

DESIGN DESIGNATION

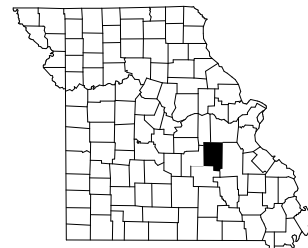
A.A.D.T. - 2025 = 397
 A.A.D.T. - 2045 = 575
 D.H.V. = 12.40%
 T = 7.76%
 V = 55 M.P.H.
 D = 51.2%/48.8% (N/S)

FUNCTIONAL CLASSIFICATION-MAJOR COLLECTOR

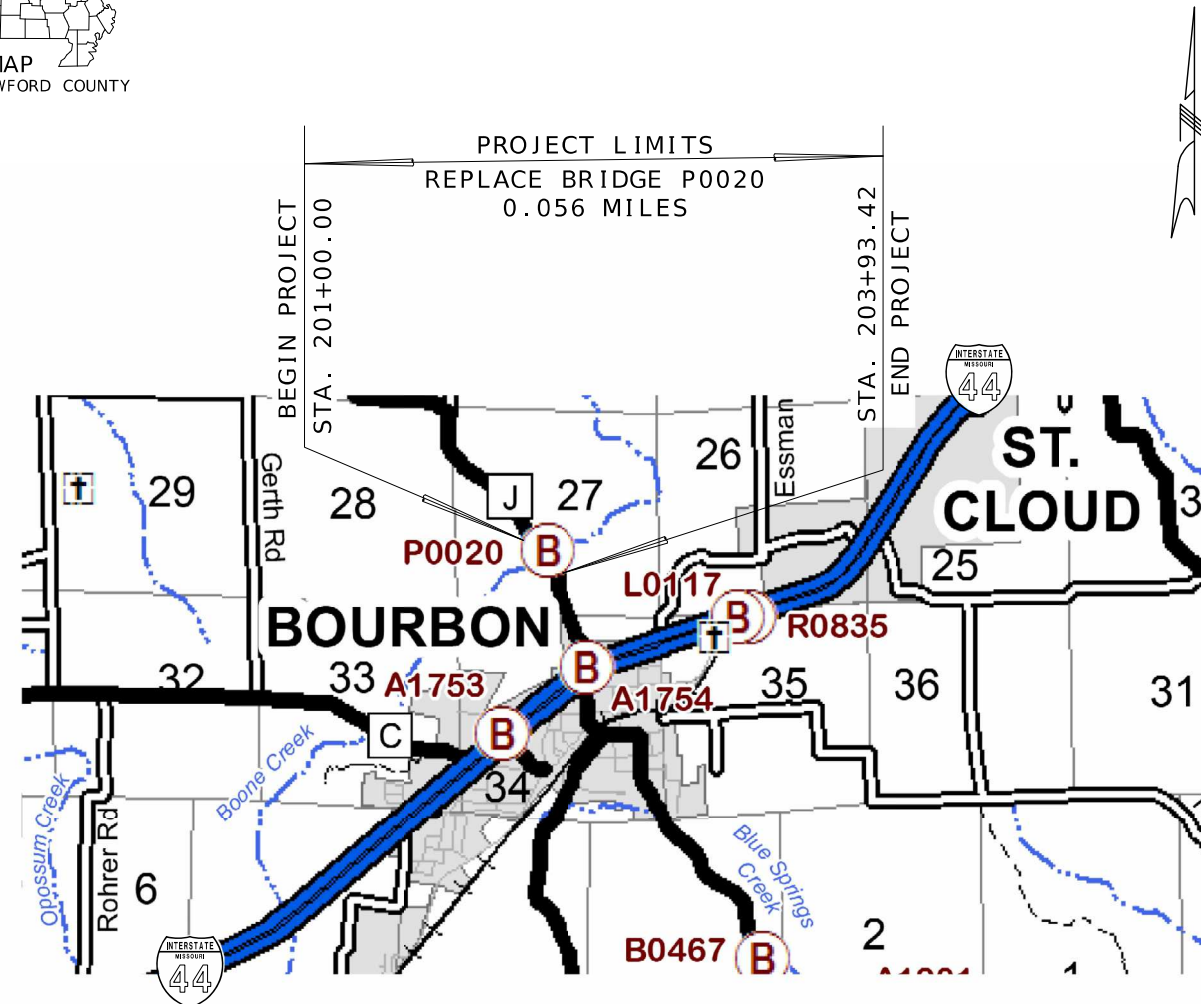
NORMAL RIGHT OF WAY TO BE ACQUIRED FOR THIS PROJECT.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION PLANS FOR PROPOSED STATE HIGHWAY CRAWFORD COUNTY

SECTION 27, T40N, R3W



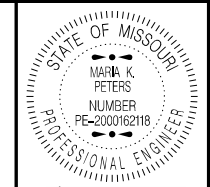
KEY MAP
 LOCATION OF CRAWFORD COUNTY



NOT TO SCALE

INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
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A9487	1-12
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Maria Peters
 01/27/2025 9:37:30 AM
 MARIA K. PETERS - CIVIL
 MO-PE-2000162118

DATE PREPARED
 1/27/2025
 ROUTE J STATE MO
 DISTRICT CD SHEET NO. 1
 COUNTY CRAWFORD

JOB NO.
 J553552
 CONTRACT ID.

PROJECT NO.
 BRIDGE NO.

DESCRIPTION	DATE

CONVENTIONAL SYMBOLS
 (USED IN PLANS)

	EXISTING	NEW
BUILDINGS AND STRUCTURES		
GUARD RAIL		
GUARD CABLE		
CONCRETE RIGHT-OF-WAY MARKER		
STEEL RIGHT-OF-WAY MARKER		
LOCATION SURVEY MARKER		
UTILITIES		
FIBER OPTICS	-FO-	-FO-
OVERHEAD CABLE TV	-OTV-	-OTV-
UNDERGROUND CABLE TV	-UTV-	-UTV-
OVERHEAD TELEPHONE	-OT-	-OT-
UNDERGROUND TELEPHONE	-UT-	-UT-
OVERHEAD POWER	-OE-	-OE-
UNDERGROUND POWER	-UE-	-UE-
SANITARY SEWER	-S-	-S-
STORM SEWER	-SS-	-SS-
GAS	-G-	-G-
WATER	-W-	-W-
MANHOLE		
FIRE HYDRANT		
WATER VALVE		
WATER METER		
DROP INLET		
DITCH BLOCK		
GROUND MOUNTED SIGN		
LIGHT POLE		
H-FRAME POWER POLE		
TELEPHONE PEDESTAL		
FENCE		
CHAIN LINK		
WOVEN WIRE		
GATE POST		
BENCHMARK		

THE DESIGN GUIDE FOR THE WIDTH OF RIGHT OF WAY FOR THIS PROJECT WILL BE 95 FEET. MORE OR LESS RIGHT OF WAY AS WELL AS OTHER PROPERTY INTERESTS MAY BE SECURED TO SATISFY THE REQUIREMENTS OF THE DESIGN FEATURES OF THIS PROJECT

THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS SHOWN ON THE PLANS, ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION. IT IS, THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, LOCATION AND STATUS OF ANY FACILITY. SUCH VERIFICATION INCLUDES DIRECT CONTACT WITH THE LISTED UTILITIES.

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

LENGTH OF PROJECT

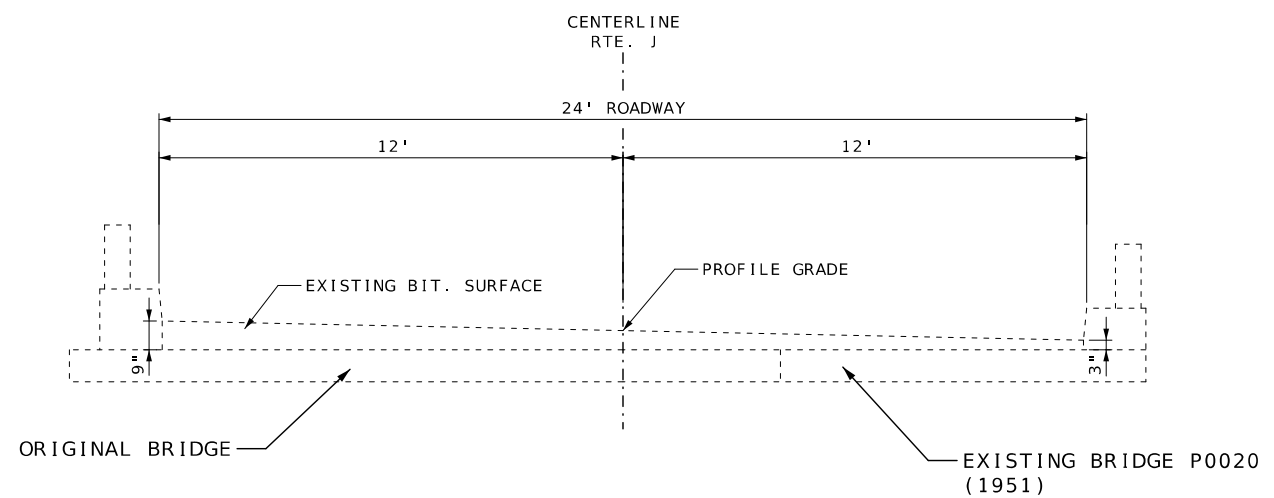
BEGINNING OF PROJECT	STA. 201 + 00.00
END OF PROJECT	STA. 203 + 93.42
APPARENT LENGTH	293.42 FEET

EQUATIONS AND EXCEPTIONS:
 NONE

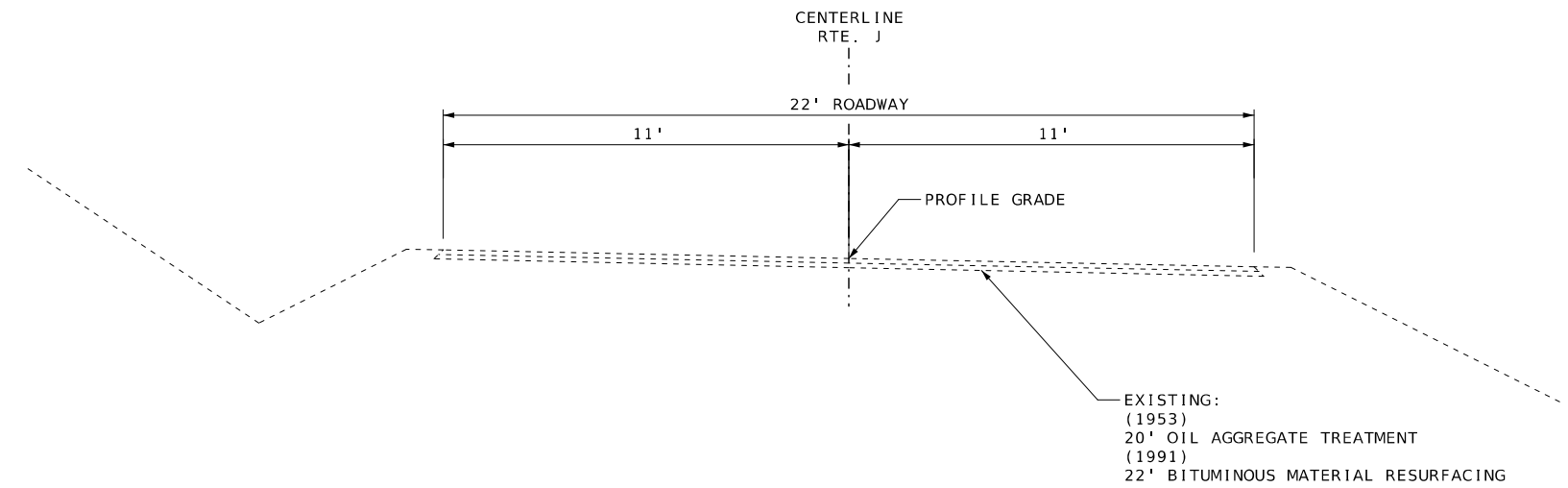
TOTAL CORRECTIONS	0.00 FEET
NET LENGTH OF PROJECT	293.42 FEET
STATE LENGTH	0.056 MILES
FOR INFORMATION ONLY	
ESTIMATED DISTURBED ACRES	0.2 ACRES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



EXIST. SECTION ON SUPERELEVATED CURVE
 TYPICAL SECTION RTE. J
 STA. 202+57.90 TO STA. 202+98.07



EXIST. SECTION ON SUPERELEVATED CURVE
 TYPICAL SECTION RTE. J
 STA. 201+00.00 TO STA. 202+57.90
 STA. 202+98.07 TO STA. 203+93.42

NOT TO SCALE

EXISTING TYPICAL SECTION
 SHEET 1 OF 2

DATE PREPARED
11/27/2024

ROUTE J	STATE MO
DISTRICT CD	SHEET NO. 2

COUNTY
CRAWFORD

JOB NO.
J5S3552

CONTRACT ID.

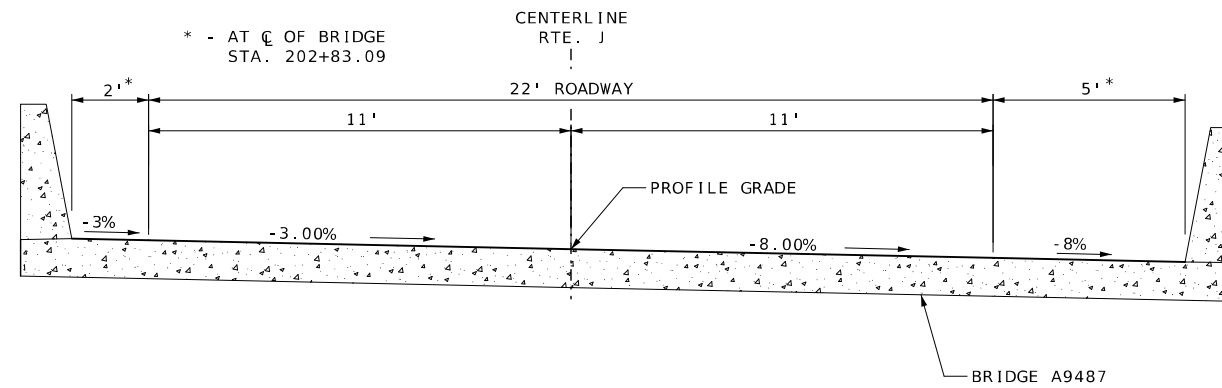
PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

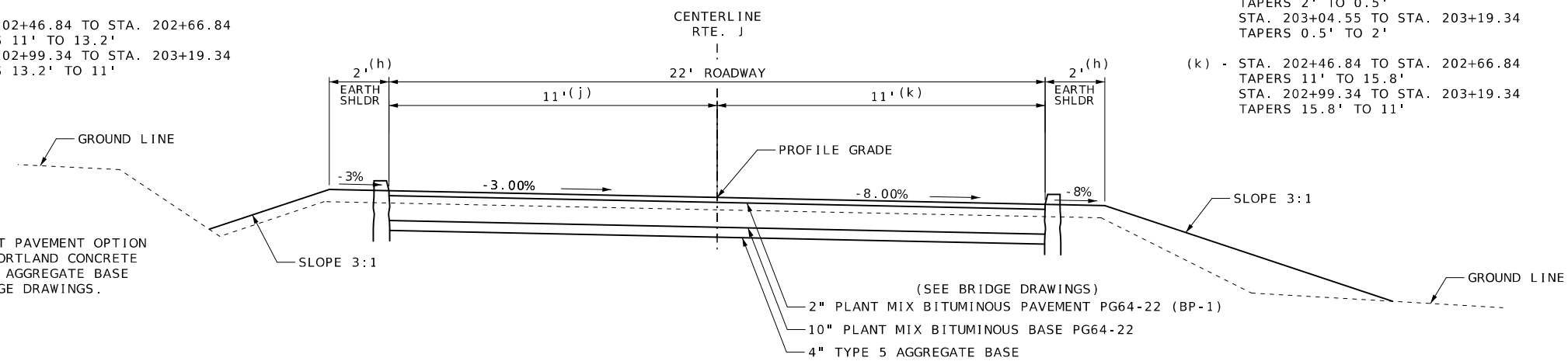
105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)



SECTION ON SUPERELEVATED CURVE
TYPICAL SECTION RTE. J
BRIDGE A9487
STA. 202+66.84 TO STA. 202+99.34

(j) - STA. 202+46.84 TO STA. 202+66.84
TAPERS 11' TO 13.2'
STA. 202+99.34 TO STA. 203+19.34
TAPERS 13.2' TO 11'

IN LIEU OF THE ASPHALT PAVEMENT OPTION SHOWN, A 12" REINF. PORTLAND CONCRETE PAVEMENT ON 4" TYPE 5 AGGREGATE BASE MAY BE USED. SEE BRIDGE DRAWINGS.

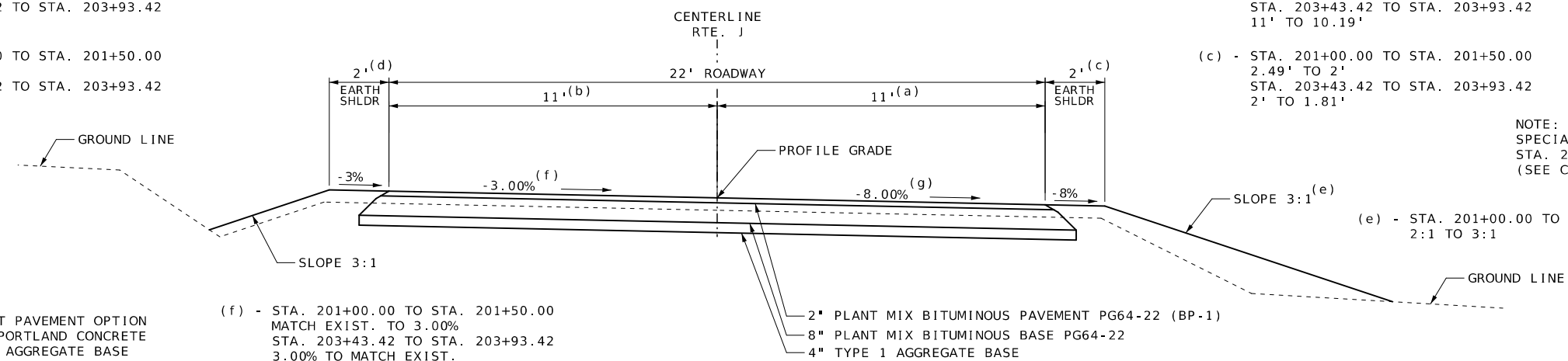


SECTION ON SUPERELEVATED CURVE
TYPICAL SECTION RTE. J
BRIDGE APPROACH SLAB (MINOR ROUTE)
STA. 202+46.84 TO STA. 202+66.84
STA. 202+99.34 TO STA. 203+19.34

(b) - STA. 201+00.00 TO STA. 201+50.00
11.89' TO 11'
STA. 203+43.42 TO STA. 203+93.42
11' TO 11.03'

(d) - STA. 201+00.00 TO STA. 201+50.00
2.91' TO 2'
STA. 203+43.42 TO STA. 203+93.42
2' TO 2.60'

IN LIEU OF THE ASPHALT PAVEMENT OPTION SHOWN, AN 8" JOINTED PORTLAND CONCRETE PAVEMENT ON 4" TYPE 1 AGGREGATE BASE MAY BE USED.



