

**SECTION 00901**

**ADDENDUM NO. 1**

**1. GENERAL**

*Scope*

This addendum modifies the Contract Documents dated October 27, 2022, for the San Lorenzo Valley Water District Lyon and Big Steel Zone Pipeline Improvements Project, and the work shall be accomplished in accordance with such modifications. This Addendum includes four (4) pages plus five (5) attachments (total of 29 pages).

The Addenda includes Contractor Information Items, responses to questions, changes to the Bid and Contract Documents, followed by attachments.

**Note: The Bid Date is revised from January 5, 2023 to January 26, 2023.**

*Acknowledgment*

Bidders must acknowledge this addendum as part of the bid submission by completing bidder's acknowledgment of addenda (Section 00300). Failure to acknowledge the addendum may constitute grounds for rejection of the bid.

**2. CONTRACTOR INFORMATION ITEMS**

- A. Section 00020 Paragraph A. states, in part: *Sealed Bids will be received by Holly Hossack at SLVWD, 13060 CA-9, Boulder Creek, California, 95006, Telephone (831) 338-2153 until 3:00 p.m. on January 5, 2023 for the construction of the Work entitled: Lyon & Big Steel Zone Pipeline Improvements.* This Paragraph is revised to the following, no other changes to this Paragraph are included:
  - a. Sealed Bids will be received by Holly Hossack at SLVWD, 13060 CA-9, Boulder Creek, California, 95006, Telephone (831) 338-2153 until 3:00 p.m. on **January 26, 2023** for the construction of the Work entitled: Lyon & Big Steel Zone Pipeline Improvements.
- B. Section 00020, BIDS, Paragraph C. states: *Requests for interpretation of the Contract Documents shall be submitted to Josh Wolff at SLVWD in writing to jwolff@slvwd.com no later than 5:00 p.m., December 19, 2022. SLVWD will release a final response to requests for interpretation no later than December 21, 2022.* This Paragraph is revised to the following, no other changes to this Paragraph are included:
  - a. Requests for interpretation of the Contract Documents shall be submitted to Josh Wolff at SLVWD in writing to jwolff@slvwd.com no later than 5:00 p.m., **January 12, 2023**. SLVWD will release a final response to requests for interpretation no later than **January 18, 2023**.

**3. RESPONSES TO QUESTIONS**

- A. Confirm that the Qualified Biologist referenced in the Mitigation Monitoring and Reporting Program will be handled and paid for by the District.
  - a. Yes, the biological monitor will be the responsibility of the District
- B. Confirm that soils compaction testing and concrete/2-sack slurry testing will be by the

contractor.

- a. The Owner will hire a third-party geotechnical inspector for compaction and concrete testing.
- C. Confirm that Item #35 has been duplicated and that the 2" Air-Vac Valve should be Item#34.
  - a. Correct. Item No. 34 is the 2-in Air-Vac Valve
- D. Confirm that Item #35 Blow Off Valve should be 4 Each – not 4 LS.
  - a. Yes, unit is for Each. The Bid Proposal form is reissued with those corrections.
- E. As the Caltrans permit is not yet available, can we base our bid on the provided trench details for Santa Cruz County? Will the cross trench detail with additional width restoration be required within Caltrans ROW?
  - a. Yes, you may assume the County details apply within the Caltrans ROW.
- F. Can we assume that we will have an 8-hour work window for work within the Caltrans ROW?
  - a. The permit has not yet been issued. Please assume that lanes closures are limited to 9:00 a.m. to 4:00 p.m.
- G. What is the minimum separation between LZ and BSZ pipelines?
  - a. 4-ft, wall to wall
- H. What is the minimum cover for new pipelines? Plan notes say 42" in Caltrans ROW and 32" elsewhere but the profile shows 54". Please clarify.
  - a. 54-in cover minimum is required for all new pipes. The note on G1.2 is clarified below.
- I. Please provide Caltrans and County Encroachment Permits with conditions.
  - a. Permits have not yet been issued. We will issue them with an Addendum if they are issued before the Bid Date.
- J. Please clarify pavement restoration requirements within Caltrans ROW.
  - a. Permits have not yet been issued. Assume the same requirements as per the County details.
- K. Please clarify difference between bid items 32A and 32B; 33A and 33B.
  - a. Items 32A and 33A are for all items necessary to install replace or install new 1-inch or 2-inch water services except the lateral pipeline itself. 32B and 33B are for the service lateral pipeline material and installation since the distances from the water mains to water meters varies greatly. Refer to Section 01 20 00 for more information.

- L. Will a slurry seal be required on County streets?
  - a. Yes. Please refer to section 32 12 16
- M. How many linear feet of 2" pipe should bidders assume to be installed for bid items 14, 15, 16, 25, and 26?
  - a. Assume 20 LF for each Bid Item.
- N. Thrust block details provided, but as the project is utilizing restrained joint piping, can clarification be provided as to where thrust blocks would be required.
  - a. Thrust blocks are required where new work connects to existing mains since the existing mains are assumed to be unrestrained. Size the thrust block for the added angle fitting or valve, as applicable. Thrust blocks are also required for fire hydrants (provided vertical support to the above-grade portion).
- O. Will pipe coatings be required for exposed pipe within the PRV stations?
  - a. Per Section 33 11 13.15, Item 2.01.F, exposed ductile iron pipes, valves and fittings shall be epoxy coated. Pipe spools extending through the vault wall may be either epoxy or bituminous coated.
- P. Pipe trench detail for pipe bidding on C6.3 differs from the trench details EP-1/EP-2 on C6.2. The sand backfill on EP-1/IP-2 per note 7 is 12-inch over pipe rather than 6" as shown on C6.3. Please clarify.
  - a. Pipe bedding shall be per detail C6.3
- Q. The hydrant replacements on Hwy 236, C4.8 and C4.9, appear to be connecting to the existing lateral from the 8" Big Steel Zone pipe with a new GV and hydrant only. As the hydrant detail and the measure and pay description indicate a tee/hot tap fitting, please clarify the work limits of these hydrant installations.
  - a. For hydrant replacements, the work shall include replacing everything from the tee to the fire hydrant (the tee remains, the valve is replaced). Refer to SD-3 on Sheet C6.1.
- R. Bid Item #38 calls for the removal of existing 12" pipe crossing over the E. Lomond St/Irwin Way Bridge, but drawings show only an existing 6" water main on C4.11 and C6.4 (confirmed by field inspection). The removal of the existing 6" water main is covered in Bid Item#30. Please clarify if there is an existing 12" water main the bridge crossing, and if so, where is it located.
  - a. The 12-inch water main in Bid Item #38 crosses the river downstream of the bridge (suspended over the river). Sheets C4.11 and C4.12 show the approximate location of this pipe. Because this work requires working from the bank and river bed, it must be performed during the dry season.
- S. Bid Item #20, PRV station in San Lorenzo St, measure and pay includes removal of existing 8" Check Valve and replacement with spool at Hwy 9. This is shown in Detail P/C4.9, but the Detail notes also describe Decommissioning Firehouse BPS and abandoning pipes. Is this work included in this item, and if so, can additional detail be

provided about the decommissioning of the BPS? Also, confirm that all pipe abandonment is accessible and above grade at the Firehouse location.

- a. The work in Highway 9 (Main Street) is revised to make the transition simpler. The revised scope is removing the existing check valve, manhole, tees and branch valves and replacing it with a single 8-inch pipe. Decommissioning the rest of the booster pump station will be by District Staff.

#### **4. CHANGES TO VOLUME 1, CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS**

The following sections are amended as noted:

- A. Section 01 20 00, Measurement and Payment, is reissued with the following change:
  - a. Bid Item 20, PRV Station in Lorenzo Street, the work in Hwy 9 is amended to match the revised plan sheet.
- B. Section 33 11 13.23, HDPE Pipe, is reissued with the correct section number in the title and footer (it was mis-numbered as 33 11 13.15).

#### **5. CHANGES TO VOLUME 2, BID FORMS**

- A. Section 00300, Bid Proposal, is reissued with the following corrections:
  - a. Bid Item 34, 2" ARV, was mis-numbered as Bid Item 35.
  - b. Bid Item 35, Blow-Off, Bid Unit is corrected to be EACH.

#### **6. CHANGES TO CONTRACT DRAWINGS**

The following sheets are amended as noted, and provided as attachments:

- A. Sheet G1.2, General Notes, Pipeline Note Number 7 is revised as follows:

"7. Minimum pipe cover shall be 54". When over-crossing other pipelines, the minimum pipe cover shall be 42" within Caltrans ROW, and shall be 36" elsewhere."
- B. Sheet C4.9, Detail P is revised. The changed sheet is attached.

**END OF SECTION 00901**

## **SECTION 01 20 00**

### **MEASUREMENT AND PAYMENT**

#### **PART 1 - GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Methods of Measurement
- B. Description of Bid Items

##### **1.02 METHODS OF MEASUREMENT**

- A. Materials and items of work which are to be paid for on the basis of measurement shall be measured in accordance with the method stipulated in the particular sections involved. In determining quantities, all measurements shall be made in a horizontal plane unless otherwise specified.
- B. Measurements shall be in accordance with U.S. Standard Measures. A pound is an avoirdupois pound. A ton is 2,000 pounds avoirdupois. The unit of liquid measure is the U.S. gallon. The unit of length is feet. The unit of volume is cubic yards.
- C. Material not used from a transporting vehicle shall be determined by the ENGINEER and deducted from the certified tag.
- D. When material is to be measured and paid for on a volume basis and it would be impractical to determine the volume, or when requested by the CONTRACTOR in writing and approved by the ENGINEER in writing, the material will be weighed and converted to volume measurement for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the ENGINEER and shall be agreed to by the CONTRACTOR before such method of measurement of pay quantities will be adopted.
- E. Full compensation for all expense involved in conforming to the above requirements for measuring and weighing materials shall be considered as included in the unit prices paid for the materials being measured or weighed and no additional allowances will be made therefore.
- F. Quantities of material wasted or disposed of in a manner not called for under the Contract; or rejected loads of material, including material rejected after it has been placed by reason of failure of the CONTRACTOR to conform to the provisions of the Contract; or material not unloaded from the transporting vehicle; or material placed outside the lines indicated on the plans or given by the ENGINEER; or material remaining on hand after completion of the Contract, will not be paid for and such quantities will not be included in the final total quantities. No compensation will be allowed for hauling rejected material.
- G. Bid items include all work necessary to complete the specific item described and not otherwise included in other bid items. The CONTRACTOR shall include in each bid item

all costs required to construct the work in accordance with the Contract Documents and as identified below.

### 1.03 DESCRIPTION OF BID ITEMS

#### A. Bid Item 1: Mobilization/Demobilization.

1. The lump sum bid price for this item shall constitute full compensation for mobilization and demobilization including but not limited to equipment shipping and delivery, equipment set up, materials shipping and delivery, utility coordination, permitting including the Santa Cruz County Construction Permit, removal of equipment, and project closeout. The Mobilization/Demobilization bid item shall not be in excess of five percent (5%) of the total bid schedule. Twenty-five percent (25%) of the total Mobilization/Demobilization bid price shall be considered the cost of Demobilization and will not be paid until completion of the work.

