MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED STATE HIGHWAY

JOHNSON COUNTY

DESIGN DESIGNATION

A.A.D.T. - 2025 = 20187
A.A.D.T. - 2045 = 22300
V = 65 M.P.H.

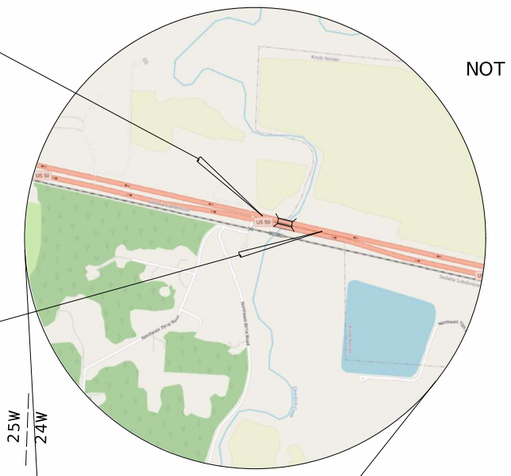
FUNCTIONAL CLASSIFICATION- FREEWAY

KEY MAP
LOCATION OF JOHNSON COUNTY

BEGIN PROJECT
US 50 WB STA 491+34.54

WB BRIDGE REDECK
GUARDRAIL
APPROACH PAVEMENT

END PROJECT
US 50 WB STA 495+73.72



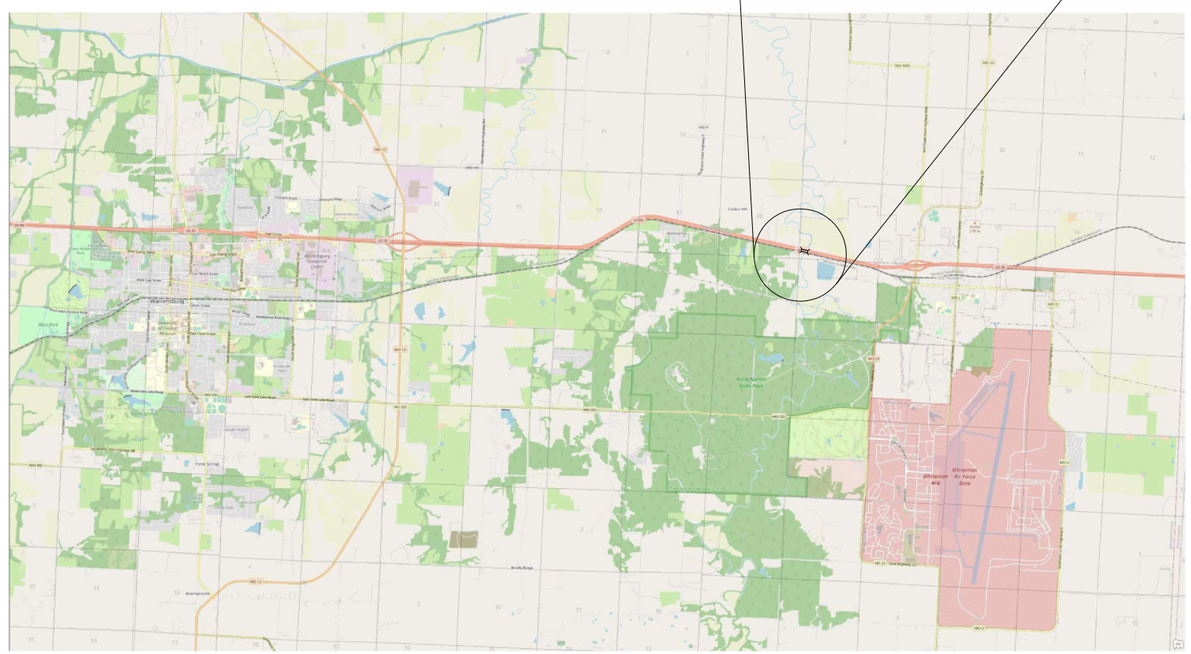
NOT TO SCALE

26W
25W

25W
24W

47N
46N

46N
45N



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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	SAN	
FIRE HYDRANT	HYD	
WATER VALVE	WV	
WATER METER	WM	
DROP INLET	DI	
DITCH BLOCK		
GROUND MOUNTED SIGN	SIGN	
LIGHT POLE		
H-FRAME POWER POLE		
TELEPHONE PEDESTAL	PED	
FENCE		
CHAIN LINK	V	
WOVEN WIRE	X	
GATE POST		
BENCHMARK	BM	

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
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COORDINATE POINTS (CP)	7
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EROSION CONTROL SHEETS (EC)	31-34
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L0901	1-10
CROSS SECTIONS (XS)	1-18

LENGTH OF PROJECT

BEGINNING OF PROJECT STA. 491 + 34.54
END OF PROJECT STA. 495 + 73.72

APPARENT LENGTH 439.18 FEET

EQUATIONS AND EXCEPTIONS: NONE

TOTAL CORRECTIONS 0.0 FEET
NET LENGTH OF PROJECT 439.18 FEET
STATE LENGTH 0.08 MILES

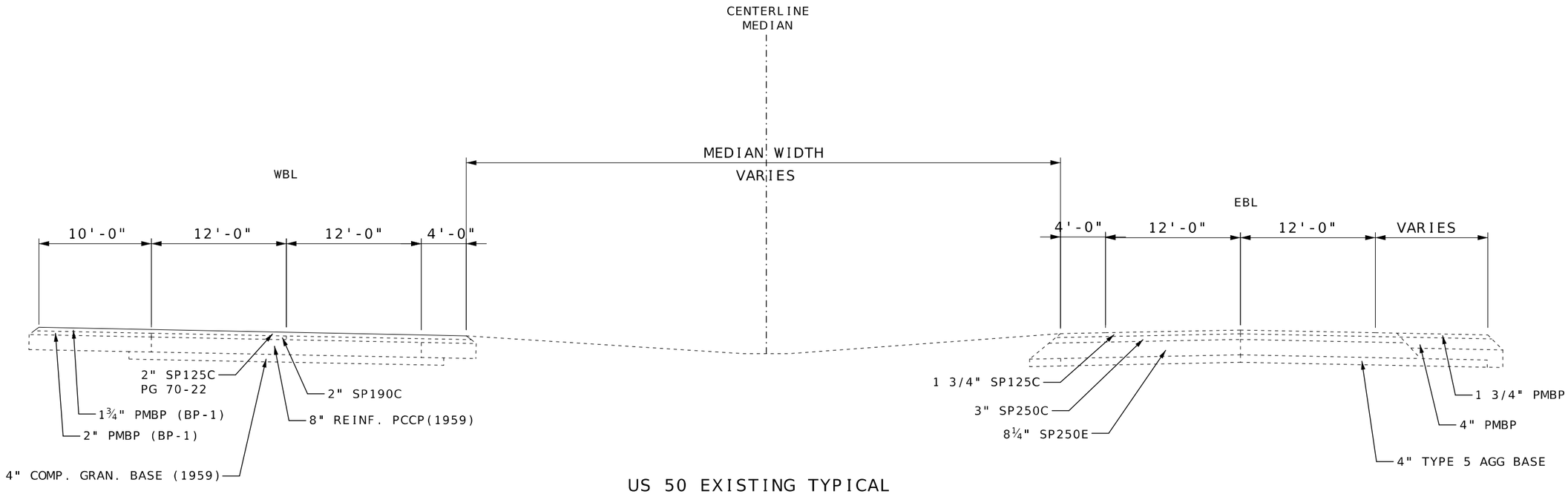
FOR INFORMATION ONLY
ESTIMATED DISTURBED ACRES 1.4 ACRES

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER
04/14/2025 12:37:16 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	4/14/2025
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	01
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

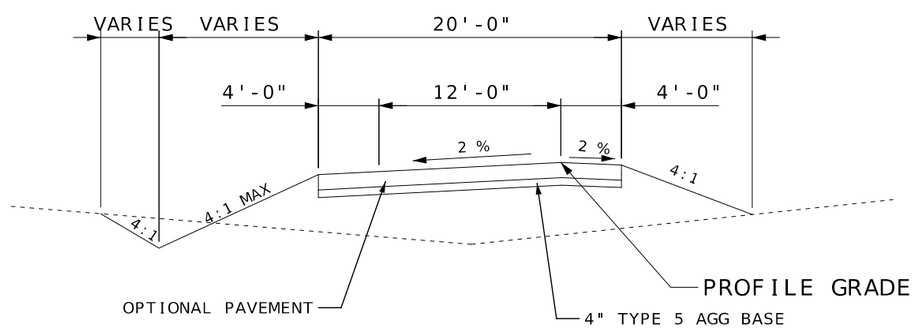
DESCRIPTION	DATE

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



US 50 EXISTING TYPICAL
STA 491+34.54 TO 491+84.54
STA 495+23.72 TO 495+73.72

FOR INFORMATION PURPOSES ONLY	
ASPHALTIC CONCRETE MIXTURE PG 70-22 (SP125C)	1.99 TONS/YD²
TACK COAT	0.10 GAL/YD²



EB AND WB CROSSOVERS
STA 475+72.63 TO 485+18.03
STA 508+47.69 TO 519+33.70

OPTIONAL PAVEMENT

BITUMINOUS OPTION:
2" BITUMINOUS PAVEMENT MIXTURE PG 64-22 (BP-1)
OVER
5.5" BITUMINOUS PAVEMENT MIXTURE PG 64-22 (BASE)

CONCRETE OPTION:
8" JPCP WIDENED SLAB (15' JOINTS, 1¼" DOWELS)

NOT TO SCALE

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER
02:27:2025 1:00:17 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE 50	STATE MO
DISTRICT KC	SHEET NO. 2
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

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

ROADWAY	STATION BEGIN	STATION END	SIDE	DESCRIPTION	QUANTITY	UNITS	REMARKS
WEST CROSSOVER	476+07.70	478+74+89	LT	SAW CUT	306	LF	PHASE 1
WEST CROSSOVER	481+39.72	485+18.03	RT	SAW CUT	384	LF	PHASE 1
EAST CROSSOVER	508+47.69	512+01.92	RT	SAW CUT	357	LF	PHASE 1
EAST CROSSOVER	516+05.26	519+33.70	LT	SAW CUT	333	LF	PHASE 1
WEST CROSSOVER	476+07.70	478+74+89	LT	WB INSIDE SHOULDER	118	SY	PHASE 1
WEST CROSSOVER	481+39.72	485+18.03	RT	EB INSIDE SHOULDER	148	SY	PHASE 1
EAST CROSSOVER	508+47.69	512+01.92	RT	EB INSIDE SHOULDER	138	SY	PHASE 1
EAST CROSSOVER	516+05.26	519+33.70	LT	WB INSIDE SHOULDER	129	SY	PHASE 1
CR 791			RT	ONE WAY	1	EA	PHASE 2
CR 791			LT	STOP SIGN AND ONE WAY	2	EA	PHASE 2
WB US 50	494+41.00		RT	GUARDRAIL	37.5	LF	BRIDGE APROACH TRANSITION REMOVAL
WB US 50	494+58.84		LT	GUARDRAIL	37.5	LF	BRIDGE APROACH TRANSITION REMOVAL
WB US 50	491+84.54		LT/RT	SAW CUT	31.58	LF	PHASE 2
WB US 50	495+23.72		LT/RT	SAW CUT	31.58	LF	PHASE 2
WB US 50	491+84.54	492+10.5		APPROACH PAVEMENT	91.1	SY	PHASE 2
WB US 50	494+74.92	495+23.72		APPROACH PAVEMENT	171.2	SY	PHASE 2
EAST CROSSOVER	512+92.99		LT/RT	TEMP PIPES	580	LF	PHASE 3
WEST CROSSOVER	475+72.63	485+18.03	LT/RT	TEMPORARY PAVEMENT	1052.6	SY	PHASE 3
EAST CROSSOVER	508+47.69	519+33.70	LT/RT	TEMPORARY PAVEMENT	1401.7	SY	PHASE 3
WEST CROSSOVER	476+07.70	478+74+89	LT	SAW CUT	303	LF	PHASE 3
WEST CROSSOVER	481+39.72	485+18.03	RT	SAW CUT	379	LF	PHASE 3
EAST CROSSOVER	508+47.69	512+01.92	RT	SAW CUT	354	LF	PHASE 3
EAST CROSSOVER	516+05.26	519+33.70	LT	SAW CUT	330	LF	PHASE 3
EB US 50	494+32.51	497+45.26	RT	TEMPORARY GUARDRAIL	312.75	LF	PHASE 3
EB US 50	494+08.25	496+08.50	RT	TEMPORARY GUARDRAIL	200.25	LF	PHASE 3
				PROJECT TOTAL	1 LUMP SUM		

EARTHWORK

ROADWAY	STATION BEGIN	STATION END	CONSTR. PHASE	CLASS A EXCAVATION (CY)	COMPACTING EMBANKMENT (CY)	EMBANKMENT IN PLACE (CY)	REMARKS
WEST CROSSOVER	475+72.63	485+18.03	1	201	160	564	
EAST CROSSOVER	508+47.69	519+33.70	1	322	257	136	
			PHASE 1 SUBTOTAL	523	417	700	
WEST CROSSOVER	475+72.63	485+18.03	3	724	201		
EAST CROSSOVER	508+47.69	519+33.70	3	393	322		
			PHASE 3 SUBTOTAL	1117	523	0	
			PAY TOTAL	1640	940	700	

OPTIONAL PAVEMENT

ROADWAY	STATION BEGIN	STATION END	SIDE	OPTIONAL PAVEMENT (SY)	REMARKS
WEST CROSSOVER	475+72.63	485+18.03	LT/RT	1318.6	CROSSOVER PAVEMENT AND SHOULDER
EAST CROSSOVER	508+47.69	519+33.70	LT/RT	1668.7	CROSSOVER PAVEMENT AND SHOULDER
			PAY TOTAL	2987.3	

AGGREGATE

ROADWAY	STATION BEGIN	STATION END	SIDE	TYPE 5 AGGREGATE FOR BASE (4") (SY)	REMARKS
WEST CROSSOVER	475+72.63	485+18.03	LT/RT	1319	
EAST CROSSOVER	508+47.69	519+33.70	LT/RT	1669	
WEST CROSSOVER	476+07.70	478+74+89	LT		WB US 50 SHLDR
WEST CROSSOVER	481+39.72	485+18.03	RT		EB US 50 SHLDR
EAST CROSSOVER	508+47.69	512+01.92	RT		EB US 50 SHLDR
EAST CROSSOVER	516+05.26	519+33.70	LT		WB US 50 SHLDR
			PAY TOTAL	2988	

SUMMARY OF QUANTITIES
SHEET 1 OF 4

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER
02/27/2025 1:01:08 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED 1/7/2025
ROUTE 50 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JOHNSON
JOB NO. JKR0102
CONTRACT ID.
PROJECT NO.
BRIDGE NO. L0901

DESCRIPTION | DATE

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

DRAINAGE

ROADWAY	STATION BEGIN	OFFSET	STATION END	OFFSET	GROUP A PIPE 12" (LF)	CLASS 3 EXCAVATION (CY)	ROCK LINING (CY)	REMARKS
EAST CROSSOVER	510+87.42	-27.56	513+75	15.3	580	39	4	PARALLEL PIPES 290' EACH

SEEDING

ROADWAY	STATION BEGIN	STATION END	SIDE	SEEDING COOL SEASON MIXTURES (ACRES)
WEST CROSSOVER	475+72.63	485+18.03	LT/RT	0.7
EAST CROSSOVER	508+47.69	519+33.70	LT/RT	0.7
			PAY TOTAL	1.4

TEMPORARY EROSION CONTROL

ROADWAY	STATION BEGIN	OFFSET	STATION END	OFFSET	CONSTR. PHASE	SEDIMENT TRAP ROCK (CY)	ROCK DITCH CHECK (LF)	TEMPORARY SEEDING & MULCHING (ACRES)	SEDIMENT REMOVAL (CY)	REMARKS
WB US 50 CL	473+96.55	87.11	477+75.01	59.86	2		109		7	WEST CROSSOVER
WB US 50 CL	485+26.92	27.43	488+37.98	32.64	2		23		2	WEST CROSSOVER
WB US 50 CL	475+72.63		481+62.63		2			0.19		WEST CROSSOVER
WB US 50 CL	478+75.75		485+15.87		2			0.21		WEST CROSSOVER
WB US 50 CL	473+96.55	RIGHT			2	12			1	WEST CROSSOVER AT CULVERT OUTLET
WB US 50 CL	476+	LEFT			2	12			1	WEST CROSSOVER AT CULVERT OUTLET
WB US 50 CL	488+37.98	LEFT			2	12			1	WEST CROSSOVER AT CULVERT OUTLET
WB US 50 CL	505+58.10	60.84	507+76.38	66.35	2		46		4	EAST CROSSOVER
WB US 50 CL	505+58.70	-62.62			2	12			1	EAST CROSSOVER AT CULVERT OUTLET
WB US 50 CL	508+48.35		515+98.86		2			0.24		EAST CROSSOVER
WB US 50 CL	512+02.16		519+28.40		2			0.15		EAST CROSSOVER
					PAY TOTAL	48	178	0.8	17	

GUARDRAIL

ROADWAY	STATION BEGIN	STATION END	MGS GUARDRAIL (LF)	MGS BRIDGE APPROACH TRANSITION SECTION (REGULAR/NO CURB) (EACH)	(MASH) TYPE A CRASHWORTHY END TERMINAL (EACH)	SHAPING SLOPES CLASS III (100FT)	REMARKS
EB US 50	494+32.51	497+45.26	225	1	1	0.75	NE CORNER OF BRIDGE A4194 FOR H2H TRAFFIC ON EB US 50
EB US 50	494+08.25	496+08.50	112.5	1	1	0.75	SE CORNER OF BRIDGE A4194 FOR H2H TRAFFIC ON EB US 50
WB US 50	494+41.00			1			SE CORNER OF BRIDGE L0901
WB US 50	494+58.84			1			NE CORNER OF BRIDGE L0901
		PAY TOTAL	338	4	2	2	

PERMANENT PAVEMENT MARKING

LOCATION	STA BEGIN	STA END	LENGTH	6" WHITE HIGH BUILD PAVEMENT MARKING PAINT TYPE L BEADS (LF)	6" YELLOW HIGH BUILD PAVEMENT MARKING PAINT TYPE L BEADS (LF)	REMARKS
US 50 WB CL	468+96.69	521+11.11	5218	1305		WHITE INTERMITTENT LANE LINE
US 50 WB CL	481+39.72	485+18.03	379		379	EDGE LINE
US 50 WB CL	508+47.69	512+01.92	354		354	EDGE LINE
US 50 WB CL	519+29.94	536+09.95	1680	420		WHITE INTERMITTENT LANE LINE
US 50 WB CL	476+07.70	478+74.89	303		303	EDGE LINE
US 50 WB CL	516+05.26	519+33.70	330		330	EDGE LINE
			PAY TOTAL	1725	1366	

SUMMARY OF QUANTITIES
SHEET 2 OF 4

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER
Jaclyn A. White
02:27/2025 1:01:40 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED 1/7/2025
ROUTE 50 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JOHNSON
JOB NO. JKR0102
CONTRACT ID.
PROJECT NO.
BRIDGE NO. L0901

DESCRIPTION | DATE

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

TEMPORARY PAVEMENT MARKING

LOCATION	STA BEGIN	STA END	LENGTH	4" WHITE (LF)	4" YELLOW (LF)	REMARKS
US 50 WB CL	469+82.10	478+19.38	840		840	EB LANE - LANE TAPER
US 50 WB CL	478+19.38	483+41.62	523		523	EB LANE
WEST CROSSOVER	475+72.64	483+43.56	771		771	EDGE LINE
WEST CROSSOVER	478+01.84	485+18.03	716	716		EDGE LINE
US 50 WB CL	475+44.48	478+02.28	260	260		WB LANE - LANE TAPER
US 50 WB CL	483+41.62	508+43.96	2504		5008	EB LANE - DOUBLE YELLOW
EAST CROSSOVER	508+43.53	519+33.70	1090		1090	EDGE LINE
EAST CROSSOVER	508+47.69	516+72.98	825	825		EDGE LINE
US 50 WB CL	516+66.96	519+29.94	265	265		WB LANE
US 50 WB CL	519+29.94	527+69.95	840	840		WB LANE
US 50 WB CL	527+69.95	536+09.95	840	840		WB LANE-LANE TAPER
US 50 WB CL	508+43.96	520+09.91	1166		1166	EB LANE
US 50 WB CL	520+09.91	521+10.31	101		101	EB LANE - LANE TAPER
			TYPE TOTAL	3746	9499	
			TEMPORARY PAVEMENT MARKING TOTAL	13245		

PAVEMENT MARKING REMOVAL

PHASE	EXISTING PAVEMENT MARKING REMOVAL (LF)	TEMPORARY PAVEMENT MARKING REMOVAL (LF)
1		
2	3091	
3		13245
SUB TOTAL	3091	13245
PAY TOTAL	16336	

MOBILIZATION

1 LUMP SUM

ADDITIONAL MOBILIZATION FOR SEEDING

1 EACH

CONTRACTOR FURNISHED SURVEY & STAKING

1 LUMP SUM

MAINLINE PAVEMENT

ROADWAY	STATION BEGIN	STATION END	SIDE	LENGTH FT	WIDTH FT	CONCRETE APPROACH PAVEMENT (SY)	2" SP125C PG 70-22 PAVEMENT (TONS)	TACK COAT (GAL)	COLD MILLING 3" OR LESS (SY)	REMARKS
WB US 50	491+34.54	491+84.54	LT/RT	50	31.58		19.5	17.5	175	
WB US 50	491+84.54	492+10.5	LT/RT	25.96	31.58	91.1				
WB US 50	494+74.92	495+23.72	LT/RT	48.8	31.58	171.2				
WB US 50	495+23.72	495+73.72	LT/RT	50	31.58		19.5	17.5	175	
					PAY TOTAL	262.3	39	35	350	

SUMMARY OF QUANTITIES

SHEET 3 OF 4

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:02:07 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED 1/7/2025

ROUTE 50 | STATE MO

DISTRICT KC | SHEET NO. 3

COUNTY JOHNSON

JOB NO. JKR0102

CONTRACT ID.

