

BU-13
STORM SEWER

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.



SIGNED: _____
DATE: _____

1111 SUPERIOR AVENUE EAST, SUITE 2300
CLEVELAND, OHIO 44114

[illegible]

0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

CUY-IR490 / SR010-
2.09 / 19.28

RECORD PLANS

$$\frac{1}{148}$$

ISSUE NO.	RECORD DATE	PAGE NO.	SHEET TITLE
0	2019-07-17	1	TITLE SHEET
5	2024-09-10	2	INDEX OF SHEETS (1 OF 2)
4	2024-09-10	3	INDEX OF SHEETS (2 OF 2)
1	2024-09-10	4	GENERAL NOTES
3	2024-09-10	5	STORM SEWER SCHEDULE
2	2024-09-10	6	STORM SEWER SCHEDULE
2	2024-09-10	7	STORM SEWER SCHEDULE
1	2021-04-09	8	DRAINAGE PLAN - OC BOULEVARD: STA. 194+00.00 TO STA. 198+00.00
2	2024-09-10	9	DRAINAGE PROFILE - OC BOULEVARD: STA. 194+00.00 TO STA. 198+00.00
1	2024-09-10	10	DRAINAGE PLAN - OC BOULEVARD: STA. 198+00.00 TO STA. 203+00.00
1	2024-09-10	11	DRAINAGE PROFILE - OC BOULEVARD: STA. 198+00.00 TO STA. 203+00.00
0	2019-07-17	12	DRAINAGE PLAN - OC BOULEVARD: STA. 203+00.00 TO STA. 208+00.00
1	2024-09-10	13	DRAINAGE PROFILE - OC BOULEVARD: STA. 203+00.00 TO STA. 208+00.00
2	2024-09-10	14	DRAINAGE PLAN - OC BOULEVARD: STA. 208+00.00 TO STA. 213+00.00
3	2024-09-10	15	DRAINAGE PROFILE - OC BOULEVARD: STA. 208+00.00 TO STA. 213+00.00
1	2021-02-10	16	DRAINAGE PLAN - OC BOULEVARD: STA. 213+00.00 TO STA. 218+00.00
3	2024-09-10	17	DRAINAGE PROFILE - OC BOULEVARD: STA. 213+00.00 TO STA. 218+00.00
1	2021-02-10	18	DRAINAGE PLAN - OC BOULEVARD: STA. 218+00.00 TO END
1	2021-02-10	19	DRAINAGE PROFILE - OC BOULEVARD: STA. 218+00.00 TO END
0	2019-07-17	20	DRAINAGE PLAN - LISBON RD: BEGIN TO END
1	2024-09-10	21	DRAINAGE PROFILE - LISBON RD: BEGIN TO END
1	2024-09-10	22	DRAINAGE PLAN - GRAND AVE: BEGIN TO END
0	2019-07-17	23	DRAINAGE PROFILE - GRAND AVE: BEGIN TO END
1	2024-09-10	24	DRAINAGE PLAN - BUCKEYE RD: BEGIN TO STA. 28+50.00
0	2019-07-17	25	DRAINAGE PROFILE - BUCKEYE RD: BEGIN TO STA. 28+50.00
1	2024-09-10	26	DRAINAGE PLAN - BUCKEYE RD: STA. 28+50.00 TO STA. 35+50.00
1	2024-09-10	27	DRAINAGE PROFILE - BUCKEYE RD: STA. 28+50.00 TO STA. 35+50.00
1	2024-09-10	28	DRAINAGE PLAN - BUCKEYE RD: STA. 35+50.00 TO END
1	2024-09-10	29	DRAINAGE PROFILE - BUCKEYE RD: STA. 35+50.00 TO END
2	2024-09-10	30	DRAINAGE PLAN - E. 89TH ST/KENNEDY AVE
1	2024-09-10	31	DRAINAGE PROFILE - E. 89TH ST/KENNEDY AVE
0	2019-07-17	32	DRAINAGE PLAN - WOODLAND AVE: BEGIN TO STA 30+50.00
1	2024-09-10	33	DRAINAGE PROFILE - WOODLAND AVE: BEGIN TO STA 30+50.00
1	2024-09-10	34	DRAINAGE PLAN - WOODLAND AVE: STA 30+50.00 TO STA. 35+50.00
2	2024-09-10	35	DRAINAGE PROFILE - WOODLAND AVE: STA 30+50.00 TO STA. 35+50.00
0	2019-07-17	36	DRAINAGE PLAN - WOODLAND AVE: STA 35+50.00 TO END
1	2024-09-10	37	DRAINAGE PROFILE - WOODLAND AVE: STA 35+50.00 TO END
1	2024-09-10	38	DRAINAGE PLAN - E. 89TH ST: BEGIN TO STA. 26+00.00
1	2024-09-10	39	DRAINAGE PROFILE - E. 89TH ST: BEGIN TO STA. 26+00.00
0	2019-07-17	40	DRAINAGE PLAN - E. 89TH ST: STA. 26+00.00 TO END
0	2019-07-17	41	DRAINAGE PROFILE - E. 89TH ST: STA. 26+00.00 TO END
1	2024-09-10	42	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 193+75.00 TO STA. 194+25.00
1	2024-09-10	43	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 194+50.00 TO STA. 194+75.00
1	2024-09-10	44	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 195+00.00 TO STA. 195+25.00
1	2024-09-10	45	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 195+50.00 TO STA. 195+75.00
1	2024-09-10	46	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 196+00.00 TO STA. 196+00.00
1	2024-09-10	47	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 196+25.00 TO STA. 196+75.00
1	2024-09-10	48	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 197+00.00 TO STA. 197+50.00
1	2024-09-10	49	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 197+75.00 TO STA. 198+00.00
1	2024-09-10	50	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 198+25.00 TO STA. 198+50.00
1	2024-09-10	51	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 198+75.00 TO STA. 199+00.00
1	2024-09-10	52	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 199+25.00 TO STA. 199+50.00
1	2024-09-10	53	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 199+75.00 TO STA. 200+00.00
1	2024-09-10	54	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 200+25.00 TO STA. 200+75.00
1	2024-09-10	55	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 201+00.00 TO STA. 201+50.00

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1	2024-09-10	56	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 201+75.00 TO STA. 202+25.00
1	2024-09-10	57	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 202+50.00 TO STA. 203+00.00
1	2024-09-10	58	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 203+25.00 TO STA. 203+75.00
1	2024-09-10	59	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 204+00.00 TO STA. 204+50.00
1	2024-09-10	60	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 204+75.00 TO STA. 205+25.00
1	2024-09-10	61	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 205+50.00 TO STA. 206+00.00
1	2024-09-10	62	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 206+25.00 TO STA. 206+75.00
1	2024-09-10	63	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 207+00.00 TO STA. 207+25.00
1	2024-09-10	64	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 207+50.00 TO STA. 208+00.00
1	2024-09-10	65	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 208+25.00 TO STA. 208+50.00
1	2024-09-10	66	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 208+75.00 TO STA. 209+00.00
1	2024-09-10	67	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 209+25.00 TO STA. 209+50.00
1	2024-09-10	68	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 209+75.00 TO STA. 210+00.00
1	2024-09-10	69	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 210+25.00 TO STA. 210+50.00
2	2024-09-10	70	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 210+75.00 TO STA. 211+00.00
1	2024-09-10	71	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 211+25.00 TO STA. 211+50.00
2	2024-09-10	72	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 211+75.00 TO STA. 212+00.00
2	2024-09-10	73	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 212+25.00 TO STA. 212+50.00
1	2024-09-10	74	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 212+75.00 TO STA. 213+00.00
1	2024-09-10	75	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 213+25.00 TO STA. 213+50.00
1	2024-09-10	76	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 213+75.00 TO STA. 214+00.00
1	2024-09-10	77	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 214+25.00 TO STA. 214+50.00
1	2024-09-10	78	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 214+75.00 TO STA. 215+00.00
1	2021-02-10	79	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 215+25.00 TO STA. 215+75.00
1	2021-02-10	80	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 216+00.00 TO STA. 216+50.00
1	2021-02-10	81	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 216+75.00 TO STA. 217+25.00
1	2021-02-10	82	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 217+50.00 TO STA. 218+00.00
1	2021-02-10	83	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 218+25.00 TO STA. 218+75.00
1	2024-09-10	84	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 219+00.00 TO STA. 219+50.00
0	2019-07-17	85	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.: STA. 219+75.00 TO STA. 220+00.00
1	2024-09-10	86	CROSS SECTIONS - LISBON RD.: STA. 8+95.16 TO STA. 9+25.00
1	2024-09-10	87	CROSS SECTIONS - LISBON RD.: STA. 9+50.00 TO STA. 9+75.00
1	2024-09-10	88	CROSS SECTIONS - LISBON RD.: STA. 10+00.00 TO STA. 10+25.00
1	2024-09-10	89	CROSS SECTIONS - LISBON RD.: STA. 10+50.00 TO STA. 10+75.00
1	2024-09-10	90	CROSS SECTIONS - LISBON RD.: STA. 11+00.00 TO STA. 11+25.00
1	2024-09-10	91	CROSS SECTIONS - LISBON RD.: STA. 11+50.00 TO STA. 11+60.00
0	2019-07-17	92	CROSS SECTIONS - LISBON RD.: STA. 11+75.00 TO STA. 12+00.00
0	2019-07-17	93	CROSS SECTIONS - GRAND AVE.: STA. 3+00.00 TO STA. 3+39.74
0	2019-07-17	94	CROSS SECTIONS - GRAND AVE.: STA. 3+50.00 TO STA. 3+75.00
0	2019-07-17	95	CROSS SECTIONS - GRAND AVE.: STA. 4+00.00 TO STA. 4+50.00
0	2019-07-17	96	CROSS SECTIONS - GRAND AVE.: STA. 4+75.00 TO STA. 5+25.00
0	2019-07-17	97	CROSS SECTIONS - GRAND AVE.: STA. 5+50.00 TO STA. 6+00.00
0	2019-07-17	98	CROSS SECTIONS - GRAND AVE.: STA. 6+24.22 TO STA. 6+50.00
0	2019-07-17	99	CROSS SECTIONS - GRAND AVE.: STA. 6+75.00 TO STA. 6+75.00
0	2019-07-17	100	CROSS SECTIONS - BUCKEYE RD.: STA. 25+00.00 TO STA. 25+00.00
0	2019-07-17	101	CROSS SECTIONS - BUCKEYE RD.: STA. 25+25.00 TO STA. 25+50.00
1	2024-09-10	102	CROSS SECTIONS - BUCKEYE RD.: STA. 25+77.62 TO STA. 26+00.00
1	2024-09-10	103	CROSS SECTIONS - BUCKEYE RD.: STA. 26+25.00 TO STA. 26+50.00
1	2024-09-10	104	CROSS SECTIONS - BUCKEYE RD.: STA. 26+75.00 TO STA. 27+00.00
1	2024-09-10	105	CROSS SECTIONS - BUCKEYE RD.: STA. 27+25.00 TO STA. 27+50.00
1	2024-09-10	106	CROSS SECTIONS - BUCKEYE RD.: STA. 27+72.41 TO STA. 28+18.67
1	2024-09-10	107	CROSS SECTIONS - BUCKEYE RD.: STA. 28+30.00 TO STA. 28+50.00
1	2024-09-10	108	CROSS SECTIONS - BUCKEYE RD.: STA. 28+75.00 TO STA. 29+00.00
1	2024-09-10	109	CROSS SECTIONS - BUCKEYE RD.: STA. 29+25.00 TO STA. 29+35.60
1	2024-09-10	110	CROSS SECTIONS - BUCKEYE RD.: STA. 31+34.67 TO STA. 31+50.00

4	2021-04-09	DC055			
3	2021-03-03	DC052			
2	2021-02-10	DC050			
1	2019-12-04	DC024			
0	2019-07-17	RFC	5	2024-09-10	RECORD DRAWINGS
NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
ISSUE RECORD			ISSUE RECORD		

OWNERSHIP AND MAINTENANCE RESPONSIBILITY

ONCE CONSTRUCTION IS COMPLETE, ALL STORM, SANITARY, AND COMBINED SEWERS DEPICTED IN THESE PLANS SHALL BE OWNED AND MAINTAINED BY THE CITY OF CLEVELAND, DEPARTMENT OF WATER POLLUTION CONTROL, UNLESS NOTED OTHERWISE IN THE PLANS.

CLEVELAND WATER POLLUTION CONTROL

THE CONTRACTOR SHOULD NOTIFY THE DIVISION OF WATER POLLUTION CONTROL (WPC) PRIOR TO START OF CONSTRUCTION OF ANY CITY OF CLEVELAND SEWERS. CALL THE ENGINEERING OFFICE AT (216) 664-2756 OR (216) 664-3638 TO COORDINATE THE SEWER WORK.

THE CONTRACTOR IS REQUIRED TO SUBMIT SEWER SHOP DRAWINGS TO WPC PRIOR TO ANY CITY SEWER INSTALLATION. THE DRAWINGS SHOUD INCLUDE THE SEWER PIPES, MANHOLES, CATCH BASINS AND OTHER SEWER APPURTENANCES.

ANY PROPOSED CITY OF CLEVELAND SEWERS SHOULD BE CONSTRUCTED IN ACCORDANCE TO THE PLANS AND SPECIFICATIONS APPROVED BY WPC. ANY DEVIATIONS FROM THE APPROVED PLANS OR SPECIFICATIONS REQUIRE A NEW PLAN SUBMITTAL REFLECTING THE CHANGES. UPON REVIEW OF THE REVISED ITEMS, WPC WILL RE-ISSUE A NEW APPROVAL. IT IS STRICTLY PROHIBITED TO CONSTRUCT ANY CITY OF CLEVELAND SEWERS UNLESS THEY ARE APPROVED BY WPC.

UPON COMPLETION OF ANY CITY OF CLEVELAND SEWER INSTALLATION, THE CONTRACTOR IS REQUIRED TO SUBMIT A HARD COPY AND AN ELECTRONIC COPY OF AS-BUILT PLANS, AND A CCTV COPY OF THE NEW CITY SEWERS. WPC RESERVES THE RIGHT NOT TO APPROVE ANY SEWER THAT DOES NOT MEET THE CITY REQUIREMENTS.

ITEM 611 - CATCH BASIN, NO. 2-2A, AS PER PLAN

CATCH BASINS, NO. 2-2A, SHALL BE CONSTRUCTED IN ACCORDANCE WITH O.D.O.T. STANDARD DETAIL CB-1.1 WITH THE ADDITION OF A 12" TRAP AND 2' SUMP.

ITEM 611 - CATCH BASIN, NO. 2-2B, AS PER PLAN

CATCH BASINS, NO. 2-2B, SHALL BE CONSTRUCTED IN ACCORDANCE WITH O.D.O.T. STANDARD DETAIL CB-1.1 WITH THE ADDITION OF A 12" TRAP AND 2' SUMP.

ITEM 611 - CATCH BASIN, NO. 3A, AS PER PLAN

CATCH BASINS, NO. 3A SHALL BE CONSTRUCTED IN ACCORDANCE WITH O.D.O.T. STANDARD DETAIL CB-2.2 WITH THE ADDITION OF A 12" TRAP AND 2' SUMP.

ITEM 611 - MANHOLE, NO. 3, AS PER PLAN

MANHOLE NO. 3, SHALL BE CONSTRUCTED IN ACCORDANCE WITH O.D.O.T. STANDARD DETAIL MH-1.2 WITH THE CITY OF CLEVELAND MH-1 FRAME AND LID.

CITY OF CLEVELAND STANDARD DRAWINGS

THE APPLICABLE STANDARD DRAWINGS AND DETAILS OF THE CITY OF CLEVELAND HAVE BEEN INCORPORATED AS MISCELLANEOUS DETAILS, WATERWORK DETAILS AND POWER DISTRIBUTION DETAILS WITHIN THE PLAN SET. THESE DRAWINGS AND DETAILS REPRESENT THE MOST CURRENT VERSIONS APPROVED BY THE CITY OF CLEVELAND AND HAVE BEEN INCLUDED TO DEPICT THE INTENT OF THE PARTICULAR CONSTRUCTION FEATURES, HOWEVER THEY HAVE NOT BEEN UPDATED FOR CONFORMANCE WITH THE 2016 ODOT CMS. WHEN REFERENCES TO NON-CURRENT CMS ITEMS ARE ENCOUNTERED WITHIN THE DETAILS (I.E. "ITEM 604" OR "CLASS C CONCRETE") THE CURRENT SECTION OF THE CMS (I.E. "ITEM 611 OR "CLASS QC-1 CONCRETE") SHALL APPLY. INTERPRETATIONS REGARDING THE APPLICABLE SECTIONS OF THE 2016 CMS SHALL BE AT THE DIRECTION OF THE ENGINEER.

GENERAL DRAINAGE REQUIREMENTS

THE DBT SHALL REMOVE SEDIMENT AND DEBRIS FROM EXISTING DRAINAGE CONDUITS (MAINLINE AND LATERAL STORM AND COMBINED SEWERS) AND DRAINAGE STRUCTURES AS FOLLOWS:

1. ANY DRAINAGE STRUCTURE TO WHICH THE DBT CONNECTS
2. ANY DRAINAGE STRUCTURE RECEIVING RUNOFF DURING CONSTRUCTION FROM AREAS DISTURBED BY THE WORK.
3. THE ADJACENT DRAINAGE CONDUIT EXTENDING FROM THESTRUCTURE IDENTIFIED IN CONDITIONS (1) OR (2) TO THE NEXT DOWNSTREAM DRAINAGE STRUCTURE.
4. ALL MATERIALS REMOVED SHALL BE DISPOSED OF AS PER C&MS 105.16 AND 105.17.

THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES, PRIOR TO ACCEPTANCE OF WORK.

CONTRACTOR SHALL PREVENT ANY DEBRIS FROM ENTERING THE SEWERS OR THE DIVERSION STRUCTURE. ANY DEBRIS ENTERING THE SEWER OR DIVERSION STRUCTURE SHALL BE REMOVED BY THE CONTRACTOR.

NEW CONNECTIONS TO REINFORCED CONCRETE OR VITRIFIED CLAY PIPE SHALL HAVE A MANUFACTURED BOOT THAT MAKES A WATERTIGHT CONNECTION.

ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN EXISTING CONDUITS AND FILLING THE INSIDE AREA TO SEAL THE CONDUITS OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

PIPES 10 INCHES THROUGH 24 INCHES IN DIAMETER OR RISE WITH LESS THAN 3 FEET OF FINAL COVER SHALL BE REMOVED; WITH MORE THAN 3 FEET OF FINAL COVER THEY MAY BE ABANDONED IN PLACE BY FILLING AND PLUGGING. PRIOR TO FILLING AND PLUGGING, CONDUIT SHALL BE VIDEOTAPED TO ENSURE THAT UNKNOWN CONNECTIONS ARE NOT IMPACTED.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

UNRECORDED STORM WATER DRAINAGE

FURNISH A CONTINUANCE FOR ALL UNRECORDED STORM WATER DRAINAGE, SUCH AS ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER.

UNRECORDED ACTIVE SANITARY SEWER CONNECTIONS

FURNISH A CONTINUANCE FOR ALL UNRECORDED ACTIVE SANITARY SEWER CONNECTIONS SUCH AS SANITARY, WASTEWATER, CURTAIN/GRADIENT DRAINS, AND FOUNDATION FLOOR DRAINS DISTURBED BY THE WORK. FURNISH AN UNOBSTRUCTED CONTINUANCE OF THE UNRECORDED ACTIVE SANITARY SEWER CONNECTIONS TO THE SATISFACTION OF THE ENGINEER. ALL SANITARY AND SANITARY WASTEWATER CONTINUANCE MAY REQUIRE A NPDES PERMIT FROM THE OHIO ENVIRONMENTAL PROTECTION AGENCY. REPORT ALL CONTINUANCE TO THE LOCAL HEALTH DEPARTMENT.

MISCELLANEOUS METALS

FOR ADJUSTMENT OR REPLACEMENT OF EXISTING DRAINAGE STRUCTURE CASTINGS TO BE RETAINED IN THE ROADWAYS, A CONTINGENCY QUANTITY OF 25,000 POUNDS OF MISCELLANEOUS METAL PER CMS 611 HAS BEEN INCLUDED WITHIN THE LUMP SUM BID FOR DRAINAGE WORK. THIS WORK SHALL BE AS DIRECTED BY THE DEPARTMENT. IF THE QUANTITY EXCEEDS 25,000 POUNDS, THE DEPARTMENT WILL PAY THE ADDITIONAL QUANTITIES IN ACCORDANCE WITH THE CONTRACT.

EXISTING CASTINGS

CASTINGS TO REMAIN AFTER EXISTNG ROADWAY AND PAVEMENT REMOVALS SHALL BE RAISED TO 1.0' ABOVE THE FINISHED GRADE UNLESS ADJACENT TO PAVED AREAS.

UNLESS OTHERWISE SPECIFIED IN THESE PLANS, IN AREAS OF PAYMENT REMOVAL, THE PAVEMENT AND BASE COURSE REMOVAL WILL BE FILLED AS NECESSARY TO REESTABLISH EXISTING GRADE. THIS WILL INCLUDE 4" OF TOPSOIL AND SEEDING TO MEET EXISTING GRADE.

TRENCH BACKFILLING

UNLESS OTHERWISE SPECIFIED, ALL BACKFILLING OF TRENCHES WITHIN PAVEMENT LIMITS, WITH THE EXCEPTION OF UNDERDRAINS, SHALL BE BACKFILLED TO THE TOP OF THE TRENCH OR BOTTOM OF SUBGRADE, WHICHEVER IS LOWER, WITH LOW STRENGTH MORTAR (LSM) PER CITY OF CLEVELAND SPECIFICATIONS. LSM SHALL CONSIST OF THE FOLLOWING:

CEMENT (ASTM C-150, TYPE 1): 50 LBS

SAND (PER C&MS 703.03, SSD): 2475 LBS

WATER: 25 GALLONS

ADMIXTURE (AIR): 3 OZ.

APPROVED ADMIXTURES: MASTER BUILDERS-RHEOFILL, AXIM-FLOW AIR, W.R. GRACE-DARAFILL (AN EQUAL MAY BE USED ONLY WITH DEPARTMENT APPROVAL)

USE OF FLY ASH, SPENT FOUNDRY SAND OR CORE SAND IS STRICTLY PROHIBITED.

ITEM SPECIAL - PRE AND POST CONSTRUCTION VIDEOTAPING

EXISTING TRUNK SEWERS IMPACTED BY THE ZONE OF INFLUENCE OF CONSTRUCTION ACTIVITY SHALL BE VIDEO INSPECTED PER C&MS 611 TWICE IN THE COURSE OF THIS PROJECT: FIRST, BEFORE CONSTRUCTION BEGINS; AND SECOND, AFTER CONSTRUCTION IS COMPLETED AND PRIOR TO FINAL ACCEPTANCE OF THE WORK. CONSTRUCTION ACTIVITY AS IT RELATES TO STORM SEWER INSPECTION SHALL BE DEFINED AS RETAINING WALL, BRIDGE, OR ROADWAY CONSTRUCTION ACTIVITY CROSSING OR ADJACENT TO AN EXISTING STORM OR COMBINED SEWER. THE ZONE OF INFLUENCE AREAS SHALL BE DETERMINED BY THE DBT AND APPROVED BY THE GOVERNING AGENCY. THE VIDEO INSPECTION REQUIREMENT SHALL APPLY TO ALL IMPACTED TRUNK SEWERS REGARDLESS OF SIZE, DEPTH, OR TYPE.

UNLESS OTHERWISE SPECIFIED IN THIS SCOPE DOCUMENT, VIDEO INSPECTION LIMITS SHALL INCLUDE THE LENGTH OF SEWER WITHIN THE INFLUENCE AREA AND EXTEND 50 FEET UPSTREAM AND DOWNSTREAM BEYOND THE INFLUENCE AREA LIMITS. VIDEO INSPECTION LIMITS SHALL BE APPROVED BY THE DEPARTMENT AND THE MAINTAINING AGENCY OF THE SEWER PRIOR TO COMMENCEMENT OF WORK. THE DBT SHALL PROVIDE DVD COPIES OF ALL VIDEO/INSPECTION REPORTS TO THE DEPARTMENT OF ALL INSPECTIONS PERFORMED.

SEWERS TO BE VIDEO INSPECTED SHALL BE CLEANED TO FACILITATE THE VIDEO INSPECTION.

SANITARY

ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

ALL SANITARY SEWERS 18" DIAMETER AND SMALLER SHALL BE CLAY PIPE PER ASTM C-700, JOINTS PER ASTM C-425 AND INSTALLED PER ASTM C-12. ALL SANITARY SEWERS SHALL PASS THE AIR-ACCEPTANCE PRIOR TO ACCEPTANCE BY THE CITY OF CLEVELAND. THIS APPLIES TO ALL PROPOSED SANITARY SEWERS OF 18" DIAMETER AND SMALLER. TESTING OF THE SANITARY SEWER SHALL MEET ASTM C-828 REQUIREMENTS.

ALL PROPOSED CONDUIT 21" AND LARGER SHALL BE REINFORCED CONCRETE PIPE WITH PREMIUM JOINTS (CMS 706.02 & 706.11).

WHERE INLET AND OUTLET PIPES CONNECT TO MANHOLES, A FLEXIBLE WATERTIGHT JOINT IS REQUIRED. FLEXIBLE MANHOLE CONNECTIONS SHALL MEET ASTM C-923. PRECAST MANHOLE CONSTRUCTION SHALL MEET ASTM C-478 WITH JOINTS PER ASTM C-443. ALL NEW SEWER MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH THE PROCEDURES OF ASTM C-1244.

ALL SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THESE PLANS, THE CURRENT STANDARDS AND SPECIFICATIONS OF THE NORTHEAST OHIO REGIONAL SEWER DISTRICT AND CITY OF CLEVELAND, AND IN ACCORDANCE WITH THE CURRENT UNIFORM STANDARDS FOR SEWERAGE IMPROVEMENTS.

UNDERDRAINS, TYPE F CONDUIT

WHEN A PIPE UNDERDRAIN SPANS THE TRENCH OF A LOWER CONDUIT (UTILITY, STORM SEWER, ETC.) AND THE VERTICAL DISTANCE BETWEEN THE LOWER CONDUIT AND THE UNDERDRAIN IS LESS THAN OR EQUAL TO 12 INCHES, TYPE F CONDUIT SHALL BE USED TO SPAN THE LOWER TRENCH. USE A MINIMUM OF 10 FEET OF THE TYPE F CONDUIT, CENTERED OVER THE LOWER TRENCH.

NORTH EAST OHIO REGIONAL SEWER DISTRICT (NEORSD)

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS REQUIRED FOR THE WORK.

A 72-HOUR NOTICE SHALL BE PROVIDED TO MAINTENACE SERVICES - TECHNICAL SUPPORT AT PERMITS@NEORSD.ORG TO SCHEDULE AN NEORSD INSPECTOR FOR THE CONNECTION TO NEORSD OWNED SEWERS.

REFERENCE:

- BU-09 FOR SANITARY SEWER
- BU-10 FOR WATER LINES
- BU-11 FOR CPP DUCT BANKS
- BU-15 FOR ROADWAY, PAVEMENT & GRADING
- BU-27 FOR STREET LEVEL LIGHTING

1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

Ref. No.	Station	Offset (ft)	Side	Alignment	604/605 Item	Grate/Rim Elev.	603 Item		Length (ft)	Slope (%)	Upstream		Downstream		
							Size (in)	Type			Ref. No.	Invert	Ref. No.	Invert	
D-326	06+00.00	16.28	RT	GRAND	CB-3	687.30	12	B	12.0	1.00%	D-326	683.30	D-325A	683.18	
D-325A	06+00.00	4.27	RT	GRAND	MH-1	687.69	27	-	-	-	D-325A	676.88	EXIST	676.88	
D-325	06+00.00	16.28	LT	GRAND	CB-3	687.44	12	B	21.0	1.00%	D-325	683.44	D-325A	683.23	
D-323	03+40.00	10.00	RT	GRAND	CB-3	685.52	12	B	10.0	1.00%	D-323	681.52	D-322	681.42	
D-322	03+40.00	0.00	-	GRAND	MH-1	685.72	12	B	260.0	0.50%	D-322	681.42	D-325A	680.12	
D-321	03+40.00	10.00	LT	GRAND	CB-3	685.59	12	B	10.0	1.00%	D-321	681.59	D-322	681.49	
D-311	203+00.00	14.00	LT	OC	MH-1	689.76	18	B	20.0	0.50%	D-311	683.82	D-308	683.72	
D-309	202+87.00	32.51	LT	OC	CB-3	689.39	12	B	19.0	1.00%	D-309	685.39	D-308	685.20	
D-308	202+80.00	14.00	LT	OC	MH-1	689.75	18	B	277.0	0.50%	D-308	683.72	D-302	682.33	
D-306	202+87.00	47.00	RT	OC	CB-3	689.09	12	B	15.0	1.00%	D-306	685.09	D-303	684.94	
D-303	203+00.00	41.00	RT	OC	MH-1	689.22	18	B	55.0	0.51%	D-303	684.10	D-311	683.82	
D-302	200+00.00	26.00	LT	OC	MH-1	690.35	18	B	98.0	0.50%	D-302	682.33	D-299	681.84	
D-301B	21+90.00	6.00	LT	EVARTS	MH-1	688.69	12	B	139.0	0.58%	D-301B	684.35	D-299	683.55	
D-301A	22+10.00	12.29	LT	EVARTS	CB-3	688.60	12	B	21.0	1.00%	D-301A	684.60	D-301B	684.39	
D-301	22+10.00	11.70	RT	EVARTS	CB-3	688.70	12	B	26.0	0.77%	D-301	684.55	D-301B	684.35	
D-300	199+55.00	47.00	RT	OC	CB-3	689.53	12	B	86.0	1.00%	D-300	685.53	D-302	684.67	
D-299	199+01.00	26.00	LT	OC	MH-1	689.46	21	B	263.0	0.54%	D-299	681.59	D-298	680.18	
D-298	196+36.00	20.00	LT	OC	MH-1	687.20	21	B	98.0	0.50%	D-298	677.43	D-296	676.94	
D-297	196+36.00	32.00	LT	OC	CB-1	686.96	12	B	12.0	7.67%	D-297	682.34	D-298	681.42	
D-296A	194+50.00	42.25	RT	OC	MH-1	685.07	27	B	150.0	2.61%	D-296A	675.96	D-285A	672.05	
D-296	195+38.00	26.00	LT	OC	MH-1	686.20	27	B	112.0	0.43%	D-296	676.44	D-296A	675.96	
D-295	08+78.00	18.03	RT	LISBON	CB-3	685.43	12	B	25.0	0.60%	D-295	681.37	D-294	681.22	
D-294	08+78.00	7.50	LT	LISBON	MH-1	685.47	18	B	39.0	0.82%	D-294	678.51	D-296	678.19	
D-293	08+78.00	18.22	LT	LISBON	CB-3	685.18	12	B	10.0	-0.20%	D-293	681.10	D-294	681.12	
D-292	10+00.00	7.50	LT	LISBON	MH-1	685.17	15	B	123.0	0.46%	D-292	679.33	D-294	678.76	
D-291	10+84.00	15.00	LT	LISBON	CB-3	684.23	12	B	22.0	0.77%	D-291	680.18	D-290A	680.01	
D-290A	10+84.00	7.50	RT	LISBON	MH-1	684.37	15	B	84.0	0.51%	D-290A	679.76	D-292	679.33	
D-290	10+84.00	15.00	RT	LISBON	CB-3	684.23	12	B	7.0	1.00%	D-290	680.23	D-290A	680.16	
D-289	195+15.00	48.00	RT	OC	CB-1	685.55	12	B	65.0	1.06%	D-289	678.99	D-296A	678.30	
Service Line	194+50.00	63.00	LT	OC	-	-	12	B	105.0	1.00%	TEE	680.45	D-296A	679.40	Install tee with cleanout
Service Line	196+50.00	57.00	LT	OC	-	-	12	B	40.0	1.20%	TEE	678.66	D-298	678.18	Install tee with cleanout
Service Line	196+36.00	73.00	RT	OC	-	-	12	B	93.0	1.09%	TEE	679.19	D-298	678.18	Install tee with cleanout
Service Line	200+00.00	68.00	LT	OC	-	-	12	B	42.0	1.00%	TEE	683.25	D-302	682.83	Install tee with cleanout
Service Line	200+00.00	73.75	RT	OC	-	-	12	B	100.0	1.00%	TEE	683.83	D-302	682.83	Install tee with cleanout
Service Line	203+00.00	58.00	LT	OC	-	-	12	B	44.0	1.00%	TEE	684.76	D-311	684.32	Install tee with cleanout
Service Line	203+00.00	74.00	RT	OC	-	-	12	B	33.0	1.00%	TEE	684.93	D-303	684.60	Install tee with cleanout

Totals		
City of Cleveland MH-1	27	EA
City of Cleveland CB-1	32	EA
City of Cleveland CB-3	25	EA
Item 611, Water Quality Basin, Detention	1	EA
Item 611, CB 2-2A	1	EA
Item 611, CB 2-2B	1	EA
Item 611, 12" Conduit, Type B	2959	FT
Item 611, 15" Conduit, Type B	446	FT
Item 611, 15" Conduit, Type C	25	FT
Item 611, 18" Conduit, Type B	788	FT
Item 611, 21" Conduit, Type B	450	FT
Item 611, 24" Conduit, Type B	540	FT
Item 611, 27" Conduit, Type B	262	FT
Item 611, CB-1, Adjust to Grade	1	EA
Item 611, CB 2-2B, Reconstruct to Grade	7	EA
Item 611, Manhole, Adjust to Grade	20	EA
Item 611, Manhole, Reconstruct to Grade	1	EA
Item 611, Drainage Structure, Misc.: Tee with Cleanout	12	EA

3	2024-09-10	RECORD DRAWINGS
2	2021-04-09	DC055
1	2019-12-04	DC024
0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

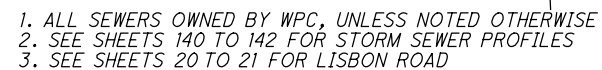
Ref. No.	Station	Offset (ft)	Side	Alignment	604/605 Item	Grate/Rim Elev.	603 Item				Upstream		Downstream		
							Size (in)	Type	Length (ft)	Slope (%)	Ref. No.	Invert	Ref. No.	Invert	
D-353	19+61.00	32.49	LT	E. 89TH	CB-3	691.56	12	B	33.0	1.00	D-353	687.56	D-352	687.23	EX. CS M.H. - ATG
D-352	19+67.00	0.28	RT	E. 89TH	MH-1	691.57	No. 2	-	-	-	D-352	678.60	EXIST	678.60	
D-351	19+77.00	6.96	LT	E. 89TH	CB-1	691.56	12	B	12.0	1.00	D-351	687.56	D-352	687.44	
D-350	20+39.00	12.81	LT	KENNEDY	CB-3	691.7	12	B	13.0	1.00	D-350	687.70	D-349	687.57	EX. CS M.H. - ATG
D-349	20+34.97	0.27	RT	KENNEDY	MH-1	691.92	15	-	-	-	D-349	680.70	EXIST	680.70	
D-348	20+38.00	12.95	RT	KENNEDY	CB-3	691.7	12	B	13.0	1.00	D-348	686.78	D-349	686.65	
D-347	19+24.96	19.55	RT	E. 89TH	CB-1	691.37	12	B	19.0	10.53	D-347	683.85	D-346	681.85	EX. CS M.H. - ATG
D-346	19+23.86	0.25	RT	E. 89TH	MH-1	691.76	No. 2	-	-	-	D-346	679.43	EXIST	679.43	
D-345	19+23.86	19.90	LT	E. 89TH	CB-1	691.37	12	B	20.0	3.50	D-345	682.74	D-346	682.04	
D-340	27+70.50	5.32	RT	BUCKEYE	MH-1	689.98	No. 5	-	-	-	D-340	674.20	EXIST	674.20	EX. CS M.H. - ATG
D-339	27+72.00	28.00	RT	BUCKEYE	CB-1	689.49	12	B	22.0	1.00	D-339	685.49	D-340	685.27	
D-337	28+30.00	28.00	LT	BUCKEYE	CB-1	688.71	12	B	43.0	1.00	D-337	684.71	D-336	684.28	
D-336	28+73.00	28.00	LT	BUCKEYE	CB-3	688.6	12	B	32.0	3.13	D-336	680.36	EXIST	679.36	DIRECT CONNECTION MASONRY COLLAR CONNECTION DIRECT CONNECTION
D-335A	28+63.23	28.00	RT	BUCKEYE	CB-1	688.54	12	B	5.0	44.00	D-335A	684.29	EXIST	682.09	
D-335	28+73.00	28.00	RT	BUCKEYE	CB-1	688.53	12	B	22.0	23.91	D-335	684.53	EXIST	679.27	
D-334	29+20.00	28.00	LT	BUCKEYE	CB-1	688.91	12	B	46.0	1.00	D-334	684.91	D-336	684.45	
D-333	31+27.63	28.00	RT	BUCKEYE	CB-1	690.23	12	B	41.0	1.00	D-333	686.23	D-327	685.82	
D-332	31+75.00	28.00	LT	BUCKEYE	CB-1	690.57	12	B	50.0	4.70	D-332	686.57	D-330	684.22	
D-331A	33+82.00	47.82	RT	BUCKEYE	CB-1	693.32	12	B	34.0	1.00	D-331A	685.36	A08	685.02	
D-331B	15+37.28	24.44	RT	E. 89TH	CB-1	693.54	12	B	7.0	1.00	D-331B	686.01	EXIST	685.94	
D-331	34+40.68	28.00	RT	BUCKEYE	CB-3	693.79	12	B	29.0	3.45	D-331	685.00	EXIST	684.00	
D-330	31+25.00	28.94	LT	BUCKEYE	CB-3	690.23	12	B	42.0	1.00	D-330	684.22	D-328	683.80	
D-329	205+15.00	48.00	RT	OC	CB-1	690.65	12	B	67.0	1.00	D-329	686.65	D-314	685.98	
D-328	30+84.00	37.88	LT	BUCKEYE	MH-1	690.55	24	B	44.0	0.50	D-328	679.80	D-327	679.58	
D-327	30+93.79	5.07	RT	BUCKEYE	MH-1	690.72	No. 5	-	-	-	D-327	676.00	EXIST	676.00	EX. CS M.H. - ATG
D-320	209+30.00	8.00	LT	OC	CB-1	694.59	12	B	34.0	1.79	D-320	689.53	D-319	688.92	
D-319	209+00.00	7.50	RT	OC	MH-1	694.12	15	B	89.0	-0.16	D-319	685.67	D-317	685.81	
D-318	208+18.00	47.00	RT	OC	CB-1	692.74	12	B	73.0	1.12	D-318	688.74	D-317	687.92	
D-317	208+18.00	26.00	LT	OC	MH-1	693.48	18	B	77.0	0.39	D-317	685.56	D-316	685.26	
D-316	207+41.00	19.82	LT	OC	MH-1	692.73	18	B	222.0	0.50	D-316	685.26	D-314	684.15	
D-315	207+41.00	31.82	LT	OC	CB-1	692.50	12	B	12.0	1.00	D-315	688.50	D-316	688.38	
D-314	205+16.00	19.02	LT	OC	MH-1	691.12	21	B	89.0	1.31	D-314	683.90	D-328	682.73	
D-313	205+16.10	31.00	LT	OC	CB-1	690.89	12	B	12.0	1.00	D-313	686.89	D-314	686.77	
Service Line	208+18.00	56.00	LT	OC	-	-	12	B	30.0	1.00	TEE	687.70	D-317	687.31	Install tee with cleanout
Service Line	209+00.00	103.50	RT	OC	-	-	12	B	96.0	2.75	TEE	689.43	D-319	686.79	Install tee with cleanout

Ref. No.	Station	Offset (ft)	Side	Alignment	Adjust or Reconstruct?	Grate/Rim Elev.
A01	198+57.38	5.87	LT	OC	ATG	689.95
A02	210+40.95	12.06	LT	OC	ATG	695.49
A03	217+77.44	57.06	RT	OC	ATG	695.50
A04	25+57.44	4.81	RT	BUCKEYE	ATG	697.67
A05	25+47.77	18.41	RT	BUCKEYE	ATG	697.98
A06	27+95.62	43.87	RT	BUCKEYE	ATG	689.23
A07	33+71.95	5.04	RT	BUCKEYE	ATG	693.52
A08	33+62.32	18.36	RT	BUCKEYE	ATG	693.04
A09	34+15.72	42.27	RT	BUCKEYE	ATG	693.96
A10	36+22.15	4.70	RT	BUCKEYE	ATG	696.29
A11	28+94.12	0.14	LT	WOODLAND	ATG	702.05
A12	28+27.42	70.99	RT	WOODLAND	ATG	686.96
A13	29+43.52	0.90	LT	E. 89TH	ATG	696.45
A14	29+58.93	0.39	LT	E. 89TH	ATG	695.89
A15	205+71.54	154.98	LT	OC	ATG	688.86
R01	200+34.23	136.21	RT	OC	RTG	688.80
R02	205+96.62	189.71	LT	OC	RTG	687.40
R03	208+78.91	79.72	RT	OC	RTG	693.01
R04	208+78.57	101.35	RT	OC	RTG	690.50
R05	211+17.10	76.70	LT	OC	RTG	696.71
R06	33+48.44	41.91	RT	BUCKEYE	RTG	693.40
D-01	25+85.47	28	LT	BUCKEYE	ATG	696.00

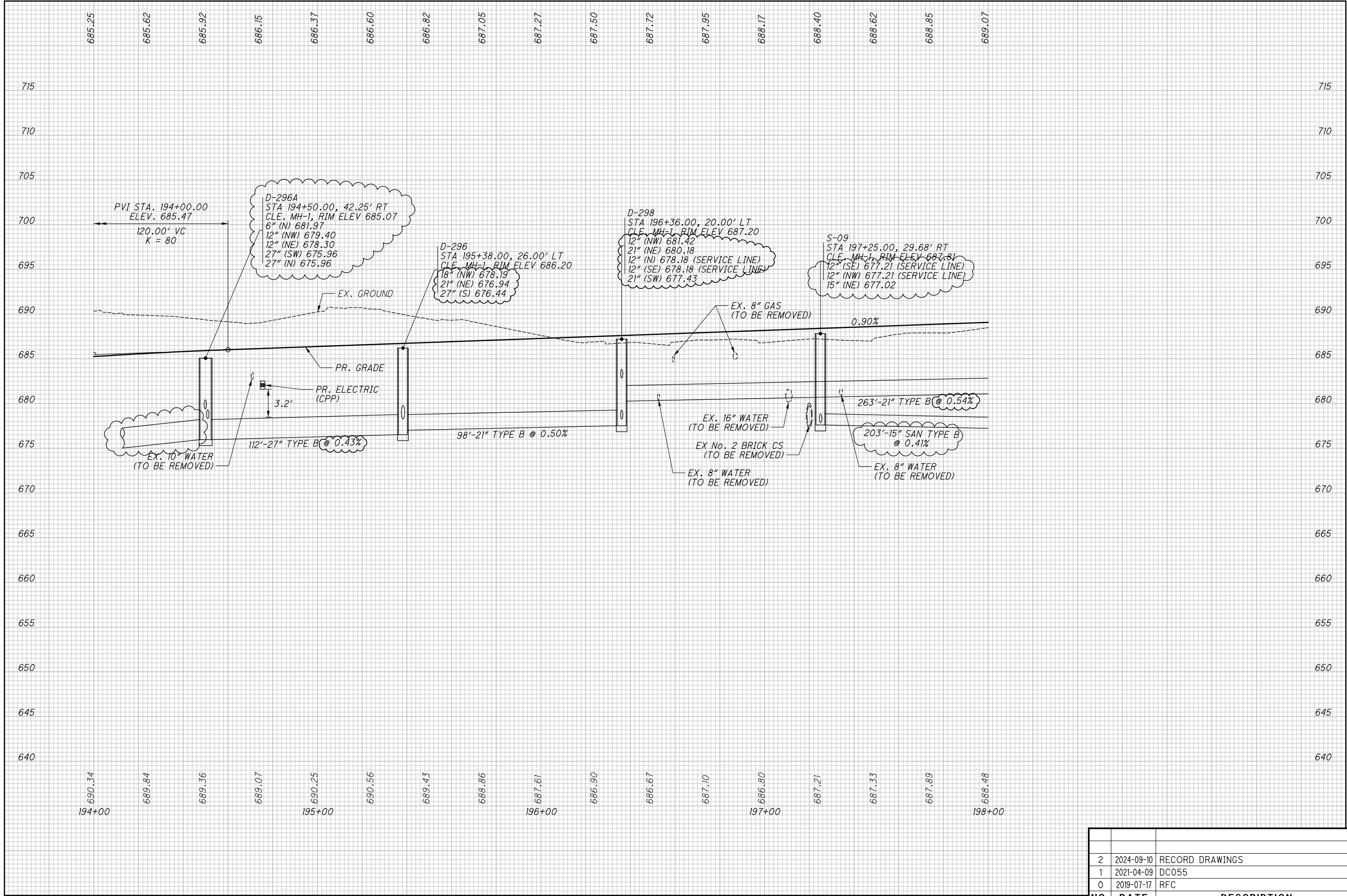
2	2024-09-10	RECORD DRAWINGS
1	2019-12-04	DC024
0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

Ref. No.	Station	Offset (ft)	Side	Alignment	604/605 Item	Grate/Rim Elev.	603 Item				Upstream		Downstream		Comment
							Size (in)	Type	Length (ft)	Slope (%)	Ref. No.	Invert	Ref. No.	Invert	
D-400A	29+07.67	18.89	RT	E. 89TH	CB-2-2B	696.00	12	-	-	-	D-400A	691.40	EXIST	687.20	EX. CB RTG, CB-2-2B
D-400B	29+44.10	19.07	LT	E. 89TH	CB-2-2B	695.00	12	-	-	-	D-400B	690.50	EXIST	689.90	EX. CB RTG, CB-2-2B
D-399	218+75.00	30.00	RT	OC	MH-1	695.05	15	B	150.0	0.50%	D-399	689.85	D-395	689.10	
D-398	219+25.00	36.00	RT	OC	CB-1	695.19	12	B	50.0	1.00%	D-398	690.60	D-399	690.10	
D-397	219+25.00	32.00	LT	OC	CB-3	695.27	12	B	67.0	1.00%	D-397	691.27	D-398	690.60	
D-395	217+25.00	24.00	RT	OC	MH-1	694.42	18	B	134.0	0.50%	D-395	688.85	D-388	688.18	
D-393	217+25.00	36.00	RT	OC	CB-3	694.18	12	B	12.0	1.00%	D-393	690.18	D-395	690.06	
D-392	216+50.00	8.00	LT	OC	CB-1	694.68	12	B	64.0	1.00%	D-392	690.68	D-389	690.04	
D-390	216+26.00	36.00	RT	OC	CB-1	693.70	12	B	37.0	1.00%	D-390	689.70	D-387	689.33	
D-389	215+87.00	8.00	LT	OC	CB-3	694.52	12	B	32.0	1.00%	D-389	690.04	D-388	689.72	
D-388	215+87.00	24.00	RT	OC	MH-1	693.89	24	B	60.0	0.50%	D-388	685.30	D-385	685.00	
D-387	215+87.00	36.00	RT	OC	CB-3	693.63	12	B	12.0	1.00%	D-387	689.33	D-388	689.21	
D-386	215+25.00	8.00	LT	OC	CB-1	694.66	12	B	32.0	1.00%	D-386	690.66	D-385	690.34	
D-385	215+25.00	24.00	RT	OC	MH-1	694.02	24	B	144.0	0.50%	D-385	685.00	D-383	684.28	
D-384	215+25.00	36.00	RT	OC	CB-1	693.78	12	B	12.0	1.00%	D-384	689.78	D-385	689.66	
D-383A	213+56.00	1.01	RT	OC	CB-1	695.33	12	B	35.0	2.20%	D-383A	691.33	D-383	690.56	
D-383	213+75.00	30.12	RT	OC	MH-1	694.65	24	B	142.0	3.53%	D-383	684.28	D-382	679.26	
D-382	212+25.00	42.00	RT	OC	MH-1	695.15	24	B	66.0	0.50%	D-382	679.00	D-381	678.67	
D-381	33+50.00	21.75	LT	Woodland	MH-1	693.51	24	B	62.0	0.50%	D-381	678.67	D-363	678.36	
D-380	210+76.31	43.01	LT	OC	MH-1	696.43	No. 4	-	-	-	D-380	674.54	EXIST	674.54	EX. NEORS D CS M.H. - ATG
D-379A	211+45.00	54.00	LT	OC	CB-2-2B	697.56	12	B	36.0	1.00%	D-379A	693.56	EXIST	693.20	
D-379	31+50.00	28.00	LT	Woodland	CB-1	696.78	12	B	36.0	1.17%	D-379	692.78	D-380	692.36	
D-370	34+85.00	28.00	RT	Woodland	CB-1	691.89	12	B	30.0	0.93%	D-370	687.76	D-368	687.48	
D-369	35+70.00	28.00	LT	Woodland	CB-1	692.69	12	B	4.0	1.00%	D-369	688.64	EXIST	688.60	
D-368	34+55.00	28.00	RT	Woodland	CB-3	691.82	12	B	53.0	4.75%	D-368	684.62	D-365	682.10	
D-367	34+55.00	28.00	LT	Woodland	CB-3	691.83	12	B	43.0	1.00%	D-367	687.83	D-363	687.40	
D-366	33+85.00	28.00	RT	Woodland	CB-1	692.28	12	B	38.0	10.26%	D-366	686.00	D-365	682.10	
D-365	34+10.27	0.51	LT	Woodland	MH-1	692.58	No. 3	-	-	-	D-365	677.40	EXIST	677.40	EX. CS M.H. - ATG
D-364	34+01.00	28.00	LT	Woodland	CB-1	692.27	12	B	12.0	1.00%	D-364	688.27	D-363	688.15	
D-363	34+12.00	22.00	LT	Woodland	MH-1	692.21	24	B	22.0	0.50%	D-363	678.36	D-365	678.25	
D-361	30+00.00	28.00	RT	Woodland	CB-1	699.11	12	B	81.0	1.94%	D-361	694.51	D-361A	692.94	
D-361A	30+81.00	28.00	RT	Woodland	CB-1	697.59	12	B	96.0	0.53%	D-361A	692.94	D-380	692.43	
D-361B	28+11.91	90.59	RT	Woodland	CB-2-2A	686.60	15	C	25.0	1.00%	D-361B	681.85	EXIST	681.60	
Service Line	213+75.00	68.50	RT	OC	-	-	12	B	38.0	1.00%	TEE	685.66	D-383	685.28	Install tee with cleanout
Service Line	218+75.00	51.00	LT	OC	-	-	12	B	81.0	1.00%	TEE	690.91	D-399	690.10	Install tee with cleanout
Service Line	218+75.00	64.00	RT	OC	-	-	12	B	34.0	1.00%	TEE	690.67	D-399	690.33	Install tee with cleanout

2	2024-09-10	RECORD DRAWINGS
1	2021-03-03	DC052
0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		



1	2021-04-09	DC055
0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
		ISSUE RECORD



ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

NO.	DATE	DESCRIPTION
2	2024-09-10	RECORD DRAWINGS
1	2021-04-09	DC055
0	2019-07-17	RFC
ISSUE RECORD		

CUY-IR490/ SR010-2.09 / 19.28

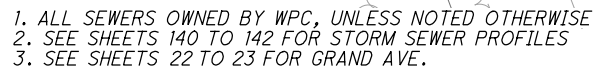
9148

PROFILE - OPPORTUNITY CORRIDOR BLVD.
STA. 194+00.00 TO STA. 198+00.00

CALCULATED
JTH
CHECKED
SM

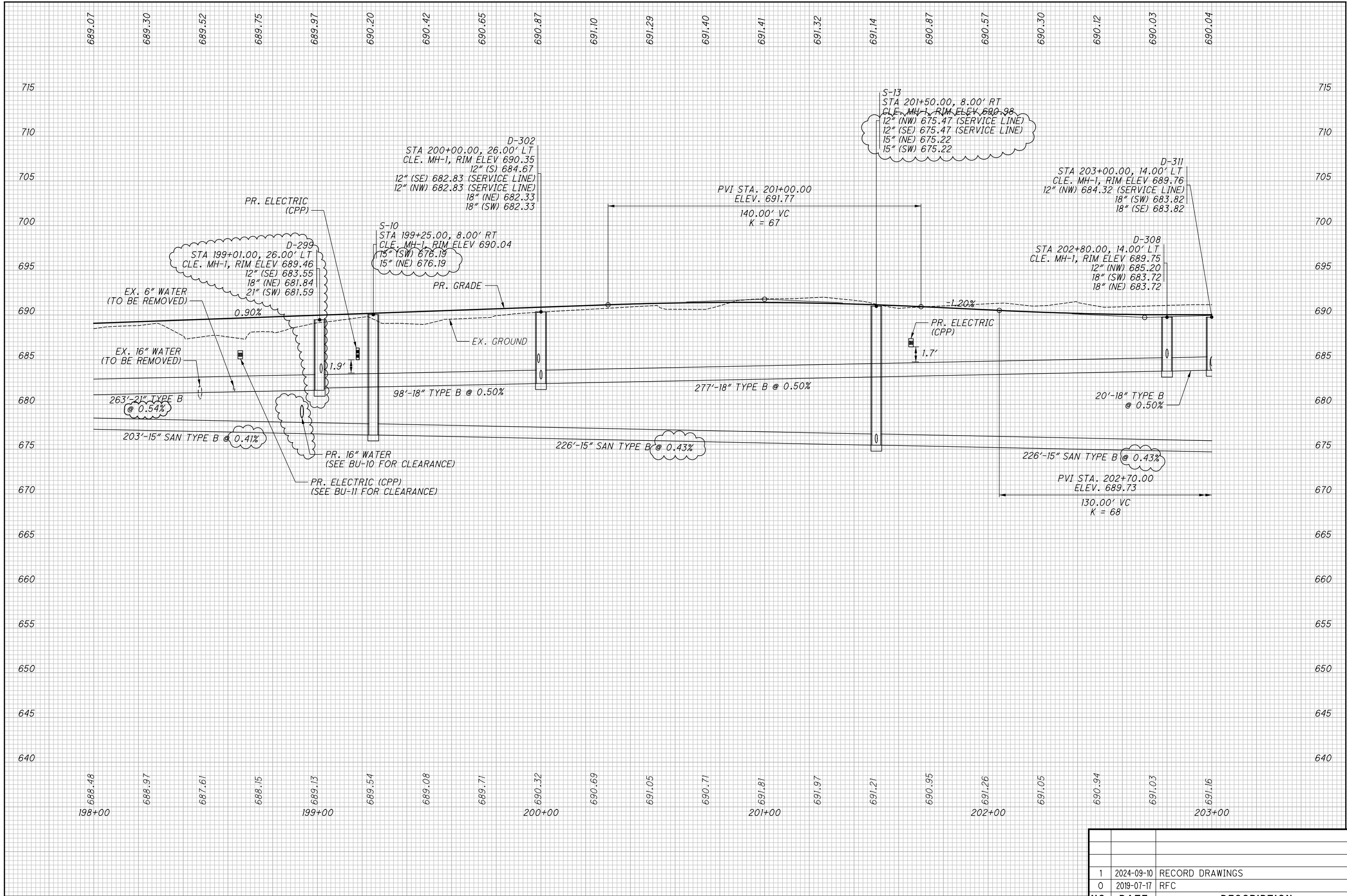
RECORD PLANS

RECORD PLANS



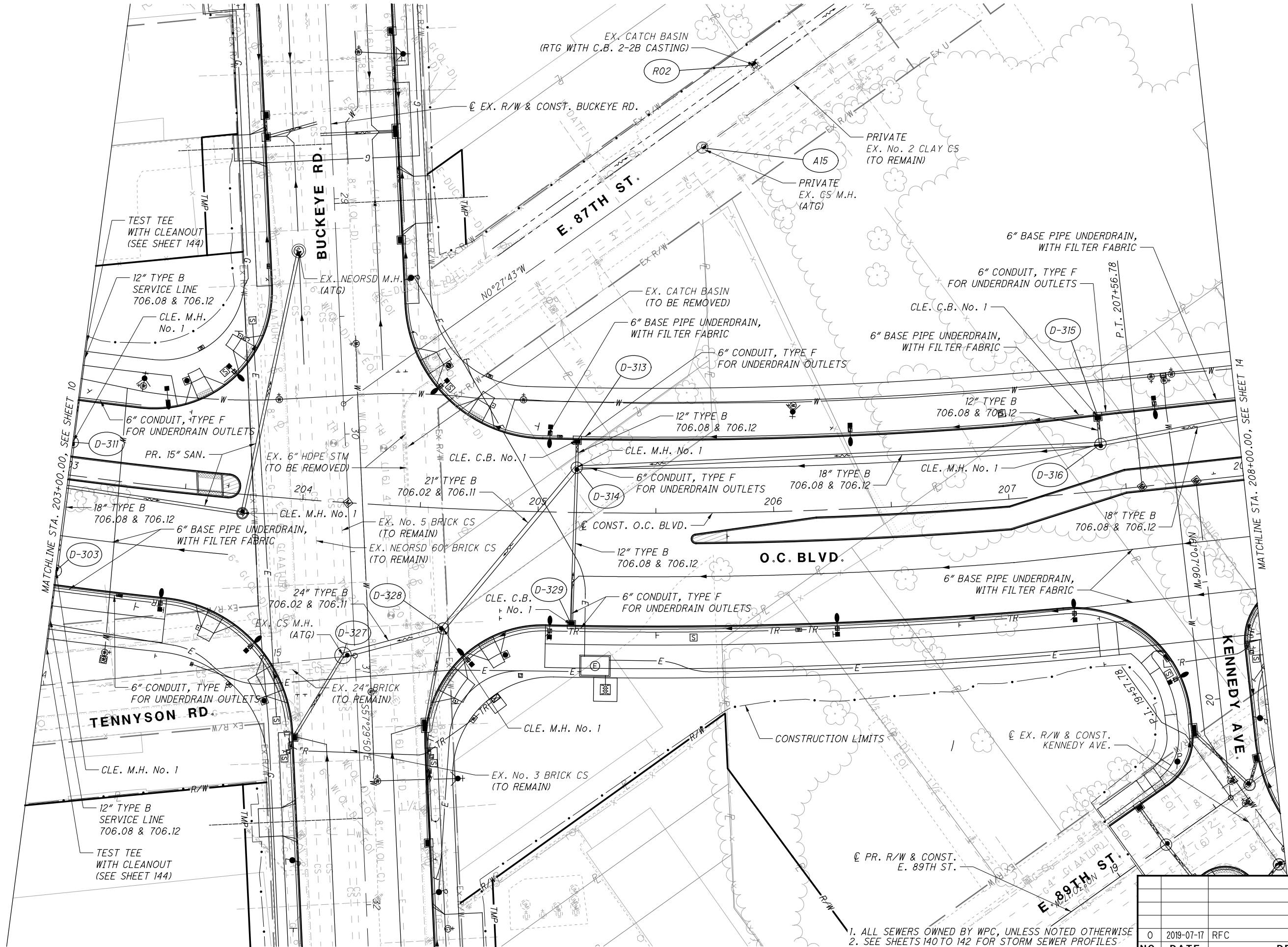
1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		





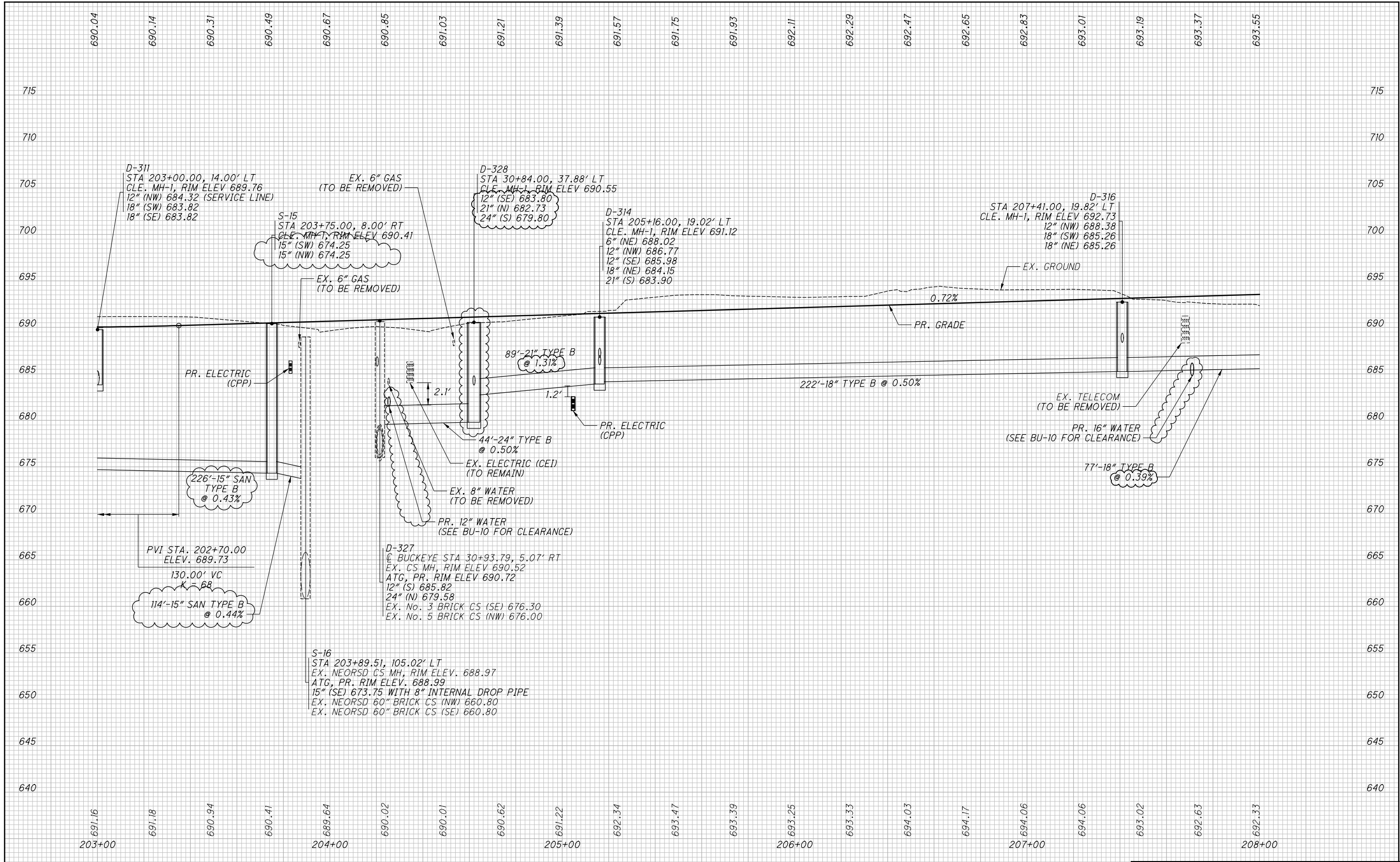
ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

NO.	DATE	DESCRIPTION
1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC
ISSUE RECORD		



- 1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
- 2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES
- 3. SEE SHEETS 24 TO 29 FOR BUCKEYE ROAD
- 4. SEE SHEETS 30 TO 31 FOR KENNEDY AVE./E. 89TH ST.

NO.	DATE	DESCRIPTION	ISSUE RECORD
0	2019-07-17	RFC	



ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

NO.	DATE	DESCRIPTION
1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC
ISSUE RECORD		

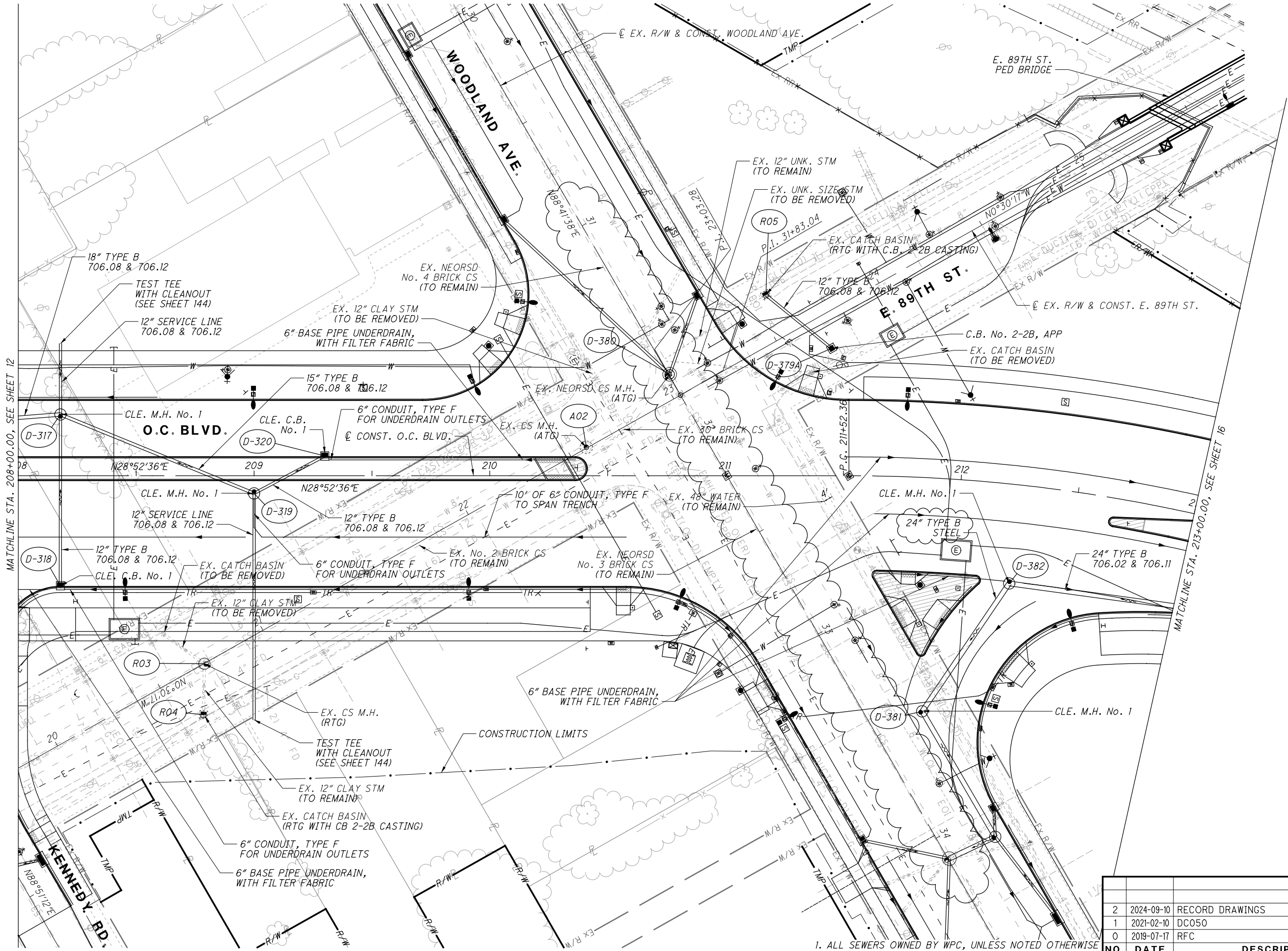
CUY-IR490/ SR010-
2.09 / 19.28

PROFILE - OPPORTUNITY CORRIDOR BLVD.
STA. 203+00.00 TO STA. 208+00.00

CALCULATED
JTH
CHECKED
SM

RECORD PLANS
13
148

RECORD PLANS



1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES
3. SEE SHEETS 32 TO 37 FOR WOODLAND AVE.

