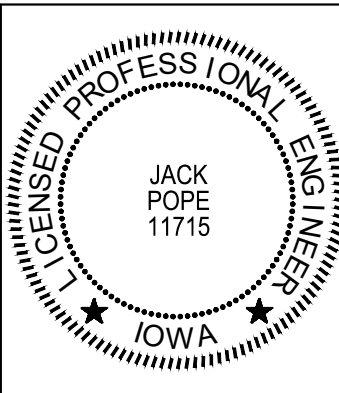


NORTH - NORTH PLUM STREET IMPROVEMENTS TIPTON, IOWA 2023

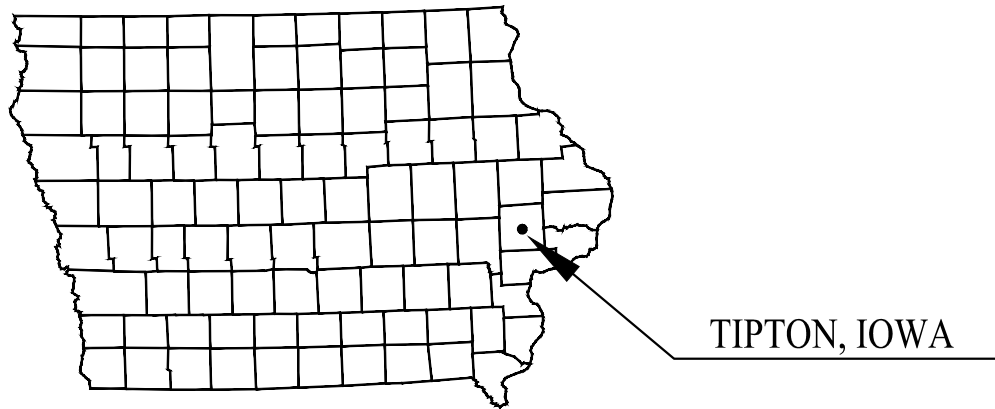
Materials and construction shall be in accordance with the SUDAS
Standard Specifications, 2023 Edition, plus current Supplemental
Specifications and Special Provisions.

S H E E T I N D E X	
SHEET NO.	DESCRIPTION
A.01	TITLE SHEET
A.02	LEGEND, LOCATION MAP, AND GENERAL NOTES
B.01	TYPICAL SECTIONS AND DETAILS
C.01	PROJECT TABULATIONS AND QUANTITIES
D1.01	ALTERNATE 1 REMOVALS
D1.02 - D1.03	ALTERNATE 1 PLAN AND PROFILE
D2.01	ALTERNATE 2 REMOVALS
D2.02 - D2.03	ALTERNATE 2 PLAN AND PROFILE
H.01	ALTERNATE 1 AND 2 EASEMENTS AND TEMP ACCESS PLAN
T.01	TEMPORARY TRAFFIC CONTROL PLAN
M1.01	ALTERNATE 1 STORM SEWER PLAN
M2.01 - M2.02	ALTERNATE 2 STORM SEWER PLAN AND PROFILE
W1.01 - W1.02	ALTERNATE 1 CROSS SECTIONS
W2.01 - W2.03	ALTERNATE 2 CROSS SECTIONS
20	TOTAL SHEETS



I hereby certify that this engineering document was prepared by me
or under my direct personal supervision and that I am a duly
licensed Professional Engineer under the laws of the State of Iowa.

Jack Pope, P.E. _____ Date _____
License number: 11715
My license renewal date is December 31, 2023
Pages or sheets covered by this seal: ALL SHEETS



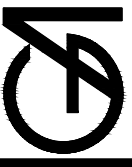


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Creston, Iowa 50801

1701 3rd Avenue East, Suite 1
P.O. Box 451
Osaka, Iowa 52577

641.782.4005 Phone
641.782.4118 Fax
641.672.2091 Fax

800.491.2524 Iowa Toll Free
email@gardenassociates.net

NORTH - NORTH PLUM
STREET IMPROVEMENTS
TIPTON, IOWA

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SHEET TITLE
TITLE SHEET

SCALE:

NO SCALE

DRAWN BY:

KJR

APPROVED:

JP

REVISIONS:

DATE:

APR. 19, 2023

PROJECT NO.:

5019077

SHEET NO.:

A.01

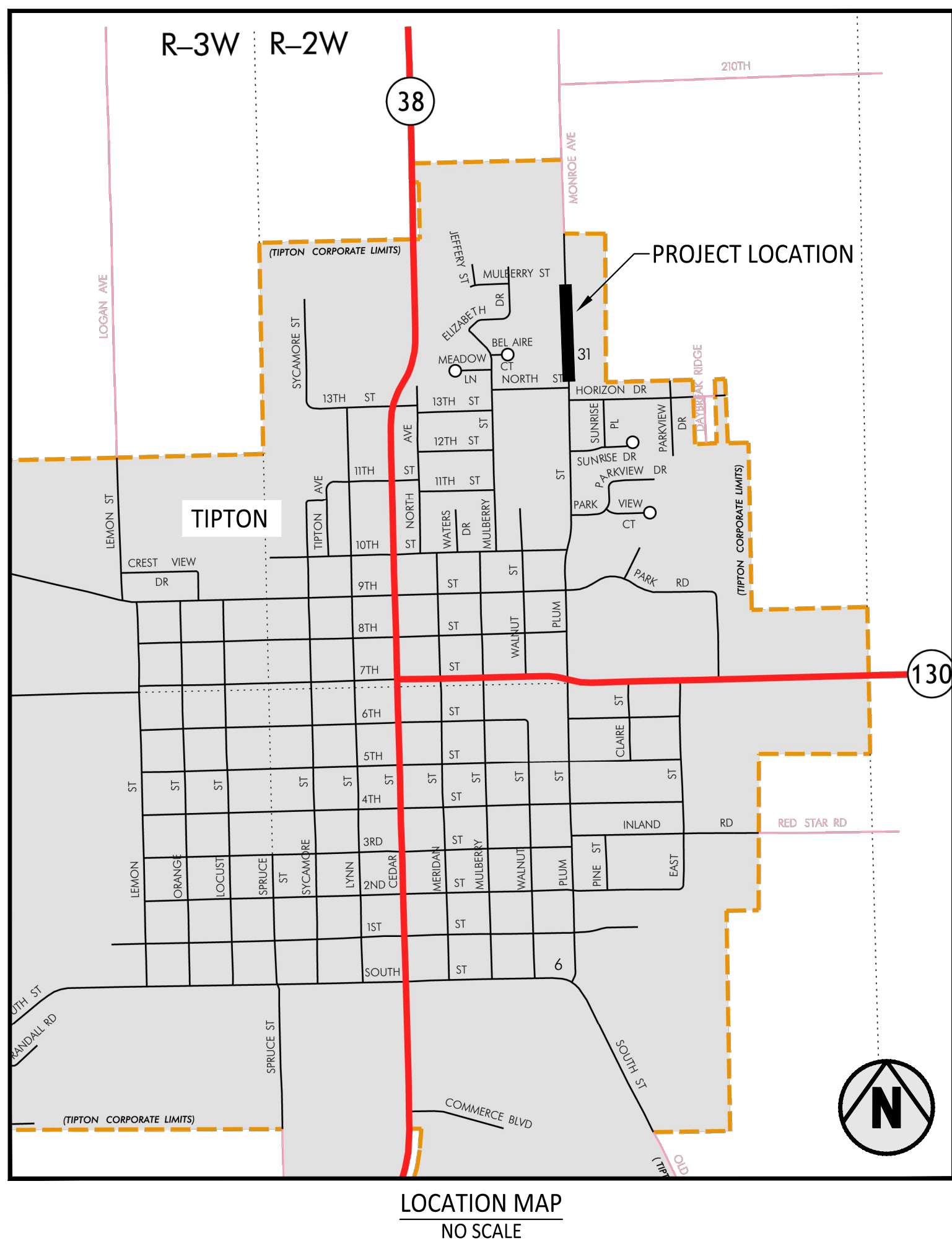
GENERAL SYMBOLS LEGEND

● = PROPERTY CORNER FOUND	—+— = SIGN
▲ = SECTION CORNER FOUND	—●— = BOLLARD
—000— = EXISTING GROUND CONTOUR LINE	⋈ = RAILROAD GATE OR SIGNAL
—H— = EXISTING WATER LINE (SIZE VARIES)	□ MB = MAILBOX
⋈ = EXISTING FIRE HYDRANT	—o— = FLAGPOLE
⋈ = EXISTING WATER VALVE	□ DS = DOWNSPOUT
⋈ = EXISTING WATER SERVICE SHUTOFF	☼ = TREE OR SHRUB
⊙ = EXISTING WATER METER PIT	⊙ = STUMP
⊙ = EXISTING WATER WELL	—x— = FIELD FENCELINE
□ PM = WATER METER	—o— = CHAIN LINK FENCELINE
—ST— = EXISTING STORM SEWER LINE (SIZE VARIES)	—w— = WOOD FENCELINE
⊙ = EXISTING STORM SEWER ACCESS	—■— = SILT FENCE
⊙ = EXISTING SEPTIC TANK	⬤ = BENCHMARK OR ELEVATION MARKER
⊙ = EXISTING SANITARY SEWER ACCESS	⊙ = PROPERTY CORNER SET
—SS— = EXISTING SANITARY SEWER MAIN (SIZE VARIES)	⊙ = SECTION CORNER SET
⊙ = CLEANOUT	—W— = PROPOSED WATER MAIN (SIZE VARIES)
⊙ = ELECTRIC MANHOLE	⋈ = PROPOSED FIRE HYDRANT
—OE— = OVERHEAD ELECTRIC LINE	⋈ = PROPOSED WATER VALVE
—UE— = UNDERGROUND ELECTRIC LINE	⋈ = PROPOSED WATER SHUTOFF
⊙ EM = ELECTRIC METER	⊙ = PROPOSED SANITARY SEWER MANHOLE
—FO— = FIBEROPTIC LINE	⊙ = PROPOSED SANITARY SEWER END LINE CLEANOUT
⊙ = TELEPHONE MANHOLE	⊙ = PROPOSED SANITARY SEWER DOUBLE CLEANOUT
⊙ TELE PED = TELEPHONE PEDESTAL	—■— = PROPOSED SANITARY SEWER MAIN (SIZE VARIES)
—UT— = TELEPHONE LINE	⊙ = PROPOSED SLOTTED STATION
⊙ TV PED = TELEVISION PEDESTAL	—FM— = PROPOSED SANITARY SEWER FORCE MAIN
—TV— = TELEVISION LINE	⊙ = PROPOSED STORM SEWER ACCESS
⊙ GM = GAS METER	—■— = PROPOSED STORM SEWER MAIN
⊙ = GAS VALVE	—SST— = PROPOSED SECONDARY STORM SEWER
—G— = EXISTING GAS LINE	—000— = PROPOSED GROUND CONTOUR LINE
⊙ = UTILITY POLE	▨ = SURFACING REMOVAL
● = GUY WIRE	▨ or ▨ = CONCRETE SURFACING REPLACEMENT
☆ = LUMINAIRE	⇒ = FLOW DIRECTION ARROW
□ = TRANSFORMER	1000.00 ● = FINISH GRADE ELEVATION MARKER

GENERAL ABBREVIATIONS LEGEND			
R/W	= RIGHT OF WAY	SY	= SQUARE YARD
R.O.W.	= RIGHT OF WAY	CY	= CUBIC YARD
P.C.	= POINT OF CURVATURE	MJ	= MECHANICAL JOINT
P.I.	= POINT OF INTERSECTION	PE	= PLAIN END JOINT
P.T.	= POINT OF TANGENCY	FE	= FLANGED JOINT
CL	= CENTERLINE	UT	= UNION TITE JOINT
TC	= TOP OF CURB	S.S.	= STAINLESS STEEL
GU	= GUTTER	O.C.	= ON CENTER
FL	= FLOW LINE	I.D.	= INSIDE DIAMETER
SB	= SOIL BORING	O.D.	= OUTSIDE DIAMETER
R	= RADIUS	Ø	= DIAMETER
BTM	= BOTTOM	DIA.	= DIAMETER
HWL	= HIGH WATER LEVEL	#	= NUMBER
LWL	= LOW WATER LEVEL	TYP	= TYPICAL
EA	= EACH	INV	= INVERT
GPM	= GALLONS PER MINUTE	PVC	= POLYVINYL CHLORIDE PIPE
IN.	= INCHES	DIP	= DUCTILE IRON PIPE
FT	= FOOT OR FEET	CIP	= CAST IRON PIPE
SF	= SQUARE FEET	CMP	= CORRUGATED METAL PIPE
LF	= LINEAR FOOT	RCP	= REINFORCED CONCRETE PIPE

GENERAL NOTES:

3. ALL WORK SHALL BE IN ACCORDANCE WITH THE SUDAS STANDARD SPECIFICATIONS, 2023 EDITION AND CURRENT SUPPLEMENTAL SPECIFICATIONS AND THE DETAILED SPECIFICATIONS REQUIREMENTS. SPECIFICATION MANUALS CAN BE ORDERED FROM THE INSTITUTE FOR TRANSPORTATION RESEARCH (FORMERLY CTRE) - ATTENTION: BETH IOWASUDAS, 2711 SOUTH LOUD DRIVE SUITE 4700 AMES, IOWA 50010-8664. PHONE: 515-294-8103. SPECIFICATIONS CAN ALSO BE VIEWED AT THE SUDAS WEB SITE (WWW.IOWASUDAS.ORG). CONTRACTOR SHALL HAVE A MINIMUM OF ONE SET OF PLANS AND SPECIFICATIONS ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.
2. CONTRACTOR SHALL NOTIFY STEVE NASH, CITY OF TIPTON AT 563-836-3953 TWO WEEKS PRIOR TO COMMENCING WORK.
3. COORDINATE AND COOPERATE WITH JURISDICTION PERSONNEL AND ENGINEER.
4. LOCATION OF EXISTING UTILITIES IS APPROXIMATE. VERIFY LOCATION OF EXISTING UTILITIES IN LINE OF CONSTRUCTION PRIOR TO BEGINNING CONSTRUCTION BY EXCAVATING AHEAD OF WORK. CONTRACTOR IS RESPONSIBLE OF NOTIFYING ALL UTILITY COMPANIES LOCATED IN THE WORK ZONE DURING CONSTRUCTION AT LEAST 48 HOURS PRIOR TO EXCAVATION.
5. PROTECT ALL UTILITIES FROM DAMAGE DURING CONSTRUCTION UNLESS OTHERWISE SHOWN ON THE PLANS. ANY UTILITIES DAMAGED DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
6. CONTRACTORS SHALL PROVIDE SANITARY FACILITIES FOR THEIR WORKFORCE.
7. CONTRACTOR IS RESPONSIBLE FOR MAKING ARRANGEMENTS FOR AND PAYING FOR UTILITIES USED DURING CONSTRUCTION, UNLESS OTHERWISE SPECIFIED.
8. THERE MAY BE BURIED UTILITIES NOT SHOWN ON THE PLANS THAT ARE IN LINE OF CONSTRUCTION.
9. NOTIFY PROPERTY OWNERS 48 HOURS IN ADVANCE IF ACCESS TO PROPERTY WILL BE INTERRUPTED. ACCESS TO PRIVATE PROPERTY SHALL BE MAINTAINED AT ALL TIMES FOR EMERGENCY VEHICLES. PROVIDE PEDESTRIAN ACCESS TO RESIDENCES.
10. CONTRACTOR SHALL KEEP ALL WORK WITHIN RIGHT-OF-WAYS AND EASEMENTS PROVIDED.
11. ALL PROPERTY SECURED BY THE CONTRACTOR FOR STOCKPILING OR STORAGE OF MATERIALS SHALL BE RESTORED TO ITS ORIGINAL CONDITION AFTER COMPLETION OF WORK, AT THE CONTRACTOR'S EXPENSE.
12. CONTRACTOR SHALL PROVIDE TEMPORARY TRAFFIC CONTROL IN ACCORDANCE WITH SPECIFICATION SECTIONS 1070 2.06 AND 8030, AND THE CITY OF TIPTON REQUIREMENTS. SEE J SERIES PLAN SHEETS FOR TEMPORARY TRAFFIC CONTROL INFORMATION IN ADDITION TO THE SPECIFICATIONS. TRAFFIC CONTROL SHALL CONSIST OF ALL BARRICADES, SIGNAGE AND LIGHTS AS NECESSARY TO PROTECT VEHICLES AND PEDESTRIAN TRAFFIC IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTOR SHALL MAINTAIN, CLEAN AS NECESSARY AND REPLACE DAMAGED TRAFFIC CONTROL DEVICES THROUGHOUT DURATION OF PROJECT.
13. CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION OF EMERGENCY SERVICES AND SCHOOL DISTRICT OF ROAD CLOSURES AND DETOURS. TIPTON COMMUNITY SCHOOL DISTRICT: 563-886-6121.
14. CONSTRUCTION SURVEY WILL BE PROVIDED BY THE JURISDICTION IN ACCORDANCE WITH SECTION 11.010 OF THE SPECIFICATIONS. CONTRACTOR SHALL PROTECT AND PRESERVE ALL STAKES, POINTS AND MARKS SET BY THE JURISDICTION. WHERE SAID STAKES, POINTS AND MARKS ARE ALTERED OR DESTROYED BY THE CONTRACTOR, COST OF REPLACEMENT SHALL BE IN ACCORDANCE WITH SECTION 1050 1.10 C OF THE SPECIFICATIONS.
15. CONTRACTOR SHALL MAINTAIN POSTAL SERVICE IN ACCORDANCE WITH SECTION 11.030 OF THE SPECIFICATIONS. CONTRACTOR SHALL MAINTAIN SOLID WASTE COLLECTION IN ACCORDANCE WITH SECTION 11.030 OF THE SPECIFICATIONS. MAINTENANCE OF POSTAL SERVICE AND SOLID WASTE COLLECTION IS INCIDENTAL TO CONSTRUCTION.
16. MAIL BOXES IN LINE OF CONSTRUCTION SHALL BE REMOVED, SALVAGED, AND STORED BY THE CONTRACTOR. TEMPORARY MAIL SERVICE SHALL BE AS DESCRIBED IN NOTE ABOVE. UPON COMPLETION OF GRADING AND SURFACE RESTORATION OPERATIONS; REPLACE MAIL BOXES AT THEIR PREVIOUS LOCATIONS AS APPROVED BY THE LOCAL POSTMASTER. MAIL BOXES SHALL BE RESET IN A MINIMUM 4 FOOT DEEP BY 12 INCH DIAMETER GRAVEL PACKED HOLE UNLESS OTHERWISE APPROVED BY THE JURISDICTION. REMOVAL AND RESETTING OF MAIL BOXES IS INCIDENTAL TO MAINTENANCE OF POSTAL SERVICE WORK.
17. CONTRACTOR SHALL PREVENT ENTRY OF MUD, DIRT, DEBRIS AND OTHER MATERIALS INTO NEW AND EXISTING SEWERS. SHOULD MUD, DIRT, DEBRIS OR OTHER MATERIAL ENTER NEW OR EXISTING SEWERS; THE CONTRACTOR SHALL CLEAN AT NO COST TO THE JURISDICTION.
18. DO CLEANUP AND SURFACE RESTORATION AND REPLACEMENT AS WORK PROGRESSES.
19. REMOVAL OF TREES WITHIN RIGHT-OF-WAY OR EASEMENTS SHALL INCLUDE GRINDING OR REMOVAL OF STUMP TO ONE (1) FOOT BELOW GRADE. PROTECT ALL TREES NOT SHOWN FOR REMOVAL. TRIM TREE CANOPIES ONLY WITH APPROVAL OF JURISDICTION. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL DEBRIS ASSOCIATED WITH TREE, STUMP, ROOTS, BRUSH AND PLANT MATERIAL.
20. CONTRACTOR SHALL DISPOSE OF ALL CONSTRUCTION DEBRIS, UNSUITABLE TRENCH BACKFILL MATERIAL AND EXCESS EXCAVATED MATERIAL. DISPOSAL SHALL MEET FEDERAL, STATE AND LOCAL SAFETY, HEALTH AND ENVIRONMENTAL REQUIREMENTS. DISPOSAL WORK IS INCIDENTAL TO CONSTRUCTION. THE JURISDICTION WILL NOT PROVIDE A DISPOSAL SITE.
21. THE JURISDICTION HAS THE FIRST RIGHT OF REFUSAL FOR SALVAGEABLE MATERIALS INCLUDING BUT NOT LIMITED TO: BRICK, TILE, CASTINGS. MATERIALS DEEMED UNSALVAGEABLE BY THE JURISDICTION SHALL BE DISPOSED OF BY THE CONTRACTOR. CONTRACTOR WILL NOTIFY STEVE NASH OR OTHER JURISDICTION APPOINTED PERSONNEL FOR PICKUP OF SALVAGEABLE MATERIALS.
22. REMOVE TOPSOIL PRIOR TO TRENCH EXCAVATION IN ACCORDANCE WITH SPECIFICATION SECTION 2010 3.02.1 UPON COMPLETION OF TRENCH BACKFILL, TOPSOIL SHALL BE RESPREAD AND FINISH GRADED PER SPECIFICATION SECTION 2010 3.02.2. SEE ESTIMATED PROJECT QUANTITIES TABLE FOR ADDITIONAL TOPSOIL HANDLING INFORMATION.
23. WHERE REQUIRED ON THE PLANS: RCP (REINFORCED CONCRETE PIPE) STORM SEWER PIPE SHALL MEET THE REQUIREMENTS OF SUDAS STANDARD SPECIFICATION 4020 2.01 A. WITH RUBBER O-RING OR PROFILE GASKETS COMPLYING WITH ASTM C 443.
24. AT CONTRACTOR'S OPTION, REMAINDER OF STORM SEWER PIPE MAY BE ANY OF THE FOLLOWING MATERIALS IN ACCORDANCE WITH THE REFERENCED SUDAS SPECIFICATION SECTION: REINFORCED CONCRETE PIPE (RCP) PER SECTION 4020 2.01 A (USE OF RUBBER O-RING OR PROFILE GASKET IS COMPLYING WITH ASTM C 443 ARE REQUIRED), POLYVINYL CHLORIDE PIPE (PVC) PER SECTION 4020 2.01 E.1.a.1, CORRUGATED E-FLOR/SM-1000 INTERIOR, ITEM F 949, HIGH DENSITY POLYETHYLENE PIPE (HDPE) PER SECTION 4020 2.01 F, (CLASS F-3 BEDDING PER FIGURE SW-103 SHALL BE USED FOR ALL HDPE PIPE INSTALLATIONS) OR POLYPROPYLENE PIPE (PP) PER SECTION 4020 2.01 L.
25. CONCRETE MIX SHALL BE IDOT C-3WR OR C-4WR FOR ALL PAVEMENT AND DRIVEWAYS. LUMP OF FLY ASH AND LAND GRUNDULATED BLAST FURNACE SLAG (GBGFS) SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 7010 2.02 C.
26. COARSE AGGREGATE FOR CONCRETE MIXES SHALL BE CLASS 3 DURABILITY UNLESS OTHERWISE SPECIFIED. COARSE AND FINE AGGREGATES SHALL BE FURNISHED FROM AN APPROVED SOURCE IN ACCORDANCE WITH THE SPECIFICATIONS. METHOD OF ACCEPTANCE FOR AGGREGATES SHALL BE BY QUALITY CERTIFICATION FURNISHED BY THE CONTRACTOR.
27. CONTRACTOR SHALL BE RESPONSIBLE PARTY FOR ALL TESTING AND RE-TESTING OF P.C. CONCRETE REQUIRED BY THE SPECIFICATIONS; AIR CONTENT AND SLUMP (CYLINDERS WILL NOTE BE REQUIRED); TIME FOR OPENING PAVEMENT SHALL BE DETERMINED BY MATURITY METHOD IN ACCORDANCE WITH SPECIFICATION SECTION 7010 3.05. CONTRACTOR SHALL PROVIDE DEVELOPMENT AND MAINTENANCE OF MATURITY CURVE. COORDINATE MATURITY CURVE DEVELOPMENT, MAINTENANCE, AND USE WITH JURISDICTION. NO TESTING OF HARDENED CONCRETE WILL BE REQUIRED UNLESS TESTS ON PLASTIC CONCRETE ARE DEEMED INSUFFICIENT.
28. CERTIFIED PLANT INSPECTION IS NOT REQUIRED FOR TOP CONCRETE MIX PRODUCTION.
29. ALL PAVEMENT JOINTS SHALL BE SEALED AS SPECIFIED, DO NOT SEAL DRIVEWAY JOINTS.
30. PAVEMENT SMOOTHNESS SHALL BE MEASURED WITH A PROFILE GRAPH IN ACCORDANCE WITH IOWA D.O.T. SECTION 2316. SURFACE CORRECTIONS AND PRICE ADJUSTMENTS SHALL BE IN ACCORDANCE WITH SUDAS SECTION 7010 3.07 C.2 AND TABLE 7010.04.
31. PROVIDE CONCRETE WASHWATER CONTAINMENT IN ACCORDANCE WITH SECTION 11.050 OF THE SPECIFICATIONS. NO SEPARATE PAVEMENT WILL BE MADE FOR CONCRETE WASHWATER CONTAINMENT - THIS WORK IS INCIDENTAL TO CONSTRUCTION.
32. ELEVATIONS SHOWN FOR MANHOLE RIMS ARE APPROXIMATE. MAKE FINAL ADJUSTMENTS IN FIELD AS DIRECTED BY THE JURISDICTION.
33. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE AS-BUILT LOCATION OF ALL UTILITIES.
34. FERTILIZE, SEED AND MULCH ALL AREAS DISTURBED BY CONSTRUCTION IN ACCORDANCE WITH SECTION 9010 OF THE SPECIFICATIONS. USE TYPE 1 (PERMANENT LAWN MIXTURE) FERTILIZER AND RESIDENTIAL AREAS. PAYMENT FOR FERTILIZING, SEEDING AND MULCHING WILL BE BASED ON LUMP SUM PRICE BID - NO MEASUREMENTS WILL BE MADE.



NOTE:
UNDERGROUND UTILITIES SHOWN BASED ON PHYSICAL EVIDENCE,
IOWA ONE-CALL DESIGN INFORMATION REQUEST, AND INFORMATION
PROVIDED BY UTILITY COMPANIES. THERE MAY BE ADDITIONAL
UNDERGROUND UTILITIES THAT ARE NOT SHOWN ON THIS DRAWING.

