

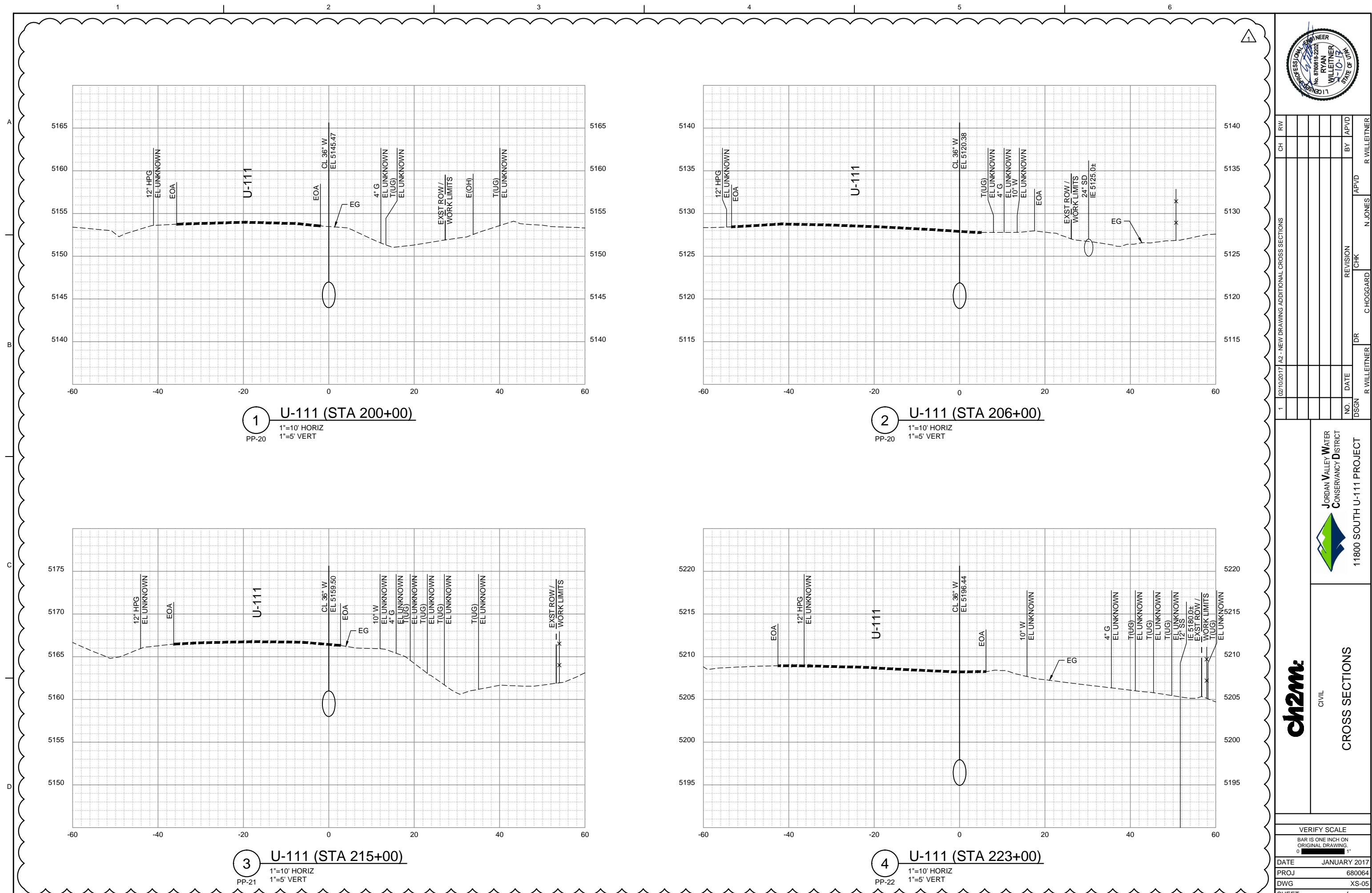
NO.	DATE	DR	CHK	APVD
1	02/10/2017	R. WILLEITNER	C. HOGGARD	N. JONES
DESCRIPTION		DESIGN	REVISION	BY
1		ADDED MISSING CULVERT CROSSING		

JORDAN VALLEY WATER CONSERVANCY DISTRICT
11800 SOUTH U-111 PROJECT

PLAN AND PROFILE
STA 198+00 TO STA 208+00

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING.

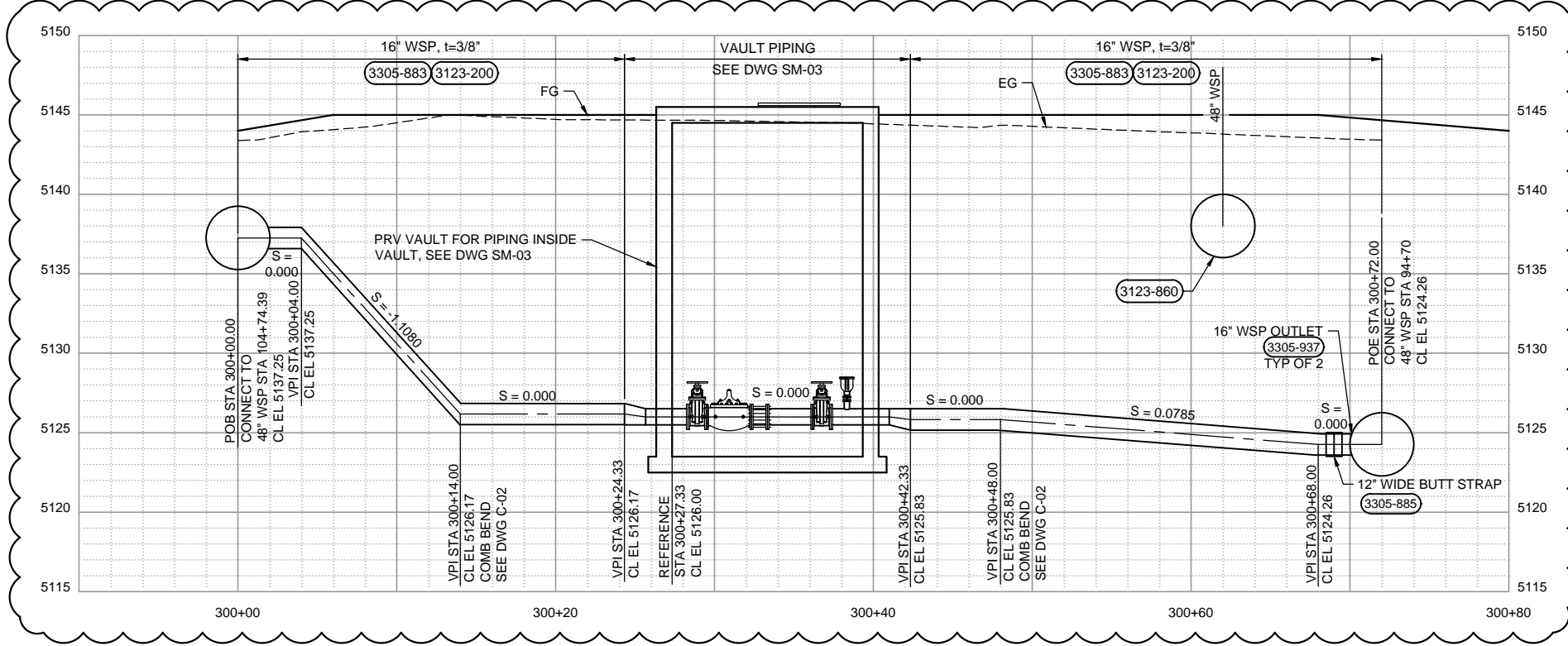
DATE	JANUARY 2017
PROJ	680064
DWG	PP-20
SHEET	of