SECTION ON SUPERELEVATED CURVE
TYPICAL SECTION RTE. J
STA. 201+00.00 TO STA. 202+46.84
STA. 203+19.34 TO STA. 203+93.42

(h) - STA. 202+46.84 TO STA. 202+40.27
TAPERS 2' TO 0.5'
STA. 203+04.55 TO STA. 203+19.34
TAPERS 0.5' TO 2'

(k) - STA. 202+46.84 TO STA. 202+66.84
TAPERS 11' TO 15.8'
STA. 202+99.34 TO STA. 203+19.34
TAPERS 15.8' TO 11'

(a) - STA. 201+00.00 TO STA. 201+50.00
9.42' TO 11'
STA. 203+43.42 TO STA. 203+93.42
11' TO 10.19'

(c) - STA. 201+00.00 TO STA. 201+50.00
2.49' TO 2'
STA. 203+43.42 TO STA. 203+93.42
2' TO 1.81'

SEE STANDARD 609.40 FOR SHOULDER WIDENING.???

NOTE:
SPECIAL DITCH RT.
STA. 202+25.00 TO STA. 202+60.00
(SEE CROSS SECTIONS)

(e) - STA. 201+00.00 TO STA. 201+50.00
2:1 TO 3:1

(g) - STA. 201+00.00 TO STA. 201+50.00
MATCH EXIST. TO 8.00%
STA. 203+43.42 TO STA. 203+93.42
8.00% TO MATCH EXIST.

SEE STANDARD 401.00 FOR SAFETY EDGE DETAILS.

NOT TO SCALE

TYPICAL SECTION
SHEET 2 OF 2



DATE PREPARED
12/17/2024

ROUTE J STATE MO
DISTRICT CD SHEET NO. 2

COUNTY CRAWFORD
JOB NO. J5S3552
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						
SHEET NO.	STA. TO	STA.	LOCATION	ITEM	QUANTITY	REMARKS
7	202+20.00	202+60.00	RTE. J - LT.	OBJECT MARKERS	3	INCLUDES POST AND FOOTING
7	202+20.00	202+56.00	RTE. J - RT.	OBJECT MARKERS	3	INCLUDES POST AND FOOTING
7	203+05.00	203+45.00	RTE. J - LT.	OBJECT MARKERS	3	INCLUDES POST AND FOOTING
7	203+02.00	203+40.00	RTE. J - RT.	OBJECT MARKERS	3	INCLUDES POST AND FOOTING
		192+70.00	RTE. J - RT.	WEIGHT LIMIT SIGN	1	1,000' NORTH OF BRIDGE - INCLUDES POSTS AND FOOTINGS
			RTE. J - LT.	WEIGHT LIMIT SIGN	1	985' SOUTH OF BRIDGE - INCLUDES POSTS AND FOOTINGS
4	201+60.00	202+50.00	RTE. J - RT.	FENCE	89 FT.	INCLUDES POSTS
4	203+02.00	204+00.00	RTE. J - RT.	FENCE	96 FT.	INCLUDES POSTS
TOTAL =					1 LUMP SUM	

EARTHWORK					
STATION TO STATION	LOCATION	UNCLASSIFIED EXC. C.Y.	COMPACTING EMBANKMENT C.Y.	EMBANKMENT IN PLACE C.Y.	REMARKS
201+00.00	202+66.84	RTE. J	161	202	63
202+66.84	202+99.34	RTE. J			BRIDGE EXCEPTION
202+99.34	203+93.42	RTE. J	74	50	
TOTAL =			235	252	63
USE			235	252	63

CLEARING AND GRUBBING				
SHEET NO.	STATION TO STATION	LOCATION	CLEARING AND GRUBBING AC.	REMARKS
4	201+00.00	203+93.42	RTE. J - LT.	0.07
4	201+00.00	203+93.42	RTE. J - RT.	0.08
TOTAL =			0.15	
USE			1	

OPTIONAL PAVT. (8" JOINTED PORTLAND CONCRETE PAVT. OR 10" ASPHALTIC CONCRETE PAVT.)							
SHEET NO.	STATION TO STATION	LOCATION	LENGTH	WIDTH	AREA S.Y.	4" TYPE 1 AGG BASE S.Y.	REMARKS
4	201+00.00	201+50.00	50.00	VARIES	120.33	120.33	EXISTING WIDTH TO 22' WIDTH
4	201+50.00	202+46.84	96.84	22	236.72	236.72	
4	203+19.34	203+43.42	24.08	22	58.86	58.86	
4	203+43.42	203+93.42	50.00	VARIES	120.06	120.06	22' WIDTH TO EXISTING WIDTH
TOTAL =					535.97	535.97	
USE					536.0	536	CONCRETE PAVT. TO BE 15' JOINT SPA. WITH 1 1/4" DOWELS

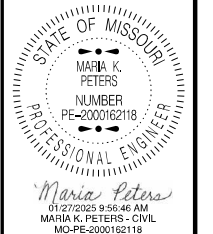
R/W MARKERS				
SHEET NO.	2" ALUMINUM CAP EACH	6' CARSONITE POST EACH	24" SURVEY PIN EACH	REMARKS
4	8	8	8	BY OTHERS
TOTAL =	8	8	8	

MOBILIZATION
1 LUMP SUM

CONTRACTOR FURNISHED SURVEYING AND STAKING
1 LUMP SUM

COMPACTING IN CUT					
SHEET NO.	STATION TO STATION	LOCATION	LENGTH	STA.	REMARKS
4	201+00.00	202+66.84	166.84	1.67	
4	202+99.34	203+93.42	94.08	0.94	
TOTAL =			2.61		
USE =			2.6		

ROCK DITCH LINER										
SHEET NO.	STATION TO STATION	LOCATION	FORESLOPE	FLAT BOTTOM DITCH WIDTH	BACKSLOPE	FURNISHING TYPE 3 ROCK DITCH LINER C.Y.	PLACING TYPE 3 ROCK DITCH LINER C.Y.	BEDDING MATERIAL FOR ROCK DITCH LINER C.Y.	PERMANENT EROSION CONTROL GEOTEXTILE S.Y.	REMARKS
4	201+50.00	202+60.00	RTE. J - RT,	3:1	2'	2:1	55.6	55.6	20.1	156.4
TOTAL =						55.6	55.6	20.1	156.4	
USE						56	56	20	156	



DATE PREPARED
1/27/2025
ROUTE
J STATE
MO
DISTRICT
CD SHEET NO.
3
COUNTY
CRAWFORD
JOB NO.
J553552
CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

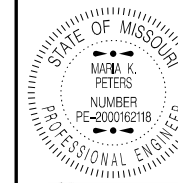
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

EROSION CONTROL							
EROSION CONTROL SHEET NO.	STATION TO STATION	LOCATION	SILT FENCE L.F.	ROCK DITCH CHECK L.F.	SEDIMENT TRAP C.Y.	SEDIMENT REMOVAL C.Y.	REMARKS
11	201+20.00	202+40.00	RTE. J - LT.	84		7	7 DITCH CHECK AT 20' SPACING.
11		202+60.00	RTE. J - LT.		3.0	1	
11	201+00.00	201+55.00	RTE. J - RT.	55		1	
11	201+50.00	202+25.00	RTE. J - RT.	52		4	4 DITCH CHECKS AT 25' SPACING.
11		202+42.00	RTE. J - RT.	13		1	
11		202+58.00	RTE. J - RT.		3.9	1	
11		202+77.00	RTE. J	90		1	UNDER BOX
11		202+92.00	RTE. J	84		1	UNDER BOX
11		203+05.00	RTE. J - LT.		4.7	1	
11		203+15.00	RTE. J - LT.	16		1	
11		203+25.00	RTE. J - LT.	16		1	
11		203+50.00	RTE. J - LT.	16		1	
11		203+05.00	RTE. J - RT.		4.1	1	
11		203+15.00	RTE. J - RT.	14		1	
11		230+25.00	RTE. J - RT.	14		1	
11		203+50.00	RTE. J - RT.	14		1	
			TOTAL =	229.0	239.0	15.7	25.0
			USE =	229	239	16	25

SEED & MULCH				
STATION TO STATION	LOCATION	SEEDING COOL SEASON GRASSES ACRE	MULCHING ACRE	REMARKS
201+00.00	202+66.84	RTE. J - LT.	0.04	0.04
201+00.00	202+66.84	RTE. J - RT.	0.06	0.06
202+99.34	203+93.42	RTE. J - LT.	0.03	0.03
202+99.34	203+93.42	RTE. J - RT.	0.02	0.02
		TOTAL =	0.15	0.15
		USE =	1.0	1.0

PERMANENT PAVEMENT MARKING						
SHEET NO.	STATION TO STATION	LOCATION	LENGTH	WATERBORNE WITH TYPE P BEADS	REMARKS	
				4" SOLID YELLOW LF		
4	201+00.00	203+93.42	RTE. J	293.42	586.84	DOUBLE CENTERLINE
			TOTAL =		586.8	
			USE =		587	



DATE PREPARED
1/27/2025

ROUTE J STATE MO
DISTRICT CD SHEET NO. 3

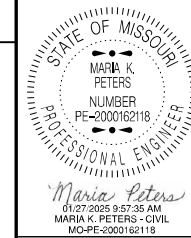
COUNTY CRAWFORD
JOB NO. J553552
CONTRACT ID.

PROJECT NO.
BRIDGE NO.

DATE	DESCRIPTION

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





SIGNS				CONCRETE FOOTINGS EMBEDDED	STRUCTURAL STEEL POSTS *				PIPE POSTS *				BACKING BARS **				U-CHANNEL POST	PERFORATED SQUARE STEEL TUBE												REMARKS AND OTHER REQUIRED ITEMS
902 SIGNAL SIGNS TABULATED ON D-37A SHEET				ITEM NO. 9031010 CY	POST DES NO.	POST NO. 1 LF	POST NO. 2 LF	POST NO. 3 LF	LBS PER FT	TOTAL ITEM NO. 9031210 LBS	PIPE SIZE IN.	POST NO. 1 LF	POST NO. 2 LF	LBS PER FT	TOTAL ITEM NO. 9031220 LBS	2" X 3/8" BARS @ 2.55 LBS PER FT			ITEM NO. 9031250A LF	2 IN. POST			2.5 IN. POST			BREAK-AWAY ASSEMBLY ITEM NO. 9031241 EA				
SIGN NO.	SIGN SIZE	STATION	HORZ CLEAR IF NOT STD													SIGN DTLSHT. NO.	NO.	LGTH		TOTAL	TOTAL	POST NO. 1	POST NO. 2	TOTAL	DRIVEN 12-GA. 9031271A		DRIVEN 7-GA. 9031273A	CONCRETE 7-GA. 9031274	POST NO. 1	
1	12x36	202+26.84		16' RT.	7																	16	16	16	1					
2	12x36	202+46.84		14.5' RT.	7																	16	16	16	1					
3	12x36	202+66.00		16.3' RT.	7																	16	16	16	1					
4	12x36	202+26.84		16' LT.	7																	16	16	16	1					
5	12x36	202+46.84		14.5' LT.	7																	16	16	16	1					
6	12x36	202+66.00		13.7' LT.	7																	16	16	16	1					
7	12x36	203+00.00		16.3' RT.	7																	16	16	16	1					
8	12x36	203+19.34		14.5' RT.	7																	16	16	16	1					
9	12x36	203+39.34		16' RT.	7																	16	16	16	1					
10	12x36	203+00.00		13.7' LT.	7																	16	16	16	1					
11	12x36	203+19.34		14.5' LT.	7																	16	16	16	1					
12	12x36	203+39.34		16' LT.	7																	16	16	16	1					
SUBTOTAL																								192		12				
TOTAL																									192		12			

* BREAKAWAY ASSEMBLY IS INCIDENTAL FOR STRUCTURAL STEEL AND PIPE POSTS.
 ** BACKING BARS ARE TOTALED WITH STRUCTURAL STEEL OR PIPE POSTS.

NOM. SIZE (IN.)	WEIGHT		STUB LENGTH	FOOTING		CONCRETE C.Y.
	LBS/FT	LBS/IN		DIA.	DEPTH	
2 1/2	5.79	0.48	4' - 3/4"	12"	4-6"	0.13
4	10.79	0.90	5' - 3/4"	18"	5-6"	0.36

POST DES. NO.	NOM. SIZE	POST WEIGHT		STUB LENGTH	DIA.	FOOTING								
		LBS/FT	LBS/IN			LEVEL DEPTH	GRADE C.Y.	6:1 GRADE DEPTH	GRADE C.Y.	4:1 GRADE DEPTH	GRADE C.Y.	3:1 OR 2:1 GRADE DEPTH	GRADE C.Y.	
1	W6	9.0	0.75	3'-0"	15*	3'-0"	0.14	3'-2"	0.15	3'-3"	0.16	3'-6"	0.17	
2	W6	15.0	1.25	4'-0"	24*	4'-0"	0.47	4'-2"	0.50	4'-3"	0.51	4'-6"	0.54	
3	W8	18.0	1.50	4'-6"	28*	4'-6"	0.71	4'-8"	0.73	4'-9"	0.74	5'-0"	0.78	
4	W10	22.0	1.83	5'-0"	36*	5'-0"	1.31	5'-2"	1.36	5'-3"	1.39	5'-6"	1.45	
5	W10	26.0	2.17	5'-0"	36*	5'-0"	1.31	5'-3"	1.37	5'-5"	1.43	5'-9"	1.52	
6	W12	35.0	2.92	5'-6"	36*	5'-6"	1.44	5'-9"	1.52	5'-11"	1.56	6'-3"	1.65	

D-29

SIGN NUMBER	STATION	LOCATION	TYPE															
			OM3-L	OM3-R	SIGN DESCRIPTION, SIZES & NUMBER OF EACH													
1	202+26.84	16' RT. - RTE. J	1															
2	202+46.84	14.5' RT. - RTE. J		1														
3	202+66.00	16.3' RT. - RTE. J		1														
4	202+26.84	16' LT. - RTE. J	1															
5	202+46.84	14.5' LT. - RTE. J	1															
6	202+66.00	13.7' LT. - RTE. J	1															
7	203+00.00	16.3' RT. - RTE. J	1															
8	203+19.34	14.5' RT. - RTE. J	1															
9	203+39.34	16' RT. - RTE. J	1															
10	203+00.00	13.7' LT. - RTE. J		1														
11	203+19.34	14.5' LT. - RTE. J		1														
12	203+39.34	16' LT. - RTE. J		1														
TOTALS =			6	6														

STANDARD SIGN OR SPECIAL SIGN NUMBER	SIGN DETAIL SHEET NO.	NO. EACH	SIZE, TYPE & SQUARE FEET			
			SIZE	FLAT SHEET SH	FLAT SHEET FLUORESCENT SHF *	STRUCTURAL ST
				ITEM NO. 9035004A	ITEM NO. 9035069A	ITEM NO. 9035011A
OM3-L	7	6	12"X36"	18		
OM3-R	7	6	12"X36"	18		
TOTAL				36		

* ORANGE, YELLOW & YELLOW/GREEN

SUMMARY OF QUANTITIES
SHEET 3 OF 4

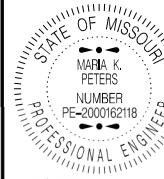
D-30

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

1
GAY E. CUNNINGHAM, TRUSTEE
 INST.#: 202101116 & 202000455
 1,952 S.F. NEW R/W
 82.05 AC. REMAINING

2
 STA. 202+82.89
 BRIDGE A9487 - 30' X 8.4'
 SINGLE CELL BOX - FLARED
 WINGS UPSTREAM AND
 DOWNSTREAM
 DA-3.7 SQ. MI. Q₂₅-2,100 CFS

LAND SURVEY MONUMENT:
 FOUND IRON ROD AT WEST QUARTER CORNER OF SECTION 27, T40N, R3W
 PER MLS DOC#600-86775. THENCE 2,766.29' S64°18'28"E TO
 STA.201+00.00 @ RTE. J AS ACCEPTED BY FREDRICK J. WILDE,
 PLS #2006016643



DATE PREPARED
12/17/2024

ROUTE STATE
J MO

DISTRICT SHEET NO.
CD 4

COUNTY
CRAWFORD

JOB NO.
15S3552

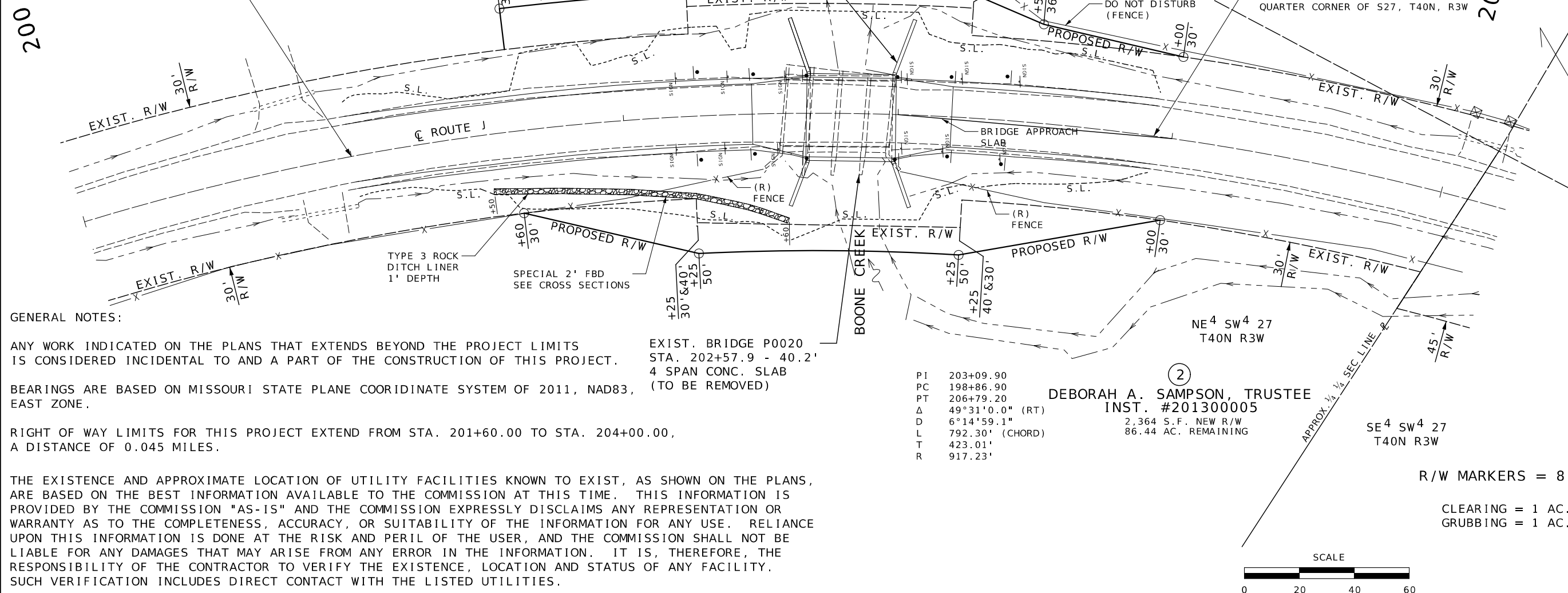
CONTRACT ID.

