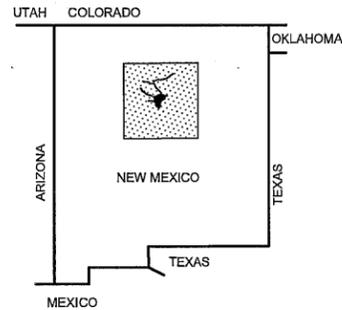


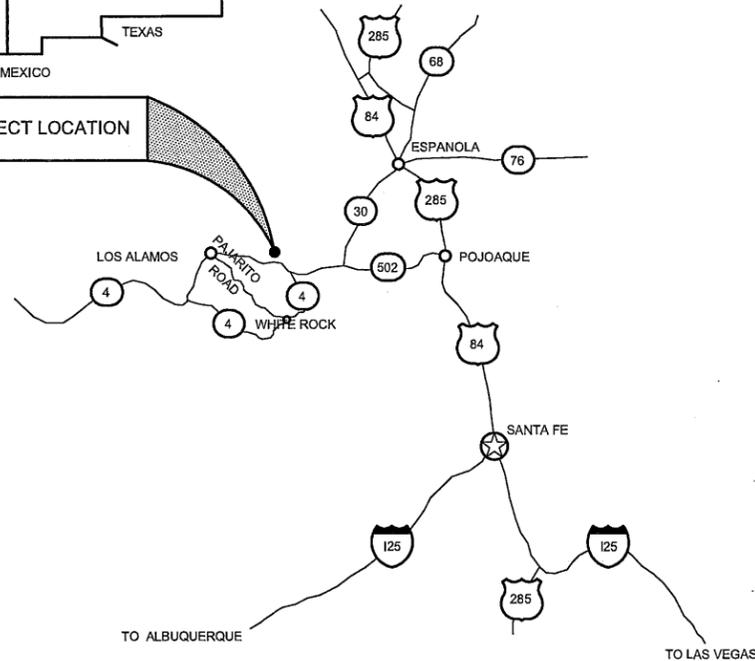
# SAN ILDEFONSO ROAD 8" WATERLINE REPLACEMENT IFB-26-23 LOS ALAMOS COUNTY - NEW MEXICO



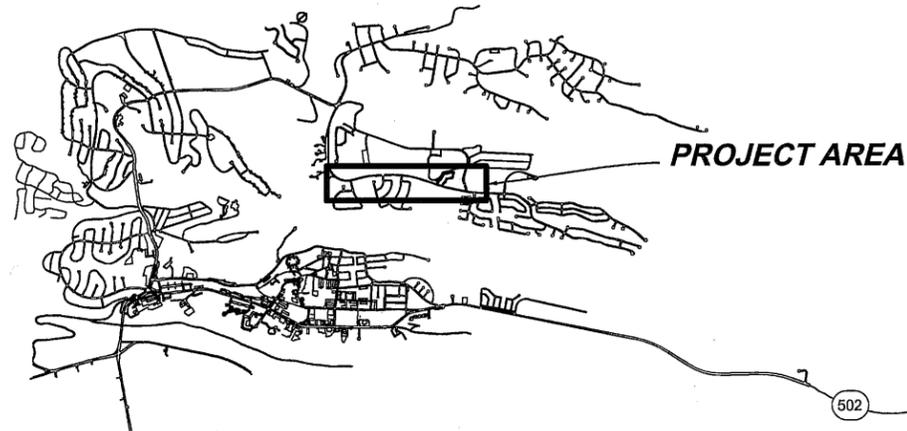
**LOS ALAMOS**



**PROJECT LOCATION**



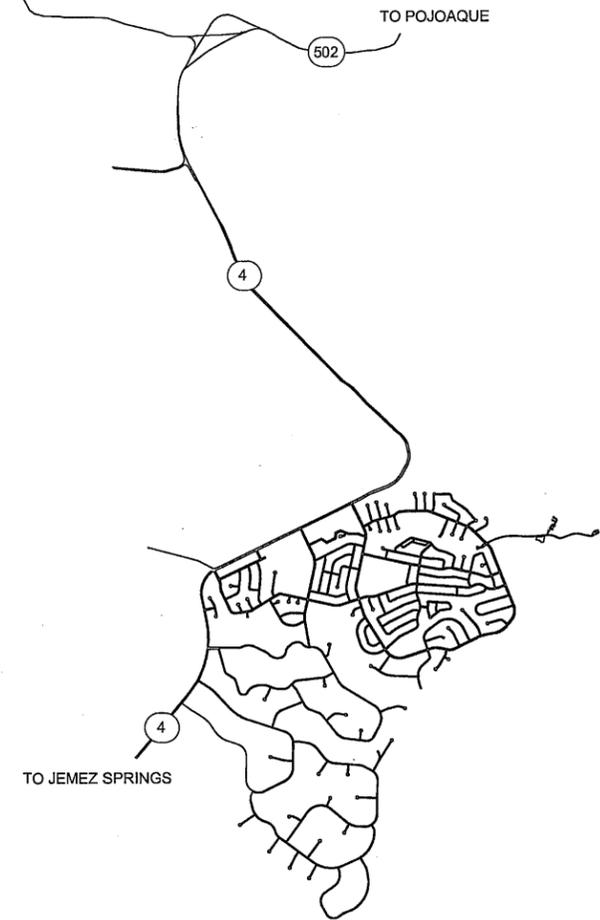
**NEW MEXICO REGIONAL MAP**  
NOT TO SCALE



**LOS ALAMOS VICINITY MAP**  
NOT TO SCALE

### SHEET INDEX

	TITLE SHEET
1	CONSTRUCTION NOTES SHEET
2	PROJECT OVERVIEW
3-13	NEW WATER DISTRIBUTION ALIGNMENT
14-16	STANDARDS SHEETS
17	PRV REHAB DETAILS



**WHITE ROCK VICINITY MAP**  
NOT TO SCALE

APPROVED BY: *James Martinez* DATE 8/12/2025  
 DEPARTMENT OF PUBLIC UTILITIES PROJECT ENGINEER

DEPARTMENT OF PUBLIC UTILITIES  
 ENGINEERING ASSOCIATE



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## DEPARTMENT OF PUBLIC UTILITIES CONSTRUCTION NOTES

### **GENERAL**

1. DEPTH OF TRENCH MAY BE DEEPER ALONG CERTAIN SEGMENTS OF PIPELINE TO CLEAR EXISTING UTILITIES AND TO AVOID THE CREATION OF HIGH POINTS ALONG THE ALIGNMENT. NO ADDITIONAL PAYMENT WILL BE MADE FOR INSTALLING PIPE DEEPER THAN MINIMUM REQUIRED DEPTH.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY, AND FOR KNOWLEDGE AND COMPLIANCE WITH OSHA STANDARDS. THE CONTRACTOR SHALL MAINTAIN ALL TRENCHES IN A SAFE CONDITION PROTECTING THE WORKERS AND THE GENERAL PUBLIC. TRENCH PROTECTION SHALL BE IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS. EXCAVATION SHALL BE SLOPED, BRACED, OR SHORT AS REQUIRED BY OSHA REGULATIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SAFE HANDLING OF CONSTRUCTION EQUIPMENT AND MATERIALS TO AND FROM THE STAGING/STORAGE AREA AND FOR SITE SECURITY. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND NO ADDITIONAL COMPENSATION SHALL BE MADE THEREFOR
3. ALL WATER, WASTEWATER, GAS AND ELECTRIC UTILITY INSTALLATIONS, RE-CONSTRUCTION OR REPAIR SHALL COMPLY WITH LOS ALAMOS COUNTY DEPARTMENT OF PUBLIC UTILITIES (DPU) CONSTRUCTION STANDARDS AND THE RELEVANT STANDARD DRAWINGS.
4. SUBMITTALS FOR ALL GAS, WATER, SEWER, ELECTRIC AND COUNTY OWNED COMMUNICATION INFRASTRUCTURE SHALL BE SUBMITTED TO THE DPU PROJECT MANAGER FOR REVIEW AND APPROVAL PER THE DPU STANDARD SPECIFICATIONS. SUBMITTALS SHALL INCLUDE THE COVER SHEET IN THE DPU CONSTRUCTION STANDARDS.
5. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A NEW MEXICO LICENSED PROFESSIONAL SURVEYOR (NMPS), FOR CONSTRUCTION STAKING, AS WELL AS VERIFICATION OF ALL CRITICAL HORIZONTAL AND VERTICAL CONTROL DATA SHOWN ON THESE CONTRACT DRAWINGS. CONTRACTOR SHALL PROVIDE COORDINATE INFORMATION FOR ALL NEW SAS MANHOLES, WATER AND GAS VALVES, ALL BASED ON STATE PLANE COORDINATES.
6. FOR ANY WORK INVOLVING NEW WATER, GAS OR SEWER PIPELINE CONNECTING TO AN EXISTING PIPELINE, CONTRACTOR SHALL OBTAIN A PENETRATION PERMIT FROM THE COUNTY, AT LEAST 48 HOURS IN ADVANCE OF ANY SUCH WORK. THE PERMIT APPLICATION FORM FOR THIS PERMIT CAN BE FOUND AT:

<https://www.losalamosnm.us/Permitting-Information/Add-or-Modify-Utility-Services>

7. CONTRACTOR SHALL BE RESPONSIBLE FOR POTHOLING, TO DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES, PRIOR TO PERFORMING ANY EXCAVATION WORK.
8. PRIOR TO CONNECTING NEW WATER LINES INTO THE EXISTING SYSTEMS THE LOCATE WIRE SHALL BE TESTED AS FOLLOWS. CONTRACTOR WILL ENSURE THAT ALL LOCATE WIRE HAS BEEN INSTALLED AND MADE ACCESSIBLE IN ALL REQUIRED LOCATIONS. CONTRACTOR WILL VERIFY CONTINUITY IN THE LOCATE WIRE WITH THEIR OWN LOCATE EQUIPMENT. THE LOCATED LOCATION WILL BE PAINTED WITH WHITE PAINT AND DPU STAFF WILL THEN VERIFY THE LOCATION AND CONTINUITY OF THE LOCATE WIRE WITH THEIR OWN EQUIPMENT. ANY AREAS WHERE CONTINUITY IS LOST MUST BE REPAIRED AND RE-VERIFIED BY DPU STAFF TO BE LOCATEABLE. CONTRACTOR SHALL COORDINATE THE LOCATE WIRE VERIFICATION WITH DPU PROJECT MANAGER.
9. INFORMATION SPECIFICALLY STATED IN THE CONTRACT DRAWINGS, OR WHEN THE DPU PROJECT MANAGER SPECIFICALLY IDENTIFIES IN THE FIELD, CRITICAL DATA (X, Y, AND Z) RELATED TO WATER VALVES OF ALL KINDS, WATER METERS, FIRE HYDRANTS, CULVERT INLET OR OUTLET INVERTS, WASTEWATER COLLECTION MANHOLE INVERTS AND RIMS, CUSTOMER END OF WASTEWATER SERVICE CONNECTION PIPES/CLEANOUT, SHALL BE COLLECTED BY THE CONTRACTOR'S SURVEYOR FOR THE RECORD DRAWINGS TO BE COMPLETE.
10. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PROTECTION OF SURVEY MONUMENTS OR MARKS. IF CONTRACTOR'S ACTIVITIES CAUSED DAMAGE TO ANY OF THESE MARKS, CONTRACTOR SHALL RETAIN, AT THEIR OWN EXPENSE, THE SERVICES OF A NMLPS, TO RE-ESTABLISH THE MARKS IN COMPLIANCE WITH STANDARDS AND PROCEDURES SET FORTH BY THE "GEODETIC MARK PRESERVATION GUIDEBOOK".
11. CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF THE CLEAN WATER ACT, RELATED TO STORM WATERS. CONTRACTOR SHALL PREPARE, EXECUTE AND MAINTAIN A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), IF THE AREA DISTURBED BY THE CONSTRUCTION OPERATIONS IS ONE ACRE OR MORE IN SIZE. COSTS ASSOCIATED WITH CLEAN WATER ACT COMPLIANCE, INCLUDING BMP'S, SHALL BE INCIDENTAL TO THE PROJECT'S COST.
12. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE COSTS OF REPAIRING ANY DAMAGE OR ALTERATIONS CAUSED DURING EXECUTION OF THIS PROJECT, TO THE ORIGINAL CONDITION OF THIRD PARTY'S PROPERTY (E.G. STRUCTURES, EXISTING UTILITIES OR UTILITY EASEMENTS) LOCATED WITHIN OR OUT OF THE PROJECT BOUNDARIES.
13. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PROTECTION OF ALL PROJECT-RELATED MATERIALS OR EQUIPMENT, BEFORE INSTALLATION, UNTIL FINAL WRITTEN ACCEPTANCE APPROVAL OF THE PROJECT BY THE DPU PROJECT MANAGER AND THE COUNTY.
14. ALL MATERIAL QUALITY TESTS SHALL BE PERFORMED BY A RECOGNIZED LABORATORY. SUCH A LABORATORY SHALL BE OPERATED UNDER THE AUSPICES/DIRECTION OF AN NMPE. NAME AND CONTACT OF THE LABORATORY SHALL BE SUBMITTED BY THE CONTRACTOR TO THE DPU PROJECT MANAGER AS SOON AS PRACTICAL AFTER THE CONTRACTOR'S RECEIPT OF THE NOTICE TO PROCEED.
15. CONTRACTOR SHALL PROVIDE THE INSTALLATION AND MAINTENANCE OF ANY NECESSARY TRAFFIC CONTROL DEVICES AS OTHERWISE REQUIRED BY LOS ALAMOS COUNTY TRAFFIC MANAGER. TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE MOST CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), BUT MAY BE REVISED UNDER WRITTEN DIRECTION FROM THE COUNTY TRAFFIC ENGINEER.
16. CONTRACTOR SHALL NOTIFY THE DPU PROJECT MANAGER, AT LEAST FIVE (5) DAYS IN ADVANCE OF ANY WORK THAT MAY AFFECT THE OPERATION OF THE PUBLIC UTILITY SYSTEMS (WATER, WASTEWATER, GAS AND ELECTRIC).
17. ALL STRUCTURAL OR UTILITY TRENCH FILL OR BACKFILL SHALL BE FREE OF VEGETATION AND DEBRIS AND CONTAIN NO ROCKS LARGER THAN 3-INCHES.
18. ALL AREAS DISTURBED BY THE CONSTRUCTION ACTIVITIES OF THIS PROJECT, INCLUDING PRIVATE LANDSCAPING, SHALL BE RESTORED.