NO.	DATE	DESCRIPTION	
		ISSUE RECORD	
2	2024-09-10	RECORD DRAWINGS	
1	2021-02-10	DC050	
0	2019-07-17	RFC	

DRAINAGE PLAN - O.C. BOULEVARD
STA. 208+00.00 TO STA. 213+00.00

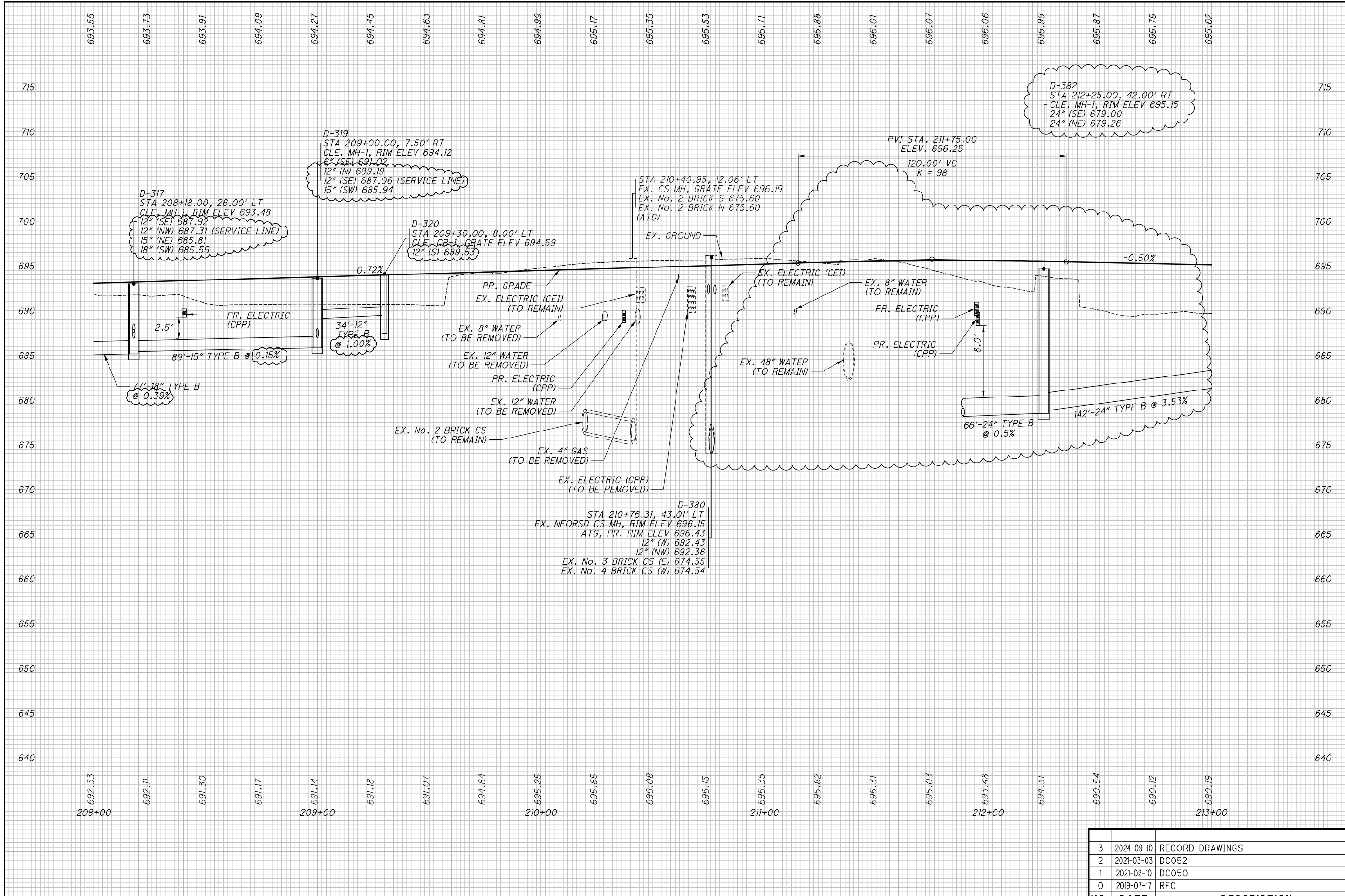
CUY-IR490/ SR010-
2.09/ 19.28

0 20 40
HORIZONTAL
SCALE IN FEET

CALCULATED
JTH
CHECKED
SM

RECORD PLANS

RECORD PLANS



ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

NO.	DATE	DESCRIPTION
		ISSUE RECORD
3	2024-09-10	RECORD DRAWINGS
2	2021-03-03	DC052
1	2021-02-10	DC050
0	2019-07-17	RFC

CUY-IR490/ SR010-2.09 / 19.28

15
148

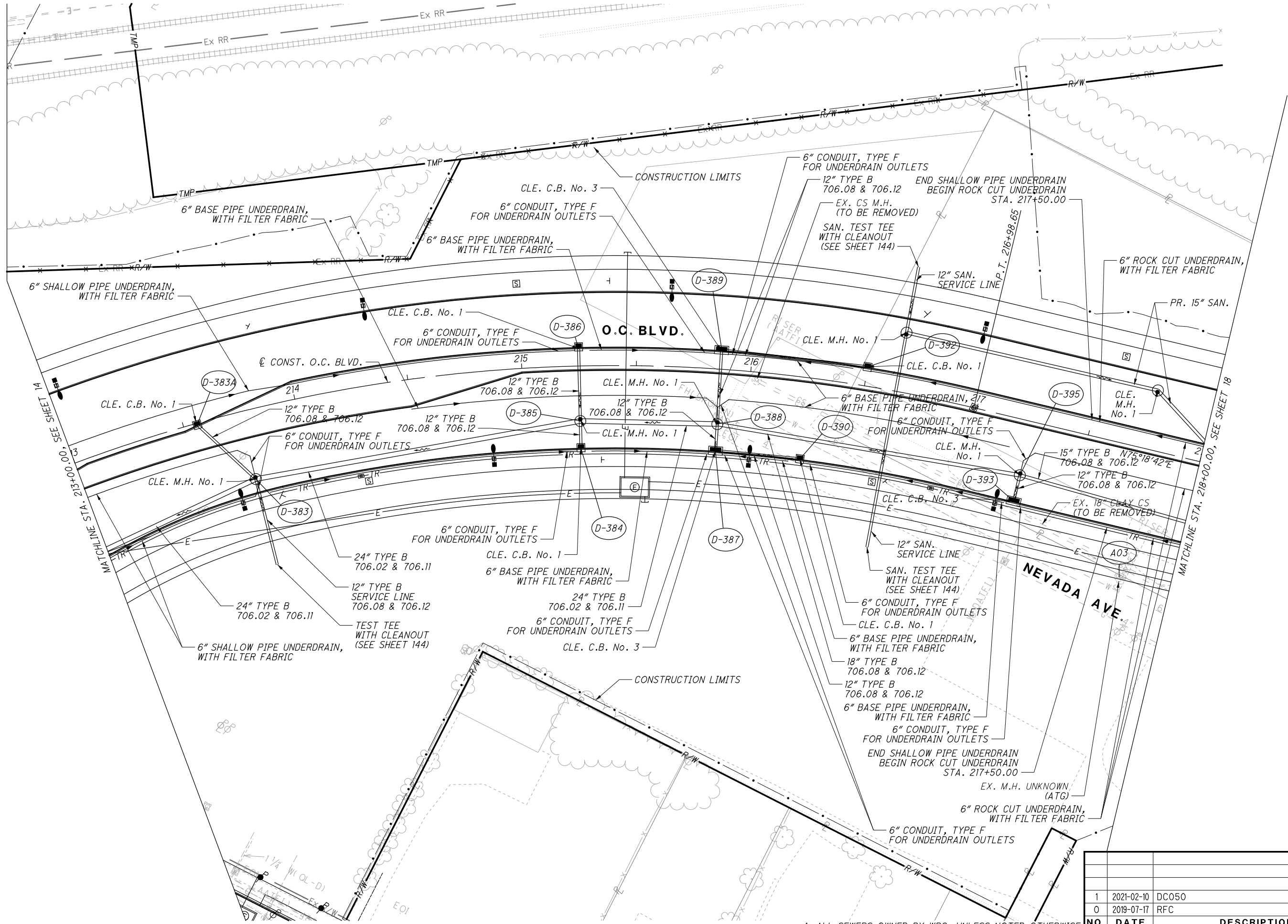
PROFILE - OPPORTUNITY CORRIDOR BLVD.
STA. 208+00.00 TO STA. 213+00.00

RECORD PLANS

CALCULATED
JTH

CHECKED
SM

RECORD PLANS



1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES

NO.	DATE	DESCRIPTION
1	2021-02-10	DC050
0	2019-07-17	RFC
ISSUE RECORD		

DRAINAGE PLAN - O.C. BOULEVARD
STA. 213+00.00 TO STA. 218+00.00

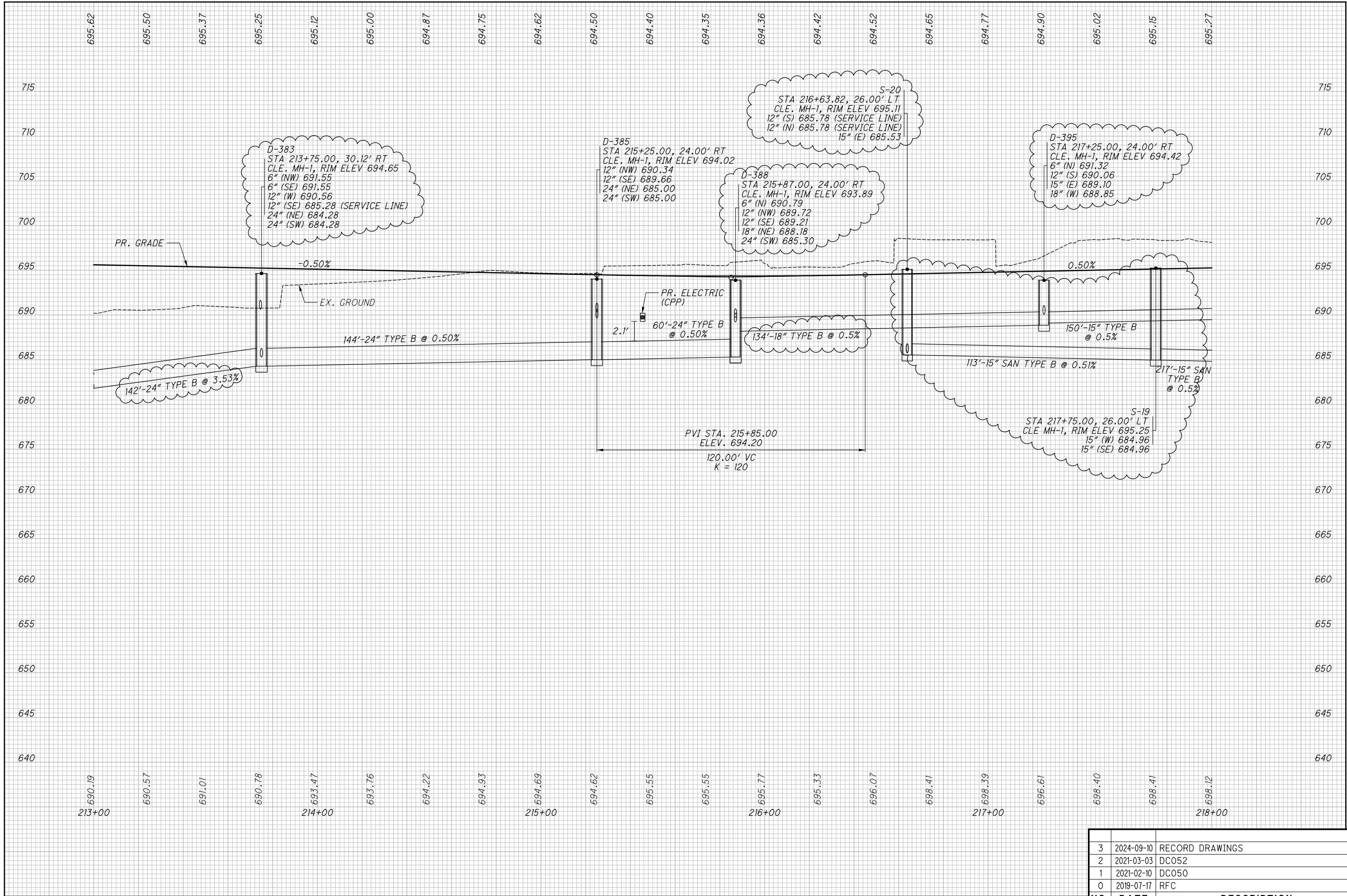
CUY-IR490/ SR010-
2.09 / 19.28

RECORD PLANS

CALCULATED JTH
CHECKED SM

0 20 40
HORIZONTAL
SCALE IN FEET

RECORD PLANS



ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

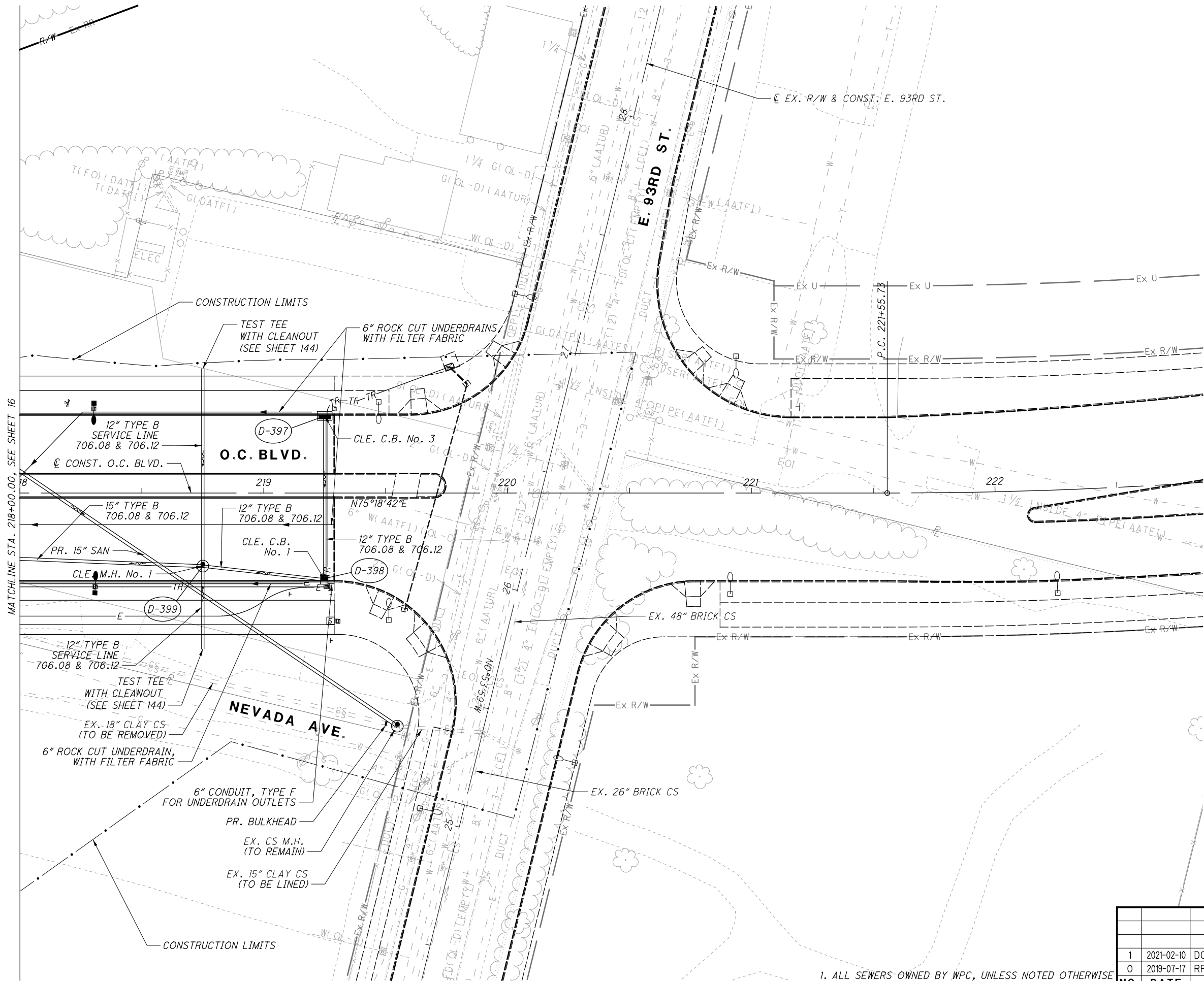
NO.	DATE	DESCRIPTION
3	2024-09-10	RECORD DRAWINGS
2	2021-03-03	DC052
1	2021-02-10	DC050
0	2019-07-17	RFC
		ISSUE RECORD

CUY-IR490/ SR010-
2.09 / 19.28

PROFILE - OPPORTUNITY CORRIDOR BLVD.
STA. 213+00.00 TO STA. 218+00.00

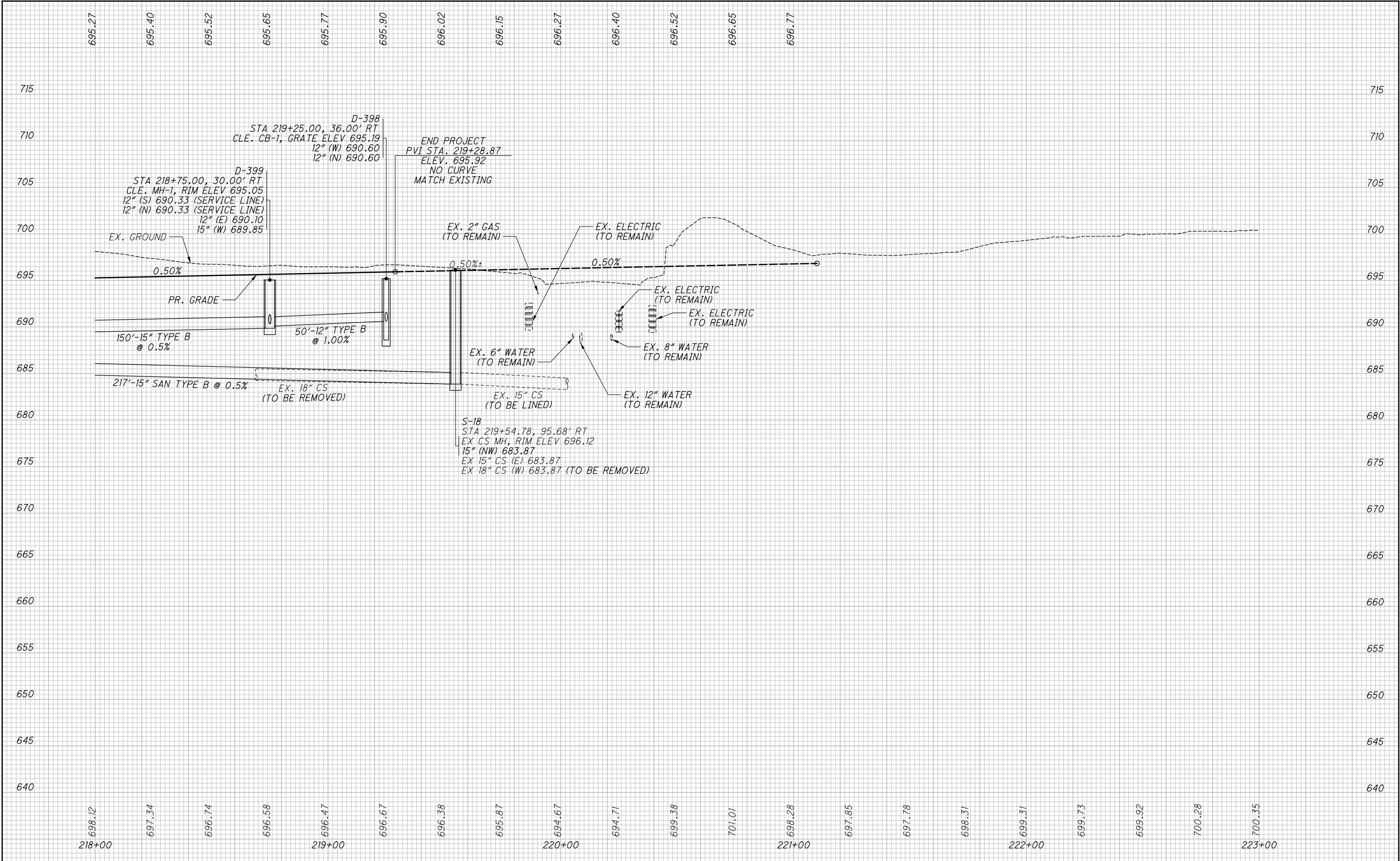
CALCULATED
JTH
CHECKED
SM

RECORD PLANS
RECORD PLANS



1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES
3. CONTRACTOR TO TIE EX. UNDERDRAIN INTO PROPOSED CATCH BASINS

NO.	DATE	DESCRIPTION
1	2021-02-10	DC050
0	2019-07-17	RFC
ISSUE RECORD		



ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

NO.	DATE	DESCRIPTION
1	2021-02-10	DC050
0	2019-07-17	RFC
ISSUE RECORD		

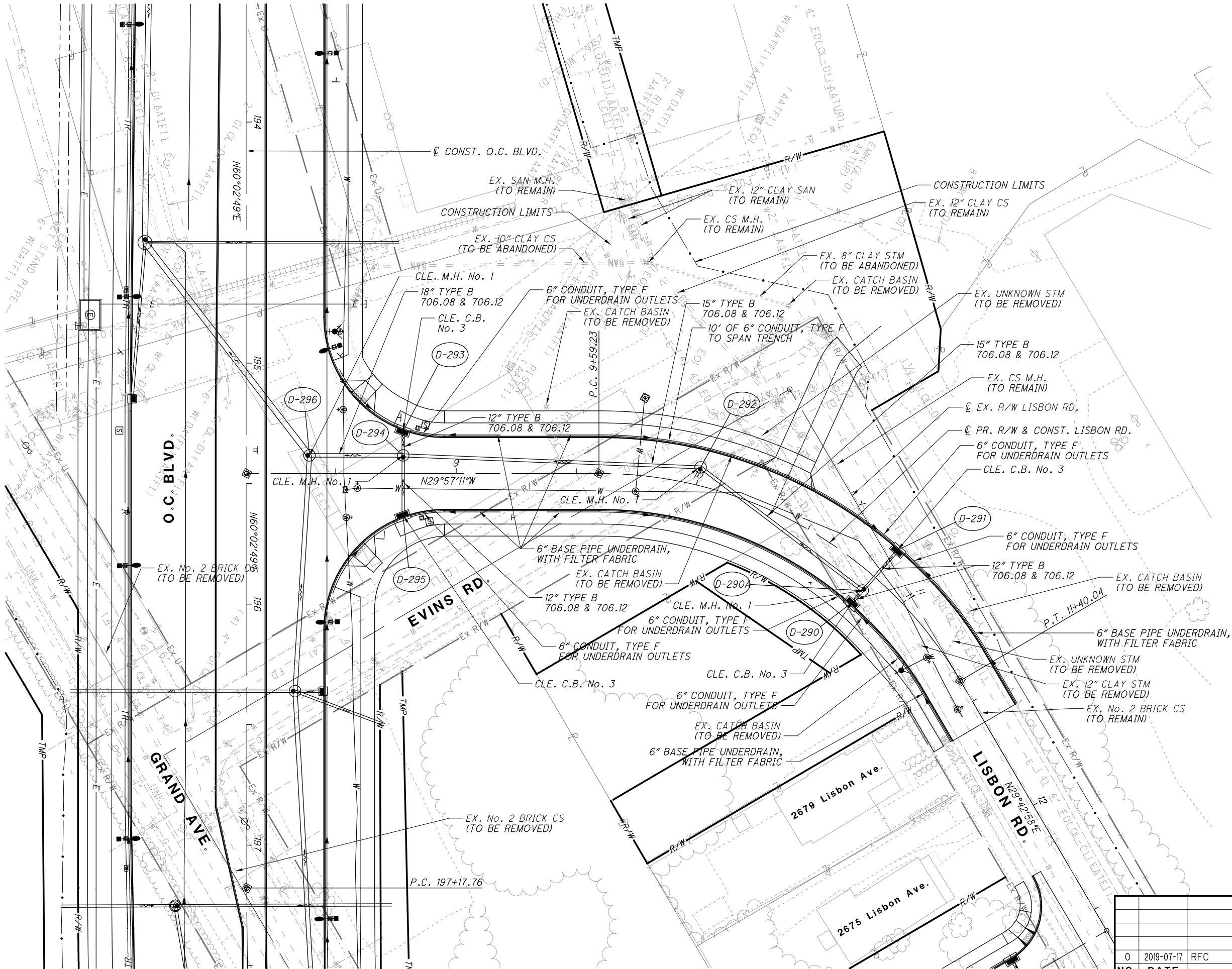
CUY-IR490/ SR010-
2.09 / 19.28

PROFILE - OPPORTUNITY CORRIDOR BLVD.
STA. 218+00.00 TO END OF PROJECT

CALCULATED
JTH
CHECKED
SM

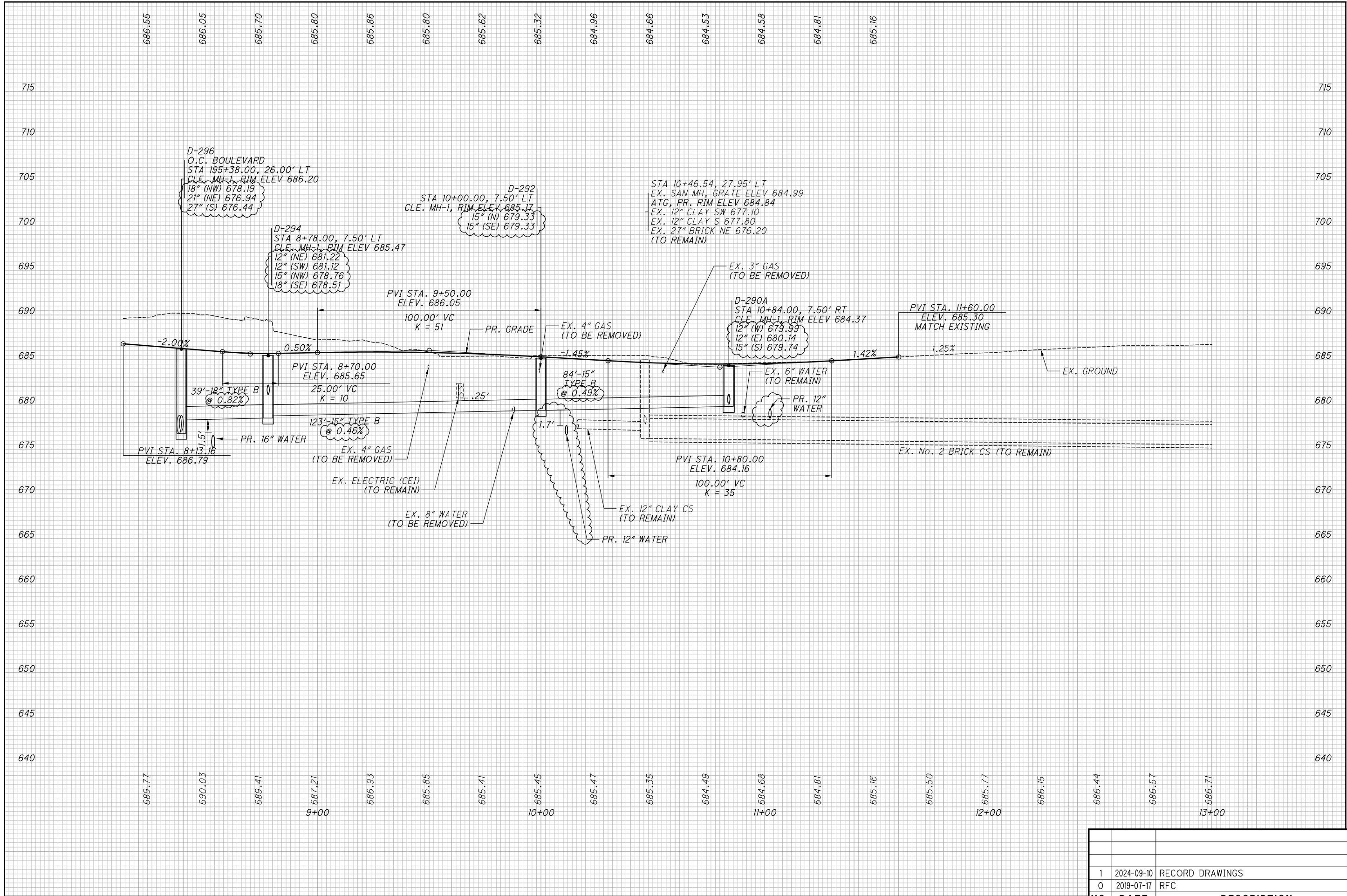
RECORD PLANS
19
148

RECORD PLANS



1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES

ISSUE RECORD		
NO.	DATE	DESCRIPTION
0	2019-07-17	RFC



ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

NO.	DATE	DESCRIPTION
1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC
		ISSUE RECORD

CUY-IR490/ SR010-

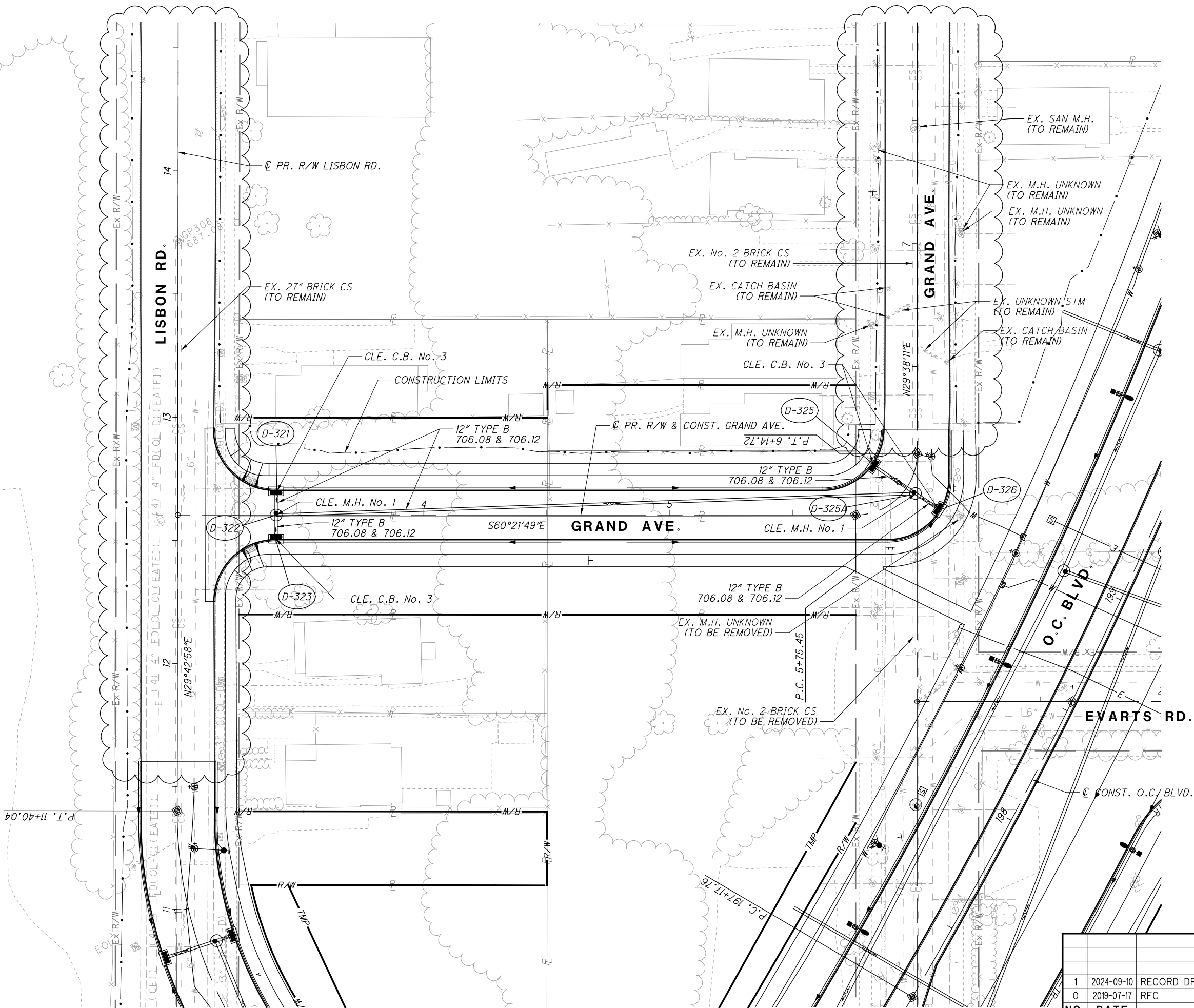
2.09 / 19.28

CALCULATED
JTH
CHECKED
SM

RECORD PLANS

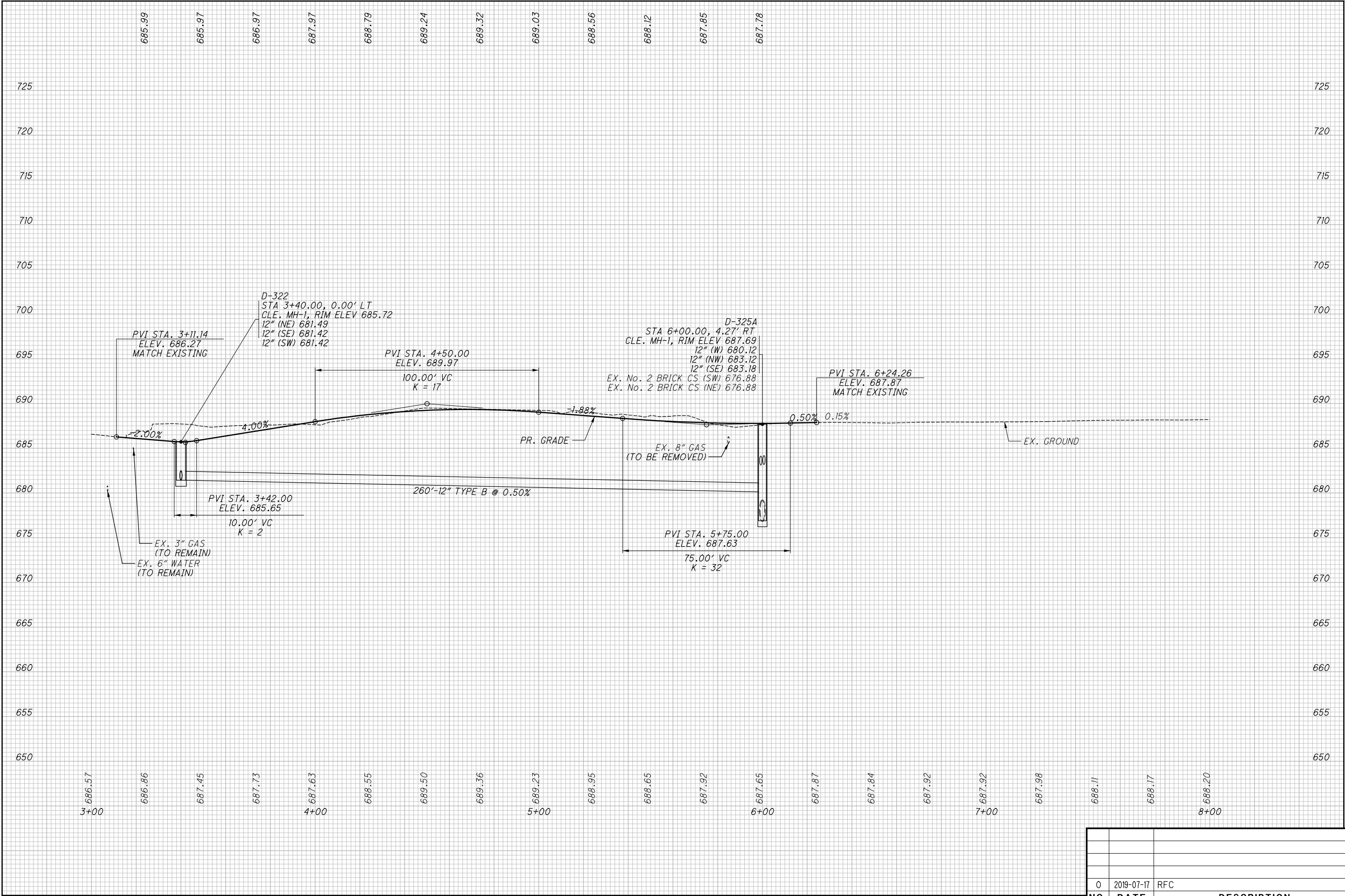
RECORD PLANS

PROFILE - LISBON RD.
BEGIN TO END



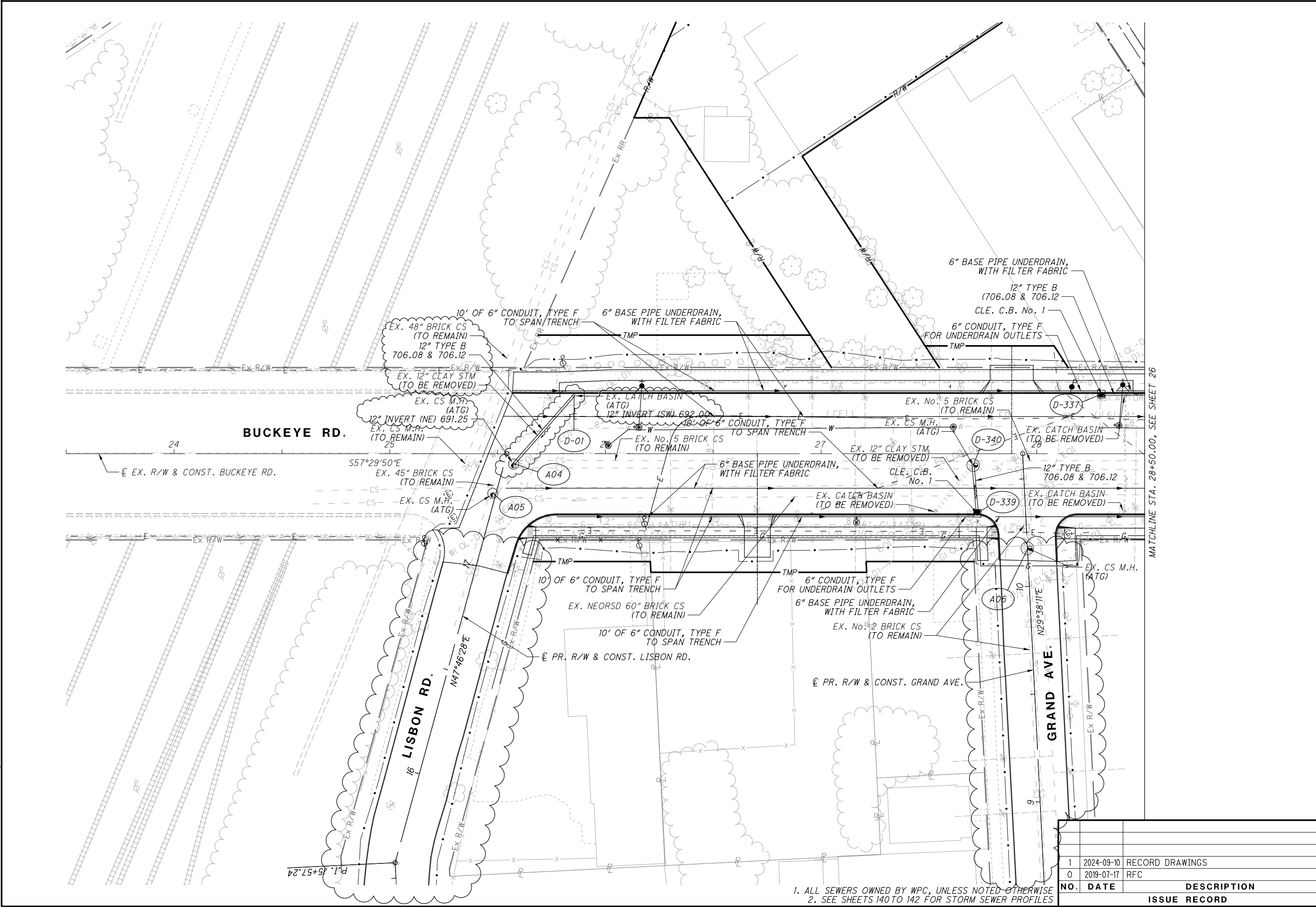
1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES

ISSUE RECORD		
NO.	DATE	DESCRIPTION
1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC



ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

ISSUE RECORD		
NO.	DATE	DESCRIPTION
0	2019-07-17	RFC



1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES

NO.	DATE	DESCRIPTION
1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC
ISSUE RECORD		

CUY-IR490/ SR010-2.09/ 19.28

24148

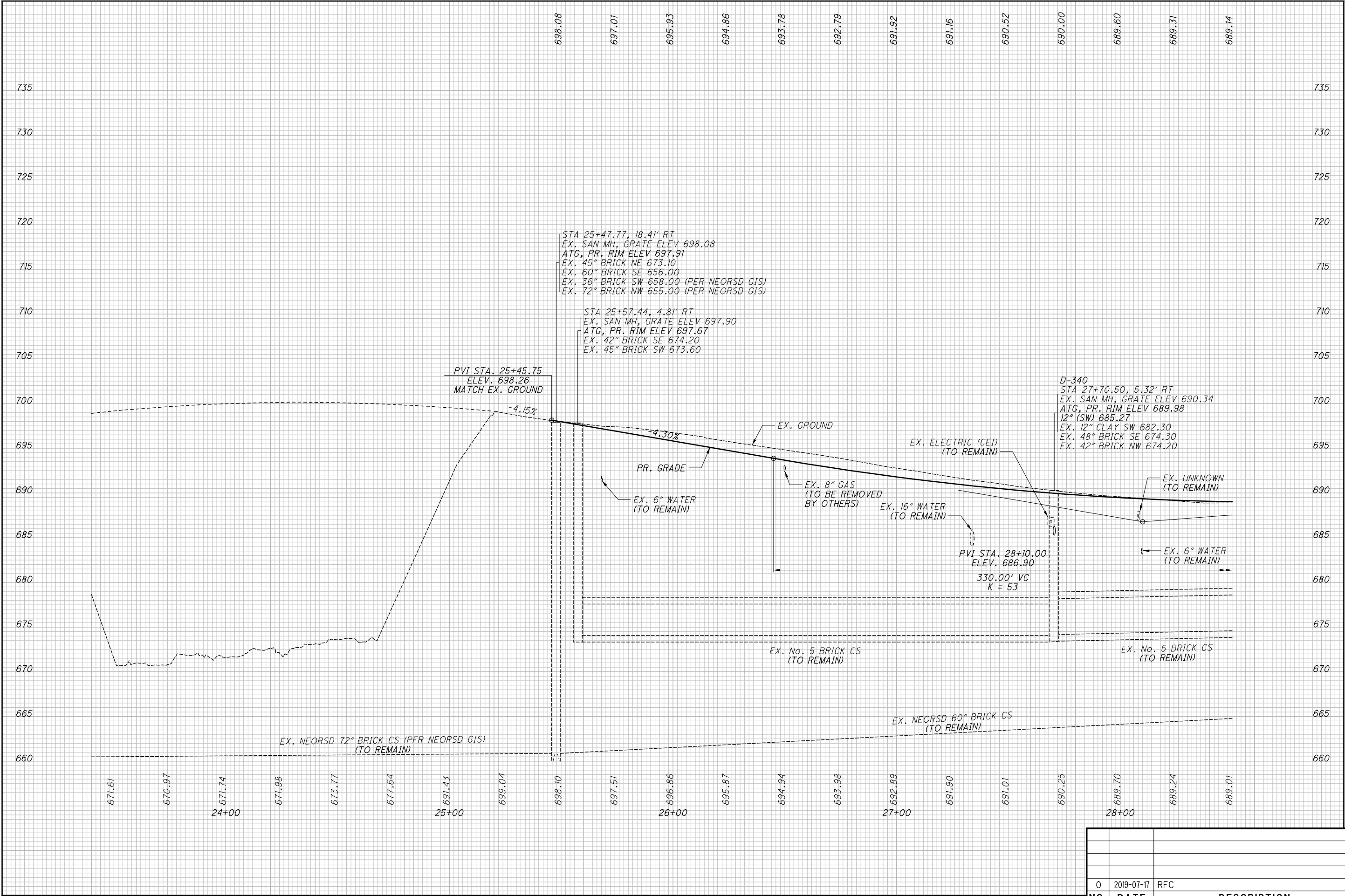
DRAINAGE PLAN - BUCKEYE RD.
BEGIN TO STA. 28+50.00

RECORD PLANS

CALCULATED
JTH
CHECKED
SM

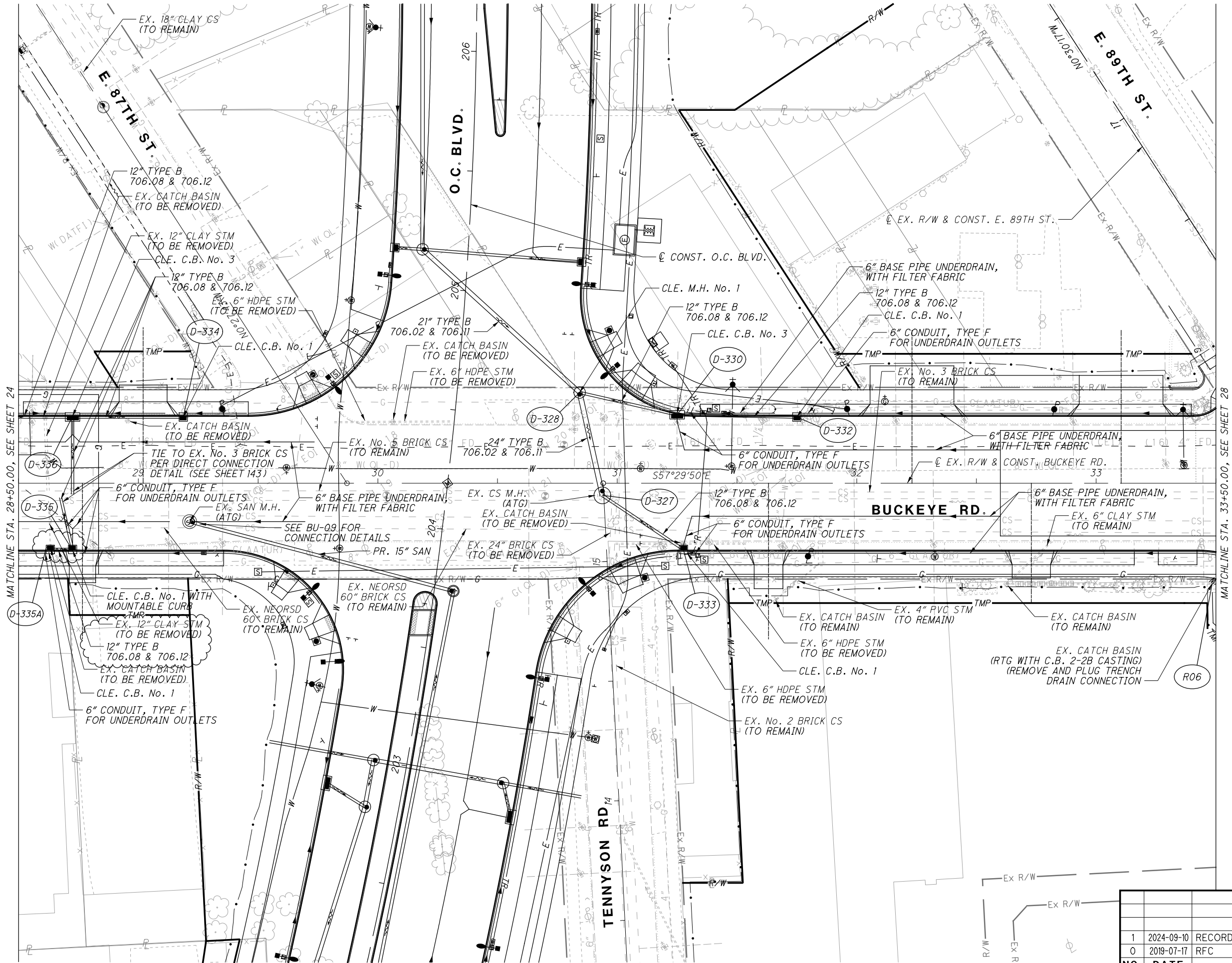
0 10 20 40
HORIZONTAL
SCALE IN FEET

RECORD PLANS



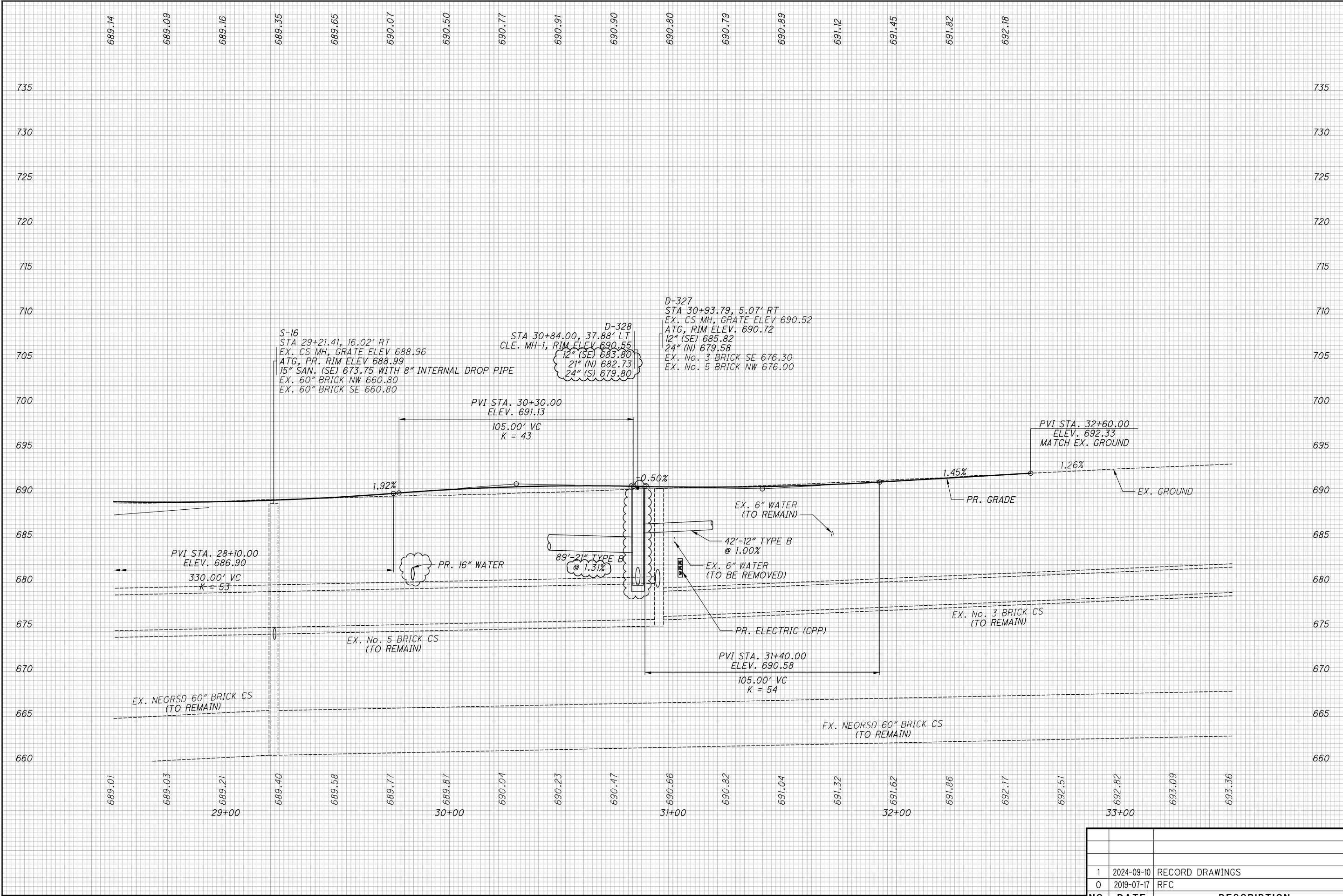
ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		



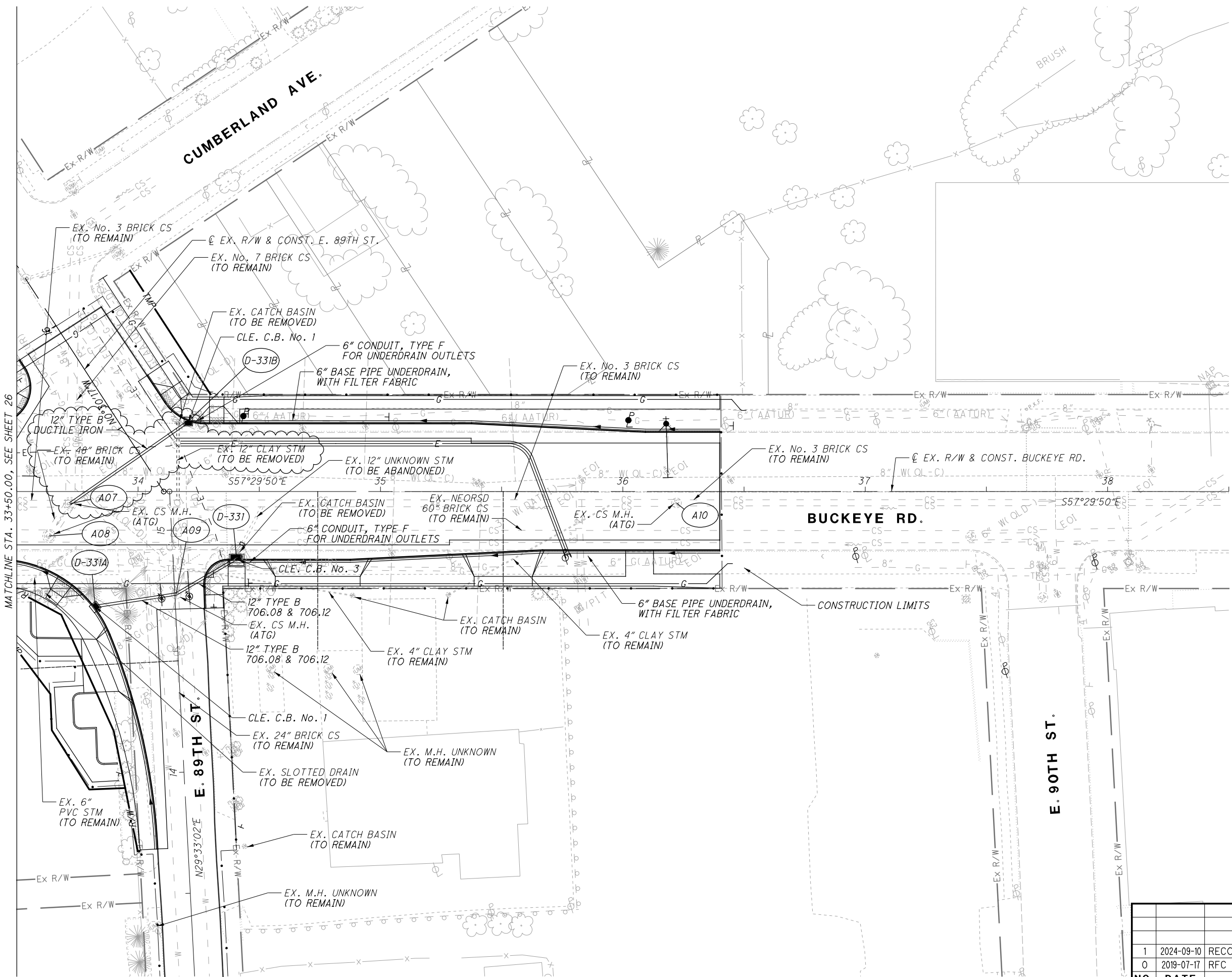
1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES

NO.		DATE	DESCRIPTION
1		2024-09-10	RECORD DRAWINGS
0		2019-07-17	RFC
			ISSUE RECORD



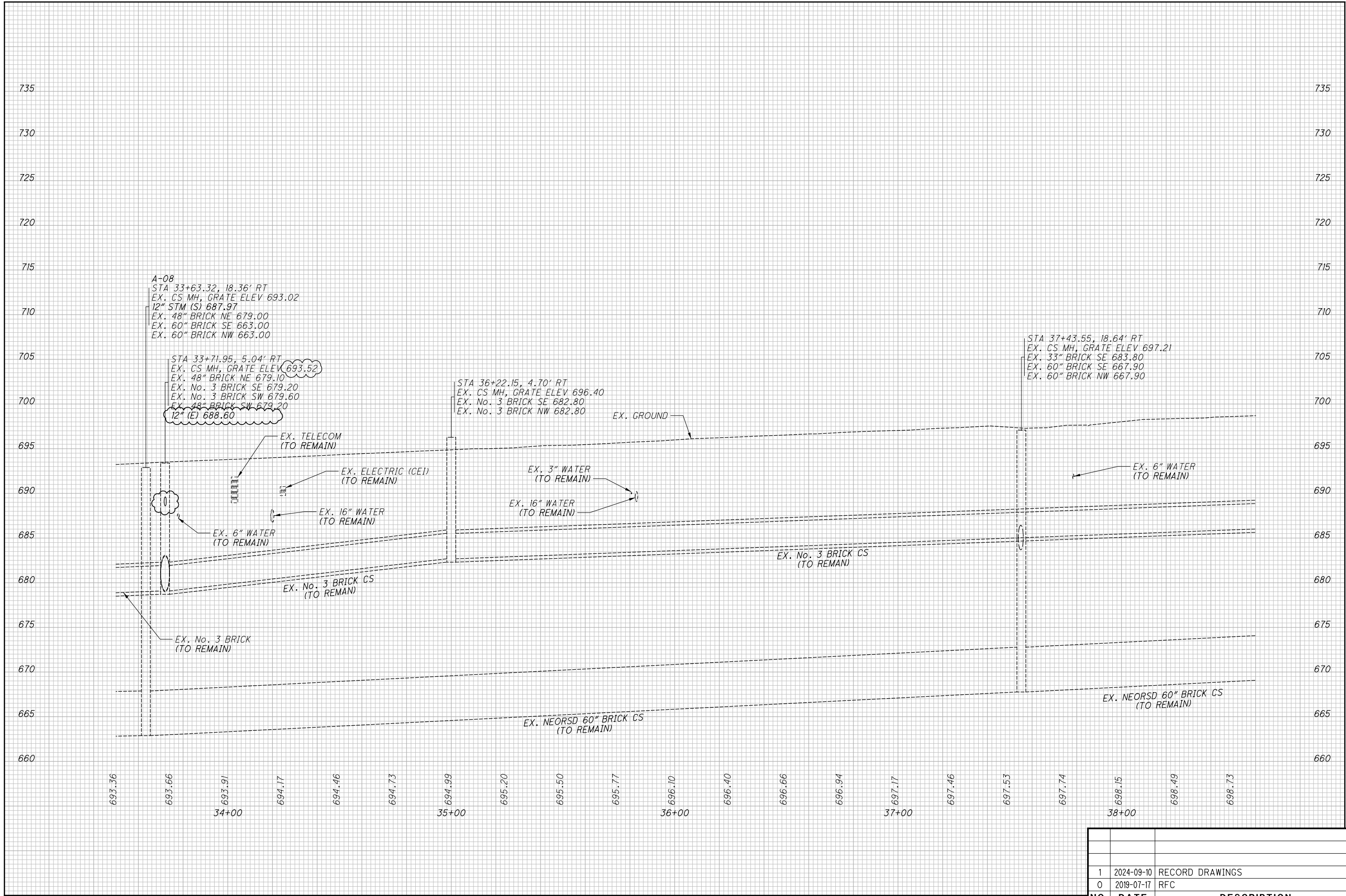
ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

NO.	DATE	DESCRIPTION
1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC
		ISSUE RECORD



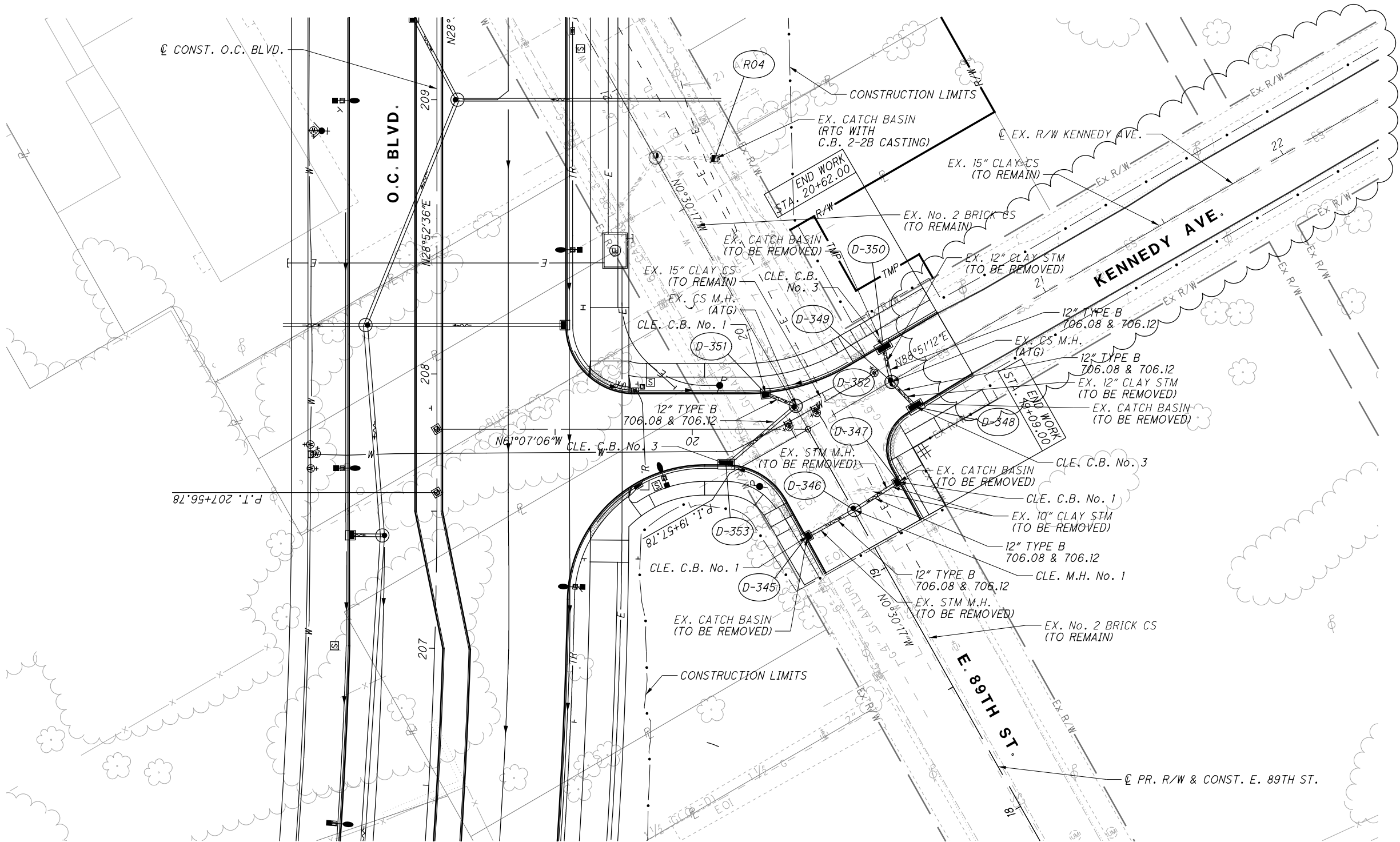
1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES

NO.		DATE	DESCRIPTION
1		2024-09-10	RECORD DRAWINGS
0		2019-07-17	RFC
ISSUE RECORD			



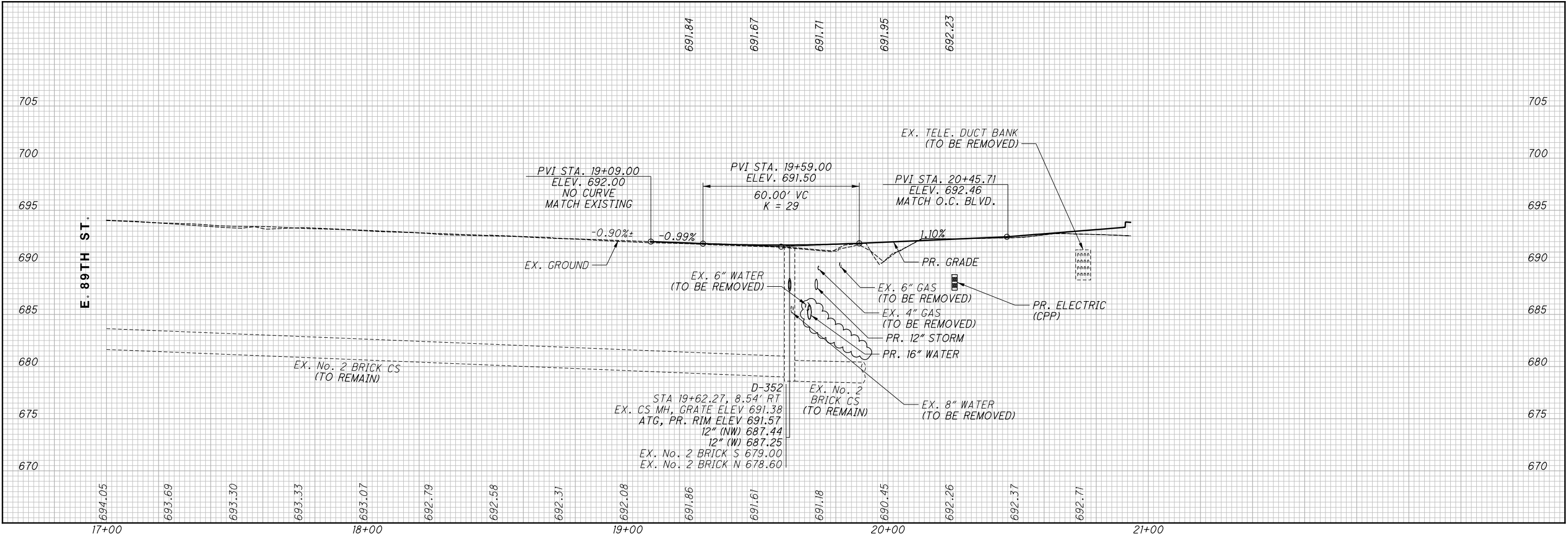
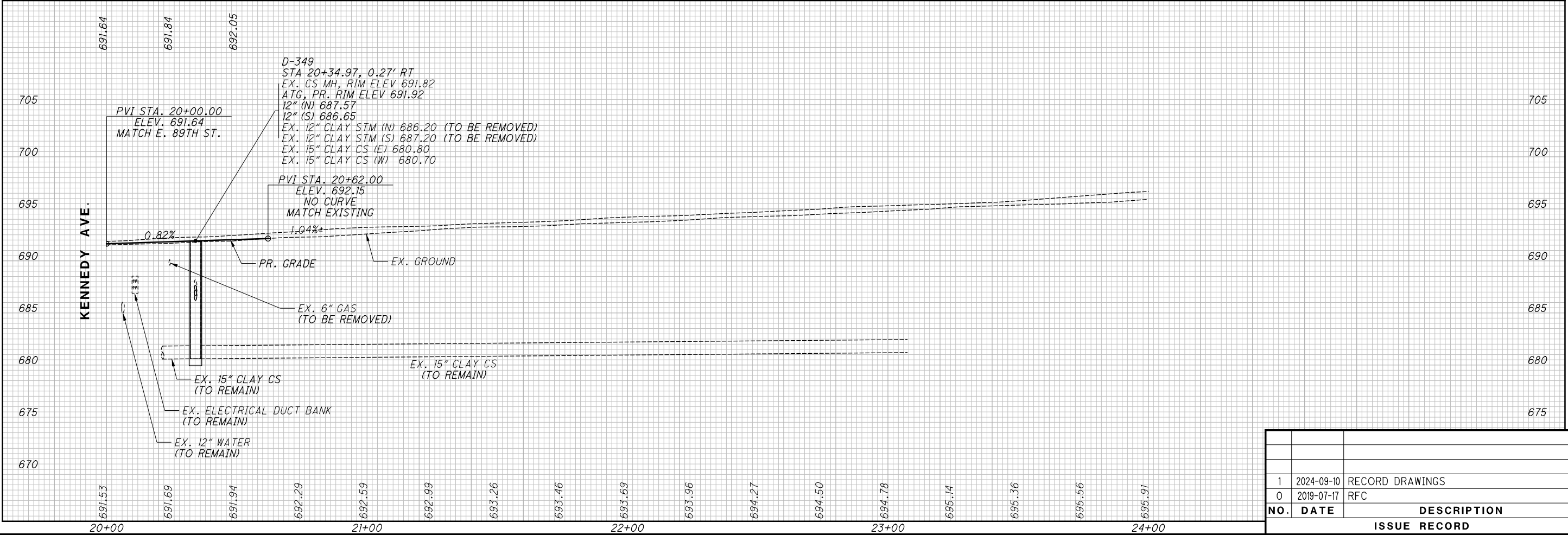
ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

NO.	DATE	DESCRIPTION
		ISSUE RECORD
1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC

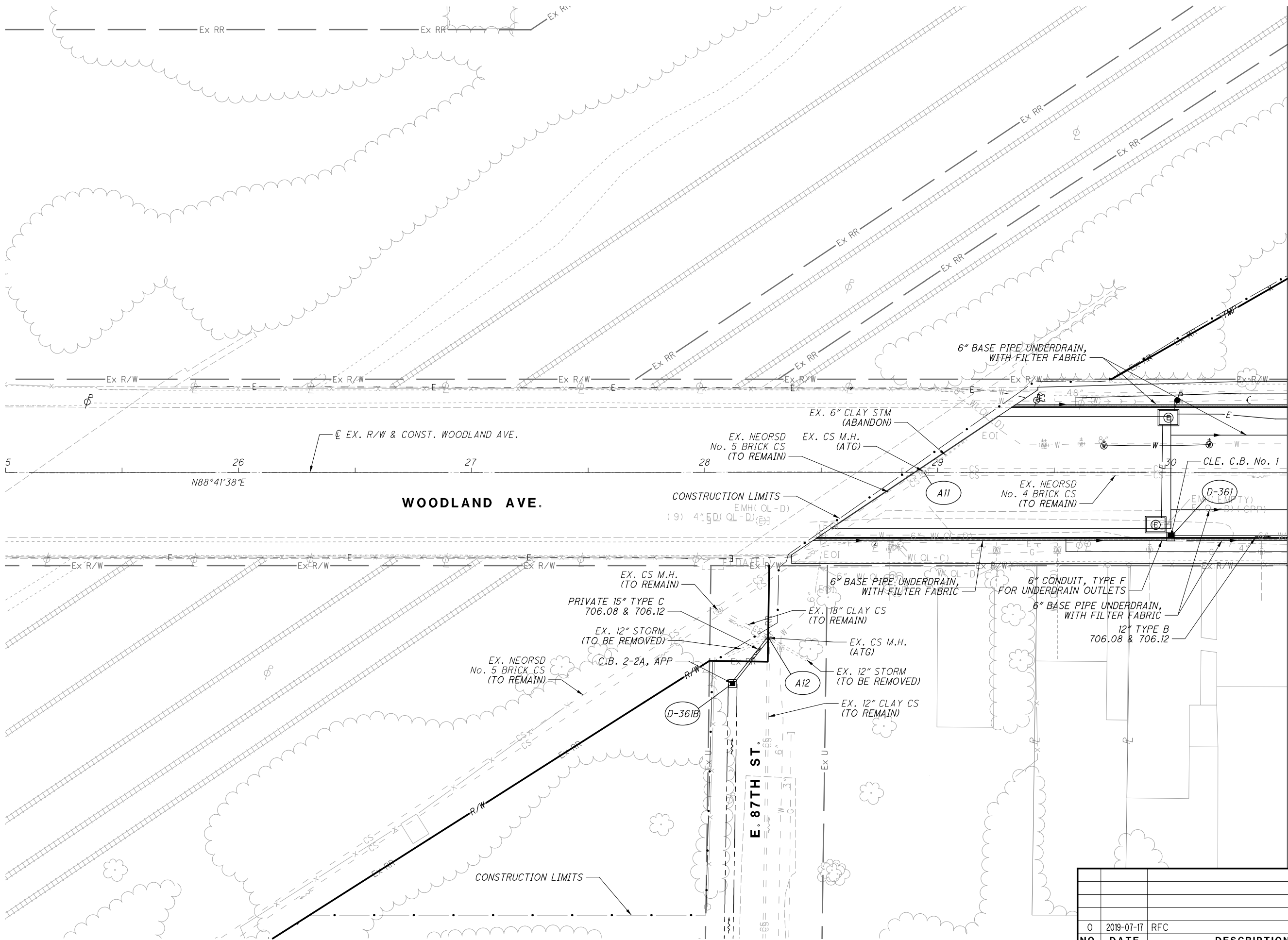


1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES

2	2024-09-10	RECORD DRAWINGS
1	2019-12-04	DC024
0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

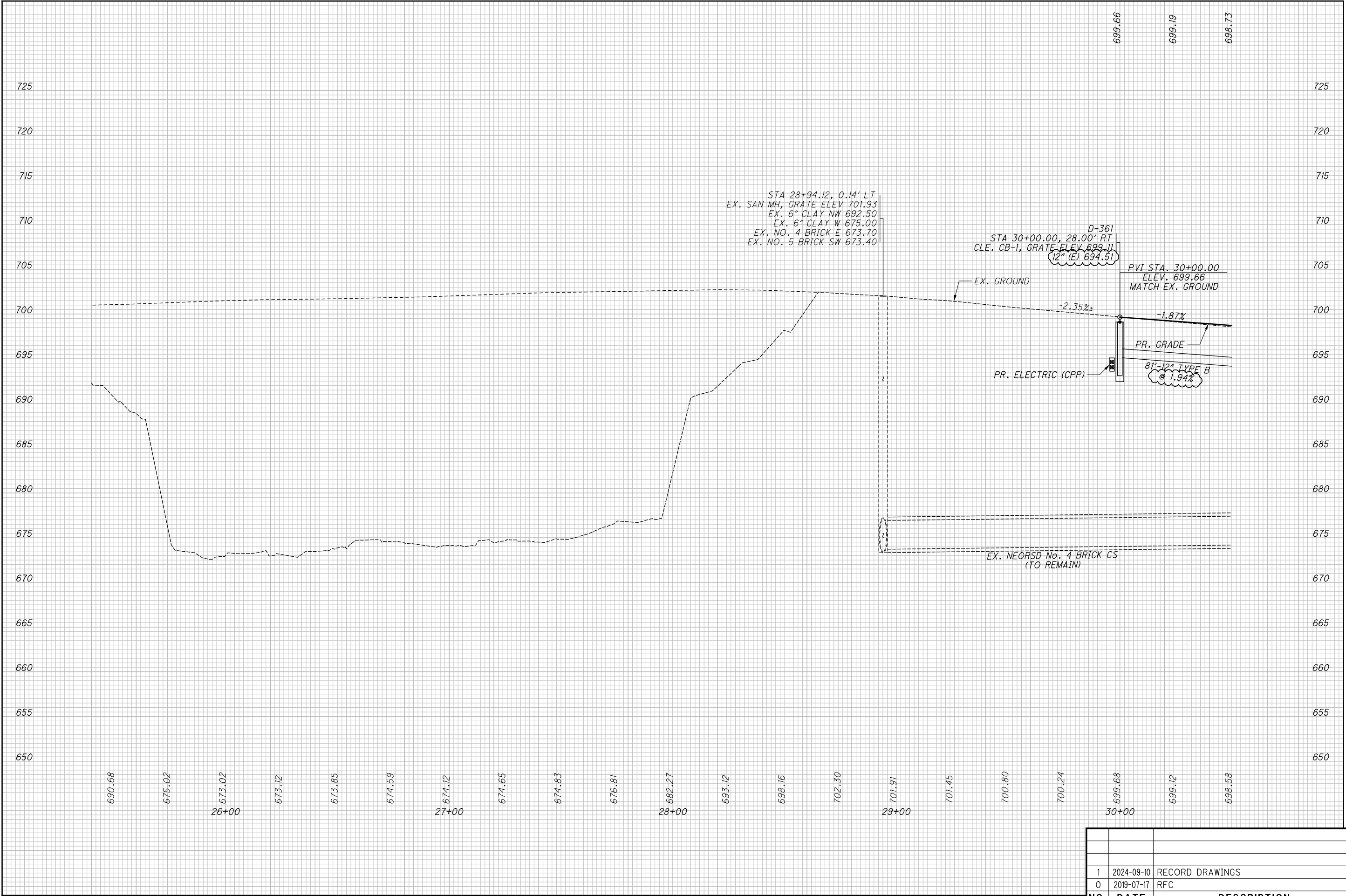


NO.	DATE	DESCRIPTION
1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC



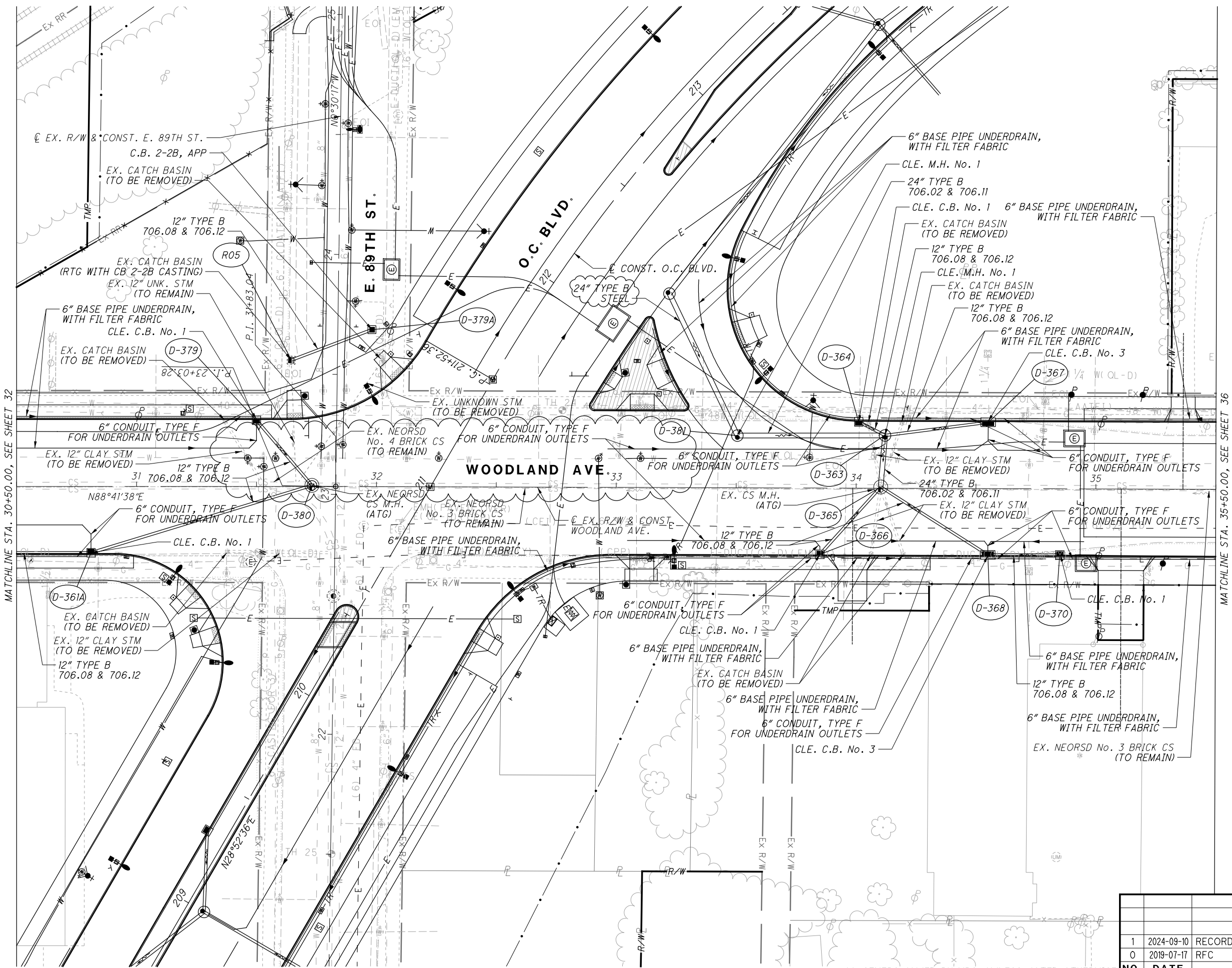
1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES

ISSUE RECORD		
NO.	DATE	DESCRIPTION
0	2019-07-17	RFC

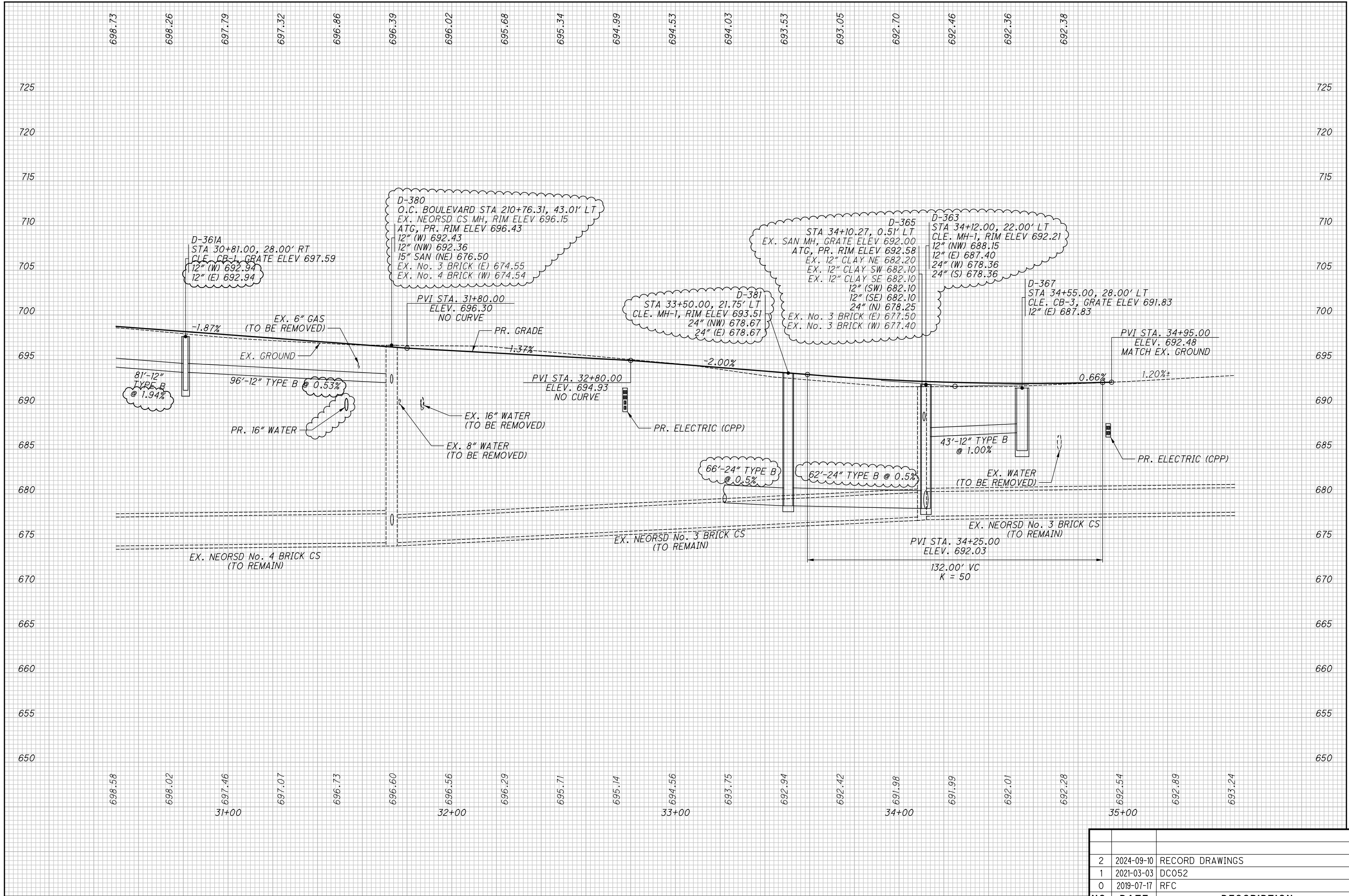


ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

NO.	DATE	DESCRIPTION
		ISSUE RECORD
1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC



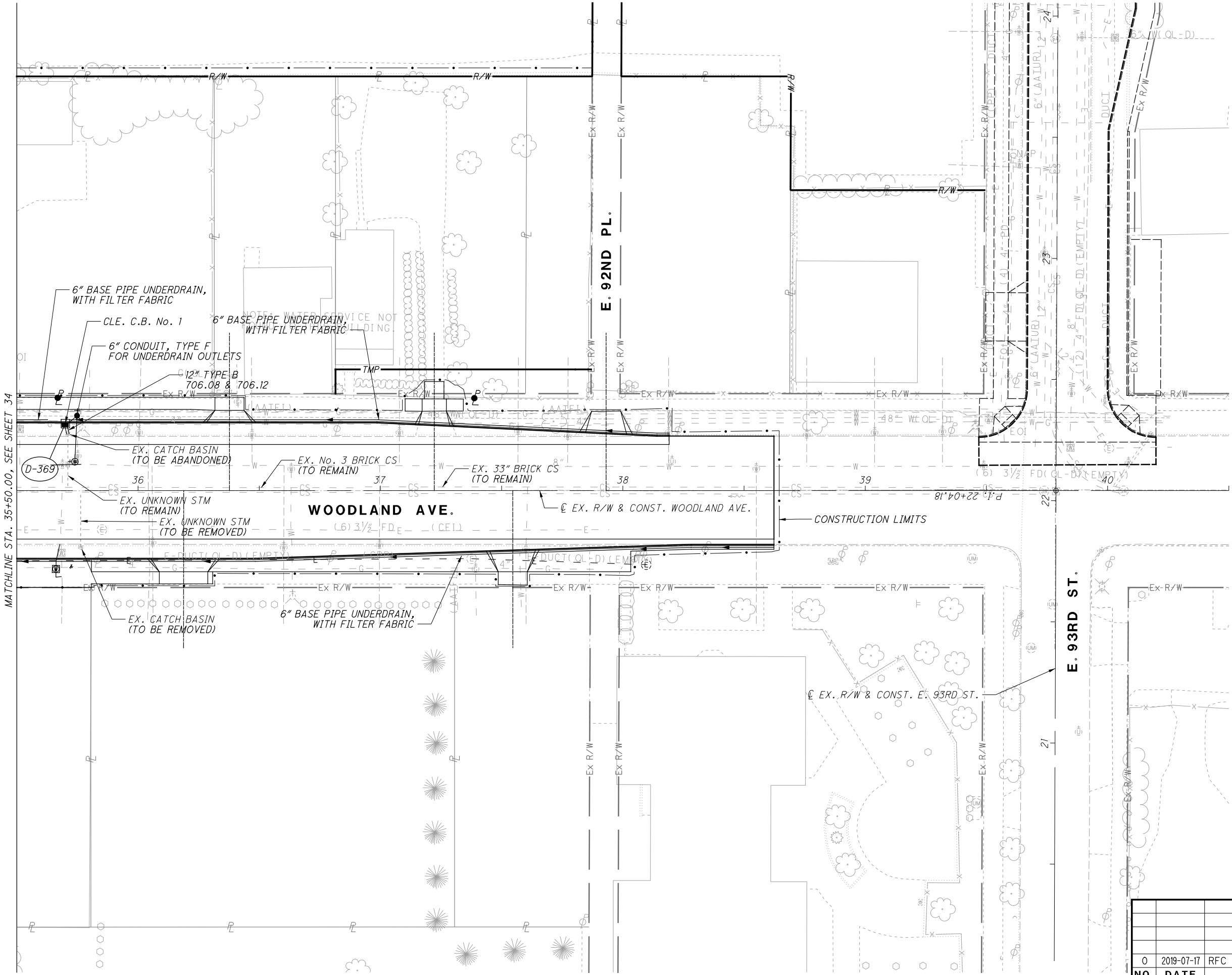
NO.		DATE	DESCRIPTION
1	2024-09-10	RECORD DRAWINGS	
0	2019-07-17	RFC	
			ISSUE RECORD



ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

NO.	DATE	DESCRIPTION
2	2024-09-10	RECORD DRAWINGS
1	2021-03-03	DC052
0	2019-07-17	RFC

ISSUE RECORD



1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES

NO.			DATE	DESCRIPTION
0			2019-07-17	RFC
ISSUE RECORD				

CUY-IR490/ SR010-
2.09 / 19.28

DRAINAGE PLAN - WOODLAND AVE.
STA. 30+50.00 TO STA. 35+50.00

CALCULATED
JTH

CHECKED
SM

0 20 40

HORIZONTAL
SCALE IN FEET

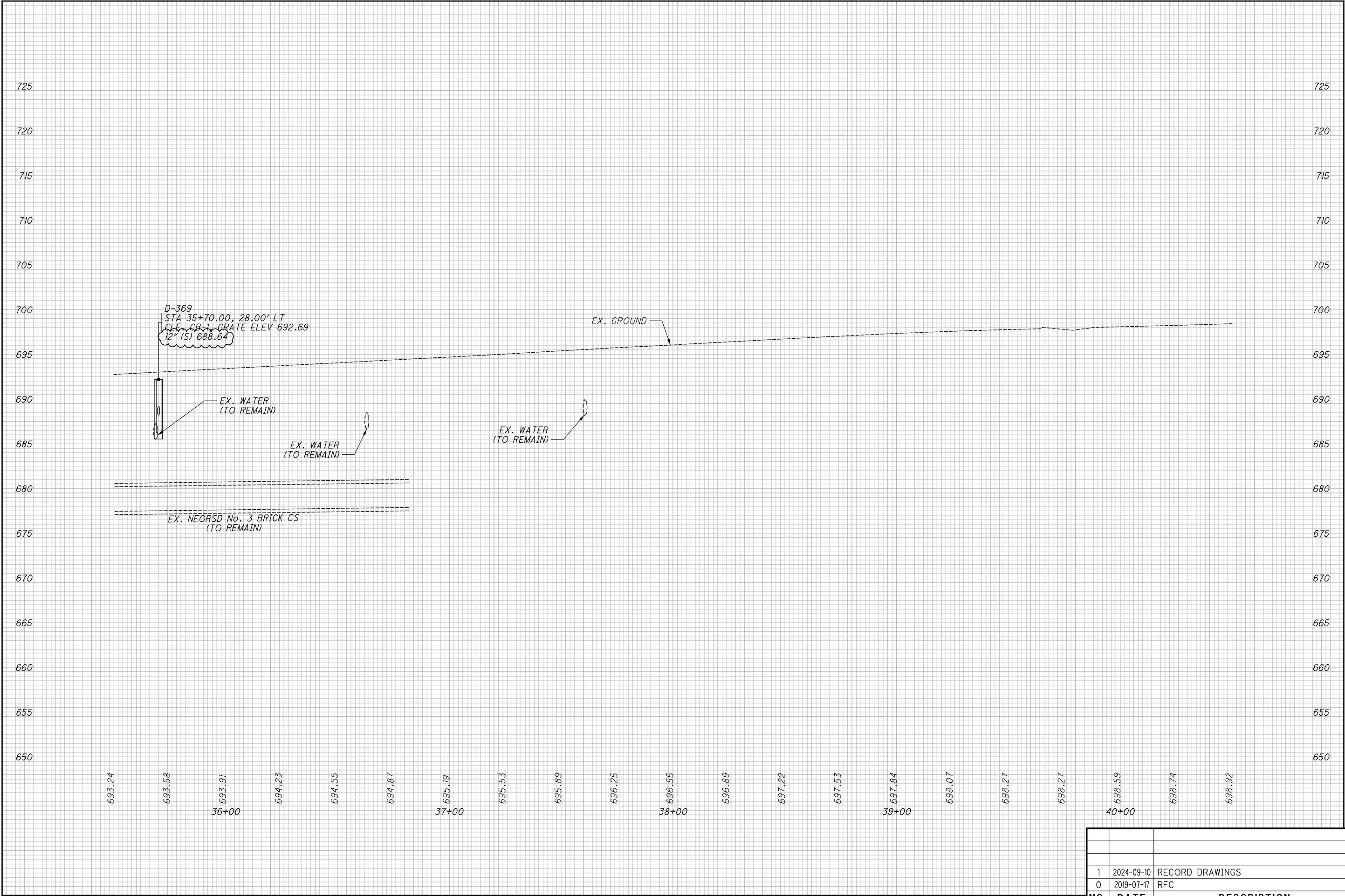
36

148

RECORD PLANS

RECORD PLANS

RECORD PLANS



ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE

1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

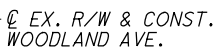
CUY-IR490/ SR010-
2.09 / 19.28

PROFILE - WOODLAND AVE.
STA. 35+50.00 TO END

CALCULATED
JTH
CHECKED
SM

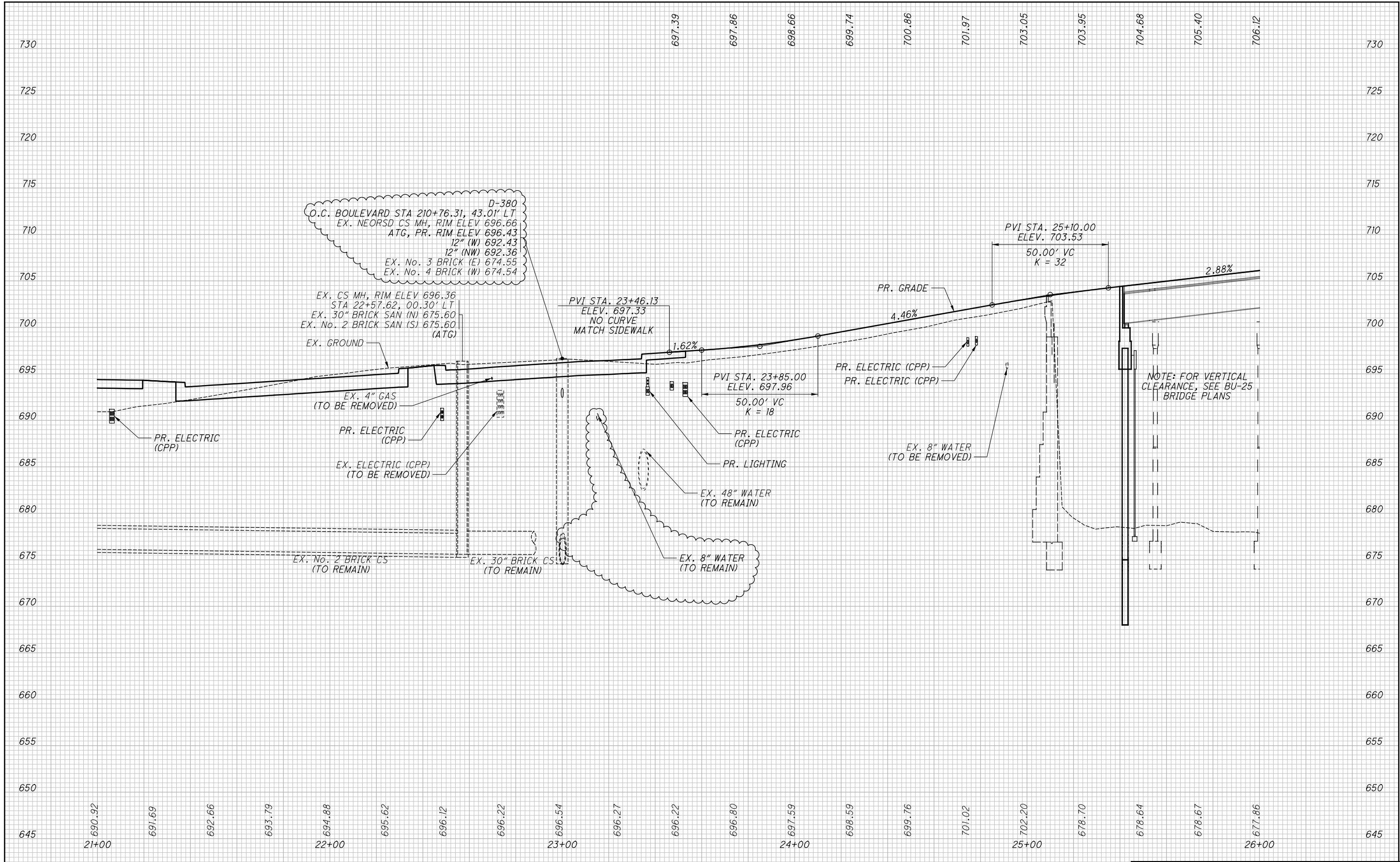
RECORD PLANS
37
148

RECORD PLANS

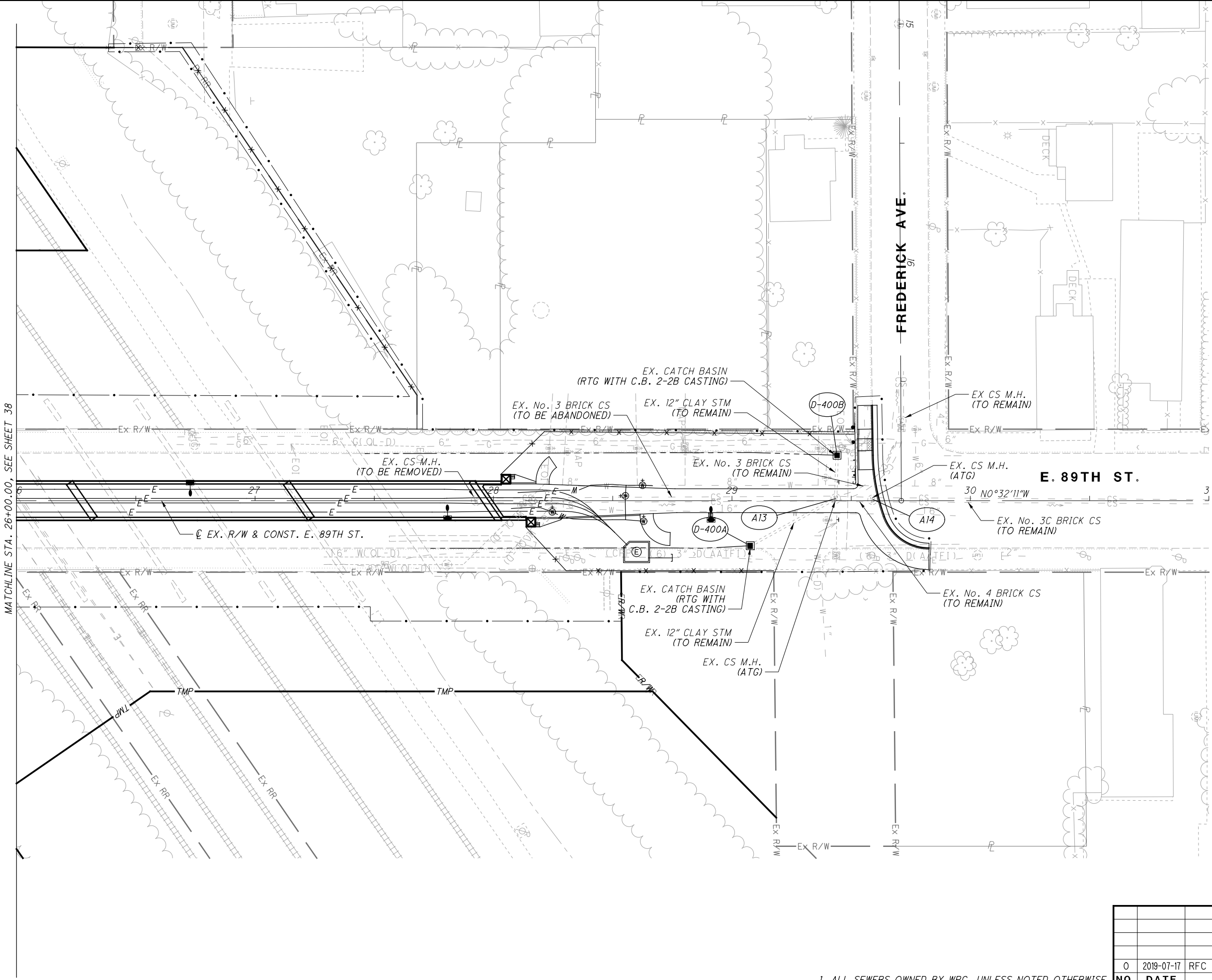


1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES

1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		



NO.	DATE	DESCRIPTION
1	2024-09-10	RECORD DRAWINGS
0	2019-07-17	RFC
ISSUE RECORD		



1. ALL SEWERS OWNED BY WPC, UNLESS NOTED OTHERWISE
2. SEE SHEETS 140 TO 142 FOR STORM SEWER PROFILES

NO.			DATE	DESCRIPTION
0			2019-07-17	RFC
ISSUE RECORD				

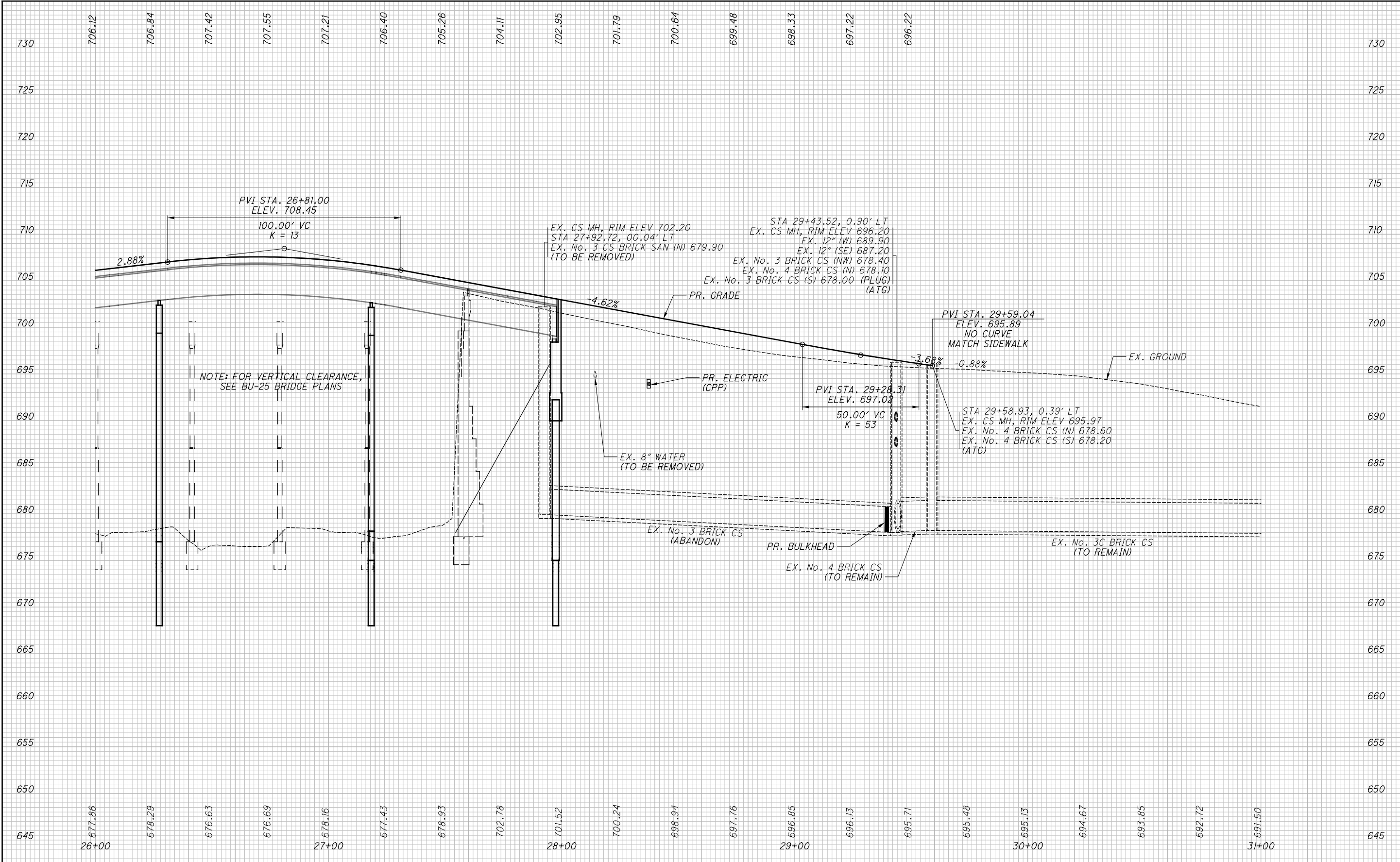
CUY-IR490/ SR010-
2.09 / 19.28

PLAN - E. 89TH ST.
STA. 26+00.00 TO END

CALCULATED
JTH
CHECKED
SM

0 20 40
HORIZONTAL
SCALE IN FEET

N



NO.			DESCRIPTION		
0	2019-07-17	RFC	ISSUE RECORD		

PROFILE - E. 89TH ST.
STA. 26+00.00 TO END

CUY-IR490/ SR010-
2.09 / 19.28

CALCULATED
JTH
CHECKED
SM

RECORD PLANS

RECORD PLANS

CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 193+75.00 TO STA. 194+25.00

SEEDING	
END WIDTH	SQ. YDS.

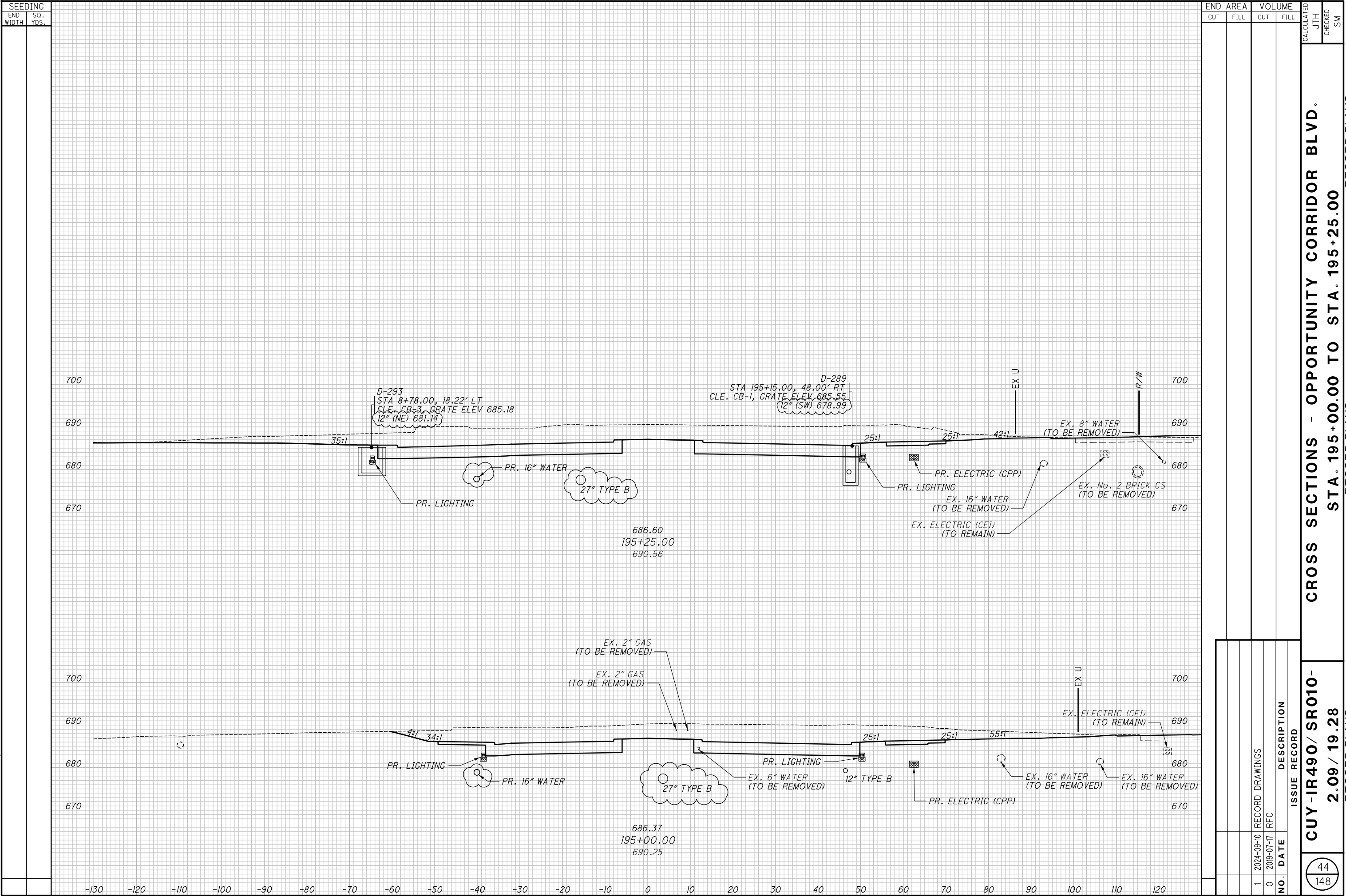
END AREA		VOLUME	
CUT	FILL	CUT	FILL

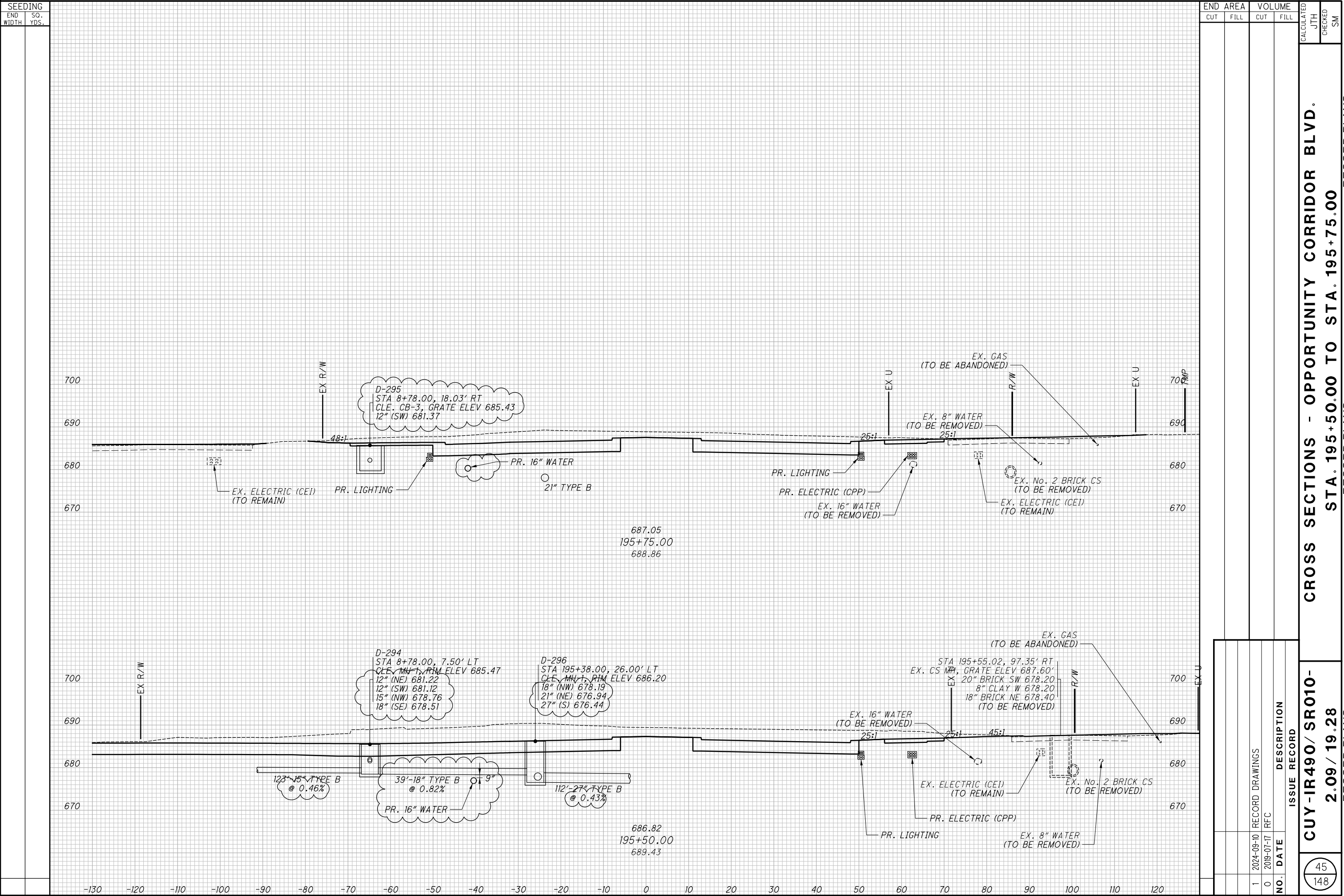
NO.	DATE	DESCRIPTION	ISSUE RECORD	
			JTH	SM
1	2024-09-10	RECORD DRAWINGS		
0	2019-07-17	RFC		

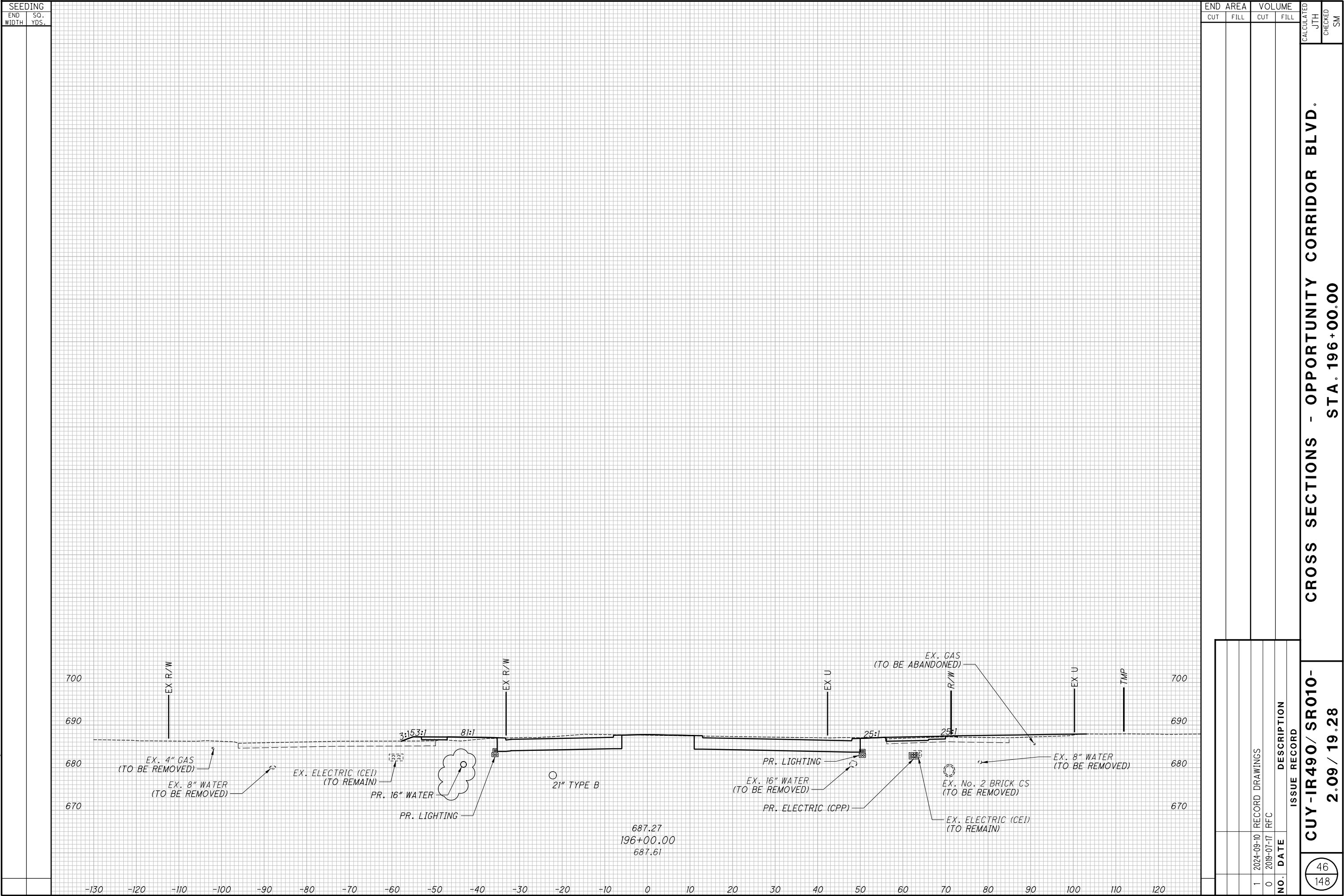
CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.			
STA. 194+50.00 TO STA. 194+75.00			

CUY-IR490/SR010-			
2.09 / 19.28			

43			
148			

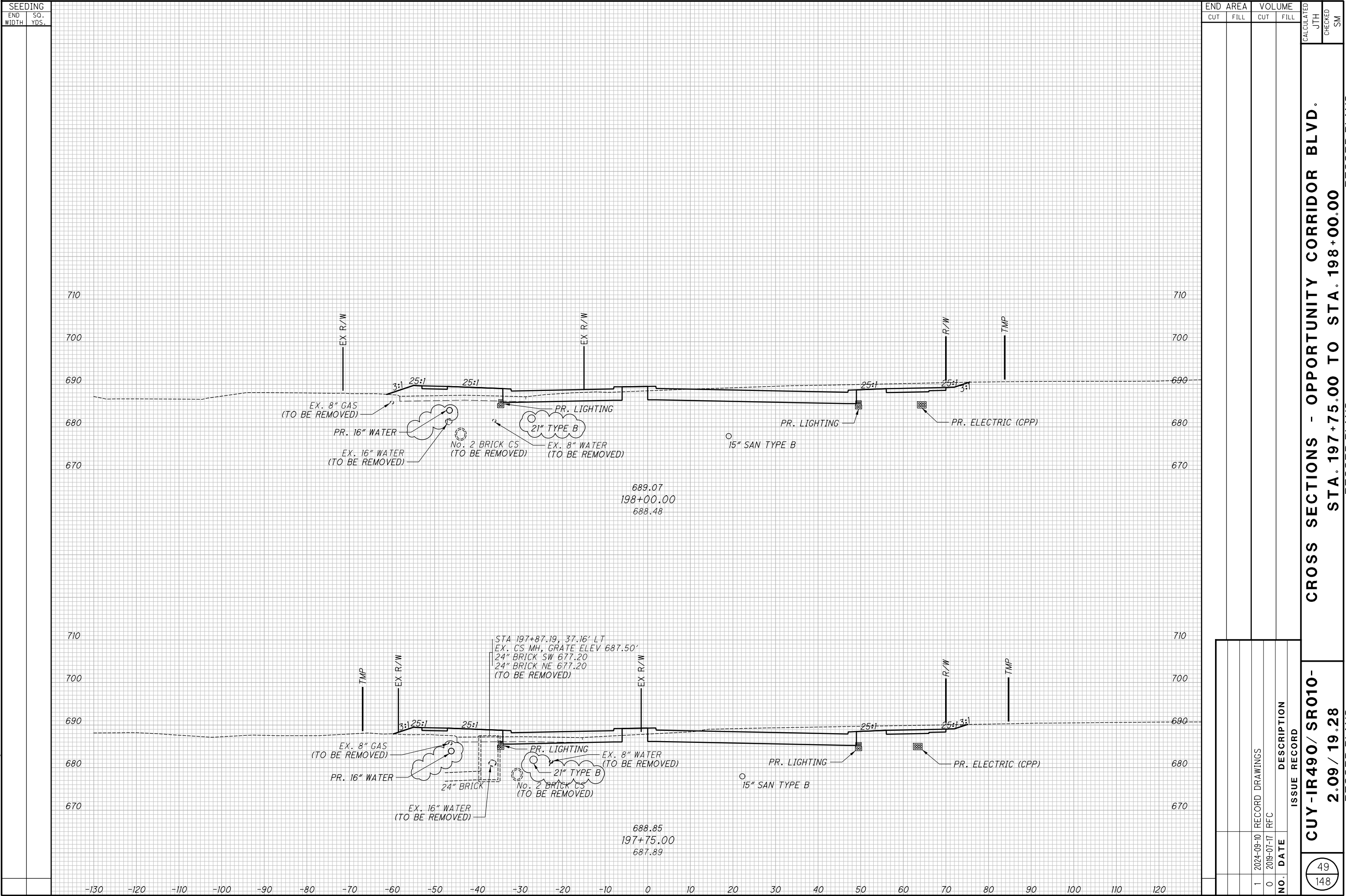






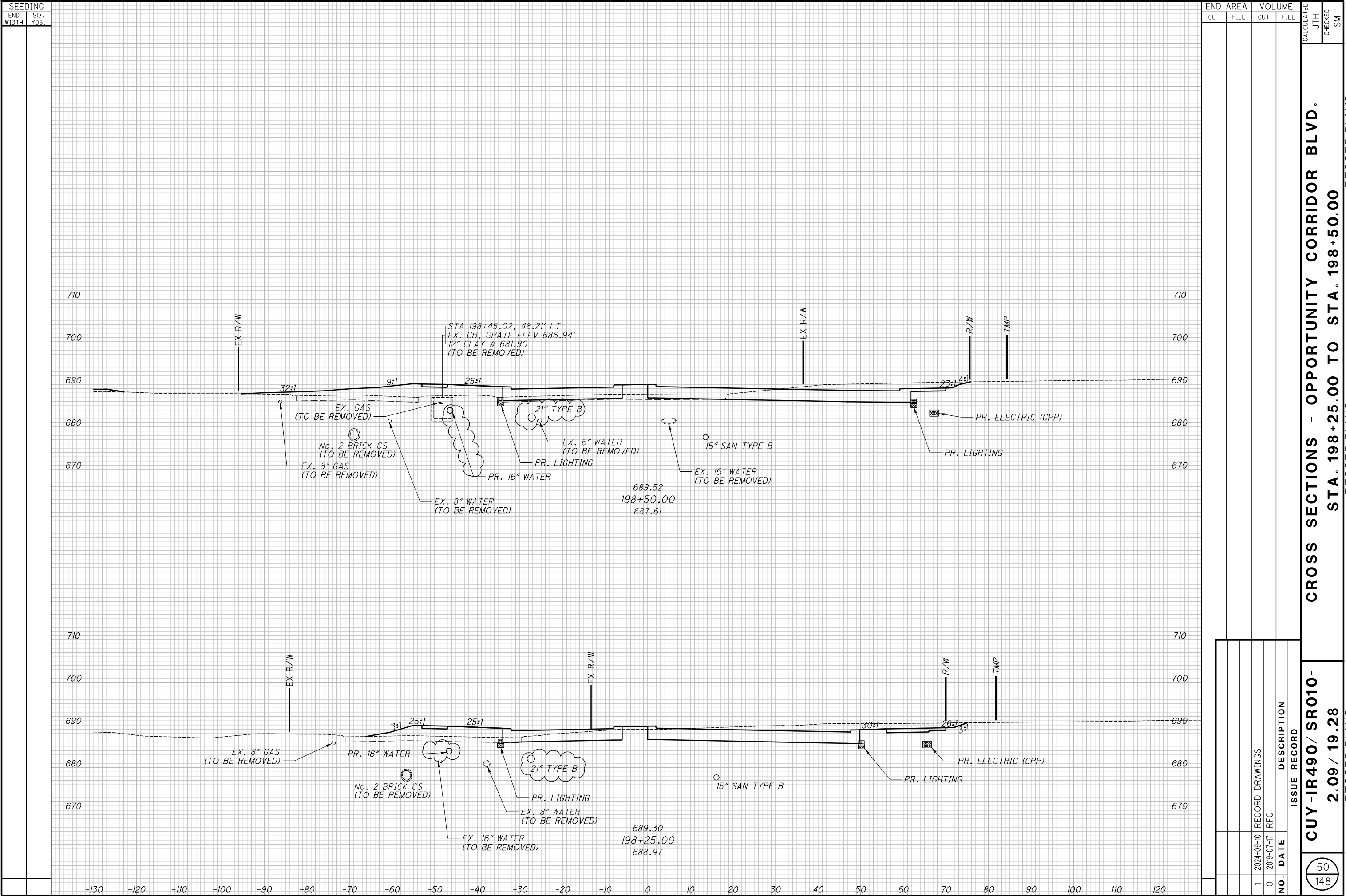
CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 196+25.00 TO STA. 196+75.00

CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 197+00.00 TO STA. 197+50.00



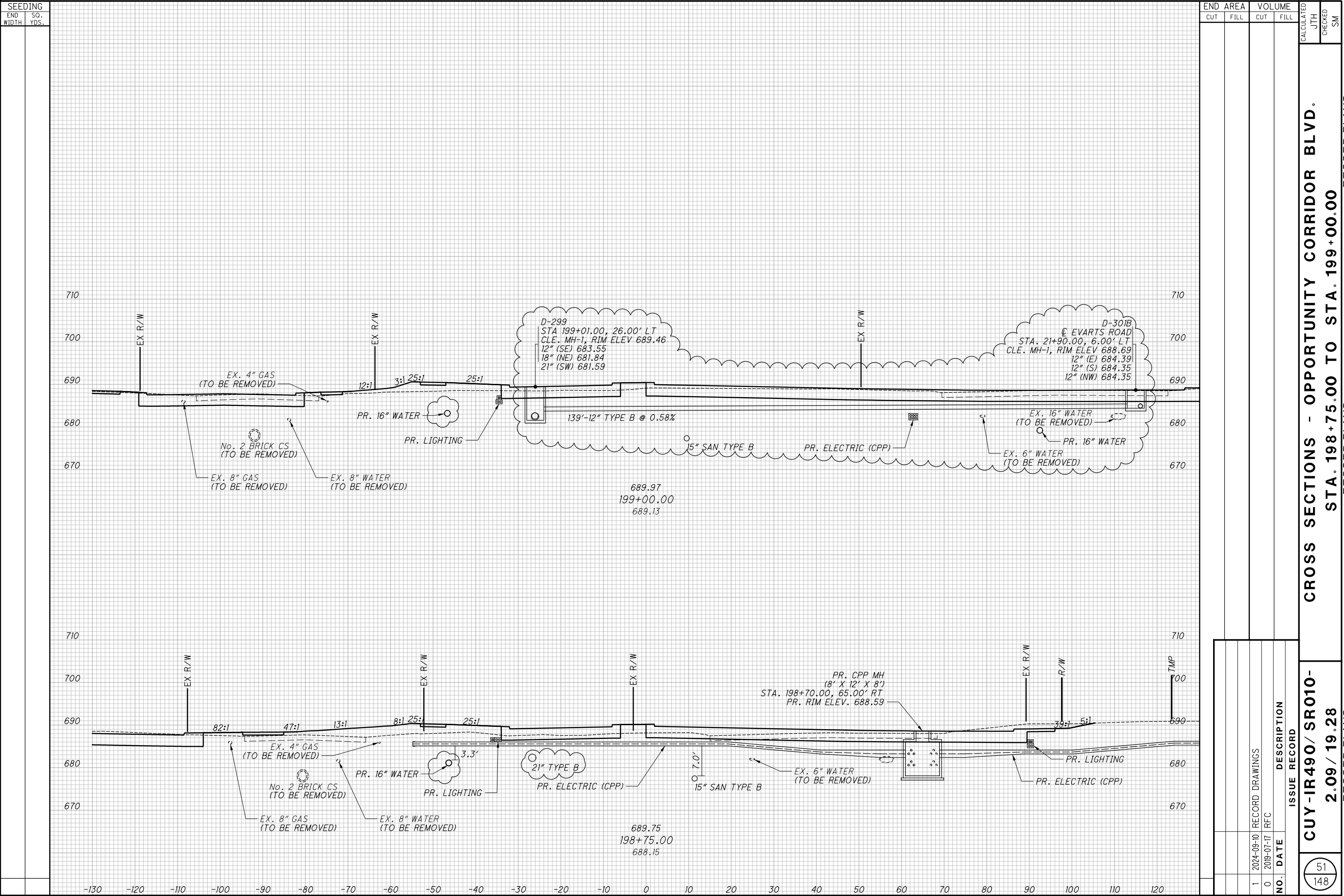
CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 197+75.00 TO STA. 198+00.00

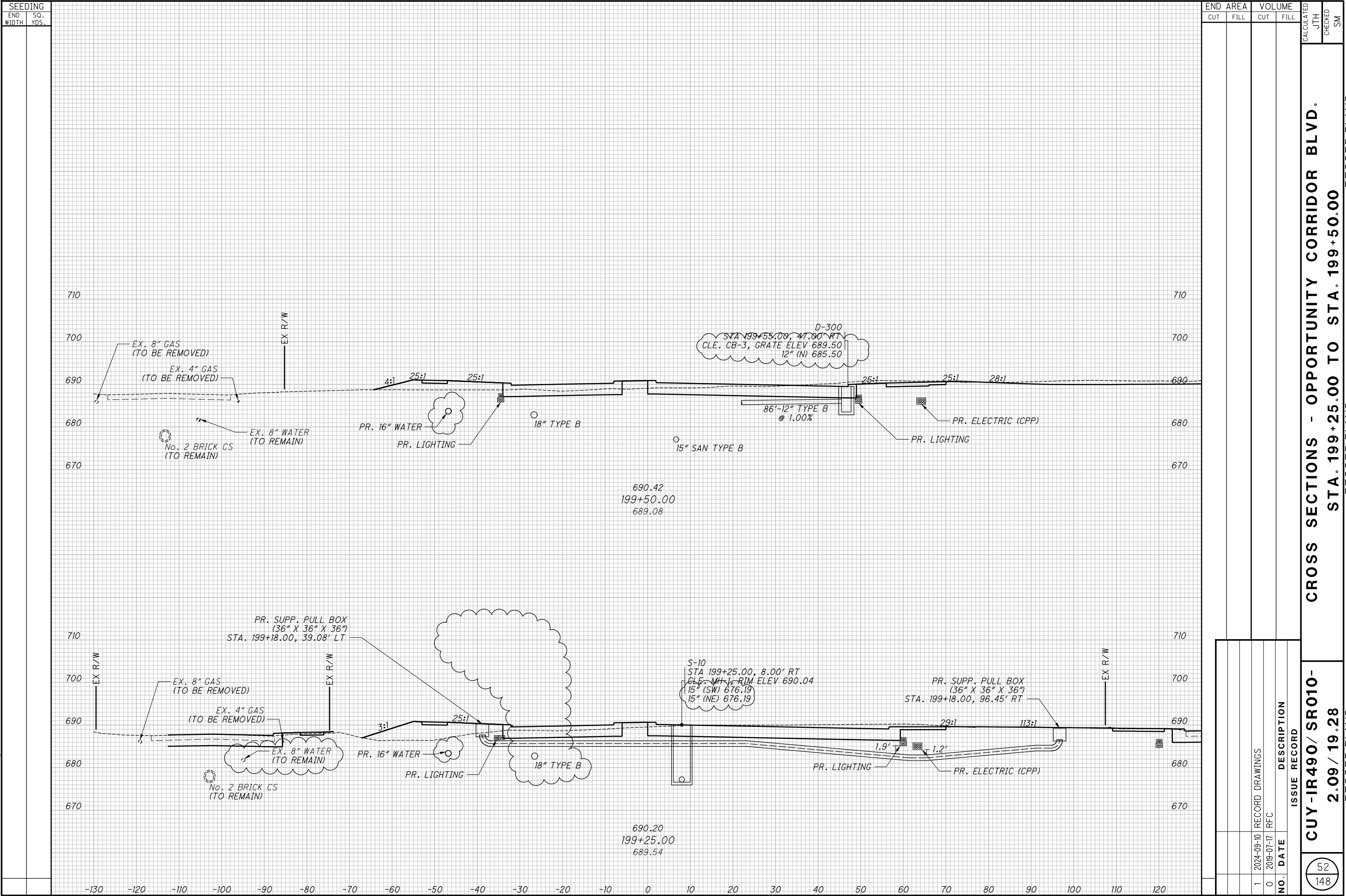
CUY-IR490/ SR010-
2.09 / 19.28



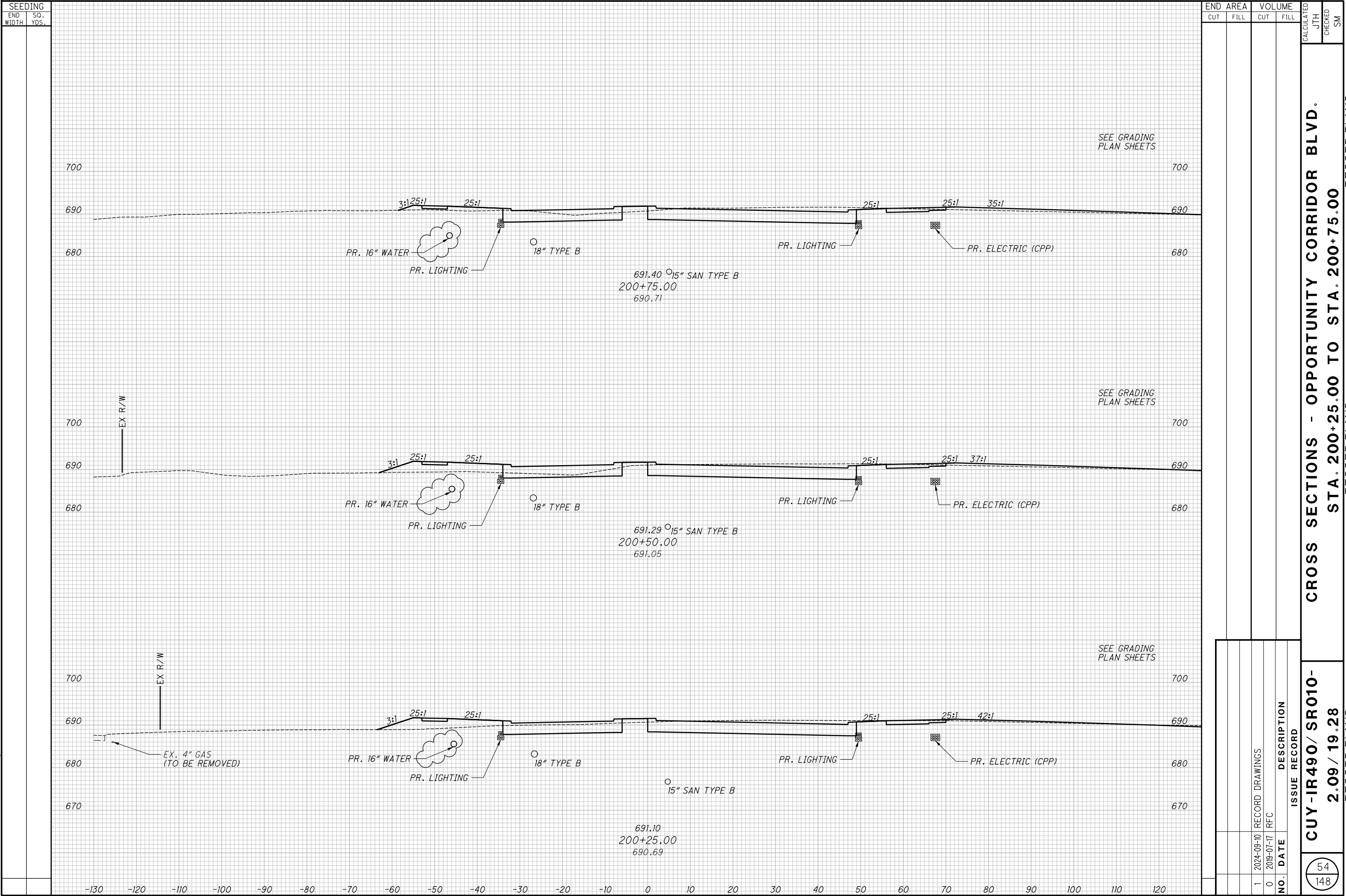
CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 198+25.00 TO STA. 198+50.00

CUY-IR490/ SR010-
2.09 / 19.28



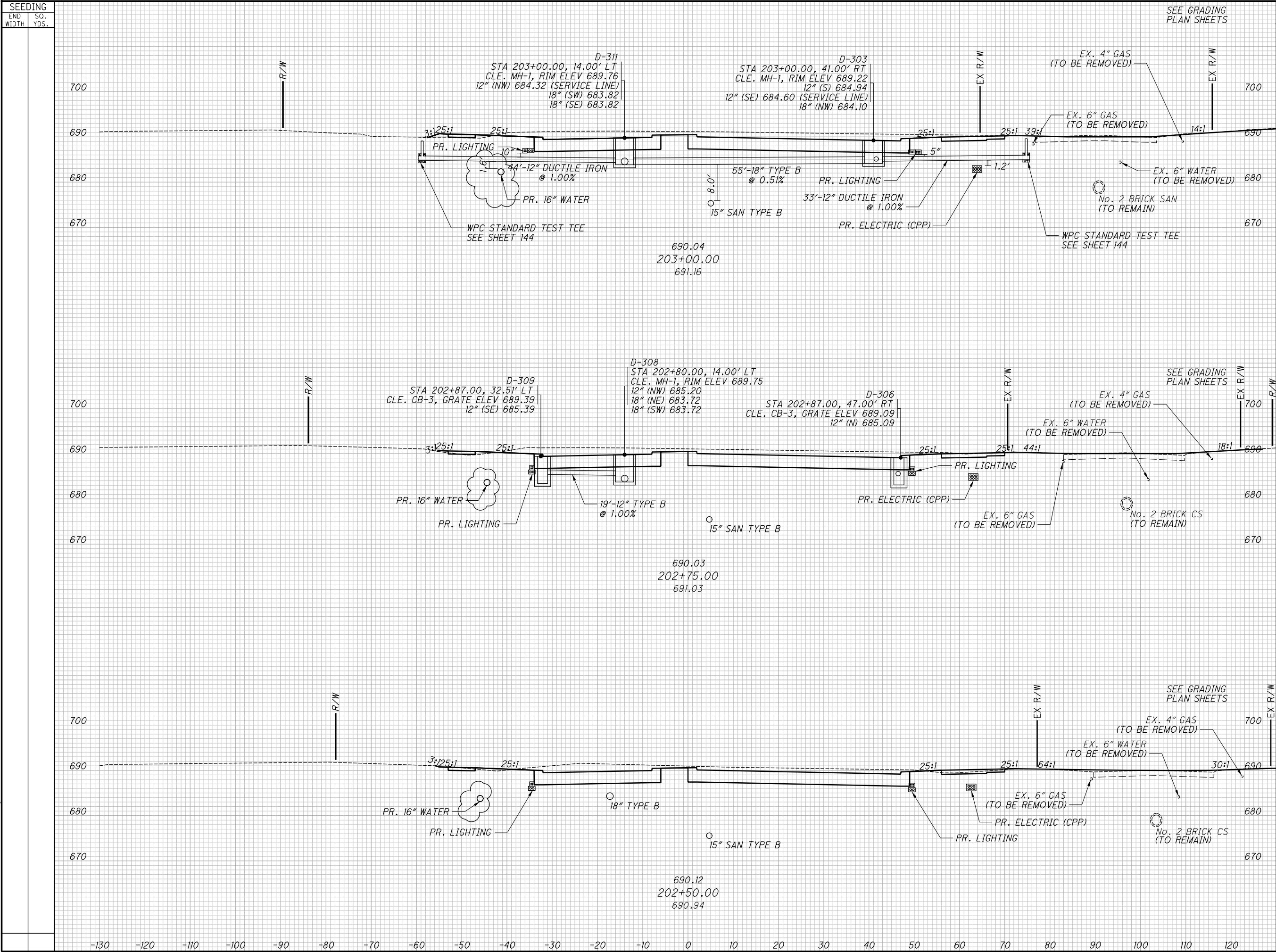


[illegible]



CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 201+00.00 TO STA. 201+50.00

[illegible]

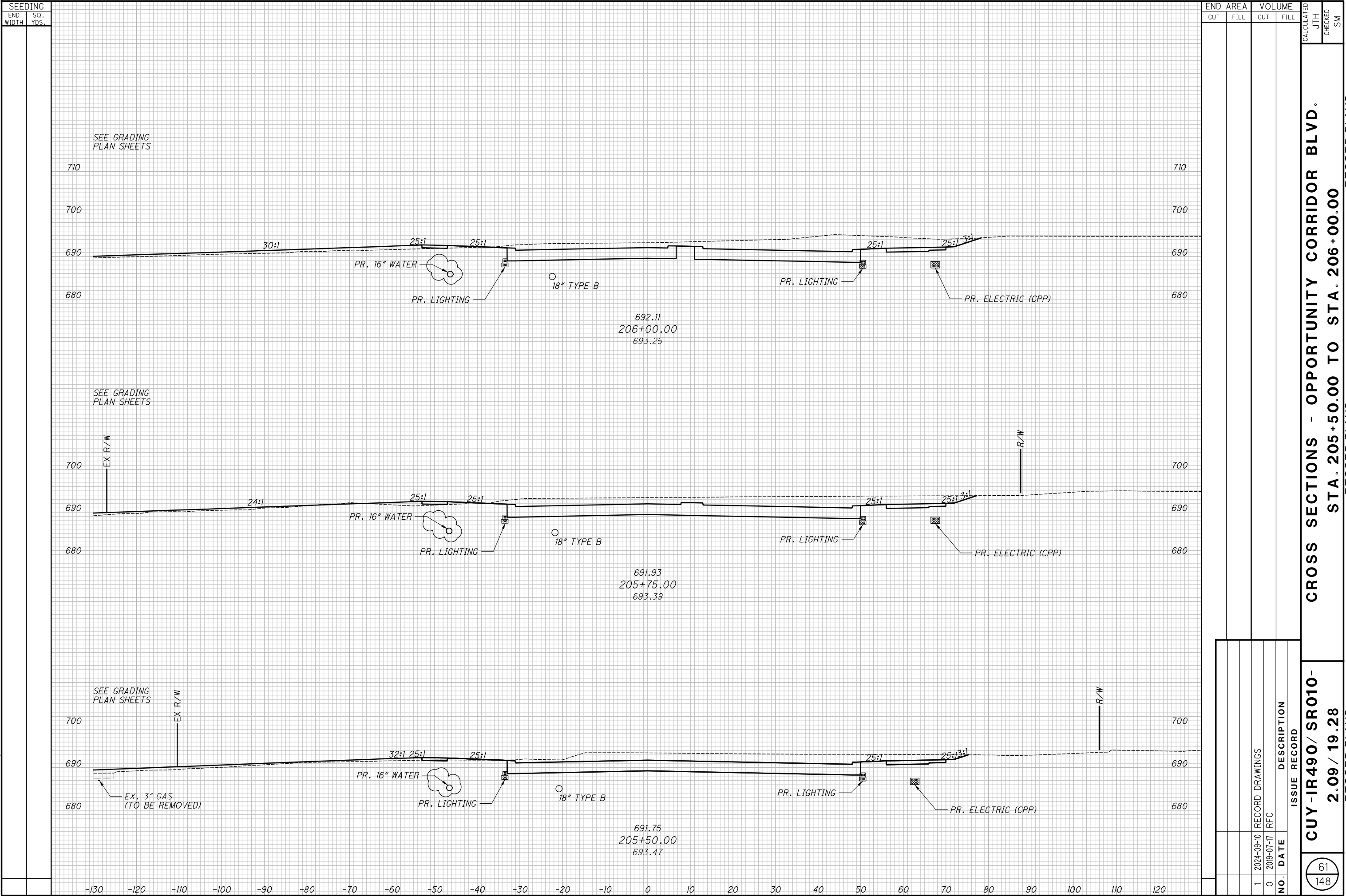


END		AREA		VOLUME		CALCULATED JTH	CHECKED SM
CUT		FILL		CUT	FILL		
						CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD. STA. 202+50.00 TO STA. 203+00.00	
ISSUE RECORD						CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD. STA. 202+50.00 TO STA. 203+00.00	
CUY-IR490 / SR010-						2.09 / 19.28	
57						148	

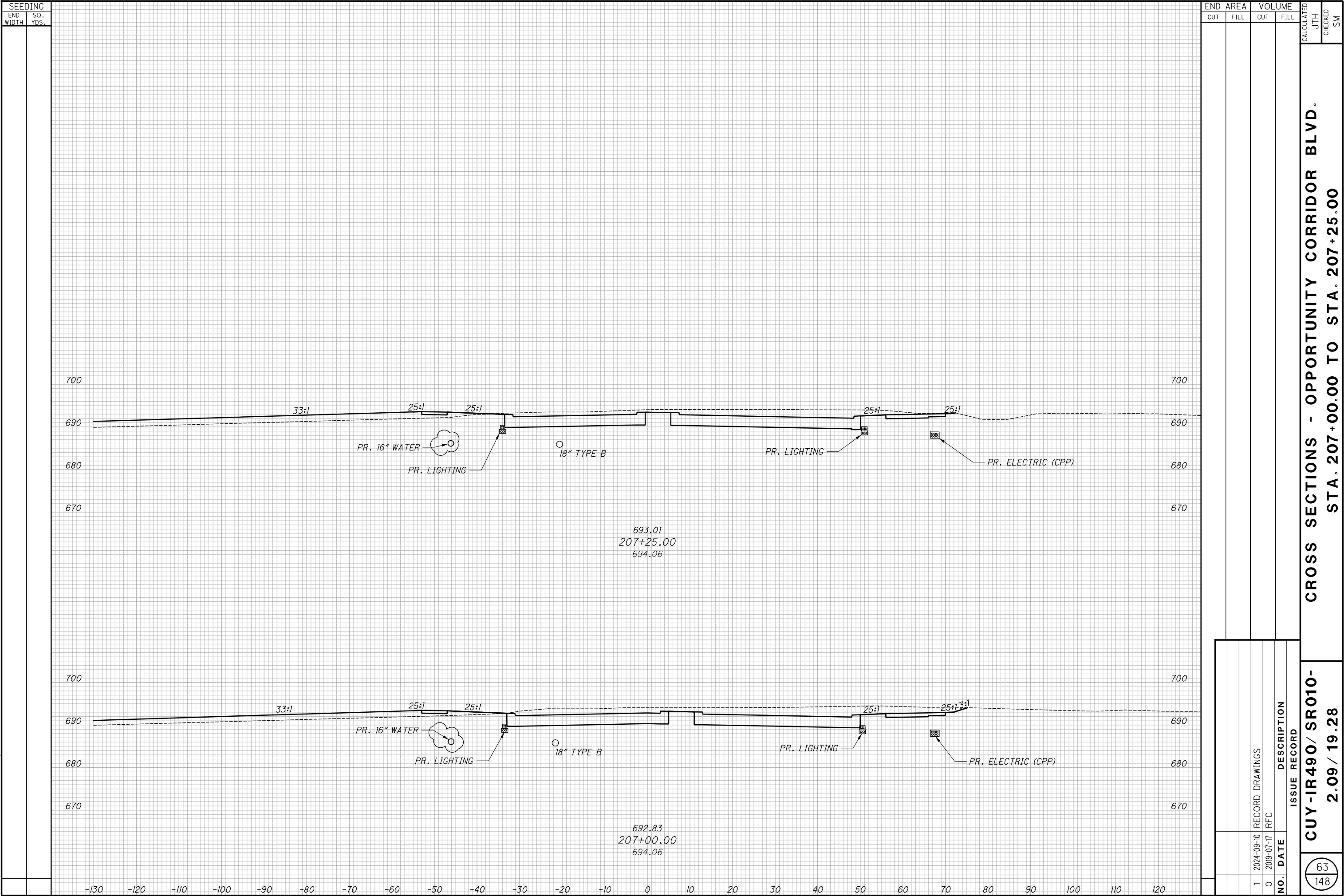
SEEDING		END AREA		VOLUME		CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.	
END	SO.	CUT	FILL	CUT	FILL	STA. 203+25.00 TO STA. 203+75.00	
WIDTH	YDS.					NO.	DATE
						1	2024-09-10
						0	2019-07-17
						DESCRIPTION	
						ISSUE RECORD	
						CUY-IR490/ SR010-	
						2.09 / 19.28	
						58	
						148	

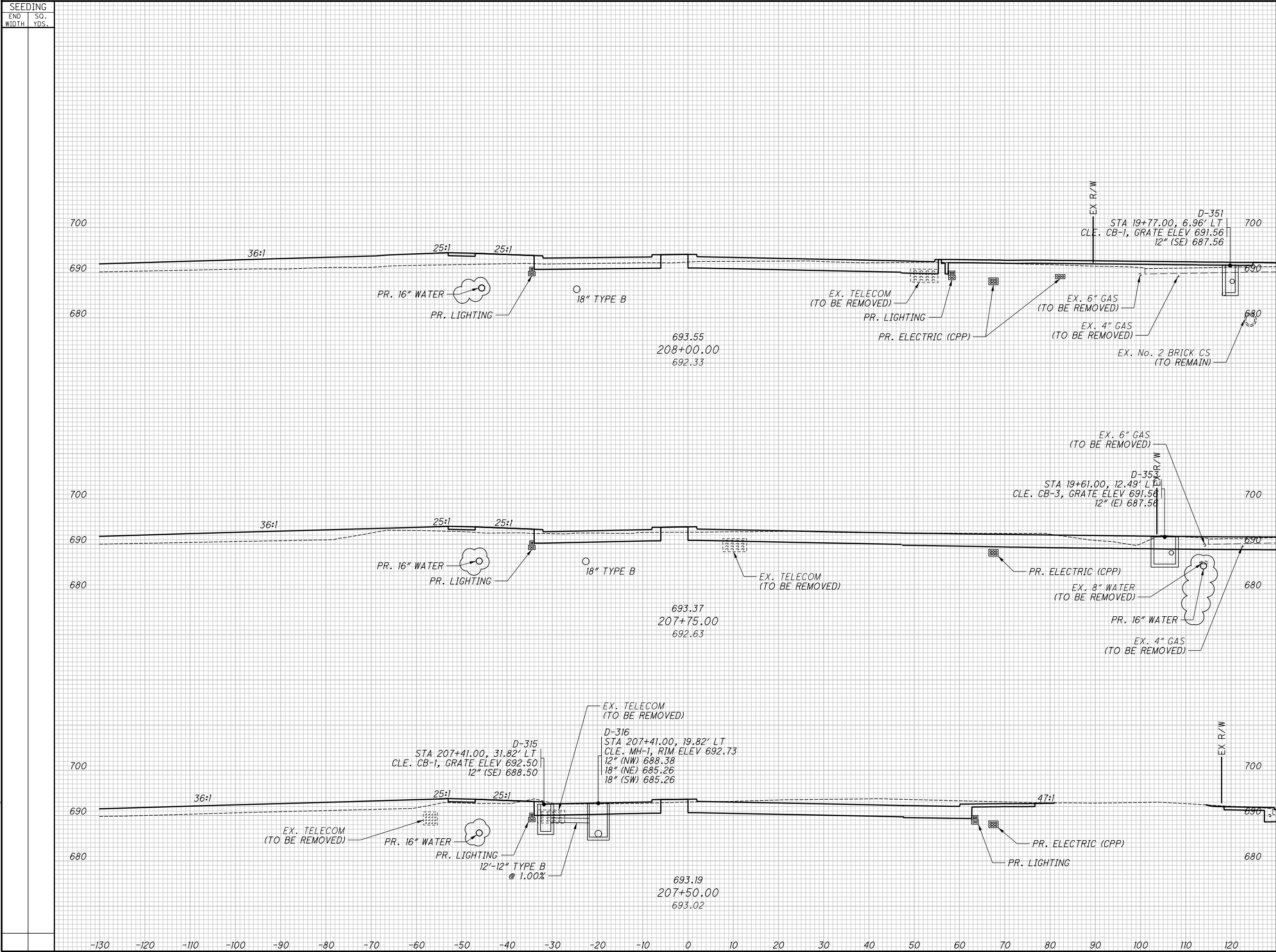
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; text-align: center;"> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div>59</div> <div>148</div> </div> <div style="text-align: center;"> <p>CUY-IR490/ SR010-</p> <p>2.09 / 19.28</p> </div> </div>	<p>CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.</p> <p>STA. 204+00.00 TO STA. 204+50.00</p>
<p>RECORD PLANS</p> <p>RECORD PLANS</p> <p>RECORD PLANS</p>	

**CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 204+75.00 TO STA. 205+25.00**



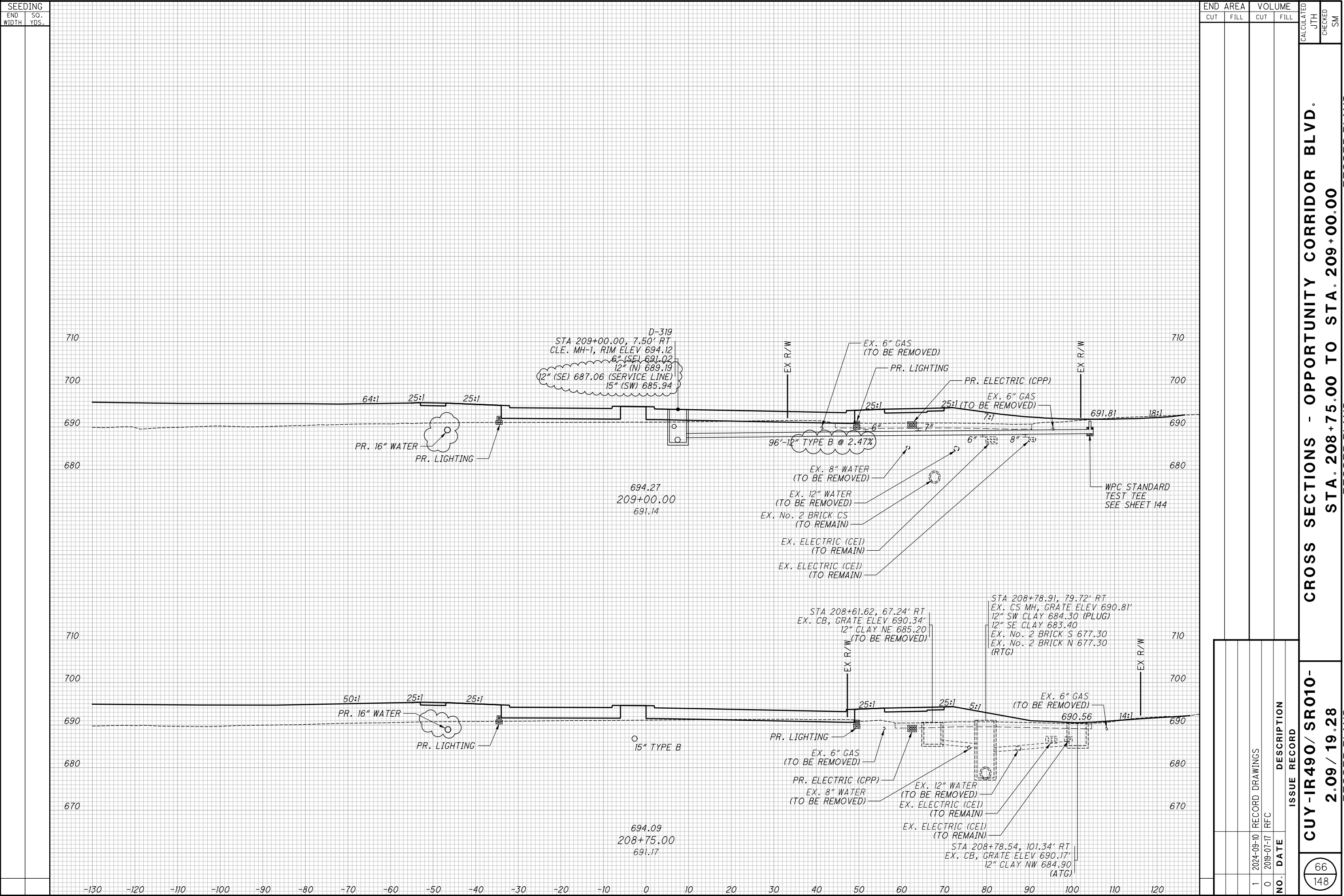
CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 206+25.00 TO STA. 206+75.00





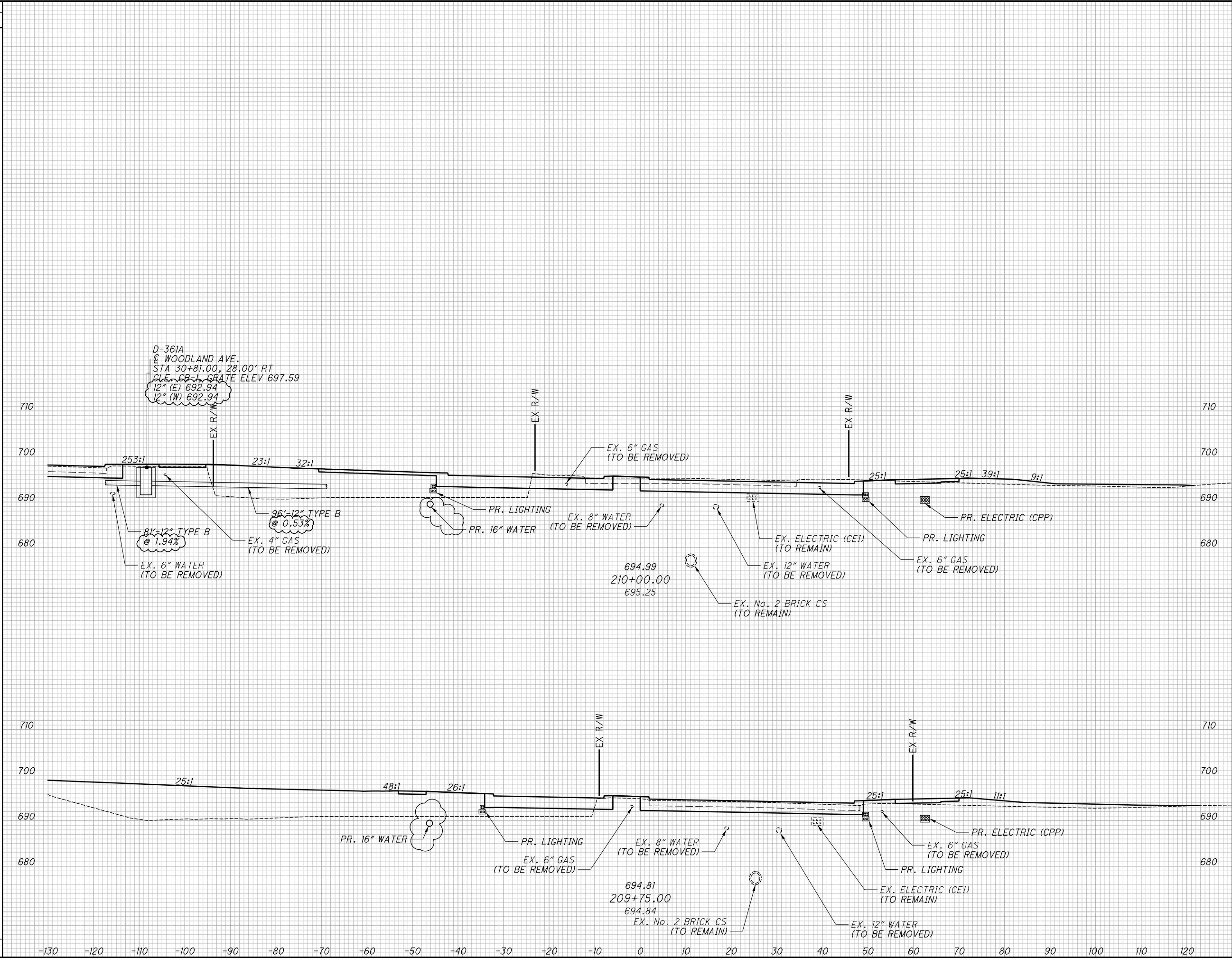
SEEDING		END AREA		VOLUME		CALCULATED JTH	CHECKED SM
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL		
CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.							
STA. 207+50.00 TO STA. 208+00.00							
RECORD PLANS							
CUY-IR490/ SR010-		RECORD PLANS					
2.09 / 19.28		RECORD PLANS					
64 148		RECORD PLANS					
1		RECORD DRAWINGS					
0		2019-07-17 RFC					
NO. DATE		DESCRIPTION					
		ISSUE RECORD					

CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 208+25.00 TO STA. 208+50.00

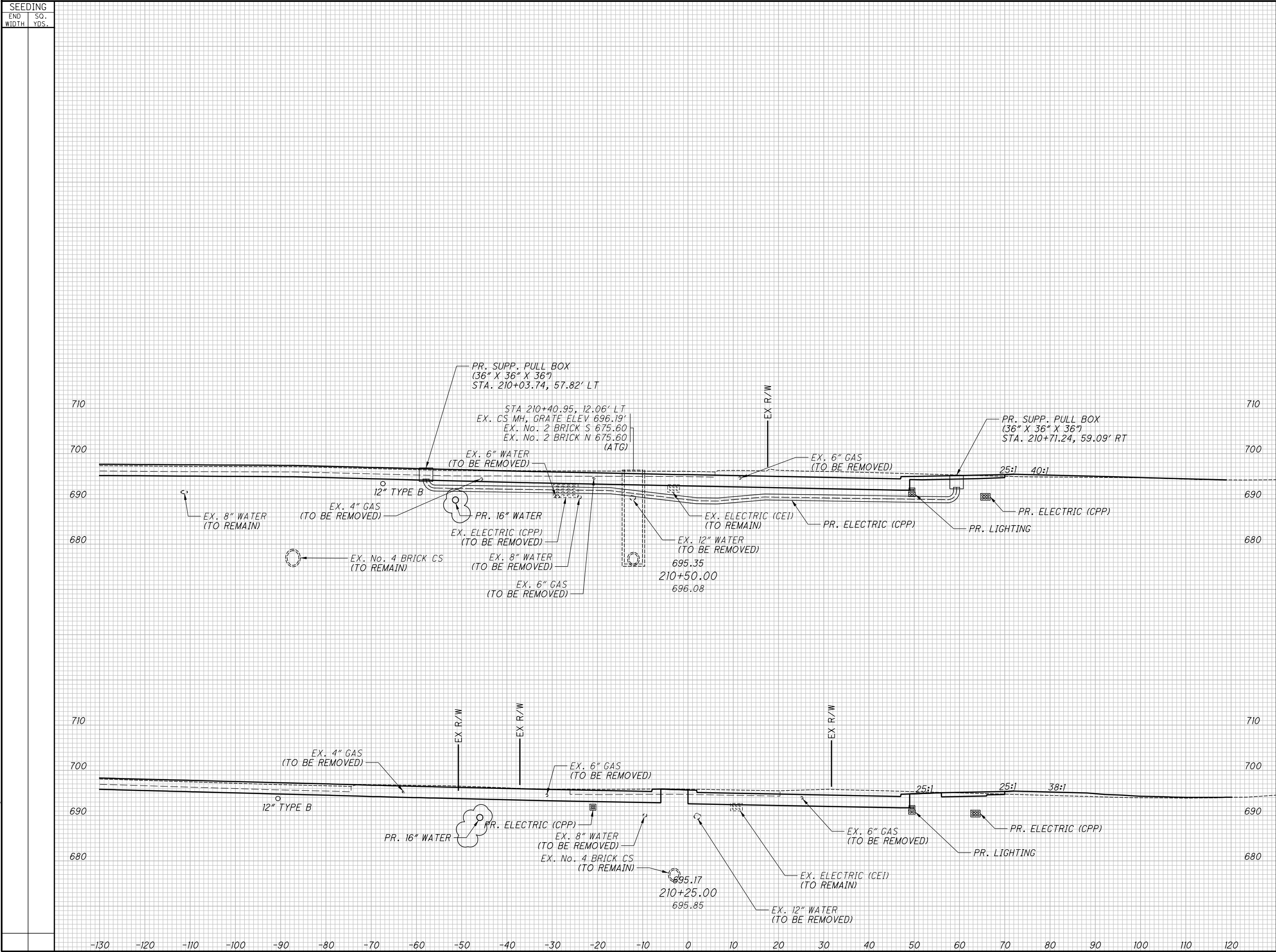


CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 209+25.00 TO STA. 209+50.00

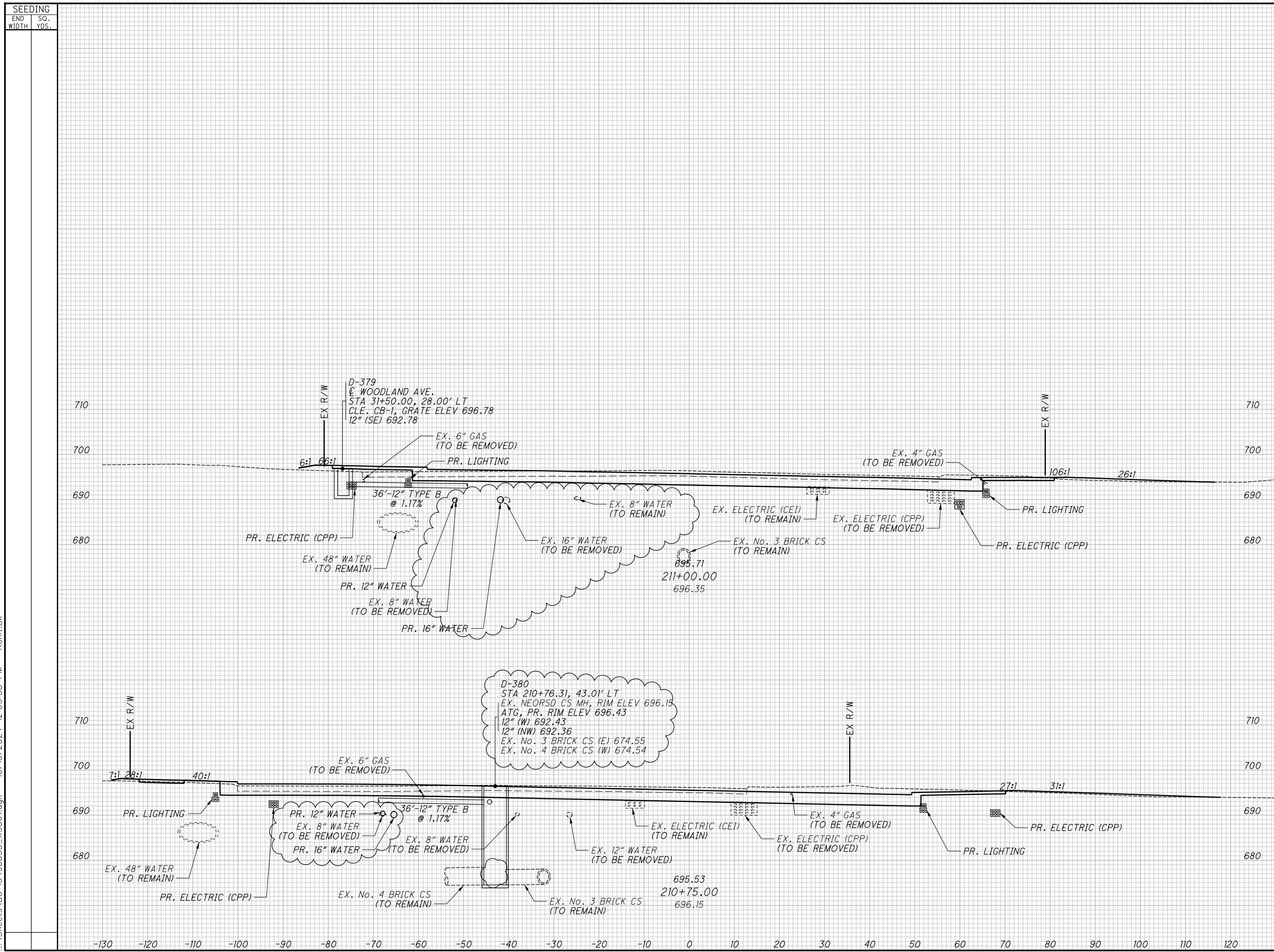
SEEDING	
END WIDTH	SO. YDS.



