
Zone A Pump Station and Transmission Main Project RFP Addendum #3

Project Description:

RFP to for work which includes the following general scope items:

1. Facility 20 – Zone A Pump Station. Located at the Paradise Water Treatment Plant. Pulls water from the Treated Water Storage Tank (TWIST) and pumps through the new Zone A Transmission Main to the existing A-Zone distribution system near Reservoir A.
2. Facility 25 – Pump Station 2 – Installation of piping and valves which allow for the backfeed of B-Zone from A-Zone if necessary.
3. Facility 30 – Zone A Transmission Main. Approximately 7350-ft of 16” PVC C900 or Ductile Iron water transmission main installed in Pine Needle Drive, Skyway and New Skyway with the majority of the pipeline in New Skyway. The work in New Skyway will involve traffic control, and diversion of traffic using Skyway.

For:

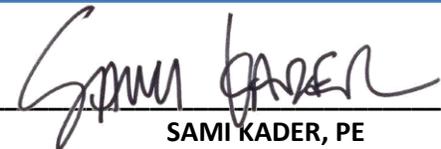
Paradise Irrigation District
6332 Clark Rd
Paradise CA 95969

Proposals Due:

1:00 pm, Thursday February 23, 2023

Mandatory Pre-Bid Meeting: 10:00 am, Tuesday January 31, 2023

APPROVED: _____



SAMI KADER, PE
Project Manager
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530-355-7646

DATE ISSUED: 16 Feb 2023

The following changes, additions and/or deletions are hereby made a part of the Documents for the Construction of the PARADISE IRRIGATION DISTRICT ZONE A PUMP STATION AND TRANSMISSION MAIN PROJECT – JOB NUMBER 17-041 as fully and completely as if the same were fully set forth therein:

1. The answers to the questions asked to the engineer which were received after Addendum 2:
 - a. Drawing 20-I-3 shows Reservoir B existing RTU cabinet being modified and a new control panel “CP-10” being installed. There are no other drawings showing the work required at the Reservoir. Please provide more information on what work is required, including but not limited to electrical & site drawings, and conduit & wire information.
 1. There is no work at Reservoir B as part of this project. Disregard this work shown.
See changes to referenced drawing below.
 - b. Please provide a conduit and wire schedule for the project.
 1. See “CIRCUIT SCHEDULE” on 20-E-2.
 - c. Are flanged butterfly valves per the specifications acceptable at both pump stations? The use of lug or wafer style butterfly valves will limit the number of manufacturers that will be able to bid the valve package for the project.
 1. No, flanged valves are not acceptable at either pump station. The arrangement spacing is too limited for the use of flanged valves. Provide valves as specified in the Valve Schedule; see revisions below.
 - d. Specification section 15200 VS Valve schedule, section 1.2 valve tag numbers V103, V203, V303, and V403 are listed as 8” wafer butterfly valves per valve type BFV-10. 15200 Section 2 a. calls out for flanged end short body butterfly valves, and section 3 under manufacturers references a Dezurik model BAW. Do you want me to provide a price for a wafer style butterfly valve per call out referencing the valve schedule or a flanged end per the specifications?
 1. Provide **LUG** style valves per BFV-15. See Valve Schedule and Valve and Operators Specification revisions below.
 - e. On sheet 20-M-1 Facility 20 Plans, the combination air valve V503 is noted to reference detail 15234. Per the valve schedule this is a CARV-01 threaded 3” air valve. When I look at sheet SD-17 standard details 15234 it is calling for a 2” pipe coming from the process

pipe up to the combination air valve. This detail is also calling out for a backflush connection. In the specification section 15200 C CARV-01 combination air release valve for water service, section 2 c. calls for a single body type and section 3 manufacturers a. references a model 145C. This model is a single body water service combination air valve 2" and is not available with a backflush option. The details on the plans reference a sewage combination air release valve similar to an APCO model 401 with a backflush option. Do you want a water service single body air valve without a backflush option, or do you want a sewer combination air valve with a backflush option and is this to be a 3" per the valve schedule or a 2" per the detail and the referenced model number 145C?

1. See revised Valve Schedule V503. Provide CARV-02.
- f. Are insulating flange kits required at the connection between steel and ductile iron pipe per the "dissimilar metal piping connections" requirement of 15100.3.3.B.8.a(1)?
1. No, steel and ductile iron are not dissimilar metals; no insulating flange kit is required between them.
- g. Please confirm that Pollution Liability insurance is required per 6.03M 00825-6.
1. Yes, confirmed.
- h. Please confirm that Builder's Risk insurance is required per 6.04 00825-7.
1. Yes, confirmed.
- i. Please confirm who is responsible for testing and inspection. Spec section 14.02 on page 56 of the general conditions states that it is the Owners responsibility. However, 01400-1 1.2 states that it is the Contractor's responsibility.
1. Contractor.
- j. Please add a bid item for rock excavation per 01200-2 1.4A.
1. Remove Section 1.4 from 01200 – Measurement and Payment. See modification to specifications below.
- k. At the pre bid meeting, it was mentioned that there is an old abandoned railway on Skyline. Are any of the old rails or ties still present within the alignment of the new ZATM?
1. No.

- I. What responsibility does the contractor have for maintaining the cutback for the temporary patch for the ZATM?
 - 1. Contractor has to maintain the cutback in a smooth and drivable (even with the adjacent road surface) condition at the end of every workday.

- m. Are there any liquidated damages associated with not completing the ZATM by July 2023?
 - 1. The portion of the ZATM shall be substantially completed within 70 working days from NTP which is approximately June 1, 2023.
 - 2. There will be no liquidated damages for not completing the ZATM within the required timeframe.

- n. Plan sheet G-4 note 15 references project signs. How many will be required for this project?
 - 1. No project signs are required for this project.

- o. Will the contractor be required to install temp fencing around the excavations for the installation of ZATM per 02300 3.1C?
 - 1. No temporary fencing is required around the ZATM trenches.
 - 2. Trenches should be backfilled, plated and safe for traffic at the end of every workday. No open trenches in the public right of way are allowed during non-work hours.

- p. Will the owner require a work plan prepared by an environmental specialist or industrial hygienist per 5.2.2 of the Geotech report?
 - 1. Yes, for work in areas where naturally occurring asbestos has been identified on the drawings. See revised drawings.

- q. For 00300 Bid Form Items 5 and 6, what areas of the ZATM does this cover? What final paving is required that is not covered in these items? Is any final paving required in item 7?
 - 1. Item 5 corresponds to Standard Detail 2200.
 - 2. Item 6 corresponds to Standard Detail 2200A (STA 23+19.30 to STA 70+00).
 - 3. See standard detail callouts on drawings 30-P-01 to 30-P-17.

4. These two standard details cover all paved areas along the pipeline. Standard Detail 2200 applies to both the main line and the branches outside of STA 23+19.3 to 70+00.
- r. Clarify the Section 6.02 Progress Payment; Retainage clause in 00500 Agreement Form.
 1. See changes to the specification noted below.
- s. Per 15100 PSDS PVC2-1 under the "Joints" section, it states that restrained sections are to be DIP and not PVC. On the material list in addendum 2, there is no DIP for the ZATM. Will PVC be allowed or is the contractor required to purchase the DIP and PVC/DIP transition sleeves for the restrained sections?
 1. PVC will be allowed in the restrained section. The restraint method will be Bell Harness Restraint. The harnesses will be provided by the District.
- t. No megalugs are included on the materials list provided in addendum 2 for the fittings. Is the contractor to supply the megalugs for the ZATM?
 1. No, the restrained glands and bolt kits are included in the Owner's pre-purchased scope of supply.
- u. Will the owner be supplying jobsite water for the project? If so, what is the cost and where will the contractor be able to draw the water from?
 1. The contractor must obtain a construction meter for construction water by applying for one at PID's District office. The contractor can specify a preferred location for the construction meter(s). The cost can be found on PID's website: <https://www.pidwater.com/service>. See "Construction Water (For Contractors)"
- v. Would the City/County/owner consider shutting down New Skyway Road during the install of the 16" pipeline and detouring all traffic over to Skyway Road vs putting northbound traffic on New Skyway during the install of the 16" main in that section of roadway?
 1. No, the project shall be built using the general traffic control plan as listed in the drawings.
- w. Who is supplying and paying for Third Party inspection for the project?
 1. The contractor.

- x. Do we have to cover owner's inspector overtime. If so, what is the hourly cost?
 - 1. No, however, contractor must receive prior approval from owner to work outside of the listed work hours.

- y. The geotechnical report states that there is naturally occurring asbestos in the serpentine rock along the pipeline alignment. Will the contractor be responsible for testing & disposal if it is encountered?
 - 1. Yes, Contractor is to expect naturally occurring asbestos (NOA) in the Zone A Pump Station excavation area and the first section of the pipeline along Pine Needle Drive. See the notes added to the related drawing sheets.

- z. Sheet 68 shows the "Pipe Zone" drawing with a sand envelope of 12" above the top of pipe. The "Existing Paved Area" drawing shows CLSM in the envelope and up to 2" from RIM. Most of the 16" and 12" C900 pipeline is in an existing paved area. Can we get some clarification on this?
 - 1. Pipe bedding can be sand or CLSM at contractor's option.

- aa. Questions regarding the CLSM backfill:
 - 1. Addendum #1 requires the contractor to use CLSM backfill on New Skyway that will achieve 50 psi within 2 hours. I have spoken with A & A Ready Mix (email attached) and they have told me that this is not possible and keep the finished product excavatable. The specifications state that the psi will be no more than 150 after it is cured which is not possible.
 - 2. Can we use soil cement produced in an onsite pugmill as an alternate to CLSM as allowed by CAL TRANS which will meet the 50-150 psi requirement in the specifications? Please note that this option will not meet the 50 psi requirement in addendum #1 either.
 - 3. Can we substitute CLSM slurry with Caltrans spec'd "Popcorn?" The benefits of being able to not wait for cure time will boost productivity.
 - A. The requirement for admixtures to achieve 50 PSI within 2 hours is being removed from the contract. See updated construction notes for G-4.

- B. CLSM is still the specified backfill material in paved areas. If the selected contractor wants to propose a substitute (ie: soil cement, "Popcorn" dry mix, etc.), it can be submitted as an equal and will be considered with more detailed information provided.
- bb. Page 46-62 note 1. states "Cover for buried pipe is 3' min. Unless otherwise noted. Replace trench backfill material with CLSM if buried pipe cover is less than 3'." Can we get some clarification? This does not agree with the "Existing Paved Area" drawing. It leaves interpretation for the trench backfill.
1. Backfill for ZATM to be CLSM in all paved areas.
 2. Backfill for ZATM in non-paved areas where cover is less than 3'0" shall be CLSM.
- cc. (continued from previous question) Does this mean if you have more than 3' of cover over the top of pipe you can use a 12" sand envelope over the top of pipe and a class 2 aggregate R.C. to 95% to RIM?
1. No, if the location in question is in a paved area.
 2. Yes, if the location in question is NOT in a paved area.
- dd. If field utilities not known or shown on the plans have invert conflicts not allowing adequate cover for the Transmission main, would it be preferable to install a vertical restrained drop or would removing pipe to gradually lower its invert be needed? Since PID is ordering the materials, who would purchase the material and would this be an approved change order?
1. This issue would be handled during the construction time frame by submitting a Request for Information to the Engineer. The Engineer will determine the preferred solution. If necessary, the Owner will submit a Request for Change to the contractor. Whether the Owner or Contractor will supply the materials will be determined at that time.
- ee. We have talk to the supplier of the Vertical Turbine Pumps for the project. We are being told that the submittal time is 10-12 weeks with delivery in 48 to 50 weeks, Total time to site 58 to 62 weeks. We also talk to the electrical subcontractors who are telling us that the electrical gear could out 52 to 60 weeks out. With only 220 working days to complete

the project, the contractors will need more time to complete the project. Please advise if the owner will increase the project time.

1. Additional time has been added to the project for this reason. See change to specifications below.
- ff. Floway’s lead times for the four (4) vertical turbine pumps is 10-12 weeks for submittal and 45-50 weeks for delivery after submittal approval. The specified project timeline is 200 working days. Can the timeline be extended to accommodate the lead times of the specified manufacturer?
1. Yes, see the change to specifications below.
- gg. What is the maximum incoming pressure to suction barrel at the Zone A Pump Station vertical turbine pump?
1. 7.25 feet of head. See the existing “WSE 2200.00” call out to the right of the pump can on sheet 20-M-3.

Make the following changes to Volume 1 – Bid Requirements and Specifications:

2. Make the following changes to Volume 1 – Specifications:
 - a. **CHANGE** Section 00080 Advertisement for Bids description of project substantial completion to: **300 working days**, and completion to: **320 working days** from the date established in the Notice to Proceed.
 1. This change **DOES NOT** affect the substantial completion of the portion of the ZATM pipeline from Station 23+19.30 to 70+00, approximately 4681-ft.
 - b. **CHANGE** Section 00500 Agreement Form, Article 4.01 *Contract Time: Working Days* Section A to read:
 1. The Work will be substantially complete within **300** working days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within **320** working days after the date when the Contract Times commence to run.
 - c. **CHANGE** Section 00500 Agreement Form, Article 6.02 Progress Payments; Retainage. 1. A to read:
 1. **95** percent of the value of the work completed...
 2. **95** percent of cost of materials and equipment not incorporated in the Work...

d. **DELETE** Section B from Article 6.02 in Section 00500.

e. **ADD** to Specification Section 00825, SC-6.04. F:

14. *Minimum builder's risk amount shall be the value of the bid plus 10%.*

f. **ADD** before Section 00825, SC-11.03.B.2: *"If"*

g. **REPLACE** Section 00300 with the attached revised Bid Form.

h. **DELETE** Section 1.4 - *Description of Unit Price Bid Item* from Section 01200 Measurement and Payment Part 2 in its entirety.

i. **CHANGE** 15200 PSDS PVC2 Joints to read:

1. Rubber-gasketed bell and spigot or rubber-gasketed couplings. **Restrained joint PVC piping is allowed.** In sections where joint restraint is required as shown on the drawings, **use Bell Harness Restraint: Split or Wedge Bell Restraint Harness, EBAA Series 6500 or Series 2800, or equal.**

j. **CHANGE** 15200 VS as described below:

ZONE A PUMP STATION					
V103	BFV-15	LUG	8"	EX	HW
V203	BFV-15	LUG	8"	EX	HW
V303	BFV-15	LUG	8"	EX	HW
V403	BFV-15	LUG	8"	EX	HW
V502	BFV-15	LUG	12"	EX	HW
V503	CARV-02	FLG	3"	EX	N/A
PUMP STATION #2					
V701	BFV-15	LUG	8"	EX	L
V702	BFV-15	LUG	8"	EX	L
V703	BFV-15	LUG	6"	EX	L
V705	BFV-15	LUG	6"	EX	L
V706	BFV-15	LUG	8"	EX	L
V707	PRV-50	FLG	8"	EX	N/A
V708	BFV-15	LUG	8"	EX	L

k. **INSERT** into Section 15200 Valves and Operators, Section 2.3:

C. **BFV-15:** Butterfly Valve 2 inches to 20 inches:

1. Service: Water.
2. Features:
 - a. Single offset disc
 - b. Lugged or wafer body style
 - c. Suitable for used with ASME class 125/150 flanges
 - d. Provide bi-directional bubble-tight shutoff at 200 psi
 - e. 316 SST disc and shaft
 - f. NSF/ANSI 61 certified for drinking water
3. Discs:
 - a. Offset to provide an uninterrupted 360-degree seating edge
 - b. Material: 316 SST
 - c. Splined disc/shaft connection
4. Bodies:
 - a. Ductile iron
 - b. Lugged valves shall provide bubble-tight shutoff up to the full valve rating on dead head service without the use of downstream flanges.
 - c. Wafer valves shall have four flange bolt guides to center the body in the pipeline.
5. Elastomer seats
 - a. Shall fully line and be permanently bonded to the valve body
 - b. Seats shall be EPDM.
 - c. Seats shall have integral flange seals so flange gaskets are not required.
6. Shafts
 - a. 316 SST
 - b. Shaft diameters to meet AWWA C504, class 75B standard
 - c. Multiple shaft seals shall be provided to prevent leakage.
7. Shaft Bearings
 - a. Made of heavy-duty aluminum bronze
 - b. Ensure smooth, reliable valve operation
 - c. Locate bearings adjacent to the top and bottom of the disc
 - d. Third bearing at the top of the valve neck supports loading from actuators
8. Operators
 - a. Provide lever operators for valve sizes 2" to 6" – provide automatic, positive latching in the open, closed, and eight intermediate positions.
 - b. Provide gear actuators for valves 8" and larger
9. Actuators
 - a. Cast iron weatherproof or buriable construction
 - b. Adjustable open and closed position stops
 - c. Operating shaft to be supported axially and radially at the input end by permanently lubricated thrust and sleeve bearings.
10. Warranty
 - a. Warranted by the manufacturer for defects in materials and workmanship for a period of two years (24 months) from date of shipment
11. Manufacturers and Products:
 - a. Dezurik BOS-US Uninterrupted Seat Resilient Seated Butterfly Valve
 - b. Or equal

3. Make the following changes to Volume 2 – Drawings (11 inch by 17 inch):

- a. **DELETE** portion of Note 4 in Additional Notes for Work on New Skyway on sheet G-4:

~~CLSM MIX DESIGN SHALL INCLUDE ADMIXTURES TO PROVIDE 50 PSI STRENGTH SET IN THAT 2 HOUR TIMEFRAME TO BE SAFE FOR TRAFFICE USE.~~

- b. **DELETE** Note 15 under General Notes on G-4.

- c. **ADD** Note 4 to 20-C-1:

4. CONTRACTOR TO EXPECT NATURALLY OCCURRING ASBESTOS IN THIS PORTION OF EXCAVATION AND FOLLOW ALL REQUIRED BUTTE COUNTY RULE 270 REQUIREMENTS, CAL OSHA MITIGATION MEASURES AND CARB ASBESTOS ATCM FOR CONSTRUCTION, GRADING, QUARRYING AND SURFACE MINING OPERATIONS STANDARDS DURING EXECUTION OF THE WORK INCLUDING EXCAVATION, HANDLING, TRANSPORTATION AND DISPOSAL OF THE MATERIALS.

- d. **REMOVE** callout 15234 for V503 on Sheet 20-M-1. Add 3" flanged outlet to the WSP header for V503.

- e. **DELETE** the work as shown on the attached 20-I-3.

- f. **REPLACE** the following sheets with the attached drawings:

1. G-4
2. G-16
3. 20-C-1
4. 20-M-1
5. 20-I-3
6. 30-P-1
7. 30-P-2
8. 30-P-3
9. 30-P-15
10. 30-P-16
11. 30-P-17

- g. **REPLACE** PID Standard Details on sheets SD-1 to SD-5 with the attached drawings:

1. PID-02 THRUST BLOCK DETAILS
2. PID-03 VALVE BOX DETAIL

3. PID-04 FIRE HYDRANT INSTALLATION
4. PID-09 MANUAL AIR VALVE ASSEMBLY
5. PID-10 AIR RELEASE AND VACUUM RELIEF
6. PID-11 STATE HEALTH DEPARTMENT EXCEPTIONS TO BASIC SEPARATION STANDARDS FOR POTABLE WATER AND SEWER PIPELINES
7. PID-15 RP INSTALLATION FOR DOMESTIC CONNECTIONS UP TO 2”

NOTE TO BIDDER: Use BLACK ink for completing this Bid Form.

SECTION 00300

BID FORM

To: Paradise Irrigation District

Address: 6332 Clark Road,
Paradise, CA 95969

Project Identification: Zone A Pump Station and Transmission Main Project

1. BIDDER'S DECLARATION AND UNDERSTANDING.

1.1 This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm, or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

1.2 In submitting this Bid, Bidder acknowledges and accepts CONTRACTOR's representations as more fully set forth in the Agreement Form.

1.3 In submitting this Bid, Bidder certifies Bidder is qualified to do business in the state where the Project is located as required by laws, rules, and regulations or, if allowed by statute, covenants to obtain such qualification prior to contract award.

2. CONTRACT EXECUTION AND BONDS.

2.1 The undersigned Bidder agrees, if this Bid is accepted, to enter into an Agreement with OWNER on the form included in the Bidding Documents to perform and furnish Work as specified or indicated in the Bidding Documents for the Contract Price derived from the Bid and within the Contract Times indicated in the Agreement and in accordance with the other terms and conditions of the Bidding Documents.

2.2 Bidder accepts the terms and conditions of the Bidding Documents.

3. INSURANCE.

3.1 Bidder further agrees that the Bid amount(s) stated herein includes specific consideration for the specified insurance coverages.

4. CONTRACT TIMES.

00300-1

4.1 Bidder agrees to accept Contract Times set forth in the Agreement Form.

5. LIQUIDATED DAMAGES.

5.1 Bidder accepts the provisions in the Agreement Form as to liquidated damages.

6. ADDENDA.

Bidder hereby acknowledges that it has received Addenda Nos. _____,

_____ (Bidder shall insert number of each Addendum received) and agrees that Addenda issued are hereby made part of the Bidding Documents, and Bidder further agrees that this Bid includes impacts resulting from said Addenda.

