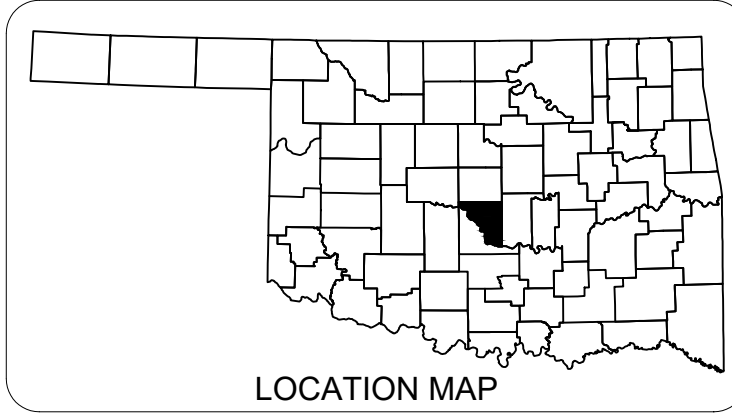


FOR SURVEY CONTROL DATA,
SEE SURVEY DATA SHEET



CITY OF NORMAN

PLAN OF PROPOSED
60TH AVENUE NE BRIDGE REPLACEMENT
BRIDGE & APPROACHES
CLEVELAND COUNTY

BRIDGE LOCATION NO. 14N3170E1210005 (NBI NO. 09189) (NEW NBI NO. 33246)

UTILITY OWNERS	
AT&T	(405) 291.5545
CITY OF NORMAN	(405) 366.5320
COX COMMUNICATIONS	(405) 417.4060
OEC	(405) 306.9380
OG&E	(405) 553.5785
ONG	(405) 556.6411

DESIGN DATA	
AADT 2023	= 1740
AADT 2045	= 2166
K	= 12%
D	= 50%
T (% DHV)	= 1%
T (% AADT)	= 2%
T3 (% AADT)	= 1%
V	= 50 MPH
20 YR. FLEX. ESALS	= 2.52 M

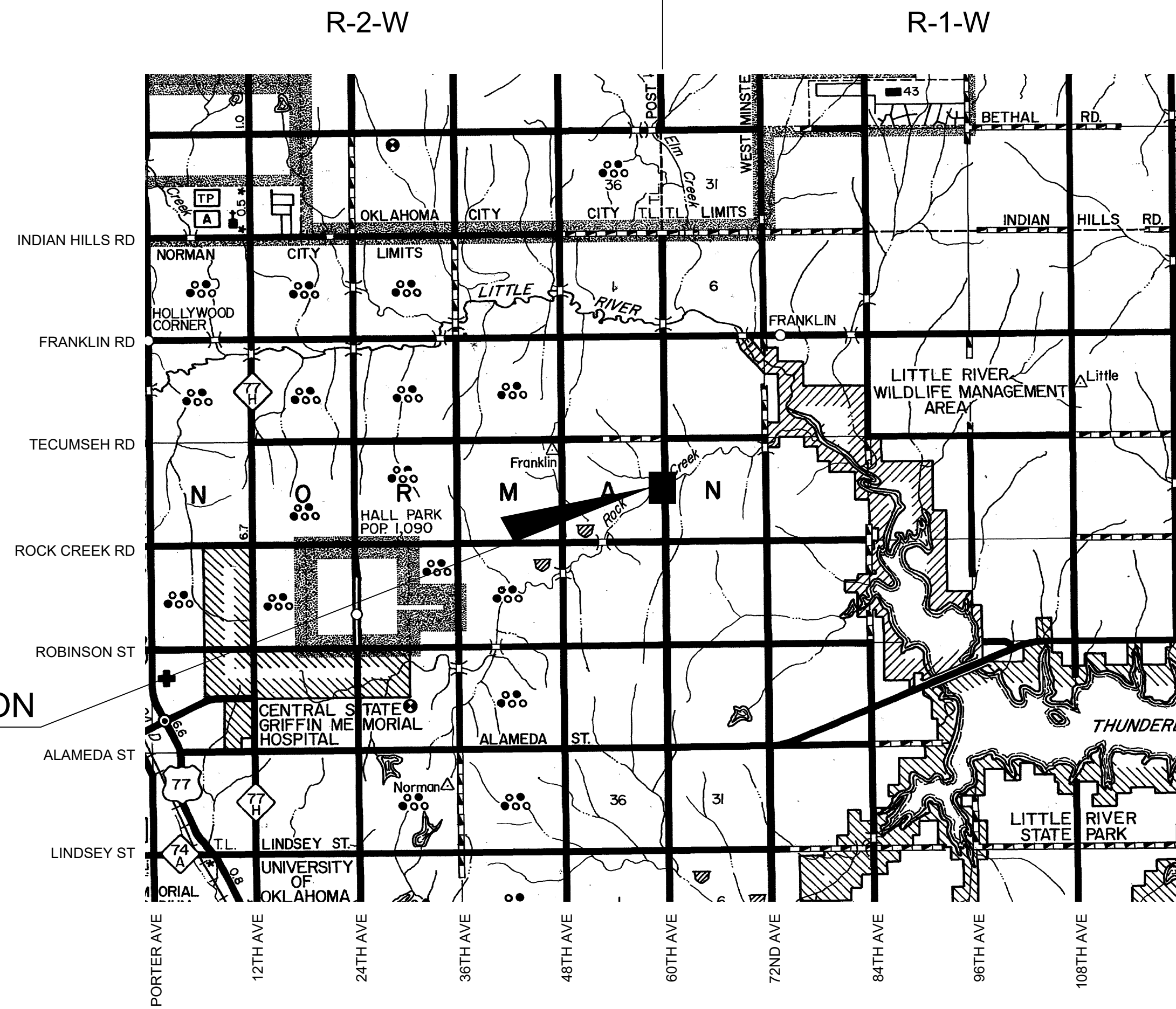
PROJ. BEGIN STA. 10+79.70
BRIDGE BEGIN STA. 15+00.75
BRIDGE LENGTH = 100.92'
BRIDGE END STA. 16+01.67
PROJ. END STA. 22+31.13

SCALES
PLAN 1" = 50'
PROFILE HOR. 1" = 50'
VER. 1" = 5'
LAYOUT MAP 1" = 5280'

LEVEL DATA IS MEAN SEA LEVEL (USC&GS)
BEARINGS ARE FROM OBSERVATION OF
POLARIS.

CONVENTIONAL SYMBOLS

- PROPOSED ROAD
- RAILROADS
- RANGE & TOWNSHIP
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- GROUND LINE
- EXISTING ROADS
- BASE LINE
- GRADE LINES
- TELEPHONE & TELEGRAPH
- POWER LINES
- BUILDINGS
- DRAINAGE STRUCTURES - IN PLACE
- DRAINAGE STRUCTURES - NEW
- RIGHT-OF-WAY LINES - EXISTING
- RIGHT-OF-WAY LINES - NEW
- RIGHT-OF-WAY MARKERS - IN PLACE
- RIGHT-OF-WAY MARKERS - REMOVE & REPLACE
- RIGHT-OF-WAY MARKERS - NEW
- CONTROLLED ACCESS
- RIGHT-OF-WAY FENCE



ROADWAY LENGTH _____ 1051.51 FT. _____ 0.199 MI.
BRIDGE LENGTH _____ 100.92 FT. _____ 0.019 MI.
PROJECT LENGTH _____ _____ 0.218 MI.

EQUATIONS: NONE
EXCEPTIONS: NONE

INDEX OF SHEETS	
0001	TITLE SHEET
0002	TYPICAL SECTIONS
AB01-AB02	SUMMARY OF PAY QUANTITIES AND NOTES (BRIDGE)
AR01	SUMMARY OF PAY QUANTITIES AND NOTES (ROADWAY)
AR02	SUMMARIES (ROADWAY)
AW01	SUMMARY OF PAY QUANTITIES AND NOTES (WATERLINE)
B001-B002	GENERAL PLAN AND ELEVATION
B003	SUBSURFACE PROFILE
B004	STAKING DIAGRAM
B005-B007	ABUTMENT DETAILS
B008	ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS
B009	TYPICAL SECTION
B010	LONGITUDINAL SECTION
B011	DECK LAYOUT
B012	DECK TURNDOWN DETAILS
B013	PARAPET DETAILS
B014	DIAPHRAGM DETAILS
B015	FRAMING PLAN
B016-B017	BEAM DETAILS
B018	BEARING DETAILS
B019-B020	APPROACH SLAB DETAILS
B021	DRAIN DETAILS
EC01	EROSION CONTROL
R001	STORM WATER MANAGEMENT PLAN
R002	PLAN AND PROFILE
R003	WATERLINE PLAN
R004	REMOVALS
S001	SURVEY DATA SHEET
T001	SIGNING AND STRIPING
X001-X013	CROSS SECTIONS

THE FOLLOWING ODOT STANDARDS SHALL BE REQUIRED ON THIS PROJECT:

ROADWAY	TRAFFIC SIGNING	TRAFFIC SAFETY	BRIDGE
BMPR-0	PSMD-2-2	PM1-1-03	TR3-2-01E
TESCA-0	SMD-4-2	SBS2-1-00	HP1-2-01E
ECTRM1-0	CET4S-4-2	GMS1-1-00	EJ-SQ-04E
ECTRM2-0	SPI-5-2	SSP1-1-02	EJ-DTL-02E
IPD-0	PBB-1-2	DBF2-1-00	CB26..32-C..I-SKO..30-GRAU-BC-00E
RSF-0	FHTCP-4-1	SSA1-1-00	
TSD-0	MI-4-2		
TFL-0	RDI-4-1		
TRFD-0	DC-4-1		
SCE-0	RWF1-3-1		
SSS-2-1	RWF2-3-1		
ASCD-6-1			

THE FOLLOWING CITY OF NORMAN STANDARDS SHALL BE REQUIRED ON THIS PROJECT:

GC 01	W 09A	ST 25
W 01	W 09B	ST 29
W 03	W 19	SD 01
W 04	ST 17	
W 08	ST 24	



Digitally signed by Jeffrey Rundle
Date: 2024.03.14 17:17:16-05'00'

JEFFREY RUNDLE, P.E.
OK. REG. NO. 27271
RESPONSIBLE FOR SHEETS:
AB01-AB02 & B001-B021

Digital Signature
2024.03.14 17:24:57-05'00'

BRETT MORAN, P.E.
OK. REG. NO. 27739
RESPONSIBLE FOR SHEETS:
0001-0002, AR01-AR02,
AW01, EC01, R001-R004,
T001, & X001-X013

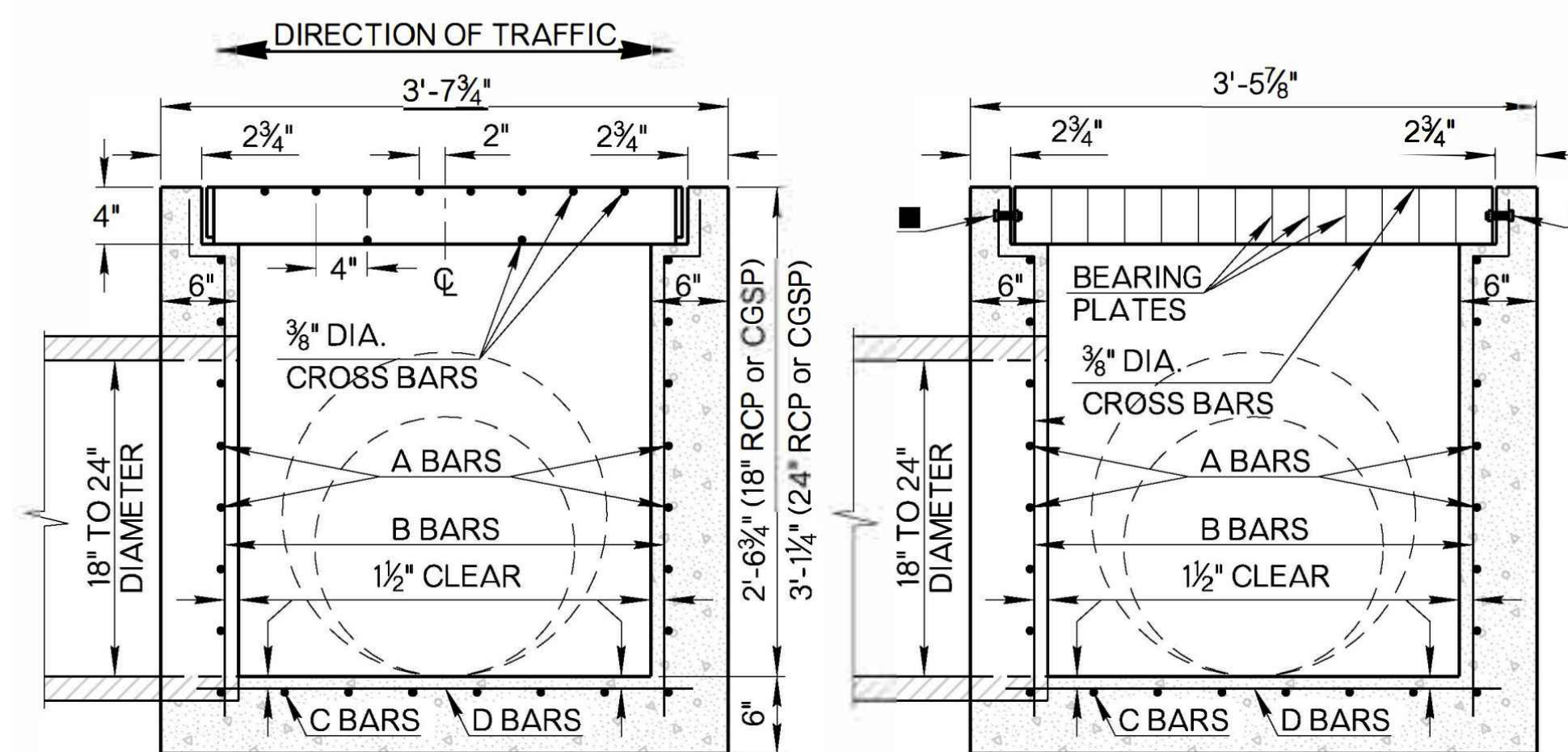
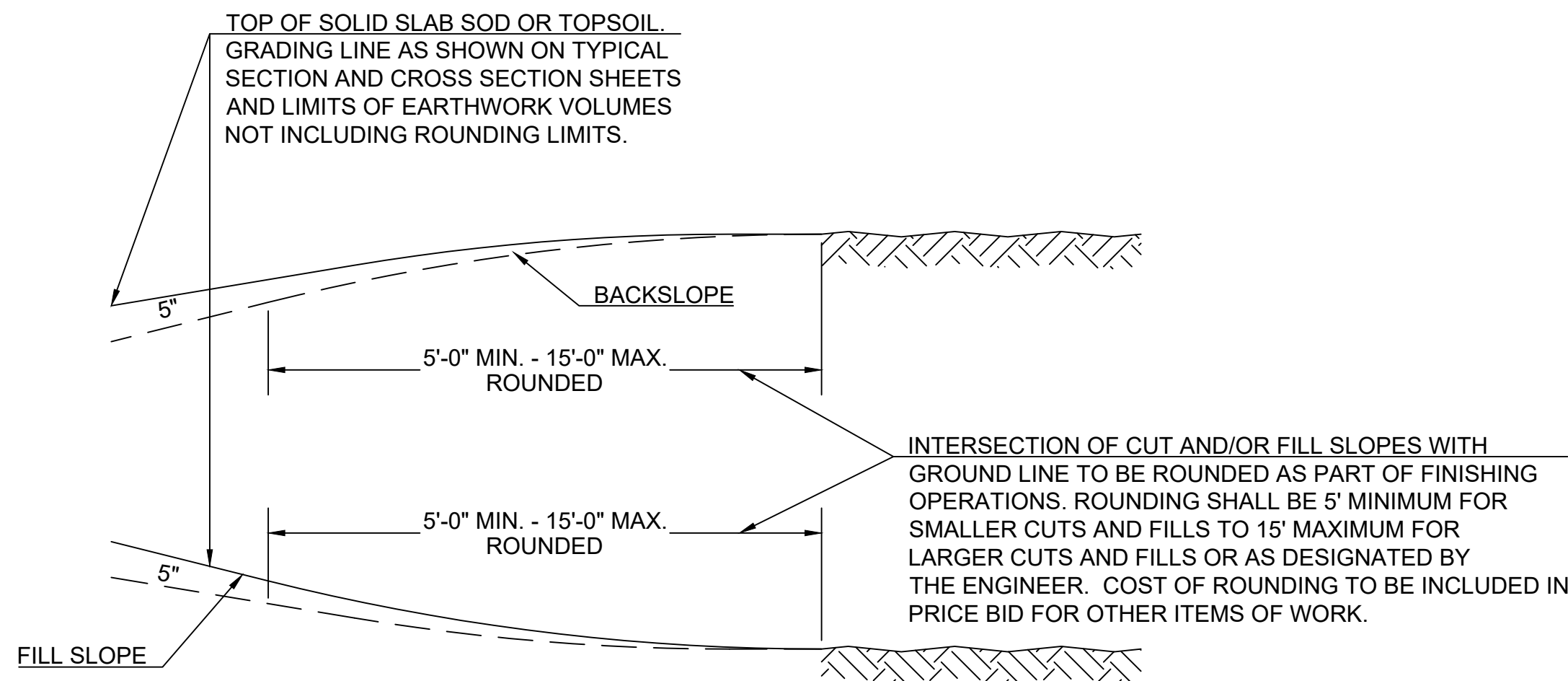
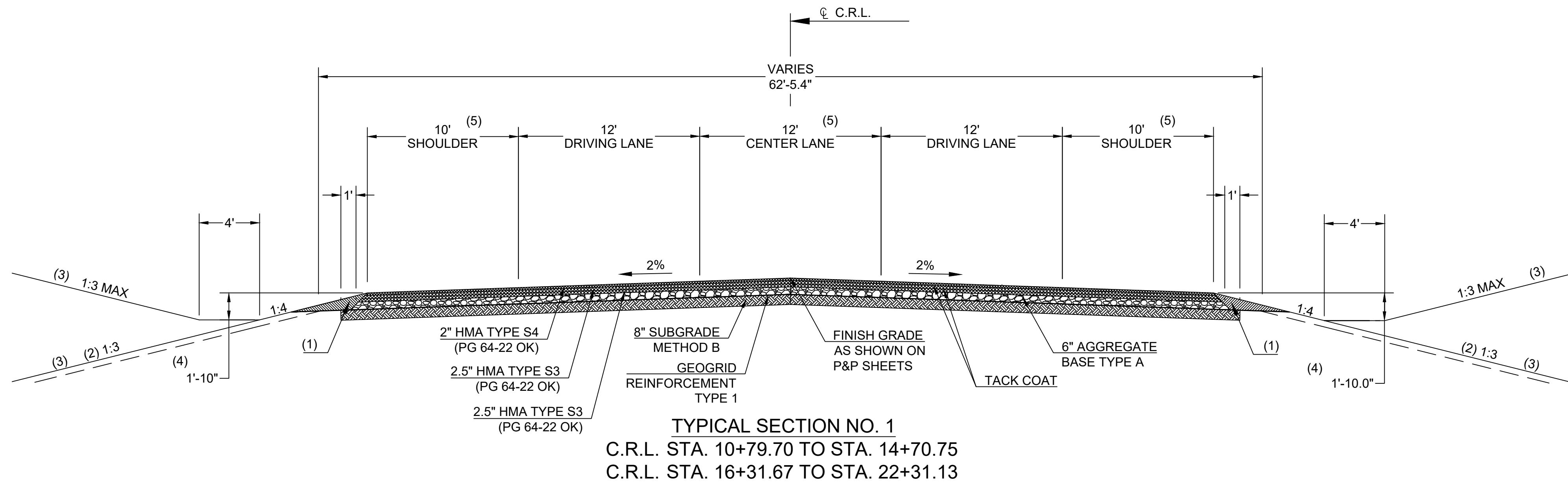


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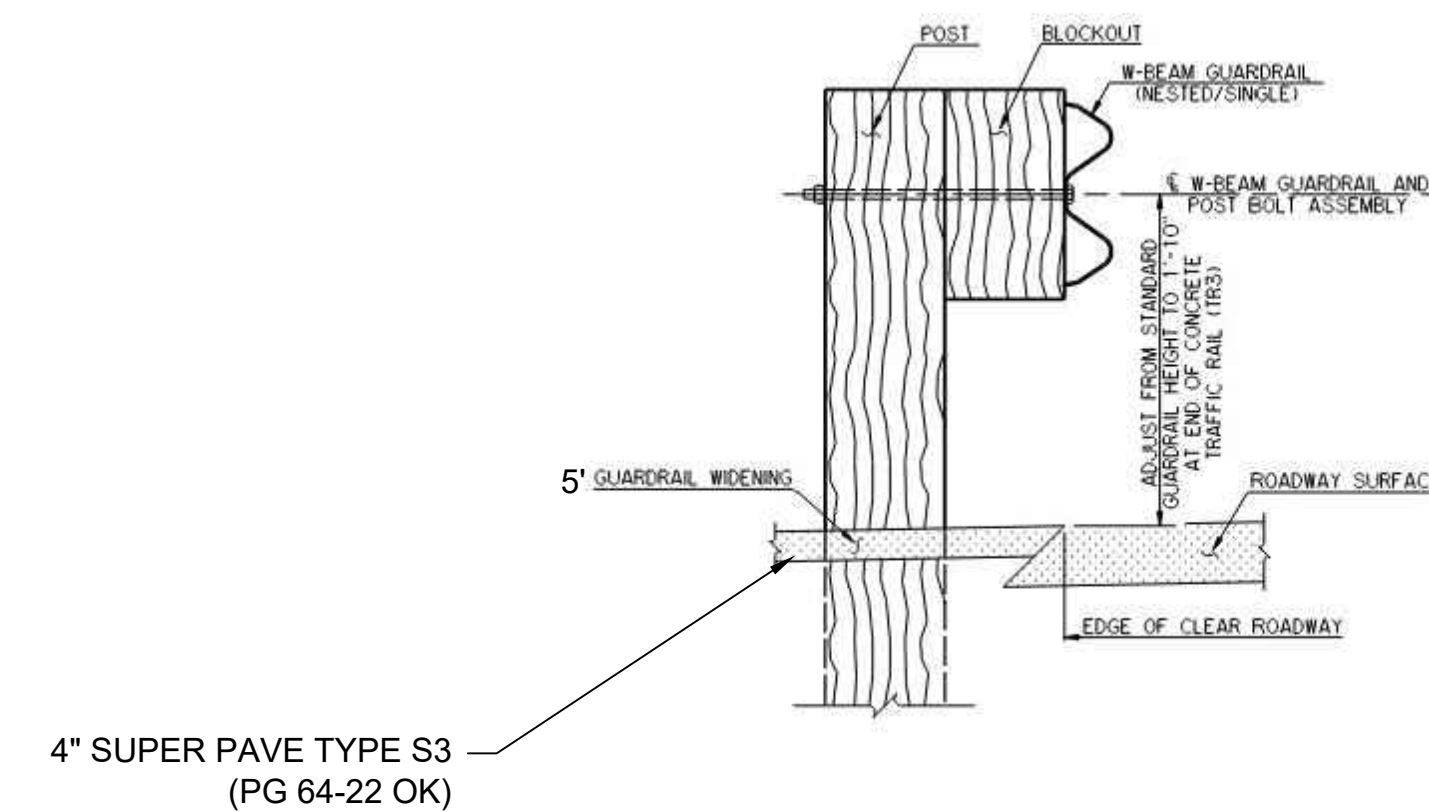
2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION - ENGLISH GOVERN
APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, DECEMBER 19, 2019.

CITY ENGINEERING DESIGN CRITERIA AND STANDARD SPECIFICATIONS AND CONSTRUCTION DRAWINGS
FOR STREET, STORMWATER, WATER LINES, AND SANITARY SEWERS AS APPROVED BY COUNCIL OF THE CITY OF NORMAN ON FEBRUARY 28, 2023.

- (1) THIS AREA TO BE BACKFILLED AND SODDED. THE BACKFILL SHALL BE INCLUDED IN OTHER ITEMS.
- (2) TOPSOIL NOTE:
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE ODOT STANDARD SPECIFICATIONS OR CITY OF NORMAN STANDARDS & SPECIFICATIONS SECTION 2104. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATION SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.
- THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOP SOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASS LINE BALANCE.
- (3) SEE ROUNDING DETAIL THIS SHEET.
- (4) DISTANCES ARE MEASURED VERTICALLY FROM THE EDGE OF THE FINISHED SHOULDER.
- (5) FROM STA. 10+79.70 TO STA. 14+50.00 AND STA. 16+50.00 TO STA. 22+31.13, THE SHOULDERS' WIDTH VARIES FROM 0' TO 10' AND THE MIDDLE LANE'S WIDTH VARIES FROM 0' TO 12'
- GENERAL NOTES:
SEE CROSS SECTIONS FOR SLOPE VARIATIONS.



NOTE:
FOR ADDITIONAL INFORMATION ON THE SMD'S, SEE ODOT STD SMD-4-2

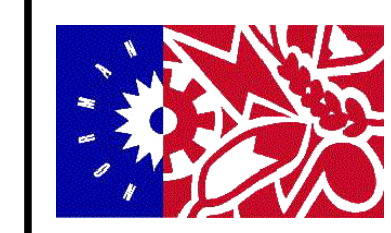


NOTE:
FOR ADDITIONAL INFORMATION ON THE SMD'S, SEE ODOT STD CB26..32-C..I-SKO..30-GRAU-BC-00E.

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CA #4193 EXPIRES JUNE 30, 2024

100% PS&E SUBMITTAL

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY,
OKLAHOMA
60TH AVENUE NE
BRIDGE REPLACEMENT
OVER ROCK CREEK

Typical Sections
JOB NO.: 22T28060
DATE: MAR 2024
DESIGNED BY: BDM
DRAWN BY: JHS

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SHEET NUMBER **0002**

File: L:\2022\22T28060 - Norman Bridge Reconstruction\60th-Avenue-NE\22T28060 - Typical Sections.dwg Last Save: 1/30/2024 4:47 PM Last saved by: JHSmith
Last plotted by: Meran, Brett D. Plot Size: ASBULL.TS, 1, cpl Plot Scale: 1:0.4255 Plot Date: 3/14/2024 1:01 PM Plotter used: DWG To PDF.pc3

GENERAL NOTES FOR BRIDGE

SPECIFICATIONS:

COMPLY WITH THE REQUIREMENTS OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

REMOVAL OF EXISTING BRIDGE "A" STRUCTURE:

ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" CONSISTS OF REMOVAL AND DISPOSAL OF A 15'-36"-15' I-BEAM STRUCTURE X 26'-0" CLEAR ROADWAY.

THE REMOVAL OF THE EXISTING STRUCTURE SHALL BE IN ACCORDANCE WITH SECTION 619.04.B.2 OF THE STANDARD SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER.

THE EXISTING STRUCTURE SHALL BE REMOVED TO:

- (A) 1'-0" BELOW THE SURROUNDING GROUND ELEVATION
- (B) AS NEEDED TO FACILITATE CONSTRUCTION OF THE PROPOSED BRIDGE
- (C) AS SHOWN ON THE PLANS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY MATERIALS, DEBRIS, OR REFUSE WHICH HAS FALLEN INTO ANY STREAM OR RIVER CHANNELS RESULTING FROM THE EXECUTION OF THE PROJECT AS SOON AS POSSIBLE. THE CONTRACTOR SHALL SUBMIT A BRIDGE DEMOLITION PLAN FOR APPROVAL BY THE CITY PRIOR TO PERFORMING ANY DEMOLITION ACTIVITIES. THE BRIDGE DEMOLITION PLAN SHALL INCLUDE A DETAILED DESCRIPTION OF THE ACTIVITIES TO BE PERFORMED AND THE METHODS USED TO ACHIEVE THEM.

THE STRUCTURE AND MATERIALS REMOVED DURING THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

ALL COSTS ASSOCIATED WITH THE REMOVAL OF THE EXISTING BRIDGE AS DESCRIBED ABOVE AND AS DIRECTED BY THE ENGINEER, INCLUDING LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM OF "REMOVAL OF EXISTING BRIDGE STRUCTURE".

STEEL PILE DRIVING EQUIPMENT:

USE A PILE DRIVING HAMMER OF THE SIZE AND TYPE CAPABLE OF CONSISTENTLY DELIVERING THE EFFECTIVE DYNAMIC ENERGY SUFFICIENT TO DRIVE THE PILES TO THE REQUIRED TIP ELEVATION AND TO ACHIEVE THE REQUIRED ULTIMATE PILE CAPACITY WITHOUT EXCEEDING THE LIMITATIONS SET ON THE ALLOWABLE DRIVING STRESSES IN ACCORDANCE WITH SECTION 514.03 OF THE STANDARD SPECIFICATIONS.

STEEL PILING:

PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M270 (GRADE 50) FOR STEEL PILING.

STEEL PILE CAPACITY:

THE FOLLOWING FORMULA (GATES EQUATION) SHALL BE USED TO DETERMINE THE AXIAL LOAD RESISTANCE OF THE DRIVEN FOUNDATION PILES:

$$\text{AXIAL LOAD RESISTANCE} = \phi[(0.875\sqrt{E} \text{ LOG}_{10}(10N)) - 50] \text{ (TONS)}$$

WHERE:

- ϕ = RESISTANCE FACTOR OF 0.4.
- E = ENERGY PRODUCED BY THE HAMMER PER BLOW IN FOOT-POUNDS. FOR GRAVITY AND SINGLE ACTING DIESEL HAMMERS, THE VALUE IS BASED ON THE ACTUAL RAM STROKE OBSERVED IN THE FIELD AND MEASURED IN FEET MULTIPLIED BY THE RAM WEIGHT IN POUNDS.
- N = AVERAGE NUMBER OF HAMMER BLOWS PER INCH OF PILE PENETRATION FOR THE LAST 10 TO 20 BLOWS DELIVERED TO THE PILE HEAD.

THE ABOVE FORMULA IS ONLY APPLICABLE WHEN:

- 1. THE PILE DRIVING HAMMER HAS A FREE FALL (GRAVITY AND SINGLE ACTING HAMMERS ONLY).
- 2. THE HEAD OF THE PILE IS NOT BROOMED, CRUSHED OR OTHERWISE DAMAGED.
- 3. THE PENETRATION IS QUICK AND UNIFORM.
- 4. THERE IS NO APPRECIABLE REBOUND OF THE HAMMER, AND
- 5. A FOLLOWER IS NOT USED.

THE NUMBER OF BLOWS PER INCH OF PILE PENETRATION MAY BE MEASURED EITHER DURING INITIAL DRIVING OR BY RE-DRIVING WITH A WARM HAMMER OPERATED AT FULL ENERGY AFTER A PILE SET PERIOD, AS DETERMINED BY THE ENGINEER.

IF WATER JETS ARE USED IN CONNECTION WITH THE DRIVING, DETERMINE THE AXIAL LOAD RESISTANCE BY THE FORMULA SHOWN ABOVE ONLY AFTER THE JETS HAVE BEEN WITHDRAWN.

SEE GENERAL PLAN AND ELEVATION SHEETS FOR FACTORED REACTION FOR EACH PILE.

CONCRETE INTERMEDIATE DIAPHRAGMS:

ONCE THE CONCRETE HAS BEEN PLACED FOR THE CONCRETE INTERMEDIATE DIAPHRAGMS, WAIT A MINIMUM OF 24 HOURS BEFORE REMOVING THE SIDE FORMS. DO NOT REMOVE THE BOTTOM FORM FOR A MINIMUM OF 3 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THIS TIME CAN BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH. DO NOT PLACE THE CONCRETE FOR THE DECK SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE CONCRETE IN THE DIAPHRAGMS HAS BEEN IN PLACE FOR A MINIMUM OF 10 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THIS TIME MAY BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH.

CONCRETE:

ALL CONCRETE SHALL BE PLACED IN THE DRY. ALL EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER UNLESS NOTED OR SHOWN ON PLANS. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER. ALL CLASS "A" AND CLASS "AA" CONCRETE SHALL BE AIR-ENTRAINED.

ALL CONCRETE IN THE SUPERSTRUCTURE, APPROACH SLABS & CONCRETE RAIL (TR3) SHALL BE CLASS "AA" CONCRETE, f'c = 4,000 P.S.I. MINIMUM STRENGTH AT 28 DAYS. ALL CONCRETE IN THE SUBSTRUCTURE SHALL BE CLASS "A" CONCRETE, f'c = 3,000 P.S.I. MINIMUM STRENGTH AT 28 DAYS.

CONCRETE SURFACES UNDER ALL BEAM SUPPORTS (BEARING ASSEMBLIES) SHALL BE GROUND WITH A CARBORUNDUM BRICK BEFORE PLACEMENT OF BEARING ASSEMBLY TO SECURE FULL BEARING OF ASSEMBLY ON CONCRETE. BEFORE BEARING ASSEMBLIES ARE SET, THE CONTRACTOR WILL CHECK BEARING SURFACES WITH REGARD TO LEVELNESS. THE MAXIMUM PERMISSIBLE SLOPE SHALL BE 0.5 %, WHICH SHOULD BE CHECKED ALONG AN AXIS PERPENDICULAR AND PARALLEL TO THE BEAM LINE. SLOPES EXCEEDING 0.5 % SHALL BE CORRECTED IN A MANNER APPROVED BY THE ENGINEER.

WHEN VIBRATING CONCRETE CONTAINING EPOXY COATED REINFORCING STEEL, THE VIBRATOR SHALL BE EQUIPPED WITH A PLASTIC TIP DESIGNED TO PREVENT DAMAGE TO THE EPOXY COATING.

REINFORCING:

ALL REINFORCING STEEL SHALL HAVE 2" CLEARANCE UNLESS SHOWN OR NOTED OTHERWISE. ALL REINFORCING STEEL SHALL BE DEFORMED BARS, COLD BENT WITH NO WELDS. BAR BEND DIMENSIONS ARE OUT TO OUT, UNLESS NOTED OTHERWISE. UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, ALL REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM A615), GRADE 60.

FIELD WELDING OF CROSSING REINFORCING BARS SHALL NOT BE PERMITTED. TACK WELDING OF REINFORCING BARS SHALL BE PROHIBITED IN ALL CASES.

ALL LONGITUDINAL TOP REINFORCING IN THE BRIDGE SLAB SHALL BE SUPPORTED ON APPROVED CONTINUOUS METAL HIGH CHAIRS SPACED AT 4'-0" MAXIMUM ON CENTERS AND THE BOTTOM LAYER OF REINFORCING STEEL SHALL BE SUPPORTED ON APPROVED METAL SLAB BOLSTERS SPACED AT 4'-0" MAXIMUM ON CENTERS.

STAY-IN-PLACE FORMS:

THE CONTRACTOR MAY USE STAY-IN-PLACE STEEL DECK FORMS IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. PREFORMED CORRUGATION FILLER, COMPOSED OF POLYSTYRENE OR OTHER MATERIAL, MAY BE USED IF BONDED TO THE DECK FORMS. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. THE TOTAL ADDITIONAL WEIGHT OF THE DECK FORM AND FILLER SHALL NOT EXCEED 5 P.S.F. ALL COSTS OF STAY-IN-PLACE STEEL DECK FORMS TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF "CLASS AA CONCRETE".

DECK HAUNCHES:

SEE THE TYPICAL SECTION SHEET FOR THE PLAN QUANTITY FOR CLASS "AA" CONCRETE INCLUDED FOR THE HAUNCHES OVER THE BEAMS AND DIAPHRAGMS. THE HAUNCH HEIGHTS WILL BE CALCULATED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER TO PROVIDE FOR DEAD LOAD DEFLECTION AND BEAM CAMBER.

STAINLESS STEEL FIXED BEARING ASSEMBLIES:

PROVIDE AND INSTALL FIXED BEARING ASSEMBLIES OF THE SIZE, SHAPE AND LOCATION AS SPECIFIED OR AS SHOWN IN THE PLANS. SEE THE BEARING DETAIL SHEETS FOR THE ESTIMATED AMOUNT OF STRUCTURAL STEEL REQUIRED FOR EACH FIXED BEARING ASSEMBLY.

ALL COST OF PROVIDING AND INSTALLING THE FIXED BEARING ASSEMBLIES AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF STEEL REINFORCED ELASTOMERIC BEARING PADS, ANCHOR PLATES, CONTACT PLATES, ANCHOR BOLTS, NUTS, WASHERS, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER EACH OF "STAINLESS STEEL FIXED BEARING ASSEMBLY".

STAINLESS STEEL EXPANSION BEARING ASSEMBLIES:

PROVIDE AND INSTALL EXPANSION BEARING ASSEMBLIES OF THE SIZE, SHAPE AND LOCATION AS SPECIFIED OR AS SHOWN IN THE PLANS. SEE THE BEARING DETAIL SHEETS FOR THE ESTIMATED AMOUNT OF STRUCTURAL STEEL REQUIRED FOR EACH EXPANSION BEARING ASSEMBLY.

ALL COST OF PROVIDING AND INSTALLING THE EXPANSION BEARING ASSEMBLIES AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF STEEL REINFORCED ELASTOMERIC BEARING PADS, ANCHOR PLATES, CONTACT PLATES, ANCHOR BOLTS, NUTS, WASHERS, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER EACH OF "STAINLESS STEEL EXP. BEARING ASSEMBLY".

SEALED EXPANSION JOINT:

THE SEALED EXPANSION JOINT SHALL BE CONSTRUCTED AS SHOWN IN THE PLANS AND IN ACCORDANCE WITH STANDARDS EJ-SQ-04E AND EJ-DTL-02E, UNLESS SHOWN OTHERWISE IN THE PLANS, AND IN A MANNER APPROVED BY THE ENGINEER.

ALL COSTS INCLUDING THE COST OF MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR SHOWN IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "SEALED EXPANSION JOINTS".

CONCRETE DECK FINISHING:

THE BRIDGE DECK FOR THIS PROJECT IS TO BE FINISHED WITH A MECHANICAL TYPE FINISHING MACHINE. OVERHANGING SLAB FORMS WILL BE REQUIRED TO BE OF SUFFICIENT STRENGTH TO SUPPORT THE WEIGHT OF THE CONCRETE, FORMS, FINISHING MACHINE AND OTHER CONSTRUCTION LOADS. PRIOR TO FINISHING OPERATIONS, A PROPOSAL STIPULATING THE TYPE OF FINISHING MACHINE AND THE FINISHING PROCEDURE WILL BE SUBMITTED TO THE ENGINEER. THIS PROPOSAL SHALL SET FORTH ANY AREAS IN WHICH A MECHANICAL FINISHER CANNOT BE USED AND THE METHODS FOR FINISHING THESE AREAS. CONCRETE SHALL NOT BE PLACED UNTIL THIS PROPOSAL IS APPROVED BY THE ENGINEER.

SAWED AND SEALED JOINTS:

THE SAWED & SEALED CONSTRUCTION JOINTS SHOWN IN THE PLANS SHALL BE SEALED WITH RAPID CURE JOINT SEALANT IN ACCORDANCE WITH SUBSECTION 701.08.G AND AS SHOWN IN THE PLANS.

APPROACH SLAB:

CLASS "AA" CONCRETE SHALL BE USED IN THE APPROACH SLABS WITH EPOXY COATED REINFORCING. THE QUANTITY GIVEN IS BASED ON THE ACTUAL SQUARE YARDS OF THE APPROACH SLABS. ALL COSTS OF CONCRETE, REINFORCING STEEL, LONGITUDINAL CONSTRUCTION JOINT SEALANT, SAWED AND SEALED CONSTRUCTION JOINT BETWEEN NEW DECK AND APPROACH SLAB, SAWING OF JOINTS, EXCAVATION, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "APPROACH SLAB".

PENETRATING WATER REPELLENT SURFACE TREATMENT:

A PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES OF THE BRIDGE (SEE SHEET NO. B009):

- 1. EDGES AND UNDERSIDE CANTILEVER PORTION OF THE BRIDGE DECK.
- 2. ROADWAY, OUTER, INSIDE OF POST OPENINGS, AND TOP FACES OF THE TR3 CONCRETE RAIL.
- 3. FRONT, SIDES, AND EXPOSED AREAS OF ABUTMENT BACKWALL AND ABUTMENT SEAT NOT COVERED WITH ELASTOMERIC COATING.
- 4. OUTER FACE AND BOTTOM OF EXTERIOR BEAMS.

ALL COSTS ASSOCIATED WITH THE USE OF PENETRATING WATER REPELLENT SURFACE TREATMENT INCLUDING THE COST OF MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "WATER REPELLANT (VISUALLY INSPECTED)".

ELASTOMERIC COATING:

THE ELASTOMERIC COATING SHALL BE A LIQUID APPLIED URETHANE COATING SUCH AS CIM 1000 AS MANUFACTURED BY CIM INDUSTRIES, INC. PRODUCT INFORMATION FOR CIM-1000 CAN BE OBTAINED FROM LASTOR CASTOR CORP. OF TULSA, OKLAHOMA, PHONE NUMBER 918-234-7777.

THE ELASTOMERIC COATING SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES AS SHOWN IN THE PLANS:

- 1. FRONT, SIDES AND EXPOSED AREAS OF THE ABUTMENT SEATS AND BACKWALLS.

DO NOT PLACE THE ELASTOMERIC COATING UNDER BEARING PADS.

THE EQUIPMENT, METHODS, AND THICKNESS OF APPLYING THE URETHANE COATING SHALL BE IN ACCORDANCE WITH THE PRODUCT COATING PROFILE AND INSTRUCTION GUIDES FOR APPLICATION TO CONCRETE. PRECAUTIONARY MEASURES SHALL BE IN ACCORDANCE WITH THE MATERIAL SAFETY DATA SHEETS AS PROVIDED BY THE MANUFACTURER.

THE COATING SHALL BE 60 MILS DRY THICKNESS AND 68 MILS WET THICKNESS. IN ADDITION TO APPLYING THE COATING TO THE CONCRETE SUBSTRUCTURE UNITS AS SHOWN IN THE PLANS, THE COATING SHALL RETURN UP THE VERTICAL SURFACES OF THE ABUTMENT BEARING PADS TO PROVIDE A WATER TIGHT SEAL WITH THE CONCRETE PEDESTALS. SURFACE PREPARATIONS AND PRODUCT MIXING SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS AND ALL NEW CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI AT THE TIME OF APPLICATION. PRIMER SHALL BE APPLIED TO THE CONCRETE SURFACES PRIOR TO APPLYING THE COATING. ALL CONCRETE WORK SHALL BE COMPLETED PRIOR TO THE APPLICATION OF THE COATING.

WATER REPELLENT WILL NOT BE REQUIRED ON SURFACES THAT ARE COATED WITH ELASTOMERIC COATING.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID PER SQUARE FOOT OF "ELASTOMERIC COATING", WHICH PRICE SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

DRAINS AT END OF BRIDGE:

ALL COSTS OF THE CONCRETE CURBS INCLUDING MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID PER CUBIC YARD OF "CLASS C CONCRETE".

PERFORATED PIPE UNDERDRAIN:

THE ITEM "6" PERFORATED PIPE UNDERDRAIN ROUND" INCLUDES 60.00 FEET OF PERFORATED PIPE AND 9.00 CUBIC YARDS OF PIPE UNDERDRAIN COVER MATERIAL FOR EACH ABUTMENT. THE INSTALLATION OF PERFORATED PIPE AND PIPE UNDERDRAIN COVER MATERIAL SHALL BE AS SHOWN ON SHEET NO. B008.

ALL COSTS OF THE PERFORATED PIPE UNDERDRAIN INSTALLATION INCLUDING MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "6" PERFORATED PIPE UNDERDRAIN ROUND".

NON-PERFORATED PIPE UNDERDRAIN:

THE ITEM "6" NON-PERF. PIPE UNDERDRAIN RND." INCLUDES 22.00 FEET OF NON-PERFORATED PIPE AND 8.00 CUBIC YARDS OF PIPE UNDERDRAIN COVER MATERIAL FOR ABUTMENT NO. 1 AND 33.00 FEET OF NON-PERFORATED PIE AND 11.00 CUBIC YARDS OF PIPE UNDERDRAIN COVER MATERIAL FOR ABUTMENT NO. 2. THE INSTALLATION OF NON-PERFORATED PIPE AND PIPE UNDERDRAIN COVER MATERIAL SHALL BE AS SHOWN ON SHEET NO. B008.

ALL COSTS OF THE NON-PERFORATED PIPE UNDERDRAIN INSTALLATION INCLUDING MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "6" NON-PERF. PIPE UNDERDRAIN RND.".

RIPRAP:

A 2'-0" THICK LAYER OF TYPE I-A PLAIN RIPRAP WITH A 6" THICK LAYER OF TYPE I-A FILTER BLANKET SHALL BE PLACED AS SHOWN IN THE PLANS. THE FILTER BLANKET SHALL BE PLACED IN ONE LAYER.

ALL COSTS OF THE PLACEMENT OF FILTER BLANKET INCLUDING MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID PER TON OF "TYPE I-A FILTER BLANKET".

ALL COSTS OF THE PLACEMENT OF RIPRAP INCLUDING MATERIAL, EXCAVATION, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID PER TON OF "TYPE I-A PLAIN RIPRAP".

OTHER ITEMS OF WORK:

ANY ITEMS OF WORK NOT COVERED BY A PAY ITEM NEEDED TO COMPLETE THE WORK AS SPECIFIED OR SHOWN IN THE PLANS SHALL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK.

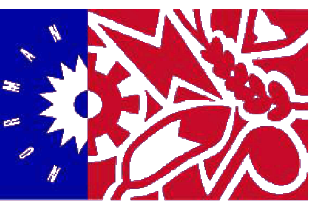


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CA #4193 EXPIRES JUNE 30, 2024

100% PS&E SUBMITTAL

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY,
OKLAHOMA

60TH AVENUE NE
BRIDGE REPLACEMENT
OVER ROCK CREEK

**SUMMARY OF
PAY QUANTITIES
AND NOTES
(BRIDGE)
(SHEET 1 OF 2)**

JOB NO.: 22T28060
DATE: MARCH 2023
DESIGNED BY: JTR
DRAWN BY: NBK

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DRAWING NUMBER

SHEET NUMBER AB01



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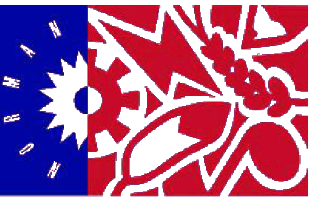
CA #4193 EXPIRES JUNE 30, 2024

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PAY QUANTITIES			
BRIDGE "A" - NBI 33246 - 100' P.C. BEAM SPAN			
	DESCRIPTION	UNIT	QUANTITY
501(B) 1300	SUBSTRUCTURE EXCAVATION COMMON (BR-1)	CY	245.000
501(G) 1800	CLSM BACKFILL (BR-1)	CY	305.800
503(A) 4240	PRESTRESSED CONCRETE BEAMS (TYPE IV) (BR-1)	LF	598.000
504(A) 5200	APPROACH SLAB (BR-1)	SY	387.800
504(B) 5300	SAW-CUT GROOVING (BR-1)	SY	1,001.000
504(D) 5410	CONCRETE RAIL (TR3) (BR-1)	LF	321.500
506(A) 7200	STRUCTURAL STEEL (BR-1)	LB	660.000
507(A) 8200	STAINLESS STEEL FIXED BEARING ASSEMBLY (BR-1)	EA	6.000
507(B) 8300	STAINLESS STEEL EXP. BEARING ASSEMBLY (BR-1)	EA	6.000
509(A) 0210	CLASS AA CONCRETE (BR-1)	CY	160.300
509(B) 0320	CLASS A CONCRETE (BR-1)	CY	130.000
509(D) 0510	CLASS C CONCRETE (BR-1)	CY	1.000
511(B) 2310	EPOXY COATED REINFORCING STEEL (BR-1)	LB	64,120.000
514(A) 5210	PILES, FURNISHED (HP 10X42)	LF	248.000
514(A) 5220	PILES, FURNISHED (HP 12X53)	LF	1,298.000
514(B) 5310	PILES, DRIVEN (HP 10X42)	LF	248.000
514(B) 5320	PILES, DRIVEN (HP 12X53)	LF	1,298.000
514(L) 6300	PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	1.000
515(A) 7200	WATER REPELLENT (VISUALLY INSPECTED) (BR-1)	SY	473.000
517 9110	ELASTOMERIC COATING (BR-1)	SF	634.000
518(B) 0300	SEALED EXPANSION JOINTS (BR-1)	LF	57.800
601(B) 1230	TYPE I-A PLAIN RIPRAP	TON	880.000
601(C) 1310	TYPE I-A FILTER BLANKET	TON	180.000
613(H) 6205	6" PERFORATED PIPE UNDERDRAIN ROUND (BR-1)	LF	120.000
613(I) 6310	6" NON-PERF. PIPE UNDERDRAIN RND.	LF	55.000
619(D) 6700	REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM	1.000

BR-1:
 PAYMENT FOR THIS ITEM WILL BE BASED ON THE PLAN QUANTITIES ONLY. SEE SECTION 109.01.B OF THE 2019 STANDARD SPECIFICATIONS.

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY,
 OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

SUMMARY OF
 PAY QUANTITIES
 AND NOTES
 (BRIDGE)
 (SHEET 2 OF 2)

JOB NO.: 22T28060
 DATE: MARCH 2023
 DESIGNED BY: JTR
 DRAWN BY: JTR

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DRAWING NUMBER

SHEET
 NUMBER AB02

ROADWAY GENERAL CONSTRUCTION NOTES

IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

FOR PROJECTS THAT INCLUDE WIDENING AND/OR RESURFACING, THE CONTRACTOR SHALL SCHEDULE OPERATIONS TO MINIMIZE POTENTIAL DROP-OFF HAZARDS AND SHALL SUBMIT A SEQUENCE OF CONSTRUCTION OPERATIONS TO THE ENGINEER FOR APPROVAL BEFORE OPERATIONS BEGIN. ANY PORTION OF THE CONSTRUCTION OPERATIONS, SUCH AS SUPERPAVE LAYING OPERATIONS, EXCAVATION FOR PAVEMENT WIDENING, OR EXTENSION OF ROADWAY STRUCTURES, SHALL BE LIMITED TO ONE SIDE AT A TIME, AND THE PROCEDURES OUTLINED IN THE PAVEMENT DROP-OFF TREATMENT STANDARD PDT-2 (LATEST REVISION) SHALL BE IMPLEMENTED. ONLY THAT AMOUNT OF OPEN TRENCH WILL BE ALLOWED THAT CAN BE SURFACED IN 1(ONE) DAY'S TIME WITHOUT APPROVAL BY THE ENGINEER. LIGHTS, SIGNS AND BARRICADES SHALL BE MOVED AS WORK PROGRESSES.

ALL TREES, BRUSH, AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER SHALL BE CLEANED OUT TO THE RIGHT-OF-WAY LINE, AT EACH STRUCTURE AND BRIDGE, IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY RIGHT-OF-WAY FENCE AS REQUIRED. WHEN THE PORTION OF THE PROJECT THAT REQUIRED THIS FENCE IS COMPLETED, THE TEMPORARY FENCE SHALL BE REMOVED, AND PERMANENT RIGHT-OF-WAY FENCING SHALL BE RESTORED OR INSTALLED IN A MANNER APPROVED BY THE ENGINEER. ALL COST OF TEMPORARY FENCING SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

ALL FLOWLINES THAT ARE TO BE FILLED SHALL BE THOROUGHLY TAMPED BEFORE CONSTRUCTION OR EXTENSION OF DRAINAGE STRUCTURES. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

IN ORDER TO ALLEVIATE DUST CONDITIONS DURING GRADING OPERATIONS AND BEFORE PAVEMENT WORK IS COMPLETED, THE CONTRACTOR SHALL SPRINKLE GRADING AT INTERVALS APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

THE CONTRACTOR SHALL NOT WASTE ANY EXCESS EXCAVATION UNTIL ALL PLANNED EMBANKMENTS AND BACKFILLS ARE COMPLETED. EXCESS UNCLASSIFIED EXCAVATION MATERIAL DETERMINED BY THE ENGINEER TO BE SUITABLE FOR BACKFILL SHALL BE USED TO REDUCE ANY UNCLASSIFIED BORROW COST OF SECOND HANDLING SHALL BE INCLUDED IN OTHER ITEMS OF ANY REMAINING EXCESS EXCAVATION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

AT THE BEGINNING OF TURFING OPERATIONS, ANY AREAS INCLUDED IN PLANNED QUANTITIES THAT HAVE GROWN A SATISFACTORY VOLUNTEER TURF OF PERENNIAL GRASS, AS DETERMINED BY THE ENGINEER, AND WATERED AS CALLED FOR ON THE PLANS, BUT SHALL NOT BE SEEDED, SODDED, OR SPRIGGED.

THE CONTRACTOR SHALL REMOVE AND RESET MAILBOXES AS NECESSARY. MAILBOXES ARE TO BE MAINTAINED IN AN UPRIGHT POSITION AND ACCESSIBLE TO MAIL CARRIER'S CAR DURING CONSTRUCTION. ANY DAMAGE TO BOXES OR SUPPORTS SHALL BE REPAIRED BY THE CONTRACTOR. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

UNLESS OTHERWISE NOTED, SAWCUT IS TO BE INCLUDED IN ANY RELEVANT PAY ITEM AND WILL NOT BE PAID FOR SEPARATELY.

TRAFFIC GENERAL CONSTRUCTION NOTES

ANY SIGNS AND/OR DELINEATORS WHICH ARE TO BE REMOVED DURING THIS PROJECT WILL BE STORED IN A PROTECTED AREA DESIGNATED BY THE ENGINEER, UNTIL SUCH A TIME THAT THEY ARE TO BE RESET BY THE CONTRACTOR. COST OF THIS WORK TO BE INCLUDED IN OTHER ITEMS OF WORK.

REMOVED MATERIAL TO BECOME PROPERTY OF CONTRACTOR AND IT SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

ANY DAMAGE CAUSED BY THE CONTRACTOR TO ANY STRUCTURES, ROADWAY SURFACES, STRIPING, RAISED PAVEMENT MARKERS, GUARDRAIL, SLOPES, AND SIGNS SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.

ALL REGULATORY SIGNS SHALL HAVE HIGH INTENSITY SHEETING. THE HIGH INTENSITY SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956-(LATEST REVISION) FOR TYPE III SHEETING.

ALL WARNING SIGNS SHALL HAVE FLUORESCENT YELLOW SHEETING. THE FLUORESCENT YELLOW SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956-(LATEST REVISION) REQUIREMENTS FOR TYPE VIII SHEETING.

THE MANUFACTURER SHALL FURNISH A TYPE 'A' CERTIFICATION IN ACCORDANCE WITH ODOT STANDARD SPECIFICATIONS, LATEST EDITION, AND SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON THE MATERIAL SUBMITTED FOR APPROVAL.

THE STATIONS AND LOCATIONS OF THE SIGN PLACEMENT, AS SHOWN ON THE PLAN SHEETS, ARE APPROXIMATE. EXACT STATIONS AND LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR SO THAT THE SIGN IS INSTALLED IN ACCORDANCE WITH DEPARTMENT STANDARDS AND THE MUTCD IN ORDER TO PROVIDE OPTIMUM VISIBILITY TO THE ONCOMING/APPROACHING MOTORIST. IF A PROPOSED LOCATION CONFLICTS WITH OTHER SIGNS, UTILITIES OR OTHER ROADWAY FEATURES, THE ENGINEER SHALL BE NOTIFIED.

