

# **Attachment No. 49**

## **Sanitary Sewer Replacement Project Contract Documents and Technical Specifications**



## **EAST PALO ALTO SANITARY DISTRICT**

### **BOARD OF DIRECTORS**

Dennis Scherzer, President  
Martha Stryker, Vice President  
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General Manager: Mr. Akin Okupe, MBA, P.E.

## **CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS**

## **SANITARY SEWER REPLACEMENT PROJECT BEECH ST. CLARKE AVE, AND GREEN ST.**

**July 2023**



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## **SANITARY SEWER REPLACEMENT PROJECT BEECH ST. CLARKE AVE, AND GREEN ST.**

**July 2023**

**Prepared by:**

**Sierra West Consultants, Inc.  
Fair Oaks, California**



**EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER REPLACEMENT PROJECT  
BEECH ST. CLARKE AVE, AND GREEN ST.**

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# **Part A**

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## **Legal and Procedural Documents**

**SECTION A1 - NOTICE REQUESTING BIDS**

**EAST PALO ALTO SANITARY DISTRICT  
SANITARY REPLACEMENT PROJECT**

Sealed proposals for the Sanitary Sewer Replacement Project will be received at the East Palo Alto Sanitary District, 901 Weeks Street, East Palo Alto, California 94303 until **3:00 PM on August 1<sup>st</sup>, 2023,** at which time they will be publicly opened and read. Bids shall be labeled "East Palo Alto Sanitary District, Proposal for "Sanitary Sewer Replacement Project".

The Work will include the furnishing of all labor, materials and equipment, and other appurtenances for removing and replacing approximately 5.000 linear feet of existing sanitary sewer pipelines using open cut trenching methods as indicated in the contract documents, specifications, and drawings.

The contract documents may be inspected at: the office of the East Palo Alto Sanitary District; San Francisco Builders Exchange, 850 So. Van Ness Avenue, San Francisco, California 94110; Peninsula Builders Exchange, 735 Industrial Road, Suite 100, San Carlos, California 94070; Santa Clara Builders Exchange, 400 Reed Street, Santa Clara, California 95050; Builders Exchange of Alameda, 3055 Alvarado Street, San Leandro, California 94577; Construction Bidboard Incorporated, 11622 El Camino Real, Suite 100, San Diego, CA 92130; and Contra Costa Builders Exchange, 2440 Stanwell Drive, Suite B, Concord, California 94520.

Copies of the Contract Documents may be obtained at the office of the East Palo Alto Sanitary District (District) upon payment of a check or money order in the amount of \$60.00 for each set. The check or money order must be issued to the East Palo Alto Sanitary District. All payments are nonrefundable. The Sanitary District is open Monday through Friday, 8:00 a.m. to 5:00 p.m., however closed from Noon to 1:00p.m.

A **mandatory** pre-bid meeting will be held at **11:00 AM on July 25<sup>th</sup>, 2023,** at the office of the East Palo Alto Sanitary District, or participation will be available via a zoom connection to be provided to all plan holders as of July 21, 2023.

Each bid proposal shall be accompanied by a certified or cashier's check or a proposal guaranty bond payable to the order of the East Palo Alto Sanitary District in an amount not less than ten percent (10%) of the amount of the bid as a guaranty that the bidder will execute the contract if it be awarded to him in conformity with the proposal. The successful bidder will be required to furnish a performance bond in an amount not less than one hundred percent (100%) of the contract price and a labor and material bond in an amount equal to one hundred percent (100%) of the contract price.

The District ("Owner") reserves the right to reject any or all bids and to determine which proposal is, in the judgment of the District, the lowest responsible bid of a responsible bidder or group of bidders and which proposal should be accepted in the best interest of the District. The District also reserves the right to waive any informalities in any proposal or bid.

Bid proposals received after the time announced for the opening will not be considered. No bidder may withdraw their proposal after the time announced for the opening, or before award and execution of the contract, unless the award is delayed for a period exceeding forty-five (45) days.

Pursuant to the provisions of Public Contract Code Section 22300, and upon the request and at the expense of

**East Palo Alto Sanitary District**

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the Contractor, securities equivalent to the amount withheld by the District to insure performance under the Contract may be deposited with the District, or with a state or federally chartered bank as escrow agent who shall deliver such securities to the Contractor upon satisfactory completion of the contract. Only those securities listed in Government Code Section 16430 or other securities approved by the District are eligible for deposit. The deposit of securities with an escrow agent or the District shall be made in the form and on such terms and conditions as the District may require to protect the interest of the District in the event of the Contractor's default. The Contractor shall be the beneficial owner of any securities that are deposited and shall receive any interest thereon.

Pertaining to Sections 1770, 1773, and 1773.1 of the California Labor Code the successful bidder 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 such prevailing rates are on file at the District office of the East Palo Alto Sanitary District and which copies shall be made available to any interested party on request. The successful bidder shall post a copy of such determinations at each job site.

In accordance with the provisions of California Public Contract Code Section 3300, the District has determined that the Contractor shall possess a valid Class A License or a combination of the Class C licenses indicated in Article B8.01-License Requirements, at the time that the contract is awarded. Failure to possess the specified license(s) shall render the bid as non-responsive and shall act as a bar to award of the contract to any bidder not possessing said license(s) at the time of award.

Contractor's attention is directed to Section B8.18, Small Business and Subcontracting Participation Goal, which grants the Contractor a credit for using a Small Business Contractor, as defined in the section.

East Palo Alto Sanitary District  
Board of Directors  
San Mateo County, California

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

Dated: \_\_\_\_\_



## SECTION A2 - INFORMATION FOR BIDDERS

### 2.01 INSPECTION OF SITES OF WORK

The work will take place within various streets and roadways throughout the City of East Palo Alto. Bidders are required to inspect the sites of the work to satisfy themselves by personal examination, or by such means as they may prefer, of the location of the proposed work and of the actual conditions of the sites of work. If, during the course of their examination, a bidder finds facts or conditions that appear confusing to them, they may apply to the District for additional information and explanation before submitting their bid. However, no such supplemental information requested or furnished shall vary the terms of the specifications or the Contractor's sole responsibility to satisfy himself as to the conditions of the work to be performed.

The submission of a proposal by the bidder shall constitute the acknowledgment that, if awarded the contract, they have relied and are relying on their own examination of (a) the site of the work, (b) the access to the site, and (c) all other data, matters, and things requisite to the fulfillment of the work and on their own knowledge of existing services and utilities on and in the vicinity of the site of the work to be constructed under the contract, and not on any representation or warranty of the District. No claim for additional compensation will be allowed which is based upon a lack of knowledge of the above items.

### 2.02 EXAMINATION OF CONTRACT DOCUMENTS

Each bidder shall thoroughly examine and be familiar with legal and procedural documents, general conditions, specifications, drawings and addenda (if any). The submission of a proposal shall constitute an acknowledgment upon which the District may rely that the bidder has thoroughly examined and is familiar with the contract documents. The failure or neglect of a bidder to receive or examine any of the contract documents shall in no way relieve them from any obligation with respect to their proposal or to the contract. No claim for additional compensation will be allowed which is based upon a lack of knowledge of any contract documents.

### 2.03 INTERPRETATION OF CONTRACT DOCUMENTS

No oral representation or interpretations will be made to any bidder as to the meaning of the contract documents. Requests for an interpretation shall be made in writing and delivered to the District at least 10 days before the time announced for opening of the proposals. Interpretations by the District will be in the form of an addendum to the contract documents and, when issued, will be sent as promptly as is practical to all parties to whom the bid documents have been issued. All such addenda shall become part of the contract.

### 2.04 SUBSURFACE SOIL DATA

No sub-surface soil investigations were made for this project. Any previous soil data on the Project sites and/or adjacent sites thereto are available for inspection at the District office. No responsibility is assumed by the District for subsoil quality or conditions other than at the locations and the time the exploration was made. No claim for extra compensation or for extension of time will be allowed on account of sub-surface conditions inconsistent with the data shown unless otherwise provided elsewhere herein.

### 2.05 PROPOSAL

**Proposals shall be made on the blank forms prepared by the District without removal from the bound contract documents.** All proposals shall give the total price proposed, both in writing and in figures, shall give all other information requested herein, and shall be signed by the bidder or their authorized representative, with their address. If the proposal is made by an individual, their name, signature and post office address must be shown; if made by a firm or partnership, the name and post office address of the firm or partnership and

the signature of at least one of the general partners must be shown; if made by a corporation, the proposal shall show the name of the state under the laws of which the corporation is chartered, the name and post office address of the corporation, and the title of the person who signs on behalf of the corporation.

Each proposal shall be enclosed in a sealed envelope, labeled as specified in the Advertisement. Bidders are warned against making erasures or alterations of any kind, and proposals which contain omissions, erasures or irregularities of any kind may be rejected. No oral, email, telegraphic or telephonic proposals or modifications will be considered.

## **2.06 ADDENDA**

Each proposal shall include specific acknowledgement in the space provided of receipt of all addenda issued during the bidding period. Failure to acknowledge may result in the proposal being rejected as non-responsive.

## **2.07 BID PRICE**

The bid price for work as described in Article A3.02 - Bidding Schedule and/or other parts of the Contract Documents shall include all work described in any part of the Contract Documents that apply unless otherwise specifically provided for.

The bid price in Article A3.02 - Bidding Schedule and for other parts of the Contract Documents shall include everything necessary for the completion of conducting all work and fulfillment of the contract including but not limited to furnishing all materials, equipment, tools, plant and other facilities and all management superintendence, labor and services for that option, except as specifically provided otherwise in the contract documents. Any work or material not specifically described on the bidding schedule and associated with the bidding option shall be performed or supplied as incidental work without additional cost to the District.

In the event of a difference between a price quoted in words and a price quoted in figures for the same quotation, the words shall be the amount bid. In the event that a product of a unit price and an estimated quantity does not equal the extended amount quoted, the unit price shall govern and the corrected product of the unit price and the estimated quantity shall be deemed to be the amount bid. If the sum of two or more items in a bidding schedule does not equal the total amounts quoted, the individual item amounts shall govern and the corrected total shall be deemed to be the amount bid.

## **2.08 TAXES**

Bid prices shall include all federal, state, and local taxes.

## **2.09 VARIATIONS**

By the submission of the bid proposal, it will be understood by the District that the bidder has accepted without reservation or amendment the whole of the contract documents. However, a bidder may submit a proposal which is conditional upon such qualifications of or amendments to the contract documents as do not, in the sole discretion of the District materially alter the terms of the contract documents. The qualifications or amendments shall be fully described on the proposal. The District reserves the right to accept or reject any such entire bid containing the same or to consider price variations therefore (if any) in determining the lowest responsible bid.

## **2.10 QUALIFICATION OF BIDDERS**

Each bidder shall be skilled and regularly engaged in the general class type of work called for under the contract. A statement setting forth their experience shall be submitted by each bidder on the form provided herewith. The General Contractor, or sub-contractor performing the work shall be competent in performing such type of work and shall demonstrate their competency and ability to perform such work by submitting sufficient documentation of prior similar projects and experiences and/or other information and data that, in the opinion of the District, constitutes sufficient evidence of the ability of the contractor or sub-contractor to perform and complete the same nature and magnitude of work by the method requested by the District for this project. In addition, a statement setting forth the experience, knowledge, and ability of the personnel available for employment in responsible charge of the work shall be submitted by each bidder on the form provided herewith. Failure to submit satisfactory evidence of competency to perform the work is sufficient cause for the District to determine the submitted bid unresponsive, which prevents award of the contract to the Contractor.

Each bidder shall possess either a Class A license or a combination of the Class C licenses as indicated in Article B8.01 - License Requirement. A copy of the Contractor's license(s) shall be submitted with the bid.

It is the intention of the District to award a contract to the bidder who furnishes satisfactory evidence that they have the requisite experience and ability and that they have sufficient capital, facilities and plant to enable them to prosecute the work successfully and properly, and to complete it within the time named in the contract.

To determine the degree of responsibility to be credited to the bidder, the District will consider previous work relationships and cooperation with the District and will also weigh any evidence that the bidder or personnel available for employment in responsible charge of the work has performed satisfactorily other contracts of like nature, magnitude and comparable difficulty and comparable rates of progress.

This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. All contractors and subcontractors must register with the Department of Industrial Relations (DIR) pursuant to Labor Code sections 1725.5 and 1771.1 prior to bidding on or performing any work for this project. No bid will be accepted nor any contract entered into without proof of current registration. No bid will be accepted nor any contract entered into without proof of the Bidder's and its subcontractors' current registration with the DIR. If awarded a Contract, the Bidder and its subcontractors of every tier shall maintain active registration with the DIR for the duration of the Project. It shall be the Bidder's sole responsibility to evaluate and include the cost of complying with all labor compliance requirements. Contractors who are debarred from performing state or federal public works are not eligible for registration; thus not eligible for bidding on this project. The DIR may impose a penalty registration fee or other sanctions on contractors and subcontractors who fail to register prior to submitting a bid.

## **2.11 LIST OF SUBCONTRACTORS**

Each proposal shall have listed on the form provided herewith the name and address of each subcontractor to whom the bidder proposes to sublet portions of the work in excess of one-half of one percent of the total amount of their bid. For the purpose of this paragraph, a subcontractor is defined as one who contracts with the contractor to furnish materials and labor, or labor only for the performance of work at the site of the work. Contractor shall use only those subcontractors on the list, unless he receives prior written approval by District to substitute a subcontractor. As noted in Section 2.10, subcontractors must be registered with the DIR, and each subcontractor's registration number shall be listed on the form.

## **2.12 PROPOSAL GUARANTY**

The proposal shall be accompanied by a proposal guaranty bond duly completed on the form found in Section

A-4 of these contract specifications, by a corporation which is listed in the latest form 356 of the United States treasury Department as being acceptable as surety on Federal bonds and is duly licensed and admitted by the State of California to be a surety insurer in the State, in the sum of at least 10 percent of the total bid amount as described in the bidding schedule and/or other parts of the Contract Documents; or alternatively there is attached a certified or cashier's check, payable to the District in the sum of at least 10 percent of the total bid amount.

The amount payable to the District under the proposal guaranty bond, or the certified or the cashier's check and the amount thereof, as the case may be, shall be forfeited to the District as liquidated damages in case of a failure or neglect of the bidder to furnish, execute and deliver to the District the required performance bond, labor and material bond, evidences of insurance, and to enter into, execute and deliver to the District the agreement on the form provided herewith, within 10 days after being notified in writing by the District that the award has been made and the agreement is ready for execution.

### **2.13 MODIFICATION OF PROPOSAL**

A modification of a proposal already received will be considered only if the modification is received prior to the time announced for the opening of bid proposals. All modifications shall be made in writing, executed and submitted in the same form and manner as the original proposal.

### **2.14 POSTPONEMENT OF OPENING**

The District reserves the right to postpone the date and time for opening of proposals at any time prior to the date and time announced in the advertisement.

### **2.15 DISQUALIFICATION OF BIDDER**

If there is reason to believe that collusion exists among the bidders, none of the bids of the participants in such collusion will be considered and the District may likewise elect to reject all bids received. All bidders are required to execute a non-collusion affidavit pursuant to Public Contract Code 7106 in the form shown in Section A3.04 – Non-collusion Affidavit and submit it with his/her bid. Bidders may be disqualified also if, in the opinion of the District, the bidder and/or subcontractor is not qualified to perform the work specified in these contract documents.

### **2.16 REJECTION OF PROPOSALS**

The District reserves the right to reject any and all proposals, including any which are incomplete, obscure or irregular; any proposals which omit a bid on any one or more items on which the bids are required; any proposals which omit unit prices; any bid accompanied by a proposal guaranty bond from a surety not meeting the surety qualification requirements of Article A2.12 or from a surety the District has cause to believe is likely to be incapable of fulfilling its obligations under the bond; and any proposals from bidders who have previously failed to perform properly or to complete on time contracts of any nature.

The District reserves the right to waive informalities in any proposal or bid.

### **2.17 AWARD OF CONTRACT**

Within 45 days after the time of opening bid proposals, the District will act either to accept a proposal from the lowest responsible bidder or to reject all proposals. The acceptance of a proposal will be evidenced by a notice of award of contract in writing, delivered in person or by certified mail to the bidder whose proposal is accepted. No other act of the District shall constitute acceptance of a proposal. The award of contract shall

obligate the bidder whose proposal is accepted to furnish a performance bond, labor and material bond and evidences of insurance and execute the agreement set forth in the contract documents.

## **2.18 RETURN OF PROPOSAL GUARANTIES**

Within 10 days after the bids are opened, the District will return the proposal guaranties accompanying the proposals which are not to be considered in making award. Proposal guaranties of the lowest 3 bidders will be held until the contract has been fully executed with the lowest responsive bidder after which they will be returned to the respective bidders.

## **2.19 EXECUTION OF CONTRACT**

The contract agreement shall be executed in quadruplicate by the successful bidder and returned, together with the contract bonds and evidences of insurance, within 10 days after receiving written notice of the award of the contract. After execution by the District, one copy shall be returned to the Contractor.

## **2.20 NONDISCRIMINATION IN EMPLOYMENT**

The Contractor shall comply with all laws, state and federal, prohibiting employment discrimination.

## **2.21 WAGE DETERMINATION**

Included as part of specifications and special requirements is the schedule of Wage Determinations of the U.S. Secretary of Labor and it shall be incumbent upon the successful bidder to pay minimum hourly wage required to be paid to the various workmen employed directly upon the site of the work, and in case of conflict with any local prevailing rates, the higher rate shall prevail.

## **2.22 COMPLIANCE WITH LABOR STANDARDS**

The Contractor shall comply with the Labor Standards set forth in the Federal Water Pollution Control Act relative to the payment of prevailing wages (Wage Determination) as described by the Secretary of Labor and certain other labor standards and procedures as set forth therein.

Contractor shall pay and shall require all subcontractors to pay all employees on said Project a salary or wage at least equal to the prevailing rate of per diem wages as determined by the Secretary of Labor in accordance with the Davis-Bacon Act for each craft or type of worker needed to perform the Contract. The provisions of the Davis-Bacon Act to be complied with are incorporated herein as a part of this Contract and referred to by reference. District has ascertained from the State of California Director of Industrial Relations, the general prevailing rate of per diem wages and the general prevailing rate for legal holiday and overtime work in the locality in which the work is to be performed for each craft or type of work needed to execute this Contract, and copies of the same are on file in the District Office. The Contractor agrees that not less than said prevailing rates shall be paid to workers employed on this public works contract as required by Labor Code Section 1774 of the State of California. Contractor shall, as a penalty to the District, forfeit up to Fifty Dollars (\$50.00) for each calendar day or portion thereof for each worker paid (either by it or any subcontractor under it), less than the prevailing rate of per diem wages as set by the Director of Industrial Relations, in accordance with Section 1770 of the Labor Code for the work provided for in this Contract, all in accordance with Section 1775 of the Labor Code of the State of California. Section 1773.8 of the Labor Code of the State of California, regarding the payment of travel and subsistence payments, is applicable to this Contract and Contractor shall comply therewith.

Contractor shall submit payroll certification forms verifying compliance with the prevailing wage provisions of this Article.

## 2.23 APPRENTICESHIP

The Contractor and any subcontractor under them shall comply with the requirements of Sections 1777.5, 1777.6 and 1777.7 (as amended) of the Labor Code concerning employment of apprentices.

Section 1777.5 as amended, requires the Contractor or subcontractor employing tradesmen in any apprentice able 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. The certificates will also fix the ratio of apprentices to journeymen that will be used in the performance of the contract. The ratio of apprentices to journeymen in such cases shall not be less than one hour of apprentice work for every five hours of labor performed by a journeyman, except:

1. In the event unemployment for the previous three-month period in such area exceeds an average of 15 percent; or
2. In the event the number of apprentices in training in such area exceeds a ratio of 1 to 5; or
3. If there is a showing that the apprentice able craft or trade is replacing at least one-thirtieth of its journeymen annually through apprenticeship training, either (a) on a statewide basis, or (b) on a local basis.
4. If assignment of an apprentice to any work performed under a public works contract would create a condition which would jeopardize their life or the life, safety or property of fellow employees or the public at large or if the specific task to which the apprentice is to be assigned is of such a nature that training cannot be provided by a journeyman.

The Contractor is required to make contributions to funds established for the administration of apprenticeship programs if he employs registered apprentices or journeymen in any apprentice able trade on such contracts and if other contractors on the public works site are making such contributions.

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

## 2.24 SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION

The Contractor shall comply with all relevant provisions of the Safety and Health Regulations for Construction, promulgated by the Secretary of Labor under Section 107 of the Contract Work Hours and Safety Standards Act, as set forth in Title 29, C.P.R. Copies of these regulations may be obtained from Labor Building, 14th and Constitution Avenue NW, Washington, DC 20013.

The Contractor shall also comply with all provisions of the California Occupational Safety and Health Act of 1973.

## 2.25 SUBSTITUTION OF EQUALS

The material which has been specified shall be provided. No substitutions will be allowed except as provided for in California Public Contract Code Section 3400(a) when materials called for in the contract are designated by specific brand or trade name.

## 2.26 PRE-BID CONFERENCE

All plan holders are **required** to attend a pre-bid conference to be held at **11:00 AM on July 25, 2023**, at the office of the East Palo Alto Sanitary District, 901 Weeks Street, East Palo Alto, California 94303.

## 2.27 DOCUMENTS

Bidder's attention is directed to complete and sign the following documents and submit them with the bid:

1. Proposal.
2. License Statement and copy of license.
3. Non-collusion Affidavit.
4. Statement of Inspection of Site.
5. Bidder's Experience Statement.
6. Personnel Experience Statement.
7. Proposed Subcontractors Form.
8. Receipt of Addenda.
9. Proposal Guaranty Bond.
10. Cost Estimate Take Off Sheets used by Bidder to Prepare Bid.

The Agreement Form, Insurance Endorsement Forms, Labor and Material Bond Forms and Performance Bond Form will be required to be completed by the selected lowest bidder **before award of contract**.

## 2.28 TRAFFIC CONTROL PLAN

The Contractor shall comply with all relevant provisions of federal, state and local codes, including encroachment permit requirements, and regulations in regard to the traffic control. **The successful bidder shall submit a Traffic Control Plan to be reviewed by the District, and the City of East Palo Alto.** The Traffic Control Plan shall incorporate Caltrans Standard Details. The successful bidder shall submit the Traffic Control Plan to the District ten (10) days prior to the Pre-Construction Conference to be scheduled by the District. For more detail in regard to the Traffic Control Plan, refer to Article B8.11 of these specifications.

The City of East Palo Alto General Plan defines street types throughout the city and the Contractor is directed to the General Plan to understand traffic patterns and densities that may dictate traffic control requirements. Bidders are also directed to visit the work areas to fully understand the traffic characteristics. The complete General Plan can be obtained through the link below.

<https://www.ci.east-palo-alto.ca.us/econdev/page/general-plan-2035-east-palo-alto>

The City of East Palo Alto defines "moratorium streets" with excavation limitations and repaving requirements. The moratorium streets are available from the City of East Palo Alto as provided in Standard Encroachment Permit Conditions included in Section D.

**SECTION A3 - PROPOSAL**

**3.01 PROPOSAL**

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

East Palo Alto Sanitary District  
901 Weeks Street  
East Palo Alto, California 94303

The undersigned, as bidder, declares that we have examined all of the contract documents herein contained and that we will contract with the District on the form of agreement provided herewith to do everything necessary for the fulfillment of this contract at the prices and on the terms and conditions herein contained.

We agree that the following shall form a part of this proposal: Advertisement for Bids; Information to Bidders; Bid Schedule; Proposed Qualifications and Amendments; Experience Statement; Personnel Roster; Proposed Subcontractors; Proposal Guaranty Bonds; Proposed form of "Agreement;" Performance Bond; Labor and Material Bond; Non-Collusion Affidavit; as well as all General Conditions, specifications and detailed plans and drawings. We acknowledge that addenda numbers to have been delivered to us and have been examined as part of the contract documents.

Attached is the proposal guaranty bond form found in Section A of these contract specifications, duly completed by a corporation which meets the surety qualification requirements of Article A2.12 of these contract specifications, in the amount of at least ten percent of the total amount of our proposal; or alternatively there is attached a certified or cashier's check payable to the District in the amount of at least ten percent of the total amount of our proposal. If we choose to attach a proposal bond, we understand and agree that the District may reject our proposal if the surety does not meet the requirements of Article A2.12, or if the District has cause to believe the surety is likely to be incapable of fulfilling its obligations under the bond.

If our proposal is accepted, we agree to sign the agreement form and to furnish the performance bond, labor and material bond, and the required insurance endorsement forms within 10 calendar days after receiving written "Notice of the Award" of the contract.

We further agree, if our proposal is accepted and a contract for performance of work is entered into with the District, to so plan the work and to prosecute it with such diligence that all of the work shall be completed within the time stipulated in Article B8.04, Time of Completion, from the date set forth in the Notice To Proceed.

In accordance with Section 4552 of the California Government Code, the bidder agrees that if the bid is accepted, it will assign to the District all rights, title and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act [Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the California Business and Professions Code], arising from purchase of goods, materials, or services by the bidder for sale to the District pursuant to the bid. Such assignment shall be made and become effective at the time the District tenders final payment to the bidder.



**3.02 BIDDING SCHEDULE**

Item numbers contained in this schedule are intended for cross reference to Section C7.06 Measurement and Payment of the project specifications. The unit price for an individual item may vary depending upon the project under which it is included.

**EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER REPLACEMENT PROJECT**

**SCHEDULE A – O’CONNOR STREET – T16 to MH K2  
BEECH STREET - MH T19 to I3**

<b>ITEM NO.</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QNTY</b>	<b>UNIT PRICE</b>	<b>TOTAL</b>
A.1	Mobilization/Demobilization	LS	1		
A.2	Traffic Control	LS	1		
A.3	Project Signage	LS	1		
A.4	Gas Line Avoidance/Utility Plan	LS	1		
A.5	Safety, Sheeting, Shoring, and Bracing	LS	1		
A.6	Dust and Storm Water Control	LS	1		
A.7	Bypassing	EA	3		
A.9	18" Dia. PVC Pipeline	l.f.	483		
A.12	26" Dia. PVC Pipeline	l.f.	190		
A.13	Foundation (Drain) Rock	Ton	10		
A.14	Drainage Ditch Crossing	EA	1		
A.15	Utility Crossings	EA	4		
A.16	Reconnect Sewer Service Laterals	EA	8		
A.17	New Sewer Manhole	EA	1		
A.18	Dewatering	LS	1		
A.19	Cutback (Cold-Patch) Asphalt	Ton	2		
A.20	Asphalt Repaving	sq ft	600		
A.22	Slurry Seal	sq ft	11,700		
A.23	Striping and Pavement Markings	LS	1		

**SCHEDULE A - PROJECT BID SUB-TOTAL**      \$ \_\_\_\_\_

**SCHEDULE B – BEECH ST MH I3 TO MH H4;  
CLARKE AVE MH H11 TO MH H6;  
GREEN ST MH H75 TO MH E1.**

ITEM NO.	DESCRIPTION	UNIT	QNTY	UNIT PRICE	TOTAL
B.1	Traffic Control	LS	1		
B.2	Project Signage	LS	1		
B.3	Gas Line Avoidance/Utility Plan	LS	1		
B.4	Safety, Sheeting, Shoring, and Bracing	LS	1		
B.5	Dust and Storm Water Control	LS	1		
B.6	Bypassing	EA	24		
B.7	14" Dia. PVC Pipeline	l.f.	395		
B.8	18" Dia. PVC Pipeline	l.f.	518		
B.9	20" Dia. PVC Pipeline	l.f.	1,741		
B.10	22" Dia. PVC Pipeline	l.f.	652		
B.11	26" Dia. PVC Pipeline	l.f.	1,108		
B.12	Foundation (Drain) Rock	Ton	50		
B.14	Utility Crossings	EA	83		
B.15	Reconnect Sewer Service Laterals	EA	105		
B.16	New Sewer Manhole (allowance)	EA	1		
B.17	Dewatering	LS	1		
B.18	Cutback (Cold-Patch) Asphalt	Ton	20		
B.19	Asphalt Repaving	sq ft	13,900		
B.20	Grind and Repave	sq ft	17,100		
B.21	Slurry Seal	sq ft	107,100		
B.22	Striping and Pavement Markings	LS	1		

**SCHEDULE B - PROJECT BID SUB-TOTAL**      \$ \_\_\_\_\_

**SCHEDULES A + B TOTAL BID AMOUNT** \$ \_\_\_\_\_

*(see Specification Section B8.18 Small Business and Subcontracting Participation Goal)*

**PERCENTAGE OF SMALL BUSINESS PARTICIPATION** \_\_\_\_\_

**CREDIT** *(5% OF SUBTOTAL IF SMALL BUSINESS PARTICIPATION GOALS ARE MET):* \$ \_\_\_\_\_

**SCHEDULES A + B TOTAL BID AMOUNT IN NUMBERS** \$ \_\_\_\_\_

**SCHEDULES A + B TOTAL BID AMOUNT IN WORDS** \_\_\_\_\_

In case of discrepancy between words and figures of the total amount, the words shall prevail. If erasures or other changes appear on this proposal, each such erasure must be initialed by the person signing the bid.

Respectfully submitted:

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

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name of Bidder (Please Print)

\_\_\_\_\_  
Address

**3.03 HOURLY RATE SCHEDULE**

Item numbers contained in this schedule are hourly rates intended for use in calculating compensation for Owner-caused delays, undefined work, or forced account work.

**EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER REPLACEMENT PROJECT**

**HOURLY RATE SCHEDULE**

<b>ITEM NO.</b>	<b>DESCRIPTION</b>	<b>HOURLY RATE</b>
1.	Supervisor / Superintendent	
2.	Foreman	
3.	Operator	
4.	Laborer	
5.	Truck Drivers	
6.	Backhoe	
7.	Excavator	
8.	Skid Steer	
11.	Frontend Loader	
13.	Pickup Truck with Tools and Miscellaneous Equipment	
15.	10-ton (Bobtail) Dump Truck	
16.	20-ton Dump Truck	
17.	20-ton Trailer with Truck	
18.	Generator	
19.	Dewatering Pump	
20.	Bypass Pump	
21.	Asphalt Roller	
22.	Air Compressor	
23.	Traffic Control	

East Palo Alto Sanitary District

**3.04 LICENSE STATEMENT**

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Contractor: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone No: \_\_\_\_\_

License No: \_\_\_\_\_

Classification: \_\_\_\_\_

License Expiration Date: \_\_\_\_\_

By signing below, Contractor certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1, that Contractor is currently registered with the Department of Industrial Relations to perform public works, and that Contractor has verified that all subcontractors listed in its bid are currently registered with the Department of Industrial Relations to perform public works.

Department of Industrial Relations Registration Number: \_\_\_\_\_

"I declare under the penalty of perjury under the laws of the State of California that the foregoing is true and correct."

Executed this \_\_\_\_\_ day of \_\_\_\_\_ 2023, at \_\_\_\_\_, California.

\_\_\_\_\_  
Signature of Contractor

3.05 NON-COLLUSION AFFIDAVIT

NON-COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND  
SUBMITTED WITH BID

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

\_\_\_\_\_, being first duly sworn, deposes and says that he or she is \_\_\_\_\_ of \_\_\_\_\_, the party making the foregoing bid that the bid is not made in the interest of; or on behalf of; any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly nor indirectly induced or solicited any other bidder to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof; or the contents thereof; or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

\_\_\_\_\_  
Signature of Contractor

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

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

**3.06 STATEMENT OF INSPECTION OF WORK AREAS**

The undersigned, as bidder, states that they have inspected the site of the proposed work areas in order to satisfy themselves, by personal examination, or by such other means as they prefer, of the location of the proposed work and as to the actual conditions of and at the areas of the work.

This includes inspection of video surveys of the existing sewer pipelines that are available to each bidder upon request to the District per Section 8.14.

The bidder is also advised that their certification of area site inspections herein includes inspections of the areas by any and all of the sub-contractors listed for this project for any and all portions of the work performed by any and all such sub-contractors.

\_\_\_\_\_  
Print Name of Bidder

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

\_\_\_\_\_  
Address

**3.07 BIDDER'S EXPERIENCE STATEMENT**

The following outline is a record of the Bidder's experience in implementing projects of a type similar in magnitude and character to that contemplated under this contract. Additional numbered pages outlining this portion of the proposal may be attached to this page.

General Contractor

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Sub-Contractor

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**3.08 PERSONNEL EXPERIENCE STATEMENT**

The following is a list of personnel, including a record of each person's experience, knowledge and ability, who, if the Bidder is awarded the Contract, will be available to actively supervise the work; it is understood the work will be directed by one of these persons. Additional numbered pages outlining this portion of the proposal may be attached to this page.

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**3.09 PROPOSED SUBCONTRACTORS**

The General Contractor shall submit the following information for each sub-contractor that will be used in performing certain portions of the project. At a minimum, such information shall consist of the name and business address of each subcontractor, in addition to a brief description of the work to be performed by each subcontractor proposed for this project. The General Contractor shall not employ any other subcontractors to do work in excess of one-half of one percent (*0.5%*) of the total amount of the bid without prior written approval by the District, except as may be submitted herein in this proposal. The Contractor will not be allowed to substitute an approved subcontractor without prior written approval by the District. Additional numbered pages outlining this portion of the proposal may be attached to this page. Each page shall be headed Proposed Subcontractors, and shall be signed by the General Contractor.

Name	Business Address	Portion of Work	DIR Registration #

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

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

Dated: \_\_\_\_\_

**3.10 RECEIPT OF ADDENDA**

The following is a list of the addenda received prior to Bid Opening:

<b>ADDENDA NO.</b>	<b>DATED</b>	<b>SUBJECT</b>	<b>DATE OF RECEIPT</b>

Name: \_\_\_\_\_  
Signed: \_\_\_\_\_  
Dated: \_\_\_\_\_

**3.10 EXPERIENCE MODIFICATION RATE**

List your firm's Experience Modification Rate (EMR) for each of the past three premium years. An EMR is issued to your firm annually by your worker's compensation insurance carrier.

**Current Year:** \_\_\_\_\_

**Previous Year:** \_\_\_\_\_

**Year prior to Previous Year:** \_\_\_\_\_

If your EMR for any of these three years is or was 1.00 or higher you may, if you wish, attach a letter of explanation.

**3.11 PROPOSED SMALL BUSINESS CONTRACTORS**

The General Contractor shall submit the following information for each sub-contractor (as defined in Specification Section B8.18, Small Business and Subcontracting Participation Goal) that will be used in performing certain portions of the project. At a minimum, such information shall consist of the name and business address of each subcontractor, in addition to a brief description and percentage of the work to be performed by each subcontractor proposed for this project. The Contractor will not be allowed to substitute an approved subcontractor without prior written approval by the District. Additional numbered pages outlining this portion of the proposal may be attached to this page. Each page shall be headed Proposed Small Business Subcontractors, and shall be signed by the General Contractor.

Name	Business Address	Percentage of Work

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

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

Dated: \_\_\_\_\_

**SECTION A4 - PROPOSAL GUARANTY BOND**

(10% of Contract Price)

KNOW ALL PERSONS BY THESE PRESENTS:

THAT \_\_\_\_\_ hereinafter called the Principal, and \_\_\_\_\_ hereinafter called the Surety, are jointly and severally held and firmly bound unto the East Palo Alto Sanitary District, hereinafter call the Obligee, each in the penal sum of ten percent of the total amount of the bid proposal of the Principal for the work, this sum not to exceed \_\_\_\_\_ dollars of lawful money of the United States for the payment whereof unto the Obligee the Principal and Surety jointly and severally bind themselves forever by these presents.

WHEREAS the Principal is herewith submitting its offer for the fulfillment of the East Palo Alto Sanitary District contract for the SANITARY SEWER REPLACEMENT PROJECT as provided for in the Contract Documents.

NOW, THEREFORE, the condition of the obligation is such that if the Principal is awarded the contract, and if the Principal within the time specified in the proposal for such contract enters into, executes and delivers to the Obligee an agreement in the form provided herein complete with evidences of insurance, and if the Principal within the time specified in the proposal gives to the Obligee the performance bond on the form provided herein, then this obligation shall be void; otherwise, the Principal and Surety will pay unto the Obligee the difference in money between the total amount of the proposal of the principal and the amount for which the Obligee legally contracts with another party to fulfill the contract if the latter amount be in excess of the former, but in no event shall the Surety's liability exceed the penal sum hereof.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable under this obligation as Principal and that nothing of any kind of nature whatsoever that will not discharge the Principal shall operate as a discharge or a release of liability of the Surety.

IT IS HEREBY FURTHER DECLARED AND AGREED that this obligation shall be binding upon and inure to the benefit of the Principal, the Surety and the Obligee and their respective heirs, executors, administrators, successors and assigns.

SIGNED AND SEALED THIS \_\_\_\_\_ day of \_\_\_\_\_ 2023.

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

**SECTION A5 - AGREEMENT**

THIS AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_ 2023, by and between the East Palo Alto Sanitary District, San Mateo County, State of California, hereinafter called the "Owner" and \_\_\_\_\_ hereinafter called the "Contractor."

WITNESSETH:

WHEREAS the Owner has caused specifications, drawings and other contract documents to be prepared for certain work as described therein entitled: SANITARY SEWER REPLACEMENT PROJECT.

WHEREAS the Contractor has offered to perform the proposed work in accordance with the terms of the contract.

NOW, THEREFORE, in consideration of the mutual covenants and agreements of the parties herein contained and to be performed, the Contractor hereby agrees to complete the work described in the proposal at the price and on the terms and conditions herein contained, and the Owner agrees to pay the Contractor the contract price provided herein for the fulfillment of the work described in the proposal and the performance of the covenants set forth herein.

The further terms, conditions and covenants of the contract are set forth in the following exhibit parts each of which is attached hereto and by this reference made a part hereof:

- Part A Legal and Procedural Documents
- Part B General Conditions
- Part C Technical Specifications
- Part D Drawings, Schedule of Pipelines, and Traffic Information
- Part E Addenda

IN WITNESS WHEREOF, this agreement has been executed in quadruplicate this \_\_\_\_\_ day of \_\_\_\_\_ 2023.

EAST PALO ALTO SANITARY DISTRICT:

CONTRACTOR:

\_\_\_\_\_  
General Manager, Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Printed Name

Attest:

Attest:

\_\_\_\_\_  
Signature (Required)

\_\_\_\_\_  
Signature (Required)

**SECTION A6 - BOND OF FAITHFUL PERFORMANCE**

KNOW ALL PERSONS BY THESE PRESENTS, that, WHEREAS, the East Palo Alto Sanitary District, State of California, has awarded to \_\_\_\_\_ designated as the "Principal", a contract for the SANITARY SEWER REPLACEMENT PROJECT.

WHEREAS said Principal is required under the terms of said contract to furnish a bond for the faithful performance of said contract:

NOW, THEREFORE, WE the Principal, and \_\_\_\_\_

as Surety, are held and firmly bound unto the East Palo Alto Sanitary District, State of California, in the penal sum of \_\_\_\_\_ dollars (\$\_\_\_\_\_) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and faithfully perform the covenants, conditions and agreements in the said contract and any alterations made as therein provided, on his or their part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the East Palo Alto Sanitary District, its officers and agents as therein stipulated, then this obligation shall remain in full force and virtue and Principal and Surety, in the event suit is brought on this bond, will pay to the East Palo Alto Sanitary District such reasonable attorney's fees as shall be fixed by the court.

As a condition precedent to the satisfactory completion of the said contract, the above obligation in said amount shall hold good for a period of one (1) year after the completion and acceptance of the said work, during which time if the above bounden Principal, his or its heirs, executors, administrators, successors or assigns shall fail to make full, complete and satisfactory replacements or totally protect the East Palo Alto Sanitary District from loss or damage made evident during said period of one year from the date of acceptance of said work, and resulting from or caused by defective materials or faulty workmanship in the prosecution of the work done, the above obligation in the said sum shall remain in full force and effect. However, nothing in this paragraph to the contrary notwithstanding, the obligation of the Surety hereunder shall continue so long as any obligation of the Principal remains.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or to the specifications accompanying the same, shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

IN WITNESS WHEREOF the bounden parties have executed this instrument under their seals this \_\_\_\_\_ day of \_\_\_\_\_ 2023, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Seal) By: \_\_\_\_\_  
Principal

(Seal) By: \_\_\_\_\_  
Surety



**SECTION A7 - LABOR AND MATERIAL BOND**

KNOW ALL PERSONS BY THESE PRESENTS, that, WHEREAS, the East Palo Alto Sanitary District, State of California, has awarded to \_\_\_ hereafter designated as the "Principal", a contract for the SANITARY SEWER REPLACEMENT PROJECT.

WHEREAS said Principal is required to furnish a bond in connection and with said contract, providing that if said Principal or any of his or its subcontractors, shall fail to pay for any materials, provisions, provender, or other supplies or teams used in, upon, for or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind, the Surety of this bond will pay the same to the extent hereinafter set forth:

NOW, THEREFORE, WE, the Principal and \_\_\_\_\_ as Surety, are held and firmly bound unto the East Palo Alto Sanitary District, State of California, in the penal sum of \_\_\_\_\_ dollars (\$ \_\_\_\_\_) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, his or its heirs, executors, administrators, successors, or assigns, shall fail to pay for any materials, provisions, provender, or other supplies or teams used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor thereon of any kind or for amount due under the Employment Act with respect to such work or labor, as required by the provisions of Chapter 7, Title XV, Part 4, Division III of the Civil Code of the State of California, and provided that the persons, companies or corporations so furnishing said materials, provisions, provender, or other supplies, teams, appliances or power used, in, upon, of or about the performance of the work contracted to be executed or performed, or any person who supplies both work and materials thereto, shall have complied with the provisions of said Civil Code, then said Surety will pay the same in or to an amount not exceeding the amount hereinabove set forth, and also will pay in case suit is brought upon this bond, such reasonable attorney's fee to the East Palo Alto Sanitary District as shall be fixed by the court.

This bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under said Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or to the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

IN WITNESS WHEREOF the bounden parties have executed this instrument under their seals this\_ day of \_\_\_\_\_, 2023, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Seal) By: \_\_\_\_\_  
Principal

(Seal) By: \_\_\_\_\_  
Surety

# **Part B**

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## **General Conditions**

## **SECTION B1 - DEFINITIONS**

Whenever used in the Contract Documents, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:

### **1.01 ACT OF GOD**

"Act of God" means an earthquake, flood, cyclone or other cataclysmic phenomenon of nature. A rain, windstorm, high water or other natural phenomenon of unusual intensity for the specific locality of the work, which might reasonably have been anticipated from historical records of the general locality of the work, shall not be construed as an Act of God.

### **1.02 ADDENDA**

Written or graphic instruments issued before the Bid Opening which modify or interpret the Contract Documents, Drawings and Specifications, by additions, deletions, clarifications or corrections.

### **1.03 BIDDER**

Any person, firm or corporation submitting a Bid for the work.

### **1.04 BONDS**

Proposal Guaranty, Faithful Performance, and Labor and Material Bonds and other instruments of security, furnished by the Contractor and their surety in accordance with the Contract Documents.

### **1.05 CHANGE ORDER**

A written order to the Contractor authorizing an addition, deletion or revision in the work within the general scope of the Contract Documents, or authorizing an adjustment in the Contract Price or Contract Time.

### **1.06 CONTRACT**

"Contract" means and includes the agreement as set forth in Section A5.

### **1.07 CONTRACT DOCUMENTS**

The contract, including Part A - Legal and Procedural Documents; Part B - General Conditions; Part C - Technical Specifications; Part D - Drawings, Schedule of Pipelines, and Traffic Information; Part E - Sanitary Sewer Inspection Reports.

### **1.08 CONTRACT DRAWINGS**

"Contract drawings" or "drawings" means and includes (a) all drawings which have been prepared on behalf of the District and which are included in Part D of the contract documents and all modifying drawings issued by addendum thereto; (b) all drawings submitted pursuant to the terms of the contract by the Contractor with their proposal and by the Contractor to the District during the progress of the work; and (c) all drawings submitted by the District to the Contractor during the progress of the work.

**1.09 CONTRACT PRICE**

The total monies payable to the Contractor under the terms and conditions of the Contract Documents.

**1.10 CONTRACT TIME**

The number of calendar days stated in the Contract Documents for the completion of the work.

**1.11 CONTRACTOR**

The person, firm or corporation with whom the District has executed the Agreement.

**1.12 CONTRACTOR'S PLANT AND EQUIPMENT**

"Contractor's plant and equipment" means everything, except labor, brought onto the site by the Contractor in order to carry out the work, but not to be incorporated in the work.

**1.13 DAY**

"Day" means a calendar day of 24 hours.

**1.14 DEPARTMENT, DISTRICT, OR EPASD**

All references to Department, District, or EPASD in the Contract Documents shall be construed to mean the East Palo Alto Sanitary District (EPASD) as defined in the Notice Requesting Bids.

**1.15 DIRECTED**

"Directed", "designated", "permitted", "required", "accepted", and words of like import, wherever and in whatever manner used, with or without reference to the District, means as directed, designated, permitted, required, and accepted by the District.

**1.16 DIRECTOR**

All references to "Director" shall be construed to mean the District General Manager in the Contract Documents.

**1.17 DRAWINGS**

Contract Drawings or drawings include all drawings which are (a) included in the contract documents and all modifying drawings issued by addenda; (b) all drawings submitted by the Contractor, when accepted by the District; and (c) all drawings submitted by the District to the Contractor during the progress of the work.

**1.18 ENGINEER**

The person, firm, company or corporation named as such in the Contract Documents.

**1.19 FIELD ORDER**

A written order effecting a change in Work not involving an adjustment in the Contract Price or an extension of the Contract Time, issued by the District to the Contractor during construction.

**1.20 HEREIN**

"Herein", "hereinafter" and words of similar import shall refer to the contract documents.

**1.21 INSTALL**

"Install", wherever and in whatever manner used, shall mean the installation complete in place of an item of equipment

**1.22 MASCULINE GENDER**

Masculine gender words include the feminine and non-binary.

**1.23 MAY**

"May", wherever and in whatever manner used, is permissive.

**1.24 NOTICE OF AWARD**

The District will issue a written notice of acceptance of the Proposal to the successful Bidder.

**1.25 NOTICE TO PROCEED**

The District will issue written communication to the Contractor authorizing work to proceed and establishing the date of commencement of the Work.

**1.26 OWNER OR DISTRICT**

"Owner" or "District", as described in Contract Documents, shall be the East Palo Alto Sanitary District, or any person or persons to whom the power belonging to the District shall be duly delegated.

**1.27 PERSON**

"Person" includes firms, companies and corporations.

**1.28 PROPOSAL**

The offer or bid of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

**1.29 PROVIDE**

"Provide", wherever and in whatever manner used, shall be understood to mean provide complete in place, that is, furnish, implement, or install.

### **1.30 RESIDENT ENGINEER**

The authorized field representative of the District who is assigned to the work site or any part thereof.

### **1.31 SHALL OR WILL**

"Shall" or "will", whenever used to stipulate anything, means shall or will be done or be performed by either the Contractor or the District and means that the Contractor or the District has thereby entered into a covenant with the other party to do or perform the same. "Shall" designates work requirements to be undertaken by the Contractor, unless specifically designated otherwise. "Will" designates work requirements to be undertaken by the District, unless specifically designated otherwise.

### **1.32 SHOP DRAWINGS**

All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the Contractor, a Subcontractor, Manufacturer, Supplier or Distributor, which illustrate how specific portions of the Work shall be fabricated or installed.

### **1.33 SHOWN**

"Shown", "indicated", "detailed", and words of like import, wherever and in whatever manner used, with or without reference to the drawings, means shown, indicated or detailed on the drawings.

### **1.34 SINGULAR**

Singular words include the plural.

### **1.35 SPECIFICATIONS**

A part of the Contract Documents consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.

### **1.36 SPECIFIED**

"Specified", "described", or "noted", wherever and in whatever manner used, means as specified, described or noted in the Contract Documents.

### **1.37 SUBCONTRACTOR**

An individual, firm or corporation having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the Work at the site.

### **1.38 SUBMITTED**

"Submitted", wherever and in whatever manner used, means submitted to the District for acceptance.

### **1.39 SUBSTANTIAL COMPLETION**

That date, as certified by the District, when the construction of the work or any part thereof is sufficiently completed, in accordance with the Contract Documents, so that the Work or specified part can be utilized for the purposes for which it is intended.

**1.40 SUFFICIENT**

"Sufficient", "necessary", or "proper", "acceptable", "satisfactory", "desirable", and words of like import, wherever and in whatever manner used, with or without reference to the District, means sufficient, necessary, proper, acceptable, satisfactory and desirable in the judgment of the District.

**1.41 SUPPLIER**

Any person or organization who supplies materials or equipment for the Work, including that fabricated to a special design, but who does not perform labor at the site.

**1.42 THE WORK**

"The work" means and includes anything and everything to be done for the execution, completion and fulfillment of the contract to the satisfaction of the District.

## **SECTION B2 - DISTRICT-ENGINEER-CONTRACTOR RELATIONS**

### **2.01 AUTHORITY OF DISTRICT**

The work and the manner of performing the same shall be done to the entire satisfaction and approval of the District. The District will be the sole judge of the work and materials with respect to both quantity and quality.

The contract documents do not purport to control the method of performing the work but only the requirements as to the nature of the completed work. The Contractor shall assume the entire responsibility for methods of performing the work.

### **2.02 AUTHORITY OF THE ENGINEER**

The Engineer is a representative of the District and is employed to act as consultant to the District in engineering matters relating to the contract. The District and the Engineer have authority under this contract to determine the amount, quality, acceptability and fitness of the several kinds of work, material and equipment which are to be paid for under the contract; to decide all questions relative to the true construction, meaning and intent of the contract documents; to decide all questions relative to the classification and measurements of quantities and materials and the fulfillment of this contract, and to reject or condemn all work or material which does not conform to the terms of this contract.

Any reference herein to authority of the Engineer is applicable only if the Engineer has been specifically designated in writing by the District and is exercising full-time inspection of construction, otherwise such authority shall be the authority of the District who shall be fully responsible for the results of this decision.

### **2.03 OBSERVATION OF WORK**

The Contractor shall provide the District and the Engineer, as often as they may deem it expedient, access to the work and to the site of the work and to all places where work is being prepared or whence materials, equipment or machinery are being obtained or used for the work. The Contractor shall afford every facility and every assistance in obtaining the right of such access and shall give the District and the Engineer any and all information requested by them in connection therewith.

If the contract documents, the District's instructions, laws, ordinances or any public authority require any part of the work to be specially observed, tested or approved, the Contractor shall give the District adequate prior written authority. The Contractor shall designate, open for observation any part of the work which has been covered up; and should the Contractor, refuse or neglect to comply with such request, the District may employ any other person to open up the same or to do itself. If any of the parts of the work have been covered up in contravention of the District's instructions, or if on being opened up it is found not to be in accordance with the terms of the contract documents, the expense of the opening and covering up again, whether done by the Contractor or not, shall be charged up to the Contractor. If the work has been covered up but not in contravention of the District's instructions and if found to be in accordance with the terms of the contract documents, the actual necessary expense of opening and covering up again shall be borne by the District and if the work of opening and covering up is done by the Contractor, it shall be considered as extra work and paid for accordingly.

### **2.04 RIGHT TO ISSUE CHANGE ORDERS**

If for any reason it may become desirable during the course of the work to change the alignment, dimensions or design of the work, the District reserves the right to issue change orders in writing to give effect to such



changes as may be necessary or desirable. The changes may or may not result in a change in the amount of work. When the Contractor considers that any change in writing by the District involves extra work, he shall immediately notice the District in writing and shall subsequently keep the District informed as to when and where extra work is to be performed and shall make claim for compensation therefore each month not later than the first day of the month following that in which the work claimed as extra work was performed. If the changes do, in the opinion of the District, change the amount of work, the contract price shall be adjusted as extra work or work and material omitted, as the case may be.

The District may instruct the Contractor in writing to make minor changes in the construction where such changes are, in the opinion of the District, not inconsistent with the purposes of the contract documents and where such changes do not involve additional cost for the work to be furnished. The Contractor shall make no such minor changes without receipt of written District's instruction setting forth the minor change to be made and the Contractor's compliance therewith shall constitute his acknowledgement that such minor change will not result in any additional cost for construction.

## **2.05 HEADINGS**

Headings to parts, sections, forms, articles and sub-articles are inserted for convenience of reference only and shall not affect the interpretation of the contract documents.

## **2.06 SUCCESSOR'S OBLIGATION**

All grants, covenants, provisions and claims, rights, powers, privileges, and liabilities contained in the contract documents shall be read and held as made by and with and granted to and imposed upon the Contractor and the District and their respective heirs, executors, administrators, successors and assigns.

## **2.07 CONTRACTOR'S PLANT AND EQUIPMENT**

The Contractor alone shall at all times be responsible for the adequacy, efficiency and sufficiency of their and their subcontractor's plant and equipment.

The Contractor shall at all times be responsible for the security of their plant and equipment. The District will not take any responsibility for missing or damaged equipment, tools or personal belongings.

## **2.08 COOPERATION**

The District, or other contractors performing work on behalf of the District, will be at liberty to enter upon the site of the work with workmen and materials to do work, and the Contractor shall afford any such workmen all reasonable facilities and cooperation to the satisfaction of the District. The Contractor shall make good promptly any injury or damage that may be sustained by other contractors or employees of the District at his hands. The Contractor shall join his work to that of others and perform his work in proper sequence in relation to that of others to the satisfaction of the District.

Any difference or conflict arising between the Contractor and any other contractor employed by the District, or between the Contractor workmen and those of the District with regard to their work, shall be submitted to the District and the Contractor shall abide by its decision in the matter. If the work of the Contractor is delayed because of any facts or omissions of any other contractor or of the District, the Contractor shall on that account have no claim against the District other than for an extension of time.

## **2.09 ASSIGNMENT OF CONTRACT**

The contract shall not be assigned in whole or in part without the written consent of the District.

## **2.10 SUBCONTRACTS**

The Contractor shall perform with his own organization not less than one-half of the work and shall not sublet to one subcontractor more than one-third of the work without the previous written consent of the District. No subcontractor will be recognized as such, and all persons engaged in the work will be considered as employees of the Contractor and their work shall be subject to the provisions of the contract. When it is stated in the contract documents that a subcontractor, manufacturer; or a supplier or any other person than the Contractor, the District or the Engineer shall do something, it means that the Contractor shall cause such person to do that thing.