PROJECT NO.

BRIDGE NO.

BEGIN PROJECT STA 201+00.00
 AT A POINT APPROX. 2,492.80' EAST
 AND 1,199.29' SOUTH OF THE WEST
 QUARTER CORNER OF S27, T40N, R3W

END PROJECT STA 203+93.42
 AT A POINT APPROX. 2,634.83' EAST
 AND 1,454.79' SOUTH OF THE WEST
 QUARTER CORNER OF S27, T40N, R3W



GENERAL NOTES:

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.

BEARINGS ARE BASED ON MISSOURI STATE PLANE COORDINATE SYSTEM OF 2011, NAD83, EAST ZONE.

RIGHT OF WAY LIMITS FOR THIS PROJECT EXTEND FROM STA. 201+60.00 TO STA. 204+00.00, A DISTANCE OF 0.045 MILES.

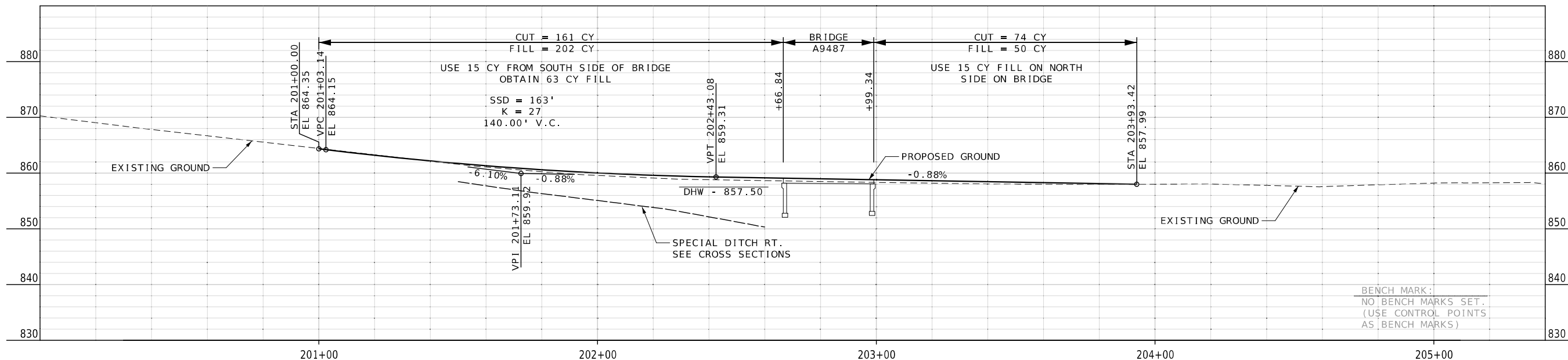
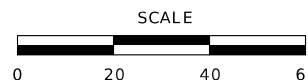
THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS SHOWN ON THE PLANS, ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION. IT IS, THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, LOCATION AND STATUS OF ANY FACILITY. SUCH VERIFICATION INCLUDES DIRECT CONTACT WITH THE LISTED UTILITIES.

EXIST. BRIDGE P0020
 STA. 202+57.9 - 40.2'
 4 SPAN CONC. SLAB
 (TO BE REMOVED)

PI 203+09.90
 PC 198+86.90
 PT 206+79.20
 Δ 49°31'0.0" (RT)
 D 6°14'59.1"
 L 792.30' (CHORD)
 T 423.01'
 R 917.23'

2
DEBORAH A. SAMPSON, TRUSTEE
 INST. #201300005
 2,364 S.F. NEW R/W
 86.44 AC. REMAINING

R/W MARKERS = 8
 CLEARING = 1 AC.
 GRUBBING = 1 AC.



BENCH MARK:
 NO BENCH MARKS SET.
 (USE CONTROL POINTS AS BENCH MARKS)

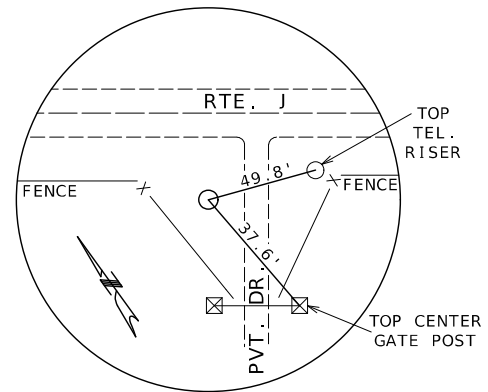
DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

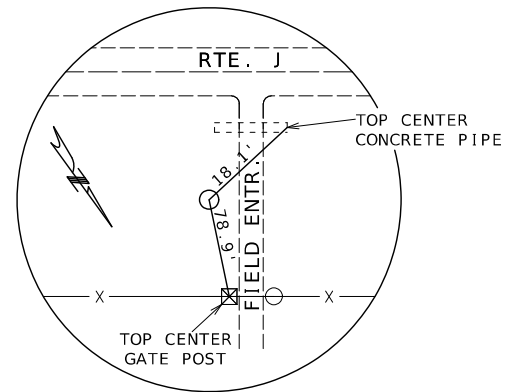


801
 BURIED REBAR WITH CAP 0.1',
 33.8' S/O SOUTH EP OF ROUTE J,
 845' N/O CULVERT FOR BOONE CREEK



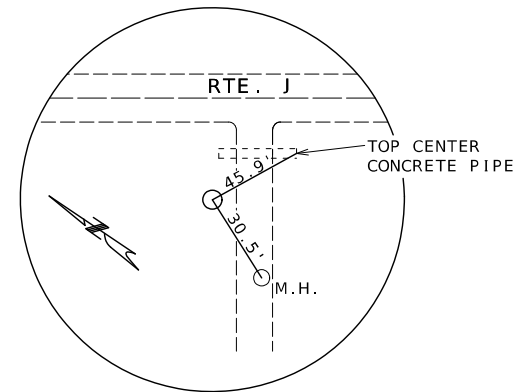
X = 604,913.5543
 Y = 851,130.6761
 Z = 901.120

802
 BURIED REBAR WITH CAP 0.15,
 20.1' N/O NORTH EP OF ROUTE J,
 178' N/O CULVERT OVER BOONE CREEK

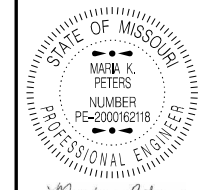


X = 605,466.3860
 Y = 850,730.7539
 Z = 865.120

803
 BURIED REBAR WITH CAP 0.1,
 19.1' S/O SOUTH EP OF ROUTE J,
 991' S/O CULVERT OVER BOONE CREEK



X = 605,653.2699
 Y = 849,586.7832
 Z = 872.960



Maria Peters
 01/27/2025 8:43:47 AM
 MARIA K. PETERS - CIVIL
 MO-PE-2000162118

DATE PREPARED
 11/27/2024

ROUTE STATE
 J MO

DISTRICT SHEET NO.
 CD 5

COUNTY
 CRAWFORD

JOB NO.
 J553552

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
 COMMISSION

105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-273-6636)

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	NAD83 (2011)
HORIZONTAL DATUM	NAD83
VERTICAL DATUM	NAVD88
GEOID MODEL	G2018U7
ELEVATIONS DETERMINED BY	Differential Leveling
PROJECT PROJECTION FACTOR	1.0000446

REFERENCE CONTROL INFORMATION

COORDINATE SYSTEM	NAD83 (2011)
CONTROL STATION	CORS
DESIGNATION	MODOT STEELVILLE CORS ARP
CORS_ID	MOST
PID	DL6304
LATITUDE	375813.4454
LONGITUDE	912033.1531
NORTHING (M)	237482.0210
EASTING (M)	175971.9630
ZONE	2401 (MO-East)

PROJECT AVERAGE GRID FACTOR 0.9999554

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

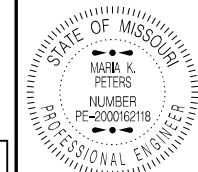
EXAMPLE: CONTROL POINT #801
 N 851130.6761 X 0.999554 = N 851092.835
 E 604913.5543 X 0.999554 = E 604886.575

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								
	194+17.37	RTE. J - RT.	40.28'	851,130.6761	604,913.5543	901.120	Control Point	801
4	200+84.70	RTE. J - LT.	32.18'	850,730.7539	605,466.3860	865.120	Control Point	802
		RTE. J - RT.		849,586.7832	605,653.2699	872.960	Control Point - 860' FROM END OF PROJECT	803
ALIGNMENTS								
	184+43.40	☉ RTE. J	0	852,038.14500	604,537.36100		BEGIN ALIGNMENT	
	192+88.60	☉ RTE. J	0	851,265.79061	604,880.61802		PC	
	194+29.00	☉ RTE. J	0	851,137.49075	604,937.63825		PI	
				851,497.98643	605,403.07628		CC	
	195+63.60	☉ RTE. J	0	851,050.19701	605,047.60171		PT	
	198+86.90	☉ RTE. J	0	850,849.18514	605,300.81529		PC	
4	203+09.90	☉ RTE. J	0	850,586.17942	605,632.12220		PI	
4				850,130.79973	604,730.52995		CC	
	206+79.20	☉ RTE. J	0	850,163.43872	605,647.17474		PT	
	206+86.40	☉ RTE. J	0	850,156.23910	605,647.43109		EQUATION BK. STA.	
	A 206+91.70	☉ RTE. J	0	850,156.23910	605,647.43109		EQUATION AH. STA.	
	A 211+14.80	☉ RTE. J	0	849,733.41124	605,662.48673		END ALIGNMENT	

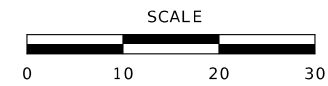
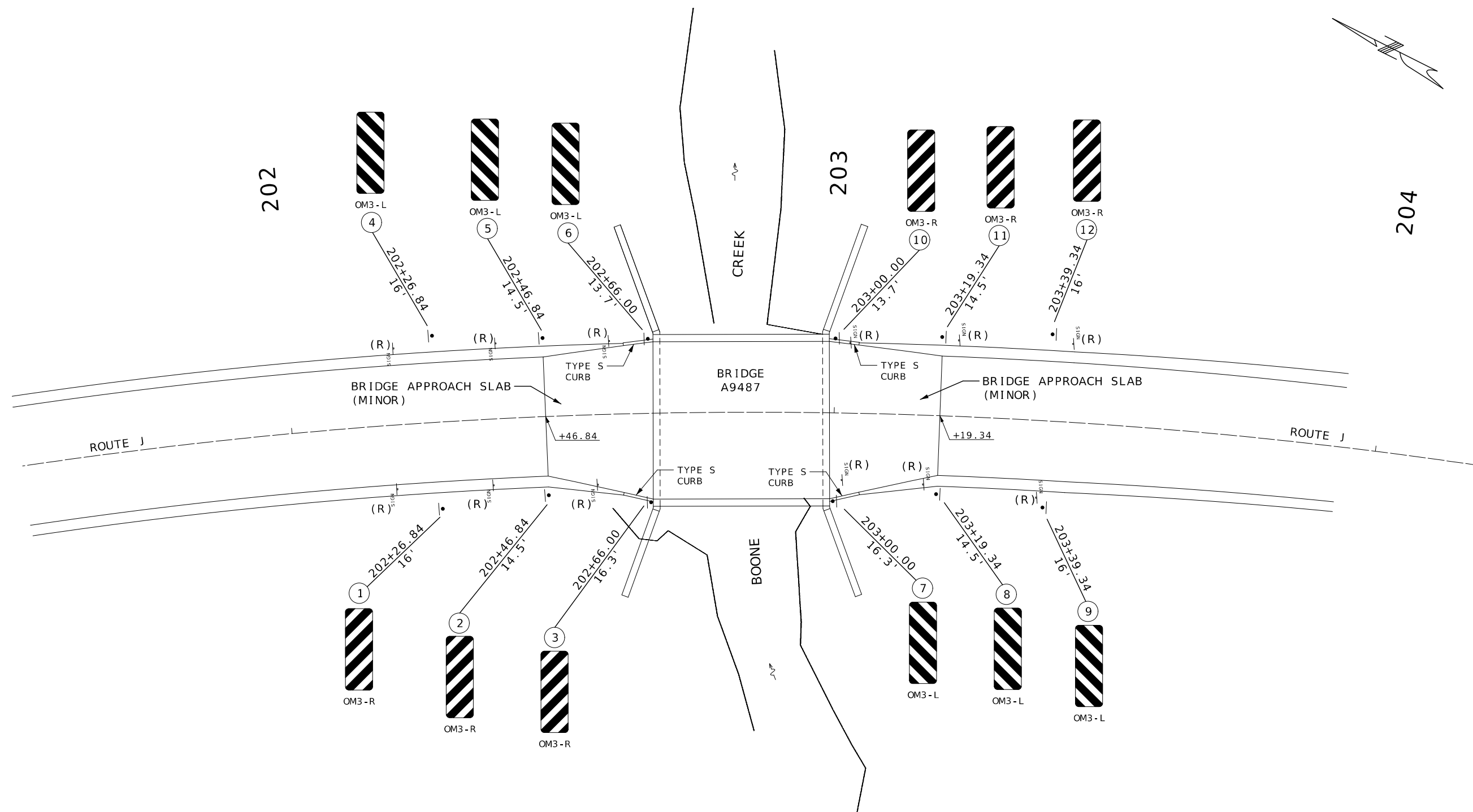


Maria Peters
 DATE PREPARED 11/27/2024
 ROUTE J STATE MO
 DISTRICT CD SHEET NO. 6
 COUNTY CRAWFORD
 JOB NO. J5S3552
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



BRIDGE AND SIGNING
 DETAILS SPECIAL SHEET
 SHEET 1 OF 2

STATE OF MISSOURI
 MARIA K. PETERS
 NUMBER
 PE-2000162118
 PROFESSIONAL ENGINEER

Maria Peters
 01/27/2025 8:45:00 AM
 MARIA K. PETERS - CIVIL
 MO-PE-2000162118

DATE PREPARED
 11/27/2024

ROUTE J	STATE MO
DISTRICT CD	SHEET NO. 7
COUNTY CRAWFORD	
JOB NO. J553552	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

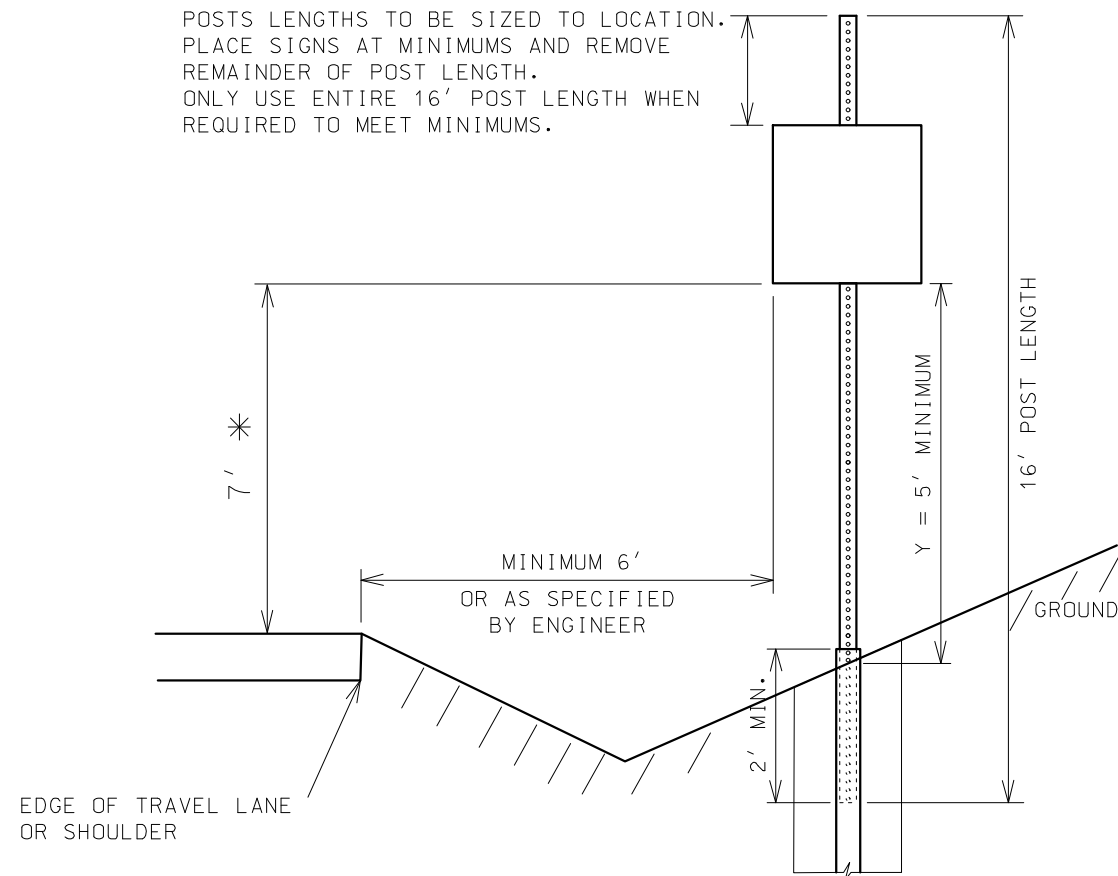
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
 COMMISSION

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

MOUNTING HEIGHT DETAIL

POSTS LENGTHS TO BE SIZED TO LOCATION. PLACE SIGNS AT MINIMUMS AND REMOVE REMAINDER OF POST LENGTH. ONLY USE ENTIRE 16' POST LENGTH WHEN REQUIRED TO MEET MINIMUMS.



SEE STANDARD PLANS 903.03 FOR INSTALLATION DETAILS

- POSTS - 12 GAUGE - 2.5" X 2.5"
- ANCHORS - 7 GAUGE - 3" X 3" O.D.
- BREAKAWAY - CERTIFIED NCHRP 350 COMPLIANT
USE REQUIRED FOR DOUBLE POST
INSTALLATIONS ONLY
- GALVANIZATION - ALL PSST POSTS, ANCHORS AND
BREAKAWAY CASTINGS SHALL BE
GALVANIZED PER MODOT STANDARD
SPECIFICATIONS

* 7' MINIMUM REQUIRED IN URBAN APPLICATIONS AND PREFERRED IN RURAL APPLICATIONS.
IN RURAL APPLICATIONS ONLY - IN SITUATIONS WHERE THE 7' MINIMUM CAN
NOT BE ATTAINED WITH A 16' PSST A RANGE OF 5' - 7' CAN BE USED AS
LONG AS DISTANCE "Y" IS ALSO MAINTAINED.

