



CITY AND COUNTY OF SAN FRANCISCO
Port of San Francisco

Contract No. 2852
Amador Street Infrastructure Improvements

ADDENDUM No. 03
Issued: August 19, 2024

The following clarifications, changes, additions or deletions are incorporated into the Bid Documents as if a part of the original released Bid Documents. All other terms and conditions of the Bid Documents remain in full force and effect. Respondents to the Advertisement for Bids solicitation must acknowledge receipt of this addendum in their submittal by submitting a signed and completed copy of Section 00 43 20 (Acknowledgement of Receipt of Addenda).

CHANGES TO SPECIFICATIONS:

- 1) **Section 00 22 13** – DELETED language allowing DBE form submittal 5 days after bid opening.
- 2) **Section 00 41 00** – DELETED bid item 31A: High flow trash collection device crosslinked high density polyethylene.
- 3) **Section 01 20 00** – DELETED bid item 31A: High flow trash collection device crosslinked high density polyethylene.
- 4) **Section 33 33 00** – DELETED references to high flow trash collection devices crosslinked high density polyethylene.

CHANGES TO PLANS:

- 1) **Sheets C-3 & C-6** – Modifications to driveway designs and details.
- 2) **Sheets L-3** – Updated specification references related to imported topsoil.
- 3) **Sheets H-2, H-4, H-5, & H-10** – DELETED work related to installation of high flow trash
- 4) **Sheets E-3** – Updated antenna material to aluminum.
- 5) **Sheets E-5, EI-01, & EI-02** – Updated service pedestal mounting.

If the Bidder has any questions regarding this addendum, please contact Noel Aquino, Project Manager, at (415) 653-9517.

REMINDER: Bidders are required to acknowledge receipt of this addendum in Document 00 43 20.

Bids are due 08/22/24 at 10:00 A.M.

DocuSigned by:

Uday Prasad

8/19/2024

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Uday Prasad
*Acting Chief Harbor Engineer,
Engineering*
Port of San Francisco
Pier 1, SF, CA 94111

SECTION 00 22 13

ADDENDUM 03

SUPPLEMENTARY INSTRUCTIONS TO BIDDERS: CALTRANS DBE PROGRAM

1.1 SUMMARY

- A. This Contract is subject to Title 49 CFR 26.13(b). Bidder must include the following assurance in each subcontract the Bidder signs with a subcontractor:

“The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the City deems appropriate.”
- B. Disadvantaged Business Enterprises (DBEs) and other small businesses are strongly encouraged to participate in this Contract. Contractor shall take necessary and reasonable steps to ensure that DBEs have opportunity to participate in this Contract (49 CFR 26).
- C. To ensure there is equal participation of the DBE groups specified in 49 CFR 26.5, the City specifies a goal for DBEs. DBE is a firm that meets the definition of DBE.
- D. If the Bidder does not meet the DBE participation goal, Bidder must meet the Good Faith Efforts requirements. Bids that do not meet the subcontracting goal and the Good Faith Efforts requirements may be deemed non-responsive and may be rejected.

1.2 DEFINITIONS

- A. **Disadvantaged Business Enterprise (DBE)**: A for-profit “small business concern” that is at least 51 percent owned and controlled by one or more socially and economically disadvantaged individuals. One or more such individuals must also control the management and daily business operations. These individuals must be citizens of the United States and (1) any individual who the City finds to be a socially and economically disadvantaged individual on a case-by-case basis, or (2) who are either Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Subcontinent Asian Americans, women, or any other group found to be socially and economically disadvantaged by the Small Business Administration. This definition was revised in 1987 to include women.

1.3 DBE PARTICIPATION GOAL

- A. The DBE participation goal for this Contract is **22.2 percent**.
- B. Bidder must meet the DBE participation goal shown above or demonstrate that Bidder made adequate good faith efforts to meet this goal.
- C. Bidder should not depend on deletable Bid items to calculate the DBE participation percentage.

1.4 DBE PROGRAM

- A. Bidder shall make work available to DBEs and select work parts consistent with available DBE subcontractors and suppliers.
- B. It is the Bidder’s responsibility to verify that the DBE firm is certified as DBE at date of bid opening. For a list of DBEs certified by the California Unified Certification Program, go to:

<https://caltrans.dbesystem.com/>

- C. All DBE participation will count toward the California Department of Transportation's federally mandated statewide overall DBE goal.
- D. A DBE may participate as a prime contractor, subcontractor, joint venture partner with a prime or subcontractor, vendor of material or supplies, or as a trucking company. Only the value of work actually performed by the DBE will count toward the DBE goal. Refer to 49 CFR 26.55 for more details about counting DBE participation.
 - 1. A DBE joint venture partner must be responsible for specific contract items of work, or clearly defined portions thereof. Responsibility means actually performing, managing and supervising the work with its own forces. The DBE joint venture partner must share in the capital contribution, control, management, risks and profits of the joint venture commensurate with its ownership interest.
 - 2. A DBE must perform a commercially useful function, i.e., must be responsible for the execution of a distinct element of the work and must carry out its responsibility by actually performing, managing and supervising the work.
- E. Credit for materials or supplies purchased from DBEs counts towards the DBE goal in the following manner:
 - 1. 100 percent counts if the materials or supplies are obtained from a DBE manufacturer.
 - 2. 60 percent counts if the materials or supplies are obtained from a DBE regular dealer.
 - 3. Only fees, commissions, and charges for assistance in the procurement and delivery of materials or supplies count if obtained from a DBE that is neither a manufacturer nor a regular dealer. Refer to 49 CFR 26.55 for definitions of "manufacturer" and "regular dealer."
- F. Bidder will receive credit towards the goal if Bidder employs a DBE trucking company that performs a commercially useful function as defined in 49 CFR 26.55.

Contractors who are qualified and want to be certified as DBEs must complete an application package from CUCP and submit the same to a certifying agency per the instructions in the application package. The application package can be downloaded from the following website: <https://www.transportation.gov/civil-rights/disadvantaged-business-enterprise/uniform-certification-application-english>

1.5 DBE PARTICIPATION GOAL

- A. Submit DBE information with the Bid on the "Local Agency Bidder DBE Commitment (Construction Contracts)" form (Exhibit 15-G) included in the Bid package.
- B. If the above form is not submitted with the Bid, the apparent low bidder, the 2nd low bidder, and the 3rd low bidder must complete and submit the DBE Commitment form to the City in accordance with Paragraph 1.7 below.
- C. Other bidders do not need to submit the DBE Commitment form unless the City requests it.
- D. Submit written confirmation from each DBE stating that it is participating in the contract. Include confirmation with the DBE Commitment form. A copy of a DBE's quote will serve as written confirmation that the DBE is participating in the contract.
- E. If Bidder does not submit the DBE Commitment form with the Bid or within the specified time, the City may find the Bid nonresponsive.

1.6 FEMALE AND MINORITY GOALS

- A. The female participation goal is set at 6.9%.
- B. The minority participation goal is set at 25.6%.
- C. Bidder must meet the goals shown above or demonstrate that Bidder made adequate good faith efforts to meet this goal.

1.7 GOOD FAITH EFFORTS SUBMITTAL

- A. If Bidder has not met the DBE goal, Bidder shall complete and submit the "DBE Information - Good Faith Efforts" form (Exhibit 15-H) with the bid showing that Bidder made adequate good faith efforts to meet the goal. Only good faith efforts directed towards obtaining participation by DBEs will be considered. If good faith efforts documentation is not submitted with the bid, it must be received by the City within the time specified in Paragraph 1.7 below.
- B. Even if Bidder's DBE Commitment form indicates that Bidder has met the DBE goal or if Bidder is required to submit the DBE Commitment form, Bidder must also submit good faith efforts documentation within the specified time to protect Bidder's eligibility for award of the Contract in the event that the City finds that the DBE goal has not been met.
- C. Good faith efforts documentation must include the following information and supporting documents, as necessary:
 - 1. Items of work Bidder has made available to DBE firms. Bidder must identify those items of work Bidder might otherwise perform with its own forces and those items that have been broken down into economically feasible units to facilitate DBE participation. For each item listed, Bidder must show the dollar value and percentage of the total contract. It is Bidder's responsibility to demonstrate that sufficient work to meet the goal was made available to DBE firms.
 - 2. Names of certified DBEs and dates on which they were solicited to bid on the project. Include the items of work offered. Describe the methods used for following up initial solicitations to determine with certainty if the DBEs were interested, and the dates of the follow-up. Attach supporting documents such as copies of letters, memos, facsimiles sent, telephone logs, telephone billing statements, and other evidence of solicitation. Bidder is reminded to solicit certified DBEs through all reasonable and available means and provide sufficient time to allow DBEs to respond.
 - 3. Name of selected firm and its status as a DBE for each item of work made available. Include name, address, and telephone number of each DBE that provided a quote and their price quote. If the firm selected for the item is not a DBE, provide the reasons for the selection.
 - 4. Name and date of each publication in which Bidder requested DBE participation for the project. Attach copies of the published advertisements.
 - 5. Names of agencies and dates on which they were contacted to provide assistance in contacting, recruiting, and using DBE firms. If the agencies were contacted in writing, provide copies of supporting documents.
 - 6. List of efforts made to provide interested DBEs with adequate information about the plans, specifications, and requirements of the contract to assist them in responding to a solicitation. If Bidder has provided information, identify the name of the DBE assisted, the nature of the information provided, and date of contact. Provide copies of supporting documents, as appropriate.
 - 7. List of efforts made to assist interested DBEs in obtaining bonding, lines of credit, insurance, necessary equipment, supplies, and materials, excluding supplies and equipment that the DBE subcontractor purchases or leases from the prime contractor or its affiliate. If Bidder provided such assistance, identify the name of the DBE

assisted, nature of the assistance offered, and date. Provide copies of supporting documents, as appropriate.

8. Any additional data to support demonstration of good faith efforts.

D. The City may consider DBE commitments of the 2nd and 3rd Bidders when determining whether the low Bidder made good faith efforts to meet the goal.

1.8 DBE PROGRAM BIDDING FORMS

A. Submit the following forms with the Bid:

1. Exhibit 15-G: Local Agency Bidder DBE Commitment (Construction Contracts).
2. Exhibit 15-H: DBE Information – Good Faith Efforts.
3. Good Faith Efforts documentation.



If the above forms are not submitted with the Bid, the apparent low Bidder, the second low bidder, and third low bidder shall submit the forms within **5 working days** after the date of Bid opening to:

Noel Aquino
 Port of San Francisco
 Pier 1, The Embarcadero
 San Francisco, CA 94111
 Telephone: (415) 274-0526
 Email: constructionbids@sfport.com

B. Within **5 working days** after the date of the City's notification of the bid results the apparent low Bidder, and any other Bidder so requested, shall submit completed and properly signed Bidding Forms listed below to the Project Manager at the following address:

Noel Aquino
 Port of San Francisco
 Pier 1, The Embarcadero
 San Francisco, CA 94111
 Telephone: (415) 274-0526
 Email: constructionbids@sfport.com

1. Form 3 (Caltrans): Construction Compliance Affidavit (DBE3).
2. Form 6 (Caltrans): Affidavit - Declaration of DBE Subcontractor Participation (DBE6).
3. Form 6A (Caltrans): DBE Trucking (DBE6A).

C. Failure to submit properly completed DBE program Bidding forms may render the Bidder non-responsive and may be cause for rejection of its Bid.

1.9 APPLICABLE CMD REQUIREMENTS

A. Each Bidder must comply with all applicable requirements of the Contract Monitoring Division ("CMD").

1. Bid discounts and Local Business Enterprise subcontracting goals as set forth in section 14B.7 and section 14B.8 of the San Francisco Administrative Code do not apply to this federal-aid project.

B. Bidders' attention is directed to the City's nondiscrimination requirements for this Contract as specified in Section 00 73 41. Nondiscrimination requirements set forth in Section 00 73 41 should be read thoroughly and shall be complied with, to the extent necessary, to fulfill the intent thereof.

END OF SECTION

SECTION 00 41 00

BID FORM
Addendum 03

Date of Bid: _____

TO THE **SAN FRANCISCO PORT COMMISSION**, CITY AND COUNTY OF SAN FRANCISCO

In response to the Advertisement for Bids for the following public work:

**AMADOR STREET INFRASTRUCTURE IMPROVEMENTS
 (Port of San Francisco Contract No. 2852)**

the undersigned Bidder hereby proposes and agrees to execute the required Contract, should it be awarded to said Bidder, and to do all the work and furnish all the materials therefor all in accordance with the Specifications and Drawings referred to in said Advertisement for Bids and at the prices named in the attached Schedule of Bid Prices.

The undersigned declares: That it is the Bidder (or by holding the position below indicated is authorized to execute this Bid Form on behalf of the Bidder); that said Bidder submits this Bid; that said Bidder has not, nor have any of its agents, officers, representatives or employees, been guilty of collusion with any officer or representative of the City and County of San Francisco, or with any other party or parties in the submission of this Bid; nor has said Bidder received any preferential treatment by any officer or employee of the City and County in the making or submitting of this Bid. The undersigned declares under penalty of perjury that all representations made on this Bid Form are true and correct.

The undersigned declares, under penalty of perjury under the laws of the State of California that the Bidder has read and agrees to the requirements of the San Francisco Administrative Code and applicable requirements of the California Labor Code for each of the attached list Sections:

<i>Section No.</i>	<i>Title</i>
00 43 20	Acknowledgment of Receipt of Addenda
00 43 50	Proposed Subcontractors Form
00 43 51	Bidder's List of Subcontractors Not Selected
00 45 13	Bidder's Qualifications
00 45 61	Highest General Prevailing Rate Certification – Federal
00 45 65	Certificate of Bidder Regarding Apprenticeship Training Program
00 45 80	Non-collusion Affidavit
00 45 82	Certification of Bidder Regarding Debarment and Suspension
00 45 84	Nonlobbying Certification for Federal-Aid Contracts
00 45 85	Disclosure for Lobbying Activities
00 45 87	Equal Opportunity Certification

The undersigned acknowledges that he or she has read and agrees to these Sections (initial): _____



**INITIAL
HERE**

BUSINESS TAX REGISTRATION DECLARATION: The undersigned further declares and understands that if I am awarded the Contract, each of my Subcontractors and I must maintain a current business tax registration number. If the Tax Collector of the City and County of San Francisco determines that any of my Subcontractors or I do not have or maintain a current business tax registration number, the City may either cancel the Contract or withhold payment.

BOND OR CHECK REQUIRED: There is herewith attached, as required by law, bid security in accordance with the Section 00 21 13 - Instructions to Bidders, Article "Bid Security".

NON-DISCRIMINATORY EMPLOYMENT PRACTICES: All provisions of San Francisco Labor and Employment Code Article 131, excluding subsection 131.2(b), and deleting all references to "domestic partners" and "domestic partner status" in subsection 131.2(a), are hereby incorporated by reference and made a part of the Bid Documents as though fully set forth herein. The Bidder and all subcontractors and suppliers shall comply with these provisions and shall submit all required documents in a timely manner.

The undersigned, having examined all referenced documents and the Drawings, understanding the terms and conditions of the Contract Documents and the local conditions affecting the performance and costs of the Work, and having fully inspected the Site in all particulars, hereby proposes and agrees to fully perform the Work as indicated on the Drawings and in accordance with the requirements of the Contract Documents within the time stated therein, and for the following price(s):

SCHEDULE OF BID PRICES

Bid Item	Bid Item Description	Estimated Quantity	Unit*	Unit Price	Extension
1	MOBILIZATION AND DEMOBILIZATION (MAXIMUM 5% OF THE SUM OF BID ITEMS NO. 1 THROUGH NO. 45 AND WD-1A THROUGH WD-12)	---	LS	---	\$ _____
2	TRAFFIC CONTROL WORK	---	LS	---	\$ _____
2A	FURNISH AND INSTALL TEMPORARY TRAFFIC STRIPING TAPE	140	LF	\$ _____	\$ _____
3	TRENCH AND EXCAVATION SUPPORT WORK FOR SEWER WORK ON H-DRAWINGS	---	LS	---	\$ _____
4	TRANSPORTATION OF SURPLUS CALIFORNIA CLASS I (NON-RCRA) HAZARDOUS WASTE (SOILS) TO A CLASS I DISPOSAL FACILITY	1,235	TN	\$ _____	\$ _____
5	DISPOSAL OF SURPLUS CALIFORNIA CLASS I (NON-RCRA) HAZARDOUS WASTE (SOILS) AT A CLASS I DISPOSAL FACILITY	1,235	TN	\$ _____	\$ _____
6	TRANSPORTATION OF SURPLUS NON-HAZARDOUS SOILS (CLASS II & III) CALIFORNIA DESIGNATED WASTE (SOILS) TO A CLASS II & III DISPOSAL FACILITY	140	TN	\$ _____	\$ _____

Bid Item	Bid Item Description	Estimated Quantity	Unit*	Unit Price	Extension
7	DISPOSAL OF SURPLUS NON-HAZARDOUS SOILS (CLASS II & III) CALIFORNIA DESIGNATED WASTE (SOILS) AT A CLASS II & III DISPOSAL FACILITY	140	TN	\$ _____	\$ _____
8	4-FOOT DIAMETER CONCRETE MANHOLE WITH 52-INCH DIAMETER FRAME AND COVER	2	Each	\$ _____	\$ _____
9	5-FOOT DIAMETER CONCRETE MANHOLE WITH 52-INCH DIAMETER FRAME AND COVER	1	Each	\$ _____	\$ _____
10	STANDARD CONCRETE MANHOLE FOR 12-INCH TO 24-INCH DIAMETER SEWERS WITH NEW FRAME AND COVER, PER SFDPW STANDARD PLAN 87,181	5	Each	\$ _____	\$ _____
11	CLEAN AND MORTAR EXISTING MANHOLE	4	Each	\$ _____	\$ _____
12	8-INCH DIAMETER VCP ON CRUSHED ROCK BEDDING WRAPPED IN GEOTEXTILE FABRIC	20	LF	\$ _____	\$ _____
13	10-INCH DIAMETER VCP CULVERT (CONTINGENCY BID ITEM)	322	LF	\$ _____	\$ _____
14	12 -INCH DIAMETER RCP ON CRUSHED ROCK BEDDING WRAPPED IN GEOTEXTILE FABRIC	530	LF	\$ _____	\$ _____
15	15 -INCH DIAMETER RCP ON CRUSHED ROCK BEDDING WRAPPED IN GEOTEXTILE FABRIC	50	LF	\$ _____	\$ _____
16	FURNISH AND INSTALL 6 - INCH DIAMETER NOMINAL SIZE SDR-17 HDPE FORCE MAIN AND FITTINGS ON CRUSHED ROCK ENCASEMENT AND WRAPPED IN GEOTEXTILE FABRIC	1,401	LF	\$ _____	\$ _____

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Bid Item	Bid Item Description	Estimated Quantity	Unit*	Unit Price	Extension
17	FURNISH AND INSTALL 16-INCH DIAMETER NOMINAL SIZE SDR-17 HDPE CRUSHED ROCK ENCASMENT AND WRAPPED IN GEOTEXTILE FABRIC	19	LF	\$ _____	\$ _____
18	FURNISH AND INSTALL 34 LF OF 10-INCH DIAMETER STEEL CASING UNDER RAILROAD TRACKS BY PIPE JACKING METHOD AND FURNISH AND INSTALL 34 LF OF 6-INCH DIAMETER NOMINAL SIDE SDR 17 HDPE INSIDE STEEL CASING.	---	LS	---	\$ _____
19	JACKING PIT FOR STEEL CASING INSTALLATION	1	Each	\$ _____	\$ _____
20	CLEANOUTS FOR 6-INCH DIAMETER NOMINAL SIZE SDR-17 HDPE INSIDE MANHOLE	3	Each	\$ _____	\$ _____
20A	CLEANOUTS FOR 6-INCH DIAMETER NOMINAL SIZE SDR-17 HDPE (CONDITIONAL BID ITEM)	11	Each	\$ _____	\$ _____
21	FURNISH AND INSTALL 2" AIR VALVE AND BLOW-OFF ASSEMBLY AND ACCESSORIES	1	Each	\$ _____	\$ _____
22	CONTROLLED DENSITY FILL INSIDE MANHOLE	9	CY	\$ _____	\$ _____
23	TELEVISION INSPECTION OF EXISTING 10-INCH DIAMETER VCP WHERE INDICATED ON H-DRAWINGS	3	EA	\$ _____	\$ _____
24	TELEVISION INSPECTION OF EXISTING 4-INCH OR 6-INCH DIAMETER CIP SIDE SEWER (CONDITIONAL BID ITEM)	6	EA	\$ _____	\$ _____
25	4-INCH OR 6-INCH DIAMETER CIP SIDE SEWER REPAIR, REPLACEMENT OR CONSTRUCTION AND CLEANOUTS, AS NECESSARY (CONDITIONAL BID ITEM)	368	LF	\$ _____	\$ _____

Bid Item	Bid Item Description	Estimated Quantity	Unit*	Unit Price	Extension
26	POST-CONSTRUCTION TELEVISION INSPECTION OF NEWLY CONSTRUCTED GRAVITY MAIN SEWERS, STORM DRAINS, CULVERTS, AND LATERALS	---	LS	---	\$ _____
27	EXPLORATORY HOLES (CONDITIONAL BID ITEM)	15	CY	\$ _____	\$ _____
28	PLUG AND FILL EXISTING 6-INCH DIAMETER FORCE MAIN WITH SLURRY GROUT AS INDICATED ON H-DRAWINGS	10	CY	\$ _____	\$ _____
29	CAST IRON WATER TRAP FOR CATCH BASIN TO REMAIN INCLUDING CLEANOUT CAP PER SFDPW STD. PLAN 87,194 (CONDITIONAL BID ITEM)	14	EA	\$ _____	\$ _____
30	IMPORT BACKFILL MATERIAL FOR SEWER WORK (CONDITIONAL BID ITEM)	524	CY	\$ _____	\$ _____
31A	HIGH-FLOW TRASH COLLECTION DEVICE - CROSSLINKED HIGH-DENSITY POLYETHYLENE	3	EA	\$ _____	Not used
31B	HIGH-FLOW TRASH COLLECTION DEVICE - DEFLECTIVE SEPARATOR	1	EA	\$ _____	\$ _____
32	MECHANICAL WORK	---	LS	---	\$ _____
33	STRUCTURAL WORK	---	LS	---	\$ _____
34	ELECTRICAL WORK	---	LS	---	\$ _____
34A	ELECTRICAL WORK - INTERIM	---	LS	---	\$ _____
35	FULL DEPTH PLANING PER 2-INCH DEPTH OF CUT	5160	SF	\$ _____	\$ _____
36	ASPHALT CONCRETE (TYPE A, 1/2 INCH MAXIMUM WITH MEDIUM GRADING)	1147	TON	\$ _____	\$ _____
37	10-INCH THICK CONCRETE BASE	78240	SF	\$ _____	\$ _____
38A	CONCRETE ROADWAY SWALE	1156	SF	\$ _____	\$ _____

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Bid Item	Bid Item Description	Estimated Quantity	Unit*	Unit Price	Extension
38B	18-INCH WIDE CONCRETE SWALE	100	LF	\$ _____	\$ _____
39	6-INCH WIDE CONCRETE CURB	30	LF	\$ _____	\$ _____
40	6-INCH THICK CONCRETE DRIVEWAY PAVEMENT	170	SF	\$ _____	\$ _____
41	CLASS II AGGREGATE BASE	1200	CY	\$ _____	\$ _____
42	RAIL ROAD TRACK REMOVAL	1400	LF	\$ _____	\$ _____
43	ADJUST CITY-OWNED MANHOLE FRAME AND CASTING TO GRADE (CONDITIONAL BID ITEM)	10	EA	\$ _____	\$ _____
44	ADJUST CITY-OWNED HYDRANT AND WATER MAIN VALVE BOX CASTING TO GRADE (CONDITIONAL BID ITEM)	6	EA	\$ _____	\$ _____
45	LANDSCAPE WORK	---	LS	---	\$ _____
46	ALLOWANCE FOR ENVIRONMENTAL WORK	---	AL	---	\$ 100,000
47	ALLOWANCE FOR REMOVAL OF RAILROAD TRACK FACILITIES FROM THE SEWER AND FORCE MAIN TRENCH IF ENCOUNTERED BENEATH THE PAVEMENT AND WHERE INDICATED ON H-DRAWINGS AND OUTSIDE OF RAILROAD TRACK REMOVAL LIMITS ON C-DRAWINGS	---	AL	---	\$ 10,000
48	ALLOWANCE TO PERFORM NECESSARY WORK DUE TO UNFORESEEN CONDITIONS RELATED TO SEWER WORK UNDER H-DRAWINGS	---	AL	---	\$ 50,000
49	ALLOWANCE FOR SAN FRANCISCO UNIFORMED OFFICERS	---	AL	---	\$ 21,469
50	PARTNERING ALLOWANCE	---	AL	---	\$ 20,000
WD-1A	EXCAVATION AND BACKFILL FOR 4-, 6- AND 8-INCH PIPE TRENCH	200	LF	\$ _____	\$ _____

Bid Item	Bid Item Description	Estimated Quantity	Unit*	Unit Price	Extension
WD-1B	EXCAVATE AND BACKFILL FOR 16-INCH PIPE TRENCH	1,700	LF	\$ _____	\$ _____
WD-1C	FURNISH AND INSTALL SAND BACKFILL (CONDITIONAL BID ITEM)	700	TON	\$ _____	\$ _____
WD-2	ADDITIONAL EXCAVATION AND BACKFILL	300	CY	\$ _____	\$ _____
WD-3	REMOVAL AND INSTALLATION OF METER BOX	6	EA.	\$ _____	\$ _____
WD-4A	FURNISHING OF 4-, 6- AND 8-INCH DUCTILE IRON TYTON JOINT AND FLANGE JOINT PIPE	200	L.F.	\$ _____	\$ _____
WD-4B	INSTALLATION OF 4-, 6- AND 8-INCH DUCTILE IRON TYTON JOINT AND FLANGE JOINT PIPE WITH POLYETHYLENE ENCASMENT	200	L.F.	\$ _____	\$ _____
WD-4C	FURNISHING OF 16-INCH DUCTILE IRON RESTRAINED PUSH-ON JOINT PIPE	1,700	L.F.	\$ _____	\$ _____
WD-4D	INSTALLATION OF 16-INCH DUCTILE IRON RESTRAINED PUSH-ON JOINT PIPE WITH POLYETHYLENE ENCASMENT	1,700	L.F.	\$ _____	\$ _____
WD-5A	FURNISHING OF 4-, 6- AND 8-INCH DUCTILE IRON FITTINGS	1421	LBS.	\$ _____	\$ _____
WD-5B	INSTALLATION OF 4-, 6- AND 8-INCH DUCTILE IRON FITTINGS WITH POLYETHYLENE ENCASMENT	1,421	LBS.	\$ _____	\$ _____
WD-5C	FURNISHING OF 16-INCH DUCTILE IRON FITTINGS	13,895	LBS.	\$ _____	\$ _____
WD-5D	INSTALLATION OF 16-INCH DUCTILE IRON FITTINGS WITH POLYETHYLENE ENCASMENT	13,895	LBS.	\$ _____	\$ _____
WD-6A	FURNISHING AND INSTALLATION OF 4- AND 6-INCH DUCTILE IRON GATE VALVES	7	EA.	\$ _____	\$ _____

Bid Item	Bid Item Description	Estimated Quantity	Unit*	Unit Price	Extension
WD-6B	FURNISHING AND INSTALLATION OF 16-INCH DUCTILE IRON GATE VALVES	4	EA.	\$ _____	\$ _____
WD-7	FURNISHING AND INSTALLATION OF 2-INCH AIR VALVE/BLOW OFF ASSEMBLY	6	EA.	\$ _____	\$ _____
WD-8	TRENCH SHORING AND BRACING PER ALL APPLICABLE SAFETY ORDERS (CONDITIONAL BID ITEM)	22,000	S.F.	\$ _____	\$ _____
WD-9	FURNISHING AND INSTALLATION OF SCREW TAPS	10	EA.	\$ _____	\$ _____
WD-10	SUPPORT FOR INSTALLATION OF SERVICE PIPE - OPEN CUT	160	L.F.	\$ _____	\$ _____
WD-11	REMOVAL OF SFWD - OWNED VALVE BOXES AND COVERS	8	EA.	\$ _____	\$ _____
WD-12	PIPE ABANDONMENT	1700	L.F.	\$ _____	\$ _____
WD-13	ALLOWANCE FOR FURNISHING AND INSTALLING HYDRANT BOLLARDS FOR NEW LOW PRESSURE FIRE HYDRANTS	---	AL	---	\$ 6,000
WD-14	CONDITIONAL ALLOWANCE FOR UNFORESEEN CONDITIONS RELATED TO WATER WORK.	---	AL	---	\$ 50,000
WD-15	CONDITIONAL ALLOWANCE FOR WORKING OUTSIDE NORMAL WORK HOURS	---	AL	---	\$ 25,000
WD-16	CONTRACT SAFETY REQUIREMENTS	---	AL	---	\$ 25,000
TOTAL BID PRICE (summation above Bid items):					\$ _____

*Note: LF = Linear Feet, LS = Lump Sum, SF = Square Feet, EA = Each, AL = Allowance, CY = Cubic Yard, TN = US Short Ton, LBS = Pounds

Bidder acknowledges that quantities are not guaranteed and final payment will be based on the actual quantities determined as provided in the Contract Documents.

The City reserves the right after opening Bids to reject any or all Bids, and to waive any minor irregularity in a Bid. In case of discrepancy between the sum of Bid item amounts and the Total Bid Price, the sum of said amounts shall prevail. In the case of discrepancy between words and figures, the words shall prevail. In case of discrepancy between unit prices Bid and extensions thereof, said unit prices shall prevail.

Mobilization Bid Item: Bidder agrees that: (a) if the mobilization amount exceeds the limitation provided, the City will include the full line item amount in calculating the Total Bid Price, but will pay the excess amount over the course of the Contract based on the progress of the work, and (b) if the Bidder leaves the mobilization line item blank, the City will read the item as \$0 for purposes of calculating the Total Bid Price and the Bidder shall NOT be able to claim a clerical error on that basis.

Bidder acknowledges and agrees that this Bid, if not withdrawn prior to the scheduled time for receipt of Bids, shall not be withdrawn for a period of **90** days thereafter.

Time allowed for completion of all Work shall be as specified in Section 00 73 02, beginning with and including the official date of Notice to Proceed as established by the Executive Director of the Port of San Francisco.

Bidder acknowledges and agrees that it will perform not less than 30% of the Contract Work with its own forces.

Department of Industrial Relations Registration: The undersigned further declares that the Bidder is compliant with the registration requirements of the California Department of Industrial Relations (“DIR”) under California Labor Code section 1725.5, and that its registration with the DIR will be current as of March 1, 2015 for any Bid submitted on or after March 1, 2015, and/or that its registration with the DIR will be current as of April 1, 2015, should the Contract be awarded on or after April 1, 2015, regardless of the Bid date.

Executed on _____ 20 _____

Name of Firm, Corporation, Partnership or Joint Venture

E-mail Address

Signature of Bidder or Authorized Representative

Telephone Number

Print Name of Authorized Representative

Contractor's California License No.

Position in Firm or Corporation

License Expiration Date

Address of Firm or Corporation

S.F. Business Tax Registration Certificate Number

City State Zip Code

Contractor's DIR Registration No.

Note: If Bidder is a corporation, set forth the legal name of the corporation together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a partnership, set forth the name of the firm together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

END OF SECTION

SECTION 01 20 00

ADDENDUM 03

PRICE AND PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Procedures for preparation and submittal of Progress Payment Requests.
- B. Related Sections:
 - 1. Section 00 41 00 – Bid Form.
 - 2. Section 00 72 00 – General Conditions, Article 9, Payments and Completion.
 - 3. Section 01 29 73 – Schedule of Values.
 - 4. Section 01 32 16 – Construction Progress Schedule.

1.2 SCOPE

- A. Payment for the various items of the Schedule of Bid Prices, as further specified herein, shall include all compensation to be received by Contractor for furnishing all tools, equipment, supplies, and manufactured products, and for all labor, operations, overhead and profit, applicable taxes, and incidentals appurtenant to the items of Work being described, as necessary to complete the various items of work as specified and as shown on the Drawings. No separate payment will be made for any item that is not specifically set forth in the Schedule of Bid Prices, and all costs therefore shall be included in the prices named in the Schedule of Bid Prices for the various appurtenant items of Work.
- B. Contract Prices shall be deemed to include all bonds and insurance, all appurtenances necessary to complete the required Work, including all costs for compliance with the regulations of public agencies having jurisdiction, including Health and Safety Requirements of the California Division of Industrial Safety and the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA), and including all costs for loss or damage arising from the Work, or from action of the elements, for any unforeseen difficulties which may be encountered, and for all risks of every description connected with the prosecution of the Work until Project Completion, also for all expenses incurred in consequence of the suspension or discontinuance of the Work as provided in the Contract.
- C. Except as otherwise expressly stipulated in the Contract Documents, no payment shall be made for materials stored on or off site, and for materials not yet incorporated into the Work on site.
- D. Neither the payment of any estimate nor of any retained percentage shall relieve Contractor of its obligation to make good all defective work or material.

1.3 BASIS OF PAYMENT

- A. Unit Price Work
 - 1. The City shall determine the quantities of Work to be paid for any item for which a unit price is fixed in the Contract.
 - 2. Unless otherwise provided, determination of the number of units of Work so completed shall be based, as far as practicable, on the actual measurement or

- count made by the City Representative of the Work satisfactorily completed within the prescribed limits.
3. Measurement and computations shall be made by methods as the City may consider appropriate for the class of Work measured.
 4. Should the actual quantities of Work performed under any unit price be greater or less than the estimated quantity stipulated on the Schedule of Bid Prices, or if an item of Work is deleted, the final Contract cost shall be adjusted by Change Order to reflect the actual quantities and actual costs including fixed costs for unit price items.
- B. Lump Sum: When the estimated quantity for specific portions of Work is not indicated on the Schedule of Bid Prices and unit is designated as lump sum, payment will be on a lump sum basis for Work satisfactorily completed as set forth in the Specifications and shown on the Drawings.
- C. Monthly payment requests shall be based upon information developed at monthly Application for Payment meetings and shall be prepared by Contractor. The approved Schedule of Values will be the basis for Contractor's payment requests.
1. No partial progress payment shall be made to Contractor until all cost information requested by the City is submitted and reviewed.
 2. Submission of a progress schedule update in accordance with Section 01 32 16 for the same period of the progress payment application shall be a condition precedent to making the progress payment application.