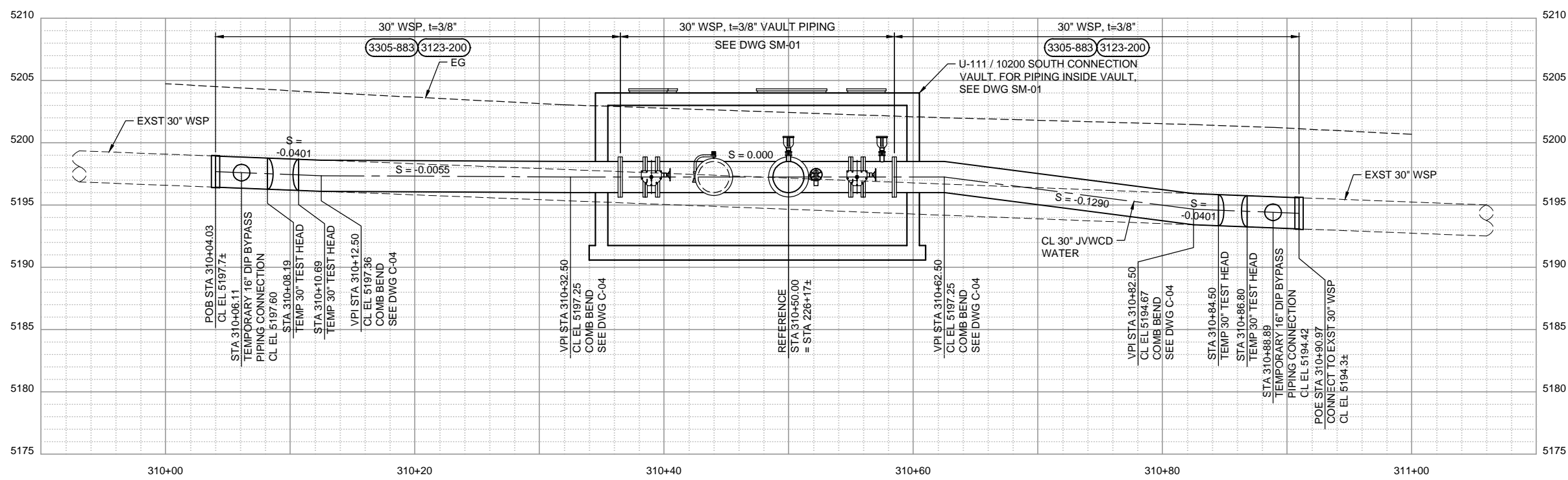
NO.	DATE	DR	CHK	REVISION	BY	APVD
1		R WILLEITNER	C HOGGARD		N JONES	R WILLEITNER

Jordan Valley Water Conservancy District
 11800 SOUTH U-111 PROJECT

ch2m		CIVIL
CROSS SECTIONS		
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING.		
DATE	JANUARY 2017	
PROJ	680064	
DWG	XS-05	
SHEET	of	



A 16" PRV PIPING PROFILE
 1"=5' HORIZ
 1"=5' VERT
 C-02



B 30" PIPE REPLACEMENT PROFILE
 1"=5' HORIZ
 1"=5' VERT
 C-04



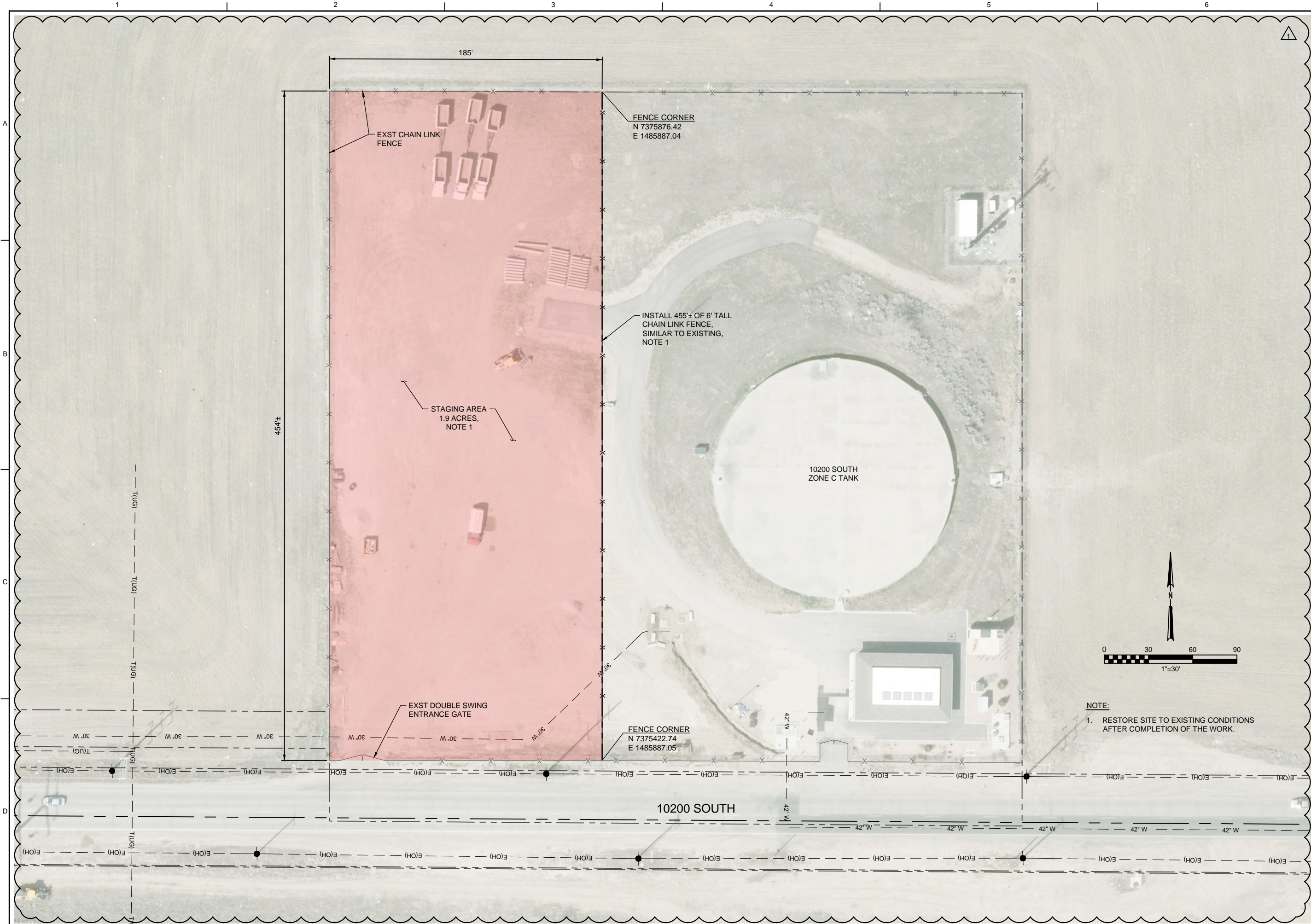
NO.	DATE	DR	CHK	APVD
1		R. WILLEITNER	C. HOGGARD	N. JONES
1	02/10/2017	A2 - MODIFY PROFILE ON PRV VAULT		

JORDAN VALLEY WATER CONSERVANCY DISTRICT
 11800 SOUTH U-111 PROJECT

ch2m CIVIL
VAULT CONNECTION PROFILES

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DATE	JANUARY 2017
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SHEET	of

