strategy and sampling schedule for potential discharges discovered through visual monitoring.
  - Any breach, malfunction, leakage, or spill observed during visual monitoring which could result in the discharge of pollutants to surface waters that would not be visually detectable in stormwater shall trigger the collection of a sample of discharge.
  - Samples shall be collected at all discharge locations which drain the areas identified by the visual observations and which can be safely accessed.
  - Personnel trained in water quality sampling procedures shall collect stormwater samples.
  - An uncontaminated sample shall be collected for comparison with the discharge sample.
  - Sampling shall be conducted during the first two hours of discharge from rain events that occur during daylight hours and which generate runoff.
  - The uncontaminated sample shall be compared to the samples of discharge using field analysis or through laboratory analysis. Analyses may include, but are not limited to indicator parameters such as: pH, specific conductance, dissolved oxygen, conductivity, salinity, and TDS
  - All field and/or analytical data shall be kept in the SWPPP document, which is to remain at the construction site at all times.
16. Contact the City of Alameda Public Works Department at 510-747-7930 in the event of any slope failure, sediment pond overflow, or any other malfunction resulting in sediment-laden runoff. The City shall, in turn, report such incidents to the Regional Water Quality Control Board.
  17. Clearly mark with the words, “No Dumping! Drains to Bay” or the equivalent, using methods approved by the City of Alameda, onto the on-site storm drain inlets. All on-site storm drains must be inspected and, if necessary, cleaned, at least once a year immediately prior to the rainy season. Additional cleaning may be required by the City of Alameda
  18. Require all concrete trucks used in the performance of the work to have a self-contained washout system, rather than do washout on the site. The idea is to avoid:
    - An undesirable pile of concrete on the jobsite, and
    - The possibility of debris on city streets.

The objective of these Standard Conditions is to ensure that the City’s municipal storm water Permit, the National Pollutant Discharge Elimination System (NPDES) Permit provisions and additional Regional Water Quality Control Board requirements are adequately enforced.

These recommendations are intended to be used in conjunction with the State's Best Management Practices Municipal and Construction Handbooks, local program guidance materials from municipalities, Section 7.1.01, of the Standard Specifications and any other appropriate documents on storm water quality controls for construction. If you need assistance in checking these documents, contact Clean Water Program Specialist at 510-747-7930.

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Failure to comply with the above program will result in issuance of noncompliance notices, citations, project stop orders or fines. The fine for noncompliance of the above program is two hundred and fifty dollars (\$250.00) per occurrence per day. The State under the Federal Clean Water Act can also impose a fine on the Contractor.

Full compensation for storm water pollution prevention is included in the prices paid for as part of Bid Item 2 “Water Pollution Control” and no additional payment will be made.

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# 10 CONSTRUCTION WASTE MANAGEMENT

## 10-1 SUMMARY

Section specifies diversion of construction debris from landfill.

## 10-2 SYSTEM DESCRIPTION

Performance Requirements: Divert a minimum of 65% of construction and demolition waste from landfill and 95% of all concrete and asphalt. Provide containers at each construction site for the deposit of solid waste, recyclable materials, and organic materials by the employees or workers engaged in such construction.

## 10-3 QUALITY ASSURANCE

The Contractor shall comply with City's Municipal Code Section 13-10: Alameda Green Building Standards and Section 21-24: Waste Management Plans.

The Contractor shall obtain approval of the Waste Management Plan from the City Environmental Services Division before beginning on-site mobilization.

**Attachment B** contains a suggested list of facilities that accept construction and demolition (C&D) waste materials.

## 10-4 SITE MANAGEMENT PLAN – NOT USED

## 10-5 WASTE MANAGEMENT PLAN (WMP)

The Contractor shall submit, as part of the Initial Project Submittal Package (outlined in Section 18) and prior to construction begins, a waste management plan for review and approval demonstrating how the project will achieve the City of Alameda's diversion requirements for construction waste. Projects deemed noncompliant shall be subject to fines and penalties.

The waste management plan can be completed by creating an account and submitting a plan via <http://alameda.wastetracking.com>. The waste management plan shall include:

- a. The estimated volume or weight of C&D debris, by materials type, to be generated;
- b. The maximum volume or weight of such materials that can feasibly be diverted via reuse or recycling;
- c. The vendor or facility that the C&D Applicant proposes to use to collect or receive that material; and
- d. The estimated volume or weight of C&D materials that will be sent to a disposal site.

Once submitted, the City Environmental Services Division will review and approve if the conditions have been met and the waste management plan demonstrates how the project intends to achieve a 95% recycling rate for asphalt and concrete and 65% for all other construction and demolition debris.

**SPECIAL PROVISIONS**

**11 INTEGRATED PEST MANAGEMENT POLICY – NOT USED**

**SPECIAL PROVISIONS**

**12 LINES AND GRADES**

(See also General Requirements Section 3-5.)

All Work shall be performed under the direction of a licensed land surveyor. The land surveyor must ensure that all improvements are constructed according to the dimensions shown on the Plans. All stakes and marks desired by the Contractor shall be furnished and placed by the surveyor hired by the Contractor. The staking plans will be provided once a Contractor is selected.

Full compensation for construction staking and marking shall be considered included in other Bid Items and no additional payment will be made.

**13 CONCURRENT ACTIVITIES**

The City reserves the right to perform Work related to the Project with its own or contract forces, and to award separate contracts in connection with other portions of the Project or other Work on the site under these or similar conditions of the Contract. If the Contractor claims that delay or additional cost is involved because of such action by the City, the Contractor shall make such claim as provided elsewhere in the Contract Documents.

## SPECIAL PROVISIONS

### 14 SIGNS AND NOTICES

#### 14-1 GENERAL

Contractor shall post and maintain all notices, signs, and other safeguards required by law or ordinance. No other signs or advertisements shall be installed on the premises except as authorized by the Engineer.

#### 14-2 NO PARKING SIGNS

All “No Parking” signs shall be provided by the City of Alameda at cost of sign to the Contractor. Contractor shall be responsible for posting “No Parking-Tow Away” signs seventy-two (72) hours prior to commencement of construction. For any work scheduled on a Monday, “No Parking” signs must be placed by the end of the day the prior Thursday. Contractor must use City provided “No Parking” signs. No Parking signs must show the day, date, and times of restricted parking, e.g. Monday, 6/20, 7:00 AM-5:00 PM.

Signs shall be secured on barricades and placed at intervals no greater than 250’. The Contractor shall remove signs and barricades at the end of each day they expire.

Signs shall be posted only when work is being performed by the Contractor at the posted locations. No Parking signs shall display a date range no longer than 2 weeks at any given time. A revision in date range requires re-posting.

Contractor shall maintain all “No Parking” signs throughout the entire duration of work.

#### 14-3 PUBLIC NOTIFICATION

##### 14-3.1 General

The Contractor shall be required to notify and cooperate with the public, local businesses, transit companies, local law enforcement agencies, local fire districts, local utilities providers, refuse collectors, schools, and any other persons or agencies which may be affected by this project at least two (2) weeks prior to construction. Other notifications may be required during project construction as outlined below.

Notifications shall be provided by the Contractor relating to, but not limited to, the following items:

- General information
- Traffic delays and alternate routes
- Street Closures
- Tree removals and/or trimming
- Driveway closures
- Water service interruptions
- Temporary relocation of bus stops
- Adjustment of utilities
- Waste pick-up

##### 14-3.2 Notifications to Residents

Before Contractor begins any stage of work, all residents and any business that is accessed by roadways within the project limits and all properties within 500 feet of the work shall be notified in writing, at least fourteen (14) days in advance. This notification will provide general information about the current stage of the project, approximate range of dates on when construction for that phase will take place, time of work, Contractor’s name and phone number and any other

## SPECIAL PROVISIONS

pertinent information for residents (see attached example). The Contractor shall provide the Engineer a copy of the proposed written notification for review seventy-two (72) hours prior to delivery.

The Contractor shall deliver notifications as described above for each stage of construction.

Contractor shall provide written notification to residents directly impacted by work occurring adjacent to their property seven (7) days in advance of said work. Contractor shall coordinate with residents in providing access during and after working hours.

The Contractor is responsible for delivering City approved door hangers prior to grinding and paving operations. Door hangers will require dates, times and other pertinent information regarding the project to be filled in by the Contractor and as directed by the Engineer. The Contractor is responsible for providing a phone number on the notice that can be reached after hours and on weekends by residents and businesses to answer their concerns.

Door hanger notifications to affected residents and businesses for this project will be delivered a minimum of 72-hours prior to paving operations.

The Contractor shall maintain an updated and chronological record at the job site of all written notifications along with a list of recipients. Such records shall be made available upon request of the Engineer.

If paving operations are postponed or cancelled with no work in the proposed area for more than seven (7) calendar days, the Contractor shall re-notify the affected residents and businesses with the City approved door hanger a minimum of two (2) working days prior to the start of the work.

Failure to comply with the notification requirement will result in a Stop Work order. The Contractor shall maintain an updated and chronological record at the job site of all written notifications along with a list of recipients. Such records shall be made available upon request of the Engineer.

No work shall take place prior to the required notification, re-notification, or coordination work with affected parties.

In order to minimize disturbances to residents and public the Contractor shall:

2. Sequence the utility and street reconstruction such that detours can be provided to all businesses affected by the project. Road closure and traffic control signage shall include wayfinding signs to parking and access points to affected businesses during business hours.
3. Preserve and protect the existing active utility systems during construction until all utility services are cut-over to the new utilities.
4. Pothole existing utilities in areas of new utility installation 14 days in advance of work in that area. Provide results to City to confirm which utilities are abandoned or active.
5. Schedule utility service cut-overs with City to ensure proper modifications are provided to the affected businesses. Complete utility service cut-overs in a way such that service disruptions are minimized.
6. For trenching in areas under traffic control, backfill and resurface failed area locations the same working day as the start of break out.
7. Resurface planed AC areas within three (3) working days from the day the areas were planned. The streets shall be swept, repeatedly if necessary, to minimize loose material.

## **SPECIAL PROVISIONS**

### **14-4 UTILITY/PUBLIC SERVICE NOTIFICATION**

The Contractor shall provide seven (7) calendar days advance notice of construction work (including activity schedules) to the Alameda Police Department, Alameda Fire Department, to the U.S. Postal Service offices, AC Transit Bus Service and others as required by the Contract Documents. Emergency access in the project area shall be maintained at all times. A copy of such notice shall be submitted to the City's Engineering Division.

Prior to any paving work or other work requiring the adjustment of utility facilities, it shall be the Contractor's responsibility to notify utility providers a minimum of seven (7) calendar days in advance of work. A copy of the notification must be sent to the Engineer at the same time.

## **SPECIAL PROVISIONS**

### **15 LICENSE, FEES, AND PERMITS**

(See also General Requirements, Section 7-4, 7-5.)

#### **15-1 CITY PLAN CHECK AND BUILDING PERMIT FEES**

The City will pay plan check fees and building permit fees required for operations under this Contract. The following permits have been obtained but must be assigned to and picked up by Contractor from the City Permit Center, 2263 Santa Clara Avenue, Alameda.

- a) Electrical Permit

#### **15-2 CITY BUSINESS LICENSE**

Contractor must obtain and pay for a City of Alameda business license. A copy of the business license shall be submitted to Engineer for verification.

#### **15-3 INSPECTIONS**

Contractor shall arrange for and be present at all inspections.

## 16 DUST CONTROL

### 16-1 GENERAL

To prevent surface and air movement of dust from disturbed soil surfaces that may cause off-site damage, health hazards, and traffic safety problems. In addition to the provisions below, Contractor must comply with provisions in the Site Management Plan.

### 16-2 CONDITIONS WHERE PRACTICE APPLIES

On construction roads, access points, and other disturbed areas subject to surface dust movement and dust blowing where off-site damage may occur if dust is not controlled.

### 16-3 DESIGN CRITERIA

Construction operations should be scheduled to minimize the amount of area disturbed at one time. Buffer areas of vegetation should be left where practical. Temporary or permanent stabilization measures shall be installed. No specific design criteria are given; see construction specifications below for common methods of dust control. Water quality must be considered when materials are selected for dust control.

### 16-4 CONSTRUCTION SPECIFICATION

#### 16-4.1 Non-Driving Areas

These areas use products and materials applied or placed on soil surfaces to prevent airborne migration of soil particles.

1. Vegetative Cover – For disturbed areas not subject to traffic, vegetation provides the most practical method of dust control.
2. Mulch (including gravel mulch) – Mulch offers a fast, effective means of controlling dust. This can also include rolled erosion control blankets.
3. Spray Adhesives - These are products generally composed of polymers in a liquid or solid form that are mixed with water to form an emulsion that is sprayed on the soil surface with typical hydro seeding equipment. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations for the specific soils on the site. In no case should the application of these adhesives be made on wet soils or if there is a probability of precipitation within 48 hours of its proposed use.

#### 16-4.2 Driving Area

These areas utilize water, polymer emulsions, and barriers to prevent dust movement from the traffic surface into the air.

1. Sprinkling – The site may be sprayed with water until the surface is wet. This is especially effective on haul roads and access routes.
2. Polymer Additives – These polymers are mixed with water and applied to the driving surface by a water truck with gravity feed drip bar, spray bar or automated distributor truck. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations. The prepared surface shall be moist and no application of the polymer will be made if there is a probability of precipitation within 48 hours of its proposed use.
3. Barriers – Woven geotextiles can be placed on the driving surface to effectively reduce dust throw and particle migration on haul roads. Stone can also be used for construction roads for effective dust control.

## **SPECIAL PROVISIONS**

4. Windbreak – A silt fence or similar barrier can control air currents at intervals equal to ten times the barrier height. Preserve existing wind barrier vegetation as much as practical.

### **16-5 MAINTENANCE**

Maintain dust control measures through dry weather periods until all disturbed areas are stabilized.

**SPECIAL PROVISIONS**

**17 TEMPORARY FACILITIES**

**17-1 SCOPE**

The General Contractor shall be responsible to provide all temporary job site facilities, project identification signs, and services as required for use including, but not limited to, the articles listed below. The Contractor shall superintend and coordinate temporary facilities and signage normally furnished and maintained as part of Contractor's work. Remove all temporary facilities upon completion of project.

**17-2 SANITARY FACILITIES**

Provide and maintain sanitary facilities for employees and subcontractor's employees that comply with the regulations of the local and State Departments of Health.

**17-3 UTILITIES**

**17-3.1 Water**

Provide temporary water services including connections and maintenance. Pay all costs of temporary and permanent drinking and other water services during construction period.

**17-3.2 Electricity**

Arrange for electrical power use during the construction period until substantial completion and pay all costs. Make and maintain all connections, furnish wiring, conduit, lamps, and related equipment necessary to complete the work.

## **18 SUBMITTALS**

### **18-1 INITIAL PROJECT SUBMITTAL PACKAGE**

The Contractor shall submit the Initial Project Submittal Package to the City Engineer for review prior to the pre-construction meeting. The Initial Project Submittal Package shall address the entire project, and shall include, but is not limited to, the Traffic Control Plan (first 20 working days at minimum), Logistics Plan, SWPPP, HSP, Waste Management Plan, Web-Based Plan and document management (Procore or approved equivalent) and the full project schedule. Contractor shall not commence work in the field until Engineer has approved the Initial Project Submittal Package.

### **18-2 THREE WEEK LOOK AHEAD SCHEDULE**

The Contractor shall submit a three week look-ahead work schedule every Monday and upon the issuance of any change order that alters the contract's schedule. Engineer shall have ten (10) working days to respond to the updated work schedule, and Contractor shall abide by most recently approved schedule until a new one has been approved in writing by the Engineer.

### **18-3 TRAFFIC CONTROL PLANS**

The Contractor shall submit additions to the Traffic Control Plan ten (10) working days in advance of any work that was not covered by the Traffic Control Plan submitted in the Initial Project Submittal Package. Traffic Control Plans for any work in Phase 2 areas shall be submitted 60 days in advance of any work in these areas.

### **18-4 MATERIAL SUBMITTALS**

The Contractor shall provide all material submittals to the Engineer for review through the web-based project document platform. The Engineer will review all materials submittals and either approves or returns for revisions within five (5) working days, unless he notifies the Contractor of concerns that require additional time to resolve.

### **18-5 SHOP DRAWINGS**

Shop and erection drawing submittals, where required, shall be furnished to the Engineer through the web-based project document platform as specified in each material specification section of the project specifications. The Engineer will review all shop drawing submittals and either approves or returns for revisions within five (5) working days, unless he notifies the Contractor of concerns that require additional time to resolve.

### **18-6 CLOSEOUT SUBMITTALS**

See Special Provisions Section 7-3.

### **18-7 RECORD DOCUMENTS**

See Special Provisions Section 21

**19 ASSIGNMENT**

**19-1 GENERAL**

The City and the Contractor each binds himself, his partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of such other party in respect to all covenants, agreements and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any moneys due or to become due to him hereunder, without the previous written consent of the City.

A consolidation or merger of Contractor or a change in ownership of twenty-five percent (25%) or more of Contractor's capital stock shall constitute an assignment by Contractor requiring the written consent of City.

## 20 UTILITIES

### 20-1 GENERAL

Nothing in these specifications must be deemed to require the City to indicate the presence of existing service laterals or appurtenances when the presence of such utilities on the project site can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the Site. Where underground mains distribution conduits such as water, gas, sewer, electric power, telephone, or cable television are shown on the plans, the contractor shall assume that every property parcel will be served by a service connection for each type of utility. The Contractor shall adhere to all rules, regulations, and laws outlined in the Underground Service Alert (USA) North manual.

### 20-2 LOCATION

Unless specified otherwise as previously potholed, elevations shown on the plans for existing utilities are based on a search of record information available during design only and are solely for your convenience. The City does not guarantee the accuracy of the elevations or locations.

The City does not warrant the accuracy or completeness of the location and type of existing utilities and substructures shown on the plans. The Contractor is responsible to accurately locate, by potholing or other suitable methods, all existing utilities such as service connections and substructures as shown on the plans and marked out by Underground Service Alert (USA), to prevent damage to such facilities and to identify any conflicts with the proposed work.

The Contractor must fill all potholes on the same day of excavation, and, if no trenching is performed within 10 working days, fully restore all potholes and any damaged surrounding areas to their original condition unless otherwise allowed by the Engineer.

The Contractor must notify the Engineer, in writing, of any conflicts between existing utilities and the proposed work in advance of the work to provide adequate time, and space for any changes to the work needed to avoid conflicts. The Contractor must perform utility location far enough in advance of the Work to provide the written notification.

The Contractor's written notification must include; date of utility location, method of utility location, type, size, and material of utility, horizontal location (to the nearest Station), depth for existing pavement or ground surface to top and bottom of utility, suspected ownership of utility, and the date on which any conflict with the utility will impact the project.

Contractor shall coordinate with utility owners on horizontal, vertical, and depth of cover of all utilities. The Contractor shall notify the city immediately if:

1' vertical or horizontal separation as measured from outside pipe wall to outside pipe wall between underground facilities cannot be maintained.

3' or more cover over top of underground facilities cannot be maintained.

### 20-3 PROTECTION

The Contractor shall not interrupt the service function or disturb the support of any utility without the authority from the utility owner. Valves, switches, vaults, and meters shall be maintained readily accessible for emergency shutoff. The Contractor shall immediately notify the Engineer and the utility owner if any utility is disturbed or damaged.

## **SPECIAL PROVISIONS**

### **20-4 RELOCATION**

When the construction requires that the Contractor alter, relocate, or reconstruct a utility, temporary or permanent relocation or alteration of indicated utilities will be the Contractor's responsibility for which the Contractor must make all arrangements.

## 21 PROJECT RECORD DOCUMENTS

Project records documents are the Engineer's construction documents for the project that have been modified by the Engineer, Architect or Contractor to show the actual conditions of in-place construction installed by the Contractor as accurately as possible. They include but are not limited to:

- Drawings marked where required to show changes in dimension or configuration between the original design and final construction;
- Specifications marked to indicate changes of materials, products, or methods of installation;
- Modifications to drawings or specifications issued during the course of construction (including addenda, change orders, or clarifications issued by the Design Professional or their consultants);
- Approved shop drawings and product data; and
- Field test records and reports.

The Contractor shall prepare record documents as the work progresses. Do not conceal in-place construction until field verifications are made for record purposes.

Locate internal utilities and concealed in the construction, referenced to visible and accessible features of the structure. Note field changes of dimension and detail, and changes made by change order. Sketch details not on the original drawings.

For Specifications and Addenda, legibly mark each section to record the manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed. Note changes made by Change Order.

Submit an electronic copy (i.e.; PDF format) and not less than two full sized hard copy sets of project record documents, and marked up plans to the City at the end of the Work, before final payment is made.

**22 LIMITATION OF DESIGN PROFESSIONAL'S RESPONSIBILITY**

The Architect/Engineer will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work, and he will not be responsible for the Contractor's failure to carry out the work in accordance with the contract documents. The Architect/Engineer will not be responsible for or have control or charge over the acts or omissions of the Contractor, subcontractors, or any of their agents or employees, or any other persons performing any of the work.

# **TECHNICAL SPECIFICATIONS**

**Traffic Signal Upgrades Project**

**Public Works (PW) No. 07-24-18**

**City of Alameda, California**

The Technical Specifications contained herein have been prepared by or under the direction of the following registered person(s) (per the Professional Engineers Act § 6735 of the California Business and Professions Code).



9/25/2025

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MATTHEW W. WAGES  
REGISTERED CIVIL ENGINEER

# TECHNICAL SPECIFICATIONS

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## **1. MOBILIZATION (BID ITEM #1)**

Mobilization and Demobilization shall conform to the provisions in Section 9-1.16D “Mobilization” of the Caltrans Standard Specifications and shall consist of preparatory work that must be performed, or costs incurred before starting work on the various contract items (CA Public Contract Code § 10104) including, but not limited to, those necessary for the movement of personnel, equipment, supplies incidental to the project site, for the establishment of all field offices, staging areas and other facilities necessary for work on the project and for all other work and operations which shall be performed or for project costs incurred prior to beginning work on the various contract items. Additionally, Mobilization and Demobilization includes the following items:

1. Provide and maintain on-site sanitary facilities;
2. Arrange for and set up Contractor’s staging area(s) in accordance with the Water Pollution Control Plans and the Technical Specifications;
3. Post and maintain all required federal, state and local notices and establishment of safety programs;
4. Post and maintain all prevailing wage requirements;
5. Prepare and transmit the submittals in accordance with Section 5-1.23 “Submittals” of the Caltrans Standard Specifications;
6. Obtain and submit Certificates of Compliance;
7. Wash and clean equipment prior to bringing equipment on site as outlined in the Water Pollution Control Plan and as required by the City, County, and Caltrans;
8. Obtaining and furnishing bonds, insurance, licenses and permits;
9. Furnishing temporary construction utilities;
10. Preparation and maintenance of Traffic Control Plans; and
11. Removing and disposing of all temporary facilities not required to be left in place by the project’s Water Pollution Control Plans.
12. Final cleaning and restoration of the job site, removal of all temporary facilities and equipment from the work area, disconnection of the temporary construction utilities and turnover of the project to the City.

## **2. WATER POLLUTION CONTROL (BID ITEM #2)**

The Contractor shall be responsible for implementing and managing these systems during the life of the project. The Water Pollution Control Program (WPCP) shall conform to all applicable requirements in Section 13-2, “Water Pollution Control”, of the Caltrans State Standard Specifications.

The Contractor shall know and fully comply with applicable provisions of Federal, State, and local regulations and requirements that govern the Contractor's operations and storm water and non-storm water discharges from both the project site and areas of disturbance outside the project limits during construction. Attention is directed to Sections 7-1.02, "Laws", and 7-1.05, "Indemnification", of the Standard Specifications.

Water pollution control requirements shall apply to storm water and non-storm water discharges from areas outside the project site which are directly related to construction activities for this contract including, but not limited to, staging areas, storage yards and access roads. The

Contractor shall comply with project requirements for those areas and shall implement, inspect and maintain the required water pollution control practices. Installing, inspecting and maintaining water pollution control practices on areas outside the project limits not specifically arranged and provided for by the City for the execution of this contract, will not be paid for.

The Contractor shall be responsible for penalties assessed or levied on the Contractor or the City as a result of the Contractor's failure to comply with the provisions in this section "Water Pollution Control" including, but not limited to, compliance with the applicable provisions of the Manuals, and Federal, State and local regulations and requirements as set forth therein.

Penalties as used in this section shall include fines, penalties and damages, whether proposed, assessed, or levied against the City or the Contractor, including those levied under the Federal Clean Water Act and the State Porter-Cologne Water Quality Control Act, by governmental agencies or as a result of citizen suits. Penalties shall also include payments made or costs incurred in settlement for alleged violations of the Manuals, or applicable laws, regulations, or requirements. Costs incurred could include sums spent instead of penalties, in mitigation or to remediate or correct violations.

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

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

When a regulatory agency identifies a failure to comply with the Manuals, or other Federal, State or local requirements, the City may retain money due the Contractor, subject to the following:

The City will give the Contractor seventy-two (72) hours' notice of the City's intention to retain funds from partial payments which may become due to the Contractor prior to acceptance of the contract. Retention of funds from payments made after acceptance of the contract may be made without prior notice to the Contractor.

During the first progress payment period after that the Contractor fails to conform to the provisions in this section, "Water Pollution Control", the City may retain an amount equal to twenty-five percent (25%) of the estimated value of all contract work performed on the entire contract.

The Contractor shall notify the Engineer immediately upon request from the regulatory agencies to enter, inspect, sample, monitor, or otherwise access the project site or the Contractor's records

pertaining to water pollution control work. The Contractor and the City shall provide copies of correspondence, notices of violations, enforcement actions or proposed fines by regulatory agencies to the requesting regulatory agency.

As part of the water pollution control work, a Water Pollution Control Program (WPCP) is required for this contract. The WPCP shall conform to the provisions in Section 13, "Water Pollution Control", of the Standard Specifications, the project requirements, and these Technical Specifications. Upon the Engineer's approval of the WPCP, the WPCP shall be considered to fulfill the provisions in Section 13, "Water Pollution Control", of the Standard Specifications for development and submittal of a Water Pollution Control Program.

No work having potential to cause water pollution shall be performed until the WPCP has been approved by the Engineer. Approval shall not constitute a finding that the WPCP complies with applicable requirements of the Manuals and applicable Federal, State and local laws, regulations, and requirements.

The Contractor shall designate a Water Pollution Control Manager. The Water Pollution Control Manager shall be responsible for the preparation of the WPCP and required modifications or amendments and shall be responsible for the implementation and adequate functioning of the various water pollution control practices employed. The Contractor may designate different Water Pollution Control Managers to prepare the WPCP and to implement the water pollution control practices. The Water Pollution Control Managers shall serve as the primary contact for issues related to the WPCP or its implementation. The Contractor shall assure that the Water Pollution Control Manager(s) have adequate training and qualifications necessary to prepare the WPCP, implement and maintain water pollution control practices, as described in Section 13, "Water Pollution Control", of the Standard Specifications.

Within five (5) working days after the execution of the contract, the Contractor shall submit two (2) copies of the draft WPCP to the Engineer. The Engineer will have five (5) working days to review the WPCP. If revisions are required, as determined by the Engineer, the Contractor shall revise and resubmit the WPCP within five (5) working days of receipt of the Engineer's comments. The Engineer will have five (5) working days to review the revisions. Upon the Engineer's approval of the WPCP, one (1) approved copy of the WPCP, incorporating the required changes, shall be submitted to the Engineer. To allow construction activities to proceed, the Engineer may conditionally approve the WPCP while minor revisions are being completed.

The Contractor shall develop a Water Pollution Control Schedule that describes the timing of grading or other work activities that could affect water pollution. The Water Pollution Control Schedule shall be updated by the Contractor to reflect changes in the Contractor's operations that would affect the necessary implementation of water pollution control practices.

The Contractor shall prepare an amendment to the WPCP when there is a change in construction activities or operations which may affect the discharge of pollutants to surface waters, ground waters, municipal storm drain systems, or when the Contractor's activities or operations violate Federal, State or local regulations, or when directed by the Engineer. Amendments shall identify additional water pollution control practices or revised operations, including those areas or operations not identified in the initially approved WPCP. Amendments to the WPCP shall be

prepared and submitted for review and approval within a time approved by the Engineer, but in no case longer than the time specified for the initial submittal and review of the WPCP.

The Contractor shall keep one copy of the approved WPCP and approved amendments at the project site. The WPCP shall be made available upon request by a representative of the Regional Water Quality Control Board, State Water Resources Control Board, United States Environmental Protection Agency, or the local storm water management agency. Requests by the public shall be directed to the Engineer.

No adjustment in compensation will be made for ordered changes to correct WPCP work resulting from the Contractor's own operations or from the Contractor's negligence.

If requested by the Contractor and approved by the Engineer, changes to the water pollution control program, including addition of new water pollution control practices, will be allowed. Changes shall be included in the approved amendment of the WPCP. If the requested changes result in a net cost increase to the lump sum price for water pollution control, an adjustment in compensation will be made without change to the water pollution control item. The net cost increase to the water pollution control item will be paid for as extra work as provided in Section 4-1.05, "Changes and Extra Work", of the Standard Specifications.

The Contractor shall submit a Water Pollution Control Program (WPCP) to address the storm drain and various improvements to the Engineer for approval. The WPCP shall conform to the requirements of the City of Alameda and these Technical Specifications.

Unless otherwise specified, upon approval of the WPCP, the Contractor shall be responsible throughout the duration of the project for installing, constructing, inspecting, maintaining, removing, and disposing of the water pollution control practices specified in the WPCP and in the amendments. Unless otherwise directed by the Engineer, the Contractor's responsibility for WPCP implementation shall continue throughout any temporary suspension of work ordered in conformance with the provisions in Section 8-1.06, "Suspensions", of the Standard Specifications. Requirements for installation, construction, inspection, maintenance, removal, and disposal of water pollution control practices shall conform to the requirements in the Manuals and these Technical Specifications.

If the Contractor or the Engineer identifies a deficiency in the implementation of the approved WPCP or amendments, the deficiency shall be corrected immediately. The deficiency may be corrected at a later date and time if requested by the Contractor and approved by the Engineer in writing, but shall be corrected prior to the onset of precipitation. If the Contractor fails to correct the identified deficiency by the date agreed or prior to the onset of precipitation, the project shall be in nonconformance with this section. Attention is directed to Section 5-1.03, "Engineer's Authority", of the Standard Specifications, and to "Retention of Funds" of this section for possible nonconformance penalties.

If the Contractor fails to conform to the provisions of this section, "Water Pollution Control", the Engineer may order the suspension of construction operations until the project complies with the requirements of this section.

Implementation of water pollution control practices may vary by season. The Construction Site BMPs Manual and these Technical Specifications shall be followed for control practice selection of year-round, rainy season and non-rainy season water pollution control practices.

#### *Year-Round Implementation Requirements*

The Contractor shall have a year-round program for implementing, inspecting and maintaining water pollution control practices for wind erosion control, tracking control, non-storm water management, and waste management and materials pollution control.

The National Weather Service weather forecast shall be monitored and used by the Contractor on a daily basis. An alternative weather forecast proposed by the Contractor may be used if approved by the Engineer. If precipitation is predicted, the necessary water pollution control practices shall be deployed prior to the onset of the precipitation.

Disturbed soil areas shall be considered active whenever the soil disturbing activities have occurred, continue to occur or will occur during the ensuing fifteen (15) working days. Non-active areas shall be protected as prescribed in the Construction Site BMPs Manual within ten (10) working days of cessation of soil disturbing activities or prior to the onset of precipitation, whichever occurs first.

#### *Rainy Season Implementation Requirements*

Soil stabilization and sediment control practices conforming to the requirements of these Technical Specifications shall be provided throughout the rainy season, defined as between October 15th and April 15th.

An implementation schedule of required soil stabilization and sediment control practices for disturbed soil areas shall be completed no later than fifteen (15) working days prior to the beginning of each rainy season. The implementation schedule shall identify the soil stabilization and sediment control practices and the dates when the implementation will be twenty-five percent (25%), fifty percent (50%) and one hundred percent (100%) complete, respectively. For construction activities beginning during the rainy season, the Contractor shall implement applicable soil stabilization and sediment control practices.

#### *Non-Rainy Season Implementation Requirements*

The non-rainy season shall be defined as days outside the defined rainy season. The Contractor's attention is directed to the Construction Site BMPs Manual for soil stabilization and sediment control implementation requirements on disturbed soil areas during the non-rainy season. Disturbed soil areas within the project shall be protected in conformance with the requirements in the Construction Site BMPs Manual with an effective combination of soil stabilization and sediment control.

To ensure the proper implementation and functioning of water pollution control practices, the Contractor shall regularly inspect and maintain the construction site for the water pollution control practices identified in the WPCP. The construction site shall be inspected by the Contractor as follows:

- After a precipitation event which causes site runoff.
- At twenty-four (24) hour intervals during extended precipitation events.
- Routinely, a minimum of once every two (2) weeks outside of the defined rainy season.
- Routinely, a minimum of once every week during the defined rainy season.

The Contractor shall use the Caltrans Stormwater Site Inspection Report Form CEM-2030. One copy of each site inspection record shall be submitted to the Engineer within twenty-four (24) hours of completing the inspection.

If the Contractor identifies discharges into surface waters or drainage systems in a manner causing, or potentially causing, a condition of pollution, or if the project receives a written notice or order from a regulatory agency, the Contractor shall immediately inform the Engineer. The Contractor shall submit a written report to the Engineer within five (5) working days of the discharge event, notice or order. The report shall include the following information:

- The date, time, location, nature of the operation, and type of discharge, including the cause or nature of the notice or order.
- The water pollution control practices deployed before the discharge event, or prior to receiving the notice or order.
- The date of deployment and type of water pollution control practices deployed after the discharge event, or after receiving the notice or order, including additional measures installed or planned to reduce or prevent reoccurrence.
- An implementation and maintenance schedule for affected water pollution control practices.

Water pollution control work to be included in the WPCP shall include:

- Cleaning of vehicles by removing loose soil from the exterior of the equipment using brushes or brooms before leaving the Site. Keeping existing streets open to traffic free from dirt and debris at all times and be prepared to sweep surfaces immediately at the request of the Engineer should they deem it is necessary for safety of the public and to avoid damage to properties. Sweep adjacent streets as required by the Engineer.
- Implementation of erosion control measures (BMPs) after excavation and grading operations as required according to the California Stormwater Quality Association BMP Manual.
- Installation and effective maintenance of temporary inlet protection.
- Installation of temporary construction entrance.
- Use of concrete washout containment facility.
- Covering of stockpiles.
- Decontamination of construction equipment before leaving the premises.
- Covering of soil loads taken offsite to prevent soil tracking.
- Suspension of work upon wind gust in excess of 25 mph. At the discretion of the Engineer, work can resume if the types of work being performed are not generating large amounts of dust.
- Use of vacuum to immediately capture all pavement/concrete sawcut slurry/waste.
- Effectively contain all wastes

Dewatering work shall include:

- Keep all excavations, including drilled shaft foundations, reasonably free from water during construction.
- Disposal of water shall not damage property or create a public nuisance.
- Have on hand pump equipment and machinery in good working condition for emergencies and workmen available for its operation.
- Dewatering systems shall operate continuously until foundations are poured or trenches are backfilled.
- Groundwater shall be controlled to prevent softening of the bottom of excavations, or formation of “quick” conditions.
- Dewatering systems shall not remove natural soils.
- Control surface runoff to prevent entry or collection of water excavations.
- Release of groundwater shall be controlled to prevent disturbance of the natural foundation soils or compact fill.
- There shall be no discharge of turbid water on site.
- Discharge or disposal of water shall be controlled to prevent erosion
- There shall be no discharge of turbid water to any storm drain inlet or arch culvert

The Contractor shall not perform work that may cause water pollution until the WPCP has been approved by the Engineer. The Engineer's review and approval shall not waive any contract requirements and shall not relieve the Contractor from complying with Federal, State and local laws, regulations, and requirements.

### **3. TRAFFIC CONTROL (BID ITEM #3)**

Traffic Control shall conform to the provisions in Section 12 “Temporary Traffic Control” of the Caltrans Standard Specifications and shall providing all traffic control within and near the work zone throughout the project as needed for the various traffic situations and street configurations.

The Contractor is required to submit Traffic Control Plans (TCPs) for each stage of construction and receive approval by the City Engineer or designee prior to starting work on an upcoming stage. The Contractor’s TCPs shall take into consideration the roadway restrictions described below. The Contractor shall submit in writing a complete traffic control plan (1"=100' scale min. drawing) to the City Engineer or designee within ten (10) working days after the effective date of the Notice to Proceed. The traffic control plan shall include all locations, which involve all project improvements and shall indicate each stage of work, signage, flagman, detour routes, and any other pertinent information. The traffic control plan shall be reviewed and approved by the City Engineer or designee before the Contractor shall be allowed to begin work. The City of Alameda reserves the right to modify any portion of the plan.

#### **4. TRAFFIC SIGNALS & LIGHTING (BID ITEMS #4, 5, 6)**

##### **4.1 DESCRIPTION**

Intersection and traffic signal modifications are to be performed at Broadway and Central Avenue, Broadway and Santa Clara Avenue, and Webster Street and Lincoln Avenue in the City of Alameda. The work to be performed includes, but not limited to, installing new traffic signal poles and foundations, traffic signal controllers and cabinets, traffic signal equipment, pull boxes, traffic signal conduit, luminaires, conductors and cables, minor concrete, and pedestrian ramps. Traffic signal improvements and work shall conform to Division X, "Electrical Work", of the Caltrans Standard Specifications.

##### **4.2 WARRANTIES**

All warranties shall be from the date of City acceptance of the work.

The five- (5) year warranty shall apply to all traffic control equipment listed below:

- LED Pedestrian Signals
- Astro-Brac Vehicle Signal Mounting Hardware or approved equivalent
- Accessible Pedestrian Signal System
- Polara Pedestrian Push Buttons or approved equivalent

LED Red, Yellow and Green circular and arrow traffic signal modules shall be provided with a fifteen (15) year warranty period. In addition, all red, yellow, and green circular traffic signal modules, red, yellow, and green arrow traffic signal modules, and pedestrian hand/walking man modules, shall be performance warranted to be in compliance with latest ITE and CALTRANS minimum intensity standards for LED traffic signal modules, at 74 degrees centigrade, for a period of fifteen (15) years from the date of acceptance by the City. All warranty related measurements will be made at an applied voltage of 120 volts AC, within one-minute of signal module turn-on. Contractor shall provide warranty documentation to City Inspector prior to acceptance by the City.

LED Safety lighting warranty must be provided for the full replacement of the luminaire due to any failure and shall provide for the repair or replacement of defective electrical parts (including light source and power supplies/drivers) for a minimum of ten (10) years from the date of acceptance by the City. Reduction of lighting output by more than 10% of the LED package within six (6) years constitutes luminaire failure.

The respective manufacturers shall not be responsible for damage caused by negligence by others, acts of God, or use of equipment in a manner not originally intended. To obtain service under this warranty the City will deliver the control equipment to the manufacturer's designated address for repair. The manufacturer will repair and return the control equipment to the City within thirty (30) calendar days.

### **4.3 REQUIRED SUBMITTALS**

Contractor shall provide equipment submittals of all traffic signal and lighting equipment for City approval prior to installation. See below for List of Required Submittals.

#### **LIST OF REQUIRED SUBMITTALS**

1. Signal standards and poles
2. Pull boxes
3. Conduits
4. Wire and wiring
5. Signal heads
6. Signal head mountings (Astro-Brac or approved equivalent)
7. Pedestrian signals
8. Pedestrian push buttons
9. Luminaires
10. Service pedestals
11. EVP/TSP (Emergency Vehicle Preemption/Transit Signal Priority) System
12. Street name signs
13. LED (Light Emitting Diode) Traffic Signal Modules
14. Traffic control plans
15. Grounding system test results
16. Streetbond Coating

### **4.4 CITY-FURNISHED MATERIALS**

Materials and equipment for traffic signal modification will be furnished by the Contractor unless otherwise noted as City-furnished.

The City will furnish new Econolite type P-44 standard TS-2 signal cabinets, Econolite Cobalt controllers, and Econolite video detection cameras.

### **4.5 FOUNDATIONS**

Foundations shall conform to the provisions in Section 87-1.03E(3), "Concrete Pads, Foundations, and Pedestals" of the State Standard Specifications and these Special Provisions.

All anchor bolts shall be grounded and bonded to poles/standards/pedestals.

Foundations shall not be abandoned. If a foundation is deemed to no longer be necessary, the foundation shall be removed completely, and ground shall be restored to match existing adjacent surfaces.

Ground rod/electrode shall be about 10 feet in length, 5/8 of an inch in diameter and made of copper-clad steel and shall not be embedded into the controller cabinet foundation. It shall be

inserted into a sleeve through the concrete foundation into the earth. Contractor shall test the grounding system using appropriate grounding test equipment prior to signal activation. A reading of 25 ohms or less of the grounding system is desirable and acceptable. A written certification or report of this test is required to be provided by the contractor to the City. Test shall be done in the presence of the City of Alameda assigned inspector.

### **Dewatering**

Groundwater may be encountered during excavation for foundation installation. Dewatering shall conform to Section 13-4.03G, "Dewatering", of the State Standard Specifications and as amended and specified in these Special Provisions. Prior to dewatering any construction area, the Contractor must submit a Dewatering Control Plan for review by the Engineer and the plan must include (as a minimum):

- Descriptions of proposed groundwater and surface water control facilities, including, but not limited to, equipment; materials, methods; standby equipment and power supply; pollution control facilities; discharge locations to be utilized; and provisions for immediate temporary water supply as required by this section.
- Drawings showing locations, dimensions, and relationships of elements of each system.
- Design drawings of temporary support shoring
- Design calculations demonstrating adequacy of proposed dewatering systems and components.
- Disposal procedures for handling water removed from excavated areas.
- Provisions for obtaining "Discharge Authorization" from the City for water disposal.

During the execution of the Work, the Contractor must submit daily field documentation of dewatering activities on a weekly basis to the Engineer. These reports should include the basic information of the dewatering activities including:

- The location of the area dewatered.
- The volume of water dewatered.
- Where or how the water was stored or disposed.
- The known or suspected water quality.

The Contractor must:

- Provide shoring for drilled holes to stabilize soils during foundation installation and dewatering.
- Adequately control water during construction, including weekends and holidays and during periods of work stoppages, and provide adequate backup systems to maintain control of water.
- For other portions of the Project, remove and control water during periods when necessary to properly accomplish Work.
- Protect subgrades and foundation soils from softening and damage by rain or water accumulation.
- Provide, operate, and maintain dewatering systems of sufficient size and capacity to permit excavation and subsequent construction in dry and wet conditions and to lower and maintain groundwater level below the lowest point of excavation to allow suitable construction. Continuously, maintain the excavation free of water, regardless of source, and until backfilled to final grade.
- Design and Operate Dewatering Systems that:

1. Prevent loss of ground as water is removed.
2. Avoid inducing settlement or damage to existing facilities, completed Work, or adjacent property.
3. Relieve artesian pressures and resultant uplift of excavation bottom.
4. Provide sufficient redundancy in each system to keep excavation free of water in event of component failure.
5. Provide 100-percent emergency power backup with automatic startup and switchover in event of electrical power failure.
6. Provide holding tank(s).

Using measuring devices that are acceptable to the Engineer, the Contractor must monitor the volume of water pumped per calendar day from excavations, as work progresses, and monitor volume of water introduced each day into excavations for performance of the Work.

When required to dispose of dewatering water, the Contractor must:

- Obtain approval from the city prior to discharging water collected by dewatering operations.
- Treat water collected by dewatering operations by removing all solids and sediments, as required by the City, prior to discharge.
- Discharge water as authorized by the City and in a manner that will not cause erosion or flooding, or otherwise damage existing facilities, completed work, or adjacent property.
- Procure an East Bay Municipal Utility District (EBMUD) Wastewater Discharge Permit and provide a copy of the Permit to City of Alameda prior to performing discharge activities.
- Remove solids from treatment facilities and perform other maintenance of treatment facilities as necessary to maintain their efficiency.

Dewatering, including EBMUD Wastewater Discharge Permit fees, is considered as included in the lump sum prices for traffic signal modifications and no separate payment for dewatering will be allowed

#### **4.6 MARSH CRUST ORDINANCE**

Does not apply to this project.

#### **4.7 STANDARDS, POLES, PEDESTALS, AND POSTS**

Standards, poles, pedestals, and posts shall conform to the provisions in Section 56-3, “Standards, Poles, Pedestals, and Posts”, and Section 87-1.03J, “Standards, Poles, Pedestals, and Posts”, of the State Standard Specifications and as amended and specified in these Special Provisions.

The sign mounting hardware, as shown on “Detail U” of the State Revised Standard Plan RSP ES-7N, shall be installed at the locations shown on the plans.

## 4.8 PULL BOXES

Pull boxes shall conform to all applicable specifications in Section 86-1.01C(2), "Pull Boxes", 86-1.02C, "Pull Boxes", and 87-1.03C, "Installation of Pull Boxes", of the Caltrans Revised Standard Specifications and as amended and specified in this Section. Pull boxes shall be installed in accordance with State Revised Standard Plans RSP ES-8A and ES-8B.

Pull boxes shall be a minimum of No. 6 or larger unless otherwise indicated on plans and or in the Contract Documents. No. 3-1/2 pull boxes shall not be used. Pull boxes No. 6 or larger shall be equipped with lightweight polymer concrete covers. Covers shall not weigh more than 120 pounds. Covers may be constructed in two pieces to maintain a maximum weight per section of 120 pounds. All No. 6 pull boxes shall be provided with a 12" concrete pull box extension and all N48 with a 10" concrete pull box extension.

Pull boxes shall be installed at the locations shown on the plans or as directed by the City Transportation Engineer. Existing pull boxes, which are damaged by Contractor's activities, shall be replaced at no cost to the City. Pull boxes shall be installed no closer than six inches (6") to the nearest score mark on existing sidewalk. Do not install pull boxes in concrete pads, curb ramps, or driveways.

The bottoms of pull boxes shall be bedded in a minimum of six inches (6") of Coarse Aggregate 1.5 inch maximum.

Unless otherwise noted on the plans or directed by the City Transportation Engineer, all traffic signal pull box lids shall be labeled "Traffic Signal". Traffic signal pull boxes with fiber optic or communications cables shall have the pull box lids labeled "Communications" and be provided with bolt downs. AMP pull box lids shall be labeled "SERVICE".

Where the sump of an existing pull box is disturbed by the Contractor's operations, the sump shall be reconstructed.

Ground rod/electrode for pull box shall be about 10 feet in length, 5/8 of an inch in diameter and made of copper-clad steel and shall be installed in each pull box nearest to new traffic signal poles. All anchor bolts shall be bonded to the conduit located in the foundation and then to the ground rod in the nearest pull box using the necessary ground clamps and minimum 8 AWG bare copper wire, per Caltrans Standard Specifications Section 87-1.03J – Standards, Poles, Pedestals, and Posts. Contractor shall test the grounding system using appropriate grounding test equipment prior to signal activation. A reading of 25 ohms or less of the grounding system is desirable and acceptable. A written certification or report of this test is required to be provided by the contractor to the City. Test shall be done in the presence of the City of Alameda assigned inspector.

## 4.9 CONDUIT

Conduits shall conform to all applicable specifications in Section 86-1.02B, "Conduit and Accessories", and 87-1.03B, "Conduit Installation", of the Caltrans Standard Specifications and as amended and specified in this Section.

All conduits to be installed across traffic lanes shall be installed using directional boring or open trench as determined by the Contractor. The Contractor shall determine clearance depths for utility crossings prior to conduit installation. Pull boxes shall be located behind the curb or as directed by the City Transportation Engineer.

Do not begin excavation until ready to install the conduit. Place excavated material in a location that will not interfere with traffic or surface drainage. After placing the conduit, backfill the trench with the excavated material. Compact the backfill placed within the hinge points and in areas where pavement is to be constructed to a minimum relative compaction of 95 percent. Restore the sidewalks, pavement, and landscaping at a location before starting excavation at another

Conduits shall have at least 30" of cover from finished grade in all areas. All conduits shall have a mule tape installed, and a continuous No. 8 insulated solid copper wire for grounding and tracing of conduits.

The Contractor shall not use 90° elbows; only large radius 45° elbows shall be allowed.

All conduits shall be sealed with Duct-Seal after wires are installed to prevent moisture and rodents from entering the conduits. All conduit ends within pull boxes shall have bell ends installed.

All conduits entering concrete foundations shall be galvanized rigid steel covered with 10 mil pipe wrap. PVC conduits under roadways shall be Schedule 80. All other shall be Schedule 40.

All conduits shall enter pull boxes from the bottom, not horizontally or between pull boxes and extensions.

After placing the conduit, backfill the trench with the excavated material. Compact the backfill placed within the hinge points and in areas where pavement is to be constructed to a minimum relative compaction of 95 percent.

Conduits of two different materials shall not have a connection by coupler; a pull box shall be installed to transition from one to the other.

#### **4.10 WIRE AND WIRING**

Wire and Wiring shall conform to all applicable specifications in Section 86-1.02F, "Conductors and Cables", and 87-1.03F, "Conductors and Cable Installations", of the Caltrans Standard Specifications and as amended and specified in this Section.

If new conductors or cables are to be added in an existing conduit, conduit contents shall be removed, the conduit shall be cleaned and proofed using a mandrel, and both old and new conductors and cables shall be pulled in as a unit.

Signal cable shall not be used. Conductors and DLC's shall be installed as shown in the Conductor Schedule on the plans.

All conductors shall be spliced in pull boxes using "Method B" as described in the latest Caltrans Standard Specifications. Wiring for traffic signal indications or equipment shall not be daisy-chained.

All conductors shall be labeled and identified in each and every pull box. A minimum of 6 feet (3 feet up and 3 feet down) of service loop shall be provided in each pull box.

#### **4.11 TRANSIT SIGNAL PRIORITY SYSTEM**

The Contractor shall furnish and install, where shown on the Plans, Miovision Opticom Signal Priority System equipment. The system shall provide transit signal priority/emergency vehicle preemption (TSP/EVP), be compatible with AC Transit's existing TSP system, and conform to the details shown on the plans and these special provisions.

The TSP/EVP equipment furnished by this project will provide traffic signal priority to transit vehicles and preemption to emergency vehicles by altering the phasing of the traffic signals depending on the phase selection criteria. The EVP and TSP System equipment shall be installed at project intersections, as shown on plans, and shall trigger signal preemption by both optical (Infrared) and GPS based detection technologies. Optical detection equipment is not included in this project; however, system shall provide optical based TSP/EVP functionality.

The Contractor shall conduct the test in the presence of the Engineer as described below under "System Operation" during the signal test period. The Contractor shall give the Engineer a minimum of two working-days notice prior to performing the tests.

The system shall establish a priority of Class II vehicle (Emergency Vehicle) signals over Class I vehicle (Transit Vehicle) signals, and shall conform to the requirements in Section 25352, of the California Vehicle Code.

#### **GENERAL**

The EVP/TSP system shall include, but not be limited to, the following:

1. Type 3100 GPS/Radio Antenna Unit and Mounting
2. Model 764 Phase Selector
3. Auxiliary Interface Panel
4. Green Sense Harness
5. Cables/Wiring
6. All associated power cables, accessories, and components required by the manufacturer to accomplish a fully functional TSP/EVP installation.

The Contractor is responsible for proper configuration of all TSP/EVP hardware and software necessary for the TSP/EVP system to operate for its intended purpose.

Emitter assemblies are not required for this project except units for testing purposes to demonstrate that the systems perform as specified. Tests shall be conducted in the presence of the Engineer, or designated representative, as described below under "System Operation" during the signal test period. The Contractor shall provide a minimum of 2 working days notice prior to performing the tests.

Each system shall permit detection of 2 classes of authorized vehicles: Class I (mass transit) vehicles and Class II (emergency) vehicles. The system shall establish a priority of Class II vehicle signals over Class I vehicle signals and shall conform to the requirements in Section 25352 of the California Vehicle Code.

### **SYSTEM OPERATION**

The Contractor shall demonstrate that the components of each system are compatible and will perform satisfactorily as a system. Satisfactory performance shall be determined using the following test procedure during the functional test period:

1. Each intersection shall be tested using a Contractor supplied GPS emitter assembly.
2. The phase selector module(s) shall be installed in the proper input file slot of the controller assembly and all other intersection equipment shall be installed and functional.
3. Two tests shall be conducted; one using a Class I signal emitter and a distance of 300 m between the emitter and the detector, the other using a Class II signal emitter and a distance of 550 m between the emitter and the detector. Range adjustments on the module shall be set to "Maximum" for each test.
4. Each test shall be conducted for a period of one hour, during which the emitter shall be operated for 30 cycles, each consisting of a one minute "on" interval and a one minute "off" interval. During the total test period the emitter signal shall cause the proper response from the controller unit during each "on" interval and there shall be no improper operation of either the controller unit or the monitor during each "off" interval.

### **TSP Configuration**

The Contractor shall demonstrate that the components of each system are compatible and will perform satisfactorily as a system. Satisfactory performance shall be determined using the following test procedure during the functional test period:

The Contractor shall support City technicians to program local traffic signal controllers at the project intersections for TSP and operations as indicated on the project plans. The Contractor shall calibrate the detectors per the TSP parameters provided by the City. Contractor shall notify the City at least 15 working days prior to scheduled TSP controller programming so that City may supply controller timing sheets and TSP parameters to the Contractor.

Controller programming shall include, but not be limited to the following items as appropriate:

1. Assignment of low-priority calls to appropriate TSP channel.

## 2. Timing parameters

The system shall provide the following functionalities:

1. The TSP shall grant priority based on a user defined headway-based system, The system shall grant a priority if the bus is behind a user defined headway to provide priority for the designated buses, independent of vehicle direction. The headway parameter shall be user settable, by day of week and time of day. A time of day and day of week look up table shall be provided.
2. The TSP shall grant priority based on a user defined schedule-based system. The schedule parameters shall be user settable, by day of week and time of day. A time of day and day of week look up table shall be provided.
3. The TSP shall provide an early green or extension of green based on traffic signal timing parameters provided by the Engineer. The phase duration for all subsequent phases, after the early-green or extension of green, shall be reduced equally after the priority call. There shall be no back-to-back TSP activations.
4. The TSP shall be non-locking, i.e. if a bus has departed the intersection, the priority request will be dropped.
5. The TSP shall not truncate pedestrian walk or don't walk durations if activated. If the intersection is equipped with countdown timers, the countdown timers shall be blank in the absence of a pedestrian call.
6. The system shall meet all applicable MUTCD requirements.
7. The system shall be capable of maintaining a log of all TSP requests and activations, including the fields listed below, to allow AC Transit to monitor the performance of TSP operations. This information shall include the following fields (at a minimum) and be stored at each controller for a minimum of two weeks. At a minimum, this information will include the following fields:
  - a. Controller ID
  - b. Event Start Date-Time (i.e., when bus detected)
  - c. Event End Date-Time (i.e., when bus call has dropped off)
  - d. Location of bus at Event End Date-Time
  - e. Bus ID emitter Code
  - f. Bus Travel Direction
  - g. Priority Response (e.g., Priority Granted, Priority Denied)
  - h. Cycle Length
  - i. Red Duration
  - j. Early Green Duration

- k. Extended Green Duration

## **TESTING**

Prior to conditional acceptance, Contractor shall perform pre-approved tests on the TSP, to demonstrate the end-to-end functionality of the system—from detecting bus to granting TSP, and log of TSP events at controller. This testing shall be done in addition to specific tests for individual pieces of equipment. Prior to beginning of testing, the Contractor shall submit an acceptance test plan for review and approval. The test plan shall document the test procedures, including the operation and functional requirements to be verified by the tests.

Vendor representation shall be provided for all system equipment testing. The Engineer, or other Engineer approved representative, shall be present for all field tests.

### Intersection Installation Field Test

TSP operations shall test at each project intersection. Intersection test shall consist of properly detecting buses per the TSP parameters provided by the City and granting TSP response subject to pre-defined parameters (vehicle privileges and time since last TSP activation). Additionally, EVP operations shall be tested at each project intersection to confirm functionality of existing EVP systems (infrared based). The Engineer shall be present at testing to review performance of signal timing parameters. Contractor shall implement signal timing changes as needed.

The Contractor shall review ‘as constructed’ drawings and provide all that is necessary to operate and maintain the TSP and its components for the period during construction and for 12 months thereafter.

The Contractor shall adhere to the testing requirements for this project and shall allow for 30 days between substantial completion and entrance into the 12-month operational support period which exceeds and includes the warranties provided.

## **TRAINING**

The Contractor shall provide hands-on operations and maintenance training for the TSP unit and software at a location, date and time approved by the Engineer for a minimum of four (4) people. The training shall include, but not be limited to, the following:

1. Unit set up and configuration
2. Diagnostics review and demonstration
3. Performance turning (including TSP threshold parameter programming and evaluation)
4. Maintenance requirements and procedures

Training materials shall be in a syllabus.

Training is considered as included in the lump sum prices for traffic signal modifications and no separate payment for TSP training will be allowed

#### **4.12 SIGNAL HEADS**

Vehicle Signal Faces and Signal Heads, shall comply with section 86-1.02R “Signal Heads”, and section 87-1.03R “Signal Heads”, of State Standard Specifications.

All traffic signal heads shall be furnished with red, yellow, and green LED modules. The Contractor shall furnish all indications for traffic signal units.

The traffic signal housing doors, full circle visors and backplate shall all be painted black. All backplates shall have yellow reflective border. The traffic signal housing shall be painted dark green. Traffic signal heads shall be poly-carbonate housings.

#### **4.13 SIGNAL HEAD MOUNTINGS**

Signal Head Mountings, shall comply with section 86-1.02R(2) “Signal Mounting Assemblies”, and section 87-1.03R(4) “Signal Mounting Assemblies”, of State Standard Specifications, and as amended by and specified in this section.

Adjustable Astro-Brac vehicle signal mounting hardware with terminal compartments, or equivalent, shall be provided for mast arm signal heads as noted on the plans.

All signal mounting assemblies including pipe fittings, post-top slip fittings, and terminal compartments shall be cast bronze.

#### **4.14 PEDESTRIAN SIGNALS**

The Contractor shall supply and install Type A pedestrian signals. Pedestrian Signals shall conform to Section 86-1.02S, “Pedestrian Signal Heads”, and Section 87-1.03S, “Pedestrian Signal Heads” of the State Standard Specifications, and as amended by and specified in this section.

All pedestrian signals shall be furnished with a combination Portland Orange “Up-Raised Hand”, and Lunar White “Walking Man” LED’s. All pedestrian indication symbols shall be completely filled in, outlined indications shall not be allowed. LED Pedestrian indications shall also have a Portland Orange “Countdown Indication” showing the remaining Walk/Don’t Walk time. Unit shall have uniform appearance symbols that meet or exceed ITE VTCSH-LED requirements.