### **WATER PIPELINES**

1. THE PIPELINE SHALL BE SUPPLIED AND INSTALLED IN STRICT COMPLIANCE WITH THE DEPARTMENT OF PUBLIC UTILITIES CONSTRUCTION STANDARDS. CONTRACTOR SHALL NOTIFY THE DPU PROJECT MANAGER IMMEDIATELY UPON ENCOUNTERING FIELD CONDITIONS THAT MAY REQUIRE DEVIATIONS FROM THESE STANDARDS.
  2. CONTRACTOR SHALL INSTALL PIPELINE SO THAT HIGH POINTS ARE NOT CREATED, UNLESS SPECIFICALLY SHOWN ON APPROVED CONSTRUCTION DRAWINGS. THE PIPE SHALL BE PLACED WITH A UNIFORM GRADE, NO VERTICAL BENDS ARE ALLOWED.
  3. MINIMUM BURY SHALL BE 48 INCHES FOR MAINS AND 36 INCHES FOR SERVICE LINES, AT ALL POINTS ALONG THE ALIGNMENT.
  4. ALL FIRE HYDRANTS SHALL BE INSTALLED WITH A MINIMUM 4-FOOT HORIZONTAL CLEARANCE ALL AROUND THEM.
- CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE DISINFECTION, CHLORINATION, CHLORINE RESIDUAL TESTING, AND HYDROSTATIC (PRESSURE) TESTING OF ALL WATER PIPES INSTALLED. PRESSURE TEST SHALL BE DOCUMENTED ON FORM INCLUDED IN STANDARD SPECIFICATION. DPU PROJECT MANAGER SHALL WITNESS ALL SUCH TESTING



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DESIGNED BY: SH	DRAWN BY: SH	APPROVED BY: JAM	DATE: 10/24/2024	SCALE:
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**SAN ILDEFONSO ROAD  
8" WATERLINE REPLACEMENT  
CONSTRUCTION NOTES**



**INCORPORATED COUNTY  
OF LOS ALAMOS**  
DEPARTMENT OF PUBLIC UTILITIES  
1000 CENTRAL AVE., SUITE 150  
LOS ALAMOS, NEW MEXICO 87544  
(505) 662-8150 FAX: (505) 662-8109

SHEET  
**1**

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### GENERAL NOTES

- NEW WATER LINE SHALL CONSIST OF APPROXIMATELY 4800' OF 12" PVC, AWWA C900, DR-18 CLASS 19 PIPE
- PROJECT INCLUDES THE INSTALLATION OF TWO NEW PRESSURE REDUCING VAULTS AND APPURTENANCES. TWO EXISTING VAULTS ARE TO BE ABANDONED.
- THREE ADDITIONAL PRV VAULTS REQUIRE REHABILITATION AND VALVE REPLACEMENT.
- CONNECTIONS BETWEEN NEW WATER LINE AND NEW PRVS SHALL CONSIST OF TWO SECTIONS TOTALING APPROXIMATELY 190' OF 8" PVC, AWWA C900, DR-18 CLASS 19 PIPE

Attachment B



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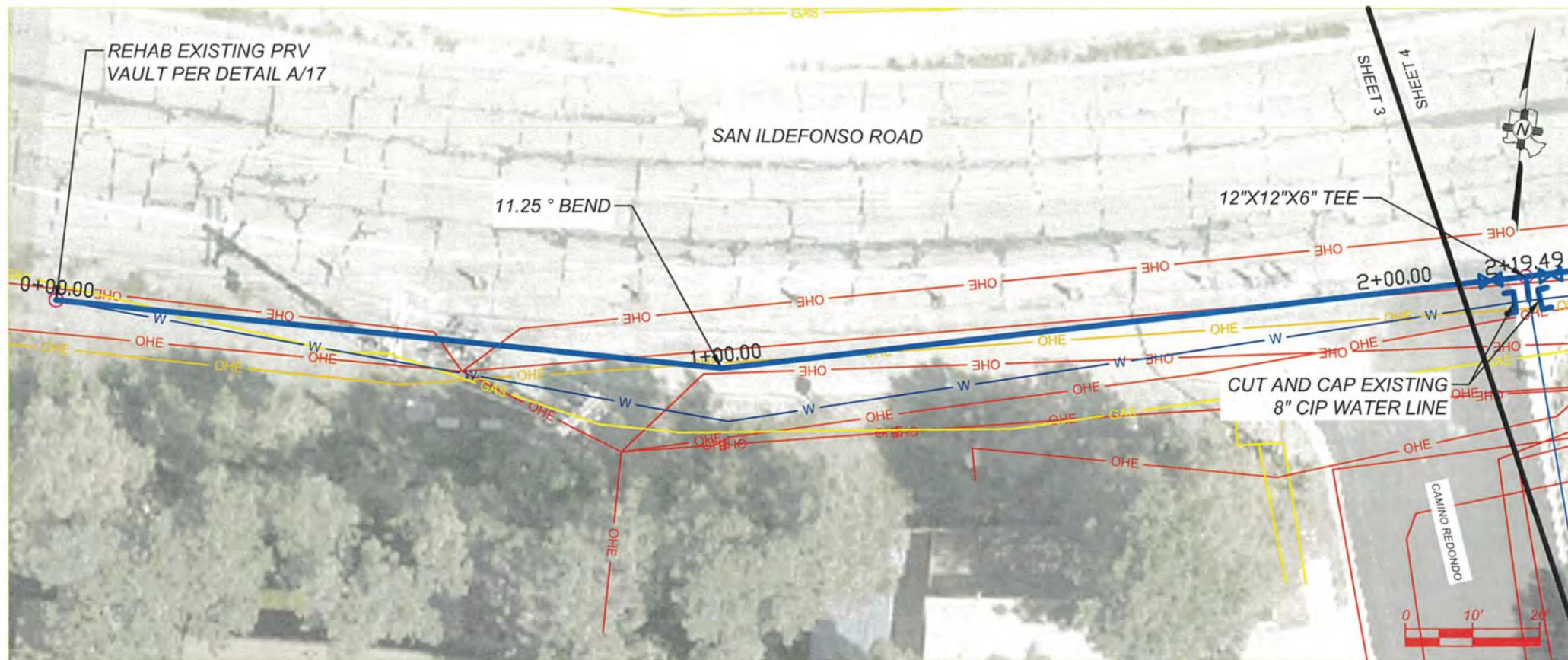
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APPROVED BY:	JAM
DATE:	10/24/2024
SCALE:	

SAN ILDEFONSO ROAD  
8" WATERLINE REPLACEMENT  
PROJECT OVERVIEW



INCORPORATED COUNTY  
OF LOS ALAMOS  
DEPARTMENT OF PUBLIC UTILITIES  
1000 CENTRAL AVE. SUITE 130  
LOS ALAMOS, NEW MEXICO 87544  
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SHEET  
**2**



### LEGEND

	NEW WATER LINE
	NEW GATE VALVE
	EXISTING OVERHEAD ELECTRIC
	EXISTING UNDERGROUND ELECTRIC
	EXISTING WATER LINE
	EXISTING GAS LINE
	EXISTING OVERHEAD COM LINE
	EXISTING SEWER LINE

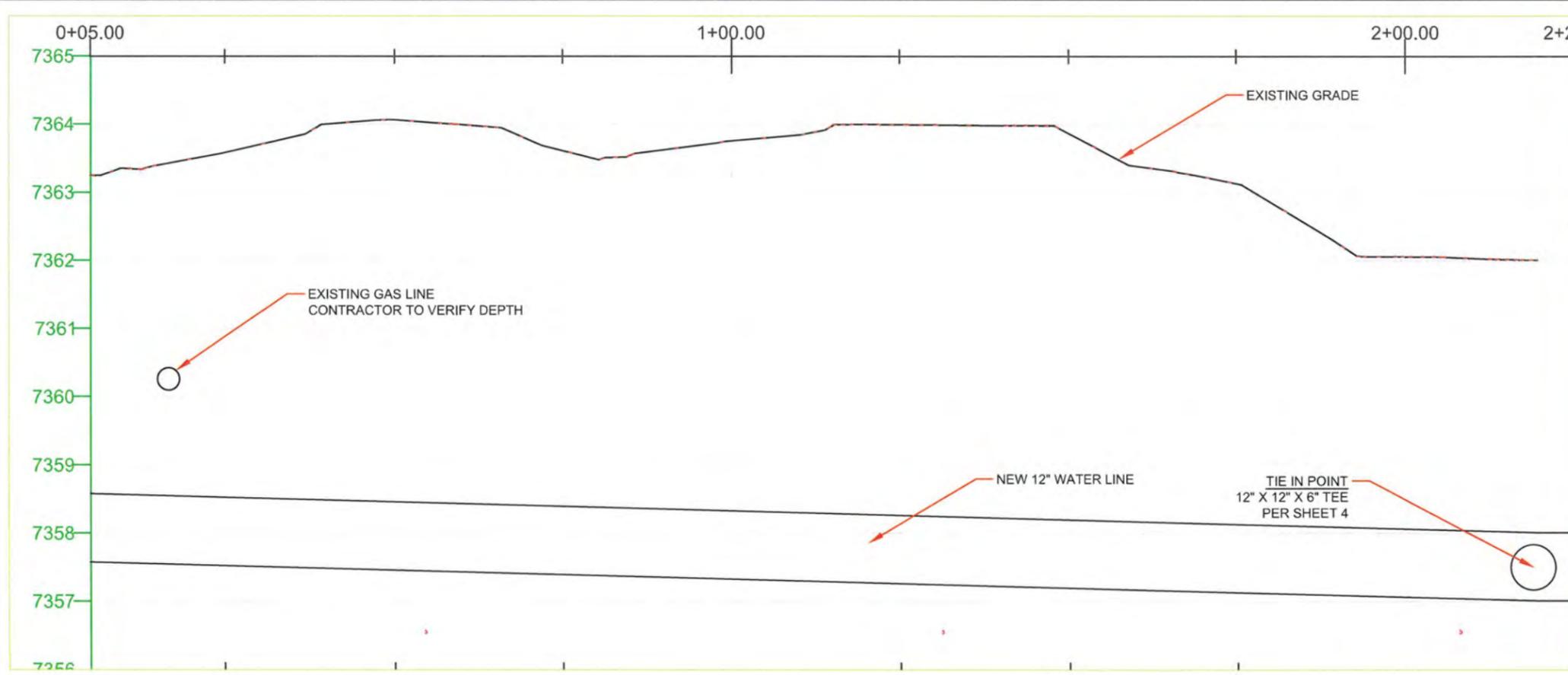
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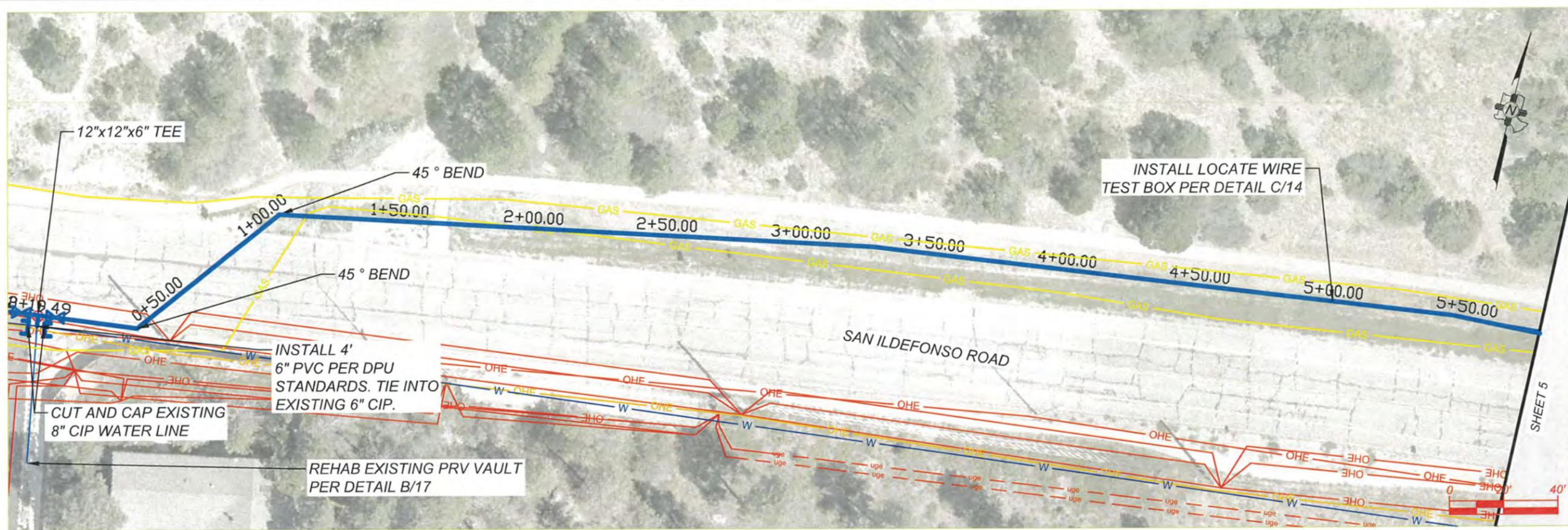
**SAN ILDEFONSO ROAD  
8" WATERLINE REPLACEMENT  
12" WATERLINE ALIGNMENT**