HORIZONTAL DATUM	IOWA RCS ZONE 10 - CEDAR RAPIDS
VERTICAL DATUM	NAVD 1988

CONTROL POINT TABLE				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
201	7980621.95	20648429.04	818.56	CP 201 5/8 RBR RPC
202	7981040.98	20648386.31	829.12	CP 202 5/8 RBR RPC
203	7981422.64	20648382.13	832.94	CP 203 5/8 RBR RPC
204	7981853.85	20648431.16	828.42	CP 204 5/8 RBR RPC
205	7982177.35	20648426.56	827.28	CP 205 5/8 RBR RPC

**NORTH - NORTH PLUM
STREET IMPROVEMENTS
TIPTON, IOWA**

SHEET TITLE
LEGEND, LOCATION
MAP AND GENERAL
NOTES

SCALE:

AS NOTED

DRAWN BY:

KJR

APPROVED:

JP

REVISIONS:

DATE:

APR. 19, 2023

PROJECT NO.:

5019077

SHEET NO.:

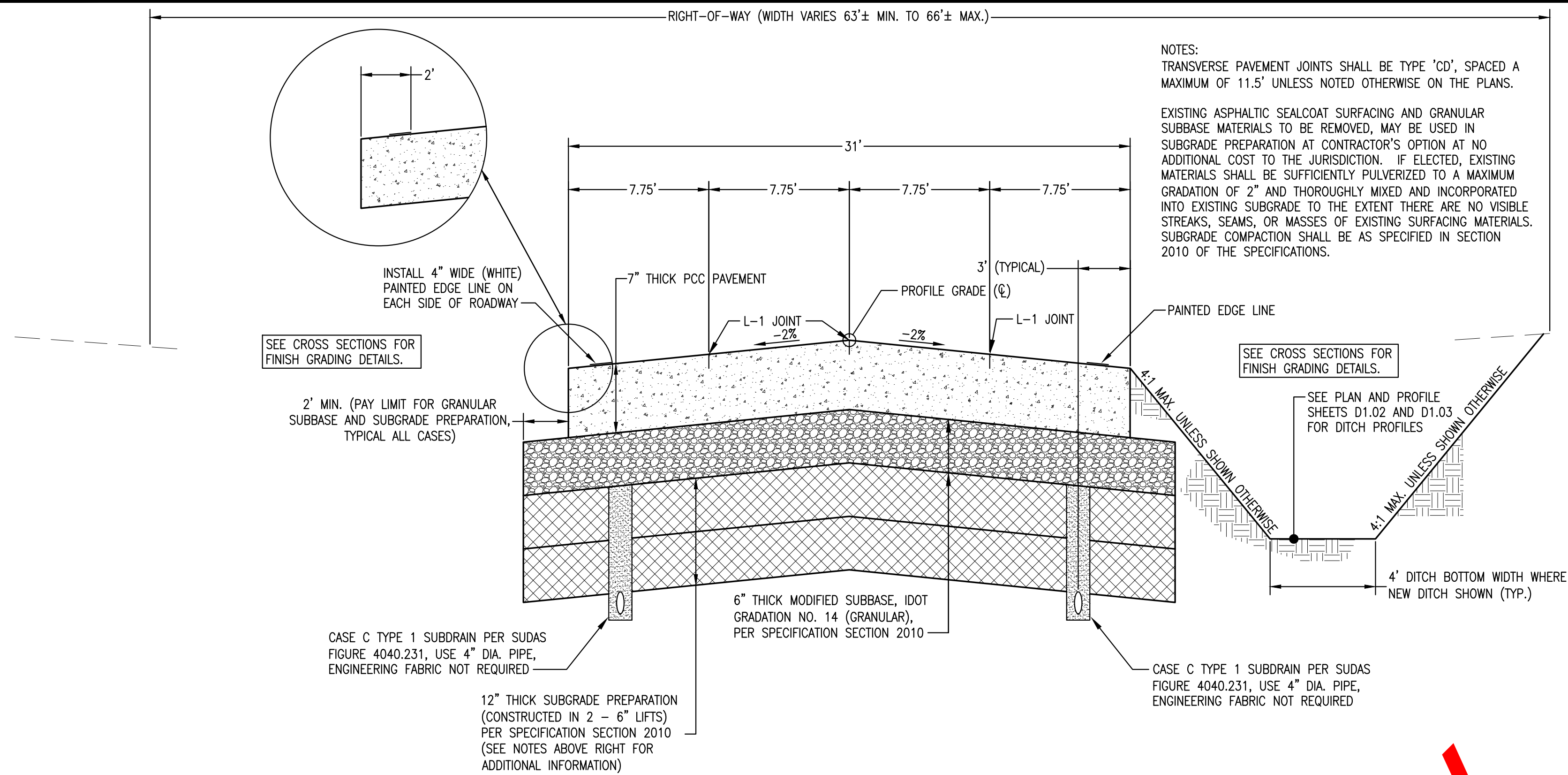
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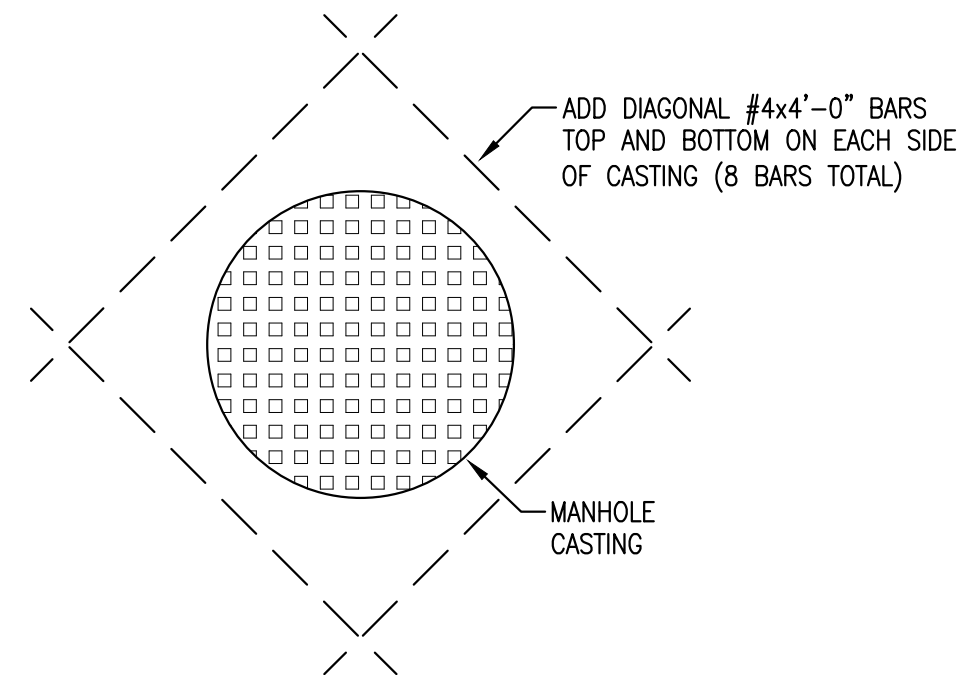
1701 3rd Avenue East, Suite 1
P.O. Box 451
Oskaloosa, Iowa 52577
641.672.2526 Phone
641.672.2001 Fax

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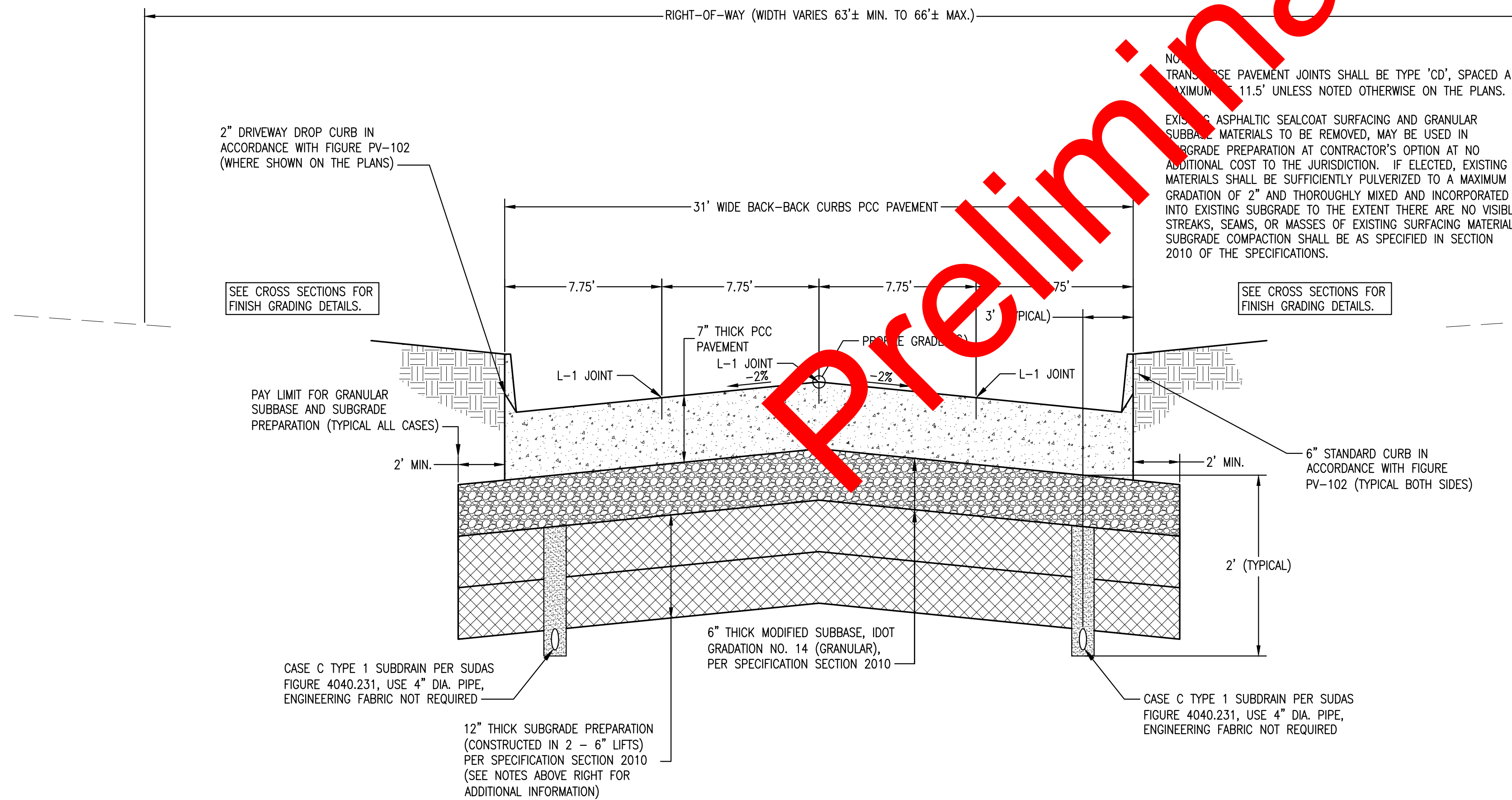


ALTERNATE 1 - TYPICAL PAVEMENT SECTION (31' WIDE EDGE PAVED SHOULDER-EDGE PAVED SHOULDER)

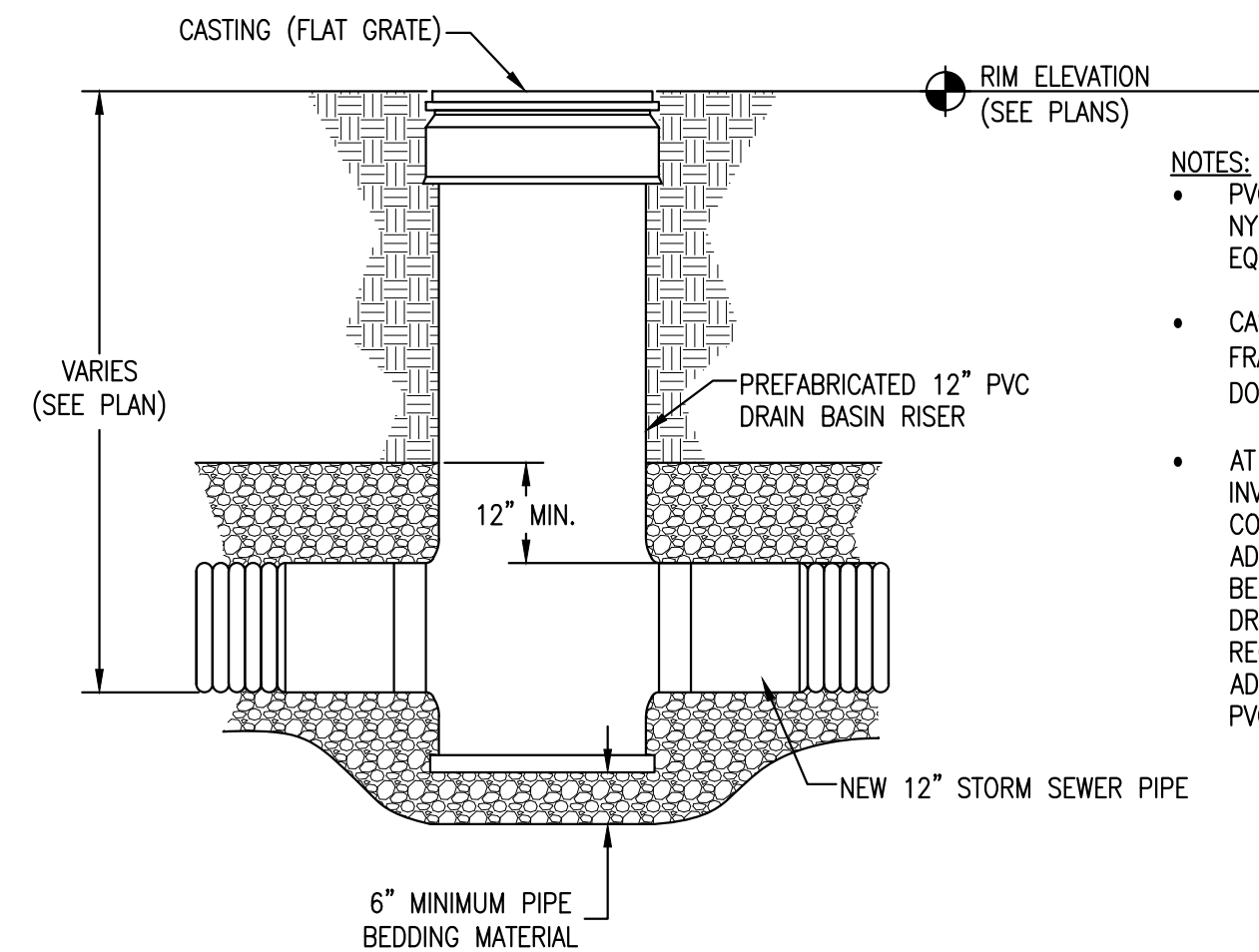


NOTE:
FURNISH ALL EXISTING SANITARY SEWER MANHOLES IN CONCRETE PAVEMENT WITH AN SW-601 TYPE B THREE-PIECE FLOATING CASTING. FRAME SHALL BE BOLTED TO STRUCTURE WITH 2 SETS OF 1/2" STAINLESS STEEL NUTS AND BOLTS. NO MANHOLE LIDS SHALL BE BOXED OUT IN CONCRETE PAVEMENT UNLESS APPROVED BY THE JURISDICTION. INCLUDE COST OF REINFORCEMENT IN UNIT PRICE FOR CONCRETE PAVEMENT. MANHOLE ADJUSTMENTS WILL BE PAID FOR AS DESCRIBED IN SECTION 6010 OF THE SPECIFICATIONS (MANHOLE ADJUSTMENT, MINOR).

SANITARY SEWER MANHOLE CASTING - PAVEMENT REINFORCEMENT



ALTERNATE 2 - TYPICAL PAVEMENT SECTION (31' WIDE BACK-BACK CURBS)



PVC AREA DRAIN

C:\Projects\301917 - Tipton - Plum Street Paving Extension\Drawings\Plan A11 101917.dwg

ALTERNATE 1 DRIVEWAY TABULATION						
STATION	SIDE	LENGTH OF DROPPED CURB OPENING (LF)DROPPED CURB HEIGHT (IN)	EXISTING DRIVEWAY SURFACING REMOVAL AREA (SY)	NEW DRIVEWAY SURFACING TYPE 6" PCC (SY)	NEW DRIVEWAY GRANULAR SURFACING (TON)	REMARKS
0+66	RT	NA		12	3	
1+50	LT	NA	33	23		
1+50	RT	NA	29	24		
2+42	RT	NA		18	10	
3+12	LT	NA	25	25		
3+44	LT	NA	38	34		
4+00	RT	NA	43	34		
4+50	RT	NA		12	3	
4+58	LT	NA		13	5	
5+50	LT	NA		12	5	
5+50	RT	NA		11	6	
6+38	LT	NA	28	26		
6+61	RT	NA		28		CROCK COURT, DRIVE TYPE 'A' W/ RADII PER SUDAS FIGURE 7030.101
7+00	LT	NA	68	62		
7+91	RT	NA			6	
8+58	LT	NA		14	3	
TOTAL			264	348	41	

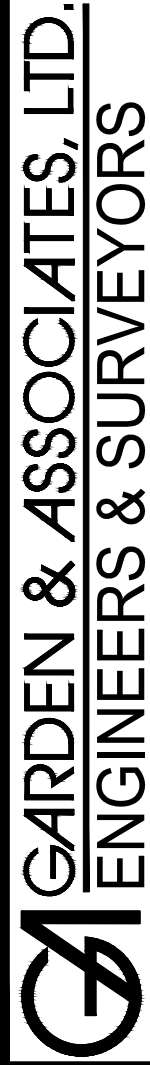
NOTE:
ADD EMBANKMENT FILL TO EDGES OF DRIVES AS NECESSARY TO ACCOMMODATE DRIVEWAY REPLACEMENT LIMITS AND CULVERT REPLACEMENTS, AS SHOWN ON THE PLANS.

ALTERNATE 2 DRIVEWAY TABULATION						
STATION	SIDE	LENGTH OF DROPPED CURB OPENING (LF)DROPPED CURB HEIGHT (IN)	EXISTING DRIVEWAY SURFACING REMOVAL AREA (SY)	NEW DRIVEWAY SURFACING TYPE 6" PCC (SY)	NEW DRIVEWAY GRANULAR SURFACING (TON)	REMARKS
0+66	RT	20		10	3	
1+50	LT	17	34	21		
1+50	RT	26	28	25		
2+42	RT	28		15	5	
3+12	LT	15	26	24		
3+44	LT	25	32	23		
4+00	RT	24	40	33		
4+50	RT	21		12	3	
4+58	LT	16		11	3	
5+50	LT	19		10	3	
5+50	RT	19		10	5	
6+38	LT	15	28	26		
6+61	RT	40		28		CROCK COURT, DRIVE TYPE 'A' W/ RADII PER SUDAS FIGURE 7030.101
7+00	LT	24	69	61		
7+91	RT	20			4	
8+58	LT	19		13	6	
TOTAL			257	322	32	

ALTERNATE 1 SUBDRAIN OUTLET INSTALLATION (FIGURE 4040.233)		
USE 4" OR 6" OUTLET PIPE AS SPECIFIED WITH RODENT GUARD ON ALL OUTLETS		
LOCATION	NUMBER OF OUTLETS	OUTLET LOCATIONS
0+42 RT.	1	EXISTING INTAKE
9+30 LT. & RT.	2	1 DITCH OUTLET EACH SIDE
TOTAL	3	

ALTERNATE 2 SUBDRAIN OUTLET INSTALLATION (FIGURE 4040.233)		
USE 4" OR 6" OUTLET PIPE AS SPECIFIED WITH RODENT GUARD ON ALL OUTLETS		
LOCATION	NUMBER OF OUTLETS	OUTLET LOCATIONS
0+50 LT. & RT.	2	S-1 & S-2 (1 OUTLET EACH INTAKE)
4+20 LT. & RT.	4	S-3 & S-4 (2 OUTLETS EACH INTAKE)
8+93 LT. & RT.	2	S-10 & S-11 (1 OUTLET EACH INTAKE)
TOTAL	8	

ESTIMATED PROJECT QUANTITIES						
Item No.	Bid Item.	Bid Item Description	Unit	Alternate 1 Estimated Quantity	Alternate 2 Estimated Quantity	Remarks
1	2010-C	Clearing and Grubbing	LS	1		
2	2010-E	Excavation, Class 10	CY	1,397	1,561	Class 10 Excavation was calculated by the average end area method with cross sections spaced a maximum of 50 feet, resulting in a total cut quantity of 1,397 (Alternate 1) and 1,561 (Alternate 2) Cubic Yards (CY). Based on a shrinkage factor of 30%, it is estimated there will be approximately 175 (Alternate 1) and 894 (Alternate 2) CY of fill required, resulting in an excess of approximately 1,222 (Alternate 1) and 667 (Alternate 2) CY. Contractor will be required to dispose of excess excavated material at a site secured by the contractor. Payment for excavation will be based on plan quantity unless a change in horizontal or vertical alignment is made and approved by the Jurisdiction. Item also includes stripping (minimum 8" lift), salvaging, stockpiling, and respreading of topsoil on site. Top 6" of respread topsoil shall be prepared for seeding per specification. No separate payment will be made for handling of topsoil. No separate payment for grading and installation of temporary access route as shown on sheet H.01 and W sheets will be made; include cost of topsoil handling, grading fill and removal, temporary culvert installation, removal, and disposal in unit price for excavation.
3	2010-G	Subgrade Preparation (12" Thick)	SY	3,455	3,455	
4	2010-J	Subbase, Modified, 6" Thick	SY	3,455	3,455	
5	2010-M	Compaction Testing	LS	1	1	Contractor is responsible for subgrade Compaction Testing in accordance with the Specifications.
6	3010-C	Trench Foundation	TON	25	50	Item is included for discretionary purposes. Use only where authorized by the Jurisdiction. The limitation for increase or decrease in work outlined Specification Section 1040 1.06 does not apply to this bid item. Jurisdiction may authorize use of all, part, or none of the estimated quantity at the unit price bid.
7	3010-F	Trench Compaction Testing	LS		1	Contractor is responsible for Trench Compaction Testing in accordance with the Specifications.
8	4020-A-1	Storm Sewer, Trenched, PVC, 4"	LF	15	30	
9	4020-A-1	Storm Sewer, Trenched, 12"	LF		166	See General Notes on sheet A.02 for allowable storm sewer pipe material.
10	4020-A-1	Storm Sewer, Trenched, RCP, 12"	LF		53	Where RCP pipe is shown on the plans; use RCP as noted in General Notes on sheet A.02.
11	4020-A-1	Storm Sewer, Trenched, 15"	LF		150	See General Notes on sheet A.02 for allowable storm sewer pipe material.
12	4020-A-1	Storm Sewer, Trenched, RCP, 15"	LF		53	Where RCP pipe is shown on the plans; use RCP as noted in General Notes on sheet A.02.
13	4020-A-1	Storm Sewer, Trenched, 18"	LF		372	See General Notes on sheet A.02 for allowable storm sewer pipe material.
14	4020-D	Removal of Storm Sewer, All Types, ≤15"	LF	402	474	
15	4030-A-1	Pipe Culvert, Trenched, 12"	LF	437		See General Notes on sheet A.02 for allowable storm sewer pipe material.
16	4030-B	Pipe Apron, Metal, 12"	EA	16		Install Apron Footing in accordance with Figure 4030.221(RCP Apron Section Footing) of the Specifications on all new aprons. Include cost of Apron Footing in unit price for Pipe Apron.
17	4030-B	Pipe Apron, Metal or RCP, 12"	EA		4	RCP aprons required if RCP pipe is used. Metal aprons required if other pipe type is used. Install Apron Footing in accordance with Figure 4030.221(RCP Apron Section Footing) of the Specifications on all new aprons. Include cost of Apron Footing in unit price for Pipe Apron.
18	4040-A	Subdrain, Type 1 (Longitudinal Subdrain), 4" Dia.	LF	1,820	1,670	
19	4040-D-1	Subdrain Outlets and Connections, CMP or PVC, 4" or 6"	EA	3	8	Install Subdrain Outlets and Connections to ditch and structures per SUDAS Figure 4040.233. Subdrain outlets shall be CMP or PVC as specified in Section 4040 2.05 of the Specifications for outlets to structures.
20	5999-A	Lower/Relocate Existing Water Service	EA		5	The limitation for increase or decrease in work outlined in Specification Section 1040 1.06 does not apply to this bid item. Use only where approved by the Jurisdiction. New service pipe material shall be Type K Copper with approved fittings and couplings, unless approved otherwise by the Jurisdiction. Match existing service line size with a minimum size of 3/4". Lower or relocate existing water service to provide required separation to avoid conflict with an existing or proposed utility line. Measurement will be completed by counting each service line lowered/relocated. Payment includes all excavation, removal of existing pipe, furnishing and install new pipe, all fittings necessary for pipe connections, backfill, compaction and miscellaneous associated work.
21	6010-B	Intake, SW-501	EA		1	
22	6010-B	Intake, SW-502, 48" Dia.	EA		2	
23	6010-B	Intake, SW-503	EA		1	
24	6010-B	Intake, SW-505	EA		1	
25	6010-B	Intake, SW-506	EA		1	
26	6010-B	Intake, SW-512, Case 1, 36" Dia.	EA		5	
27	6010-E-1	Manhole Adjustment, Minor	EA	2	2	New infiltration barrier is <u>not</u> required with each manhole adjustment.
28	6010-G-2	Connect to Existing Intake	EA		1	
29	6999-A	PVC Area Drain	EA	2		See detail on sheet B.01. Each area drain installed will be counted for payment. Payment is based on complete installation of each area drain including: excavation, bedding and backfill, and miscellaneous associated work properly required to complete the installation.
30	6999-B	Modify Existing Intake	LS		1	Modify existing intake as shown and described on plan sheet M2.01. All materials and methods of construction shall be in accordance with Section 6010 of the Specifications. Payment will be based on Lump Sum price bid to complete intake modification as described on the plans.
31	7010-A	Jointment, PCC, 6" Thick, C3 or C4 (with Baskets)	SY	3,058	3,058	See General Notes on sheet A.02 for additional mix type information. Transverse joint type for 7" thick PCC pavement shall be type 'CD' (baskets). See typical section on sheet B.01 for joint spacing.
32	7010-B	PCC Pavement Samples and Testing	LS	1	1	Contractor is responsible of all PCC Pavement Sampling and Testing in accordance with the Specifications. See General Notes on sheet A.02 for additional information.
33	7030-H-3	Removal of Driveway	SY	264	257	
34	7030-H-3	Driveway, Paved, PCC, 6" Thick	SY	348	322	
35	7040-H-3	Driveway, Granular	TON	50	45	Minimum thickness shall be 6" compacted in place. Item includes quantity at E.O.P. to match new street to existing granular road.
36	7040-H-3	Pavement Removal	SY	2,106	2,106	
37	9999-B	Temporary Granular Surfacing	TON	130	130	Item is included for temporary access to Crock Street during Stage 2 Construction. See sheet H.01 and W sheets (cross sections) for additional information. Granular material shall be Iowa DOT Gradation No. 11, Class 'A' Crushed Stone. Measurement will be based on certified weight tickets from material delivery trucks. Payment per TON includes; installation, maintenance, removal and disposal of granular material as described on the plan sheets.
38	8020-B	Painted Pavement Markings, Solvent/Waterborne	STA	17.6		Install 4" wide (white) edge lines on each side of road; located 2' from edge of pavement.
39	8030-A	Temporary Traffic Control	LS	1	1	
40	9010-A or B	Seeding, Fertilizing, and Mulching	LS	1	1	Fertilize, Seed, and Mulch all areas disturbed by construction. Use Type 1 Permanent Lawn Mixture. No measurements for this item will be made. Payment will be based on the Lump Sum price bid.
41	9040-A-1	SWPPP Preparation	LS	1	1	
42	9040-A-2	SWPPP Management	LS	1	1	
43	9040-J	Rip Rap, Class D	TON		25	
44	9040-N-1	Silt Fence or Silt Fence Ditch Check	LF	250	250	
45	9040-N-2	Silt Fence or Silt Fence Ditch Check, Removal of Sediment	LF	250	250	
46	9040-N-3	Silt Fence or Silt Fence Ditch Check, Removal of Device	LF	250	250	
47	11,020-A	Mobilization	LS	1	1	



806 Warming Ave.
P.O. Box 451
Oskaloosa, Iowa 52577
641.782.4005 Phone
641.782.4118 Fax

1701 3rd Avenue East, Suite 1
Oskaloosa, Iowa 52577
641.672.2526 Phone
641.672.2091 Fax

800.491.2524 Iowa Toll Free

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SHEET TITLE
PROJECT
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NO SCALE

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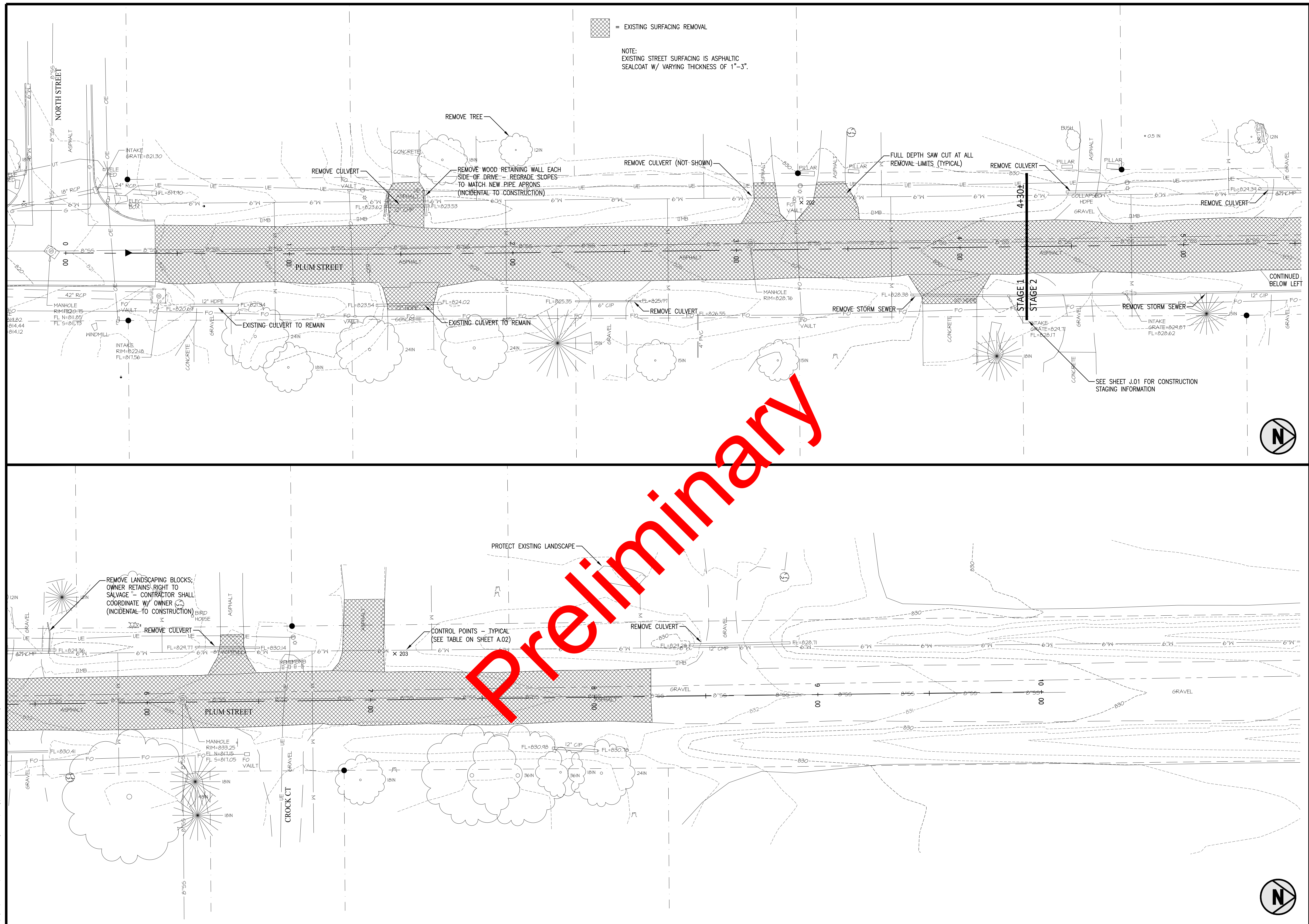
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PROJECT NO.:

5019077

SHEET NO.:

C.01



 = EXISTING SURFACING REMOVAL

NOTE:
EXISTING STREET SURFACING IS ASPHALTIC
SEALCOAT W/ VARYING THICKNESS OF 1"-3".