The pedestrian signal housing and mounting bracket shall be powder coated dark green and the pedestrian housing door and z-crate shall be powder coated black. Housing shall be poly-carbonate.

The contractor shall ensure that the pedestrian signal frameworks provided will have enough clearance from the shaft of the traffic signal pole to allow proper aiming and access to the pedestrian signal for maintenance.

#### **4.15 PEDESTRIAN PUSH BUTTONS (TACTILE)**

All new push button assemblies shall be Accessible Pedestrian Signals complying with Section 86-1.02T, "Accessible Pedestrian Signals," and 87-1.03T, "Accessible Pedestrian Signals," of the State Standard Specifications, and State Standard Plan ES-5C. Pedestrian push button signs shall be R10-3 Series (9" x 15") with appropriate push button frame adapter. Pedestrian push buttons shall be 2" ADA pushbuttons and be mounted 36" above the adjacent pavement. Pedestrian pushbutton assembly and housing shall be powder coated olive green from factory.

Pedestrian push buttons shall have the touchless option, LED indication and audible speaker on pushbutton body to indicate activation of pushbutton. Pushbutton shall be the latest Polara iNS Accessible Pedestrian Signal (APS), or City-approved equivalent.

The push button shall be a vibratory and tactile unit with a raised directional arrow and shall be as follows:

##### **Specifications for 2 Wire Accessible Pedestrian Signal (APS)**

The Audible-Tactile Pedestrian Signal System shall consist of all electronic control equipment, mounting hardware, push buttons and signs, which are designed to provide both a push button with a raised vibrating tactile arrow on the button, along with a variety of audible sounds for different pedestrian signal functions.

Substantiating documentation for meeting ISO, NEMA, IEC, and FCC requirements must be supplied from an outside Testing Services Laboratory.

The APS shall consist of a Central Control Unit (CCU) and Pedestrian Push Button Stations (PBS), as described below, and be capable of communicating with and programming with devices that support iOS client application, Android client application, Windows PC with Bluetooth® Low Energy dongle and Windows client application, for programming the system settings. It shall be manufactured by an ISO 9001:2015 (minimum) registered company.

##### **Design Compliance**

The APS shall meet:

- The functionality requirements of MUTCD 2009 – 4E and CAMUTCD 2011 – 4E, latest revision.
- NEMA TS 2 Section 2.1 Temperature & Humidity requirements, or TS4 equivalent.
- NEMA TS 2 Section 2.1 Transient Voltage Protection requirements, or TS4 equivalent.
- NEMA TS 2 Section 2.1 Mechanical Shock and Vibration requirements, or TS4 equivalent.
- IEC 61000-4-4, IEC 61000-4-5 Transient Suppression requirements.
- FCC Title 47, Part 15, Class A Electronic Noise requirements.

The Push Button Station (PBS) Enclosure shall meet NEMA 250 – Type 4X requirements.  
The Central Control Unit (CCU) Enclosure shall meet NEMA 250 – Type 1 requirements.

### **Functional Requirements**

The APS shall support at least 16 PBS's per intersection (on at least 1 channel) controlled by a single base unit located in the traffic control cabinet and shall vibrate a tactile arrow button during the WALK interval following a button push and/or every time the walk signal comes up. It shall have field-selectable function known as "LOCATE TONE". This means that during the FLASHING DON'T WALK and DON'T WALK intervals, the system shall provide a locating tone that emanates from the PBS. It shall also provide at least 3 different sounds to choose from.

The APS shall have:

- Field selectable function known as "Extended Push Activation". This is defined as the audible WALK message shall only be activated and audible during the WALK interval if the button is depressed for a field selectable minimum period (from 0.5 to 6 seconds). Also, for the walk and clearance intervals that follow an extended push, the volumes shall have a separately settable minimum and maximum volume level.
- Field selectable function known as "Informational Message". This means that a custom message giving the location of the street to cross and the intersection (or other information) will be vocalized only when the button is depressed for a minimum field selectable time.
- Standard "Travel Direction" options that can be selected at the time of installation.
- At least 10 field selectable WALK sound options including a cuckoo, a chirp, an MUTCD rapid tick or custom voice message.
- Wireless synchronization capabilities, from button to button, (including between a 2 wire PBS and a 3 wire PBS), matched to a phase partner. Sync distance may vary based on the environment. Pedestrian button presses are communicated between phase partners to keep the pilot LED in sync, as well as the audible messages during the Walk and Clearance PED intervals. This shall be implemented on corners that do not contain button wires. The wireless synchronization capability shall include sending Standard and Extended Push information to allow a call to be placed from a PBS without button wires (or degraded button wires) via a phase partner PBS that does have button wires to the traffic controller.
- LOCATE TONE, WALK, and DON'T WALK audible features and they shall have independent assignable minimum and maximum volume limits. CLEARANCE volume level shall be controlled by WALK volume setting. The LOCATE TONE volume shall adjust automatically in response to ambient noise with field selectable adjustment levels from -30dBA below to +20dBA above ambient in 2.5dBA increments. WALK, and DON'T WALK volumes shall adjust automatically in response to ambient noise with field selectable adjustment levels

from -30dBA below to +20dBA above ambient in 5dBA increments up to a maximum of 100dBA.

- A non-visible, ambient sensing microphone located in the pedestrian station in an environmentally protected housing.
- The option to mute sounds on all crosswalks except activated crosswalk (selectable feature).
- Real time clock capable of keeping time when there is no system power, for at least 2 years from the date of manufacture.
- Ability to have four separate program configurations with all features available, and any single configuration can be selected through an external input.

The APS shall provide:

- A “Wait” message that plays once the button is activated, and until the Walk cycle goes into effect. This message must have the field selectable option of OFF, or repeating every 4, 6, 8 or 10 seconds.
- At least 7 Ped-clearance sound choices including audible countdown (field selectable). The audible countdown shall represent the time remaining during the pedestrian Clearance interval. Timing is automatically adjusted to the CLEARANCE INTERVAL timing, provided by the Traffic Controller. Due to flasher relay timing variables, audible and PED Head numbers may vary by approximately one second.
- 2 language capabilities, selectable by user (as a field selectable feature).
- Emergency Preemption Message in conjunction with a preemption system (selectable feature).
- Synchronization capabilities of all sounds for all PBS’s.
- User settable calendar function, allowing four separate configuration profiles to be configured to become active at different times of the day on a daily, weekly, or holiday basis.

The APS shall utilize high quality digital audio technology, with a minimum 16-bit sample at a 48 kHz sample rate.

The PBS firmware and voice messages shall be updatable via Bluetooth Low Energy level 5 at a minimum. There shall be no requirement for IC chips or module hardware to be removed or exchanged to complete a firmware or audio update.

The entire System shall be configurable from the CCU over Wi-Fi or Ethernet and from any PBS over Bluetooth Low Energy. All field access to selectable options using Bluetooth Low Energy, Wi-Fi or Ethernet devices shall be protected using password security.

Each PBS shall be capable of interacting with the PedApp® smartphone App via Bluetooth Low Energy to allow pedestrians to remotely actuate ped call into PBS. PedApp® can be configured to help provide visually impaired and all pedestrians location/directionality information, as well as place calls, and receive ped interval information via smartphone.

Location layout map shall be provided when ordering equipment to pre-program all PBS prior to installation in the field.

### **Central Control Unit (CCU)**

The CCU is the control unit that provides data for the Push Button Stations. The CCU shall be shelf mount (iCCU-S2) assembly and shall be installed with the iN2-ICB interconnect board. The iCCU-S2 and iN2-ICB shall be installed inside the Traffic Cabinet. The iCCU-S2 shall provide internal power to operate and control up to 16 PBS's. A 24-volt power brick shall power up to 16 PBS's in a CCU-C configuration. It shall be logically configurable to assign any PBS to one of 16 traffic/PED phases; and through SDLC shall be able to place PED calls on up to 8 phases.

The iCCU-S2 shall receive pedestrian phase Walk, Don't Walk and Clearance inputs from either the traffic cabinet load switches or an SDLC input and from a Transport Electrical Equipment Specification (TEES) C4S connector.

The CCU shall be able to self-test all PBS's and put a corresponding phase into recall should a PBS assigned to a phase fail the self-test and it shall monitor PED interval conflicts and set affected PBS's to an off/safe mode when a conflict occurs. It shall provide optically isolated general-purpose inputs and it shall incorporate four separate cable assemblies to access all functions, so any combination of the four cable assemblies can be used to access any combination of functions. It shall have internal storage to log several thousand events with a date-time stamp for each event and it shall have an internal real-time clock capable of being set in the field and propagating the time to each connected PBS.

The CCU firmware shall be updatable via either Wi-Fi or Ethernet. There shall be no requirement for IC chips or module hardware to be removed or exchanged to complete the firmware update.

The iCCU-S2 shall meet NEMA 250 – Type 1 enclosures requirements and it shall have a backlit LCD screen and button interface to allow placing test calls and display status.

### **Pedestrian Push Button Station (PBS)**

The PBS allows the pedestrian to place calls either via touchless feature or by pressing the button to the Traffic Controller and provides vibro-tactile feedback during the Walk cycle.

The PBS shall be mounted to a pole per Caltrans Standard Plan ES-7A.

The PBS shall be a single fixture that contains a 2" activation area, in which resides an ADA compliant vibro-tactile push button with a raised directional tactile arrow, and a sign mounted above the button.

The PBS Speaker shall be 8 Ohms, 6 Watt, and weather-proof.

The button shall be cast aluminum, nickel-plated and powder coated black around the arrow, to provide high contrast to arrow color. The PBS arrow shall allow for change in orientation to one of four directions.

The PBS button actuation shall use Hall Effect Sensor technology rated to greater than 20 million operations.

The PBS button push force shall have three adjustable pressure settings “Light, Medium, and Firm” over a range of approximately .5 LB to 3.5 LBS to activate a button push.

The PBS button shall pulse and vibrate at approximately 20 Hz with displacement factor based on pounds of force used to actuate.

The PBS shall have a rear facing speaker projecting sound from front and back, providing 360° omnidirectional sound performance.

The PBS shall include internal Conflict Monitoring that monitors WALK, and DON'T WALK input signals for conflict conditions; disables system operation and logs errors if conflict occurs.

The PBS firmware and voice messages shall be updatable via Bluetooth Low Energy. There shall be no requirement for the hardware to be changed out to update.

The system shall operate with the vendor's client application to record and upload cumulative PED count & call data.

The PBS shall meet or exceed NEMA 250 type 4X enclosure requirements.  
The PBS Construction shall be:

- FRAME and BUTTON COVER: Cast Aluminum, Powder Coated.
- HOUSING: Reinforced, UL-listed Thermoplastic.
- MESSAGE SIGN: Aluminum, Powder Coated, Ink Markings, or Reflective Vinyl Sheeting
- PUSH BUTTON: Aluminum, Nickel Plated, Powder Coated.
- Electronic circuits (printed circuit board assemblies) shall be in a thermoplastic housing/enclosure having a UL94-V0 flammability rating. The housing/enclosure shall provide NEMA 250 4X protection to all covered components.

The PBS shall be a modular design with a separate speaker compartment that can be field replaced.

A 2-Wire PBS shall include a 3-position terminal block to support the capability of operating as a 3-Wire PBS (3-Wire Ped Head Based System) by adding a Control Unit in the pedestrian signal head that converts 115 VAC to 24VDC, and a 3 wire cable that carries power, data, and ground wires from Control Unit to the PBS.

The PBS shall have Bluetooth Low Energy communication that allows a pedestrian to use an app to get PED status information and place a PED call when near a button, without having to touch/push the button.

**Client Application (Apple iOS v9.0 or higher devices, or Android 5.0 or a PC with Windows 8 or 10)**

The System shall use Bluetooth Low Energy 5 or higher technology to field program firmware and audio voice messages, and to communicate to other buttons or external devices. It shall be password protected through the programming/configuration interface.

The iOS, Android, and PC applications shall be upgradable and shall be capable of notifying the user when a newer version of the application is available and when newer PBS and CCU firmware is available. It shall provide the mechanism to download the latest PBS and CCU firmware and shall be capable of setting all volumes and features of the APS system specific to the PBS's.

The iOS, Android, and PC applications shall be capable of setting/updating configuration options for a single PBS or all PBS's on the intersection for most functions from a single PBS or CCU. (Global updating) and it shall be capable of storing, modifying, loading, and emailing PBS configuration settings, audio files and health logs.

All pedestrian pushbutton plates shall be secured to the pedestrian pushbutton assembly with 8-32 x 3/8" button head torx tamperproof stainless-steel screws.

All 2" ADA pedestrian pushbuttons shall be secured to the pedestrian pushbutton assembly with 8-32 x 1" or other appropriate length button head torx tamperproof stainless-steel screws.

Audible messages shall conform to the latest CA-MUTCD Section 4E.

Speech walk messages that are used at intersection having pedestrian phasing that is concurrent with vehicular phasing shall be patterned after the model: "Broadway. Walk Sign is on to cross Broadway at 1st."

Speech walk messages shall not contain any additional information, except they shall include designations such as "Street", "Way", "Drive" or "Avenue", etc., where this information is necessary to avoid ambiguity at a particular location.

**4.16 STREET NAME SIGNS (SNS)**

The Contractor shall supply and install double faced in accordance with the State of California, Department of Transportation, Standard Plan ES-7P and Standard Specifications Section 82-2 Sign Panels, and these Special Provisions:

Signs shall have 3M Diamond Grade™ DG3 reflective sheeting series 4000. The Contractor shall supply and install Hawkins Adjustable SNS brackets or Pelco Adjustable SNS brackets. The Contractor shall also supply and install a safety cable to secure and support SNS in case

of failure of brackets. All SNS panels shall include the street name, block numbers with directional arrows, cardinal direction where applicable. The SNS panel must have a white border visible around the outer edges of the face, the entire panel shall be green except for lettering, block numbers, cardinal direction. SNS panel font shall be Series EM with eight inches (8") in height upper case letters, six inches (6") in height lower case letter, three inches (3") in height block number, cardinal direction and directional arrow. Contractor must provide samples of sheeting material and a paper plot to the City Transportation Engineer for approval prior to the fabrication of the sign.

The sign faces shall be fabricated from flexible, colored, full-cube prismatic/micropismatic reflective sheeting tape and related processing material designed to enhance the visibility of the traffic control signs. The reflective sheeting for sign faces/finished signs shall have a smooth surface with a distinctive full-cube interlocking diamond seal pattern and orientation marks visible from the face. The sheeting must have pressure sensitive adhesive backing protected by a removable liner. The adhesive shall require no heat for proper bonding when applied in accordance with the manufacturer's recommendations to substrates 65 °F or higher. The reflective sheeting used for the sign fabrication must be White sheeting #4090, and Green sheeting #4097.

#### **4.17 REMOVING AND SALVAGING ELECTRICAL EQUIPMENT**

Existing traffic signal and electrical equipment shall be removed at the location shown on the plans and become property of the Contractor for disposal. No equipment shall be salvaged as part of this project.

#### **4.18 TRAFFIC SIGNAL ACTIVATION AND SWITCH-OVER**

Activation/switch-over of traffic signals for locations that do not include a new traffic signal controller cabinet installation shall be made only after all traffic signal circuits and equipment have been thoroughly tested and inspected by the City's Traffic Signal Technician. Contractor must provide written documentation of such inspection to City.

For locations that include installation of a new traffic signal controller cabinet shall be performed only if seven (7) day functional test/pre turn-on and inspection are satisfactory

Contractor will proceed to schedule activation/switch-over of all new traffic signal and/or new traffic signal equipment added to the existing traffic signal system once items above have been completed.

A minimum one week (5 working days) notification to the City is required to schedule the activation/switch-over.

The day of the activation/switch-over the Contractor shall proceed to energize the new traffic signal equipment as directed by the Public Works Inspector with the approval and presence of the City's Traffic Signal Technician. Once the new traffic signal and/or new traffic signal equipment is successfully activated, the City will prepare a deficiency list. All deficiency list

items must be corrected by the contractor prior to final inspection. The Contractor shall schedule the final inspection after all deficiency list items have been addressed; a minimum of one week (5 working days) notification to the City is required.

Contractor shall be responsible for scheduling the City Traffic Signal Technician at no additional cost to the City for all traffic signal activation activities as stated in the above paragraphs of this section.

Traffic Signal turn-on shall be performed on Mondays, Tuesdays, or Wednesdays only. Activation/Switch-over shall start at 9:30 a.m. and be completed by 3:30 p.m.

**5. CONCRETE WORK (BID ITEMS #4, 5, 6) AND REMOVE AND INSTALL NEW CONCRETE CURB RAMP (BID ITEM #7)**

The work covered in this section also includes the removal, disposal, and replacement of concrete curb and gutter, concrete curb, concrete sidewalk/flatwork, and concrete curb ramp. Contractor shall make every effort to avoid damaging any City owned property, including roots, trunk, and canopy of City maintained trees. See Clearing and Grubbing section of these technical provisions. Damage to the street, sidewalk, curbs, drains and gutters due to the Contractor's activities shall be repaired or replaced, at the Contractor's expense, to the satisfaction of the City Engineer or designee.

Removal of these concrete features include sawcutting of asphalt concrete pavement at 1 foot from gutter lip (or as specified on the plans) and removal and disposal of concrete, asphalt pavement, aggregate base, and/or subgrade to specified depth in the plans. Sawcut line on the pavement in front of curb or gutter lip, including gutter for curb ramps, shall be at least 12" beyond the concrete edge to allow for construction of forms and six (6) inches deep or as shown on the plans. This area shall be restored as shown on the plans. Payment for restoration of this portion of pavement shall be included in the unit costs for the construction of new and/or replaced curb, curb and gutter, driveway, curb ramp, and sidewalk/flatwork unless noted otherwise on the plans.

Excavation shall be performed in such a manner as to provide an undisturbed sub-base. In the event of over-excavation, the over-excavation shall be backfilled and compacted to a relative density of ninety-five percent (95%) at the Contractor's expense. The begin and end limits of removal of the concrete features shall be at existing construction, expansion, or score joints and shall include sawcutting of concrete pavement as required at the limits of removal. Curb and gutter to be removed shall be sawcut unless otherwise directed by the Engineer. The removed concrete, asphalt pavement, aggregate base, and/or subgrade becomes the property of the Contractor and shall be tested, loaded, and transported to a construction debris recycling facility.

The construction of portland cement concrete (PCC) curb and gutter, curb, curb ramp, sidewalk, and flatwork as shown on the plans shall conform to the provisions in Section 73 "Concrete Curbs and Sidewalks" of the Standard Specifications and these Technical Specifications. Class 2 aggregate base shall conform to the requirements specified elsewhere in these Technical Specifications.

This work shall be constructed of minor concrete conforming to the provisions in Section 90-2 "Minor Concrete" of the Standard Specifications and City Standard Plans (3/4 inch aggregate). Contractor shall submit PCC job mix design.

If it is found necessary to increase the slump of concrete at the site of the work, it shall be done only by the addition of 16 pounds of cement (1/6 sack) per gallon of water. Such addition shall be made only at the direction of the City Engineer and in their presence. Strength of concrete in place shall be 3,000 psi at 28 days for concrete paving not subjected to vehicular traffic. For sidewalks subject to vehicular traffic, the strength of concrete in place shall be 4,000 psi at 28 days. No admixtures shall be used without approval of the City Engineer. Maximum slump of fresh concrete to be permitted in these items shall be four (4) inches. Slump shall be determined by either ASTM-C-143 (Slump Cone) or ASTM-C-360 (Kelly Ball) at the discretion of the Engineer.

All exposed surfaces shall be cured by the impervious membrane method to the satisfaction of the City Engineer.

Contractor shall obtain a load slip from each delivery and give one copy of said slip to the City Engineer at the point of delivery of the material.

All new or previously existing concrete surfaces shall be left neat, clean and free from concrete droppings. The Contractor shall be responsible for preventing vandals or others from disfiguring or defacing the finished surfaces. Any new concrete surfaces disfigured due to pouring late in the day, or due to the failure on the part of the Contractor to provide adequate protection or covering to the new surfaces, shall be replaced at the Contractor's expense. The work shall conform to Section II.S. Construction Site Control and Section III. E. Clean Up.

## **SUBMITTALS**

See Technical Specification for Minor Concrete.

## **MATERIALS & EXECUTION**

In general, sidewalks shall be four (4) inches thick (or as indicated in plans). Sidewalks at driveways, driveways, and curb ramps shall be six (6) inches thick. Existing subgrade surface shall be re-graded (if necessary) and re-compacted to conform to the grades shown on the plans. Final Grade of the concrete work shall conform to the adjacent existing concrete grade.

The specified thickness of 3/4-inch maximum Class 2 aggregate base shown in plans shall be compacted to 95% relative compaction shall be placed under PCC and shall conform to the requirements specified in Section 26-1.02B Class 2 Aggregate Base. When tree roots are within 8" of finished grade, place 6" x 6" x 10 Gage welded wire steel mesh in concrete at the request of the Engineer in lieu of AB and at no additional cost.

Mortar shall not be applied to curbs and gutters. Curb and gutters shall be finished in the same manner as the sidewalk.

The new back of curb shall match the existing concrete driveways or walkways. Minor adjustments of the height of curb may be required within one-half inch (1/2") without adjusting the cross section.

Contractor must form the sidewalk around tree trunks and roots with a smooth arc. Locations shall be determined in the field by the Engineer. Any locations requiring bowed out curbs to avoid tree roots, must be reviewed and approved in advance by the Engineer. Contractor must notify the Engineer immediately of areas of potential root impacts to the new curb. The smooth curb radii must be tangent to the existing curb on both ends. Curbs with angles will be rejected.

Before placing concrete, verify that forms and job site constraints allow the required dimensioning and slopes shown. Immediately notify the Engineer if you encounter job site conditions that will not accommodate the design details. **No concrete shall be placed until the Engineer has inspected and approved forms and subgrade. Concrete poured without Engineer's approval is subject to rejection.**

12-inch #4 rebar dowels, 3-inch minimum depth into existing or new sidewalk. Do not dowel private improvements into public improvements.

At driveways, install 6-inch x 6-inch – W2.9 WWF centered in slab. No #4 bars spaced at 6-inch on center may be substituted for the wire mesh when approved by the City Engineer or designee.

Where needed at connections to existing, gutter shall taper over five (5) feet to match existing gutter width.

All edges of concrete shall be edged with a cement edger of the size 2-3/4" width with a 3/16" radius. All joints or grooves that are indicated on the plans or required by the City Engineer or designee shall be marked with cement grooves or jointers 4" in width and having a groove 3/8" wide at the top and a depth of 1/4" to 1/2".

Contraction joints shall be constructed per the project plans and City Standards or as appropriate to match existing pattern and at the ends of curb returns.

New work shall match existing in finish, score pattern, and color, or as shown on the plans, or as directed by the Engineer. The Engineer reserves the right to change the colored concrete specification without additional compensation to the Contractor.

Color Pigment: ASTM C979; mineral oxides, alkali and fade resistant. The dosage must not exceed 10 percent by weight of cementitious material in the concrete mix design.

- Lampblack: Conform to ASTM D209 and shall be of approved quality mixed at the rate of one and a half pounds per cubic yard of concrete.

All new curb, sidewalk, and driveways constructed adjacent to existing concrete curb or sidewalk shall be dowelled to the existing concrete per project plans and City Standards. Reinforcing steel bars (Rebar) shall be of Grade 40 or higher and conform to Section 52, "Reinforcement", of the Standard Specifications. Tie wire shall be 18-gauge steel.

The Contractor shall be responsible for adjusting all utility boxes, public or private to new finish grades unless noted otherwise on the plans. If a utility or City owned facility has existing damage or is damaged by the contractor, the contractor must coordinate with the utility owner to procure a new box from the respective utility company. It shall be the Contractor's responsibility to coordinate with the utility agencies for adjustment of utility or new boxes in an expedient manner. New boxes are not paid for by the City. If a utility or City owned facility with existing damage requires a new box that is in excess 250 pounds, installation of the new utility box will be paid for as extra work as provided in Section 4-1.05, "Changes and Extra Work," of the Standard Specifications.

Covers shall be adjusted so that there will not be any perceptible difference in elevation between the finished surface and the cover. The Engineer shall be the sole judge of the acceptable degree of smoothness of passage of motor vehicles or pedestrians over the adjusted covers.

Irrigation systems damaged by the Contractor will be repaired at the Engineer's discretion and tested for functionality at the Contractor's expense.

Concrete shall be poured in such a manner as to complete all pours by 2:00 p.m. the same day unless authorized by the Engineer. The Engineer reserves the right to reject any concrete remaining in the ready-mix truck after 90 minutes from batch time. No water may be added to the ready-mix concrete without prior approval from the Engineer.

The Contractor shall protect the concrete from being defaced during the curing period. The City will not accept concrete with shrinkage cracks greater than 1/16<sup>th</sup> of an inch and Contractor shall replace at no cost to the City. Any defaced concrete shall be repaired or replaced by the Contractor at the Contractor's expense. The City may reject any work that is defaced. The Contractor shall properly dispose of demolition debris offsite at the end of each day.

Curb and gutter shall be water tested in the presence of the Engineer prior to acceptance to verify that water will flow along the flow line of the replaced curb and gutter. No standing water will be allowed. The finished surface shall be free from humps, sags, and other irregularities.

New curb and gutter shall be sprayed uniformly with a clear curing compound. The material, method, and rate of application shall conform to Section 90-1.03B(3), "Curing Compound Method," of the State Specifications except that only non-pigmented curing compound conforming to the requirements of ASTM Designation: C 309, Type 1, Class B, or of AASHTO Designation: M 148, Type 1-D, shall be used.

All new PCC improvements shall be dowelled to existing PCC improvements as shown on

City Standard Detail shown in the plans or as directed by the Engineer.

HMA placed adjacent to curb shall comply with Section 39, "Asphalt Concrete" of the Standard Specifications and these special provisions. HMA plug shall be Type A, 1/2-inch maximum compacted to 95% maximum theoretical density (submit HMA job mix design). Depth shall be six (6) inches or depth of existing full street section of HMA, whichever is greater. Asphalt base and subgrade shall be compacted to 95% maximum theoretical density. Asphalt for the HMA plug shall be placed in lifts no greater than three (3) inches. Restoration work of pavement must be done as soon as practicable, and no later than seven (7) days after concrete placement.

Curbs, sidewalks, driveways, and curb ramps shall have forms removed and be backfilled within 3 days after pouring. Any voids left between new concrete and existing unpaved areas adjacent to sidewalks and curbs resulting from excavation, removal, or other construction-related activities, shall be filled with topsoil tamped in place conforming to these special provisions.

Contractor shall adjust adjacent flagstones, bricks, or stones in the parking strip and behind the back of walk to the new sidewalk level. Contractor must take pictures and notes to place existing improvements in the original location to extent feasible.

Restoration work of pavement must be done as soon as practicable, and no later than seven (7) days after concrete placement.

The Contractor shall restore all sewer, gas, and waterline system markings on top of curbs. All markings shall be referenced prior to removal. Portland cement concrete (PCC) curb ramps shall conform to Section 73-3, "Concrete Curb Ramp" of the Standard Specifications, these specifications, and as directed by the Engineer. Curb Ramps shall conform to Standard Details A88A and A88B of the State Standard Plans, and as detailed on the plans. Coordinate with utility owners to relocate their existing utility facilities, if any, prior to start of construction. Curb ramps shall be laid out to satisfy maximum slopes and minimum widths per standard details and Contractor shall make any adjustments to fit actual field conditions. Location and elevation of curb ramp centerline at gutter flowline are shown on the plans. The gutter pan in front of the curb ramp is included in the work for the curb ramp.

Any in-sidewalk drainage facilities damaged or removed shall be replaced in accordance with the applicable City Standard Plans and Specifications.

The Engineer may remove locations or specify additional locations within, adjacent, or near the project limits. Additional locations shall be paid for at the bid price of the appropriate bid items and no additional compensation will be allowed therefor.

The new back of curb ramp shall match existing concrete walkways within one-half inch (1/2") without adjusting the cross section. Control joints and scoring shall match adjacent existing sidewalk or shall be as directed by the Engineer. Boundaries of curb ramp removed shall be sawcut unless directed otherwise by the Engineer.

New curb ramp shall be sprayed uniformly with a clear curing compound. The material, method, and rate of application shall conform to Section 90-1.03B(3), "Curing Compound Method," of the State Specifications except that only non-pigmented curing compounds conforming to the requirements of ASTM Designation: C 309, Type 1, Class B, or of AASHTO Designation: M 148, Type 1-D, shall be used.

Landscaping, landscaping bricks and decorations, yard drain pipes, and sprinkler heads and lines located near the existing back of sidewalk or sidewalk ramp shall be protected from damage. Sewer cleanouts located near the existing back of sidewalk or curb ramp shall also be protected from damage and remain free of debris. Any damage shall be repaired at the Contractor's expense to the satisfaction of the Engineer. Any adjustments to meter or valve boxes within the concrete curb ramps shall be adjusted to grade including furnishing new valve or meter box as needed.

Full compensation for the backfilling voids with topsoil between new concrete and existing unpaved areas resulting from excavation, removal of concrete, or other construction-related activities necessary for construction of curb, sidewalk, and driveway shall be considered as included in the contract prices paid for the various items of work and no additional compensation will be made therefor.

## **5.1 DETECTABLE WARNING SURFACES**

All replaced curb ramps shall have detectable warning surface. The detectable warning surface shall conform to the requirements of these specifications and the details provide in the Standard Plans A88A and A88B of the State Standard Plans. The cost for placement of detectable warning surface shall be included in the unit price for Bid Item "Remove and Install New Concrete Curb Ramp" and no additional compensation will be made therefor.

Curb ramp detectable warning surface shall consist of raised truncated domes constructed or installed on curb ramps in conformance with the details shown on the plans and these Technical Specifications. The detectable warning surface shall be prefabricated modules designed to be inserted in wet concrete. Surface mounted detectable warning surface is not acceptable. The product and color of the detectable warning surface shall be submitted by the Contractor for approval.

Prefabricated detectable warning surface shall be in conformance with the requirements established by the Department of General Services, Division of State Architect and be attached in conformance with the manufacturer's recommendations. The finished surfaces of the detectable warning surface shall be free from blemishes.

Detectable warning surface shall be in the form of tiles manufactured from a fiberglass reinforced ultraviolet stabilized polymer composite.

Detectable warning surface tiles shall conform to the requirements established by the Department of General Services, Division of State Architect and incorporate an in-line patten of truncated domes measuring nominal 0.2" in height, 0.90" base diameter, and 0.45" top diameter, and spaced center-to-center 2.35" as measured side by side. The field area shall

consist of a high density, pyramid micro texture of raised points 0.05” high. Anchors shall have a minimum spacing of 12-inches.

The color of the detectable warning surface shall be yellow conforming to Federal Standard 595B, Color No. 33538. Color shall be homogeneous throughout the tile.

Detectable warning surface tiles shall be configured such that the required area is covered by no more than two tiles to conform to the dimensions as shown on the plans, and as directed by the Engineer. If multiple detectable warning surface tiles are used, joints shall be centered in the curb ramp or as approved by the Engineer.

Detectable warning surface tiles shall conform to the following ASTM specifications:

<u>Test Description</u>	<u>Requirements</u>
ASTM D 695 Compressive Strength	Not less than 25,000 psi
ASTM D 790 Flexural Strength	Not less than 30,000
ASTM D 570 Water Absorption	0.05%
ASTM C 1028 Slip Resistance	0.8 wet/dry
ASTM E 84 Flame Spread Index	≤25
ASTM B 117 Salt Spray	No Change (300 hours)
ASTM 1308 Chemical Stain	No Effect
ASTM C 501 Abrasion Resistance	Lw>500
ASTM G 155 Accelerated Weathering Delta	E<5 (2,000 hours)
ASTM D 638 Tensile Strength	12,500 psi
AASHTO H20 Load Bearing at 10,410 lbs. Deformation	No Cracking, Delamination or
ASTM C 1026 Freeze/Thaw/Heat	No Chipping, Cracking or Peeling
ASTM D 1037 Accelerated Aging [Freeze/Thaw] Delamination	No Change in Color, Gloss or
ASTM D 696-03 Linear Thermal Expansion	9.45 x 10 <sup>-7</sup> per degree Fahrenheit

Detectable warning surface tiles shall be suitably packaged or crated to prevent damage in shipment or handling. Finished surfaces shall be protected by sturdy plastic wrappings to protect tile from concrete residue during installation and tile type shall be identified by part number. Protective plastic wrapping shall be removed within 24-hours after tiles are installed.

Installation of cast-in-place detectable warning surface shall comply with the manufacturer’s recommendations. Installation of surface applied detectable warning surface shall not be allowed.

The manufacturer shall provide a written 5-year warranty for prefabricated detectable warning surfaces, guaranteeing replacement when there is defect in the installation, dome shape, color fastness, sound-on-cane acoustic quality, deformation, loosening of tiles, breakage, resilience, or attachment. The warranty period shall begin upon acceptance of the contract.

## **6. ASPHALT WORK (BID ITEMS #4, 5, 6, 7)**

### **6.1 ASPHALT CONCRETE**

Asphalt to be used in roadways shall meet the specifications for asphalt concrete as indicated in the latest Caltrans Standard Specifications, Section 39.

Asphalt to be mixed with aggregate shall be Performance grade 64-10 per Caltrans standard practice.

Base courses shall be Type A 1/2" maximum, medium. The aggregate gradation of Type A HMA shall be 1/2 -inch on the top lift (finish lift) of paving.

### **EXECUTION**

Verify that subgrade is dry and in suitable condition to support paving and imposed loads.

Proof-roll subbase using heavy, pneumatic-tired rollers to locate areas that are unstable or that require further compaction.

Notify Owner in writing of any unsatisfactory conditions. Do not begin paving until these conditions have been satisfactorily corrected.

### **PAVEMENT GRINDING**

Clean existing paving surface of loose or deleterious material immediately before pavement grinding.

Grind conforms as indicated.

### **SURFACE PREPARATION FOR AGGREGATE BASE MATERIALS**

General: Immediately before placing asphalt materials remove loose and deleterious material from substrate surfaces and ensure that prepared subgrade is ready to receive paving according to the Caltrans Standard Specification Section 39-4.01.

Prime Coat: Apply uniformly over surface of compacted-aggregate base according to the Caltrans Standard Specification Section 39-4.02. Apply enough material to penetrate and seal, but not flood, surface. Allow prime coat to cure for 24 hours minimum.

If prime coat is not entirely absorbed within 8 hours after application, spread excess prime coat with hand tools and broadcast sand over surface to blot excess asphalt.

Use just enough sand to prevent pickup under traffic. Remove loose sand by sweeping before pavement is placed and after volatiles have evaporated.

Protect primed substrate from damage until ready to receive paving.

Tack Coat: Apply uniformly to all vertical surfaces against which asphaltic concrete is to be placed, including existing surfaces of previously constructed asphalt or portland cement concrete paving and to surfaces abutting or projecting into new asphalt pavement, according to the Caltrans Standard Specification Section 39-4.02.

Allow tack coat to cure undisturbed before paving.

Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

## **SURFACE PREPARATION FOR PAVEMENT AT ASPHALTIC CONCRETE OVERLAYS AND SLURRY SEALS**

Pavement Irregularities: Level with asphaltic concrete, Type B, No. 4 maximum.

Pavement Cracks:

Less than ¼-inch wide: Clean of all dirt by compressed air jet, spray and seal with RS-1 asphaltic emulsion.

Wider than ¼-inch: provide crack repair as shown on the project plans.

Clean surface of all material, such as leaves, dirt, sand, gravel, water and vegetation prior to applying binder of paving asphalt to existing surface.

## **ASPHALTIC CONCRETE SPREADING AND COMPACTING EQUIPMENT**

Spreading Equipment: Caltrans Standard Specification Section 39-5.01.

Compaction Equipment: Caltrans Standard Specification Section 39-5.02.

## **ASPHALTIC CONCRETE PLACEMENT**

Place, spread and compact asphaltic concrete to required grade, cross section, and thickness according to the Caltrans Standard Specification Sections 39-6.01, 39-6.02 and 39-6.03.

Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

## **JOINTS**

Construct joints to ensure continuous bond between adjoining paving sections according to the Caltrans Standard Specification Sections 39-6.01 and 39-6.02.

Construct joints free of depressions with same texture and smoothness as other sections of asphalt course.

Clean contact surfaces and apply tack coat.

Offset longitudinal joints in successive courses a minimum of 6 inches.

Offset transverse joints in successive courses a minimum of 24 inches.

Compact joints as soon as asphaltic concrete will bear roller weight without excessive displacement.

## **COMPACTION**

General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact according to the Caltrans Standard Specification Sections 39-6.01 and 39-6.03.

Compaction Requirements: Average Density to be 92 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 90 percent nor greater than 96 percent.

Finish Rolling: Finish roll paved surfaces to remove roller marks while asphalt is still warm.

Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while still hot, with back of rake or smooth iron. Compact thoroughly using tamper or other satisfactory method.

Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh asphalt. Compact by rolling to specified density and surface smoothness.

Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

## **INSTALLATION TOLERANCES**

Asphalt Pavement:

Course thickness and surface smoothness within the tolerances in the Caltrans Standard Specification Sections 39-6.01, 39-6.02 and 39-6.03.

Total Thickness: Not less than indicated.

Trench Patch:

Compacted surface: Within 0.01 foot of adjacent pavement.

Do not create ponding.

## **7. SIGNING, STRIPING & MARKINGS**

### **7.1 ROADSIDE SIGNS**

#### **GENERAL**

Existing roadside signs and posts shall be removed and/or relocated at the locations shown on the Plans or where designated by the City Engineer or designee. New roadside signs shall be furnished and installed on new or existing foundations at the locations shown on the Plans or where designated by the City Engineer or designee and in conformance with Section 82 "Signs and Markers" of the Caltrans Standard Specifications, the City of Alameda Standard Plans, and these Specifications.

Signs and markers must comply with the California MUTCD.

## **SUBMITTALS**

Submit a certificate of compliance for:

Aluminum sheeting

Retroreflective sheeting

Screened process colors

Nonreflective opaque, black film

Protective-overlay film

Upon request, submit test samples of sign panels and materials at various stages of production. The samples shall be at least 12 by 12 inches and include the background material and legend.

At least 15 days before starting sign fabrication, submit at least 3 copies of your QC plan for sign panels. The QC plan shall include:

Contact information for the person responsible for sign QC

Acceptance criteria for incoming raw materials at the fabrication plant

Type, method, and frequency of QC testing at the fabrication plant

Types and brand names of retroreflective sheeting

List of the retroreflective sheeting manufacture's approved process colors, protective overlay film, and black nonreflective film, including the manufacturer's name and product name for each item

Manufacture's installation and splicing instructions for the retroreflective sheeting

Manufacturer's instructions for cleaning each product

Method of packaging, transporting, and storing signs

For "Passenger Loading Zone" sign at least 15 days before fabrication, submit cutsheet of sign design for approval.

## **MATERIALS**

Sign panels shall conform with the applicable portions of Section 82-2.02 of the Caltrans Standard Specifications, the California MUTCD, the City of Alameda Standard Plans, and these Specifications.

Retroreflective sheeting shall conform to the provisions in Section 82-2.02C of the Caltrans Standard Specifications.

## **EXECUTION**

Existing roadside signs shall be removed as shown on the Plans. Foundations and poles identified for removal shall be removed and legally disposed of outside of the public right of way. Metal signposts to be removed in sidewalk areas shall be removed by cutting and grinding the posts flush with the grade of the sidewalk. Any holes or depressions shall be leveled with grout; vertical ledges or protrusions greater than ¼-inch shall not be allowed. Existing roadside signs that are to be relocated shall be installed on new posts.

Existing roadside signs shall not be removed until replacement signs have been installed or until the existing signs are no longer required for the direction of public traffic, unless otherwise directed by the City Engineer or designee.

Roadside signs and mounting shall be installed at the locations shown on the plans, or where directed by the City Engineer or designee and shall conform to the provisions in Section 82-3 “Roadside Signs” of the Caltrans Standard Specifications, the City of Alameda Standard Plans, and these Special Provisions. Existing and new signs to be mounted to existing or new posts shall be done in accordance with applicable Caltrans standards.

### **7.2 REMOVE TRAFFIC STRIPES AND PAVEMENT MARKINGS**

Where blast cleaning is used for the removal of thermoplastic traffic stripes and pavement markings or for removal of objectionable material, and such removal operation is being performed within 10 feet of a lane occupied by public traffic, the residue including dust shall be removed immediately after contact between the sand and the surface being treated. Such removal shall be by a vacuum attachment operating concurrently with the blast cleaning operation.

The Contractor shall comply with the 2018 Caltrans Standard Specifications Section 7-1.02K(6)(j)(ii) “Lead Compliance Plan”. Removal of striping containing lead shall comply with Section 7-1.02K(6)(j)(ii) “Lead Compliance Plan”, Section 84-9.03C “Remove Traffic Stripes and Pavement Markings Containing Lead”, and Section 14-11.12 “Removal of Yellow Traffic Stripe and Pavement Marking with Hazardous Waste Residue”.

Waste from removal of yellow thermoplastic and yellow painted traffic stripe and pavement marking contains lead chromate. Residue produced from when yellow thermoplastic and yellow paint are removed may contain heavy metals in concentrations that exceed thresholds established by the California Health and Safety Code and may produce toxic fumes when

heated.

The removed yellow thermoplastic and yellow paint shall be disposed of at a Class 1 disposal facility or a Class 2 disposal facility permitted by the Regional Water Quality Control Board in conformance with the requirements of the disposal facility operator.

### **7.3 CURB PAINT**

#### **GENERAL**

Paint for curb markings shall be consistent with Standard 84-2.02C of the Caltrans Standard Specifications and these Specifications.

#### **SUBMITTALS**

For each lot or batch of paint, submit:  
Certificate of compliance, including the product name, lot or batch number, and manufacture date

Safety Data Sheet (SDS)

#### **PRODUCTS**

##### **MATERIALS**

Blue, red, green, yellow, and gray paint shall be of type Waterborne Traffic Line for international symbol of accessibility and other curb markings and shall conform to Federal Specification TT-P-1952F.

White colored paint shall be of type Waterborne Traffic Line and shall conform to the Caltrans Specifications PTWB-01R2.

All paint shall comply with ASTM D6628.

#### **EXECUTION**

##### **QUALITY ASSURANCE**

Before starting permanent application of two-component painted markings, apply a test stripe of the paint on roofing felt or other suitable material in the presence of the City Engineer or designee. The test section shall be at least 10 feet in length.

##### **CONSTRUCTION**

Surface preparation shall be done in accordance to Section 84-2.03B of the Caltrans Standard Specifications and these Specifications.

Installation of curb paint shall be done in accordance to Section 84-2.03B(6) of the Caltrans Standard Specifications and these Specifications.

## **7.4 TRAFFIC STRIPES AND PAVEMENT MARKINGS**

### **GENERAL**

All new striping (including lane lines) and legends shall be thermoplastic, unless otherwise noted on plans, and shall conform to Section 84 for the State Standard Specifications. Pavement markers shall conform to Section 82 of the State Standard Specifications.

Cat tracking approval is required. City needs 72 hours notice to review the cat tracking.

The State Specification No. for glass beads in Section 84-2.02, "Materials," of the Standard Specifications is amended to read "8010-21C-22 (Type II)."

### **SUBMITTALS**

For each lot or batch of paint and glass beads, submit:

Certificate of compliance, including the product name, lot or batch number, and manufacture date

Safety Data Sheet (SDS)

Material data sheet for thermoplastic primer

For each lot or batch of thermoplastic, submit a manufacturer's certificate of compliance with test results for the tests specified in Section 84-2.01D of the Caltrans Standard Specifications. The date of the test shall be within 1 year of use.

For glass beads used in drop-on applications, submit a certificate of compliance and test results for each lot of beads specifying the EPA test methods used and tracing the lot to the specific test sample. The testing for lead and arsenic content shall be performed by an independent testing laboratory.

Submit retro reflectivity readings for traffic stripes and pavement markings at locations with deficient retro reflectivity determined by the City Engineer or designee.

Submit a certificate of compliance for each type of pavement marker used.

### **MATERIALS**

Thermoplastic shall comply with Caltrans Standard Specification PTH-02SPRAY, PTH-02HYDRO, or PTH-02ALKYD.

Glass Beads shall comply with Section 84-2.02D of the Caltrans Standard Specifications and comply with Caltrans Standard Specification 8010-004.

Pavement markers shall comply with Section 81-3.02C of the Caltrans Standard Specifications. Hot melt bituminous adhesive shall comply with 81-3.02D of the Caltrans Standard Specifications.

## **EXECUTION**

Surface preparation shall be in accordance with Section 84-2.03B of the Caltrans Standard Specifications and these Specifications.

## **QUALITY CONTROL AND ASSURANCE**

Thermoplastic shall be tested in accordance with Section 84-2.01D of the Caltrans Standard Specifications.

## **CAT TRACKING**

Cat tracking approval is required. City needs 72 hours' notice to review the cat tracking. Cat tracking shall consist of stretching a rope on a straight line between control point on tangent alignment and on a true arc through control point on curved alignments and placing sport of paint along the rope. Temporary tab markers shall be placed no more than twelve feet apart on curves not more than twenty-four feet apart on straight segments. Temporary tab markers shall be the same color as the traffic stripe that they are replacing and shall measure two inches tall by 3-1/2 inches wide and have a reflective lens across the width of the marker.

Prior to application of permanent striping and markers, the contractor shall call for review and receive approval of the proposed striping by the Engineer and/or the City. The Engineer and City shall have the right to make changes at the location and alignment of line stripes. Striping and traffic markings shall not be applied until approval is granted by the City. The City requires 72 hours' notice to review the cat tracking.

## **CONSTRUCTION**

Apply thermoplastic traffic stripe and markings per Section 84-2.03C(2) of the Caltrans Standard Specifications. Apply retroreflective markers per Section 81-3.03 of the Caltrans Standard Specifications. Final pavement markings are thermoplastic, as described in the bid item description for pavement delineations. The Contractor shall furnish and install temporary pavement markings, as described in Section 12-6 "Temporary Pavement Delineation" of the Caltrans Standard Specifications, prior to opening each phase of work. The intent of this requirement is to have clean and fresh final pavement markings at the completion of the Project.

## **7.5 STREETBOND COATING COLOR "SAN DIEGO BUFF"**

### **GENERAL**

Specifications for installing StreetBond SB120 Asphalt Pavement Coating Flat Surface (Non-Stamped). Section includes solar reflective coating system over non-stamped asphalt pavement.

**DEFINITION**

**Certified Applicator:** Applicator that has been certified by the manufacturer to install pavement coatings per specifications and offer warranties backed by the manufacturer.

**Owner:** means the Owner (City Engineer or designee) and refers to the representative person who has decision making authority for the work performed.

**MANUFACTURERS**

Siplast (Irving TX) manufactured pavement coating products or approved equal.

- StreetBond SB120 Pavement Coating (Part A & B)
- StreetBond Colorant
- StreetBond Adhesive Promoter (for exposed stone in older asphalt)
- StreetBond Sealer Concentrate

**REFERENCES**

Reference Standards Include:

<b>ARTICLE I - ASTM D4541</b>	<b>ARTICLE II - Standard Test Method for Pull-Off Strength of Coating Using Portable Adhesion Tester.</b>
<b>ARTICLE III - ASTM D4060</b>	<b>ARTICLE IV - Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser.</b>
<b>ARTICLE V - ASTM D2697</b>	<b>ARTICLE VI - Standard Test Method for Volume of Nonvolatile Matter in Clear or Pigmented Coatings.</b>
<b>ARTICLE VII - ASTM D522-93A</b>	<b>ARTICLE VIII - Standard Test Method for Mandrel Bend Test of Attached Organic Coatings.</b>
<b>ARTICLE IX - ASTM D1653</b>	<b>ARTICLE X - Standard Test Method for Water Vapor Transmission through Organic Film Coatings.</b>
<b>ARTICLE XI - ASTM G154</b>	<b>ARTICLE XII - QUV Accelerated Weathering Environment. Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials.</b>
<b>ARTICLE XIII - ASTM D2369</b>	<b>ARTICLE XIV - Weight Solids Standard Test Method for Volatile Content of Coatings.</b>
<b>ARTICLE XV - ASTM D1475</b>	<b>ARTICLE XVI - Standard Test Method for Density of Paint, Vanish, Lacquer, Other related products.</b>
<b>ARTICLE XVII - ASTM D2240 (2000)</b>	<b>ARTICLE XVIII - Standard Test Method for Rubber Property – Durometer Hardness.</b>

<b>ARTICLE XIX - ASTM D5895</b>	<b>ARTICLE XX - Standard Test Method of Drying or Curing during film formation of Organic Coatings using Mechanical Recorders.</b>
<b>ARTICLE XXI - ASTM D570</b>	<b>ARTICLE XXII - Standard Test Method for Water Absorption of Plastics.</b>

**QUALITY ASSURANCE**

Qualifications: Installer shall be a certified applicator by manufacturer.

Local Regulations: Conform to regulations of public agencies, including any specific requirements of the city and/or state of jurisdiction.

**SUBMITTALS**

**DELIVERY, STORAGE AND HANDLING**

Delivery: Deliver materials in the manufacturer’s original sealed and labeled containers and in quantities required to allow continuity of application.

Storage: Store manufactured materials in a clean, dry location, protected from the weather and deterioration, and complying with manufacturer’s written instructions for minimum and maximum temperature requirements for storage.

**PROJECT CONDITIONS**

Environmental Limitations: Do not install coating over wet or damp substrates.

Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit coating to be applied according to manufacturer’s written instructions.

Permits: Obtain all permits required by local agencies and pay all fees which may be required for the performance of the work.

Safety: Familiarize every member of the application crew with all safety regulations recommended by OSHA, NIOSH, NRCA and other industry or local governmental groups.

**WARRANTY**

Provide a manufacturer warranty against material defects for a minimum period of three (3) years from the date of completion.

**PRODUCTS**

**MATERIALS**

Asphalt Pavement Coating: A premium epoxy-modified, acrylic, waterborne coating designed for application on asphalt pavements receiving pedestrian traffic and

minimal vehicular traffic. The coating shall be specially formulated to provide wear and crack resistance, color retention, adhesion, minimal water absorption and increased friction properties. Coating materials shall meet all local Volatile Organic Compounds (VOC) regulations.

#### Coating Properties

Solids by Volume: 54– 61% (ASTM D2697)  
Solids by Weight: 71.5- 77.5% (ASTM D2369)  
Density: 14 lbs/gal (1.67 kg/l) (ASTM D1475)  
Drying Time: 1 – 4 hours at 77°F (25°C) and 40% humidity (ASTM D5895)  
Taber Wear Abrasion Dry (H-10 wheel): 1.0g/1000 cycles after 1-day cure (ASTM D4060)  
Taber Wear Abrasion Wet (H-10 wheel): 4.0g/1000 cycles after 7-day cure (ASTM D4060)  
Water Absorption: 3.5 – 6.5% (ASTM D471)  
Mandrel Bend: 1.0 – 1.5 inch (ASTM D522-- 93A)  
VOC Content: < 50 g/l  
Friction– Dry: 75– 95 (ASTM E303)  
Friction– Wet: 55– 75 (ASTM E303)  
Permeance: 13.4 g/m<sup>2</sup>/24hr/mmHg (52 mils) (ASTM D1653)

Colorant: A highly concentrated, high quality, UV stable pigment blend designed to add color to the specified asphalt pavement coating.

Adhesion Promotor: A liquid agent designed to enhance the adhesion of the specified coating over surfaces with polished aggregates.

Sealer Concentrate: A liquid sealer that is applied to a newly completed project to help seal coating and reduce dirt and tire pick-up.

## **EXECUTION**

### **SUBSTRATE EXAMINATION/PREPARATION**

General: Ensure that surfaces are free from gross irregularities, loose, unsound, or foreign material such as dirt, ice, snow, water, grease, oil, release agents, laitance, paint, loose particles/friable matter, rust, de-icing materials, chemical residue, or any other material that would be detrimental to adhesion of the coating to the non-textured asphalt pavement surface. Protect areas using masking tape, plastic sheeting, tarps, coating shields, as necessary, to prevent overspray.

Asphalt Pavement Preparation: Thoroughly clean the surface of dust and debris using a broom and/or blower. Power wash areas with heavy dirt/debris build-up and where grease and oil contamination are present using an acceptable biodegradable cleaner. Ensure that the substrate is dry prior to applying the specified coating.

Existing Coatings: Remove pavement markings by sandblasting, pressure-washing, grinding, or other mechanical methods, as approved by the Owner or Owner's representative.

Polished Asphalt Surface Preparation: Where asphalt is older with exposed and polished stone, apply adhesion promoter according to the manufacturer's published guidelines and allow to dry completely prior application of the first layer of coating.

## **COATING APPLICATION**

Adhesion Promoter: For older asphalt with polished stone. Mix and apply according to manufacturer's instructions and allow to dry completely prior application of the first layer of coating. If the asphalt substrate is newer without exposed polished stone an adhesive promoter is not needed.

Coating Application: Mix according to manufacturer instructions. Apply three (3) coats at the manufacturer specified rate of application to achieve a nominal dry mil thickness of 19 mils. Rough and/or porous asphalt surfaces may require an additional coat(s) to achieve desired dry mil thickness. Coating shall be applied by a heavy-duty textured sprayer and back rolled, or roller, or brush applied according to the requirements published in the manufacturer's installer's guide. Allow each coat of material to dry before applying subsequent layers.

Sealer Concentrate: Mix according to manufacturer instructions and apply two (2) light coats using a low-pressure handheld or backpack sprayer over coating application.

## **FIELD QUALITY CONTROL AND INSPECTIONS**

Site Condition: Leave all areas around job site free of debris, materials, equipment, and related items after completion of job.

Notification of Completion: Notify the Owner and Manufacturer of job completion.

Issuance of the Guarantee: Complete all post installation procedures and meet the manufacturer's final endorsement for issuance of the specified warranty.

## **7.6 RESTORATION OF PAVEMENT STRIPING AND MARKINGS**

The Contractor shall repaint any pavement striping or markings that are damaged by trenching or other operations during the course of the project. The entire stripe element (individual stripe) or marking (cross walk lines, turn arrows, etc.) shall be repainted—"touch ups" will only be allowed if approved by the Engineer.

Unless approved otherwise by the Engineer, all restored pavement markings shall be thermoplastic, as described in Section 7.4 above, unless otherwise specified by the Traffic Engineer.

## **8. UTILITIES**

### **8.1 UTILITY ADJUSTMENTS**

All utilities in the plans designated to be adjusted to new finished grade shall be verified with affected utility company or owner and adjusted to grade with permission and coordination with said utility company or owner.

All utilities (manholes, utility boxes, utility vaults etc.) designated on the plans to be protected in place shall be carefully uncovered if located within the lines of excavation. In the event a utility conflict exists, the City will either arrange for the contractor or utility owner to adjust grade. In the event any such facility should be disturbed or damaged, the Contractor shall at once make repairs to the satisfaction of the utility owner, or arrange with the utility owner to make repairs, at no cost to the City. All costs from any delays or reconstruction of improvements resulting from the Contractor's failure to verify existing utilities shall be borne by the Contractor.

### **8.2 POTHOLING**

Some or all underground utilities are not shown within the project limits on the contract plans.

At locations where new poles and foundations are proposed, Contractor shall physically verify all locations of existing utilities by potholing, and certify, in writing, that there are no conflicts with planned improvements. If there are conflicts, Contractor shall indicate in writing, the specific conflict and allow the Engineer 15 working days to provide a response. Contractor shall include a schedule activity for potholing (Contractor responsibility), and notification to the Engineer in the base line schedule. The 15 working days for Engineer review shall be identified as an owner activity in the project baseline schedule. If there are no conflicts identified, this activity will then be shown as owner float.

All areas within the limits of work shall be restored to their original existing condition prior to construction. The Contractor shall restore all concrete and paved areas, landscaped areas, and all other improvements disturbed or damaged by their operations. Payment for the restoration of damaged areas shall be included in the prices paid for various items of work and no additional allowance will be made therefore.

## **9. LANDSCAPING (BID ITEMS #4, 5, 6, 7)**

### **9.1 TREE AND LANDSCAPING PRESERVATION**

The Contractor will be held responsible for any damage to trees or other plants, which are to remain during construction, including limb or branch breakage, tearing of bark along trunk or excessive root damage. Roots two inches and greater in diameter shall not be cut without approval by the City.

Contractor shall protect from damage all existing vegetation determined by the City to remain on the project site and also on adjacent property (for trees overhanging the project site). Contractor shall be responsible for the repair any damage, including that to the adjacent property resulting from failure to comply with the requirements of the Contract Documents or

failure to exercise reasonable care in performing the Work. If Contractor fails or refuses to repair the damage promptly and according to the City directions, the City may have the necessary work performed and charge the cost to Contractor.

## **9.2 PROTECTION OF EXISTING PLANTS TO REMAIN**

Do not store materials or equipment, permit burning, or operate or park equipment under the branches of any existing plant to remain except as actually required for construction in those areas.

Provide barricades, fences or other barriers as necessary at the drip line to protect existing plants to remain from damage during construction.

Notify Engineer in any case where Contractor feels grading, utility placement or other construction called for by Contract Documents may damage existing plants to remain.

If existing plants to remain are damaged during construction, Contractor shall replace such plants of the same species and size as those damaged at no cost to City. Determination of extent of damage and value of damaged plant shall rest solely with Engineer. Any plant material which becomes stressed thru the duration of construction shall be reviewed by a certified horticulturist provided by the Contractor and approved by the City. Any recommendations such as fertilizer, additional protection measures, soils testing, water monitoring programs or fencing recommended by the horticulturist shall be included within the scope of work with no additional cost to the Contract.

## **ATTACHMENTS**

**SPECIAL PROVISIONS**

**ATTACHMENT A**

**BOND FORMS (PERFORMANCE AND PAYMENT)**

**PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: that

\_\_\_\_\_

\_\_\_\_\_

a \_\_\_\_\_, hereinafter called Principal, and

\_\_\_\_\_

hereinafter called Surety, are held and firmly bound unto \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

hereinafter called OWNER, in the penal sum of \_\_\_\_\_ Dollars. (\$ \_\_\_\_\_)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_, 2024, a copy of which is hereto attached and made a part hereof for the construction of:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by SUBCONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.



**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: that

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_, hereinafter called Principal, and  
(Corporation, Partnership, or Individual)

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto \_\_\_\_\_

\_\_\_\_\_  
(Name of Owner)

\_\_\_\_\_  
(Address of Owner)

hereinafter called OWNER, in the penal sum of \_\_\_\_\_  
Dollars. (\$ \_\_\_\_\_)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_, 2024, a copy of which is hereto attached and made a part hereof for the construction of:

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

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.