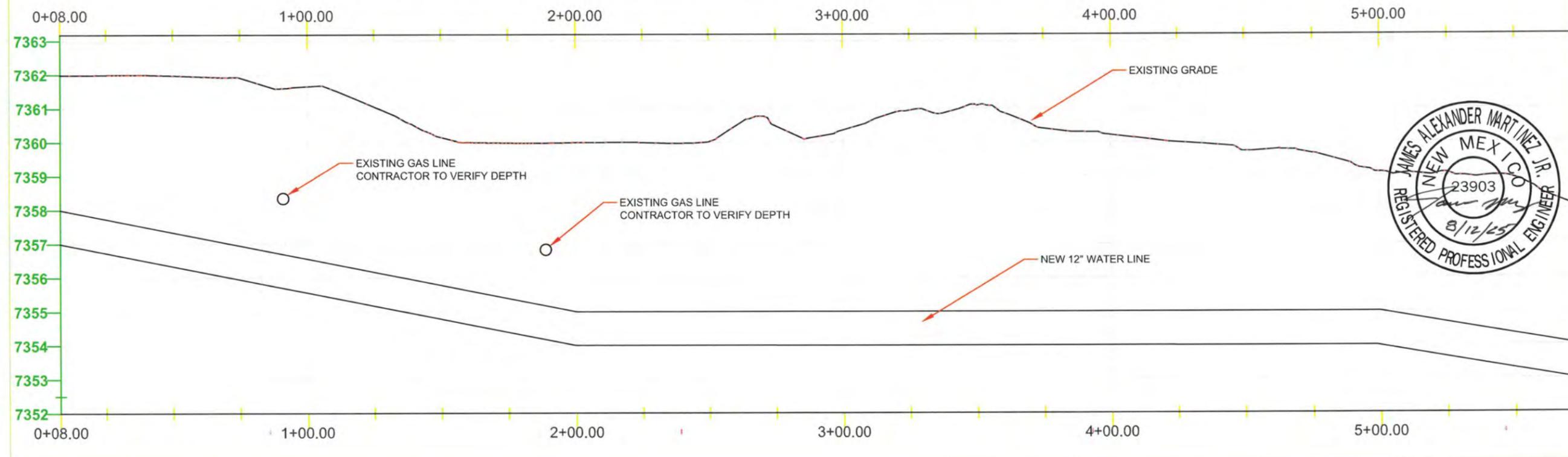
INCORPORATED COUNTY  
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### NEW 12" HYDRAULIC PROFILE - ADJUST GRADE PER FIELD CONDITIONS



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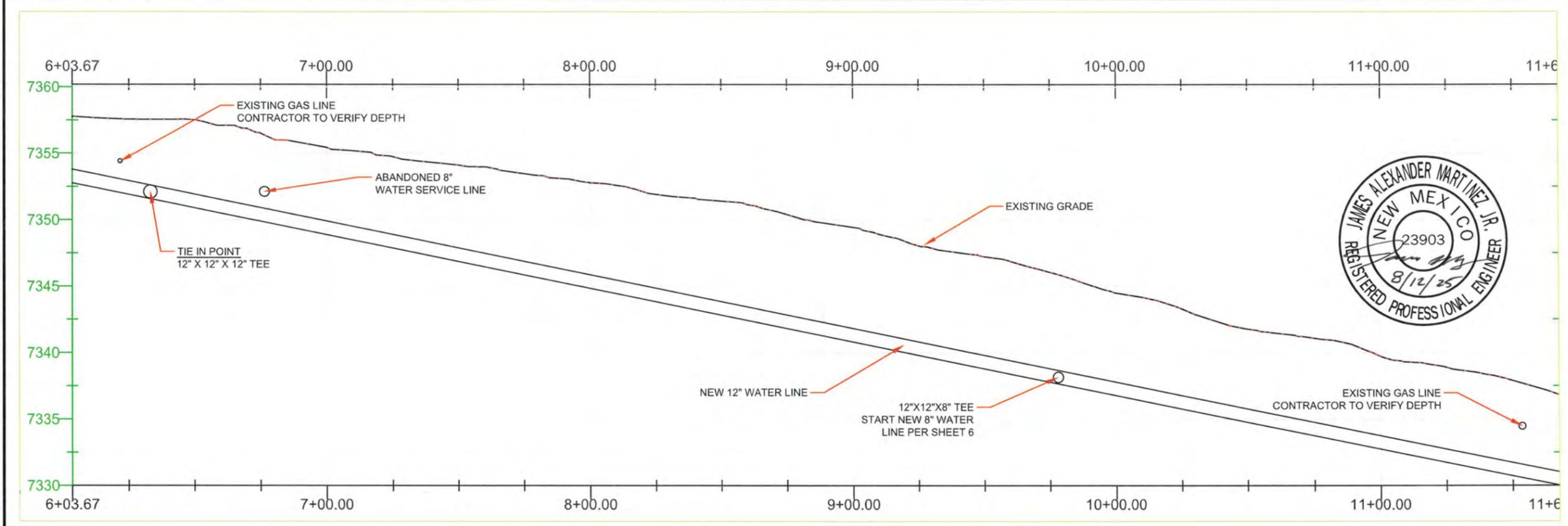
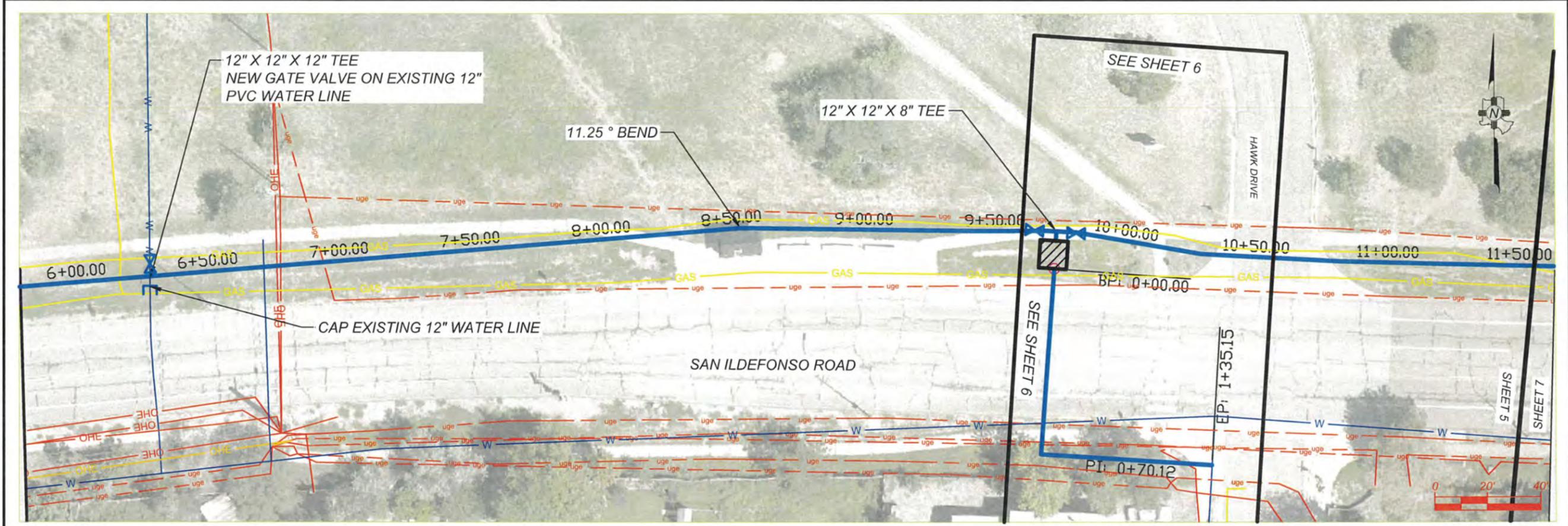
**SAN ILDEFONSO ROAD**  
**8" WATERLINE REPLACEMENT**  
**12" WATERLINE ALIGNMENT**



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**SHEET**  
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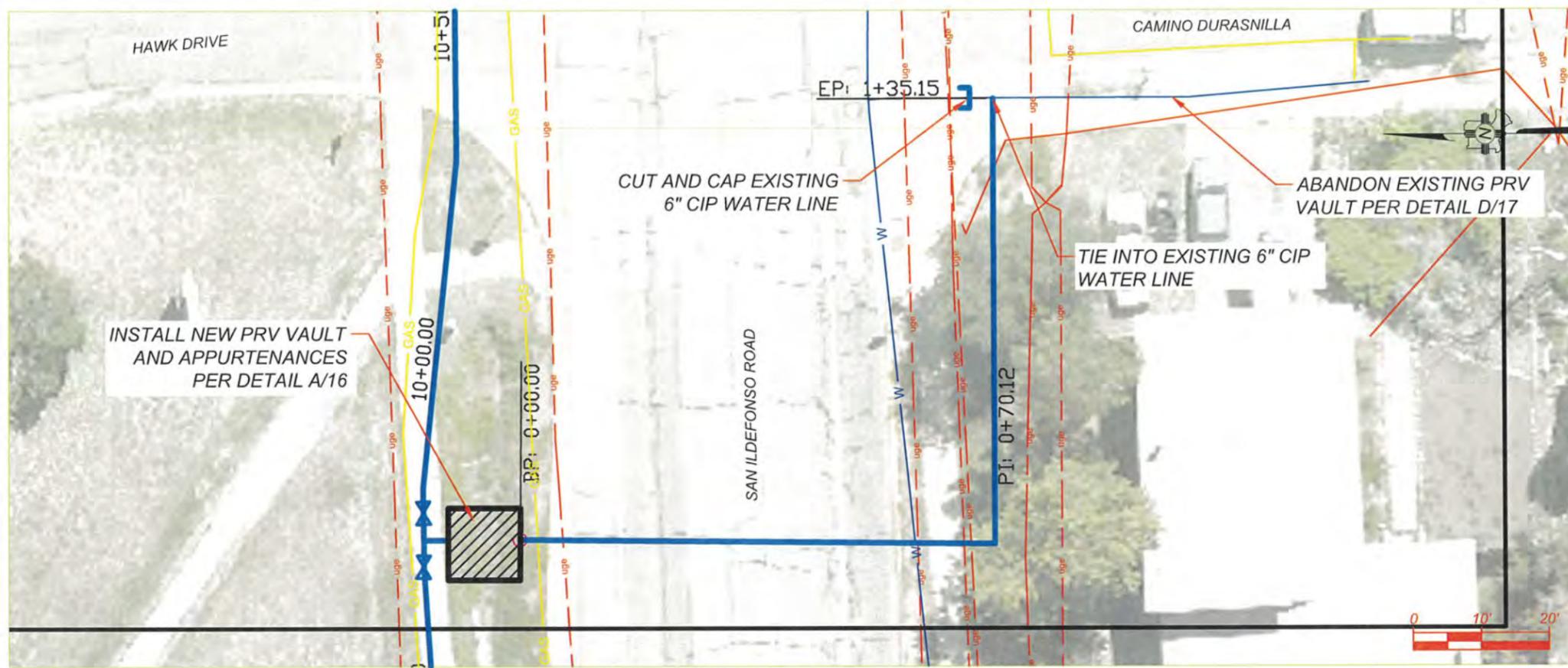
**SAN ILDEFONSO ROAD**  
**8" WATERLINE REPLACEMENT**  
**12" WATERLINE ALIGNMENT**



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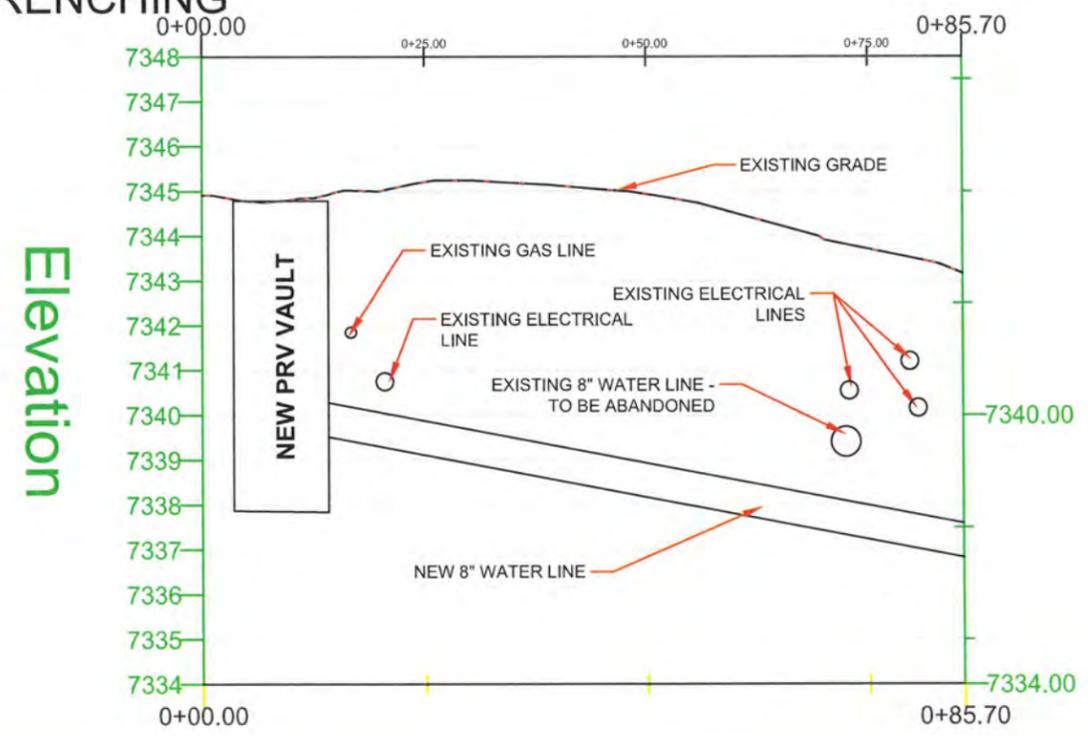
### LEGEND

- NEW WATER LINE
- NEW GATE VALVE
- OHE EXISTING OVERHEAD ELECTRIC
- - - uge EXISTING UNDERGROUND ELECTRIC
- W EXISTING WATER LINE
- GAS EXISTING GAS LINE
- OHE EXISTING OVERHEAD COM LINE
- SAS EXISTING SEWER LINE

### GENERAL NOTE:

ALL UTILITIES SHALL HAVE A MINIMUM OF 12" VERTICAL AND HORIZONTAL SEPARATION

### NEW 8" HYDRAULIC PROFILE - CONTRACTOR TO POT HOLE EVERY UTILITY CROSSING PRIOR TO TRENCHING



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SAN ILDEFONSO ROAD  
8" WATERLINE REPLACEMENT  
8" WATERLINE ALIGNMENT

