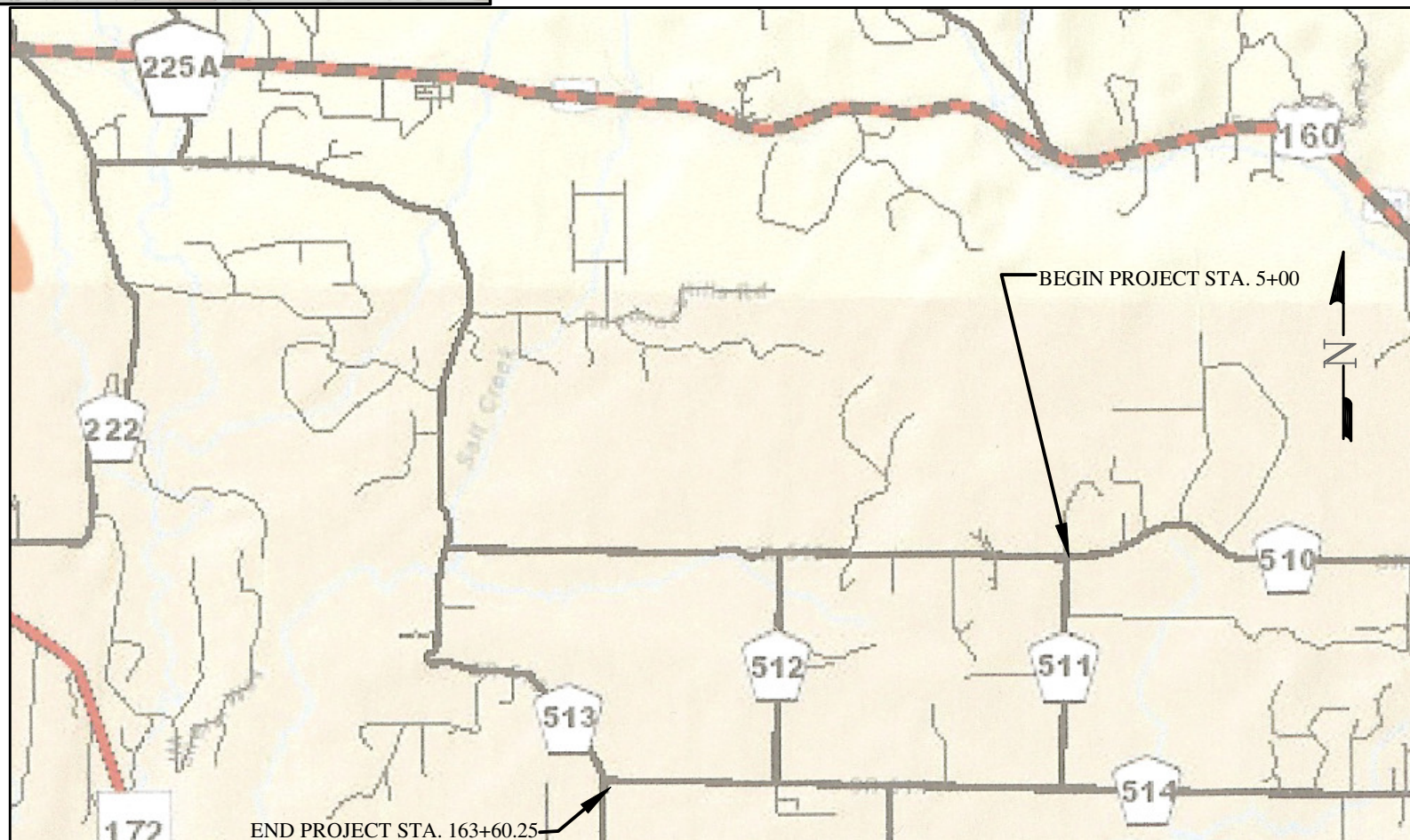
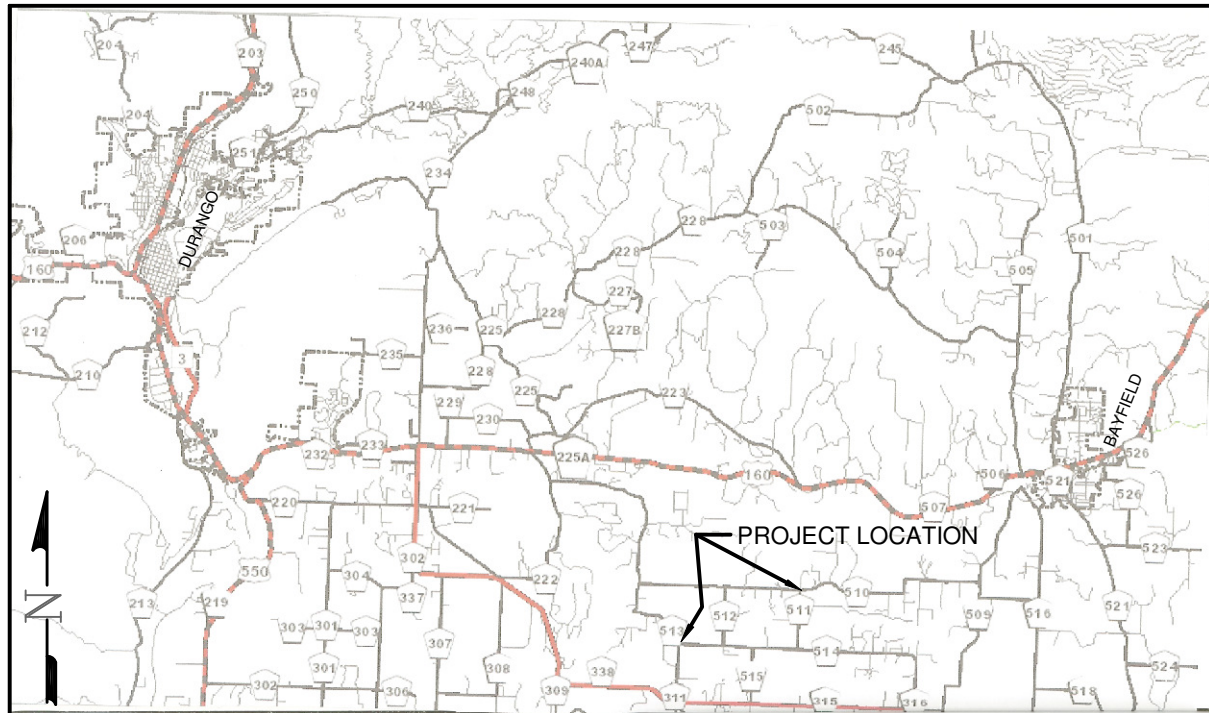


# LA PLATA ARCHULETA WATER DISTRICT WATER LINES PHASE 2A WATER PIPELINE

La Plata County, Colorado



### SHEET DESCRIPTION

1.....	PLAN AND PROFILE STA.	5+00 TO STA.	15+00
2.....	PLAN AND PROFILE STA.	15+00 TO STA.	25+00
3.....	PLAN AND PROFILE STA.	25+00 TO STA.	35+00
4.....	PLAN AND PROFILE STA.	35+00 TO STA.	45+00
5.....	PLAN AND PROFILE STA.	45+00 TO STA.	55+00
6.....	PLAN AND PROFILE STA.	55+00 TO STA.	65+00
7.....	PLAN AND PROFILE STA.	65+00 TO STA.	75+00
8.....	PLAN AND PROFILE STA.	75+00 TO STA.	85+00
9.....	PLAN AND PROFILE STA.	85+00 TO STA.	95+00
10.....	PLAN AND PROFILE STA.	95+00 TO STA.	105+00
11.....	PLAN AND PROFILE STA.	105+00 TO STA.	115+00
12.....	PLAN AND PROFILE STA.	115+00 TO STA.	125+00
13.....	PLAN AND PROFILE STA.	125+00 TO STA.	135+00
14.....	PLAN AND PROFILE STA.	135+00 TO STA.	145+00
15.....	PLAN AND PROFILE STA.	145+00 TO STA.	155+00
16.....	PLAN AND PROFILE STA.	155+00 TO STA.	163+60
17.....	SHEET LOCATIONS		



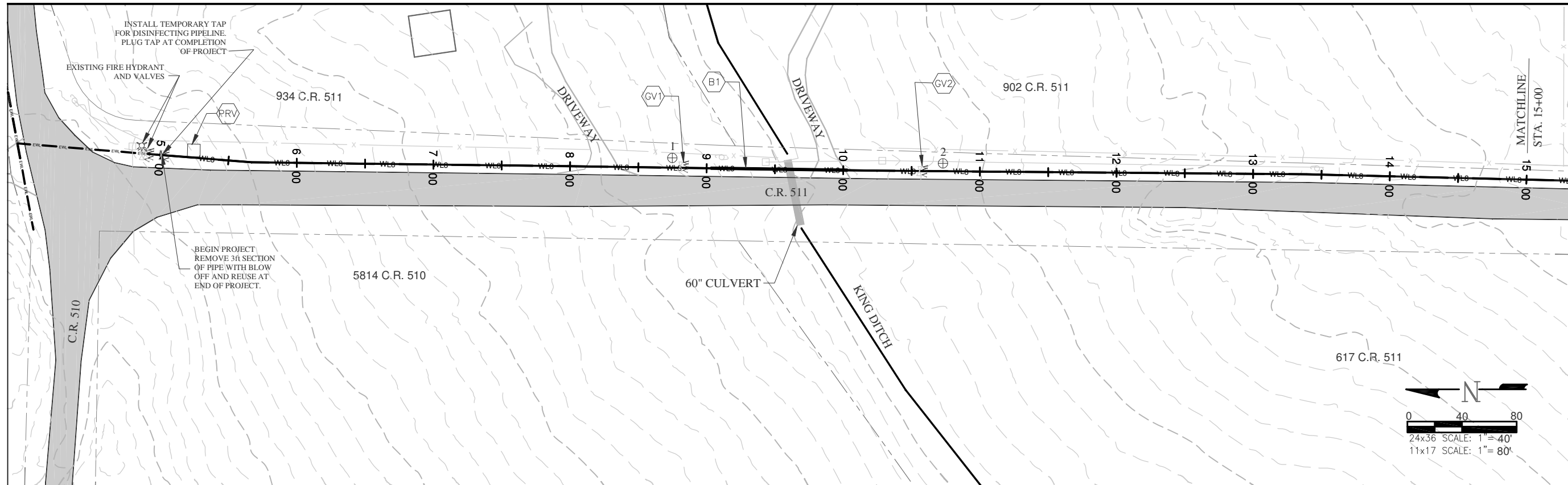
LA PLATA ARCHULETA WATER DISTRICT  
PHASE 2A WATER PIPELINE  
COVER SHEET

CALL UTILITY NOTIFICATION  
CENTER OF COLORADO  
1-800-922-1987 OR (811)  
CALL 3 BUSINESS DAYS PRIOR  
TO ANY CONSTRUCTION.

**HARRIS WATER  
ENGINEERING INC.**  
954 East Second Ave.  
Durango, Co. 81303  
970-259-1028

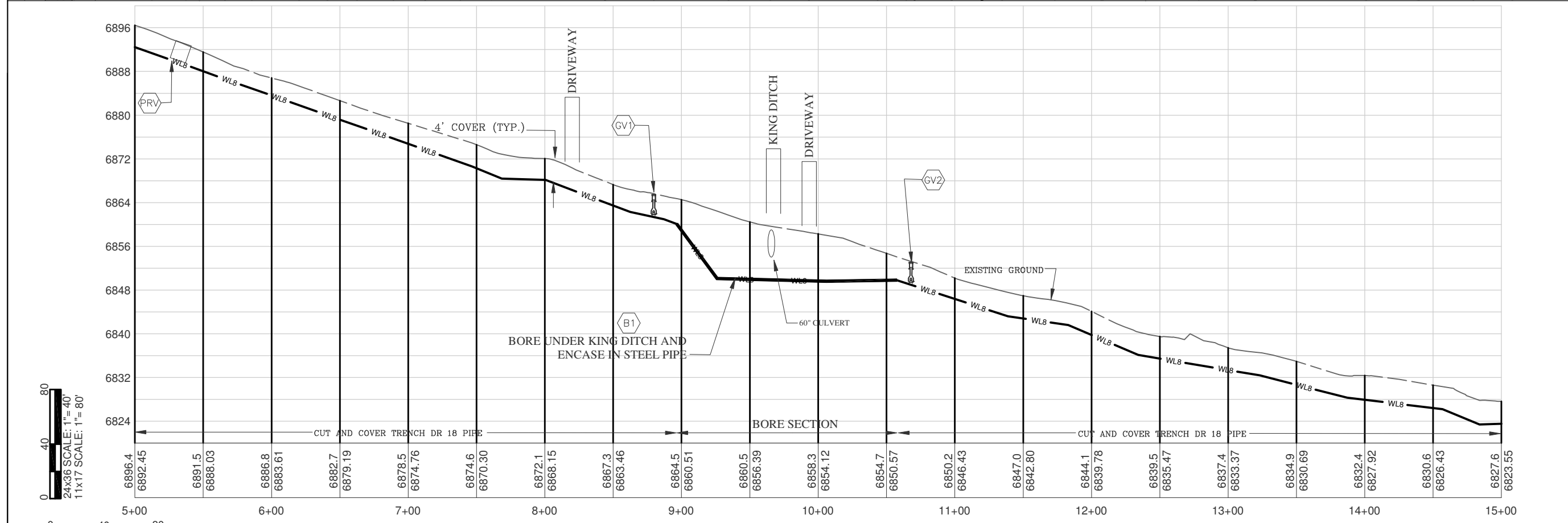
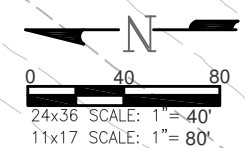
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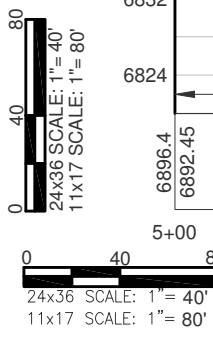


- KEY NOTES**
- \*CONTRACTOR TO VERIFY TAP SIZE AND LOCATION PRIOR TO INSTALL AT ALL PLACEMENTS SHOWN. SERVICE TAP LOCATIONS, QUANTITIES AND SIZES ARE SUBJECT TO CHANGE.
  - INSTALL PRESSURE RELIEF VALVE PER STANDARD DETAILS SHEETS 14 AND 15 WITH GATE VALVES ON EACH SIDE PER STANDARD DETAILS SHEET 6.
  - STA. 9+25+ TO STA. 10+05+ END CUT AND COVER TRENCH BEGIN BORE UNDER KING DITCH MAINTAINING MINIMUM OF 4R OF COVER BELOW BOTTOM OF DITCH. PER SHEET 10 STANDARD DETAILS.
  - INSTALL 8" GATE VALVE PER STANDARD DETAILS SHEET 7.