#### B. Bid Item 2: Sheeting, Shoring and Bracing.

1. The lump sum bid price for this item shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide sheeting, shoring and bracing of excavations, trenches and grading as required in the Contract Documents. Cost shall include any engineering or geotechnical investigations performed by the CONTRACTOR.

#### C. Bid Item 3: Traffic Control

1. The lump sum bid price for this item shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide traffic control for the Work as required in the Contract Documents. Price shall include, but is not limited to, signage, flagmen, lights and barricades.

#### D. Bid Item 4: 12" Ductile Iron Water Main.

1. The unit price per linear foot shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide 12-inch ductile iron water main. Price shall include, but is not limited to, pipe, fittings, thrust restraints, temporary caps or plugs, disinfection, pressure testing, final connection to system, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
2. Include the cost of hydrant laterals and hydrant gate valves in the bid item for hydrants.
3. Include the cost of branch valves and fittings in the bid item for the associated lateral pipeline connection.
4. Measurement shall be along the final installed alignment, as measured in the field.

#### E. Bid Item 5: 8" Ductile Iron Water Main.

1. The unit price per linear foot shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide 8-inch ductile iron water main. Price shall include, but is not limited to, pipe, fittings, thrust restraints, temporary caps or plugs, disinfection, pressure testing, final connection to system, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
2. Include the cost of hydrant laterals and hydrant gate valves in the bid item for hydrants.

3. Include the cost of branch valves and fittings in the bid item for the associated lateral pipeline connection.
  4. Measurement shall be along the final installed alignment, as measured in the field.
- F. Bid Item 6: 6" Ductile Iron Water Main.
1. The unit price per linear foot shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide 6-inch ductile iron water main. Price shall include, but is not limited to, pipe, fittings, thrust restraints, temporary caps or plugs, disinfection, pressure testing, final connection to system, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
  2. Include the cost of hydrant laterals and hydrant gate valves in the bid item for hydrants.
  3. Include the cost of branch valves and fittings in the bid item for the associated lateral pipeline connection.
  4. Measurement shall be along the final installed alignment, as measured in the field.
- G. Bid Item 7: Connect to existing 8" Valve at Big Steel Tank
1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing 8" outlet valve on the Big Steel Tank. Price shall include, but is not limited to, 8-to-12-inch reducer, elbows, pipe, thrust restraint, excavation, backfill, compaction, repaving, removal and disposal of the existing pipe and fittings and all other work or appurtenances required for a complete installation.
- H. Bid Item 8: Connect to existing 12" Lyon Zone Valve at Big Steel Tank Site
1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing 12" valve at the Big Steel Tank Site. Price shall include, but is not limited to, fittings, thrust restraint, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
- I. Bid Item 9: Connect to existing 6" Main at Boulder Brook Drive, STA 207+25
1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
- J. Bid Item 10: Connect to existing 4" Main at Boulder Brook Drive, STA 100+93
1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
- K. Bid Item 11: Connect to existing 8" Big Steel Pipeline, STA 107+75

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
- L. Bid Item 12: Connect to existing 6" Main at Paone Drive
1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
- M. Bid Item 13: Blackstone 2" PRV, STA 123+41
1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" Lyon Zone water main to the existing 2" Blackstone Zone water main through a 2-inch pressure reducing valve (PRV), as shown on the Drawings. Price shall include, but is not limited to, the 8x2 tee, 2-inch valves, 2-inch PE tubing, fittings, valves, angle stops, PRV, traffic-rated valve box, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
  2. Pay item includes potholing the existing Big Steel main, disconnecting the existing 2-inch service and providing a plug or cap on the existing main.
  3. Pay item includes adding 2" valve and Reader Zone connection at Park Avenue and Upland Drive.
- N. Bid Item 14: Connect to existing 2" Main at Hazel Ave & Davidson Ave
1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
- O. Bid Item 15: Connect to existing 2" Main at Laurel Street
1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
- P. Bid Item 16: Connect to existing 2" Main at Oak Street
1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation,

backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

Q. Bid Item 17: Connect to existing 8" Main in Big Basin Way at Pine Street Intersection

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing 8" water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

R. Bid Item 18: PRV Station in Pine Street

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide a dual 8-inch/2-inch pressure reducing valve station in Pine Street as shown on the Drawings. Price shall include, but not be limited to, pressure reducing valve, concrete vault and base, lid, gate valves, fittings, thrust restraint, disinfection, pressure testing, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

S. Bid Item 19: Connect to existing 8" Main at Hwy 9 and Lorenzo Street

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

T. Bid Item 20: PRV Station in Lorenzo Street

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide a dual 8-inch/6-inch pressure reducing valve station in Lorenzo Street as shown on the Drawings. Price shall include, but not be limited to, pressure reducing valves, concrete vault and base, lid, gate valves, fittings, thrust restraint, disinfection, pressure testing, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
2. This item includes removing the existing 8" check valve, manhole and associated valves and tees in Hwy 9, replacing it with an 8" pipe, and backfilling and repaving the trench, as shown on the Drawings.

U. Bid Item 21: Connect to existing 6" and 4" Mains at Lomond and Pine Streets Intersection

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

V. Bid Item 22: Connect to existing 8" Main at Forest Ave and Hwy 9

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the

existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

W. Bid Item 23: Connect to existing 8" Main at Hwy 9 and Lomond Street

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

X. Bid Item 24: Connect to existing 12" Main at Lomond and East Lomond Streets

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

Y. Bid Item 25: Connect to existing 2" Main at Railroad Avenue

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

Z. Bid Item 26: Connect to existing 2" Main at Junction Avenue

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

AA. Bid Item 27: Connect to existing 6" Main at Middleton Ave

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

BB. Bid Item 28: Connect to existing 6" Main at Fairview Ave

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation,

backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

CC. Bid Item 29: Connect to existing 12" Main in Irwin Way

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to connect the new 12" water main to the existing water main, as shown on the Drawings. Price shall include, but is not limited to, fittings, valves, pipes, thrust restraint, potholing to locate existing pipe, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

DD. Bid item 30: 12-inch Pipeline on Lomond Street/Irwin Way Bridge.

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide a 12-inch steel pipeline attached to the Lomond Street/Irwin Way Bridge. Price shall include, but is not limited to, schedule 40 galvanized steel pipe and fittings, pipe hangers, concrete anchors, dielectric couplings, concrete pipe supports and all other work or appurtenances required for a complete installation.
2. Pay item includes all Work from the first buried elbow outside the west bridge wing wall to the first buried elbow outside the east bridge wingwall.
3. Pay item include removal of the existing 6-inch water main on the bridge face when no longer in service.

EE. Bid item 31: Bear Creek & Reader Zones Inter-tie Valve.

1. The lump sum bid price shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide an 8-inch check valve on the existing 8-inch water main in Bear Creek Road. Price shall include, but is not limited to, fittings, valves, valve cans, flexible couplings, excavation, thrust restraint, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

FF. Bid Item 32A: 1" Water Service.

1. The unit bid price per service shall constitute full compensation for all material, labor, equipment, tools, and services necessary to replace existing water service laterals and meters. Price shall include, but is not limited to, tapping saddle, corporation stop, meter setter or angle stop, meter box, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
2. The cost of the 1-inch PE service lateral is paid separately under item 32B.
3. Item includes pot-holing the existing main, shutting off and plugging the existing connection at the corporation stop.
4. Item includes customer notifications with signage and door hangers.
5. Owner shall furnish replacement water meters, if needed.

GG. Bid Item 32B: 1" Water Lateral.

1. The unit bid price per linear foot shall constitute full compensation for all material, labor, equipment, tools, and services necessary to replace existing water service laterals. Price shall include the 1-inch PE water service lateral and associated excavation, backfill, compaction, repaving and all other work required for a complete installation.

HH. Bid Item 33A: 2" Water Service.

1. The unit bid price per service shall constitute full compensation for all material, labor, equipment, tools, and services necessary to replace existing water service laterals and meters. Price shall include, but is not limited to, tapping saddle, 2-inch gate valve, threaded nipples, corporation or angle stop, meter box, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.
2. The cost of the 2-inch PE service lateral is paid separately under item 33B.
3. Item includes pot-holing the existing main, shutting off and plugging the existing connection at the corporation stop.
4. Item includes customer notifications with signage and door hangers.
5. Owner shall furnish replacement water meters, if needed.

II. Bid Item 33B: 2" Water Lateral.

1. The unit bid price per linear foot shall constitute full compensation for all material, labor, equipment, tools, and services necessary to replace existing water service laterals. Price shall include the 2-inch PE water service lateral and associated excavation, backfill, compaction, repaving and all other work required for a complete installation.

JJ. Bid Item 34: 2" Air-Vac Valve.

1. The unit price per valve shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide a combination air-relief and vacuum breaker valve as shown on the Drawings. Price shall include, but not be limited to, tapping saddle, corporation stop, piping, concrete pedestal, valves, enclosure, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

KK. Bid Item 35: Blow Off Valve

1. The unit price per valve shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide a dead-end blow-off as shown on the Drawings. Price shall include, but not be limited to, eccentric reducer, 2-inch gate valve, 2-inch pipe and fittings, mechanical restraints, valve cans, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

LL. Bid Item 36: Fire Hydrants.

1. The unit bid price per hydrant shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide a fire hydrant. Price shall include, but not be limited to, tee fitting, gate valve, ductile iron hydrant lateral, hydrant bury, break-away check valve, residential hydrant, concrete support block and collar, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

MM. Bid Item 37: Abandon Existing Water Mains, Each Location

1. The unit bid price per location shall constitute full compensation for all material, labor, equipment, tools, and services necessary to abandon existing water mains as shown on the Drawings. Price shall include, but not be limited to, exposing, cutting and draining the pipe, providing mechanical caps or grout plugs, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

NN. Bid Item 38: Remove Existing 12” Pipe Crossing Over San Lorenzo River at E. Lomond Street to Irwin Way

1. The unit bid price per location shall constitute full compensation for all material, labor, equipment, tools, and services necessary to abandon existing water mains as shown on the Drawings. Price shall include, but not be limited to, exposing, cutting and draining the pipe, removing the exposed portion of the pipeline above the river, plugging the remaining pipeline segments and providing caps on the existing water mains to remain, excavation, backfill, compaction, repaving and all other work or appurtenances required for a complete installation.

OO. Bid Item 39: Additional AC Paving

1. The unit bid price per square yard shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide additional asphalt concrete paving, 4-inches thick, outside the limits of the T-cut for trench restoration.
2. Measurement shall be in-place limits of the additional pavement (length x width).
3. This Bid Item establishes a unit rate for additional unforeseen work.