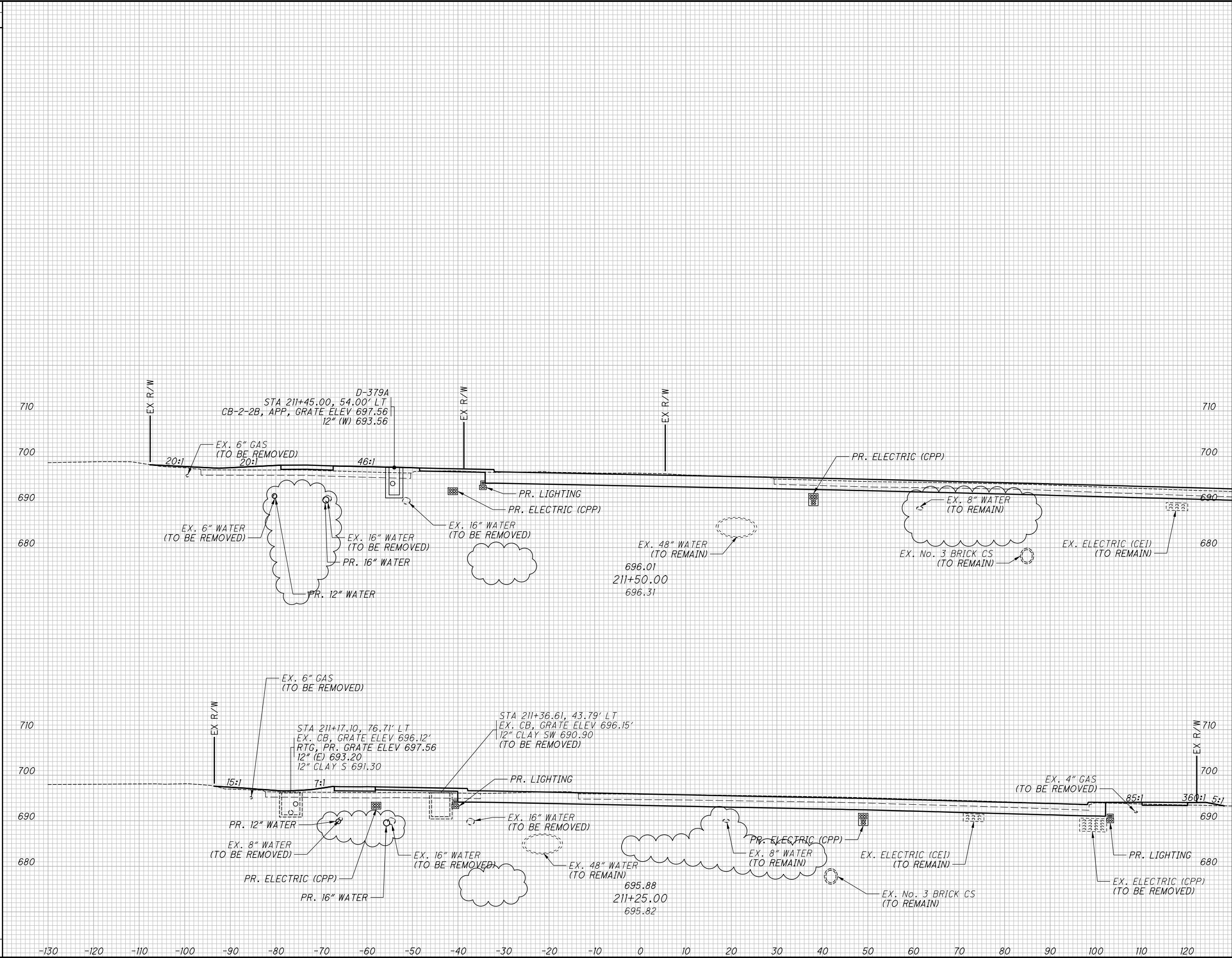
END AREA		VOLUME		CALCULATED JTH	CHECKED SM
CUT	FILL	CUT	FILL		
CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.					
STA. 209+75.00 TO STA. 210+00.00					
RECORD PLANS					
1		2024-09-10		RECORD DRAWINGS	
0		2019-07-17		RFC	
NO.		DATE		DESCRIPTION	
				ISSUE RECORD	
				CUY-IR490/ SR010-	
				2.09 / 19.28	
				RECORD PLANS	
				68	
				148	



SEEDING		END AREA		VOLUME		CALCULATED JTH	CHECKED SM
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL		
CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD. STA. 210+25.00 TO STA. 210+50.00							
RECORD PLANS							
1		2024-09-10		RECORD DRAWINGS		69	
0		2019-07-17		RFC		148	
NO.		DATE		DESCRIPTION		RECORD PLANS	
				ISSUE RECORD			

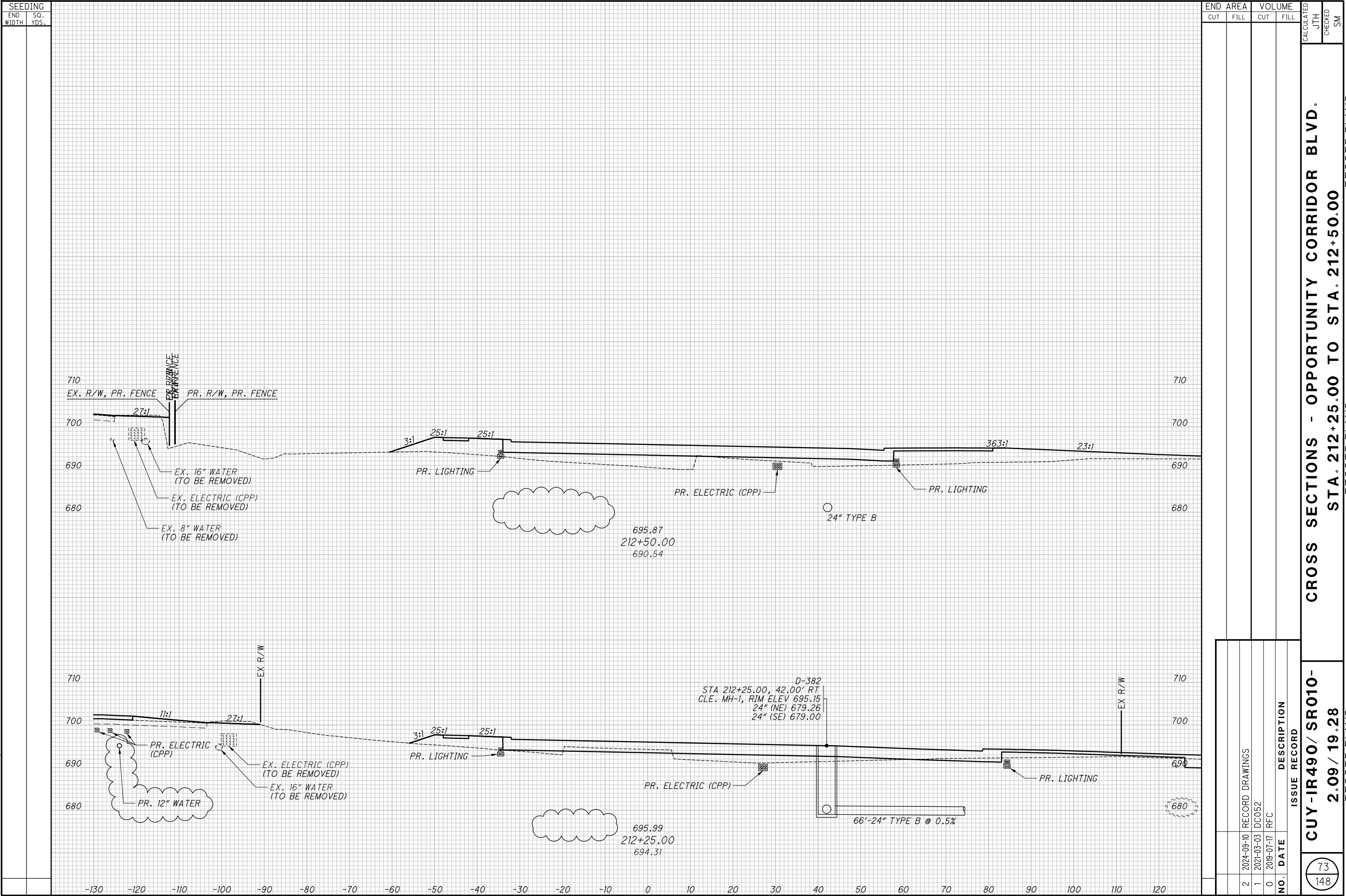
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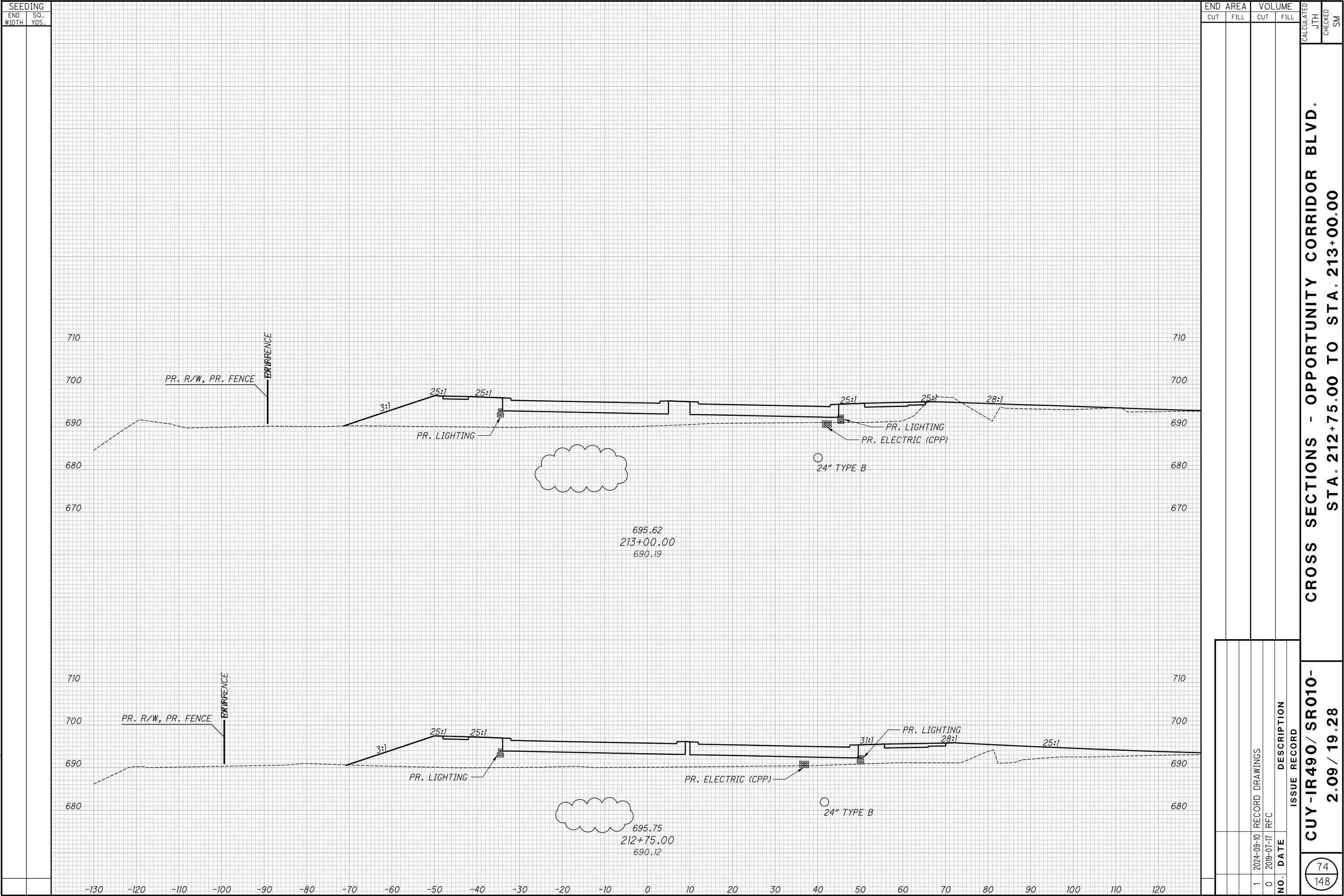
SEEDING	
END WIDTH	SO. YDS.

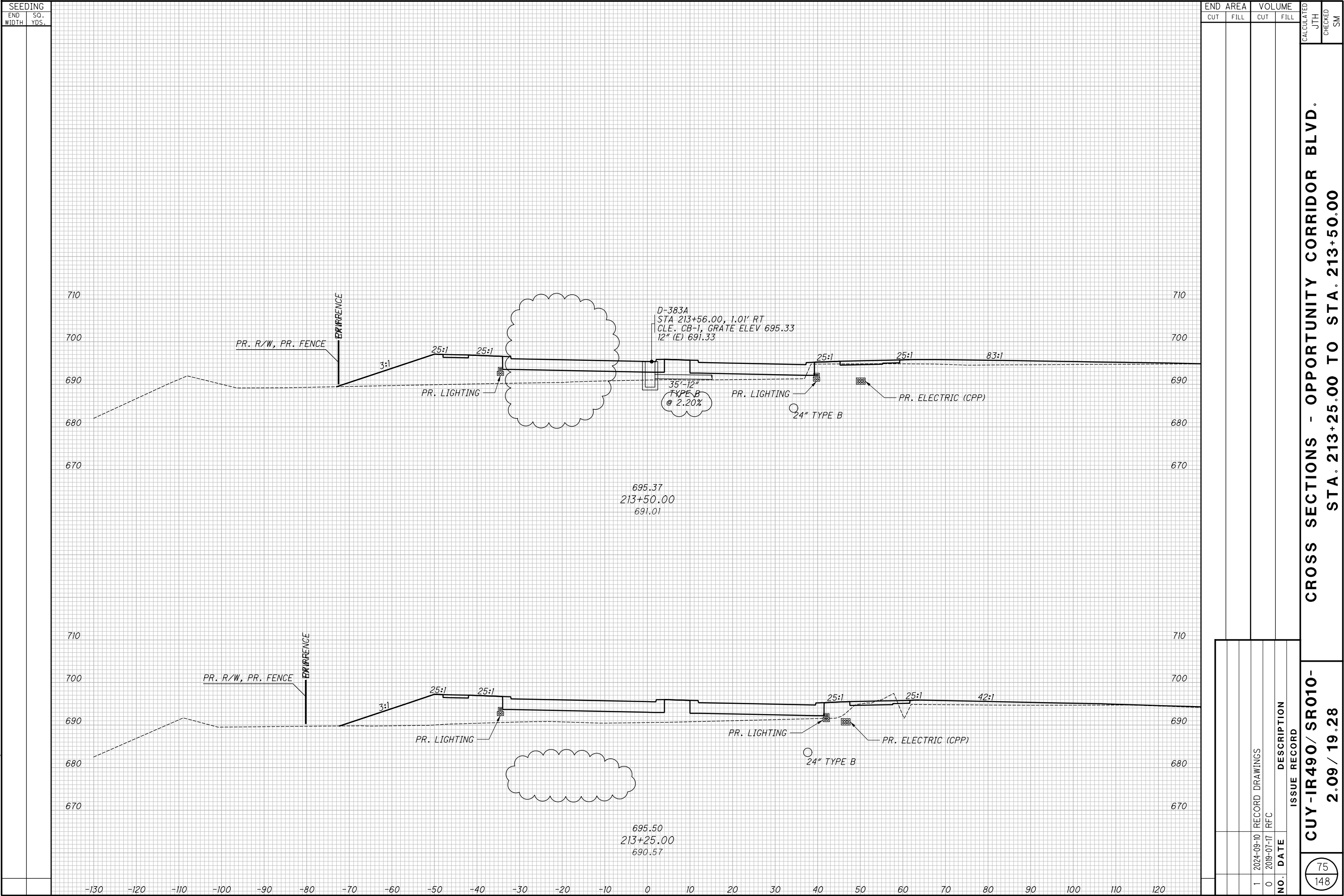


END AREA		VOLUME		CALCULATED JTH	CHECKED SM
CUT	FILL	CUT	FILL		
CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.					
STA. 211+25.00 TO STA. 211+50.00					
RECORD PLANS					
CUY-IR490/ SR010-		2.09 / 19.28		71	
1		RECORD DRAWINGS		148	
0		2019-07-17 RFC			
NO. DATE		DESCRIPTION		ISSUE RECORD	

CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 211+75.00 TO STA. 212+00.00

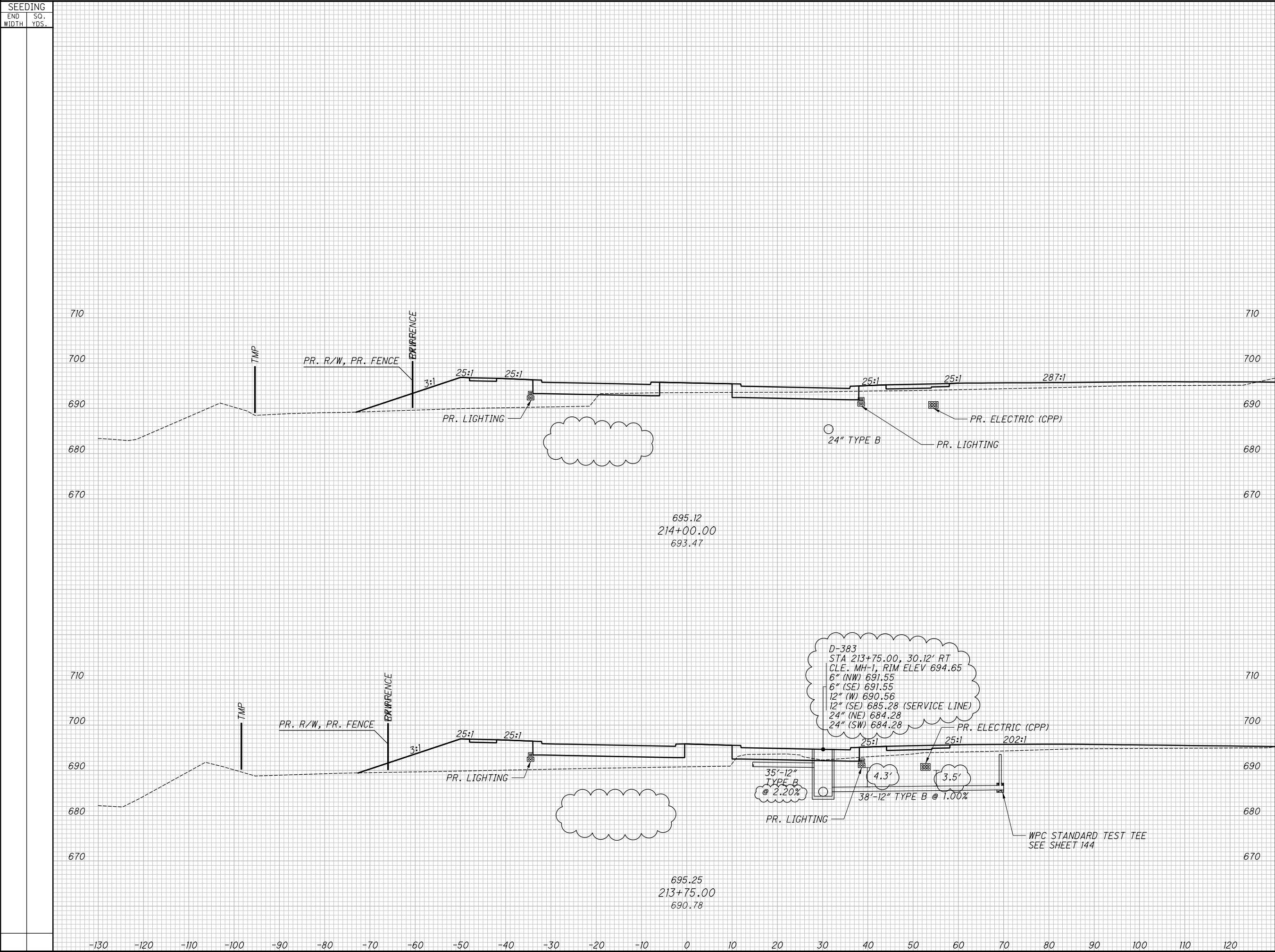




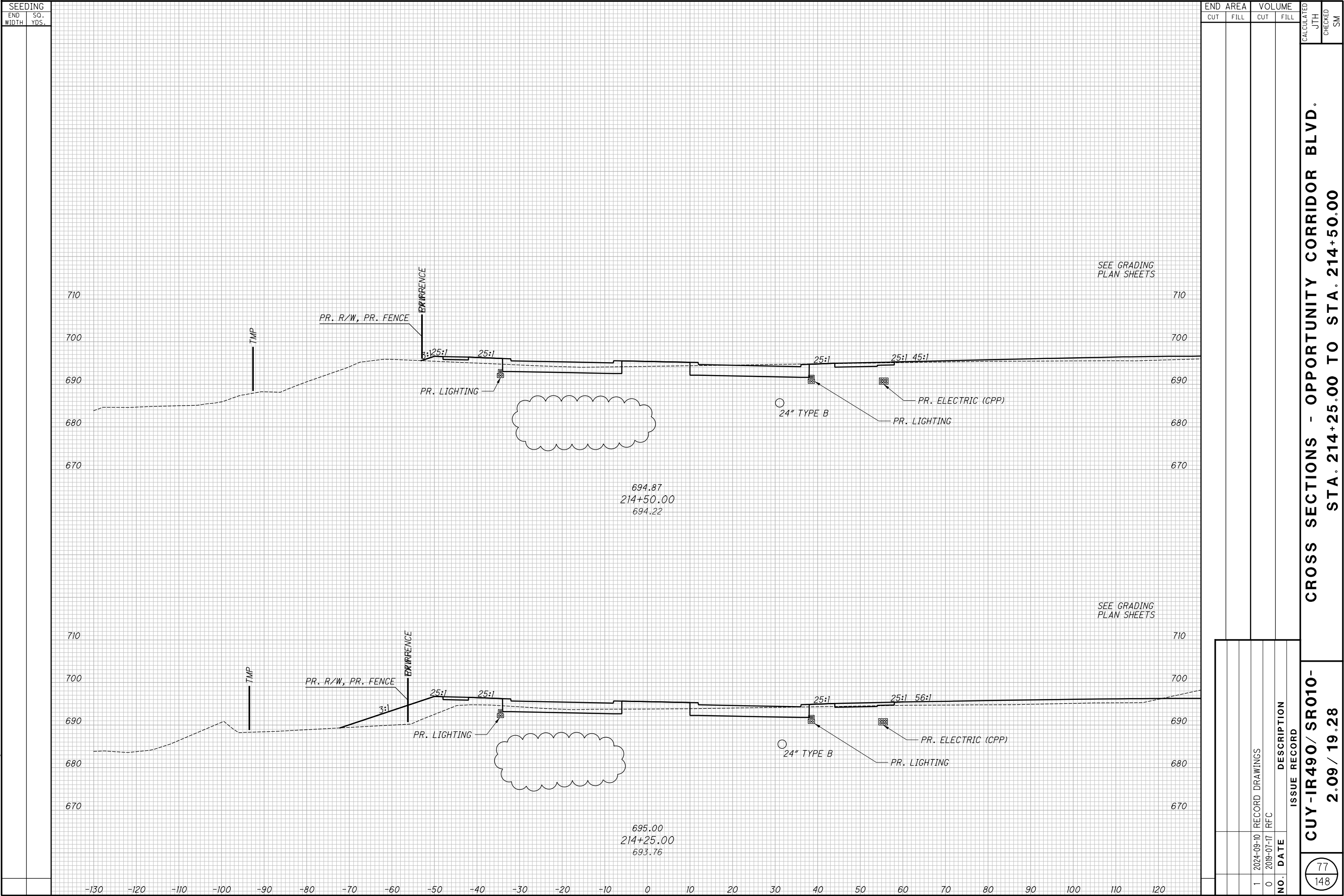


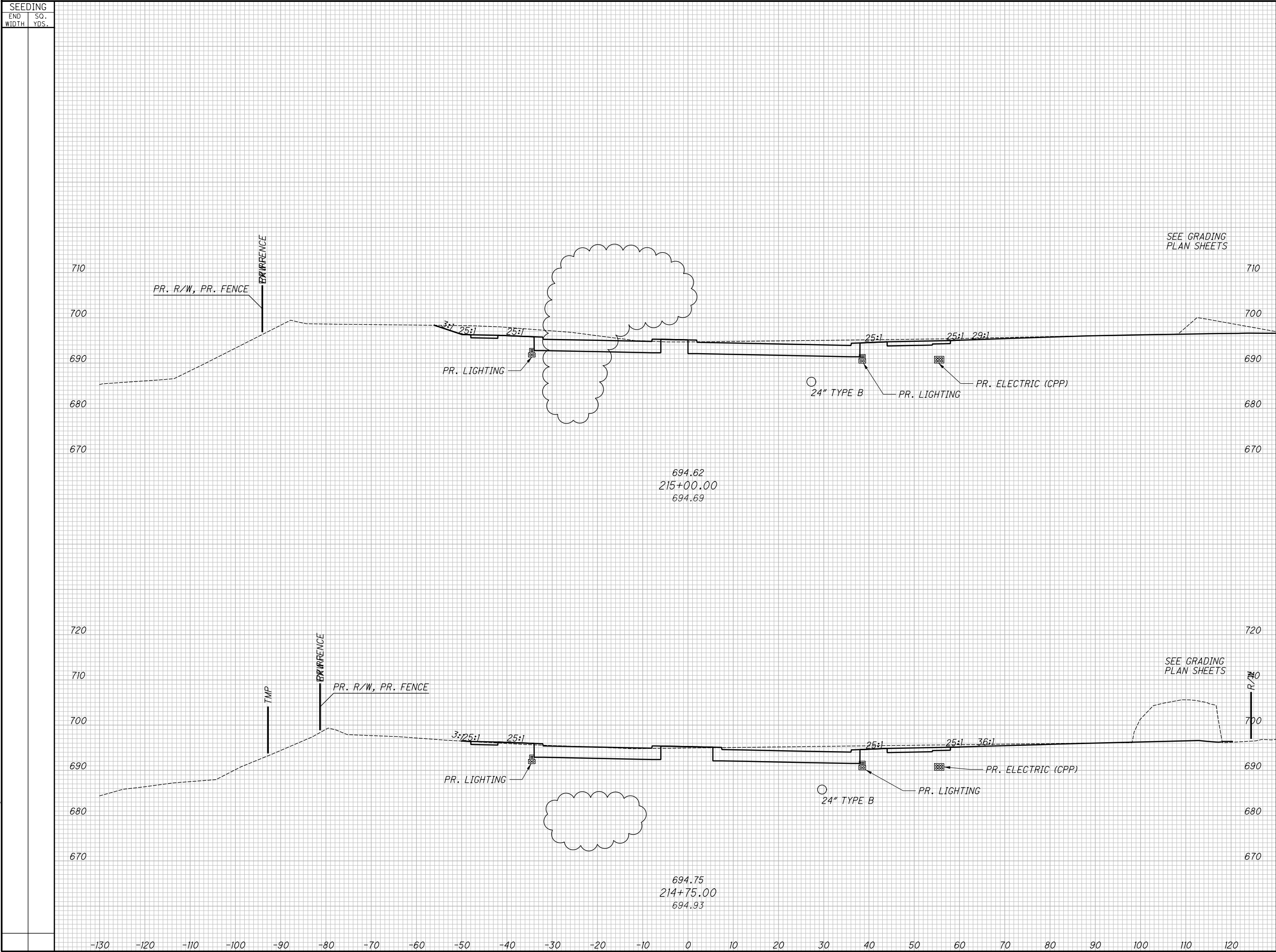
CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 213+25.00 TO STA. 213+50.00

CUY-IR490/ SR010-
2.09 / 19.28



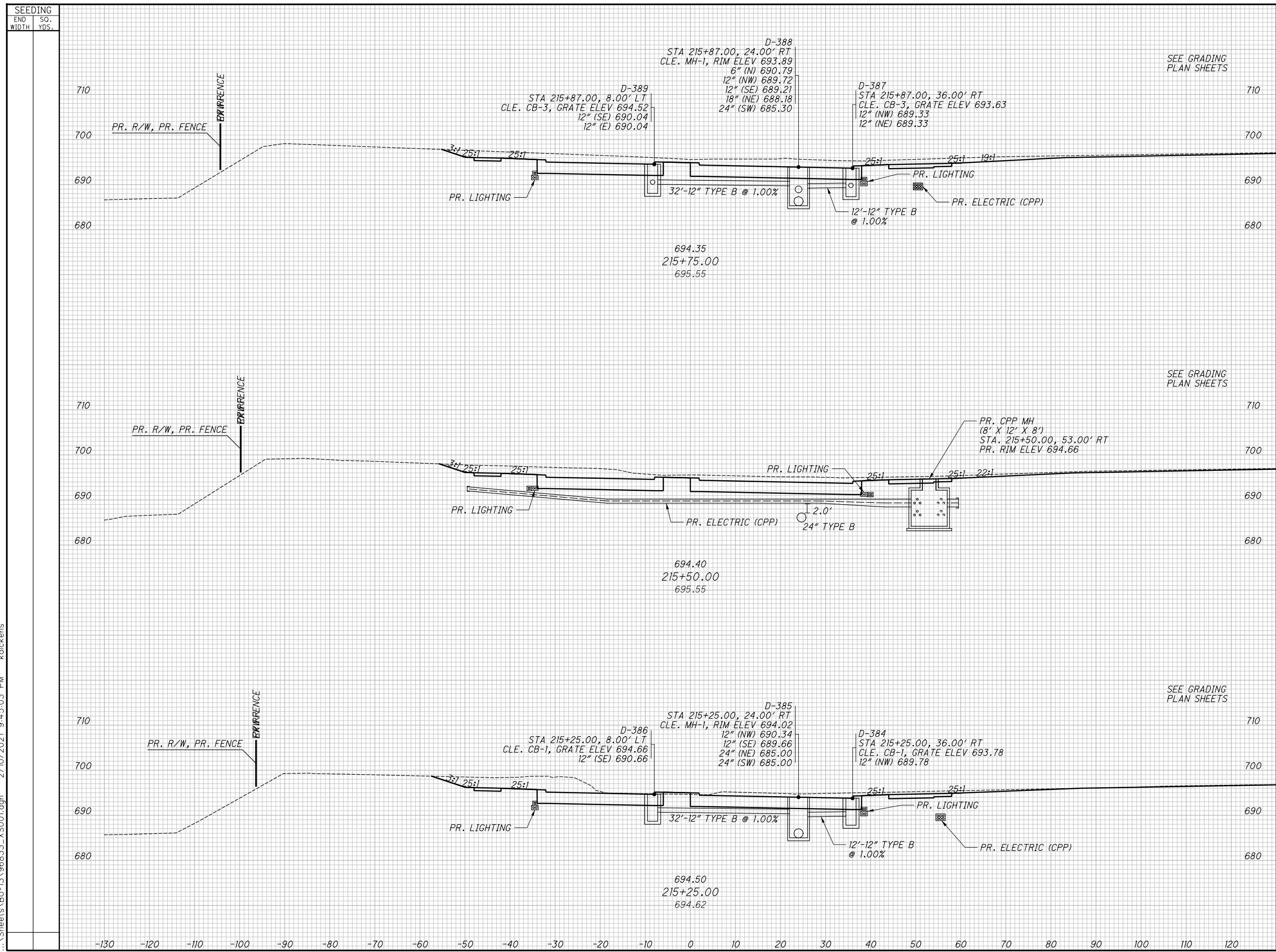
END		AREA		VOLUME		CALCULATED JTH	CHECKED SM
CUT		FILL		CUT	FILL		
						CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD. STA. 213+75.00 TO STA. 214+00.00	
						CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD. STA. 213+75.00 TO STA. 214+00.00	
						CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD. STA. 213+75.00 TO STA. 214+00.00	
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						CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD. STA. 213+75.00 TO STA. 214+00.00	





CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 214+75.00 TO STA. 215+00.00

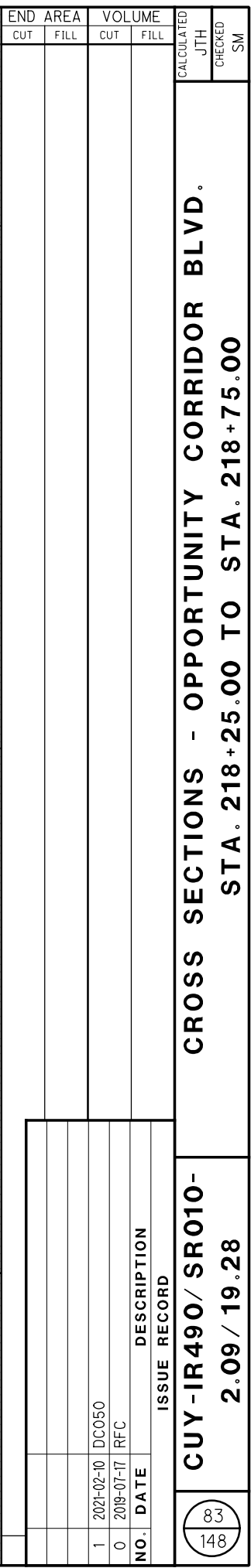
CUY-IR490/ SR010-
2.09 / 19.28

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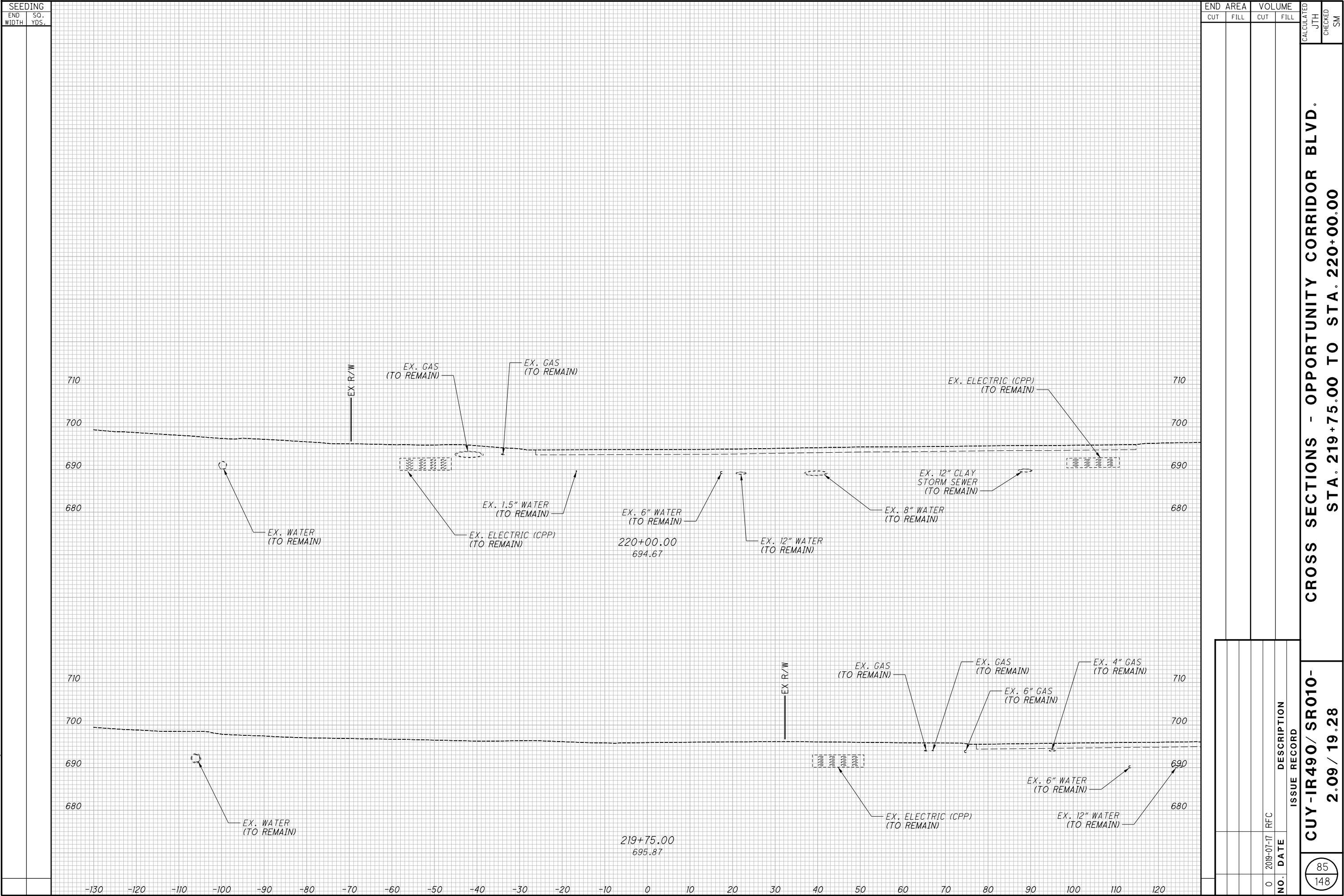
**CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD.
STA. 216+00.00 TO STA. 216+50.00**

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<p>RECORD PLANS</p> <p>RECORD PLANS</p>	

[illegible]



-IR490/ SR010- 2.09 / 19.28	CROSS SECTIONS - OPPORTUNITY CORRIDOR BLVD. STA. 219+00.00 TO STA. 219+50.00
RECORD PLANS	RECORD PLANS

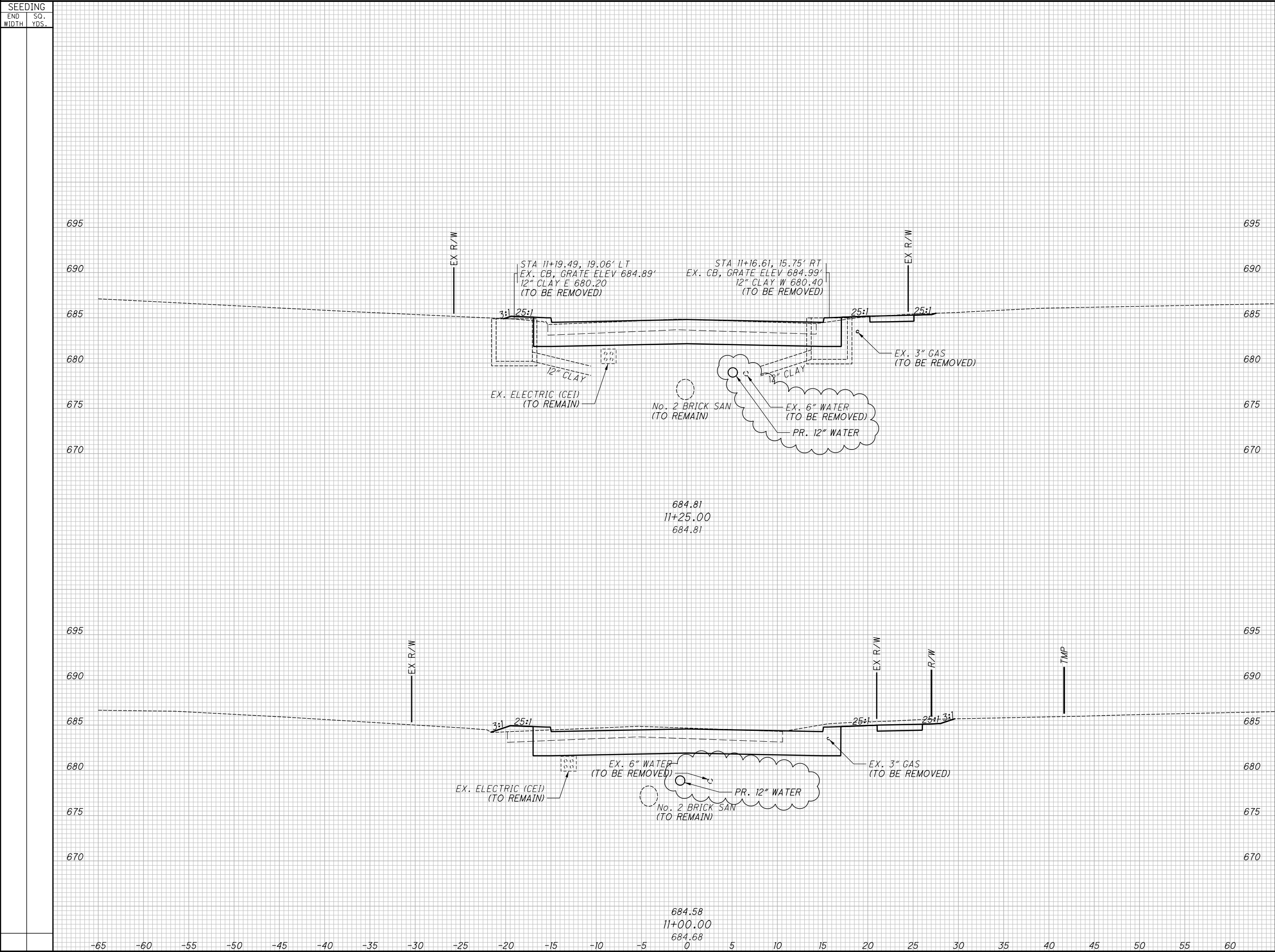


**CROSS SECTIONS - LISBON RD.
STA. 8+95.16 TO STA. 9+25.00**

**CROSS SECTIONS - LISBON RD.
STA. 9+50.00 TO STA. 9+75.00**

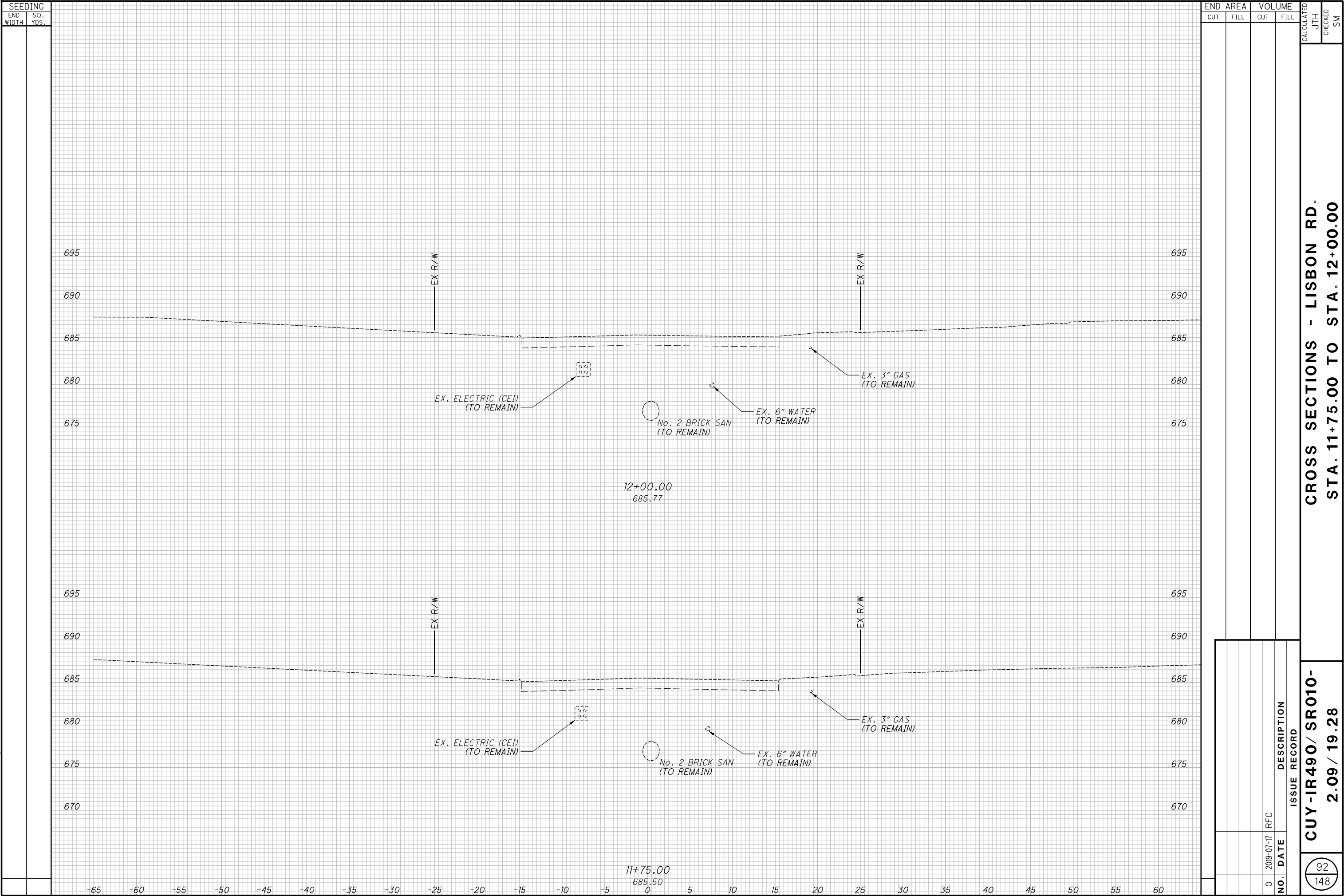
**CROSS SECTIONS - LISBON RD.
STA. 10+00.00 TO STA. 10+25.00**

**CROSS SECTIONS - LISBON RD.
STA. 10+50.00 TO STA. 10+75.00**



END		AREA		VOLUME		CALCULATED JTH	CHECKED SM
CUT		FILL		CUT	FILL		
CROSS SECTIONS - LISBON RD. STA. 11+00.00 TO STA. 11+25.00							
RECORD PLANS							
1		2024-09-10		RECORD DRAWINGS			
0		2019-07-17		RFC			
NO.	DATE	DESCRIPTION					
ISSUE RECORD							
90 148		CUY-IR490//SR010- 2.09 / 19.28					

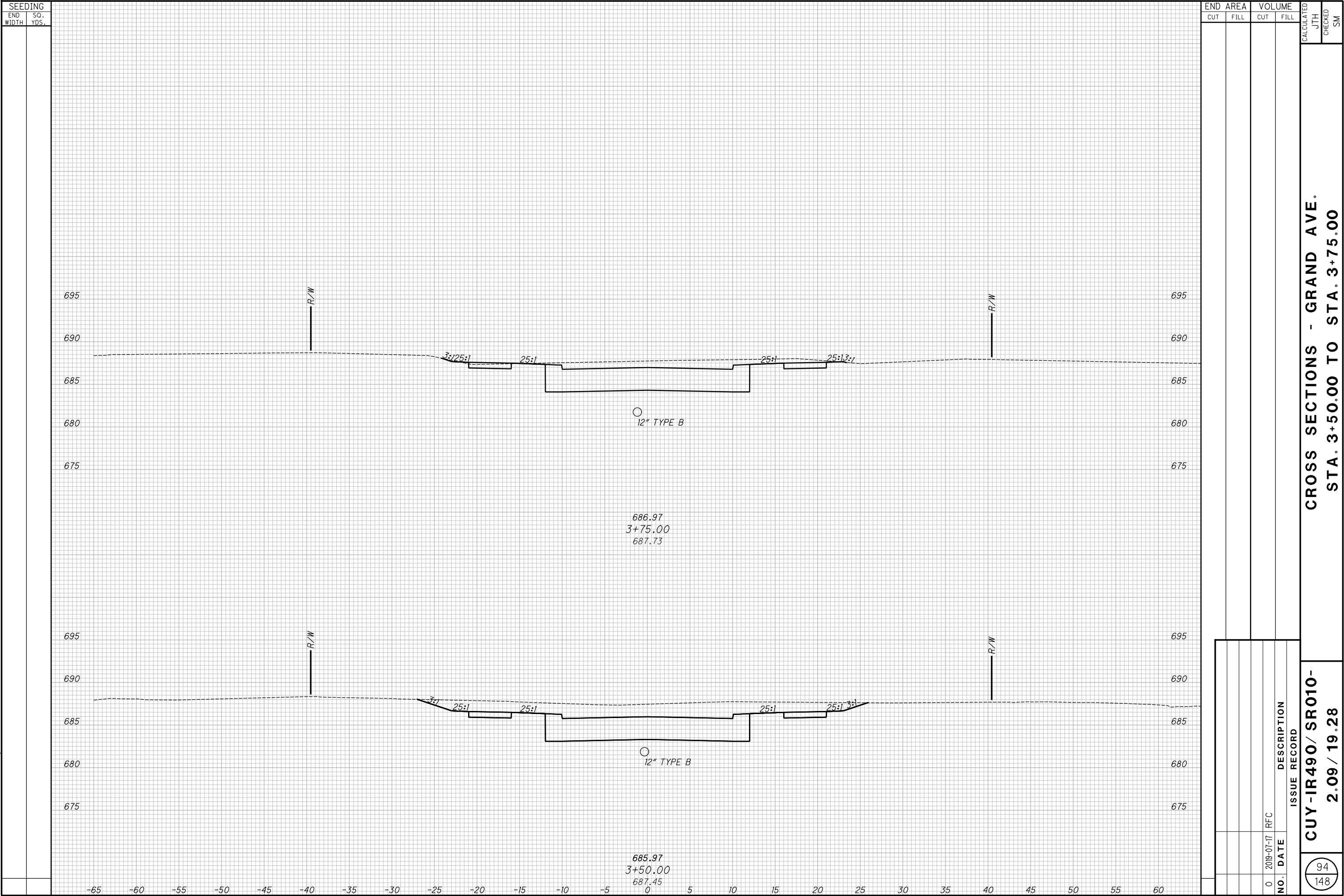
**CROSS SECTIONS - LISBON RD.
STA. 11+50.00 TO STA. 11+60.00**




CROSS SECTIONS - LISBON RD.
STA. 11+75.00 TO STA. 12+00.00

CUY-IR490/ SR010-
2.09 / 19.28

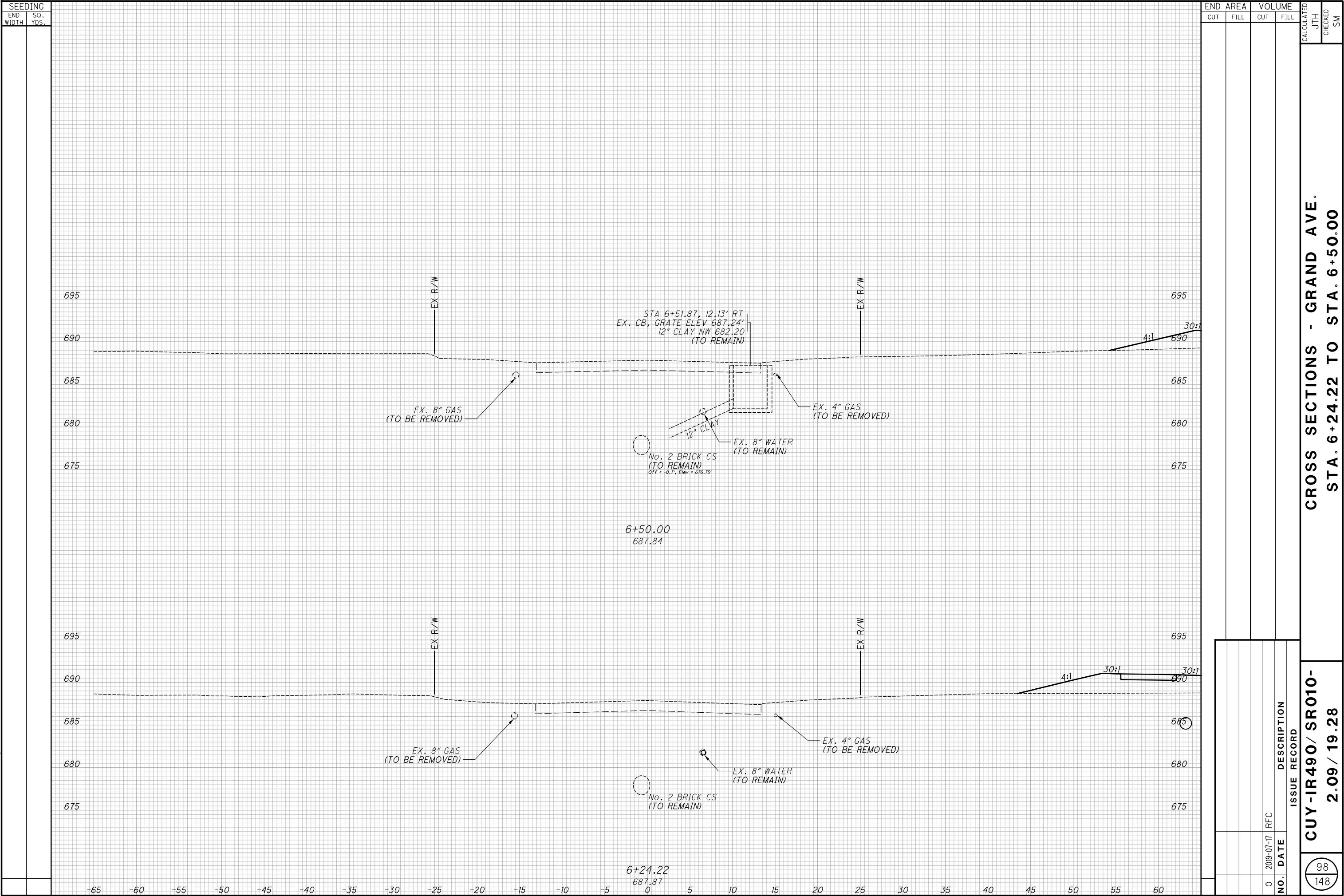
CROSS SECTIONS - GRAND AVE.
STA. 3+00.00 TO STA. 3+39.74

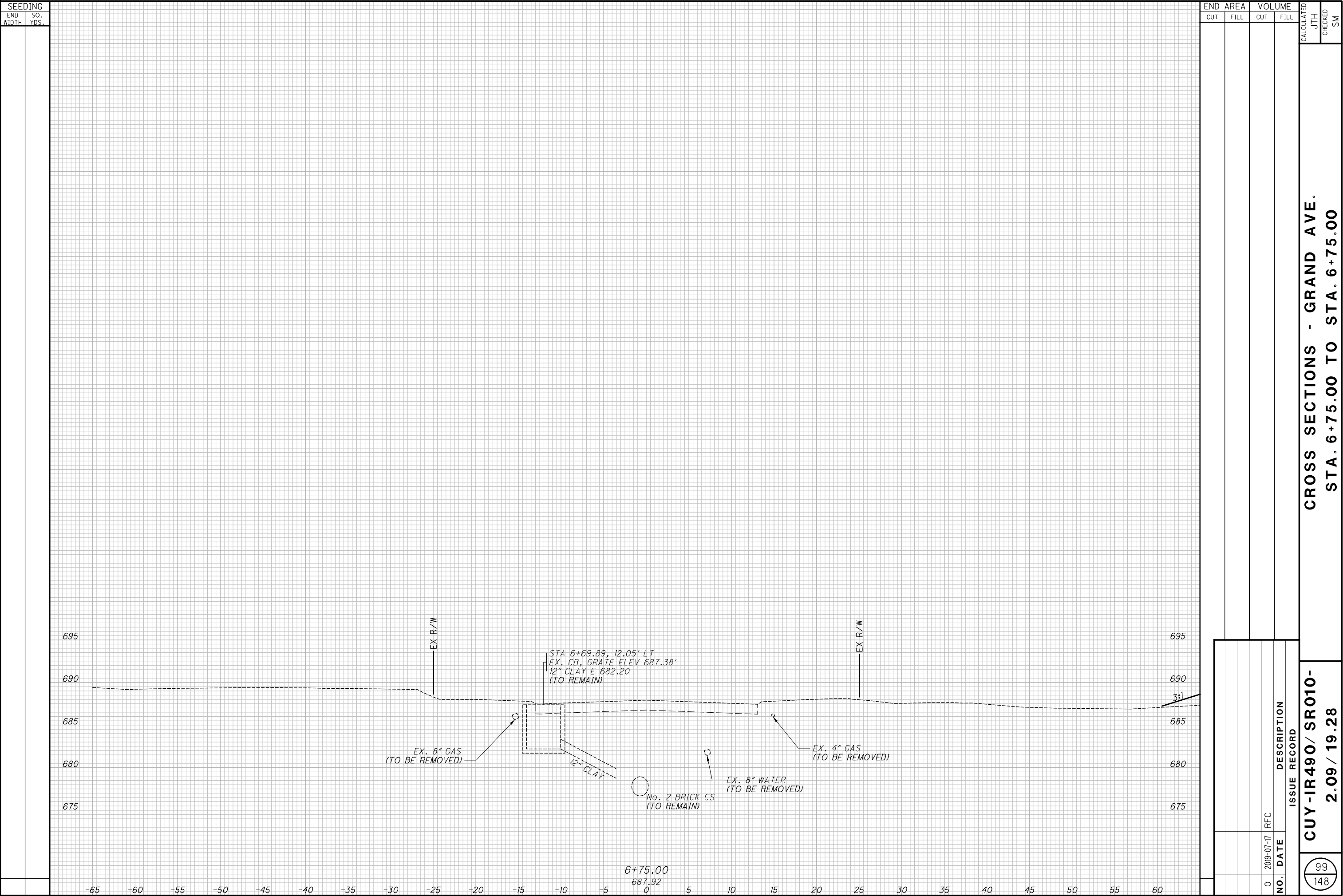


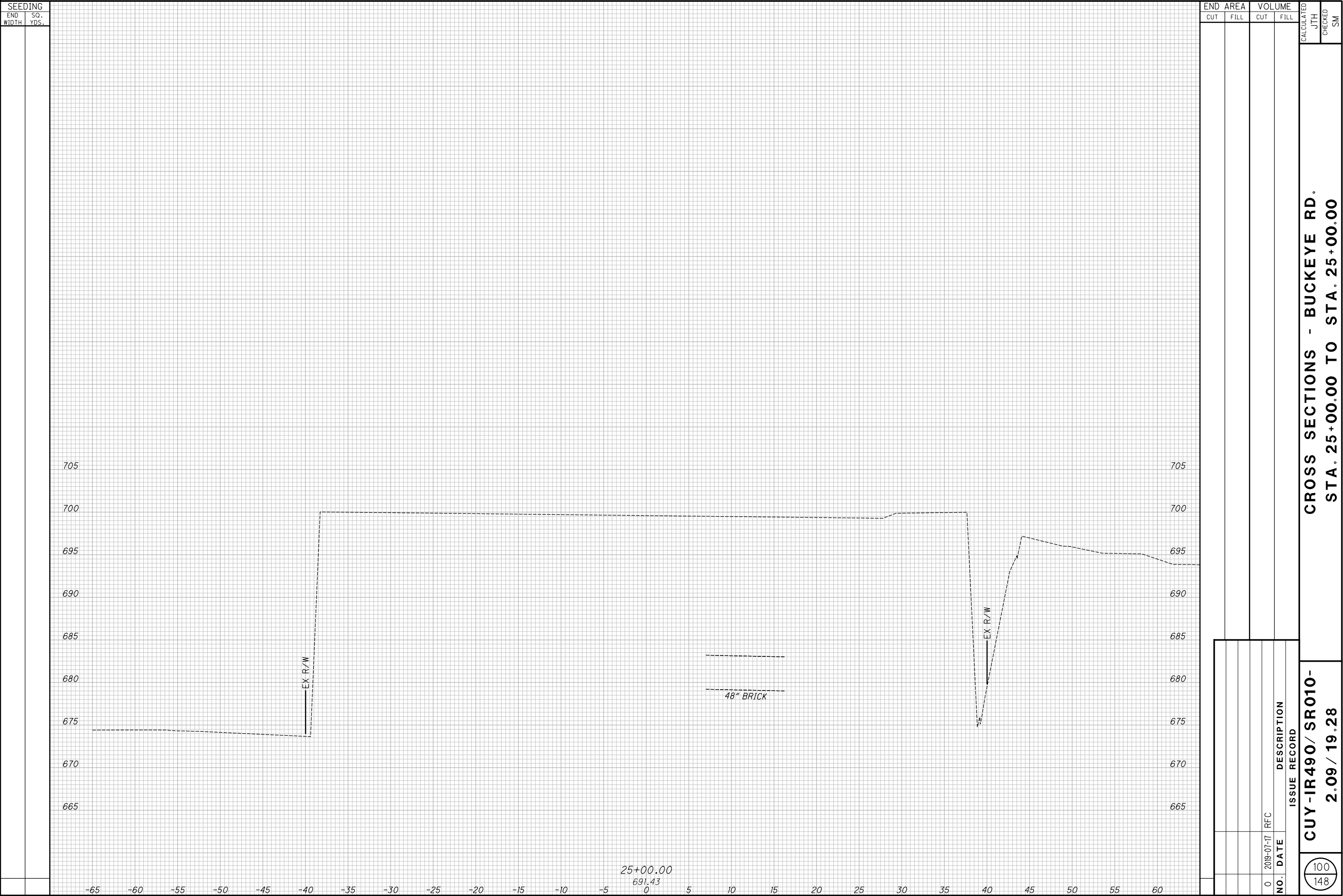
**CROSS SECTIONS - GRAND AVE.
STA. 4+00.00 TO STA. 4+50.00**

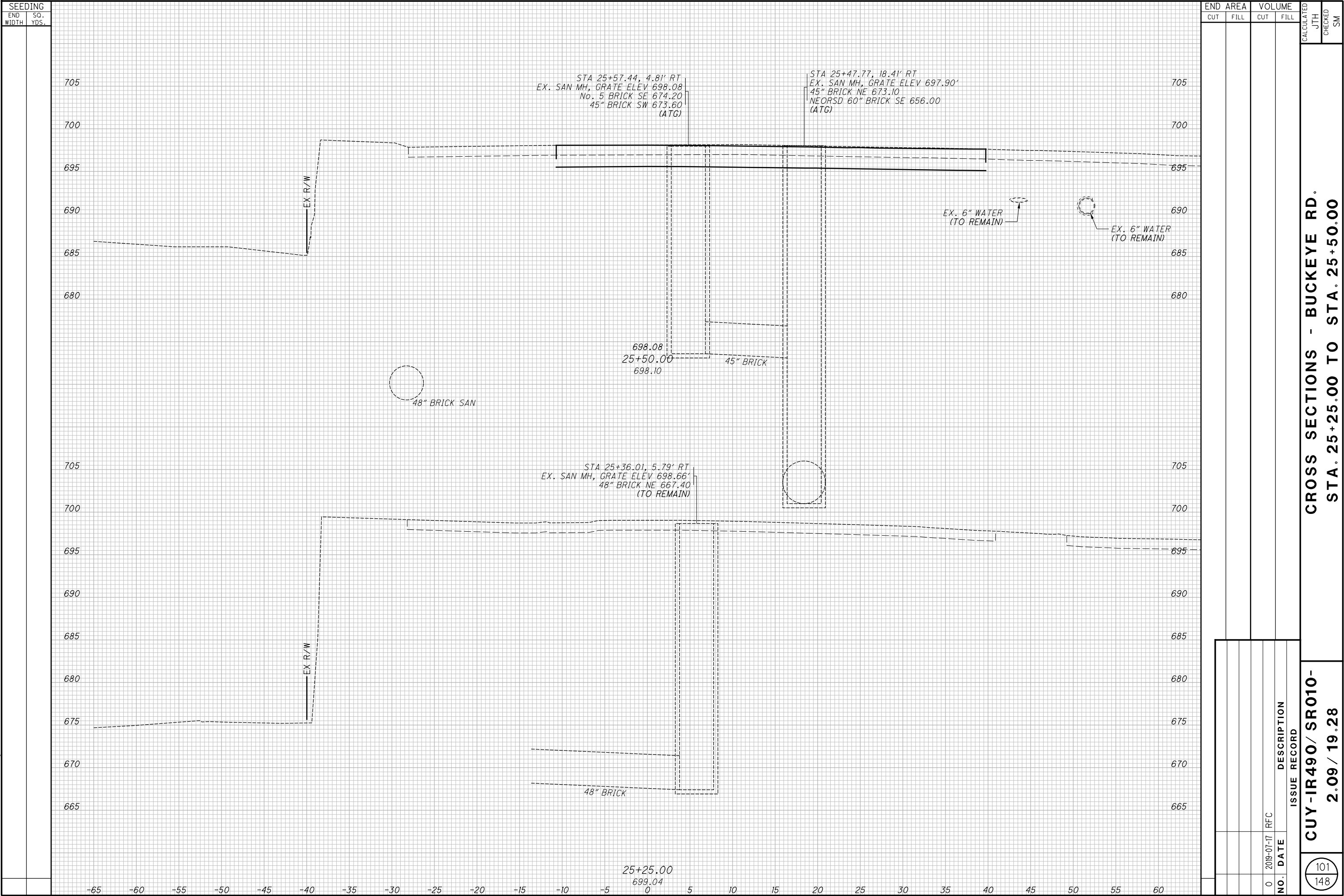
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  </div> <div> <p>CUY-IR490/ SR010-</p> <p>2.09 / 19.28</p> </div> </div>	<p>CROSS SECTIONS - GRAND AVE.</p> <p>STA. 4+75.00 TO STA. 5+25.00</p>	<div style="display: flex; flex-direction: column-reverse;"> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">JTH</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">CHECKED</div> <div style="border: 1px solid black; padding: 2px;">SM</div> </div>
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[illegible][illegible]

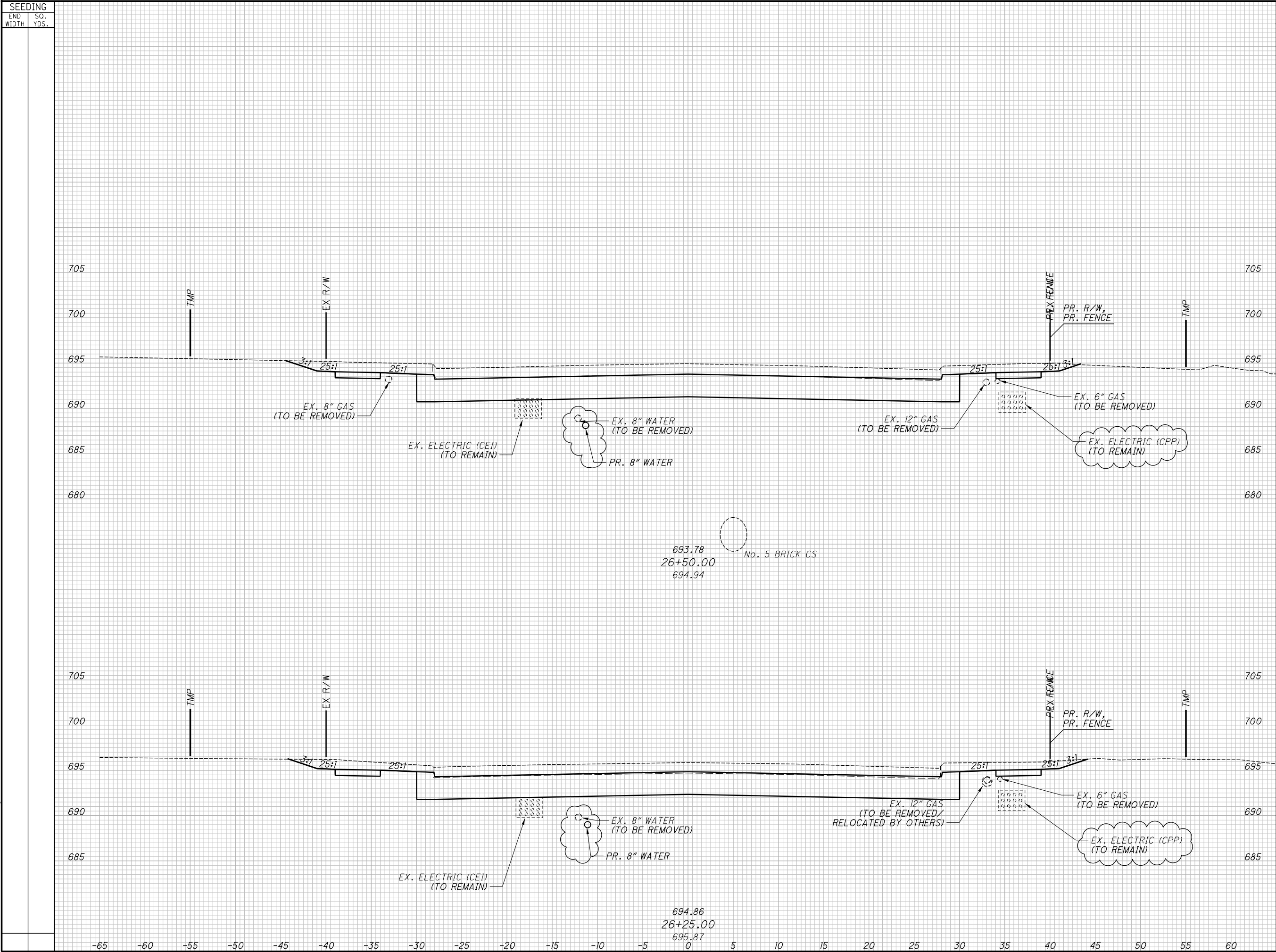






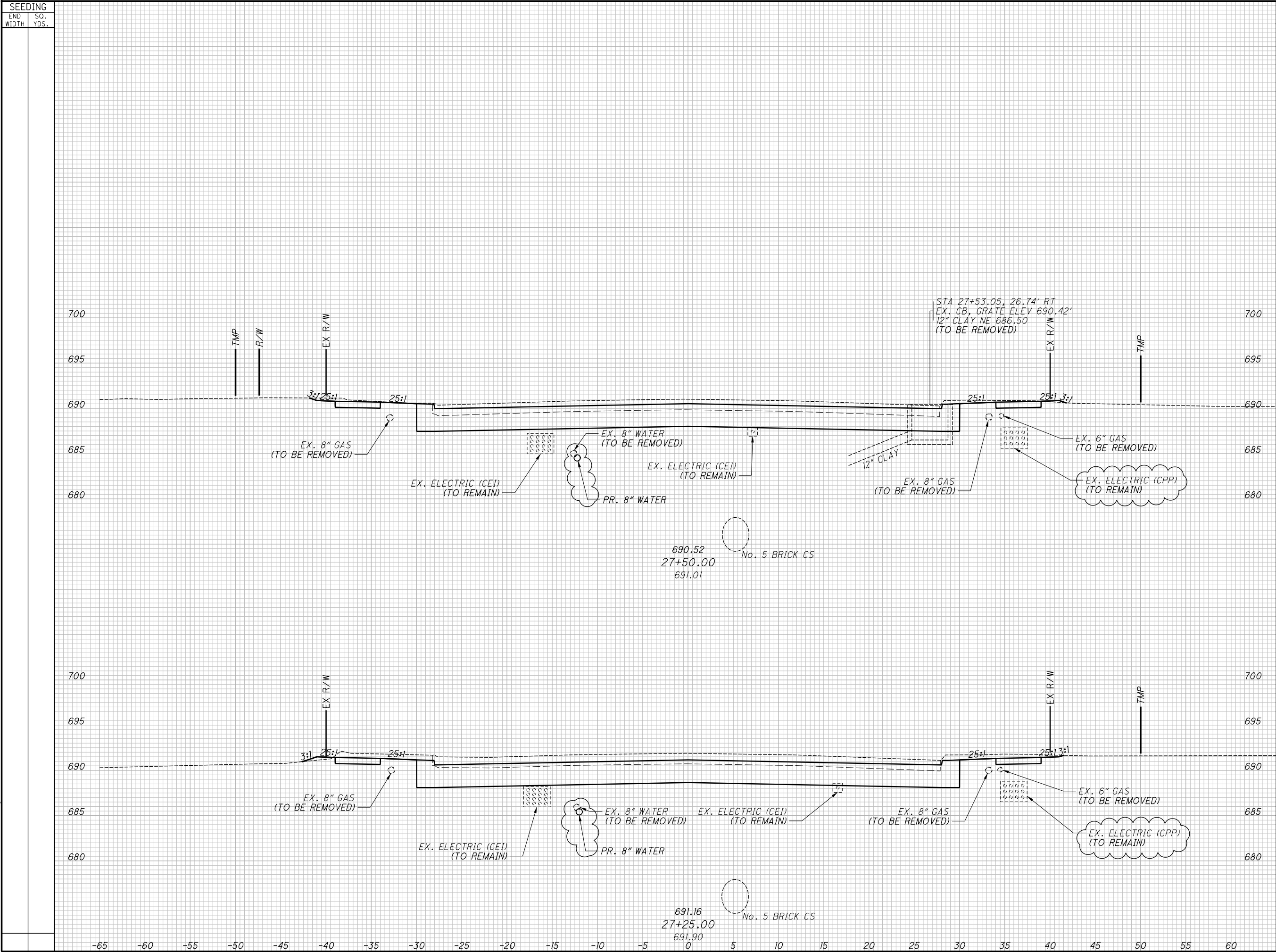


**CROSS SECTIONS - BUCKEYE RD.
STA. 25+77.62 TO STA. 26+00.00**



END		AREA		VOLUME		CALCULATED JTH	CHECKED SM
CUT		FILL		CUT	FILL		
						CROSS SECTIONS - BUCKEYE RD. STA. 26+25.00 TO STA. 26+50.00	
1	2024-09-10	RECORD DRAWINGS				2.09 / 19.28	
0	2019-07-17	RFC					
NO.	DATE	DESCRIPTION				103 148	
ISSUE RECORD							
CUY-IR490 / SR010-						CROSS SECTIONS - BUCKEYE RD. STA. 26+25.00 TO STA. 26+50.00	

**CROSS SECTIONS - BUCKEYE RD.
STA. 26+75.00 TO STA. 27+00.00**



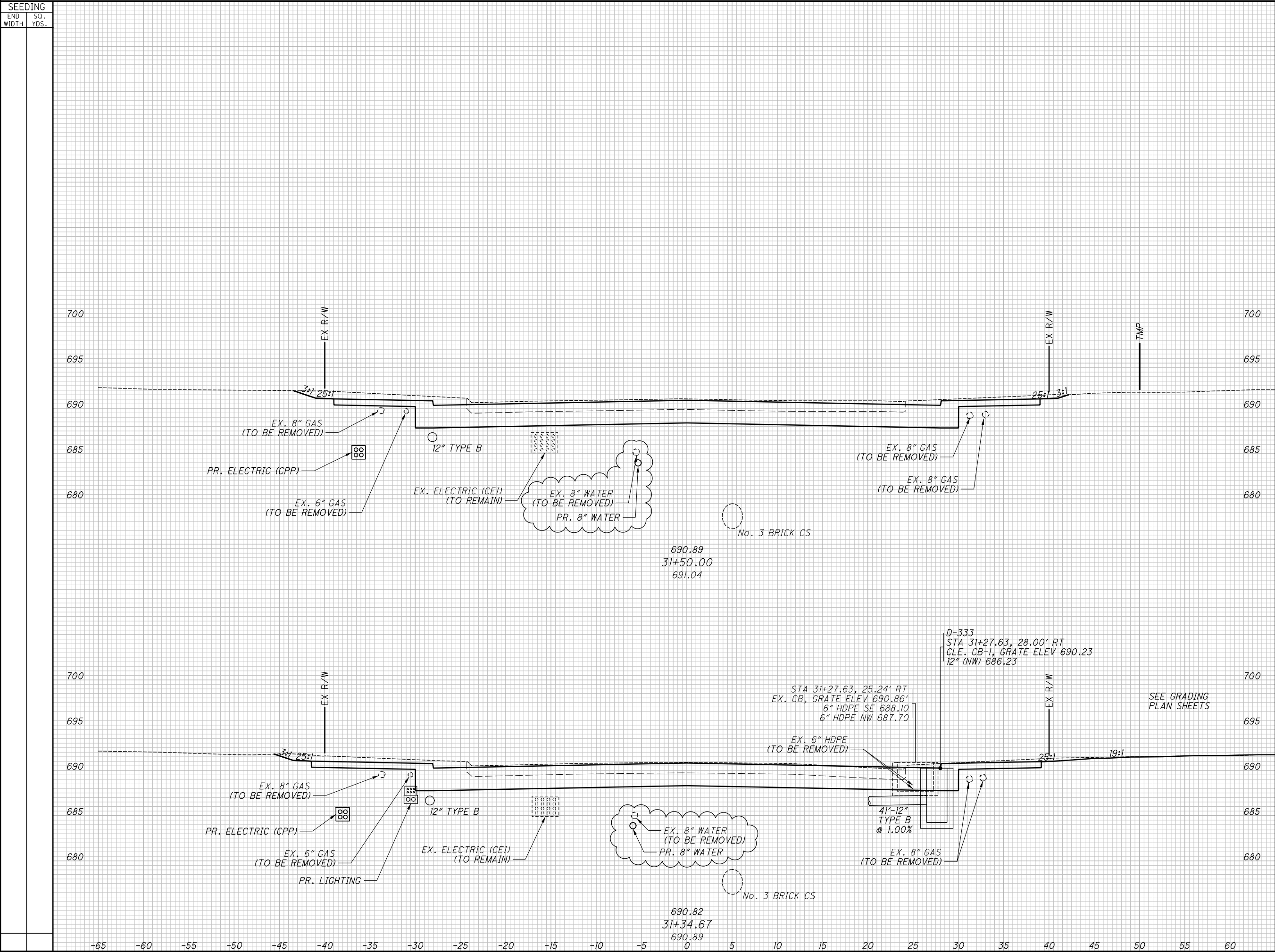
END		AREA		VOLUME		CALCULATED JTH	CHECKED SM
CUT		FILL		CUT	FILL		
						CROSS SECTIONS - BUCKEYE RD. STA. 27+25.00 TO STA. 27+50.00	
1	2024-09-10	RECORD DRAWINGS				CUY-IR490 / SR010- 2.09 / 19.28	
0	2019-07-17	RFC					
NO. DATE		DESCRIPTION					
ISSUE RECORD						105 148	

**CROSS SECTIONS - BUCKEYE RD.
STA. 27+72.41 TO STA. 28+18.67**

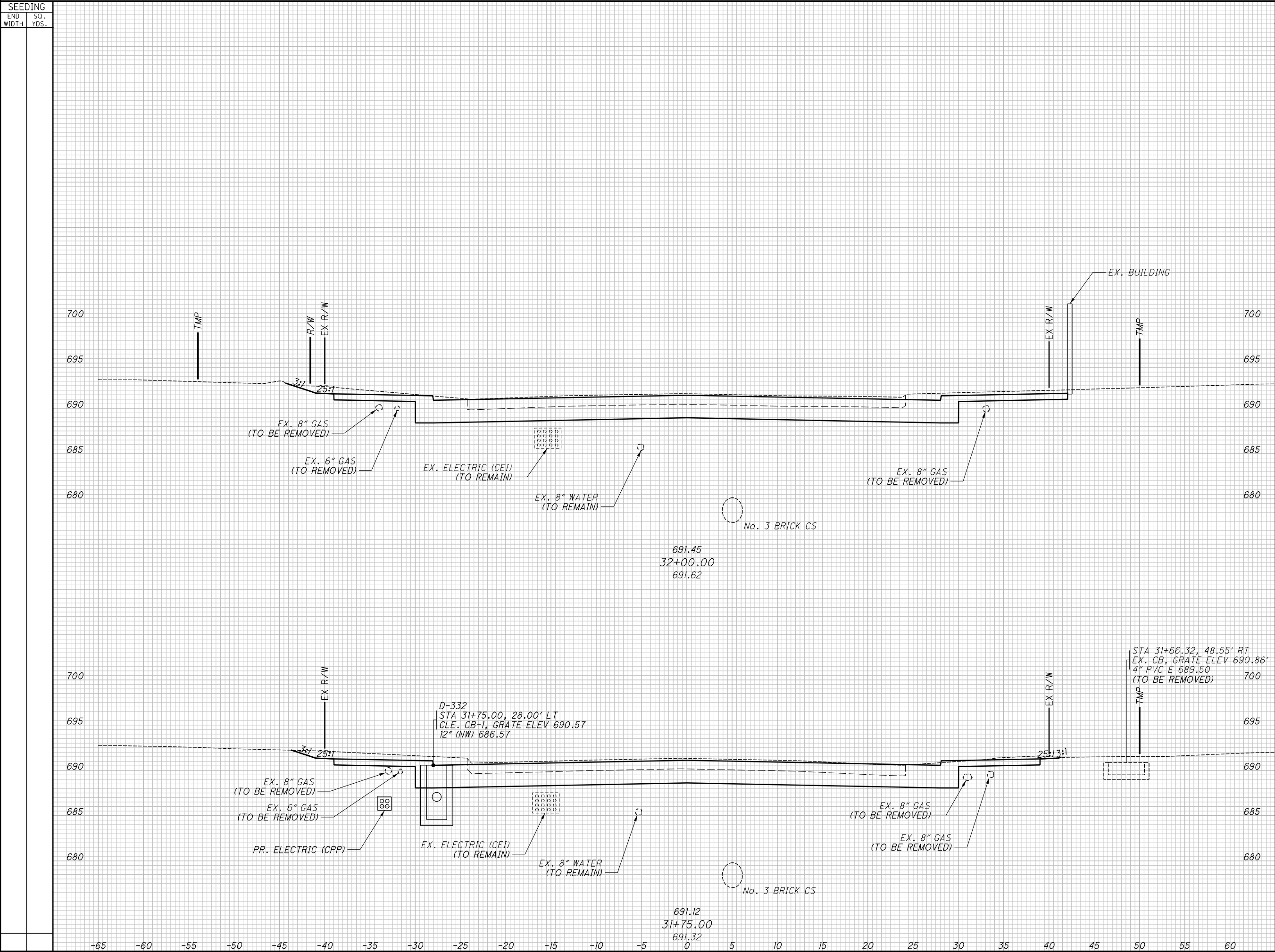
**CROSS SECTIONS - BUCKEYE RD.
STA. 28+30.00 TO STA. 28+50.00**

**CROSS SECTIONS - BUCKEYE RD.
STA. 28+75.00 TO STA. 29+00.00**

CROSS SECTIONS - BUCKEYE RD.
STA. 29+25.00 TO STA. 29+35.60



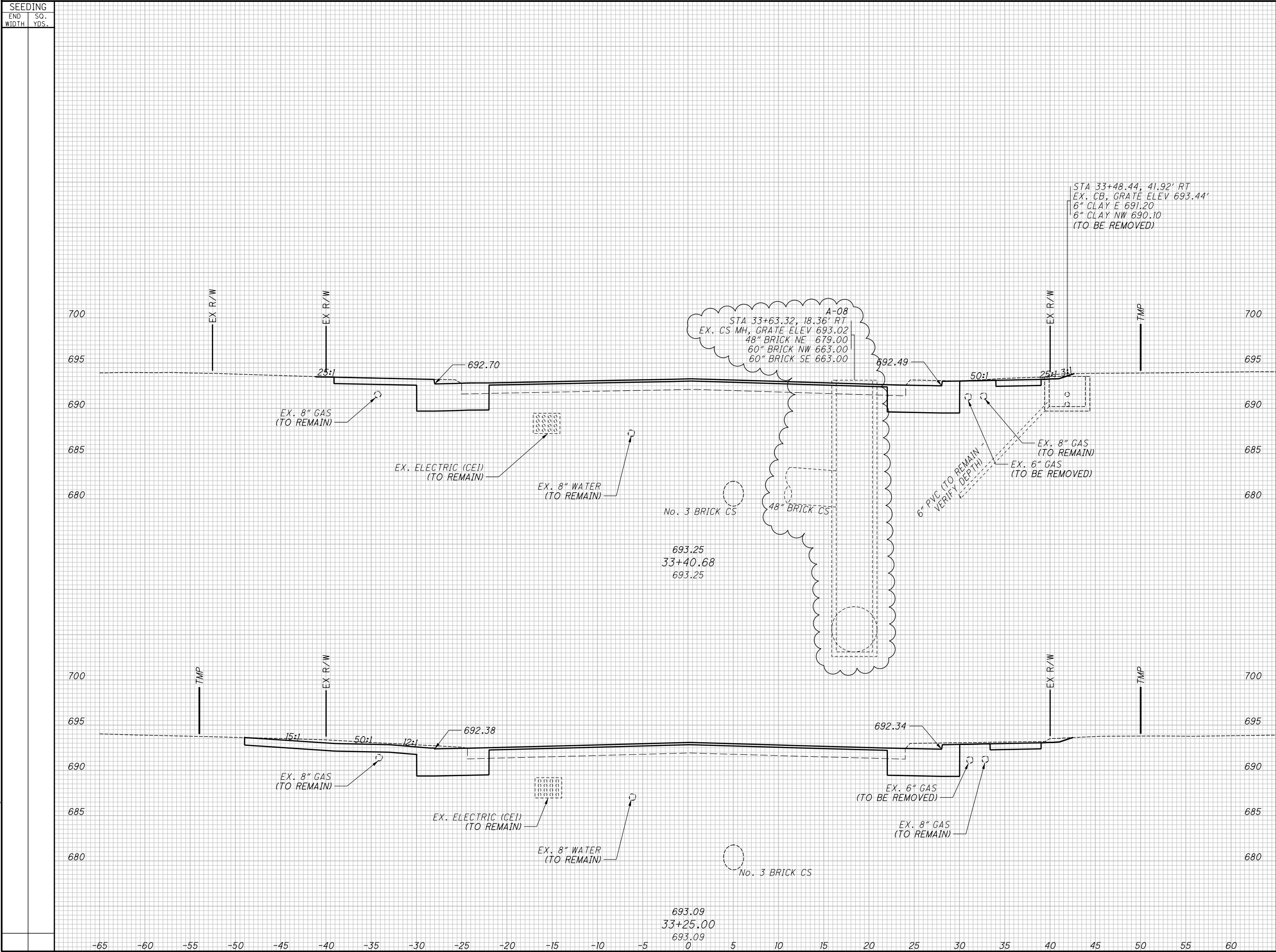
END		AREA		VOLUME		CALCULATED JTH	CHECKED SM
CUT		FILL		CUT	FILL		
						CROSS SECTIONS - BUCKEYE RD. STA. 31+34.67 TO STA. 31+50.00	
1	2024-09-10	RECORD DRAWINGS				CUY-IR490// SR010- 2.09 / 19.28	
0	2019-07-17	RFC					
NO.	DATE	DESCRIPTION				ISSUE RECORD	
						110 148	