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ENGINEERS & SURVEYORS
1701 3rd Avenue East, Suite 1 806 Wyoming Ave.

1701 3rd Avenue East, Suite 1
P.O. Box 451
Oskaloosa, Iowa 52577
641.672.2526 Phone
641.672.2091 Fax

806 Wyoming Ave.
Creston, Iowa 50801
641.782.4005 Phone
641.782.4118 Fax

email@gardenassociates.net

800.491.2524 Iowa Toll Free

Oskaloosa, Iowa 52577
641.672.2526 Phone

641.672.2091 Fax

91.2524 Iowa Toll Free

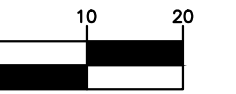
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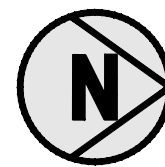
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HEET NO.:

D1.01



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Oskaloosa, Iowa 52577
641.672.2526 Phone
641.672.2091 Fax

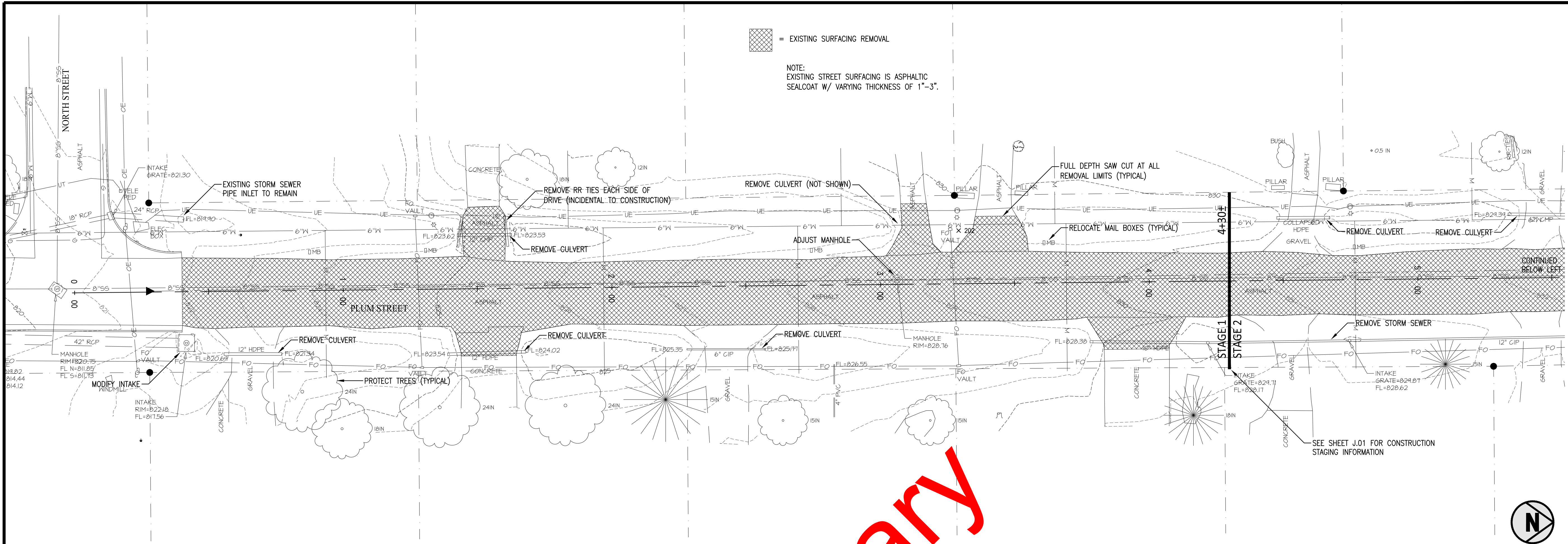
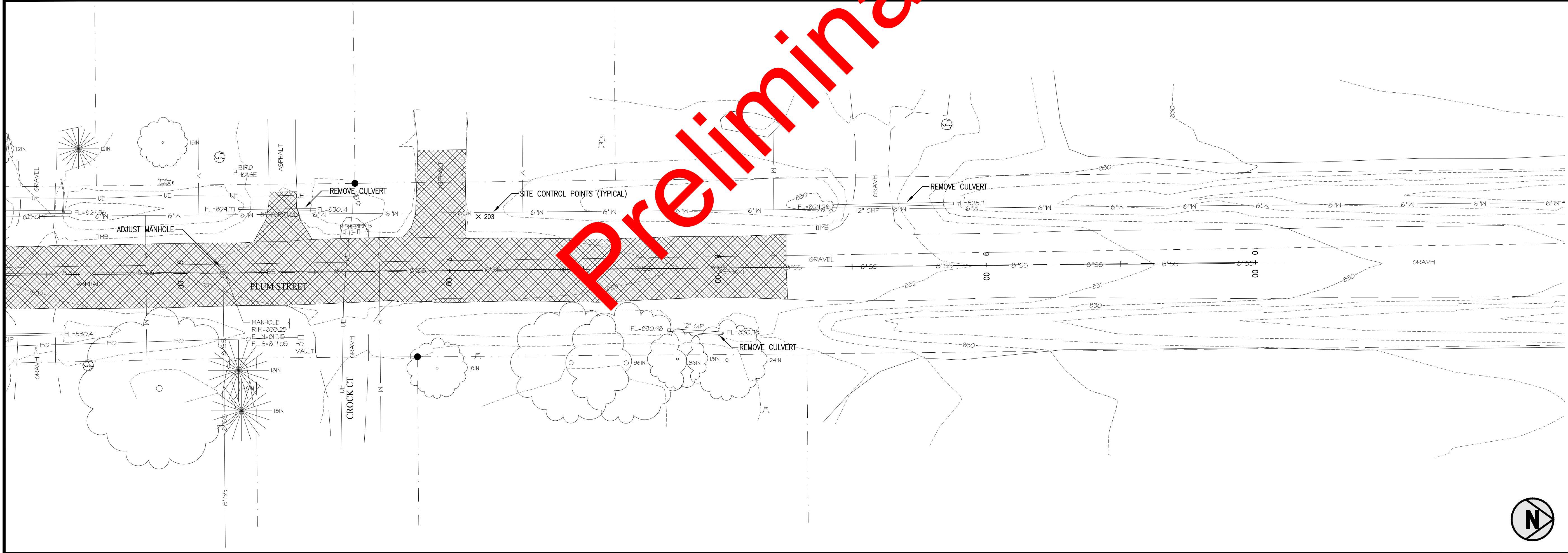
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641.782.4003 Phone
641.782.4118 fax

800.491.2524 Iowa Toll Free
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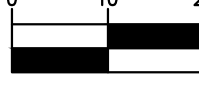
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NOTE:
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ENGINEERS & SURVEYORS
1701 3rd Avenue East, Suite 1
P.O. Box 451
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641.782.4005 Phone
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email@gardenassociates.net
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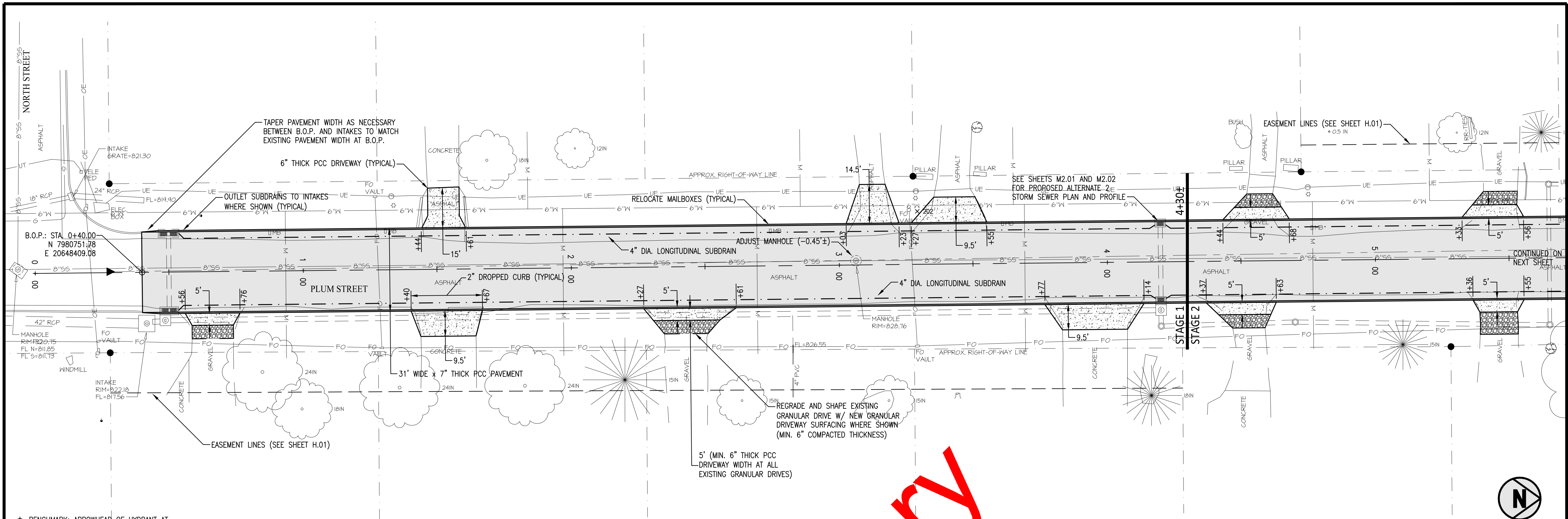
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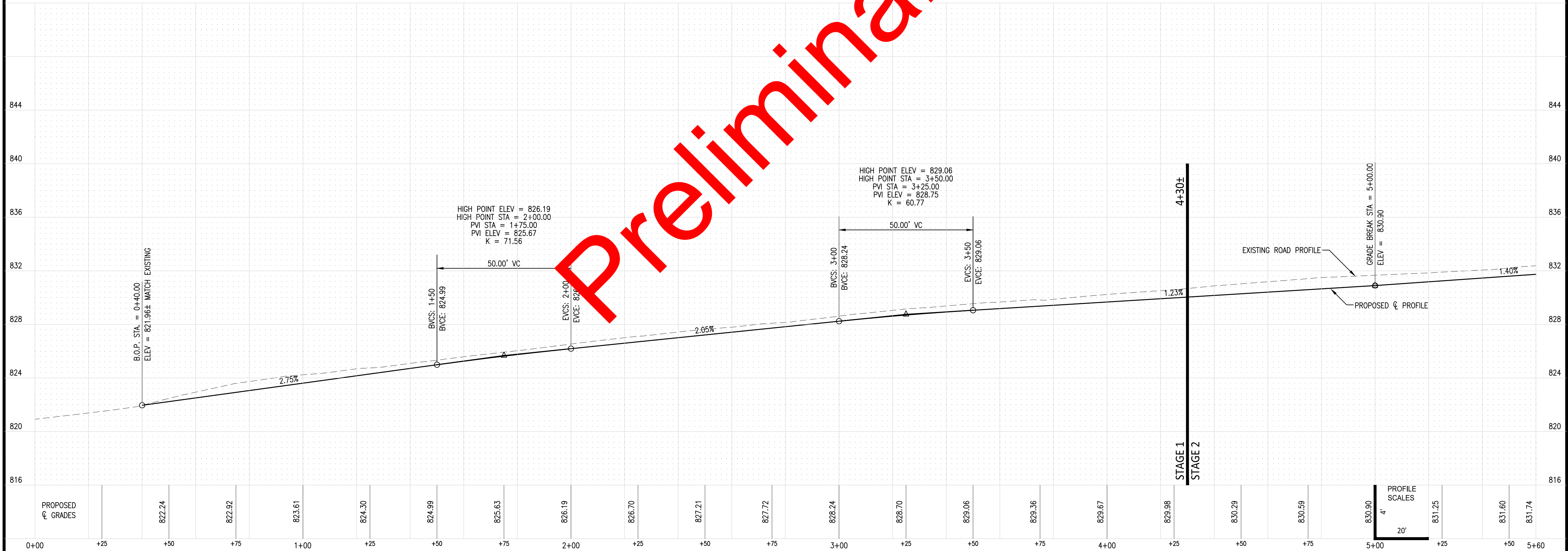
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BENCHMARK: ARROWHEAD OF HYDRANT AT SW CORNER OF INTERSECTION OF PLUM ST. AND NORTH ST., ELEV. = 821.23



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ENGINEERS & SURVEYORS

806 Warming Ave.
Creston, Iowa 50801
P.O. Box 451
Oskaloosa, Iowa 52577
641.782.4005 Phone
641.782.4118 Fax
email@gardenassociates.net

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ALTERNATE 2
PLAN AND PROFILE
B.O.P. TO STA. 5+60

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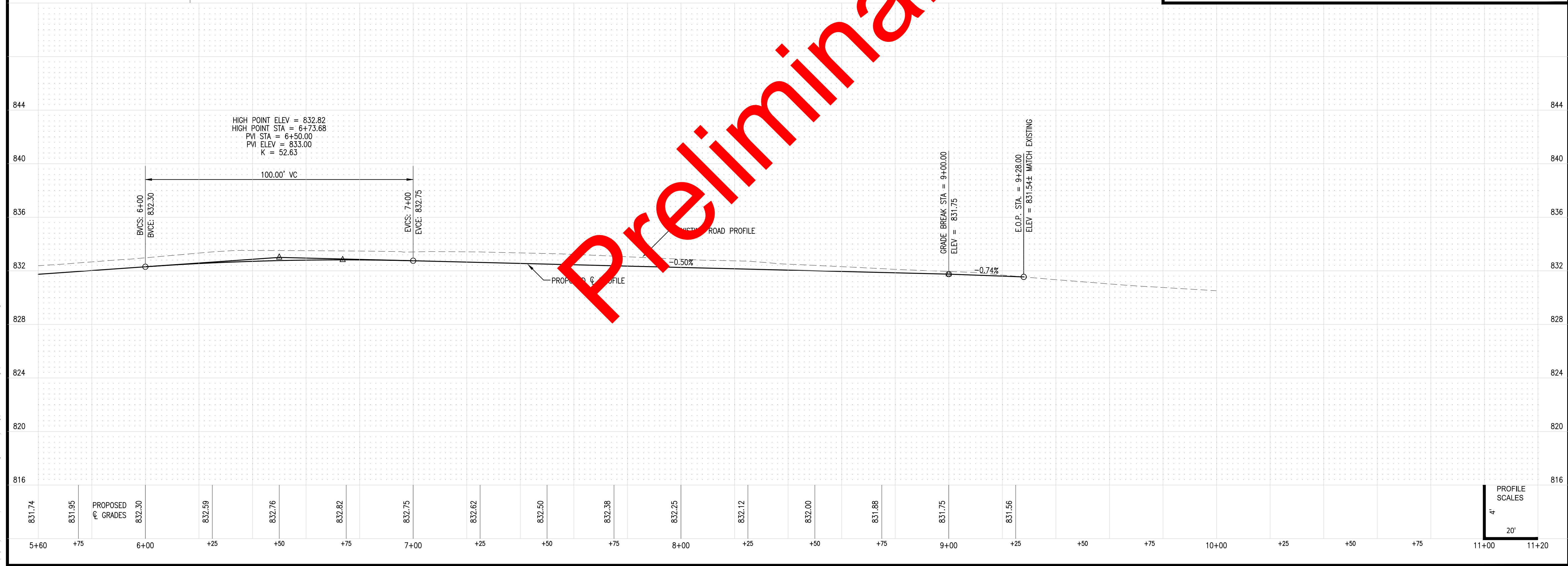
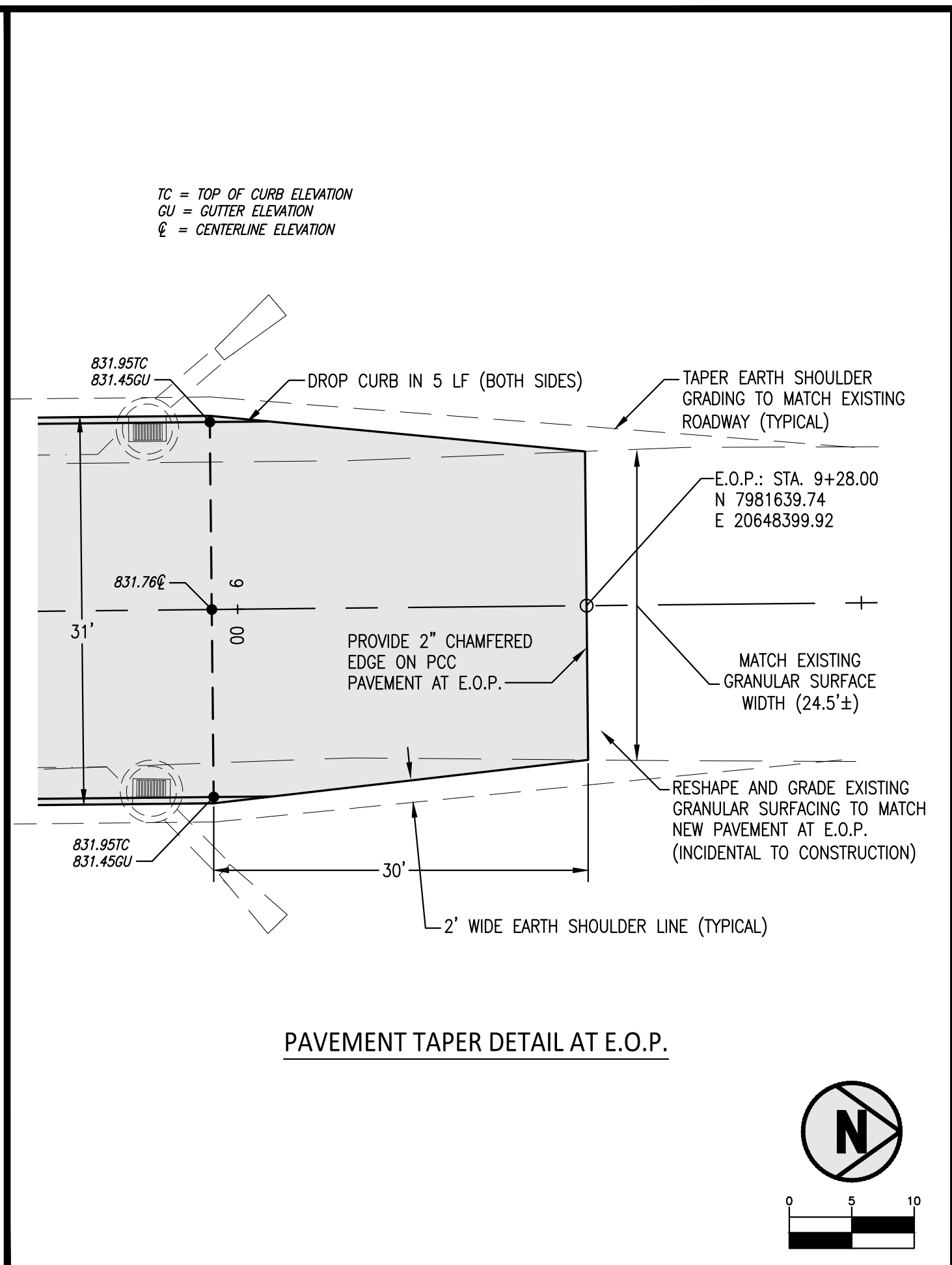
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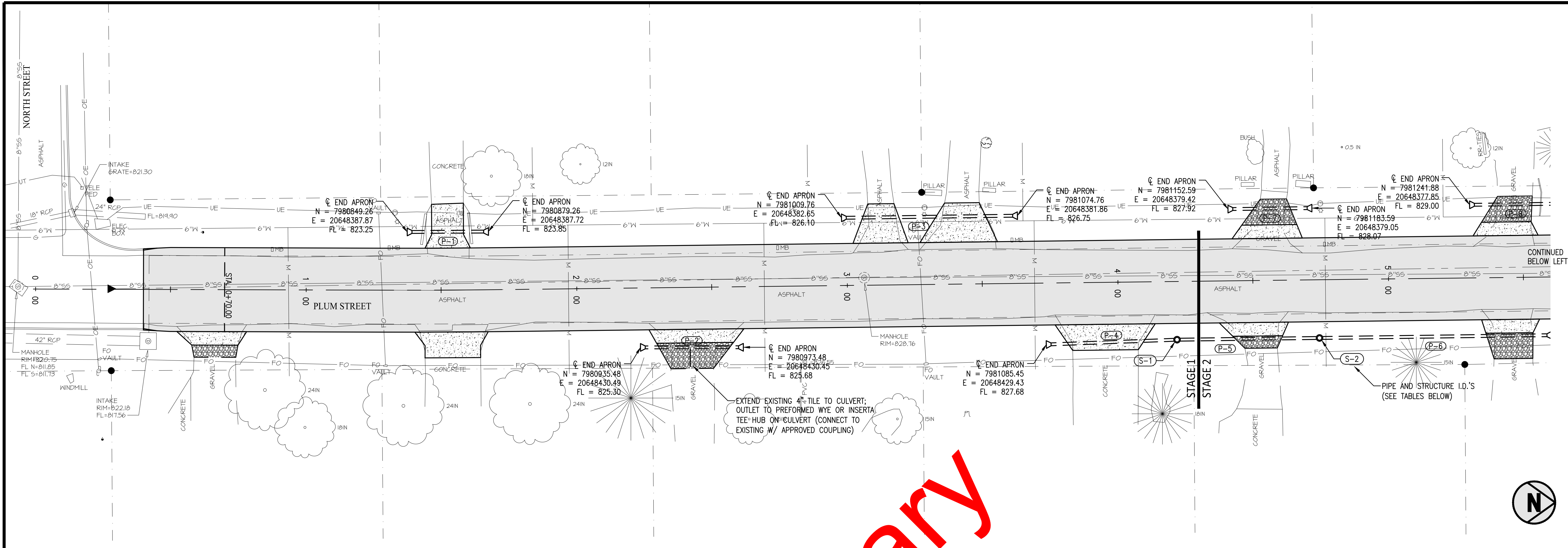
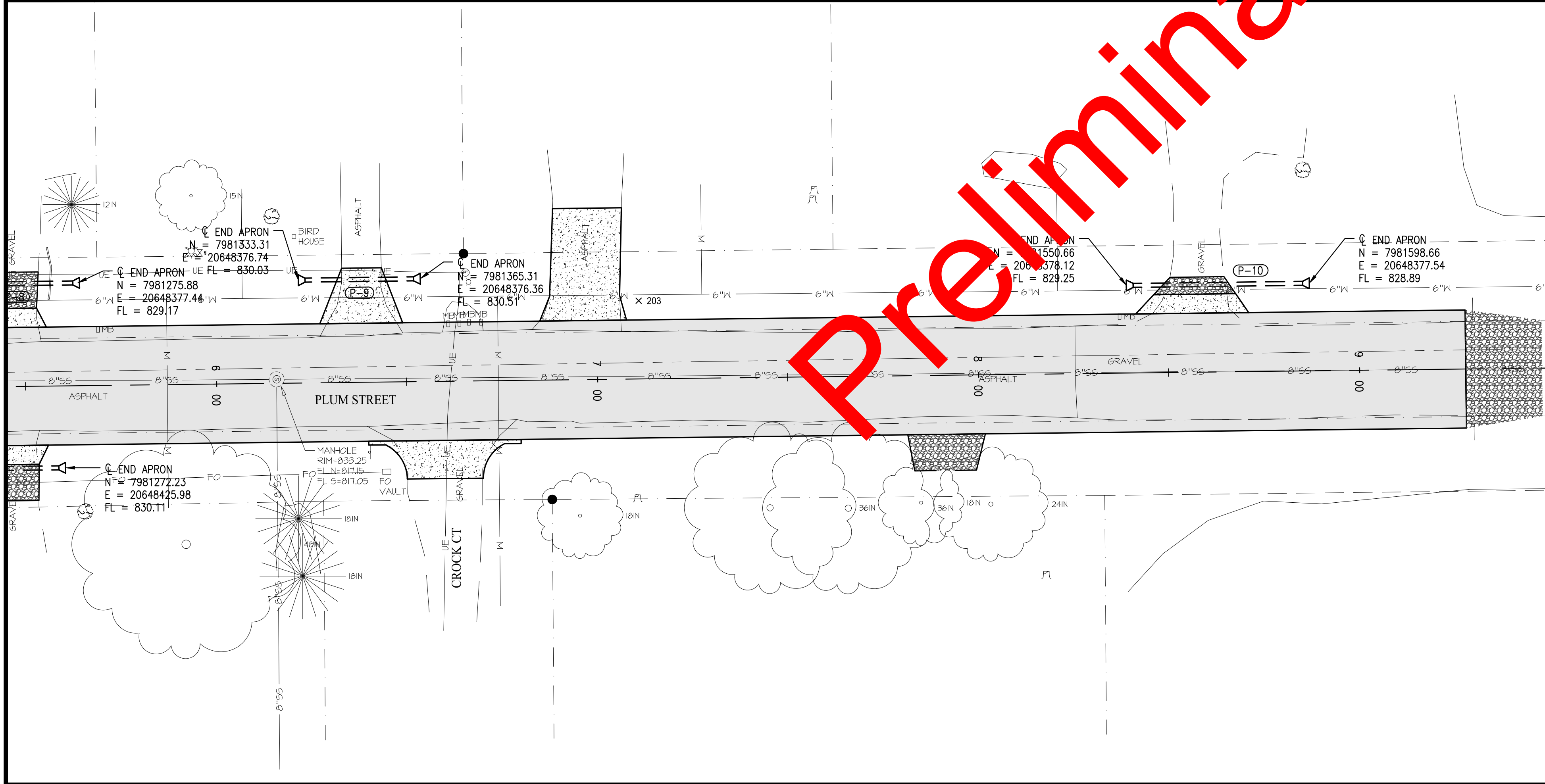
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SHEET NO.:
D2.02



SHEET NO.:
D2.03

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ALTERNATE 1 - STORM SEWER STRUCTURE TABLE						
STRUCTURE NO.	NORTHING	EASTING	STATION	OFFSET FROM	TOP OF CURB OR RIM ELEV.	STRUCTURE TYPE
S-1	7981133.76	20648427.65	4+21.73	21.50' RT.	829.60	PVC AREA DRAIN OR 12" INVERTED TEE W/ FLAT GRATE
S-2	7981186.39	20648427.02	4+74.37	21.50' RT.	829.80	PVC AREA DRAIN OR 12" INVERTED TEE W/ FLAT GRATE

ALTERNATE 1 - STORM SEWER PIPE TABLE						
PIPE	DIAMETER	MATERIAL	LENGTH**	SLOPE	PIPE E IN	PIPE E OUT
P-1	12"	*	30.0 LF	2.00%	823.85	823.25
P-2	12"	*	38.0 LF	1.00%	825.68	825.30
P-3	12"	*	65.0 LF	1.00%	826.75	826.10
P-4	12"	*	48.3 LF	0.50%	827.92	827.68
P-5	12"	*	52.6 LF	0.50%	828.19	827.92
P-6	12"	*	85.8 LF	2.24%	830.11	828.18
P-7	12"	*	31.0 LF	0.50%	828.07	827.92
P-8	12"	*	34.0 LF	0.50%	829.17	829.00
P-9	12"	*	32.0 LF	1.50%	830.51	830.03
P-10	12"	*	48.0 LF	0.75%	829.25	828.89

NOTES:
* SEE GENERAL NOTES ON SHEET A.02 FOR ALLOWABLE PIPE MATERIALS.
** PIPE LENGTHS INCLUDE APRON LENGTHS.