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NO.	DATE	REVISION	CHK	DR	APVD	BY	APVD
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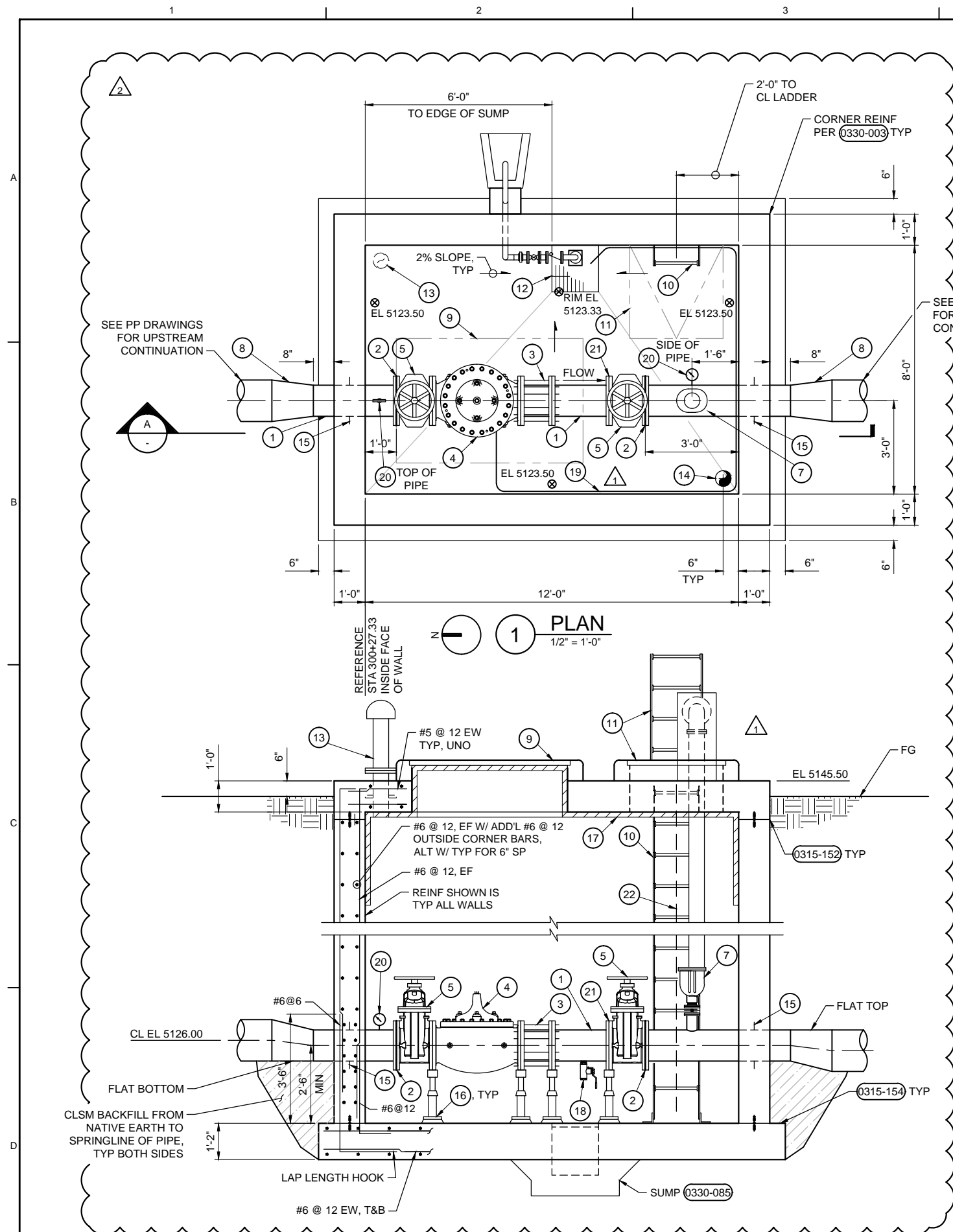
CIVIL

 SITE PLAN

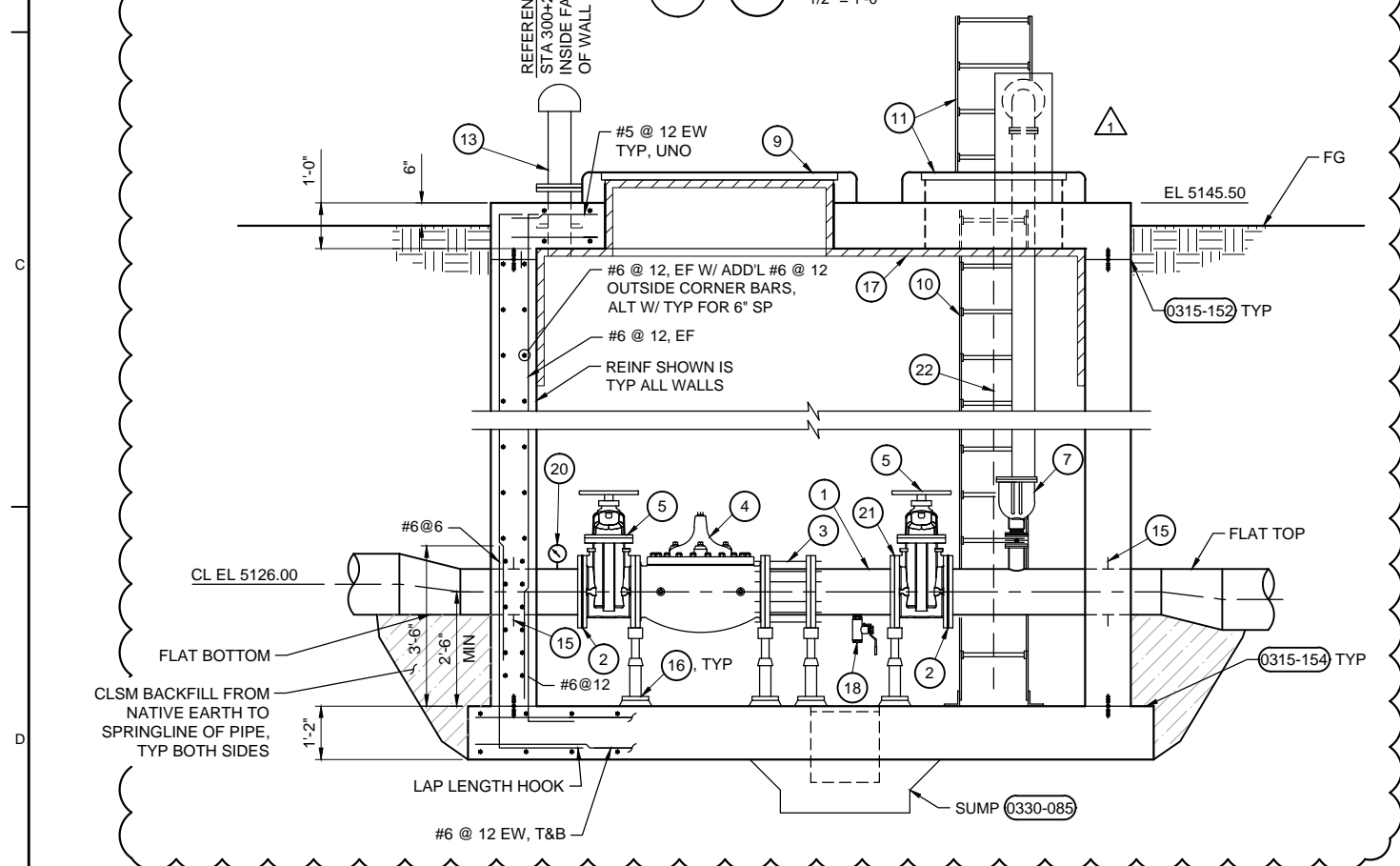
 STAGING AREA

VERIFY SCALE	BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE	JANUARY 2017
PROJ	680064
DWG	C-07
SHEET	of

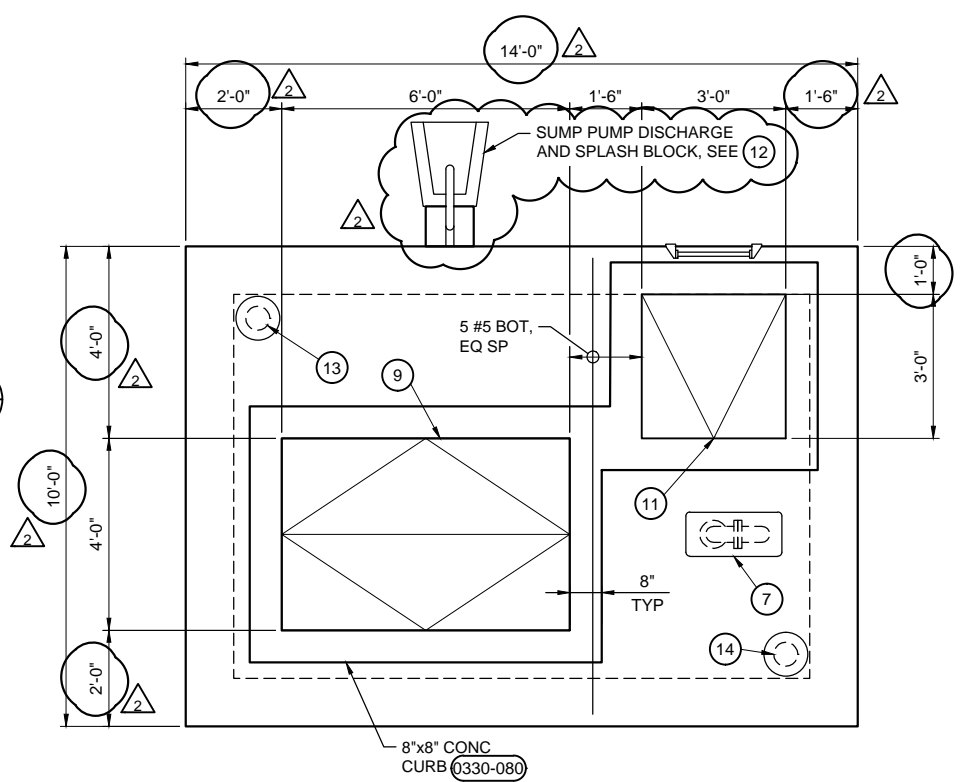
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1 PLAN
1/2" = 1'-0"