NOTE: PERFORATED SQUARE STEEL TUBE (PSST) POSTS ARE PAID AS 16 LINEAR FOOT. CONTRACTOR IS RESPONSIBLE TO PROPERLY PLACE SIGN AS SHOWN ABOVE IN "MOUNTING HEIGHT DETAIL"

NOT TO SCALE

SIGNING SPECIAL SHEET
2.5" PSST POST DETAILS
SHEET 2 OF 2



DATE PREPARED
11/27/2024

ROUTE J	STATE MO
DISTRICT CD	SHEET NO. 8

COUNTY
CRAWFORD

JOB NO.
J553552

CONTRACT ID.

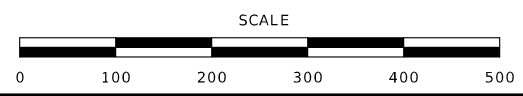
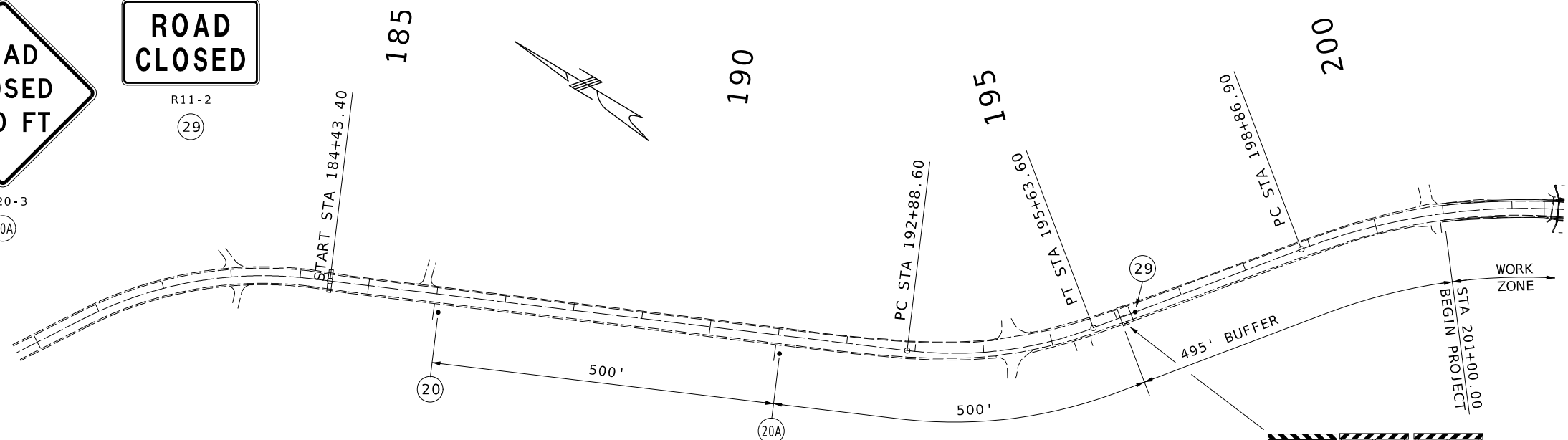
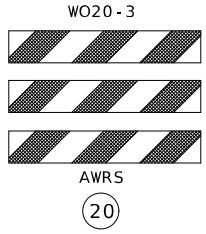
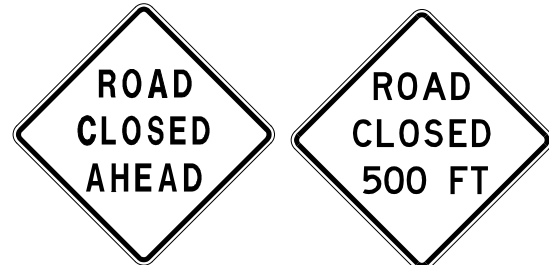
PROJECT NO.

BRIDGE NO.

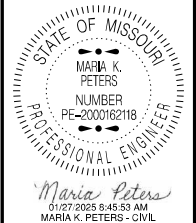
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



GENERAL NOTES:
 ANY EXISTING SIGNING THAT CONFLICTS WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.
 DISTANCE SHOWN MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS.



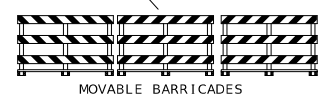
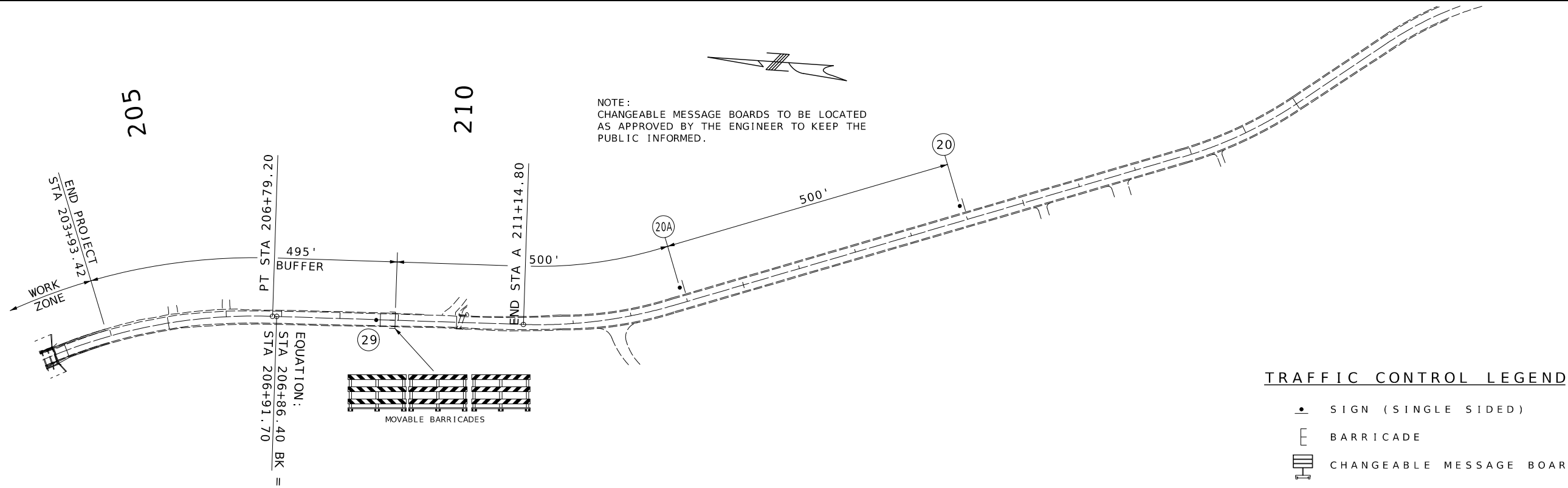
DATE PREPARED
 11/27/2024
 ROUTE J STATE MO
 DISTRICT CD SHEET NO. 9
 COUNTY CRAWFORD
 JOB NO. J553552
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO.

DATE	DESCRIPTION

205

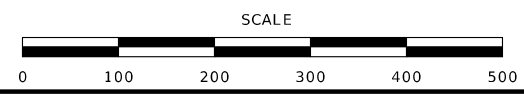
210

NOTE:
 CHANGEABLE MESSAGE BOARDS TO BE LOCATED AS APPROVED BY THE ENGINEER TO KEEP THE PUBLIC INFORMED.



TRAFFIC CONTROL LEGEND

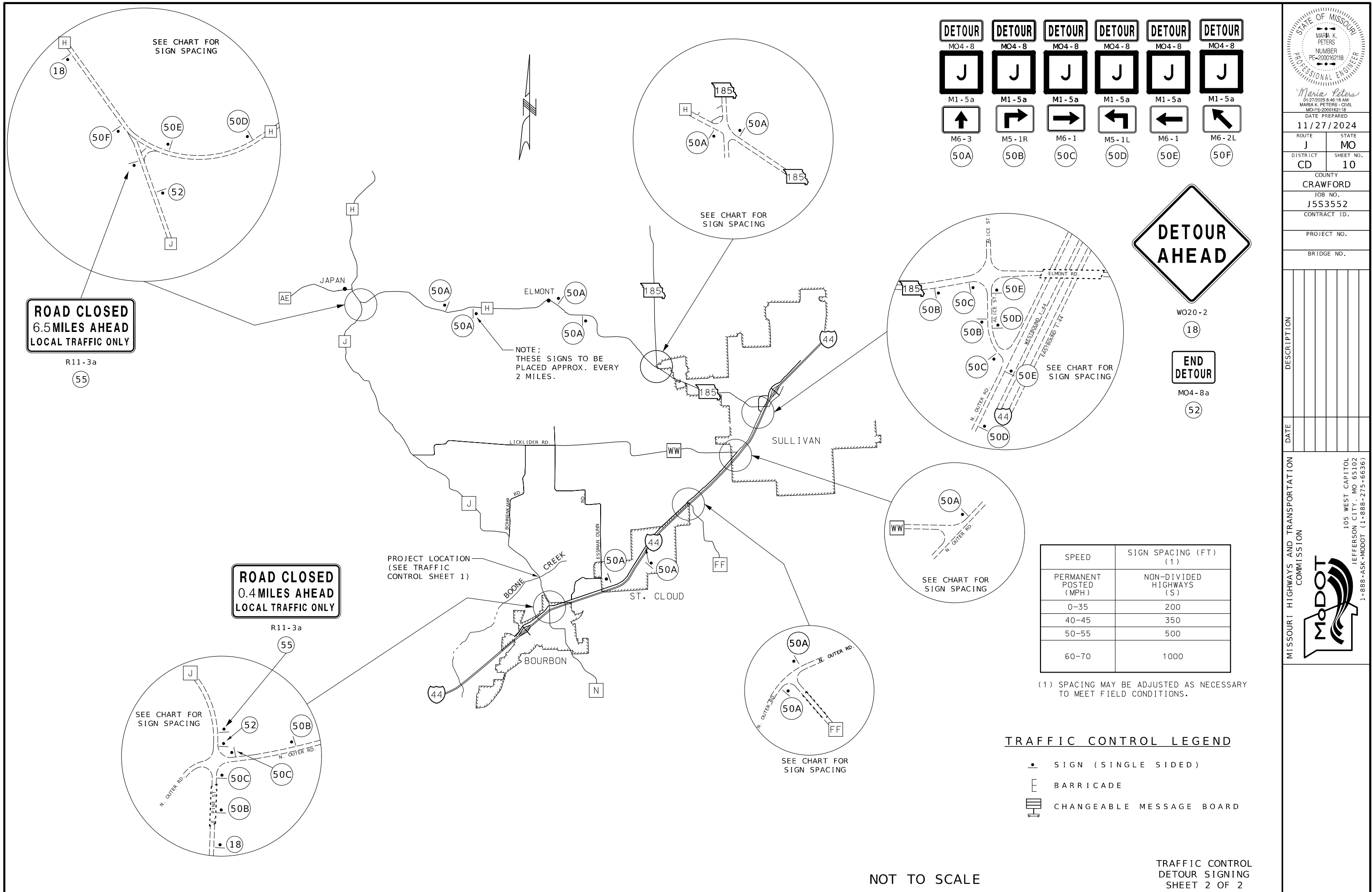
- SIGN (SINGLE SIDED)
- ⌈ BARRICADE
- ▬ CHANGEABLE MESSAGE BOARD



TRAFFIC CONTROL SHEET 1 OF 2

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-273-6636)



DETOUR MO4-8	DETOUR MO4-8	DETOUR MO4-8	DETOUR MO4-8	DETOUR MO4-8	DETOUR MO4-8
J	J	J	J	J	J
M1-5a	M1-5a	M1-5a	M1-5a	M1-5a	M1-5a
↑	↗	→	↖	←	↙
M6-3	M5-1R	M6-1	M5-1L	M6-1	M6-2L
50A	50B	50C	50D	50E	50F



W020-2
18
END
DETOUR
MO4-8a
52

SPEED	SIGN SPACING (FT) (1)
PERMANENT POSTED (MPH)	NON-DIVIDED HIGHWAYS (S)
0-35	200
40-45	350
50-55	500
60-70	1000

(1) SPACING MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS.

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- BARRICADE
- CHANGEABLE MESSAGE BOARD

STATE OF MISSOURI
MARIA K. PETERS
NUMBER
PE-2000162118
PROFESSIONAL ENGINEER

Marie Peters
01/27/2025 8:48:18 AM
MARIA K. PETERS - CIVIL
MO-PE-2000162118

DATE PREPARED
11/27/2024

ROUTE J	STATE MO
DISTRICT CD	SHEET NO. 10

COUNTY
CRAWFORD

JOB NO.
J553552

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

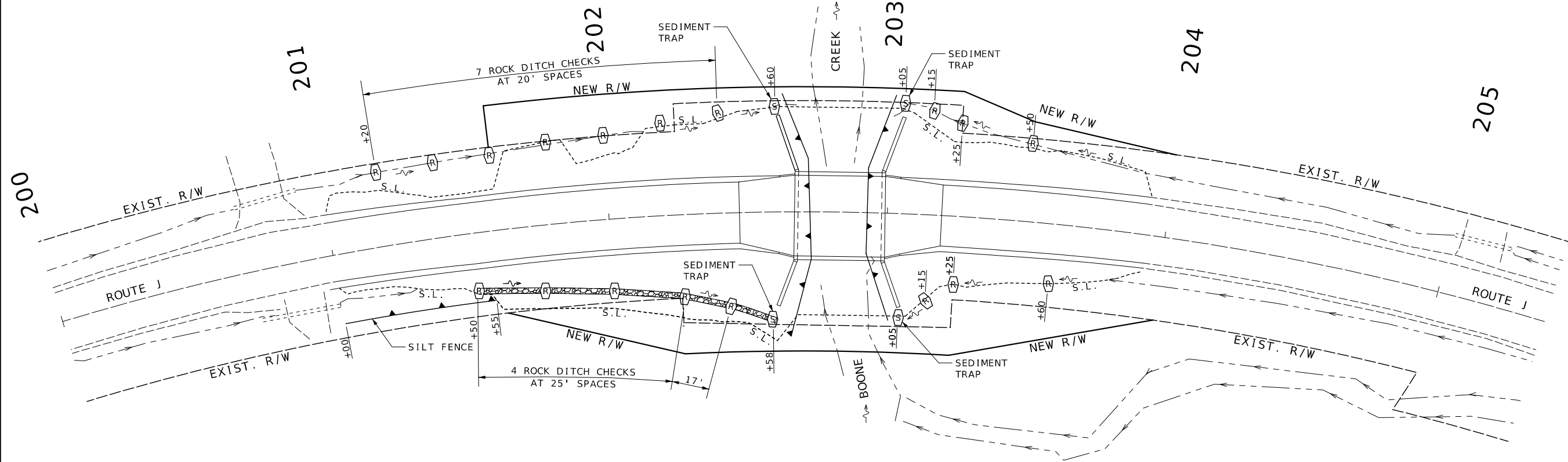
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION




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

NOT TO SCALE

200



TEMPORARY EROSION CONTROL LEGEND

-  ROCK DITCH CHECK
-  SEDIMENT TRAP
-  SILT FENCE



DATE PREPARED
12/17/2024

ROUTE	STATE
J	MO
DISTRICT	SHEET NO.
CD	11

COUNTY
CRAWFORD

JOB NO.
J5S3552
CONTRACT ID.

PROJECT NO.

BRIDGE NO.

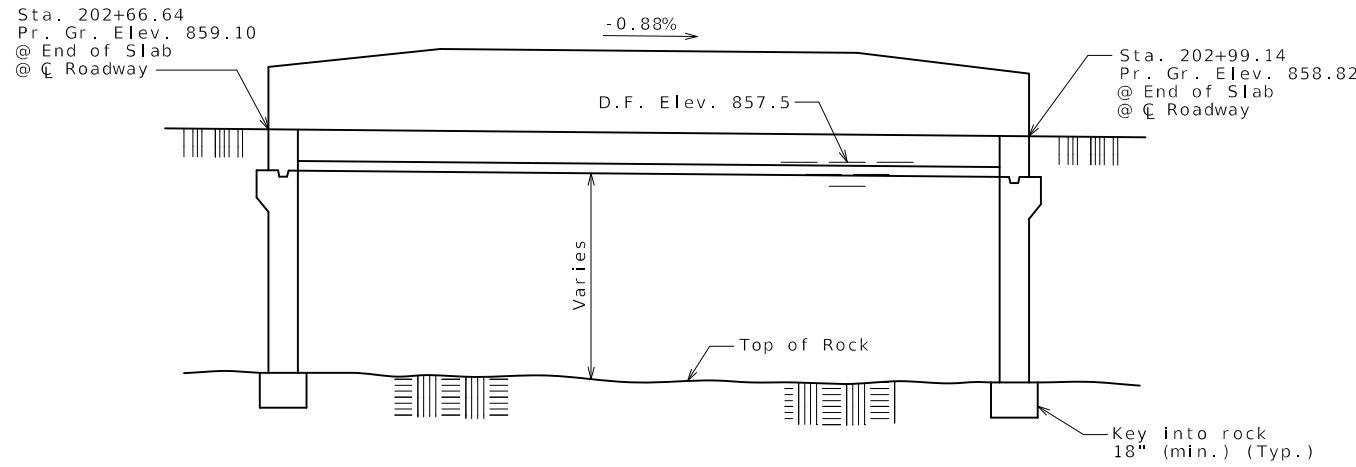
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



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

(30' x 8.4') CONCRETE BOX CULVERT ON ROCK



END ELEVATION (UPSTREAM)

Hydrologic Data table with columns for Design Flood Frequency (25 years), Design Flood Discharge (2,100 cfs), Design Flood (D.F.) Elevation (857.5), Base Flood (100-year), Base Flood Elevation (858.2), Base Flood Discharge (3,000 cfs), Estimated Backwater (0.7 ft), Outlet Velocity (8.4 ft/s), Roadway Overtopping, Overtopping Flood Discharge (2,100 cfs), Overtopping Flood Frequency (25 years), Overtopping Flood Elevation (857.5).

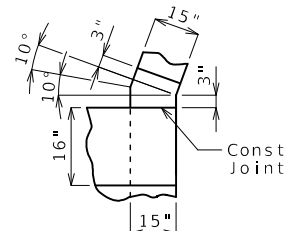
Estimated Quantities table with columns for Item, Quantity, and Final. Items include Class 4 Excavation (150 cu. yard), Class 4 Excavation in Rock (16 cu. yard), Dewatering (1 lump sum), Removal of Bridges (1 lump sum), Bridge Approach Slab (132 sq. yard), Class B-1 Concrete (71.0 cu. yard), Class B-2 Concrete (74.5 cu. yard), Type D Barrier (65 linear foot), Reinforcing Steel (33,490 pound).

Elevations table with values: ** Upstream (Elev. ①) = 848.22±, ** Downstream (Elev. ②) = 848.22±, Pr. Gr. at Tie Sta. = 858.95.

** Flowline elevations are to predicted natural rock in channel. There may be variations in the natural rock elevations (values provided for information only).