## **2.11 CONTRACTOR'S EMPLOYEES AND SUBCONTRACTORS**

The Contractor shall at all times be responsible for the adequacy, efficiency, and sufficiency of his employees and any subcontractor or persons employed by the subcontractors. All workmen must have sufficient knowledge, skill, and experience to perform properly the work assigned to them.

## **2.12 ATTENTION TO WORK**

The Contractor shall give his personal attention to and shall supervise the work to the end that it shall be prosecuted faithfully, and when he is not personally present on the work, he shall at all times be represented by a competent superintendent who shall receive and obey all instructions or orders given under the contract, and who shall have full authority to execute the same, and to supply materials, tools, and labor without delay, and who shall be the legal representative of the Contractor. The Contractor shall be liable for the faithful observance of any instructions delivered to him or to his authorized representative.

## **2.13 SERVICE OF NOTICES**

Any notice, order, direction, request or other communication given by the District to the Contractor under the contract shall be deemed to be well and sufficiently given to the Contractor if left at any office used by the Contractor, or delivered to any of his officers, clerks or servants or posted on the site of the work, or mailed in any post office addressed to the Contractor at the address mentioned in the contract, or at the Contractor's last known place of business, and if mailed, shall be deemed to have been given to and received by the Contractor a day after the day of mailing in any post office in the vicinity of the work.

## **2.14 DEVIATION FROM CONTRACT**

The Contractor shall not make any alteration or variation in or addition to or deviation or omission from the terms of this contract without the written consent of the District.

## **2.15 SUGGESTIONS TO CONTRACTOR**

Any plan or method of work suggested by the District to the Contractor but not specified or required, if adopted or followed by the Contractor in whole or in part shall be used at the risk and responsibility of the Contractor; and the District shall assume no responsibility therefore and in no way be held liable for any defects in the work which may result from or be caused by use of such plan or method of work.

**2.16 JOINT VENTURE CONTRACTOR**

In the event the Contractor is a joint venture of two or more contractors, all grants, covenants, provisions and claims, rights, power, privileges and liabilities of the contract shall be construed and held to be several, as well as joint; and notice, order, direction, request or other communication required to be or that may be given by the District to the Contractor under this agreement, shall be well and sufficiently given to all persons being the Contractor if given to any one or more of such persons; any notice, request or other communication given by any one of such persons to the District under this agreement shall be deemed to have been given by and shall bind all persons being the Contractor.

**2.17 WAIVER OF RIGHTS BY DISTRICT**

No action or want of action on the part of the District at any time to exercise any right or remedies conferred upon it under this contract shall be deemed to be a waiver on the part of the District of any of its rights or remedies.

## **SECTION B3 - SPECIFICATIONS AND DRAWINGS**

### **3.01 GENERAL**

The Contractor shall keep at the work site a copy of the Contract Documents including all supplements, Addenda, Change Orders, Shop Drawings, Submittals, Material Samples, Traffic Control Plans, and Engineer's Supplemental Instructions and Material Data or equals to which the District shall have access to at all times.

### **3.02 INTERPRETATION OF SPECIFICATIONS AND DRAWINGS**

The Specifications and the drawings are intended to be explanatory of each other. Any work indicated in the drawings and not in the specifications, or vice-versa, shall be executed as if indicated in both. As the figured dimensions shown on the drawings and in the specifications of the contract may not, in every case, agree with scale dimensions, the figured dimensions shall be followed in preference to the scaled dimensions. Should it appear that the work to be done, or any of the matters relative thereto are not sufficiently detailed or explained in the contract documents, the Contractor shall apply to the Engineer for such further explanations as may be necessary and shall conform thereto as part of the contract so far as may be consistent with the terms thereof. In the event of any doubt or question arising respecting the true meanings of the specifications or drawings, reference shall be made to the Engineer and his decision thereon shall be a condition precedent to an appeal to the District.

### **3.03 PRECEDENCE OF CONTRACT DOCUMENTS**

If there is a conflict between Contract Documents, the document highest in precedence shall control. The precedence shall be:

1. Permits from other agencies as may be required by law.
2. Section B8 - Special Provisions.
3. Part C - Technical Specifications.
4. Drawings and Schedule of Pipelines
5. General Conditions as stated in Part B of these Specifications.
6. Standard Specifications.

Change Orders, Supplemental Agreements and approved Revisions to Plans and Specifications will take precedence over Items 2 through 6 above. Detailed plans shall have precedence over general plans.

The Contract Documents of the highest precedence shall in no way nullify non-conflicting portions of the Contract Documents of lower precedence.

### **3.04 ERRORS AND OMISSIONS**

If the Contractor, in the course of the work, becomes aware of any errors or omissions in the contract documents, Contractor shall immediately inform the District and the Engineer. As may be needed, District or Engineer will rectify the matter and advise the Contractor accordingly. Any work done after such discovery, until authorized, will be done at the Contractor's risk.

### **3.05 STANDARD SPECIFICATIONS**

The standard specifications, codes, standards, recommended practices and abbreviations used in the contract documents are listed in Section B8.02. Whenever a standard specification, code or recommended practice is referred to, it shall be the latest edition of that specification, code or recommended practice, unless specifically stated otherwise and it shall be considered to be a part of the contract documents insofar as it applies.

### **3.06 SHOP DRAWING AND SAMPLE SUBMITTALS**

The Contractor shall furnish all drawings, specifications, descriptive data, plans, certificates, samples, tests, methods, schedules and manufacturer's instructions as specifically required in the specifications and all other information as may reasonably be required to demonstrate fully that the materials and equipment to be furnished and the methods of work comply with the provisions and intent of the specifications and drawings. If the information shows any deviation from the contract requirements, the Contractor shall, by a statement in writing accompanying the information, advise the District of the deviation and state the reason therefore. It shall be the Contractor's responsibility to ensure there is no conflict with other submittals and to notify the District in any case where his submittal may concern work by another contractor or the District. He shall also ensure coordination of submittals among all related crafts. Information shall be submitted in time to allow two weeks to review and return to the Contractor without interfering with the accepted construction schedule.

Samples are physical examples furnished by the Contractor to illustrate the quality of materials, equipment or workmanship, and to establish standards by which the work will be judged.

Shop drawings or information regarding materials and equipment shall be submitted in 5 copies, two of which will be returned to the Contractor after appropriate action.

### **3.07 REVIEW OF CONTRACTOR'S SUBMITTALS**

The Contractor must review all Shop Drawings and Samples prior to submittal to the District. The District will review Shop Drawings and Samples with reasonable promptness so as to cause no delay, but only for conformance with the design concept of the Work and with the information given in the Contract Documents. The District's review of a separate item shall not indicate review of an assembly in which the item functions.

The Contractor shall make any corrections required by the District and shall resubmit the required number of corrected copies of Shop Drawings or new Samples if resubmittal is indicated. The Contractor shall direct specific attention in writing or on resubmitted shop drawings to revisions.

The Contractor shall review, stamp with his approval and submit with reasonable promptness, and in orderly sequence, so as to cause no delay in the work or in the work of any other contractor, all Shop Drawings and Samples required by the Contract Documents or subsequently by the District as covered by Field or Change Orders. Shop Drawings and Samples shall be properly identified as specified, or as the District may require. At the time of submission, the Contractor shall inform the District in writing of any deviation in the Shop Drawings or Samples from the requirements of the Contract Documents.

By approving and submitting Shop Drawings and Samples, the Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalog numbers and similar data, or will do so, and that he has checked and coordinated each Shop Drawing and Sample with the requirements of the Work and of the Contract Documents.

**3.08 EFFECT OF ACCEPTANCE OF CONTRACTOR'S SUBMITTALS**

The District's review of Shop drawings or Samples will not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents unless the Contractor has informed the District in writing of such deviation at the time of submission and the District has given written approval to the specific deviation, nor shall the District's review relieve the Contractor from responsibility for errors or omissions in the Shop Drawings or Samples.

NO PORTION OF THE WORK REQUIRING A SHOP DRAWING OR SAMPLE SUBMISSION SHALL BE COMMENCED UNTIL THE SUBMISSION HAS BEEN SATISFACTORILY REVIEWED BY THE DISTRICT. All such portions of the work shall be in accordance with approved Shop Drawings or Samples.

**SECTION B4 – NOT USED**

## **SECTION B5 - LEGAL RESPONSIBILITY, SAFETY AND INSURANCE**

### **5.01 RESPONSIBILITY OF CONTRACTOR**

The work shall be under the Contractor's responsible care and charge. The Contractor shall bear all loss and damage whatsoever and from whatsoever cause, except that caused solely by the act of the District which may occur on or to the work during the fulfillment of the contract. If any loss or damage occurs, the Contractor shall immediately make good any such loss or damage, and in the event of the Contractor refusing or neglecting to do so, the District may itself or by the employment of some other person, make good any such loss or damage, and the cost and expense of so doing shall be charged to the Contractor.

The mention of any specific responsibility or liability imposed upon the Contractor shall not be construed as a limitation or restriction of any general liability or duty imposed upon the Contractor by the contract, the reference to any specific duty or liability being made herein merely for the purpose of explanation.

The Contractor alone shall at all times be responsible for the safety of his and his subcontractor's employees, and for his and his subcontractor's plant and equipment and the method of prosecuting the work.

### **5.02 LIABILITY OF CONTRACTOR**

Contractor hereby agrees to defend, indemnify and save harmless the District and the Engineer and their respective Boards, officers, agents and employees of and from any and all claims, suits or actions of every name, kind and description which may be brought against their respective Boards, officers, agents or employees by reason of any injury to or death of any person or property damage suffered or sustained by any person or corporation caused by, or alleged to have been caused by, any act or omission, negligent or otherwise, of Contractor, their officers, agents or employees in the performance of any work required of the Contractor by this Agreement. The District shall not be deemed to have waived rights it may have against Contractor because of the acceptance by the District of any of the insurance policies described in this Agreement.

The duty of Contractor to indemnify and save harmless, as set forth herein, shall include a duty to defend as set forth in Section 2778 of the California Civil Code; provided, however, that nothing herein shall be construed to require Contractor to indemnify the District and the Engineer and their respective Boards, officers, agents and employees against any responsibility or liability in contravention of Section 2782 of the California Civil Code.

### **5.03 LAWS, REGULATIONS AND PERMITS**

The Contractor shall give all notices required by law and comply with all laws, ordinances, rules and regulations pertaining to the conduct of the work. The Contractor shall be liable for all violations of the law in connection with work furnished by the Contractor. If the Contractor observes that the drawings or specifications are at variance with any law, ordinance, rule or regulation, he shall promptly notify the District in writing and any necessary changes shall be made by instruction or change order. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations and without giving such notice to the District, the Contractor shall bear all costs arising therefrom.

Unless otherwise specified, permits and licenses that are required only for and during the prosecution of the work and the subsequent guaranty period thereafter shall be secured and paid for by the Contractor. Those permits and licenses of regulatory agencies which are necessary to be maintained after the completion of the guaranty period of the contract will be secured and paid for by the District.

#### **5.04 PATENTS AND ROYALTIES**

All costs involved in fees, royalties or claims for any patented invention, article, process or method that may be used upon or in any manner connected with the work under the contract or the use of the completed work by the District shall be paid by the Contractor and the Contractor and his sureties shall protect and hold the District, together with all of its officers, agents, servants and employees, harmless against any and all demands made for such fees or claims, brought or made by the holder of any invention or patent, and before the final payment is made on the account of the contract, the Contractor shall, if requested by the District, furnish acceptable proof of a proper release from all such fees or claims.

Should the Contractor, his agent, servants or employees, or any of them be enjoined from furnishing or using any invention, article, material or plans supplied or required to be supplied or used under the contract, the Contractor shall promptly substitute other articles, materials or appliances in lieu thereof of equal efficiency, quality, finish, suitability, and market value, and satisfactory in all respects to the District. Or in the event that the District elects, in lieu of such substitution, to have supplied and to retain and use any such invention, article, material or plans as may by the contract be required to be supplied, in that event, the Contractor shall pay such royalties and secure such valid licenses as may be requisite and necessary for the District, its officers, agents, servants and employees, or any of them to use such invention, with by any proceeding in law or equity on account thereof. Should the Contractor neglect or refuse to make the substitution promptly or to pay such royalties and secure such licenses as may be necessary, then in that event the District shall have the right to make such substitution or the District may pay such royalties and secure such licenses and charge the Contractor even though final payment under the contract may have been made.

#### **5.05 PUBLIC SAFETY AND CONVENIENCE**

The Contractor shall at all times so conduct his work as to insure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work, and to insure the protection of persons and property. No road or street shall be closed to the public except with the permission of the District and proper governmental authority. Fire hydrants on or adjacent to the work shall be kept accessible to fire fighting equipment at all times. Temporary provisions shall be made by the Contractor for the use of sidewalks and private and public driveways, and the proper functioning of all gutters, sewer inlets, drainage ditches and culverts, irrigation ditches, natural watercourses, mailboxes, trash collection, and other public uses.

#### **5.06 GENERAL SAFETY**

In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours.

The duty of the District is to conduct construction review of the Contractor's work. This is not intended to include review of the adequacy of the Contractor's safety measures, in, on or near the construction site.

In accordance with Section 6705 of the Labor Code, the Contractor shall submit to the District a detailed plan showing the design of the shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. Additionally, the Contractor is referred to the miscellaneous safety requirements contained in Chapter 9, Part I, Division 5, Sections 6700 through 6708 of the Labor Code.

In areas concerning the safety of the public and/or employees, whenever two or more laws, regulations, or



standards apply, the more restrictive of those laws, regulations, or standards shall govern.

### **5.07 LABOR, MATERIAL AND PERFORMANCE BONDS**

The Contractor shall furnish two bonds each in the amount of 100 percent of the contract price, one as security for the faithful performance of the work, and the other as security for the faithful payment and satisfaction of all persons furnishing materials and performing labor on the work. The Contractor shall use the bond forms found in Sections A6 and A7 of these contract specifications. However, the scope of the bonds or the bond forms prescribed in those Sections shall in no way affect or alter the liabilities of the Contractor to the District under Article B5.02.

The bonds shall be issued by a corporation which is listed in the latest Form 356 of the United States Treasury Department as being acceptable as surety on Federal bonds and is duly licensed and admitted by the State of California to be surety insurer in the State.

Notwithstanding the language of the preceding paragraph, the District may disqualify the Contractor's proposed surety if the District has cause to believe the surety is likely to be incapable of fulfilling its obligations under the bonds.

The bonds shall remain in force throughout the period required to complete the work and thereafter for a period of 30 days after final completion and acceptance of the work by the District to cover any defects in workmanship, materials, or equipment which develop in that time.

### **5.08 PUBLIC LIABILITY INSURANCE**

The Contractor shall take out and maintain Broad Form Comprehensive General Liability or Commercial General Liability Insurance, and Code 1 or "Any Auto" Business Automobile Liability Insurance policies in amounts for each policy of not less than:

1. Two Million Dollars (\$2,000,000.00) for injury to or death of any one person and, subject to that limitation for the injury to or death of one person of not less than Five Million Dollars (\$5,000,000.00) for injury to or death of two or more persons as a result of any one accident or occurrence, with personal or bodily injury aggregate in an amount not less than Five Million Dollars (\$5,000,000.00).
2. Five Hundred Thousand Dollars (\$500,000.00) for damage to or destruction of any property of others, with property damage insurance aggregate in an amount not less than One Million Dollars (\$1,000,000.00).

Policies shall provide coverage for property damages, personal injuries, bodily injuries or death suffered or alleged to have been suffered by any person or persons by reason of or in the course of operations under the contract, whether occurring by reason of acts or omissions of the Contractor or any subcontractor or both.

1. General Liability – Insurance services office commercial general liability coverage (occurrence form CG0001); and
2. Auto Liability – Insurance service office form number CA0001 (ED. 1/87), code 1, any auto.

Such insurance shall be maintained until final acceptance of the work by the District and shall continue for a period of 30 days after acceptance of the work by the District. The general liability insurance policy required by this Article shall include explosion or collapse of any performed underground excavation.

The above liability insurance policies shall also cover the District, its Board, officers, agents, employees, volunteers, the City of East Palo Alto, San Mateo County, servants of the Contractor, the Contractor's subcontractors, and the Engineer as additional insured.

The liability insurance policies required under this Article, shall contain, or be endorsed to contain, the following other provisions:

1. The Contractor's insurance coverage shall be primary insurance. Any insurance or self-insurance maintained by the District, its Board, officers, agents, employees, volunteers, the City of East Palo Alto, San Mateo County, servants of the Contractor, the Contractor's subcontractors, and the Engineer shall be excess insurance only.
2. The Contractor's insurance coverage shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.
3. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the District, its Board, officers, agents, employees, volunteers, the City of East Palo Alto, San Mateo County, servants of the Contractor, the Contractor's subcontractors, and the Engineer.
4. The Contractor's liability insurance coverage shall not be suspended, voided, canceled, reduced in coverage or in limits except after forty-five (45) days' prior written notice by certified mail, return receipt requested, has been given to the District.

The Contractor shall require all subcontractors, whether primary or secondary, if any, to take out and maintain General Liability and Business Automobile Liability in the amounts set out in this Article.

#### **5.09 WORKER'S COMPENSATION INSURANCE**

The Contractor and all subcontractors shall cover or insure under the applicable laws relating to worker's compensation or employer's liability insurance, all of their employees working on or about the construction site, regardless of whether such coverage or insurance is mandatory or merely elective under the law, and the Contractor shall defend, protect and save harmless the District from and against all claims, suits and actions arising from any failure of the Contractor or any such subcontractor to maintain such insurance.

In accordance with the provisions of Section 1860 of the California Labor Code, the Contractor's attention is directed to Section 3700 of the California Labor Code which requires every contractor to secure the payment of compensation of his or her employees.

In accordance with the provisions of Section 1861 of the California Labor Code, the Contractor shall sign and file with the District the following certification prior to performing the work of the contract: "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's 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."

#### **5.10 BUILDER'S RISK INSURANCE**

The Contractor shall be responsible for all loss, damage or destruction whatsoever to the work performed under this contract. The District will not be responsible for any such loss, damage or destruction to the work during the fulfillment of the contract and the District will not secure builder's risk insurance covering risks of such loss for the benefit of the Contractor. The Contractor, at Contractor's option, may secure builder's risk (all physical loss) insurance or equivalent multiple peril direct damage insurance covering all or any part of the work performed under this contract and any materials, equipment or other items to be incorporated therein while the same are located at the construction site. If obtained, the policies providing such insurance shall name the District and the Engineer as additional insureds as their respective interests may appear, and certified copies of such policies shall be filed with the District.

**5.11 EVIDENCE AND CANCELLATION OF INSURANCE, AND INSURER QUALIFICATIONS**

Prior to execution of the contract, the Contractor shall file with the District evidences of insurance from the insurer certifying to the coverage of all insurance required herein. All evidences of insurance shall be certified by a properly authorized officer, agents, general agent or qualified representative of the insurer and shall certify the names of the insured, the type and amount of the insurance, the location and operations to which the insurance applies, the expiration date, and that the insurer will give, by registered mail, notice to the District at least 45 days prior to the effective date of any cancellation, lapse or material change in the policy.

The Contractor shall deliver to the District all such policy or policies of insurance, endorsements and the receipt for payment of premiums thereon; and should the Contractor neglect to obtain and maintain in force any such insurance or deliver such policy or policies, endorsements and receipts to the District, then it shall be lawful for the District to obtain and maintain such insurance, and the Contractor hereby appoints the District his true and lawful attorney to do all things necessary for this purpose. All money expended by the District for insurance premiums under the provisions of this Article shall be charged to the Contractor.

All insurance required by this contract shall be placed with insurers qualified by the State of California to do business in California as insurers, and all of the insurers shall have a current A.M. Best's Rating of no less than A:VII.

Notwithstanding the language of the preceding paragraph, the District may disqualify an insurer proposed to provide insurance coverage required by these contract specifications if the District has cause to believe the insurer is likely to be incapable of providing that insurance coverage.

**5.12 OBSERVING ORDINANCES AND CODES**

The Contractor shall observe all applicable ordinances, rules, regulations and codes of the City, the County and/or the State (whichever shall have jurisdiction) in relation to disposal of waste material, obstruction of streets, keeping open passageways, and protecting the same where they are exposed or dangerous to travel, and other ordinances, rules regulations and codes relating to the comfort and convenience of the public.

## **SECTION B6 - PROGRESS AND COMPLETION**

### **6.01 NOTICE TO PROCEED**

Within Thirty (30) days after the execution of the contract (subject to the receipt of an approved work schedule, approved plan of work, approved by-pass plan, and approved traffic control plans), written notice to proceed will be given by the District to the Contractor. Notwithstanding, any other provision of the contract, the District shall not be obligated to accept or to pay for any work furnished by the Contractor prior to delivery of notice to proceed whether or not the District has knowledge of the furnishing of such work.

### **6.02 CONTRACT TIME**

Time is of the essence. The Contractor shall promptly begin the work under the contract and all portions of the project made the subject of the contract shall be begun and continuously prosecuted without interruption such that they shall be completed and ready for full use in the time stated in Article B8.04.

### **6.03 CONSTRUCTION SCHEDULE**

Contractor shall implement the work in Bid Schedule A prior to beginning the field work of Bid Schedule B. It is intended to complete the work in the vicinity of surface water bodies before the rainy season anticipated to begin in October 2023. If for any reason, Contractor cannot perform Schedule A first, the contract may be discontinued at the discretion of the District.

After execution of the contract, the Contractor shall submit, within 10 days, a proposed construction schedule indicating the various subdivisions of the work and the dates of commencing and finishing each. The schedule shall be of the bar chart form and shall show the time allowed for testing and other required procedures prior to the work being put into operation.

The Contractor shall immediately advise the District of any proposed changes in their submitted construction schedule. If, in the opinion of the District, any construction schedule, as submitted, is inadequate to insure the completion of the work within the time limited therefore, or is otherwise not in accordance with the specifications, or if the work is not being adequately or properly prosecuted in any respect, the District, without prejudice to the District's rights under the contract, will have the right to require the Contractor to submit a new construction schedule providing for proper and timely completion of the work. If the Contractor fails to adhere to the accepted construction schedule as modified by any extension of time as prescribed in Article B6.12 - Extension of Time, the District may at any time withhold from the Contractor the amount set forth in Article B8.05 - Amount of Damages for Delay, each day they are behind schedule as of each progress payment date. When the Contractor regains adherence to the accepted construction schedule, amounts so withheld will be released and paid to the Contractor.

### **6.04 UNFAVORABLE WEATHER AND OTHER CONDITIONS**

During unfavorable weather, the Contractor shall pursue only such portions of the work as shall not be damaged thereby. No portions of the work, the satisfactory quality or efficiency of which will be affected by any unfavorable conditions, shall be undertaken or constructed while those conditions remain, unless the Contractor shall be able to overcome them by special means or precautions acceptable to the District.

### **6.05 UNUSUAL MATERIALS IN EXCAVATIONS**

While digging trenches or excavating, the Contractor shall promptly, and before the following conditions are disturbed, notify the District in writing of any:

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

2. subsurface or latent physical conditions at the site differing from those indicated, or
3. unknown physical conditions at the site, of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.

The District shall promptly investigate the conditions, and if it finds that the conditions do materially so differ or do involve hazardous waste, or cause a decrease or increase in the Contractor's cost of or the time required for performance of any part of the work shall issue a change order under the procedures described in Article B7.03.

In the event that a dispute arises between the District and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by the contract, but shall proceed with all work to be performed under the contract. The Contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the contracting parties.

#### **6.06 SUSPENSION OF WORK BY DISTRICT**

The District may at any time suspend work, or any part thereof; by giving five days' notice to the Contractor in writing. The Contractor shall resume the work within ten days after receiving written notice from the District to do so.

If such suspension increases the cost of work, the Contractor shall be entitled to claim for extra compensation. The amount of extra compensation shall be as determined by the District.

If the District does not give notice in writing to the Contractor to resume work at a date within 30 days of the date of the written notice to suspend, then the contract shall be assumed to have been terminated and the Contractor shall be entitled to such compensation as indicated in Article B6.07 - Termination of Contract by the District.

#### **6.07 TERMINATION OF CONTRACT BY THE DISTRICT**

The District may at any time terminate the contract by notice in writing to the Contractor. On receipt of such notice, the Contractor shall immediately discontinue the work but shall do such extra work as is ordered therein to safeguard the work then completed and the materials and equipment then delivered to the site of the work, and do such other extra work as may be ordered by the District for the purpose of leaving the work in a safe and useful condition. Payment for this extra work shall be made in the manner set forth in Article B7.03.

Forthwith upon the District giving such notice of termination, the District shall estimate the value of all the work done up to the time of the receipt of such notice and the Contractor shall be entitled to and shall receive payment therefore in the manner provided in the contract. On completion, to the satisfaction of the District of any extra work, the contract shall be deemed to be at an end and of no further force or effect and the Contractor shall have no claim against the District for any reason whatsoever by reason of the termination of the contract.

For the purpose of this article, "all of the work done" includes all materials ordered by the Contractor prior to the date of receipt of such notice of termination, whether or not they have been delivered to the site of the work. The amount of payment for all such materials under this article shall be the actual necessary cost to the Contractor up to the date of receipt of such notice of termination. Upon receipt of such notice of termination, all the Contractor's right, title and interest in and to the materials mentioned in this article shall be vested in the

District, and the Contractor shall upon demand of the District, execute and deliver to the District all requisite bills of sale, assignments and other documents of transfer that may be necessary to give effect to the intention of this article.

**6.08 TERMINATION OF CONTRACT BY CONTRACTOR**

If the work should be stopped by order of any court or public authority, other than the District for a period of 90 days or more through no act or fault of the Contractor, anyone employed by him or any of his subcontractors, then the Contractor may terminate the contract ten days after written notice to the District. Forthwith upon the termination of the contract, the District shall estimate all of the work done up to the time of such termination and the Contractor shall be entitled to and shall receive payment therefore in the manner provided in the contract. The Contractor shall be entitled to no further payment whatsoever for the work.

For the purpose of this article, "all of the work done" shall be deemed to have the same meaning as defined in Article B6.07 - Termination of Contract by the District.

**6.09 DISMISSAL OF CONTRACTOR**

In the event of the Contractor at any time failing to comply with the provisions of this contract to the satisfaction of the District, the District after giving the Contractor seven days written notice, shall become empowered thereby to enter on the site of and take possession of the work, and to dismiss and discharge the Contractor from further execution of the work, and to complete the work itself or employ some other person to complete the work, and for such purpose to use and allow the use of the Contractor's plant and equipment or any part thereof; provided that the entire expense of the completion of the work whether done by the District itself or by the employment of another person, shall be charged to the Contractor and provided further that the doing of such work by the District itself or by the employment of another person, shall in no way relieve the Contractor from any of his covenants, undertakings, duties and obligations under this contract nor limit the rights and remedies of the District hereunder in any manner whatsoever.

**6.10 USE OF COMPLETED PORTIONS OF THE WORK**

The District shall have the right to take possession of and use any completed or partially completed portions of the work, notwithstanding the fact that the time for completing the work or such portions may not have expired, but such taking possession and use shall not be deemed an acceptance of any part of the work. If such prior possession or use increases the cost of the work, the Contractor shall be entitled to claim for extra compensation shall be as determined by the District. The Contractor shall not, however, be entitled to claim extra compensation for portions of the work which are specifically required by the contract (or required by being integral to the performance of the work of the contract documents) to be placed into use and/or operation before completion of all work under this contract.

**6.11 DELAYS IN COMPLETION OF WORK**

Notice of Delays

Whenever the Contractor foresees any delay in the prosecution of the work, and in any event immediately upon the occurrence of any delay which the Contractor regards as unavoidable, they shall notify the District in writing of the probability of the occurrence of such delay and its cause in order that the District may take immediate steps to prevent, if possible, the occurrence of continuance of the delay or, if this cannot be done, may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the work are to be delayed thereby. It will be assumed that any and all

delays which have occurred in the prosecution and completion of the work have been avoidable delays, except such delays as shall have been called to the attention of the District at the time of their occurrence and found by the District to have been unavoidable. The Contractor shall make no claims that any delay not called to the attention of the District at the time of its occurrence has been an unavoidable delay.

Avoidable Delays

Avoidable delays in the prosecution or completion of the work shall include all delays which in the opinion of the District would have been avoided by the exercise of care, prudence, foresight and diligence on the part of the Contractor or his subcontractors.

The following shall constitute avoidable delays within the meaning of the contract:

- a. Delays in the prosecution of parts of the work which may in themselves be unavoidable but do not necessarily prevent or delay the prosecution of other parts of the work nor the completion of the whole work within the time herein specified.
- b. Reasonable loss of time resulting from the necessity of submitting samples of materials, drawings, plans, or other deliverables to the District for approval and from making of tests of materials, measurements and inspections.
- c. Reasonable interference of other contractors employed by the District which do not necessarily prevent the completion of the whole work within the time agreed upon.

Unavoidable Delays

Unavoidable delays in the prosecution or completion of the work shall include all delays which, in the opinion of the District, result from causes beyond the control of the Contractor and which could not have been avoided by the exercise of care, prudence, foresight and diligence on the part of the Contractor or their subcontractors. Delay in the completion due to contract modifications ordered by the District and unforeseeable delays in the completion of work of other contractors employed by the District will be considered unavoidable delays insofar as they interfere with the Contractor's completion of the work. Delay due to adverse weather conditions, except for acts of God, will not be regarded as unavoidable delays as the Contractor must plan his work with prudent allowance for such conditions.

**6.12 EXTENSION OF TIME**

Avoidable Delays

In case the work is not completed in the time specified, including such extensions of time as may have been granted for unavoidable delays, the Contractor will be assessed damages for delay in the accordance with Article B6.13. The District, however, shall have the right to grant an extension of time for avoidable delay if it is deemed in its best interest to do so. During such extension of time, the Contractor will be charged for engineering and inspection services and other costs as provided in Article B7.04 - Compensation to the District for Extension of Time, but will not be assessed damages pursuant to Article B6.13 - Damages for Delay.

Unavoidable Delays

For delays which the District considers to be unavoidable, the Contractor shall, pursuant to his application, be allowed an extension of time beyond the time herein set forth, proportional to such delay or delays, in which to complete the contract. During such extension of time, neither extra compensation for engineering and inspection as provided in Article B7.04 - Compensation to the District for Extension of Time nor assessed damages pursuant to Article B6. 13 - Damages for Delay will be charged to the Contractor.



### **6.13 DAMAGES FOR DELAY**

For each and every day that any portion of the work remains unfinished after the time fixed for completion in the contract documents as modified by any extension of time granted pursuant to Article B6.12, damage will be sustained by the District. Because of the difficulty in computing the actual material loss and disadvantages to the District, it is determined in advance and agreed by the parties hereto that the Contractor will pay the District the amount of damages set forth in Article B8.05 - Amount of Damages for Delay, as representing a reasonable forecast of the actual damages which the District will suffer by the failure of the Contractor to complete the work within the stipulated time. The execution of the agreement shall constitute acknowledgement by the Contractor that he has ascertained and agrees that the District will actually suffer damages in the amount herein fixed for each and every day during which the completion of the work is avoidably delayed beyond the stipulated completion date.

Unless otherwise provided in the contract documents, the Contractor shall have no claim or right of action against the District for damages, costs, expenses, loss of profits, or otherwise because or by reason of any delay in the fulfillment of the contract within the time limited therefore occasioned by any cause or event within or without the Contractor's control, and whether or not such delay may have resulted from anything done or not done by the District under the contract.

### **6.14 HOURS OF LABOR**

Pursuant to the California Labor Code Section 1810, eight (8) hours of labor shall constitute a legal day's work. Failure of the Contractor to perform the work in accordance with this policy of the State of California shall be deemed to be a failure on his part to comply with the provisions of the contract within the meaning of Article B6.09-Dismisal of Contractor.

### **6.15 OVERTIME WORK**

The Contractor, with the written permission of the District, may establish overtime and shift work as a regular procedure. Such permission may be revoked at any time. No work other than overtime and shift work established as a regular procedure shall be done between the hours of 5:00 PM and 7:30 AM, nor on Saturdays, Sundays or legal holidays, except such work as is necessary for the proper care and protection of the work already performed or except in case of an emergency.

All costs for overtime construction observation, except those occurring as a result of overtime and shift work established as a regular procedure, shall be paid by the Contractor. Overtime observation shall include observation required during holidays, Saturdays, Sundays, and any weekday between the hours of 5:00 PM and 7:30 AM. Such costs will include but will not necessarily be limited to engineering, observation, general supervision and other overhead expenses which are directly chargeable to the overtime work. All such charges shall be deducted by the District from payments due the Contractor.

### **6.16 PAYROLL RECORDS; RETENTION; INSPECTION; NONCOMPLIANCE PENALTIES; RULES AND REGULATIONS**

As required under the provisions of Section 1776 of the California Labor Code, 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 public work.

The payroll records enumerated above shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:

1. 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.
2. A certified copy of all payroll records enumerated above shall be made available for inspection or furnished upon request to a representative of the District, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations.
3. A certified copy of all payroll records enumerated above shall be made available upon request by the public for inspection or copies thereof made; provided however that a request by the public shall be made through either the District, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to the above paragraph, the requesting party shall, prior to being provided 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.

Each Contractor shall file a certified copy of the records, enumerated above with the entity that requested the records within 10 days after receipt of a written request.

Any copy of records made available for inspection and copies furnished upon request to the public or any public agency by the District, 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.

The Contractor shall inform the District of the location of the records enumerated above including the street address, city and county, and shall, within five (5) working days, provide a notice of change of location and address.

In the event of noncompliance with the requirements of this Article, the Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects the Contractor must comply with this Article. Should noncompliance still be evident after the ten-day (10) period, the Contractor shall, as a penalty to the state or District forfeit twenty-five dollars (\$25.00) for each calendar day, or portion thereof; for each worker, until strict compliance is effectuated. 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. Responsibility for compliance with these Paragraphs (a) through (f) lies with the Contractor.

This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractors and subcontractors on projects where bids are due on or after March 1, 2015, or projects awarded on or after April 1, 2015, will be required to submit all certified payrolls to the DIR electronically pursuant to Labor Code sections 1771.4 and 1776. The Contractor shall comply with all requirements to electronically submit certified payrolls, and shall certify with each payment application to the District that all certified payrolls have been submitted electronically to the DIR in accordance with Labor Code sections 1771.4 and 1776. The Contractor shall submit hard copies of certified payroll records with each pay application to the District, regardless of whether certified payrolls have been submitted electronically.

The Contractor and all subcontractors of every tier must maintain valid and current registration throughout the course of this project. The Contractor shall have an affirmative obligation to verify that all subcontractors are currently and validly registered with DIR and shall not permit a subcontractor of any tier to perform work on the project without first verifying the subcontractor's registration.

**6.17 WORKING HOURS**

The Contractor shall comply with all applicable provisions of Section 1810 to 1815, inclusive, of the California Labor Code relating to working hours. The Contractor shall, as a penalty to the District, forfeit twenty-five dollars (\$25.00) for each worker employed in the execution of the Contract by the 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 one calendar day and forty (40) hours in any one calendar week, unless such worker receives compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half (1-½) times the basic rate of pay. Normal working hours shall be from 8:00 a.m. to 4:00 p.m. Monday to Friday unless stated otherwise in Specification Section B8.17.

## SECTION B7 - MEASUREMENT AND PAYMENT

### 7.01 PAYMENT FOR LABOR AND MATERIALS

The Contractor shall pay and cause their subcontractors to pay any and all accounts for labor including worker's compensation premiums, state unemployment, and Federal social security payments and all other wage and salary deduction required by law, services and material used by them and their subcontractors during the fulfillment of the contract as and when such accounts become due and payable, and shall furnish the District with proof of payment of such accounts in such form and as often as the District may request. Should payment of such accounts not be made when and as they become due, the District shall be at liberty to pay the same, and all money so paid by the District shall be charged to the Contractor.

### 7.02 CHARGES TO CONTRACTOR

Everything charged to the Contractor under the terms of the contract shall be paid by the Contractor to the District on demand and may be deducted by the District from any money due or to become due to the Contractor under the contract and may be recovered by the District from the Contractor or his surety.

### 7.03 CHANGE ORDERS

Change orders issued pursuant to Article B2.04 - Right to Issue Change Orders, may either increase or decrease the amount of work to be done under the contract. If the amount of work is increased, the change shall be known as "extra work" order. If the amount of work is decreased, the change shall be known as a "work omitted" order.

#### Extra Work

Extra work means the furnishing of materials and equipment and the doing of work not directly or by implication called for by the contract. Changes in quantity under a unit price contract shall not be extra work. If the District requires extra work, the District may do it itself or by the employment of others, or it may direct the Contractor to do the extra work at a mutually agreed upon lump sum, or it may direct the Contractor to do the extra work on a time and expense basis. In the latter case, the Contractor shall keep an accurate daily record in a manner acceptable to the District of all the actual and necessary expense pertaining to the extra work and make such records available to the District for inspection at all times. Payment shall be on the basis of the actual necessary expense for doing the extra work, plus an allowance of 15 percent of the actual necessary expense to cover the overhead, general superintendence, profits and any other expense, and no other payment whatsoever shall be made on this account.

For the purpose of this article, "actual necessary expense" shall mean the sum of the following items and all such costs shall mean actual costs whether incurred by the Contractor, a subcontractor or others:

Materials and Equipment: Materials and equipment furnished by the Contractor and necessarily used in the work shall include applicable taxes and discounts whether taken by the purchaser or not.

Labor: The cost of labor shall include the actual wages paid, all workman's compensation premiums, State unemployment, Federal social security payments, other payments required by State or Federal law and payments made on behalf of workmen as required by collective bargaining agreements.

Supervision: The actual cost of supervision shall include only supervision employed full time supervising and extra work, when authorized in writing by the District.

Construction Equipment: Equipment rental rates for the use of equipment required in the performance of the extra work shall be one of the following: Those listed in the latest State of California Division of

Highways contract in the location of the work; those listed by the local section of the Associated General Contractors; or those mutually agreed upon by the Contractor and the District. Rental rates shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, maintenance, depreciation, storage, insurance and all other incidentals.

Individual pieces of equipment or small tools having a replacement value of \$100.00 or less shall be considered as expendable and no payment, therefore, shall be made.

The reasonable cost of moving equipment onto and off the job site shall be included, but equipment rental shall not be paid when the equipment is inoperative due to breakdowns.

When equipment is used on the extra work for less than five days, hourly rates shall be used and less than 30 minutes of operation shall be considered to be one-half hour of operation; when equipment is used on the extra work for more than five days, daily rates shall be used and less than four hours of operation shall be considered to be one-half day of operation.

Professional Services: Professional services or advice, if authorized in writing by the District.

Other Costs: Other costs, if authorized in writing by the District.

### Work Omitted

The Contractor shall, when ordered in writing by the District, omit work and material to be furnished under the contract and the value of the omitted work and material will be deducted from the contract price. The value of omitted work and material will be based upon the unit price bid for each item of omitted work or if necessary, by a mutually agreed upon value.

## **7.04 COMPENSATION TO THE DISTRICT FOR EXTENSION OF TIME**

Compensation for extension of time for avoidable delay granted pursuant to Article B6.12 shall be the actual cost to the District of engineering, construction observation, general supervision and overhead expenses which are directly chargeable to the work and which accrue during the period of such extension, except that the cost of final observation and preparation of the final estimate shall not be included.

## **7.05 DETAILED BREAKDOWN OF CONTRACT PRICES**

Except in cases where unit prices form the basis for payment under the contract, the Contractor shall, within ten days of receipt of notice to proceed, submit a complete breakdown of the contract price showing the value assigned to each part of the work, including an allowance for overhead and profit. Upon acceptance of the breakdown of the contract price by the District, it shall be used as the basis for all requests for payment.

## **7.06 PROGRESS PAYMENTS**

The Contractor shall submit to the District, not later than the seventh day of the month, a payment request for materials furnished and work completed during the calendar month. Copies of such a payment request shall be in a form and number satisfactory to the District. The first payment request shall be the value of the work done and invoice cost of equipment and materials proposed and suitable for permanent incorporation in the work delivered and suitably and safely stored at the site of the work and all other payments due Contractor since the Contractor shall have begun the performance of the contract, and every subsequent payment request, shall be of the value of the work done and invoice cost of equipment and materials delivered and suitably stored at the site of work done and all other payments due Contractor since the last precedent estimate was made. With such payment request, the Contractor shall, if required, submit satisfactory evidence of payment for all materials and labor, including payments to subcontractors made during the previous month.

Upon receipt of a payment request the District shall do the following pursuant to Government Code Section 20104.50:

1. The District will review each payment request as soon as practicable after receipt for the purpose of determining that the payment request is a proper payment request.
2. Any payment request determined not to be a proper payment request suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven days, after receipt. A request returned pursuant to this Subparagraph shall be accompanied by a document setting forth the reasons why payment request is not proper.

The District shall, if it fails to make any progress payment within 30 days after receipt of an undisputed and properly submitted payment request from the Contractor, pay interest to the Contractor pursuant to Government Code Section 20104.50 equivalent to the legal rate set forth in Subdivision (a) of Section 685.010 of the Code of Civil Procedure. The number of days available to the District to make a payment without incurring interest pursuant to Government Code Section 20104.50 shall be reduced by the number of days by which the District exceeds the seven-day requirement set forth in Subparagraph 2 of this Article.

For purpose of this Article, a "progress payment" includes all payments due Contractors, except that portion of the final payment designated by the contract as retention earnings.

#### **7.07 PROMPT PAYMENT AND RETENTION**

The District agrees to make payment to its Contractor promptly and to retain only such amounts as may be justified by specific circumstances and provisions of the construction contract.

Retained amounts shall be limited, except where greater retention is necessary under specific circumstances, specifically provided for in the construction contract, to the following schedule:

1. Retention of up to five percent (5%) of payments claimed until construction is complete.
2. Pursuant to the provisions of Public Contract Code Section 22300, and upon the request and expense of the Contractor, securities equivalent to the amount withheld by the District to insure performance under the Contract may be deposited with the District, or with a state or federally chartered bank as escrow agent who shall deliver such securities to the Contractor upon satisfactory completion of the contract. Only those securities listed in Government Code Section 16430 or other securities approved by the District are eligible for deposit. The deposit of securities with an escrow agent or the District shall be in the form and on such terms and conditions as the District may require to protect the interest of the District in the event of the Contractor's default. The Contractor shall be beneficial owner of any securities which are deposited and shall receive any interest thereon.

#### **7.08 FINAL INSPECTION AND ACCEPTANCE OF THE WORK**

The Contractor shall notify the District 10 days in advance of completion of work, or portion of work, that they are ready for final inspection. The notice shall be in writing and it shall request a date and time for the final inspection of work. The District, together with the Contractor, will make a personal inspection of all items of construction for conformance to the terms of the contract. Items not conforming or not yet completed will be noted in writing and copies of this listing of corrective or remedial work will be delivered to the Contractor.

#### **7.09 FINAL PAYMENT**

The District will make final payment to the Contractor in the manner provided by law following the expiration

of 65 days after the acceptance of the work and the filing of the notice of completion by the District. Such final payment shall include the entire sum so found to be due hereunder, after deducting therefrom and/or adding thereto all such lawful amounts as the terms of this contract prescribe.

## SECTION B8 - SPECIAL PROVISIONS

### 8.01 LICENSE REQUIREMENT

The Contractor shall possess either a Class A license "General Engineering" or a C-34 Pipeline Contractor license at the time this contract is awarded.

### 8.02 STANDARD SPECIFICATIONS

The Standard Specifications to be used in conjunction with these contract specifications shall be the latest edition of the Standard Specifications of the District. Said Standard Specifications are hereby specifically referred to and by such reference are made a part of the Contract Documents.

Wherever in these specifications reference is made to the Standard Specifications, it shall be understood to refer to the above detailed Standard Specifications of the District.

Reference in said Standard Specifications made to the General Provisions of said specifications by work or section number shall be considered by reasonable interpretation of intent to apply to similar context of those General Conditions, and these General Conditions shall supersede such General Provisions.

Unless otherwise stipulated in the Technical Specifications of these specifications, references in these specifications made to the Standard Specifications shall not extend to include the measurement and payment sections, and such sections are superseded by the measurement and payment articles of these specifications.

The term "Engineer" as used in the Standard Specifications shall be interpreted to mean the "Owner" or "District" as defined in these General Conditions.

In addition, the following codes and standards may be referred to herein:

- American Association of State Highway and Transportation Officials (AASHTO)
- American National Standards Institute (ANSI), Formerly USASI; formerly ASA
- American Society for Testing and Materials (ASTM)
- American Water Works Association (AWWA)
- American Society of Civil Engineers (ASCE)
- Federal Specifications (Fed. Spec.)
- National Association of Sewer Service Companies (NASSCO)
- Overhead Electrical Crane Institute (OECI)
- Pipeline Assessment and Certification Program (PACP)
- Standard Specifications, State of California, Department of Transportation (CalTrans)
- Standard Specifications for Public Work Construction (Greenbook)

### 8.03 RETAINED PERCENTAGE

The District will retain a percentage of each progress payment as a fund for the protection and payment of any person or persons, mechanics, subcontractor, or materialmen who shall perform any labor upon the contract or work thereunder, and all persons who shall supply such person or persons or subcontractors with components and supplies for carrying on such work. Retained percentages shall be as stated in Article B7.07 - Prompt Payment and Retention.



#### **8.04 TIME OF COMPLETION**

The Contractor shall start the work promptly and shall prosecute the work so that all portions of the project are complete and ready for full use within 140 calendar days after the date of receipt of Notice to Proceed.

Contractor shall implement the work of Bid Schedule A prior to beginning the field work of Bid Schedule B. It is intended to complete work near surface water bodies prior to the rainy season. Such considerations shall be incorporated into Contractor's work schedule to be submitted under Paragraph B 6.03. If for any reason, Contractor cannot perform Schedule A first, the contract may be discontinued at the discretion of the District.

#### **8.05 AMOUNT OF DAMAGES FOR DELAY**

Damages for avoidable delay as set forth in Article B6.13- Damages for Delay shall be in the amount of \$1,000.00 per day.

#### **8.06 AMOUNT OF BUILDER'S RISK INSURANCE**

The amount of builder's risk insurance as set forth in Article B5.10- Builder's Risk Insurance is at Contractor's option.

#### **8.07 NONDISCRIMINATION IN EMPLOYMENT**

The Contractor shall comply with all laws, state and federal, prohibiting employment discrimination.

#### **8.08 NUMBER OF COPIES OF CONTRACTOR'S SUBMITTALS**

Review drawings or information regarding materials and equipment shall be submitted in electronic format suitable for the District's use, or as five hardcopies. The District, after taking appropriate action, will return one electronic or two marked hardcopies to the Contractor.

#### **8.09 NUMBER OF COPIES OF CONTRACT DOCUMENTS**

The Contractor shall be supplied by the District with five sets of specifications.

#### **8.10 DAILY REPORT**

The Contractor shall submit to the District a Daily Report of project activities. Said report shall include activities of subcontractors, equipment used, manpower and material utilized. The report shall be submitted prior to the end of the following workday.

#### **8.11 TRAFFIC CONTROL PLAN**

The Contractor shall furnish an overall Traffic Control Plan for all phases of work. The Plan shall satisfy, as a minimum, the guidance and requirements set forth in the California Manual on Uniform Traffic Control Devices, latest edition. A global Traffic Control Plan may be submitted for the entirety of the project, with multiple sub-plans submitted for specific work areas.

The Contractor shall submit the global Traffic Control Plan and initial subplans to the District 10 days prior to the pre-construction conference to be scheduled by the District. Subsequent subplans shall be submitted at least 15 days prior field work being conducted in the specific work area. Delays on the part of the Contractor in submitting a Plan or Subplan, in the format as outlined in these Special Provisions shall not constitute a valid request for time extensions should the Contract time elapse before completion of said project. The

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Contractor is further advised that consideration for adequate review time, as determined by the District, shall be included in the work schedule.

The Traffic Control Plan shall include advisory signs, 3' x 6' minimum, stating expected delays, including dates, times and affected streets. Wording and placement of advisory signs, traffic cones, warning lights, and

personnel as may be needed shall be defined in the Traffic Control Plan and Subplans and must be reviewed by the District and roadway owners prior to commencing work in each specific area. Advisory signs shall be set in place a minimum of SEVEN (7) CALENDAR DAYS prior to commencement of construction site work. No construction site work shall commence prior to the District's approval of the Traffic Control Plan and installation of required signs.

Road closures will not be allowed. Contractor shall provide a minimum of one unobstructed traffic lane, not less than twelve (12) feet wide, in each direction at all times, or one unobstructed, reversible traffic lane, not less than twelve (12) feet wide, that is flagger controlled by a minimum of 2 flaggers will be allowed between the hours of 8:30 a.m. and 4:00 p.m. The Contractor may, at their option, submit an alternate work hour proposal, to the District and affected City, for review. Acceptance of such proposal shall be at the discretion of the District and the affected City. Should the District or City reject the Contractor's alternate work hour proposal, the Contractor shall be required to adhere to the work schedule outlined herein.

When ordered by the District, the Contractor shall furnish additional flaggers for the purpose of expediting the passage of public traffic through the work under one-way controls. During all non-working days, the street shall be opened to through traffic in both directions. Traffic may be stopped in both directions only as specifically authorized by the District. If any component in the traffic control system is damaged, displaced or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair or replace said component to its original condition and reinstall the component to its original location.

The provisions in this Special Provision will not relieve the Contractor from responsibility to provide additional devices or take such measures as may be necessary to comply with the provisions in Section 7-1.09 of the CalTrans Standard Specifications.

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

Whenever the Contractor's operations create a condition hazardous to traffic or to the public, the Contractor shall take the necessary precautions and provide additional traffic control measures to protect those who must pass through the work. If the Contractor shall appear to be neglectful or negligent in providing warning or protective measures, the District may direct attention to the existence of a hazard, and require that additional barricades, flashers, warning and detour signs or lights be installed by the Contractor, or additional flaggers provided. Any action or lack of action by the District as provided herein shall not relieve the Contractor from responsibility for public safety.

**8.12 WORK PLAN**

The Contractor shall submit, within ten (10) days after execution of contract agreement, a project Work Plan locating all planned staging areas for equipment and materials, and planned ingress and egress routes to project work areas.

Prior to start of construction, contractor will be required to demonstrate their proposed method(s) for sewage bypassing.

**8.13 PROJECT LOCATION**

The work under this contract will be performed in streets and public rights-of-way within the City of East Palo Alto and within the service boundaries of EPASD.

**8.14 TELEVISION INSPECTION REPORTS**

District has previous CCTV inspection videos and inspection reports available for Contractor’s review, if desired. Contractor shall contact the District to obtain copies of the television inspection videos and view videos prior to submitting Contractor’s bid. The CCTV inspection reports are in Part E. Contractor shall complete the required Statement of Inspection of Work Areas to confirm Contractor has viewed the videos prior to submitting bid and Contractor is familiar with the existing conditions.

**8.15 NOT USED**

**8.16 NOT USED**

**8.17 PROJECT WORK HOURS**

Work shall be performed on weekdays between the hours of 8:00 a.m. and 5:00 p.m. and in accordance with any further restrictions issued by Cities through their encroachment permits. No work shall occur on the weekends.

The Contractor shall be off the project site at the end of the designated time stated.

**8.18 SMALL BUSINESS AND SUBCONTRACTING PARTICIPATION GOAL**

Subject to any contrary provision of state or federal law, the District Board hereby establishes a small business subcontracting participation goal of five percent (5%) to serve the public interest by encouraging businesses to locate and remain within the geographical boundaries of where the District provides sanitary sewer services. A prime/general contractor shall be given the small business credit set forth if its bid shows documentation of participation by small business subcontractors that meet or exceed the goal of 5% set forth above. Small business participation shall be calculated by taking the aggregate value of all small business subcontracts listed in the bid as a percentage of the total bid amount.

A “small business” shall mean a business entity that has for at least the twelve (12) months prior to submittal of its bid: (i) maintained its principal office within the geographic boundaries of where the District provides sanitary sewer services; and (ii) that either employs fewer than one hundred (100) employees or has average annual gross receipts of ten million dollars (\$10,000,000) or less over the three previous years.

In determining the lowest responsible bidder for any District public works contract and where responsiveness and responsibility are equal, a credit of five percent (5%) of the project bid subtotal submitted by the lowest responsible bidder meeting specifications shall be given to a bidder that: (i) qualifies as a Small Business as defined in this Ordinance, or (ii) meets the Small Business subcontracting participation goal established herein. No bidder shall receive more than a five percent credit. No credit shall be given pursuant to this section where legal constraints on the expenditures of funds prohibit the giving of such a credit.

**8.19 NOT USED**

**8.20 NOT USED**

# **Part C**

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## **Technical Specifications**

## **SECTION C1 - GENERAL CONSTRUCTION INFORMATION AND REQUIREMENTS**

### **1.01 PROJECT LOCATION**

The work under this project consists of sanitary sewer pipeline replacements in the City of East Palo Alto under the ownership and control of the East Palo Alto Sanitation District.

### **1.02 SCOPE OF WORK**

The scope of work under this contract consists of sanitary sewer pipeline replacement, including, but not necessarily limited to, the following major items:

- Sewer pipeline replacement by open trench methods
- Maintaining service laterals and connecting laterals to replacement/new pipelines
- Trench dewatering, groundwater pumping and management.
- Traffic Control conforming to requirements of State, District, and local jurisdictional agencies.
- Sanitary sewer bypass pumping.
- Pavement replacement and surface restorations
- Restoration of work areas.

### **1.03 PROJECT SCHEDULE**

Within ten (10) days after executing contract agreement, the Contractor shall provide their project implementation schedule to the District. This schedule shall detail all items of work as described herein and shall show the dates of start and completion for each item. Also within ten (10) working days after execution of contract, the contractor shall submit the work plan.

The date of start of the field work shall be a maximum of 10 days after the date of Notice to Proceed. For additional requirements regarding the construction schedule, refer to Article B6.03.

### **1.04 CONTRACTOR COORDINATION**

The Contractor shall coordinate their work in the project area with other contractors and public utility agencies to minimize delays in the completion of the contract.

### **1.05 SEQUENCE OF CONSTRUCTION**

Contractor shall implement the work in Bid Schedule A prior to beginning the field work of Bid Schedule B. It is intended to complete the work near surface water bodies prior to the rainy season, which is anticipated to begin in October 2023. If for any reason, the Contractor cannot perform Schedule A first, the contract may be discontinued at the discretion of the District.

The Contractor's attention is directed to the fact that certain items of work must be completed before others can begin. It is the sole responsibility of the Contractor to schedule the project to complete each stage of the work within the time specified in Section B8-04 "Time of Completion" herein.