- GENERAL NOTES**
- A ELEVATIONS SHOWN ARE APPROXIMATE AND MAY NOT BE ACCURATE AT TIME OF CONSTRUCTION.
  - B STATIONING WILL BE SUBJECT TO ACTUAL FIELD CONDITIONS AND MAY VARY FROM THAT SHOWN.
  - C CONTACT LPEA PRIOR TO WORK IF EXCAVATING WITHIN 5 FEET OF POWER POLES. MAINTAIN 5 FOOT SEPARATION BETWEEN POWER POLE AND WATERLINE.
  - D ALL FITTINGS ARE STANDARD UNLESS NOTED OTHERWISE. HORIZONTAL BENDS NOT SHOWN ARE TO BE PROVIDED AT NO EXTRA COST.
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  - F ALL LEGS OF WATER LINES AT VALVES SHALL HAVE MECHANICAL JOINT RESTRAINT (MJR) IN THE FORM OF MEGALUG 2000 SERIES PV MJR.
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  - H CUTS IN ROAD SURFACE SHALL BE FLOW FILLED TO WITHIN 8" OF TOP SURFACE. THEN MATCH LPC STANDARDS OF COMPACTED ROAD BASE WITH MAG CHLORIDE FOR TOP 8".



- LEGEND**
- WV WATER VALVE
  - FENCE
  - GUARD RAIL
  - OHE OVERHEAD POWERLINE
  - GAS GAS LINE
  - TEL TEL
  - UNDERGROUND TELEPHONE
  - EWL EXISTING WATERLINE
  - UNDERGROUND ELECTRIC
  - WETLANDS
  - PROPOSED WATERLINE WITH SIZE SHOWN BY LINETYPE
  - F0 FIBER OPTIC MARKER
  - TP TELEPHONE PEDESTAL
  - POWER POLE
  - TRAUTNER BORING HOLE WITH BORE NUMBER ABOVE



ELEVATIONS DERIVED FROM COUNTY GIS MAPS AND ARE FOR INFORMATIONAL PURPOSES ONLY. FIELD CONDITIONS MAY VARY.

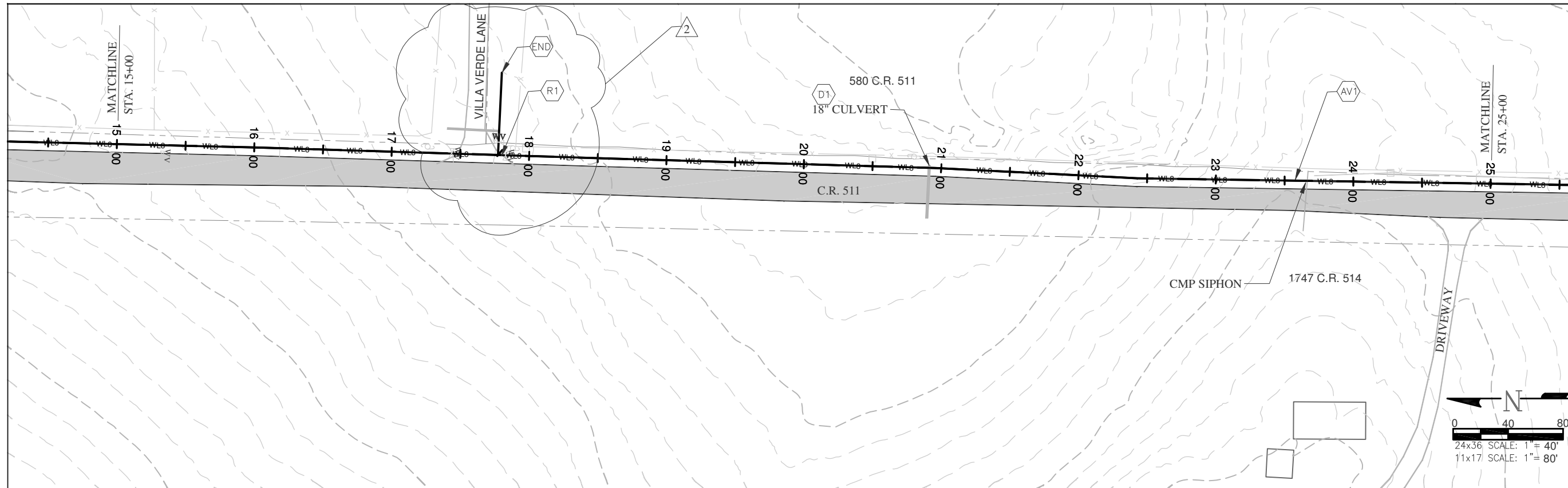


**LA PLATA ARCHULETA WATER DISTRICT  
PHASE 2A WATER PIPELINE  
PLAN AND PROFILE**

CALL UTILITY NOTIFICATION  
CENTER OF COLORADO  
1-800-922-1987 OR (811)  
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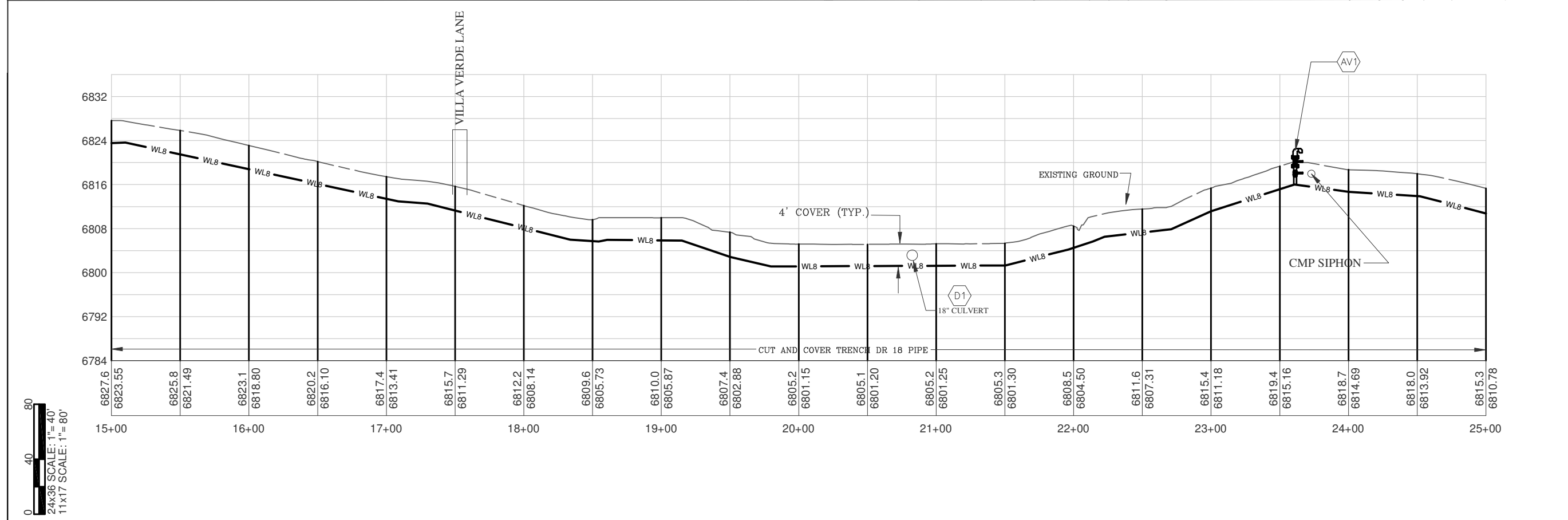
**HARRIS WATER  
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954 East Second Ave.  
Durango, Co. 81303  
970-259-1028

DATE: 05/01/2014  
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  - D1 EXTEND CULVERT SECTIONS OVER PIPELINE WHERE REQUIRED. MAINTAIN 4" MINIMUM COVER OVER PIPELINE.
  - AV1 INSTALL AIR VAC AT HIGH POINT PER STANDARD DETAILS SHEET 11.
  - R1 INSTALL 8x8x4 TEE W/ 2 8" AND 1 4" GATE VALVES W/60' OF 4" C900.
  - END INSTALL 3" PIPE AND BLOW-OFF TYPE "B" PER STANDARD DETAIL SHEET 13. INSTALL FIBERGLASS MARKER AT END OF LINE.

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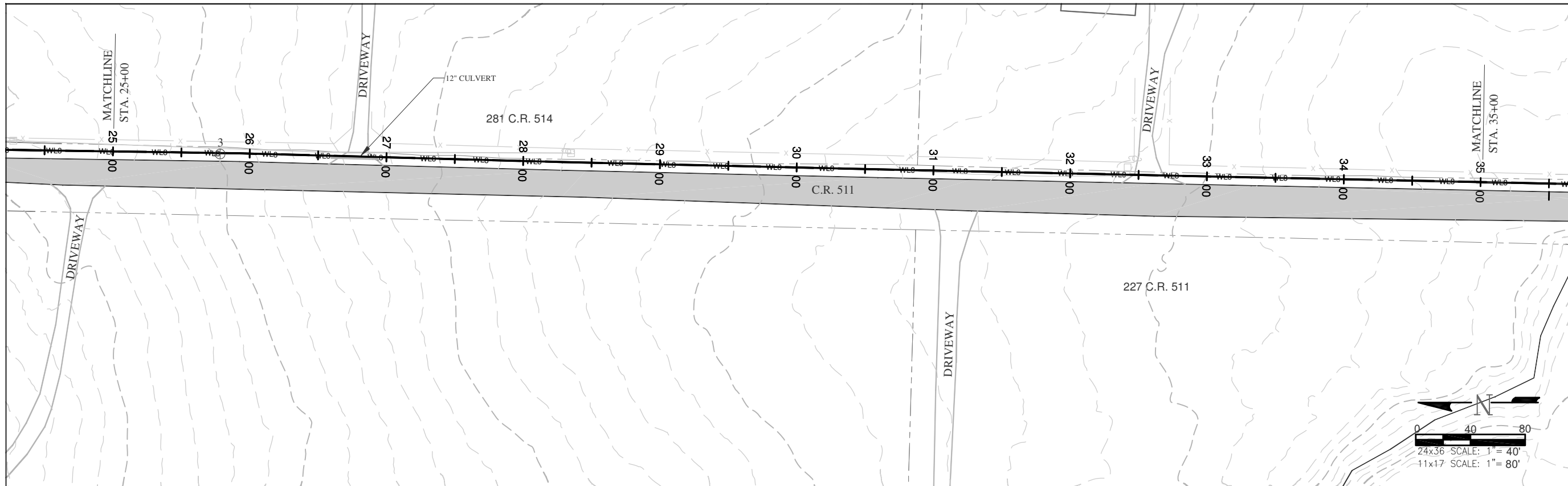
**LA PLATA ARCHULETA WATER DISTRICT**  
**PHASE 2A WATER PIPELINE**  
**PLAN AND PROFILE**  
 REV 2 4/30/2014

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 954 East Second Ave.  
 Durango, Co. 81303  
 970-259-1028

DATE: 05/01/2014  
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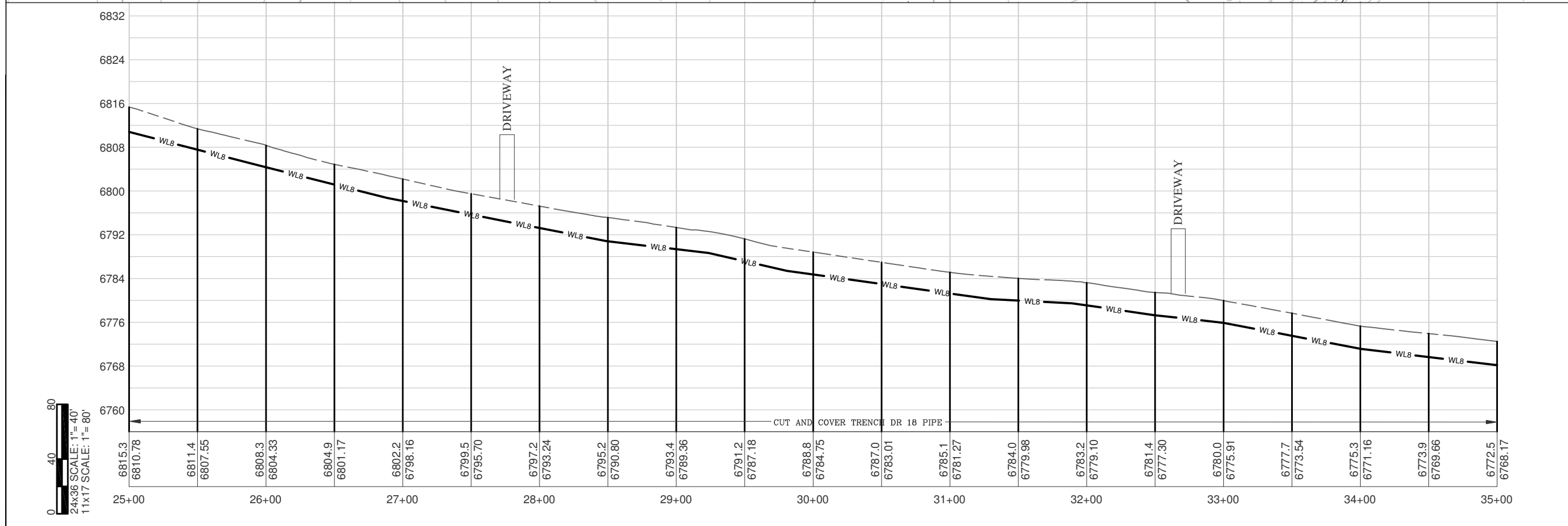