PROJECT NO.

BRIDGE NO. L0901

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
WARNING SIGNS								
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT)
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT)
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT)
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT)
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT)
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT)
WO1-4L	48X48	16.00	2	32.00				REVERSE CURVE (SYMBOL LEFT)
WO1-4R	48X48	16.00	2	32.00				REVERSE CURVE (SYMBOL RIGHT)
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)
WO1-6	60X30	12.50	3	37.50				HORIZONTAL ARROW (SYMBOL)
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)
WO1-8	18X24	3.00						CHEVRON (SYMBOL)
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)
WO3-4	48X48	16.00						BE PREPARED TO STOP
WO3-5	48X48	16.00						SPEED LIMIT AHEAD
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)
WO4-1R	48X48	16.00	2	32.00				MERGE (SYMBOL FROM RIGHT)
WO4-1aL	48X48	16.00	1	16.00				MERGE (LEFT)
WO4-1aR	48X48	16.00	2	32.00				MERGE (RIGHT)
WO5-1	48X48	16.00						ROAD/BRIDGE/RAMP NARROWS
WO5-3	48X48	16.00						ONE LANE BRIDGE
WO5-5	48X48	16.00						NARROW LANES
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
WO6-3	48X48	16.00	4	64.00				TWO WAY TRAFFIC (SYMBOL)
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)
WO8-1	48X48	16.00						BUMP
WO8-2	48X48	16.00						DIP
WO8-3	48X48	16.00						PAVEMENT ENDS
WO8-4	48X48	16.00						SOFT SHOULDER
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)
WO8-6	48X48	16.00						TRUCK CROSSING
WO8-6c	48X48	16.00						TRUCK ENTRANCE
WO8-7	36X36	9.00						LOOSE GRAVEL
WO8-7a	36X36	9.00						FRESH OIL / LOOSE GRAVEL
WO8-9	48X48	16.00						LOW SHOULDER
WO8-11	48X48	16.00						UNEVEN LANES
WO8-12	48X48	16.00						NO CENTER LINE
WO8-15	48X48	16.00						GROOVED PAVEMENT
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)
WO8-17L	48X48	16.00						SHOULDER DROP-OFF (SYMBOL LEFT)
WO8-17R	48X48	16.00						SHOULDER DROP-OFF (SYMBOL RIGHT)
WO8-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)
W10-1	42RND.	9.62						RAILROAD CROSSING
WO12-1	24X24	4.00						DOUBLE DOWN ARROW (SYMBOL)
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	9	144.00				ROAD/BRIDGE/RAMP WORK AHEAD
WO20-2	48X48	16.00						DETOUR AHEAD
WO20-3	48X48	16.00						ROAD CLOSED AHEAD
WO20-4	48X48	16.00						ONE LANE ROAD AHEAD
WO20-5	48X48	16.00	4	64.00				RIGHT/CENTER/LEFT LANE CLOSED AHEAD
WO20-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
WO20-6a	48X48	16.00	2	32.00				RIGHT/CENTER/LEFT LANE CLOSED
WO20-7a	48X48	16.00						FLAGGER (SYMBOL)
WO21-2	36X36	9.00						FRESH OIL
WO21-5	48X48	16.00						SHOULDER WORK / SHOULDER WORK AHEAD
WO22-1	48X48	16.00						BLASTING ZONE AHEAD
WO22-2	42X36	10.50						TURN OFF 2-WAY RADIO AND PHONE
WO22-3	42X36	10.50						END BLASTING ZONE
GO22-1	21X15	2.19						WET PAINT (ARROW PIVOTS)

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
GUIDE SIGNS								
E05-1	36X48	12.00						GORE EXIT
E05-2	48X36	12.00						EXIT OPEN
E05-2a	48X36	12.00						EXIT CLOSED
GO20-1	60X24	10.00						ROAD WORK NEXT XX MILES
GO20-2	48X24	8.00	4	32.00				END ROAD WORK
GO20-4	36X18	4.50						PILOT CAR FOLLOW ME
GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW
GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
GO20-5aP	36X24	6.00	4	24.00				WORK ZONE (PLAQUE)
MO4-8a	24X18	3.00						END DETOUR
MO4-9L	48X36	12.00						DETOUR (LEFT)
MO4-9R	48X36	12.00						DETOUR (RIGHT)
MO4-9P	48X12	4.00						STREET NAME (PLAQUE)
MO4-10L	48X18	6.00						DETOUR ARROW (LEFT)
MO4-10R	48X18	6.00						DETOUR ARROW (RIGHT)
REGULATORY SIGNS								
R1-1	48X48	13.25	1	13.25				STOP
R1-2	48TRI.	6.93						YIELD
R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)
R1-3P	30X12	2.50						ALL WAY (PLAQUE)
R2-1	36X48	12.00	6	72.00				SPEED LIMIT XX
R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00						NO TURNS
R3-4	48X48	16.00						NO U-TURN (SYMBOL)
R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00						DO NOT PASS
R4-2	36X48	12.00						PASS WITH CARE
R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)
R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)
R5-1	30X30	6.25	2	12.50				DO NOT ENTER
R5-1a	36X24	6.00						WRONG WAY
R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)
R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00						ONE WAY (LEFT)
R6-2R	24X30	5.00						ONE WAY (RIGHT)
R9-9	24X12	2.00						SIDEWALK CLOSED
R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE
R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE
R10-6	24X36	6.00						STOP HERE ON RED (45^ ARROW)
R11-2	48X30	10.00	6	60.00				ROAD CLOSED
R11-3a	60X30	12.50						ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50						ROAD CLOSED TO THRU TRAFFIC
CONST-3A	60X48	20.00						FINE SIGN
CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)
MISCELLANEOUS SIGNS								
CONST-5	48X36	12.00						POINT OF PRESENCE
CONST-5	96X48	32.00	2	64.00				POINT OF PRESENCE
CONST-8	48X36	12.00	4	48.00				WORK ZONE NO PHONE ZONE
SPECIAL	48X48	16.00	4	64.00				RUMBLE STRIP AHEAD

616-10.05 CONSTRUCTION SIGNS	TOTAL	876
616-10.10 RELOCATED SIGNS	TOTAL	

EFFECTIVE: 07-01-2024

ITEM NUMBER	TOTAL QTY	DESCRIPTION
6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)
6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)
6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)
6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)
6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)
6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)
6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)
6122020		REPLACEMENT SAND BARREL
6122030		IMPACT ATTENUATOR (RELOCATION)
6123001		TRUCK MOUNTED ATTENUATOR (TMA)
6161008	4	ADVANCED WARNING RAIL SYSTEM
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161025	150	CHANNELIZER (TRIM LINE)
6161030	64	TYPE III MOVEABLE BARRICADE
6161033	47	DIRECTION INDICATOR BARRICADE
6161040	2	FLASHING ARROW PANEL
6161047		TYPE III OBJECT MARKER
6161055	30	SEQUENTIAL FLASHING WARNING LIGHT
6161070	79	TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A	2	CHANGEABLE MESSAGE SIGN WITHOUT COMM. INTERFACE- CONTRACTOR FURNISHED/RETAINED
6161099		CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE- CONTRACTOR FURNISHED/RETAINED
6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002	4	TEMPORARY LONG-TERM RUMBLE STRIPS
6173600D		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/RETAINED
6173602B		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION
6175010A		RELOCATING TEMPORARY TRAFFIC BARRIER
6176000B		TEMPORARY TRAFFIC BARRIER COMMISSION FURNISHED/RETAINED
6177000B		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION COMMISSION FURNISHED/RETAINED
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400		TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING

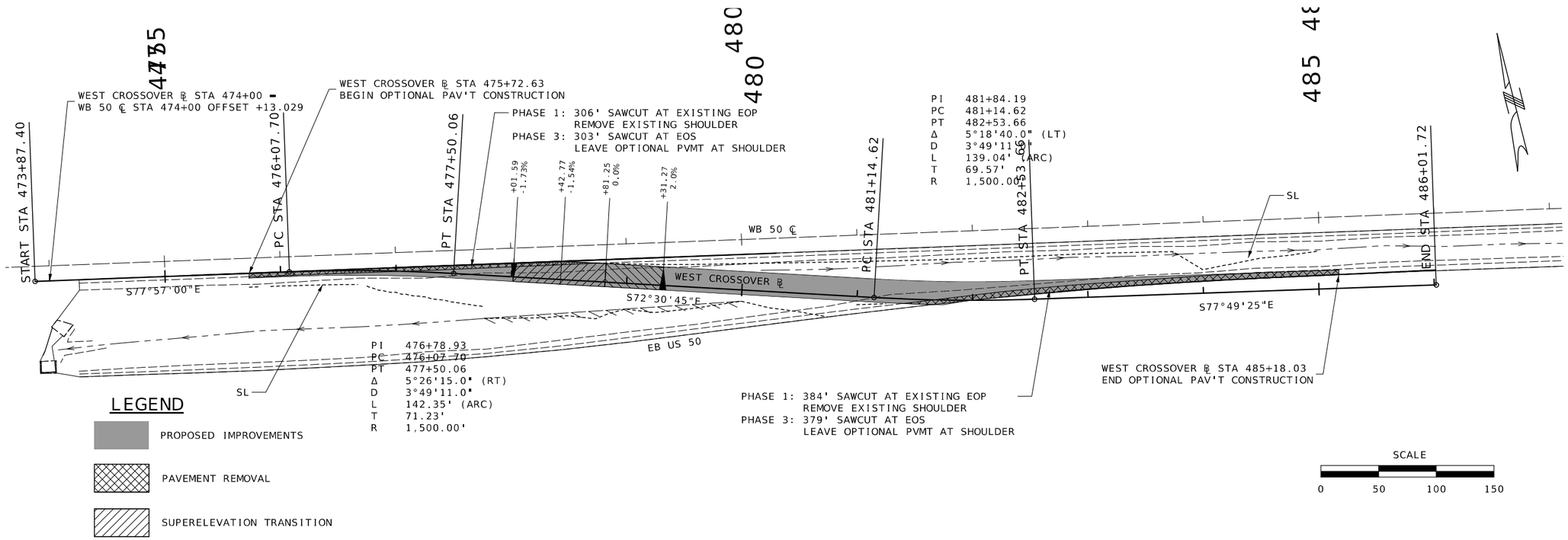
STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER
Jaclyn A. White
02/27/2025 1:02:37 PM
JACLYN A WHITE-CIVIL
MO-PE-2003001116

DATE PREPARED 1/7/2025
ROUTE 50 | STATE MO
DISTRICT KC | SHEET NO. 3
COUNTY JOHNSON
JOB NO. JKR0102
CONTRACT ID.
PROJECT NO.
BRIDGE NO. L0901

DESCRIPTION | DATE

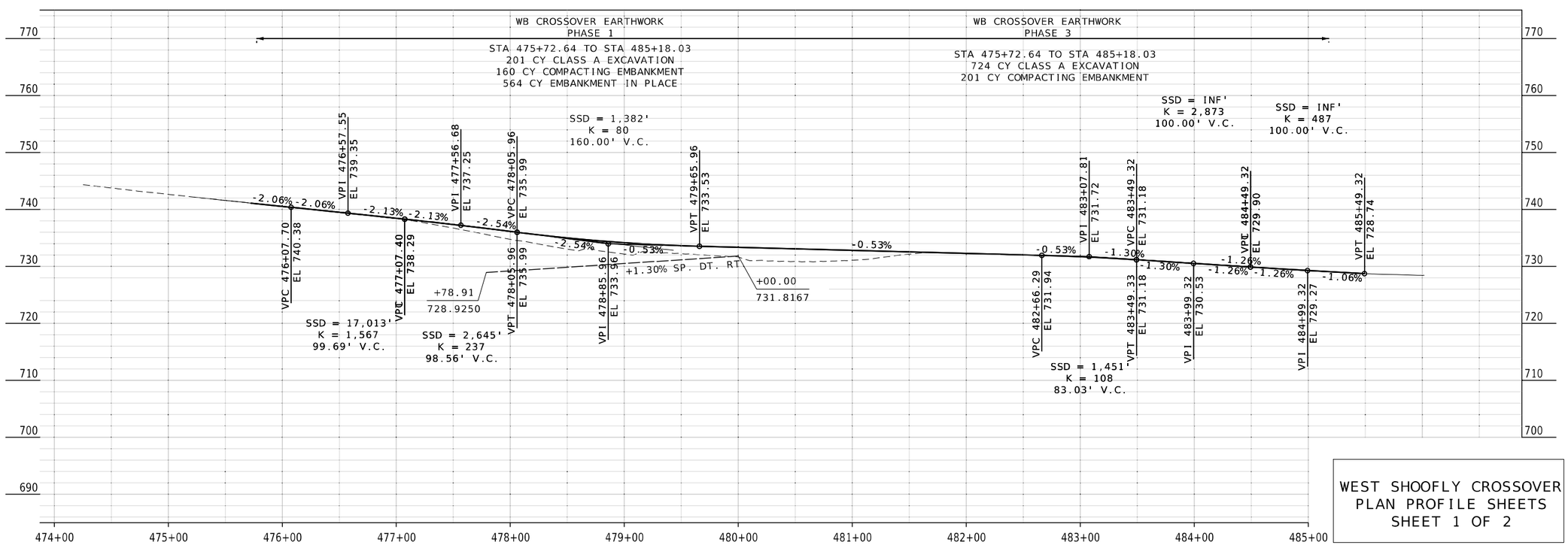
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

SUMMARY OF QUANTITIES
SHEET 4 OF 4



LEGEND

- PROPOSED IMPROVEMENTS
- PAVEMENT REMOVAL
- SUPERELEVATION TRANSITION



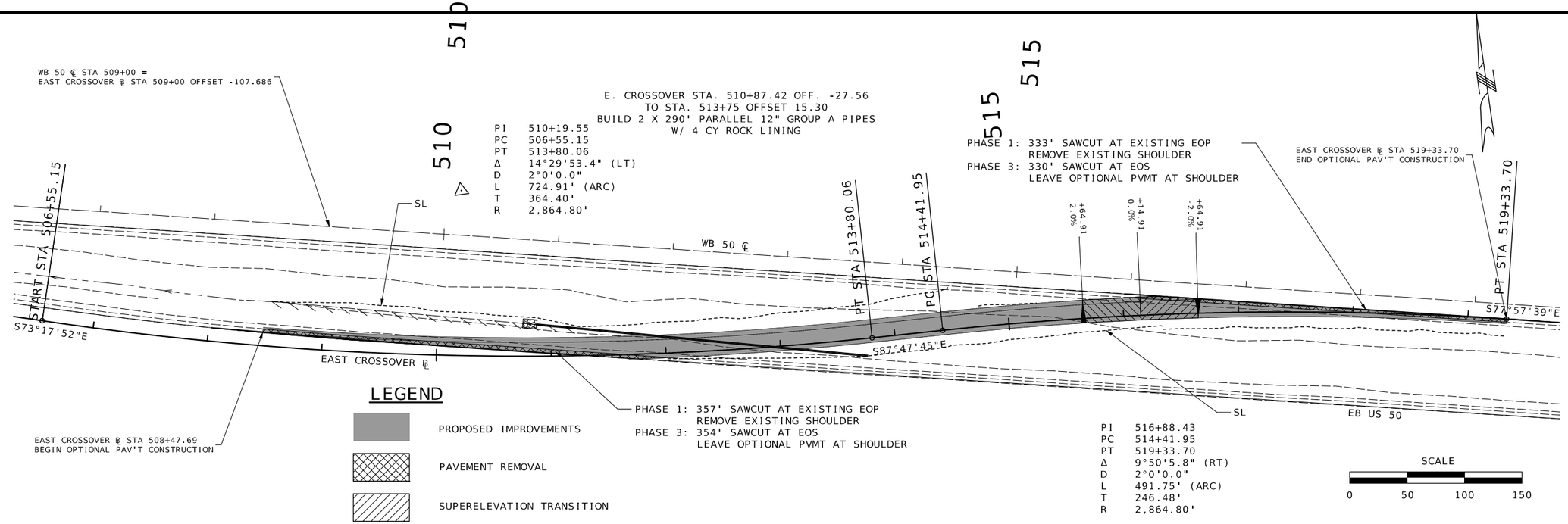
WEST SHOOFLY CROSSOVER
PLAN PROFILE SHEETS
SHEET 1 OF 2

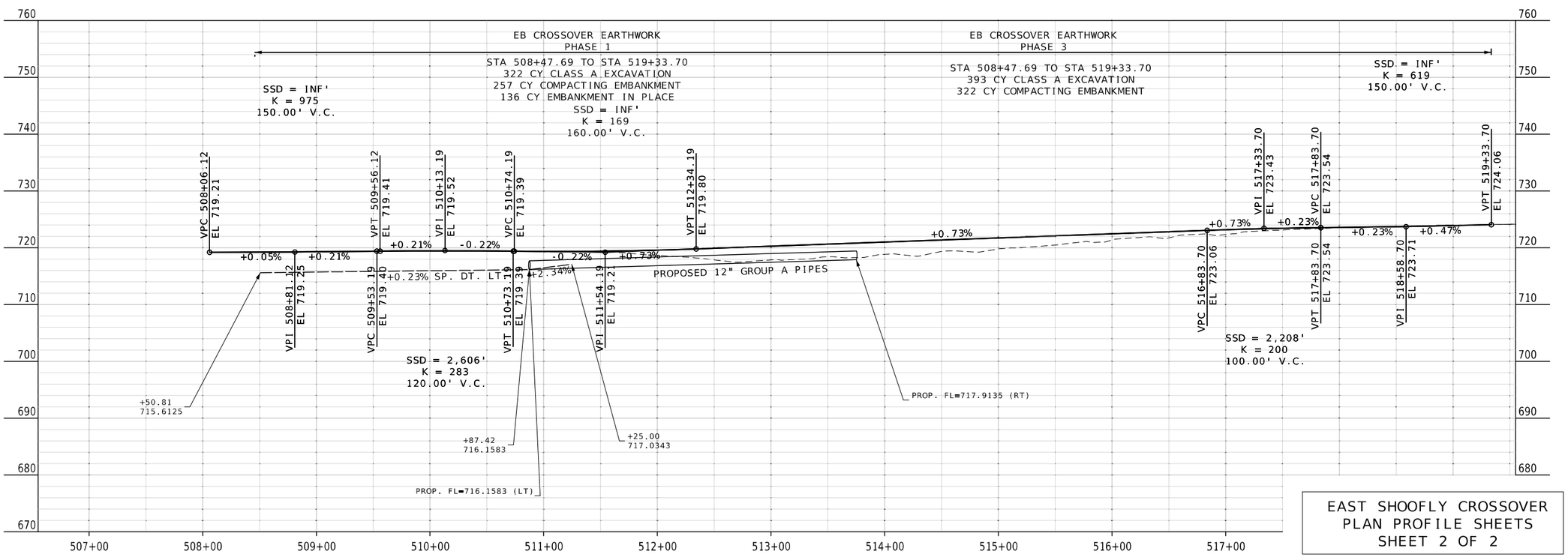
STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER
02/27/2025 1:03:08 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	
12/31/2024	
ROUTE 50	STATE MO
DISTRICT KC	SHEET NO. 4
COUNTY JOHNSON	
JOB NO. JKR0102	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. L0901	

DATE	DESCRIPTION

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





EAST SHOOFLY CROSSOVER
PLAN PROFILE SHEETS
SHEET 2 OF 2

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER

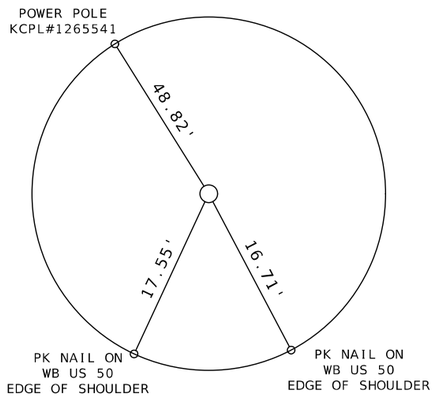
Jaclyn A. White
02/27/2025 1:03:35 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE 50	STATE MO
DISTRICT KC	SHEET NO. 5
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

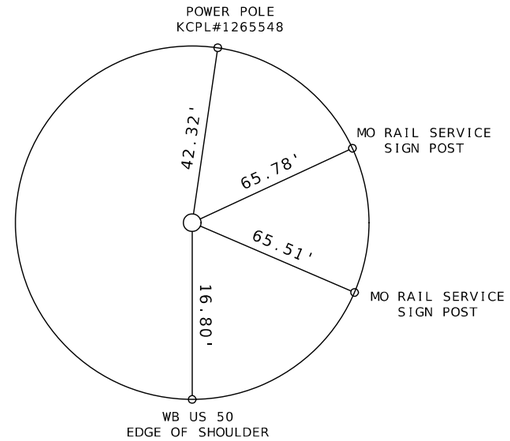
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

CP#1
⅝" BAR WITH PINK MODOT CAP.
LOCATED ±0.8 MILE WEST OF THE RTE 23 AND RTE 50 INTERCHANGE
ALOS BURIED ±0.5' BELOW GROUND



