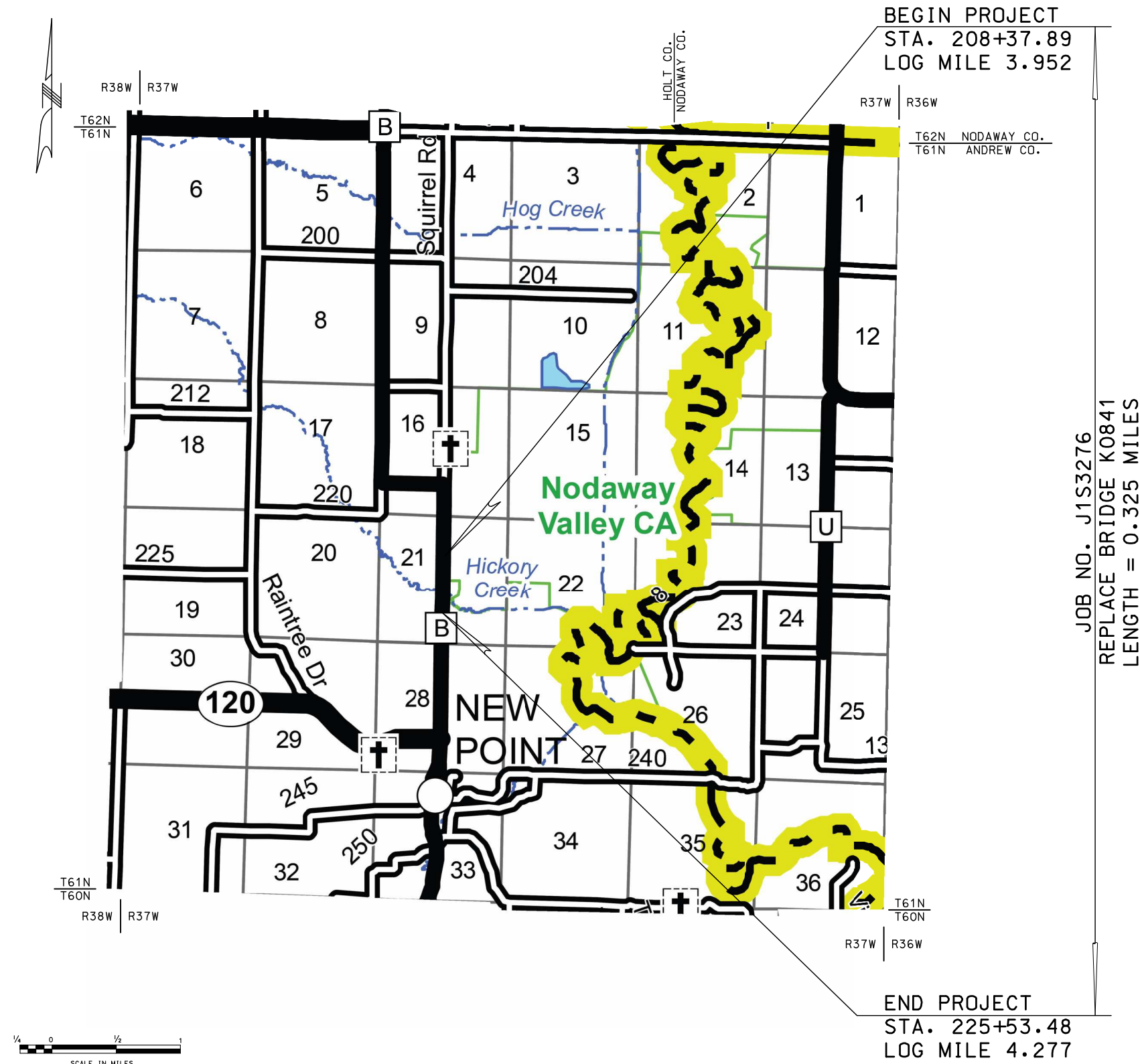


A.A.D.T. - 2023 = 138
A.A.D.T. - 2043 = 182
D.H.V. = 8%
T = 10%
V = 55 M.P.H.

NORMAL RIGHT
OF WAY

CONVENTIONAL SYMBOLS (USED IN PLANS)

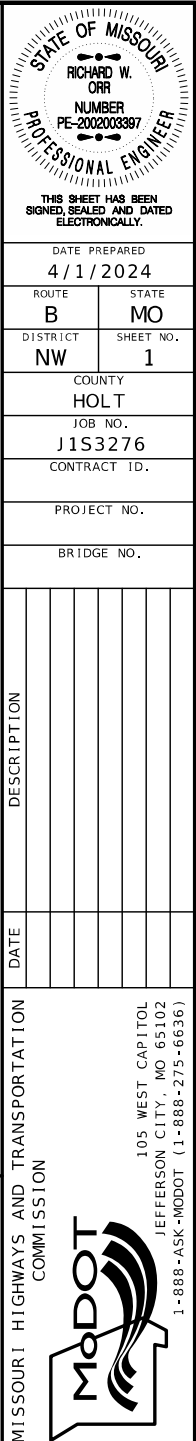
NOTE: DASHED OR OPEN SYMBOLS INDICATE
EXISTING FEATURES

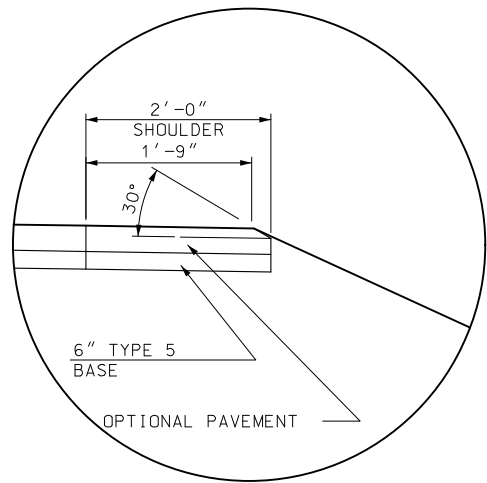


DESCRIPTION	NUMBER
TITLE SHEET -----	1
TYPICAL SECTIONS (TS) (1 SHEET)----	2
QUANTITIES (QU) (2 SHEETS)-----	3
PLAN-PROFILE (PP)-----	4
RIGHT OF WAY (RW)-----	
REFERENCE POINTS (RP)-----	
COORDINATE POINTS (CP)-----	5
SPECIAL SHEETS (SS)-----	6-8
TRAFFIC CONTROL SHEETS (TC)-----	9
EROSION CONTROL SHEETS (EC)-----	10
BRIDGE DRAWINGS (B)	
A9195-----	1-22
A####-----	XX-XX
A####-----	XX-XX
A####-----	XX-XX
CROSS SECTIONS (XS)-----	1-10

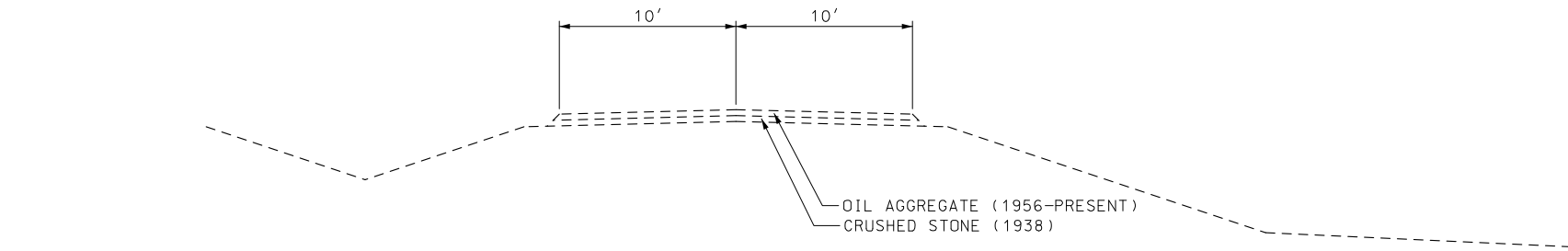
BEGINNING OF PROJECT	STA.	208+37.89
END OF PROJECT	STA.	225+53.48
APPARENT LENGTH		1,715.59 FEET
EQUATIONS AND EXCEPTIONS:		

TOTAL CORRECTIONS	0.00	FEET
NET LENGTH OF PROJECT	1,715.59	FEET
STATE LENGTH	0.325	MILES
FOR INFORMATION ONLY		
ESTIMATED DISTURBED ACRES	3	ACRES

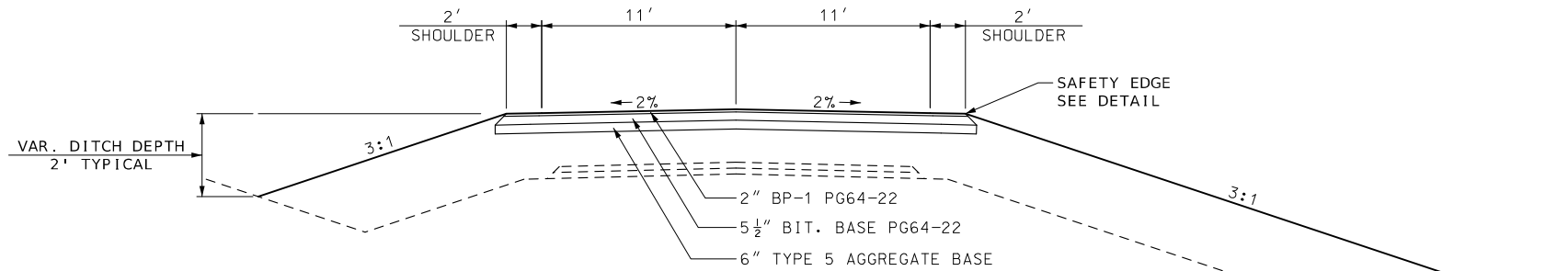




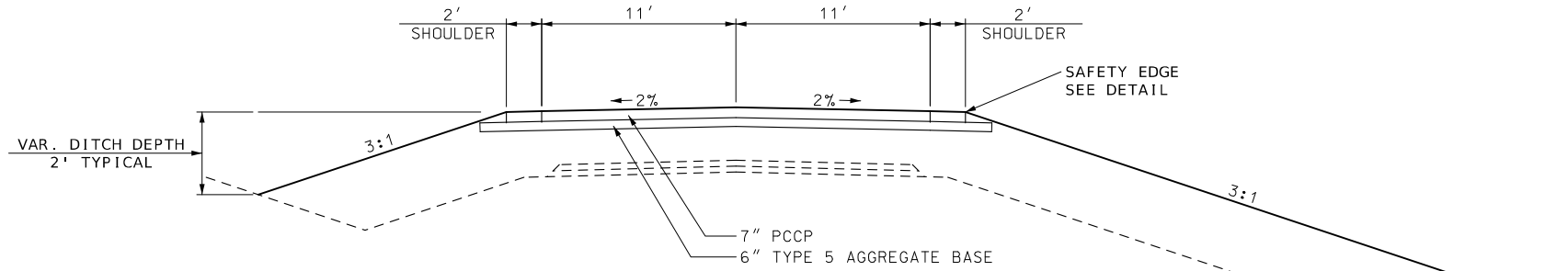
SAFETY EDGE DETAIL



EXISTING SECTION ON TANGENT
ROUTE B
STA. 208+37.89 TO STA. 226+57.86

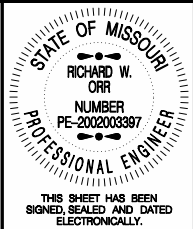


PROPOSED TYPICAL SECTION
ROUTE B - OPTION A: HMA
STA. 208+37.89 TO STA. 226+57.86



PROPOSED TYPICAL SECTION
ROUTE B - OPTION B: PCCP
STA. 208+37.89 TO STA. 226+57.86

NOT TO SCALE



DATE PREPARED 3/27/2024	
ROUTE B	STATE MO
DISTRICT NW	SHEET NO. 2
COUNTY HOLT	
JOB NO. J153276	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

REMOVAL OF IMPROVEMENTS						
STATION	STATION	LOCATION	DESCRIPTION	REMOVALS		
				EACH	L.F.	C.Y.
209+13.77	209+73.63	ROUTE B, 17.9' RT.	12" CMP		59.86	
213+47.14	213+76.15	ROUTE B, 18.8' RT.	18" CMP		29.01	
213+33.79	213+97.48	ROUTE B, 19.0' LT.	18" CMP		63.69	
218+44.52		ROUTE B, 13.4' RT.	OBJECT MARKER	1		
218+60.01		ROUTE B, 13.3' LT.	OBJECT MARKER	1		
218+52.31	219+44.71		BRIDGE	1		
219+37.92		ROUTE B, 13.0 RT.	OBJECT MARKER	1		
219+52.39		ROUTE B, 13.6' LT.	OBJECT MARKER	1		
224+28.53	224+57.65	ROUTE B, 18.4' LT.	15" CMP		29.12	
SUBTOTAL				5	182	
PAY TOTAL				LUMP SUM = 1		

EARTHWORK						
STATION	STATION	LOCATION	CLASS A EXCAVATION C.Y.	COMPACTING EMBANKMENT C.Y.	EMBANKMENT IN PLACE C.Y.	REMARKS
208+37.89	218+45.20	ROUTE B	1942.5	582.8	2505.8	
219+49.82	225+53.48	ROUTE B	878.4	263.5	50.0	
218+20.88	219+74.14	ROUTE B			750	SPILL/FILL
209+37.64		ROUTE B RT.	29.5	7.1		ENTRANCE
210+92.32		ROUTE B RT.	12.4	3.72	21.08	ENTRANCE
213+63.62		ROUTE B RT.	8.3	2.49	101.01	ENTRANCE
213+63.62		ROUTE B LT.	25.3	7.59	82.11	ENTRANCE
223+24.97		ROUTE B RT.	30.7	1.7		ENTRANCE
224+43.35		ROUTE B LT.	23.7	4.2		ENTRANCE
SUBTOTAL			2950.8	873.1	3510	
PAY TOTAL			2951	873	3510	

OPTIONAL PAVEMENT					
STATION	STATION	LOCATION	LENGTH	OPTIONAL PAVEMENT S.Y.	6" TYPE 5 BASE S.Y.
208+37.89	218+25.20	ROUTE B	987.31	2852.2	2852.2
219+69.82	225+53.48	ROUTE B	583.66	1686.1	1686.1
SUBTOTAL				4538.3	4538.3
PAY TOTAL				4538.3	4538.3

GRAVEL (A) OR CRUSHED STONE (B)			
STATION	STATION	LOCATION	6" GRAVEL (A) OR CRUSHED STONE (B) S.Y.
209+37.64		ROUTE B RT.	50.1
210+92.32		ROUTE B RT.	162.7
213+63.62		ROUTE B RT.	139.5
213+63.62		ROUTE B LT.	132.7
223+24.97		ROUTE B RT.	103.2
224+43.35		ROUTE B LT.	94.3
SUBTOTAL			682.5
PAY TOTAL			683

ROCK BLANKET						REMARKS
STATION	STATION	LOCATION	FURNISHING TYPE 2 ROCK BLANKET C.Y.	PLACING TYPE 2 ROCK BLANKET C.Y.	PERMANENT EROSION CONTROL GEOTEXTILE S.Y.	
218+29.35	218+77.91	ROUTE B	203.3	203.3	304.9	
219+23.07	219+69.92	ROUTE B	166.6	166.6	249.9	
SUBTOTAL			369.9	369.9	554.8	
PAY TOTAL			370	370	555	

PAVEMENT MARKING					
STATION	STATION	LOCATION	LENGTH	4" YELLOW STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS L.F.	REMARKS
208+37.89	225+53.48	ROUTE B	1715.59	3431.2	DOUBLE YELLOW
			SUBTOTAL	3431.2	
			PAY TOTAL	3431	

DRAINAGE STRUCTURES					
STATION	STATION	LOCATION	15" GROUP C PIPE L.F.	18" GROUP C PIPE L.F.	REMARKS
209+25.21	209+51.90	ROUTE B RT.	26.7		DRIVEWAY PIPE
210+77.71	211+34.03	ROUTE B RT.	56.4		DRIVEWAY PIPE
213+26.55	213+94.96	ROUTE B LT.		68.6	DRIVEWAY PIPE
213+24.64	213+88.10	ROUTE B RT.		63.5	DRIVEWAY PIPE
224+24.01	224+61.73	ROUTE B LT.	37.9		DRIVEWAY PIPE
			SUBTOTAL	121.0	132.1
			PAY TOTAL	121	132

SEEDING				
STATION	STATION	LOCATION	SEEDING COOL SEASON GRASSES ACRE	TYPE 2C EROSION CONTROL BLANKET S.Y.
208+37.89	209+31.64	ROUTE B RT.	0.04	170.5
209+34.64	210+95.64	ROUTE B RT.	0.05	223.0
211+20.37	213+44.26	ROUTE B RT.	0.09	428.3
213+69.13	218+20.88	ROUTE B RT.	0.30	1449.5
208+37.89	213+53.62	ROUTE B LT.	0.34	1629.6
213+73.62	218+29.52	ROUTE B LT.	0.32	1555.6
219+69.92	223+17.02	ROUTE B RT.	0.12	583.3
223+33.02	225+53.48	ROUTE B RT.	0.13	630.8
219+74.14	224+35.35	ROUTE B LT.	0.28	1345.4
224+51.35	225+53.48	ROUTE B LT.	0.03	165.1
SUBTOTAL			1.70	8181.1
PAY TOTAL			1.7	8181

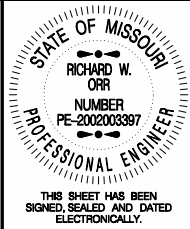
EROSION CONTROL					
STATION	STATION	LOCATION	ROCK DITCH CHECK L.F.	SILT FENCE L.F.	SEDIMENT REMOVAL C.Y.
208+37.89	209+00.00	ROUTE B LT.	9		1
208+37.89	209+00.00	ROUTE B RT.	9		1
209+00.00	211+00.00	ROUTE B LT.	80.5		9
209+00.00	210+00.00	ROUTE B RT.	44.9		5
211+00.00	212+00.00	ROUTE B LT.	27		3
210+00.00	211+00.00	ROUTE B RT.	24		3
212+00.00	213+00.00	ROUTE B LT.	27		3
211+00.00	212+00.00	ROUTE B RT.	25.2		3
213+00.00	214+00.00	ROUTE B LT.	15.2		2
212+00.00	213+00.00	ROUTE B RT.	16.6		2
214+00.00	215+00.00	ROUTE B LT.	26		2
213+00.00	214+00.00	ROUTE B RT.	24		2
215+00.00	216+00.00	ROUTE B LT.	38.9		3
214+00.00	215+00.00	ROUTE B RT.	47		4
216+00.00	218+00.00	ROUTE B LT.	39		3
215+00.00	218+00.00	ROUTE B RT.	51.6		4
218+00.00	218+45.00	ROUTE B LT.		65.6	0.7
218+00.00	218+45.00	ROUTE B RT.		65.4	0.7
219+50.00	223+00.00	ROUTE B RT.		355.3	3.6
219+50.00	219+78.00	ROUTE B LT.		31.6	0.3
219+78.60	223+00.00	ROUTE B LT.	25		2
225+53.48		ROUTE B LT.	9		1
225+53.48		ROUTE B LT.	9		1
SUBTOTAL			547.9	517.9	59.3
PAY TOTAL			548	518	59

MOBILIZATION
LUMP SUM =1

ADDITIONAL MOBILIZATION FOR SEEDING
4 EACH

CONTRACTOR FURNISHED SURVEYING AND STAKING
LUM SUM =1

TYPE 3 OBJECT MARKERS				
STATION	STATION	LOCATION	U-CHANNEL POST, 3 LB. L.F.	SH-FLAT SHEET S.F.
218+03.20		RTE. B LT.	11.5	3
218+03.20		RTE. B RT.	11.5	3
218+23.20		RTE. B LT.	11.5	3
218+23.20		RTE. B RT.	11.5	3
218+43.20		RTE. B LT.	11.5	3
218+43.20		RTE. B RT.	11.5	3
219+51.82		RTE. B LT.	11.5	3
219+51.82		RTE. B RT.	11.5	3
219+71.82		RTE. B LT.	11.5	3
219+71.82		RTE. B RT.	11.5	3
219+91.82		RTE. B LT.	11.5	3
219+91.82		RTE. B RT.	11.5	3
SUBTOTAL			138	36
PAY TOTAL			138	36



DATE PREPARED 3/27/2024	
ROUTE B	STATE MO
DISTRICT NW	SHEET NO. 3
COUNTY HOLT	
JOB NO. J153276	
CONTRACT ID.	

PROJECT NO.
BRIDGE NO.