PP. Bid Item 40: Additional Slurry Backfill

1. The unit bid price per cubic yard shall constitute full compensation for all material, labor, equipment, tools, and services necessary to provide additional 2-sack slurry backfill outside the limits of the pipe trench and to dispose of unsuitable native material.
2. Measurement shall be in-place limits of the additional trench (length x width x depth).
3. This Bid Item establishes a unit rate for additional unforeseen work.

QQ. Bid Item 41: Permits Allowance

1. This allowance is for the reimbursement of the permit fees charged by the County of Santa Cruz and/or Caltrans for Encroachment Permits. The value of this allowance is pre-entered in the Bid Form.
2. Payment under this item shall be for the actual cost of the permit fees, as reflected on the issuing agency invoices. Contractor’s costs with respect to obtaining permits shall be included under other Bid items, as applicable.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

**END OF SECTION**

## **SECTION 33 11 13.23**

### **HIGH DENSITY POLYETHYLENE PIPE AND FITTINGS**

#### **PART 1 - GENERAL**

##### **1.01 DESCRIPTION**

- A. This section includes materials, installation, and testing of high density polyethylene (HDPE) pipe and fittings.
- B. Related sections:
  - 1. Section 01 57 80 – Control of Ground and Surface Water
  - 2. Section 31 23 00 – Trenching, Backfilling and Compaction
  - 3. Section 33 11 00 - General Piping Requirements
  - 4. Section 33 12 16 – Manual Valves

##### **1.02 REFERENCED CODES AND STANDARDS**

- A. American Water Works Association (AWWA), latest edition:
  - 1. C901 – Polyethylene (PE) Pressure Pipe and Fittings, 3/4 inch (19 mm) through 3 inch (76 mm) for Water Service
  - 2. C906 – Polyethylene (PE) Pressure Pipe and Fittings, 4 inches (100 mm) through 63 inches (1575 mm) for Water Distribution and Transmission
  - 3. M55 – Manual of Water Supply Practices, PE Pipe Design and Installation.
- B. American Society of Testing and Materials (ASTM), latest edition:
  - 1. D2737 – Standard Specification for Polyethylene (PE) Plastic Tubing.
  - 2. D2774 – Standard Practice for Underground Installation of Thermoplastic Pressure Pipe.
  - 3. D3261 – Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Fittings.
  - 4. D3350 – Standard Specification for Polyethylene Plastics Pipe and Fittings Material.
  - 5. D4976 – Standard Specification for Polyethylene Plastics Molding and Extrusion Materials
  - 6. F714 – Standard Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter.
  - 7. F2164 - Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping Systems Using Hydrostatic Pressure.
  - 8. F2206 – Standard Specification for Fabricated Fittings of Butt-Fused Polyethylene (PE) Plastic Pipe, Fittings, Sheet Stock, Plate Stock, or Block Stock.
  - 9. F2620 – Standard practice for Heat Fusion Joining of Polyethylene Pipe and Fittings.
- C. NSF International
  - 1. 61 – Drinking Water System Components – Health Effects

D. Plastics Pipe Institute (PPI):

1. PPI Handbook of Polyethylene Pipe – 2009 (2nd Edition).
2. TR-33 – Generic Butt Fusion Joining Procedure for Polyethylene Gas Pipe.
3. TN-42 – Recommended Minimum Training Guidelines for PE Pipe Butt Fusion Joining Operators for Municipal and Industrial Projects.

1.03 SUBMITTALS

1. Submit manufacturers product data per the requirements of Section 01 30 00.
2. Submit certification and/or training records demonstrating that the pipe fusing personnel have been trained to install the product(s) provided.

1.04 QUALITY ASSURANCE

- A. Perform polyethylene (PE) pipe jointing employing only personnel trained in the use of butt-fusion equipment, electrofusion equipment (if required to perform the Work) and recommended methods for new pipe connections. Ensure personnel directly involved with installing the new pipe receive training in the proper methods for handling and installing the PE pipe. Conduct training employing qualified representatives of the polyethylene pipe manufacturer.

1.05 WARRANTY

- A. Warrant that the equipment used in this Work, where covered by patents or license agreements, is furnished in accordance with such agreements and that all applicable royalties and fees applicable to such license agreements have been included in the bid price given for this Work. No additional payment shall be awarded for such costs submitted after receipt of the bids.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Transport, handle, and store pipe and fittings as recommended by the manufacturer. Handle pipe in accordance with PPI “Handbook of Polyethylene Pipe, Chapter 2” using approved strapping and equipment rated for the loads encountered. Do not use chains, wire rope, forklifts or other methods or equipment that may gouge or damage the pipe or endanger persons or property. Conduct field storage in compliance with AWWA Manual of Practice M55, Chapter 7.
- B. If new pipe and fittings become damaged before or during installation, make repairs as recommended by the manufacturer, or, where directed by the Owner, replace the damaged materials at no additional expense to the Owner before proceeding with the Work.
1. If any gouges, scrapes, or other damage to the pipe results in loss of 10% of the pipe wall thickness at any point, cut out and remove that length containing the damage or do not use that that piece of pipe.
- C. Deliver, store and handle other materials as required to prevent damage.

**PART 2 - PRODUCTS**

2.01 MATERIALS

- A. Water service laterals: Furnish high-density polyethylene (HDPE) plastic tubing meeting the applicable requirements of ASTM F714 PE plastic pipe (SDR-PR), ASTM D4976 and ASTM D3350.
  - 1. Provide polyethylene tubing made of HDPE material having a material designation of PE 4710.
  - 2. HDPE material shall have a minimum cell classification of PE445574C/E.
  - 3. The minimum wall thickness of the HDPE tubing shall meet the requirements for DR 9, unless indicated otherwise on the Drawings.
  - 4. Tubing shall be Copper Tubing Size (CTS) unless indicated otherwise on the drawings.
- B. Provide pipe sizes as indicated on the Drawings.
- C. Provide only pipe and fittings made of virgin material. No rework, except that obtained from the manufacturer's own production of the same formulation, shall be permitted. Use only resin compounds in the manufacture of HDPE pipe in accordance with the requirements of ASTM D3350.
- D. Furnish pipe and fittings that are homogenous throughout and free of visible cracks, holes, foreign material, blisters, or other deleterious faults.
- E. Material color shall be black with blue stripe indicating potable water.
- F. Fittings: Provide fittings, where and if required, conforming to the requirements specified below and fabricated in the pipe manufacturer's factory or other approved manufacturer of high density polyethylene fittings (elbows and laterals). Remove the interior joint beads in the finished fittings prior to shipment by grinding or cutting to produce a smooth interior surface (maximum 1/16-inch protrusion, with no rough or jagged edges or undercuts). Provide elbows, where required, of the long radius design. Lateral fittings may use fiberglass wrap to provide the necessary reinforcement.
  - 1. Butt Fusion Fittings: Make fittings from HDPE material having a minimum material designation code of PE 3608, with a minimum cell classification as noted in Paragraph 2.01A above. Provide butt fusion fittings meeting the requirements of ASTM D3261. Molded and fabricated fittings shall have a pressure rating equal to the pipe unless otherwise specified or shown on the Drawings.
    - a. Provide markings on molded fittings in compliance with the requirements of ASTM D3261.
    - b. Mark fabricated fittings in accordance with ASTM F2206.
    - c. Socket fittings shall meet ASTM D2683.
  - 2. Electrofusion Fittings: Make fittings from HDPE material having a minimum material designation code of PE 3608, with a minimum cell classification as noted in Paragraph 2.01A above.
    - a. Electrofusion fittings shall have a manufacturing standard of ASTM F1055.
  - 3. Fittings shall have a pressure rating equal to the pipe unless otherwise specified or shown on the Drawings.

## **PART 3 - EXECUTION**

### **3.01 PIPE INSTALLATION**

- A. Install pipe and fittings in strict accordance with the manufacturer's recommendations and instructions, the requirements of ASTM D2321, the requirements as specified in Section 33 11 00, "General Piping Requirements" of these Technical specifications and as further specified below.
- B. Pipe Laying: Carefully inspect all pipes for defects before placing in the trench, or in the bore hole in the case of horizontal directional drilling. Avoid abrasion or scratching of the pipe exterior surface during installation. Unless otherwise required, lay all pipes straight between changes in grade.
- C. Cutting Pipe: Whenever a standard pipe length requires cutting to fit into the line, provide for a lateral connection or to bring it to the required location, perform work in accordance with the manufacturer's instructions so as to leave a smooth, square end. Where a plain end to plain end joint occurs as a result of cutting into the pipe, install an electrofusion coupling to join the pipe sections
- D. Joint Construction: Comply with the requirements in Paragraph 3.02 below.
- E. Service Laterals: All service laterals shall be tapped into the main using a service saddle and corporation stop per Section 22 11 13.
- F. Locating Wire: Install locating wire as specified in Section 33 11 00 on all new HDPE pipes. Attach wire to pipe using duct tape or plastic tie straps and terminate wires in a precast concrete box as shown on Drawings.

### 3.02 PIPE JOINING

- A. Assemble and join the polyethylene pipe at the site using the butt-fusion method to provide a leak-proof joint. Threaded or solvent-cement joints and connections are not permitted. Employ and operate equipment and follow procedures for joining pipe in strict compliance with the manufacturer's recommendations and in accordance with ASTM F2620 or PPI TR-33. Use only personnel certified as fusion technicians per PPI TN-42 by a manufacturer of polyethylene pipe and/or fusing equipment to make the joints.
- B. Make butt-fused joints that are in true alignment and have uniform interior and exterior rollback beads resulting from the use of proper temperature and pressure. Allow the joint adequate cooling time before removal of pressure from the fusion machine. Provide a completed fused joint that is watertight and has tensile strength equal to that of the pipe. Prior to making the subsequent joint, grind the interior joint beads smooth (maximum 1/16-inch protrusion, with no rough or jagged edges or installation of pipe.
- C. Cut out defective joints and replace at no additional cost to the Owner. Do not use any section of HDPE pipe with a gash, blister, abrasion, nick, scar, or other deleterious fault greater in depth than 10 percent of the wall thickness. Remove defective pipe from the site. However, a defective area of the pipe may be cut out and the resulting section ends fusion jointed in accordance with the procedures stated above. In addition, discard and remove from the site any section of the pipe having other defects, such as concentrated ridges, discoloration, excessive spot roughness, pitting, variable wall thickness, or any other defect of manufacturing or handling as determined by the Owner.