GARDEN & ASSOCIATES, LTD.

ENGINEERS & SURVEYORS

806 Warming Ave.
Creston, Iowa 50801
P.O. Box 451
Oskaloosa, Iowa 52577
641.782.4005 Phone
641.782.4118 Fax
email@gardenassociates.net

1701 3rd Avenue East, Suite 1
Creston, Iowa 50801
P.O. Box 451
Oskaloosa, Iowa 52577
641.782.4005 Phone
641.782.4118 Fax
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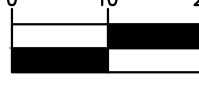
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ALTERNATE 1
STORM SEWER
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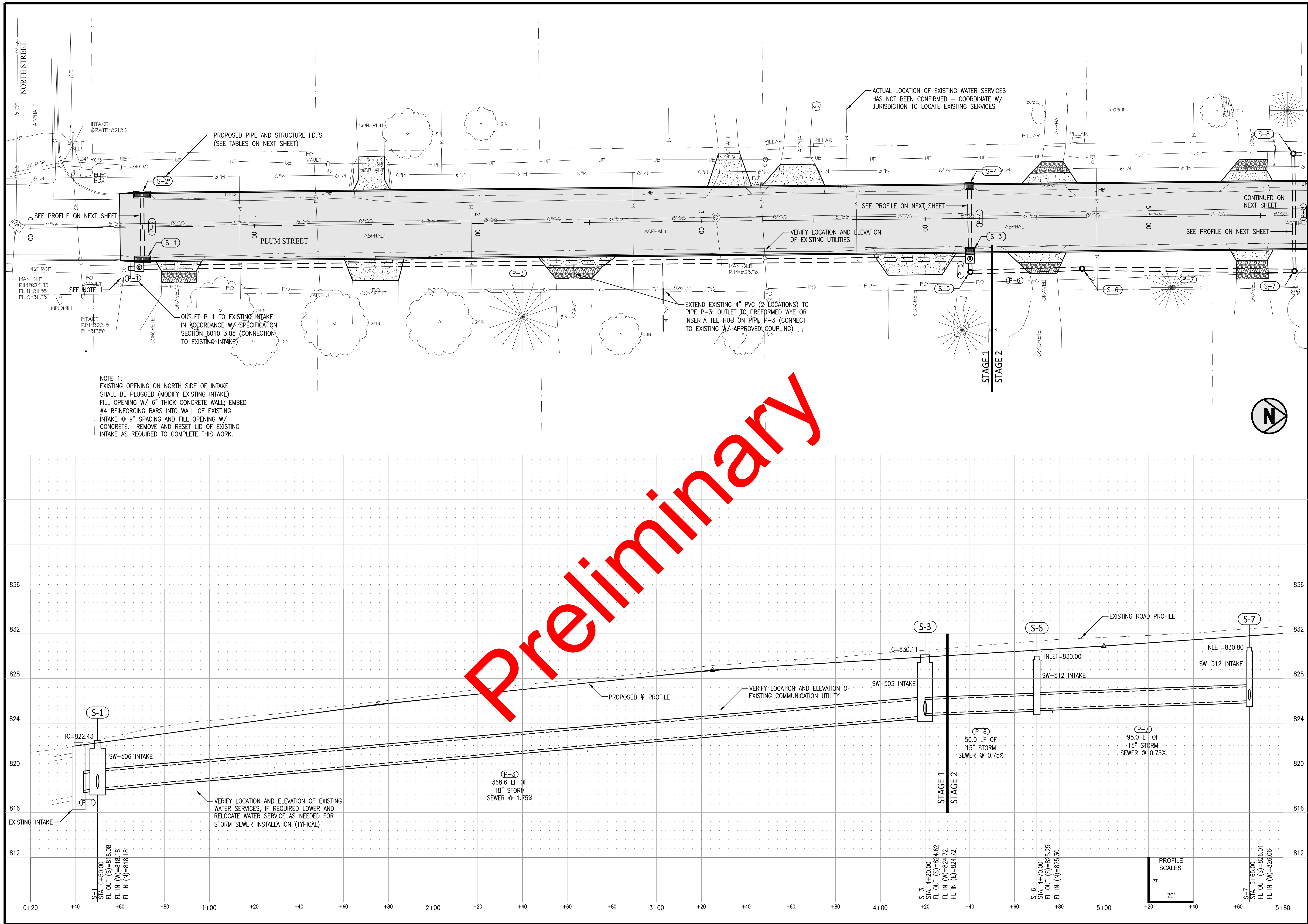
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P.O. Box 451
Creston, Iowa 50801
641.782.4005 Phone
641.782.4118 Fax
email@gardenassociates.net

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ALTERNATE 2
STORM SEWER
PLAN AND PROFILE

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APR. 19, 2023

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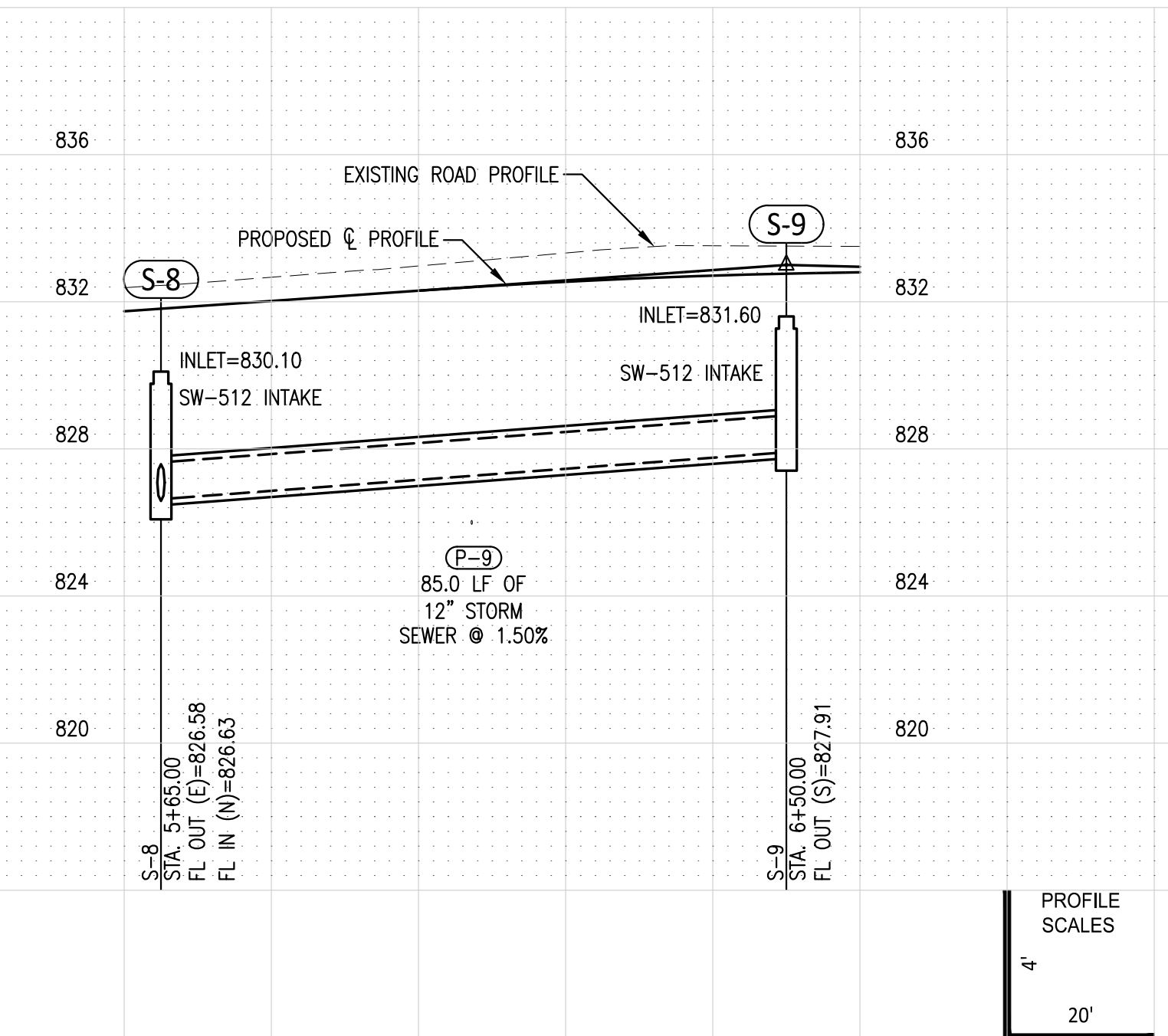
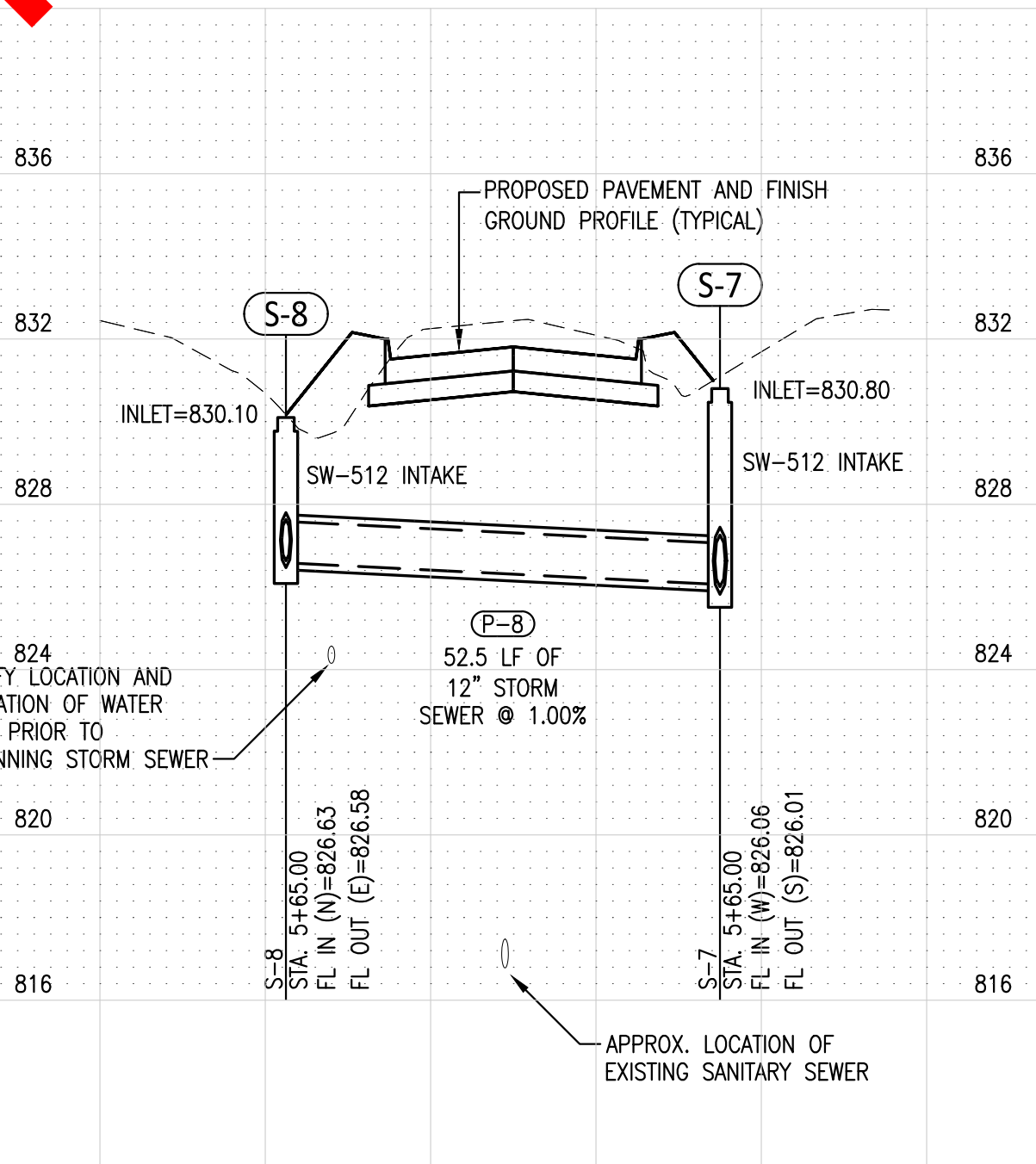
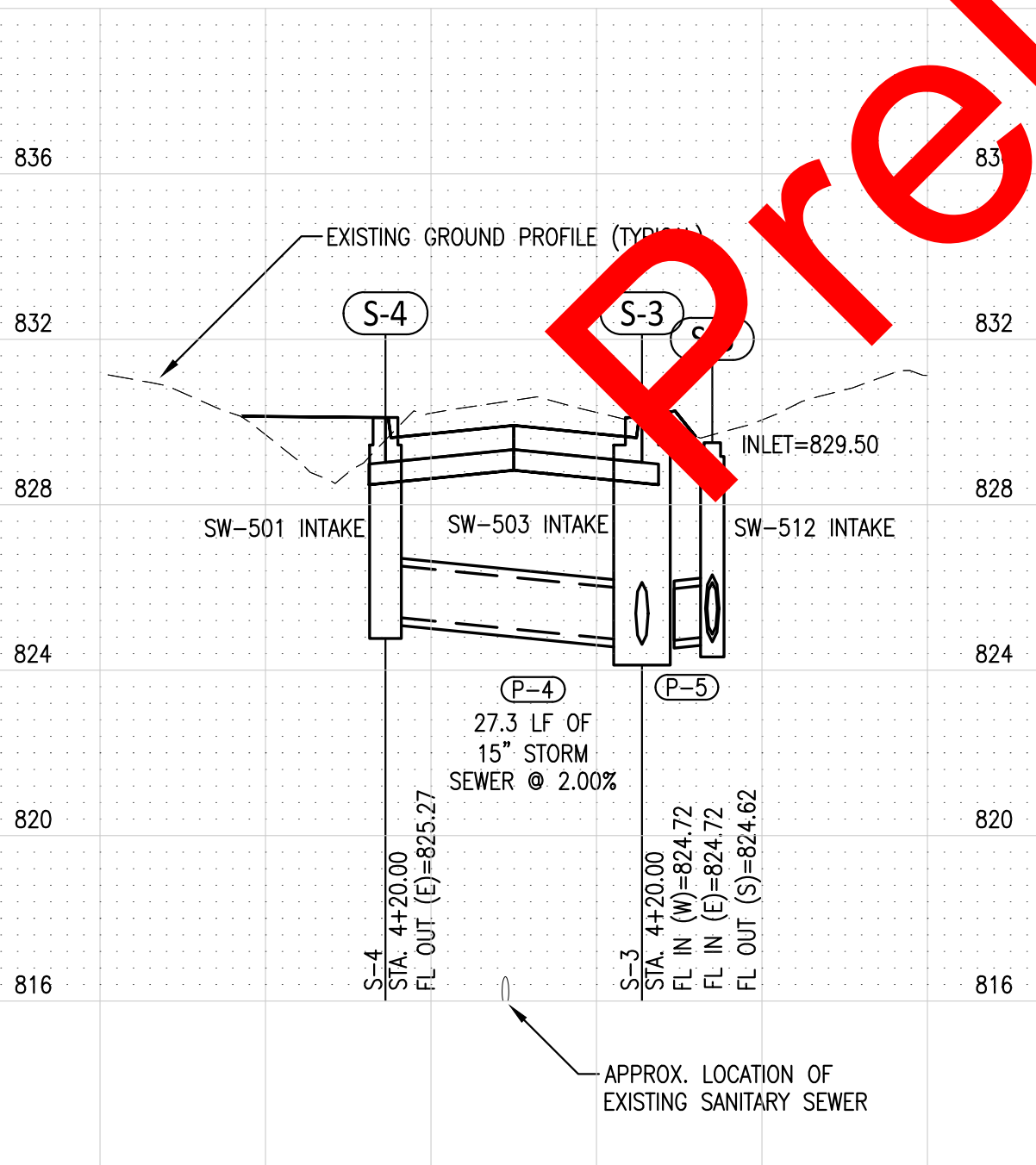
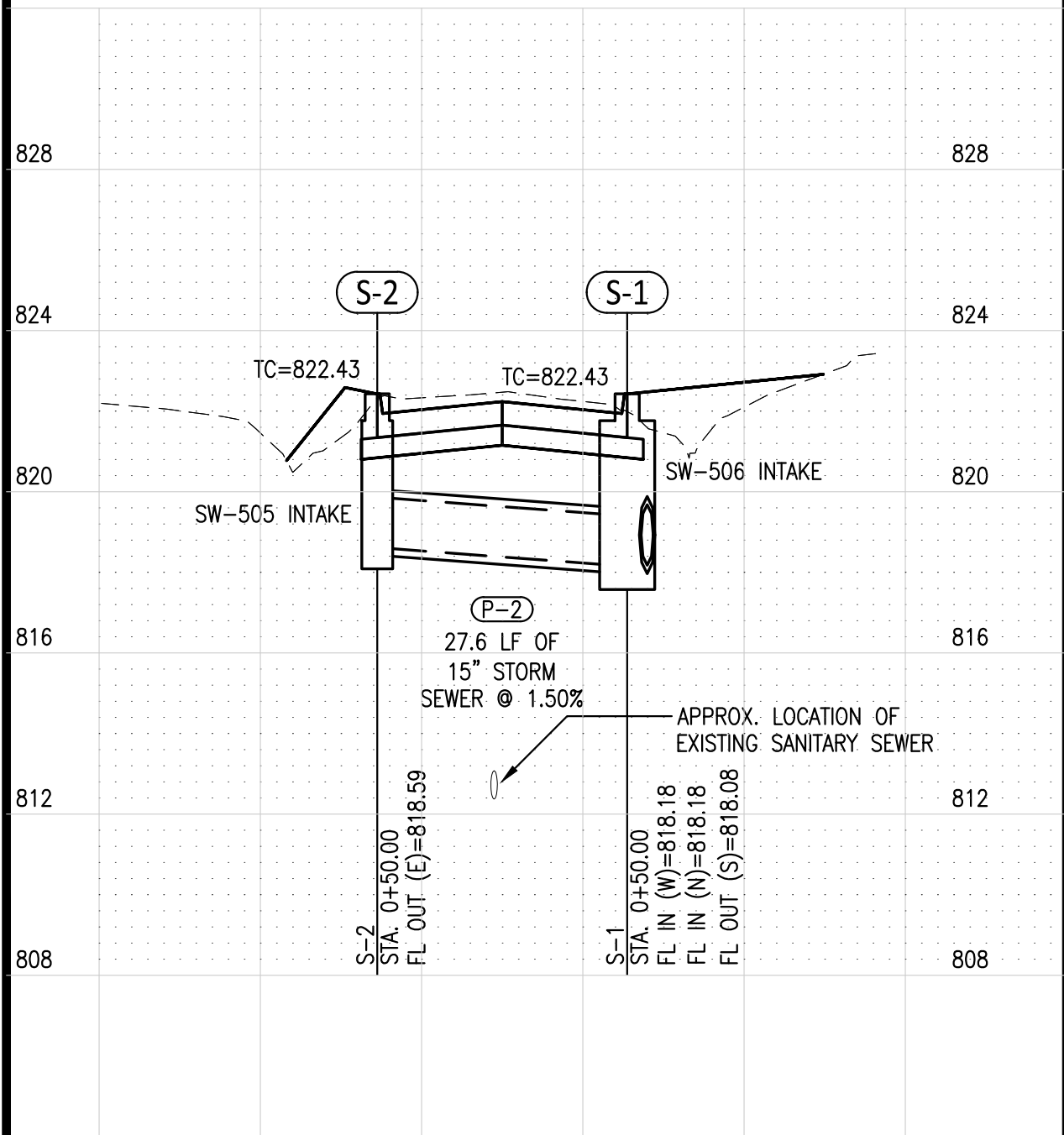
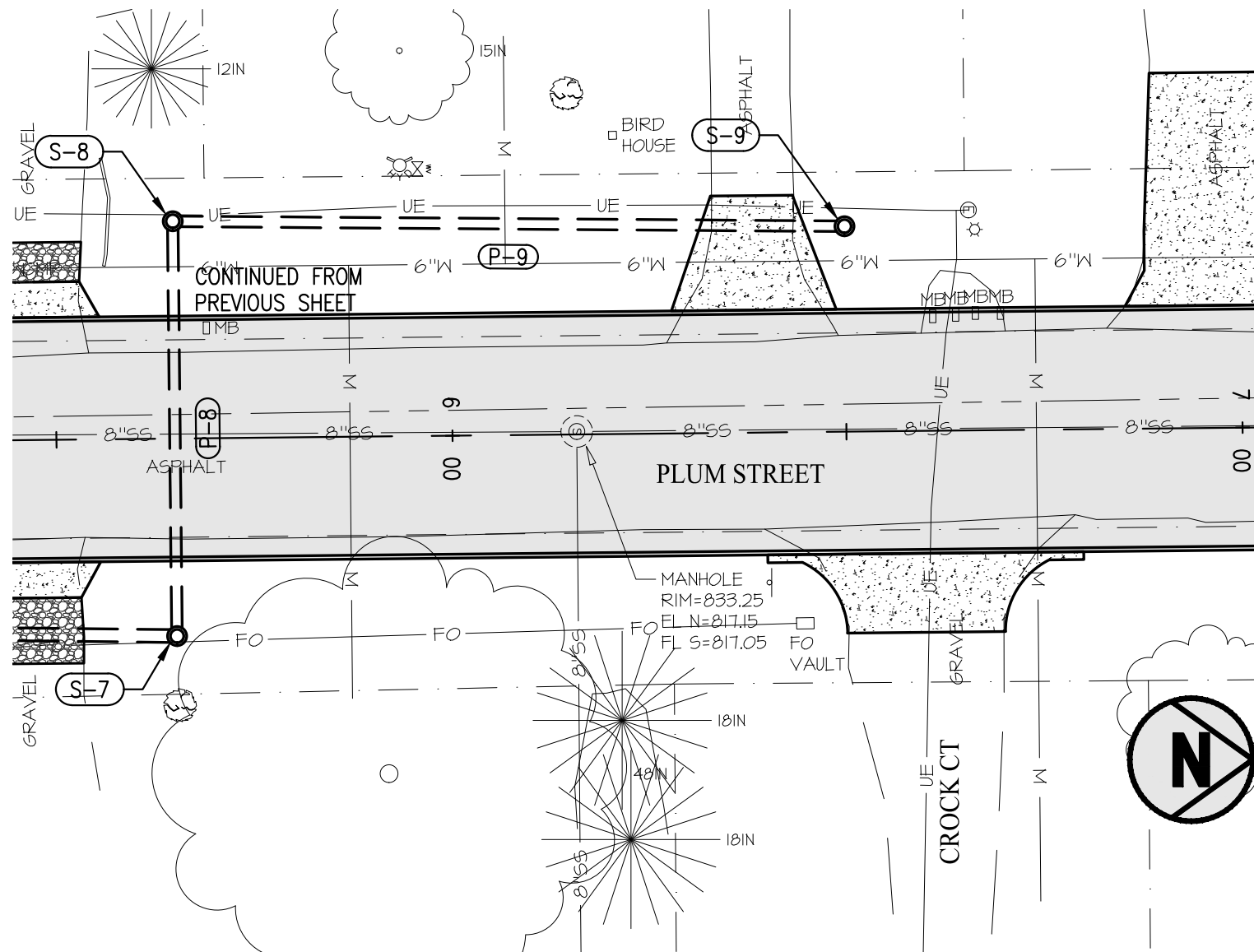
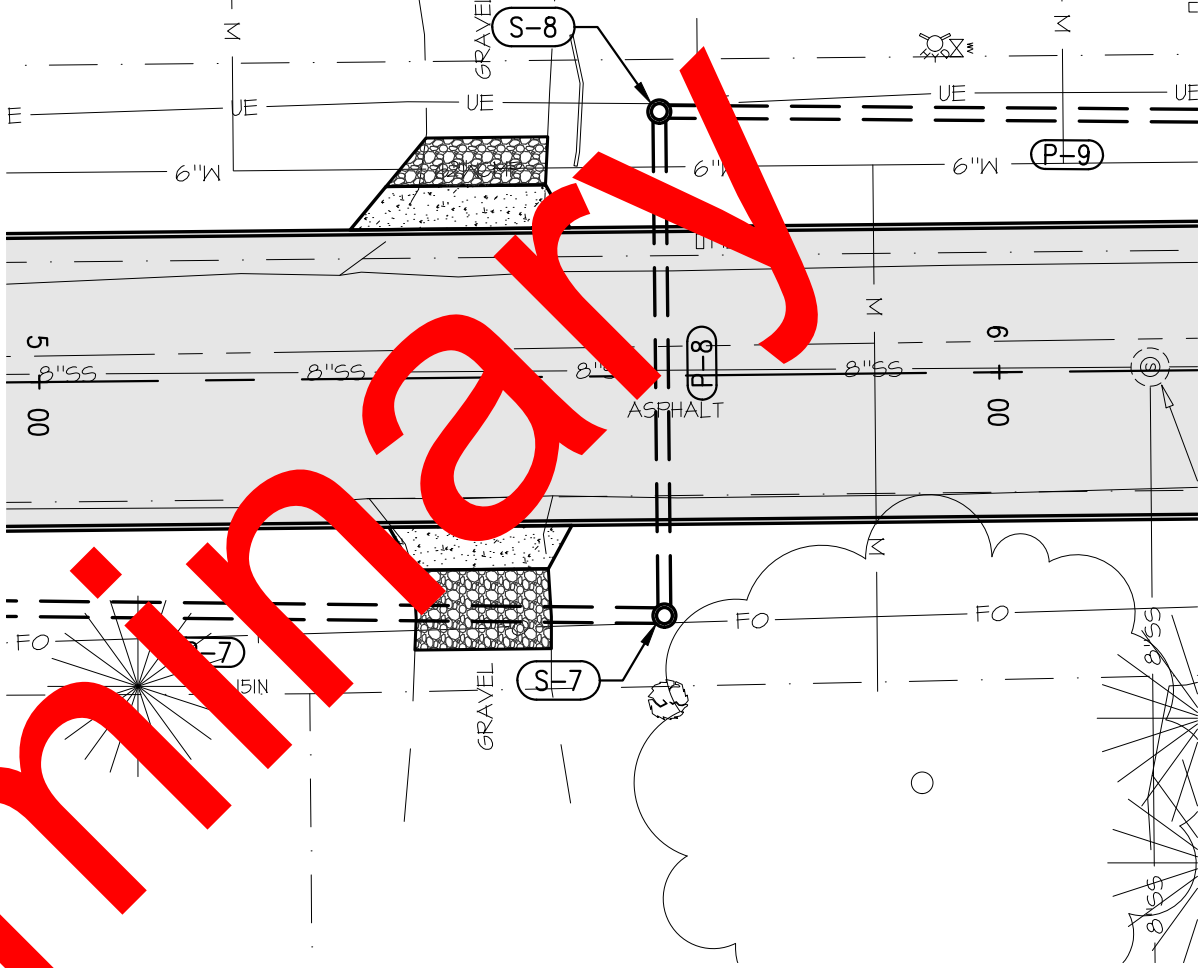
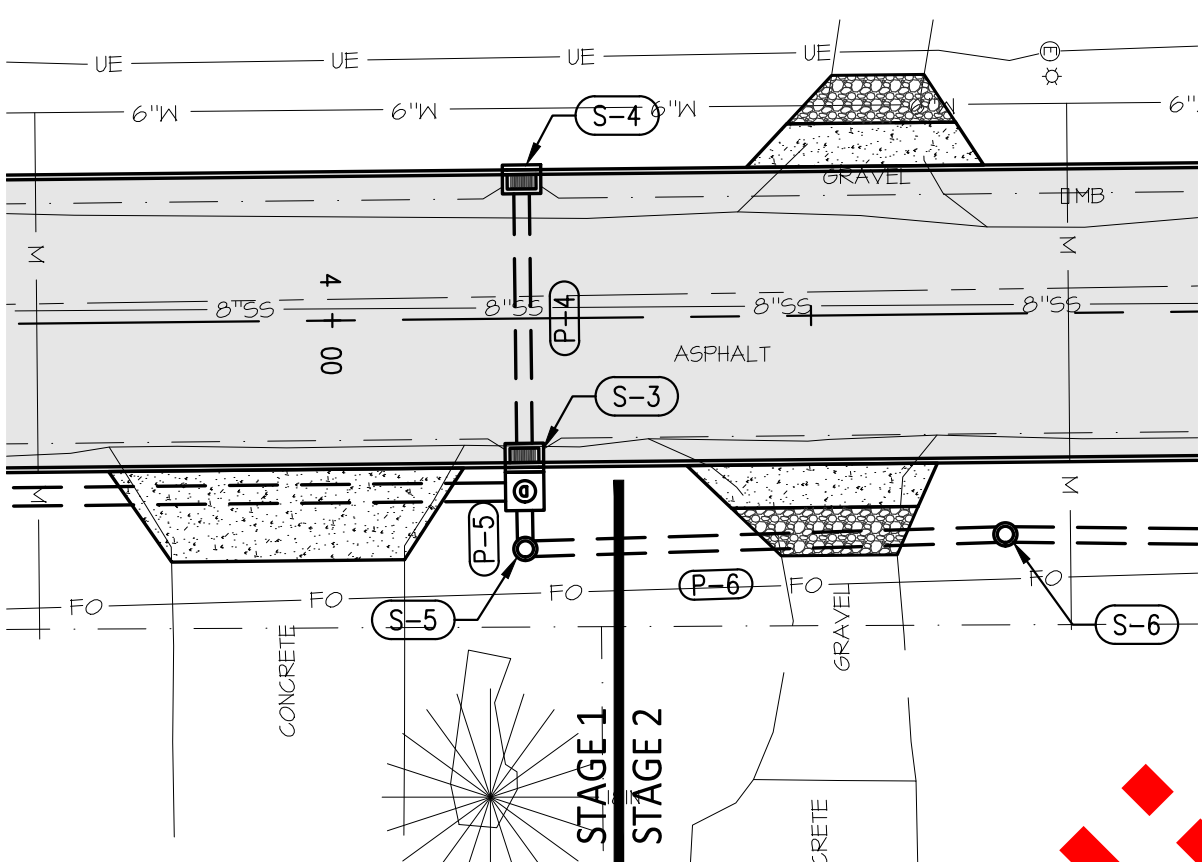
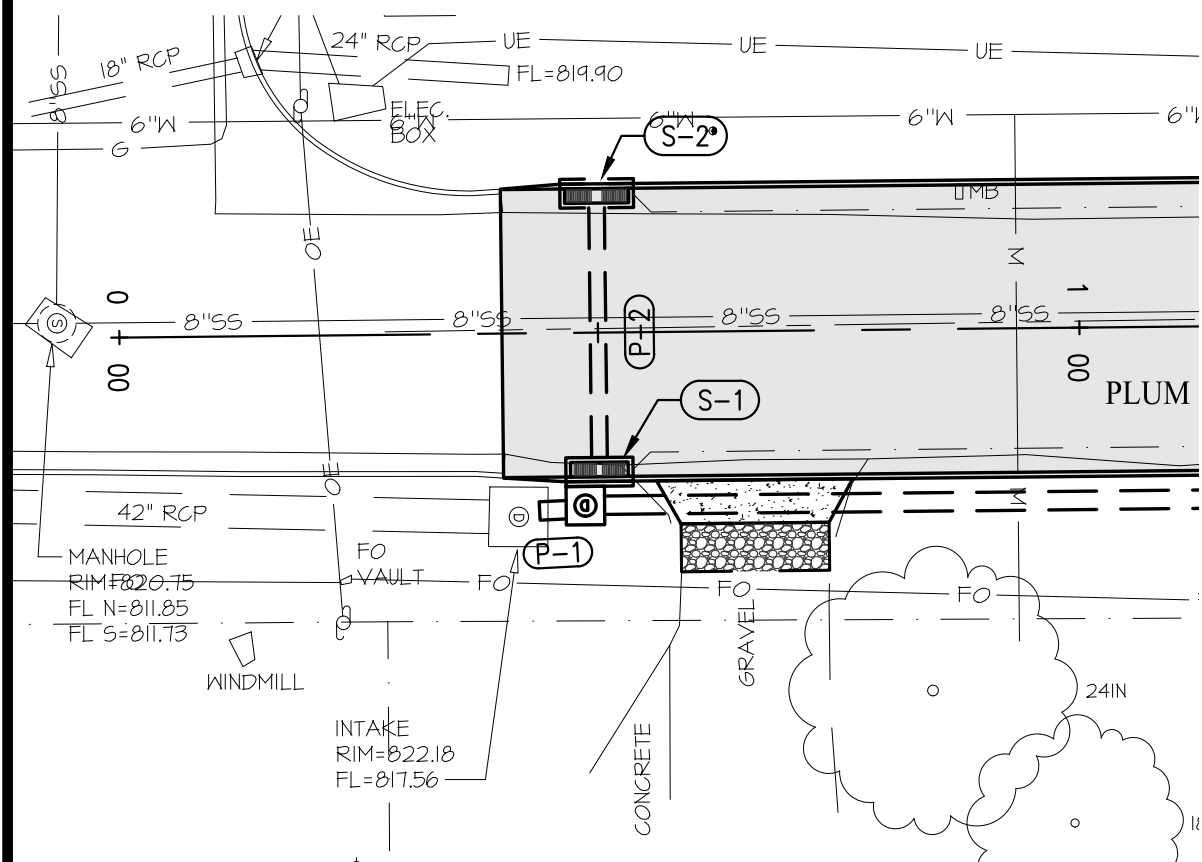
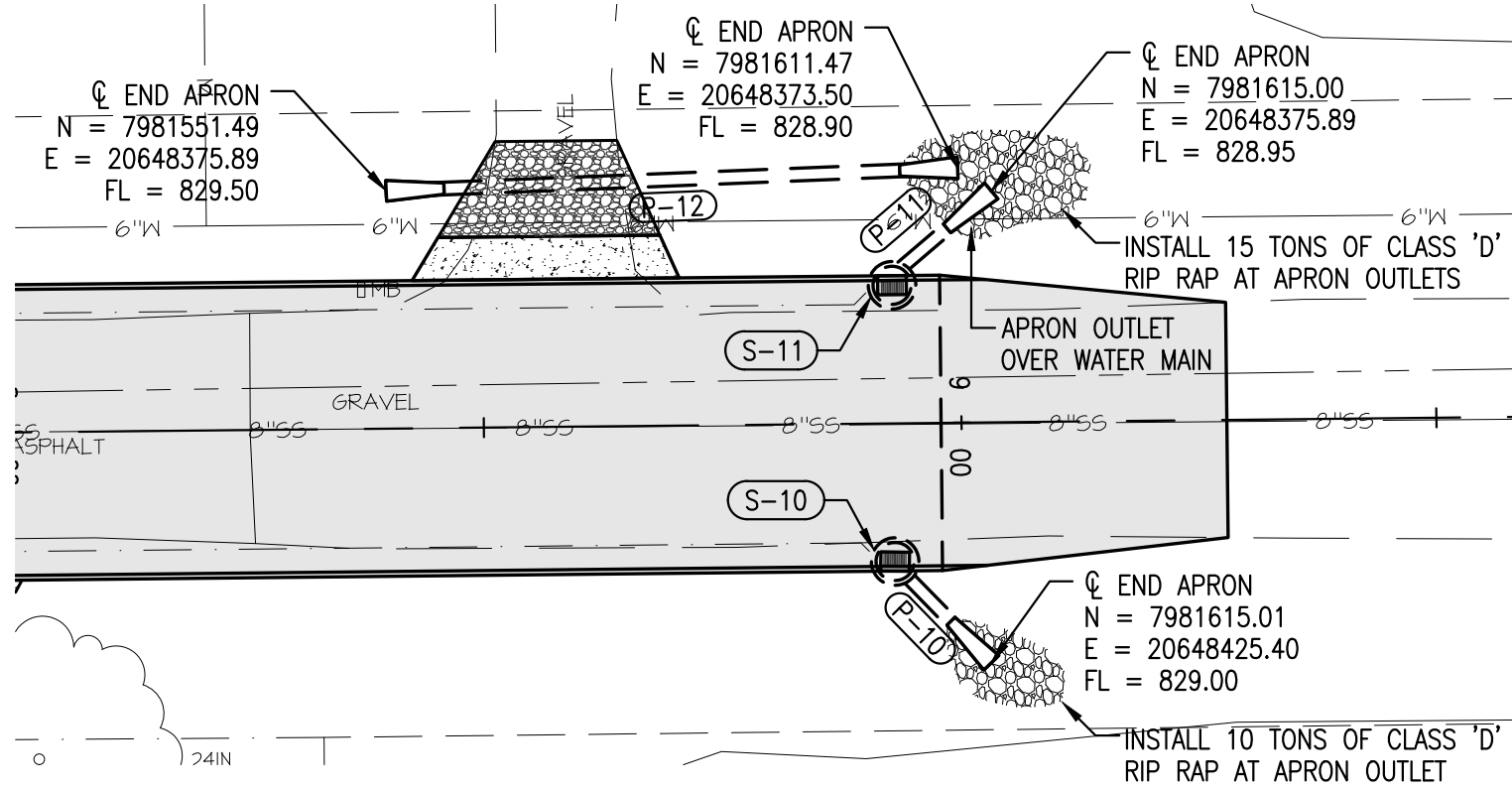
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ALTERNATE 2 - STORM SEWER STRUCTURE TABLE						
STRUCTURE NO.	NORTHING	EASTING	STATION	OFFSET FROM C	TOP OF CURB OR INLET ELEV.	STRUCTURE TYPE
S-1	7980761.94	20648424.47	0+50.00	15.50' RT.	822.43	SW-506 INTAKE
S-2	7980761.62	20648393.48	0+50.00	15.50' LT.	822.43	SW-505 INTAKE
S-3	7981131.92	20648420.66	4+20.00	15.50' RT.	830.11	SW-503 INTAKE
S-4	7981131.60	20648389.66	4+20.00	15.50' LT.	830.11	SW-501 INTAKE
S-5	7981132.01	20648429.16	4+20.00	24.00' RT.	829.50	SW-512 AREA INTAKE, CASE 1 24" DIA. W/ SW-604 TYPE 3B CASTING
S-6	7981182.00	20648427.64	4+70.00	23.00' RT.	830.00	SW-512 AREA INTAKE, CASE 1 24" DIA. W/ SW-604 TYPE 3B CASTING
S-7	7981277.01	20648428.66	5+65.00	25.00' RT.	830.80	SW-512 AREA INTAKE, CASE 1 24" DIA. W/ SW-604 TYPE 3B CASTING
S-8	7981276.47	20648376.17	5+65.00	27.50' LT.	830.10	SW-512 AREA INTAKE, CASE 1 24" DIA. W/ SW-604 TYPE 3B CASTING
S-9	7981361.48	20648376.79	6+50.00	26.00' LT.	831.60	SW-512 AREA INTAKE, CASE 1 24" DIA. W/ SW-604 TYPE 3B CASTING
S-10	7981604.90	20648415.78	8+93.00	15.50' RT.	831.97	SW-502 INTAKE, 48" DIA.
S-11	7981604.58	20648384.78	8+93.00	15.50' LT.	831.97	SW-502 INTAKE, 48" DIA.