7. SUBCONTRACTORS.

7.1 Bidder agrees to submit with their Bid a listing of all subcontracting firms or businesses that will be awarded subcontracts for portions of the Work which equal or exceed one-half of one percent of the Total Contract Price.

8. SALES AND USE TAXES.

8.1 The Bidder agrees that all federal, state, and local sales and use taxes are included in the stated Bid prices for the Work.

9. BID

9.1 Bidder agrees to accept as full payment for the proposed Work within the Bidding Documents, based upon the undersigned's own estimate of quantities and costs and including sales, consumer, use, and other taxes, and overhead and profit, the bid quantities and totals stated in the following Bid Schedule.

00300-2

Bid Schedule		
Item No.	Description	Total Cost
1.	Mobilization - Demobilization	\$
2.	Trench sheeting, shoring, and bracing as required by Section 6707 of the California Labor Code	\$
3.	Stormwater Pollution Prevention Plan	\$
4.	Traffic Control	\$
5.	3" Thick T-trench (52-60" wide) Repaving (Unit Price) \$/LF (per Standard Detail 2200)	
	Unit Price (\$/LF)	\$
	Bid Quantity 2500 LF	
	Total T-trench Repaving Bid Amount	
6.	3" Thick Lane Grind and Repave (Unit Price) \$/SF (per Standard Detail 2200A)	
	Unit Price (\$/SF)	\$
	Bid Quantity 70,000 SF	
	3" Thick Lane Grind and Repave Bid Amount	
7.	Installation of 16" ZATM including Valves and Fittings	\$
8.	Leak Testing and Disinfection of 16" ZATM Pipeline and Appurtenances	\$
9.	Pump Station #2 Improvements (including Demolition)	\$
10.	Leak Testing and Disinfection of Pump Station #2 Piping and Appurtenances	\$
11.	ZAPS Civil Site Work (including site preparation, temporary shoring system, earthwork)	\$

00300-3

12.	ZAPS Building Foundation (including slurry backfill)	\$
13.	ZAPS Pumps and Installation	\$
14.	ZAPS Building Structure (CMU walls and Metal Roofing Structure)	\$
15.	ZAPS Heating, Ventilation and Air Conditioning	\$
16.	ZAPS Site Finishing (including gravel surfacing, stairway and sidewalk concrete, and asphalt road repair within the limits of the WTP)	\$
17.	ZAPS Floor Drain System	\$
18.	ZAPS Potable Water Piping, Valves, and Accessories (W1 System)	\$
19.	ZAPS Finished Water Piping and Valves and Installation (FW System)	\$
20.	Leak Testing and Disinfection of ZAPS W1 and FW Piping and Appurtenances	\$
21.	ZAPS Electrical and Instrumentation	\$
22.	SCADA Integration	\$
23.	All Remaining Work	\$
Total Bid Lines 1-23 (Basis for Award)		\$

All other associated items of work and incidentals that are required to complete this project and provide a fully functioning facility in accordance with the contract documents are considered to be included in the Bid Schedule items and no additional compensation will be made by the District.

10. SURETY.

10.1 If Bidder is awarded a construction contract from this Bid, the surety who provides the Performance and Payment Bond(s) shall be:

Whose address is

00300-4

Street

City

State

Zip

11. LICENSE.

11.1 Class _____, California Contractor License No.: _____.

12. BIDDER.

An Individual

By _____
(Individual's name and signature)

A Partnership

By _____
(Partnership name)

(Name and signature of general partner)

(Title)

A Corporation

By _____
(Corporation name)

(State of incorporation)

By _____
(Name and signature of person authorized to sign)

(Title)

(Corporate Seal)

00300-5

A Joint Venture

By _____
(Business name)

(Name and signature of person authorized to sign)

By _____
(Business name)

(Name and signature of person authorized to sign)

(Each joint venturer must sign. The manner of signing each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Name, Phone Number, and Address for receipt of official communications and for additional information on this Bid:

SUBMITTED ON _____, 20__.

+ + END OF SECTION + +

00300-6

GENERAL NOTES:

- 1. ALL WORK SHALL COMPLY WITH APPLICABLE STATE, FEDERAL, AND LOCAL CODES, AND ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT ITS EXPENSE, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.
- 2. DEVIATION FROM THESE PLANS WITHOUT THE PRIOR WRITTEN CONSENT OF THE ENGINEER MAY BE CAUSE FOR THE WORK TO BE UNACCEPTABLE.
- 3. IN THE EVENT THAT ANY CONFLICT BETWEEN ANY PROVISIONS OF THE CONSTRUCTION AGREEMENT OR OF THE SPECIFICATIONS OR OF THE DRAWINGS SHALL DEVELOP, THE ENGINEER SHALL DETERMINE WHICH PROVISION SHALL PREVAIL AND HIS DECISION SHALL BE FINAL AND BINDING UPON THE PARTIES AND SHALL NOT BE SUBJECT TO ARBITRATION OR REVIEW.
- 4. CONTRACTOR SHALL COORDINATE ALL WORK WITH PARADISE IRRIGATION DISTRICT (DISTRICT) AND BUTTE COUTY WHEN WORKIN WITHIN PUBLIC RIGHT-OF-WAY.
- 5. ALL PIPE LENGTHS AND DISTANCES BETWEEN STRUCTURES ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE ALONG A HORIZONTAL PLANE.
- 6. ELEVATIONS FOR THE PROPOSED PIPELINE ARE TO THE INVERT OF THE PIPE.
- 7. MINOR CHANGES IN THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE PIPELINES MAY BE PROPOSED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL TO FACILITATE CONSTRUCTION AND AVOID FIELD CONFLICTS.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS OR MARKERS DURING CONSTRUCTION.
- 9. LOCATIONS OF EXISTING SHOWN UTILITIES ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE SIZE, DEPTH, ORIENTATION, MATERIAL AND LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND SUBMIT THIS INFORMATION TO THE ENGINEER. THE CONTRACTOR SHALL TAKE WHATEVER STEPS ARE NECESSARY TO PROVIDE FOR THE PROTECTION OF EXISTING UTILITIES. THE ENGINEER HAS ATTEMPTED TO LOCATE AND INDICATE ALL EXISTING FACILITIES ON THE PLANS; HOWEVER, THIS INFORMATION IS SHOWN FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE ENGINEER OR DISTRICT ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS OF UTILITIES SHOWN OR NOT SHOWN. PRIOR TO DIGGING ON AND OFF SITE, CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED BY CALLING "UNDERGROUND SERVICE ALERT" ("USA") 1-800-227-2600 FOURTEEN (14) DAYS MINIMUM BEFORE BEGINNING ANY EXCAVATION. THE CONTRACTOR SHALL CONTACT ANY UTILITY COMPANY WHOSE UTILITIES ARE NOT LOCATED BY "USA" FOR EXACT LOCATION OF THEIR UTILITIES PRIOR TO STARTING CONSTRUCTION. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND/OR REPLACE ANY AND ALL DAMAGE MADE TO UTILITIES BY THE CONTRACTOR TO EXISTING CONDITIONS AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL COORDINATE WORK WITH CONFLICTING UTILITIES AND PROVIDE FOR REMOVAL, RELOCATION AND REPLACEMENT AS NECESSARY FOR INSTALLATION OF THE PROPOSED UTILITIES. UTILITY COORDINATION SHALL BE INCLUDED IN THE PROJECT SCHEDULE AND IT IS THE EXPLICIT RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT THE PROJECT SCHEDULE INCLUDES THE NECESSARY RELOCATION. THE CONTRACTOR SHALL NOT BE PAID ADDITIONALLY FOR THIS COORDINATION OR ANY RELOCATION.
- 10. BURIED TELEPHONE, GAS AND CATV CABLES (FIBER OPTICS AND CONVENTIONAL) ARE KNOWN TO VARY IN DEPTH AND LOCATION DUE TO INSTALLATION TECHNIQUES. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR COORDINATING WITH THE UTILITY COMPANY TO DETERMINE SPECIFIC CABLE LOCATIONS AND NOTIFYING THE ENGINEER OF THE EXACT ELEVATION OF THE CABLES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH LOCATING, COORDINATION FOR RELOCATION OR REPAIRING OF BURIED CABLES AND GAS ALONG THE PIPELINE ALIGNMENT.
- 11. EXISTING OVERHEAD ELECTRIC AND TELEPHONE TRANSMISSION LINES IN THE PROJECT AREA MAY NOT BE SHOWN ON DRAWINGS. EXTREME CAUTION SHALL BE USED WHEN WORKING IN THE VICINITY OF OVERHEAD UTILITIES SO AS TO PREVENT INJURY TO WORKERS OR DAMAGE TO THE UTILITIES.
- 12. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SHOULD ANY FIELD CONDITIONS BE ENCOUNTERED THAT VARY FROM THE INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS.
- 13. THE CONTRACTOR SHALL NOTIFY PACIFIC GAS & ELECTRIC (PG&E) PRIOR TO EXCAVATING CLOSER THAN FIVE FEET TO AN EXISTING UTILITY POLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ANY ADDITIONAL SUPPORT OF EXISTING POWER POLES AS REQUIRED FOR TRENCH EXCAVATION. ALL COSTS OF SUCH WORK SHALL BE PAID BY THE CONTRACTOR.
- 14. THE CONTRACTOR SHALL INSTALL ALL TEMPORARY AND PERMANENT SIGNS AS REQUIRED BY CALTRANS ALONG STATE ROADWAYS AND BY THE COUNTY ALONG STREETS, IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLAN.
- 15. THE CONTRACTOR SHALL INSTALL PROJECT DESCRIPTION TEMPORARY SIGNS AS REQUIRED BY THE ENGINEER AND DISTRICT.
- 16. MINIMUM PIPE COVER FOR ALL UTILITIES SHALL BE 2'-6" UNLESS LESS COVER IS SPECIFICALLY APPROVED BY THE ENGINEER OR SHOWN ON PLANS.
- 17. LIMITS OF PAVEMENT REMOVAL AND RECONSTRUCTION SHALL BE IN ACCORDANCE WITH COUNTY STANDARDS AND AS MODIFIED HEREIN. THE ASPHALT CONCRETE ALONG THE EDGES OF THE TRENCH SHALL BE SAWCUT AND REMOVED TO A STRAIGHT LINE PRIOR TO FINAL PAVING. EXPOSED VERTICAL EDGES WHICH WILL HAVE ASPHALT CONCRETE AGAINST THEM SHALL BE TACKED WITH EMULSION PRIOR TO PLACEMENT OF ASPHALT CONCRETE. IN NO CASE SHALL THE THICKNESS OF THE NEW PAVEMENT SECTION BE LESS THAN THAT OF THE EXISTING PAVEMENT.
- 18. THE CONTRACTOR SHALL REMOVE AND REINSTALL ALL EXISTING FENCE AS REQUIRED FOR

- 19. CARE SHALL BE TAKEN TO PROTECT EXISTING PLANTS, SHRUBS, TREES, LAWN, LANDSCAPE AREAS AND IRRIGATION SYSTEMS. ANY ITEMS REMOVED OR DAMAGED SHALL BE REPLACED. ALL ITEMS WHICH REQUIRE REMOVAL OR ARE DAMAGED BY THE CONTRACTOR'S OPERATION SHALL BE REPLACED TO ORIGINAL CONDITION AND TO THE APPROVAL OF THE ENGINEER.
- 20. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL DEVELOP AND SUBMIT TO THE ENGINEER A SHORING PLAN. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL SHEETING, SHORING AND BRACING REQUIRED FOR THE INSTALLATION OF THE UTILITY, ALL EXCAVATIONS SHALL BE KEPT WITHIN THE DESIGNATED EASEMENT WIDTHS. EXCAVATION WITHIN PAVED AREAS SHALL BE KEPT TO A MINIMUM. SHEETING SHALL BE INSTALLED AS REQUIRED TO PROTECT EXISTING UTILITIES.
- 21. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL DEVELOP AND SUBMIT TO THE ENGINEER, A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL COMPLY WITH THE APPROVED TRAFFIC CONTROL PLAN AT ALL TIMES. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR FURNISHING, INSTALLING AND MAINTAINING ALL WARNING SIGNS AND DEVICES NECESSARY TO SAFEGUARD THE GENERAL PUBLIC AND THE WORK, AND TO PROVIDE FOR THE PROPER AND CONTINUOUS SAFE ROUTING OF VEHICULAR AND PEDESTRIAN TRAFFIC DURING THE PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS. THE USE OF FLAGGERS, BARRICADES AND CONSTRUCTION SIGNING SHALL COMPLY WITH THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CMUTCD), LATEST EDITION.
- 22. ADVISORY SIGNS SHALL BE POSTED A MINIMUM OF 21 DAYS IN ADVANCE OF CONSTRUCTION ACTIVITIES.
- 23. ALL NON-APPLICABLE SIGNS SHALL BE COVERED WITH BLACK PLASTIC OR REMOVED.
- 24. ALL MATERIAL CLEARED AND GRUBBED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK, SUCH AS TREES, VEGETATION, FENCING, ETC., SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE AT AN APPROVED DISPOSAL SITE.
- 25. THE CONTRACTOR SHALL MAINTAIN A MEANS FOR INGRESS/EGRESS TO EACH PROPERTY AT ALL TIMES.
- 26. THE CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION SURVEYING. ANY EXISTING SURVEY STAKES SHALL NOT BE USED BY THE CONTRACTOR.
- 27. THE EXISTING VEGETATION OUTSIDE OF THE CLEARING LIMITS TO REMAIN SHALL BE PROTECTED FROM DAMAGE. THE CONTRACTOR SHALL INSTALL A 4 FOOT HIGH ORANGE BARRIER FENCE ALONG THE CLEARING LIMITS PRIOR TO CLEARING THE SITE.
- 28. ALL CONSTRUCTION ACTIVITY SHALL BE LIMITED TO STREET RIGHTS-OF-WAY, ON DISTRICT PROPERTY, AND THE CONSTRUCTION LIMITS AS SHOWN ON PLANS.
- 29. THE CONTRACTOR SHALL RESTORE ALL ACCESS ROADS AND STREETS WITHIN THE CONSTRUCTION LIMITS TO PRE-CONSTRUCTION CONDITIONS OR BETTER AND AS SHOWN ON THE CONTRACT DRAWINGS.
- 30. ALL TRENCHING AND BACK FILLING SHALL BE IN ACCORDANCE WITH THE DISTRICT STANDARDS AND AS MODIFIED IN THE CONSTRUCTION DETAILS ELSEWHERE IN THE PLANS AND TECHNICAL SPECIFICATIONS. TRENCH BACKFILL SHALL BE MECHANICALLY COMPACTED. TRENCHES SHALL BE CLOSED OR COVERED AT THE END OF THE WORK DAY.
- 31. FOR ALL TRENCHING EXCAVATIONS 5 FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE DIVISION OF INDUSTRIAL RELATIONS PRIOR TO BEGINNING ANY EXCAVATION. A COPY OF THIS PERMIT SHALL BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
- 32. THE CONTRACTOR SHALL PERMANENTLY PATCH PAVEMENT FOR ALL PARALLEL PAVEMENT DISTURBANCES BY THE END OF EACH WEEK. TEMPORARY WITH STEEL PLATES OR APPROVED EQUAL PATCHES SHALL BE PROVIDED DAILY AND MAINTAINED UNTIL THE PAVEMENT PATCH IS PROVIDED.
- 33. THE CONTRACTOR SHALL CONDUCT ALL WORK WITHIN THE AREAS ON THE PLANS.
- 34. CONTRACTOR MUST ACCESS WORK AREAS THROUGH PUBLICLY OWNED RIGHT-OF-WAY (R/W) OR THROUGH ACCESS POINTS DELINEATED ON THE PLANS WHERE PUBLIC RIGHT-OF-WAY IS NOT AVAILABLE.
- 35. PRIOR TO ACCEPTANCE OF THE UTILITIES, THE PIPELINES SHALL BE PROPERLY CLEANED OF ALL DEBRIS, AIR TESTED, MANDRELLED WHEN APPLICABLE, AND TELEVIEWED. PROPER CLEANING TECHNIQUES AND DEVICES SHALL BE UTILIZED TO INSURE NO DEBRIS, SAND, GRAVEL OR SILT WILL ENTER THE EXISTING STORM DRAIN SYSTEM.
- 36. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
- 37. STRUCTURES NOTED IN THE PLANS AS EXISTING SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND ANY DISCREPANCIES NOTED SHALL BE REPORTED TO THE ENGINEER.
- 38. TYPICAL DETAILS AND SCHEDULES INDICATED MAY NOT BE SPECIFICALLY REFERENCED ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE WHERE EACH TYPICAL DETAIL OR SCHEDULE APPLIES. IF LOCATIONS ARE FOUND WHERE NO TYPICAL DETAIL, TYPICAL SCHEDULE, OR SPECIFIC DETAIL APPLIES, THE ENGINEER SHALL BE NOTIFIED.
- 39. OBSERVATION VISITS (SITE VISITS) BY REPRESENTATIVES OF THE DISTRICT DO NOT INCLUDE INSPECTION OF CONSTRUCTION MEANS AND METHODS. SITE VISITS DURING CONSTRUCTION ARE NOT CONTINUOUS AND DETAILED INSPECTION SERVICES ARE TO BE PERFORMED BY OTHERS.

- OBSERVATIONS ARE PERFORMED SOLELY FOR THE PURPOSE OF DETERMINING IF THE CONTRACTOR UNDERSTANDS DESIGN INTENT SHOWN IN THE CONTRACT DRAWINGS. OBSERVATIONS DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND ARE NOT TO BE CONSTRUED AS SUPERVISION OR VERIFICATION OF CONSTRUCTION.
- 40. ALL SPECIFICATIONS AND CODES NOTED SHALL BE THE LATEST APPROVED EDITIONS AND REVISIONS BY THE AGENCY HAVING JURISDICTION OVER THIS PROJECT.
- 41. CONTRACTOR SHALL INVESTIGATE THE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, UTILITIES, ETC. IF ANY SUCH STRUCTURES ARE FOUND, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- 42. FOLLOWING IS THE PROJECT SPECIFIC GEOTECHNICAL REPORTS FOR REVIEW AND USE: GEOTECHNICAL REPORT: RESERVOIR B REPLACEMENT STUDY, PARADISE IRRIGATION DISTRICT, TOWN OF PARADISE & BUTTE COUNTY, CALIFORNIA (MAY 2018)

ADDITIONAL NOTES FOR WORK ON NEW SKYWAY:

- 1. ~~FOR ALL CONSTRUCTION ON NEW SKYWAY WORK HOURS ARE TO BE FROM 6:00 PM TO 6:00 AM, SUNDAY THROUGH THURSDAY.~~
- 2. TRAFFIC CONTROL PLAN TO BE PROVIDED BY CONTRACTOR AND SUBMITTED TO OWNER AND BUTTE COUNTY FOR APPROVAL. THE PLAN SHALL GENERALLY TO USE OLD SKYWAY FOR SOUTHBOUND TRAFFIC AND THE SOUTHBOUND LANE OF NEW SKYWAY FOR NORTHBOUND TRAFFIC WHILE WORK IS BEING COMPLETED IN THE NORTHBOUND LANE OF NEW SKYWAY. SOUTHBOUND TRAFFIC DIVERSION TO OLD SKYWAY SHALL OCCUR AT COULTOLENC ROAD AND SOUTHBOUND TRAFFIC TO REJOIN NEW SKYWAY AT PENTZ ROAD. NORTHBOUND TRAFFIC TRANSITION TO SOUTHBOUND LANE SHALL OCCUR AT PENTZ ROAD AND REJOIN NORTHBOUND LANE AT COULTOLENC ROAD
- 3. FOR TEMPORARY TRENCH PLATING ON NEW SKYWAY, CONTRACTOR TO USE ~~CLSM/CLM BACKFILL~~ AND TEXTURED PLATES THAT ARE FLUSH WITH THE SURROUNDING PAVEMENT. PLATES WILL ONLY BE ALLOWED FOR 20-FT MAXIMUM LENGTH, TOTAL.
- 4. ~~SLURRY/CLSM BACKFILL OF PIPE TRENCH WILL BE BROUGHT UP FLUSH WITH ROAD SURFACE EACH NIGHT WITH THE LAST SLURRY PLACEMENT COMPLETE 2 HOURS BEFORE THE END OF SHIFT (LAST PLACEMENT BY 3:00 AM). CLSM MIX DESIGN SHALL INCLUDE ADMIXTURES TO PROVIDE 50 PSI STRENGTH SET IN THAT 2-HOUR TIMEFRAME TO SAFE FOR TRAFFIC USE. SEE NOTE 6, ADDENDUM 2~~
- 5. CONTRACTOR TO COMPLETE ALL WORK IN NEW SKYWAY, FROM STATION 23+19.30 TO 70+00 PRIOR TO JUNE 1, 2023. NO REPAVING WILL BE REQUIRED FOR THIS SEGMENT OF PIPELINE IF IT IS COMPLETED PRIOR TO JUNE 1, 2023 - ~~SLURRY/CLSM FILL TO ROAD SURFACE MAY REMAIN FOR THE BUTTE COUNTY REPAVING PROJECT WHICH WILL OCCUR IN THIS AREA IMMEDIATELY FOLLOWING COMPLETION OF THE PIPELINE INSTALLATION.~~