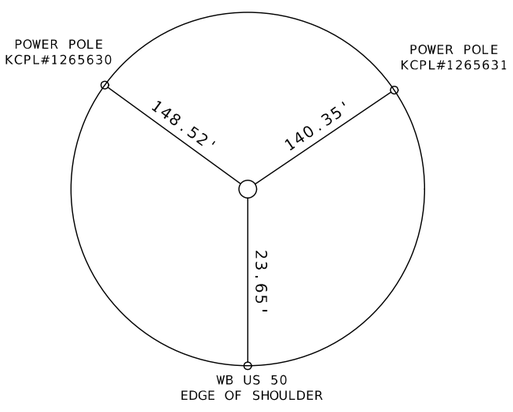
N: 949150.393
E: 3050910.870
ELEV: 725.513'
℄ WB US-50 STA 525+62.93 35.88' LT

CP#2
⅝" BAR WITH PINK MODOT CAP
LOCATED ±1 MILE WEST OF RTE 23 AND RTE 50 INTERCHANGE
ALSO BURIED ±0.5' BELOW GROUND



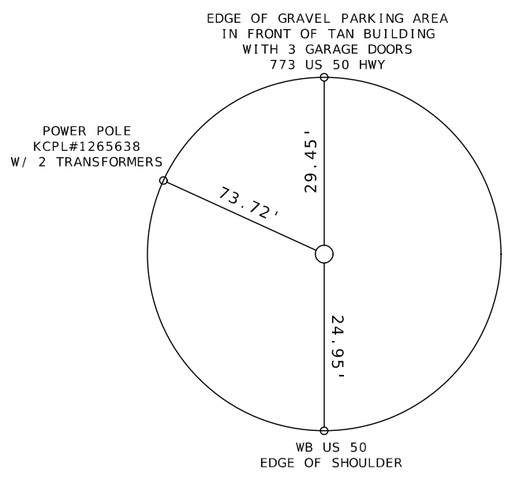
N: 949476.571
E: 3049395.266
ELEV: 718.609'
℄ WB US-50 STA 51+12.63 38.95' LT

CP#3
⅝" BAR WITH PINK MODOT CAP
LOCATED AT THE INTERSECTION OF RTE 50 AND NE 801ST RD
ALSO BURIED ±0.5' BELOW GROUND



N: 949892.798
E: 3047470.768
ELEV: 719.424'
℄ WB US-50 STA 490+43.65 44.85' LT

CP#F
⅝" BAR WITH PINK MODOT CAP
LOCATED ±0.5 MILE WEST OF THE INTERSECTION OF RTE 50 AND NE 801ST RD
ALSO BURIED ±0.5' BELOW GROUND



N: 950342.171
E: 3045373.792
ELEV: 753.732'
℄ WB US-50 STA 468+99.06 47.22' LT

NOT TO SCALE

REFERENCE POINTS
SHEET 1 OF 1

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER
Jaclyn A. White
02/27/2025 1:04:08 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	
12/31/2024	
ROUTE	STATE
50	MO
DISTRICT	SHEET NO.
KC	6
COUNTY	
JOHNSON	
JOB NO.	
JKR0102	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
L0901	

DATE	DESCRIPTION

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

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

PROJECT COORDINATE INFORMATION

COORDINATE SYSTEM	MODIFIED STATE PLANE(GROUND)
HORIZONTAL DATUM	NAD83
VERTICAL DATUM	NAVD88
GEOID MODEL	GEOID18
ELEVATIONS DETERMINED BY	GPS OBSERVATION
PROJECT PROJECTION FACTOR	1.00001290

REFERENCE CONTROL INFORMATION

COORDINATE SYSTEM	MO COORDINATE SYSTEM OF 1983
CONTROL STATION	MO GEOGRAPHIC REFERENCE SYSTEM
DESIGNATION	JO-40
CORS_ID	XX
PID	101040
LATITUDE	38°45'29.04047"
LONGITUDE	093°34'26.98388"
NORTHING (M)	288000.5040
EASTING (M)	930470.4600
ZONE	WEST
PROJECT AVERAGE GRID FACTOR	0.99998710

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 #_1_
N 949150.39__ X 0.99998710 = N 949138.15
E 3050910.83__ X 0.99998710 = E 3050517.26

LINEAR UNIT CONVERSION

1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT LISTING

SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND) NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)	DESCRIPTION	GPK POINT ID
PROJECT CONTROL POINTS								
	468+99.06	℄ WB US 50	-47.2151	950,342.17	3,045,373.79	753.73	RP #4	
	490+43.65	℄ WB US 50	-44.8502	949,892.79	3,047,470.77	719.42	RP #3	
	510+12.63	℄ WB US 50	-38.9484	949,476.57	3,049,395.27	718.61	RP #2	
	525+62.93	℄ WB US 50	-35.879	949,150.39	3,050,910.87	725.51	RP #1	
ALIGNMENTS								
	435+00	℄ WB US 50	0	3,042,041.82	951,015.04		BEGIN CHAIN	
	450+68.10	℄ WB US 50	0	3,043,573.97	950,681.16		PC CURVE	
	458+51.37	℄ WB US 50		3,044,339.27	950,514.40		HPI CURVE	
	466+34.63	℄ WB US 50	0	3,045,105.33	950,351.12		PT CURVE	
	529+00	℄ WB US 50	0	3,051,233.05	949,045.04		END CHAIN	
	473+87.40	WEST XOVER	0	3,045,838.84	950,181.46		BEGIN CHAIN WEST CROSSOVER	
	476+07.70	WEST XOVER	0	3,046,054.29	950,135.46		PC CURVE 1	
	476+78.94	WEST XOVER		3,046,123.95	950,120.59		HPI CURVE 1	
	477+50.06	WEST XOVER	0	3,046,191.89	95,099.19		PT CURVE 1	
	481+14.62	WEST XOVER	0	3,046,539.60	949,989.64		PC CURVE 2	
	481+84.19	WEST XOVER		3,046,605.96	949,968.73		HPI CURVE 2	
	482.53.66	WEST XOVER	0	3,046,673.96	949,954.06		PT CURVE 2	
	486+01.72	WEST XOVER	0	3,047,014.19	9,498,800.65		END CHAIN WEST CROSSOVER	
	506+55.15	EAST XOVER	0	3,049,017.72	949,416.82		BEGIN CHAIN EAST CROSSOVER	
	506+55.15	EAST XOVER	0	3,049,017.72	949,416.82		PC CURVE 1	
	510+19.55	EAST XOVER		3,049,366.75	949,312.09		HPI CURVE 1	
	513+80.06	EAST XOVER	0	3,049,730.88	949,298.07		PT CURVE 1	
	514+41.95	EAST XOVER	0	3,049,792.72	949,295.69		PC CURVE 2	
	516+88.43	EAST XOVER		3,050,039.02	949,286.21		HPI CURVE 2	
	519+33.70	EAST XOVER	0	3,050,280.08	949,234.80		PT CURVE 2	
	527+47.69	EAST XOVER	0	3,051,076.17	949,065.02		END CHAIN EAST CROSSOVER	

COORDINATE POINTS
SHEET 1 OF 1

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER

02/27/2025 1:04:42 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED
12/31/2024

ROUTE	STATE
50	MO
DISTRICT	SHEET NO.
KC	7

COUNTY
JOHNSON

JOB NO.
JKR0102

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
L0901

DESCRIPTION

DATE

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

Sign Spacing, Device Spacing and Channelizing Taper Lengths

SIGN SPACING (S) FOR ADVANCE SIGN SERIES (1) (2)		
SPEED MPH	UNDIVIDED HIGHWAYS	DIVIDED HIGHWAYS
0-35	200	200
40-45	350	500
50-55	500	1000
60-70	1000	SA-1000 SB-1500 SC-2640

LONGITUDINAL BUFFER SPACE (B)	
SPEED MPH	BUFFER SPACE
0-35	250
40-45	360
50-55	495
60-70	730

TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES					
SPEED MPH	MINIMUM TAPER LENGTHS (L) FOR LANE WIDTHS (W)			MAXIMUM CHANNELIZER SPACING	
	10 FT	11 FT	12 FT	THROUGH TAPER	THROUGH WORK AREA
0-35	205	225	245	35	40
40-45	450	495	540	40	80
50-55	550	605	660	50	80
60-70	700	770	840	60	120

TAPER LENGTH (L):

L = WS FOR 40 MPH OR MORE

$L = \frac{WS^2}{60}$ FOR 35 MPH OR LESS

FOR SHOULDER TAPER USE L/3

WHERE:

L = TAPER LENGTH IN FEET

W = LATERAL SHIFT IN FEET

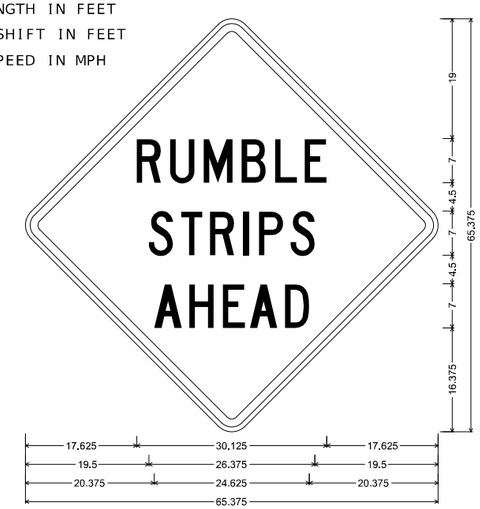
S = POSTED SPEED IN MPH

NOTES:

DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.

(1) SPACING BETWEEN SIGNS AND SPACING BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER, OR SIGNED CONDITION

(2) SPACINGS MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS



SPECIAL SHF-FLAT SHEET FLUORESCENT;
48.000" across sides 3.000" Radius, 1.250" Border, 0.750" Indent, Black on, Orange;
"RUMBLE", C; "STRIPS", C; "AHEAD", C;
Table of letter and object lefts

R 17.625	U 23.000	M 28.250	B 34.250	L 39.625	E 44.250
S 19.500	T 24.625	R 29.250	I 34.500	P 37.000	S 42.000
A 20.375	H 26.000	E 31.250	A 35.625	D 41.125	

TRAFFIC CONTROL DEVICES

GENERAL NOTES:

1. SEE STANDARD PLAN 616.10 FOR DETAILS AND ITEMS NOT SHOWN
2. EXISTING SIGNS SHALL BE COVERED DURING WORKING HOURS ONLY IF IN CONFLICT WITH TRAFFIC CONTROL PLANS.
3. NO DIRECT PAYMENT WILL BE MADE FOR RELOCATING, COVERING, UNCOVERING OR REMOVING SIGNS.
4. CONES ALLOWABLE FOR DAYTIME OPERATIONS ONLY.
6. LOCATE FLASHING ARROW PANEL AT BEGINNING OF TAPER WHEN FEASIBLE, ARROW PANELS ARE ALWAYS LOCATED BEHIND CHANNELIZERS OR CONES.

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- FLAGGER
- DIRECTIONAL INDICATOR BARRICADE
- CHANNELIZER
- BARRICADE
- CHANGEABLE MESSAGE BOARD
- TMA TRUCK MOUNTED ATTENUATOR W/ FLASHING ARROW

TEMPORARY TRAFFIC CONTROL

SHEET 1 OF 2

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER
Jaclyn A. White
02/27/2025 1:05:16 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED 12/31/2024

ROUTE	STATE
50	MO
DISTRICT	SHEET NO.
KC	8

COUNTY JOHNSON

JOB NO. JKR0102

CONTRACT ID.

PROJECT NO.

BRIDGE NO. L0901

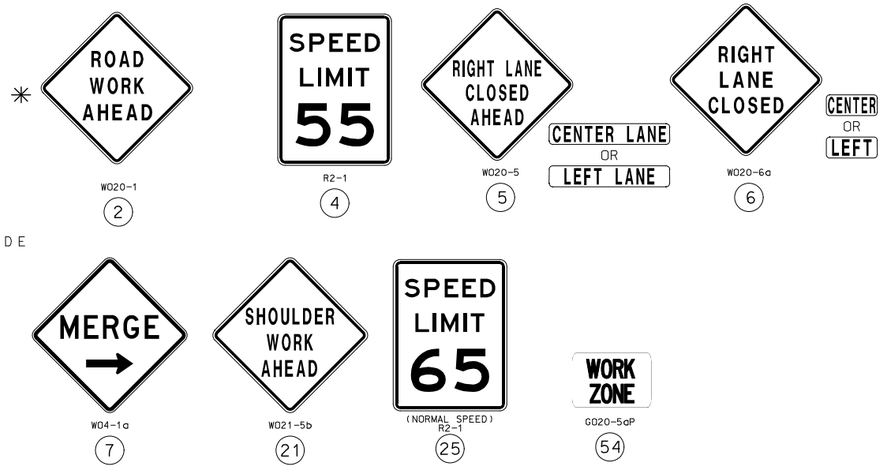
DATE	DESCRIPTION

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

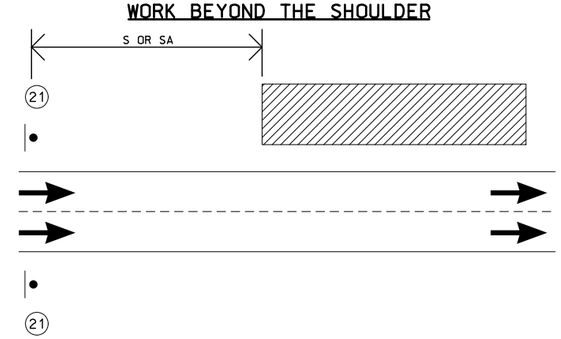
TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- CHANNELIZER
- BARRICADE
- IMPACT ATTENUATOR
- LANE USE ARROW
- TUBULAR MARKER
- DIRECTIONAL INDICATOR BARRICADE
- BARRIER HEIGHT TRANSITION
- WORK AREA
- FLASHING ARROW PANELS

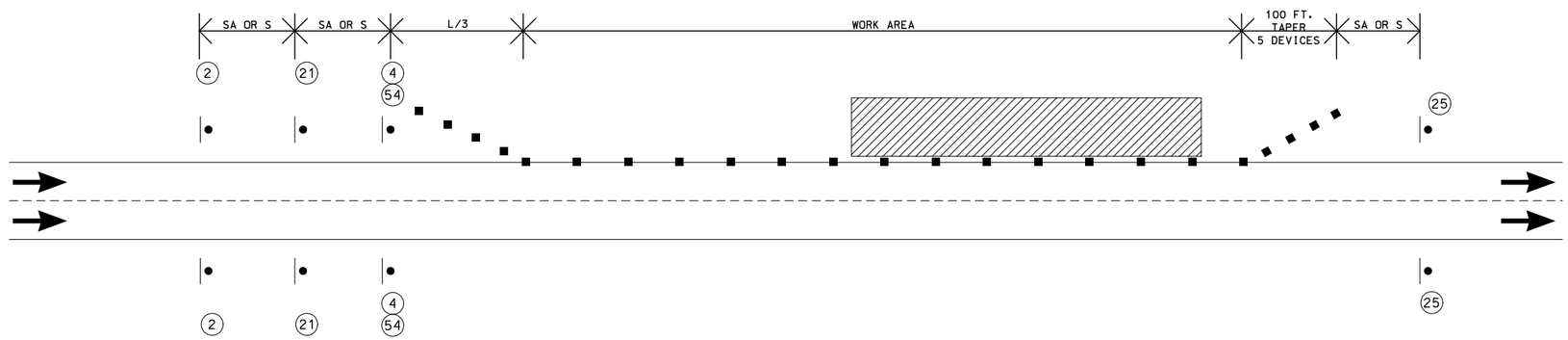
✳NOTE: INCLUDE ADVANCED WARNING RAIL SYSTEM WITH W020-1



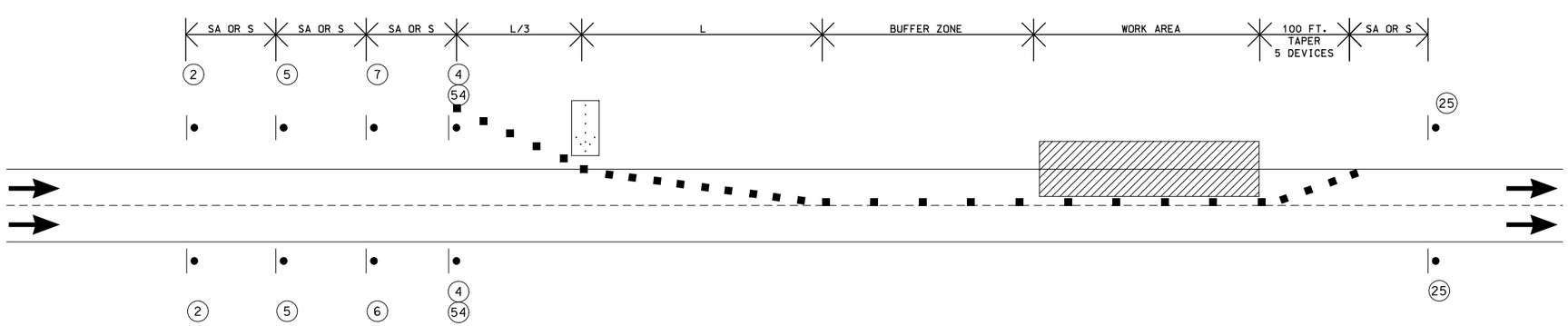
WORK BEYOND THE SHOULDER



WORK ON SHOULDER WITH NO TRAVELWAY ENCROACHMENT



LANE CLOSURE



TEMPORARY TRAFFIC CONTROL
SHEET 2 OF 2

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER
Jaclyn A. White
02/27/2025 1:05:57 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

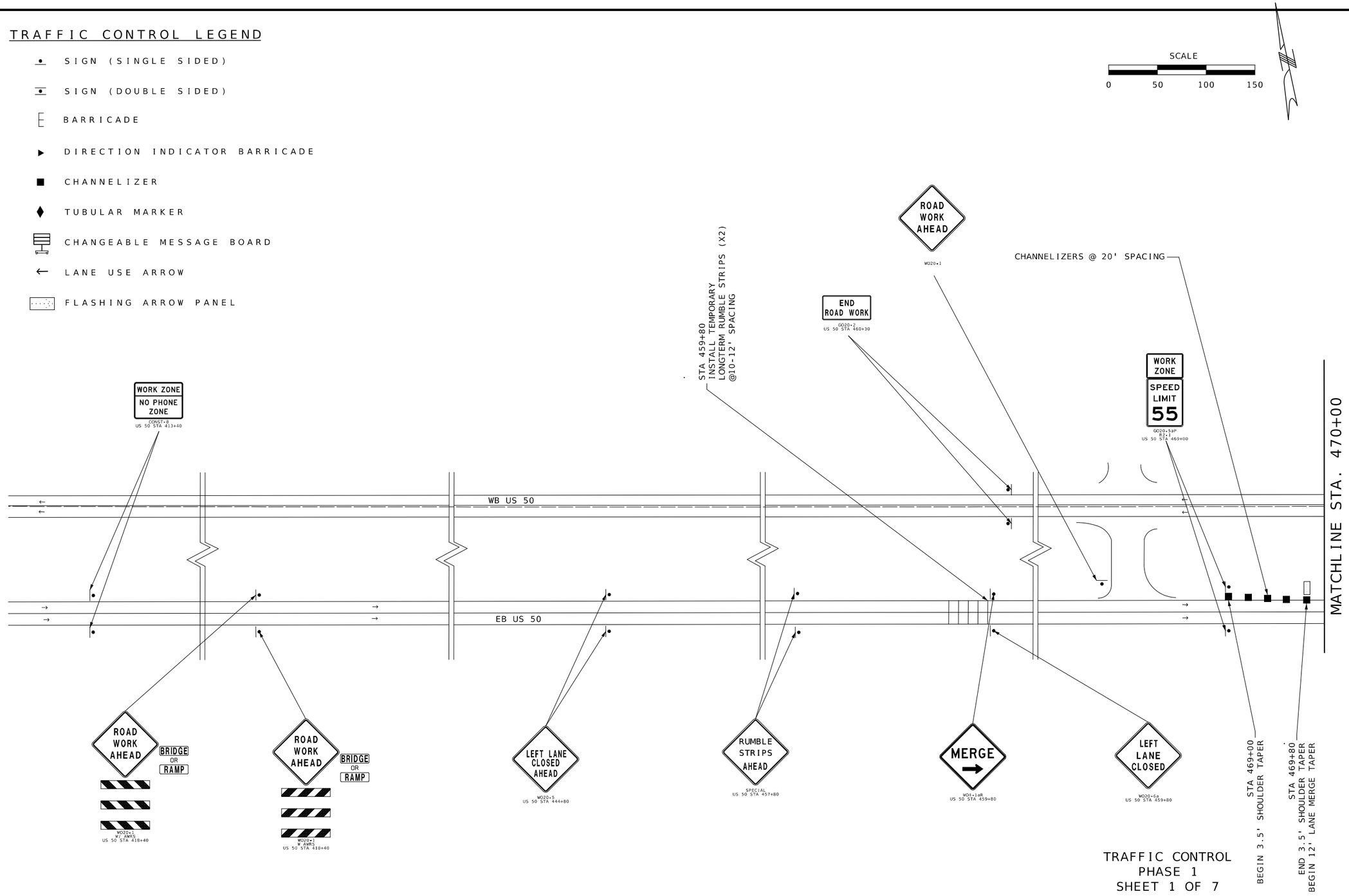
DATE PREPARED	12/31/2024
ROUTE 50	STATE MO
DISTRICT KC	SHEET NO. 9
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DESCRIPTION	DATE

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

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL



TRAFFIC CONTROL
PHASE 1
SHEET 1 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER
02/27/2025 1:06:24 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	10
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