ALTERNATE 2 - STORM SEWER PIPE TABLE								
PIPE	DIAMETER	MATERIAL	FROM	TO	LENGTH**	SLOPE	PIPE E IN	PIPE E OUT
P-1	18"	PVC OR PP*	S-1		3.3 LF	2.25%	818.08	818.00
P-2	15"	RCP*	S-2	S-1	27.6 LF	1.50%	818.59	818.18
P-3	18"	PVC OR PP*	S-3	S-1	368.6 LF	1.75%	824.62	818.18
P-4	15"	RCP*	S-4	S-3	27.3 LF	2.00%	825.27	824.72
P-5	15"	PVC OR PP*	S-5	S-3	4.6 LF	2.17%	824.82	824.72
P-6	15"	PVC OR PP*	S-6	S-5	50.0 LF	0.75%	825.25	824.87
P-7	15"	PVC OR PP*	S-7	S-6	95.0 LF	0.75%	826.01	825.30
P-8	12"	RCP*	S-8	S-7	52.5 LF	1.00%	826.58	826.06
P-9	12"	PVC OR PP*	S-9	S-8	85.0 LF	1.50%	827.91	826.63
P-10	12"	PVC OR PP*	S-10		13.3 LF	0.50%	829.07	829.00
P-11	12"	PVC OR PP*	S-11		13.7 LF	0.50%	829.02	828.95
P-12	12"	PVC OR PP*			60.0 LF	1.00%	829.50	828.90

NOTES:
* SEE GENERAL NOTES ON SHEET A.02 FOR ALLOWABLE PIPE MATERIALS.
** PIPE LENGTHS INCLUDE APRON LENGTHS.



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ENGINEERS & SURVEYORS

806 Warming Ave.
P.O. Box 451
Oskaloosa, Iowa 52577
641.782.4005 Phone
641.782.4118 Fax
email@gardenassociates.net

1701 3rd Avenue East, Suite 1
Oskaloosa, Iowa 52577
641.672.2526 Phone
641.672.2091 Fax
800.491.2524 Iowa Toll Free

NORTH - NORTH PLUM

STREET IMPROVEMENTS

TIPTON, IOWA

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SHEET TITLE

ALTERNATE 2

STORM SEWER

PLAN AND PROFILE

SCALE:

0

10

20

DRAWN BY:

KJR

APPROVED:

JP

REVISIONS:

DATE:

APR. 19, 2023

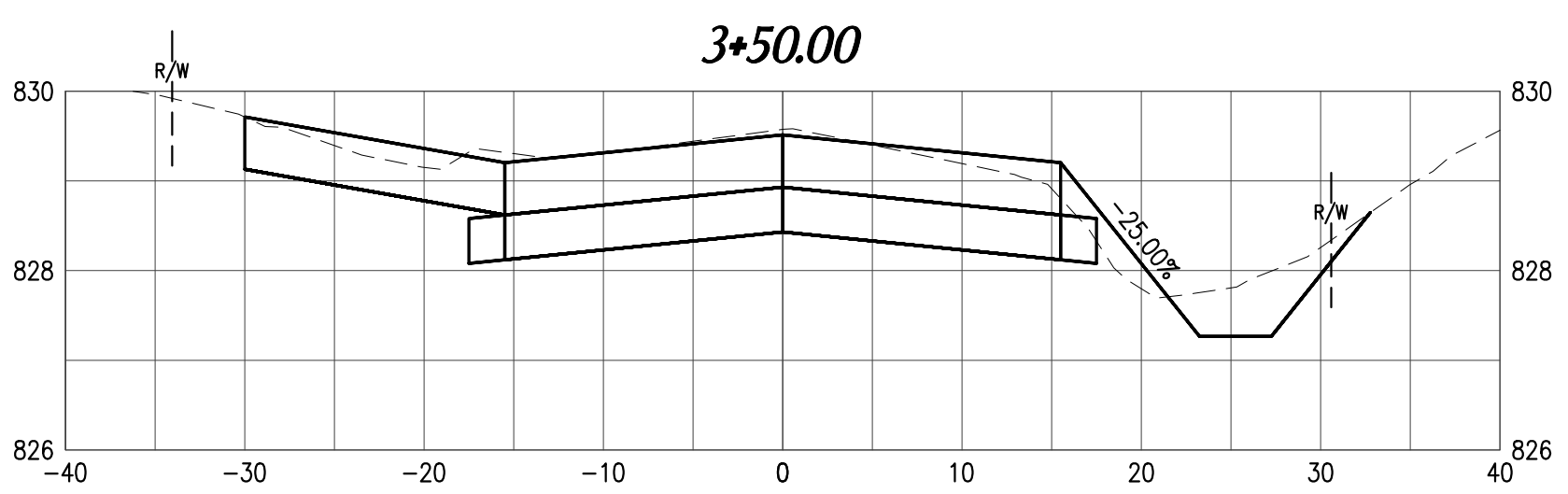
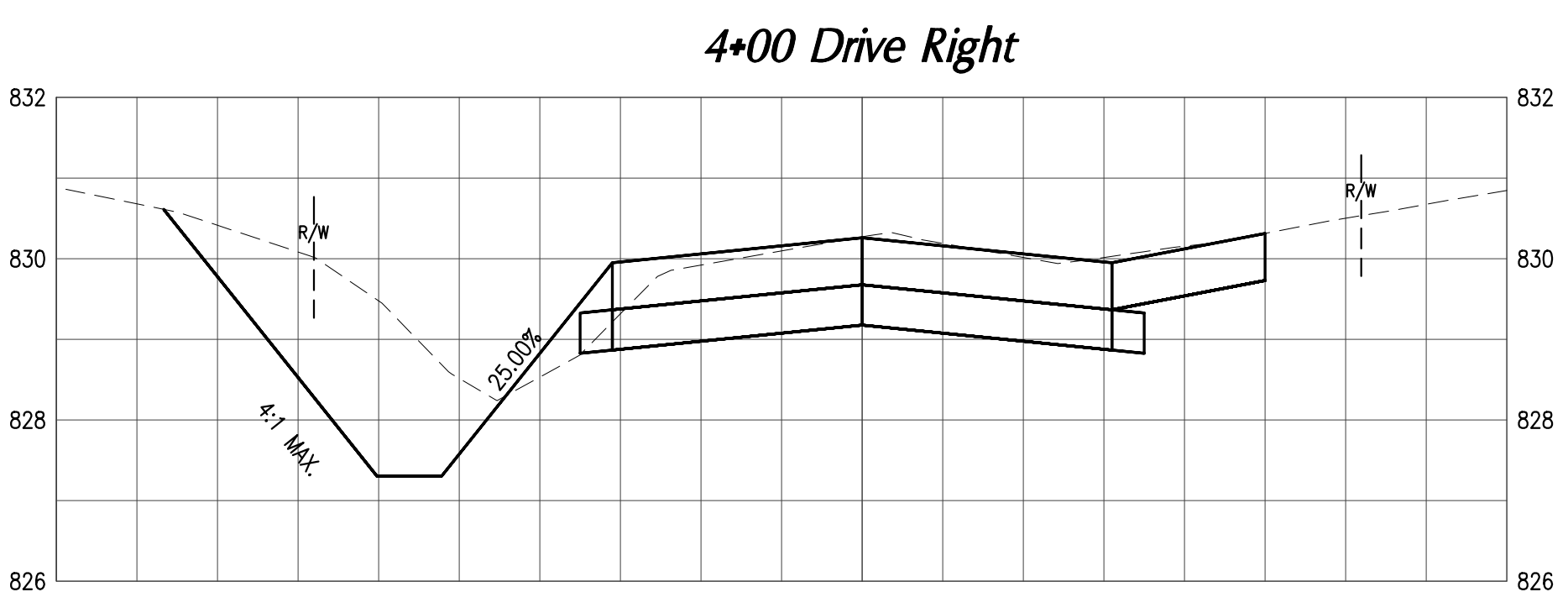
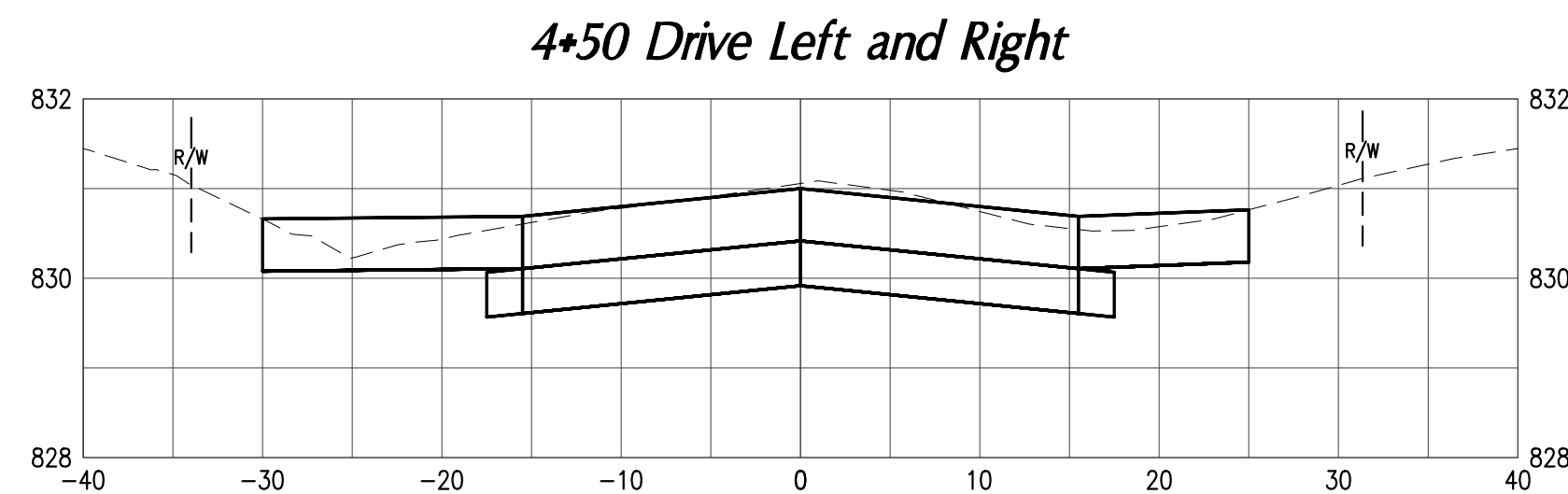
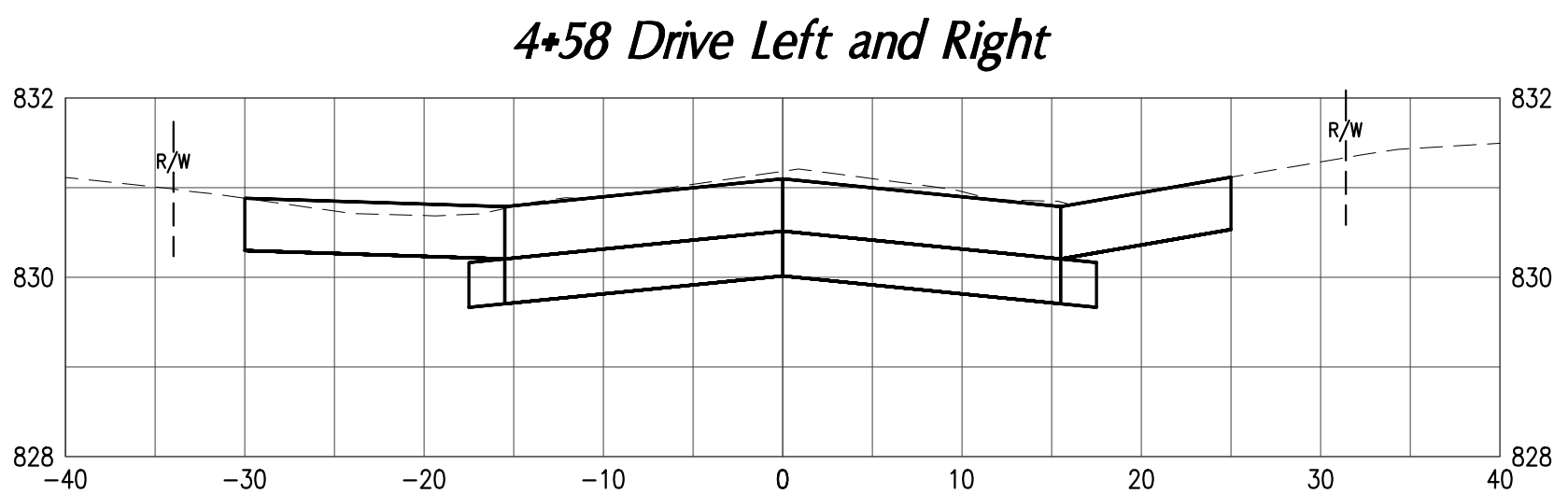
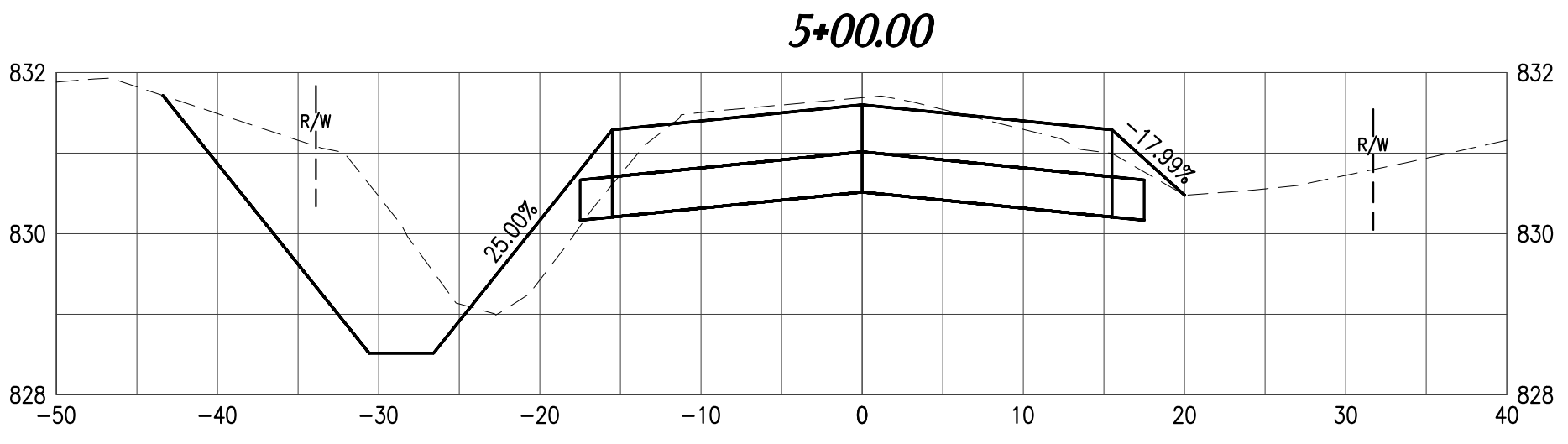
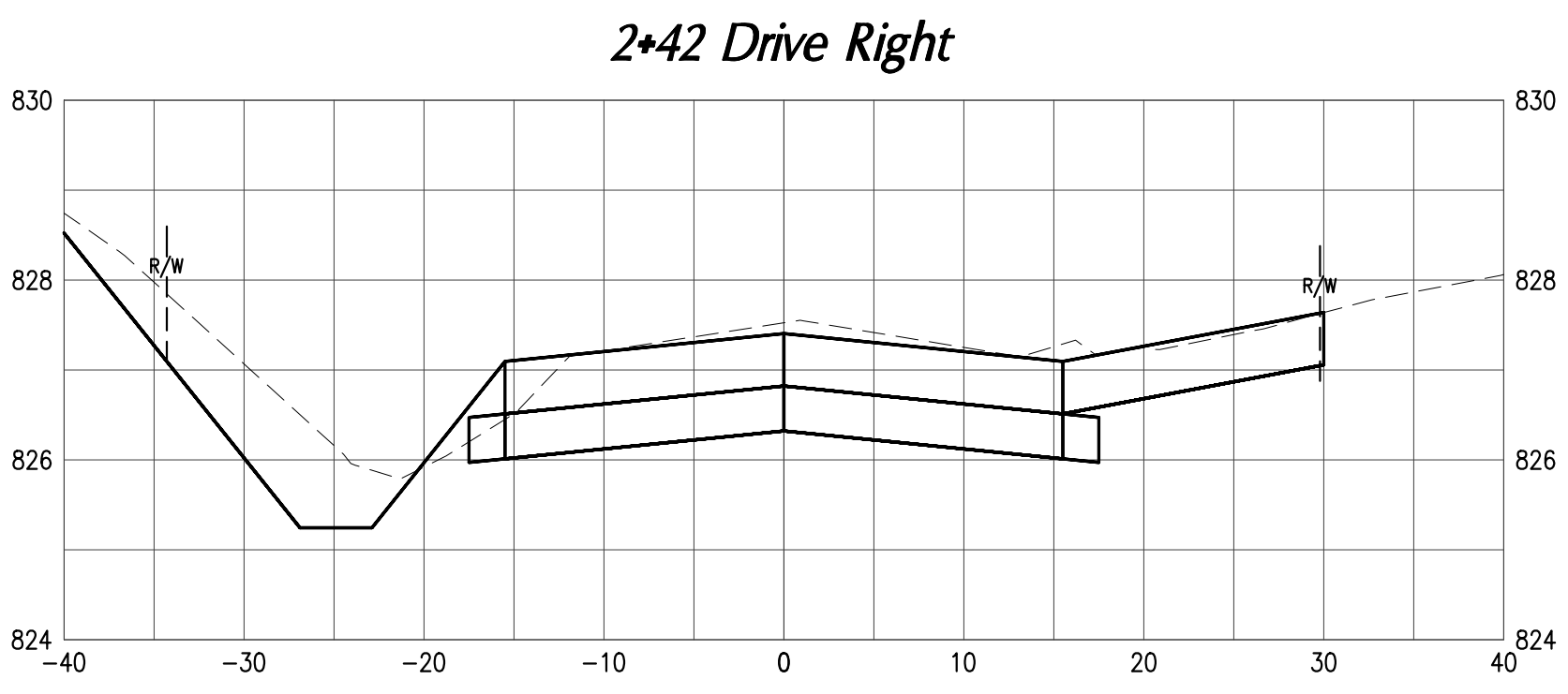
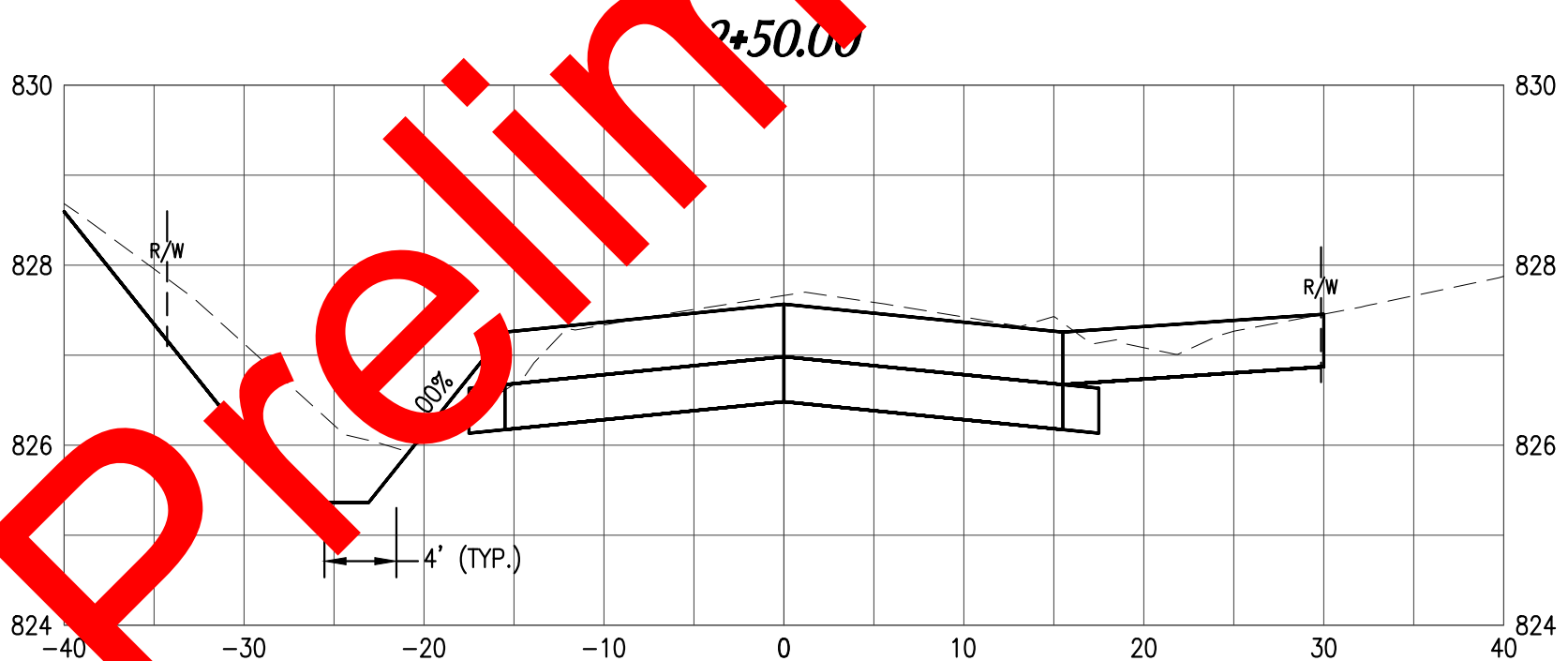
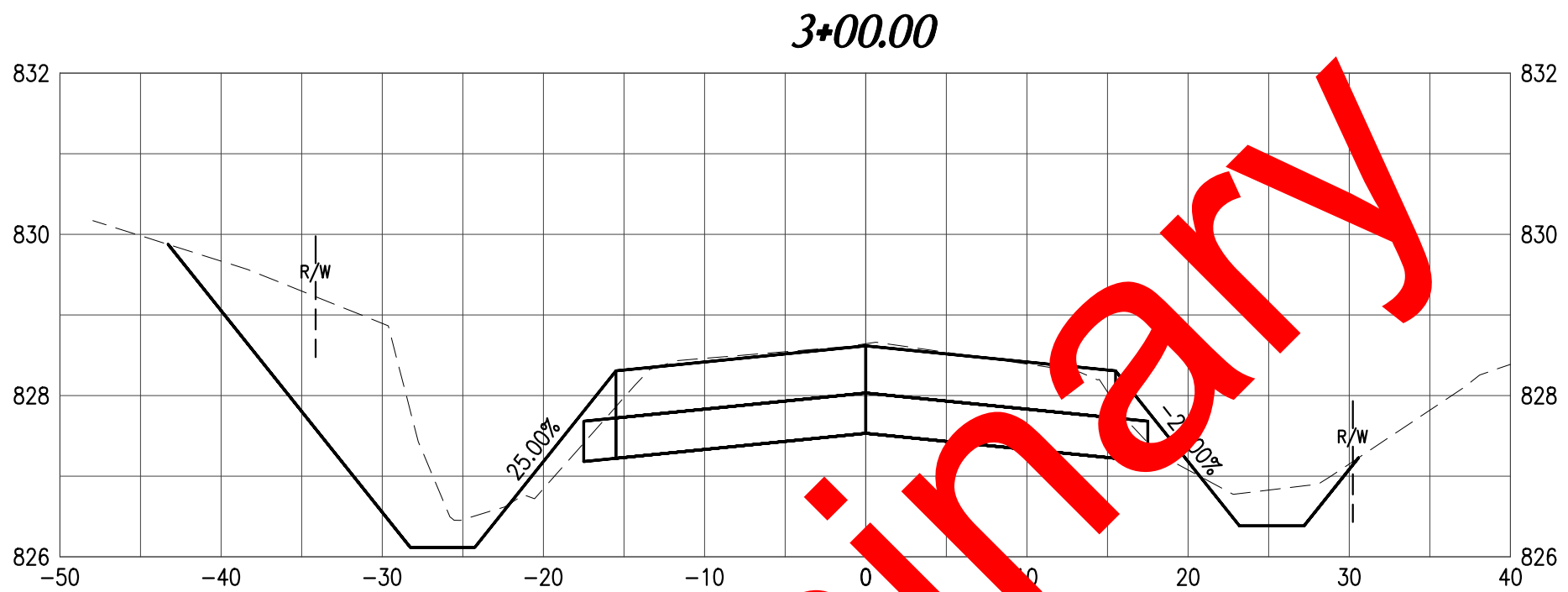
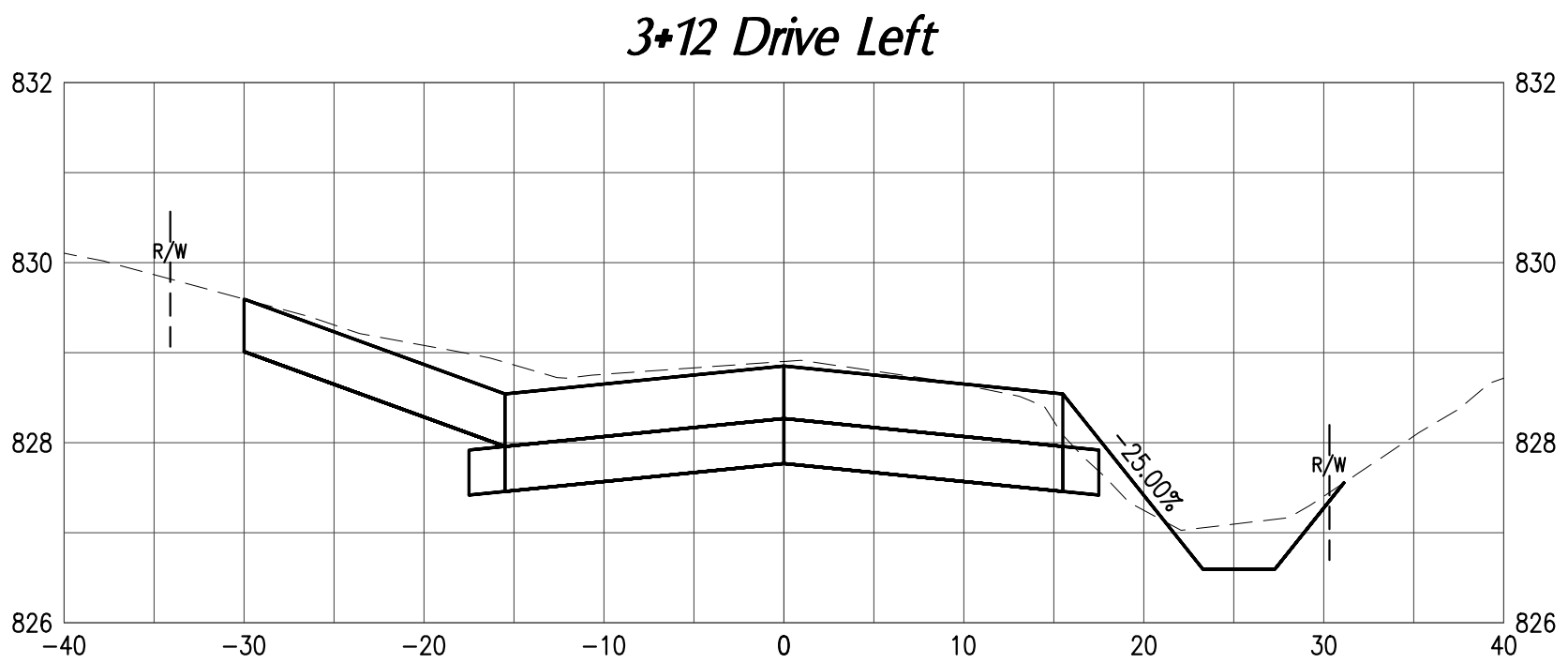
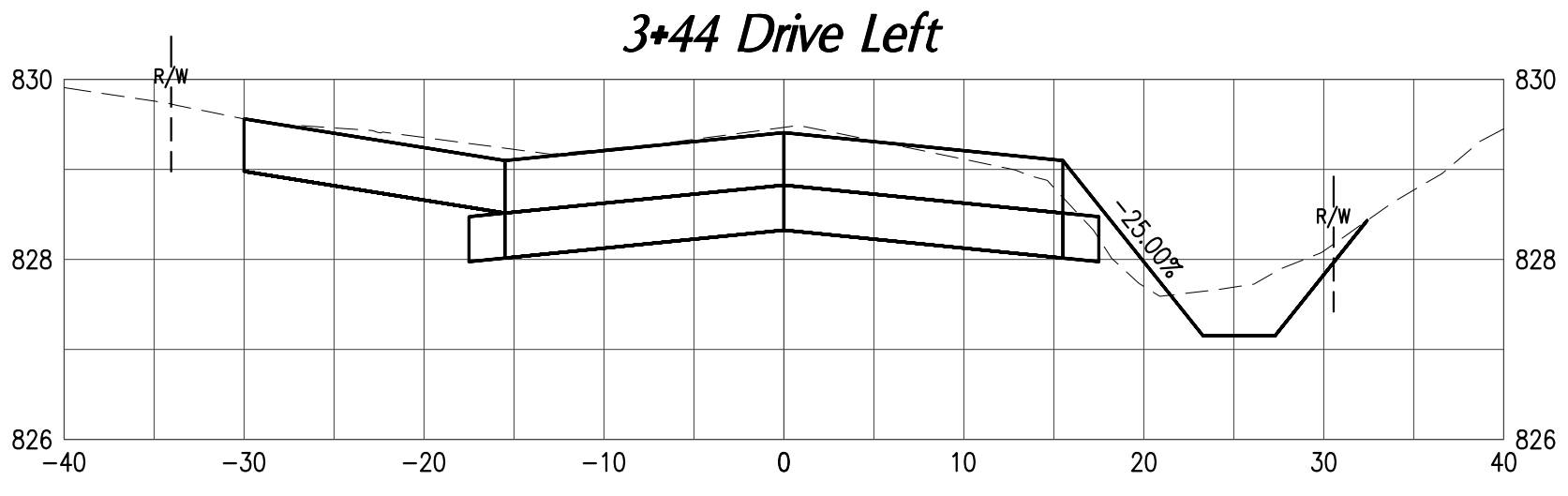
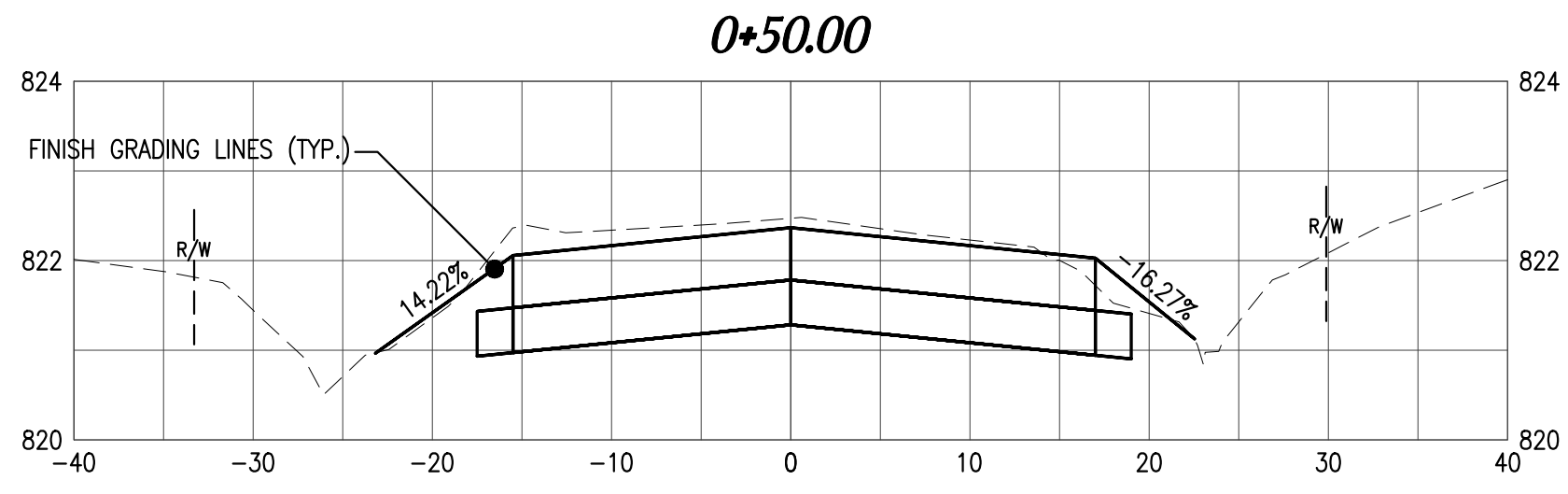
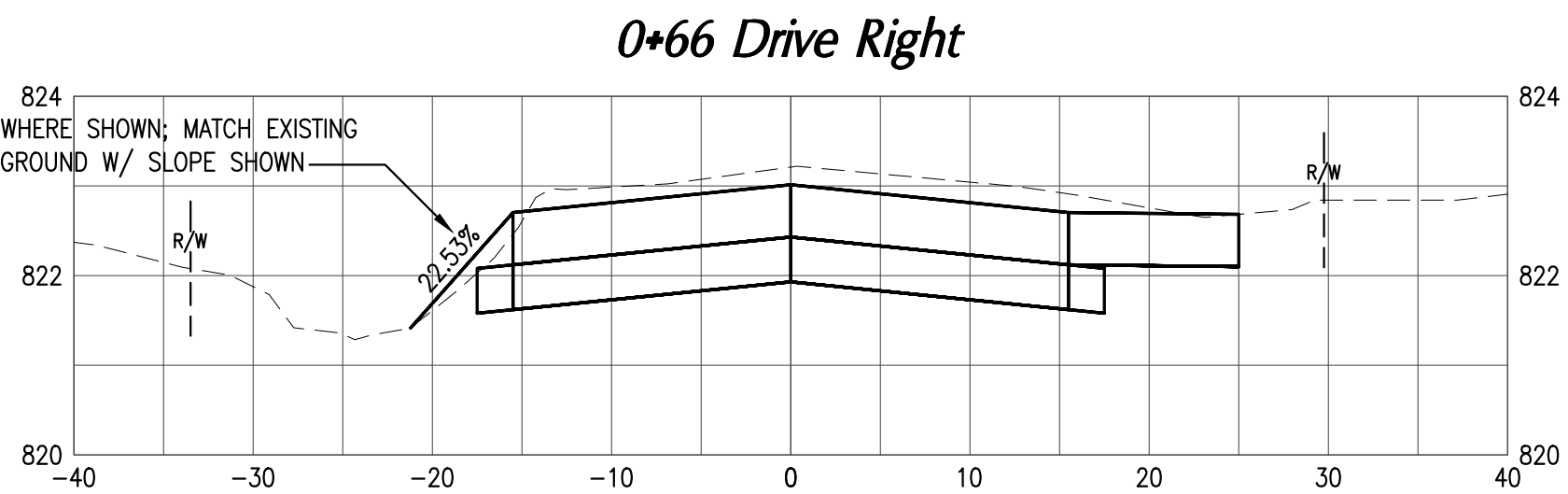
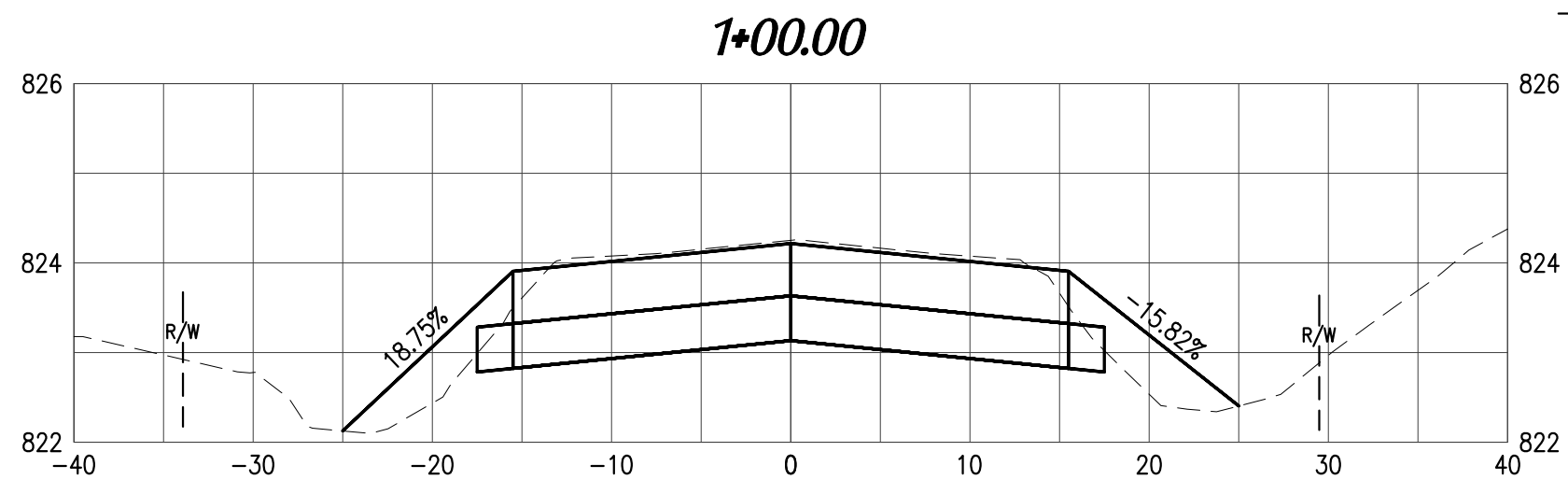
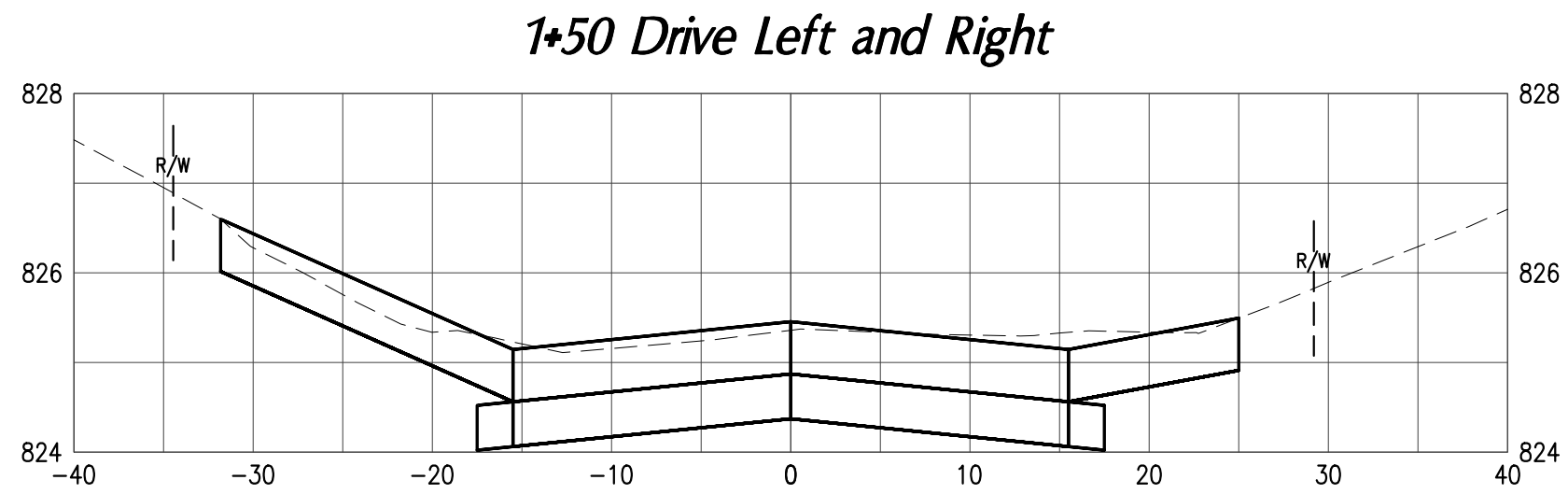
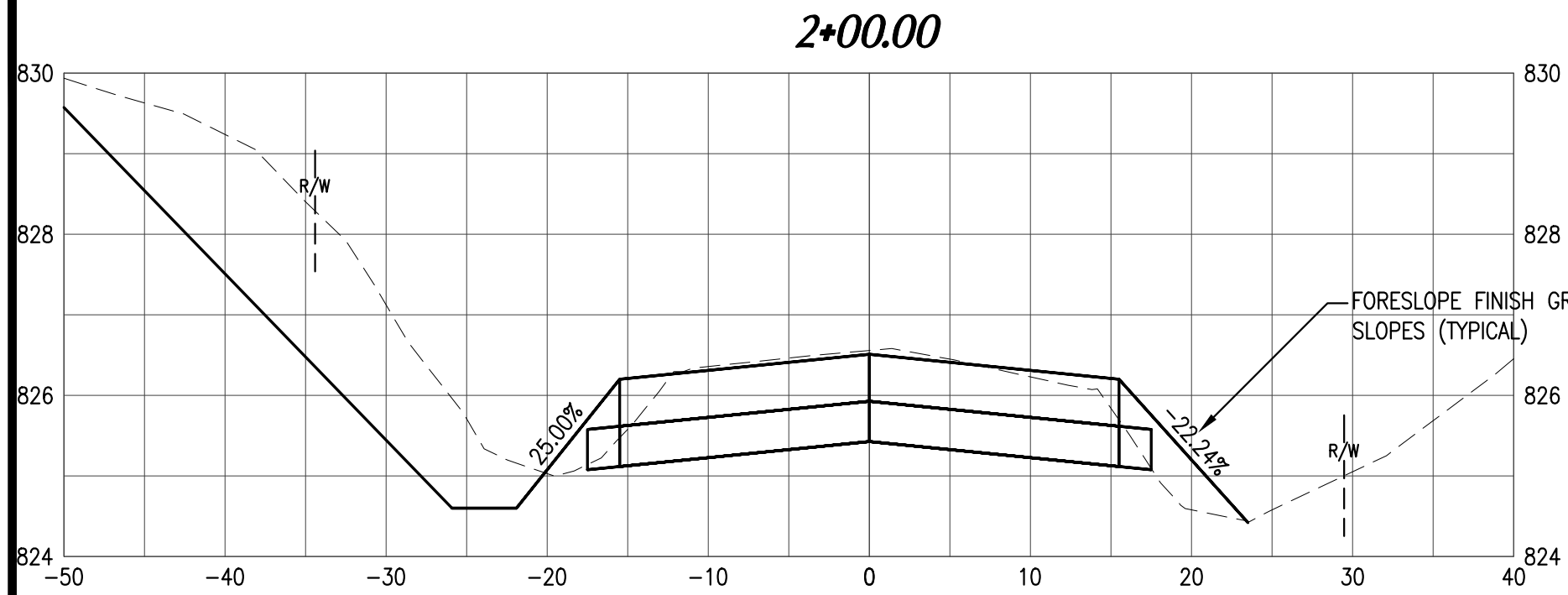
PROJECT NO.:

5019077

SHEET NO.:

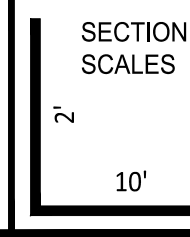
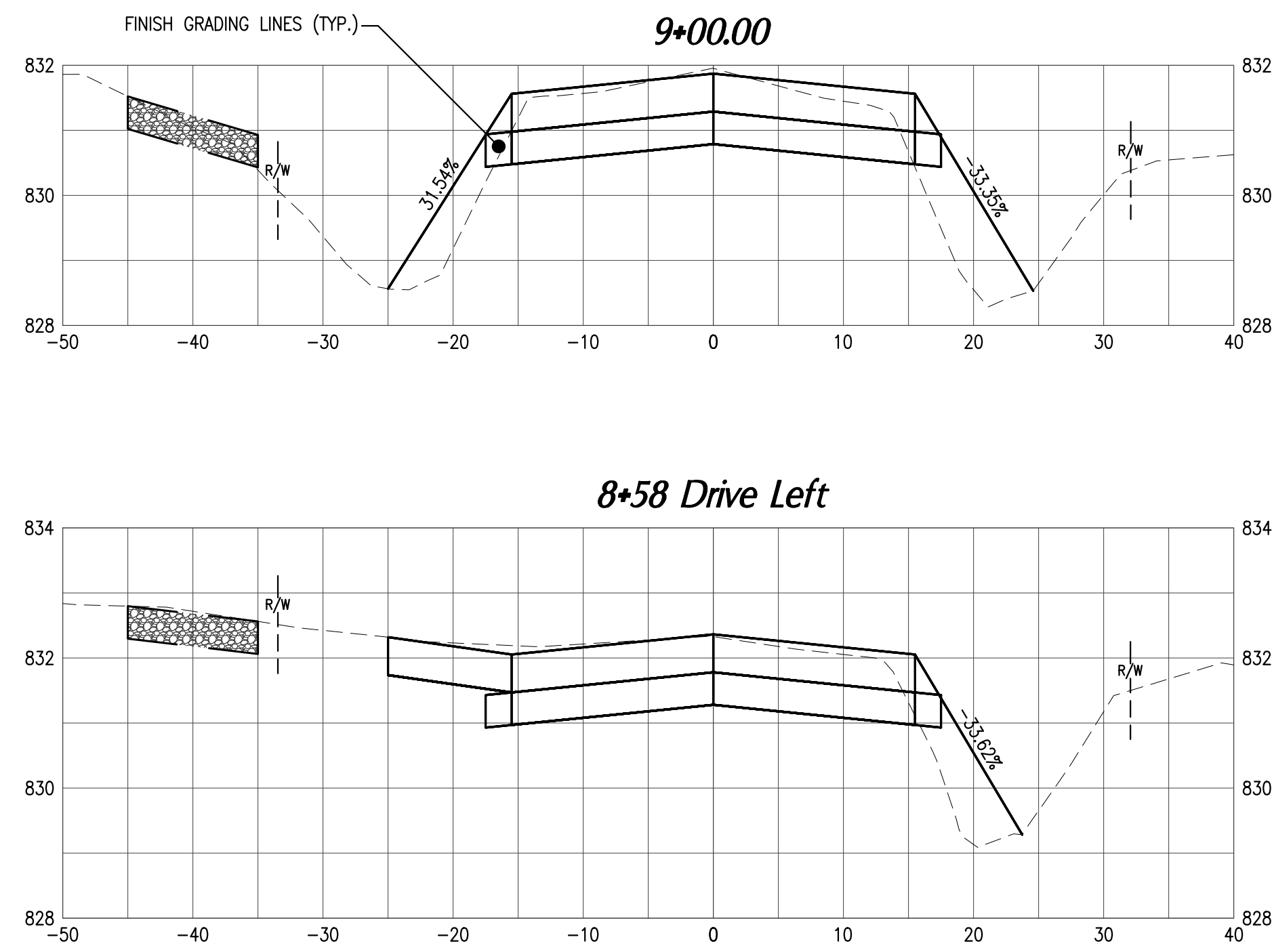
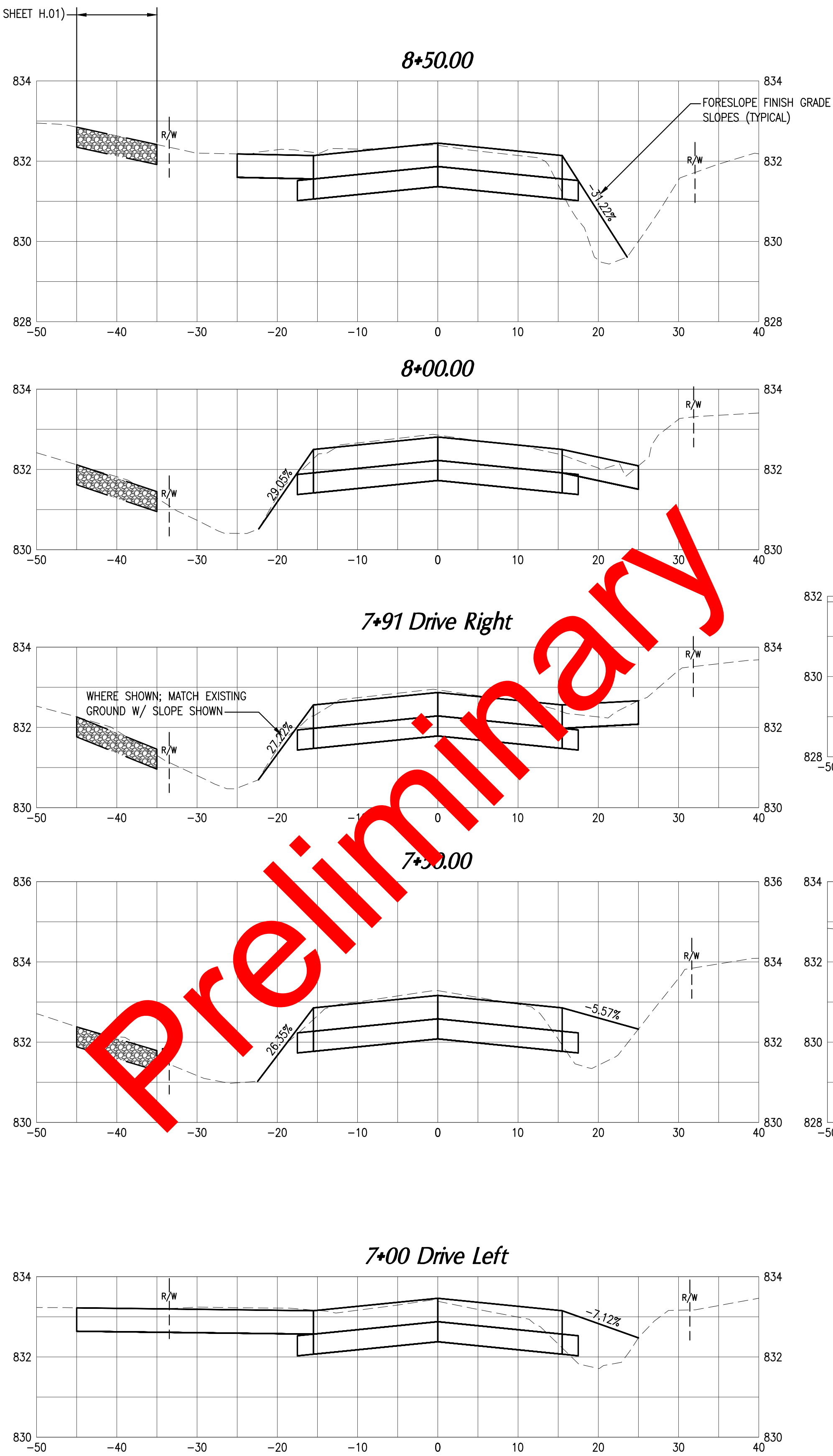
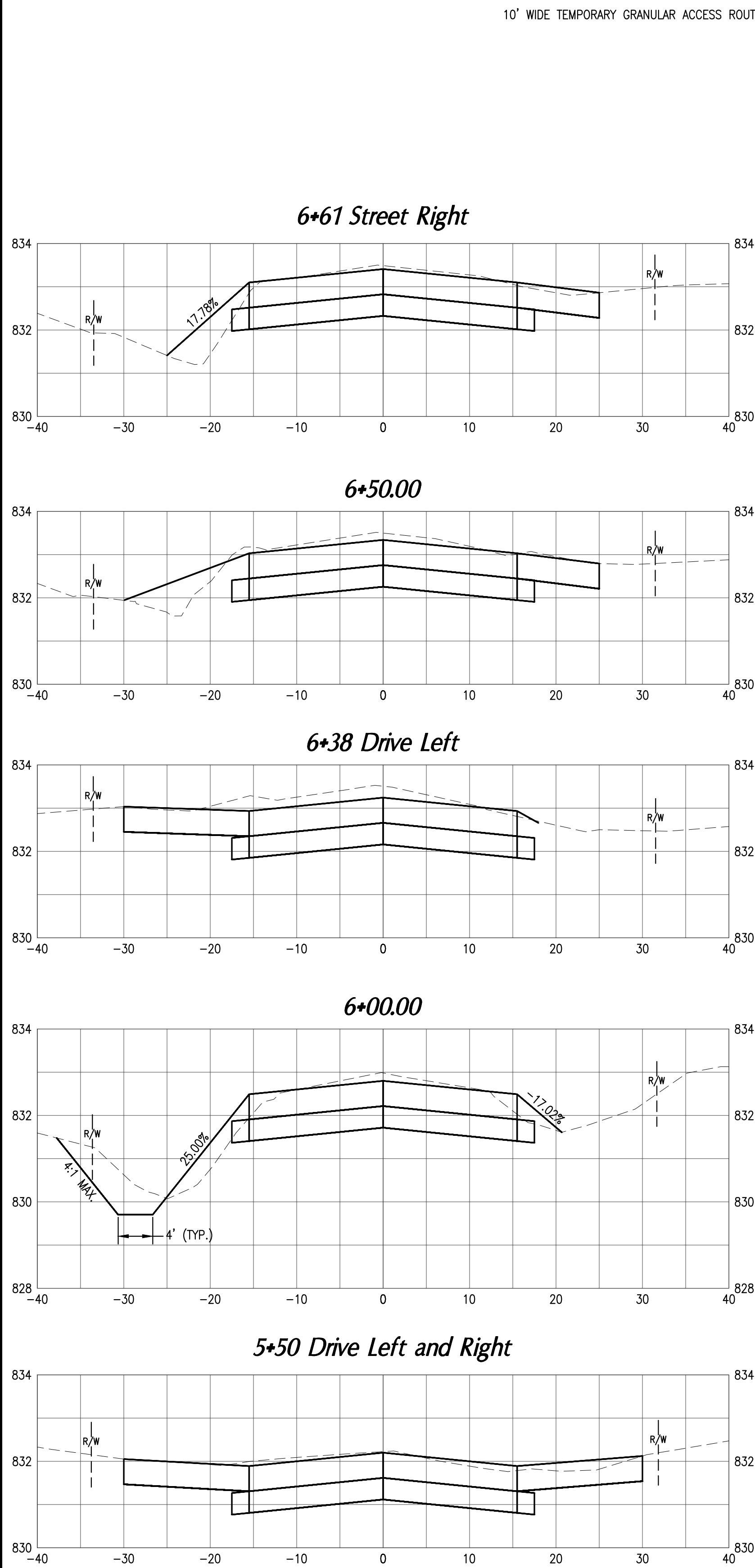
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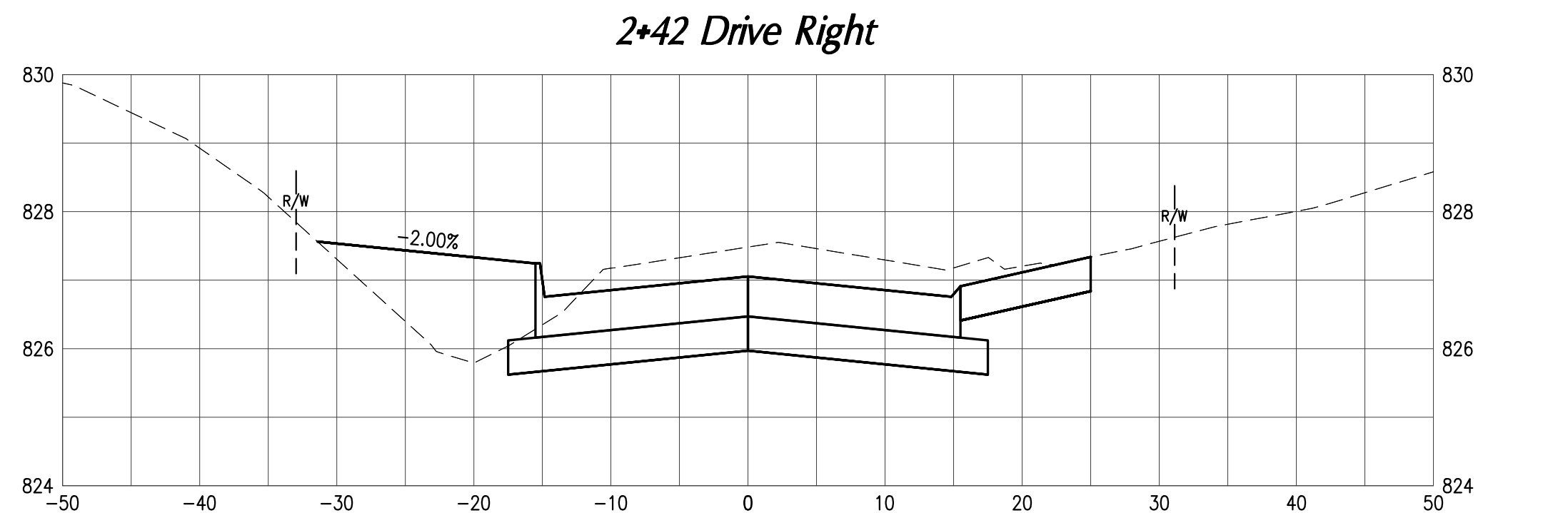
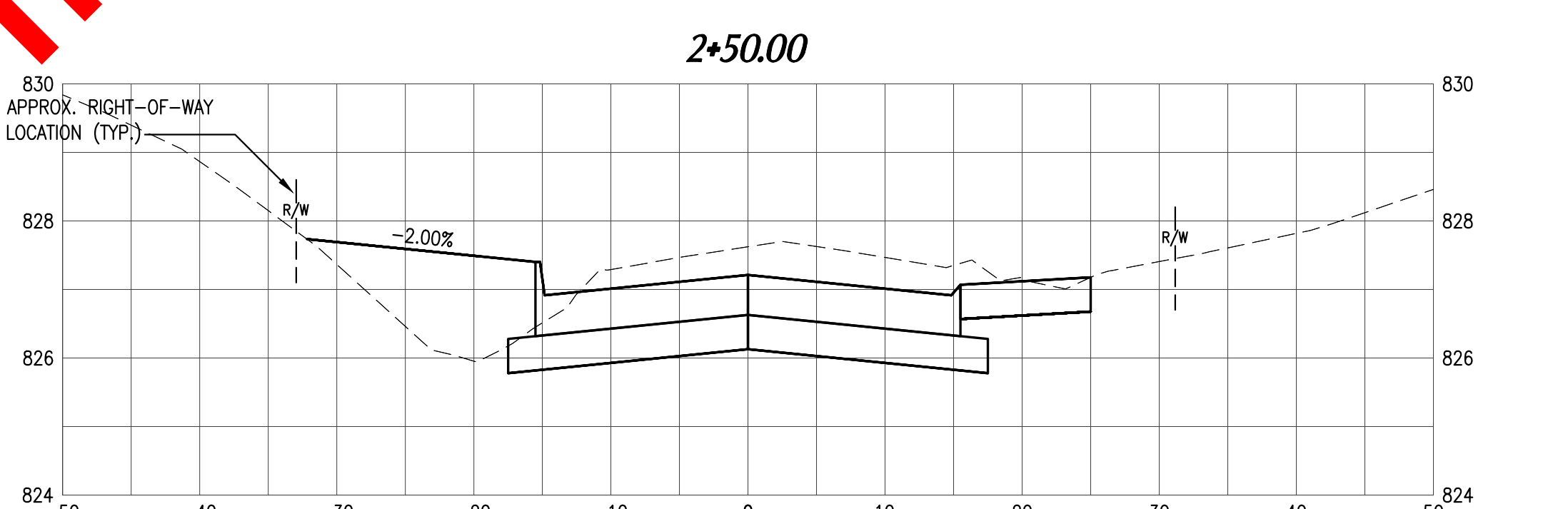
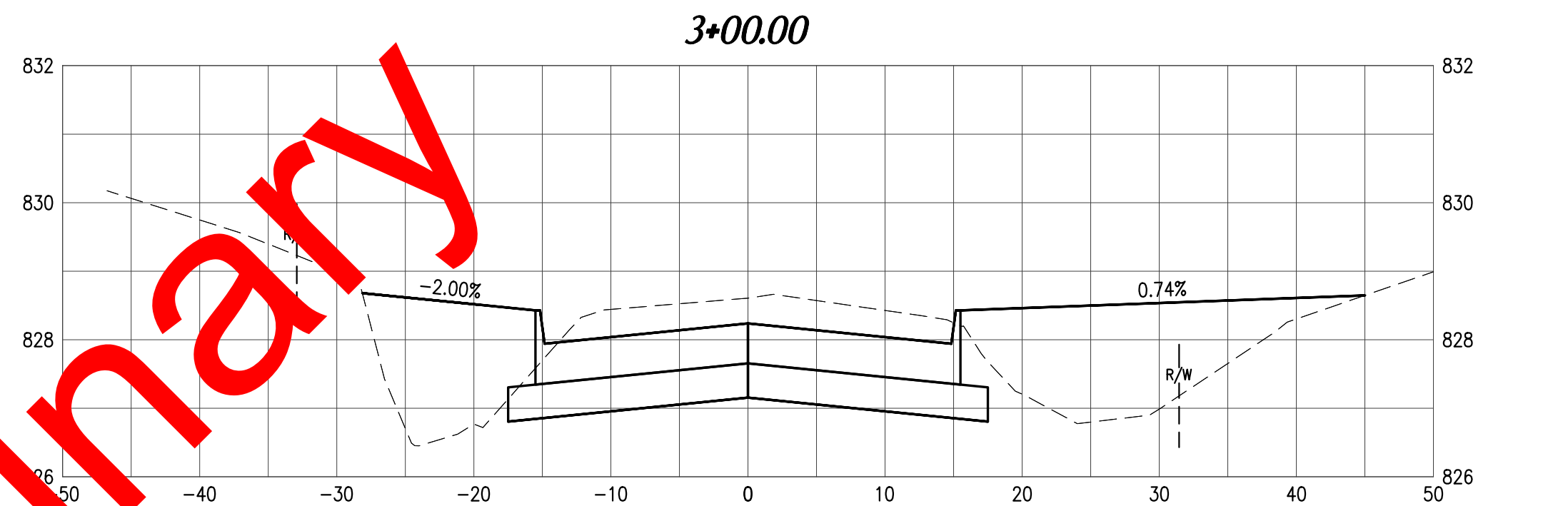
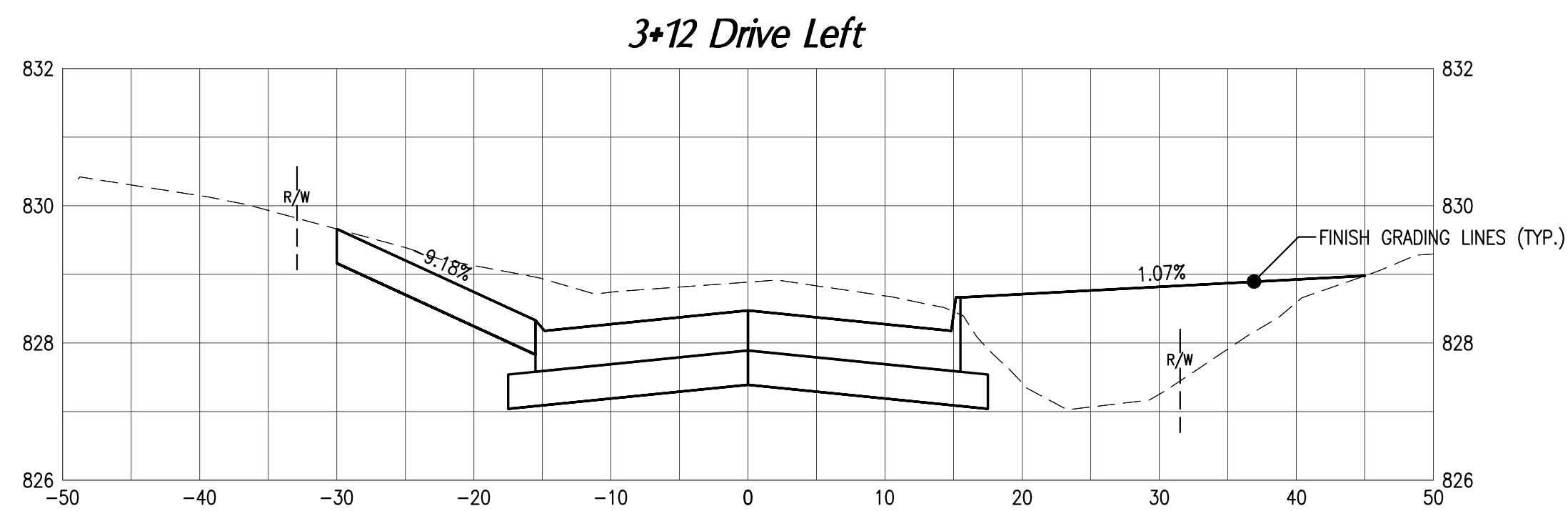
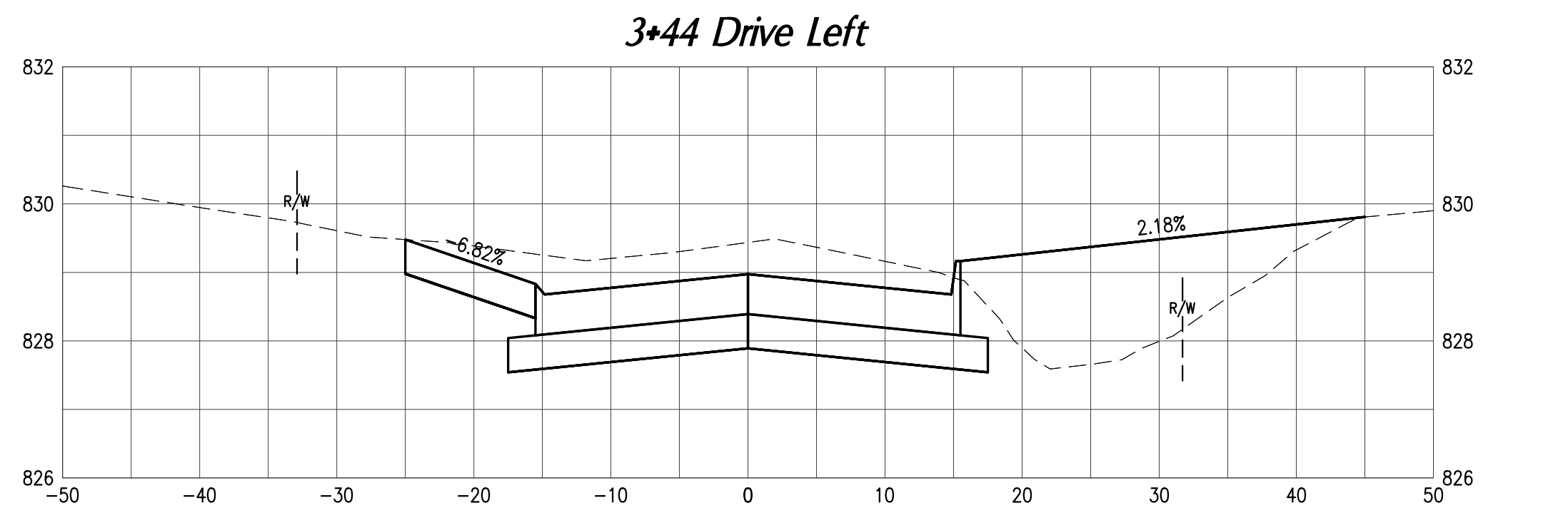
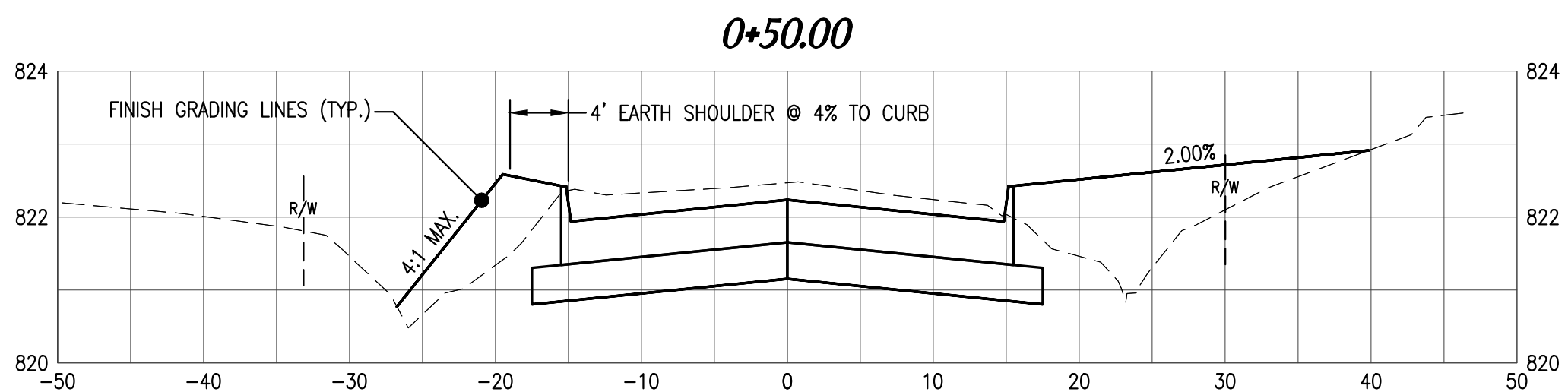
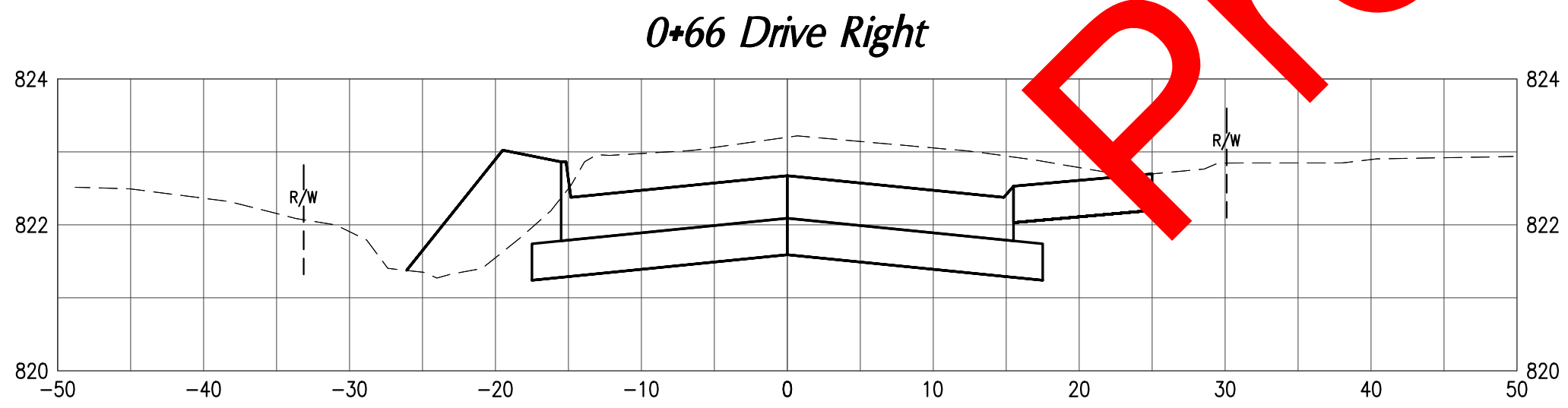
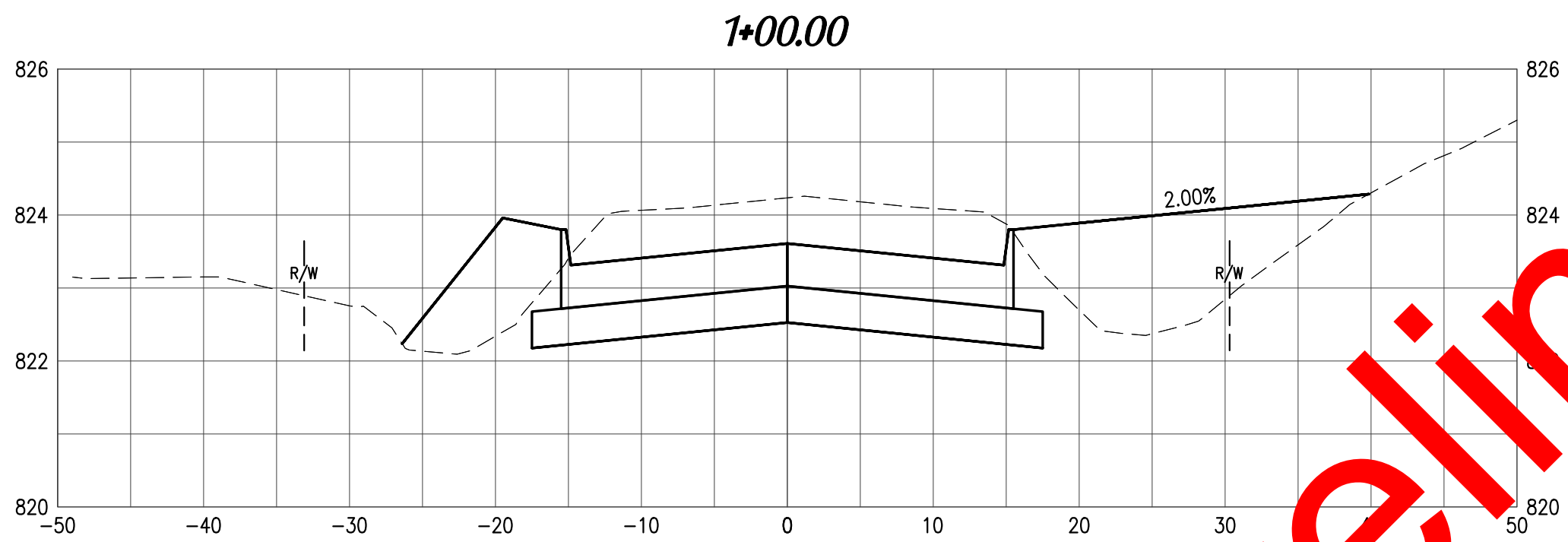
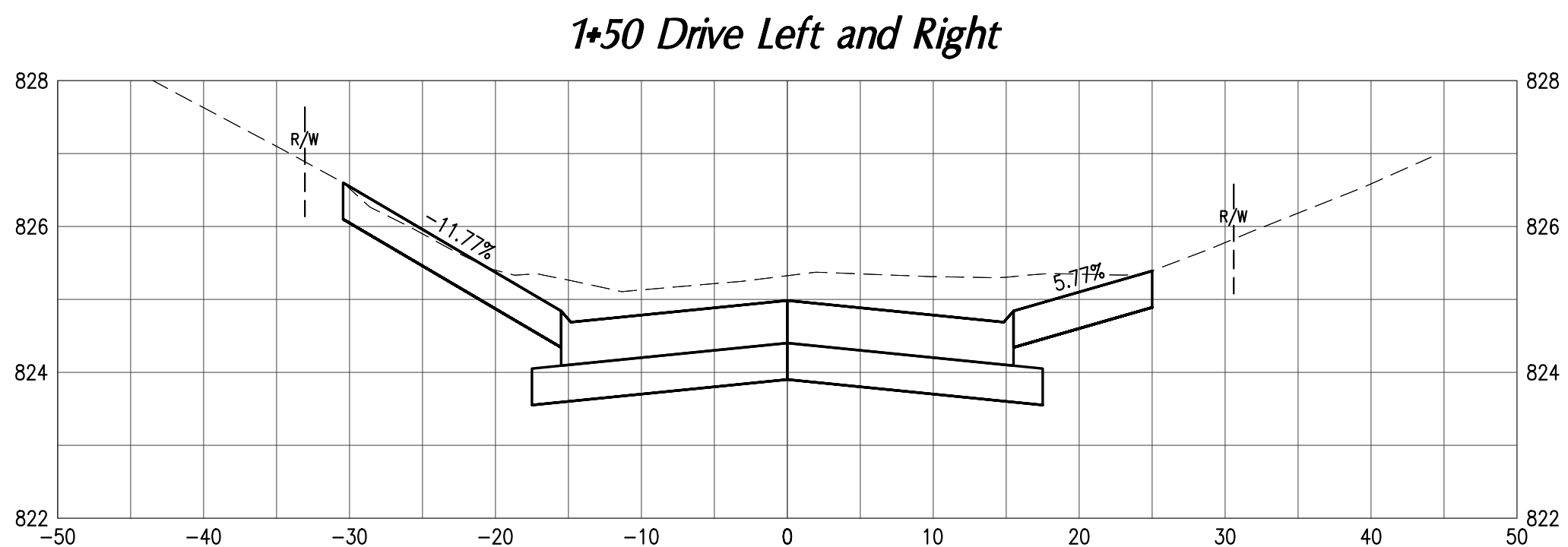
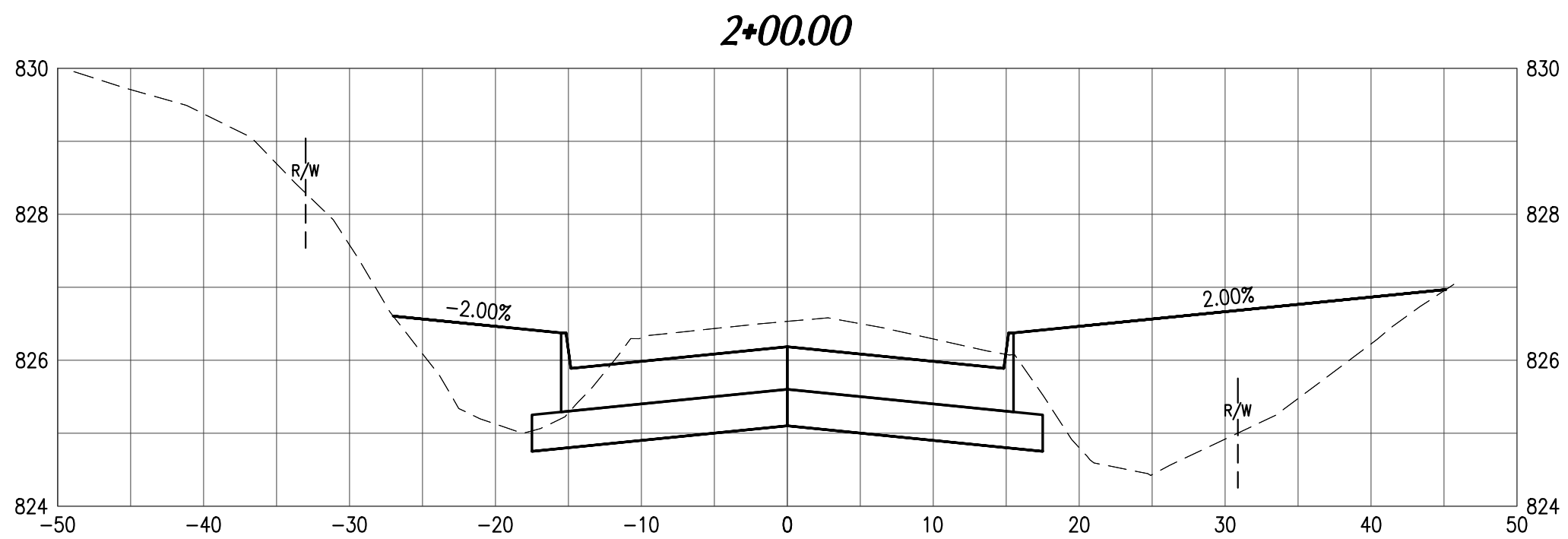