GENERAL PIPING NOTES:

- 1. THRUST RESTRAINT: ALL NEW WATER LINES, FITTINGS, VALVES AND APPURTENANCES SHALL BE RESTRAINED USING THRUST BLOCKS PER PID STD DWG PID-02 OR MECHANICAL THRUST RESTRAINT MUST BE PROVIDED PER THE DRAWINGS.
- 2. VERTICAL AND HORIZONTAL SEPARATION: UNLESS OTHERWISE NOTED ON PLANS OR APPROVED BY DISTRICT, CONTRACTOR SHALL MAINTAIN VERTICAL AND HORIZONTAL SEPARATIONS IN ACCORDANCE WITH CALIFORNIA WATERWORKS STANDARDS AND PID STANDARD DRAWING PID-11
- 3. LAY PIPE TO UNIFORM GRADE BETWEEN INDICATED ELEVATION POINTS. MINIMUM COVER SHALL BE 30 INCHES UNLESS OTHERWISE SHOWN.
- 4. SIZE OF FITTINGS SHOWN ON DRAWINGS SHALL CORRESPOND TO ADJACENT STRAIGHT RUN OF PIPE, UNLESS OTHERWISE INDICATED. TYPE OF JOINT AND FITTING MATERIAL SHALL BE THE SAME AS SHOWN FOR ADJACENT STRAIGHT RUN OF PIPE.
- 5. LOCATION AND NUMBER OF PIPE HANGERS AN DPIPE SUPPORTS SHOWN IS ONLY APPROXIMATE. FINAL SUPPORT REQUIREMENTS SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. MAXIMUM SPACING SHALL BE AS SPECIFIED.
- 6. APPROPRIATE STANDARD WALL PIPE DETAIL SHALL BE USED WHEREVER PIPING PASSES FROM A STRUCTURE TO BACKFILL.
- 7. ALL FLEXIBLE CONNECTORS OR FLANGED COUPLING ADAPTERS SHALL BE PROVIDED WITH THRUST TIES BLOCKS, OR ANCHORS, UNLESS OTHERWISE NOTED. THRUST PROTECTION SHALL BE ADEQUATE FOR TEST PRESSURES SPECIFIED.
- 8. SYMBOLS, LEGENDS, AND PIPE USE IDENTIFICATIONS SHALL BE FOLLOWED THOUGHOUT THE DRAWINGS, WHEREVER APPLICABLE. ALL THE VARIOUS APPLICATIONS ARE NOT NECESSARILY USED IN THE PROJECT.
- 9. NUMBER AND LOCATION OF UNIONS SHOWN ON DRAWINGS ARE ONLY APPROXIMATE. PROVIDE ALL UNIONS NECESSARY TO FACILITATE CONVENIENT REMOVAL OF VALVES AND MECHANICAL EQUIPMENT.
- 10. THE CONTRACTOR FOR THIS PROJECT IS RESPONSIBLE FOR COORDINATING AND PERFORMING THE CONNECTION OF THE PIPING AND ASSOCIATED APPURTENANCES INSTALLED UNDER THIS CONTRACT TO BOTH THE EXISTING PIPING AND FACILITIES.
- 11. PRIOR TO SUBMITTING PIPING DRAWINGS FOR ANY NEW PIPE THAT IS TO CONNECT TO OR CROSS AN EXISTING PIPE OR STRUCTURE TO VERIFY ITS EXACT LOCATION, SIZE, MATERIAL, AND INVERT ELEVATIONS.

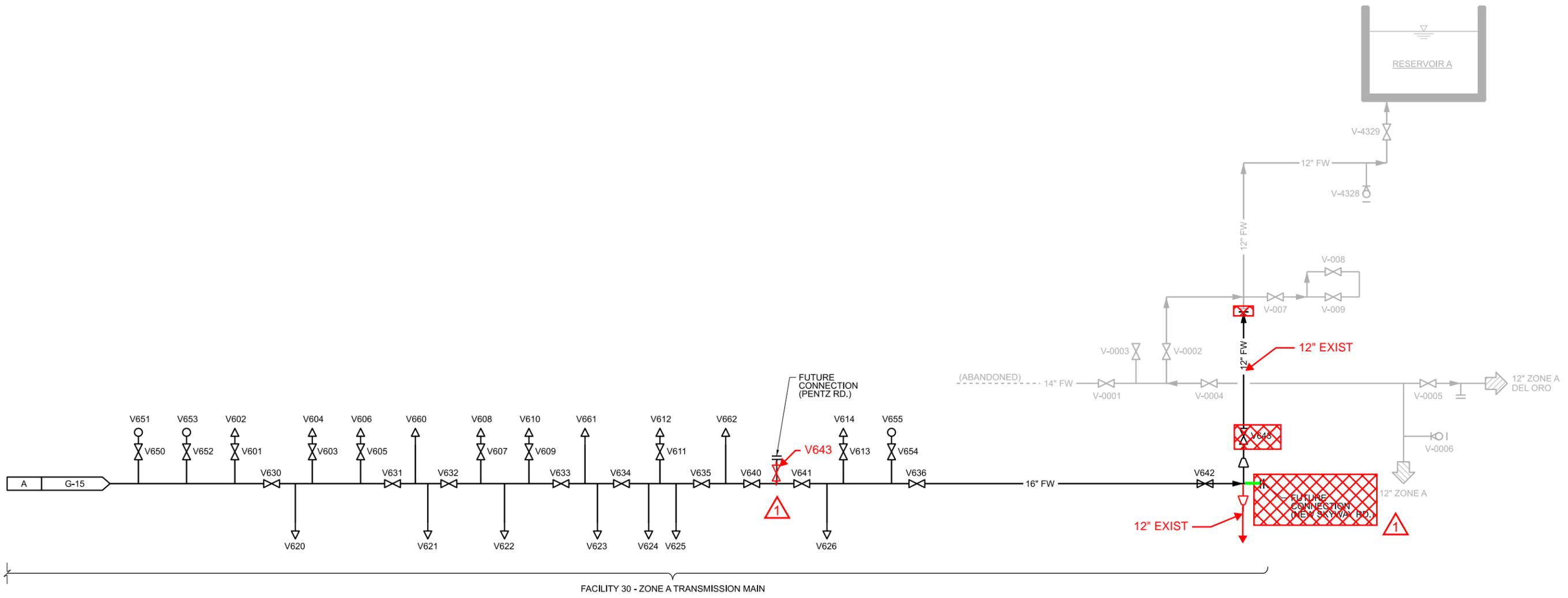
ADD TO: ADDITIONAL NOTES FOR WORK ON NEW SKYWAY:

6. CONTRACTOR to place slurry fill/CLSM up to within 2" of the road surface and then place 2" of temporary asphalt surface (cutback or cold mix) to be flush with existing road surface.

- 3 ADDENDUM 3
- 2 ADDENDUM 2
- 1 ADDENDUM 1



DESIGNED S MAGLADRY	DRAWN J MARTIN	CHECKED S KADER	APPROVED S KADER	
PARADISE IRRIGATION DISTRICT ZONE A PUMP STATION AND TRANSMISSION MAIN PROJECT				PARADISE, CA
GENERAL NOTES				
GENERAL				
				DATE DECEMBER 2022
				PROJECT NUMBER 17-041
				DRAWING NUMBER G-4
				SHEET NUMBER 4



FACILITY 30 - ZONE A TRANSMISSION MAIN

DESIGNED	S. MAGLADRY
DRAWN	B. TROTTER
CHECKED	S. KADER
APPROVED	S. KADER



WATERWORKS ENGINEERS
 1405 Vicar Avenue, Suite A • Reading, CA 94003 • 530-245-2113

PARADISE IRRIGATION DISTRICT
 ZONE A PUMP STATION
 AND TRANSMISSION MAIN PROJECT
 PARADISE, CA

GENERAL
 PROCESS FLOW DIAGRAM
 ZONE A TRANSMISSION MAIN

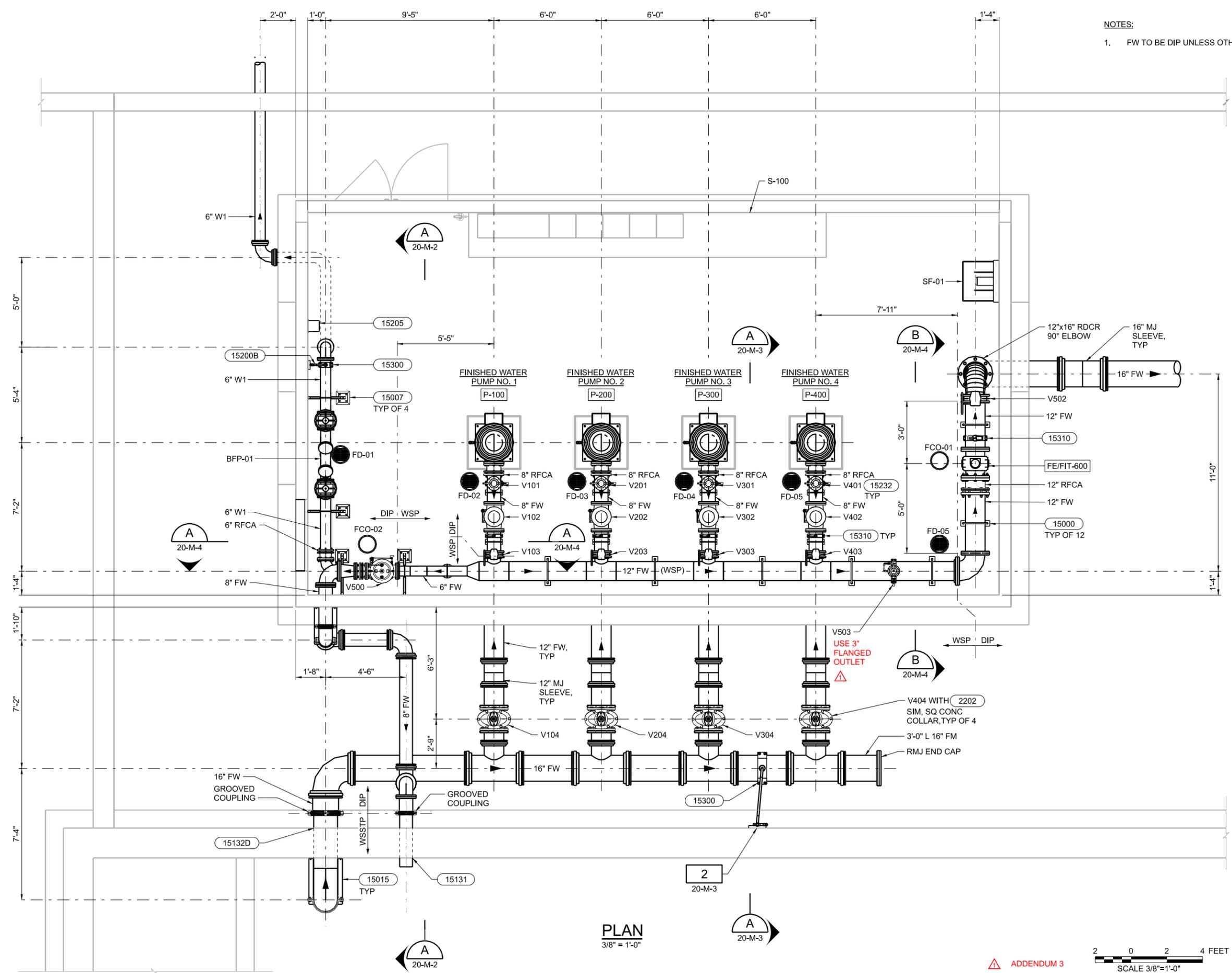


1 ADDENDUM 3

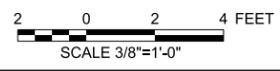
DATE	DECEMBER 2022
PROJECT NUMBER	17-041
DRAWING NUMBER	G-16
SHEET NUMBER	16

1 2 3 4 5 6

NOTES:
1. FW TO BE DIP UNLESS OTHERWISE NOTED.



PLAN
3/8" = 1'-0"



DATE
DECEMBER 2022
PROJECT NUMBER
17-041
DRAWING NUMBER
20-M-1
SHEET NUMBER 26

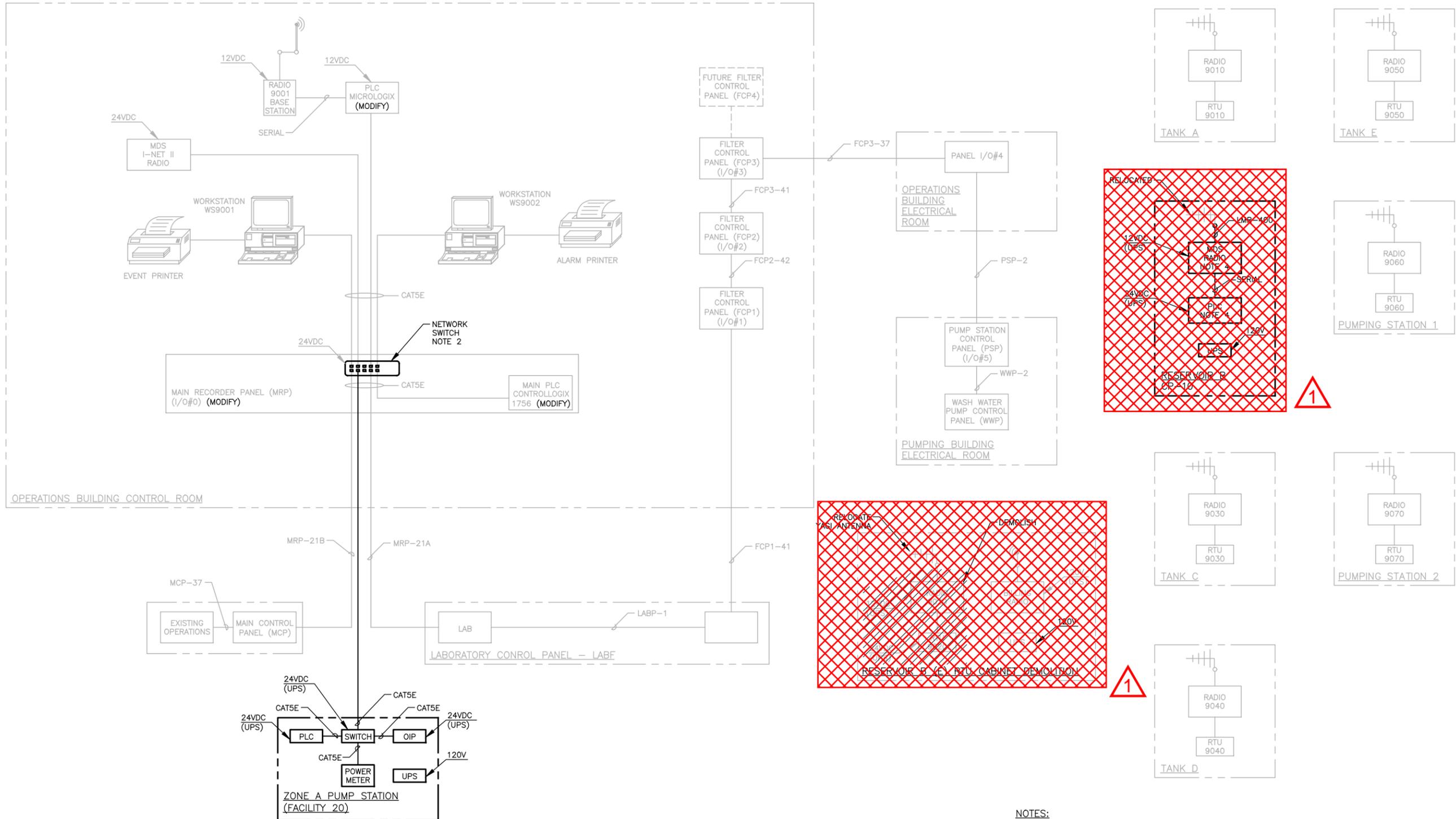
DESIGNED
S. MAGLADY
DRAWN
B. TROTTER
CHECKED
S. KADER
APPROVED
S. KADER



WATERWORKS
ENGINEERS

PARADISE IRRIGATION DISTRICT
ZONE A PUMP STATION
AND TRANSMISSION MAIN PROJECT
PARADISE, CA

MECHANICAL
FACILITY 20
PLAN



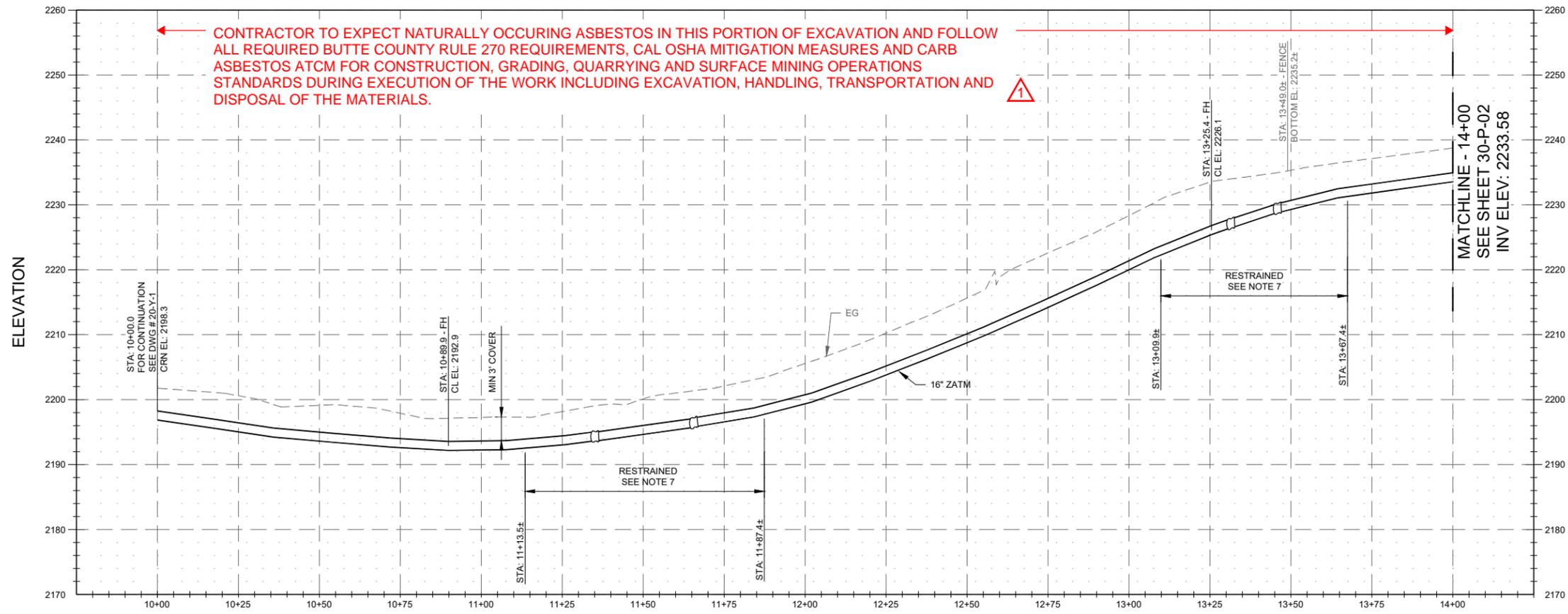
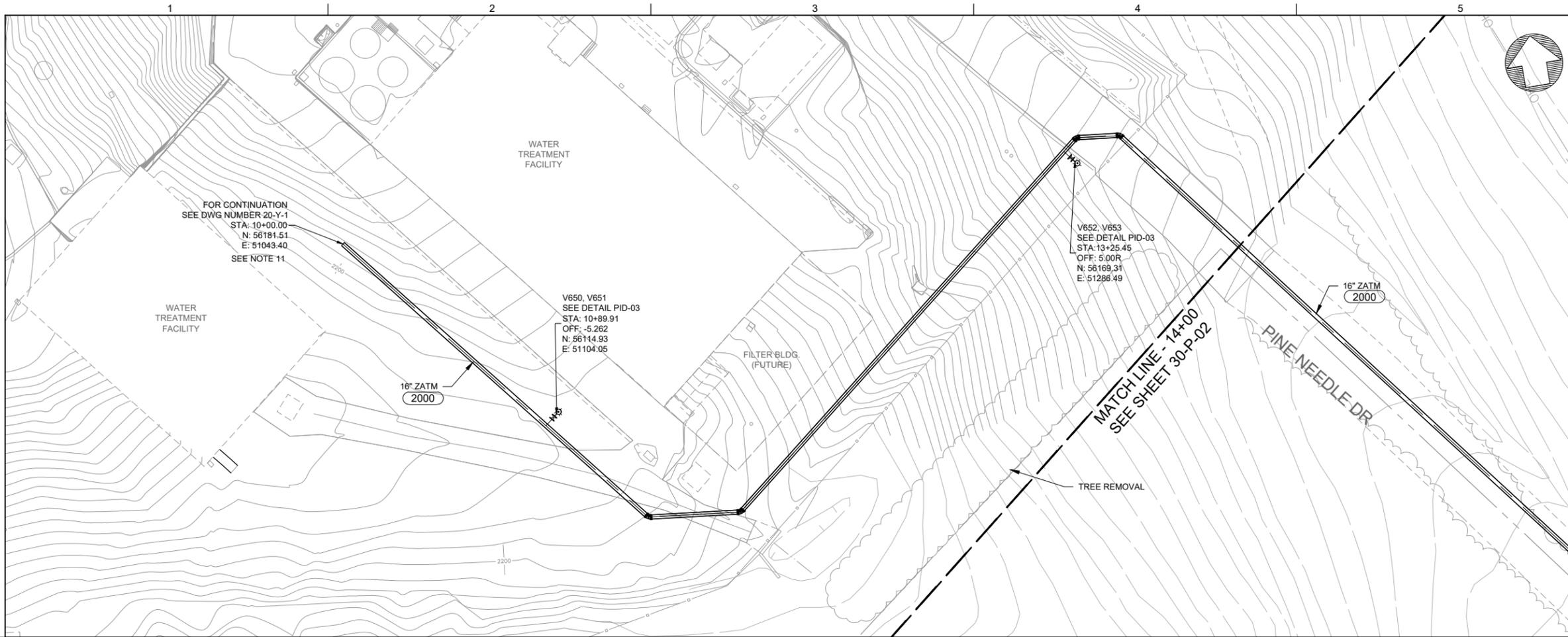
- NOTES:**
- UNLESS DESIGNATED OTHERWISE, ITEMS SHOWN BOLD SHALL BE FURNISHED AND INSTALLED. ITEMS SHOWN SCREENED ARE EXISTING.
 - REPLACE EXISTING NETWORK SWITCH IN MRP. EXISTING SWITCH SHALL BE SALVAGED AND TURNED OVER TO THE DISTRICT. SEE SPECIFICATIONS.
 - EXISTING EQUIPMENT AND INTERCONNECTION SHOWN WAS OBTAINED FROM EXISTING PLANT RECORD DRAWINGS AND WAS NOT FIELD VERIFIED BY THE 2018 ENGINEER OF RECORD.
 - FOR PROGRAMMING PURPOSES, EXISTING FACILITY 10 PLC AND RADIO WERE PREVIOUSLY REFERENCED WITH "9020" SUFFIX.
 - THIS DRAWING, INCLUDING ALL COMMUNICATION SYSTEM ELEMENTS LOCATED ON THE WATER TREATMENT PLANT PREMISES, SHALL BE AS-BUILT AS PART OF THIS CONTRACT. SEE SPECIFICATIONS.