SEEDING		END AREA		VOLUME		CALCULATED JTH	CHECKED SM
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL		
CROSS SECTIONS - BUCKEYE RD. STA. 31+75.00 TO STA. 32+00.00							
RECORD PLANS							
CUY-IR490/ SR010-		RECORD PLANS					
2.09 / 19.28		RECORD PLANS					
111 148		RECORD PLANS					

**CROSS SECTIONS - BUCKEYE RD.
STA. 32+25.00 TO STA. 32+50.00**

**CROSS SECTIONS - BUCKEYE RD.
STA. 32+75.00 TO STA. 33+00.00**



END		AREA		VOLUME		CALCULATED JTH	CHECKED SM
CUT		FILL		CUT	FILL		

**CROSS SECTIONS - BUCKEYE RD.
STA. 34+37.18 TO STA. 34+50.00**

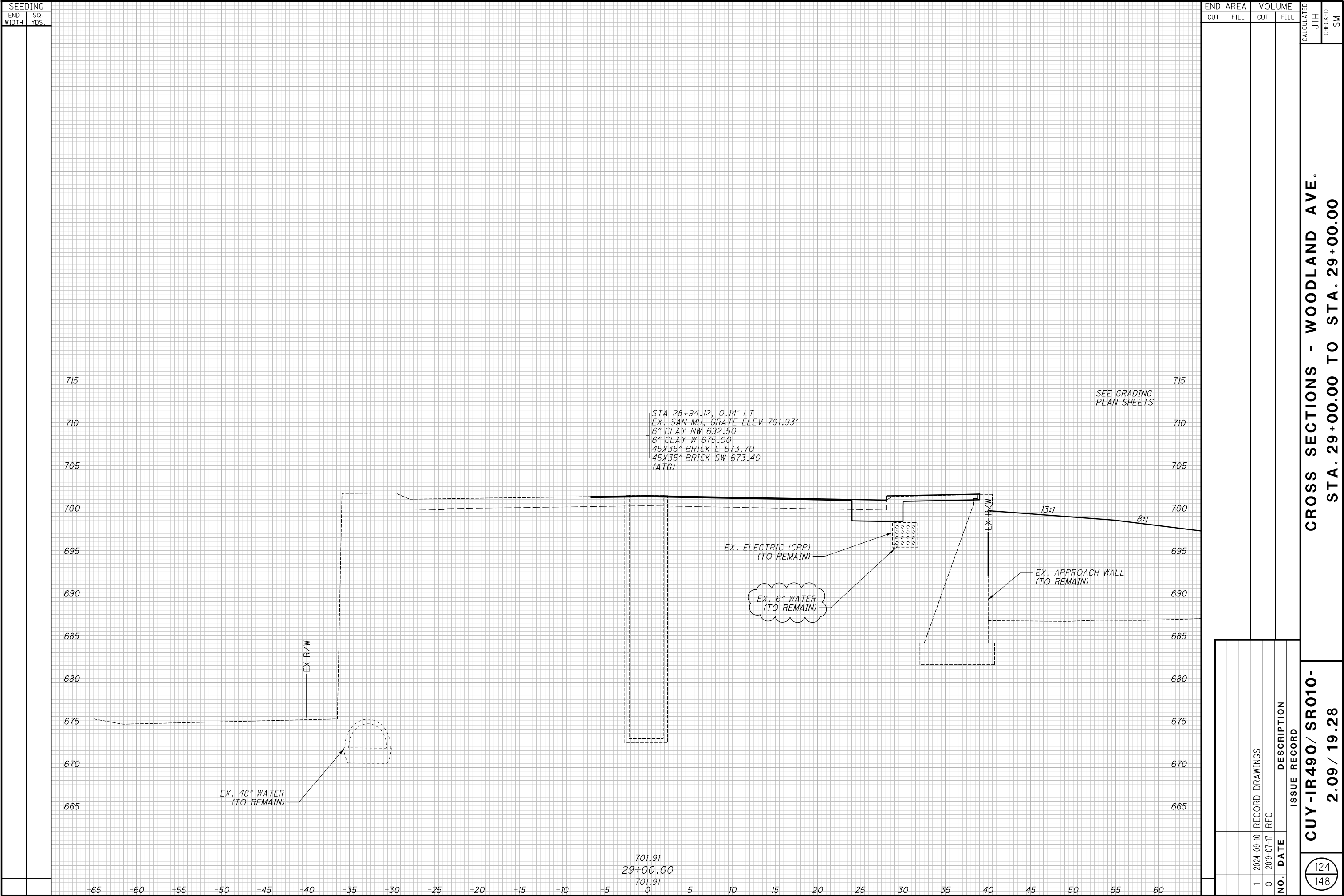
**CROSS SECTIONS - BUCKEYE RD.
STA. 34+75.00 TO STA. 35+00.00**

[illegible]

**CROSS SECTIONS - BUCKEYE RD.
STA. 35+75.00 TO STA. 36+00.00**

**CROSS SECTIONS - BUCKEYE RD.
STA. 36+25.00 TO STA. 36+40.00**

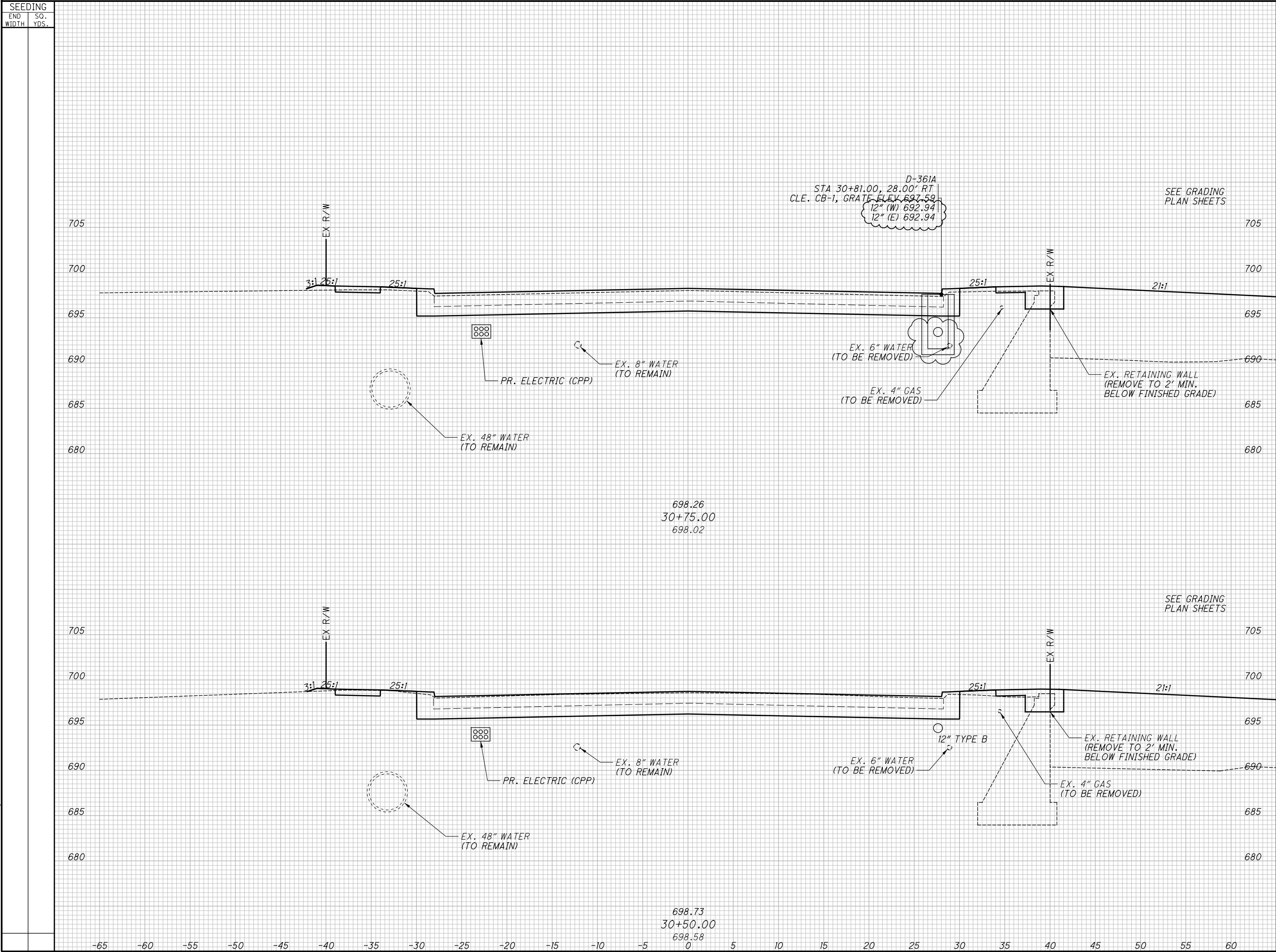
CROSS SECTIONS - WOODLAND AVE.
STA. 28+50.00 TO STA. 28+50.00



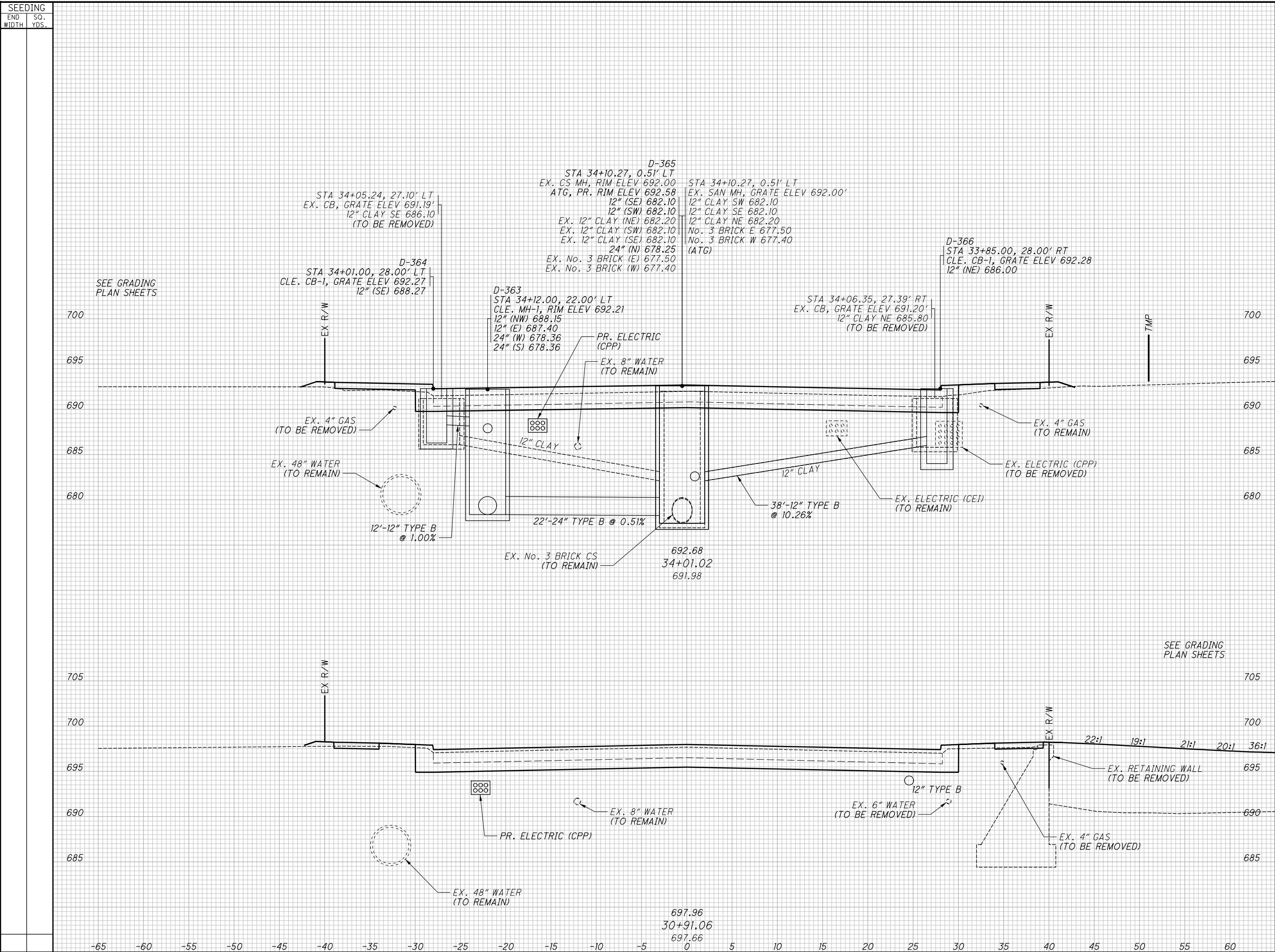
**CROSS SECTIONS - WOODLAND AVE.
STA. 29+17.46 TO STA. 29+17.46**

**CROSS SECTIONS - WOODLAND AVE.
STA. 29+50.00 TO STA. 29+75.00**

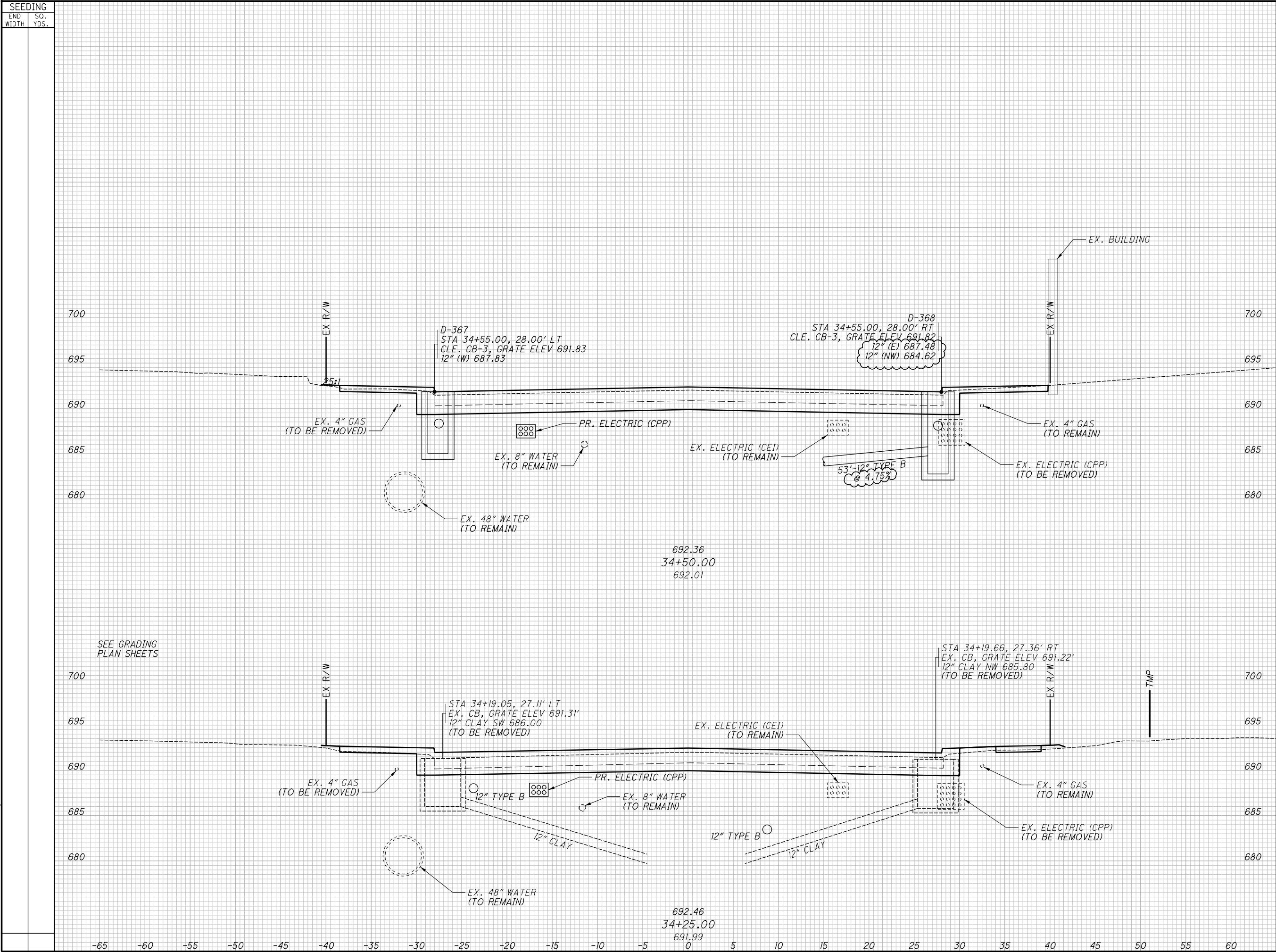
**CROSS SECTIONS - WOODLAND AVE.
STA. 30+00.00 TO STA. 30+25.00**



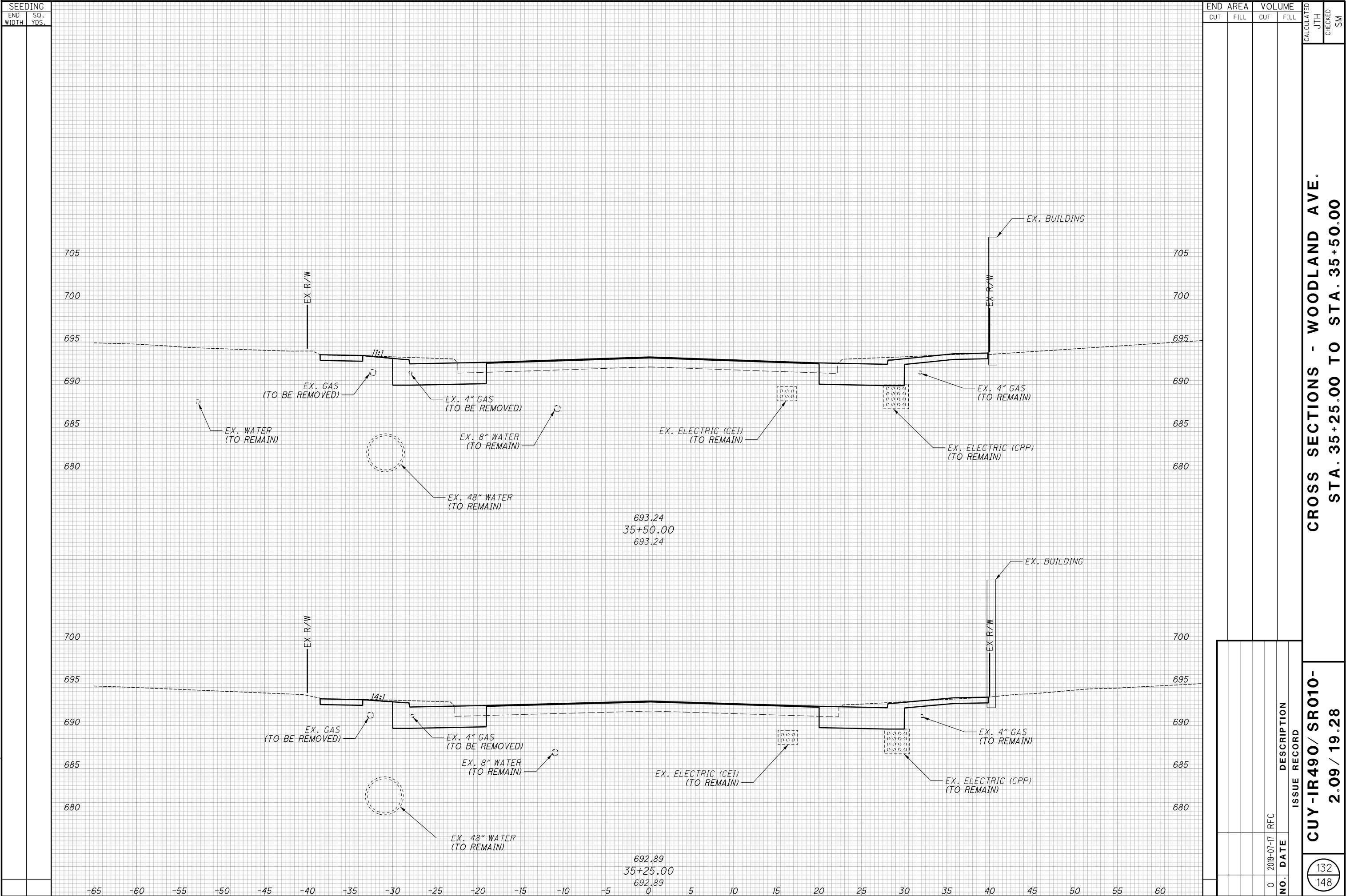
END		AREA		VOLUME		CALCULATED JTH	CHECKED SM
CUT		FILL		CUT	FILL		
						CROSS SECTIONS - WOODLAND AVE. STA. 30+50.00 TO STA. 30+75.00	
1	2024-09-10	RECORD DRAWINGS				CUY-IR490// SR010- 2.09 / 19.28	
0	2019-07-17	RFC					
		DESCRIPTION					
		ISSUE RECORD					
						<div>128 148</div>	



SEEDING		END AREA		VOLUME		CALCULATED JTH	CHECKED SM
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL		
CROSS SECTIONS - WOODLAND AVE. STA. 30+91.06 TO STA. 34+01.02							
RECORD PLANS							
CUY-IR490/ SR010-		2.09 / 19.28		RECORD PLANS			
129		148					
NO. DATE		DESCRIPTION		ISSUE RECORD			
1 2021-03-03		DC052					
0 2019-07-17		RFC					



END		AREA		VOLUME		CALCULATED JTH	CHECKED SM
CUT		FILL		CUT	FILL		
						CROSS SECTIONS - WOODLAND AVE. STA. 34+25.00 TO STA. 34+50.00	
1	2024-09-10	RECORD DRAWINGS				2.09 / 19.28	
0	2019-07-17	RFC					
NO.	DATE	DESCRIPTION				130 148	
ISSUE RECORD							
CUY-IR490 / SR010-						2.09 / 19.28	



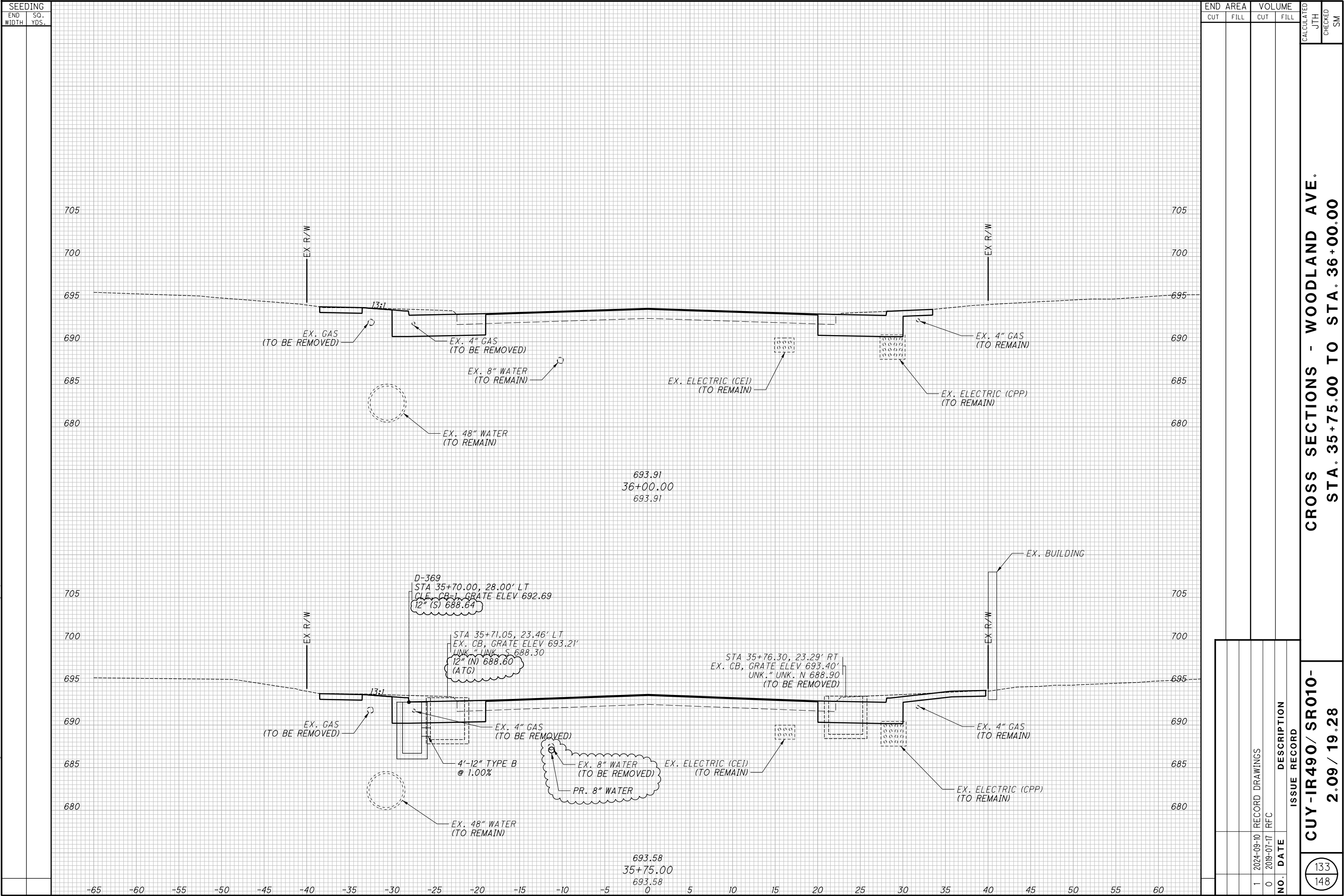
CROSS SECTIONS - WOODLAND AVE.
STA. 35+25.00 TO STA. 35+50.00

CUY-IR490/ SR010-
2.09 / 19.28

132
148

RECORD PLANS

RECORD PLANS



CROSS SECTIONS - WOODLAND AVE.
STA. 35+75.00 TO STA. 36+00.00

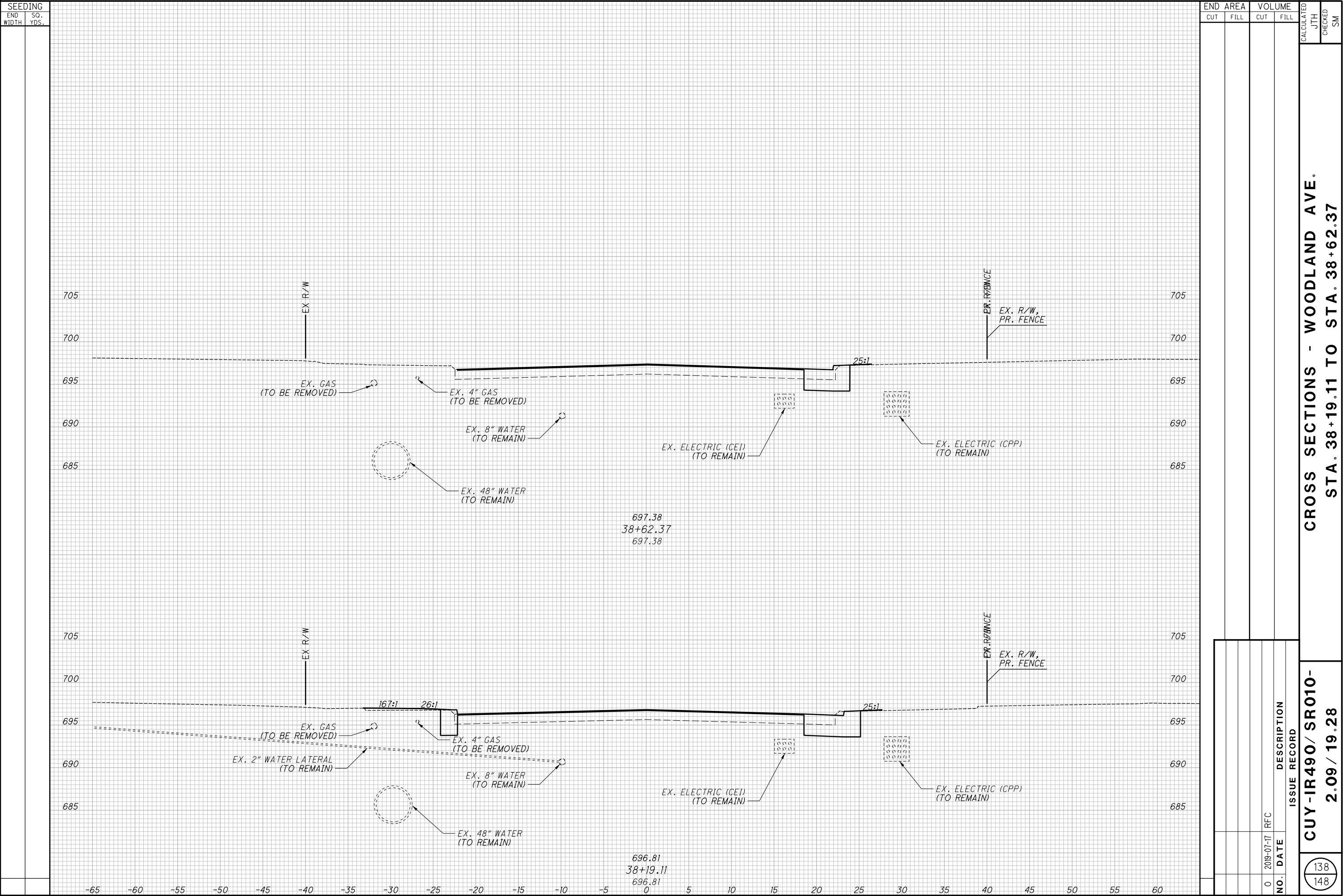
CUY-IR490/ SR010-
2.09 / 19.28

CROSS SECTIONS - WOODLAND AVE.
STA. 36+25.00 TO STA. 36+50.00

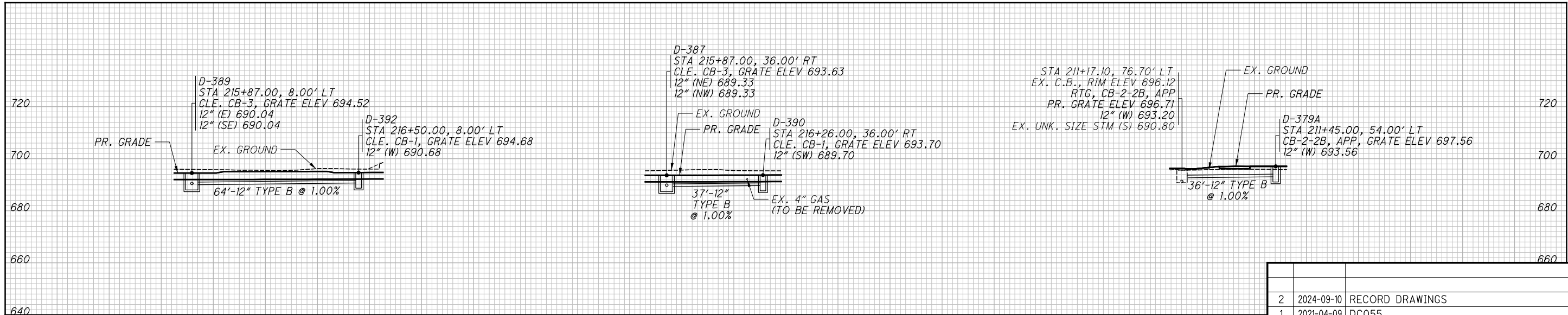
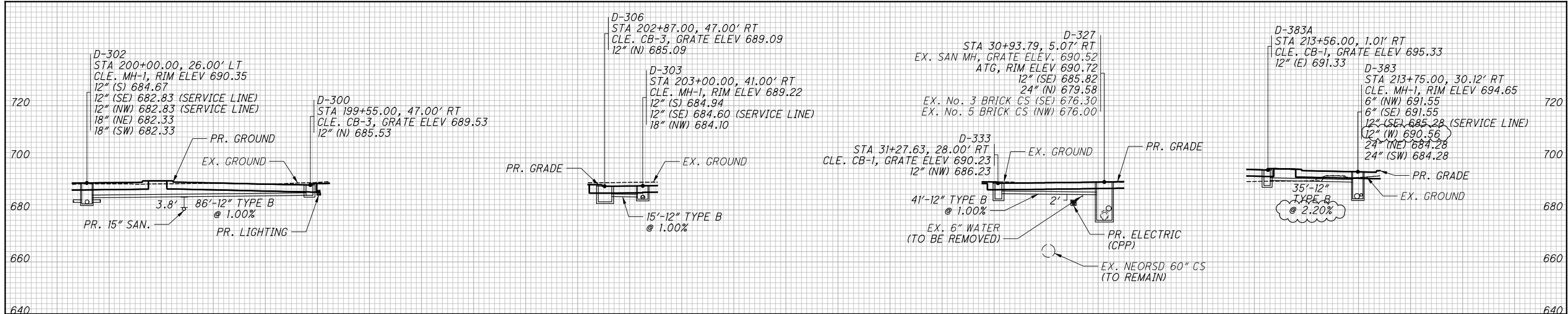
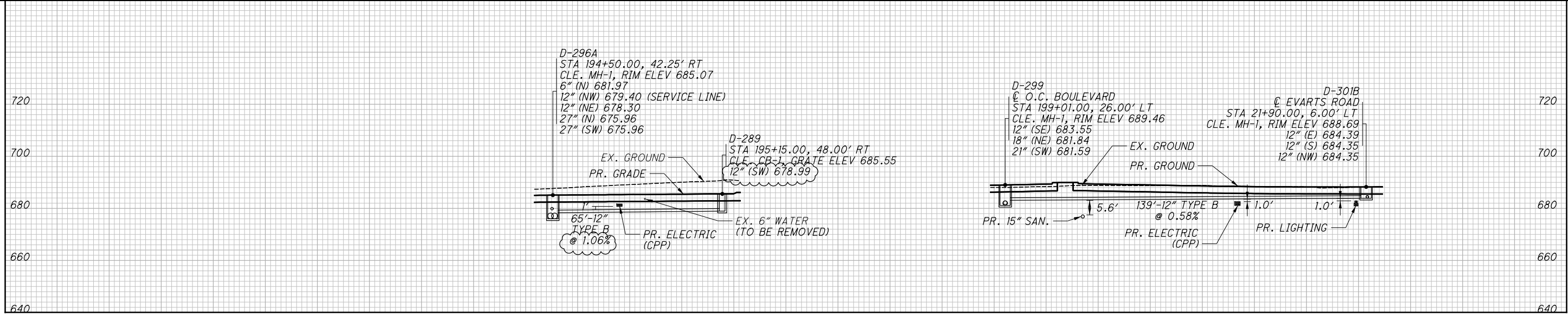
☐ ☐ ☐ ☐

**CROSS SECTIONS - WOODLAND AVE.
STA. 37+25.00 TO STA. 37+50.00**

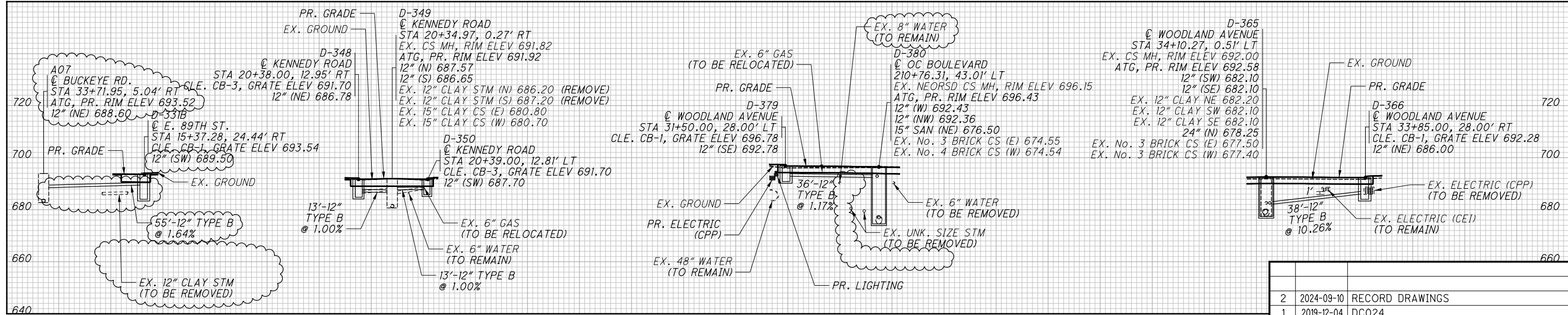
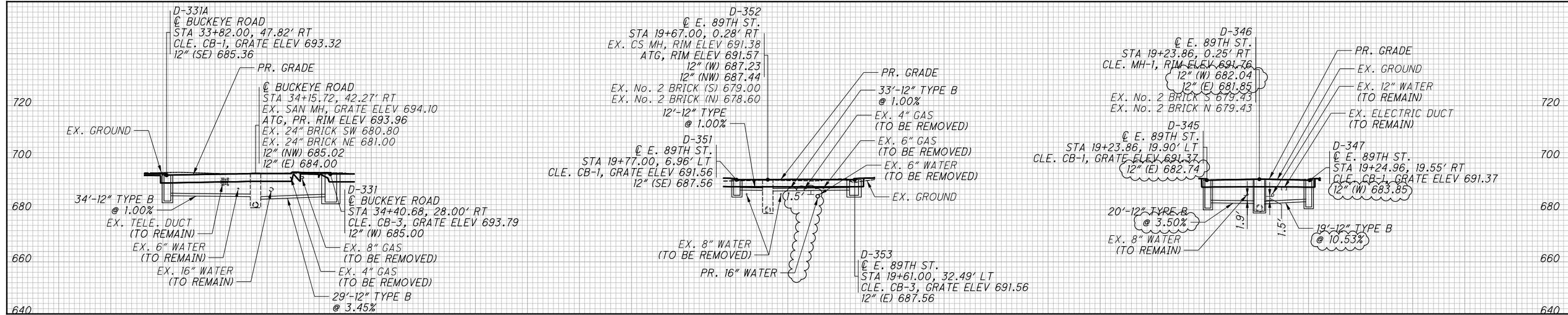
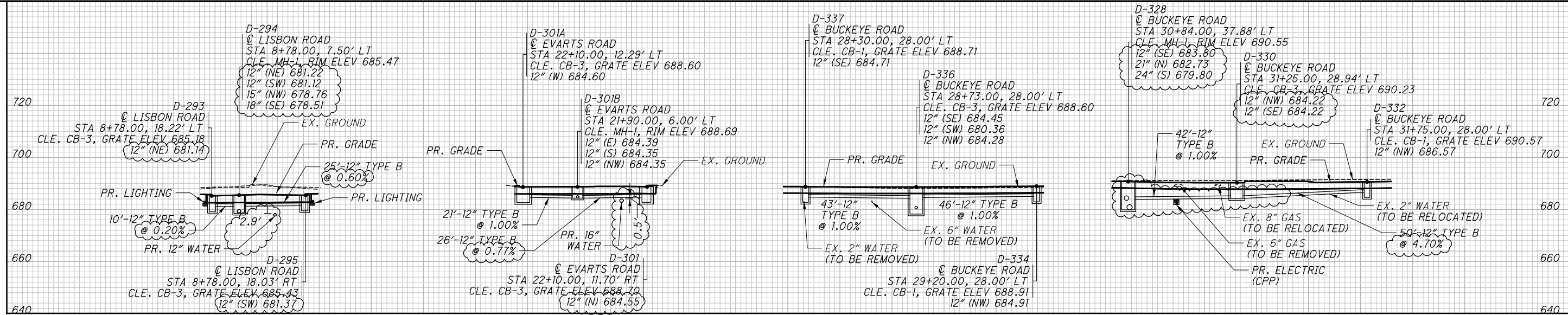
**CROSS SECTIONS - WOODLAND AVE.
STA. 37+75.00 TO STA. 38+00.00**



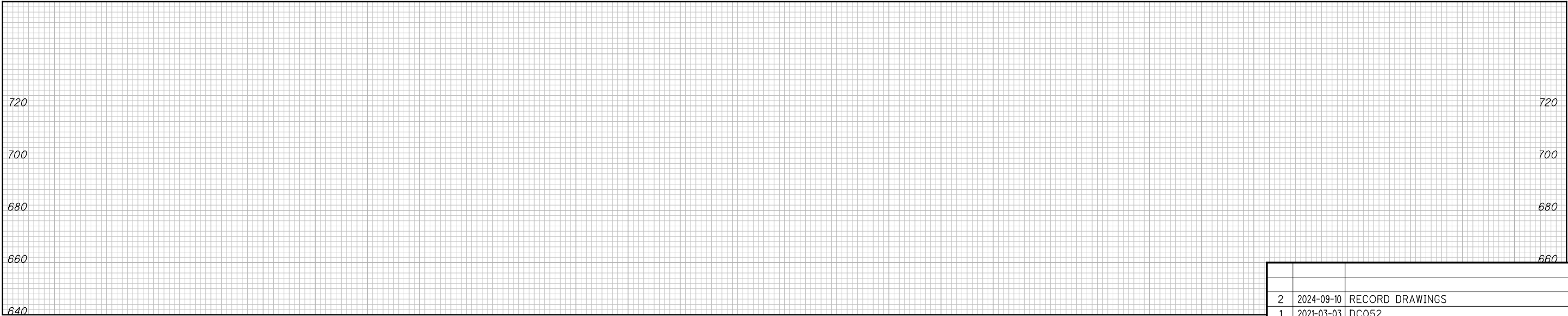
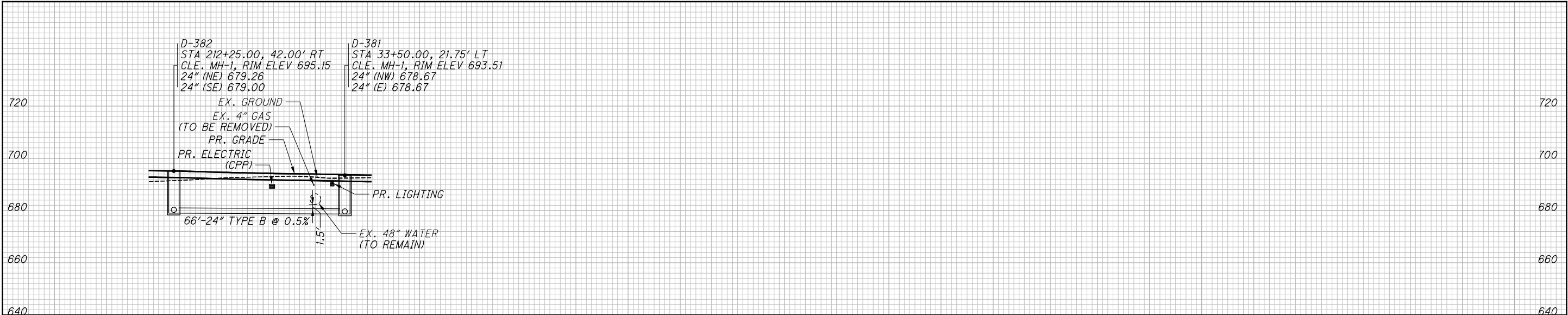
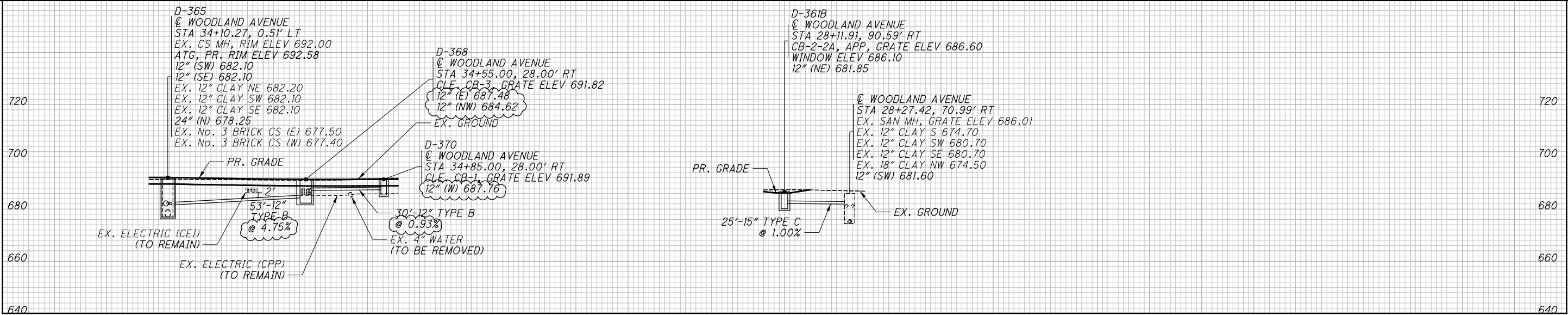
**CROSS SECTIONS - WOODLAND AVE.
STA. 38+75.00 TO STA. 39+00.00**



NO.	DATE	DESCRIPTION
2	2024-09-10	RECORD DRAWINGS
1	2021-04-09	DC055
0	2019-07-17	RFC
ISSUE RECORD		



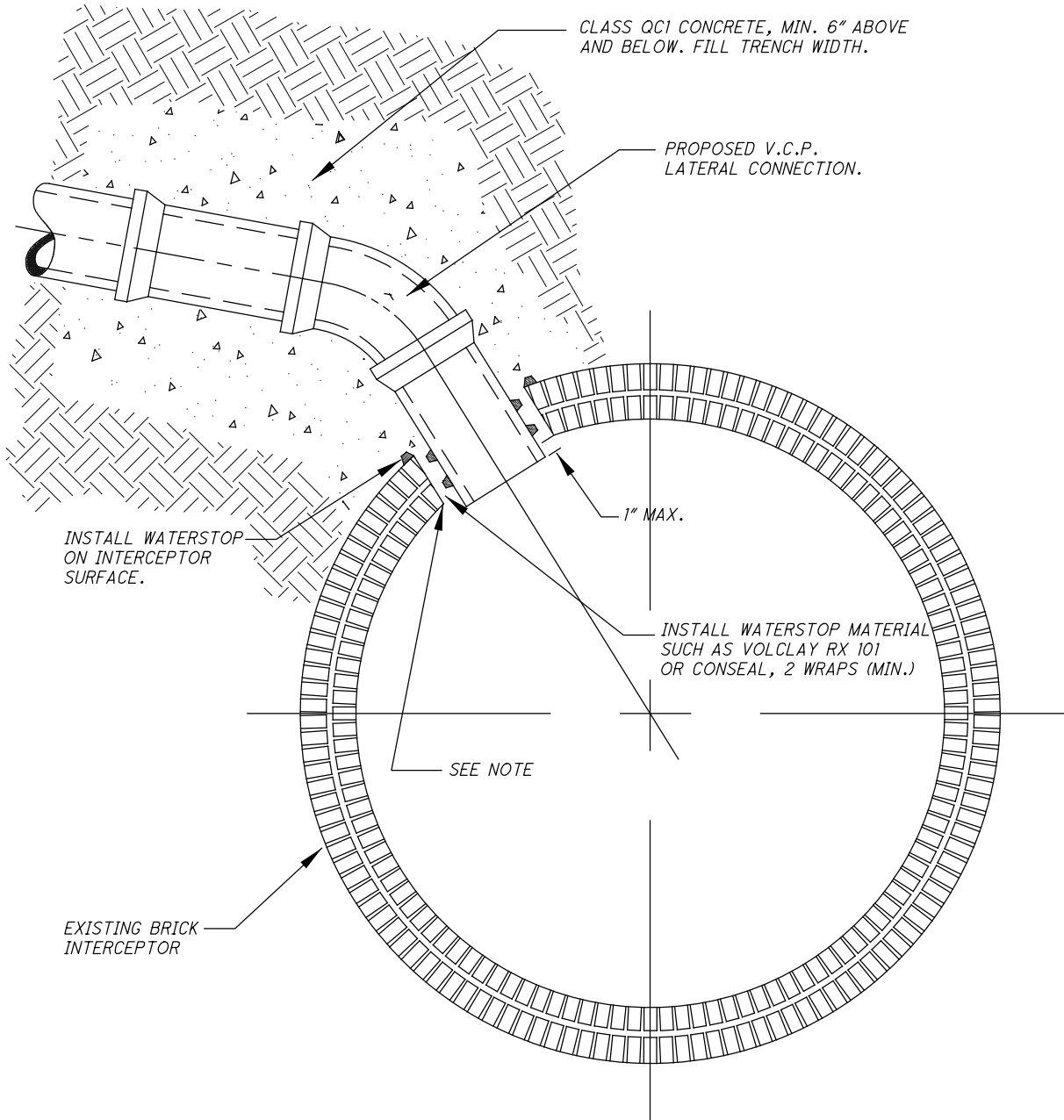
ISSUE RECORD		
NO.	DATE	DESCRIPTION
2	2024-09-10	RECORD DRAWINGS
1	2019-12-04	DCO24
0	2019-07-17	RFC



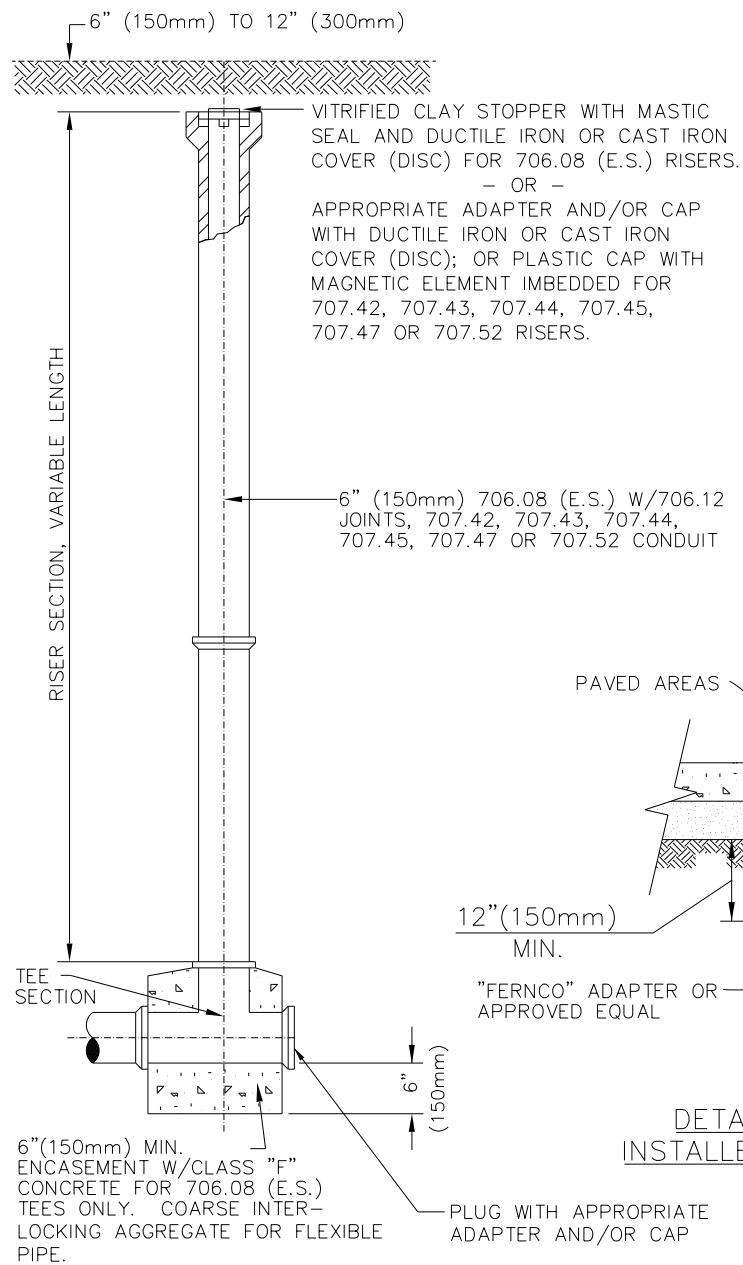
NO.	DATE	DESCRIPTION
2	2024-09-10	RECORD DRAWINGS
1	2021-03-03	DC052
0	2019-07-17	RFC
ISSUE RECORD		

NOTE:

1. CORE DRILL HOLE WITH SUFFICIENT CLEARANCE FOR LATERAL PIPE. POSITION LATERAL CONNECTION IN WALL OF THE INTERCEPTOR SUCH THAT ALL RINGS OF BRICK REMAIN SUPPORTED. THE LATERAL SHALL NOT PROTRUDE INTO THE INTERCEPTOR MORE THEN ONE (1) INCH AT ANY POINT. THE CONTRACTOR SHALL TRIM THE CONNECTION END AS NEEDED, TO MEET BOTH OF THESE REQUIREMENTS. THE ANNULAR SPACE BETWEEN THE CORED HOLE AND THE LATERAL SHALL BE COMPLETELY FILLED TO THE INSIDE FACE OF THE INTERCEPTOR, WITH NON-SHRINK HYDRAULIC CEMENT.
2. IF THE CONNECTION IS TO A REINFORCED CONCRETE OR VITRIFIED CLAY PIPE THEN THE LATERAL SHALL BE CONNECTED TO THE SEWER USING A MANUFACTURED BOOT THAT MAKE A WATERTIGHT CONNECTION. IF THE CONNECTION IS TO A BRICK SEWER THEN THE LATERAL SHALL BE CONNECTED BY WRAPPING A WATERSTOP MATERIAL SUCH AS A VOLCLAY RX101 OR EQUAL AROUND THE LATERAL, 2 WRAPS MINIMUM IN ACCORDANCE WITH THE DETAIL. IF WATERSTOP MATERIAL IS USED, THE ANNULAR SPACE BETWEEN THE SEWER WALL AND THE LATERAL SHALL BE FILLED WITH HYDRAULIC CEMENT. EITHER TYPE OF CONNECTION SHALL THEN BE ENCASED IN CONCRETE CLASS QC1.
3. CONNECTIONS SHALL BE ABOVE PIPE SPRING LINE. CONNECTIONS SHALL BE ACCOMPLISHED BY MEANS OF DEFLECTION AT THE PIPE JOINT. THIS DEFLECTION SHALL NOT EXCEED 1/2" FOR 12" CONDUIT OR 3/8" FOR 15" CONDUIT OR THE MAXIMUM ALLOWABLE DEFLECTION AS RECOMMENDED BY THE MANUFACTURER. FOR CONNECTIONS NOT ABLE TO BE MADE BY DEFLECTIONS, CONNECTIONS SHALL BE ACHIEVED BY USING RADIUS CURVE FITTINGS OF 22.5, 30, 45, OR OTHER SUITABLE FITTINGS APPROVED BY THE ENGINEER. THE FITTINGS TO BE USED SHALL BE THAT WHICH MINIMIZES THE LENGTH OF CONNECTION REPLACEMENT.
4. ALL NECESSARY BENDS, BRANCHES, COLLARS, CONCRETE ENCASEMENT SHALL BE INCLUDED IN PAYMENT FOR THE APPROPRIATE ITEM 611 - CONDUIT PAY ITEM.
5. SEE GENERAL NOTES FOR ADDITIONAL CONSTRUCTION AND COORDINATION REQUIREMENTS.



0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		



DO NOT ENCASE 707.42, 707.43, 707.44, 707.45, 707.47 OR 707.52

ITEM 604-MISC: TEST TEE

12"(300mm) X 12"(300mm) TEST TEE & 6"(150mm) RISER FOR LATERAL CONNECTIONS TO STORM SEWERS, SANITARY SEWERS AND TREATED SEPTIC FLOW OUTLETED DIRECTLY INTO STORM SEWERS (NO SCALE)

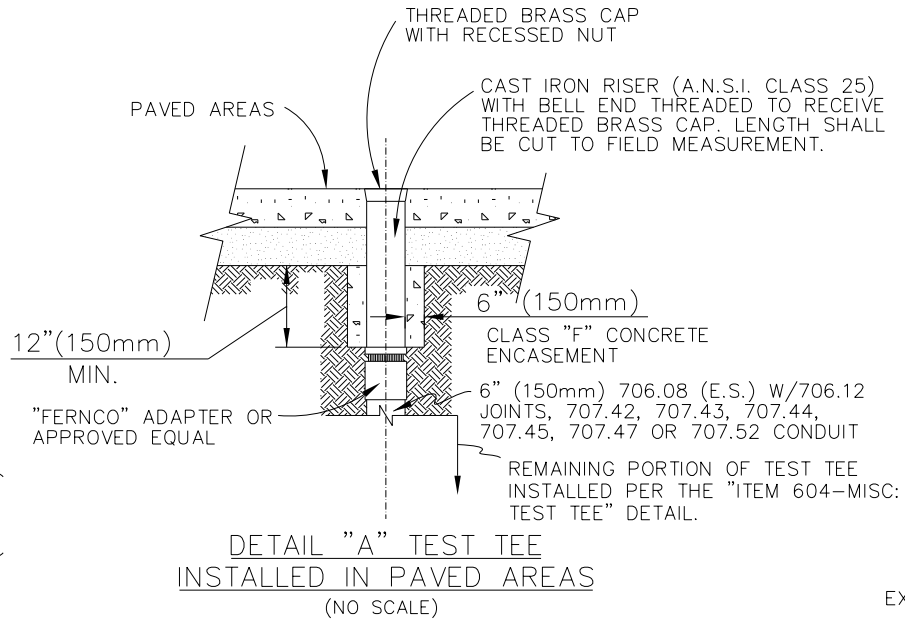
NOTES:

DUCTILE IRON OR CAST IRON COVERS (DISCS) SHALL CONFORM TO ITEM 604 AND BE PAINTED YELLOW ON SANITARY SEWER LATERALS. NEENAH NO. R-4055-6, EAST JORDAN NO. 6306 OR APPROVED EQUAL CASTINGS ARE ACCEPTABLE, PROVIDED THEY COMPLY WITH THE SPECIFICATIONS, DIMENSIONS AND EIGHT (8) POUND(3.6kg) MINIMUM WEIGHT.

THE CONTRACTOR SHALL RECORD THE LOCATION OF RISER (BY STATION AND OFFSET) IN A SUITABLE FIELDBOOK .THE FIELDBOOK SHALL BE GIVEN TO THE PROJECT ENGINEER UPON COMPLETION OF THE WORK.

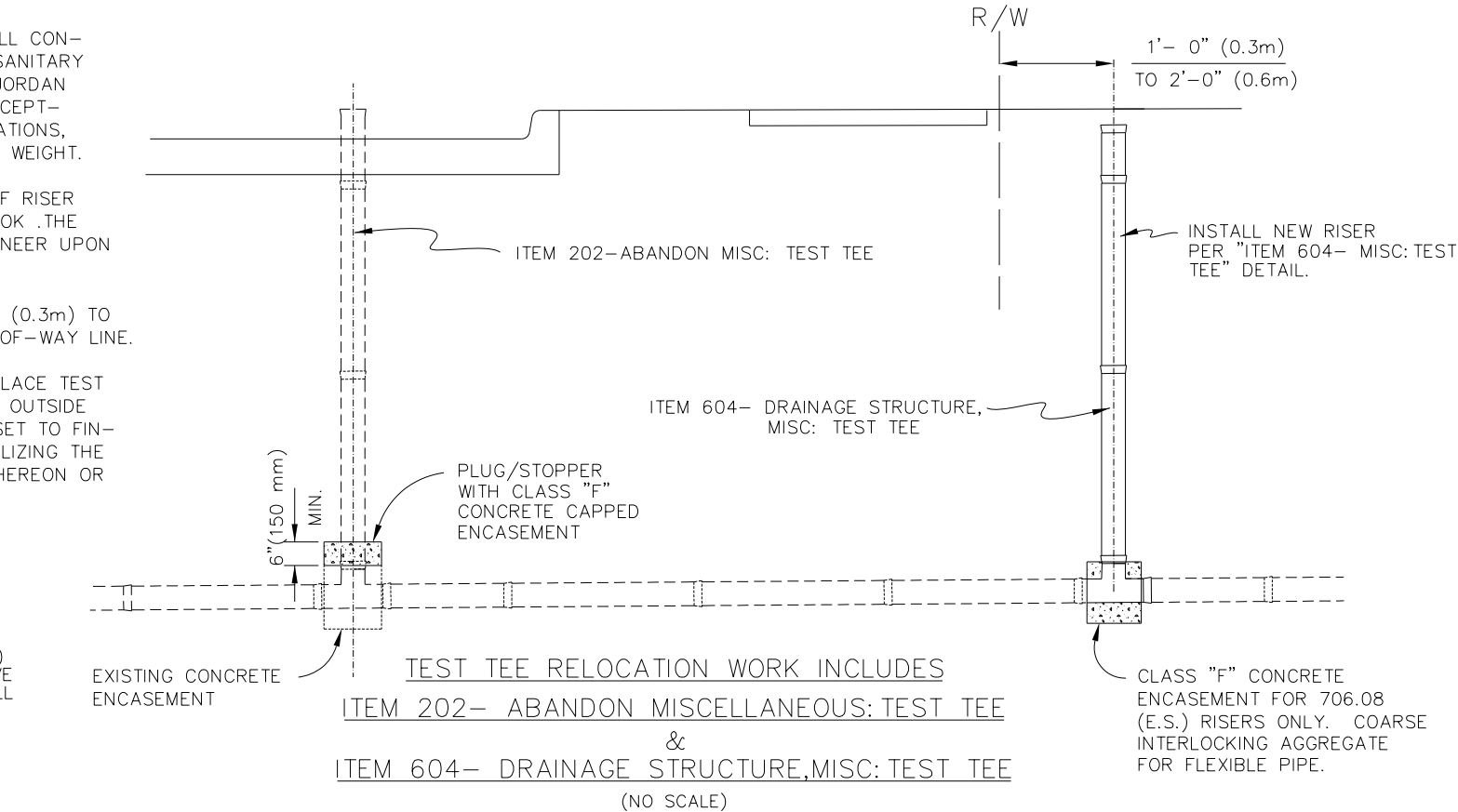
TEST TEES ARE TYPICALLY LOCATED ONE (1) FOOT (0.3m) TO TWO (2) FOOT (0.6m) BEHIND THE STREET RIGHT-OF-WAY LINE.

WHERE IT BECOMES NECESSARY TO PLACE OR REPLACE TEST TEES WITHIN PAVED AREAS (LOCATE OR RELOCATE OUTSIDE PAVED AREAS WHERE POSSIBLE) THEY SHALL BE SET TO FINISHED PAVED SURFACE GRADE PER DETAIL "A" UTILIZING THE SPECIAL FITTINGS, ADAPTERS AND CAPS SHOWN THEREON OR AS OTHERWISE APPROVED BY THE ENGINEER.



ADD OR REMOVE RISER SECTIONS AS REQUIRED. ADDITIONAL RISER SECTIONS PER "ITEM 604-MISC: TEST TEE" DETAIL.

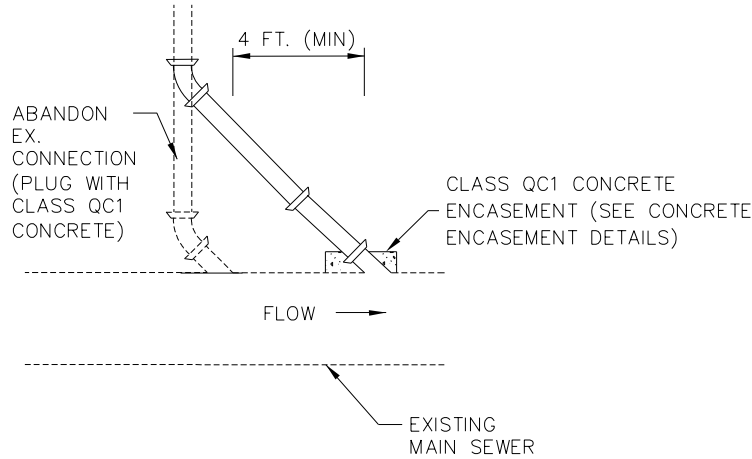
ITEM 604 - DRAINAGE STRUCTURE, MISC.: TEST TEE ADJUSTED OR RECONSTRUCTED TO GRADE (NO SCALE)



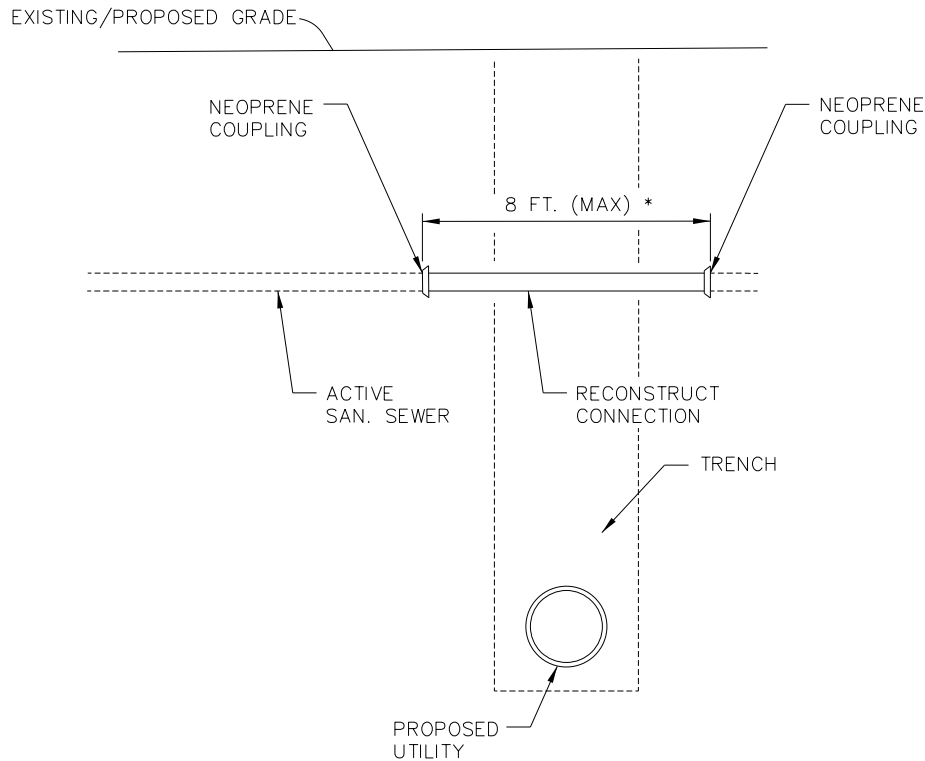
NOTES:

1. "TEST TEE" SHALL BE BE INSTALLED, ADJUSTED OR RECONSTRUCTED TO GRADE AT SUCH LOCATIONS SHOWN ON THE PLAN AND/OR AS DETERMINED BY THE ENGINEER IN THE FIELD.
2. PAYMENT FOR TEST TEE, TEST TEE ADJUSTED TO GRADE, OR TEST TEE RECONSTRUCTED TO GRADE SHALL INCLUDE EXCAVATION, PIPE REMOVED, NEW RISER PIPE, PIPE SPECIALS, CONCRETE ENCASEMENT, STOPPERS, RESTORATION OF EXISTING PIPE DISTURBED OR DAMAGED AND NATURAL AGGREGATE BACKFILL AS REQUIRED TO COMPLETE THE WORK AS SHOWN HEREON OR AS OTHERWISE DIRECTED BY THE ENGINEER.
3. TEST TEE RELOCATION WORK SHALL CONSIST OF "ITEM 202- ABANDON MISCELLANEOUS: TEST TEE" AND "ITEM 604-DRAINAGE STRUCTURE, MISC: TEST TEE" AS DIRECTED BY THE ENGINEER IN THE FIELD. PAYMENT FOR TEST TEE ABANDONED TO INCLUDE EXCAVATION, PIPE REMOVAL, PLUGGING AND ENCASEMENT OF EXISTING TEE, AND BACKFILL AS REQUIRED TO COMPLETE THE WORK AS SHOWN HEREON OR AS OTHERWISE DIRECTED BY THE ENGINEER.

NO.	DATE	DESCRIPTION
0	2019-07-17	RFC
ISSUE RECORD		

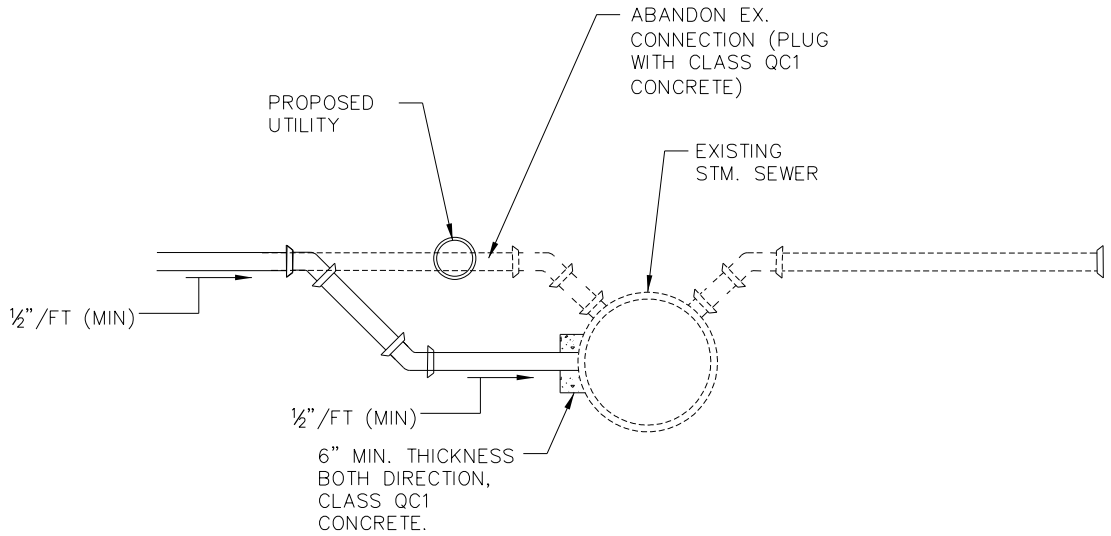


SANITARY CONNECTION LOWERING PLAN VIEW
NOT TO SCALE

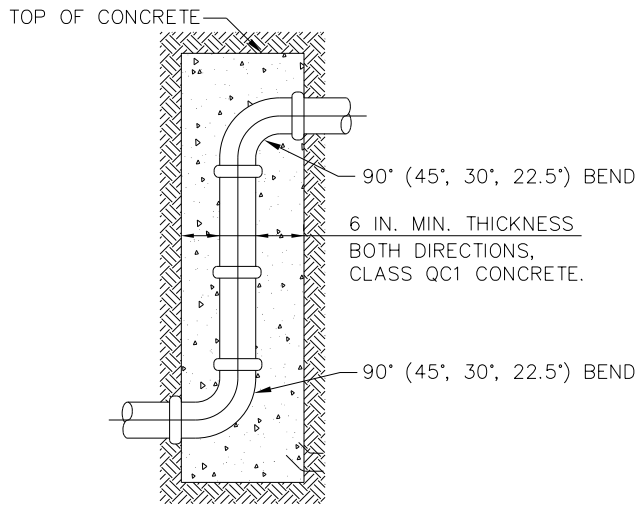


SANITARY CONNECTION TRENCH DETAIL
NOT TO SCALE

* ESTIMATED LENGTH OVER TRENCH.



SEWER CONNECTION LOWERING SECTION VIEW
NOT TO SCALE



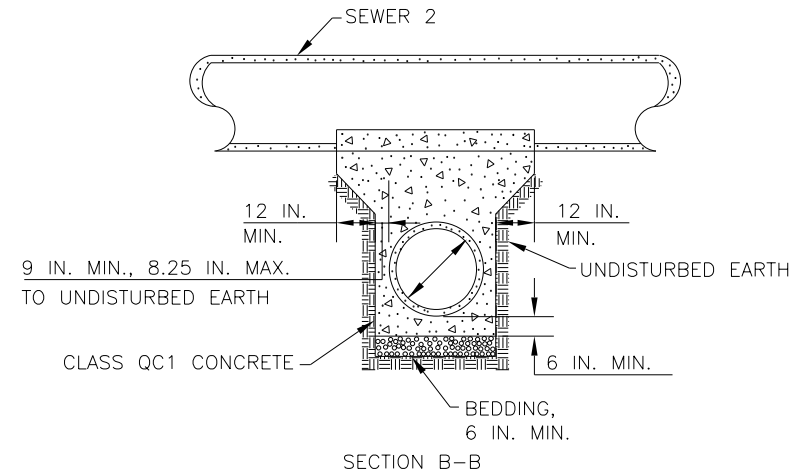
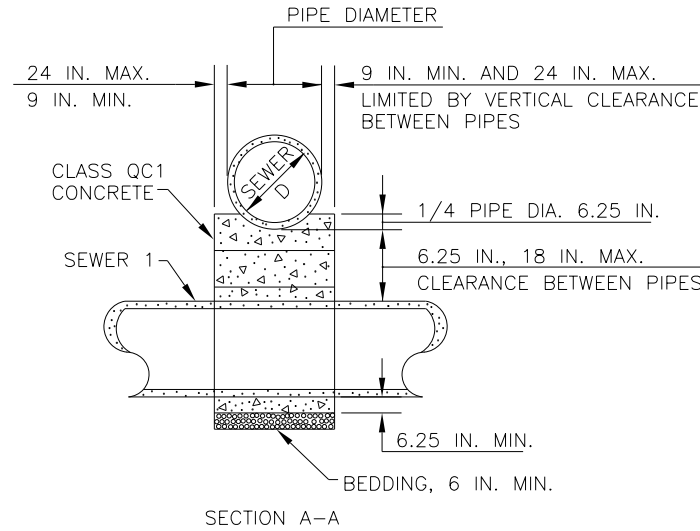
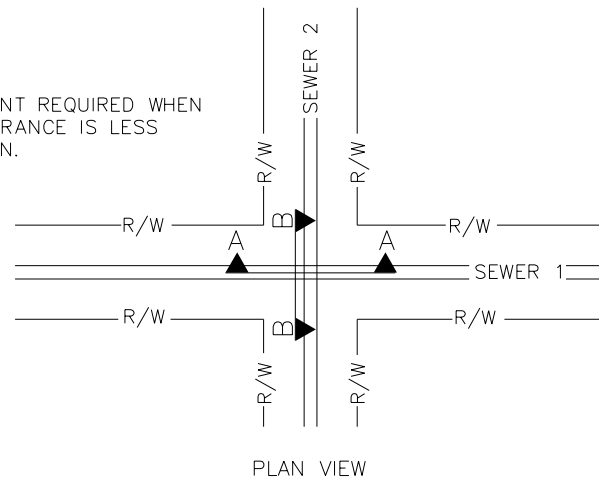
TYPICAL SEWER RISER DETAIL
NOT TO SCALE

NOTES

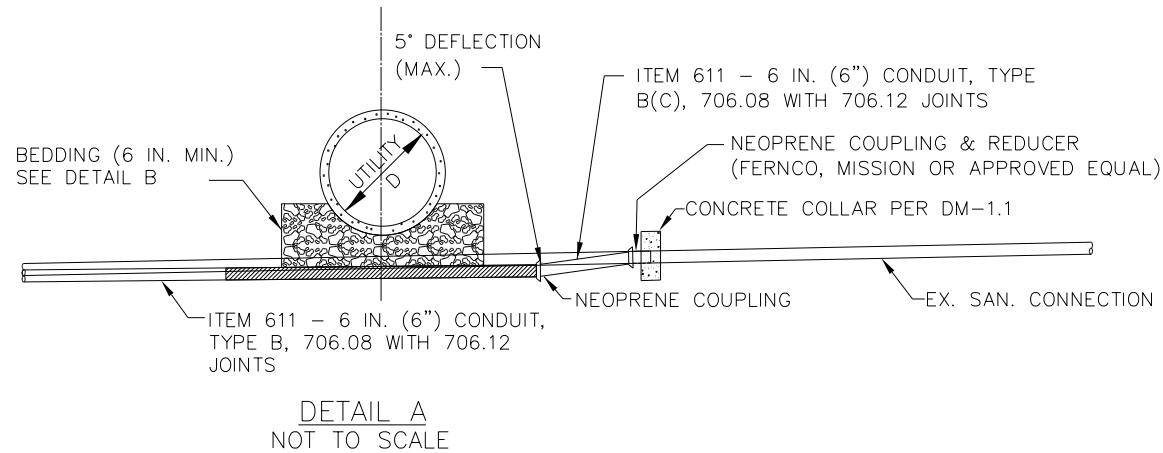
- 1.) ABANDON ALL INACTIVE STORM AND SANITARY CONNECTIONS IMPACTED BY CONSTRUCTION.
- 2.) EXISTING CONNECTIONS ARE ANTICIPATED TO RANGE FROM 5" TO 8". EXISTING 5" & 6" CONNECTIONS SHALL BE REPLACED WITH ITEM 611 - 6" CONDUIT, TYPE B(C), 706.08 WITH 706.12 JOINTS.