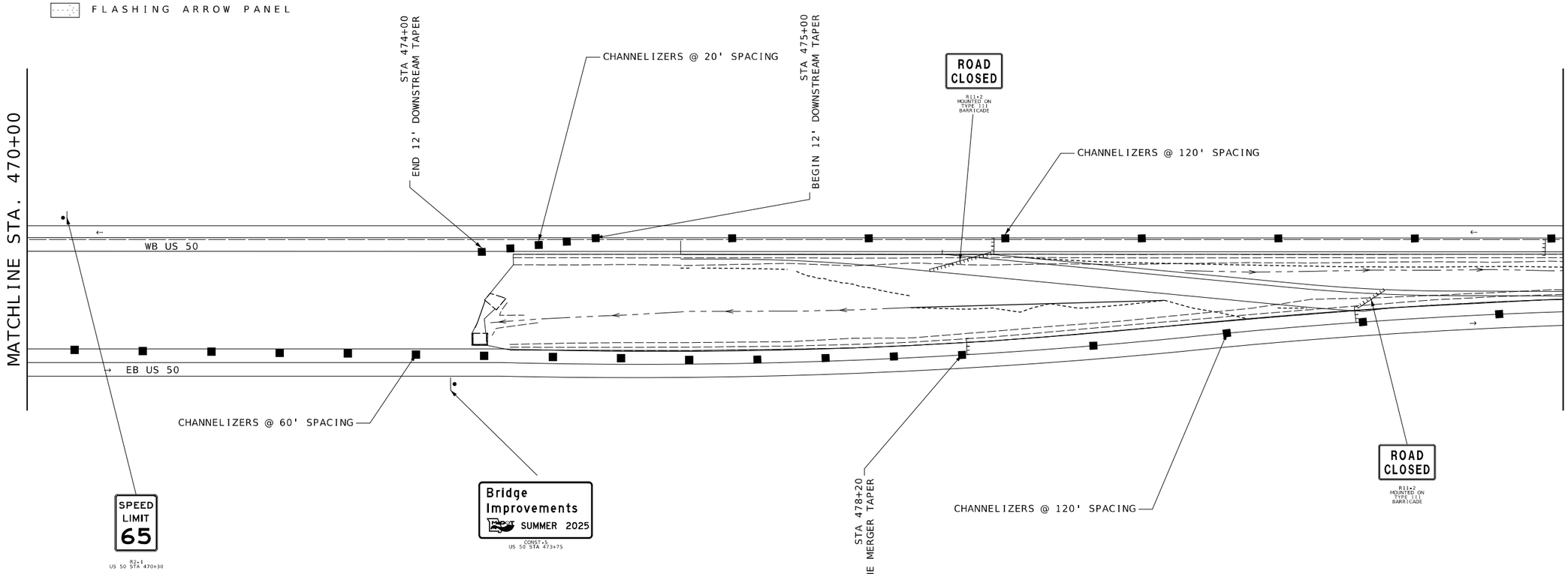
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL

SCALE

0 50 100 150



TRAFFIC CONTROL
PHASE 1
SHEET 2 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:06:54 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	11
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

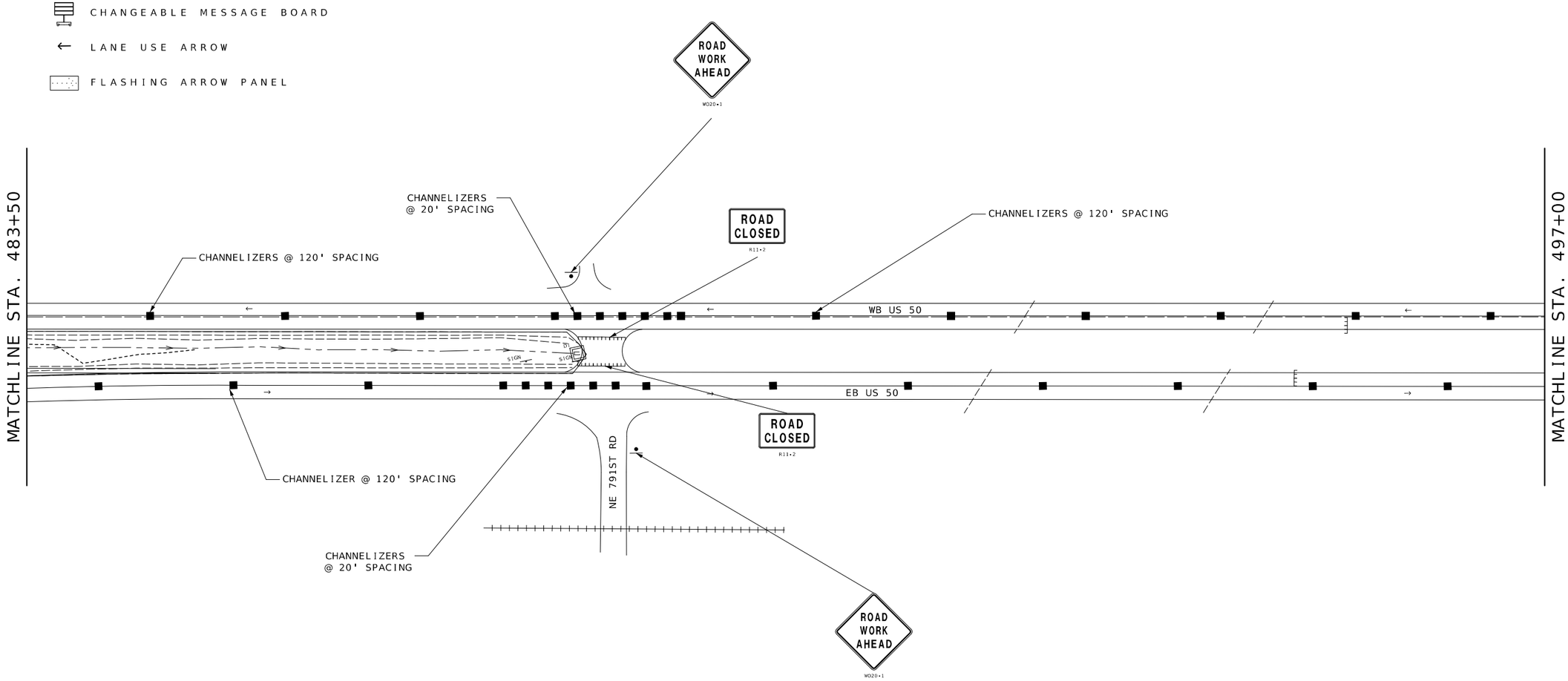
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL

SCALE

0 50 100 150



TRAFFIC CONTROL
PHASE 1
SHEET 3 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:07:21 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	12
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

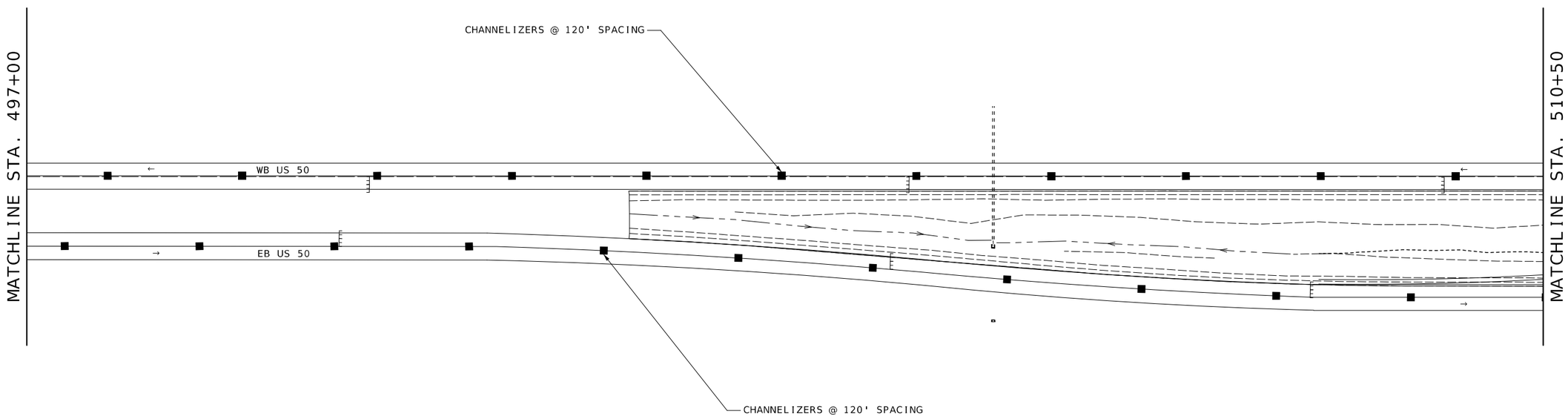
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL

SCALE

0 50 100 150



TRAFFIC CONTROL
PHASE 1
SHEET 4 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:07:52 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	
12/31/2024	
ROUTE	STATE
50	MO
DISTRICT	SHEET NO.
KC	13
COUNTY	
JOHNSON	
JOB NO.	
JKR0102	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
L0901	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

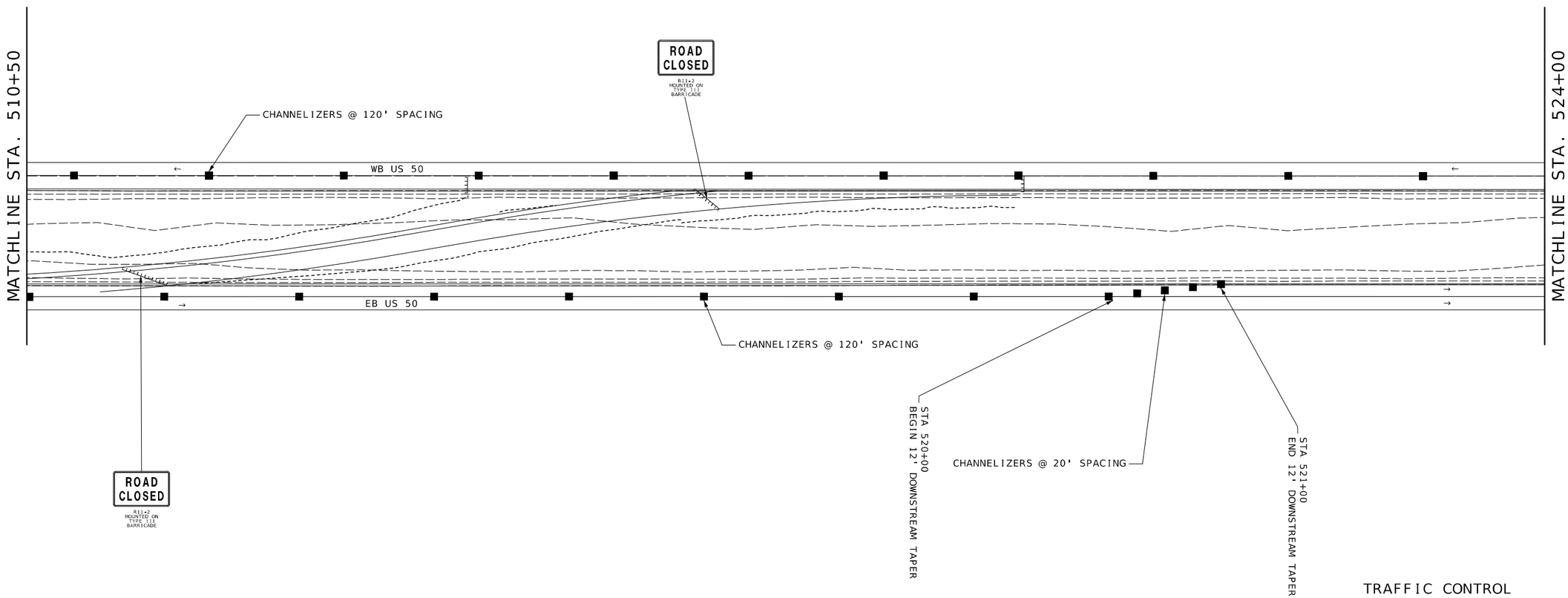
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL

SCALE

0 50 100 150



TRAFFIC CONTROL
PHASE 1
SHEET 5 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:08:17 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	14
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

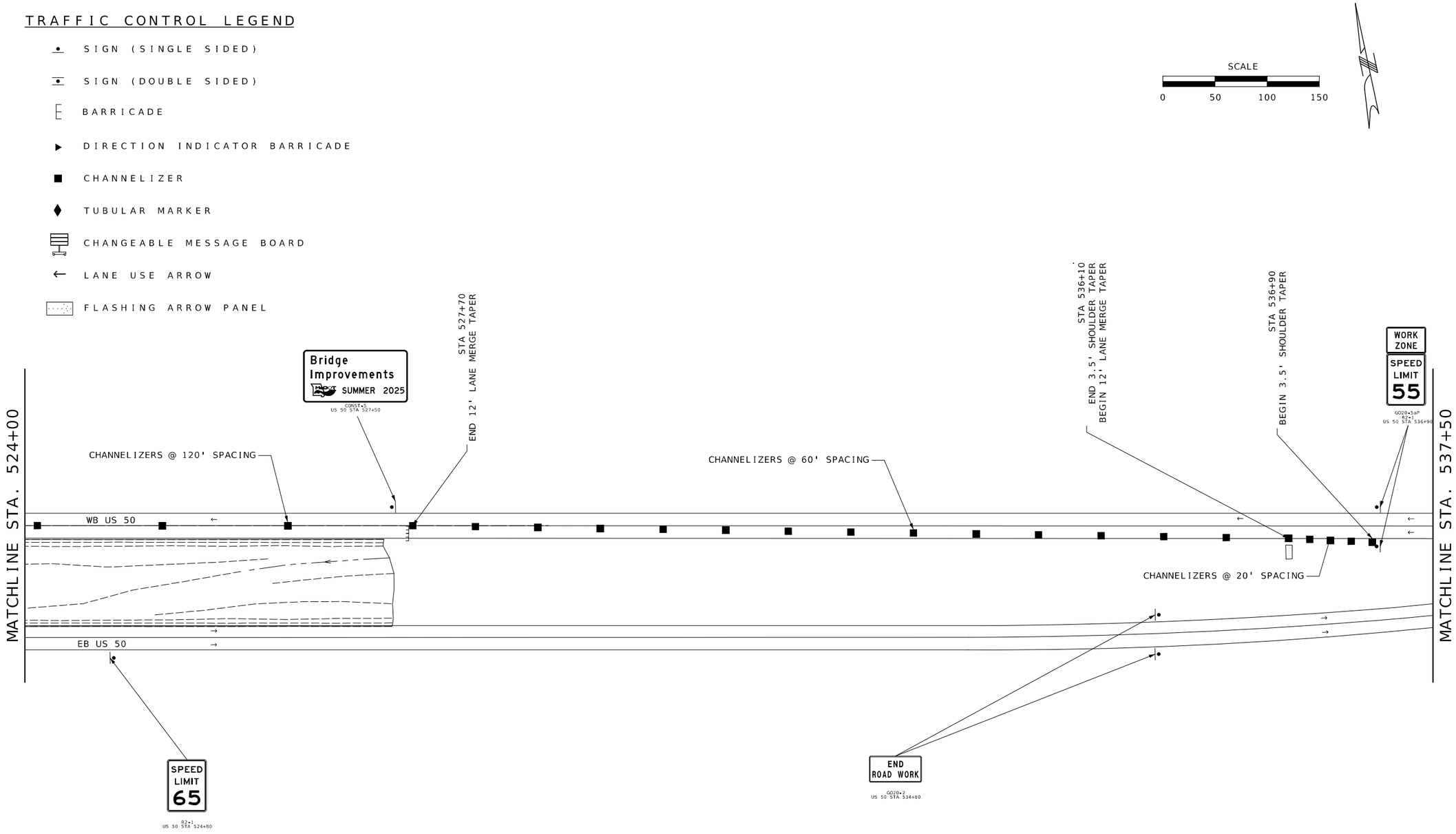
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL



TRAFFIC CONTROL
PHASE 1
SHEET 6 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:08:47 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

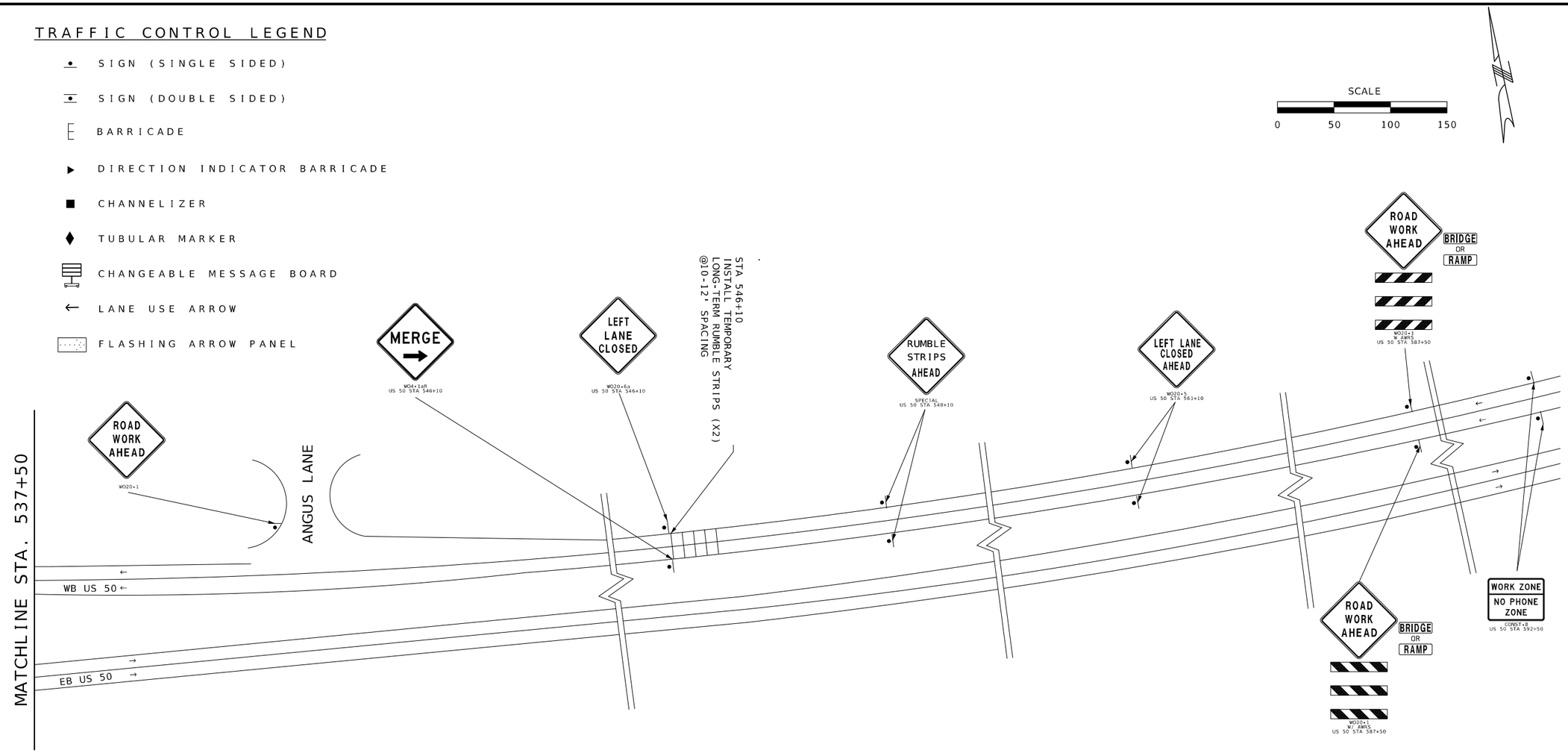
DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	15
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

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

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL



TRAFFIC CONTROL
PHASE 1
SHEET 7 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:09:17 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

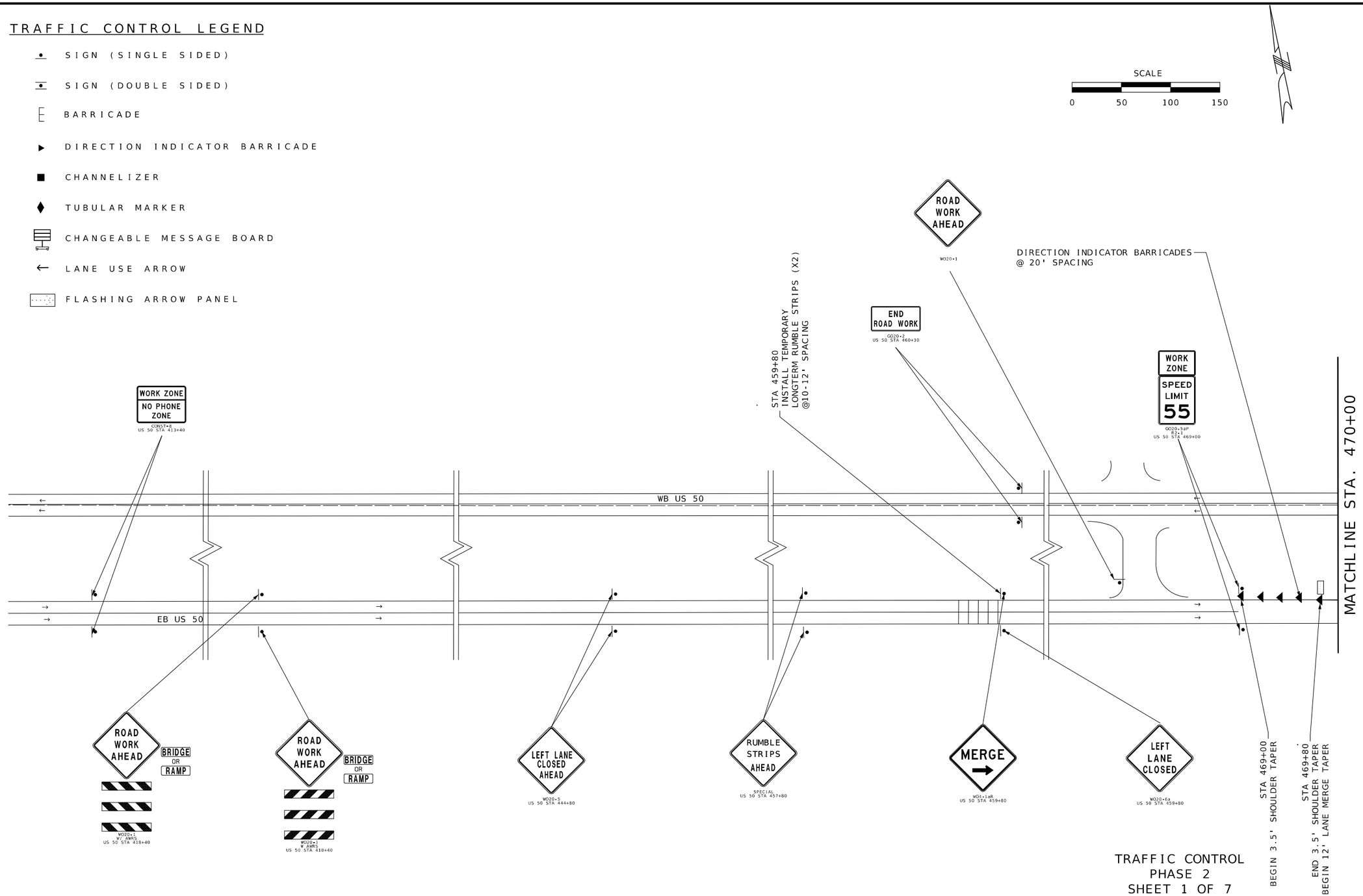
DATE PREPARED	
12/31/2024	
ROUTE 50	STATE MO
DISTRICT KC	SHEET NO. 16
COUNTY JOHNSON	
JOB NO. JKR0102	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. L0901	