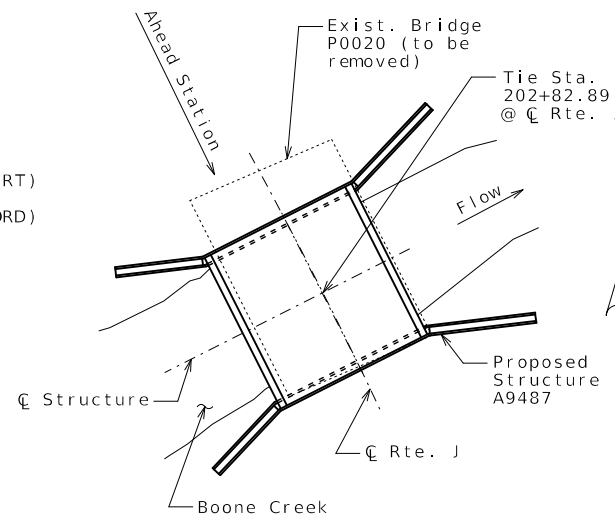
Note:

Excavation of the existing footings for P0020 will be required at Int. Bent No. 2 and End Bent No. 5. Excavation of footings will be considered completely covered by the contract lump sum price for Removal of Bridges (P0020).

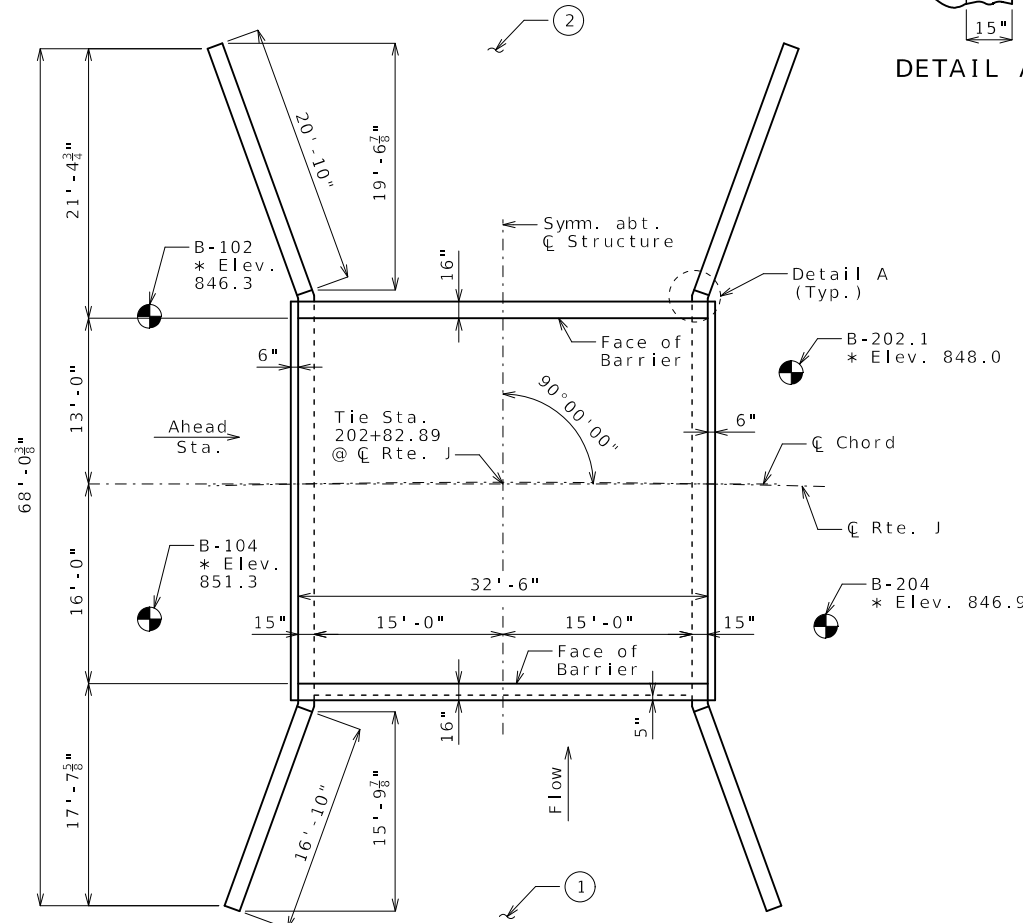


DETAIL A

CURVE DATA table for ROUTE J: PI = 203+09.90, PC = 198+86.90, PT = 206+79.20, Δ = 49°31'0.0" (RT), D = 6°14'59.1", L = 792.30' (CHORD), T = 423.01', R = 917.23'.



LOCATION SKETCH



PLAN OF LAYOUT DIMENSIONS (Footings not shown for clarity)

* Elevations indicate top of rock.

● Indicates location of borings.

Notice and Disclaimer Regarding Boring Log Data

The locations of all subsurface borings for this structure are shown on the plan sheet for this structure. The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations performed by the department for the design of the project, are shown on Sheet No. 12 and may be included in the Electronic Bridge Deliverables. They will also be available from the Project Contact upon written request. No greater significance or weight should be given to the boring data depicted on the plan sheets than is given to the subsurface data available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A contractor assumes all risks it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the Commission.

General Notes:

Design Specifications: 2010 AASHTO LRFD Bridge Design Specifications and 2010 Interim Revisions

Design Loading: Vehicular = HL-93 minus lane load, Earth = 120 lb/cf, Equivalent Fluid Pressure = 30 lb/cf (min.), 60 lb/cf (max.)

Design Unit Stresses: Class B-1 Concrete (Box Culvert & Barrier) f'c = 4,000 psi, Class B-2 Concrete (Box Culvert Top Slab) f'c = 4,000 psi, Reinforcing Steel (Grade 60) fy = 60,000 psi

Standard Plans: 703.16, 703.37

Miscellaneous: Precast box sections shall not be used. Use cast-in-place only.

Channel bottom shall be graded within the right of way for transition of channel bed to culvert openings. Channel banks shall be tapered to match culvert openings. (Roadway Item)

Anchor full length of walls by excavating 18" (min.) into and casting concrete against vertical faces of hard, solid undisturbed rock. All footing elevations shown are for estimating purposes only.

Where, under short lengths of walls, top of rock is below elevations given for bottom of walls, plain concrete footings 3 feet in width shall be poured up from rock to bottom of walls. If top of rock is more than 3 feet below bottom of short wall sections, the walls between points of support on rock, shall be designed and reinforced as beams and spaces below walls filled as directed by the engineer. Payment for plain concrete footings and concrete reinforced as wall beams will be considered completely covered by the contract unit price for Class B-1 Concrete (Culverts-Bridge).

If unsuitable material is encountered, excavation of unsuitable material and furnishing and placing of granular backfill shall be in accordance with Sec 206.

Culvert top slab surface may be finished with a vibratory screed.

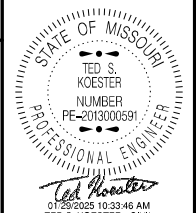
Reinforcing Steel: Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

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

B.M. - 5/8 REBAR ALUMINUM CAP AT THE WEST CORNER OF S27, T40N, R3W PER MLS DOC #600-86775

CULVERT-BRIDGE: ROUTE J OVER BOONE CREEK

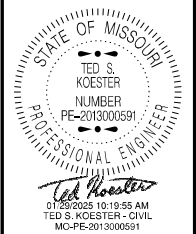
ROUTE J FROM ROUTE 1-44 TO ROUTE H ABOUT 0.6 MILE NORTH OF ROUTE 1-44 TIE STA. 202+82.89



Project information table: DATE PREPARED 1/29/2025, ROUTE J, STATE MO, DISTRICT BR, SHEET NO. 1, COUNTY CRAWFORD, JOB NO. J5S3552, CONTRACT ID., PROJECT NO., BRIDGE NO. A9487.

DESCRIPTION and DATE table with columns for Description and Date.

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



DATE PREPARED
1/29/2025

ROUTE	STATE
J	MO
DISTRICT	SHEET NO.
BR	2

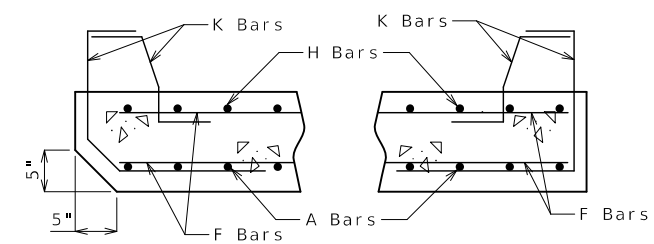
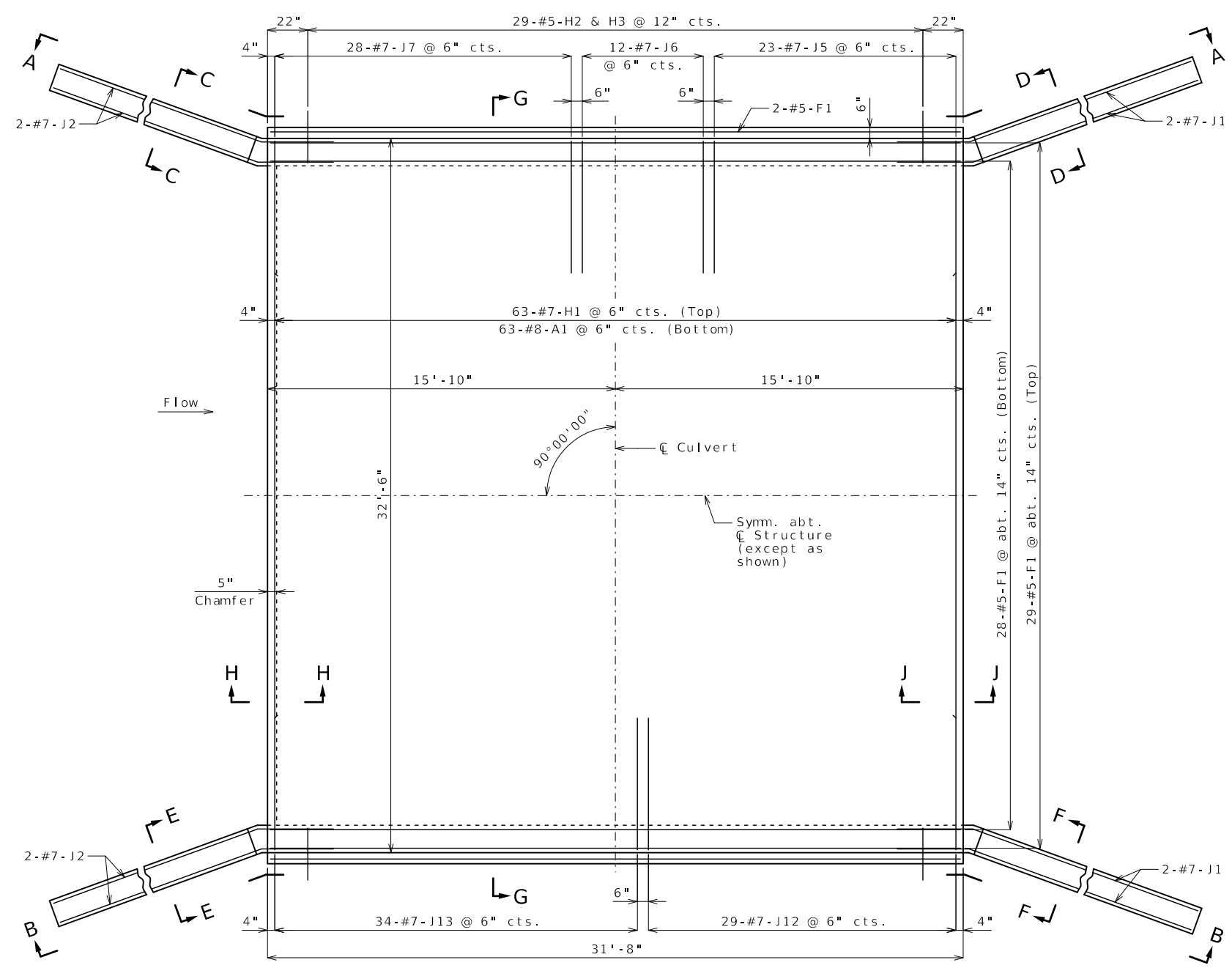
COUNTY
CRAWFORD

JOB NO.
J5S3552

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9487



SECTION H-H SECTION J-J

Contractor may shift H & A bars as needed to tie K bars in barrier.

- Notes:
- For Developed Elevation A-A, see Sheet No. 3.
 - For Developed Elevation B-B, see Sheet No. 4.
 - For Sections C-C thru G-G, see Sheet No. 5.
 - Work this sheet with Sheets No. 3 thru 5.
 - Field bend #7-J bars in top of wing as necessary to conform to structure alignment.
 - For details of barrier, see Sheets No. 6 & 7.

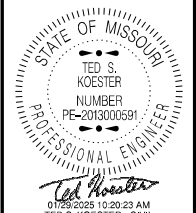
PLAN OF SLAB

Detailed Dec. 2024
Checked Dec. 2024

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

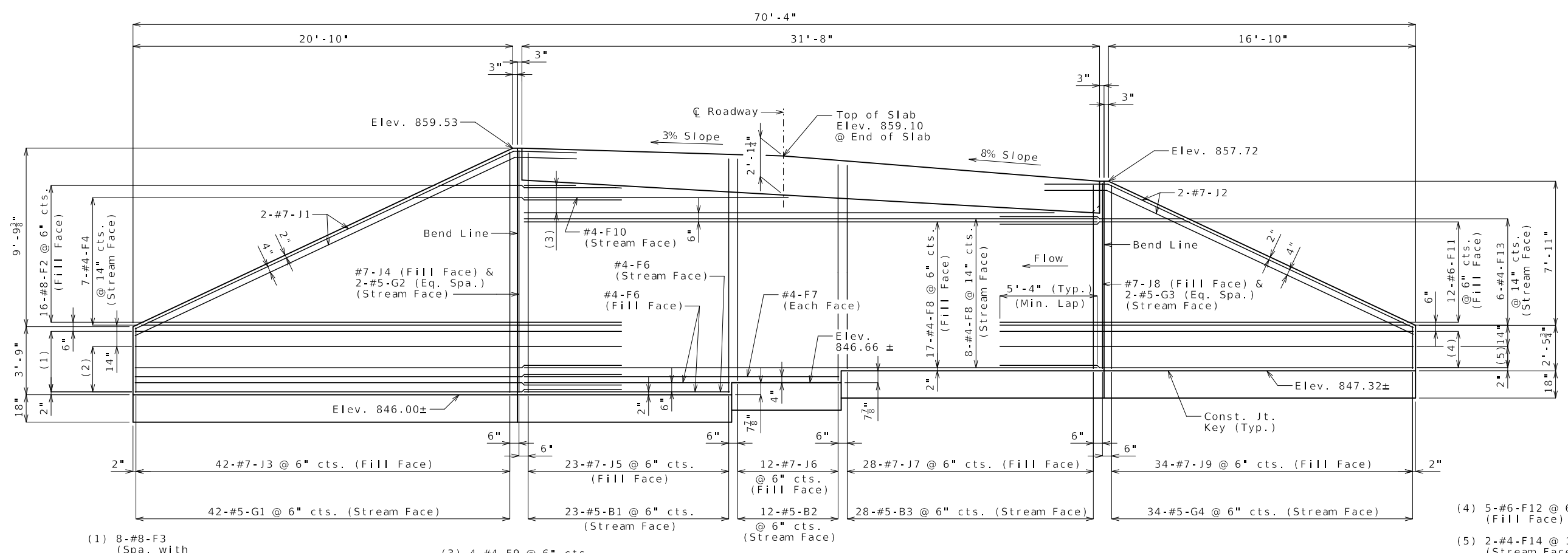


STATE OF MISSOURI
 TED S. KOESTER
 NUMBER
 PE-2013000591
 PROFESSIONAL ENGINEER
 DATE PREPARED
 1/29/2025
 ROUTE J STATE MO
 DISTRICT BR SHEET NO. 3
 COUNTY CRAWFORD
 JOB NO. J5S3552
 CONTRACT ID.

PROJECT NO.
 BRIDGE NO. A9487

DESCRIPTION	DATE

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

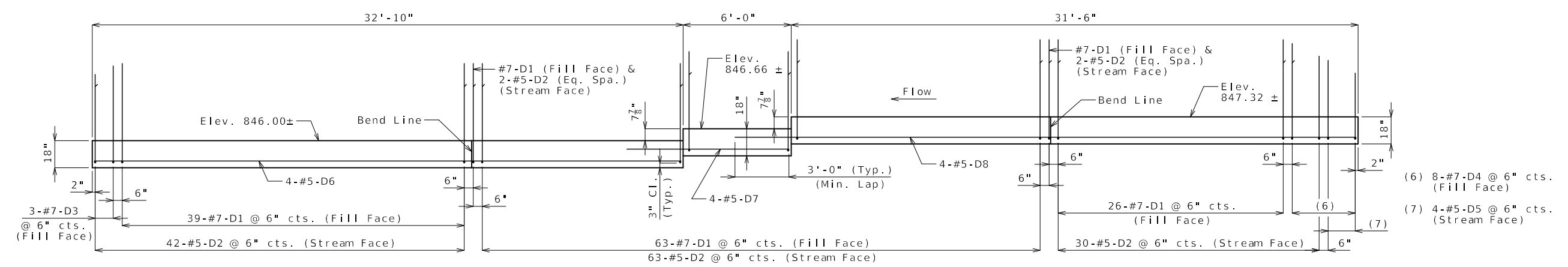


- (1) 8-#8-F3 (Spa. with #4-F6, F7 & F8) (Fill Face)
- (2) 4-#4-F5 (Spa. with #4-F6, F7 & F8) (Stream Face)

- (3) 4-#4-F9 @ 6" cts. (Fill Face)

- (4) 5-#6-F12 @ 6" cts. (Fill Face)
- (5) 2-#4-F14 @ 14" cts. (Stream Face)

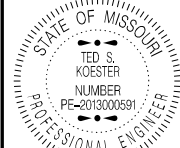
DEVELOPED ELEVATION A-A
 (Barrier and approach notch not shown for clarity)



- (6) 8-#7-D4 @ 6" cts. (Fill Face)
- (7) 4-#5-D5 @ 6" cts. (Stream Face)

DEVELOPED ELEVATION OF FOOTING

Notes:
 For location of Developed Elevation A-A, see Sheet No. 2.
 For details of barrier, see Sheets No. 6 & 7.
 Field bend D bars, F bars and J bars as necessary to conform to structure alignment.
 Slab and footing reinforcement not shown in Developed Elevation A-A for clarity.
 Keyed construction joint in footings not shown for clarity.



Ted Koester
 DATE PREPARED
 1/29/2025

ROUTE STATE
 J MO
 DISTRICT SHEET NO.
 BR 4

COUNTY
 CRAWFORD
 JOB NO.
 J5S3552
 CONTRACT ID.

PROJECT NO.