1 ADDENDUM 3



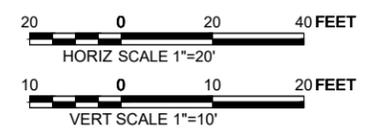
DESIGN B. REID	DRAWN A. MARTINEZ	CHECKED D. McHANEY	APPROVED
WATERWORKS ENGINEERS 1405 Vidor Avenue, Suite A • Redding, CA 96003 • 530-243-2113			
PARADISE IRRIGATION DISTRICT ZONE A PUMP STATION AND TRANSMISSION MAIN PROJECT PARADISE, CALIFORNIA			
INSTRUMENTATION COMMUNICATION BLOCK DIAGRAM			
DATE	DECEMBER 2022	PROJECT NUMBER	17-041
DRAWING NUMBER	20-I-3	SHEET NUMBER	39

L:\CAD\PROJECTS\17-041 PARADISE ID RES B REPLACEMENT_(S)\X\BOLSOLETE PROJECT FILES\DELIVERABLES\17-041-30-P-01.DWG



NOTES:

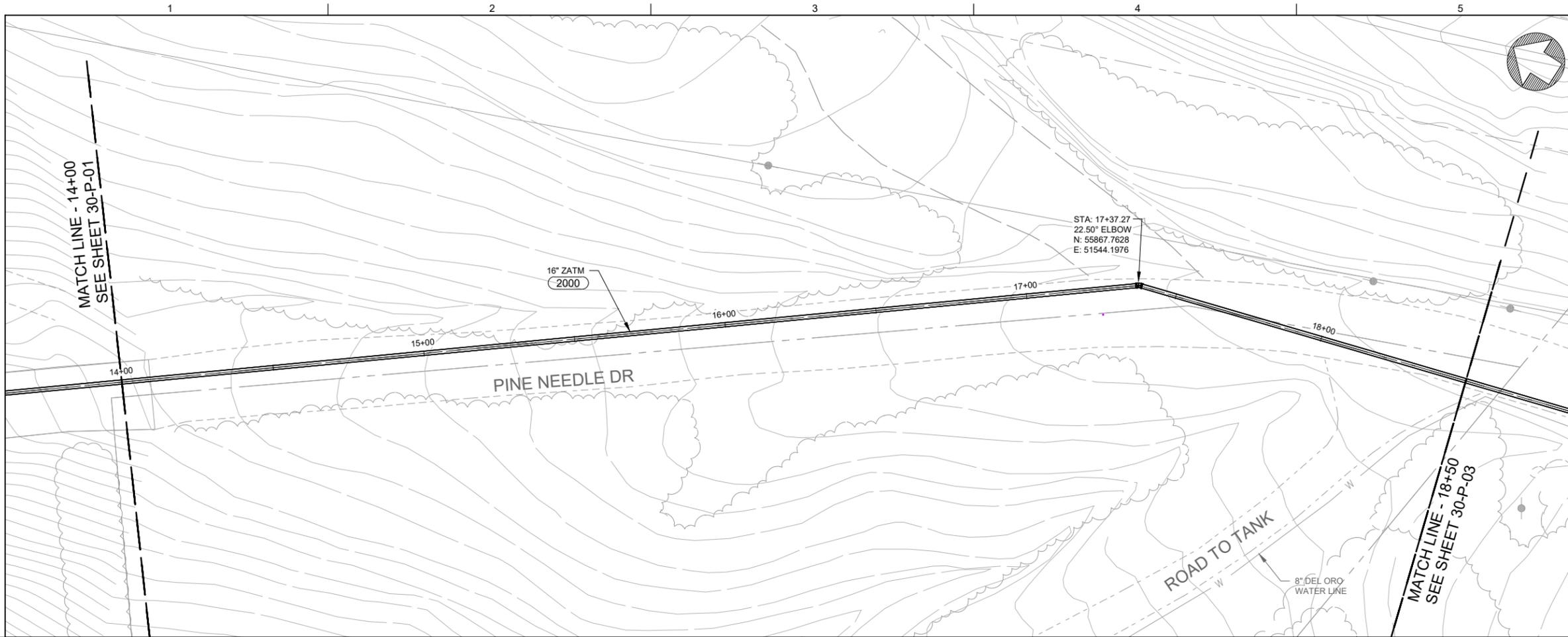
1. COVER FOR BURIED PIPE IS 3'-0" MIN. UNLESS OTHERWISE NOTED. REPLACE TRENCH BACKFILL MATERIAL WITH CLSM IF BURIED PIPE COVER IS LESS THAN 3'-0".
2. DESIGN PIPES SHOWN MINIMIZE HIGH POINTS AND MAINTAIN 3'-0" MIN. COVER. CONTRACTOR MAY DEVIATE PROVIDED THAT 3'-0" MIN. COVER IS MAINTAINED AND NO ADDITIONAL HIGH POINTS ARE ADDED. NO ZERO PIPE SLOPES ARE ALLOWED.
3. CONTRACTOR SHALL MAINTAIN ACCESS FOR ALL LOCAL RESIDENTS AT ALL TIMES DURING CONSTRUCTION.
4. CONTRACTOR SHALL MAINTAIN UTILITY SERVICES UNDISRUPTED TO HOMEOWNERS AT ALL TIMES.
5. CONTRACTOR SHALL VERIFY POINT OF CONNECTION PRIOR TO CONSTRUCTION. LOCATIONS SHOWN ARE BEST REPRESENTATION BASED ON FIELD VISITS, AND AS-BUILT DRAWINGS.
6. 12" MIN CLEARANCE FROM OTHER UTILITIES UNLESS OTHERWISE NOTED.
7. PIPELINE SHALL BE MECHANICALLY RESTRAINED PER SPECIFICATION SECTION 15100.
8. CONTRACTOR LIMIT IMPROVEMENTS ON PINE NEEDLE DRIVE TO TRENCH WORK.
9. REFER TO GEOTECHNICAL REPORT FOR INFORMATION REGARDING HAZARDOUS MATERIALS THAT MAY BE ENCOUNTERED DURING DEMOLITION OF SERPENTINE ROCK.
10. ALL POTHOLING, OR OTHER PROCEDURES FOR VERIFYING UTILITY LOCATION SHALL BE PERFORMED BY THE CONTRACTOR AS NECESSARY TO PREPARE FOR EXCAVATION AT LEAST TEN WORKING DAYS IN ADVANCE OF SCHEDULED EXCAVATION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER AS TO ANY UTILITY LOCATED BY HIM WHICH HAS BEEN INCORRECTLY SHOWN OR OMITTED FROM THE DRAWINGS, PER SPECIFICATION SECTION 01110, 1.38.
11. OWNER-FURNISHED EQUIPMENT FROM STA 10+00 TO STA 83+25. SEE SECTION 01643.



ADDENDUM 3



DESIGN K. KALACON	DRAWN L. CHAPMAN	CHECKED S. KADER	APPROVED S. KADER
WATERWORKS ENGINEERS			
PARADISE IRRIGATION DISTRICT ZONE A PUMP STATION AND TRANSMISSION MAIN PROJECT PARADISE, CALIFORNIA			
PLAN AND PROFILE STATION 10+00 TO 14+00			
DATE DECEMBER 2022 PROJECT NUMBER 17-041 DRAWING NUMBER 30-P-01 SHEET NUMBER 46			



NOTES:

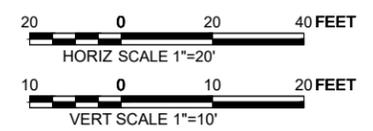
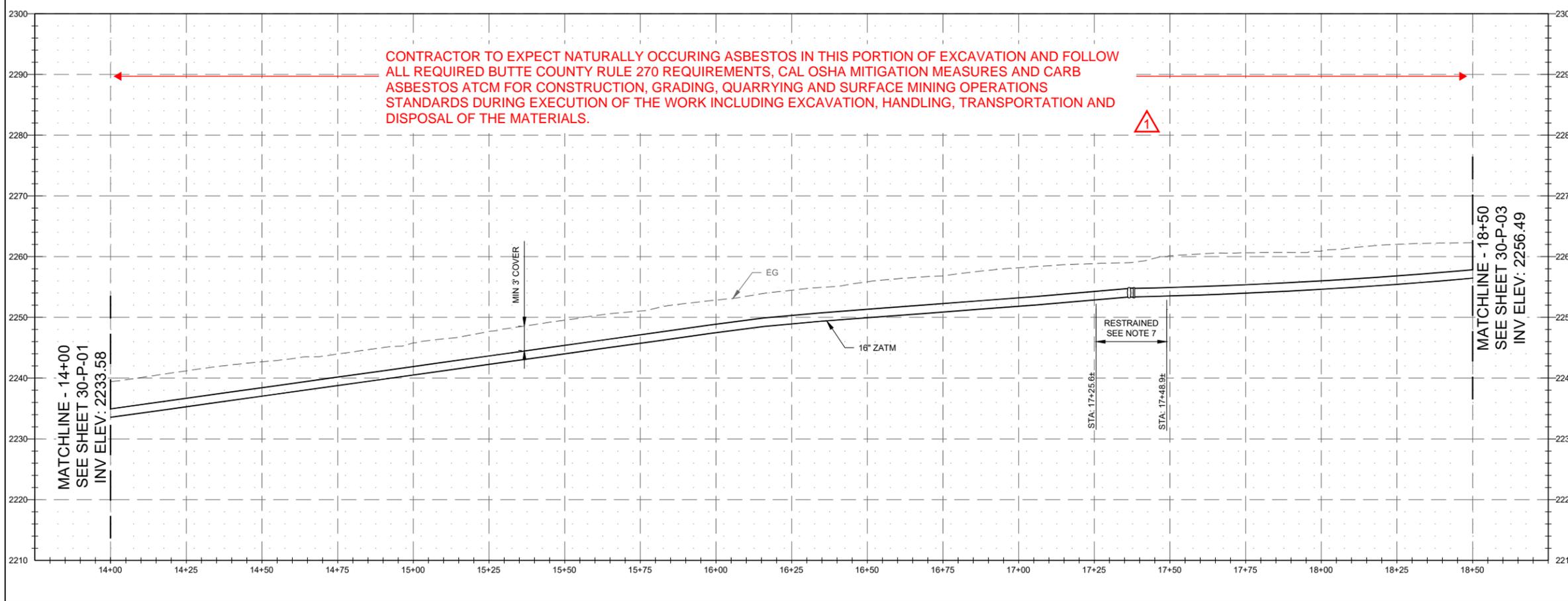
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- PIPELINE SHALL BE MECHANICALLY RESTRAINED PER SPECIFICATION SECTION 15100.
- CONTRACTOR LIMIT IMPROVEMENTS ON PINE NEEDLE DRIVE TO TRENCH WORK.
- REFER TO GEOTECHNICAL REPORT FOR INFORMATION REGARDING HAZARDOUS MATERIALS THAT MAY BE ENCOUNTERED DURING DEMOLITION OF SERPENTINE ROCK.
- ALL POTHOLING, OR OTHER PROCEDURES FOR VERIFYING UTILITY LOCATION SHALL BE PERFORMED BY THE CONTRACTOR AS NECESSARY TO PREPARE FOR EXCAVATION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER AS TO ANY UTILITY LOCATED BY HIM WHICH HAS BEEN INCORRECTLY SHOWN OR OMITTED FROM THE DRAWINGS, PER SPECIFICATION SECTION 01110, 1.38.

DESIGN	KALACON
DRAWN	L. CHAPMAN
CHECKED	S. KADER
APPROVED	S. KADER

WATERWORKS ENGINEERS

PARADISE IRRIGATION DISTRICT
ZONE A PUMP STATION
AND TRANSMISSION MAIN PROJECT
PARADISE, CALIFORNIA

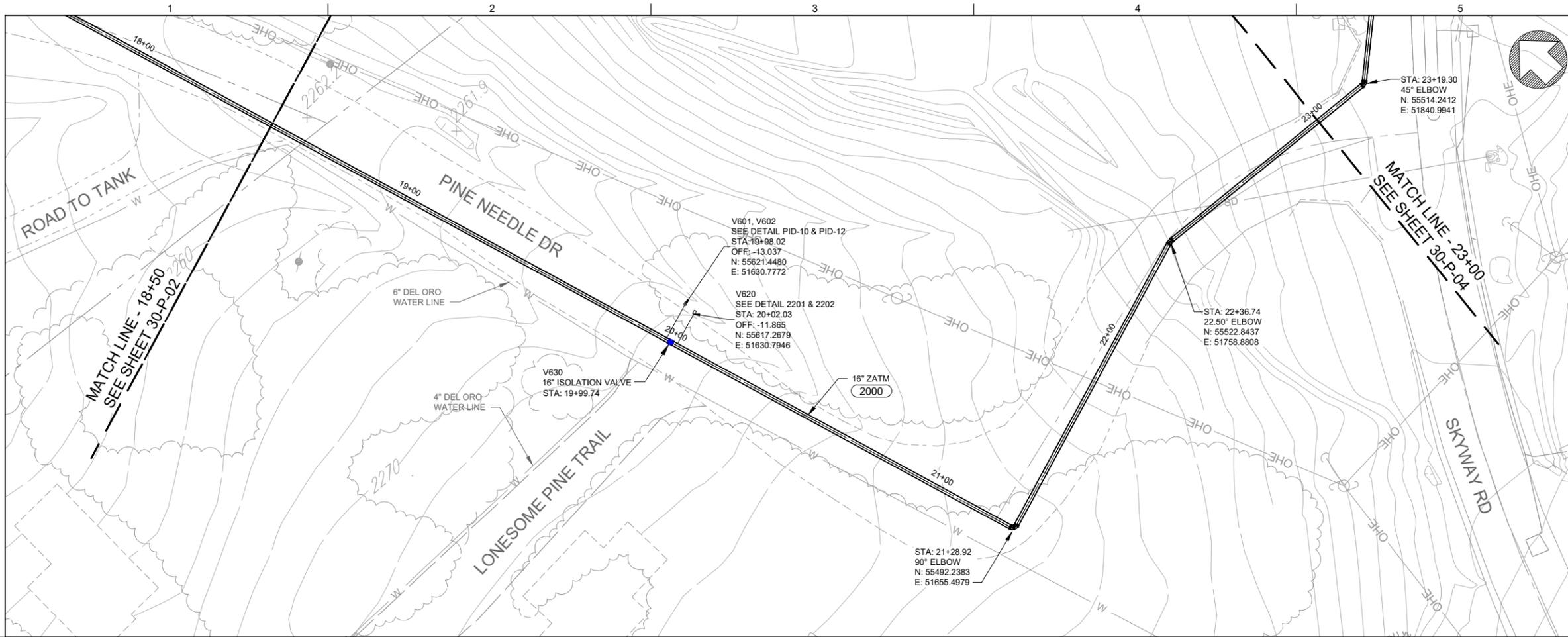
CONTRACTOR TO EXPECT NATURALLY OCCURING ASBESTOS IN THIS PORTION OF EXCAVATION AND FOLLOW ALL REQUIRED BUTTE COUNTY RULE 270 REQUIREMENTS, CAL OSHA MITIGATION MEASURES AND CARB ASBESTOS ATCM FOR CONSTRUCTION, GRADING, QUARRYING AND SURFACE MINING OPERATIONS STANDARDS DURING EXECUTION OF THE WORK INCLUDING EXCAVATION, HANDLING, TRANSPORTATION AND DISPOSAL OF THE MATERIALS.