1.4 APPLICATION AND SCHEDULE PROCEDURES

- A. On the 25th of each month submit an itemized Application of Payment to the City Representative by email with all required supporting documents attached in PDF format or in other Windows file formats (except Certified Payrolls) covering the Work completed as of the date of the Application for Payment.
1. Submit a progress schedule update with each Application for Payment.
 2. List each authorized Change Order executed prior to date of submission by Change Order Number and description, as for original items of work.
 3. When the City requires substantiating data, Contractor shall submit suitable information with cover letter identifying Application of Payment number and date, line item by number and description.
 4. Submit Certified Payrolls through the City's internet-based Project Reporting System. Refer to Paragraph 9.03M of the General Conditions.
 5. Specify the desired Method of Payment, either by electronic funds transfer or check.
- B. Progress payments for the work performed under this Contract will be made in the manner described in Paragraph 9.03 of the General Conditions.
1. Progress payments will be based upon progress estimates by Contractor and verified by the City of the actual physical progress of the work, utilizing the Schedule of Values approved by the City.
 2. Progress payments will be made on a monthly basis and no mid-monthly payments will be made regardless of the value of the work and material incorporated prior thereto.
 3. Contractor shall certify its estimate of the quantities of the work completed, contained in the monthly progress payment estimate, by signing each such estimate prior to its submission.
 4. Contractor shall submit Project Record Drawings as specified below under article "Project Record Drawings."
 5. The City will make final determination if agreement cannot be reached on Contractor's progress payment request.

- C. The City shall issue payments to Contractor through the City's electronic payment system. Contractor acknowledges and agrees to receive payment electronically through this system. Contractor shall not be entitled to any additional cost or charge under this Contract for using or failing to use the electronic payment system. Nor shall Contractor be entitled to any additional cost or charge for delays or failures of the electronic payment system to complete a payment transaction.
- D. Pursuant to California Public Contract Code Section 22300, Contractor may substitute securities for any money withheld by the City to insure performance under the Contract. Said securities shall be in a form and of a type acceptable to the City.
1. At the request and expense of Contractor, securities equivalent to the amount withheld shall be deposited with City Controller or with a state or federally chartered bank as the escrow agent, who shall return such securities to Contractor upon satisfactory completion of the Contract.
 2. Securities eligible for investment under Public Contract Code Section 22300 shall be limited to those listed in Section 16420 of the Government Code and to bank or savings and loan certificates of deposit.
 3. Contractor shall enter into escrow agreement with City Controller for in-lieu construction payment retention provided by City, specifying amount of securities to be deposited, terms and conditions of conversion into cash in case of Contractor's default, and termination of escrow upon completion of Contract.
 4. Contractor shall be beneficial owner of securities substituted for monies withheld and shall receive any interest thereon.

1.5 PROGRESS ESTIMATES

- A. Upon receiving Contractor's monthly progress payment application, the City will review progress breakdown and make adjustments to percent of completion of each item of Work.
1. Monthly progress payments will be made based on the total value of Work items completed or partially completed, as determined by the City with participation of Contractor.
 2. Accumulated retainage will be shown as separate item in payment summary.
- B. After approving the finalized Progress Payment Report, the City will commence payment processing electronically. The payments will be made in accordance with Contractor's specified Method of Payment.

1.6 PROJECT RECORD DRAWINGS

- A. Submit original and one (1) copy of the Project Record Drawings (As-Builts) with the monthly progress payments to the City Representative in the field for his/her review. The original Record Drawings will be returned to the Contractor within fourteen (14) calendar days of submittal. The Contractor shall update the Record Drawings based on the City Representative's comments and resubmit the drawings for record. If the Record Drawings are not kept current or not furnished when specified herein, Progress Payments and if necessary the Final Payment will be withheld.

1.7 ELECTRONIC CERTIFIED PAYROLLS

- A. In accordance with the requirements of Paragraph 9.03M of the General Conditions, Contractor shall submit certified payrolls to the City electronically via the City-selected Project Reporting System ("PRS"), an internet-based program. This submittal is required for Progress Payments as specified in this Section 01 20 00 Price and Payment Procedures. In addition to data relating to weekly payroll information, the Contractor,

Subcontractors and Suppliers shall enter in appropriate fields of the PRS information regarding new hires, including name and date hired of each new employee.

PART 2 – PAYMENT SCHEDULE

2.1 Bid Item No. 1: MOBILIZATION AND DEMOBILIZATION (Maximum 5% of the Sum of Bid Items No.-1 through No. 45 and WD-1 Through WD-12)

- A. Refer to Section 01 21 50 – Mobilization Item.
- B. Mobilization will be paid based on the entire contract, not individual locations.
- C. Under mobilization, when the City Representative is satisfied that the Contractor is diligently pursuing commencement of work as stipulated in Section 01 21 50 will be paid 100% of the amount set aside in the Schedule of Bid Price.
- D. Any extension of the Contract Time that may be granted will not of itself constitute grounds for a claim for additional payment under this Bid Item.

2.2 Bid Item No. 2: TRAFFIC CONTROL WORK

- A. The contract lump sum price paid for traffic control work includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals (including barricades, barriers, flaggers and other traffic control) and for doing all the work involved in placing, removing, storing, maintaining, moving to new locations, replacing, and disposing of the components of the traffic control work as shown on the plans; and doing all other work as specified in this Section 01 55 26 and applicable standards as referenced therein as specified in the applicable portions of the SFPW Standard Specifications, and as directed by the City Representative. The traffic control work satisfactorily performed will be paid for at the lump sum price bid therefore prorated over the duration of field construction, proportionally to the percentage of field construction completed to date.

2.3 Bid Item No. 2A: FURNISH AND INSTALL TEMPORARY TRAFFIC STRIPING TAPE

- A. All temporary tape traffic stripes and pavement markings including arrows and word will be measured by linear feet as shown on the plans and/or as installed in the field. Four-inch (4") broken traffic stripes will be measured in linear feet including the gaps.
- B. The four-inch stripe will be the basis of measurement of wider temporary pavement markings such as 12-inch stop bars, 8-inch stripe, etc., and the total length will be measured as a four-inch stripe.
- C. Temporary overlay pavement markers will be measured by the unit from the actual count layout in the field or ordered by the City Representative.
- D. The contract unit price paid for temporary traffic stripe, pavement markings and overlay pavement markers shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing, installing, maintaining, replacing, and removing temporary traffic stripes, markings, and markers.
- E. Temporary stripe and temporary overlay markers furnished and satisfactorily installed will be paid for at the Contract unit prices for the computed quantities as determined by the

measurement method specified above. Quantities may vary by more than 25%. No additional compensation will be paid in maintaining all temporary traffic stripes and pavement markings.

2.4 Bid Item No. 3: TRENCH AND EXCAVATION SUPPORT FOR SEWER WORK ON H-DRAWINGS

- A. Trench and excavation support work, as specified, including adequate sheeting, shoring and bracing, dewatering (if necessary), etc., or equivalent method for the protection of life and limb, and conforming to applicable safety orders of OSHA and the State of California Division of Industrial Safety, will be paid for at the lump sum price bid therefore.

2.5 Bid Item No. 4: TRANSPORTATION OF SURPLUS CALIFORNIA CLASS I (NON-RCRA) HAZARDOUS WASTE (SOILS) TO A CLASS I DISPOSAL FACILITY

- A. This Bid Item shall include all work described as follows:

The transportation of surplus California Class I (non-RCRA) hazardous waste (soils) to a California Class I landfill or out-of-state equivalent for disposal. Any excavated and surplus existing soil or excavated and unsuitable existing soil for reuse as backfill or other hazardous materials, found to be California Class I (non-RCRA) hazardous waste shall be disposed of at a permitted a California Class I landfill or out-of-state equivalent.

Handling and transportation of existing soil within the project site or to the Contractor's intermediate staging area is incidental work and not covered by this bid item.

Transportation costs shall include all transportation, and other incidentals such as compliance with transportation regulations, scheduling, staging, loading and unloading times and fees, covering of trucks, preparation of hazardous waste manifests, multiple handling and loading, tractor and truck stand-by and idle times, transportation round trip times and rates, load charges, and delays or demurrage due to such scheduling.

Payment for this Bid Item will be made at the Contract Unit Price per US short ton as indicated in the Schedule of Bid Prices. For payment, the Contractor shall submit a copy of the fully signed hazardous waste manifests forms, as well as the weight tickets. If the final quantity varies by more or less than 25% of the estimated quantity specified, and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices shall apply to work under this bid item.

Asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound or deleterious matter shall be excavated separately from the soil layer, and shall not be include in this bid item. The Contractor shall remove such materials prior to the transportation and disposal of soils.

The removal, management, transportation, and disposal of asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound, or deleterious matter shall be incidental to its respective bid items.

Soils of different waste disposal classification shall be segregated when excavated, managed, transported, and disposed separately with no mixing of the different types of wastes.

2.6 Bid Item No. 5: DISPOSAL OF SURPLUS CALIFORNIA CLASS I (NON-RCRA) HAZARDOUS WASTE (SOILS) TO A CLASS I DISPOSAL FACILITY

A. This Bid Item shall include all work described as follows:

The disposal of surplus California Class I (non-RCRA) hazardous waste (soils) to a California Class I landfill or out-of-state equivalent. Any excavated and surplus existing soil or excavated and unsuitable existing soil for reuse as backfill or other hazardous materials, found to be California Class I (non-RCRA) hazardous waste shall be disposed of at a permitted a California Class I landfill or out-of-state equivalent.

Disposal costs shall include all disposal costs such as the waste approval process, preparation of waste acceptance forms, weighing of the material, loading and unloading times, dump fees and taxes, profiling costs, landfill fees, and other incidentals.

Dump fees and taxes shall include (as applicable) all tipping fees, gate fees, county and local taxes, landfill recovery fee, landfill environmental & surcharge fee, and the CA Board of Equalization (BOE) Hazardous Waste Land Disposal fee. The CA Board of Equalization (BOE) Hazardous Waste generator fee (if applicable) will be paid by the City, and is not to be included in this bid item.

Payment for this Bid Item will be made at the Contract Unit Price per US short ton as indicated in the Schedule of Bid Prices. For payment, the Contractor shall submit a copy of the fully signed hazardous waste manifests forms, as well as the weight tickets. If the final quantity varies by more or less than 25% of the estimated quantity specified, and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices shall apply to work under this bid item.

Asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound or deleterious matter shall be excavated separately from the soil layer, and shall not be include in this bid item. The Contractor shall remove such materials prior to the transportation and disposal of soils.

The removal, management, transportation, and disposal of asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound, or deleterious matter shall be incidental to its respective bid items.

Soils of different waste disposal classification shall be segregated when excavated, managed, transported, and disposed separately with no mixing of the different types of wastes.

2.7 Bid Item No. 6: TRANSPORTATION OF SURPLUS NON-HAZARDOUS SOILS (CLASS II & III) CALIFORNIA DESIGNATED WASTE (SOILS) TO A CLASS II & III DISPOSAL FACILITY

A. This Bid Item shall include all work described as follows:

Transportation of surplus non-hazardous soils (Class II & III) California Designated Waste (soils) at a permitted and certified landfill or an out-of-state equivalent. Any excavated and surplus existing soil or excavated and unsuitable existing soil for reuse as backfill or other hazardous materials, found to be non-hazardous soils (Class II & III) California Designated Waste shall be disposed of at a permitted a California Class II & II landfill or out-of-state equivalent.

Handling and transportation of existing soil within the project site or to a Contractor's intermediate staging area is incidental work and not covered by this bid item.

Transportation costs shall include all handling, transportation, and other incidentals such as compliance with transportation regulations, scheduling, staging, loading and unloading times and fees, covering of trucks, preparation of non-hazardous waste manifests, multiple handling and loading, tractor and truck stand-by and idle times, transportation round trip times and rates, load charges, and delays or demurrage due to such scheduling.

Payment for this Bid Item will be made at the Contract Unit Price per US short ton as indicated in the Schedule of Bid Prices. For payment, the Contractor shall submit a copy of the fully signed non-hazardous waste manifests forms, as well as the weight tickets. If the final quantity varies by more or less than 25% of the estimated quantity specified, and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices shall apply to work under this bid item.

Asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound or deleterious matter shall be excavated separately from the soil layer, and shall not be include in this bid item. The Contractor shall remove such materials prior to the transportation and disposal of soils.

The removal, management, transportation, and disposal of asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound, or deleterious matter shall be incidental to its respective bid items.

Soils of different waste disposal classification shall be segregated when excavated, managed, transported, and disposed separately with no mixing of the different types of wastes.

2.8 Bid Item No. 7: DISPOSAL OF SURPLUS NON-HAZARDOUS SOILS (CLASS II & III) CALIFORNIA DESIGNATED WASTE (SOILS) TO A CLASS II & III DISPOSAL FACILITY

A. This Bid Item shall include all work described as follows:

Disposal of surplus non-hazardous soils (Class II & III) California Designated Waste (soils) at a permitted landfill or an out-of-state equivalent. Any excavated and surplus existing soil or excavated and unsuitable existing soil for reuse as backfill or other materials, found to be non-hazardous soils (Class II & III) California Designated Waste shall be disposed of at a permitted a California Class II & III landfill or out-of-state equivalent.

Disposal costs shall include all disposal costs such as the waste approval process, preparation of waste acceptance forms, weighing of the material, loading and unloading times, dump fees and taxes, profiling costs, landfill fees, and other incidentals. Dump fees and taxes shall include (as applicable) all tipping fees, gate fees, county and local taxes, landfill recovery fee, and landfill environmental & surcharge fee.

Payment for this Bid Item will be made at the Contract Unit Price per US short ton as indicated in the Schedule of Bid Prices. For payment, the Contractor shall submit a copy of the fully signed non-hazardous waste manifests forms, as well as the weight tickets. If the final quantity varies by more or less than 25% of the estimated quantity specified, and

General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices shall apply to work under this bid item.

Asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound or deleterious matter shall be excavated separately from the soil layer, and shall not be include in this bid item. The Contractor shall remove such materials prior to the transportation and disposal of soils.

The removal, management, transportation, and disposal of asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound, or deleterious matter shall be incidental to its respective bid items.

Soils of different waste disposal classification shall be segregated when excavated, managed, transported, and disposed separately with no mixing of the different types of wastes.

2.9 Bid Item No. 8: 4-FOOT DIAMETER CONCRETE MANHOLE WITH 52-INCH DIAMETER FRAME AND COVER

- A. 4-foot diameter concrete manhole with new 52-inch diameter frame and cover will be measured for payment by the number of each manhole satisfactorily constructed, complete in place, as specified in Section 33 33 00 and will be paid for at the unit price bid therefore.

2.10 Bid Item No. 9: 5-FOOT DIAMETER CONCRETE MANHOLE WITH 52-INCH DIAMETER FRAME AND COVER

- A. 5-foot diameter concrete manhole with new 52-inch diameter frame and cover will be measured for payment by the number of each manhole satisfactorily constructed, complete in place, as specified in Section 33 33 00 and will be paid for at the unit price bid therefore.

2.11 Bid Item No. 10: STANDARD CONCRETE MANHOLE FOR 12-INCH TO 24-INCH DIAMETER SEWERS WITH FRAME AND COVER (PER SFDPW STANDARD PLAN 87,181)

- A. Concrete manhole with new frame and cover will be measured for payment by the number of each manhole satisfactorily constructed, complete in place, as specified in Section 33 33 00 and will be paid for at the unit price bid therefor.

2.12 Bid Item No. 11: CLEAN AND MORTAR EXISTING BRICK MANHOLE

- A. Cleaning and mortaring existing manhole with 1-inch thick Calcium Aluminate Cementitious (CAC) Structural Rehabilitation Coating by the number of each satisfactorily completed in place as specified in Section 33 33 00 and 33 01 30.63 will be paid for at the unit price bid therefor.

2.13 Bid Item No. 12: 8-INCH DIAMETER VCP ON CRUSHED ROCK WRAPPED IN GEOTEXTILE FABRIC

- A. 8-inch diameter VCP wrapped in geotextile fabric will be measured horizontally along the centerline for payment by the number of each linear foot satisfactorily installed, complete

in placed, as specified in Section 33 33 00 and will be paid for at the price bid per linear foot.

- B. Saw cutting and removal of existing pavement, excavating, backfilling, preparation of subgrade to proper grade, compacting, and temporary pavement restoration, shall be considered as incidental work.
- C. Furnishing and installing 10-inch thick concrete base and permanent pavement restoration within pipe trench is excluded, as they are included in other Bid Items.
- D. Excavation shall be as specified in Section 701 and Section 702 of SFDPW Standard Specifications and as indicated on the plans and shall be paid for as incidental work.

2.14 Bid Item No. 13: 10-INCH DIAMETER VCP CULVERT (CONTINGENCY BID ITEM)

- A. 10-inch diameter VCP culvert will be measured horizontally along the centerline for payment by the number of each linear foot satisfactorily installed, complete in placed, as specified in Section 33 33 00 and will be paid for at the price bid per linear foot.
- B. Saw cutting and removal of existing pavement, excavating, backfilling, preparation of subgrade to proper grade, compacting, and temporary pavement restoration, shall be considered as incidental work.
- C. Furnishing and installing 10-inch thick concrete base and permanent pavement restoration within pipe trench is excluded, as they are included in other Bid Items.
- D. Excavation shall be as specified in Section 701 and Section 702 of SFDPW Standard Specifications and as indicated on the plans and shall be paid for as incidental work.
- E. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.15 Bid Item No. 14: 12-INCH DIAMETER RCP ON CRUSHED ROCK BEDDING WRAPPED IN GEOTEXTILE FABRIC

- A. 12-inch diameter RCP on crushed rock wrapped in geotextile fabric will be measured horizontally along the centerline for payment by the number of each linear foot satisfactorily installed, complete in placed, as specified in Section 33 33 00 and 33 41 00.10 and will be paid for at the price bid per linear foot.
- B. Saw cutting and removal of existing pavement, excavating, backfilling, preparation of subgrade to proper grade, compacting, and temporary pavement restoration, shall be considered as incidental work.
- C. Furnishing and installing 10-inch thick concrete base and permanent pavement restoration within pipe trench is excluded, as they are included in other Bid Items.
- D. Excavation shall be as specified in Section 701 and Section 702 of SFDPW Standard Specifications and as indicated on the plans and shall be paid for as incidental work.

2.16 Bid Item No. 15: 15-INCH DIAMETER RCP ON CRUSHED ROCK BEDDING WRAPPED IN GEOTEXTILE FABRIC

- A. 15-inch diameter RCP on crushed rock wrapped in geotextile fabric will be measured horizontally along the centerline for payment by the number of each linear foot satisfactorily installed, complete in placed, as specified in Section 33 33 00 and 33 41 00.10 and will be paid for at the price bid per linear foot.

- B. Saw cutting and removal of existing pavement, excavating, backfilling, preparation of subgrade to proper grade, compacting, and temporary pavement restoration, shall be considered as incidental work.
- C. Furnishing and installing 10-inch thick concrete base and permanent pavement restoration within pipe trench is excluded, as they are included in other Bid Items.
- D. Excavation shall be as specified in Section 701 and Section 702 of SFDPW Standard Specifications and as indicated on the plans and shall be paid for as incidental work.
- 2.17 Bid Item No. 16: FURNISH AND INSTALL 6-INCH DIAMETER NOMINAL SIZE SDR-17 HDPE FORCE MAIN AND FITTINGS ON CRUSHED ROCK ENCASEMENT AND WRAPPED IN GEOTEXTILE FABRIC
- A. 6-inch diameter nominal size SDR-17 HDPE and fittings with fused joints on crushed rock encasement and wrapped in geotextile fabric will be measured horizontally along the centerline for payment by the number of each linear foot satisfactorily installed, complete in placed, as specified in Section 33 33 00 and will be paid for at the price bid per linear foot.
- B. Saw cutting and removal of existing pavement, excavating, backfilling, preparation of subgrade to proper grade, compacting, and temporary pavement restoration, shall be considered as incidental work.
- C. Furnishing and installing 10-inch thick concrete base and permanent pavement restoration within pipe trench is excluded, as they are included in other Bid Items
- D. Excavation shall be as specified in Section 701 and Section 702 of SFDPW Standard Specifications and as indicated on the plans and shall be paid for as incidental work.
- 2.18 Bid Item No. 17: FURNISH AND INSTALL 16-INCH DIAMETER NOMINAL SIZE SDR-17 HDPE ON CRUSHED ROCK ENCASEMENT AND WRAPPED IN GEOTEXTILE FABRIC
- A. 16-inch diameter nominal size SDR-17 HDPE with fused joints on crushed rock encasement and wrapped in geotextile fabric will be measured horizontally along the centerline for payment by the number of each linear foot satisfactorily installed, complete in placed, as specified in Section 33 33 00 and will be paid for at the price bid per linear foot.
- B. Saw cutting and removal of existing pavement, excavating, backfilling, preparation of subgrade to proper grade, compacting, and temporary pavement restoration, shall be considered as incidental work.
- C. Furnishing and installing 10-inch thick concrete base and permanent pavement restoration within pipe trench is excluded, as they are included in other Bid Items
- D. Excavation shall be as specified in Section 701 and Section 702 of SFDPW Standard Specifications and as indicated on the plans and shall be paid for as incidental work.
- 2.19 Bid Item No. 18: FURNISH AND INSTALL 34 LF OF 10-INCH DIAMETER STEEL CASING UNDER RAILROAD TRACKS BY PIPE JACKING METHOD, AND FURNISH AND INSTALL 34 LF OF 6-INCH DIAMETER NOMINAL SIZE SDR 17 HDPE INSIDE STEEL CASING
- A. Under this bid item, the Contractor shall furnish and install 10-inch diameter steel casing by pipe jacking method, 6-inch nominal diameter HDPE pipe SDR 17 inside 10-inch diameter steel casing and fill annular space between steel casing and HDPE pipe with slurry grout. This bid item includes installing end seals (caps) at the end of each steel casing.

- B. All related work, satisfactorily performed, including all incidental work, will be paid for at the lump sum price bid under this bid item.

2.20 Bid Item No. 19: JACKING PIT FOR STEEL CASING INSTALLATION

- A. Jacking Pit for Steel Casing Installation shall be measured for payment by the number of pits satisfactorily constructed per specification Section 33 33 00, including all incidental work and will be paid for at the unit price bid therefore.

2.21 Bid Item No. 20: CLEANOUTS FOR 6-INCH DIAMETER NOMINAL SIZE SDR-17 HDPE INSIDE MANHOLE

- A. Cleanouts for 6-inch diameter nominal size SDR-17 HDPE inside manhole shall be measured for payment by the number of each cleanout satisfactorily installed per details and where indicated on the Contract Drawings, including all incidental work, and will be paid for at the Contract unit price each stated in the Schedule of Bid Prices.

2.22 Bid Item No. 20.A: CLEANOUTS FOR 6-INCH DIAMETER NOMINAL SIZE SDR-17 HDPE (CONDITIONAL BID ITEM)

- A. Cleanouts for 6-inch diameter nominal size SDR-17 HDPE shall be measured for payment by the number of each cleanout satisfactorily installed per details and as indicated on the Contract Drawings, including all incidental work, and will be paid for at the Contract unit price each stated in the Schedule of Bid Prices
- B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.23 Bid Item No. 21: FURNISH AND INSTALL 2-INCH AIR VALVE AND BLOW-OFF ASSEMBLY AND ACCESSORIES

- A. Furnish and install 2-inch air valve and blow-off assembly and accessories inside manhole shall be measured for payment by the number of each air valve and blow-off assembly satisfactorily installed per details and where indicated on the n H-drawings, including all incidental work, and will be paid for at the Contract unit price each stated in the Schedule of Bid Prices.

2.24 Bid Item No. 22: CONTROLLED DENSITY FILL INSIDE MANHOLE

- A. Controlled Density Fill (CDF) inside manhole, per the details shown on H-drawings, as directed by the City Representative, will be measured for payment by the number of each cubic yard, satisfactorily used, including all incidental wok, and shall be paid for under this bid item.

2.25 Bid Item No. 23: TELEVISION INSPECTION OF EXISTING 10-INCH DIAMETER VCP INDICATED ON H-DRAWINGS

- A. Television inspection of existing 10-inch diameter VCP indicated on the H-Drawings, satisfactorily performed, as specified in Section 33 33 00 including all incidental work will be paid for at the lump sum price bid therefore.
- 2.26 Bid Item No. 24: TELEVISION INSPECTION OF EXISTING 4-INCH OR 6-INCH DIAMETER CIP SIDE SEWERS (CONDITIONAL BID ITEM)
- A. Television inspection of existing side sewer and culverts located within the contract limits, but outside the limits of main sewer work will be measured for payment by the number of each side sewer and culvert satisfactorily televised, as specified in Section 33 33 00, including all incidental work and will be paid for at the unit price bid therefor.
- B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.
- 2.27 Bid Item No. 25: 4-INCH OR 6-INCH DIAMETER CIP SIDE SEWER REPAIR, REPLACEMENT OR CONSTRUCTION AND CLEANOUTS, AS NECESSARY (CONDITIONAL BID ITEM)
- A. CIP side sewer repair or replacement will be paid for by the number of each side sewers satisfactorily repaired or replaced, complete in place, as specified in Section 7.07 of SFDPW Standard Specifications and in Section 33 33 00. This bid item includes constructing cleanouts, shown on the H-Drawings.
- B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.
- 2.28 Bid Item No. 26: POST-CONSTRUCTION TELEVISION INSPECTION OF NEWLY CONSTRUCTED GRAVITY MAIN SEWERS, STORM DRAINS, CULVERTS, AND LATERALS
- A. Post construction television inspection of newly constructed gravity main sewers, storm drains, culverts, and laterals satisfactorily performed, as specified in Section 33 33 00 including all incidental work will be paid for at the lump sum price bid therefore.
- 2.29 Bid Item No. 27: EXPLORATORY HOLES (CONDITIONAL BID ITEM)
- A. Exploratory holes as instructed by the City Representative will be measured for payment by unit price in cubic yards (CY). Exploring test pit or pothole dimensions will vary in size and depths.
- B. This Bid Item includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, required for demolition, excavation, earthwork, importing of backfill material as required, testing, restoration of existing surfaces, including concrete pavement and asphalt wearing course, and all incidental work required for providing potholes.
- C. Payment for this Bid Item will be made at the contract unit price per individual unit satisfactorily completed.
- D. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Section 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.30 Bid Item No. 28: PLUG AND FILL EXISTING 6-INCH DIAMETER FORCE MAIN WITH SLURRY GROUT AS INDICATED ON H-DRAWINGS

- A. Plug and fill existing 6-inch diameter force main, including cleanouts, with slurry grout shall be measured for payment by the number of each cubic yard satisfactorily used, as specified in Section 302.04 and 302.06 of SFDPW Standard Specifications and shall be paid for at the Contract Unit Price.

2.31 Bid Item No. 29: CAST IRON WATER TRAP FOR CATCH BASIN TO REMAIN INCLUDING CLEANOUT CAP (PER SFDPW STANDARD PLAN 87,194) (CONDITIONAL BID ITEM)

- A. Cast iron water trap will be measured for payment by the number of each cast iron water trap, satisfactorily furnished and installed, as specified in Section 33 33 00, including all Incidental Work will be paid for at the unit price bid therefor.
- B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.32 Bid Item No. 30: IMPORT BACKFILL MATERIAL FOR SEWER WORK (CONDITIONAL BID ITEM)

- A. The Contractor shall be paid for transporting imported backfill material to the work site related to the sewer work at locations where undisturbed native soil has not been encountered. Payment shall be made at the Contract Unit Price per unit cubic yard of backfill material.
- B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Section 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.33 ~~Bid Item No. 31A : HIGH FLOW TRASH COLLECTION DEVICE – CROSSLINKED HIGH DENSITY POLYETHYLENE NOT USED~~

- A. ~~Furnish and install removable high flow trash collection device inside existing manhole at the locations shown on H-10 Drawing will be measured for payment by the number of each trash collection device and manhole satisfactorily constructed, complete in place, as specified in Section 33 33 00, as directed by the City Representative and will be paid for at the unit price bid therefor.~~

2.34 Bid Item No. 31B: HIGH FLOW TRASH COLLECTION DEVICE – DEFLECTIVE SEPARATOR

- A. Furnish and install removable high flow trash collection device inside new manhole with new frame and cover at the locations shown on H-10 Drawing, as directed by the City Representative will be measured for payment by the number of each trash collection device and manhole satisfactorily constructed, complete in place, as specified in Section 33 33 00, as directed by the City Representative and will be paid for at the unit price bid therefor.

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2.35 Bid Item No. 32: MECHANICAL WORK

- A. This bid item is to replace the existing Amador Street sanitary pump station and associated discharge force main pipe, fittings and appurtenances that ended at Amador Street utility corridor. The pump station will have four (4) sewage pumps and one (1) dewatering pump. The new sanitary pump station shall be equipped with automated, redundant instrument controls with provisions for future system expansion. Temporary gravity sewage pipe shall be installed to maintain continuous sewage pumping station operation. Refer to Drawing M-1 to M-7 for detail.

2.36 Bid Item No. 33: STRUCTURAL WORK

- A. This bid item is to demolish the existing concrete pump station, saw cut and remove a portion of the existing concrete wall, install a dewatering system, install a sheet pile shoring system, excavation within the shoring, installation of torque-down piling, installation of reinforcing steel and placement of concrete for the new pump station structure and slabs on grade, installation of steel beams, checkered plate decking, bollards, and incidental work. Demolish top portion of existing wet well and backfill wet well. This work shall be done while the existing sump pump and transfer system remains operational. Contractor shall bear all expense for the repair or replacement of the existing sump pump and transfer system should it be damaged during construction. Refer to Drawings S-1 to S-10.

2.37 Bid Item No. 34: ELECTRICAL WORK

- A. Payment for electrical work, interim electrical work, and selective demolition electrical work shall include material, labor, and equipment for performing all demolition, removal, salvage, disposal of electrical equipment and to satisfactorily furnish, install, and test all electrical equipment and appurtenances as shown on E-series drawings and as specified in specifications including, but not limited to establishing new utility service including metering pedestal, electrical distribution within the station, grounding and bonding, custom-fabricated control and power distribution enclosure, motor controllers, non-automatic transfer switch, mobile generator receptacle, panelboards, lighting, lighting controls, uninterruptible power supply system (UPS), Programable Logic Controller (PLC), antenna, pull boxes, junction boxes, conduits, wiring, and all incidental related electrical work necessary for a complete electrical system.

2.38 Bid Item No. 34A: ELECTRICAL WORK - INTERIM

- A. Payment for interim electrical work shall include material, labor, and equipment to satisfactorily furnish, install, and test all electrical equipment and appurtenances as shown on E-series drawings and as specified in specifications including, but not limited to the following:
1. Establish new utility service for the existing and new pump station including metering pedestal, establish power to the existing pump station combination meter main, grounding and bonding, non-automatic transfer switch and connector for emergency power back-up use during construction, conduits, wiring, testing and commissioning, and all incidental related electrical work necessary for a complete and operable electrical system.
 2. Provide emergency power back-up for the interim electrical system in the event of an electrical power outage and/or equipment failure throughout the construction period. Responsibility to monitor power outage events and

establishing back up power within 1 hour of the outage reside with the Contractor.

2.39 Bid Item No. 35: FULL DEPTH PLANING PER 2-INCH DEPTH OF CUT

- A. Full Depth Planning Per 2-Inch Depth of Cut shall be measured for payment as followings:
 - a. Full depth planning per 2-inch depth of cut will be measured by square foot of roadway surface completed in place.
 - b. Areas will be determined by the limits shown on the drawings unless otherwise directed by the Engineer.
 - c. No deductions will be made from the Contractor's payment for the inlet or other casting area itself.
 - d. General Conditions Section 6.08, B & C shall not apply to Bid Item "Full Depth Planning Per 2-Inch Depth of Cut".
- B. Full depth planning per 2-inch depth of cut will be paid for at the Contract unit price stated in the bid schedule for the computed quantities as determined by the measurement method specified above.

2.40 Bid Item No. 36: ASPHALT CONCRETE (Type A ½-Inch Maximum with Medium Grading)

- A. Asphalt Concrete paving shall be measured for payment as follows:
 - 1. Furnish a certified daily summary weight sheet in addition to either a public weighmaster certificate or a private weighmaster's certificate showing the number of tons of asphalt concrete placed.
 - 2. Obtain the signature of the Resident Engineer on the load tag for each load dumped on the job site and incorporated into the work. Payment will be made only on duplicate load slips delivered to the Resident Engineer at the time of signature and delivery.
- B. Asphalt Concrete (Type A, ½ Inch Medium Grading) installed and all necessary and/or required equipment and labor to install including trucking will be paid for at the Contract unit price stated in the bid schedule for the computed quantities as determined by the measurement method specified above.

2.41 Bid Item No. 37: 10-INCH THICK CONCRETE BASE

- A. 10-Inch Thick Concrete Base will be measured for payment by the actual area in square feet measured to the limits indicated on the Drawings, and will be paid for at the Contract unit price per square foot stated in the Schedule of Bid Prices.
- B. Saw cutting, removal and disposal of existing roadway base (concrete/asphalt/other), excavating, backfilling, preparation of subgrade to proper grade, compacting, and adjustment of manhole and catch basin frames and castings to new grade will be considered as Incidental Work.

- C. The City Representative may determine exact locations of concrete base work and may increase or decrease measurements shown on the Drawings or establish new concrete base work in the field.
- D. When concrete base is to be thickened at an edge in order to match the depth of a thicker adjacent pavement section, the thickened portion of the pavement shall be considered as Incidental Work.

2.42 Bid Item No. 38A: CONCRETE ROADWAY SWALE

- A. Concrete Roadway Swale, will be measured for payment by the actual square feet of concrete roadway swale measured in the field, and will be paid for at the Contract unit price per square foot stated in the Schedule of Bid Prices.
- B. Saw cutting, removal, and disposal of existing concrete swale, excavating, backfilling, form work, preparation of subgrade to proper grade, and compacting will be considered as Incidental Work.
- C. The City Representative may determine exact locations of swale work, and may increase or decrease measurements shown on the Drawings or establish new swale work in the field.