The Contractor is hereby advised that sewage collection service to the existing residences or commercial facilities must always remain in service and may not be interrupted during implementation of this project. The existing sewer lines must continue in full operation to avoid violation of effluent discharge requirements. It is, therefore, essential that a construction schedule be established with the input and review of the District. The Contractor shall submit as part of their Construction Schedule under Article B6.03, a detailed time

schedule showing proposed sequence of implementation. This schedule shall include the contractor's proposed bypass pumping, utility locates, trench excavation, pipeline replacements, backfill and repaving activities for each pipeline segment to be addressed. This schedule, along with other requirements of Article B6.03, shall be subject to review by the District.

### **1.06 EXISTING ALIGNMENTS OF SEWERS**

The location of existing pipelines and manholes shown on the plan are approximate. Existing sewer alignments are represented on the drawings by joining known manhole locations. The alignment of the sewers may vary slightly.

### **1.07 SURVEYS**

The Contractor is responsible for providing all necessary survey controls to properly locate the construction of underground piping, manholes, and other improvements.

The Contractor shall retain a licensed Surveyor or Civil Engineer as determined to be necessary by the Contractor to establish and from time to time adjust these controls.

All controls established shall be subject to the approval of the District. When requested by the District, the Contractor's surveyor shall perform additional verification checks or establish controls for construction. This work shall be at no additional cost to the District.

The location of existing pipelines and manholes shown on the plan are approximate. The Contractor shall locate these "tie-in" facilities and notify the District in writing of their true location. The District shall then make whatever minor adjustments are necessary to the plans and the Contractor shall then proceed with the work. No additional costs shall be incurred by the District for these minor changes.

The Contractor shall notify the District twenty four (24) hours in advance of any survey work and promptly deliver over to the District copies of field notes and cut sheets.

### **1.08 RESTORATION OF STRUCTURES AND SURFACES**

#### General

Whenever any of the work is accomplished on or through property other than that owned by the District the Contractor shall furnish the District, before its final acceptance of the work, a written release from the owner or proper authority acting for the owner of the property affected, stating that the restoration of structures and surfaces has been satisfactorily accomplished.

All removal and restoration costs shall be borne by the Contractor. Material removed and not to be incorporated in the contract work shall be disposed of by the Contractor at no increase in cost to the District and/or affected property owner.

#### Cultivated Areas, Stream or Ditch Crossings, Fences and Other Surface Improvements

All cultivated areas, either landscaping, natural vegetation areas, stream or ditch crossings, fences and other surface improvements which are damaged by actions of the Contractor, shall be restored as nearly as possible to their original condition to the satisfaction of the District and property owner.

#### Existing Stakes and Marks

All sections, section subdivision, plat, U.S.E.D., U.S.C.& G.S., U.S.G.S., and any other official monuments or benchmarks shall be carefully preserved or replaced. Before a monument is disturbed its location and elevation shall be referenced to at least four short ties (set iron pipes) and two copies of the field notes showing the ties shall be presented to the District. The monuments shall be reset after construction is complete. In cases where construction interferes with monument replacement and new concrete monuments are required, two copies of the field notes showing the new locations, ties and elevations shall be furnished to the District. Replaced or reset monuments shall be of acceptable type and quality and shall be located to clear existing utilities or any other interference. They shall be placed in a manner consistent with good and recognized engineering and surveying practices.

#### Sidewalk Curb and Gutter Replacement

Sidewalks, curbs and gutters removed, damaged or broken due to the operations of the Contractor or his subcontractors shall be replaced from expansion joint to expansion joint. Monolithic pours shall be restored. Contractor shall comply with the requirements of the jurisdictional city.

#### Pavement Markings and Striping

Pavement markings and striping shall be replaced to match existing as required by the jurisdiction in which the work is located (the City of East Palo Alto).

### **1.09 PROTECTION OF EXISTING INSTALLATIONS**

The Contractor shall correct or replace, without delay, any and all damage to existing structures, facilities, or equipment resulting from their operations.

### **1.10 PUBLIC CONVENIENCE AND MAINTENANCE OF TRAFFIC**

The Contractor shall conduct their operation as to the least possible obstruction and inconvenience to the public.

Throughout the performance of the work, or in connection with this contract, the Contractor shall construct and adequately maintain suitable anti-skid and safe crossings over and around work areas. Maintain driveway access and such detours as are necessary to care for public vehicular and pedestrian traffic. In no case, shall access to any driveway be impacted more than 8 hours.

Equally, throughout the performance of the work, the Contractor shall take all necessary measures to maintain the sewage flow from the adjacent houses and through the main sewer.

If, during short periods of time, the sewage flow is to be interrupted for specific operations, the Contractor must notify the District well in advance of their schedule of interruptions of sewage flow and the Contractor shall also contact and notify the people living in the involved houses of this schedule of interruptions.

### **1.11 "NO PARKING" NOTICE**

All property owners, business owners and residents who may be affected by traffic disruption shall be notified at least forty-eight (48) hours by the contractor prior to any construction.

Temporary "No Parking" zones shall be established where the available width of travel, for one lane, is less than 20 feet. Contractor shall give forty-eight (48) hours prior notice for any "No Parking" areas. A maximum "No Parking" time limit shall be two (2) consecutive days for any one street block. For additional "No Parking" zone information, refer to the standards of the jurisdiction in which the work is located.

### **1.12 CONSTRUCTION DUST CONTROL**

The Contractor shall provide reasonable means to prevent a nuisance occurring due to dust from work areas. Such means shall include daily watering and sweeping. All dust control operations shall be conducted at Contractor's expense in accordance with the applicable ordinances and regulations and as specified herein.

The Contractor shall provide dust control at all times resulting from project operations, including Saturdays, Sundays, and Holidays when ordered by the District. The Contractor shall diligently control dust resulting from his/her operations and from public traffic passing through the work by the application of water and/or dust palliative. Whenever the Contractor shall appear to be negligent in controlling dust, the District may direct attention to the existence of a dust hazard and instruct the Contractor to immediately alleviate said hazard.

It shall be the Contractor's responsibility to procure water needed for construction purposes. The Contractor may, upon approval by the District, use treated sewer plant water for construction activities.

### **1.13 NOISE CONTROL**

The Contractor shall take all necessary precautions to minimize construction noise. All plant and equipment shall be fitted with suitable noise reduction devices such as mufflers, inlet and exhaust silencers, and engine covers that shall be maintained in good working order.

The District shall decide on the adequacy of provision and maintenance of noise reduction equipment. When so instructed in writing by the District, the Contractor shall immediately withdraw any item of plant or equipment from service and carry out all necessary additions, replacements or repairs to the noise reduction equipment to the satisfaction of the District.

### **1.14 CLEANING UP**

The Contractor shall not allow the site of the work to become littered with trash and waste material but shall maintain the same in a neat and orderly condition throughout the construction period. On or before the acceptance of the work, the Contractor shall carefully clean out all pits, manholes, chambers or conduits, shall tear down and remove all temporary structures and shall remove rubbish of all kinds from any of the grounds which they occupied and leave them in an acceptable condition to the satisfaction of the District.

Excess soil materials and waste materials, rubbish of any kind shall be disposed of by the Contractor at a legal site in compliance with all federal, state, and local laws, regulations, and ordinances. The Contractor without any increase in the Contractor's bid price shall pay for all disposal costs.

### **1.15 SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION**

The Contractor shall comply with all relevant provisions of the Safety and Health Regulations for Construction, promulgated by the Secretary of Labor, as set forth in Title 29 C.F.R. The Contractor shall also comply with all provisions of the California Occupational Safety and Health Act of 1973.

### **1.16 CONTRACTOR'S PLANT AND EQUIPMENT**

The Contractor shall at all times be responsible for the security of his plant and equipment. The District will not take any responsibility for missing or damaged equipment, tools or personal belongings.

No stockpile of material is allowed within the City public rights of way unless approved by the City Engineer. The contractor shall at a minimum leave the work broom clean and free of debris.



### 1.17 BYPASSING DURING CONSTRUCTION

Bypassing untreated or partially treated wastewater to surface waters or drainage courses will not be permitted during construction. Bypassing untreated wastewater to surface waters or drainage courses is a violation of the law and will result in assessment of damages.

All work under the contract shall be done without interruption of service, except when approved by the District. Such interruption of service shall be only for as long as a period as is reasonably required and shall be carefully scheduled with operating personnel.

Contractor shall be responsible for any and all spills or Sanitary Sewer Overflows (SSOs) caused during construction or bypassing. Contractor shall be fully responsible for any and all cleanup, fees or fines resulting from a spill or SSO.

### 1.18 CONSTRUCTION UTILITIES

Water - The Contractor shall provide all water required for construction purposes.

Power - The Contractor shall provide power as required for the work.

Lighting – The Contractor shall provide all lighting required for night work. The District reserves the right to request additional lighting without further compensation to the contractor. All working areas utilized by the Contractor to perform work during hours of darkness, shall be lighted to conform to the minimum illumination intensities established by California Division of Occupational Safety and Health Construction Safety Orders (CAL OSHA) at no additional cost to the District. All lighting fixtures shall be mounted and directed in a manner precluding glare to approaching traffic.

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

### 1.19 EXISTING UTILITIES

This project involves excavating in existing pipeline trenches. As such, parallel or longitudinal conflicts are not anticipated. Utility crossings are expected, but have not been defined on the drawings. The locations of existing utilities, whether aboveground or underground, have not been confirmed by the District. The District does not guarantee the accuracy or completeness of this information and it is to be understood that other aboveground or underground facilities not shown on the drawings may be encountered during the course of the work.

The Contractor shall call the Underground Services Alert Agency and notify the underground utility companies of their intention to excavate. Except as otherwise provided in this Article any required special construction techniques required in order to avoid or protect existing utilities shall be performed by the Contractor at no increase in cost to the District. Any relocation of existing underground utilities owned by others, shall be performed by the Owner of said utilities.

Pursuant to California Government Code Section 4215 the District shall assume the responsibility for the timely removal, relocation, or protection of the existing main or trunkline utility facilities located on the construction site if such utilities are not identified by the District in the plans and specifications. The District shall compensate the Contractor for the costs of locating such utility facilities, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the plans and specifications with reasonable accuracy; and for the cost of equipment necessarily

idled. However, the Contractor shall make all reasonable efforts to minimize and/or mitigate the costs he or she incurs in locating utility facilities not identified by the District or for equipment necessarily idled. The Contractor shall not be assessed liquidated damages for delay in completion of the work when such delay was caused by the failure of the District or the owner of the utility to provide for removal or relocation of such utility facilities.

The District is not responsible for indicating the presence of existing service laterals or appurtenances whenever the presence of such utilities can be inferred from the presence of visible facilities, such as buildings, meter and junction boxes, on or adjacent to the construction site. Locating existing utilities shall be performed by the Contractor at no increase in cost to the District.

If the Contractor discovers utility facilities not identified by the District in the contract plans or specifications, they shall immediately notify the District and the owner of the utility in writing.

Existing aboveground utilities, including but not limited to, power transmission and distribution, telegraph, telephone and traffic control systems, whether shown on the drawings or not, shall be maintained, relocated, re-routed, removed and restored as may be necessary by the Contractor with the least possible interference with the use of such facilities at no increase in cost to the District.

The right is reserved by the owners of utilities and franchises to enter upon any street, right-of-way or easement for the purpose of maintaining their property and for making necessary repairs or changes caused by the work. The Contractor shall pay all costs thus incurred.

## **1.20 UTILITY LINE CROSSINGS**

It is anticipated that existing pipes, gas lines, water mains, and service laterals may conflict with the planned sanitary sewer facilities. Prior to commencing work, the Contractor shall contact Underground Service Alert at 1-800-642-2444 to verify the exact location and depth of the existing utilities and service laterals.

The Contractor shall be paid per each exposed crossing wherever the planned sanitary sewer facilities cross underneath existing facilities. Such payment shall be considered as total compensation for any and all additional construction work or delays that the Contractor may encounter.

Gas Line Avoidance/Utility Plan- The contractor must submit a plan to avoid gas line and other utilities before commencement of construction.

## **1.21 PERMIT AND FEES**

Any special permit or fees, such as but not limited to encroachment permits, required by any public or private entity having jurisdiction over any areas of the work shall be obtained and paid for by the Contractor. The Contractor is responsible for paying the amounts of the required permit fees from the City of East Palo Alto.

Typical encroachment permit requirements are provided in Section D. Contractor shall comply with all requirements of the final permit issued to the Contractor. Full compensation for obtaining and payment of permits shall be considered as included in the price paid for mobilization and no separate payment will be made therefore.

## **1.22 SUB-SURFACE SOIL DATA**

No sub-surface soil investigations were made for this project. Any previous soil data on the Project sites and/or

adjacent sites thereto are available for inspection at the District office. No responsibility is assumed by the District for subsoil quality or conditions other than at the locations and the time the exploration was made. No claim for extra compensation or for extension of time will be allowed on account of sub-surface conditions inconsistent with the data shown unless otherwise provided elsewhere herein.

### **1.23 PRE-BID CONFERENCE**

All plan holders are **required** to attend a pre-bid conference to be held on **July 25<sup>th</sup>, 2023, at 11:00 AM** the East Palo Alto Sanitary District, 901 Weeks Street, East Palo Alto, CA.

### **1.24 PRE-CONSTRUCTION CONFERENCE**

After Award of the Contract and receipt and acceptance of all bonds and insurance and prior to the issuance of the Notice to Proceed, the various parties with an interest in the project including the contracting partner, subcontractors, and public officials shall meet to discuss and coordinate the required implementation activities and determine when implementation can proceed. The conference will take place at a time and location designated by the District.

### **1.25 PROPERTY OWNER NOTIFICATION**

The Contractor shall furnish all affected property owners and/or residents written notification that describes the proposed work. The Contractor shall cooperate with the District in providing relevant dates of construction, possible service interruptions if approved by the District, and a description of landscaping and improvements that may be affected and/or removed for inclusion in the property owner notification. The Contractor is advised that owners/residents have the right to salvage all existing landscaping, improvements and/or other materials that the Contractor may remove to facilitate construction within the right of way and/or the right of entry areas. Prior to distribution, the Contractor shall give a sample of the notification to the District for approval.

### **1.26 STORAGE OF MATERIAL AND EQUIPMENT**

The District will not be responsible for providing any storage site. The City of East Palo Alto has restricted storage on Public Right of Ways to the equivalent of one day of materials only. The Contractor shall adhere to these restrictions unless written permission from the City of East Palo Alto has been obtained. Written permission from the City shall be submitted and reviewed by the District prior to implementation.

### **1.27 SAFE MANHOLE ENTRY**

Manholes are a confined space, and any entry shall adhere to all confined space entry rules and regulations. The Contractor shall conform to all applicable occupational safety and health standards, rules, regulations and orders established by Federal and State Agencies

The atmospheric condition in manhole shall be tested for possible oxygen deficiency and the presence of poisonous, toxic or explosive gases before entering. Sufficient ventilation shall be provided to ensure the safety of workers working in the manhole. The Contractor is required to provide all safety equipment for manhole entry and appropriate attire is required for those who are working in a manhole.

The minimum crew shall be three workers or two workers and a safety winch: the worker who will go into the hole, the lifeline attendant, and an assistant (or safety winch) on the surface.

Specific attention is directed also to OSHA safety rules, regulations and precautions to be taken by the Contractor before entering sanitary sewer manholes, and other sanitation structures with respect to physical and chemical hazards which may be present.

Full compensation for conforming to the requirements of this section shall be considered as included in the

contract prices paid for the various items of work involved and no separate payment will be made therefore.

### **1.28 TREE PROTECTION**

Due care shall be exercised to avoid injury or damage to existing trees. The Contractor shall provide and install suitable safeguards to protect existing trees from injury or damage. If the existing trees are injured and damaged by reasons of the Contractor's operations, they shall be restored to their original condition or replaced at the Contractor's expense.

### **1.29 WORK WITHIN EASEMENTS**

The right for the Contractor to enter within sanitary sewer easement areas is granted to the Contractor by this contract document. Whenever the Contractor removes, cuts or otherwise opens an existing fence or gate in such a manner that any domestic animals or livestock within the property then have access to the area of the Contractor's activities or to areas outside of the area formerly enclosed by the fence, the Contractor shall erect and maintain temporary fencing or gates to contain the domestic animals or livestock within the property until the Contractor has completed their activities and the original fencing or gates are repositioned.

Where fences exist within the work area, the Contractor shall remove such fences with care. Upon acceptance of the work, the Contractor shall, at his expense, restore fences immediately after completion of work within the area to their original condition and to the satisfaction of the District. Care shall be taken so as not to damage any such private improvements. Any private improvements damaged by the Contractor shall be replaced with new materials all at the Contractor's expense.

### **1.30 TEMPORARY RESURFACING**

Temporary trench surfacing composed of cutback, or cold-patch, asphalt, uneven driving or walking surfaces, dust control, and temporary resurfacing of all trenches in paved roadway areas, shall be placed not longer than eight (8) hours after completion of pipe laying operations in that section of trench. A minimum of 1.5" of cutback asphalt shall be placed as temporary resurfacing at the completion of trench backfill and compaction. In lieu of temporary surfacing and at the Contractor's option, permanent surfacing may be placed in the trench if testing of the section of pipe has been completed and approved by the District prior to the expiration of the said eight (8) hour period following pipe laying operations. Unpaved trenches in roadway areas shall be delineated for public safety as specified in Section C1.10 – Public Convenience and Maintenance of Traffic of these specifications. When pavement lane delineation is removed or obliterated by the Contractor's operations, the Contractor shall replace such delineation in kind as soon after completion of temporary trench resurfacing as, in the judgement of the District, is practical.

### **1.31 STORM WATER POLLUTION PREVENTION PROGRAM**

The City of East Palo Alto adopted an ordinance to control the discharge of pollutants into storm sewers for protecting the water quality pursuant to the Clean Water Act. In order to implement the Federal Regulatory requirements, the Contractor and his subcontractors shall undertake all practicable measures specified herein to reduce pollutants.

The following are recommended construction materials handling and disposal practices for construction sites and a list of recyclers and disposal services to guide contractors/subcontractors in safe and non-polluting methods of disposal. The City of East Palo Alto will enforce any of the provisions of this Section. The violation of any provisions of this Section or failure to comply with any of the mandatory requirements of this Section shall constitute a misdemeanor to be charged and prosecuted as provided by City code.

Vehicles and Equipment Operation: Poorly maintained vehicles and equipment leaking fuel, oil, anti-freeze or other fluids on the construction site are common sources of storm drain pollution. Prevent spills and leaks by isolating equipment from run-off channels and by watching for leaks and other maintenance problems. Remove such equipment from the site as soon as possible. Contractor shall conduct the following:

1. Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks.
2. Perform major maintenance, repair jobs and vehicle equipment washing off site.
3. If you must drain and replace motor oil, radiator coolant or other fluids on site, use drip pans or drop cloths to catch drips and spills. Collect all fluids, store in separate containers and recycle whenever possible or dispose of fluids as hazardous waste.
4. Recycle used vehicle batteries.
5. Never hose down “dirty” pavement or impermeable surfaces where fluids have spilled. Use dry clean-up methods whenever possible.
6. Sweep up spilled dry materials immediately. Never attempt to wash them away with water or bury them.
7. Report significant spills to the appropriate spill response agencies immediately.

**SECTION C2 – EARTHWORK, PIPELINES AND MANHOLES****2.01 EARTHWORK**1. Scope

Work under this Section shall include furnishing all labor, materials, tools and equipment required to perform all earthwork and grading operations in connection with the construction including clearing and grubbing, removals, sawcutting pavements, removing asphalt and concrete, sheeting and shoring, pipeline and structure excavation and backfill, dewatering, finish grading and subgrade preparation, and disposal off-site of surplus materials, as shown on the plan and as specified herein.

2. Excavation Requirements

Trench excavations shall be such that sidewalls are nearly vertical. Pursuant to State law, all open excavations greater than five feet in depth shall be constructed with bracing, sheeting, shoring or other equivalent method designed for the protection of life and limb. The Contractor must at all times comply with the requirements of the construction safety orders of the Division of Industrial Safety.

The above-stipulated requirements shall be considered the minimum to be provided. It shall be the Contractor's responsibility to provide the additional strength required to support the sides of the excavation against loads that may exceed those employed to derive the criteria set forth in the Industrial Safety orders. The Contractor shall be solely responsible for any and all liabilities which may arise from his failure to provide adequate shoring, bracing or sheeting as necessary to support the excavation under any and all of the conditions of loading which may exist, or which may arise during construction of the project.

The contract price shown in the Proposal shall include all costs relating to trench safety and shoring of excavations. Changes in the support systems directed by others to ensure compliance with the Safety Orders, or changes required to accommodate conditions encountered in the field, will not be considered extra work as defined in Part B and no extra payment will be forthcoming as a result of the changes required.

The Contractor shall appoint a project safety supervisor who shall, by training and experience, be fully qualified to supervise the installation, maintenance and removal of sheeting, shoring and bracing. The project safety supervisor shall have full authority over the work in all job safety matters and shall be present at all times when work is in progress in excavations and trenches greater than five feet in depth.

3. Earthwork

Earthwork shall conform to the provisions of Section 19 - "Earthwork", Section 10 - "Dust Control" of the Standard CalTrans Specifications and to the following sections of these Specifications.

4. Contractor's Operations

The Contractor shall perform their work in such a manner as not to harm the undisturbed condition of the underlying or adjacent soils or damage or prevent the proper placement of fill. When in the opinion of the District, natural soils or fill are damaged or disturbed by the operations of the Contractor, thereby precluding the utilization of the site as planned, the Contractor shall correct such damage or disturbance. Corrections shall be reviewed by the District and may include, but not be limited to, the removing of natural and fill foundation soils both laterally and vertically and replacing with compacted fill to the required grades or the construction of alternative methods of support. The cost of any such repair, rehabilitation or modification shall be borne by the Contractor.

5. Construction Observation

EPASD will observe cutting and removal of existing asphalt, stripping of topsoil and other clearing, trenching,

excavations, pipe installation, and placing and compaction of fill and other earthwork related operations specified in these Specifications. EPASD shall be notified at least forty-eight (48) hours in advance of the beginning of operations that require the District's attention. Fills shall not be made nor materials used without the District's prior approval. The Contractor shall allow time for field survey measurements of any subgrade required for any purpose. All fills for which specific standards or density are required, must be tested and reviewed by the District before they will be accepted. Jetting and/or flooding for compaction shall not be allowed. All backfill including trench backfill shall be compacted immediately after placement.

6. Percent Compaction

Percent compaction, as shown on the drawings, is the in-place dry density of the fill expressed as a percentage of the maximum dry density of the fill material determined by the City in accordance with the Test Method of ASTM D1557.

7. Earthwork Balance

Surplus soil materials from excavation shall be disposed of as described in Section Cl.14. Any required import for backfill shall be provided by the Contractor at no additional expense to the District.

8. Blasting

Blasting will not be allowed on this project.

9. Surface Drainage, Dewatering, and Erosion Control

All portions of the work shall be kept free of standing water at all times until the work specified is complete. The Contractor shall maintain uniform grades, construct erosion control measures, ditches and/or provide and operate pumps as necessary to prevent flooding, erosion, off-site transport of any soil or sediment, softening of compacted surfaces, and formation of mud in trenches and excavations.

Dewatering discharges shall be coordinated with EPASD and directed to the street drainage or to the sanitary sewers. Contractor shall check for odors, discoloration, or oily sheens. EPASD shall determine whether the discharge water must be tested. If the water is clear and the flow rate is less than 20 gallons per minute, then the discharge shall be directed to the street or storm drain. If the water is not clear, then Contractor shall provide a filtering mechanism to remove visible sediment prior to discharge.

Contractor shall provide an Erosion Control Plan to EPASD prior to the Pre-Construction meeting to define expected erosion control measures. Erosion control materials, such as straw wattles, silt fences, and other proposed items shall be defined in the plan. Erosion control materials shall be maintained on site within three days of a forecasted storm. Contractor shall not under any circumstances conduct or pump water or allow sediment laden water to be directed or flow toward other District facilities or improvements on the site without approval of the District.

10. Grading Tolerance

Final grade shall conform to the lines and grade shown on the drawings or as necessarily determined in the field to match existing conditions.

11. Removal of Obstructions

The Contractor shall remove all rock, stones in excess of six inches, broken concrete and pavement, debris and all obstruction of any kind or character, whether natural or artificial, encountered in the work. Material that is removed as specified, and is not to be incorporated in the work, shall be disposed of by and at the Contractor's expense in accordance with Paragraph A 1.14 – Cleaning Up.

12. Excess Excavated Material

Unless otherwise shown or specified, excess excavated material shall be disposed of by the Contractor, at his expense, in accordance with Paragraph A 1.14 – Cleaning Up. Contractor shall provide the District with certifications of legal disposal for each truckload.

13. Shoring, Sheeting and Bracing

Where sheet piling, shoring, sheeting, bracing or other supports are necessary, they shall be designed, furnished, placed, maintained and removed by the Contractor.

The design, planning, installation and removal, if required, of all sheeting, shoring, sheet piling, lagging and bracing shall be accomplished in such a manner as to maintain the required excavation or trench section and to maintain the undisturbed state of the soils below and adjacent to the excavation.

The use of horizontal strutting below a pipe barrel or the use of the pipe as support for trench bracing will not be permitted. The use of the soldier pile and horizontal lagging method of support or the use of a traveling shield for sewer construction shall require the prior written acceptance of the District. Sheet piling and timbers in trench excavations shall be withdrawn in a manner so as to prevent subsequent settlement of a pipe or additional backfill loading which might overload the pipe.

California Labor Code Section 6705, and all applicable Construction Safety Orders and shoring system standards with respect to excavation and construction shall be strictly observed at all times.

14. Pipeline Excavation

All pipeline trenches in streets and easements shall have vertical walls. Trenching machines may be used except where their use may result in damage to existing facilities. Unless otherwise specified or indicated, the Contractor may use any method of excavation which will not damage or endanger adjacent structures or property or disturb the natural or fill soils at, below and adjacent to the excavation.

When, in addition to the specified pipe bedding, drain rock is required to stabilize a soft, wet or spongy foundation which was caused, in the District's opinion, by the operations of the Contractor, such drain rock shall comply with this specification for both material and placing and shall be provided at the Contractor's expense.

The maximum allowable width of trench measured twelve inches above the top of the pipe shall be as shown on the Plans and such width shall be inclusive of all trench bracing, shoring and timbers. A minimum of six inches shall be maintained between pipe and trench wall. All trenches for pipes shall be excavated to four inches below the pipe barrel.

Whenever the maximum allowable trench width is exceeded for any reason, the Contractor shall, at his expense, embed or cradle the pipe in concrete. Concrete embedment shall be a monolithic cradle of plain concrete having a minimum thickness of one-fourth the inside pipe diameter and extending up the sides for a height equal to one-fourth the outside diameter. The cradle shall have a width at least equal to the outside diameter of the pipe barrel, plus eight inches. Concrete shall be type C.

15. Engineered Fill

Where the term "compaction" is used herein, it is defined as relative compaction and refers to the in-place dry density of the fill expressed by the Test Method of ASTM D1557. The District will arrange compaction tests and may test all compacted materials. District pays for first test only. The Contractor shall pay for all subsequent tests of failed sections until the desired compaction is achieved. Contractor shall provide access and assist District and District notify the District when compacted materials are ready to be tested, 24 hours



prior to testing.

The Contractor shall adjust the water content of the fill material to an amount that will enable the specified degree of compaction to be attained in each lift. Each lift shall be thoroughly mixed before compaction to ensure a uniform distribution of water content. Jetting will not be allowed.

16. Pipeline Backfill

a. Bedding

Unless otherwise indicated, all pipes shall have minimum of four inches of bedding material below the barrel of the pipe. Bedding shall be placed and compacted up the sides of the pipe to a level not less than 12-inches over the top of the pipe, unless noted otherwise on the plans. Bedding materials shall be as designated on the Plans. The size of gradation shall fall within the limits designated on the Plans. Samples of bedding material and sieve analyses proposed for incorporation into the work shall be submitted for review.

Where, in the opinion of EPASD, stabilization of the undisturbed foundation below the bedding or over-excavation beyond the depth as shown is required because of soft, spongy or unstable condition, crushed rock (a.k.a. Foundation or Drain Rock) backfill, reviewed and approved by the District, shall be placed in the trench bottom. The quantity and placement of such material shall be as ordered by the District and will be paid for as defined in measurement and payment. except if the over-excavation is at Contractor's option or is noted at specified locations in the Contract Documents.

b. Subsequent Trench Backfill

Backfill shall be non-recycled structural backfill material as designated on the Plans and specified, placed in horizontal layers not exceeding 12 inches in loose depth. Fill material shall have a moisture content such that the required degree of compaction may be obtained. Each layer shall be compacted by power-operated tampers, rollers, or other suitable equipment to a dry density equal to the surrounding material but not less than 95 percent relative compaction. Each layer shall be compacted to the specified density prior to placing subsequent layers.

Samples and sieve analyses of backfill material proposed for incorporation into the work shall be submitted for review.

The finishing of the roadway (aggregate base and asphalt concrete) shall be as indicated on the drawings or shall match the existing finishing, whichever is more robust, and be constructed to the minimum requirements of the City of East Palo Alto. Contractor shall arrange for inspection of roadway finish and provide District with written acceptance by the agencies involved.

17. Controlled Density Fill

The contractor shall provide Controlled Density Fill (CDF) where identified on the drawings, and Contractor shall have the option to install CDF in-lieu of compacted structural backfill, however, no additional compensation will be granted to the contractor if CDF is installed.

CDF shall be a mixture of Portland cement, fly ash, aggregates, and water proportioned to provide a non-segregating, self-consolidating, free-flowing, low-shrink slurry, and excavatable hardened material. Portland cement shall be ASTM C150, Type II. Aggregates shall be sand with or without fine gravel, maximum 3/4-inch diameter free of foreign material and organics. Density shall be between 100 and 130 pounds per cubic foot and unconfined compressive strength of 100 to 200 psi.

## 2.02 PIPELINES

### 1. Scope

Work under this section shall include all material, labor, equipment, and services to modify, relocate, furnish, install and test all piping, fittings, valves, specialties, piping supports, anchors and all necessary appurtenances required, shown and specified to make the work complete and operable.

### 2. Shop Drawings

The Contractor shall submit for review all materials and details of all piping before construction.

### 3. Polyvinyl Chloride Pipe

Polyvinyl Chloride Pipe (PVC) shall conform to the applicable requirements of AWWA C900, DR25 or ASTM D2241 SDR 26 having elastomeric gasket joints with ends of pipe formed so that pipe will form a continuous line with a smooth interior surface when the pipes are laid together. Lateral connections shall be Tap-Tite for sewer. Pipe shall be either green or white incolor.

Transition couplings for use to connect pipe of differing material shall be Fernco Standard Flexible Couplings or favorably reviewed equivalent provided that the couplings comply with the requirements of ASTM D 5926 and ASTM C 1173. The coupling with which the pipe is being installed shall match the pipe's specified usage in relation to size and material. Installation shall follow standard manufacturer instructions that ensure the coupling to pipe connection is sealed.

### 4. Installations

#### a. Gravity Sewers

The Contractor may proceed with the construction of the pipeline in either an upslope or downslope direction with pipe bells pointing in the direction of work. Each pipe length must be specifically checked for proper grade and the Contractor must provide all requested material and labor to allow the District to verify the grade and slope of each pipe length. Each pipe length must be placed to a tolerance of  $\pm 1/8"$  of the specified elevation.

Unless otherwise indicated on the drawings or directed by the District, all pipes shall be placed on a prepared subgrade of bedding material at least 4 inches deep below the barrel of the pipe as specified in Section C2.01.

#### b. Adjustments to Line and Grade

Adjustments of pipe to line and grade shall be made by scraping away or filling in and tamping approved material under the body of the pipe. No wedging or blocking to support the pipe will be permitted.

#### c. Connection to New and Existing Systems and Manholes

Pipe connections to existing structures and manholes shall be made in such a manner that the finished work will conform as nearly as practicable to the essential applicable requirements specified and indicated for new manholes, including all necessary concrete work, cutting and shaping. Concrete mortar shaping within any structure and manhole shall be as specified in the Standard Specifications.

The new sewer shall be inserted flush with the inside wall of the new manhole by cutting a hole at the elevation shown on the drawings and the pipes shall be connected by means of a rubber-sealing gasket. For existing manholes that are to remain, the existing pipe shall be removed and the new pipe inserted flush with the inside wall of the manhole and the annular space between the pipe and wall shall be filled with a non-shrinking grout to prevent leakage around the pipe. New pipes shall have water-stop gasket before

grouting and a bell fitting shall be located within 12-inches outside of the manhole wall.

**5. Sewer Service Laterals**

Sewer service lateral connections are to be installed on the new replaced sewer main at each existing sewer lateral now in use. Exact location of existing live or active service laterals to be determined by the Contractor in the field.

Abandoned side sewers not in use, when identified on the drawings, are to be removed to trench limit and plugged with 12" of concrete at ends of service lateral at trench wall.

**6. Maintaining Sewer Service**

Where new sewer pipes are connected to existing sewer pipes, the existing pipes shall remain in service at all times. It shall be the Contractor's responsibility to provide bypass pipelines or any other facilities required to maintain sewer service at all times.

**7. Cleaning and Testing**

After backfilling, and prior to asphalt concrete pavement, all pipelines, including laterals, shall be inspected for obstructions and shall be cleaned. All pipelines shall be cleaned using the sewer ball method or a high-pressure hydroflusher. If the Contractor elects to use the high-pressure hydroflusher, and if, in the opinion of the District, the lines are not cleaned sufficiently by hydroflushing, the Contractor shall re-clean the lines using the sewer ball method at his own expense. Additional costs for television inspection of the work after re-cleaning shall be borne by the Contractor.

After completion of construction and cleaning of the pipeline and prior to asphalt concrete pavement the Contractor shall inspect new or replacement sewer mains and laterals by a television camera in accordance with Section C8. Any breaks, leaks at joints, or sags in the sewer line are to be repaired at the Contractor's expense. After completion of repairs, if any, the Contractor shall again inspect the line by a television camera to demonstrate a satisfactory installation to the satisfaction of the District. Contractor shall provide a copy of the television inspection video CDs and electronic television logs from all televising operations to the District. The Contractor shall pay for all costs associated with the testing and television inspections.

**2.03 MANHOLES**

**1. Scope**

Work under this section shall include all material, labor and services to furnish, install and test all new and replacement manholes and to modify, seal and rehabilitate all existing manholes that are to remain in place including all necessary appurtenances required, shown and specified to make the work complete and operable.

**2. Shop Drawings**

The Contractor shall submit for review all materials and details of all new manholes and appurtenances before construction.

**3. New and Replacement Manholes**

New and replacement sanitary sewer manholes shall conform to the provisions of the Standard Specifications and these Technical Specifications.

Except where noted, all manholes shall be reinforced concrete and shall conform in size, shape and details

to those shown on the plans. Pipe openings shall be built into the manholes as shown. The outer ends of all openings shall be sealed with a precast concrete plug made watertight with mastic compound or rubber gasket. All pipes shall be connected to new manholes by means of a rubber-sealing gasket.

Precast concrete manhole sections and cones shall conform in all respects to the specifications indicated on the drawings and submittal information shall be presented to the District for review prior to construction. Manholes shall be constructed as shown on the Plan. Foundations for new manholes shall be poured against a base that is firm and dry. No precast concrete manhole base will be allowed on this project.

New manholes shall be constructed over existing pipe where shown on the Plans. The foundation shall be poured such that the pipe is continuous through the manhole. The pipe shall then be broken out and the face of the manhole sealed mortared to provide a smooth, uniform manhole wall.

Except as otherwise noted, materials and methods of construction shall be in conformance with applicable standards. Manhole covers shall be labeled in accordance with applicable standards and District requirements and shall be submitted to the District for review.

Pipe connections to existing structures and manholes shall be made in such a manner that the finished work will conform as nearly as practicable to the essential applicable requirements specified and indicated for new manholes, including all necessary concrete work, cutting and shaping. Concrete mortar shaping within any structure and manhole shall be as specified in the Standard Specifications.

Backfill for manholes shall meet the same requirement as those requirements for trench backfill.

Each manhole joint shall be fitted with RAMNEK joint compound as depicted on the manhole details. Each joint shall be fitted with 9" wide RUB'R-NEK external concrete joint wrap as depicted on manhole details.

#### 4. New Manhole Vacuum Test

All new and replacement manholes shall be tested in accordance with the following requirements.

Testing shall be performed in accordance with ASTM C1244-93, "Standard Test Method for Concrete Sewer Manholes by Negative Air Pressure (Vacuum) Test".

All manholes shall be constructed per detail on the plans. The vacuum test shall be performed prior to backfilling around the manhole.

Preparation of the manhole prior to testing shall include plugging all lift holes and temporarily plugging all pipes entering and existing the manhole, taking care to securely brace the pipes and plugs to prevent them from being drawn into the manhole.

The test head shall be placed at the inside top of the cone section and the seal inflated in accordance with the manufacturer's recommendation.

A vacuum of 10 inches of mercury shall be drawn and the vacuum pump shut off. With the valve closed, the time shall be measured for the vacuum to drop to 9 inches. The manhole shall pass if the time is greater than 60 seconds for a 48" diameter manhole, 75 seconds for 60" diameter, and 90 seconds for 72" diameter.

If the manhole fails the initial test, necessary repairs shall be made with a non-shrink grout while the vacuum is still being drawn. Retesting shall proceed until a satisfactory test is obtained.

Payment for the testing of new and replacement manholes shall be included in the unit price bid per each

installation.

### 5. Manhole Sealing and Rehabilitation

The Contractor shall comply with all relevant provisions of the Safety and Health Regulations for Construction, promulgated by the Secretary of Labor, as set forth in Title 29 C.F.R., and with all provisions of the California Occupational Safety and Health Act of 1973.

Specific attention is directed to OSHA safety rules, regulations and precautions to be taken by the Contractor before entering sanitary sewer manholes, and other sanitation structures with respect to physical and chemical hazards which may be present as specified in Article C1.31.

Manholes shall be rehabilitated with SewperCoat PG, installed in accordance with standard industry practice as defined by ACI 506 – Specifications for Materials, Proportioning, and Application of Shotcrete with a minimum 1/2-inch thickness installed.

Product shall be installed per Manufacture recommendations and requirements. If manufacturer deems material is not installed per their recommendations and requirements, the Contractor shall replace the manhole at no expense to the District.

## **SECTION C3 – NOT USED**

## **SECTION C4 – SEWER INSTALLATION BY OPEN TRENCH CONSTRUCTION**

### **4.01 SCOPE**

The work consists of furnishing all labor, materials, equipment and supervision to perform all work necessary to replace sanitary sewer pipelines where shown on the contract drawings. The work shall consist of, but not necessarily be limited to, performing the following tasks where specified:

1. Sewage flow bypassing during the replacement operations,
2. Locating and disconnecting all existing sewer laterals,
3. Open cut replacement of existing sewer main,
4. Reconnection of existing sewer laterals to new sewer,
5. Existing sewer manhole sealing and rehabilitation, and
6. Final CCTV inspection of sewer lines.

### **4.02 SEWAGE BYPASSING**

The Contractor shall submit, within 10 days prior to the Pre-Construction Conference scheduled by the District, a plan for sewage bypassing. The plan shall include a full description of the proposed methods, materials and equipment to be employed for each location where bypassing will be necessary. The plan shall include, but not be limited to: size, capacity, and number of pumps and backup pumps, staging areas for pumps, power supply, sewer plugging methods and types of plugs, suction piping materials and locations, discharge piping materials and locations, discharge manhole connection details, thrust restraint and pipe support details, noise control, provisions for backup pumps and power, and emergency response procedures.

The Contractor shall be responsible for maintaining all flows within the system. Bypassing system shall have dedicated operator while operating. All flows shall be bypassed around those sections of pipe to be replaced, including individual services and laterals within the project area.

Bypass shall be made by plugging an existing upstream manhole if necessary and pumping the sewage into a

downstream manhole or adjacent system. The pump and bypass lines shall be of adequate capacity and size to handle the expected flow plus peaking flows. All bypassing systems shall be reviewed by the District. Review of the bypass system by the District shall in no way be construed as relieving the Contractor of any responsibility under this contract as related to protection of the interests of the District and the general public.

At the end of each working day, a temporary tie-in shall be made between the replaced section and the existing system. The bypass plug will either be removed, or the pumps will be manned on a 24-hour basis.

Under no circumstances will the discharging of raw sewage be allowed in a drainage channel, on private property, in the City streets, or any location other than an approved sewer.

Prior to excavation, the Contractor shall demonstrate that the proposed bypass pumps and system can handle the expected flow rates.

#### **4.03 LATERALS**

The existing sewer lateral connections shall be located by the Contractor, disconnected prior to inspections or repairs, and then permanently reconnected to existing or new pipes after inspections or repairs have been completed. Contractor shall manage flows from disconnected laterals. The finished connection shall be made flush with the new sewer and shall provide a smooth transition to the existing lateral pipework. The existing lateral line shall be tied in with minimum bends or fittings.

#### **4.04 EXCAVATION AND BACKFILL**

Trenches shall be excavated and shored with vertical sidewalls, and be prepared and backfilled in accordance with ASTM D2774 and D2321. Pipelines shall be bedded with 4-inches of foundation material beneath the pipe and covered with bedding material to 12-inches above the crown of the pipe as shown on the design drawings.

Trenches shall be backfilled with suitable native materials or a Class 2 aggregate base. Materials shall be placed in 8-inch maximum lifts and backfilled to 95% relative compaction. In paved areas, the top 12-inches of the trench shall be backfilled with 8-inches of compacted Class 2 aggregate base and 4-inches of asphalt paving.

Where an unstable or running soil condition occurs in the bottom of the trench, such as in excavations below ground water, ¾-inch to 1 ½ inch crushed rock (drain rock) material and filter fabric shall be used according to the trench section detail specified herein.

#### **4.05 DRAINAGE DITCH CROSSING**

Drainage ditch crossing near MH T19 shall be accomplished by open cut trench methods and bypass pumping consistent with other pipeline replacement activities. Contractor shall install a temporary sheet pile cofferdam upstream of the pipeline crossing, and a temporary sheet pile or sandbag water containment barrier downstream of the pipeline crossing to create a dry work area for pipeline construction. Drainage water from the ditch shall be pumped from upstream to downstream of the work area.

Sheet piling and supports as necessary for bypass piping and other purposes shall be designed, furnished, placed, maintained and removed by the Contractor. The design, planning, installation and removal of all sheet piling and other support bracing shall be accomplished in such a manner as to maintain the required work area and trench excavation in a safe and stable condition, and to maintain the undisturbed state of the soils below and adjacent to the excavation. California Labor Code Section 6705, and all applicable Construction

Safety Orders and shoring system standards with respect to excavation and construction shall be strictly observed at all times.

Pipeline shall be placed on 4-inches minimum of 1-1/2 inch crushed rock and backfilled with controlled density fill materials to the bottom of the ditch. Ditch sidewalls shall be restored to original conditions. Downstream and upstream cofferdams and all miscellaneous materials and debris shall be removed, the ditch bottom restored, and the ditch returned to normal operation following completion and acceptance of the new sanitary sewer pipeline.

#### **4.06 TESTING**

After backfilling, and prior to asphalt concrete pavement all pipelines, including laterals, shall be inspected for obstructions and shall be cleaned. All pipelines shall be cleaned using the sewer ball method or a high-pressure hydroflusher. If the Contractor elects to use the high-pressure hydroflusher, and if, in the opinion of the District, the lines are not cleaned sufficiently by hydroflushing, the Contractor shall re-clean the lines using the sewer ball method at Contractor's own expense. Additional costs for television inspection of the work after re-cleaning shall be borne by the Contractor.

After completing construction and cleaning the pipeline, and prior to asphalt concrete pavement, the Contractor shall inspect new sewer mains and new lateral replacements by CCTV methods. Any breaks, leaks at joints, or sags in the sewer line are to be repaired at the Contractor's expense. After completion of repairs, if any, the Contractor shall again inspect the line by CCTV to the satisfaction of the District. The Contractor shall pay for all costs associated with the testing and television inspection. Contractor shall provide the final CCTV video file and hardcopy (or .pdf) summary for each pipeline segment to the District.

#### **4.07 ASPHALT PAVING AND RESTORATION**

After completing the structural backfill, aggregate base and asphalt cement paving shall be placed to restore surface to original conditions. Aggregate base shall be CalTrans Class 2, 3/4-inch maximum. The bituminous concrete shall consist of mineral aggregate, uniformly mixed with bituminous materials in a central plant in accordance with Section 39 of the Standard Specifications. Asphalt cement shall be 6 to 7 percent by weight with mix temperature between 275- and 375-degrees F. Reclaimed asphalt pavement is not permitted. Submit proposed mix design for EPASD review prior to commencement of work.

Prime coat mix shall comply with Section 93 the Standard Specifications and shall be grade SC-250 at 140- to 230-degrees F. Prior to placement of asphaltic concrete, apply prime coat on the prepared compacted base at a uniform rate of 0.25 gallons/square yard using pressure distributors. Use clean sand to blot excess primer. Allow sufficient time for prime coat to penetrate the compacted base.

Tack coat mix shall comply with Section 94 the Standard Specifications shall be type SS1 or RS1, emulsified asphalt and water in ration of 1:3 at 285- to 350-degrees F when applied. Tack coat shall be applied to all paved surfaces against which new asphalt paving is to be placed. Apply tack coat on asphalt or concrete surfaces at a uniform rate of 0.1 gallon per square yard. Do not tack coat utility vaults, manholes, catch basins, valve boxes, and other surfaces to prevent bonding with new asphalt.

Verify compacted subgrade is dry and ready to support paving and imposed loads. Proof roll subgrade with two passes to identify soft spots. Place aggregate base in accordance with requirement of Section 26 of the Standard Specifications and to the thickness shown in the drawings.

Place asphalt cement in accordance with Section 39 of the Standard Specifications, in maximum 2-inch lifts, to total thickness as defined in the drawings. Compact each lift by rolling to specified density. Perform final rolling with consecutive passes to achieve even and smooth finish without roller marks, free from ruts,

humps, depressions, and irregularities of any nature. Immediately repair any objectionable marks on the surface.

After completing pipeline repairs and installations, all material not used therein shall be removed and disposed of by the Contractor in accordance with all federal, state, and local laws, regulations, and ordinances.

All roads, sidewalks, driveways, and other facilities in the area of work shall be left clean and in good order equivalent to their original condition before the work started. All waste removal, disposal, and cleanup shall be done by the Contractor without extra compensation and within a reasonable time. If cleanup extends beyond a reasonable time and after receipt of one notice in writing from EPASD, the work will be performed by the District, and the cost deducted out of monies due or to become due the Contractor.

All restoration shall be included in the Contractor’s unit and/or lump sum prices bid. Damage to property outside of specified construction limits shall be the responsibility of the Contractor and restoration of same shall be made at the Contractor’s expense.

**4.08 SLURRY SEAL**

This work shall consist of mixing and spreading of slurry seal on existing pavement or surface. Slurry seal shall conform to the requirements of Section 37-2, "Slurry Seal," of the Caltrans Specifications, except as modified herein. Slurry seal areas are generally curb-to-curb, including over the T-cut trench repaving, as typically required by the City of East Palo Alto encroachment permit.

Slurry seal shall be State Standard Type II.

**- Asphalt Emulsion**

Asphalt emulsion shall be cationic "quick setting" CQS1h grade and conform to Section 94, "Asphaltic Emulsions," of the Caltrans Specifications. 5-02.02

**- Aggregate**

Aggregate shall meet the requirements of a Type II grading and conform to Section 37- 2.02C, "Aggregate," of the Caltrans Specifications except as modified herein. Aggregate shall be of sound, durable crushed stone with no round particles, and shall be of volcanic in origin. The percentage composition by weight of the aggregate shall conform to the following gradings:

Sieve Sizes	Percentage Passing
3/8"	100
No. 4	90-100
No. 8	65-90
No. 16	40-70
No. 30	25-50
No. 200	5-15

The composition of dry aggregate in the slurry seal shall be 13% to 18% by weight of the theoretical asphalt content. Rate of application shall be 14 lb. to 16 lb. per square yard.

**SLURRY SEAL CONSTRUCTION**

Mixing and spreading equipment shall be in accordance with Section 37-2.05, "Mixing and Spreading Equipment," of the Caltrans Specifications.

Surface to receive slurry seal shall be prepared in accordance with the requirements specified for preparing



surfaces to receive asphaltic emulsion as specified in Section 37- 2.06, "Placing," of the Caltrans Specifications. Power sweepers shall be required to sweep from face of curb to face of curb or, for those streets without curbs, between the edges of street pavement. This shall involve a minimum of three passes with a power broom street sweeper (Mobile or equivalent).

Pavement missed by or inaccessible to broom sweepers shall be swept clean by other approved methods. Contractor shall provide whatever compressed air or other approved cleaning methods necessary to remove all dirt and loose material from the pavement.

All existing raised pavement markers and thermoplastic markings shall be removed and disposed of by the Contractor. Said removal shall not occur sooner than 2 days prior to the day that the sealing is performed.

Samples of the slurry seal will be taken directly from the slurry unit(s) at a minimum rate of one sample per mixing unit per each day's use. Consistency and residual asphalt content tests shall be made on the samples and compared to the specifications. Tests will be run by the Contractor and at the expense of the Contractor.

If any two successive tests on the mix from the same machine fail, the use of the machine shall be suspended. It will be the responsibility of the Contractor, at his own expense, to prove to the Engineer that the problems have been corrected and that the machine is working properly. When tests for an area indicate that the application is outside the specified limits, then one of the following remedies shall be applied unless approved otherwise by the Engineer:

- A. A deduction shall be made from the bid amount paid per area for the area, or;
- B. The area shall receive an additional slurry seal at the Contractor's expense.

It requires the contractor to begin installation of permanent thermoplastic marking & striping to match existing condition within 5 working days of pavement installation completion and with City inspector approval.

#### **4.09 GRIND AND REPAVE**

This work shall consist of a 2" grind and pave of the full lane width of the traffic lane for the full length plus 10 feet on each end, but not less than 100 ft. Contractor to use hot mix asphalt (HMA) type A of Section 39, per Caltrans Specifications, except as modified herein. Contractor shall verify with the City for the final area of the grind and pave.

To minimize the possibility of 'cold' longitudinal joints appearing in the future, the temperature of the previously placed asphalt paving pass shall be sufficiently high when the next pass is placed and joined to it. This could be accomplished by limiting the length of each pass to ensure the formation of a hot longitudinal joint. Paint binder shall be applied prior to paving next to a cold joint that could not be avoided such as for resumption of paving the next day.

It requires the contractor to begin installation of permanent thermoplastic marking & striping to match existing condition within 5 working days of pavement installation completion and with City inspector approval.

#### **4.10 LOCATOR WIRE**

Locator wire shall be solid #8 copper wire with protective coating. Locator wire shall be placed per trench detail shown in project plans with three feet of wire coiled in manholes, 12-inches below the rim and secured to the manhole or box as directed by the District representative.

**SECTION C5 – NOT USED**  
**SECTION C6 – NOT USED****SECTION C7 - MEASUREMENT AND PAYMENT****7.01 GENERAL**

Unless otherwise specified in other individual sections of these specifications, quantities of work shall be determined from measurements or dimensions in horizontal planes. Linear quantities of pipe shall be considered as being the true length measured along the longitudinal axis.

Units of measurement shall be in accordance with U.S. Standard Measures.

**7.02 LUMP SUM PRICE BREAKDOWN**

Immediately after award of the contract, the Contractor shall submit a cost breakdown list to the District. This list shall consist of the major items of work that make up the contract and shall be used for determining progress pay estimates. The Contractor shall fill in the amounts for each item, prorating general costs such as setup, overhead, and profit in each item. The total of all items shall equal the total of the contract. The amounts the Contractor indicates for any items on the list may be revised as deemed necessary by the District if it appears such items are unbalanced, unless the Contractor can substantiate these costs.

**7.03 UNBALANCED BIDS**

The Contractor is cautioned against unbalancing prices for lump sum or unit items. Unbalancing prices may be cause for rejection of the bid or the Contractor may be required to substantiate or correct excessive prices prior to award.

**7.04 MEASUREMENT**Lump Sum Bid Items

Lump sum bid items will be measured as a complete job and are intended to cover payment for all work in connection with the item as indicated on the plans and as described throughout these specifications. Where the item represents a system, the lump sum bid price is intended to cover payment for all items required to construct (furnish and install) the system.

The intent is that all items of work are to be included within the list of lump sum; bid items whether specifically called out or not, except for unit bid items. The Contractor is bidding upon a complete project, the breakdown into various lump sum items is primarily for District accounting and funding purposes.

Unit Price Bid Items

Unit price bid items will be measured as described in the bid schedule or specifications.

## 7.05 PAYMENT

### Lump Sum Bid Items

Payment for Lump Sum Items, measured as stated above and accepted, will be paid for at the lump sum bid price, which price and payment shall constitute full compensation for furnishing all labor, materials, tools, equipment and incidental necessary to complete the project in accordance with the Plans and Specifications. Progress payments may be made based on percentage complete at the time of payment request.

### Unit Price Bid Items

Payment for Unit Price Bid Items, measured as stated above and accepted, will be paid for at the unit price bid, which price and payment shall constitute full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to complete the project in accordance with the Plans and Specifications.

## 7.06 MEASUREMENT AND PAYMENT

The following items of work are included in this project. Item numbers have been assigned to provide a means of cross-referencing between this Section and the Bid Schedule.

### **Item 1 – Mobilization and Demobilization**

Measurement and payment for this item shall be on a lump sum basis. Compensation for initial startup activities, including but not limited to developing the project schedule, traffic control plan, bypassing plan, management plans, pre-construction meetings, moving onto the job, establishing a corporation yard, all permit application and execution costs, bonding of the project, and dismantling and clean-up of all aspects of the project including the corporation yard, shall be included in lump sum payment. The first payment shall be made, less retainage, following completion of the first pipeline segment and shall be included with the first invoice for the project. The compensation shall not exceed 5% of the total bid price for the project, two-thirds of which shall be payment for mobilization and one-third for demobilization

### **Item 2 - Traffic Control**

Measurement and payment for this item shall be on a lump sum basis. The Contract lump sum price bid for this item of work shall include full compensation for furnishing a complete Traffic Control Plan prepared in accordance with these specifications. The price bid shall include all labor (including flagging costs and pilot car), all materials (including all stationary and portable signs, lights, traffic cones, and lane delineators), all tools, equipment and incidentals, and all work involved in placing, removing, storing, maintaining, moving to new locations, replacing and disposing of the components of the traffic control system as shown on the approved Traffic Control Plan, the Standard Plans, and as specified in the CalTrans Standard Specifications, and these Special Provisions, as required by the agency having jurisdiction and as reviewed by the District. No additional compensation shall be allowed. Payment for this item shall be based on the pro rata share of the work completed.