POST LENGTHS SHOWN ON SIGN SUMMARY ARE APPROXIMATE, EXACT LENGTH SHALL BE DETERMINED BY FIELD SURVEY BY THE CONTRACTOR.

ROADWAY PAY QUANTITY NOTES

(R-4) AN ESTIMATED QUANTITY OF 1,520 C.Y. TOPSOIL TO BE RESERVED FOR REPLACEMENT OF APPROXIMATELY 5" ON COMPLETED FORESLOPES, DITCHES, AND BACKSLOPES. THIS QUANTITY IS INCLUDED IN THE EARTHWORK BALANCE. ANY ADDITIONAL EXCAVATION REQUIRED IN CUT SECTIONS TO ALLOW FOR PLACEMENT OF TOPSOIL TO FINAL GRADE, SHALL BE INCLUDED IN THE PRICE BID.

(R-7) FOR SOLID SLAB SODDING, PRICE BID TO INCLUDE COST OF WATERING, ESTIMATED AT 40 GALLONS PER S.Y.

(R-8) PRICE BID TO INCLUDE COST OF ALL NECESSARY MAINTENANCE, MAINTAINING DEVICE IN PROPER UPRIGHT POSITION, REMOVAL OF DEVICE, AND REMOVAL OF SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE DEVICE.

- (R-11) THE QUANTITIES ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS 2.29 ACRES.
- (R-15) QUANTITY BASED ON TWO APPLICATIONS.
- (R-25) ESTIMATED AT 0.075 GALLONS PER SQUARE YARD OF ORIGINAL EMULSION OF TACK COAT (BEFORE DILUTION FOR APPLICATION) IN ACCORDANCE WITH SECTION 407 OF THE STANDARD SPECIFICATIONS.
- (R-26) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK.
- (R-33) QUANTITY INCLUDES 8 C.Y. TO BE USED AS DIRECTED BY THE ENGINEER.
- (R-35) THE PRECAST CONCRETE OPTION MAY BE USED INSTEAD, PER DIRECTION OF THE ENGINEER.
- (R-39) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (UNLESS OTHERWISE SPECIFIED), INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.
- (R-40) TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.
- (R-43) INCLUDES 2% FOR GROUND MEASUREMENT.
- (R-44) ALL GATES AND GATE END POSTS FOR STRANDED WIRE FENCE (SWF) SHALL BE CONSTRUCTED AT THE SAME WIDTH AS THE EXISTING, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

TRAFFIC CONSTRUCTION PAY QUANTITY NOTES

(TC-25) ALL CONSTRUCTION TRAFFIC CONTROL WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS, AND INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS REQUIRED FOR COMPLETION OF THE PROJECT.

ALL SIGNS AND BARRICADES, WHICH ARE SHOWN WITH TYPE 'A' LIGHTS IN THE STANDARD DRAWINGS SHALL HAVE THE CORRESPONDING LIGHT ATTACHED DURING NON-DAYLIGHT HOURS.

TRAFFIC SIGNING PAY QUANTITY NOTES

- (TS-19) QUANTITY SHOWN INCLUDES 0 L.F. TRAFFIC STRIPE (PLASTIC)(WHITE) AND 4500 L.F. TRAFFIC STRIPE(PLASTIC)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4") WIDE TRAFFIC STRIPE.
- (TS-20) QUANTITY SHOWN INCLUDES 2319 L.F. TRAFFIC STRIPE (PLASTIC)(WHITE) AND WILL BE MEASURED BY THE LINEAR FOOT OF SIX INCH (6") WIDE TRAFFIC STRIPE.
- (TS-22) QUANTITY SHOWN INCLUDES 0 L.F. TRAFFIC STRIPE (PLASTIC)(WHITE) AND 526 L.F. TRAFFIC STRIPE(PLASTIC)(YELLOW) WILL BE MEASURED BY THE LINEAR FOOT OF TWELVE INCH (12") WIDE TRAFFIC STRIPE.
- (TS-24) QUANTITY SHOWN INCLUDES 0 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND 404 L.F. TRAFFIC STRIPE(MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4") WIDE TRAFFIC STRIPE.
- (TS-25) QUANTITY SHOWN INCLUDES 202 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND 0 L.F. TRAFFIC STRIPE(MULTI-POLYMER)(BLACK) AND WILL BE MEASURED BY THE LINEAR FOOT OF SIX INCH (6") WIDE TRAFFIC STRIPE.
- (TS-27) QUANTITY SHOWN INCLUDES 0 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND 51 L.F. TRAFFIC STRIPE(MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF TWELVE INCH (12") WIDE TRAFFIC STRIPE.
- (TS-34) INCLUDED IN THIS PAY ITEM IS THE REMOVAL OF ANY EXISTING SIGNS TO BE REPLACED BY NEW ASSEMBLIES AND THE REMOVAL OF ANY EXISTING SIGNS THAT WILL BE IN CONFLICT WITH THE NEW ROADWAY OR NEW SIGNAGE.

PAY QUANTITY NOTES

- (1) ALL REMOVED ITEMS RELATED TO CLEARING AND GRUBBING SHALL NOT BE DISPOSED IN ROCK CREEK. REMOVED ITEMS SHALL BE DISPOSED OFF SITE.

GENERAL CONSTRUCTION NOTES

ANY ITEMS OF WORK NOT COVERED BY A PAY ITEM SHALL BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS.

PAY QUANTITIES - ROADWAY				
ITEM NO.	CODE NO.	DESCRIPTION	UNIT	QUANTITY
201(A)	1200	CLEARING AND GRUBBING	(1) LSUM	1.00
202(A)	2200	UNCLASSIFIED EXCAVATION	CY	1,824.00
202(D)	2500	UNCLASSIFIED BORROW	CY	2,665.00
205(A)	6200	TYPE A-SALVAGED TOPSOIL	(R-4) LSUM	1.00
221(B)	2300	TEMPORARY SILT FENCE	(R-8) LF	2,546.00
221(C)	2400	TEMPORARY SEDIMENT FILTER	(R-8) EA	4.00
221(E)	2600	TEMPORARY SILT DIKE	(R-8) LF	144.00
221(F)	2720	TEMPORARY ROCK FILTER DAM TYPE 3	(R-8) CY	186.00
221(G)	2800	TEMPORARY FIBER LOG	(R-8) LF	570.00
228	5115	EROSION CONTROL MAT TYPE 3	SY	3,649.00
229	6100	DITCH LINER PROTECTION	LF	596.00
230(A)	7200	SOLID SLAB SODDING	(R-7) SY	10,929.00
232(B)	9300	SEEDING METHOD B	(R-11) AC	4.60
233(A)	0200	VEGETATIVE MULCHING	(R-11) AC	4.60
241	3100	MOWING	(R-15) AC	4.60
303(A)	1200	AGGREGATE BASE TYPE A	CY	786.00
310(B)	5300	SUBGRADE METHOD B	SY	4,928.00
326(B)	1300	GEOGRID REINFORCEMENT	SY	4,928.00
407(B)	7300	TACK COAT	(R-25) GAL	690.00
411(B)	1330	SUPERPAVE, TYPE S3(PG 64-22 OK)	(R-26) TON	1,307.00
411(C)	1430	SUPERPAVE, TYPE S4(PG 64-22 OK)	(R-26) TON	505.00
509(D)	0500	CLASS C CONCRETE	(R-33) CY	86.00
610(B)	5300	6" CONCRETE DRIVEWAY (H.E.S.)	SY	358.00
611(G)	0350	INLET (SMD-TYPE 1)	(R-35) EA	4.00
613(A)	5208	18" R.C. PIPE CLASS III	LF	661.00
613(M)	6960	TYPE A4 CULVERT END TREATMENT	EA	6.00
619(A)	6200	REMOVAL OF STRUCTURES & OBSTRUCTIONS	(R-39,40) LSUM	1.00
619(B)	6352	REMOVAL OF FENCE	(R-40) LF	1,961.00
619(B)	6360	REMOVAL OF CONCRETE PAVEMENT	(R-40) SY	167.00
619(B)	6364	REMOVAL OF ASPHALT PAVEMENT	(R-40) SY	2,753.00
623(A)	1200	BEAM GUARDRAIL W-BEAM SINGLE	LF	50.00
623(F)	1724	GUARDRAIL ANCHOR UNIT (TYPE D-BF)	EA	4.00
623(G)	1800	GUARDRAIL END TREATMENT (GET)	EA	4.00
624(A)	3200	FENCE-STYLE WWF	(R-43) LF	167.00
624(C)	3405	FENCE-STYLE SWF (6 BARBED WIRE)	(R-43,44) LF	2,030.00
624(D)	3500	GATE, GALVANIZED STEEL	EA	1.00
624(D)	SPECIAL	REMOVE & RESET GATE	EA	1.00
629(D)	7500	REMOVE AND RESET MAILBOX	EA	2.00
SPEC.	SPECIAL	FLEXAMAT, COMPLETE IN PLACE	SY	502.00

PAY QUANTITIES - SURVEY				
642(B)	3300	CONSTRUCTION STAKING LEVEL II	LSUM	1.00

PAY QUANTITIES - CONSTRUCTION				
220	1100	SWPPP DOCUMENTATION AND MANAGEMENT	LSUM	1.00
242	4101	STABILIZED CONSTRUCTION EXIT	EA	2.00
641	2110	MOBILIZATION	LSUM	1.00

PAY QUANTITIES - TRAFFIC				
805(A)	3252	(PL)REMOVAL OF EXISTING SIGNS	(TS-34) EA	4.00
850(A)	1200	SHEET ALUMINUM SIGNS	SF	6.25
851(B)	2310	2 1/2" @ 5.79 GALV. STL PIPE POST	LF	21.00
853	5115	DELINEATORS(TYPE 2, CODE 1)	EA	8.00
855(A)	7200	TRAFFIC STRIPE(PLASTIC)(4" WIDE)	(TS-19) LF	4,500.00
855(A)	7204	TRAFFIC STRIPE(PLASTIC)(6" WIDE)	(TS-20) LF	2,319.00
855(A)	7212	TRAFFIC STRIPE(PLASTIC)(12" WIDE)	(TS-22) LF	526.00
856(A)	8200	TRAFFIC STRIPE(MULTI-POLY)(4" WIDE)	(TS-24) LF	404.00
856(A)	8204	TRAFFIC STRIPE(MULTI-POLY)(6" WIDE)	(TS-25) LF	202.00
856(A)	8212	TRAFFIC STRIPE(MULTI-POLY)(12" WIDE)	(TS-27) LF	51.00
880(J)	7110	CONSTRUCTION TRAFFIC CONTROL	(TC-25) LSUM	1.00



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CA #41193 EXPIRES JUNE 30, 2024

100% PS&E SUBMITTAL

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY, OKLAHOMA
60TH AVENUE NE BRIDGE REPLACEMENT OVER ROCK CREEK

Summary of Pay Quantities and Notes (Roadway)

JOB NO.: 22T28060
DATE: MAR 2024
DESIGNED BY: BDM
DRAWN BY: JHS

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SHEET NUMBER AR01

File: L:\2022\22T28060 - Norman Bridge Reconstruction\60th-Pkwy-Porter\Drawings\60th Avenue NE\22T28060 - Notes PQ & Summaries.dwg, Last Save: 2/2/2024 4:34 PM, Last Saved By: JHSmith, Last Printed By: Meran, Brett D., Plot Style: ASBULL.TS, 1, cb, Plot Scale: 1.0, 4/25/2024 1:01 PM, Plotter used: DWG To PDF.pc3

File: L:\2022\22T28060 - Norman Bridge Reconstruction\60th Avenue\NE\22T28060 - Notes.Plot & Summaries.dwg, Last Save: 2/2/2024 4:34 PM, Last Saved by: JHSmith, Last Printed by: Meran, Brett D., Plot Style: ASBULL.TS, 1, cab, Plot Scale: 1:0.4255, Plot Date: 3/14/2024 1:01 PM, Ploter used: DWG To PDF.pc3

SIGN NO.	ALIGNMENT	Station	SIGN TYPE	SIGN THICKNESS			POSTS				GUARDRAIL DELINEATORS (TYPE2, CODE1)	REMARKS	
				0.063" 0.080" 0.100"			14 GA.		12 GA.				853
				SHEET ALUMINUM SIGNS			2-1/4" SQUARE TUBE POST		2-1/2" SQUARE TUBE POST				
				850(A)			851(C)		853				
(S.F.)	(S.F.)	(S.F.)	POST A (L.F.)	POST B (L.F.)	POST A (L.F.)	POST B (L.F.)	(EA.)						
1	60th CRL	14+50	Rt	(STD.)	-	-	-	-	-	-	-	-	INSTALL NEW SIGN (Rock Creek)
2		16+60	Lt	I-3	-	3.125	-	-	-	10.5	-	-	INSTALL NEW SIGN (Rock Creek)
		14+30 TO 14+70	Lt	Type 2, Code 1	-	-	-	-	-	-	-	-	INSTALL GUARDRAIL DELINEATOR UNITS
		14+33 TO 14+70	Rt	Type 2, Code 1	-	-	-	-	-	-	-	-	INSTALL GUARDRAIL DELINEATOR UNITS
		16+31 TO 16+70	Lt	Type 2, Code 1	-	-	-	-	-	-	-	-	INSTALL GUARDRAIL DELINEATOR UNITS
		16+31 TO 16+71	Rt	Type 2, Code 1	-	-	-	-	-	-	-	-	INSTALL GUARDRAIL DELINEATOR UNITS
SUB TOTALS:					0	6.25	0	0	0	21	0	8	
TOTALS:					6.25			0.00		21.00		8	

CONSTRUCTION EXTENTS	SUMMARY OF EARTHWORK QUANTITIES						REMARKS
	UNCLASSIFIED EXCAVATION 202(A)	EMBANKMENT	* EMBANKMENT 15%	EXCESS UNCLASSIFIED EXCAVATION	UNCLASSIFIED BORROW 202(D)	** WASTE	
	CY	C.Y.	CY	CY	CY	CY	
BOP to EOP	1,824	3,903	4,488	-	2,664	-	
TOTALS:	1,824	3,903	4,488	-	2,664	-	

P&P SHEET NO.	STATION AND LOCATION	CONCRETE LINER						DES. NO.
		LENGTH	BOTTOM WIDTH	CURTAIN WALLS	DITCH LINER PROTECTION 229	CLASS C CONCRETE 509(D)	CY	
R002	10+79.70 TO 13+55.00	Lt	275	4	4	275	35.8	2A
R002	10+79.70 TO 14+00.00	Rt	320	4	5	320	41.8	2A
TOTALS:			9	596	77.6			

SURVEY C. L. STATION	REMOVAL OF STRUCTURES & OBSTRUCTIONS	
	DESCRIPTION	REMARKS
11+62.65	Drop Inlet 23.42' Rt	
11+81.28	37.29' 15" RCP	
12+31.66	37.26' 12" CMP	
12+58.58	3" Steel Post 29.04' Rt	
14+10.87	40.80' 12" CMP	

STATION AND LOCATION	SUMMARY OF SURFACING QUANTITIES					
	AGGREGATE BASE TYPE A 303(A)	SUBGRADE, METHOD B 310(B)	GEOGRID REINFORCEMENT TYPE 1 328(B)	TACK COAT 407(B)	SUPERPAVE, TYPE S3 (PG 64-22 OK) 411(B)	SUPERPAVE, TYPE S4 (PG 64-22 OK) 411(C)
	CY	SY	SY	GAL	TON	TON
MAINLINE						
10+79.70 TO 14+70.75	312.00	1,955.00	1,955.00	274.00	252.78	200.19
16+31.67 TO 22+31.13	474.00	2,973.00	2,973.00	416.00	384.28	304.31
10+79.70 TO 14+70.75	-	-	-	-	255.31	-
16+31.67 TO 22+31.13	-	-	-	-	388.16	-
TOTALS:	786.00	4,928.00	4,928.00	690.00	1,280.53	504.50

SUMMARY OF DRIVEWAYS											
ALIGNMENT	STATION	LT	RT	TYPE	WIDTH		LENGTH		RADIUS		REMARKS
					FT	FT	LT	RT	6" CONCRETE DRIVEWAY 610(B)	SY	
60th CRL	12+33.14		x	Drive	22	51.34	20	20			145.00
	14+03.90		x	Drive	14	55.91	15	15			103.00
	14+10.36	x		Drive	14	63.43	15	15			110.00
TOTALS:											358.00

SUMMARY OF REMOVALS					
STATION	TO	STATION	REMOVAL OF FENCE 619(B)	REMOVAL OF CONCRETE PAVEMENT 619(B)	REMOVAL OF ASPHALT PAVEMENT 619(B)
			LF	SY	SY
10+79.70	TO	15+15.59			1,167.45
15+83.99	TO	22+31.13			1,585.05
12+30.58	TO			166.09	
10+50.91	TO	11+95.97	148.86		
12+57.38	TO	15+02.02	284.07		
12+58.99	TO	14+24.19	191.02		
15+73.67	TO	22+31.13	658.65		
15+85.32	TO	22+31.13	648.94		
16+17.77	TO	16+17.77	29.20		
TOTALS:			1,960.74	166.09	2,752.50

SUMMARY OF FENCE								
SHEET NO.	STATION	TO	STATION	FENCE STYLE WWF 624(A)	FENCE STYLE SWF (BWM) 624(C)	GATE GALVANIZED STEEL 624(D)	REMOVE & RESET GATE 624(D)	REMARKS
				LF	LF	EA	EA	
R002	10+50.91	TO	11+96.00	163.00	-	-	-	
R002	12+58.69	TO	14+79.16	-	264.00	-	1.00	
R002	12+60.45	TO	14+79.13	-	287.00	-	1.00	
R002	16+23.91	TO	22+32.71	-	697.00	-	-	
R002	16+24.14	TO	22+99.69	-	742.00	-	-	
TOTALS:				163.00	1,990.00	1.00	1.00	

SUMMARY OF MAILBOXES			
STATION AND LOCATION	REMOVE & RESET MAILBOXES 629(E)	EA	
		EA	EA
11+61.72 11' Lt	1.00		
14+16.11 5' Lt	1.00		
TOTALS:	2.00		

STRUCTURE NO.	ALIGNMENT	STATION	DESCRIPTION	DESIGN STANDARD	EROSION CONTROL							SUBSIDIARY	STRUCTURE NO.	REMARKS		
					TYPE 1-A PLAIN RIPRAP	TYPE 1-A FILTER BLANKET	FILTER FABRIC (RIPRAP)	INLET (SMD-TYPE 2)	18" R.C. PIPE CLASS III	A4	* STANDARD BEDDING MATERIAL, CLASS B				* TRENCH EXCAVATION	
					601(B) TON	601(C) TON	601(I) SY	611(G) EA	613(A) LF	613(M) EA	CY				CY	
1	60th CRL	13+50.00	SIDE DRAIN	CONST. 1 - 18" x 158.6 L.F. RCP	W/ 1 & 1 SMD I	CET	PSMD-2-2, SMD-4-2, CET4S-4-2, SPI-5-2, PBB-1-2, FHTCP-4-1			1.00				1		
2	60th CRL	13+80.04	SIDE DRAIN	CONST. 1 - 18" x 134.1 L.F. RCP	W/ 1 & 1 SMD I	CET	PSMD-2-2, SMD-4-2, CET4S-4-2, SPI-5-2, PBB-1-2, FHTCP-4-1			1.00	134.12	1.00	37.00	94.00	2	
3	60th CRL	17+50.00	SIDE DRAIN	CONST. 1 - 18" x 169.5 L.F. RCP	W/ 1 & 1 SMD I	CET	PSMD-2-2, SMD-4-2, CET4S-4-2, SPI-5-2, PBB-1-2, FHTCP-4-1			1.00	169.52	1.00	47.00	119.00	3	
4	60th CRL	17+50.00	SIDE DRAIN	CONST. 1 - 18" x 158.4 L.F. RCP	W/ 1 & 1 SMD I	CET	PSMD-2-2, SMD-4-2, CET4S-4-2, SPI-5-2, PBB-1-2, FHTCP-4-1			1.00	158.38	1.00	-	-	4	
5	60th CRL	12+29.97	SIDE DRAIN	CONST. 1 - 18" x 40.3 L.F. RCP	W/ 2	CET	CET4S-4-2, SPI-5-2, PBB-1-2, FHTCP-4-1				40.30	2.00	12.00	28.00	5	
TOTAL:								4.00	660.94	6.00	140.00	353.00				

* FOR CONTRACTOR'S INFORMATION ONLY. COST INCLUDED IN PRICE BID FOR PIPE.

Striping Summary																					
Information		Yellow Thermoplastic (Asphalt)			Yellow Multipolymer			White Thermoplastic (Asphalt)				White Multipolymer (Concrete)				Pavement Markings					
Sheet	Sta - Sta	12" Solid	4" Dbl Solid	4" Solid	12" Solid	4" Dbl Solid	4" Solid	24" Solid	12" Solid	6" Solid	# of 10' Dashes	6" Dashes	24" Solid	12" Solid	6" Solid	# of 10' Dashes	6" Dashes	Arrows	Symbols	Words	
1 Top	10+00.00 - 15+50.00	210.53	1,843.60	-	50.46	403.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 Bottom	15+50.00 - 23+00.00	314.73	2,655.58	-	-	-	-	-	-	-	-	-	-	-	201.84	-	-	-	-	-	-
Totals:		525.26	4,499.18	-	50.46	403.68	-	-	-	-	-	-	-	-	201.84	-	-	-	-	-	-

SHEET NO.	STATION	TO	STATION	FLEXAMAT	
				SY	TON
R002	14+16.75	TO	14+79.15	140.14	
R002	14+12.09	TO	14+79.15	121.24	
R002	16+24.09	TO	16+78.57	90.27	
R002	16+23.92	TO	16+78.45	149.66	
TOTALS:				502.00	

STATION AND LOCATION	SUMMARY OF GUARD RAIL				
	SUPERPAVE, TYPE S3 (PG 64-22 OK) 411(B)	BEAM GUARDRAIL W-BEAM SINGLE 623(A)	GUARDRAIL ANCHOR UNIT (TYPE D-BF) 623(F)	GUARDRAIL END TREATMENT (GET) 623(G)	
	TON	LF	EA	EA	
14+29.92 TO 14+70.75	Lt	6.70	12.50	1.00	1.00
14+32.52 TO 14+70.75	Rt	7.20	12.50	1.00	1.00
16+31.67 TO 16+69.89	Lt	6.20	12.50	1.00	1.00
16+31.67 TO 16+71.43	Rt	6.10	12.50	1.00	1.00
TOTALS:		26.20	50.00	4.00	4.00

STATION	TO	STATION	TEMPORARY					PERMANENT				
			SILT FENCE 221(C)	SILT DIKE 221(F)	FIBER LOG 221(G)	TEMPORARY ROCK FILTER DAM TYPE 3 221(F)	EROSION CONTROL MAT TYPE 3 228	SEEDING METHOD B 232(B)	VEGETATIVE MULCHING 233(A)	SOLID SLAB SODDING 230(A)	* WATERING	* TYPE-A SALVAGED TOPSOIL
			LF	LF	LF	CY	SY	AC	AC	SY	K GAL	CY
10+50.32	TO	14+04.05						0.59	0.59	1,426.00	57.10	198.00
14+18.05	TO	15+48.65						0.43	0.43	1,019.00	40.80	142.00
15+87.38	TO	23+00.00						1.17	1.17	2,823.00	113.00	392.00
10+50.67	TO	11+74.70						0.30	0.30	717.00	28.70	100.00
11+88.69	TO	12+19.63						0.07	0.07	156.00	6.30	22.00
12+41.63	TO	14+19.06						0.37	0.37	875.00	35.00	122.00
13+72.81	TO	14+35.95						0.04	0.04	80.00	3.20	11.00
14+54.02	TO	15+23.50						0.30	0.30	704.00	28.20	98.00
15+95.57	TO	23+00.00						1.30	1.30	3,129.00	125.20	435.00
BOP	TO	EOP	2,545.40			185.85	3,648.78					
13+57.89	TO	14+94.33			150.00							
13+79.75	TO	14+98.41			120.00							
16+06.65	TO	17+42.68			150.00							
16+09.45	TO	17+46.62			150.00							
10+79.70	TO	13+60.00										
10+79.70	TO	13+90.00										
17+50.00	TO	22+31.13			72.00							
17+50.00	TO	22+31.13			72.00							
TOTALS:			2,545.40	144.00	570.00	185.85	3,648.78	4.57	10,929.00	437.50	1,520.00	

* FOR CONTRACTOR'S INFORMATION ONLY. COST TO BE INCLUDED IN THE PRICE BID FOR OTHER WORK.



© 202

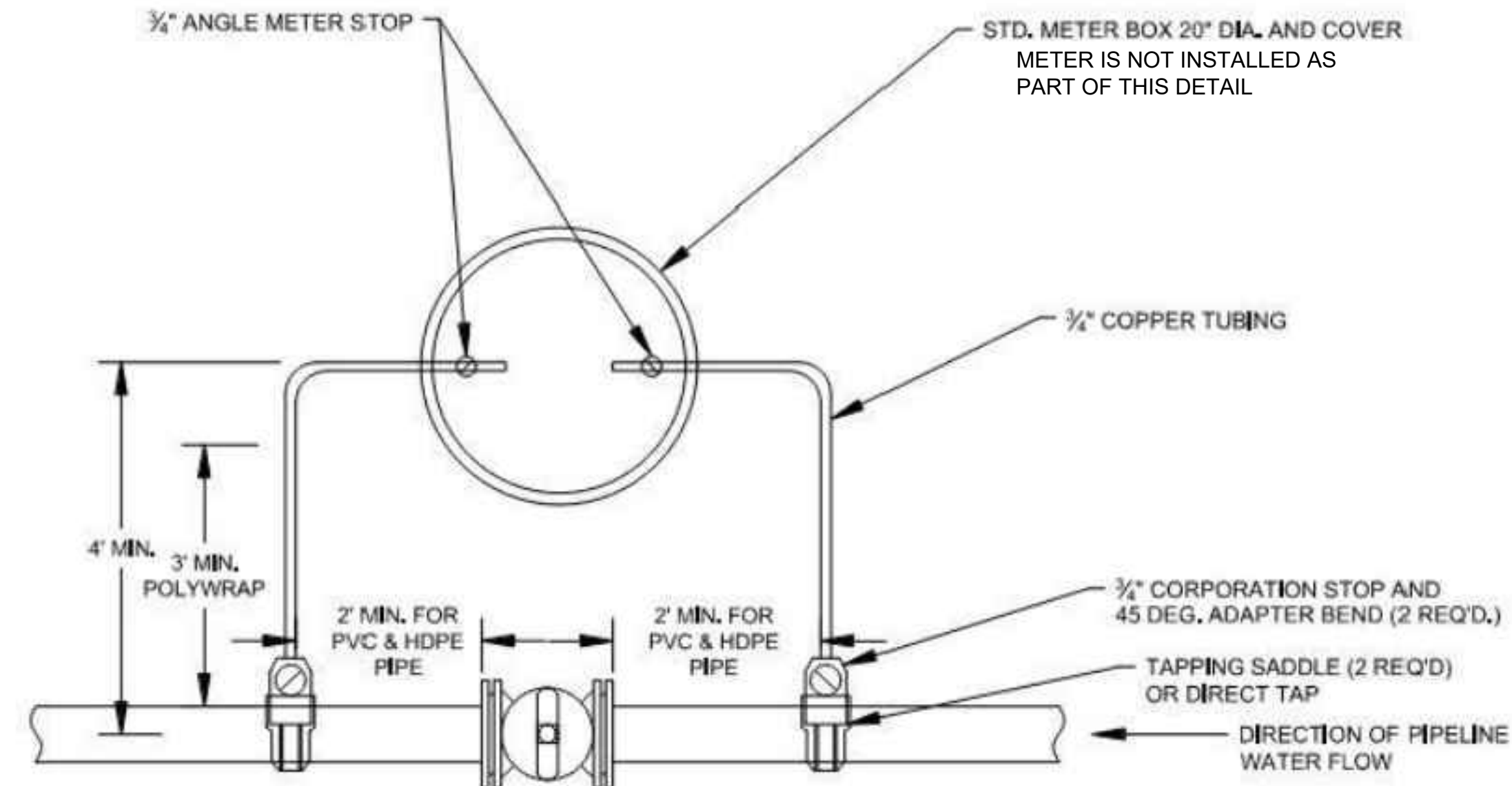
GENERAL CONSTRUCTION NOTES:

- ALL WATER LINE CONSTRUCTION INCLUDING MEANS, METHODS, AND MATERIALS SHALL FOLLOW THE CITY OF NORMAN STANDARD SPECIFICATIONS AND CONSTRUCTION DRAWINGS (LATEST EDITION).
- ONLY NORMAN UTILITIES AUTHORITY PERSONNEL MAY OPERATE EXISTING WATER LINE VALVES, INCLUDING FOR FLUSHING OPERATIONS. FOR THE PURPOSES OF FLUSHING NEWLY INSTALLED WATER LINES, NORMAN UTILITIES AUTHORITY CAN TYPICALLY ASSIST WITH OPERATING VALVES WITH A MINIMUM OF 24 HOURS NOTICE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UTILITY LINES AND STRUCTURES REGARDLESS WHETHER OR NOT THEY ARE SHOWN ON THESE PLANS. DURING CONSTRUCTION AND WORK ASSOCIATED WITH THESE PLANS, THE CONTRACTOR SHALL CARRY OUT OPERATIONS IN SUCH A MANNER AS TO PRECLUDE DAMAGE TO ANY EXISTING UTILITIES OR STRUCTURES. ANY SUCH DAMAGE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL VERIFY EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES, SPECIFICALLY AT CRITICAL POINTS, PRIOR TO INITIATION OF THE WORK OF THE APPROVED PLANS. VERIFICATION OF SIZE AND CONSTRUCTION MATERIAL (I.E. PVC, DIP, RCP, ETC.) SHALL ALSO BE PERFORMED DURING THESE ACTIVITIES.
- ALL WASTE MATERIAL RECOVERED FROM CONSTRUCTION ACTIVITIES SHALL BECOME THE CONTRACTOR'S PROPERTY AND SHALL BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS. ON A DAILY BASIS THE CONTRACTOR SHALL CLEAN UP AND DISPOSE OF ANY AND ALL SPILLS OF WASTEWATER AND/OR FLUSHING MATERIALS IMMEDIATELY UPON OCCURRENCE. ALL HANDLING AND DISPOSAL SHALL BE ACCOMPLISHED IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
- CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON ENCOUNTERING ANY CIRCUMSTANCE THAT MAY RESULT IN A VARIANCE FROM THE APPROVED PLANS. VARIANCE FROM THE PLANS WITHOUT APPROVAL FROM THE OWNER AND ENGINEER SHALL BE AT THE RISK OF THE CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK SHOWN IN THE PLAN SET, REGARDLESS OF ITS PRESENCE OR ABSENCE IN THE SUMMARY OF QUANTITIES.
- ALL WORK REQUIRING TEMPORARY SHUTDOWN OF WATER SERVICE(S) SHALL BE COMPLETED AT LOW DEMAND TIMES. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF SEVEN (7) DAYS NOTICE FOLLOWED BY THREE (3) DAYS NOTICE TO THE CITY AND THE AFFECTED PROPERTY OWNERS PRIOR TO TAKING ANY WATER LINE OUT OF SERVICE, OR TEMPORARY DISRUPTION OF SERVICE. UPON RECEIPT OF 7-DAY NOTICE, NORMAN UTILITY AUTHORITY RESERVES THE RIGHT TO REQUIRE THAT CONTRACTOR CONVENE A COORDINATION MEETING WITH NORMAN UTILITY AUTHORITY PERSONNEL BEFORE SHUTDOWN IS APPROVED.
- CONTRACTOR SHALL COORDINATE ALL WORK WITH PROPERTY OWNERS ADJACENT TO, OR IMPACTED BY, THE WORK OF THE PROJECT.
- THE CONTRACTOR SHALL ATTEND ALL MEETINGS SCHEDULED BY THE ENGINEER AND/OR OWNER. MEETINGS SHALL BE ATTENDED BY THE CONTRACTOR'S SUPERINTENDENT OR QUALIFIED REPRESENTATIVE WHO IS AUTHORIZED TO DISCUSS AND MAKE DECISIONS REGARDING THE PROJECT.
- CONTRACTOR SHALL REMOVE FROM THE PROJECT SITE AND DISPOSE OF ALL CONSTRUCTION DEBRIS DISTURBED DURING CLEARING AND EXCAVATION ON A DAILY BASIS.
- CONTRACTOR SHALL COMPLY WITH ALL CITY OF NORMAN ORDINANCES WHEN STOCKPILING AND STORING MATERIALS AND EQUIPMENT.
- CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY ADDITIONAL TEMPORARY CONSTRUCTION EASEMENTS NECESSARY TO PERFORM HIS WORK. ALL COST OF SAID TEMPORARY EASEMENTS SHALL BE INCLUDED IN OTHER ITEMS. ALL SURFACE RESTORATION TO SAID TEMPORARY EASEMENTS SHALL BE TO THE SATISFACTION OF THE PROPERTY OWNER AND ALL COST OF RESTORATION SHALL BE INCLUDED IN OTHER ITEMS.
- THE CONTRACTOR, AT THEIR EXPENSE, SHALL PROVIDE AN ELECTRICAL OR MECHANICAL DEVICE OR USE SUCH OTHER MEANS HE MAY SELECT TO LOCATE ANY HIDDEN UTILITY LINE, OIL OR GAS PIPELINE, WATER PIPELINE, SEWER PIPELINE, COMMUNICATION AND TELEPHONE LINE, AND LOCATE SUCH LINES OR STRUCTURES SHOWN ON THE PLANS AND ANY UNCHARTED LINE OR STRUCTURE WHETHER SHOWN ON THE PLANS OR NOT, AND PROTECT, ADJUST TO GRADE, DISCONNECT AND REPLACE, RELOCATE AND REPLACE, REMOVE, PROVIDE SUPPORTS DURING THE CONSTRUCTION AND SETTLEMENT OF BACKFILL AND PROTECT AGAINST FREEZING OR UNNECESSARY DAMAGE BY THE ELEMENTS OF EXISTING UTILITY LINES, OIL OR GAS PIPELINES, WATER PIPELINES, SEWER PIPELINES, COMMUNICATION AND TELEPHONE LINES, RAILROAD RIGHT-OF-WAY LINES AND OTHER STRUCTURES AND SHALL PAY ALL FEES TO COUNTY, CITY, STATE, OR FEDERAL AGENCIES WHICH MAY BE REQUIRED IN THE PERFORMANCE OF THIS WORK. THE CONTRACTOR SHALL MAKE SATISFACTORY ARRANGEMENTS WITH THE OWNERS OF SUCH STRUCTURES FOR PERFORMING THE WORK. THE CONTRACTOR SHALL NOT BE ENTITLED TO ANY ADDITIONAL PAYMENT FOR SUCH WORK.
- FOR ANY TREES THAT REQUIRE PRUNING OR LIMBING FOR CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF NORMAN SEVEN (7) DAYS PRIOR TO THE SCHEDULED DATE OF WORK.
- CONTRACTOR SHALL PROTECT AND MAINTAIN TRAFFIC SIGNAL POLES, WIRES, APPURTENANCES AND STRUCTURES.
- CONTRACTOR SHALL NOTIFY ENGINEER OF DAMAGE TO UTILITIES AND/OR APPURTENANCES DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND/OR REPLACE ANY AFFECTED ITEMS.
- PROVIDE VALVES AT BOT ENDS OF WATER CROSSINGS SO THAT THE SECTION CAN BE ISOLATED FOR TESTING OR REPAIR. THE VALVES MUST BE EASILY ACCESSIBLE AND NOT SUBJECT TO FLOODING. THE VALVE CLOSEST TO THE SUPPLY SOURCE MUST BE IN A MANHOLE, AND MAKE PERMANENT TAPS ON EACH SIDE OF THE VALVE WITHIN THE MANHOLE TO ALLOW INSERTION OF A SMALL METER FOR TESTING TO DETERMINE LEAKAGE AND FOR SAMPLING PURPOSES.

PAY ITEM NOTES

- TRENCHING, BEDDING, SELECT BACKFILL MATERIAL, TRACER WIRE, HYDROSTATIC PRESSURE TESTING, AND DISINFECTION SHALL BE INCLUDED IN THE COST OF THE PIPE. HYDROSTATIC PRESSURE TESTING AND DISINFECTION SHALL BE PERFORMED TO ODEQ STANDARDS.
- TREE REMOVAL, IF NECESSARY, SHALL BE INCLUDED IN THE COST OF MOBILIZATION/DEMOLITION.
- COST SHALL INCLUDE ALL FITTINGS (E.G. SOLID SLEEVE), MATERIALS, LABOR, AND EQUIPMENT NECESSARY TO MAKE THE CONNECTION TO THE EXISTING WATER MAIN.
- COST FOR BACKFILL ROCK UNDER ALL PAVEMENT TO BE INCLUDED IN THIS PAY ITEM AND WILL NOT BE PAID FOR SEPARATELY.

ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITY
1	(12-INCH) POLYVINYL CHLORIDE PIPE (DR-18) BY OPEN TRENCH (W1),(W-4)	LF	886.00
2	BORING WITH STEEL CASING PIPE (W/ 12" CARRIER PIPE)	LF	70.00
3	REMOVE AND RELOCATE FIRE HYDRANT	EA	2.00
4	12" SOLID SLEEVE	EA	2.00
5	12" X 6" TEE (MJ)	EA	2.00
6	6" GATE VALVE (MJ)	EA	2.00
7	12" GATE VALVE (MJ)	EA	4.00
8	WET CONNECTION (12") (W3)	EA	2.00
9	12" X 45° BEND (MJ)	EA	8.00
10	12" x 11 1/4" BEND (MJ)	EA	2.00
11	PRE-/POST-CONSTRUCTION AUDIO/VIDEO RECORDING	LS	1.00
12	SEDIMENT AND EROSION CONTROL	LS	1.00
13	MOBILIZATION/DEMOLITION (W-2)	LS	1.00
14	SOLID SLAB SODDING	SY	985.00
15	LEAK DETECTION BY-PASS METER ASSEMBLY (COMPLETE)	EA	1.00



LEAK DETECTION BY-PASS METER ASSEMBLY FOR UNDERWATER CROSSINGS

File: L:\2022\22T28060 - Norman Bridge Reconstruction\60th-Porter\Drawings\60th Avenue NE\22T28060 - Waterline Notes & Pay Quantities.dwg
 Last Save: 10/13/2023 2:28 PM
 Last Saved by: JHS
 Plot Style: ASBULL.TS, 1, cpl
 Plot Date: 3/14/2024 1:01 PM
 Plotter used: DWG To PDF.pc3
 Last Plotted by: Meran, Brett D.
 Plot Size: 11.0 x 17.0 inches



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CA #4193 EXPIRES JUNE 30, 2024

100% PS&E SUBMITTAL

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY, OKLAHOMA

60TH AVENUE NE BRIDGE REPLACEMENT OVER ROCK CREEK

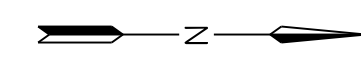
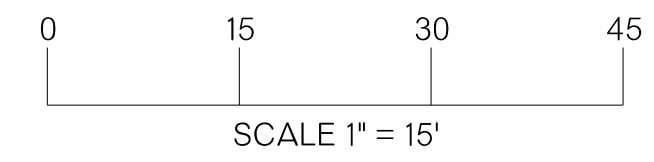
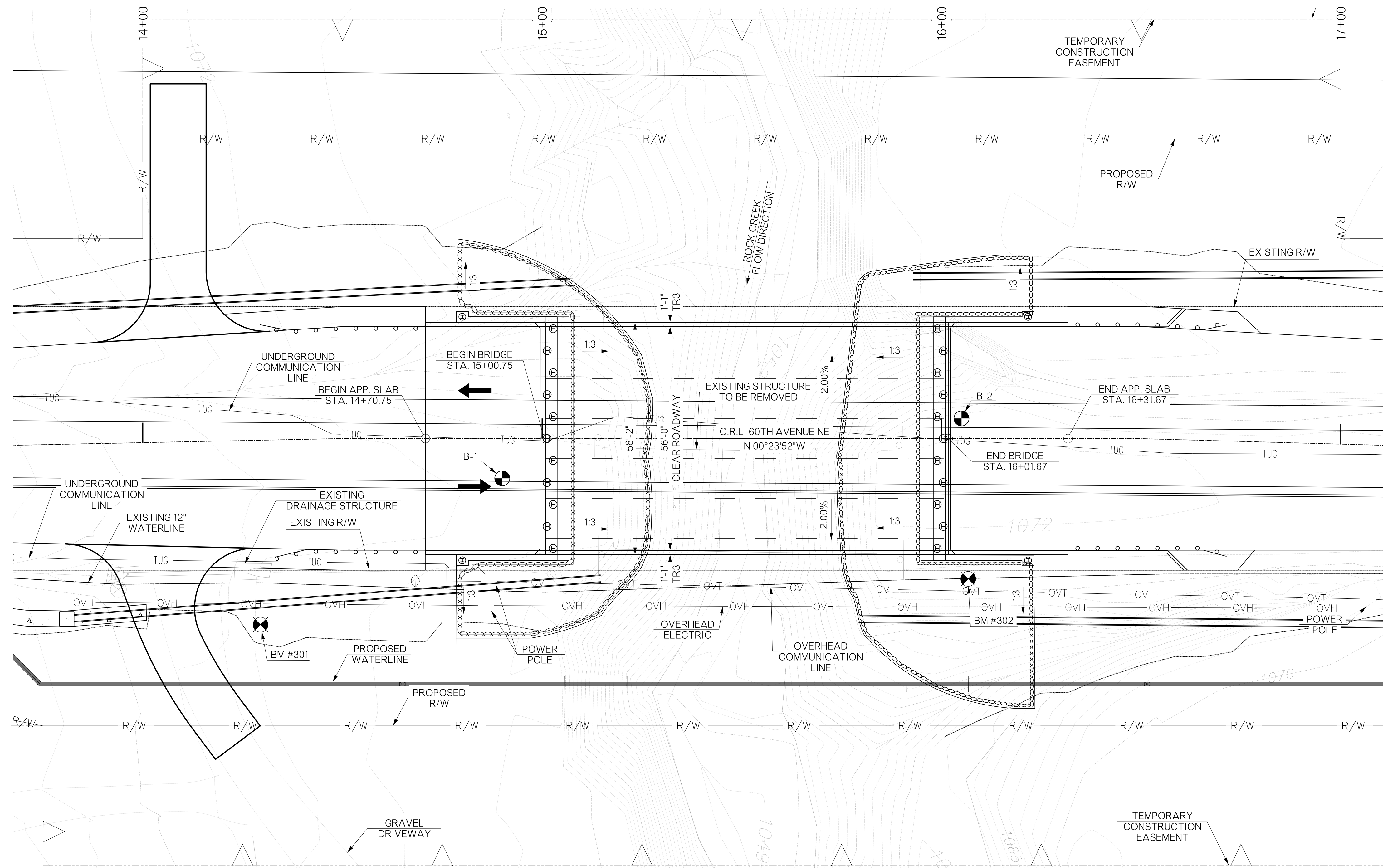
Summary of Pay Quantities and Notes (Waterline)

JOB NO.: 22T28060
 DATE: MAR 2024
 DESIGNED BY: BDM
 DRAWN BY: JHS

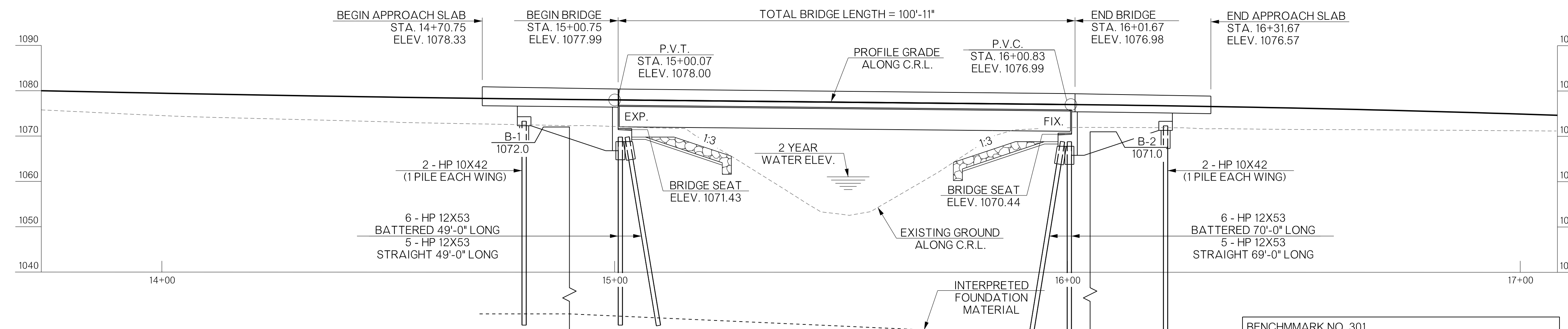
BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SHEET NUMBER **AW01**



PLAN



ELEVATION

BENCHMARK NO. 301 #5 BAR SET FLUSH OFFSET 46.58' RT.	STA. 14+27.45	EL. 1073.40	BENCHMARK NO. 302 #5 BAR SET FLUSH OFFSET 35.13' RT.	STA. 16+07.49	EL. 1070.58
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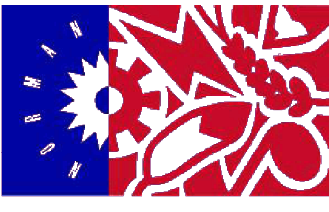
FOR SUBSURFACE
PROFILE, SEE SHEET
NO. B003.



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CA #4193 EXPIRES JUNE 30, 2024

100% PS&E SUBMITTAL

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY,
OKLAHOMA
60TH AVENUE NE
BRIDGE REPLACEMENT
OVER ROCK CREEK

GENERAL PLAN
& ELEVATION
(SHEET 1 OF 2)

CONSTRUCT NEW 100' P.C.
BEAM SPAN W/ CONCRETE
RAIL (TR3) W/ 56'-0" CLEAR
ROADWAY AT @ STRUCTURE
STA. 15+51.21

JOB NO.: 22T28060
DATE: AUGUST 2023
DESIGNED BY: JTR
DRAWN BY: JTR

BAR IS ONE INCH ON
ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER

SHEET
NUMBER B001

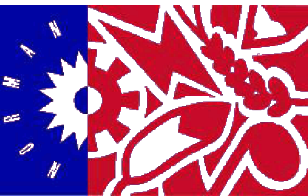


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PROFESSIONAL SERVICES
AGREEMENT FOR THIS WORK.

CA #4193 EXPIRES JUNE 30, 2024

100% PS&E SUBMITTAL

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY,
OKLAHOMA
60TH AVENUE NE
BRIDGE REPLACEMENT
OVER ROCK CREEK

GENERAL PLAN
& ELEVATION
(SHEET 2 OF 2)
CONSTRUCT NEW 100' P.C.
BEAM SPAN W/ CONCRETE
RAIL (TR3) W/ 56'-0" CLEAR
ROADWAY AT & STRUCTURE
STA. 15+51.21

JOB NO.: 22T28060
DATE: MARCH 2023
DESIGNED BY: JTR
DRAWN BY: NBK

BAR IS ONE INCH ON
ORIGINAL DRAWING
0 1'
IF NOT ONE INCH ON THIS SHEET,
ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER

SHEET NUMBER B002

INDEX OF SHEETS

SHEET NO.	TITLE
AB01-AB02	SUMMARY OF PAY QUANTITIES AND NOTES (BRIDGE)
B001-B002	GENERAL PLAN AND ELEVATION
B003	SUBSURFACE PROFILE
B004	STAKING DIAGRAM
B005-B007	ABUTMENT DETAILS
B008	ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS
B009	TYPICAL SECTION
B010	LONGITUDINAL SECTION
B011	DECK LAYOUT
B012	DECK TURNDOWN DETAILS
B013	PARAPET DETAILS
B014	DIAPHRAGM DETAILS
B015	FRAMING PLAN
B016-B017	BEAM DETAILS
B018	BEARING DETAILS
B019-B020	APPROACH SLAB DETAILS
B021	DRAIN DETAILS

STANDARDS

TR3-2-01E
HP1-2-01E
EJ-SQ-04E
EJ-DTL-02E
CB26..32-C..I-SKO..30-GRAU-BC-00E

DESIGN DATA

(LOAD AND RESISTANCE FACTOR DESIGN)

CLASS AA CONCRETE	F'C = 4,000 P.S.I.
CLASS A CONCRETE	F'C = 3,000 P.S.I.
REINFORCING STEEL (GRADE 60)	FY = 60,000 P.S.I.
STRUCTURAL STEEL (M270, GR. 50W)	FY = 50,000 P.S.I.
STRUCTURAL STEEL (PILING) (M270, GR. 50)	FY = 50,000 P.S.I.
STAINLESS STEEL A240 (TYPE 316)	FY = 30,000 P.S.I.

LOADING: HL93 AND 20 P.S.F. FUTURE WEARING SURFACE OR OKLAHOMA OVERLOAD TRUCK, 20 P.S.F. FUTURE WEARING SURFACE, AND 5 P.S.F. STAY-IN-PLACE FORMS.

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION WITH CURRENT INTERIMS.

ANSI/AASHTO/AWS: D1.5 BRIDGE WELDING CODE
ANSI/AASHTO/AWS: D1.6 STRUCTURAL WELDING CODE - STAINLESS STEEL

LFD OPERATING RATING: HS 65.2

FOUNDATION DATA

ABUTMENT CAPS (HP 12X53 PILING) ①

	ABUTMENT NO. 1	ABUTMENT NO. 2
FACTORED PILE REACTION (TONS/PILE)	= 87.8	= 87.8
PILE LENGTH (FEET)	= 49.0	= 69.0

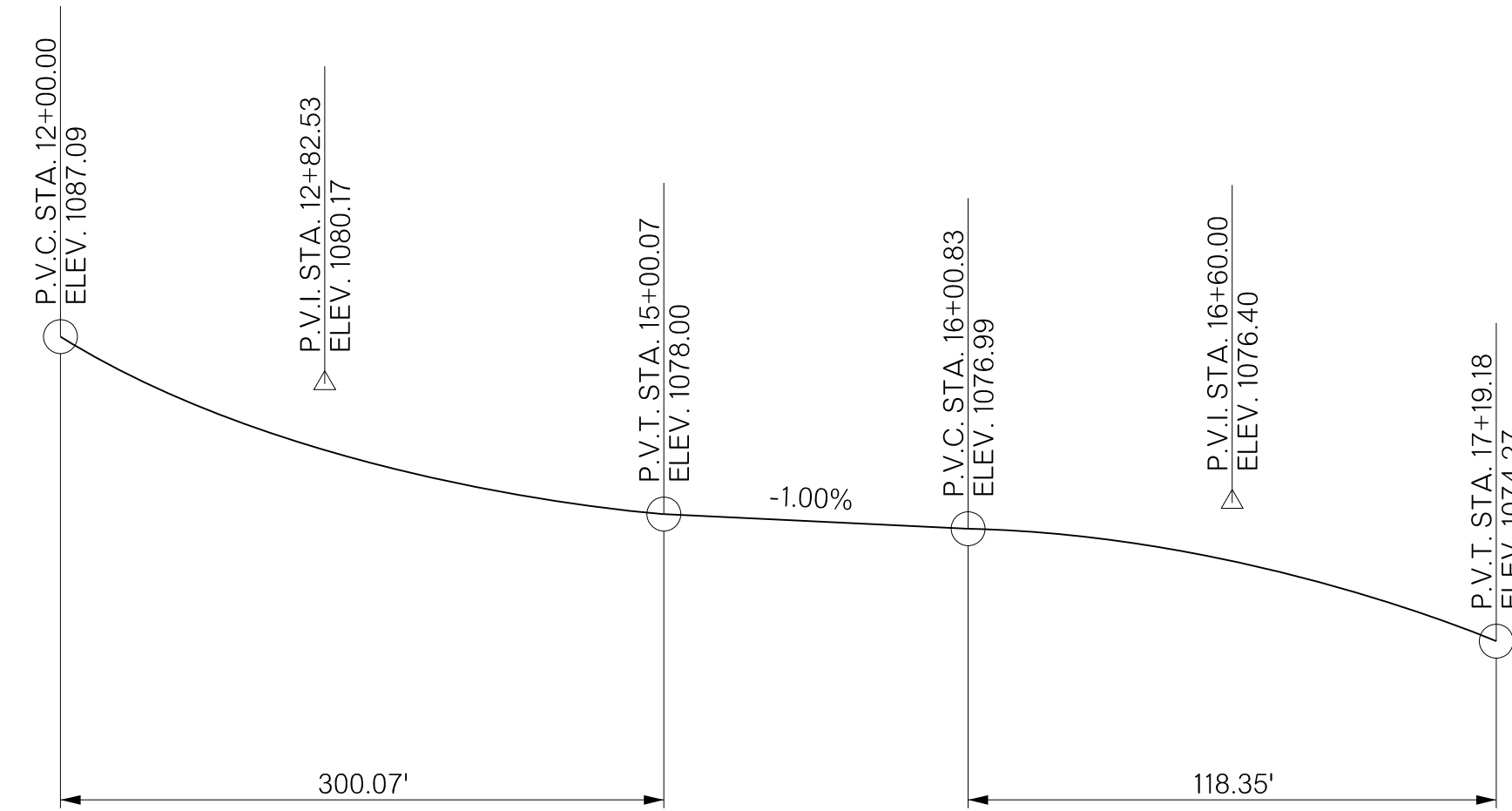
① ALL ABUTMENT PILING SHALL BE DRIVEN THROUGH COMPACTED FILL. PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE AXIAL LOAD RESISTANCE IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE AXIAL LOAD RESISTANCE IS OBTAINED. THE LENGTH OF THE STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

HYDRAULIC SUMMARY

FREQ.	Q (CFS)	CHW (FT)	V (FPS)
2	1,073	1060.91	7.37
5	2,002	1063.59	8.67
10	2,801	1065.36	9.39
25	3,984	1067.54	9.96
50	5,218	1069.49	10.14
100	6,319	1070.82	10.13

SUMMARY OF QUANTITIES

ITEM	UNIT	ABUTMENTS	SUPER-STRUCTURE	APPROACH SLABS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	245.00	-	-	245.00
CLSM BACKFILL	CY	305.80	-	-	305.80
PRESTRESSED CONCRETE BEAMS (TYPE IV)	LF	-	598.00	-	598.00
APPROACH SLAB	SY	-	-	387.80	387.80
SAW-CUT GROOVING	SY	-	627.00	374.00	1,001.00
CONCRETE RAIL (TR3)	LF	-	201.50	120.00	321.50
STRUCTURAL STEEL	LB	-	660.00	-	660.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA	-	6.00	-	6.00
STAINLESS STEEL EXP. BEARING ASSEMBLY	EA	-	6.00	-	6.00
CLASS AA CONCRETE	CY	-	160.30	-	160.30
CLASS A CONCRETE	CY	130.00	-	-	130.00
CLASS C CONCRETE	CY	1.00	-	-	1.00
EPOXY COATED REINFORCING STEEL	LB	20,040.00	44,080.00	-	64,120.00
PILES, FURNISHED (HP 10X42)	LF	248.00	-	-	248.00
PILES, FURNISHED (HP 12X53)	LF	1,298.00	-	-	1,298.00
PILES, DRIVEN (HP 10X42)	LF	248.00	-	-	248.00
PILES, DRIVEN (HP 12X53)	LF	1,298.00	-	-	1,298.00
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	-	-	-	1.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	82.00	341.00	50.00	473.00
ELASTOMERIC COATING	SF	634.00	-	-	634.00
SEALED EXPANSION JOINTS	LF	-	57.80	-	57.80
TYPE I-A PLAIN RIPRAP	TON	880.00	-	-	880.00
TYPE I-A FILTER BLANKET	TON	180.00	-	-	180.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	120.00	-	-	120.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	55.00	-	-	55.00
REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM	-	-	-	1.00



VERTICAL CURVE PROFILE DATA

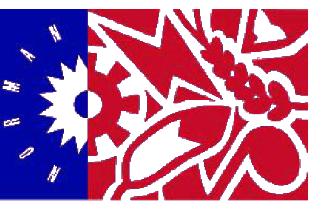


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REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY,
 OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

SUBSURFACE
 PROFILE

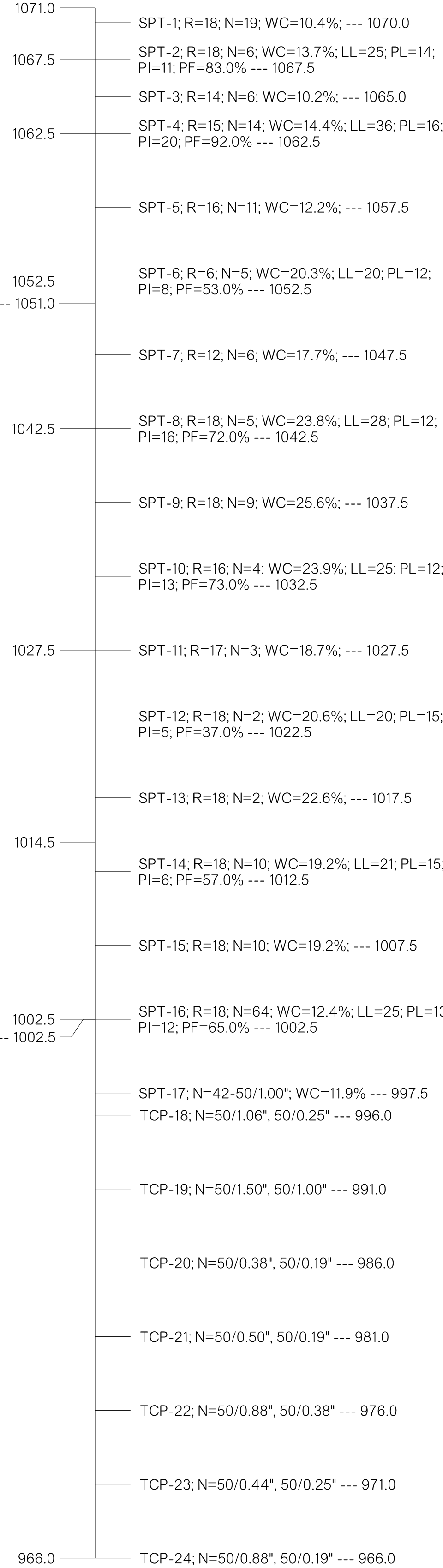
JOB NO.: 22T28060
 DATE: SEPT. 2023
 DESIGNED BY: WDW
 DRAWN BY: WDW

BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1'
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER

SHEET NUMBER B003

BORING NO. B-2
 STA. 16+05.00, 5.00' LT.
 TOTAL DEPTH = 105.0 FT.