2.43 Bid Item No. 38B: 18-INCH WIDE CONCRETE SWALE

- A. 18-Inch Wide Concrete Swale, will be measured for payment by the actual length in linear feet of concrete roadway swale measured in the field, and will be paid for at the Contract unit price per linear foot stated in the Schedule of Bid Prices.
- B. Saw cutting, removal, and disposal of existing concrete swale, excavating, backfilling, form work, preparation of subgrade to proper grade, and compacting will be considered as Incidental Work.
- C. The City Representative may determine exact locations of swale work, and may increase or decrease measurements shown on the Drawings or establish new swale work in the field.

2.44 Bid Item No. 39: 6-INCH WIDE CONCRETE CURB

- A. 6-Inch Wide Concrete Curb, including dropped curbs at driveways will be measured for payment by the actual length in linear feet of concrete curb measured along the face of curb indicated on the Drawings, and will be paid for at the Contract unit price per linear foot stated in the Schedule of Bid Prices.
- B. Saw cutting, removal, and disposal of existing concrete curb, excavating, backfilling, form work, preparation of subgrade to proper grade, and compacting will be considered as Incidental Work. This Bid Item will not include the curb in combined curb and gutter.
- C. The City Representative may determine exact locations of curb work, and may increase or decrease measurements shown on the Drawings or establish new curb work in the field.

2.45 Bid Item No. 40: 6-INCH THICK CONCRETE DRIVEWAY PAVEMENT

- A. 6-Inch Thick Concrete Driveway Pavement will be measured for payment by the square foot to the limits indicated on the plans will be paid for at the Contract unit price per square foot stated in the Schedule of Bid Prices.
- B. Saw cutting and removal of existing concrete sidewalk, excavating, backfilling, preparing of subgrade to proper grade, compacting, removing tree roots as directed by the Bureau of Urban Forestry (BUF), installing reinforced steel bars in accordance with SFPW Standard Plan 96,608 revision 1, adjusting utility boxes in the sidewalk to finish grade, salvaging and reinstalling sidewalk plaques, grouting under and around street light poles and/or traffic signal poles, and the moving and reinstalling of mail boxes shall be considered as Incidental Work. Waterproofing required for sub-sidewalk basements shall be installed as incidental work.
- C. Only concrete driveway shown on the Drawings will be measured for payment. Concrete driveway required for pavement work for trench restorations not shown on the Drawings shall be considered to be Incidental Work.

2.46 Bid Item No. 41: CLASS II AGGREGATE BASE

- A. Class II Aggregate Base will be measured for payment by the cubic yard to the limits measured in the field, and will be paid for at the contract unit price. Saw cutting and removal of existing concrete base, excavating, backfilling, preparation of subgrade to proper grade, and compacting shall be considered as Incidental Work.
- B. Removal, and disposal of existing soils, asphalt, concrete, excavating, backfilling, preparation of subgrade to proper grade, and compacting will be considered as Incidental Work.

2.47 Bid Item No. 42: RAIL ROAD TRACK REMOVAL

- A. Rail Road Track Removal will be measured for payment by the linear foot measured in the field, and will be paid for at the contract unit price. Cutting and removal of existing rail, removal of asphalt, concrete base, excavating, backfilling, preparation of subgrade to proper grade, and compacting shall be considered as Incidental Work.
- B. Removal, and disposal of track, ties, ballast, soils, asphalt, concrete, excavating, backfilling, preparation of subgrade to proper grade, and compacting will be considered as Incidental Work.

2.48 Bid Item No. 43: ADJUST CITY-OWNED MANHOLE AND CATCH BASIN FRAME AND CASTING TO GRADE (CONDITIONAL BID ITEM)

- A. At locations of street resurfacing, the number and locations of manhole frames and catchbasin and castings to be adjusted in the field will be as determined by a joint inspection of the Contractor and the City Representative before the start of milling operation.
- B. Adjustment of existing manhole frames and catchbasin and castings will be measured for each casting satisfactorily adjusted.

- C. At locations of street base, parking strip, gutter, sidewalk, catchbasin, manhole, and curb ramp construction/reconstruction, adjustment of manhole frames and catchbasin and castings to new grade will be considered to be Incidental Work, and the number of frames and castings to be adjusted will not be measured for payment.
- D. This Bid Item will be paid for at the Contract unit price each stated in the Schedule of Bid Prices for the computed quantities as determined by the measurement method specified above.

2.49 Bid Item No. 44: ADJUST CITY-OWNED HYDRANT AND WATER MAIN VALVE BOX CASTING COVER TO GRADE (CONDITIONAL BID ITEM)

- A. At locations of street resurfacing, the number and locations of hydrant and water main valve box castings to be adjusted in the field will be as determined by a joint inspection of the Contract and the City Representative before the start of milling operation.
- B. Adjustment of existing hydrant and water main valve box castings will be measured for each casting satisfactorily adjusted. Refer to Section 32 17 53 – Adjustment of Frames and Castings.
- C. At locations of street base, parking strip, gutter, sidewalk, and curb ramp construction/reconstruction, adjustment of hydrant and water main valve box casting to new grade will be considered to be Incidental Work, and the number of castings to be adjusted will not be measured for payment.
- D. This Bid Item will be paid at the Contract unit price each stated in the Schedule of Bid Prices for the computed quantities as determined by the measurement method specified above.

2.50 Bid Item No. 45: LANDSCAPE WORK

- A. Measurement and payment for the demolition, saw cutting, disposal, and excavation of all existing paving materials, base rock and soils to specified depths in accordance with the Contract Documents will be paid for at the lump sum price bid therefore.
- B. Measurement and payment for the rough grading and compacting of soils, preparation of planting areas including importing soils, structural soils, and off-hauling soils in accordance with the Contract Documents will be paid for at the lump sum price bid therefore.
- C. Measurement and payment for the installation of permeable unit pavers on specified gravel profile on compacted subgrade in accordance with the Contract Documents will be paid for at the lump sum price bid therefore.
- D. Measurement and payment for the collection and transport of granite curbs from the City of San Francisco salvage yard on Treasure Island and delivering to the job site without any damage, and installing and mortaring curbs set in concrete footings around each stormwater planter in accordance with the Contract Documents will be paid for at the lump sum price bid therefore.
- E. Measurement and payment for the installation of mortared cobbles at the bioretention inlets at each stormwater planter in accordance with the Contract Documents will be paid for at the lump sum price bid therefore.

- F. Measurement and payment for the procurement and planting of 24" box trees as specified and all other shrub and plant material as specified in accordance with the Contract Documents will be paid for at the lump sum price bid therefore.
- G. Measurement and payment for the installation of cardboard weed barrier, and mulches and soil amendments in all specified planting areas in accordance with the Contract Documents will be paid for at the lump sum price bid therefore.
- H. Measurement and payment for the design, approval and provision of a shop drawing, installation of chain link fence and manual rolling gate complete with security latching devices in accordance with the contract documents to be paid for at the lump sum price bid therefore.

2.51 Bid Item No. 45A: LANDSCAPE ESTABLISHMENT PERIOD (CONTINGENCY BID ITEM)

- A. The contract lump sum price paid for 36-month long-term plant establishment period. Work includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in maintaining the components of the landscape planting as shown on the plans, and doing all other work as specified in Section 32 01 90 and applicable standards as referenced therein as specified in the applicable portions of the SF Public Works Standard Specifications, and as directed by the Engineer. 36-Month Long-Term Plant Establishment Period for Third Year, satisfactorily performed, as specified, will be paid for the at the Lump Sum price bid therefore, prorated for a 36-month period on a monthly basis.

2.52 Bid Item No. 46: ALLOWANCE FOR ENVIRONMENTAL WORK

Refer to Section 01 21 00 – Allowances.

2.53 Bid Item No. 47: ALLOWANCE FOR REMOVAL OF RAILROAD TRACK FACILITIES FROM THE SEWER AND STORM DRAIN TRENCH IF ENCOUNTERED BENEATH THE PAVEMENT AND WHERE INDICATED ON H-DRAWINGS AND OUTSIDE OF RAILROAD TRACK REMOVAL LIMITS ON C-DRAWINGS

- A. Refer to Section 01 21 00 – Allowances.

2.53 Bid Item No. 48: ALLOWANCE TO PERFORM NECESSARY WORK DUE TO UNFORESEEN CONDITIONS RELATED TO SEWER WORK UNDER H-DRAWINGS

- A. Refer to Section 01 21 00 – Allowances.

2.54 Bid Item No. 49: ALLOWANCE FOR SAN FRANCISCO UNIFORMED OFFICERS

- A. Refer to Section 01 21 00 – Allowances.

2.55 Bid Item No. 50: PARTNERING ALLOWANCE

- A. Refer to Section 01 21 00 – Allowances.

2.56 Bid Item No. WD-1A: EXCAVATION AND BACKFILL FOR 4-, 6- AND 8-INCH PIPE TRENCH

- A. Under this Item, the Contractor shall saw cut, excavate pipe trench to the dimensions specified in SFPUC CDD Standard Plan CDD-LP-002 for 4-, 6-, and 8-inch ductile iron pipe; furnish and install buried warning and identification tape; support and work around City utility facilities; remove abandoned utilities in conflict with the installation of the new main; store suitable excavated material to be used for trench backfill; place backfill materials; compact backfill materials; remove and dispose of concrete street base, pavement and unsuitable excavated materials.
- B. Payment shall be made at the unit bid price per linear foot of trench excavated and backfilled and shall include all necessary, related and incidental work including but not limited to dewatering. Measurements shall be made along the longer side of the pipe trench with the deductions for intersecting trenches.
- C. Supporting, working around and protecting of all utility facilities owned and operated by the City and County of San Francisco are considered as incidental work per provisions of the Contract Requirements Section 00 73 20 – Existing Utility Facilities and Section 00 73 21 – Utility Crossings Specifications.

2.57 Bid Item No. WD-1B: EXCAVATION AND BACKFILL FOR 16-INCH PIPE TRENCH

- A. Under this Item, the Contractor shall saw cut, excavate pipe trench to the dimensions specified in SFPUC CDD Standard Plan CDD-LP-002 to install 16-inch ductile iron pipe; furnish and install buried warning and identification tape; support and work around City utility facilities; remove abandoned utilities in conflict with the installation of the new main; store suitable excavated material to be used for trench backfill; place backfill materials; compact backfill materials; remove and dispose of concrete street base, pavement and unsuitable excavated materials
- B. Payment shall be made at the unit bid price per linear foot of trench excavated and backfilled and shall include all necessary, related and incidental work including but not limited to dewatering. Measurements shall be made along the longer side of the pipe trench with the deductions for intersecting trenches.
- C. Supporting, working around and protecting of all utility facilities owned and operated by the City and County of San Francisco are considered as incidental work per provisions of the Contract Requirements Section 00 73 20 – Existing Utility Facilities and Section 00 73 21 – Utility Crossings Specifications.

2.58 Bid Item No. WD-1C: FURNISH AND INSTALL SAND BACKFILL (CONDITIONAL BID ITEM)

- A. This Bid Item shall include all work described as follows:
- B. This pay item shall include full compensation for all labor, material and equipment necessary to furnish and transport import sand for water work in the event that the excavated material is deemed to be unsuitable soil for reuse as backfill as specified in Section 31 23 36.

- C. Handling and transportation of existing soil within the project site or to the Contractor's intermediate staging area is incidental work and not covered by this bid item.
- D. Transportation costs shall include all transportation, and other incidentals such as compliance with transportation regulations, scheduling, staging, loading and unloading times and fees, covering of trucks, multiple handling and loading, tractor and truck stand-by and idle times, transportation round trip times and rates, load charges, and delays or demurrage due to such scheduling.
- E. Payment for this Bid Item will be made at the Contract Unit Price per US short ton as indicated in the Schedule of Bid Prices. For payment, the Contractor shall submit a copy of the weight tickets.

2.59 Bid Item No. **WD-2**: ADDITIONAL EXCAVATION AND BACKFILL

- A. Under this Item, the Contractor shall perform additional excavation, dispose of excavated soils that are unsuitable for backfill, excluding contaminated soils, place backfill and compact backfill material as specified in Section 31 23 36 – Excavation and Backfill or as required by the City Representative. Additional excavation and backfill is earthwork that is not covered by other excavation and backfill bid items in the bid schedule.
- B. The volume to be paid for will be measured as the number of cubic yards of material excavated at locations directed by the City Representative and will not include any excavation properly classified as trench excavation or excavation paid for by other bid items.
- C. Payment for additional excavation and backfill will be paid for at the bid price per cubic yard and shall include all necessary, related and incidental work including but not limited to dewatering.

2.60 Bid Item No. **WD-3**: REMOVAL AND INSTALLATION OF METER BOX

- A. Under this Item, the Contractor shall remove and install meter boxes, including excavation and disposal of existing meter-boxes, sidewalk pavement and other materials; setting of new meter boxes to grade; furnishing and placing backfill material; and all other work required to remove and install new meter boxes. Payment shall be made at the unit bid price for each meter box removed and installed and shall include all necessary, related and incidental work. The removal of sidewalk required for meter box removal and installation shall be measured and paid for under the Bid Item for Additional Excavation and Backfill.

2.61 Bid Item No. **WD-4A**: FURNISHING OF 4-, 6-, AND 8-INCH DUCTILE IRON TYTON JOINT AND FLANGE JOINT PIPE

- A. Under this Item, the Contractor shall furnish, store, load, and haul 4-, 6- and 8-inch Tyton joint pipe, flange joint pipe, gaskets, and joint restraints all as indicated in the specifications or as directly by the City Representative.
- B. Payment shall be made at the unit bid price per linear foot of pipe furnished, and shall include additional restraints as required, all necessary, related and incidental work. Only pipe installed as part of the project shall be eligible for payment. Any surplus materials are the property of the contractor.

- 2.62 Bid Item No. **WD-4B**: INSTALLATION OF 4-, 6- AND 8-INCH DUCTILE IRON TYTON JOINT AND FLANGE JOINT PIPE WITH POLYETHYLENE ENCASEMENT
- A. Under this Item, the Contractor shall load, haul and install 4-, 6- and 8-inch pipes; make restrained joints using restrained gaskets; place anchors; furnish and install polyethylene encasement tube over ductile iron pipeline installed by the Contractor and SFWD personnel including two layers where horizontal clear distance is less than 10 feet from the sewer main; perform satisfactory hydrostatic test as shown on the plans or as directed by the City Representative. Only pipe installed as part of the project shall be eligible for payment. Any surplus materials are the property of the contractor.
- B. Payment shall be made at the unit bid price per linear foot of pipe installed by the Contractor as measured along the crest of the pipes as laid and shall include all necessary incidental and related work. The length of fittings installed under the Bid Item for Installation of 4-, 6- and 8-Inch Ductile Iron Fittings with Polyethylene Encasement shall not be included in the payment under this item.
- 2.63 Bid Item No. **WD-4C**: FURNISHING OF 16-INCH DUCTILE IRON RESTRAINED PUSH-ON JOINT PIPE
- A. Under this Item, the Contractor shall furnish, store, load, and haul 16-inch restrained push-on joint pipe, gaskets, and joint restraints all as indicated in the specifications or as directly by the City Representative.
- B. Payment shall be made at the unit bid price per linear foot of pipe furnished, and shall include additional restraints as required, all necessary, related and incidental work. Only pipe installed as part of the project shall be eligible for payment. Any surplus materials are the property of the contractor.
- 2.64 Bid Item No. **WD-4D**: INSTALLATION OF 16-INCH DUCTILE IRON RESTRAINED PUSH-ON JOINT PIPE WITH POLYETHYLENE ENCASEMENT
- A. Under this Item, the Contractor shall load, haul and install 16-inch restrained push-on joint pipes; make restrained joints using split locking rings and restraining gaskets; place anchors; furnish and install polyethylene encasement tube over ductile iron pipeline installed by the Contractor and SFWD personnel including two layers where horizontal clear distance is less than 10 feet from the sewer main; perform satisfactory hydrostatic test as shown on the plans or as directed by the City Representative. Only pipe installed as part of the project shall be eligible for payment. Any surplus materials are the property of the contractor.
- B. Payment shall be made at the unit bid price per linear foot of pipe installed by the Contractor as measured along the crest of the pipes as laid and shall include all necessary incidental and related work. The length of fittings installed under the Bid Item for Installation of 16-Inch Ductile Iron Fittings with Polyethylene Encasement shall not be included in the payment under this item.
- 2.65 Bid Item No. **WD-5A**: FURNISHING OF 4-, 6- AND 8-INCH DUCTILE IRON FITTINGS

- A. Under this Item, the Contractor shall furnish, store, load and haul 4-, 6-, and 8-inch Tyton joint fittings, mechanical joint fittings, flange joint fittings, gaskets, and joint restraints all as indicated in the specifications or as directed by the City Representative.
- B. Payment shall be made at the unit bid price per pound of fittings furnished, and shall include additional restraints as required, all necessary, related and incidental work. The total to be paid for will be the number of pounds of fittings as computed from a table of standard weights for the class and make of the materials installed. Only fittings installed as part of the project shall be eligible for payment. Any surplus materials are the property of the Contractor.

2.66 Bid Item No. **WD-5B**: INSTALLATION OF 4-, 6- AND 8-INCH DUCTILE IRON FITTINGS WITH POLYETHYLENE ENCASUREMENT

- A. Under this Item, the Contractor shall load, haul, install, restrain, and protect Tyton joint fittings, joint restraints and all other appurtenances to be incorporated in the work; furnish and install polyethylene encasement tube over ductile iron pipe fittings installed by the Contractor and SFWD personnel shown on the plans or as directed by the City Representative. Only fittings installed as part of the project shall be eligible for payment. Any surplus materials are the property of the Contractor.
- B. Payment shall be made at the unit bid price per pound of fittings installed, and shall include additional restraints as required, all necessary, related and incidental work. The total to be paid for will be the number of pounds of fittings as computed from a table of standard weights for the class and make of the materials installed.

2.67 Bid Item No. **WD-5C**: FURNISHING OF 16-INCH DUCTILE IRON FITTINGS

- A. Under this Item, the Contractor shall furnish, store, load and haul 16-inch restrained push-on joint fittings, mechanical joint fittings, gaskets, and joint restraints all as indicated in the specifications or as directed by the City Representative.
- B. Payment shall be made at the unit bid price per pound of fittings furnished, and shall include additional restraints as required, all necessary, related and incidental work. The total to be paid for will be the number of pounds of fittings as computed from a table of standard weights for the class and make of the materials installed. Only fittings installed as part of the project shall be eligible for payment. Any surplus materials are the property of the Contractor.

2.68 Bid Item No. **WD-5D**: INSTALLATION OF 16-INCH DUCTILE IRON FITTINGS WITH POLYETHYLENE ENCASUREMENT

- A. Under this Item, the Contractor shall load, haul, install, restrain, and protect restrained push-on joint and mechanical joint fittings, joint restraints and all other appurtenances to be incorporated in the work; and furnish and install polyethylene encasement tube over ductile iron pipe fittings installed by the Contractor and SFWD personnel as shown on the plans or as directed by the City Representative. Only fittings installed as part of the project shall be eligible for payment. Any surplus materials are the property of the Contractor.
- B. Payment shall be made at the unit bid price per pound of fittings installed, and shall include all necessary, related and incidental work. The total to be paid for will be the

number of pounds of fittings as computed from a table of standard weights for the class and make of the materials installed.

2.69 Bid Item No. **WD-6A**: FURNISHING AND INSTALLATION OF 4- AND 6-INCH DUCTILE IRON GATE VALVES

- A. Under this Item, the Contractor shall install valve boxes and furnish, store, load, haul and install 4- and 6-inch ductile iron Tyton joint and mechanical joint gate valves with Field Lok gaskets, tie rods, EBAA Megalug mechanical joint restraints or other restraint devices at the locations as shown on the plans or as directed by the City Representative.
- B. Payment shall be made at the unit bid price per each gate valve installed including valve box and cover and shall include additional restraints as required, all necessary, related and incidental work.

2.70 Bid Item No. **WD-6B**: FURNISHING AND INSTALLATION OF 16-INCH DUCTILE IRON GATE VALVES

- A. Under this Item, the Contractor shall install valve boxes and furnish, store, load, haul and install 16-inch ductile iron mechanical joint gate valves with EBAA Megalug mechanical joint restraints at the locations as shown on the plans or as directed by the City Representative.
- B. Payment shall be made at the unit bid price per each gate valve installed including valve box and cover and shall include additional restraints as required, all necessary, related and incidental work.

2.71 Bid Item No. **WD-7**: FURNISHING AND INSTALLATION OF 2-INCH AIR VALVE/BLOW OFF ASSEMBLY

- A. Under this Item, the Contractor shall furnish, load, haul and install 2-inch air valve/blow off assemblies at the locations as shown on the plans or as directed by the City Representative.
- B. Payment shall be made at the unit bid price per each valve installed including valve box and cover and shall include all necessary, related and incidental work. The installation of screw taps for 2-inch air valve/blow off shall be paid under the Bid Item for Installation of Screw Taps.

2.72 Bid Item No. **WD-8**: TRENCH SHORING AND BRACING PER ALL APPLICABLE SAFETY ORDERS (CONDITIONAL BID ITEM)

- A. Under this Item, the Contractor shall furnish, install and maintain an approved shoring system for excavation of five (5) feet or more in depth, including all incidental and related work thereto.
- B. Installation and removal of shoring system in excavations less than 5 feet in depth required for Water Department crews to install connections will be considered as incidental work under the appropriate bid items for excavation and backfill of pipe trench.

- C. This is a conditional bid item. Since it is possible that none, some, or additional quantity specified in this item may be used, General Conditions Sections 6.08 B and C do not apply for work under this bid item.
- D. Payment will be paid for at the bid price per square foot of actual shoring material installed against the sides of the excavation and shall include all necessary, related and incidental work.

2.73 Bid Item No. **WD-9**: FURNISHING AND INSTALLATION OF SCREW TAPS

- A. Under this Item, the Contractor shall furnish, store, load, haul, drill, tap and install all screw taps with or without saddles per SFPUC CDD Standard Plans for 1-inch, 2-inch services and 2-inch air valves/blow offs as shown on drawings or as required by the City Representative.
- B. Payment shall be made at the unit bid price per each screw tap installed, and shall include all necessary, related and incidental work.
- C. The number and sizes of screw taps as shown on the Bid Sheet are approximate only. The City Representative will determine the actual amount and size in the field. The Contractor shall not make any claims for any extra payments due to these changes.

2.74 Bid Item No. **WD-10**: SUPPORT FOR INSTALLATION OF SERVICE PIPE – OPEN CUT

- A. Under this Item, the Contractor shall remove pavement, excavate 1-foot wide service trench, backfill, and compact to support SFWD installation of service pipe and fittings.
- B. Payment shall be made at the unit bid price per linear foot of service trench excavated and backfilled and shall include pavement restoration and all necessary, related and incidental work except milling and filling.
- C. The total length to be paid for will be the number of feet of service trench excavated and backfilled as measured horizontally between the screw tap in the main and the stop cock at the service meter inlet.
- D. The length and sizes of service pipes as shown on the Bid Sheet are approximate only. The City Representative will determine the actual length and size in the field. The Contractor shall not make any additional claims for extra payment due to these changes.

2.75 Bid Item No. **WD-11**: REMOVAL OF SFWD – OWNED VALVE BOXES AND COVERS

- A. Under this item, the Contractor shall remove all existing SFWD valve boxes and return all existing SFWD valve covers that are to be abandoned in this contract or as directed by the City Representative.
- B. Payment shall be made at the unit bid price per each valve box and cover removed, regardless of the size of each valve box and cover, and shall include the pavement saw cutting, backfilling, roadway restoration and all necessary, related and incidental work.

2.76 Bid Item No. **WD-12**: PIPE ABANDONMENT

- A. This Bid Item shall include full compensation for furnishing all labor, material, equipment, and incidental work necessary to remove and fill abandoned water mains larger than 8-inch in diameter with concrete slurry, and will be paid for at the Contract unit price per linear foot stated in the Schedule of Bid Prices.

2.77 Bid Item No. **WD-13**: ALLOWANCE FOR FURNISHING AND INSTALLING HYDRANT BOLLARDS FOR NEW LOW PRESSURE FIRE HYDRANTS

- A. Refer to Section 01 21 00 – Allowance.

2.78 Bid Item **WD-14**: CONDITIONAL ALLOWANCE FOR UNFORESEEN CONDITIONS RELATED TO WATER WORK

- A. Refer to Section 01 21 00 – Allowances.

2.79 Bid Item No. **WD-15**: CONDITIONAL ALLOWANCE FOR WORKING OUTSIDE NORMAL WORK HOURS

- A. Refer to Section 01 21 00 – Allowances.

2.80 Bid Item No. **WD-16**: CONTRACT SAFETY REQUIREMENTS

- A. Refer to Section 01 21 00 – Allowances.

THE FOLLOWING WORK SHALL BE DONE AS INCIDENTAL WORK:

1. Connections to and between sewers, structures and culverts.
2. Cleaning existing sewers by flushing with high velocity hydro-cleaning equipment prior to excavation and removal.
3. High velocity hydro-clean main sewers immediately prior to television inspection.
4. Removing and/or abandoning existing sewers, manholes and structures.
5. Cleaning and disposing of waste materials inside existing catch basins and storm water inlets located within the project limit and to remain.
6. Saw cutting, removing, and disposing of the existing pavement.
7. Street excavation, backfilling and compaction, satisfactorily performed.
8. Restoration of concrete base in T-trench, parking strip, concrete curb, concrete sidewalk, median islands, traffic islands, and landscaping within the sewer trench to pre-construction conditions.
9. Restoration of pavement, speed bump, parking strip, curb, sidewalk, landscaping and driveway damaged by the Contractor or caused to be damaged due to the Contractor's defective shoring system will be done by the Contractor at his/her own expense.

10. Filling of excess saw cut lines on the pavement with sealant.
11. Concrete thrust blocks.
12. All costs of work in the remaining portions of Section 31 23 33, 32 12 66, and 33 33 00 shall be included in the items of the bid schedule to which such work is appurtenant.
13. Preparation of subgrade for paving to proper grade, including excavation, backfilling, and compacting shall be considered incidental to the pavement restoration work.
14. Restoration of temporary pavement within sewer trench with hot patch ACWS, if required, and as directed by the City Representative.
15. Preserving Survey Monuments per City Order No. 178,940.
16. Reestablishing City Survey Monuments per City Order No. 178,940, if disturbed, and for which a bid item has not been provided.
17. Furnishing and installing AASHTO M288, Class 2, Non-Woven Geotextile Fabric.
18. Supporting and working around existing Governmental utilities, including but not limited to, San Francisco Water Department (SFWD), Auxiliary Water Supply System (AWSS), train tracks, etc., encountered within the limits of the sewer trench, unless otherwise noted in the Contract Documents.
19. Furnishing As-Built Drawings.
20. Furnishing of post-construction television inspection DVD and log for newly constructed main sewers.
21. Furnishing and installing eccentric reducers as needed.
22. Furnishing and installing pipe to pipe connections using mechanical shear band repair couplings.
23. Bond breaker for force main and cleanouts inside concrete manholes.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 33 33 00
SANITARY SEWERAGE UTILITIES
ADDENDUM 03

PART 1—GENERAL

1.01 DESCRIPTION

- A. The work specified in this Section shall include:
1. Constructing 6-inch diameter HDPE SDR 17 with fused joints force main and fittings on crushed rock encasement wrapped in geotextile fabric;
 2. Constructing 6-inch diameter HDPE SDR 17 with fused joints force main in 10-inch diameter steel casing by pipe jacking method, and filling annular space with non-shrink grout.
 3. Constructing 16-inch diameter HDPE SDR 17 with fused joints on crushed rock encasement wrapped in geotextile fabric.
 4. Constructing 8-inch bell and spigot type extra strength vitrified clay pipe (VCP) sewer.
 5. Constructing 10-inch diameter VCP culverts.
 6. Constructing 10-inch diameter VCP culvert with concrete encasement.
 7. Constructing 12-inch and 15-inch diameter Class V RCP on crushed rock bedding wrapped in geotextile fabric.
 8. Construction of concrete manholes with new frame and cover.
 9. Installing HDPE cleanouts and air valve assembly inside manholes.
 10. Installing Controlled Density Fill inside manholes.
 11. Furnishing and installing High Flow trash collection devices.
 12. Applying mortar to the interior of existing manholes including riser.
 13. Removing existing railroad track facilities within sewer and force main trench.
 14. Reinstating existing laterals, roof leaders and culverts as necessary and as per City Representative to construct force main and storm drain.
 15. Testing, handling, transportation and disposal of hazardous excavated materials and contaminated soils including all incidental work, if necessary.
 16. Plugging and filling existing force main, sewers and sewer structures.
 17. Furnishing and installing connections to and between sewers, structures and culverts.
 18. Furnishing and installing pipe to pipe connections using mechanical shear band repair couplings.
 19. Reconstructing pavement inside the sewer T-trench limit and outside of paving work limits under C-drawings with 10-inch thick concrete base.
 20. Reconstructing pavement as per excavation code or as shown in project plans.
 21. Potholing as directed by City Representative.
 22. At the conclusion of the Work, cleaning existing catch basins located within the limits of Work.
 23. Performing necessary Work due to unforeseen conditions related to sewer and drainage work.
- B. Earthwork and pavement restoration work required for the work of this Section shall be considered incidental work.

1.02 RELATED SECTIONS

- A. Section 31 23 33, Trenching and Backfilling
- B. Section 32 12 16, Asphalt Paving
- C. Section 33 01 30.63, Sewerage System Mortar Rehabilitation.
- D. Section 33 41 00.10, Reinforced Concrete Pipe

1.03 REFERENCES

- A. San Francisco Department of Public Works Standard Specifications, latest revision.
- B. DPW Standard Plans, latest revision.
- C. ANSI/ASTM C12, Practice for Installing Vitrified Clay Pipe (VCP) Lines.
- D. ANSI/ASTM C425, Compression Joints for Vitrified Clay Pipe (VCP) and Fittings.
- E. Material Designation - Plastic Pipe Institute/ASTM - PE3408.
- F. ASTM F2620, D1348, D2657, D3350 - Joints for HDPE and Fittings.
- G. Material Classification - ASTM D-1248 - Type III Class C.5.P34.
- H. ASTM F-714 - Standard Specification for Polyethylene Plastic Pipe Based on Outside Diameter.
- I. ANSI/AWWA – Standard Specifications for Ductile Iron Pipe (DIP).

1.04 SUBMITTALS

- A. The Contractor shall furnish six (6) copies of the following:
 - 1. Certified report of the actual test results for precast components of concrete manholes meeting the requirements of ASTM C478 for approval by City Representative in accordance with the requirements of Section 310 of the SFDPW Standard Specifications.
 - 2. Certified report of the actual test results for Class V RCP pipes meeting the requirements of ASTM C76 for approval by City Representative in accordance with the requirements of Section 304.06 of the San Francisco Public Works Standard Specifications.
 - 3. Certified report for manhole frame and cover meeting the requirements of ASTM A-48 for approval by City Representative.
 - 4. Certified report for Geotextile fabric meeting the requirements of AASHTO M288 Class 2 non-woven.
 - 5. Steel casing pipe design and fabrication detail.
 - 6. Certified report for chemical resistant polymer epoxy coating for concrete manholes.
 - 7. Certified report of the actual test results for HDPE pipe meeting the requirements of ASTM D-3350 for approval by the City Representative.
 - 8. Written certification that the fusion technician has received training in the proper use of fusion equipment and manufacturer's recommended fusion procedures.
 - 9. 2-inch air valve and blow off assembly details.
 - 10. Manufacturer's product data sheets and installation instructions for wet spray mortar.
 - 11. Independent laboratory reports proving performance properties of wet spray applied mortar mix.
 - 12. Manufacturer's warranty and warranty application procedures.
 - 13. Nozzle men's certification.
 - 14. Detectable warning tape for sewer trench.
 - 15. Mechanical shear band repair coupling with external stainless-steel band to be used for all 6-inch, 8-inch, and 10-inch diameter VCP pipe to pipe connections and for larger VCP main sewer repairs.

16. High flow trash collection device with new concrete manhole.

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PART 2—PRODUCTS

2.01 MATERIALS

- A. VCP used in this Contract shall be in accordance with the applicable requirements of Section 305 and 306 of the SFDPW Standard Specifications.
- B. Mechanical shear band repair couplings with external stainless-steel bands used for VCP connections shall meet or exceed ASTM Specification C425. Pipe to pipe deflections cannot exceed allowable tolerances per manufacture recommendations to ensure watertight seal and achieve the required structural strength. Per SFDPW Standard Specifications, **no angled pipe cutting, or mitered joints** will be permitted for making VCP to VCP pipe connections. VCP elbows and fittings shall be utilized where directed in the contract documents, SFDPW Standard plans, or when directed by the City Representative.
- C. VCP main sewers and fittings for pipe diameter 12-inch and larger shall be of bell and spigot type unless directed by City Representative.
- D. RCP pipes used in this contract shall be constructed in accordance with Section 33 41 00.10-Reinforced Concrete Pipe and Section 304 of San Francisco Public Works Standard Specifications.
- E. Manholes shall be constructed of precast Concrete Sections in accordance with ASTM C 478 or cast in place in accordance with the applicable requirements of Section 303 of the SFDPW Standard Specifications and in accordance with SFDPW Standard Drawing 87,181 and as shown on the Contract Drawings. Manhole frame and cover shall be in accordance with SFDPW Standard Drawing 87,190 or as specified on the Contract Drawings. Manhole rungs and steps are deleted from the Contract.
- F. Crushed rock bedding shall comply with the requirements of Section 703.05 and 712 of SFDPW Standard Specifications.
- G. Geotextile fabric shall be AASHTO M288, Class 2, Non-Woven.
- H. Certified reports of 10-inch diameter steel casing with minimum 1/2-inch wall thickness.
- I. HDPE pipes shall conform to ASTM Standard D-3350 and shall have nominal diameter as indicated on the contract plans and with fused joints.
- J. Cast-iron water trap for catch basin shall be constructed in accordance with San Francisco Public Works Standard Drawing 87,194 meeting the requirements of ASTM A-48. Cleanout cap for cast iron water trap shall be "T" cone expandable cleanout plug S-802 of ETCO Specialty Products, Inc. from Groeniger and Co. or approved equivalent.
- K. Detectable warning tape shall be 6-inch wide 5-MIL thick green metallic warning tape with words "CAUTION: BURIED SEWER".
- L. ~~High flow removable trash collection device crosslinked high density polyethylene "Downstream Defender" by Hydro International, suitable for installation on concrete, conforming to the requirements in the Contract Plans, or approved equivalent.~~
- M. High flow removable trash collection device with new concrete manhole "JDS72-3636 Jensen Deflective Separator", conforming to the requirements in the Contract Plans, or approved equivalent.
- N. Mortar Material shall be as specified in Section 33 01 30.63 of these Specifications.
- M. Hydraulic Cement shall be premixed Portland cement based hydraulic cement consisting of Portland cement, graded silica aggregates, special plasticizing and accelerating agents. It shall not contain chlorides, gypsum, plasters, iron particles or gas forming agents, or

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promote the corrosion of steel it may come in contact with. It shall be formulated at the factory and supplied in factory sealed and labeled pre-measured containers, which shall contain the complete quantity of materials required for this work. Invert patch compound shall be used to fill minor voids and cracks, to bring substrates up to profile, to provide watertight seals at invert, lateral line and house connections. The fast setting hydraulic cement patch is designed to be troweled or knead applied and capable of providing a watertight seal when cured and shall conform to the following specifications:

<u>Property</u>	<u>ASTM Test</u>	<u>Result</u>
Set Time	ASTM C-191-92	3 – 5 min
Compressive Strength	ASTM C-109-91	
1 Hour		700 psi
1 Day		2,000 psi
28 Days		5,500 psi

PART 3—EXECUTION

3.01 EXAMINATION

- A. The Contractor shall verify that trench is ready to receive work and excavations, dimensions and elevations are as indicated on drawings.