### **Item 3 – Project Signage**

Measurement and payment for this item shall be for one mobile sign that shall be displayed at the place of work on a daily basis. Payment for this item shall include full compensation for all work, materials including sign and portable stand, appurtenances, all City fees, and required safety barricades and devices for a portable 4-foot x 6-foot project sign with the following information:

**EAST PALO ALTO SANITARY DISTRICT (EPASD)  
SANITARY SEWER REPLACEMENT PROJECT**

**BOARD MEMBERS:**

**Dennis Scherzer  
Martha Stryker  
Glenda Savage  
Bethzabe Yañez  
Ofelia Bello**

**DISTRICT MANAGER: Akin Okupe, MBA, P.E.**

**CONTRACTOR NAME AND PHONE NUMBER**

**In Case of Emergency, please call EPASD at (650) 325-9021.**

The sign shall also include the EPASD logo, as well as contractor's logo if desired. Contractor shall provide a draft of the sign layout to the District for review prior to printing and constructing.

**Item 4 – Gas Line Avoidance/Utility Plan**

Gas Line Avoidance/Utility Plan- The contractor must submit a written plan to identify and avoid gas lines and other utilities before commencement of construction. A draft plan shall be submitted prior to the Pre-Construction Meeting. Following field locates of existing utilities, the Plan shall be updated to identify critical areas and any mitigation measures if needed. The plan shall be developed by the contractor and their work shall follow it throughout all construction phases.

**Item 5 – Safety, Sheeting, Shoring, and Bracing**

Pursuant to the provisions of California Labor Code Section 6707, each bid submitted shall contain, in the bid item indicated, the amount included in its bid for adequate sheeting, shoring, and bracing, or equivalent method, for the protection of life and limb in trenches and open excavation, which shall conform to applicable safety orders. By listing this sum, the Bidder warrants that its action does not convey any tort liability to the Owner, Engineer, Design Consultant, Construction Manager, and their employees, agents, and subconsultants.

Measurement and payment for this item shall be on a lump sum basis. This bid item consists of all labor, permits, training, materials, equipment, tools and incidentals related to installing, management, and removing all sheeting, shoring and bracing for the project to maintain safe and workable subsurface conditions in accordance with all federal, state, and local rules and regulations with respect to excavation safety. Payment for this item shall include full compensation for all work and materials necessary to provide sheeting, shoring and bracing, complete in place, including design, installation, management and removal of sheeting, shoring, bracing and other excavation supports necessary to complete all work in compliance with the CAL-OSHA standards. Payment shall be on a lump sum basis and released on a prorated schedule based on the percentage of completed contract value.

**Item 6 – Dust and Storm Water Control**

Measurement and payment for this item shall be on a lump sum basis. The Contract lump sum price paid for this item of work shall include full compensation for furnishing all labor, materials (including dust palliative binder), tools, equipment and incidentals and for doing all the work involved in developing and applying all water and/or dust palliative required for the work and for controlling dust resulting from

the Contractor's operations, public traffic, wind, or other conditions at all times including Saturdays, Sundays, holidays and when ordered by the District, and no additional payment shall be made therefore.

Storm water measures as required by the Contractor's Storm Water Pollution Prevention Plan and by the City of East Palo Alto and San Mateo County requirements shall be compensated under this pay item. As a minimum, Contractor shall control drainage inlets directly affected by construction shall be protected per ABAG requirements and this item shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals in accordance with such requirements.

Payment for this item shall be based on the pro rata share of the work completed.

**Item 7 - Bypassing**

Measurement and payment for Bypassing shall be on a per pipeline segment basis. Each bypassing event for a specific pipeline segment shall include all personnel, planning, permitting, equipment, materials, operations, and incidentals and appurtenant items in accordance with the specifications, as defined in Part C Paragraphs 4.02 and 8.02, as required for pipeline replacements and CCTV inspections if needed.

Payment for this item shall be on a lump sum basis for each pipeline replaced or inspected where bypassing is implemented and completed successfully.

**Item 8 – 14-inch Diameter Pipeline Replacement - Open-Cut Sanitary Sewer in Place**

Measurement and payment for this item shall be on a per linear foot basis for each linear foot of pipe removed and replaced with new 14-inch diameter pipe. Payment for this item shall include full compensation for all labor, materials, tools, equipment, incidentals, work and appurtenances required for the removal and installation of replacement sewer pipe by open cut methods including: all pavement cutting, pavement removal and disposal, excavation, management of spoils, including disposal of excess soils, installing the new sewer pipe; connecting the pipes to the manholes; groundwater dewatering including filtration and discharge to sanitary sewer; bedding, backfilling, and compacting per trench detail and the technical specifications; all fittings and all other tasks, materials, and costs incidental and necessary to complete the item as specified herein.

**Item 9 – 18-inch Diameter Pipeline Replacement - Open-Cut Sanitary Sewer in Place**

Measurement and payment for this item shall be on a per linear foot basis for each linear foot of pipe removed and replaced with new 18-inch diameter pipe. Payment for this item shall include full compensation for all labor, materials, tools, equipment, incidentals, work and appurtenances required for the removal and installation of replacement sewer pipe by open cut methods including: all pavement cutting, pavement removal and disposal, excavation, management of spoils, including disposal of excess soils, installing the new sewer pipe; connecting the pipes to the manholes; groundwater dewatering including filtration and discharge to sanitary sewer; bedding, backfilling, and compacting per trench detail and the technical specifications; all fittings and all other tasks, materials, and costs incidental and necessary to complete the item as specified herein.

**Item 10 – 20-inch Diameter Pipeline Replacement - Open-Cut Sanitary Sewer in Place**

Measurement and payment for this item shall be on a per linear foot basis for each linear foot of pipe removed and replaced with new 20-inch diameter pipe. Payment for this item shall include full compensation for all labor, materials, tools, equipment, incidentals, work and appurtenances required for the removal and installation of replacement sewer pipe by open cut methods including: all pavement cutting, pavement removal and disposal, excavation, management of spoils, including disposal of excess soils, installing the new sewer pipe; connecting the pipes to the manholes; groundwater dewatering including filtration and discharge to sanitary sewer; bedding, backfilling, and compacting per trench detail and

the technical specifications; all fittings and all other tasks, materials, and costs incidental and necessary to complete the item as specified herein.

**Item 11 – 22-inch Diameter Pipeline Replacement - Open-Cut Sanitary Sewer in Place**

Measurement and payment for this item shall be on a per linear foot basis for each linear foot of pipe removed and replaced with new 22-inch diameter pipe. Payment for this item shall include full compensation for all labor, materials, tools, equipment, incidentals, work and appurtenances required for the removal and installation of replacement sewer pipe by open cut methods including: all pavement cutting, pavement removal and disposal, excavation, management of spoils, including disposal of excess soils, installing the new sewer pipe; connecting the pipes to the manholes; groundwater dewatering including filtration and discharge to sanitary sewer; bedding, backfilling, and compacting per trench detail and the technical specifications; all fittings and all other tasks, materials, and costs incidental and necessary to complete the item as specified herein.

**Item 12 – 26-inch Diameter Pipeline Replacement - Open-Cut Sanitary Sewer in Place**

Measurement and payment for this item shall be on a per linear foot basis for each linear foot of pipe removed and replaced with new 26-inch diameter pipe. Payment for this item shall include full compensation for all labor, materials, tools, equipment, incidentals, work and appurtenances required for the removal and installation of replacement sewer pipe by open cut methods including: all pavement cutting, pavement removal and disposal, excavation, management of spoils, including disposal of excess soils, installing the new sewer pipe; connecting the pipes to the manholes; groundwater dewatering including filtration and discharge to sanitary sewer; bedding, backfilling, and compacting per trench detail and the technical specifications; all fittings and all other tasks, materials, and costs incidental and necessary to complete the item as specified herein.

**Item 13 – Foundation (Drain) Rock**

Measurement and payment for this item shall be on a unit price basis by the ton as recorded at the quarry, delivered to the job site, and placed in a pipeline trench when directed by the District Engineer. Placement shall be as directed by the District Engineer when trench bottom is unsuitable for placement of bedding materials. No specific amount of drain rock is guaranteed. The bid quantity is an allowance, and the final amount may vary from zero to a To-Be-Determined amount. Payment for this item shall constitute full compensation for all labor, materials, equipment, and incidentals necessary to over excavate trench bottom, obtain, transport, deliver, place, and compact foundation rock in the trench bottom and cover with filter fabric.

**Item 14 – Drainage Ditch Crossing**

Measurement and payment for this item shall be on a per each lump sum basis for work components over and above the pipeline installation, trench dewatering, and sanitary sewer bypassing that are paid for under separate measurement and payment items. The unit price bid for Drainage Ditch Crossing shall include full compensation for furnishing all labor, tools, equipment, materials, and incidentals, and for doing all the work necessary to cross under drainage ditch, including but not limited to upstream temporary sheet pile cofferdam, downstream cofferdam, bypass pumping of drainage ditch water, miscellaneous temporary supports, restoration of ditch sidewalls, removal of temporary cofferdams and supporting materials, area cleanup, and any miscellaneous appurtenant items for a complete pipeline installation.

**Item 15 – Utility Crossings**

Measurement and payment for this item shall be on a per each unit price basis. The Contract unit price bid per each utility crossing shall include full compensation for furnishing all labor, tools,

equipment, materials, and incidentals and for doing all the work necessary to cross under existing facilities.

Where multiple existing facilities are located in one trench, as herein defined, the Contractor shall be paid for one crossing regardless of the number of facilities therein or the width of the trench. Existing facilities, including pipes and wires shall be considered as being in one trench whenever the exposed nearest point of one facility is within two (2) feet of another exposed facility in an open trench.

#### **Item 16 – Reconnect Laterals**

Measurement and payment for these items shall be on a per each basis. The Contract unit price bid for this item of work shall include full compensation for all labor, materials, tools, equipment and incidentals necessary to reconnect existing “live” laterals to the new or replacement sanitary sewer main, including: all pavement cutting, pavement removal and disposal, excavation, backfilling and compacting bedding, backfill, structural fill and aggregate base materials; all fittings and all other tasks, materials, and costs incidental and necessary to complete the lateral reconnections as specified herein.

Pipe required to be installed under this item will include up to eight lineal feet from centerline of new or existing sewer main to existing lateral. At those locations where the required length of individual service or lateral is in excess of 10 lineal feet, the portion in excess of the first 10 feet will be measured and paid for separately at the lineal foot unit price for pipeline replacement (Item 9).

#### **Item 17 – New Sewer Manholes**

Measurement and payment for these items shall be on a per each basis. No specific number of sewer manholes is guaranteed. The bid quantity is an allowance, and the final number of manholes may vary from zero to a To-Be-Determined number.

The Contract unit price bid for these items of work shall include full compensation for all work described and includes sawcutting; the removal of all surplus materials, proper materials for new manhole, connection or reconnection of pipes entering or leaving manhole (including sealing gasket), drop connections where required, channeling of flows at bottom of manhole, complete removal of existing manhole where required, new manhole rim and frame, ac paving and aggregate per trench detail, backfill or cement slurry backfill, RAMNEK joint compound, RUB’R-NEK external concrete wrap, installing trace wire as specified and detailed, all safety requirements including but not limited to safe manhole entry, compaction and all other work, materials, removal and reinstallation of fencing, curb/gutter replacement, tools and testing as specified, complete in place.

#### **Item 18– Dewatering Operations**

Measurement and payment for this item shall be on a lump sum basis. The contract lump sum price paid shall include full compensation for furnishing all labor, materials, tolls, equipment and incidentals for doing all the work involved in dewatering, testing, and treatment of retained water as shown on the plans and as specified in the technical specifications. Payment for this item shall be based on the pro rata share of the work completed.

#### **Items 19 - Cut Back (Cold-Parch) Asphalt for Temporary Resurfacing**

Measurement and payment for this item shall be on a per ton basis. Payment for this item shall include full compensation for all labor, materials, tools, equipment, incidentals, work and appurtenances required to place a minimum of 1.5” cut back asphalt each day as temporary resurfacing at the completion of trench backfill and compaction. The bid unit price also includes compensation for maintaining temporary resurfacing daily as needed to eliminate potholes, uneven driving or walking surfaces and to control dust.

**Item 20 – Asphalt Repaving**

Measurement and payment for asphalt concrete surfacing will be on a square foot (sq ft) unit price basis. Only such quantities as are required for the area of roadway surfacing required for pipeline repairs shall be eligible for payment. Payment for this item shall constitute full compensation for all labor, materials, equipment, necessary to place, compact and resurface asphalt concrete surfacing of damaged roadways caused by trench excavations. This payment shall include base rock, concrete curb removal and replacement if needed, prime, tack and seal coats, asphalt concrete paving per trench detail including replacing all other appurtenant surface features at least to the condition existing prior to the beginning of the work or to a better condition; and all other labor and materials necessary or required to complete asphaltic concrete repaving.

**Item 21 – Grind and Repave**

Measurement and payment for this item shall be on per square foot basis. No specific amount of repaving is guaranteed. The bid quantity is an allowance, and the final amount of repaving may vary from zero to a To-Be-Determined amount. The contract price per area for asphalt concrete shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in furnishing and placing asphalt concrete and applying paint binder, complete in place as shown on the plans, as required by the special provisions and as directed by the Engineer. This item includes surface preparation, cleaning of the area to be overlaid, constructing and removing temporary asphalt concrete or cold mix transitions, applying prime and tack coats, spreading, rolling, compacting, leveling courses if applicable, and asphalt concrete replacement in fullwidth of lanes as may be required by the City of East Palo Alto.

**Item 22 – Slurry Seal**

Measurement and payment for this item shall be on per square foot basis. This work shall consist of mixing and spreading of slurry seal on existing pavement as may be required by the City of East Palo Alto. The contract price paid shall include full compensation for furnishing all labor, materials, tolls, equipment and incidentals and for doing all the work involved in slurry seal throughout construction as specified in the technical specifications.

**Item 22 – Restore Pavement Striping and Markings**

Measurement and payment for this item shall be on a lump sum basis. Payment for this item shall include full compensation for all labor, material, equipment, works and appurtenances required for the placement of new striping, pavement markings, and all other tasks and costs incidental and necessary to complete the item as specified herein.

No adjustment of the Contract unit price will be made for any increase or decrease in the quantity of any Item. Every bid item quantity is an estimation, and the final amount may vary significantly. The provisions in Section 4-1.03B, “Increased or Decreased Quantities” of the Caltrans Standard Specifications shall not apply.



# **Part D**

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## **Encroachment Permit Conditions and Project Drawings**



# City of East Palo Alto Public Works Department

1960 Tate Street, East Palo Alto, CA 94303  
Phone (650) 853-3189 Fax (650) 853-3179

## Standard Encroachment Conditions

Effective 07/2018

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### THE PERMITTEE AGREES TO ABIDE BY ALL THE CONDITIONS LISTED BELOW.

#### **I. NOTIFICATION PROCEDURES**

No Permit is valid until the following notification procedures are performed by the applicant:

-No access or work shall be performed within the City right-of-way without the full knowledge of the assigned City Public Works Inspector who shall be given no less than two (2) working days advance notice of the initiation of Permittee use at (650) 853 3179.

No excavation or concrete removals shall be performed without first obtaining a "USA"-Ticket Number by contacting the "Underground Service Alert" (USA 811) at least two (2) working days in advance. The City Public Works Inspector may revoke any permit started without a "Ticket Number" number without refund of fees paid to the City.

-For work within a City arterial street that requires lane closure(s)\*, the Permittee must notify Public Safety Services at least (4) hours prior to any lane closure by doing the following:

- Contact EPA Police Dispatch Center (650)321-1112. Inform them of lane closure(s) occurring.
- Give the exact location of work including the following; nearest cross streets; the hours and/or days of work; a contact number.
- Contact the Menlo Fire Dispatch (650)323-2404. Inform them of lane closure(s) occurring. Give the exact location of work including nearest cross street with the days and hours of work.

\*NOTE: Lane closures require prior approval by the City. See Section VI Traffic Control/Lane Closure Procedures.

For major construction work on local streets or collector streets the permittee must provide the following; *Written Public Notice; door hangers; or other forms of public outreach notice prior to intended work*. This shall be posted by the Permittee to each affected residence, forty (40) hours prior to commencement of work.

For excavation within (100) feet of a signalized intersection; permittee shall take additional precaution measures to not impact traffic signal equipment such as, detector loops, conduits, etc. permittee shall assume cost and responsibility for maintaining existing and temporary electrical systems or any other item or portion of work, as may be deemed necessary or advisable for protection of highway and traveling public. Payment of all costs will be incurred by the City of East Palo Alto in repairing facilities damaged during all phases of construction. Permittee shall immediately repair or replace any damaged traffic control devices and/or replace any thermoplastic or painted striping.

For work involving the removing or replacing of survey monuments, it is imperative that the Permittee notify the City and/or the San Mateo County Office (650) 496-6374 at least (48) hours prior to removing or replacing any survey monuments. All monuments shall be replaced at Permittee's expense and must be replaced in kind within 0.01 feet of their original horizontal and/or vertical location. This work must be performed by a licensed land surveyor, unless otherwise specified by the Public Works Director or the City Engineer.

## **II. ADDITIONAL TERMS OF THE PERMIT**

-The Permittee agrees to defend, indemnify, protect and hold harmless the City of East Palo Alto; its officers, officials, employees, agents, and/or volunteers from and against all claims, burdens, losses, defense costs or expenses, including any attorney's fees, or liability of any kind or of nature, which the City of East Palo Alto, its officers, employees and agents and/or volunteers may sustain or incur or which may be imposed upon them in any manner or form arising in consequence of the issuance of this Permit or any work performed in consequence thereof.

-If any deposit is insufficient to pay all fees and costs herein provided, the Permittee shall upon demand, pay to the City an amount equal to any deficiency.

-Protection of the public is paramount; In the interest of public safety, the City reserves the right to make any changes and prescribe such additional conditions to any approved Encroachment Permit as he may deem necessary for the protection of the public. The City will contact the Permittee by telephone as soon as practically possible and follow-up with a written letter notifying the Permittee of such changes.

-If the Engineering Division deems work done under any Encroachment Permit is unsafe, dangerous, or otherwise not in the best interest of the public, the Public Works Director may immediately revoke and/or VOID the Permit without refunding the fees paid to the City of East Palo Alto.

-Any conditions shown in regulations, attachments, and/or provisions of Codified Ordinances and all applicable laws, rules and/or regulations of the City of East Palo Alto or any other regulatory governing agency pertinent to work on the face of this permit shall be complied with. Section 6424 of the California Labor Code requires contractors planning excavation or trench work to obtain a permit for such work from the State of California, Department of Industrial Relations, and Division of Industrial Safety.

## **III. HOURS OF WORK – ALL STREETS & RIGHT-OF-WAY**

**-NO work shall be performed:-**

a) **On local and collector streets:** Before 7:00 a.m. or continue after 4:00 p.m. unless the City Inspector has been notified (No Exceptions)

b) **On arterial streets:** Before 9:00 a.m. or continue after 3:00 p.m., unless the Public Works Inspector has been notified. (No Exceptions)

c) **For all streets:** On weekends and City designated holidays. (No Exceptions)

d) On rainy days whereas during erosion of materials cannot otherwise be controlled by use of Best Management Practices (BMPs)

## **IV. ENCROACHMENT PERMIT DOCUMENTATION PROCEDURES**

-A copy of the approved Encroachment Permit and approved plans, if any, must be kept on the job site at all times. Permittee agrees that it shall be his or her responsibility to provide the contractor, subcontractor, or any other agent responsible for construction of the Permittee use within the City right-of-way, with a copy of the Encroachment Permit and a complete set of approved plans.

## **V. CONTRACTOR / PERMITTEE COORDINATION WITH CITY AND OTHERS**

-Public counter staff shall, to the extent practical, verify that the proposed project and/or lane closure(s) does not conflict with an on-going City project, or another, previously Permittee operation. --In the event of multiple contractors working in the same area, it shall be the responsibility of the Permittee to coordinate all work in order to avoid a potential conflict in the field.

-This permit does not give Permittee permission to delay or interfere with the construction of City projects. If proposed work will occur within limits of any City project, installation shall be subject to the approval of and at the convenience of the City's Engineering Div. Prior to any excavation or work within limit to any City project, the Contractor for the city must be informed and written permission must be obtained from the City's Contractor. Written permission must be presented to the City Engineering Div. stating that the installation **will not delay** or interfere with the City operations. If permission is denied by the City, regardless of Contractor's written permission, then the work proposed within the City limits of its contracted work shall be delayed until completion of the City's operations are completed.

## **VI. TRAFFIC CONTROL / LANE CLOSURE PROCEDURES**

-A copy of the approved Traffic Control Plan, if applicable, must be kept on the job site at all times. If traffic control is not performed according to the approved Traffic Control Plans or if the Traffic Control Plan is not available for inspection by the City Public Works Inspector upon request or if, upon request, the traffic control is not corrected to the satisfaction of the Public Works Inspector, the permit will be voided and no refund of fees will be provided.

-For arterial streets, all work must have an approved Traffic Control Plan unless waived by the Engineering Division in which case, the Permittee shall follow the CA MUTCD. Traffic Control Plans shall be prepared in accordance with the Work Area Traffic Control Handbook (WATCH) and prepared, stamped, and signed by a Licensed Civil Engineer/Traffic Engineer. Traffic control within the construction area shall be done in accordance with the approved Traffic Control Plan. No obstructions (i.e. lane closures) of arterial traffic lanes or sidewalks are allowed between 7:00 a.m. and 9:00 a.m. and after 3:00 p.m., Monday through Friday. Restrictions shall apply to vehicles, equipment, material, traffic control devices, excavation, stockpile, or any other form of obstructions. No obstructions may be left overnight. Any exceptions must be approved prior, and will be noted on the Encroachment Permit at the time of issuance.

-For arterial and collector streets, a changeable message board advising the public of project duration is required to be installed 72 hours in advance of a project that affects traffic for two (2) weeks or more.

-For local and collector streets, the work site MUST be flagged and barricaded to the satisfaction of the Public Works Inspector and shall be in compliance with the latest edition of the Work Area Traffic Control Handbook (WATCH) or the Work Area Protection and Traffic Control Manual. If the Permittee is a public utility governed by the Public Utilities Commission, and two-way traffic shall be maintained at all times. Written notice of intended work shall be posted by the Permittee at each residence within a 200 foot radius, twenty-four (24) hours prior to commencement of work.

-All approaches to private driveways and intersecting roads and streets shall be kept open to traffic at all times, unless otherwise approved by the Director of Public Work or his/her designee.

-Trenching for installation across any intersecting roadway open to traffic shall be progressive. Not more than one-half (1/2) of the width of a traveled way shall be disturbed at one time, and the remaining width shall be kept open to traffic by bridging or backfilling. Trench plates, if used, shall be non-skid and ramped.

-If oversize loads are necessary to transport equipment to or from a site, a Transportation Permit shall be obtained as a separate permit prior to the transport.

-Monitoring Well(s) – Permit applications to install a new monitoring well within the public right-of way shall be reviewed and approved by the Director of Public Works or his/her designee prior to permit issuance.

## **VII. GOOD HOUSEKEEPING & SAFETY PRACTICES**

-Permittee shall prevent dust or other materials from becoming a nuisance or annoyance.

-Applicant shall comply with NPDES requirements for general construction activity providing appropriate Best Management Practices (BMPs). No runoff shall be allowed to enter the storm drain, or be discharged on to the street. A Water Quality Management Plan (WQMP), a Storm Water Pollution Prevention Plan (SWPPP), erosion control plan, etc. shall be required as applicable for the project to ensure the project does not conflict with NPDES and City requirements.

-Right-of-way shall be left in neat and orderly condition at the end of each working day. Intake and outlet ends of all culverts shall be left free from all excess materials and debris.

-Any excavated material shall be cast away from the improved portion of the highway. Excavated material cannot be stockpiled on any City streets.

-Permittee shall maintain neat, safe, clean and sanitary conditions at all times to the satisfaction of the Public Works Inspector. The Permittee shall supply portable toilet facilities.

-All Underground Service Alert (USA) / utility markings shall be removed at the time of completion of work.

*NOTE: The City of East Palo Alto does not perform any inspection under this Permit pertaining to the protection and safety of (personnel or equipment); this is the responsibility of the Permittee.*

## **VIII. RIGHT OF WAY WORK – GENERAL CONSTRUCTION REQUIREMENTS**

-Streets under moratorium as designated by the City Public Works Department will require special construction practices. The City of East Palo Alto prohibits the cutting of any public street pavement within five (5) years of a street overlay and within three (3) years of a street slurry seal (Refer to XI. Special Construction Practices for Moratorium Streets below). To check if a street is under moratorium, call the City Public Works Department at (650)853-3189.

-Open cutting of streets will require coordination with the City of East Palo Alto Public Works Inspector, and/or the Engineering Division.

-Any repairs or replacement of City improvements, damaged as a result of removal of Permittee encroachment, as determined by the Public Works Inspector, Director of Public Works, or his or her designee, shall be done at the sole expense of the Permittee and replaced per the latest County of San Mateo standards; and/or the Standard Specifications for Public Works Construction, as applicable.

-Repairs to damaged City facilities shall be made functional immediately. Complete and final repairs are to be completed within ten (10) calendar days. In the event the repair/replacement is not accomplished within ten (10) calendar days from the date of start of work and action by the City is necessary, the Permittee, successors or assigns shall reimburse the City for any costs incurred to make said repairs.

-Any improvements above ground shall provide: 18" clearance from curb face, 48" clearance on sidewalk for vertical obstructions. The Public Works Inspector, prior to installation, must inspect each location. Mailboxes in the parkway shall conform to County of San Mateo standards, and United States Postal Service Regulations.

-The Permittee shall make proper arrangements satisfactory to the Director of Public Works or his/her designee for the cost of relocating any structure, public utility, tree, or shrub where such relocation is made necessary by the proposed work for which a permit is issued.

-The uppermost portion of any pipeline or other facility shall be installed not less than 36-inches below the lowest portion of the roadway surface or ditch, unless otherwise authorized in writing by the Director of Public Works or his designee, except as otherwise regulated by the California Public Utilities Commission.

-All trenching or boring in streets shall be properly backfilled or properly protected (i.e. non-skid metal plates) at the end of each working day. Pedestrian access on sidewalks shall be maintained as much as practicably possible. If pedestrian access is blocked, place "Sidewalk Closed" signs at the beginning and end of the sidewalk or at the nearest intersections.

-Non-skid metal plates, if used, shall be fastened down to prevent moving. Metal plates will not be allowed to remain in traffic lanes more than ten (10) calendar days. Temporary asphalt shall be used to eliminate any vertical changes. Applicant shall properly place advance warning signs on the right-of-way "Steel Plates Ahead" or approved sign when using steel plates as part of the construction.

-All native material backfill shall be compacted to a relative density of at least 90% of the maximum density. The top 12" of backfill shall be compacted to 95% relative compaction.

-Gravel bags must be on site for storm drain protection prior to any work. Gravel bags will be placed in front of storm drain inlets during construction, except on rainy days. Sand bags will be kept in good working condition.

-Additional construction requirements may be applicable depending upon the type of work. In all cases, work MUST be performed to the satisfaction of the Public Works Inspector. The Public Works Inspector reserves the right to STOP and request remediation of all work if construction is not done to the Inspector's satisfaction.

#### **IX. STREET WORK – CONCRETE REPAIR / CONSTRUCTION REQUIREMENTS**

-The bore or tunneling of any concrete apron, curb, gutter or sidewalk or drive approach shall be backfilled with six-sack cement slurry. Open cuts shall be backfilled also with two-sack cement slurry to within four (4) inches of finished surface.

-Where Portland Cement Concrete pavement is removed or damaged, replacement Type V Portland Cement Concrete pavement conforming to Standard Specifications for Public Works Construction, latest edition, Section 201, and approved by the Public Works Inspector and MUST be provided to the next score joint. NO partial slabs will be allowed. Under no

circumstance shall any sidewalk removal/re-placement be less than 20 square feet and the smallest dimension not less than 48 inches. All final repairs shall be complete within five (5) working days of initial sidewalk removal.

-Where Portland Cement Concrete Pavement, *as part of a handicap ramp*, has been removed or damaged, replace Type V Portland Cement Concrete pavement conforming to Standard Specifications for Public Works Construction, latest edition, Section 201, approved by the Public Works Inspector, and conforming to the latest Americans with Disabilities Act (A.D.A.) standard as determined by the City Public Works Department.

#### **X. STREET WORK – ASPHALT REPAIR / CONSTRUCTION REQUIREMENTS**

-Final patching of trench or boring shall be of high quality material to the satisfaction of the City Public Works Inspector. Permanent pavement must be placed within ten (10) business days after completion of backfilling operations.

-The applicant upon request will furnish certification for all materials and work, including compaction tests, to the Public Works Inspector. Certification for all materials and work, including compaction tests, will be paid for by the Permittee.

-All asphalt repairs shall conform to Section 302-5 Asphalt Concrete Pavement and Section 600-2 ARHM (Asphalt Rubber Hot Mix) of the Standard Specifications. Final pavement repair shall be complete within twenty (20) business days from the initial excavation. Pavement and base repair limits/dimensions shall be determined by the Director of Public Works prior to permit issuance and/or by the Public Works Inspector upon inspection of the work.

-Additionally:

- a) Final pavement repair shall be 1-inch greater asphalt and 1-inch greater aggregate base in depth than existing road construction but in no case be less than 4-inches Asphalt Concrete (AC) over 6-inches Aggregate Base (AB) on local streets, and 6-inches AC over 8-inches AB on arterial streets.
- b) Trenches backfilled with two sack cement slurry shall leave a 4-inch depth for Asphalt Concrete (AC) re-paving and shall be cold planed to a depth of 1 inch on the perimeter of the trench and paved to the extent determined by the Director of Public Works and/or the Public Works Inspector.
- c) Trenches parallel to the street centerline will require cold planning of the full lane width (12 feet) 0.17 feet deep and re-paved flush with adjoining pavement.

-Two sack cement sand slurry mix is required as backfill when tunneling under any concrete structure, or on all lateral excavations within arterial streets unless directed to do otherwise by the Public Works Inspector. For trenches that traverse the street, slurry seal may be required 100 feet from either side of the centerline of trench or to the beginning of the nearest intersection, whichever is nearest.

#### **XI. SPECIAL CONSTRUCTION PRACTICES FOR STREETS UNDER MORATORIUM**

-Streets under moratorium as designated by the Director of Public Works will require special construction practices. The City of East Palo Alto prohibits the cutting of any public street pavement within five (5) years of a street overlay and within three (3) years of a street slurry seal. To check if a street is under moratorium, call the City Engineering Division at (650)853-3189.

-It is not the City's intent to prohibit necessary improvements to the infrastructure. All companies still have the ability to "bore" under new pavement, or to place work in the parkway area. Upon submission of proof of no alternative or in the case of an emergency, open cutting may be

approved under the below requirements by the Director of Public Works or his/her designee. This option is strongly discouraged and will be allowed only if the installation is critically needed and no other alternatives exist. In this way, the City can maintain the integrity of new streets and forestall deterioration by preventing the inevitable intrusion of water and differential settlement of pavement near street patches.

-For trenching in recently paved/overlaid streets, final resurfacing of street shall include grinding down existing pavement a minimum of 0.17' (2 inches) in depth as follows:

- a) For trenches perpendicular to traffic lanes: on residential streets, grind 10 feet on each side of the trench line and for the full width of any traffic lane(s) that have been cut. On arterial streets, grind 50 feet on each side of the trench line and for the full width of any traffic lane(s) that have been cut.
- b) For trenches parallel to traffic lanes and for small excavations: grind the entire width of the traffic lane for the full length of the trench plus 10 feet on each end, but not less than 100 feet.
- c) For pothole repairs, see "potholing" below.

-Final pavement course in the area of the grinding shall be placed with a self-propelled paving machine, using all applicable City standards for pavement installation unless other methods are approved, in advance of the work, by the Director of Public Works.

-For trenching in recently slurry sealed streets, final slurry seal shall be applied to the patched area no sooner than 30 days or later than 90 days after the completion of the pavement repair. The area is to be slurred as follows:

- a) For trenches perpendicular to traffic lanes: Slurry seal 50 feet on each side of the trench line and for full width of the street.
- b) For trenches parallel to traffic lanes and for small excavations: Slurry seal the entire width of the street for the length of the trench, but not less than 100 feet. Slurry seal materials shall be Type II and the method of application shall meet City approval.

-Potholing in either slurry sealed or paved/overlaid streets, the following standard apply:

- a) Potholes shall be no more than 2 feet by 3 feet.
- b) No more than two potholes may be performed in any 10 foot x 20 foot section of new pavement. If this cannot be accomplished, then the pavement section to be potholed will be treated under the above.
- c) After potholing and exploration is finished, all potholes shall be filled with two-sack sand cement slurry such that final top surface is two inches lower than the surrounding surface. Perform a one foot wide by 0.17 foot deep grind for a "tee cap". Pave the area with two inches of AC such that the surface is level with the adjoining pavement. If the finished surface of the pothole repair is not acceptable to the Public Works Inspector, then the pothole repair surface shall be ground down and refinished in accordance with item the items stated above, as deemed appropriate by the Public Works Inspector.

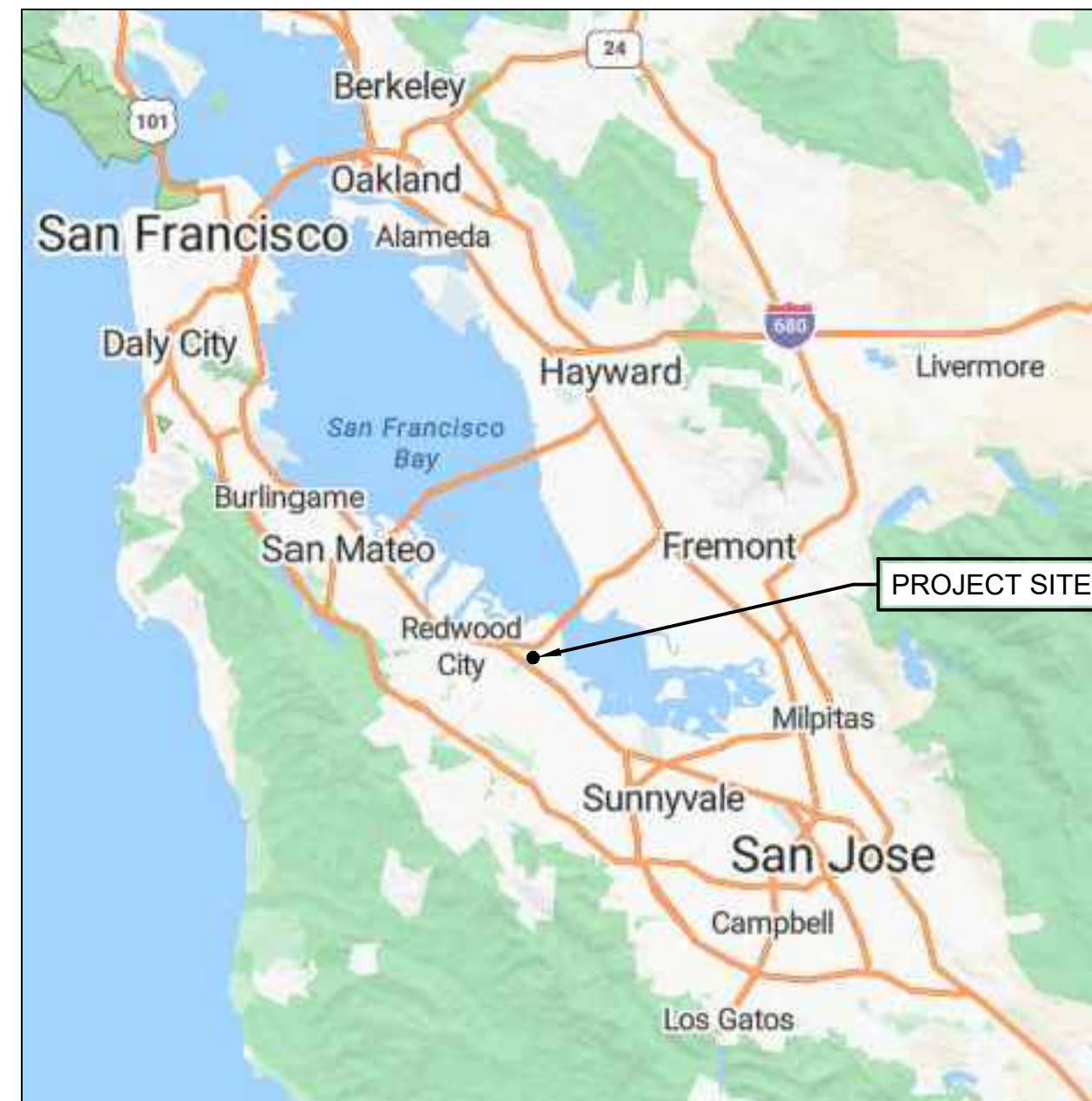


# EAST PALO ALTO SANITARY DISTRICT

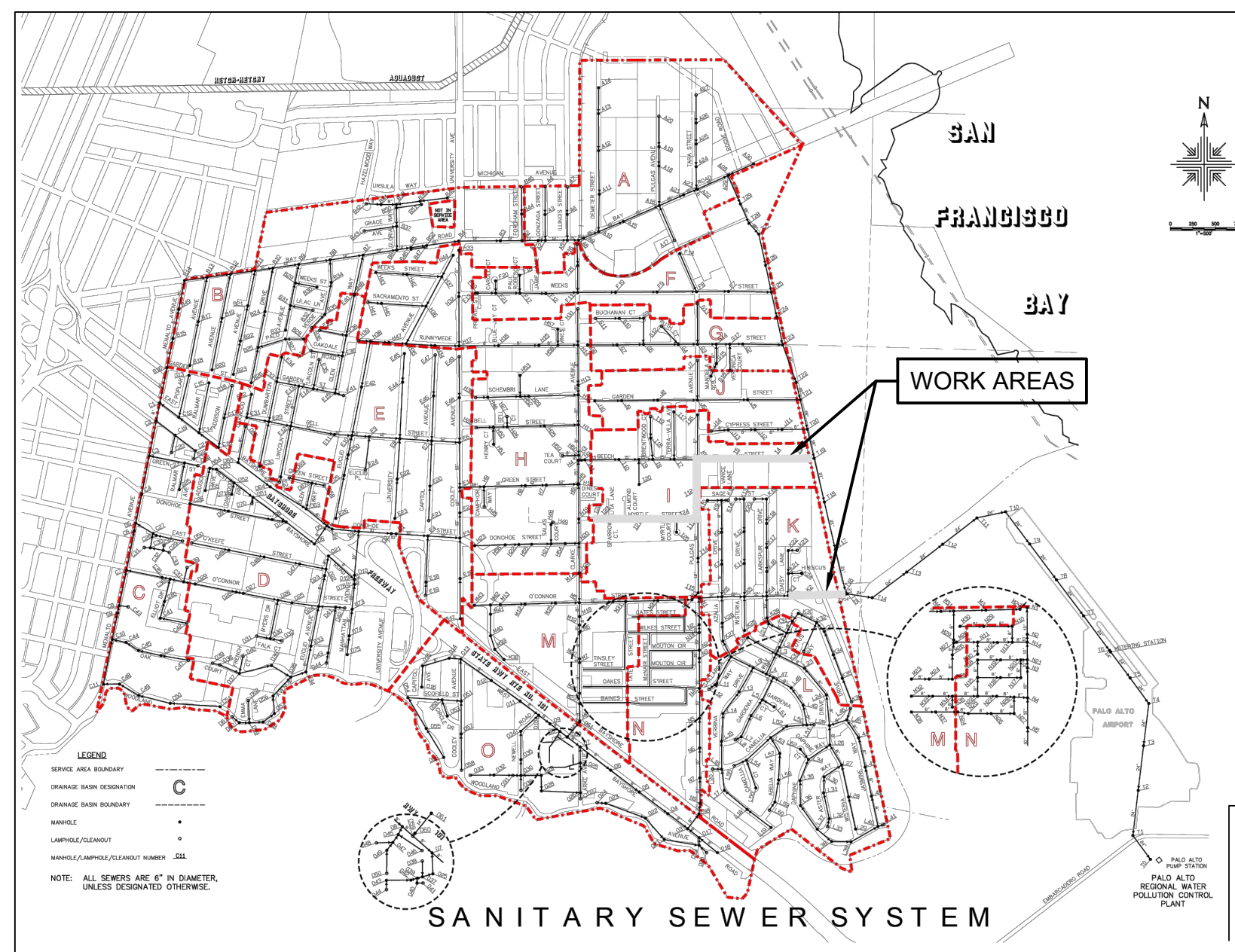
## SANITARY SEWER REPLACEMENT PROJECT

BEECH ST, CLARKE AVE, AND GREEN ST

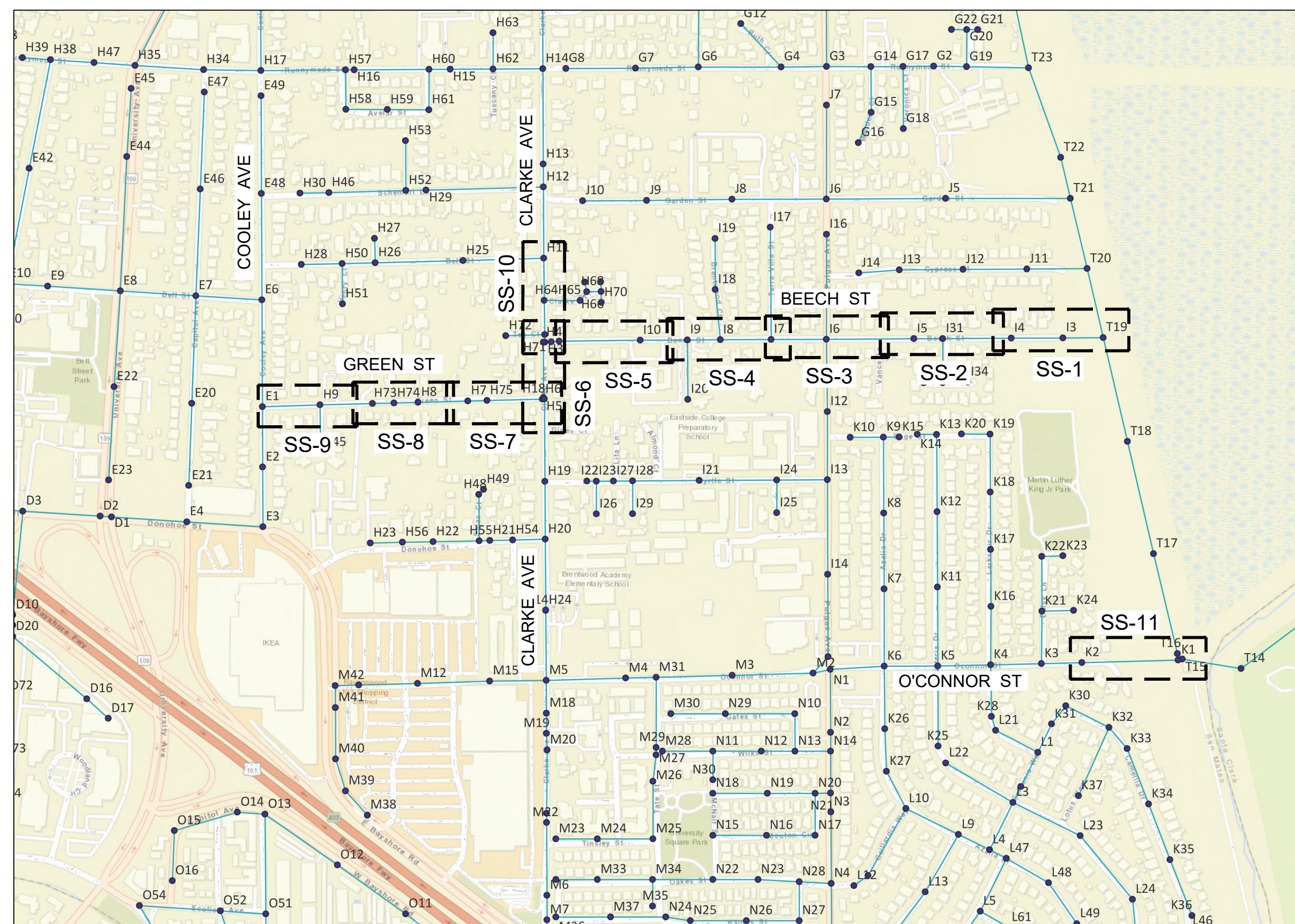
JULY 2023



LOCATION MAP  
NTS



VICINITY MAP  
NTS



KEY MAP  
NTS

### EPASD BOARD OF DIRECTORS

DENNIS SCHERZER	PRESIDENT
MARTHA STRYKER	VICE PRESIDENT
GLENDA SAVAGE	SECRETARY
BETHZABE YANEZ	DIRECTOR
OFELIA BELLO	DIRECTOR

### CONTACTS

EPASD GENERAL MANAGER
AKIN OKUPE
(650) 325-9021
SIERRA WEST CONSULTANTS
JEFF BENSCH, P.E.
(906) 863-3220

### DRAWING INDEX

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- 2 G-2 GENERAL NOTES, LEGEND, ABBREVIATIONS AND SYMBOLS

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- 5 SS-3 BEECH STREET PLAN AND PROFILE - STA 11+50 - STA 16+50
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- 7 SS-5 BEECH STREET PLAN AND PROFILE - STA 21+50 - STA 26+75
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NO.	1	7/10/23	ISSUE FOR BID	BY	CHK	DRAWN:	MAH	PROJECT NO:		<b>WARNING</b> 0 1" AT FULL SCALE (IF BAR IS NOT 1" - SCALE ACCORDINGLY)	 4227 Sunrise Boulevard, Suite 220 Fair Oaks, California 95628 Ph: (916) 863-3220	PREPARED FOR:  901 WEEKS STREET EAST PALO ALTO, CA 94303		EAST PALO ALTO SANITARY DISTRICT SANITARY SEWER PIPELINE REPLACEMENT PROJECT		SHEET NO: G-1
	DATE	REVISIONS	DATE			DATE	TITLE SHEET, LOCATION, VICINITY AND KEY MAP		1 15							



**GENERAL NOTES:**

- CONTRACTOR SHALL PERFORM ALL WORK IN CONNECTION WITH, AND INCIDENTAL TO, THE WORK REQUIRED BY THESE DRAWINGS AND ASSOCIATED SPECIFICATIONS. WORK INVOLVES IN-PLACE REPLACEMENT OF EXISTING SANITARY SEWER PIPELINES.
- CONTRACTOR SHALL BE FAMILIAR WITH ALL INDUSTRY STANDARDS, CODES, REGULATIONS, AND LOCAL ORDINANCES HAVING JURISDICTION OVER THIS PROJECT AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH ANY WORK AFFECTED BY THE DISCREPANCY.
- CONTRACTOR SHALL HAVE SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT APPLIES CONTINUOUSLY DURING WORK AND NON-WORK HOURS, 24 HOURS PER DAY.
- CONTRACTOR SHALL EMPLOY AND COORDINATE SUBCONTRACTORS AS MAY BE NEEDED TO EXECUTE ALL WORK REQUIRED BY THESE DRAWINGS AND ASSOCIATED SPECIFICATIONS.
- CONTRACTOR SHALL OBTAIN ENCROACHMENT PERMITS AND PERFORM ALL WORK IN ACCORDANCE WITH ALL PERMIT PROVISIONS.
- CONTRACTOR SHALL FIELD VERIFY ALL PERTINENT DIMENSIONS SHOWN ON THE DRAWINGS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
- LOCATIONS AND TYPES OF EXISTING UTILITIES ARE SHOWN BASED ON AVAILABLE INFORMATION AT THE TIME OF DESIGN. CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICES ALERT (USA) TO LOCATE BURIED UTILITIES AND MARK IN THE FIELD A MINIMUM OF 5 DAYS PRIOR TO BEGINNING ANY EXCAVATION ACTIVITIES.
- CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS IN THE VICINITY OF WORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, CURB AND GUTTER, SIDEWALKS, LANDSCAPING, CULVERTS, DRAINS, PAVING, STRIPING, UTILITIES, SERVICE LATERALS, AND FENCES. ALL EXISTING IMPROVEMENTS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER WITHOUT ADDITIONAL COST TO THE PROJECT.
- CONTRACTOR SHALL CONDUCT WORK TO MINIMIZE OBSTRUCTION AND INCONVENIENCE TO THE PUBLIC, INCLUDING BUT NOT LIMITED TO PROVIDING AND MAINTAINING SUITABLE AND SAFE CROSSINGS OVER TRENCHES, DRIVEWAY ACCESS, AND CARE FOR PEDESTRIAN TRAFFIC. ROADWAYS SHALL BE MADE SAFE AND PASSABLE AT THE END OF EACH WORKDAY. NO TRENCH SHALL BE LEFT IN AN UNSAFE CONDITION AND SHALL BE CLOSED OR PLATE COVERED WHEN WORK IS NOT OCCURRING IN THE TRENCH.
- CONTRACTOR SHALL PROVIDE 72-HOUR WRITTEN NOTIFICATION TO RESIDENTS PRIOR TO INITIATING CONSTRUCTION. IF PARKING IS RESTRICTED DURING CONSTRUCTION, CONTRACTOR SHALL PROVIDE SIGNAGE WHERE THE PROPOSED RESTRICTION IS TO OCCUR A MINIMUM OF 48-HOURS IN ADVANCE.
- CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OSHA RULES, REGULATIONS, AND ORDERS ESTABLISHED BY FEDERAL AND STATE AGENCIES BEFORE ENTERING ANY TRENCH EXCAVATION, VAULT, OR MANHOLE.
- PRIOR TO THE START OF SEWER CONSTRUCTION, THE CONTRACTOR SHALL PERFORM BYPASS PUMPING OPERATIONS. CONSTRUCTION CAN NOT BEGIN UNTIL CONTRACTOR DEMONSTRATES ACCEPTABLE BYPASS PUMPING OPERATIONS.
- CONTRACTOR RESPONSIBLE FOR DEWATERING OF TRENCH EXCAVATIONS. NO PIPE OR CONCRETE SHALL BE INSTALLED UNDER SUBMERGED CONDITIONS. CONTRACTOR SHALL MAINTAIN DRY TRENCH CONDITIONS WHEN REMOVING OR INSTALLING PIPELINES, GROUT, OR CONCRETE.
- CONTRACTOR TO PREPARE TRAFFIC MANAGEMENT PLAN THAT SHALL INCLUDE AT A MINIMUM PROPOSED LANE AND ROAD CLOSURES, SIGNS, FLAG PERSONS, BARRIERS, AND DETOURS.
- CONSTRUCTION IS LIMITED TO WEEKDAYS FROM 8:00 AM TO 5:00 PM WITHIN THE PUBLIC RIGHT OF WAY. NO WORK ON WEEKENDS OR HOLIDAYS.
- NO STOCKPILING OF MATERIALS IS ALLOWED WITHIN THE PUBLIC RIGHT OF WAY UNLESS APPROVED BY EAST PALO ALTO SANITARY DISTRICT AND THE CITY OF EAST PALO ALTO.