CLAYEY SAND (SC)
 BROWNISH RED, MEDIUM DENSE
LEAN CLAY WITH SAND (CL)
 BROWNISH RED, MEDIUM STIFF
 DARK BROWN BELOW 6'

LEAN CLAY (CL)
 DARK BROWN, STIFF

SANDY LEAN CLAY (CL)
 BROWNISH RED, SOFT

DARK BROWN, STIFF BELOW 33.5'

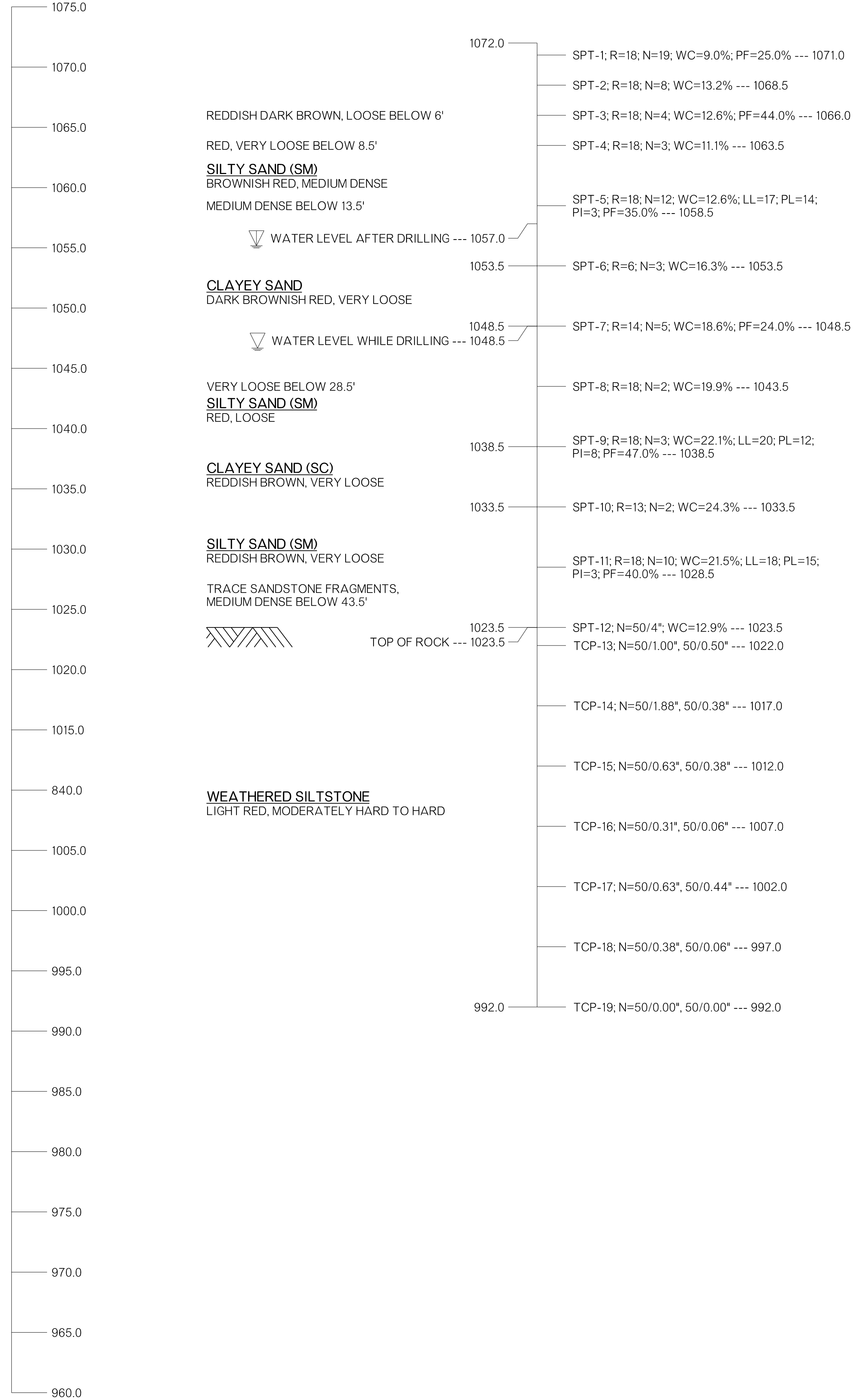
LEAN CLAY WITH SAND (CL)
 REDDISH DARK BROWN, SOFT
 SOFT BELOW 38.5'

SILTY CLAYEY SAND (SC-SM)
 DARK BROWN, VERY LOOSE

SANDY SILTY CLAY (CL-ML)
 BROWNISH RED, STIFF

WEATHERED SILTSTONE
 BROWNISH RED, SOFT TO HARD

BORING NO. B-1
 STA. 14+90.00, 10.00' RT.
 TOTAL DEPTH = 80.0 FT.



REDDISH DARK BROWN, LOOSE BELOW 6'

RED, VERY LOOSE BELOW 8.5'

SILTY SAND (SM)
 BROWNISH RED, MEDIUM DENSE
 MEDIUM DENSE BELOW 13.5'

CLAYEY SAND
 DARK BROWNISH RED, VERY LOOSE

VERY LOOSE BELOW 28.5'
SILTY SAND (SM)
 RED, LOOSE

CLAYEY SAND (SC)
 REDDISH BROWN, VERY LOOSE

SILTY SAND (SM)
 REDDISH BROWN, VERY LOOSE

TRACE SANDSTONE FRAGMENTS,
 MEDIUM DENSE BELOW 43.5'

WEATHERED SILTSTONE
 LIGHT RED, MODERATELY HARD TO HARD

LEGEND

SPT = STANDARD PENETRATION TEST, ASTM D1586
 N = NUMBER OF BLOWS PER 12 INCHES
 WC = WATER CONTENT
 LL = LIQUID LIMIT
 PI = PLASTICITY INDEX
 PF = PERCENT FINES
 TCP = TEXAS CONE PENETROMETER

= WATER LEVEL WHILE DRILLING OR SAMPLING
 = WATER LEVEL AFTER DRILLING

= TOP OF ROCK

NOTES:
 WATER LEVEL ELEVATIONS SHOWN WERE OBTAINED AT THE TIME THE BORINGS WERE DRILLED AND MAY FLUCTUATE THROUGHOUT THE YEAR.

TOP OF ROCK LINE SHOWN FOR ESTIMATING PURPOSES ONLY.

ROCK CLASSIFICATION IS BASED ON DRILLING CHARACTERISTICS AND VISUAL OBSERVATION OF ROCK CORE SAMPLES. PETROGRAPHIC ANALYSIS OF THIN SECTIONS OF THE ROCK CORE SAMPLES MAY REVEAL OTHER TYPES.

GEOTECHNICAL REPORT

ALL GEOTECHNICAL INFORMATION CONTAINED ON THIS SHEET IS COVERED BY THE ENGINEERING SEAL AFFIXED TO AN ORIGINAL GEOTECHNICAL ENGINEERING REPORT THAT HAS BEEN STAMPED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN OKLAHOMA. TO OBTAIN A COPY OF THE COMPLETE REPORT, CONTACT THE CITY OF NORMAN PUBLIC WORKS DEPARTMENT AT (405) 366-5452. THE CONTRACTOR SHOULD BE FULLY AWARE OF THE SITE CONDITIONS PRIOR TO BEGINNING WORK. ANY ADDITIONAL GEOTECHNICAL INFORMATION WHICH MAY BE DESIRED IS THE RESPONSIBILITY OF THE CONTRACTOR.

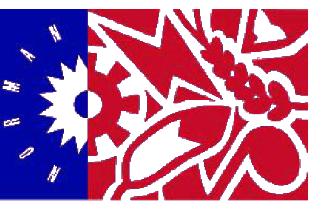


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CA #4193 EXPIRES JUNE 30, 2024

100% PS&E SUBMITTAL

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY, OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

STAKING DIAGRAM

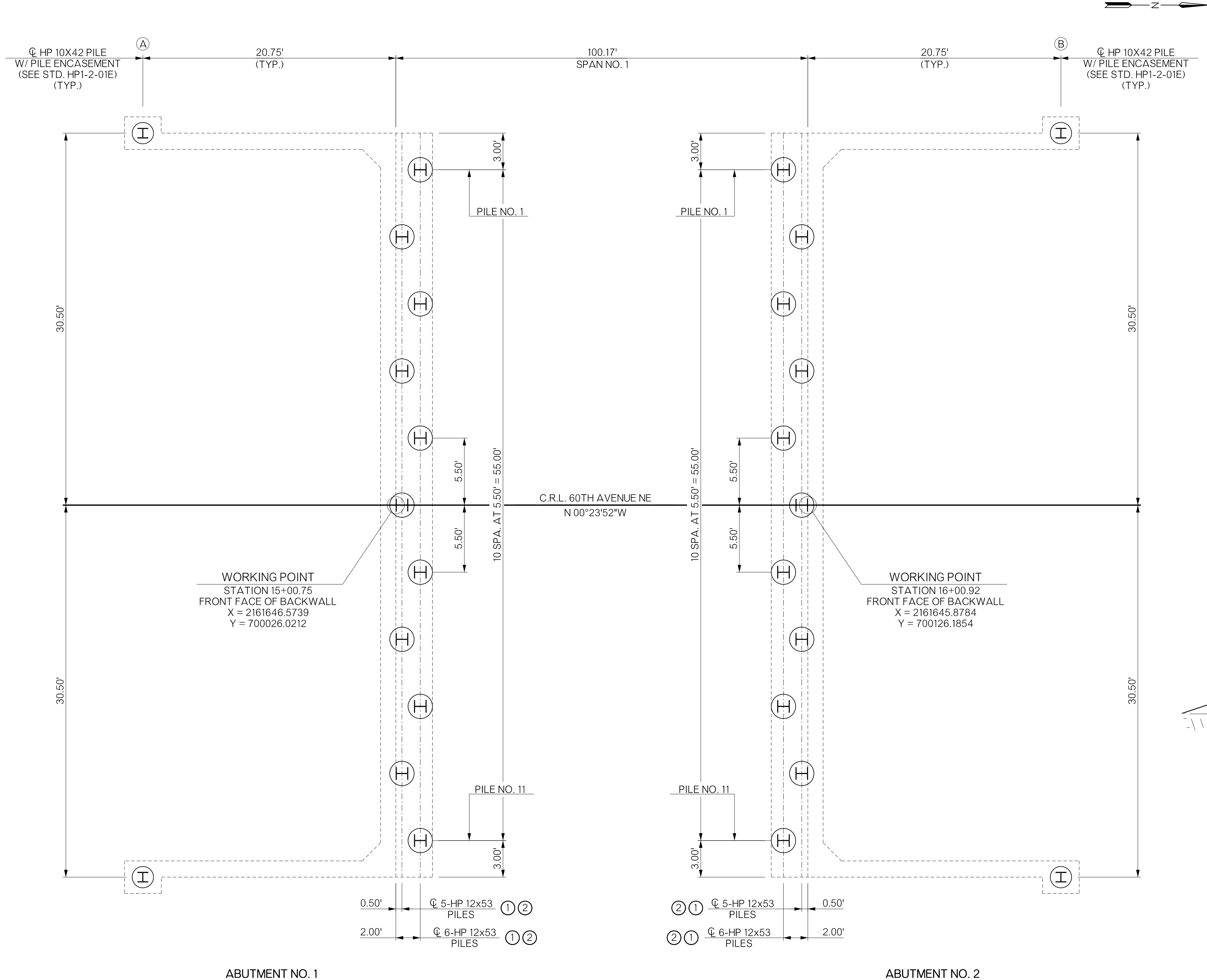
JOB NO.: 22T28060
 DATE: SEPT. 2023
 DESIGNED BY: JTR
 DRAWN BY: SJL

BAR IS ONE INCH ON ORIGINAL DRAWING
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DRAWING NUMBER

SHEET NUMBER B004



SUBSTRUCTURE STAKING DIAGRAM

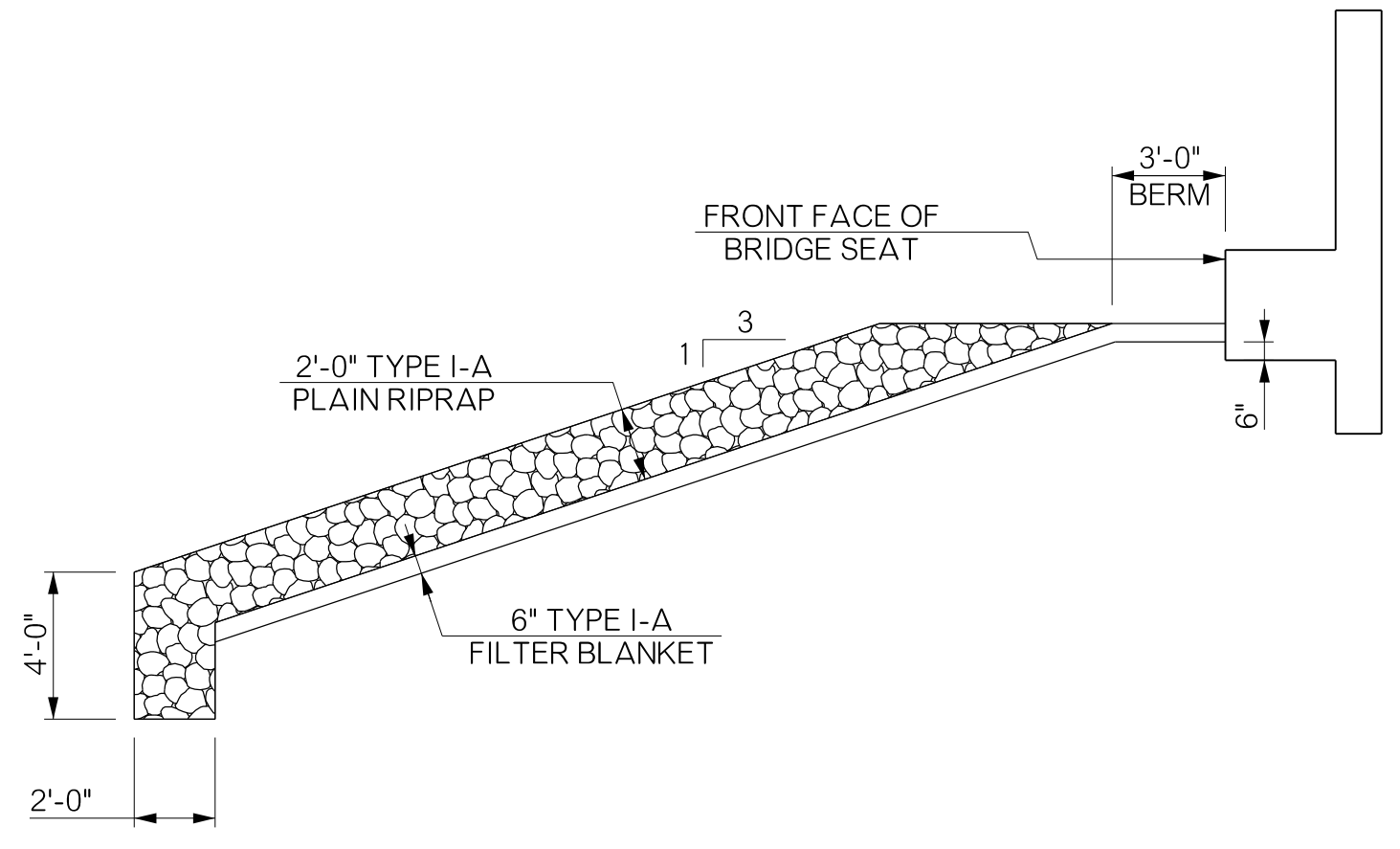
TOP OF PILE SCHEDULE AT ABUTMENT NO. 1

PILE	ELEVATION
A	1073.27
CAP	1069.76

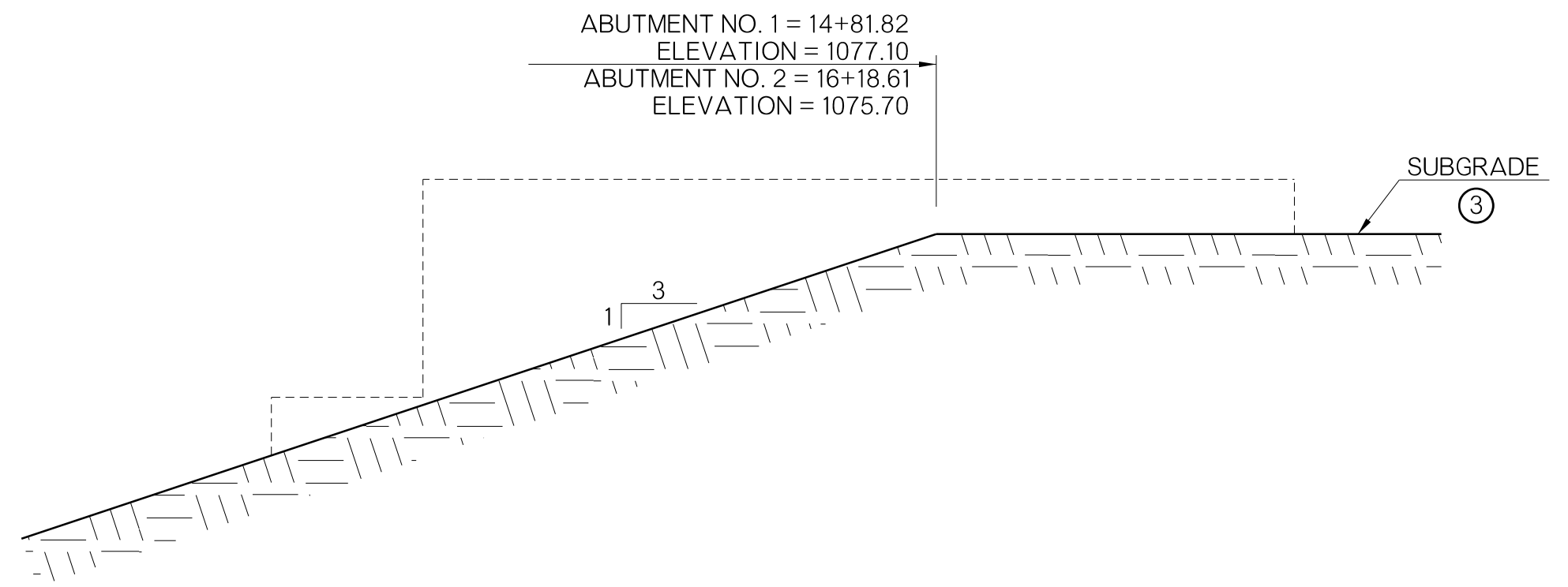
- ① WITH PILE ENCASEMENT. FOR DETAILS SEE STD. HP1-2-01E. TYPICAL AT ALL PILE LOCATIONS.
- ② FACE OF PILE WEB SHALL BE PERPENDICULAR TO FACE OF BRIDGE SEAT.

TOP OF PILE SCHEDULE AT ABUTMENT NO. 2

PILE	ELEVATION
B	1072.28
CAP	1068.77



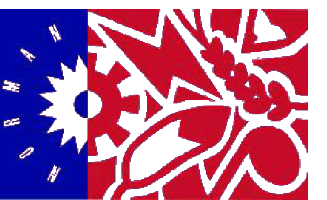
TYPICAL SECTION THRU RIPRAP AT BRIDGE SEAT
 (DIMENSIONS ARE NORMAL TO BRIDGE SEAT)



DETAIL OF GRADING
 (SLOPE SHOWN TO BE SHAPED BY THE GRADING CONTRACTOR)

③ SUBGRADE LINE ASSUMED TO BE LOCATED 1'-1" BELOW FINISH GRADE LINE FOR COMPUTING SUBGRADE QUANTITY SHOWN IN THE PLANS. THE CITY WILL PAY FOR SUBGRADE IN ACCORDANCE WITH THE PLAN QUANTITY AND NO ADJUSTMENT WILL BE MADE FOR ACTUAL LOCATION OF SUBGRADE LINE.

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY, OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

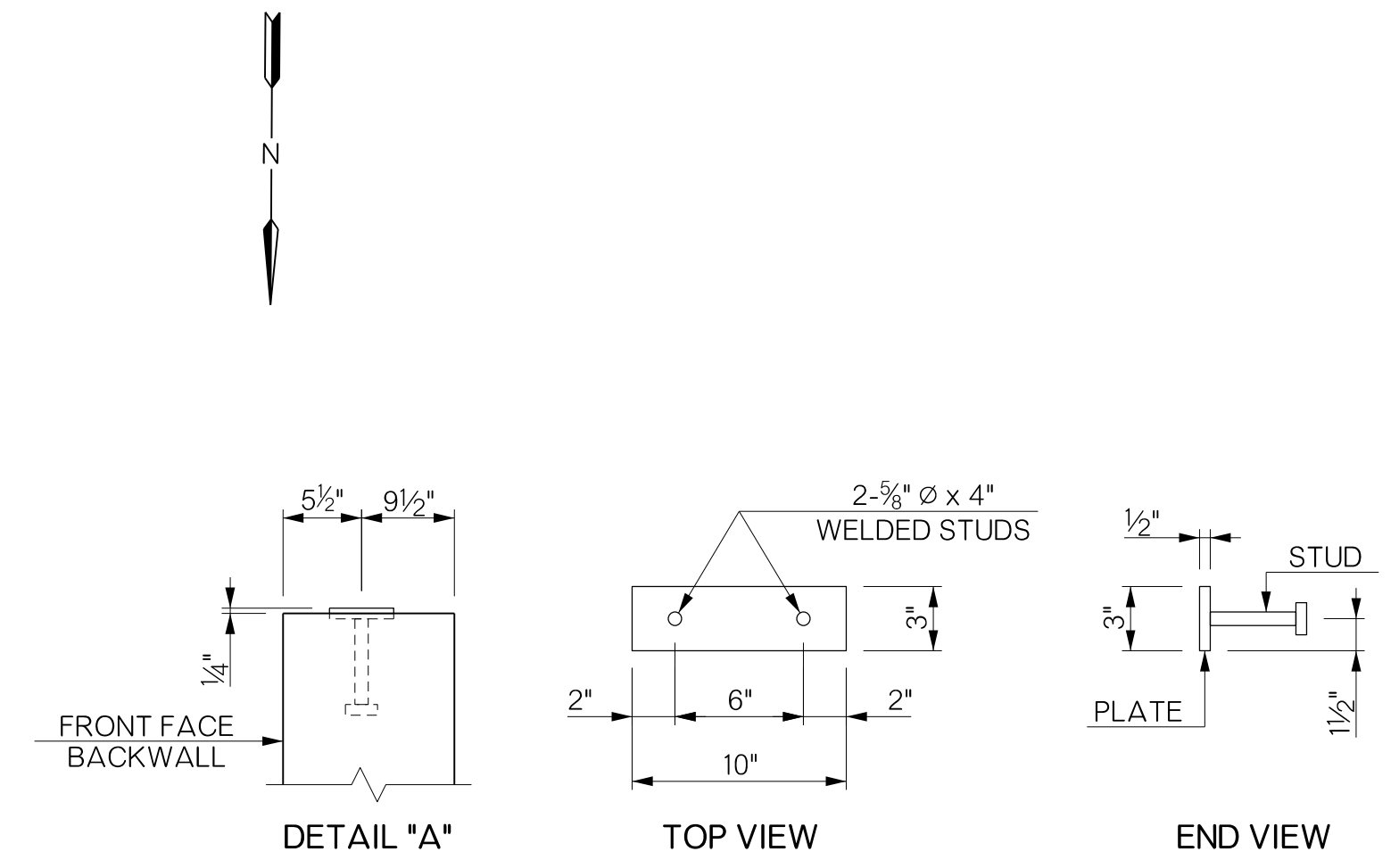
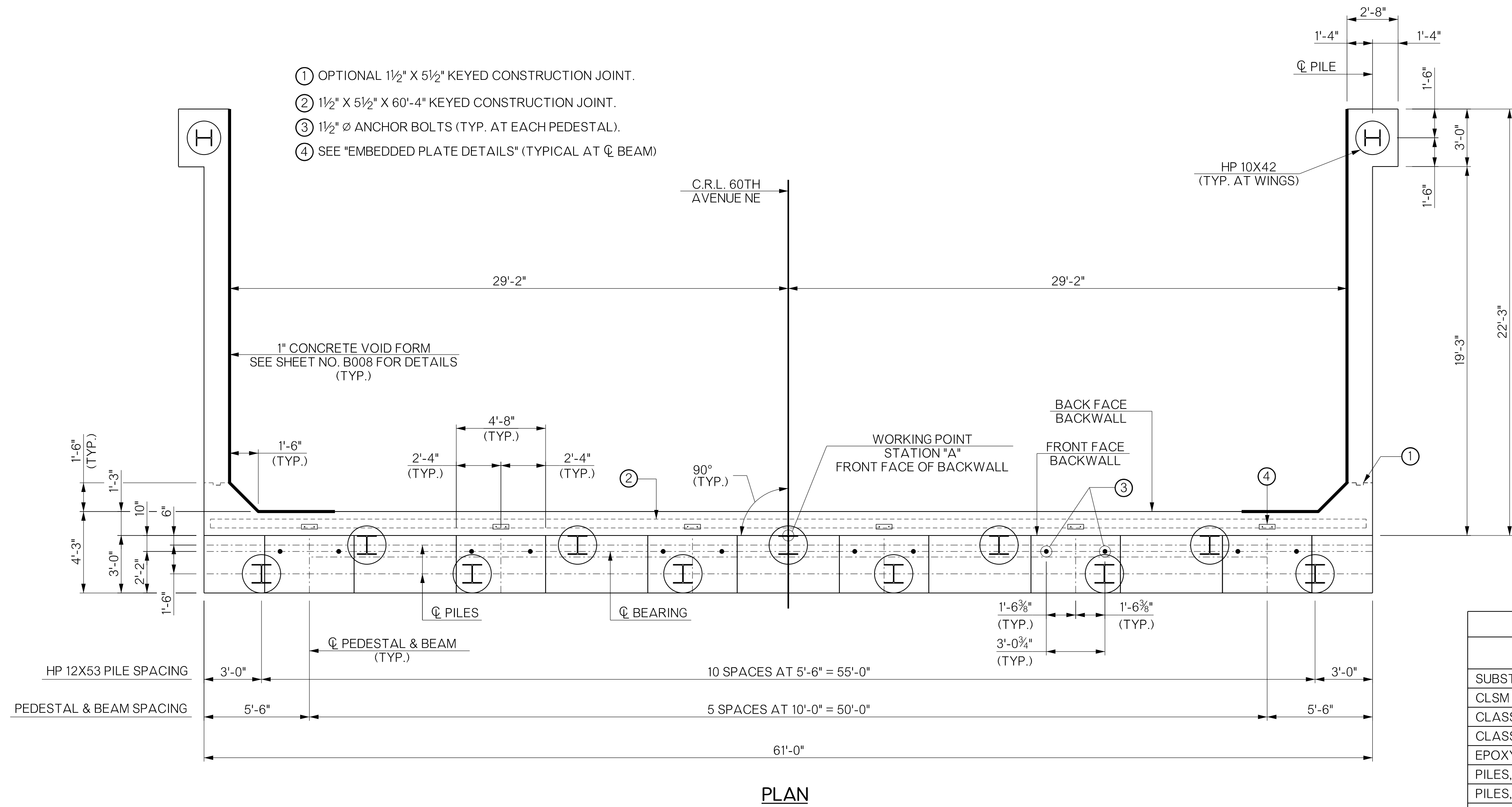
ABUTMENT
 DETAILS
 (SHEET 1 OF 3)

JOB NO.: 22T28060
 DATE: SEPT. 2023
 DESIGNED BY: JTR
 DRAWN BY: WDW

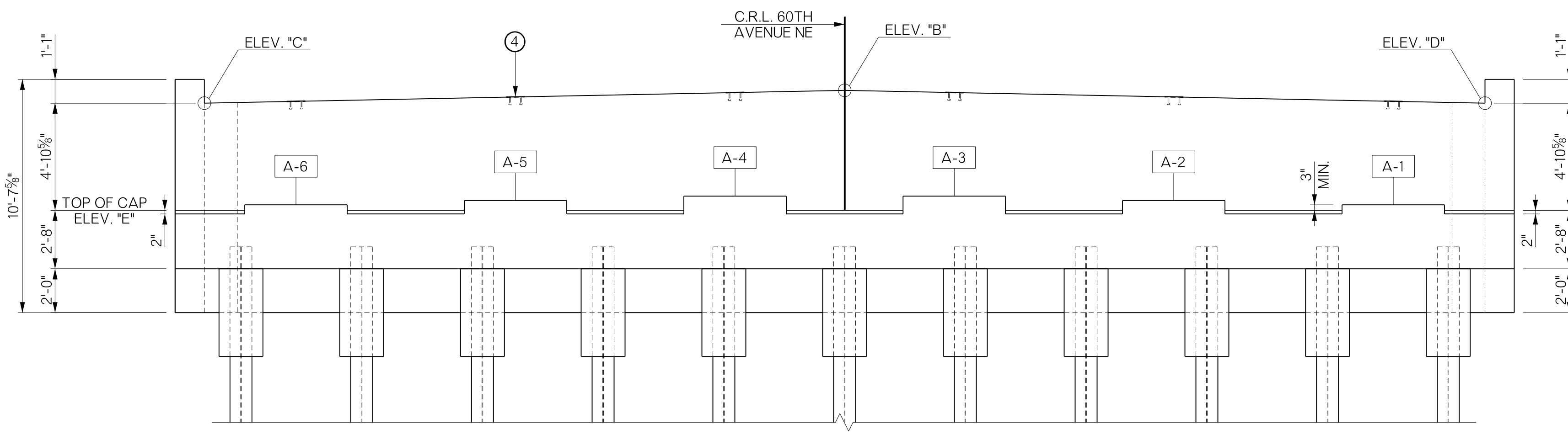
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SHEET NUMBER B005



ITEM	UNIT	ABUT. NO. 1	ABUT. NO. 2	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	125.00	120.00	245.00
CLSM BACKFILL	CY	155.80	150.00	305.80
CLASS A CONCRETE	CY	65.30	64.70	130.00
CLASS C CONCRETE	CY	0.50	0.50	1.00
EPOXY COATED REINFORCING STEEL	LB	10,120.00	9,920.00	20,040.00
PILES, FURNISHED (HP 10X42)	LF	104.00	144.00	248.00
PILES, FURNISHED (HP 12X53)	LF	539.00	759.00	1,298.00
PILES, DRIVEN (HP 10X42)	LF	104.00	144.00	248.00
PILES, DRIVEN (HP 12X53)	LF	539.00	759.00	1,298.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	41.00	41.00	82.00
ELASTOMERIC COATING	SF	317.00	317.00	634.00
TYPE I-A PLAIN RIPRAP	TON	380.00	500.00	880.00
TYPE I-A FILTER BLANKET	TON	80.00	100.00	180.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	60.00	60.00	120.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	22.00	33.00	55.00



ABUT. NO.	A-1	A-2	A-3	A-4	A-5	A-6
1	1071.68	1071.88	1072.08	1072.08	1071.88	1071.68
2	1070.69	1070.89	1071.09	1071.09	1070.89	1070.69

ABUT. NO.	STA. "A"	ELEV. "B"	ELEV. "C"	ELEV. "D"	ELEV. "E"
1	15+00.75	1076.90	1076.32	1076.32	1071.43
2	16+00.92	1075.91	1075.32	1075.32	1070.44

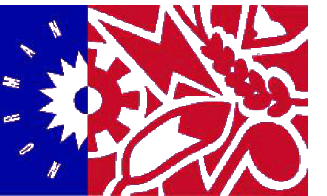


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REV.	DATE	DESCRIPTION



CLEVELAND COUNTY, OKLAHOMA
60TH AVENUE NE
BRIDGE REPLACEMENT
OVER ROCK CREEK

ABUTMENT DETAILS
(SHEET 2 OF 3)

JOB NO.: 22T28060
DATE: SEPT. 2023
DESIGNED BY: JTR
DRAWN BY: WDW

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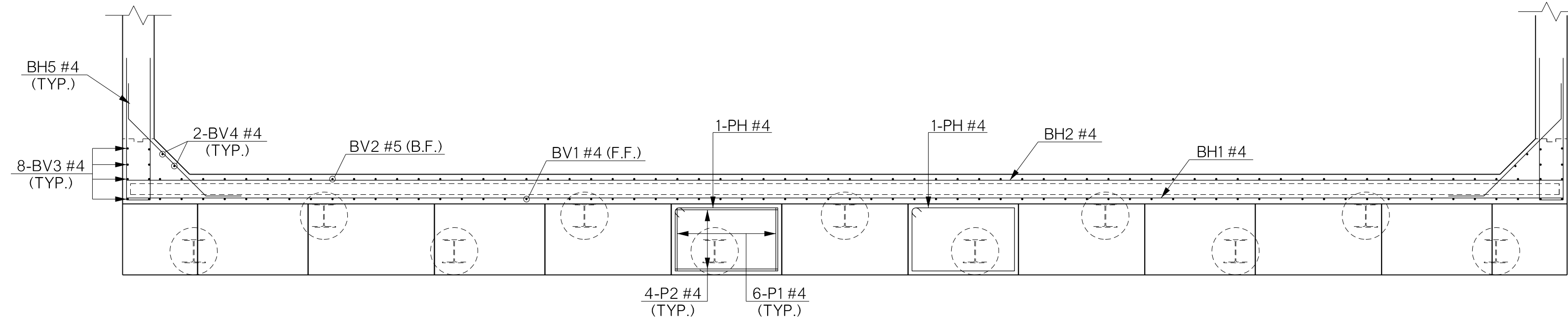
DRAWING NUMBER

SHEET NUMBER B006

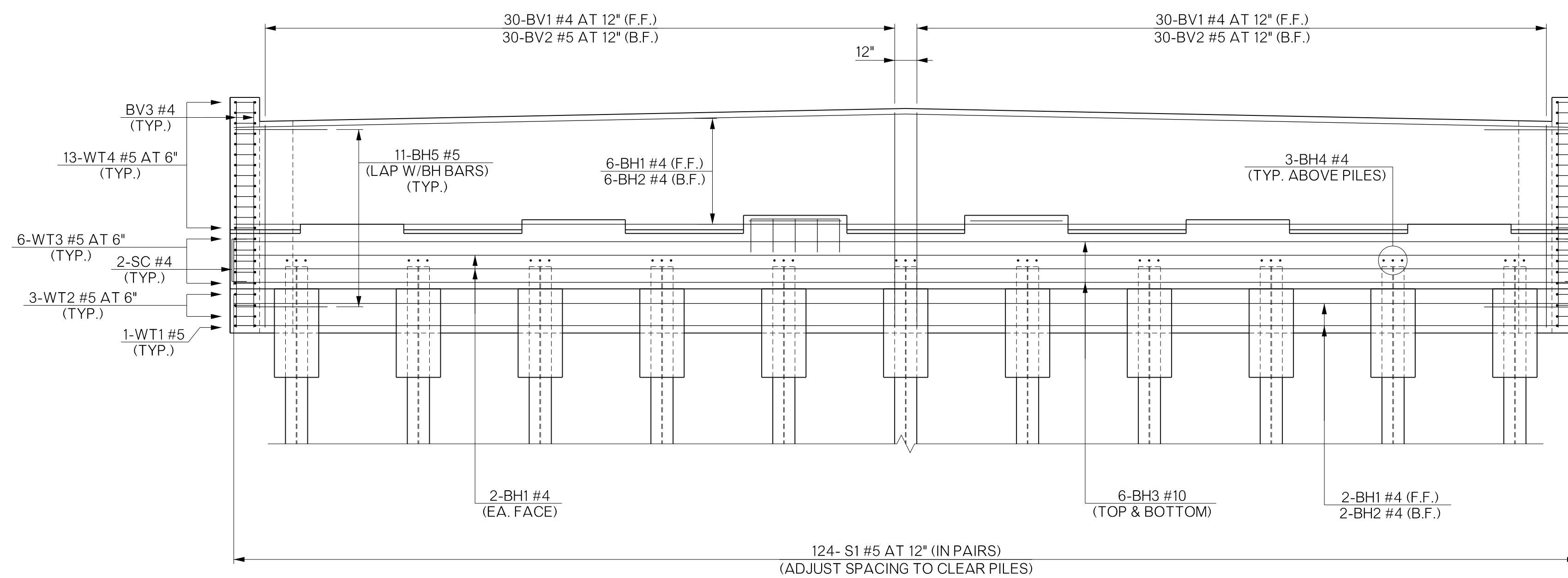
BAR LIST - ABUTMENT NO. 1						
MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION	
EPOXY COATED REINFORCING STEEL						
①	BH1	#4	12	STR.	62'-10"	
①	BH2	#4	8	BENT	64'-2"	
②	BH3	#10	12	STR.	69'-0"	
②	BH4	#4	33	BENT	5'-1"	
②	BH5	#5	22	BENT	7'-10"	
③	BV1	#4	60	STR.	9'-4½" AVG.	9'-1" TO 9'-8"
③	BV2	#5	60	STR.	9'-4½" AVG.	9'-1" TO 9'-8"
③	BV3	#4	16	STR.	10'-2"	-
③	BV4	#4	4	STR.	9'-1"	-
③	BV5	#5	60	BENT	3'-0"	-
③	P1	#4	36	BENT	5'-7"	-
③	P2	#4	24	BENT	7'-3"	-
③	PH	#4	2	BENT	14'-9"	-
③	S1	#5	124	BENT	11'-3"	-
③	SC	#4	4	BENT	3'-3"	-
④	WT1	#5	2	BENT	11'-10"	-
④	WT2	#5	6	BENT	12'-0" AVG.	9'-0" TO 15'-0"
④	WT3	#5	12	BENT	18'-0"	-
④	WT4	#5	26	BENT	12'-0"	-

BAR LIST - ABUTMENT NO. 2						
MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION	
EPOXY COATED REINFORCING STEEL						
①	BH1	#4	12	STR.	62'-10"	
①	BH2	#4	8	BENT	64'-2"	
②	BH3	#10	12	STR.	69'-0"	
②	BH4	#4	33	BENT	5'-1"	
②	BH5	#5	22	BENT	7'-10"	
③	BV1	#4	60	STR.	9'-4½" AVG.	9'-1" TO 9'-8"
③	BV2	#5	60	STR.	9'-4½" AVG.	9'-1" TO 9'-8"
③	BV3	#4	16	STR.	10'-2"	-
③	BV4	#4	4	STR.	9'-1"	-
③	P1	#4	36	BENT	5'-7"	-
③	P2	#4	24	BENT	7'-3"	-
③	PH	#4	2	BENT	14'-9"	-
③	S1	#5	124	BENT	11'-3"	-
③	SC	#4	4	BENT	3'-3"	-
④	WT1	#5	2	BENT	11'-10"	-
④	WT2	#5	6	BENT	12'-0" AVG.	9'-0" TO 15'-0"
④	WT3	#5	12	BENT	18'-0"	-
④	WT4	#5	26	BENT	12'-0"	-

- ① INCLUDES ONE 2'-2" LAP LENGTH
- ② INCLUDES ONE 8'-4" LAP LENGTH
- ③ 2 SETS OF 30
- ④ 2 SETS OF 3

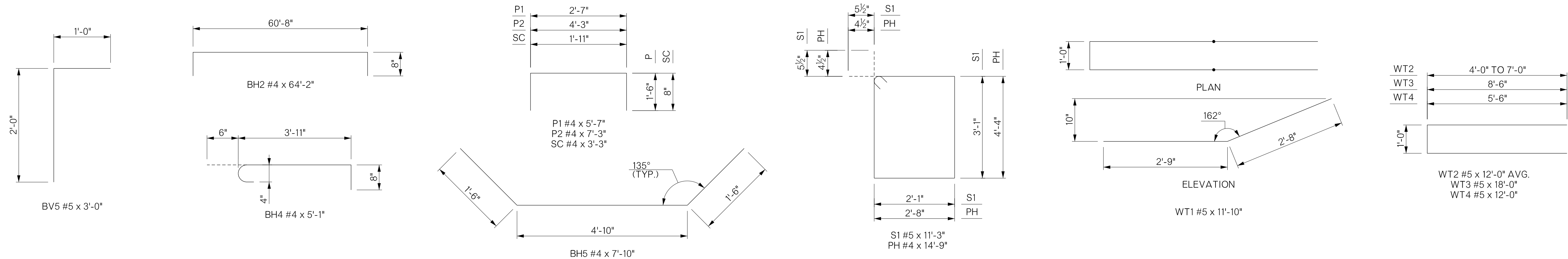


LAYOUT OF ABUTMENT REINFORCING STEEL

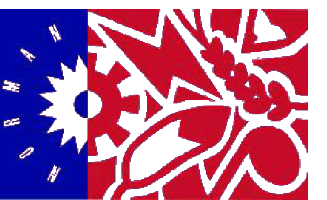


ELEVATION VIEW OF REINFORCING STEEL

(ABUTMENT NO. 1 LOOKING BACK STATION SHOWN; ABUTMENT NO. 2 LOOKING FORWARD STATION SIMILAR BUT OPPOSITE HAND)



REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY, OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

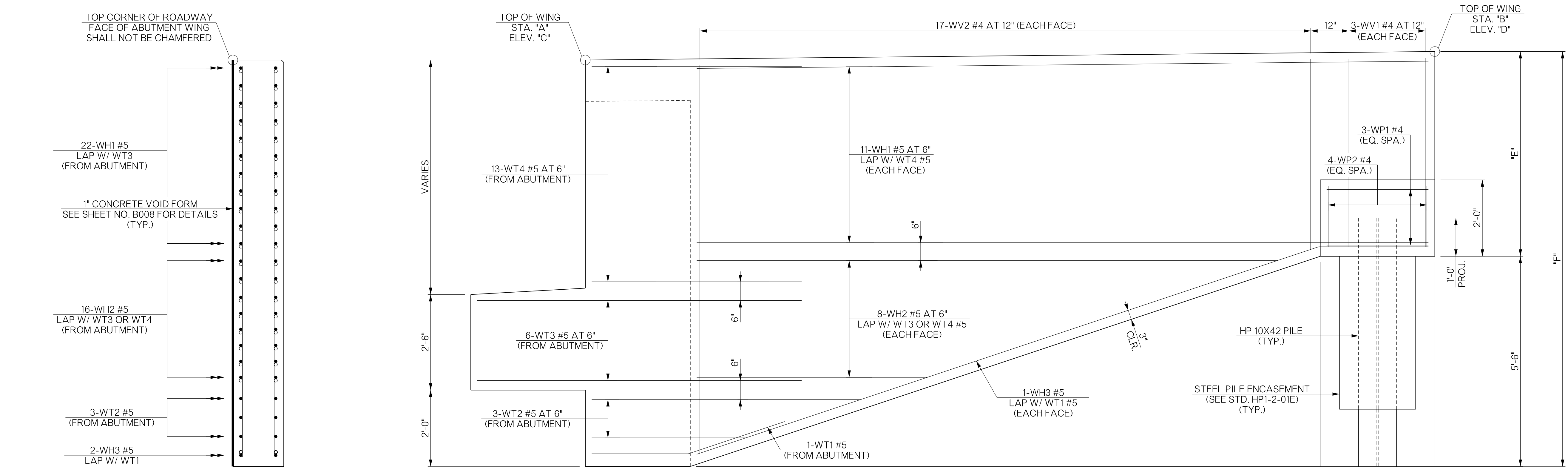
ABUTMENT
 DETAILS
 (SHEET 3 OF 3)

JOB NO.: 22T28060
 DATE: SEPT. 2023
 DESIGNED BY: WDW
 DRAWN BY: WDW

BAR IS ONE INCH ON ORIGINAL DRAWING
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

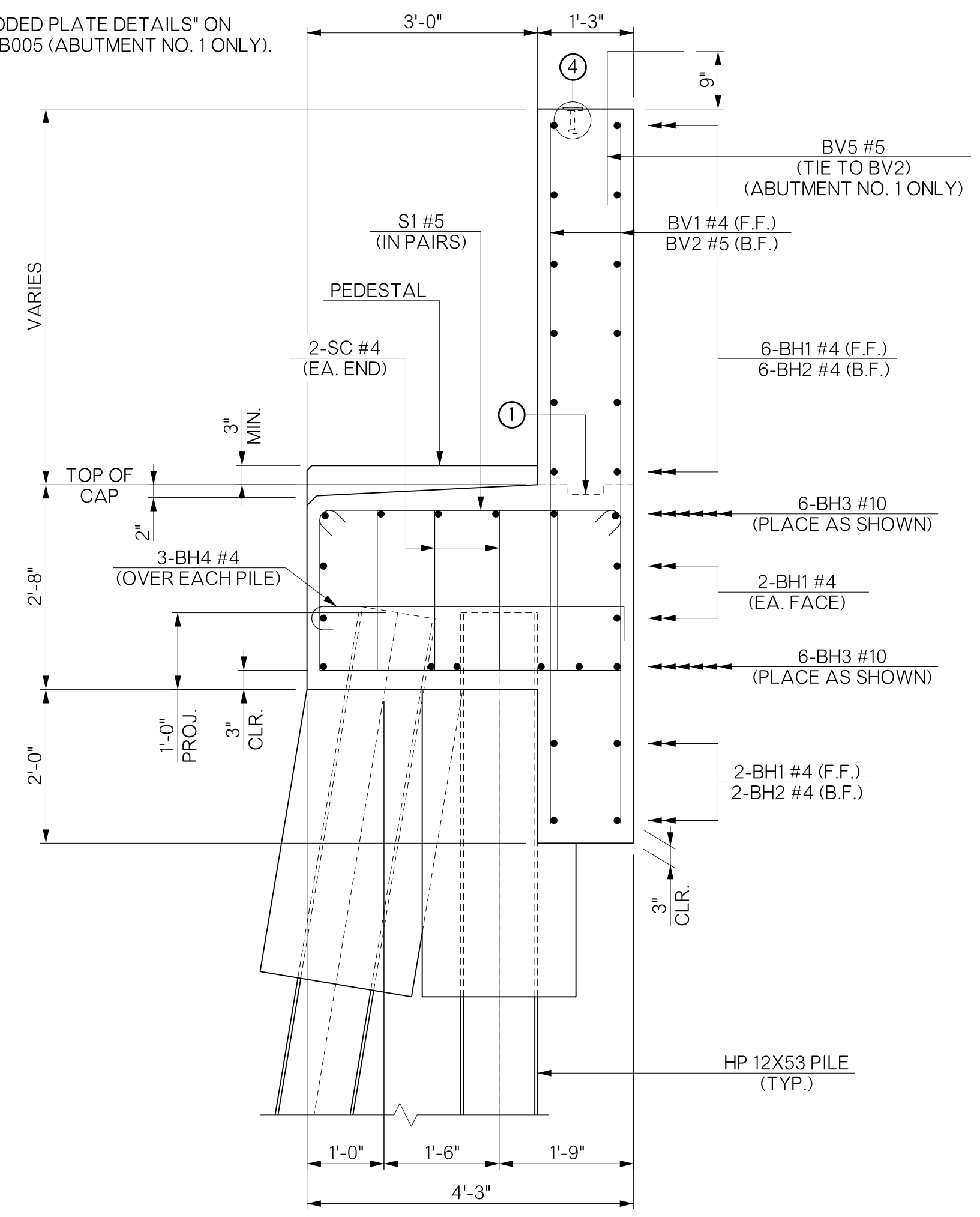
DRAWING NUMBER

SHEET NUMBER B007



SECTION THRU WING AT BACK FACE OF BACKWALL

④ SEE "EMBEDDED PLATE DETAILS" ON SHEET NO. B005 (ABUTMENT NO. 1 ONLY).



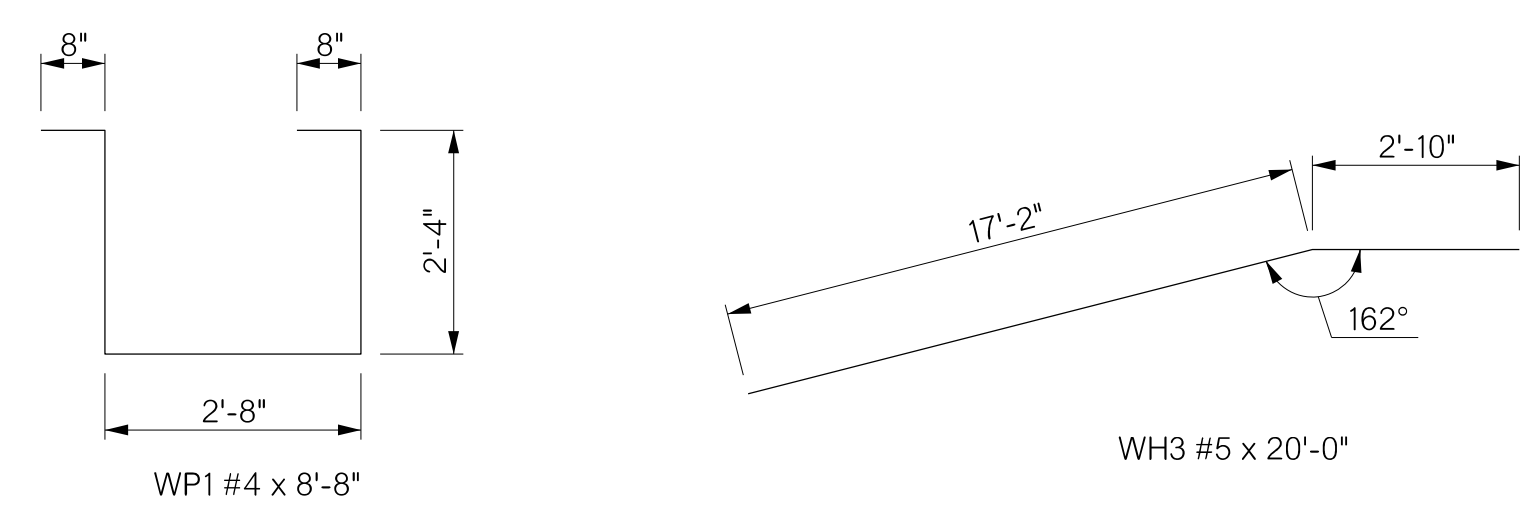
TYPICAL SECTION THRU ABUTMENT

① KEYED CONSTRUCTION JOINT.