3.02 PREPARATION

- A. Clean existing sewers to be replaced with high velocity hydrocleaning equipment before excavation, if required.
- B. All high-velocity sewers cleaning equipment shall be truck-mounted for ease of operation. The equipment shall have a minimum of 500 feet of 1-inch ID high-pressure hose with a selection of cleaning nozzles.
- C. The equipment shall have a minimum working pressure of 1,000 pounds per square inch. The nozzles shall be capable of producing a scouring action from 15 to 45 degrees in all size lines designated to be cleaned.
- D. All sludge and dirt shall be flushed downstream within the sewer system and shall not cause line stoppage due to heavy accumulation. If removal of debris is necessary to prevent stoppage in the sewer system downstream, Contractor shall notify the City Representative immediately. Sludge, dirt, sand, or other solids shall not be removed from the sewer system unless directed by the City Representative.
- E. The Contractor shall hand trim excavations to required elevations. Correct over-excavation with crushed rock.
- F. The Contractor shall remove large stones or other hard matter, which could damage piping or impede consistent backfilling or compaction.

3.03 BEDDING

- A. Bedding shall be crushed rock as specified in Section 31 23 33 of these specifications and shown in the contract plans.
- B. Bedding material shall be placed as shown on the contract plans. Care shall be taken to completely fill all spaces under the haunches.

3.04 MANHOLES AND STRUCTURES

- A. Manholes shall be constructed as detailed on the Contract Drawings and in accordance with SFDPW Standard Drawing 87,181, as shown and at the locations shown on the Contract Drawings.
- B. Construction of manholes shall be in accordance with Section 310 of the SFDPW Standard Specifications. Manholes elected by Contractor to be cast-in-place shall be constructed in accordance with the applicable requirements of Section 303 of the SFDPW Standard Specifications.
- C. Concrete base of new manholes shall have reinforcing steel, be allowed to set overnight, at the minimum time, and shall not be subjected to any load on the same day the concrete base was poured. No. 4 steel reinforcement is required in concrete base for Standard Drawing 87,181.
- D. All new or salvaged manhole frames and covers to be used on new manholes shall be in accordance with the SFDPW Standard Drawing 87,190, or as indicated in the Contract Drawings, or as directed by the City Representative.
- E. All manhole frames shall be set in cement mortar.
- F. Maximum distance between the pavement and top of the manhole cone shall be 15 inches or as directed by the City Representative.
- G. Side sewer connections to the manhole shall not be more than 12 inches higher than the manhole invert.
- H. Dimensions of manhole base shall be increased as necessary to accommodate connections to these manholes.
- I. Chemical resistant polymer epoxy coating shall be applied to the entire invert of the concrete manhole, where indicated on the Contract Drawings.

3.05 INSTALLATION OF MAIN SEWER

- A. The Contractor shall have available at all times either (1) a transit and rod or (2) a sewer laser beam instrument suitable for transferring elevations from established points to the sewer work. The spirit level, taut string, and/or straight edge will not be acceptable for sewer construction work.
- B. VCP main sewer and storm drain shall be installed in accordance with the requirements of Section 305.07 of the SFDPW Standard Specifications.
- C. HDPE main sewer shall be installed in accordance with the requirements of Section 322 of the SFDPW Standard Specifications.
- D. Lay pipe to slope gradients noted on the Contract Drawings, unless conform elevation conflicts with the slope, in which case, conformance to existing elevations takes precedence.
- E. The Contractor shall not use soil mounds or any blocking to bring the pipe to grade. The Contractor shall not apply pressure to the top of the pipe, such as with a backhoe bucket, to push the pipe down to grade.
- F. Refer to Section 31 23 33 for trenching, backfill, bedding and compaction requirements.
- G. Refer to Section 33 41 00.10 for further detail regarding RCP installation.
- H. Refer to SFDPW Standard Plan 87,195 for details on reinforced concrete encasement for vitrified clay pipe.
- I. The Contractor shall furnish and install detectable warning tape as indicated in detail on contract plans.

3.06 MORTAR APPLICATION

- A. Mortar shall be applied as to fully adhere while being free of voids and rebound.
- B. Finishing: Steel trowel to a hard, dense surface within twenty (20) minutes of the spray-on application and/or as directed by the City Representative.

3.07 INSTALLATION OF 10-INCH DIAMETER STEEL CASING AND HDPE PIPE BY TRENCHLESS OPERATION

- A. This is a system for installing underground pipe without excavation. All materials and equipment for this work shall be furnished by the Contractor. Contractor shall exercise extreme care not to cause damage to the existing structures. Any damage to existing structures because of work performed by the Contractor shall be fully repaired and restored and cleaned up to the satisfaction of the City Representative, at the Contractor's expense.
- B. Excavation and backfill of pits:
 - 1. The installation pits shall be adequately shored to safeguard the equipments and to ensure against ground movement. All pits shall at all times be adequately barricaded from public access and for the protection of workers.
 - 2. Insertion pits shall be efficiently located so that total number of pits is minimized and footage of liner pipe installed in a single pull is maximized. Where possible, use existing trench for insertion pits.
 - 3. Dimension of pits shall be of necessary size, shape and depth as required for sheeting and bracing and for proper performance of the work.
 - 4. Pits shall be dug with minimum length and width dimensions and to the depth necessary for installation of HDPE pipes. The pits shall be kept dry at all times. Where the bottom is not firm, a layer of crushed rock shall be placed on the bottom to provide working surface. Where a utility goes through a pit, it shall be adequately supported and protected.
 - 5. Backfill of pits shall be as specified for trenches.
 - 6. The pits shall be sheeted and dewatered at all times. The Contractor shall furnish and install equipment to keep the pit free of excess water. The Contractor shall also provide surface protection during the period of construction so that surface runoff does not enter the pit. The dewatering method used shall not cause damage to adjacent structures or property due to lowering of the water table and subsequent ground settlement. In the event any damage does occur, the Contractor shall be fully responsible for correction of damage and/or settlement of any claims arising from such damage.
- C. The steel casing pipe shall be 10-inch outside diameter. Contractor shall determine appropriate wall thickness, minimum 1/4-inch thick, of the steel casing pipe to accommodate the installation of the carrier pipe.
- D. HDPE Pipe Insertion
 - The installation forces on the pipe shall be kept to a minimum.
 - Where a continuous length of pipeline is butt fused prior to insertion, the length of insertion pipe shall be defined below:
 - 1. The bottom of the pit shall be horizontal and its length shall not be less than 12 times the diameter of the inserted pipe.
 - 2. The rear sloping face of the pit shall be not less than 30 time the diameter of the pipe.

3. The radius of curvature of the inserted pipe shall not be less than 30 times the diameter of the pipe.

Maximum force to be within stress limits of the pipes.

Where a device is employed to exert force on the rear of the inserted pipe lengths, the force applied to the inserted pipe shall be evenly distributed around the wall of the pipe.

Where lengths of pipe are jointed and a device is employed to exert force to the rear of the inserted pipe lengths, precautions will be taken by the Contractor to ensure that no buckling crushing or twisting of the pipe takes place.

Where lengths of HDPE pipe are pushed, there is no relaxation time required to allow pipe to return to its original length.

- E. Upstream and Downstream Manholes

At the upstream and downstream ends of the pipes, it shall be cut in an approved manner so that 2 inches of pipe protrudes into the manhole. The invert of the manhole shall be suitably prepared such that a smooth transition shall be made from the existing pipe work to the new pipe.

To seal the HDPE pipes in the manholes at the entry and exit points, the ends of the pipes are surrounded in concrete, which forms part of the manhole base. Additional methods, such as mechanical anchoring systems, may be employed for this operation.

- F. Contractor shall fill the annular space between casing and carrier pipe with slurry grout. Contractor shall prevent carrier pipe from floating when filling the annular space with slurry grout. Contractor shall provide end seals (caps) at the end of the steel casing.

- G. Testing

The new pipe shall be tested for acceptance following a 25 psi test procedure. Testing shall be in accordance with ASTM F2164 for hydrostatic pressure leak test of PE pressure piping systems, and as directed by City Representative.

3.08 SIDE SEWER (LATERAL) AND CULVERT T.V. INSPECTION AND ABANDONING INACTIVE SIDE SEWER (LATERAL) AND CULVERTS

- A. General

All existing active side sewers interiors and culverts shall be inspected by CCTV with high resolution camera (minimum 640x480 pixels) and delivered with original resolution in MPEG format on DVD media, prior to paving, to evaluate if their structural condition warrants replacement and ensure quality and craftsmanship of assets delivered, respectively. These side sewers shall be televised either from the side sewer air vent or inside open main sewer trench. As directed by the City Representative, Contractor may be asked to televise side sewers and culverts located outside the limits mentioned but within paving contract limit. The Contractor shall record the locations and the extent of pipe defects as to leakage, bad and offset joints, constricted inside diameter, sagging lines, obstruction due to roots intrusion, broken, cracked, and collapsed pipe of each active side sewer/culvert by video and voice recording. The number and locations of existing active side sewers, roof leaders and culverts as indicated on the sewer plan and to be televised are approximate only, and may be increased, decreased or deleted as directed by the City Representative. The Contractor shall provide and furnish the City with a copy of the "T.V. Inspection Log and DVD" to the Resident Engineer.

DVD submitted by the Contractor should have a typed label on the front of the DVD providing the following information:

1. Contract ID Number (#)
2. Street Names with Limits
3. Side Sewer TV Inspection

4. Contract Title

5. Date

Each individual side sewer video file shall include the street address for the address they are in front of (e.g. Noriega_St_1234_SS) in the naming convention. If multiple side sewers serve the same property, letter modifiers will also be included in the file name in order to differentiate between each asset (e.g. Noriega_St_1234_SS-A and Noriega_St_1234_SS-B). Each individual culvert video file shall include the roadway names at the intersection and the corner location (e.g. 34th_Ave_Noriega_St_NE_Culv). When a culvert is located away from the curb return, the individual culvert video file shall be labeled with the street address where the catch basin or storm water inlet is located (e.g. Noriega_St_101_Culv). Similarly, if multiple culverts have the same address, letter modifiers will be appended to the file name to differentiate between assets. When letter modifiers(s) are included in the video file names, a pdf map with a legend and locations identifying these assets shall be provided as part of the submittal package.

B. CONDITION ASSESSMENT FOR SIDE SEWER (LATERAL) AND CULVERT REPLACEMENT

The Contractor shall perform the following for all side sewers and culverts:

1. Confirm connection points of active side sewers by dye-testing at sidewalk vents.
2. Investigate, locate, and confirm active side sewers not identified by sidewalk vents by dye-testing at building fixtures and/or rodding.

Side sewers rodded to show lengths short of one (1) foot behind the curb shall be considered as inactive. The Contractor shall abandon these side sewers by excavating at their end points and plugging as shown on SFDPW Standard Plan 87,198. Side sewers rodded to show lengths beyond one (1) foot behind the curb are to be assumed as active and shall be connected to the new sewer.

3. Prior to connecting existing side sewer to the new main, televise side sewer with a mini camera from the connection at the main sewer to the vent location on the sidewalk. If there is no vent or sidewalk, terminate side sewer television inspection at the property line. If desired these inspections can be performed in the opposite direction from the vent to the connection at the sewer main.
4. Television inspection of side sewers and culverts shall be performed by personnel who are trained to identify cracks and other defects in these pipes. The video equipment used to perform this inspection shall provide clear and well-focused video (minimum 640x480 resolution) along with footage counters to give accurate measurement of locations where defects are identified, and identify the street address of property or location of the intersection return. If Contractor encounters debris inside active side sewers and culverts, Contractor shall flush all debris out prior to re-televising in order to ensure a clear and complete television recording.
5. Record locations of active side sewers and culverts and their conditions shall be provided by the Contractor in the form of a log and drawing markup.

C. POST CONSTRUCTION QUALITY ASSURANCE FOR ACCEPTANCE

1. Televising of newly constructed side sewer shall be performed from the farthest practicable upstream location to the connection to the main sewer line. In no case may the television inspection exclude more than 10% of the expected finished pipe length; and as such, this exclusion will only be allowed from the uppermost portion of the run. Side sewer TV inspection shall be completed, submitted, and accepted prior to substantial completion. Side sewer inspection should be

performed after necessary back fill and compaction of 90% of lower lateral. **The inspection video shall show the backfilled lower lateral and a context shot of the surrounding landmarks (for a location reference) before the camera is inserted into the sewer lateral for the remainder of the inspection.**

2. Post construction video inspection will be reviewed by the City Representative to validate contractor workmanship of the new pipeline facilities, installed in place after necessary backfill and compaction of the trench excavation has been completed. Video inspections of newly laid pipeline facilities performed prior to necessary backfill and compaction of the trench excavation, or lacking evidence thereof, will not be accepted or used by the City Representative to validate contractor workmanship. Further, CCTV inspections shall include video of the surrounding landmarks for location reference and a shot proving the sewer lateral has been backfilled before the camera is inserted into the pipe; any inspection not showing the backfill at the time of inspection will be rejected. All subsequent CCTV inspection, repairs, and replacement shall be completed at no cost to the City.
3. Contractor shall furnish a copy of the side sewers and culvert DVD(s) and log(s), at the same time as the post construction main sewer DVD(s) are furnished, to the City Representative. If side sewer and culvert TV inspection DVD(s) and log(s) are not furnished, then the respective progress payment shall be withheld.
4. CCTV inspection camera quality shall be minimum 640x480 pixel resolution with adequate lighting to illuminate the sewer lateral interior wall 6 feet ahead of the camera. Inspection speed shall be reduced so that insertion of the camera does not exceed 1 foot per second.
5. All CCTV inspection videos shall be accurately reflected on construction drawings by the Contractor, certified by the City Representative.

3.09 SIDE SEWER CONNECTION

- A. The sewer plan indicates side sewer connections at all side sewer vent locations or at least one lateral for each property. The number and locations of these connections are approximate only.
- C. The Contractor shall confirm that each property has been provided with a satisfactory connection for all its side sewers and roof leaders per Section 316.06 of the San Francisco Public Works Standard Specifications.
- D. This item includes any necessary side sewer or roof leader extensions to make the proper connection.
- E. Side sewer connections at manholes shall not be higher than twelve (12) inches above manhole invert.

3.10 REPAIR OR REPLACEMENT OF 6 OR 8-INCH DIAMETER SIDE SEWER (LATERAL) AND CULVERT

- A. The Contractor is responsible to coordinate and make TV inspection DVD available to the City Representative for review as soon as possible after TV inspection has been performed, and obtain City Representative's approval prior to reconnecting the side sewer to the main.
- B. The City Representative shall review the television inspection of the each side sewer/roof leader/culvert, and evaluate its structural condition.

- C. If existing side sewer or culvert has defects stated in section "T.V. INSPECTION OF EXISTING SIDE SEWERS, ROOF LEADERS, AND CULVERTS AND ABANDONING INACTIVE SIDE SEWER", then side sewer, roof leader, or culvert shall be repaired or replaced as necessary by the Contractor with the City Representative's approval.
- D. All locations, invert elevations and slopes of side sewers shall be conformed unless otherwise directed by the City Representative.

3.11 INSTALLATION OF VCP CULVERTS

- A. VCP culverts shall be installed in accordance with the requirements of Section 306.06 of the San Francisco Public Works Standard Specifications.

3.12 CAST IRON WATER TRAP FOR CATCH BASIN

- A. After cleaning existing catch basins, the Contractor shall check the condition of existing water trap if one exists. If existing catch basin does not have cast iron water trap or existing water trap is not in good condition or according to our standards, the Contractor shall furnish and install new cast-iron water trap including cleanout cap per San Francisco Public Works Standard Plan 87,194.
- B. If existing water trap is in good condition but does not have a specified cleanout cap, the Contractor shall furnish and install cleanout cap including all incidental work at no cost to City. All work shall be done as directed by City Representative.

3.13 PRE AND POST CONSTRUCTION MAIN SEWER VIDEO INSPECTION

- A. CCTV-General

Existing main sewer and newly constructed storm sewer interiors shall be inspected by CCTV with a minimum 1080p resolution (1920x1080 pixels) camera delivered with original resolution in MPEG format on DVD media to detect active connections prior to plugging and filling the sewer and to evaluate the Contractor's quality of workmanship after constructing a new sewer facility.

All pipes shall be thoroughly cleaned prior to inspection, and inspections must be conducted in accordance with version 6 of National Association of Sewer Service Companies (NASSCO) Pipeline Assessment & Certification Program (PACP). **Personnel on the job are required to be trained and NASSCO PACP certified. Minimum PACP guidelines for any sewer main CCTV inspection will be enforced. Inspections shall not exceed 0.5 feet per second and shall stop, pan and zoom all around all joints, lateral connections, culvert connections, and any visible irregularities or defects. Video quality shall be minimum 1080p resolution (1920x1080 pixels) with adequate lighting to illuminate the pipe interior wall.**

The Contractor shall record by color video picture and voice recording, the main sewer and locations of the side sewer connections. **The video shall have the project name, limits of the sewer being televised, Maximo Asset ID, and the upstream and downstream manhole numbers (the Start_Node and End_Node fields from the pipe's GIS) superimposed on the beginning of each inspection.** The camera shall travel through the sewer at a speed of a half of a foot (0.5 feet) per second. A continuous counter in feet measurement shall be superimposed at the bottom of the screen to show the distance from the starting manhole or a reference point to an exit manhole or reference point. The date of the video recording shall be superimposed on the screen and/or audio recording. There shall be sufficient artificial light in the interior of the sewer to produce a clear and well focused picture and illuminate the pipe interior wall.

The DVD shall have a label with the project name, specification number and limits including the date of the television inspection. The Main Sewer TV Inspection Log shall have the locations measured in feet of the side sewer connections from the commencement point of the camera, a sketch showing the project limits and the direction the camera was run through the sewer. The Contractor shall provide and furnish the City with a copy of the "Main Sewer TV Inspection Log and TV DVD" to the Resident Engineer.

Within one week following the pre-construction meeting, the City Representative will provide the Contractor electronically the following files for performing main sewer inspections:

1. For pre-construction inspection, a shape file of existing sewer lines and nodes for manholes and non-manhole junctions with current asset ID's
2. For post-construction inspection, a shape file of newly constructed sewer lines and nodes with new asset ID's.
3. A shape file of City base map consisting of right-of-way/blocks and streets

Contractor will:

1. Import sewer line shape file to sewer inspection software such as Pipelogix, POSM, WinCan or others.
2. Select the corresponding pipe record to be inspected by identifying upstream manhole ID from pipe list. Enter the MXASSETNUM field from the pipe's GIS into the NASSCO Pipe_Segment_Reference field, use the Start_node field from the pipe's GIS in the NASSCO Upstream_MH field and the End_Node field from the pipe's GIS for the Downstream_MH field.
3. Begin inspection
4. Stop the tractor, pan and zoom at defects and irregularities in or on the pipe surface. Irregularities are defined as anything other than a uniform pipe wall material and includes scuffs, cobwebs, discoloration, or any NASSCO defined observation code.
5. Pause and turn camera view at each lateral/culvert connection point.
6. Code all observations such as defects, locations of lateral connections, change in pipe alignment, unusual conditions, and other discernible features, as defined in the NASSCO PACP defect codes.
7. End inspection at FINISH manhole or other non-manhole junction (connection to another main sewer or change in pipe size per sewer line shape file).
8. Prepare one video file for each individual inspection from manhole to manhole or node.
9. Export inspections to NASSCO Exchange Database format for delivery to the City.

If counts or locations of main sewer assets (pipes and manholes) built differ from plan drawings then the contractor shall communicate these changes to the City immediately so that the City can provide new asset ID's and GIS maps before CCTV inspection begins. All assets shall have city provided ID's before CCTV inspection begins. The Contractor should expect a **minimum** of one full workday for the City to provide new/updated asset ID's and GIS maps.

Database file, DVD & Log:

Contractor shall submit database files, video files in MPEG format with minimum 1080p resolution (1920x1080 pixels) on DVDs, and digital inspection logs in PDF format. All main sewer inspection data will be standardized per PACP guidelines and in NASSCO Exchange Database format.

DVD submitted by the Contractor should have a typed label on the front of the DVD providing the following information:

1. Contract ID Number (WW #)
2. Street Names with Limits
3. Main Sewer Post-Construction TV (or Pre-Construction)
4. Contract Title
5. Date

The Contractor shall submit the post-construction main sewer video DVDs within five (5) calendar days after the completion of the sewer work at each location for review. Post construction video inspection will be reviewed by the City Representative to validate contractor workmanship of the newly constructed main sewer facilities, installed in place after necessary backfill and compaction of the trench excavation has been performed. Video inspections of newly constructed main sewer facilities performed prior to necessary backfill and compaction of the trench excavation will not be accepted or used by the City Representative to validate contractor workmanship. If post-construction main sewer TV inspection DVDs are not furnished, the respective progress payment shall be withheld.

3.14 HIGH FLOW REMOVABLE TRASH COLLECTION DEVICE

- A. Trash capture devices shall be for partially or totally submerged saltwater applications, be saltwater-resistant, and be constructed of rust-preventative materials.
- B. Contractor shall verify exact diameter of existing pipe connections and dimensions of existing manholes prior to ordering the new trash collection devices.
- C. Installation of all parts shall be done by the contractor in a workmanlike manner and in accordance with the manufacturer's instructions. It shall be the contractor's responsibility to handle, store and install the trash collection devices in strict accord with the manufacturer's drawings and recommendations.
- D. Trash collection device work will be impacted by tide levels. The Contractor shall review San Francisco Tide Chart prior to performing the work, and shall plan and adjust the work schedule accordingly.

- E. Incidental work shall include, but not limited to, inspection of existing manhole structures, and cleaning of existing storm drain pipe pre- and post- trash collection device installation. Cutting of protruding pipe flush inside existing manholes prior to trash collection device installation shall be considered as incidental work.

3.15 CORRECTION OF DEFECTS IN SEWER FACILITIES CONSTRUCTED IN THIS CONTRACT

- A. The Contractor will provide warranty of three (3) year period, following the date of acceptance of the work, for all the sewer and drainage facilities constructed under this contract.
- B. The City will inspect the sewer interior by television prior to expiration of the 3-year post-construction period, following the date of acceptance of the work.
- C. Adjacent pipes at each joint shall be concentric. Maximum allowable eccentricity is 1 percent of pipe I.D. or 3/16 inch, whichever is greater. Greater eccentricity shall be corrected.
- D. Any defects shall be corrected by the Contractor at no expense to the City. Representative.

3.16 DRAINAGE MAINTANANCE

- A. Contractor shall be responsible for maintaining and keeping in operation all storm water inlets and catch basins throughout the entire project site, both inside and outside the phased construction work area, for the duration of the project, including during the performance of the punch list, until Final Acceptance.
- B. Contractor shall check and remove all debris from the storm water inlets and catch basins prior to the rainy season and clear clogged inlets and catch basins during the rainy season.
- C. Prior to the final inspection and acceptance, the Contractor shall check the storm water inlets and catch basins for debris and remove debris.
- D. Contractor is advised that during rainy weather the sewer system may flow full or overflowing. Therefore, Contractor shall schedule, sequence and protect its work accordingly. If Contractor plans to perform sewer work during rainy seasons, Contractor shall submit construction procedure for approval. The submittal shall include description of work to be done, proposed schedule and mitigation measures to keep the sewer functioning during rainy weather, and to minimize impacts to the public.

3.17 SEWAGE SYSTEM MAINTENANCE

- A. Contractor shall take adequate measures to prevent the impairment of the operation of the sewer system. It shall prevent construction material, pavement, concrete, earth, or other debris from entering a sewer, sewer structure, catch basin, or storm water inlet.

3.18 UNDERGROUND UTILITIES

- A. To safeguard existing underground utilities, Contractor shall notify Underground Service Alert (U.S.A.), so that utility companies and City Departments having underground utilities in the area may be advised of the work and may field mark or otherwise protect and warn the Contractor of their utility lines; (U.S.A.), 4090 Nelson Avenue, Suite A, Pleasant Hill, CA 94520, 800-227-2600.
- B. Contractor shall notify the San Francisco Fire Department, 2245 Jerrold Avenue, San Francisco, CA 94124, (415) 558-3557, Attention Mr. Bill Gunn, Facsimile (415) 647-8502, to have their facilities field marked.
- C. Contractor shall notify the San Francisco Street Lighting Department, Attention Mr. Herb Meier at (415) 554-1844, to have its facilities field marked.
- D. Contractor shall perform all work, including dewatering operations, in such a manner as to avoid damage to existing fire hydrants, power poles, railroad tracks, lighting standards, and

all other existing utilities, facilities and structures, public or private. Contractor will be held responsible for damage due to its failure to exercise due care.

- E. All broken concrete and debris shall be immediately removed from the project site as the Contractor's property and shall be disposed of in a legal manner.
- F. The Contractor shall exercise due care to avoid damage to existing pipe and coating, wrapping, sewers, conduit, or other existing facilities and structures. Should the Contractor damage or displace any of the above, Contractor shall repair same to the satisfaction of the City Representative, and all expenses in connection therewith shall be borne solely by the Contractor.

3.19 RECORD DRAWINGS

- A. Prior to acceptance of the work for warranty, the Contractor shall furnish the City Representative one neatly and legibly marked, in red pencil, set of full size record drawings showing all changes in the Contract Drawings as specified in Section 01 78 39, Project Record Documents. Changes shall include, but not be limited to the field changes or adjustments in the final location or dimensions of the Contract work; changes due to requests for information, changes due to Change Orders, and changes to reflect the actual existing conditions. Marking of the drawings shall be accurate and current, and be done at the time work is performed. These drawings shall be furnished within 5 calendar days after the completion of the sewer work at each location to the City Representative for review.
- B. Each completed Record Drawing shall be signed by the Contractor, and Construction Manager shall indicate it has reviewed the drawings for completeness. Each completed Record Drawing shall be transmitted to the City Representative as soon as the work on that drawing is completed.
- C. If record drawings are not furnished, the respective progress payment will be withheld.

3.20 CLEANING EXISTING CATCH BASINS LOCATED WITHIN PROJECT LIMIT

- A. At the conclusion of all the work under this contract, Contractor shall clean all existing catch basins and storm water inlets located within the project limit as specified on the contract drawings. Cleaning shall include but not limited to removal of sediments and other debris in the barrels and cast iron traps. The Contractor shall notify the City Representative at least 24 hours in advance before cleaning the existing catch basins. After cleaning catch basins, the Contractor shall get approval of City Representative for satisfactory work performance.

3.21 SIDE SEWER FLOW DIVERSION

- A. The Contractor shall contact and notify the residents affected by his sewer work 72 hours in advance. The Contractor shall provide pumps and adequate drainage system at each side sewer locations as directed by the City Representative.
- B. Failure to provide sufficient pumps will result in a liquidated damage of Five Hundred Dollars (\$500.00) per occurrence per calendar day where flooding or overflowing occurs due to lack of side sewer flow diversion. Liquidated damages will not be assessed if the pumps are in operation at all times prior to flooding or overflowing. Mechanical breakdown will not be considered as valid cause for non-assessment.

3.22 CONTRACTOR SHALL NOT ALLOW DEBRIS TO ENTER THE SEWAGE SYSTEM

- A. The Contractor shall take adequate measures to prevent the impairment of the operation of the sewer system. He shall prevent construction material, pavement, concrete, earth, or other debris from entering a sewer, sewer structure, catch basin, or storm water inlet.

3.23 HANDLING AND DISPOSAL OF SEEPAGE, STORM WATER, AND SEWAGE

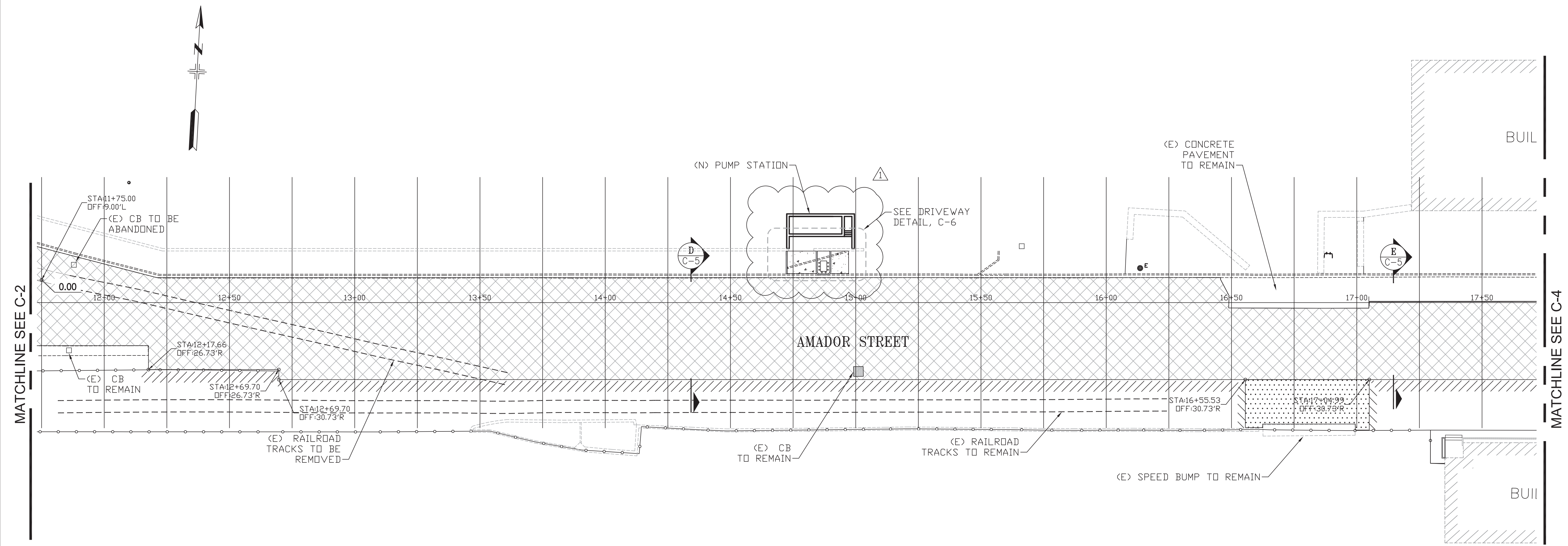
- A. Contractor shall protect the work from water damage; shall keep excavations dry; shall dispose of water from all sources; shall do all necessary pumping; and shall install suitable conduits to remove and divert all sanitary, ground water, tidewater, storm water flow, and unforeseen sub-drain, so as to prevent back-up, by-passing to the San Francisco Bay, flooding damage to property, and damage to City's Right Of Way in accordance with the requirements of Sections 301 and 700.08 of SFDPW Standard Specifications and the requirements as set forth in this Section.
- B. Contractor shall not impede or obstruct wet weather flow anywhere in the sewer system. Backing up of flow is not allowed. Contractor shall be cautioned that a sudden storm can cause heavy flow in the sewer system that could reach ground level. The bypassing sewer flow system shall be adequate to handle a 5-year storm routinely and heavy flow that could reach ground level during the period of construction, and as required in the Contract Plans.
- C. Contractor is hereby informed that the work inside existing sewers or sewer trench involves contact with raw sewage, sludge, and grease. Hydrogen sulfide may also be present. Contractor shall provide all safety equipment including gas-monitoring devices to detect the presence of toxic gases. OSHA health and safety requirements will be strictly enforced.
- D. Contractor shall take adequate measures to prevent the impairment of the operation of the sewer system. Contractor shall prevent construction material, pavement, concrete, earth, paints, thinner, solvents, and other debris or toxic material from entering a sewer or sewer structure including surface flow collection system, such as catch basins and culverts.
- E. Contractor shall provide for the transfer and disposal of sanitary and storm flow around the section or sections of pipe that are to be installed. The bypass shall be made for diversion of the flow at an existing upstream access point and gravity or pumping the flow into a downstream access point of adjacent system. The pump and bypass lines shall be of adequate capacity and size to handle the flow. The flow height shall not exceed 1 foot above the crown of any active sewer pipe access point.
- F. The bypass pumping shall be scheduled for 24-hour continuous duty from the start of the operation with backup equipment available for periods of maintenance and refueling. Contractor shall obtain a night noise permit for work between the hours of 8:00 pm and 7:00 am, as specified in Section 2908 of the Police Code.

3.24 REMOVAL OF EXISTING CONCRETE SLURRY

- A. The Contractor shall notify the City Representative immediately upon discovering concrete slurry within the sewer trench. The City Representative will arrange appropriate authority to witness the slurry material.
- B. The Contractor shall remove existing concrete slurry when encountered within the trench width limit including all incidental work.
- C. Concrete slurry removal from the trench shall be disposed of as Contractor's property in a legal manner.

