

DESIGN DESIGNATION

A.A.D.T. - 2024 = 5187
 A.A.D.T. - 2042 = 9855
 T = 11.5%
 V = 65 M.P.H.

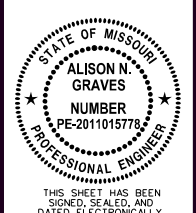
FUNCTIONAL CLASSIFICATION-PRINCIPAL ARTERIAL

NO NEW RIGHT OF WAY OR EASEMENTS REQUIRED

**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 PLANS FOR PROPOSED
 STATE HIGHWAY
 PHELPS COUNTY**

INDEX OF SHEETS

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J01154	1-10



DATE PREPARED
 1/6/2025
 ROUTE 63 STATE MO
 DISTRICT CD SHEET NO. 1
 COUNTY PHELPS
 JOB NO. J5P3537
 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)

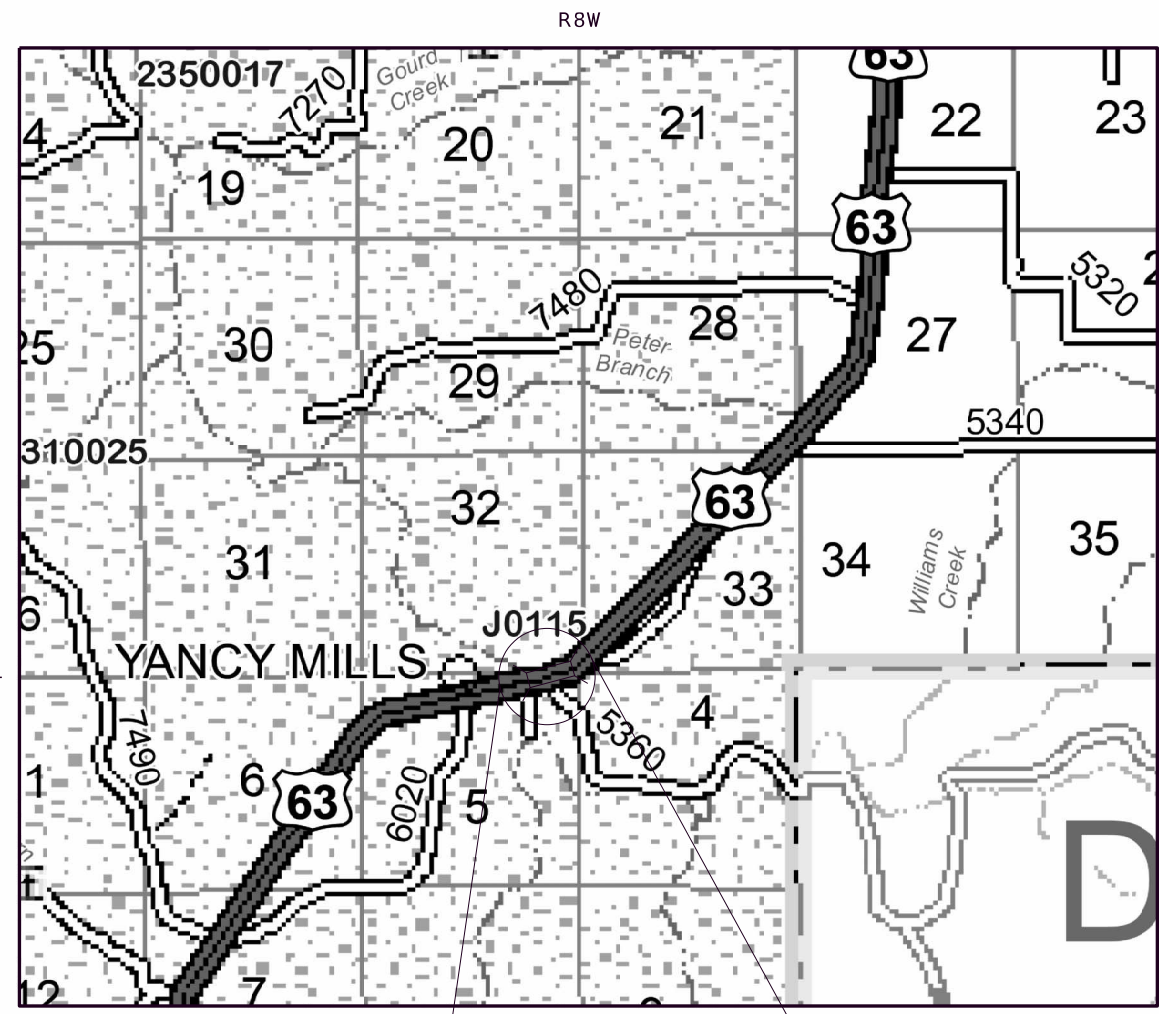
LENGTH OF PROJECT

BEGINNING OF PROJECT	STA. 77 + 45
END OF PROJECT	STA. 93 + 56
APPARENT LENGTH	1611 FEET
EQUATIONS AND EXCEPTIONS:	
STA. 81+74.51 BK = STA. 81+80.20 AH	

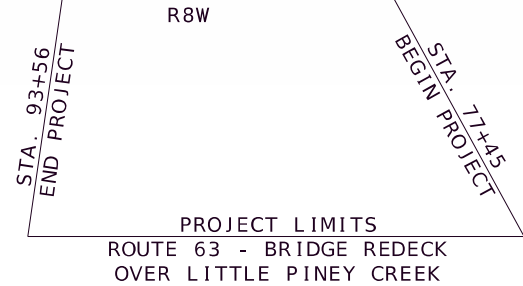
TOTAL CORRECTIONS	-5.69 FEET
NET LENGTH OF PROJECT	1605.31 FEET
STATE LENGTH	0.304 MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	0.5 ACRES

5220 Oakland Ave.
 St. Louis, MO 63110
 (314) 863-5570

 CIVIL DESIGN, INC.
 Missouri State Certificate of Authority #2020004804



NOT TO SCALE



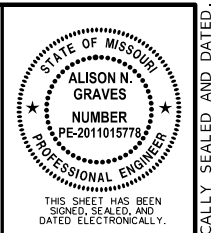
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CONVENTIONAL SYMBOLS (USED IN PLANS)

	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	-V-	-V-
WOVEN WIRE	-X-	-X-
GATE POST		
BENCHMARK		

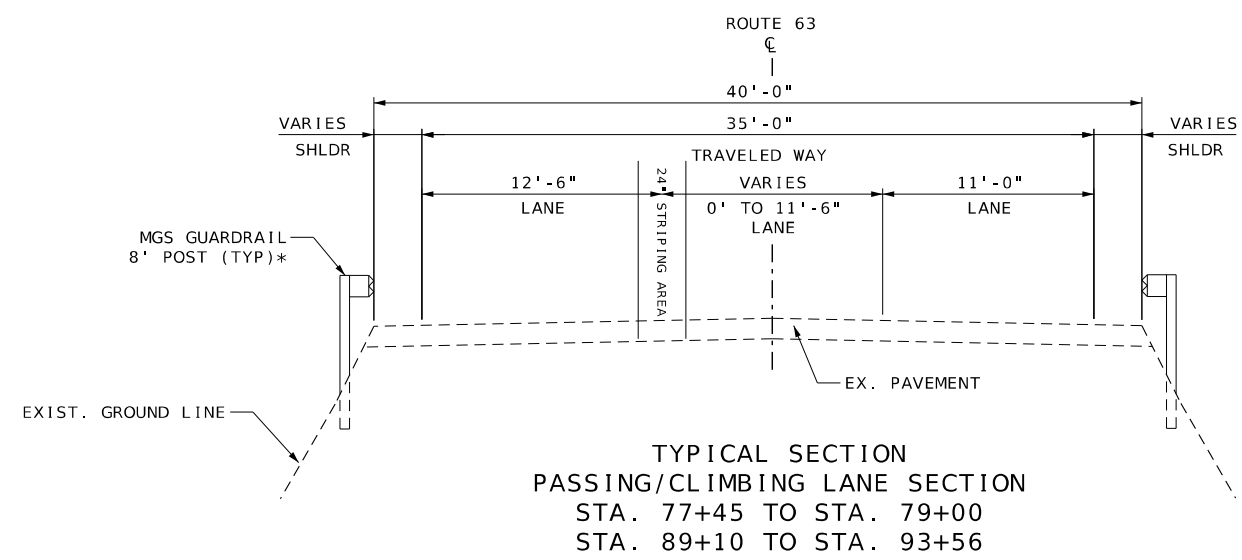
NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES



APPLICATION RATES:

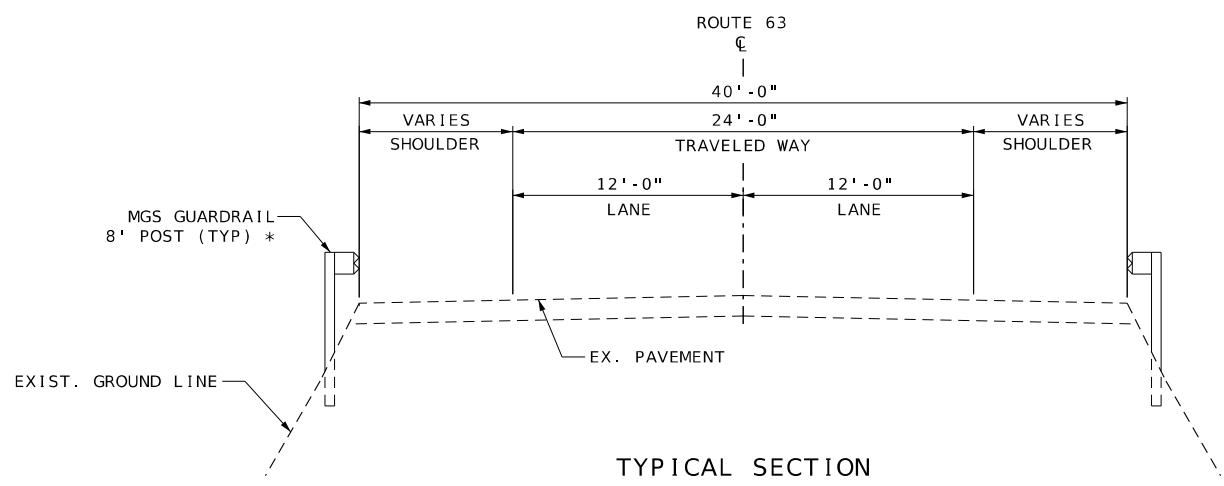
BP-1 (PG64-22) 1.948 TON/CUYD COMPACTED MIXTURE
 TACK COAT 0.10 GAL/SQYD

DATE PREPARED 12/30/2024	
ROUTE 63	STATE MO
DISTRICT CD	SHEET NO. 2
COUNTY PHELPS	
JOB NO. J5P3537	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

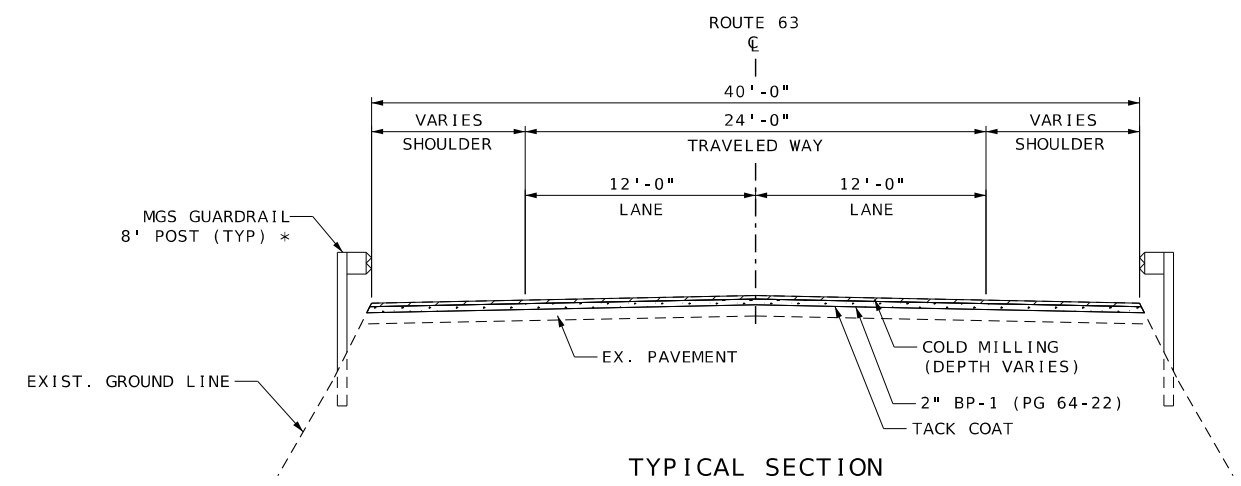


**TYPICAL SECTION
 PASSING/CLIMBING LANE SECTION
 STA. 77+45 TO STA. 79+00
 STA. 89+10 TO STA. 93+56**

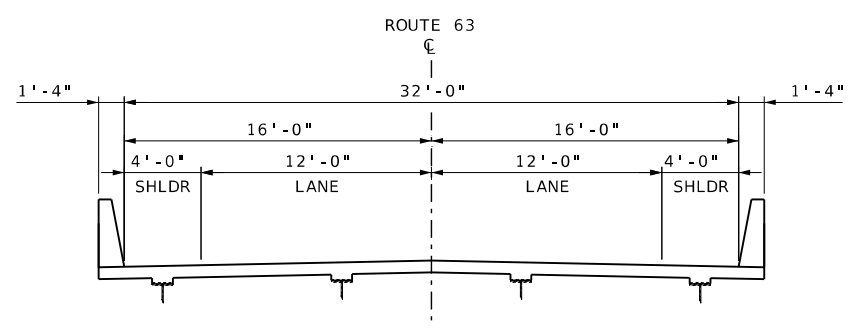
* SEE PLAN SHEET FOR GUARDRAIL STATION RANGES



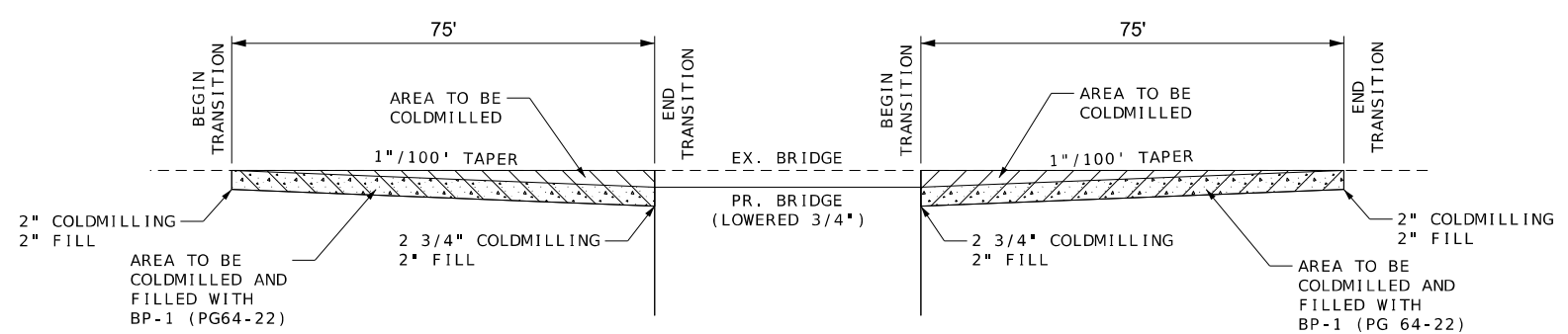
**TYPICAL SECTION
 TWO-LANE SECTION
 STA. 79+00 TO STA. 83+40
 STA. 88+30 TO STA. 89+10**