WINGWALL - TABLE OF VARIABLES

LOCATION	STA. "A"	STA. "B"	ELEV. "C"	ELEV. "D"	LENGTH "E"	LENGTH "F"
ABUTMENT NO. 1	15+00.75	14+78.50	1077.40	1077.66	5'-4 ⁵ / ₈ "	10'-10 ⁵ / ₈ "
ABUTMENT NO. 2	16+00.92	16+23.17	1076.41	1076.13	4'-10 ¹ / ₄ "	10'-4 ¹ / ₄ "

ABUTMENT WING ELEVATION



BAR LIST - ABUTMENT NO. 1 WING ①

MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
EPOXY COATED REINFORCING STEEL					
WH1	#5	22	STR.	19'-2"	-
WH2	#5	16	STR.	10'-7" AVG.	6'-0" TO 15'-2"
WH3	#5	2	BENT	20'-0"	-
WP1	#4	3	BENT	8'-8"	-
WP2	#4	4	STR.	1'-7"	-
WV1	#4	6	STR.	4'-11"	-
WV2	#4	34	STR.	7'-6" AVG.	4'-11" TO 10'-1"

- ① ONE SHOWN, TWO REQUIRED
- ② 2 SETS OF 8
- ③ 2 SETS OF 17

BAR LIST - ABUTMENT NO. 2 WING ①

MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
EPOXY COATED REINFORCING STEEL					
WH1	#5	22	STR.	19'-2"	-
WH2	#5	16	STR.	10'-7" AVG.	6'-0" TO 15'-2"
WH3	#5	2	BENT	20'-0"	-
WP1	#4	3	BENT	8'-8"	-
WP2	#4	4	STR.	1'-7"	-
WV1	#4	6	STR.	4'-5"	-
WV2	#4	34	STR.	7'-3 ¹ / ₂ " AVG.	4'-6" TO 10'-1"

- ② 2 SETS OF 8
- ③ 2 SETS OF 17



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 CA #4193 EXPIRES JUNE 30, 2024

100% PS&E SUBMITTAL

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY, OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

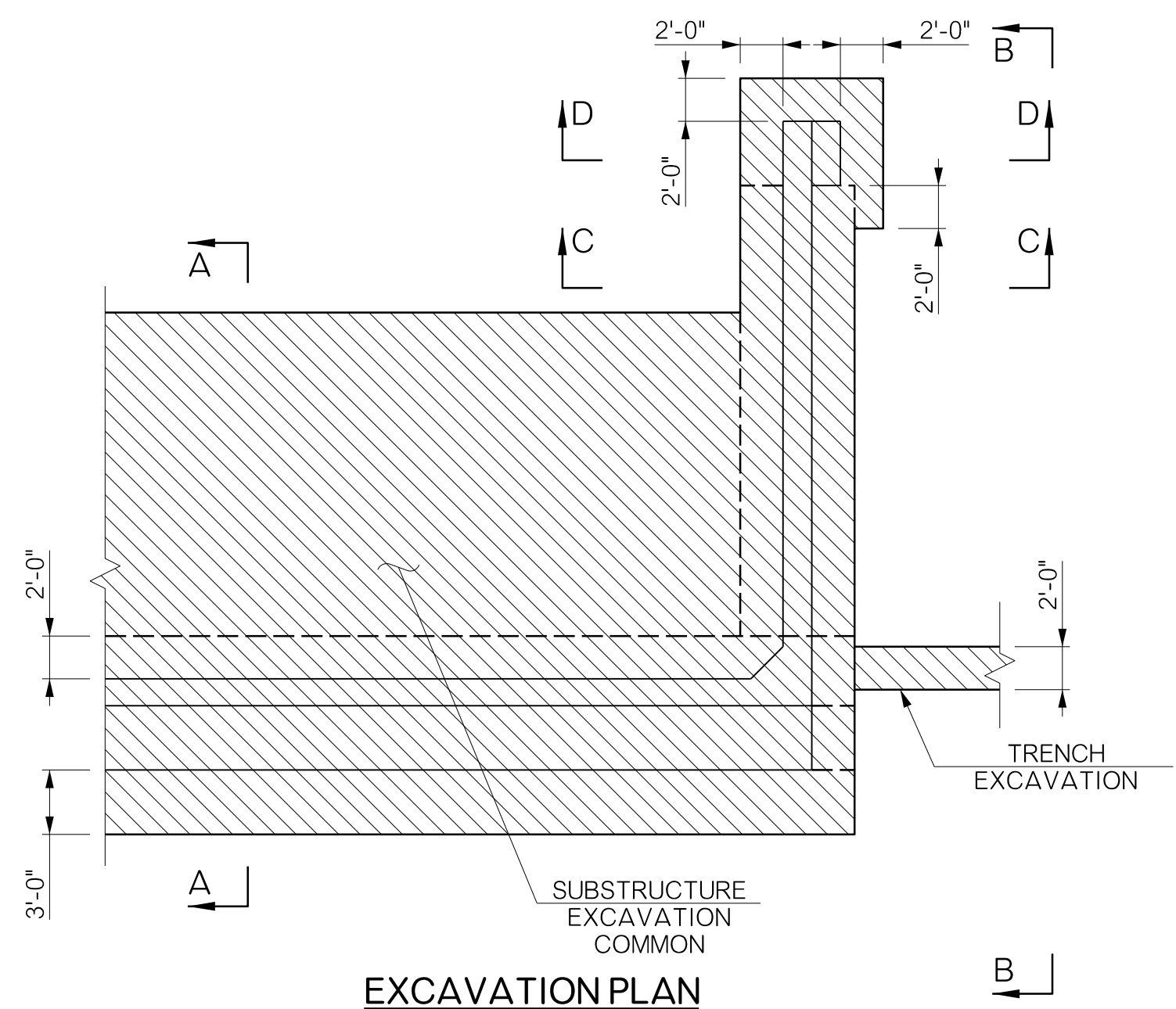
ABUTMENT EXCAVATION AND UNDERDRAIN DETAILS

JOB NO.: 22T28060
 DATE: SEPT. 2023
 DESIGNED BY: WDW
 DRAWN BY: WDW

BAR IS ONE INCH ON ORIGINAL DRAWING
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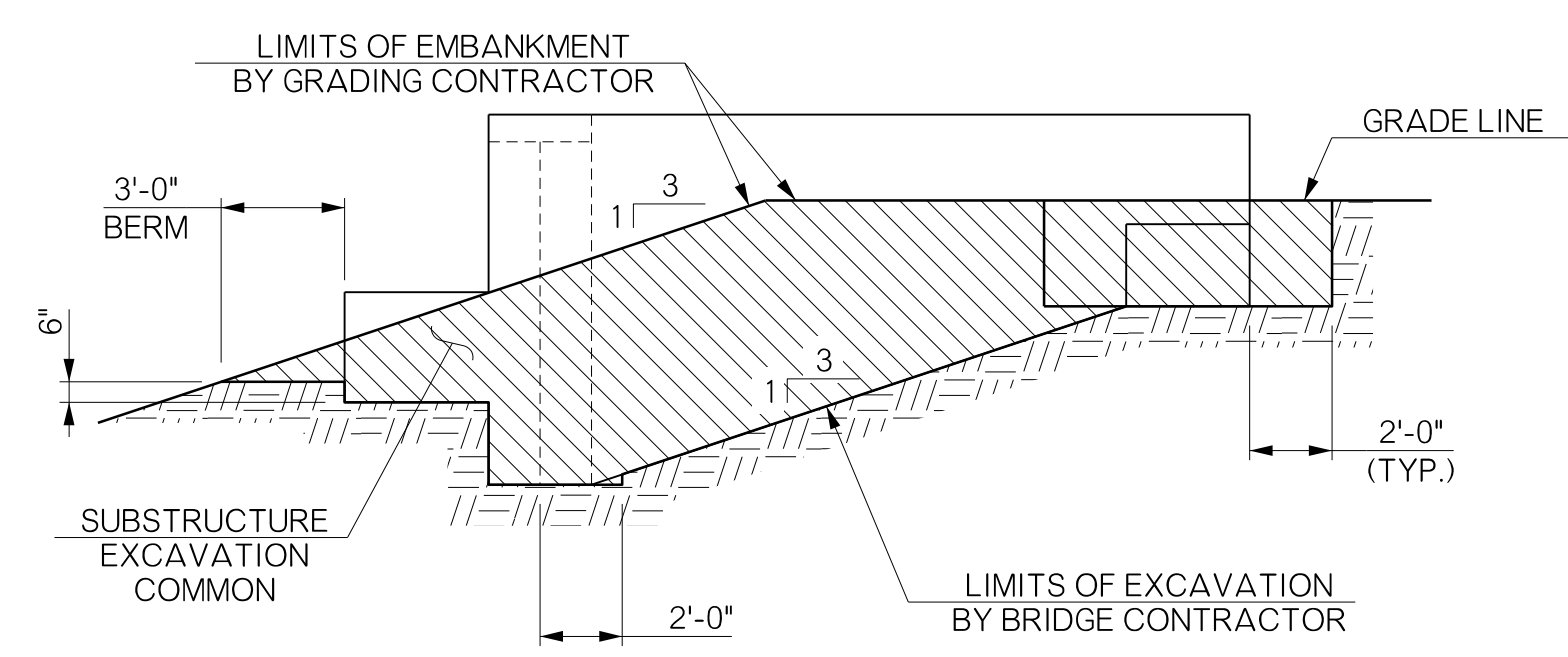
DRAWING NUMBER

SHEET NUMBER B008

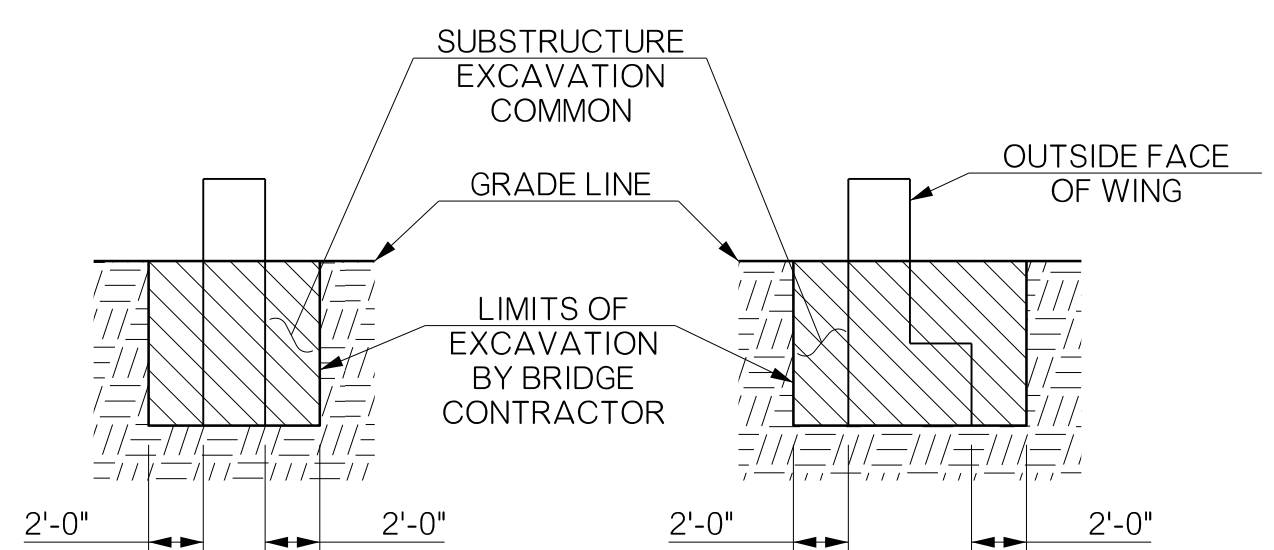


EXCAVATION PLAN

NOTE:
 THE CONTRACTOR MAY PLACE CONCRETE AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, USE FORMS ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVE FORMS AFTER CONCRETE HARDENS. IF THE CONTRACTOR CHOOSES TO PLACE CONCRETE AGAINST THE SOIL, THE CITY WILL PAY FOR "SUBSTRUCTURE EXCAVATION COMMON" IN ACCORDANCE WITH THE DIAGRAM SHOWN ON THE PLANS.

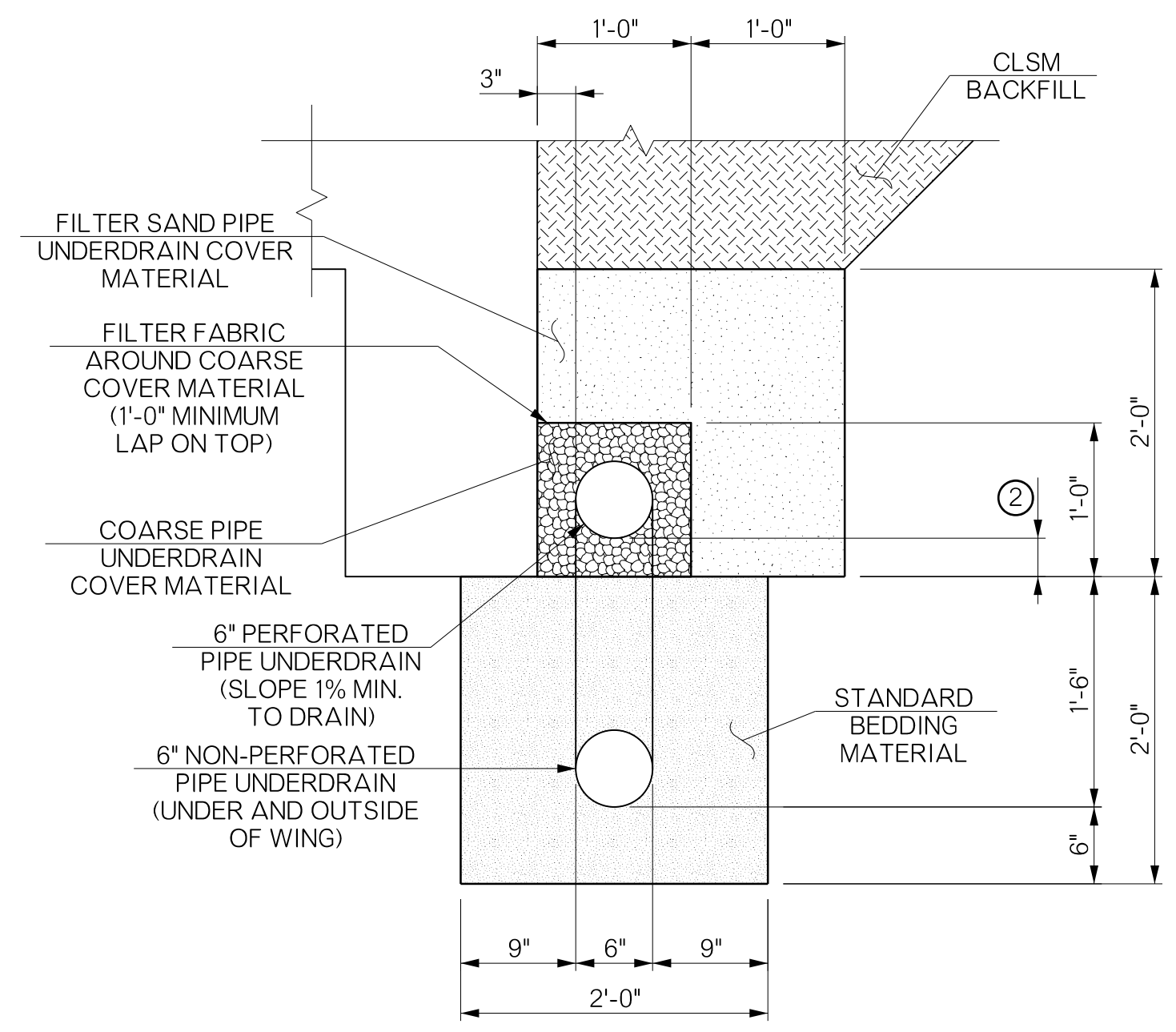


SECTION B-B



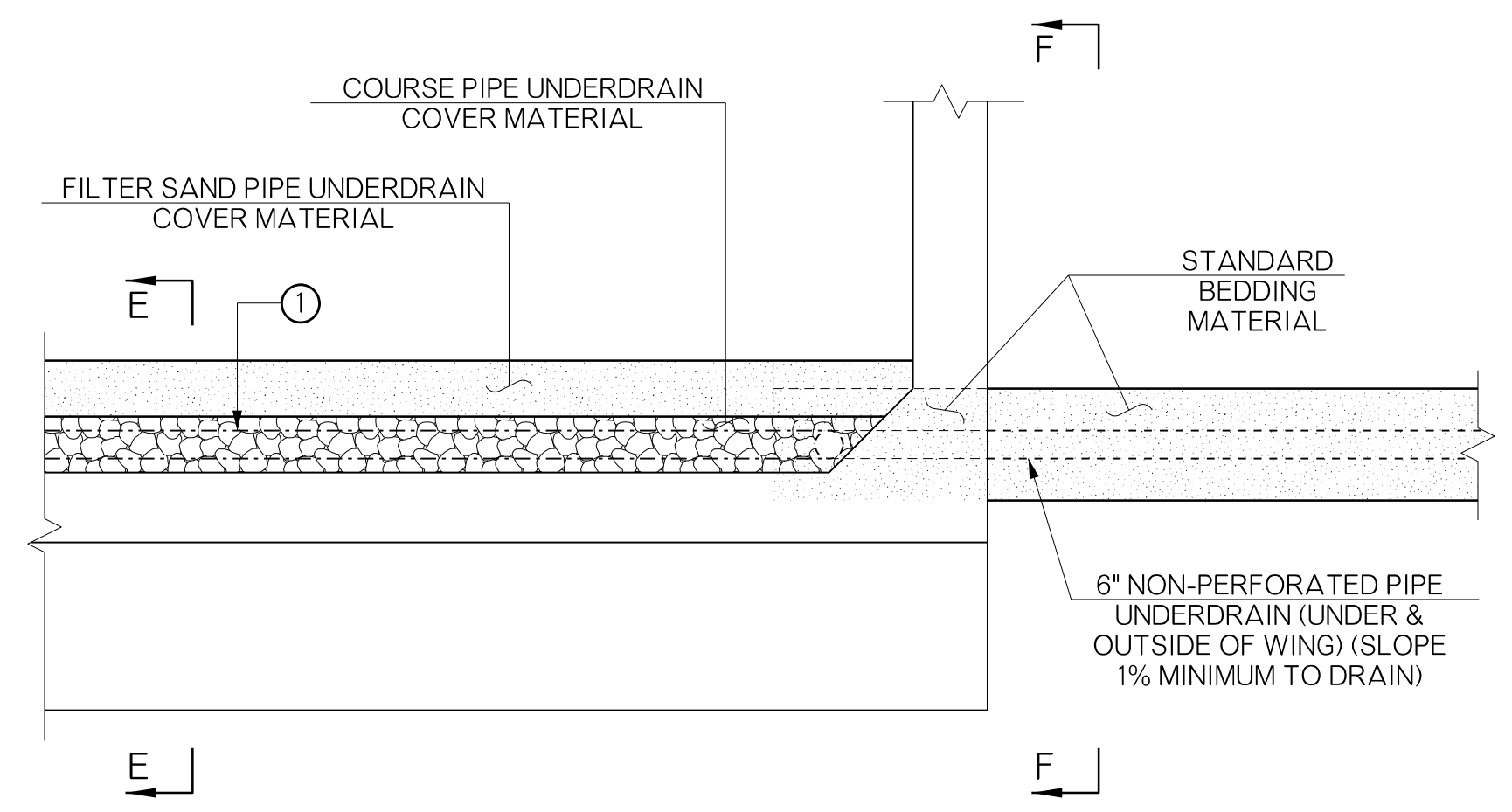
SECTION C-C

SECTION D-D



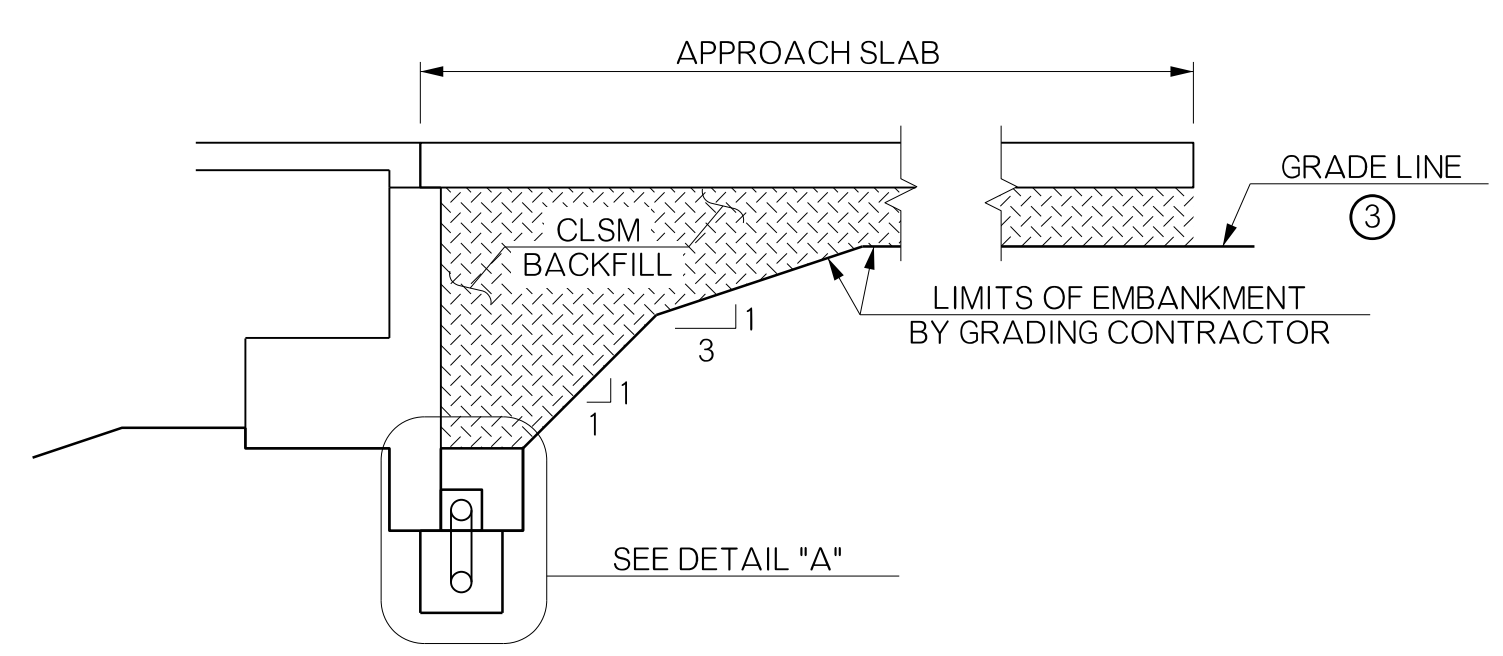
DETAIL "A"

- ① 6" PERFORATED PIPE UNDERDRAIN. SLOPE 1% MINIMUM TO DRAIN.
- ② SET BOTTOM OF PIPE 3" ABOVE THE BOTTOM OF THE ABUTMENT AT THE LOW END.
- ③ GRADE LINE ASSUMED TO BE LOCATED 1'-1" BELOW BOTTOM OF APPROACH SLAB FOR COMPUTING CLSM BACKFILL QUANTITY SHOWN ON THE PLANS. THE CITY WILL PAY FOR CLSM BACKFILL IN ACCORDANCE WITH THE PLAN QUANTITY AND NO ADJUSTMENT WILL BE MADE FOR ACTUAL LOCATION OF GRADE LINE.

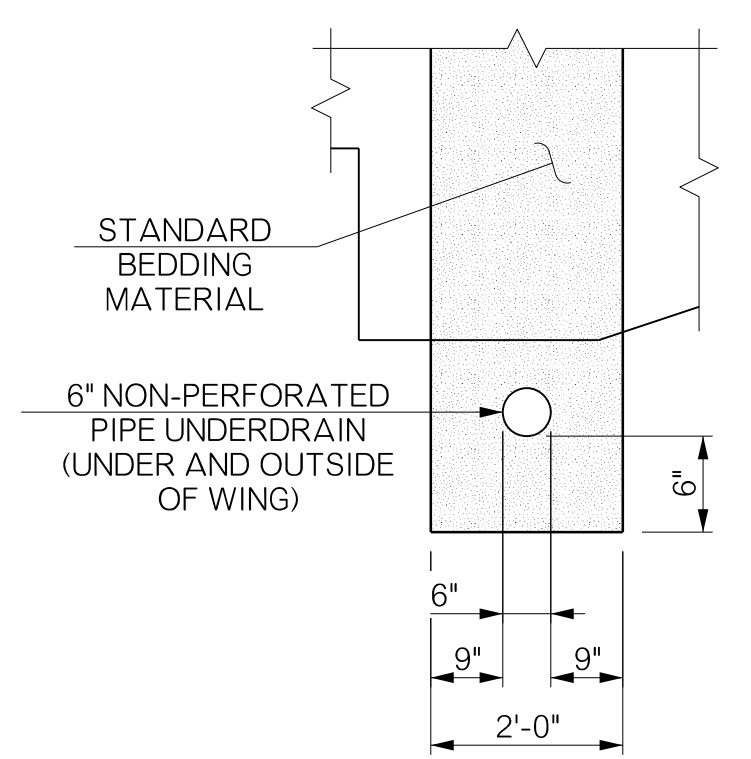


PIPE UNDERDRAIN PLAN

NOTE:
 THE ENGINEER MAY ADJUST THE EXTENT, LOCATION AND DEPTH OF 6" NON-PERFORATED PIPE UNDERDRAIN DURING CONSTRUCTION. INCLUDE THE COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE SAND AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION IN THE CONTRACT UNIT PRICE OF "6" PERFORATED PIPE UNDERDRAIN ROUND" AND "6" NON-PERF. PIPE UNDERDRAIN RND.". INSTALL AS SHOWN ON THE PLANS AND ON STD. PUD-4.

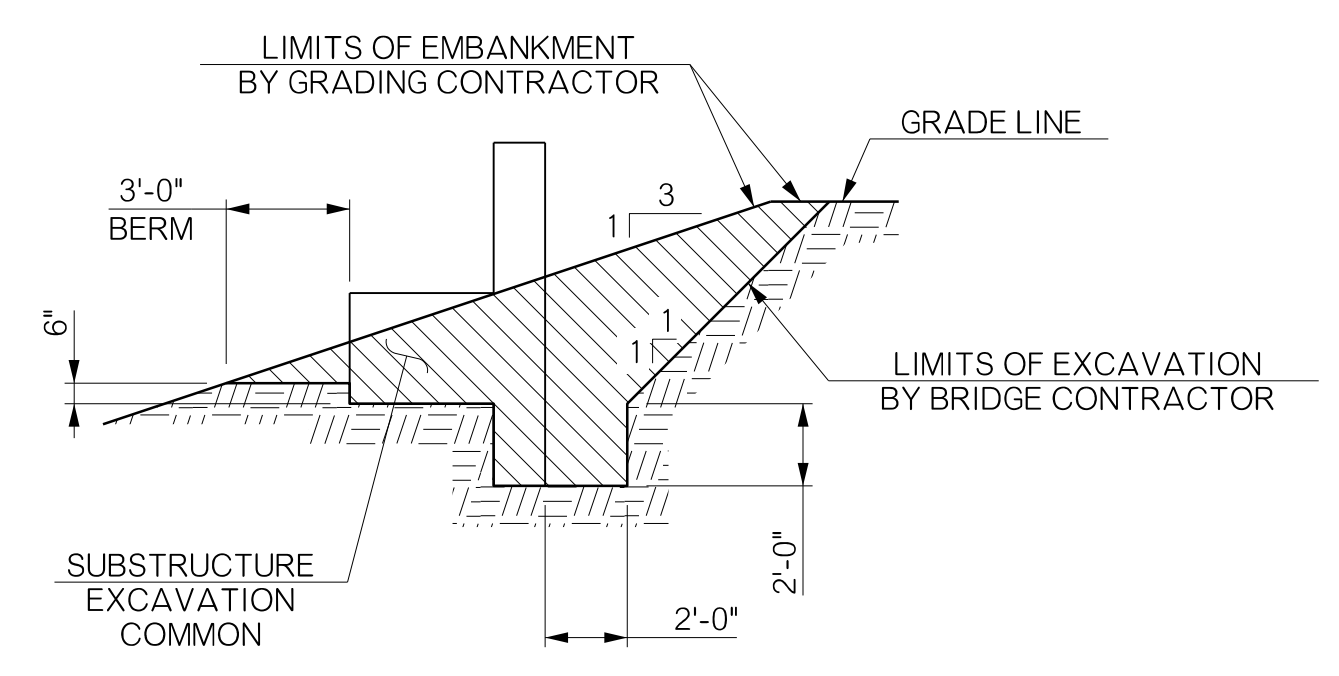


SECTION E-E

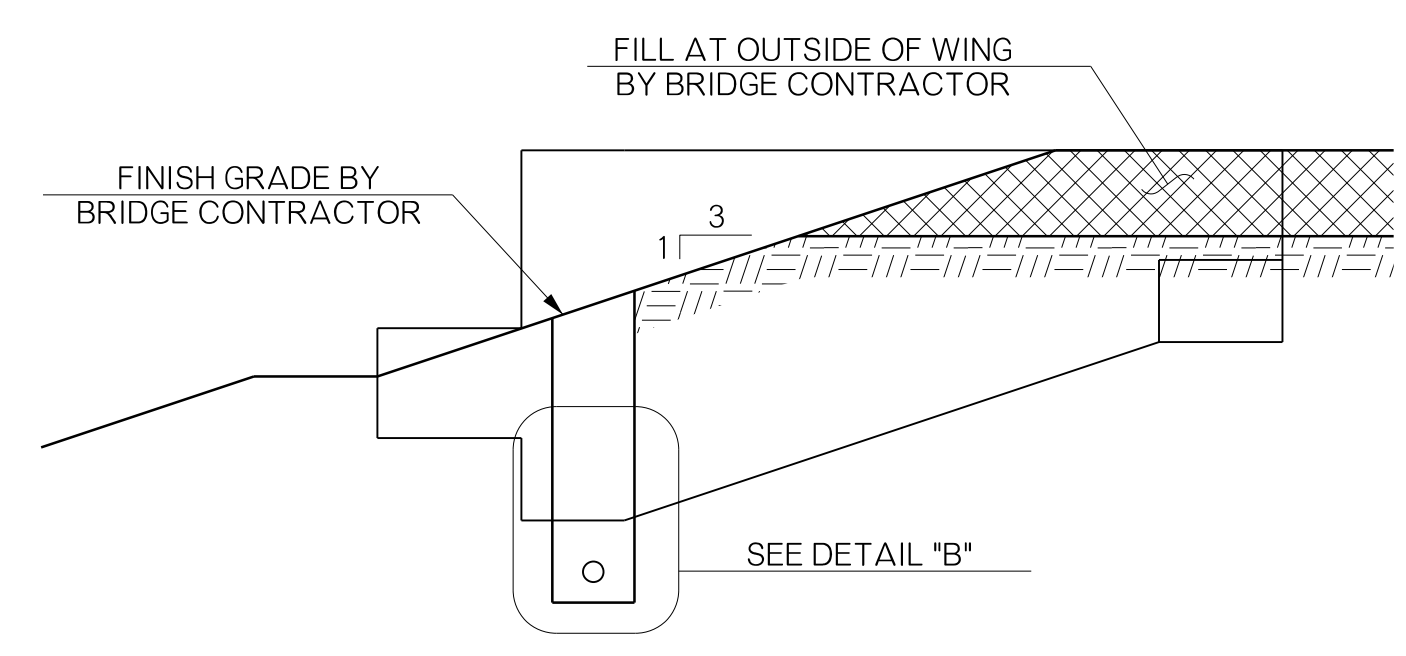


DETAIL "B"

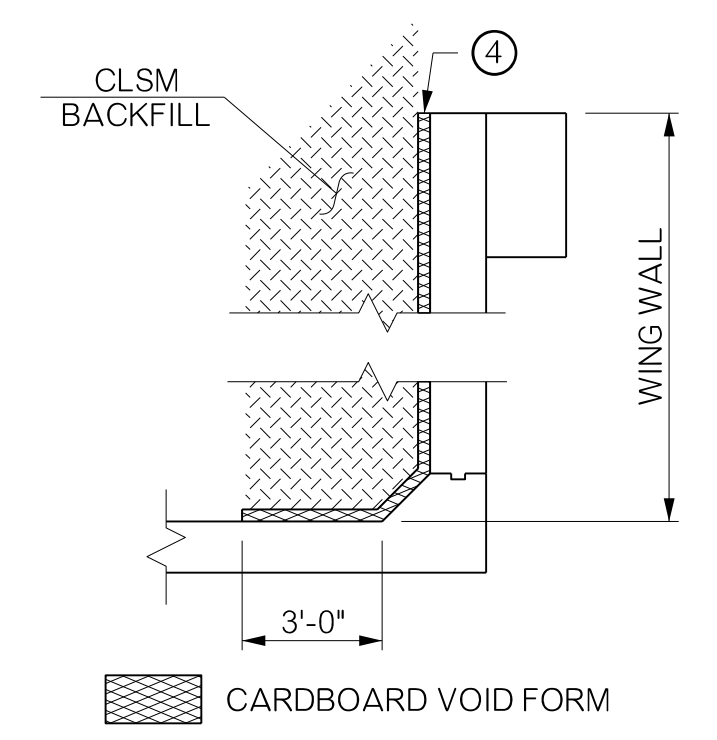
DO NOT PLACE CLSM BACKFILL UNTIL SUPERSTRUCTURE IS IN PLACE AND THE ABUTMENT WING CONCRETE HAS ATTAINED A STRENGTH OF 3,000 PSI.



SECTION A-A



SECTION F-F



VOID FORM DETAILS

- ④ 1" CARDBOARD VOID FORM. THE VOID FORM SHALL BE ABLE TO WITHSTAND CRUSHING DUE TO POURING AND CURING OF CLSM BACKFILL AND MAINTAIN 1" VOID. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.
- THE CARDBOARD VOID FORM SHALL PROVIDE A TEMPORARY SUPPORT DURING PLACEMENT OF THE CLSM. AFTER THE CLSM CAN SUPPORT FOOT TRAFFIC THE VOID FORM SHALL LOSE STRENGTH AND CREATE A 1" SPACE IN PLACE OF THE VOID FORM SUCH AS SEPARATOR VOID AS MANUFACTURED BY SUREVOID PRODUCTS OR AN APPROVED EQUAL. PRODUCT INFORMATION FOR SEPARATOR VOID CAN BE OBTAINED FROM SUREVOID PRODUCTS OF ENGLEWOOD, COLORADO, PHONE NUMBER 800-458-5444.
- THE VOID FORM SHALL BE PLACED THE ENTIRE LENGTH OF THE WING WALL, FROM THE BOTTOM OF EXCAVATION TO THE TOP OF THE CLSM POUR. THE FORM SHALL EXTEND A MINIMUM OF 3'-0" ALONG THE BACKWALL, AND A MINIMUM OF 1'-0" BEYOND ANY BACKWALL BREAKLINES.

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY, OKLAHOMA
60TH AVENUE NE
BRIDGE REPLACEMENT
OVER ROCK CREEK

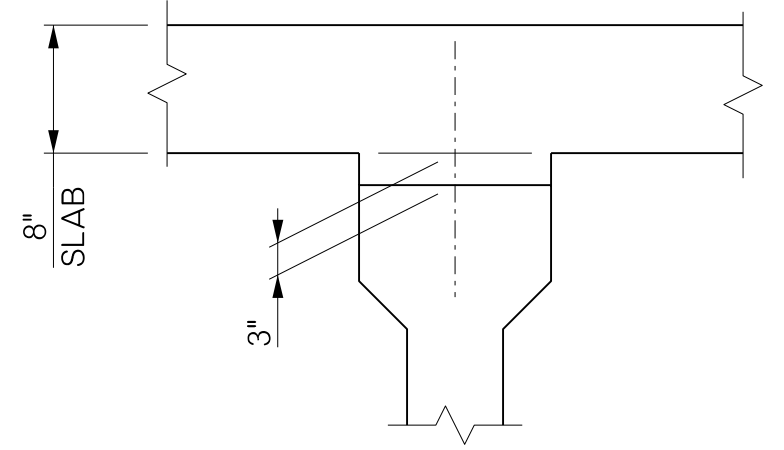
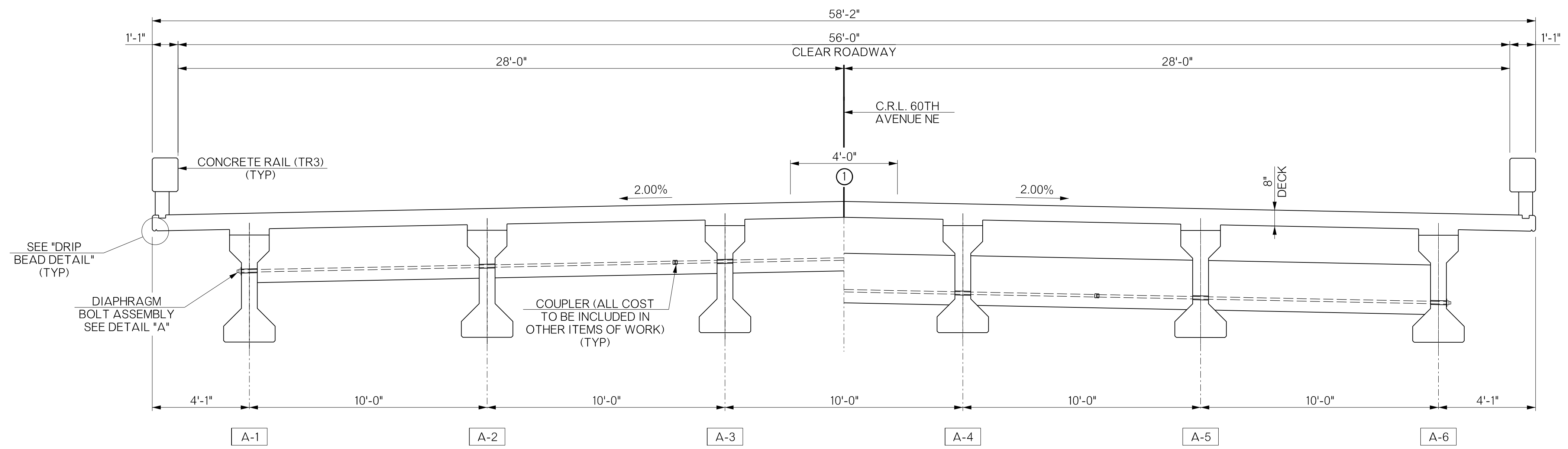
TYPICAL SECTION

JOB NO.: 22T28060
DATE: MARCH 2023
DESIGNED BY: JTR
DRAWN BY: NBK

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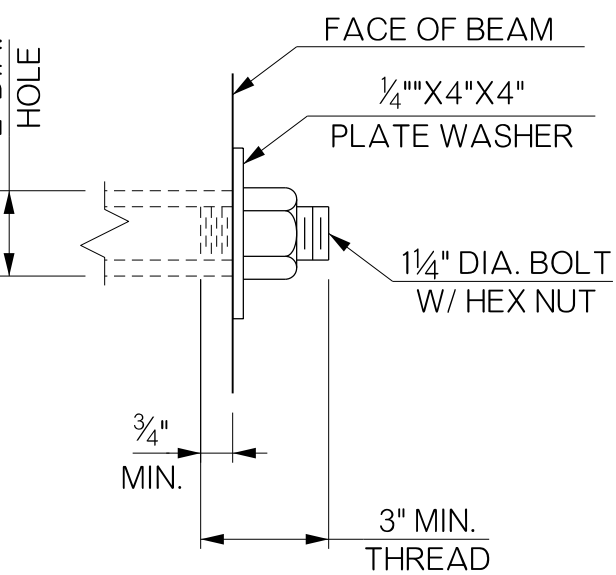
DRAWING NUMBER

SHEET NUMBER B009



BEAM HAUNCH DETAIL

NOTE: PLAN QUANTITIES FOR CLASS AA CONCRETE INCLUDE BEAM HAUNCHES. THE HAUNCH HEIGHT SHOWN IS THE THEORETICAL HAUNCH HEIGHT AT THE CENTERLINE BEARING ONLY, MEASURED FROM BOTTOM OF DECK SLAB TO TOP OF BEAM, AND VARIES ACROSS THE SPAN. DETERMINE THE ACTUAL HAUNCH HEIGHT (ACCOUNTING FOR BEAM CAMBER, DEAD LOAD DEFLECTION AND ROADWAY GRADE) AFTER ERECTION OF THE BEAMS AND SUBMIT TO THE ENGINEER FOR APPROVAL. THE ENGINEER WILL NOT MEASURE DIFFERENCES BETWEEN THE THEORETICAL AND THE ACTUAL HAUNCH HEIGHTS FOR PAYMENT



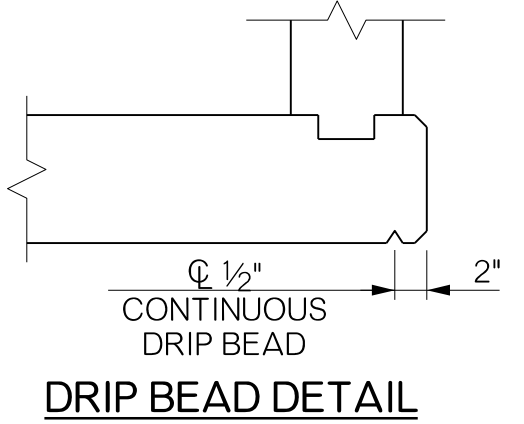
DETAIL "A"

DIAPHRAGM BOLT NOTES:
PROVIDE STRUCTURAL STEEL FOR DIAPHRAGM BOLTS AND PLATE WASHERS IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). THE CONTRACTOR MAY SUBSTITUTE A #10 REINFORCING BAR IN ACCORDANCE WITH AASHTO M31, GRADE 60, AND THREADED AT THE ENDS AS SHOWN FOR THE DIAPHRAGM BOLT AT NO ADDITIONAL COST TO THE CITY. PROVIDE HEX NUTS IN ACCORDANCE WITH AASHTO M291 (ASTM A563).

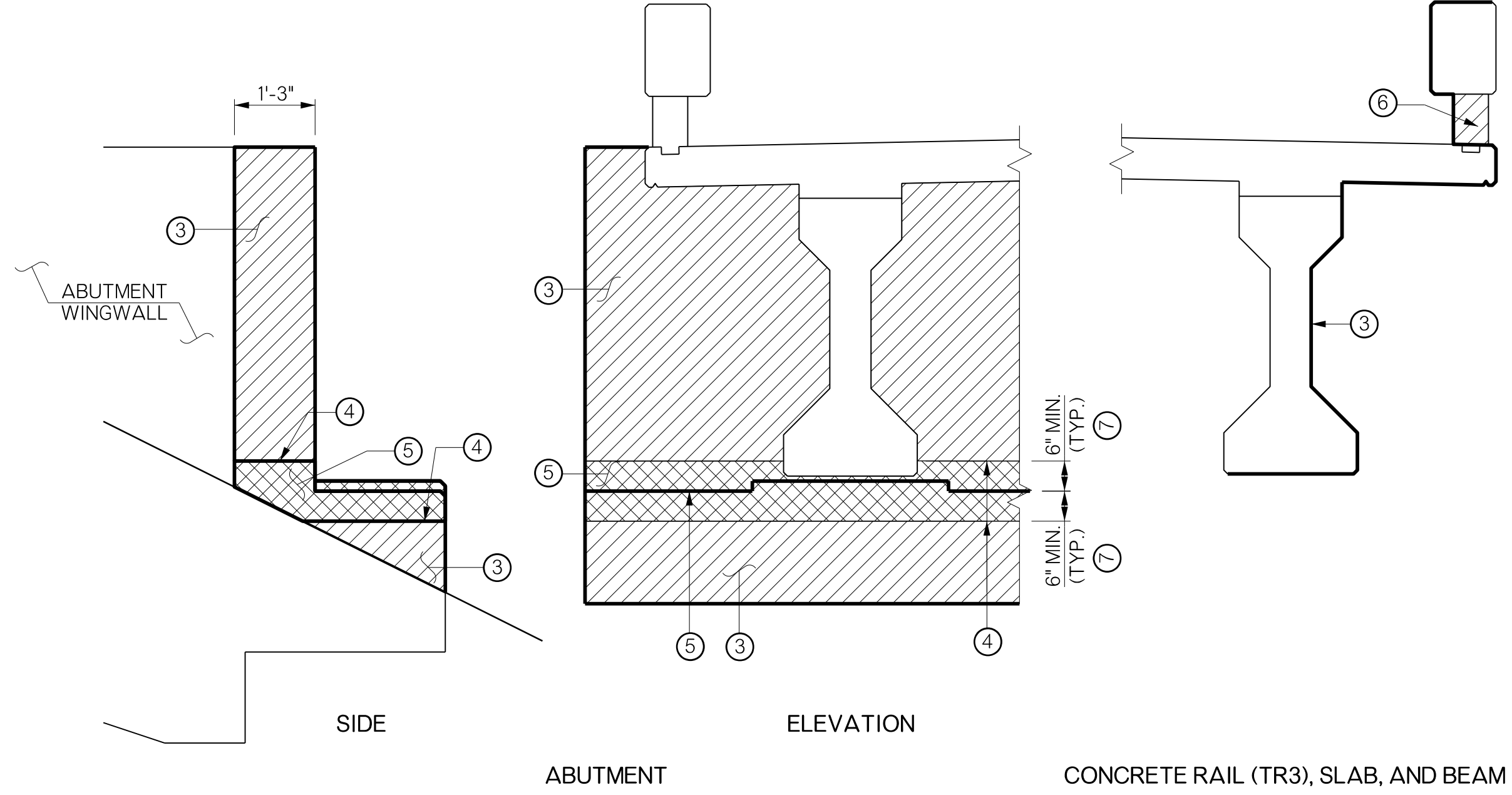
PAINT EXPOSED DIAPHRAGM BOLT, PLATE WASHER AND HEX NUT WITH TWO (2) COATS OF ZINC-RICH PAINT (6 MIL. MINIMUM THICKNESS) AFTER ASSEMBLY. INCLUDE ALL COST OF DIAPHRAGM BOLT, PLATE WASHER AND HEX NUT IN THE CONTRACT UNIT PRICE FOR "STRUCTURAL STEEL".

SECTION AT END DIAPHRAGM
SECTION AT INTERMEDIATE DIAPHRAGM
TYPICAL SECTION (LOOKING FORWARD STATION)

① ROUND 2'-0" EACH SIDE OF ϕ TO AVOID SHARP EDGES.



DRIP BEAD DETAIL



CONCRETE TREATMENT DETAILS

LEGEND

- PROPOSED STRUCTURE
- ELASTOMERIC COATING (CROSSHATCHING AND HEAVY LINE)
- WATER REPELLENT (HATCHING AND HEAVY LINE)

- ③ WATER REPELLENT ON THE CONCRETE RAIL (TR3), BEAM & CANTILEVER TO BE PAID FOR IN SUPERSTRUCTURE QUANTITIES. WATER REPELLENT ON THE ABUTMENT FACES TO BE PAID FOR IN ABUTMENT QUANTITIES.
- ④ MASK SIDES AND ENDS OF ABUTMENT CAP ALONG THIS LINE TO PROVIDE A CLEAN STRAIGHT FINISH AT TOP AND BOTTOM OF ELASTOMERIC COATING APPLICATION. SEE "GENERAL NOTE" ON SHEET NO. AB01 FOR ELASTOMERIC COATING SPECIFICATIONS.
- ⑤ APPLY CIM-100 (ELASTOMERIC COATING), OR APPROVED EQUAL, TO THE SURFACES INDICATED BY CROSSHATCH AND HEAVY LINES, INCLUDING PEDESTALS, CAP STEPS, BACKWALL, & ENDS OF CAP. INCLUDED IN ABUTMENT QUANTITIES.
- ⑥ APPLY WATER REPELLENT TO INSIDE FACE OF POSTS ON CONCRETE RAIL (TR3) WITH OPENINGS.
- ⑦ ELASTOMERIC COATING PLACED ON ABUTMENT BACKWALLS SHALL BE 6" HIGH OR 4" HIGHER THAN THE TALLEST PEDESTAL AND SHALL BE PARALLEL TO THE TOP OF THE ABUTMENT.

SUMMARY OF QUANTITIES - SUPERSTRUCTURE

ITEM	UNIT	TOTAL
PRESTRESSED CONCRETE BEAMS (TYPE IV)	LF	598.00
SAW-CUT GROOVING	SY	627.00
CONCRETE RAIL (TR3)	LF	201.50
STRUCTURAL STEEL	LB	660.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA	6.00
STAINLESS STEEL EXP. BEARING ASSEMBLY	EA	6.00
CLASS AA CONCRETE	CY	160.30
EPOXY COATED REINFORCING STEEL	LB	44,080.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	341.00
SEALED EXPANSION JOINTS	LF	57.80

② INCLUDES A CALCULATED 4.70 C.Y. OF CLASS AA CONCRETE IN THE HAUNCHES.



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CA #4193 EXPIRES JUNE 30, 2024

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REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY, OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

LONGITUDINAL SECTION

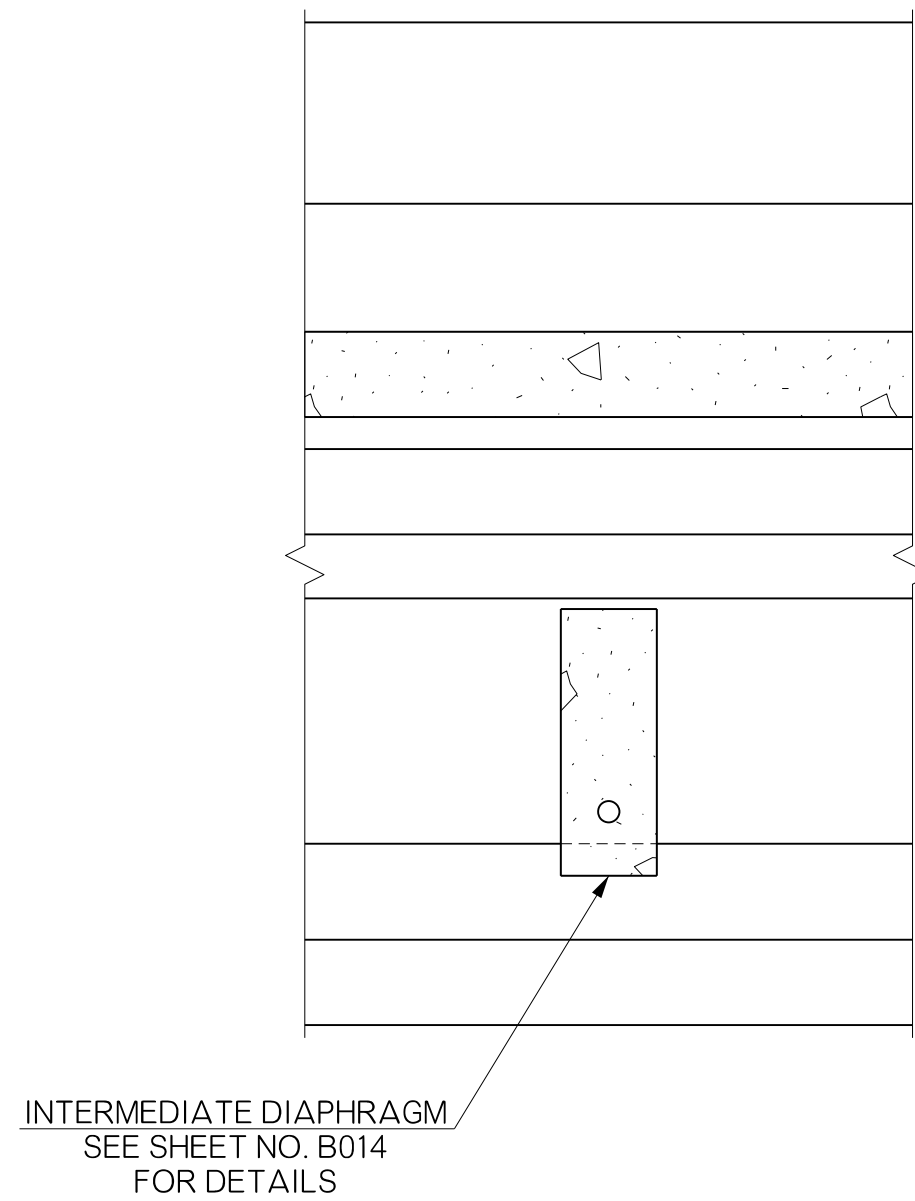
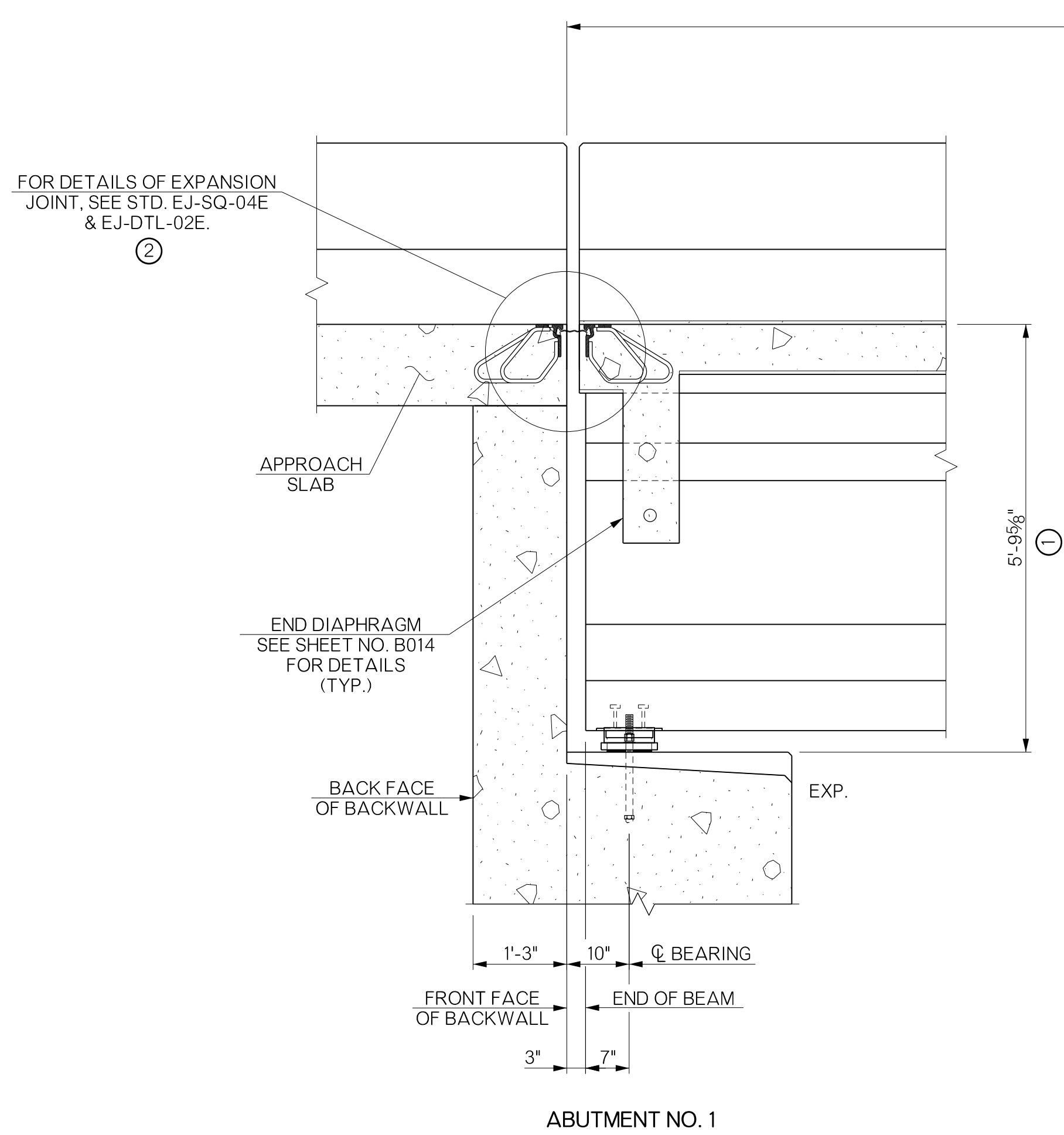
JOB NO.: 22T8060
 DATE: SEPT. 2023
 DESIGNED BY: WDW
 DRAWN BY: WDW

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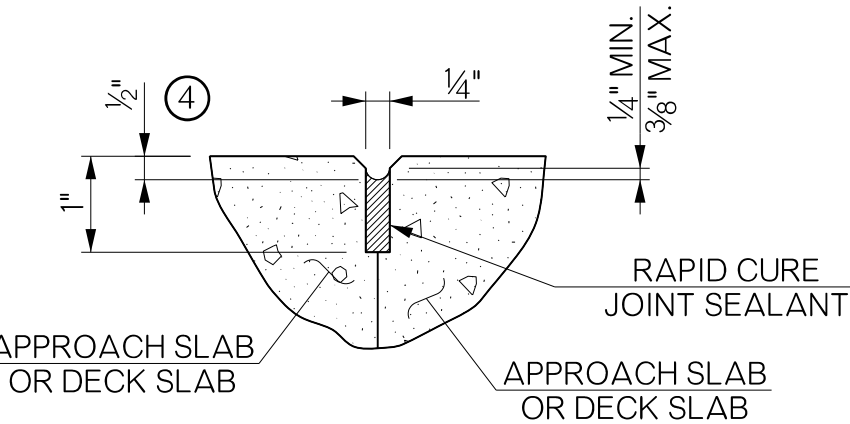
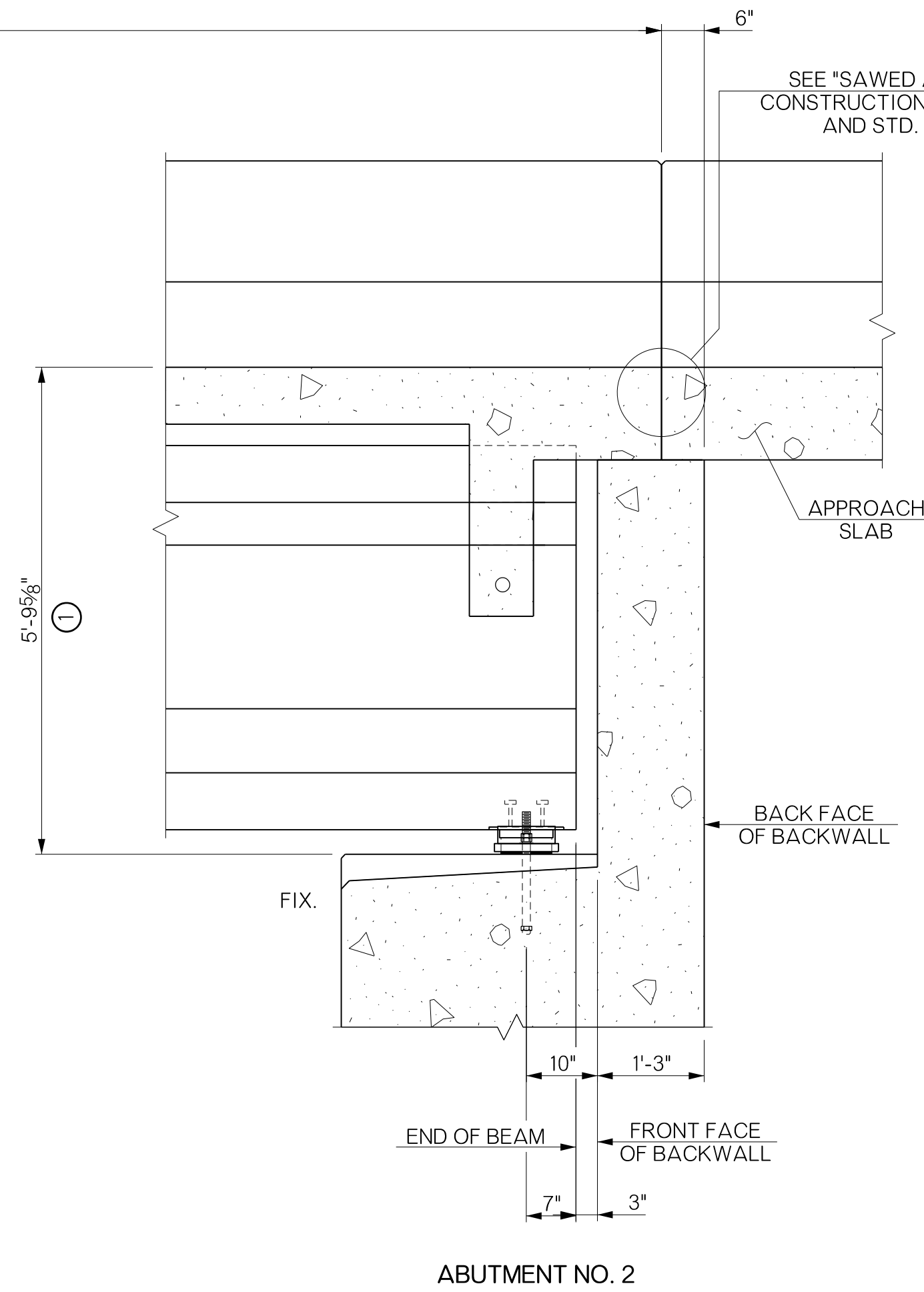
DRAWING NUMBER

SHEET NUMBER B010

BRIDGE LENGTH = 100'-11"



LONGITUDINAL SECTION
 (ALL DIMENSIONS SHOWN ARE ALONG ϕ BEAM)
 (DO NOT GROOVE WITHIN 6" OF ANY CONSTRUCTION JOINTS)



SAWED AND SEALED JOINT DETAIL
 SEE "GENERAL NOTE" ON SHEET NO. AB01 FOR SAWED AND SEALED JOINT SPECIFICATIONS.