SECTION
SCALES
10'

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SECTION
SCALES
2'
10'

**NORTH - NORTH PLUM
STREET IMPROVEMENTS
TIPTON, IOWA**

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SHEET TITLE
ALTERNATE 2
CROSS SECTIONS

SCALE:

AS NOTED

DRAWN BY:

KJR

APPROVED:

JP

REVISIONS:

DATE:

APR. 19, 2023

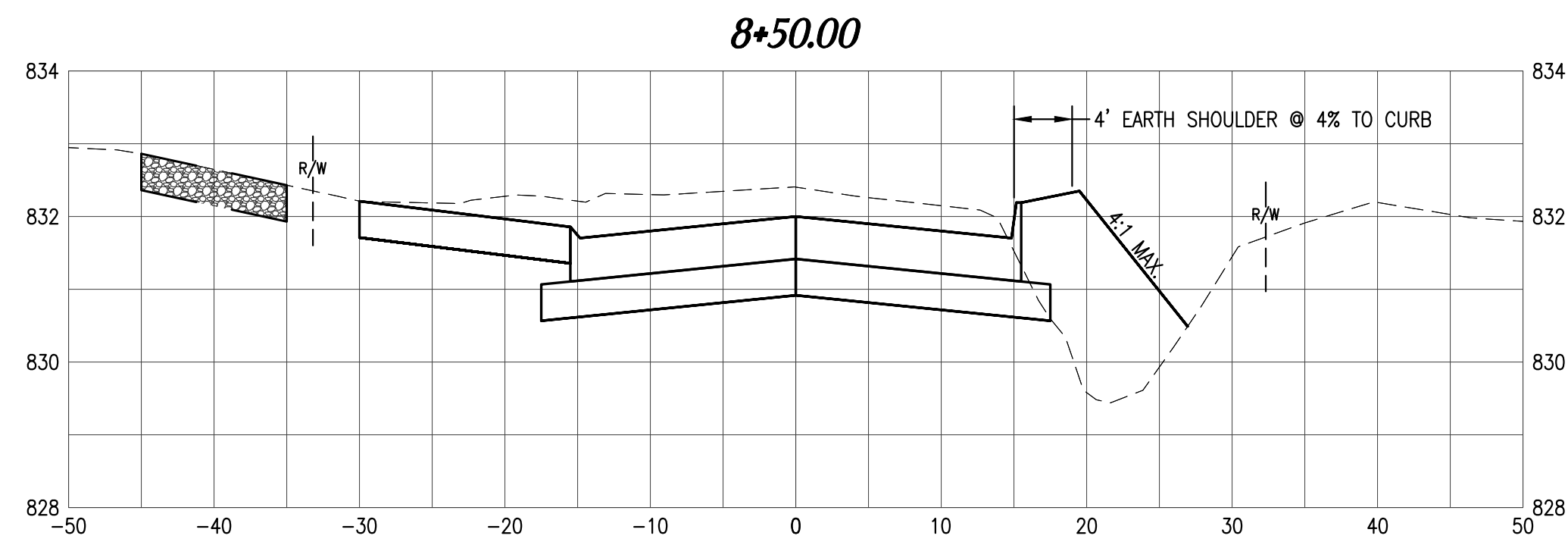
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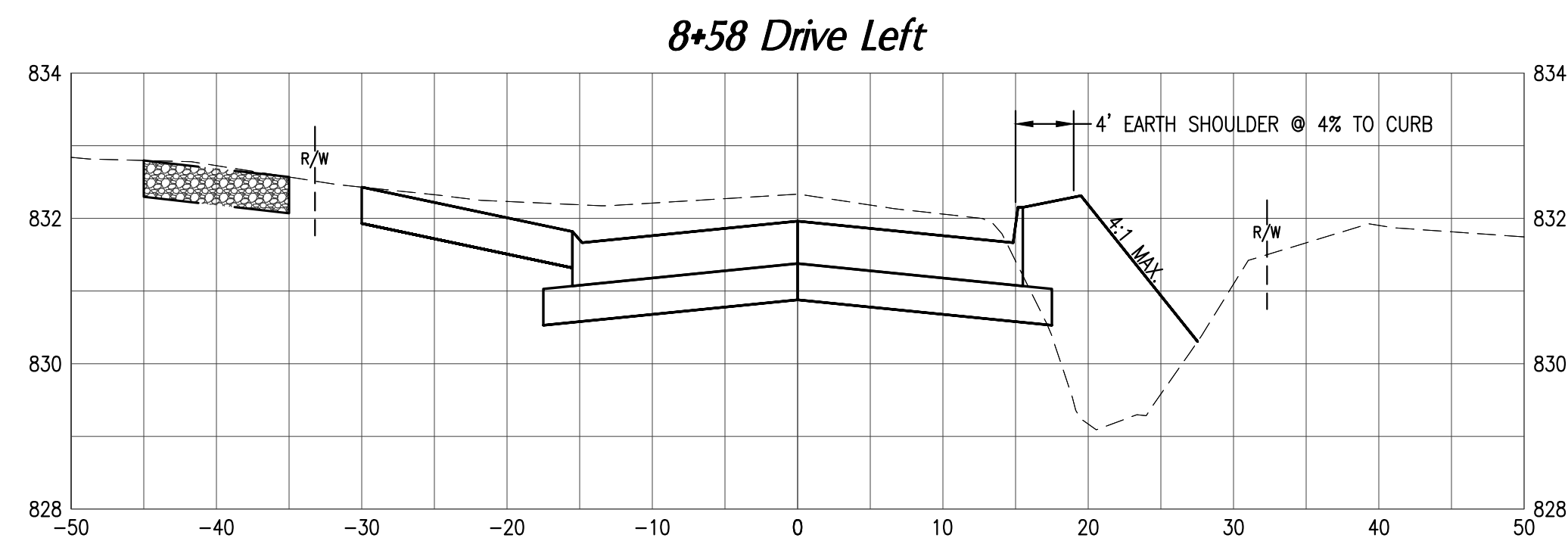
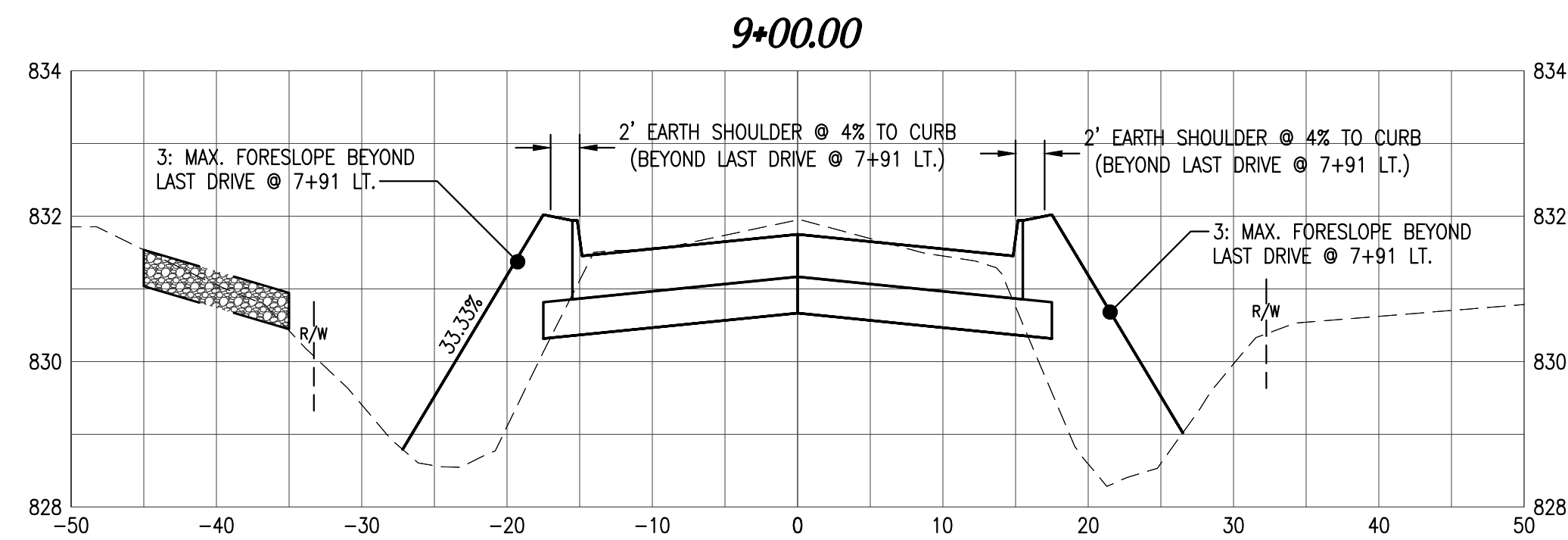
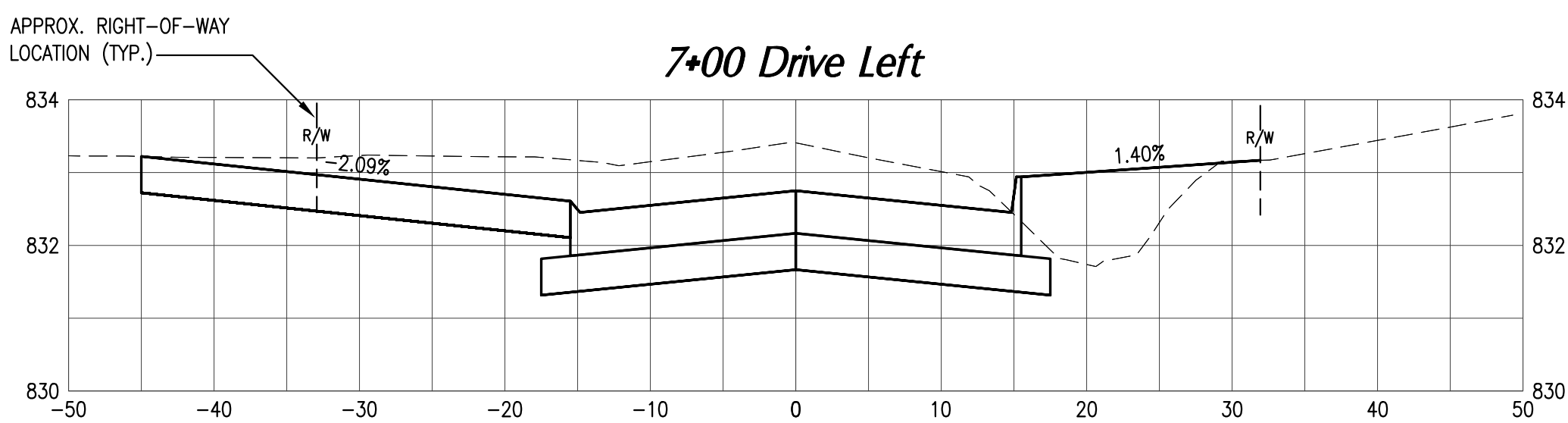
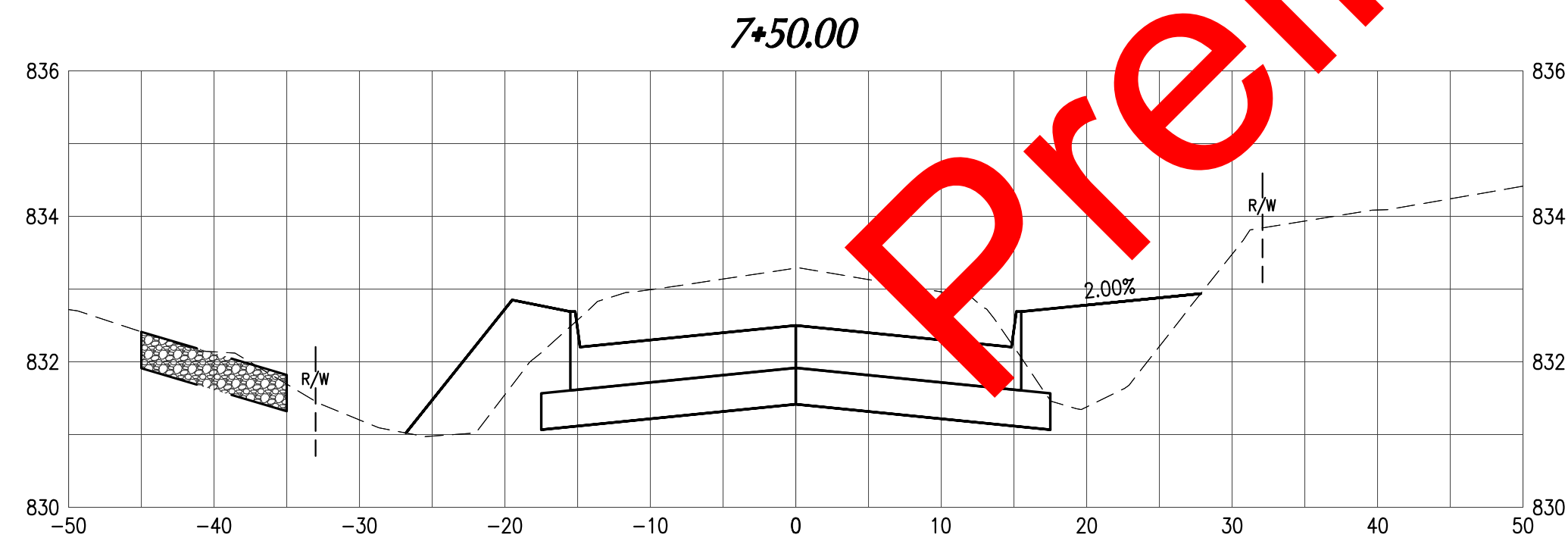
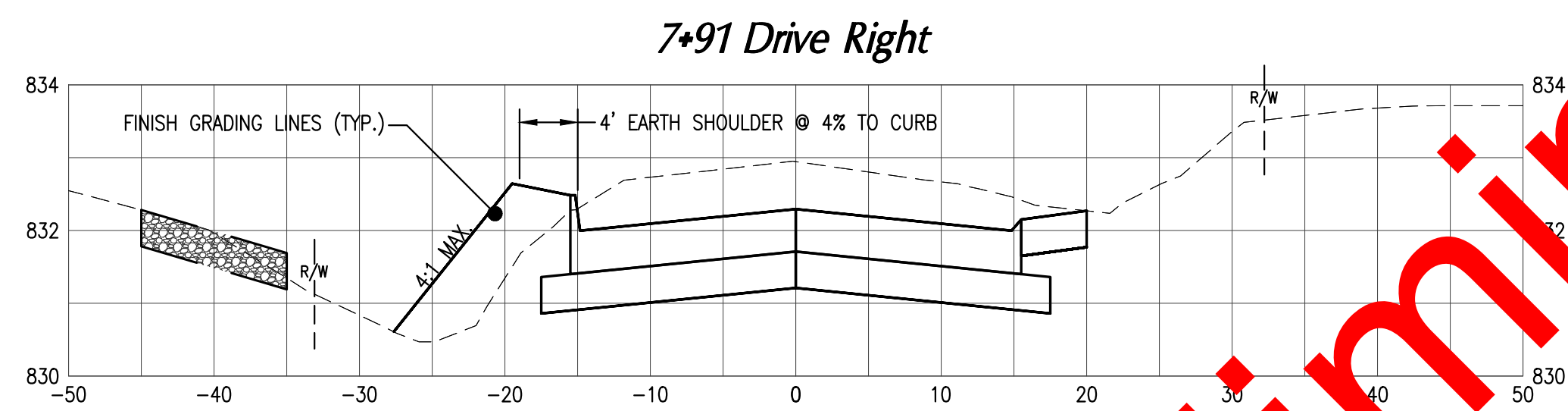
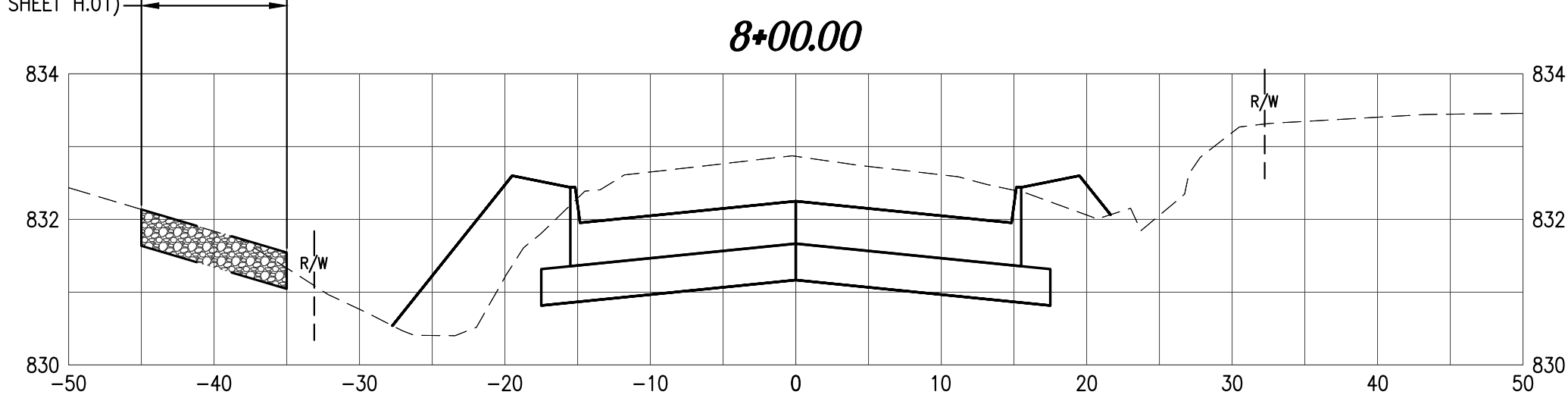
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10' WIDE TEMPORARY GRANULAR ACCESS ROUTE (SEE SHEET H.01)



SECTION
SCALES
2'
10'

**NORTH - NORTH PLUM
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SHEET TITLE
ALTERNATE 2
CROSS SECTIONS

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REVISIONS:

DATE:

APR. 19, 2023

PROJECT NO.:

5019077

SHEET NO.:

W2.03