**TYPICAL SECTION
 TWO-LANE SECTION - MILL & OVERLAY
 STA. 83+40 TO STA. 84+15
 STA. 87+55 TO STA. 88+30**



**BRIDGE TYPICAL SECTION
 STA. 84+15 TO STA. 87+55**



**100:1 COLDMILL
 AT BRIDGE ENDS
 SEE PLANS FOR LOCATION**

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
 COMMISSION

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

5220 Oakland Ave.
 St. Louis, MO 63110
 (314) 863-5570

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 Missouri State Certificate of Authority #2002006804

REMOVAL OF IMPROVEMENTS						
BEGIN STATION	END STATION	SIDE	DESCRIPTION	AMOUNT		
				EA	LF	SY
77+45	84+15	RT	GUARDRAIL		675	
80+70	84+15	LT	GUARDRAIL		366	
84+10		LT	OBJECT MARKER SIGN	1		
84+10		RT	OBJECT MARKER SIGN	1		
84+10		RT	PINEY CREEK SIGN	1		
87+60		LT	PINEY CREEK SIGN	1		
87+60		RT	OBJECT MARKER SIGN	1		
87+55	93+15	LT	GUARDRAIL		597	
87+55	93+56	RT	GUARDRAIL		619	
			SUBTOTAL	5	2,248	
			TOTAL	1 LUMP SUM		

PAVEMENT					
PLAN SHEET	BEGIN STATION	END STATION	COLDMILLING BITUMINOUS PAVEMENT FOR REMOVAL OF SURFACING (3 IN. THICK OR LESS)	BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1)	TACK COAT
4	83+40	84+15		270.4	270
4	87+55	88+30		275.4	275
		SUBTOTAL		545.8	545
			2" DEPTH		
			X 1.948 TONS/CY	X 0.1 GAL/SY	
			SY	TONS	GALLON
		TOTAL	545	59.1	55

UNDILUTED TACK COAT APPLICATION RATES PER EPG TABLE 407.1.4 USED: 0.05 FOR NEW ASPHALT SURFACES, 0.10 FOR COLDMILLED ASPHALT SURFACES

GUARDRAIL						
PLAN SHEET	BEGIN STATION	END STATION	SIDE	MGS GUARDRAIL	MGS BRIDGE APPR.	MGS END ANCHOR
				8 FT. POSTS	GUARDRAIL SECTION (REGULAR/NO CURB)	
				LF	EA	EA
4	77+45	84+15	RT	637.5	1	1
4	80+70	84+15	LT	312.5	1	1
4	87+55	93+56	RT	562.5	1	1
4	87+55	93+15	LT	537.5	1	1
		TOTAL		2050	4	4

NOTE: GUARDRAIL LENGTHS DO NOT INCLUDE LENGTHS FOR END, TERMINAL, ANCHOR, TRANSITION SECTIONS OR BULLNOSE

PERMANENT PAVEMENT MARKING						
PLAN SHEET	BEGIN STATION	END STATION	SIDE	WATERBORNE W/ TYPE L BEADS		REMARKS
				4 INCH YELLOW	6 INCH WHITE	
				LF	LF	
9	80+28	89+10	CENTER	1764		DOUBLE SOLID YELLOW
9	83+40	90+07	RIGHT		667	SOLID WHITE
9	83+40	89+96	LEFT		656	SOLID WHITE
9	89+10	93+70	CENTER	1380		TRIPLE SOLID YELLOW
		TOTAL		3144	1323	

CONTRACTOR FURNISHED SURVEYING AND STAKING
TOTAL = 1 LUMP SUM

CLEARING AND GRUBBING
TOTAL (ACRE) 1.0

MOBILIZATION
TOTAL = 1 LUMP SUM

PAVEMENT MARKING REMOVAL				
BEGIN STATION	END STATION	SIDE	DESCRIPTION	PAVEMENT MARKING REMOVAL
				LF
80+28	93+70	CENTER	PAVEMENT MARKING	700
83+40	90+07	RT	PAVEMENT MARKING	340
83+55	91+45	LT	PAVEMENT MARKING	305
			TOTAL	1345

TEMPORARY PAVEMENT MARKING					
PLAN SHEET	BEGIN STATION	END STATION	SIDE	4 INCH WHITE TEMPORARY PAVEMENT MARKING PAINT	REMARKS
				LF	
6	83+55	89+95	LT	642	ST1 SOLID WHITE
6	82+60	91+45	RT	884	ST1 SOLID WHITE
7	82+43	91+42	LT	901	ST2 SOLID WHITE
7	83+40	90+07	RT	668	ST2 SOLID WHITE
			TOTAL	3095	

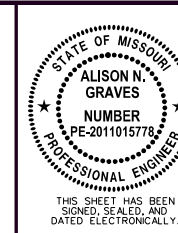
PERMANENT EROSION CONTROL					
PLAN SHEET	BEGIN STATION	END STATION	FURNISHING	PLACING	REMARKS
			TYPE 2 ROCK BLANKET	TYPE 2 ROCK BLANKET	
			CY	CY	
4	85+78	86+31	348	348	SCOUR HOLE
		TOTAL	348	348	

TEMPORARY EROSION CONTROL						
PLAN SHEET	BEGIN STATION	END STATION	SIDE	SILT FENCE	SEDIMENT REMOVAL	TEMPORARY TYPE C BERM
				LF	CY	LF
8	77+50	84+15	RT	662	7	
8	80+75	84+15	LT	336	3	
8	87+55	93+05	LT	578	6	
8	87+55	93+50	RT	602	6	
8	84+29	84+56	RT/LT			148
8	86+80	87+10	RT/LT			148
		TOTAL		2178	22	296

NOTE: SEDIMENT REMOVAL IS BASED ON 1 CY PER DITCH CHECK, 1 CY PER 100 FT OF SILT FENCE

SEEDING - WARM SEASON GRASSES
TOTAL (ACRE) 1.0

MULCHING
TOTAL (ACRE) 1.0



DATE PREPARED
1/6/2025
ROUTE 63 STATE MO
DISTRICT CD SHEET NO. 3
COUNTY PHELPS
JOB NO. J5P3537
CONTRACT ID.

PROJECT NO.
BRIDGE NO.

DATE	DESCRIPTION

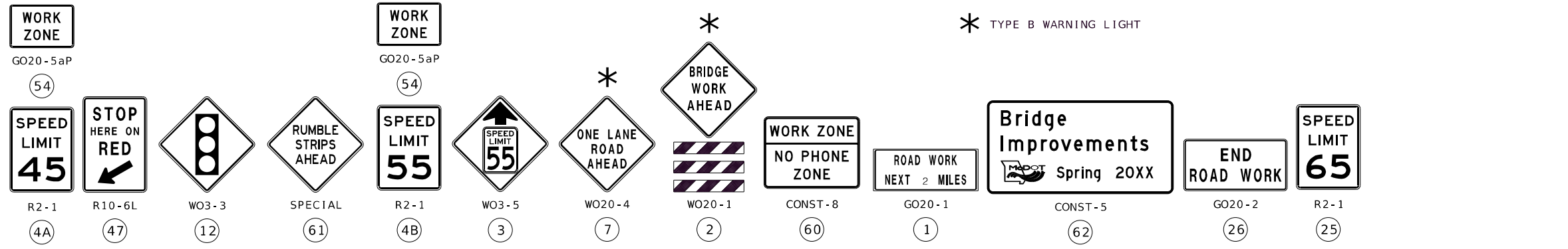


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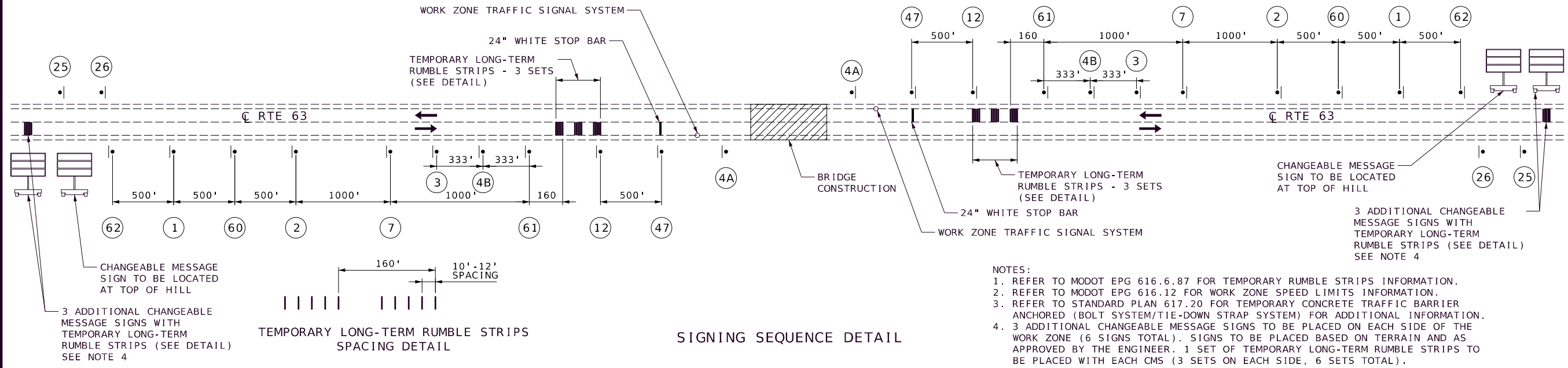


IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

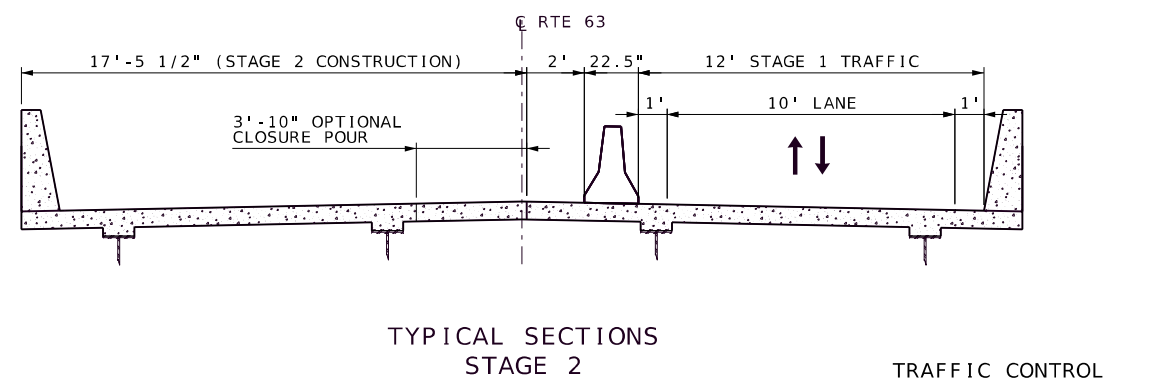
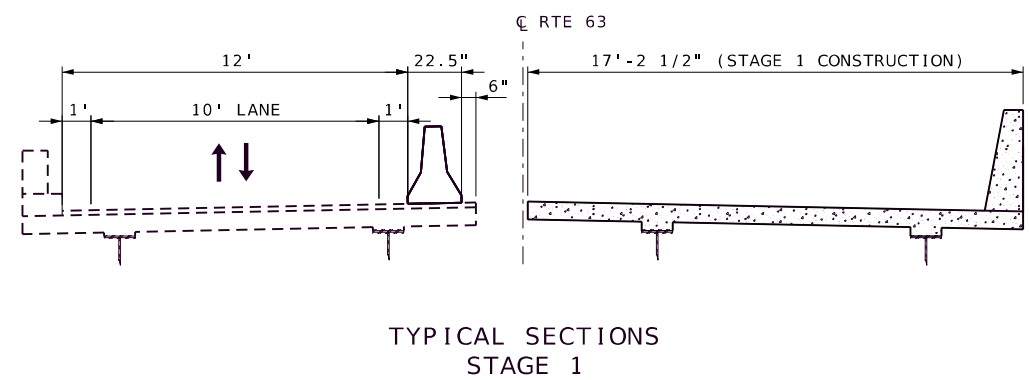
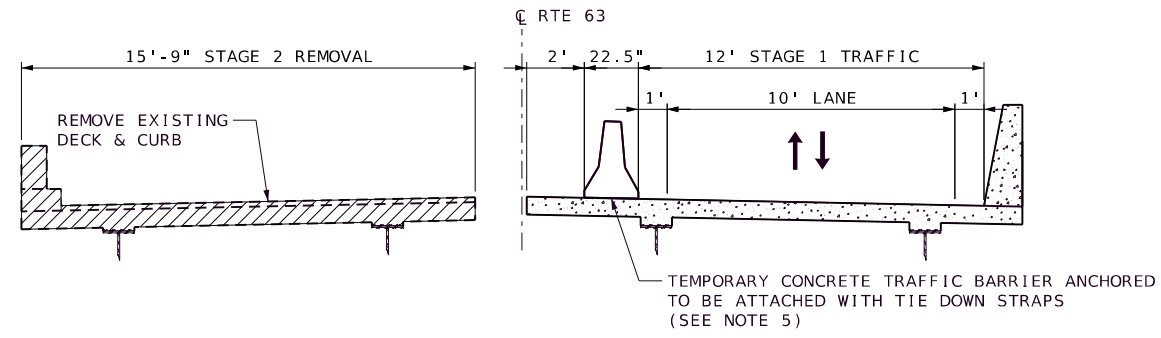
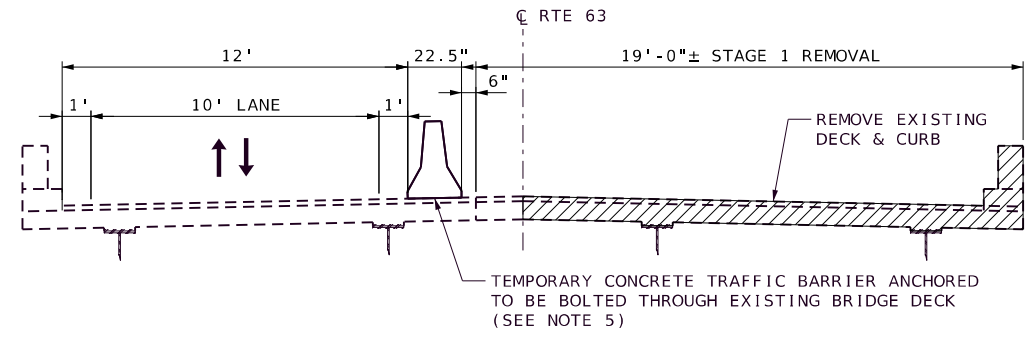
SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION	SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION	ITEM NUMBER	TOTAL QTY	EFFECTIVE: 07-01-2024	
																				DESCRIPTION	
WARNING SIGNS									GUIDE SIGNS									IMPACT ATTENUATOR 40 MPH (SAND BARRELS)			
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT)	E05-1	36X48	12.00						GORE EXIT	6122008		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)	
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT)	E05-2	48X36	12.00						EXIT OPEN	6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)	
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT)	E05-2a	48X36	12.00						EXIT CLOSED	6122012	2	IMPACT ATTENUATOR 55 MPH (SAND BARRELS)	
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT)	GO20-1	60X24	10.00	2	20.00				ROAD WORK NEXT XX MILES	6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)	
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT)	GO20-2	48X24	8.00	2	16.00				END ROAD WORK	6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)	
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT)	GO20-4	36X18	4.50						PILOT CAR FOLLOW ME	6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)	
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT)	GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW	6122020	2	REPLACEMENT SAND BARREL	
WO1-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT)	GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW	6122030	2	IMPACT ATTENUATOR (RELOCATION)	
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)	GO20-5aP	36X24	6.00	4	24.00				WORK ZONE (PLAQUE)	6123001	1	TRUCK MOUNTED ATTENUATOR (TMA)	
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4-8a	24X18	3.00						END DETOUR	6161008	2	ADVANCED WARNING RAIL SYSTEM	
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)	MO4-9L	48X36	12.00						DETOUR (LEFT)	6161012		BUOYS (BOATS KEEP OUT)	
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4-9R	48X36	12.00						DETOUR (RIGHT)	6161013		BUOYS (NO WAKE)	
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)	MO4-9P	48X12	4.00						STREET NAME (PLAQUE)	6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)	
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)	MO4-10L	48X18	6.00						DETOUR ARROW (LEFT)	6161025		CHANNELIZER (TRIM LINE)	
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)	MO4-10R	48X18	6.00						DETOUR ARROW (RIGHT)	6161030		TYPE III MOVEABLE BARRICADE	
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)	REGULATORY SIGNS									6161033		DIRECTION INDICATOR BARRICADE	
WO1-8	18X24	3.00						CHEVRON (SYMBOL)	R1-1	48X48	13.25						STOP	6161040		FLASHING ARROW PANEL	
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)	R1-2	48TRI.	6.93						YIELD	6161047		TYPE III OBJECT MARKER	
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)	R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)	6161055		SEQUENTIAL FLASHING WARNING LIGHT	
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)	R1-3P	30X12	2.50						ALL WAY (PLAQUE)	6161070		TUBULAR MARKER	
WO3-3	48X48	16.00	2	32.00				SIGNAL AHEAD (SYMBOL)	R2-1	36X48	12.00	6	72.00				SPEED LIMIT XX	6161095		RADAR SPEED ADVISORY SYSTEM	
WO3-4	48X48	16.00						BE PREPARED TO STOP	R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)			CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED	
WO3-5	48X48	16.00	2	32.00				SPEED LIMIT AHEAD	R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)	6161096		CHANGEABLE MESSAGE SIGN WITHOUT COMM. INTERFACE- CONTRACTOR FURNISHED/RETAINED	
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)	R3-3	36X36	9.00						NO TURNS			CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE- CONTRACTOR FURNISHED/RETAINED	
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)	R3-4	48X48	16.00						NO U-TURN (SYMBOL)	6161098A	8	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			TEMPORARY LONG-TERM RUMBLE STRIPS	
WO4-1aR	48X48	16.00						MERGE (RIGHT)	R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT	6161099		TEMPORARY TRAFFIC BARRIER	
WO5-1	48X48	16.00						ROAD/BRIDGE/RAMP NARROWS	R4-1	36X48	12.00						DO NOT PASS	6162000A	1	WORK ZONE TRAFFIC SIGNAL SYSTEM	
WO5-3	48X48	16.00						ONE LANE BRIDGE	R4-2	36X48	12.00						PASS WITH CARE	6162002	12	TEMPORARY TRAFFIC BARRIER	
WO5-5	48X48	16.00						NARROW LANES	R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)			CONTRACTOR FURNISHED/COMMISSION RETAINED	
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)	R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)	6173600D	1200	TEMPORARY TRAFFIC BARRIER	
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)	R5-1	30X30	6.25						DO NOT ENTER			CONTRACTOR FURNISHED/COMMISSION RETAINED	
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)	R5-1a	36X24	6.00						WRONG WAY	6173602B		TEMPORARY TRAFFIC BARRIER	
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)	R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)	6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION	
WO8-1	48X48	16.00						BUMP	R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)	6175010A	1200	RELOCATING TEMPORARY TRAFFIC BARRIER	
WO8-2	48X48	16.00						DIP	R6-2L	24X30	5.00						ONE WAY (LEFT)			TEMPORARY TRAFFIC BARRIER	
WO8-3	48X48	16.00						PAVEMENT ENDS	R6-2R	24X30	5.00						ONE WAY (RIGHT)	6176000B		COMMISSION FURNISHED/RETAINED	
WO8-4	48X48	16.00						SOFT SHOULDER	R9-9	24X12	2.00						SIDEWALK CLOSED			TEMP. TRAFFIC BARRIER HEIGHT TRANSITION	
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)									SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE	6177000B		COMMISSION FURNISHED/RETAINED	
WO8-6	48X48	16.00						TRUCK CROSSING	R9-11L	24X18	3.00						(ARROW RIGHT) CROSS HERE	6208064A		TEMPORARY RAISED PAVEMENT MARKER	
WO8-6c	48X48	16.00						TRUCK ENTRANCE	R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE	9029400		TEMPORARY TRAFFIC SIGNALS	
WO8-7	36X36	9.00						LOOSE GRAVEL	R10-6	24X36	6.00	2	12.00				STOP HERE ON RED (45° ARROW)	9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING	
WO8-7a	36X36	9.00						FRESH OIL / LOOSE GRAVEL	R11-2	48X30	10.00						ROAD CLOSED				
WO8-9	48X48	16.00						LOW SHOULDER									ROAD CLOSED XX MILES AHEAD				
WO8-11	48X48	16.00						UNEVEN LANES	R11-3a	60X30	12.50						LOCAL TRAFFIC ONLY				
WO8-12	48X48	16.00						NO CENTER LINE	R11-4	60X30	12.50						ROAD CLOSED TO THRU TRAFFIC				
WO8-15	48X48	16.00						GROOVED PAVEMENT	CONST-3A	60X48	20.00						FINE SIGN				
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)	CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)				
WO8-17L	48X48	16.00						SHOULDER DROP-OFF (SYMBOL LEFT)	MISCELLANEOUS SIGNS												
WO8-17R	48X48	16.00						SHOULDER DROP-OFF (SYMBOL RIGHT)	CONST-5	48X36	12.00						POINT OF PRESENCE				
WO8-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)	CONST-5	96X48	32.00	2	64.00				POINT OF PRESENCE				
W10-1	42RND.	9.62						RAILROAD CROSSING	CONST-8	48X36	12.00	2	24.00				WORK ZONE NO PHONE ZONE				
WO12-1	24X24	4.00						DOUBLE DOWN ARROW (SYMBOL)	SPECIAL	48X48	16.00	2	32.00				RUMBLE STRIPS AHEAD				
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	2	32.00				ROAD/BRIDGE/RAMP WORK AHEAD	616-10.05 CONSTRUCTION SIGNS									TOTAL			
WO20-2	48X48	16.00						DETOUR AHEAD	616-10.10 RELOCATED SIGNS									TOTAL	0		
WO20-3	48X48	16.00						ROAD CLOSED AHEAD													
WO20-4	48X48	16.00	2	32.00				ONE LANE ROAD AHEAD													
WO20-5	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED AHEAD													
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				</															



* TYPE B WARNING LIGHT

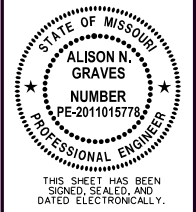


- NOTES:
 1. REFER TO MODOT EPG 616.6.87 FOR TEMPORARY RUMBLE STRIPS INFORMATION.
 2. REFER TO MODOT EPG 616.12 FOR WORK ZONE SPEED LIMITS INFORMATION.
 3. REFER TO STANDARD PLAN 617.20 FOR TEMPORARY CONCRETE TRAFFIC BARRIER ANCHORED (BOLT SYSTEM/TIE-DOWN STRAP SYSTEM) FOR ADDITIONAL INFORMATION.
 4. 3 ADDITIONAL CHANGEABLE MESSAGE SIGNS TO BE PLACED ON EACH SIDE OF THE WORK ZONE (6 SIGNS TOTAL). SIGNS TO BE PLACED BASED ON TERRAIN AND AS APPROVED BY THE ENGINEER. 1 SET OF TEMPORARY LONG-TERM RUMBLE STRIPS TO BE PLACED WITH EACH CMS (3 SETS ON EACH SIDE, 6 SETS TOTAL).



TYPICAL SECTIONS
STAGE 1

TYPICAL SECTIONS
STAGE 2



DATE PREPARED
1/31/2025
ROUTE 63 STATE MO
DISTRICT CD SHEET NO. 5

COUNTY
PHELPS
JOB NO.
J5P3537
CONTRACT ID.

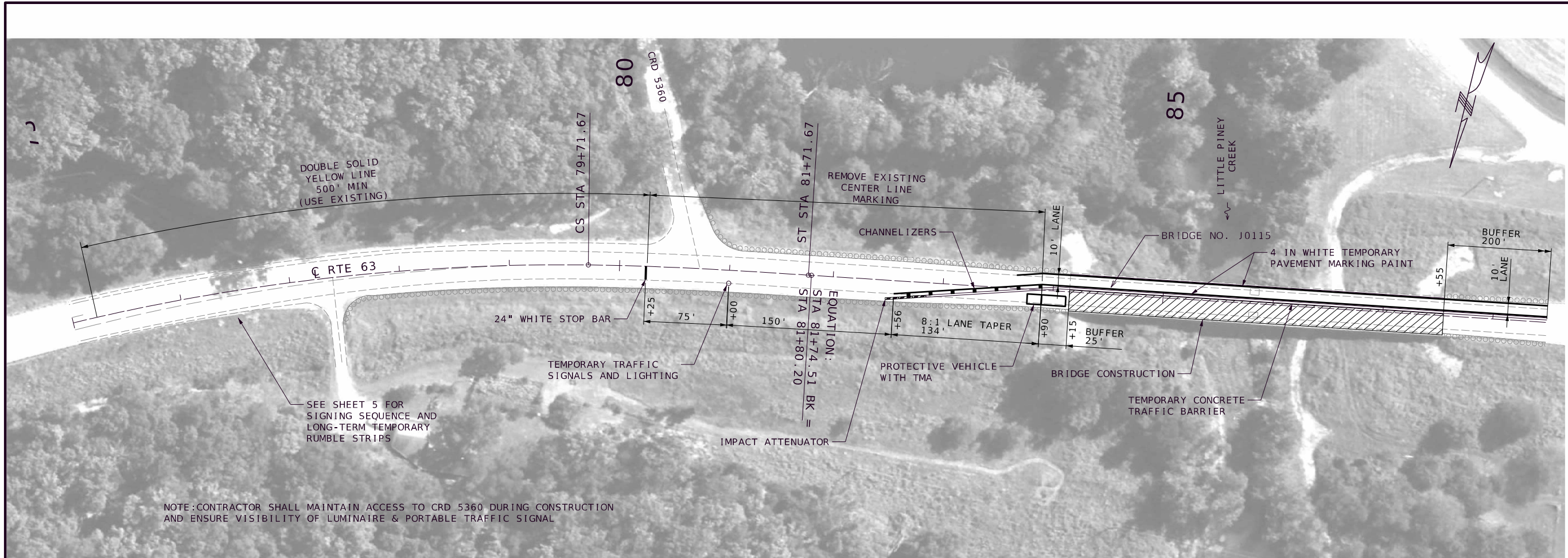
PROJECT NO.