DESCRIPTION	DATE								

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

																EFFECTIVE: 04-01-2024																								
SIGN	SIZE	AREA	QTY	TOTAL	QTY	TOTAL	SIGN									SIGN	SIZE	AREA	QTY	TOTAL	QTY	TOTAL	SIGN																	
IN.	SQ.FT.	EACH	SQ.FT.	EACH	SQ.FT.	NUM.										IN.	SQ.FT.	EACH	SQ.FT.	EACH	SQ.FT.	NUM.																		
WARNING SIGNS							DESCRIPTION								GUIDE SIGNS								DESCRIPTION								ITEM	TOTAL	DESCRIPTION							
																															NUMBER	QTY								
WO1-1L	48X48	16.00					TURN (SYMBOL LEFT)									E05-1	36X48	12.00							GORE EXIT	6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)												
WO1-1R	48X48	16.00					TURN (SYMBOL RIGHT)									E05-2	48X36	12.00							EXIT OPEN	6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)												
WO1-2L	48X48	16.00					CURVE (SYMBOL LEFT)									E05-2a	48X36	12.00							EXIT CLOSED	6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)												
WO1-2R	48X48	16.00					CURVE (SYMBOL RIGHT)									GO20-1	60X24	10.00							ROAD WORK NEXT XX MILES	6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)												
WO1-3L	48X48	16.00					REVERSE TURN (SYMBOL LEFT)									GO20-2	48X24	8.00							END ROAD WORK	6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)												
WO1-3R	48X48	16.00					REVERSE TURN (SYMBOL RIGHT)									GO20-4	36X18	4.50							PILOT CAR FOLLOW ME	6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)												
WO1-4L	48X48	16.00					REVERSE CURVE (SYMBOL LEFT)									GO20-4a	42X30	8.75							PILOT CAR IN USE WAIT & FOLLOW	6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)												
WO1-4R	48X48	16.00					REVERSE CURVE (SYMBOL RIGHT)									GO20-4a	18X12	1.50							PILOT CAR IN USE WAIT & FOLLOW	6122020		REPLACEMENT SAND BARREL												
WO1-4bL	48X48	16.00					DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)									GO20-5aP	36X24	6.00							WORK ZONE (PLAQUE)	6122030		IMPACT ATTENUATOR (RELOCATION)												
WO1-4bR	48X48	16.00					DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)									MO4-8a	24X18	3.00							END DETOUR	6123001		TRUCK MOUNTED ATTENUATOR (TMA)												
WO1-4cL	48X48	16.00					TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)									MO4-9L	48X36	12.00							DETOUR (LEFT)	6161008		ADVANCED WARNING RAIL SYSTEM												
WO1-4cR	48X48	16.00					TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)									MO4-9R	48X36	12.00							DETOUR (RIGHT)	6161012		BUOYS (BOATS KEEP OUT)												
WO1-6	60X30	12.50					HORIZONTAL ARROW (SYMBOL)									MO4-9P	48X12	4.00							STREET NAME (PLAQUE)	6161013		BUOYS (NO WAKE)												
WO1-6a	72X36	18.00					HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)									MO4-10L	48X18	6.00							DETOUR ARROW (LEFT)	6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)												
WO1-7	60X30	12.50					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)									MO4-10R	48X18	6.00							DETOUR ARROW (RIGHT)	6161025		CHANNELIZER (TRIM LINE)												
WO1-7a	72X36	18.00					DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)									REGULATORY SIGNS								6161030	6	TYPE III MOVEABLE BARRICADE														
WO1-8	18X24	3.00					CHEVRON (SYMBOL)									R1-1	48X48	13.25							STOP	6161033		DIRECTION INDICATOR BARRICADE												
WO1-8a	30X36	7.50					CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)									R1-2	48TRI	6.93							YIELD	6161040		FLASHING ARROW PANEL												
WO3-1	48X48	16.00					STOP AHEAD (SYMBOL)									R1-2a	36X36	9.00							TO ONCOMING TRAFFIC (PLAQUE)	6161047		TYPE III OBJECT MARKER												
WO3-2	48X48	16.00					YIELD AHEAD (SYMBOL)									R1-3P	30X12	2.50							ALL WAY (PLAQUE)	6161055		SEQUENTIAL FLASHING WARNING LIGHT												
WO3-3	48X48	16.00					SIGNAL AHEAD (SYMBOL)									R2-1	36X48	12.00							SPEED LIMIT XX	6161070		TUBULAR MARKER												
WO3-4	48X48	16.00					BE PREPARED TO STOP									R3-1	48X48	16.00							NO RIGHT TURN (SYMBOL)	6161095		RADAR SPEED ADVISORY SYSTEM												
WO3-5	48X48	16.00					SPEED LIMIT AHEAD									R3-2	48X48	16.00							NO LEFT TURN (SYMBOL)			CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED												
WO4-1L	48X48	16.00					MERGE (SYMBOL FROM LEFT)									R3-3	36X36	9.00							NO TURNS	6161096		CHANGEABLE MESSAGE SIGN W/O COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED												
WO4-1R	48X48	16.00					MERGE (SYMBOL FROM RIGHT)									R3-4	48X48	16.00							NO U-TURN (SYMBOL)			CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED												
WO4-1aL	48X48	16.00					MERGE (LEFT)									R3-7L	30X30	6.25							LEFT LANE MUST TURN LEFT	6161098A	2	TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED												
WO4-1aR	48X48	16.00					MERGE (RIGHT)									R3-7R	30X30	6.25							RIGHT LANE MUST TURN RIGHT			TEMP. TRAFFIC BARRIER HEIGHT TRANSITION												
WO5-1	48X48	16.00					ROAD/BRIDGE/RAMP NARROWS									R4-1	36X48	12.00							DO NOT PASS	6161099		RELOCATING TEMPORARY TRAFFIC BARRIER												
WO5-3	48X48	16.00					ONE LANE BRIDGE									R4-2	36X48	12.00							PASS WITH CARE	6162000A		TEMPORARY TRAFFIC BARRIER												
WO5-5	48X48	16.00					NARROW LANES									R4-7a	36X48	12.00							KEEP RIGHT (HORIZONTAL ARROW)	6162002		CONTRACTOR FURNISHED/RETAINED												
WO6-1	48X48	16.00					DIVIDED HIGHWAY (SYMBOL)									R4-8a	36X48	12.00							KEEP LEFT (HORIZONTAL ARROW)	6173600D		TEMPORARY TRAFFIC SIGNALS												
WO6-2	48X48	16.00					DIVIDED HIGHWAY END (SYMBOL)									R5-1	30X30	6.25							DO NOT ENTER	9029400		TEMPORARY TRAFFIC SIGNALS AND LIGHTING												
WO6-3	48X48	16.00					TWO WAY TRAFFIC (SYMBOL)									R5-1a	36X24	6.00							WRONG WAY															
WO7-3a	30X24	5.00					NEXT XX MILES (PLAQUE)									R6-1L	54X18	6.75							ONE WAY ARROW (LEFT)	6173602B		TEMPORARY TRAFFIC BARRIER												
WO8-1	48X48	16.00					BUMP									R6-1R	54X18	6.75							ONE WAY ARROW (RIGHT)	6174000A		CONTRACTOR FURNISHED/COMMISSION RETAINED												
WO8-2	48X48	16.00					DIP									R6-2L	24X30	5.00							ONE WAY (LEFT)	6175010A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION												
WO8-3	48X48	16.00					PAVEMENT ENDS									R6-2R	24X30	5.00							ONE WAY (RIGHT)	6176000B		TEMPORARY TRAFFIC BARRIER												
WO8-4	48X48	16.00					SOFT SHOULDER									R9-9	24X12	2.00							SIDEWALK CLOSED			COMMISSION FURNISHED/RETAINED												
WO8-5	48X48	16.00					SLIPPERY WHEN WET (SYMBOL)									R9-11L	24X18	3.00							SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE	6177000B		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION												
WO8-6	48X48	16.00					TRUCK CROSSING									R9-11R	24X18	3.00							SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE	6208064A		COMMISSION FURNISHED/RETAINED												
WO8-6c	48X48	16.00					TRUCK ENTRANCE									R10-6	24X36	6.00							STOP HERE ON RED (45° ARROW)	9029401		TEMPORARY RAISED PAVEMENT MARKER												
WO8-7	36X36	9.00					LOOSE GRAVEL									R11-2	48X30	10.00	4	40				29	ROAD CLOSED			TEMPORARY TRAFFIC SIGNALS												
WO8-7a	36X36	9.00					FRESH OIL / LOOSE GRAVEL									R11-3a	60X30	12.50		1	12.5			51A	ROAD CLOSED XX MILES AHEAD			TEMPORARY TRAFFIC SIGNALS AND LIGHTING												
WO8-9	48X48	16.00					LOW SHOULDER									R11-4	60X30	12.50		2	25			51	LOCAL TRAFFIC ONLY															
WO8-11	48X48	16.00					UNEVEN LANES									CONST-3A	60X48	20.00							ROAD CLOSED TO THRU TRAFFIC															
WO8-12	48X48	16.00					NO CENTER LINE									CONST-3X	56X12	4.67							FINE SIGN															
WO8-15	48X48	16.00					GROOVED PAVEMENT									MISCELLANEOUS SIGNS																								
WO8-15P	30X24	5.00					MOTORCYCLE (PLAQUE)									CONST-5	48X36	12.00							POINT OF PRESENCE															
WO8-17L	48X48	16.00					SHOULDER DROP-OFF (SYMBOL LEFT)									CONST-5	96X48	32.00							POINT OF PRESENCE															
WO8-17R	48X48	16.00					SHOULDER DROP-OFF (SYMBOL RIGHT)									CONST-7	48X24	8.00							RATE OUR WORK ZONE															
WO8-17P	30X24	5.00					SHOULDER DROP-OFF (PLAQUE)									CONST-7	72X36	18.00							RATE OUR WORK ZONE															
W10-1	42RND.	9.62					RAILROAD CROSSING									CONST-8	48X36	12.00							WORK ZONE NO PHONE ZONE															
WO12-1	24X24	4.00					DOUBLE DOWN ARROW (SYMBOL)									WO20-3	48X48	16	2	32				20A																
WO12-2	48X48	16.00					LOW CLEARANCE (SYMBOL)																																	
WO12-2x	24X18	3.00					LOW CLEARANCE (PLAQUE)																																	
WO12-2a	84X24	14.00					OVERHEAD LOW CLEARANCE (FEET AND INCHES)																																	
WO12-4	120X60	50.00					LOW CLEARANCE XX FT XX IN XX MILES AHEAD																																	
WO12-5	120X60	50.00					WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD																																	
WO13-1	30X30	6.25					ADVISORY SPEED (PLAQUE)																																	
WO16-2	30X24	5.00					XXX FEET (PLAQUE)																																	
WO16-3	30X24	5.00					X MILE (PLAQUE)																																	
WO20-1	48X48	16.00					ROAD/BRIDGE/RAMP WORK AHEAD																																	
WO20-2	48X48	16.00					DETOUR AHEAD																																	
WO20-3	48X48	16.00	5	80		20	ROAD CLOSED AHEAD									616-10.05 CONSTRUCTION SIGNS				TOTAL																				
WO20-4	48X48	16.00					ONE LANE ROAD AHEAD									616-10.10 RELOCATED SIGNS				TOTAL																				
WO20-5	48X48	16.00					RIGHT/CENTER/LEFT LANE CLOSED AHEAD																	0																
WO20-5a	48X48	16.00					2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD																																	
WO20-6a	48X48	16.00					RIGHT/CENTER/LEFT LANE CLOSED																																	
WO20-7a	48X48	16.00					FLAGGER (SYMBOL)																																	
WO21-2	36X36	9.00					FRESH OIL																																	
WO21-5	48X48	16.00					SHOULDER WORK / SHOULDER WORK AHEAD																																	
WO22-1	48X48	16.00					BLASTING ZONE AHEAD																																	
WO22-2	42X36	10.50					TURN OFF 2-WAY RADIO AND PHONE																																	
WO22-3	42X36	10.50					END BLASTING ZONE																																	
GO22-1	21X15	2.19					WET PAINT (ARROW PIVOTS)																																	

STATE OF MISSOURI

RICHARD W. ORR

NUMBER

PE-2002003397

PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED

3/27/2024

ROUTE

B

STATE

MO

DISTRICT

NW

SHEET NO.

3

COUNTY

HOLT

JOB NO.

J153276

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

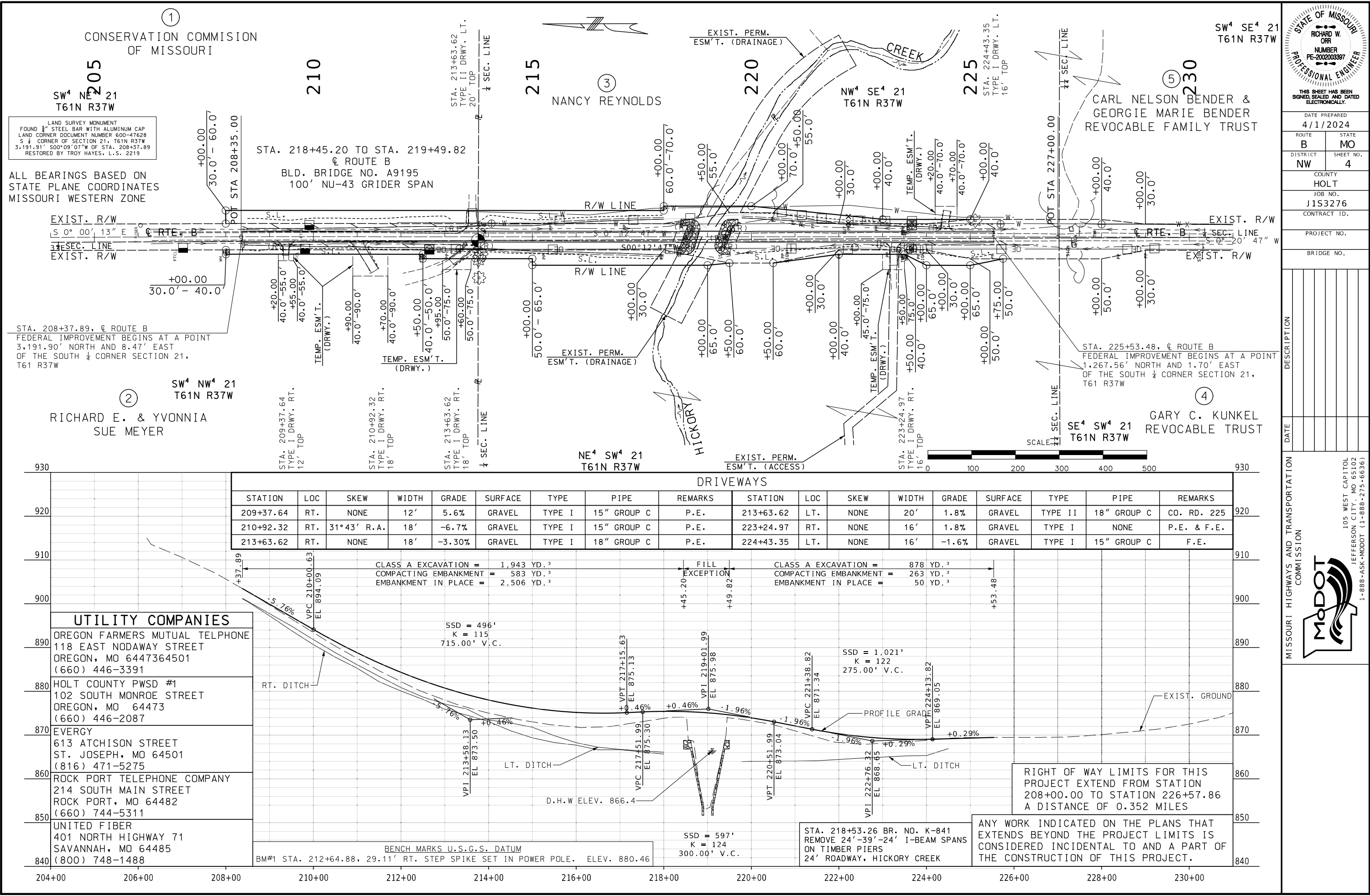
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)

MODOT

SUMMARY OF QUANTITIES

SHEET 2 OF 2



LAND SURVEY MONUMENT
FOUND 3" STEEL BAR WITH ALUMINUM CAP
LAND CORNER DOCUMENT NUMBER 600-47628
S 1/4 CORNER OF SECTION 21, T61N R37W
3,191.91' 500°09'07"W OF STA. 208+37.89
RESTORED BY TROY HAYES, L.S. 2219

ALL BEARINGS BASED ON
STATE PLANE COORDINATES
MISSOURI WESTERN ZONE

STA. 208+37.89, C ROUTE B
FEDERAL IMPROVEMENT BEGINS AT A POINT
3,191.90' NORTH AND 8.47' EAST
OF THE SOUTH 1/4 CORNER SECTION 21,
T61 R37W

- UTILITY COMPANIES**
- OREGON FARMERS MUTUAL TELEPHONE
118 EAST NODAWAY STREET
OREGON, MO 6447364501
(660) 446-3391
 - HOLT COUNTY PWS #1
102 SOUTH MONROE STREET
OREGON, MO 64473
(660) 446-2087
 - EVERGY
613 ATCHISON STREET
ST. JOSEPH, MO 64501
(816) 471-5275
 - ROCK PORT TELEPHONE COMPANY
214 SOUTH MAIN STREET
ROCK PORT, MO 64482
(660) 744-5311
 - UNITED FIBER
401 NORTH HIGHWAY 71
SAVANNAH, MO 64485
(800) 748-1488

DRIVEWAYS																			
STATION	LOC	SKEW	WIDTH	GRADE	SURFACE	TYPE	PIPE	REMARKS		STATION	LOC	SKEW	WIDTH	GRADE	SURFACE	TYPE	PIPE	REMARKS	
209+37.64	RT.	NONE	12'	5.6%	GRAVEL	TYPE I	15" GROUP C	P.E.		213+63.62	LT.	NONE	20'	1.8%	GRAVEL	TYPE II	18" GROUP C	CO. RD. 225	
210+92.32	RT.	31°43' R.A.	18'	-6.7%	GRAVEL	TYPE I	15" GROUP C	P.E.		223+24.97	RT.	NONE	16'	1.8%	GRAVEL	TYPE I	NONE	P.E. & F.E.	
213+63.62	RT.	NONE	18'	-3.30%	GRAVEL	TYPE I	18" GROUP C	P.E.		224+43.35	LT.	NONE	16'	-1.6%	GRAVEL	TYPE I	15" GROUP C	F.E.	

CLASS A EXCAVATION = 1,943 YD.³
COMPACTING EMBANKMENT = 583 YD.³
EMBANKMENT IN PLACE = 2,506 YD.³

CLASS A EXCAVATION = 878 YD.³
COMPACTING EMBANKMENT = 263 YD.³
EMBANKMENT IN PLACE = 50 YD.³

SSD = 496'
K = 115
715.00' V.C.

SSD = 1,021'
K = 122
275.00' V.C.

SSD = 597'
K = 124
300.00' V.C.

STA. 218+53.26 BR. NO. K-841
REMOVE 24'-39'-24' I-BEAM SPANS
ON TIMBER PIERS
24' ROADWAY, HICKORY CREEK

ANY WORK INDICATED ON THE PLANS THAT
EXTENDS BEYOND THE PROJECT LIMITS IS
CONSIDERED INCIDENTAL TO AND A PART OF
THE CONSTRUCTION OF THIS PROJECT.

STATE OF MISSOURI
RICHARD W. ORR
NUMBER
PE-202003397
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN
SIGNED, SEALED AND DATED
ELECTRONICALLY.

DATE PREPARED
4/1/2024

ROUTE	STATE
B	MO
DISTRICT	SHEET NO.
NW	4

COUNTY
HOLT

JOB NO.
J153276

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

ALL PROJECT COORDINATES HAVE BEEN PROJECTED FROM THE MISSOURI STATE PLANE COORDINATE (SPC) SYSTEM OF 1983 USING AN AVERAGE PROJECT PROJECTION (GRID TO GROUND) FACTOR. TO GET BACK TO STATE PLANE COORDINATES MULTIPLY THE PROJECT COORDINATES BY THE AVERAGE GRID FACTOR AS SHOWN IN THE "REFERENCE CONTROL INFORMATION" PORTION OF THIS TABLE.

PROJECT COORDINATE INFORMATION

COORDINATE SYSTEM

MODIFIED STATE PLANE

HORIZONTAL DATUM

NAD 83 (2011) EPOCH 2010.00

VERTICAL DATUM

NAVD 88

GEOID MODEL

GEOID 18

ELEVATIONS DETERMINED BY

OPUS SOLUTION ON CP1, LEVELING ON REST OF CONTROL

PROJECT PROJECTION FACTOR

1.00006604

REFERENCE CONTROL INFORMATION

COORDINATE SYSTEM

MO COORDINATE SYSTEM OF 1983

CONTROL STATION

MISSOURI CORS

DESIGNATION

MODOT MARYVILLE CORS ARP

CORS_ID

MOMV

PID

DM4124

LATITUDE

40°21'29.38580" (N)

LONGITUDE

94°50'48.02142" (W)

NORTHING (M)

465292.9550

EASTING (M)

820553.2400

ZONE

MO WEST

PROJECT AVERAGE GRID FACTOR

0.99993396

EXAMPLE OF PROJECT COORDINATE TO S.P.C.

PROJECT NORTHING X AVERAGE GRID FACTOR = STATE PLANE NORTHING

PROJECT EASTING X AVERAGE GRID FACTOR = STATE PLANE EASTING

EXAMPLE: CONTROL POINT #___

N 1423581.126 X 0.99993396 = N 1423487.126

E 2626864.977 X 0.99993396 = E 2626691.522

LINEAR UNIT CONVERSION

1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT LISTING								
SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND)			DESCRIPTION	GPK POINT ID
				NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)		
PROJECT CONTROL POINTS								
4	212+64.88	RTE. B	29.11' RT	1,425,505.76	2,626,872.29	880.46	BENCHMARK	
4	213+33.87	RTE. B	27.40 RT.	1,425,436.77	2,626,873.75	875.71	CONTROL POINT	
4	213+76.00	RTE. B	8.50 RT.	1,425,394.57	2,626,892.49	875.13	SECTION CORNER	
4	218+62.80	RTE. B	16.33' LT.	1,424,907.68	2,626,918.51	874.76	BENCHMARK	
4	222+36.30	RTE. B	23.97' RT.	1,424,534.33	2,626,873.81	866.82	CONTROL POINT	
	231+66.13	RTE. B	25.67' RT.	1,423,604.59	2,626,867.58	881.07	BENCHMARK	
	231+89.60	RTE. B	28.12' RT.	1,423,581.13	2,626,864.98	881.13	CONTROL POINT	
ALIGNMENTS								
4	208+35.00	RTE. B	☐	1,425,935.54	2,626,903.00		POINT ON TANGENT	
4	208+37.89	RTE. B	☐	1,425,932.65	2,626,902.99		BEGINNING OF PROJECT	
4	218+45.20	RTE. B	☐	1,424,925.34	2,626,899.24		FILL EXCPETION	
4	219+49.82	RTE. B	☐	1,424,820.72	2,626,898.85		FILL EXCPETION	
4	225+53.48	RTE. B	☐	1,424,217.07	2,626,896.60		END OF PROJECT	
4	227+00.00	RTE. B	☐	1,424,070.55	2,626,896.06		POINT ON TANGENT	

STATE OF MISSOURI
RICHARD W. ORR
NUMBER
PE-2002003397
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN
SIGNED, SEALED AND DATED
ELECTRONICALLY.

DATE PREPARED
3/27/2024

ROUTE
B

STATE
MO

DISTRICT
NW

SHEET NO.
5

COUNTY
HOLT

JOB NO.
J1S3276

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

COORDINATE POINTS

SHEET 1 OF 1



R/W LINE

S.L.

EXIST. R/W

CL RTE. B

S00°12'47"W

EXIST. R/W

S.L.

R/W LINE

+39.05

+62.75

+51.78

+69.92

220

R/W LINE

EXIST. R/W

S.L.

CL RTE. B

S.L.