- D. Where terminal sections of pipe are joined within the pipe trench, or at the ends of directionally drilled pipe, make the connection using electrofusion couplings or connectors as manufactured by Central Plastics Electrofusion, or equal and as specified below. Provide couplings or connectors having tensile strength equivalent to or greater than that of the pipe being joined.
- E. Where the new HDPE pipe is to be joined to buried pressure flow pipe, make the connection using a restrained end transition coupling. Verify the outside diameter of the existing or adjoining pipe prior to commencing work on the respective section.
- F. Where fittings, including laterals, are shown on the Drawings as a required part of the installed adjoining pipeline, field join the fittings to the already installed adjoining sections of HDPE pipe using an appropriate fusion machine designed for in-trench joining, or by means of electro fusion couplings as specified above. Prior to making the closing field joint on a fitting installation, grind or cut the interior beads resulting from preceding field made joints on the fitting to the standard specified above.
- G. Electrofusion: Perform electrofusion joining in accordance with the manufacturer's recommended procedure. Other acceptable electrofusion joining shall be as described in ASTM F1290 and PPI TN-34.
  - 1. The process of electrofusion requires an electric source, a transformer (commonly called an electrofusion box) that has wire leads, a method to read electronically by laser or otherwise input the barcode of the fitting, and a fitting that is compatible with the type of electrofusion box used.
  - 2. The electrofusion box shall be capable of reading and storing the input parameters and the fusion results for later download to a record file that is to be submitted to the owner for his records.
  - 3. Demonstrate qualification of the fusion technician by submitting documentation of his/her electrofusion training within the past year on the same equipment proposed to be utilized for this Work.

### 3.03 WATER SERVICE LATERALS

- A. PE Tubing for water service laterals shall be one continuous piece from the water main (corporation stop) to the water meter (angle stop or meter setter). Only welded joints shall be used if needed. Intermediate compression fittings are not allowed.
- B. Provide stainless steel inserts at all compression fittings.
- C. Water service laterals may be installed by:
  - 1. Open trench method. Restore pavement as per the requirements for water mains.
  - 2. Directional drilling.
  - 3. Splitting of existing water service lateral. Replacement lateral must be placed into service the same day if using this method.

### 3.04 DISINFECTION AND TESTING

- A. Flush and disinfect the installed pipe per the requirements of Section 22 11 19.
- B. Pressure test the installed pipeline per the requirements of Section 33 11 00.

### 3.05 CORRECTIVE WORK AND CLEAN-UP

- A. Correct, at the direction of the Owner, damaged pipe and all other conditions not conforming to the requirements of these Specifications found as a result of this inspection. Similarly, remove obstructions and foreign material found in pipe. Perform corrections and removals as required at no additional expense to the Owner. Where, in the opinion of the Owner, major corrective work or replacement is required, re-perform leakage test on the corrected or replaced section of pipe main.

**END OF SECTION**

**SECTION 00300**

**BID PROPOSAL**

San Lorenzo Valley Water District  
13060 CA-9  
Boulder Creek, CA 95006

Ladies and Gentlemen:

The undersigned hereby proposes to perform all Work for which a Contract may be awarded him/her and to furnish any and all plant, labor, services, materials, tools, equipment, supplies, transportation, utilities, water, and all other items and facilities necessary therefore as provided in the Contract Documents, and to do everything required therein for the Work as set forth in the documents entitled:

**Lyon & Big Steel Zone Pipeline Improvements**

Together with appurtenances thereto, all as set forth on the Bid Package and other Contract Documents; and he/she further proposes and agrees that, if this Bid is accepted, he/she will contract in the form and manner stipulated to perform all the Work called for by Drawings, Specifications, and other Contract Documents, and to complete all such Work in strict conformity therewith within the time limits set forth therein, and that he/she will accept as full payment therefore the prices set forth in the Bid Schedule forming a part hereof.

It is understood and agreed that:

1. The undersigned has carefully examined all the Contract Documents which will form a part of the Contract; and all additions, deletions, modifications, appendices, and all Addenda as prepared prior to the date of bid opening setting forth any modifications or interpretations of any of said documents.
2. The undersigned has by investigation of the site of the Work and otherwise satisfied himself/herself as to the nature and location of the Work and has fully informed himself/herself as to all conditions and matters which can in any way affect the Work or the cost thereof;
3. The undersigned fully understands the scope of the Work and has checked carefully all words and figures inserted in the Bid and he/she further understands that SLVWD will in no way be responsible for any errors or omissions in the preparation of this Bid;
4. The undersigned will execute the Contract Agreement and furnish the required proof of insurance coverage within ten (10) work days (not including Sundays and holidays) after Notice of Award to him/her of acceptance of his/her Bid by SLVWD.
5. The undersigned Bidder further agrees that if he/she shall fail to complete the Work within the Contract Time and any authorized extension thereof, he/she shall pay liquidated damages in the amount specified in the Contract Agreement to SLVWD for each calendar day of unauthorized delay in completion of the Work, until the Work is

completed unless another amount is agreed to and stated in the Contract Agreement.

6. The undersigned hereby certifies that this proposal is not made in the interest of; or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.
7. In conformance with current statutory requirements of Section 1860, et seq., of the Labor Code of the State of California, the undersigned confirms the following as his/her certification; I am aware of the provision of Section 3700 of the Labor Code which require every employer to be insured against liability for workmen's compensation or to undertake self insurance in accordance with the provisions before commencing the performance of the Work of this Contract.
8. SLVWD has obtained from the Director of the Department of Industrial Relations ("DIR") the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which the Public Work is to be performed for each craft, classification or type of workman needed to execute this Contract. (Copies of the wage determination are on file and may be obtained by interested parties at the office of SLVWD). The Contractor and all Subcontractors shall comply with all requirements and provisions of Section 1775 and 1776 of the California Labor Code. The Contractor shall forfeit, as a penalty to SLVWD, two-hundred dollars (\$200.00), for each calendar day, or portion thereof, for each worker paid less than stipulated prevailing rates for Work done under the Contract Agreement by him, or any Subcontractor under him, in violation of the provisions of the California Labor Code. Copies of these wage determinations shall be posted and maintained at the job site by the successful bidding Contractor.
  - a. Subject to the provisions of Section 1810 to 1815, inclusive, of the California Labor Code, the time of service of any laborer, workman, or mechanic employed on the Work shall be limited and restricted to eight (8) hours during any one (1) calendar day and forty (40) hours in any one (1) calendar week, except as otherwise provided in said sections, and the Contractor shall forfeit to SLVWD as a penalty, twenty-five dollars (\$25.00) for each laborer, worker, or mechanic employed in the execution of the Work by him or any Subcontractor under him for each calendar day during which such laborer, worker, or mechanic is required

- or permitted to labor more than eight (8) hours in any one (1) calendar day and forty (40) hours in any one (1) calendar week in violation of provisions of the California Labor Code.
- b. The Contractor and all Subcontractors shall conform to all the requirements of Sections 1777.5 and 1777.6 of the California Labor Code concerning the employment of apprentices by the Contractor or any Subcontractor under him. The Contractor shall provide SLVWD with a copy of the contract award information at the time that information is submitted to the applicable apprenticeship program. Within sixty (60) calendar days after concluding the Work pursuant to this Contract, the Contractor shall submit, and require each Subcontractor under him to submit, to SLVWD and the apprenticeship program a verified statement of the journeyman and apprentice hours performed on the Contract.
  - c. Contractor and all Subcontractors shall comply with Sections 1776 and 1771.4(a)(3) of the California Labor Code, regarding payroll records, and shall be subject to penalties for violation thereof. The Contractor shall cause a clause identical to Section 00800CA, Paragraph K to be included in every subcontract for Work pursuant to this Contract.
  - d. Contractor shall not perform work with a Subcontractor who is ineligible to perform work on a public works project pursuant to Sections 1777.1 or 1777.7 of the California Labor Code.
9. In compliance with Section 1725.5 of the California Labor Code, Contractor must be, and must require all Subcontractors be, registered with the DIR prior to execution of the Contract Agreement. Contractor and all Subcontractors who bid or work on, and/or who are awarded the Contract Agreement, must be registered with and pay an annual fee to the DIR. Neither Contractor nor any Subcontractors may be listed on this Bid Proposal unless registered with the DIR pursuant to Section 1725.5 of the Labor Code. Neither Contractor nor any Subcontractors may be awarded the Contract Agreement unless registered with the DIR pursuant to Section 1725.5 of the Labor Code. This project is subject to compliance monitoring and enforcement by the DIR. Contractor shall submit proof of current DIR registration, and shall require all Subcontractors to submit proof of current DIR registration, to SLVWD prior to commencing work on this project.
10. In compliance with the provisions of Section 4100-4114 of the Public Contract Code of the State of California, and any amendments thereof, the undersigned Bidder has set forth below the name and the location of the place of business of each Subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the Work to be performed under the Contract Documents in which this Bid is responsive, and where the portion of the Work which will be done by each Subcontractor for each subcontract is in excess of one-half of one percent (0.5%) of the Total Bid. The undersigned Bidder understands that if he/she fails to specify a Subcontractor for any portion of the Work or specifies more than one subcontractor for any portion of the Work, he/she shall be deemed to have agreed to perform such portion himself/herself and that he/she shall not be permitted to sublet or subcontract that portion of the Work except in cases of public emergency or

necessity, and then only after a finding is reduced to writing as a public record of SLVWD setting forth the facts constituting the emergency or necessity.

11. Receipt is hereby acknowledged of addenda number(s) \_\_\_\_\_ through \_\_\_\_\_.
12. The undersigned is licensed in accordance with the Laws of the State of California:  
License Number \_\_\_\_\_ Class \_\_\_\_\_,  
Expiration Date \_\_\_\_\_.
13. The undersign is registered with the California Department of Industrial Relations,  
DIR Registration Number: \_\_\_\_\_.
14. If the Bidder is a partnership, corporation, or joint venture, the undersigned certifies that he/she is entitled to execute and submit this Bid proposal on behalf of bidder.
15. In signing below, the Bidder certifies that its Total Bid includes funds sufficient to allow the Bidder to comply with all applicable local, state, and federal laws or regulations governing the labor or services to be provided under the Contract. Furthermore, the Bidder hereby indemnifies SLVWD for liabilities and penalties for violations of Section 2810 of the California Labor Code.

NOW: In compliance with all the provisions herein before stipulated, the undersigned, with full cognizance thereof, hereby proposes to perform the entire Work for the prices set forth in the attached Schedule(s) upon which Award of Contract is made. (A duly authorized officer of the company may sign on the president's behalf.)

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

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

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

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

Phone No.: \_\_\_\_\_

By: \_\_\_\_\_, Partner

Other Partners: \_\_\_\_\_

\_\_\_\_\_

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

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

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

Phone No.: \_\_\_\_\_

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

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

Organized under the laws of the State of \_\_\_\_\_.