BRIDGE NO.

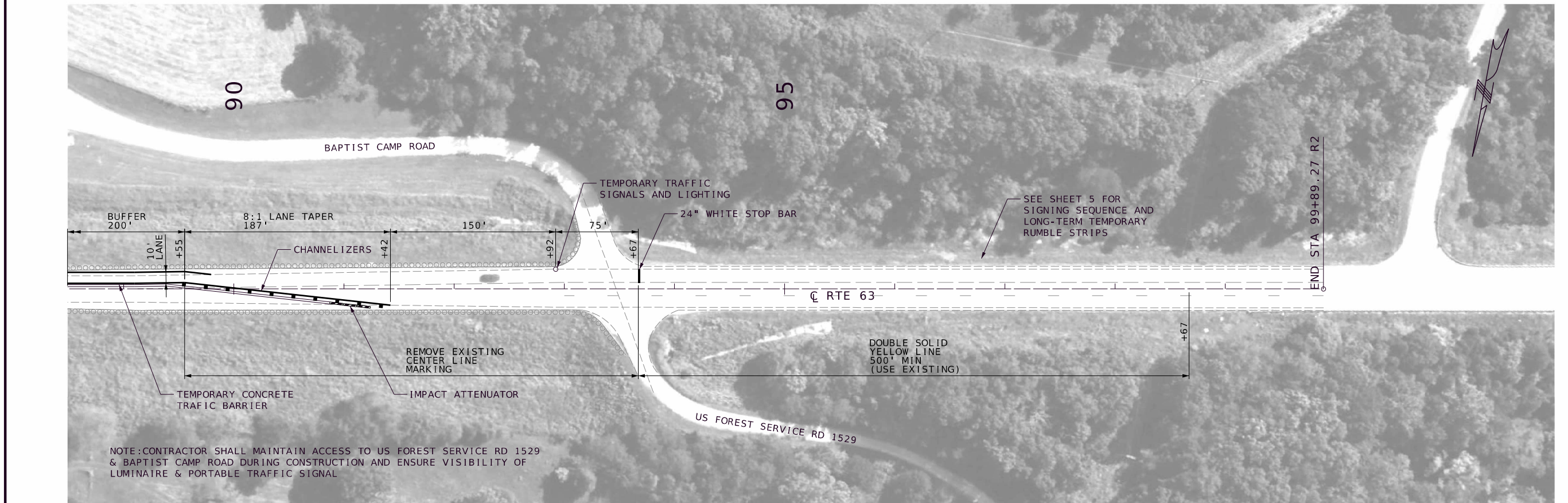
DESCRIPTION	DATE

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

5220 Oakland Ave.
 St. Louis, MO 63110
 (314) 863-5570
 CDI
 CIVIL DESIGN, INC.
 Missouri State Certificate of Authority #2002006804



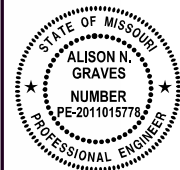
NOTE: CONTRACTOR SHALL MAINTAIN ACCESS TO CRD 5360 DURING CONSTRUCTION AND ENSURE VISIBILITY OF LUMINAIRE & PORTABLE TRAFFIC SIGNAL



NOTE: CONTRACTOR SHALL MAINTAIN ACCESS TO US FOREST SERVICE RD 1529 & BAPTIST CAMP ROAD DURING CONSTRUCTION AND ENSURE VISIBILITY OF LUMINAIRE & PORTABLE TRAFFIC SIGNAL

TEMPORARY TRAFFIC CONTROL
STAGE 1

TRAFFIC CONTROL
SHEET 2 OF 3



THIS SHEET HAS BEEN SIGNED, SEALED, AND DATED ELECTRONICALLY.

DATE PREPARED
12/30/2024

ROUTE STATE
63 MO

DISTRICT SHEET NO.
CD 6

COUNTY
PHELPS

JOB NO.
J5P3537

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

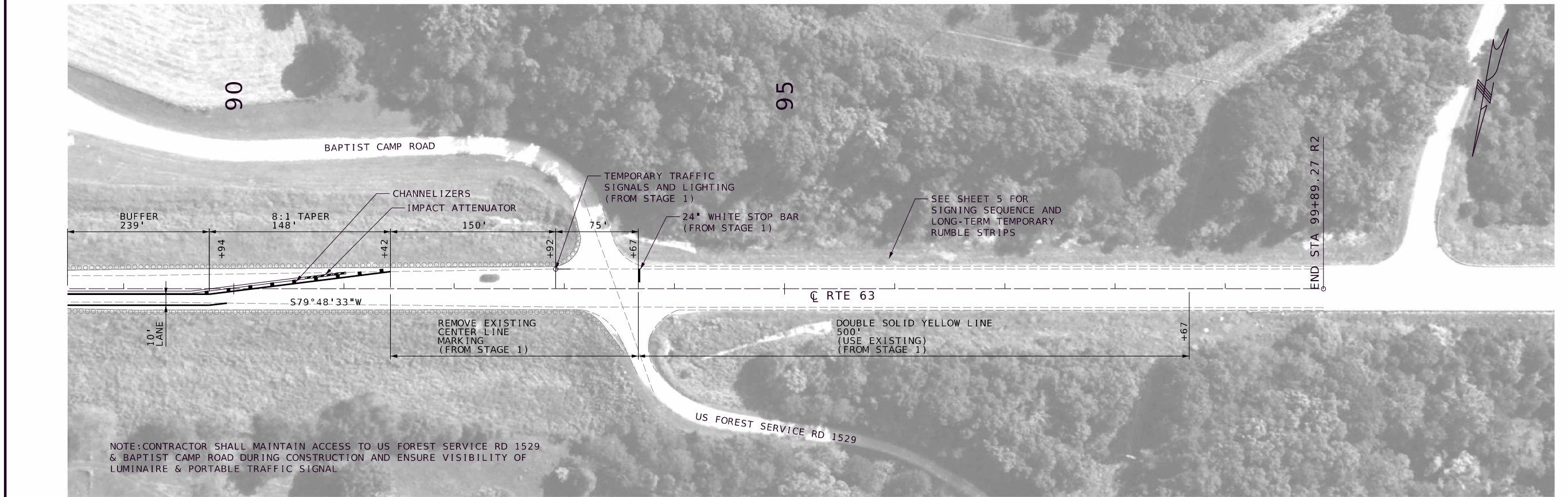
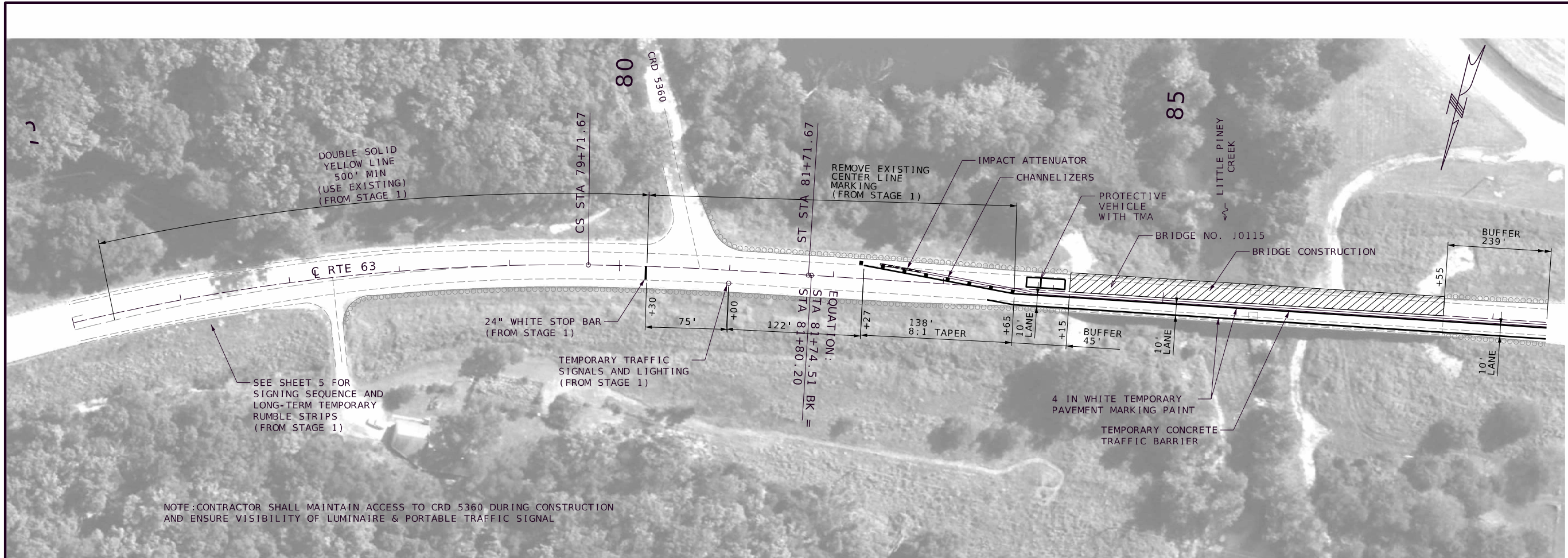
MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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JEFFERSON CITY, MO 65102
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5220 Oakland Ave.
St. Louis, MO 63110
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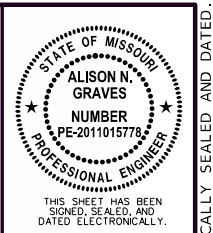
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TEMPORARY TRAFFIC CONTROL
STAGE 2

TRAFFIC CONTROL
SHEET 3 OF 3



DATE PREPARED 12/30/2024	
ROUTE 63	STATE MO
DISTRICT CD	SHEET NO. 7
COUNTY PHELPS	
JOB NO. J5P3537	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

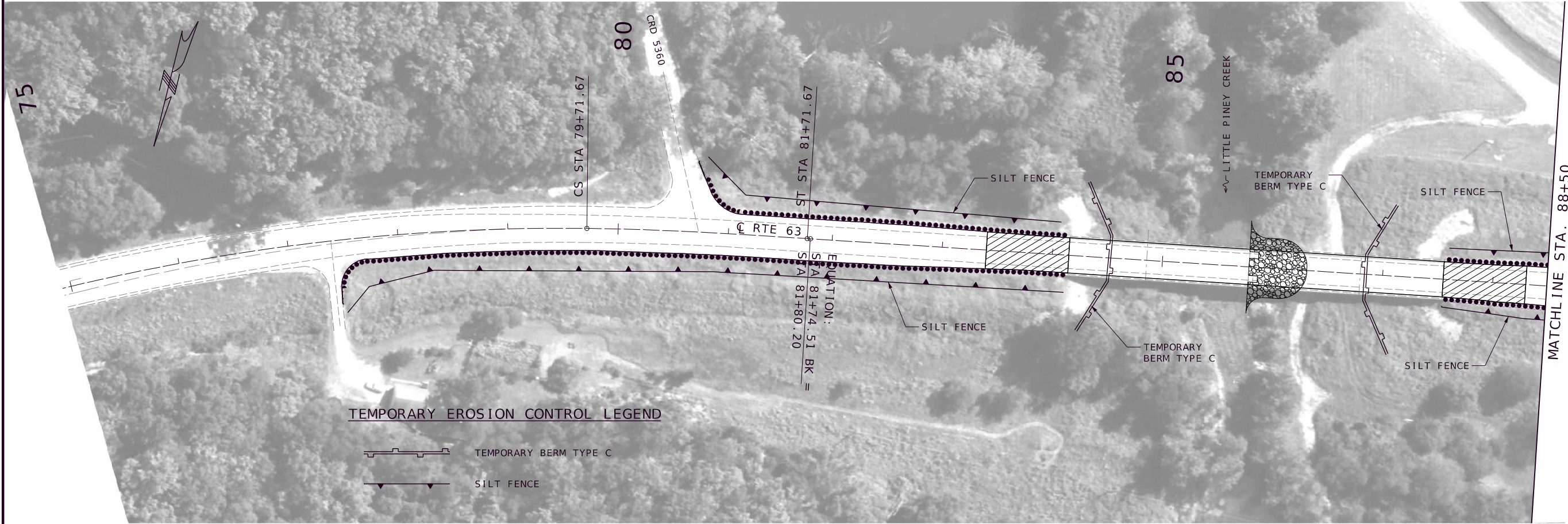
MISSOURI HIGHWAYS AND TRANSPORTATION
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JEFFERSON CITY, MO 65102
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5220 Oakland Ave.
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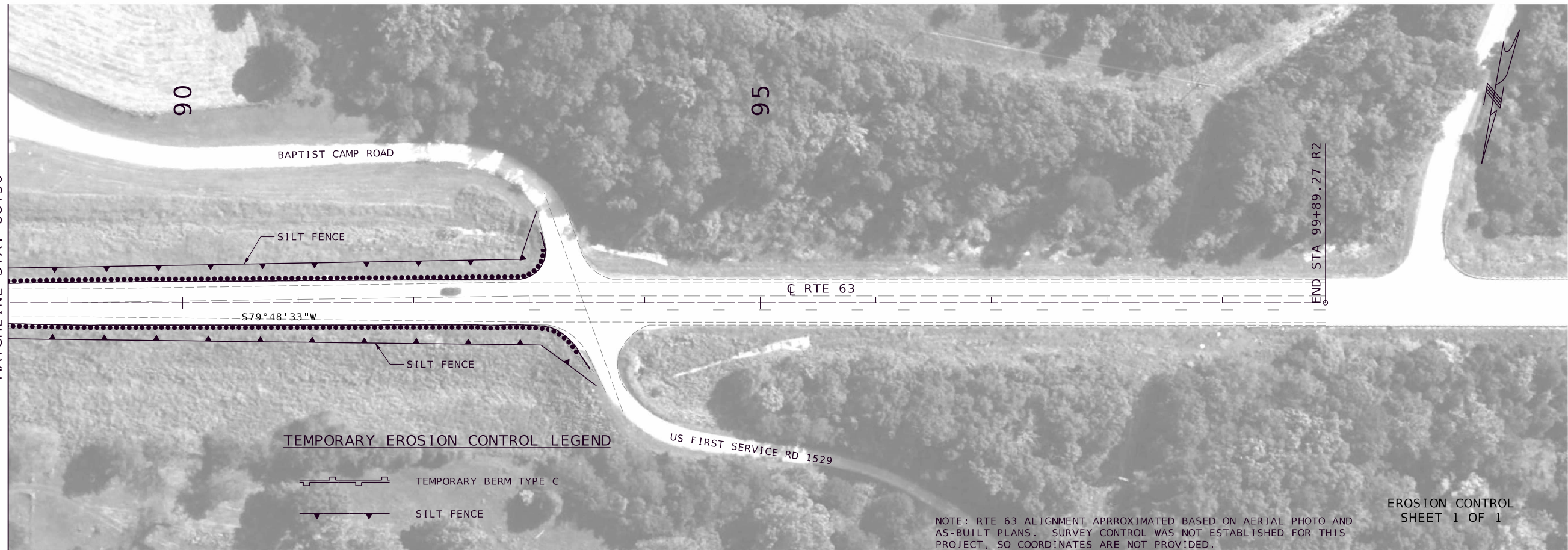
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TEMPORARY EROSION CONTROL LEGEND