**KEY NOTES**

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**LEGEND**

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- FENCE
- GUARD RAIL
- OHE OVERHEAD POWERLINE
- GAS LINE
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- EXL EXISTING WATERLINE
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0 40 80  
24x36 SCALE: 1" = 40'  
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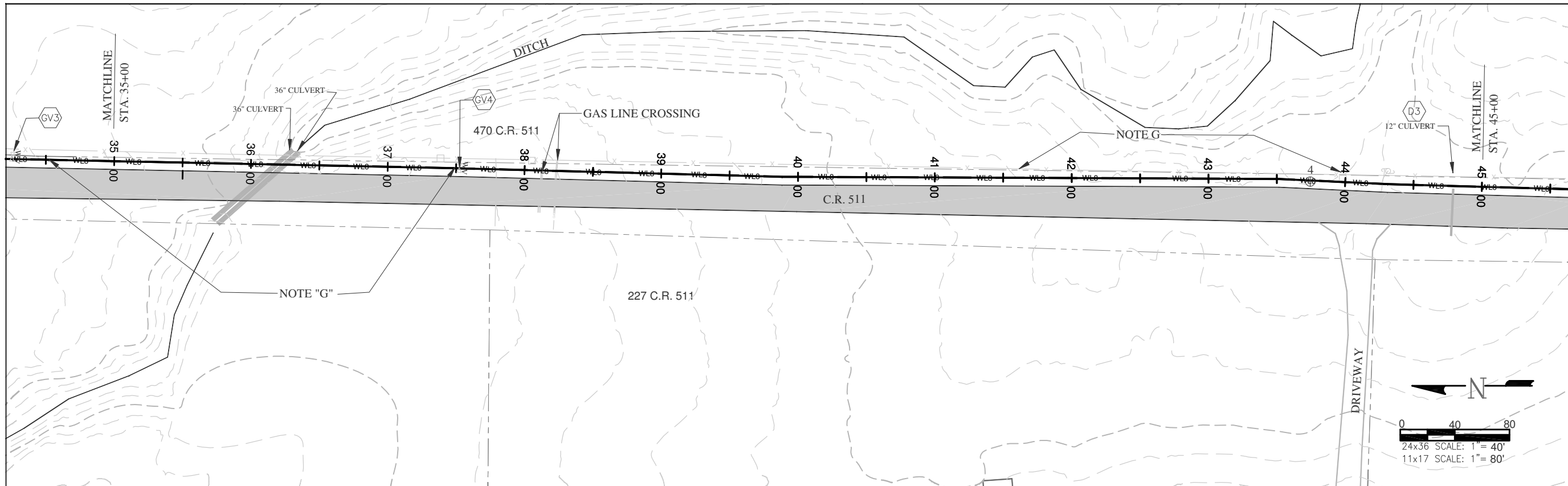


**LA PLATA ARCHULETA WATER DISTRICT**  
**PHASE 2A WATER PIPELINE**  
**PLAN AND PROFILE**

CALL UTILITY NOTIFICATION  
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**HARRIS WATER ENGINEERING INC.**  
954 East Second Ave.  
Durango, Co. 81303  
970-259-1028

DATE: 05/01/2014  
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SHEET  
03 OF 17



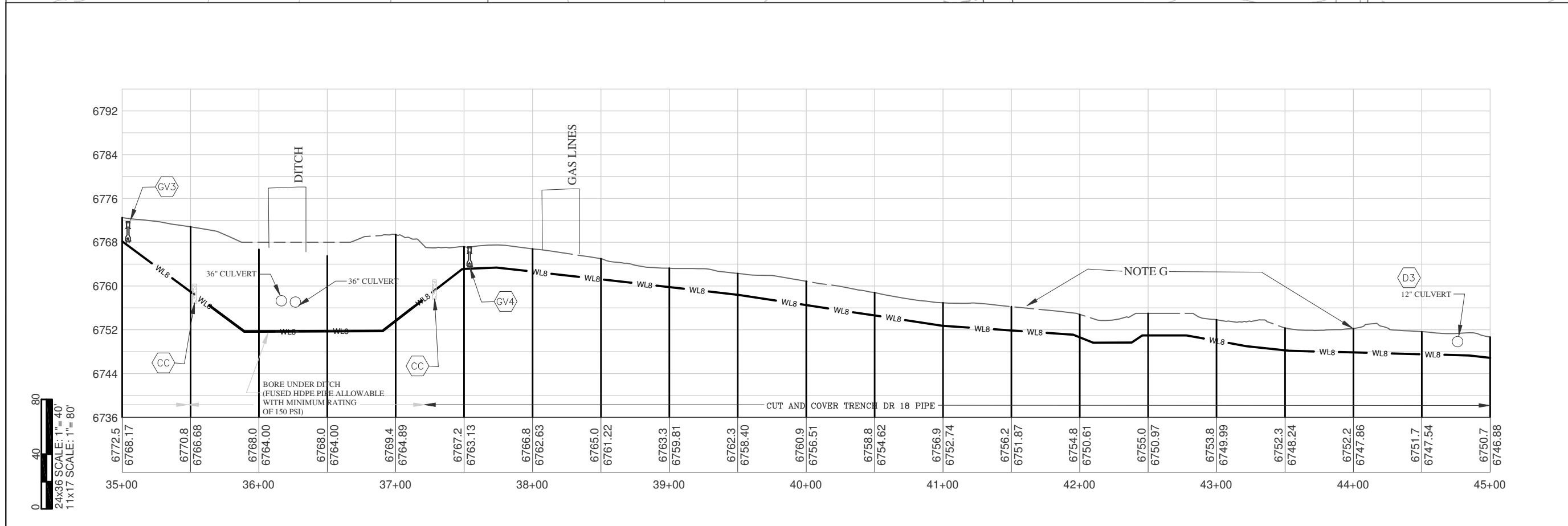
**KEY NOTES**

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- D3 EXTEND CULVERT SECTIONS OVER PIPELINE WHERE REQUIRED. MAINTAIN MINIMUM 4' COVER OVER PIPELINE.
- CC INSTALL CONCRETE COLLARS AT HDPE C900 TRANSITIONS TO PREVENT SHRINKAGE. 1CY CONCRETE MINIMUM.
- GV3 INSTALL 8" GATE VALVE PER STANDARD DETAILS SHEET 7.
- GV4

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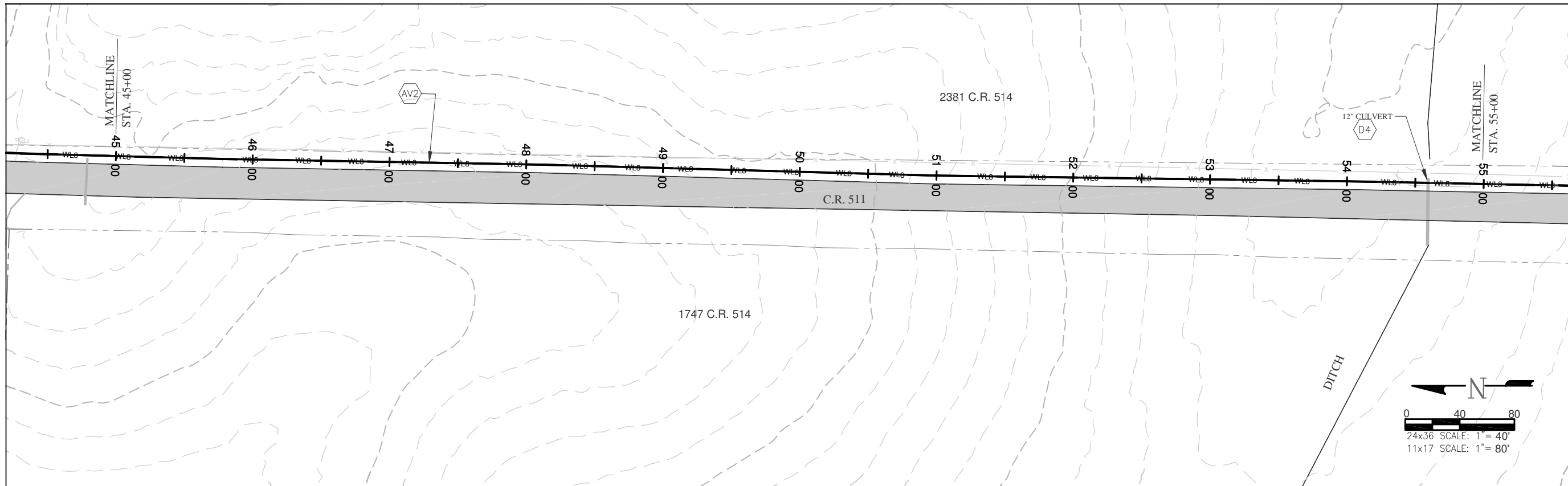


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PHASE 2A WATER PIPELINE  
PLAN AND PROFILE**

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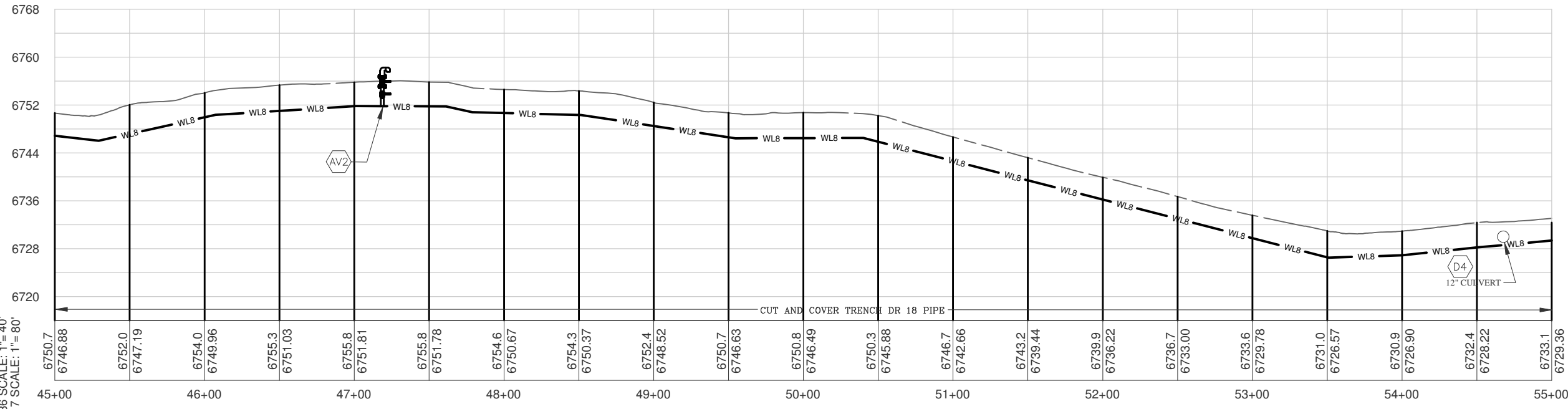
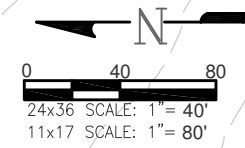
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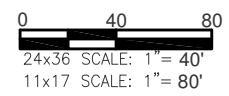


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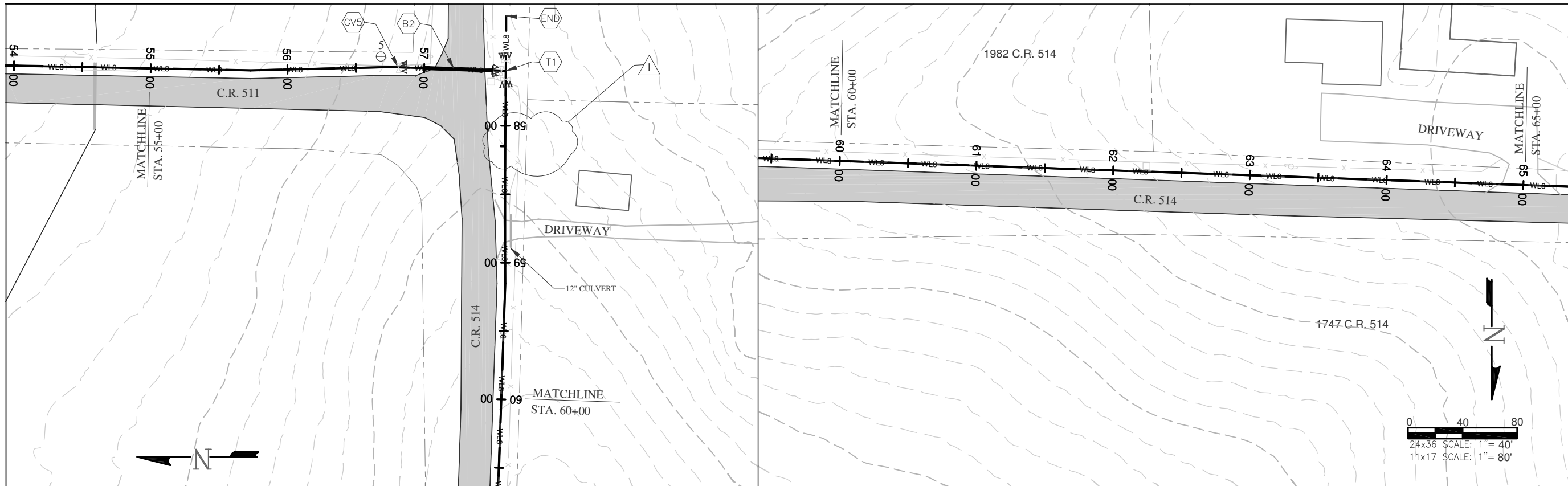