**ATTACHMENT B**  
**LIST OF PROCESSORS**

## **LIST OF MIXED CONSTRUCTION AND DEMOLITION PROCESSORS**

This guide is a listing of facilities/processors that accept construction and demolition waste materials. This is not a complete and comprehensive list; it is intended to be a quick reference guide to assist contractors and the general public recycle their construction and demolition debris.

For additional information on disposal or recycling of specific material types please visit <http://alameda.wastetracking.com> (Green Halo Systems) and choose the “Recycler Search” function from the drop down menu.

Please call each facility for accepted materials, hours of operation, and the terms and conditions prior to delivering your materials.

### **Bee Green Recycling (Commercial Waste and Recycling)**

725 Independent Road, Oakland, CA 94621

510-636-0852

<https://www.beegreen.green/>

### **Excess Recovery**

1801 Evans Avenue, San Francisco, CA 94124

650-339-4817

### **Davis Street Transfer Station**

2615 Davis Street, San Leandro, CA 94577

510-638-2303

[www.dsgardencenter.com/](http://www.dsgardencenter.com/)

### **Berkeley Transfer Station**

1201 2nd St., Berkeley, CA 94710

510-981-7270

[www.cityofberkeley.info/ContentDisplay.aspx?id=5710](http://www.cityofberkeley.info/ContentDisplay.aspx?id=5710)

### **Certified Blue Recycling**

2075 Williams St, San Leandro, CA 94577

800-536-6702

[www.certified-blue-recycling.com/](http://www.certified-blue-recycling.com/)

### **Recology San Francisco**

501 Tunnel Avenue, San Francisco, CA 94134

415-330-1400

[www.sfreycling.com/index.php](http://www.sfreycling.com/index.php)

**Blue Line Transfer**

500 East Jamie Ct, South San Francisco, CA 94080  
650-589-5511

[www.ssfscavenger.com](http://www.ssfscavenger.com)

**Hayward Transfer Station**

3458 Enterprise Ave, Hayward, CA 94545  
510-606-1548

**West Contra Costa Co Sanitary Landfill**

Foot of Parr Blvd., Richmond, CA 94801  
510-262-1600

**Marin Resource Recovery Center**

565 Jacoby Street, San Rafael, CA 94901  
415-453-1404

[www.marinsanitary.com](http://www.marinsanitary.com)

**Contra Costa Transfer & Recovery Facility**

951 Waterbird Way, Martinez, CA 94553  
925-313-8987

**Ox Mountain Sanitary Landfill**

12310 San Mateo Road, Half Moon Bay, CA 94019  
800-204-4242

**Pleasanton Transfer & Recovery Facility**

3110 Busch Rd., Pleasanton, CA 94566  
925-846-4062

[www.plesantongarbage-service.com](http://www.plesantongarbage-service.com)

**Fremont Recycling and Transfer Station**

41149 Boyce Rd., Fremont, CA 94538  
510-252-0500

[www.fremont-recycling.com](http://www.fremont-recycling.com)

**Devlin Rd Recycling & Transfer Facility**

889 Devlin Rd, American Canyon, CA 94503  
707-258-9005

**Newby Island Landfill**

1601 Dixon Landing Rd., Milpitas, CA 95035  
408-945-2800

[www.newbyisland.com/](http://www.newbyisland.com/)

**Zanker Material Processing Facility**  
675 Los Esteros Rd., San Jose, CA 95134  
408-263-2384  
[www.zankerrecycling.com/](http://www.zankerrecycling.com/)

**SPECIAL PROVISIONS**

**ATTACHMENT C**

**CITY OF ALAMEDA STANDARD PLANS AND DETAILS**



# CITY OF ALAMEDA

## Standard Plans

December 2021

**PUBLIC WORKS DEPARTMENT**  
City Hall West  
950 West Mall Square, Suite 110  
Alameda, CA 94501

**CITY OF ALAMEDA**  
**STANDARD PLANS - TABLE OF CONTENTS**

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SD 1-1	CATCH BASIN TYPE 1	- / DEC 2021
SD 1-2	CATCH BASIN TYPE 1	- / DEC 2021
SD 1-3	CATCH BASIN TYPE 1	- / DEC 2021
SD 2	CATCH BASIN TYPE A	- / DEC 2021
SD 3	GRATED CATCH BASIN	- / DEC 2021
SD 4	MAINTENANCE HOLE FOR STORM DRAIN	- / DEC 2021
SD 5-1	CULVERT - 30 INCH	- / DEC 2021
SD 5-2	CULVERT - 30 INCH	- / DEC 2021
SD 6-1	CULVERT - 36 INCH	- / DEC 2021
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SD 7-1	DRAINAGE CHANNEL	- / DEC 2021
SD 7-2	DRAINAGE CHANNEL	- / DEC 2021
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SS 1-2	4" SEWER LATERAL TWO-WAY CLEANOUT	- / DEC 2021
SS 2	NOT USED	
SS 3	45° CLEANOUT	- / DEC 2021
SS 4	PRE-CAST CONCRETE MAINTENANCE HOLE TYPE "A"	- / DEC 2021
SS 5	MAINTENANCE HOLE TYPE "B" AND "C" SHALLOW DEPTH	- / DEC 2021
SS 6	SANITARY SEWER MAINTENANCE HOLE COVER	- / DEC 2021
SS 7	INSIDE DROP MAINTENANCE HOLE FOR 4" - 12" SEWER PIPES	- / DEC 2021
SS 8	PIPE CROSSING DETAILS	- / DEC 2021
SS 9	ABANDONED PIPE DETAIL	- / DEC 2021
SS 10	ABANDONED MAINTENANCE HOLE DETAIL	- / DEC 2021

**STREET STANDARDS**

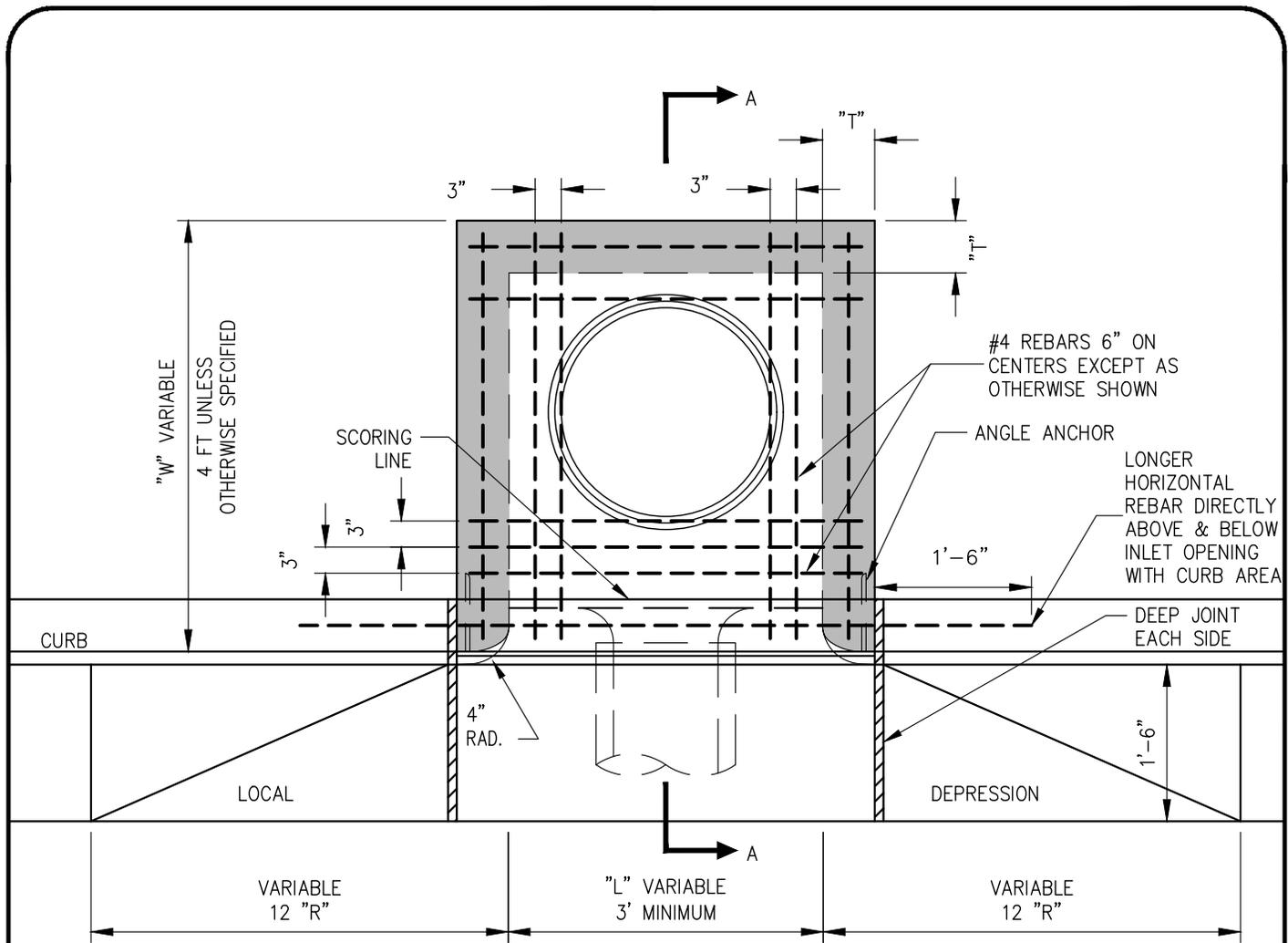
ST 1-1	TYPE A AND B CURB AND GUTTER	- / DEC 2021
ST 1-2	CONCRETE CURB AND GUTTER AT DRIVEWAY APPROACH	- / DEC 2021
ST 1-3	TYPE A CONCRETE CURB AND GUTTER WITH ASPHALT	- / DEC 2021
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ST 1-6	CURB AND GUTTER PLANTER AND SIDEWALK	- / DEC 2021
ST 2	NOT USED	
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ST 5	LARGE RADIUS FLUSH RETURN	- / DEC 2021
ST 6	<del>SIDEWALK REINFORCING AROUND UTILITY BOX &gt; 24" x 36"</del>	<del>- / DEC 2021</del>
ST 7-1	TRENCH DETAIL RESURFACING	- / DEC 2021
ST 7-2	TRENCH DETAIL NARROW TRENCH & SMALL HOLES	- / DEC 2021
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ST 8	NOT USED	
ST 9-1	STREET TREE PLANTING	- / DEC 2021
ST 9-2	STREET TREE PLANTING	- / DEC 2021
ST 9-3	STREET TREE PLANTING	- / DEC 2021
ST 10-1	STREET NAME SIGN	- / DEC 2021
ST 10-2	STREET NAME SIGN	- / DEC 2021
ST 11	TRAFFIC SIGN INSTALLATION	- / DEC 2021
ST 12-1	TRAFFIC SIGN SPECIFICATIONS	- / DEC 2021
ST 12-2	TRAFFIC SIGN SPECIFICATIONS	- / DEC 2021
ST 13	SURVEY MONUMENT	- / DEC 2021
ST 14	STREET BARRICADE	- / DEC 2021
ST 15-1	TYPICAL APPLICATIONS FOR MARKED CROSSWALKS	- / DEC 2021
ST 15-2	TYPICAL APPLICATIONS FOR MARKED CROSSWALKS	- / DEC 2021
ST 16	BIKE LANE BUFFER WIDTHS (NON-METERED PARKING)	- / DEC 2021
ST 17-1	PARKLET BARRICADE DETAIL	- / DEC 2021
ST 17-2	PARKLET BARRICADE DETAIL	- / DEC 2021
ST 18	RESIDENTIAL DRIVEWAY WITH PLANTING STRIP	- / DEC 2021
ST 19	RESIDENTIAL DRIVEWAY WITH MONOLITHIC SIDEWALK	- / DEC 2021
ST 20	COMMERCIAL TYPE GUTTER & DRIVEWAY	- / DEC 2021

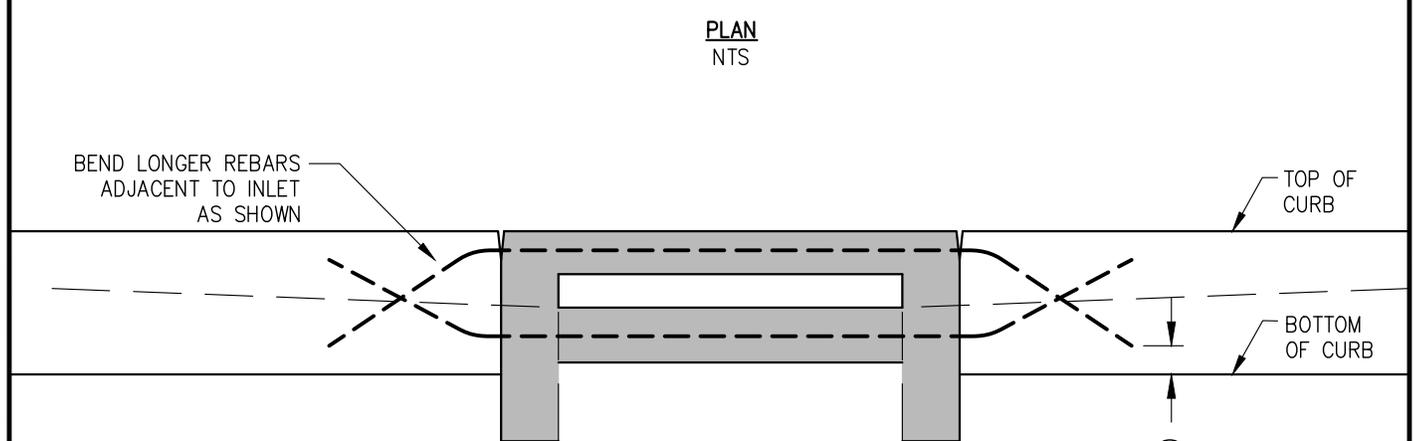
**STREET LIGHT STANDARDS**

SL8	ALAMEDA RECREATION & PARKS DEPT DECO STANDARD POLE	- / DEC 2021
SL9	28' TAPERED ALUM. POLE WITH 6' ARM	- / DEC 2021
SL10	30' TAPERED LIGHT POLE WITH 12" PIPE BRACKET ARM	- / DEC 2021
SL11	YORK SERIES LIGHTING POLE	- / DEC 2021
SL12	20' TAPERED LIGHT POLE WITH 12" PIPE BRACKET ARM	- / DEC 2021
SL13	TAPERED LIGHT POLE WITH 12" TWIN PIPE BRACKET ARM	- / DEC 2021
SL 50-1	STREET LIGHT FOUNDATION - TYPE A	- / DEC 2021
SL 50-2	STREET LIGHT POLE BASE DETAIL	- / DEC 2021
SL 57-1	120V STREET LIGHT WIRING	- / DEC 2021
SL 57-2	240V STREET LIGHT WIRING	- / DEC 2021
SL 57-3	SPLICING AND CRIMPING	- / DEC 2021

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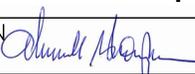


PLAN  
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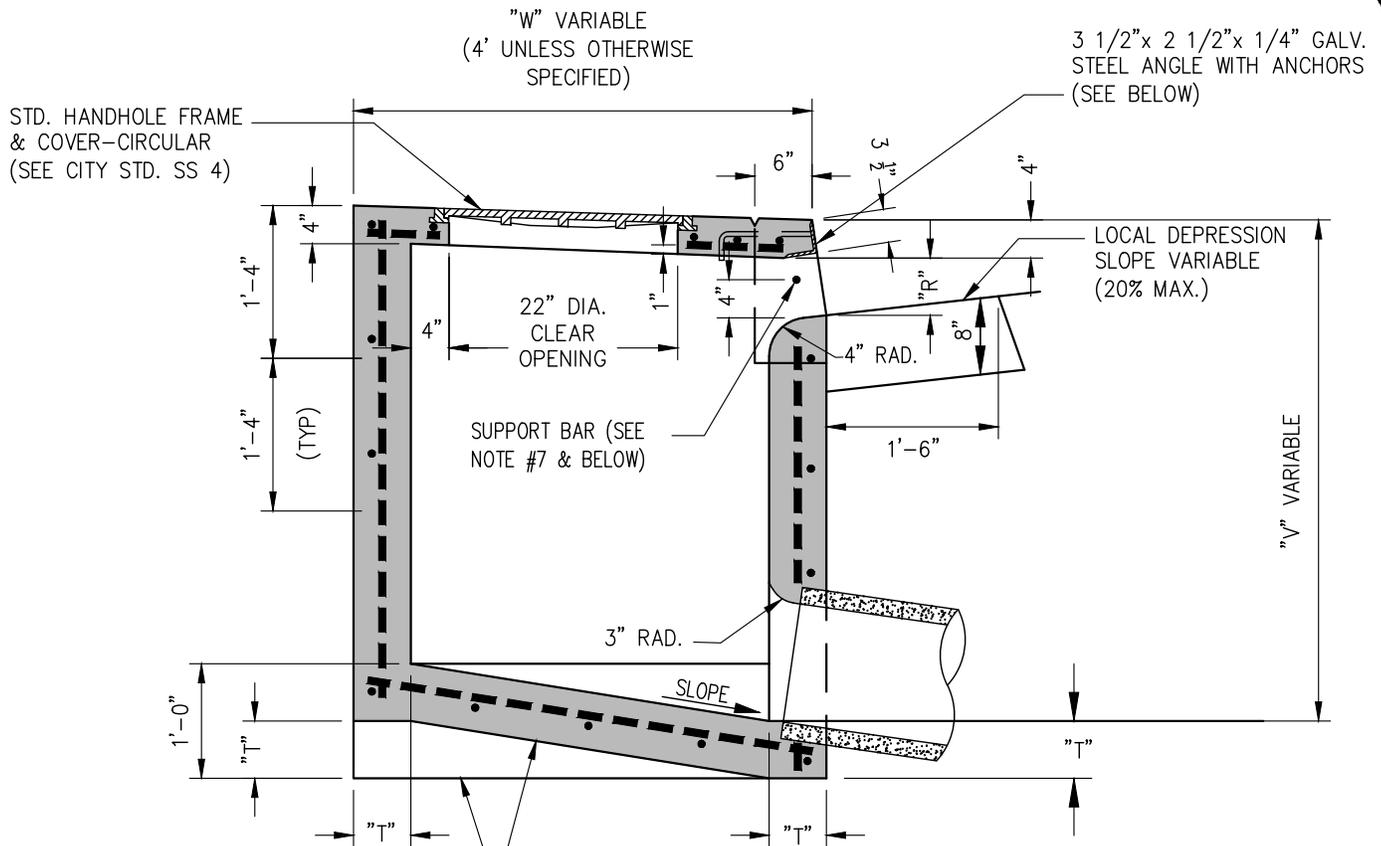


REBAR AT CURB OPENING  
NTS

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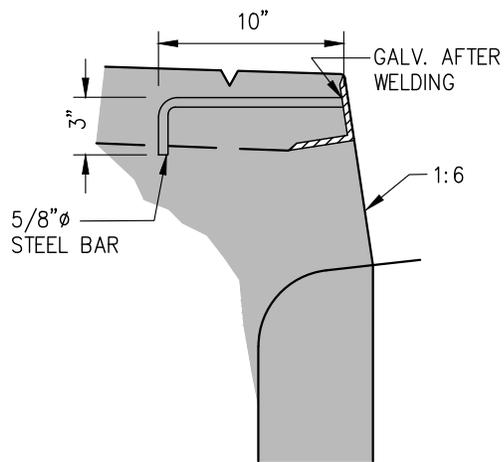
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	DATE 12/07/21		

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SD 1-2.dwg Layout Name: SD 1-2 Plot Date: Dec 07, 2021 at 12:08

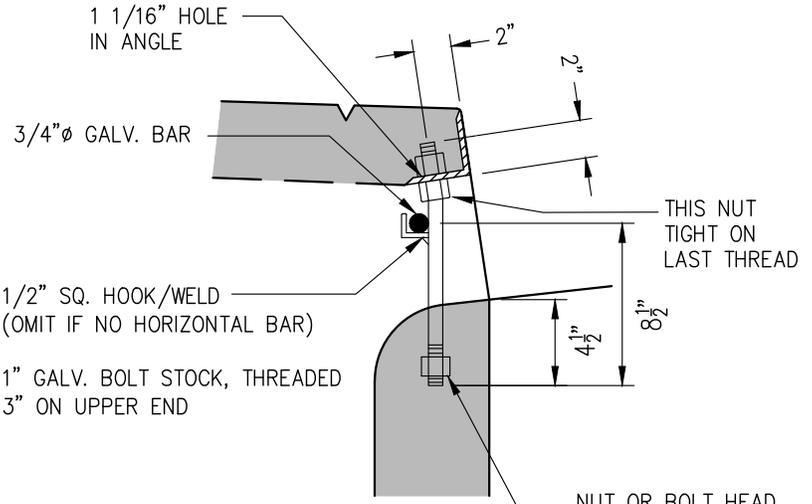


CONSTRUCT BASE ON LEVEL SUB-GRADE OR SLOPE SUB-GRADE (CONTRACTOR OPTION)

**SECTION "A"**  
NTS



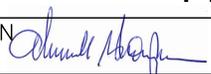
**ANGLE ANCHOR**  
NTS



**SUPPORT BAR**  
NTS

WALL THICKNESS	
"T"	"V"
6"	8' OR LESS
8"	EXCEEDS 8'

NO.	REVISED	BY	APP.

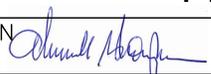
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	<b>CATCH BASIN TYPE 1</b>		<b>SD 1-2</b>
	DWN: CLG CHK JT DEC 2021	RUSS THOMPSON CITY ENGINEER 	DATE 12/07/21

NOTES:

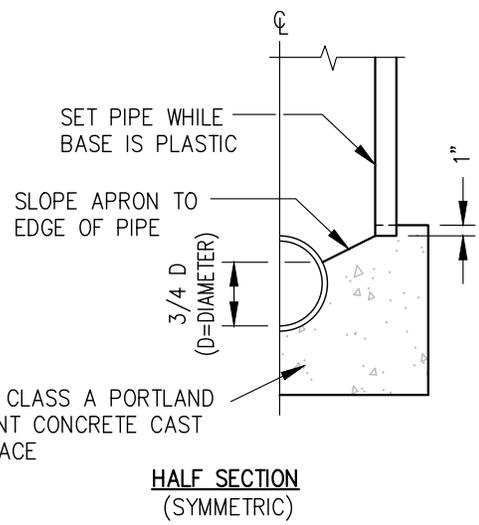
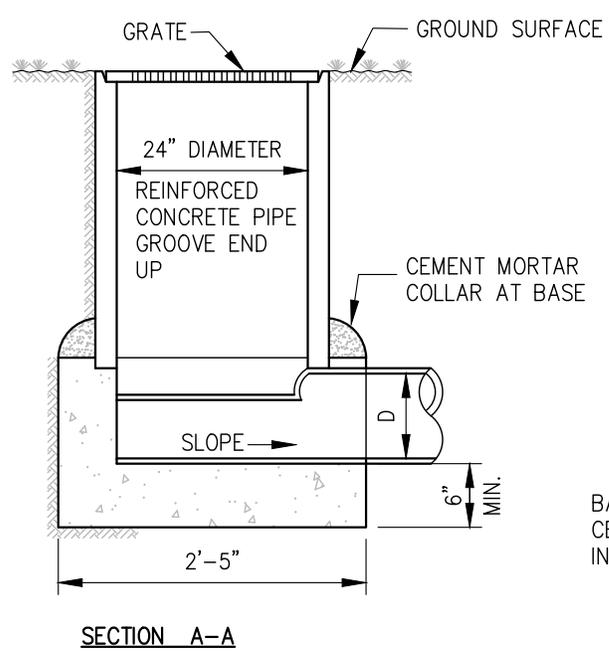
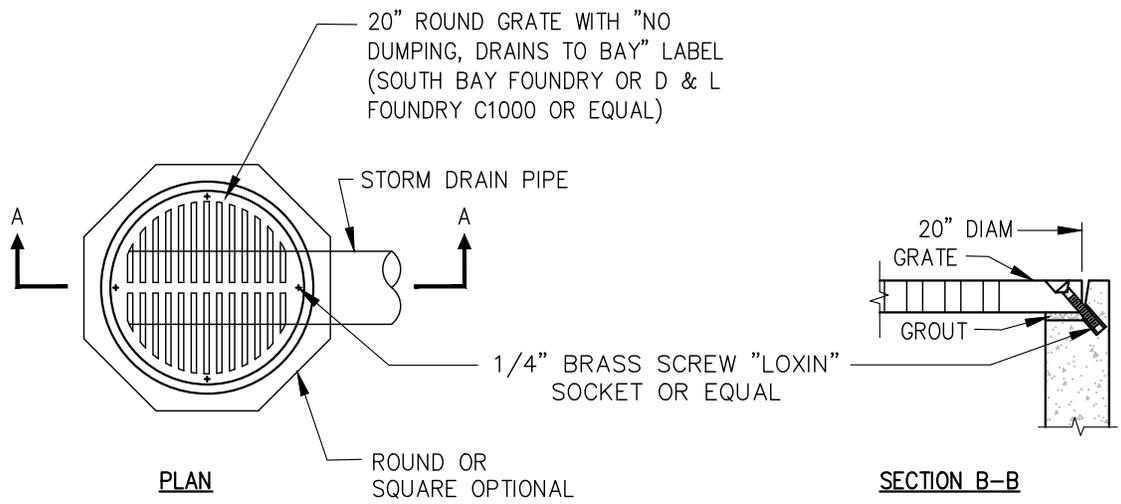
1. CONNECTION PIPES MAY BE PLACED IN ANY POSITION AROUND THE WALLS PROVIDED THEY POINT IN THE PROPER DIRECTION AND THE POSITION IS OTHERWISE CONSISTENT WITH THE IMPROVEMENT PLAN.
2. CURVATURE OF THE LIP AND SIDEWALLS AT GUTTER OPENING SHALL BE FORMED BY CURVED FORMS AND SHALL NOT BE MADE BY PLASTERING.
3. WALL THICKNESS (T)  
 T = 6 INCHES IF H IS 8 FEET OR LESS  
 T = 8 INCHES IF H EXCEEDS 8 FEET.
4. DEPTH (H) SHALL BE A MAXIMUM OF 6 FEET. FOR DEPTHS BETWEEN 6 FEET TO 12 FEET, CATCH BASIN SHALL BE ON A MAINTENANCE HOLE BASE, SEE SS 4. FOR DEPTHS GREATER THAN 12 FEET DEEP REQUIRE A SPECIAL DESIGN BY A REGISTERED CIVIL ENGINEER.
5. FLOOR OF BASIN SHALL BE TROWELED AND RETROWELED TO PRODUCE A HARD, POLISHED SURFACE OF MAXIMUM DENSITY AND SMOOTHNESS. SLOPE OF FLOOR PARALLEL WITH CURB SHALL BE 1 TO 12 UNLESS OTHERWISE SPECIFIED.
6. MAINTENANCE HOLE SHALL BE PLACED AS SHOWN IN IMPROVEMENT PLANS.
7. OUTLET PIPE SHALL BE TRIMMED TO THE FINAL SHAPE AND LENGTH BEFORE CONCRETE IS POURED.
8. REINFORCING STEEL SHALL BE #4 ROUND DEFORMED BARS. SPLICES SHALL BE 10" MIN. LAPS (INCLUDING CORNERS)
9. CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF STATE STANDARD SPECIFICATION, 3/4" AGGREGATE.
10. STEPS ARE NOT ALLOWED.
11. SURFACE OF ALL EXPOSED CONCRETE IN BASIN SHALL CONFORM IN SLOPE, GRADE, COLOR, FINISH, AND SCORING TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO THE BASIN.
12. EXCEPTION WHEN THE BASIN IS TO BE CONSTRUCTED WITHIN THE LIMITS OF A PROPOSED SIDEWALK OR IS CONTIGUOUS TO SUCH A SIDEWALK, THE TOP OF THE BASIN SHALL BE POURED MONOLITHIC WITH THE SIDEWALK, USING THE SAME CLASS OF CONCRETE AS IN THE SIDEWALK. IN THIS CASE THE DOWELS BETWEEN WALL AND TOP OF SLAB SHALL BE OMITTED AND THE TOP OF THE CATCH BASIN WALL FINISHED SMOOTH.
13. GENERAL NOTES: CATCH BASIN DETAILS SHOWN ARE FOR CAST-IN-PLACE. PRECAST OR PREFORMED ALTERNATES MAY BE APPROVED AT THE DISCRETION OF THE CITY ENGINEER. (OLDCASTLE PRE-CAST MODEL 3AC/4AC, JENSEN SACRAMENTO COUNTY TYPE G, OR SIMILAR.)
14. HORIZONTAL PROTECTION BAR SHALL BE USED WHEN CURB FACE IS 10 INCHES OR MORE.
15. WHEN "L" EXCEEDS 3'-6", VERTICAL SUPPORT BARS SHALL BE USED AT 42" MAX. SPACING.
16. "NO DUMPING - DRAINS TO BAY" LABELING.

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SD 1-3.dwg  
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	CHK JT	<b>CATCH BASIN TYPE 1</b>	<b>SD 1-3</b>
	DEC 2021	RUSS THOMPSON CITY ENGINEER 	DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SD 2.dwg Layout Name: SD 2 Plot Date: Dec 07, 2021 at 12:14



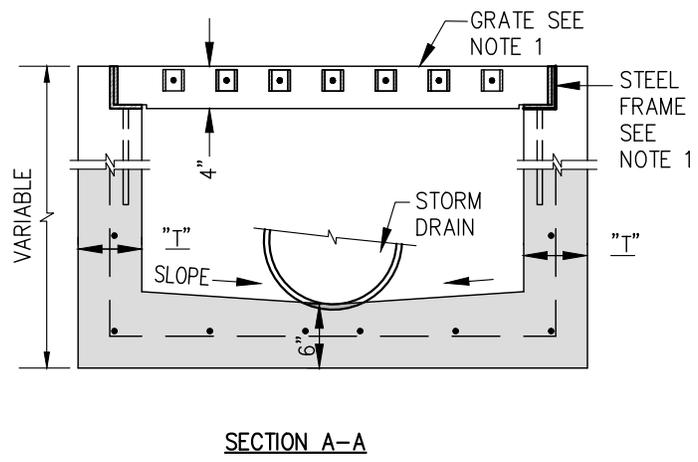
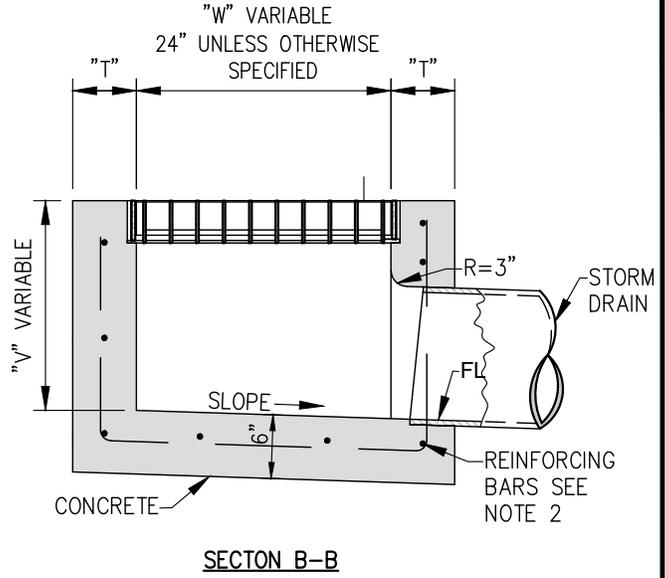
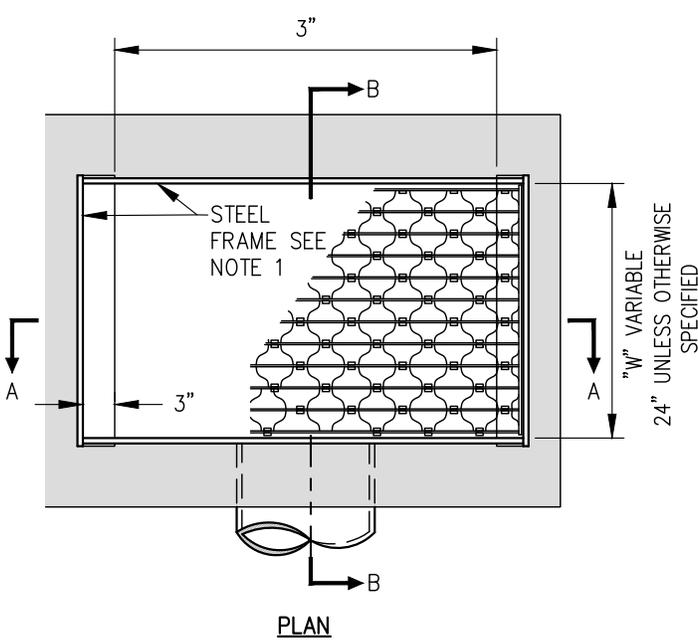
**NOTE:**

1. FOR USE IN CITY PARKS OR ON PRIVATE PROPERTY ON A CASE BY CASE BASIS PER APPROVED PLANS. PRECAST CONCRETE CONSTRUCTION OF SAME OR LARGER DIMENSIONS IS ACCEPTABLE (E.G. JENSEN PRECAST MODEL NO. D1203NB DROP INLET OR SIMILAR).
2. ALL CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF STATE SPECIFICATIONS, 3/4" AGGREGATE.

NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	CHK JT	<b>CATCH BASIN TYPE A</b>	<b>SD 2</b>
	DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SD 3.dwg Layout Name: SD 3 Plot Date: Dec 07, 2021 at 12:16



- NOTES:
1. FOR 24" W FRAME AND GRATE SHALL BE GALVANIZED STEEL PHOENIX IRON WORKS P-6302 OR APPROVED EQUAL WHERE "V" IS GREATER THAN 8', "W" SHALL BE 36" WITH FRAME & GRATE INWESCO (36"x36" CLEAR OPENING) OR APPROVED EQUAL.
  2. REINFORCING BARS SHALL BE #4 BARS AT 9" O.C.
  3. SLOPE BOTTOM EACH WAY 0.10' MINIMUM TO THE OUTFALL OR AS OTHERWISE SPECIFIED.
  4. STEPS ARE NOT ALLOWED.
  5. "NO DUMPING - DRAINS TO BAY" LABELING ON LID.
  6. PRECAST, REINFORCED CONCRETE SECTIONS WITH TONGUE AND GROOVE, CASKETED JOINTS ARE ACCEPTABLE (OLDCASTLE OR JENSEN PRECAST TYPE G1).
  7. CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF STATE SPECIFICATIONS, 3/4" AGGREGATE.

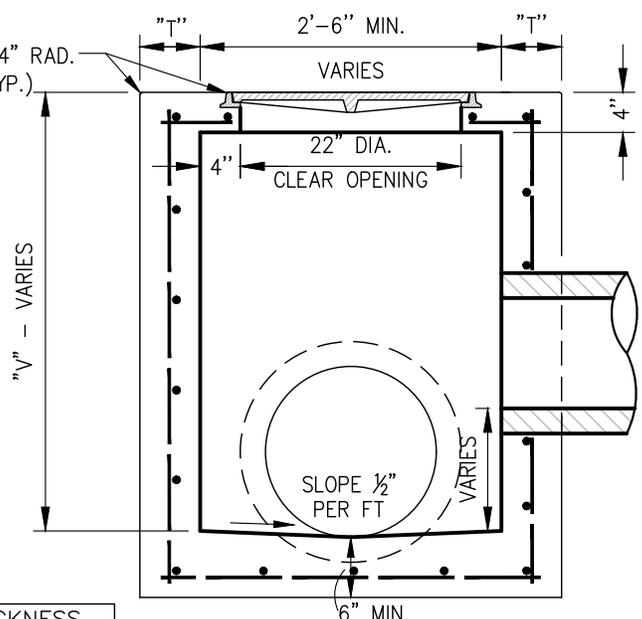
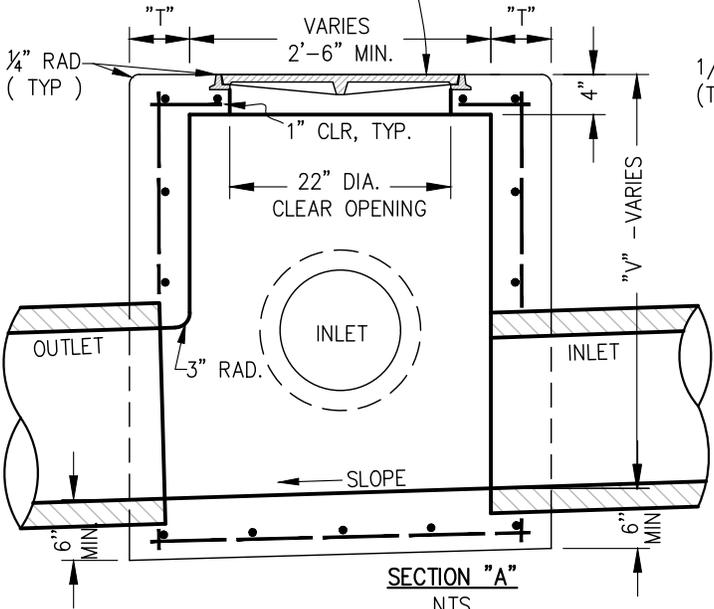
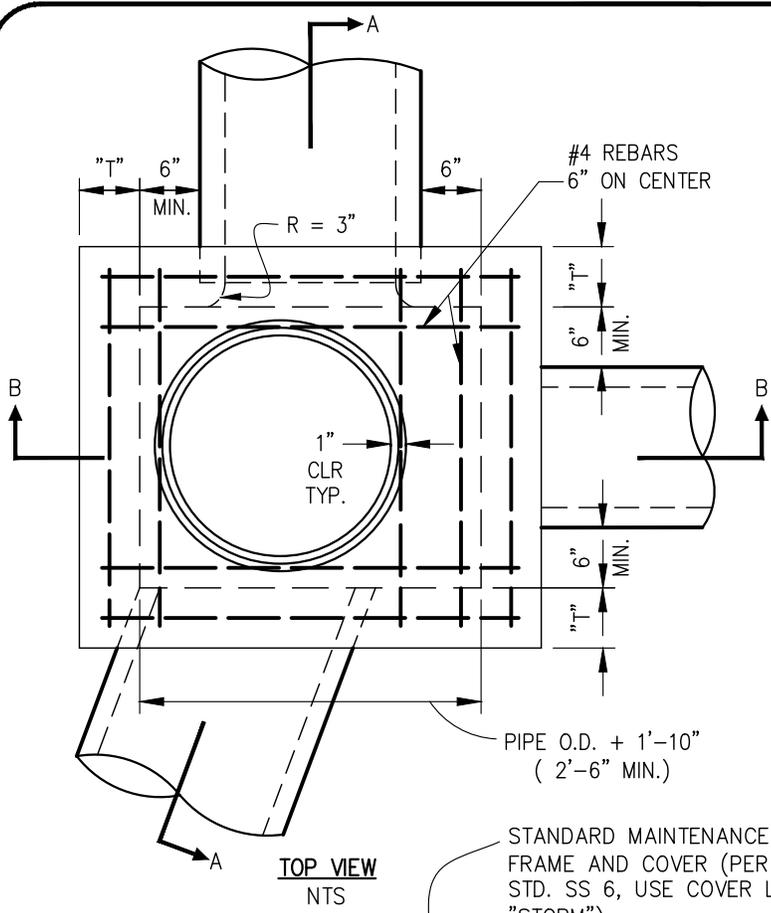
WALL THICKNESS	
"T"	"V"
6"	8' OR LESS
8"	EXCEEDS 8'

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	<b>GRATED CATCH BASIN</b>		<b>SD 3</b>
	DWN: CLG CHK JT DEC 2021	RUSS THOMPSON CITY ENGINEER	DATE 12/07/21

**NOTES:**

1. THIS STRUCTURE NOT FOR STREET AREA USE. STREET USE REQUIRES ADDITIONAL REINFORCEMENT PER CITY ENGINEER.
2. STEPS SHALL BE USED WHEN DEPTH IS GREATER THAN 3'-6". VERTICAL SPACING AT 16" CENTERS. STEPS SHALL BE 1/2" Ø STEEL, POLYPROPYLENE PLASTIC COATED.
3. CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF STATE SPECIFICATIONS, 3/4" AGGREGATE.
4. EXPOSED SURFACES TO CONFORM TO ADJOINING CURB AND WALK IN GRADE & FINISH.
5. WALLS AND FLOOR SHALL BE REINFORCED WITH #3 BARS AT 9" C-C. ROOF SHALL BE REINFORCED WITH #4 BARS AS SHOWN. ALL SPLICES IN REINFORCING SHALL HAVE 10" MIN. LAP (INCLUDING AT CORNERS). BARS SHALL BE PLACED 2 1/2" CLEAR FROM INTERIOR FACES EXCEPT AS NOTED.
6. INLET & OUTLET LOCATIONS AS SPECIFIED.
7. PRECAST, REINFORCED CONCRETE SECTIONS WITH TONGUE AND GROOVE, GASKETED JOINTS MAY BE APPROVED AT THE DISCRETION OF CITY ENGINEER.

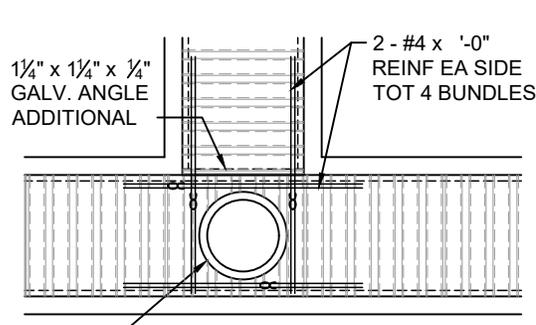
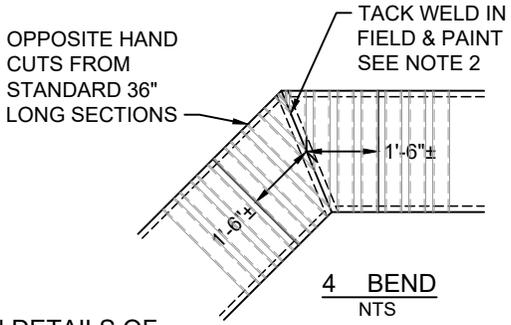


NO.	REVISED	BY	APP.

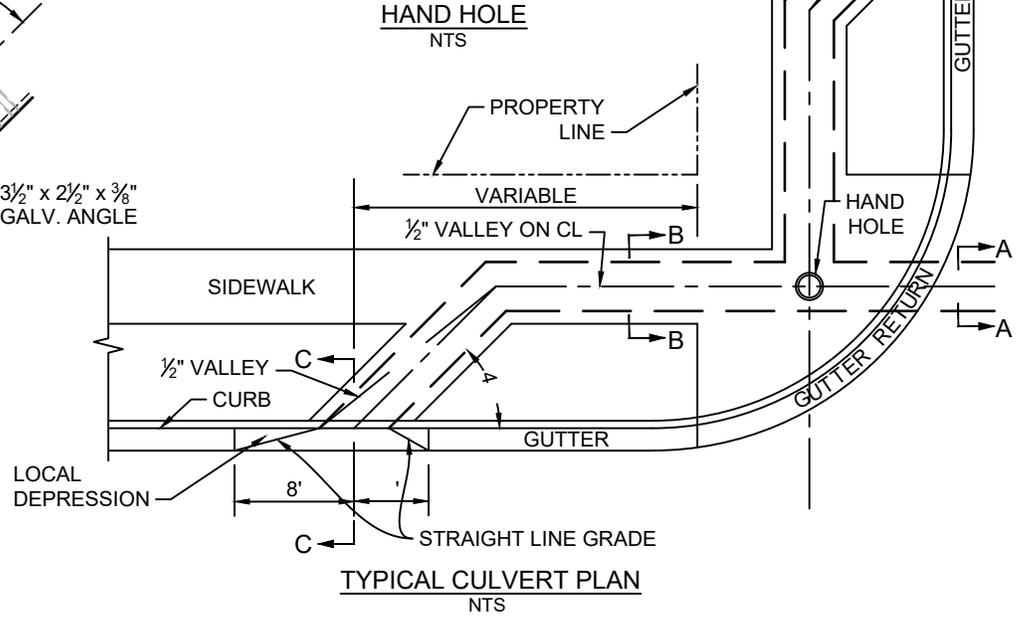
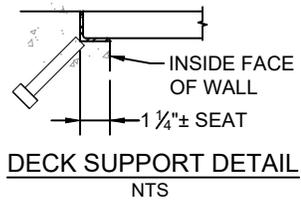
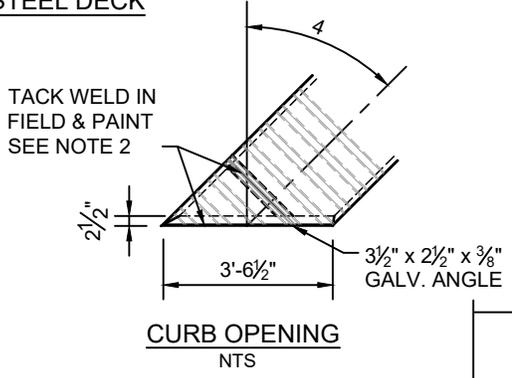
WALL THICKNESS	
"T"	"V"
6"	8' OR LESS
8"	EXCEEDS 8'

Images: Alameda.png; RST Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SD 4.dwg Layout Name: SD 4 Plot Date: Dec 07, 2021 at 12:17

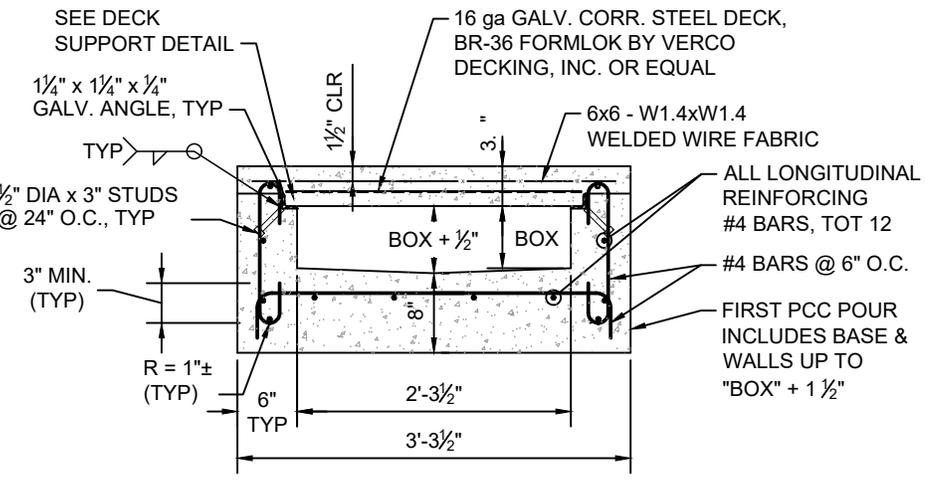
	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	MAINTENANCE HOLE FOR STORM DRAIN	SD 4
	DWN: CLG CHK: JT DEC 2021 RUSS THOMPSON CITY ENGINEER	DATE 12/07/21 SCALE: NONE



**PLAN DETAILS OF GALV. CORRUGATED STEEL DECK**



**DECK SUPPORT DETAIL**



**NOTES**

1. MAXIMUM "BOX" DIMENSION IS 6".
2. PLACE 4" TO 6" WIDE SELF-ADHESIVE WATERPROOF FLASHING (POLYOLEFIN-COATED FABRIC WITH BUTYL RUBBER ADHESIVE) AT SECTIONS THAT ARE CUT OR DISCONTINUOUS.

**MATERIALS**

CONCRETE	PER SECTION 90-2 MINOR CONCRETE OF CALTRANS STD SPECS 2018
REBARS	ASTM A61 , GRADE 60
STEEL DECK	ASTM A6 3 SS GRADE 0
STEEL ANGLES	ASTM A36 GRADE 36
STEEL STUDS	ASTM A30
WELDING	AWS D1.1

NO.	REVISED	BY	APP.



CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT

**CULVERT - 30 INCH**

DWN: GM  
CHK BC

ROBERT VANCE  
CITY ENGINEER *Robert Vance*

JUNE 2023

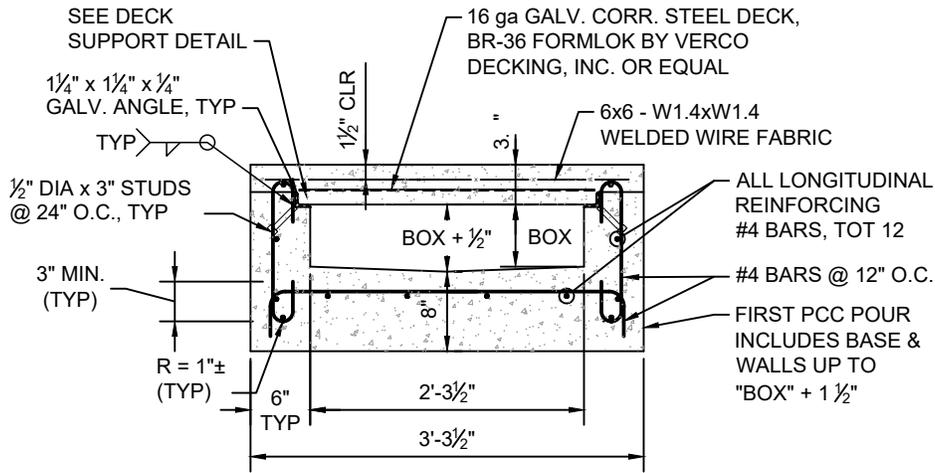
DATE 06/05/23

STD DETAIL

**SD -1**

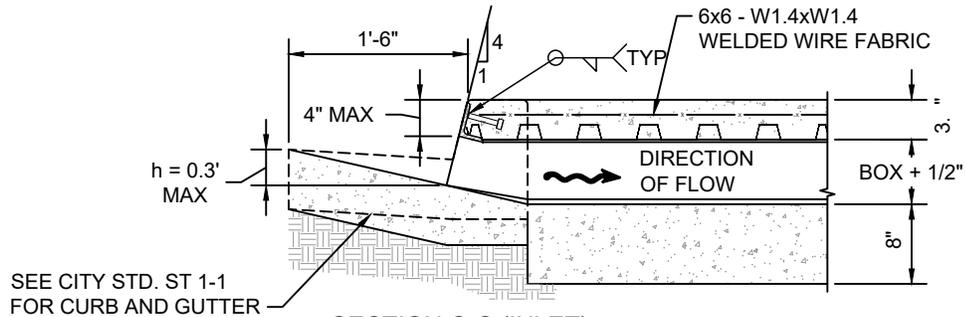
PAGE 1 OF 2

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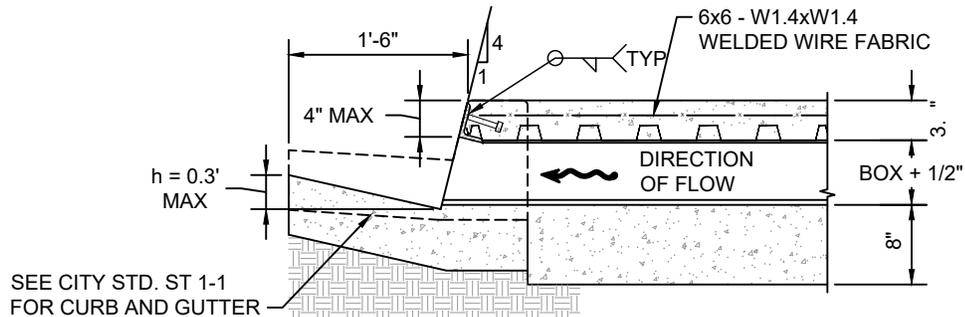
**SIDEWALK SECTION B-B**

NTS



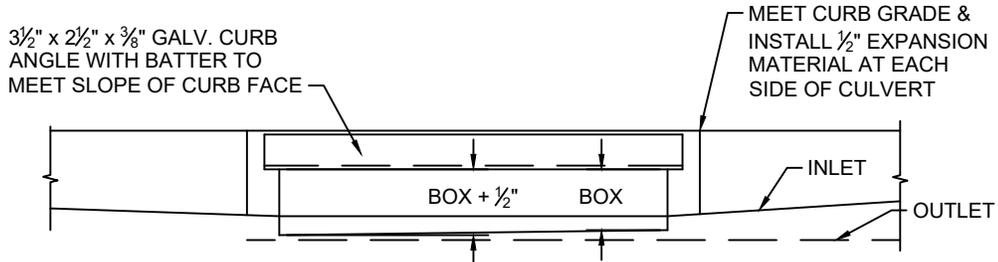
**SECTION C-C (INLET)**

NTS



**SECTION C-C (OUTLET)**

NTS

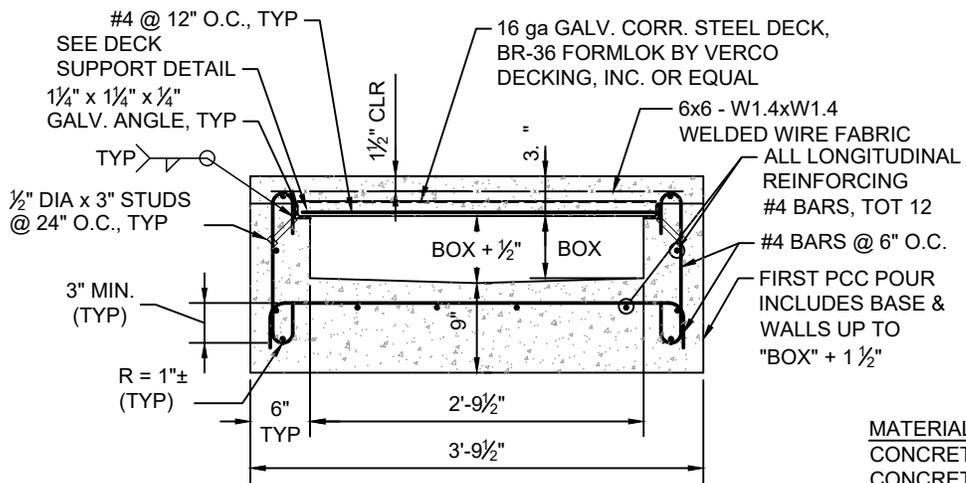
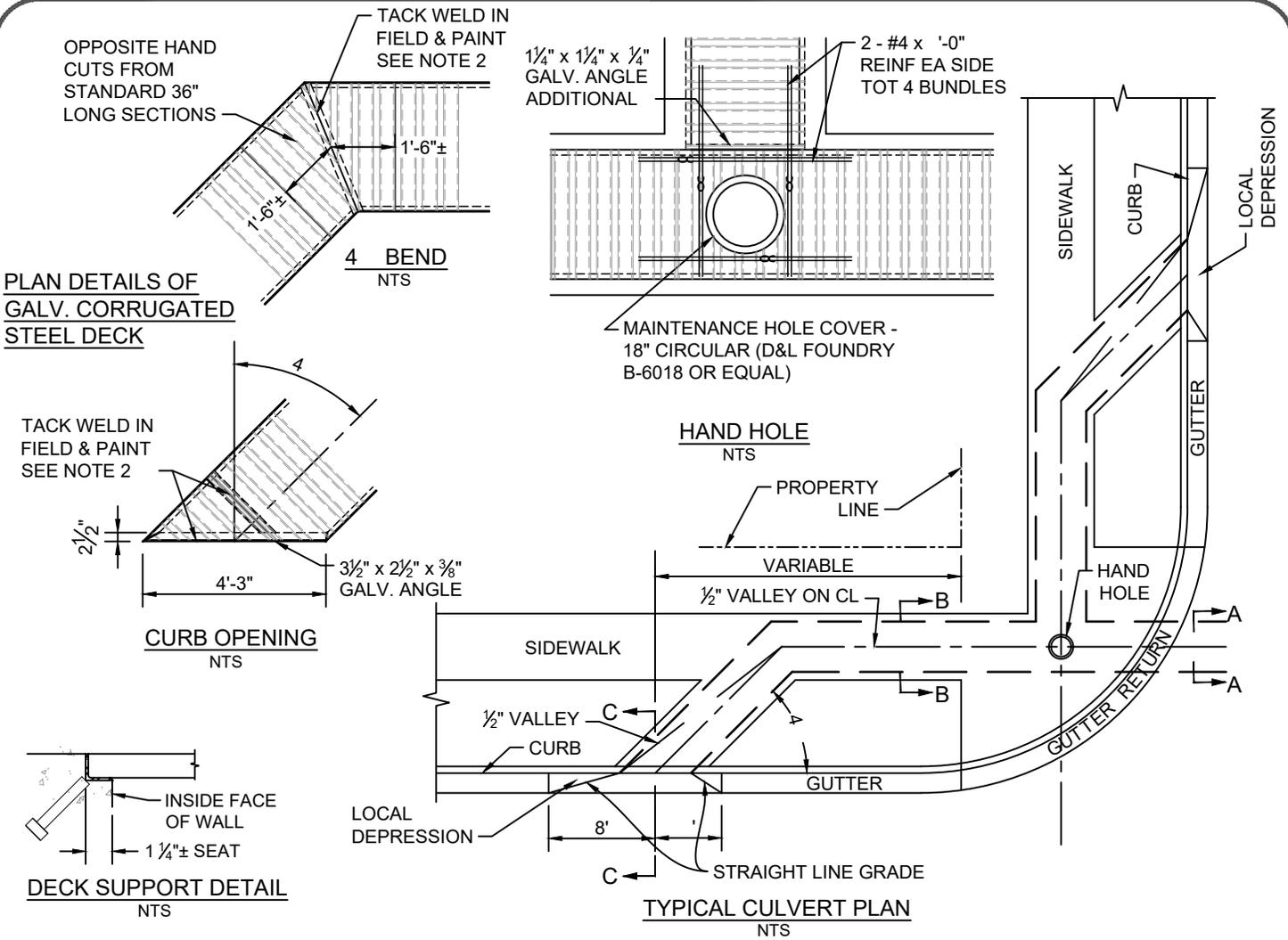


**CURB OPENING**

NTS

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	<b>CULVERT - 30 INCH</b>	<b>SD -1</b>
	DWN: GM CHK BC JUNE 2023	ROBERT VANCE CITY ENGINEER <i>Robert Vance</i>



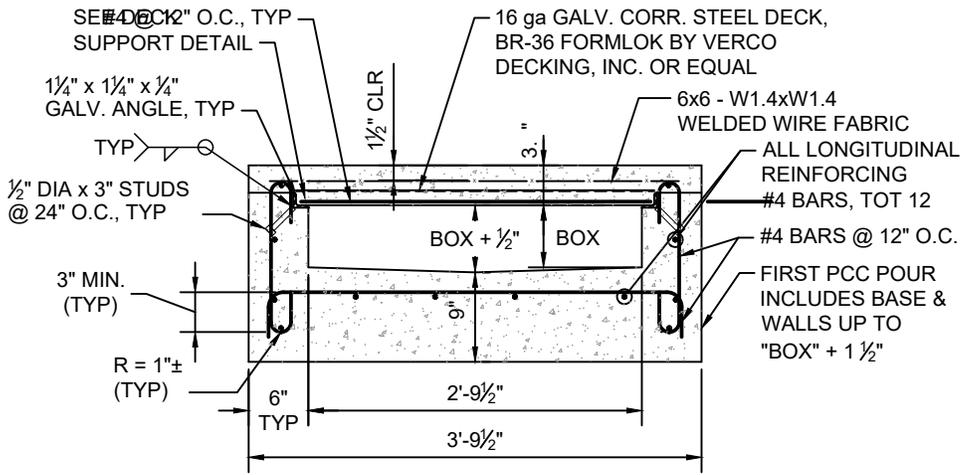
- NOTES**
1. MAXIMUM "BOX" DIMENSION IS 6".
  2. PLACE 4" TO 6" WIDE SELF-ADHESIVE WATERPROOF FLASHING (POLYOLEFIN-COATED FABRIC WITH BUTYL RUBBER ADHESIVE) AT SECTIONS THAT ARE CUT OR DISCONTINUOUS.