DATE	DESCRIPTION

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

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL



TRAFFIC CONTROL
PHASE 2
SHEET 1 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:09:44 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	17
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

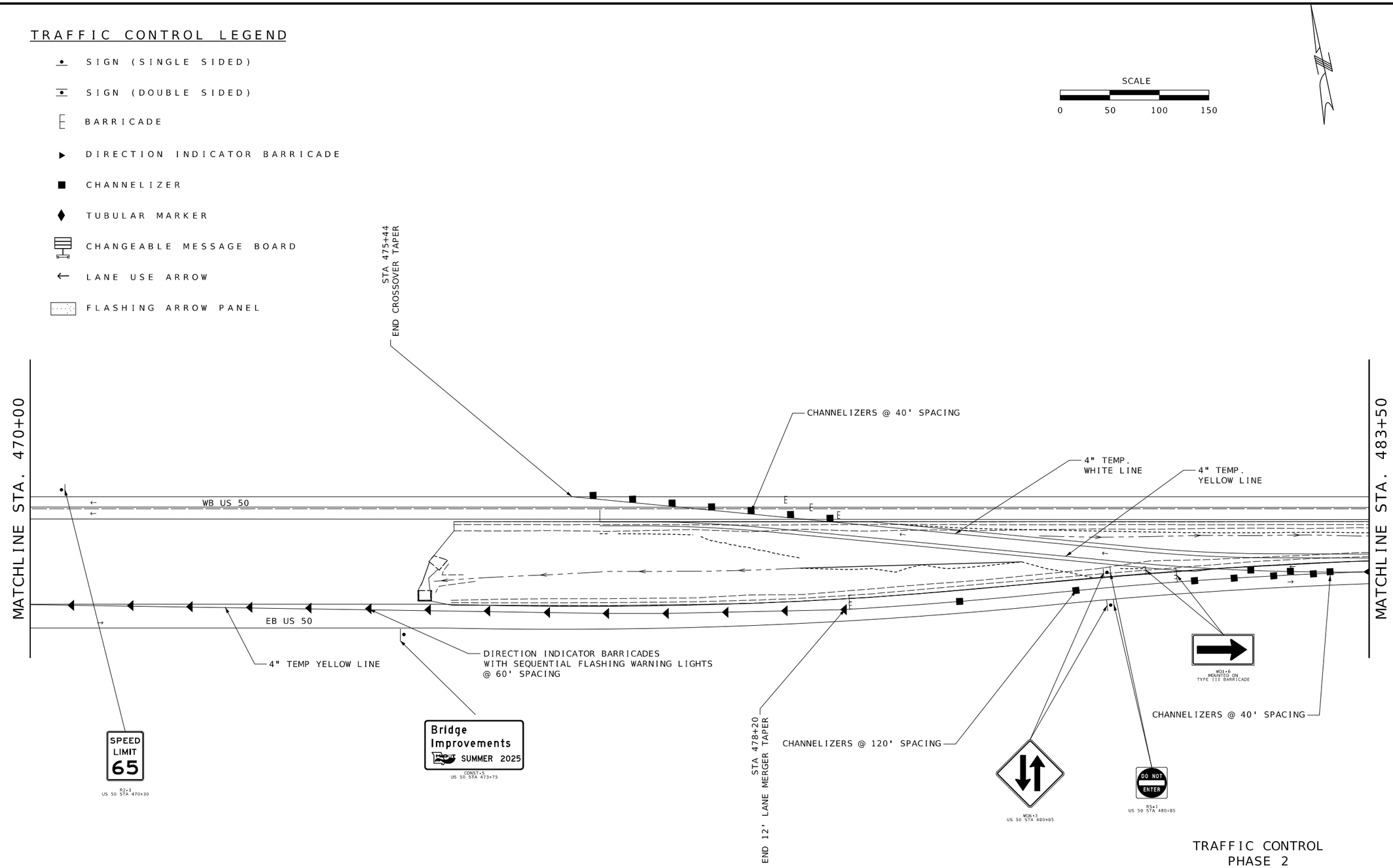
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL



TRAFFIC CONTROL
PHASE 2
SHEET 2 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:10:14 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	18
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

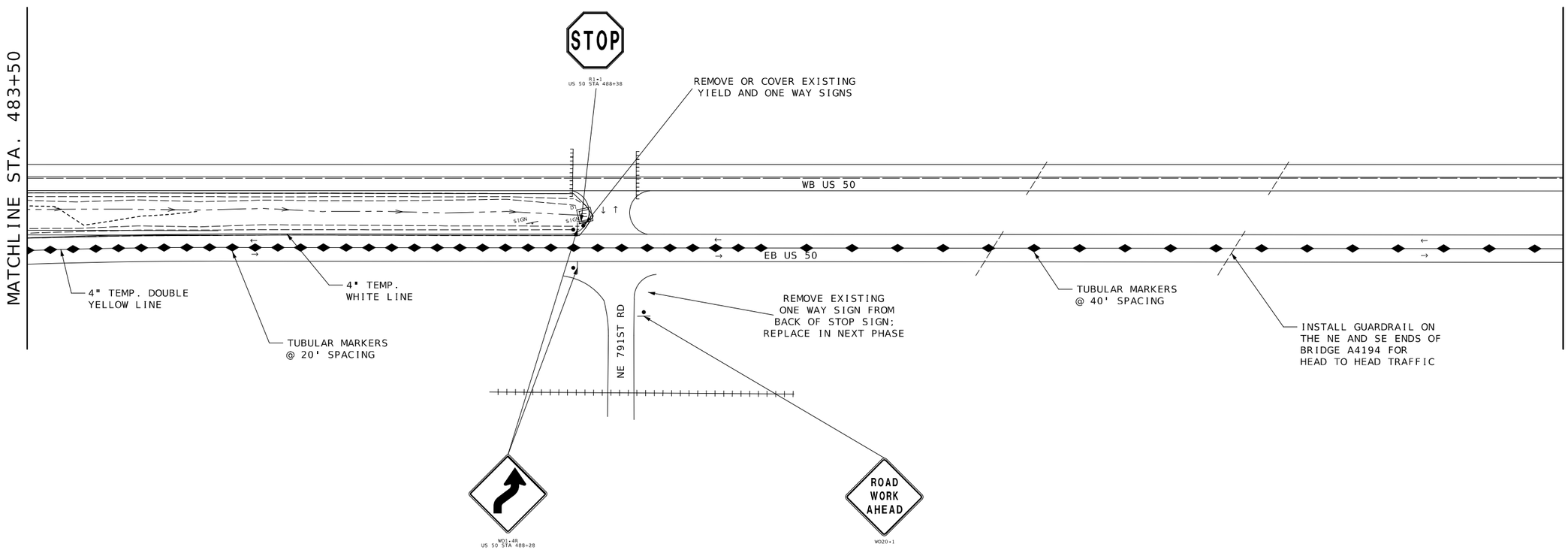
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL

SCALE

0 50 100 150



TRAFFIC CONTROL
PHASE 2
SHEET 3 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:10:41 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	
12/31/2024	
ROUTE	STATE
50	MO
DISTRICT	SHEET NO.
KC	19
COUNTY	
JOHNSON	
JOB NO.	
JKR0102	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
L0901	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

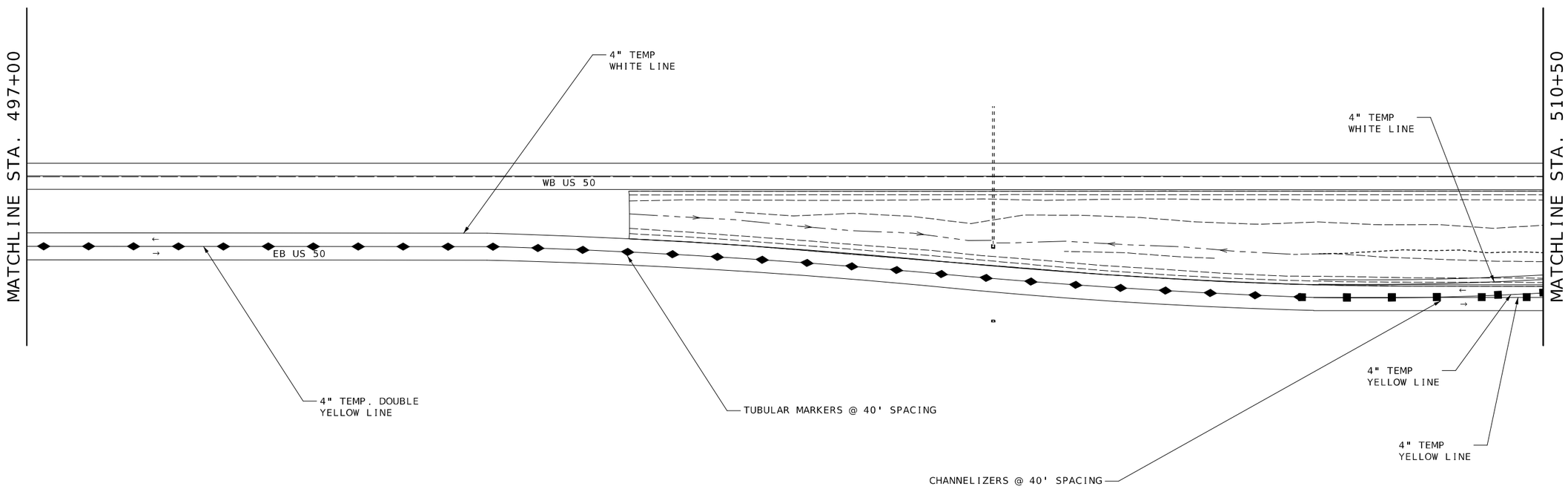
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL

SCALE

0 50 100 150



TRAFFIC CONTROL
PHASE 2
SHEET 4 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:11:06 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	20
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

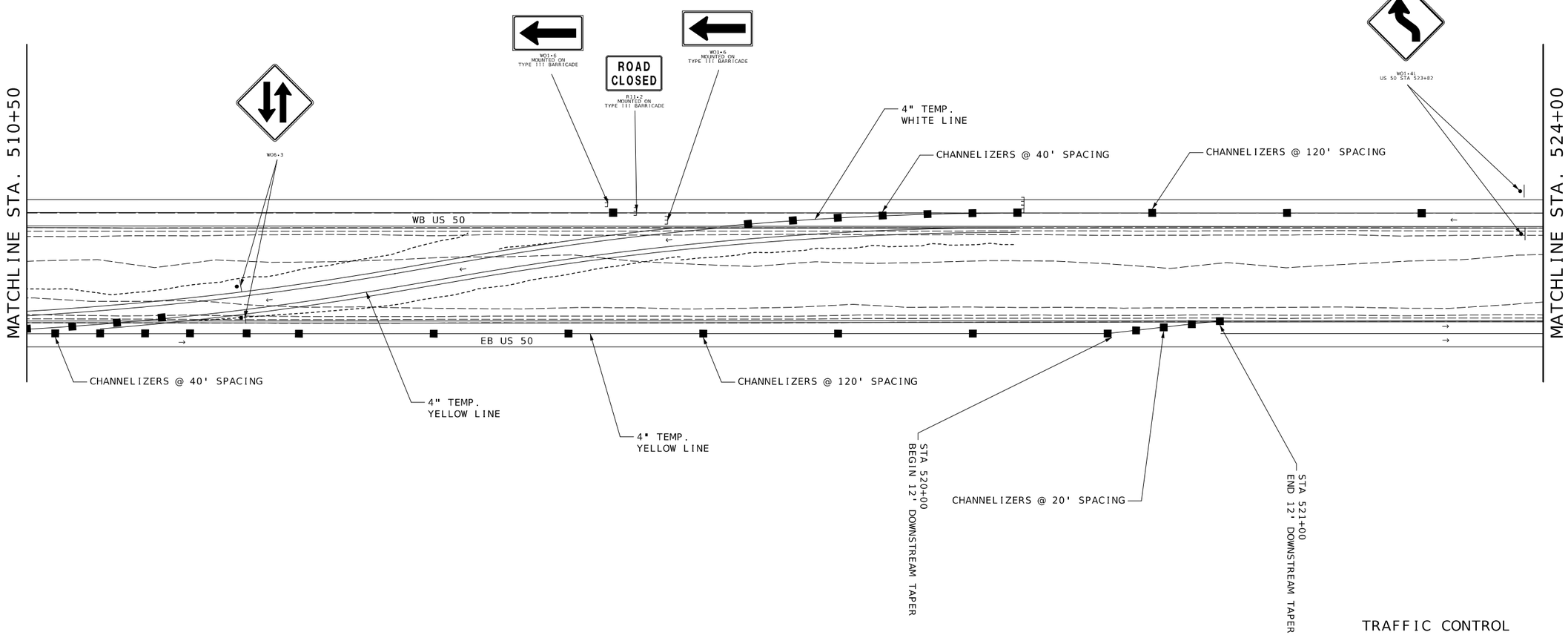
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL

SCALE

0 50 100 150



TRAFFIC CONTROL
PHASE 2
SHEET 5 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 11:11:38 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	
12/31/2024	
ROUTE	STATE
50	MO
DISTRICT	SHEET NO.
KC	21
COUNTY	
JOHNSON	
JOB NO.	
JKR0102	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
L0901	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

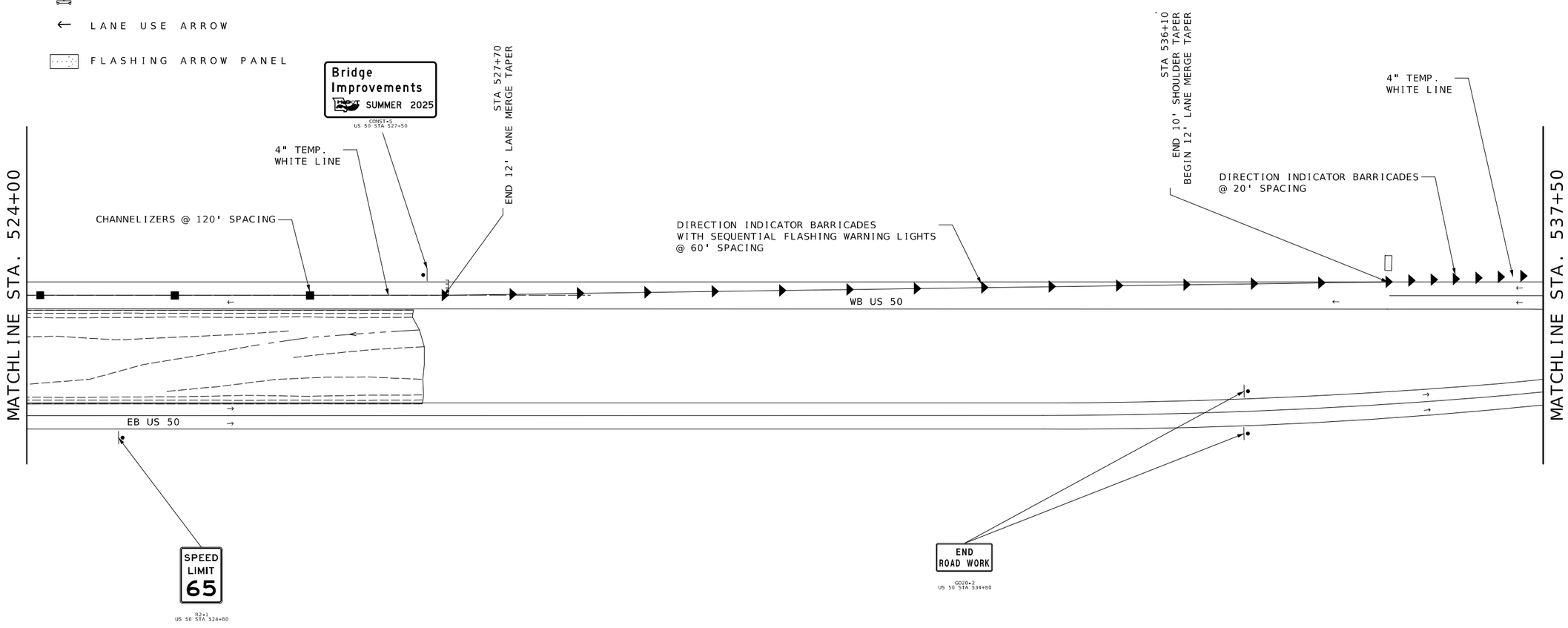
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL

SCALE

0 50 100 150



TRAFFIC CONTROL
PHASE 2
SHEET 6 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:12:14 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	22
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DESCRIPTION

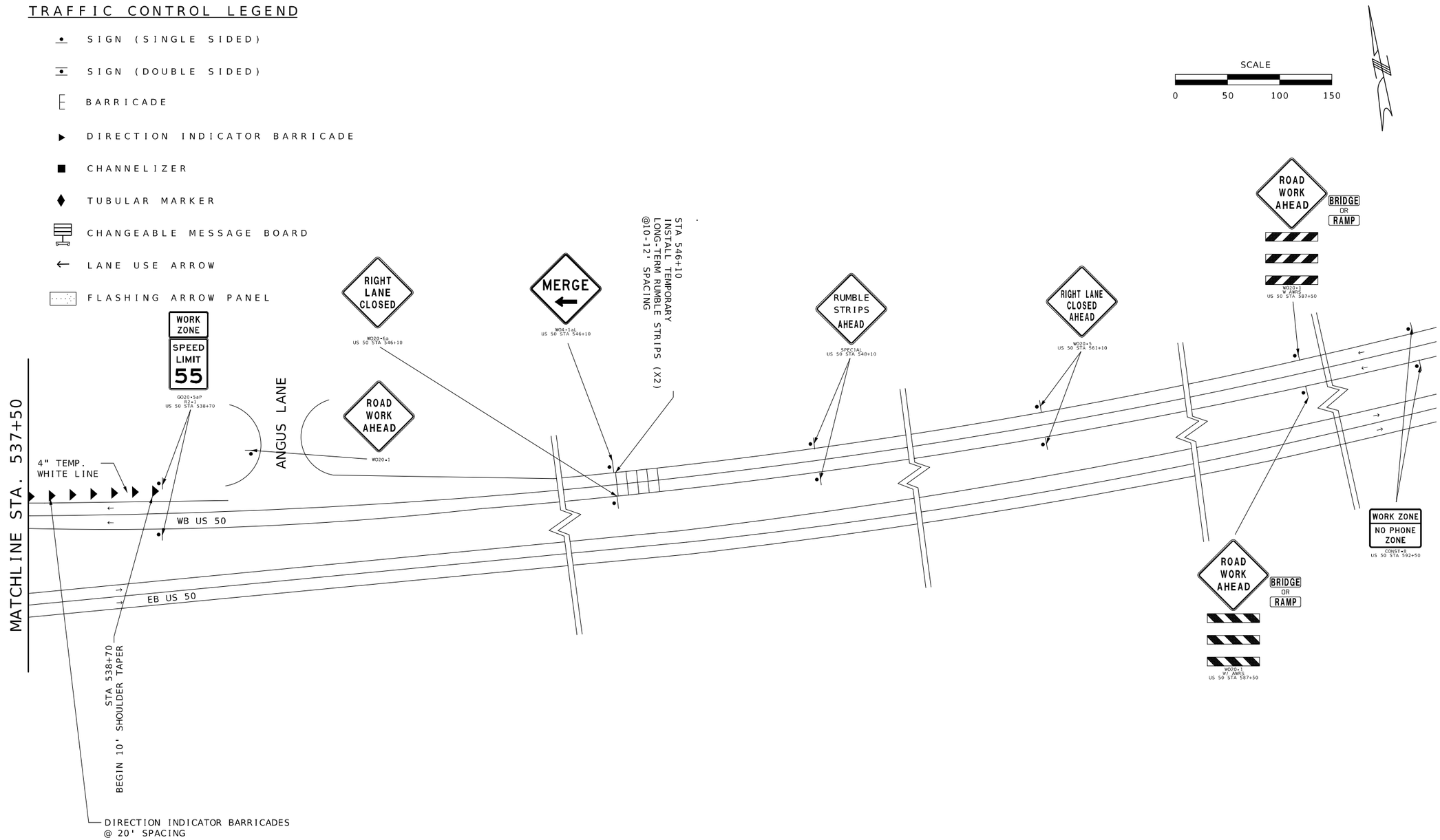
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL



TRAFFIC CONTROL
PHASE 2
SHEET 7 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:12:48 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

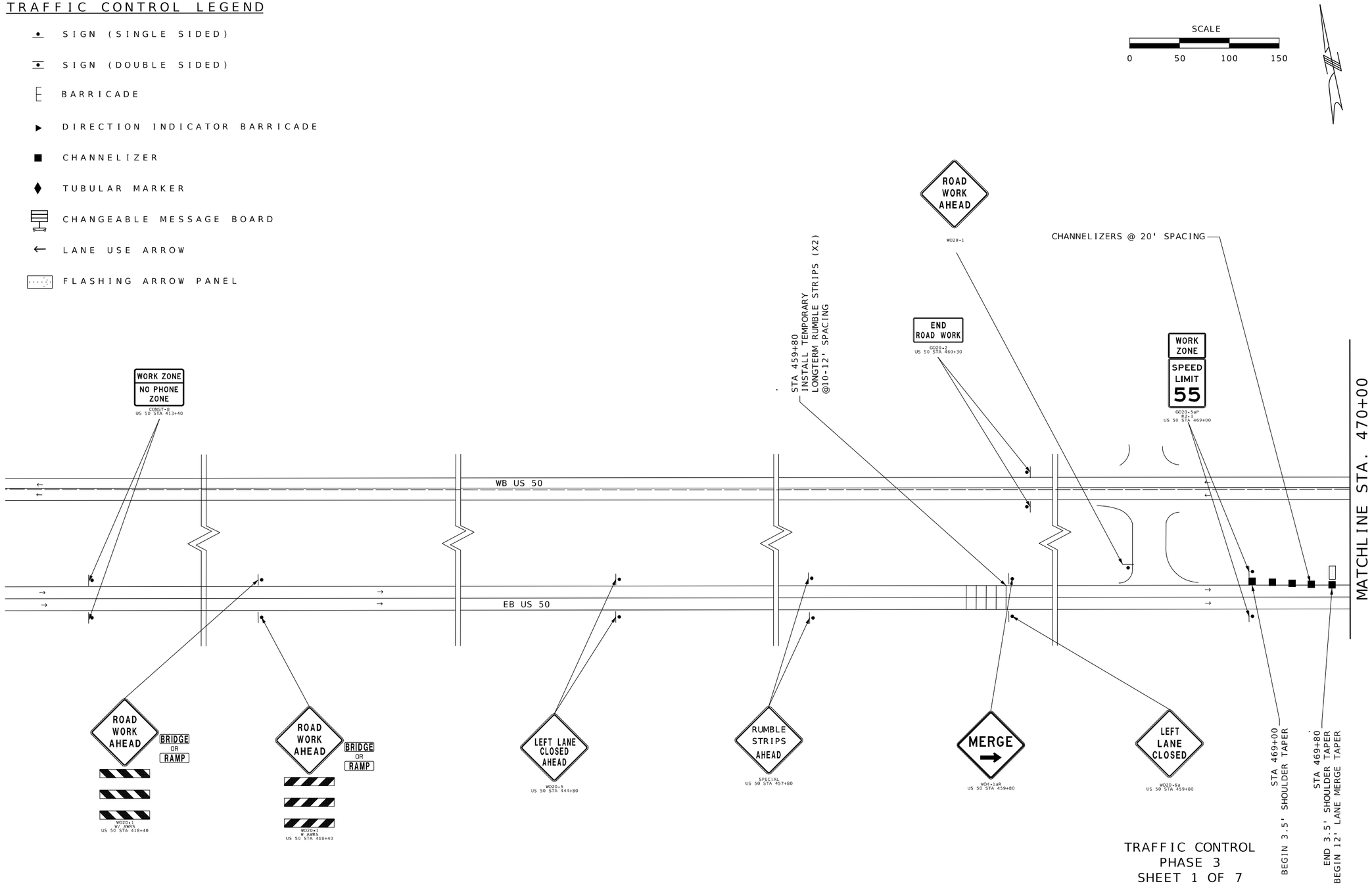
DATE PREPARED	
12/31/2024	
ROUTE 50	STATE MO
DISTRICT KC	SHEET NO. 23
COUNTY JOHNSON	
JOB NO. JKR0102	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. L0901	

DATE	DESCRIPTION

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

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL



TRAFFIC CONTROL
PHASE 3
SHEET 1 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:13:20 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	24
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- SIGN (DOUBLE SIDED)
- BARRICADE
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL

SCALE

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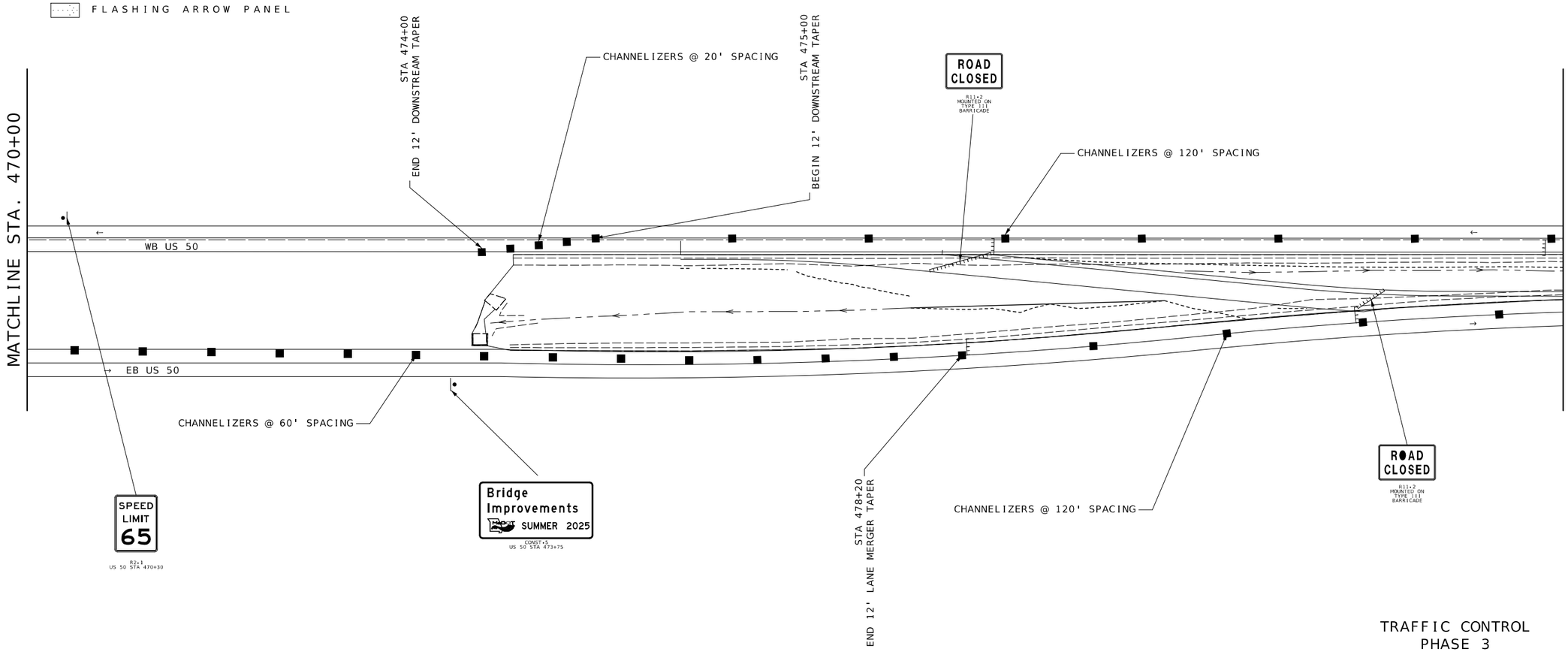

TRAFFIC CONTROL
PHASE 3
SHEET 2 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

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JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	25
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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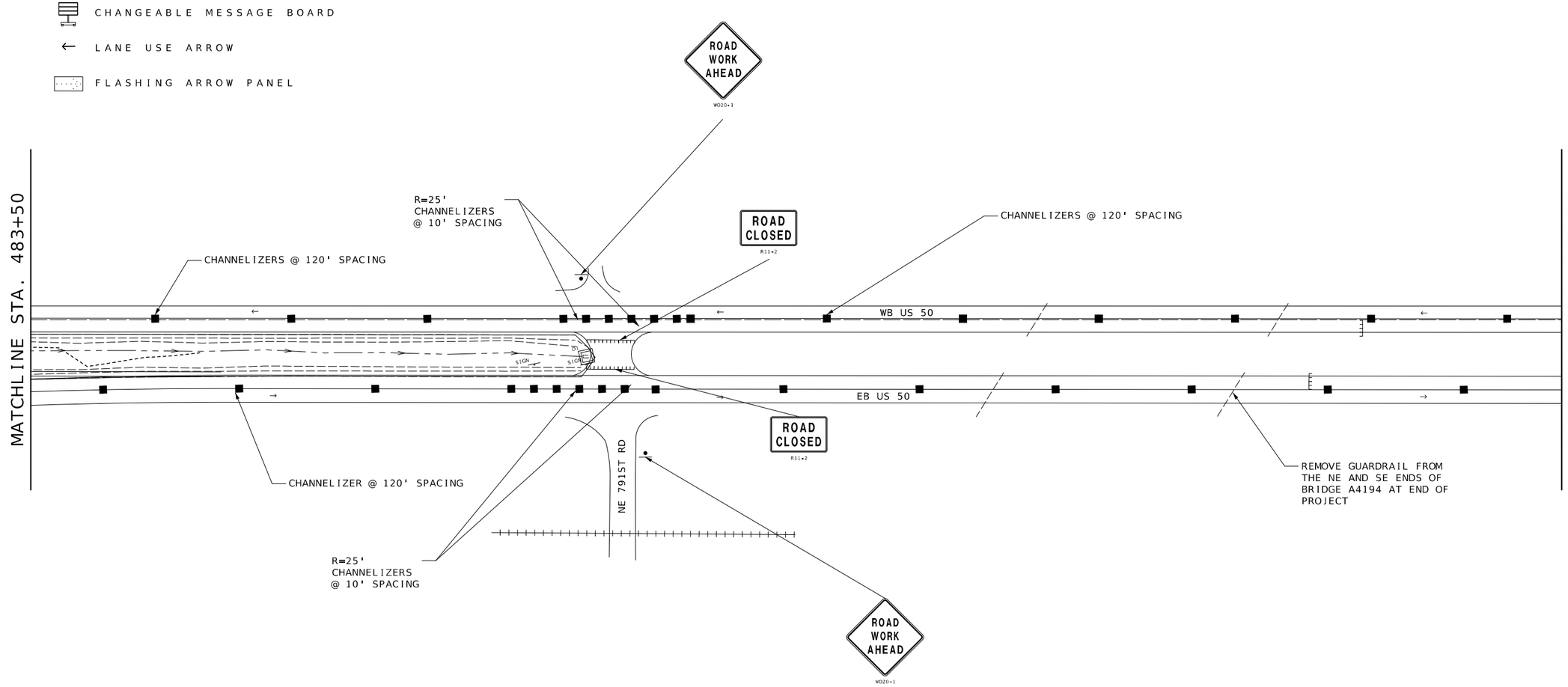

TRAFFIC CONTROL
PHASE 3
SHEET 3 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

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JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	26
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

TRAFFIC CONTROL LEGEND

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SCALE

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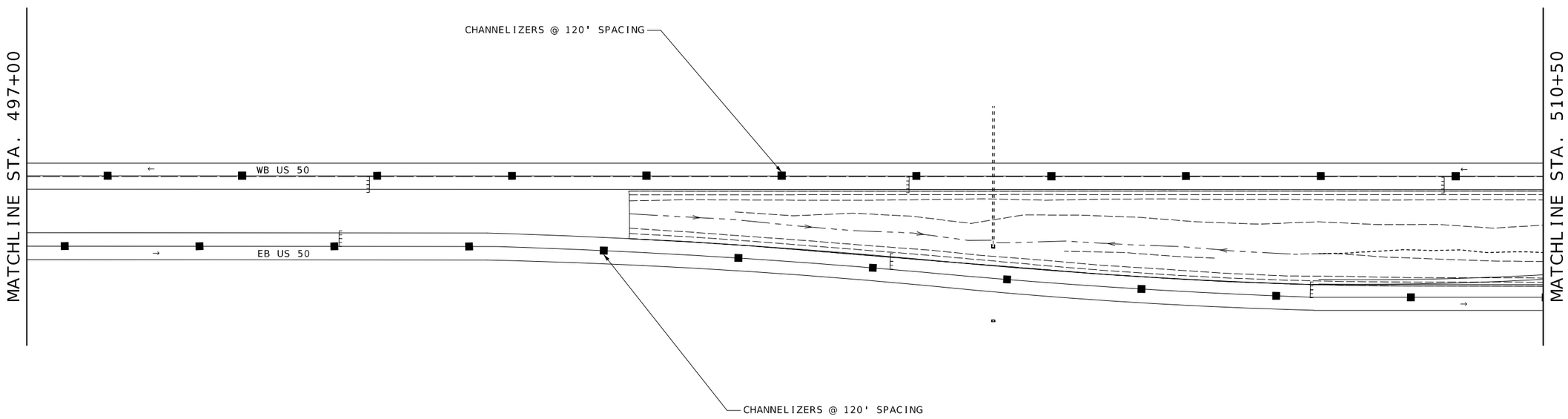

TRAFFIC CONTROL
PHASE 3
SHEET 4 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:14:55 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	
12/31/2024	
ROUTE	STATE
50	MO
DISTRICT	SHEET NO.
KC	27
COUNTY	
JOHNSON	
JOB NO.	
JKR0102	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
L0901	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
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- BARRICADE
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- CHANNELIZER
- TUBULAR MARKER
- CHANGEABLE MESSAGE BOARD
- LANE USE ARROW
- FLASHING ARROW PANEL

SCALE

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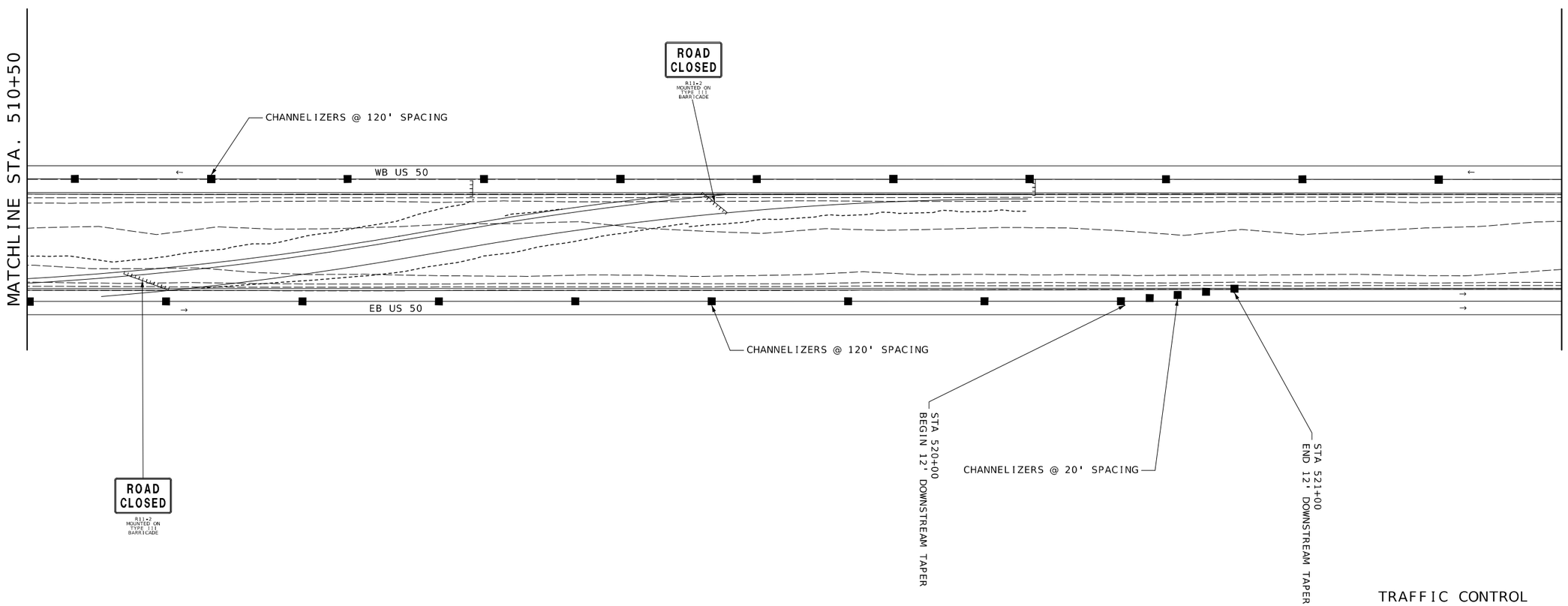

TRAFFIC CONTROL
PHASE 3
SHEET 5 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:15:21 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	28
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
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- BARRICADE
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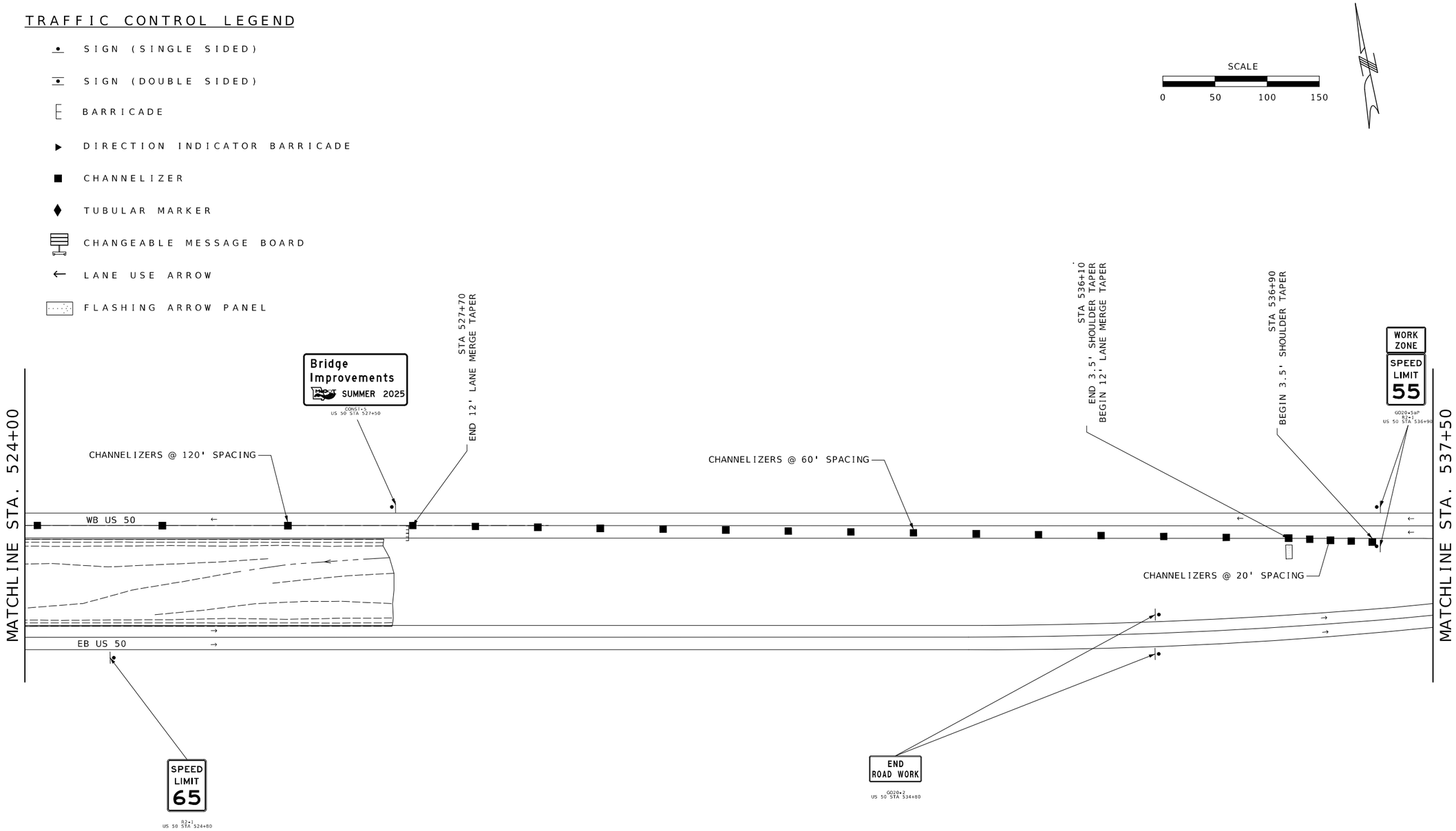
- FLASHING ARROW PANEL



TRAFFIC CONTROL
PHASE 3
SHEET 6 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:16:15 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	29
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