④ THIS DIMENSION SHALL TAPER FROM 1/2" AT EDGE OF DRIVING LANE/SHOULDER TO 1/8" AT RAIL FOR TRANSVERSE JOINTS ONLY.

STAY-IN-PLACE DECK FORM NOTES:

THE CONTRACTOR MAY USE STAY-IN-PLACE STEEL DECK FORMS IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. PREFORMED CORRUGATION FILLER, COMPOSED OF POLYSTYRENE OR OTHER MATERIAL, MAY BE USED IF BONDED TO THE DECK FORMS. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. THE TOTAL ADDITIONAL WEIGHT OF THE DECK FORM AND FILLER SHALL NOT EXCEED 5 P.S.F. THE CITY CONSIDERS ALL COSTS OF STAY-IN-PLACE STEEL DECK FORMS TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF "CLASS AA CONCRETE". THE CONTRACTOR MAY SUBSTITUTE STAY-IN-PLACE PRESTRESSED CONCRETE DECK FORMS, AT NO ADDITIONAL COST TO THE CITY, IF THE FOLLOWING CONDITIONS ARE MET:

- (1) THE BRIDGE ENGINEER APPROVES SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE FORMS SUBMITTED BY THE CONTRACTOR.
- (2) THE BRIDGE ENGINEER APPROVES NEW STRUCTURAL DESIGN, STRUCTURAL CALCULATIONS, AND A NEW REINFORCING SCHEDULE FOR THE DECK SLAB SUBMITTED BY THE CONTRACTOR.
- (3) SHOP DRAWINGS, NEW DECK SLAB REINFORCING SCHEDULE, STRUCTURAL DESIGNS, AND CALCULATIONS ARE PREPARED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA.

DECK SLAB NOTES:

EPOXY-COAT OR GALVANIZE STEEL ITEMS USED TO FACILITATE CONSTRUCTION, SUCH AS DECK FORM HANGERS, TY-BAR CLIPS, INSERT WELD ANCHORS, OR OTHER APPURTENANCES THAT WILL REMAIN IN PLACE IN THE DECK SLAB. EPOXY-COAT IN ACCORDANCE WITH AASHTO M284 OR GALVANIZE IN ACCORDANCE WITH AASHTO M111.

IN THE EVENT OF AN EMERGENCY, HALT THE PLACEMENT OF CONCRETE BY FORMING A CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC OR AS DIRECTED BY THE ENGINEER. DO NOT PLACE ANY HEAVY EQUIPMENT ON THE FINISHED DECK SLAB WITHIN 5' OF ANY CONSTRUCTION JOINT UNTIL CONCRETE IS IN PLACE ON BOTH SIDES OF THE RESPECTIVE JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT.

SEAL ALL DECK SLAB CONSTRUCTION JOINTS WITH HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. INCLUDE ALL COST OF EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION". INCLUDE ALL COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". THE CITY WILL NOT MEASURE THE PREPARATION AND SEALER OF EMERGENCY CONSTRUCTION JOINTS FOR PAYMENT.

NOTE:
 DO NOT PLACE THE CONCRETE FOR THE DECK SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE CONCRETE IN THE DIAPHRAGMS HAS BEEN IN PLACE A MINIMUM OF 10 DAYS OR AT THE DISCRETION OF THE ENGINEER. THE ENGINEER MAY APPROVE SHORTENED TIME IF THE BEAM AND DIAPHRAGM CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH.

- ① DIMENSION IS FROM TOP OF DECK SLAB TO BOTTOM OF BEARING ASSEMBLY AT ϕ BEARING.
- ② SEE EXPANSION JOINT OPENING EQUATION ON SHEET NO. B012.

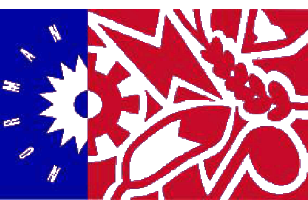


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CLEVELAND COUNTY,
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 BRIDGE REPLACEMENT
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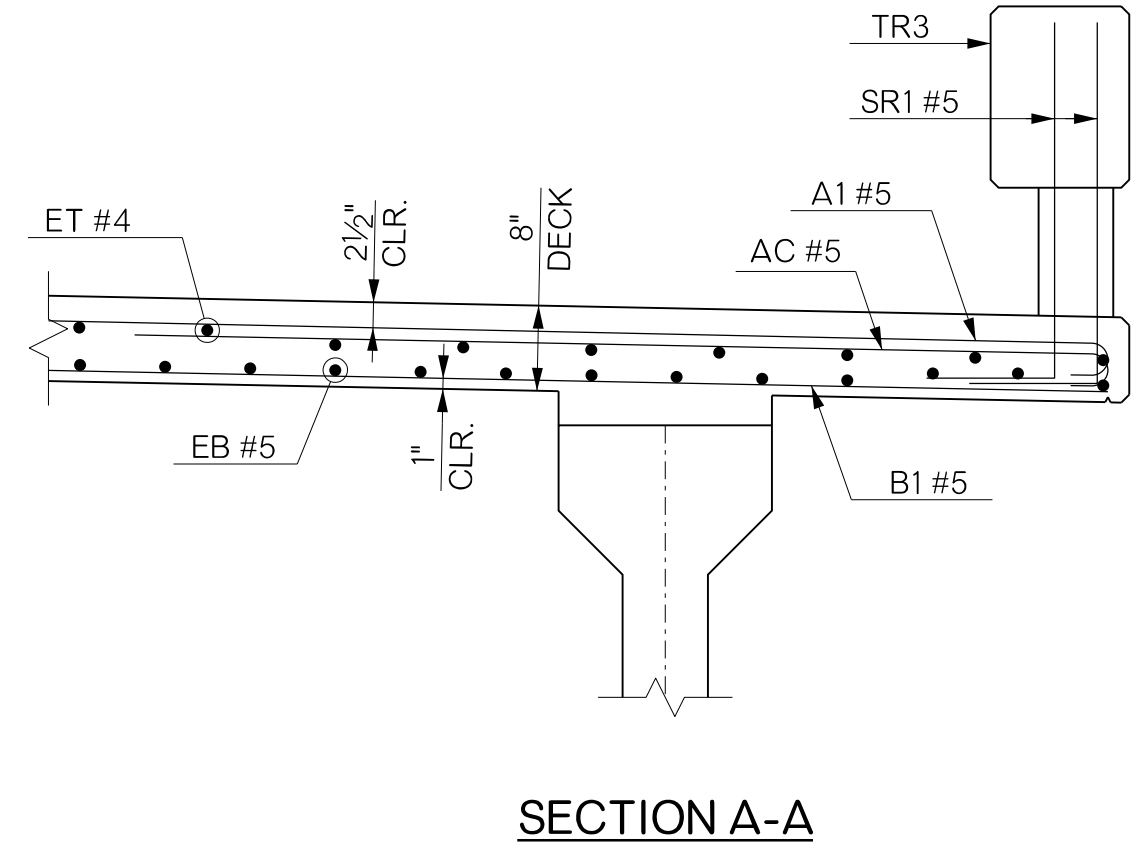
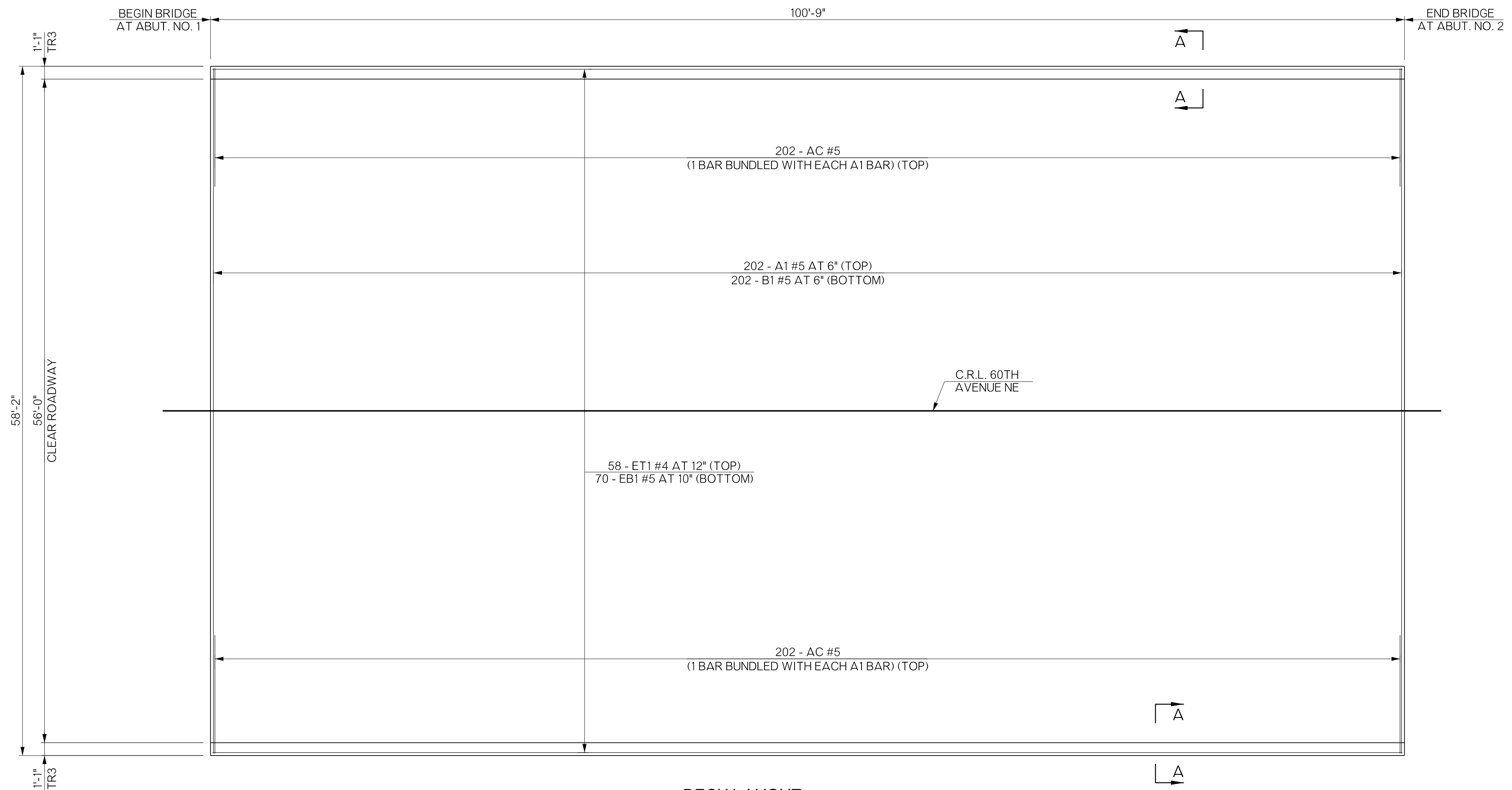
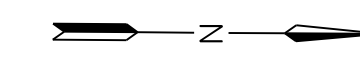
DECK LAYOUT

JOB NO.: 22T28060
 DATE: SEPT. 2023
 DESIGNED BY: WDW
 DRAWN BY: SJL

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SHEET NUMBER B011

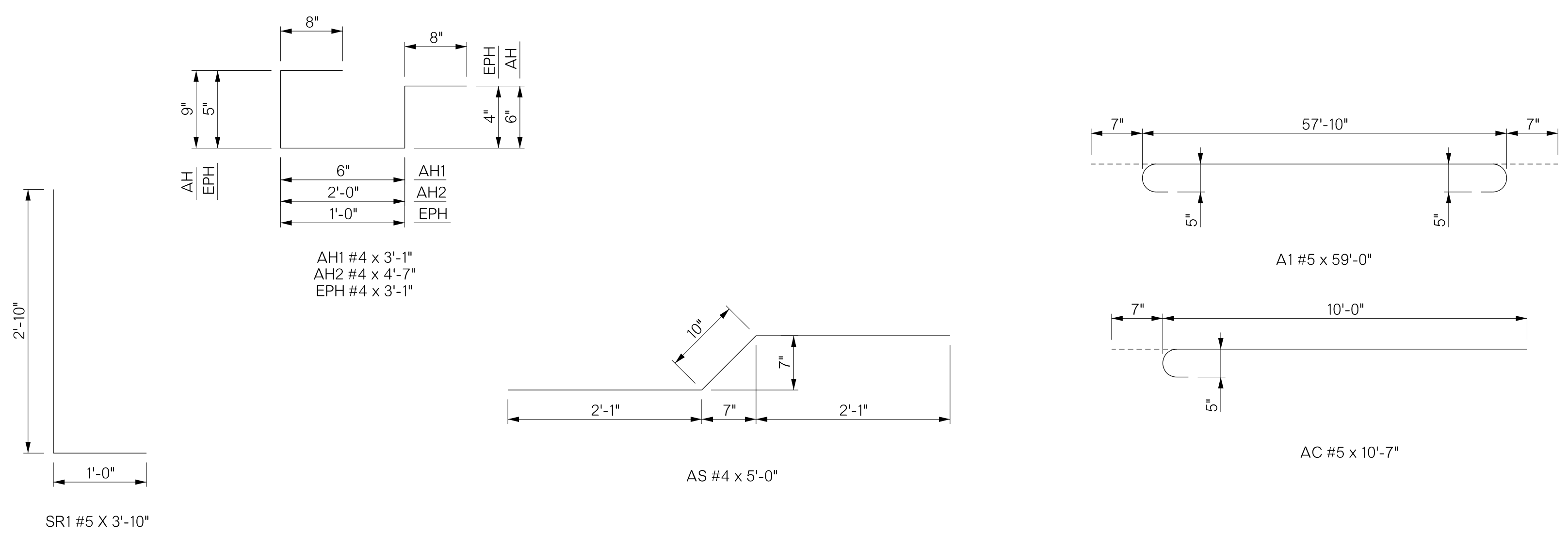


SECTION A-A

BAR LIST - SUPERSTRUCTURE				
MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING STEEL				
A1	#5	202	BENT	59'-0"
AC	#5	404	BENT	10'-7"
AH1	#4	14	BENT	3'-1"
AH2	#4	45	BENT	4'-7"
AS	#4	59	BENT	5'-0"
AT1	#4	2	STR.	57'-10"
B1	#5	202	STR.	57'-10"
EB1	#5	71	STR.	103'-5"
EPH	#4	59	BENT	3'-1"
ET1	#4	59	STR.	102'-5"
EPT	#4	1	STR.	57'-10"
SR1	#5	404	BENT	3'-10"

- ①
- ②

① INCLUDES ONE 3'-0" LAP LENGTH.
 ② INCLUDES ONE 2'-0" LAP LENGTH.



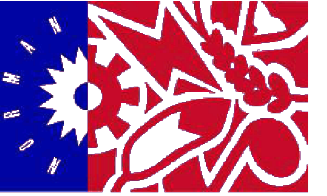


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CLEVELAND COUNTY,
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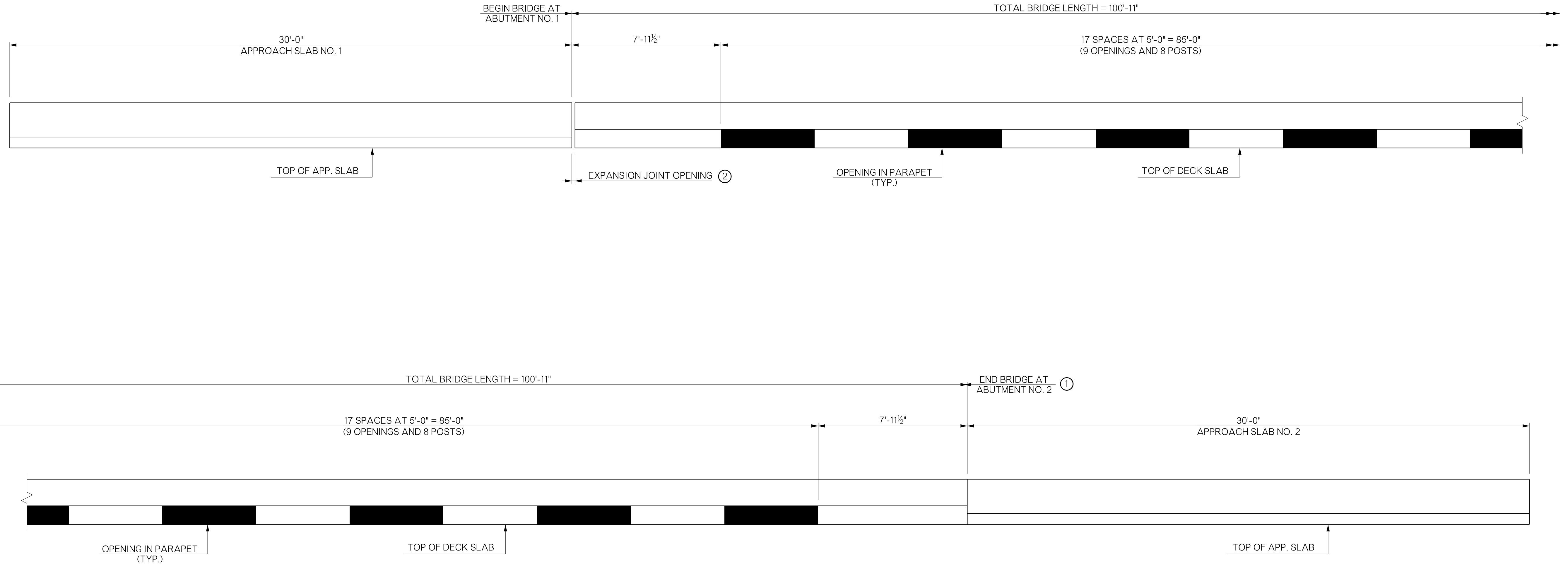
PARAPET
 DETAILS

JOB NO.: 22T28060
 DATE: SEPT. 2023
 DESIGNED BY: WDW
 DRAWN BY: WDW

BAR IS ONE INCH ON
 ORIGINAL DRAWING
 0 1"
 IF NOT ONE INCH ON THIS SHEET,
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DRAWING NUMBER

SHEET
 NUMBER B013



CONCRETE RAIL (TR3) - LAYOUT
 (LOOKING AT INSIDE FACE OF WEST PARAPET;
 EAST PARAPET SIMILAR BY ROTATION)

NOTES:
 FOR DETAILS SHOWING THE REINFORCEMENT LAYOUT
 AND BAR BEND DETAILS, SEE STD. TR3-2-01E.

ALL DIMENSIONS SHOWN ARE MEASURED ALONG THE
 INSIDE FACE OF TRAFFIC RAIL.

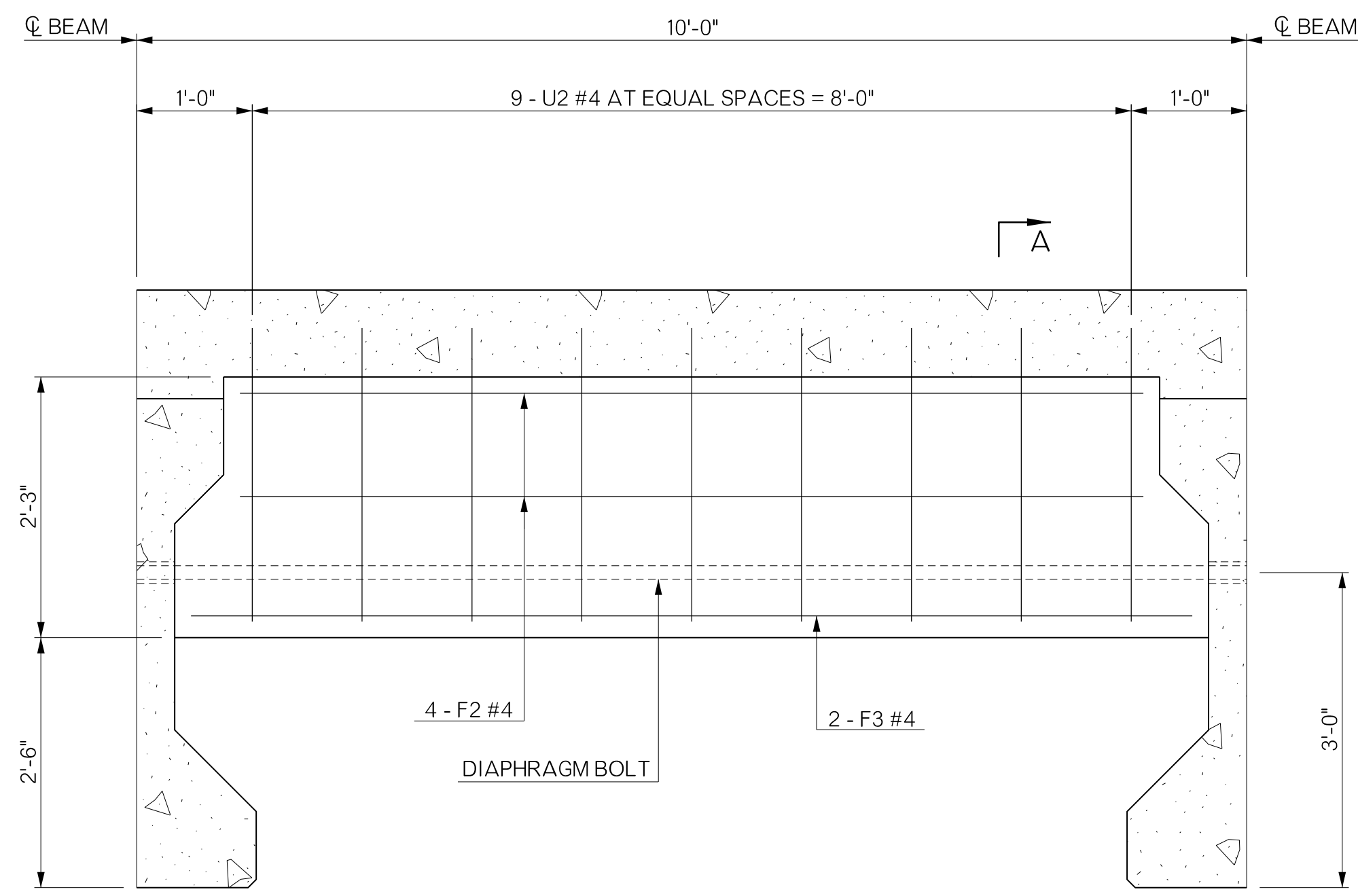
- ① CONSTRUCTION JOINT. HORIZONTAL REINFORCING SHALL END
 2" EITHER SIDE OF THIS JOINT.
- ② EXPANSION JOINT OPENING TO MATCH DECK OPENING.



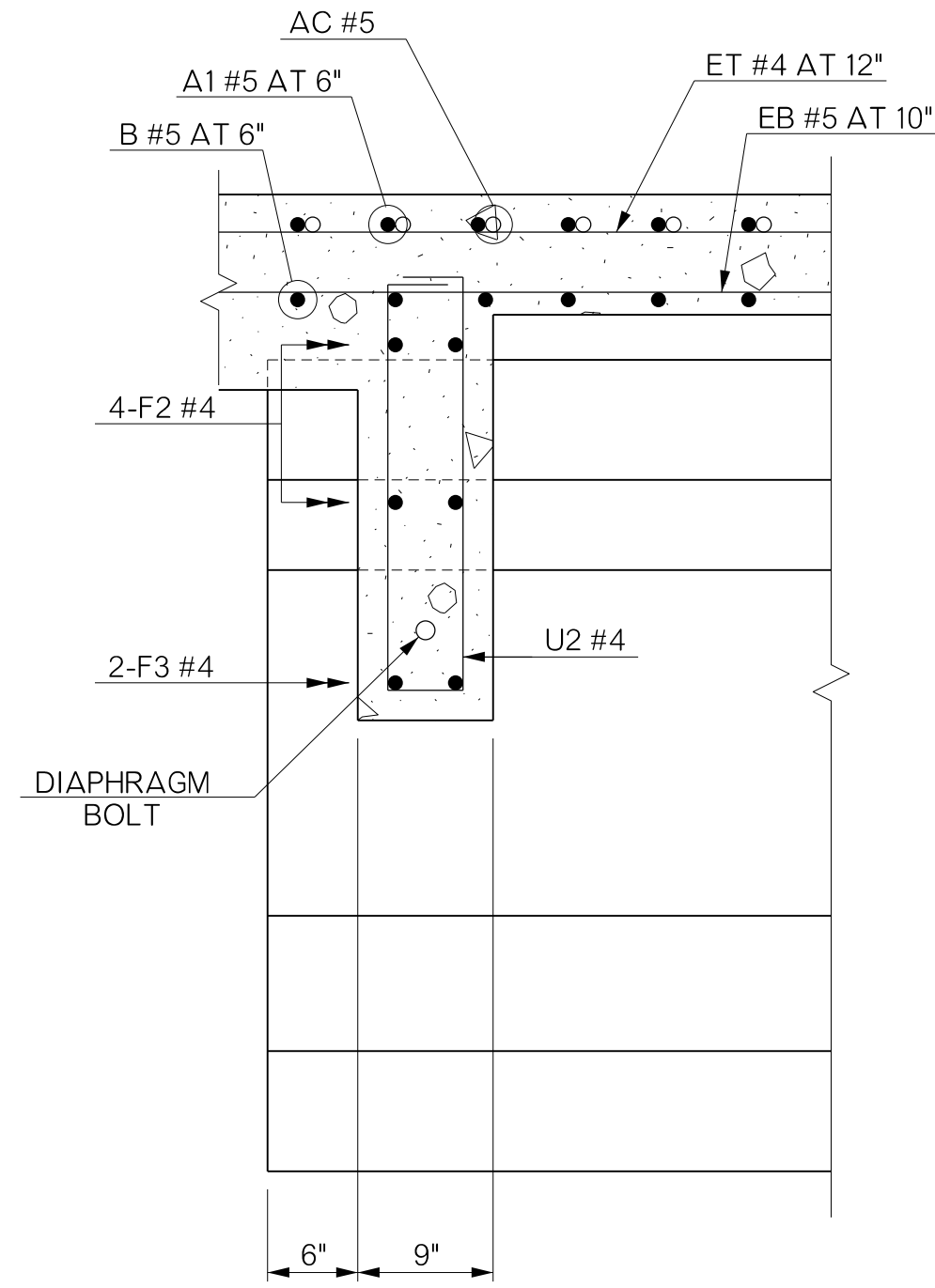
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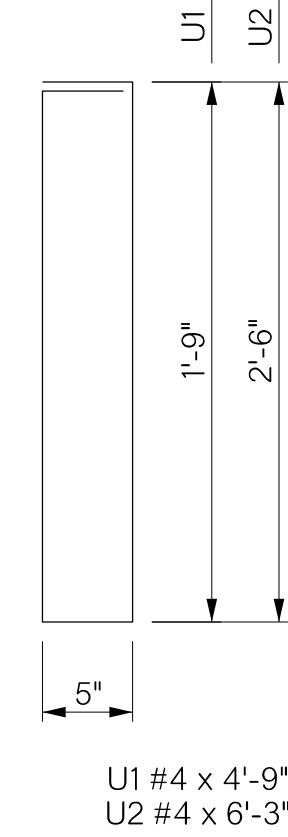
100% PS&E SUBMITTAL



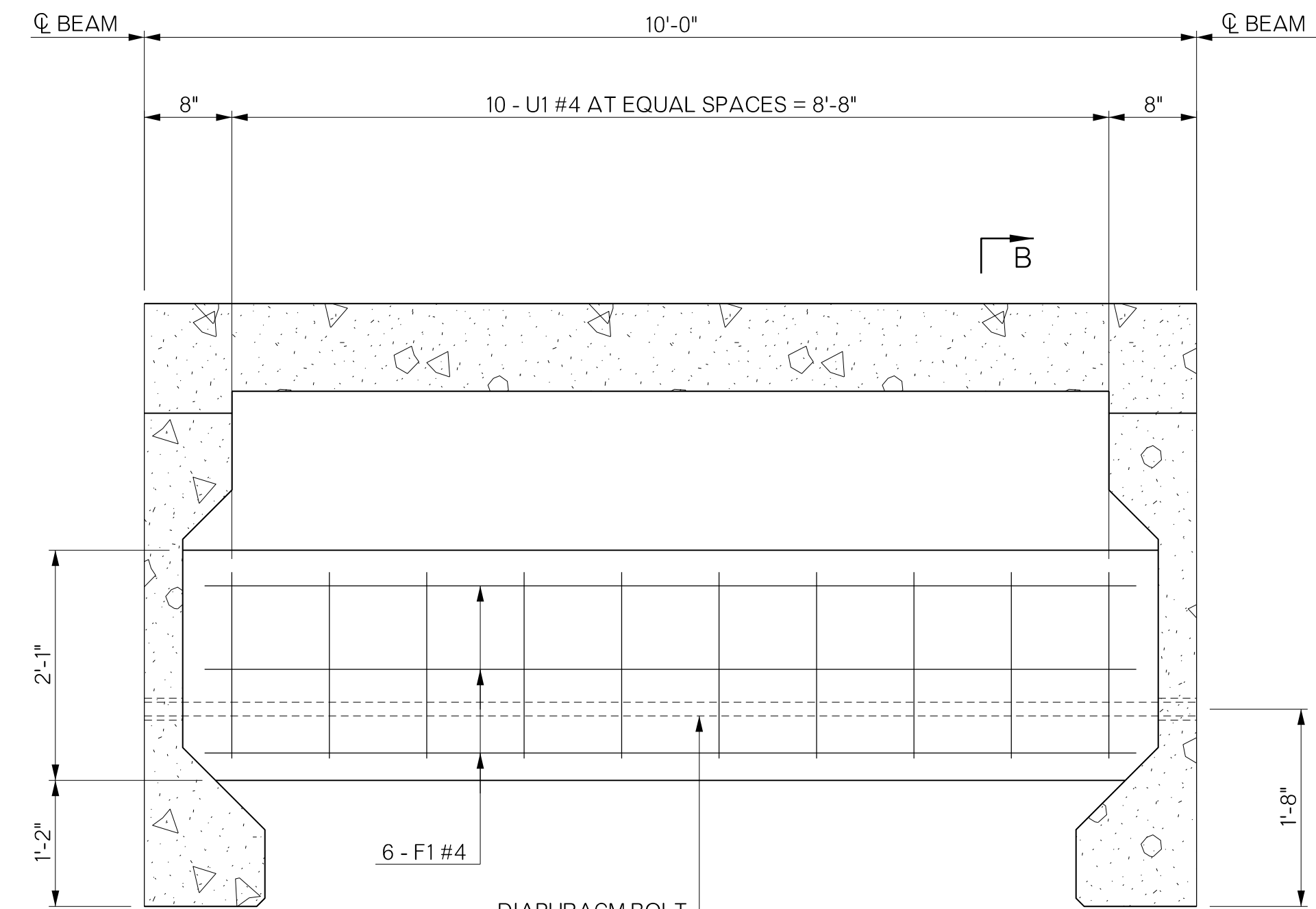
END DIAPHRAGM



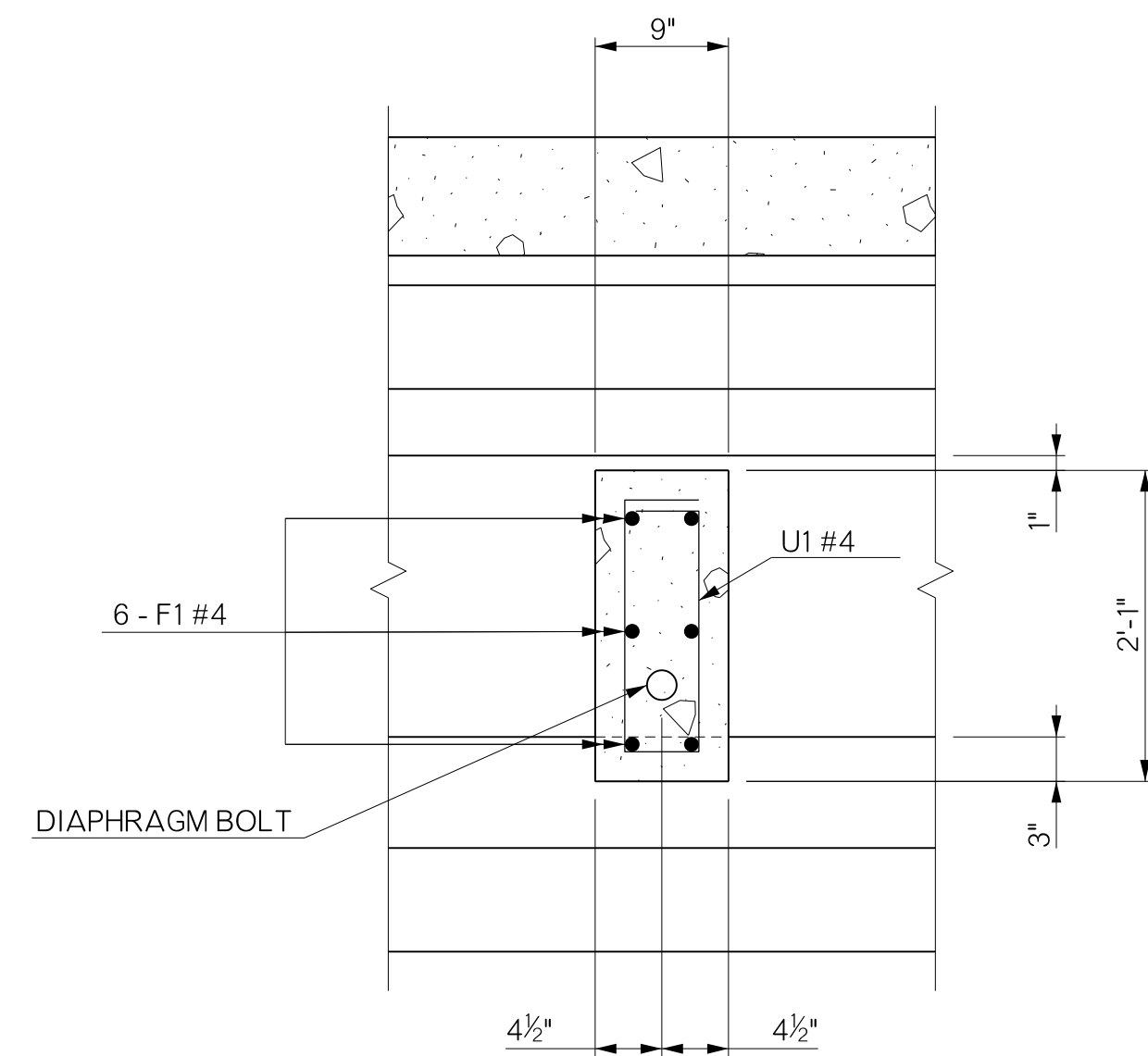
SECTION A-A



U1 #4 x 4'-9"
 U2 #4 x 6'-3"



INTERMEDIATE DIAPHRAGM

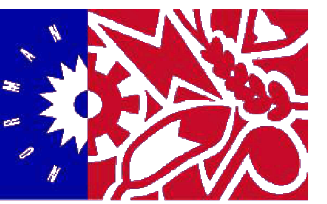


SECTION B-B

INTERMEDIATE & END DIAPHRAGM BAR LIST

MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING STEEL				
F1	#4	30	STR.	9'-0"
F2	#4	40	STR.	8'-0"
F3	#4	20	STR.	9'-0"
U1	#4	50	BENT	4'-9"
U2	#4	90	BENT	6'-3"

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY,
 OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

DIAPHRAGM DETAILS

JOB NO.: 22T28060
 DATE: SEPT. 2023
 DESIGNED BY: WDW
 DRAWN BY: WDW

BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRAWING NUMBER

SHEET NUMBER B014

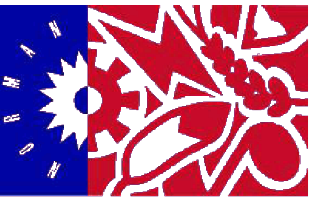


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REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY,
 OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

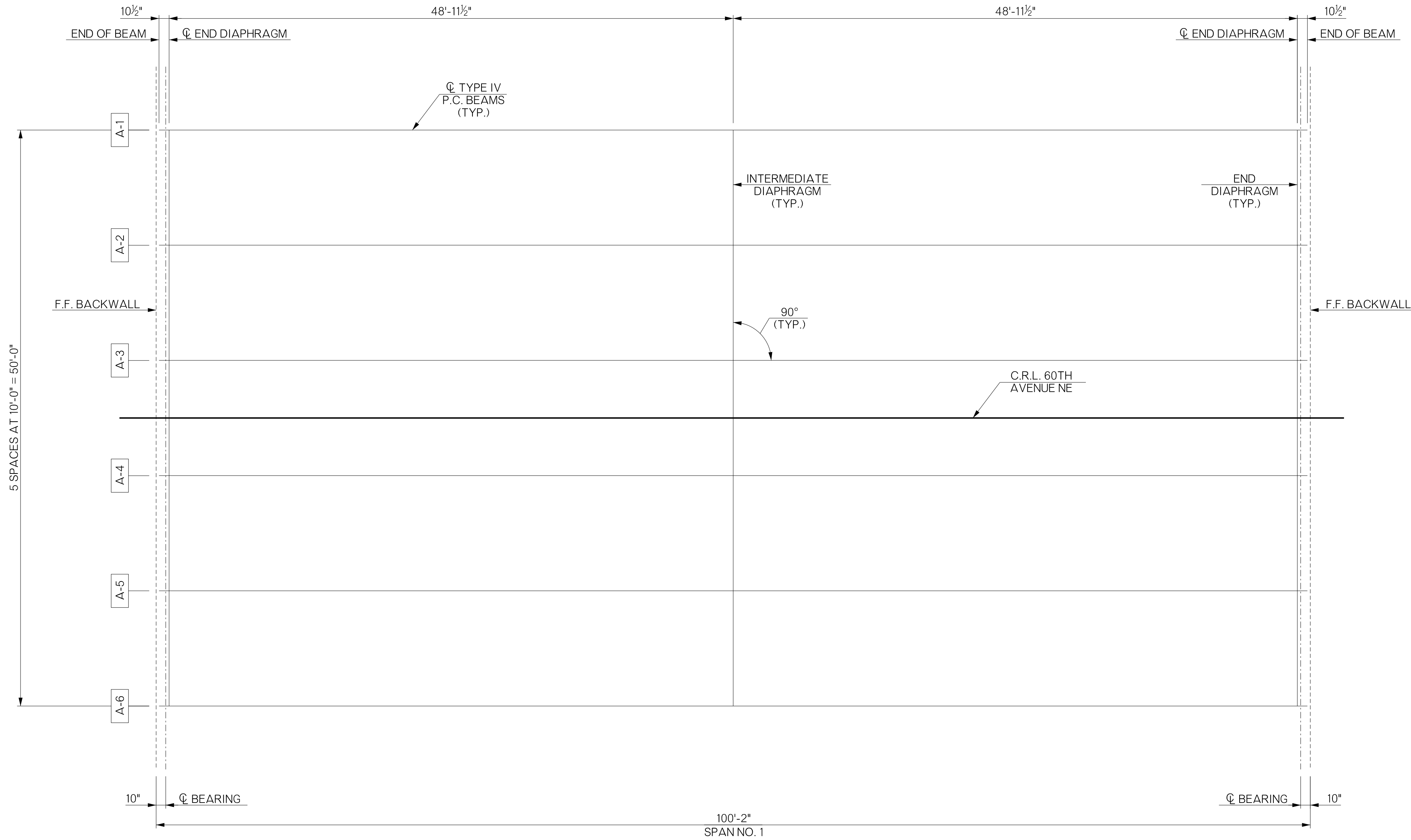
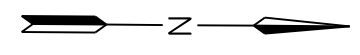
FRAMING PLAN

JOB NO.: 22T28060
 DATE: SEPT. 2023
 DESIGNED BY: WDW
 DRAWN BY: SJL

BAR IS ONE INCH ON
 ORIGINAL DRAWING
 0 1"
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DRAWING NUMBER

SHEET NUMBER B015



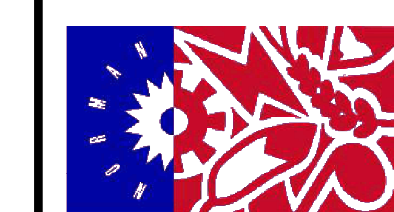
FRAMING PLAN



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REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY, OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

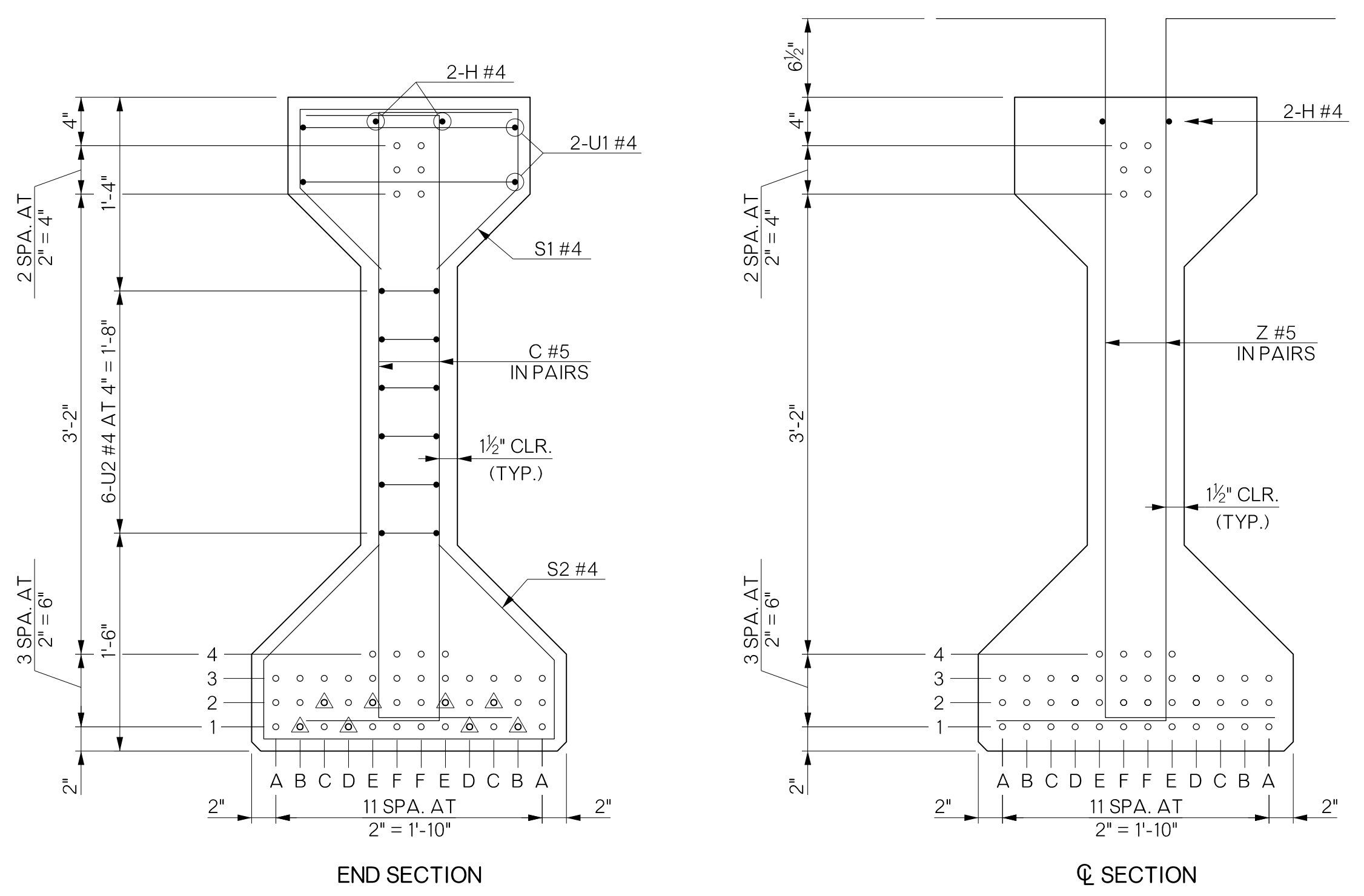
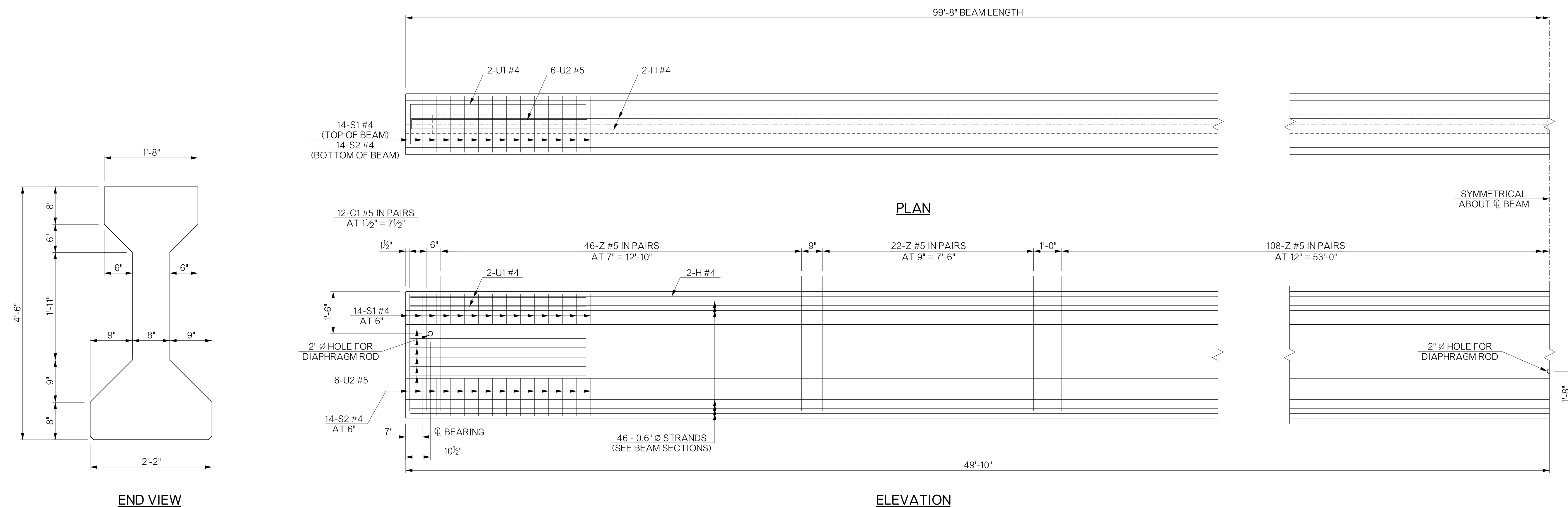
BEAM DETAILS
 (SHEET 1 OF 2)

JOB NO.: 22T28060
 DATE: SEPT. 2023
 DESIGNED BY: WDW
 DRAWN BY: WDW

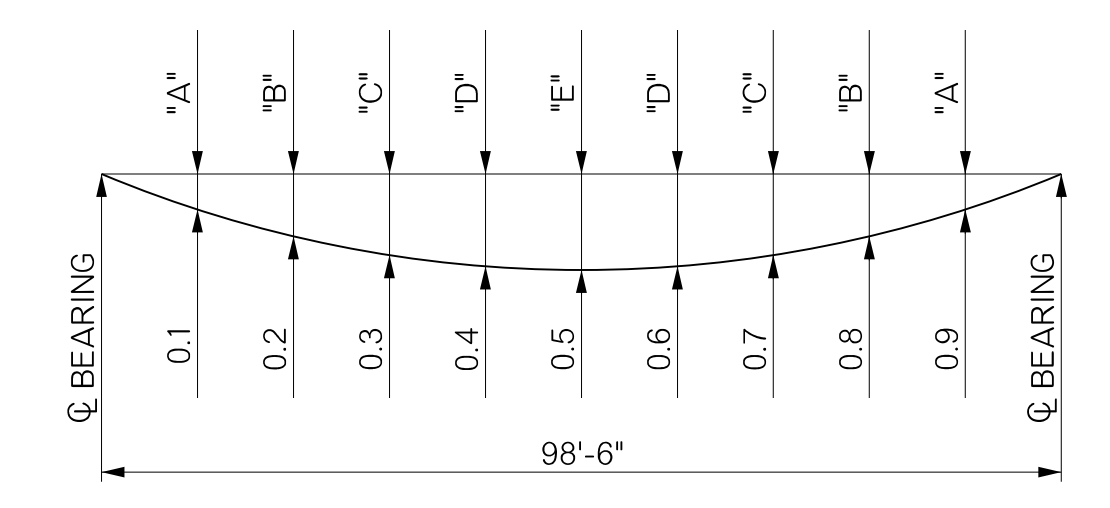
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DRAWING NUMBER

SHEET NUMBER B016



BEAM SECTIONS
 (46 - 0.6" Ø STRANDS)



DEAD LOAD DEFLECTION DIAGRAM

NOTE:
 THE DEAD LOAD DEFLECTION SHOWN ABOVE AT THE TENTH POINTS ARE THE INITIAL DEFLECTIONS DUE TO DECK SLAB + DIAPHRAGMS + HAUNCH + S.I.P. DECK FORMS + CONCRETE TRAFFIC RAIL (TR3). IT DOES NOT INCLUDE THE BEAM WEIGHT OR FUTURE WEARING SURFACE.