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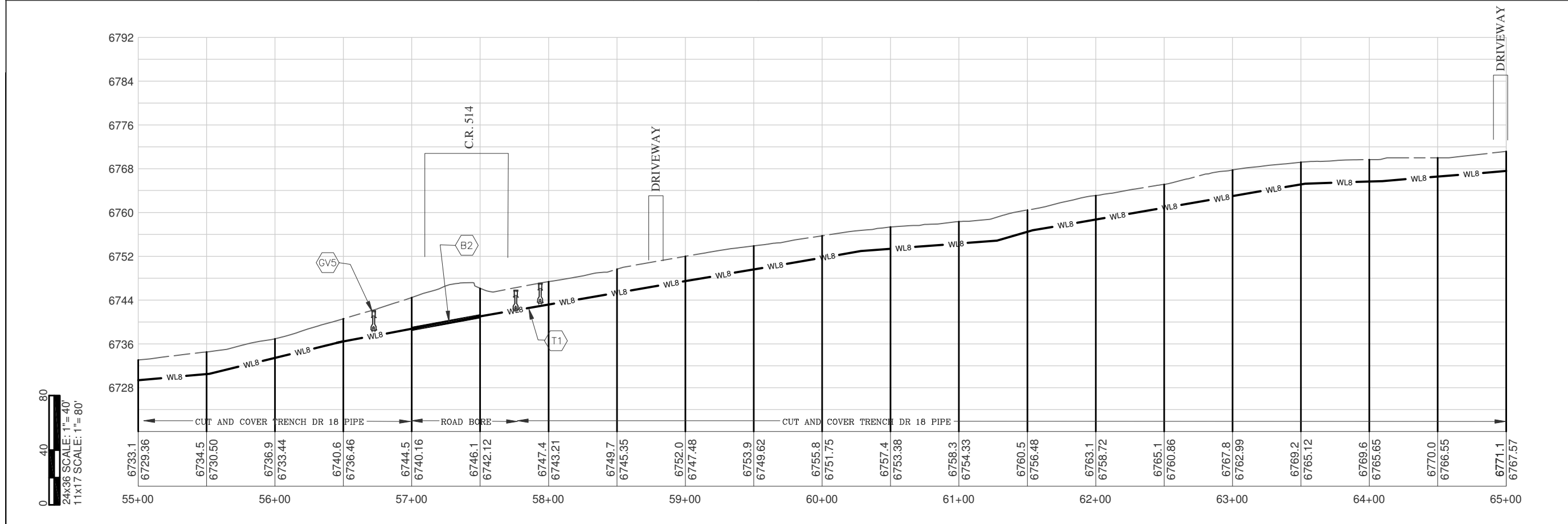
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- KEY NOTES**
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  - B2 BORE UNDER COUNTY ROAD 514 PER STANDARD DETAILS SHEET 10.
  - T1 8x8x8 TEE WITH 8" VALVES ON ALL LEGS PER STANDARD DETAILS SHEET 6.
  - GV5 INSTALL 8" GATE VALVE PER STANDARD DETAILS SHEET 7.
  - END INSTALL 3" PIPE AND BLOW-OFF TYPE "B" PER STANDARD DETAIL SHEET 13. INSTALL FIBERGLASS MARKER AT END OF LINE.

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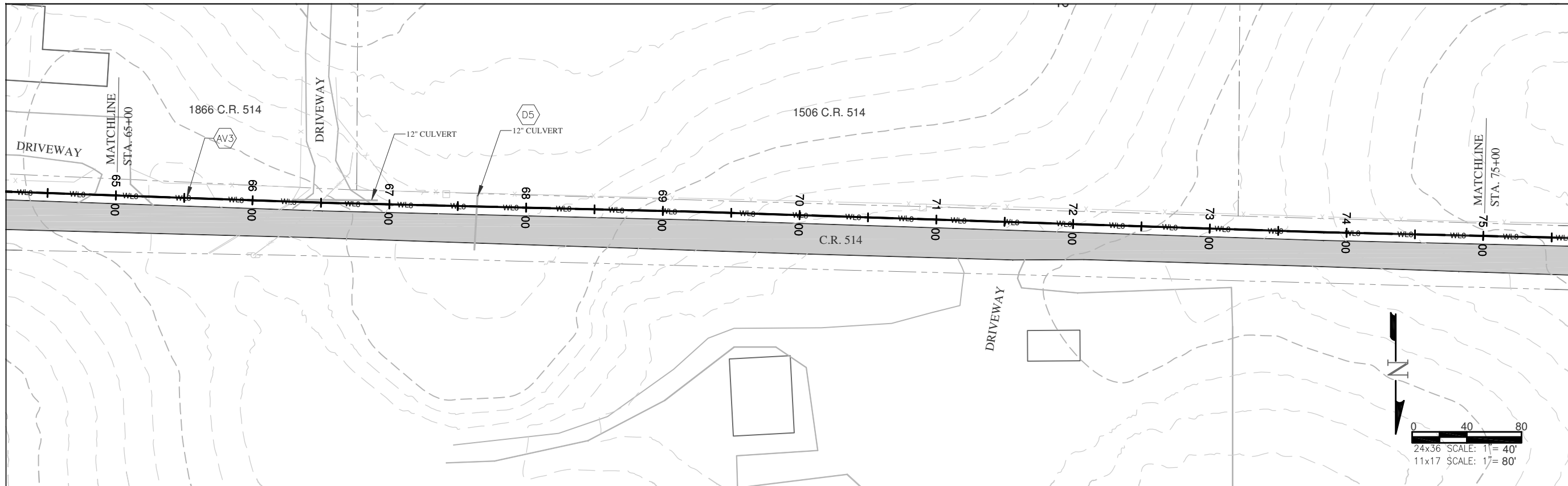


**LA PLATA ARCHULETA WATER DISTRICT**  
**PHASE 2A WATER PIPELINE** REV 1 4/22/2014  
**PLAN AND PROFILE**

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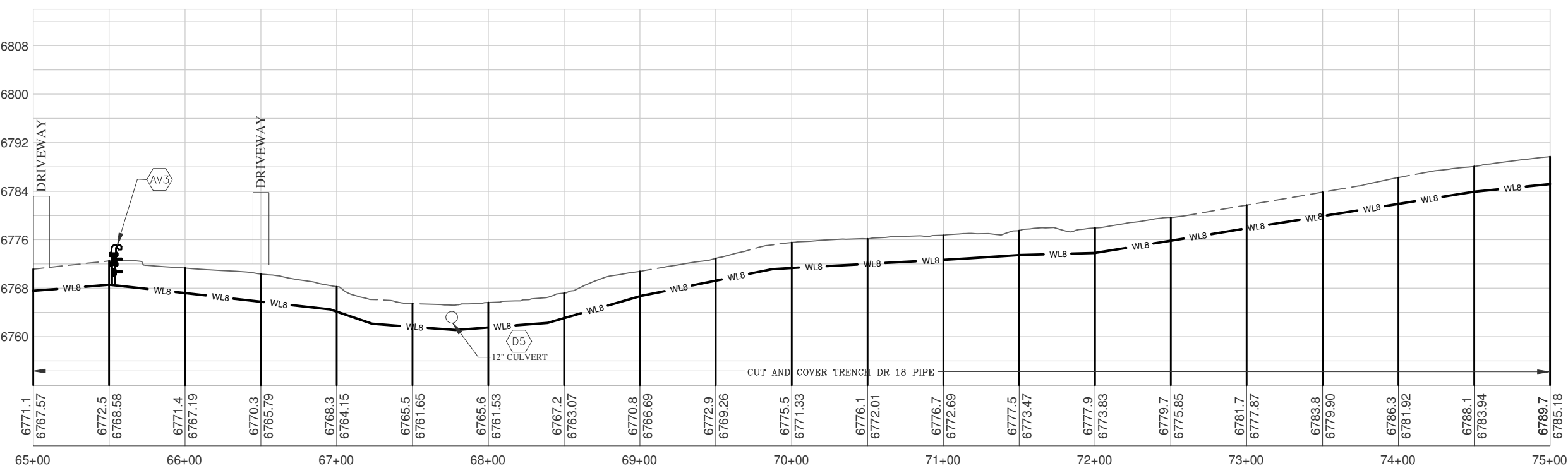
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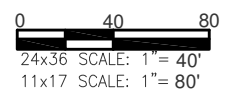
- AV3 INSTALL AIR VAC AT HIGH POINT PER STANDARD DETAILS SHEET 11.
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- E PVI CHANGES MAY NOT REQUIRE FITTINGS, CHECK USABLE PIPE BEND RADIUS. USABLE PIPE BEND RADIUS NOT TO EXCEED 75% OF MANUFACTURERS RECOMMENDED ALLOWABLE.
- F ALL LEGS OF WATER LINES AT VALVES SHALL HAVE MECHANICAL JOINT RESTRAINT (MJR) IN THE FORM OF MEGALUG 2000 SERIES PV MJR.
- G CUTS WITHIN 4ft. OF EDGE OF ROAD TO BE FLOW FILLED TO WITHIN 6" OF TOP THEN 6" OF CLASS 6 AT 95% COMPACTION
- H CUTS IN ROAD SURFACE SHALL BE FLOW FILLED TO WITHIN 8" OF TOP SURFACE. THEN MATCH LPC STANDARDS OF COMPACTED ROAD BASE WITH MAG CHLORIDE FOR TOP 8".



- LEGEND**
- WV WATER VALVE
  - FENCE
  - GUARD RAIL
  - OHE OVERHEAD POWERLINE
  - GAS LINE
  - TEL UNDERGROUND TELEPHONE
  - EXL EXISTING WATERLINE
  - UNDERGROUND ELECTRIC
  - WETLANDS
  - PROPOSED WATERLINE WITH SIZE SHOWN BY LINETYPE
  - FO FIBER OPTIC MARKER
  - TEL TELEPHONE PEDESTAL
  - PP POWER POLE
  - TRAU TRAUTNER BORING HOLE WITH BORE NUMBER ABOVE



ELEVATIONS DERIVED FROM COUNTY GIS MAPS AND ARE FOR INFORMATIONAL PURPOSES ONLY. FIELD CONDITIONS MAY VARY.



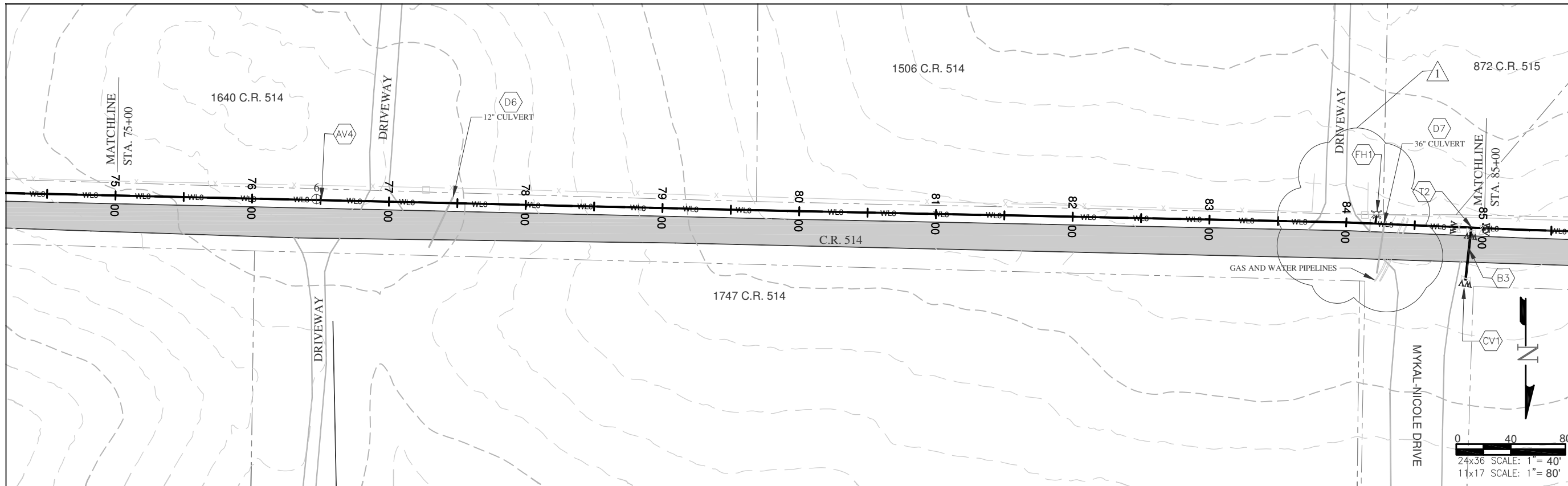
**LA PLATA ARCHULETA WATER DISTRICT**  
**PHASE 2A WATER PIPELINE**  
**PLAN AND PROFILE**

CALL UTILITY NOTIFICATION  
CENTER OF COLORADO  
1-800-922-1987 OR (811)  
CALL 3 BUSINESS DAYS PRIOR  
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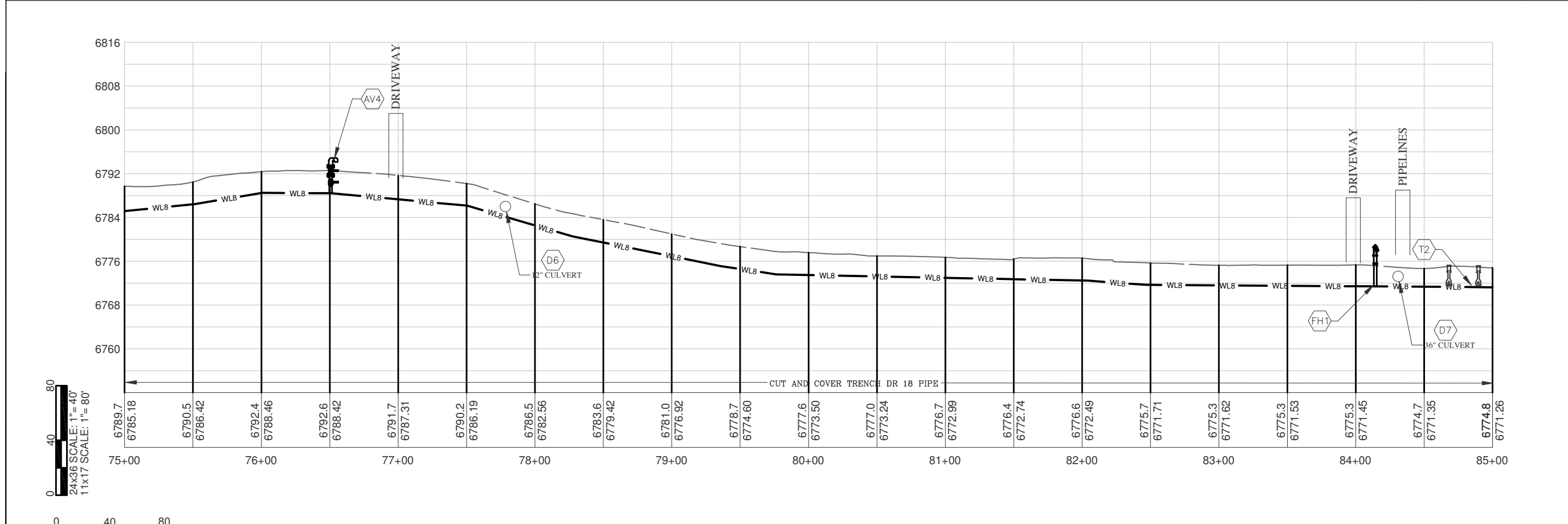
**HARRIS WATER ENGINEERING INC.**  
954 East Second Ave.  
Durango, Co. 81303  
970-259-1028