**MATERIALS**

CONCRETE TOP DECK	4,000	AT 28 DAYS
CONCRETE BASE & WALLS	PER SECTION 90-2	MINOR CONCRETE OF CALTRANS STD SPECS 2018
REBARS	ASTM A61	GRADE 60
STEEL DECK	ASTM A6	3 SS GRADE 0
STEEL ANGLES	ASTM A36	GRADE 36
STEEL STUDS	ASTM A30	
WELDING	AWS D1.1	

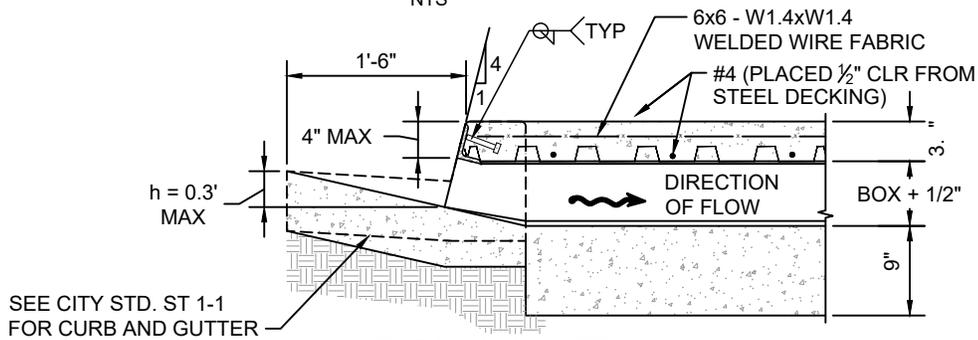
NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	<b>CULVERT - 36 INCH</b>		<b>SD 6-1</b>
	DWN: GM CHK BC JUNE 2023	ROBERT VANCE CITY ENGINEER <i>Robert Vance</i>	DATE 06/05/23



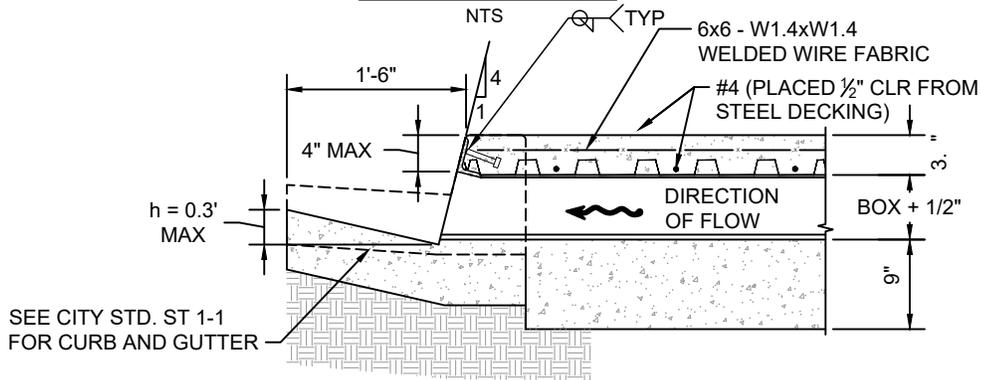
**SIDEWALK SECTION B-B**

NTS



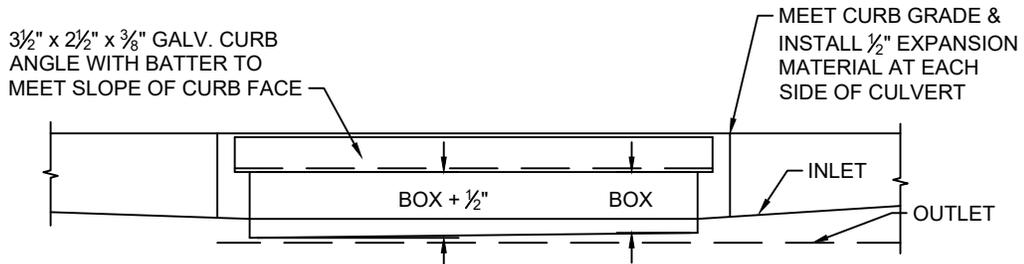
**SECTION C-C (INLET)**

NTS



**SECTION C-C (OUTLET)**

NTS

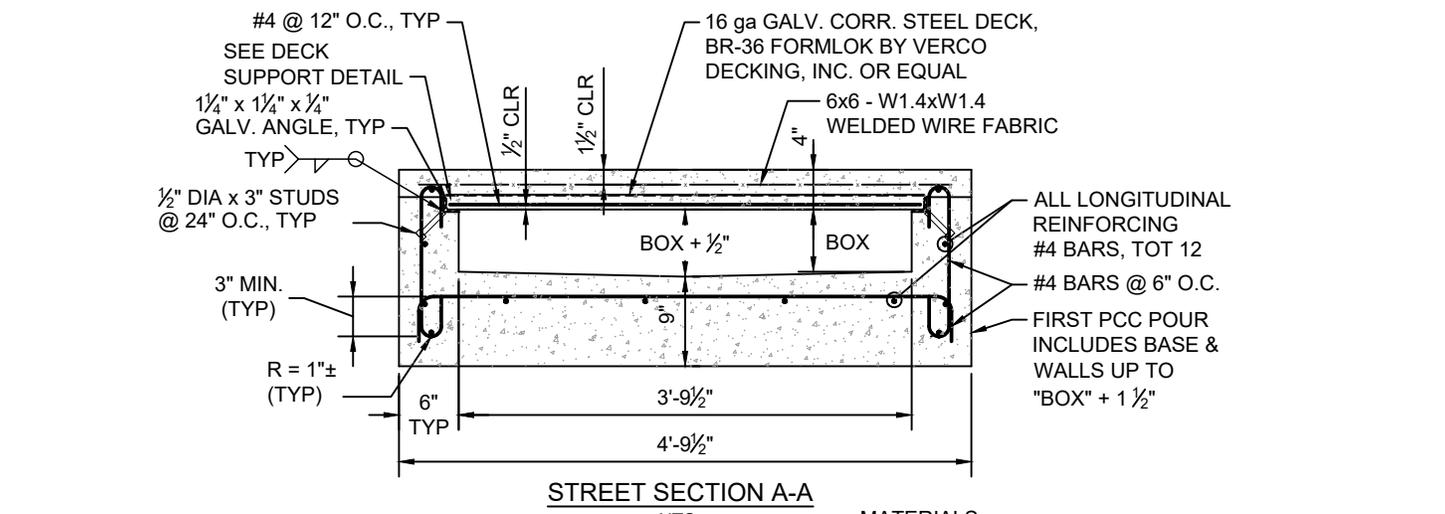
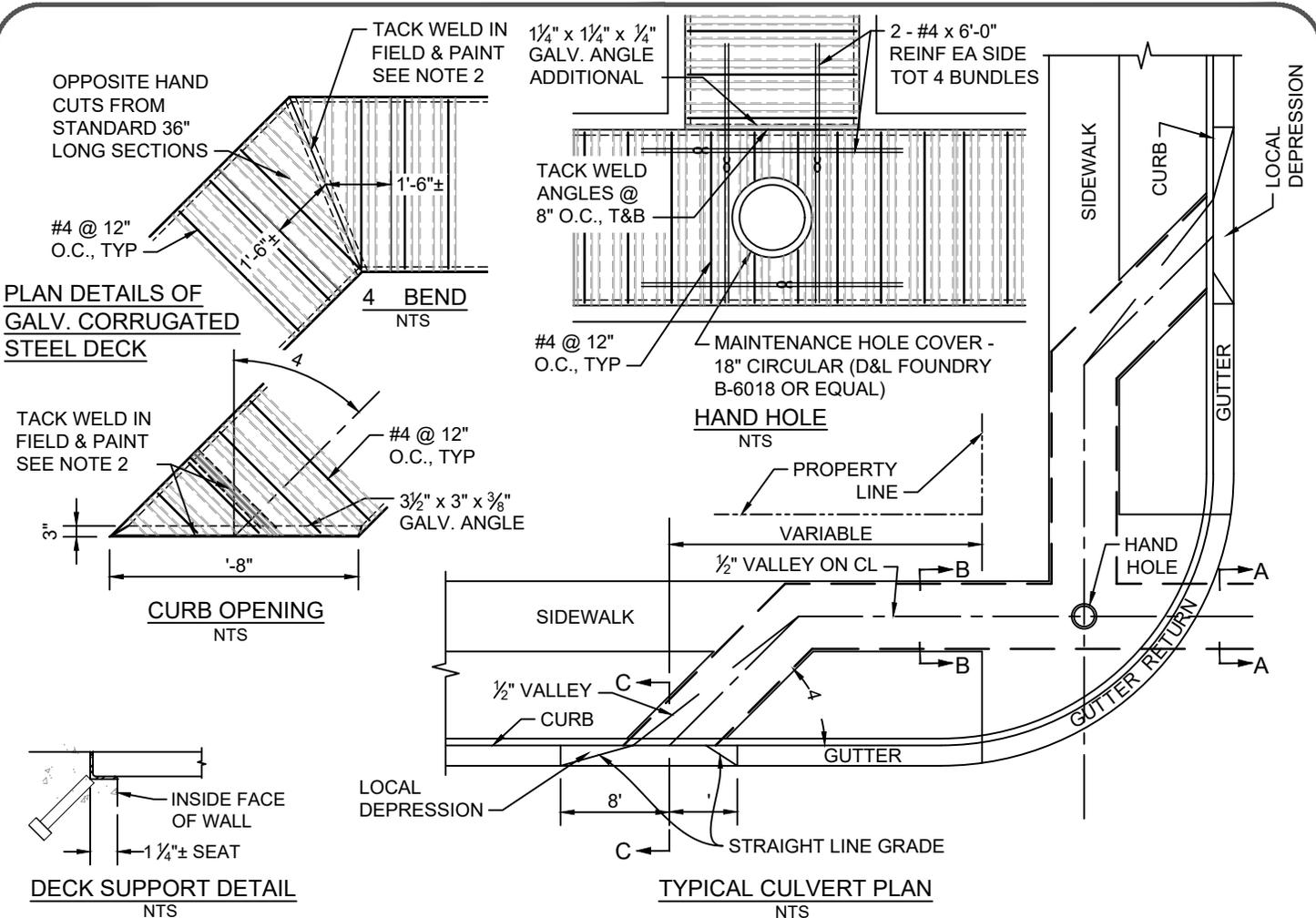


**CURB OPENING**

NTS

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	<b>CULVERT - 36 INCH</b>		<b>SD 6-1</b>
	DWN: GM CHK BC JUNE 2023	ROBERT VANCE CITY ENGINEER <i>Robert Vance</i>	DATE 06/05/23



**NOTES**

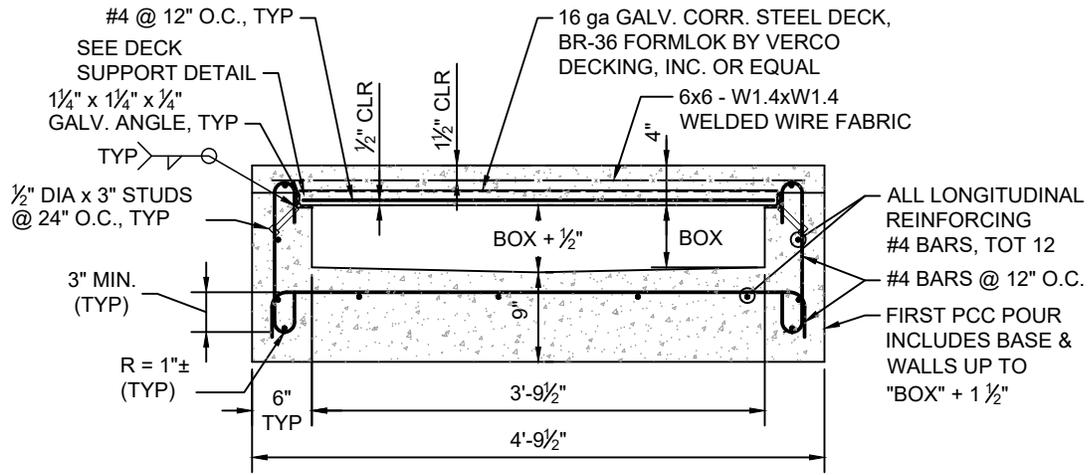
1. MAXIMUM "BOX" DIMENSION IS 6".
2. PLACE 4" TO 6" WIDE SELF-ADHESIVE WATERPROOF FLASHING (POLYOLEFIN-COATED FABRIC WITH BUTYL RUBBER ADHESIVE) AT SECTIONS THAT ARE CUT OR DISCONTINUOUS.

**MATERIALS**

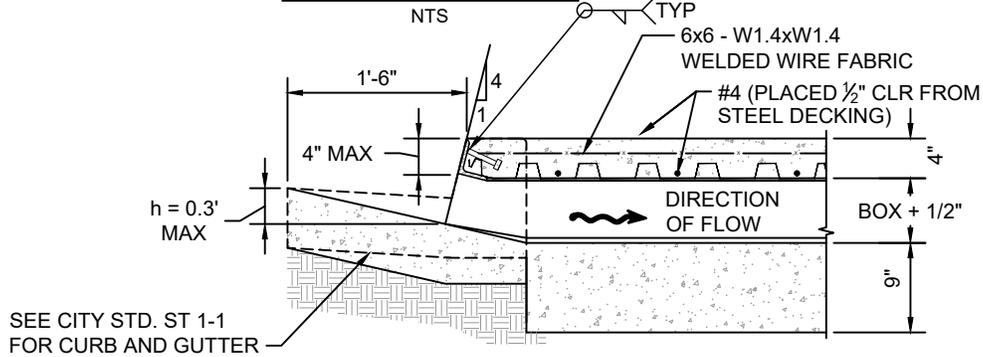
CONCRETE TOP DECK	4,000	AT 28 DAYS
CONCRETE BASE & WALLS	PER SECTION 90-2	MINOR CONCRETE OF CALTRANS STD SPECS 2018
REBARS	ASTM A61	, GRADE 60
STEEL DECK	ASTM A6	3 SS GRADE 0
STEEL ANGLES	ASTM A36	GRADE 36
STEEL STUDS	ASTM A30	
WELDING	AWS D1.1	

NO.	REVISED	BY	APP.

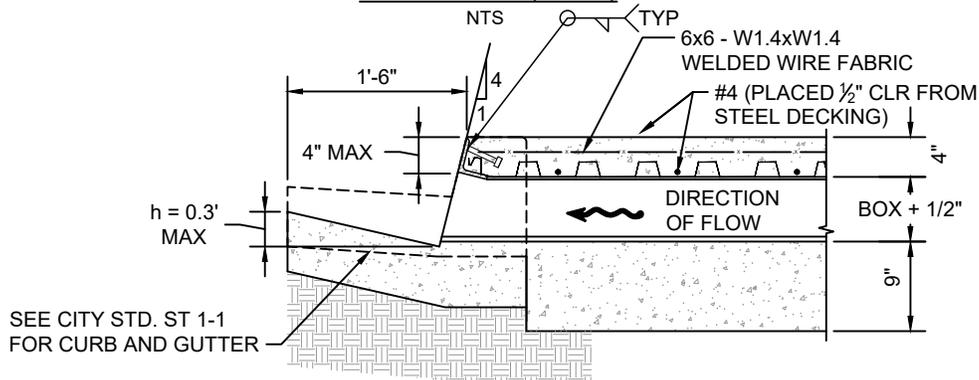
	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	<b>CULVERT - 48 INCH</b>		<b>SD 6A-1</b>
	DWN: GM	CHK BC	ROBERT VANCE CITY ENGINEER <i>Robert Vance</i>
JUNE 2023	DATE 06/05/23	SCALE: NONE	



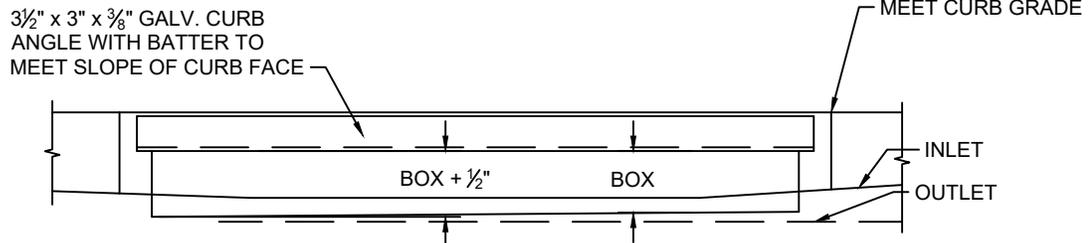
**SIDEWALK SECTION B-B**



**SECTION C-C (INLET)**



**SECTION C-C (OUTLET)**



**CURB OPENING**

NTS

NO.	REVISED	BY	APP.



DWN: GM

CHK BC

JUNE 2023

CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT

**CULVERT - 48 INCH**

ROBERT VANCE  
CITY ENGINEER *Robert Vance*

DATE 06/05/23

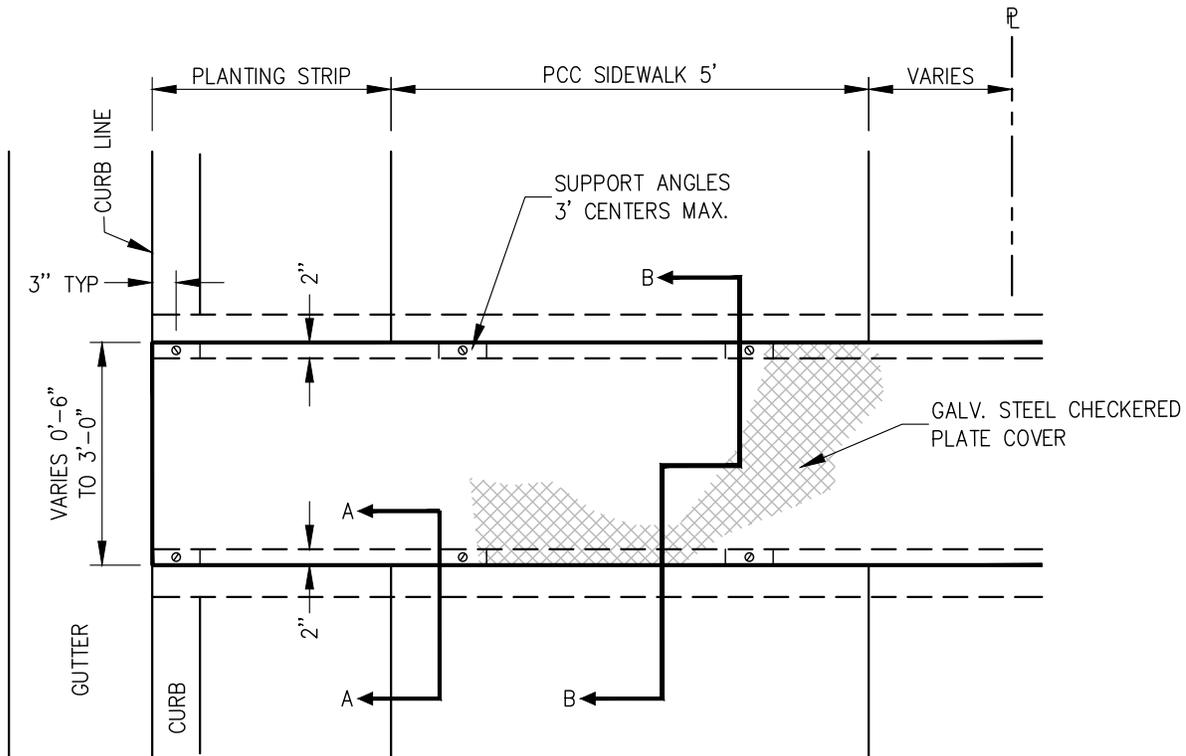
STD DETAIL

**SD 6A-1**

PAGE 2 OF 2

SCALE: NONE

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SD 7-1.dwg Layout Name: SD 7-1 Plot Date: Dec 07, 2021 at 12:29



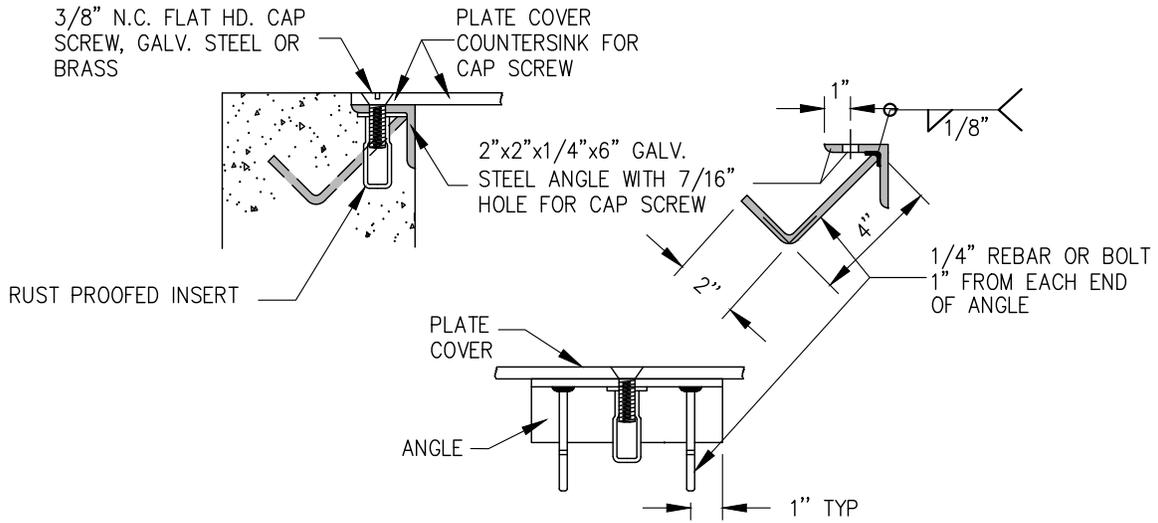
PLAN  
NTS

CHECKERED PLATE COVER THICKNESS		
INTERIOR WIDTH OF CHANNEL	DRIVEWAY AREA	SIDEWALK AREA
6" TO 1'-6"	5/8"	3/8"
1'-7" TO 2'-0"	11/16"	
2'-1" TO 3'-0"	3/4"	

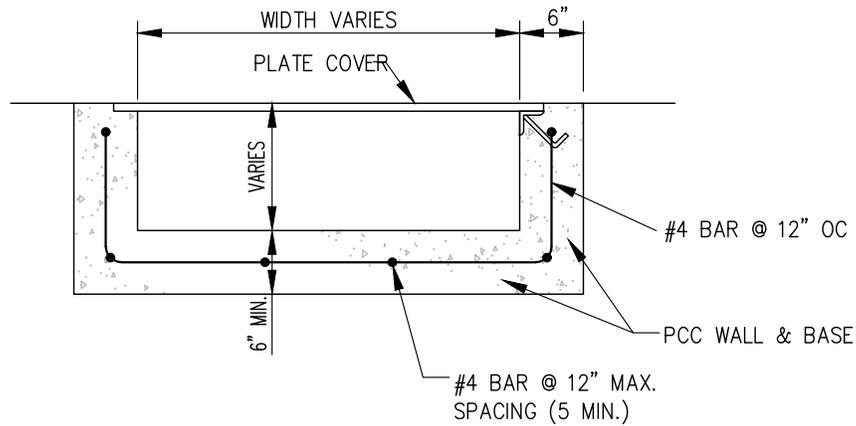
NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	CHK JT	<b>DRAINAGE CHANNEL</b>	<b>SD 7-1</b>
	DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SD 7-2.dwg Layout Name: SD 7-2 Plot Date: Dec 07, 2021 at 12:30



**SECTION A-A**  
NTS

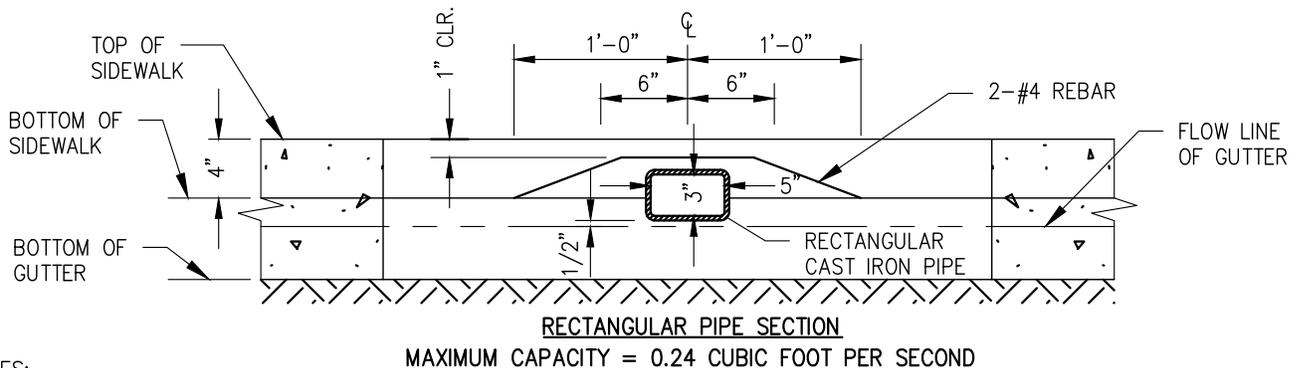
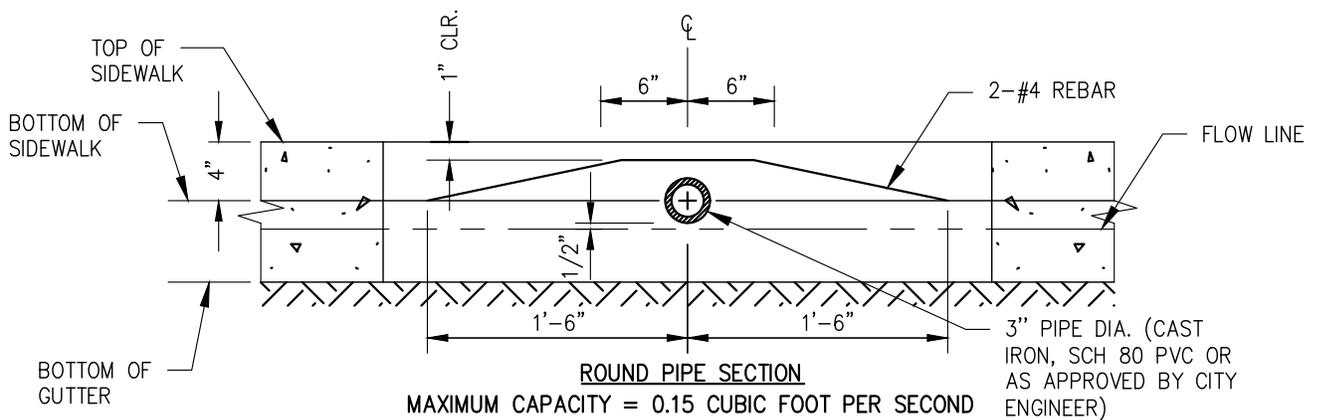
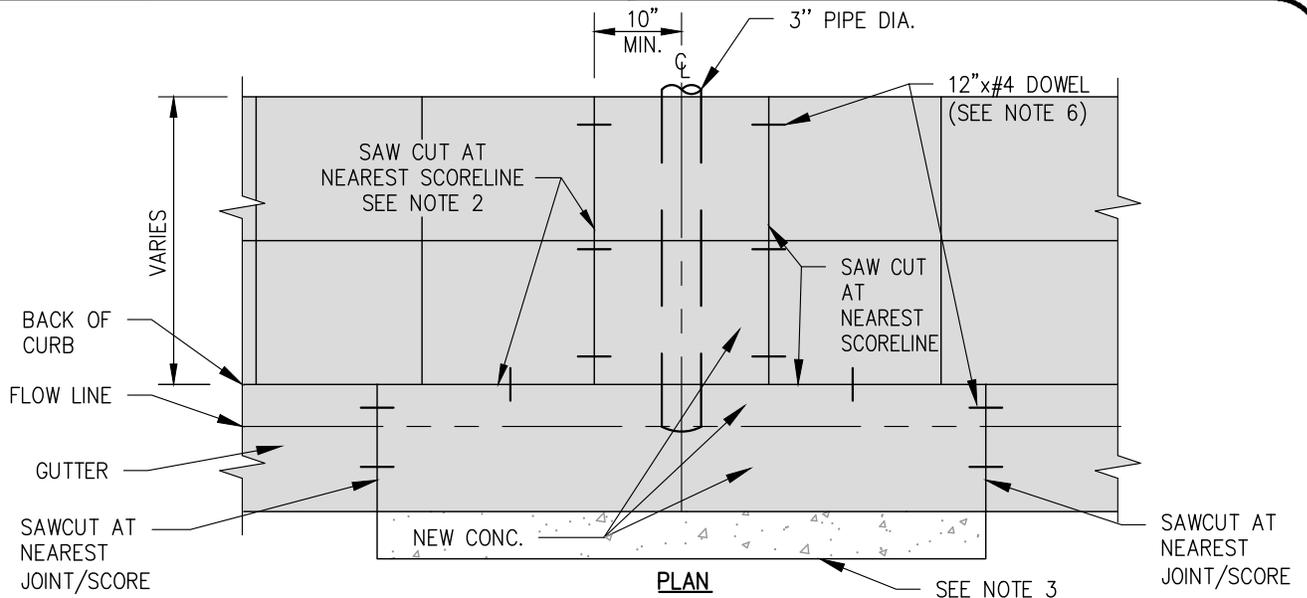


**SECTION B-B**  
NTS

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	<b>DRAINAGE CHANNEL</b>		<b>SD 7-2</b>
	DWN: CLG CHK JT DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SD 8.dwg Layout Name: SD 8 Plot Date: Dec 07, 2021 at 12:31



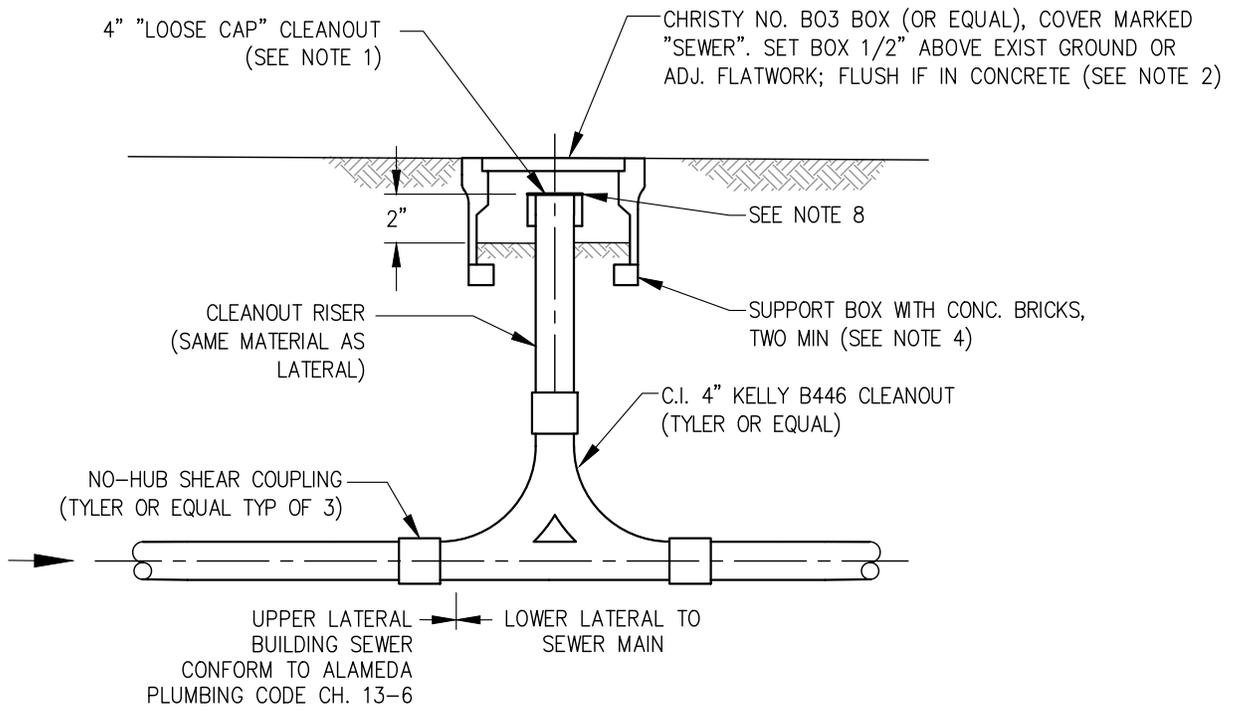
**NOTES:**

1. PRIOR TO BEGINNING ANY WORK, AN ENCROACHMENT PERMIT SHALL BE OBTAINED.
2. THE NUMBER OF OUTLET PIPES IS SUBJECT TO REVIEW BY THE CITY ENGINEER.
3. REFER TO ST 1-1 FOR CURB & GUTTER DETAILS.
4. ALL CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2, "MINOR CONCRETE" OF STATE SPECIFICATION. 3/4" AGGREGATE WITH 1 1/2 POUNDS OF LAMP BLACK PER CUBIC YARD. FINISH TO BE UNIFORM MEDIUM BROOMED TEXTURE.
5. MINIMUM SLOPE OF DRAIN PIPE TO BE 1%.
6. 12" #4 REBAR DOWLS, 6" MINIMUM DEPTH INTO EXISTING SIDEWALK, CURB & GUTTER. DO NOT DOWEL PRIVATE IMPROVEMENTS INTO PUBLIC IMPROVEMENTS. PIPE MATERIAL TO BE SCH 80 PVC, CAST IRON, OR AS APPROVED BY CITY ENGINEER.

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	<b>CURB DRAIN IN EXISTING CURB AND SIDEWALK</b>	<b>SD 8</b>
	DWN: CLG CHK JT DEC 2021 RUSS THOMPSON CITY ENGINEER	PAGE 1 OF 1 SCALE: NONE DATE 12/07/21

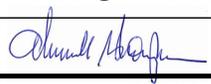
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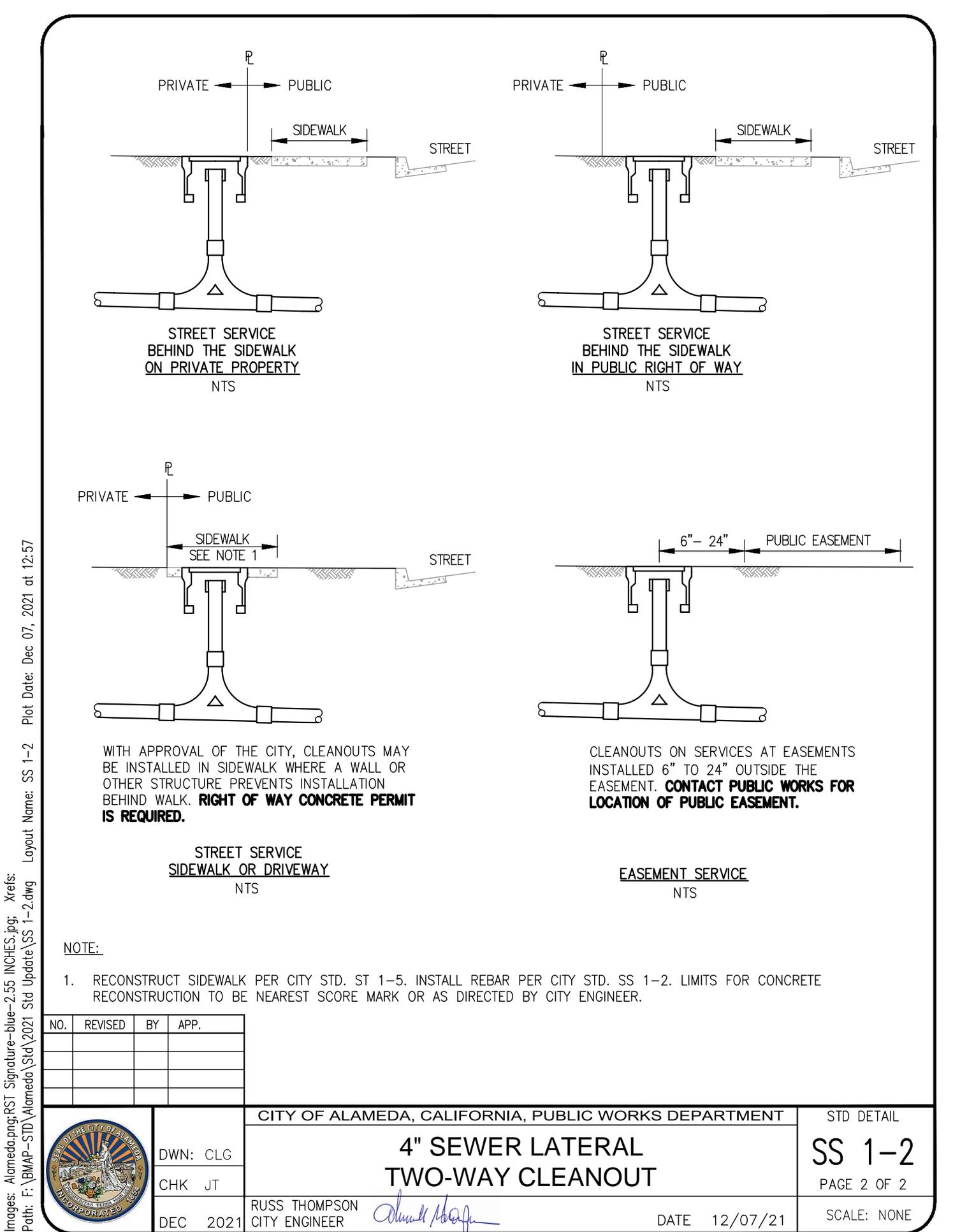


**NOTES:**

1. INSTALL CLEANOUTS ON ALL 4" SEWER LATERAL SERVICES. INSTALL "LOOSE CAP" USING RUBBER, STAINLESS STEEL BANDED END CAP, LOOSELY TIGHTENED TO ALLOW FLUID BACK PRESSURE TO REMOVE THE CAP, OR SEWER POPPER, OR SIMILAR.
2. IN DRIVEWAYS: USE CHRISTY B03C CAST-IRON LID OR EQUAL; IN LAWN/LANDSCAPE AREAS OR SIDEWALKS NOT SUBJECT TO TRAFFIC LOADING: USE CHRISTY B03D REINFORCED CONCRETE LID. IN DRIVEWAY AREAS, ANGLE BOX TO MATCH DRIVEWAY SLOPE.
3. INSTALL 2-WAY CLEANOUTS IF REQUIRED PER PLANS AND AT PROPERTY/RIGHT-OF-WAY LINE.
4. SUPPORT NOT NEEDED IF SET IN CONCRETE.
5. PROVIDE OVERFLOW PROTECTION OR BACKWATER DEVICE IF THE DIFFERENCE IN ELEVATION BETWEEN THE LOWEST FLOOR WITH PLUMBING WASTE FIXTURES OR FLOOR DRAINS AND THE RIM OF THE NEAREST UPSTREAM MANHOLE OR CLEANOUT CAP IS 12" OR LESS.
6. PROVIDE ADDITIONAL CLEANOUTS IF GREATER THAN 100 FT SPACING OR FOR EACH AGGREGATE HORIZONTAL CHANGE OF DIRECTION EXCEEDING 135 DEGREES.
7. FOR CLEANOUT LOCATION SEE DETAIL ON SHEET 2.
8. CLEARANCE FROM TOP OF CHRISTY BOX TO TOP OF CAP SHALL BE 5" MINIMUM.

NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	CHK JT	<h2 style="margin: 0;">4" SEWER LATERAL TWO-WAY CLEANOUT</h2>	<h1 style="margin: 0;">SS 1-1</h1>
	DEC 2021	RUSS THOMPSON CITY ENGINEER 	DATE 12/07/21



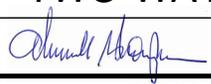
WITH APPROVAL OF THE CITY, CLEANOUTS MAY BE INSTALLED IN SIDEWALK WHERE A WALL OR OTHER STRUCTURE PREVENTS INSTALLATION BEHIND WALK. **RIGHT OF WAY CONCRETE PERMIT IS REQUIRED.**

CLEANOUTS ON SERVICES AT EASEMENTS INSTALLED 6" TO 24" OUTSIDE THE EASEMENT. **CONTACT PUBLIC WORKS FOR LOCATION OF PUBLIC EASEMENT.**

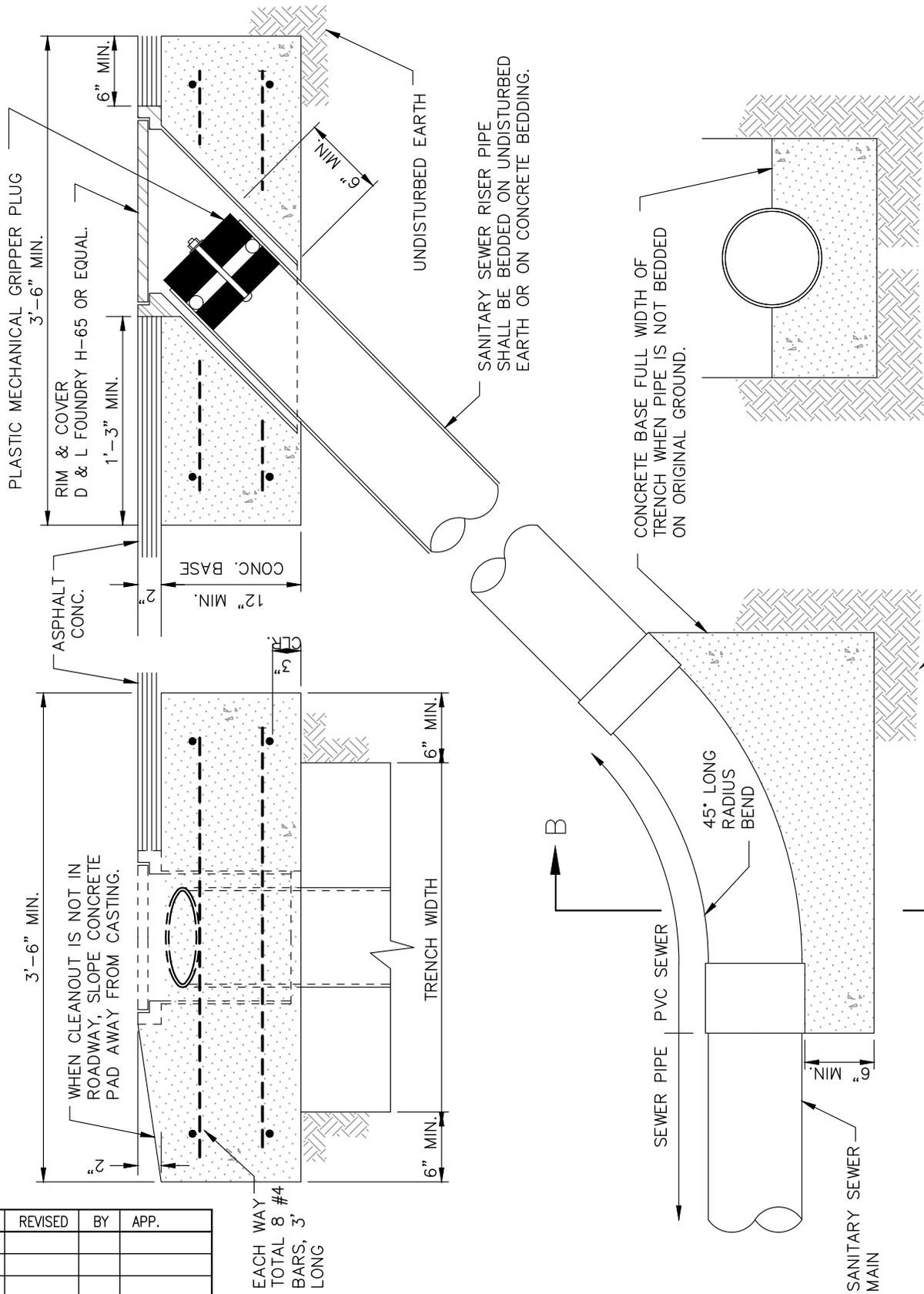
**NOTE:**

1. RECONSTRUCT SIDEWALK PER CITY STD. ST 1-5. INSTALL REBAR PER CITY STD. SS 1-2. LIMITS FOR CONCRETE RECONSTRUCTION TO BE NEAREST SCORE MARK OR AS DIRECTED BY CITY ENGINEER.

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	DWN: CLG	<b>4" SEWER LATERAL TWO-WAY CLEANOUT</b>	<b>SS 1-2</b>
	CHK JT		PAGE 2 OF 2
DEC 2021	RUSS THOMPSON CITY ENGINEER 	DATE 12/07/21	SCALE: NONE

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SECTION B-B

NO.	REVISED	BY	APP.

EACH WAY  
 TOTAL 8 #4  
 BARS, 3'  
 LONG



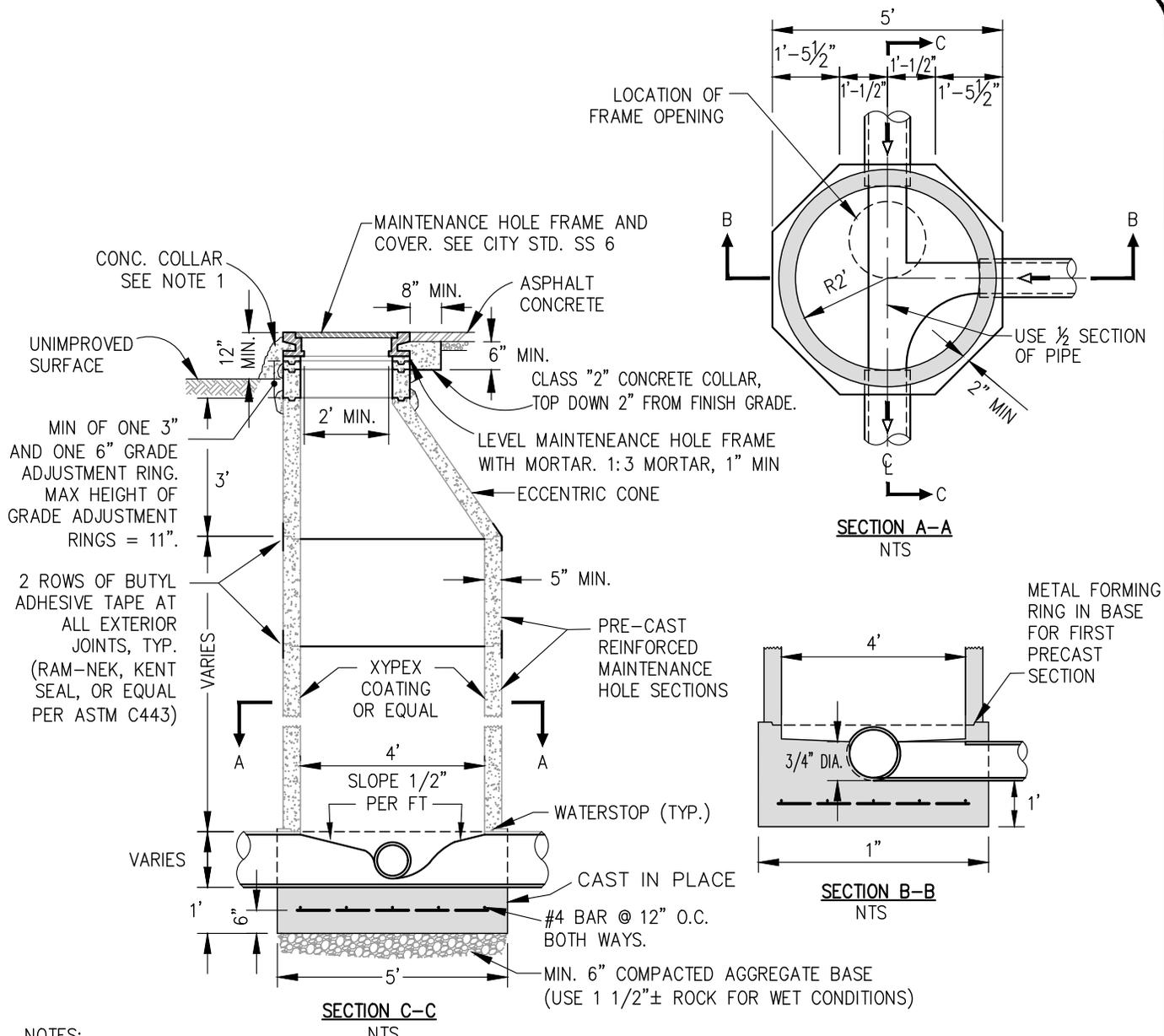
DWN: CLG  
 CHK JT  
 DEC 2021

CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT  
**45 DEGREE CLEANOUT (STREET)**  
 RUSS THOMPSON  
 CITY ENGINEER *Russ Thompson*

STD DETAIL  
**SS 3**  
 PAGE 1 OF 1  
 SCALE: NONE

DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SS 4.dwg Layout Name: SS 4 Plot Date: Dec 07, 2021 at 13:00



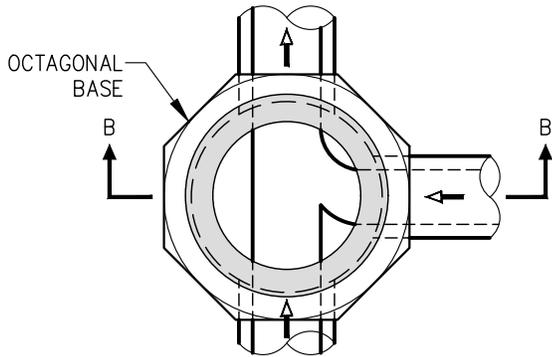
**NOTES:**

1. A RING OF MORTAR APPROXIMATELY 6" DEEP & EXTENDING PAST THE OUTER EDGE OF THE RING SHALL BE PLACED ALL AROUND & ON TOP OF THE BOTTOM FLANGE. THE MORTAR SHALL BE SMOOTHLY FINISHED & HAVE A SLIGHT SLOPE TO SHED WATER AWAY FROM THE FRAME (THIS CONDITION APPLIES IN NON-PAVEMENT AREAS ONLY. A STANDARD STREET PATCH SHALL BE USED IN PAVED AREAS).
2. RAM-NEK OR APPROVED EQUAL SHALL BE USED IN JOINTS. ALL JOINTS SHALL BE WATERTIGHT.
3. USE TYPE "A" MAINTENANCE HOLE FOR DEPTH OF COVER ON MAIN SEWER PIPE OVER 3.5 FT. SEE CITY STD. SS 5 FOR SHALLOWER DEPTHS.
4. WHEN MAIN IS 18" IN DIAMETER OR LARGER, ECCENTRIC CONE SHALL BE SET 90° FROM DIRECTION OF FLOW.
5. ASTM C923 RUBBER GASKETED WATERSTOP/MAINTENANCE HOLE ADAPTER REQUIRED FOR PIPE CONNECTIONS (A-LOK, KOR-N-SEAL, OR APPROVED EQUAL)
6. ALL MAINTENANCE HOLE INTERIORS TO BE COATED WITH A CEMENTITIOUS CRYSTALLINE WATERPROOFING (XYPEX OR APPROVED EQUAL)
7. ALL CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF STATE SPECIFICATIONS, 3/4" AGGREGATE.

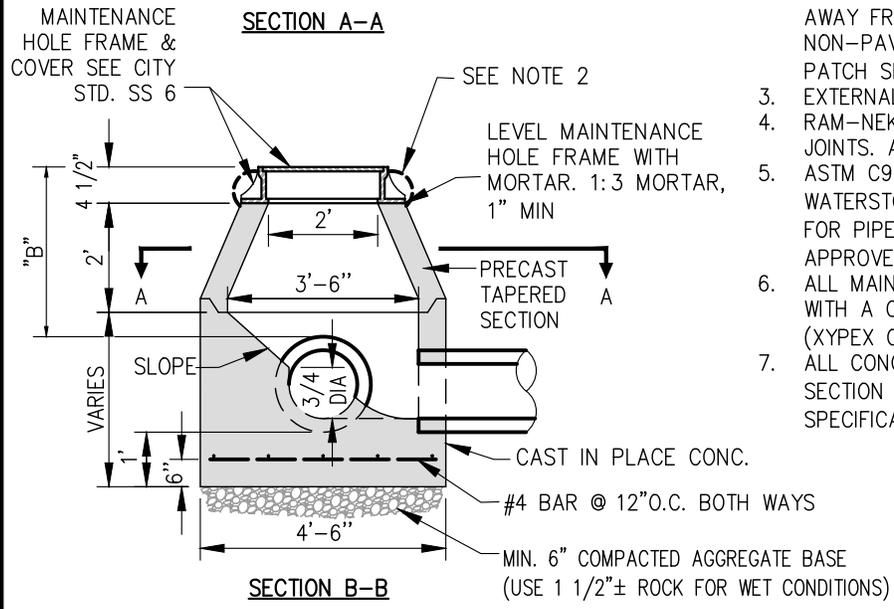
NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	CHK JT	<b>PRE-CAST CONCRETE MAINTENANCE HOLE TYPE "A"</b>	<b>SS 4</b>
	DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SS 5.dwg Layout Name: SS 5 Plot Date: Dec 07, 2021 at 13:01

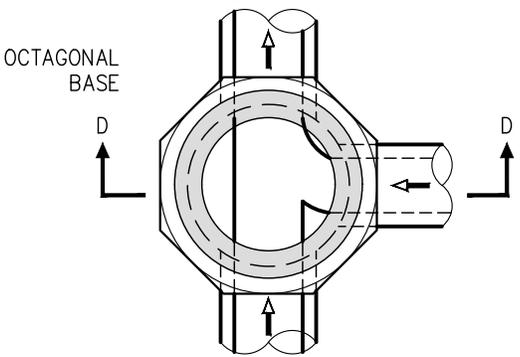


SECTION A-A

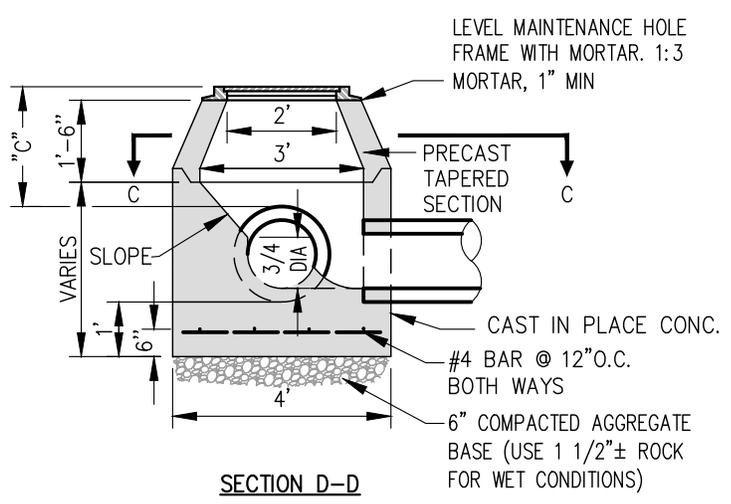


SECTION B-B

STANDARD MAINTENANCE HOLE TYPE B SHALL BE USED FOR VALUES OF "B" FROM 2'-6" TO 3'-6".



SECTION C-C



SECTION D-D

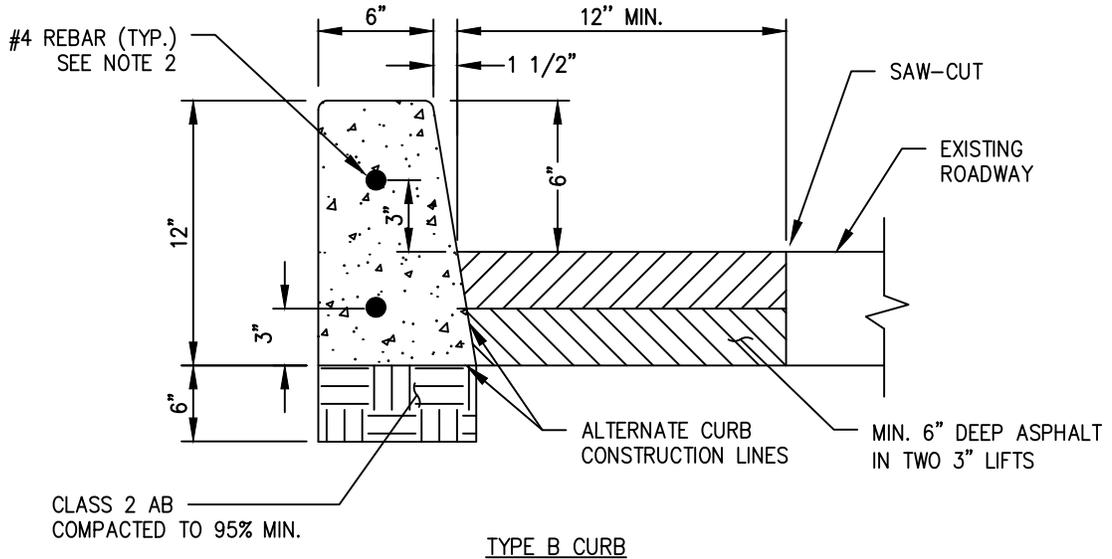
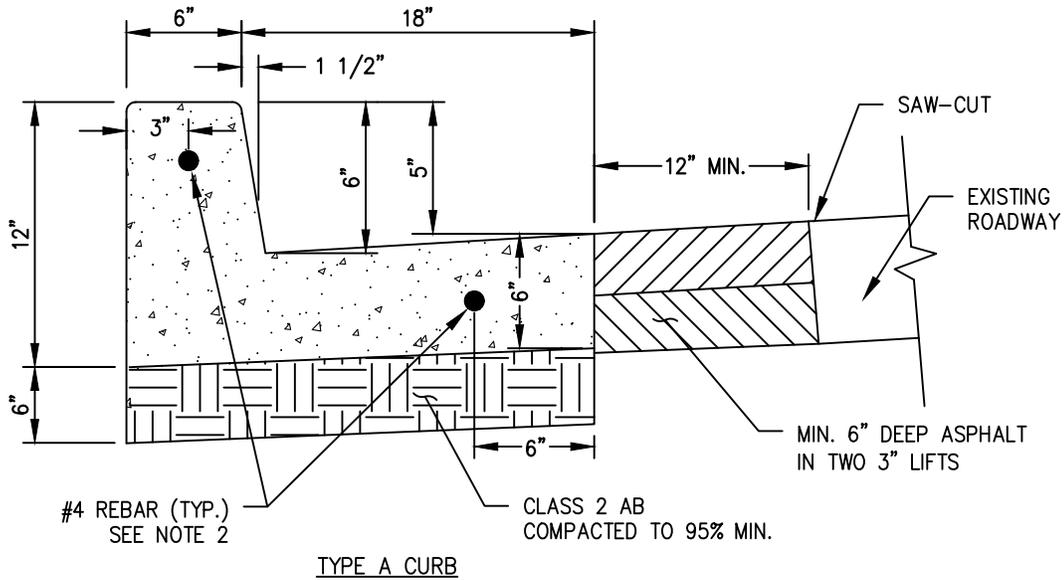
STANDARD MAINTENANCE HOLE TYPE C SHALL BE USED FOR VALUES OF "C" LESS THAN 2'-6".