DEAD LOAD DEFLECTION VALUES					
GIRDER	"A"	"B"	"C"	"D"	"E"
EXT.	0.44"	0.87"	1.20"	1.41"	1.48"
INT.	0.50"	0.97"	1.34"	1.58"	1.66"

DEBOND SCHEDULE	
DEBOND PAIR	DEBOND LENGTH FROM END OF BEAM
B1	16'-0"
D1	8'-0"
C2 & E2	4'-0"

LEGEND
 DEBONDED STRAND

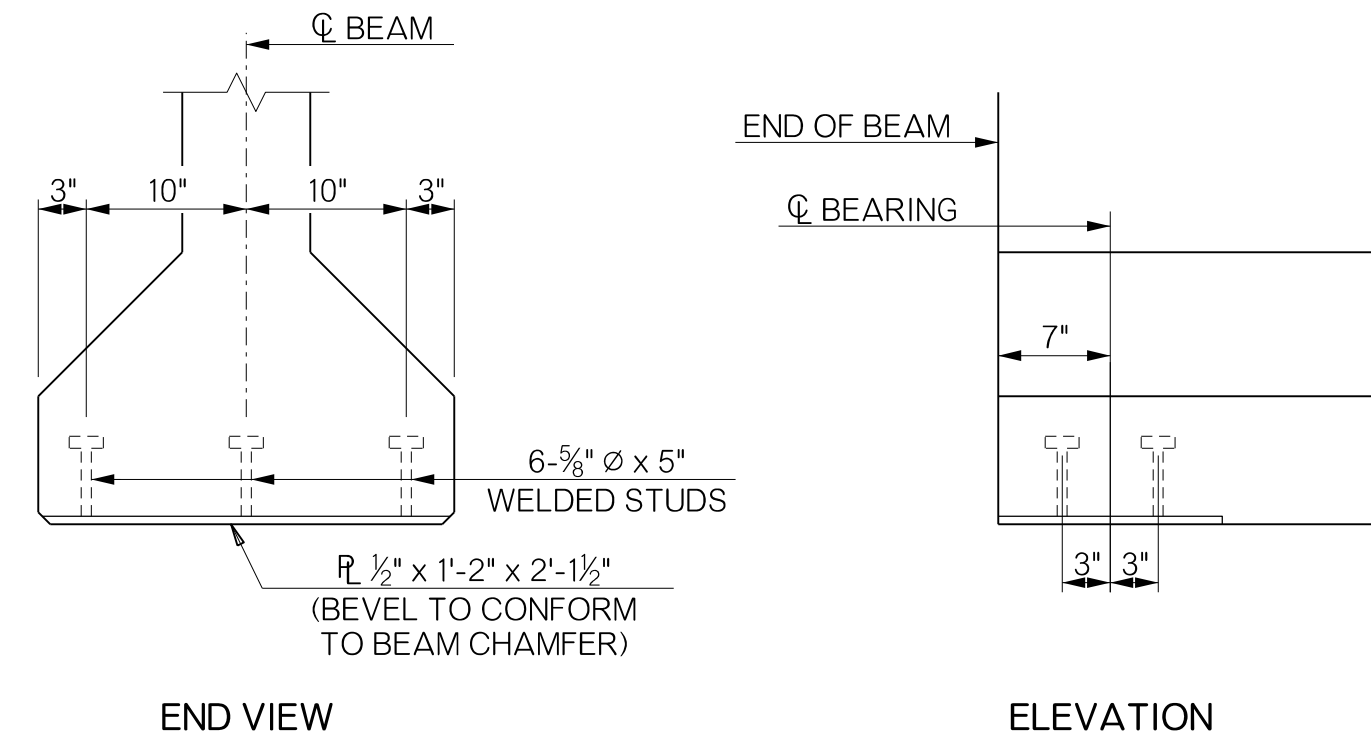
PRESTRESSED CONCRETE BEAM NOTES:
 COMPRESSIVE STRENGTH
 THE REQUIRED COMPRESSIVE STRENGTH OF THE CONCRETE IS 7,000 P.S.I. AT TRANSFER OF PRESTRESS AND 10,000 P.S.I. AT 28 DAYS.
 STRAND TYPE
 THE REQUIRED STRAND TYPE IS LOW-RELAXATION. USE STRANDS HAVING A NOMINAL DIAMETER OF 0.6" WITH ULTIMATE TENSILE STRENGTH OF 270 K.S.I.
 LFD OPERATING RATING - HS 65.2
 LRFD OPERATING RATING - 2.14 (HL-93)
 THE OPERATING RATING SHOWN IS BASED ON A NOMINAL STRENGTH AND INCLUDES PARTIALLY BONDED STRANDS IN STRENGTH COMPUTATIONS.



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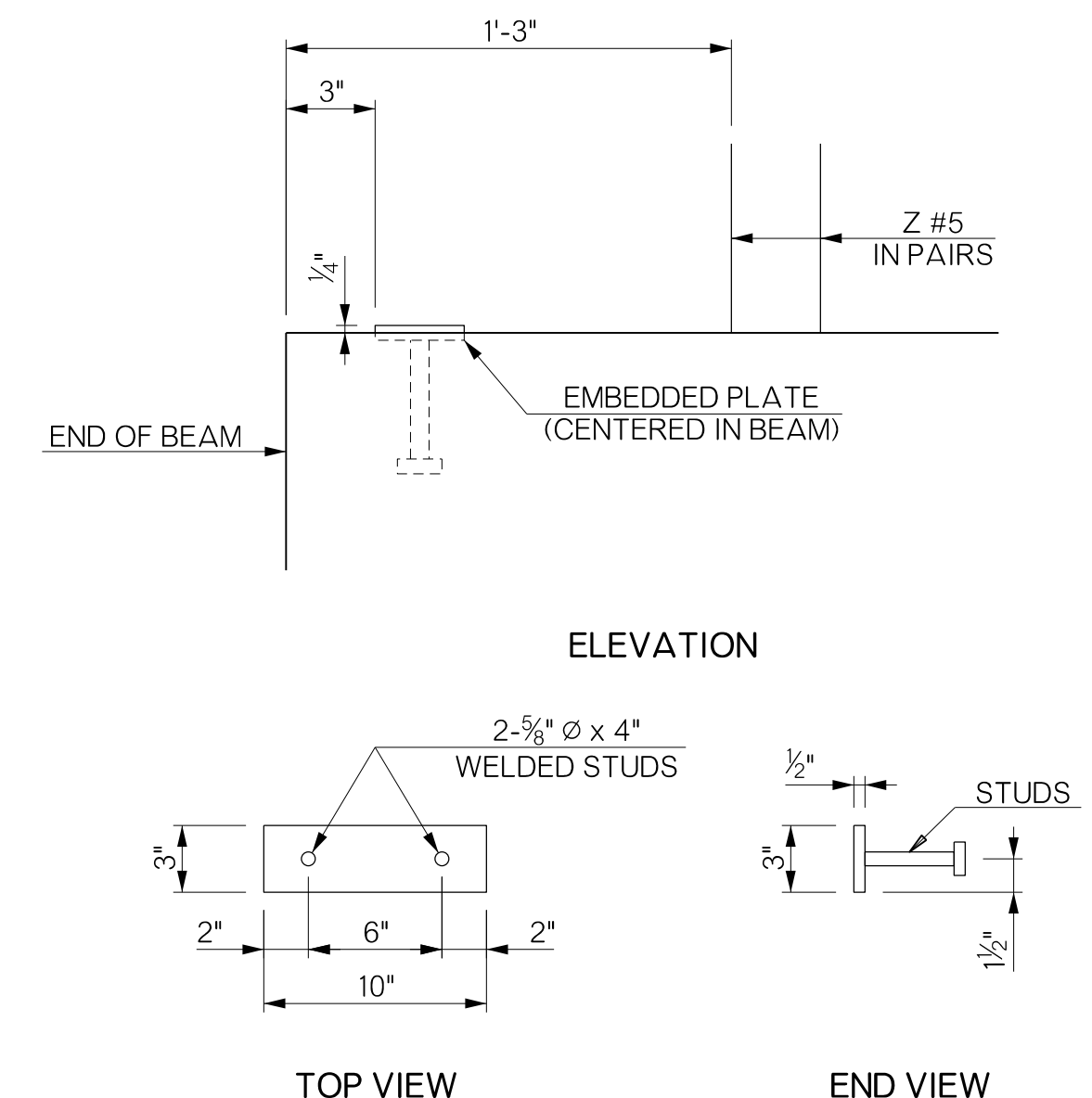
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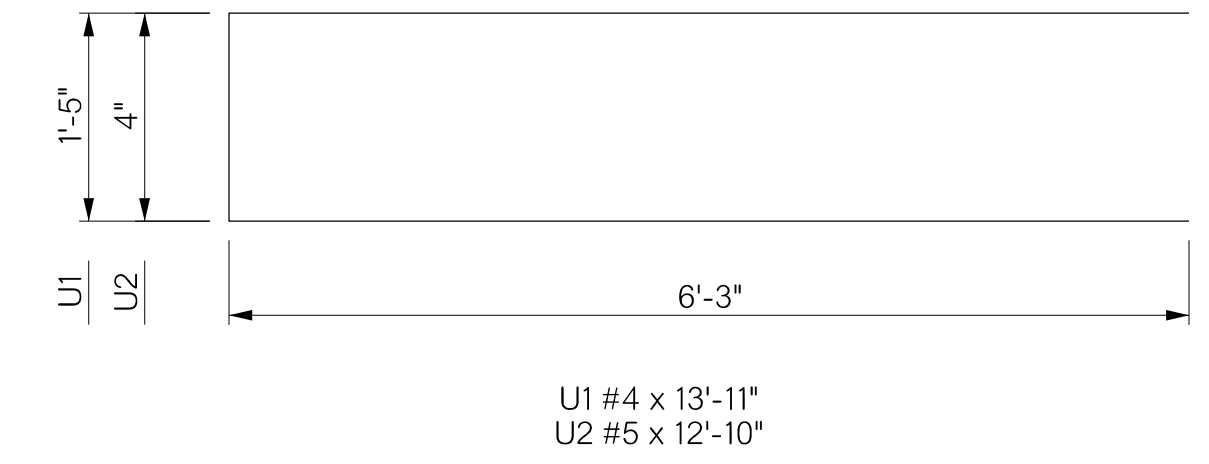
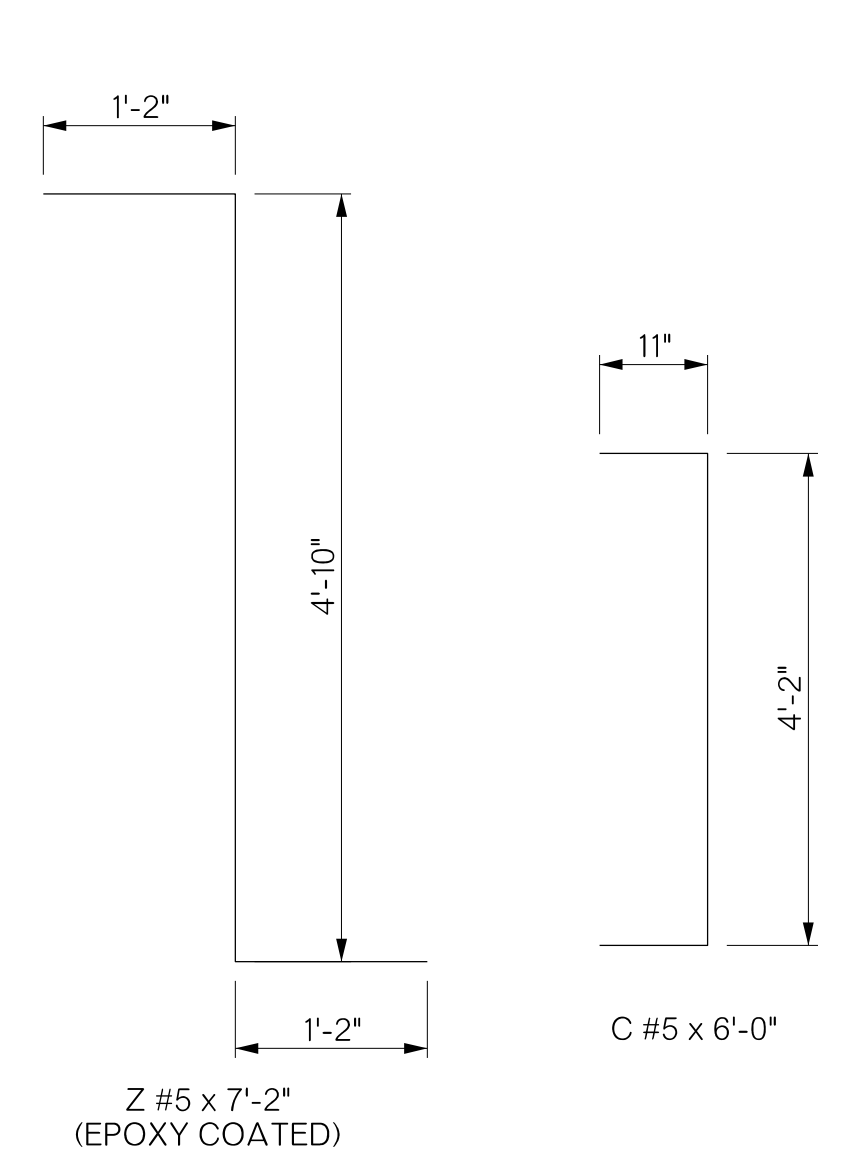
EMBEDDED SOLE PLATE DETAILS

NOTE:
EMBEDDED SOLE PLATE LOCATED AT EACH END OF BEAM.

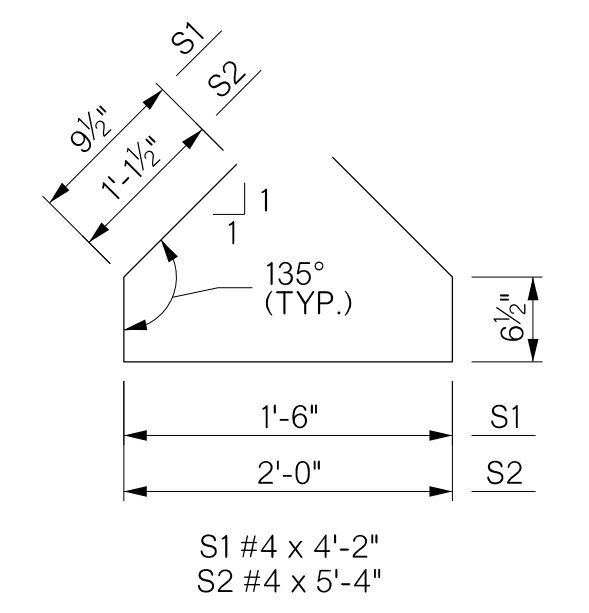


EMBEDDED BEAM PLATE DETAILS

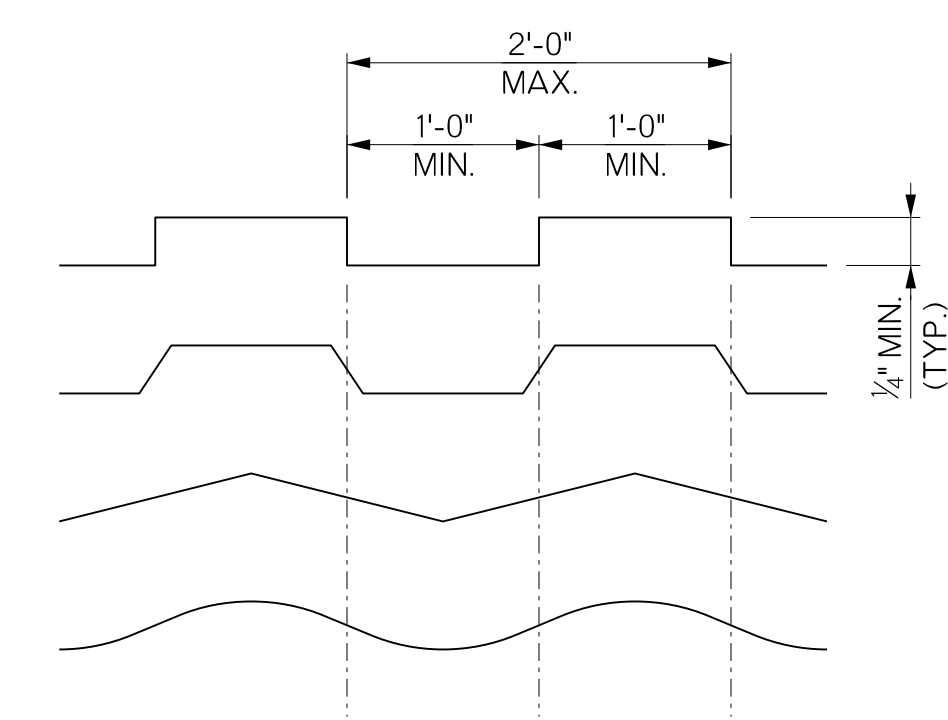
NOTE:
EMBEDDED BEAM PLATE LOCATED AT EXPANSION END ONLY.



U1 #4 x 13'-11"
U2 #5 x 12'-10"



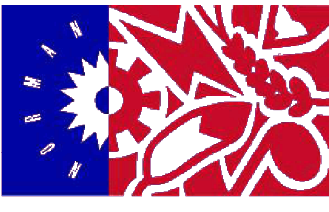
S1 #4 x 4'-2"
S2 #4 x 5'-4"



INTENTIONALLY ROUGHENED SURFACE EXAMPLES

NOTE:
TOP SURFACE OF P.C. BEAMS SHALL BE INTENTIONALLY ROUGHENED TO A MINIMUM HEIGHT OF 1/4" OVER A MAXIMUM PITCH OF 2" MEASURED LONGITUDINALLY ALONG THE LENGTH OF THE BEAM. THE CREST AND TROUGH ASSOCIATED WITH THE HEIGHT SHALL NOT BE LESS THAN 1/2" AND SHALL EXTEND THE FULL WIDTH OF THE TOP FLANGE. ROUGHENED SURFACE MAY BE OBTAINED BY A SPECIAL TROWEL AS SHOWN IN THE EXAMPLES, BY CLEANING THE CONCRETE SURFACE WITH A STIFF WIRE BRUSH (OR BLASTING) TO THE EXTENT THAT AGGREGATE IS EXPOSED TO A HEIGHT OF 1/4", OR BY ANOTHER APPROVED METHOD. THE METHOD USED SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER. REPAIR ANY DAMAGE TO REINFORCEMENT EPOXY COATING BEFORE PLACEMENT OF DECK CONCRETE.

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY,
OKLAHOMA
60TH AVENUE NE
BRIDGE REPLACEMENT
OVER ROCK CREEK

BEAM DETAILS (SHEET 2 OF 2)

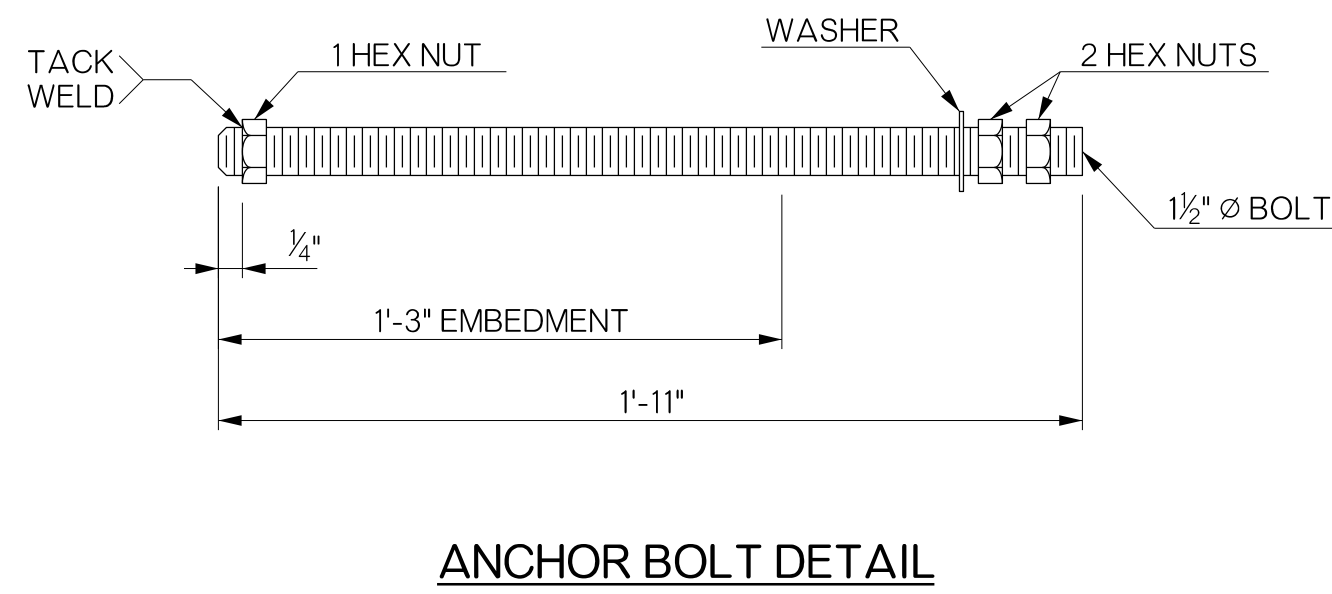
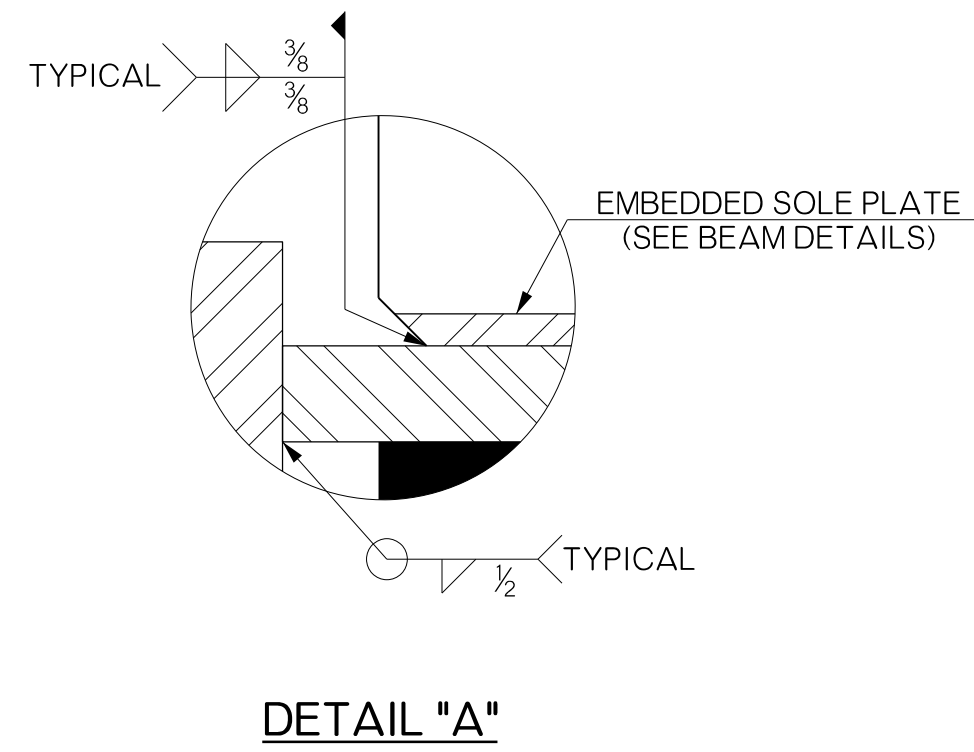
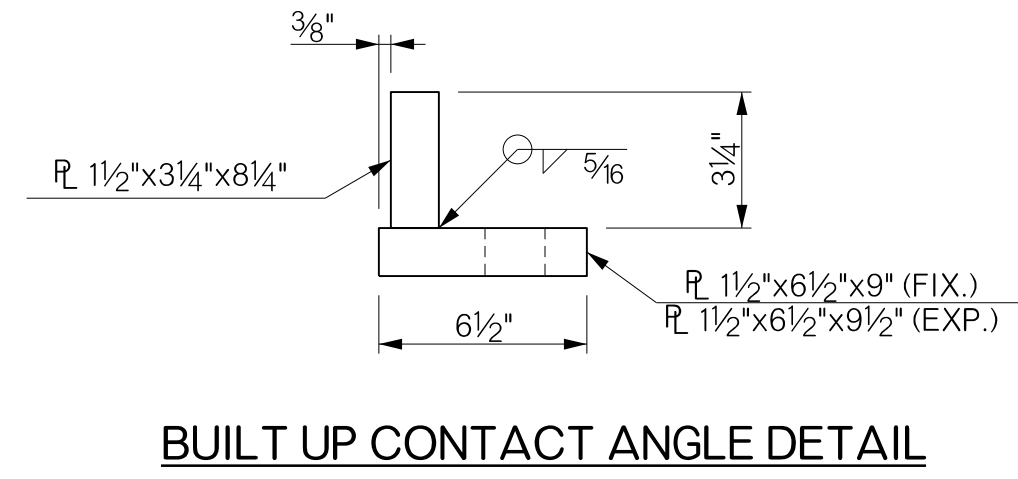
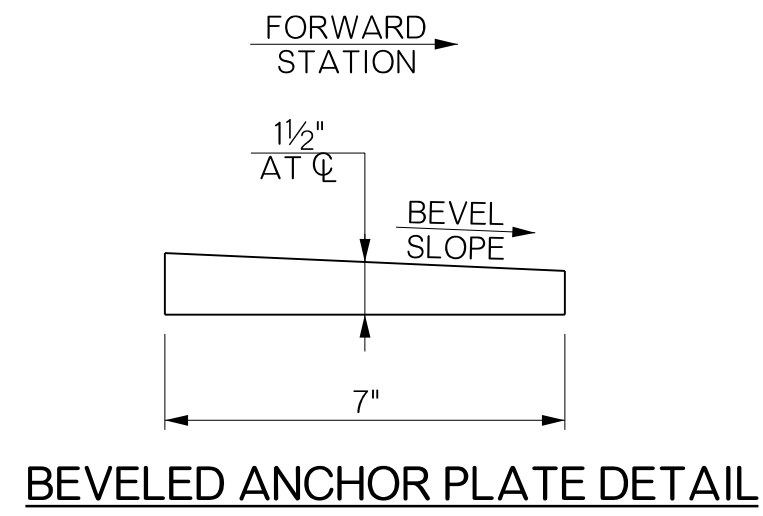
JOB NO.: 22T28060
DATE: SEPT. 2023
DESIGNED BY: WDW
DRAWN BY: WDW

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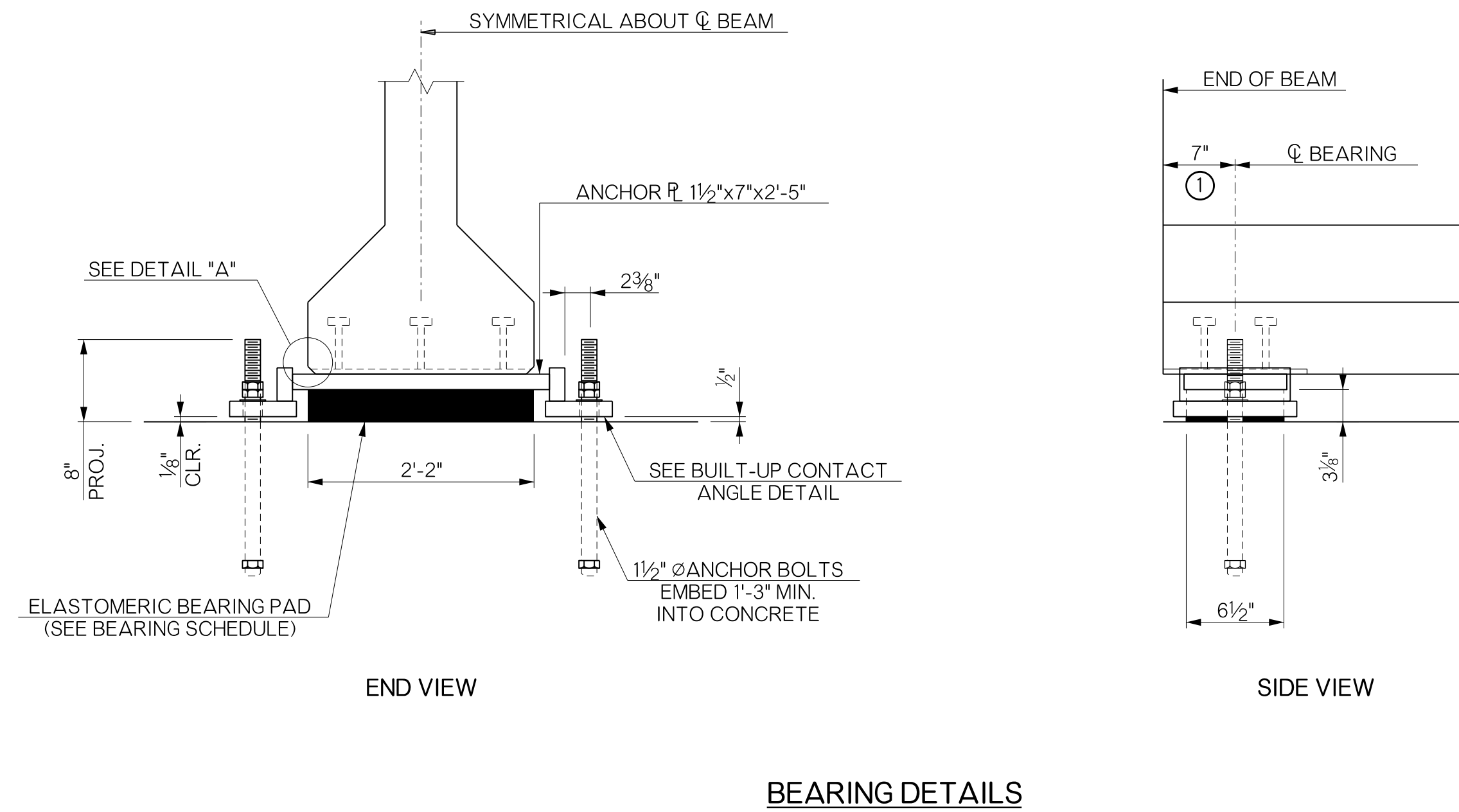
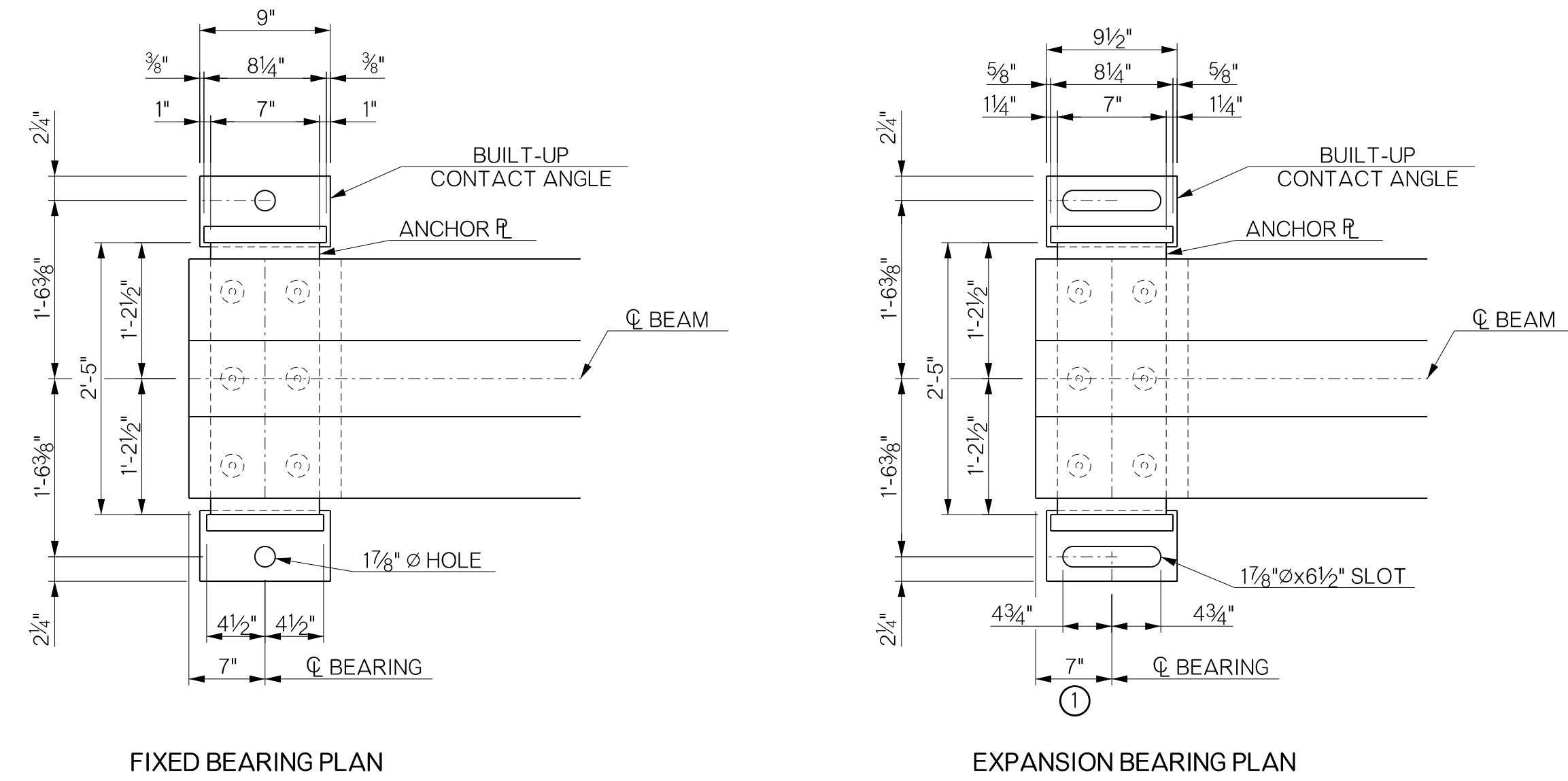
SHEET NUMBER B017

BEVEL SLOPE TABLE	
LOCATION	SLOPE
ABUTMENT NO. 1	0.00%
ABUTMENT NO. 2	1.50%



BEARING PAD SCHEDULE ③					
LOCATION	60 DUROMETER ELASTOMERIC BEARING PAD				
	SIZE (T x L x W)	COVER LAYER	INNER LAYER	LAMINATE LAYER	WEIGHT ②
ABUTMENT NO. 1	3 1/8" x 6 1/2" x 2'-2"	2 - 1/4"	5 - 3/8"	6 - 1/8"	190.60
ABUTMENT NO. 2	3 1/8" x 6 1/2" x 2'-2"	2 - 1/4"	5 - 3/8"	6 - 1/8"	193.40

- ② AVERAGE ESTIMATED WEIGHT OF STRUCTURAL STEEL PER BEARING.
- ③ BONDING TO ANCHOR PLATE IS NOT REQUIRED



BEARING ASSEMBLY NOTES:
 PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES AND BUILT-UP CONTACT ANGLES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED).

FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL.

① ANCHOR BOLTS SHALL BE CENTERED IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.

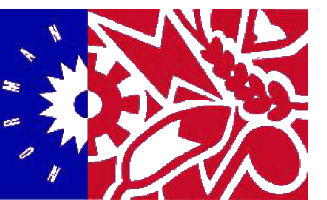


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REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY, OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

BEARING DETAILS

JOB NO.: 22T28060
 DATE: SEPT. 2023
 DESIGNED BY: WDW
 DRAWN BY: WDW

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SHEET NUMBER B018

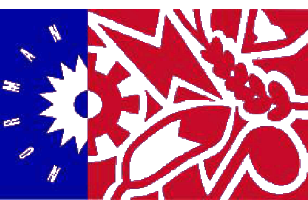


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CLEVELAND COUNTY,
 OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

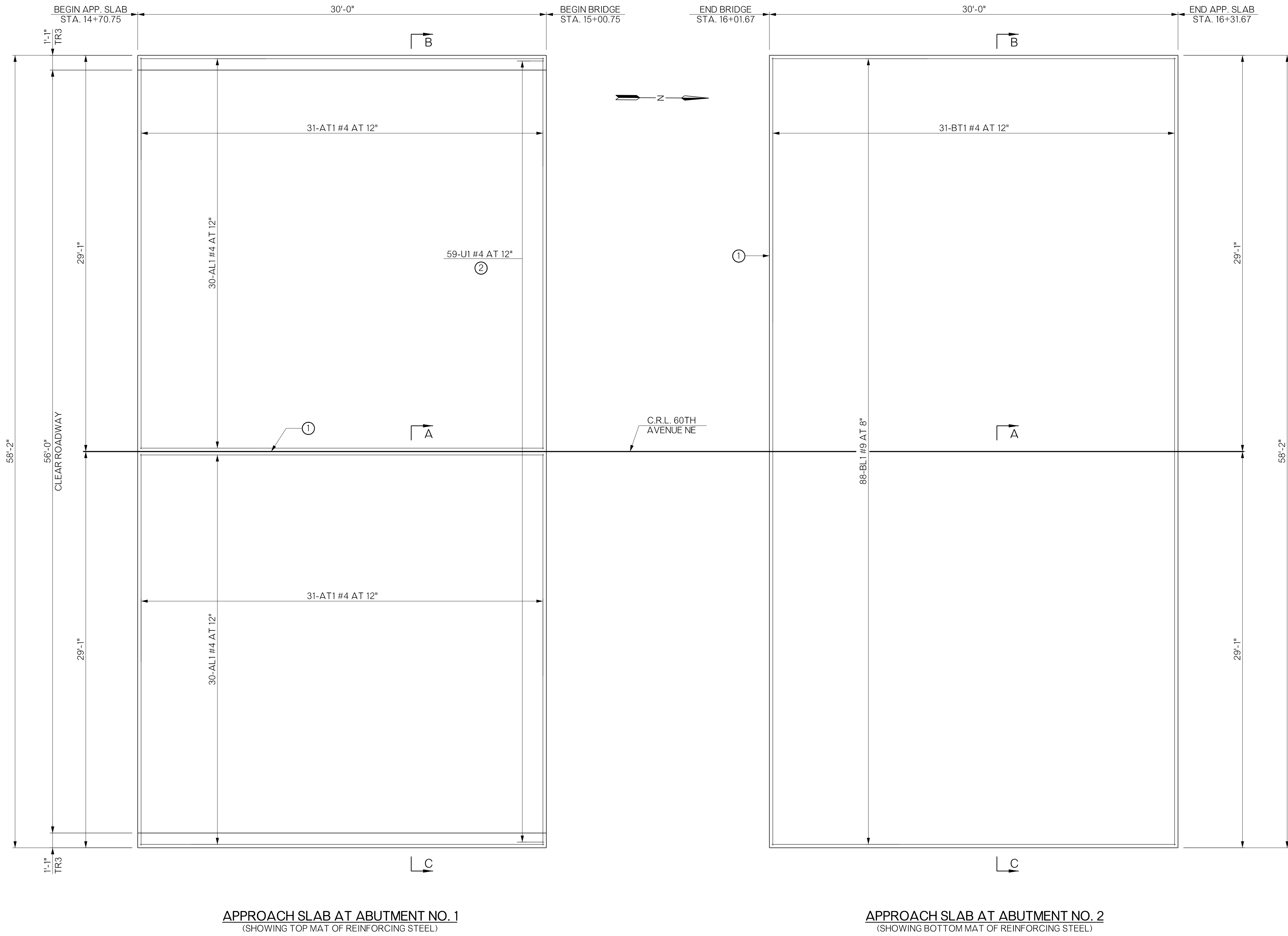
APPROACH
 SLAB DETAILS
 (SHEET 1 OF 2)

JOB NO.: 22T28060
 DATE: SEPT. 2023
 DESIGNED BY: WDW
 DRAWN BY: WDW

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SHEET NUMBER B019



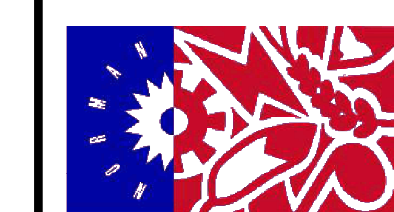
APPROACH SLAB AT ABUTMENT NO. 1
 (SHOWING TOP MAT OF REINFORCING STEEL)

APPROACH SLAB AT ABUTMENT NO. 2
 (SHOWING BOTTOM MAT OF REINFORCING STEEL)

- ① SAWED AND SEALED CONSTRUCTION JOINT IN THE TOP OF APPROACH SLAB. SEE DETAIL "A" ON SHEET NO. B010.
- ② U1 BARS LOCATED AT BEGIN APPROACH SLAB NO. 1 ONLY.

NOTES:
 DO NOT GROOVE WITHIN 6" OF ANY JOINT.
 PARAPET REINFORCEMENT OMITTED FOR CLARITY. SEE STD. TR3-2-01E AND SHEET NO. B013 FOR ADDITIONAL DETAILS.
 FOR SUMMARY OF QUANTITIES AND SECTIONS A, B, AND C, SEE SHEET NO. B020.

REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY, OKLAHOMA
60TH AVENUE NE
BRIDGE REPLACEMENT
OVER ROCK CREEK

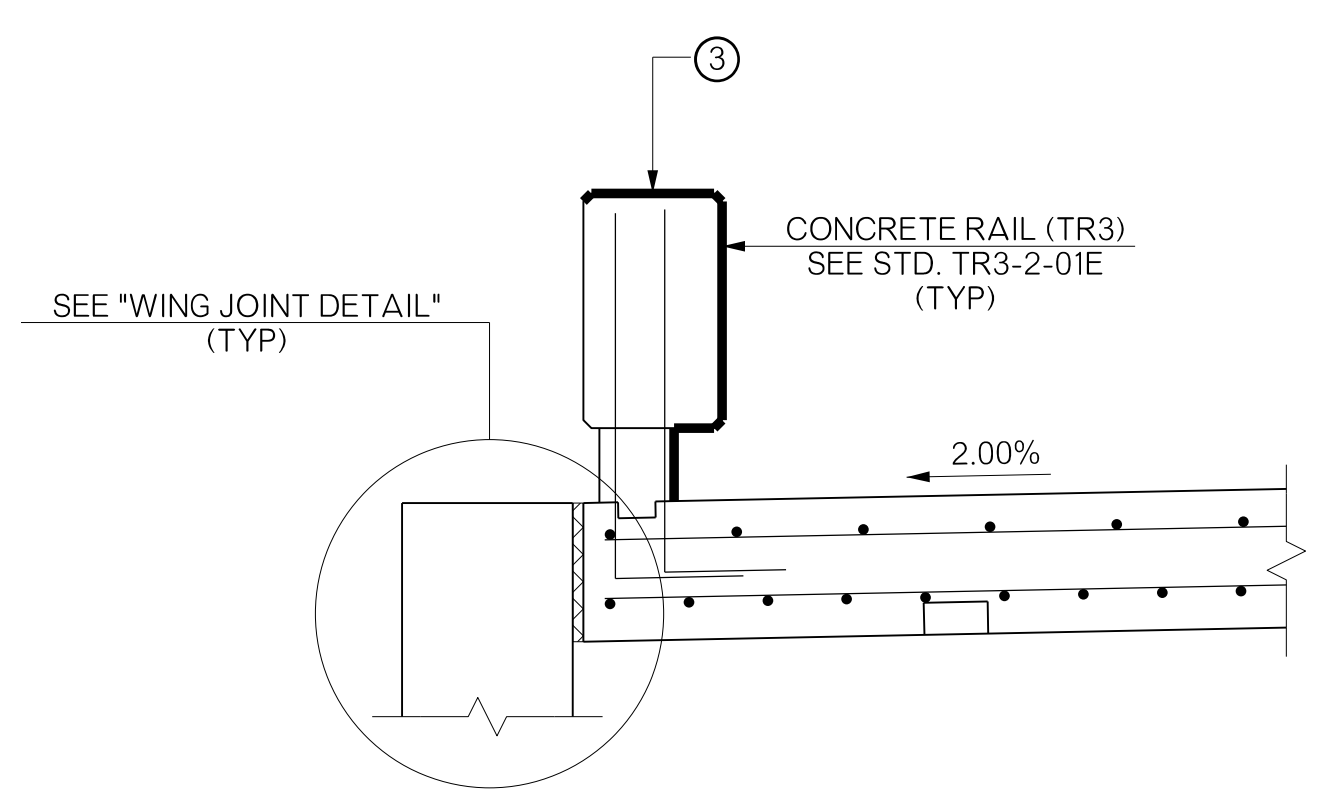
APPROACH
SLAB DETAILS
(SHEET 2 OF 2)

JOB NO.: 22T28060
DATE: SEPT. 2023
DESIGNED BY: WDW
DRAWN BY: WDW

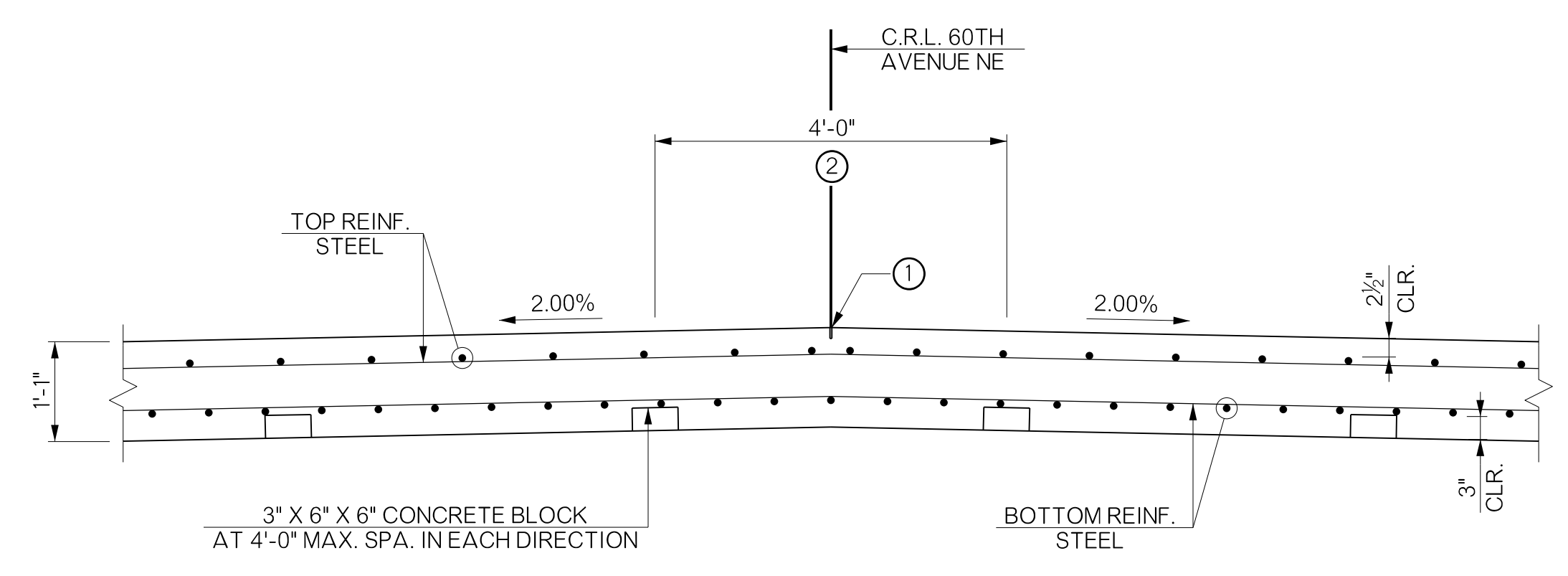
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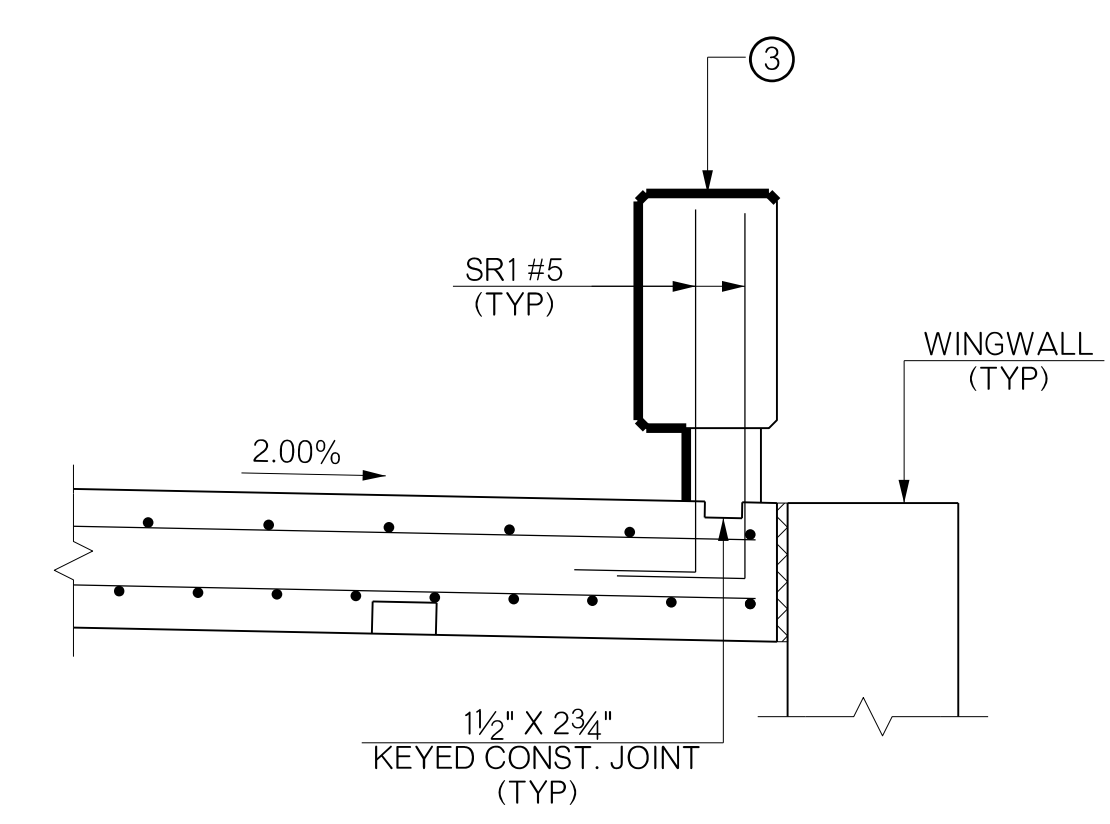
SHEET NUMBER B020



SECTION B



SECTION A THRU APPROACH SLAB



SECTION C

ITEM	UNIT	APPROACH SLAB NO. 1	APPROACH SLAB NO. 2	TOTAL
APPROACH SLAB	SY	193.90	193.90	387.80
SAW-CUT GROOVING	SY	187.00	187.00	374.00
CONCRETE RAIL (TR3)	LF	60.00	60.00	120.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	25.00	25.00	50.00

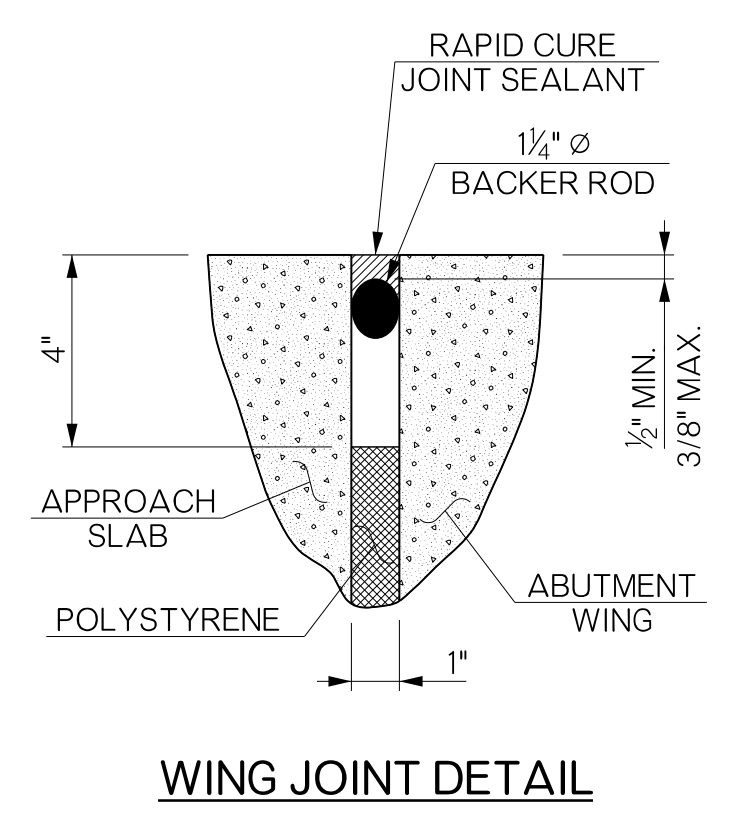
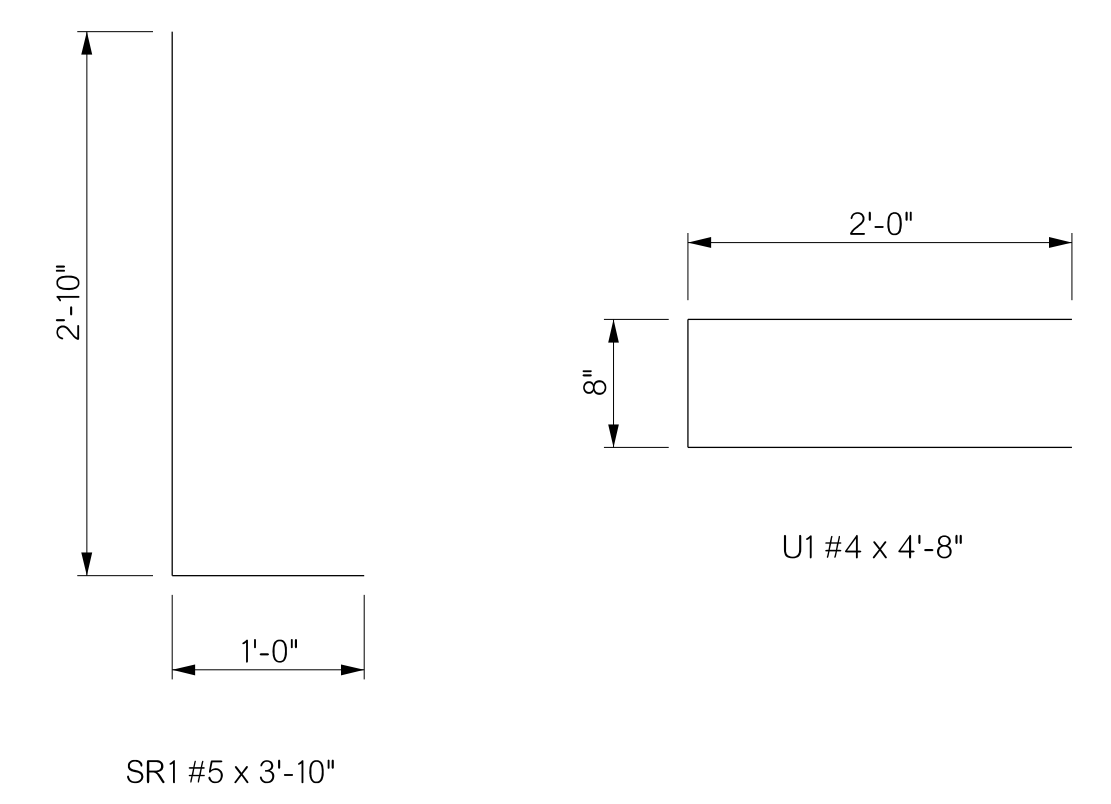
- ① 1/4" SAWED AND SEALED CONSTRUCTION JOINT IN THE TOP OF EACH APPROACH SLAB. SEE "SAWED AND SEALED JOINT DETAIL" ON SHEET NO. B010.
- ② ROUND 2'-0" EACH SIDE OF C.R.L. TO AVOID SHARP EDGES.
- ③ APPLY WATER REPELLENT TO THE SURFACES INDICATED BY HEAVY LINE.