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

(Place

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

Signature

Seal

Here)

\_\_\_\_\_  
(Print Name and Title)

**LYON & BIG STEEL ZONE PIPELINE IMPROVEMENTS  
BID SCHEDULE**

ITEM NO.	ITEM/DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
1	Mobilization/Demobilization	1	LS		
2	Sheeting, Shoring and Bracing	1	LS		
3	Traffic Control	1	LS		
4	12" Ductile Iron Water Main	11,200	LF		
5	8" Ductile Iron Water Main	660	LF		
6	6" Ductile Iron Water Main	130	LF		
7	Connect to Existing 8" at Big Steel Tank	1	LS		
8	Connect to Existing 12" Lyon Zone Valve at Big Steel Tank Site	1	LS		
9	Connect to Existing 6" Main at Boulder Brook Drive STA 207+25	1	LS		
10	Connect to Existing 4" Main at Boulder Brook Drive STA 100+93	1	LS		
11	Connect to Existing 8" Big Steel Zone Pipe STA 107+75	1	LS		
12	Connect to Existing 6" Main at Paone Drive	1	LS		
13	Blackstone 2" PRV at STA 123+41	1	LS		
14	Connect to Existing 2" Main at Hazel Ave. & Davidson Ave.	1	LS		
15	Connect to Existing 2" Main in Laurel St.	1	LS		
16	Connect to Existing 2" Main in Oak St.	1	LS		
17	Connect to Existing 8" Main in Big Basin Way at Pine Street	1	LS		
18	PRV Station in Pine Street	1	LS		
19	Connect to Existing 8" in HWY 9 at Lorenzo St.	1	LS		
20	PRV Station in Lorenzo Street	1	LS		
21	Connect to Existing 6" & 4" Mains at Lomond St. and Pine St. Intersection	1	LS		
22	Connect to Existing 8" Main in HWY 9 at Forest St.	1	LS		

Revised per Addendum No. 1

ITEM NO.	ITEM/DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
23	Connect to Existing 8" Main in HWY 9 at Lomond St.	1	LS		
24	Connect to Existing 12" Main at Lomond St. & East Lomond St.	1	LS		
25	Connect to Existing 2" Main at Railroad Ave.	1	LS		
26	Connect to Existing 2" Main at Junction Ave.	1	LS		
27	Connect to Existing 6" Main at Middleton Ave.	1	LS		
28	Connect to Existing 6" Main at Fairview Ave.	1	LS		
29	Connect to Existing 12" Main in Irwin Way	1	LS		
30	Lomond Street/Irwin Way Bridge Pipe Hanger Installation	1	LS		
31	Bear Creek Zone & Reader Zone Inter-tie Valving	1	LS		
32A	1" Water Service	71	EA		
32B	1" Water Lateral	3500	LF		
33A	2" Water Service	6	EA		
33B	2" Water Lateral	300	LF		
<u>34</u>	2" Air-Vac Valve	4	EA		
35	Blow-Off Valve	4	<u>EA</u>		
36	Fire Hydrants	12	EA		
37	Abandon Existing Water Main, each site	23	EA		
38	Remove Existing 12" Pipe Crossing Over San Lorenzo River at E. Lomond St to Irwin Way	1	LS		
39	Additional AC Paving	100	SY		
40	Additional Slurry Backfill	100	CY		
41	Permits Allowance	1	ALW	\$60,000	\$60,000
<b>TOTAL BID PRICE:</b>				\$	
Units: ALW=Allowance, CF=Cubic Foot, CY=Cubic Yard, DY=Day, HR=Hour, LF=Linear Foot, LS=Lump Sum, SF=Square Foot, SY=Square Yard, VLF=Vertical Linear Foot					

TOTAL BID (in words): \_\_\_\_\_

**END OF SECTION 00300**

C:\USERS\JTABLE\Desktop\WORKS\LVL\LYON DRAWINGS\G1.1 NOTES.DWG 12/16/2022 BY JTABLE

GENERAL NOTES:

1.

SHOULD IT APPEAR THAT THE WORK TO BE PERFORMED OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE DISTRICT ENGINEER AT 831-338-2153 WITH ANY QUESTIONS OR DISCREPANCIES. ANY REVISIONS REQUIRE OWNER'S APPROVAL BEFORE PROCEEDING WITH REVISED PLANS.
2.

UNAUTHORIZED CHANGES AND USES: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THESE PLANS MUST BE MADE IN WRITING AND APPROVED BY THE PREPARER OF THESE PLANS.
3.

CONSTRUCTION CONTRACTOR AGREES THAT THE IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONSTRUCTION CONTRACTOR SHALL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE CIVIL ENGINEER AND THE OWNER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CIVIL ENGINEER.
4.

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACCEPTED WORKMANSHIP PRACTICE AND THESE PLANS. ORDERS GIVEN BY THE OWNER REPRESENTATIVE RELATING TO THE QUALITY OF MATERIALS AND WORKMANSHIP SHALL BE COMPLIED WITH PROMPTLY BY THE CONTRACTOR.
5.

CONTRACTOR SHALL POSSESS A VALID CLASS A - GENERAL ENGINEERING CONTRACTOR LICENSE AT THE TIME THE CONTRACT IS AWARDED AND SHALL MAINTAIN THROUGHOUT THE LENGTH OF CONTRACT. SUB-CONTRACTORS SHALL POSSES VALID LICENSE(S) FOR THE PORTION(S) OF THE WORK THEY ARE PERFORMING.
6.

THE CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS AT THE JOB SITE FOR THE SAN LORENZO VALLEY WATER DISTRICT, COUNTY PUBLIC WORKS, AMBULANCE, POLICE AND FIRE DEPARTMENTS. CONTRACTOR SHALL POST SIGN AT JOB SITE BEARING OWNER'S NAME AND SITE ADDRESS. PROPERTY CORNERS SHALL BE CLEARLY MARKED.
7.

THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND LICENSES REQUIRED FOR THE CONSTRUCTION AND COMPLETION OF THE PROJECT.
8.

CONTRACTOR SHALL CONFORM TO THE RULES AND REGULATIONS OF THE STATE CONSTRUCTION SAFETY ORDERS PERTAINING TO EXCAVATION AND TRENCHING. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR TRENCH SHORING DESIGN AND INSTALLATION.
9.

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF THE DIVISION OF INDUSTRIAL SAFETY PERTAINING TO "CONFINED SPACES". ANY MANHOLE, CULVERT, DROP INLET OR TRENCH (WHICH COULD CONTAIN AIR) THAT IS NOT READILY VENTILATED MAY BE CONSIDERED A "CONFINED SPACE".
10.

EXCAVATION SHALL BE ADEQUATELY SHORED, BRACED AND SHEETED SO THAT THE EARTH WILL NOT SLIDE OR SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS OF ANY KIND WILL BE FULLY PROTECTED FROM DAMAGE. ANY DAMAGE RESULTING FROM A LACK OF ADEQUATE SHORING, BRACING AND SHEETING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HE SHALL EFFECT NECESSARY REPAIRS OR RECONSTRUCTION AT HIS OWN EXPENSE. WHERE THE EXCAVATION FOR A CONDUIT TRENCH, STRUCTURE AND/OR BORING AND JACKING PIT IS REQUIRED, THE CONTRACTOR SHALL CONFORM TO THE APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL ALWAYS COMPLY WITH OSHA REQUIREMENTS.
11.

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. APPROVAL OF THESE PLANS BY THE AGENCY DOES NOT GUARANTEE THE ACCURACY, COMPLETENESS, LOCATION OR THE EXISTENCE OR NON-EXISTENCE OF ANY UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR IS REQUIRED TO TAKE ALL DUE PRECAUTIONARY MEANS NECESSARY TO PROTECT EXISTING UTILITY LINES.
12.

CONTRACTOR SHALL HAVE UTILITIES LOCATED BY CALLING UNDERGROUND SERVICE ALERT (USA) NORTH AT (800) 227-2600 OR 811 AT LEAST 48-HOURS PRIOR TO START OF CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER AND THE OWNER OF ANY DIFFERENCES IN THE LOCATIONS OF EXISTING UTILITIES SHOWN, OR ANY CONFLICTS WITH THE DESIGN, BEFORE CONTINUING WITH WORK IN THAT AREA.
13.

SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER AT (831) 338-2153 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
14.

THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN AND OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY AND TO MAINTAIN TRAFFIC CONTROL AT ALL TIMES.
15.

THE CONTRACTOR SHALL NOT DESTROY ANY PERMANENT SURVEY POINTS. ANY PERMANENT MONUMENTS OR POINTS DESTROYED SHALL BE REPLACED BY A LICENSED ENGINEER OR LICENSED SURVEYOR AT THE CONTRACTOR'S EXPENSE.
16.

DURING GRADING OPERATIONS, THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES ON SITE AND ON HAUL ROUTES.
17.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING AN AIRBORNE DUST NUISANCE FROM THE CONSTRUCTION SITE BY WATERING AND/OR TREATING THE SITE IN SUCH A MANNER TO LIMIT THE EXTENT OF AIRBORNE DUST PARTICLES.
18.

SITE WORK HOURS SHALL BE PER COUNTY OR CALTRANS ENCROACHMENT PERMIT.
19.

THE WORK SITE SHALL BE CONTINUALLY MAINTAINED AND KEPT FREE OF TRASH AND CLUTTER. SOLID WASTE SHALL BE STORED IN CLOSED CONTAINERS AND TRANSPORTED TO AN APPROVED DUMPSITE ON A REGULAR BASIS.
20.

THESE PLANS SHOW EXISTING FEATURES INCLUDING BUT NOT LIMITED TO TREES, UTILITIES AND STRUCTURES THAT MAY BE AFFECTED BY THE CONSTRUCTION OR PLACEMENT OF THE PROPOSED ENGINEERED IMPROVEMENTS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE TO IMMEDIATELY NOTIFY THE ENGINEER IF THERE ARE ANY EXISTING FACILITIES, WHETHER SHOWN OR NOT SHOWN ON THESE PLANS, WHICH COULD IN ANY WAY BE IN POTENTIAL CONFLICT WITH THE DESIGN ON THESE PLANS. ALL WORK WITHIN THE VICINITY OF POTENTIAL CONFLICT SHALL CEASE UNTIL AN ADEQUATE AND APPROPRIATE SOLUTION IS DETERMINED BY THE ENGINEER/OWNER'S REPRESENTATIVE AND APPROVED BY THE OWNER.
21.

CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SITE STORM WATER POLLUTION PREVENTION AND IMPLEMENTING NECESSARY BEST MANAGEMENT PRACTICES. EROSION CONTROL MEASURES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY. WET SEASON CONTROLS ARE REQUIRED (MINIMUM) BETWEEN OCTOBER 15 AND APRIL 15.
22.

THE CONTRACTOR SHALL COMPLY WITH ALL RULES, REGULATIONS AND PROCEDURES OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FOR MUNICIPAL, CONSTRUCTION AND INDUSTRIAL ACTIVITIES AS PROMULGATED BY THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD OR ANY OF ITS' REGIONAL WATER QUALITY CONTROL BOARDS. REFER TO THE FOLLOWING GENERAL PERMITS

a.

WQO 2009-0009-DWQ, GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES, WITH AMENDMENTS

b.

WQO 2013-0001-DWQ, GENERAL PERMIT FOR STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4S)
- c. WQO 2014-0194-DWQ, NPDES PERMIT FOR DRINKING WATER DISCHARGES TO WATERS OF THE UNITED STATES
23.

IF ARCHAEOLOGICAL RESOURCES OR HUMAN REMAINS ARE DISCOVERED DURING CONSTRUCTION, THE COUNTY CORONER SHALL BE NOTIFIED AND WORK SHALL BE HALTED TO WITHIN 150-FEET OF THE FIND UNTIL IT CAN BE EVALUATED BY A QUALIFIED PROFESSIONAL ARCHAEOLOGIST. IF THE FIND IS SIGNIFICANT, APPROPRIATE MITIGATION MEASURES SHALL BE FORMULATED BY A QUALIFIED ARCHAEOLOGIST AND IMPLEMENTED BY THE CONTRACTOR.
24.

UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL CERTIFY THAT ALL WORK WAS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUBMIT TWO SETS OF 'RED-LINE' AS-BUILT PLANS SHOWING ALL CHANGES TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE IMPROVEMENTS.
25.

THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO KEEP PUBLIC STREETS FREE FROM DIRT AND DEBRIS. SHOULD ANY DIRT OR DEBRIS BE DEPOSITED IN PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL REMOVE IT IMMEDIATELY.
26.

CONTRACTOR SHALL REPLACE, AT HIS EXPENSE, ALL TREES, SHRUBS, LAWNS, FENCES, IRRIGATION SYSTEMS AND IMPROVEMENTS WHICH ARE TO REMAIN INTACT BUT ARE REMOVED OR DAMAGED DURING CONSTRUCTION. CONTRACTOR SHALL NOT REMOVE OR DAMAGE IMPROVEMENTS LOCATED WITHIN THE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE OWNER.
27.

CONTRACTOR SHALL DETERMINE AND PROVIDE FOR TEMPORARY CONSTRUCTION STORAGE AREAS . SECURITY FOR STAGING AREA IS CONTRACTOR'S RESPONSIBILITY.
28.

CONTRACTOR SHALL MAINTAIN ONE-WAY TRAFFIC ON PUBLIC AND PRIVATE ROADS, PAVED OR UNPAVED, ON WHICH WORK IS BEING PERFORMED DURING WORKING HOURS, OR COORDINATE WITH OWNER TO PROVIDE AN ACCEPTABLE DETOUR ROUTE AROUND THE WORKING AREA. MAINTAIN NORMAL TRAFFIC TRAVEL WIDTH DURING NON-WORKING HOURS. REFER TO ENCROACHMENT PERMITS, LICENSES, EASEMENT CONDITIONS AND TRAFFIC PLANS, WHERE APPLICABLE, AS INCLUDED IN THE SPECIFICATIONS.
29.

ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. THE FOLLOWING LIST OF STANDARDS ARE/OR SPECIFICATIONS ARE INCORPORATED INTO THESE PLANS BY REFERENCE. DESIGN AND CONSTRUCTION OF ALL IMPROVEMENTS SHALL COMPLY WITH ALL APPLICABLE STANDARDS INCLUDING:

a.

CALIFORNIA WATER WORKS STANDARDS (CALIFORNIA CODE OF REGULATIONS, TITLES 17 AND 22)

b.

AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS

c.

STANDARD SPECIFICATIONS, STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, 2018 EDITION

d.

STANDARD PLANS, STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS), 2018 EDITION

e.

CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT STANDARDS (CAL OSHA)
30.

ALL UNDERGROUND FACILITIES SHALL BE INSTALLED PRIOR TO THE FINAL PREPARATION OF SUBGRADE AND PLACEMENT OF BASE MATERIAL. VALVE BOX ELEVATIONS (IF SHOWN) ARE APPROXIMATE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING COVERS TO THE FINAL PAVEMENT GRADE.
31.

WHEN REPLACING EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE CUT TO A NEAT LINE AND REMOVED BACK TO AN EXISTING ADEQUATE STRUCTURAL SECTION. AN EXPLORATORY TRENCH OR POTHOLING MAY BE REQUIRED TO DETERMINE THE LIMITS OF PAVEMENT REMOVAL.
32.

CONTRACTOR IS RESPONSIBLE FOR FOR MATCHING EXISTING PAVEMENTS AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, GRADING, ETC. AND TO AVOID THE CREATION OF LOW SPOTS, HAZARDOUS CONDITIONS OR ABRUPT OR APPARENT CHANGES IN APPEARANCE, GRADES OR CROSS-SLOPES. CONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF THE SANTA CRUZ COUNTY ENCROACHMENT PERMIT.
33.

IMPROVEMENTS ARE SUBJECT TO INSPECTION AND APPROVAL BY OWNER'S ENGINEER AND THE SWRCB DIVISION OF DRINKING WATER. NOTIFY THE APPLICABLE JURISDICTION(S) AT LEAST 48-HOURS PRIOR TO THE START OF WORK TO ARRANGE FOR INSPECTION.
34.

CONTRACTOR SHALL PROVIDE STEEL PLATES AND AND SHALL PLATE ALL OPEN OPEN TRENCHES NOT ACTIVELY BEING WORKED ON. ALL OPEN TRENCHES SHALL BE PLATED AT THE END OF EACH WORKING DAY.
35.

CONTRACTOR SHALL ENSURE MAINTENANCE OF ALL REQUIRED UTILITY SEPARATIONS. NOT ALL SEPARATION REQUIREMENTS ARE SHOWN ON THE PLANS. CONTRACTOR SHALL IDENTIFY AND CONFORM WITH ALL REQUIRED CLEARANCES, SHOWN ON THE DRAWINGS OR NOT.
- GRADING NOTES:
1.

ALL GRADING, EROSION CONTROL, SITE PREPARATION AND PLACING AND COMPACTION OF FILL SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT ENTITLED "GEOTECHNICAL DESIGN REPORT, SLVWD 2019 WATERLINE PROJECT", PREPARED BY CAL ENGINEERING & GEOLOGY DATED JANUARY 30, 2020. QUESTIONS ABOUT ITEMS THAT ARE NOT CLEAR OR NOT COVERED IN THE REPORT SHALL BE SUBMITTED TO THE GEOTECHNICAL ENGINEER.
2.

THE CONTRACTOR SHALL PROVIDE THE CONSTRUCTION STAKES. THE NUMBER AND LOCATION OF STAKES REQUIRED SHALL BE DETERMINED BEFORE THE CONSTRUCTION BEGINS. ALL CONSTRUCTION STAKING SHALL BE DONE BY A REGISTERED CIVIL ENGINEER OR LICENSED LAND SURVEYOR.
3.

ALL EXISTING ELEVATIONS SHOWN ARE AS MEASURED IN THE FIELD, UNLESS NOTED OTHERWISE.
4.

ALL GRADES SHOWN ARE FINISHED GRADES, UNLESS OTHERWISE NOTED.
5.

ALL STATIONING AND DISTANCES INDICATED ON THE DRAWINGS ARE BASED ON HORIZONTAL MEASURED FEET.
6.

ALL GRADING, EROSION CONTROL, SITE PREPARATION, AND PLACING AND COMPACTION OF FILL SHALL BE DONE IN ACCORDANCE WITH CHAPTER 16.20 OF THE SANTA CRUZ COUNTY, CA CODE OF ORDINANCES.
7.

CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE OWNER AT LEAST TWO WORKING DAYS PRIOR TO THE START OF WORK.
8.

CLEAR SURFACE VEGETATION AND STRIP TOPSOIL TO BOTTOM OF ROOT ZONE WITHIN GRADING AREAS. STOCKPILE TOPSOIL ON-SITE FOR FUTURE USE. CHIP AND SPREAD REMOVED VEGETATION WITHIN THE LIMITS OF THE WORK.
9.

STRUCTURAL FILL AREAS SHALL BE SCARIFIED TO A DEPTH OF 18-INCHES, MOISTURE CONDITIONED AND COMPACTED.
10.

CLEAN NATIVE MATERIAL MEETING THE REQUIREMENTS LISTED IN THE GEOTECHNICAL REPORT MAY BE USED AS STRUCTURAL FILL. IMPORTED STRUCTURAL FILL, IF NEEDED, SHALL MEET THE REQUIREMENTS LISTED IN THE GEOTECHNICAL REPORT.
11.

BEDDING FOR UNDERGROUND UTILITIES SHALL BE IMPORTED SAND MATERIAL (MINIMUM S.E. = 30) UNLESS OTHERWISE APPROVED BY THE ENGINEER. BEDDING SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95% AS BASED UPON ASTM TEST DESIGNATION D1557, MODIFIED PROCTOR.
12.

BACKFILL FOR UTILITY TRENCHES UNDER PAVEMENTS SHALL BE 2-SACK CEMENT SLURRY PER COUNTY PUBLIC WORKS. BACKFILL NOT UNDER PAVEMENT SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95% BASED UPON ASTM TEST DESIGNATION D1557, MODIFIED PROCTOR. BACKFILL FOR ANY WORK WITHIN CALTRANS ROW SHALL BE 8-SACK CEMENT SLURRY. REFER TO CALTRANS ENCROACHMENT PERMIT.
13.

ALL SURPLUS AND UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF BY CONTRACTOR.
14.

CONTRACTOR SHALL NEITHER WASTE NOR DEPOSIT ANY HAZARDOUS MATERIALS ON THE GRADING SURFACES OR WITHIN THE GRADED CUT AND FILL AREAS OF THIS PROJECT, INCLUDING BUT NOT LIMITED TO GASOLINE OR DIESEL FUELS, MOTOR OILS OR TRANSMISSION FLUIDS, ANTIFREEZE, HYDRAULIC FLUIDS, LUBRICANTS, STARTING FLUIDS AND FILTERS, AND/OR CONTAINERS FOR THESE PRODUCTS. HAZARDOUS MATERIAL SPILLS THAT OCCUR AS A RESULT OF EITHER EQUIPMENT FAILURES OR VANDALISM, INCLUDING ALL ADJACENT CONTAMINATED SOILS, SHALL BE EXCAVATED AND PACKAGED FOR DISPOSAL AT AN ENVIRONMENTALLY APPROVED DISPOSAL SITE. MATERIALS SHALL NOT BE TRANSPORTED OFF THE SITE UNTIL THEY ARE CATALOGED AND APPROVED BY THE CONSTRUCTION MANAGER. ALL REMOVAL, PACKAGING, TRANSPORTATION AND DISPOSAL COSTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
15.

ALL DISTURBED AREAS SHALL BE RE-SEEDED WITH THE FOLLOWING EROSION CONTROL MIX. APPLY 1 POUND PER 800 SQUARE FEET. PROVIDE MULCH AND FERTILIZER PER SEED SUPPLIERS RECOMMENDATIONS:

SPECIES	COMMON NAME
FESTUCA RUBRA 'MOLATE'	RED FESCUE
POA SECUNDA	SANDBERG BLUEGRASS
VULPIA MICROSTACHYS	SMALL FESCUE
NASELLA PULCHRA	PURPLE NEEDELEGRASS
- PIPELINE NOTES:
1.

FULLY RESTRAIN ALL NEW PIPELINES AND FITTINGS.

1.1.

RESTRAIN DUCTILE IRON PIPE USING LOCKING GASKETS (FIELD-LOK OR EQUAL) ON RUN OF PIPE, AND EBAA MEGALUG RESTRAINTS ON MECHANICAL JOINT FITTINGS.
2.