- TEMPORARY BERM TYPE C
- SILT FENCE



TEMPORARY EROSION CONTROL LEGEND

- TEMPORARY BERM TYPE C
- SILT FENCE

NOTE: RTE 63 ALIGNMENT APPROXIMATED BASED ON AERIAL PHOTO AND AS-BUILT PLANS. SURVEY CONTROL WAS NOT ESTABLISHED FOR THIS PROJECT, SO COORDINATES ARE NOT PROVIDED.

EROSION CONTROL SHEET 1 OF 1



THIS SHEET HAS BEEN SIGNED, SEALED, AND DATED ELECTRONICALLY.

DATE PREPARED
12/30/2024
ROUTE STATE
63 MO
DISTRICT SHEET NO.
CD 8

COUNTY
PHELPS
JOB NO.
J5P3537
CONTRACT ID.

PROJECT NO.
BRIDGE NO.

DATE	DESCRIPTION

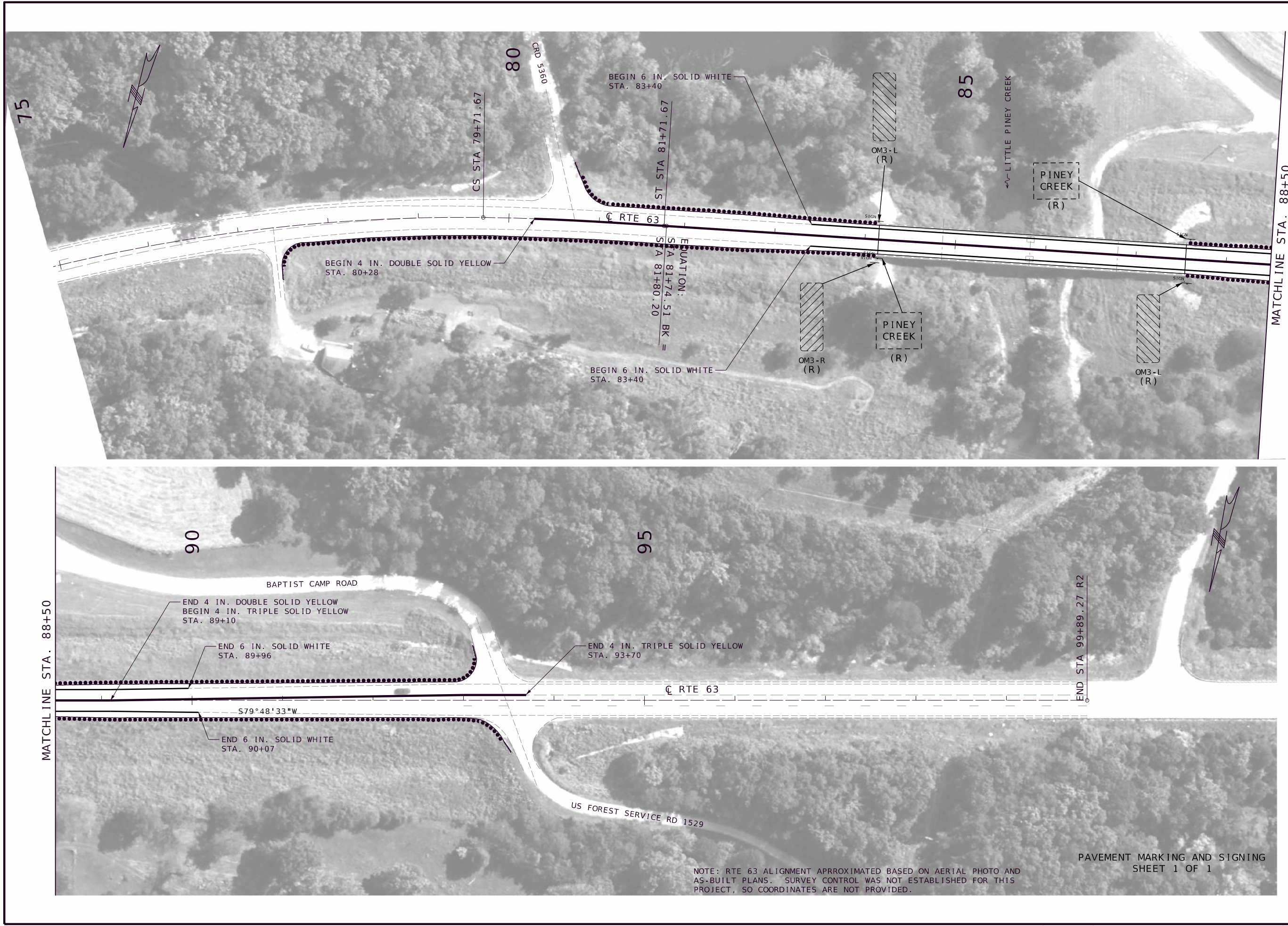
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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5220 Oakland Ave.
 St. Louis, MO 63110
 (314) 863-5570

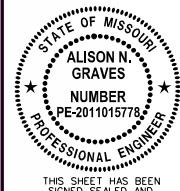


IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



NOTE: RTE 63 ALIGNMENT APPROXIMATED BASED ON AERIAL PHOTO AND AS-BUILT PLANS. SURVEY CONTROL WAS NOT ESTABLISHED FOR THIS PROJECT, SO COORDINATES ARE NOT PROVIDED.

PAVEMENT MARKING AND SIGNING
SHEET 1 OF 1



THIS SHEET HAS BEEN SIGNED, SEALED, AND DATED ELECTRONICALLY.

DATE PREPARED
12/30/2024

ROUTE STATE
63 MO

DISTRICT SHEET NO.
CD 9

COUNTY
PHELPS

JOB NO.
J5P3537

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

U.I.P. AND REDECK EXISTING (73'- 97'- 97'- 73') CONTINUOUS COMPOSITE PLATE GIRDER SPANS



DATE PREPARED 12/30/2024	
ROUTE 63	STATE MO
DISTRICT BR	SHEET NO. 1
COUNTY PHELPS	
JOB NO. J5P3537	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. J01154	

Int. Bent No. 2 (S2)	Int. Bent No. 3 (S4)	Int. Bent No. 4 (S2)
Span 1	Span 2	Span 3
27'-0"	22'-8"	27'-10"
Span 2	Span 3	Span 4
27'-10"	22'-8"	27'-0"

Bar Size	Splice Length
4	2'-7"
5	3'-3"
6	3'-10"
7	4'-11"

** Unless otherwise shown.

General Notes:

Design Specifications:
2002 AASHTO LFD (17th Ed.) Standard Specifications
Seismic Performance Category A

Design Loading:
H20-44 (1965) (Existing)
HS20-44 (New Construction)
35 lb/sf Future Wearing Surface
Earth - 120 lb/cf, Equivalent Fluid Pressure 45 lb/cf
Fatigue Stress - Case III

Design Unit Stresses:
Class B-1 Concrete (Barrier) $f'c = 4,000$ psi
Class B-2 Concrete (End Bents & Superstructure, except Barrier) $f'c = 4,000$ psi
Reinforcing Steel (ASTM A615 Grade 60) $f_y = 60,000$ psi

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.

MBS refers to mechanical bar splices. Mechanical bar splices shall be in accordance with Sec 706 or 710.

Traffic Handling:
Traffic to be maintained on Structure during construction. See roadway plans for traffic control and Sheet No. 3 for staged construction details.

Miscellaneous:
Bars bonded in existing concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, existing bars shall extend into new concrete at least 40 diameters for plain bars and 30 diameters for deformed bars, unless otherwise noted.

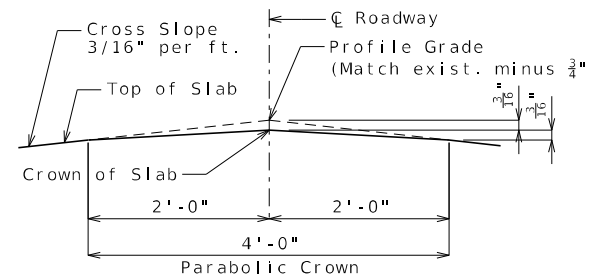
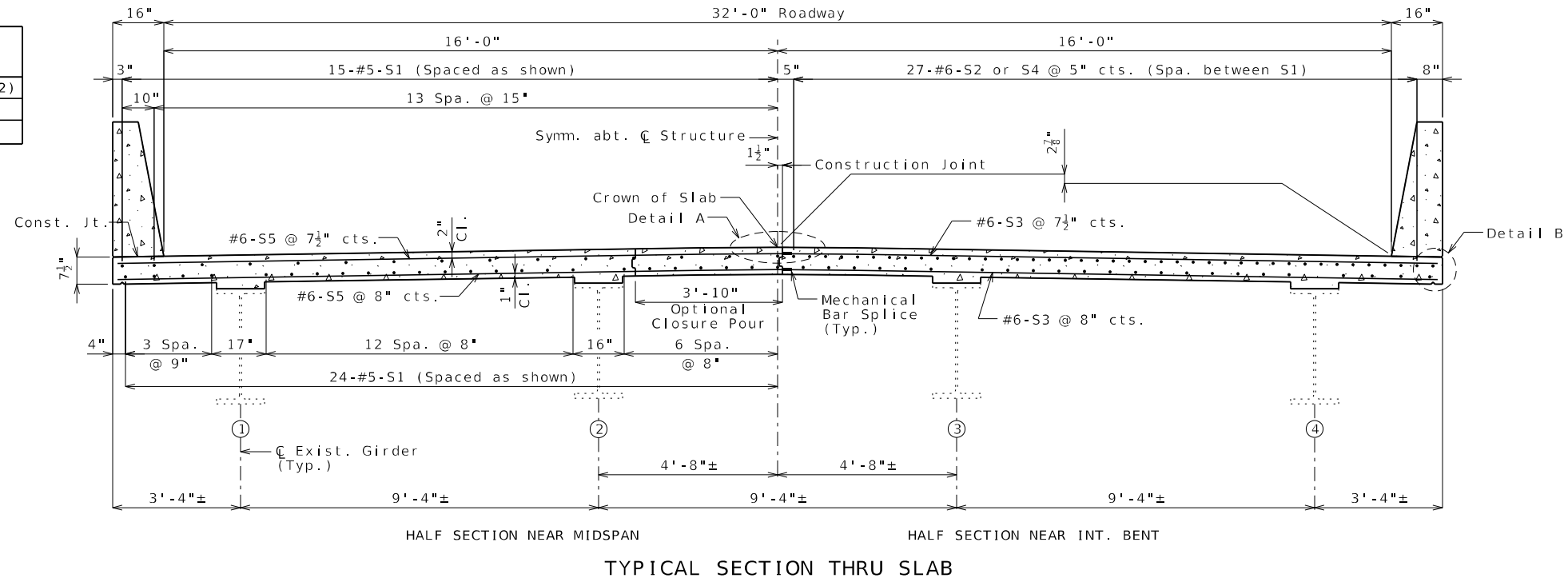
Roadway surfacing adjacent to bridge ends shall match new bridge slab surface (Roadway Item).

Outline of existing work is indicated by light dashed lines. Heavy lines indicate new work.