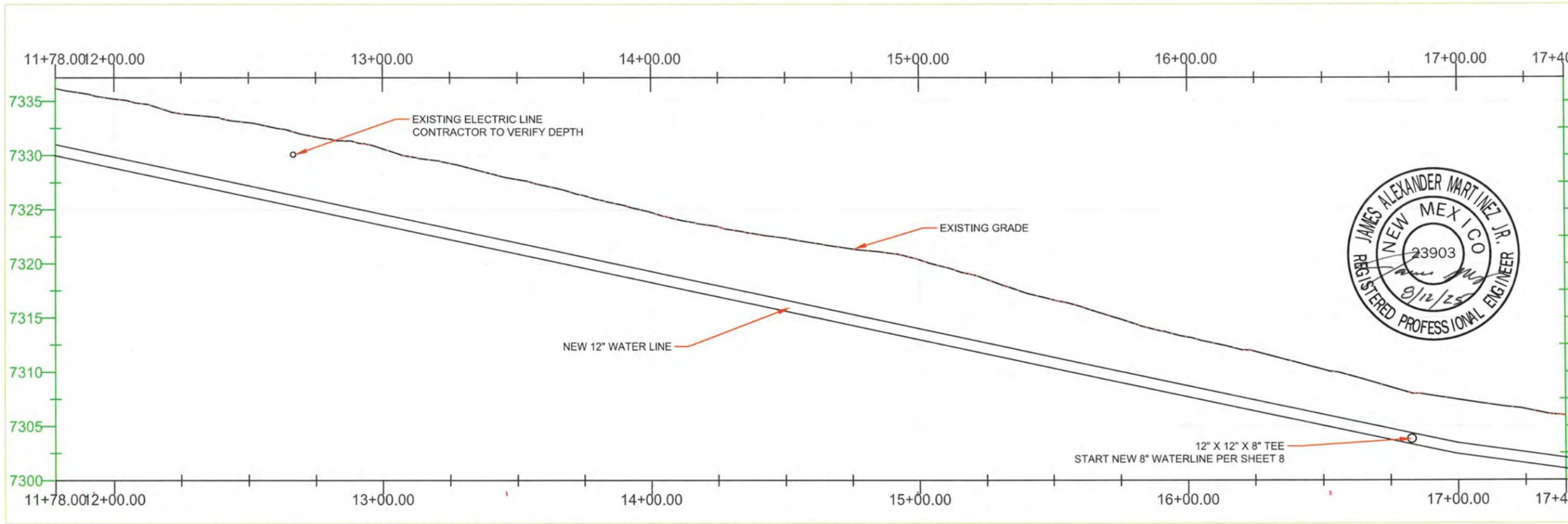
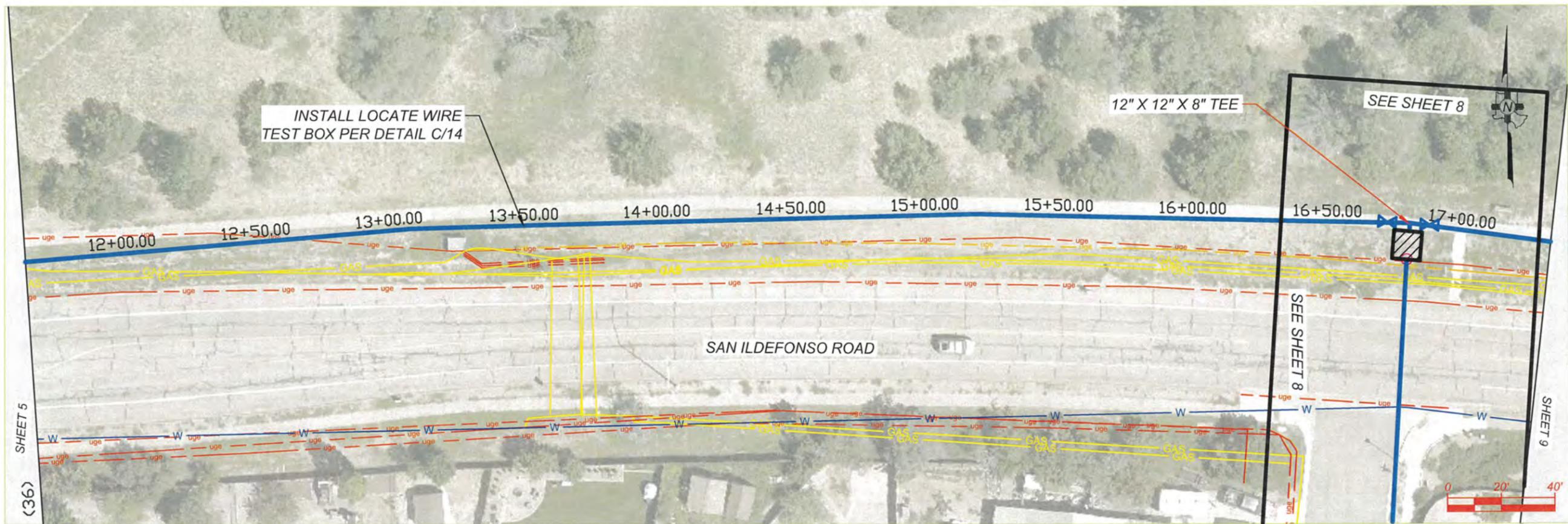


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APPROVED BY:	JM
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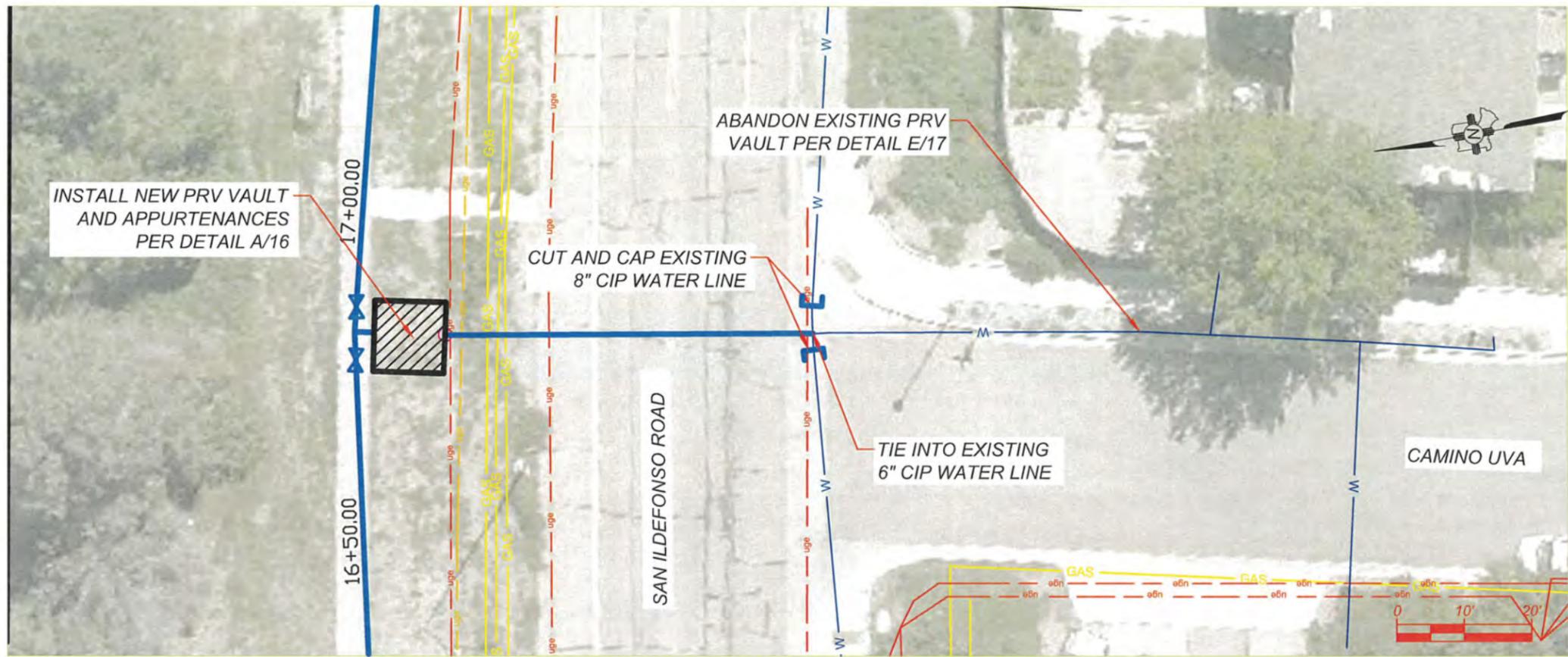
**SAN ILDEFONSO ROAD**  
**12" WATERLINE REPLACEMENT**  
**12" WATERLINE ALIGNMENT**



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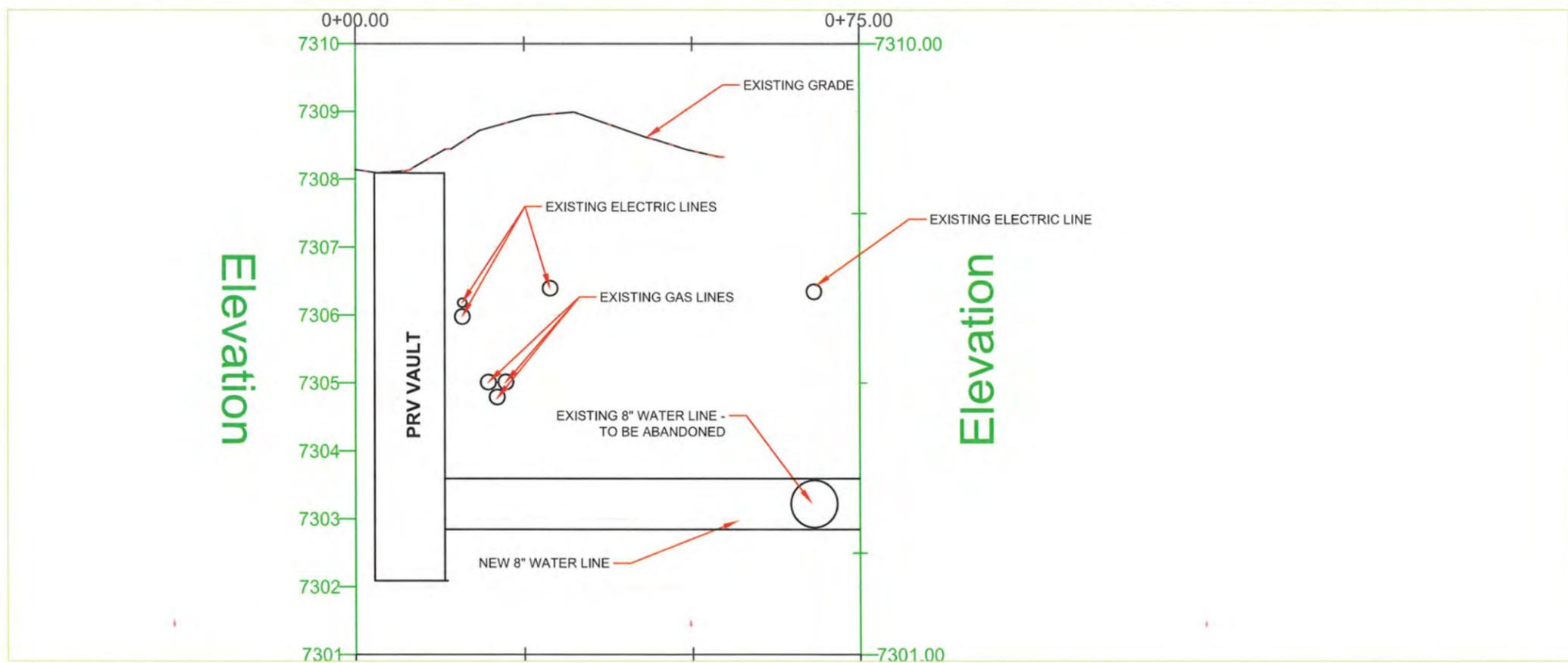


### LEGEND

- NEW WATER LINE
- X NEW GATE VALVE
- OHE EXISTING OVERHEAD ELECTRIC
- - - uge EXISTING UNDERGROUND ELECTRIC
- W EXISTING WATER LINE
- GAS EXISTING GAS LINE
- OHE EXISTING OVERHEAD COM LINE
- SAS EXISTING SEWER LINE

### GENERAL NOTE:

CONTRACTOR TO  
POTHOLE EVERY UTILITY  
CROSSING PRIOR TO  
TRENCHING



NO.	REVISION DESCRIPTION
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SAN ILDEFONSO ROAD  
 8" WATERLINE REPLACEMENT  
 8" WATERLINE ALIGNMENT