**LEGEND**

- .....FOUND MONUMENT AS DESCRIBED
- .....FOUND MONUMENT IN WELL AS DESCRIBED
- .....FOUND CUT "X" AS DESCRIBED
- .....DIMENSION POINT-NOTHING FOUND OR SET
- .....STORM DRAIN MANHOLE
- .....STORM DRAIN INLET
- .....STORM DRAIN CLEAN OUT
- .....SEWER MANHOLE
- .....SEWER CLEAN OUT
- .....FIRE HYDRANT
- .....FIRE DEPARTMENT CONNECTION
- .....WATER VALVE
- .....WATER BOX OR METER
- .....WATER VALVE ASSEMBLY
- .....WATER MANHOLE
- .....GROUND WATER MONITORING WELL
- .....ELECTRIC BOX OR VAULT
- .....PULL BOX
- .....TRANSFORMER
- .....UTILITY POLE
- .....LIGHT
- .....TRAFFIC SIGNAL
- .....ELECTRIC MANHOLE
- .....TELEPHONE/COMMUNICATION BOX
- .....TELEPHONE MANHOLE
- .....TELEVISION BOX
- .....TELEVISION MANHOLE
- .....GAS VALVE
- .....GAS METER
- .....SIGN
- .....ACCESSIBLE PARKING OR RAMP
- .....PARKING METER
- .....VAULT/BOX UNKNOWN
- .....MANHOLE UNKNOWN
- .....BOLLARD

**ABBREVIATIONS**

- AC ASPHALTIC CONCRETE
- BK BOOK
- CL CENTERLINE
- CONC CONCRETE
- CP CONCRETE PIPE
- DI DRAIN INLET
- EL ELEVATION
- EX. (E) EXISTING
- FC FACE OF CURB
- FL FLOW LINE
- LA LANDSCAPE AREA
- MH MANHOLE
- (N) NEW
- O.R. OFFICIAL RECORDS
- PE POLYETHYLENE PIPE
- PG PAGE
- POB POINT OF BEGINNING
- PL PROPERTY LINE
- PLN PLANTER
- PUE PUBLIC UTILITY EASEMENT
- PVC POLYVINYL CHLORIDE PIPE
- RIM MANHOLE RIM
- ROW RIGHT OF WAY
- SSL SEWER SERVICE LATERAL
- TBC TOP BACK OF CURB
- TBRC TOP BACK ROLLED CURB
- TE TRASH ENCLOSURE
- TYP TYPICAL

**LINETYPES**

- PROPERTY LINE
- RIGHT-OF-WAY
- CENTERLINE
- LOT LINE
- EASEMENT
- FENCE-CYCLONE
- FENCE-WOOD
- ===== CURB & GUTTER
- EDGE OF PAVEMENT

**UTILITIES**

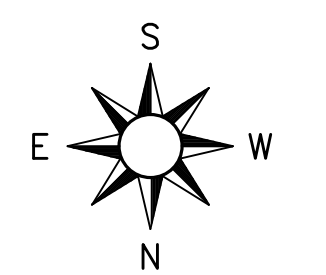
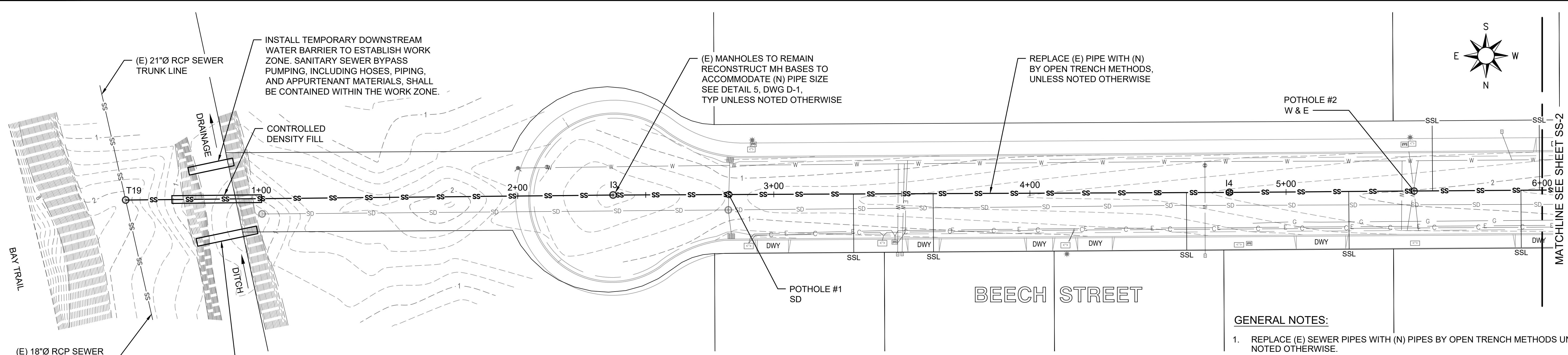
- SD----- UG-SD
- SS-----SS----- UG-SS
- W----- UG-H2O
- G----- UG-GAS
- TV----- UG-TV
- C-----C----- UG-TEL
- E----- UG-E
- UG----- UNKNOWN
- OHW----- OHW----- OVERHEAD

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DRAWN: MAH		PROJECT NO:		<p><b>WARNING</b></p> <p>0 1"</p> <p>AT FULL SCALE</p> <p>(IF BAR IS NOT 1" - SCALE ACCORDINGLY)</p>	 <p>4227 Sunrise Boulevard, Suite 220 Fair Oaks, California 95628 Ph: (916) 863-3220</p>	<p>PREPARED FOR:</p>  <p>EAST PALO ALTO SANITARY DISTRICT</p> <p>901 WEEKS STREET EAST PALO ALTO, CA 94303</p>		EAST PALO ALTO SANITARY DISTRICT SANITARY SEWER PIPELINE REPLACEMENT PROJECT		SHEET NO: <b>G-2</b>		
ENGINEER: JCB		SCALE:						<p><b>GENERAL NOTES, LEGEND, ABBREVIATIONS, AND SYMBOLS</b></p>				
CHECKED: JCB		APPROVED:										
1	7/10/23	ISSUE FOR BID										
NO.	DATE	REVISIONS	BY	CHK	DATE:	DATE:			15			



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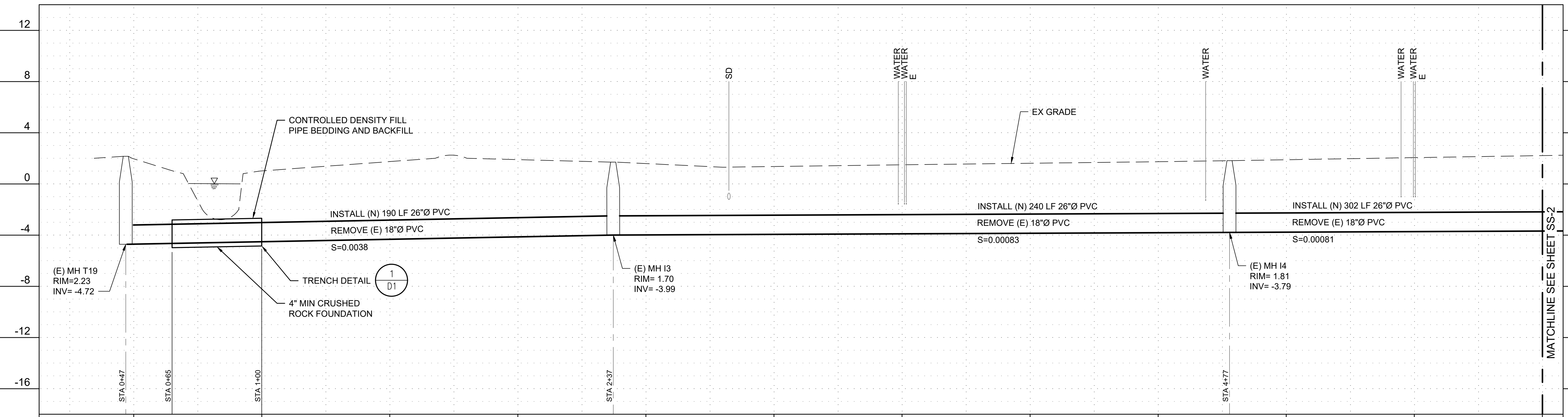
**PLAN**  
1"=20'

**PAVING RESTORATION AND STRIPING NOTES:**

1. BEECH STREET AND GREEN STREET SHALL BE SLURRY SEAL FROM CURB TO CURB IN ADDITION TO THE T-CUT REPAIR.
2. RESTORE TRAFFIC STRIPING AND MARKINGS INCLUDING, BUT NOT LIMITED TO DOUBLE YELLOW LINES, ROUND-ABOUT CIRCLES, STOP BARS, AND CROSS WALKS.
3. COORDINATE WITH CITY INSPECTOR PRIOR TO BEGINNING OF RE-PAVEMENT WORK. ALL STRIPING AND MARKINGS TO BE COMPLETED TO THE SATISFACTION OF THE CITY INSPECTOR.

**GENERAL NOTES:**

1. REPLACE (E) SEWER PIPES WITH (N) PIPES BY OPEN TRENCH METHODS UNLESS NOTED OTHERWISE.
2. (E) MANHOLES TO REMAIN. RECONSTRUCT MANHOLE CONNECTIONS TO ACCOMMODATE (N) PIPE SIZE, SEE DETAIL 5, DWG D1 (TYP UNLESS NOTED OTHERWISE).
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND RECONNECTING ALL SANITARY SEWER LATERALS AND STUBS.
4. CONTRACTOR SHALL MAINTAIN UN-INTERRUPTED SEWER LATERAL SERVICE FOR ALL PROPERTIES.
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**PROFILE**  
H = 1"=20'  
V = 1"=4'

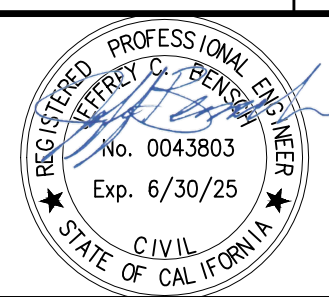
NO.	DATE	REVISIONS	BY	CHK
1	7/10/23	ISSUE FOR BID		

DRAWN: MAH	PROJECT NO:
ENGINEER: JCB	SCALE:
CHECKED: JCB	APPROVED:
DATE: 7/10/23	DATE:

**WARNING**  
0 1"  
AT FULL SCALE  
(IF BAR IS NOT 1" - SCALE ACCORDINGLY)

**SIERRA WEST**  
CONSULTANTS, INC.  
4227 Sunrise Boulevard, Suite 220  
Fair Oaks, California 95628  
Ph: (916) 863-3220 Fax: (916) 863-3225

PREPARED FOR:  
**EPASD EAST PALO ALTO**  
SANITARY DISTRICT  
901 WEEKS STREET  
EAST PALO ALTO, CA 94303

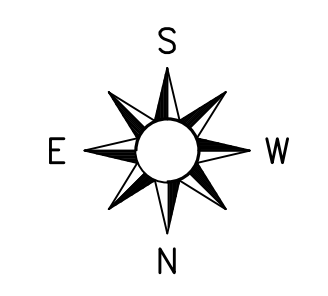
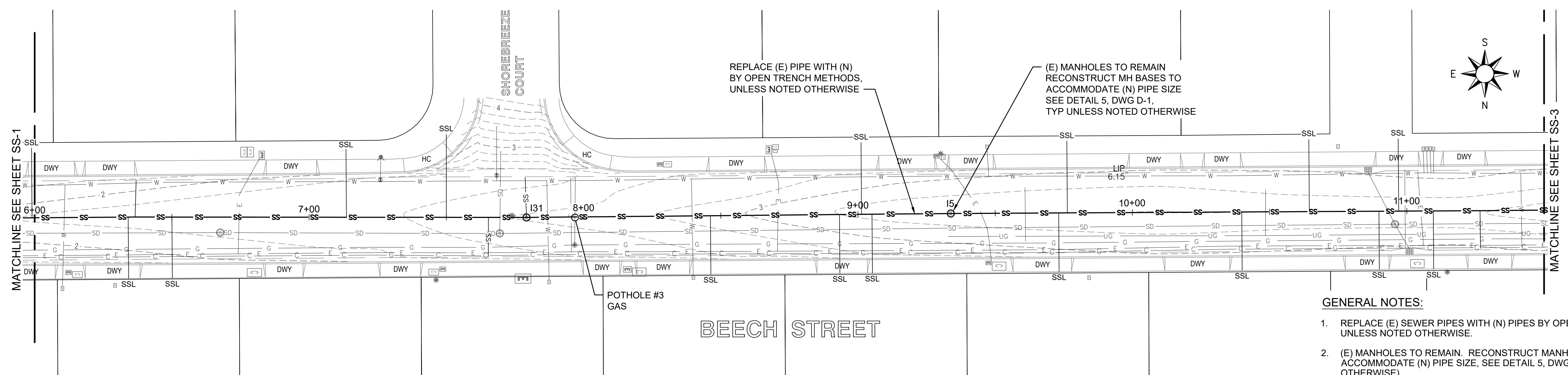


EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER PIPELINE REPLACEMENT PROJECT  
**BEECH STREET**  
**PLAN AND PROFILE**  
STA 0+00 - STA 6+00

SHEET NO:  
**SS-1**  
**3**  
**15**



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MATCHLINE SEE SHEET SS-1

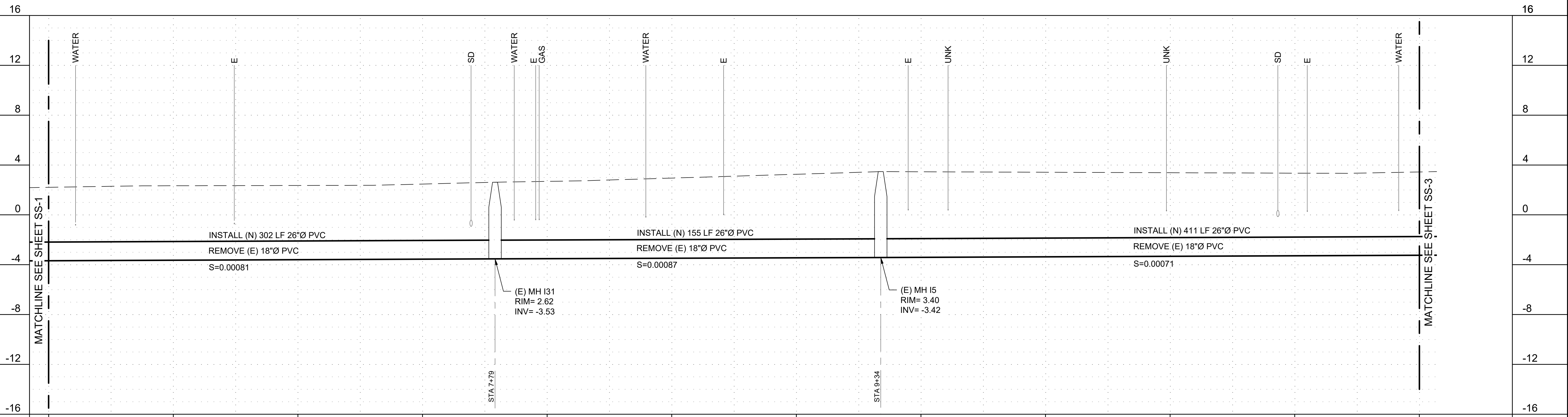
MATCHLINE SEE SHEET SS-3

**GENERAL NOTES:**

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2. (E) MANHOLES TO REMAIN. RECONSTRUCT MANHOLE CONNECTIONS TO ACCOMMODATE (N) PIPE SIZE. SEE DETAIL 5, DWG D1 (TYP UNLESS NOTED OTHERWISE).
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**PAVING RESTORATION AND STRIPING NOTES:**

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3. COORDINATE WITH CITY INSPECTOR PRIOR TO BEGINNING OF RE-PAVEMENT WORK. ALL STRIPING AND MARKINGS TO BE COMPLETED TO THE SATISFACTION OF THE CITY INSPECTOR.



16

16

MATCHLINE SEE SHEET SS-1

MATCHLINE SEE SHEET SS-3

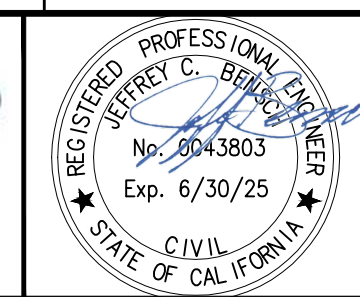
NO.	DATE	ISSUE FOR BID	REVISIONS	BY	CHK
1	7/10/23	ISSUE FOR BID			

DRAWN: MAH	PROJECT NO:
ENGINEER: JCB	SCALE:
CHECKED: JCB	APPROVED:
DATE: 7/10/23	DATE:

**WARNING**  
0 1"  
AT FULL SCALE  
(IF BAR IS NOT 1" - SCALE ACCORDINGLY)

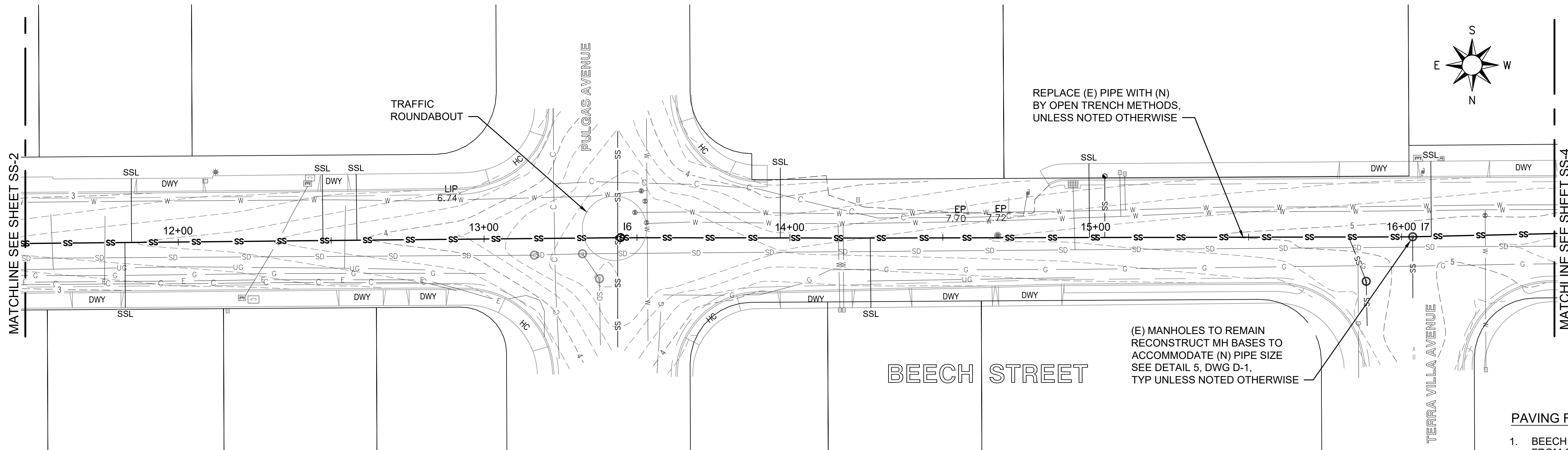
**SIERRA WEST**  
CONSULTANTS, INC.  
4227 Sunrise Boulevard, Suite 220  
Fair Oaks, California 95628  
Ph: (916) 863-3220 Fax: (916) 863-3225

PREPARED FOR:  
**EPASD EAST PALO ALTO**  
SANITARY DISTRICT  
901 WEEKS STREET  
EAST PALO ALTO, CA 94303



EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER PIPELINE REPLACEMENT PROJECT  
**BEECH STREET**  
**PLAN AND PROFILE**  
STA 6+00 - STA 11+50

SHEET NO:  
**SS-2**  
4  
15



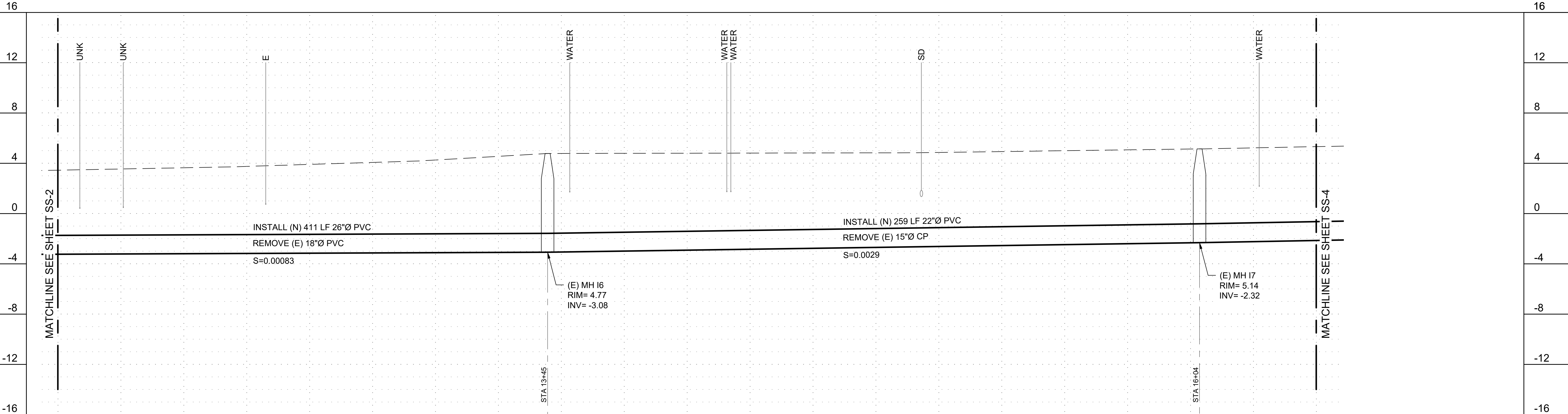
PLAN  
1"=20'

GENERAL NOTES:

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3. COORDINATE WITH CITY INSPECTOR PRIOR TO BEGINNING OF RE-PAVEMENT WORK. ALL STRIPING AND MARKINGS TO BE COMPLETED TO THE SATISFACTION OF THE CITY INSPECTOR.



PROFILE  
H: = 1"=20'  
V: = 1"=4'

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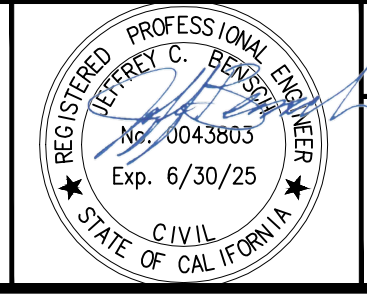
NO.	DATE	ISSUE FOR BID	REVISIONS	BY	CHK
1	7/10/23	ISSUE FOR BID			

DRAWN: MAH	PROJECT NO:
ENGINEER: JCB	SCALE:
CHECKED: JCB	APPROVED:
DATE: 7/10/23	DATE:

**WARNING**  
0 1"  
AT FULL SCALE  
(IF BAR IS NOT 1" - SCALE ACCORDINGLY)

**SIERRA WEST**  
CONSULTANTS, INC.  
4227 Sunrise Boulevard, Suite 220  
Fair Oaks, California 95628  
Ph: (916) 863-3220 Fax: (916) 863-3225

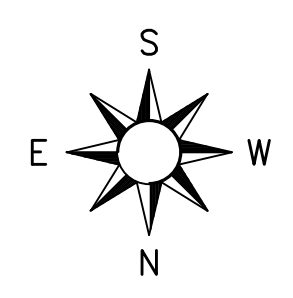
PREPARED FOR:  
**EPASD EAST PALO ALTO**  
SANITARY DISTRICT  
901 WEEKS STREET  
EAST PALO ALTO, CA 94303



EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER PIPELINE REPLACEMENT PROJECT  
**BEECH STREET**  
PLAN AND PROFILE  
STA 11+50 - STA 16+50

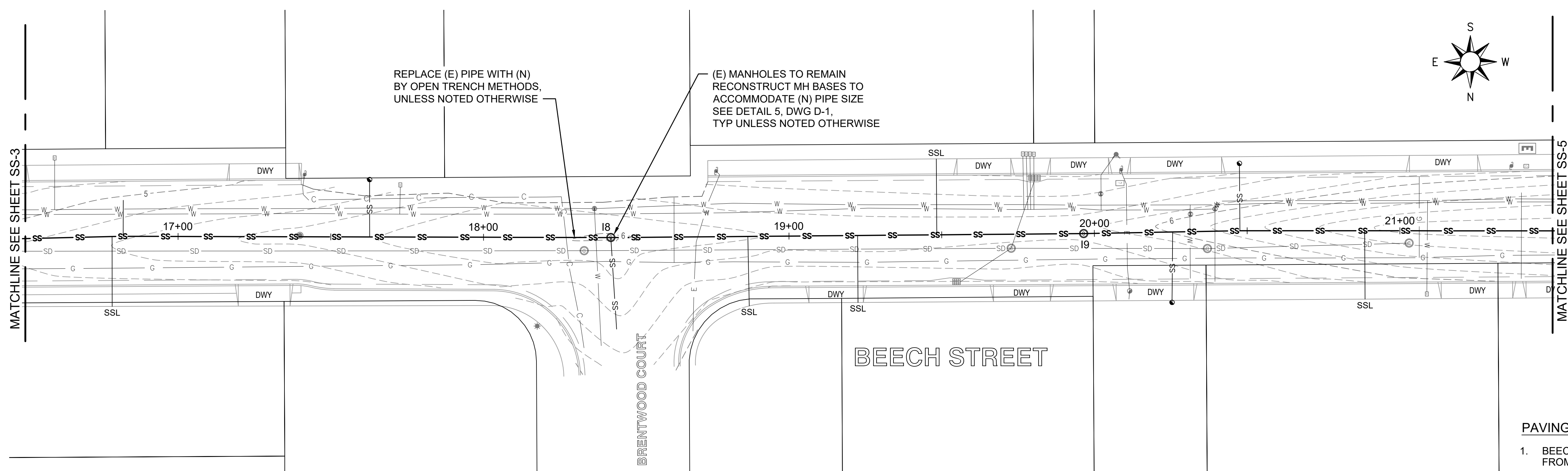
SHEET NO:  
SS-3  
5  
15





**GENERAL NOTES:**

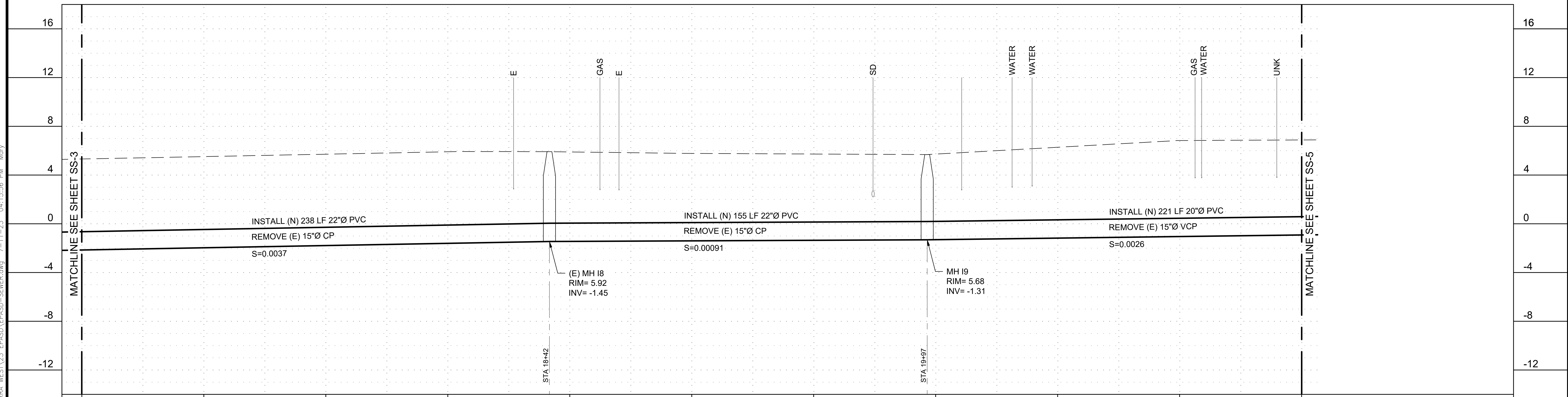
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**PLAN**  
1"=20'

**PAVING RESTORATION AND STRIPING NOTES:**

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**PROFILE**  
H: = 1"=20'  
V: = 1"=4'

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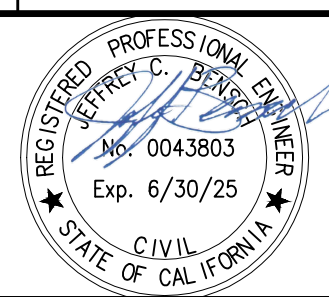
NO.	DATE	REVISIONS	BY	CHK
1	7/10/23	ISSUE FOR BID		

DRAWN: MAH	PROJECT NO:
ENGINEER: JCB	SCALE:
CHECKED: JCB	APPROVED:
DATE: 7/10/23	DATE:

**WARNING**  
0 1"  
AT FULL SCALE  
(IF BAR IS NOT 1" - SCALE ACCORDINGLY)

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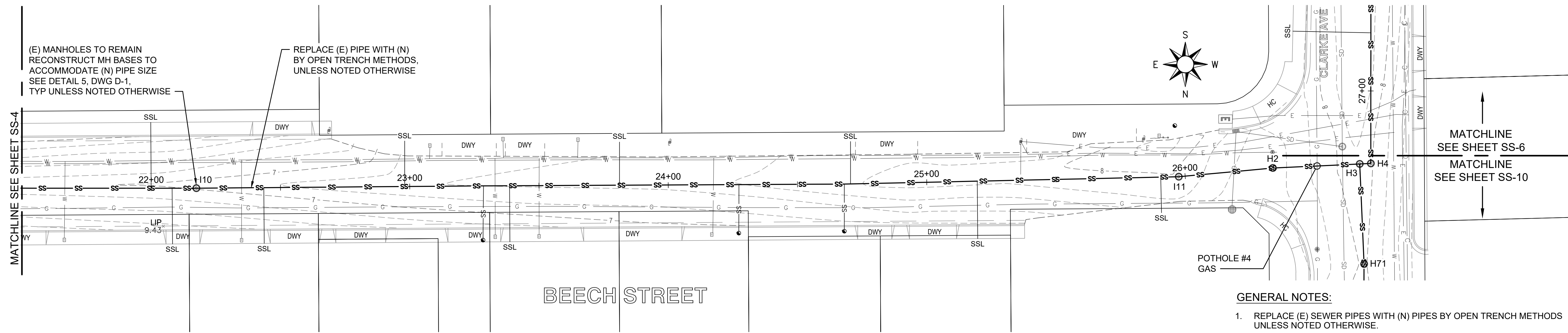
PREPARED FOR:  
**EPASD EAST PALO ALTO**  
SANITARY DISTRICT  
901 WEEKS STREET  
EAST PALO ALTO, CA 94303



EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER PIPELINE REPLACEMENT PROJECT  
**BEECH STREET**  
**PLAN AND PROFILE**  
STA 16+50 - STA 21+50

SHEET NO:  
**SS-4**  
**6**  
**15**

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BEECH STREET

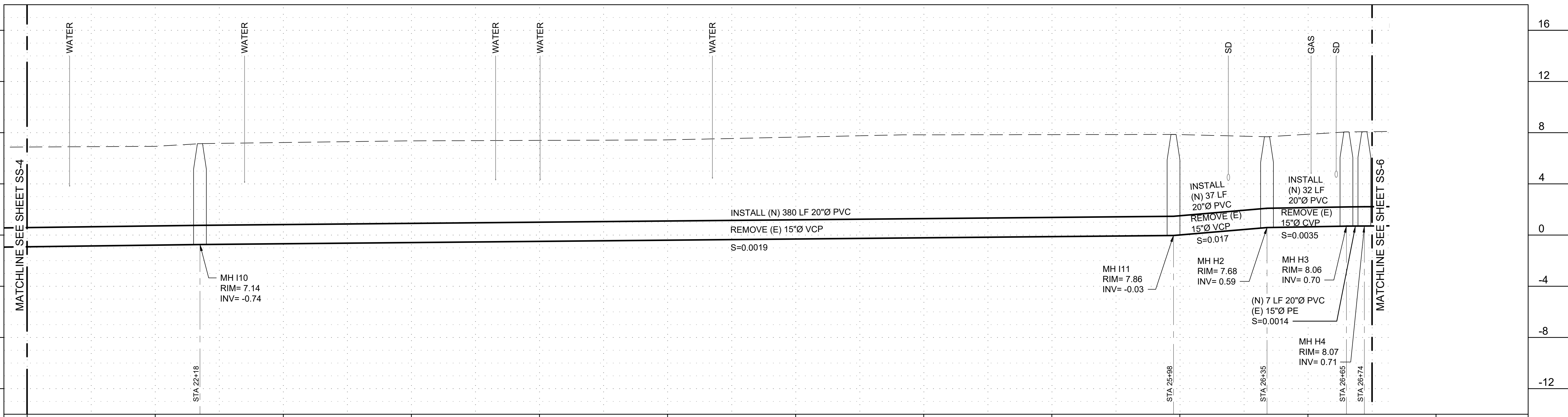
PLAN  
1"=20'

PAVING RESTORATION AND STRIPING NOTES:

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PROFILE  
H: = 1"=20'  
V: = 1"=4'

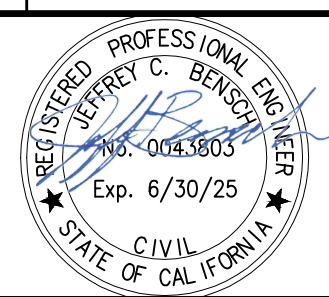
NO.	DATE	ISSUE FOR	BY	CHK
1	7/10/23	ISSUE FOR BID		

DRAWN: MAH	PROJECT NO:
ENGINEER: JCB	SCALE:
CHECKED: JCB	APPROVED:
DATE: 7/10/23	DATE:

**WARNING**  
0 1"  
AT FULL SCALE  
(IF BAR IS NOT 1" - SCALE ACCORDINGLY)

**SIERRA WEST**  
CONSULTANTS, INC.  
4227 Sunrise Boulevard, Suite 220  
Fair Oaks, California 95628  
Ph: (916) 863-3220 Fax: (916) 863-3225

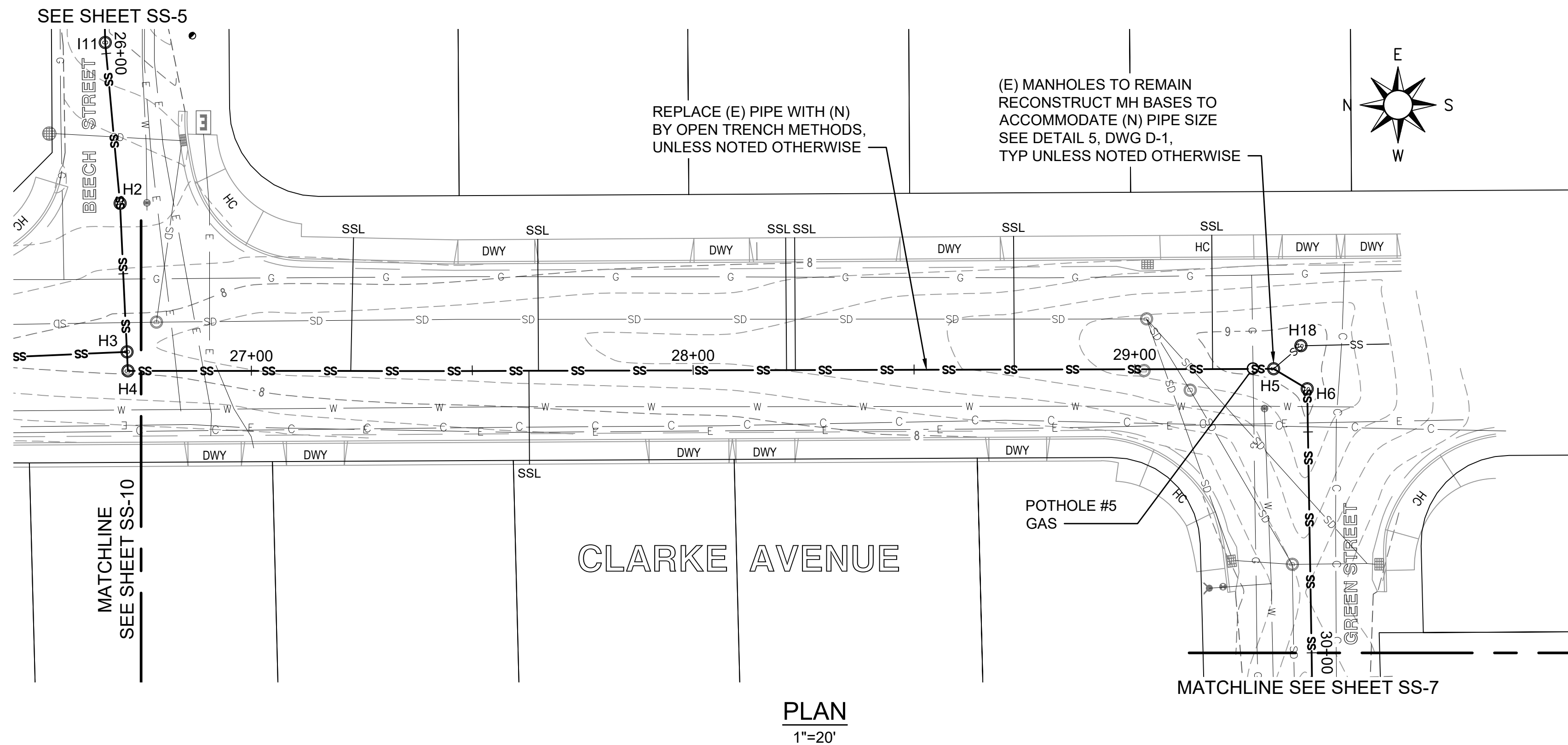
PREPARED FOR:  
**EPASD EAST PALO ALTO**  
SANITARY DISTRICT  
901 WEEKS STREET  
EAST PALO ALTO, CA 94303



EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER PIPELINE REPLACEMENT PROJECT  
BEECH STREET  
PLAN AND PROFILE  
STA 21+50 - STA 26+75

SHEET NO:  
SS-5  
7  
15





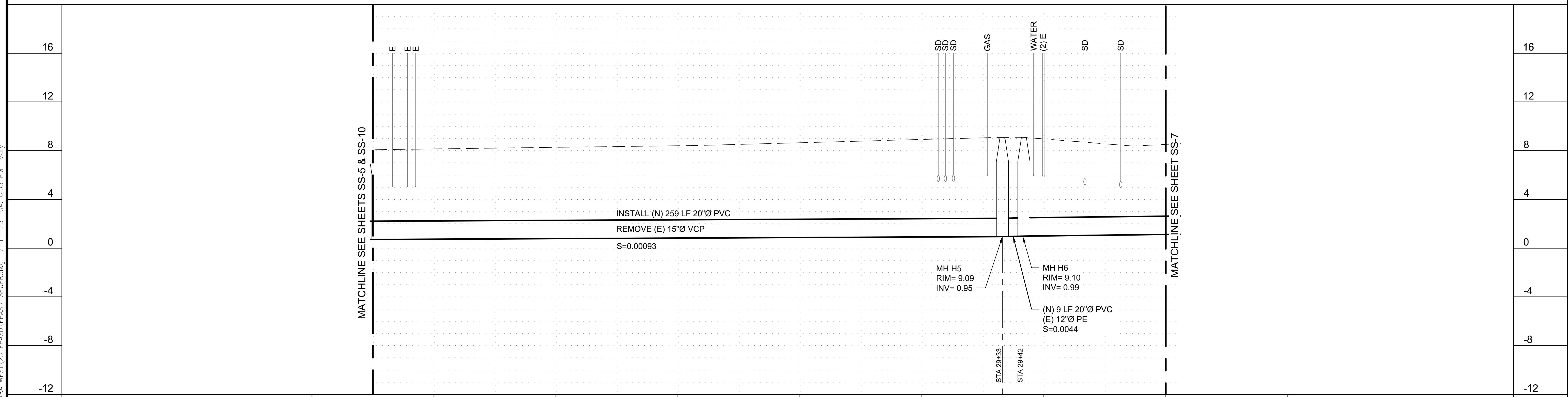
PLAN  
1"=20'

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**PAVING RESTORATION AND STRIPING NOTES:**

1. CLARKE AVE PAVEMENT RESTORATION SHALL BE 2" GRIND AND PAVE OF FULL LANE WIDTH OF THE TRAFFIC LANE PLUS 10 FT ON EACH END.
2. RESTORE TRAFFIC STRIPING AND MARKINGS INCLUDING, BUT NOT LIMITED TO DOUBLE YELLOW LINES, ROUND-ABOUT CIRCLES, STOP BARS, AND CROSS WALKS.
3. COORDINATE WITH CITY INSPECTOR PRIOR TO BEGINNING OF RE-PAVEMENT WORK. ALL STRIPING AND MARKINGS TO BE COMPLETED TO THE SATISFACTION OF THE CITY INSPECTOR.



PROFILE  
H: = 1"=20'  
V: = 1"=4'

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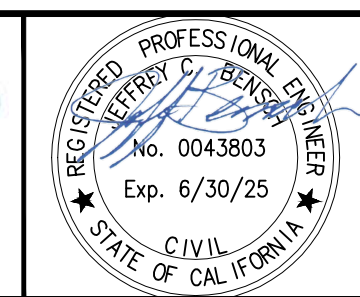
NO.	DATE	ISSUE FOR	REVISIONS	BY	CHK
1	7/10/23	ISSUE FOR BID			

DRAWN: MAH	PROJECT NO:
ENGINEER: JCB	SCALE:
CHECKED: JCB	APPROVED:
DATE: 7/10/23	DATE:

**WARNING**  
0 1"  
AT FULL SCALE  
(IF BAR IS NOT 1" - SCALE ACCORDINGLY)

**SIERRA WEST**  
CONSULTANTS, INC.  
4227 Sunrise Boulevard, Suite 220  
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Ph: (916) 863-3220 Fax: (916) 863-3225

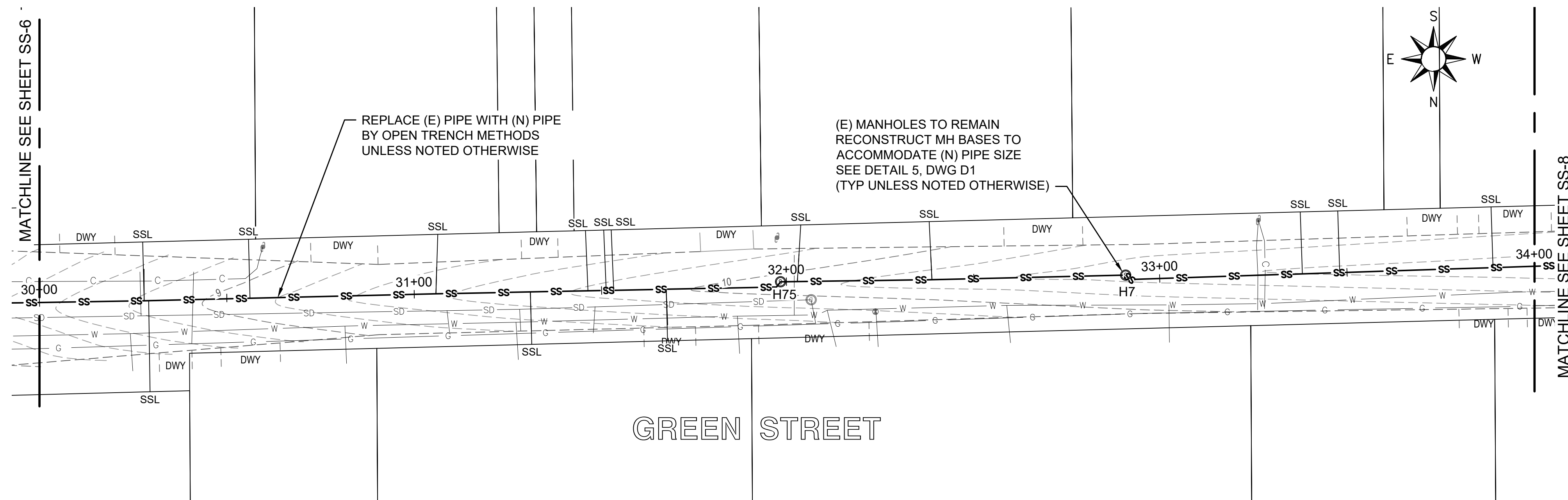
PREPARED FOR:  
**EPASD EAST PALO ALTO**  
SANITARY DISTRICT  
901 WEEKS STREET  
EAST PALO ALTO, CA 94303



EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER PIPELINE REPLACEMENT PROJECT  
**CLARKE AVE**  
**PLAN AND PROFILE**  
STA 26+75 - STA 30+00

SHEET NO:  
SS-6  
8  
15





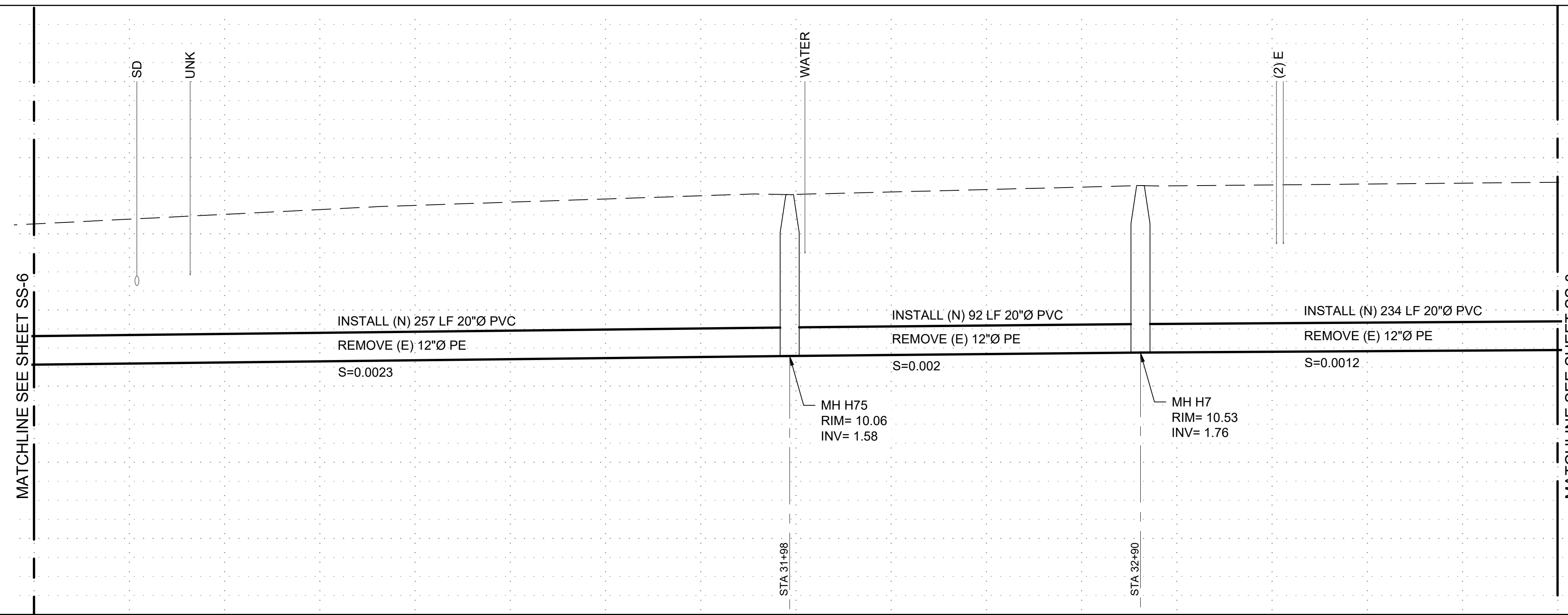
PLAN  
1"=20'

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PROFILE  
H: = 1"=20'  
V: = 1"=4'

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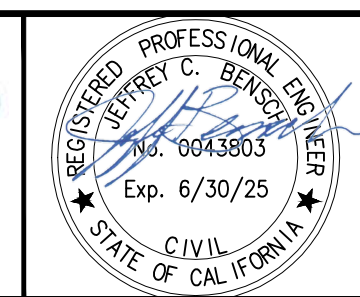
NO.	DATE	REVISIONS	BY	CHK
1	7/10/23	ISSUE FOR BID		

DRAWN: MAH	PROJECT NO:
ENGINEER: JCB	SCALE:
CHECKED: JCB	APPROVED:
DATE: 7/10/23	DATE:

**WARNING**  
0 1"  
AT FULL SCALE  
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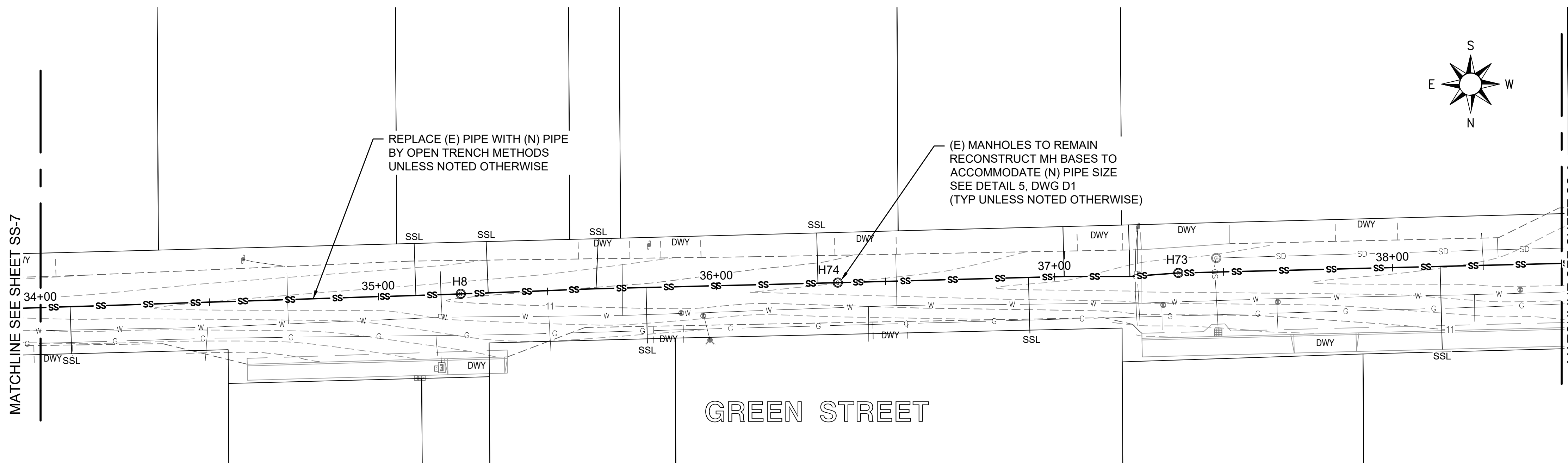
**SIERRA WEST**  
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Ph: (916) 863-3220 Fax: (916) 863-3225

PREPARED FOR:  
**EPASD** EAST PALO ALTO  
SANITARY DISTRICT  
901 WEEKS STREET  
EAST PALO ALTO, CA 94303



EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER PIPELINE REPLACEMENT PROJECT  
**GREEN STREET**  
PLAN AND PROFILE  
STA 30+00 - STA 34+00

SHEET NO:  
SS-7  
9  
15



GREEN STREET

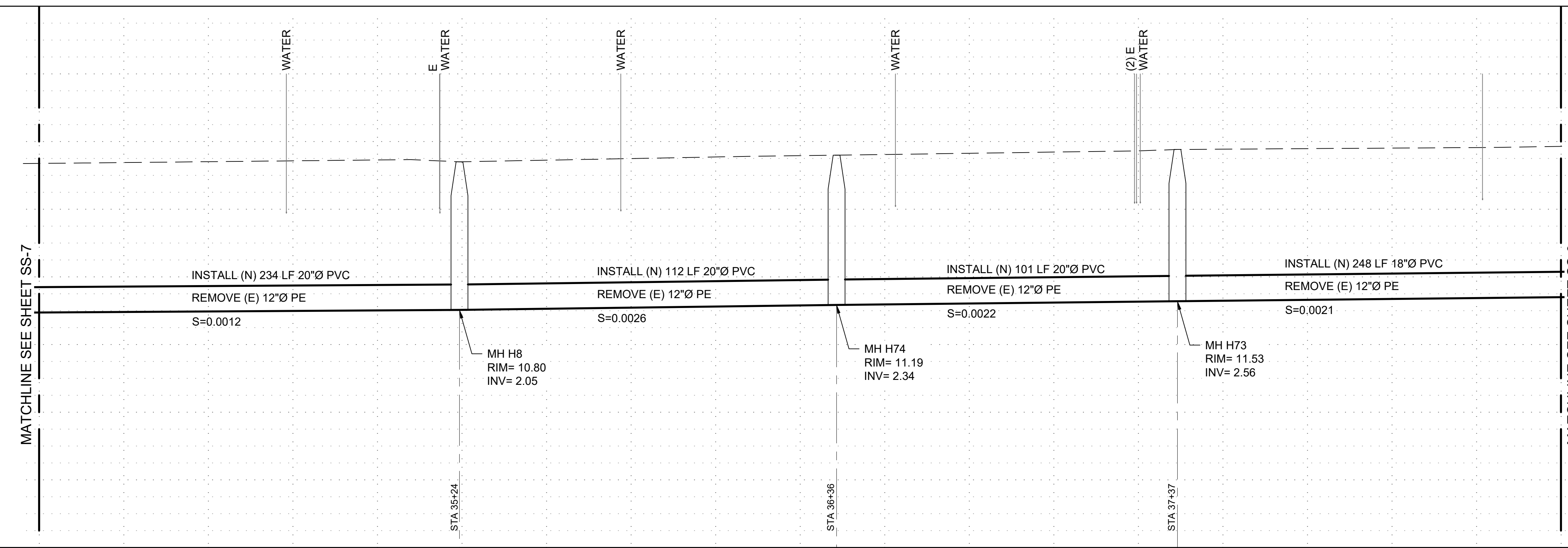
PLAN  
1"=20'

GENERAL NOTES:

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2. (E) MANHOLES TO REMAIN. RECONSTRUCT MANHOLE CONNECTIONS TO ACCOMMODATE (N) PIPE SIZE, SEE DETAIL 5, DWG D1 (TYP UNLESS NOTED OTHERWISE).
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5. CONTRACTOR SHALL NOTE THE CLOSE PROXIMITY OF UTILITIES TO PROPOSED PIPELINES, AND CONTRACTOR SHALL UNDERSTAND THE TOLERANCE LIMITS OF SUCH UTILITY LOCATES. CONTRACTOR IS RESPONSIBLE TO FIELD LOCATE, PROTECT, AND WORK AROUND ALL BURIED UTILITIES.

PAVING RESTORATION AND STRIPING NOTES:

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2. RESTORE TRAFFIC STRIPING AND MARKINGS INCLUDING, BUT NOT LIMITED TO DOUBLE YELLOW LINES, ROUND-ABOUT CIRCLES, STOP BARS, AND CROSS WALKS.
3. COORDINATE WITH CITY INSPECTOR PRIOR TO BEGINNING OF RE-PAVEMENT WORK. ALL STRIPING AND MARKINGS TO BE COMPLETED TO THE SATISFACTION OF THE CITY INSPECTOR.