A SECTION
1/2" = 1'-0"



2 ROOF PLAN
1/2" = 1'-0"

MATERIAL SCHEDULE

- 1 12" WSP, t = 3/8"
- 2 INSULATING FLANGE (2642-925)
- 3 12" RESTRAINED DISMANTLING JOINT
- 4 12" FLOW CONTROL GLOBE VALVE W/ ELECTRONIC SOLINOID OPERATION, TYPE (V715)
- 5 12" FLGxFLG GATE VALVE, TYPE (V130) W/ MANUAL OPERATOR
- 6 VENT PIPE SUPPORT (4005-505)
- 7 6" COMBINATION AIR VALVE TYPE V746 (4027-120) . PVC SCH 80 PIPE CONNECTED TO ROOF VENT ASSEMBLY (2337-805)
- 8 12"x16" WSP ECCENTRIC REDUCER
- 9 4' x 6' DOUBLE LEAF SIDEWALK DOOR
- 10 SST LADDER (0551-101)
- 11 36" x 36" SIDEWALK DOOR & EXTERIOR LADDER (0551-143)
- 12 18" x 18" SUMP W/ PUMP (2230-170) (3311-850)
- 13 6" VENT PIPE (2337-806)
- 14 6" EXHAUST VENT W/ VENT FAN (2337-810) (2337-805)
- 15 SEEP RING (3305-916)
- 16 PIPE SUPPORT (4005-500) OR (4005-501)
- 17 2" THK INSULATION TO 4' BELOW FG
- 18 2" DRAIN DETAIL (4027-195)
- 19 COPPER DRAIN PIPE FROM GLOBE VALVE FLUSHING STRAINERS TO SUMP BY VALVE MANUFACTURER
- 20 DIGITAL PRESSURE GAGE TRANSMITTER (4090-690)
- 21 1/4" THK 316L SST ORIFICE PLATE W/ 6" DIA ORIFICE HOLE
- 22 SAFETY CLIMB DEVICE

NOTES:

- 1. FOR GENERAL STRUCTURAL NOTES SEE G-10.
- 2. REINFORCE OPENINGS PER (0330-001).
- 3. REINFORCE CORNERS PER (0330-003).

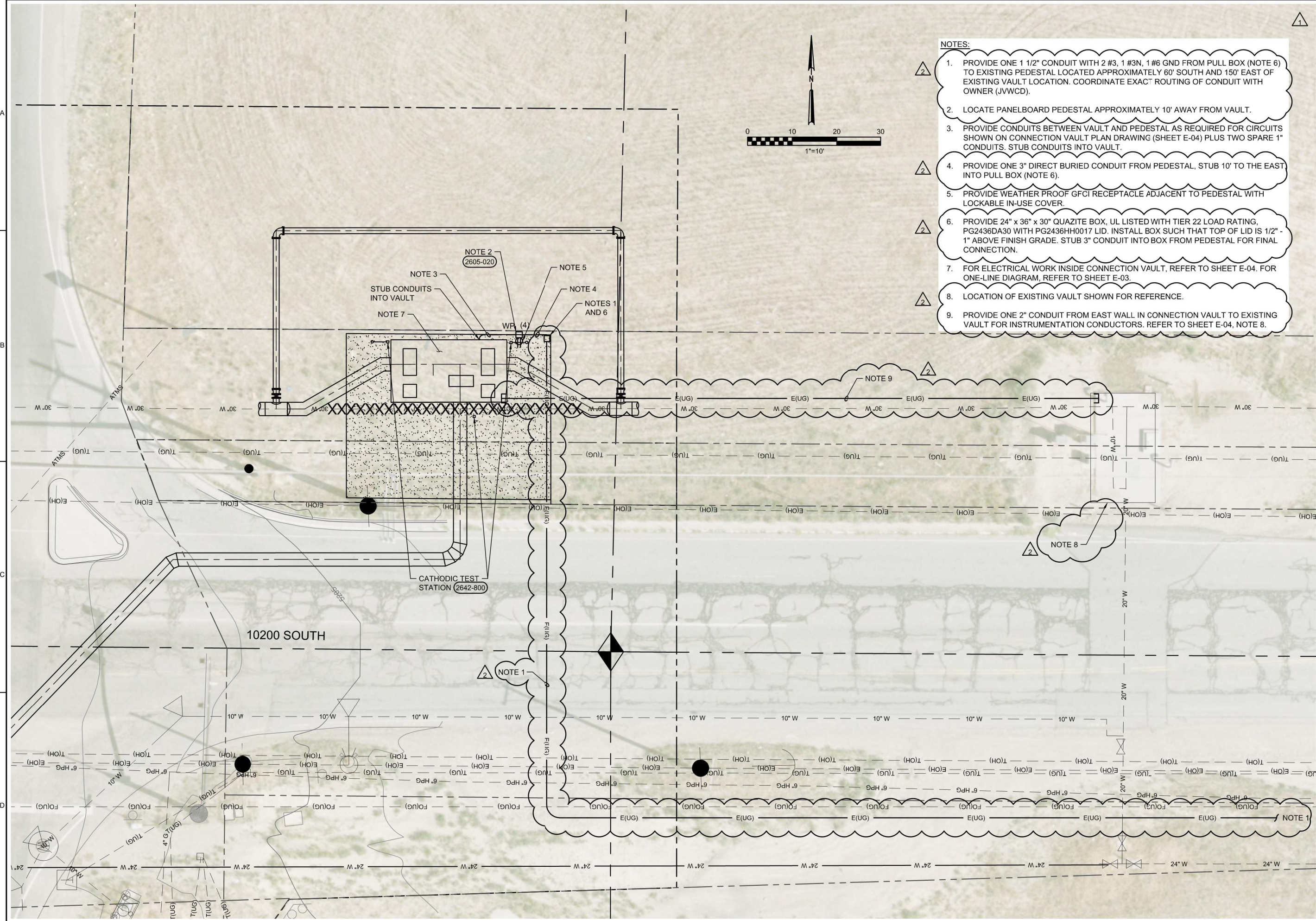


NO.	DATE	DR	CHK	REVISION	BY	APVD
1	01/27/2016	R. WILLEITNER	R. PHILLIPS			N. JONES, JR. WILLEITNER/T. PETTY
2	02/10/2017					

JORDAN VALLEY WATER CONSERVANCY DISTRICT
11800 SOUTH U-111 PROJECT

ch2m
STRUCTURAL / MECHANICAL
PRV VAULT
PLAN AND SECTIONS

DATE	JANUARY 2017
PROJ	680064
DWG	SM-03
SHEET	of



- NOTES:**
1. PROVIDE ONE 1 1/2" CONDUIT WITH 2 #3, 1 #3N, 1 #6 GND FROM PULL BOX (NOTE 6) TO EXISTING PEDESTAL LOCATED APPROXIMATELY 60' SOUTH AND 150' EAST OF EXISTING VAULT LOCATION. COORDINATE EXACT ROUTING OF CONDUIT WITH OWNER (JVWCD).
 2. LOCATE PANELBOARD PEDESTAL APPROXIMATELY 10' AWAY FROM VAULT.
 3. PROVIDE CONDUITS BETWEEN VAULT AND PEDESTAL AS REQUIRED FOR CIRCUITS SHOWN ON CONNECTION VAULT PLAN DRAWING (SHEET E-04) PLUS TWO SPARE 1" CONDUITS. STUB CONDUITS INTO VAULT.
 4. PROVIDE ONE 3" DIRECT BURIED CONDUIT FROM PEDESTAL, STUB 10' TO THE EAST INTO PULL BOX (NOTE 6).
 5. PROVIDE WEATHER PROOF GFCI RECEPTACLE ADJACENT TO PEDESTAL WITH LOCKABLE IN-USE COVER.
 6. PROVIDE 24" x 36" x 30" QUAZITE BOX, UL LISTED WITH TIER 22 LOAD RATING, PG2436DA30 WITH PG2436HH0017 LID. INSTALL BOX SUCH THAT TOP OF LID IS 1/2" - 1" ABOVE FINISH GRADE. STUB 3" CONDUIT INTO BOX FROM PEDESTAL FOR FINAL CONNECTION.
 7. FOR ELECTRICAL WORK INSIDE CONNECTION VAULT, REFER TO SHEET E-04. FOR ONE-LINE DIAGRAM, REFER TO SHEET E-03.
 8. LOCATION OF EXISTING VAULT SHOWN FOR REFERENCE.
 9. PROVIDE ONE 2" CONDUIT FROM EAST WALL IN CONNECTION VAULT TO EXISTING VAULT FOR INSTRUMENTATION CONDUCTORS. REFER TO SHEET E-04, NOTE 8.