0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

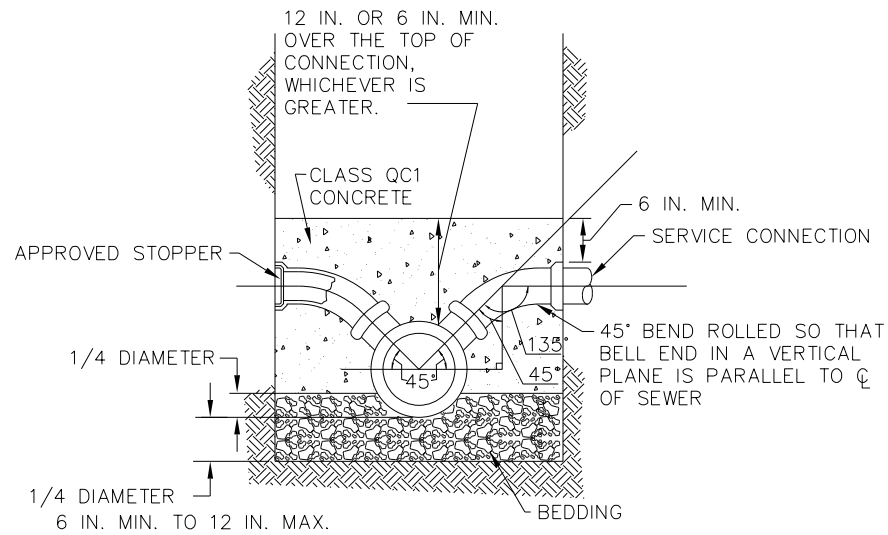
NOTE:
ENCASEMENT REQUIRED WHEN
PIPE CLEARANCE IS LESS
THAN 18 IN.



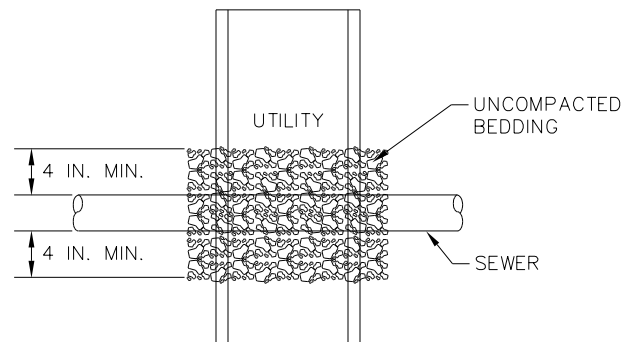
ITEM 611
STANDARD CONCRETE ENCASEMENT
(MONOLITHIC CRADLING OF UPPER PIPE)
NOT TO SCALE



DETAIL A
NOT TO SCALE



TYPICAL SEWER Y BRANCH DETAIL
NOT TO SCALE

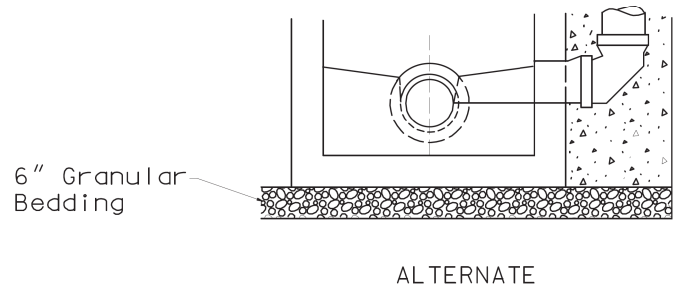


DETAIL B
NOT TO SCALE

NOTES:

1. EXISTING SEWER CONNECTION SHALL ONLY BE LOWERED IF FOUND TO BE IN CONFLICT WITH THE PROPOSED CONDUIT. SEE SEWER CONNECTION LOWERING DETAILS FOR NECESSARY VERTICAL RELOCATIONS WHICH ARE GREATER IN DEPTH THAN 18.5 IN.
2. FOR VERTICAL RELOCATIONS LESS THAN 4.5 IN., THE LOWERING SHALL BE ACCOMPLISHED BY MEANS OF A DEFLECTION AT THE PIPE JOINT. THIS DEFLECTION SHALL NOT EXCEED 5° OR THE MAXIMUM ALLOWABLE DEFLECTION AS RECOMMENDED BY THE MANUFACTURER. SEE DETAIL A.
3. FOR VERTICAL RELOCATIONS BETWEEN 4.5 IN. AND 18.5 IN. SHALL BE ACHIEVED BY USING SHORT RADIUS CURVE FITTINGS OF 22.5°, 30°, 45°, OR OTHER SUITABLE FITTINGS APPROVED BY THE ENGINEER. THE FITTINGS TO BE USED SHALL BE THAT WHICH MINIMIZES THE LENGTH OF SEWER CONNECTION REPLACEMENT.
4. TEE CONNECTIONS SHALL BE MADE AT AN ELEVATION ABOVE THE SPRING LINE OF THE LONGITUDINAL SEWER, WHERE POSSIBLE.
5. ALL NECESSARY BENDS, BRANCHES, COLLARS, FITTINGS, TEES, CONCRETE ENCASEMENTS, COUPLINGS, AND REDUCERS SHALL BE INCLUDED IN PAYMENT FOR THE APPROPRIATE ITEM 611 - CONDUIT PAY ITEM.

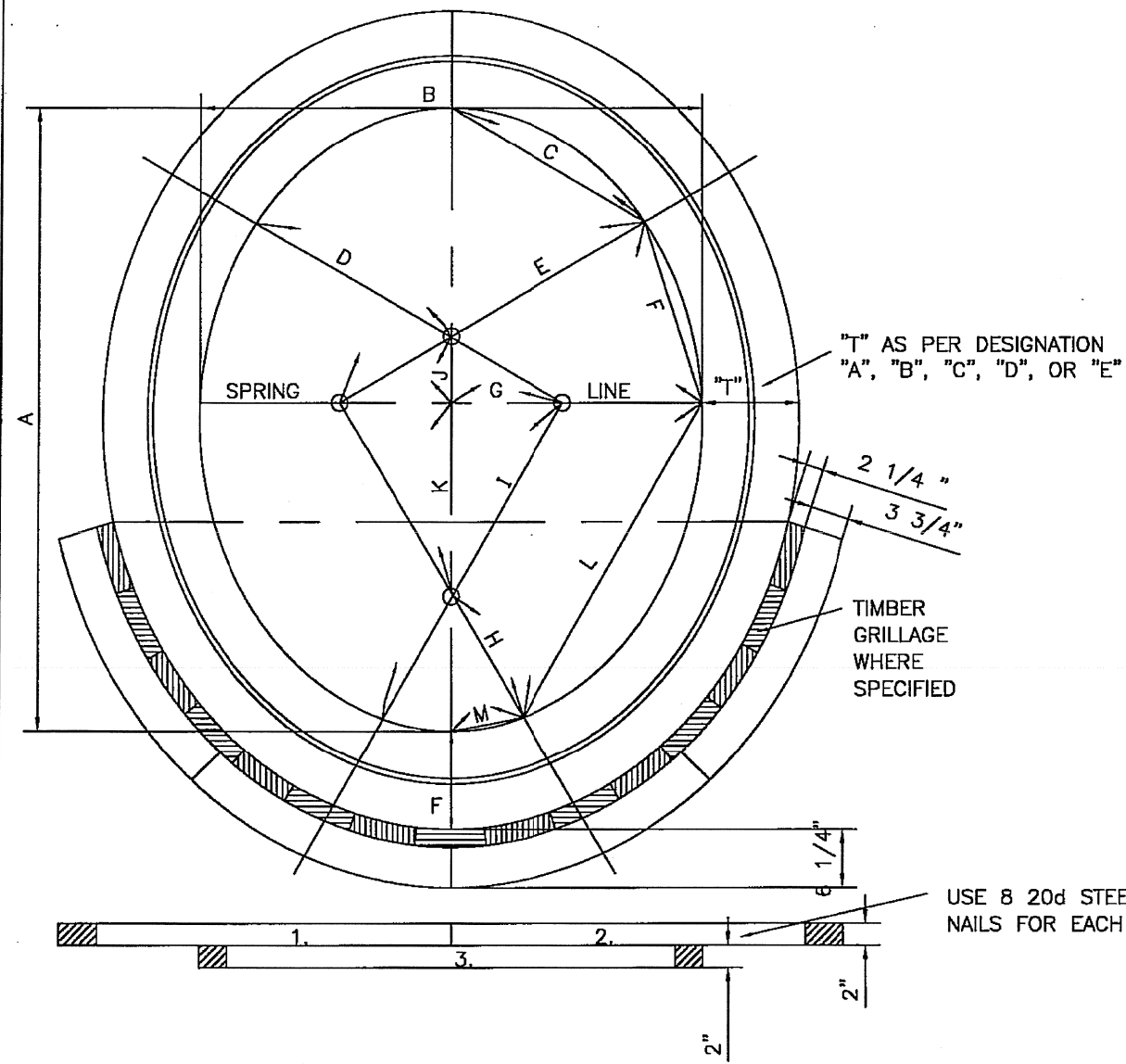
0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		



PRECAST CONCRETE
DROP MANHOLE

Sheet No. 6/27

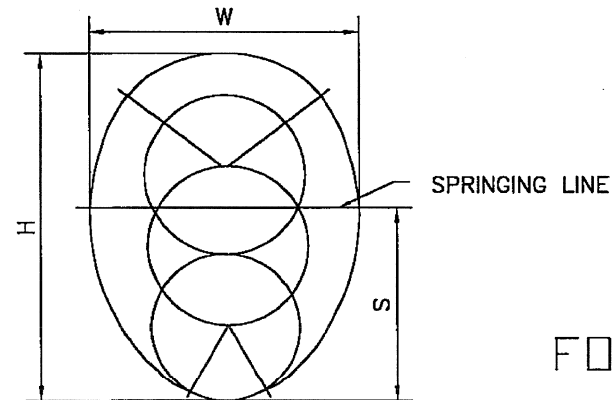
0	2019-07-17	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		



EGG SHAPED SEWERS					NO.	H FEET	W FEET	S FEET	AREA SQ. FT.	NO.	H FEET	W FEET	S FEET	AREA SQ. FT.
NO.	H FEET	W FEET	S FEET	AREA SQ. FT.	8	5.12	4.04	2.71	16.00	15	7.79	6.14	4.12	36.99
2	2.25	1.94	1.28	3.41	9	5.54	4.37	2.93	18.72	16	8.13	6.41	4.30	40.32
3	2.75	2.23	1.64	4.75	10	5.94	4.69	3.14	21.54	17	8.47	6.68	4.47	43.71
4	3.23	2.54	1.70	6.35	11	6.33	4.99	3.35	24.46	18	8.79	6.94	4.65	47.17
5	3.74	2.95	1.98	8.55	12	6.71	5.29	3.55	27.47	19	9.12	7.19	4.82	50.70
6	4.23	3.34	2.23	10.90	13	7.08	5.58	3.74	30.57	20	9.43	7.44	4.98	54.29
7	4.69	3.70	2.48	13.39	14	7.44	5.87	3.93	33.74					

TYPES OF EGG SHAPED SEWERS

- "A"—1 RING OF BRICK ALL AROUND.
- "B"—1 RING OF BRICK ALL AROUND & 1 RING EXTRA ON ARCH.
- "C"—2 RINGS OF BRICK ALL AROUND .
- "D"—2 RINGS OF BRICK ALL AROUND & 1 RING EXTRA ON ARCH.
- "E"—3 RINGS OF BRICK ALL AROUND.

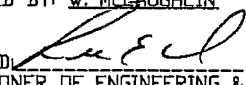


FOR RECORD ONLY

TABULAR DIMENSIONS FOR EGG SHAPED SEWERS NO.2 TO NO. 8													
NO.	A	B	C	D	E	F	G	H	I	J	K	L	M
2	2'-3"	1'-11 1/4"					6 3/8"	9"	1'-6"		6 3/8"		
3	2'-9"	2'-2 3/4"					10 5/8"	9"	2'-0"		10 5/8"		
4	3'-2 3/4"	2'-6 5/8"	1'-2 1/8"	1'-2 1/8"	1'-10 1/2"	11 1/2"	7 3/16"	8 1/8"	1'-10 1/2"	4 1/16"	12 3/16"	1'-10 1/2"	4 1/4"
5	3'-9"	2'-11 3/8"	1'-4 3/8"	1'-4 3/8"	2'-1 7/8"	1'-1 3/8"	8 3/16"	9 1/2"	2'-1 7/8"	4 3/4"	1'-2 1/4"	2'-1 7/8"	4 7/8"
6	4'-2 3/4"	3'-4"	1'-6 1/2"	1'-6 1/2"	2'-5 1/4"	1'-3 1/8"	9 1/4"	10 3/4"	2'-5 1/4"	5 3/8"	1'-4 1/8"	2'-5 1/4"	5 1/2"
7	4'-8 1/4"	3'-8 3/8"	1'-8 1/2"	1'-8 1/2"	2'-8 1/2"	1'-4 3/4"	10 5/16"	11 7/8"	2'-8 1/2"	5 15/16"	1'-5 13/16"	2'-8 1/2"	6 1/8"
8	5'-1 1/2"	4'-0 1/2"	1'-10 1/2"	1'-10 1/2"	2'-11 1/2"	1'-6 1/4"	11 1/4"	1'-1"	2'-11 1/2"	6 1/2"	1'-7 1/2"	2'-11 1/2"	6 3/4"

CITY OF CLEVELAND

DEPARTMENT OF PUBLIC SERVICE
DIVISION OF ENGINEERING & CONSTRUCTION
JOMARIE WASIK-DIRECTOR OF PUBLIC SERVICE
STANDARD CONSTRUCTION DRAWING
STANDARD PLAN FOR EGG SHAPED SEWERS
DIMENSIONS & AREAS
NOT TO SCALE

DRAWN BY: R. PLIODZINSKAS DATE: 4/8/08
SUBMITTED BY: W. McLAUGHLIN DATE: 4/8/08
APPROVED:  DATE: 7-8-08
COMMISSIONER OF ENGINEERING & CONSTRUCTION

FILE NO. 73M 24

NO.	DATE	DESCRIPTION
0	2019-07-17	RFC
ISSUE RECORD		



Submittal Package #173408

Independence Excavating

ODOT 173000-OC3

Cleveland, Ohio

June 3, 2020

SUBMITTAL FOR:

BU-13

Manholes & Catch Basins

**D-300, D-301, D-301A, D-301B, D-302,
D-303, D-306, D-308, D-309, D-311**

**RALPH HASTINGS
LINDSAY PRECAST
PO BOX 578
6845 ERIE AVE. N.W.
CANAL FULTON, OHIO 44614
1-800-837-7788**

Ph: 440 543-5468

Fax: 440 543-1152

Mobile: 440 336-4162

Email: rhastings@lindsayprecast.com

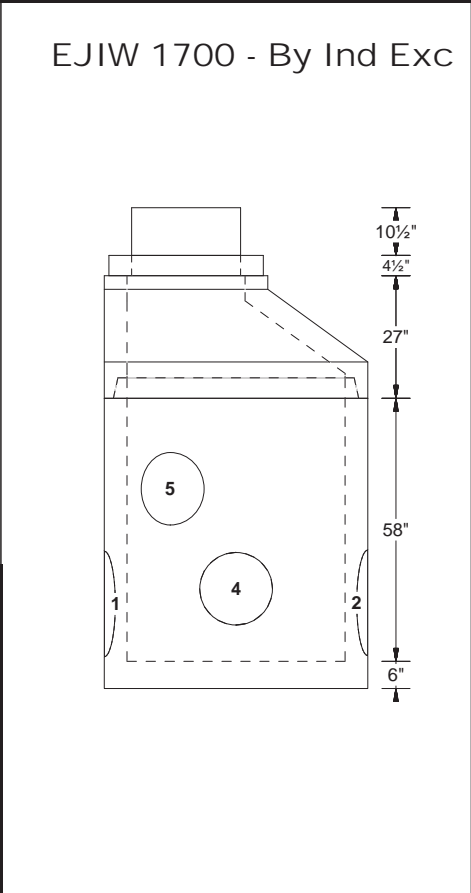
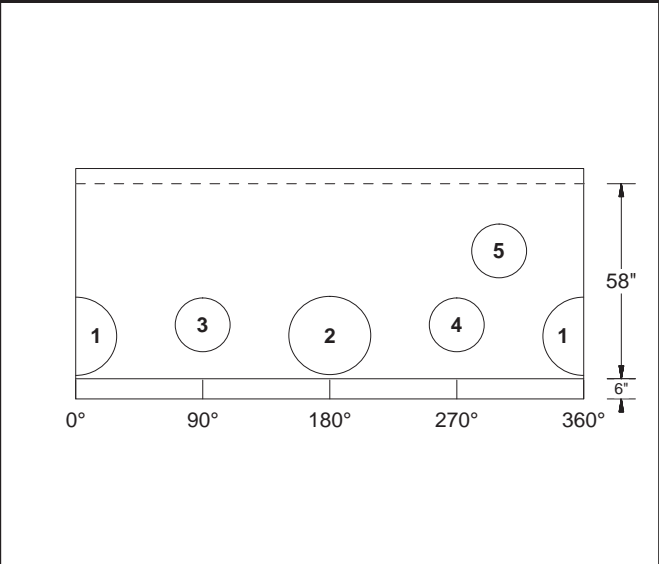
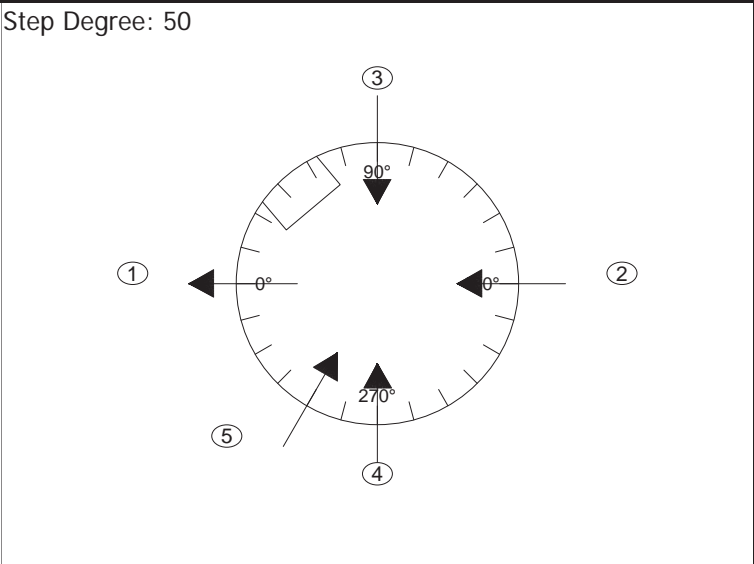
Web : www.lindsayconcrete.com

Customer:	INDEPENDENCE EXCAVATING, INC.
Job Name:	ODOT 173000 - Opp Corridor Ph 3
Job #:	173408
Structure ID:	D-302 BU-13
Station:	June 3, 2020
Type:	Cleveland Division of Water Pollution
SalesPerson:	Control 48"Ø Ralph Hastings
Rim:	690.35'
Invert:	682.33'
Rim to Invert:	8.02'
Sump:	0.31'

Description	UOM	Quantity	Weight
Stock 48"Ø X 27" Eccentric Cone	EA	1	1860
48"Ø Non Extended 6" Manhole Base x 58" Tall	EA	1	4931
A-Lok XC-480	EA	3	0
A-Lok AP-710 Premium	EA	2	0
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PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	682.33	-0.5	0	18" - VCP LOGAN	710 A-LOK
(2)	682.33	0.5	180	18" - VCP LOGAN	710 A-LOK
(3)	682.83	1	90	12" - VCP LOGAN	480 A-LOK
(4)	682.83	1	270	12" - VCP LOGAN	480 A-LOK
(5)	684.67	1	300	12" - VCP LOGAN	480 A-LOK

	<div>A-Lok XC-480</div> <div>A-Lok AP-710 Premium</div>	06/03/2020
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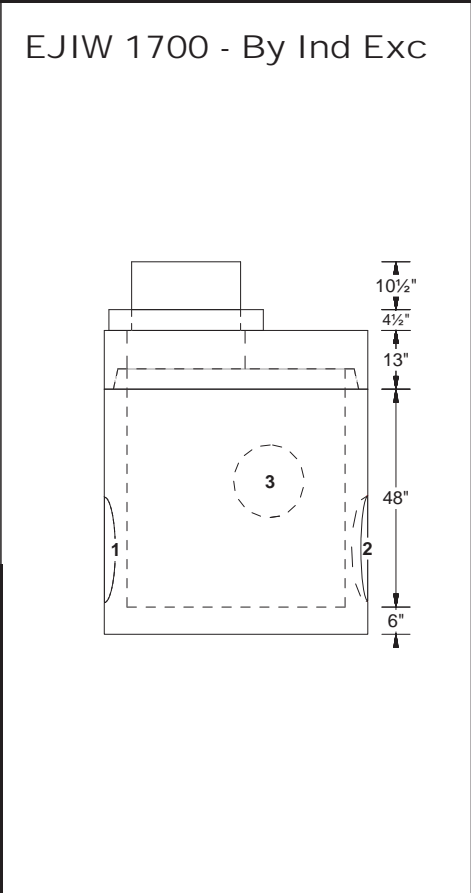
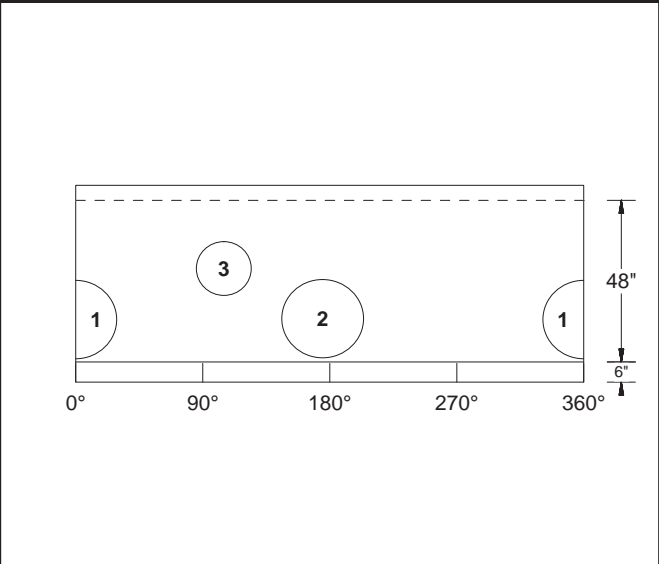
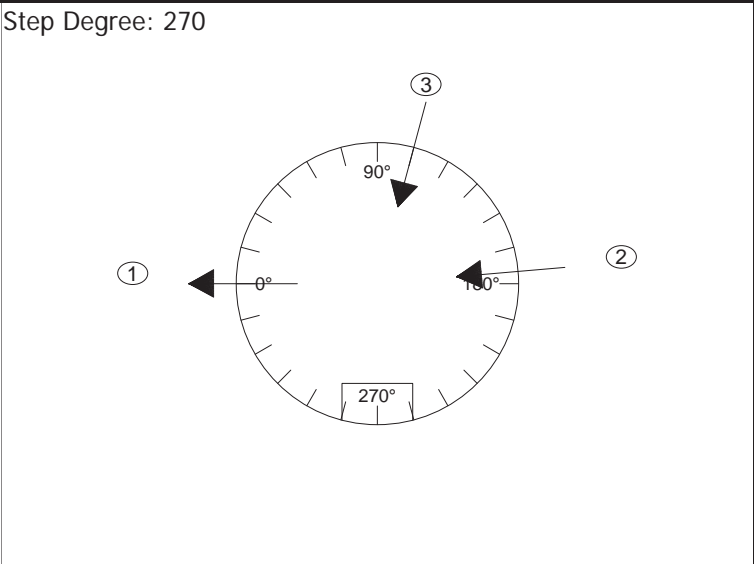
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-308 BU-13
Station: June 3, 2020
Type: Cleveland Division of Water Pollution
SalesPerson: Control 48"Ø
Ralph Hastings

Rim: 689.75'
Invert: 683.72'
Rim to Invert: 6.03'
Sump: 0.31'

Description	UOM	Quantity	Weight
Stock 48"Ø Flat Top W/ 26"Ø Hole	EA	1	1185
48"Ø Non Extended 6" Manhole Base X 48" Tall	EA	1	4382
A-Lok XC-480	EA	1	0
A-Lok AP-710 Premium	EA	2	0
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PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	683.72	-0.5	0	18" - VCP LOGAN	710 A-LOK
(2)	683.72	0.5	175	18" - VCP LOGAN	710 A-LOK
(3)	685.2	1	105	12" - VCP LOGAN	480 A-LOK
<div> <div>A-Lok XC-480</div> <div>A-Lok AP-710 Premium</div> </div>					
06/03/2020					

Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-311 BU-13
Station: June 3, 2020
Type: Cleveland Division of Water Pollution
SalesPerson: Control 48"Ø
Ralph Hastings

Rim: 689.76'
Invert: 683.82'
Rim to Invert: 5.94'
Sump: 0.31'

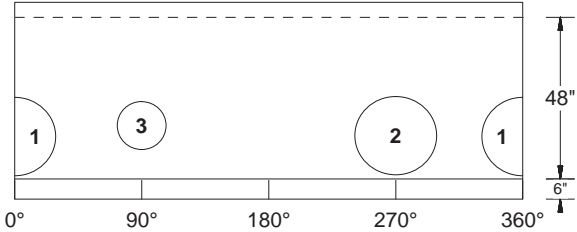
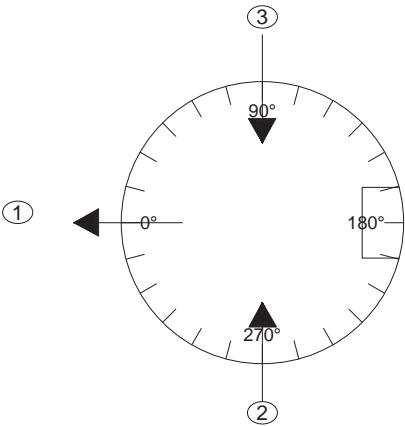
Description	UOM	Quantity	Weight
Stock 48"Ø Flat Top W/ 26"Ø Hole	EA	1	1185
48"Ø Non Extended 6" Manhole Base X 48" Tall	EA	1	4400
A-Lok XC-425	EA	1	0
A-Lok AP-710 Premium	EA	2	0

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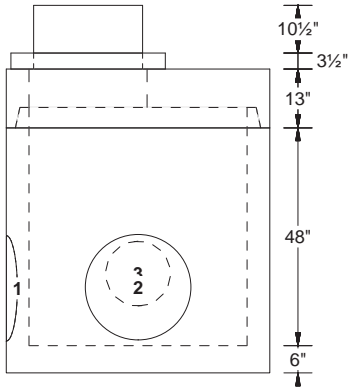


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Step Degree: 180



EJIW 1700 - By Ind Exc



PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	683.82	-0.5	0	18" - VCP LOGAN	710 A-LOK
(2)	683.82	0.5	270	18" - VCP LOGAN	710 A-LOK
(3)	684.32	1	90	12" - DIP	425 A-LOK

> NOTE: For the 12"Ø Service Line - Plan Page 10 has them notated as 706.08 (Vitrified Clay Pipe). Plan Page 57 has them notated as DIP (Ductile Iron Pipe). Please advise which is correct. <

A-Lok XC-425
A-Lok AP-710 Premium

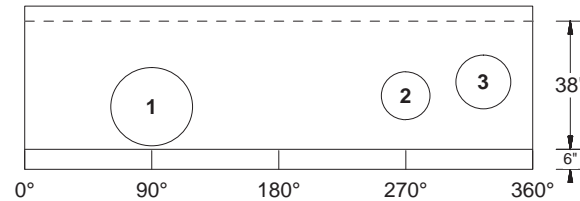
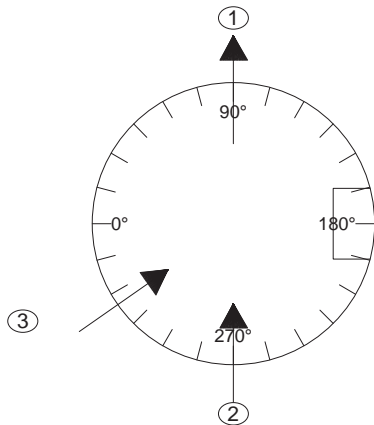
06/03/2020

Rim:	689.22'
Invert:	684.10'
Rim to Invert:	5.12'
Sump:	0.31'

Description	UOM	Quantity	Weight
Stock 48"Ø Flat Top W/ 26"Ø Hole	EA	1	1185
48"Ø Non Extended 6" Manhole Base X 38" Tall	EA	1	3778
A-Lok XC-425	EA	1	0
A-Lok XC-480	EA	1	0
A-Lok AP-710 Premium	EA	1	0



Step Degree: 180



Technical drawing of a rectangular box with dimensions and labels. The box is shown in a perspective view. The dimensions are indicated by arrows and numbers on the right side: the total height is 38", the height of the main body is 13", the height of the lid is 10 1/2", and the height of the base is 6". The width of the box is 3 3/4". The box has a lid with a handle. The lid is labeled with a circled '3' and the main body is labeled with a circled '2'.

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	684.1	-0.51	90	18" - VCP LOGAN	710 A-LOK
(2)	684.6	1	270	12" - DIP	425 A-LOK
(3)	684.94	1	325	12" - VCP LOGAN	480 A-LOK

A-Lok XC-425
A-Lok XC-480
A-Lok AP-710 Premium

06/03/2020

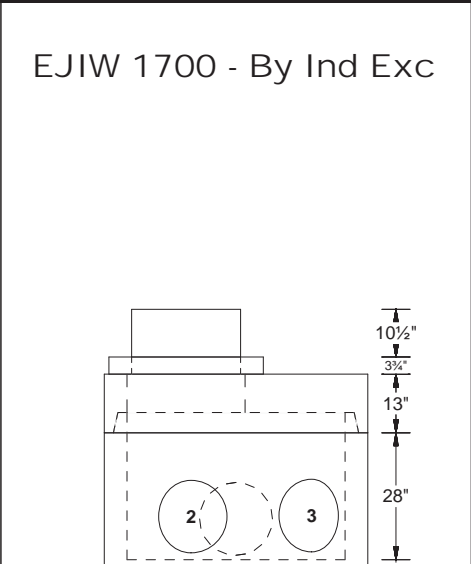
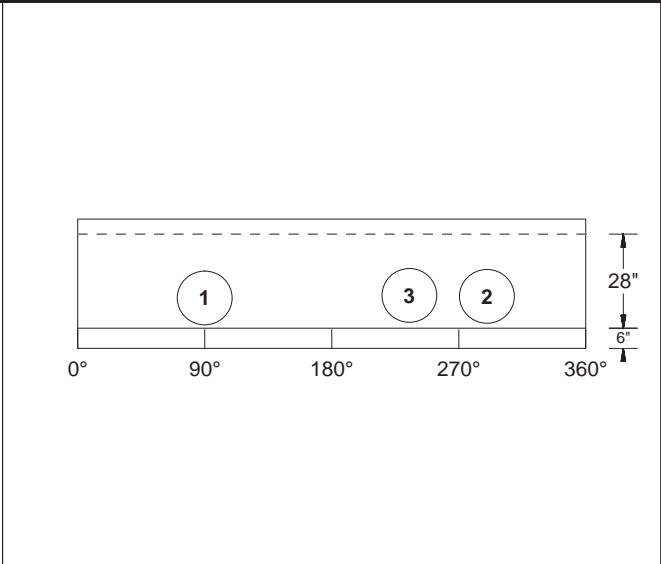
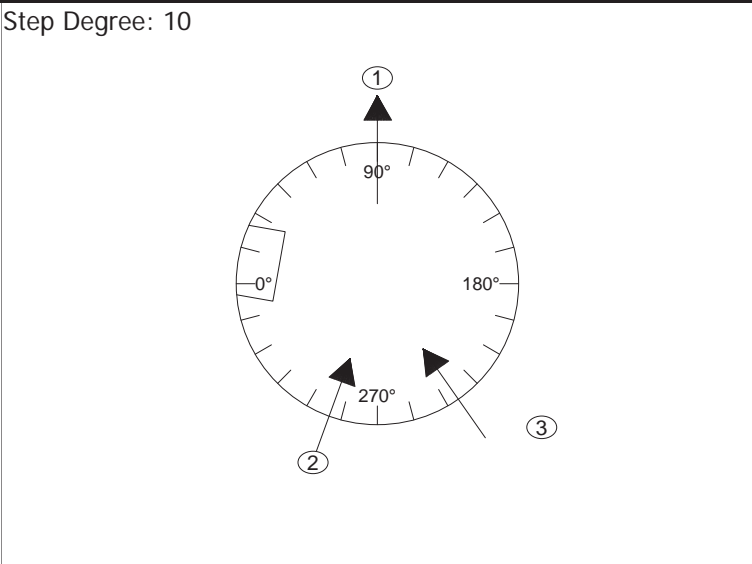
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-301B BU-13
Station: June 3, 2020
Type: Cleveland Division of Water Pollution
SalesPerson: Control 48"Ø
Ralph Hastings

Rim: 688.69'
Invert: 684.35'
Rim to Invert: 4.34'
Sump: 0.26'

Description	UOM	Quantity	Weight
Stock 48"Ø Flat Top W/ 26"Ø Hole	EA	1	1185
48"Ø Non Extended 6" Manhole Base X 28" Tall	EA	1	3139
A-Lok XC-480	EA	3	0



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PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	684.35	-0.58	90	12" - VCP LOGAN	480 A-LOK
(2)	684.35	1.35	290	12" - VCP LOGAN	480 A-LOK
(3)	684.39	1	235	12" - VCP LOGAN	480 A-LOK

				A-Lok XC-480	06/03/2020

Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-301, Pc A BU-13
Station: June 3, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

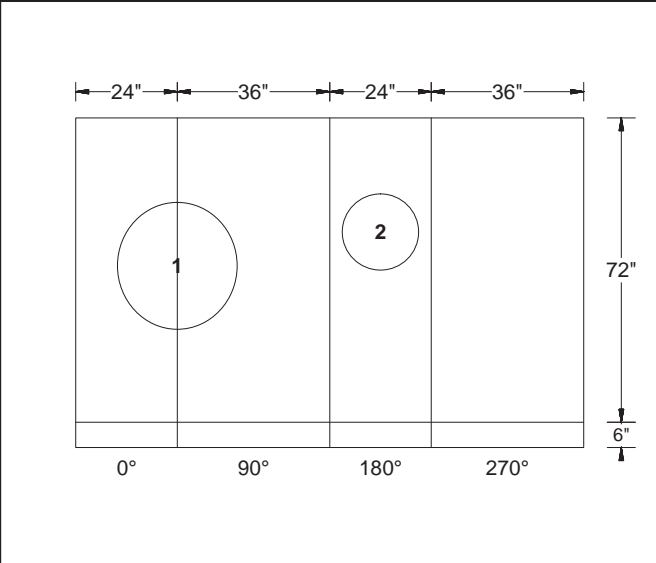
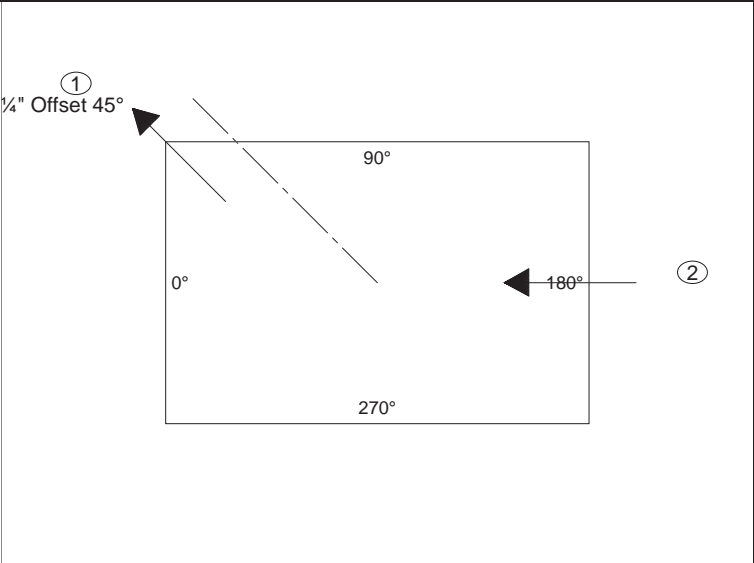
Rim: 688.70'
Invert: 684.70'
Rim to Invert: 4.00'
Sump: 3.00'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	5912
Hole in Flat Wall Structure	EA	1	0
Corner Hole in Structure for Pipe	EA	1	0

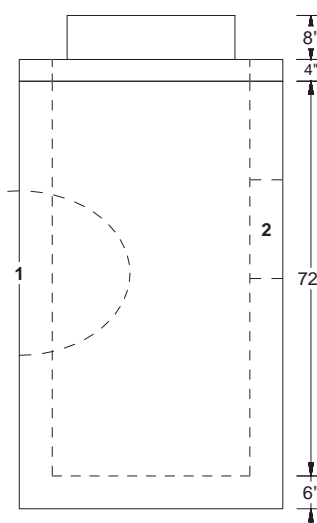
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EJIW 7035 - By Ind Exc



EJIW 5964-12 trap
- by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	684.7	0	45	EJIW 5964-12	20"W X 30"T CORNER
(2)	684.95	0	180	12" - VCP LOGAN	18"Ø FW

> No Curb Drain <

Hole in Flat Wall Structure Corner Hole in Structure for Pipe	06/03/2020
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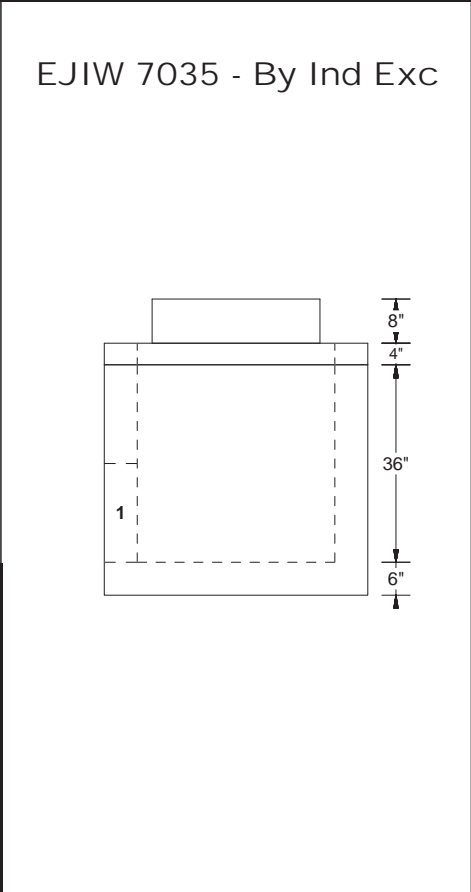
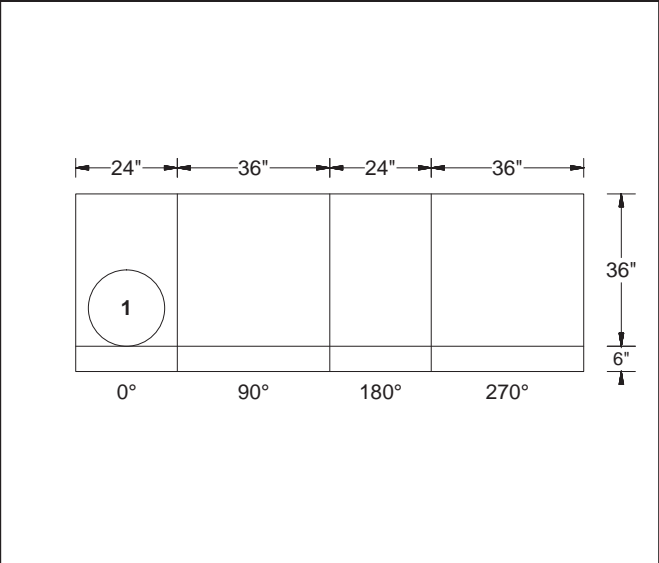
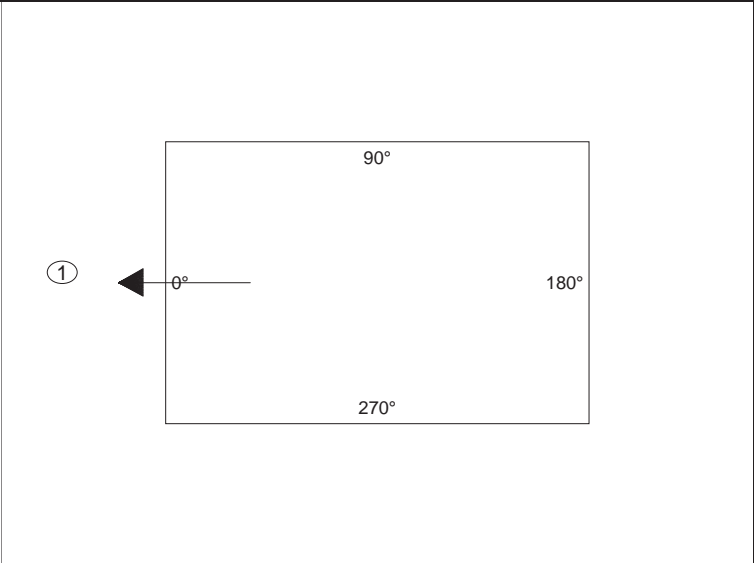
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-301, Pc B BU-13
Station: June 3, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 688.70'
Invert: 684.95'
Rim to Invert: 3.75'
Sump: 0.25'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 36" Tall	EA	1	3465
Hole in Flat Wall Structure	EA	1	0
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PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	684.95	0	0	12" - VCP LOGAN	18"Ø FW

> No Curb Drain <

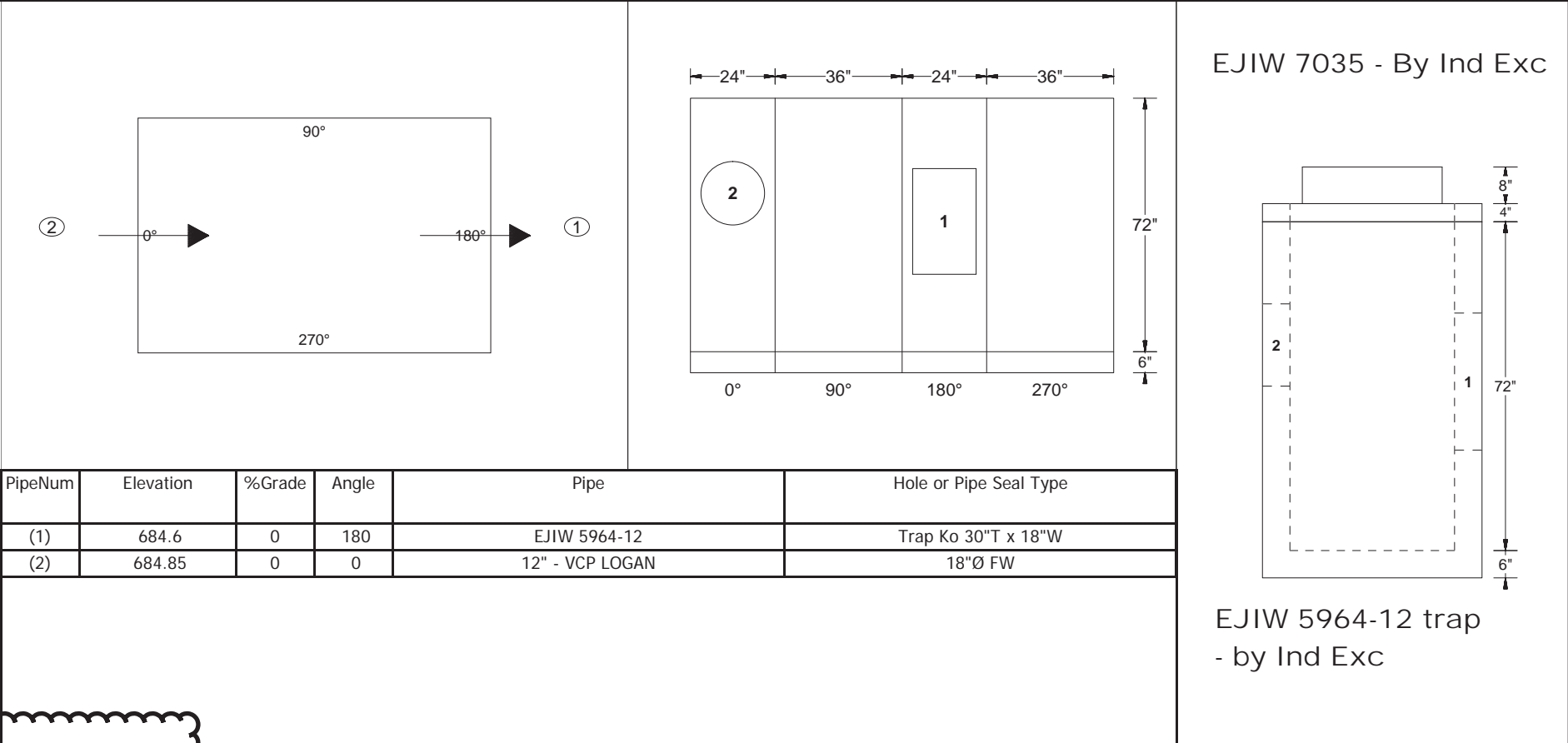
Hole in Flat Wall Structure

06/03/2020

Customer: INDEPENDENCE EXCAVATING, INC. Job Name: ODOT 173000 - Opp Corridor Ph 3 Job #: 173408 Structure ID: D-301A, Pc A BU-13 Station: June 3, 2020 Type: City of Cleveland Curb Inlet SalesPerson: Ralph Hastings	Description	UOM	Quantity	Weight
	24" X 36" Catch Basin Base X 72" Tall	EA	1	5939
	Hole in Flat Wall Structure	EA	1	0
Rim: 688.60' Invert: 684.60' Rim to Invert: 4.00' Sump: 3.00'	Reviewed - IX 6/5/20 PE JP Sorma			



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PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	684.6	0	180	EJIW 5964-12	Trap Ko 30"T x 18"W
(2)	684.85	0	0	12" - VCP LOGAN	18"Ø FW

EJIW 7035 - By Ind Exc

EJIW 5964-12 trap
- by Ind Exc

> No Curb Drain <	Hole in Flat Wall Structure	06/03/2020
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Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-301A, Pc B BU-13
Station: June 3, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

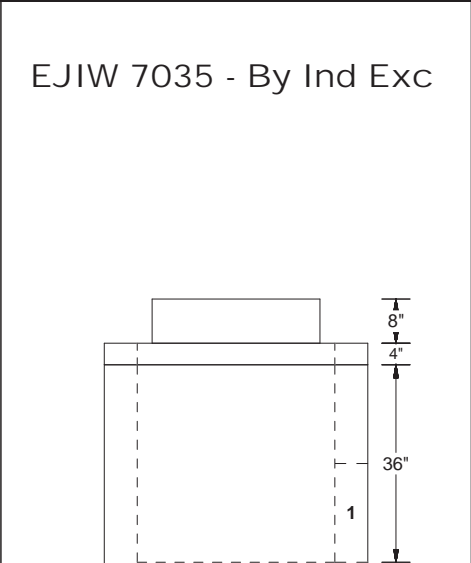
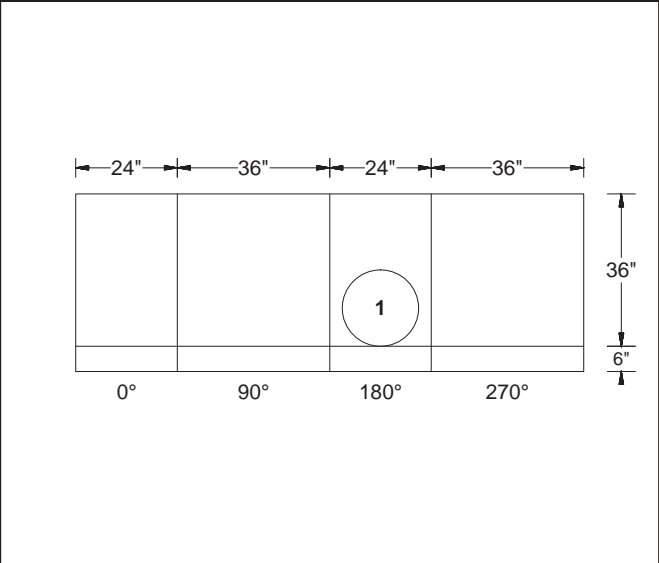
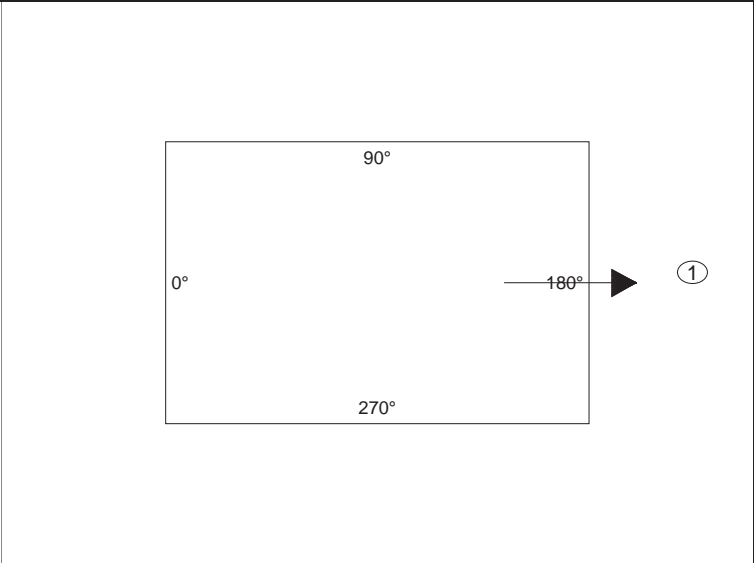
Rim: 688.60'
Invert: 684.85'
Rim to Invert: 3.75'
Sump: 0.25'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 36" Tall	EA	1	3465
Hole in Flat Wall Structure	EA	1	0

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PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	684.85	0	180	12" - VCP LOGAN	18"Ø FW

> No Curb Drain <

Hole in Flat Wall Structure	06/03/2020
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Customer:	INDEPENDENCE EXCAVATING, INC.
Job Name:	ODOT 173000 - Opp Corridor Ph 3
Job #:	173408
Structure ID:	D-300, Pc A BU-13
Station:	June 3, 2020
Type:	City of Cleveland Curb Inlet
SalesPerson:	Ralph Hastings

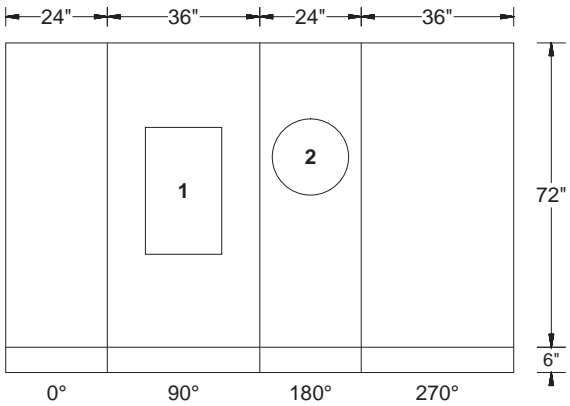
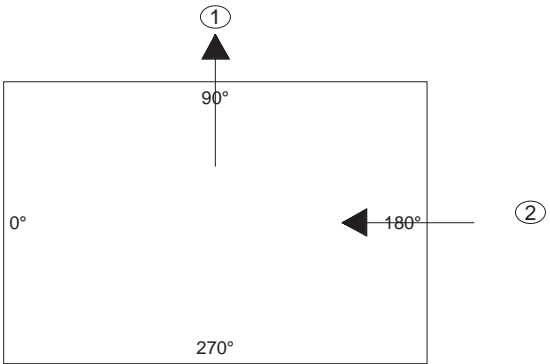
Rim:	689.53'
Invert:	685.53'
Rim to Invert:	4.00'
Sump:	3.00'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	5939
Hole in Flat Wall Structure	EA	1	0

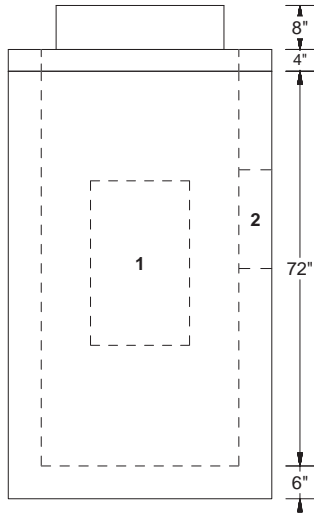
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EJIW 7035 - By Ind Exc



PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	685.53	0	90	EJIW 5964-12	Trap Ko 30"T x 18"W
(2)	685.78	0	180	12" - VCP LOGAN	18"Ø FW

EJIW 5964-12 trap
- by Ind Exc

Hole in Flat Wall Structure	06/03/2020
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Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-300, Pc B BU-13
Station: June 3, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

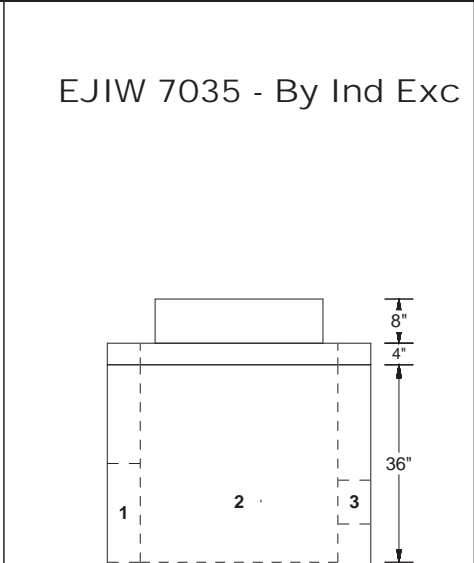
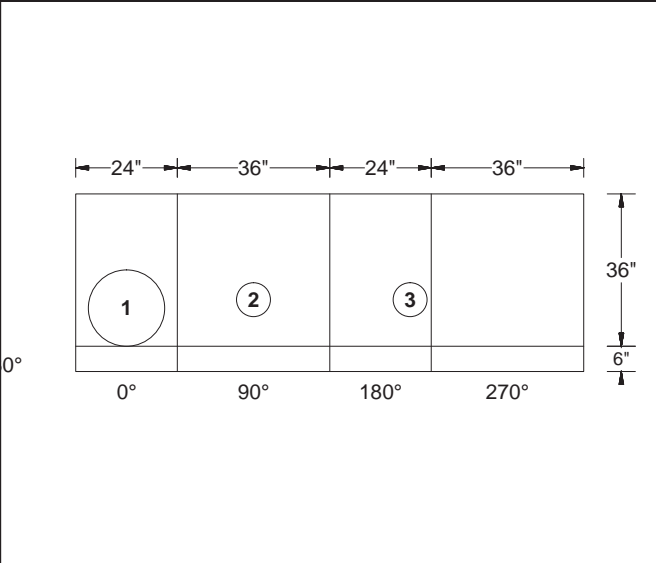
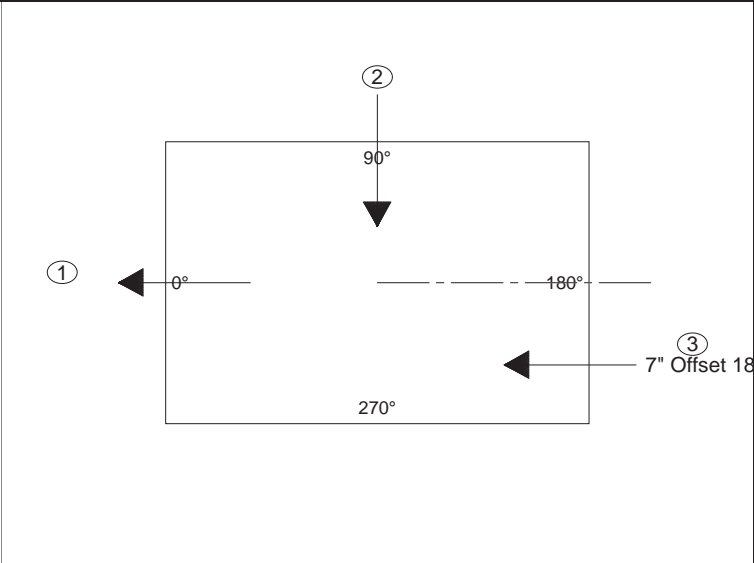
Rim: 689.53'
Invert: 685.78'
Rim to Invert: 3.75'
Sump: 0.25'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 36" Tall	EA	1	3413
Hole in Flat Wall Structure	EA	3	0

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PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	685.78	0	0	12" - VCP LOGAN	18"Ø FW
(2)	686.2	0	90	6" - HDPE	8"Ø FW
(3)	686.2	0	180	6" - HDPE	8"Ø FW

	Hole in Flat Wall Structure	06/03/2020
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Customer: INDEPENDENCE EXCAVATING, INC.
 Job Name: ODOT 173000 - Opp Corridor Ph 3
 Job #: 173408
 Structure ID: D-306, Pc A BU-13
 Station: June 3, 2020
 Type: City of Cleveland Curb Inlet
 SalesPerson: Ralph Hastings

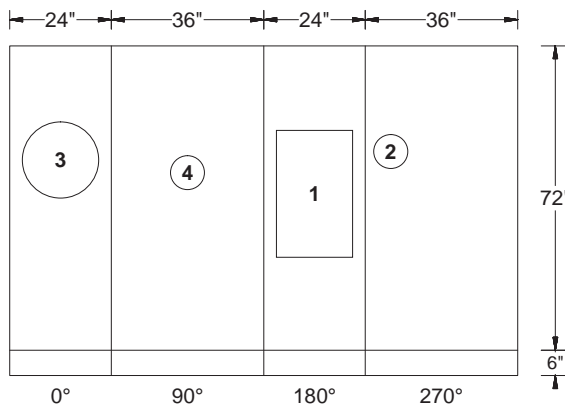
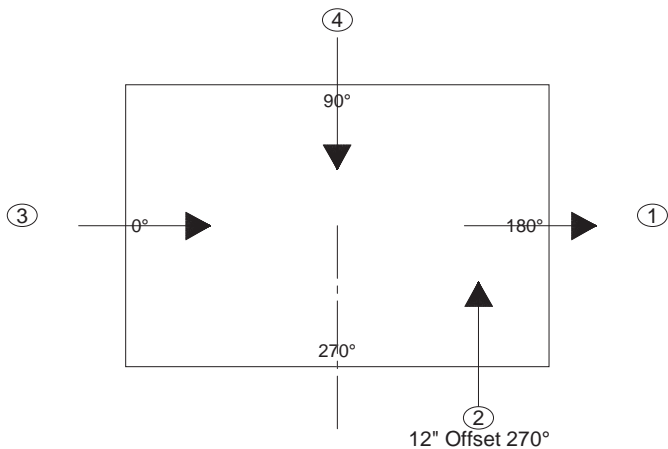
Rim: 689.09'
 Invert: 685.09'
 Rim to Invert: 4.00'
 Sump: 3.00'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	5887
Hole in Flat Wall Structure	EA	3	0

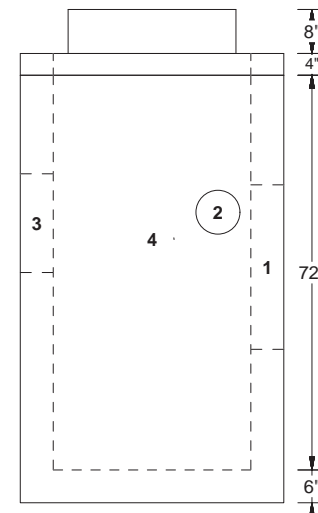
Reviewed - IX
6/5/20 PE JP Sorma



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EJIW 7035 - By Ind Exc



EJIW 5964-12 trap
 - by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(3)	685.34	0	0	12" - VCP LOGAN	18"Ø FW
(4)	685.34	0	90	6" - HDPE	8"Ø FW
(1)	685.09	0	180	EJIW 5964-12	Trap Ko 30"T x 18"W
(2)	685.76	0	270	6" - HDPE	8"Ø FW

> Curb drain must be on 270° wall <

Hole in Flat Wall Structure

06/03/2020

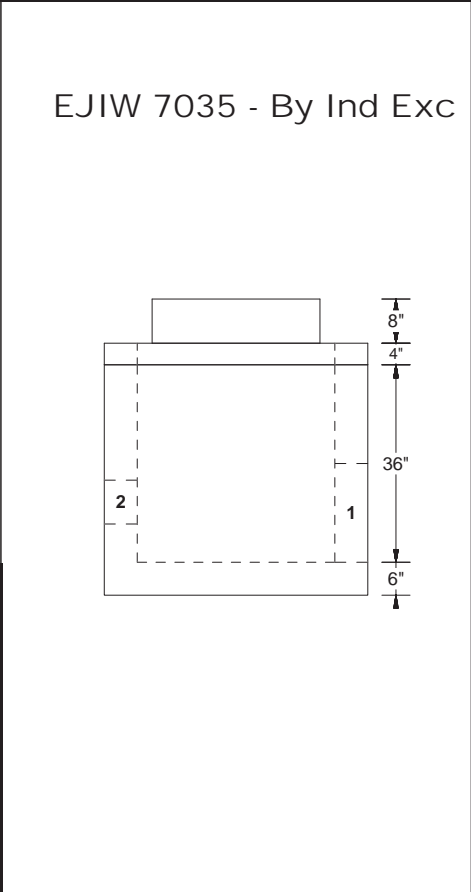
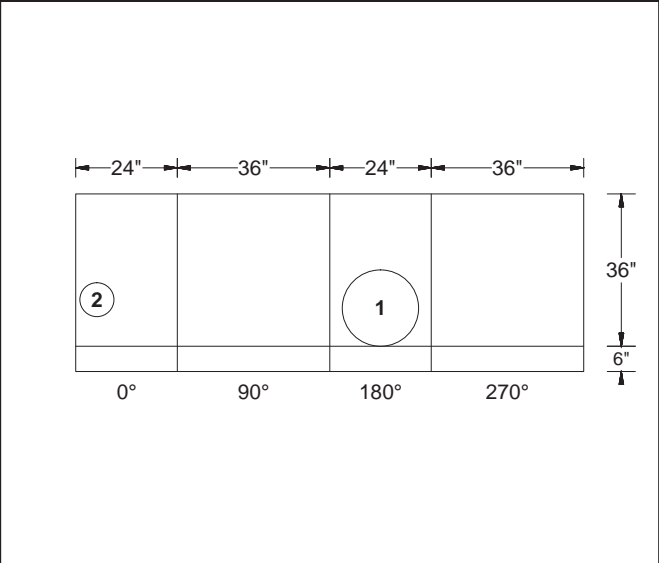
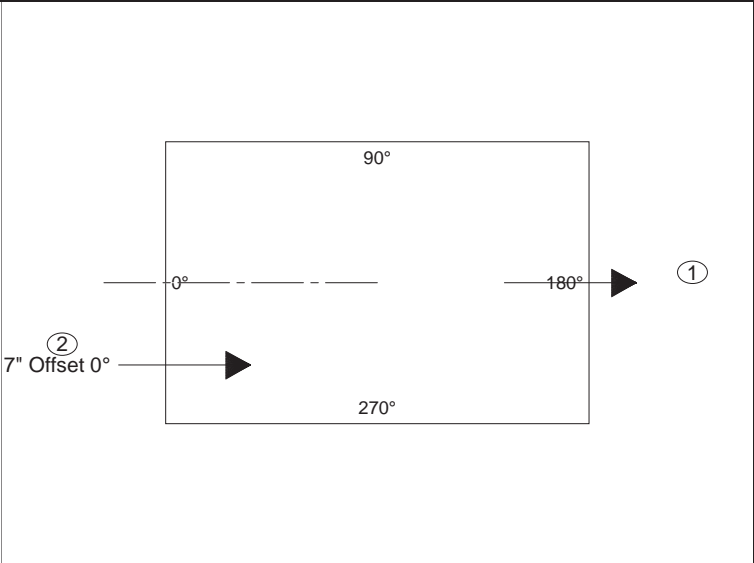
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-306, Pc B BU-13
Station: June 3, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 689.09'
Invert: 685.34'
Rim to Invert: 3.75'
Sump: 0.25'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 36" Tall	EA	1	3439
Hole in Flat Wall Structure	EA	2	0
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PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	685.34	0	180	12" - VCP LOGAN	18"Ø FW
(2)	685.76	0	0	6" - HDPE	8"Ø FW

	Hole in Flat Wall Structure	06/03/2020
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Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-309, Pc A BU-13
Station: June 3, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

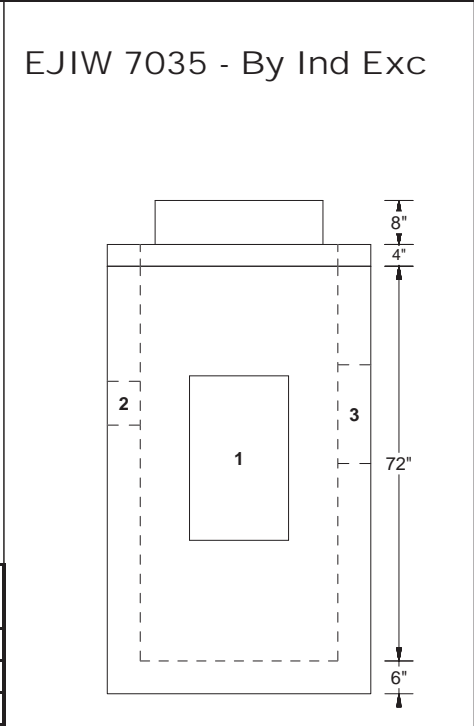
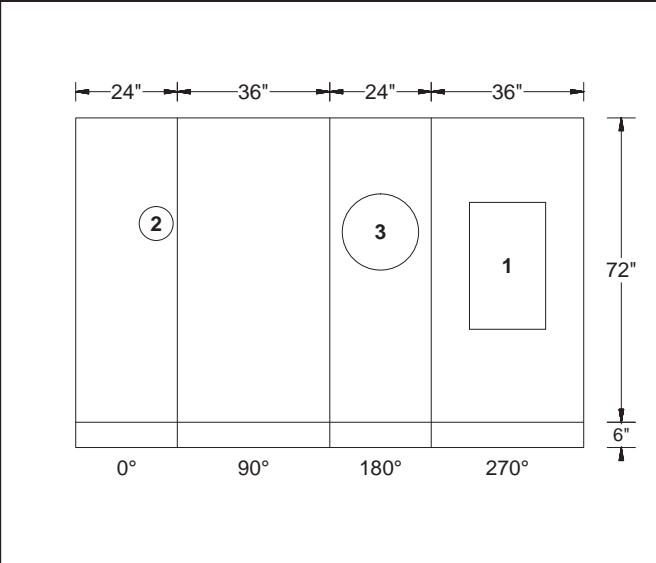
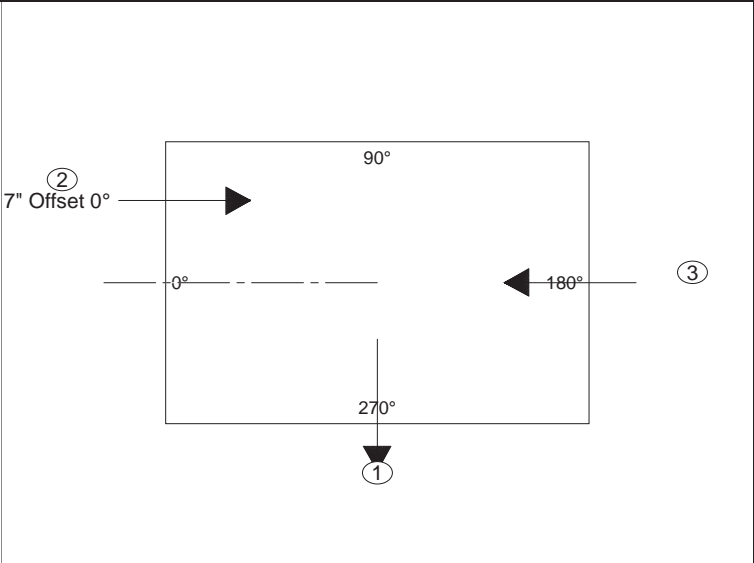
Rim: 689.39'
Invert: 685.39'
Rim to Invert: 4.00'
Sump: 3.00'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	5913
Hole in Flat Wall Structure	EA	2	0

Reviewed - IX
6/5/20 PE JP Sorma



1-800-837-7788
6845 Erie Ave. N.W.
PO Box 578
Canal Fulton, Ohio 44614



PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	685.39	0	270	EJIW 5964-12	Trap Ko 30"T x 18"W
(2)	686.06	0	0	6" - HDPE	8"Ø FW
(3)	685.64	0	180	12" - VCP LOGAN	18"Ø FW

EJIW 5964-12 trap
- by Ind Exc

	Hole in Flat Wall Structure	06/03/2020
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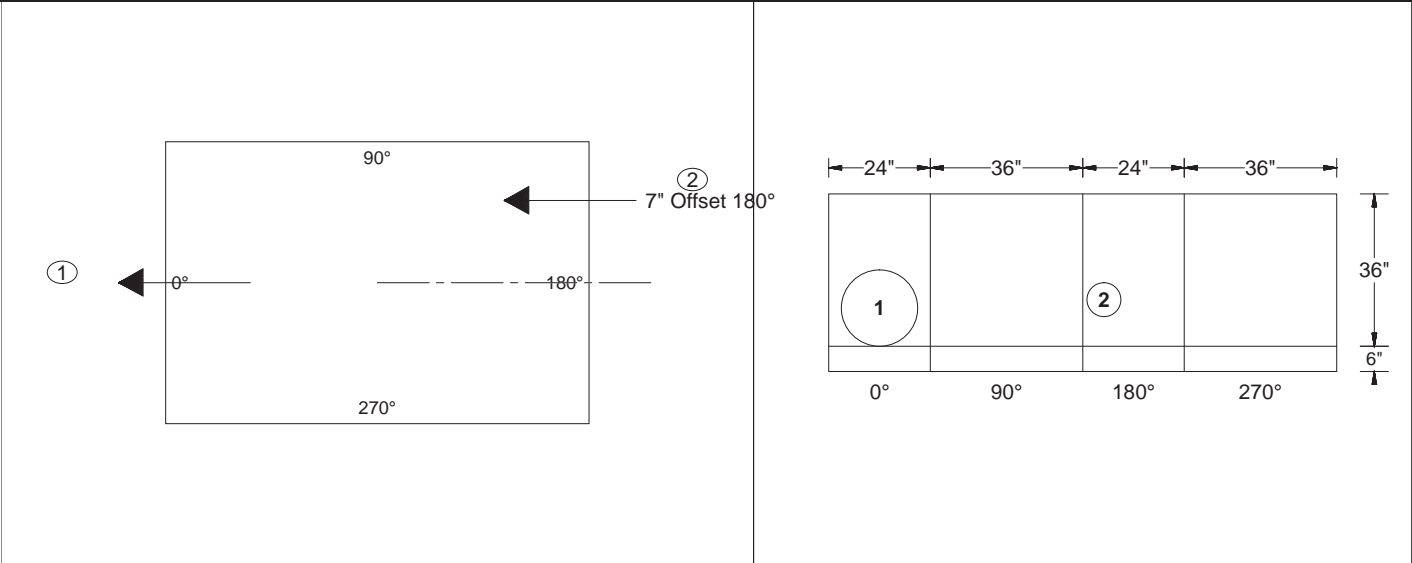
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-309, Pc B BU-13
Station: June 3, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 689.39'
Invert: 685.64'
Rim to Invert: 3.75'
Sump: 0.25'

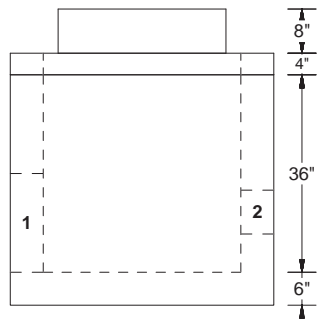
Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 36" Tall	EA	1	3439
Hole in Flat Wall Structure	EA	2	0
<div>Reviewed - IX</div> <div>6/5/20 PE JP Sorma</div>			



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EJIW 7035 - By Ind Exc



PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	685.64	0	0	12" - VCP LOGAN	18"Ø FW
(2)	686.06	0	180	6" - HDPE	8"Ø FW

	Hole in Flat Wall Structure	06/03/2020
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Submittal Package #173408

Independence Excavating

ODOT 173000-OC3

Cleveland, Ohio

October 14, 2020

SUBMITTAL FOR:

BU-13 - Balance of Storm Manholes & Catch Basins

**RALPH HASTINGS
LINDSAY PRECAST
PO BOX 578
6845 ERIE AVE. N.W.
CANAL FULTON, OHIO 44614
1-800-837-7788**

Ph: 440 543-5468
Fax: 440 543-1152
Mobile: 440 336-4162
Email: rhastings@lindsayprecast.com
Web : www.lindsayconcrete.com

Structure	Priority	Date	Type	Description	Produced/Shipped	
D-289 - BU-13	250	July 8, 2020	24" x 36"	Cleveland CB-1	Approved - Not Released	
D-290, Pc A - BU-13	259	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Approved - Not Released	
D-290, Pc B - BU-13	260	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Approved - Not Released	
D-290A - BU-13	254	July 8, 2020	48"Ø Stm	Cleveland Mh-1	Approved - Not Released	
D-291, Pc A - BU-13	261	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Approved - Not Released	
D-291, Pc B - BU-13	262	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Approved - Not Released	
D-292 - BU-13	253	July 8, 2020	48"Ø Stm	Cleveland Mh-1	Approved - Not Released	
D-293, Pc A - BU-13	255	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Approved - Not Released	
D-293, Pc B - BU-13	256	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Approved - Not Released	
D-294 - BU-13	252	July 8, 2020	48"Ø Stm	Cleveland Mh-1	Approved - Not Released	
D-295, Pc A - BU-13	257	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Approved - Not Released	
D-295, Pc B - BU-13	258	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Approved - Not Released	
D-296 - BU-13	247	July 8, 2020	60"Ø Stm	Cleveland Mh-1	Approved - Not Released	
D-296A - BU-13	246	REVD Oct 8, '20	60"Ø Stm	Cleveland Mh-1	Approved - Not Released	
D-296A HW - BU-13	245	July 8, 2020	Head Wall	ODOT HW-2.2 HW - 27"Ø	Approved - Not Released	
D-297 - BU-13	251	July 8, 2020	24" x 36"	Cleveland CB-1	Approved - Not Released	
D-298 - BU-13	248	July 8, 2020	48"Ø Stm	Cleveland Mh-1	Approved - Not Released	
D-299 - BU-13	249	July 8, 2020	48"Ø Stm	Cleveland Mh-1	Made - Not Shipped	
D-300, Pc A BU-13	191	June 3, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-300, Pc B BU-13	192	June 3, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-301, Pc A BU-13	187	June 3, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-301, Pc B BU-13	188	June 3, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-301A, Pc A BU-13	189	June 3, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-301A, Pc B BU-13	190	June 3, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-301B BU-13	186	June 3, 2020	48"Ø Stm	Cleveland Mh-1	Shipped	
D-302 BU-13	182	June 3, 2020	48"Ø Stm	Cleveland Mh-1	Shipped	
D-303 BU 13	185	June 3, 2020	48"Ø Stm	Cleveland Mh-1	Shipped	
D-306, Pc A BU-13	193	June 3, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-306, Pc B BU-13	194	June 3, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-308 BU-13	183	June 3, 2020	48"Ø Stm	Cleveland Mh-1	Shipped	
D-309, Pc A BU-13	195	June 3, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-309, Pc B BU-13	196	June 3, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-311 BU-13	184	June 3, 2020	48"Ø Stm	Cleveland Mh-1	Shipped	
D-313 BU-13	290	August 14, 2020	24" x 36"	Cleveland CB-1	Shipped	
D-314 BU-13	59		48"Ø Stm	Cleveland Mh-1	Shipped	
D-315 BU-13	291	August 14, 2020	24" x 36"	Cleveland CB-1	Shipped	
D-316 BU 13	292	August 14, 2020	48"Ø Stm	Cleveland Mh-1	Shipped	
D-317 BU 13	293	August 14, 2020	48"Ø Stm	Cleveland Mh-1	Shipped	
D-318 BU-13	294	August 14, 2020	24" x 36"	Cleveland CB-1	Shipped	
D-319 BU 13	295	August 14, 2020	48"Ø Stm	Cleveland Mh-1	Shipped	
D-320 BU-13	296	REVD Aug 25, 2020	24" x 36"	Cleveland CB-1	Shipped	
D-321, Pc A - BU-13	265	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Ships 10/15/20	
D-321, Pc B - BU-13	266	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Ships 10/15/20	
d-322	220	June 5, 2020	24" x 24"	ODOT CB 2-2A APP	Ships 10/15/20	
D-322 - BU-13	264	July 8, 2020	48"Ø Stm	Cleveland Mh-1	Ships 10/15/20	
D-323, Pc A - BU-13	267	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Ships 10/15/20	
D-323, Pc B - BU-13	268	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Ships 10/15/20	
D-325, Pc A - BU-13	269	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Ships 10/15/20	
D-325, Pc B - BU-13	270	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Ships 10/15/20	
D-325A as D/H Mh - BU-13	263	July 29, 2020	72"Ø Stm	Cleveland Mh-1	Ships 10/15/20	
D-326, Pc A - BU-13	271	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Ships 10/15/20	
D-326, Pc B - BU-13	272	July 8, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Ships 10/15/20	
D-328 BU-13	60		60"Ø San	Cleveland Mh-1	Shipped	