DATE: 05/01/2014  
DRAWN BY: MG  
CHECKED BY: BS  
SHEET  
07 OF 17





- KEY NOTES**
- "CONTRACTOR TO VERIFY TAP SIZE AND LOCATION PRIOR TO INSTALL AT ALL PLACEMENTS SHOWN. SERVICE TAP LOCATIONS, QUANTITIES AND SIZES ARE SUBJECT TO CHANGE."
  - AV4 INSTALL AIR VAC AT HIGH POINT PER STANDARD DETAILS SHEET 11.
  - D6 EXTEND CULVERT SECTIONS OVER PIPELINE WHERE REQUIRED. MAINTAIN 4' MINIMUM COVER OVER PIPELINE.
  - D7
  - B3 BORE UNDER COUNTY ROAD 514 WITH 4" LINE PER STANDARD DETAILS SHEET 10.
  - T2 8x4x8 TEE WITH TWO 8" VALVES AND ONE 4" VALVE PER STANDARD DETAILS SHEET 6.
  - CV1 4" GATE VALVE PER STANDARD DETAILS SHEET 6. CAP END OF 4" PIPE WITH BLOWOFF TYPE "A" PER STANDARD DETAILS SHEET 12 AND PLACE FIBERGLASS MARKER AT END.
  - FH1 8x8x6 TEE W/FIRE HYDRANT OFF 6" LINE 10 FEET FROM EDGE OF ROAD PER STANDARD DETAILS SHEET 8.
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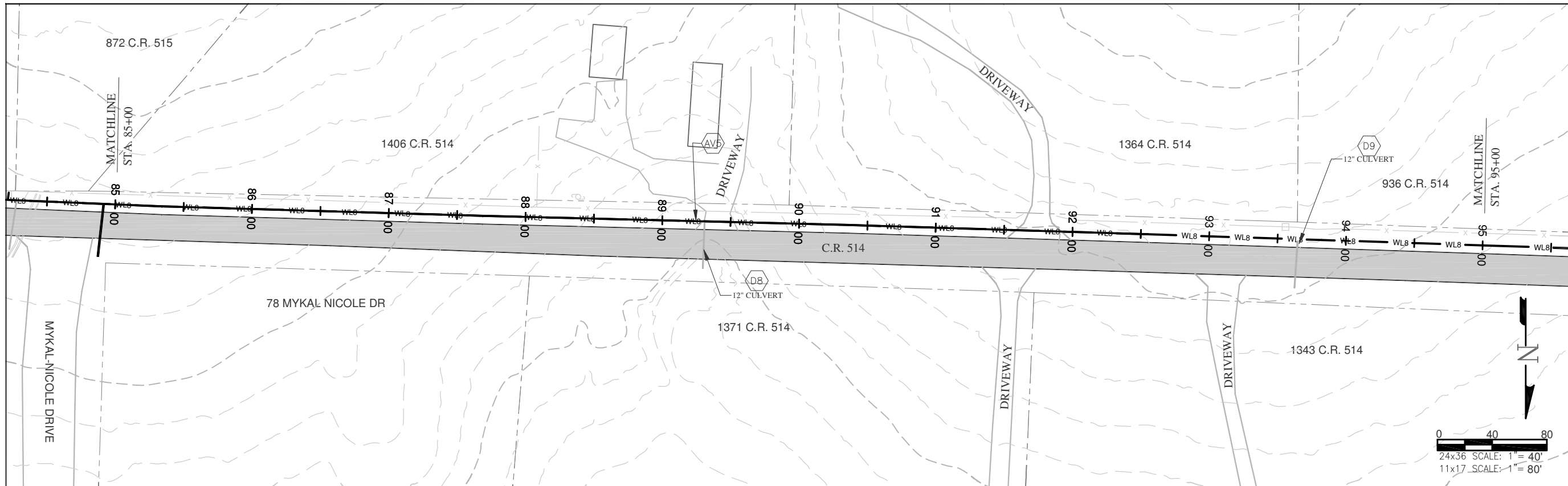
**LA PLATA ARCHULETA WATER DISTRICT**  
**PHASE 2A WATER PIPELINE**  
**PLAN AND PROFILE**

REV 14/22/2014

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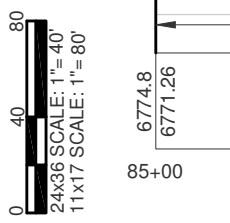
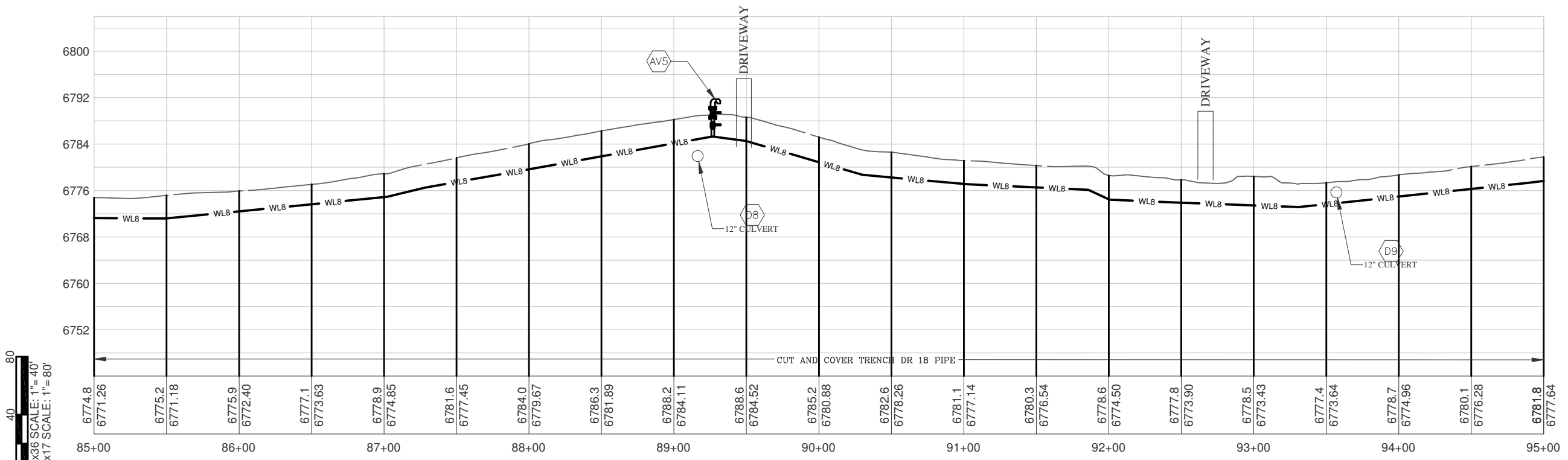
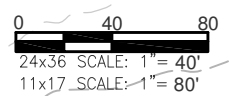
**KEY NOTES**

"CONTRACTOR TO VERIFY TAP SIZE AND LOCATION PRIOR TO INSTALL AT ALL PLACEMENTS SHOWN. SERVICE TAP LOCATIONS, QUANTITIES AND SIZES ARE SUBJECT TO CHANGE."

- (AV5) INSTALL AIR VAC AT HIGH POINT PER STANDARD DETAILS SHEET 11.
- (D8) EXTEND CULVERT SECTIONS OVER PIPELINE WHERE REQUIRED. MAINTAIN 4" MINIMUM COVER OVER PIPELINE.
- (D9)

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  - (F) FENCE
  - (GR) GUARD RAIL
  - (OHE) OVERHEAD POWERLINE
  - (GAS) GAS LINE
  - (TEL) UNDERGROUND TELEPHONE
  - (EWL) EXISTING WATERLINE
  - (UE) UNDERGROUND ELECTRIC
  - (WETLANDS)
  - (W14) PROPOSED WATERLINE WITH SIZE SHOWN BY LINETYPE
  - (FO) FIBER OPTIC MARKER
  - (TP) TELEPHONE PEDESTAL
  - (PP) POWER POLE
  - (TB) TRAUTNER BORING HOLE WITH BORE NUMBER ABOVE

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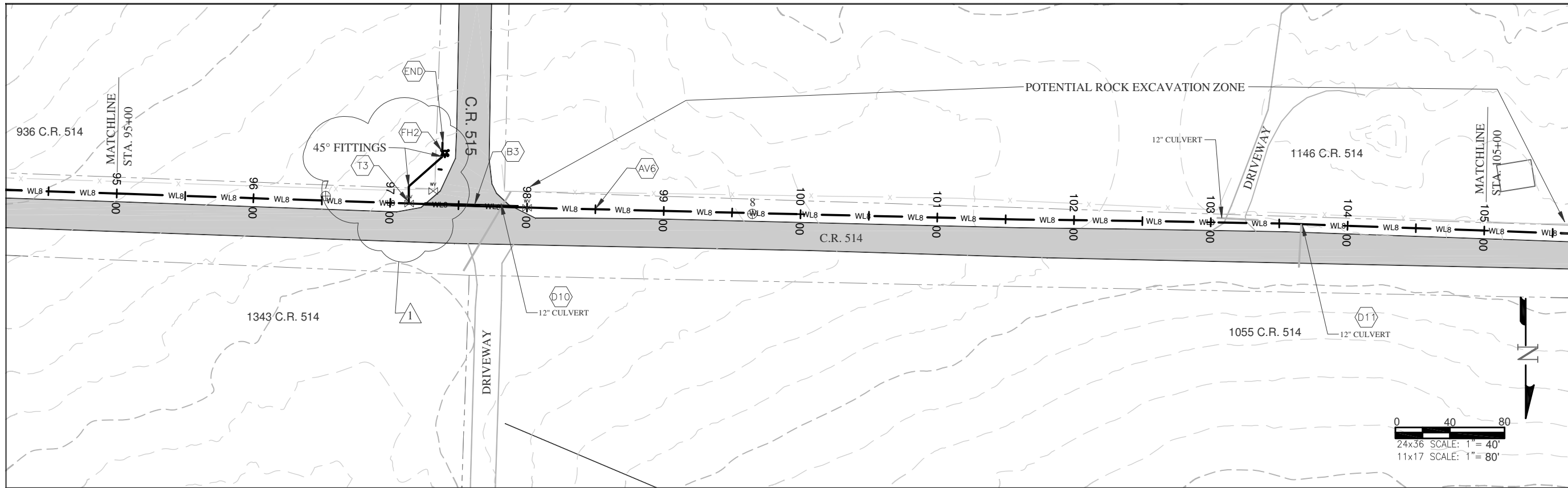


**LA PLATA ARCHULETA WATER DISTRICT  
PHASE 2A WATER PIPELINE  
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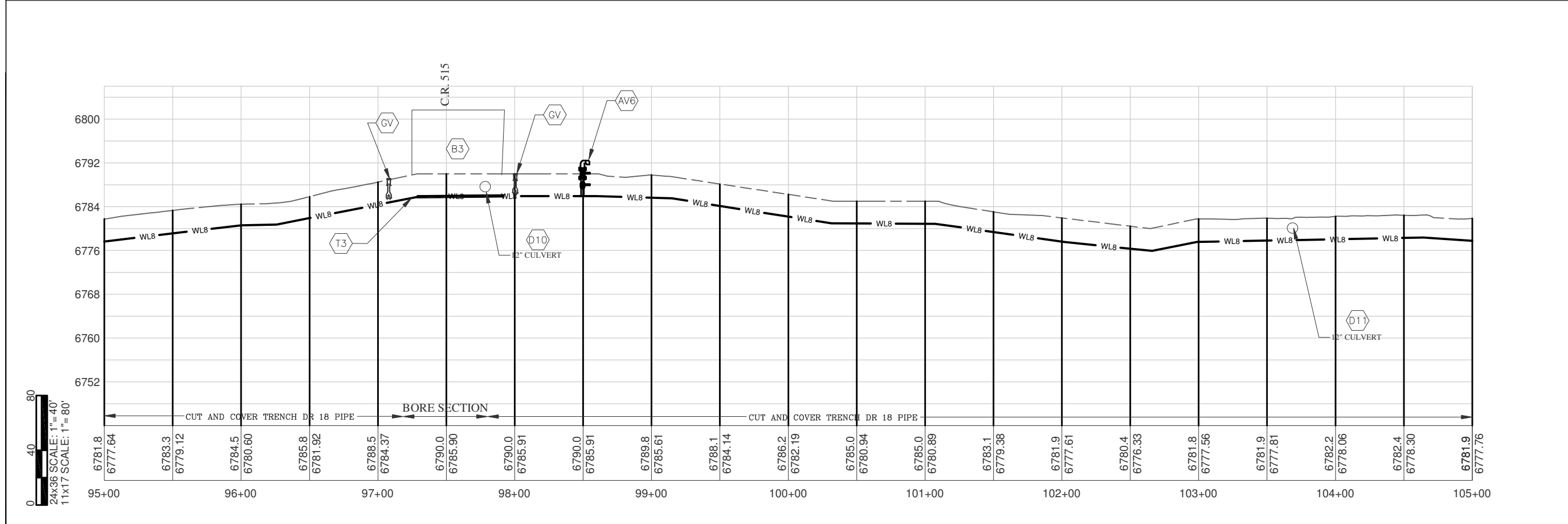
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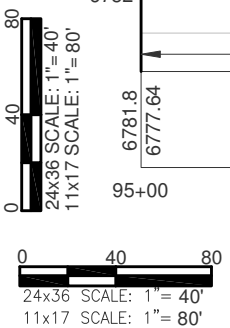
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  - D10 MAINTAIN 4' MINIMUM COVER OVER PIPELINE.
  - D11 EXTEND CULVERT SECTIONS OVER PIPELINE WHERE REQUIRED. MAINTAIN 4' MINIMUM COVER OVER PIPELINE.
  - B3 BORE UNDER COUNTY ROAD 515 PER STANDARD DETAILS SHEET 10.
  - T3 8x8x8 TEE WITH 8" VALVES ON ALL LEGS PER STANDARD DETAILS SHEET 6.
  - C2 CAP END OF 8" PIPE WITH BLIND FLANGE AND PLACE FIBERGLASS MARKER AT END.
  - FH2 8x8x6 TEE W/FIRE HYDRANT OFF 6" LINE 10 FEET FROM EDGE OF ROAD PER STANDARD DETAILS SHEET 8.
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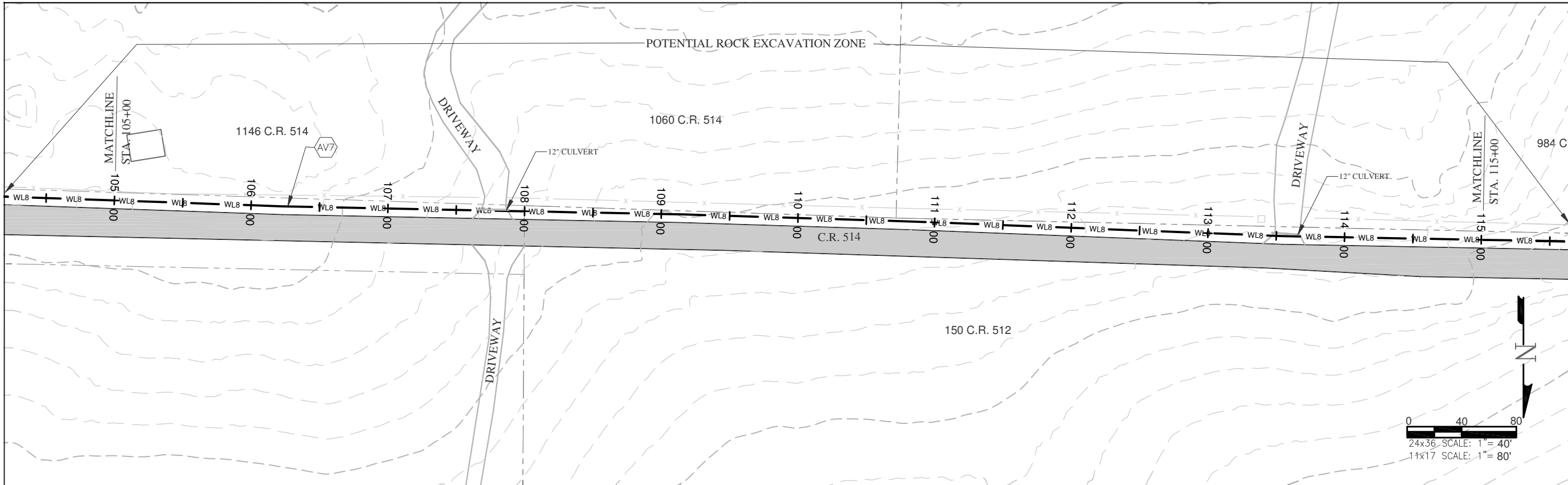