NO.	DATE	DR	CHK	REVISION	BY	APVD
1	01/27/2016	A1.14	REISSUE DRAWING			
2	02/08/2017	A2	ADJUST VIEW AND SHOW ELEC CONNECTION TO EXIST VAULT			

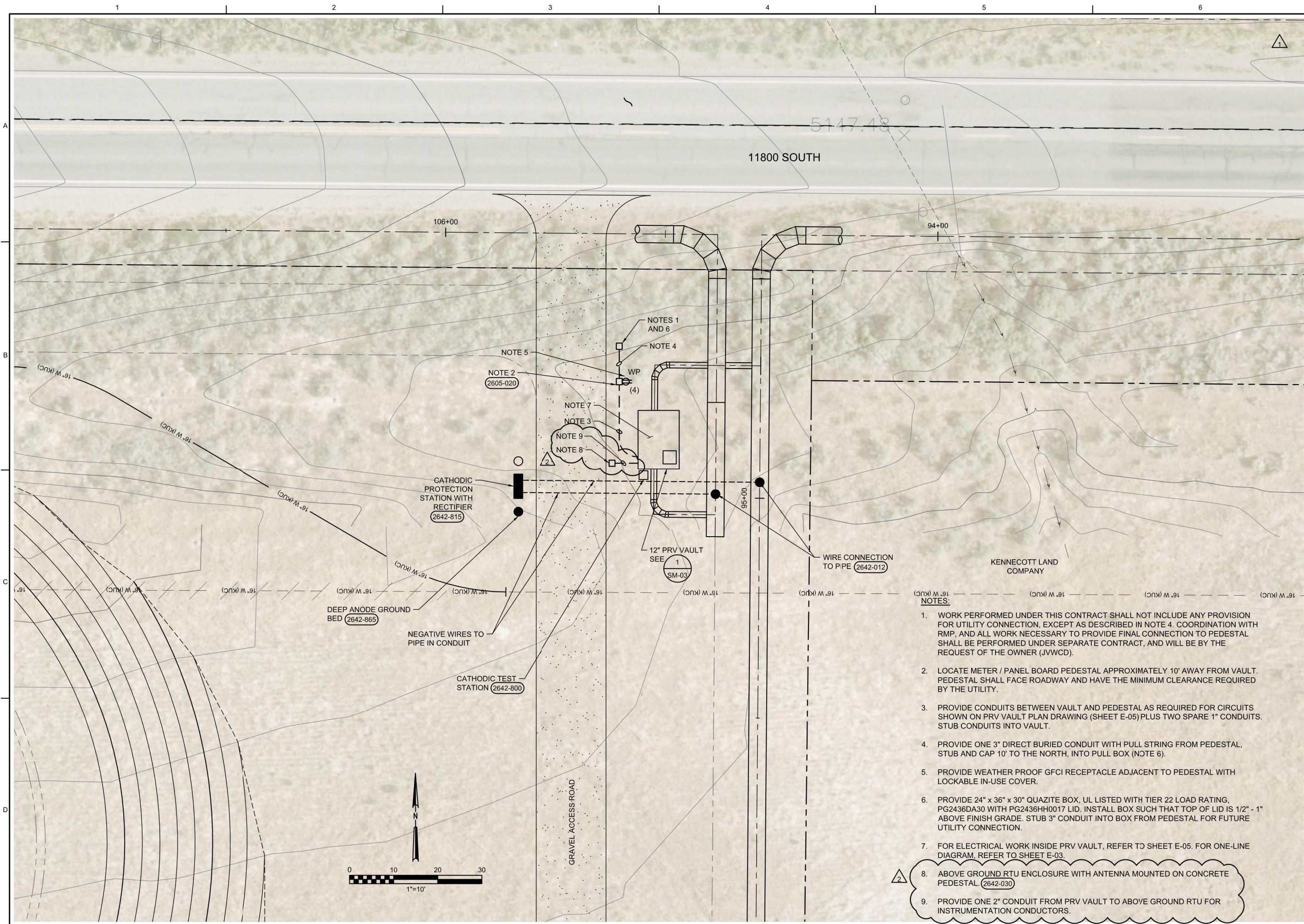
ch2m

ELECTRICAL
SITE PLAN
U-111 / 10200 SOUTH CONNECTION

JORDAN VALLEY WATER
 CONSERVANCY DISTRICT

11800 SOUTH U-111 PROJECT

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	JANUARY 2017
PROJ	680064
DWG	E-01
SHEET	of



NO.	DATE	DSGN	DR	CHK	REVISION	BY	APVD
1	01/27/2016	A1.15 - REISSUE DRAWING	C WILLIAMS	C HOGGARD			C WILLIAMS
2	02/08/2017	A2 - ADD RTU ENCLOSURE AND CONDUIT					C CURTIS