NOTES:

1. VALUES "B" AND "C" ARE DEPTHS FROM GROUND SURFACE TO TOP OF MAIN SEWER PIPE. SEWER LATERALS WITH COVER LESS THAN THAT OF MAIN SEWER MAY REQUIRE THE CHIPPING OUT OF A PORTION OF THE TAPERED SECTION OF THE MAINTENANCE HOLE TO ACCOMMODATE THE PIPE.
2. A RING OF MORTAR APPROXIMATELY 6" DEEP AND EXTENDING PAST THE OUTER EDGE OF THE RING SHALL BE PLACED ALL AROUND AND ON TOP OF THE BOTTOM FLANGE. THE MORTAR SHALL BE SMOOTHLY FINISHED AND HAVE A SLIGHT SLOPE TO SHED WATER AWAY FROM THE FRAME (THIS CONDITION APPLIES IN NON-PAVEMENT AREAS ONLY. A STANDARD STREET PATCH SHALL BE USED IN PAVED AREAS).
3. EXTERNAL BANDS SHALL BE APPLIED.
4. RAM-NEK OR APPROVED EQUAL SHALL BE USED IN JOINTS. ALL JOINTS SHALL BE WATERTIGHT.
5. ASTM C923 RUBBER GASKETED WATERSTOP/MAINTENANCE HOLE ADAPTER REQUIRED FOR PIPE CONNECTIONS (A-LOK, KOR-N-SEAL, OR APPROVED EQUAL).
6. ALL MAINTENANCE HOLE INTERIORS TO BE COATED WITH A CEMENTITIOUS CRYSTALLINE WATERPROOFING (XYPEX OR APPROVED EQUAL)
7. ALL CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF STATE SPECIFICATIONS, 3/4" AGGREGATE.

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	<b>MAINTENANCE HOLES TYPE "B" AND "C" SHALLOW DEPTH</b>	<b>SS 5</b>
	DWN: CLG CHK: JT DEC 2021	RUSS THOMPSON CITY ENGINEER
DATE 12/07/21		



**NOTES:**

1. PRIOR TO BEGINNING ANY WORK, AN ENCROACHMENT PERMIT SHALL BE OBTAINED.
2. CONTINUOUS #4 LONGITUDINAL REBAR, WITH 6" MINIMUM EMBEDMENT INTO EXISTING CURB & GUTTER.6"
3. MINIMUM CLASS II AGGREGATE BASE, COMPACTED TO 95% RC.
4. 1/2" DEPTH DEEP JOINTS AT 20' MAX. 1/4" DEPTH CONTRACTION JOINTS AT 5' MAX AND SHALL BE SCORED TO MATCH ADJACENT SIDEWALK.
5. ALL CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2, "MINOR CONCRETE" OF STATE SPECIFICATIONS. 3/4" AGGREGATE WITH 1 1/2 POUNDS OF LAMP BLACK PER CUBIC YARD. FINISH TO BE UNIFORM MEDIUM BROOMED TEXTURE.
6. ASPHALT TO BE HOT MIX ASPHALT 1/2" MEDIUM.
7. NO PAVING AGAINST NEW CURB OR GUTTER FOR 7 DAYS.
8. LONGITUDINAL GUTTER FLOW LINE SHALL HAVE A MINIMUM SLOPE OF 0.6% (S=0.006).

NO.	REVISED	BY	APP.



DWN: CLG  
CHK JT

JULY 2023

CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT

**TYPE A & B CONCRETE  
CURB AND GUTTER**

ROBERT VANCE  
CITY ENGINEER *Robert Vance*

DATE 07/12/23

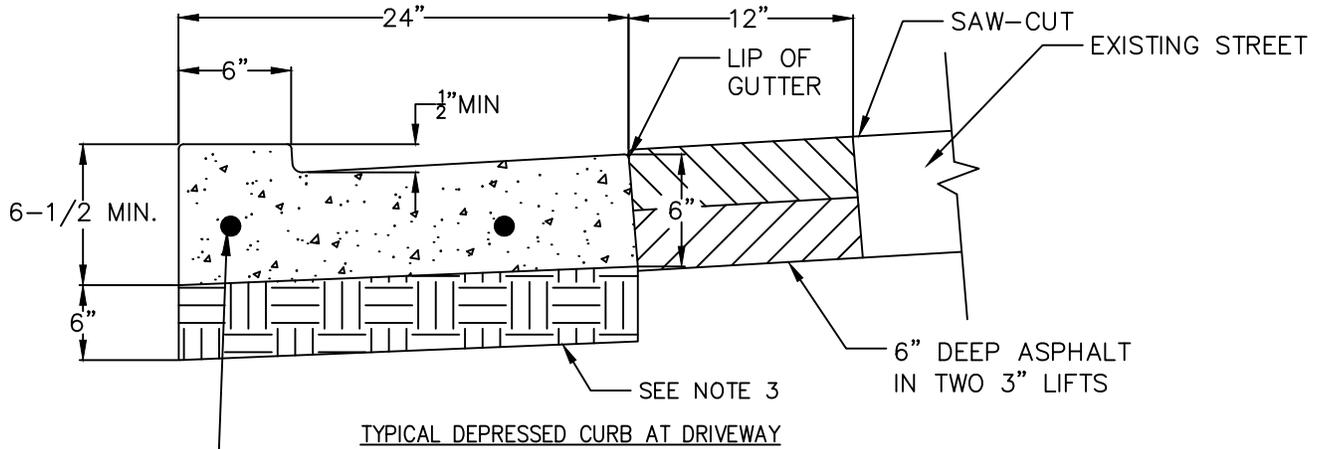
STD DETAIL

ST 1-1

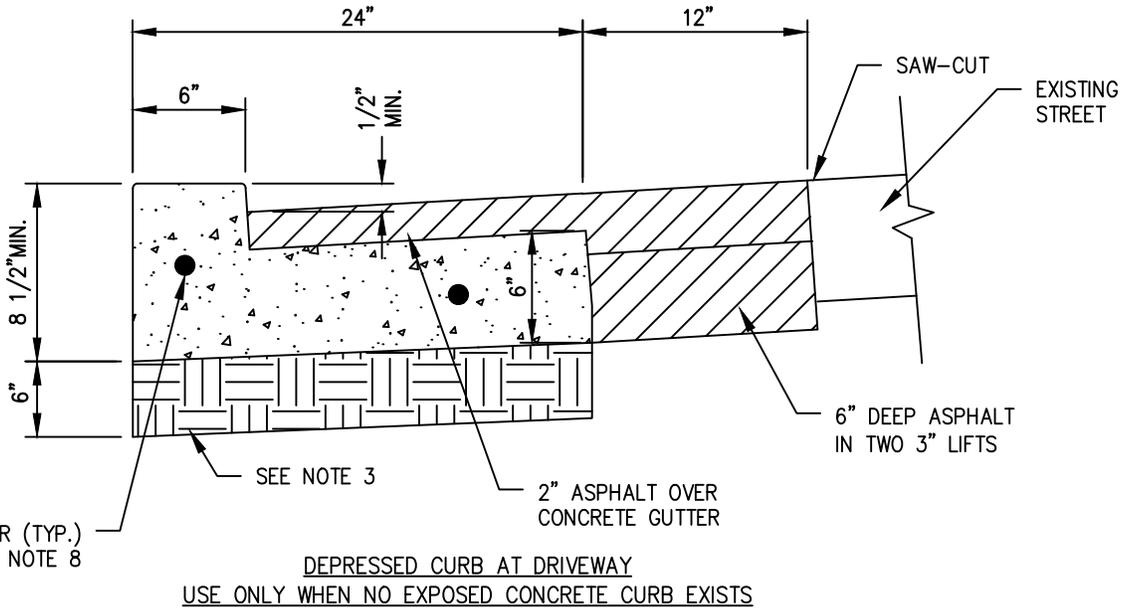
PAGE 1 OF 6

SCALE: NONE

Images: city logo.jpg; Xrefs: Path: G:\pubworks\ALAMEDA STANDARD DETAILS\2021 STD PLANS\DWG\ST 1-2 rev1.dwg Layout Name: ST 1-2 Plot Date: Jul 12, 2023 at 09:43



#4 REBAR (TYP.)  
SEE NOTE 8



**NOTES:**

1. PRIOR TO BEGINNING ANY WORK, AN ENCROACHMENT PERMIT SHALL BE OBTAINED.
2. TO BE POURED MONOLITHIC WITH DRIVEWAY APPROACH.
3. 6" MINIMUM CLASS 2 A.B. COMPACTED TO 95%.
4. ALL CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2, "MINOR CONCRETE" OF STATE SPECIFICATIONS. 3/4" AGGREGATE WITH 1 1/2 POUNDS OF LAMP BLACK PER CUBIC YARD. FINISH TO BE UNIFORM MEDIUM BROOMED TEXTURE.
5. ASPHALT TO BE HOT MIX ASPHALT 1/2" MEDIUM.
6. SEE DETAIL ST 18-20 FOR DRIVEWAY APPROACH
7. CONTINUOUS #4 LONGITUDINAL REBAR, WITH 6" MINIMUM EMBEDMENT INTO EXISTING CURB & GUTTER.

NO.	REVISED	BY	APP.



DWN: CLG  
CHK JT

JULY 2023

CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT

**CONCRETE CURB AND GUTTER  
AT DRIVEWAY APPROACH**

ROBERT VANCE  
CITY ENGINEER *Robert Vance*

DATE 07/12/23

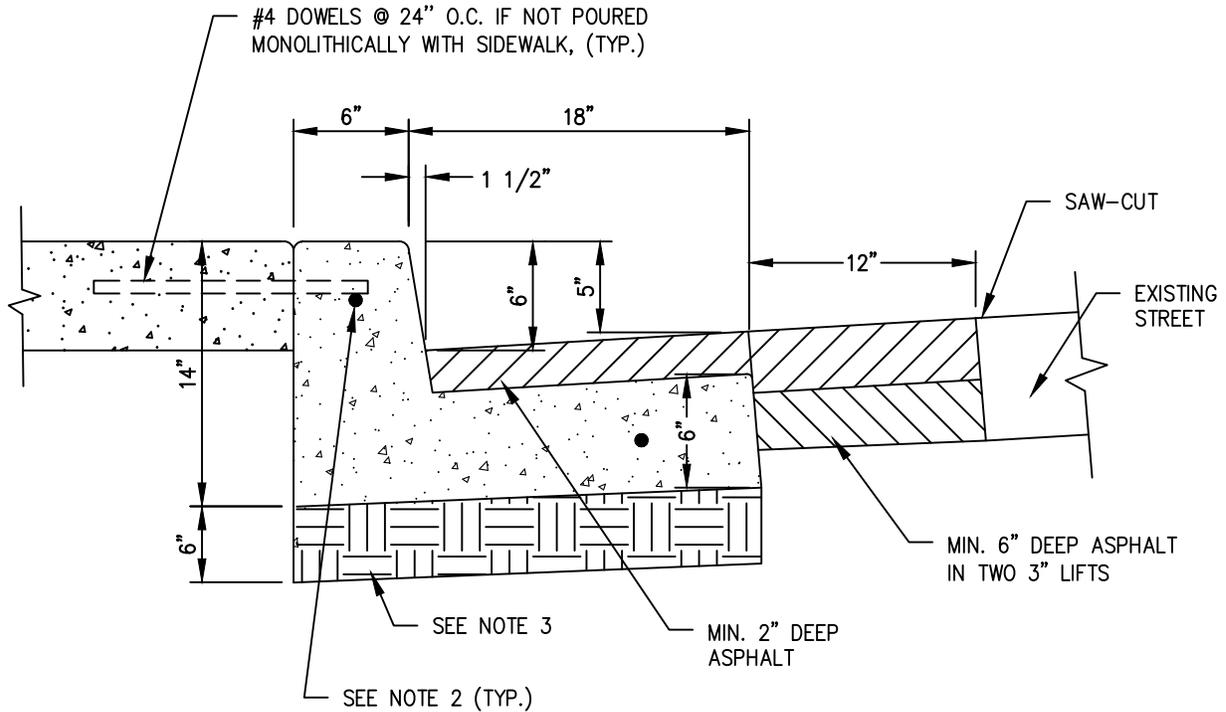
STD DETAIL

ST 1-2

PAGE 2 OF 6

SCALE: NONE

Images: city logo.jpg; Xrefs: Path: G:\pubworks\ALAMEDA STANDARD DETAILS\2021 STD PLANS\DWG\ST 1-3.dwg Layout Name: ST 1-3 Plot Date: Jul 12, 2023 at 09:47



TYPE A CURB WITH ASPHALT  
NTS

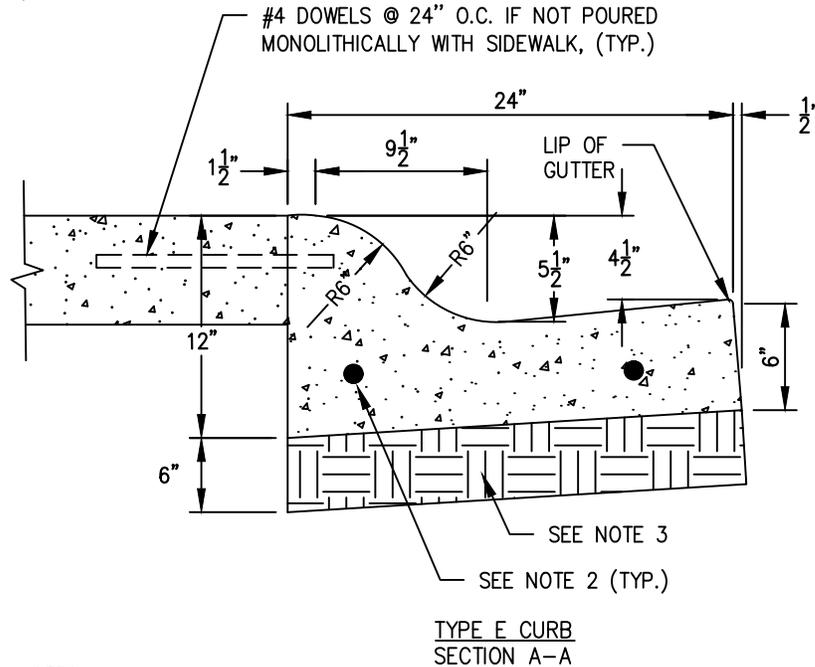
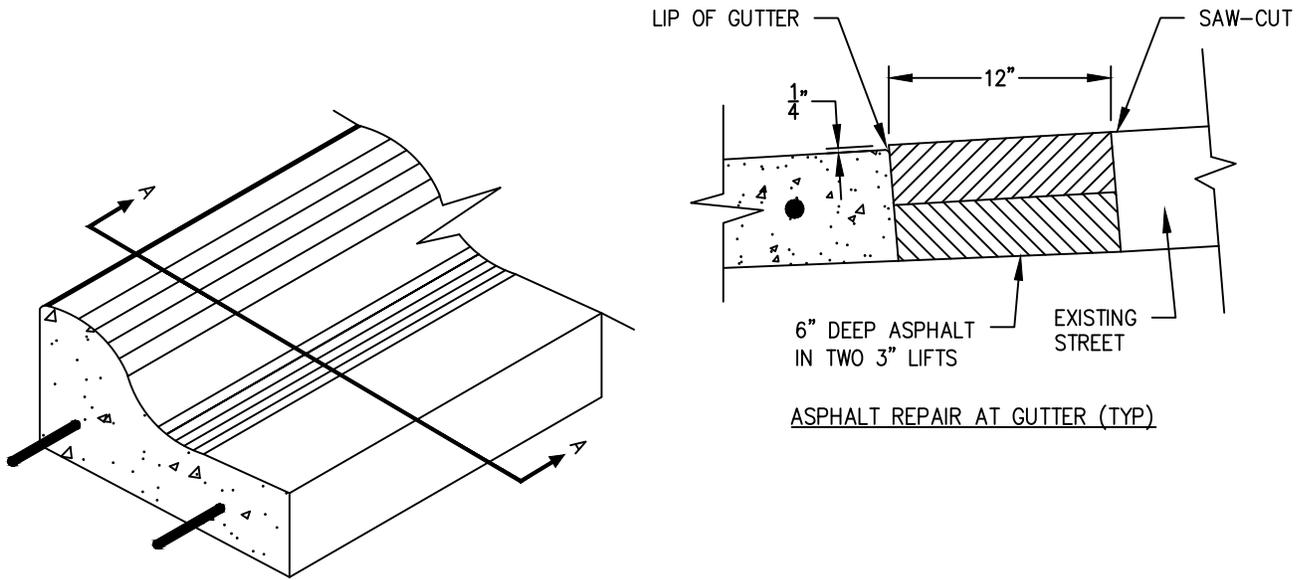
NOTES:

1. PRIOR TO BEGINNING ANY WORK, AN ENCROACHMENT PERMIT SHALL BE OBTAINED.
2. #4 REBAR CONTINUOUS DOWELS WITH 3" MINIMUM DEPTH INTO EXISTING CURB, 24" O.C. DO NOT DOWEL PRIVATE IMPROVEMENTS INTO PUBLIC IMPROVEMENTS.
3. 6" MINIMUM CLASS 2 A.B. COMPACTED TO 95%.
4. 1/2" DEEP CONTRACTION JOINTS AT 20', 1/4" DEEP CONTRACTION JOINTS AT 10'.
5. ALL CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2, "MINOR CONCRETE" OF STATE SPECIFICATIONS. 3/4" AGGREGATE WITH 1 1/2 POUNDS OF LAMP BLACK PER CUBIC YARD. FINISH TO BE UNIFORM MEDIUM BROOMED TEXTURE.
6. ASPHALT TO BE HOT MIX ASPHALT 1/2" MED.
7. CURB AND GUTTER AND SIDEWALK CONSTRUCTION SHALL CONFORM TO CITY STD. ST 1-5.
8. ALL SOFT OR SPONGY SUB-GRADE MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL AS REQUIRED BY THE CITY ENGINEER.
9. EPOXY USED FOR BONDING REINFORCING BARS TO EXISTING CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 95, EPOXY AND SECTION 95-2.03, "EPOXY RESIN ADHESIVE FOR BONDING NEW CONCRETE TO OLD CONCRETE" OF THE CALTRANS STANDARD SPECIFICATIONS.
10. CURB AND GUTTER SHALL BE SAWCUT AND REMOVED TO THE NEAREST CONTROL JOINT WHEN PRACTICAL AS DIRECTED BY THE CITY INSPECTOR.

NO.	REVISED	BY	APP.



CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
TYPE A CONCRETE CURB AND GUTTER WITH ASPHALT		ST 1-3
DWN: CLG	CHK JT	PAGE 3 OF 6
JULY 2023	ROBERT VANCE CITY ENGINEER <i>Robert Vance</i>	SCALE: NONE
	DATE 07/12/23	



**NOTES:**

1. PRIOR TO BEGINNING ANY WORK, AN ENCROACHMENT PERMIT SHALL BE OBTAINED.
2. CONTINUOUS #4 LONGITUDINAL REBAR, WITH 6" MINIMUM EMBEDMENT INTO EXISTING CURB & GUTTER.
3. 6" MINIMUM CLASS 2 A.B. COMPACTED TO 95%.
4. 1/2" DEEP CONTRACTION JOINTS AT 20', 1/4" DEEP CONTRACTION JOINTS AT 10'.
5. ALL CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2, "MINOR CONCRETE" OF STATE SPECIFICATIONS. 3/4" AGGREGATE WITH 1 1/2 POUNDS OF LAMP BLACK PER CUBIC YARD. FINISH TO BE UNIFORM MEDIUM BROOMED TEXTURE.
6. ASPHALT TO BE HOT MIX ASPHALT 1/2" MEDIUM.

NO.	REVISED	BY	APP.



DWN: CLG  
CHK JT

JULY 2023

CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT

**TYPE E CONCRETE CURB AND GUTTER**

ROBERT VANCE  
CITY ENGINEER *Robert Vance*

DATE 07/12/23

STD DETAIL

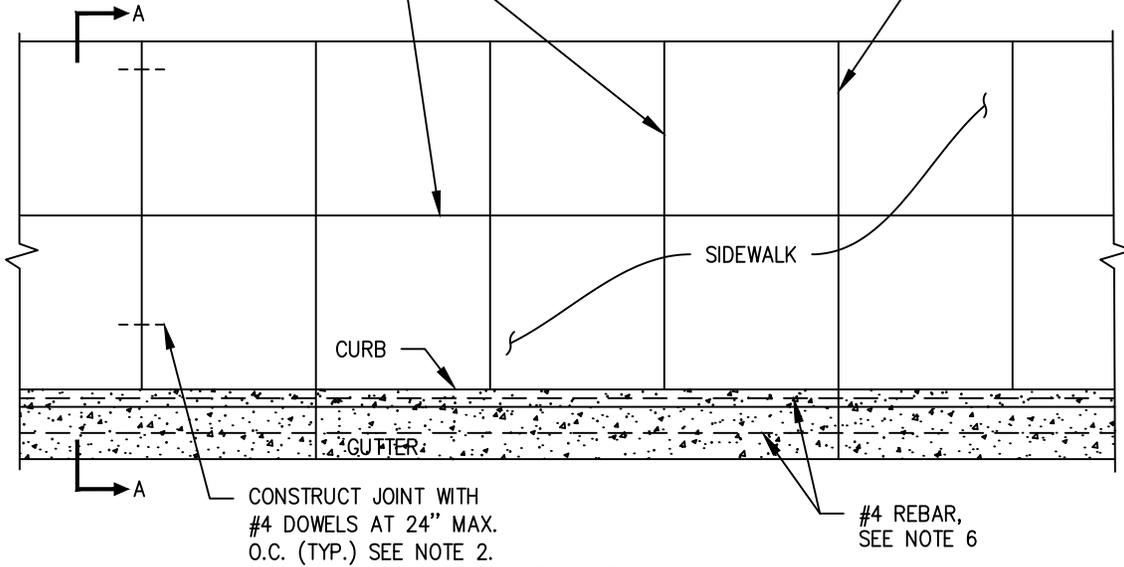
ST 1-4

PAGE 4 OF 6

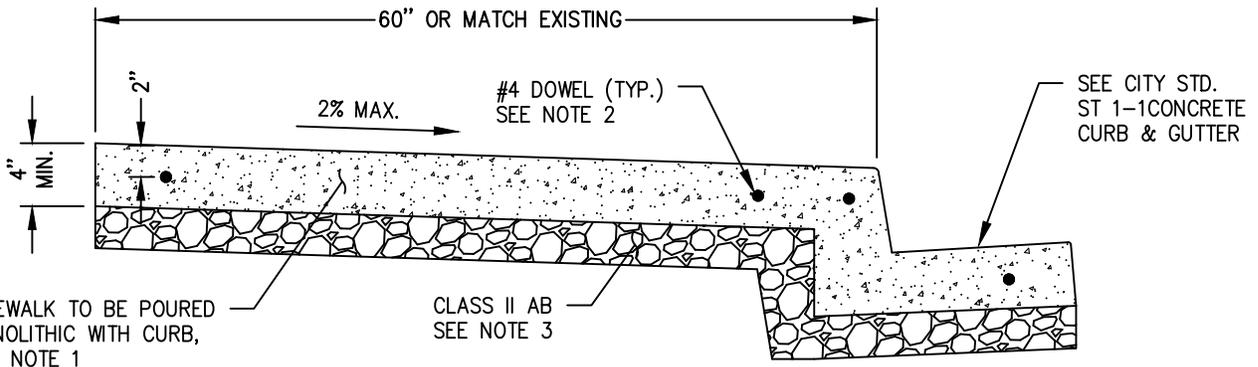
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CONTRACTION JOINT EVERY 5'  
MAX. (TYP.) PATTERN TO  
MATCH ADJACENT. SEE NOTE 4.

DEEP JOINT EVERY 15'  
MAX. (TYP.) SEE NOTE 4.



PLAN VIEW



SECTION A-A

NOTES:

1. CURB AND GUTTER TO BE CONSTRUCTED MONOLITHICALLY WITH SIDEWALK UNLESS APPROVED BY THE CITY ENGINEER. IF NOT POURED MONOLITHICALLY, SEE DETAIL 1-3.
2. 12" #4 REBAR DOWELS, 3" MINIMUM DEPTH INTO EXISTING OR NEW SIDEWALK. DO NOT DOWEL PRIVATE IMPROVEMENTS INTO PUBLIC IMPROVEMENTS.
3. 4" MINIMUM CLASS II AB COMPACTED TO 95% MINIMUM.
4. 1/2" DEPTH DEEP JOINTS AT 15' MAX, 1/4" DEPTH CONTRACTION JOINTS AT 5' MAX. AND SHALL BE SCORED TO MATCH EXISTING CONTIGUOUS SIDEWALK.
5. ALL CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 9-2, "MINOR CONCRETE" OF STATE SPECIFICATIONS, 3/4" AGGREGATE WITH 1 1/2 POUNDS OF LAMP BLACK PER CUBIC YARD.
6. #4 REBAR CONTINUOUS IN NEW CURB AND GUTTER, DOWEL PER NOTE 2.

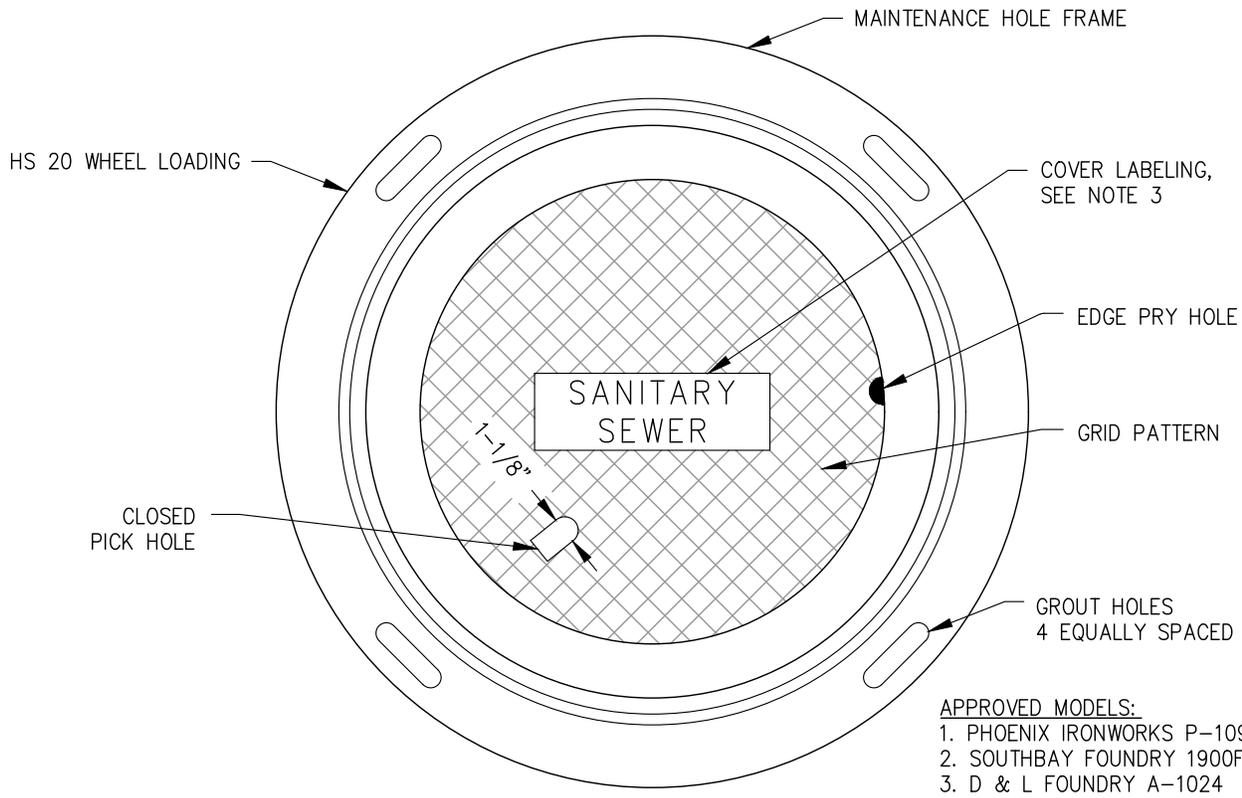
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Images: city logo.jpg; Xrefs: Path: C:\pubworks\ALAMEDA STANDARD DETAILS\2021 STD PLANS\DWG\ST 1-5.dwg Layout Name: ST 1-5 Plot Date: Jul 12, 2023 at 10:58

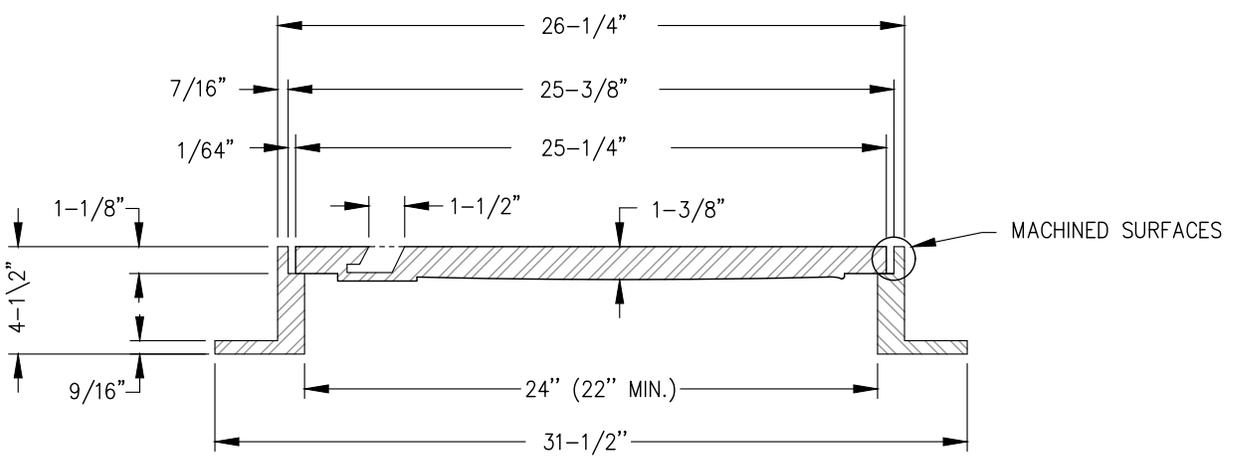
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	CHK JT	<b>CURB AND GUTTER WITH SIDEWALK</b>		ST 1-5
	JULY 2023	ROBERT VANCE CITY ENGINEER	<i>Robert Vance</i>	DATE 07/12/23



Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SS 6.dwg  
 Layout Name: SS 6 Plot Date: Dec 07, 2021 at 13:03



- APPROVED MODELS:**
1. PHOENIX IRONWORKS P-1090
  2. SOUTHBAY FOUNDRY 1900FS
  3. D & L FOUNDRY A-1024



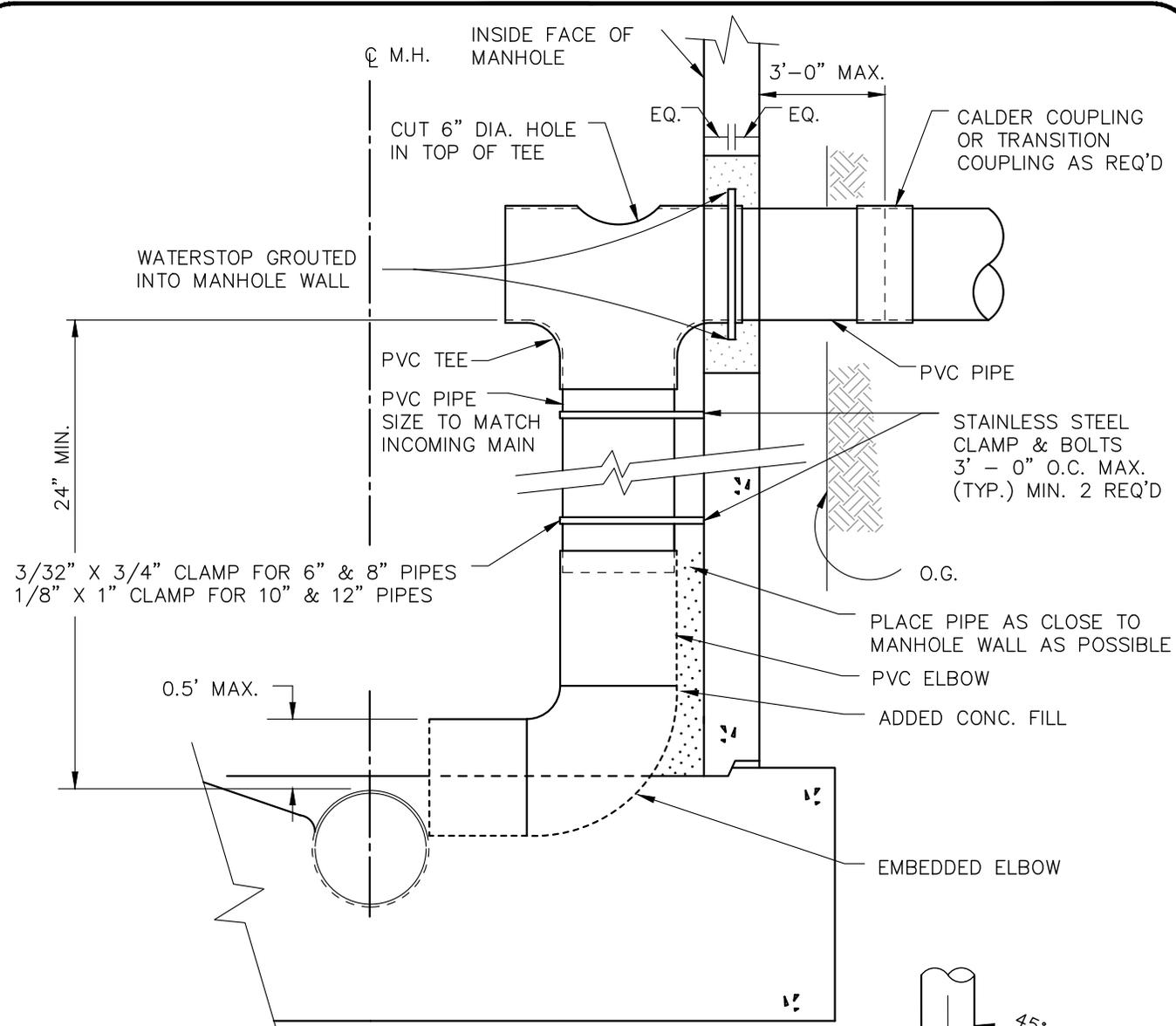
**NOTES:**

1. COVER AND FRAME SHALL BE MACHINED TO FIT ACCURATELY SO THAT COVER SHALL NOT ROCK OR RATTLE UNDER THE WHEEL OF TRAFFIC.
2. SOLID COVER WITHOUT HOLES (EXCEPT FOR PICK AND HOOK HOLES)
3. LID SHALL HAVE CAST-IN "SANITARY SEWER" LABEL, 1 INCH HIGH LETTERS, MINIMUM. (USE "STORM SEWER" LABEL WHERE APPROPRIATE.)
4. SOUTH BAY FOUNDRY SBF-1254 OR EQUAL.

NO.	REVISED	BY	APP.

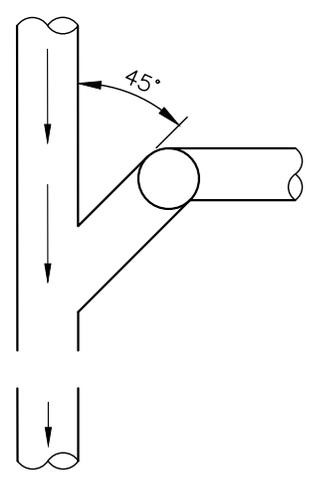
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	CHK JT	<b>SANITARY SEWER MAINTENANCE HOLE COVER</b>		SS 6
	DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21	PAGE 1 OF 1 SCALE: NONE

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SS 7.dwg Layout Name: SS 7 Plot Date: Dec 07, 2021 at 13:04



**NOTES**

1. INSTALL WATERSTOP IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AS SHOWN.
2. NEW MAINTENANCE HOLES CONSTRUCTED USING THIS STANDARD SHALL BE 48 INCHES IN DIAMETER, AND INSTALLED IN CONFORMANCE WITH STD PLAN SS 4.
3. ENCLOSE ELBOW IN CONCRETE. FORM SMOOTH CHANNEL TO MAINTENANCE HOLE FLOWLINE.
4. PVC PIPE AND FITTINGS TO BE SDR 35 OR SCH 40.

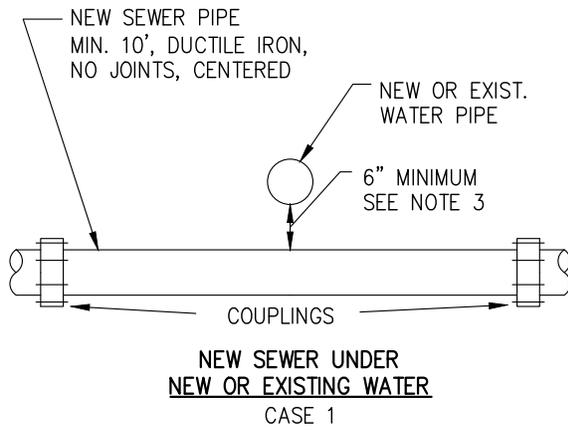


**EMBEDDED ELBOW**  
ELBOW EMBEDDED AT 45° WITH SEWER FLOW

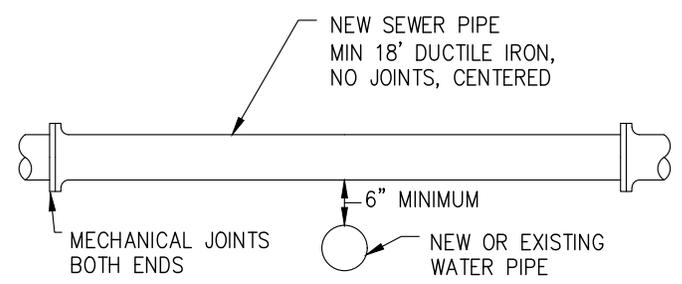
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	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	<b>INSIDE DROP MAINTENANCE HOLE FOR 4" - 12" SEWER PIPES</b>	<b>SS 7</b>
	DWN: CLG CHK JT DEC 2021	RUSSELL THOMPSON CITY ENGINEER <i>Russell Thompson</i> DATE 12/07/21

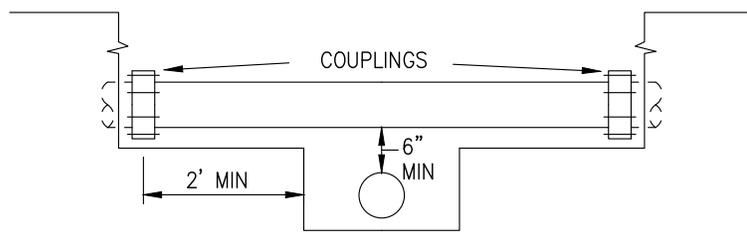
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**NEW SEWER UNDER  
NEW OR EXISTING WATER**  
CASE 1



**NEW SEWER OVER  
NEW OR EXISTING WATER**  
CASE 2



**NEW PIPE UNDER EXISTING**  
CASE 3 - SEE NOTE 4

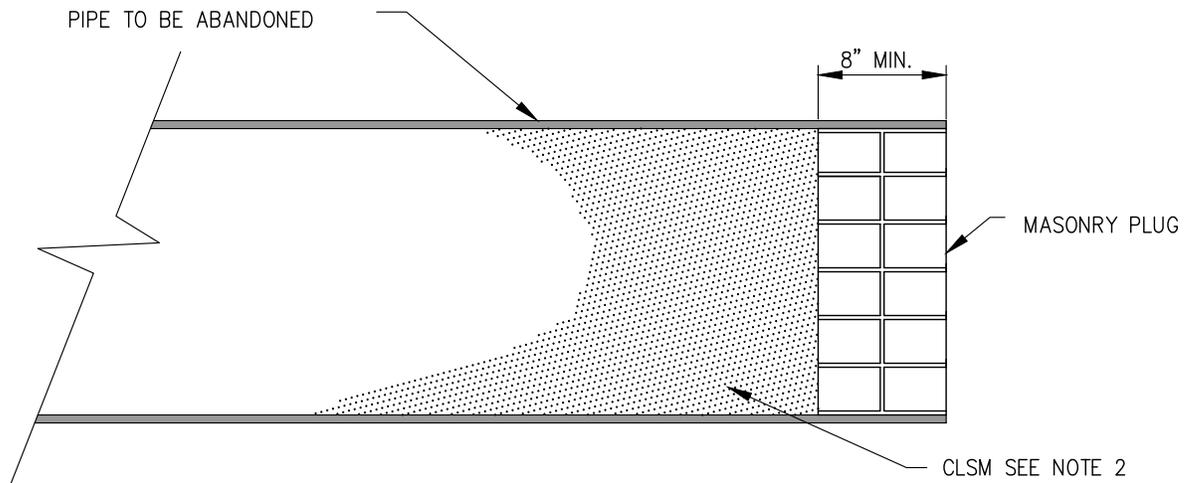
**NOTES:**

1. THIS STANDARD APPLIES TO PIPES UP TO AND INCLUDING 16" DIAMETER. ALL CROSSINGS OF LARGER DIAMETER SHALL BE AS APPROVED BY THE CITY ENGINEER.
2. ALL NEW DUCTILE IRON SHALL BE WRAPPED IN POLYETHYLENE PER CITY CONSTRUCTION SPECIFICATIONS.
3. WHERE SEWER CROSSES BELOW A WATER MAIN, WITH 1' OR MORE VERTICAL CLEARANCE, NO SPECIAL INSTALLATION IS REQUIRED.
4. "NEW PIPE UNDER EXISTING-CASE 3" SHALL BE USED WHEN THE EXISTING PIPE HAS A JOINT OVER OR WITHIN 2' OF THE NEW TRENCH.
5. ANY PIPE-PIPE CROSSING WITH LESS THAN 6" VERTICAL CLEARANCE SHALL NOT BE INSTALLED WITHOUT APPROVAL OF THE CITY ENGINEER.
6. SEE CITY APPROVED LIST FOR COUPLINGS.

NO.	REVISED	BY	APP.

	DWN: CLG CHK JT	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT  <b>PIPE CROSSING DETAILS</b>	STD DETAIL  <b>SS 8</b> PAGE 1 OF 1
	DEC 2021 RUSS THOMPSON CITY ENGINEER		DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SS 9.dwg Layout Name: SS 9 Plot Date: Dec 07, 2021 at 13:07



12" DIAMETER PIPE AND LARGER



10" DIAMETER PIPE AND SMALLER

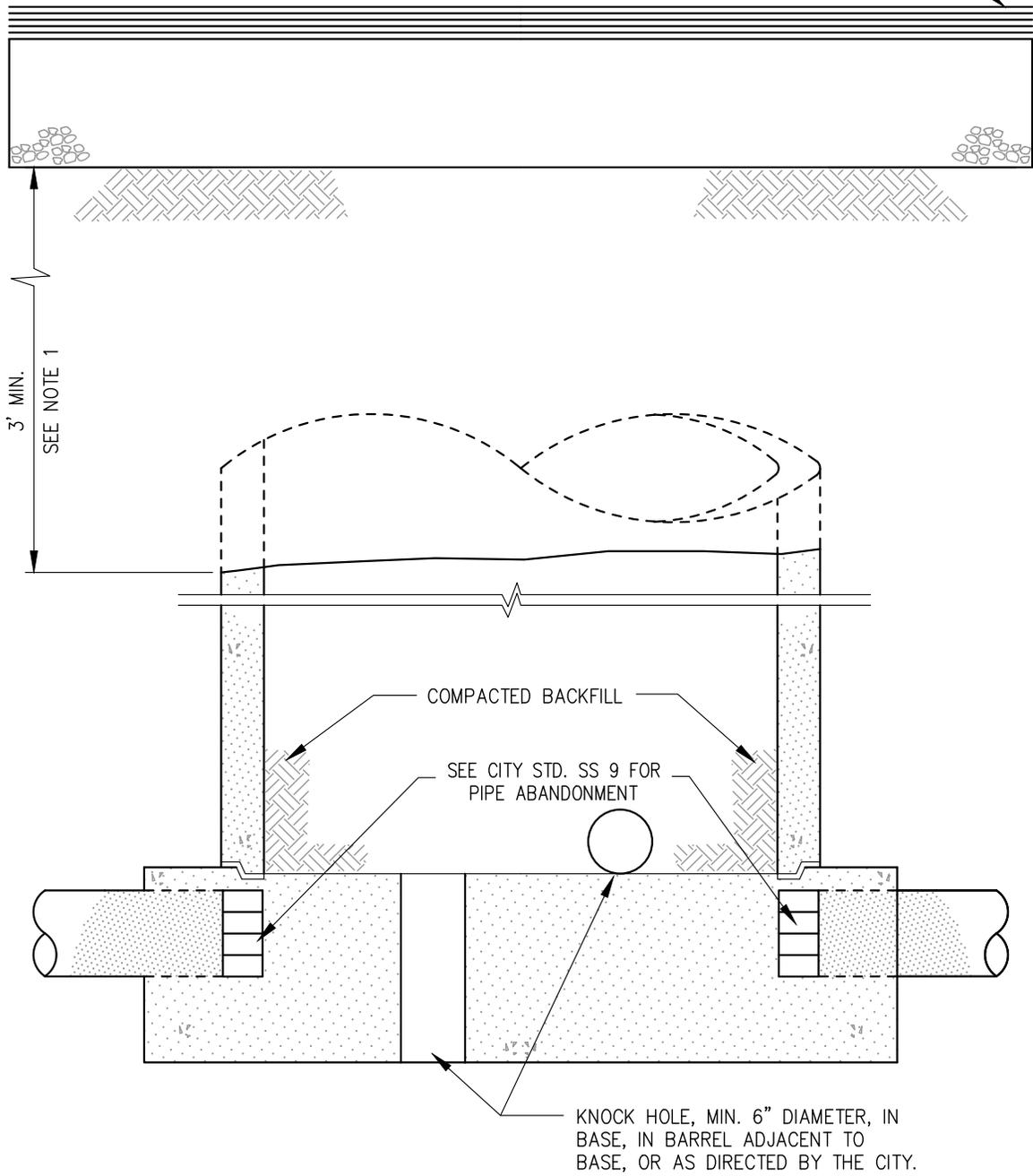
NOTES:

1. PIPE PLUGS SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY ENGINEER.
2. ABANDONED PIPES, 12" AND LARGER, SHALL BE BROKEN INTO EVERY 50' AND SHALL BE FILLED COMPLETELY WITH CONTROLLED LOW-STRENGTH MATERIAL (CLSM).
3. SEWER LATERALS SHALL BE PLUGGED AND ABANDONED AT THE CONNECTION TO MAIN.

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	<b>ABANDONED PIPE DETAIL</b>	<b>SS 9</b>
	DWN: CLG CHK JT DEC 2021	RUSSELL THOMPSON CITY ENGINEER <i>Russell Thompson</i> DATE 12/07/21

REPAIR OR REPLACE EX GROUND OR  
PAVING PER CITY STD. ST 7-2



**NOTES:**

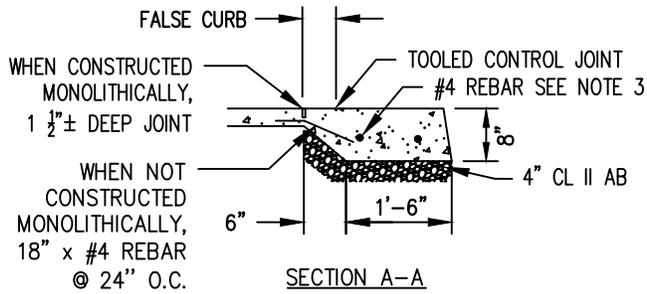
1. REMOVE FRAME, COVER, TAPER AND BARREL SECTIONS.
2. AFTER PLUGGING ALL PIPES IN MAINTENANCE HOLE, THE REMAINING PORTION OF THE BARREL SECTION AND ALL VOIDS CREATED BY THE REMOVAL OF THE UPPER PORTIONS OF THE MAINTENANCE HOLE, SHALL BE BACKFILLED AND COMPACTED TO 90% RELATIVE DENSITY. USE TRENCH BACKFILL OR PIPE BEDDING MATERIAL.

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs:  
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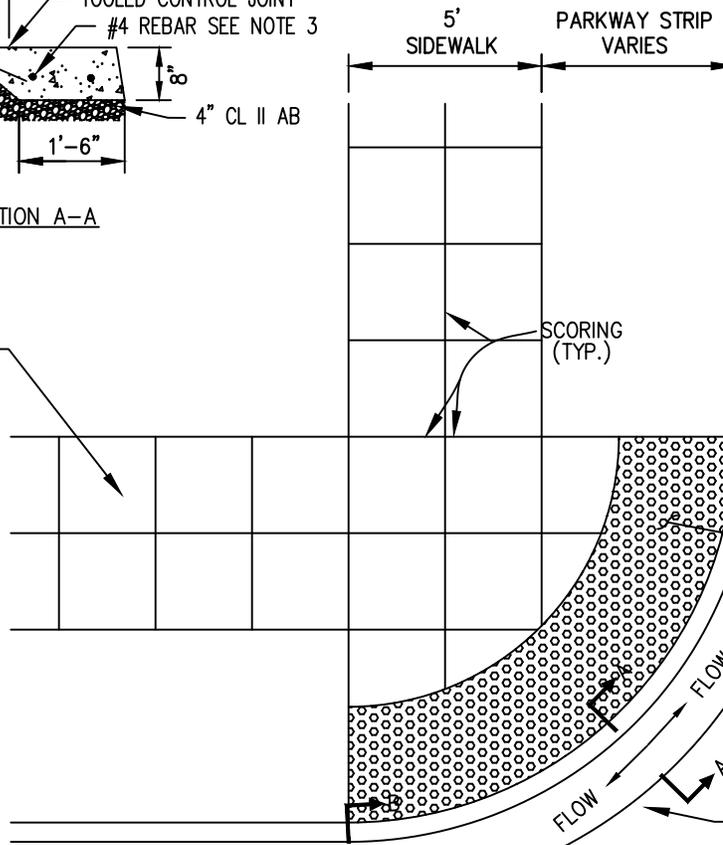
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	CHK JT	<b>ABANDONED MAINTENANCE HOLE DETAIL</b>	<b>SS 10</b>
DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21	PAGE 1 OF 1 SCALE: NONE

Images: city logo.jpg; Xrefs: Path: C:\pubworks\ALAMEDA STANDARD DETAILS\2021 STD PLANS\DWG\ST 5 v2.dwg Layout Name: ST 5 Plot Date: Jul 12, 2023 at 09:31



SIDEWALK PER CITY STD. ST 1-5



ADA COMPLIANT TRUNCATED DOMES

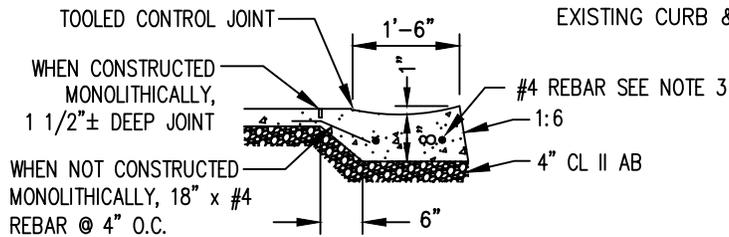
< 5% SLOPE PAVEMENT PER ADA REQUIREMENTS

CURB & GUTTER PER CITY STD. ST 1-1

TRANSITION FROM B-B TO CURB & GUTTER DETAIL ST 1-1

**NOTES:**

1. TOP OF CURB ELEVATION DROPS DROPS 0.10' FROM A-A TO B-B .
2. FLOW LINE OF CURB ELEVATION DROPS 0.15' FROM A-A TO B- B.
3. CONTINUOUS #4 LONGITUDINAL REBAR, WITH 6" MIN. EMBEDMENT INTO EXISTING CURB & GUTTER.



SECTION B-B

NO.	REVISED	BY	APP.



DWN: JT  
 CHK: JT  
 JULY 2023

CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT

**LARGE RADIUS FLUSH RETURN**

ROBERT VANCE  
CITY ENGINEER *Robert Vance*

DATE 07/12/23

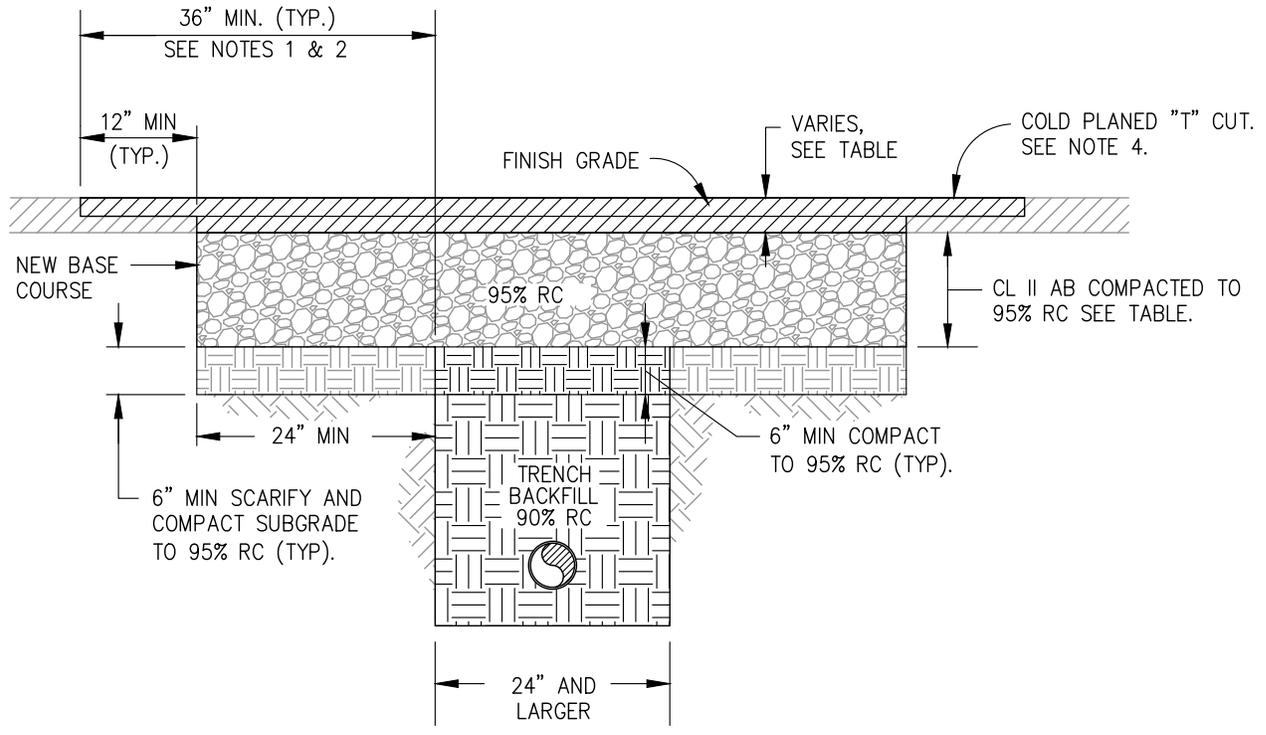
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ST 5

PAGE 1 OF 1

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**TRENCHES OVER 24" INCHES WIDTH IN EXISTING PAVING**

TRENCH PAVING TABLE (ASSUMES R = 10)		
STREET TYPE	MIN. HMA THICKNESS	MIN. CL II AB THICKNESS
RESIDENTIAL/LOCAL (TI = 5)	3"	9"
COLLECTOR (TI = 7)	4"	14"
ARTERIAL (TI = 9)	6"	18"

**NOTES:**

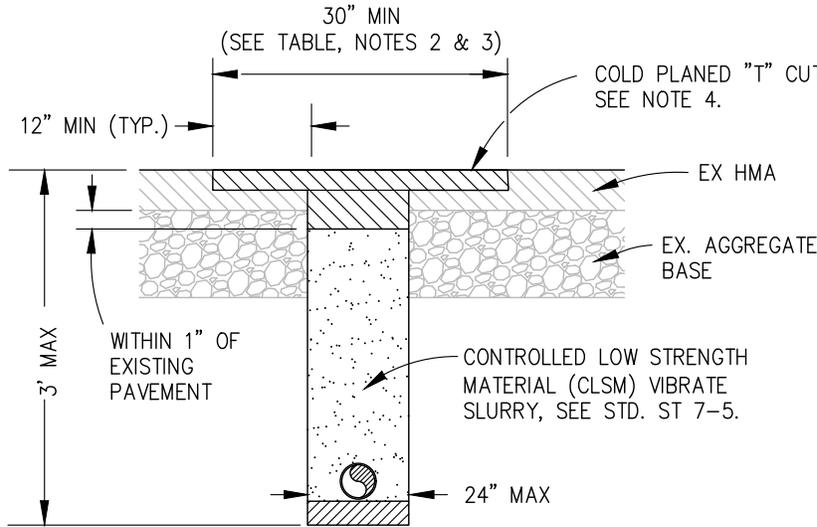
1. NEATLY CUT PAVEMENT AFTER TRENCH IS BACKFILLED TO SUBGRADE. ADDITIONAL PAVEMENT REMOVAL: REMOVE ADDITIONAL PAVEMENT TO A PAINTED LANE STRIPE, A LIP OF GUTTER, EXISTING PAVEMENT PATCH, OR AN EDGE OF THE PAVEMENT IF SUCH STREET FEATURE IS WITHIN 3 FEET OF THE FINAL SAW CUT.
2. FULL TACK COAT COVERAGE ON ALL VERTICAL AND EXISTING HMA SURFACES.
3. RELATIVE COMPACTION IS DESIGNATED AS RC.
4. 1-1/2" SURFACE COURSE IF EXISTING HMA IS GREATER THAN OR EQUAL TO 3" THICK. IF HMA IS LESS THAN 3" THICK, REPLACE WITH FULL DEPTH HMA.
5. SECTIONS MAY BE REDUCED BASED ON ACTUAL R-VALUES.