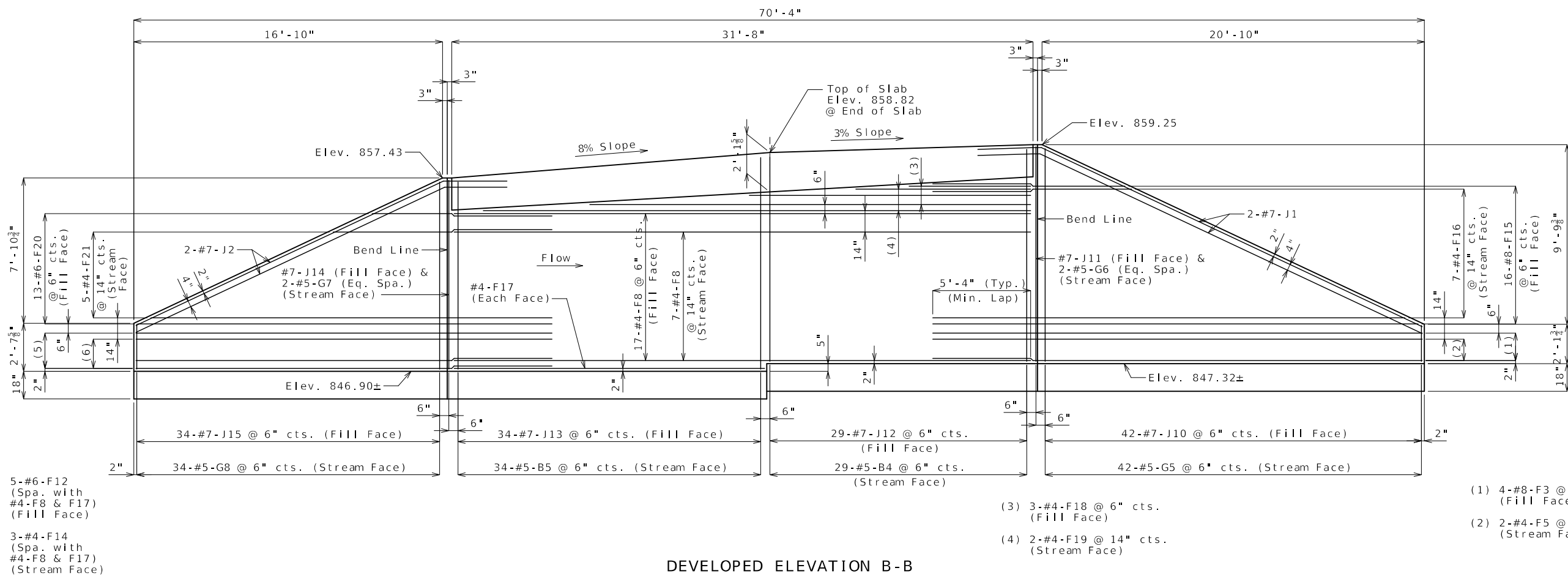
BRIDGE NO.
 A9487

DESCRIPTION

DESCRIPTION	DATE

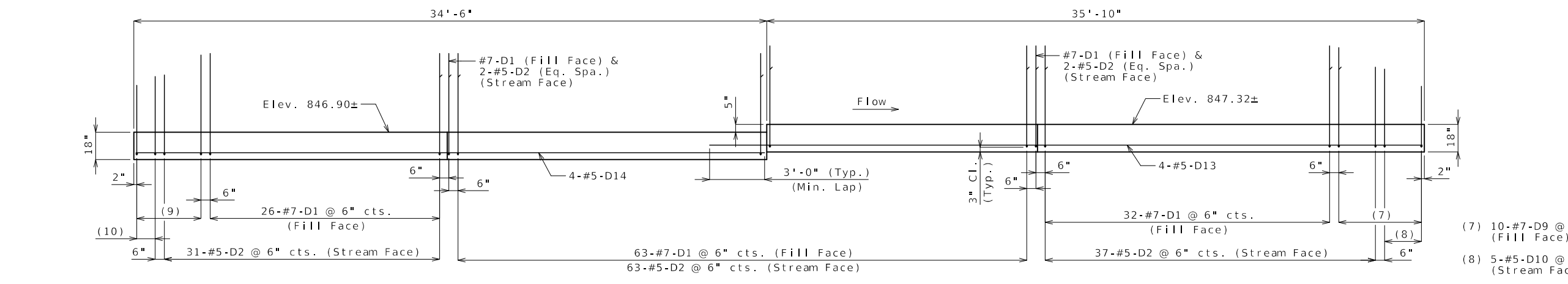
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



DEVELOPED ELEVATION B-B

(Barrier and approach notch not shown for clarity)



DEVELOPED ELEVATION OF FOOTING

Notes:

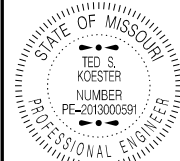
For location of Developed Elevation B-B, see Sheet No. 2.

For details of barrier, see Sheets No. 6 & 7.

Field bend D bars, F bars and J bars as necessary to conform to structure alignment.

Slab and footing reinforcement not shown in Developed Elevation B-B for clarity.

Keyed construction joint in footings not shown for clarity.



DATE PREPARED
1/29/2025

ROUTE J STATE MO

DISTRICT BR SHEET NO. 5

COUNTY CRAWFORD

JOB NO. J5S3552

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9487

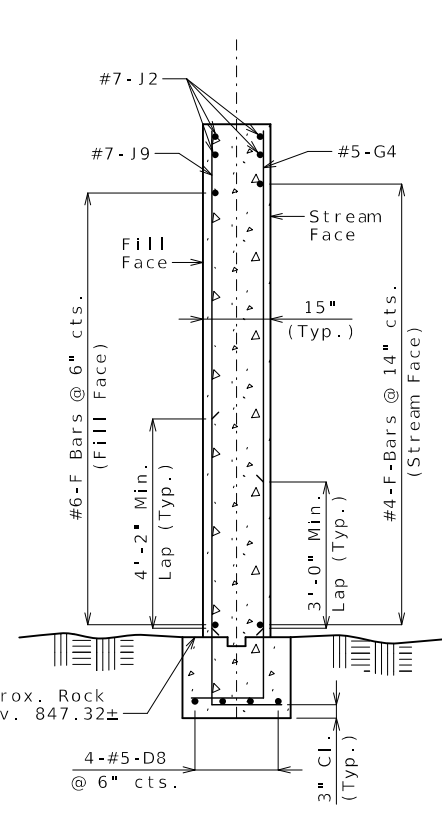
DESCRIPTION

DATE

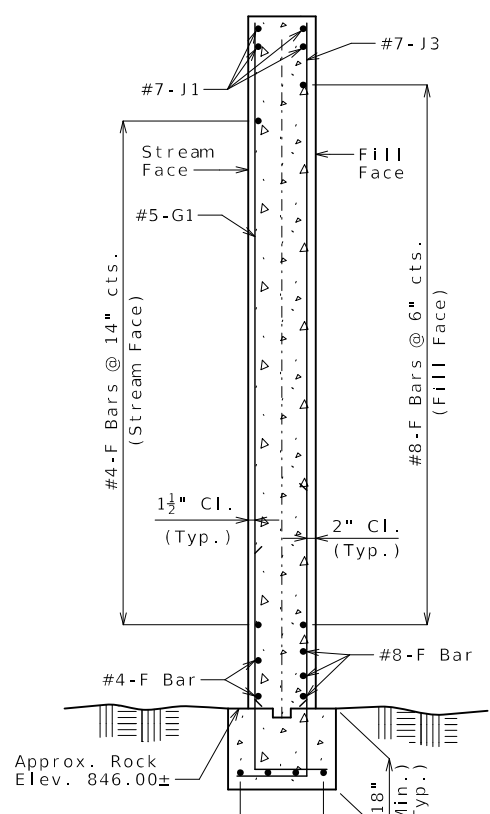
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

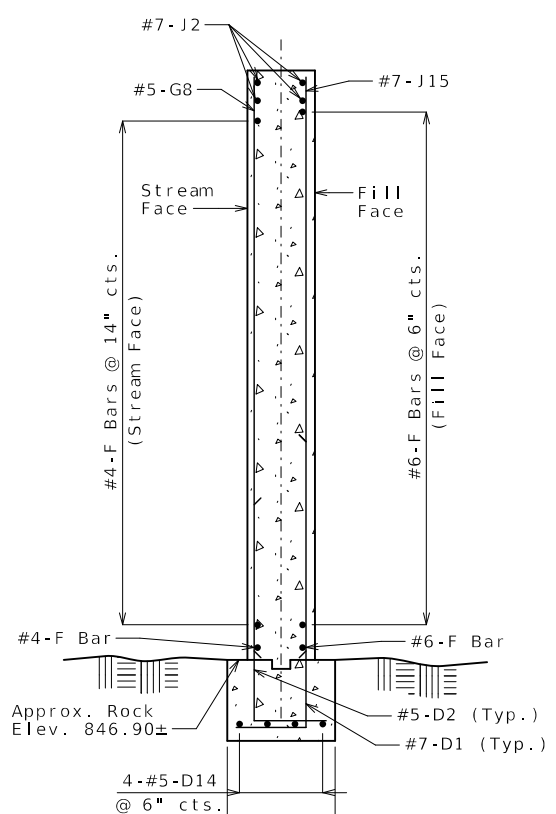
MoDOT



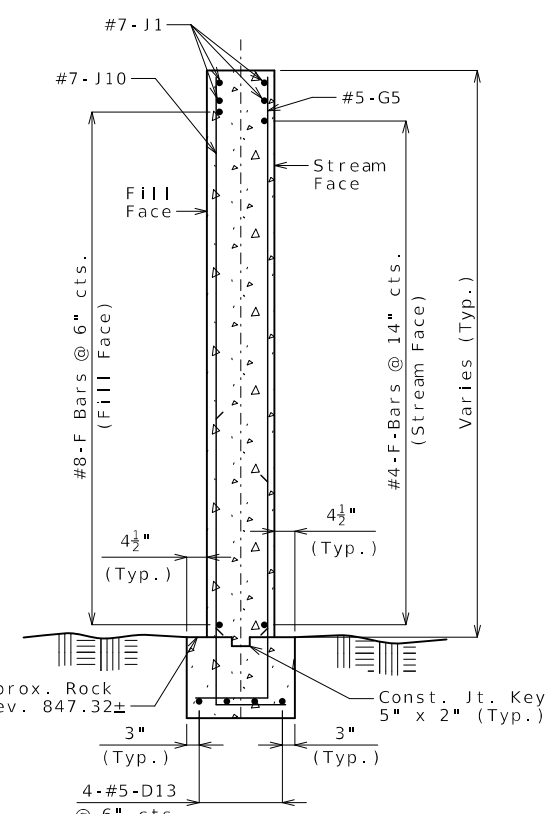
SECTION C-C



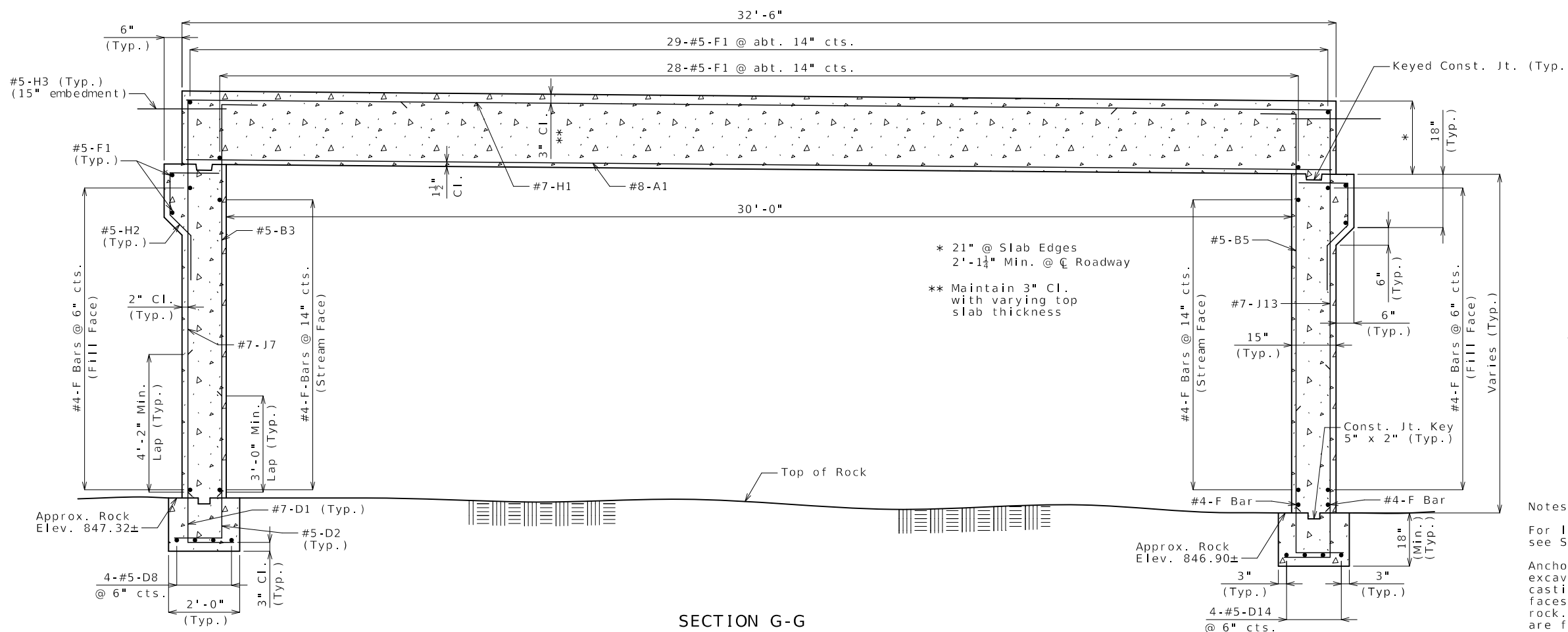
SECTION D-D



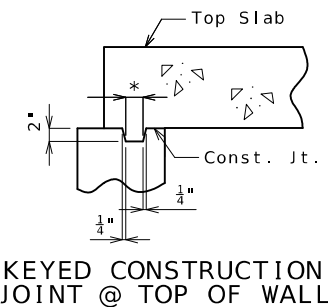
SECTION E-E



SECTION F-F

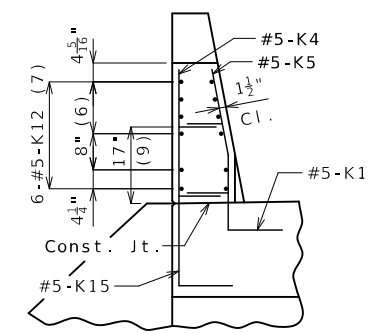


SECTION G-G

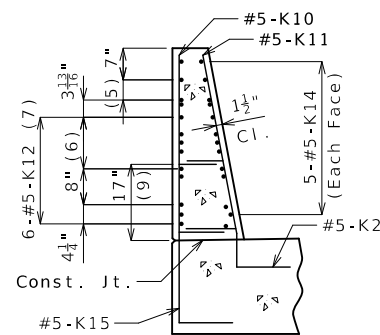


Notes:
For location of Sections C-C thru G-G, see Sheet No. 2.
Anchor full length of footings by excavation 18 inches (min.) into and casting concrete against vertical faces of hard, solid, undisturbed rock. All footing elevations shown are for estimating purposes only.

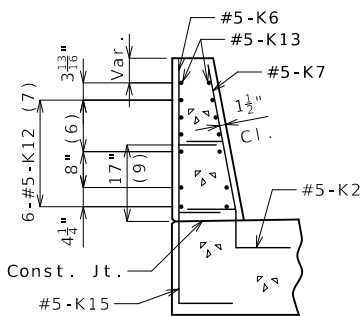
Detailed Dec. 2024
Checked Dec. 2024



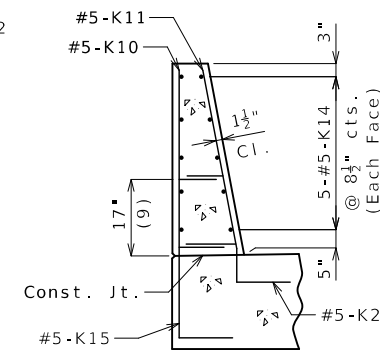
ELEVATION A-A



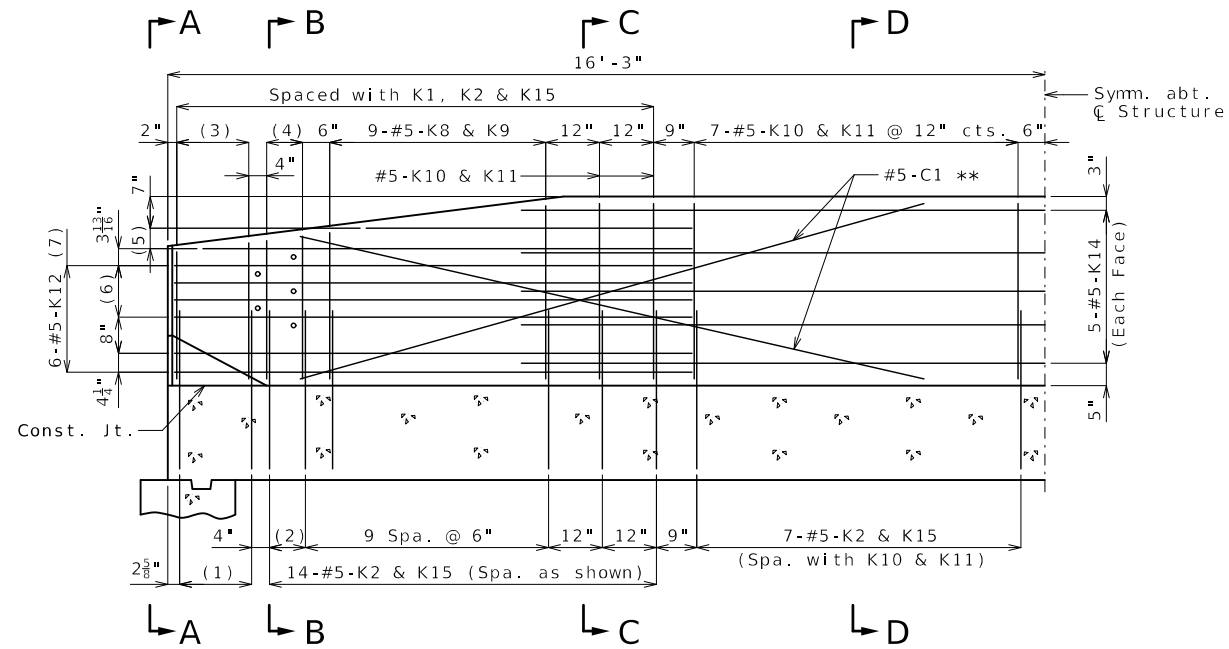
SECTION C-C



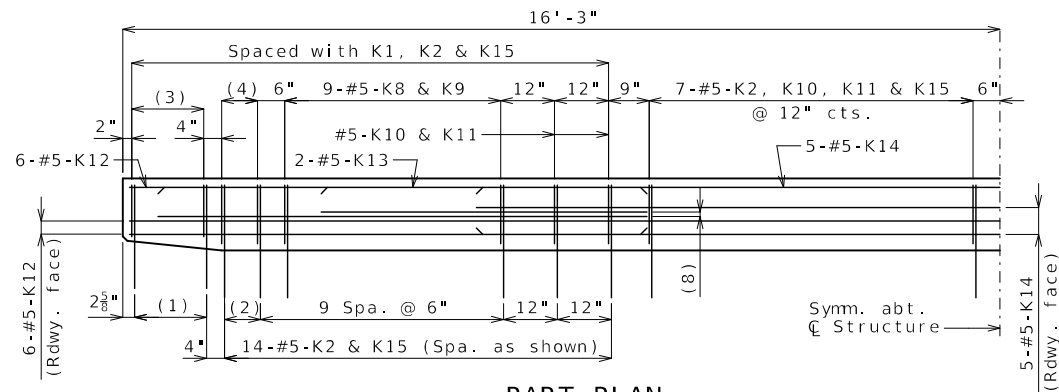
SECTION B-B



SECTION D-D



PART ELEVATION OF BARRIER



PART PLAN
(Top of barrier not shown for clarity.)