④ ⑤

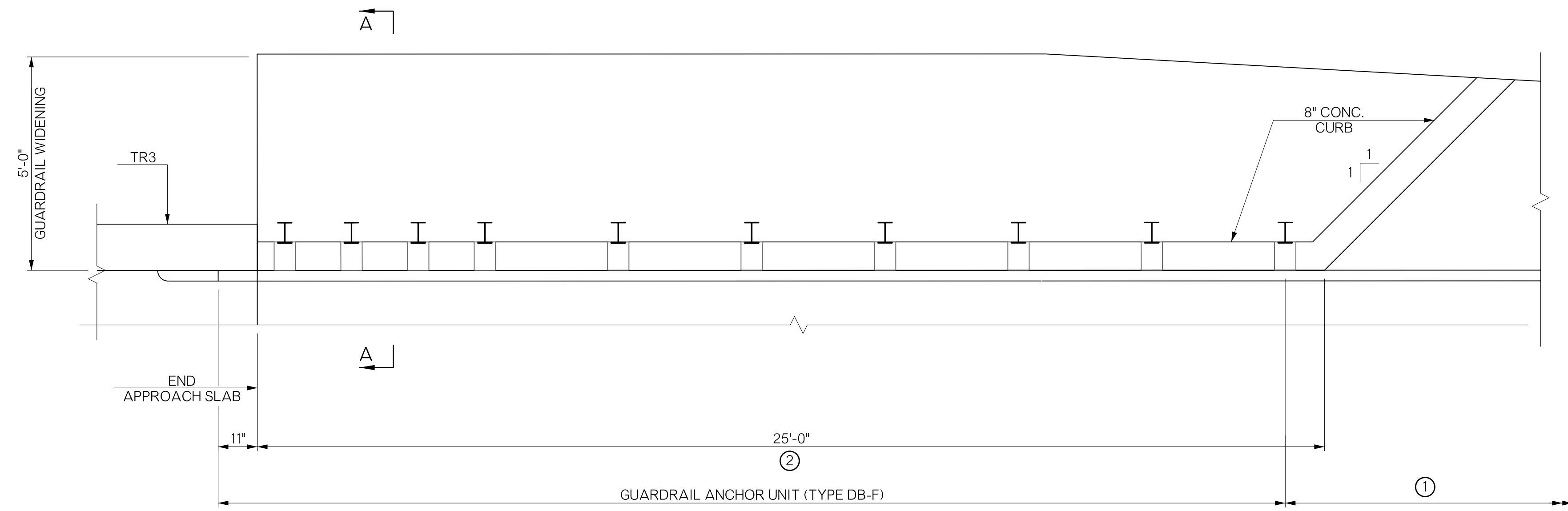
- ④ THE CONTRACT UNIT PRICE FOR "APPROACH SLAB" SHALL BE FULL COMPENSATION FOR CONCRETE, EPOXY COATED REINFORCING STEEL (INCLUDING SR1 BARS), BACKER ROD, RAPID CURE JOINT SEALANT, POLYSTYRENE, LABOR, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED IN THE PLANS.
- ⑤ THERE IS AN ESTIMATED 70.10 C.Y. OF CLASS AA CONCRETE AND 13,560.00 LB. OF EPOXY COATED REINFORCING STEEL IN APPROACH SLAB NO. 1. THERE IS AN ESTIMATED 70.10 C.Y. OF CLASS AA CONCRETE AND 13,260.00 LB. OF EPOXY COATED REINFORCING STEEL IN APPROACH SLAB NO. 2.

MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING STEEL				
AL1	#4	60	STR.	29'-8"
AT1	#4	62	STR.	28'-9"
BL1	#9	88	STR.	29'-8"
BT1	#4	31	STR.	57'-10"
EPT	#4	3	STR.	57'-10"
SR1	#5	200	BENT	3'-10"
U1	#4	59	BENT	4'-8"

MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING STEEL				
AL1	#4	60	STR.	29'-8"
AT1	#4	62	STR.	28'-9"
BL1	#9	88	STR.	29'-8"
BT1	#4	31	STR.	57'-10"
SR1	#5	200	BENT	3'-10"



WING JOINT DETAIL



SLOPE DRAIN PLAN
 (INSTALL SLOPE DRAINS ON NORTH END OF BRIDGE ONLY)
 (INSTALL GUARDRAIL AT ALL CORNERS OF BRIDGE)
 (NW CORNER SHOWN; NE CORNER SIMILAR BUT OPPOSITE HAND)

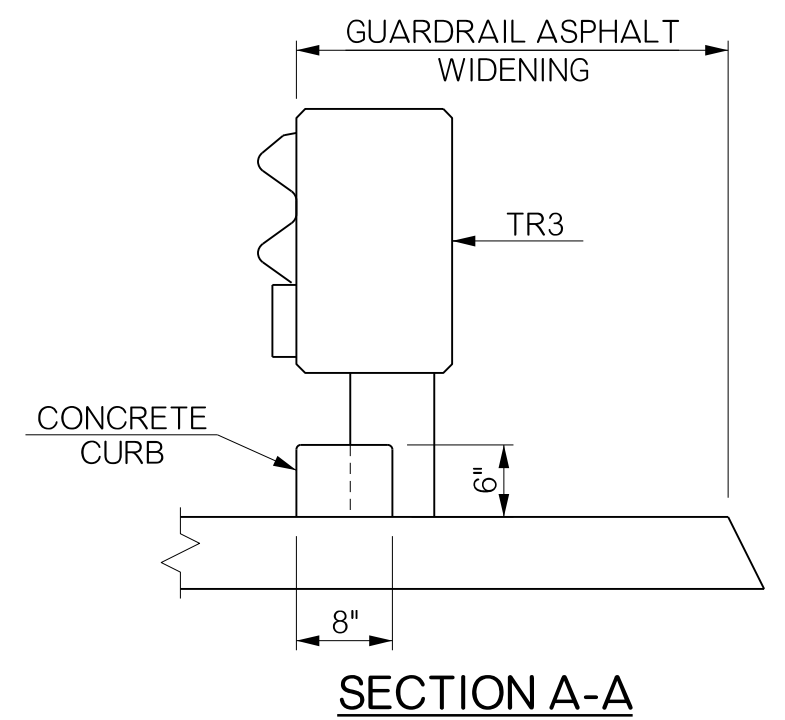
- ① BEAM TYPE GUARDRAIL. FOR GUARDRAIL LENGTHS, SEE "PLAN AND PROFILE" SHEETS.
- ② 8" CONCRETE CURB TO BE INCLUDED IN BRIDGE QUANTITIES.

NOTES:

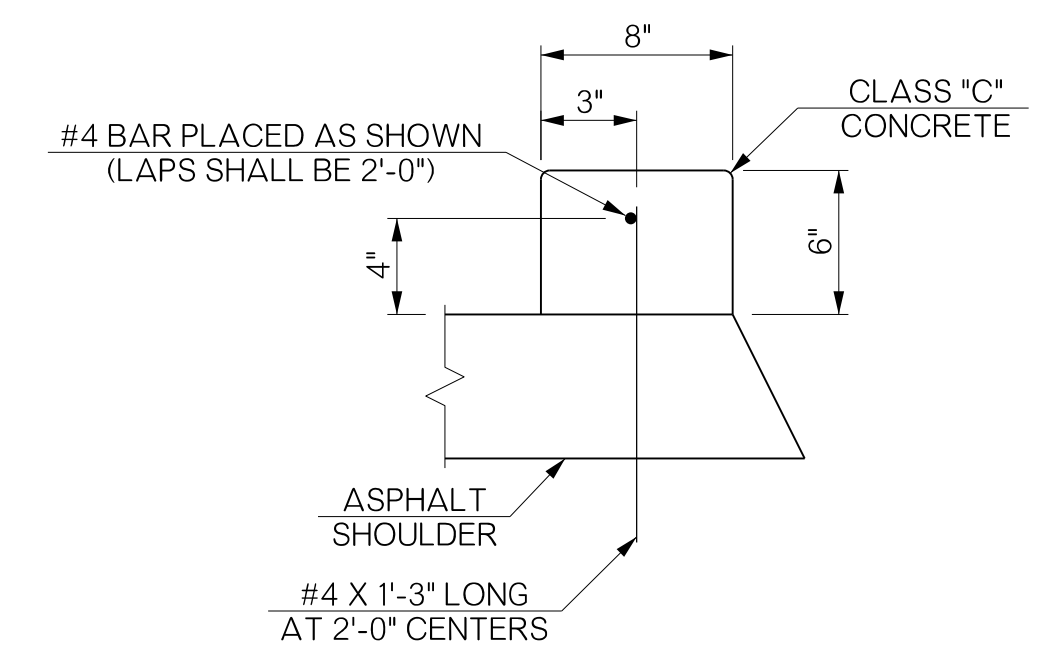
GUARDRAIL ASPHALT WIDENING AND GUARDRAIL SYSTEM SHALL BE IN ACCORDANCE WITH STANDARDS DBF-1-00, SKT-1-00, GHW1-1-00 & GHW2-1-00, EXCEPT AS SHOWN ON THIS SHEET. ALL COSTS OF GUARDRAIL ASPHALT WIDENING AND GUARDRAIL SYSTEM SHALL BE INCLUDED IN ROADWAY PAY ITEMS.

ALL CONCRETE CURBS SHALL BE CONSTRUCTED USING CLASS C CONCRETE AS SHOWN ON THIS SHEET. ALL COSTS OF THE 8" CONCRETE CURB INCLUDING CONCRETE AND REINFORCING STEEL SHALL BE INCLUDED IN THE PAY ITEM PER CUBIC YARD OF "CLASS C CONCRETE".

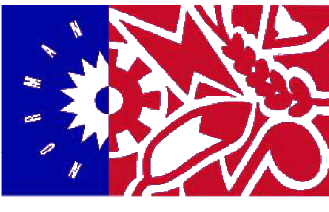
REV.	DATE	DESCRIPTION	BY



SECTION A-A



DETAIL OF CONCRETE CURB



CLEVELAND COUNTY,
 OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

DRAIN DETAILS

JOB NO.: 22T28060
 DATE: SEPT. 2023
 DESIGNED BY: JTR
 DRAWN BY: SJL

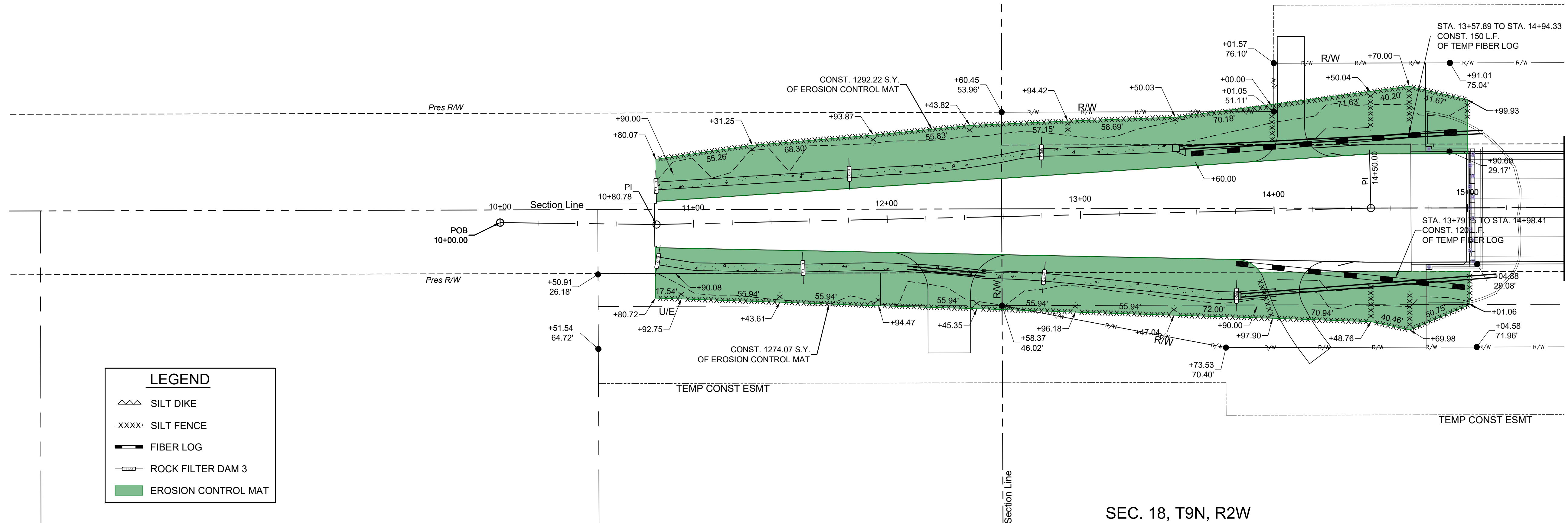
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DRAWING NUMBER

SHEET NUMBER B021

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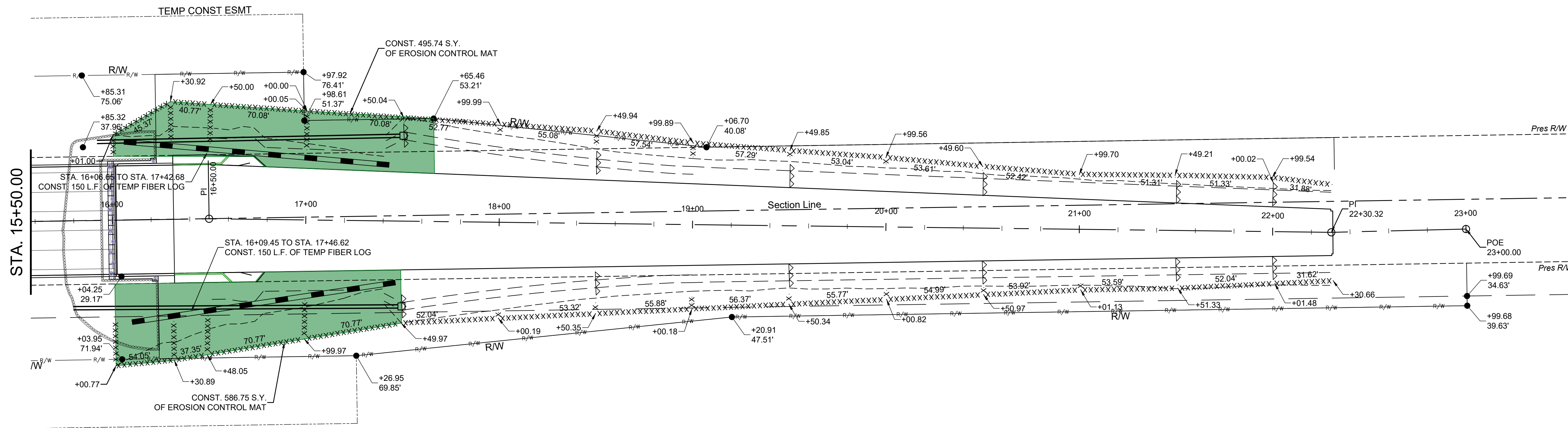
SEC. 13, T9N, R1W



LEGEND	
	SILT DIKE
	SILT FENCE
	FIBER LOG
	ROCK FILTER DAM 3
	EROSION CONTROL MAT

SEC. 18, T9N, R2W

SEC. 13, T9N, R1W



SEC. 18, T9N, R2W



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CA #4193 EXPIRES JUNE 30, 2024

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REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY,
 OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Erosion Control

JOB NO.: 22T28060
 DATE: MAR 2024
 DESIGNED BY: BDM
 DRAWN BY: JHS

BAR IS ONE INCH ON ORIGINAL DRAWING
 0" = 1"
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SHEET NUMBER EC01

STORM WATER MANAGEMENT PLAN

SITE DESCRIPTION

PROJECT LIMITS: BRIDGE AND APPROACHES OVER ROCK CREEK, APPROXIMATELY 2,900 FEET NORTH OF THE INTERSECTION OF ROCK CREEK ROAD AND 60TH AVENUE IN NORMAN, OKLAHOMA.

PROJECT DESCRIPTION: NEW BRIDGE CONSTRUCTION TO REPLACE LOAD POSTED BRIDGE

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES: PRIOR TO INITIATING SOIL DISTURBING ACTIVITIES, THE CONTRACTOR WILL INSTALL ALL PERIMETER TEMPORARY SEDIMENT CONTROLS SPECIFIED AS NEEDED. STRIP, STOCKPILE, AND STABILIZE TOPSOIL. INSTALLED TEMPORARY SEDIMENT CONTROL DEVICES WILL BE MAINTAINED AND RELOCATED AS NECESSARY TO FACILITATE CONSTRUCTION. REPLACE SALVAGED TOPSOIL AS CONSTRUCTION PERMITS AND PLACE SOD. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF TEMPORARY SEDIMENT CONTROL PRACTICES TO IMPROVE EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF THE DATES OF MAJOR SOIL DISTURBING ACTIVITIES AND INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: LOMILL SILTY CLAY, HARRAH FINE SANDY FOAM, STEPHENVILLE-DARNELL-NEWALLA COMPLEX, ASHPORT SILT LOAM

TOTAL AREA OF THE CONSTRUCTION SITE: 3.89 ACRES

ESTIMATED AREA TO BE DISTURBED: 0.49 ACRES

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.58 ACRES

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.92 ACRES

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.44

LATITUDE & LONGITUDE OF CENTER OF PROJECT: 35.25513°, -97.35308°

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: ROCK CREEK

SENSITIVE WATERS OR WATERSHEDS: YES NO

303(d) IMPAIRED WATERS: YES NO

IF YES, LIST IMPAIRMENT: ENTEROCOCCI, E. COLI

LOCATED IN A TMDL: YES NO

LAKE THUNDERBIRD TMDL: YES NO

MS4 ENTITY YES NO

IF YES, LOCATION: CITY OF NORMAN

NOTE:
THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- TEMPORARY SEEDING
- PERMANENT SODDING, SPRIGGING OR SEEDING
- VEGETATIVE MULCHING
- _____ SOIL RETENTION BLANKET
- _____ PRESERVATION OF EXISTING VEGETATION
- _____ HYDROMULCH / HYDROSEED

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

- STABILIZED CONSTRUCTION EXIT
- TEMPORARY SILT FENCE
- TEMPORARY SILT DIKES
- TEMPORARY FIBER LOG
- _____ DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- _____ DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- ROCK FILTER DAMS
- _____ TEMPORARY SLOPE DRAIN
- PAVED DITCH W/ DITCH LINER PROTECTION
- _____ TEMPORARY DIVERSION CHANNELS
- _____ TEMPORARY SEDIMENT BASINS
- _____ TEMPORARY SEDIMENT TRAPS
- TEMPORARY SEDIMENT FILTERS
- TEMPORARY SEDIMENT REMOVAL
- RIP RAP
- _____ INLET PROTECTION
- _____ TEMPORARY BRUSH SEDIMENT BARRIERS
- _____ SANDBAG BERMS
- _____ TEMPORARY STREAM CROSSINGS
- _____ FLEXAMAT / ARTICULATED CONCRETE BLOCK
- _____ COMPOST FILTER SOCKS
- EROSION CONTROL MATS AND BLANKETS

OFFSITE VEHICLE TRACKING:

- HAUL ROADS DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS TO BE COVERED WITH TARPULIN
- EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

LOCATED IN LAKE THUNDERBIRD WATERSHED.

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCH AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

WASTE MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIALS IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

GENERAL NOTES:

A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORM AND PERMIT CERTIFICATE THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF-SITE OPERATIONS ASSOCIATED WITH THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, I.E., BORROW PITS, WORK ROADS, DISPOSAL SITES, ASPHALT/CONCRETE PLANTS, ETC. THE BASIC GOAL OF STORM WATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2019 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

- 103.05 BONDING REQUIREMENTS
- 104.10 FINAL CLEANING UP
- 104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK
- 104.13 ENVIRONMENTAL PROTECTION
- 106.08 STORAGE AND HANDLING OF MATERIAL
- 107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED
- 107.20 STORM WATER MANAGEMENT
- 220 MANAGEMENT OF EROSION, SEDIMENTATION AND STORM WATER POLLUTION PREVENTION
- 221 AND CONTROL
TEMPORARY SEDIMENT CONTROL

IN ADDITION:

"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, OCTOBER 18, 2022.

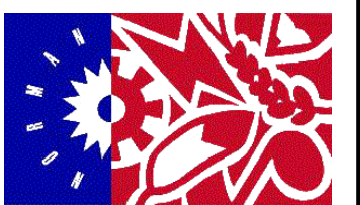
ADDITIONAL PERMITS REQUIRED FROM OKLAHOMA WATER RESOURCES BOARD AND/OR MUNICIPALITY FOR USE OF SURFACE, GROUND OR CITY WATER SOURCES FOR ACTIVITIES SUCH AS WATERING.



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REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY, OKLAHOMA
60TH AVENUE NE BRIDGE REPLACEMENT OVER ROCK CREEK

Storm Water Management Plan

JOB NO.: 22T28060
DATE: MAR 2024
DESIGNED BY: BDM
DRAWN BY: JHS

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SHEET NUMBER R001

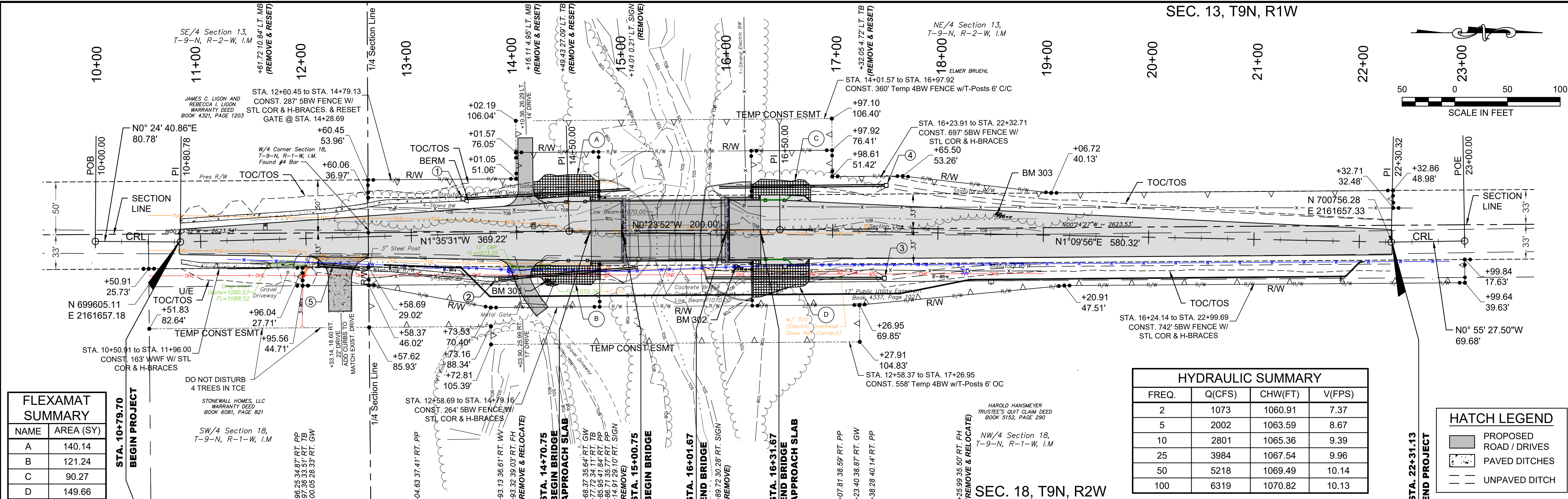
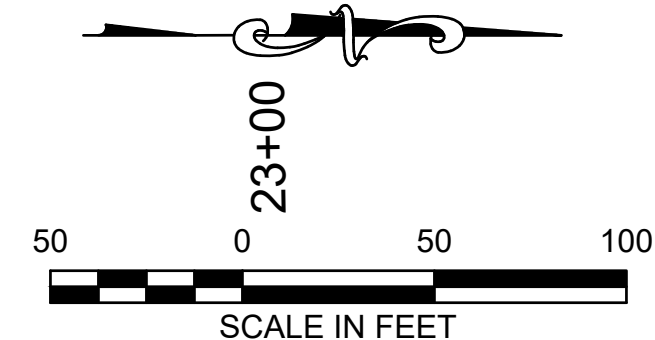
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SEC. 13, T9N, R1W

SEC. 18, T9N, R2W

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FLEXAMAT SUMMARY

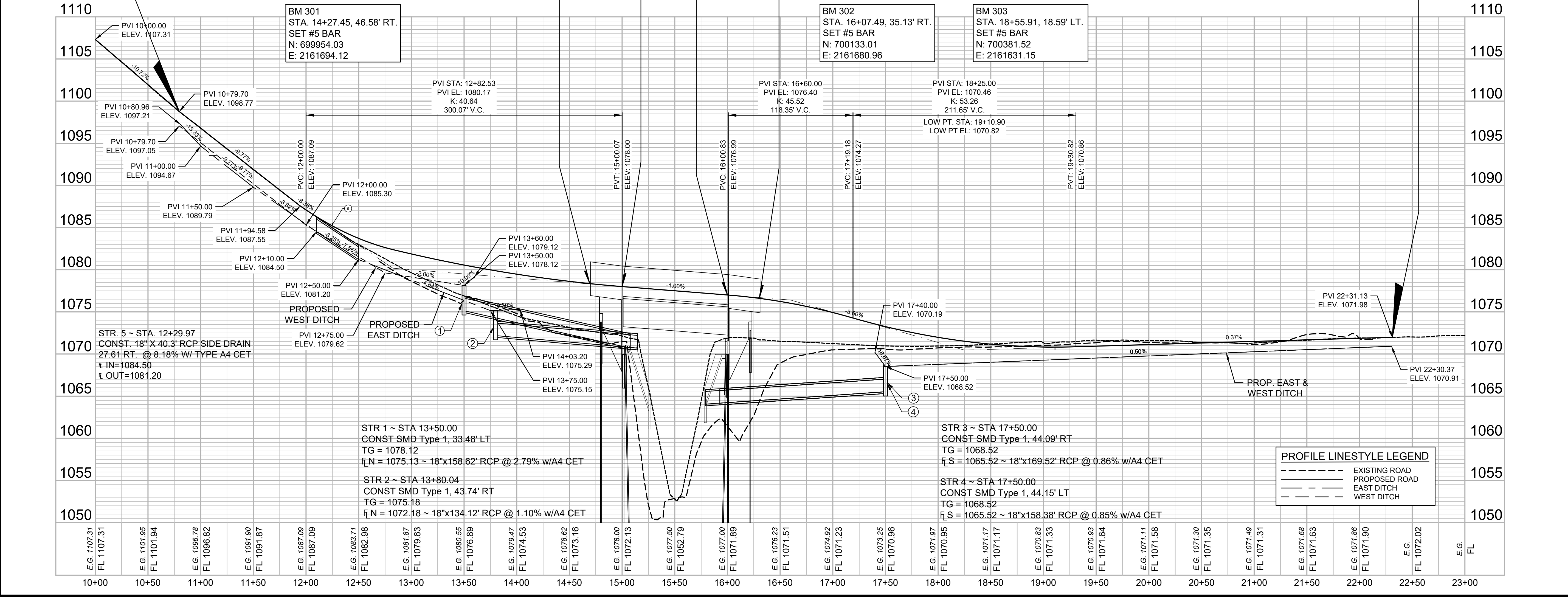
NAME	AREA (SQ)
A	140.14
B	121.24
C	90.27
D	149.66

HYDRAULIC SUMMARY

FREQ.	Q(CFS)	CHW(FT)	V(FPS)
2	1073	1060.91	7.37
5	2002	1063.59	8.67
10	2801	1065.36	9.39
25	3984	1067.54	9.96
50	5218	1069.49	10.14
100	6319	1070.82	10.13

HATCH LEGEND

- PROPOSED ROAD / DRIVES
- PAVED DITCHES
- UNPAVED DITCH

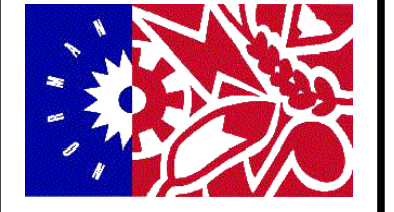


PROFILE LIFESTYLE LEGEND

- EXISTING ROAD
- PROPOSED ROAD
- EAST DITCH
- WEST DITCH

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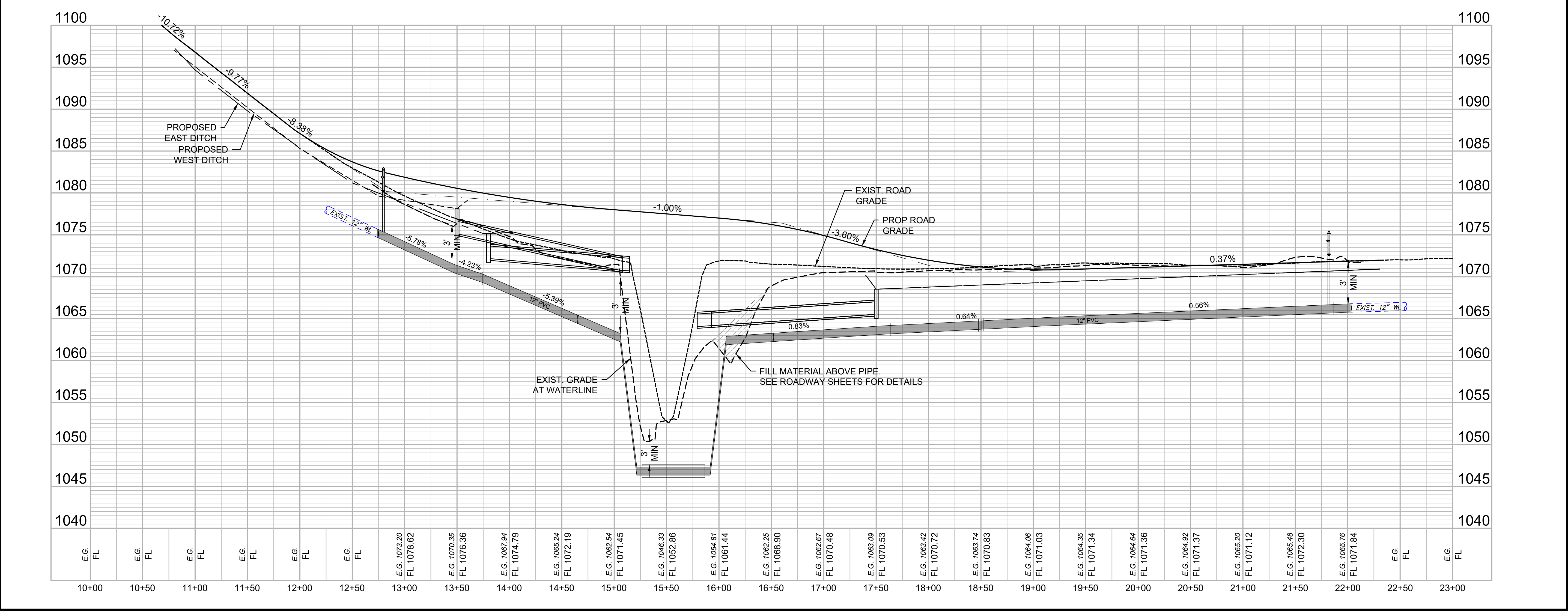
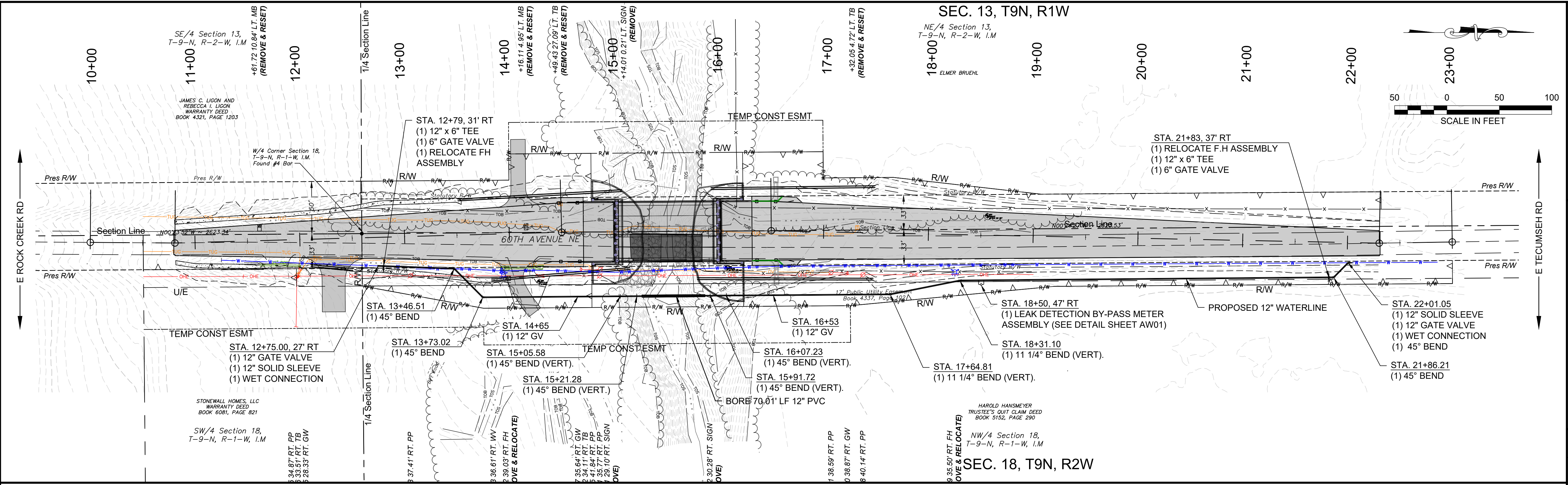



CLEVELAND COUNTY, OKLAHOMA
 60TH AVENUE NE BRIDGE REPLACEMENT OVER ROCK CREEK

Plan and Profile
 JOB NO.: 22T28060
 DATE: MAR 2024
 DESIGNED BY: BDM
 DRAWN BY: JHS

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 SHEET NUMBER **R002**

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 Last plotted by: Moran, Brett D., Plot Style: ASBULL.TS, 1, cb, Plot Scale: 1:0, 4/25/2024 1:02 PM, Plotter used: DWG To PDF, pc3






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REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY,
 OKLAHOMA

60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Waterline Plan

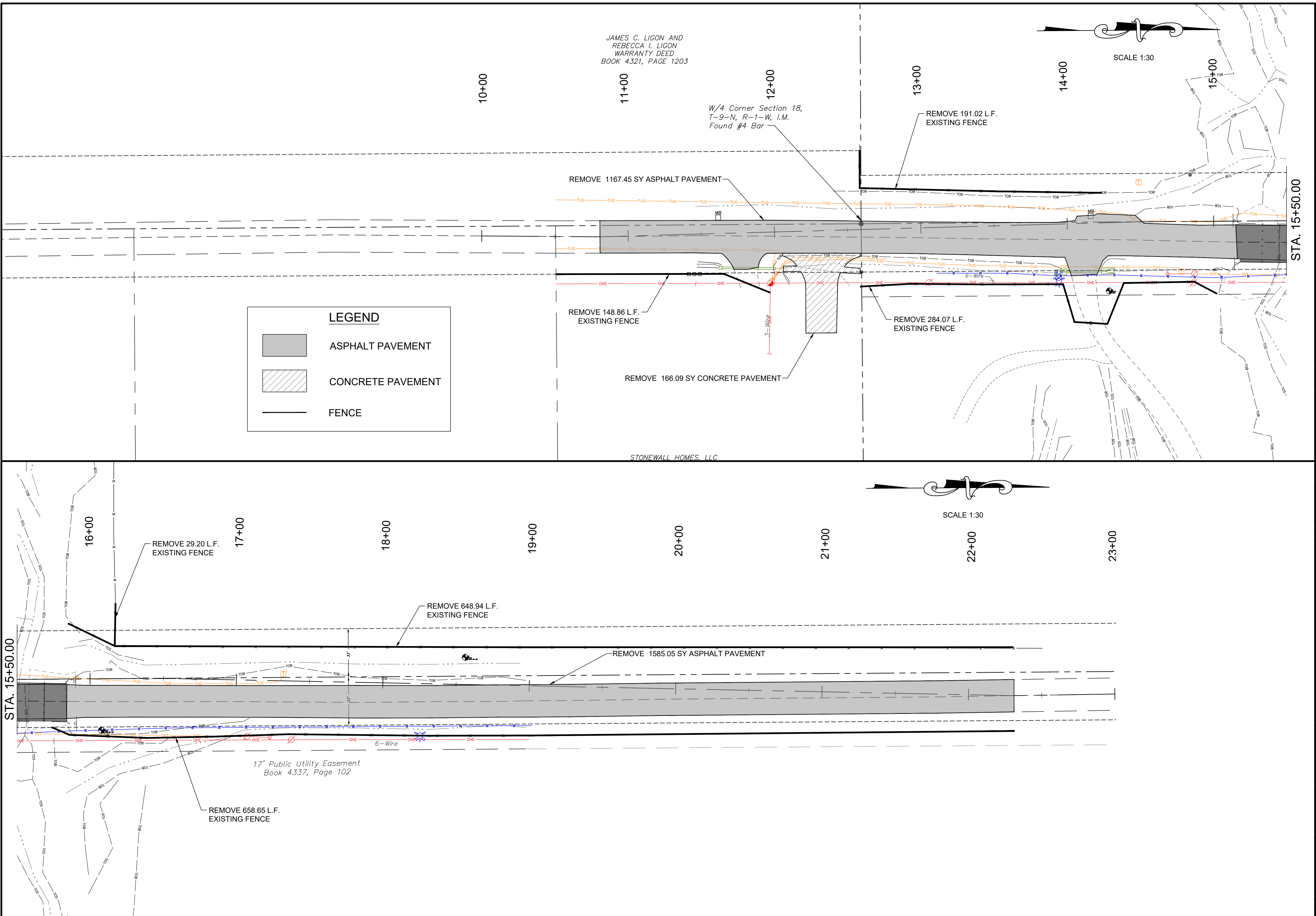
JOB NO.: 22T28060
 DATE: MAR 2024
 DESIGNED BY: BDM
 DRAWN BY: JHS

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SHEET NUMBER **R003**



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JAMES C. LIGON AND
 REBECCA L. LIGON
 WARRANTY DEED
 BOOK 4321, PAGE 1203


W/4 Corner Section 18,
 T-9-N, R-1-W, I.M.
 Found #4 Bar

LEGEND

-  ASPHALT PAVEMENT
-  CONCRETE PAVEMENT
- FENCE

STONEWALL HOMES, LLC

17' Public Utility Easement
 Book 4337, Page 102



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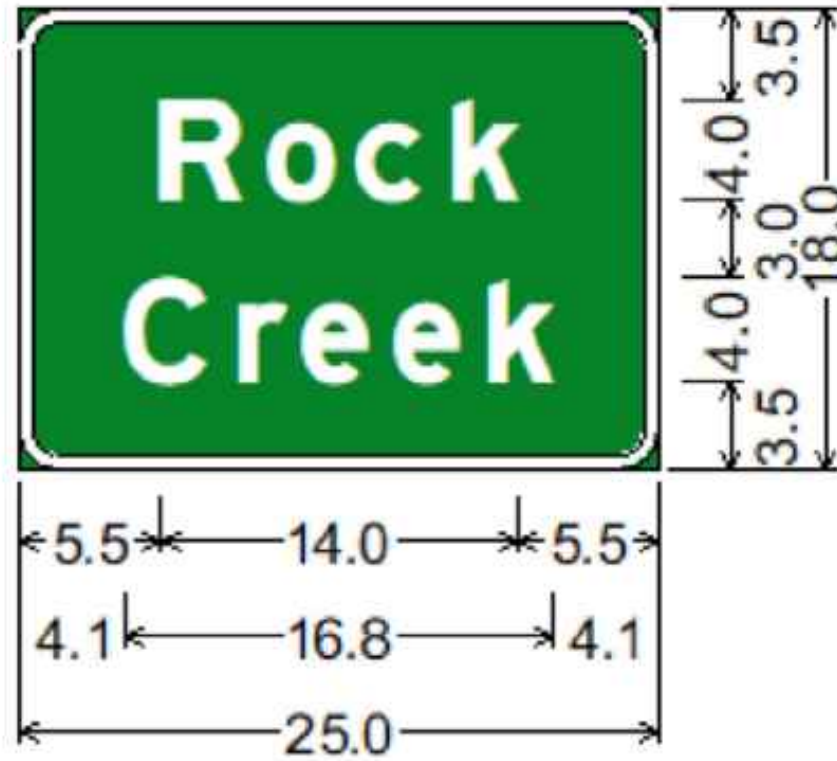
CLEVELAND COUNTY,
 OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Removals

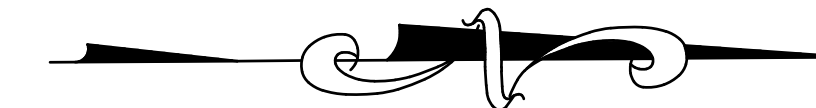
JOB NO.: 22T28060
 DATE: MAR 2024
 DESIGNED BY: BDM
 DRAWN BY: JHS

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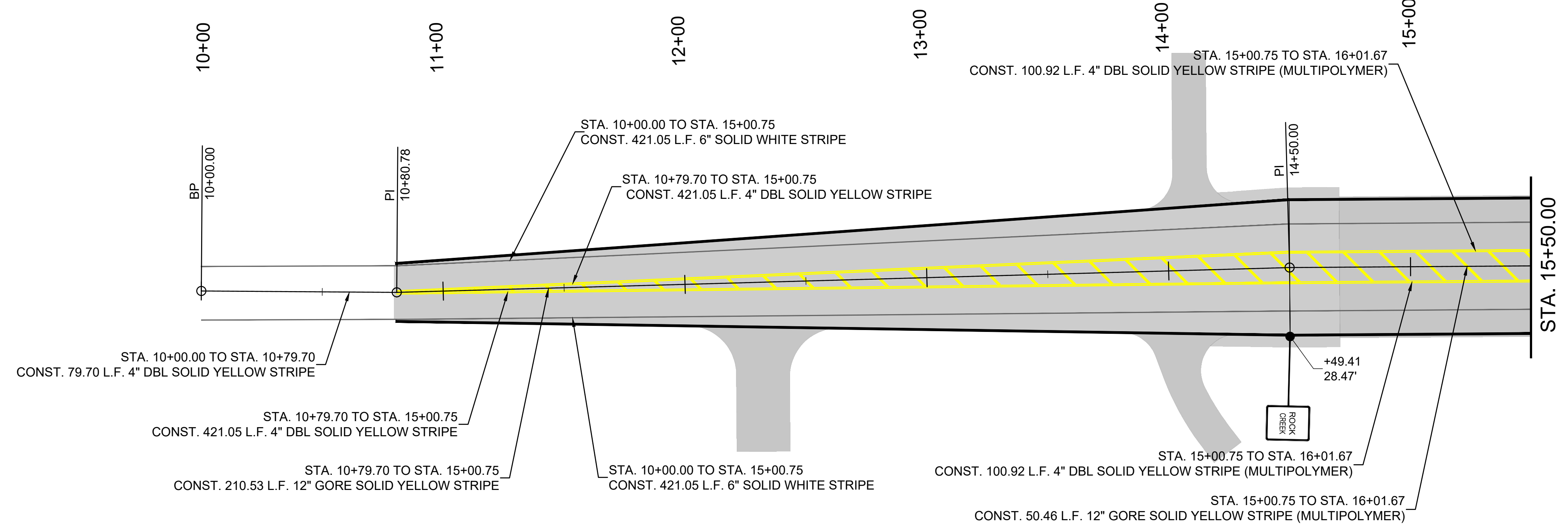
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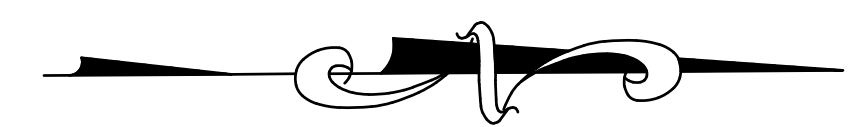
SEC. 13, T9N, R1W



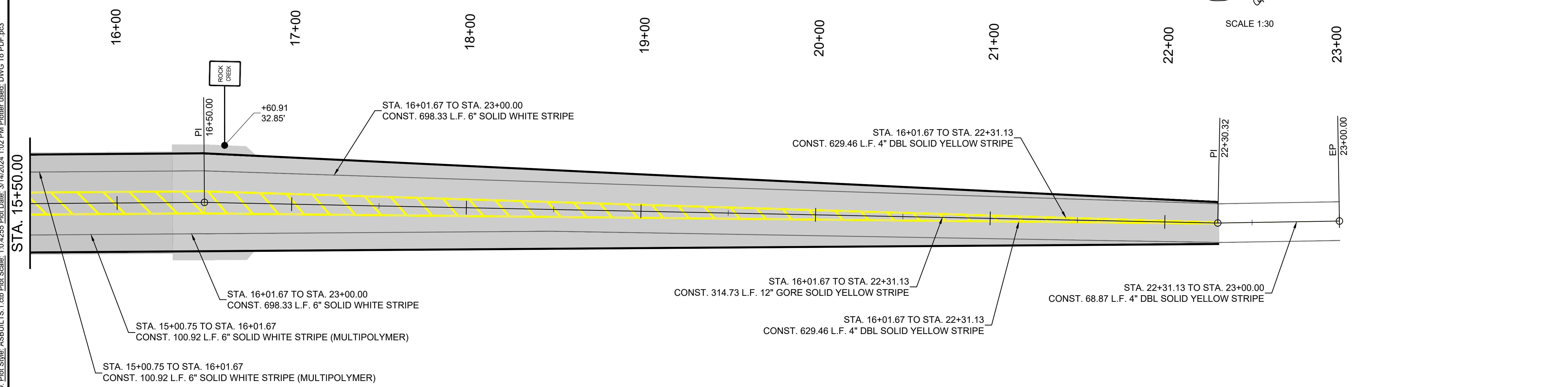
SCALE 1:30



SEC. 18, T9N, R2W



SCALE 1:30



SEC. 18, T9N, R2W

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REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY,
 OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Signing and Striping

JOB NO.: 22T28060
 DATE: MAR 2024
 DESIGNED BY: BDM
 DRAWN BY: JHS

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 0 1"
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SHEET NUMBER T001

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File: L:\2022\22T28060 - Norman Bridge Reconstruction\60th Avenue NE\22T28060 - Cross Sections - PSC.dwg Last Save: 2/2/2024 10:10 AM Last saved by: JHSmith
 Last plotted by: Meran, Brett D. Plot Style: ASBULL.TS, 1, cpl Plot Scale: 1:0.4255 Plot Date: 3/14/2024 1:02 PM Plotter used: DWG To PDF.pc3

Total Volume Table						
Station	Cut Area	Fill Area	Cut Volume	Fill Volume	Cumulative Cut Vol	Cumulative Fill Vol
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10+79.70	25.26	0.00	2.20	0.00	2.20	0.00
11+00.00	60.04	7.11	32.52	2.55	34.72	2.55
11+25.00	63.71	0.84	57.29	3.68	92.01	6.23
11+50.00	66.04	1.77	60.07	1.21	152.08	7.43
11+75.00	85.87	1.70	70.32	1.60	222.41	9.04
11+82.14	96.79	1.67	24.15	0.44	246.56	9.48
12+00.00	115.11	1.10	70.08	0.91	316.64	10.40
12+30.90	87.73	3.21	116.07	2.47	432.71	12.86
12+33.14	88.67	3.53	7.32	0.28	440.03	13.14
12+50.00	93.46	5.96	56.87	2.96	496.90	16.11
12+75.00	58.86	18.59	70.52	11.37	567.41	27.48
13+00.00	23.99	63.13	38.36	37.83	605.77	65.31
13+25.00	6.59	109.93	14.16	80.12	619.92	145.43
13+50.00	3.92	182.49	4.86	135.38	624.79	280.81
13+75.00	3.05	220.34	3.23	186.50	628.02	467.31
13+80.00	2.04	233.12	0.47	41.99	628.49	509.30
14+00.00	0.00	277.58	0.75	189.15	629.24	698.44
14+10.32	0.00	297.78	0.00	109.98	629.24	808.42
14+25.00	0.00	361.51	0.00	179.20	629.24	987.63
14+50.00	0.00	428.18	0.00	365.59	629.24	1353.22
14+75.00	0.00	399.94	0.00	384.80	629.24	1738.02
15+00.75	0.00	505.17	0.00	431.61	629.24	2169.62
16+01.67	0.01	581.12	0.00	0.00	629.24	2169.62
16+25.00	0.00	400.16	0.01	423.95	629.25	2593.57
16+49.99	0.00	383.07	0.00	362.46	629.25	2956.03
16+75.00	0.00	334.25	0.00	329.35	629.25	3285.38
17+00.00	0.00	216.01	0.00	254.75	629.25	3540.13
17+25.00	0.00	132.76	0.00	161.47	629.25	3701.60
17+50.00	53.55	80.17	24.79	98.58	654.04	3800.18
17+75.00	46.46	40.35	46.30	55.80	700.33	3855.97
18+00.00	52.29	17.49	45.71	26.78	746.05	3882.75
18+25.00	69.61	8.34	56.43	11.96	802.48	3894.71
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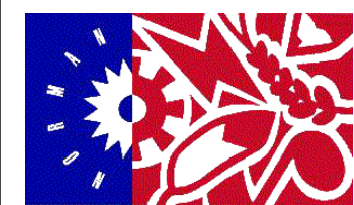


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REV.	DATE	DESCRIPTION	BY



CLEVELAND COUNTY,
 OKLAHOMA

60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Cross Sections
 Earthwork Table

JOB NO.: 22T28060
 DATE: MAR 2024
 DESIGNED BY: BDM
 DRAWN BY: JHS

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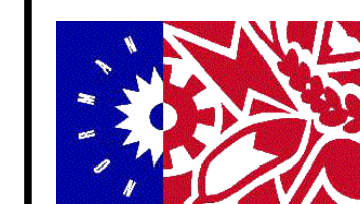
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CLEVELAND COUNTY,
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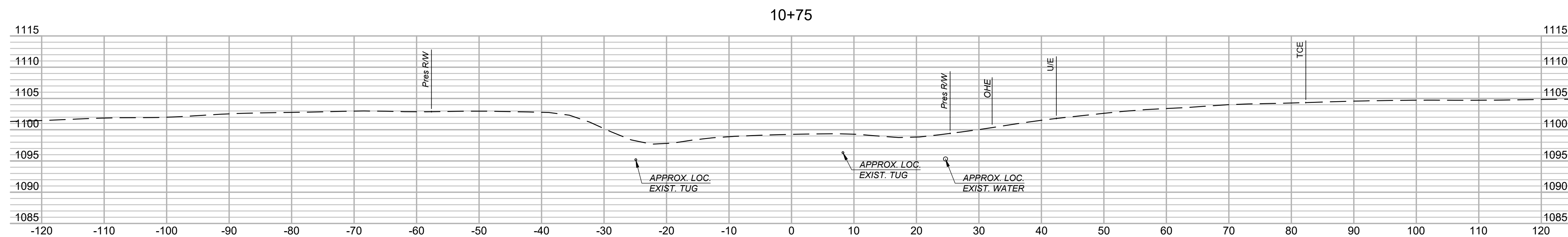
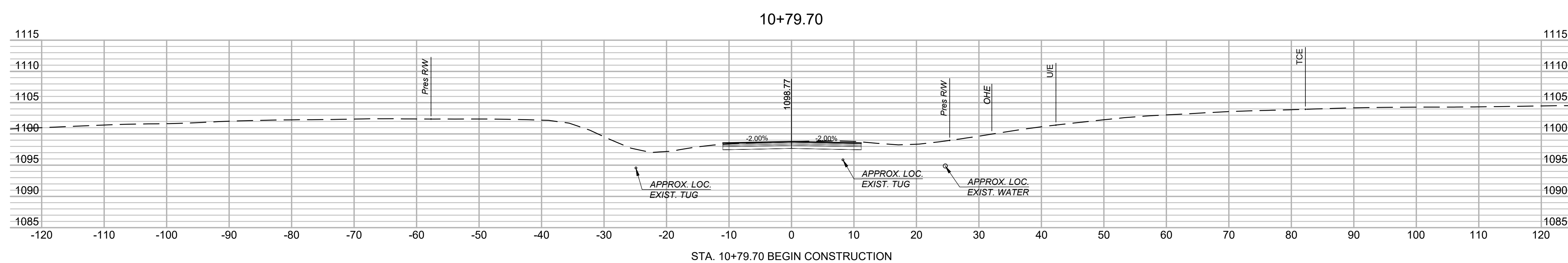
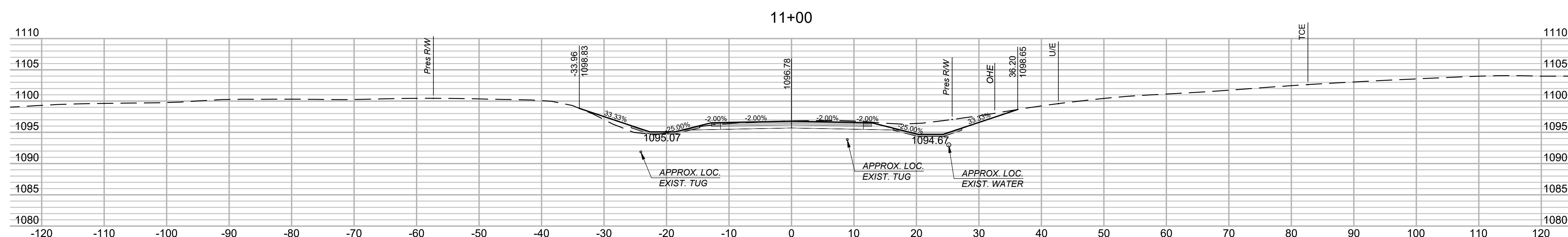
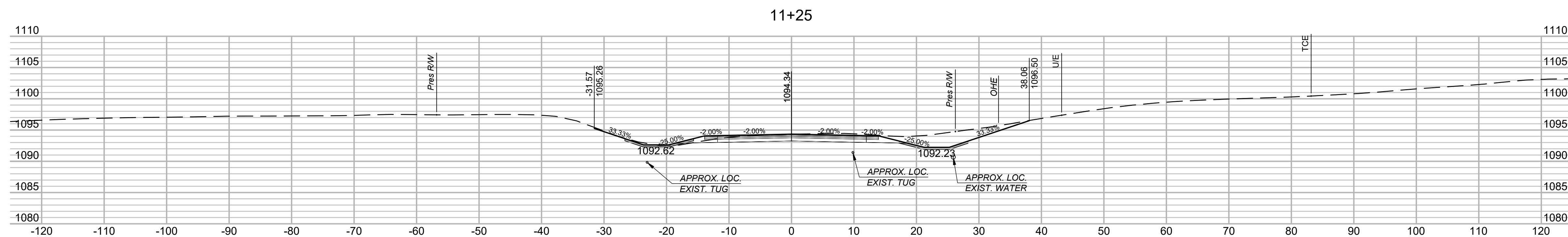
60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Cross Sections 10+75