EXIST. R/W

R/W LINE

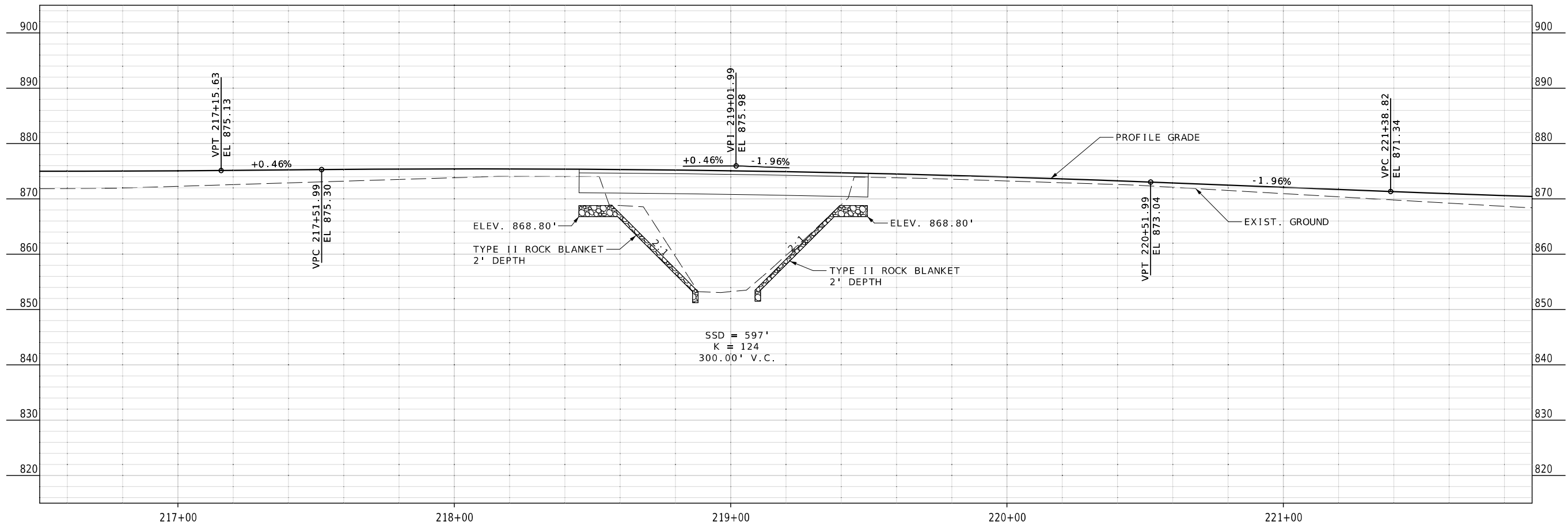
HICKORY CREEK

+37.22

+51.72

SCALE

0 20 40 60



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DATE PREPARED
3/27/2024

ROUTE STATE

B MO

DISTRICT SHEET NO.

NW 6

COUNTY

HOLT

JOB NO.

JNW0002

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

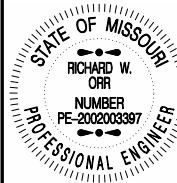
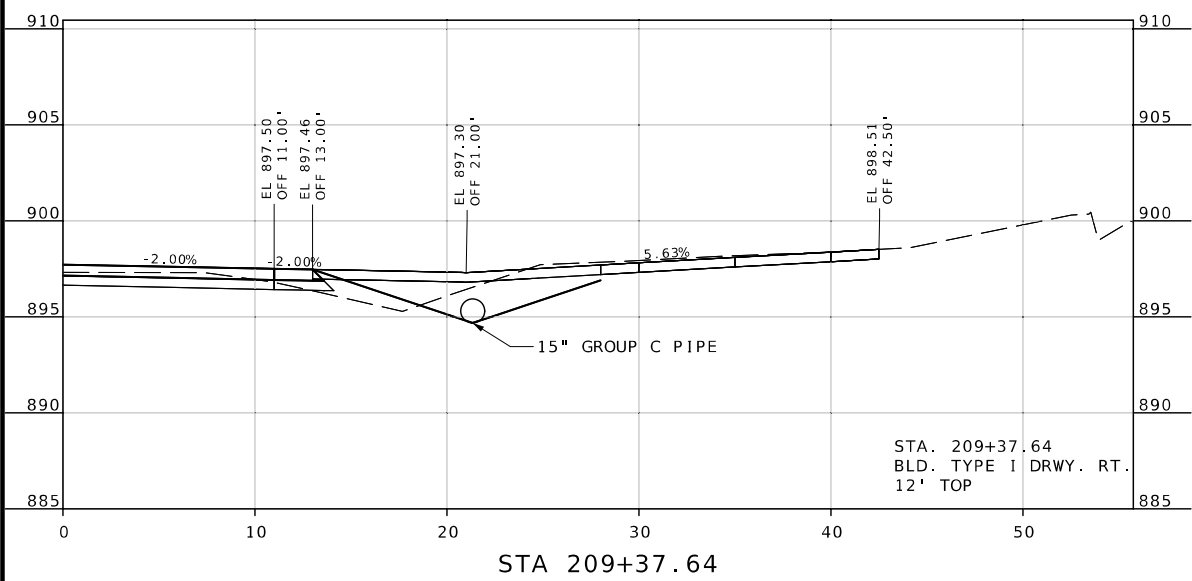
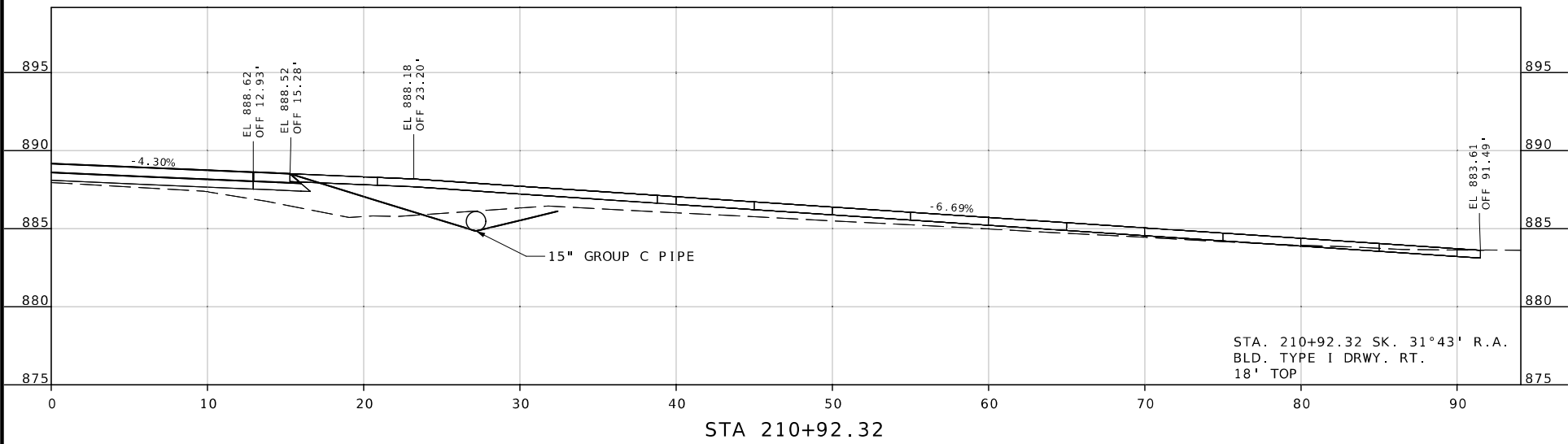
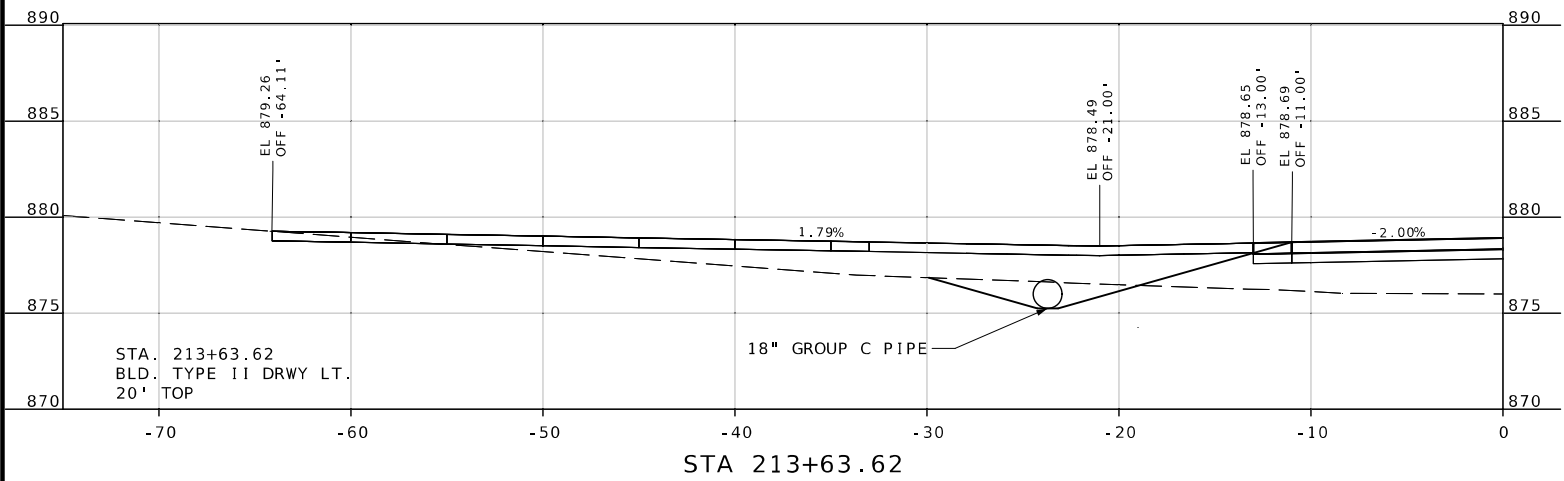
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

ROCK BLANKET DETAILS
SPECIAL SHEET 1 OF 3



THIS SHEET HAS BEEN
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ELECTRONICALLY.

DATE PREPARED

ROUTE B	STATE MO
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DISTRICT	SHEET NO
NW	7

COUNTY
HOLT

JOB NO.
J1S3276

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

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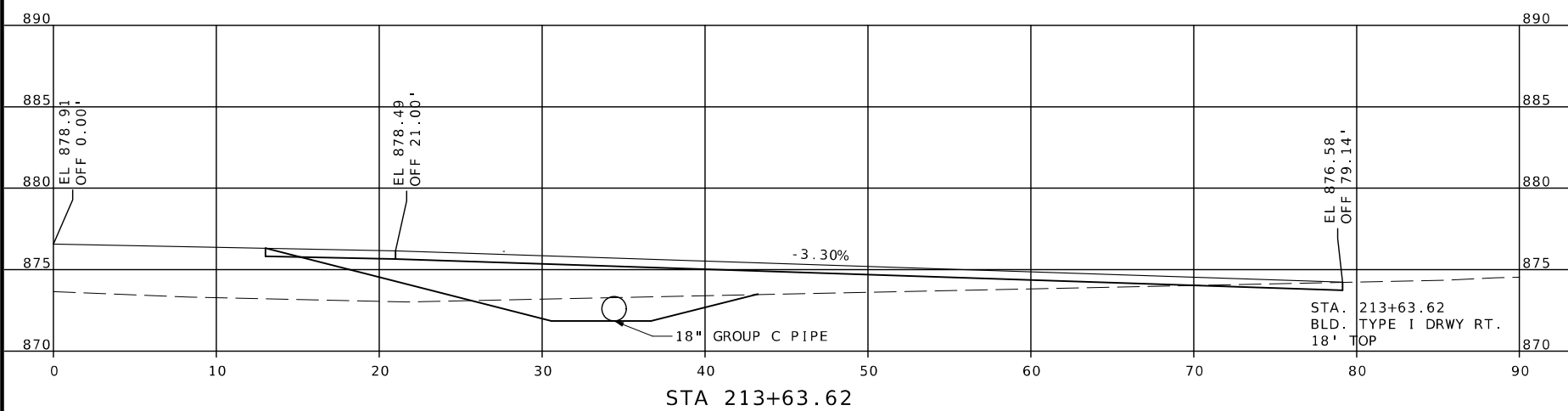
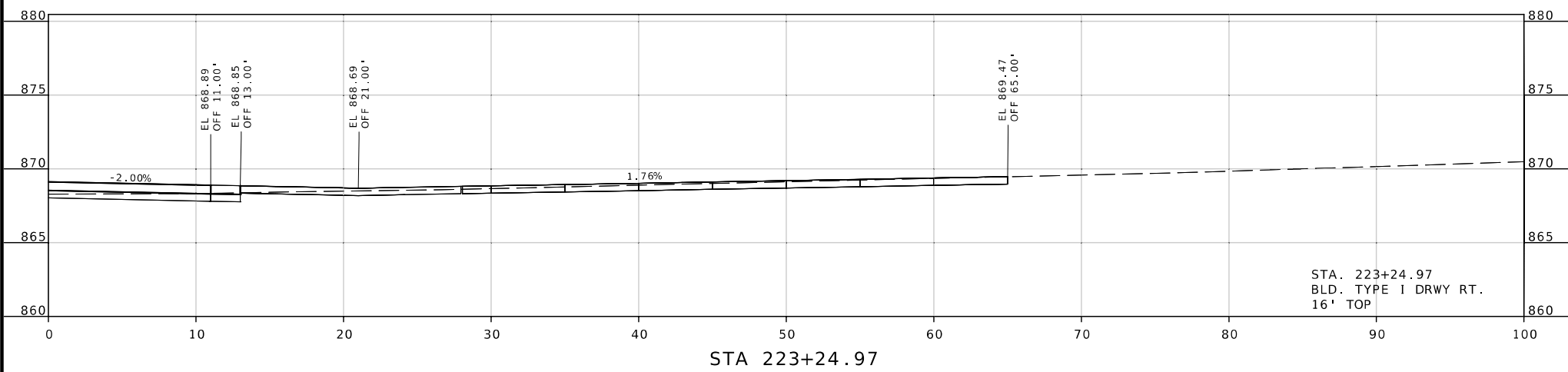
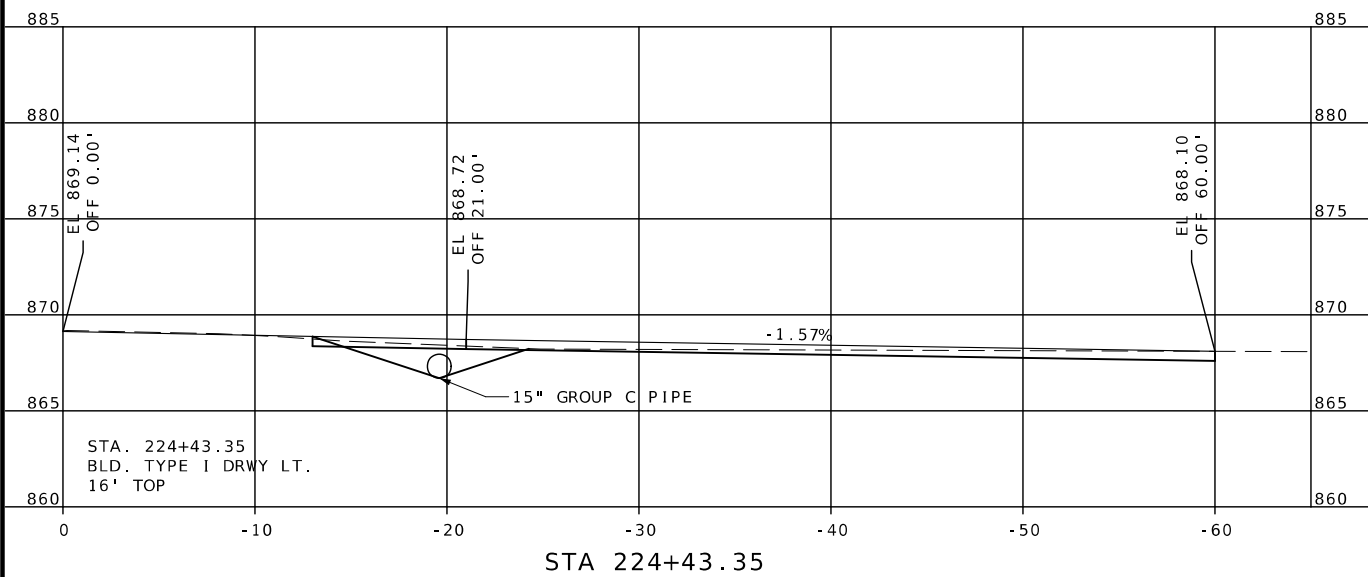
**WAYS AND TRANSPORTATION
COMMISSION**



MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102

DRIVEWAY PROFILES
SPECIAL SHEET 2 OF 3



THIS SHEET HAS BEEN
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ELECTRONICALLY.

DATE PREPARED

3/27/2024	
ROUTE B	STATE MO

COUNTY
HOLT

JOB NO.
J1S3276

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

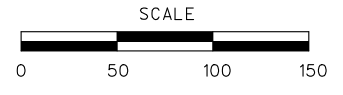
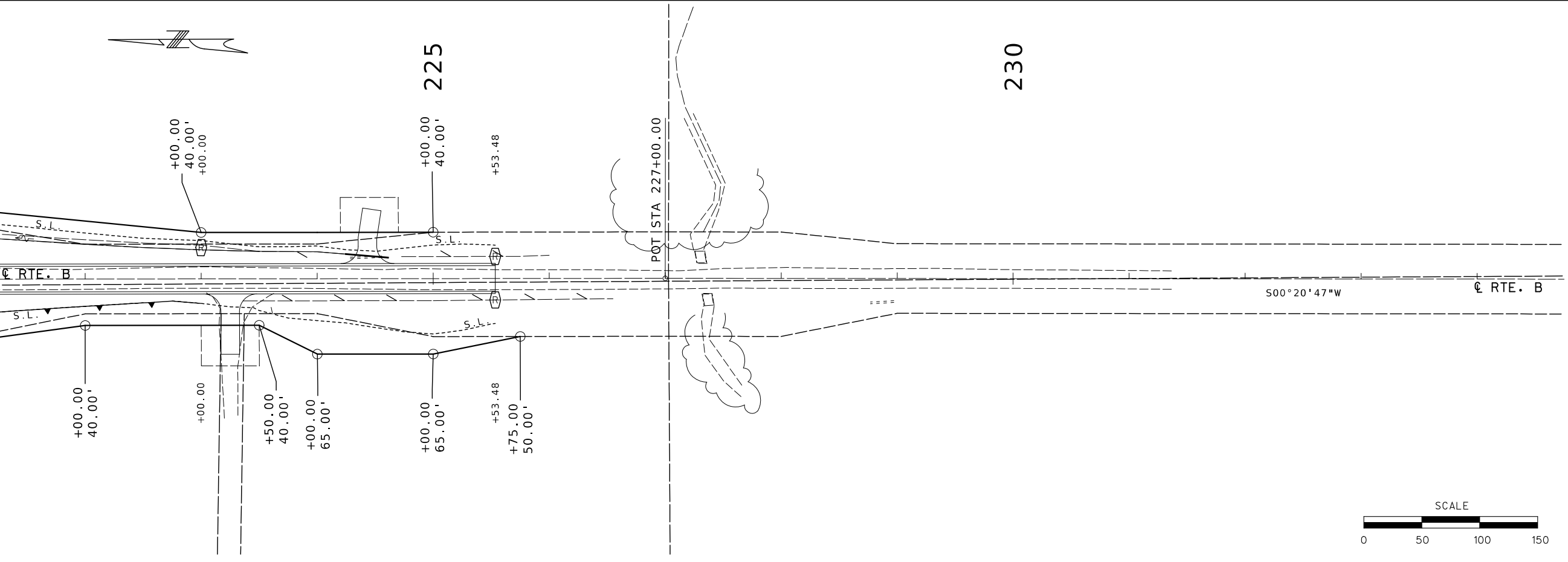
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



DRIVEWAY PROFILES
SPECIAL SHEET 3 OF 3

MATCHLINE STA. 221+25.00



EROSION CONTROL
SHEET 1 OF 1

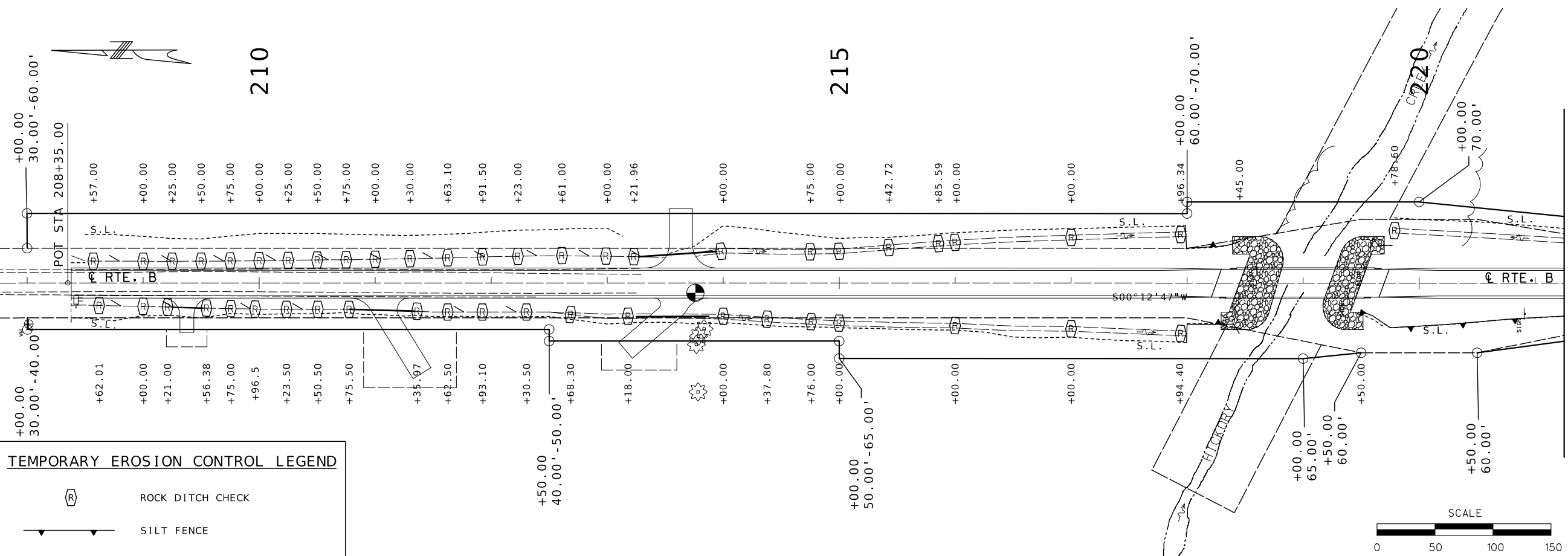
MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TEMPORARY EROSION CONTROL LEGEND

ROCK DITCH CHECK

SILT FENCE



MATCHLINE STA. 221+25.00

DATE	DESCRIPTION

PROJECT NO.	
BRIDGE NO.	
CONTRACT ID.	
JOB NO.	
COUNTY	
DISTRICT	SHEET NO.
B NW	10
ROUTE	STATE
B	MO
DATE PREPARED	
3/27/2024	

STATE OF MISSOURI

RICHARD W. ORR

NUMBER
PE-202003397

PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN
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ELECTRONICALLY.