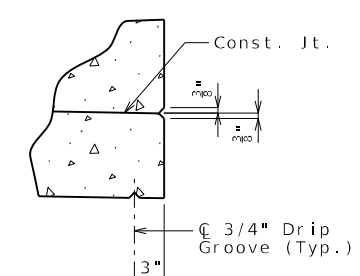
The area exposed by the removal of concrete and not covered with new concrete shall be coated with an approved qualified special mortar in accordance with Sec 704.

For adjusted girder deflection due to the weight of the new deck and barriers, see Bridge Electronic Deliverables.

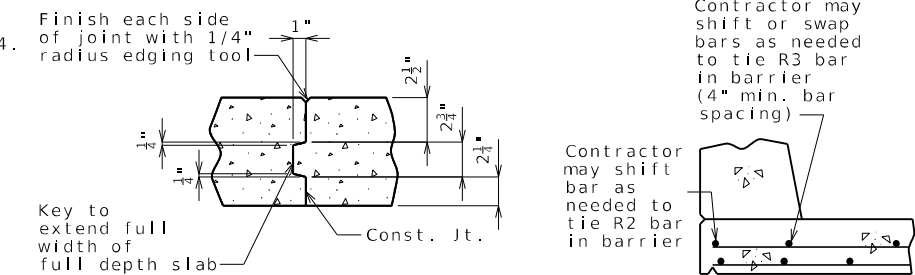
Structural Steel Protective Coatings:
The sides and undersides of the top flange of the existing girders shall be coated with one 6-mil thickness of gray epoxy-mastic primer applied over an SSPC-SP3 surface preparation in accordance with Sec 1081. The cost of the surface preparation will be considered completely covered by the contract lump sum price for Surface Preparation for Applying Epoxy-Mastic Primer. The cost of the gray epoxy-mastic primer will be considered completely covered by the contract lump sum price for Gray Epoxy-Mastic Primer.



DETAIL A



DETAIL B



SLAB CONSTRUCTION JOINT
Dimensions may be adjusted to allow for mechanical bar splice placement with Engineer's approval.

OPTIONAL SHIFTING TOP BARS AT BARRIER
Contractor may shift bar as needed to tie R3 bar in barrier (4" min. bar spacing)

Contractor may shift bar as needed to tie R2 bar in barrier

Item	Unit	Total
Removal of Miscellaneous ACM (Non-Friable)	sq. foot	29
Removal of Existing Bridge Deck	sq. foot	11,843
Slab on Steel	sq. yard	1322
Type D Barrier	linear foot	735
Substructure Repair (Unformed)	sq. foot	10
Mechanical Bar Splice	each	1081
Slab Drain	each	64
* Surface Preparation for Applying Epoxy-Mastic Primer	lump sum	1
* Gray Epoxy-Mastic Primer	lump sum	1

Cost of any required excavation for bridge will be considered completely covered by the contract unit price for other items.
* Does not include top surface of top flange.

Item	Unit	Total
Class B-2 Concrete	cu. yard	315
Reinforcing Steel (Epoxy Coated)	pound	97,320

The table of Estimated Quantities for Slab on Steel 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 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 1, II or III.

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

For Optional Stay-In-Place Form Details, see Sheet No. 2.

REPAIRS TO BRIDGE:
ROUTE 63 OVER LITTLE PINEY CREEK

ROUTE 63 FROM ROUTE M TO ROUTE W
ABOUT 6.7 MILES NORTH OF ROUTE M
BEGINNING STATION 84+15.00± (MATCH EXISTING)

Detailed AUG 2024
Checked SEP 2024

Note: This drawing is not to scale. Follow dimensions. Sheet No. 1 of 10

General Notes:

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 girder 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.

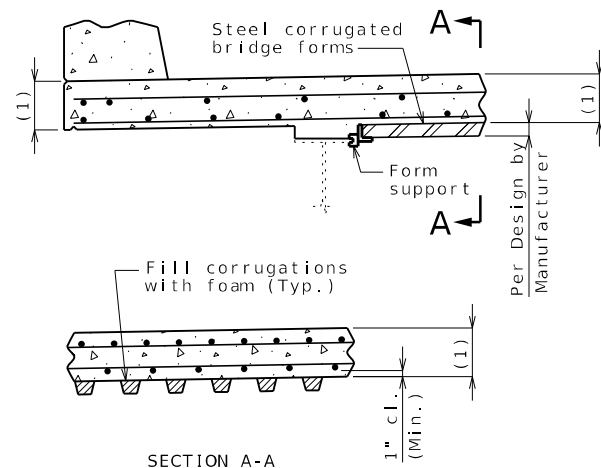
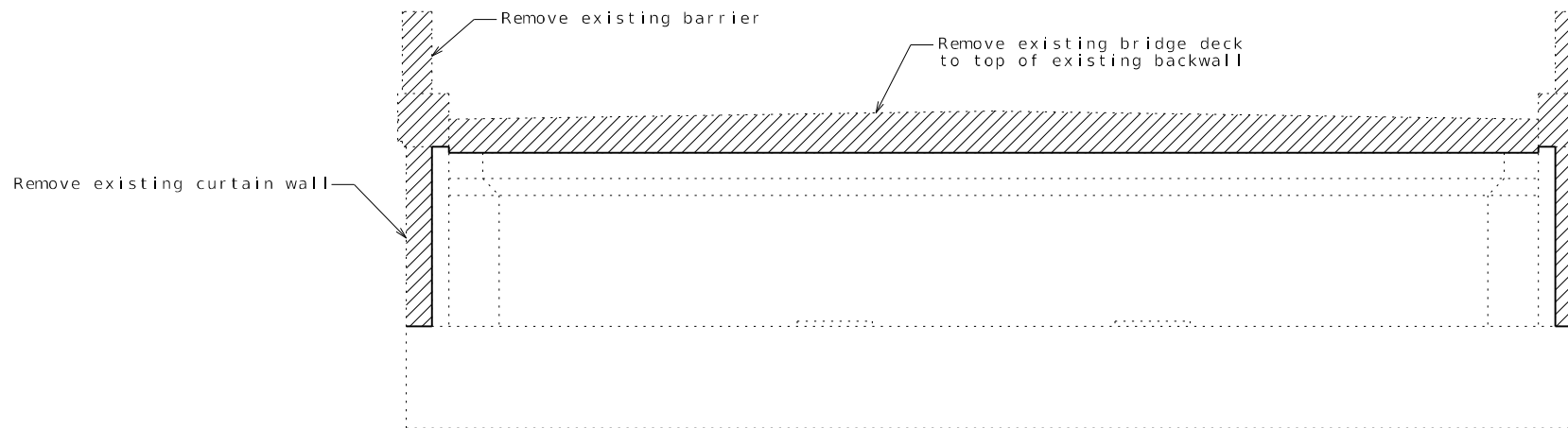
The design of stay-in-place corrugated steel forms is per manufacturer which shall be in accordance with Sec 703 for false work and forms. Maximum actual weight of corrugated steel forms allowed shall be 4 psf assumed for girder loading.

Pouring and Finishing Slab:

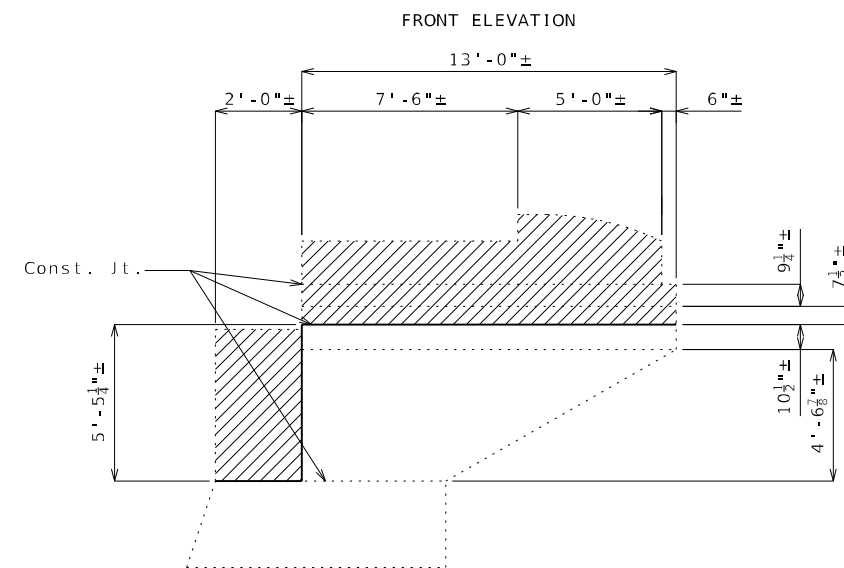
The contractor shall provide bracing necessary for lateral and torsional stability of the girders during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not weld on or drill holes in the girders. The cost for furnishing, installing, and removing bracing will be considered completely covered by the contract unit price for Slab on Steel.

Haunching:

(1) Slab is to be considered a uniform thickness as shown on the plans. Haunching will vary. See front sheet for slab thickness.

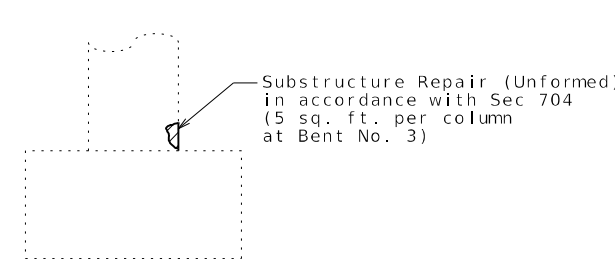


OPTIONAL STAY-IN-PLACE FORM DETAILS

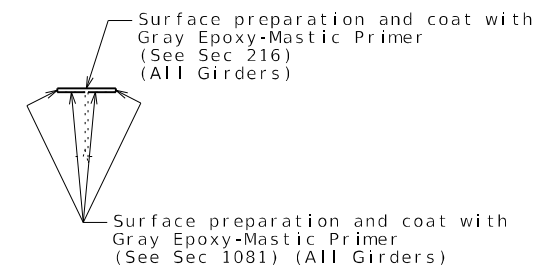


DETAILS OF CONCRETE REMOVAL AT END BENTS

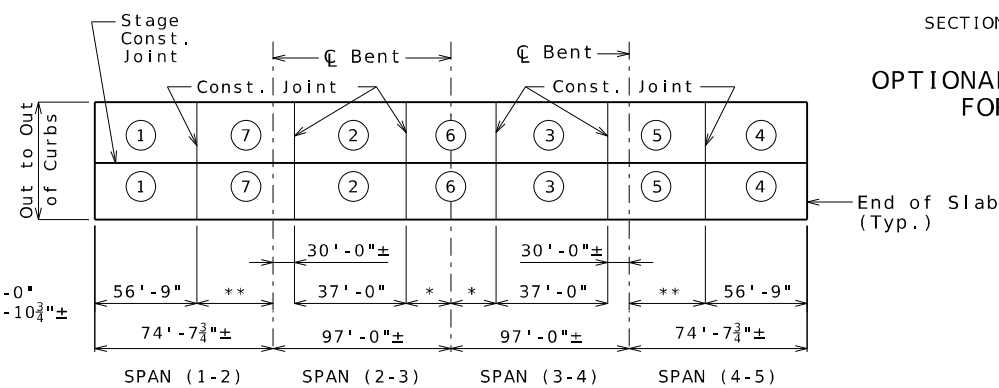
The cost of concrete removal as shown will be considered completely covered by the contract unit price for Removal of Existing Bridge Deck. Vertical backwall reinforcement to be cut off one inch below concrete removal surface and the resulting holes shall be filled with a qualified special mortar. Existing vertical #4 bars in wings extending into removal zone shall remain in place and be bent in the field to be incorporated into the new Type D Barrier Curb.



TYPICAL DETAIL OF BENT NO. 3 BOTTOM OF COLUMN SHOWING SUBSTRUCTURE REPAIR (UNFORMED)



TYPICAL SECTION THRU GIRDER SHOWING PROTECTIVE COATING



	Sequence of Pours							Min. Rate of Pour Cu. Yds./Hr.			
	Direction							With Retarder	No Retarder		
Basic Sequence	1	2	3	4	5	6	7	25	25		
Alternate pours to the basic skip sequence are subject to the approval of the engineer in accordance with Sec 703.											
Alternate A Pours	1	7 + 2	6 + 3	5 + 4						25	25
Alternate B Pours	1 + 7 + 2	1 to 6	2 to 5	3 to End						25	25
Alternate C Pours	1 + 7 + 2	6 + 3 + 5 + 4								25	25
Alternate D Pours	1 + 7 + 2 + 6 + 3 + 5 + 4							End to End		25	25

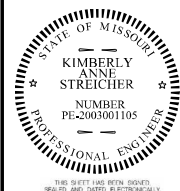
The contractor shall pour and satisfactorily finish the slab pours at the rate given. Retarder, if used, shall be an approved type and retard the set of concrete to 2.5 hours.