END OF SECTION

NOTE:
1. SEE CROSS-SECTIONS ON SHEETS C-7 TO C-9




SEE DRAWING C-3, REV. 0 FOR ORIGINAL SIGNATURES


PUBLIC WORKS JOB ORDER NUMBER: 23701 FILE NO. 122, 520

NO.	DATE	DESCRIPTION	BY	APP.
1	8/15/24	DRIVEWAY MODIFICATION - ADDENDUM #3	AU	DC

TABLE OF REVISIONS

REFERENCE INFORMATION & FILE NO. OF SURVEYS


SAN FRANCISCO PORT COMMISSION
PORT OF SAN FRANCISCO
 DEPARTMENT OF ENGINEERING



DESIGNED: DATE:
A. UNG 12/22/23

DRAWN: DATE:
A. UNG 12/22/23

CHECKED: DATE:
D. CALLEROS 12/22/23

DPW APPROVALS

SECTION MANAGER DATE:

DEPUTY DIVISION MANAGER DATE:

DIVISION MANAGER DATE:

APPROVED BY
SAN FRANCISCO PORT COMMISSION
8/16/2024

DocuSigned by:
Uday Prasad
CHIEF HARBOR ENGINEER

SCALE:
1"=20'

REV. NO.
1

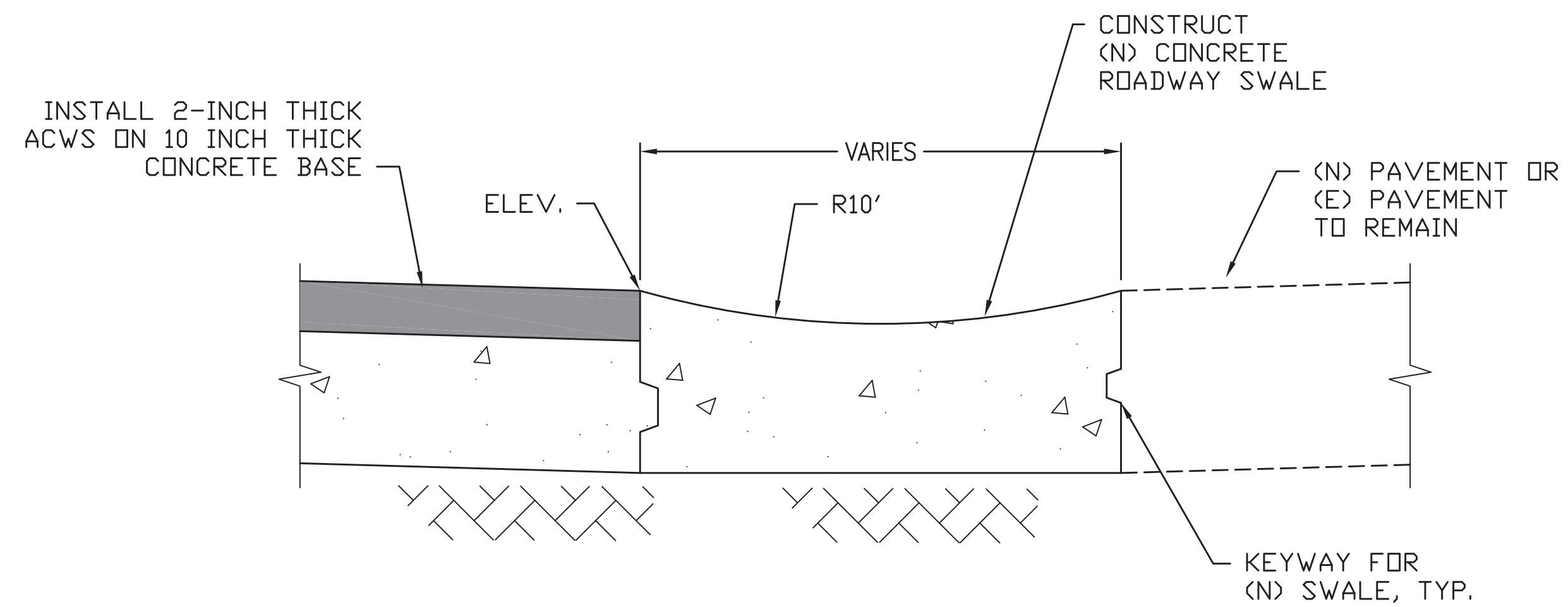
AMADOR STREET
INFRASTRUCTURE IMPROVEMENTS
AMADOR STREET
PAVING PLAN
STA 12+00 TO 17+50

CONTRACT NO.
2852

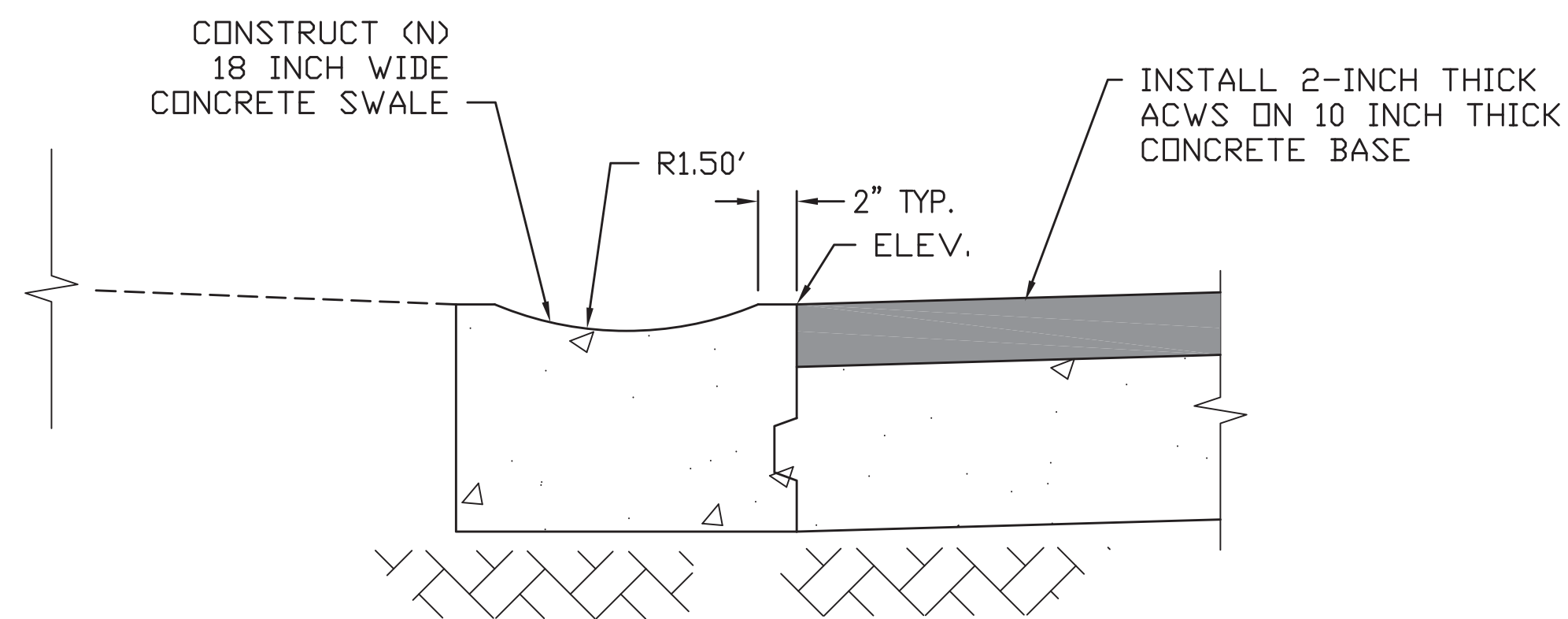
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19222-4043-C

SHEET OF SHEETS
C-3

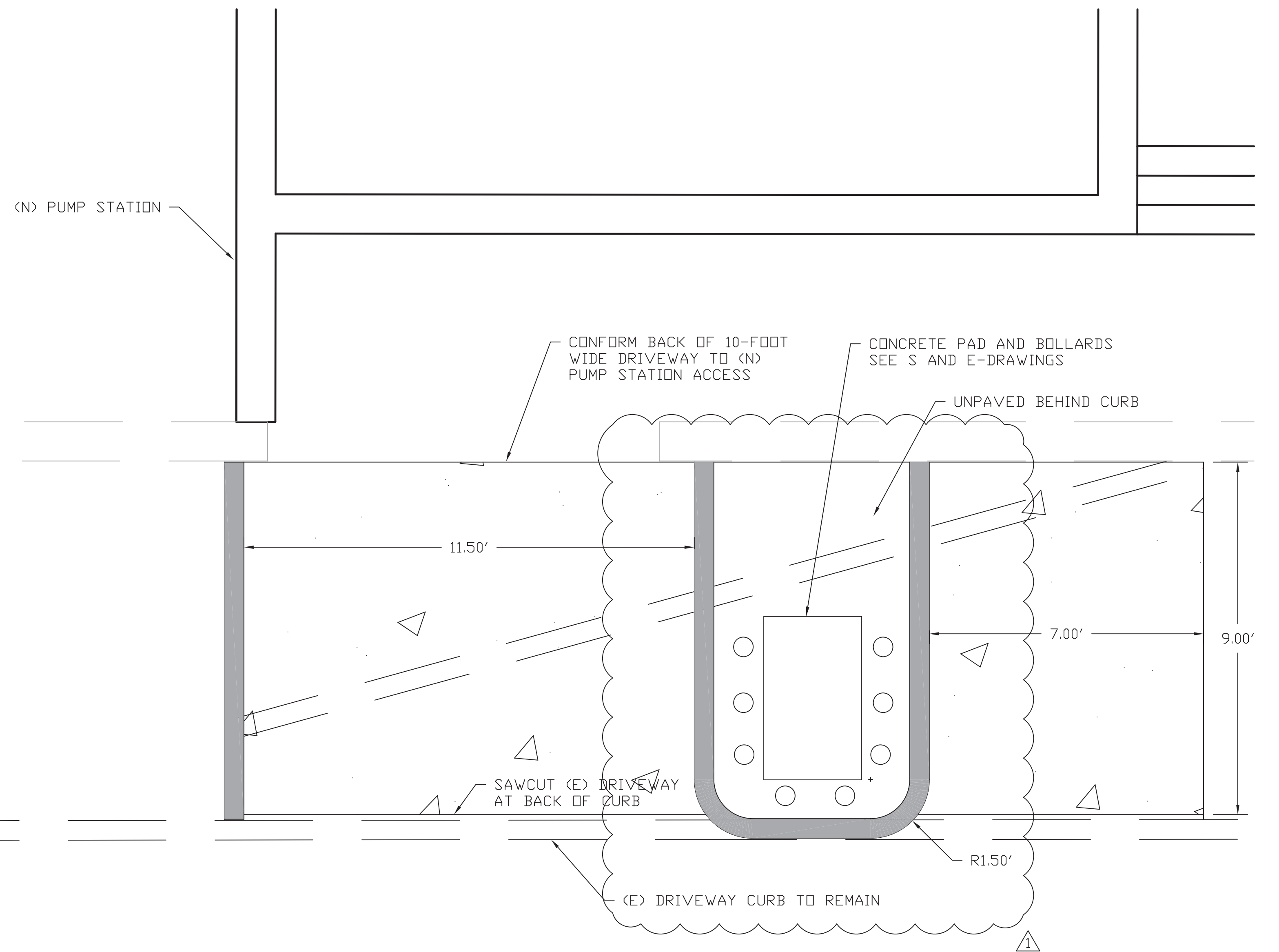
50 OF 71



1 **DETAIL**
SCALE: NTS



2 **DETAIL**
SCALE: NTS



PUMP STATION DRIVEWAY DETAILS
SCALE: 1"=2'

SEE DRAWING C-6, REV. 0 FOR ORIGINAL SIGNATURES

PUBLIC WORKS JOB ORDER NUMBER: 23701 FILE NO. 122, 523

NO.	DATE	DESCRIPTION	BY	APP.
1	8/15/24	DRIVEWAY MODIFICATION - ADDENDUM #3	AU	DC

TABLE OF REVISIONS

REFERENCE INFORMATION & FILE NO. OF SURVEYS

SAN FRANCISCO PORT COMMISSION
PORT OF SAN FRANCISCO
DEPARTMENT OF ENGINEERING

DESIGNED: DATE:
A. UNG 12/22/23

DRAWN: DATE:
A. UNG 12/22/23

CHECKED: DATE:
D. CALLEROS 12/22/23

DPW APPROVALS

SECTION MANAGER DATE:

DEPUTY DIVISION MANAGER DATE:

DIVISION MANAGER DATE:

APPROVED BY
SAN FRANCISCO PORT COMMISSION
8/16/2024

DocuSigned by:
Uday Prasad
CIVIL ENGINEER
CHIEF HARBOR ENGINEER

SCALE:
NONE

REV. NO.
1

AMADOR STREET
INFRASTRUCTURE IMPROVEMENTS

AMADOR STREET PAVING
CONSTRUCTION DETAILS

CONTRACT NO.
2852

DRAWING NO.
19225-4043-C

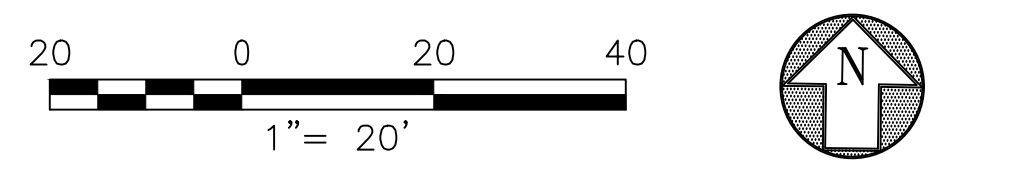
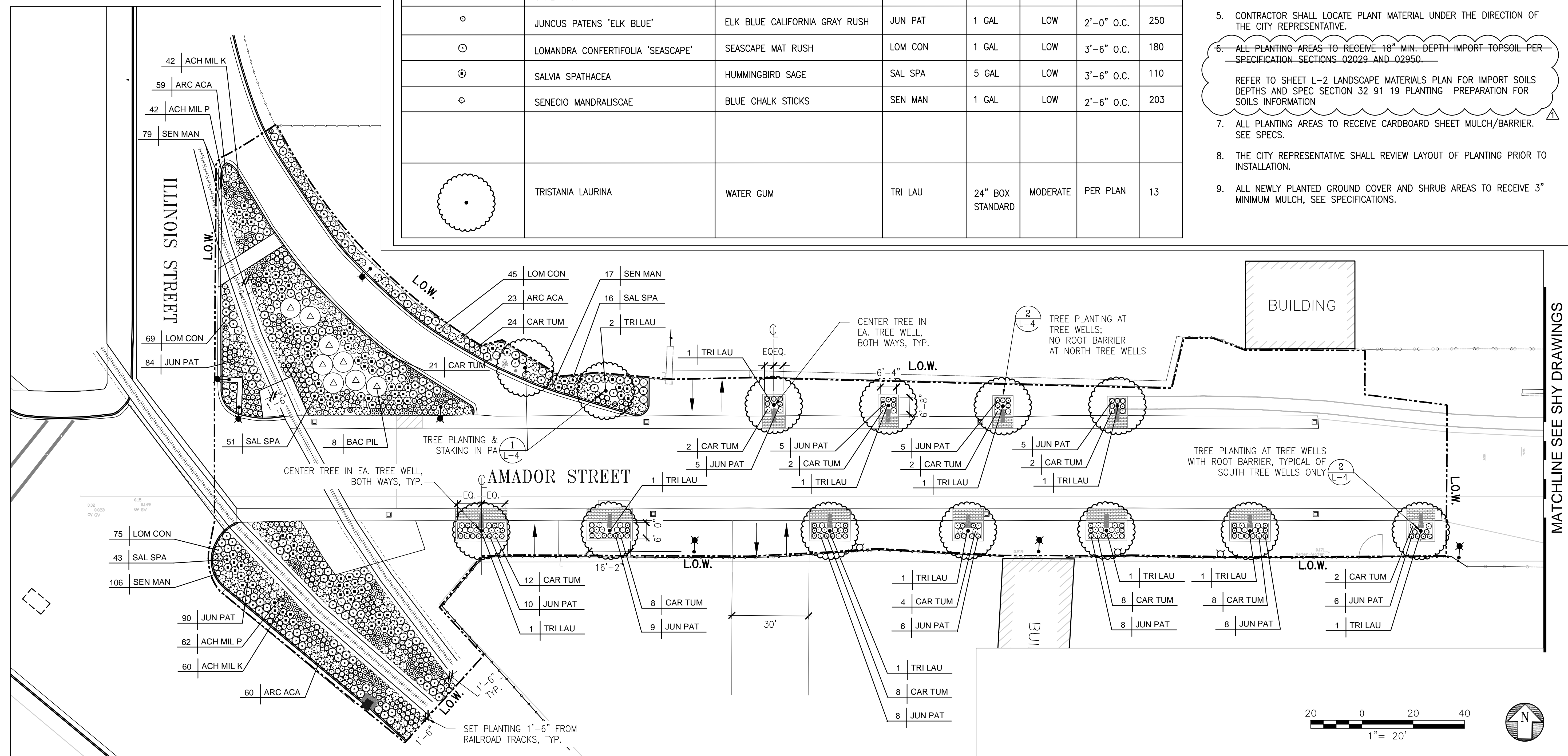
SHEET OF SHEETS
C-6

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PLANTING LEGEND							
SYMBOL	BOTANICAL NAME	COMMON NAME	ABBREVIATION	SIZE	WATER USE	SPACING	QTY
⊙	ACHILLEA MILLEFOLIUM 'KING GEORGE'	WOOLLY YARROW 'KING GEORGE'	ACH MIL K	1 GAL	LOW	1'-6" O.C.	102
⊙	ACHILLEA MILLEFOLIUM 'PAPRIKA'	PAPRIKA COMMON YARROW	ACH MIL K	1 GAL	LOW	1'-6" O.C.	104
⊗	ARCTOTIS ACAULIS 'BIG MAGENTA'	AFRICAN DAISY	ARC ACA	1 GAL	LOW	3'-6" O.C.	142
⊠	BACCHARIS PILULARIS 'PIGEON POINT'	DWARF COYOTE BRUSH	BAC PIL	5 GAL	LOW	8'-6" O.C.	8
○	CAREX TUMULICOLA	FOOTHILL SEDGE	CAR TUM	1 GAL	LOW	2'-6" O.C.	104
⊙	JUNCUS PATENS 'ELK BLUE'	ELK BLUE CALIFORNIA GRAY RUSH	JUN PAT	1 GAL	LOW	2'-0" O.C.	250
⊙	LOMANDRA CONFERTIFOLIA 'SEASCAPE'	SEASCAPE MAT RUSH	LOM CON	1 GAL	LOW	3'-6" O.C.	180
⊙	SALVIA SPATHACEA	HUMMINGBIRD SAGE	SAL SPA	5 GAL	LOW	3'-6" O.C.	110
⊙	SENECIO MANDRALISCAE	BLUE CHALK STICKS	SEN MAN	1 GAL	LOW	2'-6" O.C.	203
	TRISTANIA LAURINA	WATER GUM	TRI LAU	24" BOX STANDARD	MODERATE	PER PLAN	13

- PLANTING NOTES:**
- SEE STANDARD SPECIFICATIONS, SECTION 1007 "PLANTING", FOR ADDITIONAL PLANTING INFORMATION.
 - PLANT COUNTS PROVIDED IS FOR THE CONVENIENCE OF THE CONTRACTOR. IN THE CASE OF DISCREPANCIES, THE PLAN SHALL GOVERN.
 - CONTRACTOR SHALL REVIEW ALL PLANT MATERIAL ON SITE WITH THE CITY REPRESENTATIVE AND SHALL INSTALL MATERIAL ONLY AFTER OBTAINING APPROVAL FROM THE ENGINEER.
 - THE CITY REPRESENTATIVE RESERVES THE RIGHT TO MAKE SUBSTITUTIONS, ADDITIONS AND DELETIONS IN THE PLANTING SCHEME AS THE WORK PROGRESSES.
 - CONTRACTOR SHALL LOCATE PLANT MATERIAL UNDER THE DIRECTION OF THE CITY REPRESENTATIVE.
 - ALL PLANTING AREAS TO RECEIVE 18" MIN. DEPTH IMPORT TOPSOIL PER SPECIFICATION SECTIONS 02029 AND 02950.

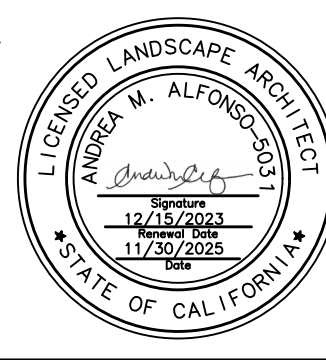
REFER TO SHEET L-2 LANDSCAPE MATERIALS PLAN FOR IMPORT SOILS DEPTHS AND SPEC SECTION 32 91 19 PLANTING PREPARATION FOR SOILS INFORMATION
 - ALL PLANTING AREAS TO RECEIVE CARDBOARD SHEET MULCH/BARRIER. SEE SPECS.
 - THE CITY REPRESENTATIVE SHALL REVIEW LAYOUT OF PLANTING PRIOR TO INSTALLATION.
 - ALL NEWLY PLANTED GROUND COVER AND SHRUB AREAS TO RECEIVE 3" MINIMUM MULCH, SEE SPECIFICATIONS.



NO.	DATE	DESCRIPTION	BY	APP.
8/16/24 ADDENDUM 3				
TABLE OF REVISIONS				

REFERENCE INFORMATION & FILE NO. OF SURVEYS

SAN FRANCISCO PORT COMMISSION
PORT OF SAN FRANCISCO
 DEPARTMENT OF ENGINEERING



DESIGNED: DATE:	PUBLIC WORKS APPROVALS	APPROVED BY	SCALE:
A.A./J.A. 12/2023	12/15/2023	SAN FRANCISCO PORT COMMISSION	1"=20'
DRAWN: DATE:	BUREAU MANAGER	DATE:	REV. NO.
J.A./A.S. 12/2023		8/16/2024	1
CHECKED: DATE:		Chief Harbor Engineer	
T.E. 12/2023			

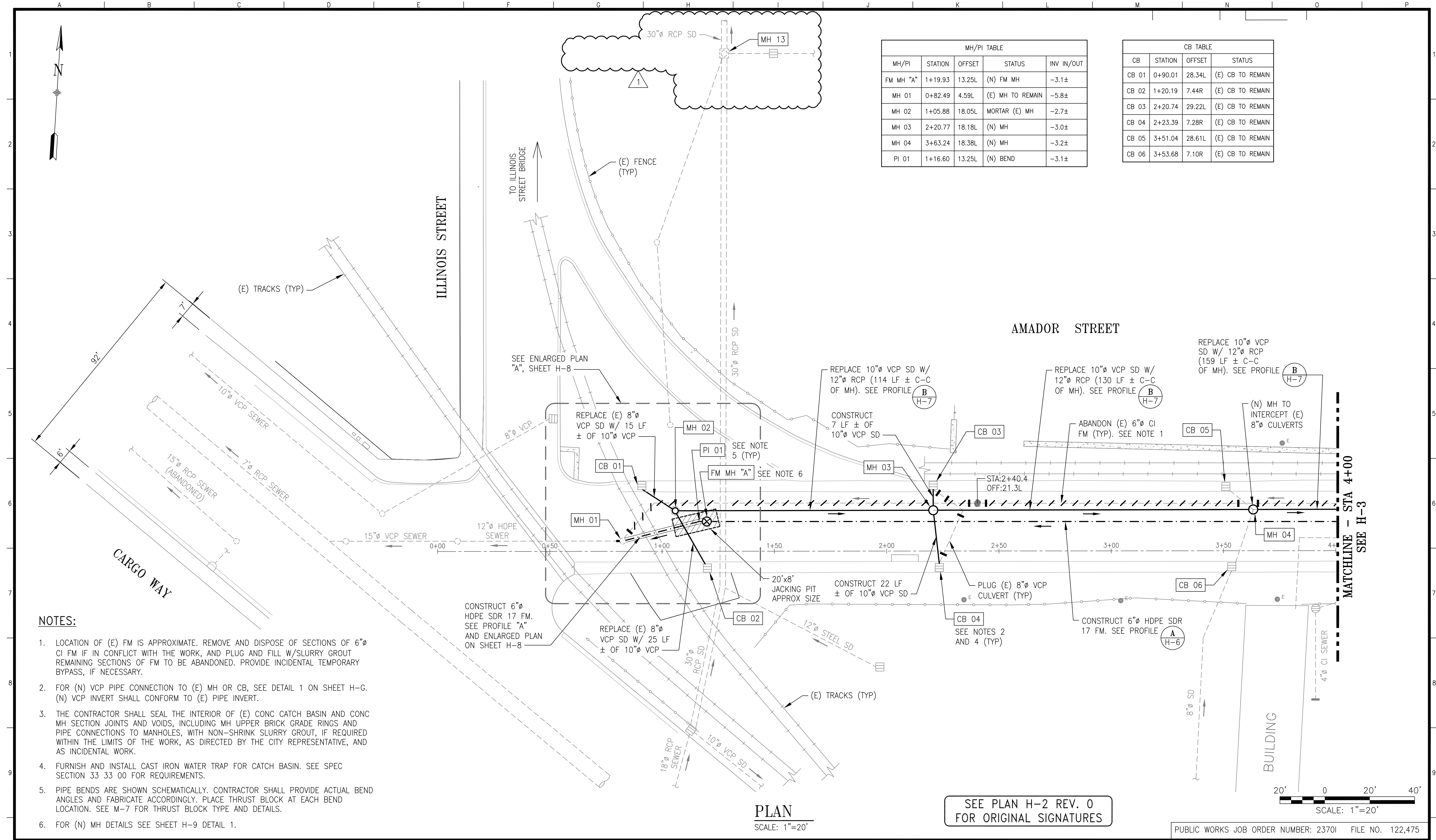
AMADOR STREET
INFRASTRUCTURE IMPROVEMENTS

AMADOR STREET
LANDSCAPE PLANTING PLAN
 STA 0+00 TO 5+50

CONTRACT NO. 2852
 PORT DRAWING NO. 19228.3-4043-L
 SHEET NO. L-3
 SHEET OF SHEETS 59 OF 72

PUBLIC WORKS JOB ORDER NUMBER: 23701 FILE NO. 122,532

MATCHLINE SEE SHY DRAWINGS



MH/PI TABLE				
MH/PI	STATION	OFFSET	STATUS	INV IN/OUT
FM MH "A"	1+19.93	13.25L	(N) FM MH	-3.1±
MH 01	0+82.49	4.59L	(E) MH TO REMAIN	-5.8±
MH 02	1+05.88	18.05L	MORTAR (E) MH	-2.7±
MH 03	2+20.77	18.18L	(N) MH	-3.0±
MH 04	3+63.24	18.38L	(N) MH	-3.2±
PI 01	1+16.60	13.25L	(N) BEND	-3.1±

CB TABLE			
CB	STATION	OFFSET	STATUS
CB 01	0+90.01	28.34L	(E) CB TO REMAIN
CB 02	1+20.19	7.44R	(E) CB TO REMAIN
CB 03	2+20.74	29.22L	(E) CB TO REMAIN
CB 04	2+23.39	7.28R	(E) CB TO REMAIN
CB 05	3+51.04	28.61L	(E) CB TO REMAIN
CB 06	3+53.68	7.10R	(E) CB TO REMAIN

- NOTES:**
- LOCATION OF (E) FM IS APPROXIMATE. REMOVE AND DISPOSE OF SECTIONS OF 6" CI FM IF IN CONFLICT WITH THE WORK, AND PLUG AND FILL W/SLURRY GROUT REMAINING SECTIONS OF FM TO BE ABANDONED. PROVIDE INCIDENTAL TEMPORARY BYPASS, IF NECESSARY.
 - FOR (N) VCP PIPE CONNECTION TO (E) MH OR CB, SEE DETAIL 1 ON SHEET H-G. (N) VCP INVERT SHALL CONFORM TO (E) PIPE INVERT.
 - THE CONTRACTOR SHALL SEAL THE INTERIOR OF (E) CONC CATCH BASIN AND CONC MH SECTION JOINTS AND VOIDS, INCLUDING MH UPPER BRICK GRADE RINGS AND PIPE CONNECTIONS TO MANHOLES, WITH NON-SHRINK SLURRY GROUT, IF REQUIRED WITHIN THE LIMITS OF THE WORK, AS DIRECTED BY THE CITY REPRESENTATIVE, AND AS INCIDENTAL WORK.
 - FURNISH AND INSTALL CAST IRON WATER TRAP FOR CATCH BASIN. SEE SPEC SECTION 33 33 00 FOR REQUIREMENTS.
 - PIPE BENDS ARE SHOWN SCHEMATICALLY. CONTRACTOR SHALL PROVIDE ACTUAL BEND ANGLES AND FABRICATE ACCORDINGLY. PLACE THRUST BLOCK AT EACH BEND LOCATION. SEE M-7 FOR THRUST BLOCK TYPE AND DETAILS.
 - FOR (N) MH DETAILS SEE SHEET H-9 DETAIL 1.

PLAN
SCALE: 1"=20'

SEE PLAN H-2 REV. 0 FOR ORIGINAL SIGNATURES

PUBLIC WORKS JOB ORDER NUMBER: 23701 FILE NO. 122,475

NO.	DATE	DESCRIPTION	BY	APP.
1	8/15/24	ADDENDUM #3	JF	CL

TABLE OF REVISIONS

REFERENCE INFORMATION & FILE NO. OF SURVEYS	
8216-344-1	
7040-344-4	
8108-96-1	
8109-96-1	
5578-344-1	
5579-344-1	
7669-344-1	

SAN FRANCISCO PORT COMMISSION
PORT OF SAN FRANCISCO
DEPARTMENT OF ENGINEERING

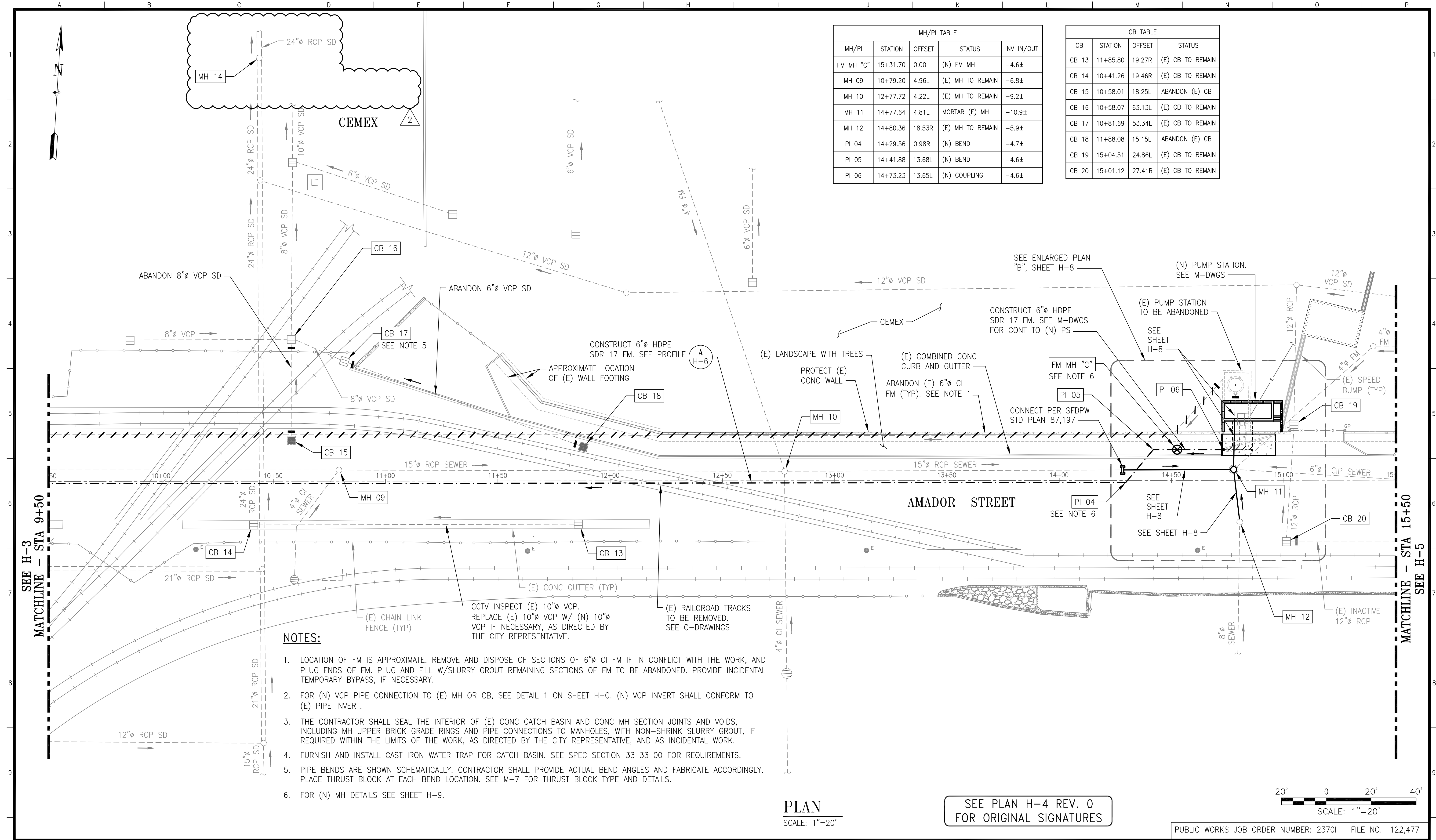
DESIGNED: DATE:	J.FLORES 12/2023
DRAWN: DATE:	A.K./A.H. 12/2023
CHECKED: DATE:	C.LINH 12/2023
PUBLIC WORKS APPROVALS	L.WONG 08/16/2024
SECTION MANAGER	I.DHAPA
DEPUTY BUREAU MANAGER	P.RIVERA
BUREAU MANAGER	

APPROVED BY	SAN FRANCISCO PORT COMMISSION
DATE:	8/16/2024
DocuSigned by:	Ulysses R. L. N. Wong
CHIEF HARBOR ENGINEER	

SCALE:	AS NOTED
REV. NO.	1

AMADOR STREET
INFRASTRUCTURE IMPROVEMENTS
AMADOR STREET SEWER REPLACEMENT
STA 0+00 TO STA 4+00
PLAN

CONTRACT NO.	2852
PORT DRAWING NO.	19186-4043-H
SHEET NO.	H-2
SHEET OF SHEETS	7 OF 72



MH/PI TABLE				
MH/PI	STATION	OFFSET	STATUS	INV IN/OUT
FM MH "C"	15+31.70	0.00L	(N) FM MH	-4.6±
MH 09	10+79.20	4.96L	(E) MH TO REMAIN	-6.8±
MH 10	12+77.72	4.22L	(E) MH TO REMAIN	-9.2±
MH 11	14+77.64	4.81L	MORTAR (E) MH	-10.9±
MH 12	14+80.36	18.53R	(E) MH TO REMAIN	-5.9±
PI 04	14+29.56	0.98R	(N) BEND	-4.7±
PI 05	14+41.88	13.68L	(N) BEND	-4.6±
PI 06	14+73.23	13.65L	(N) COUPLING	-4.6±

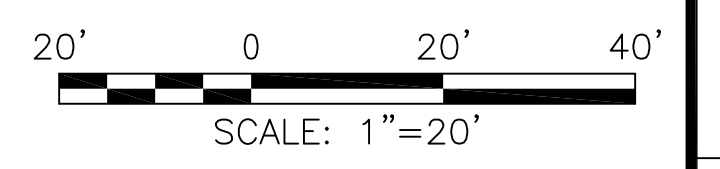
CB TABLE			
CB	STATION	OFFSET	STATUS
CB 13	11+85.80	19.27R	(E) CB TO REMAIN
CB 14	10+41.26	19.46R	(E) CB TO REMAIN
CB 15	10+58.01	18.25L	ABANDON (E) CB
CB 16	10+58.07	63.13L	(E) CB TO REMAIN
CB 17	10+81.69	53.34L	(E) CB TO REMAIN
CB 18	11+88.08	15.15L	ABANDON (E) CB
CB 19	15+04.51	24.86L	(E) CB TO REMAIN
CB 20	15+01.12	27.41R	(E) CB TO REMAIN

NOTES:

- LOCATION OF FM IS APPROXIMATE. REMOVE AND DISPOSE OF SECTIONS OF 6" CI FM IF IN CONFLICT WITH THE WORK, AND PLUG ENDS OF FM. PLUG AND FILL W/SLURRY GROUT REMAINING SECTIONS OF FM TO BE ABANDONED. PROVIDE INCIDENTAL TEMPORARY BYPASS, IF NECESSARY.
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- FOR (N) MH DETAILS SEE SHEET H-9.