PROFILE

H = 1"=20'  
V = 1"=4'

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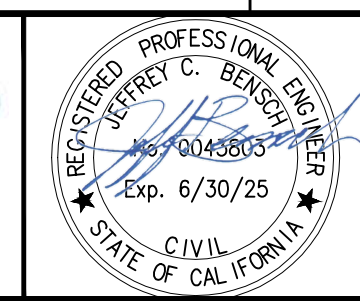
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1	7/10/23	ISSUE FOR BID		

DRAWN: MAH	PROJECT NO:
ENGINEER: JCB	SCALE:
CHECKED: JCB	APPROVED:
DATE: 7/10/23	DATE:

**WARNING**  
0 1"  
AT FULL SCALE  
(IF BAR IS NOT 1" - SCALE ACCORDINGLY)

**SIERRA WEST**  
CONSULTANTS, INC.  
4227 Sunrise Boulevard, Suite 220  
Fair Oaks, California 95628  
Ph: (916) 863-3220 Fax: (916) 863-3225

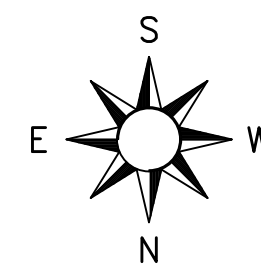
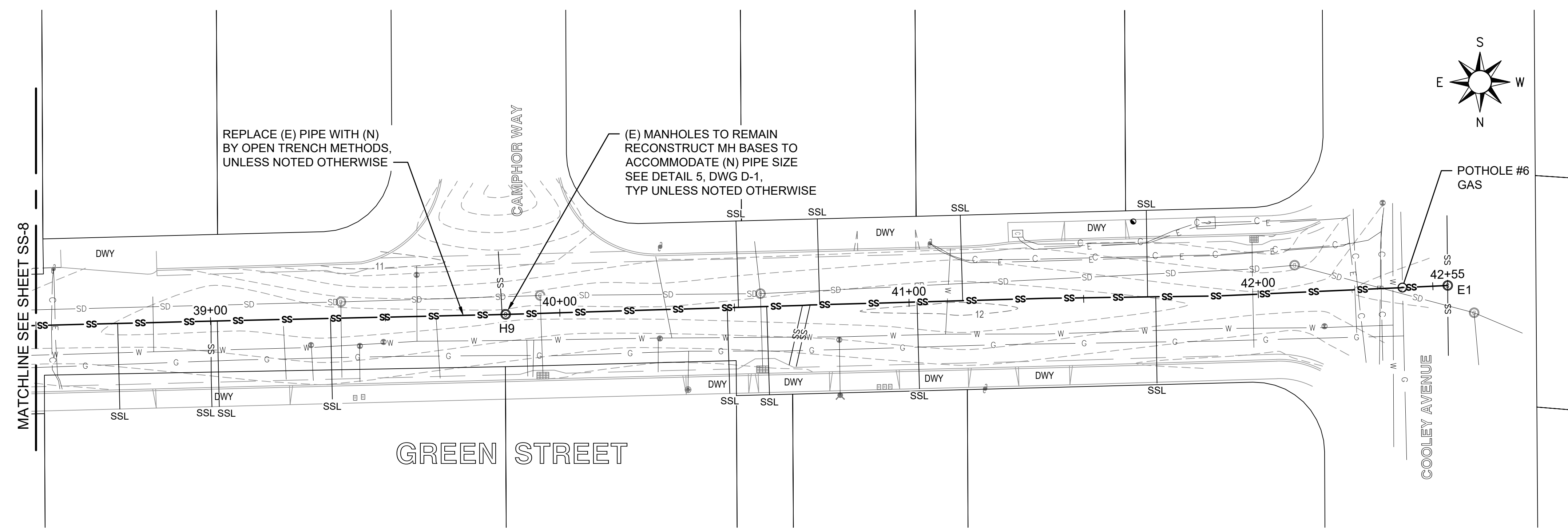
PREPARED FOR:  
**EPASD EAST PALO ALTO**  
SANITARY DISTRICT  
901 WEEKS STREET  
EAST PALO ALTO, CA 94303



EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER PIPELINE REPLACEMENT PROJECT  
**GREEN STREET**  
PLAN AND PROFILE  
STA 34+00 - STA 38+50

SHEET NO:  
SS-8  
10  
15

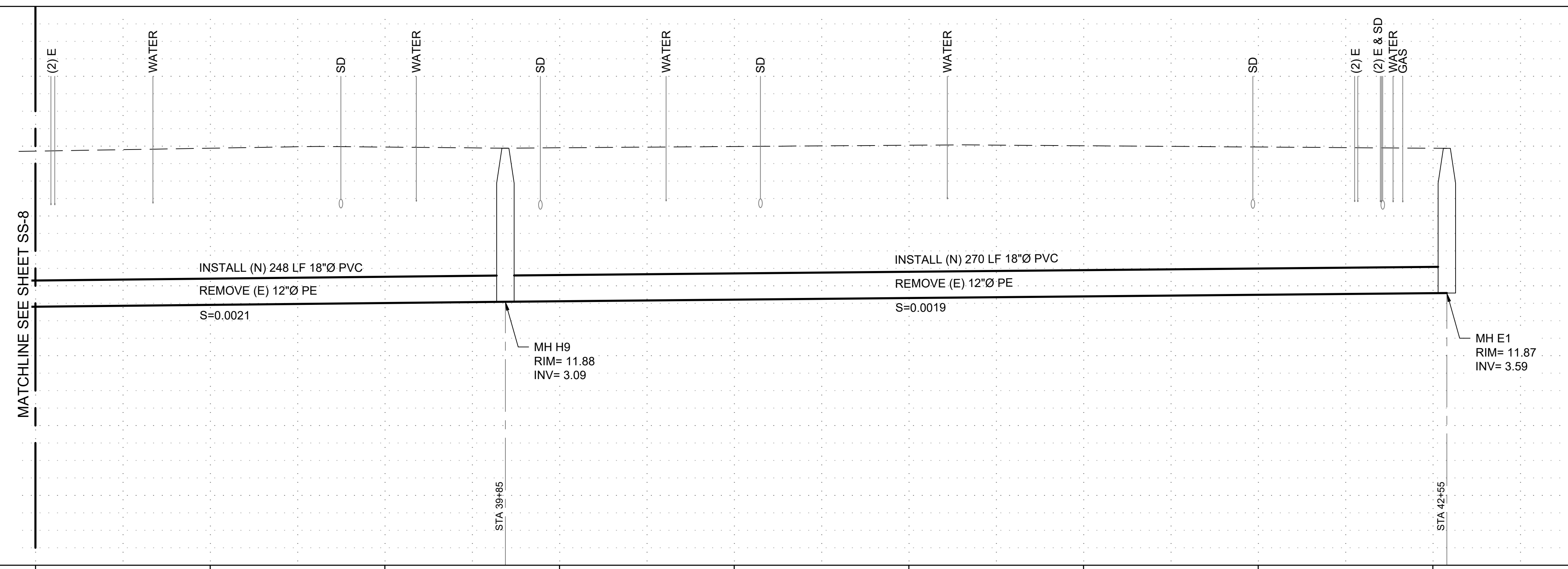




**PLAN**  
1"=20'

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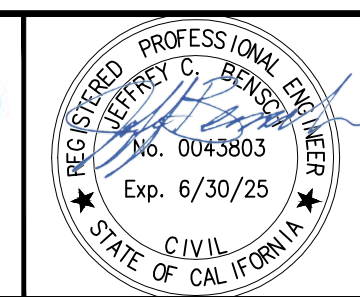
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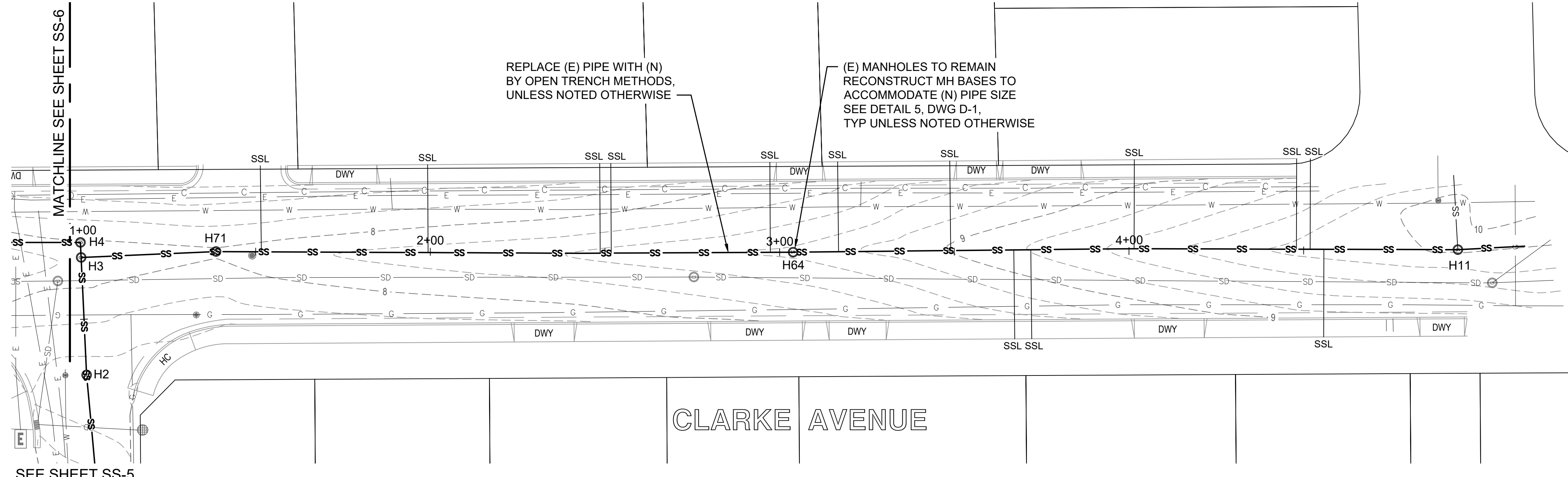
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PREPARED FOR:  
**EPASD** EAST PALO ALTO  
SANITARY DISTRICT  
901 WEEKS STREET  
EAST PALO ALTO, CA 94303



EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER PIPELINE REPLACEMENT PROJECT  
**GREEN STREET**  
**PLAN AND PROFILE**  
STA 38+50- STA 42+55

SHEET NO:  
**SS-9**  
**11**  
15



CLARKE AVENUE

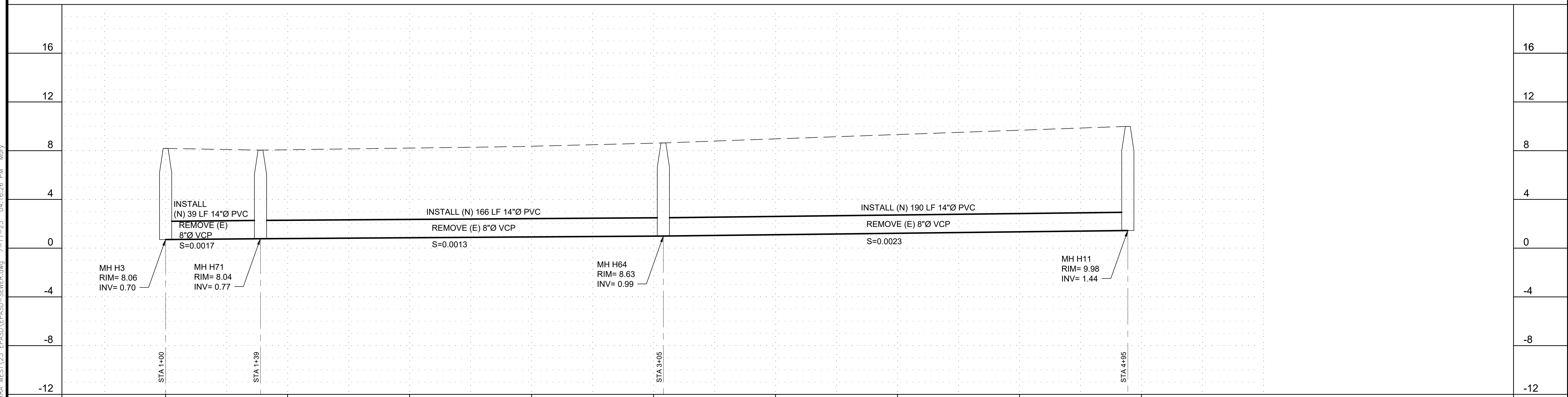
PLAN  
1"=20'

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PAVING RESTORATION AND STRIPING NOTES:

1. CLARKE AVE PAVEMENT RESTORATION SHALL BE 2" GRIND AND PAVE OF FULL LANE WIDTH OF THE TRAFFIC LANE PLUS 10 FT ON EACH END.
2. RESTORE TRAFFIC STRIPING AND MARKINGS INCLUDING, BUT NOT LIMITED TO DOUBLE YELLOW LINES, ROUND-ABOUT CIRCLES, STOP BARS, AND CROSS WALKS.
3. COORDINATE WITH CITY INSPECTOR PRIOR TO BEGINNING OF RE-PAVEMENT WORK. ALL STRIPING AND MARKINGS TO BE COMPLETED TO THE SATISFACTION OF THE CITY INSPECTOR.



PROFILE

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V: = 1"=4'

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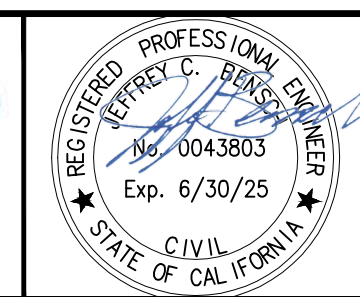
NO.	DATE	ISSUE FOR BID	REVISIONS	BY	CHK
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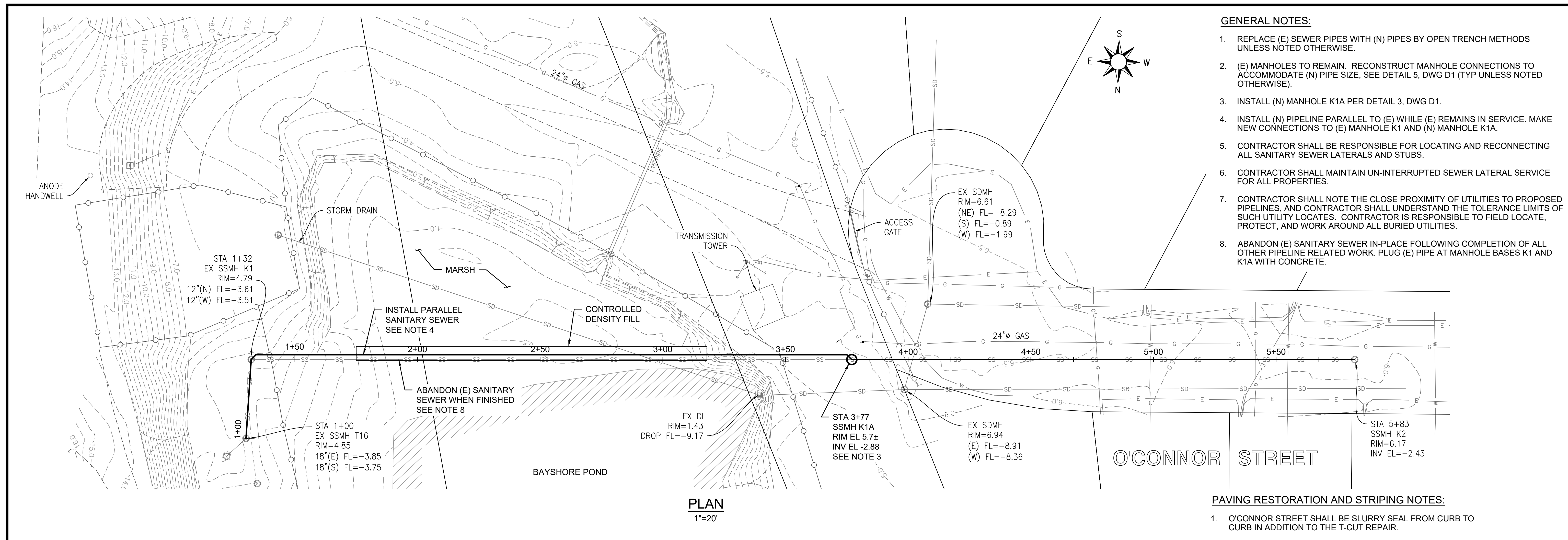
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**EPASD EAST PALO ALTO**  
SANITARY DISTRICT  
901 WEEKS STREET  
EAST PALO ALTO, CA 94303



EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER PIPELINE REPLACEMENT PROJECT  
CLARKE AVE  
PLAN AND PROFILE  
STA 1+00 - STA 4+95

SHEET NO:  
SS-10  
12  
15

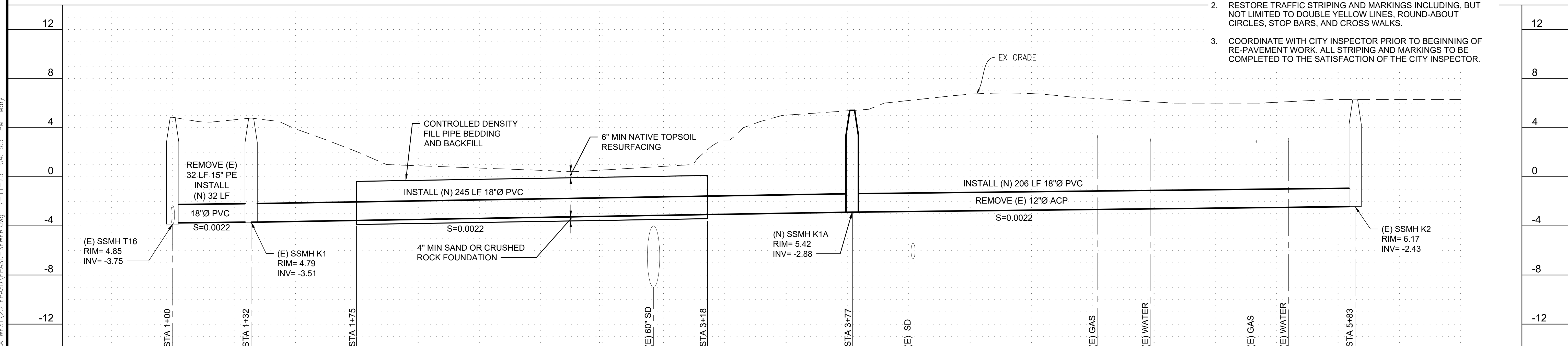




**PLAN**  
1"=20'

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  - (E) MANHOLES TO REMAIN. RECONSTRUCT MANHOLE CONNECTIONS TO ACCOMMODATE (N) PIPE SIZE. SEE DETAIL 5, DWG D1 (TYP UNLESS NOTED OTHERWISE).
  - INSTALL (N) MANHOLE K1A PER DETAIL 3, DWG D1.
  - INSTALL (N) PIPELINE PARALLEL TO (E) WHILE (E) REMAINS IN SERVICE. MAKE NEW CONNECTIONS TO (E) MANHOLE K1 AND (N) MANHOLE K1A.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND RECONNECTING ALL SANITARY SEWER LATERALS AND STUBS.
  - CONTRACTOR SHALL MAINTAIN UN-INTERRUPTED SEWER LATERAL SERVICE FOR ALL PROPERTIES.
  - CONTRACTOR SHALL NOTE THE CLOSE PROXIMITY OF UTILITIES TO PROPOSED PIPELINES, AND CONTRACTOR SHALL UNDERSTAND THE TOLERANCE LIMITS OF SUCH UTILITY LOCATES. CONTRACTOR IS RESPONSIBLE TO FIELD LOCATE, PROTECT, AND WORK AROUND ALL BURIED UTILITIES.
  - ABANDON (E) SANITARY SEWER IN-PLACE FOLLOWING COMPLETION OF ALL OTHER PIPELINE RELATED WORK. PLUG (E) PIPE AT MANHOLE BASES K1 AND K1A WITH CONCRETE.

- PAVING RESTORATION AND STRIPING NOTES:**
- O'CONNOR STREET SHALL BE SLURRY SEAL FROM CURB TO CURB IN ADDITION TO THE T-CUT REPAIR.
  - RESTORE TRAFFIC STRIPING AND MARKINGS INCLUDING, BUT NOT LIMITED TO DOUBLE YELLOW LINES, ROUND-ABOUT CIRCLES, STOP BARS, AND CROSS WALKS.
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H: = 1"=20'  
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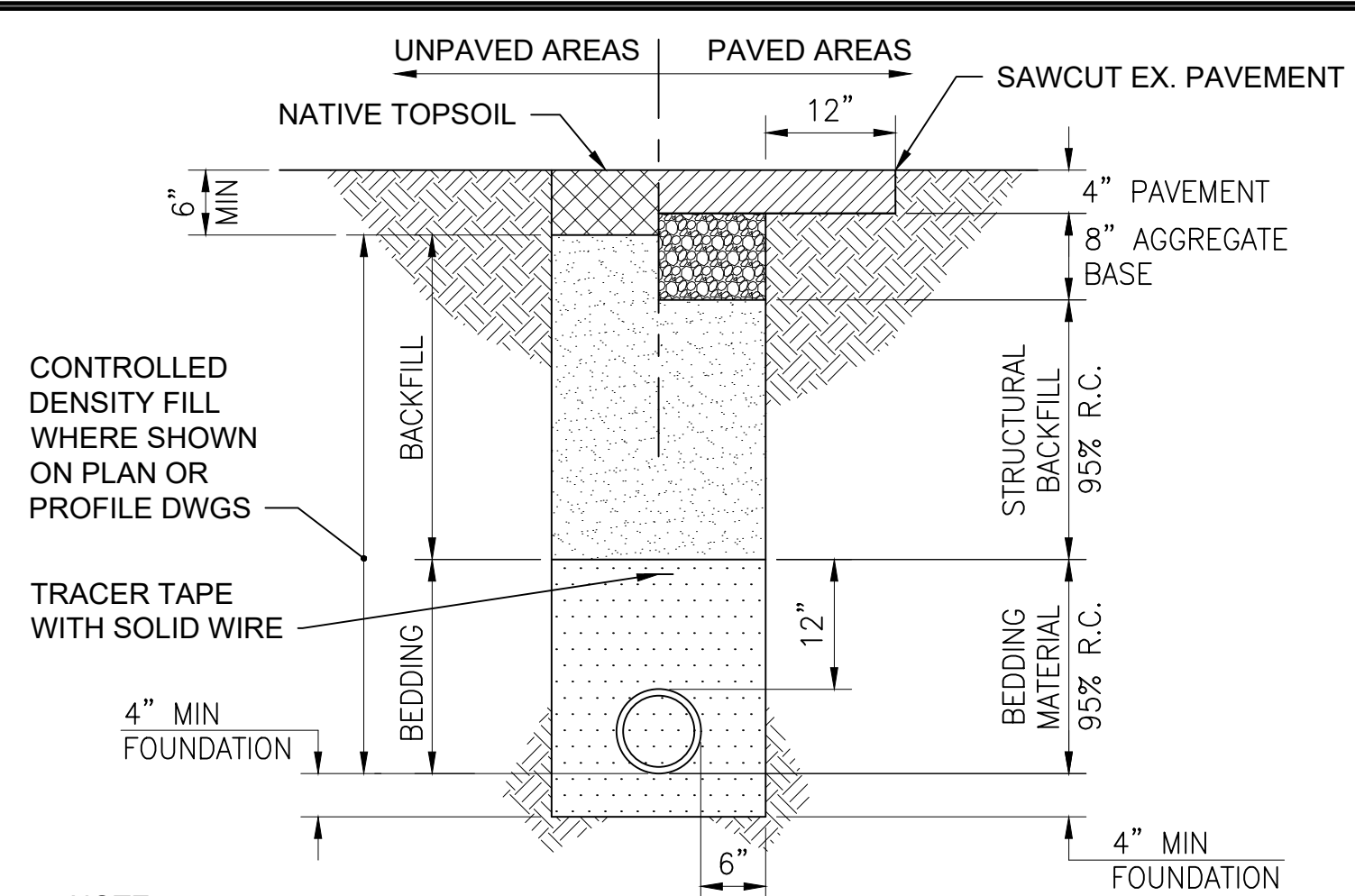
PREPARED FOR:  
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EAST PALO ALTO, CA 94303

EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER PIPELINE REPLACEMENT PROJECT  
**O'CONNOR STREET**  
**PLAN AND PROFILE**  
**SSMH T16 TO SSMH K2**

SHEET NO:  
**SS-11**  
13  
15

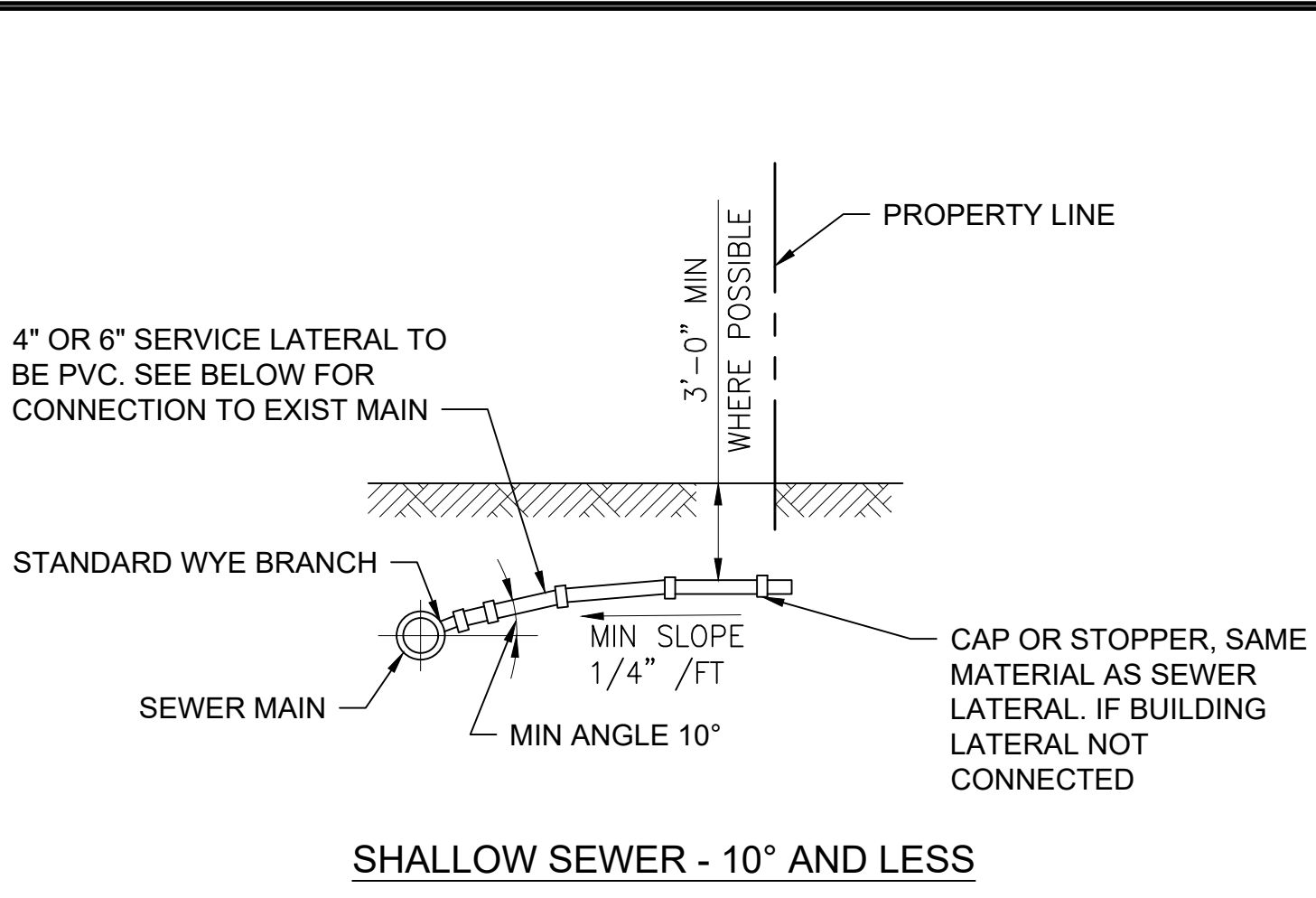
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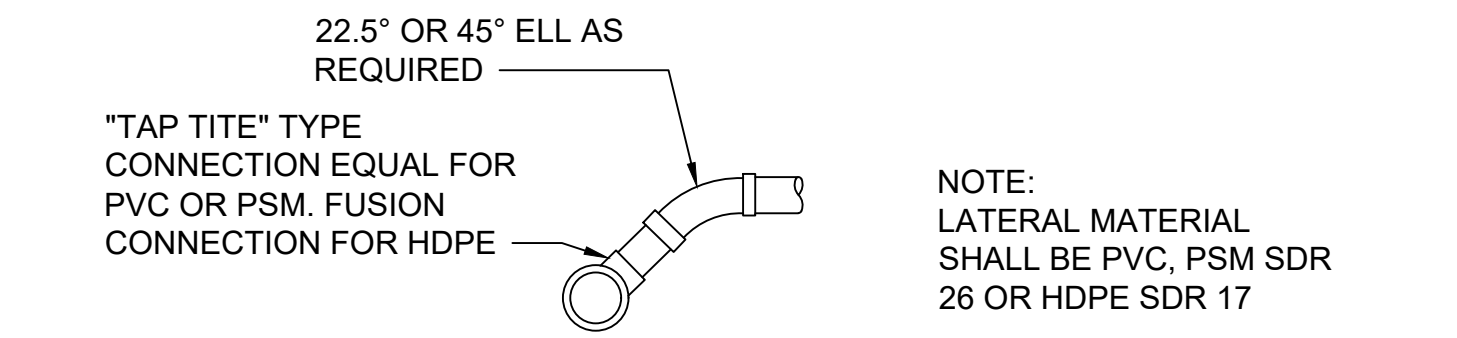


- NOTE:**
- PIPE SHALL BE C900/IB PVC PRESSURE PIPE WITH GASKETED INTEGRAL BELL. SHALLOW PIPE INSTALLATIONS WITH PIPE COVER LESS THAN 3' SHALL BE ENCASED IN CONCRETE.
  - PIPE BEDDING AND FOUNDATION SHALL BE IMPORTED CLEAN SAND, 100% PASSING NO. 4 SIEVE AND 0% TO 5% PASSING THE NO.200 SIEVE, OR 3/4" WASHED CRUSHED ROCK, UNLESS NOTED OTHERWISE.
  - STRUCTURAL BACKFILL MATERIAL SHALL BE ACCEPTABLE NATIVE MATERIALS OR IMPORTED 3/4" CLASS II MATERIAL (CALTRANS CALIF TEST 202) WITH A MIN SAND EQUIVALENT OF 20.
  - CONTROL DENSITY FILL SHALL BE CEMENT SAND SLURRY, MIN 100 LBS/FT3 DENSITY AND MIN 100 PSI COMPRESSIVE STRENGTH.
  - PAVEMENT RESTORATION SHALL BE SECTION OF 4" AC/8" CLASS II AB. AC TO BE PLACED IN TWO 2-INCH LIFTS. AB TO BE COMPACTED TO 95% RELATIVE COMPACTION (RC).
  - CERTAIN SITE CONDITIONS MAY REQUIRE THE USE OF FILTER FABRIC AND 1-1/2" CRUSHED DRAIN ROCK TO ASSURE PROPER FOUNDATION FOR PIPE INSTALLATION. THE USE OF DRAIN ROCK MUST BE APPROVED BY DISTRICT ENGINEER.

**STANDARD TRENCH DETAIL 1**  
NTS

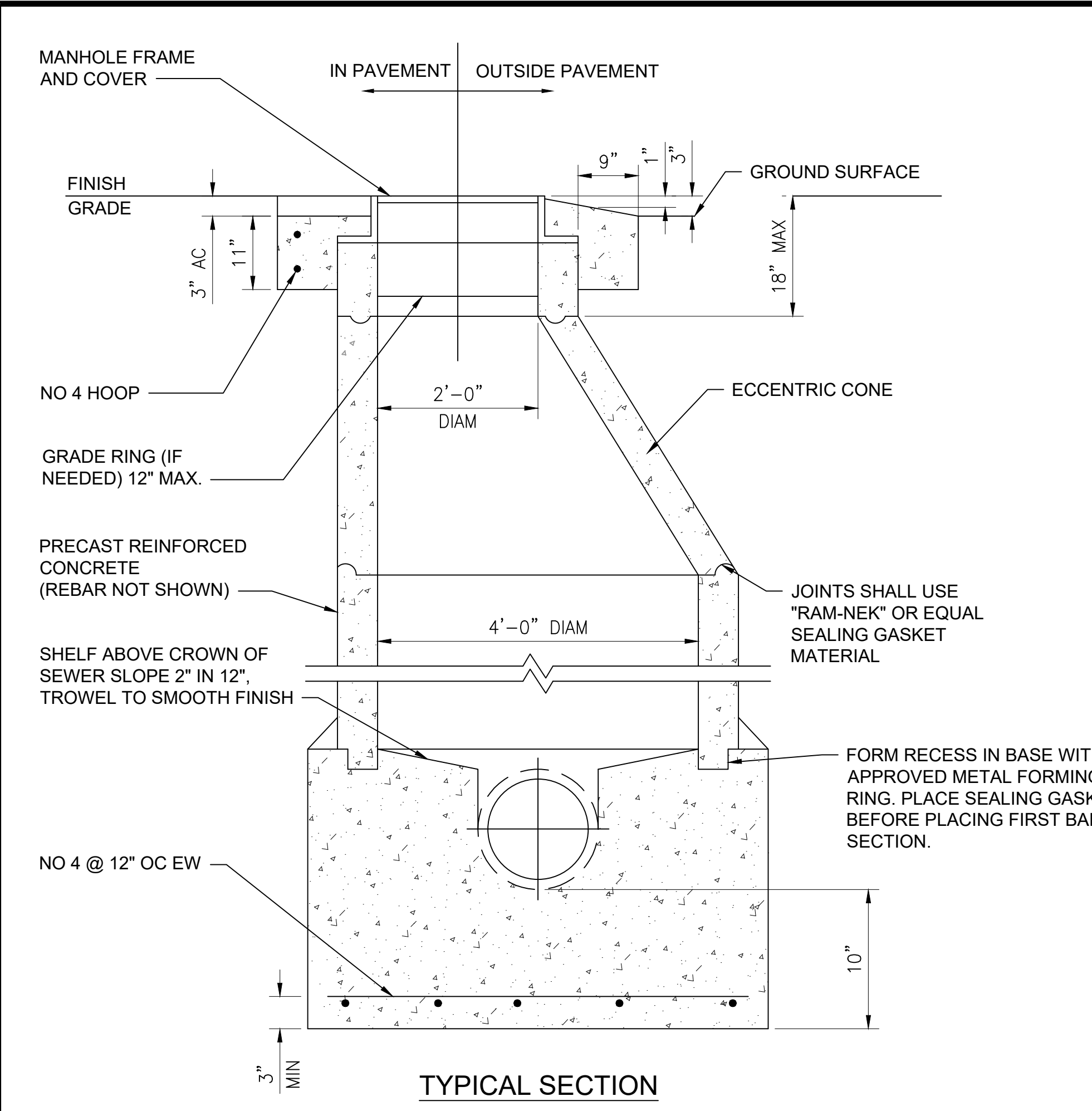


**SHALLOW SEWER - 10° AND LESS**

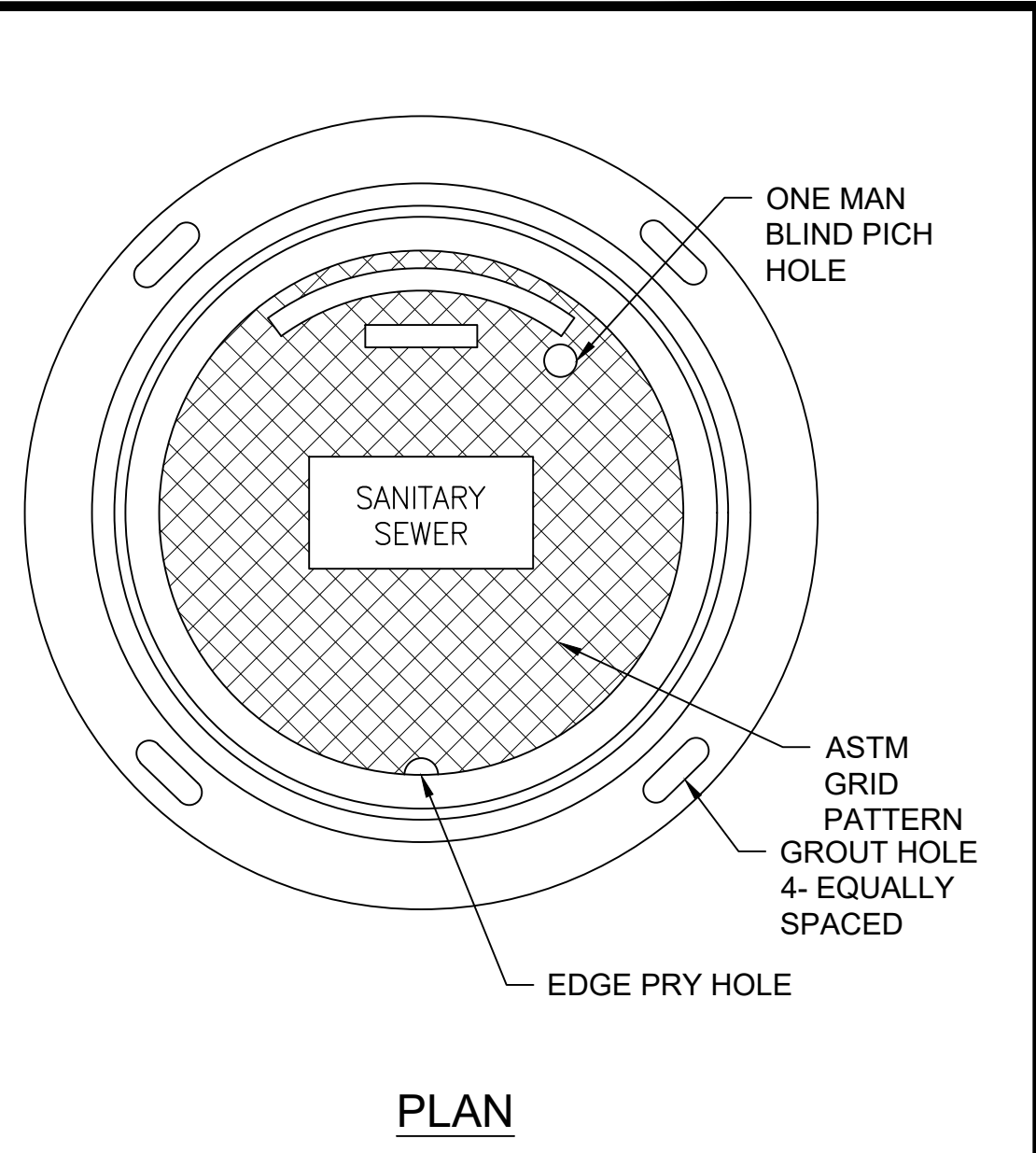


**CONNECTION TO EXISTING MAIN**

**SERVICE LATERAL CONNECTION 2**  
NTS



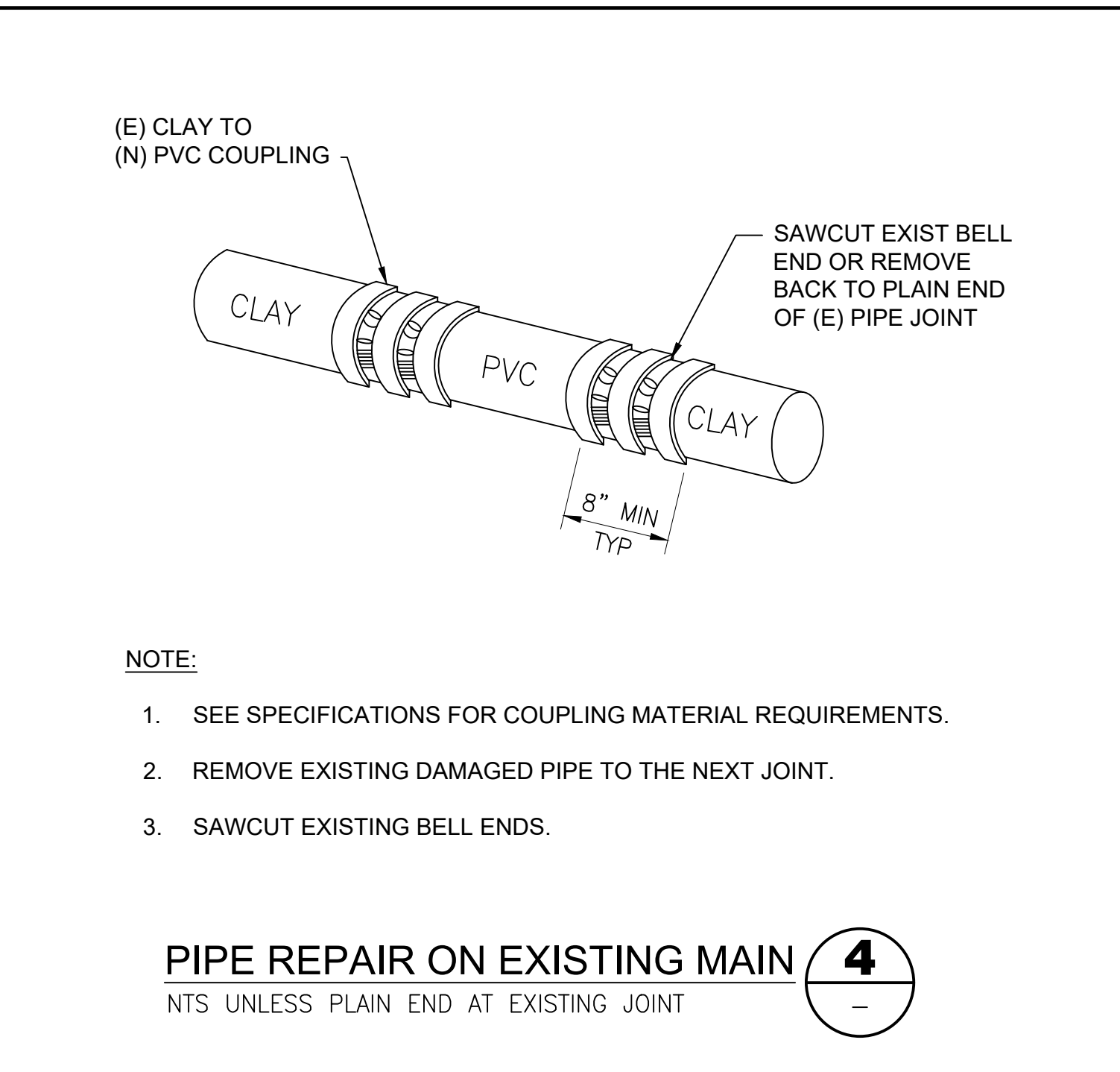
**TYPICAL SECTION**



**PLAN**

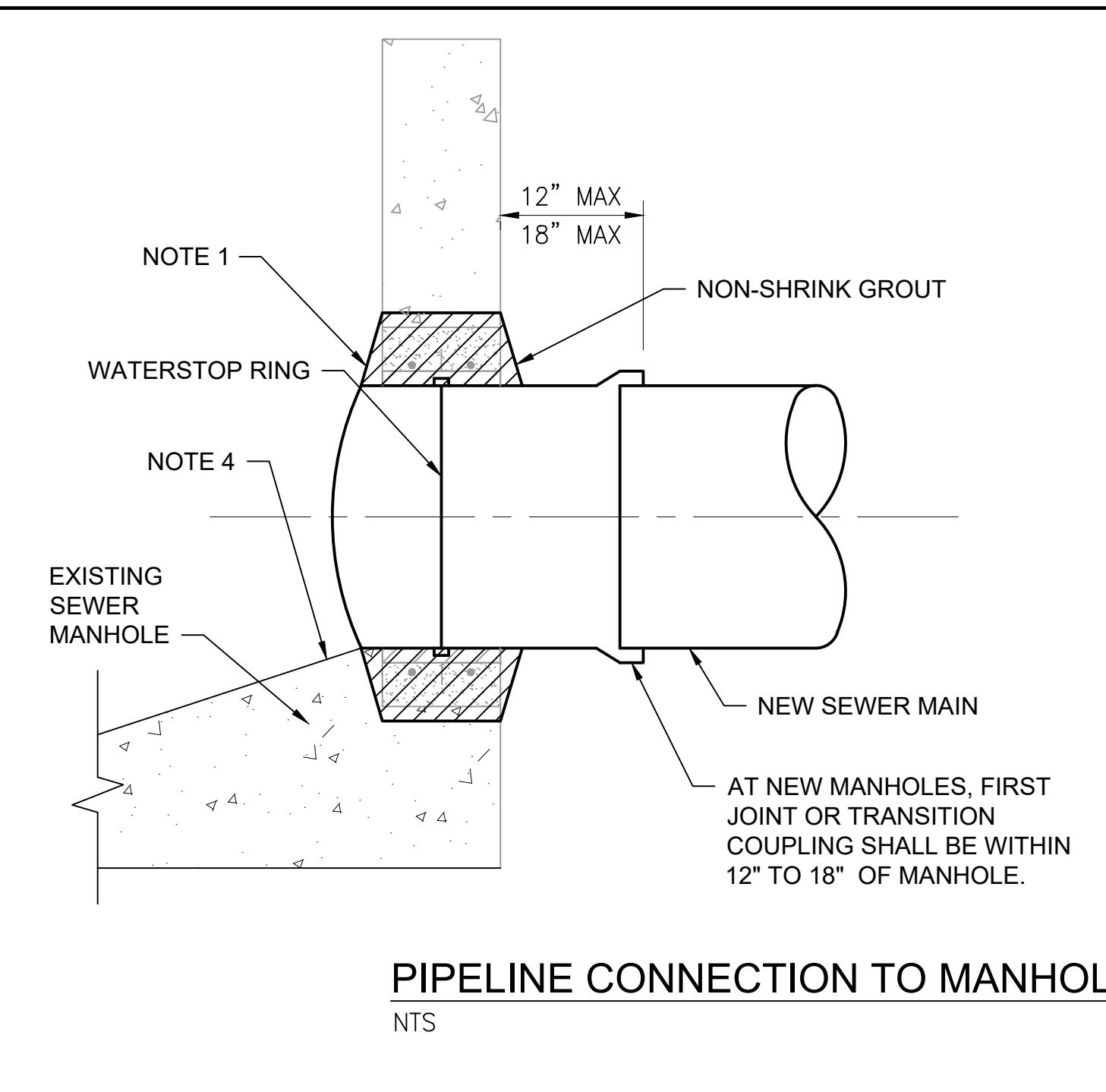
**NEW MANHOLE 3**  
NTS

- NOTES:**
- CAST IRON FRAME AND COVER SHALL BE D+L SUPPLY A-1024M, PHOENIX IRONWORKS P-1090 OR EQUAL.
  - MEET OR EXCEED REQUIREMENTS OF ASSHTO-20 LOADING.
  - LAY PIPE THROUGH MANHOLE WHEN POSSIBLE AND CUT OUT TOP OF PIPE.



- NOTE:**
- SEE SPECIFICATIONS FOR COUPLING MATERIAL REQUIREMENTS.
  - REMOVE EXISTING DAMAGED PIPE TO THE NEXT JOINT.
  - SAWCUT EXISTING BELL ENDS.

**PIPE REPAIR ON EXISTING MAIN 4**  
NTS UNLESS PLAIN END AT EXISTING JOINT



**PIPELINE CONNECTION TO MANHOLES 5**  
NTS

- NOTES:**
- BROKEN EDGES SHALL BE SMOOTHED AND WATER-TIGHT CONNECTION COMPLETED WITH NON-SHRINK GROUT.
  - EXISTING MANHOLE PIPE PENETRATIONS SHALL BE DRILLED LARGER WHERE NECESSARY.
  - MATCH INVERT ELEVATIONS.
  - REBUILD OR MODIFY MANHOLE TROUGH AND SHELF TO ACCOMMODATE NEW PIPE.

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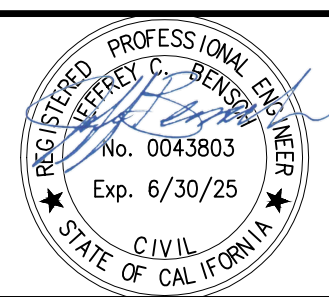
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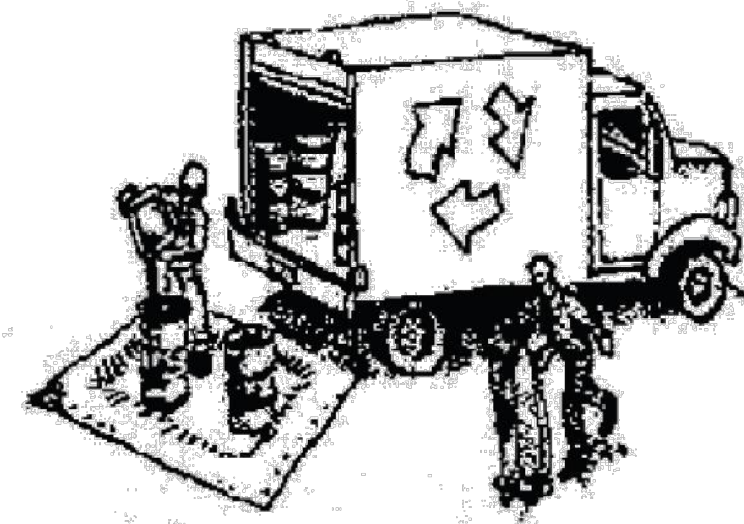
EAST PALO ALTO SANITARY DISTRICT  
SANITARY SEWER PIPELINE REPLACEMENT PROJECT  
**DETAILS**



# Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

## Materials & Waste Management



### Non-Hazardous Materials

- Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- Use (but don't overuse) reclaimed water for dust control.

### Hazardous Materials

- Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- Arrange for appropriate disposal of all hazardous wastes.

### Waste Management

- Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

### Construction Entrances and Perimeter

- Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

## Equipment Management & Spill Control



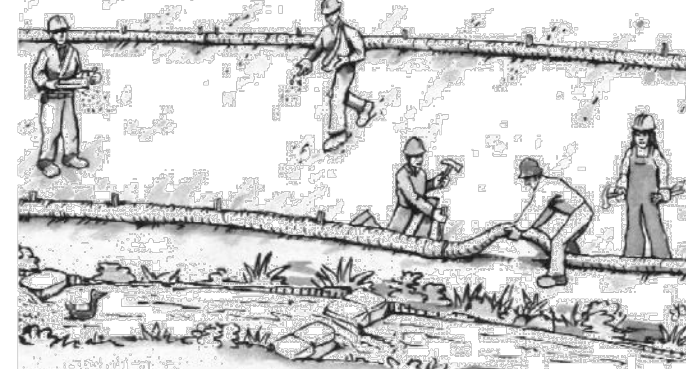
### Maintenance and Parking

- Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

### Spill Prevention and Control

- Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- Clean up spills or leaks immediately and dispose of cleanup materials properly.
- Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number. 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

## Earthmoving

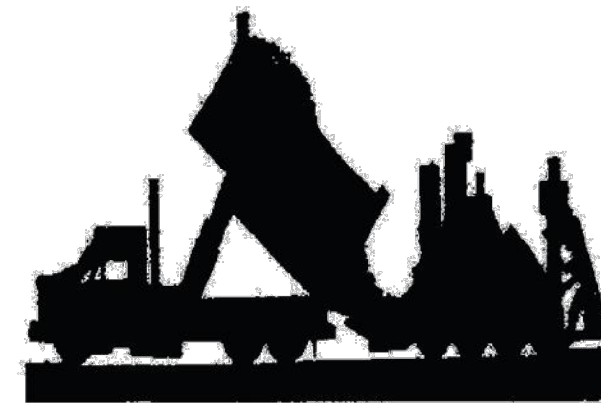


- Schedule grading and excavation work during dry weather.
- Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.
- Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

### Contaminated Soils

- If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
  - Unusual soil conditions, discoloration, or odor.
  - Abandoned underground tanks.
  - Abandoned wells
  - Buried barrels, debris, or trash.

## Paving/Asphalt Work



- Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- Do not use water to wash down fresh asphalt concrete pavement.

### Sawcutting & Asphalt/Concrete Removal

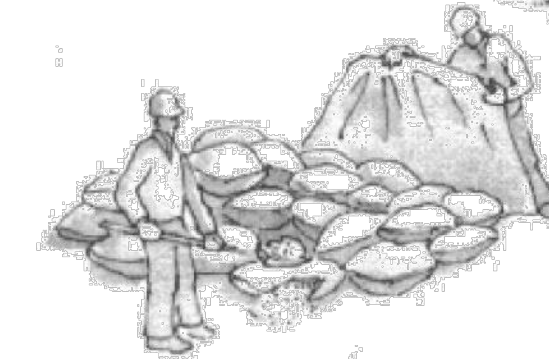
- Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- Shovel, absorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- If sawcut slurry enters a catch basin, clean it up immediately.

## Concrete, Grout & Mortar Application



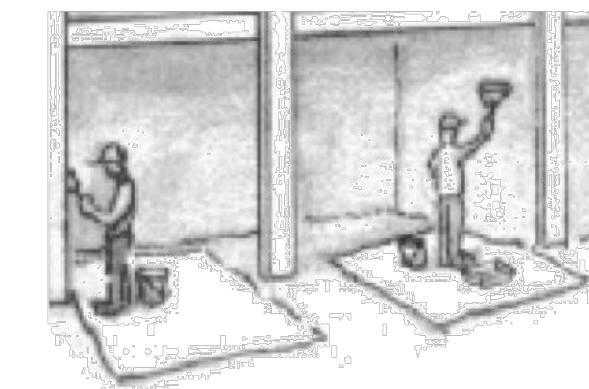
- Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

## Landscaping



- Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- Stack bagged material on pallets and under cover.
- Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

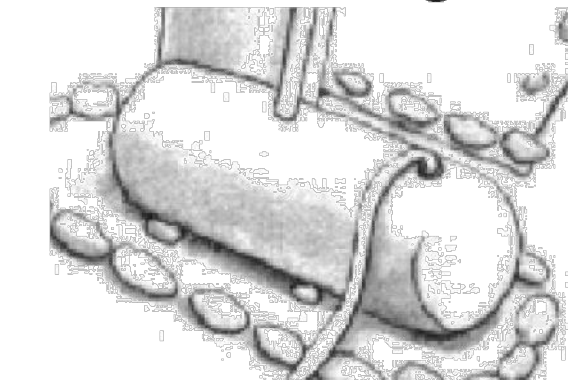
## Painting & Paint Removal



### Painting Cleanup and Removal

- Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state-certified contractor.