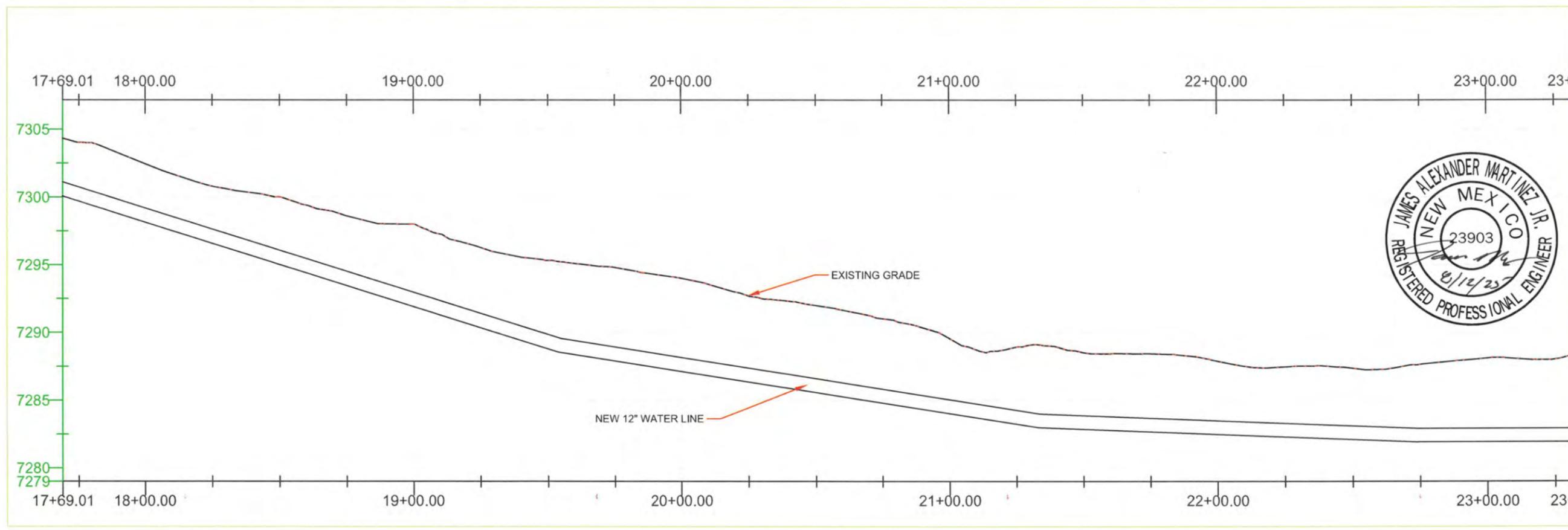
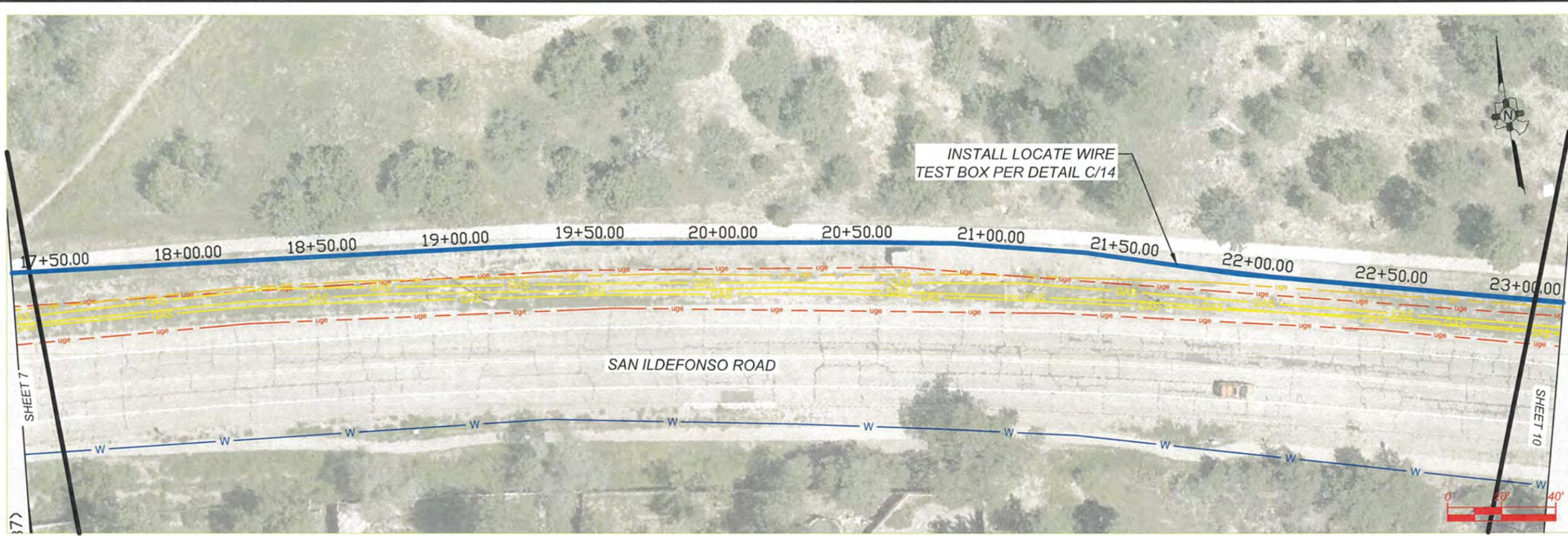


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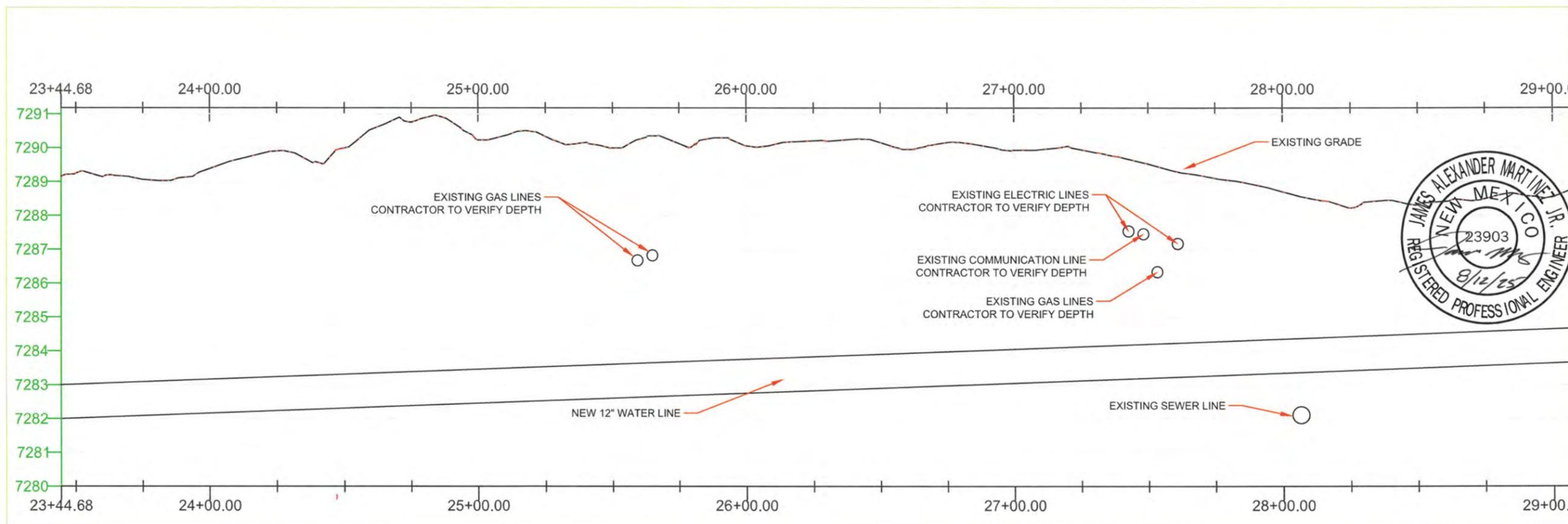
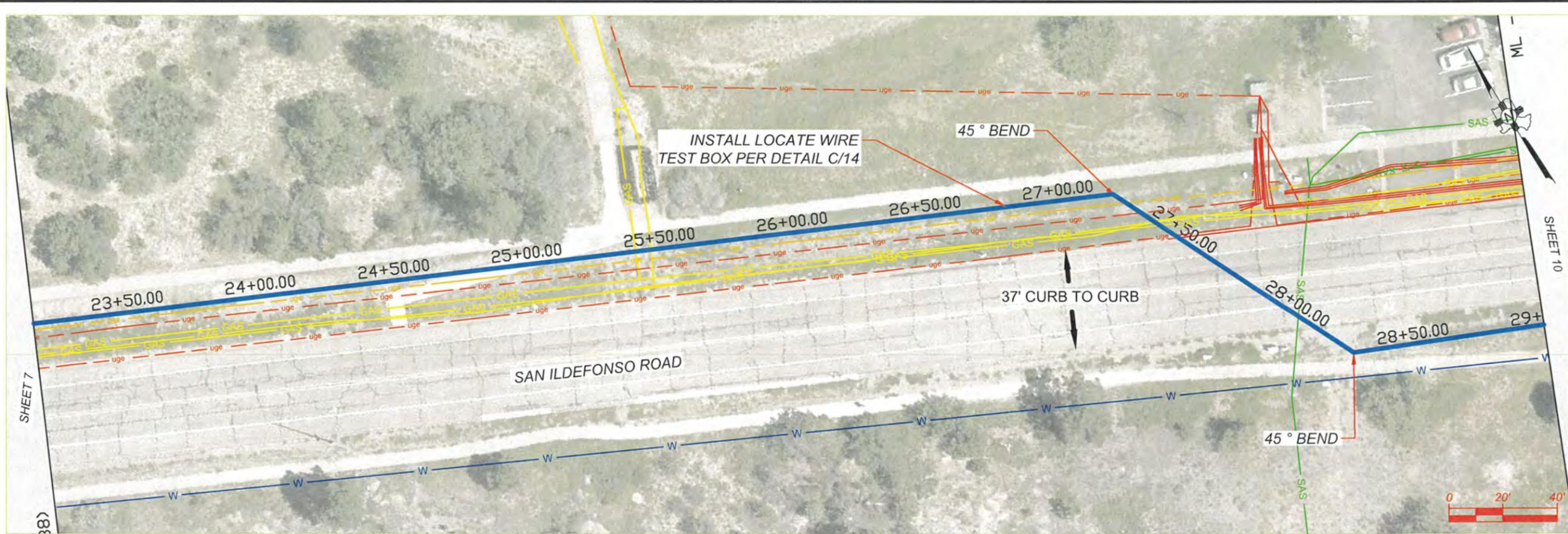
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**SAN ILDEFONSO ROAD**  
**8" WATERLINE REPLACEMENT**  
**12" WATERLINE ALIGNMENT**



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 (505) 662-8150 FAX: (505) 662-8109

**SHEET**  
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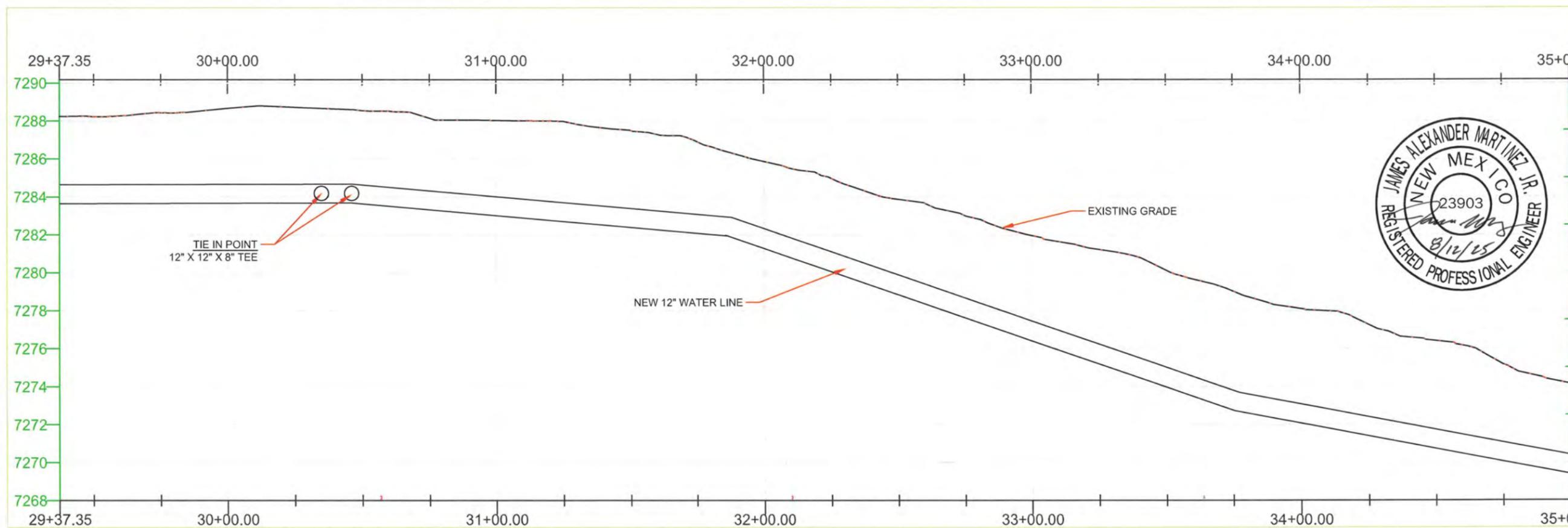
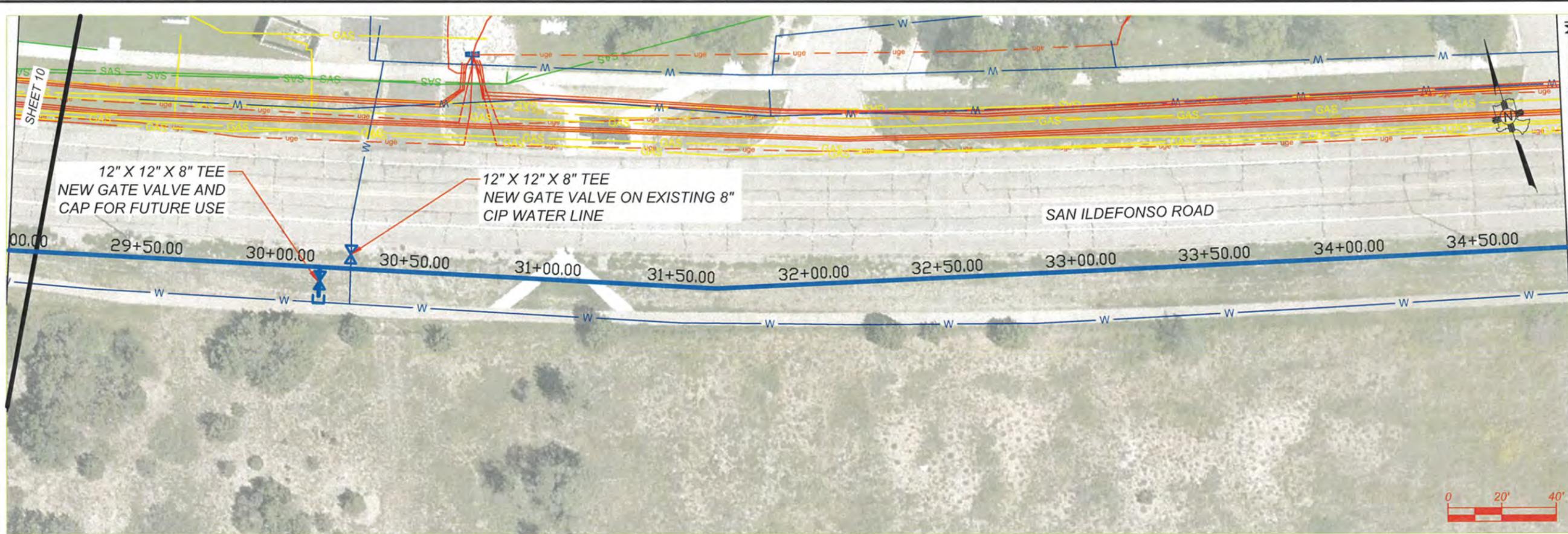
**SAN ILDEFONSO ROAD**  
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**12" WATERLINE ALIGNMENT**



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 (505) 662-8150 FAX: (505) 662-8109