PLAN
SCALE: 1"=20'

SEE PLAN H-4 REV. 0
FOR ORIGINAL SIGNATURES



PUBLIC WORKS JOB ORDER NUMBER: 23701 FILE NO. 122,477

NO.	DATE	DESCRIPTION	BY	APP.
8/15/24	ADDENDUM #3		JF	CL
7/25/24	ADDENDUM #1		JF	CL

TABLE OF REVISIONS

REFERENCE INFORMATION & FILE NO. OF SURVEYS	
8216-344-1	7040-344-4
8108-96-1	8109-96-1
5578-344-1	5579-344-1
7669-344-1	

SAN FRANCISCO PORT COMMISSION
PORT OF SAN FRANCISCO
DEPARTMENT OF ENGINEERING

DESIGNED:	DATE:	PUBLIC WORKS APPROVALS
J.FLORES	12/2023	L.WONG 08/16/2024
DRAWN:	DATE:	SECTION MANAGER DATE:
A.K./A.H.	12/2023	I.DHAPA
CHECKED:	DATE:	DEPUTY BUREAU MANAGER DATE:
C.LINH	12/2023	P.RIVERA
		BUREAU MANAGER DATE:

APPROVED BY	DATE:
SAN FRANCISCO PORT COMMISSION	8/16/2024
Uday Prasad	
CHIEF HARBOR ENGINEER	

SCALE:
AS NOTED
REV. NO.
2

AMADOR STREET
INFRASTRUCTURE IMPROVEMENTS
AMADOR STREET SEWER REPLACEMENT
STA 9+50 TO STA 15+50
PLAN

CONTRACT NO.	2852
PORT DRAWING NO.	19188-4043-H
SHEET NO.	H-4
SHEET OF SHEETS	9 OF 72

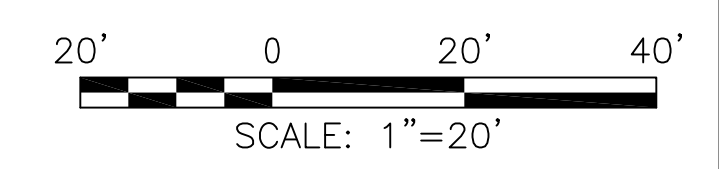
PIER 92

BUILDING

AMADOR STREET

BUILDING

PLAN
SCALE: 1"=20'




SEE PLAN H-5 REV. 0
FOR ORIGINAL SIGNATURES

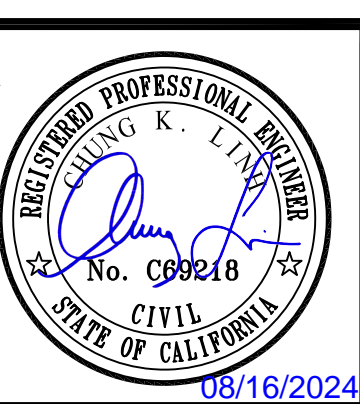
PUBLIC WORKS JOB ORDER NUMBER: 23701 FILE NO. 122,478

NO.	DATE	DESCRIPTION	BY	APP.
1	8/15/24	ADDENDUM #3	JF	CL

TABLE OF REVISIONS

REFERENCE INFORMATION & FILE NO. OF SURVEYS
8216-344-1 7040-344-4 8108-96-1 8109-96-1 5578-344-1 5579-344-1 7669-344-1


SAN FRANCISCO PORT COMMISSION
PORT OF SAN FRANCISCO
 DEPARTMENT OF ENGINEERING



DESIGNED: DATE:	J.FLORES 12/2023
DRAWN: DATE:	A.K./A.H. 12/2023
CHECKED: DATE:	C.LINH 12/2023

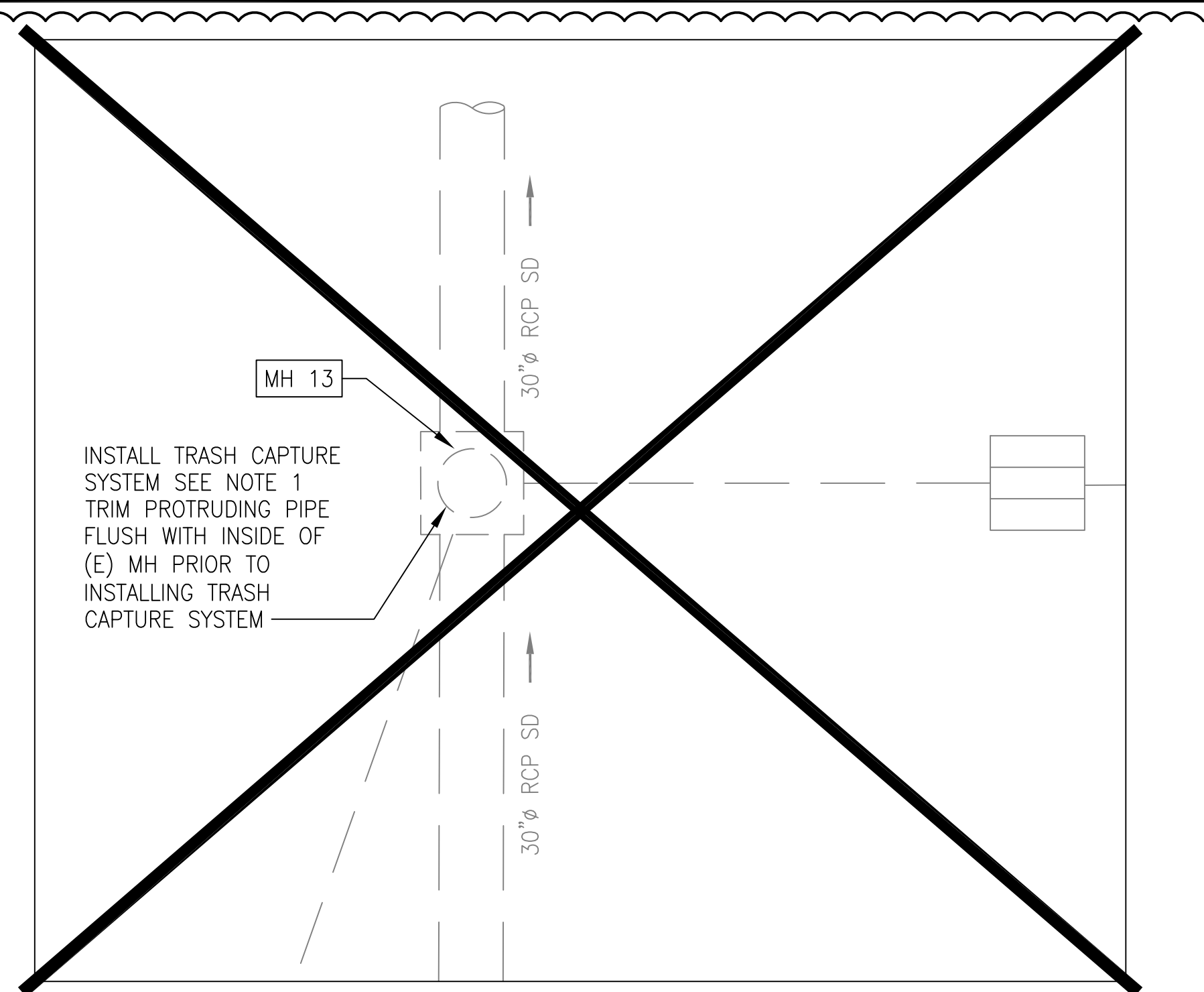
PUBLIC WORKS APPROVALS	L.WONG 08/16/2024
SECTION MANAGER	I.DHAPA
DEPUTY BUREAU MANAGER	P.RIVERA
BUREAU MANAGER	

APPROVED BY	SAN FRANCISCO PORT COMMISSION
DATE:	8/16/2024
DocuSigned by:	Uday Prasad
CHIEF HARBOR ENGINEER	

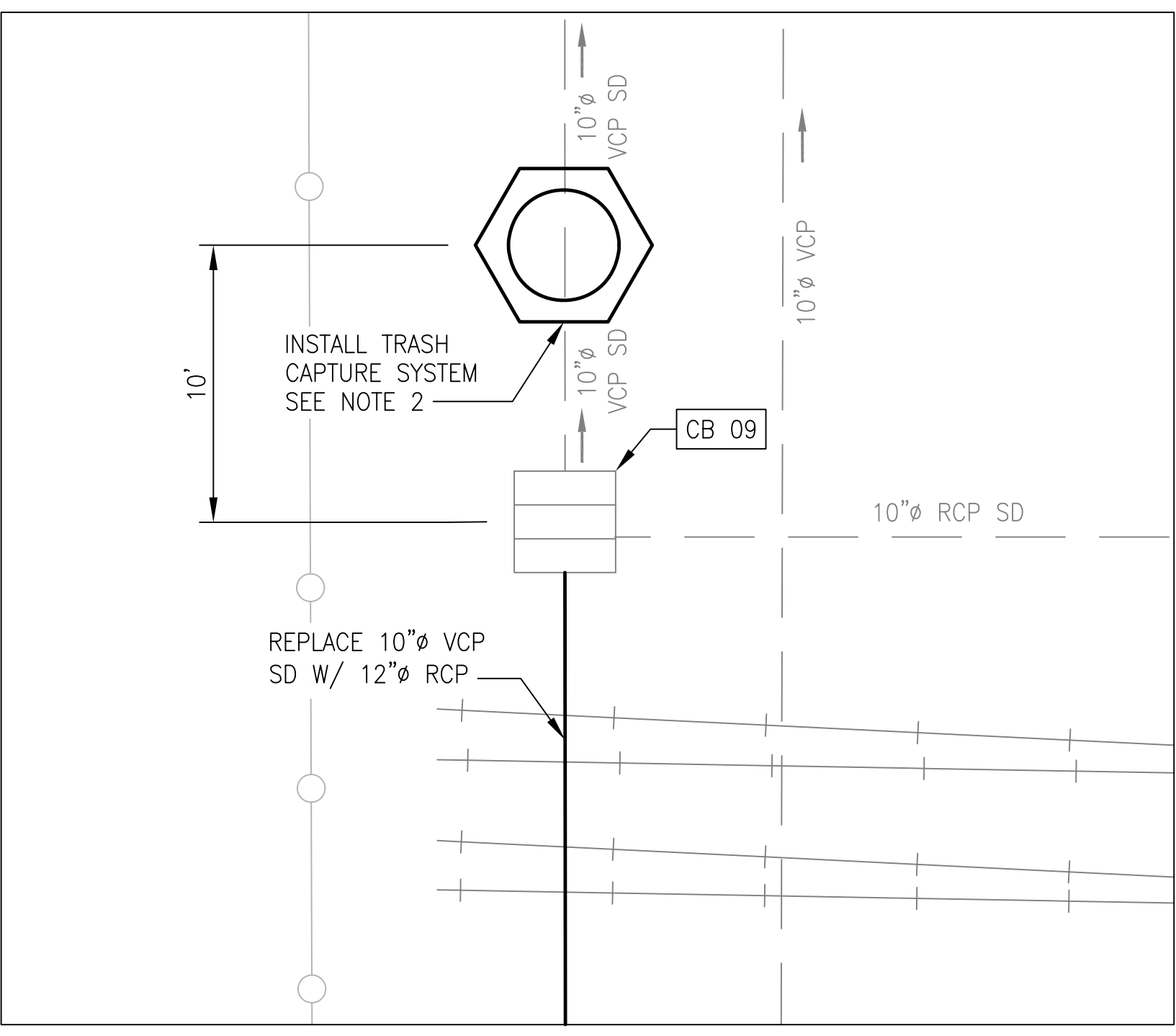
SCALE:	AS NOTED
REV. NO.	1

AMADOR STREET
INFRASTRUCTURE IMPROVEMENTS
AMADOR STREET SEWER REPLACEMENT
STA 15+50 TO STA 20+00
PLAN

CONTRACT NO.	2852
PORT DRAWING NO.	19189-4043-H
SHEET NO.	H-5
SHEET OF SHEETS	10 OF 72



ENLARGED PLAN "C"
SCALE: 1"=5'

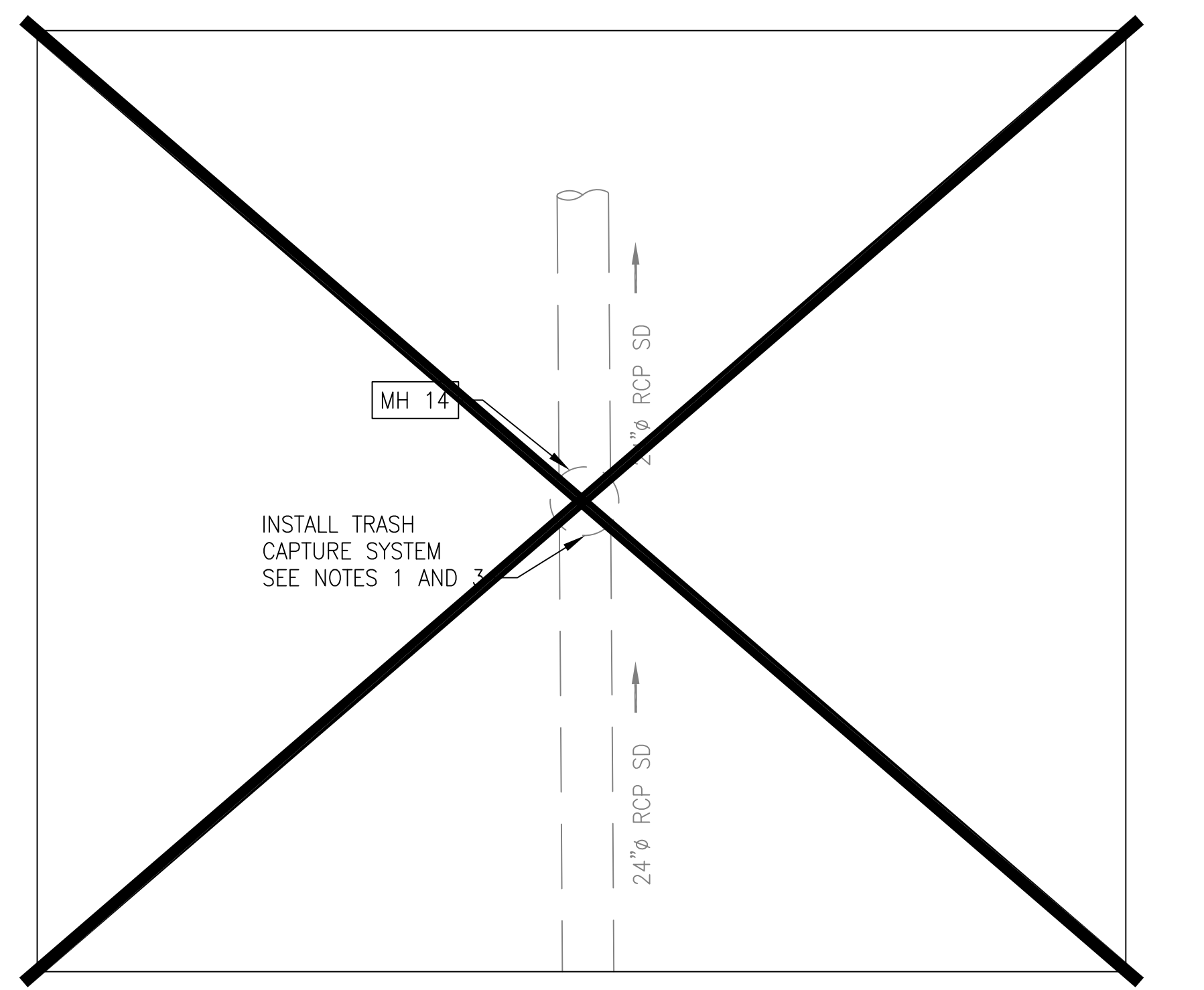


ENLARGED PLAN "D"
SCALE: 1"=5'

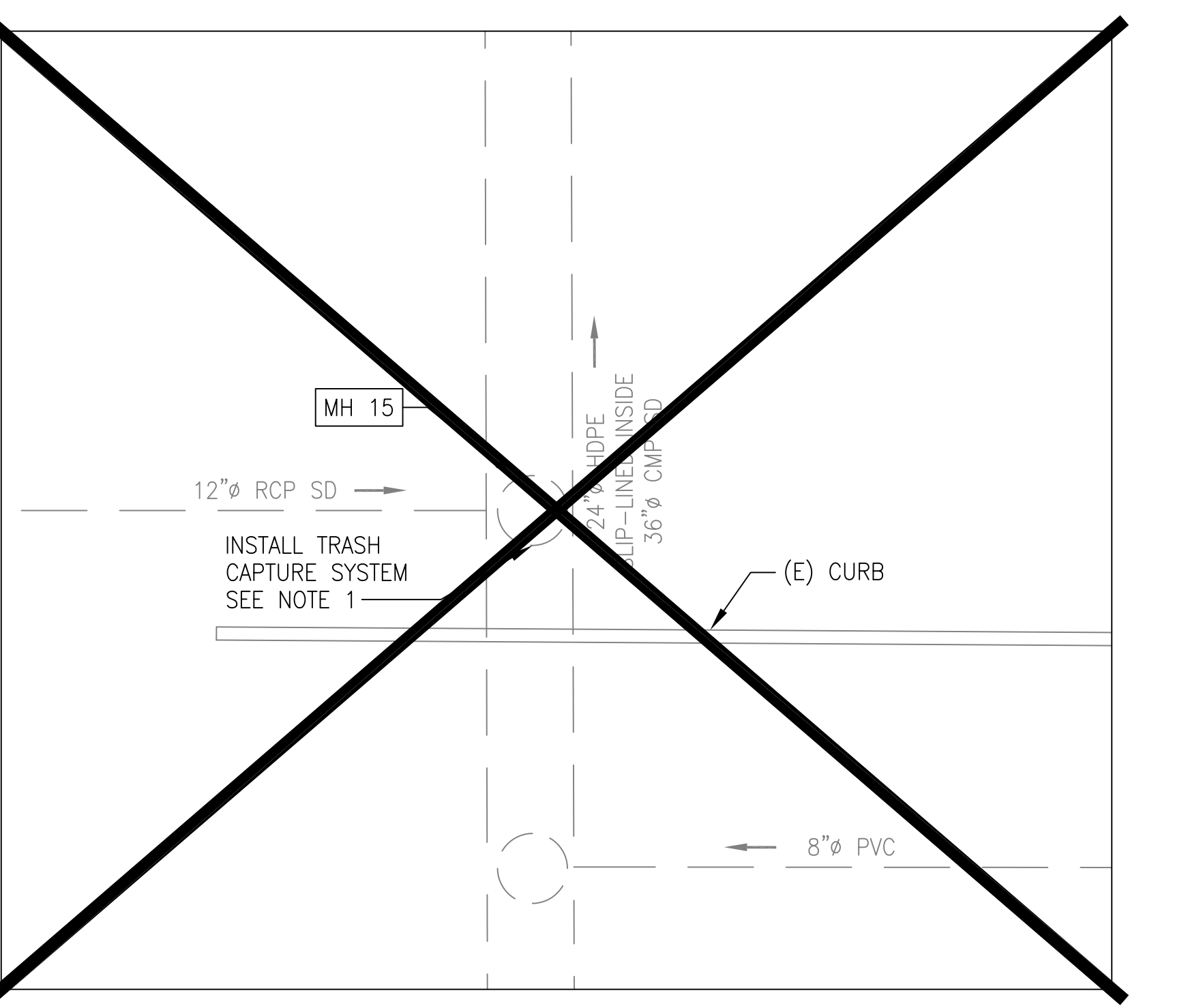
CB/MH COORDINATES, RIM EL AND INV EL			
CB/MH	NORTHING:	EASTING:	RIM EL: INV EL:
CB 09	2099683.11	6016841.42	-1.0± -3.6±
MH 13	2099722.64	6016456.12	2.2± 8.7±
MH 14	2099740.29	6017372.63	2.0± 9.0±
MH 15	2099581.71	6018296.04	0.6± 8.5±

NOTES:

- FURNISH AND INSTALL HIGH FLOW DEVICE, CROSSLINKED HIGH DENSITY POLYETHYLENE "DOWNSTREAM DEFENDER" BY HYDRO INTERNATIONAL INSIDE (E) MH. SEE SPEC SECTION 33 33 00 FOR ADDITIONAL REQUIREMENTS.
- FURNISH AND INSTALL HIGH FLOW DEVICE "JDS72-3636 JENSEN DEFLECTIVE SEPARATOR" OR APPROVED EQUAL BY THE CITY REPRESENTATIVE. SEE SPEC SECTION 33 33 00 FOR ADDITIONAL REQUIREMENTS.
- EXISTING MH IS INSIDE CEMEX LEASEHOLD. CONTRACTOR SHALL COORDINATE WITH THE CITY REPRESENTATIVE FOR ACCESS TO PERFORM THE WORK. EXISTING MANHOLE HAS EXISTING GRATE COVER OVER SOLID MANHOLE COVER.
- TRASH CAPTURE DEVICES SHALL BE RATED FOR THE FOLLOWING FLOW RATES (MIN):
 A) PLAN "C": 5.2 (CFS)
 B) PLAN "D": 1.4 (CFS)
 C) PLAN "E": 12.1 (CFS)
 D) PLAN "F": 3.3 (CFS)

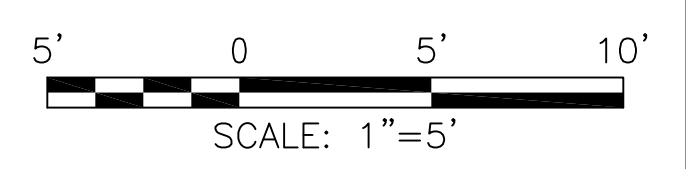


ENLARGED PLAN "E"
SCALE: 1"=5'



ENLARGED PLAN "F"
SCALE: 1"=5'

SEE PLAN H-10 REV. 0 FOR ORIGINAL SIGNATURES



PUBLIC WORKS JOB ORDER NUMBER: 23701 FILE NO. 122,483

NO.	DATE	DESCRIPTION	BY	APP.
1	8/15/24	ADDENDUM #3	JF	CL

TABLE OF REVISIONS

REFERENCE INFORMATION & FILE NO. OF SURVEYS

SAN FRANCISCO PORT COMMISSION
PORT OF SAN FRANCISCO
DEPARTMENT OF ENGINEERING

DESIGNED: J.FLORES	DATE: 12/2023	PUBLIC WORKS APPROVALS	L.WONG	DATE: 08/16/2024
DRAWN: A.K./A.H.	DATE: 12/2023	SECTION MANAGER	I.DHAPA	DATE:
CHECKED: C.LINH	DATE: 12/2023	DEPUTY BUREAU MANAGER	P.RIVERA	DATE:
		BUREAU MANAGER		

APPROVED BY
SAN FRANCISCO PORT COMMISSION
8/16/2024

DocuSigned by:
Uday Prasad
CHIEF HARBOR ENGINEER

SCALE:	AS NOTED
REV. NO.	1

AMADOR STREET
INFRASTRUCTURE IMPROVEMENTS
AMADOR STREET SEWER REPLACEMENT
TRASH CAPTURE WORK
ENLARGED PLANS C - F

CONTRACT NO.	2852
PORT DRAWING NO.	19191.1-4043-H
SHEET NO.	H-10
SHEET OF SHEETS	15 OF 72

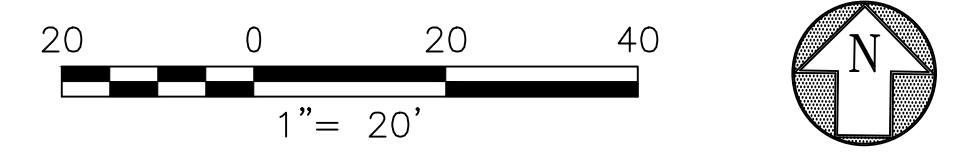
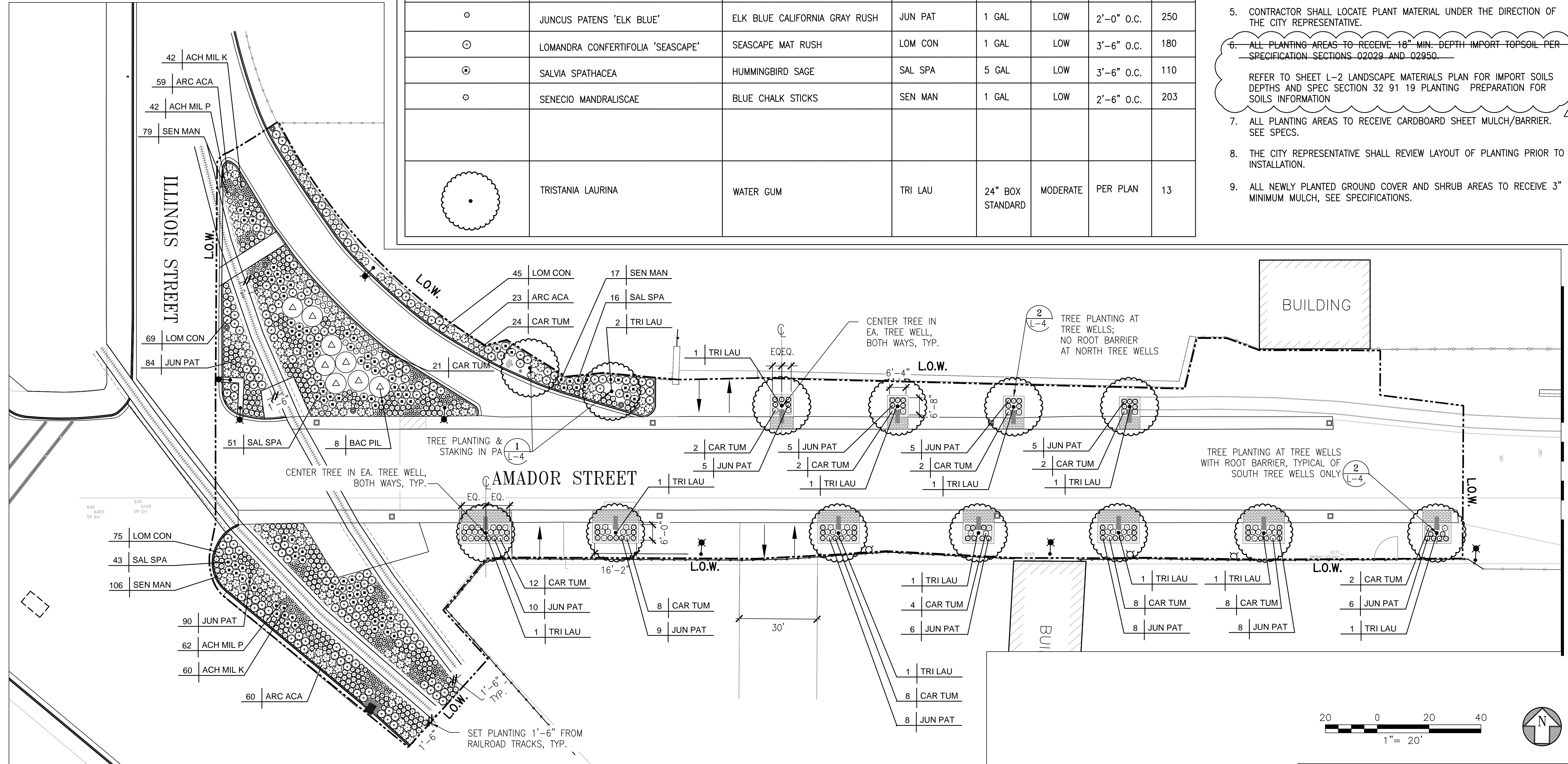
PLANTING LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	ABBREVIATION	SIZE	WATER USE	SPACING	QTY
⊙	ACHILLEA MILLEFOLIUM 'KING GEORGE'	WOOLLY YARROW 'KING GEORGE'	ACH MIL K	1 GAL	LOW	1'-6" O.C.	102
⊙	ACHILLEA MILLEFOLIUM 'PAPRIKA'	PAPRIKA COMMON YARROW	ACH MIL K	1 GAL	LOW	1'-6" O.C.	104
⊕	ARCTOTIS ACAULIS 'BIG MAGENTA'	AFRICAN DAISY	ARC ACA	1 GAL	LOW	3'-6" O.C.	142
⊙	BACCHARIS PILULARIS 'PIGEON POINT'	DWARF COYOTE BRUSH	BAC PIL	5 GAL	LOW	8'-6" O.C.	8
⊙	CAREX TUMULICOLA	FOOTHILL SEDGE	CAR TUM	1 GAL	LOW	2'-6" O.C.	104
⊙	JUNCUS PATENS 'ELK BLUE'	ELK BLUE CALIFORNIA GRAY RUSH	JUN PAT	1 GAL	LOW	2'-0" O.C.	250
⊙	LOMANDRA CONFERTIFOLIA 'SEASCAPE'	SEASCAPE MAT RUSH	LOM CON	1 GAL	LOW	3'-6" O.C.	180
⊙	SALVIA SPATHACEA	HUMMINGBIRD SAGE	SAL SPA	5 GAL	LOW	3'-6" O.C.	110
⊙	SENECIO MANDRALISCAE	BLUE CHALK STICKS	SEN MAN	1 GAL	LOW	2'-6" O.C.	203
⊙	TRISTANIA LAURINA	WATER GUM	TRI LAU	24" BOX STANDARD	MODERATE	PER PLAN	13

PLANTING NOTES:

1. SEE STANDARD SPECIFICATIONS, SECTION 1007 "PLANTING", FOR ADDITIONAL PLANTING INFORMATION.
2. PLANT COUNTS PROVIDED IS FOR THE CONVENIENCE OF THE CONTRACTOR. IN THE CASE OF DISCREPANCIES, THE PLAN SHALL GOVERN.
3. CONTRACTOR SHALL REVIEW ALL PLANT MATERIAL ON SITE WITH THE CITY REPRESENTATIVE AND SHALL INSTALL MATERIAL ONLY AFTER OBTAINING APPROVAL FROM THE ENGINEER.
4. THE CITY REPRESENTATIVE RESERVES THE RIGHT TO MAKE SUBSTITUTIONS, ADDITIONS AND DELETIONS IN THE PLANTING SCHEME AS THE WORK PROGRESSES.
5. CONTRACTOR SHALL LOCATE PLANT MATERIAL UNDER THE DIRECTION OF THE CITY REPRESENTATIVE.
6. ALL PLANTING AREAS TO RECEIVE 18" MIN. DEPTH IMPORT TOPSOIL PER SPECIFICATION SECTIONS 02029 AND 02950.

REFER TO SHEET L-2 LANDSCAPE MATERIALS PLAN FOR IMPORT SOILS DEPTHS AND SPEC SECTION 32 91 19 PLANTING PREPARATION FOR SOILS INFORMATION
7. ALL PLANTING AREAS TO RECEIVE CARDBOARD SHEET MULCH/BARRIER. SEE SPECS.
8. THE CITY REPRESENTATIVE SHALL REVIEW LAYOUT OF PLANTING PRIOR TO INSTALLATION.
9. ALL NEWLY PLANTED GROUND COVER AND SHRUB AREAS TO RECEIVE 3" MINIMUM MULCH, SEE SPECIFICATIONS.