NO.	REVISED	BY	APP.

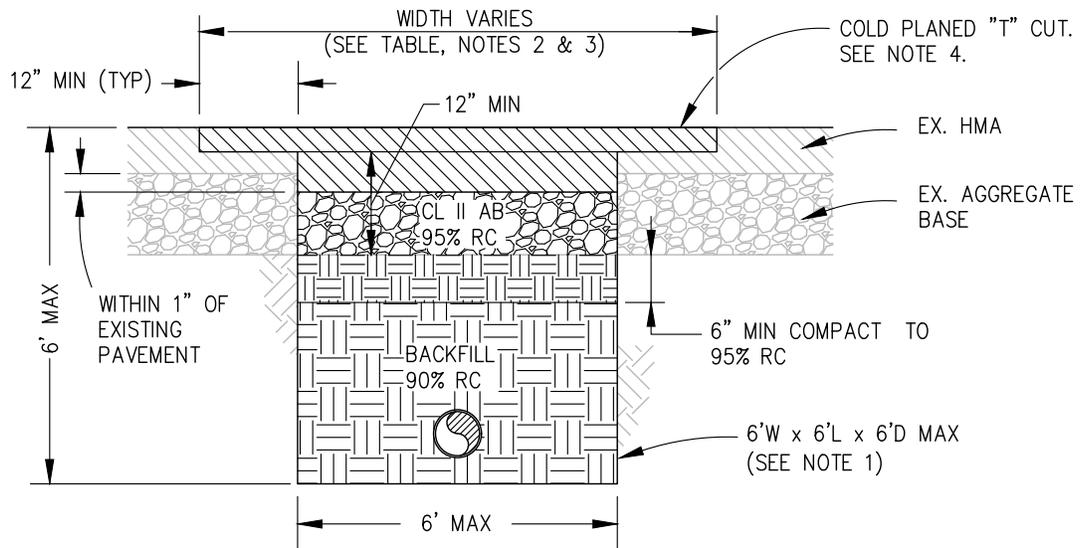
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	CHK JT		ST 7-1
	DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21

NOTES:

1. IF ANY DIMENSION IS GREATER THAN 6' OR THE HOLE IS NOT BACKFILLED ON THE SAME DAY OF EXCAVATION, USE STD, 7-1 TRENCH RESURFACING DETAIL.
2. NEATLY CUT PAVEMENT AFTER TRENCH IS BACKFILLED TO SUBGRADE. ADDITIONAL PAVEMENT REMOVAL: REMOVE ADDITIONAL PAVEMENT TO A PAINTED LANE STRIPE, A LIP OF GUTTER, EXISTING PAVEMENT PATCH, OR AN EDGE OF THE PAVEMENT IF SUCH STREET FEATURE IS WITHIN 3 FEET OF THE FINAL SAW CUT.
3. FULL TACK COAT COVERAGE ON ALL VERTICAL AND EXISTING HOT MIX ASPHALT (HMA) SURFACES.
4. PLACE 1-1/2" SURFACE COURSE IF EXISTING HMA IS GREATER THAN OR EQUAL TO 3" THICK. IF HMA IS LESS THAN 3" THICK, REPLACE WITH FULL DEPTH HMA.



TRENCHES UNDER 24" WIDTH IN EXISTING PAVING



SMALL HOLES (ONLY USED IN EXISTING PAVED AREAS)

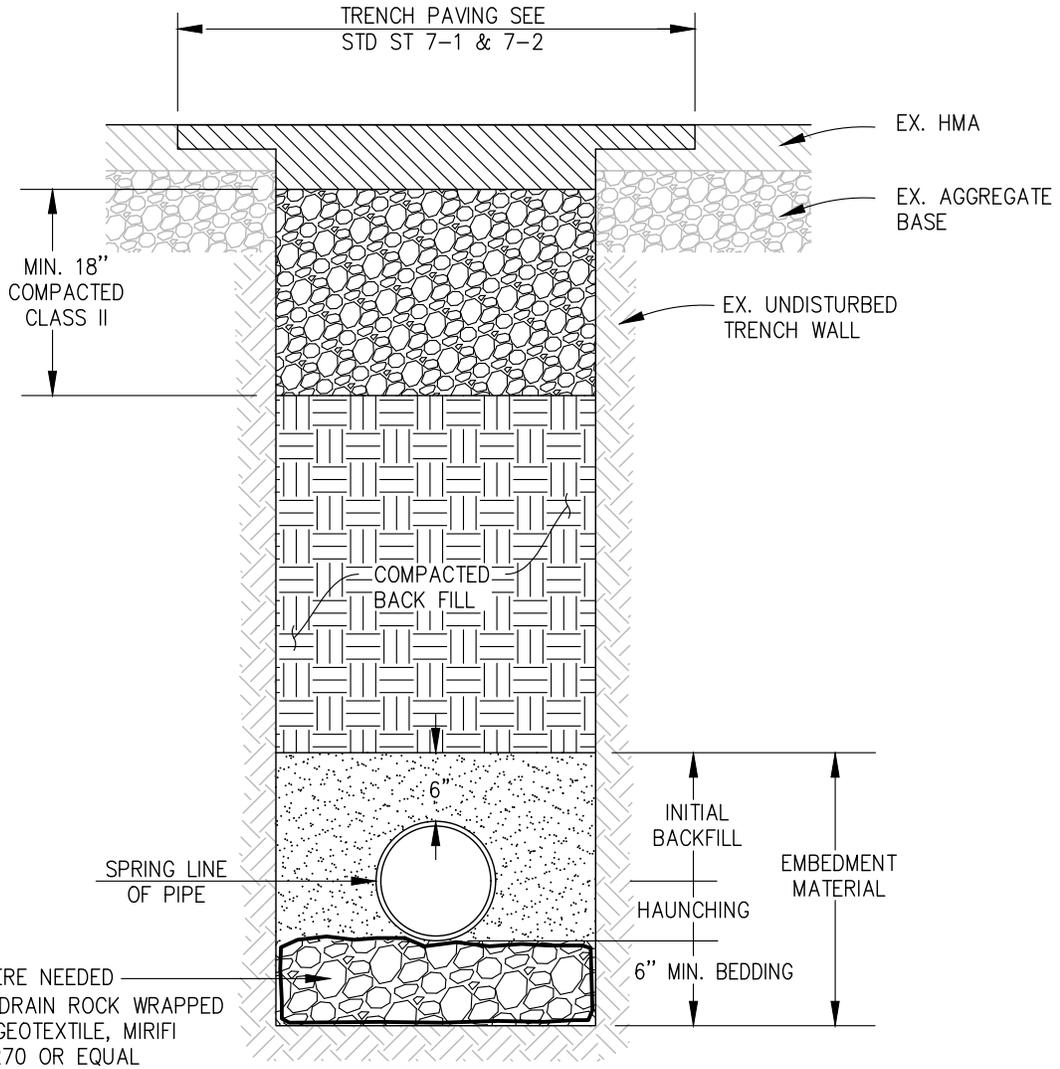
TRENCH PAVING TABLE	
STREET TYPE	MIN. HMA THICKNESS
RESIDENTIAL/LOCAL	3"
COLLECTOR	4"
ARTERIAL	6"

NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	CHK JT	<b>TRENCH DETAIL</b> <b>NARROW TRENCH AND SMALL HOLES</b>		ST 7-2
	DEC 2021	RUSS THOMPSON CITY ENGINEER	DATE 12/07/21	PAGE 2 OF 5 SCALE: NONE

Images: Alameda.png; RST Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 7-2.dwg  
 Layout Name: ST 7-2 Plot Date: Dec 07, 2021 at 13:31

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 7-3.dwg  
 Layout Name: ST 7-3 Plot Date: Dec 07, 2021 at 13:32



**NOTES:**

1. EMBEDMENT MATERIAL MUST BE CLASS I.
2. EMBEDMENT MATERIAL SHALL BE COMPACTED TO A MINIMUM 90% STANDARD PROCTOR DENSITY FOR CLASS I MATERIAL.
3. STANDARD BEDDING SHALL BE UTILIZED FOR ALL CASES WHERE TRENCH BOTTOMS ARE UNSTABLE DUE TO SOIL TYPE OR MOISTURE CONDITIONS.
4. VOIDS AND HAUNCH AREA ARE TO BE HAND FILLED.
5. UNDER ENGINEERS APPROVAL, COMPACTED BACK FILL MAY BE NATIVE MATERIAL.

NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	CHK JT	<b>TRENCH DETAIL TRENCH BACKFILL</b>	<b>ST 7-3</b>
	DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21

MATERIAL SPECIFICATIONS

DRAIN ROCK MAY BE USED AS BEDDING UNDER PIPE FOR SLOPES LESS THAN 8%. DRAIN ROCK SHALL BE 100% CRUSHED AND SHALL CONFORM TO THE FOLLOWING GRADING:

1-1/2"	1"	1/2"	#4
100	95-100	0-30	0-4

CUT OFF WALLS SHALL BE PROVIDED WHEN SHOWN ON THE PLANS OR REQUIRED BY THE CITY ENGINEER.

PIPE BEDDING FOR SLOPES LESS THAN OR EQUAL TO 8% SHALL HAVE A MINIMUM SAND EQUIVALENT VALUE OF 30 AND SHALL CONFORM TO THE FOLLOWING GRADING:

1"	3/4"	3/8"	#4	#200
100	90-100	65-100	30-100	0-15

PIPE BEDDING FOR SLOPES GREATER THAN 8% SHALL HAVE A MINIMUM SAND EQUIVALENT OF 30 AND SHALL CONFORM TO THE FOLLOWING GRADING:

1"	3/4"	3/8"	#4	#30	#200
100	90-100	65-100	30-100	10-100	0-15

TRENCH BACKFILL SHALL CONFORM TO THE FOLLOWING GRADING AND HAVE A MINIMUM SAND EQUIVALENT VALUE OF 25.

3"	#4	#30
100	40 -100	10-100

WHEN SAND BEDDING IS PROPOSED FOR UTILITY CONDUIT INSTALLATION, THE MATERIAL SPECIFICATIONS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW 5 WORKING DAYS BEFORE CONSTRUCTION.

AGGREGATE BASE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 26 OF THE STATE STANDARD SPECIFICATIONS. HOT MIX ASPHALT SHALL CONFORM TO THE REQUIREMENTS OF SECTION 39 OF THE STATE STANDARD SPECIFICATIONS.

COMPACTION REQUIREMENTS

AS SHOWN ON STD. ST 7-1, ST 7-2, ST 7-3 AND IN THE FOLLOWING MODIFICATIONS

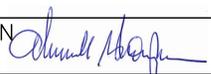
DRAIN ROCK SHALL BE CONSOLIDATED WITH A SURFACE VIBRATOR.

PIPE BEDDING MATERIAL USED TO GRADE THE TRENCH SHALL BE CONSOLIDATED WITH A SURFACE VIBRATOR WHEN IT IS PLACED OVER DRAIN ROCK OR WHEN DEPTH IS GREATER THAN 6 INCHES.

TRENCH BACKFILL MAY NOT BE COMPACTED BY JETTING.

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 7-4.dwg  
 Layout Name: ST 7-4 Plot Date: Dec 07, 2021 at 13:33

NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	CHK JT	TRENCH DETAIL	
	DEC 2021	RUSS THOMPSON CITY ENGINEER 	DATE 12/07/21

CONTROLLED LOW STRENGTH MATERIAL (CLSM)

CLSM SHALL BE A MIXTURE OF PORTLAND CEMENT, SAND AND 1" MAXIMUM COARSE AGGREGATE, AIR ENTRAINING AGENT AND WATER, BATCHED BY A READY-MIXED CONCRETE PLANT AND DELIVERED TO THE JOBSITE BY MEANS OF TRANSIT MIXING TRUCKS. CONTROL DENSITY FILL MAY ALSO CONTAIN CLASS F POZZOLON (FLY ASH). CLSM SHALL BE FREE OF ASPHALTIC MATERIAL.

MATERIALS

CEMENT SHALL MEET THE STANDARDS AS SET FORTH IN ASTM C-150, TYPE II CEMENT.

FLY ASH SHALL MEET THE STANDARDS AS SET FORTH IN ASTM C-618, FOR CLASS F POZZOLANS. THE FLY ASH SHALL NOT INHIBIT THE ENTRAINMENT OF AIR.

AGGREGATE SIZE            1" MAX.  
SAND EQUIVALENT        31 MM.

MIX PROPORTIONS

THE MIX PROPORTIONS SHALL BE DETERMINED BY THE PRODUCER OF THE CLSM TO PRODUCE A FLOWABLE FILL MIXTURE WHICH WILL NOT SEGREGATE. EACH YARD SHALL CONTAIN NOT LESS THAT 50 POUNDS OF PORTLAND CEMENT AND NOT LESS THAN A TOTAL OF 100 POUNDS OF CEMENTITIOUS MATERIAL, THE CONTRACTOR SHALL SUPPLY A MIX DESIGN TWO WEEKS PRIOR TO ANY USE OF CLSM.

MIXTURE PROPERTIES

COMPRESSIVE STRENGTH        75- 200 PSI @ 28 DAYS  
SLUMP                                3 - 9 INCHES

THE CONSISTENCY OF CLSM SHALL BE SUCH THAT ALL TRENCH VOIDS ARE FILLED WITH MINIMUM RODDING OR VIBRATING BUT NOT SO WET AS TO CAUSE EXCESSIVE SHRINKAGE.

PAVING

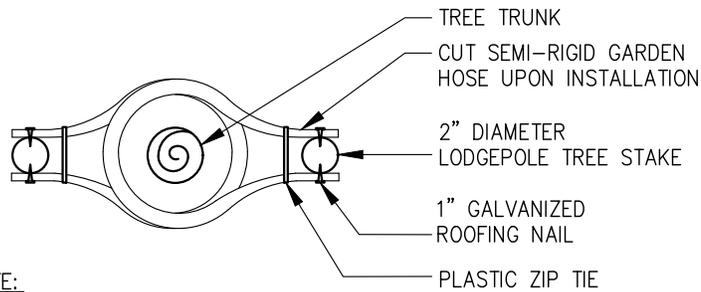
PERMANENT PAVEMENT MAY BE PLACED DIRECTLY UPON THE CLSM AS SOON AS IT HAS CONSOLIDATED FOR THE SURFACE TO WITHSTAND THE PROCESS OF PAVING WITHOUT DISPLACEMENT. THE SURFACE OF THE CLSM SHALL BE FIRM AND UNYIELDING. ANY VISIBLE MOVEMENT VERTICALLY OR HORIZONTALLY OF THE CLSM UNDER THE ACTION OF CONSTRUCTION EQUIPMENT OR OTHER MAXIMUM LEGAL AXLE LOADS SHALL BE CONSIDERED AS EVIDENCE THAT THE CLSM DOES NOT MEET THIS REQUIREMENT. THE CONTRACTOR SHALL PROVIDE TRENCH PLATES TO ALLOW TRAFFIC FLOW FOR ALL LOCATIONS UNTIL CLSM IS READY TO BE PAVED.

Layout Name: ST 7-5 Plot Date: Dec 07, 2021 at 13:34

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 7-5.dwg

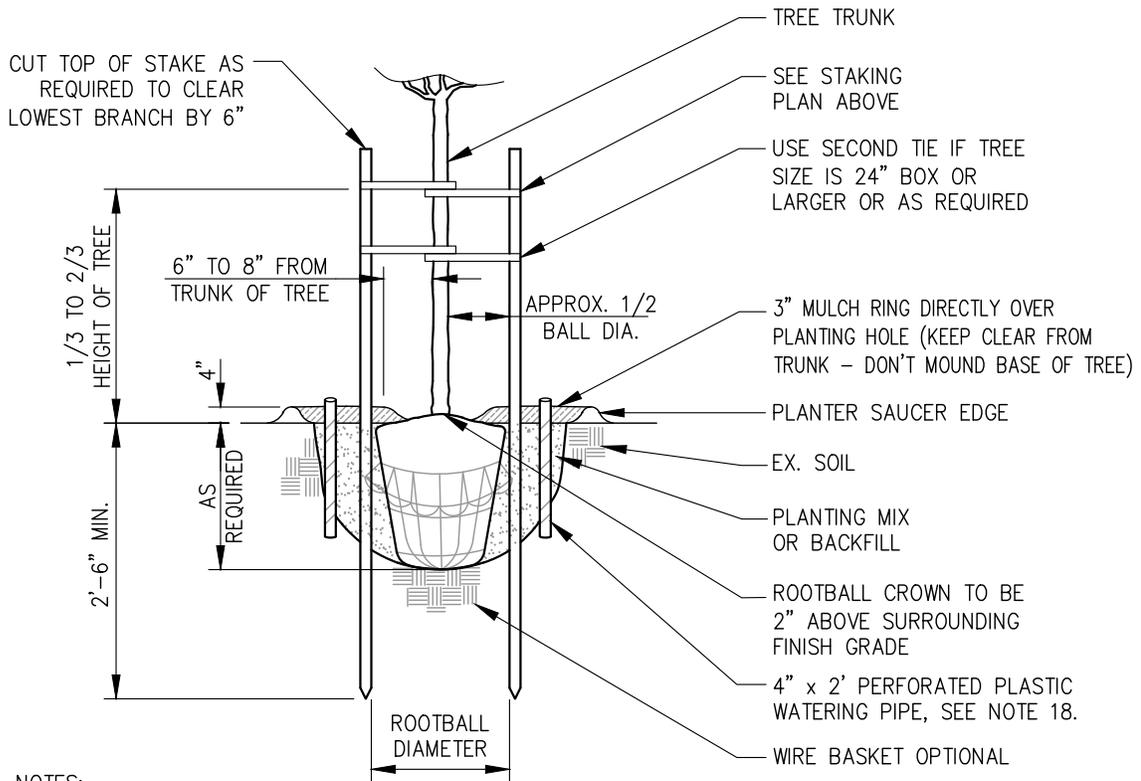
NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	CHK JT	<b>TRENCH DETAIL</b>	<b>ST 7-5</b>
	DEC 2021	<b>CONTROLLED LOW STRENGTH MATERIAL (CLSM)</b>	PAGE 5 OF 5
	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21	SCALE: NONE



**NOTE:**  
 TREE STAKES FOR ALL STREET TREES SHALL BE PARALLEL TO STREET

**TREE STAKING PLAN**



**NOTES:**

1. CUT AND REMOVE TOP 1/2 OF WIRE BASKET, TURN DOWN TOP 1/2 OF BURLAP; REMOVE ALL CORD & TWINE FROM BASE OF TRUNK; IF NON-DEGRADABLE WRAP IS USED, REMOVE TOTALLY.
2. LOOSEN EXTERIOR OF THE ROOT BALL AND THE ROOT MAT AT THE BOTTOM OF THE BALL, CUT ALL MAJOR CIRCLING ROOTS.

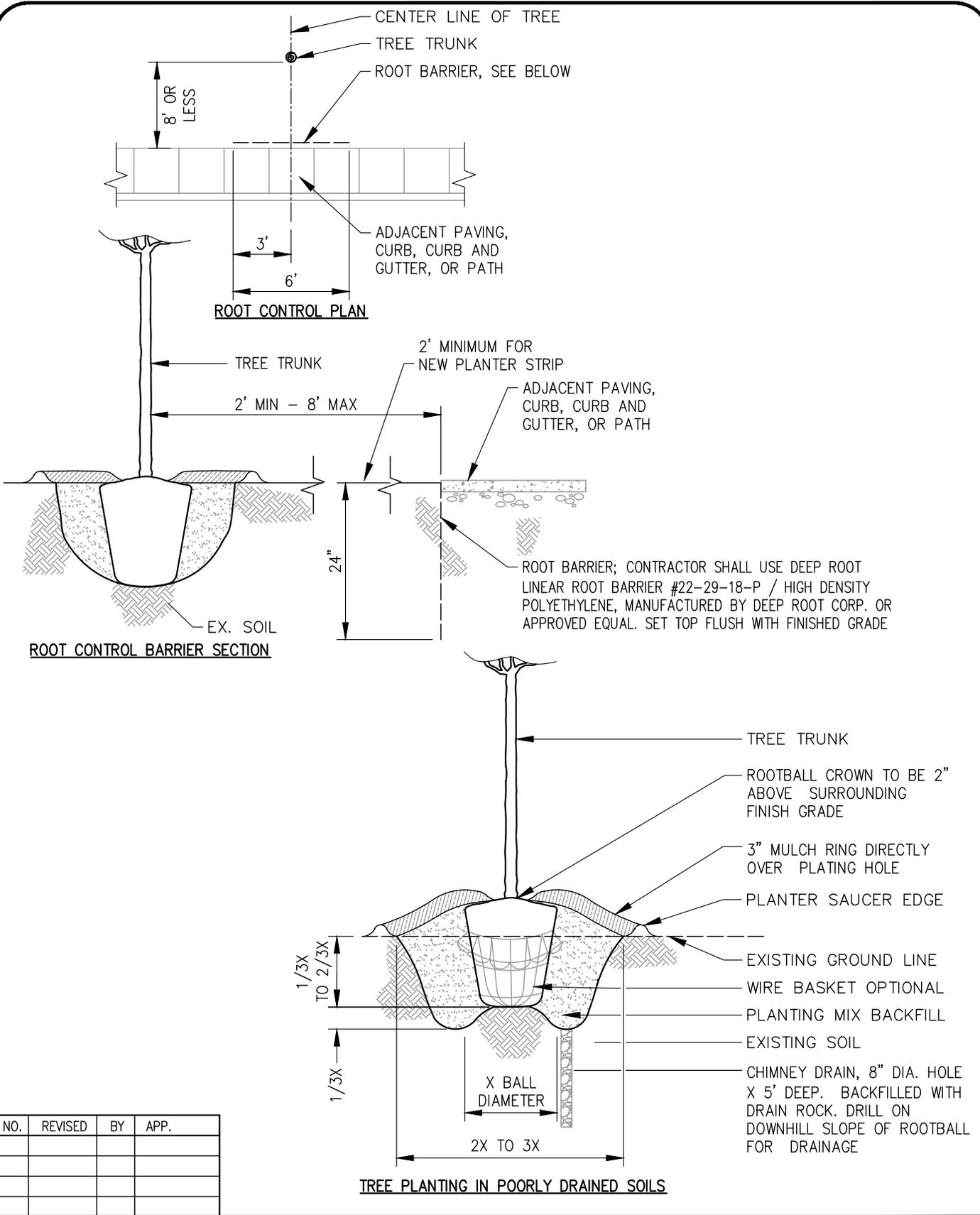
**TREE PLANTING AND STAKING SECTION**

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 9-1.dwg  
 Layout Name: ST 9-1 Plot Date: Dec 07, 2021 at 13:34

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	DWN: CLG	<b>STREET TREE PLANTING</b>	<b>ST 9-1</b>
	CHK JT		PAGE 1 OF 3
DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21	SCALE: NONE

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 9-2.dwg Layout Name: ST 9-2 Plot Date: Dec 07, 2021 at 13:35



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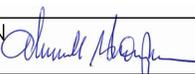
	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	<b>STREET TREE PLANTING</b>		<b>ST 9-2</b>
	DWN: CLG CHK JT DEC 2021	RUSS THOMPSON CITY ENGINEER	DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 9-3.dwg  
 Layout Name: ST 9-3 Plot Date: Dec 07, 2021 at 13:36

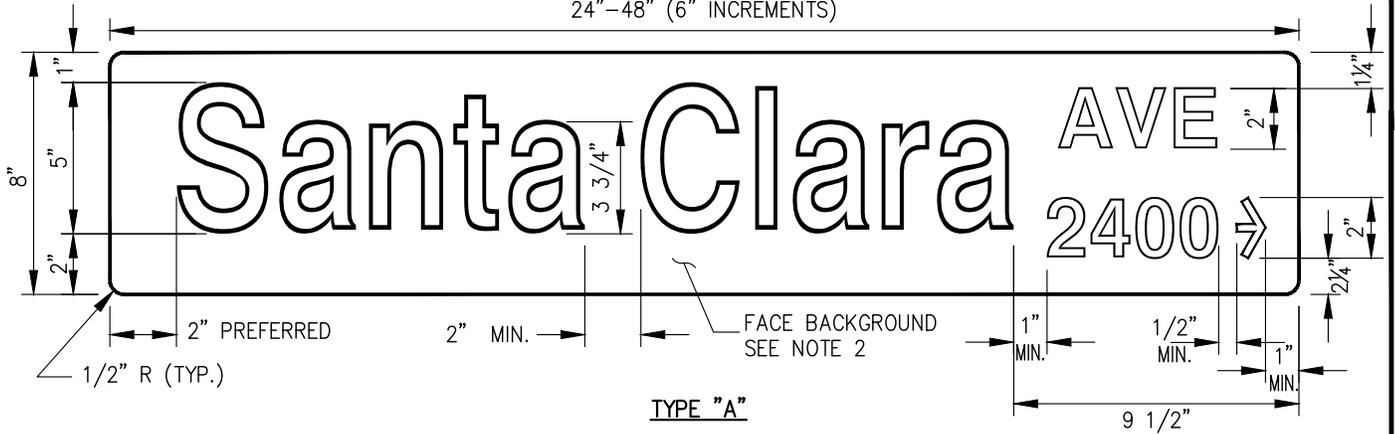
TREE PLANTING NOTES:

1. ALL WORK SHALL BE PERFORMED BY PERSONS FAMILIAR WITH THIS TYPE OF WORK AND UNDER THE SUPERVISION OF A QUALIFIED PLANTING FOREMAN.
2. CONTRACTOR SHALL VERIFY THAT ADEQUATE DRAINAGE EXISTS PRIOR TO PLANTING.
3. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO PLANTING.
4. TREES SHALL BE 7 TO 10 FEET HIGH SUPPLIED IN FIFTEEN GALLON CONTAINERS. TREES SHALL HAVE A MINIMUM OF 1.5 INCH TRUNK DIAMETER AT BREAST HEIGHT.
5. ALL TREES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE MOST RECENT *AMERICAN STANDARDS FOR NURSERY STOCK* PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (A.A.N.).
6. TREES SHALL HAVE A STRAIGHT STRONG TERMINAL LEADER, UN CUT AND UNBROKEN. THE MAIN TRUNK SHALL HAVE ACCEPTABLE LATERAL GROWTH ALONG ITS LENGTH SHORTER AND SMALLER IN DIAMETER THAN THE MAIN TRUNK.
7. ALL TREES THAT, IN THE OPINION OF THE CITY ENGINEER, ARE DISEASED, INSECT INFECTED, OR HAVE GIRDLING ROOTS, WILL BE REJECTED.
8. TREES WITH ROOT FLARE COVERED BY MORE THAN 1.5 INCHES OF SOIL WILL BE REJECTED PRIOR TO INSTALLATION.
9. PLANTING MIXTURE FOR THE BACKFILL SHALL HAVE NO SOIL AMENDMENTS.
10. IN PARKWAY STRIPS, SET PLANTER TOP 1.5 INCHES BELOW SIDEWALK GRADE. IN LAWNS OR GROUND COVER AREAS, SET PLANTER TOP FLUSH WITH FINISHED GRADE. IN LAWN AREAS THERE SHALL BE A 2 FOOT MULCH RING CLEARANCE BETWEEN EDGE OF LAWN AND TREE.
11. STAKING OF TREE IS NOT RECOMMENDED, EXCEPT ON WINDY SITES, FOR LARGE EVERGREEN TREES, OR IN AREAS WITH HEAVY TRAFFIC. IF STAKING IS DONE, FLEXIBLE HOSE, NOT TIES AND WIRES, SHALL BE USED. NAIL FLEXIBLE TREE STRAP TO EACH SIDE OF THE STAKE IN TEARDROP FIGURE WITH 1 INCH MAX GALVANIZED ROOFING NAIL.
12. TREE STAKES SHALL BE REMOVED AFTER TWO YEARS.
13. AT PLANTING, PRUNE ONLY CROSSING LIMBS, CO-DOMINANT LEADER, BROKEN, DISEASED OR DEAD BRANCHES, AND ANY BRANCHES THAT POSE A HAZARD TO PEDESTRIANS WHILE PRESERVING FORM AND CHARACTER OF TREE. DO NOT CUT LEADER. DO NOT PRUNE IN ORDER TO REDUCE CANOPY SIZE.
14. DO NOT WRAP TRUNK OF TREE.
15. A ROOT COLLAR EXCAVATION FOR ALL TREES SPECIFIED WILL BE DONE BY THE CITY ENGINEER TO ENSURE THAT TREES WERE NOT PLANTED OR GROWN TOO DEEPLY AT THE NURSERY. CONTRACTOR SHALL HAVE SUPPLIERS MARK GROUND LEVEL LINE ABOVE ROOT BALL. IF CITY ENGINEER DETERMINES THAT THERE IS EXCESSIVE SOIL OVER THE ROOT CROWN, THE TREES WILL BE REJECTED.
16. MULCH SHALL BE 3" DEEP UNLESS OTHERWISE NOTED.
17. TREES SHALL BE WATERED TWICE WEEKLY. ALL TREES NOT MEETING WITH THE APPROVAL OF THE CITY ENGINEER AT THE END OF THAT PERIOD SHALL BE REPLACED BY THE CONTRACTOR.
18. INSTALL TWO DEEP WATERING PERFORATED PLASTIC PIPES AS SHOWN. FILL PIPES WITH 3/4 INCH CLEAN DRAIN ROCK.

NO.	REVISED	BY	APP.

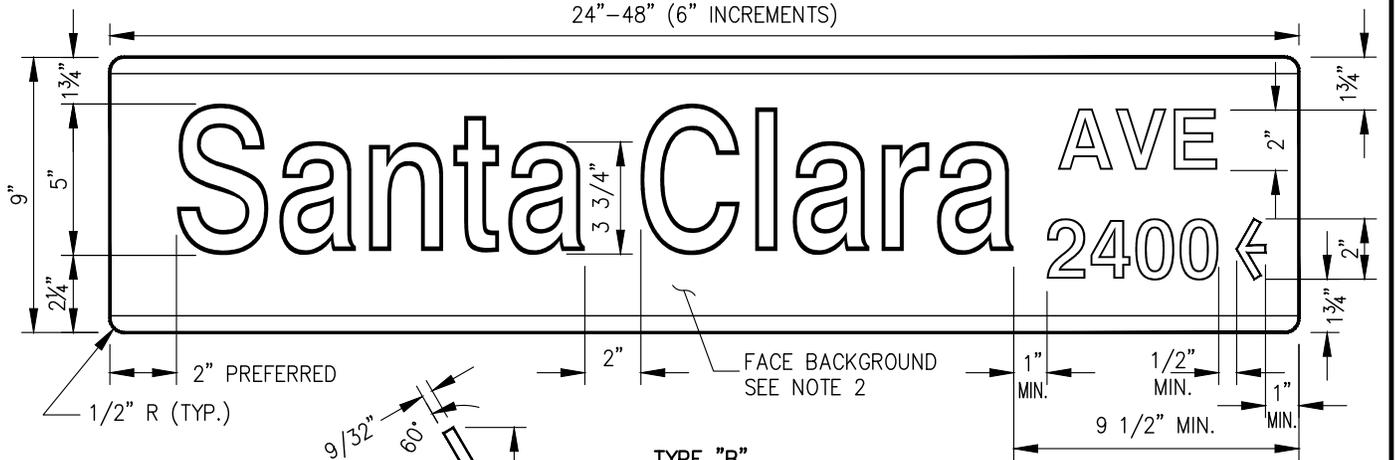
	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	CHK JT	<b>STREET TREE PLANTING</b>	<b>ST 9-3</b>
	DEC 2021	RUSS THOMPSON CITY ENGINEER 	DATE 12/07/21

24"-48" (6" INCREMENTS)

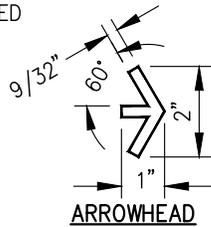


TYPE "A"

24"-48" (6" INCREMENTS)



TYPE "B"



ARROWHEAD

NOTES:

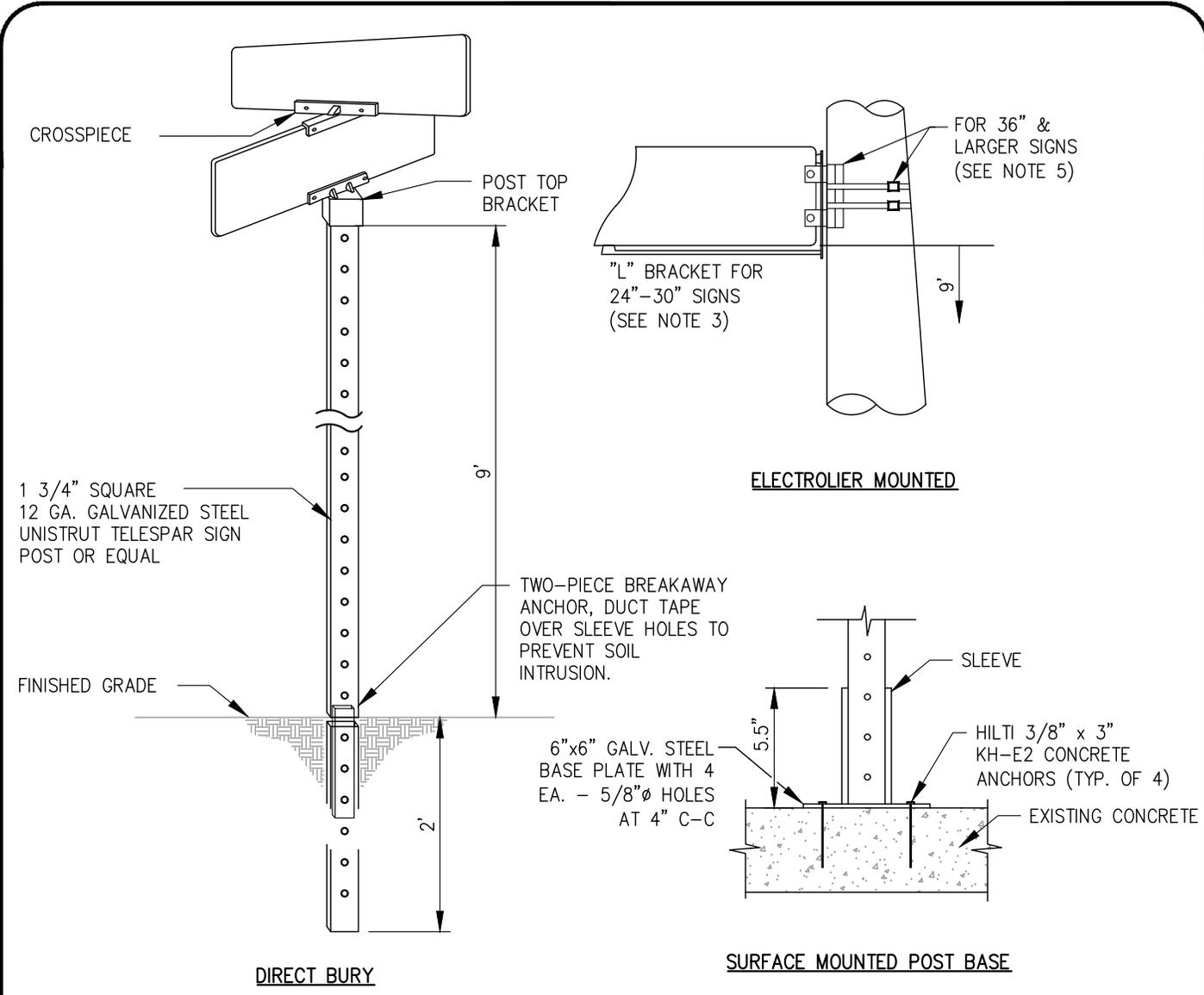
- STREET NAME BLADES SHALL BE 0.080" GAUGE, 6061-T6 ALUMINUM ALLOY (ASTM SPECIFICATION B221).
- FACE BACKGROUND SHALL BE INTERSTATE GREEN HIGH INTENSITY GRADE PRISMATIC REFLECTIVE SHEETING MATERIAL, CONFORMING TO THE CALTRANS SPECIFICATIONS.
- LEGEND SHALL BE SILVER SUPER ENGINEER GRADE (SEG) REFLECTORIZED SHEETING MATERIAL. THE STREET NAME SHALL BE COMPOSED OF 5" UPPER CASE AND 3 3/4" LOWER CASE LETTERS, FHWA SERIES B OR C. STREET NAME SUFFIXES SHALL BE 2" UPPER CASE LETTERS, FHWA SREIES C. BLOCK NUMBERS SHALL BE 2", FHWA SERIES C.
- ALL LETTER LAYOUTS SHALL CONFORM TO THE APPROPRIATE SPACING CHARTS OF THE FEDERAL HIGHWAY ADMINISTRATION. THE STREET NAME SUFFIX SHALL BE CENTERED BETWEEN THE STREET NAME AND THE EDGE OF THE SIGN. SIGNS SHALL BE IN 6" INCREMENTS OF LENGTH BETWEEN 24" AND 48", THE MINIMAL LENGTH BEING USED. THE STREET NAME SHALL BE COMPOSED OF FHWA SERIES B LETTERS ONLY WHEN THEIR USE RESULTS IN A SHORTER BLADE LENGTH. ALL SIGNS SHALL BE UNIFORM AND PROPORTIONAL IN APPEARANCE.
  - IN CASE WHERE NORMAL LAYOUT RESULTS IN A SIGN LONGER THAN 48", THE LEGEND SHALL BE CONDENSED IN A UNIFORM AND PROPORTIONAL MANNER SUBJECT TO APPROVAL BY THE ENGINEER.
- FACE SHALL BE ADHERED TO BLADES. ALL SIGNS SHALL BE DOUBLE-FACED. SIGN FACES SHALL BE FREE FROM BLEMISHES, BLISTERS, CRACKS, ETC.
- THE WORD "BLIND" IN 2" UPPER CASE, FHWA SERIES C LETTERS SHALL BE SUBSTITUTED FOR THE BLOCK NUMBER AND ARROWHEAD WHEN SO SPECIFIED.

NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT  <b>STREET NAME SIGN</b>	STD DETAIL
	CHK JT		ST 10-1
DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21	PAGE 1 OF 2 SCALE: NONE

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 10-1.dwg Layout Name: ST 10-1 Plot Date: Dec 07, 2021 at 13:37

Images: Alameda.png; RST Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 10-2.dwg Layout Name: ST 10-2 Plot Date: Dec 07, 2021 at 13:38

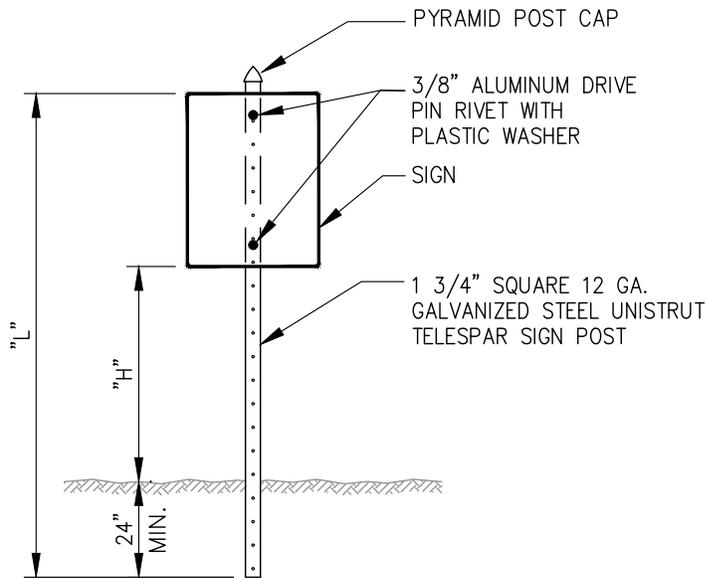


**NOTES:**

1. POST MOUNTING BRACKETS SHALL BE HAWKINS 109-00821 (5 1/4" FLAT SLOT) OR PACIFIC PRODUCTS & SERVICES #850 OR APPROVED EQUAL.
2. SIGN BLADE 90-DEGREE CROSS PIECES SHALL BE HAWKINS 037-0021 (5 1/2") PACIFIC PRODUCTS & SERVICES #850 OR APPROVED EQUAL.
3. ELECTROLIER MOUNTING "L" BRACKET SHALL BE HAWKINS V14F-SWB OR PACIFIC PRODUCTS & SERVICES #10-10 OR APPROVED EQUAL.
4. ALL MOUNTING BRACKETS SHALL BE OF HEAVY DUTY CAST ALUMINUM WITHOUT WELDED CONNECTIONS. BRACKETS SHALL BE COMPLETE WITH THEFT-PROOF ALLEN SET SCREWS.
5. SIGNS OVER 36" IN LENGTH SHALL BE MOUNTED WITH PACIFIC PRODUCTS & SERVICES #730 (9" LONG) BRACKET AND BE BOLTED TO THEIR MOUNTING BRACKETS USING STAINLESS STEEL 1/4" - 20 X 1 1/2" HEX CAP MACHINE SCREWS, STAINLESS STEEL 3/8" - 20 NUTS AND STAINLESS STEEL 3/8" LOCKWASHERS. A 1/4" DIAMETER HOLE IS TO BE DRILLED THRU THE BRACKET AND SIGN BLADE AT EACH SET SCREW LOCATION. BANDS FOR ELECTROLIER MOUNTING SHALL BE STAINLESS STEEL, 1/2" WIDE AND .025" THICK. THESE SHALL BE SECURED WITH STAINLESS STEEL CLAMPS.
6. LOCATION OF STREET NAME SIGNS SHALL BE AS DIRECTED BY THE ENGINEER.

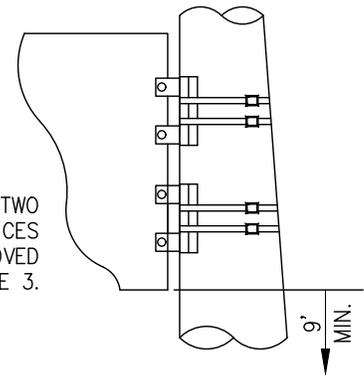
NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	CHK JT	<b>STREET NAME SIGN</b>		<b>ST 10-2</b>
	DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21	PAGE 2 OF 2 SCALE: NONE



SEE CITY STD. ST 12 FOR "L" AND "H" DIMENSIONS.

**TYPICAL SIGN INSTALLATION**



ELECTROLIER MOUNTED USING TWO PACIFIC PRODUCTS & SERVICES #730 BRACKET OR APPROVED EQUAL. SEE NOTE 3.

**ELECTROLIER MOUNTED SIGN DETAIL**

**NOTES:**

- SIGN LEGEND AND SHAPE SHALL CONFORM WITH THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR EACH DESIGNATION SHOWN. SIGN SIZE, COLORS AND MATERIALS SHALL BE AS SPECIFIED IN CITY STD. ST 12.
- PARENTHESES ( ) IN THE SIGN DESIGNATION INDICATE AN ARROW IN THE SIGN LEGEND. DIRECTION OF THE ARROW SHALL BE AS SHOWN ON THE CONSTRUCTION PLANS.
- ALL SIGNS, EXCEPT THE R26, R26(S), R28 ( ), AND THE R32 SIGNS SHALL BE SINGLE-FACED AND CENTER-POST MOUNTED. THE R26, R26(S), AND R32 SIGNS SHALL BE DOUBLE-FACED, THE R28 ( ) SIGN SHALL BE SINGLE-FACED, AND THESE SHALL BE MOUNTED ON STANDARD "L-BRACKET" MOUNTINGS.
- ALL SIGNS SHALL BE ALUMINUM ALLOY WITH REFLECTIVE SHEETING EXCEPT AS FOLLOWS:
  - THE TYPE N-4, TYPE N-5, TYPE K-1, AND TYPE L-1 SHALL BE ALUMINUM ALLOY WITH NON-REFLECTIVE SHEETING.
  - THE TYPE N-4, TYPE N-5, TYPE L-1, AND TYPE K-1 SHALL HAVE REFLECTOR BUTTONS.
- ALL SIGN MATERIALS AND FABRICATION SHALL BE IN CONFORMANCE WITH THE LATEST CALTRANS SPECIFICATIONS AND SHALL MEET WITH THE APPROVAL OF THE CITY ENGINEER. REFLECTIVE SHEETING SHALL BE 3M HIGH-INTENSITY GRADE PRISMATIC OR APPROVED EQUAL. NON-REFLECTIVE SHEETING SHALL BE 3M ELECTRO CUT FILM OR APPROVED EQUAL.
- ALL SIGNS SHALL CONFORM TO GAUGE (PANEL THICKNESS) AS PER CALTRANS SPECIFICATIONS.

NO.	REVISED	BY	APP.

	DWN: CLG	<b>CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT</b>	STD DETAIL
	CHK JT		<b>TRAFFIC SIGN INSTALLATION</b>
	DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 12-1.dwg  
 Layout Name: ST 12-1 Plot Date: Dec 07, 2021 at 13:40

SIGN	DESIGNATION	SIZE	COLORS LEGEND ON BACKGROUND	H	L
STOP	R1-1	30" OCTAGON	WHITE ON RED	7'	11'
SPEED LIMIT	R2-1	24" X 30"	BLACK ON WHITE	7'	11-1/2'
KEEP RIGHT (SYMBOL)	R4-7	24" X 30"	BLACK ON WHITE	5'	10'
STOP AHEAD	W3-1	30" X 30"	RED & BLACK ON YELLOW BLACK ON WHITE	7'	12'
ONE WAY	R6-1 R10-1 (L OR R)	36" X 12"	ON BLACK	4'	7'
DO NOT ENTER	R5-1	30" X 30" OR 36" X 36"	RED ON WHITE	7'	12'
NO RIGHT TURN	R3-1	24" X 24"	RED & BLACK ON WHITE	7'	12'
NO LEFT TURN	R3-2	24" X 24"	RED & BLACK ON WHITE	7'	12'
RIGHT LANE MUST TURN RIGHT	R3-7	20" X 32"	BLACK ON WHITE	7'	12'
NO PARKING ANY TIME	R26	12" X 18"	RED ON WHITE	7'	10-1/2"
NO STOPPING ANY TIME	R26 (S)	12" X 18"	RED ON WHITE	7'	10-1/2"
NO PARKING ANY TIME	R28A	12" X 18" OR 18" X 24"	RED ON WHITE	7'	10-1/2"
2 HOUR PARKING	R32	12" X 18"	GREEN ON WHITE	7'	10-1/2"
NO LEFT TURN	R33	24" X 36"	RED & BLACK ON WHITE	7'	12'
NO U TURN	R3-4	24" X 24"	RED & BLACK ON WHITE	8.5'	12-1/2'
TRUCK ROUTE	R14-1	24" X 24"	BLACK ON WHITE	7'	11'
YIELD	R1-2	36" SIDES	RED ON WHITE	7'	11-1/2'
YIELD HERE TO PED	R1-5	30" X 30"	RED & BLACK ON WHITE	7'	12'
RIGHT TURN ONLY	R3-5 (R)	24" X 30" OR 30" X 36"	BLACK ON WHITE	7'	12'
LEFT TURN ONLY	R3-5 (L)	24" X 30" OR 30" X 36"	BLACK ON WHITE	7'	12'
NO PEDESTRIAN XING	R9-3a	36" X 18"	BLACK ON WHITE	7'	10-1/2"
BIKE ROUTE	D11-1	24" X 18"	WHITE ON GREEN	7'	10-1/2"
"BEGIN" WITH (BIKE ROUTE)	M4-14	12" X 5"	WHITE ON GREEN	8.5'	11'
"END" WITH (BIKE ROUTE)	M4-6	8" X 5"	WHITE ON GREEN	8.5'	11'
CURVE (90°)	W1-1 OR W1-1A (L OR R)	30" X 30"	BLACK ON YELLOW	7'	12-1/2'
CURVE	W1-2 (L OR R)	30" X 30"	BLACK ON YELLOW	7'	12-1/2'

NO.	REVISED	BY	APP.

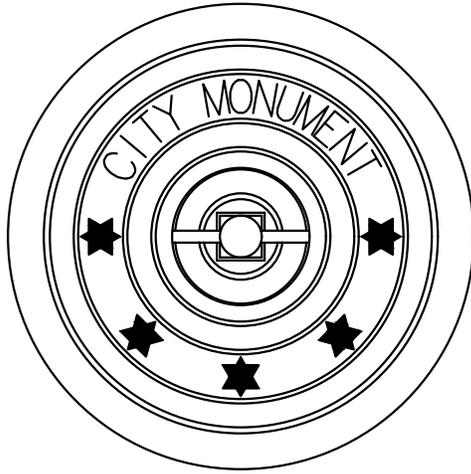
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	CHK JT		<b>ST 12-1</b>
	DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 12-2.dwg  
 Layout Name: ST 12-2 Plot Date: Dec 07, 2021 at 13:40

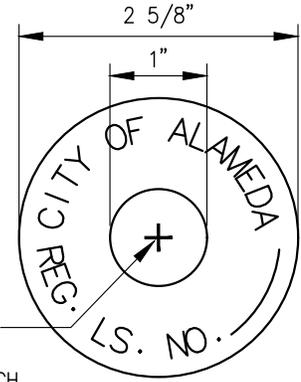
SIGN	DESIGNATION	SIZE	COLORS LEGEND ON BACKGROUND	H	L
T-INTERSECTION	W2-2 OR W2-4	30" X 30"	BLACK ON YELLOW	7'	12-1/2'
LANE REDUCTION	W4-2	30" X 30"	BLACK ON YELLOW	7'	11-1/2'
END	W31	24" X 24"	BLACK ON YELLOW	5'	9'
SIGNAL AHEAD NOT A THROUGH STREET NO OUTLET	W3-3	36" X 36"	BLACK ON YELLOW	7'	13-1/2'
TWO-WAY DIRECTIONAL ARROW	W14-2	24" X 24"	BLACK ON YELLOW	7'	12'
DIRECTIONAL ARROW	W6-3	30" X 30"	BLACK ON YELLOW	5'	8-1/2'
DIRECTIONAL ARROW	W1-6 OR 1-7	36" X 18"	BLACK ON YELLOW	5'	8-1/2'
MERGING TRAFFIC	W4-1	30" X 30"	BLACK ON YELLOW	7'	13-1/2'
SCHOOL	S1-1	30" X 30"	BLACK ON YELLOW	7'	12'
SCHOOL XING	S1-1 WITH W16-7P	30" X 30" 24" X 12"	BLACK ON YELLOW	8.5' 7'	14'
REFLECTOR	OM2-1 (TYPE K-1) TYPE L-1	15" X 6" 8" X 24"	YELLOW REFLECTORS ON WHITE	1' 2'	3-1/2' 6'
REFLECTOR	TYPE N-1	18' X 18"	YELLOW REFLECTIVE SHEETING W/ BLACK BORDER	2.5'	6-1/2'
REFLECTOR	TYPE N-2	18' X 18"	RED REFLECTIVE SHEETING W/BLACK BORDER	2.5'	6-1/2'
REFLECTOR	TYPE N	18' X 18"	ORANGE REFLECTIVE SHEETING W/BLACK BORDER	2.5'	6-1/2'
REFLECTOR (L OR T)	OM1-1 (TYPE N-4)	18' X 18"	YELLOW REFLECTORS ON YELLOW	2.5'	6-1/2'
REFLECTOR (END OF CUL-DE-SAC)	OM4-1 (TYPE N-5)	18' X 18"	RED REFLECTORS ON RED	2.5'	6-1/2'
BIKE LANE	R81	24" X 18"	BLACK ON WHITE	7'	10-1/2'
"BEGIN" WITH BIKE LANE	R81A	12" X 5"	BLACK ON WHITE	8.5'	11'
"END" WITH BIKE LANE	R81B	8" X 5"	BLACK ON WHITE	8.5'	11'

NO.	REVISED	BY	APP.

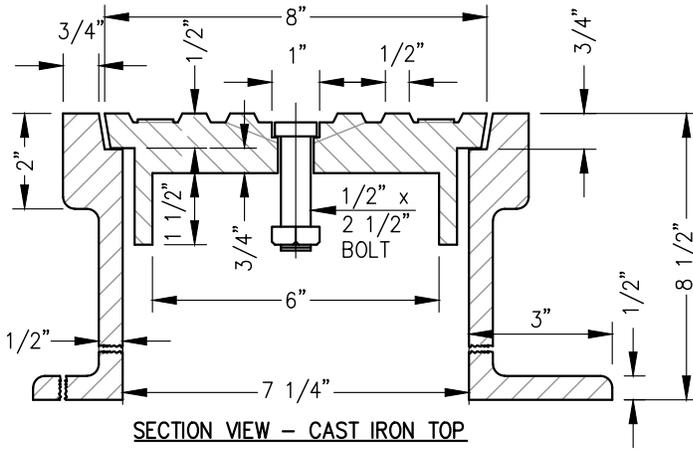
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	CHK JT		<b>ST 12-2</b>
	DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21



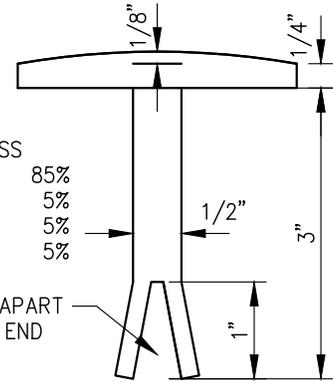
PLAN VIEW - CAST IRON TOP



REFERENCE MARK IN THE SHAPE OF A CROSS SHALL BE IN THE CENTER ONE INCH (1") DIA. AREA AND MARKED WITH A 3/8" STAR DRILL.



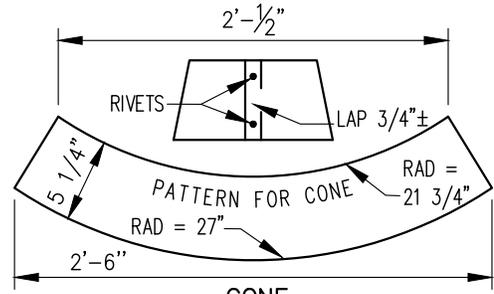
SECTION VIEW - CAST IRON TOP



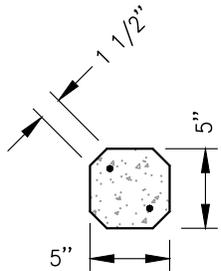
RED BRASS  
COPPER 85%  
TIN 5%  
ZINC 5%  
LEAD 5%

SPREAD APART  
SLOTTED END

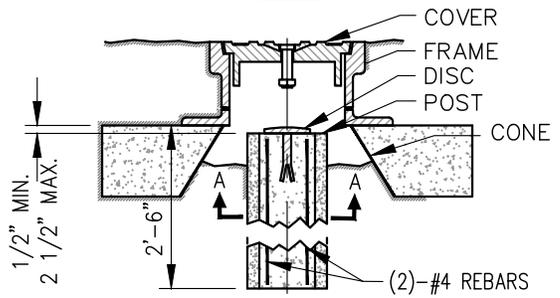
STANDARD DISC



CONE



SECTION A-A



STANDARD POST AND ASSEMBLY

NO.	REVISED	BY	APP.