General Notes:

Design Specifications:

2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
2011 AASHTO Guide Specifications for LRFD Seismic Bridge Design (2nd Ed.)
and 2014 Interim Revisions (Seismic Details)

Seismic Design Category = A

Design Loading:

Vehicular = HL-93
Future Wearing Surface = 35 lb/sf
Earth = 120 lb/sf
Equivalent Fluid Pressure = 45 lb/cf (Min.)
Superstructure: Non-Composite for dead load.
Composite for live load.

Design Unit Stresses:

Class B Concrete (Substructure) f'c = 3,000 psi
Class B-1 Concrete (Barrier & C.I.P. Concrete Piles) f'c = 4,000 psi
Class B-2 Concrete (Superstructure except Prestressed Girders and Barrier) f'c = 4,000 psi
Reinforcing Steel (Grade 60) fy = 60,000 psi

For prestressed girder stresses, see Sheets No. 11 & 12.
For steel shell stresses for C.I.P. Piles, see Sheet No. 3.

Neoprene Pads:

Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

Joint Filler:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

Traffic Handling:

Structure to be closed during construction. Traffic to be maintained on other routes during construction. See Roadway plans for traffic control.

Estimated Quantities for Slab on Concrete NU-Girder		
Item		Total
Class B-2 Concrete	cu. yard	114
Reinforcing Steel (Epoxy Coated)	pound	30,050

The table of Estimated Quantities for Slab on Concrete NU-Girder represents the quantities used by the State in preparing the cost estimate for concrete slabs. The area of the concrete slab will be measured to the nearest square yard longitudinally from end of slab to end of slab and transversely from out to out of bridge slab (or with the horizontal dimensions as shown on the plan of slab). Payment for stay-in-place corrugated steel forms, conventional forms, all concrete and epoxy coated reinforcing steel will be considered completely covered by the contract unit price for the slab. Variations may be encountered in the estimated quantities but the variations cannot be used for an adjustment in the contract unit price.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703. All hardware for forming the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and a finish type I, II or III.

Slab shall be cast-in-place with conventional forms or stay-in-place corrugated steel forms. Precast prestressed panels will not be permitted.

For details of stay-in-place corrugated steel forms, see Sheet No. 14.

Estimated Quantities				
Item		Substr.	Superstr.	Total
Class 1 Excavation	cu. yard	90		90
Removal of Bridges (K0841)	lump sum			1
Bridge Approach Slab (Minor)	sq. yard		109	109
Galvanized Cast-In-Place Concrete Piles (14 in.)	linear foot	896		896
Dynamic Pile Testing	each	2		2
Dynamic Pile Restrike Testing	each	2		2
Pile Point Reinforcement	each	14		14
Class B Concrete (Substructure)	cu. yard	31.8		31.8
Type D Barrier	linear foot		254	254
Slab on Concrete NU-Girder	sq. yard		307	307
NU 43, Prestressed Concrete NU-Girder	linear foot		303	303
Slab Drain	each	10		10
Vertical Drain at End Bents	each			2
Plain Neoprene Bearing Pad	each		6	6

All concrete above the construction joint in the end bents is included in the Estimated Quantities for Slab on Concrete NU-Girder.

All reinforcement in the end bents and all reinforcement in cast-in-place pile at end bents is included in the Estimated Quantities for Slab on Concrete NU-Girder.

Foundation Data			
Type	Design Data	Bent Number	
		1	2
Load Bearing Pile	Pile Type and Size	CECIP 14"	CECIP 14"
	Number	ea 7	ea 7
	Approximate Length Per Each	ft 60	ft 68
	Pile Point Reinforcement	ea All	ea All
	Min. Galvanized Penetration (Elev.)	ft 847.58	ft 846.83
	Est. Max. Scour Depth (Elev.)	ft -	ft -
	Minimum Tip Penetration (Elev.)	ft 843.08	ft 827.33
	Criteria for Min. Tip Penetration	Lateral Stability	Lateral Stability
	Pile Driving Verification Method	DT	DT
	Minimum Nominal Axial Compressive Resistance	kip 234	kip 234
	Portion of MNACR Required at End of Initial Drive	kip 164 (70%)	kip 164 (70%)
	Resistance Factor	0.65	0.65

DT = Dynamic Testing

Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resistance Factor}}$

Load Bearing Pile:

All piles shall be galvanized down to the minimum galvanized penetration (elevation).

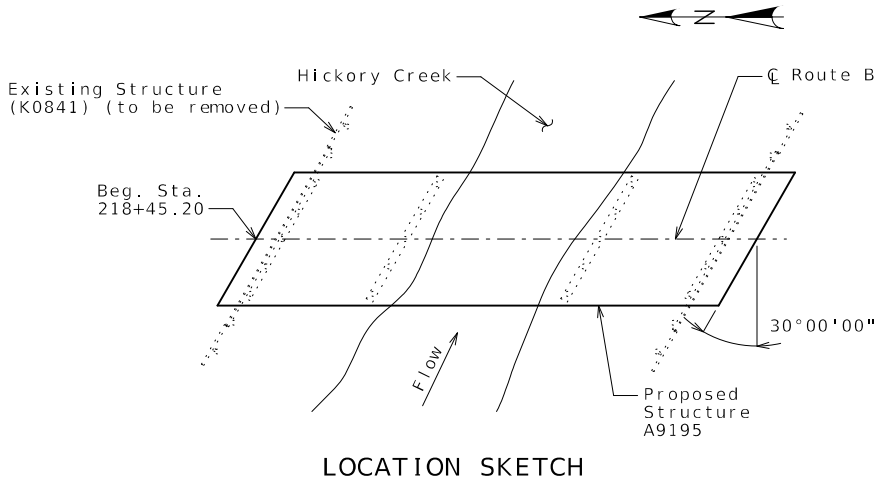
Pile point reinforcement need not be galvanized. Shop drawings will not be required for pile point reinforcement.

The contractor shall make every effort to achieve the minimum galvanized penetration (elevation) shown on the plans for all piles. Deviations in penetration less than 5 feet of the minimum will be considered acceptable provided the contractor makes the necessary corrections to ensure the minimum penetration is achieved on subsequent piles.

Dynamic Testing shall be performed on the first pile installed at each bent.

The test piles at End Bents No. 1 and 2 shall be driven to an end-of-initial drive resistance of approximately 164 kips, which is estimated to occur at a pile tip elevation of approximately 809.08 at End Bent No. 1 and 800.33 at End Bent No. 2. Subsequently, pile setups and the minimum nominal axial compressive resistance shall be confirmed by a restrrike test performed not less than 24 hours after end of initial drive.

Hydrologic Data
Drainage Area = 7.3 mi'
Design Flood Frequency = 50 years
Design Flood Discharge = 3,400 cfs
Design Flood (D.F.) Elevation = 866.4
Base Flood (100-year)
Base Flood Elevation = 866.7
Base Flood Discharge = 3,900 cfs
Estimated Backwater = 0.2 ft
Average Velocity thru Opening = 7.6 ft/s
Freeboard (50-year)
Freeboard = 4.4 ft
Roadway Overtopping
Overtopping Flood Discharge = N/A
Overtopping Flood Frequency > 500 years
500-Year Flood Elevation = 867.5



STATE OF MISSOURI

TYLER R. LINDSAY

NUMBER
PE-2019000128

PROFESSIONAL ENGINEER

Tyler R. Lindsay

06/15/2023 1:48:46 PM

TYLER R. LINDSAY - CIVIL

MO-PE-2019000128

DATE PREPARED
5/16/2023

ROUTE
B

STATE
MO

DISTRICT
BR

SHEET NO.
2

COUNTY
HOLT

JOB NO.
J153276

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9195

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

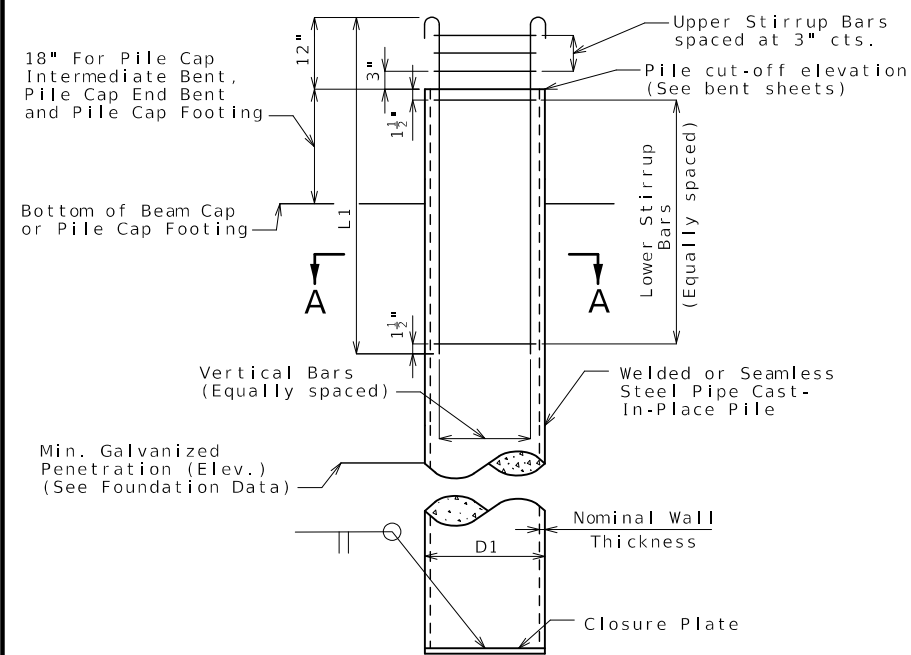
105 WEST CAPITOL

JEFFERSON CITY, MO 65102

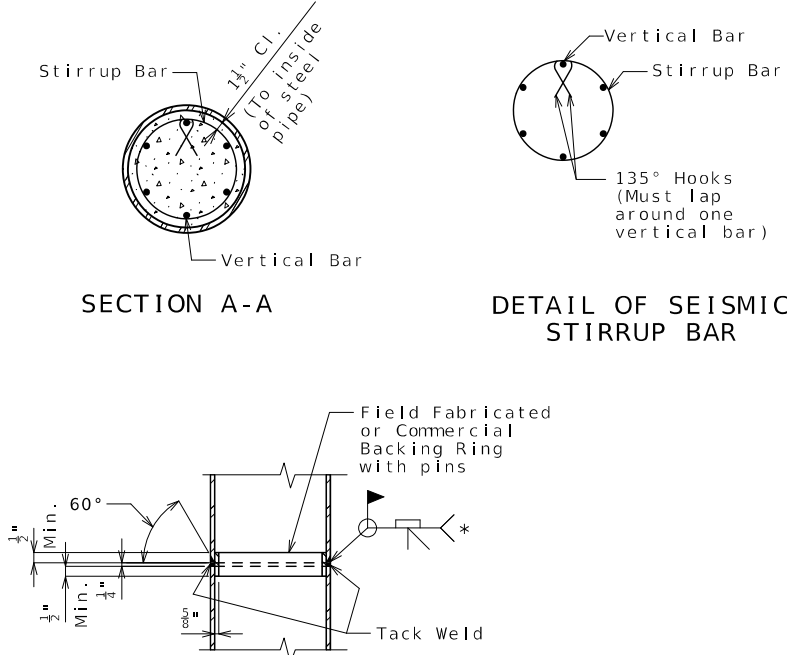
1-888-ASK-MODOT (1-888-275-6636)

MoDOT

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

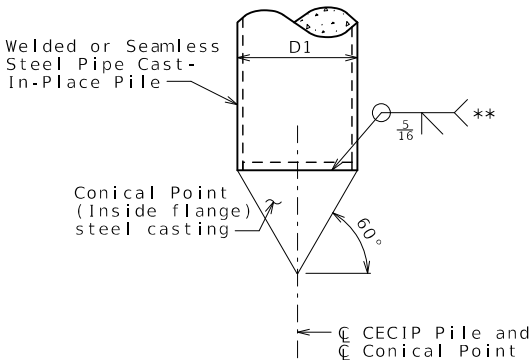


GALVANIZED CLOSED ENDED CAST-IN-PLACE (CECIP) CONCRETE PILE WITHOUT PILE POINT REINFORCEMENT



STEEL PIPE PILE SPLICE

* Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.



MANUFACTURED CONICAL PILE POINT (Omit closure plate)

** If the conical pile point is not pre-beveled, place a 3/8" bevel at 40 degrees on the pipe.

Galvanized Closed Ended Cast-In-Place (CECIP) Concrete Pile Data		
Bent Number	1	2
D1, CECIP Pile (O.D.)	14"	14"
Min. Nominal Wall Thickness	1/2"	1/2"
Closure Plate Thickness	3/4"	3/4"
Pile Point Reinforcement	Conical	Conical
Vertical Bars	6-#5-V103	6-#5-V206
L1, Length of Vertical Bars	5'-3"	5'-3"
Upper Stirrup Bars	3-#4-P100	3-#4-P200
Lower Stirrup Bars	5-#4-P100	5-#4-P200

Notes:

Welded or seamless steel shell (pipe) shall be ASTM A252 Grade 3 (fy = 45,000 psi).

Concrete for cast-in-place pile shall be Class B-1.

Steel for closure plate shall be ASTM A709 Grade 50.

Steel casting for conical pile point reinforcement shall be ASTM A27 Grade 65-35.

The minimum wall thickness of any spot or local area of any type shall not be more than 12.5% under the specified nominal wall thickness.

The contractor shall determine the pile wall thickness required to avoid damage from all driving activities, but wall thickness shall not be less than the minimum specified. No additional payment will be made for furnishing a thicker pile wall than specified on the plans.

Closure plate shall not project beyond the outside diameter of the pipe pile. Satisfactory weldments may be made by beveling tip end of pipe or by use of inside backing rings. In either case, proper gaps shall be used to obtain weld penetration full thickness of pipe. Payment for furnishing and installing closure plate will be considered completely covered by the contract unit price for Galvanized Cast-In-Place Concrete Piles.

Splices of pipe for cast-in-place concrete pile shall be made watertight and to the full strength of the pipe above and below the splice to permit hard driving without damage. Pipe damaged during driving shall be replaced without cost to the state. Pipe sections used for splicing shall be at least 5 feet in length.

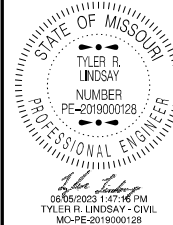
At the contractor's option, the hooks of vertical bars embedded in the beam cap may be oriented inward or outward.

Closure plate need not be galvanized.

Reinforcing steel for cast-in-place piles is included in the Bill of Reinforcing Steel.

All reinforcement for cast-in-place pile is included in the estimated quantities for bents.

For Foundation Data table, see Sheet No. 2.



DATE PREPARED
5/16/2023
ROUTE
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STATE
MO
SHEET NO.
3

COUNTY
HOLT
JOB NO.
J1S3276
CONTRACT ID.

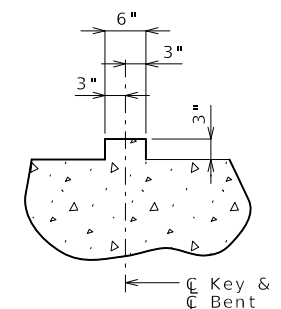
PROJECT NO.
BRIDGE NO.
A9195

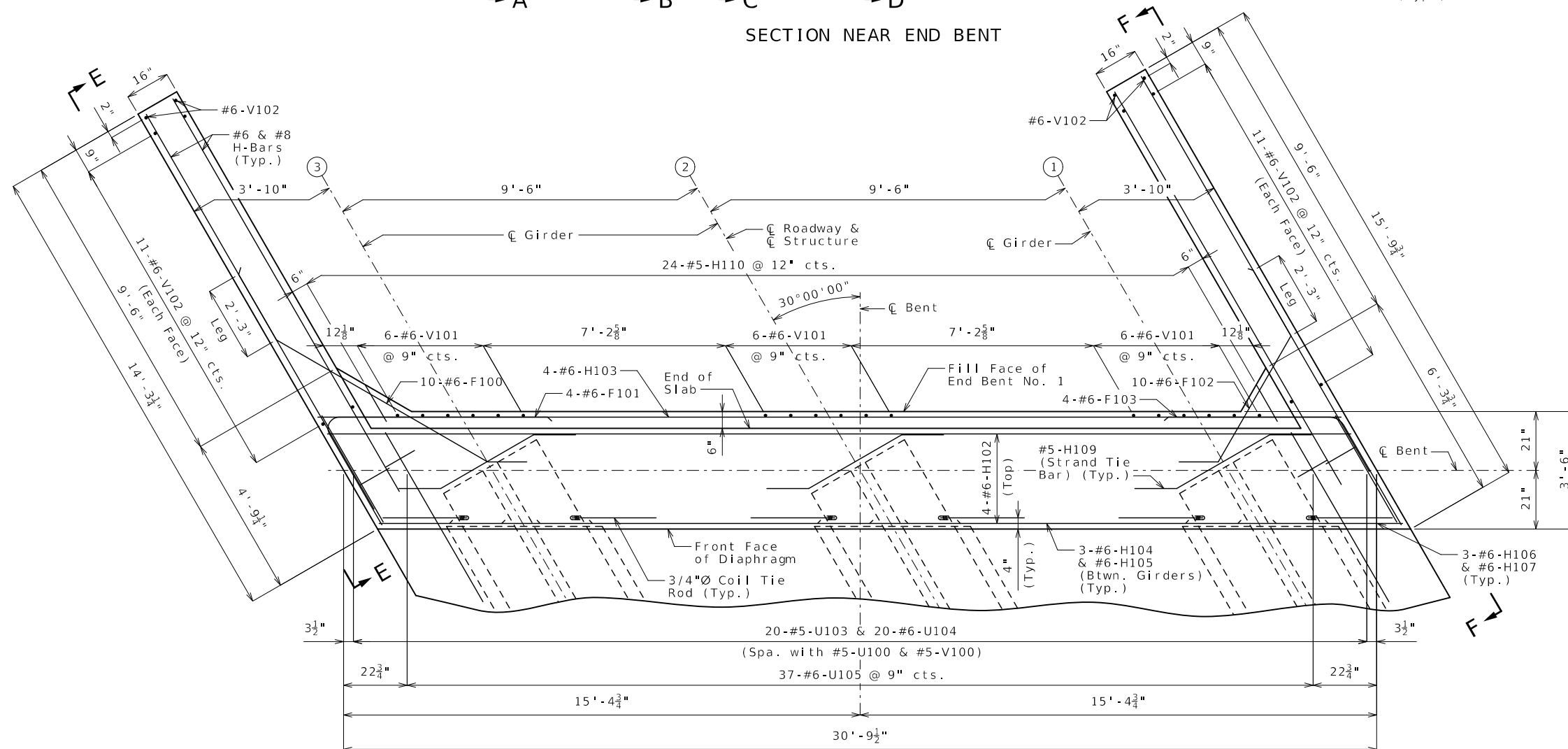
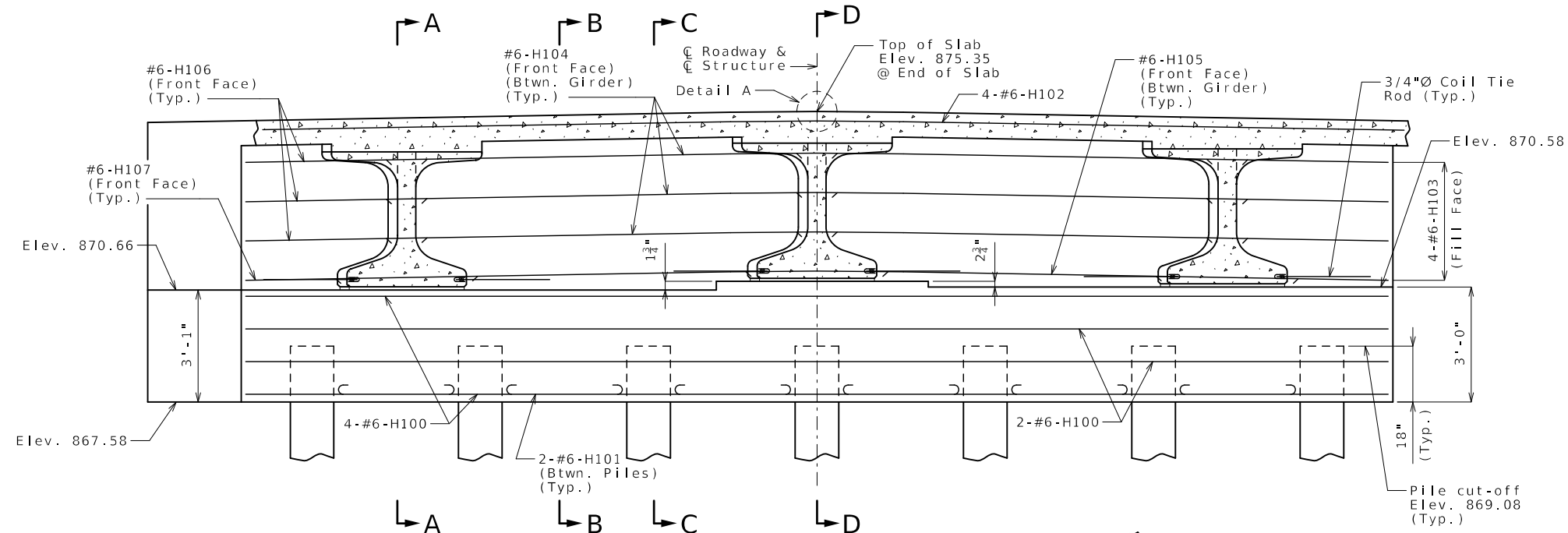
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.





Notes:

For Sections A-A, B-B, C-C & D-D and
Elevations E-E & F-F, see Sheet No. 6.

For details of End Bent No. 1 not shown, see Sheets No. 4 & 6.