SLAB POURING SEQUENCE

Detailed AUG 2024
Checked SEP 2024

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

Sheet No. 2 of 10

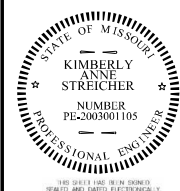


DATE PREPARED 12/30/2024	
ROUTE 63	STATE MO
DISTRICT BR	SHEET NO. 2
COUNTY PHELPS	
JOB NO. J5P3537	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. J01154	

DESCRIPTION	DATE

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





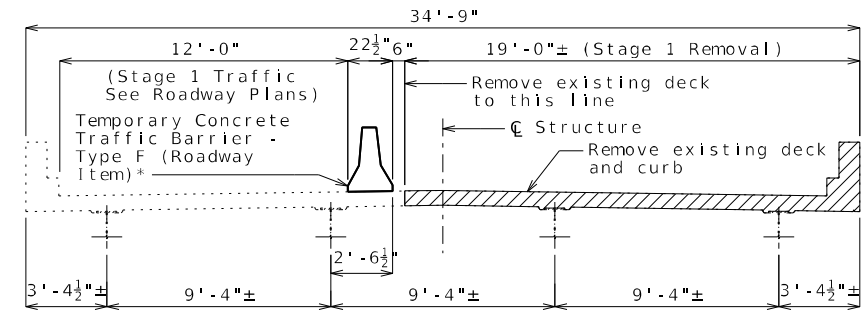
DATE PREPARED 12/30/2024	
ROUTE 63	STATE MO
DISTRICT BR	SHEET NO. 3
COUNTY PHELPS	
JOB NO. J5P3537	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. J01154	

DESCRIPTION	DATE

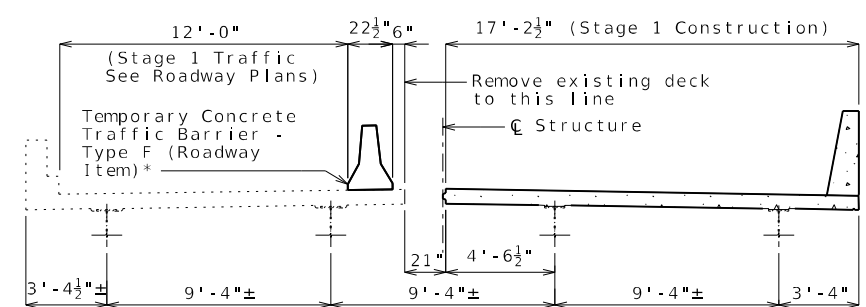
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

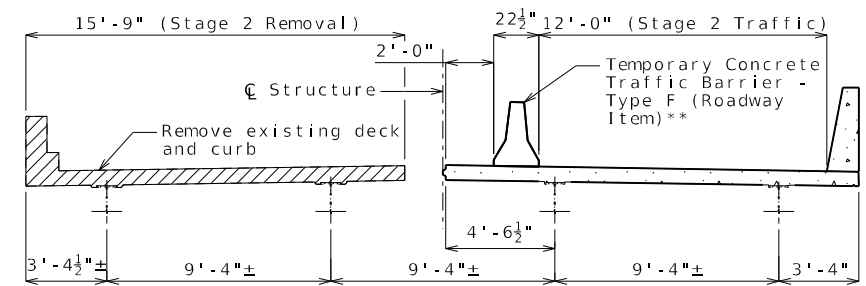
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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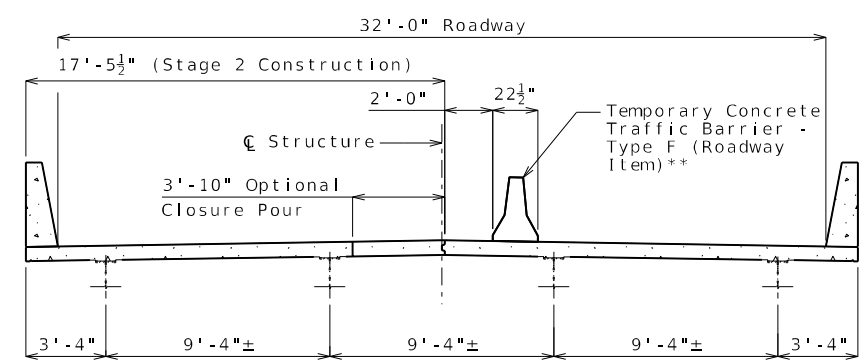
STAGE 1 REMOVAL



STAGE 1 CONSTRUCTION



STAGE 2 REMOVAL



STAGE 2 CONSTRUCTION

DETAILS SHOWING STAGED CONSTRUCTION

Notes:

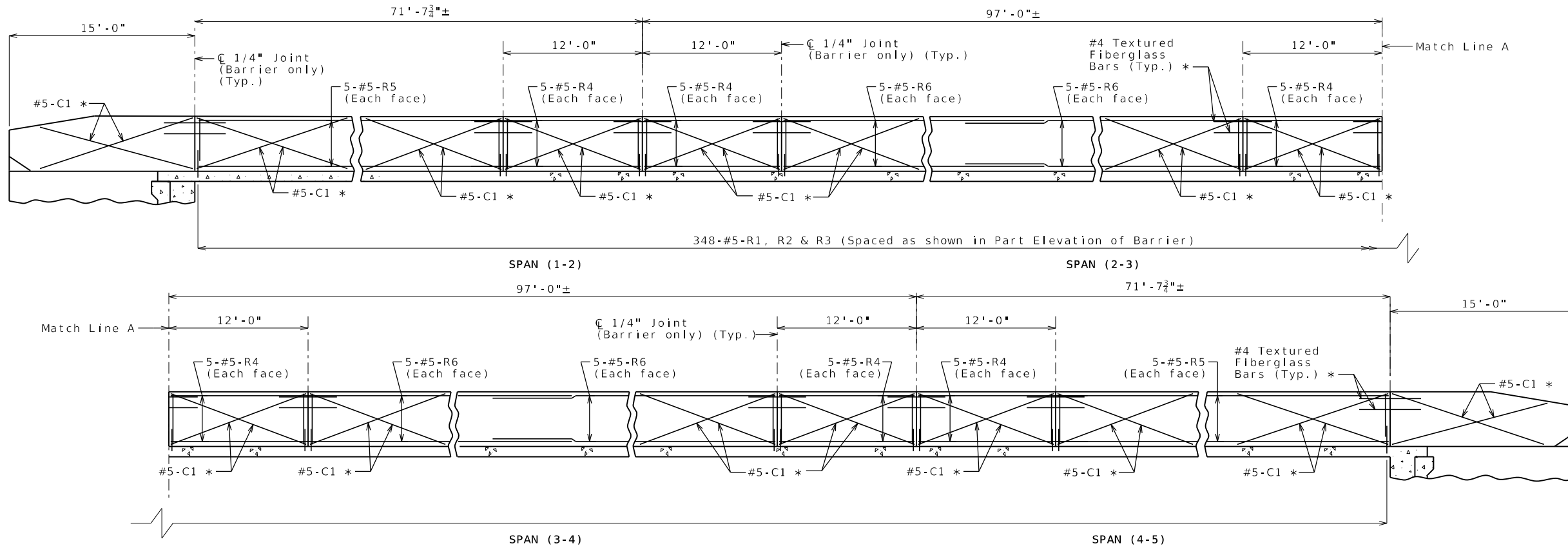
Existing bolts on intermediate diaphragms and cross frames that connect girders under different construction staged slab pours shall be removed and replaced with new in kind high strength bolts installed snug tight and in accordance with Sec 712. The high strength bolts shall be tightened after both adjacent slab pours are completed. Cost will be considered incidental to other pay items.

The optional closure pour deck surface may be finished with a vibratory screed.

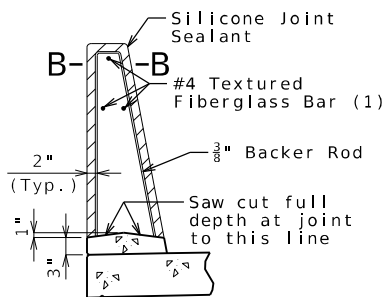
Expansive Class B-2 concrete shall be used in the closure pour. Forms shall be released before the closure pour.

* Method of attachment for temporary barrier shall be bolt through deck.

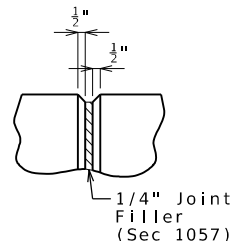
** Method of attachment for temporary barrier shall be tie-down strap.



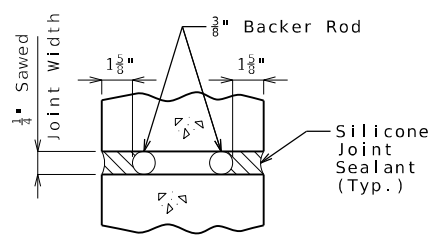
ELEVATION OF BARRIER
(Left barrier shown, right barrier similar)
Longitudinal dimensions are horizontal.



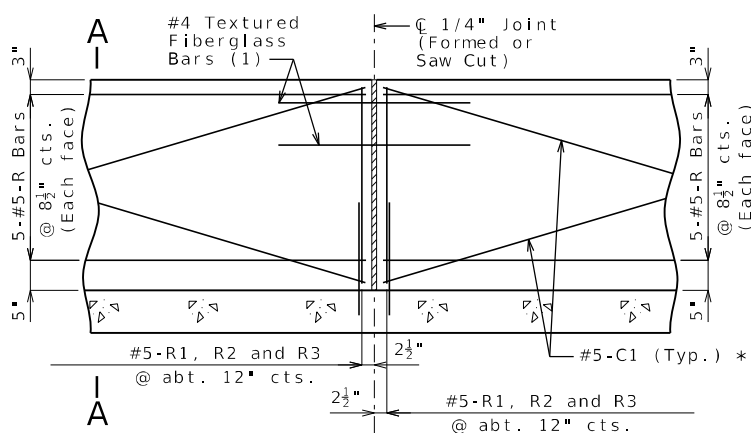
SECTION THRU SAW CUT JOINT



PART ELEVATION AT FORMED JOINT

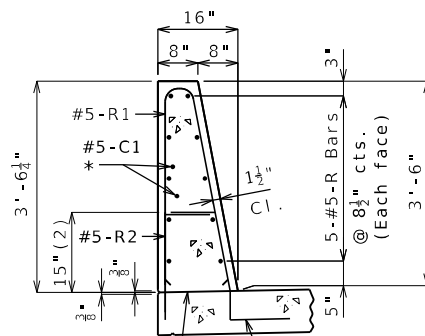


SECTION B-B



PART ELEVATION OF BARRIER

(1) Four feet long, centered on joint, slip-formed option only

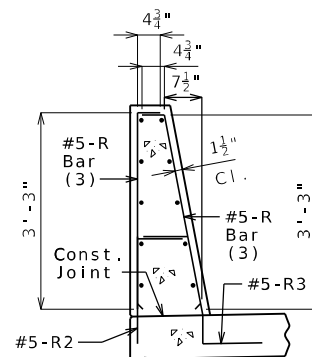


SECTION A-A

Use a minimum lap of 3'-1" for #5 horizontal barrier bars.

The cross-sectional area above the slab is 3.52 square feet.

(2) To top of bar



R-BAR PERMISSIBLE ALTERNATE SHAPE

(3) The R1 bar may be separated into two bars as shown, at the contractor's option, only when slip forming is not used. (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 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. 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.

TYPE D BARRIER

Sheet No. 7 of 10

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

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DATE PREPARED 12/30/2024	
ROUTE 63	STATE MO
DISTRICT BR	SHEET NO. 7
COUNTY PHELPS	
JOB NO. J5P3537	
CONTRACT ID.	

PROJECT NO.	
BRIDGE NO. J01154	

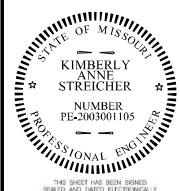
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



CIVIL DESIGN, INC.
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St. Louis, MO 63110
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Missouri State Certificate of Authority #2002006804