## Dewatering



- Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant.
- Divert run-on water from offsite away from all disturbed areas.
- When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

**Storm drain polluters may be liable for fines of up to \$10,000 per day!**

C:\Users\Mary\Dropbox\WORK\SIERRA\WEST\23 EPASD\EPASD-SEWER.dwg 7-11-23 04:16:41 PM Mary

DRAWN: MAH		PROJECT NO:		<b>WARNING</b>  AT FULL SCALE (IF BAR IS NOT 1" - SCALE ACCORDINGLY)	 4227 Sunrise Boulevard, Suite 220 Fair Oaks, California 95628 Ph: (916) 863-3220	PREPARED FOR:  901 WEEKS STREET EAST PALO ALTO, CA 94303		EAST PALO ALTO SANITARY DISTRICT SANITARY SEWER PIPELINE REPLACEMENT PROJECT		SHEET NO: D-2		
ENGINEER: JCB		SCALE:										
CHECKED: JCB		APPROVED:										15
NO.	DATE	ISSUE FOR	REVISIONS	BY	CHK	DATE:	DATE:			15		
1	7/10/23	ISSUE FOR BID				7/10/23		CONSTRUCTION BMPs				



# Part E

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# Sanitary Sewer Inspection Reports



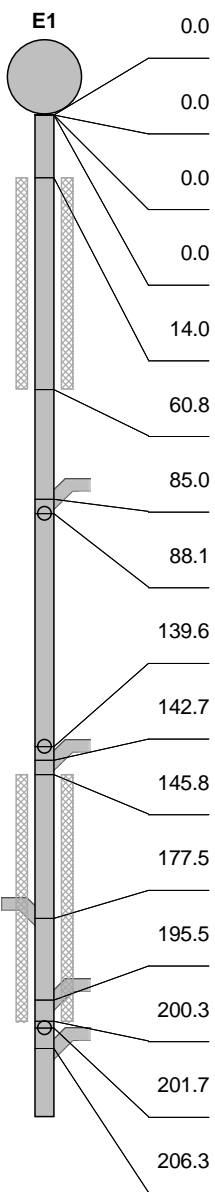


## Inspection report

Date: <b>8/8/2022</b>	Work Order:	Weather:	Surveyed By: <b>J NAVA</b>	Certificate Number: <b>U-614-06021728</b>	Pipe Segment Ref.: <b>E1_H9</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>271.3'</b>	Length Surveyed: <b>271.3'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>E1</b>
Street: <b>GREEN ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code:	Flow Control:	Downstream MH: <b>H9</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>12"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Polyethylene</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:1671	Distance	Code	Observation	Counter	Photo	Grade
	0.0	AMH	Manhole / E1	00:00:00	E1-H9_50 89.jpg	
	0.0	MWL	Water Level, 15% of the vertical dimension	00:01:08	E1-H9_50 90.jpg	
	0.0	MWM	Miscellaneous Water Mark, 25% of the vertical dimension	00:01:11	E1-H9_50 91.jpg	
	0.0	MGO	Miscellaneous General Observation / PIPE IS HDPE AND NOT VCP	00:01:19	E1-H9_50 92.jpg	
	14.0	S01 MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Start	00:01:52	E1-H9_50 93.jpg	
	60.8	F01 MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Finish	00:03:14	E1-H9_50 94.jpg	
	85.0	TB	Tap Break-in/Hammer at 10 o'clock, dia/height: 6inch, within 8 inch	00:03:56	E1-H9_50 95.jpg,E1-H9_5096.j	
	88.1	TF	Tap Factory Made at 12 o'clock, dia/height: 6inch, within 8 inch	00:04:13	E1-H9_50 97.jpg,E1-H9_5098.j	
	139.6	TF	Tap Factory Made at 12 o'clock, dia/height: 6inch, within 8 inch	00:05:59	E1-H9_50 99.jpg,E1-H9_5100.j	
	142.7	TBA	Tap Break-in Activity at 11 o'clock, dia/height: 6inch, within 8 inch	00:06:31	E1-H9_51 01.jpg,E1-H9_5102.j	
	145.8	S02 MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Start	00:06:47	E1-H9_51 03.jpg	
	177.5	TB	Tap Break-in/Hammer at 1 o'clock, dia/height: 6inch, within 8 inch	00:08:36	E1-H9_51 04.jpg,E1-H9_5105.j	
	195.5	TFA	Tap Factory Activity at 11 o'clock, dia/height: 6inch, within 8 inch	00:09:26	E1-H9_51 06.jpg,E1-H9_5107.j	
	200.3	F02 MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Finish	00:09:43	E1-H9_51 08.jpg	
	201.7	TF	Tap Factory Made at 12 o'clock, dia/height: 6inch, within 8 inch	00:09:53	E1-H9_51 09.jpg,E1-H9_5110.j	
	206.3	TFA	Tap Factory Activity at 10 o'clock, dia/height: 6inch, within 8 inch	00:10:20	E1-H9_51 11.jpg,E1-H9_5112.j	



## Inspection report

Date: <b>8/8/2022</b>	Work Order:	Weather:	Surveyed By: <b>J NAVA</b>	Certificate Number: <b>U-614-06021728</b>	Pipe Segment Ref.: <b>E1_H9</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>271.3 '</b>	Length Surveyed: <b>271.3 '</b>

1:1671	Distance	Code	Observation	Counter	Photo	Grade																		
	236.3	S03	MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Start	00:11:05	E1-H9_51 13.jpg																		
	271.3	F03	MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Finish	00:12:27	E1-H9_51 14.jpg																		
	271.3	AMH	Manhole / H9	00:13:02	E1-H9_51 15.jpg																			
<table border="1"> <tr> <td>QSR</td> <td>QMR</td> <td>QOR</td> <td>SPR</td> <td>MPR</td> <td>OPR</td> <td>SPRI</td> <td>MPRI</td> <td>OPRI</td> </tr> <tr> <td>2D00</td> <td>0000</td> <td>2D00</td> <td>54.0</td> <td>0.0</td> <td>54.0</td> <td>2.0</td> <td>0.0</td> <td>2.0</td> </tr> </table>							QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI	2D00	0000	2D00	54.0	0.0	54.0	2.0	0.0	2.0
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI																
2D00	0000	2D00	54.0	0.0	54.0	2.0	0.0	2.0																



## Inspection report

Date: <b>8/8/2022</b>	Work Order:	Weather:	Surveyed By: <b>J NAVA</b>	Certificate Number: <b>U-614-06021728</b>	Pipe Segment Ref.: <b>H9_H8 H73</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>247.7'</b>	Length Surveyed: <b>247.7'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H9</b>
Street: <b>GREEN ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code:	Flow Control:	Downstream MH: <b>H8</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>12"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Polyethylene</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:1464	Distance	Code	Observation	Counter	Photo	Grade
	0.0	AMH	Manhole / H9	00:00:00	H9-H8_51 16.jpg	
	0.0	MWL	Water Level, 20% of the vertical dimension	00:00:43	H9-H8_51 17.jpg	
	0.0	MWM	Miscellaneous Water Mark, 30% of the vertical dimension	00:00:59	H9-H8_51 18.jpg	
	0.0 S01	MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Start	00:01:02	H9-H8_51 19.jpg	
	31.3 F01	MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Finish	00:02:18	H9-H8_51 20.jpg	
	31.3	MWL	Water Level, 10% of the vertical dimension	00:02:21	H9-H8_51 21.jpg	
	31.3	MWM	Miscellaneous Water Mark, 20% of the vertical dimension	00:02:24	H9-H8_51 22.jpg	
	44.7 S02	MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Start	00:02:47	H9-H8_51 23.jpg	
	45.3	TF	Tap Factory Made at 10 o'clock, dia/height: 6inch, within 8 inch	00:02:57	H9-H8_51 24.jpg,H9- H8_5125.j	
	79.7 F02	MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Finish	00:03:58	H9-H8_51 26.jpg	
	81.5	TF	Tap Factory Made at 9 o'clock, dia/height: 6inch, within 8 inch	00:04:07	H9-H8_51 27.jpg,H9- H8_5128.j	
	84.2	TB	Tap Break-in/Hammer at 11 o'clock, dia/height: 6inch, within 8 inch	00:04:30	H9-H8_51 29.jpg,H9- H8_5130.j	
	103.7	TFA	Tap Factory Activity at 2 o'clock, dia/height: 6inch, within 8 inch	00:05:05	H9-H8_51 31.jpg,H9- H8_5132.j	
	106.9 S03	MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Start	00:05:23	H9-H8_51 33.jpg	
	168.4 F03	MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Finish	00:07:08	H9-H8_51 34.jpg	
	168.4	TFA	Tap Factory Activity at 9 o'clock, dia/height: 6inch, within 8 inch	00:07:18	H9-H8_51 35.jpg,H9- H8_5136.j	



## Inspection report

Date: <b>8/8/2022</b>	Work Order:	Weather:	Surveyed By: <b>J NAVA</b>	Certificate Number: <b>U-614-06021728</b>	Pipe Segment Ref.: <b>H9 <del>H8</del> H73</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>247.7'</b>	Length Surveyed: <b>247.7'</b>

1:1464	Distance	Code	Observation	Counter	Photo	Grade
	219.3	S04	MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Start	00:08:25	H9-H8_51 37.jpg
	229.5	F04	MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Finish	00:08:41	H9-H8_51 38.jpg
	241.8	S05	MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Start	00:08:59	H9-H8_51 39.jpg
	247.7	F05	MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Finish	00:09:50	H9-H8_51 40.jpg
	247.7	AMH		Manhole / H8	00:09:59	H9-H8_51 41.jpg



## Inspection report

Date: <b>8/8/2022</b>	Work Order:	Weather:	Surveyed By: <b>J NAVA</b>	Certificate Number: <b>U-614-06021728</b>	Pipe Segment Ref.: <b>H73 <del>H8</del> H74</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>104.1'</b>	Length Surveyed: <b>104.1'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H8</b>
Street: <b>GREEN ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code:	Flow Control:	Downstream MH: <b>H7</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>12"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Polyethylene</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:786	Distance	Code	Observation	Counter	Photo	Grade		
	0.0	AMH	Manhole / H8	00:00:00	H8-H7_51 42.jpg			
	0.0	MWL	Water Level, 20% of the vertical dimension	00:00:36	H8-H7_51 43.jpg			
	0.0	MWM	Miscellaneous Water Mark, 30% of the vertical dimension	00:00:38	H8-H7_51 44.jpg			
	0.0	S01 MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Start	00:00:41	H8-H7_51 45.jpg			
	10.5	TFA	Tap Factory Activity at 3 o'clock, dia/height: 6inch, within 8 inch	00:01:04	H8-H7_51 46.jpg,H8- H7_5147.j			
	37.7	TF	Tap Factory Made at 3 o'clock, dia/height: 6inch, within 8 inch	00:01:52	H8-H7_51 48.jpg,H8- H7_5149.j			
	51.4	F01 MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Finish	00:02:22	H8-H7_51 50.jpg			
	63.0	S02 MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Start	00:02:42	H8-H7_51 51.jpg			
	64.4	TF	Tap Factory Made at 9 o'clock, dia/height: 6inch, within 8 inch	00:02:53	H8-H7_51 52.jpg,H8- H7_5153.j			
	104.1	F02 MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Finish	00:04:02	H8-H7_51 54.jpg,H8- H7_5155.j			
	104.1	AMH	Manhole / H7	00:04:20	H8-H7_51 56.jpg			
QSR 2B00	QMR 0000	QOR 2B00	SPR 36.0	MPR 0.0	OPR 36.0	SPRI 2.0	MPRI 0.0	OPRI 2.0



## Inspection report

Date: <b>8/8/2022</b>	Work Order:	Weather:	Surveyed By: <b>J NAVA</b>	Certificate Number: <b>U-614-06021728</b>	Pipe Segment Ref.: <b>H74 <del>H7</del> H7A H8</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>111.8'</b>	Length Surveyed: <b>111.8'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H7</b>
Street: <b>GREEN ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code:	Flow Control:	Downstream MH: <b>H7A</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>12"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Polyethylene</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:844	Distance	Code	Observation	Counter	Photo	Grade		
	0.0	AMH	Manhole / H7	00:00:00	H7-H7A_5 157.jpg,H7 -H7A_515			
	0.0	MWL	Water Level, 10% of the vertical dimension	00:00:36	H7-H7A_5 159.jpg			
	0.0	MWM	Miscellaneous Water Mark, 15% of the vertical dimension	00:00:38	H7-H7A_5 160.jpg			
	5.5	TF	Tap Factory Made at 2 o'clock, dia/height: 6inch, within 8 inch	00:00:50	H7-H7A_5 161.jpg,H7 -H7A_516			
	11.5	S01 MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Start	00:01:11	H7-H7A_5 163.jpg			
	34.8	F01 MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Finish	00:01:48	H7-H7A_5 164.jpg			
	61.5	TFA	Tap Factory Activity at 9 o'clock, dia/height: 6inch, within 8 inch	00:02:38	H7-H7A_5 165.jpg,H7 -H7A_516			
	61.5	RFL	Roots Fine Lateral at 9 o'clock	00:02:41	H7-H7A_5 166.jpg,H7 -H7A_516			
	61.5	S02 MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Start	00:02:52	H7-H7A_5 167.jpg			
	71.3	TB	Tap Break-in/Hammer at 3 o'clock, dia/height: 6inch, within 8 inch	00:03:33	H7-H7A_5 170.jpg,H7 -H7A_517			
	105.9	TB	Tap Break-in/Hammer at 1 o'clock, dia/height: 6inch, within 8 inch	00:04:39	H7-H7A_5 172.jpg,H7 -H7A_517			
	111.8	F02 MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Finish	00:05:11	H7-H7A_5 174.jpg			
	111.8	MGO	Miscellaneous General Observation / UNCHARTED MANHOLE	00:05:33	H7-H7A_5 175.jpg			
	111.8	AMH	Manhole / H7A	00:05:38	H7-H7A_5 176.jpg			
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
2B00	1100	2B11	30.0	1.0	31.0	2.0	1.0	1.9



## Inspection report

Date: <b>8/8/2022</b>	Work Order:	Weather:	Surveyed By: <b>J NAVA</b>	Certificate Number: <b>U-614-06021728</b>	Pipe Segment Ref.: <b>H8 <del>H7A</del> H6 H7</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>235.0'</b>	Length Surveyed: <b>235.0'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H7A</b>
Street: <b>GREEN ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code:	Flow Control:	Downstream MH: <b>H7B</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>12"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Polyethylene</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:1192	Distance	Code	Observation	Counter	Photo	Grade
<b>H7A</b>	0.0	AMH	Manhole / H7A	00:00:00	H7A-H6_5 177.jpg	
	0.0	MWL	Water Level, 20% of the vertical dimension	00:00:30	H7A-H6_5 178.jpg	
	0.0	MWM	Miscellaneous Water Mark, 25% of the vertical dimension	00:00:33	H7A-H6_5 179.jpg	
	0.0 S01	MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Start	00:00:39	H7A-H6_5 180.jpg	
	0.0	MGO	Miscellaneous General Observation / UNCHARTED MANHOLE	00:00:47	H7A-H6_5 181.jpg,H7 A-H6_518	
	9.7 F01	MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Finish	00:01:15	H7A-H6_5 183.jpg	
	13.8	TF	Tap Factory Made at 3 o'clock, dia/height: 6inch, within 8 inch	00:01:25	H7A-H6_5 184.jpg,H7 A-H6_518	
	19.4	MWL	Water Level, 15% of the vertical dimension	00:01:39	H7A-H6_5 186.jpg	
	19.4	MWM	Miscellaneous Water Mark, 20% of the vertical dimension	00:01:43	H7A-H6_5 187.jpg	
	47.4 S02	MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Start	00:02:15	H7A-H6_5 188.jpg	
	111.5 F02	MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Finish	00:03:35	H7A-H6_5 189.jpg	
	115.7	TF	Tap Factory Made at 9 o'clock, dia/height: 6inch, within 8 inch	00:03:45	H7A-H6_5 190.jpg,H7 A-H6_519	
	122.6 S03	MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Start	00:04:06	H7A-H6_5 192.jpg	
	133.9 F03	MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Finish	00:04:32	H7A-H6_5 193.jpg	
	137.4	TFA	Tap Factory Activity at 12 o'clock, dia/height: 6inch, within 8 inch	00:04:44	H7A-H6_5 194.jpg,H7 A-H6_519	
	138.8 S04	MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Start	00:05:00	H7A-H6_5 196.jpg	



## Inspection report

Date: <b>8/8/2022</b>	Work Order:	Weather:	Surveyed By: <b>J NAVA</b>	Certificate Number: <b>U-614-06021728</b>	Pipe Segment Ref.: <b>H8 <del>H7A_H6</del> H7</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>235.0'</b>	Length Surveyed: <b>235.0'</b>

1:1192	Distance	Code	Observation	Counter	Photo	Grade		
	177.0	TF	Tap Factory Made at 12 o'clock, dia/height: 6inch, within 8 inch	00:05:53	H7A-H6_5 197.jpg,H7 A-H6_519			
	184.4	F04 MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Finish	00:06:17	H7A-H6_5 199.jpg			
	186.8	TF	Tap Factory Made at 12 o'clock, dia/height: 6inch, within 8 inch	00:06:34	H7A-H6_5 200.jpg,H7 A-H6_520			
	233.9	MGO	Miscellaneous General Observation / THIS IS UNCHARTED MANHOLE H7B	00:09:23	H7A-H6_5 203.jpg,H7 A-H6_520			
	235.0	AMH	Manhole / H7B	00:09:22	H7A-H6_5 202.jpg,H7 A-H6_520			
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
2D00	0000	2D00	52.0	0.0	52.0	2.0	0.0	2.0





## Inspection report

Date: <b>8/8/2022</b>	Work Order:	Weather:	Surveyed By: <b>J NAVA</b>	Certificate Number: <b>U-614-06021728</b>	Pipe Segment Ref.: <b>H7 <del>H7B</del> H7C H75</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>91.5'</b>	Length Surveyed: <b>91.5'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H7B</b>
Street: <b>GREEN ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code:	Flow Control:	Downstream MH: <b>H7C</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>12"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Polyethylene</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:691	Distance	Code	Observation	Counter	Photo	Grade		
	0.0	AMH	Manhole / H7B	00:00:00	H7B-H7C_5206.jpg			
	0.0	MWL	Water Level, 10% of the vertical dimension	00:00:28	H7B-H7C_5207.jpg			
	0.0	MWL	Water Level, 15% of the vertical dimension	00:00:30	H7B-H7C_5208.jpg			
	1.3	MGO	Miscellaneous General Observation / MANHOLE IS UNCHARTED	00:00:52	H7B-H7C_5209.jpg			
	8.5	S01 MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Start	00:01:11	H7B-H7C_5210.jpg			
	22.9	TF	Tap Factory Made at 12 o'clock, dia/height: 6inch, within 8 inch	00:01:49	H7B-H7C_5211.jpg, H7B-H7C_5			
	52.4	TFA	Tap Factory Activity at 12 o'clock, dia/height: 6inch, within 8 inch	00:03:04	H7B-H7C_5214.jpg, H7B-H7C_5			
	91.4	F01 MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Finish	00:04:21	H7B-H7C_5216.jpg			
	91.5	MGO	Miscellaneous General Observation / UNCHARTED MANHOLE	00:04:36	H7B-H7C_5217.jpg			
	91.5	AMH	Manhole / H7C	00:04:42	H7B-H7C_5218.jpg			
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
2B00	0000	2B00	34.0	0.0	34.0	2.0	0.0	2.0



## Inspection report

Date: <b>8/8/2022</b>	Work Order:	Weather:	Surveyed By: <b>J NAVA</b>	Certificate Number: <b>U-614-06021728</b>	Pipe Segment Ref.: <b>H75 <del>H7C</del> H6</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>258.5'</b>	Length Surveyed: <b>258.5'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H7C</b>
Street: <b>GREEN ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code:	Flow Control:	Downstream MH: <b>H6</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>12"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Polyethylene</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:1431	Distance	Code	Observation	Counter	Photo	Grade
<b>H7C</b>	0.0	AMH	Manhole / H7C	00:00:00	H7C-H6_5 219.jpg	
	0.0	MWL	Water Level, 15% of the vertical dimension	00:00:30	H7C-H6_5 220.jpg	
	0.0	MWM	Miscellaneous Water Mark, 25% of the vertical dimension	00:00:33	H7C-H6_5 221.jpg	
	0.0	MGO	Miscellaneous General Observation / UNCHARTED MANHOLE	00:00:40	H7C-H6_5 222.jpg	
	21.1	S01 MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Start	00:01:25	H7C-H6_5 223.jpg	
	42.3	TF	Tap Factory Made at 12 o'clock, dia/height: 6inch, within 8 inch	00:02:13	H7C-H6_5 224.jpg,H7 C-H6_522	
	44.4	TFA	Tap Factory Activity at 12 o'clock, dia/height: 6inch, within 8 inch	00:02:36	H7C-H6_5 226.jpg,H7 C-H6_522	
	52.6	TB	Tap Break-in/Hammer at 3 o'clock, dia/height: 6inch, within 8 inch	00:03:07	H7C-H6_5 228.jpg,H7 C-H6_522	
	54.3	F01 MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Finish	00:03:21	H7C-H6_5 230.jpg	
	64.0	TB	Tap Break-in/Hammer at 2 o'clock, dia/height: 6inch, within 8 inch	00:03:46	H7C-H6_5 231.jpg,H7 C-H6_523	
	86.6	TFD	Tap Factory Made Defective at 12 o'clock, dia/height: 6inch, within 8 inch	00:04:41	H7C-H6_5 233.jpg,H7 C-H6_523	
	86.6	RBC	Roots Ball Connection at 12 o'clock, 75% of cross sectional area	00:04:44	H7C-H6_5 234.jpg,H7 C-H6_523	
	95.0	S02 MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Start	00:05:22	H7C-H6_5 237.jpg	
	136.5	TF	Tap Factory Made at 12 o'clock, dia/height: 6inch, within 8 inch	00:06:27	H7C-H6_5 238.jpg,H7 C-H6_523	
	172.2	TBA	Tap Break-in Activity at 2 o'clock, dia/height: 6inch, within 8 inch	00:07:55	H7C-H6_5 240.jpg,H7 C-H6_524	
	182.7	JSM	Joint Separated Medium	00:08:55	H7C-H6_5 242.jpg,H7 C-H6_524	

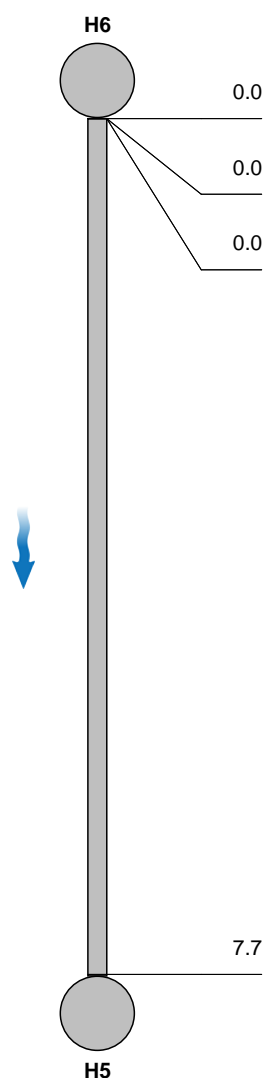
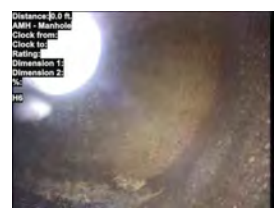





## Inspection report

Date: <b>12/9/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>H6_H5</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>7.7'</b>	Length Surveyed: <b>7.7'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H6</b>
Street: <b>CLARKE AVE</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: Local rural streets with light traffic	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>H5</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>12"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Polyethylene</b>	Purpose: <b>Routine Assessment</b>	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:68	Distance	Code	Observation	Grade	
					
	0.0	AMH	Manhole / H6		 <p style="text-align: center;">AMH - 0.00 ft</p>
	0.0	MWL	Water Level, 20% of the vertical dimension		 <p style="text-align: center;">MWL - 0.00 ft</p>
	0.0	MWM	Miscellaneous Water Mark, 20% of the vertical dimension		 <p style="text-align: center;">MWM - 0.00 ft</p>
	7.7	AMH	Manhole / H5		 <p style="text-align: center;">AMH - 7.70 ft</p>

QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	0000	0000	0.0	0.0	0.0	0.0	0.0	0.0



### Section Pictures - 12/9/2022 - H6\_H5

City	Street	Date	Pipe Segment Reference	Section No.
EAST PALO ALTO	CLARKE AVE	12/9/2022	H6_H5	21



1, , 0.00ft  
Manhole / H6



2, , 0.00ft  
Water Level, 20% of the vertical dimension



3, 00:00:32, 0.00ft  
Miscellaneous Water Mark, 20% of the vertical dimension



4, 00:01:09, 7.70ft  
Manhole / H5



## Inspection report

Date: <b>12/9/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>H5_H4</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>263.4'</b>	Length Surveyed: <b>263.4'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H5</b>
Street: <b>CLARKE AVE</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: Local rural streets with light traffic	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>H4</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>15"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Vitrified Clay Pipe</b>	Purpose: <b>Routine Assessment</b>	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

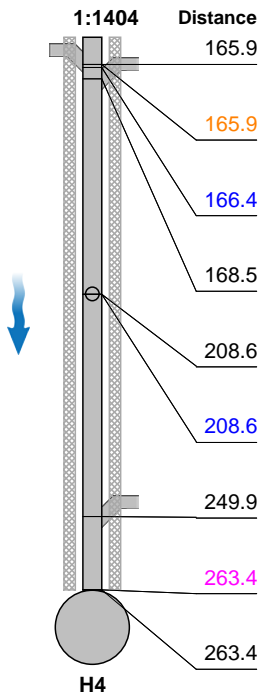
1:1404	Distance	Code	Observation	Grade	
	0.0	AMH	Manhole / H5		
	0.0	MWL	Water Level, 20% of the vertical dimension		
	0.0	MWM	Miscellaneous Water Mark, 50% of the vertical dimension		
	10.8	TB	Tap Break-in/Hammer at 2 o'clock, dia/height: 6.000inch, within 8 inch		
	10.9	CS	Crack Spiral from 3 o'clock to 5 o'clock	S2	
	22.9	S01 MWLS	Miscellaneous Water Level, Sag, 40% of the vertical dimension, Start		
	57.6	TB	Tap Break-in/Hammer at 2 o'clock, dia/height: 4.000inch, within 8 inch		
	106.0	TB	Tap Break-in/Hammer at 12 o'clock, dia/height: 4.000inch, within 8 inch		
	108.6	TBA	Tap Break-in Activity at 2 o'clock, dia/height: 4.000inch, within 8 inch		
	112.0	F01 MWLS	Miscellaneous Water Level, Sag, 40% of the vertical dimension, Finish	S3	
	115.8	S02 MWLS	Miscellaneous Water Level, Sag, 40% of the vertical dimension, Start		
	138.4	F02 MWLS	Miscellaneous Water Level, Sag, 40% of the vertical dimension, Finish	S3	
	155.6	S03 MWLS	Miscellaneous Water Level, Sag, 60% of the vertical dimension, Start		





## Inspection report

Date: <b>12/9/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>H5_H4</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>263.4'</b>	Length Surveyed: <b>263.4'</b>



Code	Observation	Grade
TB	Tap Break-in/Hammer at 2 o'clock, dia/height: 4.000inch, within 8 inch	
FS	Fracture Spiral from 10 o'clock to 2 o'clock, within 8 inch	S3
DAE	Deposits Attached Encrustation, 5% of cross sectional area at 11 o'clock	M2
TB	Tap Break-in/Hammer at 11 o'clock, dia/height: 4.000inch	
TB	Tap Break-in/Hammer at 12 o'clock, dia/height: 4.000inch	
CL	Crack Longitudinal at 12 o'clock	S2
TB	Tap Break-in/Hammer at 11 o'clock, dia/height: 4.000inch	
F03	MWLS Miscellaneous Water Level, Sag, 60% of the vertical dimension, Finish	S4
AMH	Manhole / H4	



TB - 10.80 ft



CS - 10.90 ft



CS - 10.90 ft



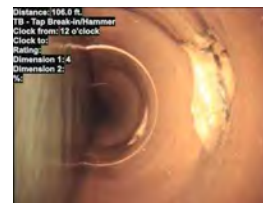
MWLS - 22.90 ft



TB - 57.60 ft



TB - 57.60 ft



TB - 106.00 ft



TB - 106.00 ft



TBA - 108.60 ft



TBA - 108.60 ft



MWLS - 112.00 ft



MWLS - 115.80 ft



## Inspection report

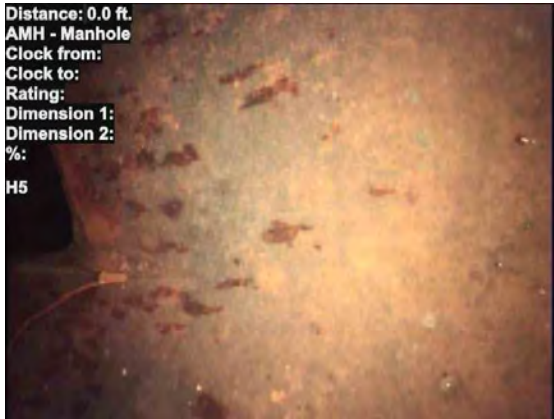
Date: <b>12/9/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>H5_H4</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>263.4'</b>	Length Surveyed: <b>263.4'</b>

 MWLS - 138.40 ft	 MWLS - 155.60 ft	 MWLS - 155.60 ft	 TB - 165.90 ft					
 TB - 165.90 ft	 FS - 165.90 ft	 FS - 165.90 ft	 DAE - 166.40 ft					
 DAE - 166.40 ft	 TB - 168.50 ft	 TB - 168.50 ft	 TB - 208.60 ft					
 TB - 208.60 ft	 CL - 208.60 ft	 TB - 249.90 ft	 TB - 249.90 ft					
 MWLS - 263.40 ft	 AMH - 263.40 ft							
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
4C3C	2100	4C3C	164.0	2.0	166.0	3.4	2.0	3.4



**Section Pictures - 12/9/2022 - H5\_H4**

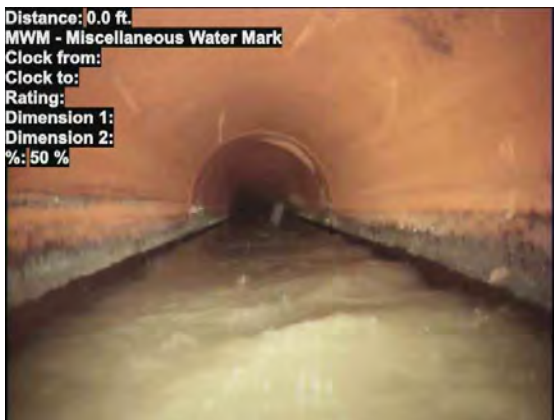
City	Street	Date	Pipe Segment Reference	Section No.
EAST PALO ALTO	CLARKE AVE	12/9/2022	H5_H4	19



1, , 0.00ft  
 Manhole / H5



2, , 0.00ft  
 Water Level, 20% of the vertical dimension



3, 00:00:40, 0.00ft  
 Miscellaneous Water Mark, 50% of the vertical dimension



4, 00:01:17, 10.80ft  
 Tap Break-in/Hammer at 2 o'clock, dia/height: 6.000inch, within 8 inch



5, 00:01:17, 10.80ft  
 Tap Break-in/Hammer at 2 o'clock, dia/height: 6.000inch, within 8 inch



6, 00:01:46, 10.90ft  
 Crack Spiral from 3 o'clock to 5 o'clock





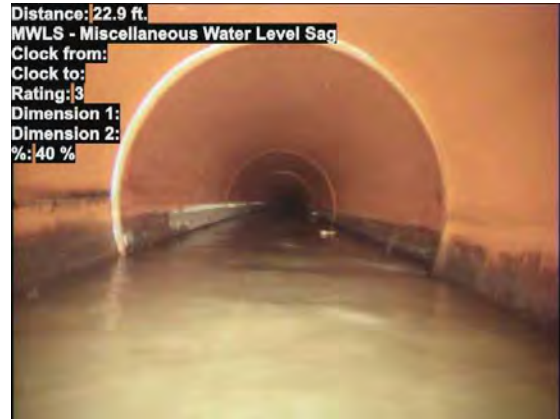
**Section Pictures - 12/9/2022 - H5\_H4**

City	Street	Date	Pipe Segment Reference	Section No.
EAST PALO ALTO	CLARKE AVE	12/9/2022	H5_H4	19



Distance: 10.9 ft.  
 CS - Crack Spiral  
 Clock from: 3 o'clock  
 Clock to: 5 o'clock  
 Rating: 2  
 Dimension 1:  
 Dimension 2:  
 %:

7, 00:01:46, 10.90ft  
 Crack Spiral from 3 o'clock to 5 o'clock



Distance: 22.9 ft.  
 MWLS - Miscellaneous Water Level Sag  
 Clock from:  
 Clock to:  
 Rating: 3  
 Dimension 1:  
 Dimension 2:  
 %: 40 %

8, 00:02:34, 22.90ft  
 Miscellaneous Water Level, Sag, 40% of the vertical dimension, Start



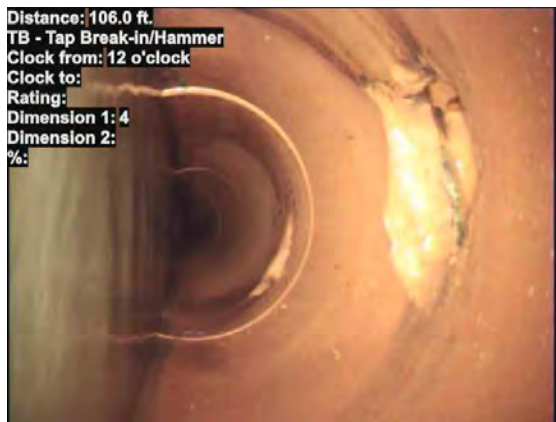
Distance: 57.6 ft.  
 TB - Tap Break-in/Hammer  
 Clock from: 2 o'clock  
 Clock to:  
 Rating:  
 Dimension 1: 4  
 Dimension 2:  
 %:

9, 00:04:01, 57.60ft  
 Tap Break-in/Hammer at 2 o'clock, dia/height: 4.000inch, within 8 inch



Distance: 57.6 ft.  
 TB - Tap Break-in/Hammer  
 Clock from: 2 o'clock  
 Clock to:  
 Rating:  
 Dimension 1: 4  
 Dimension 2:  
 %:

10, 00:04:01, 57.60ft  
 Tap Break-in/Hammer at 2 o'clock, dia/height: 4.000inch, within 8 inch



Distance: 106.0 ft.  
 TB - Tap Break-in/Hammer  
 Clock from: 12 o'clock  
 Clock to:  
 Rating:  
 Dimension 1: 4  
 Dimension 2:  
 %:

11, 00:05:44, 106.00ft  
 Tap Break-in/Hammer at 12 o'clock, dia/height: 4.000inch, within 8 inch



Distance: 106.0 ft.  
 TB - Tap Break-in/Hammer  
 Clock from: 12 o'clock  
 Clock to:  
 Rating:  
 Dimension 1: 4  
 Dimension 2:  
 %:

12, 00:05:44, 106.00ft  
 Tap Break-in/Hammer at 12 o'clock, dia/height: 4.000inch, within 8 inch

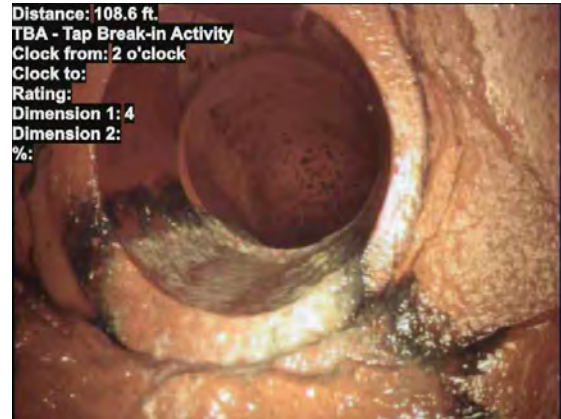


## Section Pictures - 12/9/2022 - H5\_H4

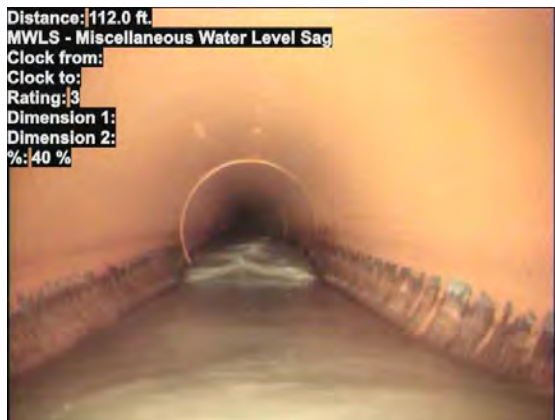
City	Street	Date	Pipe Segment Reference	Section No.
EAST PALO ALTO	CLARKE AVE	12/9/2022	H5_H4	19



13, 00:06:21, 108.60ft  
 Tap Break-in Activity at 2 o'clock, dia/height: 4.000inch, within 8 inch



14, 00:06:21, 108.60ft  
 Tap Break-in Activity at 2 o'clock, dia/height: 4.000inch, within 8 inch



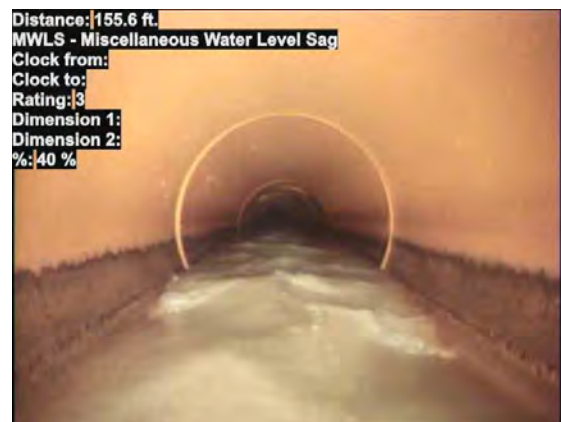
15, 00:06:57, 112.00ft  
 Miscellaneous Water Level, Sag, 40% of the vertical dimension, Finish



16, 00:07:12, 115.80ft  
 Miscellaneous Water Level, Sag, 40% of the vertical dimension, Start



17, 00:08:08, 138.40ft  
 Miscellaneous Water Level, Sag, 40% of the vertical dimension, Finish



18, 00:08:49, 155.60ft  
 Miscellaneous Water Level, Sag, 60% of the vertical dimension, Start





## Section Pictures - 12/9/2022 - H5\_H4

City <b>EAST PALO ALTO</b>	Street <b>CLARKE AVE</b>	Date <b>12/9/2022</b>	Pipe Segment Reference <b>H5_H4</b>	Section No. <b>19</b>
-------------------------------	-----------------------------	--------------------------	--	--------------------------



19, 00:08:49, 155.60ft  
 Miscellaneous Water Level, Sag, 60% of the vertical dimension, Start



20, 00:09:27, 165.90ft  
 Tap Break-in/Hammer at 2 o'clock, dia/height: 4.000inch, within 8 inch



21, 00:09:27, 165.90ft  
 Tap Break-in/Hammer at 2 o'clock, dia/height: 4.000inch, within 8 inch



22, 00:09:42, 165.90ft  
 Fracture Spiral from 10 o'clock to 2 o'clock, within 8 inch



23, 00:09:42, 165.90ft  
 Fracture Spiral from 10 o'clock to 2 o'clock, within 8 inch

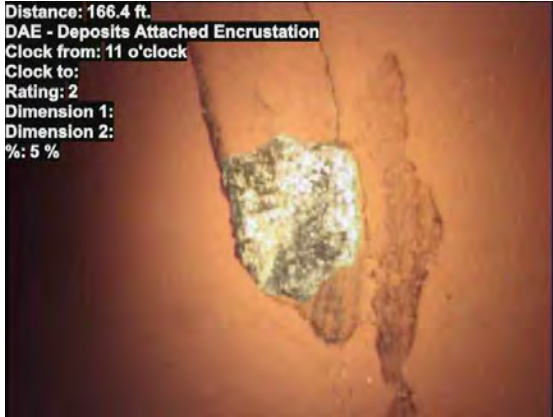


24, 00:10:13, 166.40ft  
 Deposits Attached Encrustation, 5% of cross sectional area at 11 o'clock



**Section Pictures - 12/9/2022 - H5\_H4**

City	Street	Date	Pipe Segment Reference	Section No.
EAST PALO ALTO	CLARKE AVE	12/9/2022	H5_H4	19



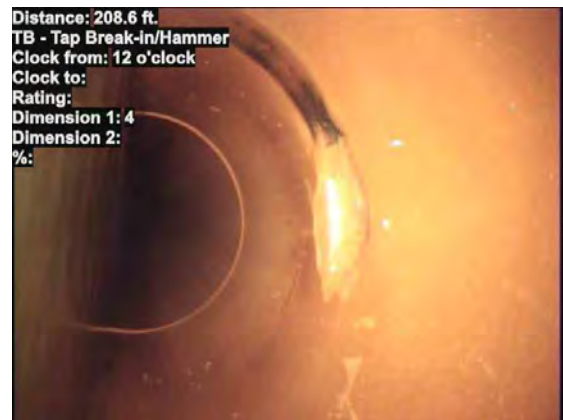
25, 00:10:13, 166.40ft  
 Deposits Attached Encrustation, 5% of cross sectional area at 11 o'clock



26, 00:10:43, 168.50ft  
 Tap Break-in/Hammer at 11 o'clock, dia/height: 4.000inch



27, 00:10:43, 168.50ft  
 Tap Break-in/Hammer at 11 o'clock, dia/height: 4.000inch



28, 00:12:37, 208.60ft  
 Tap Break-in/Hammer at 12 o'clock, dia/height: 4.000inch



29, 00:12:37, 208.60ft  
 Tap Break-in/Hammer at 12 o'clock, dia/height: 4.000inch

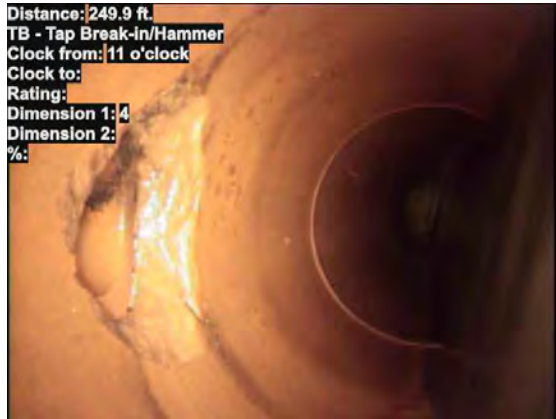


30, 00:13:11, 208.60ft  
 Crack Longitudinal at 12 o'clock

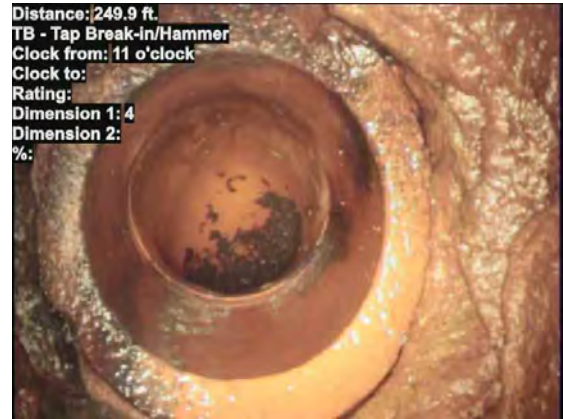


## Section Pictures - 12/9/2022 - H5\_H4

City <b>EAST PALO ALTO</b>	Street <b>CLARKE AVE</b>	Date <b>12/9/2022</b>	Pipe Segment Reference <b>H5_H4</b>	Section No. <b>19</b>
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31, 00:14:59, 249.90ft  
 Tap Break-in/Hammer at 11 o'clock, dia/height: 4.000inch



32, 00:14:59, 249.90ft  
 Tap Break-in/Hammer at 11 o'clock, dia/height: 4.000inch



33, 00:15:58, 263.40ft  
 Miscellaneous Water Level, Sag, 60% of the vertical dimension, Finish



34, 00:16:05, 263.40ft  
 Manhole / H4





## Inspection report

Date: <b>12/9/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>H4_H3</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>8.9'</b>	Length Surveyed: <b>8.9'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H4</b>
Street: <b>CLARKE AVE</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: Local rural streets with light traffic	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>H3</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>15"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Vitrified Clay Pipe</b>	Purpose: <b>Routine Assessment</b>	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:78	Distance	Code	Observation	Grade				
	0.0	AMH	Manhole / H4		<p style="font-size: small;">Distance: 0.0 ft AMH - Manhole Clock from: Clock to: Rating: Dimension 1: Dimension 2: %:</p> <p style="text-align: center;">AMH - 0.00 ft</p>			
	0.0	MWL	Water Level, 20% of the vertical dimension		<p style="font-size: small;">Distance: 0.0 ft MWL - Miscellaneous Water Level Clock from: Clock to: Rating: Dimension 1: Dimension 2: %: 20 %</p> <p style="text-align: center;">MWL - 0.00 ft</p>			
	0.0	MWM	Miscellaneous Water Mark, 40% of the vertical dimension		<p style="font-size: small;">Distance: 0.0 ft MWM - Miscellaneous Water Mark Clock from: Clock to: Rating: Dimension 1: Dimension 2: %: 40 %</p> <p style="text-align: center;">MWM - 0.00 ft</p>			
	8.9	AMH	Manhole / H3 THIS MANHOLE IS BURIED		<p style="font-size: small;">Distance: 8.9 ft AMH - Manhole Clock from: Clock to: Rating: Dimension 1: Dimension 2: %:</p> <p style="text-align: center;">AMH - 8.90 ft</p>			
QSR 0000	QMR 0000	QOR 0000	SPR 0.0	MPR 0.0	OPR 0.0	SPRI 0.0	MPRI 0.0	OPRI 0.0

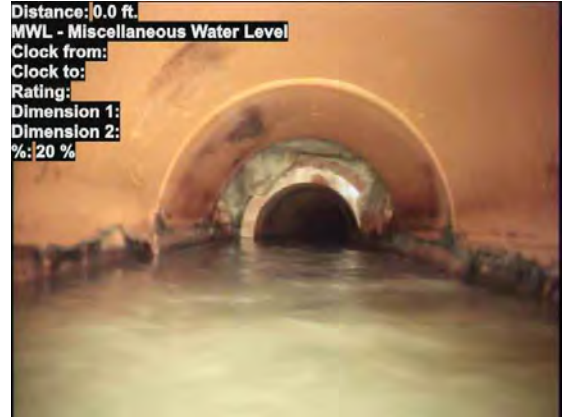


**Section Pictures - 12/9/2022 - H4\_H3**

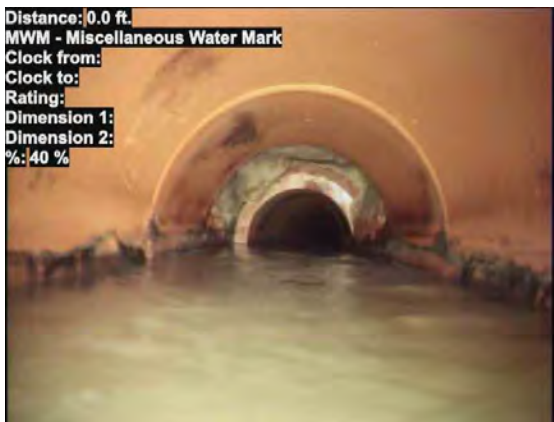
City <b>EAST PALO ALTO</b>	Street <b>CLARKE AVE</b>	Date <b>12/9/2022</b>	Pipe Segment Reference <b>H4_H3</b>	Section No. <b>10</b>
-------------------------------	-----------------------------	--------------------------	--	--------------------------



1, , 0.00ft  
 Manhole / H4



2, , 0.00ft  
 Water Level, 20% of the vertical dimension



3, 00:00:38, 0.00ft  
 Miscellaneous Water Mark, 40% of the vertical dimension



4, 00:01:34, 8.90ft  
 Manhole / H3  
 THIS MANHOLE IS BURIED

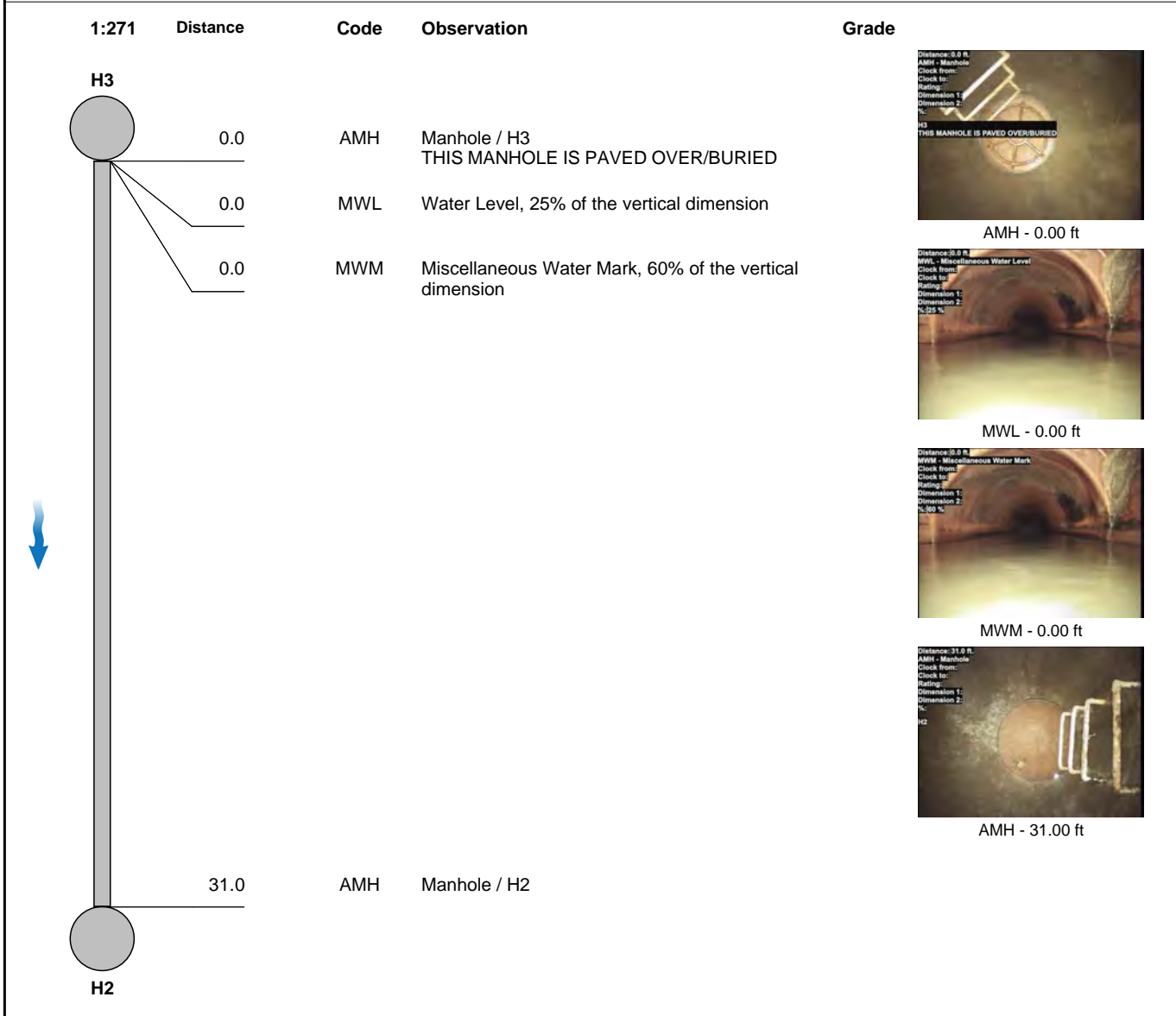


## Inspection report

Date: <b>12/9/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>H3_H2</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>31.0'</b>	Length Surveyed: <b>31.0'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H3</b>
Street: <b>BEECH ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: Local rural streets with light traffic	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>H2</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>15"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Vitrified Clay Pipe</b>	Purpose: <b>Routine Assessment</b>	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:



QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	0000	0000	0.0	0.0	0.0	0.0	0.0	0.0



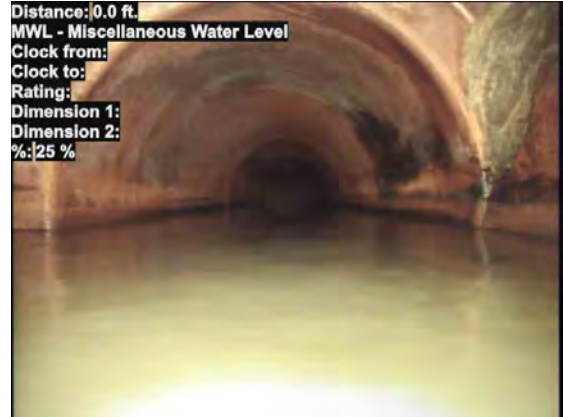


**Section Pictures - 12/9/2022 - H3\_H2**

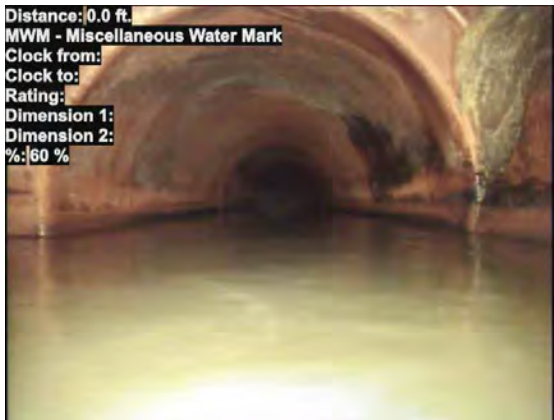
City	Street	Date	Pipe Segment Reference	Section No.
EAST PALO ALTO	BEECH ST	12/9/2022	H3_H2	17



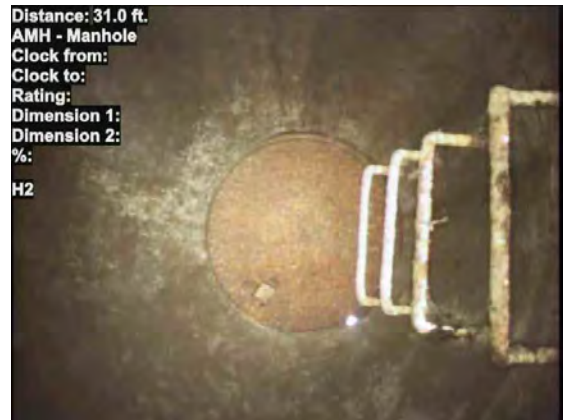
1, , 0.00ft  
 Manhole / H3  
 THIS MANHOLE IS PAVED OVER/BURIED



2, , 0.00ft  
 Water Level, 25% of the vertical dimension



3, 00:01:14, 0.00ft  
 Miscellaneous Water Mark, 60% of the vertical dimension



4, 00:02:29, 31.00ft  
 Manhole / H2







## Inspection report

Date: <b>12/9/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>H2_I11</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>37.0'</b>	Length Surveyed: <b>37.0'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H2</b>
Street: <b>BEECH ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: Local rural streets with light traffic	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>I11</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>15"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Vitrified Clay Pipe</b>	Purpose: <b>Routine Assessment</b>	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

	1:323 Distance	Code	Observation	Grade	
	0.0	AMH	Manhole / H2		<div style="font-size: 8px;">           Distance: 0.0 ft            AMH - Manhole            Clock from:            Clock to:            Rating:            Dimension 1:            Dimension 2:            H2         </div>  <p style="text-align: center;">AMH - 0.00 ft</p>
	0.0	MWL	Water Level, 20% of the vertical dimension		<div style="font-size: 8px;">           Distance: 0.0 ft            MWL - Miscellaneous Water Level            Clock from:            Clock to:            Rating:            Dimension 1:            Dimension 2:            0.20 ft         </div>  <p style="text-align: center;">MWL - 0.00 ft</p>
	0.0	MWM	Miscellaneous Water Mark, 40% of the vertical dimension		<div style="font-size: 8px;">           Distance: 0.0 ft            MWM - Miscellaneous Water Mark            Clock from:            Clock to:            Rating:            Dimension 1:            Dimension 2:            0.40 ft         </div>  <p style="text-align: center;">MWM - 0.00 ft</p>
	14.1	MMC	Miscellaneous Material Change / LOOKS LIKE PE		<div style="font-size: 8px;">           Distance: 14.1 ft            MMC - Miscellaneous Material Change            Clock from:            Clock to:            Rating:            Dimension 1:            Dimension 2:            0            LOOKS LIKE PE         </div>  <p style="text-align: center;">MMC - 14.10 ft</p>
	37.0	AMH	Manhole / I11		