PROTECT IN-PLACE EXISTING RESIDENTIAL SERVICES UNTIL THE REPLACEMENT WATER MAIN IS COMPLETED, TESTED AND PLACED INTO SERVICE. REPAIR OR REPLACE DAMAGED SERVICES ON THE SAME DAY THE DAMAGE OCCURS. PROVIDE TEMPORARY HIGH-LINE CONNECTIONS IF CUSTOMER OUTAGES WILL EXCEED 4-HOURS.
3.

COORDINATE CUSTOMER WATER SERVICE REPLACEMENTS WITH DISTRICT STAFF:

3.1.

NOTIFY STAFF A MINIMUM OF 2-WEEKS PRIOR TO THE WORK. STAFF WILL DETERMINE IF REPLACEMENT METERS WILL BE PROVIDED.

3.2.

NOTIFY CUSTOMERS USING DOOR HANGERS A MINIMUM OF 48-HOURS PRIOR TO THE OUTAGE.

3.3.

DO NOT DISCONNECT CUSTOMER'S SERVICE UNTIL ALL REQUIRED MATERIALS AND METER ARE ON-SITE.
4.

ABANDONMENT OF ASBESTOS-CEMENT (TRANSITE) PIPE

4.1.

ABANDON EXISTING ASBESTOS-CEMENT WATER MAIN AFTER THE REPLACEMENT MAIN IS IN-SERVICE AND ALL CUSTOMER CONNECTIONS HAVE BEEN TRANSFERRED TO THE NEW MAIN.

4.2.

POTHOLE TO EXPOSE EXISTING PIPE.

4.3.

CUT OUT AND REMOVE 2-FT SECTION OF THE EXISTING PIPE AND INSTALL MJ PLUG AT EXISTING FITTING.

4.4.

PLACE GROUT PLUG AROUND THE END OF THE PIPE. GROUT MUST EXTEND 12-INCH MINIMUM INTO THE PIPE AND 4-INCH MINIMUM OUTSIDE THE PIPE.
5.

CONTRACTOR TO POTHOLE EXISTING WATER LINES TO VERIFY EXACT DEPTH, MATERIAL, SIZE, AND LOCATION.
6.

CONTRACTOR TO VERIFY ALL MATERIAL QUANTITIES
7.

MINIMUM PIPE COVER SHALL BE 54". WHEN OVER-CROSSING OTHER PIPELINES, THE MINIMUM PIPE COVER SHALL BE 42-IN WITHIN CALTRANS ROW AND SHALL BE 36-IN ELSEWHERE.
8.

PIPELINES SHALL SLOPE UNIFORMLY BETWEEN INVERT ELEVATIONS. CONTRACTOR SHALL PROVIDE ALL SHORTS, SPOOLS, AND FITTINGS NECESSARY TO MEET DEPTHS REQUIRED (SEE C-6.1).
9.

ALL VERTICAL CHANGES IN PIPE ALIGNMENT DELINEATED ON THE PLANS AS SHOWN WITHOUT BENDS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
10.

CONNECTIONS MADE BETWEEN DIFFERENT CLASSES OF PIPE SHALL BE MADE WITH MATERIALS RATED FOR THE HIGHER PRESSURE CLASS.
11.

ALL NEW VALVES SHALL BE FLANGED DIRECTLY TO A TEE, CROSS OR OTHER FITTING. VALVES SHALL BE ACCESSIBLE FOR OPERATION WITH COMPLETE VALVE BOX PRIOR TO CONNECTION TO EXISTING WATER SYSTEM.
12.

THE WATER SYSTEM SHALL BE HYDROSTATICALLY TESTED PRIOR TO PLACING COMPACTED BASE OR PAVEMENT. A DISTRICT REPRESENTATIVE MUST BE PRESENT ON SITE TO WITNESS TIE-INS.
10.

WATER PIPELINE CROSSINGS OVER UTILITIES MUST HAVE A 1-FOOT VERTICAL CLEARANCE BETWEEN WATER PIPE AND UTILITY, UNLESS APPROVED BY A DISTRICT REPRESENTATIVE. PIPELINES CROSSING OVER SEWER OR STORM LINES MUST MEET MINIMUM CLEARANCE REQUIREMENTS AND ANGLE OF APPROACH AS REQUIRED BY THE STATE WATER RESOURCE CONTROL BOARD DIVISION OF DRINKING WATER.
11.

CONTRACTOR SHALL ADJUST ALL VALVE BOXES, FIRE HYDRANTS, BLOW OFFS, AIR VACS, ETC. TO FINISHED GRADE UNLESS OTHERWISE SHOWN OR DIRECTED.
12.

FIRE HYDRANTS, METER BOXES, AIR VACS AND BLOW OFFS SHALL BE LOCATED NO CLOSER THAN 5 FEET FROM BEGINNING OF CURB RETURN, DRIVEWAY, OR ANY OTHER UTILITY. FINAL APPURTENANCE PLACEMENT TO BE DETERMINED IN THE FIELD BY A DISTRICT REPRESENTATIVE.
13.

THE CONTRACTOR IS ALERTED THAT THERE IS ASBESTOS CEMENT PIPE (ACP) IN THE SYSTEM. ALL HANDLING, REMOVAL AND DISPOSAL SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL LAWS AND STANDARDS.
14.

CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM SAMPLING, DISINFECTION, AND DECHLORINATION TO THE SATISFACTION OF THE DISTRICT PRIOR TO MAKING CONNECTIONS BETWEEN NEW AND EXISTING FACILITIES.
15.

ALL PIPELINE TO BE CONSTRUCTED USING PRESSURE CLASS 350 DUCTILE IRON PIPE (DIP) WRAPPED WITH PLASTIC PER CALTRANS STANDARD.
16.

ALL FITTING TO PIPE CONNECTIONS TO BE FULLY RESTRAINED UTILIZING MECHANICAL JOINT FITTINGS, AND ALL FITTING TO FITTING CONNECTIONS TO BE FLANGED. ALL PUSH-ON FITTINGS TO USE FIELD LOK GASKETS OR EQUAL APPROVED BY ENGINEER.
17.

PROVIDE CONCRETE THRUST BLOCKS PER SD-8 FOR ANY CONNECTION NOT FULLY RESTRAINED
18.

CONTRACTOR TO CUT OVER EXISTING SERVICES TO NEW MAIN. IN LOCATIONS WHERE NO METER EXISTED PREVIOUSLY OR A TEMPORARY SERVICE CONDITION EXISTS, CONTRACTOR TO PROVIDE NEW 1" POLYETHYLENE SERVICE LINES BETWEEN NEW MAIN AND NEW METER(S). CONTRACTOR TO PROVIDE AND SET ALL REQUIRED METER BOXES IN CONFORMANCE WITH SLVWD STANDARD DETAILS (SD-4).
- LYON & BIG STEEL ZONE  
PIPELINE IMPROVEMENTS  
GENERAL NOTES
- 
- |                |                |       |           |
|----------------|----------------|-------|-----------|
| DESIGNED BY:   | JCT            | DATE: | 9/20/2022 |
| DRAWN BY:      | JCT            | DATE: | 9/20/2022 |
| QC CHECKED BY: | JCT            | DATE: | 9/20/2022 |
| PROJECT NO.:   |                |       |           |
| SCALE:         | NO SCALE       |       |           |
| SUBMITTAL:     | 100% SUBMITTAL |       |           |
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SHEET 3 OF 27
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DESCRIPTION