Structure	Priority	Station	Type	Description	Produced/Shipped	
D-329 BU-13	317	August 14, 2020	24" x 36"	Cleveland CB-1	Ships 10/15/20	
D-330 Pc A - BU-13	61		24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-330 Pc B - BU-13	62		24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-330, Pc A BU-13 - REMAKE	227	June 15, 2020	24" x 36"	Cleveland CB-1	Shipped	
D-331 Pc A - BU-13	72		24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-331 Pc B - BU-13	73		24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-331A BU-13	74		24" x 36"	Cleveland CB-1	Shipped	
D-331B BU-13	75		24" x 36"	Cleveland CB-1	Shipped	
D-331B BU-13 REMAKE	276	August 12, 2020	24" x 36"	Cleveland CB-1	Shipped	
D-332 BU-13	63		24" x 36"	Cleveland CB-1	Shipped	
D-333 BU-13	64		24" x 36"	Cleveland CB-1	Shipped	
D-334 BU-13	68		24" x 36"	Cleveland CB-1	Shipped	
D-335 BU-13	70		24" x 36"	Cleveland CB-1	Shipped	
D-335A BU-13	71		24" x 36"	Cleveland CB-1	Shipped	
D-336 Pc A - BU-13	66		24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-336 Pc B - BU-13	67		24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-337 BU-13	69		24" x 36"	Cleveland CB-1	Shipped	
D-339 BU-13	65		24" x 36"	Cleveland CB-1	Shipped	
D-345 BU-13	297	REVD Aug 25, 2020	24" x 36"	Cleveland CB-1	Shipped	
D-346 BU-13	15				Shipped - Balance of Mh	
D-346 BU-13	298	August 18, 2020	60"Ø Stm	Cleveland Mh-1	Shipped - Mh Base	
D-347 BU-13	299	August 18, 2020	24" x 36"	Cleveland CB-1	Shipped	
D-348, Pc A BU-13	300	August 18, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-348, Pc B BU-13	301	August 18, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-350, Pc A BU-13	302	August 18, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-350, Pc B BU-13	303	August 18, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Shipped	
D-351 BU-13	304	August 18, 2020	24" x 36"	Cleveland CB-1	Shipped	
D-353, Pc A BU-13	305	August 18, 2020	24" x 36"	Cleveland CB-1	Shipped	
D-353, Pc B BU-13	306	August 18, 2020	24" x 36"	Cleveland CB-1	Shipped	
D-361 BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1	Submittal - Oct 14, 2020	
D-361A BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1	Submittal - Oct 14, 2020	
D-361B BU-13	0	Oct 14, 2020	24" x 24"	ODOT CB 2-2A APP	Submittal - Oct 14, 2020	
D-363 BU-13	0	Oct 14, 2020	60"Ø Stm	Cleveland Mh-1	Submittal - Oct 14, 2020	
D-364 BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1	Submittal - Oct 14, 2020	
D-366 BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1	Submittal - Oct 14, 2020	
D-367, Pc A BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Submittal - Oct 14, 2020	
D-367, Pc B BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Submittal - Oct 14, 2020	
D-368, Pc A BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Submittal - Oct 14, 2020	
D-368, Pc B BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Submittal - Oct 14, 2020	
D-369 BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1	Submittal - Oct 14, 2020	
D-370 BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1	Submittal - Oct 14, 2020	
D-379 BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1	Submittal - Oct 14, 2020	
D-379A BU-13	0	Oct 14, 2020	24" x 24"	ODOT CB 2-2B APP	Submittal - Oct 14, 2020	
D-381 BU-13	0	Oct 14, 2020	60"Ø Stm	Cleveland Mh-1	Submittal - Oct 14, 2020	
D-382 BU-13	0	Oct 14, 2020	60"Ø Stm	Cleveland Mh-1	Submittal - Oct 14, 2020	
D-383 BU-13	0	Oct 14, 2020	60"Ø Stm	Cleveland Mh-1	Submittal - Oct 14, 2020	
D-383A	0	Oct 14, 2020	24" x 36"	Cleveland CB-1	Submittal - Oct 14, 2020	
D-384 BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1	Submittal - Oct 14, 2020	
D-385 BU-13	0	Oct 14, 2020	48"Ø Stm	Cleveland Mh-1	Submittal - Oct 14, 2020	
D-386 BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1	Submittal - Oct 14, 2020	
D-387, Pc A BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Submittal - Oct 14, 2020	
D-387, Pc B BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Submittal - Oct 14, 2020	
D-388 BU-13	0	Oct 14, 2020	48"Ø Stm	Cleveland Mh-1	Submittal - Oct 14, 2020	

Structure	Priority	Station	Type	Description	Produced/Shipped	
D-389, Pc A BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Submittal - Oct 14, 2020	
D-389, Pc B BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Submittal - Oct 14, 2020	
D-390 BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1	Submittal - Oct 14, 2020	
D-392 BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1	Submittal - Oct 14, 2020	
D-393, Pc A BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Submittal - Oct 14, 2020	
D-393, Pc B BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Submittal - Oct 14, 2020	
D-395 BU-13	0	Oct 14, 2020	48"Ø Stm	Cleveland Mh-1	Submittal - Oct 14, 2020	
D-397, Pc B BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Submittal - Oct 14, 2020	
D-397, PcA BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1 (CB-3)	Submittal - Oct 14, 2020	
D-398 BU-13	0	Oct 14, 2020	24" x 36"	Cleveland CB-1	Submittal - Oct 14, 2020	
D-399 BU-13	0	Oct 14, 2020	48"Ø Stm	Cleveland Mh-1	Submittal - Oct 14, 2020	

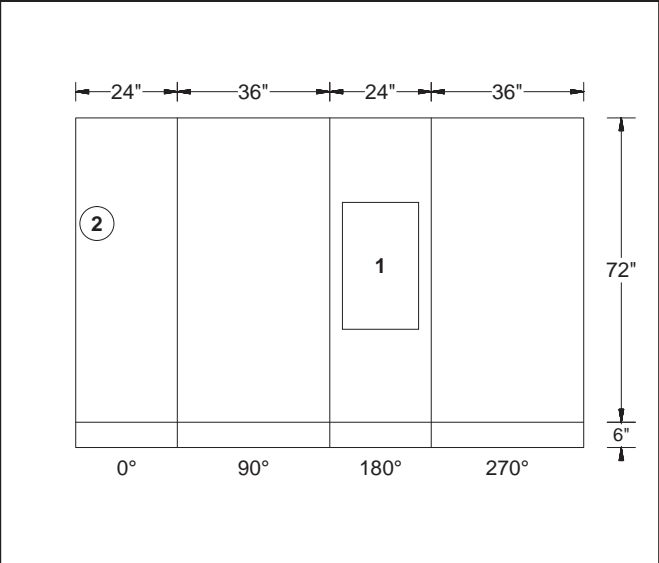
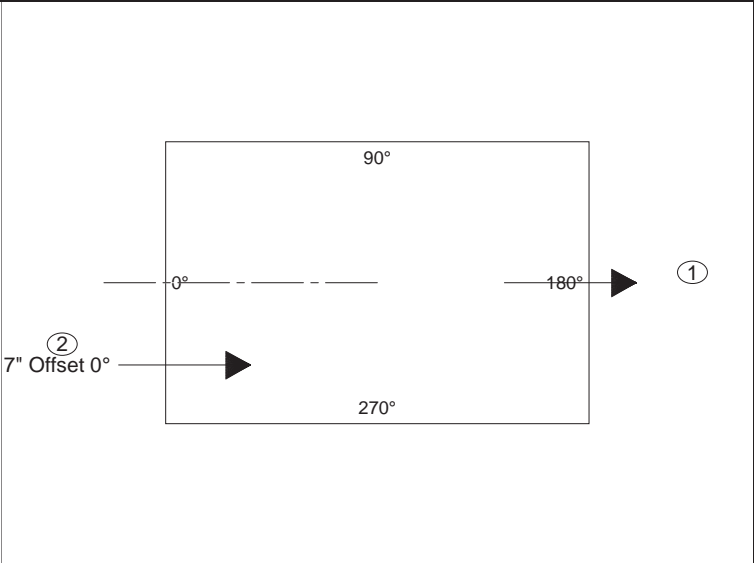
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-361 BU-13
Station: Oct 14, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 699.11'
Invert: 695.11'
Rim to Invert: 4.00'
Sump: 3.00'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	6048
Hole in Flat Wall Structure	EA	1	0
<div> <div>Cleveland WPC CB-1</div> <div>IX Reviewed J.P. Sorma PE</div> <div>10/22/20</div> </div>			



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EJ 7035 - by Ind Exc

EJ 5964-12 trap - by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	695.11	0	180	EJIW 5964-12	Trap Ko 30\"T x 18\"W
(2)	695.78	0	0	6\" - HDPE	8\"Ø FW

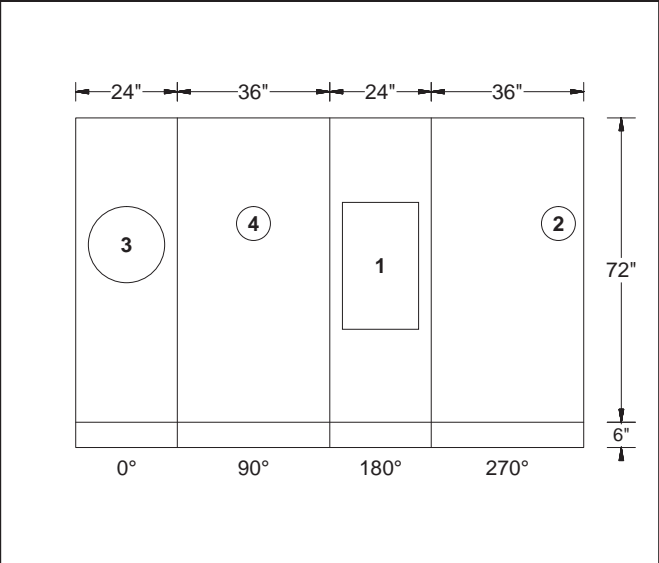
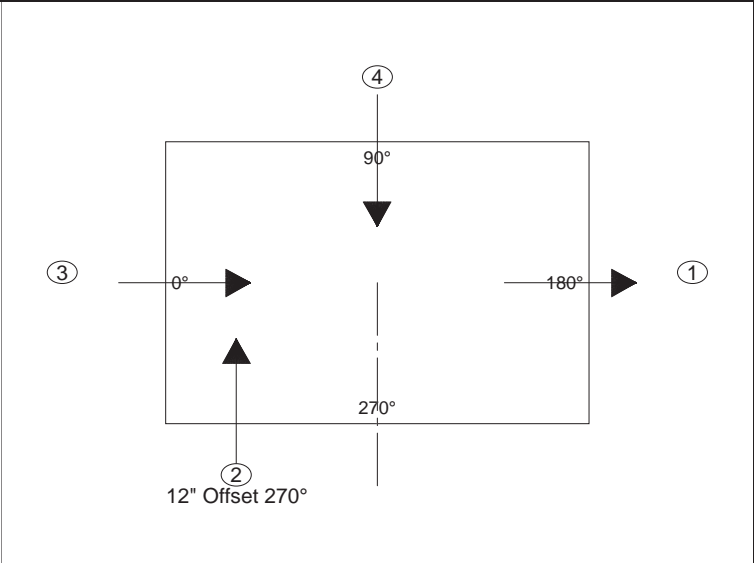
	Hole in Flat Wall Structure	10/22/2020
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Customer:	INDEPENDENCE EXCAVATING, INC.
Job Name:	ODOT 173000 - Opp Corridor Ph 3
Job #:	173408
Structure ID:	D-361A BU-13
Station:	Oct 14,'20-R Oct 22,'20
Type:	City of Cleveland Curb Inlet
SalesPerson:	Ralph Hastings
Rim:	697.59'
Invert:	693.59'
Rim to Invert:	4.00'
Sump:	3.00'

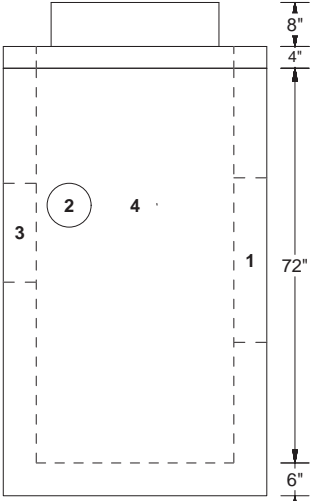
Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	5887
Hole in Flat Wall Structure	EA	3	0
<div>Cleveland WPC CB-1</div> <div>IX Reviewed J.P. Sorma PE</div> <div>10/22/20</div>			



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EJIW 7035 - by Ind Exc



EJIW 5964-12 Trap - by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	693.59	0	180	EJIW 5964-12	Trap Ko 30"T x 18"W
(2)	694.26	0	270	6" - HDPE	8"Ø FW
(3)	693.59	0	0	12" - VCP LOGAN	18"Ø FW
(4)	694.26	0	90	6" - HDPE	8"Ø FW
					Hole in Flat Wall Structure
					10/22/2020

Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-361B BU-13
Station: Oct 14, 2020
Type: ODOT 2-2A Catch Basin
SalesPerson: Ralph Hastings

Rim: 686.6'
Invert: 681.85'
Rim to Invert: 4.75'
Sump Height: 2.08'

Description	UOM	Quantity	Weight
24" X 24" Catch Basin Riser x 63"	EA	1	3700
24" X 24" Catch Basin Base x 0"	EA	1	675
EJIW 5110 Z Frame - 00511013	EA	1	0

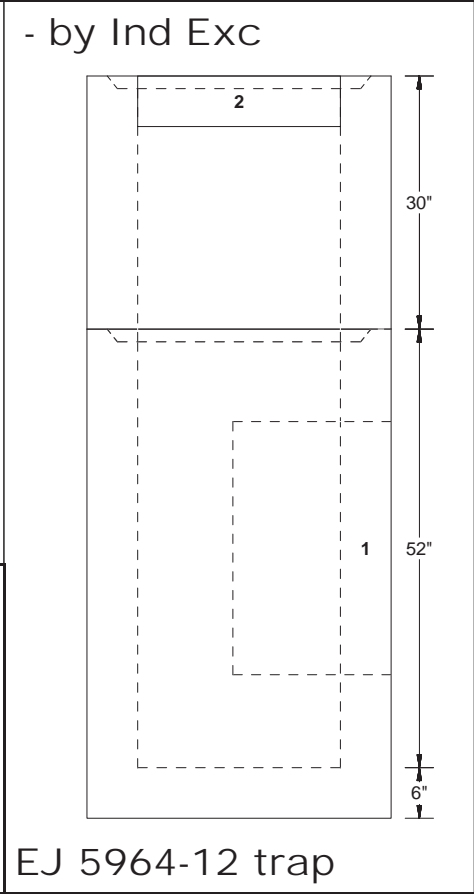
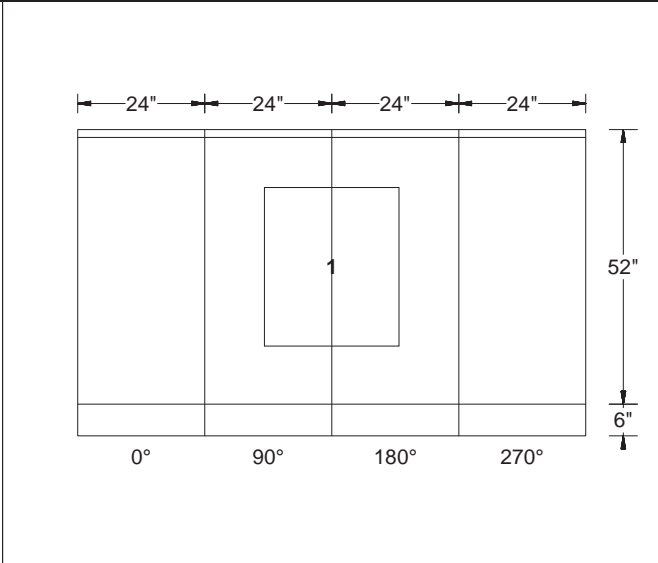
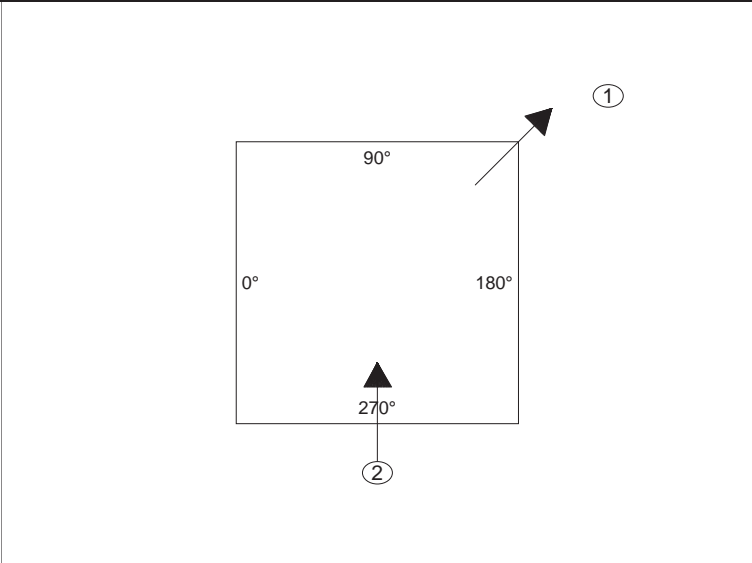
ODOT CB 2-2A APP

IX Reviewed J.P. Sorma PE
10/22/20



1-800-837-7788
6845 Erie Ave. N.W.
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Canal Fulton, Ohio 44614

EJ 5110 drop in grate



PipeNum	Elevation	%G rad	Angle	Pipe	Former	Description
(1)	681.85	0	135	EJIW 5964-12	30"T x 18"W KO	RN: 12.73L X 12.73L
(2)	686.1	0	270	6" x 24" WINDOW	6"t X 24"w Ko	L .01 / R .01

NOTE

> Please review and verify the pipe size. Plan Page 32 notates 15"Ø. Plan Page 33 notates 12"Ø. Plan Page 127 notates 12"Ø <

- by Ind Exc 10/22/2020

Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-363 BU-13
Station: Oct 14, 2020
Type: Cleveland Division of Water Pollution
SalesPerson: Control
Ralph Hastings

Rim: 692.21'
Invert: 681.88'
Rim to Invert: 10.33'
Sump: 0.48'

Description	UOM	Quantity	Weight
Stock 48"Ø Flat Top W/ 26"Ø Hole	EA	1	1185
48"Ø Manhole Riser X 46" Tall	EA	1	3116
Stock 60"Ø Flat Transition to 48"Ø	EA	1	2355
60"Ø Non Extended 9" Manhole Base X 44" Tall	EA	1	7011
A-Lok XC-1030 Premium	EA	2	0
A-Lok XC-480	EA	2	0

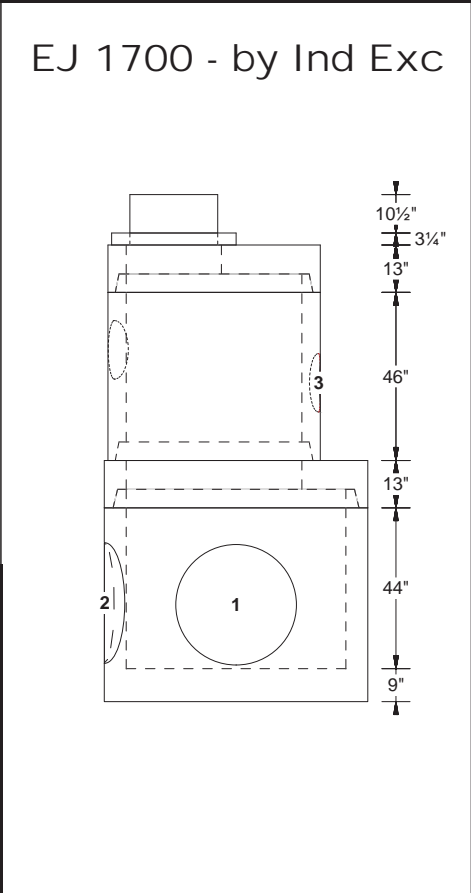
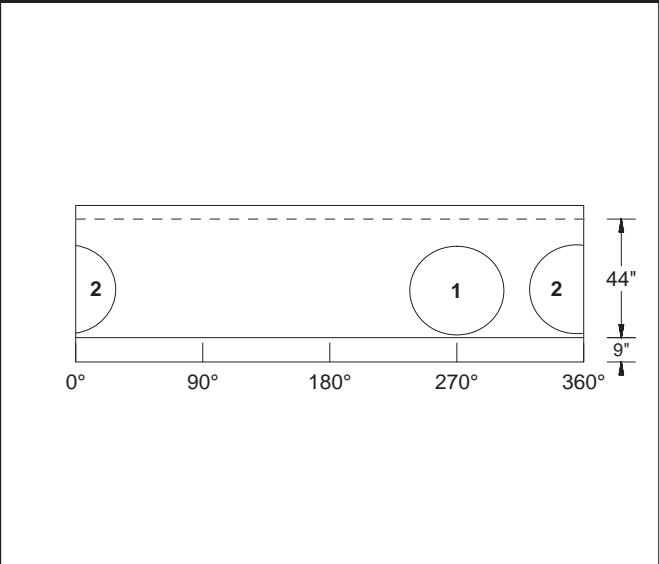
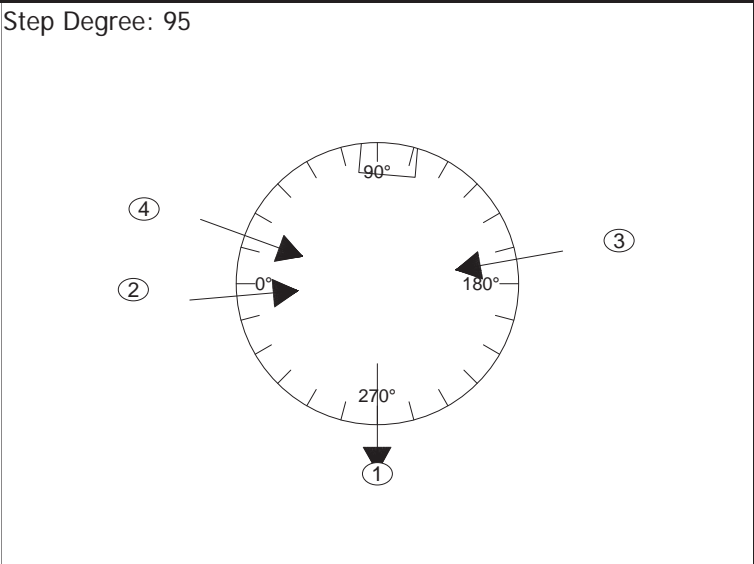
Cleveland WPC MH-1

IX Reviewed J.P. Sorma PE

10/22/20




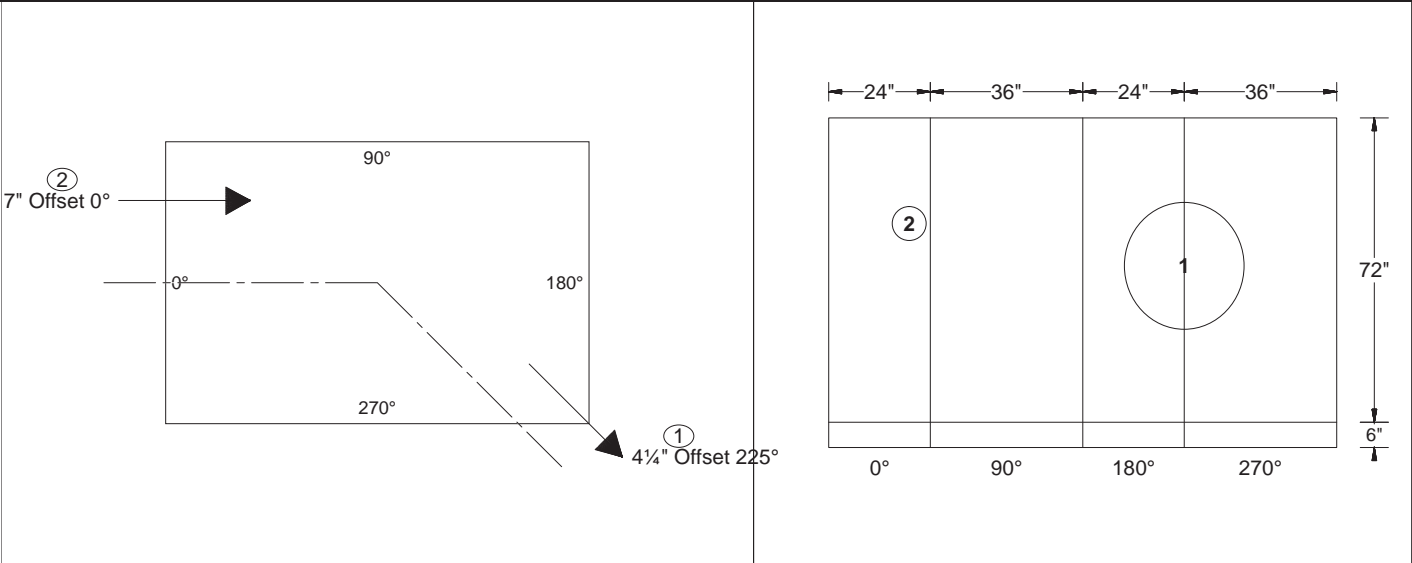
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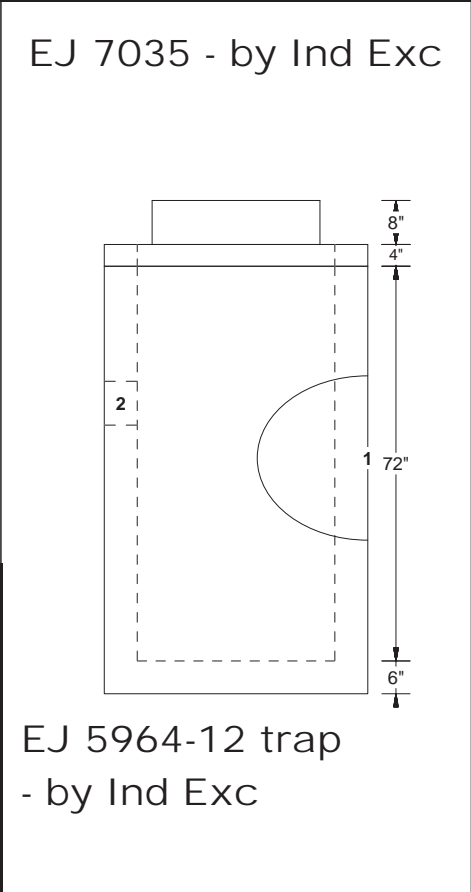
PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	681.88	-1	270	24" - RCP Co-Pipe	1030 A-LOK
(2)	681.88	1	355	24" - RCP Co-Pipe	1030 A-LOK
(3)	687.4	1	170	12" - VCP LOGAN	480 A-LOK
(4)	688.15	1	20	12" - VCP LOGAN	480 A-LOK

	A-Lok XC-1030 Premium A-Lok XC-480	10/22/2020
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Customer: INDEPENDENCE EXCAVATING, INC. Job Name: ODOT 173000 - Opp Corridor Ph 3 Job #: 173408 Structure ID: D-364 BU-13 Station: Oct 14, 2020 Type: City of Cleveland Curb Inlet SalesPerson: Ralph Hastings	Description	UOM	Quantity	Weight
	24" X 36" Catch Basin Base X 72" Tall	EA	1	6021
	Hole in Flat Wall Structure	EA	1	0
	Corner Hole in Structure for Pipe	EA	1	0
Rim: 692.27' Invert: 688.27' Rim to Invert: 4.00' Sump: 3.00'	Cleveland WPC CB-1 IX Reviewed J.P. Sorma PE 10/22/20			
<div> 1-800-837-7788 6845 Erie Ave. N.W. PO Box 578 Canal Fulton, Ohio 44614</div>				



PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	688.27	0	225	EJIW 5964-12	20"W X 30"T CORNER
(2)	688.94	0	0	6" - HDPE	8"Ø FW



	Hole in Flat Wall Structure Corner Hole in Structure for Pipe	10/22/2020
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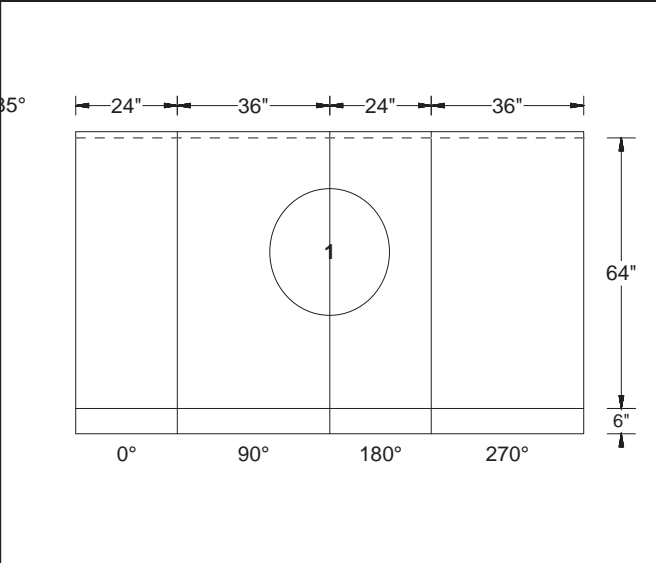
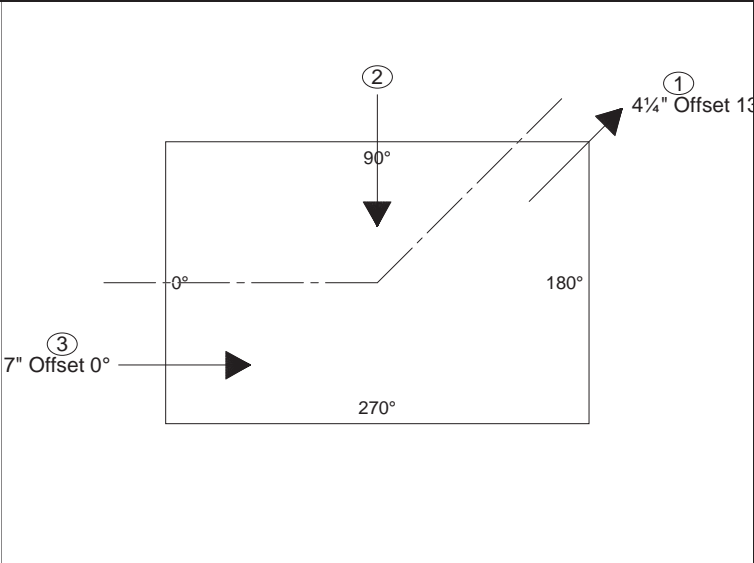
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-366 BU-13
Station: Oct 14, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 692.28'
Invert: 686.00'
Rim to Invert: 6.28'
Sump: 3.00'

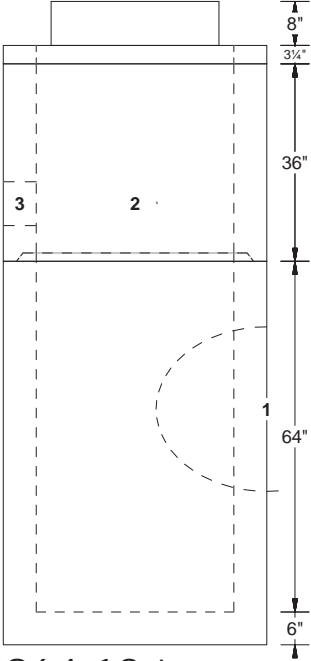
Description	UOM	Quantity	Weight
24" X 36" Catch Basin Riser X 36" Tall	EA	1	2648
24" X 36" Catch Basin Base X 64" Tall	EA	1	5447
Corner Hole in Structure for Pipe	EA	1	0
Hole in Flat Wall Structure	EA	2	0
<div> <div>Cleveland WPC CB-1</div> <div>IX Reviewed J.P. Sorma PE</div> <div>10/22/20</div> </div>			



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EJ 7035 - by Ind Exc



EJ 5964-12 trap
- by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	686	0	135	EJIW 5964-12	20"W X 30"T CORNER
(2)	688.95	0	90	6" - HDPE	8"Ø FW
(3)	688.95	0	0	6" - HDPE	8"Ø FW

	<div> <div>Corner Hole in Structure for Pipe</div> <div>Hole in Flat Wall Structure</div> </div>	10/22/2020
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Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-367, Pc A BU-13
Station: Oct 14,'21
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 691.83'
Invert: 687.83'
Rim to Invert: 4.00'
Sump: 3.00'

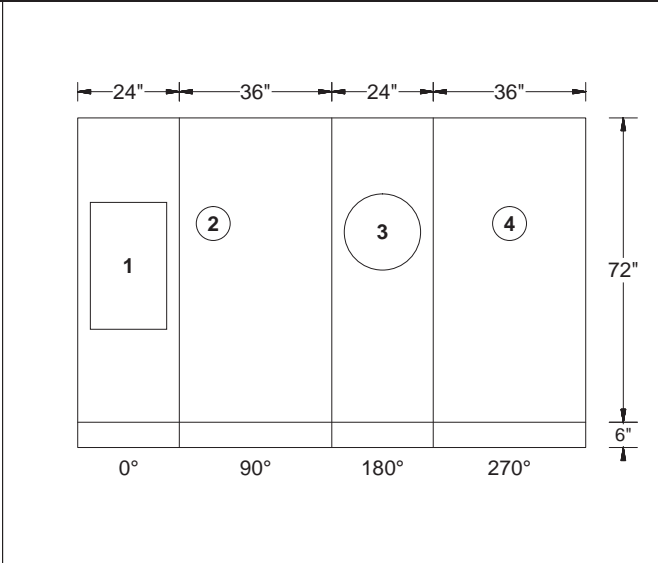
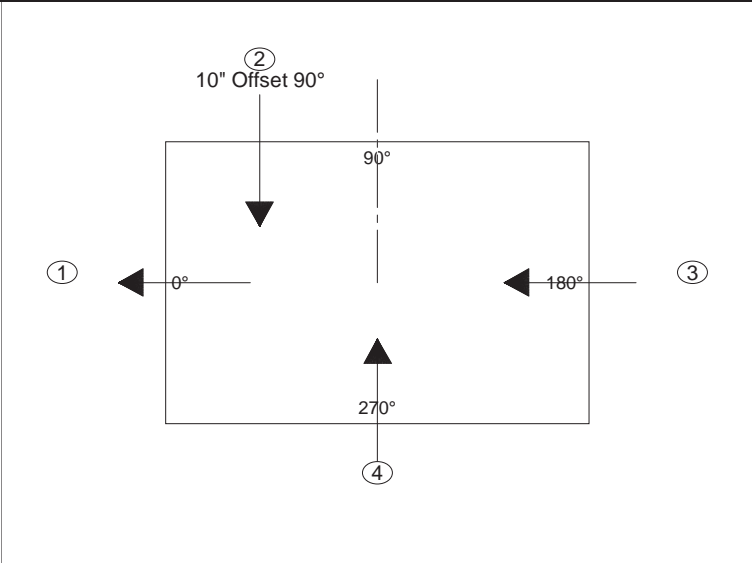
Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	5887
Hole in Flat Wall Structure	EA	3	0
Square hole	EA	1	0

Cleveland WPC CB-1 (CB-3)

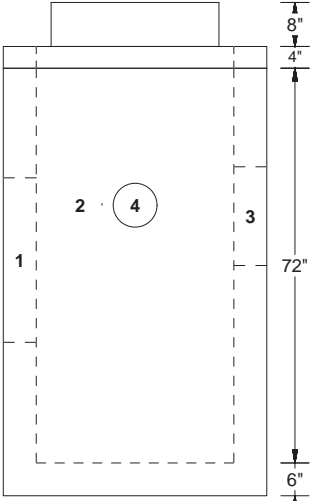
IX Reviewed J.P. Sorma PE
10/27/20



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EJ 7035 - by Ind Exc



EJ 5964-12 trap
- by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	687.83	0	0	EJIW 5964-12	30"T x 18"W KO
(2)	688.5	0	90	6" - HDPE	8"Ø FW
(3)	688.08	0	180	12" - VCP LOGAN	18"Ø FW
(4)	688.5	0	270	6" - HDPE	8"Ø FW

> 6"Ø Curb Drain must be on 90° wall <

Hole in Flat Wall Structure
Square hole

10/22/2020

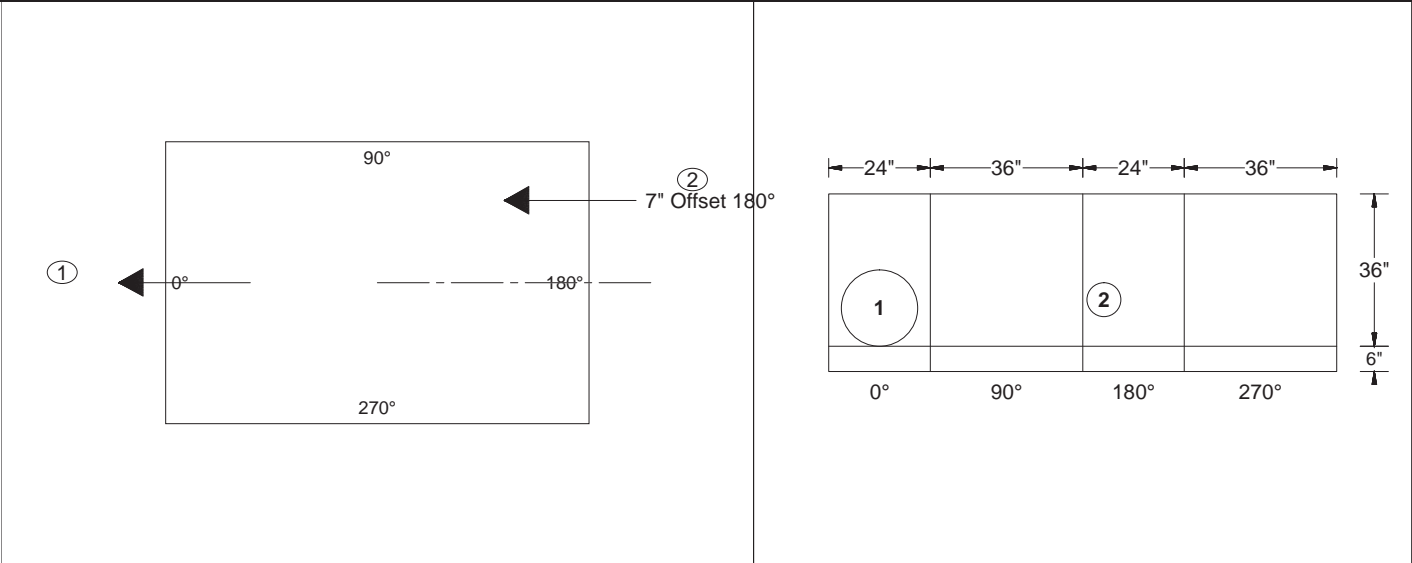
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-367, Pc B BU-13
Station: Oct 14,'21
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 691.83'
Invert: 688.08'
Rim to Invert: 3.75'
Sump: 0.25'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 36" Tall	EA	1	3439
Hole in Flat Wall Structure	EA	2	0
Cleveland WPC CB-1 (CB-3)			
IX Reviewed J.P. Sorma PE 10/27/20			

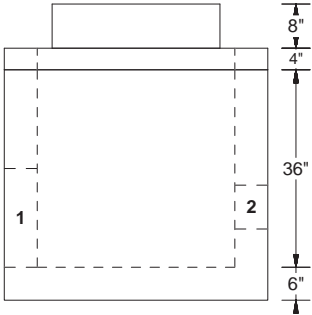


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PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	688.08	0	0	12" - VCP LOGAN	18"Ø FW
(2)	688.5	0	180	6" - HDPE	8"Ø FW

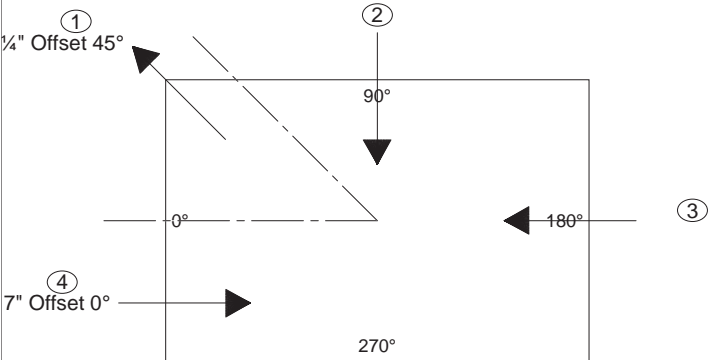
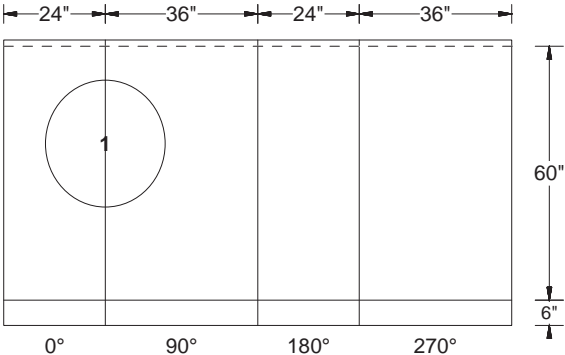
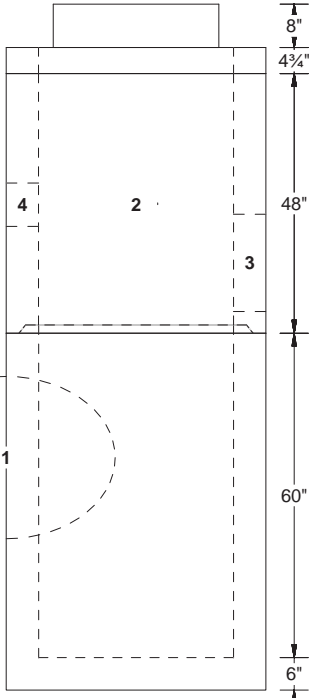
EJ 7035 - by Ind Exc



No sump, no trap

				Hole in Flat Wall Structure	10/22/2020
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Customer: INDEPENDENCE EXCAVATING, INC. Job Name: ODOT 173000 - Opp Corridor Ph 3 Job #: 173408 Structure ID: D-368, Pc A BU-13 Station: Oct 14,'21 Type: City of Cleveland Curb Inlet SalesPerson: Ralph Hastings	Description		UOM	Quantity	Weight
	24" X 36" Catch Basin Riser X 48" Tall		EA	1	3413
	24" X 36" Catch Basin Base X 60" Tall		EA	1	5147
	Corner Hole in Structure for Pipe		EA	1	0
	Hole in Flat Wall Structure		EA	3	0
Rim: 691.82' Invert: 684.75' Rim to Invert: 7.07' Sump: 3.00'	Cleveland WPC CB-1 (CB-3) IX Reviewed J.P. Sorma PE 10/27/20				 1-800-837-7788 6845 Erie Ave. N.W. PO Box 578 Canal Fulton, Ohio 44614

				EJ 7035 - by Ind Exc 	
PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	684.75	0	45	EJIW 5964-12	20"W X 30"T CORNER
(2)	688.49	0	90	6" - HDPE	8"Ø FW
(3)	687.34	0	180	12" - VCP LOGAN	18"Ø FW
(4)	688.49	0	0	6" - HDPE	8"Ø FW
				EJ 5964-12 trap - by Ind Exc	
				Corner Hole in Structure for Pipe Hole in Flat Wall Structure	10/22/2020

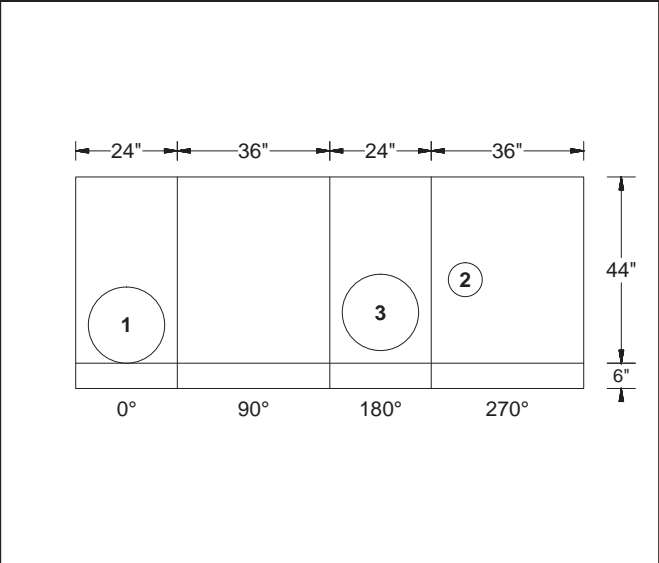
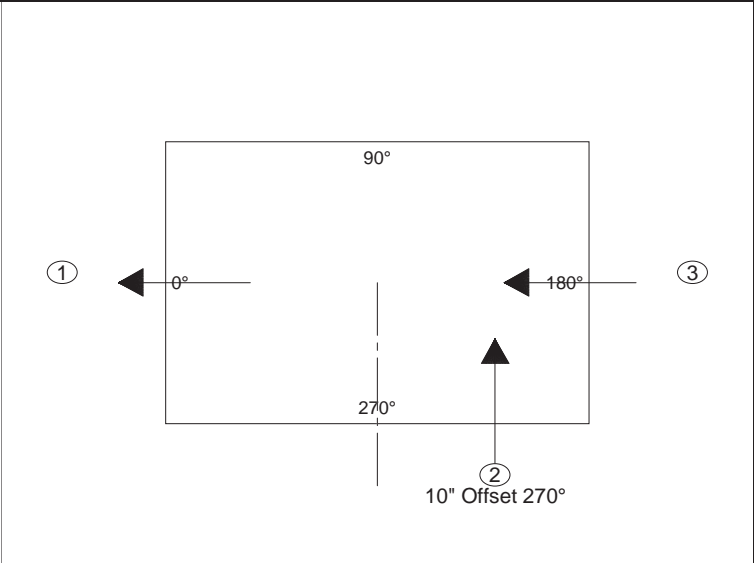
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-368, Pc B BU-13
Station: Oct 14,'21
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 691.82'
Invert: 687.34'
Rim to Invert: 4.48'
Sump: 0.25'

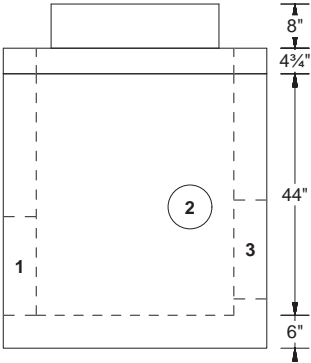
Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 44" Tall	EA	1	3904
Hole in Flat Wall Structure	EA	3	0
Cleveland WPC CB-1 (CB-3) IX Reviewed J.P. Sorma PE 10/27/20			



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EJ 7035 - by Ind Exc



No sump, no trap

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	687.34	0	0	12" - VCP LOGAN	18"Ø FW
(2)	688.49	0	270	6" - HDPE	8"Ø FW
(3)	687.59	0	180	12" - VCP LOGAN	18"Ø FW

> 6"Ø Curb Drain must be on 270° wall <

Hole in Flat Wall Structure

10/22/2020

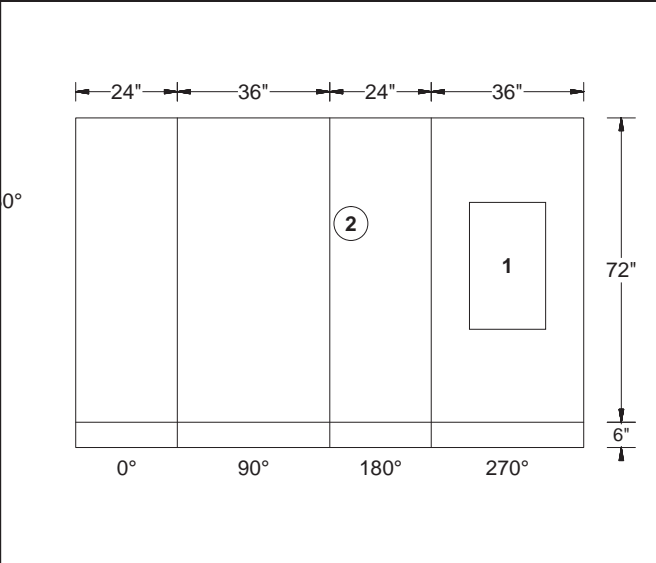
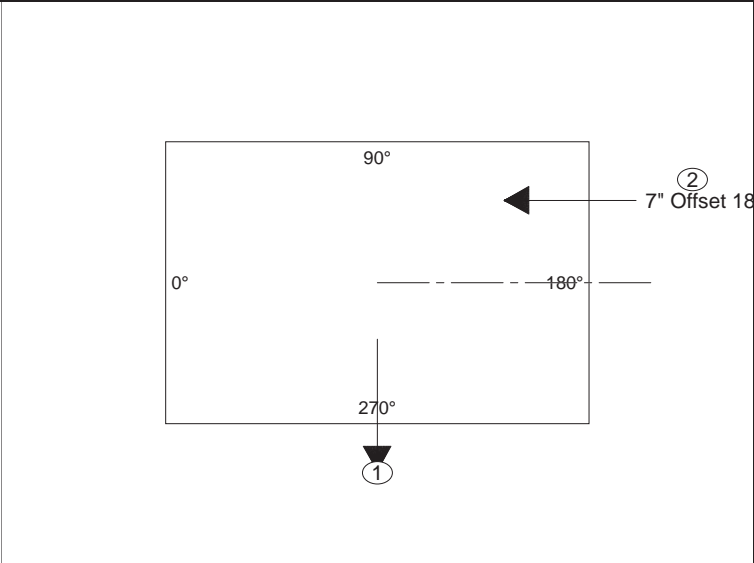
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-369 BU-13
Station: Oct 14, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 692.69'
Invert: 688.69'
Rim to Invert: 4.00'
Sump: 3.00'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	6048
Hole in Flat Wall Structure	EA	1	0
<div>Cleveland WPC CB-1</div> <div>IX Reviewed J.P. Sorma PE 10/27/20</div>			



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EJ 7035 - by Ind Exc

EJ 5964-12 trap
- by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	688.69	0	270	EJIW 5964-12	Trap Ko 30"T x 18"W
(2)	689.36	0	180	6" - HDPE	8"Ø FW

	Hole in Flat Wall Structure	10/22/2020
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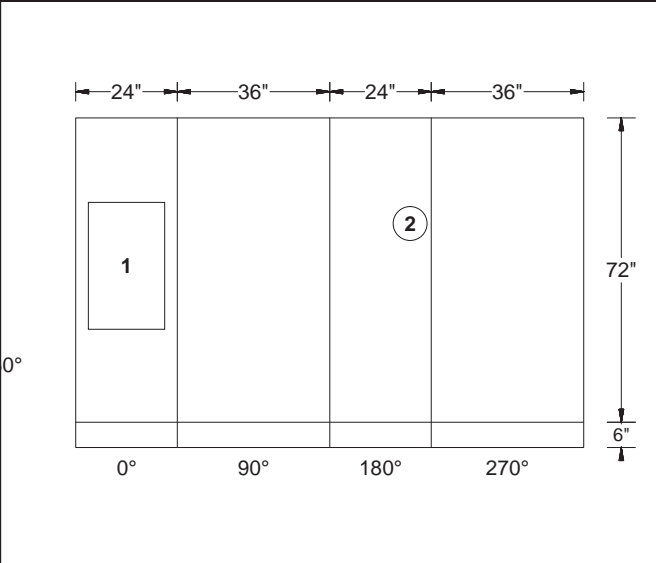
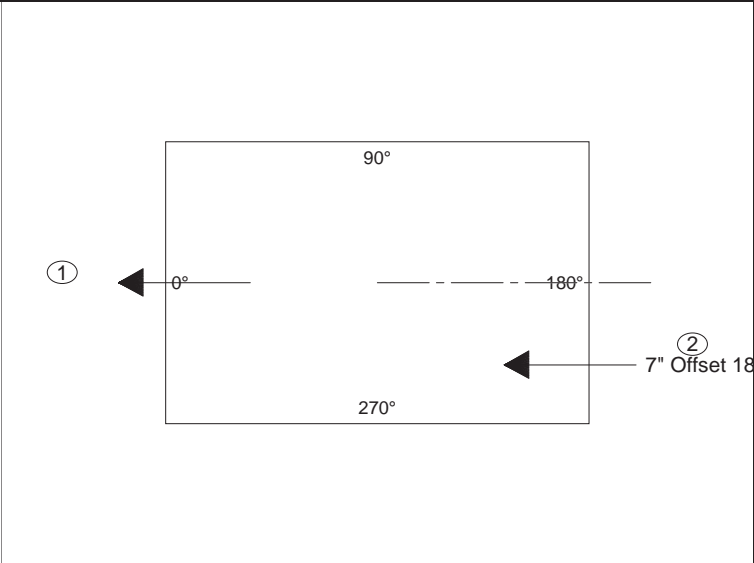
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-370 BU-13
Station: Oct 14, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 691.89'
Invert: 687.89'
Rim to Invert: 4.00'
Sump: 3.00'

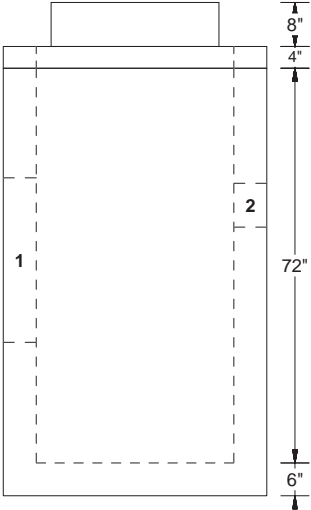
Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	6048
Hole in Flat Wall Structure	EA	1	0
Cleveland WPC CB-1			
IX Reviewed J.P. Sorma PE 10/27/20			



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EJ 7035 - by Ind Exc



EJ 5964-12 trap
- by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	687.89	0	0	EJIW 5964-12	Trap Ko 30"T x 18"W
(2)	688.56	0	180	6" - HDPE	8"Ø FW

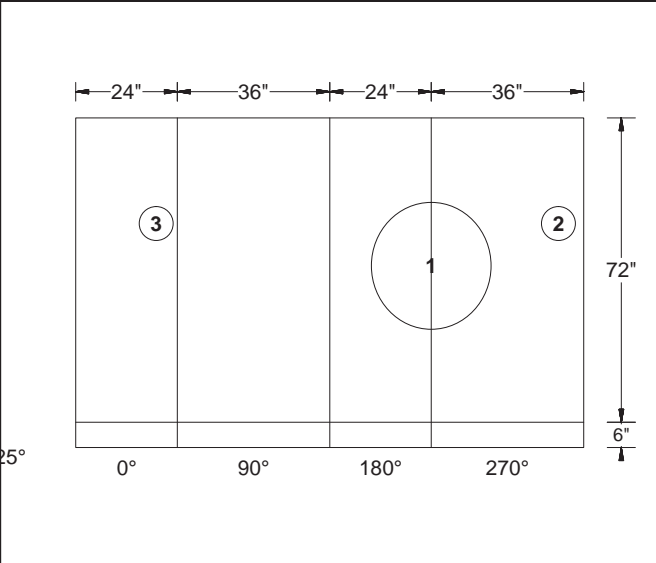
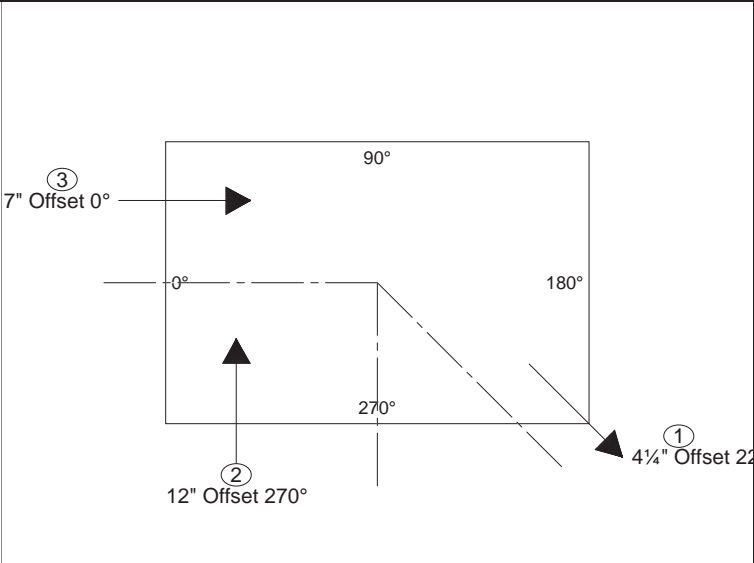
				Hole in Flat Wall Structure	10/22/2020
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Customer:	INDEPENDENCE EXCAVATING, INC.
Job Name:	ODOT 173000 - Opp Corridor Ph 3
Job #:	173408
Structure ID:	D-379 BU-13
Station:	Oct 14, 2020
Type:	City of Cleveland Curb Inlet
SalesPerson:	Ralph Hastings
Rim:	696.78'
Invert:	692.78'
Rim to Invert:	4.00'
Sump:	3.00'

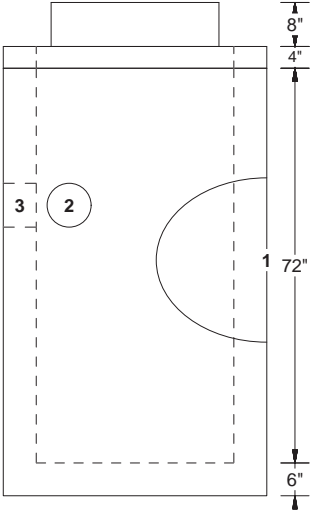
Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	5995
Corner Hole in Structure for Pipe	EA	1	0
Hole in Flat Wall Structure	EA	2	0
<div>Cleveland WPC CB-1</div> <div>IX Reviewed J.P. Sorma PE</div> <div>10/27/20</div>			



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EJ 7035 - by Ind Exc

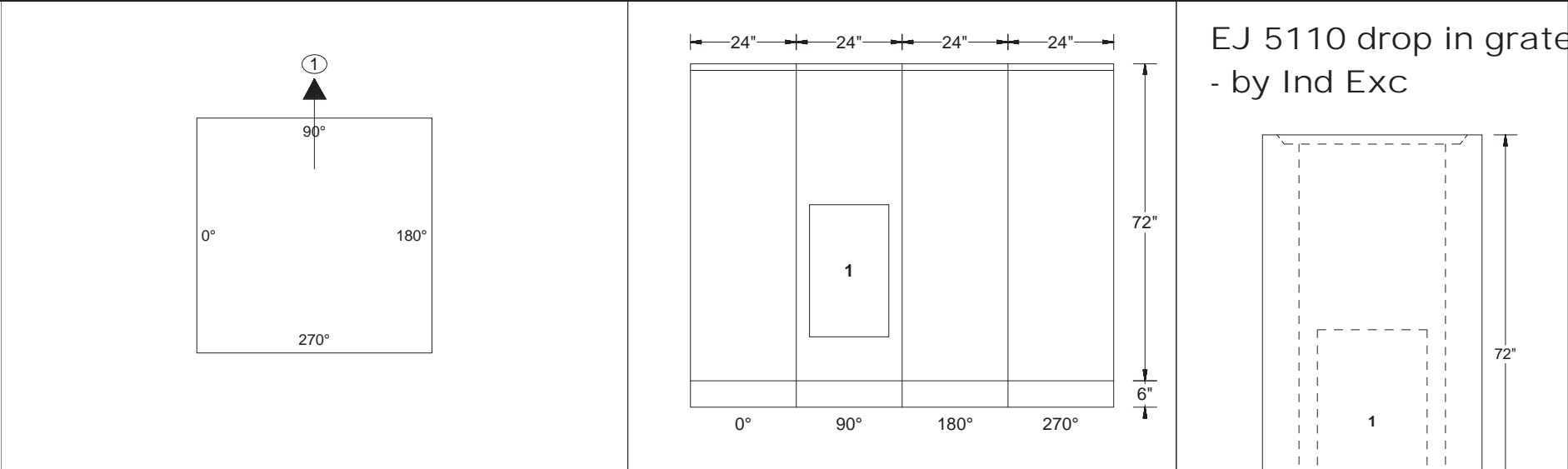


EJ 5964-12 trap
- by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	692.78	0	225	EJIW 5964-12	20"W X 30"T CORNER
(2)	693.45	0	270	6" - HDPE	8"Ø FW
(3)	693.45	0	0	6" - HDPE	8"Ø FW

	<div>Corner Hole in Structure for Pipe</div> <div>Hole in Flat Wall Structure</div>	10/22/2020
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Customer: INDEPENDENCE EXCAVATING, INC. Job Name: ODOT 173000 - Opp Corridor Ph 3 Job #: 173408 Structure ID: D-379A BU-13 Station: Oct 14, 2020 Type: ODOT 2-2B Catch Basin SalesPerson: Ralph Hastings	Description	UOM	Quantity	Weight	 1-800-837-7788 6845 Erie Ave. N.W. PO Box 578 Canal Fulton, Ohio 44614
	24" X 24" Catch Basin X 72" Tall	EA	1	4938	
	ODOT CB 2-2B APP IX Reviewed J.P. Sorma PE 10/27/20				
Rim: 697.56'					
Invert: 693.56'					
Rim to Invert: 4.00'					
Sump: 2.00'					



PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	693.56	0	90	EJIW 5964-12	Trap Ko 30"T x 18"W

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				10/22/2020
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Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-381 BU-13
Station: Oct 14, 2020
Type: Cleveland Division of Water Pollution Control
SalesPerson: Ralph Hastings

Rim: 693.51'
Invert: 682.50'
Rim to Invert: 11.01'
Sump: 0.48'

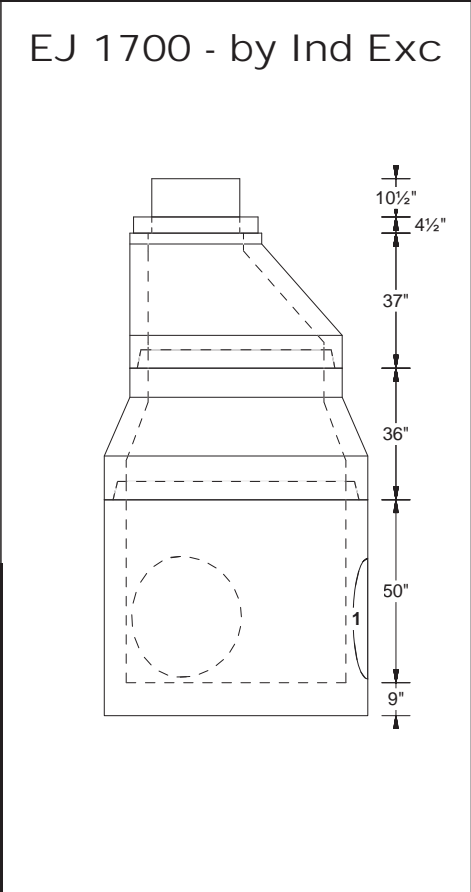
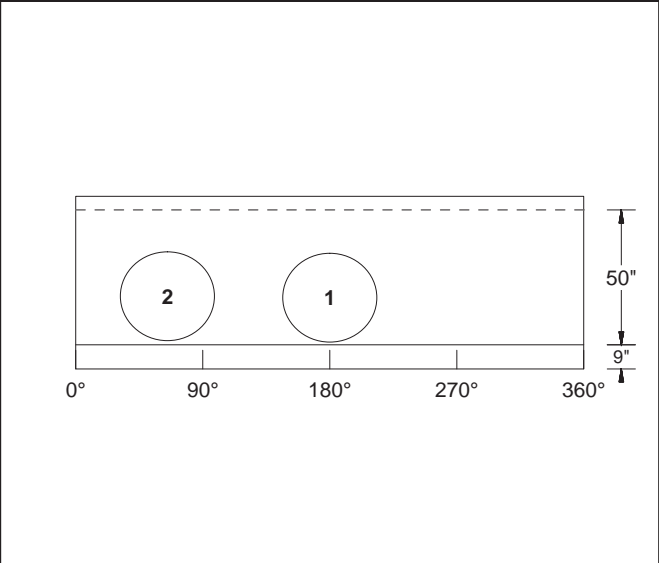
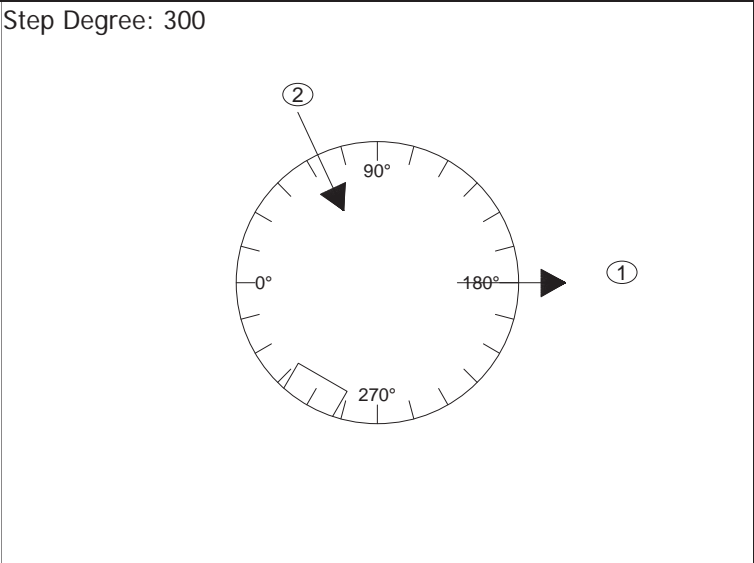
Description	UOM	Quantity	Weight
Stock 48"Ø X 37" Eccentric Cone	EA	1	2755
Stock 60"Ø Dome Transition to 48"Ø	EA	1	3298
60"Ø Non Extended 9" Manhole Base X 50" Tall	EA	1	7658
A-Lok XC-1030 Premium	EA	2	0

Cleveland WPC MH-1

IX Reviewed J.P. Sorma PE
10/27/20



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PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	682.5	-1	180	24" - RCP Co-Pipe	1030 A-LOK
(2)	682.5	0.5	65	24" - RCP Co-Pipe	1030 A-LOK

	A-Lok XC-1030 Premium	10/22/2020
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Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-382 BU-13
Station: Oct 14, 2020
Type: Cleveland Division of Water Pollution
SalesPerson: Control
Ralph Hastings

Rim: 695.15'
Invert: 682.83'
Rim to Invert: 12.32'
Sump: 0.47'

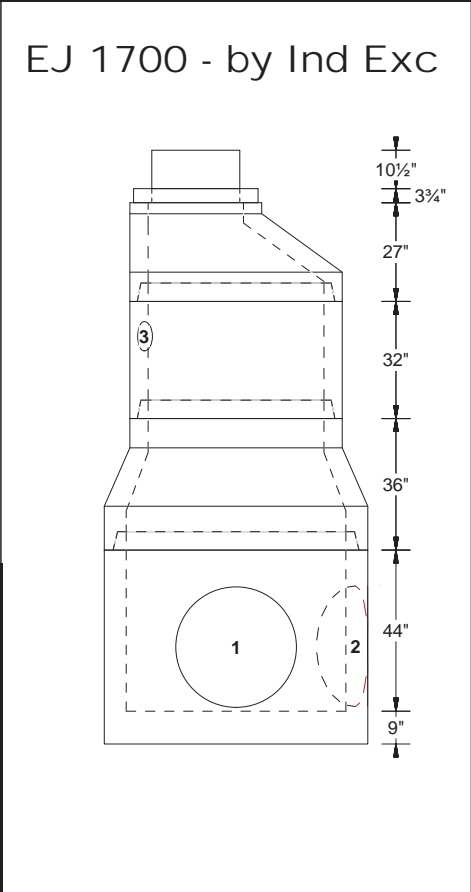
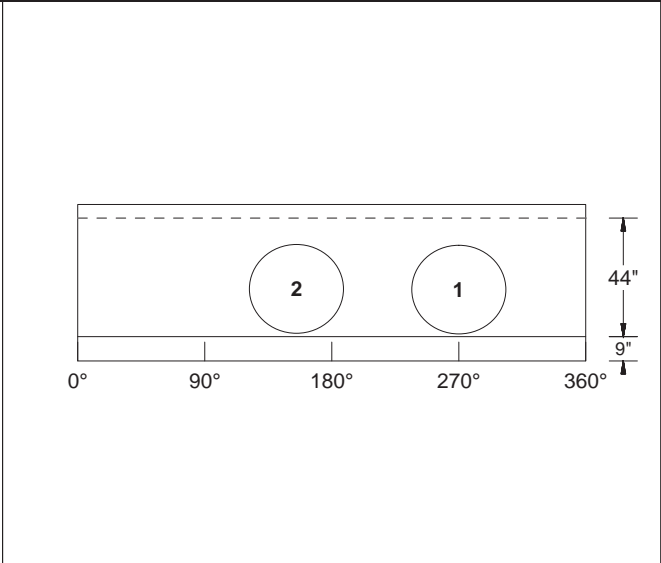
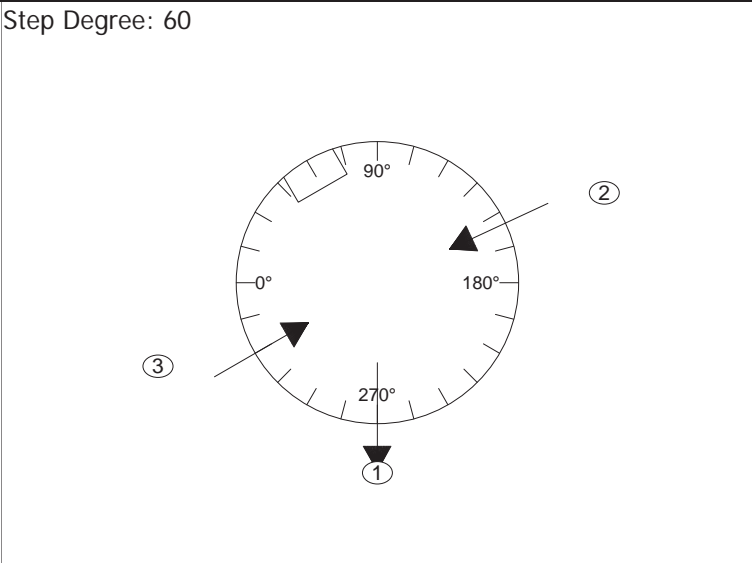
Description	UOM	Quantity	Weight
Stock 48"Ø X 27" Eccentric Cone	EA	1	1860
48"Ø Manhole Riser X 32" Tall	EA	1	2287
Stock 60"Ø Dome Transition to 48"Ø	EA	1	3298
60"Ø Non Extended 9" Manhole Base X 44" Tall	EA	1	7011
Hole in Structure for Pipe	EA	1	0
A-Lok XC-1030 Premium	EA	2	0



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Cleveland WPC MH-1


IX Reviewed J.P. Sorma PE
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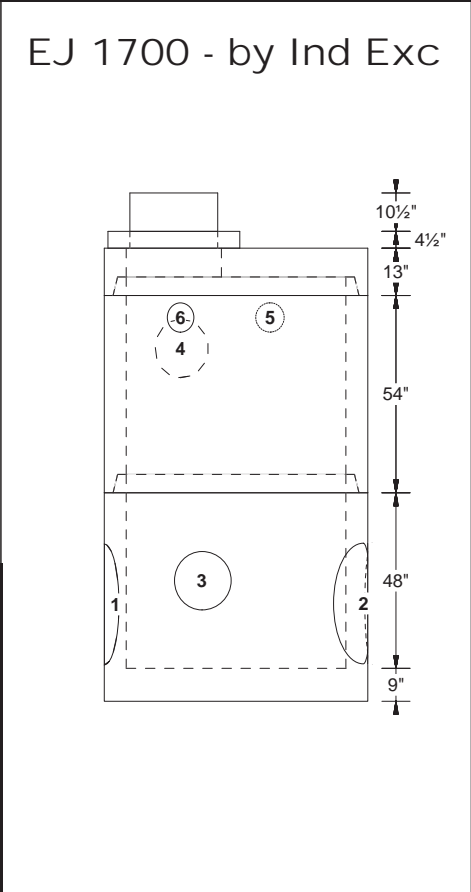
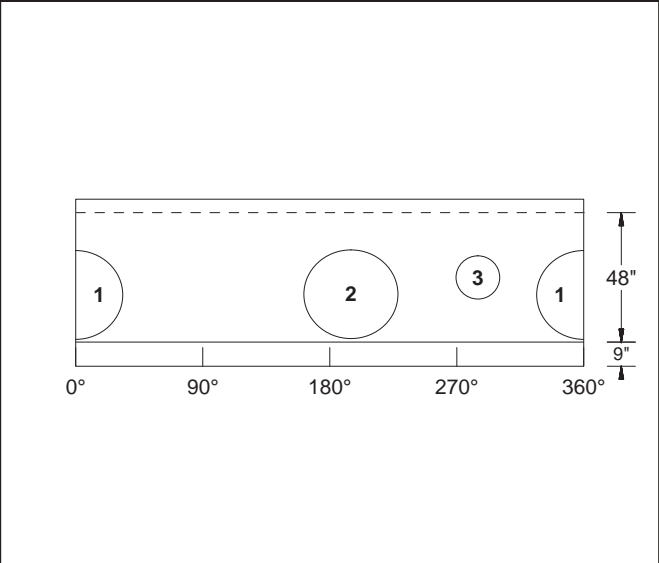
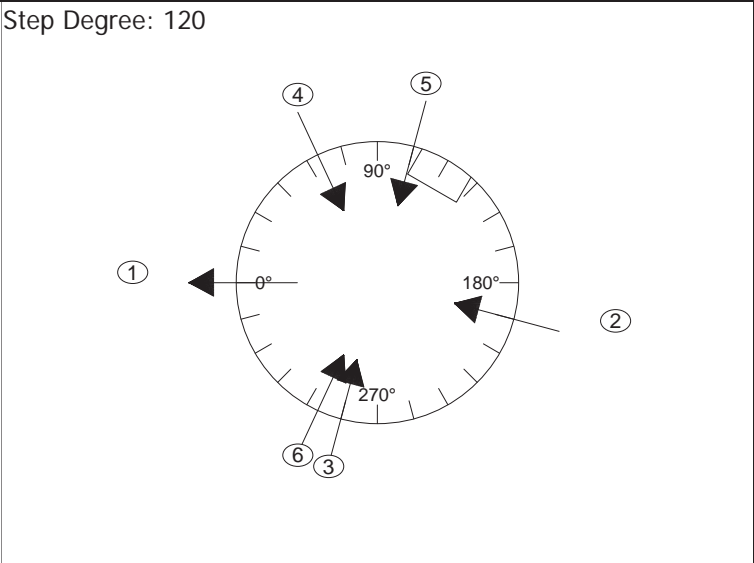


PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	682.83	-0.5	270	24" - RCP Co-Pipe	1030 A-LOK
(2)	682.83	0.5	155	24" - RCP Co-Pipe	1030 A-LOK
(3)	690.65	0	330	6" - HDPE	8"Ø

Hole in Structure for Pipe
A-Lok XC-1030 Premium


10/22/2020

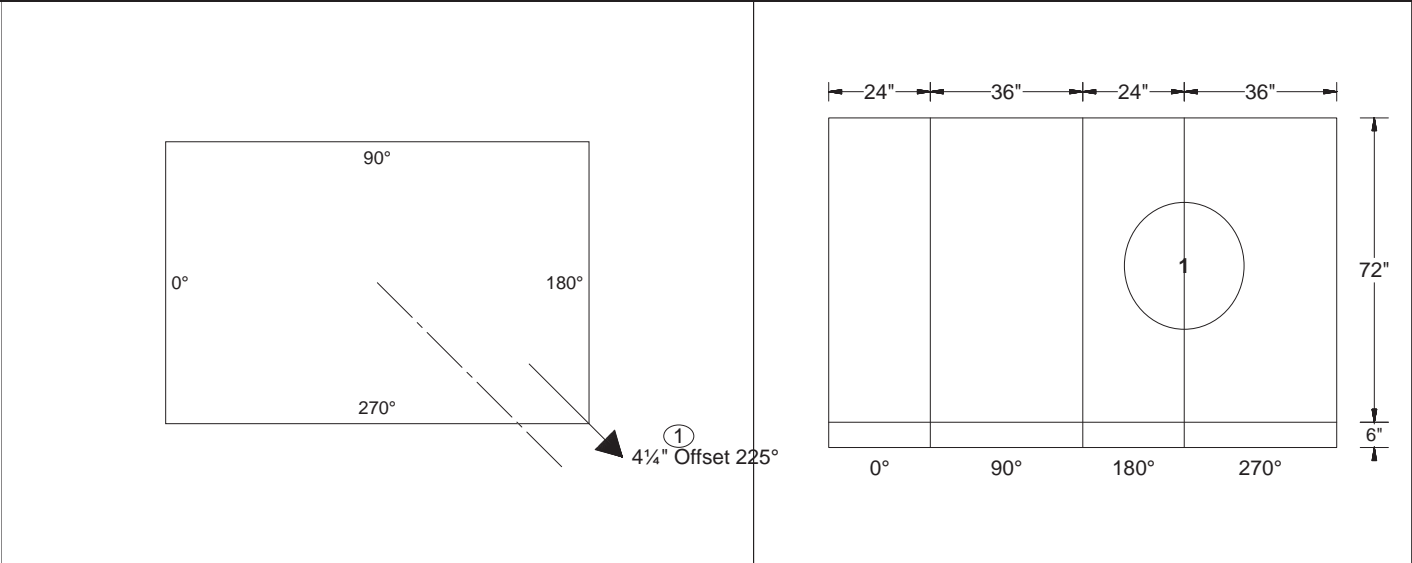
Customer: INDEPENDENCE EXCAVATING, INC. Job Name: ODOT 173000 - Opp Corridor Ph 3 Job #: 173408 Structure ID: D-383 BU-13 Station: Oct 14, 2020 Type: Cleveland Division of Water Pollution SalesPerson: Control Ralph Hastings	Description	UOM	Quantity	Weight	 1-800-837-7788 6845 Erie Ave. N.W. PO Box 578 Canal Fulton, Ohio 44614
	Stock 60"Ø Flat Top w/ 26"Ø Hole	EA	1	2575	
	60"Ø Manhole Riser X 54" Tall	EA	1	5676	
	60"Ø Non Extended 9" Manhole Base X 48" Tall	EA	1	7338	
	Hole in Structure for Pipe	EA	2	0	
	A-Lok XC-1030 Premium	EA	2	0	
	A-Lok XC-480	EA	2	0	
Rim: 694.65' Invert: 684.28' Rim to Invert: 10.37' Sump: 0.47'	Cleveland WPC MH-1 IX Reviewed J.P. Sorma PE 10/27/20				



PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	684.28	-0.5	0	24" - RCP Co-Pipe	1030 A-LOK
(2)	684.28	0.5	195	24" - RCP Co-Pipe	1030 A-LOK
(3)	685.28	1	285	12" - VCP LOGAN	480 A-LOK
(4)	690.56	2	65	12" - VCP LOGAN	480 A-LOK
(5)	691.55	0	105	6" - HDPE	8"Ø
(6)	691.55	0	295	6" - HDPE	8"Ø

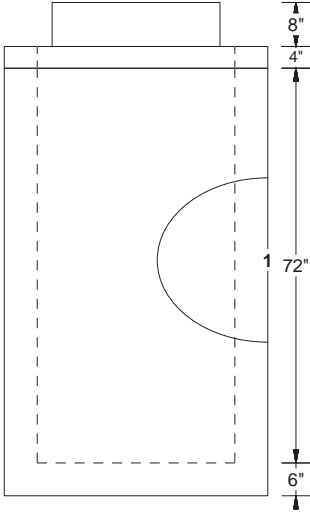
<div>> 12"Ø west is lowered 1" to clear the fla top <</div>	Hole in Structure for Pipe A-Lok XC-1030 Premium A-Lok XC-480	10/22/2020
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Customer: INDEPENDENCE EXCAVATING, INC. Job Name: ODOT 173000 - Opp Corridor Ph 3 Job #: 173408 Structure ID: D-383A Station: Oct 14, 2020 Type: City of Cleveland Curb Inlet SalesPerson: Ralph Hastings	Description	UOM	Quantity	Weight
	24" X 36" Catch Basin Base X 72" Tall	EA	1	6047
	Corner Hole in Structure for Pipe	EA	1	0
Rim: 695.33' Invert: 691.33' Rim to Invert: 4.00' Sump: 3.00'	Cleveland WPC CB-1			
IX Reviewed J.P. Sorma PE 10/27/20				 1-800-837-7788 6845 Erie Ave. N.W. PO Box 578 Canal Fulton, Ohio 44614



PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	691.33	0	225	EJIW 5964-12	20"W X 30"T CORNER

EJ 7035 - by Ind Exc



EJ 5964-12 trap
- by Ind Exc

> No Curb Drain <

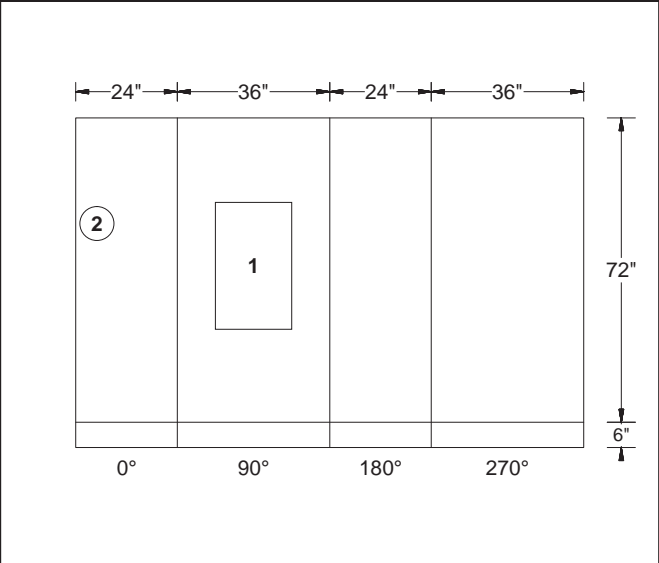
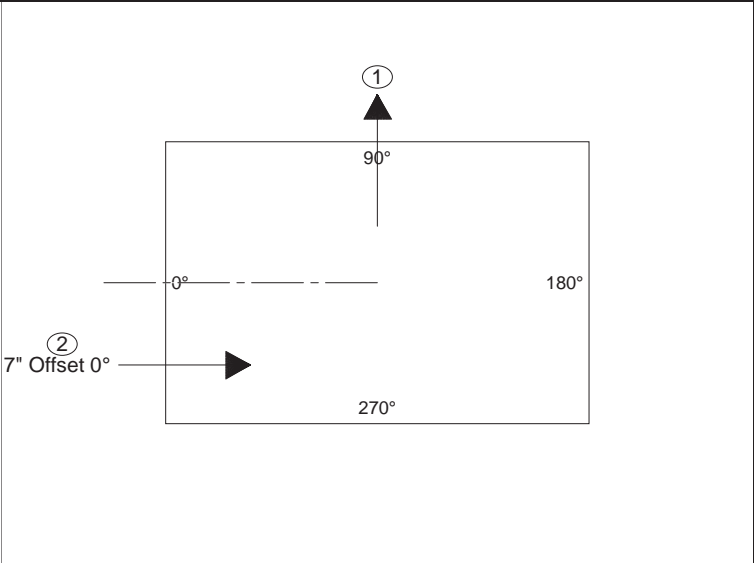
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-384 BU-13
Station: Oct 14, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 693.78'
Invert: 689.78'
Rim to Invert: 4.00'
Sump: 3.00'

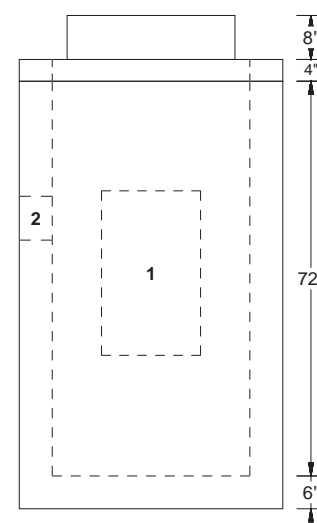
Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	6048
Hole in Flat Wall Structure	EA	1	0
Cleveland WPC CB-1 IX Reviewed J.P. Sorma PE 10/27/20			



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EJ 7035 - by Ind Exc



EJ 5964-12 trap
- by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	689.78	0	90	EJIW 5964-12	Trap Ko 30"T x 18"W
(2)	690.45	0	0	6" - HDPE	8"Ø FW

	Hole in Flat Wall Structure	10/22/2020
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Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-385 BU-13
Station: Oct 14, 2020
Type: Cleveland Division of Water Pollution
SalesPerson: Control 48"Ø
Ralph Hastings

Rim: 694.02'
Invert: 685.00'
Rim to Invert: 9.02'
Sump: 0.47'

Description	UOM	Quantity	Weight
Stock 48"Ø Flat Top W/ 26"Ø Hole	EA	1	1185
48"Ø Manhole Riser X 40" Tall	EA	1	2717
48"Ø Non Extended 6" Manhole Base X 46" Tall	EA	1	3906
A-Lok XC-1030 Premium	EA	2	0
A-Lok XC-480	EA	2	0

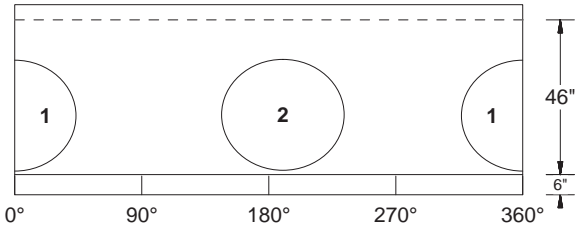
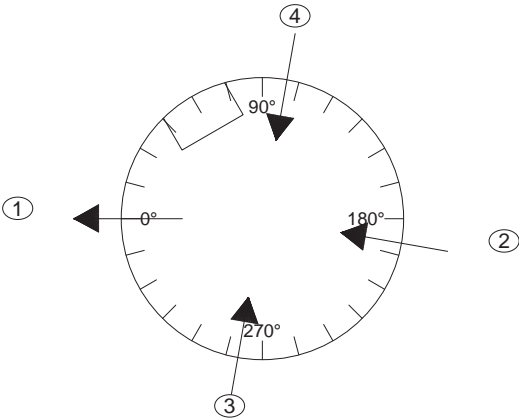
Cleveland WPC MH-1

IX Reviewed J.P. Sorma PE
10/27/20

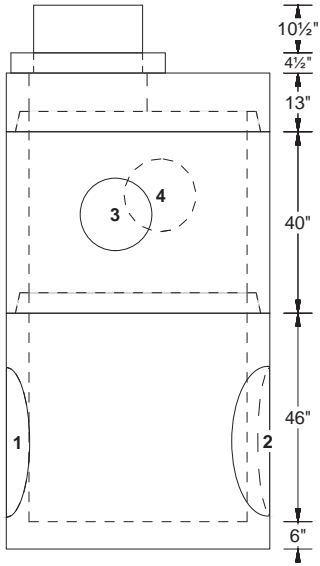


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Step Degree: 60



EJ 1700 - by Ind Exc



PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	685	-0.5	0	24" - RCP Co-Pipe	1030 A-LOK
(2)	685	0.5	190	24" - RCP Co-Pipe	1030 A-LOK
(3)	689.66	1	280	12" - VCP LOGAN	480 A-LOK
(4)	690	1	100	12" - VCP LOGAN	480 A-LOK

> The 12"Ø NW is lowered 4" to clear the flat top <

A-Lok XC-1030 Premium
A-Lok XC-480

10/22/2020

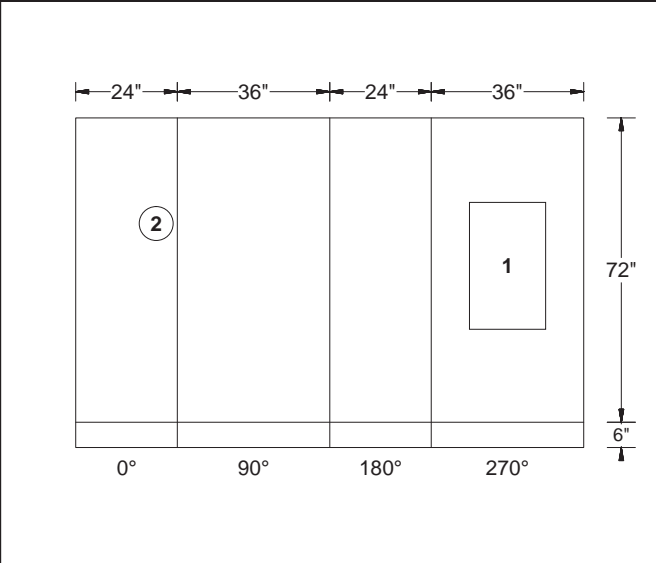
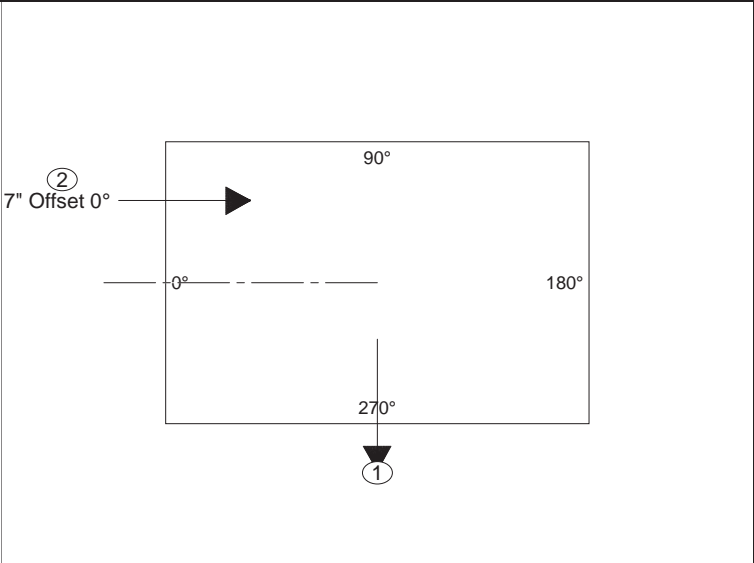
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-386 BU-13
Station: Oct 14, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 694.66'
Invert: 690.66'
Rim to Invert: 4.00'
Sump: 3.00'

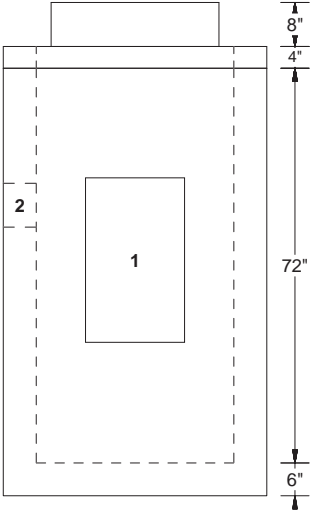
Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	6048
Hole in Flat Wall Structure	EA	1	0
Cleveland WPC CB-1			
IX Reviewed J.P. Sorma PE 10/27/20			



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EJ 7035 - by Ind Exc



EJ 5964-12 trap
- by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(2)	691.33	0	0	6" - HDPE	8"Ø FW
(1)	690.66	0	270	EJIW 5964-12	Trap Ko 30"T x 18"W

	Hole in Flat Wall Structure	10/22/2020
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Customer: INDEPENDENCE EXCAVATING, INC.