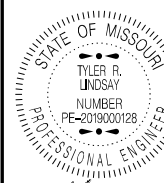
All concrete in the end bent above top of beam and below top of slab shall be Class B-2.

Strands at end of girders shall be field bent or, if necessary, cut in field to maintain 1 1/2" minimum clearance to fill face of end bent.

For location of Coil Ties & #5-H109
Strand Tie Bars, see Sheets No. 11 &
12.

The U bars and #5-H110 shall be placed parallel to C Roadway.

The #6-F100 & F102 bars shall be bent in field to clear girders.



DATE PREPARED

5 / 16 / 2023

ROUTE	STATE
B	MO

DISTRICT	SHEET NO.
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7135270
CONTRACT ID.

PROJECT NO.

BRIDGE NO.

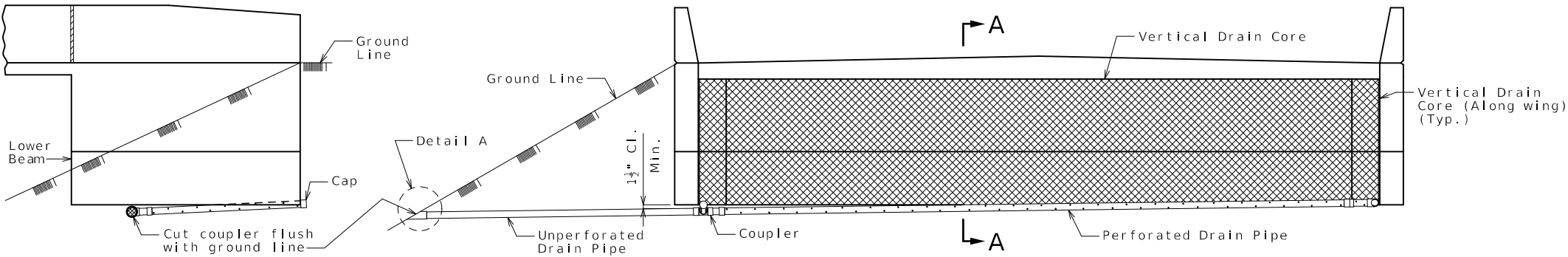
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COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

[illegible]Detailed Nov. 2022
Checked Nov. 2022

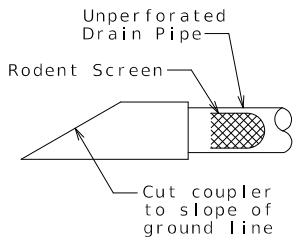
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 5 of 22

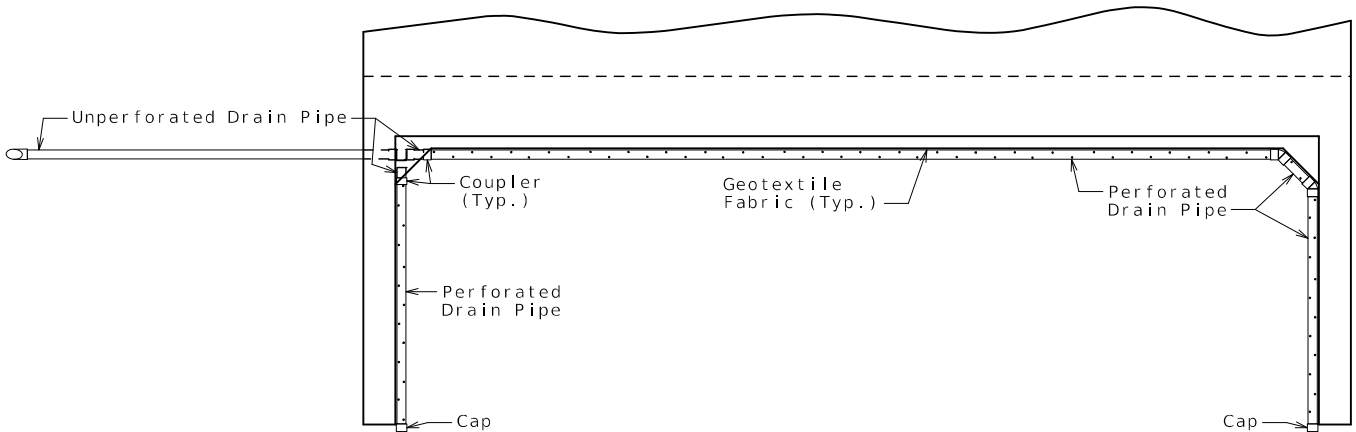


ELEVATION OF WING

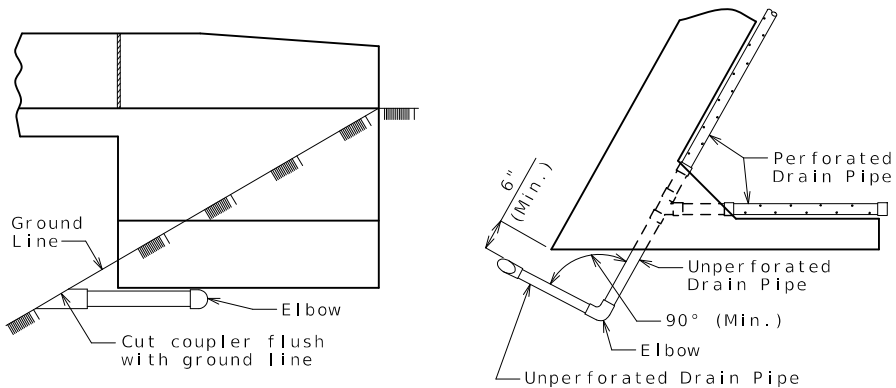
ELEVATION OF END BENT



DETAIL A



PLAN OF END BENT

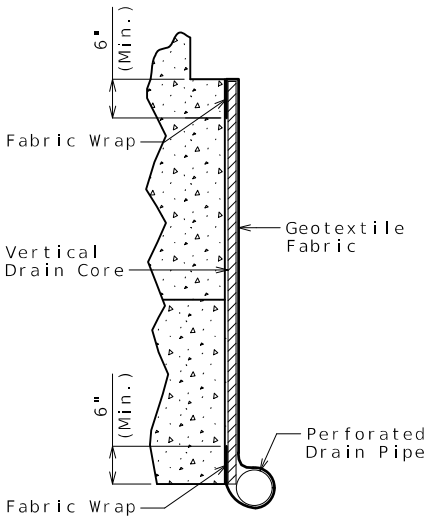


ELEVATION OF WING

PART PLAN

OPTIONAL TURNED DRAIN

(Use only when straight drain is not practical.)



PART SECTION A-A
(Section thru wing similar)

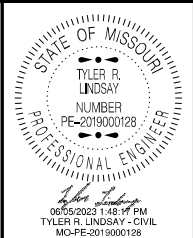
General Notes:

All drain pipe shall be sloped 1 to 2 percent.

Drain pipe may be either 6-inch diameter corrugated metallic-coated steel pipe underdrain, 4-inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4-inch diameter corrugated polyethylene (PE) drain pipe.

Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.



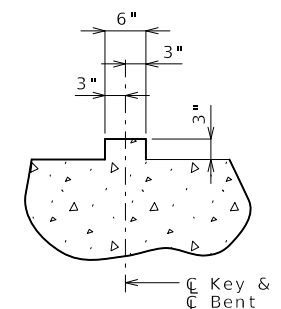
DATE PREPARED 5/16/2023	
ROUTE B	STATE MO
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COUNTY HOLT	
JOB NO. J153276	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9195	

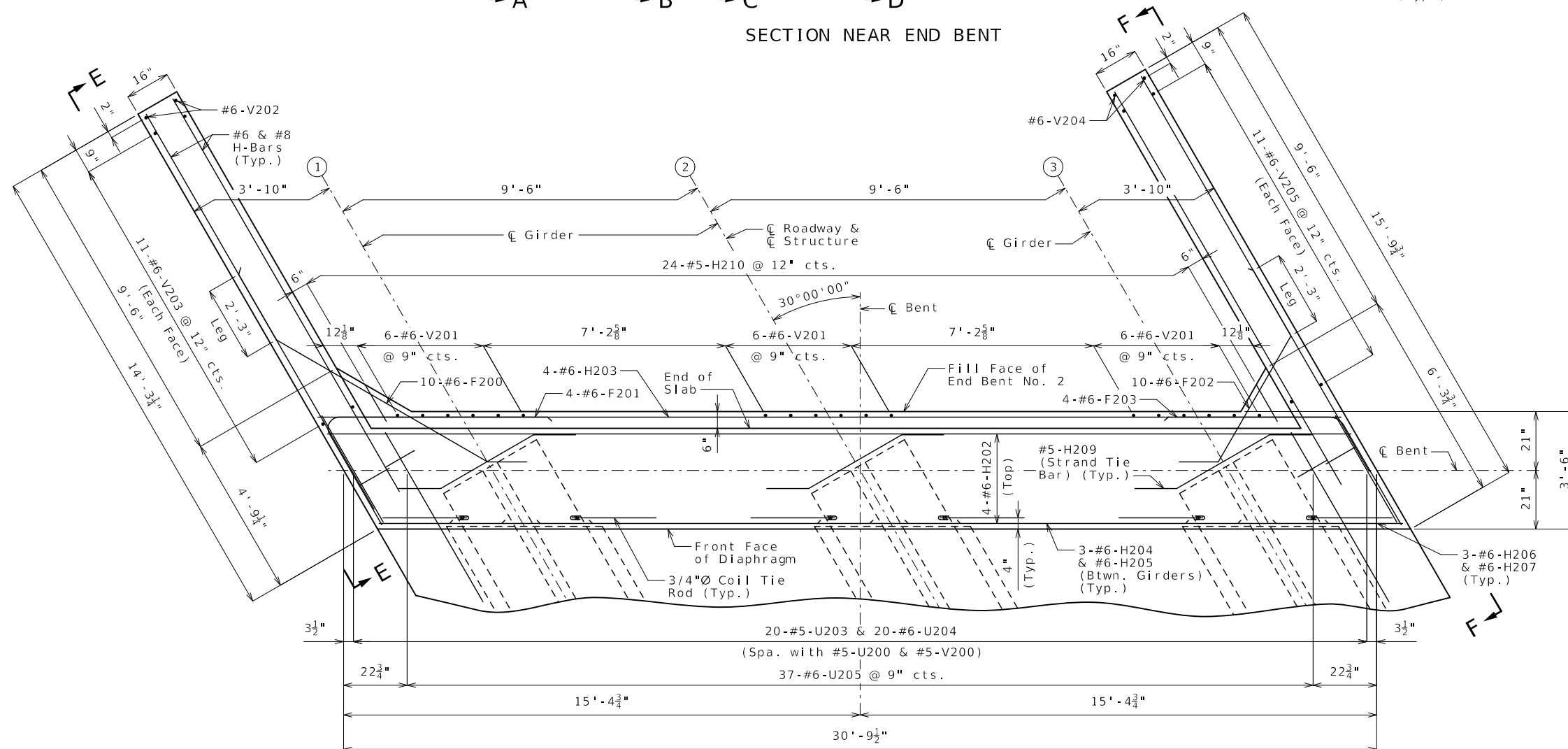
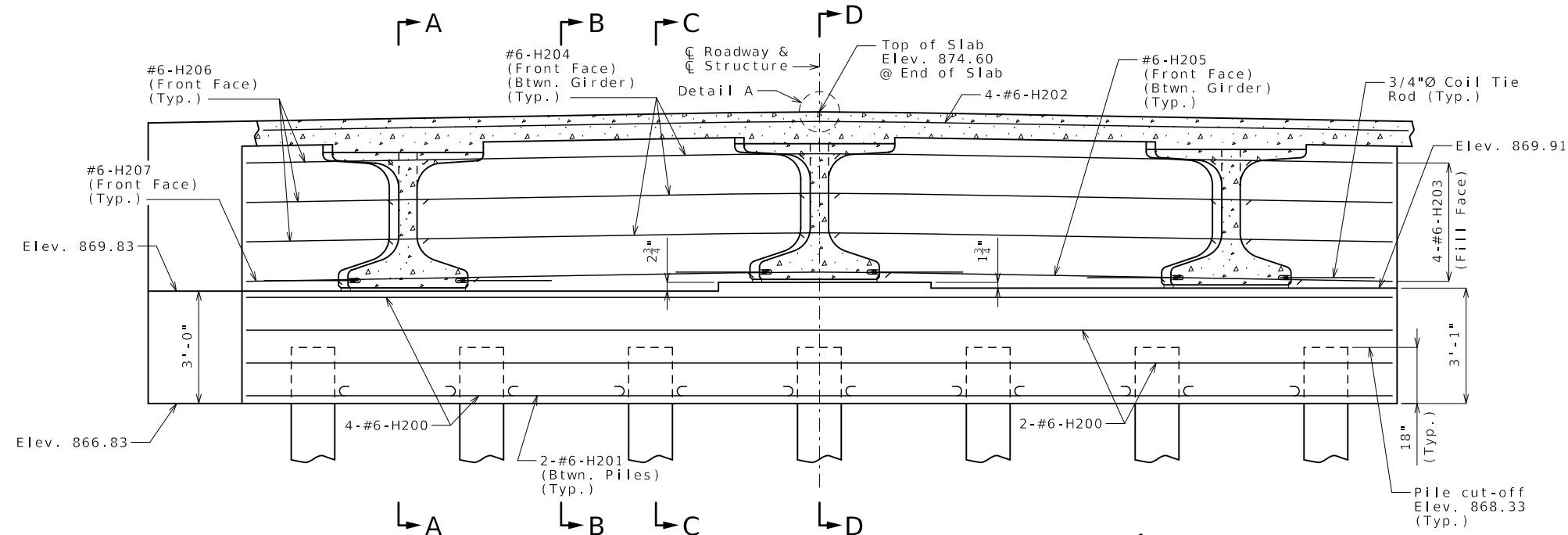
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

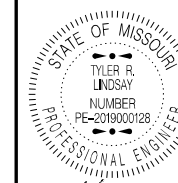
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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Notes:



DATE PREPARED

5 / 16 / 2023

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COMMISSION

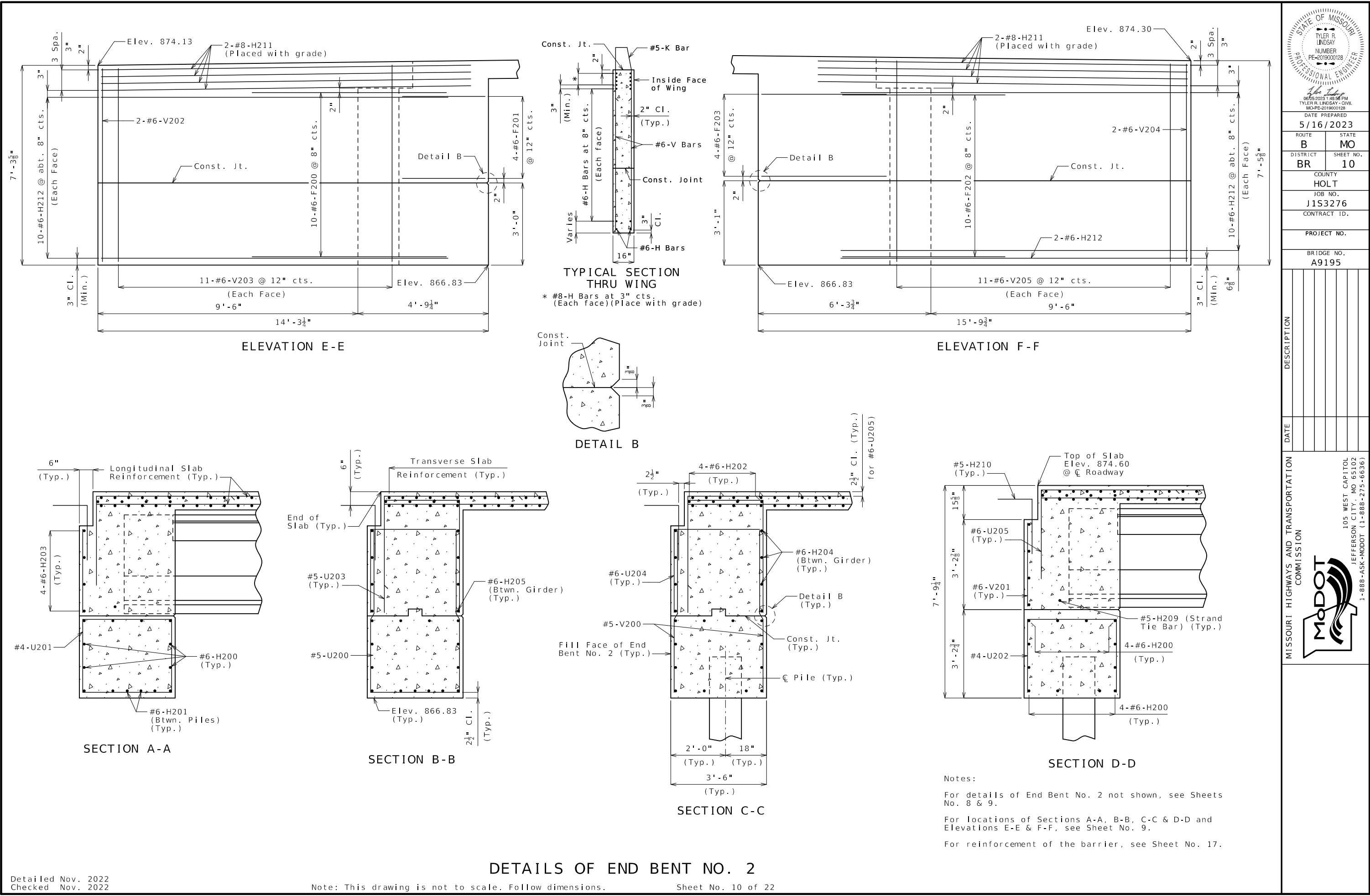
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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Detailed Nov. 2022
Checked Nov. 2022

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 9 of 22



Detailed Nov. 2022
Checked Nov. 2022

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 10 of 22

STATE OF MISSOURI
TYLER R. LINDSAY
NUMBER
PE-2019000128
PROFESSIONAL ENGINEER
06/15/2023 1:48:56 PM
TYLER R. LINDSAY - CIVIL
MO-PE-2019000128

DATE PREPARED
5/16/2023

ROUTE
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JOB NO.
J153276

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9195

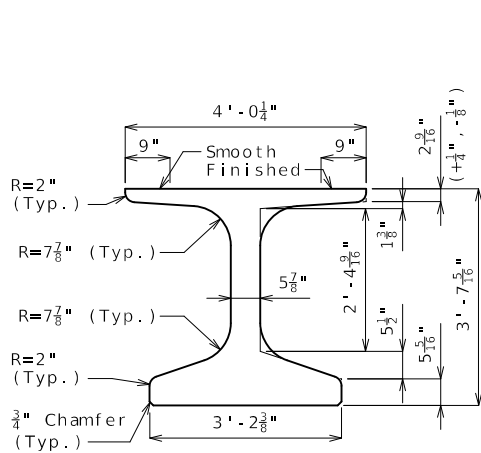
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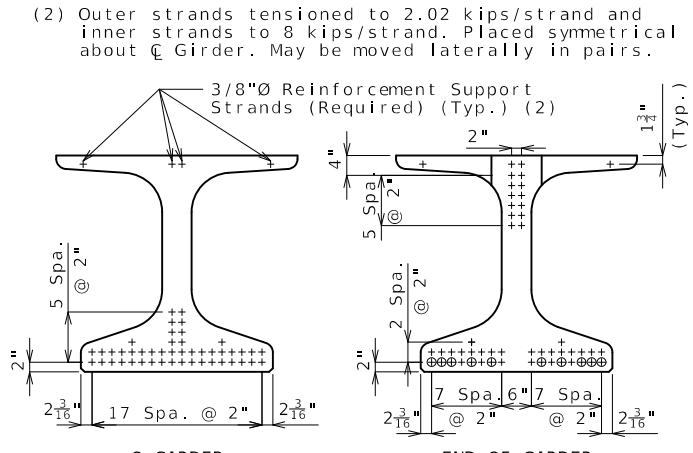
MISSOURI HIGHWAYS AND TRANSPORTATION
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JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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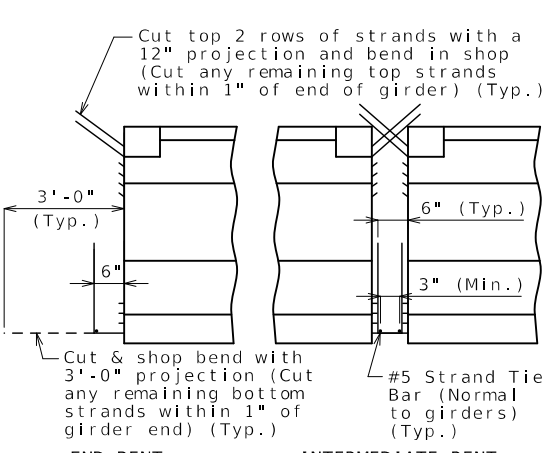


DIMENSIONS

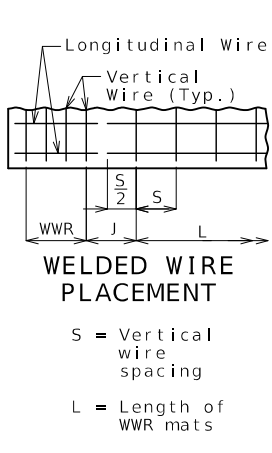


STRAND ARRANGEMENT

+ Indicates prestressing strand.
o Indicates cut & shop bend with 3'-0" projection.



STRANDS AT GIRDER ENDS



Bill of Reinforcing Steel					
Bars Each Girder					Bending Diagrams
No.	Size/Mark	Length	Shape		
122	3 G1	2'-10"	8		Shape 8 16" 16" 6"
2	4 G3	4'-5"	20		
8	4 G6	Varies	20		Shape 20 16" 16" 6"
Welded Wire Each Girder					Bending Diagrams
Mark	Size	S	W	L	
WWR1	D31	4"	W12	3'-8"	4"
WWR2	D31	12"	W12	17'-0"	12"
WWR3	D31	20"	W12	53'-4"	--
WWR6	D31	2"	W12	16"	3 $\frac{1}{4}$ "

All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

Actual bar lengths are measured along centerline of bar to the nearest inch.
Minimum clearance to reinforcing shall be 1", unless otherwise shown.

All bar reinforcement shall be Grade 60.
WWR shall not be epoxy coated.

General Notes:
Concrete for prestressed beams shall be Class A-1 with $f'c = 8000$ psi and $f'ci = 6500$ psi.