DWN: CLG  
CHK JT  
DEC 2021

CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT

SURVEY MONUMENT

RUSS THOMPSON  
CITY ENGINEER *Russ Thompson*

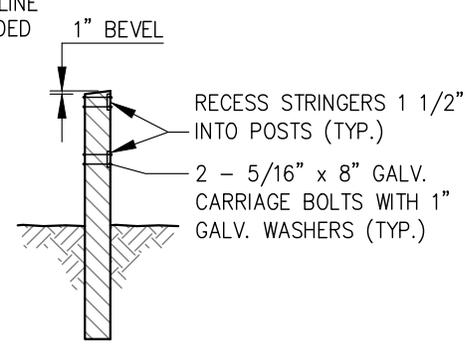
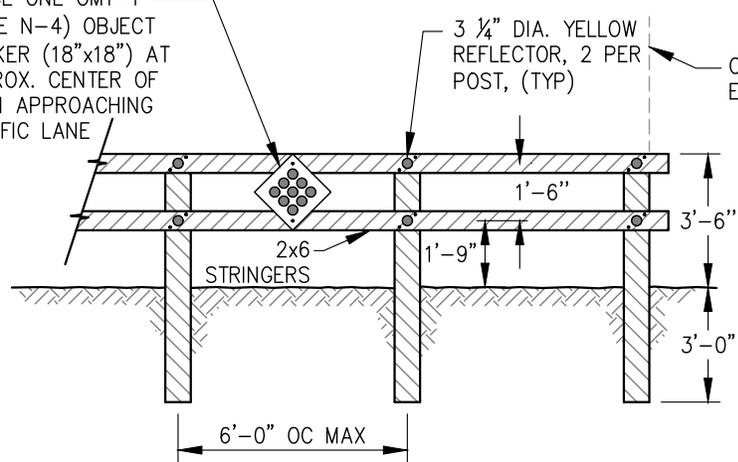
DATE 12/07/21

STD DETAIL  
**ST 13**  
PAGE 1 OF 1  
SCALE: NONE

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 13.dwg Layout Name: ST 13 Plot Date: Dec 07, 2021 at 13:47

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 14.dwg Layout Name: ST 14 Plot Date: Dec 07, 2021 at 13:47

PLACE ONE OM1-1 (TYPE N-4) OBJECT MARKER (18"x18") AT APPROX. CENTER OF EACH APPROACHING TRAFFIC LANE



NOTES:

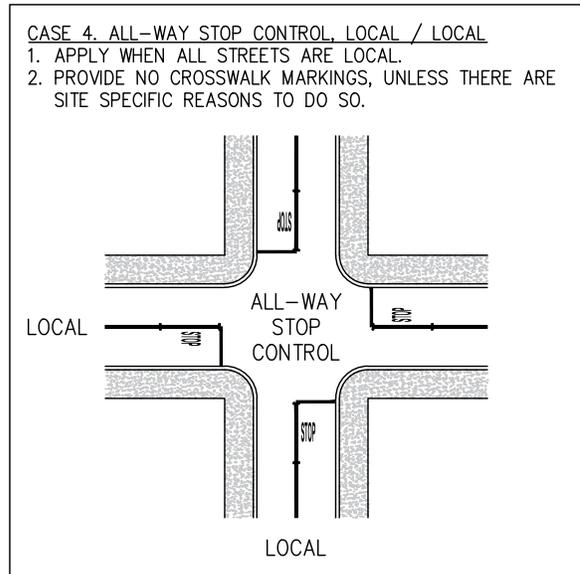
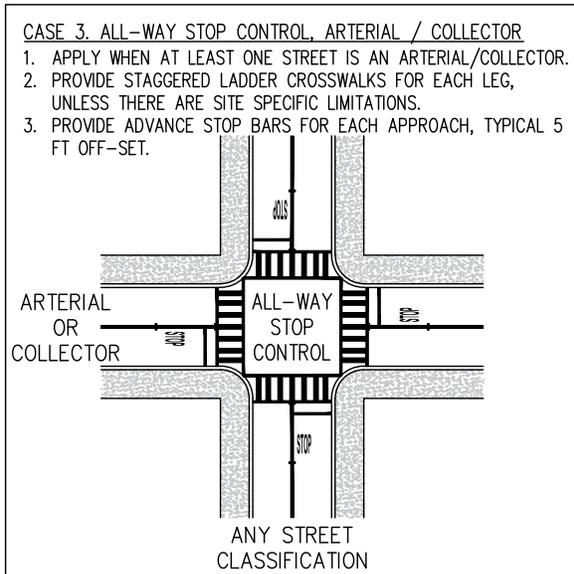
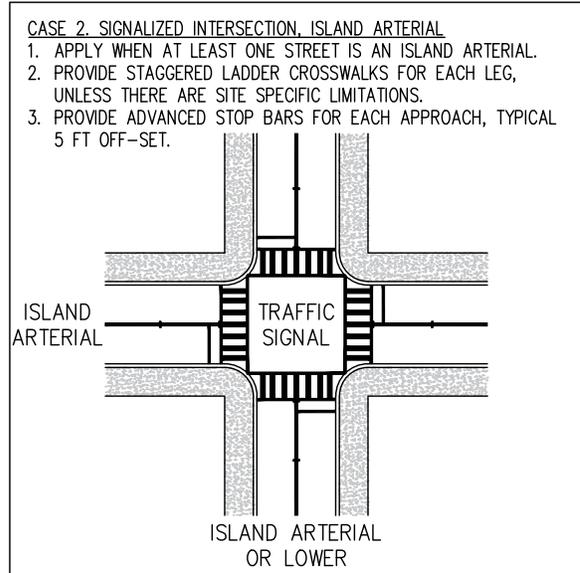
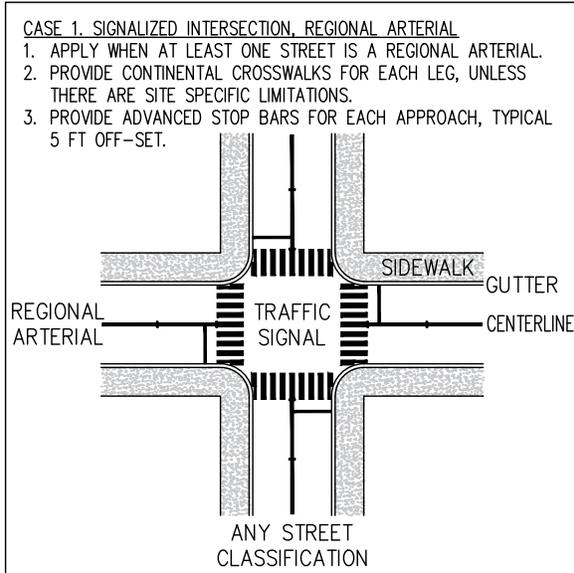
1. POSTS TO BE 6x6 STD OR BETTER PRESSURE-TREATED DOUGLAS FIR.
2. STRINGERS TO BE 2x6 STD OR BETTER PRESSURE-TREATED DOUGLAS FIR. SPLICE AT POST USING 2 BOLTS PER STRINGER.
3. BARRICADE TO BE PAINTED WITH TWO COATS EXTERIOR WHITE PAINT.

NO.	REVISED	BY	APP.

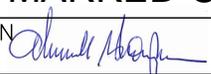
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	CHK JT	<b>STREET BARRICADE</b>	<b>ST 14</b>
	DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21

GENERAL NOTES

1. PEDESTRIAN RAMPS NOT SHOWN.
2. TYPICAL APPLICATIONS DO NOT DEPICT STANDARDS FOR CROSSWALK ALIGNMENT WITH RESPECT TO PEDESTRIAN RAMPS.
3. IT IS PREFERRED TO HAVE BI-DIRECTIONAL ACCESSIBLE PEDESTRIAN RAMPS FOR EACH CORNER OF AN INTERSECTION.
4. ACCESSIBLE PEDESTRIAN RAMPS SHALL BE PROVIDED AT ALL NEW CROSSWALKS.
5. STRIPING MAINTENANCE SHALL ENHANCE EXISTING CROSSWALKS, BUT NOT ADD NEW CROSSWALKS.
6. WHEN DETERMINING WHETHER A STREET OR APPROACH IS MULTI-LANE, TURN POCKETS AND TWO-WAY LEFT-TURN LANES SHALL BE COUNTED.

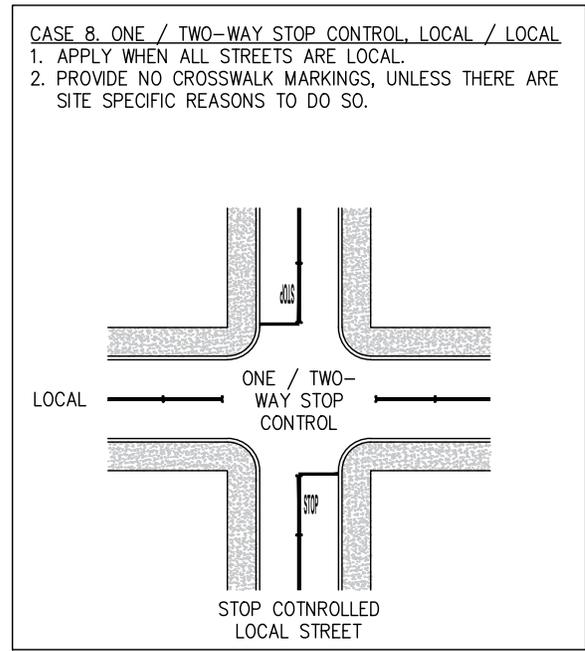
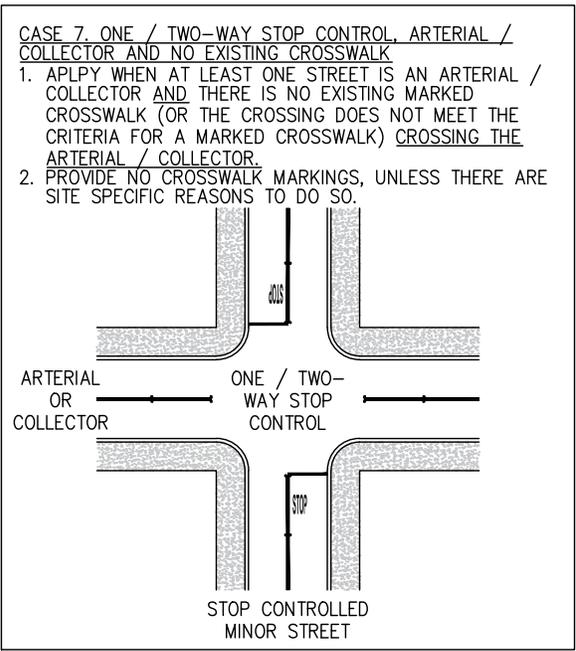
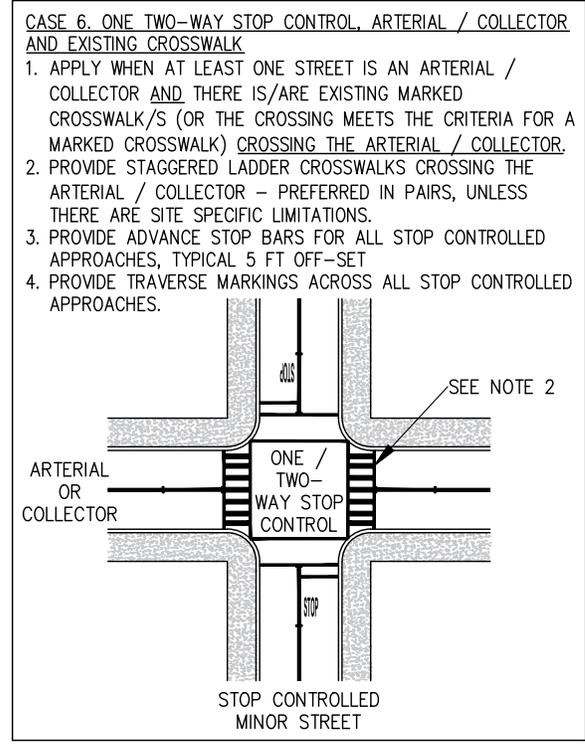
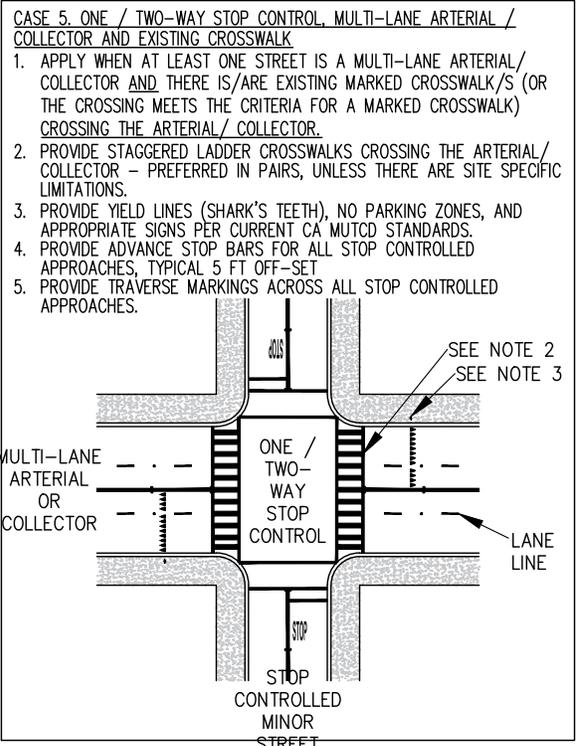


NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT <b>TYPICAL APPLICATIONS FOR                  MARKED CROSSWALKS</b>	STD DETAIL
	CHK JT		ST 15-1
	DEC 2021	RUSS THOMPSON CITY ENGINEER 	DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 15-1.dwg Layout Name: ST 15-1 Plot Date: Dec 07, 2021 at 13:48

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 15-2.dwg  
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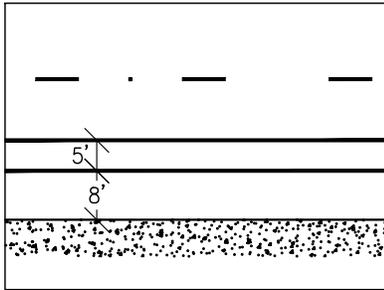


NO.	REVISED	BY	APP.

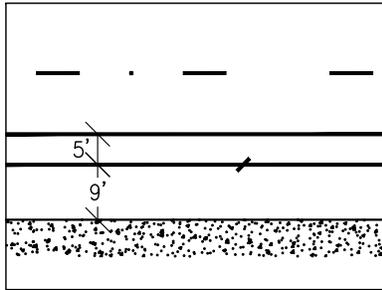
	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	<b>TYPICAL APPLICATIONS FOR MARKED CROSSWALKS</b>		<b>ST 15-2</b>
	DWN: CLG CHK JT DEC 2021	RUSS THOMPSON CITY ENGINEER	DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 16.dwg Layout Name: ST 16 Plot Date: Dec 07, 2021 at 13:51

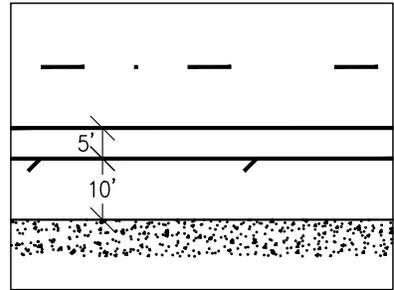
13' Width



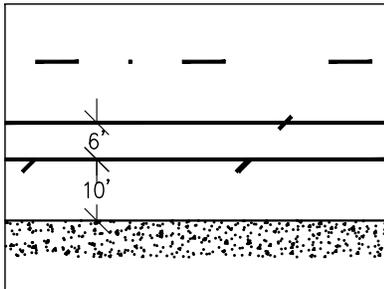
14' Width



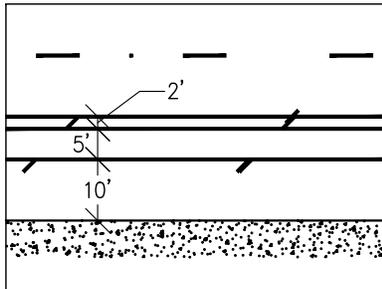
15' Width



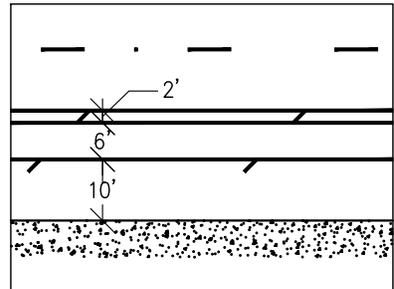
16' Width



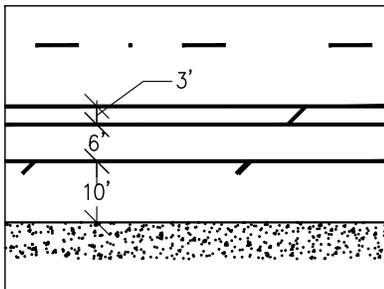
17' Width



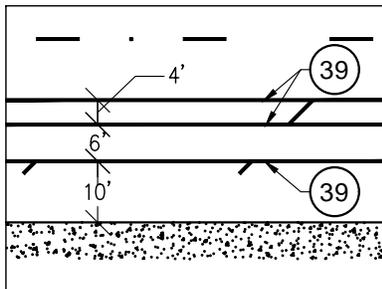
18' Width



19' Width



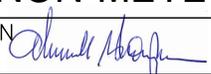
20' Width



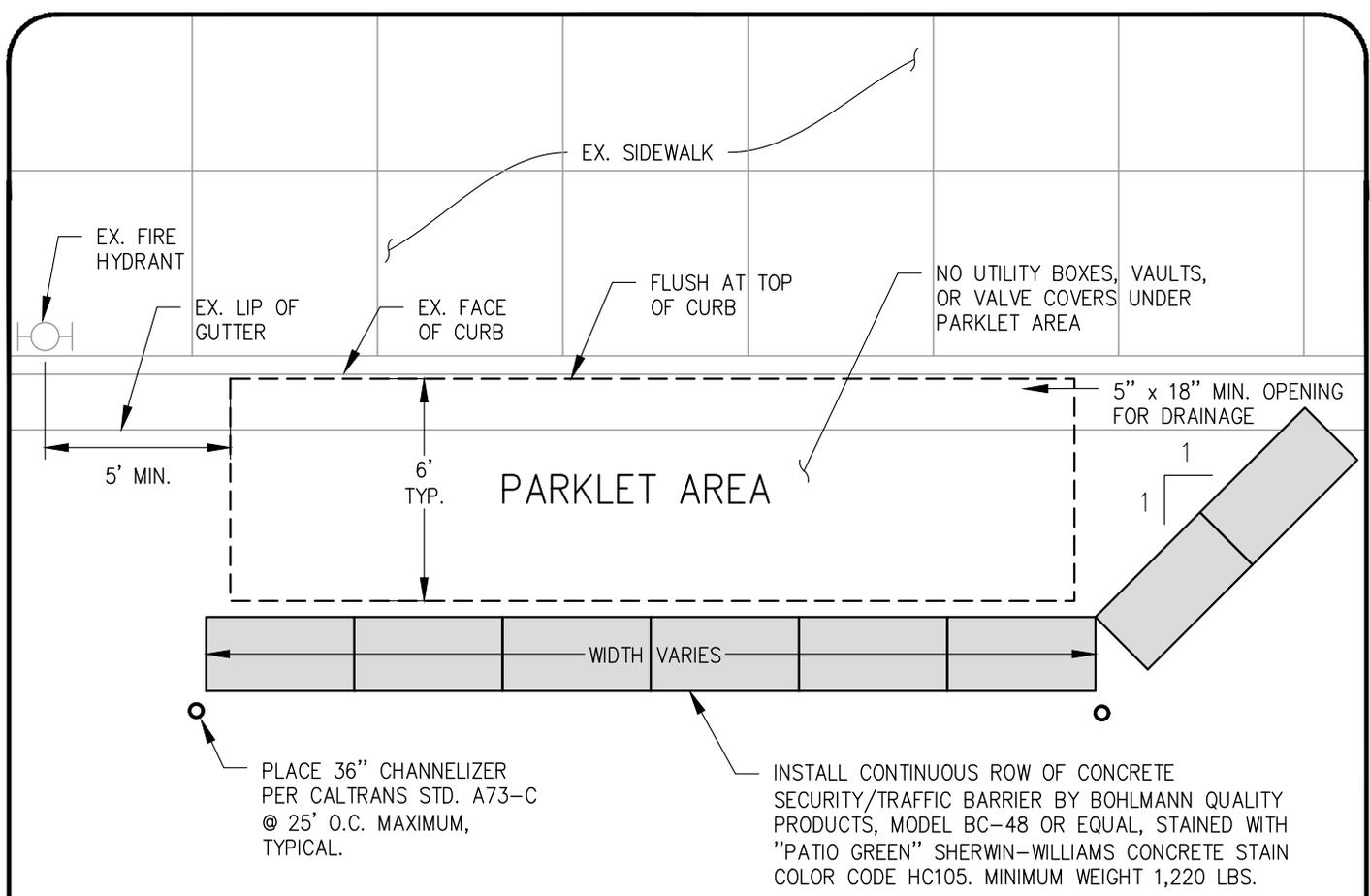
NOTES

1. 39 INDICATES DETAIL 39, WHICH IS A CONTINUOUS 6" WIDE, WHITE STRIPE.
2. BUFFER HATCHING SHALL BE 6" WIDE, WHITE STRIPES; AT 45°; AND SPACED EVERY 25' CENTER TO CENTER.
3. THE PARKING SIDE BUFFER, WHERE PRESENT, IS 2' WIDE, MEASURED PERPENDICULAR FROM THE CURB LINE.

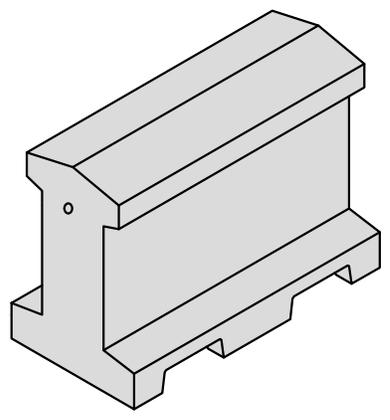
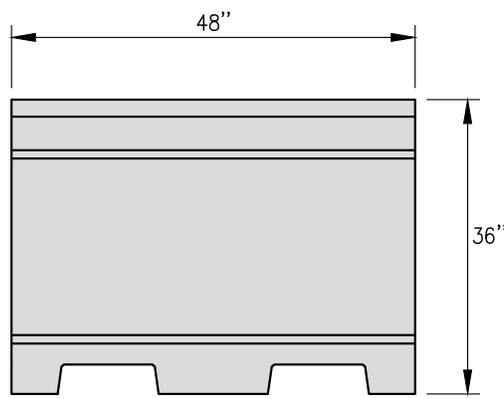
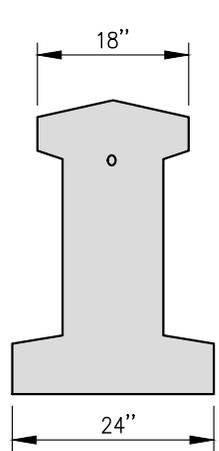
NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	CHK JT	<b>BIKE LANE AND BUFFER WIDTHS (NON-METERED PARKING)</b>	<b>ST 16</b>
	DEC 2021	RUSS THOMPSON CITY ENGINEER 	DATE 12/07/21

Images: Alameda.png; Xrefs:  
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PLAN VIEW



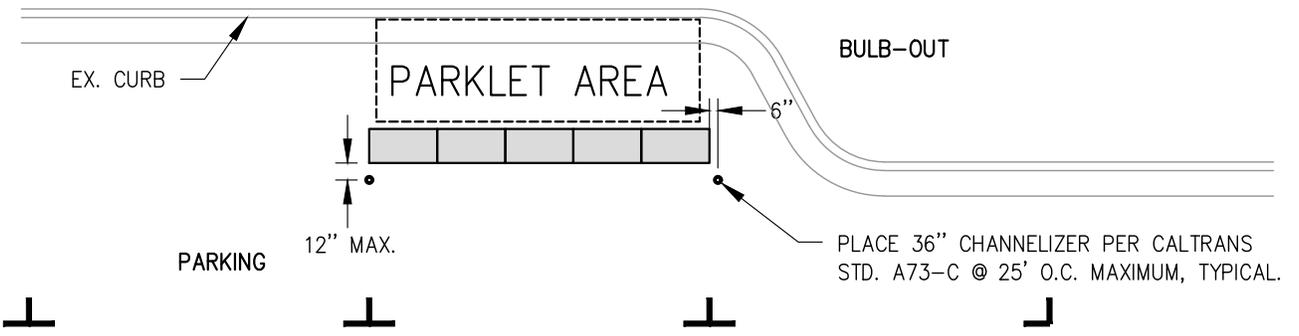
PRECAST CONCRETE BARRICADE  
(BOHLMANN BC-48 OR EQUAL)

\* NOTE: SEE "PARKLET DESIGN GUIDELINES" FOR OTHER REQUIREMENTS.

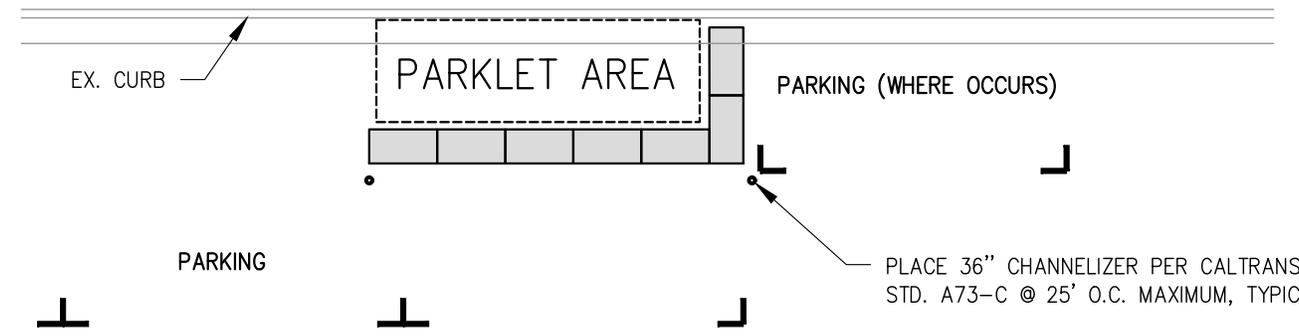
NO.	REVISED	BY	APP.

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	CHK JT		<b>ST 17-1</b>
	DEC 2021	<b>PARKLET BARRICADE DETAIL</b>	PAGE 1 OF 1
		DATE 12/07/21	SCALE: NONE

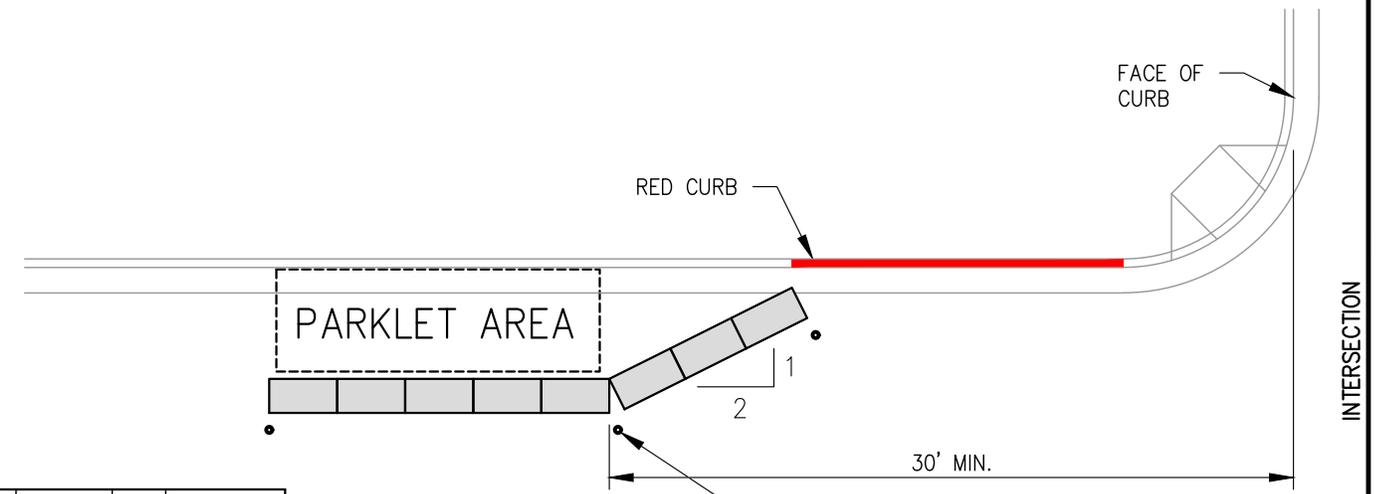
Images: Alameda.png; Xrefs:  
 Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 17-2.dwg Layout Name: ST 17-2 Plot Date: Dec 07, 2021 at 13:53



CASE 1



CASE 2



CASE 3

NO.	REVISED	BY	APP.

DWN: CLG  
 CHK JT  
 DEC 2021

CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT

**PARKLET BARRICADE DETAIL**

DATE 12/07/21

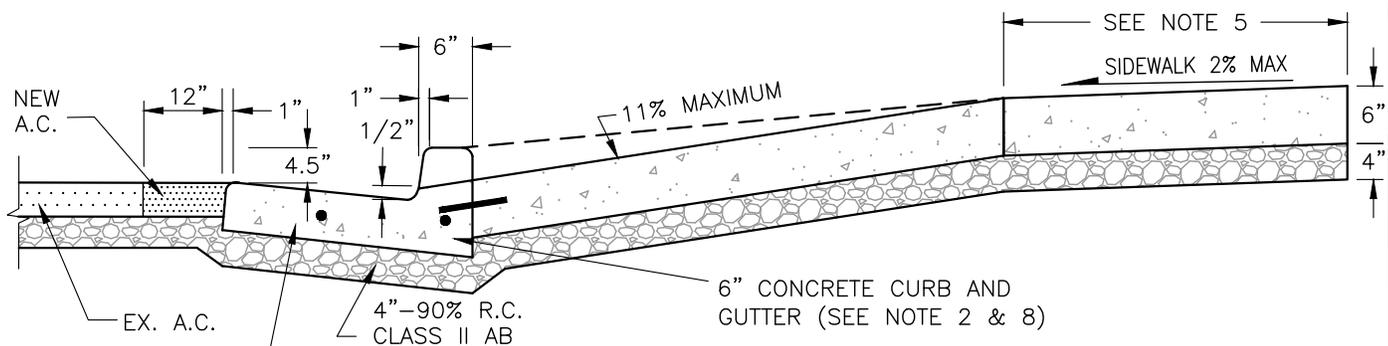
STD DETAIL

**ST 17-2**

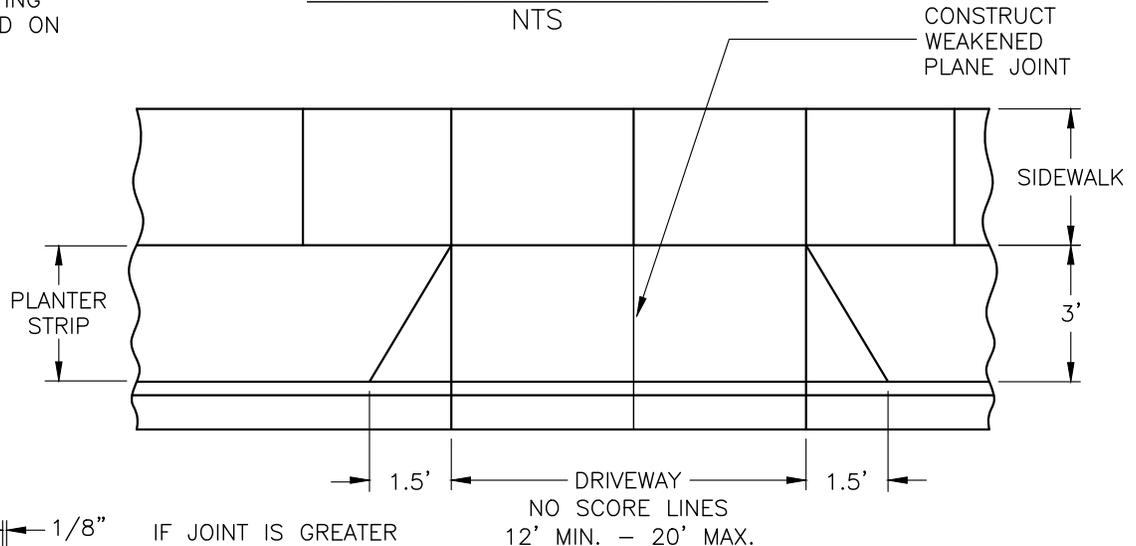
PAGE 1 OF 1

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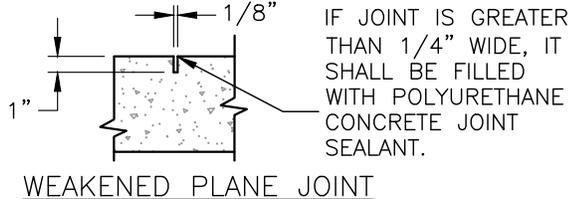
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**RESIDENTIAL DRIVEWAY SECTION**  
NTS



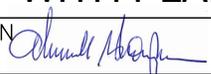
**DRIVEWAY PLAN**  
NTS



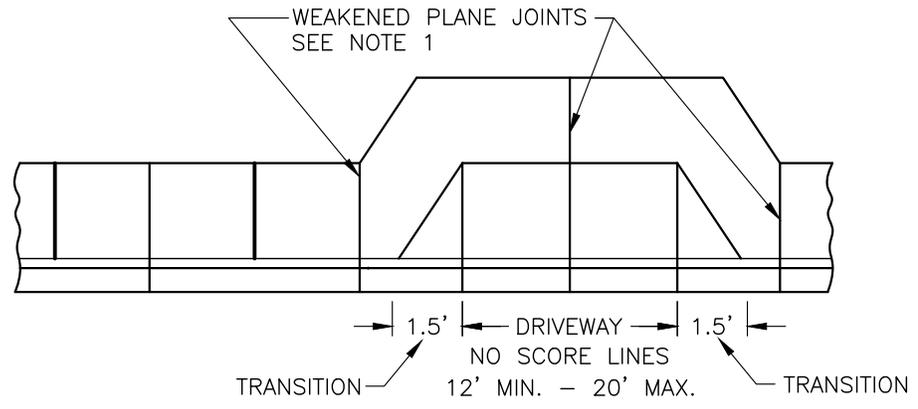
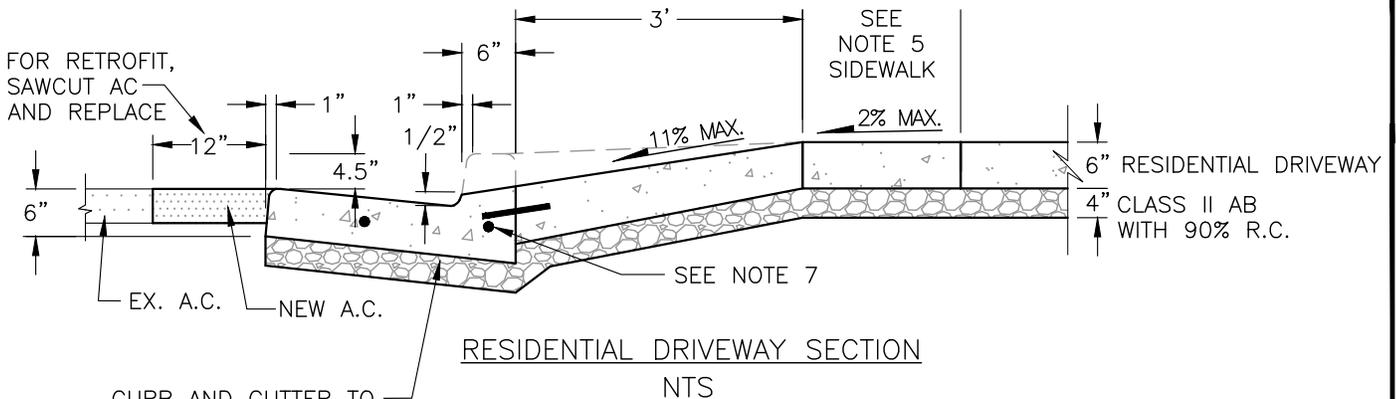
**NOTES:**

1. CONSTRUCT WEAKENED PLANE JOINTS AT 20' INTERVAL TO MATCH SCORE LINES.
2. SEE STD. DETAIL ST 1-2 FOR CONCRETE REQUIREMENTS. MEDIUM BROOM TEXTURE FINISH.
3. CONSTRUCT EXPANSION JOINTS AT 100' MAX.
4. TOTAL WIDTH OF DRIVEWAY OPENINGS NOT TO EXCEED 40% OF LOT FRONTAGE.
5. MINIMUM WIDTH OF CLEAR PASSAGE SHALL BE 4 FT. WHERE RIGHT OF WAY RESTRICTIONS, NATURAL BARRIERS OR OTHER RESTRICTIONS CREATE AN UNREASONABLE HARDSHIP, THE CLEAR WIDTH MAY BE REDUCED TO 3FT., WITH APPROVAL OF THE PUBLIC WORKS DEPARTMENT.
6. ALL EXPOSED EDGES SHALL BE ROUNDED TO 1/2" RADIUS.
7. NEW OR MODIFIED UTILITY POLES OR UTILITY EQUIPMENT MAY BE LOCATED NO CLOSER THAN 10 FEET OF A DRIVEWAY TO AVOID SIGHT-LINE OBSTRUCTIONS.
8. 12" #4 REBAR DOWELS, 3" MINIMUM DEPTH INTO EXISTING CURB & GUTTER. DO NOT DOWEL PRIVATE IMPROVEMENTS INTO PUBLIC IMPROVEMENTS.

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	<b>RESIDENTIAL DRIVEWAY WITH PLANTING STRIP</b>	<b>ST 18</b> PAGE 1 OF 1
	DWN: CLG CHK JT DEC 2021 RUSS THOMPSON CITY ENGINEER	 DATE 12/07/21 SCALE: NONE

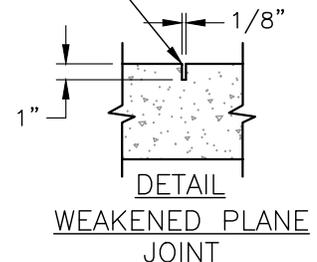
Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\ST 19.dwg Layout Name: ST 19 Plot Date: Dec 07, 2021 at 13:54



**NOTES:**

1. CONSTRUCT WEAKENED PLANE JOINTS AT 20' INTERVAL TO MATCH SCORE LINES.
2. SEE STD. DETAIL ST 1-2 FOR CONCRETE REQUIREMENTS. MEDIUM BROOM TEXTURE FINISH.
3. CONSTRUCT EXPANSION JOINTS AT 100' MAX.
4. TOTAL WIDTH OF DRIVEWAY OPENINGS NOT TO EXCEED 40% OF LOT FRONTAGE.
5. MINIMUM WIDTH OF CLEAR PASSAGE SHALL 4 FT. WHERE RIGHT OF WAY RESTRICTIONS, NATURAL BARRIERS OR OTHER RESTRICTIONS CREATE AN UNREASONABLE HARDSHIP, THE CLEAR WIDTH MAY BE REDUCED TO 3FT., WITH APPROVAL OF THE PUBLIC WORKS DEPARTMENT.
6. ALL EXPOSED EDGES SHALL BE ROUNDED TO 1/2" RADIUS.
7. 12" #4 REBAR DOWELS, 3" MINIMUM DEPTH INTO EXISTING CURB & GUTTER. DO NOT DOWEL PRIVATE IMPROVEMENTS INTO PUBLIC IMPROVEMENTS.

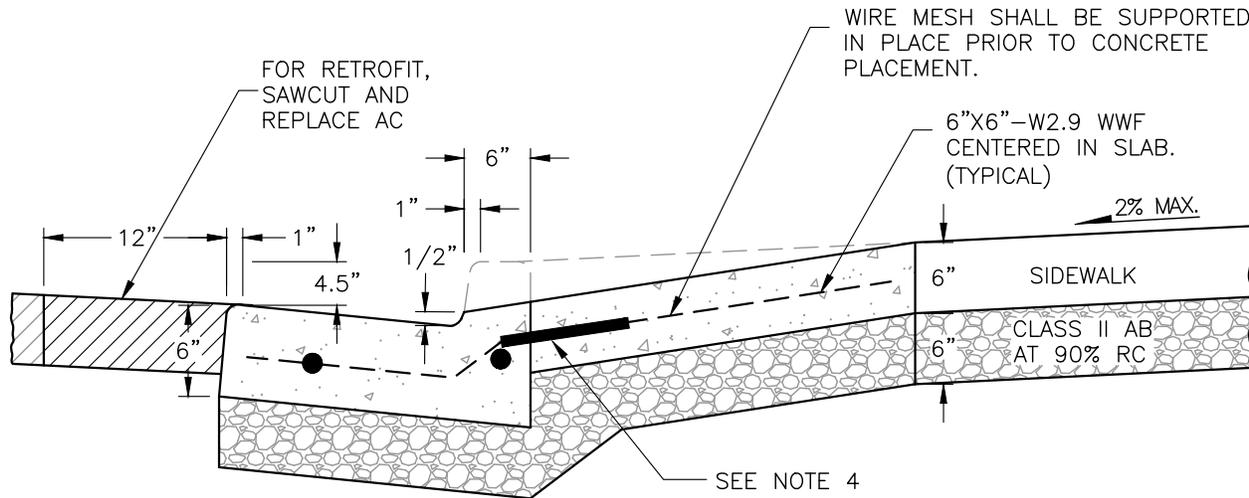
IF JOINT IS GREATER THAN 1/4" WIDE JT SHALL BE FILLED WITH POLYURETHANE CONCRETE JOINT SEALANT.



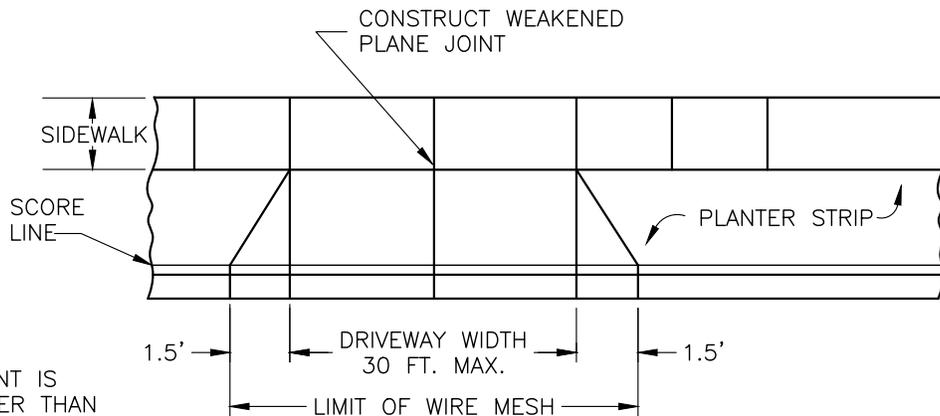
NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	<b>RESIDENTIAL DRIVEWAY WITH MONOLITHIC SIDEWALK</b>	<b>ST 19</b>
	DWN: CLG CHK JT DEC 2021 RUSS THOMPSON CITY ENGINEER	DATE 12/07/21 SCALE: NONE

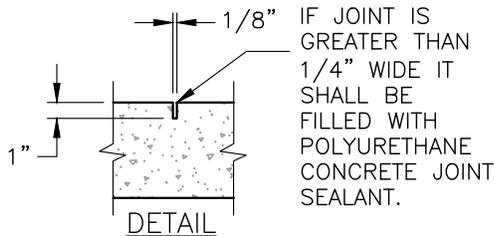
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SECTION  
NTS



DRIVEWAY PLAN  
NTS



DETAIL  
WEAKENED PLANE JOINT

NOTES:

1. SEE STD. DETAIL 101 FOR CONCRETE REQUIREMENTS. LIGHT BROOM FINISH WITH IMPERVIOUS MEMBRANE CURE.
2. ALL EXPOSED EDGES SHALL BE ROUNDED TO 1/2" RADIUS.
3. #4 BARS SPACED AT 6" O.C. MAY BE SUBSTITUTED FOR THE WIRE MESH WHEN APPROVED BY THE CITY ENGINEER.
4. 12" #4 REBAR DOWELS, 3" MINIMUM DEPTH INTO EXISTING CURB & GUTTER. DO NOT DOWEL PRIVATE IMPROVEMENTS INTO PUBLIC IMPROVEMENTS.

NO.	REVISED	BY	APP.



DWN: CLG  
CHK JT  
DEC 2021

CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT

COMMERCIAL TYPE  
GUTTER & DRIVEWAY

RUSS THOMPSON  
CITY ENGINEER

DATE 12/07/21

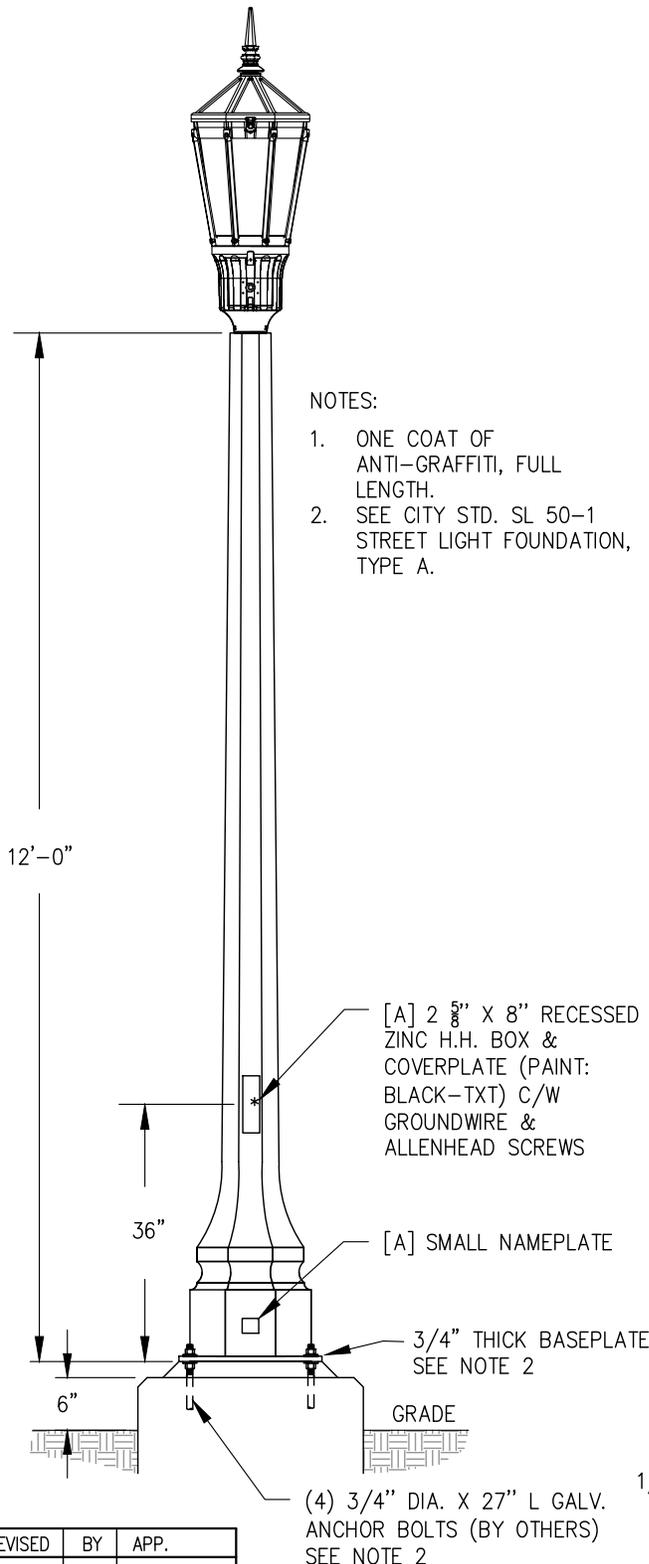
STD DETAIL

ST 20

PAGE 1 OF 1

SCALE: NONE

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SL 8.dwg Layout Name: SL 8 Plot Date: Dec 07, 2021 at 12:32



**POLE SPECIFICATIONS**

CATALOG NO.:	KBC12-G-S11-FBP-AG C/W 140-35/35
SECTION:	OCTAGONAL
COLOR:	ECLIPSE
FINISH:	POLISHED
POLE TOP:	5 1/2" FL/FL
POLE BUTT:	17" FL/FL
POLE LENGTH:	12' 0"
APPROX WEIGHT:	1,100 LBS.
MIN. RACEWAY:	1 1/4" ø
F'C @ 28 DAY PER ASTM C31:	8,000 PSI
WARRANTY:	LIFETIME

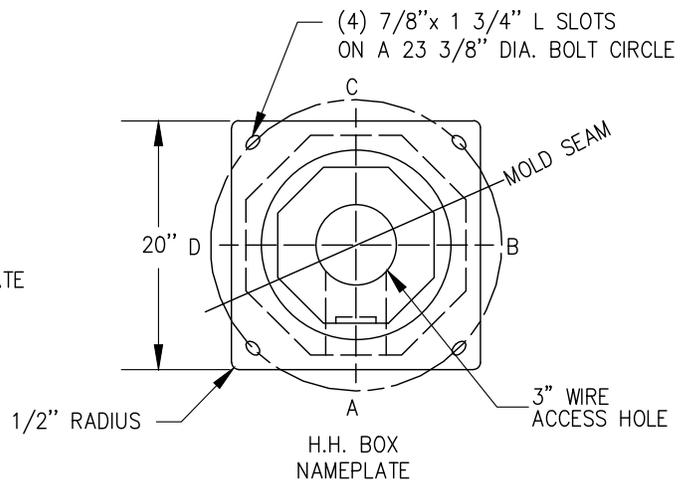
**LUMINAIRE SPECIFICATIONS**

CATALOG NO.:	K56-C-K24-P4AR-III/V-60W(SSL) -7030-120:277-PR7-#6-3K
LANTERN TYPE:	CLEVELAND (NO SPURS)
POLE ADAPTOR:	K24 CAPITAL
OPTICAL SYSTEM:	FLAT ARRAY ACRYLIC RIPPLED
IES LIGHTING CLASS:	TYPE III <input type="checkbox"/> TYPE V <input type="checkbox"/>
INPUT WATTS:	60W SOLID STATE LIGHTING
SERIES:	7030
CCT:	3000K
LINE VOLTAGE:	120:277V
PAINT:	TEXTURED BLACK
OPTIONS:	7-PRONG TWISTLOCK RECEPTACLE, (PHOTO-EYE BY OTHERS) ANSI C136.41 7 PIN RECEPTACLE

**OPTIONS:**

QUICK DISCONNECT

TERMINAL BLOCK



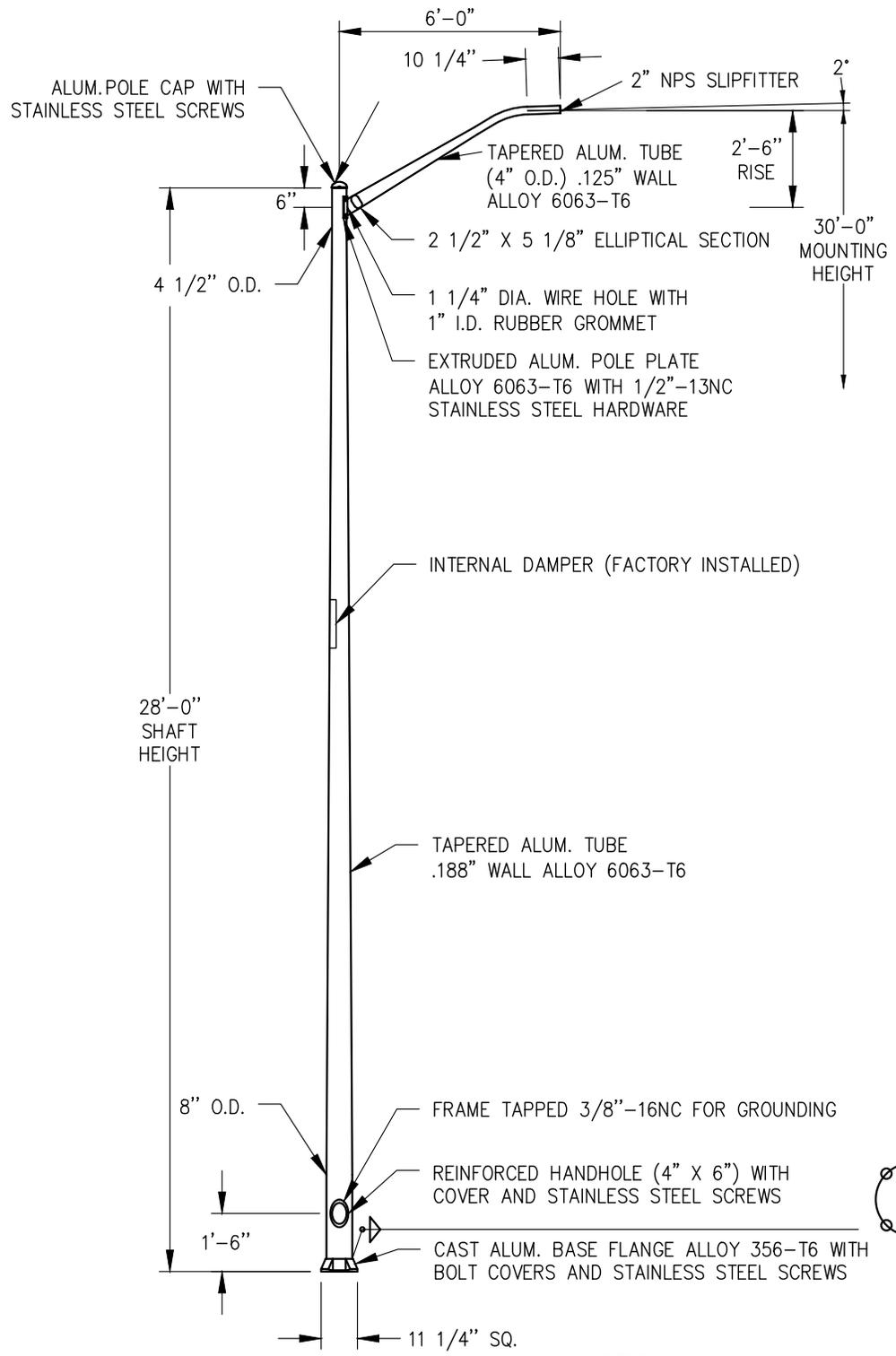
**BASEPLATE DETAIL**

20" x 20" x 3/4" THK. GALV BASEPLATE

NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	CHK JT	ALAMEDA RECREATION AND PARKS DEPT		SL 8
	DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>		PAGE 1 OF 1
			DATE 12/07/21	SCALE: NONE

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SL 9.dwg Layout Name: SL 9 Plot Date: Dec 07, 2021 at 12:34

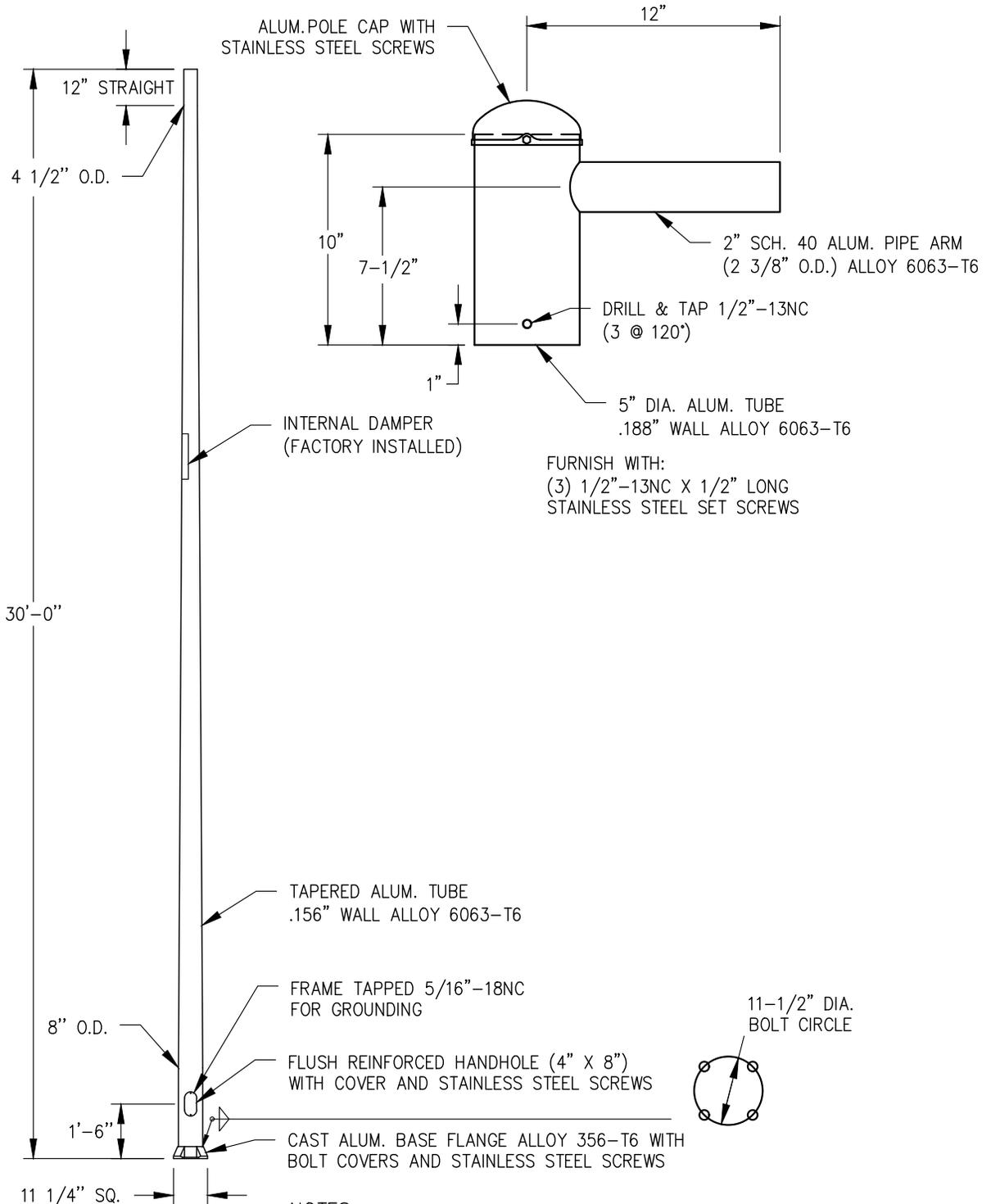


NOTES:  
 SEE CITY STD. SL 50-1 STREET LIGHT FOUNDATION - TYPE A.  
 POLE TO BE HAPCO B21-585 OR APPROVED EQUAL. DO NOT  
 INSTALL LIGHTING POLES WITHOUT LUMINAIRES.

NO.	REVISED	BY	APP.

	DWN: CLG CHK JT DEC 2021	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT <h3 style="text-align: center;">28' TAPERED ALUMINUM POLE WITH 6' ARM</h3> RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	STD DETAIL <h2 style="text-align: center;">SL 9</h2> PAGE 1 OF 1 SCALE: NONE
	DATE 12/07/21		

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SL 10.dwg Layout Name: SL 10 Plot Date: Dec 07, 2021 at 12:38

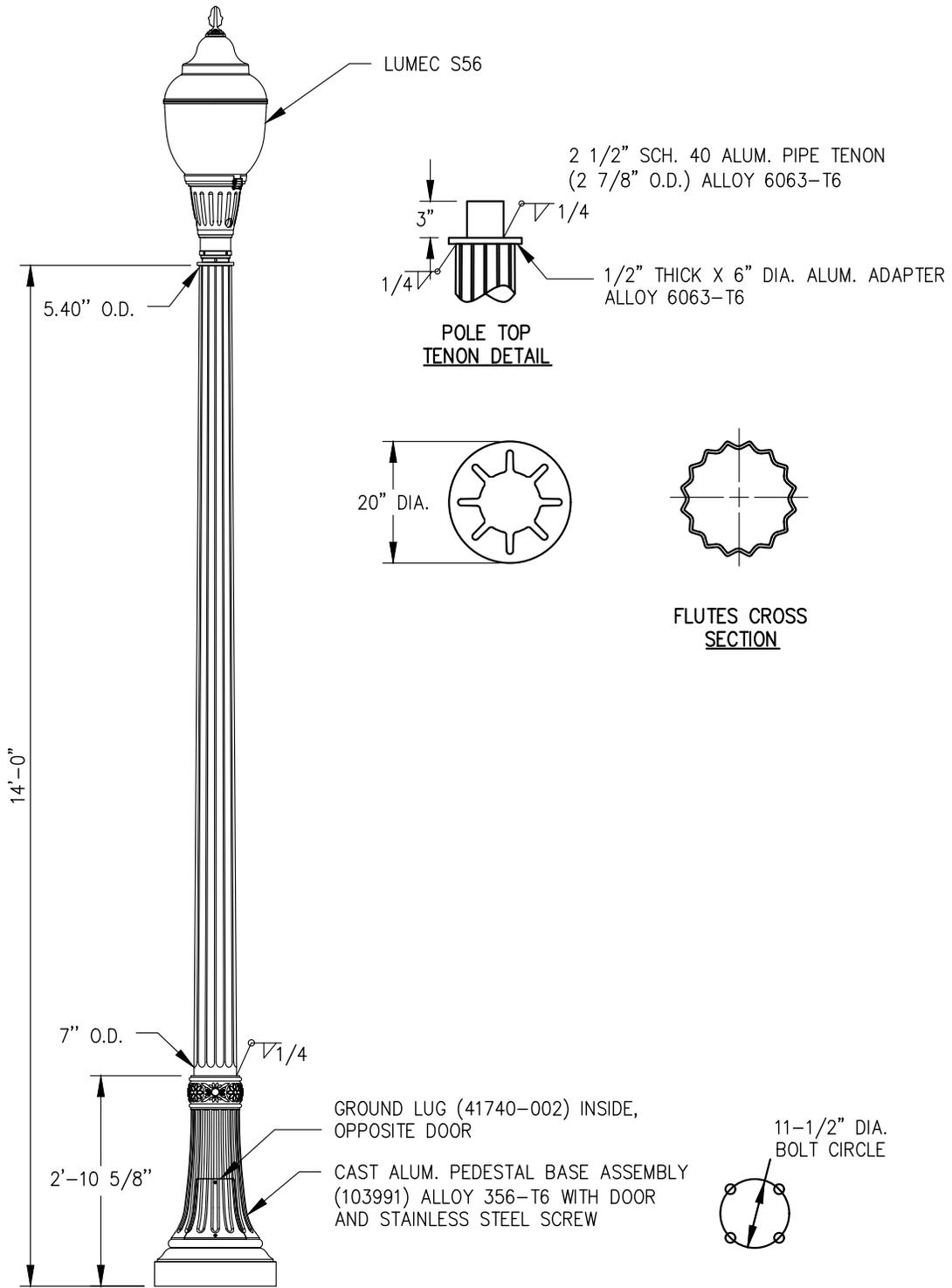


NOTES:  
 SEE CITY STD. SL 50-1 FOR STREET LIGHT FOUNDATION - TYPE A.  
 POLE TO BE HAPCO B103776 OR APPROVED EQUAL. HUB MOUNT TO  
 BE HAPCO A103777 OR APPROVED EQUAL. DO NOT INSTALL LIGHTING  
 POLES WITHOUT LUMINAIRES.