**SHEET**  
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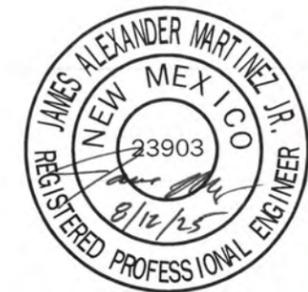
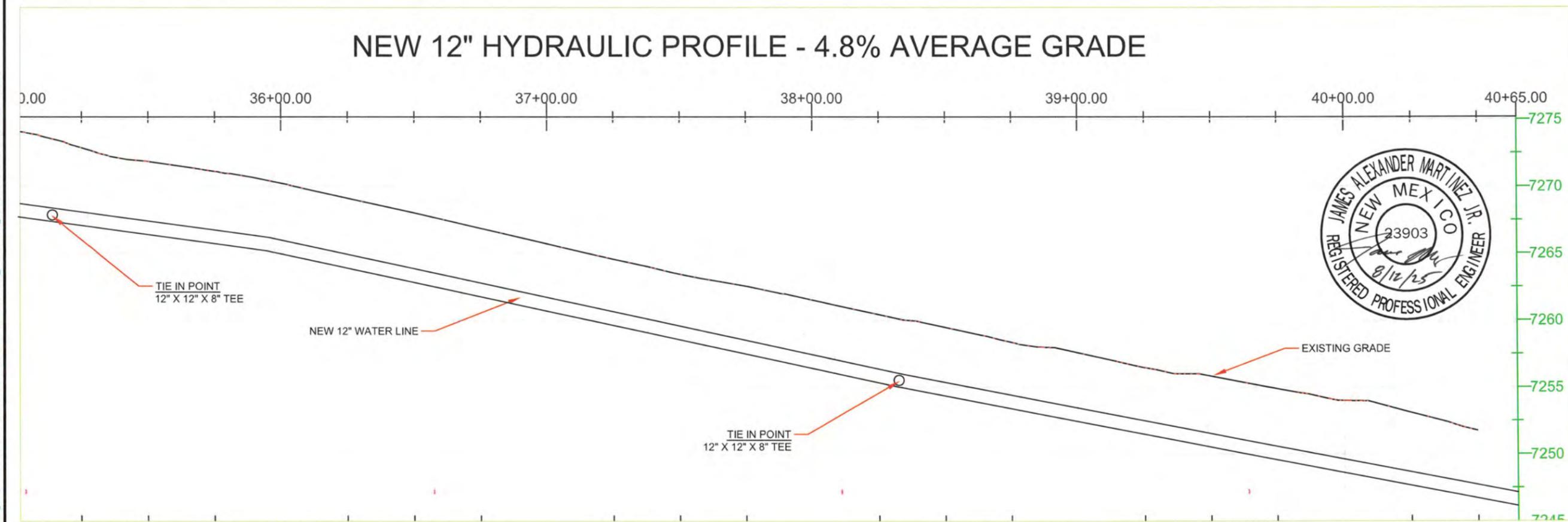
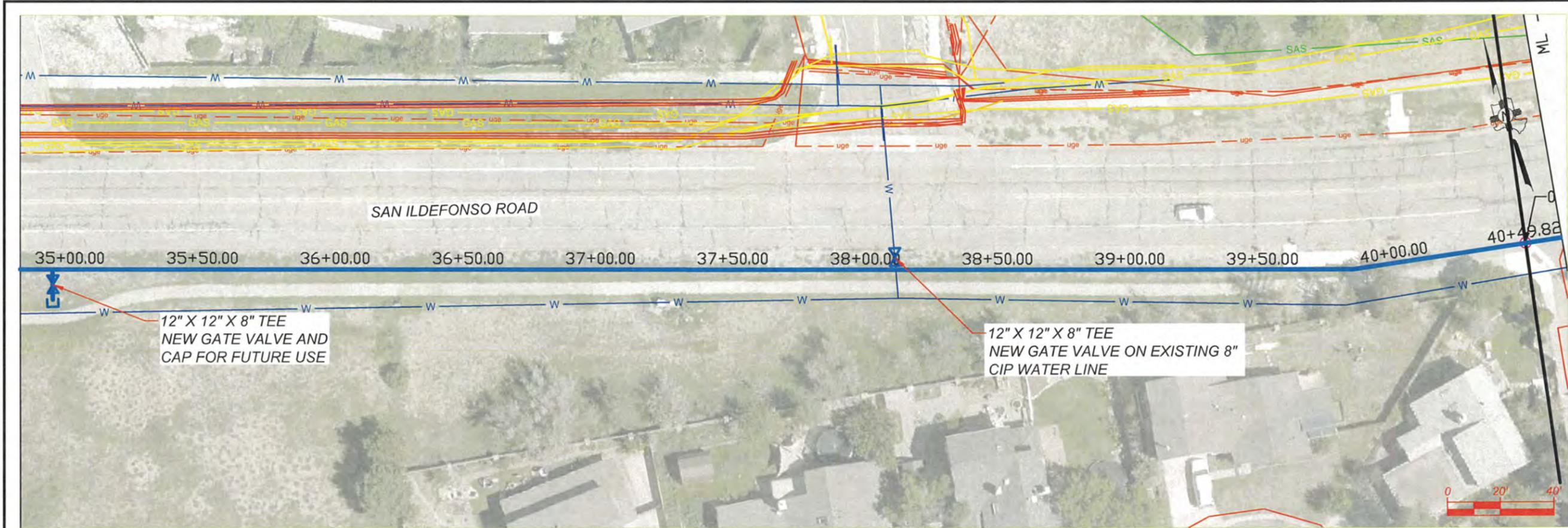
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**12" WATERLINE ALIGNMENT**



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SHEET  
**11**

Drawing File: L:\PROJECTS\IFB 2025\XX SAN ILDEFONSO WATER LINE\03 DESIGN\CAD\_DWG\5140 SCALE SHEETS\SHEET 12.DWG



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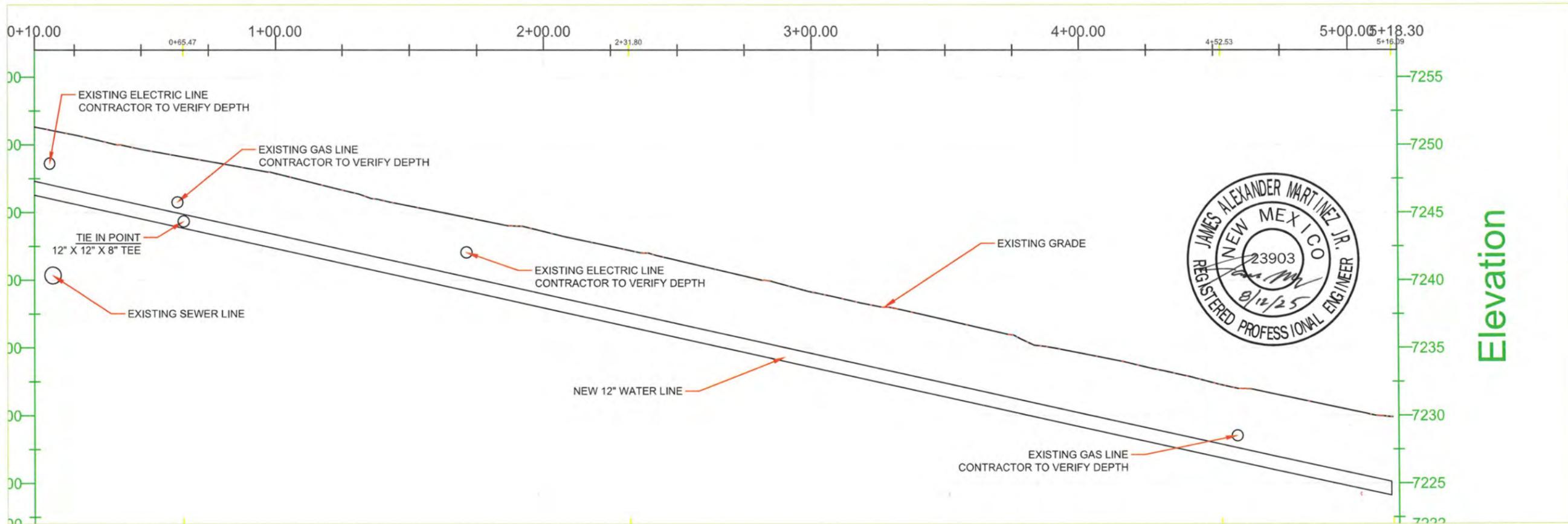
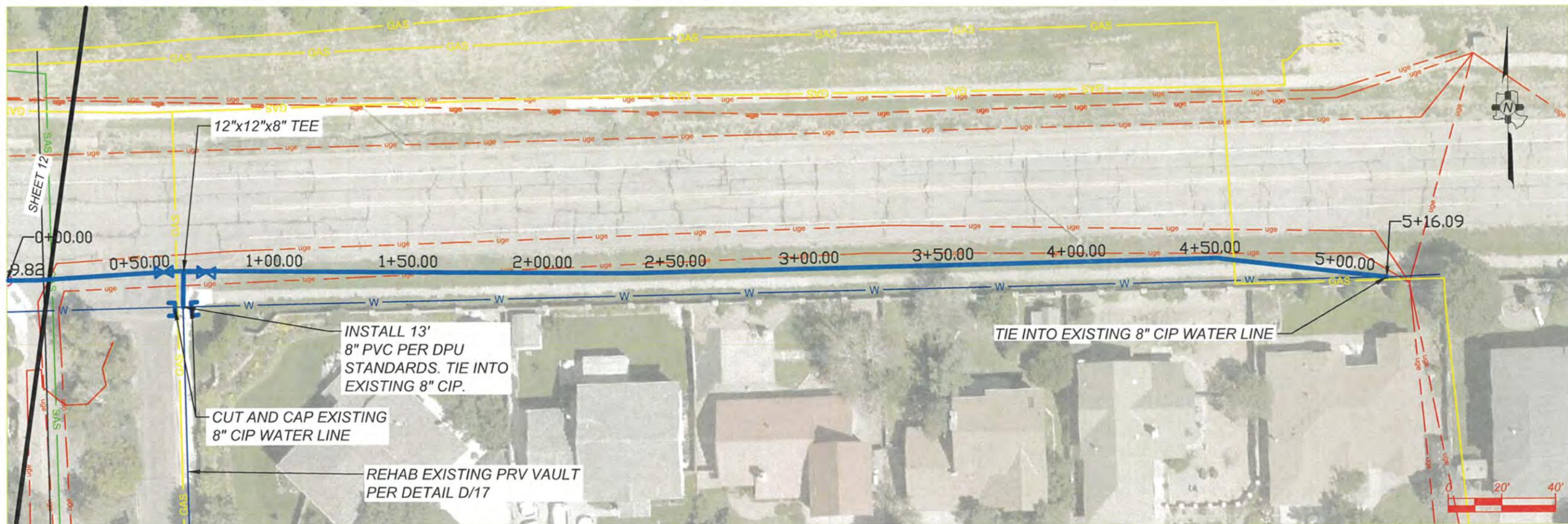
DESIGNED BY:	SH
DRAWN BY:	SH
APPROVED BY:	JM
DATE:	3/31/2025
SCALE:	1"=40'

**SAN ILDEFONSO ROAD**  
**8" WATERLINE REPLACEMENT**  
**12" WATERLINE ALIGNMENT**



INCORPORATED COUNTY  
 OF LOS ALAMOS  
 PUBLIC WORKS DEPARTMENT  
 1000 CENTRAL AVE., SUITE 160  
 LOS ALAMOS, NEW MEXICO 87544  
 (505) 662-8150 FAX: (505) 662-8109

SHEET  
**12**



NO.	REVISION DESCRIPTION
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DESIGNED BY:	SH
DRAWN BY:	SH
APPROVED BY:	JM
DATE:	3/31/2025
SCALE:	1"=40'

**SAN ILDEFONSO ROAD**  
**8" WATERLINE REPLACEMENT**  
**12" WATERLINE ALIGNMENT**

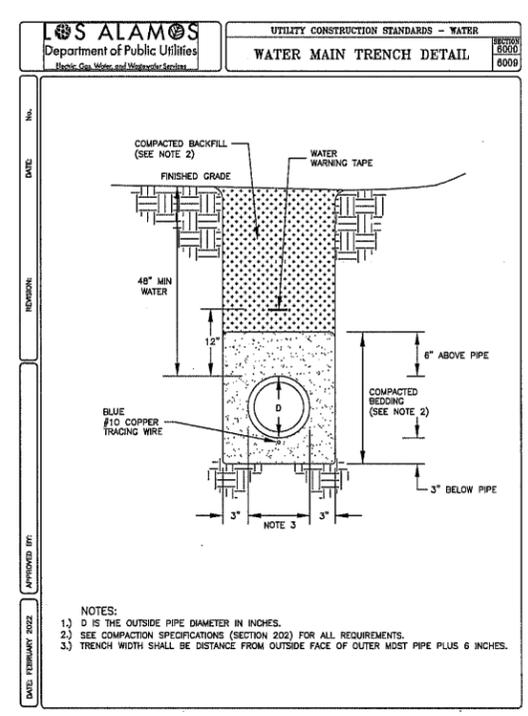


INCORPORATED COUNTY  
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 PUBLIC WORKS DEPARTMENT  
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 LOS ALAMOS, NEW MEXICO 87544  
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SHEET  
**13**

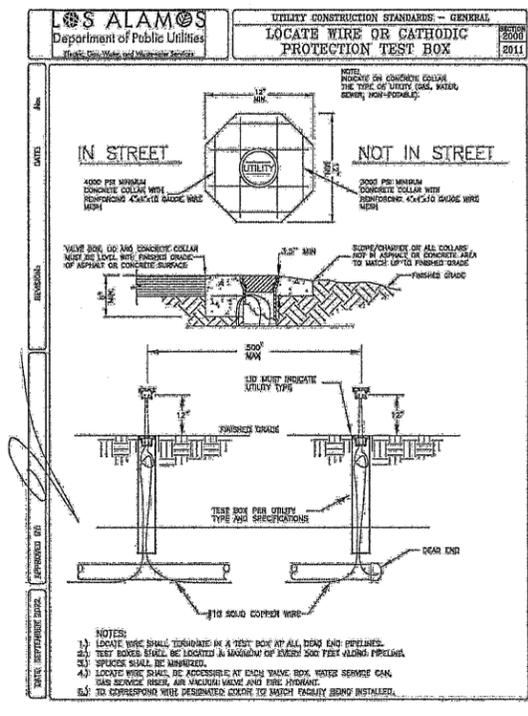
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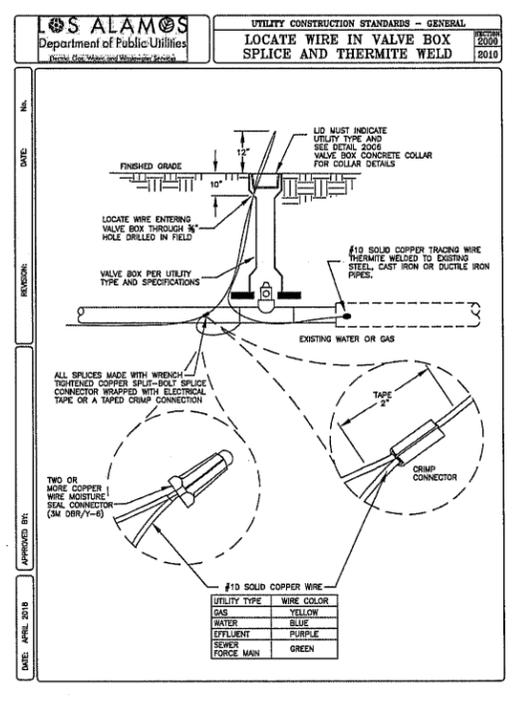
**A**  
14