JOB NO.: 22T28060
 DATE: MAR 2024
 DESIGNED BY: BDM
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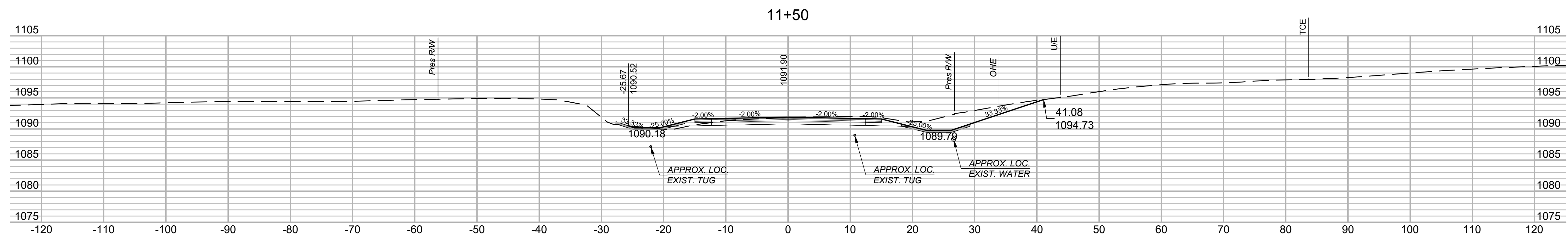
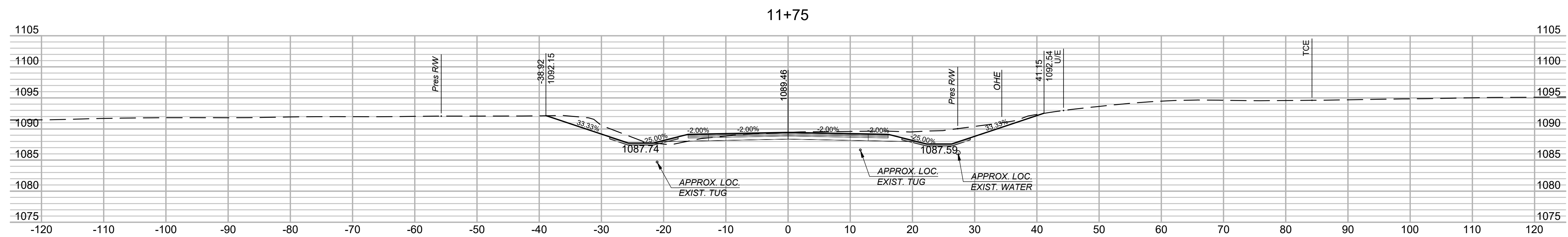
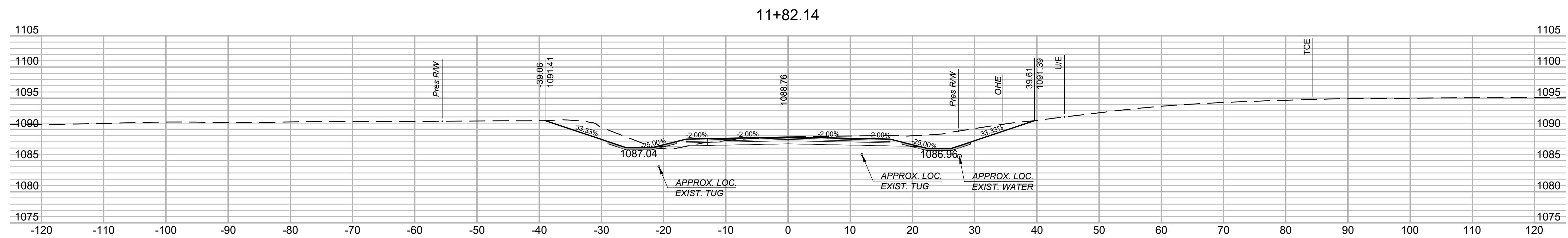
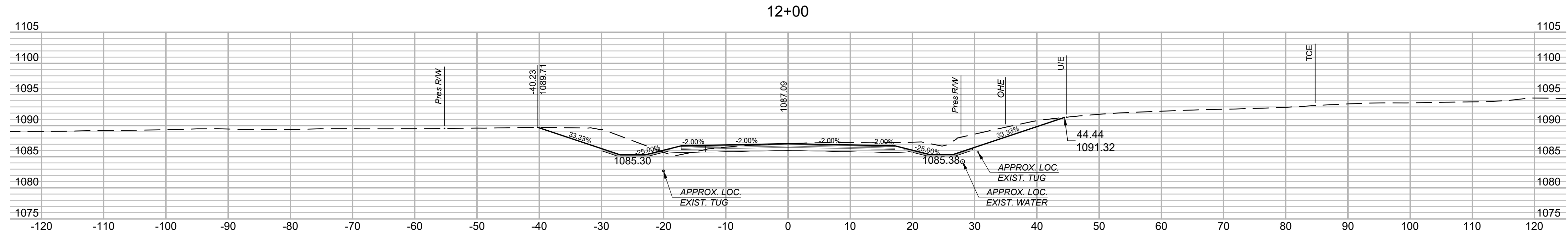
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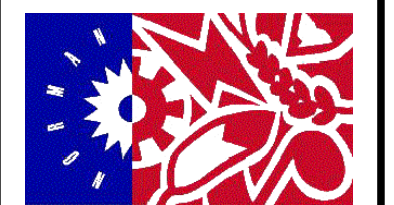


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CLEVELAND COUNTY,
 OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Cross Sections 11+50

JOB NO.: 22T28060
 DATE: MAR 2024
 DESIGNED BY: BDM
 DRAWN BY: JHS

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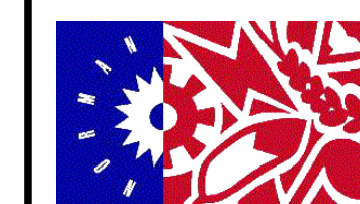


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CLEVELAND COUNTY,
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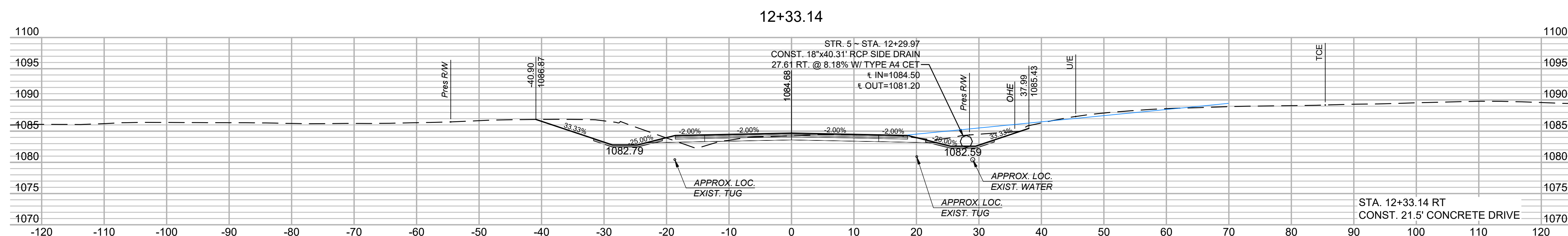
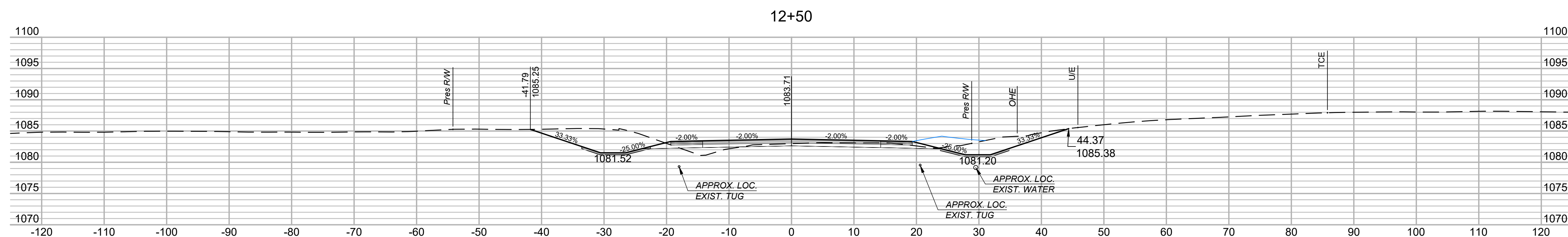
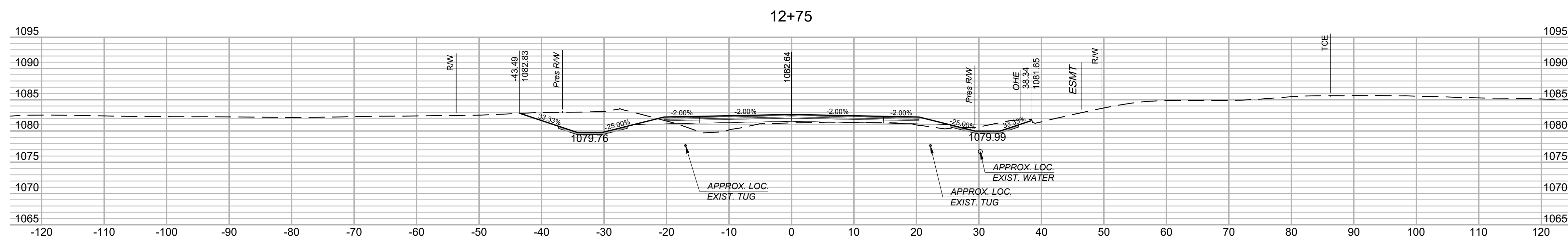
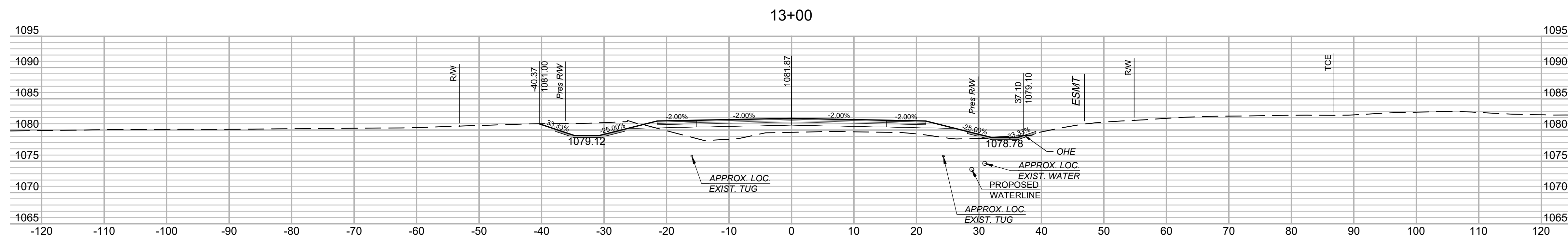
60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Cross Sections
 12+33.14

JOB NO.: 22T28060
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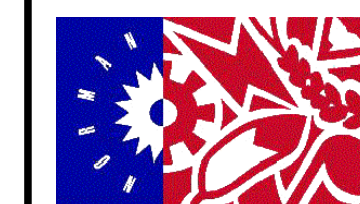


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CLEVELAND COUNTY,
 OKLAHOMA

60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Cross Sections 13+25

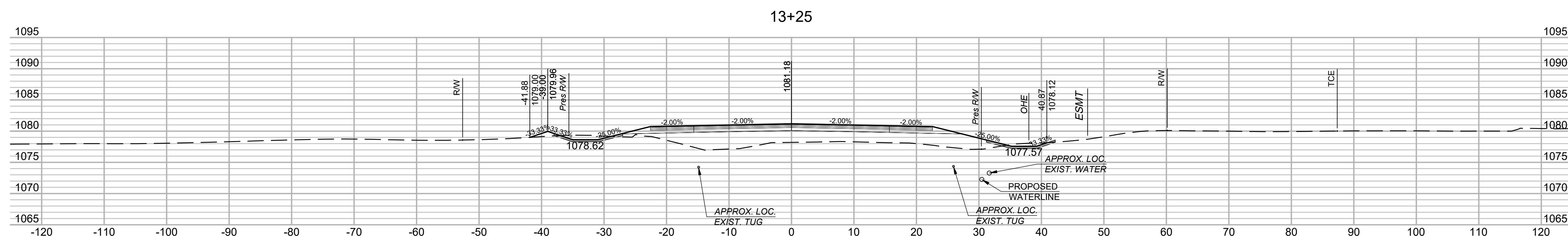
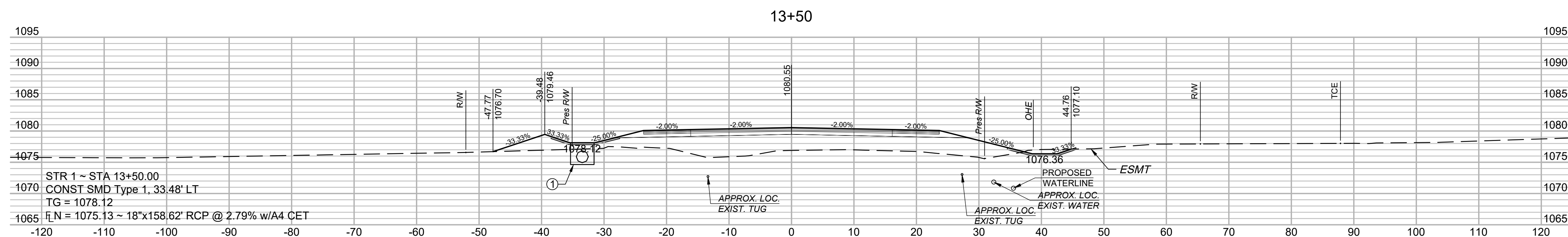
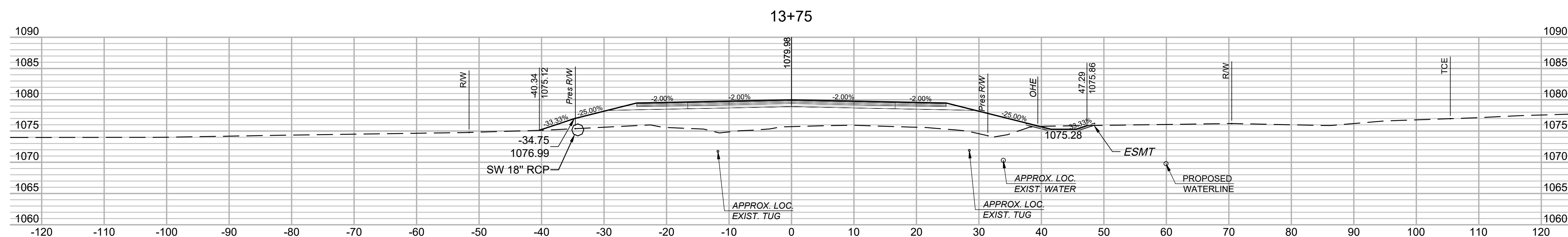
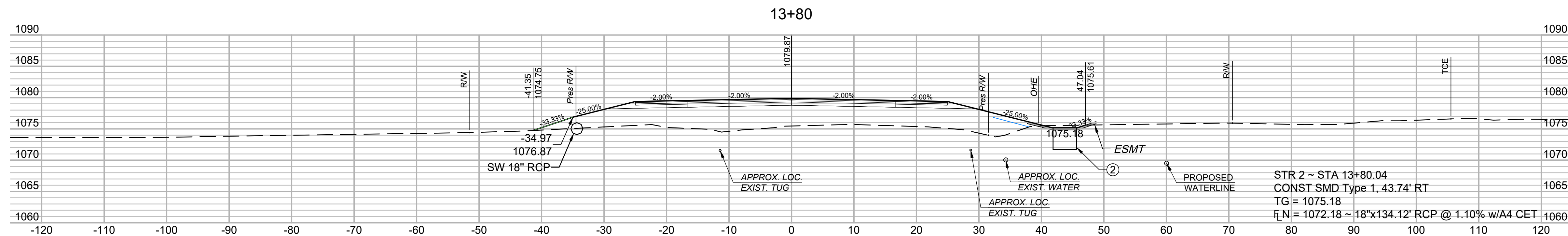
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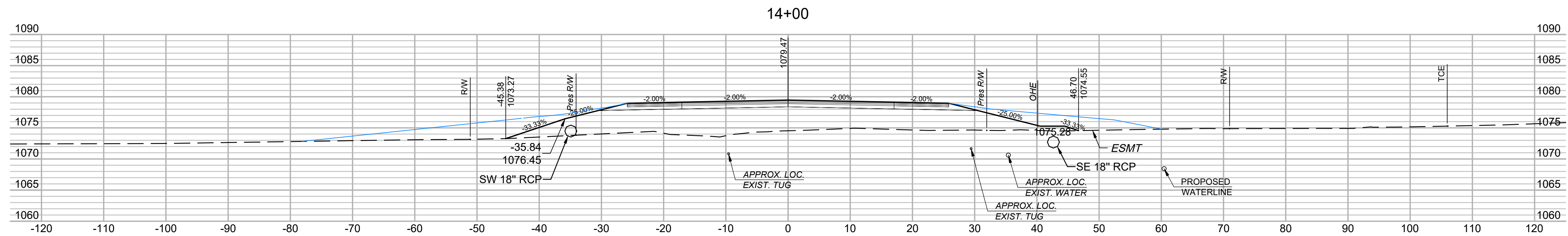
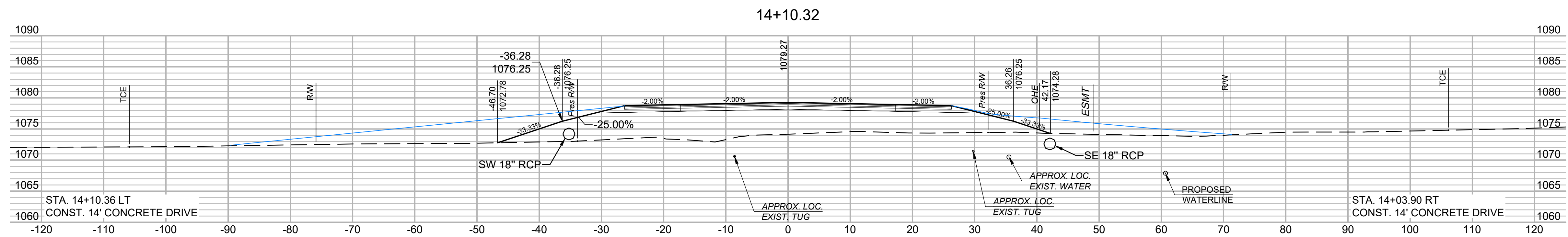
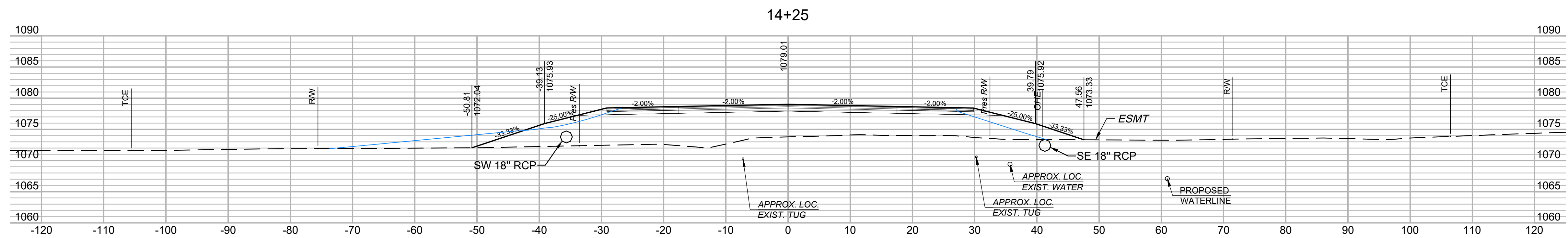
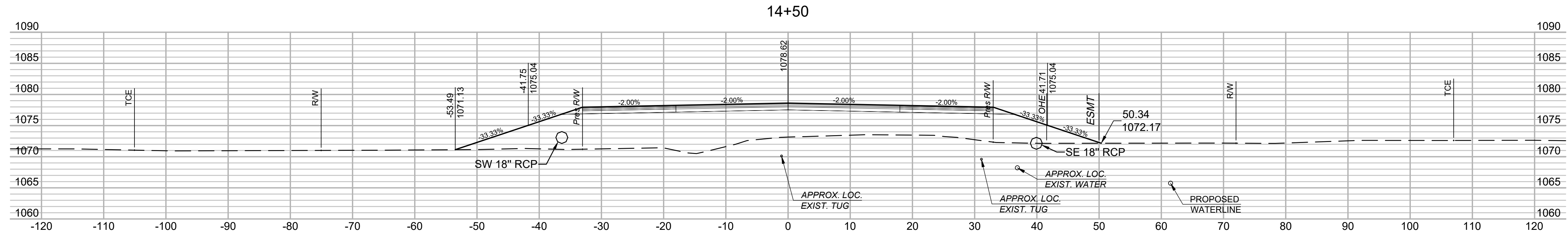
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CLEVELAND COUNTY,
OKLAHOMA

60TH AVENUE NE
BRIDGE REPLACEMENT
OVER ROCK CREEK

Cross Sections 14+00

JOB NO.: 22T28060
 DATE: MAR 2024
 DESIGNED BY: BDM
 DRAWN BY: JHS

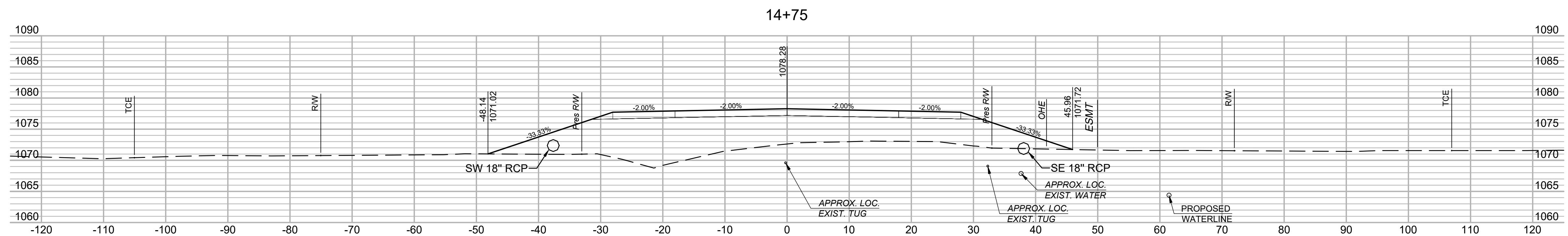
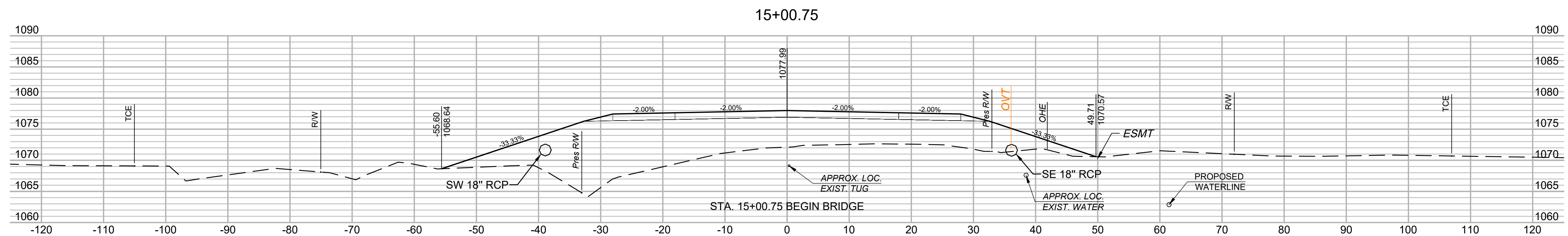
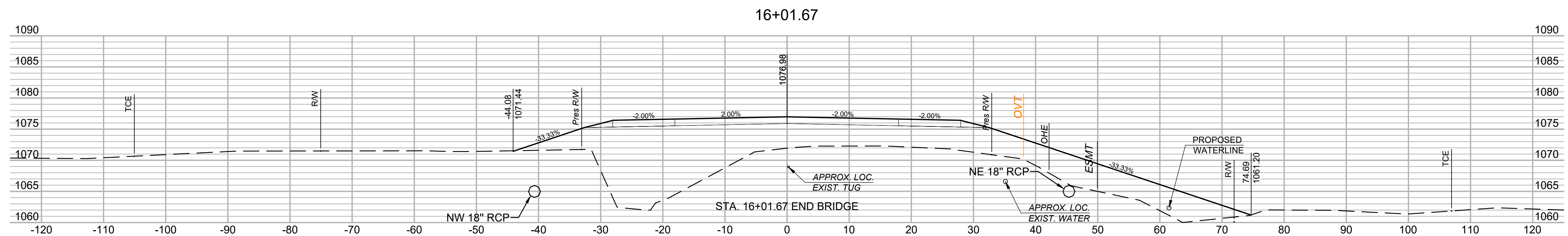
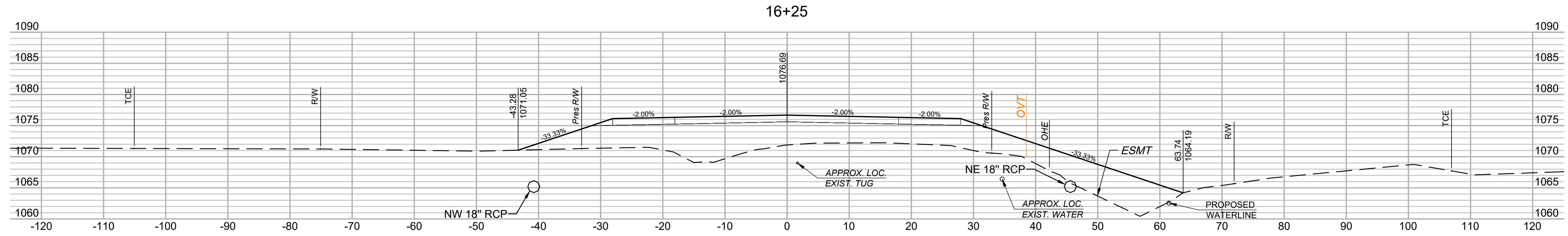
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CLEVELAND COUNTY,
 OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Cross Sections 14+75

JOB NO.: 22T28060
 DATE: MAR 2024
 DESIGNED BY: BDM
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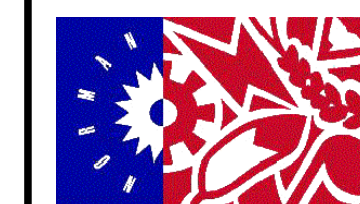


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CLEVELAND COUNTY,
 OKLAHOMA

60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Cross Sections 16+50

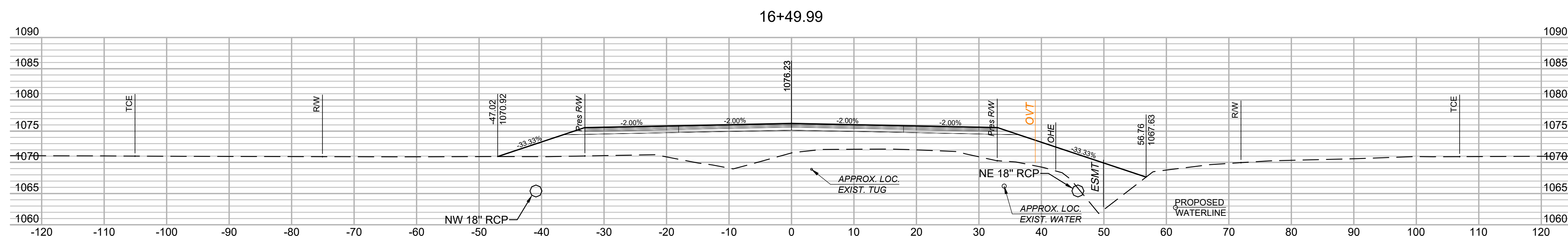
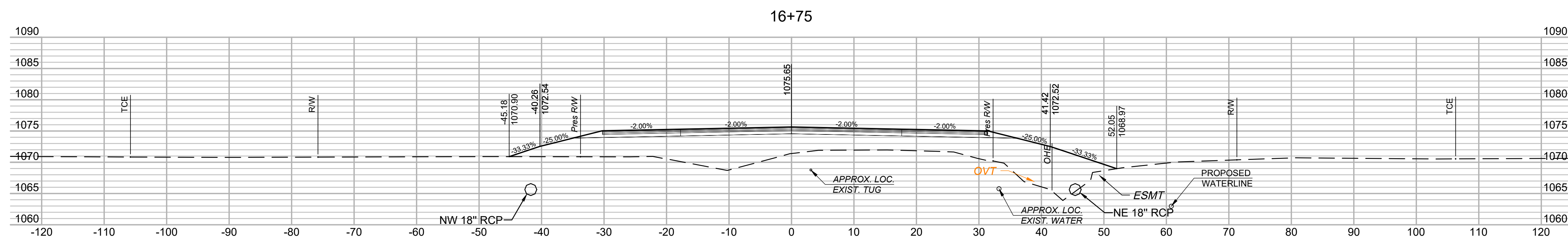
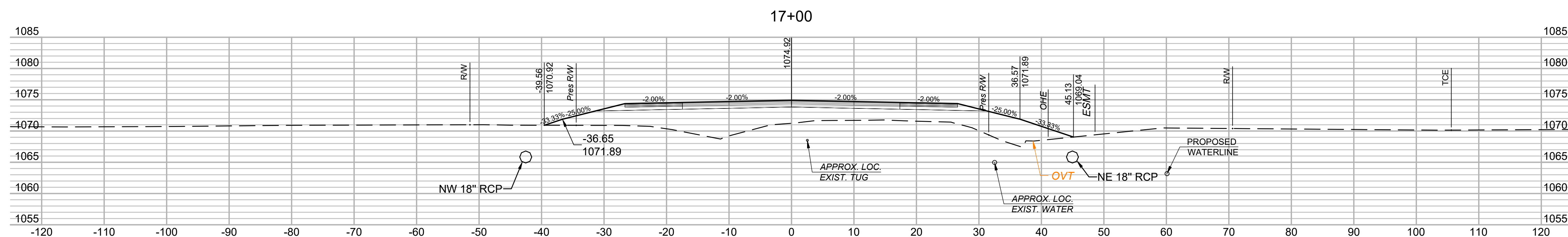
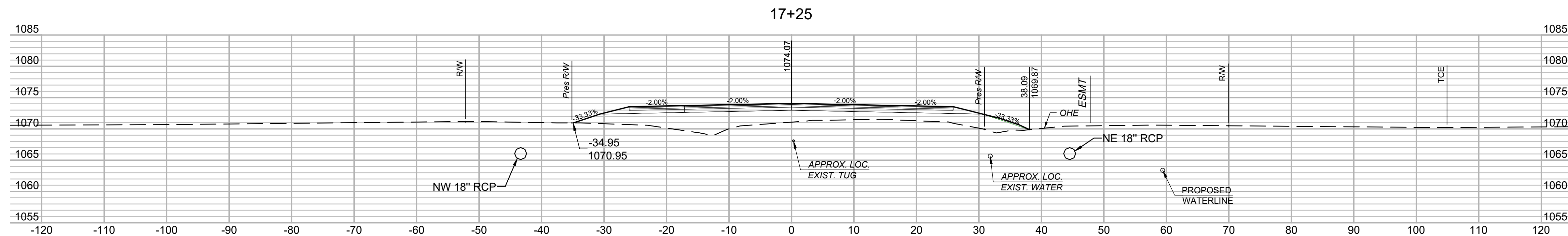
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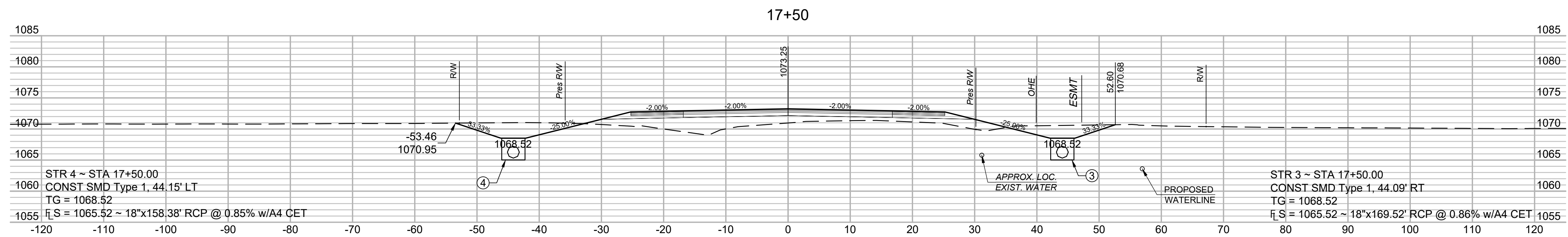
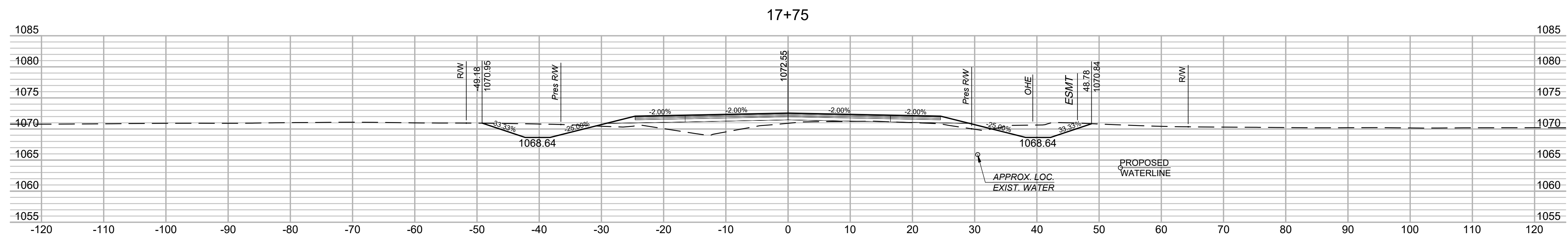
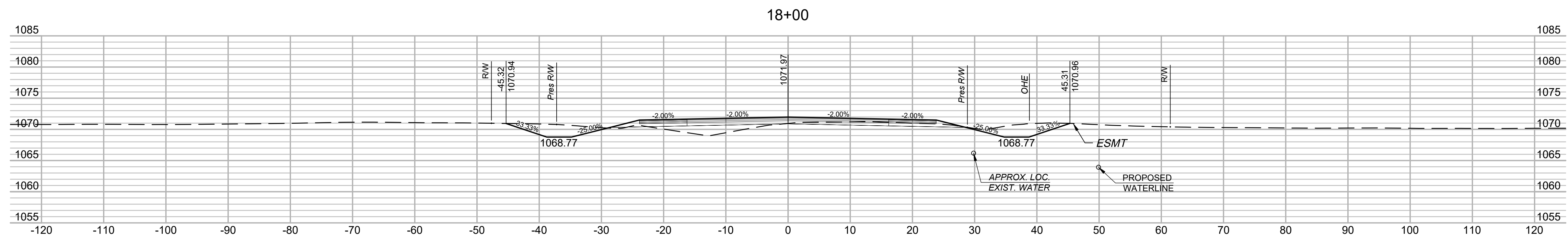
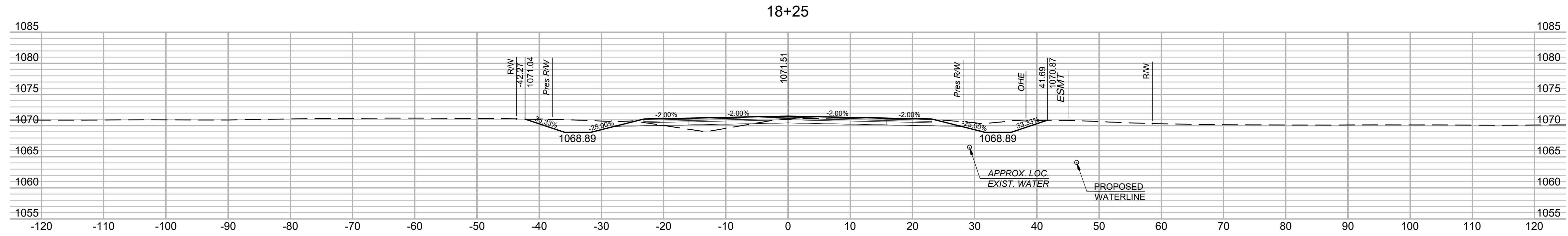
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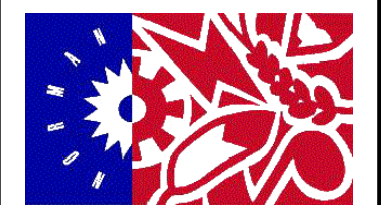
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CLEVELAND COUNTY,
 OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Cross Sections 17+50

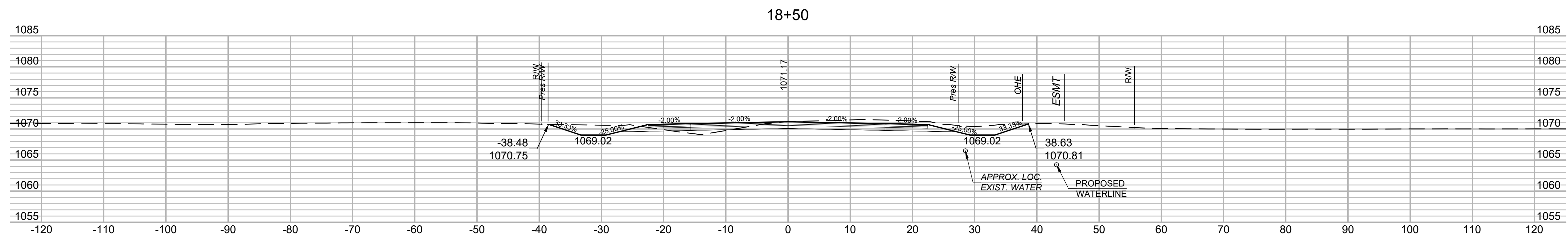
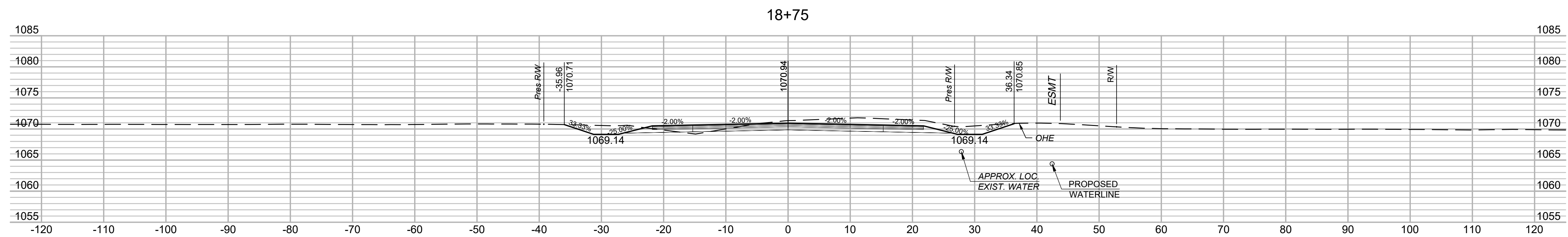
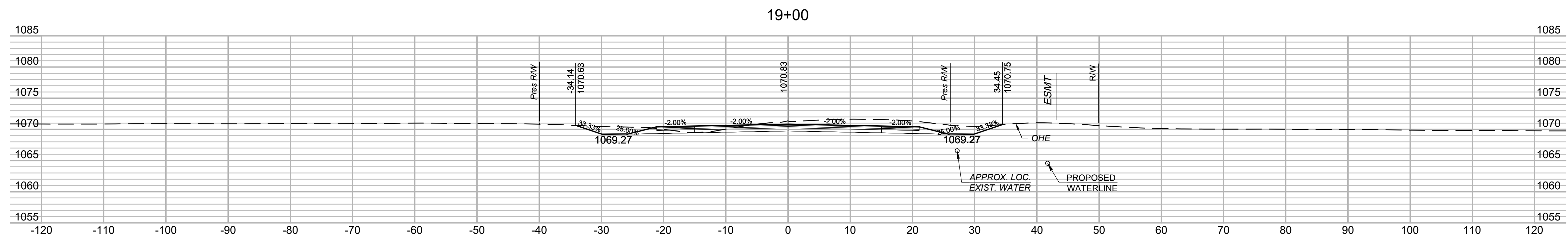
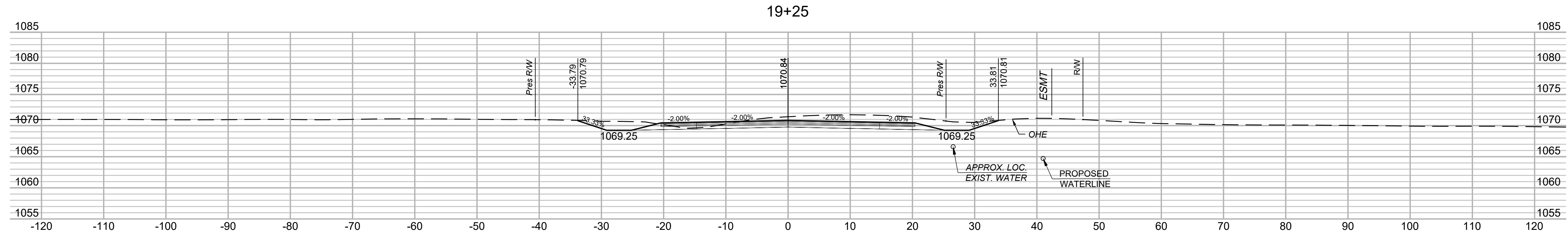
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 DATE: MAR 2024
 DESIGNED BY: BDM
 DRAWN BY: JHS

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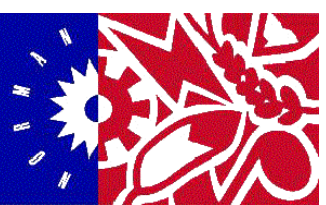


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CLEVELAND COUNTY,
 OKLAHOMA

60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Cross Sections 18+50

JOB NO.: 22T28060
 DATE: MAR 2024
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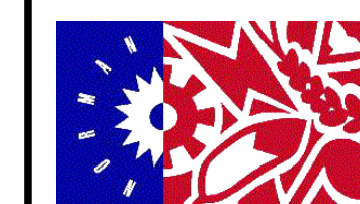


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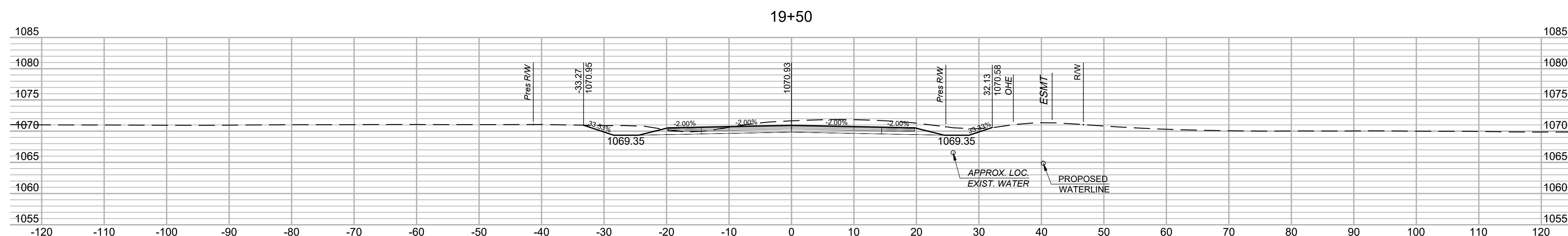
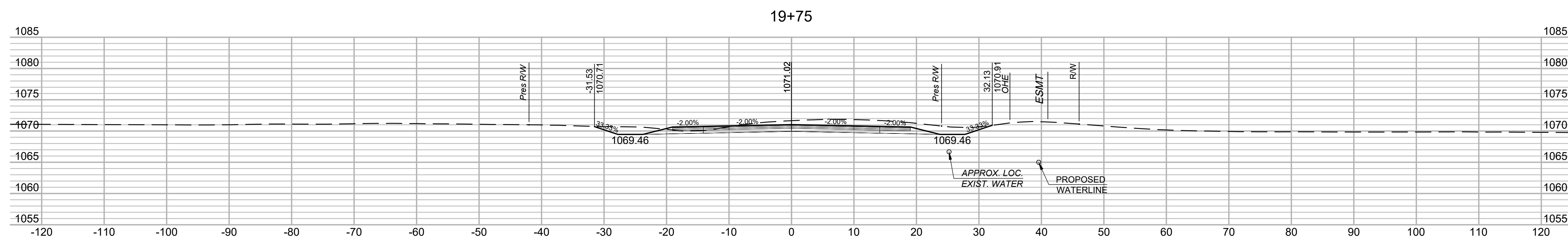
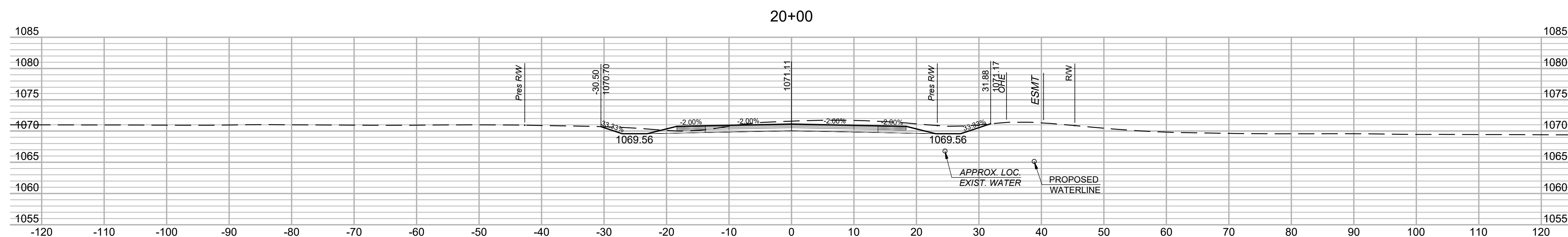
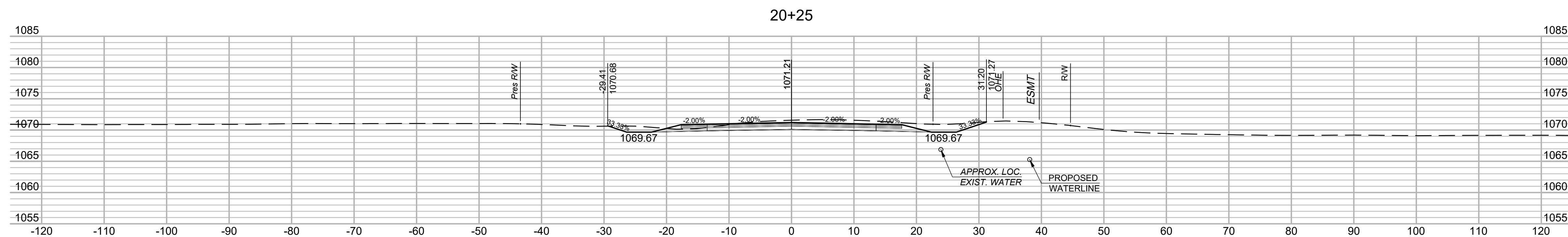
60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Cross Sections 19+50

JOB NO.: 22T28060
 DATE: MAR 2024
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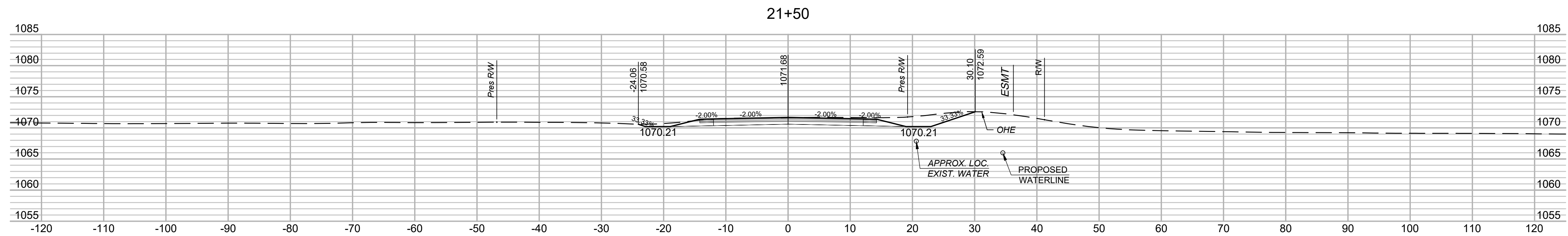
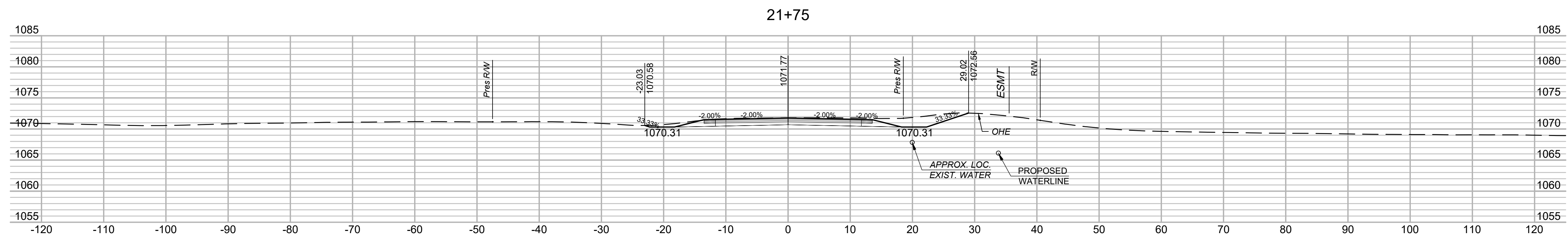
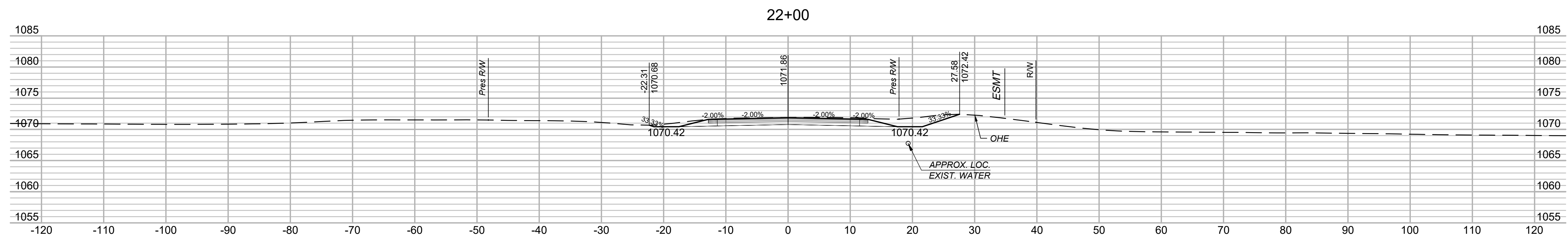
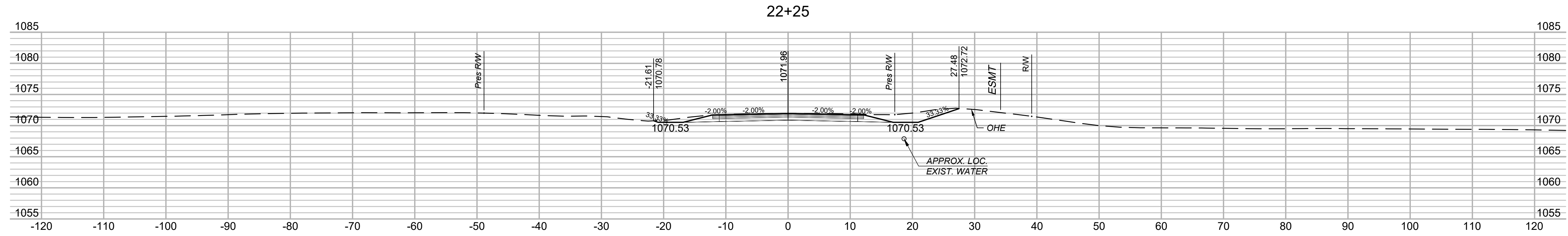
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CLEVELAND COUNTY,
 OKLAHOMA
 60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Cross Sections 21+50

JOB NO.: 22T28060
 DATE: MAR 2024
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 DRAWN BY: JHS

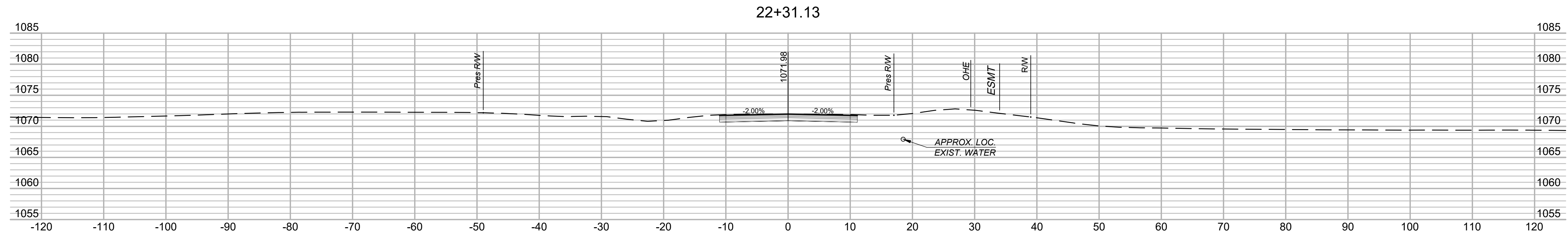
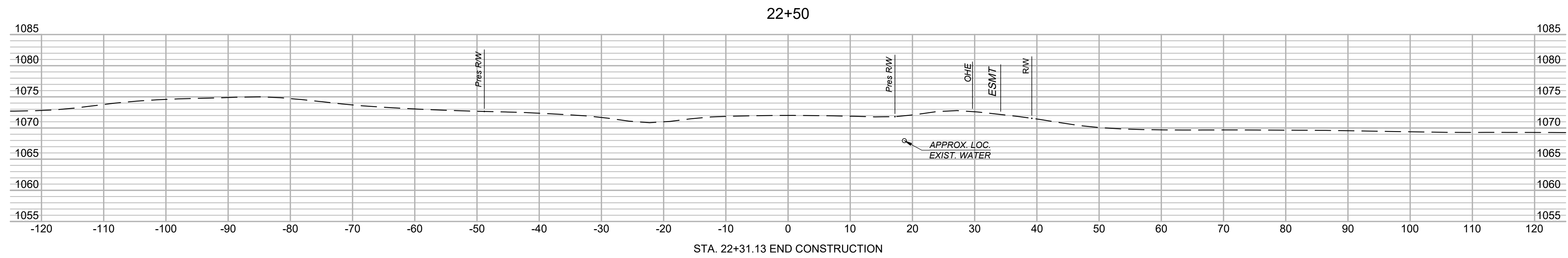
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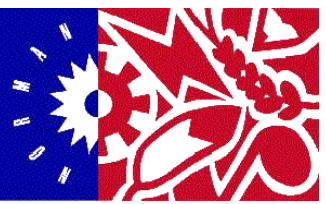


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CLEVELAND COUNTY,
 OKLAHOMA

60TH AVENUE NE
 BRIDGE REPLACEMENT
 OVER ROCK CREEK

Cross Sections
 22+31.13

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 DATE: MAR 2024
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