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	<b>30' TAPERED LIGHT POLE          WITH 12" PIPE BRACKET ARM</b>		<b>SL 10</b>
	DWN: CLG CHK JT DEC 2021	RUSS THOMPSON CITY ENGINEER	<i>Russ Thompson</i> DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SL 11.dwg Layout Name: SL 11 Plot Date: Dec 07, 2021 at 12:39



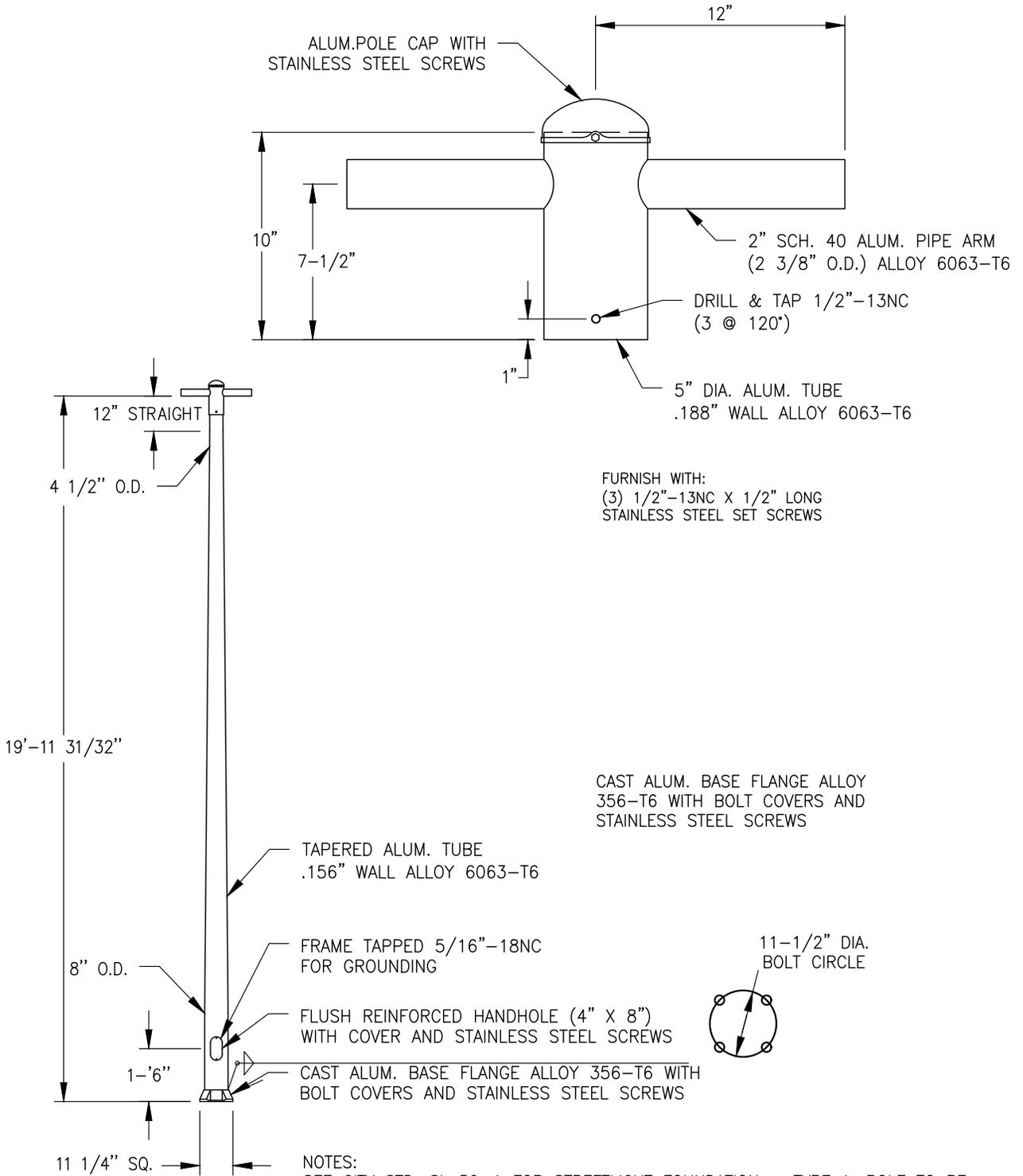
NOTES:  
POLE ASSEMBLY SHALL BE POWDER COATED RAL 6005. SEE CITY  
STD. SL 50-1 FOR STREET LIGHT FOUNDATION - TYPE A. POLE TO  
BE HAPCO B103752 WITH 103991 BASE.

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	DWN: CLG	<h1>YORK SERIES LIGHTING POLE</h1>	SL 11
	CHK JT		PAGE 1 OF 1
DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21	SCALE: NONE



Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SL 13.dwg Layout Name: SL 13 Plot Date: Dec 07, 2021 at 12:41



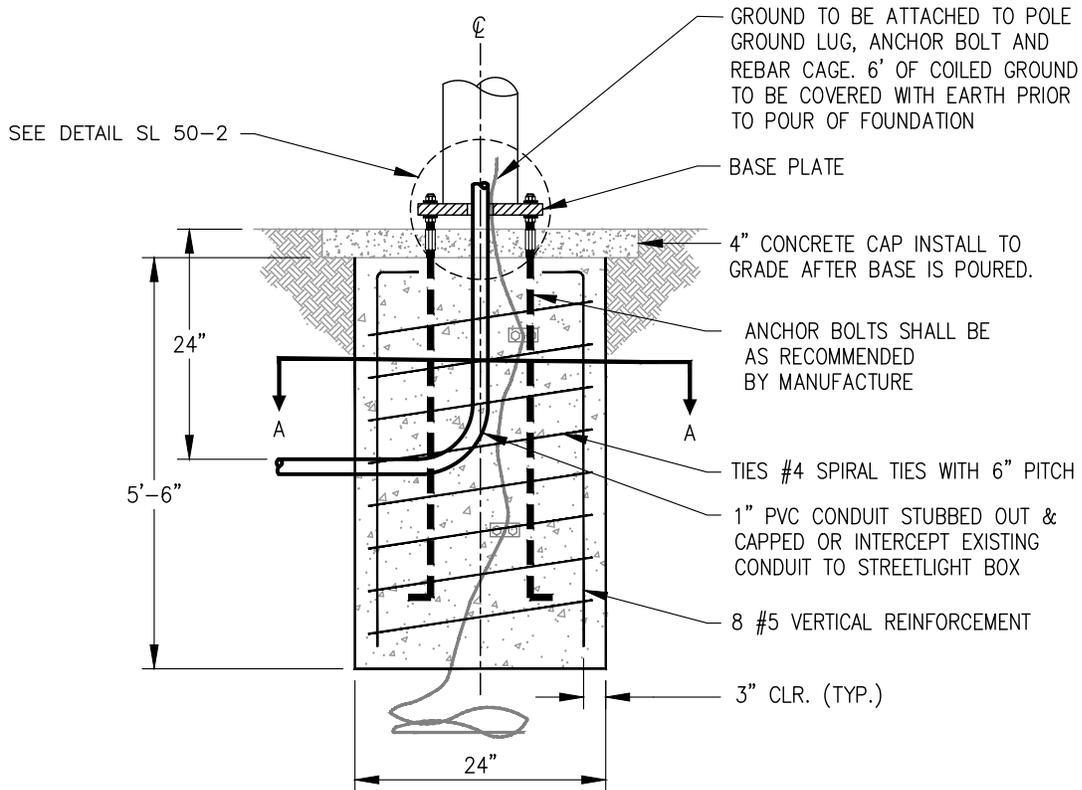
NOTES:

SEE CITY STD. SL 50-1 FOR STREETLIGHT FOUNDATION - TYPE A, POLE TO BE HAPCO B104570 OR APPROVED EQUAL. HUB MOUNT TO BE HAPCO A103777 OR APPROVED EQUAL, DO NOT INSTALL LIGHTING POLES WITHOUT LUMINAIRES.

NO.	REVISED	BY	APP.

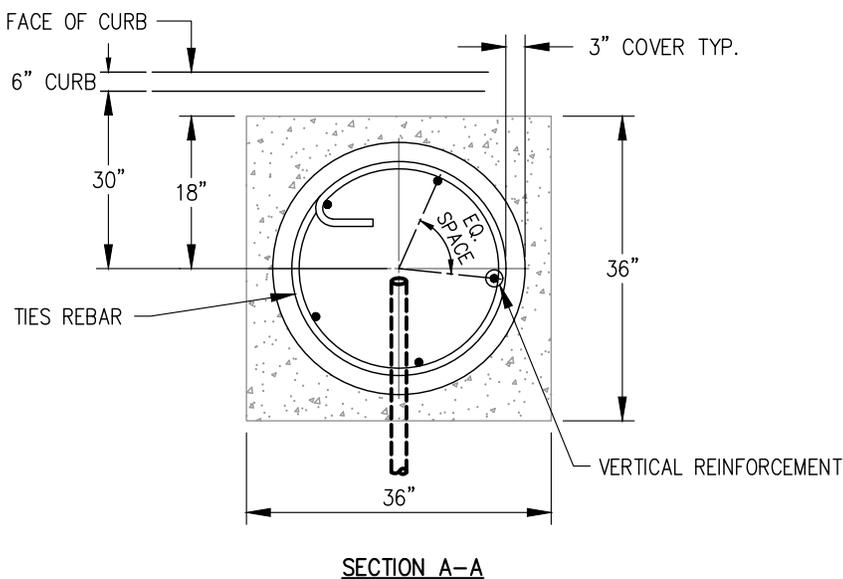
	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	<b>TAPERED LIGHT POLE WITH 12' TWIN PIPE BRACKET ARM</b>		<b>SL 13</b>
	DWN: CLG CHK JT DEC 2021	RUSS THOMPSON CITY ENGINEER	DATE 12/07/21

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SL 50-1.dwg Layout Name: SL 50-1 Plot Date: Dec 07, 2021 at 12:43



**NOTES:**

1. CALL CITY FOR INSPECTION BEFORE POURING CONCRETE.
2. ALL CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 90-2 "MINOR CONCRETE" OF STATE SPECIFICATIONS, 3/4" AGGREGATE.
3. USE SONO TUBES FOR FORMING THE FOUNDATION.



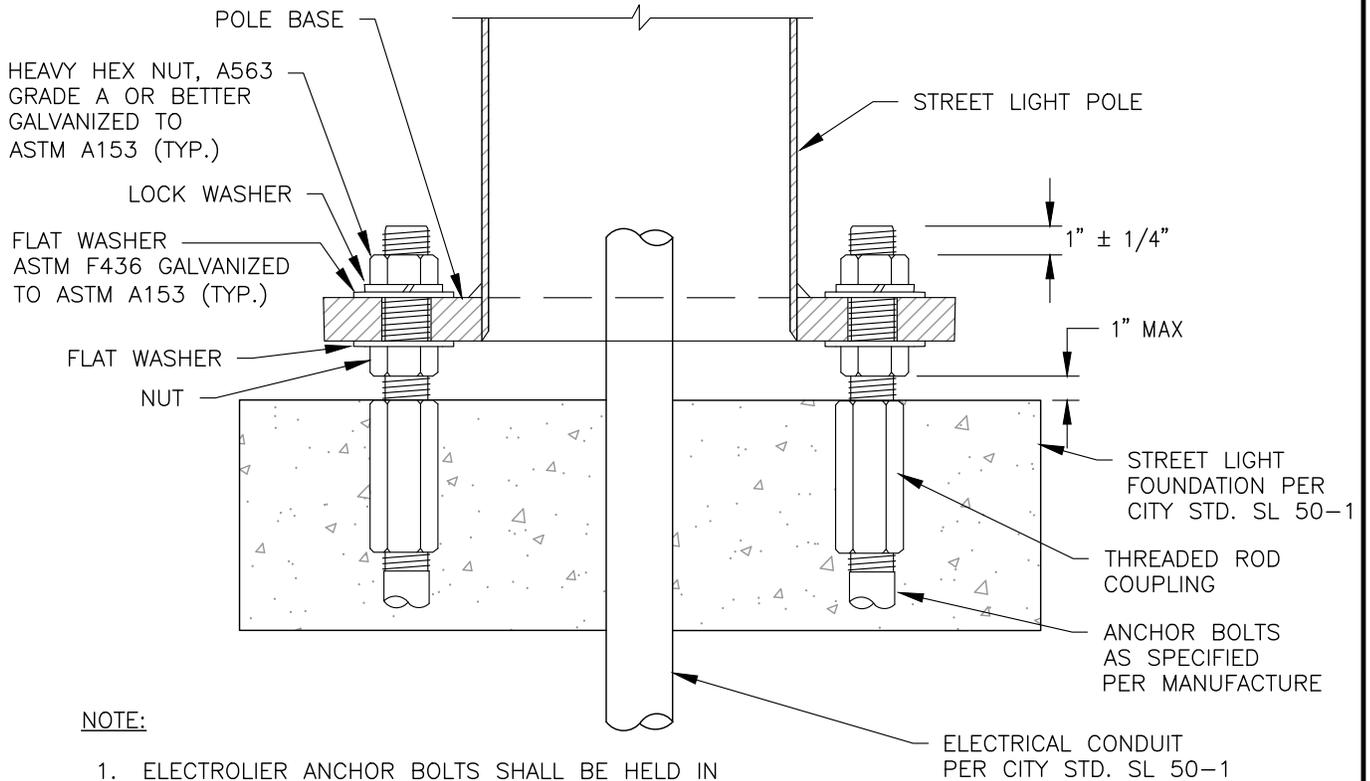
NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	<b>STREET LIGHT FOUNDATION TYPE A</b>	<b>SL 50-1</b>
	DWN: CLG CHK JT DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>
DATE 12/07/21		

PLACE MORTAR  
ALL AROUND BOLTS

TOP OF  
FOUNDATION

LEAVE CENTER VOID  
PROVIDE DRAIN HOLE ALL SIDES



**NOTE:**

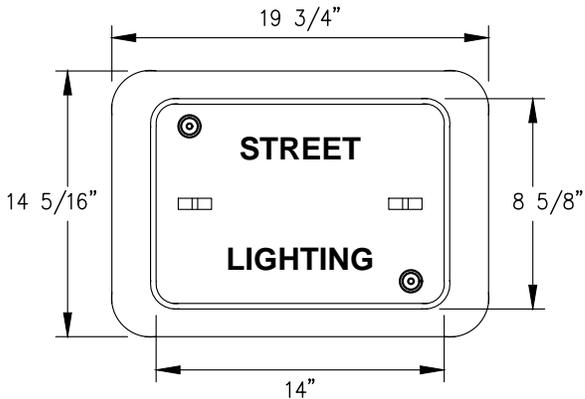
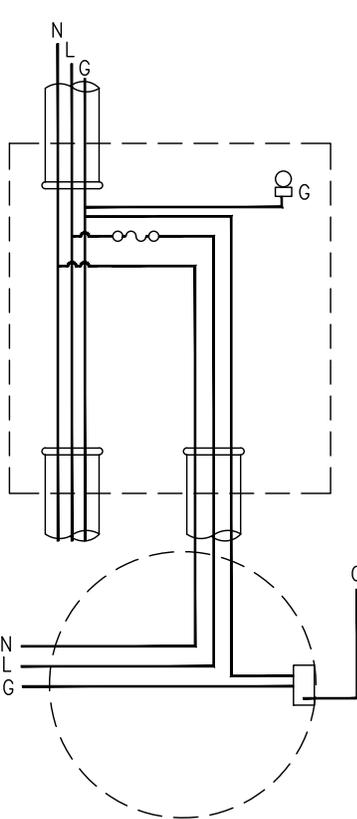
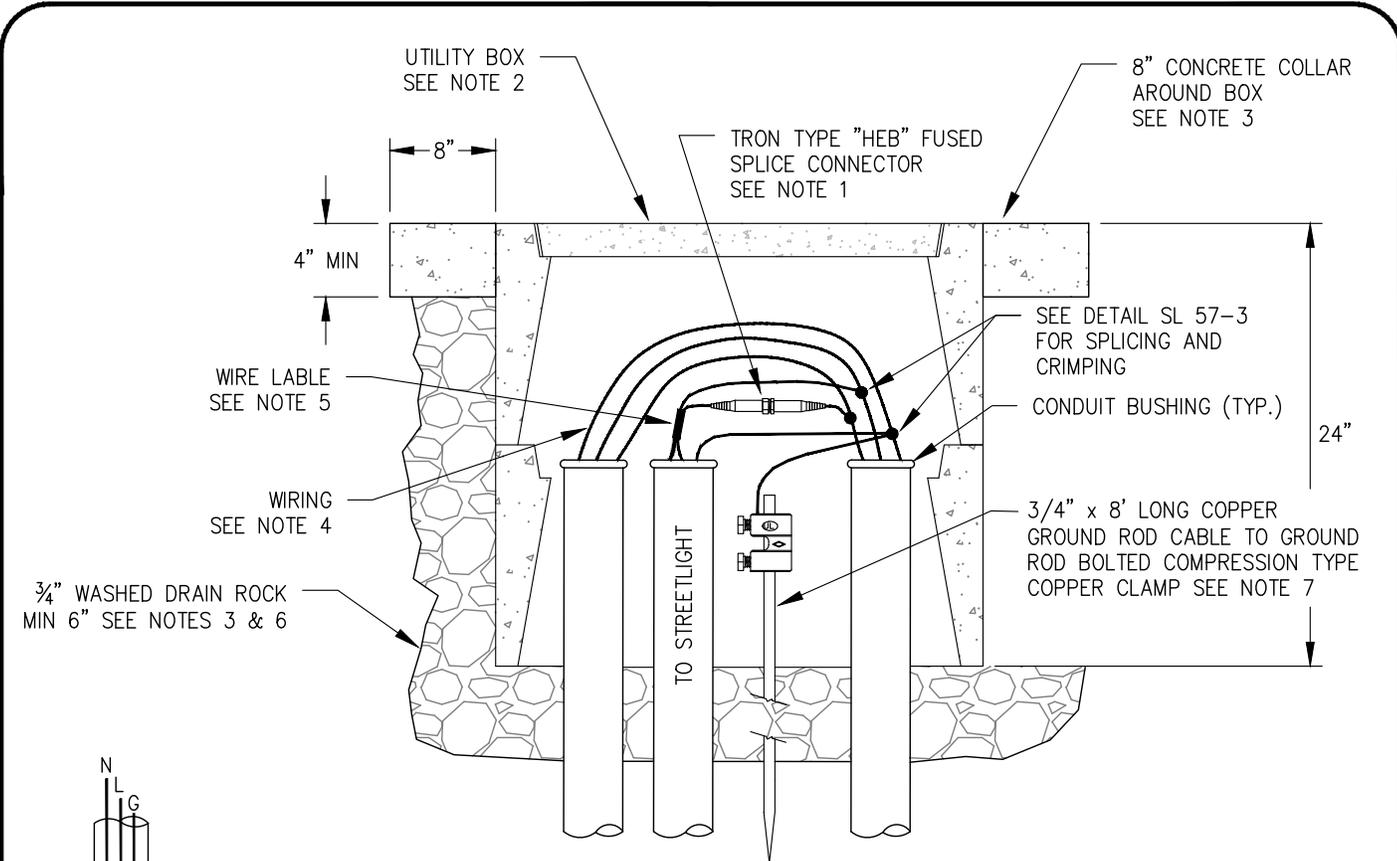
1. ELECTROLIER ANCHOR BOLTS SHALL BE HELD IN POSITION FOR POURING BY MEANS OF A SUITABLE TEMPLATE. DEVIATION FROM THE TRUE POSITION, VERTICAL AND HEIGHT SHALL NOT EXCEED 1/16".

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT		STD DETAIL
	<b>STREET LIGHT POLE BASE DETAIL</b>		<b>SL 50-2</b>
	DWN: CLG CHK JT DEC 2021	RUSS THOMPSON CITY ENGINEER	DATE 12/07/21

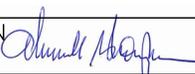
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Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SL 57-1.dwg Layout Name: SL 57-1 Plot Date: Dec 07, 2021 at 12:48

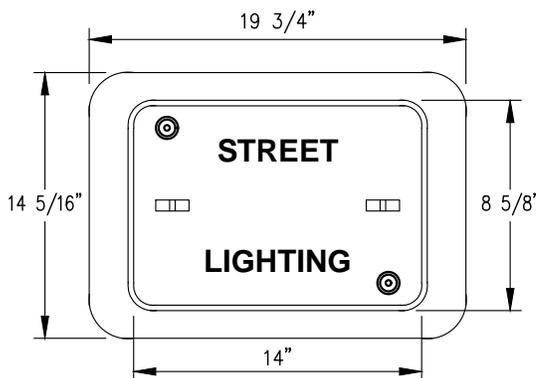
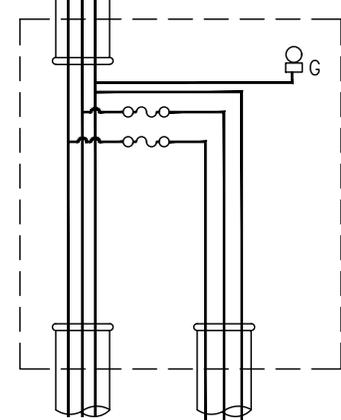
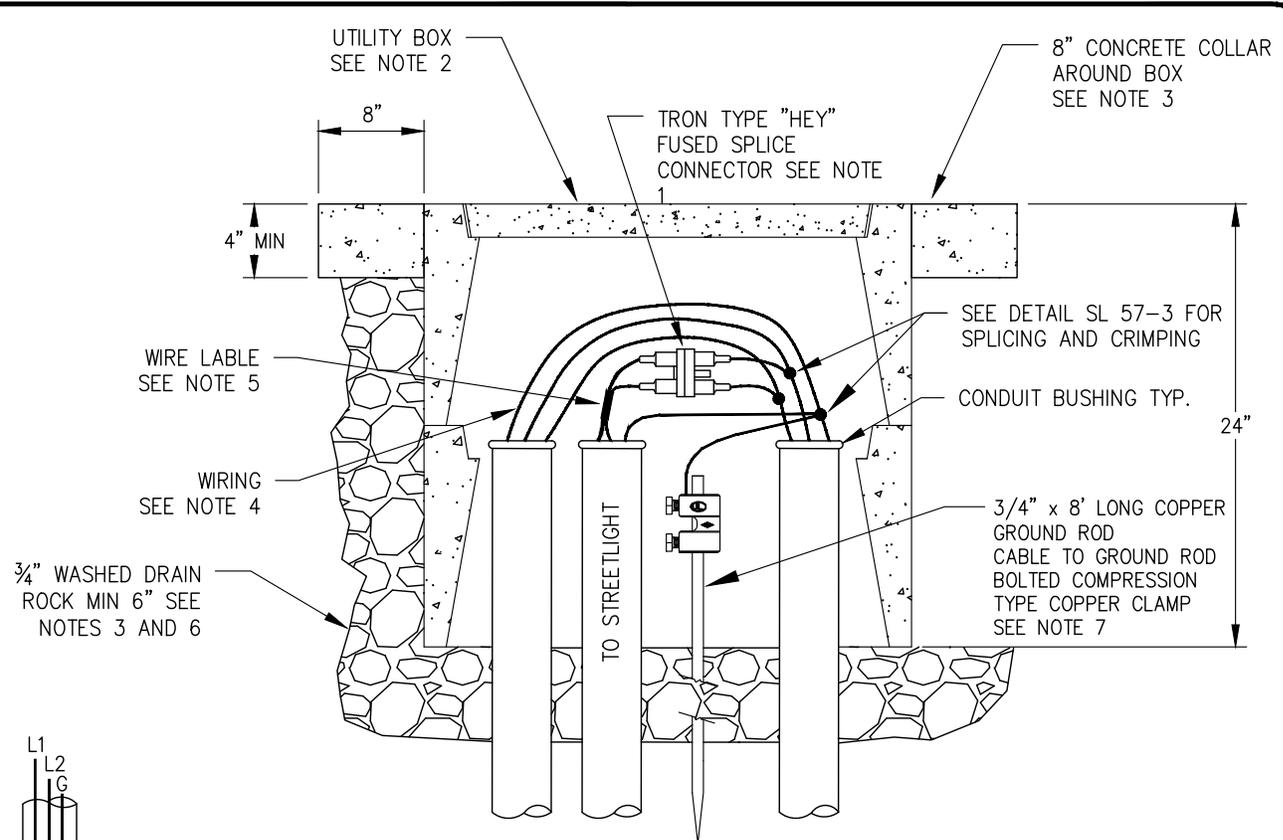


- NOTES:**
1. TYPE HEB FUSEHOLDER, COPPER CRIMP. INSTALL WITH LOAD SIDE TO STREETLIGHT. 3M HEAVY WALL HEAT SHRINK TUBING ITC SN SHALL BE USED ON CRIMPS.
  2. CHRISTY N09 BOX OR EQUAL WITH FIRELYTE BOLT DOWN LID. USE B09X12 FOR EXTENSION.
  3. TO BE APPROVED BY ENGINEER.
  4. ENGINEER TO APPROVE WIRE TYPE, SIZE AND COLOR. MIN. 6' SERVICE LOOP FROM FINISH GRADE.
  5. USE PARTEX POH CARRIER STRIPS WITH YELLOW PK CABLE MARKERS.
  6. WASHED DRAIN ROCK TO BE BOTH UNDER BOX AND ON ALL SIDES WHEN BOX IS LOCATED IN LANDSCAPE.
  7. SEE PLANS OR ENGINEER FOR LOCATIONS OF BOXES TO HAVE GROUND RODS.
  8. PLACE DUCT SEAL AFTER CONDUCTORS ARE PULLED INTO BOX.

NO.	REVISED	BY	APP.

	DWN: CLG CHK JT	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT <h2 style="text-align: center;">120V STREET LIGHT WIRING</h2>	STD DETAIL <h1 style="text-align: center;">SL 57-1</h1> PAGE 1 OF 3
	DEC 2021 RUSS THOMPSON CITY ENGINEER 	DATE 12/07/21	SCALE: NONE

Images: Alameda.png; RST\_Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SL 57-2.dwg Layout Name: SL 57-2 Plot Date: Dec 07, 2021 at 12:50



**NOTES:**

1. TYPE HEY FUSEHOLDER, COPPER CRIMP. INSTALL WITH LOAD SIDE TO STREETLIGHT. 3M HEAVY WALL HEAT SHRINK TUBING ITC SN SHALL BE USED ON CRIMPS.
2. CHRISTY N09 BOX OR EQUAL WITH FIRELYTE BOLT DOWN LID. USE B09X12 FOR EXTENSION.
3. TO BE APPROVED BY ENGINEER.
4. ENGINEER TO APPROVE WIRE TYPE, SIZE AND COLOR. MIN. 6' SERVICE LOOP FROM FINISH GRADE.
5. USE PARTEX POH CARRIER STRIPS WITH YELLOW PK CABLE MARKERS.
6. WASHED DRAIN ROCK TO BE BOTH UNDER BOX AND ON ALL SIDES WHEN BOX IS LOCATED IN LANDSCAPE.
7. SEE PLANS OR ENGINEER FOR LOCATIONS OF BOXES TO HAVE GROUND RODS.
8. PLACE DUCT SEAL AFTER CONDUCTORS ARE PULLED INTO BOX.

NO.	REVISED	BY	APP.

	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	<b>240V STREET LIGHT WIRING</b> DWN: CLG CHK JT DEC 2021	<b>SL 57-2</b> PAGE 2 OF 3 SCALE: NONE
RUSS THOMPSON CITY ENGINEER	DATE 12/07/21	

3M SCOTCHCAST CONNECTOR SEALING PACK 3570G-N

INSTALLATION

1. THOROUGHLY CLEAN AND DRY THE SURFACE OF THE SUBSTRATE TO WHICH THE MATERIAL IS DESIRED TO BOND.
2. REMOVE GUARD BAG, USING CAUTION NOT TO DAMAGE INNER BAG.
3. GRIP BOTH EDGES OF BAG AT THE CENTER BARRIER (FIG. 1) AND WRINKLE AND FLEX THE BAG ACROSS THE BARRIER. THIS WILL WEAKEN THE BARRIER.
4. SQUEEZE THE CLEAR SIDE OF THE RESIN, FORCING THE RESIN THROUGH THE CENTER BARRIER.
5. MIX THOROUGHLY TO A UNIFORM COLOR BY SQUEEZING CONTENTS BACK AND FORTH 25-30 TIMES.
6. SQUEEZE RESIN TO ONE END OF BAG AND CUT OFF OTHER END. (FIG. 2)
7. SLOWLY INSERT CONNECTION INTO SEALING PACK UNTIL IT FITS SNUGLY AGAINST THE OPPOSITE END. (FIG. 3)
8. WRAP OPEN END OF BAG WITH SCOTCH®SUPER 33+™ VINYL ELECTRICAL TAPE AND POSITION THE TAPED END UP UNTIL RESIN GELS (8-12 MIN. @ 73°F (23° C)). (FIG. 4)

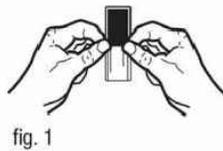


fig. 1



fig. 2

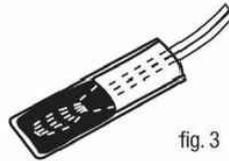


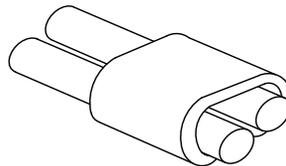
fig. 3



fig. 4

GROUNDING CONNECTIONS

1. ALL ELECTRICAL ITEMS SHALL BE U.L APPROVED.
2. USE GROUNDING COMPRESSION CRIMPING C-CLAMPS/ C-TAPS.
3. USE COPPER WIRE WITH GREEN INSULATION FOR ABOVE GROUND AND WITHIN CONDUITS, SOLID BARE COPPER WIRE FOR BELOW GRADE.
4. USE CORRECT INSTALLATION TOOLING AND DIE SELECTION FOR WIRE SIZE



NO.	REVISED	BY	APP.

	DWN: CLG	CITY OF ALAMEDA, CALIFORNIA, PUBLIC WORKS DEPARTMENT	STD DETAIL
	CHK JT	<b>SPLICING AND CRIMPING</b>	<b>SL 57-3</b>
	DEC 2021	RUSS THOMPSON CITY ENGINEER <i>Russ Thompson</i>	DATE 12/07/21

Images: Alameda.png; fig1.jpg; Fig2.jpg; Fig3.jpg; Fig4.jpg; RST Signature-blue-2.55 INCHES.jpg; Xrefs: Path: F:\BMAP-STD\Alameda\Std\2021 Std Update\SL 57-3.dwg Layout Name: SL 57-3 Plot Date: Dec 07, 2021 at 12:53

**ATTACHMENT D**

**CITY OF ALAMEDA PEDESTRIAN AND TRAFFIC  
CONTROL PLAN APPLICATION FORM AND  
CHECKLIST**



Office Use	PC	PW
Received By:		
Date:		

**City of Alameda**  
Pedestrian + Traffic Control Plan

**Public Works Department – Permit Center**  
2263 Santa Clara Ave, Rm 190, Alameda, CA 94501  
Main: (510) 747-6800 Fax: (510) 865-4053

## PTCP Application Form and Checklist

Submittal Date: \_\_\_\_\_  New Submittal  Re-Submittal No: \_\_\_\_\_

Related Encroachment Permit No. \_\_\_\_\_

Location of Work: \_\_\_\_\_

Description of Work in Public Right-of-Way: \_\_\_\_\_

Related to a Development Project?  Yes, Project Name \_\_\_\_\_  n/a

Applicant Name / Contact Person: \_\_\_\_\_

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

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Address: \_\_\_\_\_

**A Pedestrian + Traffic Control Plan (PTCP) is a component of an approved Encroachment Permit.**  
An approved PTCP permits a contractor or owner to work within the public right-of-way efficiently and effectively, while maintaining a safe, uniform flow of traffic for pedestrians, bikes, motor vehicles, and any other modes of transportation. Both construction work and public safety must be given consideration when developing a PTCP. In addition, when considering the public, equal access must be given to all aspects of travel through the work zone including—pedestrians, bicyclists, motor vehicles, and other modes of transportation.

**Initial**     Applicant shall adhere to the following requirements:

- \_\_\_\_\_  The site specific Pedestrian +Traffic Control Plan (PTCP) shall conform to the most current California Manual on Uniform Traffic Control Devices (CA MUTCD) and State Standard Plans. For traffic control plan references, see the CA MUTCD: <https://dot.ca.gov/programs/traffic-operations/camutcd>
- \_\_\_\_\_  Submitted PTCP meets all of the requirements listed in this Application Checklist. If City determines that ANY of the requirements of the checklist are missing, the application shall be deemed incomplete and returned for revision and resubmittal.
- \_\_\_\_\_  Each review cycle of PTCP is a MINIMUM of ten(10) business days and begins after a complete application is submitted and stamped “received” by City. If a PTCP fails to meet the requirements after two review cycles, any subsequent PTCP submittals shall be prepared and stamped by a State of California registered Civil or Traffic Engineer.
- \_\_\_\_\_  Minimum 72-hour notice and confirmed approval by a Public Works Inspector required prior to field Implementation of an approved PTCP.

- All affected residents, businesses, agencies, and schools shall be given a 72-hour notice prior to start of work and their access shall be maintained at all times.

**Initial Pedestrian and Traffic Control Plan Minimum Requirements:**

- PTCP shall be electronically drawn on 8.5" x 11", 8.5" x 14", or 11" x 17" paper only. Photocopied sections of the CA MUTCD or any other manual will not be accepted. All PTCP's shall be site specific and thoroughly detailed. Hand drawn PTCP's will not be accepted.
- City of Alameda PTCP General Notes are provided on the plans.
- Indicate contractor's name, address, and telephone number. Provide name and telephone number of the 24-hour contact person representing the contractor.
- Include details on construction activity and equipment being used as part of construction to assist in reviewing the adequacy of the proposed PTCP.
- Indicate planned work hours. Lane closures are not allowed anytime during weekends and weekdays before 9:00 AM or after 3:30 PM, without prior written approval by the City Engineer.
- Show the exact location and dimensions of the construction work zone. Show all streets in the work zone vicinity to ensure proper orientation. Include (a) north arrow and (b) true scale or Not to Scale.
- The PTCP shall show all existing traffic signals and traffic control signs, existing striping, pavement markings, crosswalks and bike lanes. Include full roadway widths, individual lane widths, bike lane widths, and median dimensions. Show and indicate existing curbs, gutters, sidewalks, driveways, intersections, parking meters, and bus stops in the construction work zone including areas affected by taper transition.
- Indicate locations of the construction signs (note signs CA MUTCD sign code and indicate sign size), barricades, cones, and any other temporary traffic control device. For each Flashing Arrow Board, include its size, panel display, and location on the PTCP.
- Show size, height and location of all channelizing devices, warning lights, flag trees, portable barriers, etc. All devices must meet standards specified by the CA MUTCD.
- Indicate posted speed limits. Label all taper lengths and widths, delineator spacing and sign spacing. All taper lengths and widths, delineator spacing and sign spacing shall be per CA MUTCD standards and nomenclature.
- Show all pedestrian and bicyclist entry, paths, and exits on the PTCP. Signs and barricades are required to direct pedestrians and bicyclists safely around the construction work zone and shall be shown on the PTCP. All signage must meet standards specified by the CA MUTCD.
- If a detour is required for pedestrians, bicyclists, motor vehicles, and/or other modes of transportation, the PTCP shall include mode specific detour information.
- All conflicting signs, striping and/or pavement markings shall be covered or removed during construction and shall be replaced when work is complete.
- For any impacts to public transit, Contractor shall provide pdf's of emails showing proof of coordination with the respective transit agencies, including, but not limited to AC Transit, San Francisco Bay Ferry, and Alameda Loop Shuttle.

\_\_\_\_\_  
Name & Signature of Applicant

\_\_\_\_\_  
Date



# City of Alameda

## Pedestrian + Traffic Control Plan

## Public Works Department – Permit Center

2263 Santa Clara Ave, Rm 190, Alameda, CA 94501

Main: (510) 747-6800 Fax: (510) 865-4053

### PTCP General Notes

1. The site specific Pedestrian +Traffic Control Plan (PTCP) shall conform to the most current California Manual on Uniform Traffic Control Devices (CA MUTCD) and State Standard Plans.
2. The City, through its designated employees reserves the right to initiate field changes to assure public safety. This includes the implementation of additional traffic control measures while construction is in progress to address unforeseen field conditions.
3. Minimum 72-hour notice and confirmed approval by a Public Works Inspector is required prior to field Implementation of an approved PTCP.
4. All traffic control devices shall be removed from the public right-of-way when not in use, unless otherwise permitted.
5. Lane closures for motor vehicle, bicycle, and pedestrian traffic shall be limited to 9:00 AM to 3:30PM. Set up and break down shall not occur outside of these lane closure hours. These times may be more restricted if located in school zones.
6. Trenches shall be backfilled or plated during non-working hours and this includes for trenches in bike lane and sidewalk. If trench plates are used over open excavation, include “Steel Plates Ahead” warning sign.
7. A minimum eleven (11) foot travel lanes must be maintained at all times.
8. Pedestrian and bicyclist controls shall be provided on the PTCP.
9. Pedestrians and bicyclists shall have a safe route to walk or ride and shall be protected throughout the entire traffic control area. Pedestrian routes shall meet all ADA accessibility requirements per <http://ada.gov>.
10. Contractor shall provide adequate lighting for all pedestrian detours.
11. Existing construction site drainage shall not be hindered due to the project.
12. Contractor is fully responsible for the installation, maintenance, and removal of signs upon completion of work.
13. Temporary “NO PARKING” signs shall be posted 48 hours prior to work commencement. These signs shall be posted no more than 30 feet apart.
14. Contractor shall call Alameda Police Department (510) 337-8340 to schedule “NO PARKING” sign inspection. Contractor shall have signed inspection paperwork from the Police officer on site at all times. Failure to get Police Department inspection of signs in advance will prevent Police enforcement of parked vehicles.
15. “NO PARKING” signs are available for purchase at the City Hall Permit Center, Room 190. Only City of Alameda issued “NO PARKING” signs shall be used.



# City of Alameda

## Pedestrian + Traffic Control Plan

## Public Works Department – Permit Center

2263 Santa Clara Ave, Rm 190, Alameda, CA 94501

Main: (510) 747-6800 Fax: (510) 865-4053

### PTCP General Notes

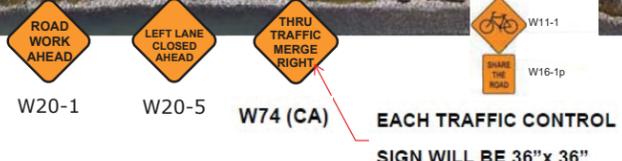
16. Access to driveways and transitstops/terminals shall be maintained at all times, unless permitted otherwise.
17. If public transit being impacted in any way during construction, the Contractor is responsible for informing transit agencies and coordinating with them accordingly.
18. Any work that disturbs normal traffic signal operations, such as intersection detection shall be coordinated with Public Works fourteen (14) calendar days prior to beginning construction.
19. If the traffic signal loops are damaged during construction, contractor shall:
  - a) Immediately notify Public Works inspector
  - b) Within 72 hours,replace damaged loops per Caltrans specifications
  - c) Schedule inspection of the loop installation with City traffic signal technician(s)
  - d) Ensure traffic signal operations are fully restored as before and approved by City within 72 hours
20. The contractor shall make immediate temporary repairs to any street light and/or traffic signal conduit(s) damaged during construction. Permanent repairs shall be made within five (5) working days and approved by City.
21. Anysegment of pavement striping or legend(s) removed or damaged during construction shall be fully removed and then replaced with new, like-material within 24 hours. No partial or fill-in stenciling allowed.
22. Any curb painting that is removed or damaged during construction shall be repainted for the full section of that curb painting. Coordinate with Public Works Maintenance Service Center staff for appropriate color code.
23. Any permanent traffic sign that is damaged shall be replaced in kind.
24. Any traffic sign post that is damaged (e.g. uni-strut, galvanized, wooden) shall be replaced in kind. Proper Underground Service Alert must be done before any new pole installation.
25. All certified flaggers shall be equipped with a hard hat,reflective vest, two-way radios, and “STOP/SLOW” paddle.
26. The contractor shall maintain all traffic control devices 24 hours per day 7 days per week, until completion of all work. Any traffic control devices used overnight in the public right-of-way must have flashing lights.
27. All channelizing devices, warning lights, flag tress, portable barriers, etc., shall meet the current California Manual on Uniform Traffic Control Devices (CA MUTCD) and State Standard Plans.

**PTCP GENERAL NOTES:**

- The site specific Pedestrian +Traffic Control Plan (PTCP) shall conform to the most current California Manual on Uniform Traffic Control Devices (CA MUTCD) and State Standard Plans.
- The City, through its designated employees reserves the right to initiate field changes to assure public safety. This includes the implementation of additional traffic control measures while construction is in progress to address unforeseen field conditions.
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- All traffic control devices shall be removed from the public right-of-way when not in use, unless otherwise permitted.
- Lane closures for motor vehicle, bicycle, and pedestrian traffic shall be limited to 9:00 AM to 3:30 PM. Set up and break down shall not occur outside of these lane closure hours. These times may be more restricted if located in school zones.
- Trenches shall be backfilled or plated during non-working hours and this includes for trenches in bike lane and sidewalk. If trench plates are used over open excavation, include "Steel Plates Ahead" warning sign.
- A minimum eleven (11) foot travel lanes must be maintained at all times.
- Pedestrian and bicyclist controls shall be provided on the PTCP.
- Pedestrians and bicyclists shall have a safe route to walk or ride and shall be protected throughout the entire traffic control area. Pedestrian routes shall meet all ADA accessibility requirements per <http://ada.gov>.
- Contractor shall provide adequate lighting for all pedestrian detours.
- Existing construction site drainage shall not be hindered due to the project.
- Contractor is fully responsible for the installation, maintenance, and removal of signs upon completion of work.
- Temporary "NO PARKING" signs shall be posted 48 hours prior to work commencement. These signs shall be posted no more than 30 feet apart.
- Contractor shall call Alameda Police Department (510) 337-8340 to schedule "NO PARKING" sign inspection. Contractor shall have signed inspection paperwork from the Police officer on site at all times. Failure to get Police Department inspection of signs in advance will prevent Police enforcement of parked vehicles.
- "NO PARKING" signs are available for purchase at the City Hall Permit Center, Room 190. Only City of Alameda issued "NO PARKING" signs shall be used.

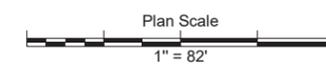
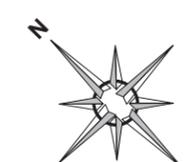
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**EXAMPLE #1 PEDESTRIAN AND TRAFFIC CONTROL PLAN**



**Scope of Work**

The project is to remove a portion of the existing concrete median and landscaping in the public right-of-way to allow for a new left-turn pocket on Harbor Bay Parkway into a driveway for the property at 1951 Harbor Bay Parkway.



**LEGEND**

	Flashing Arrow Board		Truck Entrance Route
	Flashing Arrow Board (Plan View)		Truck Exit Route
	Portable Flashing Beacon		Crash Cushion
	Type I Barricade		Concrete K-Rail Barrier
	Type III Barricade		Water Filled Barrier
	Type III Barricade (Plan View)		Not To Scale
	28" Traffic Cone		Tow-Away/No Stopping
	Temporary Delineator		Police Officer
	Work Area		Flagger
	Sign and Stand		Equipment
			Pipe to be installed

**Table 6F-10(CA) Maximum Spacing of Channelizing Devices**

Speed (mph)	Taper (feet)	Tangent (feet)	Conflict** (feet)
20	20	40	10
25	25	50	12
30	30	60	15
35	35	70	17
40	40	80	20
45	45	90	22
50	50	100	25
55	50	100	25
60	50	100	25
70	50	100	25
75	50	100	25

**Table 6C-3(CA) Taper Length Criteria for Temporary Traffic Control Zones (for 12 foot Offset Width)**

Speed* S (mph)	Minimum Taper Length**			
	Merging (feet)	Shifting (feet)	Shoulder (feet)	Down Stream (feet)
20	90	60	27	50
25	125	63	42	50
30	160	66	50	50
35	245	123	62	50
40	300	160	69	50
45	340	210	180	50
50	500	300	280	50
55	660	330	220	50
60	720	360	240	50
65	780	390	260	50
70	940	420	280	50
75	960	450	300	50

**Table 6C-1. Recommended Advance Warning Sign Minimum Spacing**

Road Type	Distance Between Signs**		
	A	B	C
Urban/Arterial - 25 mph or more	200 feet	100 feet	100 feet
Urban/Arterial - 20 mph or less	150 feet	75 feet	75 feet
Urban/Arterial - 15 mph or less	100 feet	50 feet	50 feet
Urban/Arterial - 10 mph or less	75 feet	37.5 feet	37.5 feet
Urban/Arterial - 5 mph or less	50 feet	25 feet	25 feet
Urban/Arterial - 3 mph or less	25 feet	12.5 feet	12.5 feet
Urban/Arterial - 2 mph or less	12.5 feet	6.25 feet	6.25 feet
Urban/Arterial - 1 mph or less	6.25 feet	3.125 feet	3.125 feet

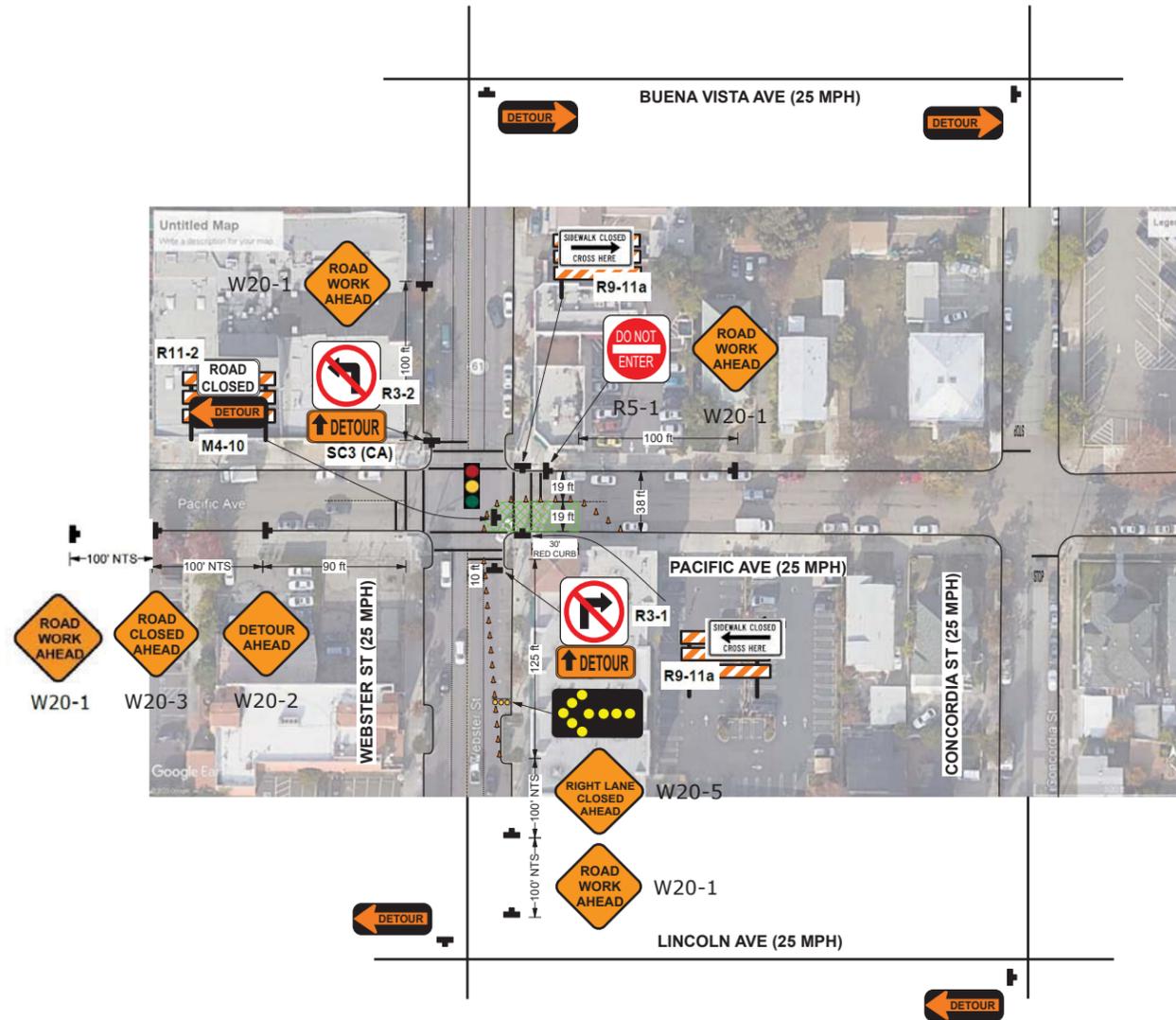
\* Maximum channelizing device spacing for all speeds on one-lane/two-way tapers is 20 feet. Maximum channelizing device spacing for all speeds on downstream tapers is 20 feet. All other tapers are as shown. \*\* Use on intermediate and short term projects for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizing devices. \*\*\* Maximum downstream taper length is 100 feet. See Section 6C.08.

<p><b>Contact</b></p> <p>Contractor's Name: Company A</p> <p>Contractor's Address: 123 Main Street, Anywhere, CA 94501</p> <p>Contractor's Telephone Number: (510) 123-4567</p> <p>Contact Name: John Smith</p> <p>Contact Phone Number (24 hours): (510) 234-5678</p>	<p>Date: ALAMEDA</p> <p>Project: TCP</p> <p>Client: Client job #:</p>
	<p><b>Comments:</b></p> <p>1) WORK HOURS: 7:00 a.m to 4:00 p.m.</p> <p>2) CONTRACTOR TO VERIFY EXISTING STRIPING IS ACCURATE PRIOR TO START OF WORK.</p> <p>3) ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF CA MUTCD.</p> <p>4) ALL TRAFFIC CONTROL DEVICES SHALL BE RETROREFLECTIVE IF SETUP DURING HOURS OF DARKNESS.</p>
	<p><b>Equipment Used</b></p> <p>List each equipment to be used</p>
	<p><b>Posted Speed Limit</b></p> <p>35 MPH</p>

# EXAMPLE #2 PEDESTRIAN AND TRAFFIC CONTROL PLAN

## PTCP GENERAL NOTES:

- The site specific Pedestrian +Traffic Control Plan (PTCP) shall conform to the most current California Manual on Uniform Traffic Control Devices (CA MUTCD) and State Standard Plans.
- The City, through its designated employees reserves the right to initiate field changes to assure public safety. This includes the implementation of additional traffic control measures while construction is in progress to address unforeseen field conditions.
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- Lane closures for motor vehicle, bicycle, and pedestrian traffic shall be limited to 9:00 AM to 3:30 PM. Set up and break down shall not occur outside of these lane closure hours. These times may be more restricted if located in school zones.
- Trenches shall be backfilled or plated during non-working hours and this includes for trenches in bike lane and sidewalk. If trench plates are used over open excavation, include "Steel Plates Ahead" warning sign.
- A minimum eleven (11) foot travel lanes must be maintained at all times.
- Pedestrian and bicyclist controls shall be provided on the PTCP.
- Pedestrians and bicyclists shall have a safe route to walk or ride and shall be protected throughout the entire traffic control area. Pedestrian routes shall meet all ADA accessibility requirements per <http://ada.gov>.
- Contractor shall provide adequate lighting for all pedestrian detours.
- Existing construction site drainage shall not be hindered due to the project.
- Contractor is fully responsible for the installation, maintenance, and removal of signs upon completion of work.
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- Contractor shall call Alameda Police Department (510) 337-8340 to schedule "NO PARKING" sign inspection. Contractor shall have signed inspection paperwork from the Police officer on site at all times. Failure to get Police Department inspection of signs in advance will prevent Police enforcement of parked vehicles.
- "NO PARKING" signs are available for purchase at the City Hall Permit Center, Room 190. Only City of Alameda issued "NO PARKING" signs shall be used.
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  - Immediately notify Public Works inspector
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- All certified flaggers shall be equipped with a hard hat, reflective vest, two-way radios, and "STOP/SLOW" paddle.
- The contractor shall maintain all traffic control devices 24 hours per day 7 days per week, until completion of all work. Any traffic control devices used overnight in the public right-of-way must have flashing lights.
- All channelizing devices, warning lights, flag tress, portable barriers, etc., shall meet the current California Manual on Uniform Traffic Control Devices (CA MUTCD) and State Standard Plans.



**Legend**

- Type III Barricade
- 28" Traffic Cone
- Delineator
- Pedestrian Barricade
- Work Area
- Sign and Stand
- Direction of Travel
- Concrete K-Rail
- Crash Cushion
- Not To Scale
- Tow-Away/No Stopping
- Parking Control Officer
- Flagger
- Type I Barricade
- Flashing Beacon
- (N) Sewer

**Table 6F-101(CA). Maximum Spacing of Channelizing Devices**

Speed (mph)	Maximum Channelizing Devices Spacing		
	Taper* (feet)	Tangent (feet)	Conflict** (feet)
20	20	40	10
25	25	50	12
30	30	60	15
35	35	70	17
40	40	80	20
45	45	90	22
50	50	100	25
55	50	100	25
60	50	100	25
65	50	100	25
70	50	100	25
75	50	100	25

\* Maximum channelizing device spacing for all speeds on one-lane/two-way tapers is 20 feet. Maximum channelizing device spacing for all speeds on downstream tapers is 20 feet. All other tapers are as shown.  
 \*\* Use on intermediate and short-term projects for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizing devices.

**Table 6C-3(CA). Taper Length Criteria for Temporary Traffic Control Zones (for 12 feet Offset Width)**

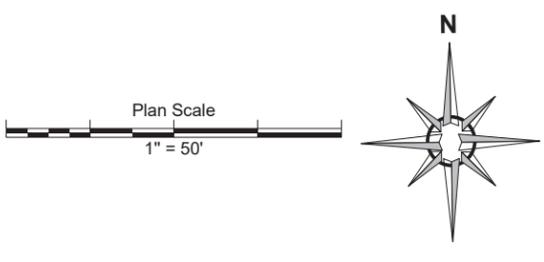
Speed* S (mph)	Minimum Taper Length** for Width of Offset 12 feet (W)			
	Merging L (feet)	Shifting L/2 (feet)	Shoulder L/3 (feet)	Down Stream (feet)***
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	400	210	140	50
50	500	280	180	50
55	600	300	200	50
60	660	330	220	50
65	720	360	240	50
70	780	390	260	50
75	840	420	280	50

\* - Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.  
 \*\* - For other offsets use the following merging taper length formula for L: For speeds of 40 mph or less, L=WS/60 For speeds of 45 mph or more, L=WS  
 \*\*\* - Maximum downstream taper length is 100 feet. See Section 6C.08.

**Table 6C-1. Recommended Advance Warning Sign Minimum Spacing**

Road Type	Distance Between Signs**		
	A	B	C
Urban - more than 25 mph or less***	100 feet	100 feet	100 feet
Urban - more than 25 mph to 40 mph***	200 feet	200 feet	200 feet
Urban - more than 40 mph***	350 feet	350 feet	350 feet
Rural	500 feet	500 feet	500 feet
Expressway / Freeway	1,000 feet	1,500 feet	2,000 feet

\* - Based on MUTCD 6C.01 through 6C.05.  
 \*\* - The column headings A, B, and C are the dimensions shown in Figures 6C-1 through 6C-4E. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second sign. The C dimension is the distance between the second and third sign. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)  
 \*\*\* - Posted speed limit, off-peak 85th-percentile speed prior to work starting, or other anticipated operating speed in mph.



## Scope of Work

The project is to perform a point repair on a sewer main by open cut on Pacific Avenue. Work in the public right-of-way will result in a detour to eastbound travelling vehicles on Pacific Avenue and detour pedestrians on the east side of Webster Street around the work zone.

## Equipment Used

List each equipment to be used

## Posted Speed Limit

25 MPH

## Contact

**Contractor's Name:** Company A  
**Contractor's Address:** 123 Main Street, Anywhere, CA 94501  
**Contractor's Telephone Number:** (510) 123-4567  
**Contact Name:** John Smith  
**Contact Phone Number (24 hours):** (510) 234-5678

<b>Date:</b>	<b>Author:</b>	<b>Project:</b>
<b>Client:</b>	<b>REV:</b>	<b>Location:</b> ALAMEDA <b>TCP:</b>
<b>CMC Job #:</b>		
<b>Comments:</b>		
1) WORK HOURS: 9AM TO 3PM		
2) CONTRACTOR TO VERIFY EXISTING STRIPING IS ACCURATE PRIOR TO START OF WORK.		
3) ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF CA MUTCD.		
4) ALL TRAFFIC CONTROL DEVICES SHALL BE RETROREFLECTIVE IF SETUP DURING HOURS OF DARKNESS.		
5) MAINTAIN LOCAL ACCESS TO BUSINESSES AND RESIDENTS AT ALL TIME.		
6) THE CONTRACTOR SHALL NOT PREVENT OR DELAY THE OPERATION OF MASS TRANSIT VEHICLES AT ANY TIME.		
7) THE CONTRACTOR SHALL PERFORM THE APPROPRIATE MEASURES TO ENSURE THE SAFETY OF BICYCLISTS ON ALL STREET ON WHICH THERE IS CONSTRUCTION.		