**WATER MAIN TRENCH**  
SCALE: NTS



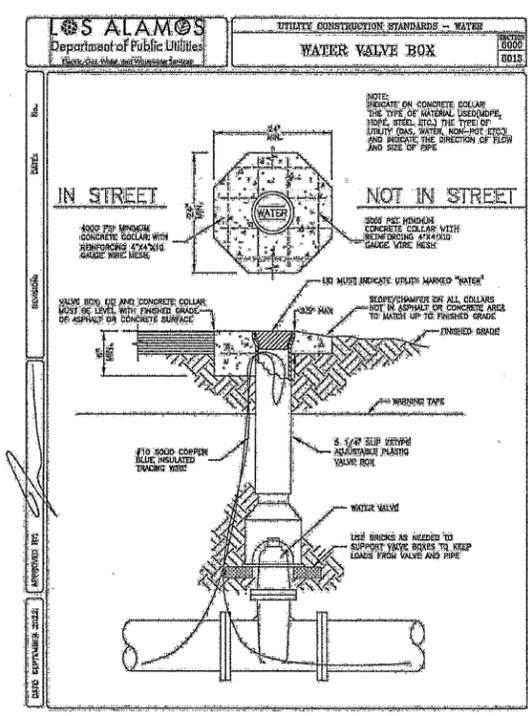
**C**  
14

**LOCATE WIRE TEST BOX**  
SCALE: NTS



**C**  
14

**LOCATE WIRE IN VALVE BOX**  
SCALE: NTS



**B**  
14

**WATER VALVE BOX**  
SCALE: NTS



NO.	REVISION DESCRIPTION
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DESIGNED BY: SH  
DRAWN BY: SH  
APPROVED BY: JAM  
DATE: 10/24/2024  
SCALE:

**SAN ILDEFONSO ROAD  
8" WATERLINE REPLACEMENT  
DETAILS-1**



INCORPORATED COUNTY  
OF LOS ALAMOS  
DEPARTMENT OF PUBLIC UTILITIES  
1000 CENTRAL AVE., SUITE 150  
LOS ALAMOS, NEW MEXICO 87544  
(505) 862-8150 FAX: (505) 682-8109

SHEET  
**14**

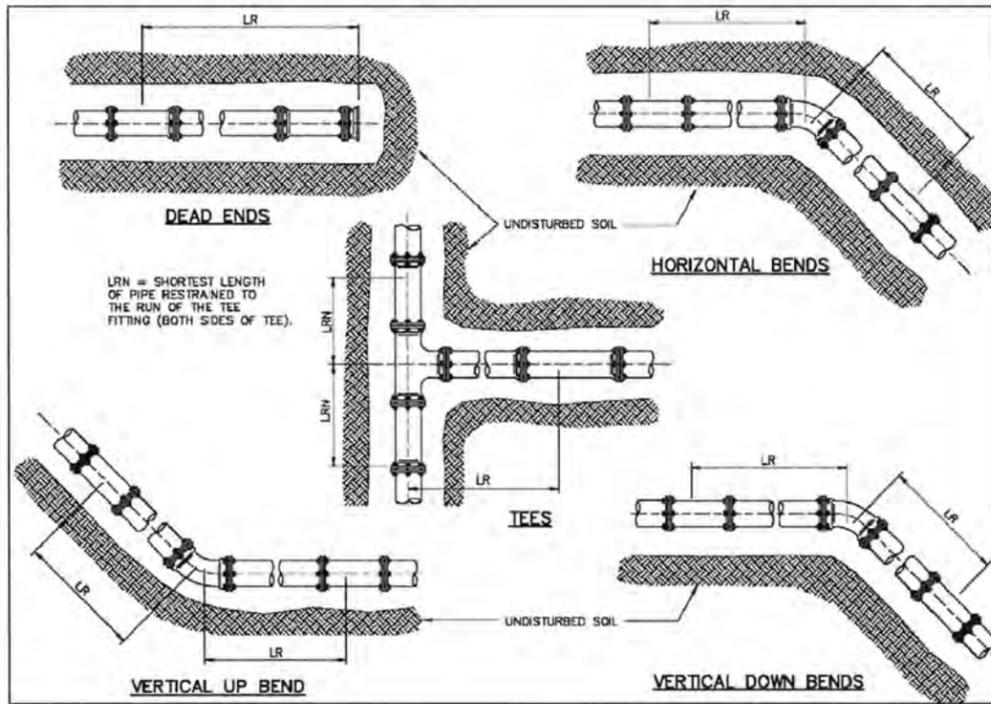
PVC Mechanical Joint Restraint Table

PIPE SIZE	BENDS				TEES			VERTICAL OFFSETS				DEAD ENDS & VALVES
	11 1/4	22 1/2	45	90	LRN = 5	LRN = 10	LRN = 20	45		22 1/2		
								DOWN	UP	DOWN	UP	
4"	2	4	7	18	15	1	1	16	4	8	2	39
6"	2	5	10	25	30	7	1	23	5	11	3	55
8"	3	7	14	33	48	24	1	30	7	15	3	73
10"	4	8	16	39	61	37	1	36	8	17	4	88
12"	5	9	19	46	76	52	5	43	10	21	5	104

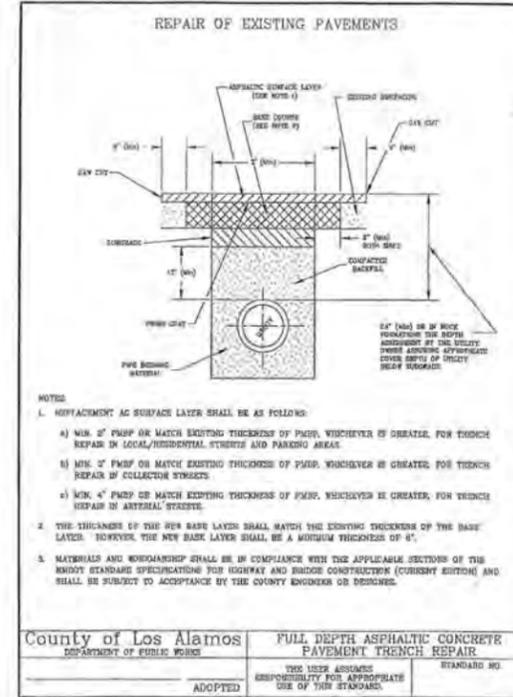
Ductile Iron/Poly Wrap Mechanical Joint Restraint Table

PIPE SIZE	BENDS				TEES			VERTICAL OFFSETS				DEAD ENDS & VALVES
	11 1/4	22 1/2	45	90	LRN= 5	LRN = 10	LRN = 18	45		22 1/2		
								DOWN BEND	UP BEND	DOWN BEND	UP BEND	
4"	2	4	9	21	23	1	1	24	4	12	2	59
6"	3	6	12	29	47	10	1	34	6	17	3	83
8"	4	8	16	38	74	37	1	45	8	22	4	109
10"	5	9	19	46	94	57	1	54	10	26	5	131
12"	5	11	22	54	118	80	20	64	12	31	6	155
14"	6	12	25	61	139	101	41	73	14	35	7	177
16"	7	14	29	69	162	124	63	83	15	40	7	200
18"	7	15	32	76	183	145	84	92	17	44	8	222

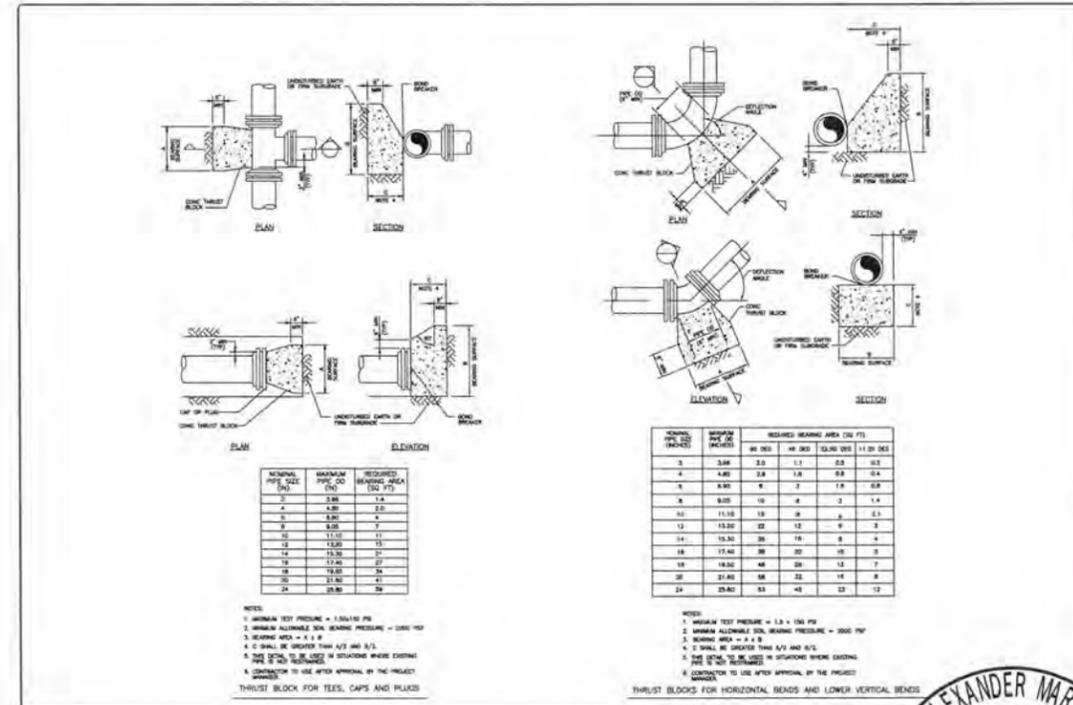
1. Restrained lengths provided are in feet.
2. Lr - the minimum attached length of solid pipe without joints, fittings, etc. to extend in each direction along the run of the tee.
3. Restrained lengths computed for pipe with 4' of cover from top of pipe.
4. Maximum test pressure of 150 psi.
5. All pipe joints and fittings within the restrained length specified in the table shall be restrained.



**A**  
15  
JOINT RESTRAINTS  
SCALE: NTS



**B**  
15  
PAVEMENT REPAIR  
SCALE: NTS



DATE: APRIL 2018 APPROVED BY: REVISION:  
**C**  
15  
CONCRETE THRUST-BLOCKS  
SCALE: NTS

NO.	REVISION DESCRIPTION
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DESIGNED BY: SH  
DRAWN BY: SH  
APPROVED BY: JAM  
DATE: 10/24/2024  
SCALE:

SAN ILDEFONSO ROAD  
8" WATERLINE REPLACEMENT  
DETAILS-2



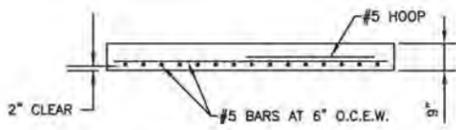
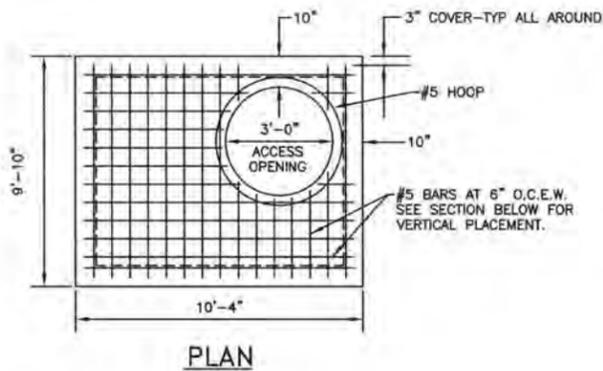
INCORPORATED COUNTY OF LOS ALAMOS  
DEPARTMENT OF PUBLIC UTILITIES  
1000 CENTRAL AVE., SUITE 300  
LOS ALAMOS, NEW MEXICO 87544  
(505) 662-8150 FAX: (505) 662-8109