## Inspection report

Date: <b>12/9/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>H2_I11</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>37.0'</b>	Length Surveyed: <b>37.0'</b>



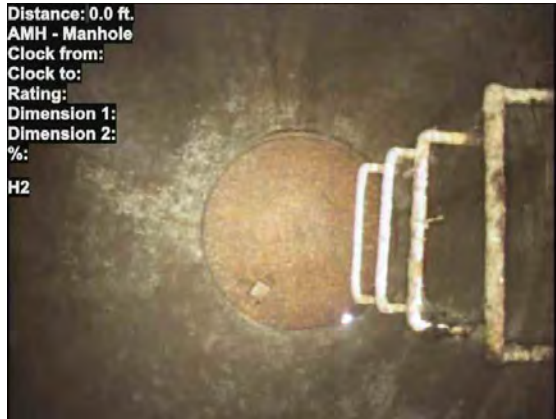
AMH - 37.00 ft

QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	0000	0000	0.0	0.0	0.0	0.0	0.0	0.0

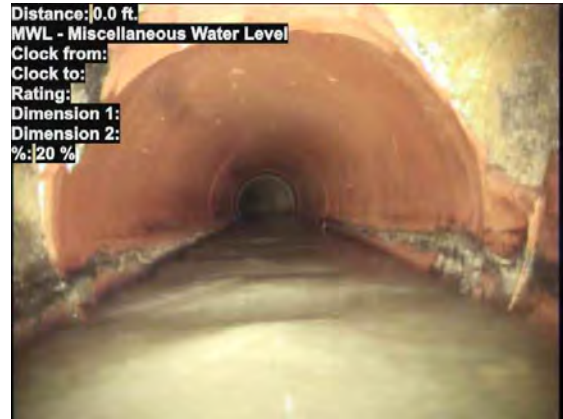


**Section Pictures - 12/9/2022 - H2\_I11**

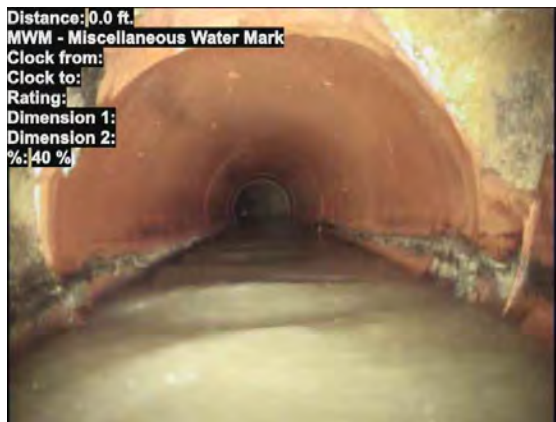
City	Street	Date	Pipe Segment Reference	Section No.
EAST PALO ALTO	BEECH ST	12/9/2022	H2_I11	9



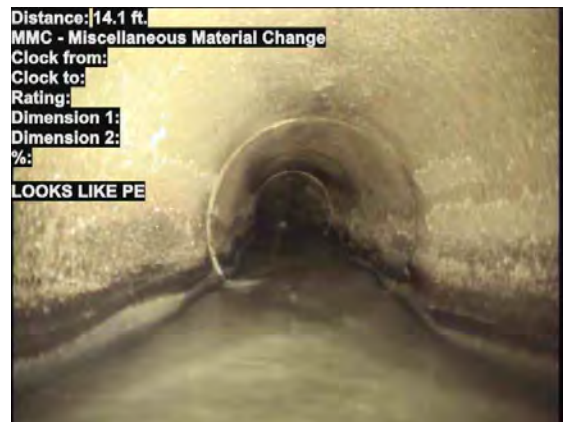
1, , 0.00ft  
 Manhole / H2



2, , 0.00ft  
 Water Level, 20% of the vertical dimension



3, 00:00:29, 0.00ft  
 Miscellaneous Water Mark, 40% of the vertical dimension



4, 00:01:21, 14.10ft  
 Miscellaneous Material Change / LOOKS LIKE PE



5, 00:02:23, 37.00ft  
 Manhole / I11



## Inspection report

Date: <b>8/1/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>I11-I10</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>380.4'</b>	Length Surveyed: <b>380.4'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>I11</b>
Street: <b>BEECH ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: <b>Local rural streets with light traffic</b>	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>I10</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>15"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Concrete Pipe (non-reinforced)</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:2844	Distance	Code	Observation	Counter	Photo	Grade
	0.0	AMH	Manhole / I11	00:00:22	I11-I10_00 6d8de4-da 3e-4918-9	
	0.0	MWL	Water Level, 20% of the vertical dimension	00:00:49	I11-I10_51 a73d55-4fb 9-45de-a69	
	0.0	MWM	Miscellaneous Water Mark, 50% of the vertical dimension	00:01:02	I11-I10_3a 58ea64-49 4a-4fe5-9b	
	7.2	TF	Tap Factory Made at 2 o'clock, dia/height: 4inch	00:02:05	I11-I10_cb 634183-9e 18-43bc-b	
	8.1	S01 SRI	Surface Damage Roughness Increased from 8 o'clock to 4 o'clock, within 8 inch, Start	00:03:42	I11-I10_32 e6dec4-4c 74-44ca-95	
	78.1	TB	Tap Break-in/Hammer at 10 o'clock, dia/height: 4inch	00:07:09	I11-I10_38 960904-1c db-45f2-99	
	129.4	TF	Tap Factory Made at 2 o'clock, dia/height: 4inch, within 8 inch	00:09:21	I11-I10_0b 912c38-06f 3-433d-99	
	132.7	TF	Tap Factory Made at 10 o'clock, dia/height: 4inch	00:09:58	I11-I10_62 56d725-77 28-40f0-83	
	169.2	TF	Tap Factory Made at 10 o'clock, dia/height: 4inch, within 8 inch	00:11:43	I11-I10_38 d17b97-56 84-4239-ae	
	217.2	TFA	Tap Factory Activity at 2 o'clock, dia/height: 4inch	00:13:33	I11-I10_1c 388a19-0b 36-4a42-8f	
	259.4	TF	Tap Factory Made at 10 o'clock, dia/height: 4inch	00:15:08	I11-I10_af2 c5f75-5d87 -4d32-8de	
	269.2	TS	Tap Saddle at 10 o'clock, dia/height: 4inch	00:16:02	I11-I10_48 b7ae4f-830 0-47dd-bd	
	298.5	TF	Tap Factory Made at 2 o'clock, dia/height: 4inch	00:17:21	I11-I10_57 aff10e-077 e-4c23-adf	
	349.3	S02 MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Start	00:19:39	I11-I10_a8 b6e162-b4 0c-4f81-8d	
	363.8	TF	Tap Factory Made at 11 o'clock, dia/height: 4inch	00:20:24	I11-I10_fef f5a9a-5875 -4f94-b094	
	373.0	F02 MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Finish	00:21:04	I11-I10_5d c49f10-f5f 1-4947-b9	



## Inspection report

Date: <b>8/1/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>I11-I10</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>380.4 '</b>	Length Surveyed: <b>380.4 '</b>

	1:2844	Distance	Code	Observation	Counter	Photo	Grade	
		380.4	F01	SRI	00:21:38	I11-I10_40 c3c741-72 b3-4e22-a5		
		380.4		AMH	Manhole / I10	00:21:47	I11-I10_0d 7bdcce-77 4e-47d4-8	
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
251M	0000	251M	84.0	0.0	84.0	1.1	0.0	1.1





## Inspection report

Date: <b>8/1/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>I10-I9</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>220.0'</b>	Length Surveyed: <b>220.0'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>I10</b>
Street: <b>BEECH ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: Local rural streets with light traffic	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>I9</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>15"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Concrete Pipe (non-reinforced)</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:1661	Distance	Code	Observation	Counter	Photo	Grade			
	0.0	AMH	Manhole / I10	00:00:24	I10-I9_4dc d0b27-fffd- 444b-9875				
	0.0	MWL	Water Level, 15% of the vertical dimension	00:01:06	I10-I9_cdb a0ba7-c45 4-4f0c-893				
	0.0	MWM	Miscellaneous Water Mark, 30% of the vertical dimension	00:01:23	I10-I9_73cf 0e91-0bce- 4cbe-83a9-				
	0.0	S01 SRI	Surface Damage Roughness Increased from 8 o'clock to 4 o'clock, within 8 inch, Start	00:01:42	I10-I9_c5a b6ce7-088 8-4b9b-91				
	9.2	TF	Tap Factory Made at 10 o'clock, dia/height: 4inch	00:02:28	I10-I9_133 9a384-2fa1 -48d0-8da				
	17.2	TSA	Tap Saddle Activity at 2 o'clock, dia/height: 4inch, within 8 inch	00:03:16	I10-I9_d5d a1737-acf7 -4f6d-9625				
	129.4	TFA	Tap Factory Activity at 10 o'clock, dia/height: 4inch	00:07:26	I10-I9_4b5 ab080-c30 5-4f8e-97b				
	171.5	TF	Tap Factory Made at 2 o'clock, dia/height: 4inch	00:09:07	I10-I9_ee3 4eb2d-112 a-436f-a34				
	191.3	TSA	Tap Saddle Activity at 10 o'clock, dia/height: 4inch	00:10:19	I10-I9_9b4 7d1e7-dc5f -4831-9f07				
	220.0	F01 SRI	Surface Damage Roughness Increased from 8 o'clock to 4 o'clock, within 8 inch, Finish	00:12:12	I10-I9_3f3 03552-42c 3-42f6-bf7				
	220.0	AMH	Manhole / I9	00:12:20	I10-I9_e6d 2d9bc-b78 c-4f3c-b53				
	QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
	1G00	0000	1G00	44.0	0.0	44.0	1.0	0.0	1.0



## Inspection report

Date: <b>8/1/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>I9-I8</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>154.1'</b>	Length Surveyed: <b>154.1'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>I9</b>
Street: <b>BEECH ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: Local rural streets with light traffic	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>I8</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>15"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Concrete Pipe (non-reinforced)</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:1164	Distance	Code	Observation	Counter	Photo	Grade		
	0.0	AMH	Manhole / I9	00:00:23	I9-I8_f0f02 bf6-aa86-4 73a-9cf0-d			
	0.0	MWL	Water Level, 15% of the vertical dimension	00:00:51	I9-I8_2377 5202-340a -4f33-bfbd-			
	0.0	MWM	Miscellaneous Water Mark, 40% of the vertical dimension	00:01:10	I9-I8_b8b5 85e1-0b41 -4f3d-9d3a			
	0.0	S01 SRI	Surface Damage Roughness Increased from 8 o'clock to 4 o'clock, Start	00:01:31	I9-I8_f10ac afb-38b7-4 ae0-a0a0-8			
	51.2	TF	Tap Factory Made at 2 o'clock, dia/height: 4inch	00:03:47	I9-I8_d062 2d62-0fd8- 46ff-9fb4-b			
	51.2	S02 MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Start	00:04:27	I9-I8_dfec0 2c9-080d- 4197-97dc			
	69.8	F02 MWLS	Miscellaneous Water Level, Sag, 30% of the vertical dimension, Finish	00:05:18	I9-I8_b190 0640-481d -4ece-8831			
	74.0	TF	Tap Factory Made at 11 o'clock, dia/height: 4inch	00:05:42	I9-I8_ce0c a906-f56c- 42e7-a313-			
	109.9	TF	Tap Factory Made at 10 o'clock, dia/height: 4inch	00:07:34	I9-I8_9398 7e54-06e9- 4d16-bac8-			
	152.1	ISSRB	Intruding Sealing Material Sealing Ring Broken, 5% of cross sectional area from 2 o'clock to 3 o'clock	00:09:58	I9-I8_fe8e9 6e5-3393- 43e4-bbe1-			
	154.1	F01 SRI	Surface Damage Roughness Increased from 8 o'clock to 4 o'clock, Finish	00:10:32	I9-I8_e534 4d72-c508 -4c59-919			
	154.1	AMH	Manhole / I8	00:10:41	I9-I8_c6e9 6f19-9b2c- 46bc-a3c6-			
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
241E	2100	251E	39.0	2.0	41.0	1.1	2.0	1.1





## Inspection report

Date: <b>8/1/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>O'BRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>I8-I7</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>237.1'</b>	Length Surveyed: <b>237.1'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>I8</b>
Street: <b>BEECH ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: Local rural streets with light traffic	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>I7</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>15"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Concrete Pipe (non-reinforced)</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:1790	Distance	Code	Observation	Counter	Photo	Grade		
	0.0	AMH	Manhole / I8	00:00:37	I8-I7_0559 440c-963f- 4829-82ef-			
	0.0	MWL	Water Level, 15% of the vertical dimension	00:01:13	I8-I7_c55c 1ac4-b1aa- 4b83-91de			
	0.0	MWM	Miscellaneous Water Mark, 50% of the vertical dimension	00:01:28	I8-I7_04d7 6bfc-907a- 4aef-88d3-			
	79.1	TF	Tap Factory Made at 2 o'clock, dia/height: 4inch	00:04:53	I8-I7_ddb1 1ca7-669a- 41cd-a13c-			
	163.3	TF	Tap Factory Made at 1 o'clock, dia/height: 4inch	00:08:46	I8-I7_e7b4 9d3d-536a- -4ed5-bc2e			
	228.0	TS	Tap Saddle at 3 o'clock, dia/height: 4inch	00:11:30	I8-I7_49cf7 e7d-a7c1-4 4a3-9b42-a			
	237.1	AMH	Manhole / I7	00:12:15	I8-I7_a0a2 5d88-e8be- 40b1-bbc3			
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	0000	0000	0.0	0.0	0.0	0.0	0.0	0.0



## Inspection report

Date: <b>8/1/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>O'BRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>I7-I6</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>260.0'</b>	Length Surveyed: <b>260.0'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>I7</b>
Street: <b>BEECH ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: Local rural streets with light traffic	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>I6</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>15"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Concrete Pipe (non-reinforced)</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:1963	Distance	Code	Observation	Counter	Photo	Grade			
	0.0	AMH	Manhole / I7	00:00:25	I7-I6_73e7 5821-52c9 -421b-91b				
	0.0	MWL	Water Level, 15% of the vertical dimension	00:00:52	I7-I6_9aed d6b5-28d3 -4e3c-98fa				
	0.0	MWM	Miscellaneous Water Mark, 50% of the vertical dimension	00:01:08	I7-I6_d4ac 720d-913a -4285-b97				
	0.0	S01	SRI	Surface Damage Roughness Increased from 9 o'clock to 3 o'clock, within 8 inch, Start	00:02:11				
	100.7	TS	TS	Tap Saddle at 3 o'clock, dia/height: 4inch	00:05:45	I7-I6_2749 69e7-c22f- 40c4-8478			
	169.8	TF	TF	Tap Factory Made at 10 o'clock, dia/height: 4inch	00:08:42	I7-I6_d59a 6902-d089 -412a-b87e			
	199.3	TF	TF	Tap Factory Made at 2 o'clock, dia/height: 4inch, within 8 inch	00:10:08	I7-I6_b496 40be-773a- 44ce-9a0e-			
	241.8	S03	MWLS	Miscellaneous Water Level, Sag, 70% of the vertical dimension, Start	00:12:45	I7-I6_2ef06 201-c43b- 4b99-a2cb-			
	251.5	MMC	MMC	Miscellaneous Material Change / PVC	00:13:18	I7-I6_afe2e 8a3-aacd-4 783-aeb0-b			
	260.0	F03	MWLS	Miscellaneous Water Level, Sag, 70% of the vertical dimension, Finish	00:14:06	I7-I6_4c39 91e7-26a0- 4941-9425			
	260.0	F01	SRI	Surface Damage Roughness Increased from 9 o'clock to 3 o'clock, within 8 inch, Finish	00:14:17	I7-I6_80a9 d6ea-a33a- 4556-af7b-			
	260.0	AMH	AMH	Manhole / I6	00:14:28	I7-I6_6fdc9 565-dbc9- 4653-99b2			
	QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
	441H	0000	441H	64.0	0.0	64.0	1.2	0.0	1.2



## Inspection report

Date: <b>8/1/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>I6-I5</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>409.0'</b>	Length Surveyed: <b>409.0'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>I6</b>
Street: <b>BEECH ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: <b>Local rural streets with light traffic</b>	Flow Control: <b>De-watered using Jetter</b>	Downstream MH: <b>I5</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>18"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Polyvinyl Chloride</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:3087	Distance	Code	Observation	Counter	Photo	Grade		
	0.0	AMH	Manhole / I6	00:00:24	I6-I5_6023 0002-6800 -4506-a6a0			
	0.0	MWL	Water Level, 70% of the vertical dimension	00:00:44	I6-I5_93b0 3726-a736 -4cfa-8ca4			
	0.0	MWM	Miscellaneous Water Mark, 75% of the vertical dimension	00:00:59				
	85.7	TF	Tap Factory Made at 12 o'clock, dia/height: 4inch, within 8 inch	00:03:20	I6-I5_7267 43b0-2636 -45d1-af87			
	113.1	TF	Tap Factory Made at 12 o'clock, dia/height: 4inch, within 8 inch	00:04:25	I6-I5_1ab9 71b0-f241- 495b-bf99-			
	152.4	TS	Tap Saddle at 2 o'clock, dia/height: 4inch	00:05:44	I6-I5_a67a 7e55-1d8a- 49aa-8852-			
	157.6	TS	Tap Saddle at 10 o'clock, dia/height: 4inch	00:06:13	I6-I5_2d8b 02d9-e840 -4677-b67			
	226.6	TSA	Tap Saddle Activity at 10 o'clock, dia/height: 4inch	00:08:08	I6-I5_8632 956a-ceaa- 48e6-b010			
	234.3	TSA	Tap Saddle Activity at 10 o'clock, dia/height: 4inch	00:08:40	I6-I5_20fb 769a-d4c9- 46fd-98c3-			
	241.3	TSA	Tap Saddle Activity at 2 o'clock, dia/height: 4inch	00:09:17	I6-I5_cb5b 6f13-e99b- 4bd8-b99c			
	271.3	TS	Tap Saddle at 2 o'clock, dia/height: 4inch	00:10:23	I6-I5_c407 5171-361f- 4aa7-9ef2-			
	295.7	TS	Tap Saddle at 10 o'clock, dia/height: 4inch	00:11:17	I6-I5_855b b5b9-d316 -41ee-b405			
	362.6	TSA	Tap Saddle Activity at 2 o'clock, dia/height: 4inch	00:12:57	I6-I5_c1a3 4e15-02af- 4f32-9c53-			
	364.0	TS	Tap Saddle at 10 o'clock, dia/height: 4inch	00:13:20	I6-I5_f2b0 5d10-a549 -41db-80df			
	409.0	AMH	Manhole / I5	00:14:47	I6-I5_4ac0 6cea-843d- 44e6-84af-			
	QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI
0000	0000	0000	0.0	0.0	0.0	0.0	0.0	0.0



## Inspection report

Date: <b>8/2/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>I5-15A I31</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>154.3'</b>	Length Surveyed: <b>154.3'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>I5</b>
Street: <b>BEECH ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: <b>Local rural streets with light traffic</b>	Flow Control: <b>De-watered using Jetter</b>	Downstream MH: <b>I5A</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>18"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Polyvinyl Chloride</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:1165	Distance	Code	Observation	Counter	Photo	Grade		
	0.0	AMH	Manhole / I5	00:00:19	I5-I5A_185 84aa8-1a0f -432c-bf92			
	0.0	MWL	Water Level, 70% of the vertical dimension	00:00:54	I5-I5A_246 cf4d1-50b6 -473a-91e6			
	0.0	MWM	Miscellaneous Water Mark, 70% of the vertical dimension	00:01:09	I5-I5A_2de a9c0a-218 a-4579-a2c			
	28.0	TS	Tap Saddle at 10 o'clock, dia/height: 4inch	00:02:24	I5-I5A_de9 adc8e-8c5f -4ff4-b289-			
	30.6	TS	Tap Saddle at 2 o'clock, dia/height: 4inch	00:02:48	I5-I5A_852 25861-d0c c-4f21-bbe			
	39.2	TS	Tap Saddle at 10 o'clock, dia/height: 4inch	00:03:25	I5-I5A_666 18cd6-a31 c-471c-936			
	86.3	TS	Tap Saddle at 10 o'clock, dia/height: 4inch	00:04:42	I5-I5A_0c5 fe205-b984 -4b72-899			
	154.3	AMH	Manhole / I5A	00:06:28	I5-I5A_566 47c96-806 3-4809-93			
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	0000	0000	0.0	0.0	0.0	0.0	0.0	0.0

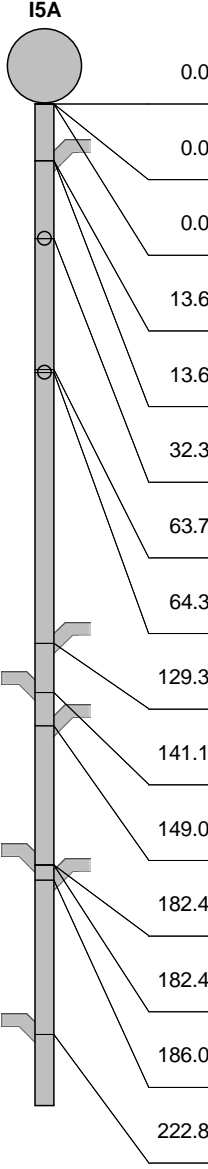


## Inspection report

Date: <b>8/2/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>131 I5A-I4</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>300.1'</b>	Length Surveyed: <b>300.1'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>I5A</b>
Street: <b>BEECH ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: <b>Local rural streets with light traffic</b>	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>I4</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>18"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Polyvinyl Chloride</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:1811	Distance	Code	Observation	Counter	Photo	Grade
	0.0	AMH	Manhole / I5A	00:00:27	I5A-I4_0c2 f430c-7a5d -43b4-b8d	
	0.0	MWL	Water Level, 35% of the vertical dimension	00:01:05	I5A-I4_8de f4f1f-a803- 463a-92a2-	
	0.0	MWM	Miscellaneous Water Mark, 50% of the vertical dimension	00:01:19	I5A-I4_939 4e5d8-00b e-424e-908	
	13.6	IRC	Infiltration Runner Connection at 10 o'clock	00:02:29	I5A-I4_834 652eb-52b d-4aed-9eb	
	13.6	TS	Tap Saddle at 10 o'clock, dia/height: 4inch	00:02:44	I5A-I4_acf d32f7-a4ae -4e68-8b0e	
	32.3	TS	Tap Saddle at 12 o'clock, dia/height: 4inch	00:03:41	I5A-I4_d89 e30ad-3e7 0-492d-92	
	63.7	IRC	Infiltration Runner Connection at 12 o'clock	00:05:22	I5A-I4_b2a 6142e-fae7 -466f-8331	
	64.3	TS	Tap Saddle at 12 o'clock, dia/height: 4inch	00:05:45	I5A-I4_0ad 6e70a-1fb2 -4086-9b8	
	129.3	TS	Tap Saddle at 10 o'clock, dia/height: 4inch	00:08:24	I5A-I4_567 ce7e6-0dd 2-47e7-81c	
	141.1	TS	Tap Saddle at 2 o'clock, dia/height: 4inch	00:09:14	I5A-I4_ffe2 8677-9d7f- 49b0-b4bb	
	149.0	TS	Tap Saddle at 10 o'clock, dia/height: 4inch, within 8 inch	00:09:54	I5A-I4_e04 a88a3-0c2 b-4a40-9af	
	182.4	TSD	Tap Saddle Defective at 3 o'clock, dia/height: 4inch	00:11:39		
	182.4	IRC	Infiltration Runner Connection at 3 o'clock	00:11:57	I5A-I4_aad b4049-bae 5-4803-85	
	186.0	TSA	Tap Saddle Activity at 10 o'clock, dia/height: 4inch	00:12:32	I5A-I4_78f e7f42-f4f9- 4c5d-a75f-	
	222.8	TSA	Tap Saddle Activity at 2 o'clock, dia/height: 4inch	00:14:04	I5A-I4_312 ded1d-345 d-459f-a18	



## Inspection report

Date: <b>8/2/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>I5A-I4</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>300.1'</b>	Length Surveyed: <b>300.1'</b>

1:1811	Distance	Code	Observation	Counter	Photo	Grade		
	256.9	IRC	Infiltration Runner Connection at 10 o'clock	00:15:34	I5A-I4_3bb 8bc1d-437 4-4554-b5			
	256.9	TS	Tap Saddle at 10 o'clock, dia/height: 4inch	00:15:56	I5A-I4_e14 8925e-1fff- 4287-92f3-			
	300.1	AMH	Manhole / I4	00:17:48	I5A-I4_85d c873a-f55b -4b2e-9a1b			
I4								
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	4431	4431	0.0	19.0	19.0	0.0	3.8	3.8



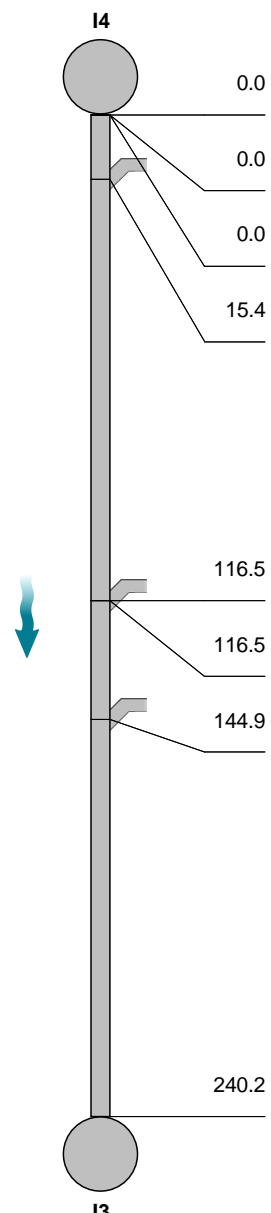


## Inspection report

Date: <b>8/2/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>I4-I3</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>240.2'</b>	Length Surveyed: <b>240.2'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>I4</b>
Street: <b>BEECH ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: Local rural streets with light traffic	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>I3</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>18"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Polyvinyl Chloride</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:1813	Distance	Code	Observation	Counter	Photo	Grade		
	0.0	AMH	Manhole / I4	00:00:20	I4-I3_0e98 aae5-daf9-4ab3-b10d			
	0.0	MWL	Water Level, 20% of the vertical dimension	00:00:47	I4-I3_539e 5036-29c3-419a-890			
	0.0	MWM	Miscellaneous Water Mark, 50% of the vertical dimension	00:01:01	I4-I3_b27a 5208-bed7-4401-a67			
	15.4	TS	Tap Saddle at 10 o'clock, dia/height: 4inch	00:01:42	I4-I3_164d a774-4eb9-484e-b39e			
	116.5	IRC	Infiltration Runner Connection at 10 o'clock	00:05:44	I4-I3_6ab7f b18-3831-4dc3-b19c-			
	116.5	TSA	Tap Saddle Activity at 10 o'clock, dia/height: 4inch	00:05:57	I4-I3_38e3 376d-db93-45a8-841f			
	144.9	TS	Tap Saddle at 10 o'clock, dia/height: 4inch	00:07:18	I4-I3_ac5c 0393-3688-4d6c-ac3e			
	240.2	AMH	Manhole / I3	00:10:52	I4-I3_e56e 8722-ebe9-47cd-92c1-			
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	4100	4100	0.0	4.0	4.0	0.0	4.0	4.0



## Inspection report

Date: <b>8/1/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>I3-T19</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>189.2'</b>	Length Surveyed: <b>189.2'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>I3</b>
Street: <b>BEECH ST</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: <b>Local rural streets with light traffic</b>	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>T19</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>18"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Polyvinyl Chloride</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:1428	Distance	Code	Observation	Counter	Photo	Grade		
	0.0	AMH	Manhole / I3	00:00:20	I3-T19_aa 6bde17-d7 12-4838-a			
	0.0	MWL	Water Level, 15% of the vertical dimension	00:00:48	I3-T19_f22 1650f-fc9f- 4706-b5a4			
	0.0	MWM	Miscellaneous Water Mark, 25% of the vertical dimension	00:01:01	I3-T19_fd2 f0419-505 5-4cee-991			
	17.1	S01 MWLS	Miscellaneous Water Level, Sag, 40% of the vertical dimension, Start	00:02:02	I3-T19_56 b51ee1-e2 4d-40b3-8			
	152.1	F01 MWLS	Miscellaneous Water Level, Sag, 40% of the vertical dimension, Finish	00:05:37	I3-T19_f13 7e138-db3 c-4008-9cd			
	189.2	AMH	Manhole / T19	00:07:10	I3-T19_f6b c82ce-acc e-4b41-a4d			
QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
3D00	0000	3D00	81.0	0.0	81.0	3.0	0.0	3.0



## Inspection report

Date: <b>8/2/2022</b>	Work Order:	Weather:	Surveyed By: <b>J NAVA</b>	Certificate Number: <b>U-614-06021728</b>	Pipe Segment Ref.: <b>H11_H60 H64</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>192.2'</b>	Length Surveyed: <b>192.2'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H11</b>
Street: <b>CLARKE AVE</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code:	Flow Control:	Downstream MH: <b>H60</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>8"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Vitrified Clay Pipe</b>	Purpose:	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

1:394	Distance	Code	Observation	Counter	Photo	Grade
	0.0	AMH	Manhole / H11	00:00:00	H11-H60_3462.jpg	
	0.0	MWL	Water Level, 15% of the vertical dimension	00:00:33	H11-H60_3463.jpg	
	0.0	MWM	Miscellaneous Water Mark, 20% of the vertical dimension	00:00:36	H11-H60_3464.jpg	
	1.3	MGO	Miscellaneous General Observation / HAD TO PULL BACK WHILE THE CLEANER REMOVES THE DEBRIS IN THE PIPE THATS BLOCKING MY FORWARD PROGRESS	00:03:18	H11-H60_3468.jpg	
	2.5 S01	MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Start	00:01:03	H11-H60_3465.jpg	
	11.1	CS	Crack Spiral from 9 o'clock to 11 o'clock, within 8 inch	00:02:01	H11-H60_3466.jpg,H11-H60_34	
	18.0 F01	MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Finish	00:05:27	H11-H60_3469.jpg	
	26.5	JAM	Joint Angular Medium	00:05:58	H11-H60_3470.jpg,H11-H60_34	
	26.5	CS	Crack Spiral from 9 o'clock to 11 o'clock, within 8 inch	00:06:13	H11-H60_3472.jpg,H11-H60_34	
	36.1	CM	Crack Multiple from 8 o'clock to 4 o'clock, within 8 inch	00:06:42	H11-H60_3474.jpg,H11-H60_34	
	38.3	JSM	Joint Separated Medium	00:07:04	H11-H60_3476.jpg,H11-H60_34	
	39.3	TF	Tap Factory Made at 10 o'clock, dia/height: 4inch, within 8 inch	00:07:22	H11-H60_3478.jpg,H11-H60_34	
	42.3	JSM	Joint Separated Medium	00:07:49	H11-H60_3480.jpg,H11-H60_34	
	43.3	TFC	Tap Factory Made Capped at 12 o'clock, dia/height: 4inch	00:08:09	H11-H60_3482.jpg,H11-H60_34	
	45.5	CS	Crack Spiral from 10 o'clock to 12 o'clock, within 8 inch	00:08:30	H11-H60_3484.jpg,H11-H60_34	
	46.4	TFC	Tap Factory Made Capped at 1 o'clock, dia/height: 4inch, within 8 inch	00:08:47	H11-H60_3486.jpg,H11-H60_34	



## Inspection report

Date: <b>8/2/2022</b>	Work Order:	Weather:	Surveyed By: <b>J NAVA</b>	Certificate Number: <b>U-614-06021728</b>	Pipe Segment Ref.: <b>H11-H60 H64</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>192.2'</b>	Length Surveyed: <b>192.2'</b>

1:394	Distance	Code	Observation	Counter	Photo	Grade
	57.8	JSM	Joint Separated Medium	00:09:24	H11-H60_3488.jpg,H11-H60_34	
	59.8	S02 MWLS	Miscellaneous Water Level, Sag, 20% of the vertical dimension, Start	00:09:42	H11-H60_3490.jpg	
	67.2	CS	Crack Spiral from 10 o'clock to 4 o'clock, within 8 inch	00:10:01	H11-H60_3491.jpg,H11-H60_34	
	70.2	CS	Crack Spiral from 7 o'clock to 10 o'clock, within 8 inch	00:10:20	H11-H60_3493.jpg,H11-H60_34	
	70.2	F02 MWLS	Miscellaneous Water Level, Sag, 20% of the vertical dimension, Finish	00:10:29	H11-H60_3494.jpg	
	73.2	B	Broken from 11 o'clock to 2 o'clock, within 8 inch	00:10:51	H11-H60_3495.jpg,H11-H60_34	
	79.4	FM	Fracture Multiple from 7 o'clock to 12 o'clock, within 8 inch	00:11:19	H11-H60_3497.jpg,H11-H60_34	
	87.9	S03 MWLS	Miscellaneous Water Level, Sag, 15% of the vertical dimension, Start	00:11:51	H11-H60_3500.jpg	
	92.0	DAGS	Deposits Attached Grease, 5% of cross sectional area from 9 o'clock to 3 o'clock, within 8 inch	00:12:11	H11-H60_3501.jpg,H11-H60_35	
	92.8	TF	Tap Factory Made at 1 o'clock, dia/height: 4inch, within 8 inch	00:12:29	H11-H60_3503.jpg,H11-H60_35	
	98.2	F03 MWLS	Miscellaneous Water Level, Sag, 15% of the vertical dimension, Finish	00:12:56	H11-H60_3505.jpg	
	98.2	S04 MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Start	00:13:01	H11-H60_3506.jpg	
	109.3	F04 MWLS	Miscellaneous Water Level, Sag, 25% of the vertical dimension, Finish	00:13:40	H11-H60_3507.jpg	
	113.9	S05 DAGS	Deposits Attached Grease, 5% of cross sectional area from 8 o'clock to 4 o'clock, within 8 inch, Start	00:13:52	H11-H60_3508.jpg,H11-H60_35	
	116.8	S06 MWLS	Miscellaneous Water Level, Sag, 20% of the vertical dimension, Start	00:14:08	H11-H60_3510.jpg	
	119.8	F05 DAGS	Deposits Attached Grease, 5% of cross sectional area from 8 o'clock to 4 o'clock, within 8 inch, Finish	00:14:25	H11-H60_3511.jpg,H11-H60_35	
	119.9	CS	Crack Spiral from 8 o'clock to 11 o'clock, within 8 inch	00:14:39	H11-H60_3513.jpg,H11-H60_35	
	120.8	TF	Tap Factory Made at 11 o'clock, dia/height: 4inch, within 8 inch	00:14:59	H11-H60_3515.jpg,H11-H60_35	
	126.9	TFA	Tap Factory Activity at 11 o'clock, dia/height: 4inch, within 8 inch	00:15:42	H11-H60_3517.jpg,H11-H60_35	



## Inspection report

Date: <b>8/2/2022</b>	Work Order:	Weather:	Surveyed By: <b>J NAVA</b>	Certificate Number: <b>U-614-06021728</b>	Pipe Segment Ref.: <b>H11-H60 H64</b>
Year laid:	Pre-cleaning: <b>Light Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>192.2'</b>	Length Surveyed: <b>192.2'</b>

Distance	Code	Observation	Counter	Photo	Grade
1:394					
129.0	JSM	Joint Separated Medium	00:16:07	H11-H60_3519.jpg,H	
129.0	CS	Crack Spiral from 2 o'clock to 4 o'clock, within 8 inch	00:16:14	H11-H60_3520.jpg,H	
132.3	F06 MWLS	Miscellaneous Water Level, Sag, 20% of the vertical dimension, Finish	00:16:39	H11-H60_3523.jpg	
137.2	S07 DAGS	Deposits Attached Grease, 5% of cross sectional area from 8 o'clock to 4 o'clock, Start	00:16:56	H11-H60_3524.jpg,H	
143.1	F07 DAGS	Deposits Attached Grease, 5% of cross sectional area from 8 o'clock to 4 o'clock, Finish	00:17:19	H11-H60_3526.jpg,H	
144.1	TFC	Tap Factory Made Capped at 1 o'clock, dia/height: 4inch, within 8 inch	00:17:35	H11-H60_3528.jpg,H	
146.2	FS	Fracture Spiral from 12 o'clock to 4 o'clock, within 8 inch	00:18:04	H11-H60_3530.jpg,H	
159.3	S08 MWLS	Miscellaneous Water Level, Sag, 20% of the vertical dimension, Start	00:18:49	H11-H60_3532.jpg	
160.0	DAGS	Deposits Attached Grease, 5% of cross sectional area at 9 o'clock	00:18:55	H11-H60_3533.jpg,H	
177.7	TB	Tap Break-in/Hammer at 3 o'clock, dia/height: 4inch, within 8 inch	00:19:39	H11-H60_3535.jpg,H	
189.0	CS	Crack Spiral from 11 o'clock to 1 o'clock, within 8 inch	00:20:24	H11-H60_3537.jpg,H	
190.8	F08 MWLS	Miscellaneous Water Level, Sag, 20% of the vertical dimension, Finish	00:20:44	H11-H60_3539.jpg	
192.2	AMH	Manhole / H60	00:21:18	H11-H60_3540.jpg	



## Inspection report

Date: <b>12/9/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>H64_H71</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>166.4'</b>	Length Surveyed: <b>166.4'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H64</b>
Street: <b>CLARKE AVE</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: Local rural streets with light traffic	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>H71</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>8"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Vitrified Clay Pipe</b>	Purpose: <b>Routine Assessment</b>	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

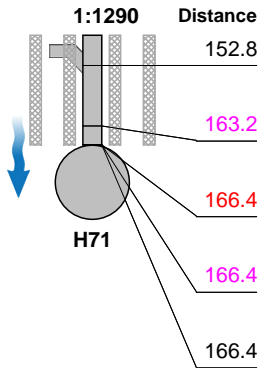
1:1290	Distance	Code	Observation	Grade	
	0.0	AMH	Manhole / H64		 AMH - 0.00 ft
	0.0	MWL	Water Level, 20% of the vertical dimension		
	0.0	S01 MWLS	Miscellaneous Water Level, Sag, 40% of the vertical dimension, Start		
	0.0	S02 DAGS	Deposits Attached Grease, 35% of cross sectional area from 9 o'clock to 3 o'clock, within 8 inch, Start		 DAGS - 0.00 ft
	5.1	TFD	Tap Factory Made Defective at 2 o'clock, dia/height: 4.000inch, within 8 inch / Light Roots	M3	
	50.9	TFD	Tap Factory Made Defective at 12 o'clock, dia/height: 4.000inch, within 8 inch / Light Roots	M3	
	53.9	TFC	Tap Factory Made Capped at 12 o'clock, dia/height: 4.000inch, within 8 inch		
	92.3	F01 MWLS	Miscellaneous Water Level, Sag, 40% of the vertical dimension, Finish	S3	 MWLS - 0.00 ft
	94.8	S03 MWLS	Miscellaneous Water Level, Sag, 70% of the vertical dimension, Start		
	103.5	TFC	Tap Factory Made Capped at 2 o'clock, dia/height: 4.000inch, within 8 inch		
	123.3	MMC	Miscellaneous Material Change / PVC		
	134.1	MMC	Miscellaneous Material Change / VCP		
	137.2	MMC	Miscellaneous Material Change / PVC		
	142.4	MMC	Miscellaneous Material Change / VCP		





## Inspection report

Date: <b>12/9/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>H64_H71</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>166.4'</b>	Length Surveyed: <b>166.4'</b>



Code	Observation	Grade
TB	Tap Break-in/Hammer at 2 o'clock, dia/height: 4.000inch, within 8 inch	
MCU	Miscellaneous Camera Underwater	M4
F02 DAGS	Deposits Attached Grease, 35% of cross sectional area from 9 o'clock to 3 o'clock, within 8 inch, Finish	M5
F03 MWLS	Miscellaneous Water Level, Sag, 70% of the vertical dimension, Finish	S4
AMH	Manhole / H71	



DAGS - 0.00 ft



TFD - 5.10 ft



TFD - 5.10 ft



TFD - 50.90 ft



TFD - 50.90 ft



TFC - 53.90 ft



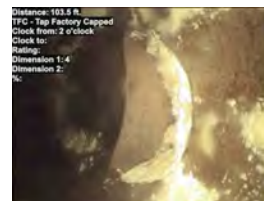
TFC - 53.90 ft



MWLS - 92.30 ft



MWLS - 94.80 ft



TFC - 103.50 ft



TFC - 103.50 ft



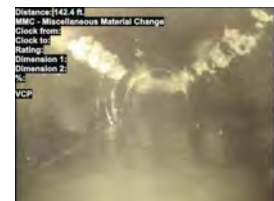
MMC - 123.30 ft



MMC - 134.10 ft



MMC - 137.20 ft



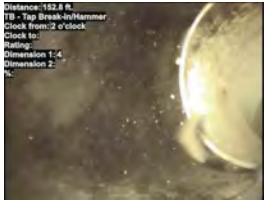
MMC - 142.40 ft





## Inspection report

Date: <b>12/9/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>H64_H71</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>166.4'</b>	Length Surveyed: <b>166.4'</b>



TB - 152.80 ft



TB - 152.80 ft



DAGS - 166.40 ft



AMH - 166.40 ft

QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
4A3B	5E41	5E4B	110.0	175.0	285.0	3.4	4.9	4.2



### Section Pictures - 12/9/2022 - H64\_H71

City	Street	Date	Pipe Segment Reference	Section No.
EAST PALO ALTO	CLARKE AVE	12/9/2022	H64_H71	4



1, , 0.00ft  
Manhole / H64



2, , 0.00ft  
Water Level, 20% of the vertical dimension



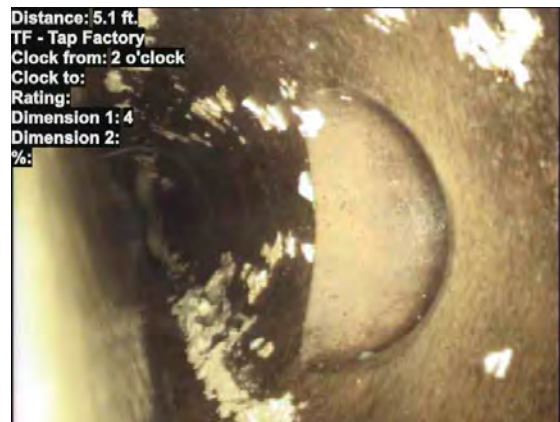
3, 00:00:43, 0.00ft  
Miscellaneous Water Level, Sag, 40% of the vertical dimension, Start



4, 00:01:11, 0.00ft  
Deposits Attached Grease, 35% of cross sectional area from 9 o'clock to 3 o'clock, within 8 inch, Start



5, 00:01:11, 0.00ft  
Deposits Attached Grease, 35% of cross sectional area from 9 o'clock to 3 o'clock, within 8 inch, Start



6, 00:02:33, 5.10ft  
Tap Factory Made Defective at 2 o'clock, dia/height: 4.000inch, within 8 inch / Light Roots

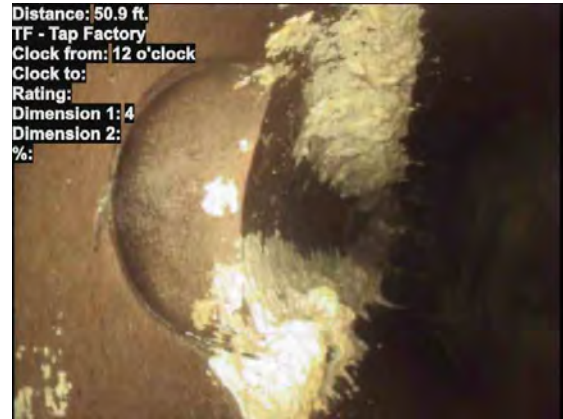


## Section Pictures - 12/9/2022 - H64\_H71

City	Street	Date	Pipe Segment Reference	Section No.
EAST PALO ALTO	CLARKE AVE	12/9/2022	H64_H71	4



7, 00:02:33, 5.10ft  
 Tap Factory Made Defective at 2 o'clock, dia/height: 4.000inch, within 8 inch / Light Roots



8, 00:05:47, 50.90ft  
 Tap Factory Made Defective at 12 o'clock, dia/height: 4.000inch, within 8 inch / Light Roots



9, 00:05:47, 50.90ft  
 Tap Factory Made Defective at 12 o'clock, dia/height: 4.000inch, within 8 inch / Light Roots



10, 00:06:36, 53.90ft  
 Tap Factory Made Capped at 12 o'clock, dia/height: 4.000inch, within 8 inch



11, 00:06:36, 53.90ft  
 Tap Factory Made Capped at 12 o'clock, dia/height: 4.000inch, within 8 inch



12, 00:12:07, 92.30ft  
 Miscellaneous Water Level, Sag, 40% of the vertical dimension, Finish





## Section Pictures - 12/9/2022 - H64\_H71

City	Street	Date	Pipe Segment Reference	Section No.
EAST PALO ALTO	CLARKE AVE	12/9/2022	H64_H71	4



13, 00:12:24, 94.80ft  
 Miscellaneous Water Level, Sag, 70% of the vertical dimension, Start



14, 00:13:04, 103.50ft  
 Tap Factory Made Capped at 2 o'clock, dia/height: 4.000inch, within 8 inch



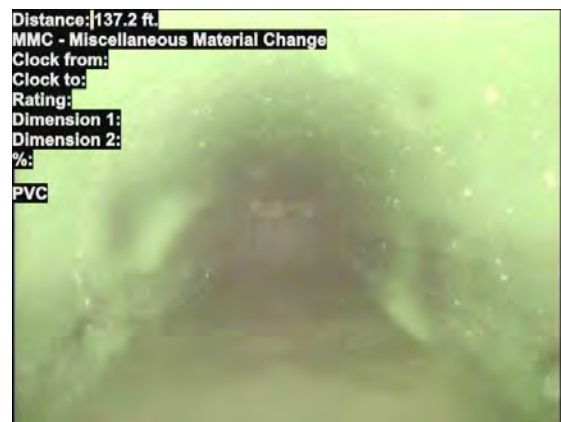
15, 00:13:04, 103.50ft  
 Tap Factory Made Capped at 2 o'clock, dia/height: 4.000inch, within 8 inch



16, 00:13:47, 123.30ft  
 Miscellaneous Material Change / PVC



17, 00:14:12, 134.10ft  
 Miscellaneous Material Change / VCP



18, 00:14:31, 137.20ft  
 Miscellaneous Material Change / PVC

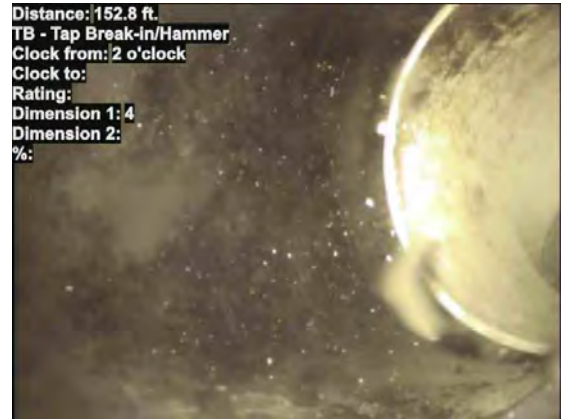


## Section Pictures - 12/9/2022 - H64\_H71

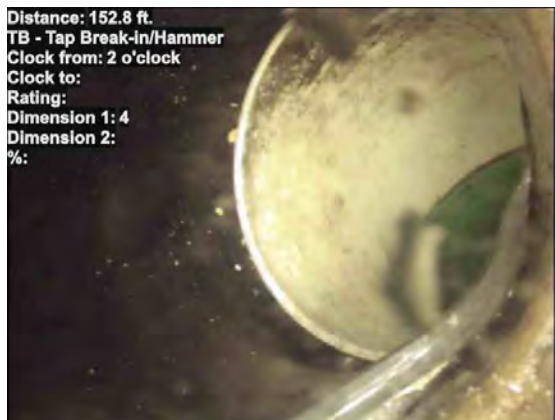
City	Street	Date	Pipe Segment Reference	Section No.
EAST PALO ALTO	CLARKE AVE	12/9/2022	H64_H71	4



19, 00:14:52, 142.40ft  
 Miscellaneous Material Change / VCP



20, 00:15:31, 152.80ft  
 Tap Break-in/Hammer at 2 o'clock, dia/height: 4.000inch, within 8 inch



21, 00:15:31, 152.80ft  
 Tap Break-in/Hammer at 2 o'clock, dia/height: 4.000inch, within 8 inch



22, 00:15:31, 152.80ft  
 Tap Break-in/Hammer at 2 o'clock, dia/height: 4.000inch, within 8 inch



23, 00:18:15, 166.40ft  
 Deposits Attached Grease, 35% of cross sectional area from 9 o'clock to 3 o'clock, within 8 inch, Finish



24, 00:18:36, 166.40ft  
 Manhole / H71



## Inspection report

Date: <b>12/9/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>H71_H3</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>28.5'</b>	Length Surveyed: <b>28.5'</b>

City: <b>EAST PALO ALTO</b>	Drainage Area:	Upstream MH: <b>H71</b>
Street: <b>CLARKE AVE</b>	Media Label:	Up Rim to Invert: <b>0.0</b>
Location Code: Local rural streets with light traffic	Flow Control: <b>Not Controlled</b>	Downstream MH: <b>H3</b>
Location Details:	Sheet Number:	Down Rim to Invert: <b>0.0</b>
Pipe shape: <b>Circular</b>	Sewer Use: <b>Sanitary Sewage Pipe</b>	Total gallons used: <b>0.0</b>
Pipe size: <b>8"</b>	Sewer Category: <b>SEC</b>	Joints passed: <b>0</b>
Pipe material: <b>Vitrified Clay Pipe</b>	Purpose: <b>Routine Assessment</b>	Joints failed: <b>0</b>
Lining Method:	Owner:	

Additional Info:

	1:249	Distance	Code	Observation	Grade		
		0.0	AMH	Manhole / H71		 AMH - 0.00 ft	
		0.0	MWL	Water Level, 95% of the vertical dimension		 MWL - 0.00 ft	
		1.0	S01	MCU	Miscellaneous Camera Underwater, Start		 MCU - 1.00 ft
		1.0	S02	MWLS	Miscellaneous Water Level, Sag, 100% of the vertical dimension, Start		 MWLS - 1.00 ft
		2.1	S03	DAGS	Deposits Attached Grease, 10% of cross sectional area from 8 o'clock to 4 o'clock, Start		
		28.2	F01	MCU	Miscellaneous Camera Underwater, Finish	M4	
		28.4	F02	MWLS	Miscellaneous Water Level, Sag, 100% of the vertical dimension, Finish	S5	
		28.5	F03	DAGS	Deposits Attached Grease, 10% of cross sectional area from 8 o'clock to 4 o'clock, Finish	M2	
		28.5	MSA		Miscellaneous Survey Abandoned / CAMERA UNDERWATER AND I CAN NOT SEE ANYTHING. DOWNSTREAM MANHOLE IS		
		28.5			End of pipe		





## Inspection report

Date: <b>12/9/2022</b>	Work Order:	Weather: <b>Dry</b>	Surveyed By: <b>OBRIEN NPS</b>	Certificate Number: <b>U-508-7068</b>	Pipe Segment Ref.: <b>H71_H3</b>
Year laid:	Pre-cleaning: <b>Heavy Cleaning</b>	Direction: <b>Downstream</b>	Pipe Joint Length:	Total Length: <b>28.5'</b>	Length Surveyed: <b>28.5'</b>



DAGS - 2.10 ft



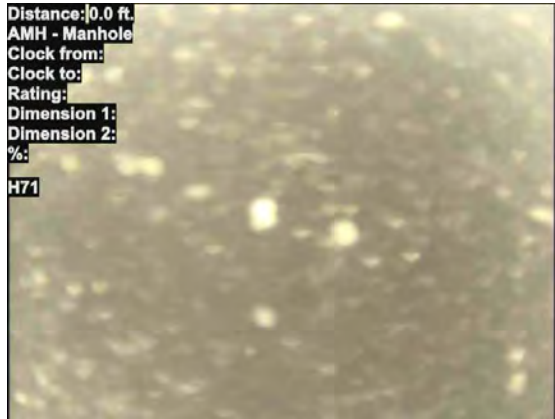
MSA - 28.50 ft

QSR	QMR	QOR	SPR	MPR	OPR	SPRI	MPRI	OPRI
5500	4525	5545	25.0	30.0	55.0	5.0	3.0	3.7



## Section Pictures - 12/9/2022 - H71\_H3

City	Street	Date	Pipe Segment Reference	Section No.
EAST PALO ALTO	CLARKE AVE	12/9/2022	H71_H3	22



1, , 0.00ft  
 Manhole / H71



2, , 0.00ft  
 Water Level, 95% of the vertical dimension



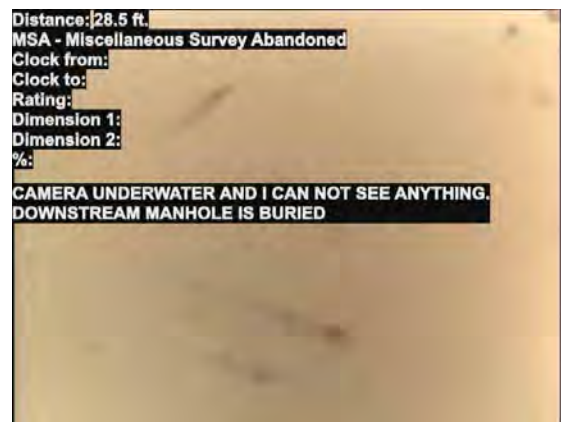
3, 00:00:36, 1.00ft  
 Miscellaneous Camera Underwater, Start



4, 00:00:47, 1.00ft  
 Miscellaneous Water Level, Sag, 100% of the vertical dimension, Start



5, 00:01:09, 2.10ft  
 Deposits Attached Grease, 10% of cross sectional area from 8 o'clock to 4 o'clock, Start



6, 00:05:40, 28.50ft  
 Miscellaneous Survey Abandoned / CAMERA UNDERWATER AND I CAN NOT SEE ANYTHING. DOWNSTREAM