Use 46 strands, 0.6" $\bar{O}$ Grade 270, with an initial prestress force of 2021 kips.

Pretensioned members shall be in accordance with Sec 1021.

Fabricator shall be responsible for location and design of lifting devices.

Exterior and interior girders are the same except: coil inserts for slab drains.

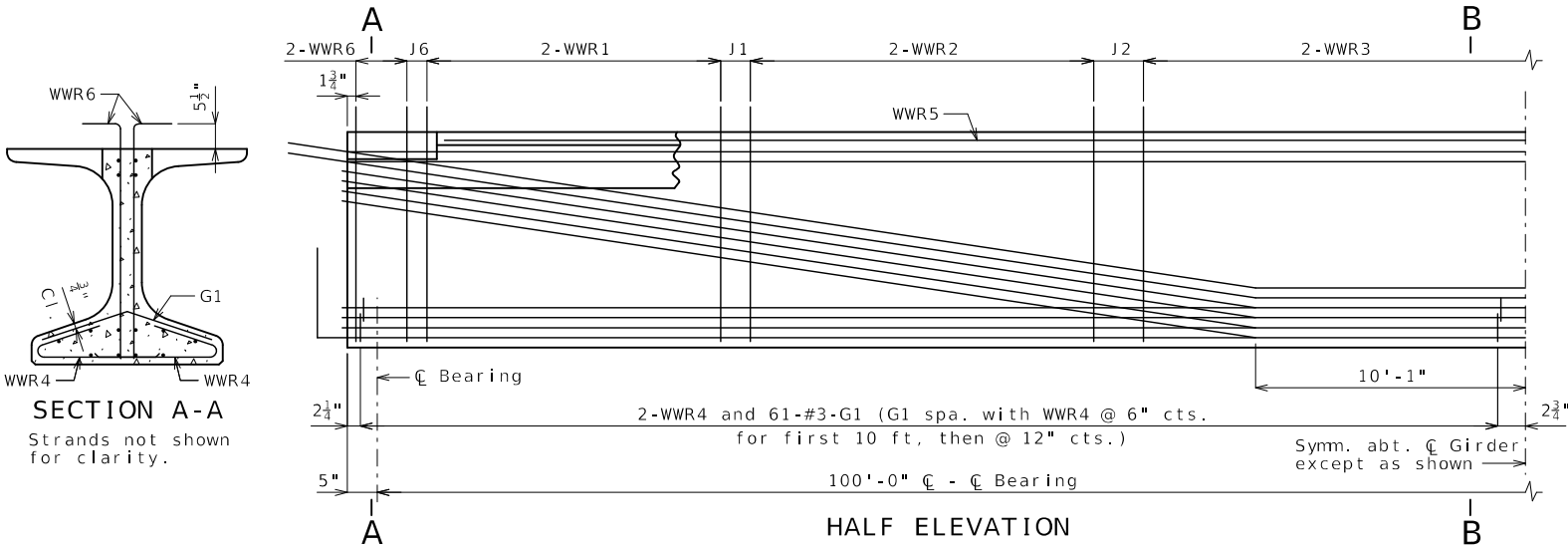
The contractor shall provide bracing necessary for lateral and torsional stability of the girders during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not drill holes in the girders.

For Girder Camber Diagram, see Sheet No. 14.

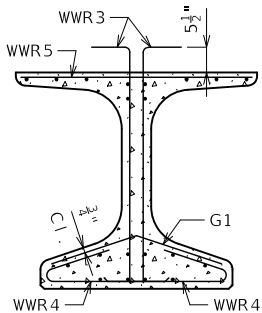
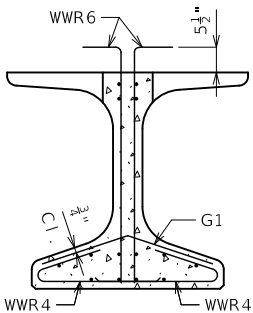
For location of coil inserts at slab drains, see Sheet No. 13.

For location of coil ties at integral bents, see Sheets No. 5 and 9.

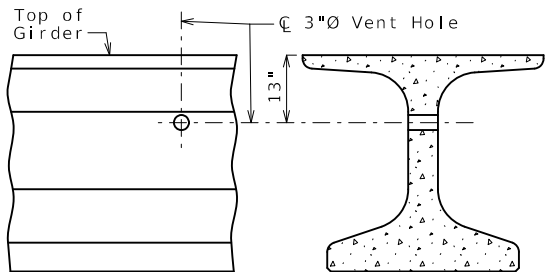
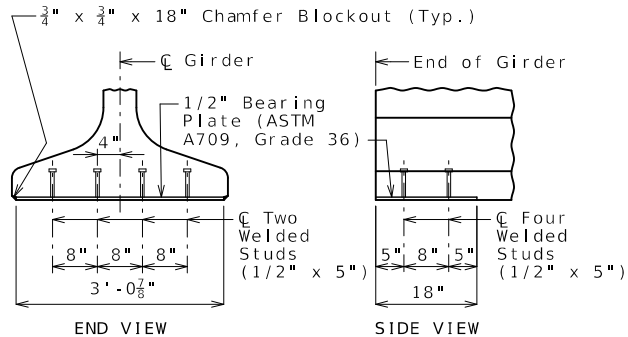
Alternate bar reinforcing steel details are provided and may be used. The same type of reinforcing steel shall be used for all girders in all spans.



HALF ELEVATION

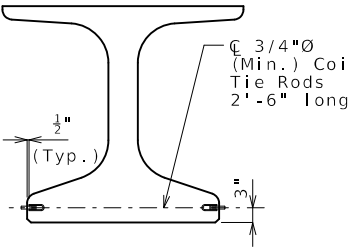


TOP FLANGE BLOCKOUT



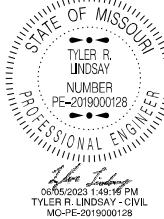
VENT HOLE

Place vent holes at or near upgrade 1/3 point of girders and clear reinforcing steel or strands by 1 1/2" minimum.



COIL TIES

NU-GIRDERS - SPAN (1-2)



DATE PREPARED
5/16/2023

ROUTE
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COUNTY
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JOB NO.
J153276

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9195

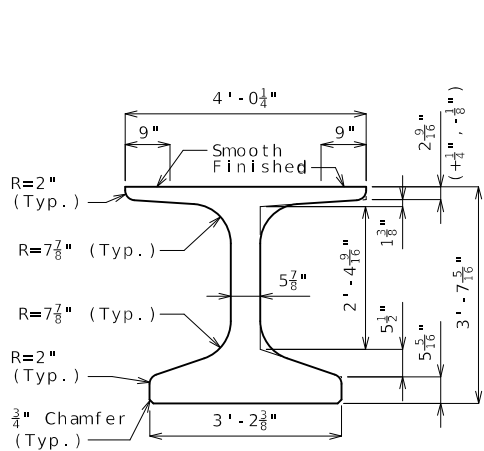
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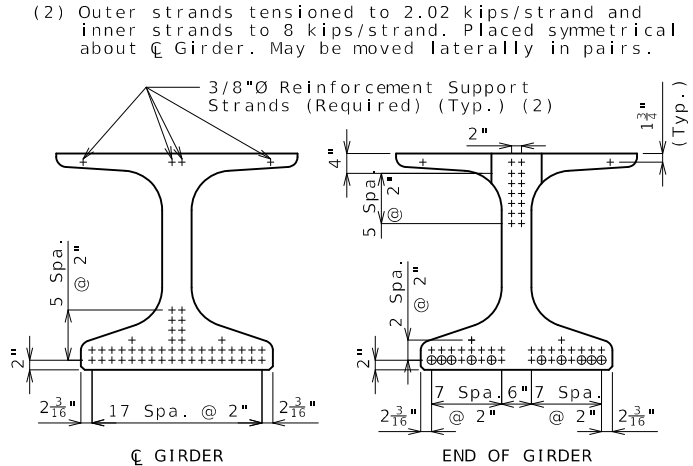
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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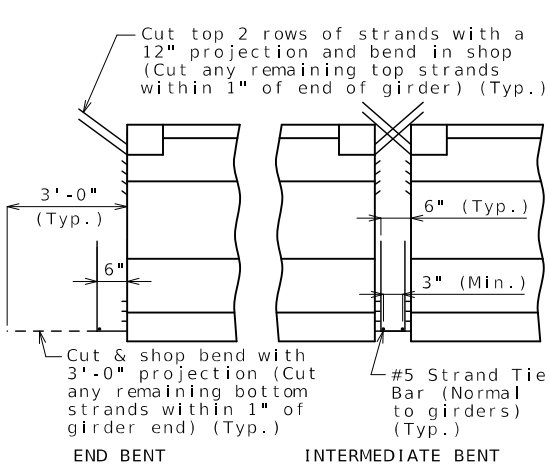


DIMENSIONS

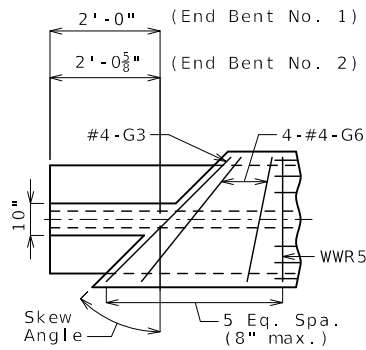


STRAND ARRANGEMENT

+ Indicates prestressing strand. o Indicates cut & shop bend with 3'-0" projection.



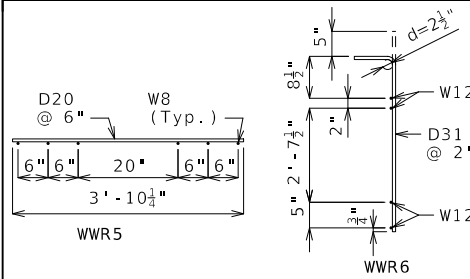
STRANDS AT GIRDER ENDS



TOP FLANGE BLOCKOUT

Bill of Reinforcing Steel - Each Girder				
No.	Size/Mark	Length	Shape	Bending Diagrams
170	5 B1	5'-0"	11	
190	4 D1	4'-0"	9	
2	4 G3	4'-5"	20	
8	4 G6	Varies	20	

Welded Wire Reinforcement - Each Girder



All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

Actual bar lengths are measured along centerline of bar to the nearest inch.

Minimum clearance to reinforcing shall be 1".

All bar reinforcement shall be Grade 60.

The two D1 bars may be furnished as one bar at the fabricator's option.

All B1 bars shall be epoxy coated.

General Notes:

Concrete for prestressed girders shall be Class A-1 with $f'c = 8000$ psi and $f'ci = 6500$ psi.

Use 46 strands, 0.6"Ø Grade 270, with an initial prestress force of 2021 kips.

Pretensioned members shall be in accordance with Sec 1029.

Fabricator shall be responsible for location and design of lifting devices.

Exterior and interior girders are the same except: coil inserts for slab drains.

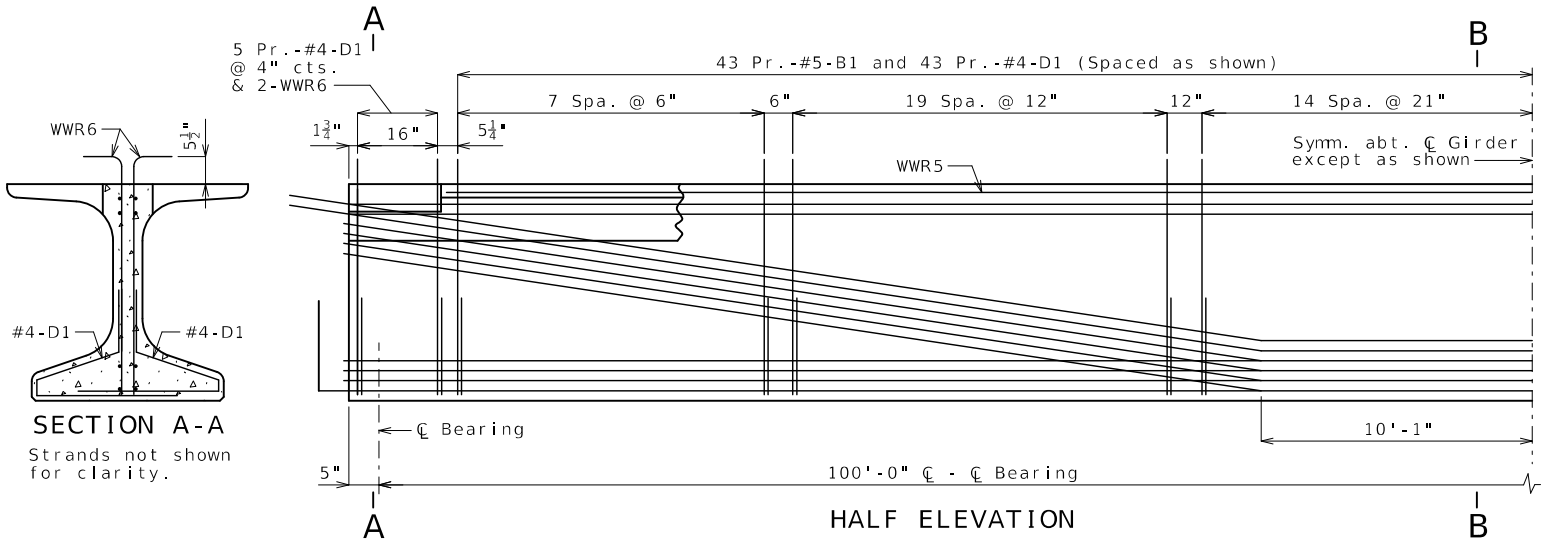
The contractor shall provide bracing necessary for lateral and torsional stability of the girders during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not drill holes in the girders.

For Girder Camber Diagram, see Sheet No. 14.

For location of coil inserts at slab drains, see Sheet No. 13.

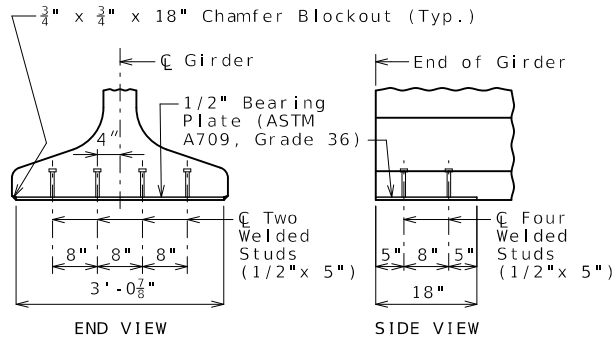
For location of coil ties at integral bents, see Sheets No. 5 and 9.

Alternate bar reinforcing steel details are provided and may be used. The same type of reinforcing steel shall be used for all girders in all spans.

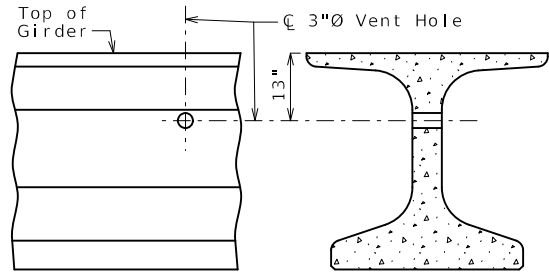


HALF ELEVATION

Reinforcement support strands not shown for clarity.



BEARING PLATE

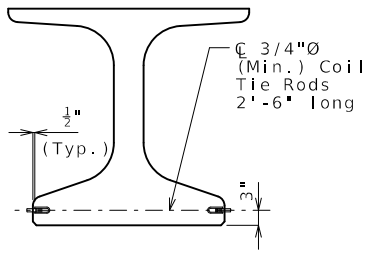


PART ELEVATION

PART SECTION

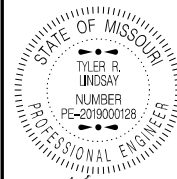
VENT HOLE

Place vent holes at or near upgrade 1/3 point of girders and clear reinforcing steel or strands by 1 1/2" minimum.



COIL TIES

NU-GIRDERS (ALTERNATE REINFORCEMENT) - SPAN (1-2)



DATE PREPARED
5/16/2023

ROUTE B STATE MO

DISTRICT BR SHEET NO. 12

COUNTY HOLT

JOB NO. J153276

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9195

DESCRIPTION

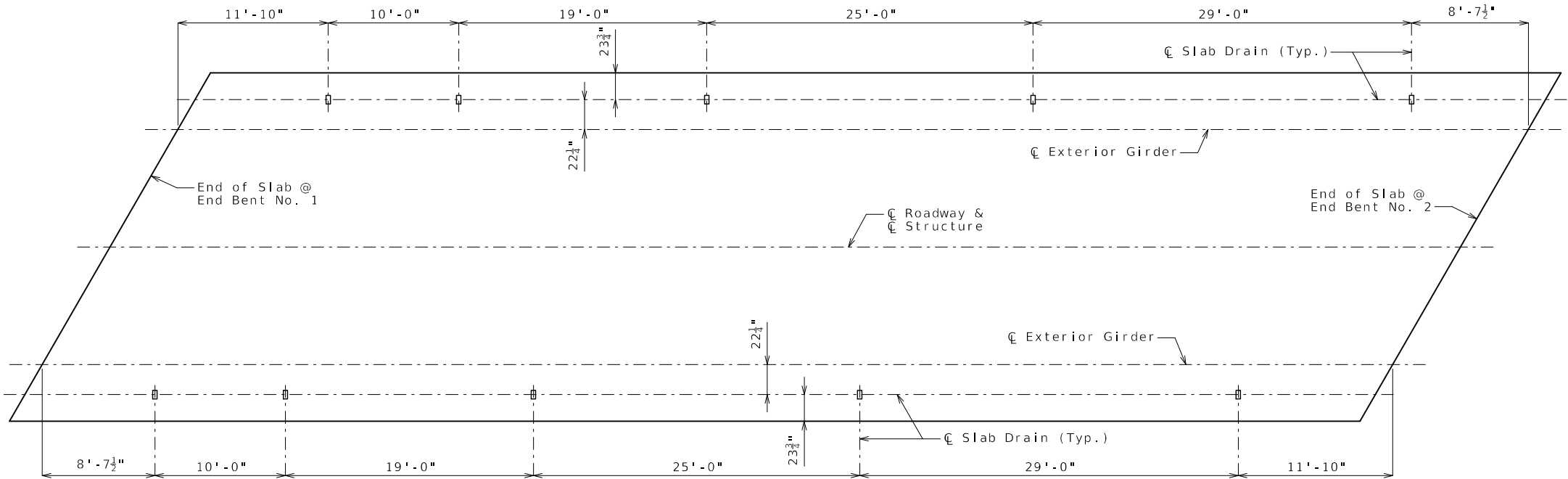
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

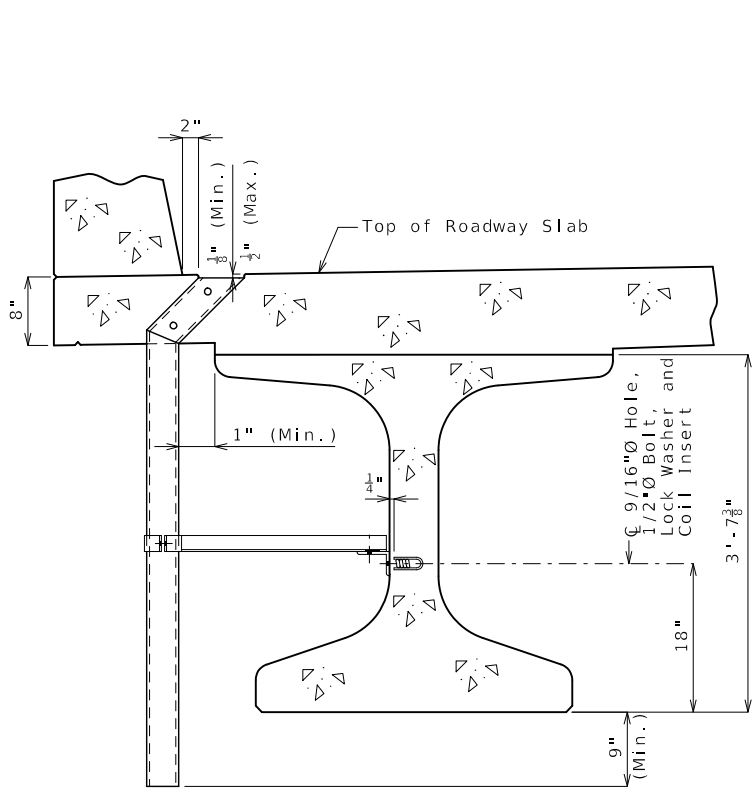
105 WEST CAPITOL JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-275-6636)

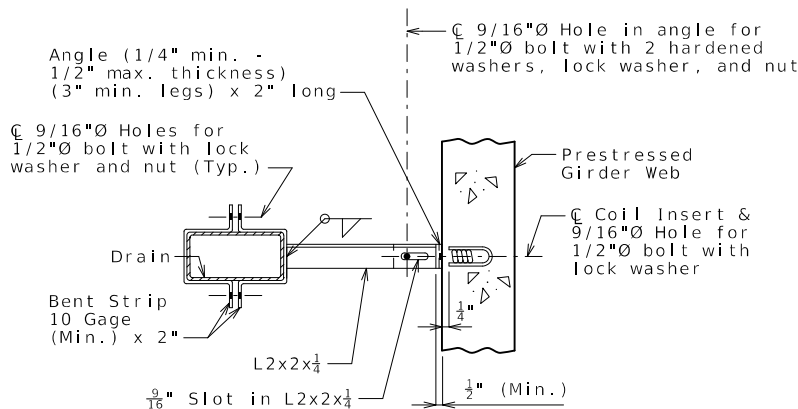
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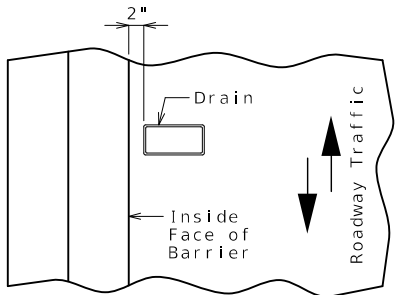
PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS



PART SECTION NEAR DRAIN

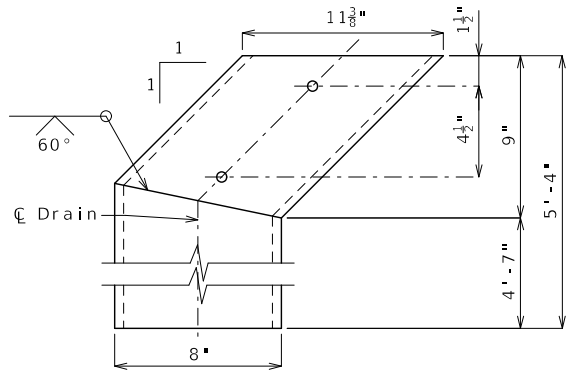


PART SECTION SHOWING BRACKET ASSEMBLY

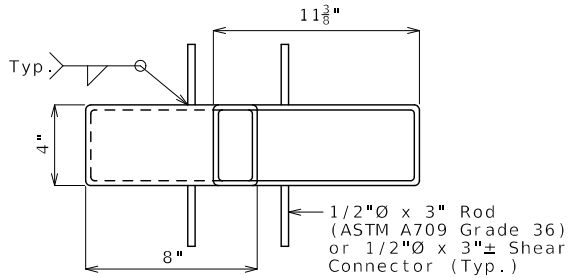


PART PLAN OF SLAB AT DRAIN

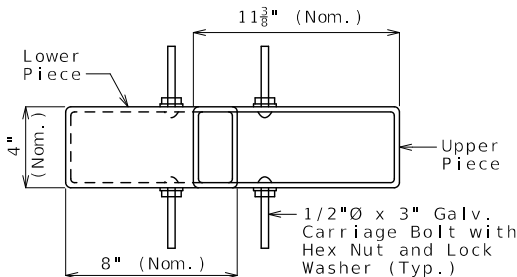
SLAB DRAINS



ELEVATION OF DRAIN



PLAN OF STEEL DRAIN OPTION



PLAN OF FRP DRAIN OPTION

General Notes:

Contractor shall have the option to construct either steel or FRP slab drains. All drains shall be of same type.