**LA PLATA ARCHULETA WATER DISTRICT**  
**PHASE 2A WATER PIPELINE** REV 1 4/22/2014  
**PLAN AND PROFILE**

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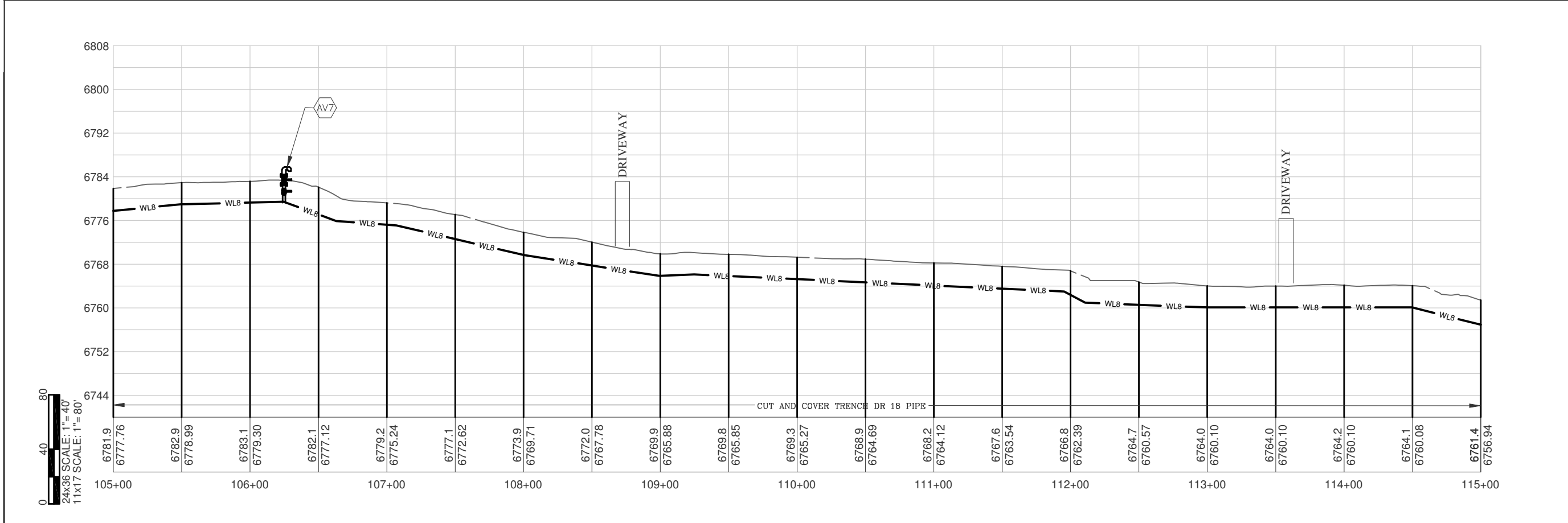
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AV7 INSTALL AIR VAC AT HIGH POINT PER STANDARD DETAILS SHEET 11.

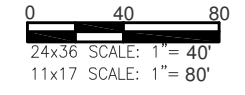
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- GAS GAS LINE
- TEL TEL UNDERGROUND TELEPHONE
- EWL EWL EXISTING WATERLINE
- UWL UWL UNDERGROUND ELECTRIC
- WETLANDS
- W14 W14 PROPOSED WATERLINE WITH SIZE SHOWN BY LINETYPE
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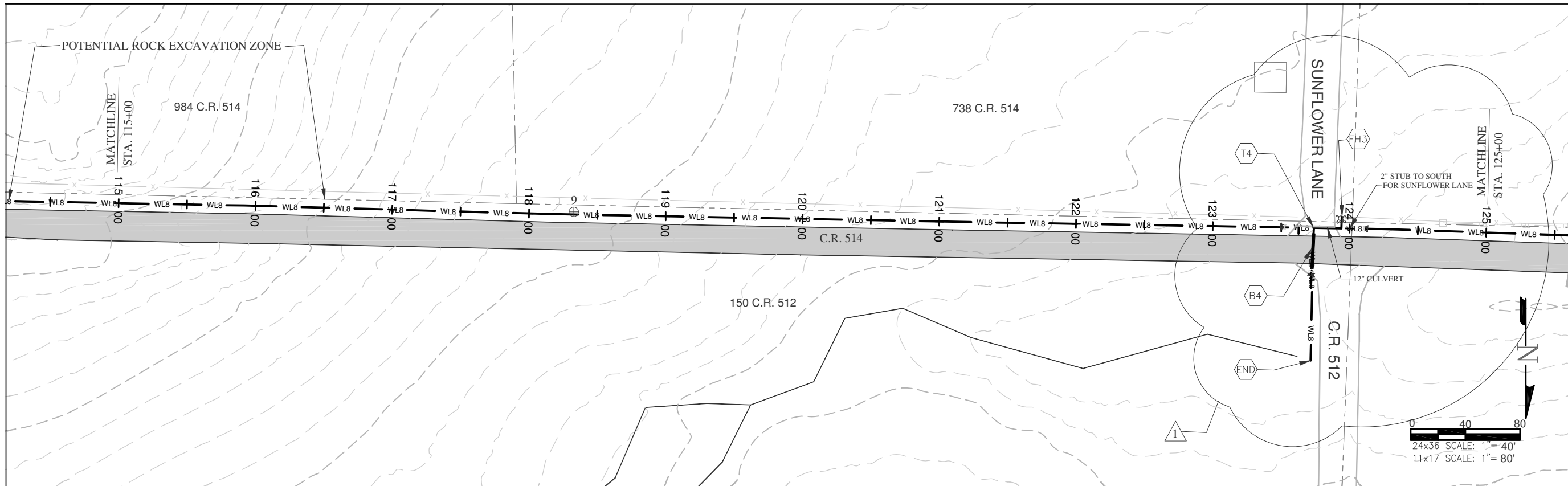


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**PHASE 2A WATER PIPELINE**  
**PLAN AND PROFILE**

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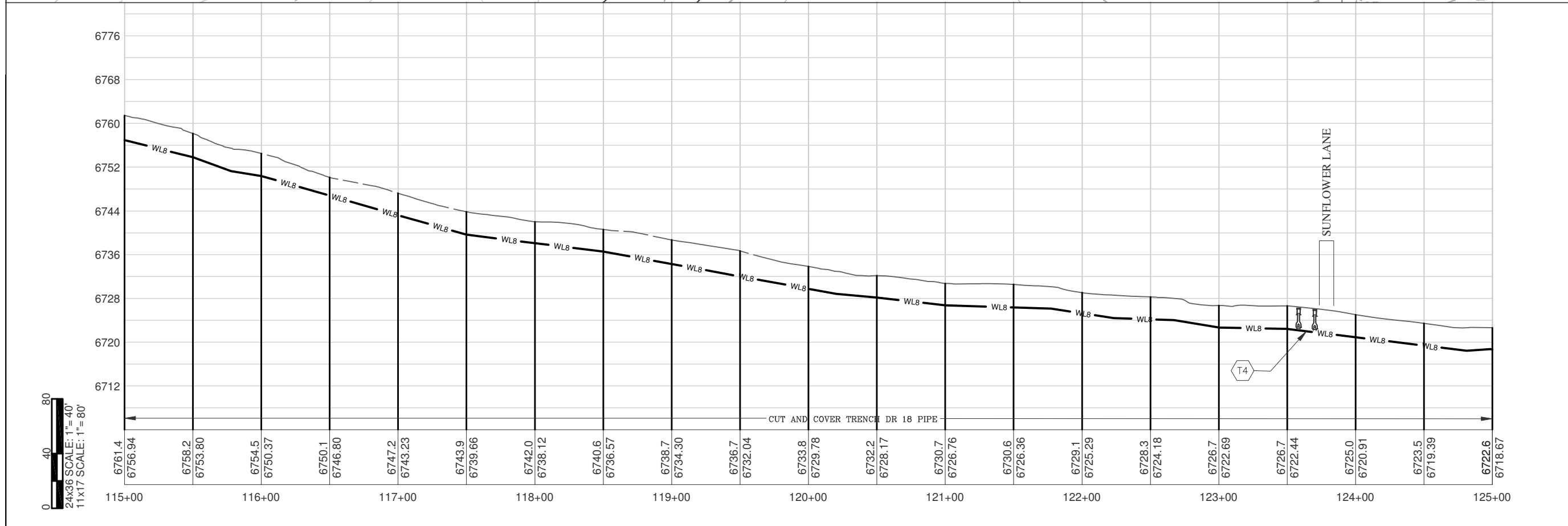
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  - END INSTALL 3" PIPE AND BLOW-OFF TYPE "B" PER STANDARD DETAIL SHEET 13. INSTALL FIBERGLASS MARKER AT END OF LINE.
  - B4 BORE UNDER COUNTY ROAD 514 PER STANDARD DETAILS SHEET 10.
  - FH3 INSTALL FIRE HYDRANT OFF 8" MAIN 10 FEET FROM EDGE OF ROAD PER STANDARD DETAILS SHEET 8.