ADDENDUM 3

DATE	DECEMBER 2022
PROJECT NUMBER	17-041
DRAWING NUMBER	30-P-02
SHEET NUMBER	47

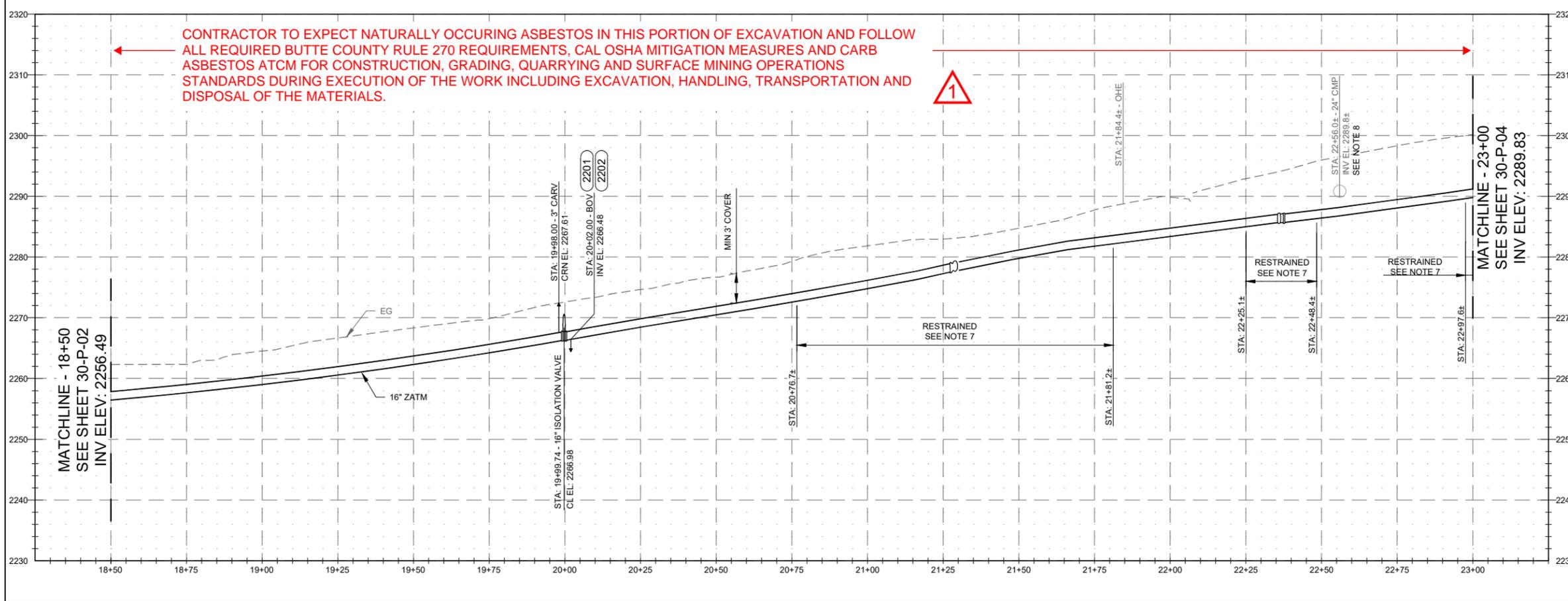
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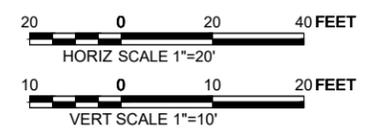
- NOTES:**
- COVER FOR BURIED PIPE IS 3'-0" MIN. UNLESS OTHERWISE NOTED. REPLACE TRENCH BACKFILL MATERIAL WITH CLSM IF BURIED PIPE COVER IS LESS THAN 3'-0".
 - DESIGN PIPES SHOWN MINIMIZE HIGH POINTS AND MAINTAIN 3'-0" MIN. COVER. CONTRACTOR MAY DEVIATE PROVIDED THAT 3'-0" MIN. COVER IS MAINTAINED AND NO ADDITIONAL HIGH POINTS ARE ADDED. NO ZERO PIPE SLOPES ARE ALLOWED.
 - CONTRACTOR SHALL MAINTAIN ACCESS FOR ALL LOCAL RESIDENTS AT ALL TIMES DURING CONSTRUCTION.
 - CONTRACTOR SHALL MAINTAIN UTILITY SERVICES UNDISRUPTED TO HOMEOWNERS AT ALL TIMES.
 - CONTRACTOR SHALL VERIFY POINT OF CONNECTION PRIOR TO CONSTRUCTION. LOCATIONS SHOWN ARE BEST REPRESENTATION BASED ON FIELD VISITS, AND AS-BUILT DRAWINGS.
 - 12" MIN CLEARANCE FROM OTHER UTILITIES UNLESS OTHERWISE NOTED.
 - PIPELINE SHALL BE MECHANICALLY RESTRAINED PER SPECIFICATION SECTION 15100.
 - THE WATER MAIN SHOULD HAVE NO JOINTS WITHIN 8 FEET FROM EITHER SIDE OF A STORM DRAIN OR SANITARY SEWER AT NO LESS THAN 45-DEGREES.
 - CONTRACTOR LIMIT IMPROVEMENTS ON PINE NEEDLE DRIVE TO TRENCH WORK.
 - REFER TO GEOTECHNICAL REPORT FOR INFORMATION REGARDING HAZARDOUS MATERIALS THAT MAY BE ENCOUNTERED DURING DEMOLITION OF SERPENTINE ROCK.
 - ALL POTHOLING, OR OTHER PROCEDURES FOR VERIFYING UTILITY LOCATION SHALL BE PERFORMED BY THE CONTRACTOR AS NECESSARY TO PREPARE FOR EXCAVATION AT LEAST TEN WORKING DAYS IN ADVANCE OF SCHEDULED EXCAVATION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER AS TO ANY UTILITY LOCATED BY HIM WHICH HAS BEEN INCORRECTLY SHOWN OR OMITTED FROM THE DRAWINGS, PER SPECIFICATION SECTION 01110, 1.38.

DESIGN	KALACON
DRAWN	L. CHAPMAN
CHECKED	S. KADER
APPROVED	S. KADER

WATERWORKS ENGINEERS



CONTRACTOR TO EXPECT NATURALLY OCCURRING ASBESTOS IN THIS PORTION OF EXCAVATION AND FOLLOW ALL REQUIRED BUTTE COUNTY RULE 270 REQUIREMENTS, CAL OSHA MITIGATION MEASURES AND CARB ASBESTOS ATCM FOR CONSTRUCTION, GRADING, QUARRYING AND SURFACE MINING OPERATIONS STANDARDS DURING EXECUTION OF THE WORK INCLUDING EXCAVATION, HANDLING, TRANSPORTATION AND DISPOSAL OF THE MATERIALS.



ADDENDUM 3

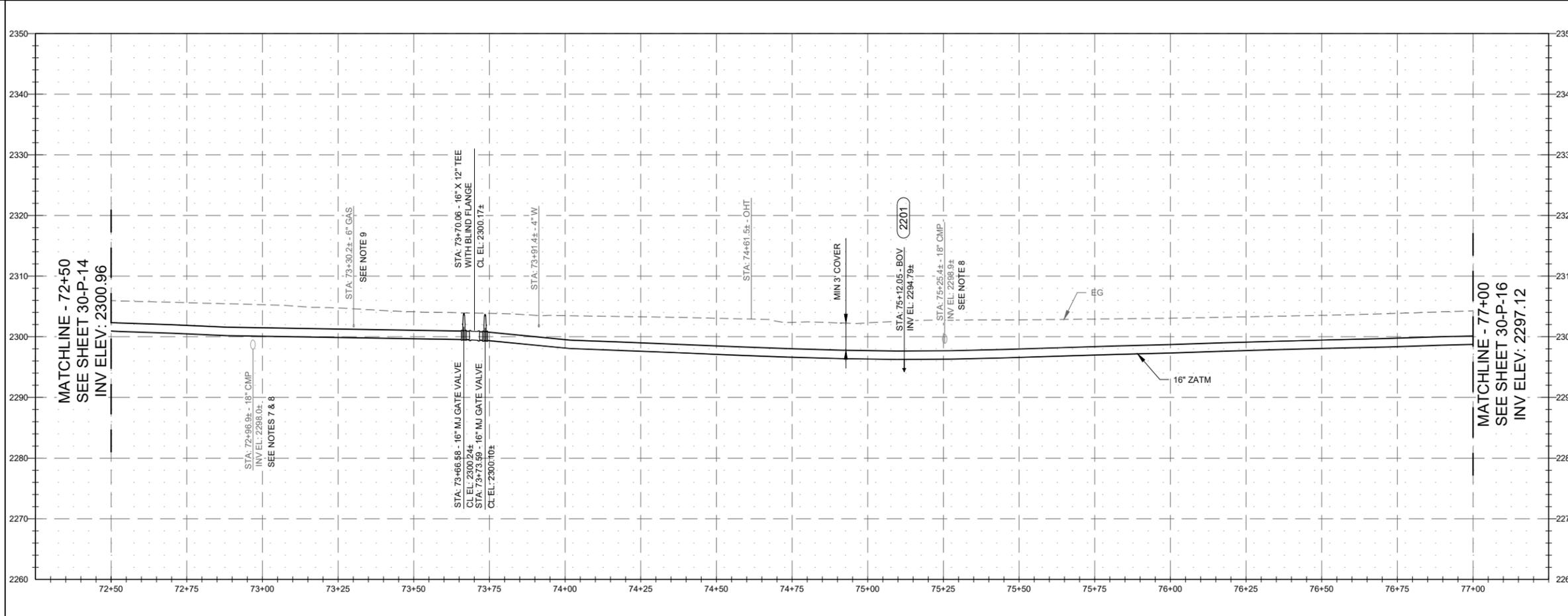
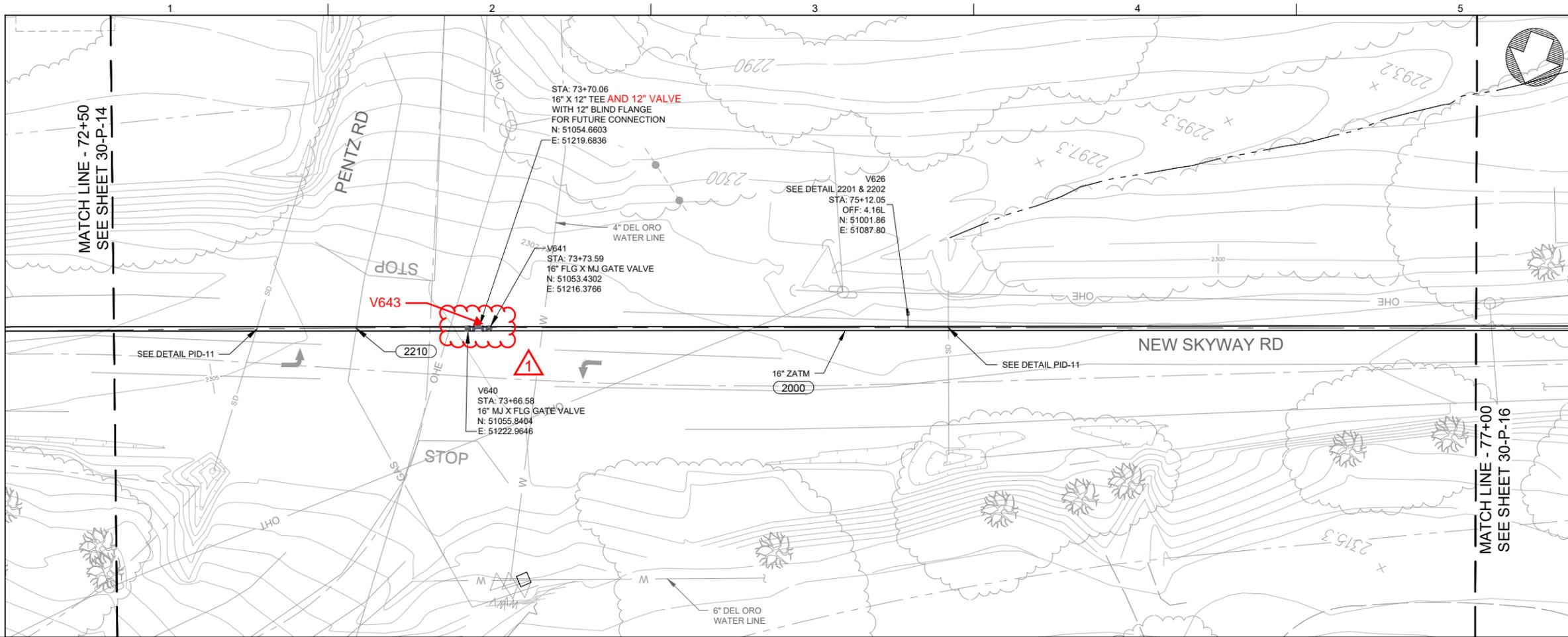
PARADISE IRRIGATION DISTRICT
 ZONE A PUMP STATION
 AND TRANSMISSION MAIN PROJECT
 PARADISE, CALIFORNIA

PLAN AND PROFILE
 STATION 18+50 TO 23+00

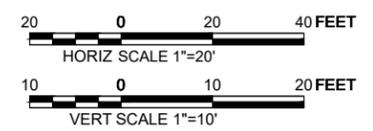
DATE	DECEMBER 2022
PROJECT NUMBER	17-041
DRAWING NUMBER	30-P-03
SHEET NUMBER	48

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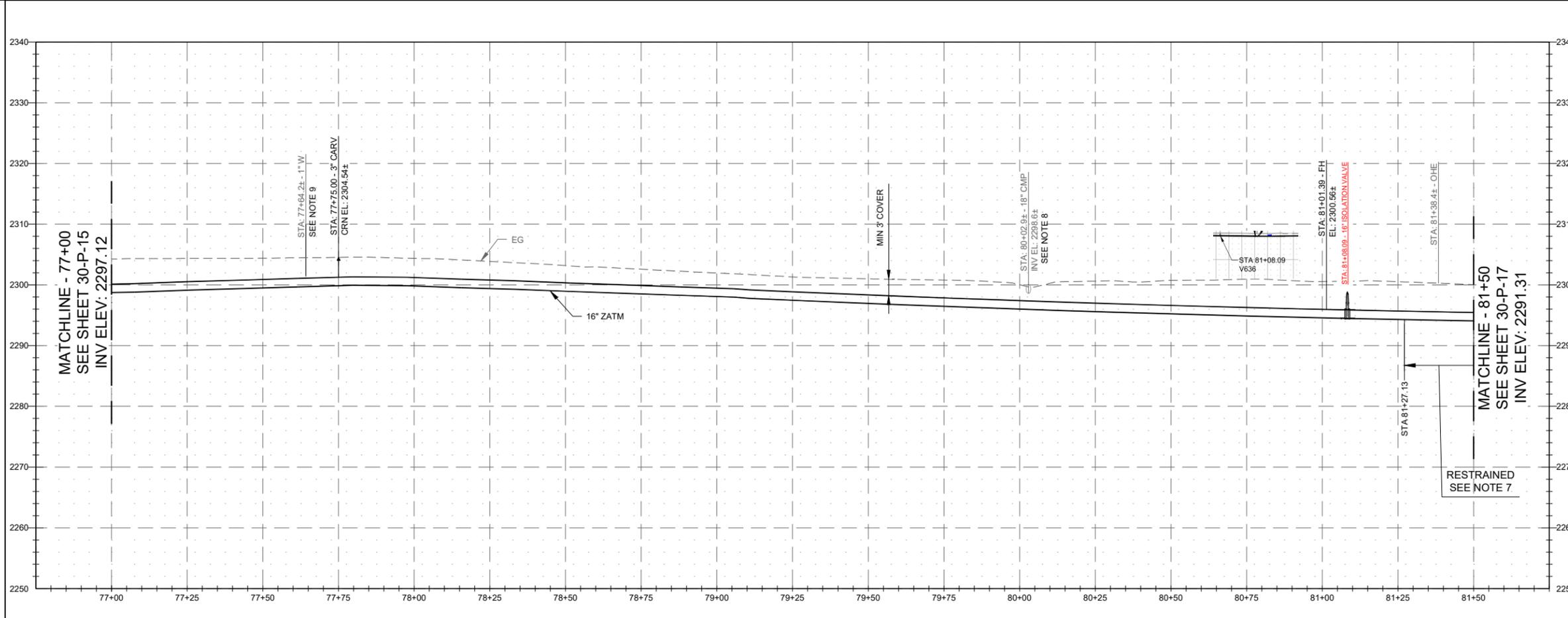
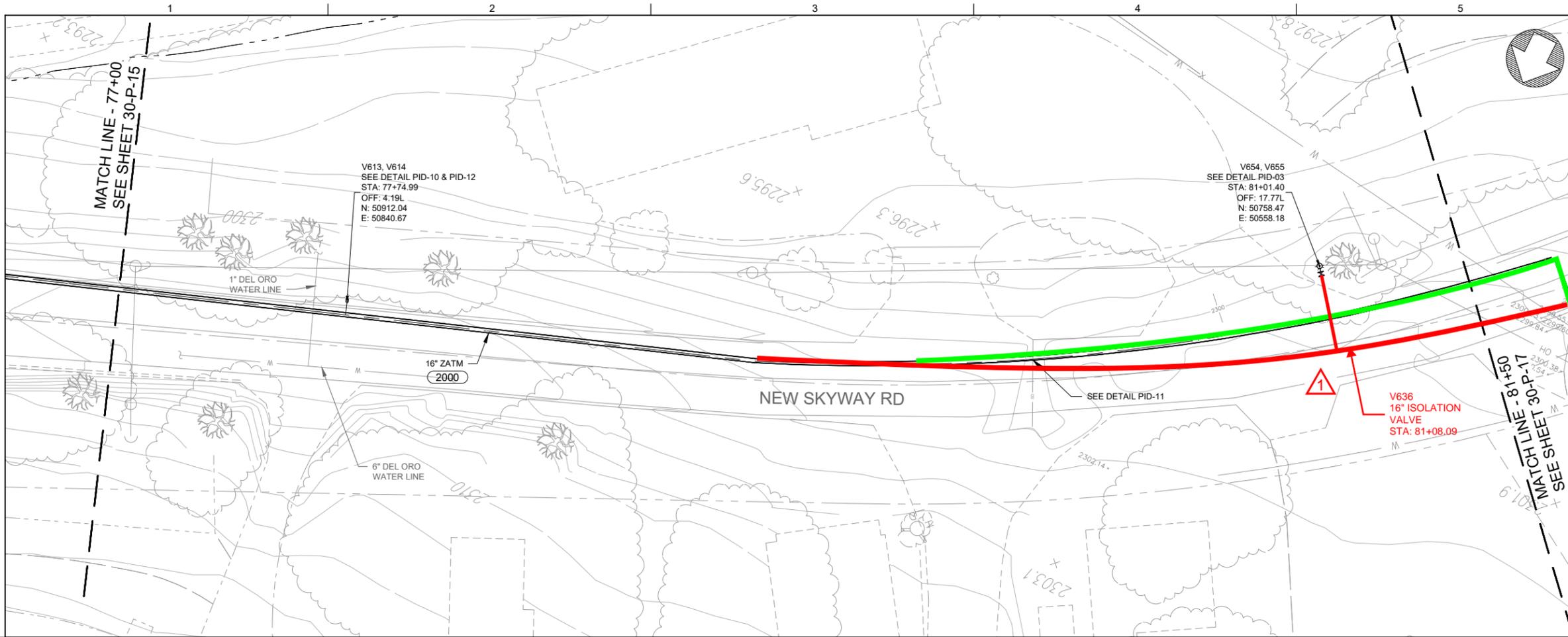
- NOTES:
- COVER FOR BURIED PIPE IS 3'-0" MIN. UNLESS OTHERWISE NOTED. REPLACE TRENCH BACKFILL MATERIAL WITH CLSM IF BURIED PIPE COVER IS LESS THAN 3'-0".
 - DESIGN PIPES SHOWN MINIMIZE HIGH POINTS AND MAINTAIN 3'-0" MIN. COVER. CONTRACTOR MAY DEVIATE PROVIDED THAT 3'-0" MIN. COVER IS MAINTAINED AND NO ADDITIONAL HIGH POINTS ARE ADDED. NO ZERO PIPE SLOPES ARE ALLOWED.
 - CONTRACTOR SHALL MAINTAIN ACCESS FOR ALL LOCAL RESIDENTS AT ALL TIMES DURING CONSTRUCTION.
 - CONTRACTOR SHALL MAINTAIN UTILITY SERVICES UNDISRUPTED TO HOMEOWNERS AT ALL TIMES.
 - CONTRACTOR SHALL VERIFY POINT OF CONNECTION PRIOR TO CONSTRUCTION. LOCATIONS SHOWN ARE BEST REPRESENTATION BASED ON FIELD VISITS, AND AS-BUILT DRAWINGS.
 - 12" MIN CLEARANCE FROM OTHER UTILITIES UNLESS OTHERWISE NOTED.
 - PIPELINE SHALL BE MECHANICALLY RESTRAINED PER SPECIFICATION SECTION 15100.
 - THE WATER MAIN SHOULD HAVE NO JOINTS WITHIN 8 FEET FROM EITHER SIDE OF A STORM DRAIN OR SANITARY SEWER AT NO LESS THAN 45-DEGREES.
 - FOR CLEARANCE LESS THAN 12" SEE DETAIL 2210, DRAWING SD-4.
 - REFER TO GEOTECHNICAL REPORT FOR INFORMATION REGARDING HAZARDOUS MATERIALS THAT MAY BE ENCOUNTERED DURING DEMOLITION OF SERPENTINE ROCK.
 - ALL POTHOLING, OR OTHER PROCEDURES FOR VERIFYING UTILITY LOCATION SHALL BE PERFORMED BY THE CONTRACTOR AS NECESSARY TO PREPARE FOR EXCAVATION AT LEAST TEN WORKING DAYS IN ADVANCE OF SCHEDULED EXCAVATION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER AS TO ANY UTILITY LOCATED BY HIM WHICH HAS BEEN INCORRECTLY SHOWN OR OMITTED FROM THE DRAWINGS, PER SPECIFICATION SECTION 01110, 1.38.