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

TRAFFIC CONTROL LEGEND

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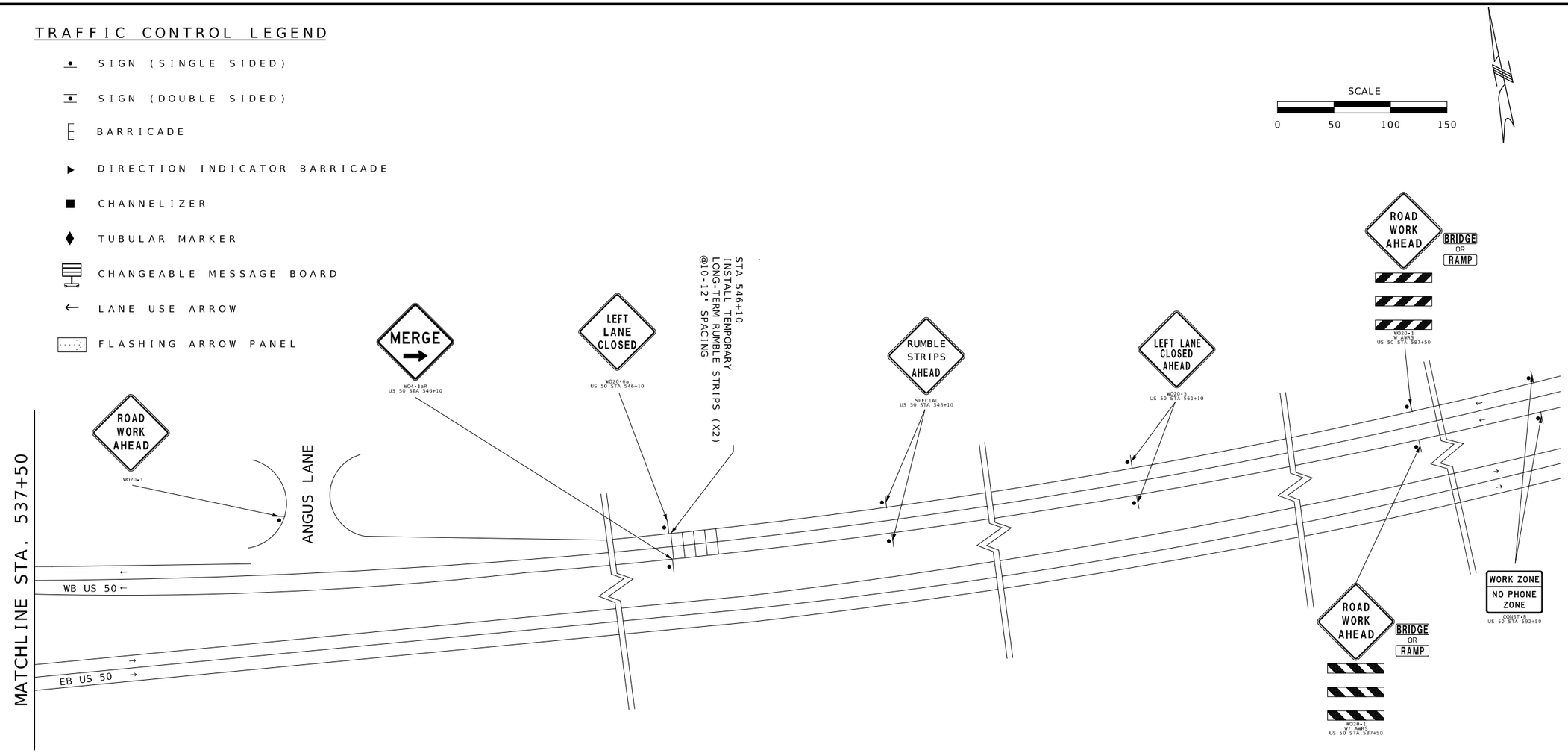


TRAFFIC CONTROL
PHASE 3
SHEET 7 OF 7

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:16:44 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	
12/31/2024	
ROUTE 50	STATE MO
DISTRICT KC	SHEET NO. 30
COUNTY JOHNSON	
JOB NO. JKR0102	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. L0901	

DATE	DESCRIPTION

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

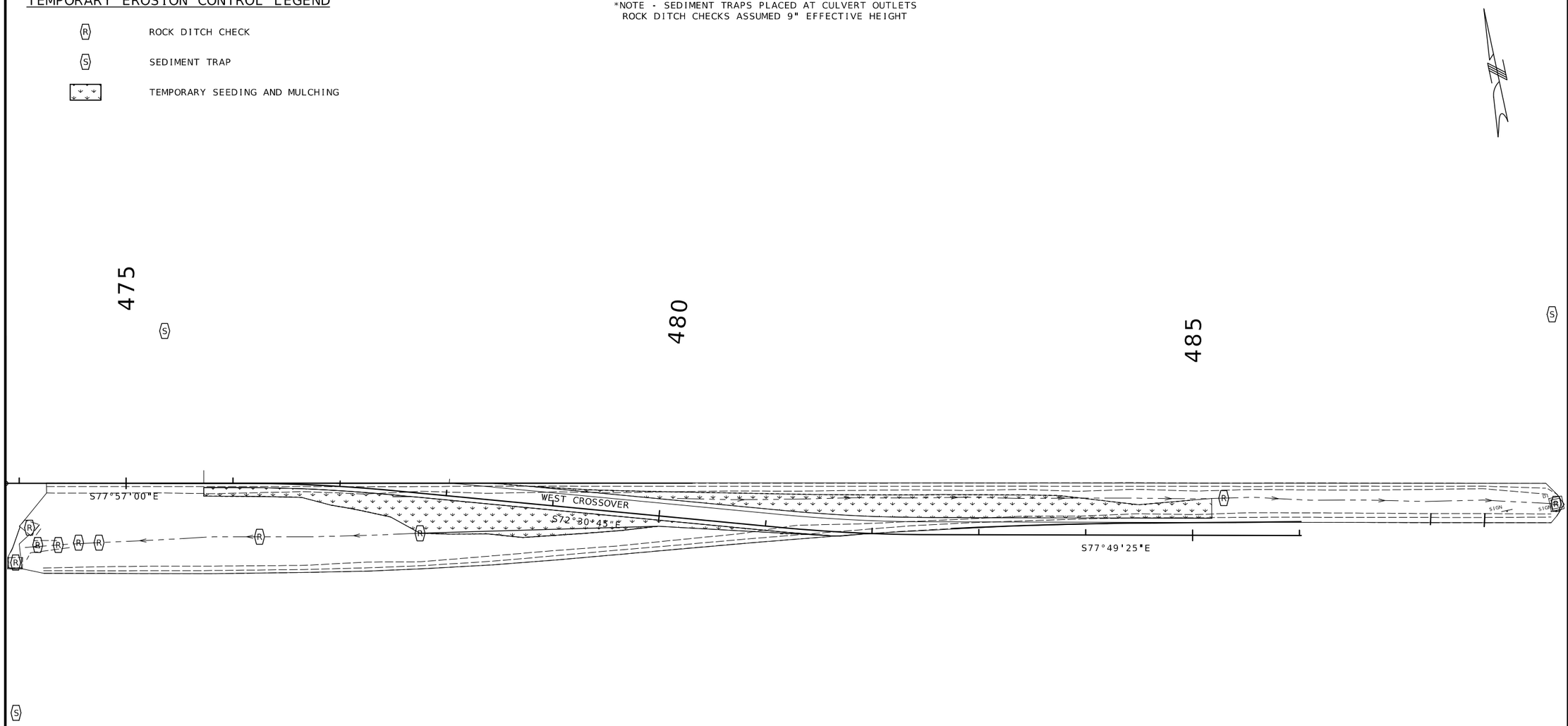
TEMPORARY EROSION CONTROL LEGEND

*NOTE - SEDIMENT TRAPS PLACED AT CULVERT OUTLETS
ROCK DITCH CHECKS ASSUMED 9" EFFECTIVE HEIGHT

(R) ROCK DITCH CHECK

(S) SEDIMENT TRAP

TEMPORARY SEEDING AND MULCHING



SCALE

0 50 100 150

TEMPORARY EROSION CONTROL
PHASE 1
SHEET 1 OF 2

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:17:17 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	11/26/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	31
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

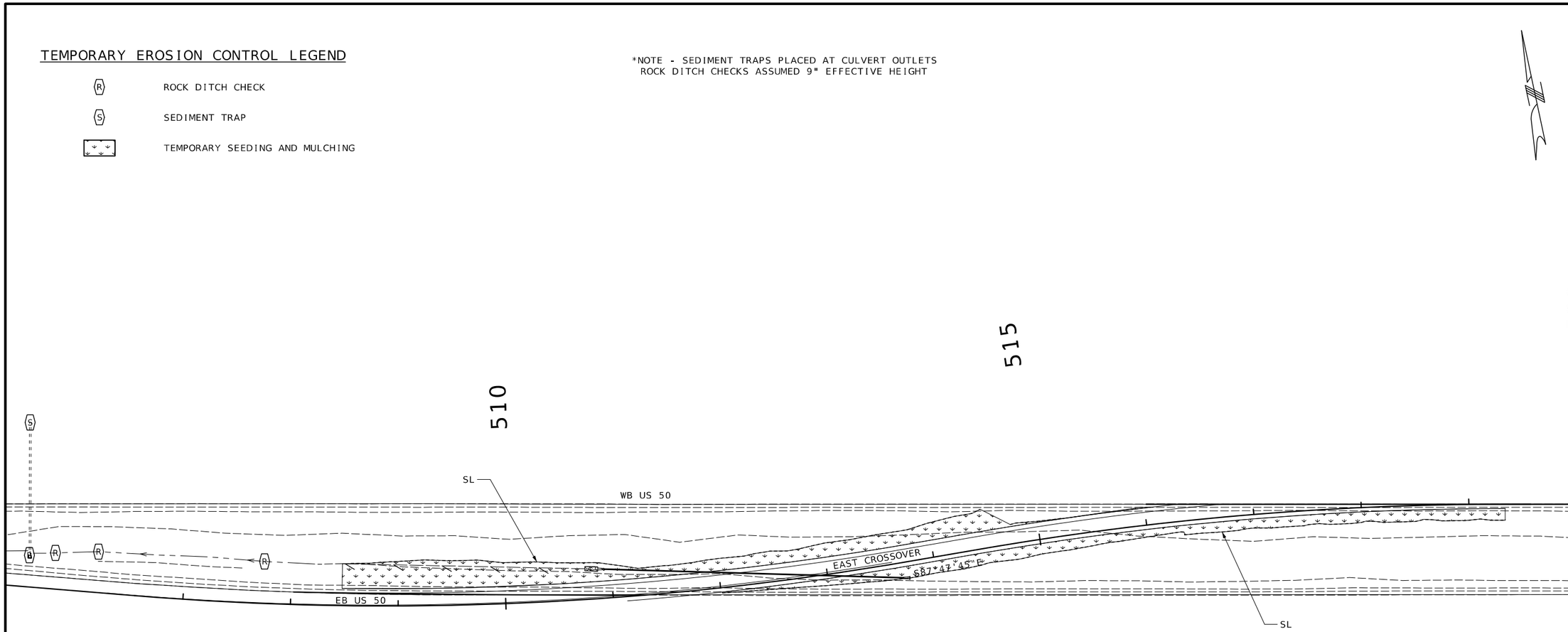
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

TEMPORARY EROSION CONTROL LEGEND

- (R) ROCK DITCH CHECK
- (S) SEDIMENT TRAP
- TEMPORARY SEEDING AND MULCHING

*NOTE - SEDIMENT TRAPS PLACED AT CULVERT OUTLETS
ROCK DITCH CHECKS ASSUMED 9" EFFECTIVE HEIGHT



SCALE
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TEMPORARY EROSION CONTROL
PHASE 1
SHEET 2 OF 2

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER
02/27/2025 1:17:47 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

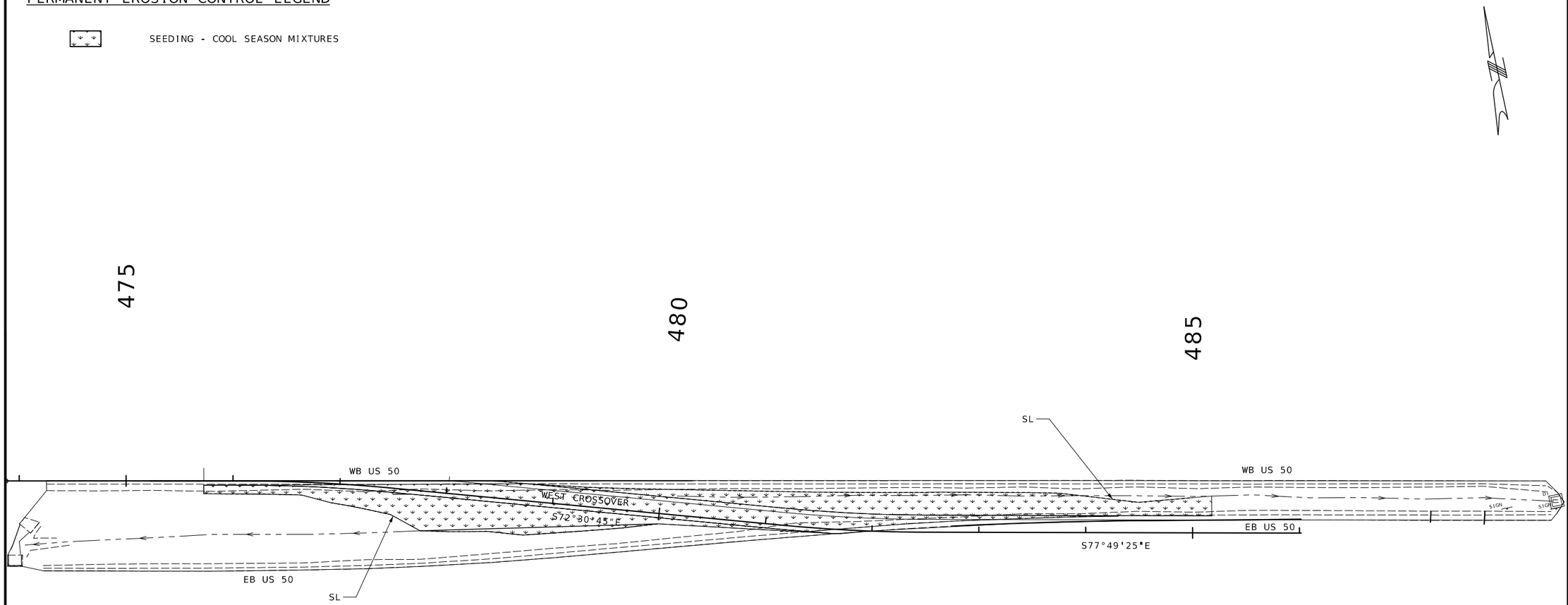
DATE PREPARED	11/26/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	32
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DESCRIPTION
DATE

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

PERMANENT EROSION CONTROL LEGEND

SEEDING - COOL SEASON MIXTURES



SCALE

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PERMANENT EROSION CONTROL
SHEET 1 OF 2

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:18:14 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	11/26/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	33
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

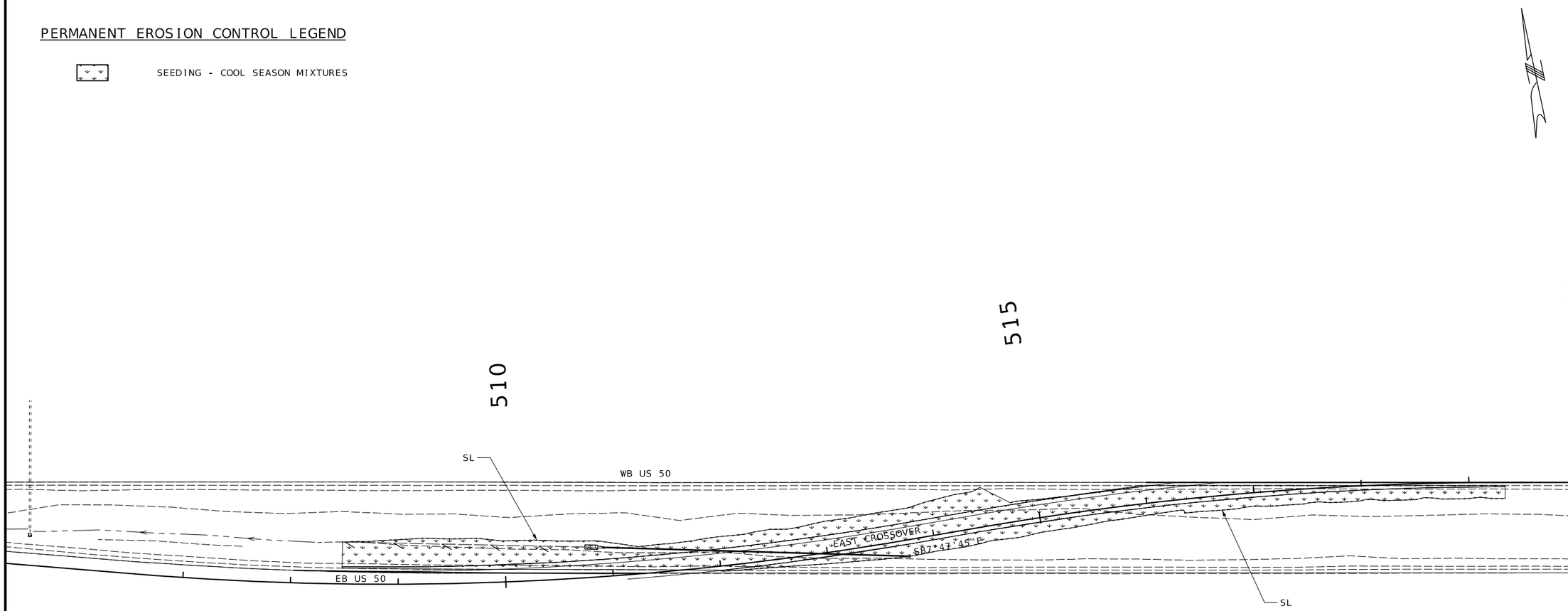
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

PERMANENT EROSION CONTROL LEGEND

SEEDING - COOL SEASON MIXTURES



SCALE

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PERMANENT EROSION CONTROL
SHEET 2 OF 2

STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER

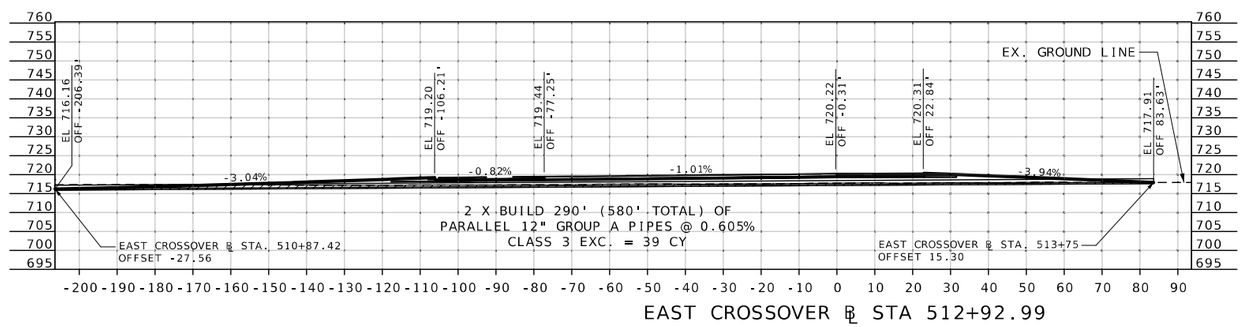
Jaclyn A. White
02/27/2025 1:18:41 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	11/26/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	34
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



STATE OF MISSOURI
JACLYN A. WHITE
NUMBER
PE-2003001116
PROFESSIONAL ENGINEER

Jaclyn A. White
02/27/2025 1:19:09 PM
JACLYN A WHITE - CIVIL
MO-PE-2003001116

DATE PREPARED	12/31/2024
ROUTE	50
STATE	MO
DISTRICT	KC
SHEET NO.	35
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L0901

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

CULVERT SECTION
SHEET 1 OF 1

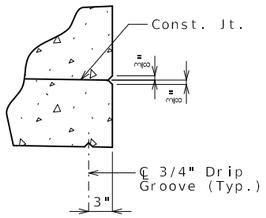
SEC/SUR 17 TWP 46N RGE 24W

U.I.P., REDECK AND MAKE COMPOSITE EXISTING (65'- 80'- 65') CONTINUOUS WIDE FLANGE BEAM SPANS (SKEW: 32° L.A.)

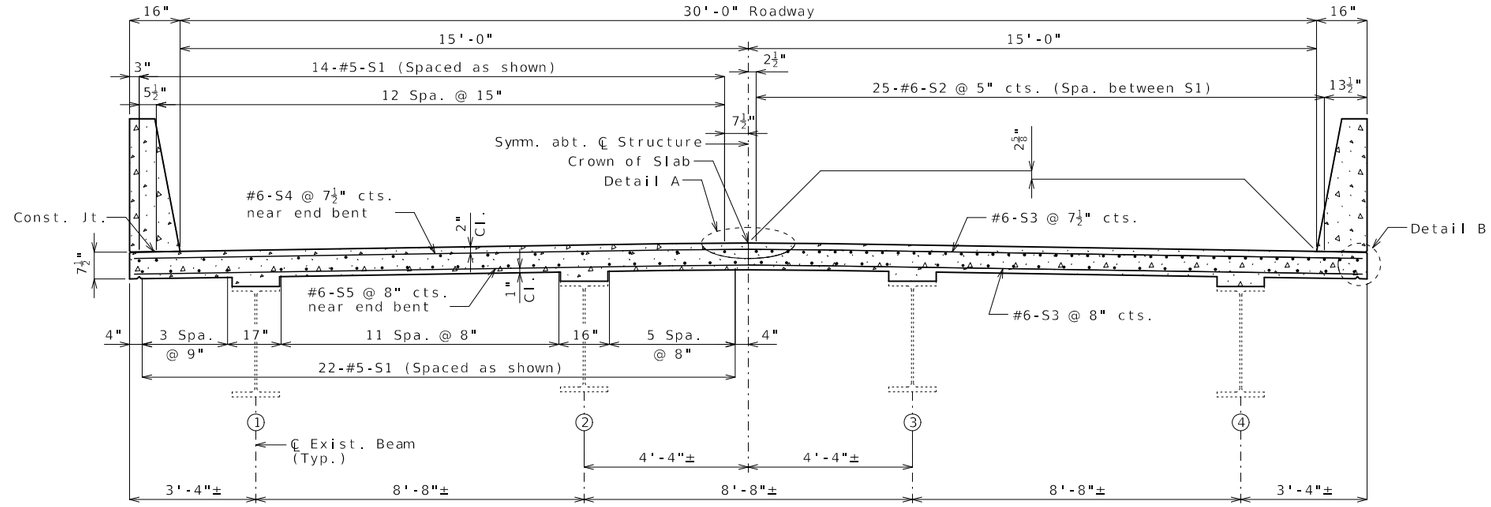
Table Showing S2 Bar Lengths			
Int. Bent No. 2		Int. Bent No. 3	
Span 1	Span 2	Span 2	Span 3
19'0"	19'-0"	19'-0"	19'-0"

Required Lap Length For Bar Splices **	
Bar Size	Splice Length
4	2'-7"
5	3'-3"
6	3'-10"
7	4'-11"

** Unless otherwise shown.

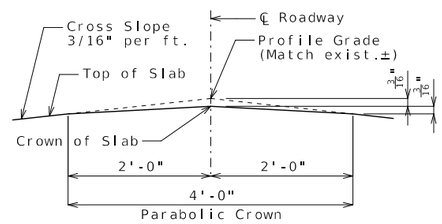


DETAIL B

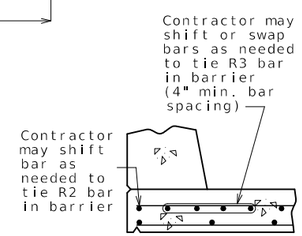


HALF SECTION NEAR MIDSPAN AND END BENT

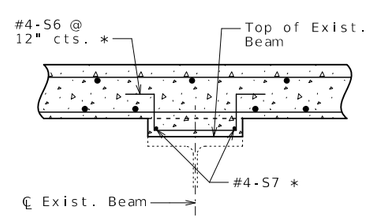
HALF SECTION NEAR INT. BENT



DETAIL A



OPTIONAL SHIFTING TOP BARS AT BARRIER



PART SECTION SHOWING HAIRPIN BARS IN SLAB HAUNCH

Hairpin bars may be placed at an angle to meet clearances

* Int. Beam only

General Notes:

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

Design Loading:
HS20-44 (1953) (Existing)
HS20-44 (New Construction)
35 lb/sf Future Wearing Surface
Earth - 120 lb/cf, Equivalent Fluid Pressure 45 lb/cf
Fatigue Stress - Case II

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) fy = 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.