ADD. 1 - NOTE REVISION

BY

DATE

JCT

12/16/22

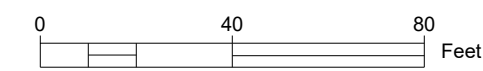
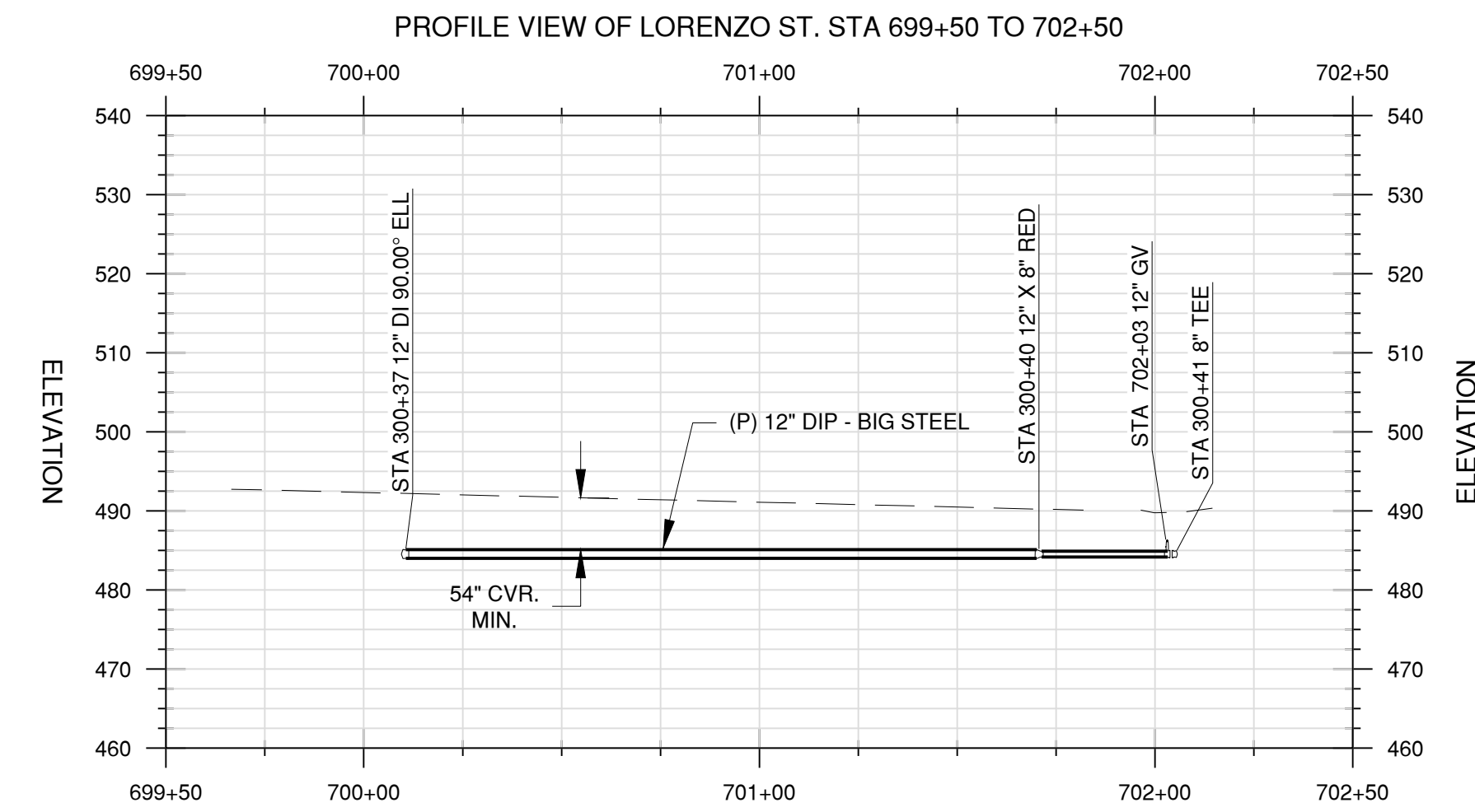
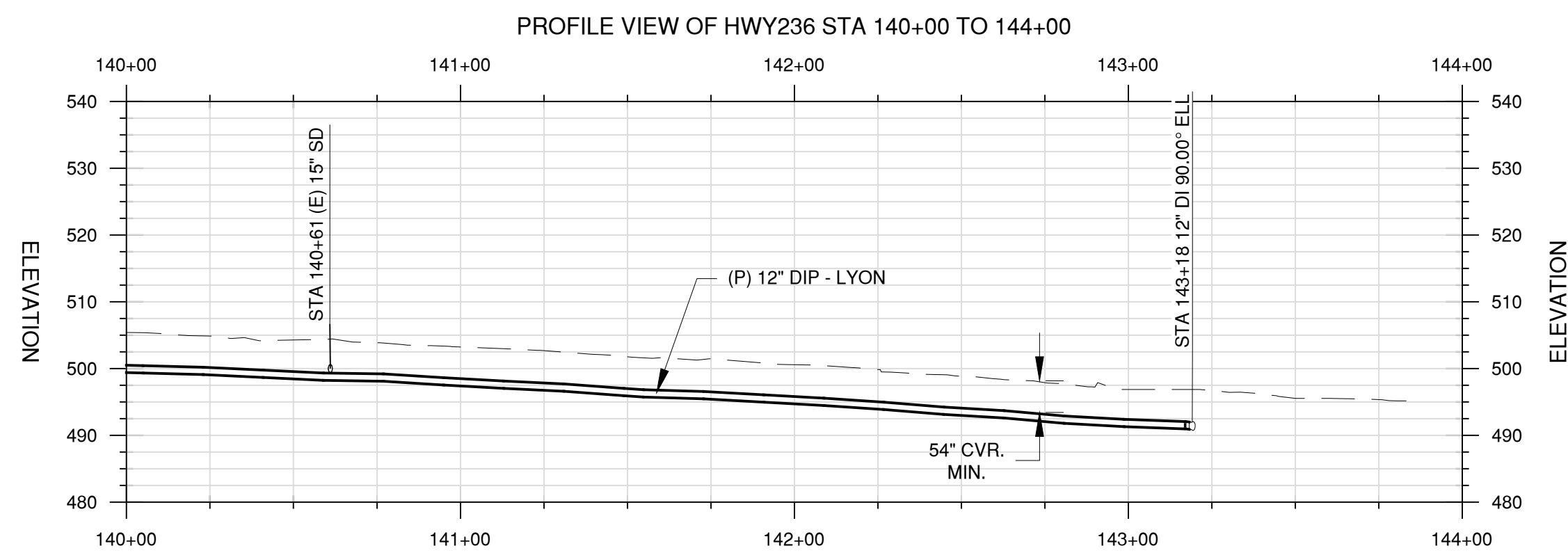
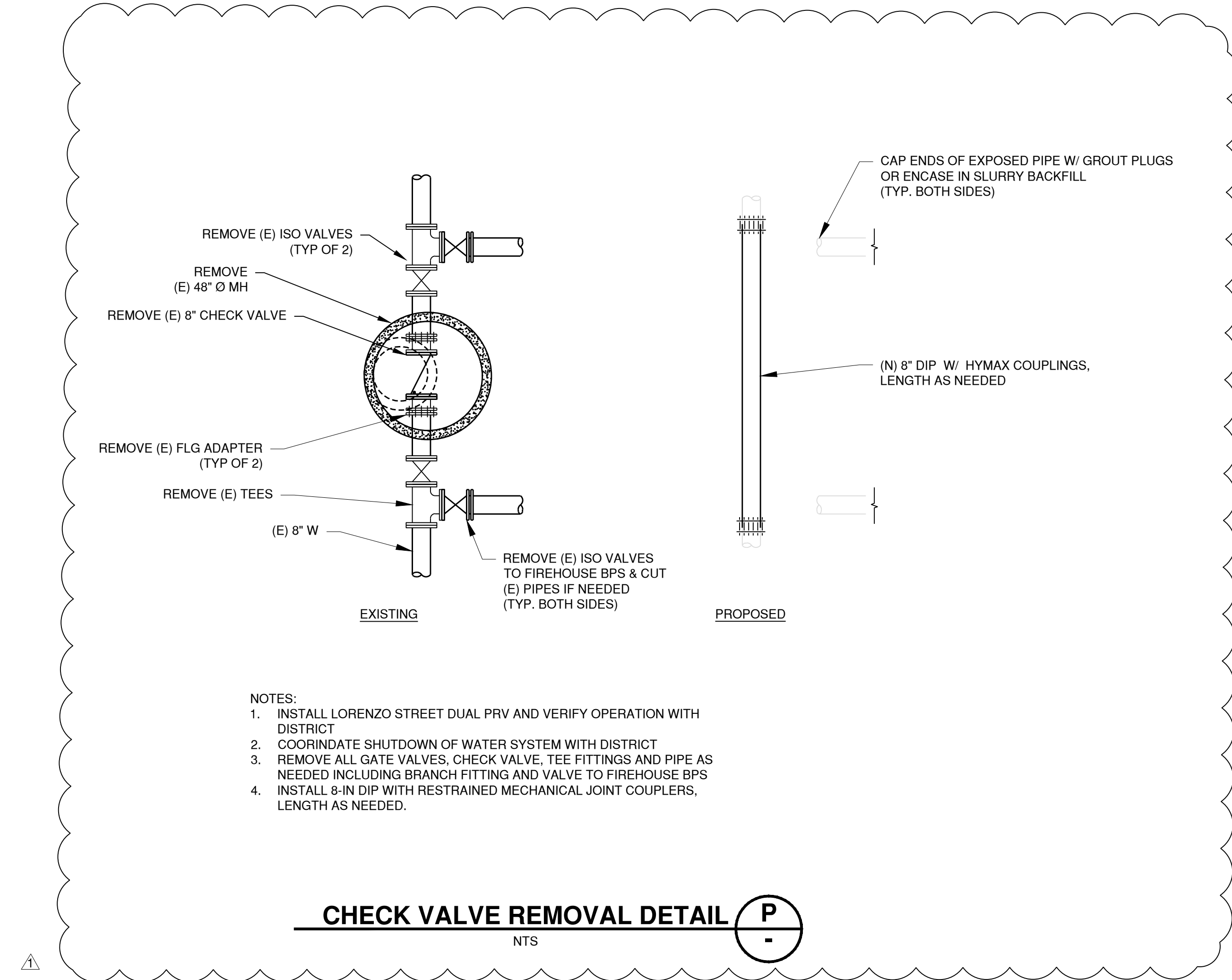
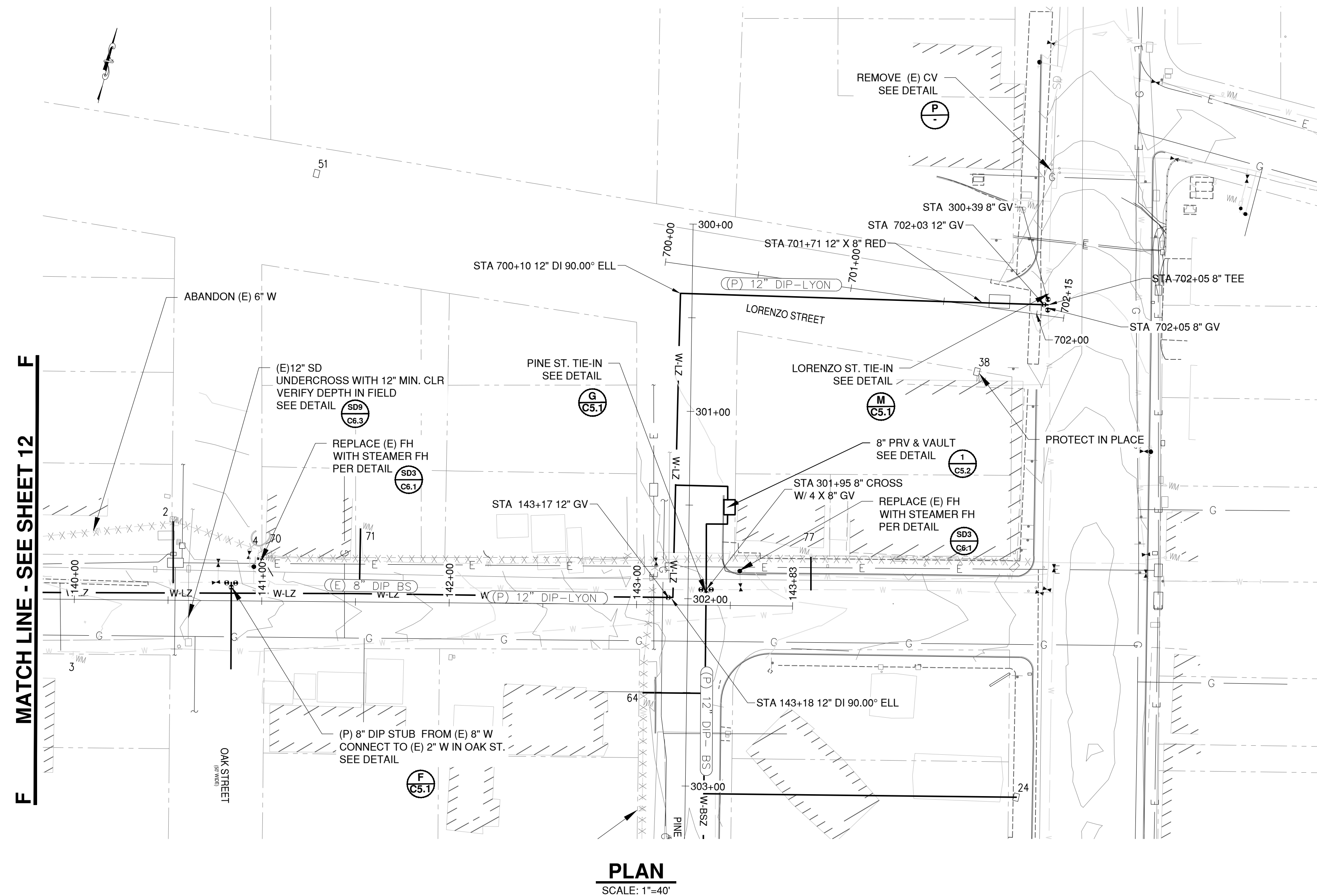
Schaaf & Wheeler



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		<p><b>LYON &amp; BIG STEEL ZONE</b>  <b>PIPELINE IMPROVEMENTS</b>          HWY 236 140+00 TO 146+00</p>				<p><b>Schaaf &amp; Wheeler</b>          CONSULTING CIVIL ENGINEERS          3 Quail Run Circle, Suite 101          Salinas, CA 95007-2348          (831) 883-4846</p>	
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