DATE PREPARED 1/3/2025	
ROUTE 63	STATE MO
DISTRICT BR	SHEET NO. 8

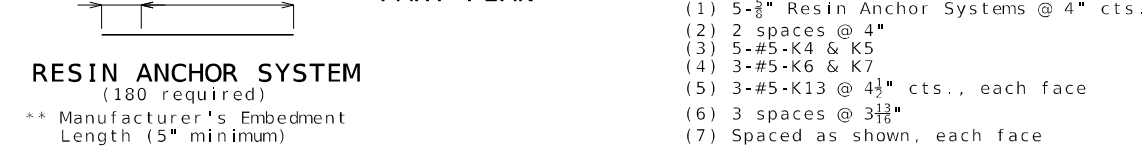
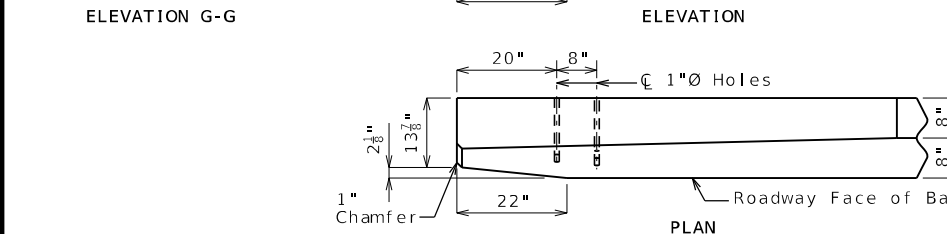
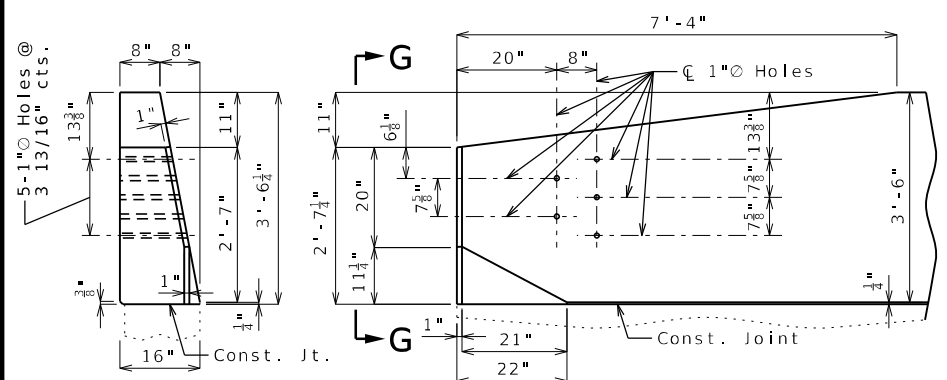
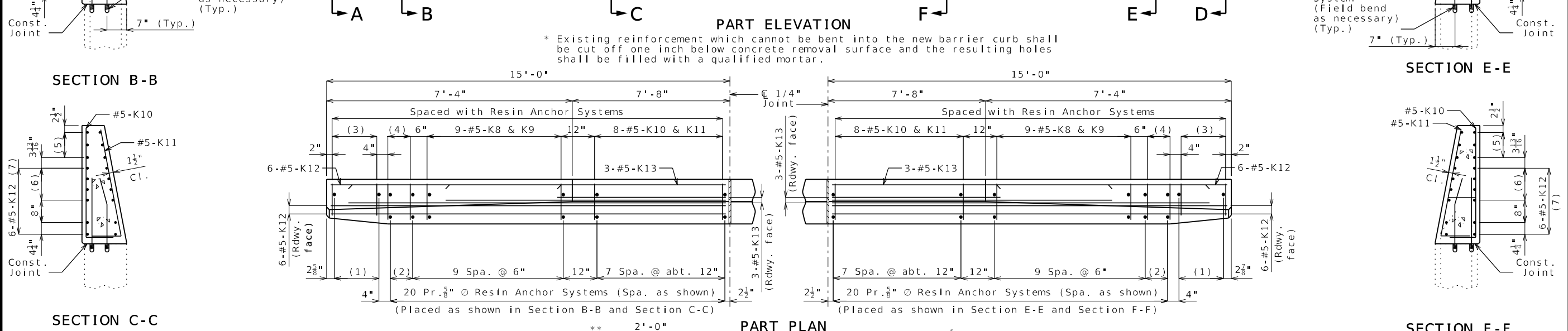
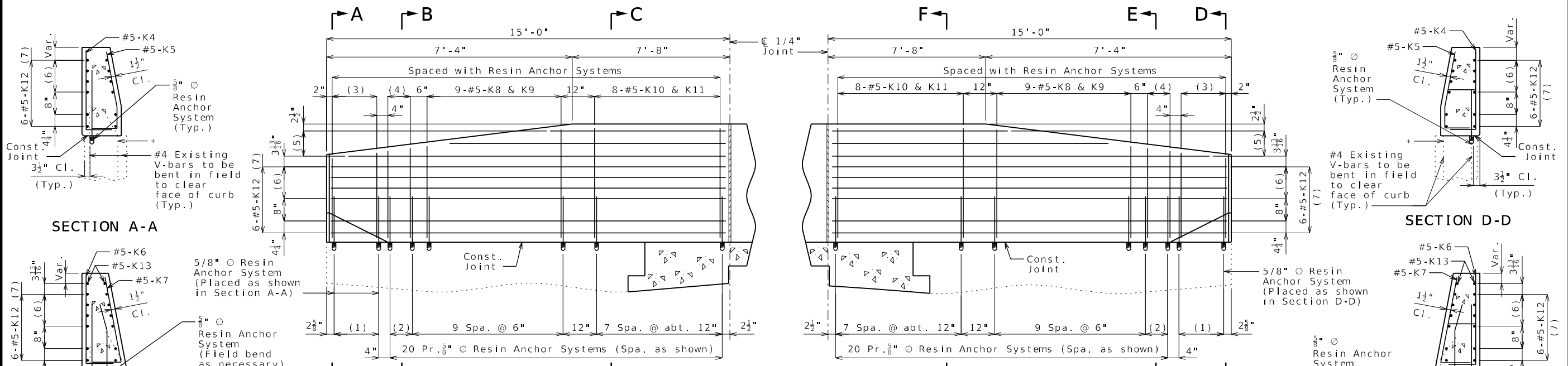
COUNTY
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JOB NO.
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CONTRACT ID.

BRIDGE NO.
J01154

DATE	DESCRIPTION

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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.

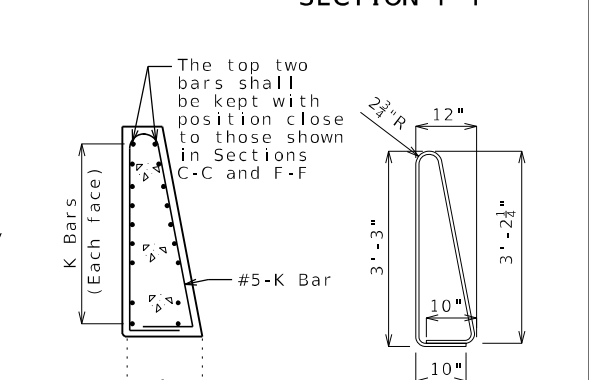
The contractor shall use one of the qualified resin anchor systems in accordance with Sec 1039.

Cost of furnishing and installing the resin anchor system complete-in-place will be considered completely covered by the contract unit price for Type D Barrier Curb.

The minimum embedment depth in concrete with f'c = 4,000 psi for the resin anchor system shall be that required to meet the minimum ultimate pullout strength in accordance with Sec 1039 but shall not be less than 5".

An epoxy coated #5 Grade 60 reinforcing bar shall be substituted for the ⁵/₈" threaded rod.

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.

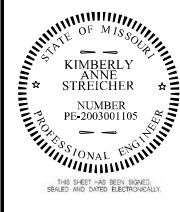
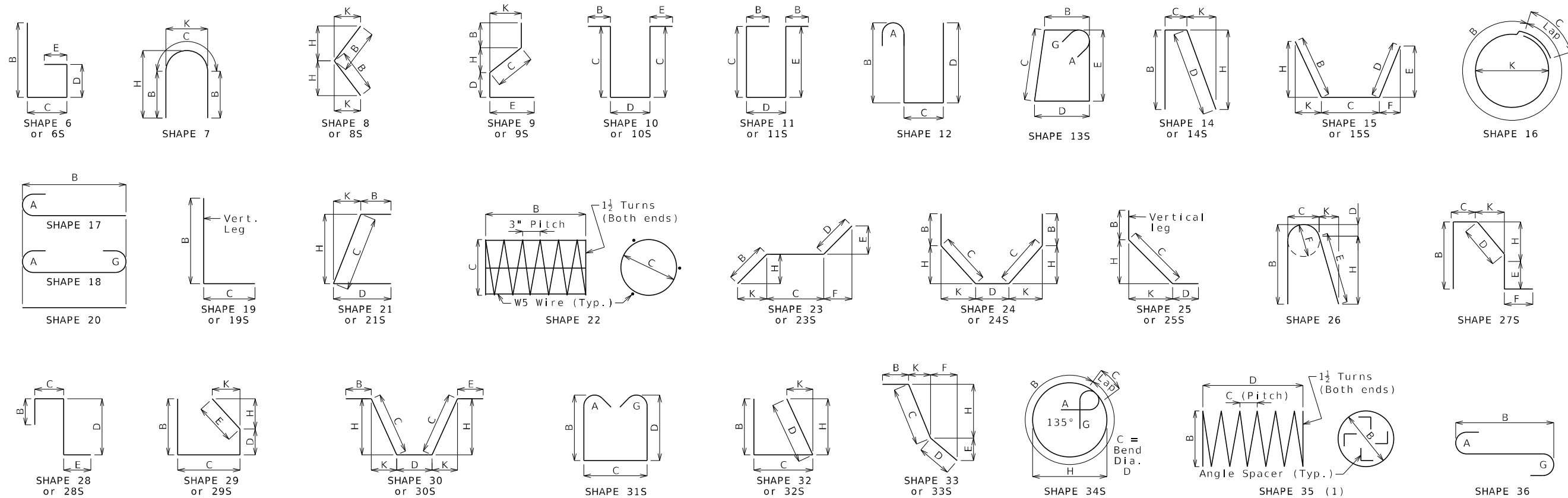
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DETAILS OF GUARD RAIL ATTACHMENT

TYPE D BARRIER AT END BENTS

(Left barrier shown, right barrier similar)

Note: This drawing is not to scale. Follow dimensions. Sheet No. 8 of 10



DATE PREPARED 12/30/2024	
ROUTE 63	STATE MO
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COUNTY PHELPS	
JOB NO. J5P3537	
CONTRACT ID.	
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BRIDGE NO. J01154	

DESCRIPTION
DATE

Finished Bend Diameters D and Hook Dimensions

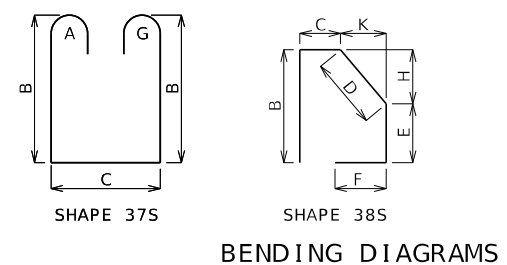
Standard Pin Bend Shapes

Size	Case	D	A or G		
			90°	180°	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"
	2	5 1/4"	14"	9 3/4"	7"
#7	3	7"	15"	11 1/2"	8 3/4"
	2	6"	16"	11"	8"
#8	3	8"	17"	13 3/4"	10"
	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"

Stirrup Pin Bend Shapes (S)

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 1/4"	7"	3 3/8"	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.



BENDING DIAGRAMS

All dimensions are out to out. (1) Shall be a deformed or plain spiral bar or wire.

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.

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.

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

Detailed AUG 2024
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Note: This drawing is not to scale. Follow dimensions. Sheet No. 9 of 10

Bill of Reinforcing Steel																	
No. Req.	Size/ Mark	Location	Codes			Dimensions						Nom. Length ft in.	Actual Length ft in.	Weight lb			
			C	SH	V	B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.				K ft in.		
		END BENTS 1 & 5															
8	6 H100	DIAPHRAGM	E	20		17	1.000						17	17	1	205	
8	6 H101	DIAPHRAGM	E	20		17	4.000						17	17	4	208	
8	6 H200	DIAPHRAGM	E	20		17	1.000						17	17	1	205	
8	6 H201	DIAPHRAGM	E	20		17	4.000						17	17	4	208	
16	6 U100	DIAPHRAGM	E	10				2	9.000	20.000			7	27	0	168	
16	6 U200	DIAPHRAGM	E	10				2	9.000	20.000			7	27	0	168	
		SLAB															
45	6 S1	SLAB	E	20		60	0.000						60	0	60	28536	
108	6 S2	SLAB	E	20		49	8.000						49	8	49	8057	
106	6 S3	SLAB	E	20		17	1.000						17	17	1	27326	
54	6 S4	SLAB	E	20		55	8.000						55	8	55	4515	
106	6 S5	SLAB	E	20		17	4.000						17	17	4	27727	
		TYPE D BARRIER															
		K1 NOT USED															
		K2 NOT USED															
		K3 NOT USED															
20	5 K4	BARRIER	E	19	V	2	4.250	10.000					3	23	1	66	
		INCR = 0.500 IN.				2	6.250	10.000					3	43	3		
20	5 K5	BARRIER	E	38	V				9.500	8.250	18.000	4.000	3	0	2	11	63
		INCR = 0.500 IN.							9.500	8.250	20.000	4.500	3	23	1		
12	5 K6	BARRIER	E	19	S	2	6.750	10.000					3	53	4	42	
12	5 K7	BARRIER	E	21	S			10.000			2	6.000	3	53	3	41	
36	5 K8	BARRIER	E	19	V	2	8.500	10.000					3	73	5	138	
		INCR = 0.750 IN				3	2.500	10.000					4	13	11		
36	5 K9	BARRIER	E	21	V			10.000			2	7.750	3	73	5	138	
		INCR = 0.750 IN						10.000			3	1.750	4	13	11		
32	5 K10	BARRIER	E	19	S	3	3.000	10.000					4	14	0	133	
32	5 K11	BARRIER	E	21	S			10.000			3	2.250	4	13	11	133	
48	5 K12	BARRIER	E	20				14	8.000				14	8	14	734	
24	5 K13	BARRIER	E	20	V	7	11.000						7	11	7	273	
		INCR = 36.000 IN						131	1.000				13	11	13	11	
69	6 R1	BARRIER	E	26		3	3.000	5.500	2.250		5.500	3	0.750	6	96	9	4900
69	6 R2	BARRIER	E	19	S			19.500	9.500					2	52	4	1694
69	6 R3	BARRIER	E	27	S			9.500		4.000	12.000	15.000	3.000	3	43	2	2300
12	0	5 R4	E	20				11	9.000				11	9	11	1471	
40	5 R5	BARRIER	E	20				59	2.000				59	2	59	2468	
80	5 R6	BARRIER	E	20				38	0.000				38	0	38	3171	
		SLIP FORM OPTION															
64	5 C1	SLIP FORM	E	20				12	0.000				12	0	12	801	

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.

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

Detailed AUG 2024
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All bars shall be Grade 60.

BILL OF REINFORCING STEEL

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

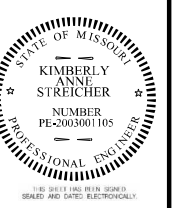
Sheet No. 10 of 10

Bill of Reinforcing Steel																
No. Req.	Size/ Mark	Location	Codes			Dimensions						Nom. Length ft in.	Actual Length ft in.	Weight lb		
			C	SH	V	B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.				K ft in.	
		TOTALS														
5			E													47102
6			E													68787
		TOTAL	E													115889
		SLAB ON STEEL														
5			E													28536
6			E													68787
		TOTAL	E													97323
		TYPE D BARRIER														
5			E													17765
		TOTAL	E													17765
		SLIP FORM OPTION														
5			E													801
		TOTAL	E													801

Codes: C = Required coatings, where E = Epoxy Coated and G = Galvanized.

SH = Required shape, see bending diagrams.

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.



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12/30/2024
ROUTE **63** STATE **MO**
DISTRICT **BR** SHEET NO. **10**

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