Slab drain bracket assembly shall be ASTM A709 Grade 36 steel.

Locate drains in slab by dimensions shown in Part Section Near Drain.

Reinforcing steel shall be shifted to clear drains.

The coil inserts and bracket assembly shall be galvanized in accordance with ASTM A123.

All bolts, hardened washers, lock washers and nuts shall be galvanized in accordance with AASHTO M 232 (ASTM A153), Class C.

All 1/2"Ø bolts shall be ASTM A307.

Shop drawings will not be required for the slab drains and the bracket assembly.

The coil insert required for the bracket assembly attachment shall be located on the prestressed girder shop drawings.

Coil inserts shall have a concrete pull-out strength (ultimate load) of at least 2,500 pounds in 5,000 psi concrete.

The bolt required to attach the slab drain bracket assembly to the prestressed girder web shall be supplied by the prestressed girder fabricator.

Notes for Steel Drain:

Slab drains may be fabricated of either 1/4" welded sheets of ASTM A709 Grade 36 steel or from 1/4" structural steel tubing ASTM A500 or A501.

Outside dimensions of drains are 8" x 4".

The drains shall be galvanized in accordance with ASTM A123.

Notes for FRP Drain:

Drains shall be machine filament-wound thermosetting resin tubing meeting the requirements of ASTM D2996 with the following exceptions:

Shape of drains shall be rectangular with outside nominal dimensions of 8" x 4".

Minimum reinforced wall thickness shall be 1/4 inch.

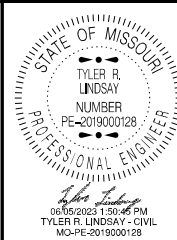
The resin used shall be ultraviolet (UV) resistant and/or have UV inhibitors mixed throughout. Drains may have an exterior coating for additional UV resistance.

The color of the slab drain shall be gray (Federal Standard 26373). The color shall be uniform throughout the resin and any coating used.

The combination of materials used in the manufacture of the drains shall be tested for UV resistance in accordance with ASTM D4329 Cycle A. The representative material shall withstand at least 500 hours of testing with only minor discoloration and without any physical deterioration. The contractor shall furnish the results of the required ultraviolet testing prior to acceptance of the slab drains.

At the contractor's option, drains may be field cut. The method of cutting FRP slab drain shall be as recommended by the manufacturer to ensure a smooth, chip free cut.

Both upper and lower drain pieces shall be rigidly connected to each other. Drain flow shall not be obstructed. Approval of the engineer is required.



DATE PREPARED
5/16/2023

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JOB NO.
J153276

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9195

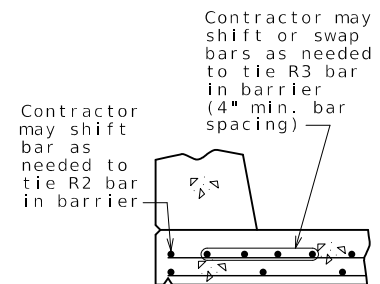
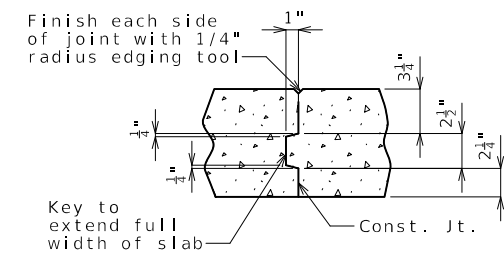
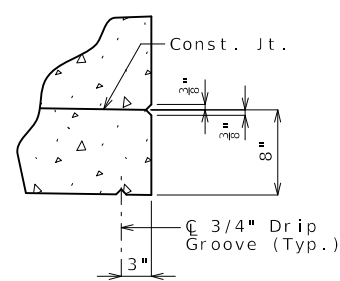
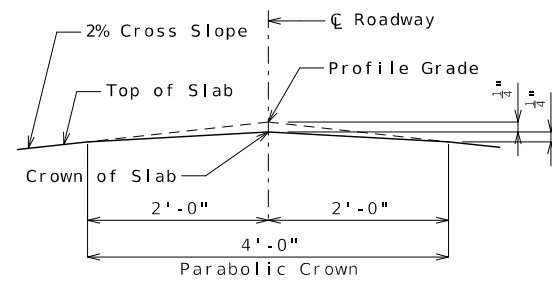
DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



Theoretical Bottom of Slab Elevations at Centerline of Girder (Prior to forming for slab) (Estimated at 90 days)											
Girder Number	Span (1-2) (100'-0" @ Brg. - @ Brg.)										
	@ Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	@ Brg.
1	874.49	874.50	874.50	874.48	874.44	874.37	874.29	874.17	874.04	873.89	873.72
2	874.67	874.70	874.71	874.70	874.66	874.60	874.52	874.41	874.28	874.12	873.96
3	874.52	874.54	874.55	874.54	874.51	874.45	874.37	874.27	874.15	874.00	873.88

Elevations are based on a constant slab thickness of 8" and include allowance for theoretical dead load deflections due to weight of slab and barrier.

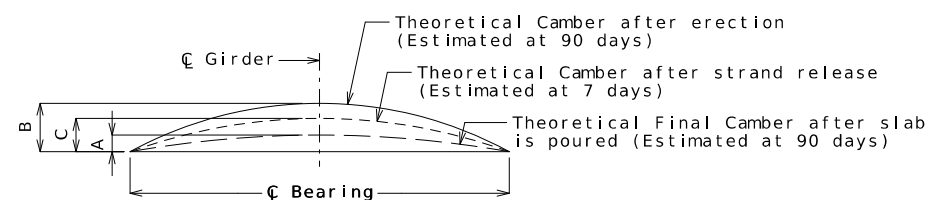
The diagram illustrates a cross-section of a bridge with three girders. The girders are labeled Girder No. 1, Girder No. 2, and Girder No. 3 from left to right. The dimensions for each girder are as follows:

Girder No.	Top Flange	Web	Bottom Flange
Girder No. 1	3"	2 1/2"	1 1/2"
Girder No. 2	2 1/2"	2 1/2"	1 5/8"
Girder No. 3	2 1/2"	2"	1 1/2"

The bottom of the slab is indicated by a horizontal line. The top of the girder is indicated by a curved line. The spacing between the girders is 10 equal spaces. The bearing is 100'-0". The span is 1-2.

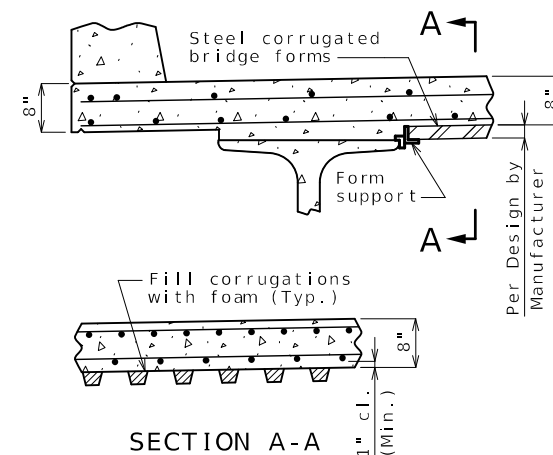
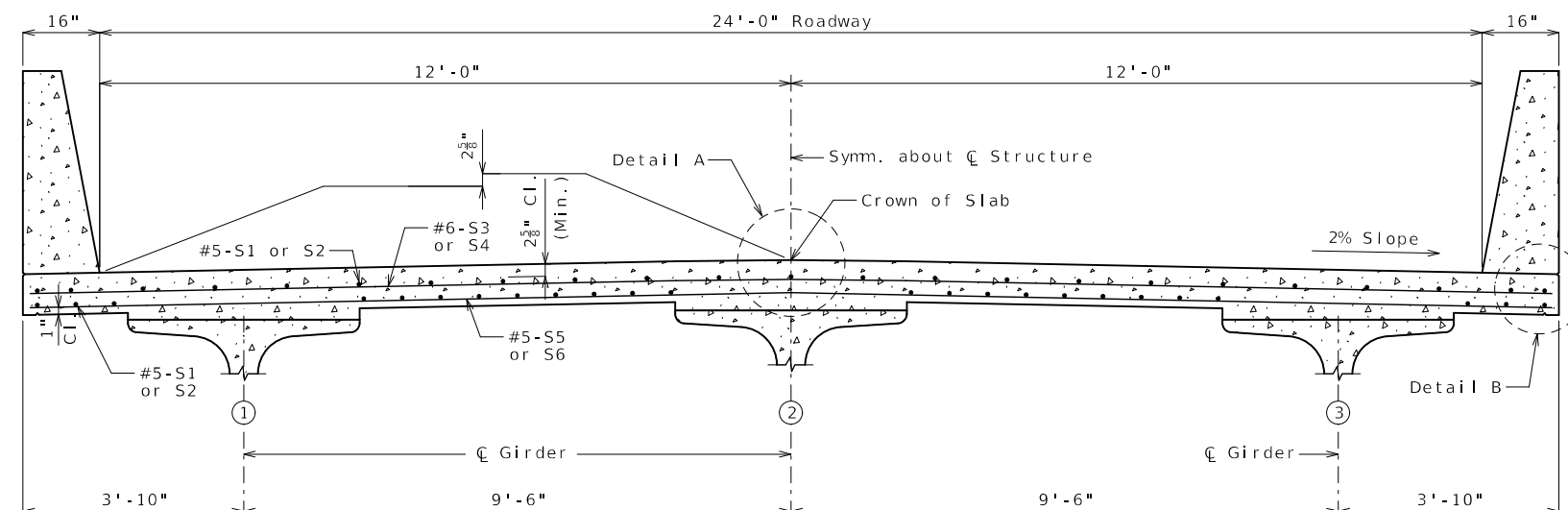
If girder camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness, an adjustment of the slab haunches, an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in haunching, slab thickness or grade adjustment.

Concrete in the slab haunches is included in the
Estimated Quantities for Slab on Concrete NU-Girder.



Conversion Factors for Girder Camber (Estimated at 90 days):

0.1 pt. = 0.314 x 0.5 pt.
0.2 pt. = 0.593 x 0.5 pt.
0.3 pt. = 0.813 x 0.5 pt.
0.4 pt. = 0.952 x 0.5 pt.



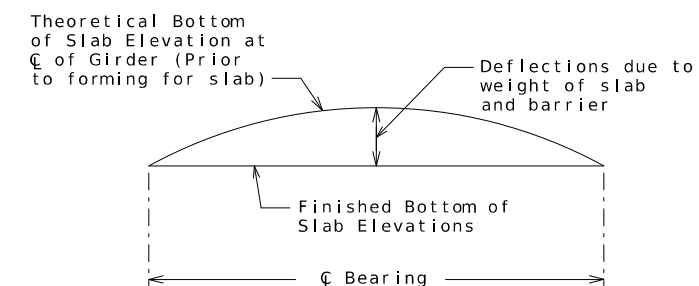
Stay-In-Place Forms:

Corrugated steel forms, supports, closure elements and accessories shall be in accordance with grade requirement and coating designation G165 of ASTM A653. Complete shop drawings of the permanent steel deck forms shall be required in accordance with Sec 1080.

Corrugations of stay-in-place forms shall be filled with an expanded polystyrene material. The polystyrene material shall be placed in the forms with an adhesive in accordance with the manufacturer's recommendations.

Form sheets shall not rest directly on the top of girder flanges. Sheets shall be securely fastened to form supports with a minimum bearing length of one inch on each end. Form supports shall be placed in direct contact with the flange. Welding on or drilling holes in the beam flanges will not be permitted. All steel fabrication and construction shall be in accordance with Sec 1080 and 712. Certified field welders will not be required for welding of the form supports.

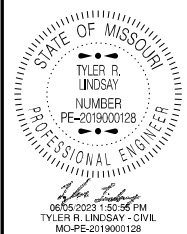
The design of stay-in-place corrugated steel forms is per manufacturer which shall be in accordance with Sec 703 for false work and forms. Maximum actual weight of corrugated steel forms allowed shall be 4 psf assumed for girder loading.



Notes:

For reinforcement of barrier not shown, see Sheet No. 16.

For Plan of Slab Showing Reinforcement, see Sheet No. 15.



DATE PREPARED

5 / 16 / 2023

ROUTE	STATE
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B	MO
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DISTRICT	SHEET NO.
DD	14

BR	14
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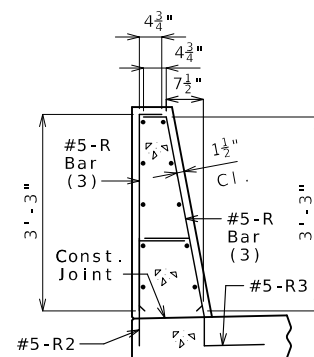
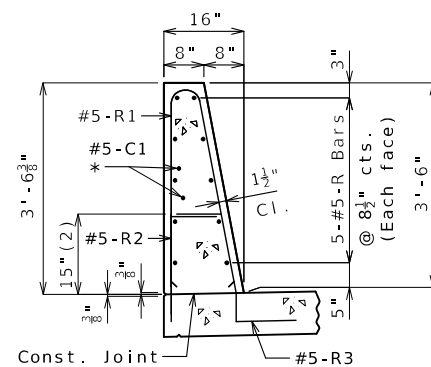
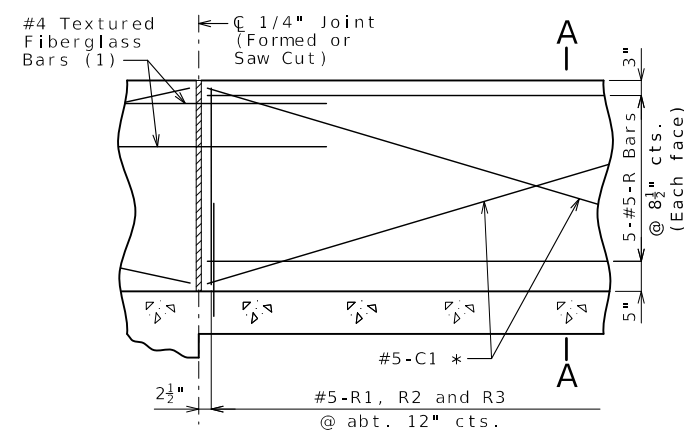
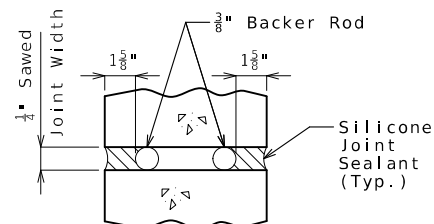
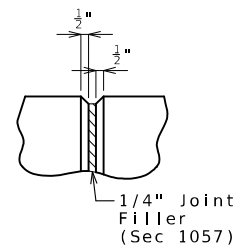
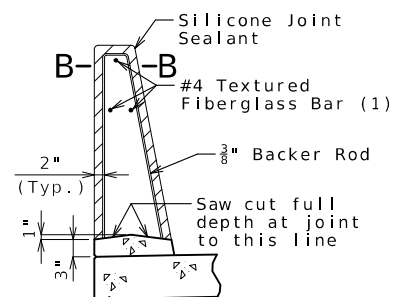
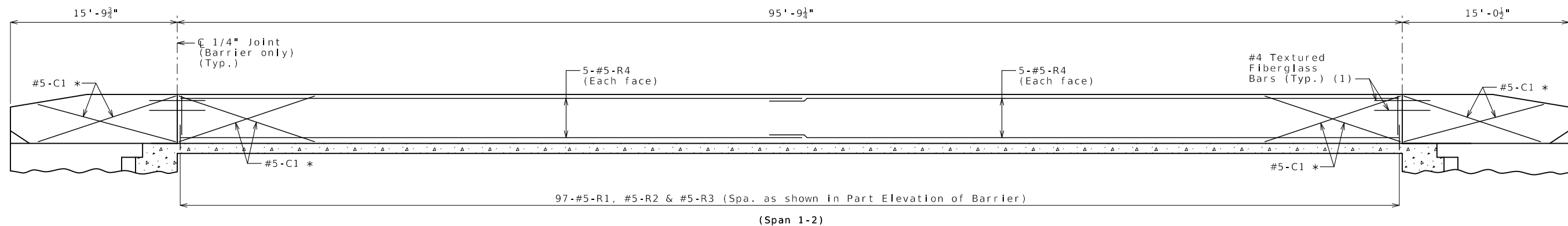
COUNTY
HOLT

HOLD
JOB NO.

JOB NO.
1153276

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



General Notes:

* Slip-formed option only.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

Top of barrier shall be built parallel to grade and barrier joints (except at end bents) normal to grade.

All exposed edges of barrier shall have either a 1/2-inch radius or a 3/8-inch bevel, unless otherwise noted.

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Type D Barrier per linear foot.

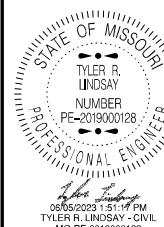
Concrete in barrier shall be Class B-1.

Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing.

Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617.10. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for Type D Barrier.

Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.



DATE PREPARED
5/16/2023

ROUTE	STATE
D	MO

B	MO
DISTRICT	SHEET 1
BR	16

COUNTY
NAME

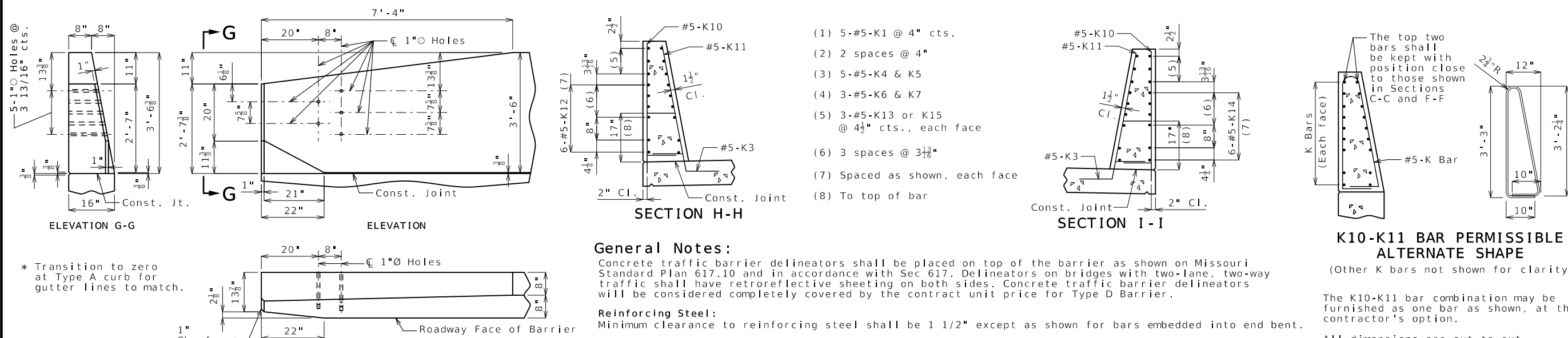
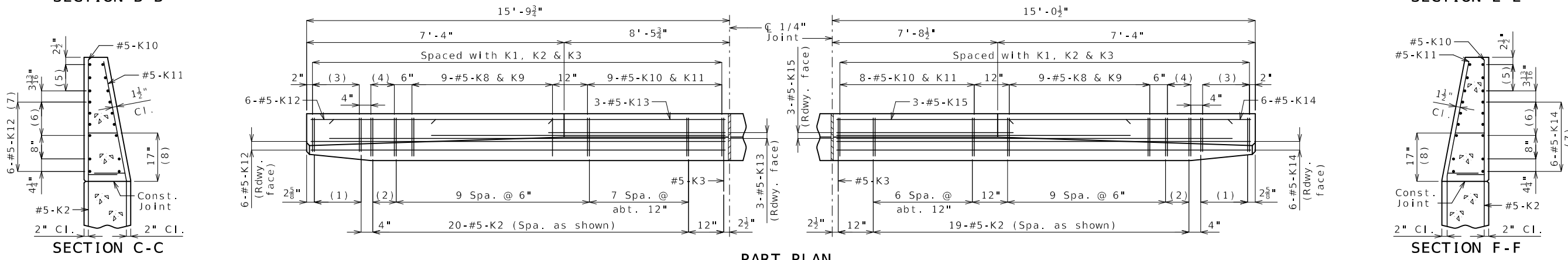
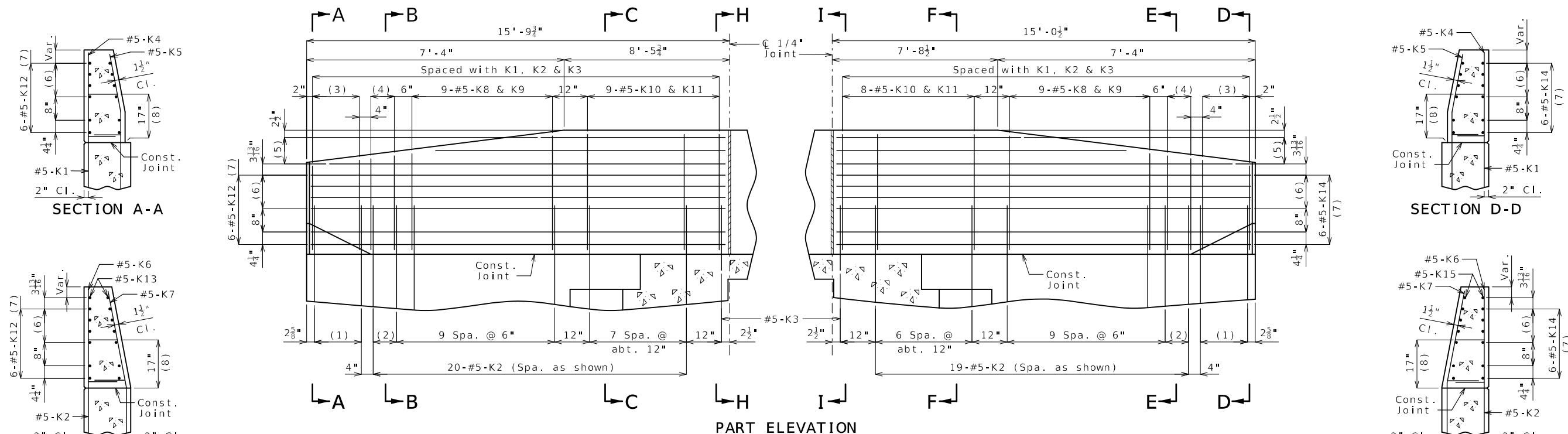
HOLT
JOB NO.