ADDENDUM 3

DESIGN K. KALACON	DRAWN L. CHAPMAN	CHECKED S. KADER	APPROVED S. KADER
WATERWORKS ENGINEERS			
PARADISE IRRIGATION DISTRICT ZONE A PUMP STATION AND TRANSMISSION MAIN PROJECT PARADISE, CALIFORNIA			
PLAN AND PROFILE STATION 72+50 TO 77+00			
DATE DECEMBER 2022 PROJECT NUMBER 17-041 DRAWING NUMBER 30-P-15 SHEET NUMBER 60			

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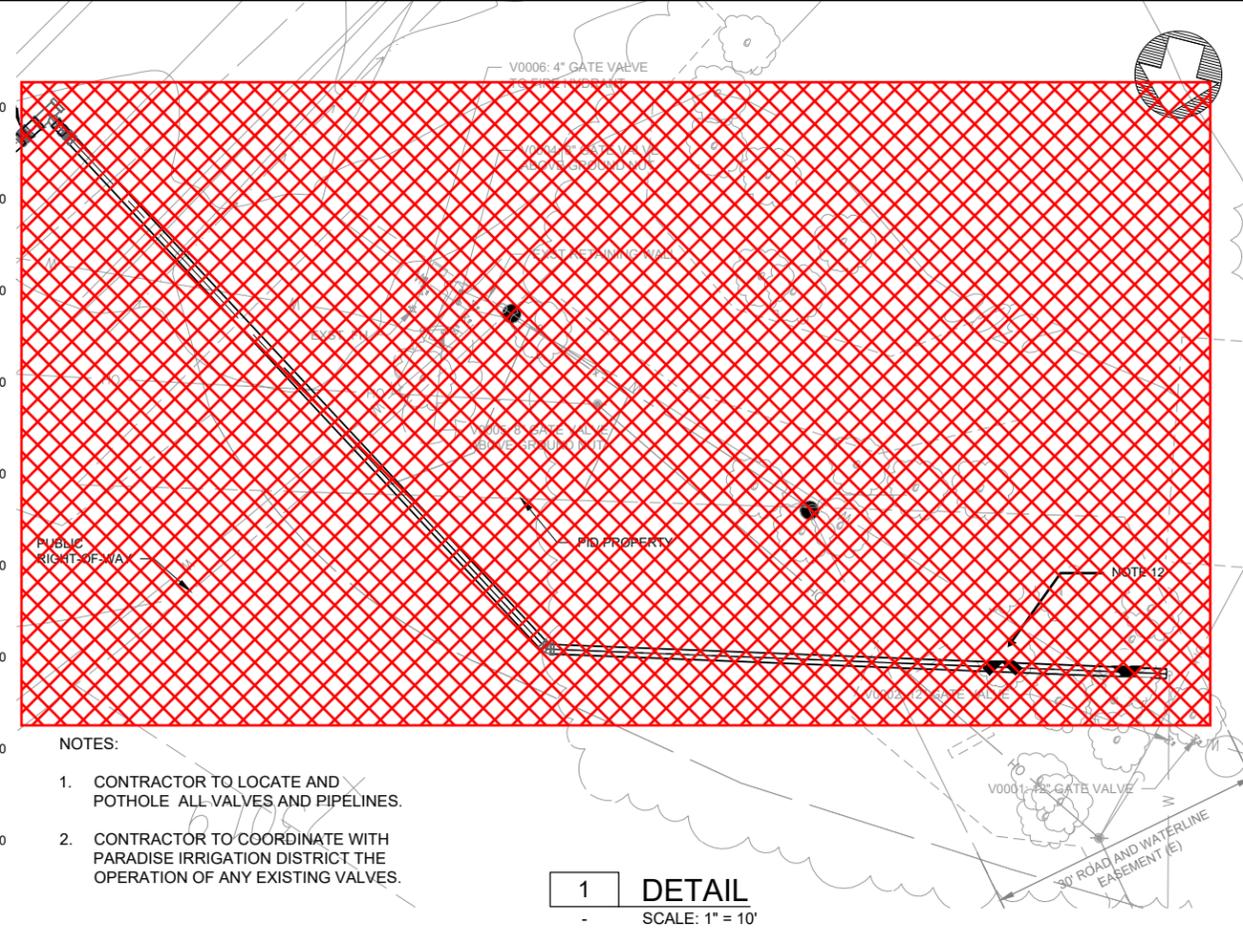
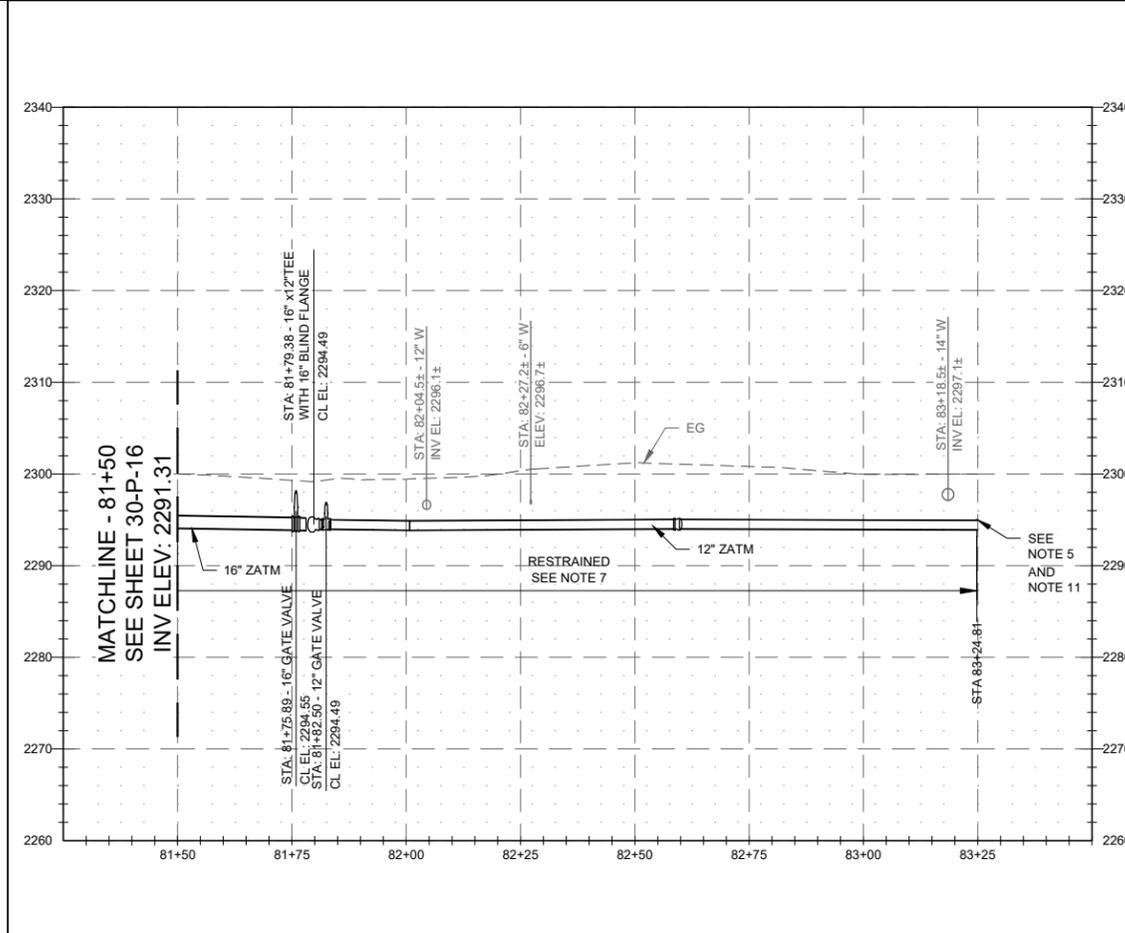
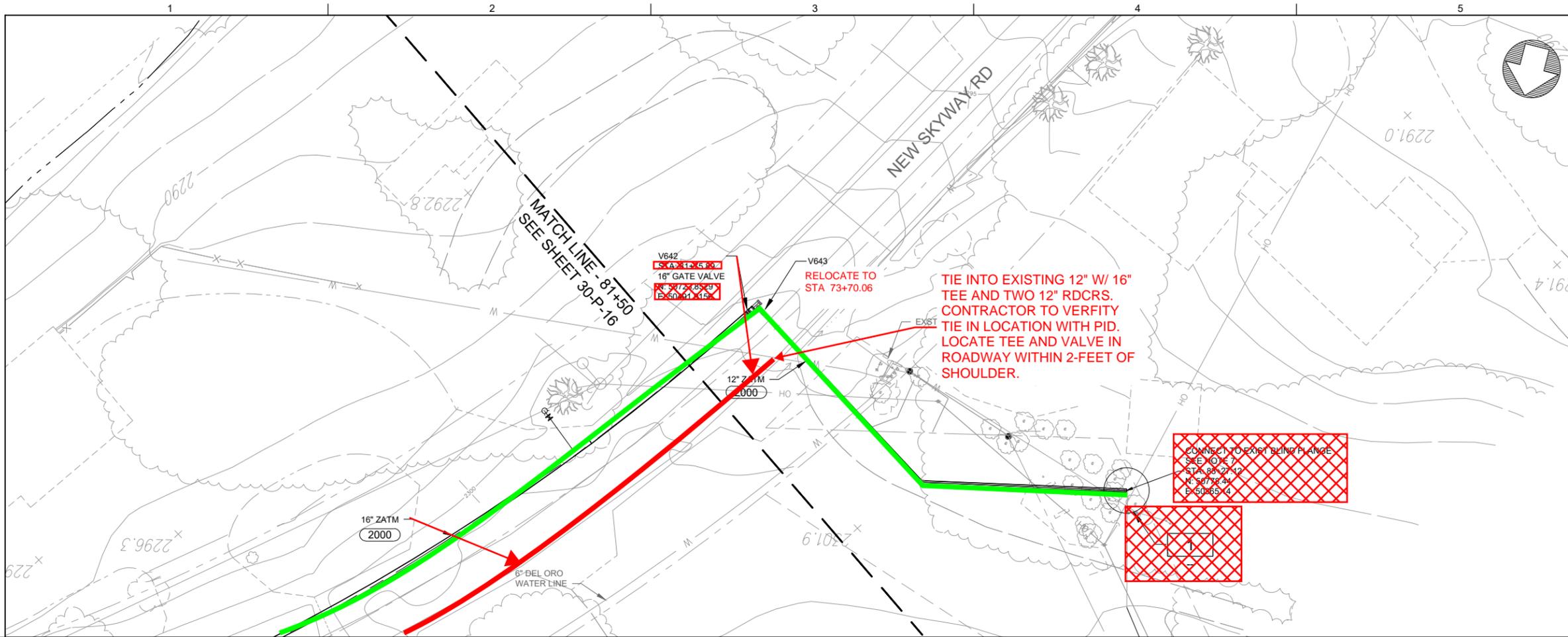
- NOTES:
- COVER FOR BURIED PIPE IS 3'-0" MIN. UNLESS OTHERWISE NOTED. REPLACE TRENCH BACKFILL MATERIAL WITH CLSM IF BURIED PIPE COVER IS LESS THAN 3'-0".
 - DESIGN PIPES SHOWN MINIMIZE HIGH POINTS AND MAINTAIN 3'-0" MIN. COVER. CONTRACTOR MAY DEVIATE PROVIDED THAT 3'-0" MIN. COVER IS MAINTAINED AND NO ADDITIONAL HIGH POINTS ARE ADDED. NO ZERO PIPE SLOPES ARE ALLOWED.
 - CONTRACTOR SHALL MAINTAIN ACCESS FOR ALL LOCAL RESIDENTS AT ALL TIMES DURING CONSTRUCTION.
 - CONTRACTOR SHALL MAINTAIN UTILITY SERVICES UNDISRUPTED TO HOMEOWNERS AT ALL TIMES.
 - CONTRACTOR SHALL VERIFY POINT OF CONNECTION PRIOR TO CONSTRUCTION. LOCATIONS SHOWN ARE BEST REPRESENTATION BASED ON FIELD VISITS, AND AS-BUILT DRAWINGS.
 - 12" MIN CLEARANCE FROM OTHER UTILITIES UNLESS OTHERWISE NOTED.
 - PIPELINE SHALL BE MECHANICALLY RESTRAINED PER SPECIFICATION SECTION 15100.
 - THE WATER MAIN SHOULD HAVE NO JOINTS WITHIN 8 FEET FROM EITHER SIDE OF A STORM DRAIN OR SANITARY SEWER AT NO LESS THAN 45-DEGREES.
 - CONTRACTOR TO COORDINATE RELOCATION OF 1" WATER LINE WITH DEL ORO WATER.
 - REFER TO GEOTECHNIAL REPORT FOR INFORMATION REGARDING HAZARDOUS MATERIALS THAT MAY BE ENCOUNTERED DURING DEMOLITION OF SERPENTINE ROCK.
 - ALL POTHOLING, OR OTHER PROCEDURES FOR VERIFYING UTILITY LOCATION SHALL BE PERFORMED BY THE CONTRACTOR AS NECESSARY TO PREPARE FOR EXCAVATION AT LEAST TEN WORKING DAYS IN ADVANCE OF SCHEDULED EXCAVATION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER AS TO ANY UTILITY LOCATED BY HIM WHICH HAS BEEN INCORRECTLY SHOWN OR OMITTED FROM THE DRAWINGS, PER SPECIFICATION SECTION 01110, 1.38.



ADDENDUM 3

DESIGN K. KALACON	DRAWN L. CHAPMAN	CHECKED S. KADER	APPROVED S. KADER
WATERWORKS ENGINEERS			
PARADISE IRRIGATION DISTRICT ZONE A PUMP STATION AND TRANSMISSION MAIN PROJECT PARADISE, CALIFORNIA			
PLAN AND PROFILE STATION 77+00 TO 81.50			
DATE DECEMBER 2022 PROJECT NUMBER 17-041 DRAWING NUMBER 30-P-16 SHEET NUMBER 61			

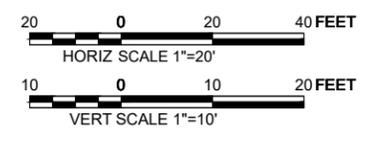
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- NOTES:
- COVER FOR BURIED PIPE IS 3'-0" MIN. UNLESS OTHERWISE NOTED. REPLACE TRENCH BACKFILL MATERIAL WITH CLSM IF BURIED PIPE COVER IS LESS THAN 3'-0".
 - DESIGN PIPES SHOWN MINIMIZE HIGH POINTS AND MAINTAIN 3'-0" MIN. COVER. CONTRACTOR MAY DEVIATE PROVIDED THAT 3'-0" MIN. COVER IS MAINTAINED AND NO ADDITIONAL HIGH POINTS ARE ADDED. NO ZERO PIPE SLOPES ARE ALLOWED.
 - CONTRACTOR SHALL MAINTAIN ACCESS FOR ALL LOCAL RESIDENTS AT ALL TIMES DURING CONSTRUCTION.
 - CONTRACTOR SHALL MAINTAIN UTILITY SERVICES UNDISRUPTED TO HOMEOWNERS AT ALL TIMES.
 - 16" ZATM SHALL MAINTAIN VERTICAL PLACEMENT. CONTRACTOR SHALL NOT CREATE A HIGH POINT DUE TO THE HORIZONTAL REALIGNMENT OF THE 16" ZATM.
 - 12" MIN CLEARANCE FROM OTHER UTILITIES UNLESS OTHERWISE NOTED.
 - PIPELINE SHALL BE MECHANICALLY RESTRAINED PER SPECIFICATION SECTION 15100.
 - CONTRACTOR TO COORDINATE CONNECTION TO EXISTING PIPE WITH PID.
 - REFER TO GEOTECHNICAL REPORT FOR INFORMATION REGARDING HAZARDOUS MATERIALS THAT MAY BE ENCOUNTERED DURING DEMOLITION OF SERPENTINE ROCK.
 - ALL POTHOLING, OR OTHER PROCEDURES FOR VERIFYING UTILITY LOCATION SHALL BE PERFORMED BY THE CONTRACTOR AS NECESSARY TO PREPARE FOR EXCAVATION AT LEAST TEN WORKING DAYS IN ADVANCE OF SCHEDULED EXCAVATION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER AS TO ANY UTILITY LOCATED BY HIM WHICH HAS BEEN INCORRECTLY SHOWN OR OMITTED FROM THE DRAWINGS, PER SPECIFICATION SECTION 01110, 1.38.
 - OWNER-FURNISHED EQUIPMENT FROM STA 10+00 TO STA 83+25. SEE SECTION 01643.
 - TREE SURVEY DOES NOT ACCURATELY DEPICT TREES IN THE VICINITY OF CONSTRUCTION. NO TREE REMOVAL IS REQUIRED FOR PIPELINE INSTALLATION.

- NOTES:
- CONTRACTOR TO LOCATE AND POTHOLE ALL VALVES AND PIPELINES.
 - CONTRACTOR TO COORDINATE WITH PARADISE IRRIGATION DISTRICT THE OPERATION OF ANY EXISTING VALVES.

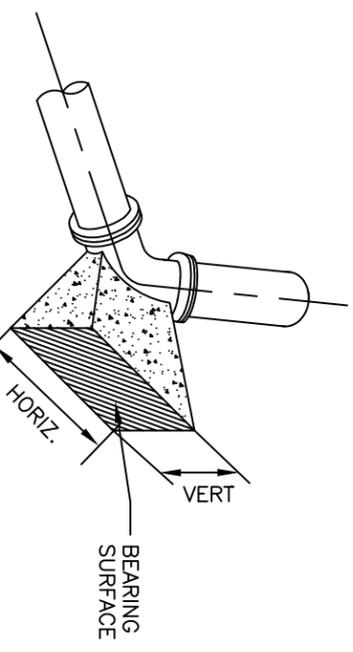
1 DETAIL
SCALE: 1" = 10'



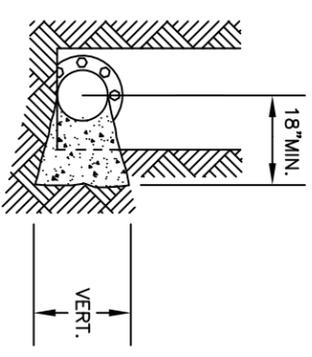
ADDENDUM 3
12-22-22



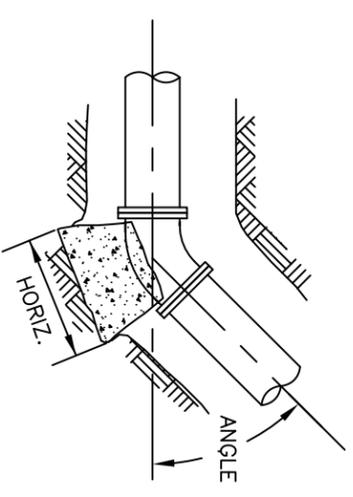
DESIGN K. KALACON	DRAWN L. CHAPMAN	CHECKED S. KADER	APPROVED S. KADER
WATERWORKS ENGINEERS			
PARADISE IRRIGATION DISTRICT ZONE A PUMP STATION AND TRANSMISSION MAIN PROJECT PARADISE, CALIFORNIA			
PLAN AND PROFILE STATION 81+50 TO END			
DATE DECEMBER 2022 PROJECT NUMBER 17-041 DRAWING NUMBER 30-P-17 SHEET NUMBER 62			



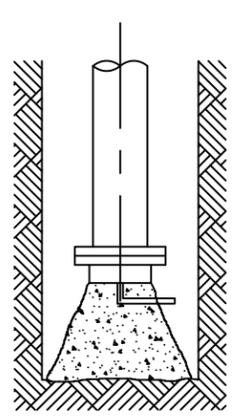
TYPICAL BEARING SURFACE



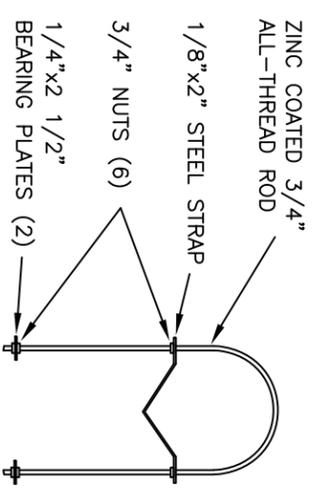
TYPICAL PROFILE



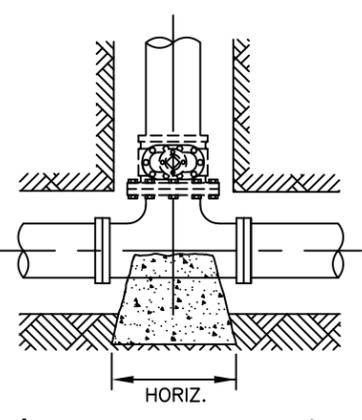
TYPICAL BEND



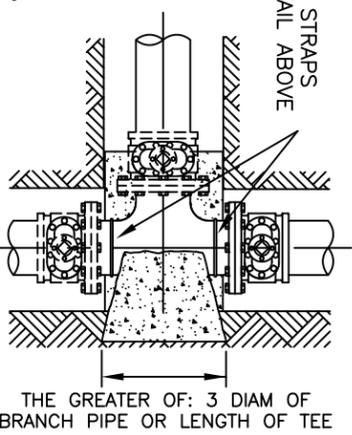
END CAP



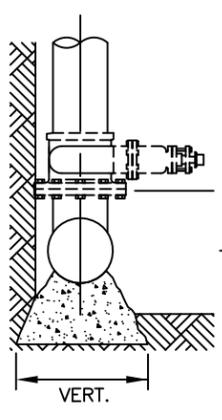
ANCHOR STRAP



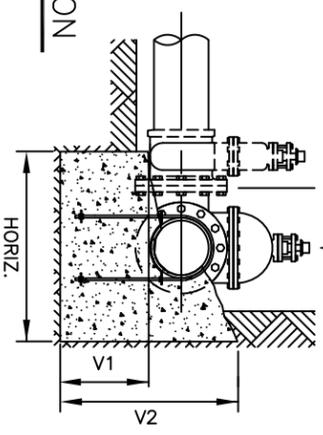
ANCHOR STRAPS
SEE DETAIL ABOVE



THE GREATER OF: 3 DIA OF BRANCH PIPE OR LENGTH OF TEE



ELEVATION

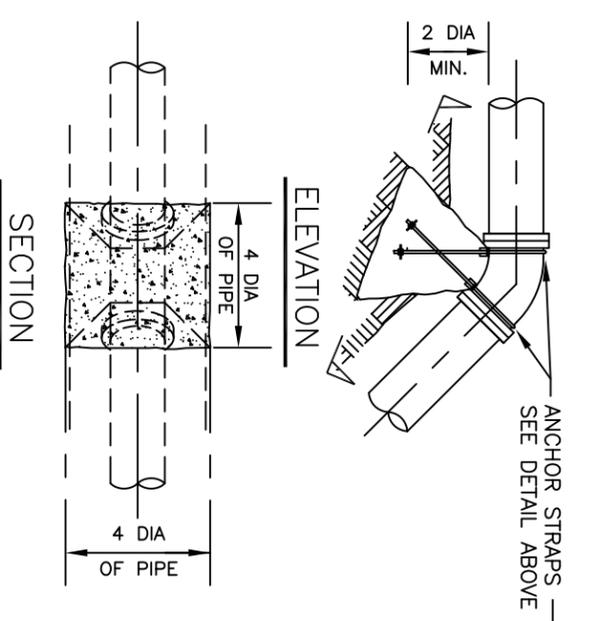


TEE WITH LINE VALVE(S)