PUBLIC WORKS JOB ORDER NUMBER: 23701 FILE NO. 122,532

NO.	DATE	DESCRIPTION	BY	APP.
1	8/16/24	ADDENDUM 3	AMA	

REFERENCE INFORMATION & FILE NO. OF SURVEYS

TABLE OF REVISIONS

SAN FRANCISCO PORT COMMISSION
PORT OF SAN FRANCISCO
 DEPARTMENT OF ENGINEERING

San Francisco, California
 August 15, 2023
 August 17, 2023
 August 17, 2023

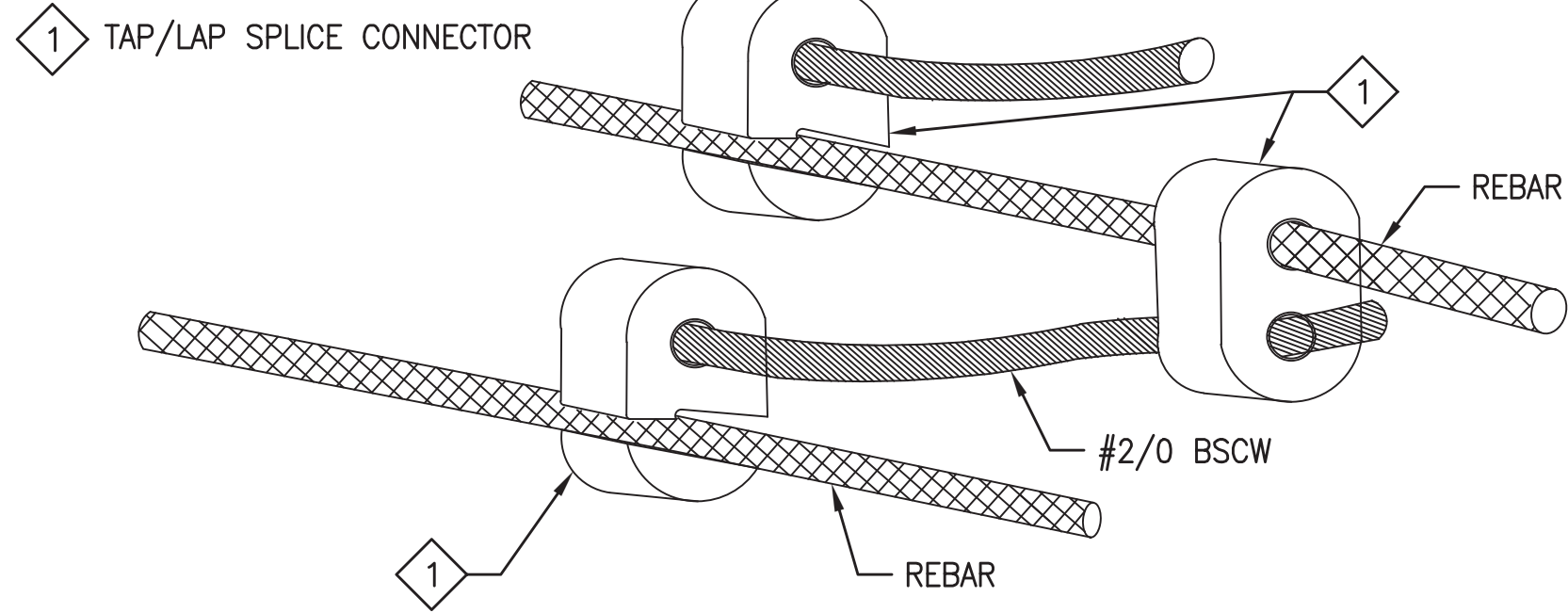
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DRAWN: DATE: J.A./A.S. 12/2023	BUREAU MANAGER DATE:	CHIEF HARBOR ENGINEER Uday Prasad	REV. NO. 1
CHECKED: DATE: T.E. 12/2023			

AMADOR STREET
INFRASTRUCTURE IMPROVEMENTS

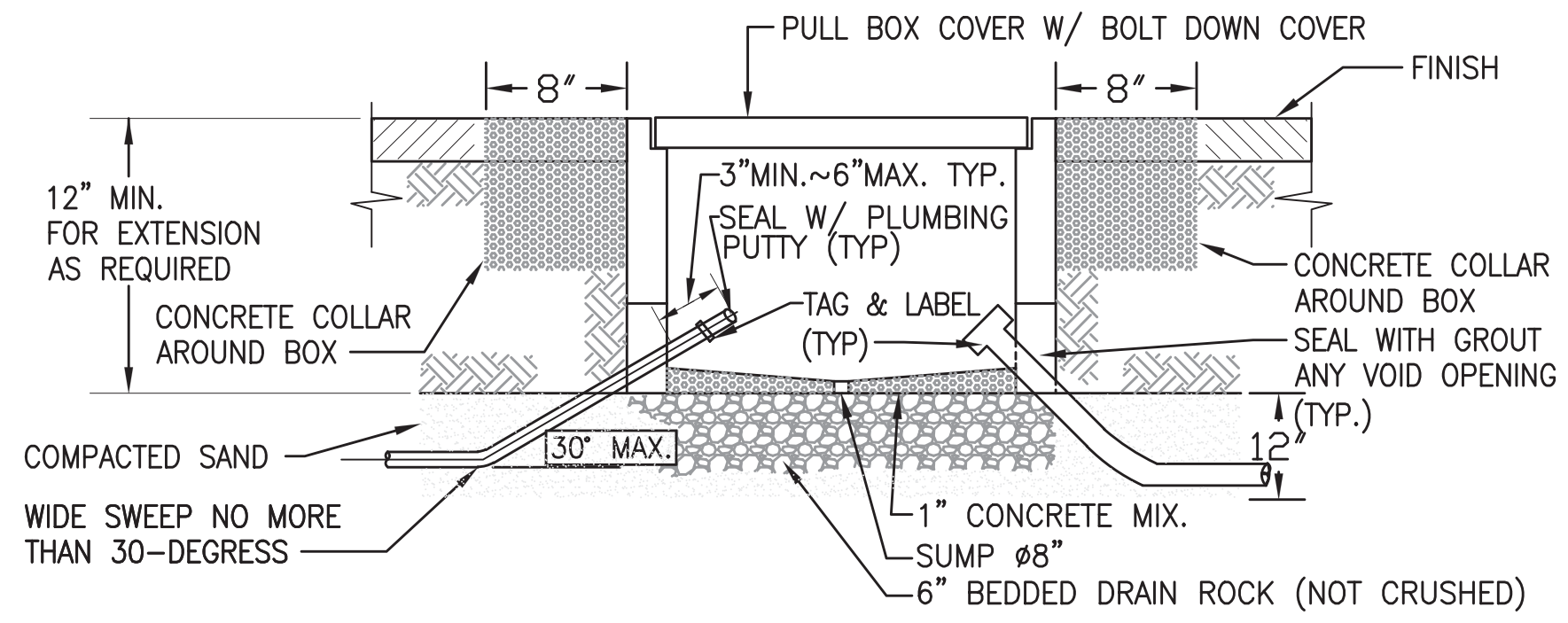
AMADOR STREET
LANDSCAPE PLANTING PLAN
 STA 0+00 TO 5+50

CONTRACT NO. 2852
PORT DRAWING NO. 19228.3-4043-L
SHEET NO. L-3
SHEET OF SHEETS 59 OF 72

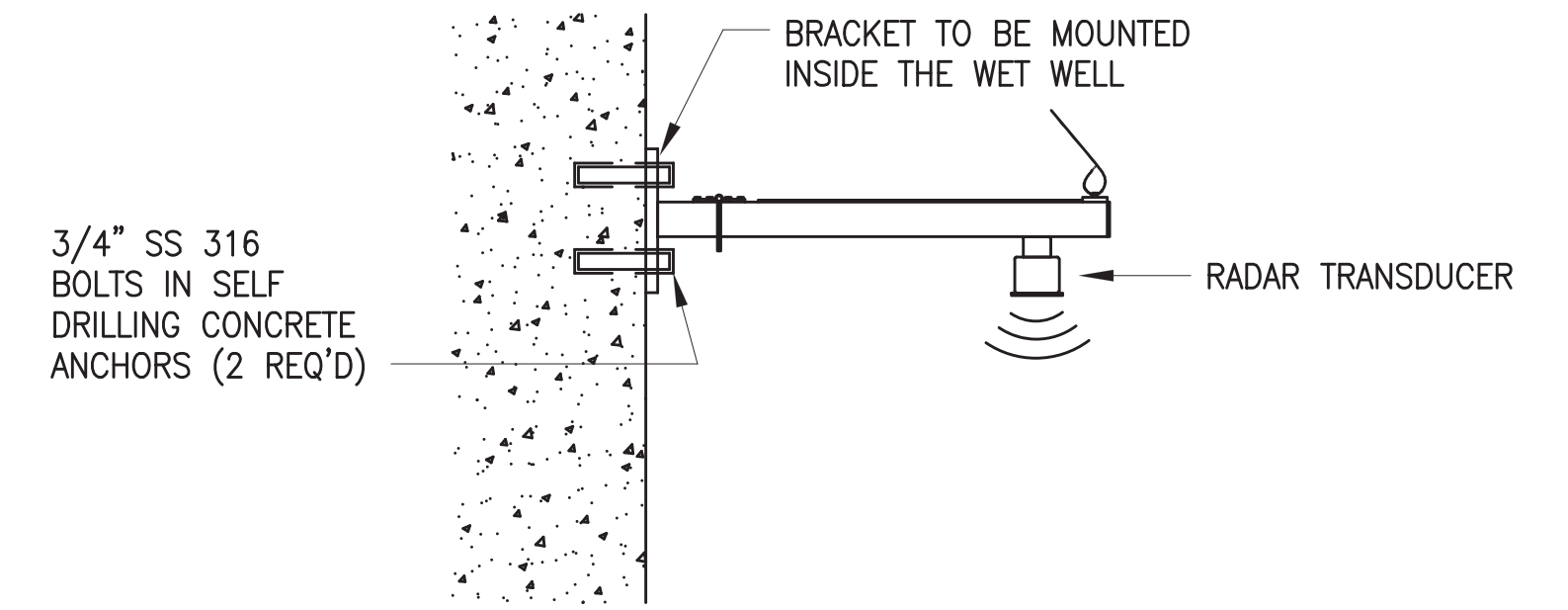
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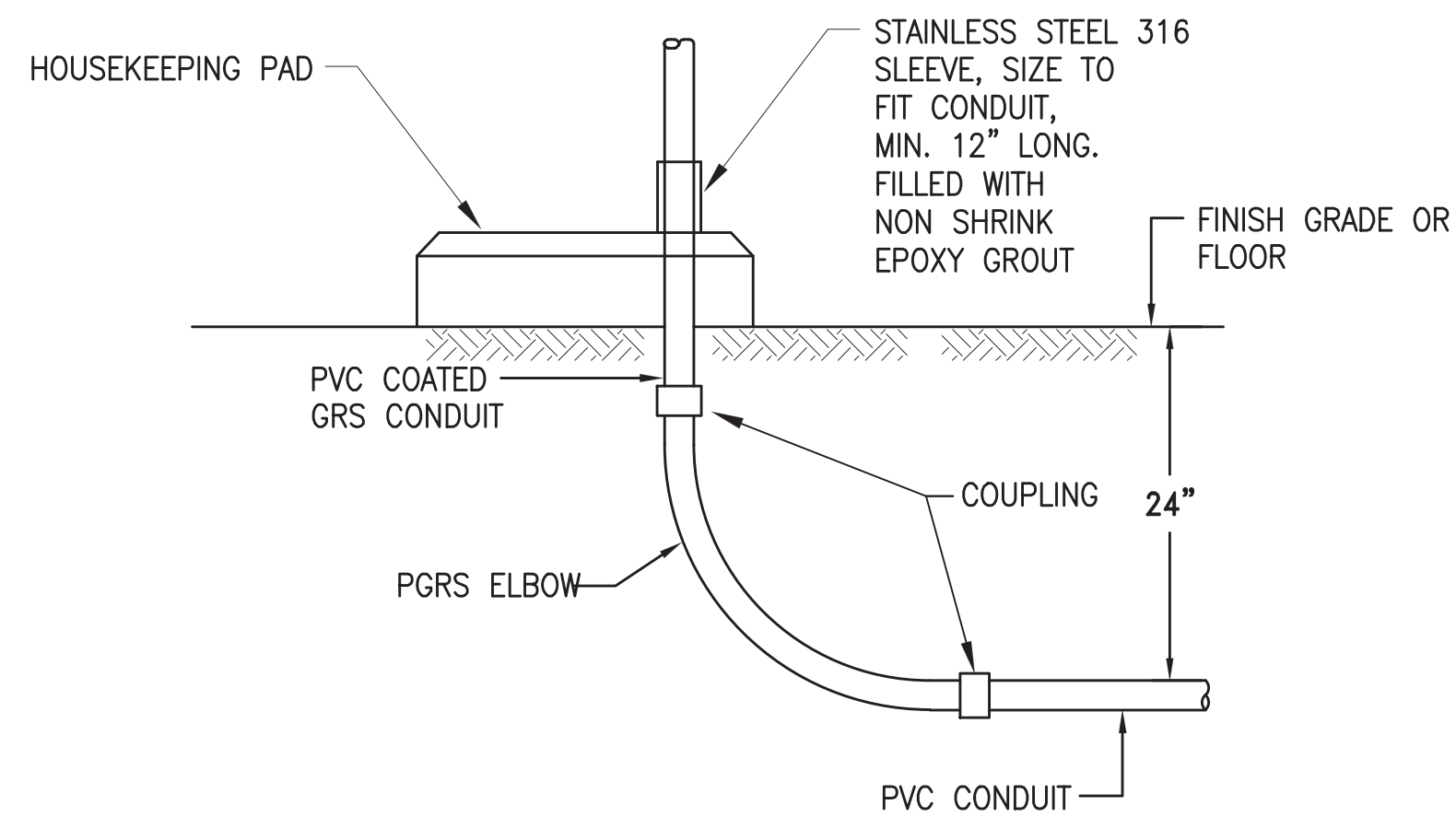
1 REBAR TO CABLE GROUNDING COMPRESSION CONNECTION
SCALE: NTS



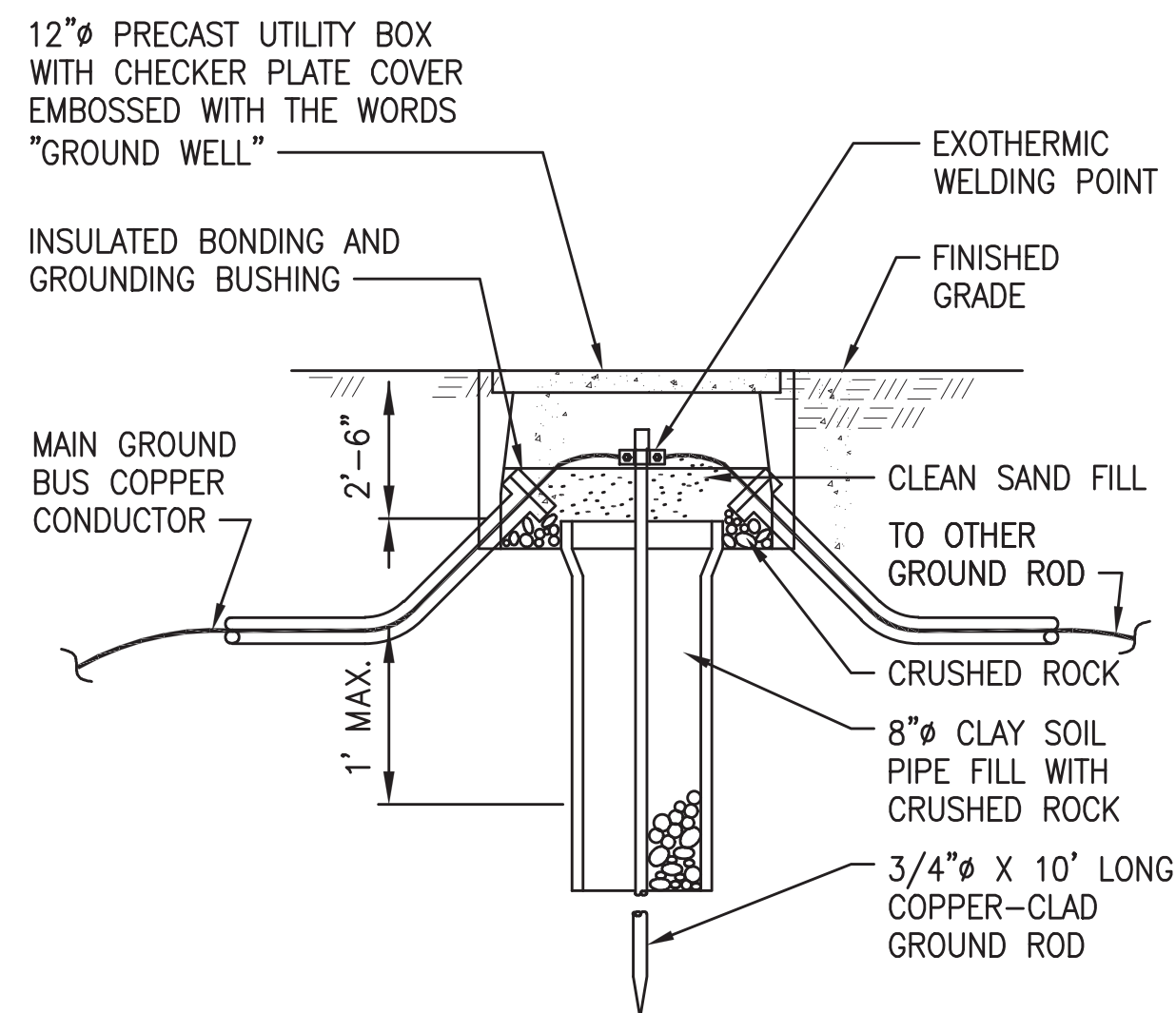
2 PULL BOX
SCALE: NTS



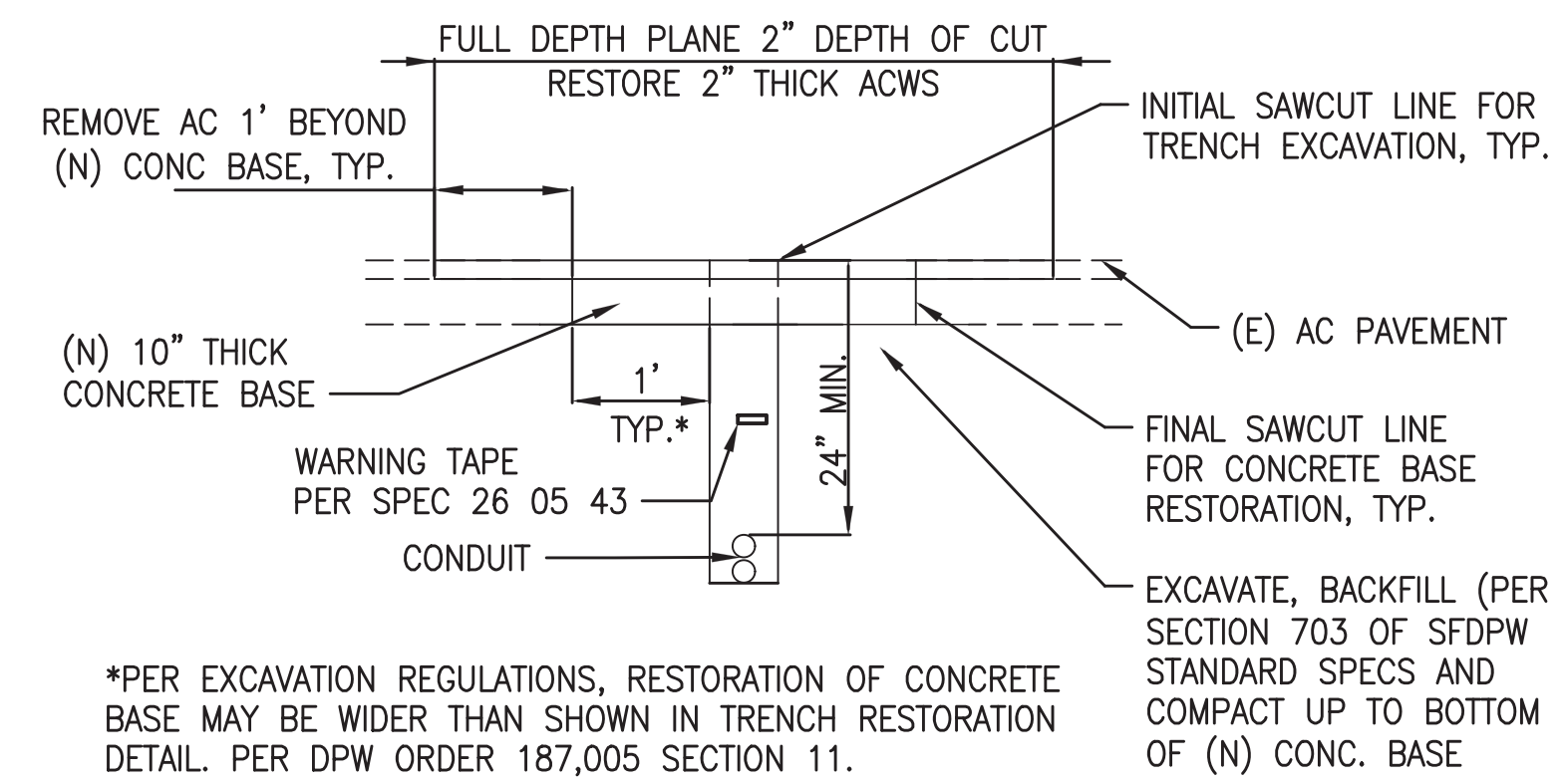
3 RADAR TRANSDUCER ON HINGED BRACKET
SCALE: NTS



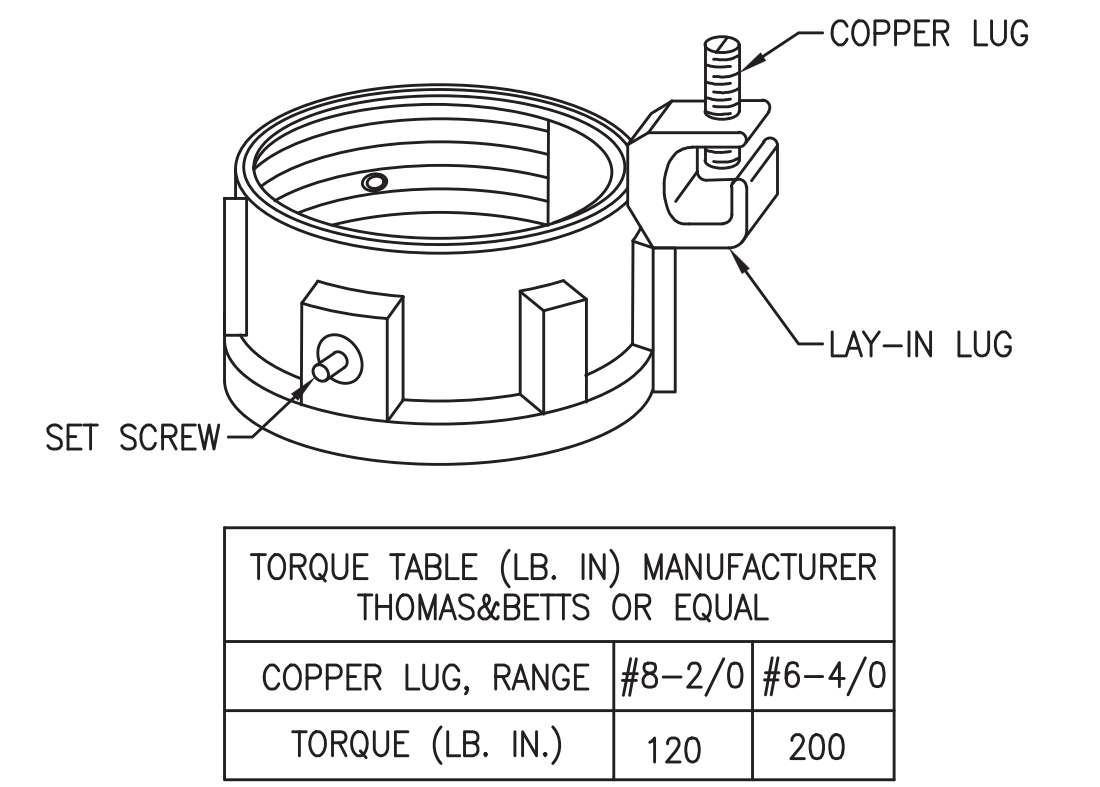
4 PGRS TO PVC UNDERGROUND CONDUIT TRANSITION
SCALE: NTS



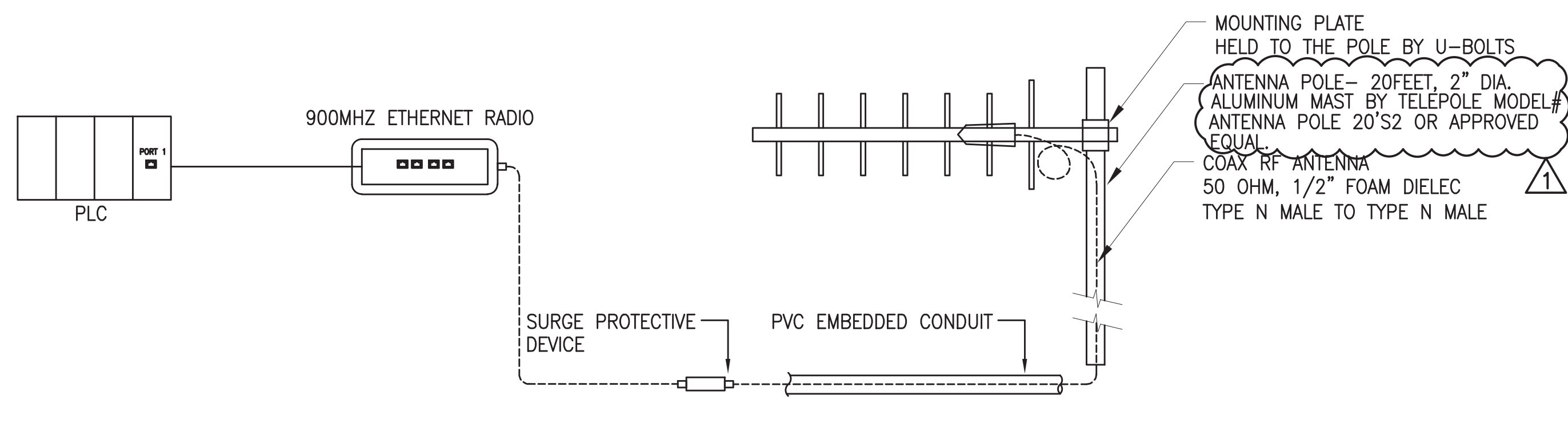
5 GROUND ROD IN WELL
SCALE: NTS



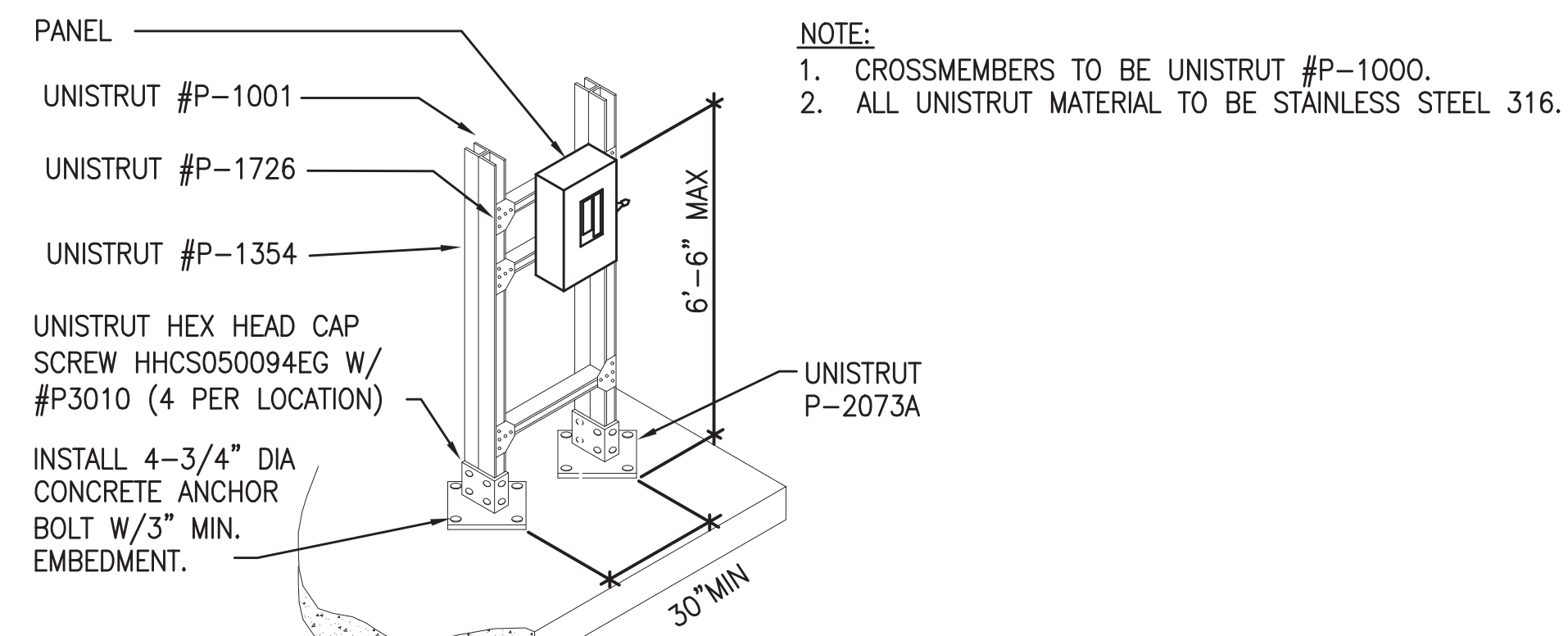
6 T-TRENCH FOR CONDUIT INSTALLATION
SCALE: NTS



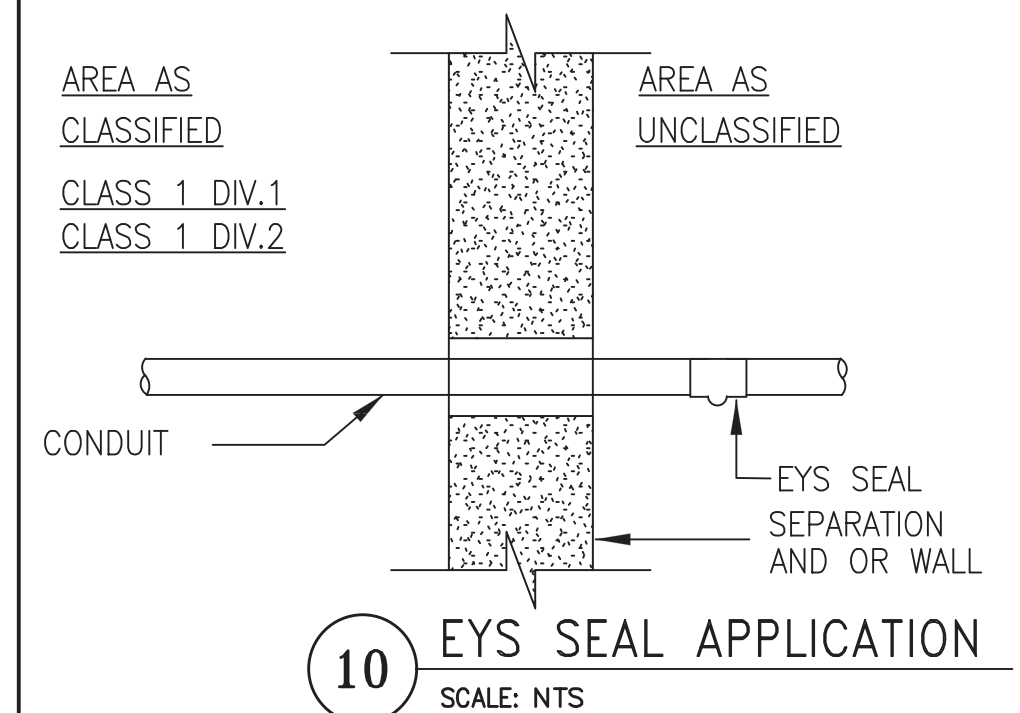
7 INSULATED GROUNDING BUSHINGS
SCALE: NTS



8 ANTENNA CONNECTION
SCALE: NTS



9 PANEL - MOUNTING DETAIL
SCALE: NTS



10 EYS SEAL APPLICATION
SCALE: NTS

SEE PLAN NO. E-3 REV. 0 FOR ORIGINAL SIGNATURES

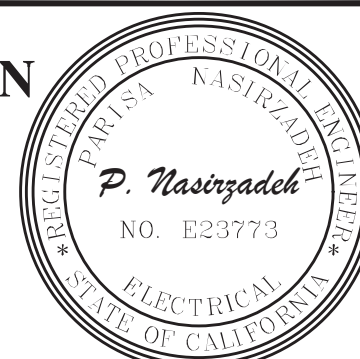
PUBLIC WORKS JOB ORDER NUMBER: 23701 FILE NO. 122,507

NO.	DATE	DESCRIPTION	BY	APP.
1	08/19/24	ANTENNA MAST MATERIAL CHANGE	ST	PN

REFERENCE INFORMATION & FILE NO. OF SURVEYS



SAN FRANCISCO PORT COMMISSION
PORT OF SAN FRANCISCO
DEPARTMENT OF ENGINEERING



DESIGNED: DATE: ST ST 12/23
DRAWN: DATE: ST ST 12/23
CHECKED: DATE: PN ST 12/23

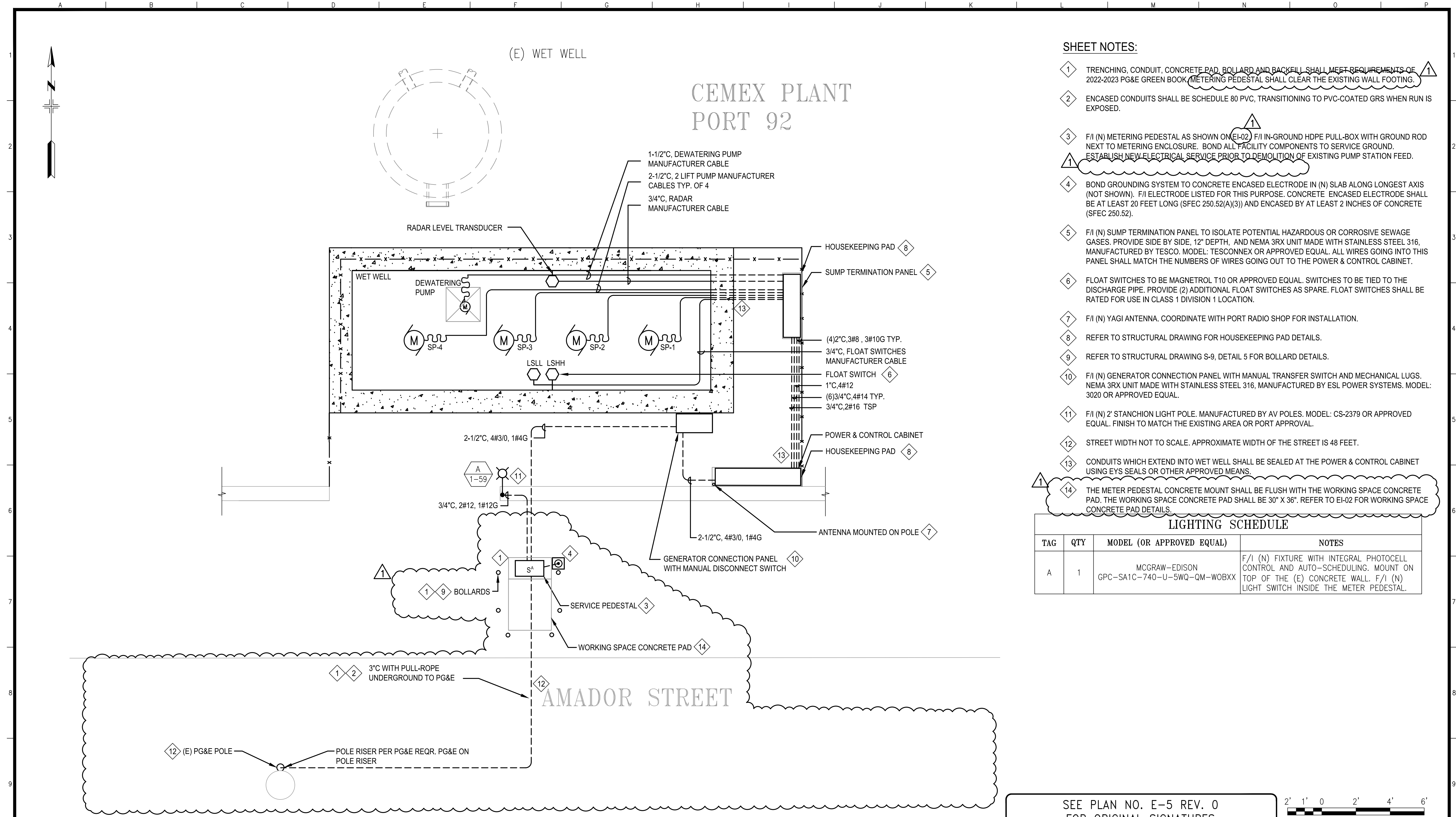
PUBLIC WORKS APPROVALS
SECTION MANAGER DATE:
DEPUTY BUREAU MANAGER DATE:
BUREAU MANAGER DATE:

APPROVED BY
SAN FRANCISCO PORT COMMISSION
DATE: 8/19/2024
Uday Prasad
CHIEF HARBOR ENGINEER

SCALE: NONE
REV. NO. 1

AMADOR STREET
INFRASTRUCTURE IMPROVEMENTS
ELECTRICAL DETAILS

CONTRACT NO. 2852
PORT DRAWING NO. 19211.2-4043-E
SHEET NO. E-3
SHEET OF SHEETS 36 OF 72



ELECTRICAL SITE PLAN
SCALE: 3/8" = 1'-0"

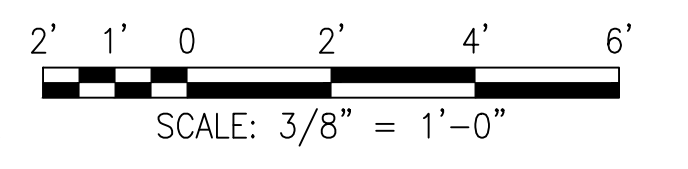
SHEET NOTES:

- 1 TRENCHING, CONDUIT, CONCRETE PAD, BOLLARD AND BACKFILL SHALL MEET REQUIREMENTS OF 2022-2023 PG&E GREEN BOOK. METERING PEDESTAL SHALL CLEAR THE EXISTING WALL FOOTING.
- 2 ENCASED CONDUITS SHALL BE SCHEDULE 80 PVC, TRANSITIONING TO PVC-COATED GRS WHEN RUN IS EXPOSED.
- 3 F/I (N) METERING PEDESTAL AS SHOWN ON E1-02. F/I IN-GROUND HDPE PULL-BOX WITH GROUND ROD NEXT TO METERING ENCLOSURE. BOND ALL FACILITY COMPONENTS TO SERVICE GROUND. ESTABLISH NEW ELECTRICAL SERVICE PRIOR TO DEMOLITION OF EXISTING PUMP STATION FEED.
- 4 BOND GROUNDING SYSTEM TO CONCRETE ENCASED ELECTRODE IN (N) SLAB ALONG LONGEST AXIS (NOT SHOWN). F/I ELECTRODE LISTED FOR THIS PURPOSE. CONCRETE ENCASED ELECTRODE SHALL BE AT LEAST 20 FEET LONG (SFEC 250.52(A)(3)) AND ENCASED BY AT LEAST 2 INCHES OF CONCRETE (SFEC 250.52).
- 5 F/I (N) SUMP TERMINATION PANEL TO ISOLATE POTENTIAL HAZARDOUS OR CORROSIVE SEWAGE GASES. PROVIDE SIDE BY SIDE, 12" DEPTH, AND NEMA 3RX UNIT MADE WITH STAINLESS STEEL 316, MANUFACTURED BY TESCO. MODEL: TESCONNEX OR APPROVED EQUAL. ALL WIRES GOING INTO THIS PANEL SHALL MATCH THE NUMBERS OF WIRES GOING OUT TO THE POWER & CONTROL CABINET.
- 6 FLOAT SWITCHES TO BE MAGNETROL T10 OR APPROVED EQUAL. SWITCHES TO BE TIED TO THE DISCHARGE PIPE. PROVIDE (2) ADDITIONAL FLOAT SWITCHES AS SPARE. FLOAT SWITCHES SHALL BE RATED FOR USE IN CLASS 1 DIVISION 1 LOCATION.
- 7 F/I (N) YAGI ANTENNA. COORDINATE WITH PORT RADIO SHOP FOR INSTALLATION.
- 8 REFER TO STRUCTURAL DRAWING FOR HOUSEKEEPING PAD DETAILS.
- 9 REFER TO STRUCTURAL DRAWING S-9, DETAIL 5 FOR BOLLARD DETAILS.
- 10 F/I (N) GENERATOR CONNECTION PANEL WITH MANUAL TRANSFER SWITCH AND MECHANICAL LUGS. NEMA 3RX UNIT MADE WITH STAINLESS STEEL 316, MANUFACTURED BY ESL POWER SYSTEMS. MODEL: 3020 OR APPROVED EQUAL.
- 11 F/I (N) 2' STANCHION LIGHT POLE. MANUFACTURED BY AV POLES. MODEL: CS-2379 OR APPROVED EQUAL. FINISH TO MATCH THE EXISTING AREA OR PORT APPROVAL.
- 12 STREET WIDTH NOT TO SCALE. APPROXIMATE WIDTH OF THE STREET IS 48 FEET.
- 13 CONDUITS WHICH EXTEND INTO WET WELL SHALL BE SEALED AT THE POWER & CONTROL CABINET USING EYS SEALS OR OTHER APPROVED MEANS.
- 14 THE METER PEDESTAL CONCRETE MOUNT SHALL BE FLUSH WITH THE WORKING SPACE CONCRETE PAD. THE WORKING SPACE CONCRETE PAD SHALL BE 30" X 36". REFER TO E1-02 FOR WORKING SPACE CONCRETE PAD DETAILS.

LIGHTING SCHEDULE

TAG	QTY	MODEL (OR APPROVED EQUAL)	NOTES
A	1	MCGRAW-EDISON GPC-SA1C-740-U-SWQ-QM-WOBXX	F/I (N) FIXTURE WITH INTEGRAL PHOTOCELL CONTROL AND AUTO-SCHEDULING. MOUNT ON TOP OF THE (E) CONCRETE WALL. F/I (N) LIGHT SWITCH INSIDE THE METER PEDESTAL.

SEE PLAN NO. E-5 REV. 0
FOR ORIGINAL SIGNATURES



PUBLIC WORKS JOB ORDER NUMBER: 23701 FILE NO. 122,509

NO.	DATE	DESCRIPTION	BY	APP.
ADDENDUM #03				
08/14/24		SERVICE PEDESTAL MOUNTING MODIFICATION	ST	PN
TABLE OF REVISIONS				

REFERENCE INFORMATION & FILE NO. OF SURVEYS

SAN FRANCISCO PORT COMMISSION
PORT OF SAN FRANCISCO
DEPARTMENT OF ENGINEERING

8/14/2024

DESIGNED: DATE:	12/23
DRAWN: DATE:	12/23
CHECKED: DATE:	12/23
PN	12/23

PUBLIC WORKS APPROVALS

APPROVED BY
SAN FRANCISCO PORT COMMISSION
DATE: 8/19/2024

Uday Prasad
CHIEF HARBOR ENGINEER

SCALE:	AS SHOWN
REV. NO.	1

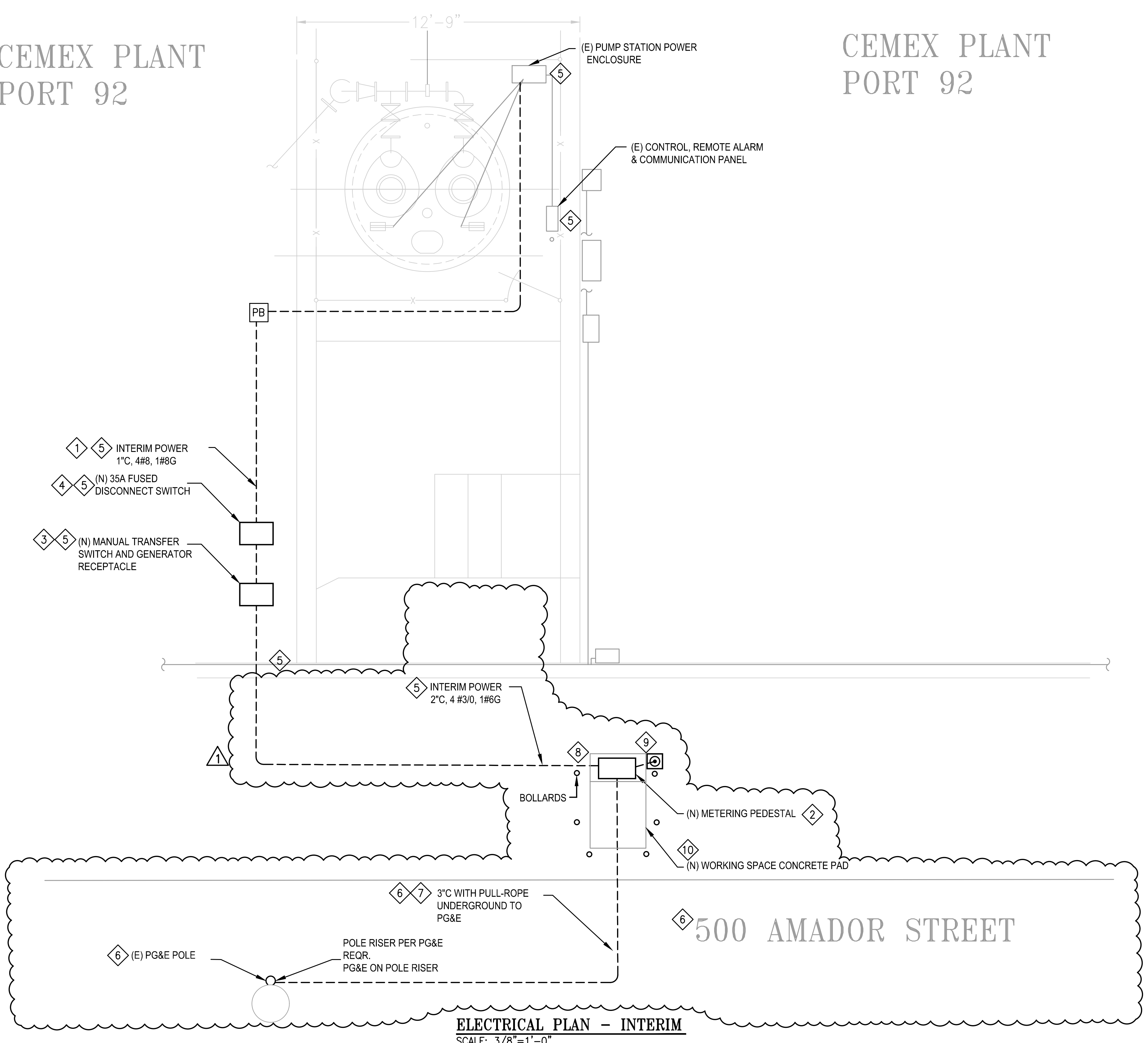
AMADOR STREET
INFRASTRUCTURE IMPROVEMENTS

ELECTRICAL SITE PLAN

CONTRACT NO.	2852
PORT DRAWING NO.	19213-4043-E
SHEET NO.	E-5
SHEET OF SHEETS	38 OF 72

CEMEX PLANT PORT 92

CEMEX PLANT PORT 92



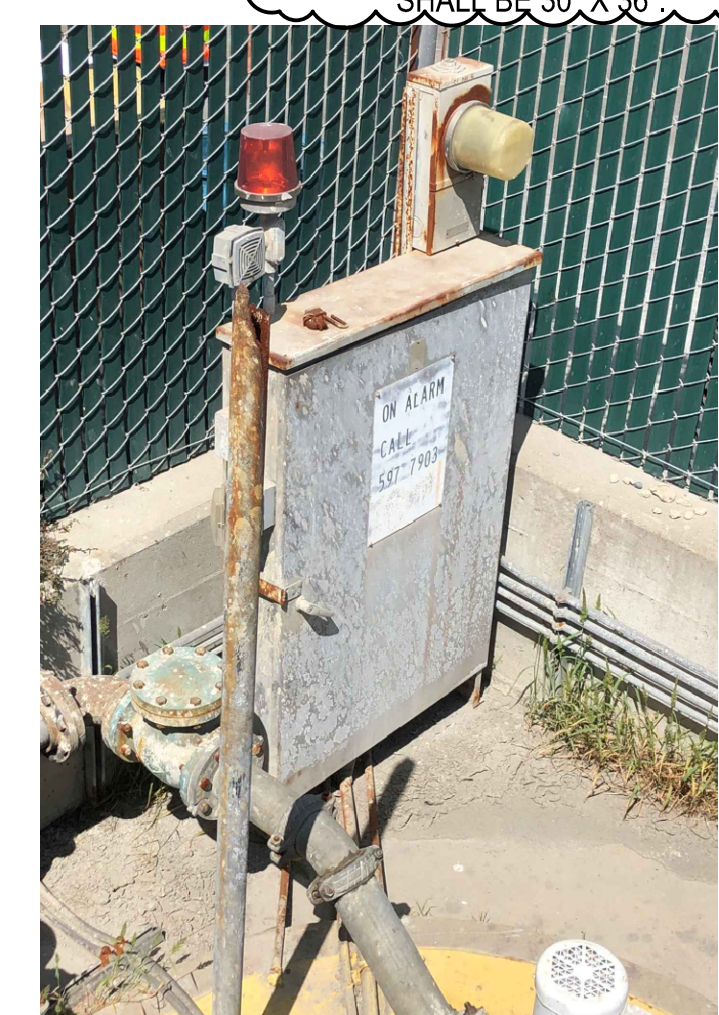
ELECTRICAL PLAN - INTERIM
SCALE: 3/8"=1'-0"

GENERAL NOTES:

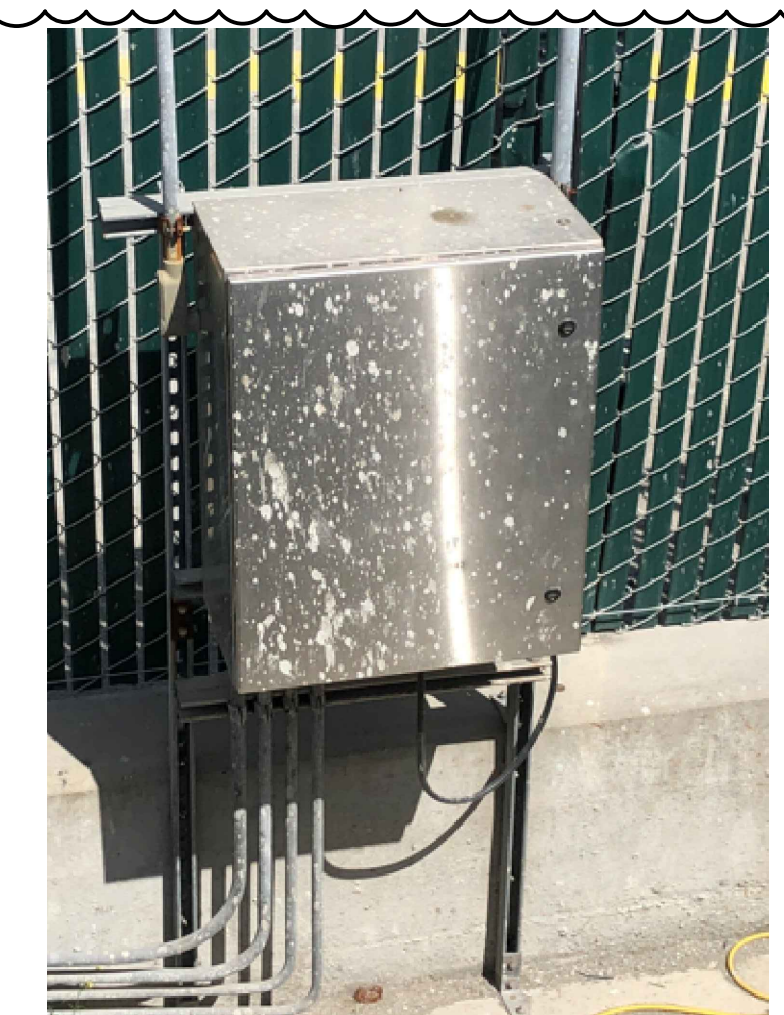
- CONTRACTOR SHALL USE CAUTION WHEN WORKING AROUND NEWLY INSTALLED CONDUITS, INCLUDING HAND-DIGGING, IF REQUIRED, TO BE PERFORMED AS INCIDENTAL WORK.
- CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGES TO THE CONDUITS WHICH MAY OCCUR AS A RESULT OF THE CONTRACTOR'S OPERATIONS. ANY DAMAGES SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

SHEET NOTES:

- F/I INTERIM POWER CONDUITS AND CONDUCTORS FROM NEW SERVICE PEDESTAL TO THE EXISTING PUMP POWER ENCLOSURE TO POWER THE EXISTING PUMPS FROM NEW METERING PEDESTAL. COORDINATE WITH PG&E TO DISCONNECT THE EXISTING METER FROM (E) MAIN 35 AMP MAIN BREAKER IN THE ENCLOSURE. CONNECT INTERIM POWER CONDUCTORS TO THE (E) MAIN BREAKER.
- SEE DRAWING EI-02 FOR DETAILS ON NEW SERVICE PEDESTAL LOCATION AND PG&E SERVICE INSTALLATION.
- F/I (N) GENERATOR CONNECTION PANEL WITH MANUAL TRANSFER SWITCH AND CAM LOCKS CONNECTORS. NEMA 3RX UNIT MADE WITH STAINLESS STEEL 316.
- F/I NEW FUSED DISCONNECT SWITCH AS INDICATED. NEMA 4X UNIT MADE WITH STAINLESS STEEL 316.
- R/C INTERIM POWER CONDUCTORS, DISCONNECT SWITCH, MANUAL TRANSFER SWITCH, AND GENERATOR RECEPTACLE ONCE NEW STATION HAS BEEN TESTED AND COMMISSIONED.
- TRENCHING, CONDUIT, CONCRETE PAD, BOLLARD AND BACKFILL SHALL MEET REQUIREMENTS OF 2022-2023 PG&E GREEN BOOK. STREET WIDTH NOT TO SCALE. APPROXIMATE WIDTH OF THE STREET IS 48 FEET. CONTRACTOR TO PROTECT ALL THE CONDUITS AGAINST ANY POTENTIAL DAMAGE AFTER INSTALLATION.
- ENCASED CONDUITS SHALL BE SCHEDULE 80 PVC, TRANSITIONING TO PVC-COATED GRS WHEN RUN IS EXPOSED.
- ALL THE CONDUITS TO METERING PEDESTAL MUST BE INSTALLED BEFORE POURING CONCRETE, SEE E-5. METERING PEDESTAL SHALL CLEAR THE EXISTING WALL FOOTING.
- BOND GROUNDING SYSTEM TO CONCRETE ENCASED ELECTRODE IN (N) SLAB ALONG LONGEST AXIS (NOT SHOWN). F/I ELECTRODE LISTED FOR THIS PURPOSE. CONCRETE ENCASED ELECTRODE SHALL BE AT LEAST 20 FEET LONG (SFEC 250.52(A)(3)) AND ENCASED BY AT LEAST 2 INCHES OF CONCRETE (SFEC 250.52).
- THE PEDESTAL CONCRETE MOUNT SHALL BE FLUSH WITH THE WORKING SPACE CONCRETE PAD. REFER TO EI-02 FOR WORKING SPACE CONCRETE PAD DETAILS. THE WORKING SPACE CONCRETE PAD SHALL BE 30" X 36".



(E) POWER ENCLOSURE
SCALE: NTS



(E) CONTROL, REMOTE ALARM & COMMUNICATION PANEL
SCALE: NTS

SEE PLAN NO. EI-01 REV. 0
FOR ORIGINAL SIGNATURES

PUBLIC WORKS JOB ORDER NUMBER: 23701 FILE NO. 122,516

NO.	DATE	DESCRIPTION	BY	APP.
ADDENDUM #03		SERVICE PEDESTAL MOUNTING MODIFICATION	ST	PN
08/14/24				

TABLE OF REVISIONS

REFERENCE INFORMATION & FILE NO. OF SURVEYS

SAN FRANCISCO PORT COMMISSION
PORT OF SAN FRANCISCO
DEPARTMENT OF ENGINEERING

8/14/2024

DESIGNED:	DATE:	PUBLIC WORKS APPROVALS
ST	6/24	C. IAO
DRAWN:	DATE:	SECTION MANAGER
ST	6/24	I. DHAPA
CHECKED:	DATE:	DEPUTY BUREAU MANAGER
PN	6/24	P. RIVERA
		BUREAU MANAGER

APPROVED BY
SAN FRANCISCO PORT COMMISSION
8/19/2024

Uday Prasad
CHIEF HARBOR ENGINEER

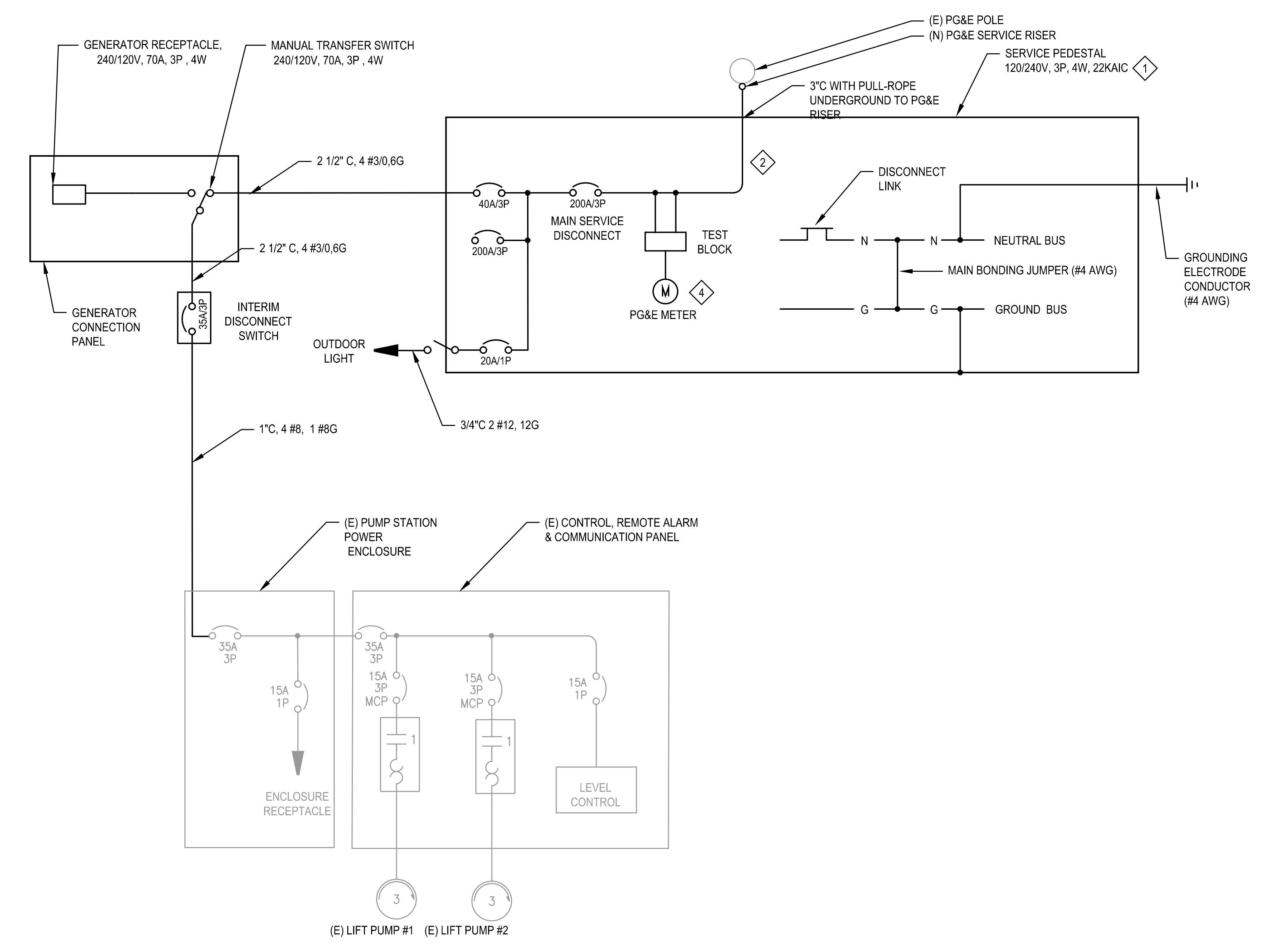
SCALE:	NONE
REV. NO.	1

AMADOR STREET
INFRASTRUCTURE IMPROVEMENTS
ELECTRICAL INTERIM PLAN

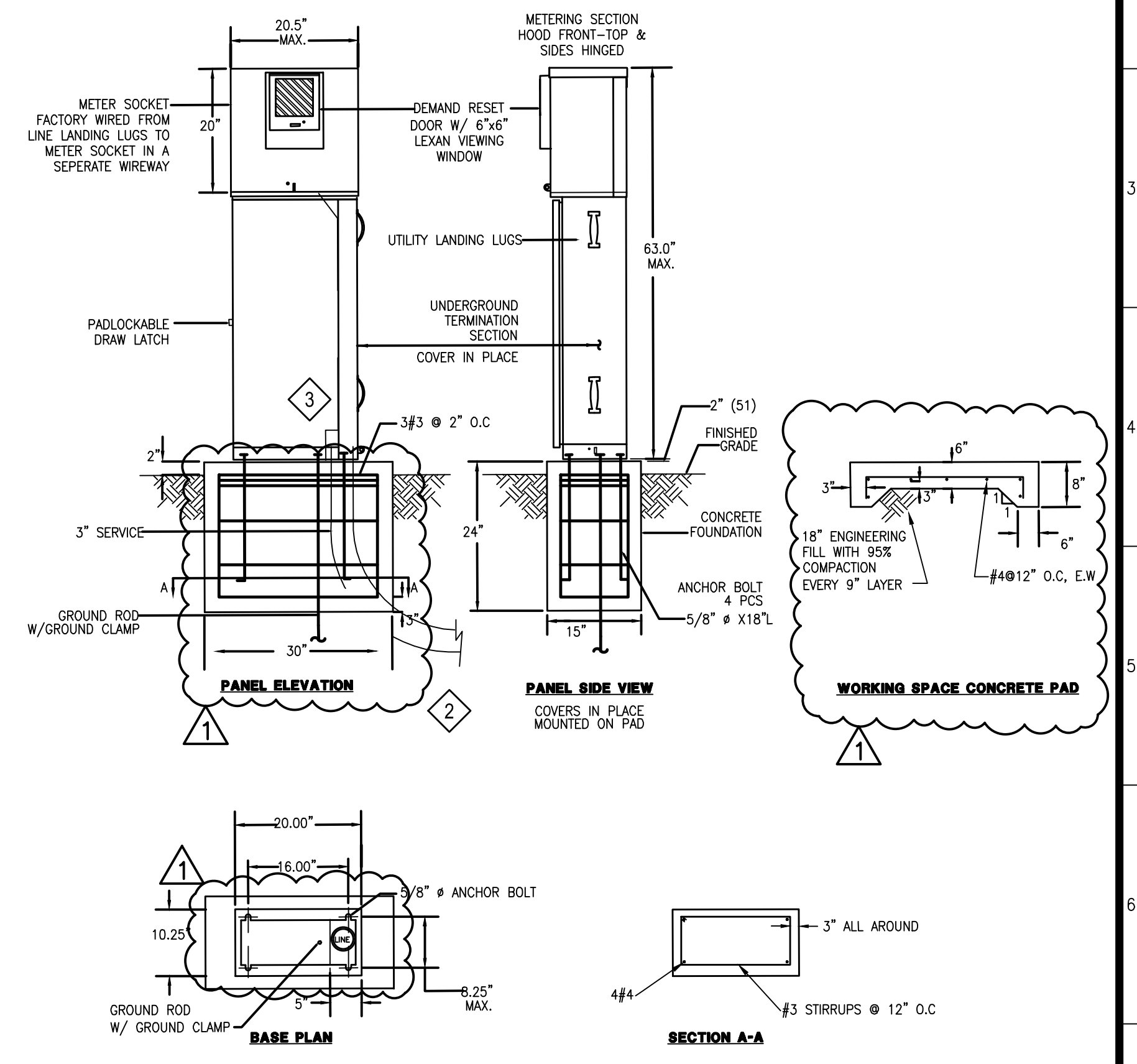
CONTRACT NO.	2852
PORT DRAWING NO.	19218.1-4043-E
SHEET NO.	EI-01
SHEET OF SHEETS	45 OF 72

SHEET NOTES:

- 1 F/I PEDESTAL MOUNTED PG&E METERING EQUIPMENT WITH MAIN CIRCUIT BREAKER FOR NEW SERVICE. ENCLOSURE SHALL BE RATED NEMA 3RX USE AND SHALL HAVE TAMPER RESISTANT HARDWARE. METERING EQUIPMENT SHALL BE EUSERC COMPLIANT. INSTALLATION SHALL COMPLY WITH PG&E ELECTRIC AND GAS SERVICE REQUIREMENTS (GREENBOOK). COORDINATE WITH UTILITY FOR IDENTIFICATION OF HIGH-LEG FOR SINGLE PHASE 120V LOADS. HIGH-LEG TO BE DIFFERENTIATED IN PANEL PER SPEC. CONTRACTOR MUST HAVE PRE-CONSTRUCTION MEETING WITH PG&E BEFORE INSTALLING METERING PEDESTAL AND CONDUITS TO IT. THE EXISTING METER HAS TO BE REMOVED BEFORE CONNECTION TO THE NEW METERING PEDESTAL.
- 2 F/I 3" PGRS CONDUIT FROM METERING PEDESTAL TO PG&E RISER. COORDINATE WITH PG&E FOR CONDUIT INSTALLATION.
- 3 F/I (N) LIGHT SWITCH FOR THE EXTERIOR POLE LIGHTING INSIDE THE METER PEDESTAL.



PUMP STATION SINGLE LINE DIAGRAM INTERIM
SCALE: NTS



PG&E SERVICE PEDESTAL MOUNTING DETAIL

SCALE: NTS

SERVICE PEDESTAL CONSTRUCTION NOTES:

1. FABRICATED FROM 14 GAUGE. #316 STAINLESS STEEL AND INT. 14 GAUGE. COLD ROLLED STEEL ELECTRICALLY WELDED AND REINFORCED WHERE REQUIRED.
2. ALL NUTS, BOLTS AND SCREWS SHALL BE STAINLESS STEEL.
3. CONCRETE COMPRESSIVE STRENGTH 4000 PSI, STEEL REINFORCING A615, GRADE 60.
4. NUTS, BOLTS & SCREWS SHALL NOT BE VISIBLE FROM OUTSIDE OF ENCLOSURE.
5. CONTROL WIRING SHALL BE MARKED AT BOTH ENDS BY PERMANENT WIRE MARKERS.
6. A PLASTIC COVERED WIRING DIAGRAM SHALL BE ATTACHED TO THE INSIDE OF THE FRONT DOOR.
7. ENCLOSURE SHALL BE FACTORY WIRED AND CONFORM TO REQUIRED NEMA AND UL 508A STANDARDS.
8. EQUIPMENT RATED AT 22,000 SHORT CIRCUIT CURRENT RATING.
9. UTILITY SERVICE METER PEDESTAL SHALL BE FREE STANDING. TESCO MODEL 27-100 IN NEMA 3RX STAINLESS STEEL 316.
10. COLOR SHALL BE APPROVED BY THE PORT OF SAN FRANCISCO.

SEE PLAN NO. EI-02 REV. 0
FOR ORIGINAL SIGNATURES

PUBLIC WORKS JOB ORDER NUMBER: 23701 FILE NO. 122,516.1

NO.	DATE	DESCRIPTION	BY	APP.
1	08/14/24	SERVICE PEDESTAL MOUNTING MODIFICATION	ST	PN

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SAN FRANCISCO PORT COMMISSION
PORT OF SAN FRANCISCO
 DEPARTMENT OF ENGINEERING

8/14/2024

DESIGNED: ST	DATE: 6/24	PUBLIC WORKS APPROVALS	APPROVED BY: C. IAO	DATE: 8/19/2024
DRAWN: ST	DATE: 6/24		DEPUTY BUREAU MANAGER	
CHECKED: PN	DATE: 6/24		P. RIVERA	
			BUREAU MANAGER	

APPROVED BY: Uday Prasad
CHIEF HARBOR ENGINEER

SCALE: AS SHOWN
REV. NO. 1

AMADOR STREET
INFRASTRUCTURE IMPROVEMENTS
ELECTRICAL INTERIM SINGLE LINE DIAGRAM
& SERVICE PEDESTAL ELEVATION

CONTRACT NO. 2852
PORT DRAWING NO. 19218.2-4043-E
SHEET NO. EI-02
SHEET OF SHEETS 46 OF 72