Drawing File: L:\PROJECTS\FB 2005-XX SAN ILDEFONSO WATER LINE\03\_DESIGN\CAD\_DWG\EXISTING UTILITIES.DWG

**NOTES:**

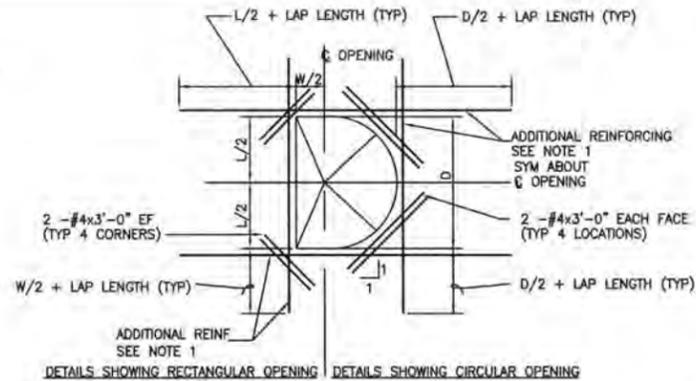
- 1) RUNG STEPS SHALL BE INSTALLED AT 1' O.C. ALIGNED WITH 36" ACCESS COVER.
- 2) WALLS AND FLOOR SHALL BE 8" THICK, REINFORCED WITH #5 BARS AT 12" O.C.E.W., CENTERED.
- 3) MINIMUM COVER ON REINFORCING STEEL SHALL BE 2".
- 4) STEEL SHALL BE GRADE 60 DEFORMED BARS, CONCRETE SHALL BE 4000 PSI MINIMUM COMPRESSIVE STRENGTH, WITH 6% AIR ENTRAINMENT, AND 3/4" COARSE AGGREGATE. PER SPECIFICATION 701 CAST IN PLACE CONCRETE.
- 5) COVERS SHALL BE FURNISHED W/4 LIFTING HOOKS, EACH LOCATED 12" INSIDE FROM EACH CORNER. LIFTING HOOKS SHALL BE FACTORY FABRICATED STEEL, RECESSED TO BE FLUSH WITH SURFACE, & TIED TO VAULT COVER REBAR PER MANUFACTURER'S RECOMMENDATIONS. EACH HOOK SHALL HAVE A MINIMUM CAPACITY OF 3 TONS.
- 6) COVERS SHALL NOT BE BONDED TO VAULT WALLS, THEY SHALL BE SEPARATELY FORMED & PLACED ONTO VAULT WALLS. PRIOR TO PLACEMENT, APPLY ONE STRIP OF LOFLAND BLUE STOP WATER STOP MATERIAL TO SEAL COVER TO WALLS. COVER SHALL BE FLUSH W/FINISHED GRADE.
- 7) COVERS SHALL BE FURNISHED WITH 2" Ø STEEL VENT, W/180° ELBOW SET 4' ABOVE TOP. PROVIDE STAINLESS STEEL GRATING OVER END SECTION, AND PAINT W/2 COATS OF GREY MARINE PAINT, EXTEND OUTSIDE OF ROADWAY IF NECESSARY.
- 8) INCOMING SYSTEM PRESSURES ARE SIGNIFICANTLY HIGHER THAN SERVICE PRESSURES. PRIOR TO PRESSURIZING THE NEW SYSTEM, THE CONTRACTOR SHALL CONTACT LAC UTILITIES TO ESTABLISH A TESTING PLAN WHICH WILL ENSURE NO DAMAGE TO DOWNSTREAM CUSTOMERS' PLUMBING.
- 9) HEAVY DUTY RING AND COVER CAST INTO VAULT LID. 475 LB. MINIMUM, 3' CLEAR OPENING, LABELED "WATER".
- 10) SUBGRADE BELOW VAULT FLOOR SHALL BE COMPACTED TO 95% PER SPECIFICATIONS.
- 11) LOCATE WIRE SHALL BE PLACED ALONG BY-PASS AND RAISED IN BY-PASS VALVE BOX AND THROUGH VAULT ALONG PIPING. ALL WIRE SHALL BE ELECTRICALLY CONTINUOUS.

NOTE: LID VENTED WITH A MINIMUM OF 12 EACH 1" DIAMETER HOLES.



**CROSS SECTION**

**PRV VAULT STRUCTURAL DETAILS**  
N.T.S.



**NOTES:**

1. ADDITIONAL REINFORCING SHALL BE THE SAME SIZE AS DISCONTINUOUS REINFORCEMENT AT OPENING. QUANTITY OF REINFORCING IN EACH DIRECTION SHALL BE EQUAL TO OR ONE GREATER THAN THE NUMBER OF DISCONTINUOUS BARS. PLACE 1/2 OF ADDITIONAL REINFORCING BARS EACH SIDE OF OPENING. PLACE ADDITIONAL REINFORCEMENT AT 3" O.C. (TYPICAL BOTH DIRECTIONS AND ALL LAYERS OF REINFORCEMENT).
2. ADDITIONAL REINFORCING SHALL EXTEND BEYOND EDGE OF OPENING AS SHOWN ABOVE UNLESS SHOWN OTHERWISE. ADDITIONAL BARS MAY TERMINATE AT THE END OF THE WALL WITH A STANDARD HOOK WHERE THE LENGTH OF THE WALL WILL NOT PERMIT BARS TO EXTEND AS SHOWN ABOVE.
3. TYPICAL WALL OR SLAB REINFORCING NOT SHOWN FOR CLARITY. TERMINATE TYPICAL REINFORCING 2" CLEAR TO OPENING.
4. AT OPENINGS 12" OR LESS IN SLABS & IN WALLS, NO EXTRA REBARS ARE REQUIRED UNLESS SHOWN OTHERWISE. TYPICAL REINFORCING SHALL BE SPREAD (NOT CUT) TO ALLOW FOR OPENINGS TO BE MADE.
5. UNLESS SHOWN OTHERWISE ON DRAWINGS, PROVIDE EXTRA REINFORCING AROUND OPENINGS AS SHOWN AND INDICATED ABOVE.
6. ALL FASTENERS SHALL BE TORQUE RATED STAINLESS STEEL.

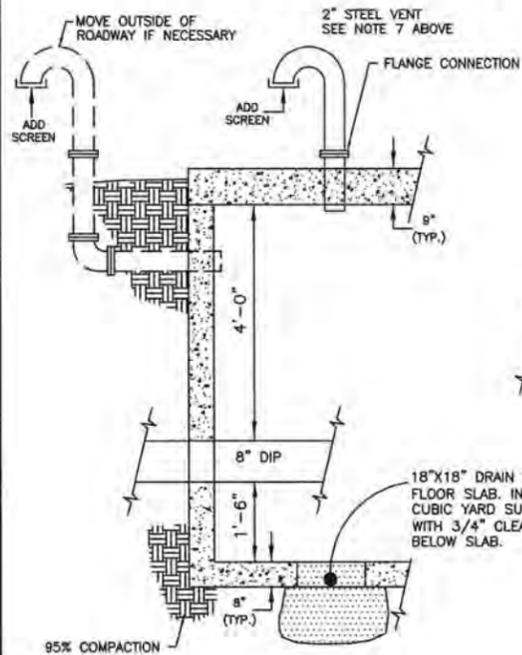
**DETAIL EXTRA REBARS AROUND OPENINGS AND PENETRATIONS IN SLABS & WALLS**  
N.T.S.

**KEYED NOTES FOR 8" WATER MAIN:**

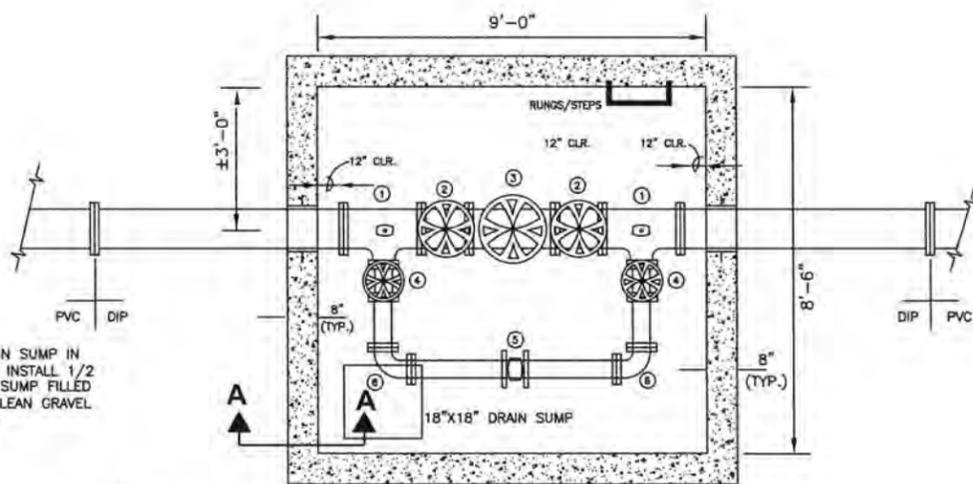
- 1 8" x 8" x 4" FLANGED TEE.
- 2 8" GATE VALVE (FL X FL) VALVE.
- 3 8" PRV, CLA-VAL #690-01 OR 90-1 WITH KD VALVE STEM OPTION. PROVIDE SHOP FABRICATED STEEL SUPPORT.
- 4 4" GATE VALVE (FL X FL)
- 5 4" PRV, CLA-VAL #690-01 OR 90-1 WITH KD VALVE STEM OPTION. PROVIDE SHOP FABRICATED STEEL SUPPORT.
- 6 4" 90° STANDARD FLANGED ELBOW. PROVIDE PIPE SUPPORT.
- 7 WALL PENETRATIONS SHALL BE FURNISHED WITH STANDARD, FACTORY FABRICATED WALL SLEEVES WHICH ALLOW CARRIER PIPE TO BE INSERTED AFTER FORMING. SEAL CARRIER PIPE-TO-SLEEVE SPACING WITH LINK SEAL AND NON-SHRINK GROUT.
- 8 PRESSURE GAGES PER NOTE 2) BELOW. INSTALL 1/2 INCH STAINLESS STEEL ISOLATION BALL VALVE AND STAINLESS STEEL NIPPLES AS NEEDED.
- 9 ALL PIPING AND FITTINGS IN VAULT SHALL BE CLASS 350 FLANGED DUCTILE DUCTILE IRON PER AWWA C151 AND AWWA C110.
- 10 A COMBINATION MAIN LINE PRV WITH INTEGRAL LOW FLOW BYPASS VALVE MAY BE SUBSTITUTED, IF APPROVED BY DPU.

**NOTES:**

- 1 GATE VALVES INTERNAL TO THE VAULT SHALL BE HAND WHEEL OPERATED WITH NON-RISING STEMS.
- 2 PRESSURE GAGES SHALL BE ABLE TO REGISTER PRESSURES FROM 0 TO 150 PSI, AND HAVE GLYCERIN FILLED, FREEZE PROOF DIALS.
- 3 ALL PIPING AND VALVING SHALL BE SET SO THAT LARGEST DIAMETER PIPES IN STATIONS ARE SET 18" ABOVE FLOOR TO BOTTOM OF PIPE.



**VALVE VAULT SECTION A-A**  
N.T.S.



**VALVE VAULT DETAILS PLAN**  
N.T.S.

NOTE: VALVE SIZES AND VAULT DIMENSIONS CAN BE MODIFIED TO FIT PROJECT REQUIREMENTS. DIMENSIONS SHOWN ARE FOR AN 8"x4" PRV SET.

SECTION 6000 6017  
UTILITY CONSTRUCTION STANDARDS - WATER  
**PRESSURE REDUCING VALVE VAULT**

**LOS ALAMOS**  
Department of Public Utilities  
Electric, Gas, Water, and Wastewater Services

NO.	REVISION DESCRIPTION

DESIGNED BY: SH	SH
DRAWN BY: SH	SH
APPROVED BY: JAM	JAM
DATE: 10/24/2024	
SCALE:	

SAN ILDEFONSO ROAD  
8" WATERLINE REPLACEMENT  
**DETAILS-3**



INCORPORATED COUNTY OF LOS ALAMOS  
DEPARTMENT OF PUBLIC UTILITIES  
1000 CENTRAL AVE., SUITE 130  
LOS ALAMOS, NEW MEXICO 87544  
(505) 662-8150 FAX: (505) 662-8109

SHEET  
**16**

DATE: APRIL 2018

APPROVED BY:

REVISION:

DATE:

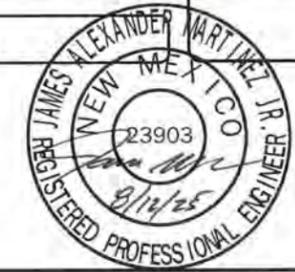
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16

**PRESSURE REDUCING VALVE VAULT**

SCALE: NTS

Attachment B

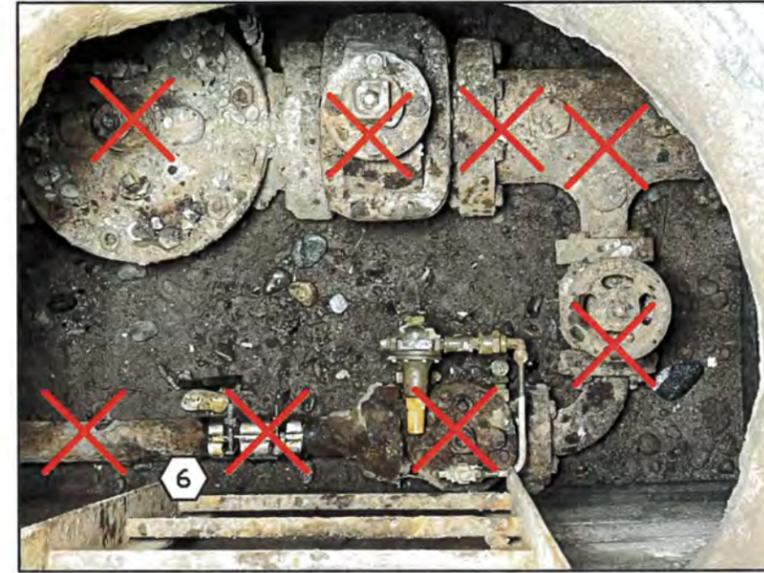




**A**  
17  
WEST END PRV VAULT  
SCALE: NTS



**B**  
17  
REDONDO PRV VAULT  
SCALE: NTS



**E**  
17  
UVA PRV VAULT  
SCALE: NTS

**KEYED NOTES**

- ① REMOVE AND REPLACE VAULT COVER WITH 9" THICK CONCRETE SLAB AND 3' Ø MANHOLE, REINFORCED WITH #5 REBAR 6" O.C PER DETAIL A/17
- ② INSTALL 2" STEEL VENT PER DETAIL A/17 NOTE #7
- ③ REMOVE AND REPLACE PRV'S, VALVES, AND APPURTENANCES WITH APPROVED EQUALS
- ④ PRESSURE WASH VAULT INTERIOR
- ⑤ ABANDON VAULT - REMOVE PRV AND COMPONENTS, INSTALL 4' OF 8" PVC, AND FILL WITH 5 YARDS OF APPROVED FILL MATERIAL
- ⑥ ABANDON VAULT - REMOVE PRV AND COMPONENTS, INSTALL 4' OF 8" PVC, AND FILL WITH 8 YARDS OF APPROVED FILL MATERIAL



**C**  
17  
BROADVIEW PRV VAULT  
SCALE: NTS



**D**  
17  
DURASNILLA PRV VAULT  
SCALE: NTS



NO.	REVISION DESCRIPTION
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DRAWN BY:	SH
APPROVED BY:	JAM
DATE:	10/24/2024
SCALE:	

SAN ILDEFONSO ROAD  
8" WATERLINE REPLACEMENT  
**DETAILS-4**



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SHEET  
**17**