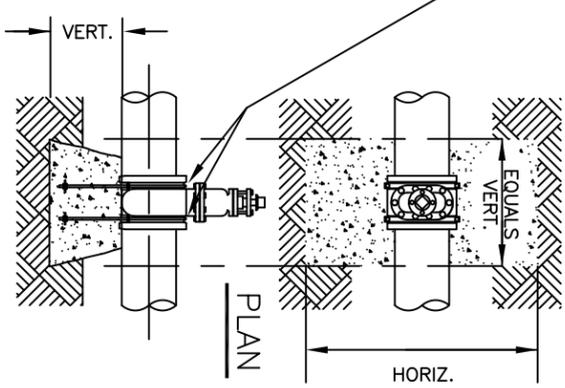
TEE ONLY

NOTES:

1. THRUST BLOCK BEARING AREA BASED ON ALLOWABLE SOIL BEARING VALUE OF 2,000 psf PRESSURE AND 225 psf LINE PRESSURE WITH 30" COVER MINIMUM. FOR BEARING = 1000 psf, 2.0 X AREA SHOWN
2. WHERE THRUST BLOCK WILL HAVE LESS THAN 12" COVER ENGINEERED DESIGN IS REQUIRED.
3. PREDESIGNED THRUST RESTRAINTS ARE SUBJECT TO SITE SPECIFIC REVIEW.
4. ALL THRUST BLOCKS SHALL BE CLASS "B" CONCRETE AND PLACED AGAINST UNDISTURBED SOIL. DESIGN ENGINEER SHALL DETERMINE SIZES NOT SHOWN.
5. REINFORCING STEEL SHALL CONFORM TO ASTM A15 AND A305 INTERMEDIATE GRADE.
6. CONCRETE SHALL NOT EXTEND ONTO FLANGE OR ADJOINING PIPE.
7. ANCHOR STRAPS SHALL EXTEND TO NO LESS THAN 3/4 THE DEPTH OF THE THRUST BLOCK. ANCHOR STRAPS SHALL BE EMBEDDED NOT LESS THAN 4" FROM EDGE OF THRUST BLOCK. ALL-THREAD STRAP SHALL BE BENT "SNUG" TO FITTING. 1/8"x2" STRAP SHALL BE TIGHTENED TO HOLD ASSY. STRAIGHT.
8. CONCRETE SHALL ACHIEVE "SET" TO PID INSPECTOR'S SATISFACTION PRIOR TO PLACING BACKFILL.



VERTICAL BEND



LINE VALVE

MINIMUM SIZE OF THRUST BLOCK BEARING SURFACE

PIPE SIZE	11 1/4" BEND		22 1/2" BEND		45° BEND		90° BEND		LINE VALVE, TEE ONLY OR END CAP	TEE WITH LINE VALVES	
	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.		HORIZ.	V1
4"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-0"	2'-4"	1'-0"	1'-8"	1'-0"	1'-8"
6"	1'-0"	1'-0"	1'-6"	1'-0"	2'-0"	1'-6"	3'-6"	1'-6"	2'-6"	1'-6"	2'-6"
8"	1'-4"	1'-0"	2'-0"	1'-4"	2'-8"	2'-0"	4'-8"	2'-0"	3'-4"	2'-0"	2'-8"
10"	1'-8"	1'-3"	2'-6"	1'-8"	3'-4"	2'-6"	6'-0"	2'-6"	4'-2"	2'-6"	3'-4"
12"	2'-0"	1'-6"	3'-0"	2'-0"	4'-0"	3'-0"	7'-0"	3'-0"	5'-0"	3'-0"	4'-0"

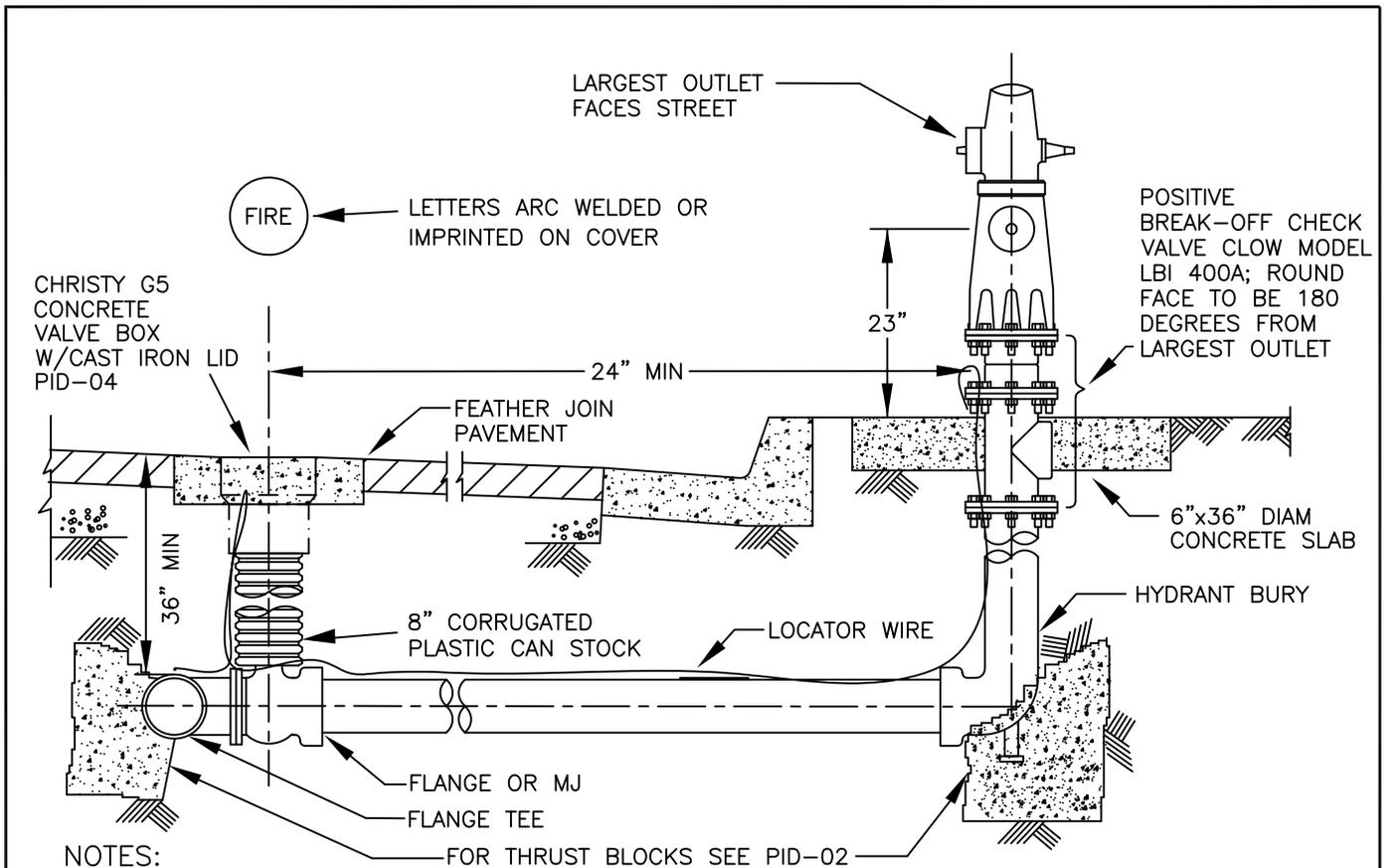


PARADISE IRRIGATION DISTRICT
STANDARD DRAWING

PID-02
SHEET 1 OF 1

THRUST BLOCK DETAILS

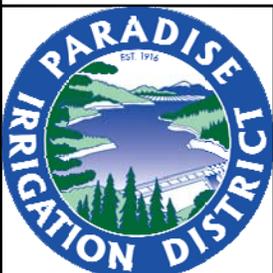
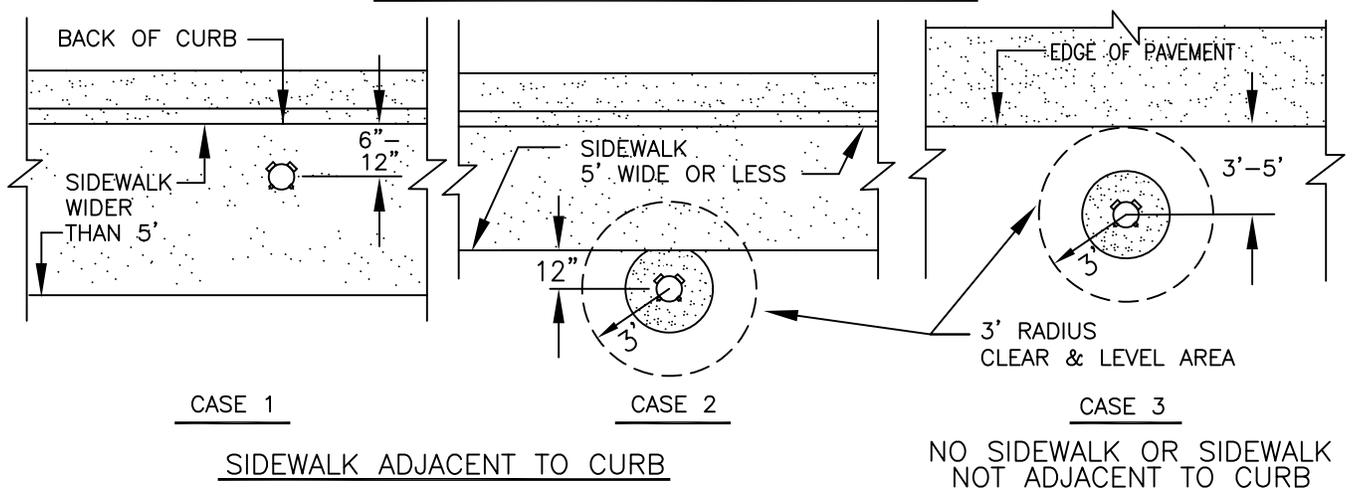
DRAWN BY: BM
CHECKED BY: BA
DATE: FEBRUARY 2023
NO SCALE



NOTES:

1. FIRE HYDRANTS SHALL BE CLOW 850 OR 860 AS REQUIRED BY PARADISE FIRE DEPARTMENT, PAINTED YELLOW PER PFD SPECIFICATION, AND EQUIPPED WITH PENTAGON NUTS ON ALL HYDRANT VALVE STEMS.
2. FOR HYDRANT LATERALS CONSTRUCTED ON EXISTING MAINS USE TAPPING SLEEVE IN PLACE OF TEE. SEE DIVISION X - CONTRACTOR CONSTRUCTED TAPS ON DISTRICT MAINS.
3. TRENCHING AND BACKFILL PER DISTRICT STANDARD. SEE SPEC DIVISION III - EARTHWORK.
4. MJ FITTINGS WITH GRIP RINGS SHALL BE USED. CONCRETE REQUIRED TO STABILIZE HYDRANT ASSY.
5. BAG OR WRAP ANY FLANGE OR BOLTED CONNECTION NEAR CONCRETE KICKER INSTALLATION.

HYDRANT LOCATION PLANS



PARADISE IRRIGATION DISTRICT
STANDARD DRAWING

PID-03

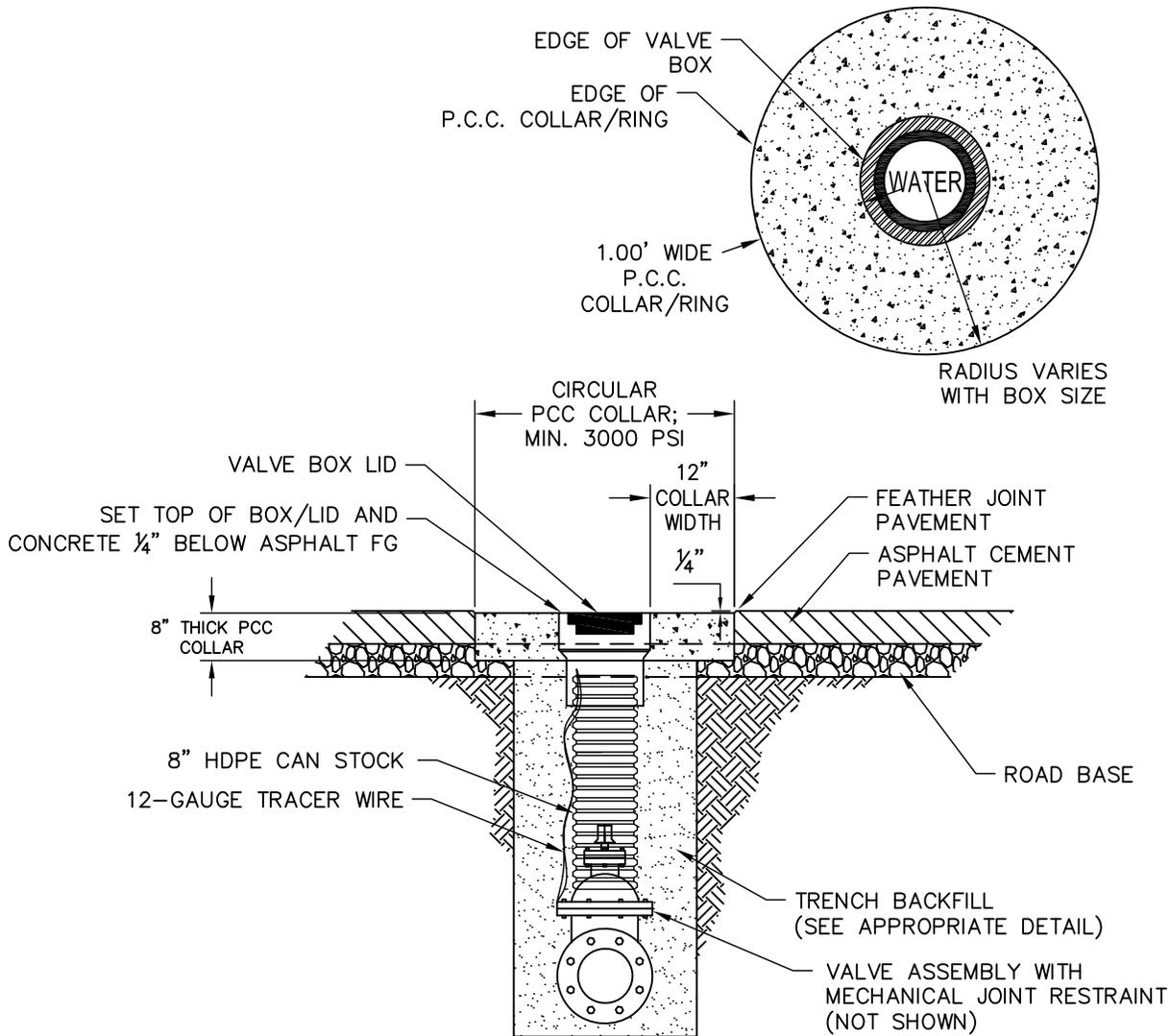
SHEET 1 OF 1

FIRE HYDRANT INSTALLATION

DRAWN BM CHECKED BA

DATE
FEBRUARY 2023

NO SCALE



NOTES:

1. ALL VALVE BOXES WITHIN THE SCOPE OF THE PROJECT SHALL BE SET TO THE APPROPRIATE FINISH GRADE. SURROUNDING PAVEMENT SHALL BE RESTORED TO SATISFACTORY CONDITION.
2. VALVE BOXES IN THE TRAVELED WAY (ASPHALT ROADWAY) SHALL BE SET IN A MINIMUM 3000 PSI PORTLAND CEMENT CONCRETE RING. TOP OF BOX AND CONCRETE SHOULD BE FLUSH, AND BOTH BE SET $\frac{1}{4}$ " BELOW ADJACENT ROADWAY ASPHALT FINISH GRADE. CONCRETE COLLARS SHALL BE BROOM FINISHED.
3. VALVE BOXES SHALL BE "CHRISTY G5" CONCRETE BOX WITH CAST IRON LID OR APPROVED EQUAL, UNLESS OTHERWISE SPECIFIED ON PLANS. ANY VARIATION SHALL BE APPROVED BY PARADISE IRRIGATION DISTRICT.
4. CENTER VALVE BOX OVER OPERATING NUT TO INSURE FREE VALVE OPERATION.
5. WATER VALVE BOXES THAT DIRECTLY SERVICE A FIRE HYDRANT SHALL HAVE LIDS LABELED "FIRE"; ALL OTHER LIDS SHALL BE LABELED "WATER".
6. CAN STOCK SHALL BE 8" SINGLE-WALLED CORRUGATED HDPE PIPE.

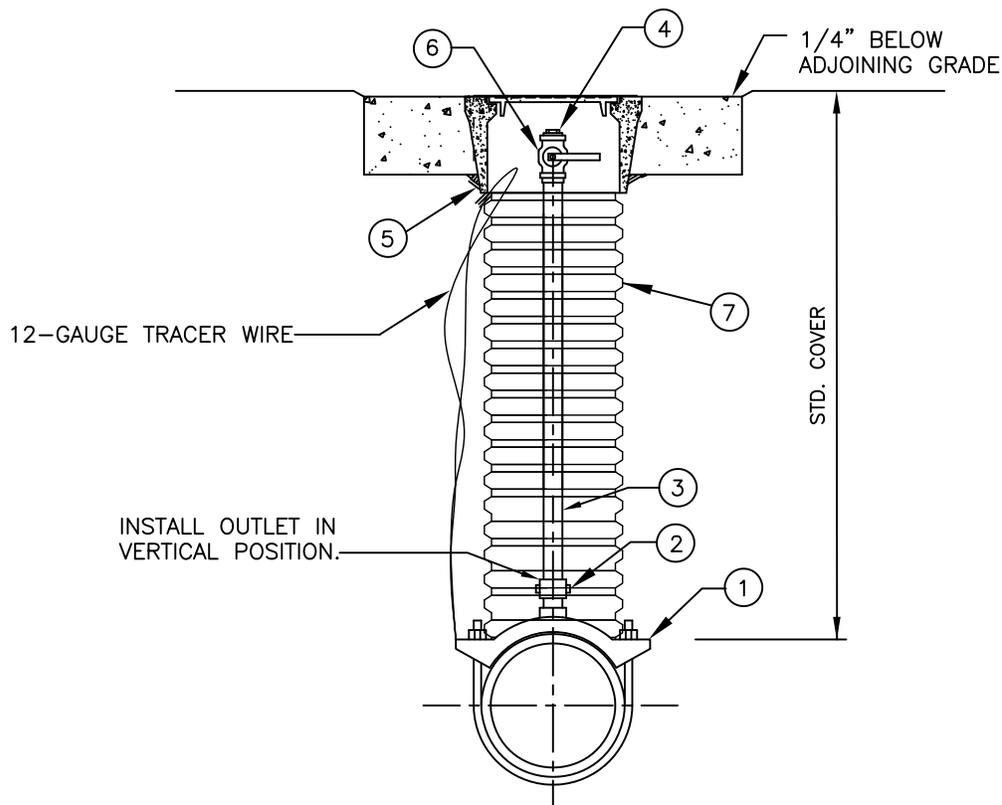


PARADISE IRRIGATION DISTRICT
STANDARD DRAWING

PID-04
SHEET 1 OF 1

VALVE BOX DETAIL

DRAWN: BM CHECKED: BA
DATE: FEBRUARY 2023
NO SCALE



ITEM
NO

MATERIALS

- ① DOUBLE S.S. STRAP DUCTILE IRON SERVICE SADDLE W/ I.P. OUTLET
- ② BRONZE CORPORATION STOP, M.I.P. THREADED
- ③ HARD PIPE (BRASS)
- ④ BRASS M.I.P. PLUG
- ⑤ G-12 TRAFFIC BOX W/ CAST IRON LID (USE B-16 BOX W/LID SET 2" ABOVE GRADE OUTSIDE TRAVELED WAY)
- ⑥ BRASS FULL PORT BALL VALVE (W/ S.S. BALL) WATTS OR EQUAL
- ⑦ 8" CORRUGATED CANNING MATERIAL