JORDAN VALLEY WATER CONSERVANCY DISTRICT

11800 SOUTH U-111 PROJECT

ch2m

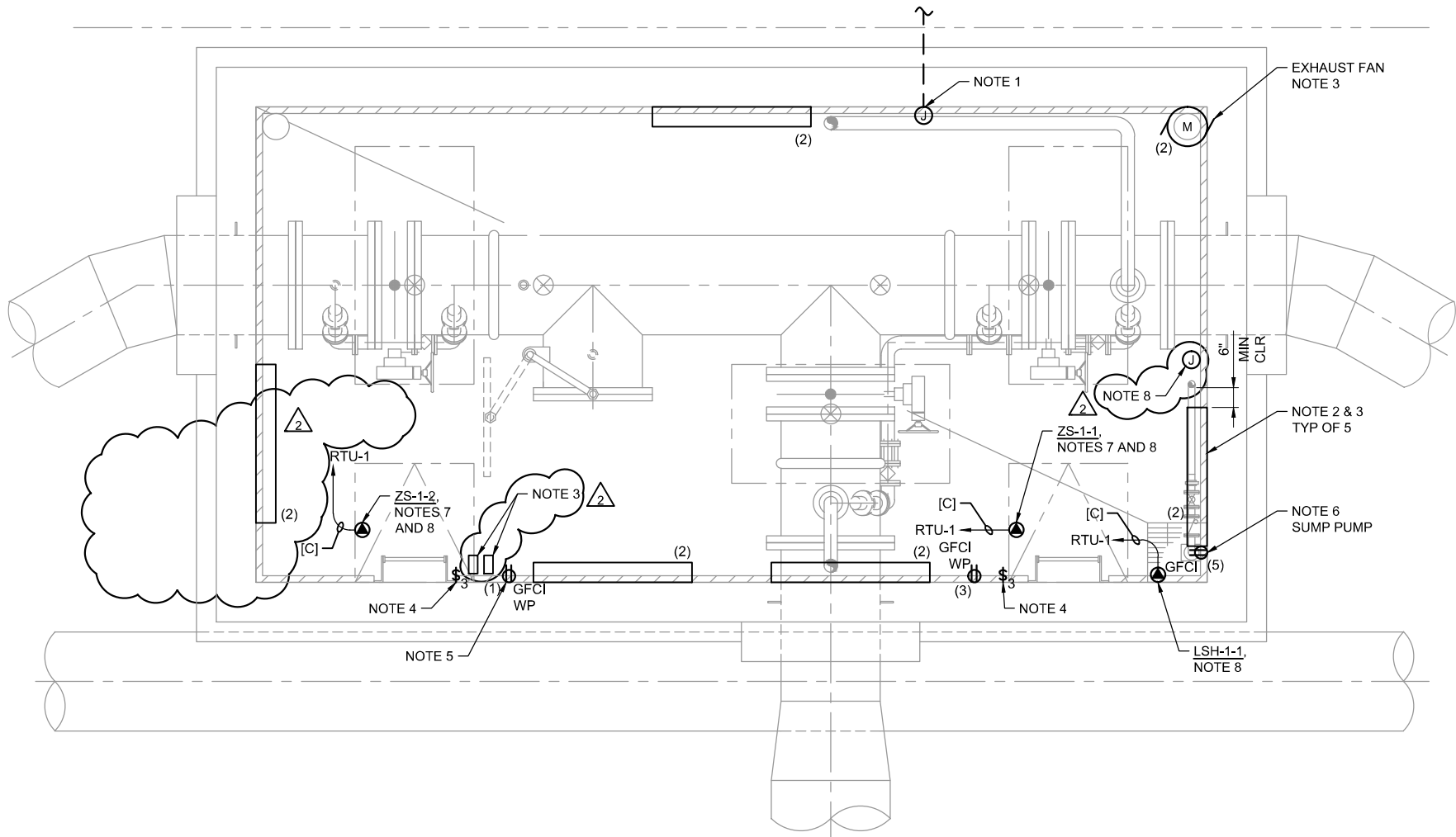
ELECTRICAL
SITE PLAN
PRV VAULT

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE: JANUARY 2017
PROJ: 680064
DWG: E-02
SHEET: of

- NOTES:**
- WORK PERFORMED UNDER THIS CONTRACT SHALL NOT INCLUDE ANY PROVISION FOR UTILITY CONNECTION, EXCEPT AS DESCRIBED IN NOTE 4. COORDINATION WITH RMP, AND ALL WORK NECESSARY TO PROVIDE FINAL CONNECTION TO PEDESTAL SHALL BE PERFORMED UNDER SEPARATE CONTRACT, AND WILL BE BY THE REQUEST OF THE OWNER (JVWCD).
 - LOCATE METER / PANEL BOARD PEDESTAL APPROXIMATELY 10' AWAY FROM VAULT. PEDESTAL SHALL FACE ROADWAY AND HAVE THE MINIMUM CLEARANCE REQUIRED BY THE UTILITY.
 - PROVIDE CONDUITS BETWEEN VAULT AND PEDESTAL AS REQUIRED FOR CIRCUITS SHOWN ON PRV VAULT PLAN DRAWING (SHEET E-05) PLUS TWO SPARE 1" CONDUITS. STUB CONDUITS INTO VAULT.
 - PROVIDE ONE 3" DIRECT BURIED CONDUIT WITH PULL STRING FROM PEDESTAL, STUB AND CAP 10' TO THE NORTH, INTO PULL BOX (NOTE 6).
 - PROVIDE WEATHER PROOF GFCI RECEPTACLE ADJACENT TO PEDESTAL WITH LOCKABLE IN-USE COVER.
 - PROVIDE 24" x 36" x 30" QUAZITE BOX, UL LISTED WITH TIER 22 LOAD RATING, PG2436DA30 WITH PG2436HH0017 LID. INSTALL BOX SUCH THAT TOP OF LID IS 1/2" - 1" ABOVE FINISH GRADE. STUB 3" CONDUIT INTO BOX FROM PEDESTAL FOR FUTURE UTILITY CONNECTION.
 - FOR ELECTRICAL WORK INSIDE PRV VAULT, REFER TO SHEET E-05. FOR ONE-LINE DIAGRAM, REFER TO SHEET E-03.
 - ABOVE GROUND RTU ENCLOSURE WITH ANTENNA MOUNTED ON CONCRETE PEDESTAL (2642-030)
 - PROVIDE ONE 2" CONDUIT FROM PRV VAULT TO ABOVE GROUND RTU FOR INSTRUMENTATION CONDUCTORS.

CONTINUED
ON SHEET E-01



ELECTRICAL PLAN
1/2" = 1'-0"

GENERAL NOTES:

A. NUMBERS IN PARENTHESIS (X) ADJACENT TO LIGHTS AND RECEPTACLES DENOTE CIRCUIT NUMBERS IN PANEL LP-1. PROVIDE #12 CONDUCTORS.

KEY NOTES:

- PROVIDE JUNCTION BOX(ES) ON VAULT WALL AT 24" BELOW TOP FOR CONDUIT TERMINATIONS. QUANTITY AS REQUIRED.
- PROVIDE ENCLOSED AND GASKETED LINEAR LED LUMINAIRE, LITHONIA FEM-L48-600LMN-IMAFL-WD-MVOLT-40K OR APPROVED EQUAL. WALL MOUNT AT 7'-6" ABOVE FINISH FLOOR.
- PROVIDE HAND-OFF-AUTO SWITCH AT PRINCIPAL ACCESS HATCH ADJACENT TO LIGHT SWITCH. PROVIDE TORK #8001 TIME SWITCH (NO SUBSTITUTES) ADJACENT TO HAND-OFF-AUTO SWITCH IN FIBERGLASS ENCLOSURE. (2605-030)
- MOUNT LIGHT SWITCH AT ELEVATION 5203.50 (6" BELOW VAULT HATCH) AND ADJACENT TO LADDER.
- MOUNT CONVENIENCE RECEPTACLE 48" INCHES ABOVE FINISH FLOOR. CIRCUIT RECEPTACLE AS SHOWN. PROVIDE WET LOCATION IN-USE COVER.
- PROVIDE 20A SIMPLEX RECEPTACLE FOR SUMP PUMP. MOUNT AT 48" ABOVE FINISH FLOOR.
- ACCESS HATCH INTRUSION SWITCH, WIDE-GAP MAGNETIC CONTACT SWITCH, 120VAC RATING. MOUNT SWITCH INSIDE HATCH.
- INSTALL CONDUITS EMBEDDED IN CONCRETE FROM HATCH INTRUSION SWITCH AND LEVEL SENSOR TO JUNCTION BOX ON EAST VAULT WALL. FROM JUNCTION BOX, ROUTE 2" CONDUIT TO EXISTING RTU IN EXISTING VAULT TO THE EAST.

CONDUCTOR TYPES:

- [A] = 3/4"C, 2 #12, 1 #12G
- [B] = 3/4"C, 1 #16TSP
- [C] = 3/4"C, 2 #14, 1 #14G

PANEL: LP1
SERVICE VOLTAGE: 120/240
TOTAL LOAD KVA: 2.1
REMARKS: 2

LOCATION: 10200 SOUTH CONNECTION VAULT
PHASE: 1 WIRE: 3
BUS SIZE: 100A MAIN SIZE: 100A
NEUTRAL: FULL MOUNTING: PEDESTAL

SCCR: 10,000
TYPE: BRKR

LOAD IN VA		BKR				CK				LOAD IN VA	
A	B	A/P	NO.	NO.	A/P	A	B	A/P	NO.	A	B
180		20/1	1	2	20/1			20/1	1	1150	
	180	20/1	3	4	20/1			20/1	2		180
360		20/1	5	6	20/1			20/1	3		
		20/1	7	8	20/1			20/1	4		
			9	10							
			11	12							
			13	14							
			15	16							
540	180	TOTALS								1150	180