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**PHASE 2A WATER PIPELINE**  
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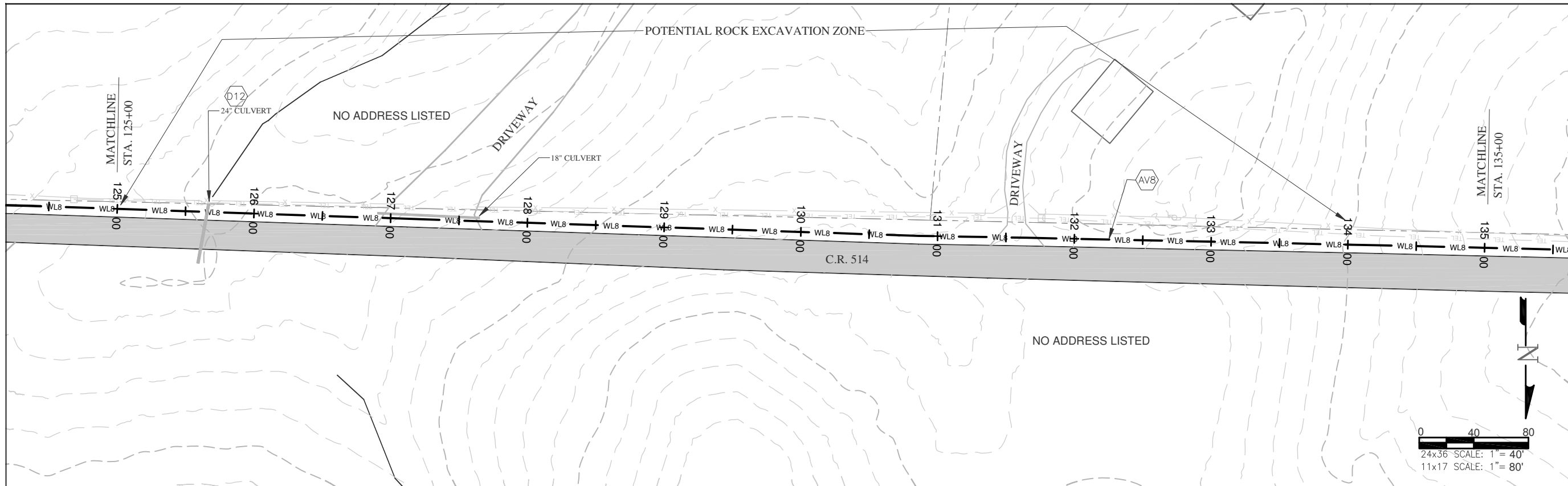
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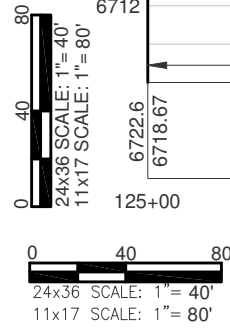
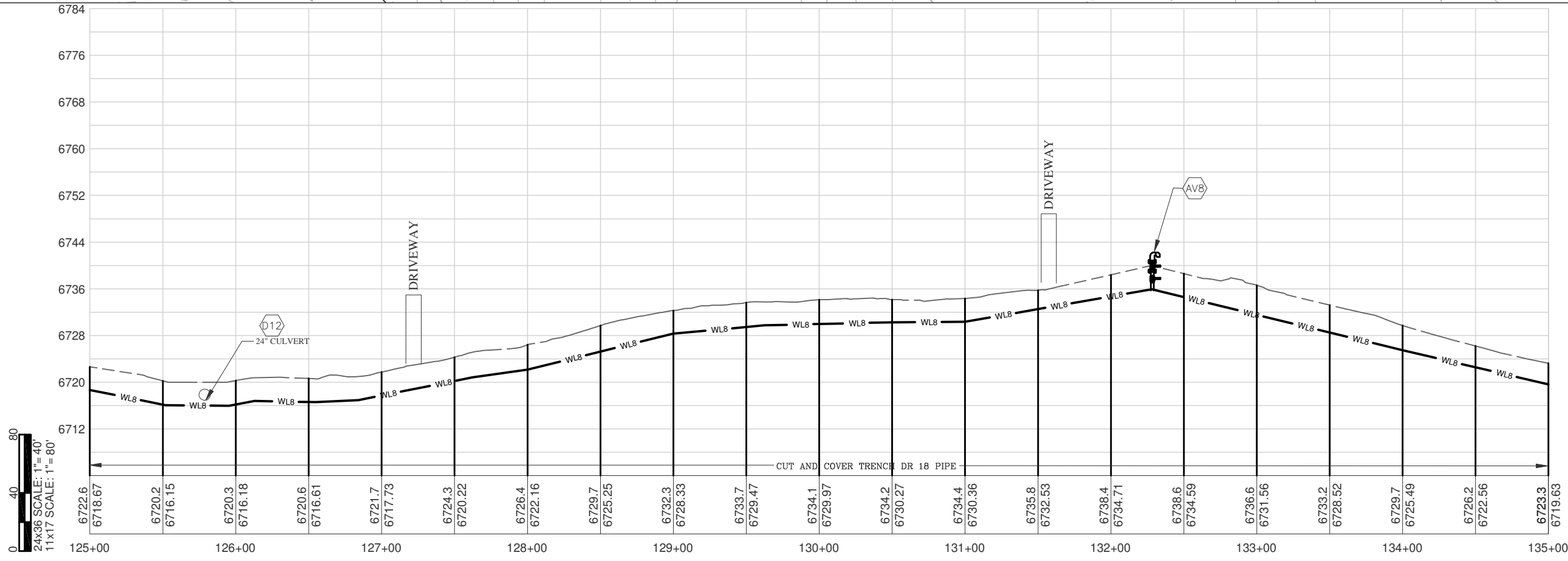
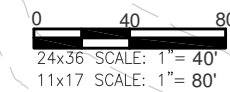
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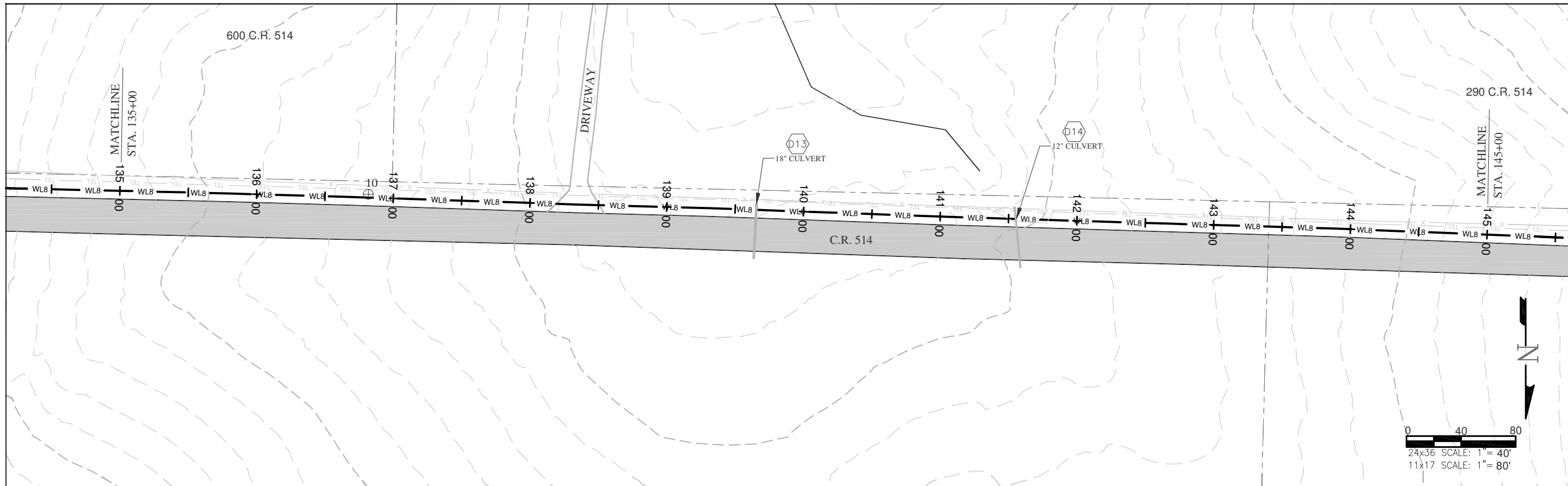


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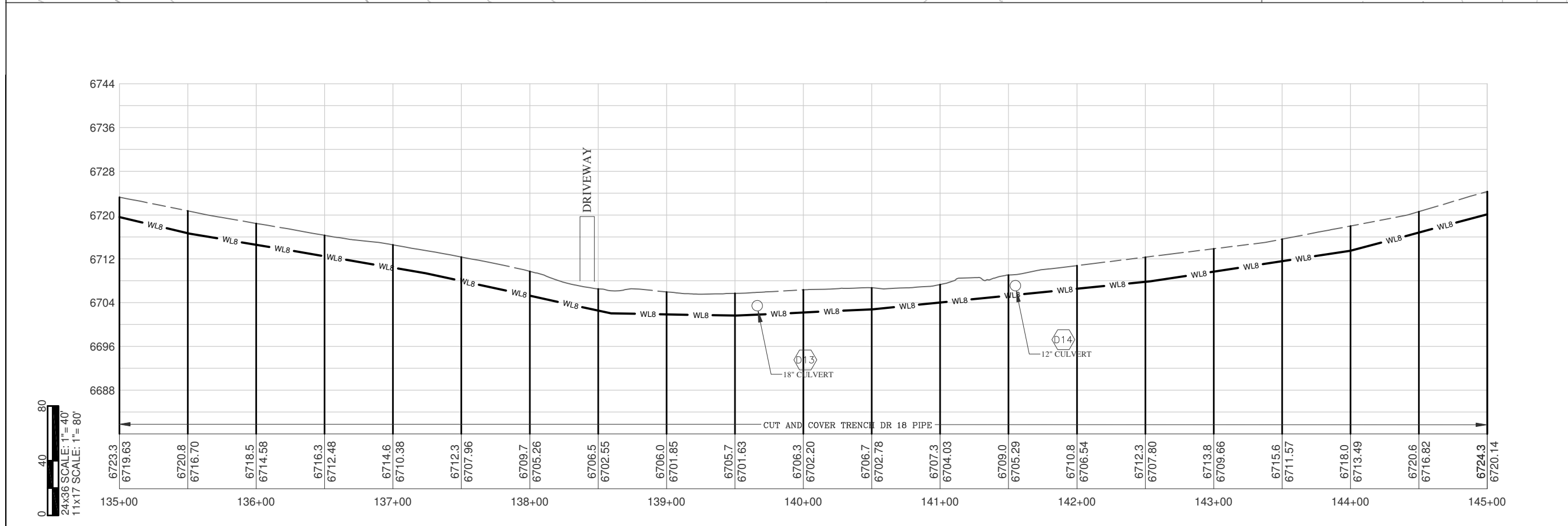
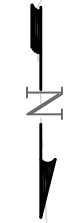
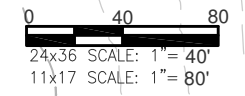


**KEY NOTES**  
 "CONTRACTOR TO VERIFY TAP SIZE AND LOCATION PRIOR TO INSTALL AT ALL PLACEMENTS SHOWN. SERVICE TAP LOCATIONS, QUANTITIES AND SIZES ARE SUBJECT TO CHANGE."

D13 EXTEND CULVERT SECTIONS OVER PIPELINE WHERE REQUIRED.  
 D14 MAINTAIN 4' MINIMUM COVER OVER PIPELINE.

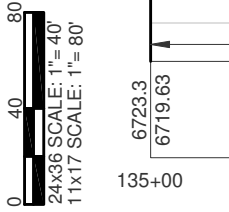
**GENERAL NOTES**

- A ELEVATIONS SHOWN ARE APPROXIMATE AND MAY NOT BE ACCURATE AT TIME OF CONSTRUCTION.
- B STATIONING WILL BE SUBJECT TO ACTUAL FIELD CONDITIONS AND MAY VARY FROM THAT SHOWN.
- C CONTACT LPEA PRIOR TO WORK IF EXCAVATING WITHIN 5 FEET OF POWER POLES. MAINTAIN 5 FOOT SEPARATION BETWEEN POWER POLE AND WATERLINE.
- D ALL FITTINGS ARE STANDARD UNLESS NOTED OTHERWISE. HORIZONTAL BENDS NOT SHOWN ARE TO BE PROVIDED AT NO EXTRA COST.
- E PVI CHANGES MAY NOT REQUIRE FITTINGS, CHECK USABLE PIPE BEND RADIUS. USABLE PIPE BEND RADIUS NOT TO EXCEED 75% OF MANUFACTURERS RECOMMENDED ALLOWABLE.
- F ALL LEGS OF WATER LINES AT VALVES SHALL HAVE MECHANICAL JOINT RESTRAINT (MJR) IN THE FORM OF MEGALUG 2000 SERIES PV MJR.
- G CUTS WITHIN 4ft. OF EDGE OF ROAD TO BE FLOW FILLED TO WITHIN 6" OF TOP THEN 6" OF CLASS 6 AT 95% COMPACTION
- H CUTS IN ROAD SURFACE SHALL BE FLOW FILLED TO WITHIN 8" OF TOP SURFACE. THEN MATCH LPC STANDARDS OF COMPACTED ROAD BASE WITH MAG CHLORIDE FOR TOP 8".



**LEGEND**

	WATER VALVE
	FENCE
	GUARD RAIL
	OVERHEAD POWERLINE
	GAS LINE
	UNDERGROUND TELEPHONE
	EXISTING WATERLINE
	UNDERGROUND ELECTRIC
	WETLANDS
	PROPOSED WATERLINE WITH SIZE SHOWN BY LINETYPE
	FIBER OPTIC MARKER
	TELEPHONE PEDESTAL
	POWER POLE
	TRAUBNER BORING HOLE WITH BORE NUMBER ABOVE



24x36 SCALE: 1" = 40'  
 11x17 SCALE: 1" = 80'

ELEVATIONS DERIVED FROM COUNTY GIS MAPS AND ARE FOR INFORMATIONAL PURPOSES ONLY. FIELD CONDITIONS MAY VARY.

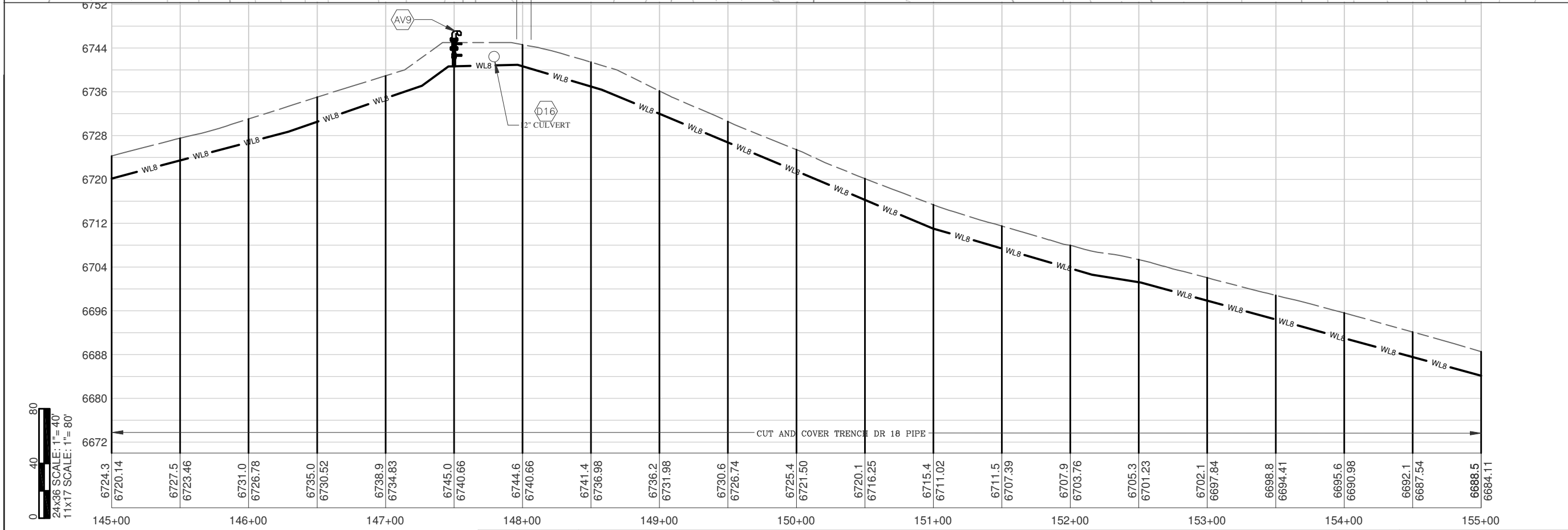
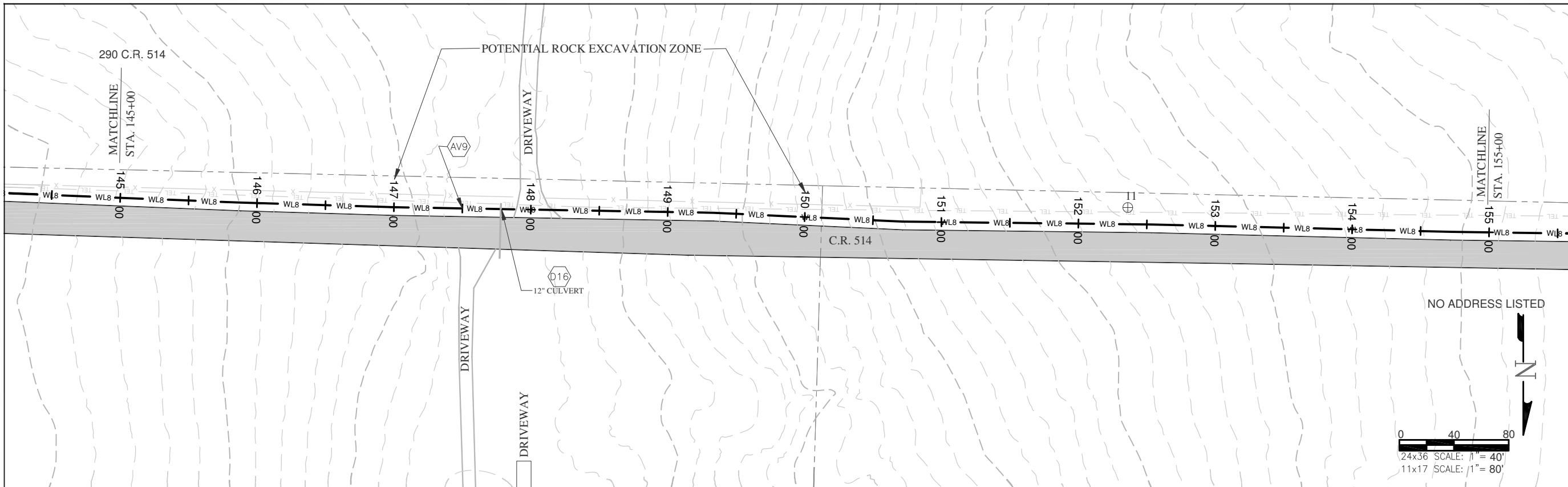