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.

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 slab to end of slab.

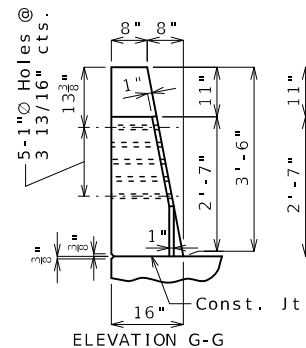
Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered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

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

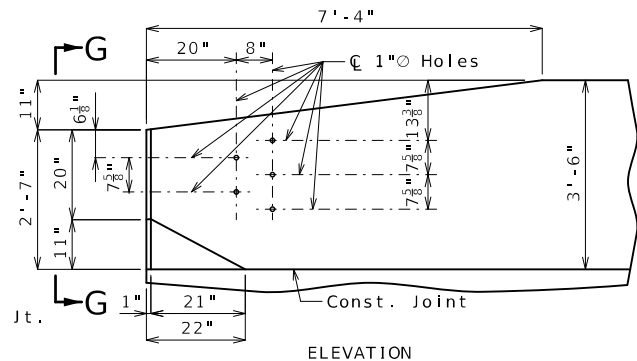
Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2".

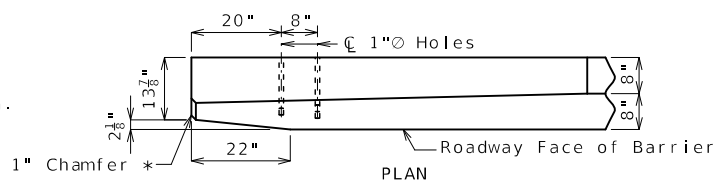
Use a minimum lap of 3'-1" between horizontal K bars.



ELEVATION G-G



ELEVATION

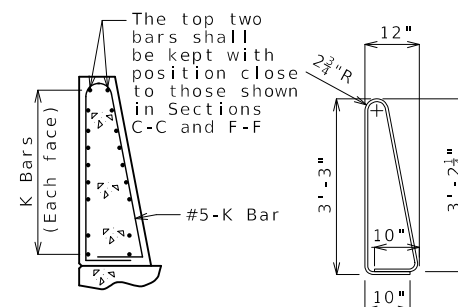


PLAN

DETAILS OF GUARD RAIL ATTACHMENT

- (1) 5-#5-K1 & K15 @ 4" cts.
- (2) 2 spaces @ 4"
- (3) 5-#5-K4 & K5
- (4) 3-#5-K6 & K7
- (5) 2-#5-K13 @ 4 1/2" cts., each face
- (6) 3 spaces @ 3 1/8"
- (7) Spaced as shown, each face
- (8) 2-#5-K13 (Roadway face)
- (9) To top of bar

* Transition to zero at Type A curb for gutter lines to match.

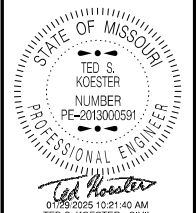


K10-K11 BAR PERMISSIBLE ALTERNATE SHAPE

(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.

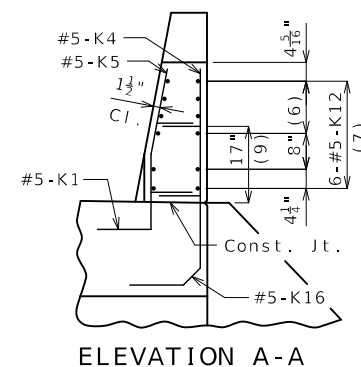


STATE OF MISSOURI
 TED S. KOESTER
 NUMBER PE-2013000591
 PROFESSIONAL ENGINEER
 DATE PREPARED 1/29/2025
 ROUTE J STATE MO
 DISTRICT BR SHEET NO. 6
 COUNTY CRAWFORD
 JOB NO. J5S3552
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO. A9487

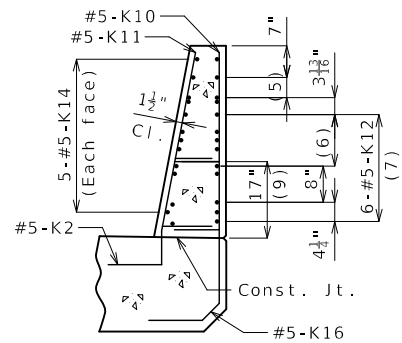
DATE	DESCRIPTION

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

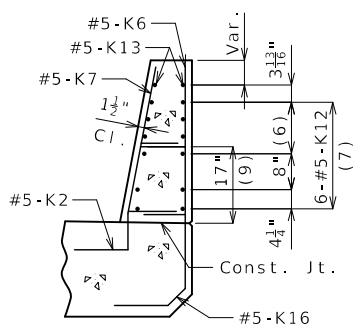
TYPE D BARRIER (LEFT)



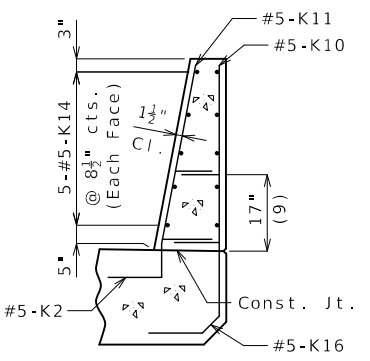
ELEVATION A-A



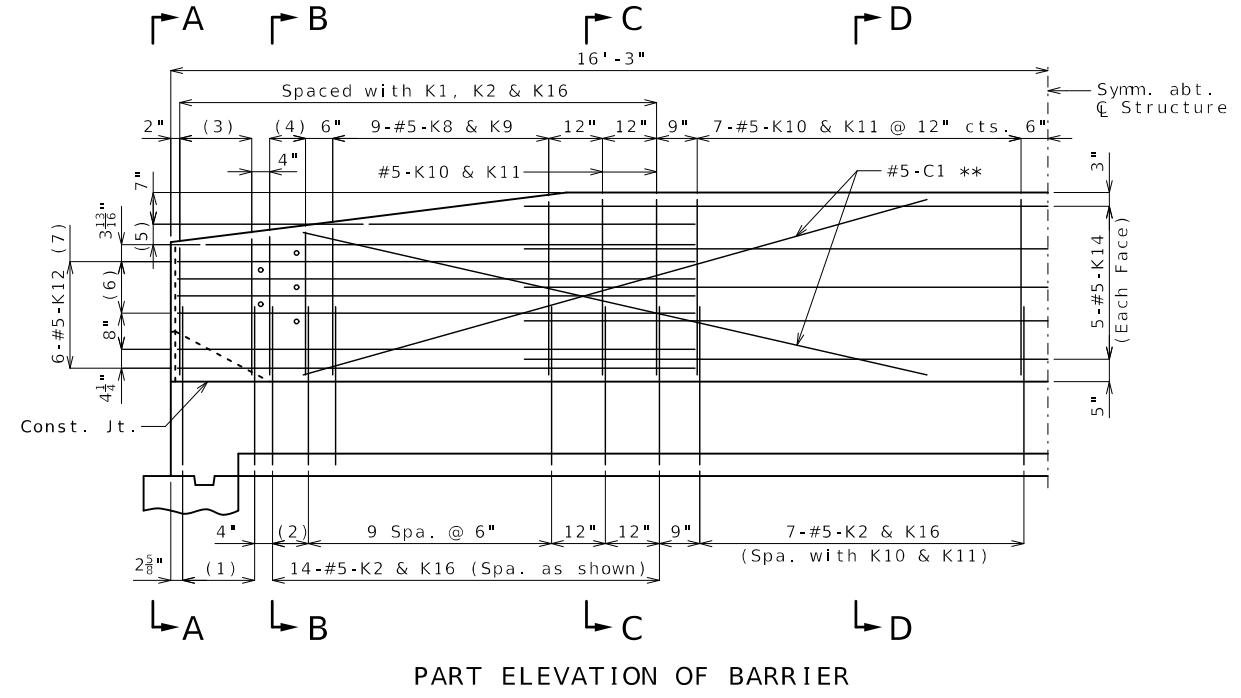
SECTION C-C



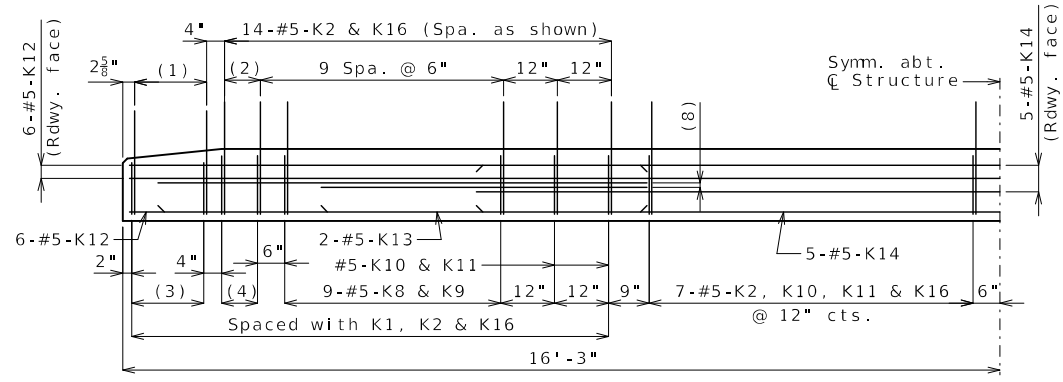
SECTION B-B



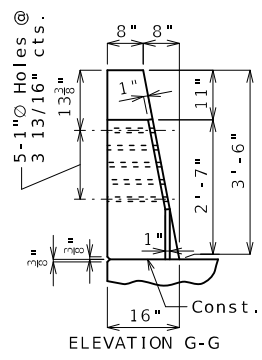
SECTION D-D



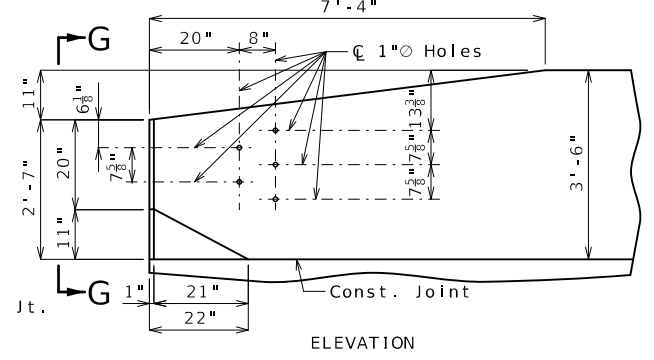
PART ELEVATION OF BARRIER



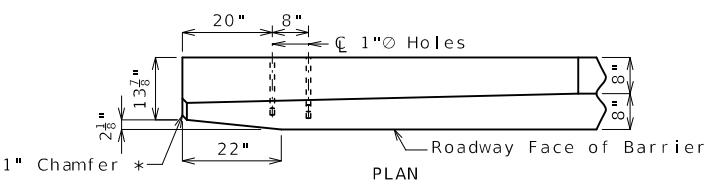
PART PLAN
(Top of barrier not shown for clarity.)



ELEVATION G-G



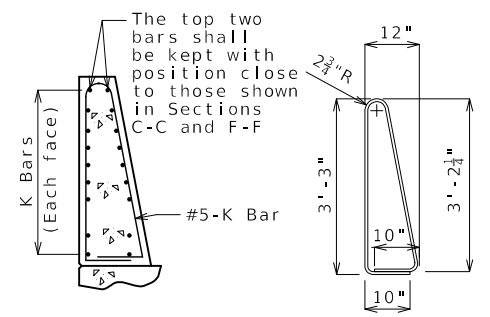
ELEVATION



PLAN

DETAILS OF GUARD RAIL ATTACHMENT

- (1) 5-#5-K1 & K16 @ 4" cts.
- (2) 2 spaces @ 4"
- (3) 5-#5-K4 & K5
- (4) 3-#5-K6 & K7
- (5) 2-#5-K13 @ 4 1/2" cts., each face
- (6) 3 spaces @ 3 1/8"
- (7) Spaced as shown, each face
- (8) 2-#5-K13 (Roadway face)
- (9) To top of bar



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.

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.

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 slab to end of slab.

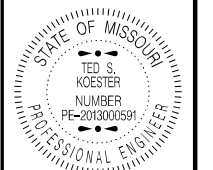
Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered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

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

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2".

Use a minimum lap of 3'-1" between horizontal K bars.



DATE PREPARED
1/29/2025

ROUTE J STATE MO
DISTRICT BR SHEET NO. 7

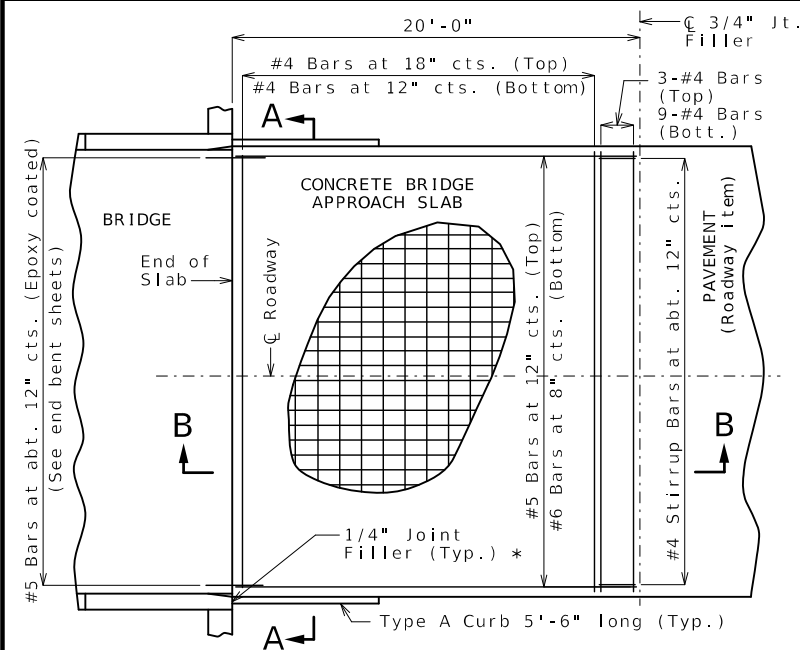
COUNTY CRAWFORD
JOB NO. J553552
CONTRACT ID.

PROJECT NO.
BRIDGE NO. A9487

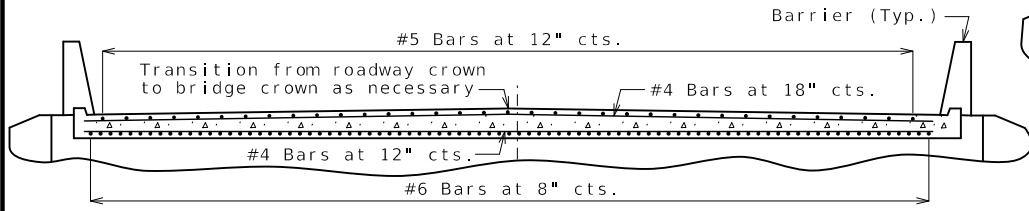
DATE	DESCRIPTION

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

TYPE D BARRIER (RIGHT)

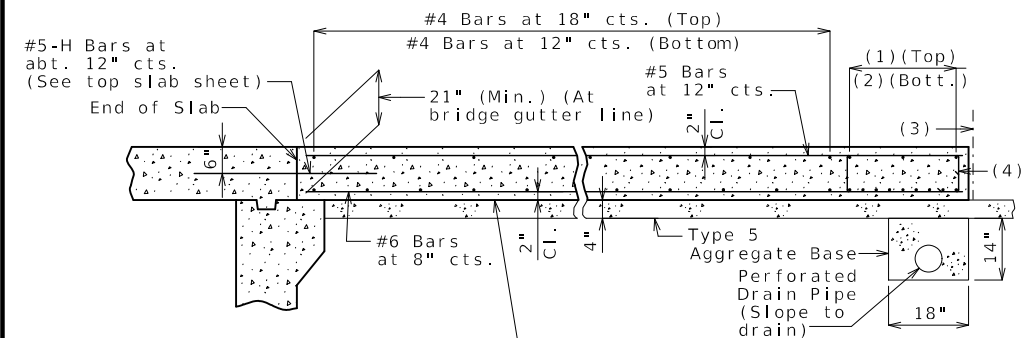


PART PLAN OF SQUARED STRUCTURE
(Skewed structure similar)



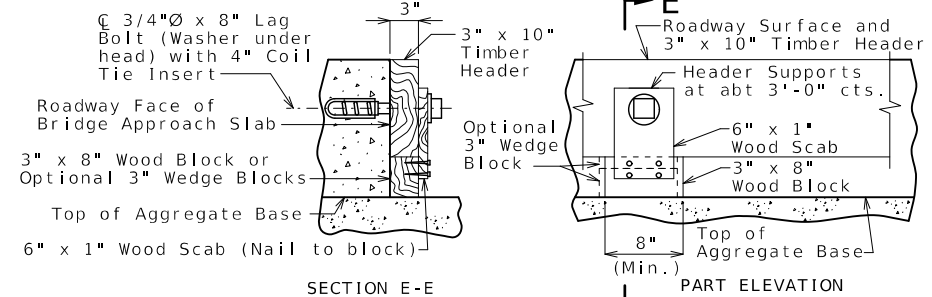
SECTION A-A

With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.