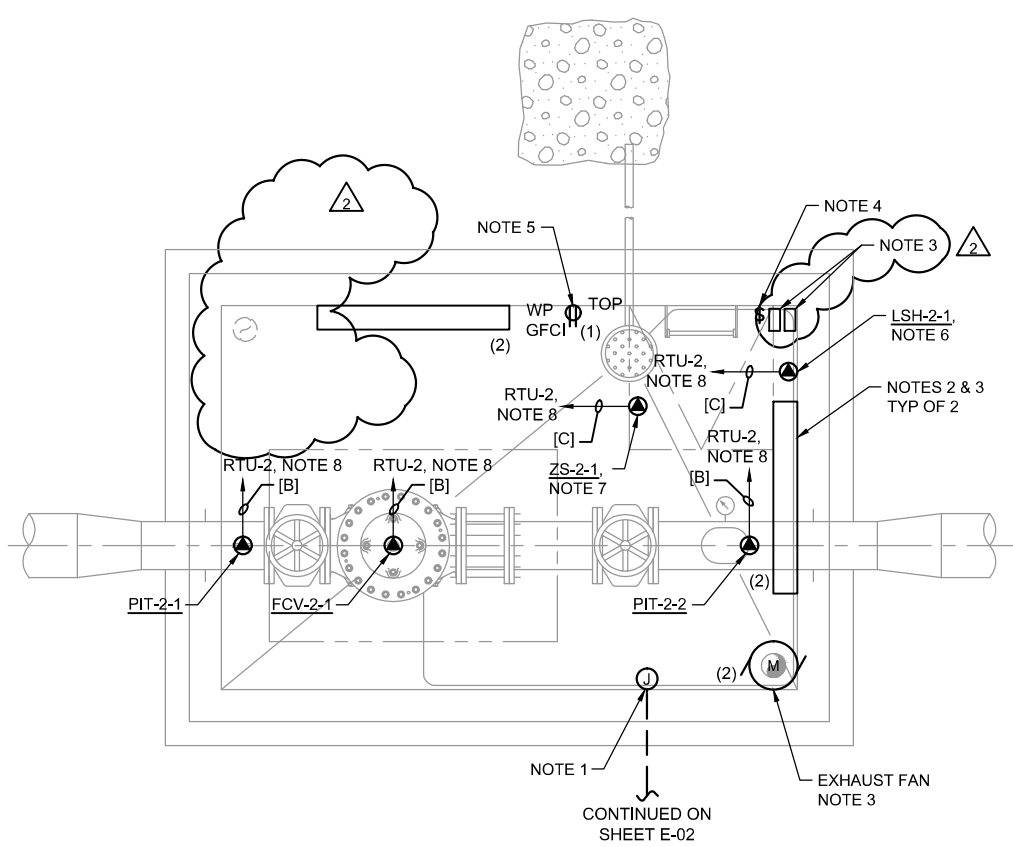
NO.	DATE	DR	CHK	APVD
1	01/27/2016	A1.17- REISSUE DRAWING		
2	02/08/2017	A2 - DELETE PANEL AND MAST ARM. ADD JCT BOX ON EAST WALL		

JORDAN VALLEY WATER CONSERVANCY DISTRICT
11800 SOUTH U-111 PROJECT

ch2m
ELECTRICAL
ELECTRICAL PLAN
U-111 / 10200 SOUTH
CONNECTION VAULT

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE	JANUARY 2017
PROJ	680064
DWG	E-04
SHEET	of



ELECTRICAL PLAN
1/2" = 1'-0"

GENERAL NOTES:

A. NUMBERS IN PARENTHESIS (X) ADJACENT TO LIGHTS AND RECEPTACLES DENOTE CIRCUIT NUMBERS IN PANEL LP-2. PROVIDE #12 CONDUCTORS.

KEY NOTES:

1. PROVIDE JUNCTION BOX(ES) ON VAULT WALL AT 24" BELOW TOP FOR CONDUIT TERMINATIONS. QUANTITY AS REQUIRED.
2. PROVIDE ENCLOSED AND GASKETED LINEAR LED LUMINAIRE, LITHONIA FEM-L48-600LMN-IMAFL-WD-MVOLT-40K OR APPROVED EQUAL. WALL MOUNT AT 6" BELOW CEILING.
3. PROVIDE HAND-OFF-AUTO SWITCH AT PRINCIPAL ACCESS HATCH ADJACENT TO LIGHT SWITCH. PROVIDE TORK #8001 TIME SWITCH (NO SUBSTITUTES) ADJACENT TO HAND-OFF-AUTO SWITCH IN FIBERGLASS ENCLOSURE. (2605-030)
4. MOUNT LIGHT SWITCH 6" BELOW TOP OF VAULT AND ADJACENT TO LADDER.
5. MOUNT CONVENIENCE RECEPTACLE 48" INCHES ABOVE FINISH FLOOR. CIRCUIT RECEPTACLE AS SHOWN. PROVIDE WET LOCATION IN-USE COVER.
6. MOUNT FLOOD ALARM SWITCH AT ELEVATION 4837.5. GEMS LS-3 OR EQUAL.
7. ACCESS HATCH INTRUSION SWITCH, WIDE-GAP MAGNETIC CONTACT SWITCH, 120VAC RATING. MOUNT SWITCH INSIDE HATCH.
8. INSTALL CONDUIT, EMBEDDED IN CONCRETE, FROM HATCH INTRUSION SWITCH LEVEL SENSOR, PRESSURE INDICATING TRANSMITTERS, AND FLOW CONTROL VALVE TO RTU CABINET. PROVIDE PULL STRING FOR FUTURE WIRING AND CONNECTION BY OTHERS.
9. PROVIDE 36"x48"x18" ENCLOSED AND GASKETED NEMA 3R ENCLOSURE WITH BACKPLANE. TURN BACKPLANE OVER TO OWNER, AS SCADA COMPONENTS WILL BE PROVIDED AND INSTALLED BY OWNER. REFER TO SPECIFICATION SECTION 26 05 01.2.17. REFER TO SHEET E-02 FOR RTU LOCATION.

CONDUCTOR TYPES:

- [A] = 3/4" C WITH PULL STRING
- [B] = 3/4" C WITH PULL STRING
- [C] = 3/4" C WITH PULL STRING

PANEL: LP2		LOCATION: 12" PRV VAULT		SCCR: 10,000			
SERVICE VOLTAGE: 120/240		PHASE: 1		WIRE: 3			
TOTAL LOAD KVA: 2.8		BUS SIZE: 100A		MAIN SIZE: 100A			
REMARKS:		NEUTRAL: FULL		MOUNTING: PEDISTAL			
LOAD IN VA		BKR	CK	CK	BKR	LOAD IN VA	
A	B	CIRCUIT DESCRIPTION				A	B
180		20/1	1	2	20/1	960	
	1000	20/1	3	4	20/1		180
500		20/1	5	6	20/1		
		20/1	7	8	20/1		
			9	10			
			11	12			
			13	14			
			15	16			
680	1000	TOTALS				960	180



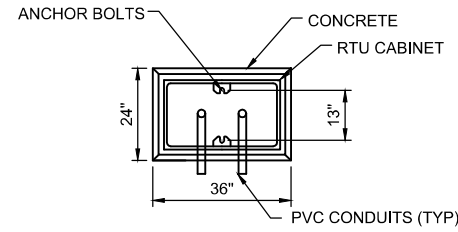
1	01/27/2016	A1.18 - REISSUE DRAWING	C WILLIAMS	DR	C WILLIAMS
2	02/08/2017	A2 - DELETE PANEL AND MAST ARM, ADD SWITCH AT ACCESS HATCH	C WILLIAMS	CHK	C WILLIAMS
			C HOGGARD	REVISION	C CURTIS
				NO. DATE	BY APVD

JORDAN VALLEY WATER CONSERVANCY DISTRICT
11800 SOUTH U-111 PROJECT

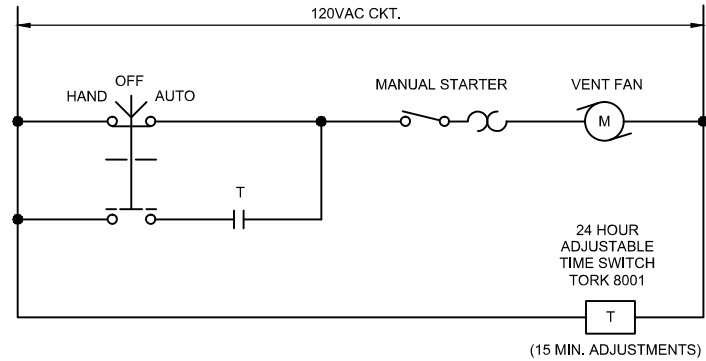
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ELECTRICAL
ELECTRICAL PLAN
PRV VAULT

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	JANUARY 2017
PROJ	680064
DWG	E-05
SHEET	of

NOTE: PRECAST CONCRETE PEDESTAL WITH HOLLOW CENTER IS ACCEPTABLE. AVAILABLE FROM DURA-CRETE.