J1S3276

CONTRACT ID.

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IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



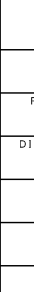
General Notes:
Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for Type D Barrier.

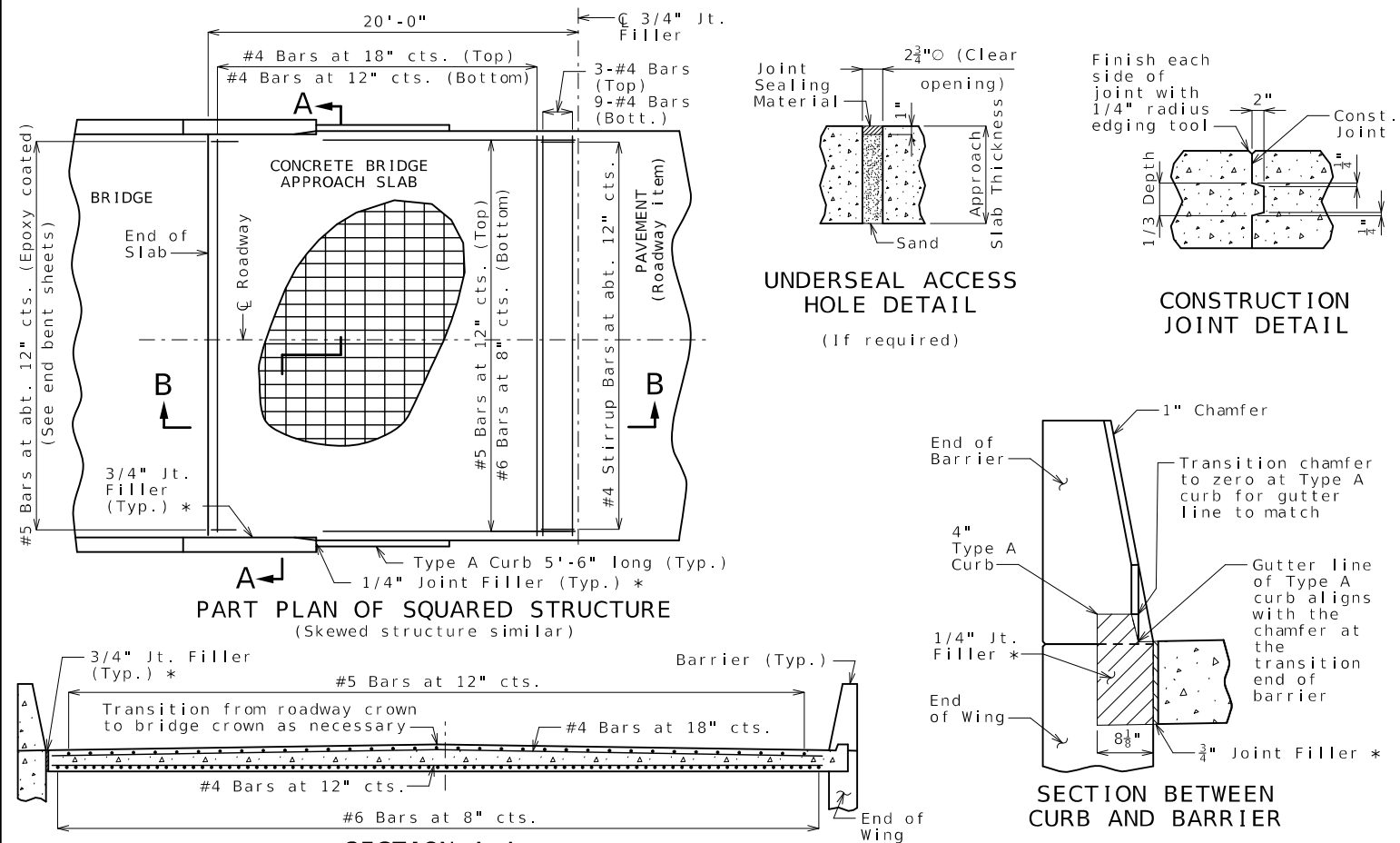
Reinforcing Steel:
Minimum clearance to reinforcing steel shall be 1 1/2" except as shown for bars embedded into end bent.

**K10-K11 BAR PERMISSIBLE
ALTERNATE SHAPE**
(Other K bars not shown for clarity)

The K10-K11 bar combination may be furnished as one bar as shown, at the contractor's option.

All dimensions are out to out.

	
DATE PREPARED	
5/16/2023	
ROUTE	STATE
B	MO
DISTRICT	SHEET NO.
BR	17
COUNTY	
HOLT	
JOB NO.	
J153276	
CONTRACT I.D.	
PROJECT NO.	
BRIDGE NO.	
A9195	
DATE	DESCRIPTION
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	



General Notes:

Contractor shall have the option to construct either slab except as noted.

The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.

Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

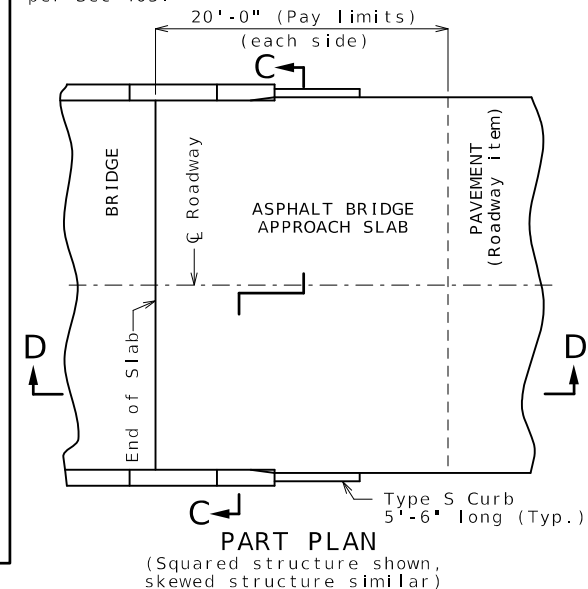
MoDOT Construction personnel will indicate the bridge approach slab used for this structure:

- ☐ Concrete Bridge Approach Slab
☐ Asphalt Bridge Approach Slab

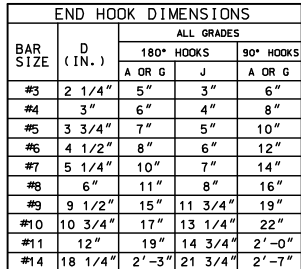
Notes For
Asphalt Slab Only:

Payment for furnishing all materials, labor and excavation necessary to construct the asphalt bridge approach slab, including tack, curb, underdrain and Type 5 aggregate base within the pay limits shown, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.

Application of tack is required between lifts per Sec 403.

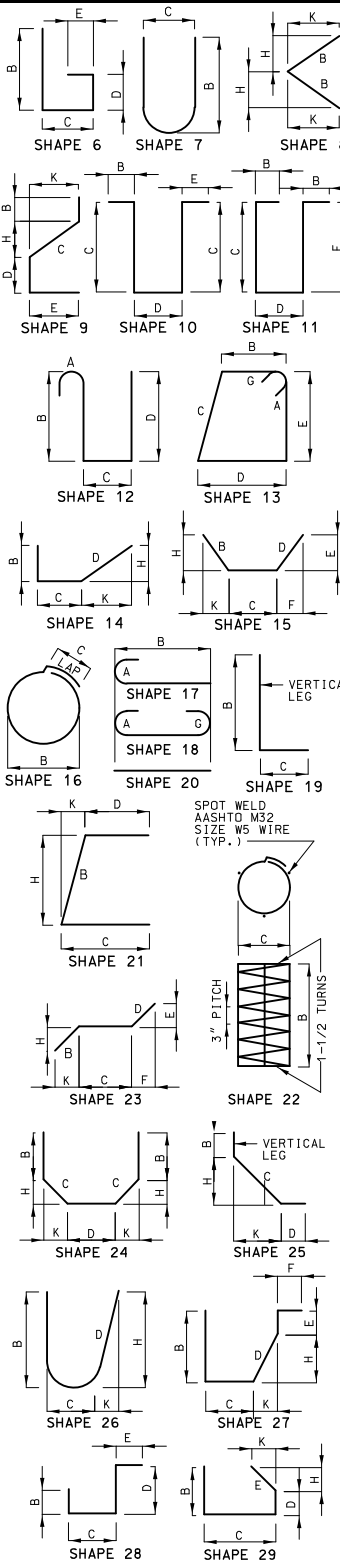


BILL OF REINFORCING STEEL																										
NO.	REQ'D.	MARK NO.	SIZE MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS								NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT					
											B		C		D		E					F		H		K
											FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.				FT.	IN.	FT.	IN.	FT.
				SUPERSTRUCT																						
				END BENT 1																						
10		6 F100		WING BRACE	E	15	S				14.000	7	3.000	2	3.000	13.500	23.375	7.000	12.125	10	8	10	8	160		
4		6 F101		DIAPHRAGM	E	21	S				3	8.250	6	10.000				3	2.250	22.125	10	6	10	1	61	
10		6 F102		WING BRACE	E	15	S				14.000	4	4.000	2	3.000	23.375	13.500	12.125	7.000	7	9	7	8	115		
4		6 F103		DIAPHRAGM	E	23	S				3	8.250	5	2.000				3	2.250	22.125	8	10	8	10	53	
12		6 H100		BEAM	E	20					30	6.000								30	6	30	6	550		
12		6 H101		BEAM	E	18					3	2.000								4	6	4	6	81		
4		6 H102		SLAB	E	20					30	6.000								30	6	30	6	183		
4		6 H103		DIAPHRAGM	E	20					30	6.000								30	6	30	6	183		
6		6 H104		DIAPHRAGM	E	20					10	1.000								10	1	10	1	91		
2		6 H105		DIAPHRAGM	E	20					6	11.000								6	11	6	11	21		
6		6 H106		DIAPHRAGM	E	20					3	10.000								3	10	3	10	35		
2		6 H107		DIAPHRAGM	E	20					2	3.000								2	3	2	3	7		
3		5 H109		STRAND TIE	E	23	S				15.000	3	2.500	15.000	7.500	13.000	7.500	13.000	5	9	5	8	18			
24		5 H110		APPROACH TIE	E	19	S				2	0.000	15.000							3	3	3	2	79		
16		8 H111		WING	E	20					13	6.000								13	6	13	6	577		
44		6 H112		WING	E	19					12	8.000	12.000							13	8	13	6	892		
56		4 P100		CIP PILE	E	34	S				10.000									3	6	3	6	131		
14		5 U100		BEAM	E	10	S					6	1.000	3	9.000					15	11	15	9	230		
16		4 U101		BEAM	E	13	S				3	9.000	2	8.000	3	9.000	2	8.000		13	7	13	4	143		
5		4 U102		BEAM	E	10	S					2	8.000	3	9.000					9	1	8	11	30		
20		5 U103		DIAPHRAGM	E	10	S					4	0.000	3	2.000					11	2	11	0	229		
20		6 U104		DIAPHRAGM	E	19	S				3	0.000	3	9.000						6	9	6	7	198		
37		6 U105		DIAPHRAGM	E	19	S				3	6.000	5	10.000						9	4	9	2	509		
12		5 V100	</																							

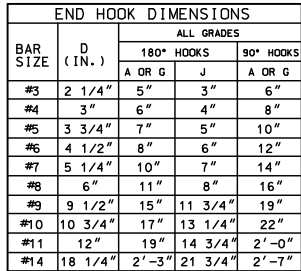


BENDING DIAGRAMS

BILL OF REINFORCING STEEL																																
NO.	REQ'D.	MARK NO.	SIZE	MARK	LOCATION	EPOXY	(E)	SHAPE NO.	(S)	STIRRUP (S)	(X)	SUBSTR.	(V)	VARIES	NO. EACH	DIMENSIONS										NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT				
																B		C		D		E		F					H		K	
																FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.				FT.	IN.	FT.	IN.
16	4	U201	BEAM	E	13	S										3	9.000	2	8.000	3	9.000	2	8.000					13	7	13	4	143
5	4	U202	BEAM	E	10	S												2	8.000	3	9.000							9	1	8	11	30
20	5	U203	DIAPHRAGM	E	10	S												4	0.000	3	2.000							11	2	11	0	229
20	6	U204	DIAPHRAGM	E	19	S										3	0.000	3	9.000								6	9	6	7	199	
37	6	U205	DIAPHRAGM	E	19	S										3	6.000	5	10.000								9	4	9	2	509	
12	5	V200	BEAM	E	20											6	1.000										6	1	6	1	76	
18	6	V201	DIAPHRAGM	E	20											3	0.000										3	0	3	0	81	
2	6	V202	WING	E	20											7	0.000										7	0	7	0	21	
22	6	V203	WING	E	20								V	2		7	0.000										7	0	7	0		
			INCREMENT =													7	2.000										7	2	7	2	234	
			0.250 INCH																													
2	6	V204	WING	E	20											7	2.000										7	2	7	2	22	
22	6	V205	WING	E	20								V	2		7	2.000										7	2	7	2		
			INCREMENT =													7	4.000										7	4	7	4	240	
			0.250 INCH																													
42	5	V206	CIP PILE	E	17											5	3.000										5	10	5	10	256	
			SLAB																													
47	5	S1	SLAB	E	20											60	0.000										60	0	60	0	2941	
47	5	S2	SLAB	E	20											46	4.000										46	4	46	4	2271	
175	6	S3	SLAB	E	20											26	5.000										26	5	26	5	6944	
58	6	S4	SLAB	E	20								V	2		2	1.000										2	1	2	1		



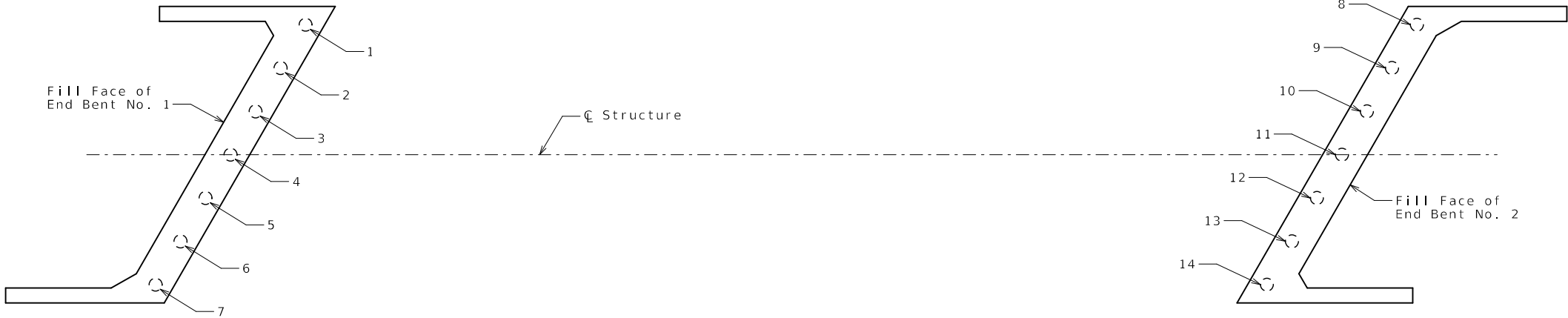
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

[illegible]

REINFORCING STEEL (GRADE 60) $F_y = 60,000$ PSI.

[illegible]

Sheet No. 20 of 22



PART PLAN SHOWING PILE NUMBERING FOR RECORDING AS-BUILT PILE DATA

As-Built Pile Data					
Pile No.	Length in Place (ft)	PDA Nom. Axial Compressive Resistance (kips)	PDA End of Drive Blow Count (blows/in.)	Actual End of Drive Blow Count (blows/in.)	Remarks
					End Bent No. 1
1					
2					
3					
4					
5					
6					
7					
					End Bent No. 2
8					
9					
10					
11					
12					
13					
14					

Note:
Indicate in remarks column:
A. Pile type and grade
B. Batter
C. Driven to practical refusal
D. PDA test pile
E. Minimum tip elevation controlled
(Use when actual blow count is less than PDA blow count due to minimum tip elevation requirement. A plus sign (+) shall be placed after the PDA nominal axial compressive resistance value indicating actual value is higher than PDA value.)

This sheet to be completed by MoDOT construction personnel.

STATE OF MISSOURI

TYLER R. LINDSAY

NUMBER

PE-2019000128

PROFESSIONAL ENGINEER

06/05/2023 1:52:34 PM

TYLER R. LINDSAY - CIVIL

MO-PE-2019000128

DATE PREPARED

5/16/2023

ROUTE

B

STATE

MO

DISTRICT

BR

SHEET NO.

21

COUNTY

HOLT

JOB NO.

J1S3276

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A9195

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



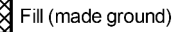
SUBSURFACE DIAGRAM

PROJECT NAME Holt Co Bridge A9195

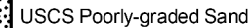
PROJECT LOCATION Over Hickory Creek

CLIENT MoDOT

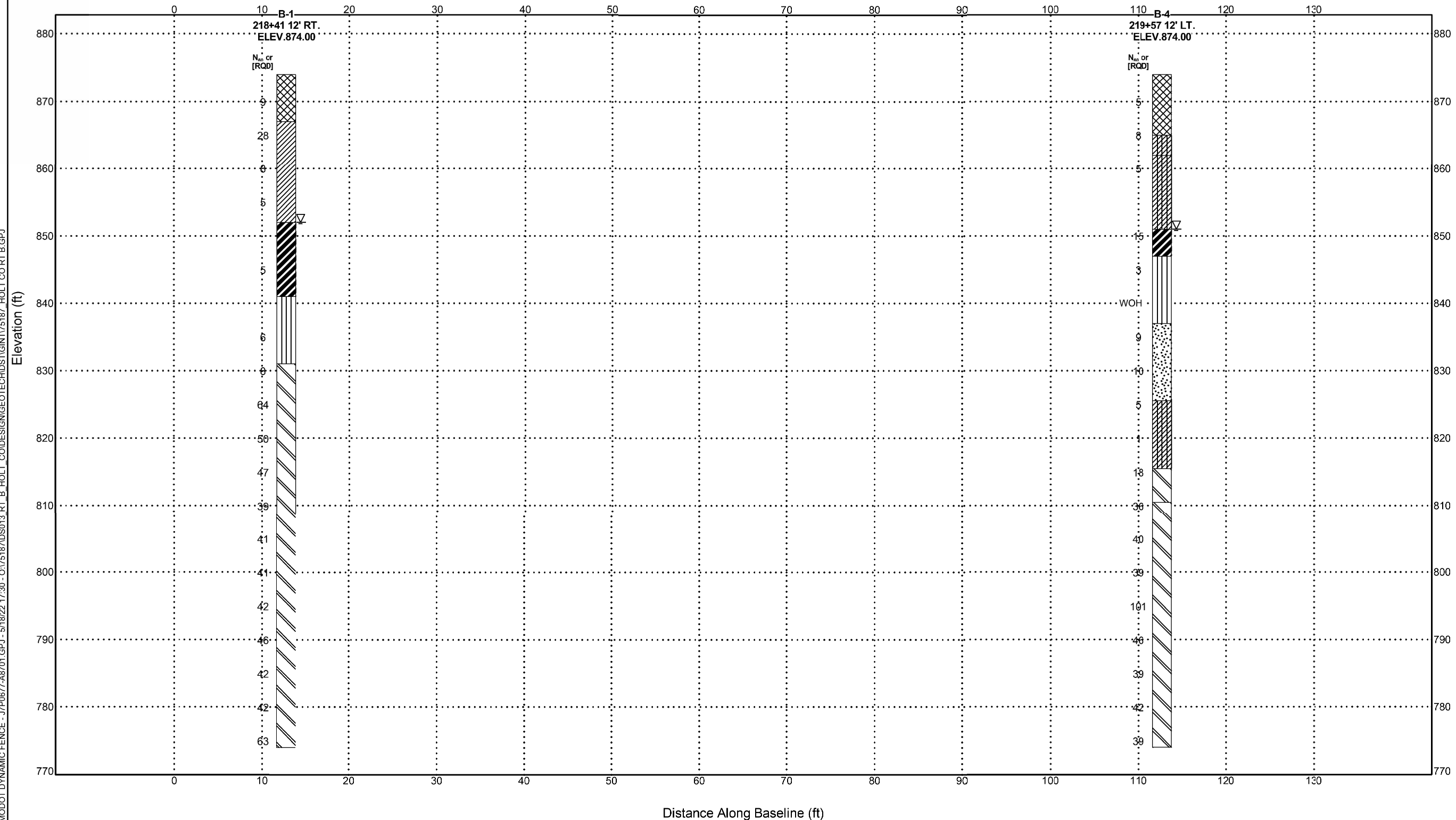
PROJECT NUMBER J1S3276



USCS Silt

 USCS Low to High Plasticity Clay

USCS Low Plasticity Silty Clay



BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed Nov. 2022
Checked Nov. 2022

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 22 of 22



5 / 16 / 2023

ROUTE	STATE
B	MO

DISTRICT	SHEET NO.
22	22

BR	22
COUNTY	

COUNT
HOLT

JOB NO.
1162276

J153276

CONTRACT ID.

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PROJECT NO.

BRIDGE NO.

A9195

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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