PARADISE IRRIGATION DISTRICT
STANDARD DRAWING

PID-09

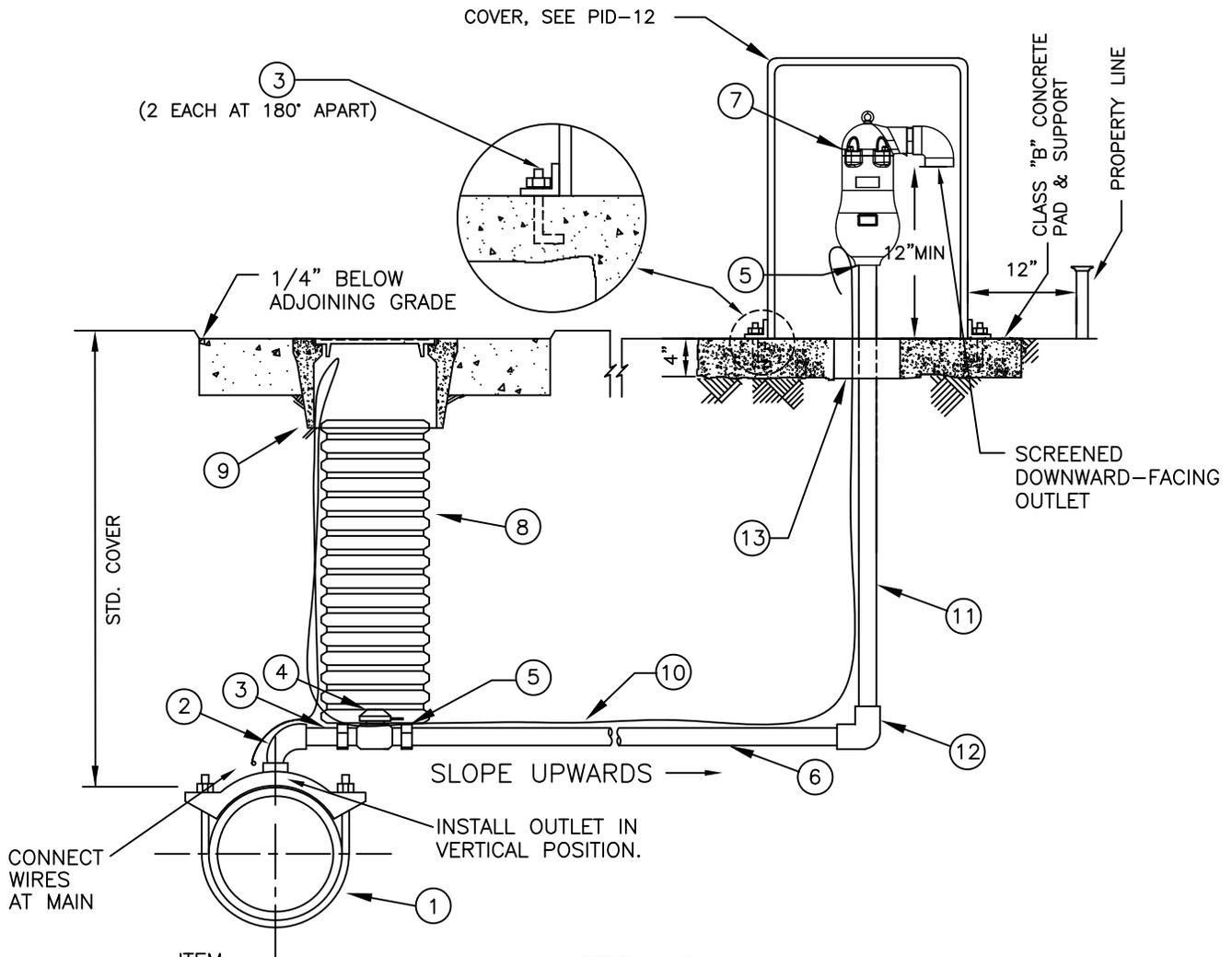
SHEET 1 OF 1

MANUAL AIR VALVE ASSEMBLY

DRAWN BM CHECKED BA

DATE
FEBRUARY 2023

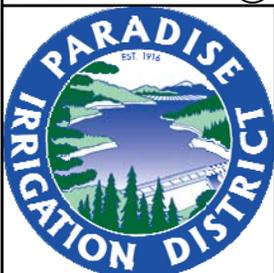
NO SCALE



ITEM NO

MATERIALS

- (1) DOUBLE S.S. STRAP DUCTILE IRON SERVICE SADDLE W/ I.P. OUTLET
- (2) BRASS OR BRONZE STREET ELBOW
- (3) 1/2" DIA X 4" STAINLESS STEEL ANCHOR BOLT CAST IN SLAB WITH BRASS NUT
- (4) MIP X COMP CURB STOP VALVE
- (5) 2" BRASS COUPLER AS NEEDED
- (6) POLYETHYLENE TUBING
- (7) AIR AND VACUUM VALVE, BERMAD COMBINATION AIR VALVE OR EQUIVALENT
- (8) 8-INCH CORRUGATED PLASTIC CAN STOCK
- (9) CHRISTY G5 CONCRETE VALVE BOX W/ CAST IRON LID, SET IN CONCRETE COLLAR
- (10) NO. 12 AWG SOLID COPPER WIRE W/TYPE UF INSULATION
- (11) HARD PIPE (BRASS)
- (12) COMP X FIP 90
- (13) 6" PVC SLEEVE



PARADISE IRRIGATION DISTRICT
STANDARD DRAWING

PID-10

SHEET 1 OF 1

AIR RELEASE & VACUUM RELIEF
VALVE ASSEMBLY

DRAWN CHECKED
BM BA

DATE
FEBRUARY 2023

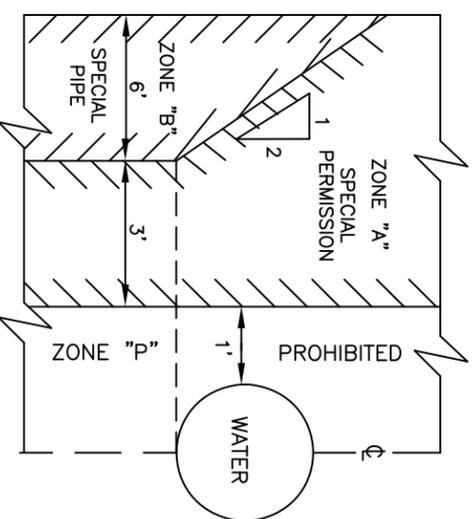
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BASIC SEPARATION STANDARDS

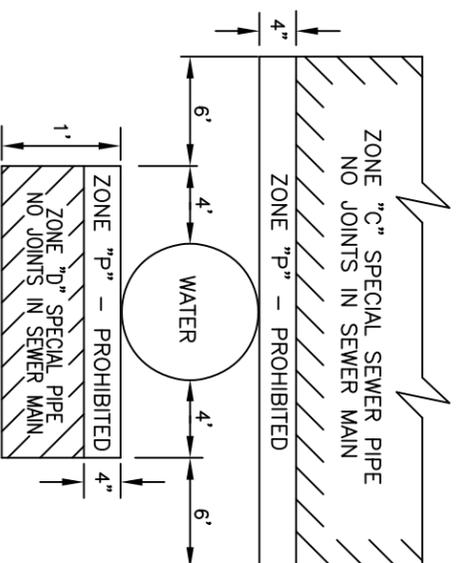
1. PARALLEL CONSTRUCTION: THE HORIZONTAL DISTANCE BETWEEN PRESSURE POTABLE WATER MAINS AND SANITARY SEWER LINES SHALL BE AT LEAST 25 FEET.
2. PERPENDICULAR CONSTRUCTION (CROSSING): PRESSURE WATER MAINS SHALL BE AT LEAST ONE FOOT ABOVE SANITARY SEWER LINES WHERE THESE LINES MUST CROSS.
3. SPECIAL PROVISIONS: ALTERNATIVE CONSTRUCTION CRITERIA WHERE THE BASIC SEPARATION STANDARDS CANNOT BE ATTAINED ARE SHOWN BELOW:

SITUATION:

LOCATION OF NEW SEWER LINES TO EXISTING WATER LINES



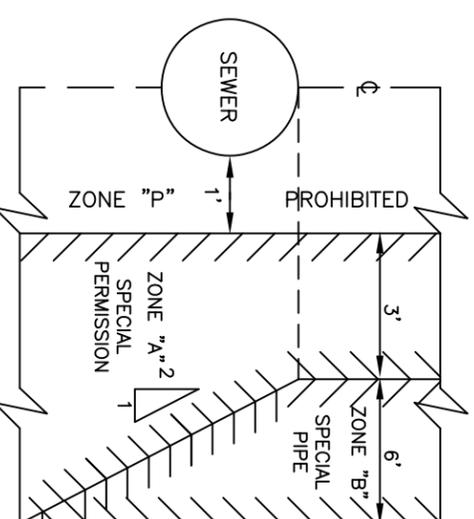
PARALLEL CONSTRUCTION



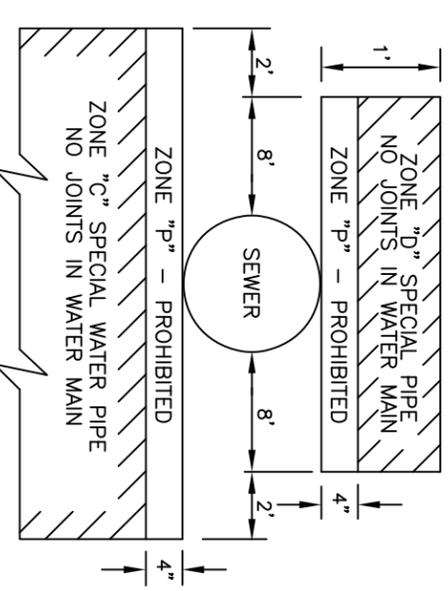
PERPENDICULAR CROSSING

SITUATION:

LOCATION OF NEW WATER LINES TO EXISTING SEWER LINES



PARALLEL CONSTRUCTION



PERPENDICULAR CROSSING

IF ANY SEWER PIPELINES ARE TO BE CONSTRUCTED WITHIN ANY OF THE ABOVE INDICATED ZONES, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

ZONE SEWER

- A DO NOT LOCATE ANY PARALLEL SEWER LINES IN THIS AREA WITHOUT STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.
- B USE VCP OR DIP WITH COMPRESSION JOINTS
- C USE DIP WITH MECHANICAL JOINTS OR CLASS 200 PVC – AWWA C900
- D USE DIP OR CLASS 200 PVC – AWWA C900

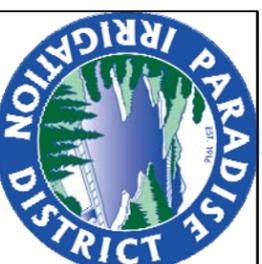
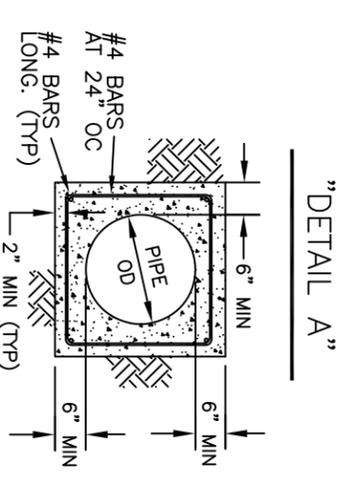
GENERAL NOTES

1. NO PIPE JOINTS SHALL BE PERMITTED WITHIN ZONE D. IT IS THE INTENT OF THESE SPECIFICATIONS THAT NO JOINTS OCCUR WITHIN ZONE C. IF THAT CANNOT BE ACCOMPLISHED, THE NEW PIPELINE SHALL BE ENCASED IN CONCRETE FOR THE FULL LENGTH OF ZONE C. ENCASEMENT SHALL BE PER PID-11 "DETAIL A".
2. ALL D.I.P. MUST HAVE HOT DIP BITUMINOUS COATING AND ALL CLASS 200 PVC MUST MEET DR-14 PER AWWA C900 OR EQUIVALENT.
3. SEWER FORCE MAINS SHALL NOT BE PERMITTED IN ZONES A THROUGH D.
4. WHERE CROSSINGS ARE NOT PERPENDICULAR, HORIZONTAL SPACING REQUIREMENTS SHALL BE MEASURED ALONG A LINE PERPENDICULAR TO THE WATER MAIN.
5. THE CONSTRUCTION CRITERIA APPLY TO HOUSE LATERALS THAT CROSS ABOVE A PRESSURE WATER MAIN BUT NOT TO THOSE HOUSE LATERALS THAT CROSS BELOW A PRESSURE WATER MAIN.
6. WATER MAINS SHALL NOT BE CONSTRUCTED LESS THAN 25 FEET HORIZONTALLY FROM SEPTIC TANKS, SEPTIC LEACH FIELDS OR GROUNDWATER RECHARGE SITES.
7. CASINGS OR TUNNELS FOR THE PASSAGE OF WATER AND SEWER LINES UNDER RAILROAD TRACKS, HIGHWAYS OR OTHER STRUCTURES, SHALL BE SPECIALLY DESIGNED TO ELIMINATE ANY HAZARD OF CONTAMINATION OF THE WATER SYSTEM.

IF ANY WATER PIPELINES ARE TO BE CONSTRUCTED WITHIN ANY OF THE ABOVE INDICATED ZONES, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

ZONE POTABLE WATER

- A DO NOT LOCATE ANY PARALLEL DOMESTIC WATER MAIN IN THIS AREA WITHOUT STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.
- B USE DIP OR CLASS 200 PVC – AWWA C900
- C USE DIP OR CLASS 200 PVC – AWWA C900
- D USE DIP OR CLASS 200 PVC – AWWA C900



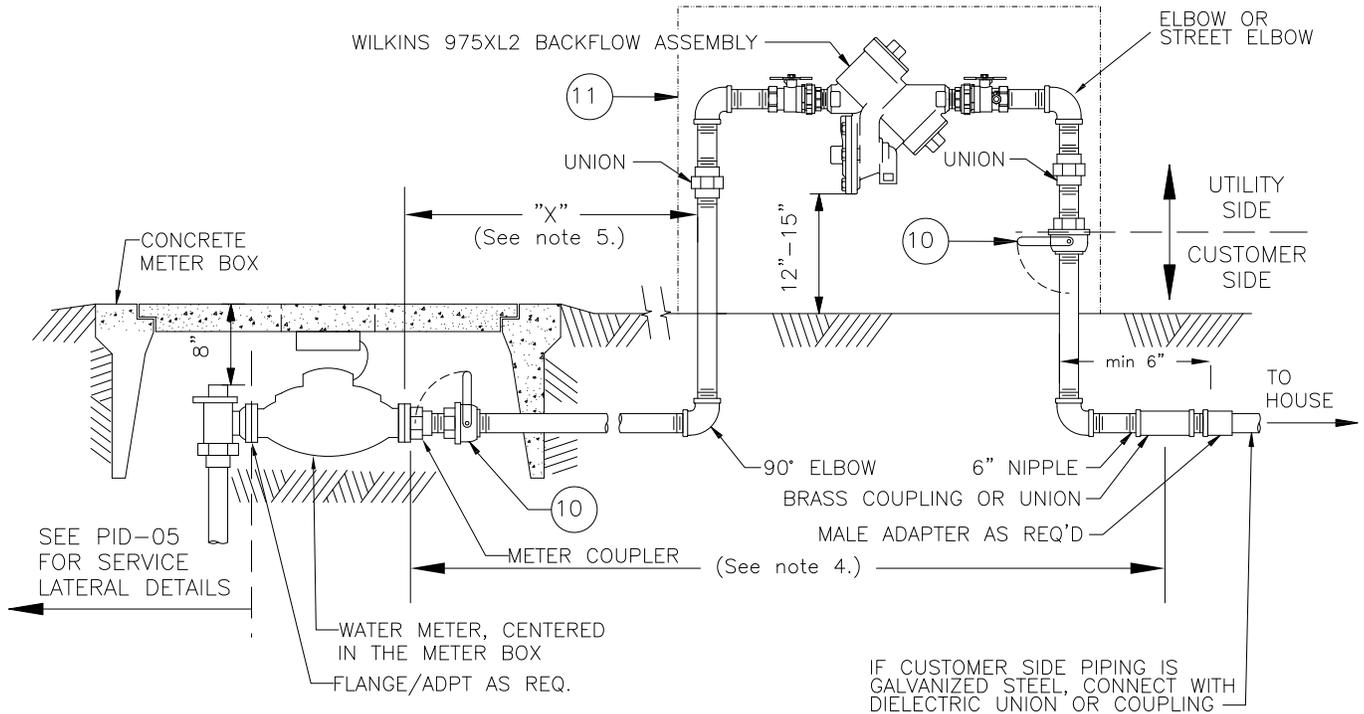
PARADISE IRRIGATION DISTRICT
STANDARD DRAWING

PID-11

SHEET 1 OF 1

STATE HEALTH DEPT. EXCEPTIONS TO BASIC
SEPARATION STANDARDS FOR
POTABLE WATER AND SEWER PIPELINES

DRAWN BY: BM
CHECKED BY: BA
DATE: FEBRUARY 2023
NO SCALE



NOTES:

1. BACKFLOW PREVENTION REQUIREMENTS APPLY AT EACH SERVICE CONNECTION. CONTACT PID FOR QUESTIONS REGARDING BACKFLOW PREVENTION INSTALLATION AND POLICY REQUIREMENTS.
2. BACKFLOW PREVENTION ASSEMBLY SHALL BE A REDUCED PRESSURE PRINCIPLE (RP) ASSEMBLY CERTIFIED BY USC FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH. ASSEMBLY SHALL BE LOW LEAD IN COMPLIANCE WITH NSF 61, WILKINS 975XL2.
3. NO TAPS/ CONNECTIONS ARE PERMITTED ON THE UTILITY SIDE OF THE BACKFLOW PREVENTION ASSEMBLY. BACKFLOW PREVENTION ASSEMBLY TEST COCKS SHALL BE USED FOR TEST PURPOSES BY CERTIFIED PERSONNEL ONLY.
4. ALL PIPING AND FITTINGS SHALL BE BRASS AND MECHANICALLY JOINED. UNIONS SHALL BE INSTALLED ON VERTICAL RISERS.
5. DISTANCE "X" SHALL BE KEPT TO A MINIMUM. IF "X" EXCEEDS 12 INCHES THE SERVICE LINE SHALL BE ENCASED IN SCHEDULE 40 GALVANIZED PIPE WITH MINIMUM ANNULAR SPACE, FROM THE METER BOX TO THE POINT WHERE THE PIPE LEAVES THE GROUND.
6. UPON COMPLETION OF INSTALLATION AND PRIOR TO RECEIVING SERVICE THE BACKFLOW PREVENTION ASSEMBLY MUST PASS FUNCTIONAL TESTING PERFORMED BY A DISTRICT APPROVED CA-NV AWWA CERTIFIED BACKFLOW PREVENTION ASSEMBLY TESTER.
7. BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED IN DIRECT ALIGNMENT TO THE FLOW OF METER ORIENTATION. INSTALLATION OF A BACKFLOW PREVENTION ASSEMBLY PERPENDICULAR TO THE FLOW OF METER ORIENTATION SHALL ONLY BE ALLOWED UPON PRIOR APPROVAL BY PID. IF PERPENDICULAR ORIENTATION IS APPROVED SWING JOINT MAY BE USED, FITTINGS SHALL BE KEPT TO A MINIMUM.
8. BODY OF BACKFLOW PREVENTION ASSEMBLY SHALL BE LEVEL SO THAT NO BACK PRESSURE IS APPLIED ON EITHER INTERNAL CHECK VALVES. ADJUST VERTICAL RISERS AS NEEDED TO ACHIEVE THIS.
9. THE BOTTOMMOST PORTION OF THE BODY OF THE BACKFLOW PREVENTION ASSEMBLY SHALL BE A MINIMUM OF 12" AND A MAXIMUM OF 15" ABOVE GRADE.
10. BALL VALVE 10 SHALL BE BRASS LEAD-FREE, WATTS LFFBV-3C OR EQUAL. BALL VALVE IN METER BOX SHALL BE INSTALLED WITH HANDLE IN THE CLOSED POSITION FACING UP. BALL VALVE ON RISER OF BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED WITH HANDLE IN THE CLOSED POSITION FACING THE INSIDE OF THE BACKFLOW PREVENTION ASSEMBLY.
11. A FROST PROTECTION BAG SHALL BE INCLUDED AS PART OF THE INSTALLATION OF THE BACKFLOW PREVENTION ASSEMBLY. B&E SECURITY COVERS 24"x24" INSULATION COVER (SC2424 OR EQUAL) FOR 1" BACKFLOW PREVENTION ASSEMBLY, 36"x24" (SC3624 OR EQUAL) FOR 1.5" AND 2" BACKFLOW PREVENTION ASSEMBLIES. SUBSTITUTIONS MAY BE MADE WITH PRIOR PID APPROVAL.



**PARADISE IRRIGATION DISTRICT
STANDARD DRAWING**

PID-15
SHEET 1 OF 1

**RP INSTALLATION FOR DOMESTIC
CONNECTIONS UP TO 2"
(FOR DISTRICT OWNED BACKFLOW PREVENTION DEVICES)**

DRAWN CHECKED
BM BA
DATE
FEBRUARY 2023
NO SCALE