Job Name: ODOT 173000 - Opp Corridor Ph 3

Job #: 173408

Structure ID: D-387, Pc A BU-13

Station: Oct 14,'21

Type: City of Cleveland Curb Inlet

SalesPerson: Ralph Hastings

Rim: 693.63'

Invert: 689.33'

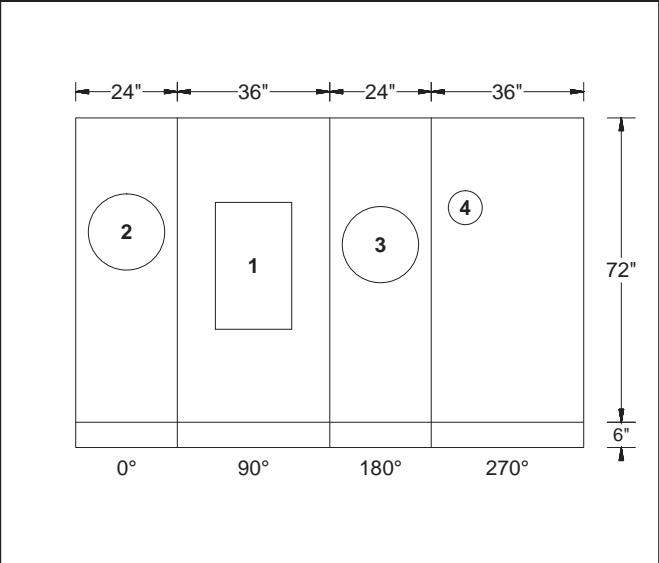
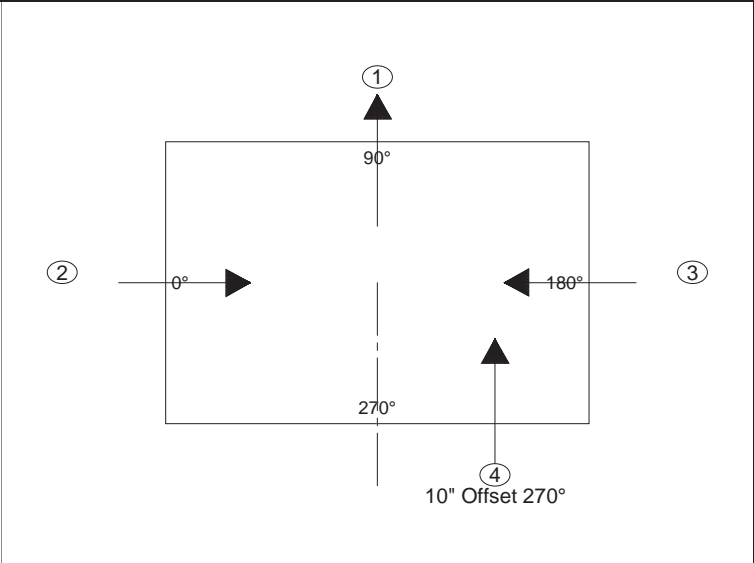
Rim to Invert: 4.30'

Sump: 3.00'

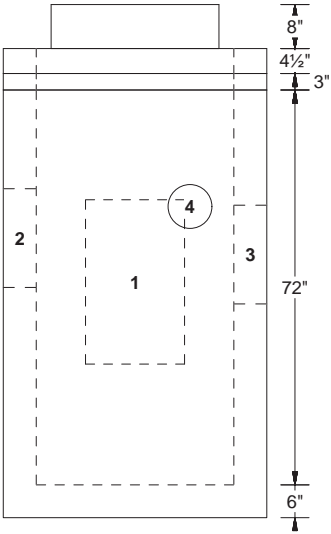
Description	UOM	Quantity	Weight
24" x 36" x 3" Grade Ring	EA	1	225
24" X 36" Catch Basin Base X 72" Tall	EA	1	5778
Hole in Flat Wall Structure	EA	3	0
Cleveland WPC CB-1 (CB-3)			
IX Reviewed J.P. Sorma PE			
10/27/20			



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EJ 7035 - by Ind Exc



Side view diagram of the catch basin. It shows a rectangular structure with a total height of 78" (72" + 6"). The internal layout includes a central rectangular area (1) and four circular areas (2, 3, 4) representing pipe openings. The top edge is divided into four sections of 24", 36", 24", and 36".

EJ 5964-12 trap
- by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	689.33	0	90	EJIW 5964-12	Trap Ko 30"T x 18"W
(2)	689.58	0	0	12" - VCP LOGAN	18"Ø FW
(3)	689.33	0	180	12" - VCP LOGAN	18"Ø FW
(4)	690.3	0	270	6" - HDPE	8"Ø FW

> 6"Ø Curb Drain must be on 270° wall <

Hole in Flat Wall Structure

10/22/2020

Customer: INDEPENDENCE EXCAVATING, INC.

Job Name: ODOT 173000 - Opp Corridor Ph 3

Job #: 173408

Structure ID: D-387, Pc B BU-13

Station: Oct 14,'21

Type: City of Cleveland Curb Inlet

SalesPerson: Ralph Hastings

Rim: 693.63'

Invert: 689.58'

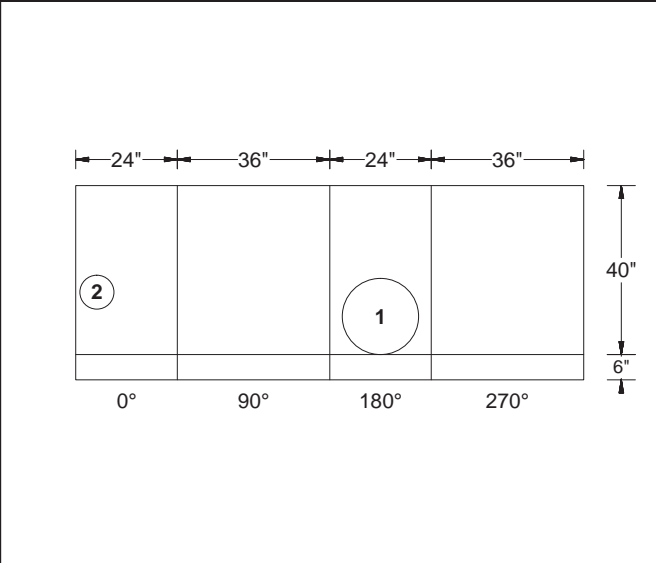
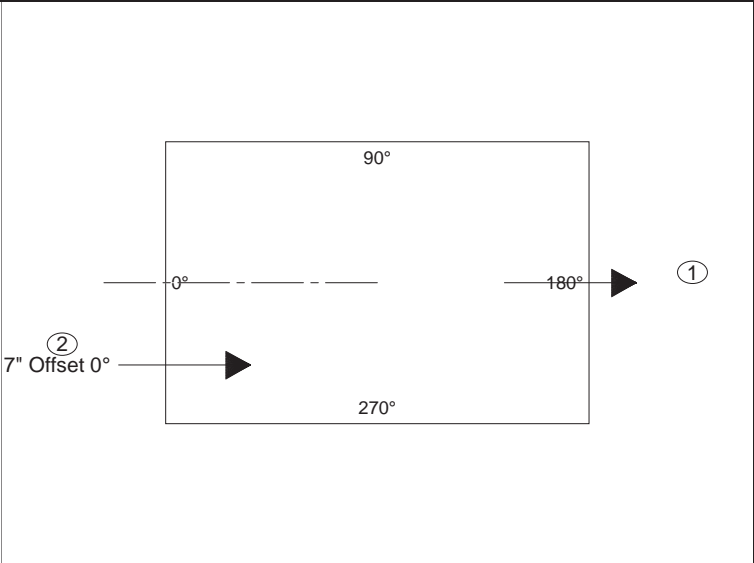
Rim to Invert: 4.05'

Sump: 0.25'

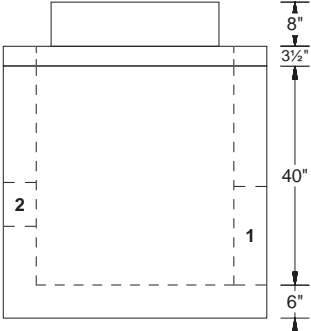
Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 40" Tall	EA	1	3739
Hole in Flat Wall Structure	EA	2	0
Cleveland WPC CB-1 (CB-3)			
IX Reviewed J.P. Sorma PE 10/27/20			



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EJ 7035 - by Ind Exc

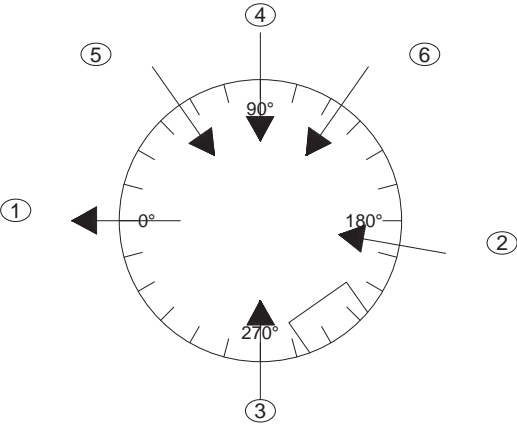
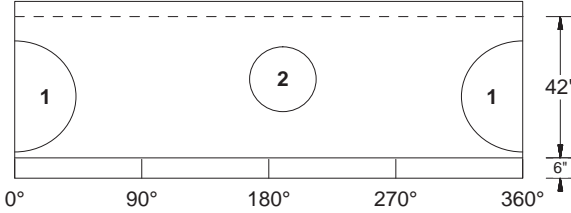
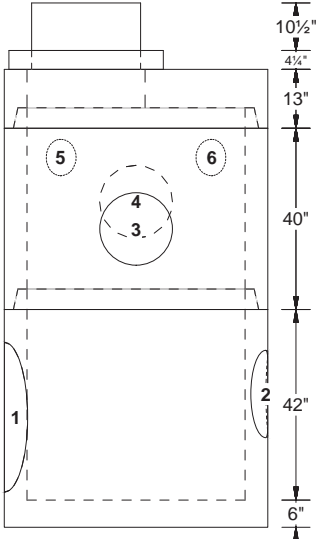


No sump, no trap

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	689.58	0	180	12" - VCP LOGAN	18"Ø FW
(2)	690.3	0	0	6" - HDPE	8"Ø FW

	Hole in Flat Wall Structure	10/22/2020
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Customer:	INDEPENDENCE EXCAVATING, INC.	Description			UOM	Quantity	Weight	 1-800-837-7788 6845 Erie Ave. N.W. PO Box 578 Canal Fulton, Ohio 44614
Job Name:	ODOT 173000 - Opp Corridor Ph 3	Stock 48"Ø Flat Top W/ 26"Ø Hole			EA	1	1185	
Job #:	173408	48"Ø Manhole Riser X 40" Tall			EA	1	2673	
Structure ID:	D-388 BU-13	48"Ø Non Extended 6" Manhole Base X 42" Tall			EA	1	3886	
Station:	Oct 14, 2020	Hole in Structure for Pipe			EA	2	0	
Type:	Cleveland Division of Water Pollution	A-Lok XC-1030 Premium			EA	1	0	
SalesPerson:	Control 48"Ø	A-Lok XC-480			EA	2	0	
	Ralph Hastings	A-Lok XC-580			EA	1	0	
Rim:	693.89'	<div>Cleveland WPC MH-1</div> <div>IX Reviewed J.P. Sorma PE</div> <div>10/27/20</div>						
Invert:	685.30'							
Rim to Invert:	8.59'							
Sump:	0.54'							

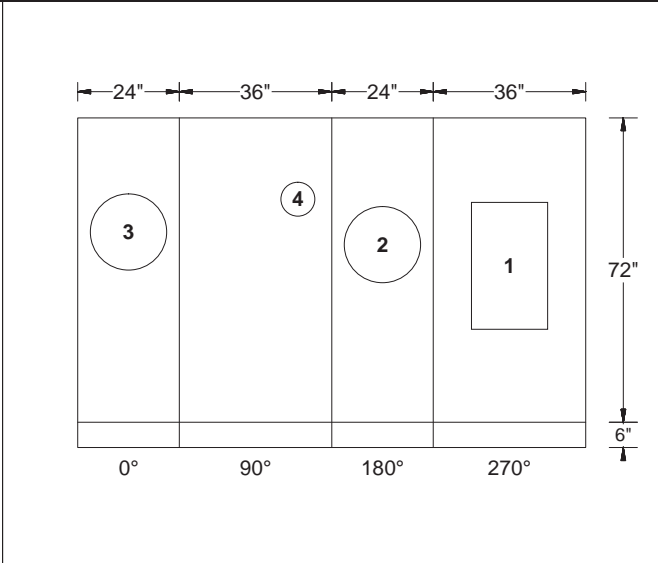
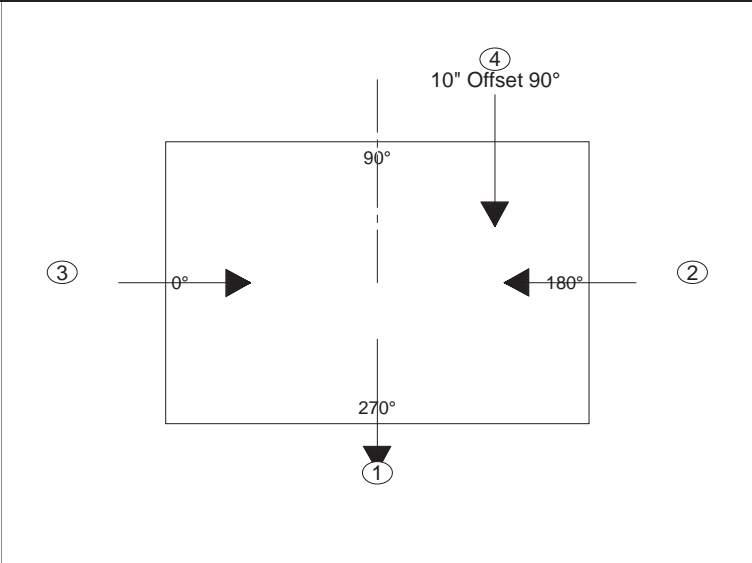
Step Degree: 235						EJ 1700 - by Ind Exc 	
PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type		
(2)	686.05	1.34	190	15" - VCP LOGAN	580 A-LOK		
(3)	689.21	1	270	12" - VCP LOGAN	480 A-LOK		
(4)	689.72	1	90	12" - VCP LOGAN	480 A-LOK		
(5)	690.79	0	55	6" - HDPE	8"Ø		
(6)	690.79	0	125	6" - HDPE	8"Ø		
(1)	685.3	-0.5	0	24" - RCP Co-Pipe	1030 A-LOK		
					Hole in Structure for Pipe A-Lok XC-1030 Premium A-Lok XC-480 A-Lok XC-580	10/22/2020	

Customer:	INDEPENDENCE EXCAVATING, INC.
Job Name:	ODOT 173000 - Opp Corridor Ph 3
Job #:	173408
Structure ID:	D-389, Pc A BU-13
Station:	Oct 14,'21
Type:	City of Cleveland Curb Inlet
SalesPerson:	Ralph Hastings
Rim:	694.52'
Invert:	690.04'
Rim to Invert:	4.48'
Sump:	3.00'

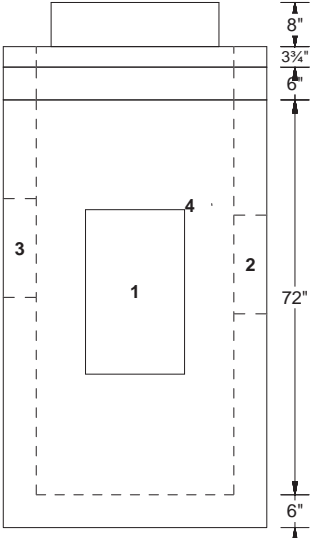
Description	UOM	Quantity	Weight
24" x 36" x 6" Grade Ring	EA	1	450
24" X 36" Catch Basin Base X 72" Tall	EA	1	5778
Hole in Flat Wall Structure	EA	3	0
<div>Cleveland WPC CB-1 (CB-3)</div> <div>IX Reviewed J.P. Sorma PE</div> <div>10/27/20</div>			



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EJ 7035 - by Ind Exc



EJ 5964-12 trap
- by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(2)	690.04	0	180	12" - VCP LOGAN	18"Ø FW
(3)	690.29	0	0	12" - VCP LOGAN	18"Ø FW
(4)	691.19	0	90	6" - HDPE	8"Ø FW
(1)	690.04	0	270	EJIW 5964-12	Trap Ko 30"T x 18"W

> 6"Ø Curb Drain must be on 270° wall <

Hole in Flat Wall Structure

10/22/2020

Customer: INDEPENDENCE EXCAVATING, INC.

Job Name: ODOT 173000 - Opp Corridor Ph 3

Job #: 173408

Structure ID: D-389, Pc B BU-13

Station: Oct 14,'21

Type: City of Cleveland Curb Inlet

SalesPerson: Ralph Hastings

Rim: 694.52'

Invert: 690.29'

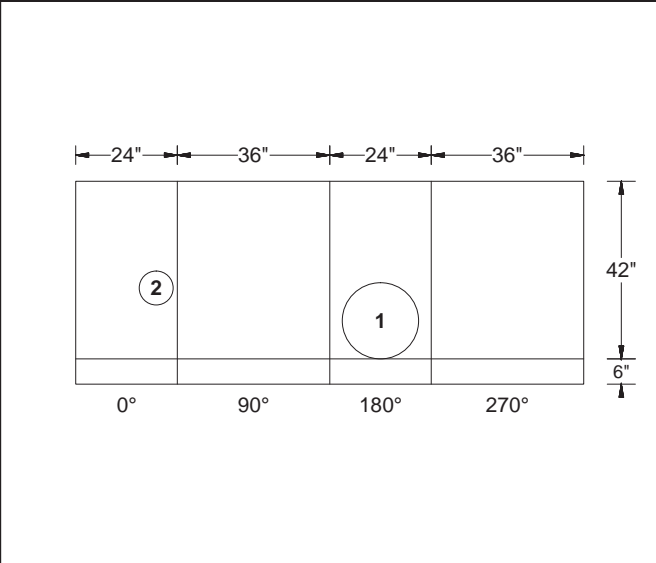
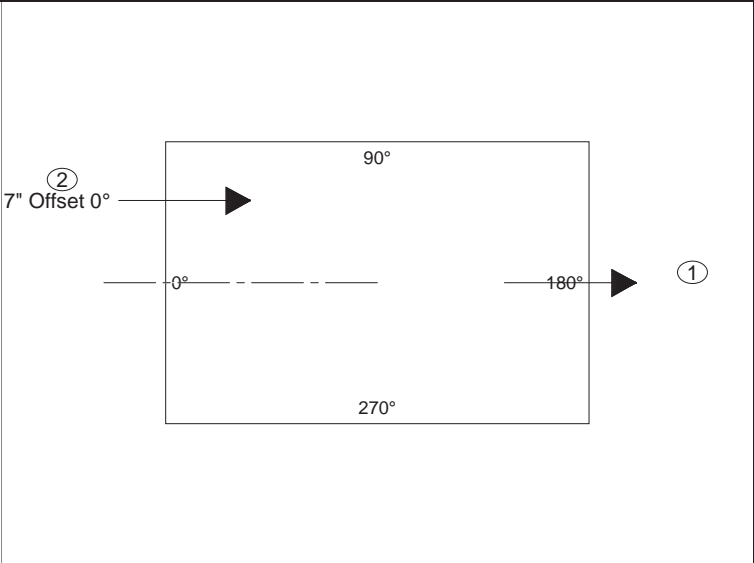
Rim to Invert: 4.23'

Sump: 0.25'

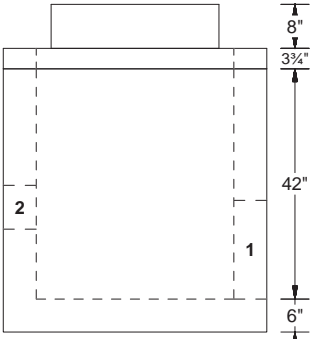
Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 42" Tall	EA	1	3889
Hole in Flat Wall Structure	EA	2	0
Cleveland WPC CB-1 (CB-3)			
IX Reviewed J.P. Sorma PE			
10/27/20			



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EJ 7035 - by Ind Exc



No sump, no trap

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	690.29	0	180	12" - VCP LOGAN	18"Ø FW
(2)	691.19	0	0	6" - HDPE	8"Ø FW

	Hole in Flat Wall Structure	10/22/2020
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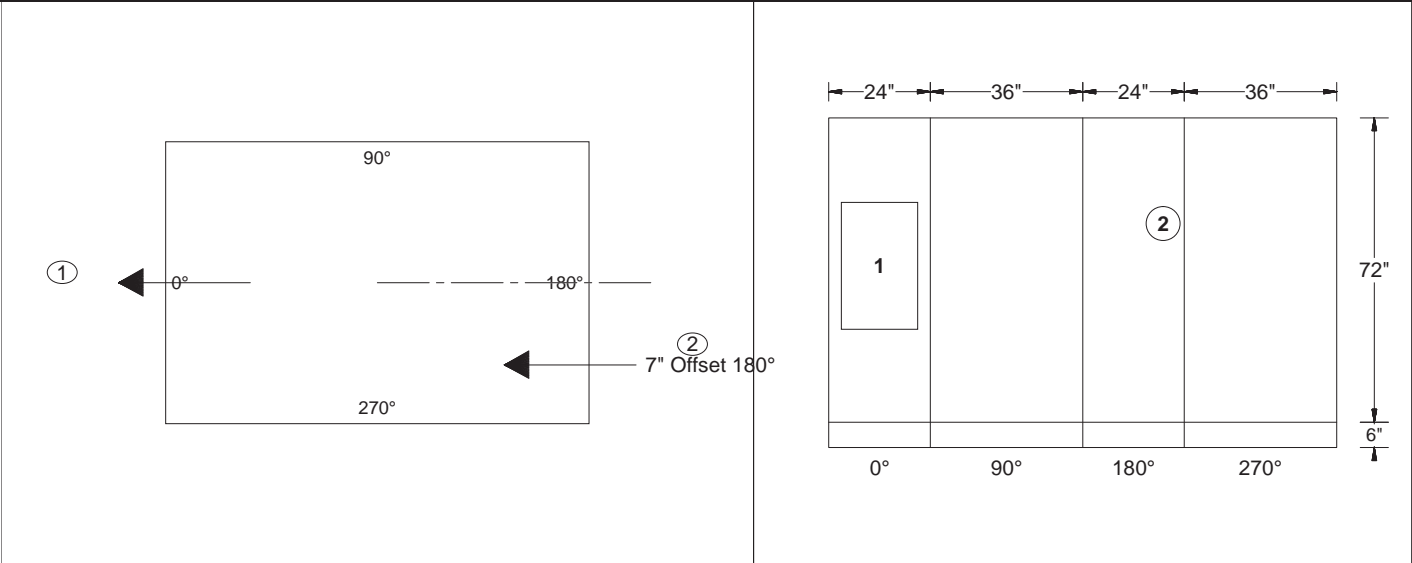
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-390 BU-13
Station: Oct 14, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 693.70'
Invert: 689.70'
Rim to Invert: 4.00'
Sump: 3.00'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	6048
Hole in Flat Wall Structure	EA	1	0
<div> <div>Cleveland WPC CB-1</div> <div>IX Reviewed J.P. Sorma PE 10/27/20</div> </div>			

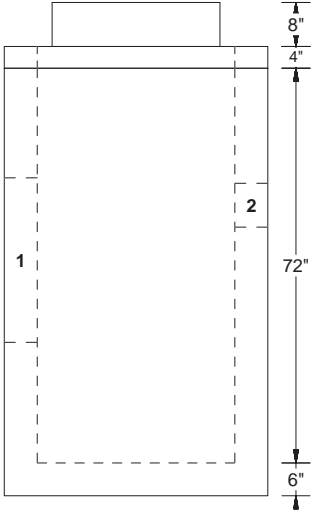


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PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	689.7	0	0	EJIW 5964-12	Trap Ko 30"T x 18"W
(2)	690.37	0	180	6" - HDPE	8"Ø FW

EJ 7035 - by Ind Exc



EJ 5964-12 trap
- by Ind Exc

	Hole in Flat Wall Structure	10/22/2020
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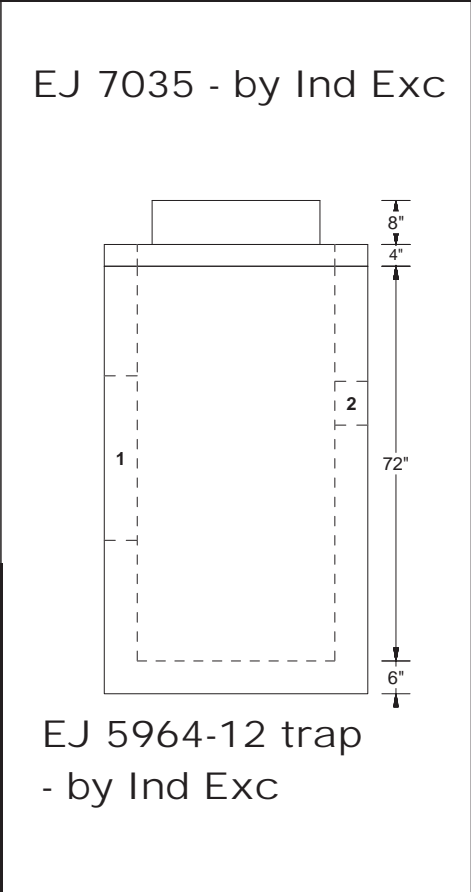
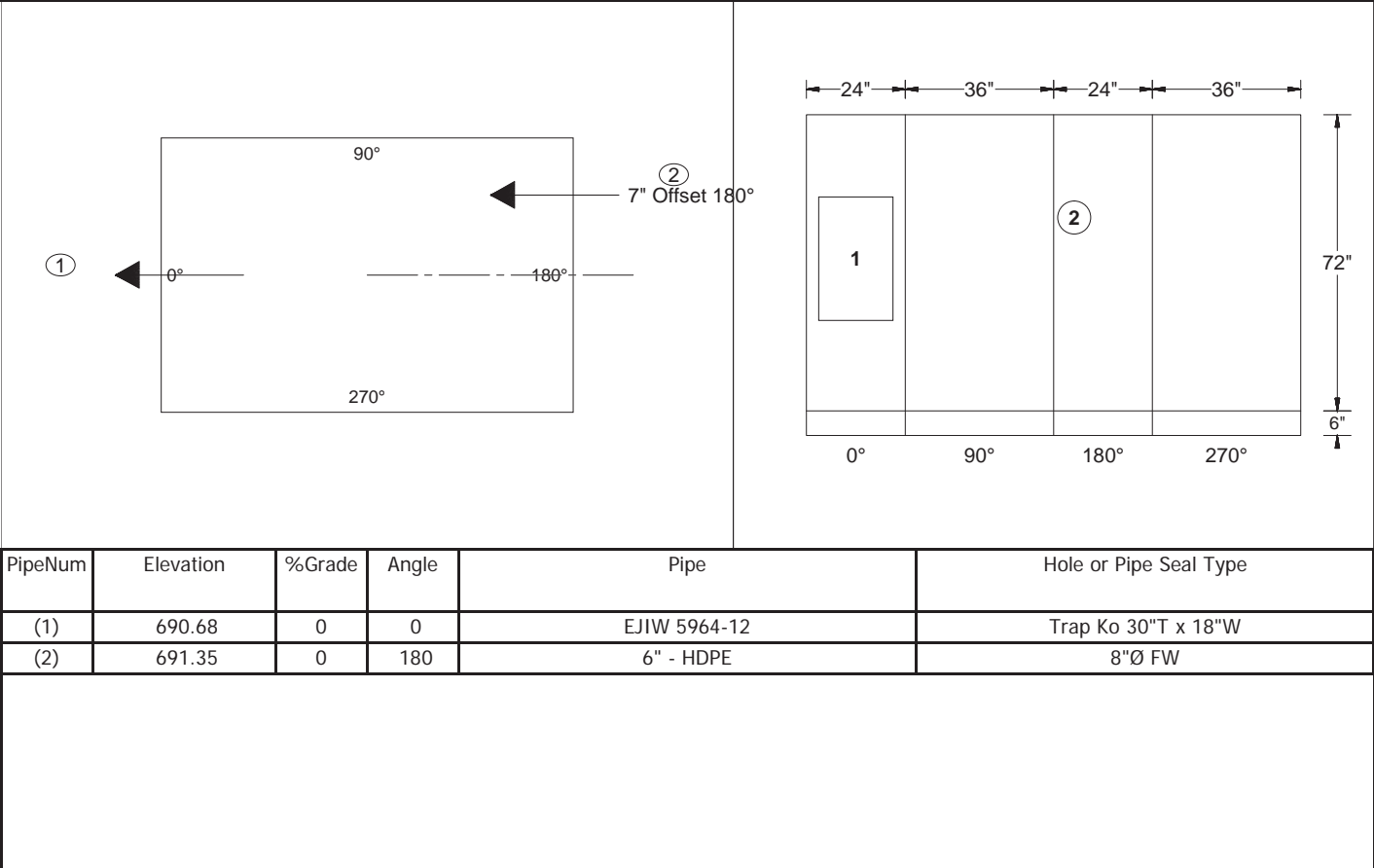
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-392 BU-13
Station: Oct 14, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 694.68'
Invert: 690.68'
Rim to Invert: 4.00'
Sump: 3.00'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	6048
Hole in Flat Wall Structure	EA	1	0
<div> <div>Cleveland WPC CB-1</div> <div>IX Reviewed J.P. Sorma PE</div> <div>10/27/20</div> </div>			



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	Hole in Flat Wall Structure	10/22/2020
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Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-393, Pc A BU-13
Station: Oct 14,'21
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 694.18'
Invert: 690.18'
Rim to Invert: 4.00'
Sump: 3.00'

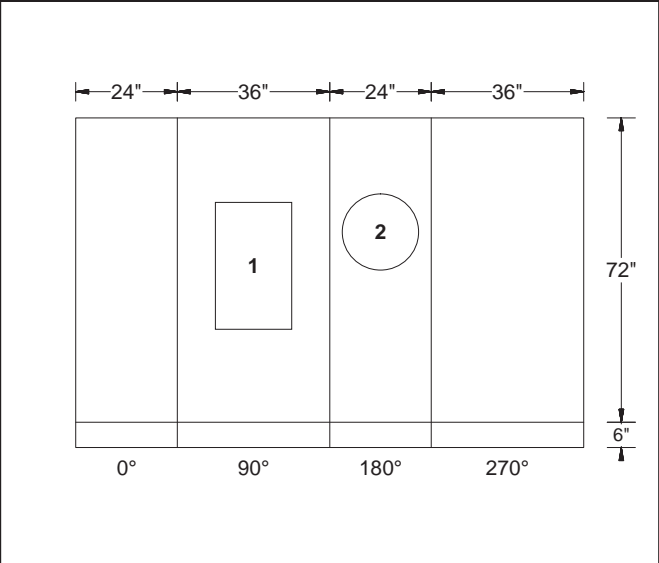
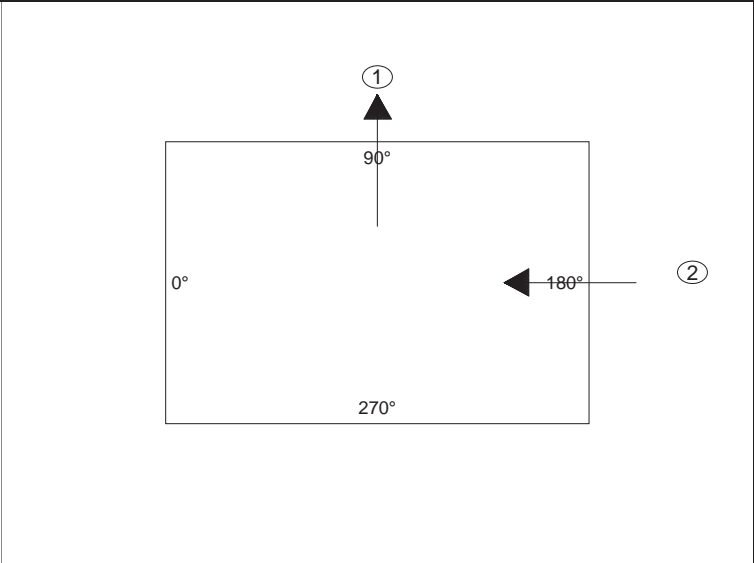
Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	5939
Hole in Flat Wall Structure	EA	1	0

Cleveland WPC CB-1 (CB-3)

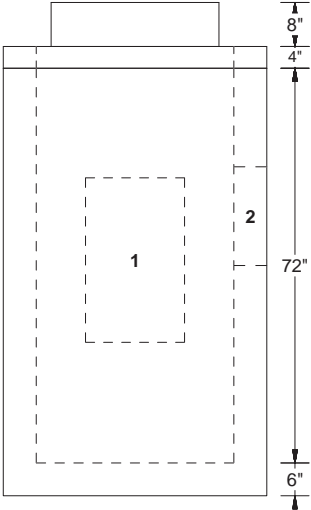
IX Reviewed J.P. Sorma PE
10/27/20



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Canal Fulton, Ohio 44614



EJ 7035 - by Ind Exc



EJ 5964-12 trap
- by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	690.18	0	90	EJIW 5964-12	Trap Ko 30"T x 18"W
(2)	690.43	0	180	12" - VCP LOGAN	18"Ø FW

> No 6"Ø Curb Drain <

Hole in Flat Wall Structure	10/22/2020
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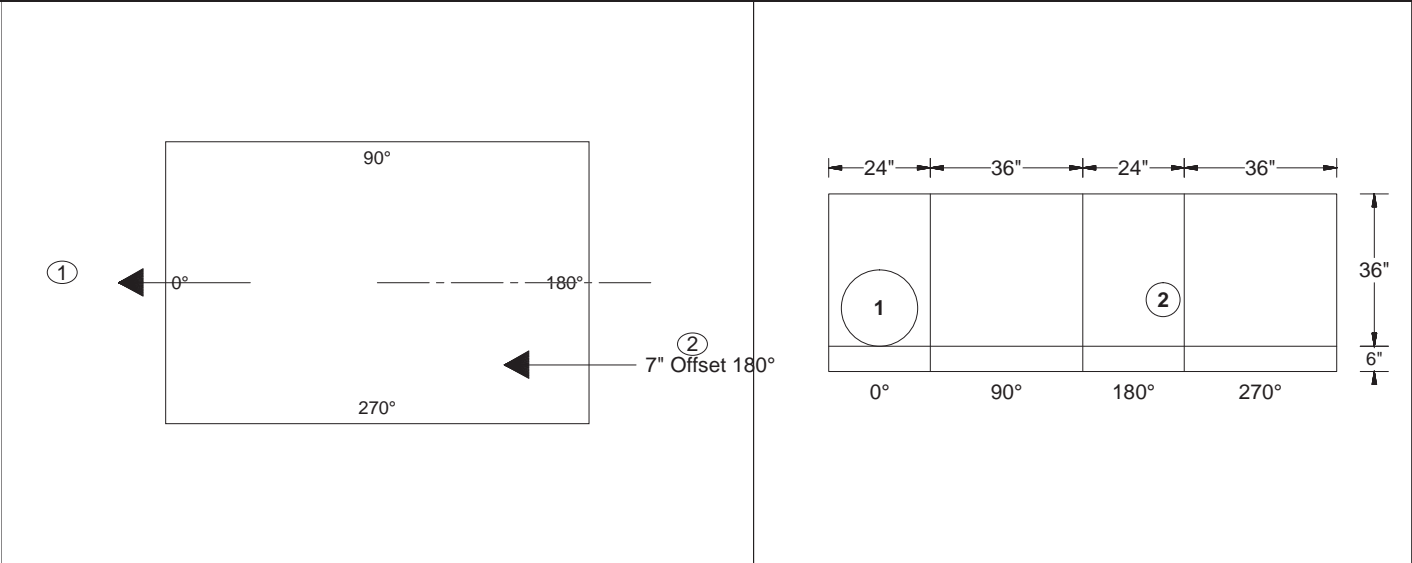
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-393, Pc B BU-13
Station: Oct 14,'21
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 694.18'
Invert: 690.43'
Rim to Invert: 3.75'
Sump: 0.25'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 36" Tall	EA	1	3439
Hole in Flat Wall Structure	EA	2	0
Cleveland WPC CB-1 (CB-3)			
IX Reviewed J.P. Sorma PE 10/27/20			

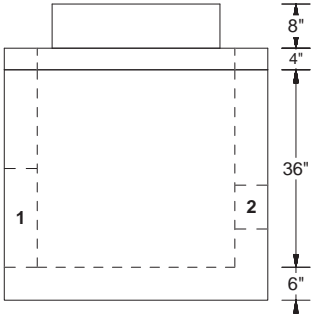


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Canal Fulton, Ohio 44614



PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	690.43	0	0	12" - VCP LOGAN	18"Ø FW
(2)	690.85	0	180	6" - HDPE	8"Ø FW

EJ 7035 - by Ind Exc



No sump, no trap

Hole in Flat Wall Structure					10/22/2020
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Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-395 BU-13
Station: Oct 14, 2020
Type: Cleveland Division of Water Pollution
SalesPerson: Control 48"Ø
Ralph Hastings

Rim: 694.42'
Invert: 687.84'
Rim to Invert: 6.58'
Sump: 0.28'

Description	UOM	Quantity	Weight
Stock 48"Ø Flat Top W/ 26"Ø Hole	EA	1	1185
48"Ø Non Extended 6" Manhole Base x 54" Tall	EA	1	4914
Hole in Structure for Pipe	EA	1	0
A-Lok XC-480	EA	1	0
A-Lok XC-580	EA	2	0

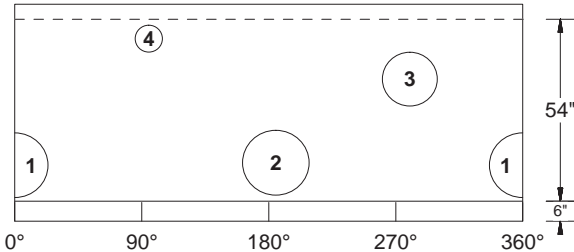
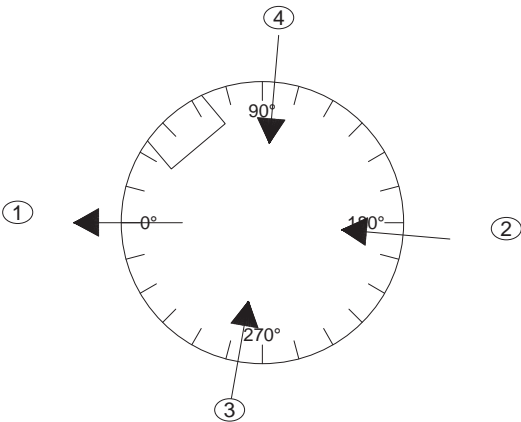
Cleveland WPC MH-1

IX Reviewed J.P. Sorma PE
10/27/20

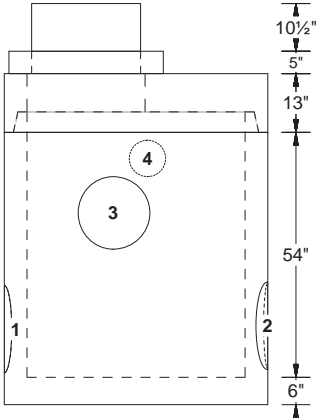


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6845 Erie Ave. N.W.
PO Box 578
Canal Fulton, Ohio 44614

Step Degree: 50



EJ 1700 - by Ind Exc



PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	687.84	-1.34	0	15" - VCP LOGAN	580 A-LOK
(2)	687.84	1.34	185	15" - VCP LOGAN	580 A-LOK
(3)	690.06	1	280	12" - VCP LOGAN	480 A-LOK
(4)	691.32	0	95	6" - HDPE	8"Ø

Hole in Structure for Pipe
A-Lok XC-480
A-Lok XC-580

10/22/2020

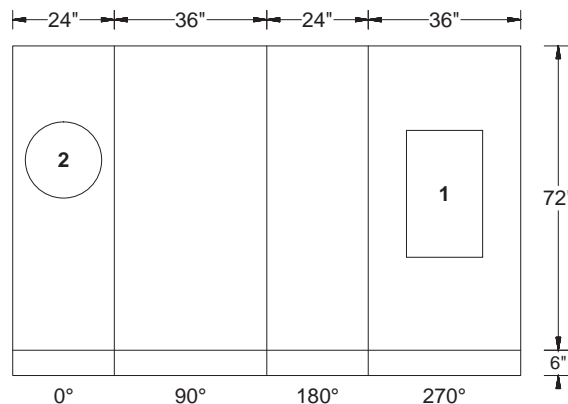
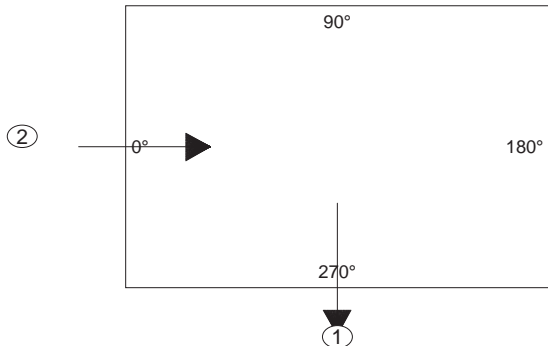
Rim:	695.27'
Invert:	691.27'
Rim to Invert:	4.00'
Sump:	3.00'

Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 72" Tall	EA	1	5939
Hole in Flat Wall Structure	EA	1	0
Square hole	EA	1	0

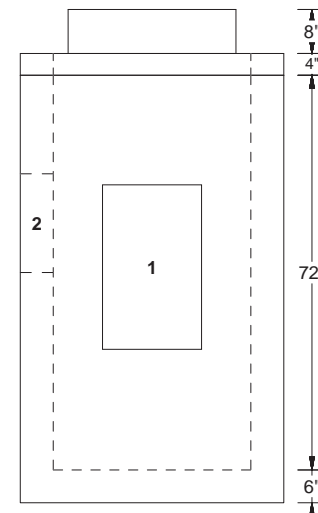
IX Reviewed J.P. Sorma PE
10/27/20



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Canal Fulton, Ohio 44614



EJ 7035 - by Ind Exc



EJ 5964-12 trap
- by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	691.27	0	270	EJIW 5964-12	30"T x 18"W KO
(2)	691.52	0	0	12" - VCP LOGAN	18"Ø FW

> No Curb Drain <

Hole in Flat Wall Structure
Square hole

10/22/2020

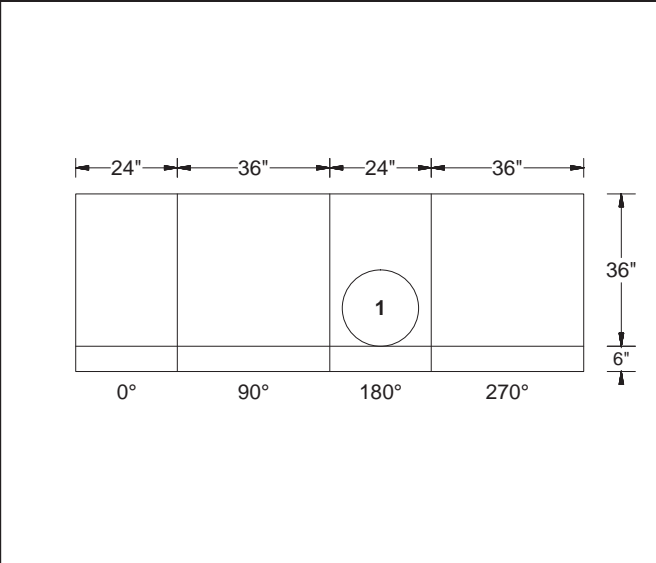
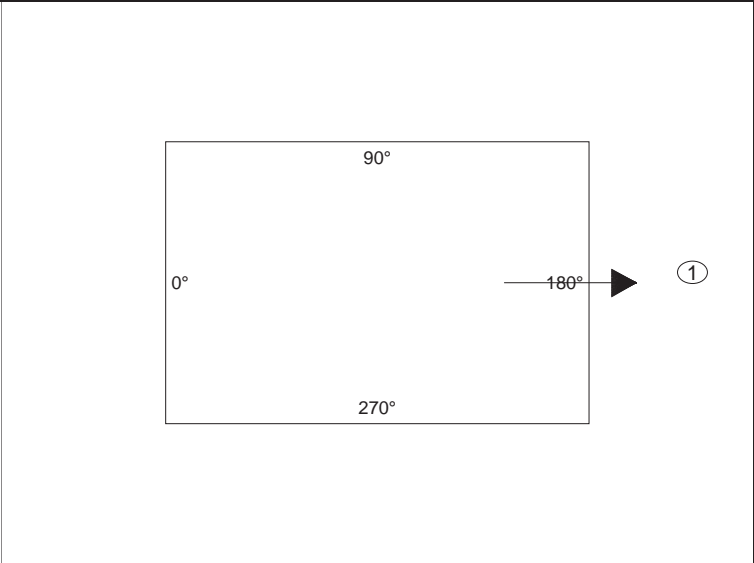
Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-397, Pc B BU-13
Station: Oct 14, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

Rim: 695.27'
Invert: 691.52'
Rim to Invert: 3.75'
Sump: 0.25'

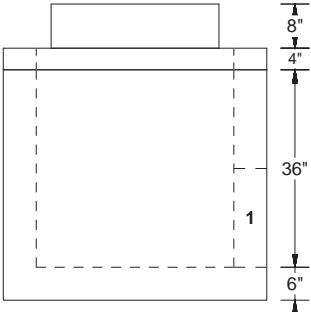
Description	UOM	Quantity	Weight
24" X 36" Catch Basin Base X 36" Tall	EA	1	3465
Hole in Flat Wall Structure	EA	1	0
Cleveland WPC CB-1 (CB-3)			
IX Reviewed J.P. Sorma PE 10/27/20			



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Canal Fulton, Ohio 44614



EJ 7035 - by Ind Exc



No sump, no trap

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	691.52	0	180	12" - VCP LOGAN	18"Ø FW

> No Curb Drain <

Hole in Flat Wall Structure	10/22/2020
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Customer: INDEPENDENCE EXCAVATING, INC.
Job Name: ODOT 173000 - Opp Corridor Ph 3
Job #: 173408
Structure ID: D-398 BU-13
Station: Oct 14, 2020
Type: City of Cleveland Curb Inlet
SalesPerson: Ralph Hastings

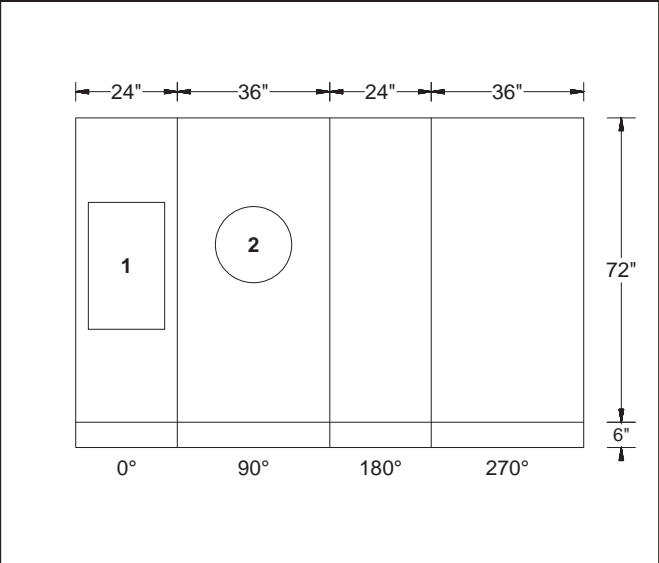
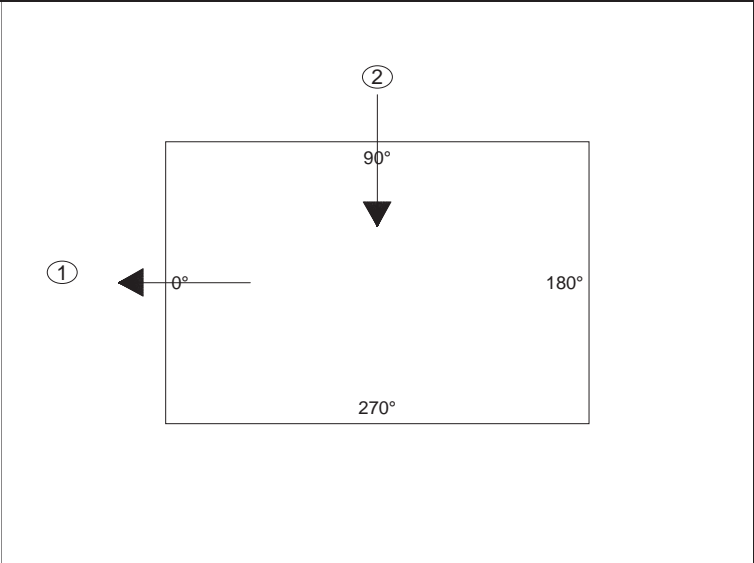
Rim: 695.19'
Invert: 690.60'
Rim to Invert: 4.59'
Sump: 3.00'

Description	UOM	Quantity	Weight
24" x 36" x 6" Grade Ring	EA	1	450
24" X 36" Catch Basin Base X 72" Tall	EA	1	5939
Hole in Flat Wall Structure	EA	1	0

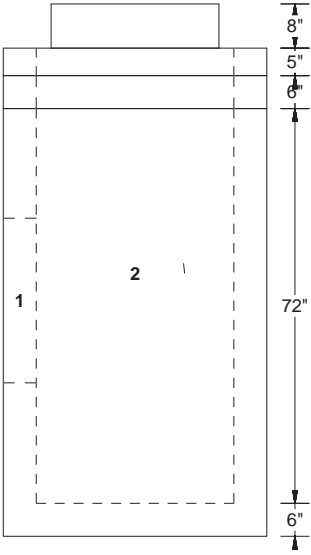
Cleveland WPC CB-1
IX Reviewed J.P. Sorma PE
10/27/20



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EJ 7035 - by Ind Exc




EJ 5964-12 trap
- by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	690.6	0	0	EJIW 5964-12	Trap Ko 30"T x 18"W
(2)	690.6	0	90	12" - VCP LOGAN	18"Ø FW

> No Curb Drain <

Hole in Flat Wall Structure	10/22/2020
-----------------------------	------------

Customer: INDEPENDENCE EXCAVATING, INC. Job Name: ODOT 173000 - Opp Corridor Ph 3 Job #: 173408 Structure ID: D-399 BU-13 Station: Oct 14, 2020 Type: Cleveland Division of Water Pollution SalesPerson: Control 48"Ø Ralph Hastings	Description	UOM	Quantity	Weight	
	Stock 48"Ø Flat Top W/ 26"Ø Hole	EA	1	1185	
	48"Ø Non Extended 6" Manhole Base X 38" Tall	EA	1	3733	
	A-Lok XC-480	EA	3	0	
	A-Lok XC-580	EA	1	0	
Rim: 695.05' Invert: 689.85' Rim to Invert: 5.20' Sump: 0.28'	Cleveland WPC MH-1 IX Reviewed J.P. Sorma PE 10/27/20				1-800-837-7788 6845 Erie Ave. N.W. PO Box 578 Canal Fulton, Ohio 44614

Step Degree: 135

EJ 1700 - by Ind Exc

PipeNum	Elevation	%Grade	Angle	Pipe	Hole or Pipe Seal Type
(1)	689.85	-1.34	0	15" - VCP LOGAN	580 A-LOK
(2)	690.1	1	185	12" - VCP LOGAN	480 A-LOK
(3)	690.1	1	90	12" - VCP LOGAN	480 A-LOK
(4)	690.33	1	270	12" - VCP LOGAN	480 A-LOK

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A-Lok XC-480 A-Lok XC-580					10/22/2020
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ASTM C700 Extra-Strength Clay Pipe Specification Data

Specify Logan Clay Pipe

Over the Long-Term, VCP is the Best Value.

- **Longevity & Sustainability** – A demonstrated service life of over 200-years in the U.S. is the longest proven service life in the industry.
- **Operations & Maintenance** – Aggressive cleaning options reduce annual maintenance costs by reducing SSOs and dig-ups over the service life of the installation.
- **Accept No Substitute** – Specify Vitrified Clay Pipe according to ASTM C700.



120-year-old pipe recently replaced to upsize the service line.

Dimensions of Extra-Strength Logan Clay Pipe (ASTM C700)

Pipe Size (I.D.)		Available Lengths							Average O.D.*		Crushing Strength**		Nominal Length of Ys & Ts
Inches	MM	1'	2'	3'	4'	5'	6'	7'	Bell	Spigot	Lbs. per Linear Ft	KN per Linear M	
4"	100	✓	✓		✓				7.05	4.81	2000	29.2	2'
6"	150	✓	✓	✓	✓				10.51	7.48	2000	29.2	2'
8"	200	✓	✓	✓		✓			12.60	9.69	2200	32.1	2'
10"	250	✓	✓	✓		✓			15.46	12.12	2400	35.0	2'
12"	300	✓	✓	✓			✓		18.15	14.54	2600	37.9	2'
15"	375	✓	✓	✓				✓	22.28	18.14	2900	42.3	3'
18"	450	✓	✓	✓				✓	26.91	21.59	3300	48.2	3'
21"	525	✓	✓	✓				✓	31.20	25.48	3850	56.2	3'
24"	600	✓	✓	✓				✓	35.45	29.05	4400	64.2	3'

✓ = Standard length for each dimension

✓ = Also available in these lengths

* All measurements are +/- 2%

** Minimum crushing strength per ASTM C700

Product Variance Data

Pipe Size	Limit of Minus Variation (per foot)	Max. Difference in Length of Opposite Sides	I.D. Limit of Minus Variation from Nominal Size
4"	1/4"	5/16"	3/16"
6"	1/4"	3/8"	1/4"
8"	1/4"	7/16"	5/16"
10"	1/4"	7/16"	3/8"
12"	1/4"	7/16"	7/16"
15"	1/4"	1/2"	9/16"
18"	1/4"	1/2"	11/16"
21"	1/4"	9/16"	13/16"
24"	3/8"	9/16"	15/16"



Logan Clay Products LLC

loganclay.com • loganclaypipe.com • loganclaymasonry.com • no-digpipe.com

info@loganclay.com • 800-848-2141 • 740-385-2184 • Fax: 740-385-9336



LOGAN

Today's Clay Pipe

1219REV

Logan's ASTM C425 O-Ring Joint

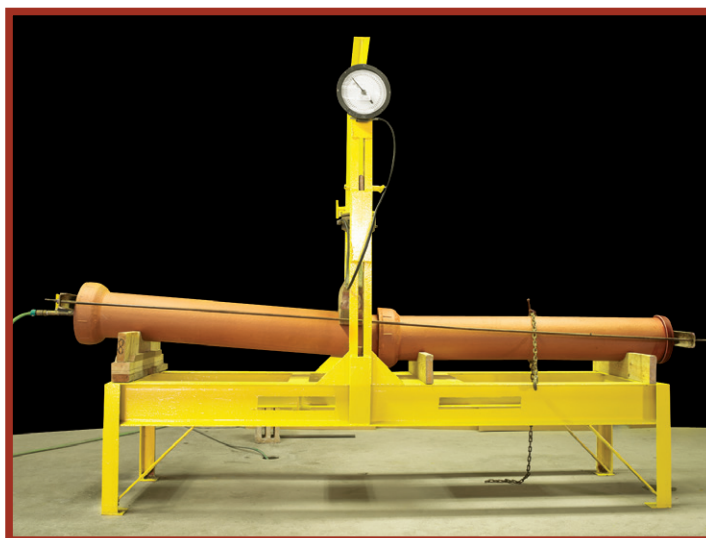
Field Tested – Field Proven

The clay pipe sewers installed early in our nation's history were not supplied with a joint. The installers joined pipe by applying tar or mortar in the trench. These joints allowed significant infiltration which was beneficial as it diluted the effluent and cleaned the lines. These sewers generally discharged into waterways without treatment.

As cities began treating sewage, infiltration became an expense. Logan Clay responded by introducing factory applied joints. Each generation of factory applied joints improved upon the last until the O-Ring joint was developed, achieving the leak-free performance that communities require.

The O-Ring joints on Logan Clay Pipe Products meet or exceed the standards established in ASTM C425 *Standard Specification for Compression Joints Vitrified Clay Pipe and Fittings*. This standard requires that the joint be "leak-free."

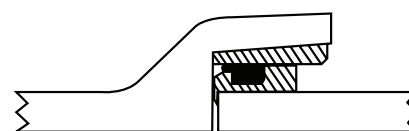
The Logan O-Ring joint has proven to be a reliable, watertight joint for more than 50 years. When installed in accordance with ASTM C12 specifications, our pipe and O-Ring joints eliminate the infiltration that was prevalent in early clay pipe lines.



For this test of 8-inch pipe, the pipe on the right provides the basis of a straight pipeline. The pipe on the left is intentionally misaligned to simulate a deflected joint. The bell end is 2 1/2 inches higher than the spigot end (1/2-inch deflection per foot length). The spigot end is unsupported while a shear load of 1,200 lbs. (150 lbs. per inch diameter or 150 x 8 = 1,200 lbs.) is then applied from above. This combination simulates a field condition of both misalignment of the joint and improper support of the barrel. In this condition, the joint must withstand the 1,200 lbs. shear load while maintaining 4.3 psi of water pressure (10 ft. head) without leaking.

Deflection Allowed by ASTM Specification

Normal Diameter	Deflection of Pipe
4-12" (101-305 mm), inclusive	1/2" (42 mm)
15-24" (381-610 mm), inclusive	3/8" (31 mm)



Vitrified Clay



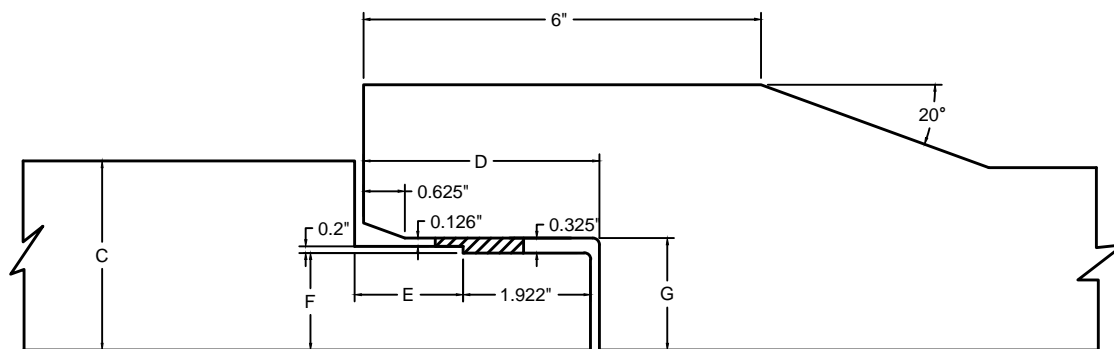
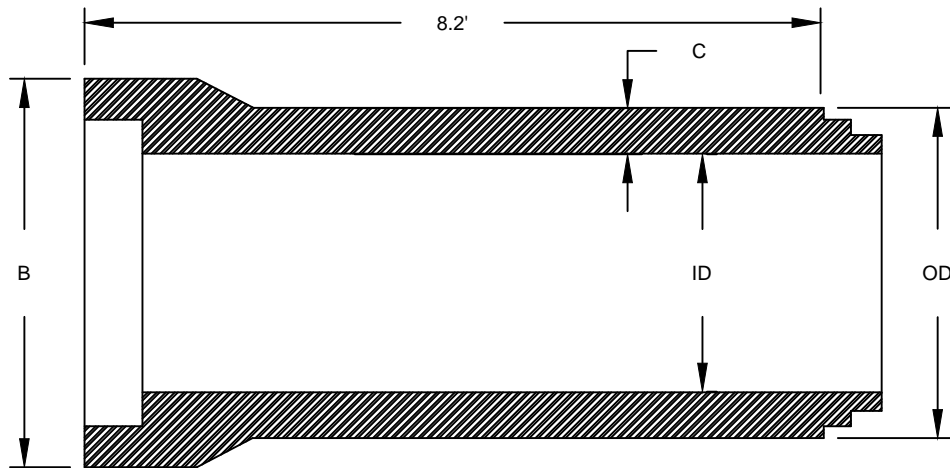
Factory-Applied Polyester Joint



Rubber Compression Gasket

Logan Clay Products LLC

loganclay.com • loganclaypipe.com • loganclaymasonry.com • no-digpipe.com
info@loganclay.com • 800-848-2141 • 740-385-2184 • Fax: 740-385-9336



PIPE SIZE		DELL OD	WALL THICKNESS	SPIGOT LENGTH		GASKET SURFACE DIA.	BELL ID
ID	OD	B	C	D	E	F	G
12	17.5	20	2.75	3.562	1.641	14.722	15.251
15	21.0	23.875	3.00	3.562	1.641	18.222	18.751
18	24.5	27.625	3.25	3.750	1.828	21.847	22.375
21	28	31.625	3.50	3.750	1.828	25.347	25.876
24	31.5	35.625	3.75	3.875	1.953	28.854	29.383
27	35	39.625	4.00	3.875	1.953	32.319	32.848
30	38.5	40.875	4.25	3.875	1.953	34.339	34.868
36	45.5	48.375	4.75	3.875	1.953	40.839	41.368

NOTES:

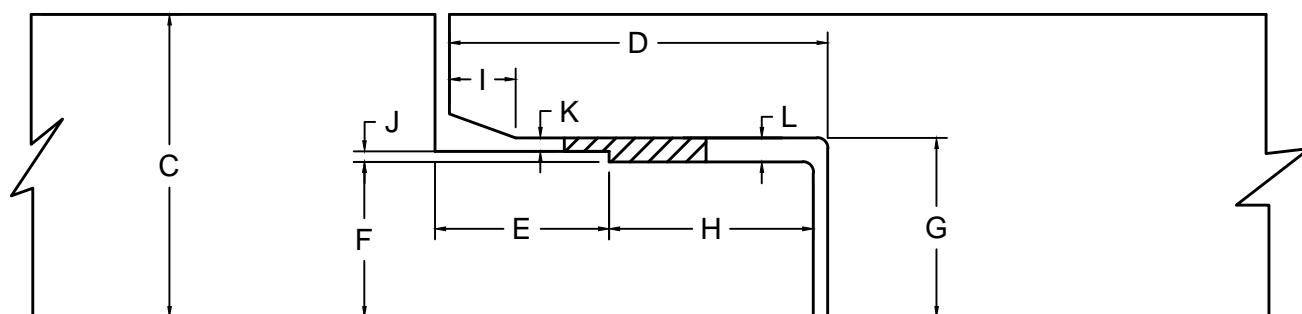
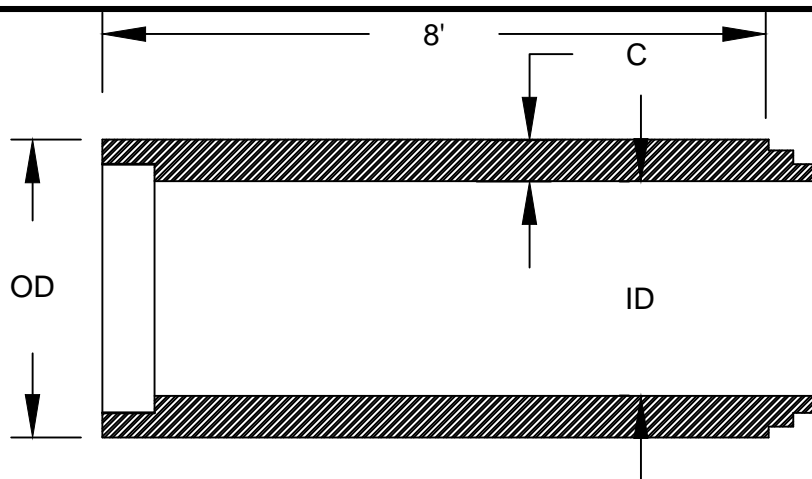
1. Manufactured in accordance with ASTM C76 and CSA A257.2
2. All dimensions are in inches, unless otherwise shown
3. Super seal gaskets manufactured in accordance with ASTM C443 and CSA A257.3



Co-Pipe Products, Inc.
20501 Goddard Rd, Taylor, MI 48180
TEL: 734-287-1000

**JOINT DETAILS (12" to 36")
DIAMETER RCP**

REVISED
JAN.01.2014



IMPERIAL											
PIPE SIZE		WALL THICK.	SPIGOT LENGTH							GASKET SURFACE DIA.	BELL ID
ID	OD	C	D	E	H	I	J	K	L	F	G
42	52.5	5.25	4.25	1.75	2.50	0.75	0.30	0.15	0.44	46.170	46.887
48	59.5	5.75	4.25	1.75	2.50	0.75	0.30	0.15	0.44	52.170	53.887
54	66.5	6.25	4.25	1.75	2.50	0.75	0.30	0.15	0.44	57.879	58.596
60	72	6.00	4.75	2.25	2.50	0.88	0.30	0.15	0.44	64.379	65.096
66	78.5	6.50	5.00	2.50	2.50	0.88	0.30	0.15	0.44	70.879	71.596
72	86	7.00	5.00	2.50	2.50	1.25	0.30	0.15	0.44	77.158	77.875
78	93	7.50	5.00	2.50	2.50	1.25	0.35	0.15	0.50	83.420	84.470
84	100	8.00	5.00	2.50	2.50	1.25	0.35	0.15	0.50	89.920	90.970
90	107	8.50	5.00	2.50	2.50	1.25	0.35	0.15	0.50	96.420	97.470
96	114	9.00	5.00	2.50	2.50	1.25	0.35	0.15	0.50	102.920	103.970
102	121	9.50	5.00	2.50	2.50	1.25	0.35	0.15	0.50	109.420	110.470
108	128	10.00	5.00	2.50	2.50	1.25	0.35	0.15	0.50	115.920	116.970
114	135	10.50	6.00	3.25	2.75	1.25	0.35	0.18	0.53	121.793	122.843
120	142	11.00	6.00	3.25	2.75	1.25	0.35	0.18	0.53	127.671	128.721

NOTES:

1. Manufactured in accordance with ASTM C76 and CSA A257.2
2. All dimensions are in inches, unless otherwise shown
3. Super seal gaskets manufactured in accordance with ASTM C443 and CSA A257.3

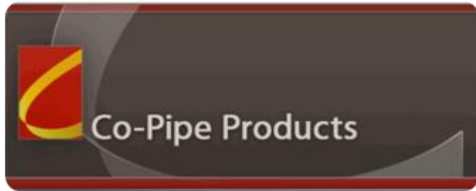


Co-Pipe Products, Inc.

20501 Goddard Rd, Taylor, MI 48180
TEL: 734-287-1000

JOINT DETAILS
(42" to 120") DIA. RCP

REVISED
JAN.20.2017



20501 Goddard Rd, Taylor, MI 48180

Tel: 1.800.521.3514

734-287-1000

Fax: 734-287-8132

RCP / APPROXIMATE MASS & DIMENSION CHART

INSIDE DIA. (in.)	INSIDE DIA. (mm)	WALL THICKNESS (in.)	OUTSIDE DIA. (in.)	BELL DIA. (in.)	LAY LENGTH (ft)	MASS/PIECE (lbs)
12"	300	2.75	17.5	20	8.2'	1230
15"	375	3	21	23.875	8.2'	1631
18"	450	3.25	24.5	27.625	8.2'	2079
21"	525	3.50	28	31.625	8.2'	2520
24"	600	3.75	31.5	35.625	8.2'	3126
27"	675	4	35	39.625	8.2'	3666
30"	750	4.25	38.5	40.875	8.2'	4162
36"	900	4.75	45.5	48.375	8.2'	5478
42"	1050	5.25	52.5	52.5	8'	6698
48"	1200	5.75	59.5	59.5	8'	8285
54"	1350	6.25	66.5	66.5	8'	10113
60"	1500	6	72	72	8'	11834
66"	1650	6.50	79.0	79.0	8'	14390
72"	1800	7	86	86	8'	15077
78"	1950	7.50	93	93	8'	17569
84"	2100	8	100	100	8'	20095
90"	2250	8.50	107	107	8'	23215
96"	2400	9	114	114	8'	25283
102"	2550	9.5	121	121	8'	27866
108"	2700	10	128	128	8'	30953
114"	2850	10.5	135	135	8'	34512
120"	3000	11	142	142	8'	37873