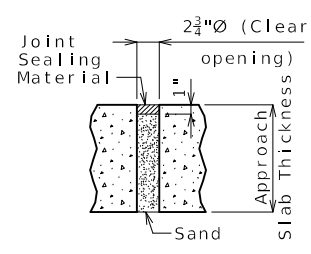


SECTION B-B

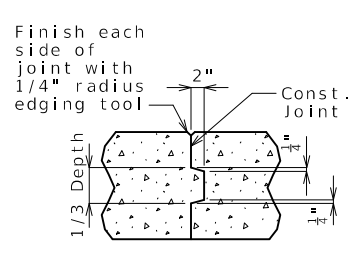
2 Layers of 4 Mil Polyethylene Sheetting between bridge approach slab and granular base in accordance with ASTM E 1745 Performance Class A



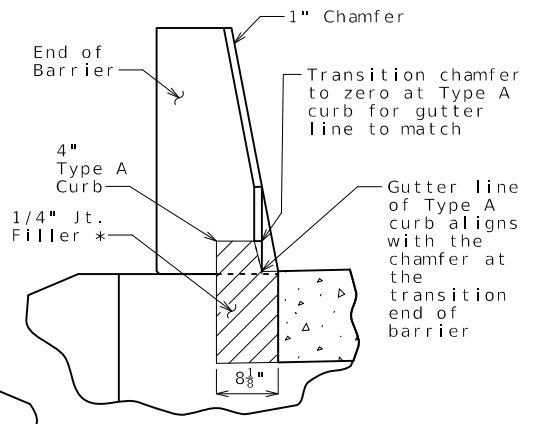
DETAILS OF TIMBER HEADER
Remove timber header when concrete pavement is placed.
OPTIONAL CONCRETE SLAB



UNDERSEAL ACCESS HOLE DETAIL
(If required)



CONSTRUCTION JOINT DETAIL



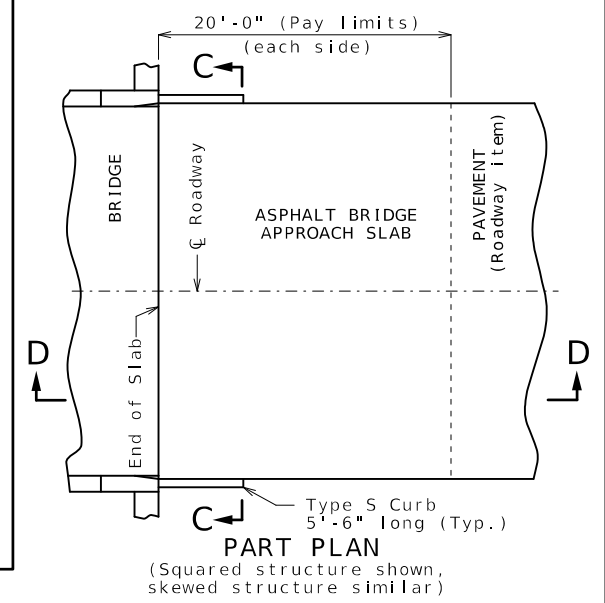
SECTION BETWEEN CURB AND BARRIER

- (1) 3-#4 Bars
- (2) 9-#4 Bars
- (3) 3/4" Jt. Filler
- (4) #4 Stirrup Bars at abt. 12" cts.; 2'-0" x 8" (Min.) out to out; Actual length = 5'-10" (Min.); 90° stirrup hook at bottom; Stirrup height (8") and actual length vary due to crown.

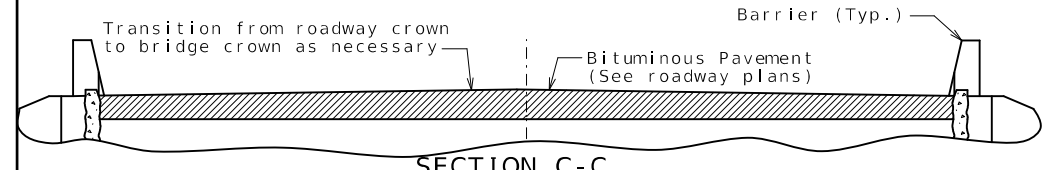
Notes For Concrete Slab Only:
All concrete for the bridge approach slab shall be in accordance with Sec 503 ($f'c = 4,000$ psi).
The reinforcing steel in the bridge approach slab shall be epoxy coated Grade 60 with $f_y = 60,000$ psi.
Longitudinal construction joints in bridge approach slab shall be aligned with longitudinal construction joints in bridge slab.
Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.
The reinforcing steel in the bridge approach slab shall be continuous. The transverse reinforcing steel may be made continuous by providing a minimum lap splice of 23 inches for #4 bars, or by mechanical bar splice.
Mechanical bar splices shall be in accordance with Sec 710.
All joint filler shall be in accordance with Sec 1057 for preformed fiber expansion joint filler except as noted.
Payment for furnishing all materials, labor and excavation necessary to construct the concrete bridge approach slab, including the timber header, underdrain, Type 5 aggregate base, joint filler, and all other appurtenances and incidental work as shown on this sheet, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Minor) per square yard.
See Missouri Standard Plan 609.00 for details of Type A curb.
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.
* Seal joint between vertical face of approach slab and wall with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

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.
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, 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.

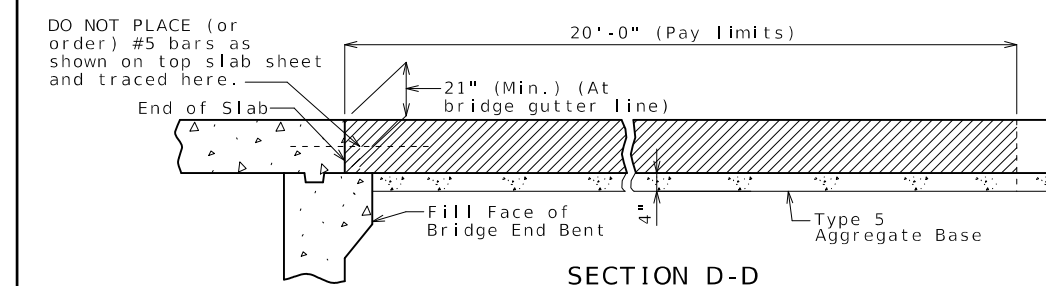


PART PLAN
(Squared structure shown, skewed structure similar)



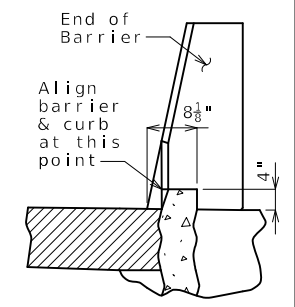
SECTION C-C

With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.



SECTION D-D

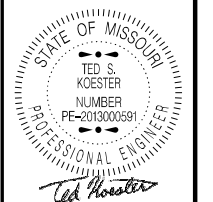
DO NOT PLACE (or order) #5 bars as shown on top slab sheet and traced here.



4" TYPE S CURB
See Missouri Standard Plan 609.00 for details of Type S curb.

OPTIONAL ASPHALT SLAB (NOT ALLOWED WITH CONCRETE PAVEMENT)

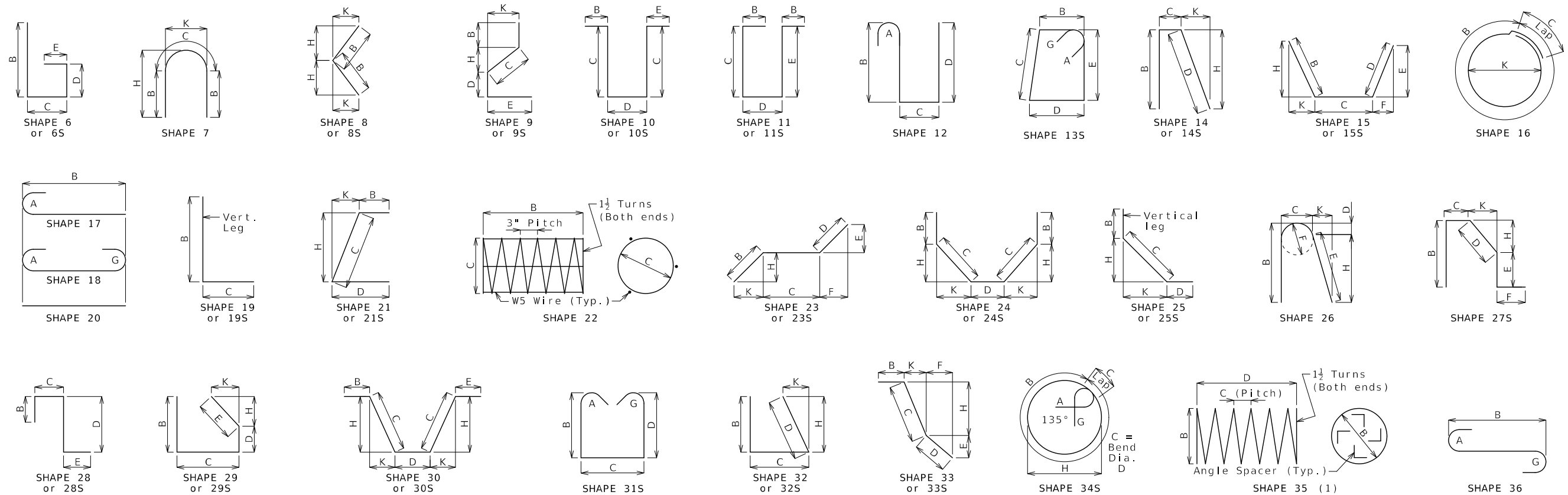
BRIDGE APPROACH SLAB (MINOR)



DATE PREPARED	
1/29/2025	
ROUTE	STATE
J	MO
DISTRICT	SHEET NO.
BR	8
COUNTY	
CRAWFORD	
JOB NO.	
J5S3552	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
A9487	

DATE	DESCRIPTION

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

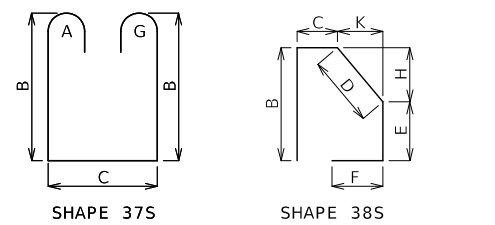


Finished Bend Diameters D and Hook Dimensions

Size	Case	D	A or G		J
			90°	180°	
#4	1	3"	8"	6"	4"
#5	1	3 3/4"	10"	7"	5"
#6	1	4 1/2"	12"	8 1/4"	6"
#7	2	5 1/4"	14"	9 3/4"	7"
	3	7"	15"	11 1/2"	8 3/4"
#8	2	6"	16"	11"	8"
	3	8"	17"	13 1/4"	10"
#9	1	9 1/2"	19 1/2"	15 1/2"	11 3/4"
#10	1	10 3/4"	22"	17 1/2"	13 1/4"
#11	1	12"	24 1/2"	19 1/2"	14 7/8"
#14	1	18 1/4"	31 1/4"	27 1/2"	21 5/8"
#18	1	24"	41 1/2"	36 1/4"	28 1/2"

Size	Case	D	A or G		H	J	
			90°	135°			180°
#4	2	2"	4 1/2"	4 1/2"	5"	2 5/8"	3"
	3	3"	5"	5 1/4"	6"	3"	4"
#5	2	2 1/2"	5 3/4"	5 3/4"	5 3/4"	3 3/8"	3 3/4"
	3	3 3/4"	6 1/4"	6 1/2"	7"	3 5/8"	5"
#6	1	4 1/2"	12"	7 3/4"	8 1/4"	4 3/8"	6"

Applicable for all grades of steel.
 Case 1 applies to all reinforcement. Case 2 applies to all reinforcement except for galvanized bars. Case 3 applies to galvanized bars only.



SHAPE 37S SHAPE 38S
BENDING DIAGRAMS

All dimensions are out to out.
 Shapes ending with an S shall be bent in accordance with stirrup pin bend shapes.
 Unless otherwise noted, finished bending diameter D is the same for all bends of a shape.

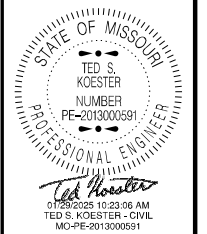
(1) Shall be a deformed or plain spiral bar or wire.
 Four angle or channel spacers are required for each column spiral. Spacers are to be placed on inside of spirals. Length and weight of column spirals do not include splices or spacers.

Reinforcing Steel Totals (Pounds)

Size	Substructure			Superstructure			Entire Bridge	
	Plain	Epoxy	Slip Form	Slab	Barrier	Slip Form	Plain	Epoxy
#5	0	0	0	0	0	0	0	0
4	0	1,694	0	0	0	0	0	1,694
5	0	7,516	0	2,840	100	0	0	10,456
6	0	973	0	0	0	0	0	973
7	0	15,419	0	0	0	0	0	15,419
8	0	7,885	0	0	0	0	0	7,885
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
By Type	0	33,487	0	2,840	100	0	0	36,427

All superstructure reinforcing steel shall be epoxy coated unless otherwise specified.

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS



STATE OF MISSOURI
 TED S. KOESTER
 NUMBER
 PE-2013000591
 PROFESSIONAL ENGINEER
 DATE PREPARED
 1/29/2025
 ROUTE
 J
 DISTRICT
 BR
 COUNTY
 CRAWFORD
 JOB NO.
 J5S3552
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO.
 A9487

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
 COMMISSION

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

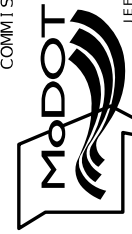


Table with 16 columns: No. Req., Size/Mark, Location, Codes, Dimensions (B-K), Nom. Length, Actual Length, Weight. Includes items like Culvert TOP SLAB, WALL, FOOTING, and various WING sections.

Table with 16 columns: No. Req., Size/Mark, Location, Codes, Dimensions (B-K), Nom. Length, Actual Length, Weight. Includes items like WING, WALL, FOOTING, and various WING sections.

Nominal lengths are based on out to out dimensions shown in bending diagrams and are listed to the nearest inch for fabricator's use. Actual lengths are measured along centerline bar to the nearest inch. Weights are based on actual lengths.

All bars shall be Grade 60. Codes: C = Required coatings, where E = Epoxy Coated and G = Galvanized. SH = Required shape, see bending diagrams.

For bending diagrams and steel reinforcing totals, see Sheet No. 9.

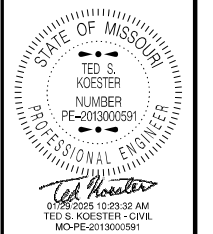
Detailed Dec. 2024
Checked Dec. 2024

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

BILL OF REINFORCING STEEL

Sheet No. 10 of 12

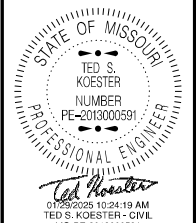
V = Sets of varied bars and number of bars of each length. Bar dimensions vary in equal increments between dimensions shown on this line and the following line and the actual length dimension shown on this line and the following line vary by the specified increment.



DATE PREPARED: 1/29/2025
ROUTE: J
STATE: MO
DISTRICT: BR
SHEET NO.: 10
COUNTY: CRAWFORD
JOB NO.: J553552
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9487

Table with 2 columns: DATE, DESCRIPTION. Includes dates 1/29/25 and descriptions like WING, WALL, FOOTING, etc.





DATE PREPARED 1/29/2025	
ROUTE J	STATE MO
DISTRICT BR	SHEET NO. 12
COUNTY CRAWFORD	
JOB NO. J5S3552	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9487	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

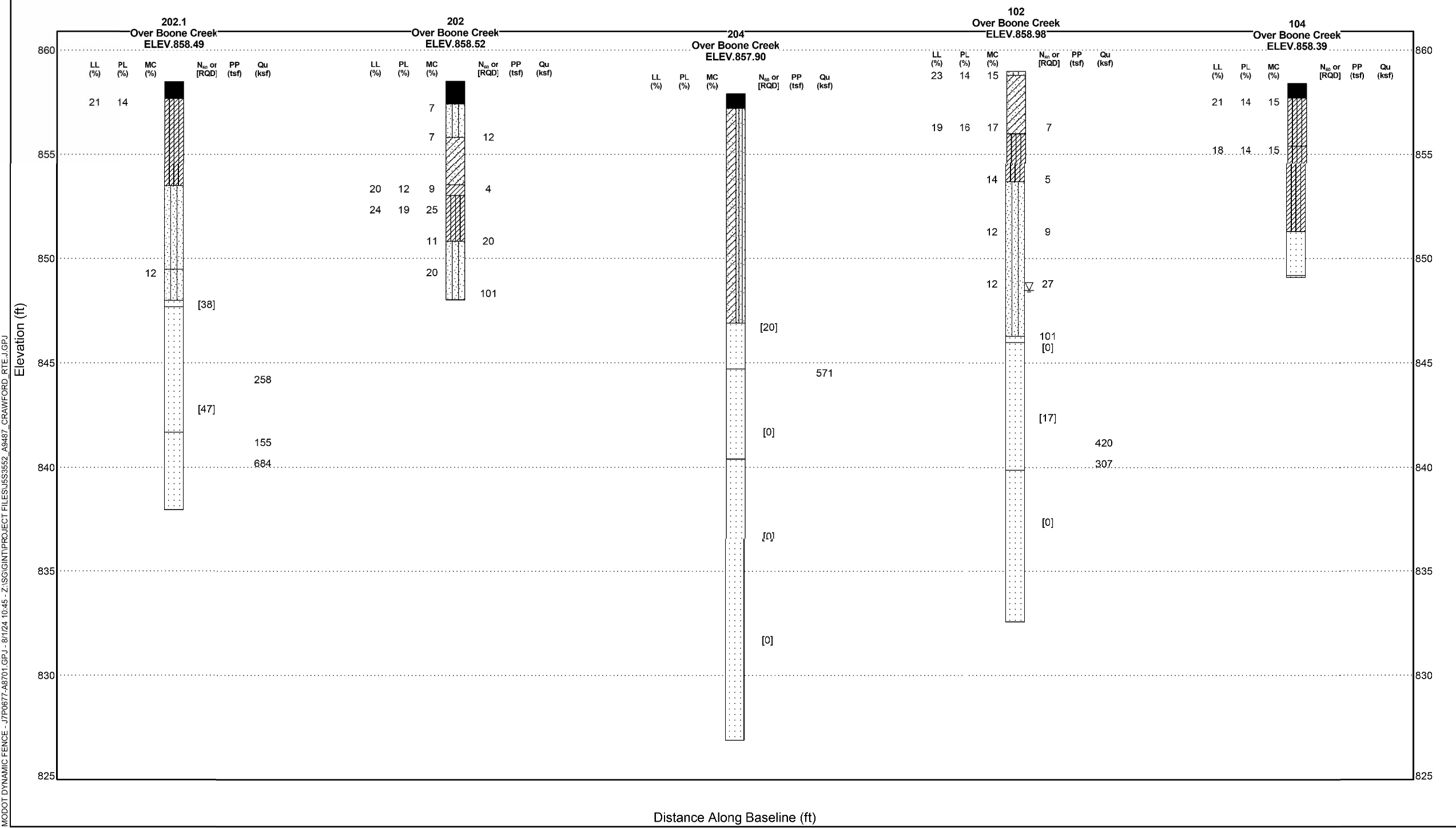
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



SUBSURFACE DIAGRAM

PROJECT NAME Route J Over Boone Creek
 PROJECT LOCATION Crawford
 CLIENT Central District
 PROJECT NUMBER J5S3552

	Topsoil		USCS Clayey Sand		USCS Low Plasticity Silty Clay
	USCS Silty Sand		Sandstone		Asphalt
	USCS Low Plasticity Clay		USCS Clayey Sand		



BORING DATA

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

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

Sheet No. 12 of 12

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