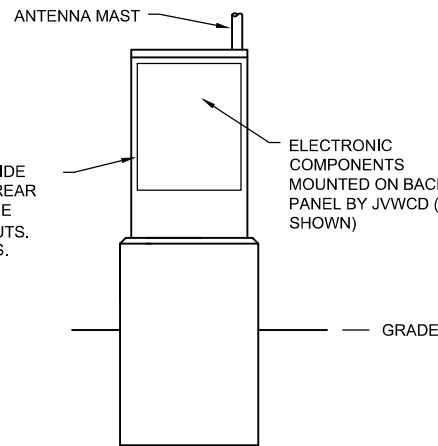


RTU PEDESTAL PLAN VIEW
FLOW METER NOT SHOWN

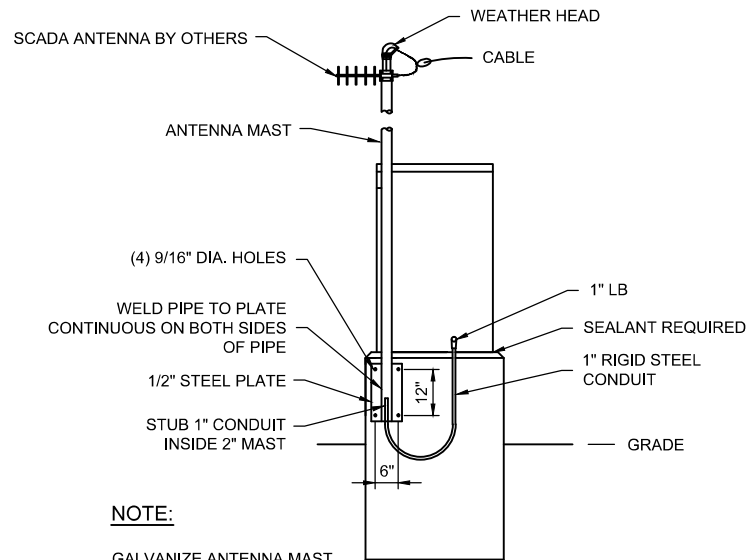


VENT FAN SCHEMATIC

HOFFMAN A36P30 PANEL INSIDE ENCLOSURE ATTACHED TO REAR VERTICAL STRUT WITH THREE HORIZONTAL 1/8" X 1/8" STRUTS. USE STRUT NUTS AND BOLTS.



RTU PEDESTAL FRONT ELEVATION

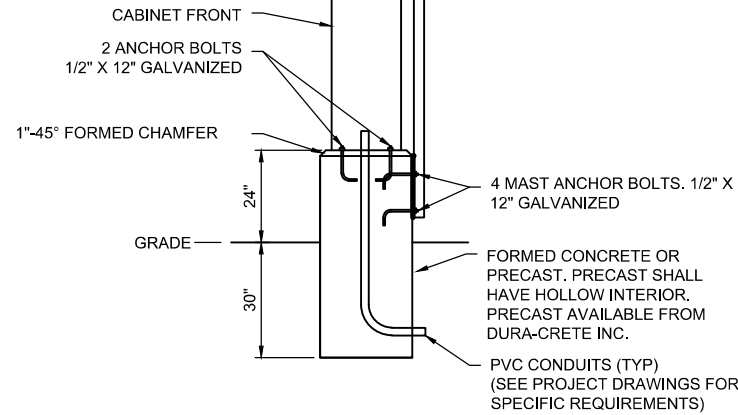


NOTE:

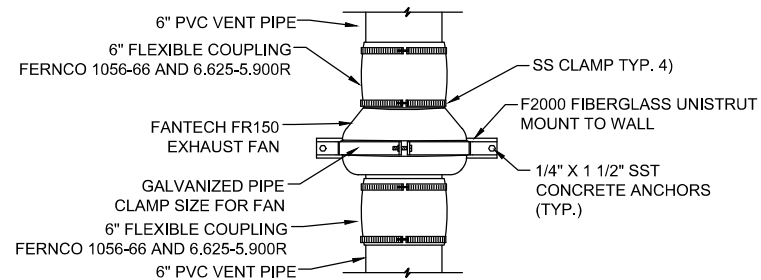
GALVANIZE ANTENNA MAST AND MOUNTING PLATE AFTER WELDING.

RTU PEDESTAL REAR ELEVATION & MAST ANCHOR DETAIL

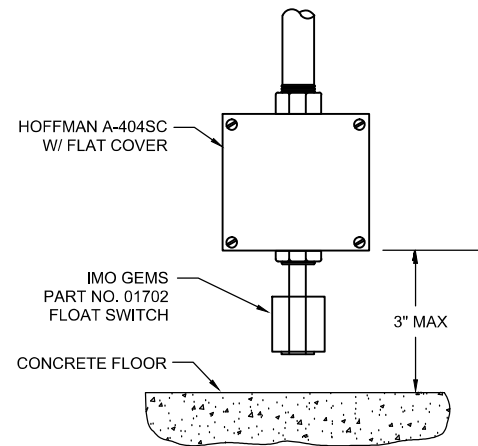
ANTENNA MAST, INSTALLED BY CONTRACTOR. 16' LENGTH OF 2" SCHEDULE 40 GALVANIZED STEEL PIPE WITH A 8" X 15" X 1/2" STEEL PLATE WELDED TO THE SIDE AT THE BOTTOM. HOT GALVANIZED AFTER FABRICATION. WEATHERHEAD ON TOP. ANTENNA AND CABLE INSTALLED BY JWCD.



RTU PEDESTAL SIDE ELEVATION



FAN DETAIL
NOT TO SCALE



FLOOR HIGH WATER ALARM LEVEL SWITCH DETAIL

NOTES:

1. MOUNT TIME SWITCH IN NEMA 4X FIBERGLASS ENCLOSURE. HOFFMAN A-20H1608GQRLP/1-2016.
2. LIGHT FIXTURE: 4' LED, DAMP LOCATION.
3. CONDUIT IN VAULT-RIGID GALVANIZED STEEL & SEALTITE
4. ATTACH CONDUIT TO STRUCTURE WITH BACKSTRAP CLAMPS.
5. CONDUIT IN EARTH-SCHEDULE 40 PVC.
6. RTU INTERIOR COMPONENTS AND ASSEMBLY BY JWCD.
7. ALL CONDUCTORS SHALL BE STRANDED. (NO SOLID CONDUCTORS)
8. CONDUIT BODIES AND BOXES FOR WIRING DEVICES SHALL BE CAST MALLEABLE IRON. BOXES ARE TYPE FS OR FD.
9. ALL WIRING DEVICES SHALL BE HEAVY DUTY, BACK WIRED ONLY, SUITABLE FOR STRANDED WIRE.
10. STRANDED WIRE SHALL NOT BE WRAPPED AROUND DEVICE SCREWS. COMPRESSION LUGS MAY BE USED WHEN NECESSARY.
11. INCLUDE A GREEN EQUIPMENT GROUNDING CONDUCTOR IN EACH POWER CONDUIT.
12. HIGH WATER LEVEL ALARM SWITCH SHALL BE GEMS LS-270 SERIES PART NUMBER 43980. MOUNT 2"-3" ABOVE FLOOR.
13. SUMP PUMP RECEPTACLE IS SINGLE OUTLET, NON-GFCI.
14. FAN H-O-A AND LIGHT SWITCHES SHALL BE MOUNTED HIGH NEAR ENTRANCE AND REACHABLE FROM OUTSIDE VAULT.
15. FAN H-O-A SWITCH: SQUARE D KS42BH2 WITH HAND-OFF-AUTO LEGEND PLATE IN HOFFMAN Q1PBPCD ENCLOSURE.

RTU PEDESTAL AND FAN

2605-030



CH	CH	BY	APVD
			C WILLIAMS
NO.	DATE	DR	APVD
			C WILLIAMS
NO.	DATE	CHK	REVISION
			C HOGGARD
ISSUE NEW DRAWING			
1 02/08/2017 A2 -			

JORDAN VALLEY WATER CONSERVANCY DISTRICT
11800 SOUTH U-111 PROJECT

ch2m
STANDARD DETAILS
STANDARD DETAILS

VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING.	
DATE	JANUARY 2017
PROJ	680064
DWG	SD-20
SHEET	of