**LA PLATA ARCHULETA WATER DISTRICT  
 PHASE 2A WATER PIPELINE  
 PLAN AND PROFILE**

CALL UTILITY NOTIFICATION  
 CENTER OF COLORADO  
 1-800-922-1987 OR (811)  
 CALL 3 BUSINESS DAYS PRIOR  
 TO ANY CONSTRUCTION.

**HARRIS WATER  
 ENGINEERING INC.**  
 954 East Second Ave.  
 Durango, Co. 81303  
 970-259-1028

DATE: 05/01/2014  
 DRAWN BY: MG  
 CHECKED BY: BS  
 SHEET  
 14 OF 17



**KEY NOTES**

"CONTRACTOR TO VERIFY TAP SIZE AND LOCATION PRIOR TO INSTALL AT ALL PLACEMENTS SHOWN. SERVICE TAP LOCATIONS, QUANTITIES AND SIZES ARE SUBJECT TO CHANGE."

AV9 INSTALL AIR VAC AT HIGH POINT PER STANDARD DETAILS SHEET 11.

D16 EXTEND CULVERT SECTIONS OVER PIPELINE WHERE REQUIRED. MAINTAIN 4" MINIMUM COVER OVER PIPELINE.

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**LEGEND**

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	GUARD RAIL
	OVERHEAD POWERLINE
	GAS LINE
	UNDERGROUND TELEPHONE
	EXISTING WATERLINE
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	PROPOSED WATERLINE WITH SIZE SHOWN BY LINETYPE
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	TELEPHONE PEDESTAL
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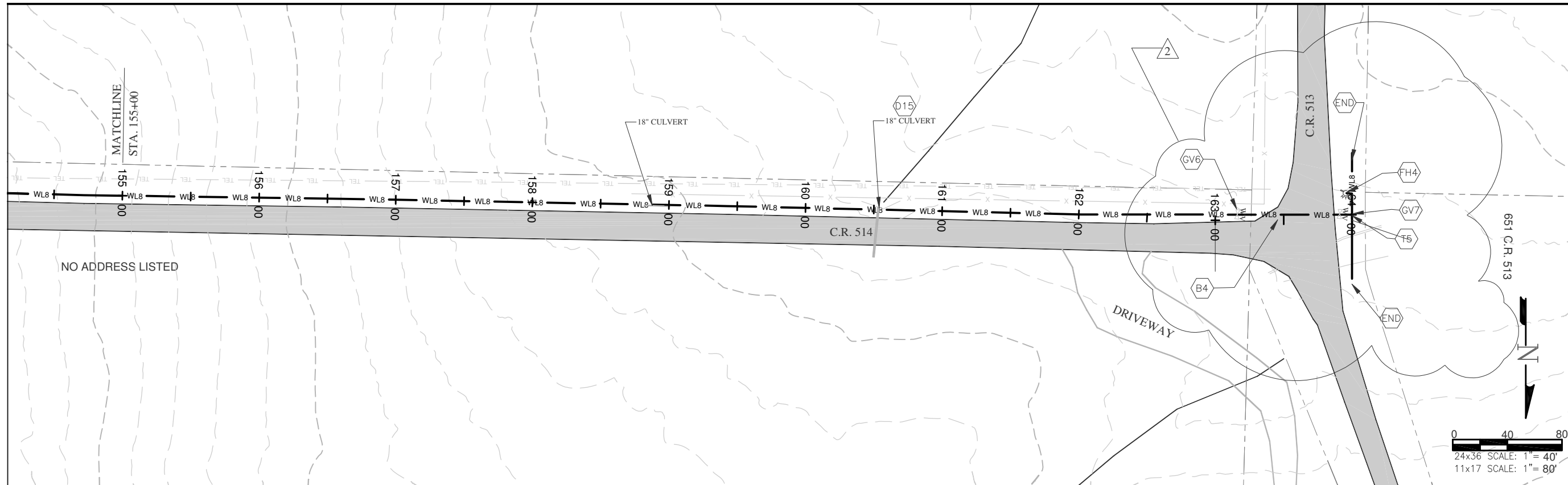


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**PHASE 2A WATER PIPELINE**  
**PLAN AND PROFILE**

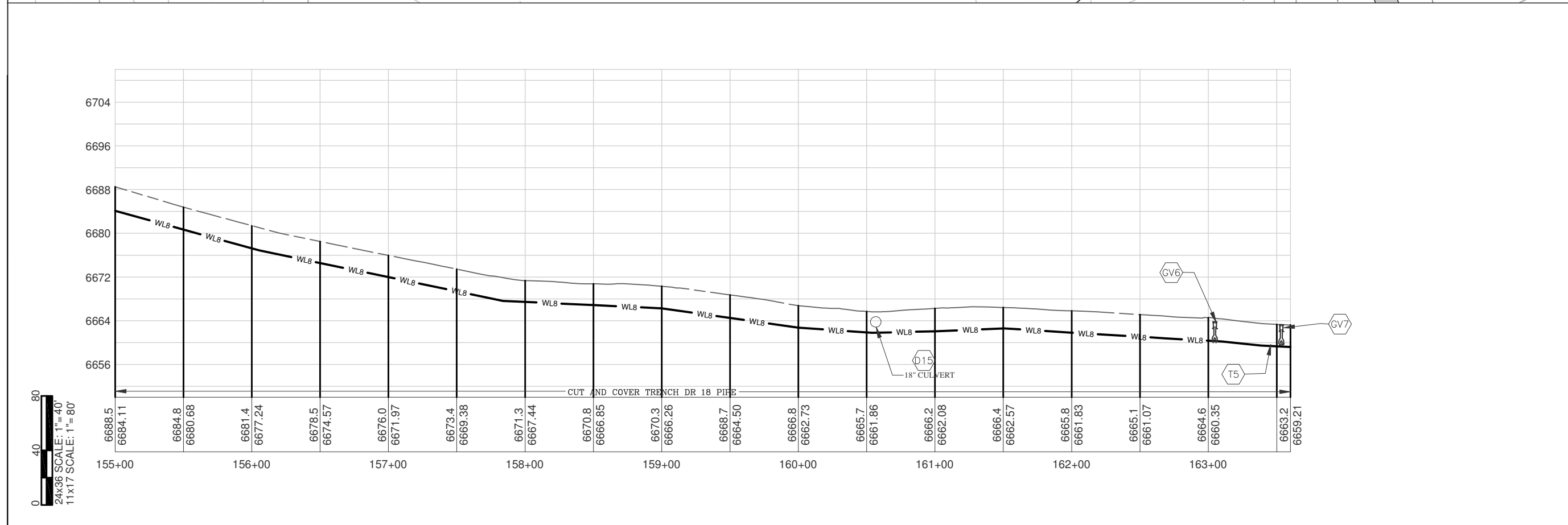
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- KEY NOTES**
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  - AV1 INSTALL AIR VAC AT HIGH POINT PER STANDARD DETAILS SHEET 11.
  - D15 EXTEND CULVERT SECTIONS OVER PIPELINE WHERE REQUIRED. MAINTAIN 4' MINIMUM COVER OVER PIPELINE.
  - B4 BORE UNDER C.R. 514 PER STANDARD DETAILS SHEET 10.
  - T5 8x8x8 TEE WITH 8" VALVES ON ALL LEGS PER STANDARD DETAILS SHEET 6.
  - FH4 INSTALL FIRE HYDRANT OFF 8" MAIN 10 FEET FROM EDGE OF ROAD PER STANDARD DETAILS SHEET 8.
  - END INSTALL 3" PIPE AND BLOW-OFF TYPE "B" PER STANDARD DETAIL SHEET 13. INSTALL FIBERGLASS MARKER AT END OF LINE.
  - GV6 INSTALL 8" GATE VALVE PER STANDARD DETAILS SHEET 7.
- GENERAL NOTES**
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- LEGEND**
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  - FENCE
  - GUARD RAIL
  - OHE OVERHEAD POWERLINE
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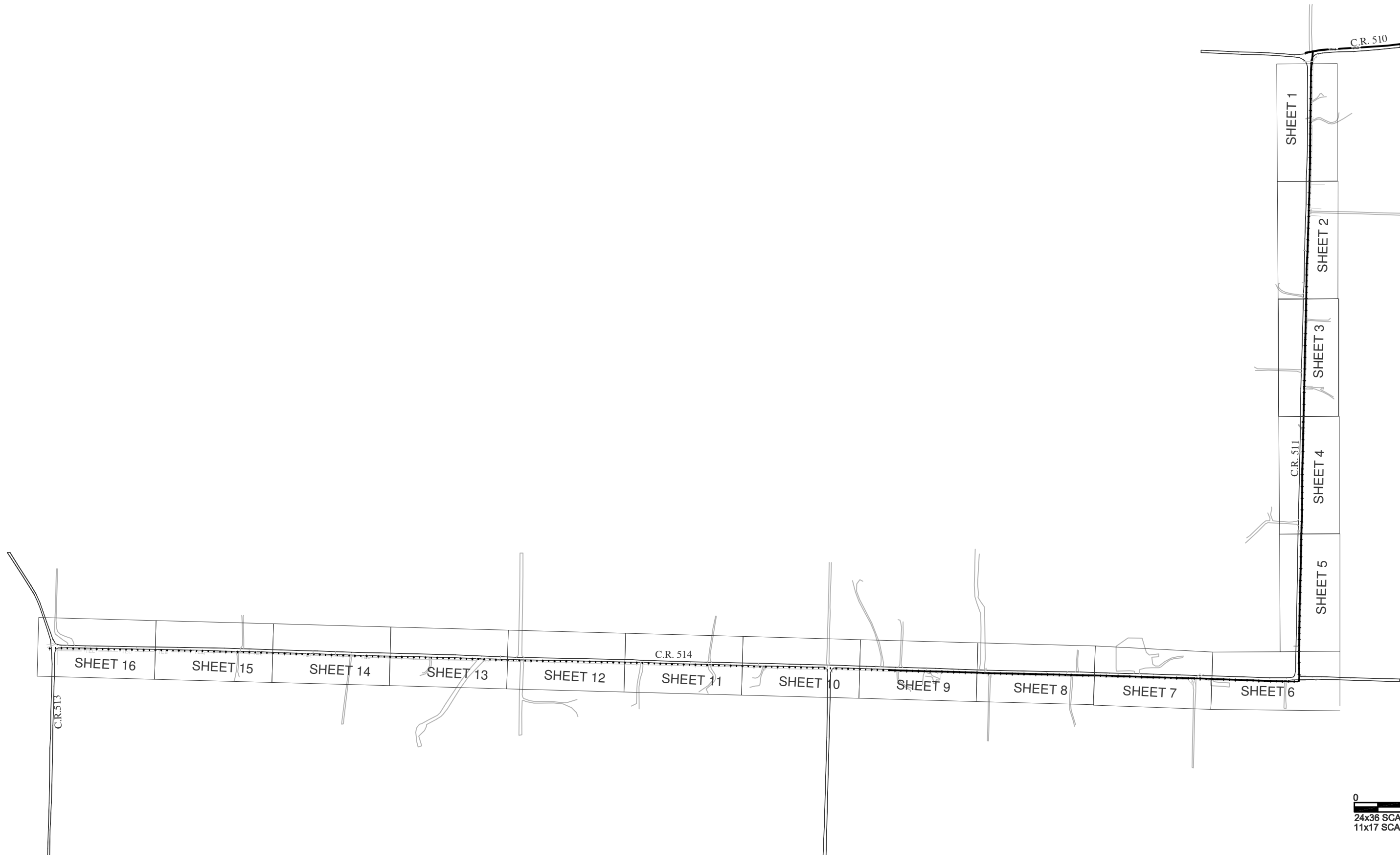
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**PHASE 2A WATER PIPELINE**  
**PLAN AND PROFILE**

REV 2 4/30/2014

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16 OF 17



0 400 800  
 24x36 SCALE: 1/8"=1'-0"  
 11x17 SCALE: 1/32"=1'-0"



LA PLATA ARCHULETA WATER DISTRICT  
 PHASE 2A WATER PIPELINE  
 SHEET LOCATIONS

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