Miscellaneous:
Protective coating for concrete bents and piers (Epoxy) shall be applied as shown on the bridge plans and in accordance with Sec 711.

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 approach slab surface. (Roadway item)

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

Contractor shall verify all dimensions in field before finalizing the shop drawings.

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.

Rubblized concrete from the existing bridge deck that qualifies as clean fill may be placed on spill slopes at end bents above ordinary high water line (Roadway item).

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

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

Estimated Quantities

Item		Total
Removal of Existing Bridge Deck	sq. foot	6772
Removal of Existing Bridge Approach Slab	sq. foot	1584
Bridge Approach Slab (Major)	sq. yard	175
Slab on Steel	sq. yard	778
Type D Barrier	linear foot	427
Protective Coating - Concrete Bents and Piers (Epoxy)	lump sum	1
Shear Connectors	each	1632
Slab Drain	each	34
Non-Destructive Testing	linear foot	19
Open Cell Foam Joint Seal	linear foot	74

Cost of any required excavation for bridge will be considered completely covered by the contract unit price for other items.

Estimated Quantities for Slab on Steel

Item		Total
Class B-2 Concrete	cu. yard	196
Reinforcing Steel (Epoxy Coated)	pound	60,410
Curing Material	gallon	36

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 I, 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 50 WB OVER CLEAR CREEK
ROUTE 50 WB FROM ROUTE 23 TO ROUTE P
ABOUT 1.4 MILES WEST OF ROUTE 23
BEGINNING STATION 492+35.50± (MATCH EXISTING)

STATE OF MISSOURI
TYLER R. LINDSAY
NUMBER PE-2019000128
PROFESSIONAL ENGINEER
04/08/2025 10:01:30 AM
TYLER R. LINDSAY - CIVIL
MO-PE-2019000128

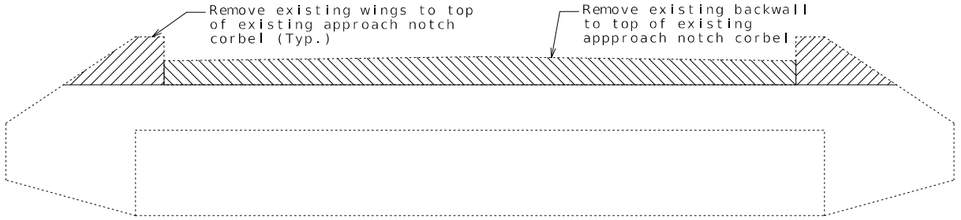
DATE PREPARED	4/8/2025
ROUTE	50
STATE	MO
DISTRICT	BR
SHEET NO.	1
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L09012

DESCRIPTION
DATE

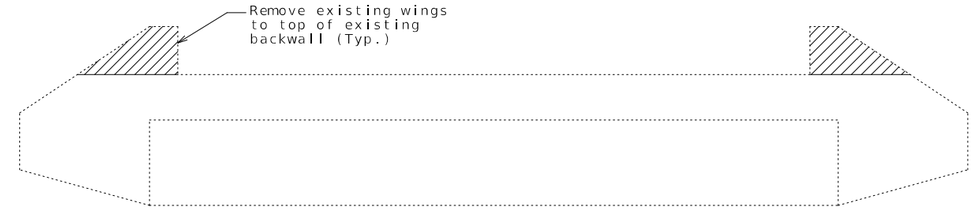
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

Detailed Mar. 2025
Checked Mar. 2025

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



DETAILS OF CONCRETE REMOVAL AT END BENT NO. 1



DETAILS OF CONCRETE REMOVAL AT END BENT NO. 4

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 and wingwall reinforcement to be cut off one inch below concrete removal surface and the resulting holes shall be filled with a qualified special mortar.

A smooth, level surface shall be provided at Bents No. 1 & 4 removal lines.

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

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

Pouring and Finishing Slab:

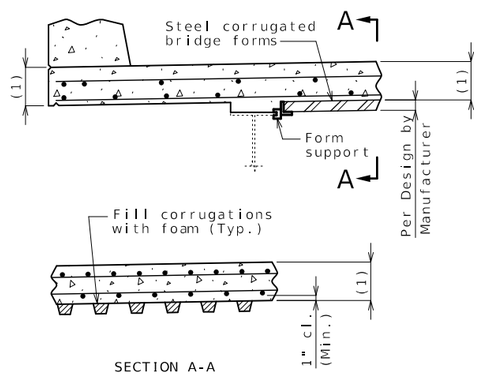
The contractor shall provide bracing necessary for lateral and torsional stability of the beams during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not weld on or drill holes in the beams. The cost for furnishing, installing,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

Slab shall be poured upgrade from end to end at a minimum rate of 25 cubic yards per hour.

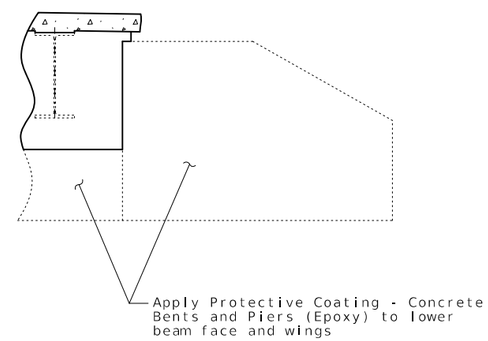
Alternate pour sequences may be submitted to the engineer for approval. Keyed construction joints shall be provided between pours.

Haunching:

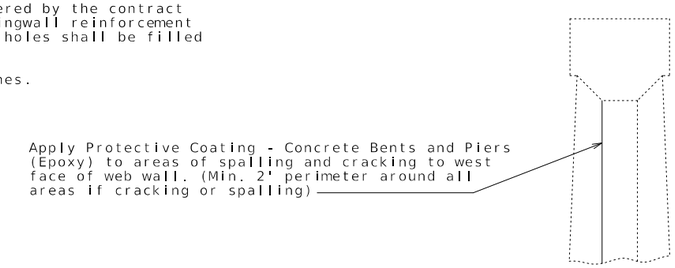
(1) Slab is to be considered a uniform thickness as shown on the plans. Haunching will vary. See front sheet for slab thickness.



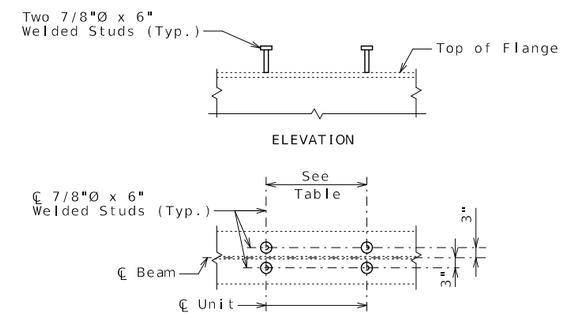
OPTIONAL STAY-IN-PLACE FORM DETAILS



TYPICAL PART ELEVATION OF END BENTS NO. 1 & 4 SHOWING PROTECTIVE COATING



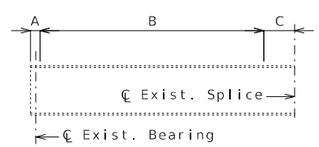
TYPICAL SECTION THRU INT. BENT NO. 2 SHOWING PROTECTIVE COATING



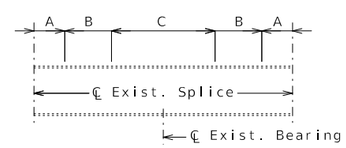
DETAILS OF SHEAR CONNECTORS

The cost of supplying and installing shear connectors will be considered completely covered by the contract unit price for Shear Connectors.

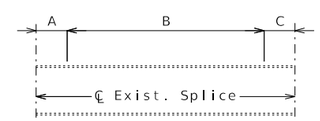
Shear connectors shall be in accordance with Sec 712, 1037 & 1080.



ELEVATION SHOWING SHEAR CONNECTOR SPACING FOR END BEAMS



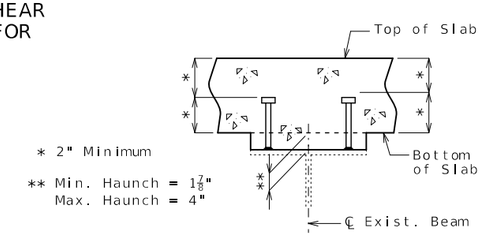
ELEVATION SHOWING SHEAR CONNECTOR SPACING FOR INT. BENT BEARING BEAMS



ELEVATION SHOWING SHEAR CONNECTOR SPACING FOR MID SPAN BEAMS

TABLE SHOWING SHEAR CONNECTOR UNIT SPACING

Beam	S.C. per unit	A	B	C
End Beam (Spans 1-2 & 4-3)	2	$11\frac{1}{2}$"±	58 Units @ 10" cts.	2'-1"±
Brg. Beam (Bents 2 & 3)	2	2'-$0\frac{1}{4}$"±	8 Units @ 6" cts.	18'-$11\frac{1}{2}$"±
Mid Span (Span 2-3)	2	2'-1"±	56 Units @ 10" cts.	2'-1"±
	Total shear connectors required			1632



SECTION THRU EXIST. BEAM SHOWING SHEAR CONNECTORS

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

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MO-PE-2019000128

DATE PREPARED	
4/8/2025	
ROUTE 50	STATE MO
DISTRICT BR	SHEET NO. 2
COUNTY JOHNSON	
JOB NO. JKR0102	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. L09012	

DESCRIPTION

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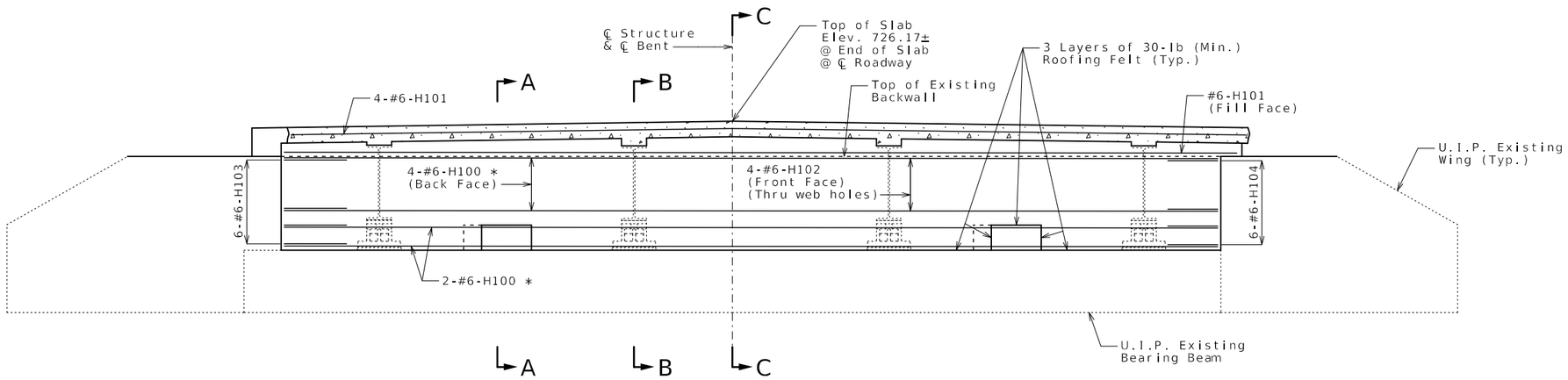
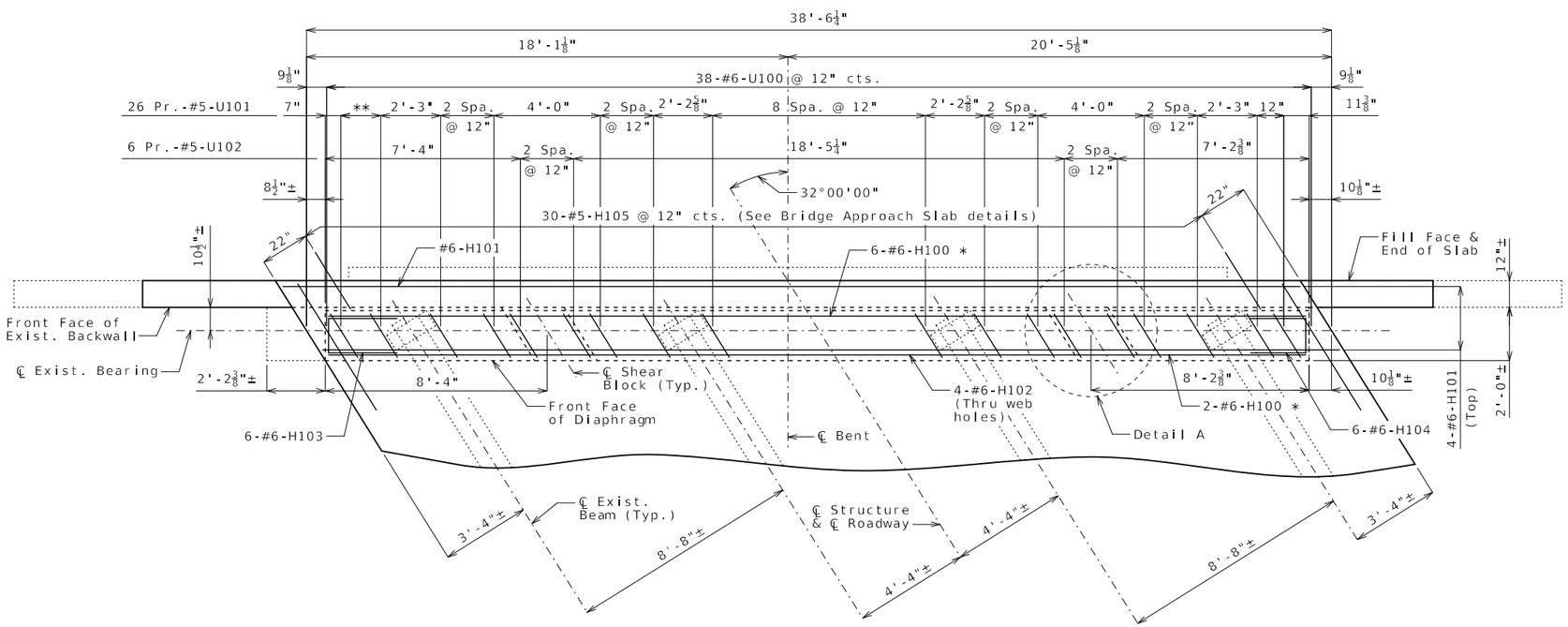
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



SECTION NEAR END BENT

Note: Existing steel diaphragms (leave-in-place), S-Bars in slab & resin anchors in shear keys not shown for clarity.



PART PLAN

DETAILS OF END BENTS

(End Bent No. 1 shown, End Bent No. 4 similar)

Notes:

Work this sheet with Sheet No. 4.

All concrete and reinforcement shown is included in the table of Estimated Quantities for Slab on Steel and will be considered completely covered by the contract unit price for Slab on Steel.

* The #6-H100 bars are provided as full length in the Bill of Reinforcing Steel. Bars may cut in field as needed to clear beams, bearings and shear blocks. Clearance shall be 1-1/2 inch minimum to any obstruction.

The #6-H102 bars are segmented for ease of placement through the beam web holes. The total length for #6-H102 bars shown in the Bill of Reinforcing Steel allows for one lap splice with a segment length of 3'-10". Actual bar segment lengths to be determined by the contractor for ease of installing bars. The contractor may use a mechanical bar splice in lieu of a lap splice. When a mechanical bar splice is used, the actual bar segment length will be determined by the contractor to accomodate manufacturer's recommendations for installation and ease of construction. The cost of furnishing and installing the bar splices will be considered completely covered by the contract unit pirce for Slab on Steel. No adjustment of the quantity will be allowed for the use of mechanical bar splices.

The exposed and accessible surfaces of the existing structural steel and bearings that will be encased in concrete shall be cleaned with a minimum of SSPC-SP-3 surface preparation and coated with a minimum of one coat of gray epoxy-mastic primer (non-aluminum) in accordance with Sec 1081 to produce a dry film thickness not less than 3 mils before concrete is poured. The surface preparation and coating for beams shall extend a minimum of one foot outside the face of the beam encasement. Payment for cleaning and coating steel to be encased in concrete will be considered completely covered by the contract unit price for Slab on Steel.

For details and reinforcement of Type D Barrier, see Sheets No. 6 & 7.

For details of bridge approach slab, see Sheet No. 8.

STATE OF MISSOURI
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DATE PREPARED	4/8/2025
ROUTE 50	STATE MO
DISTRICT BR	SHEET NO. 3
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L09012

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
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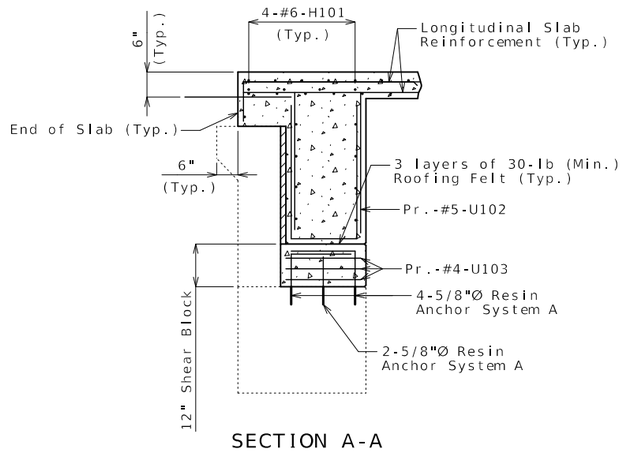
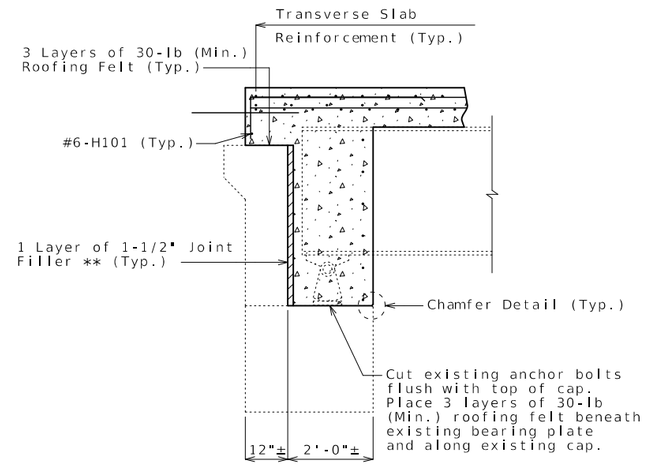
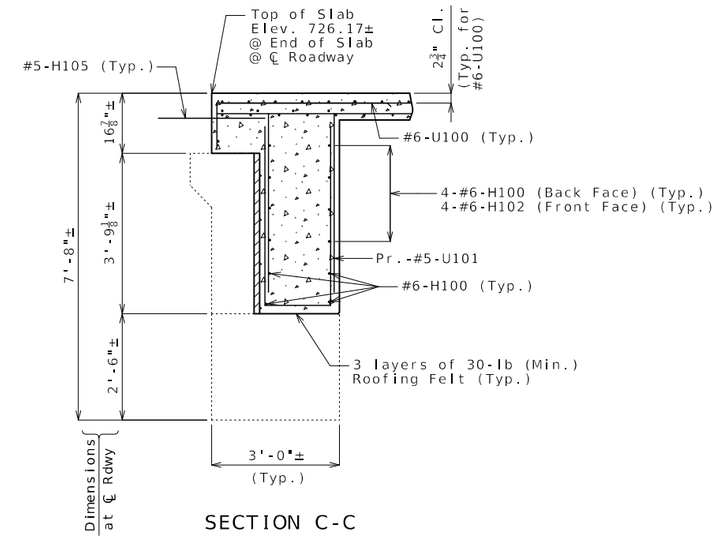


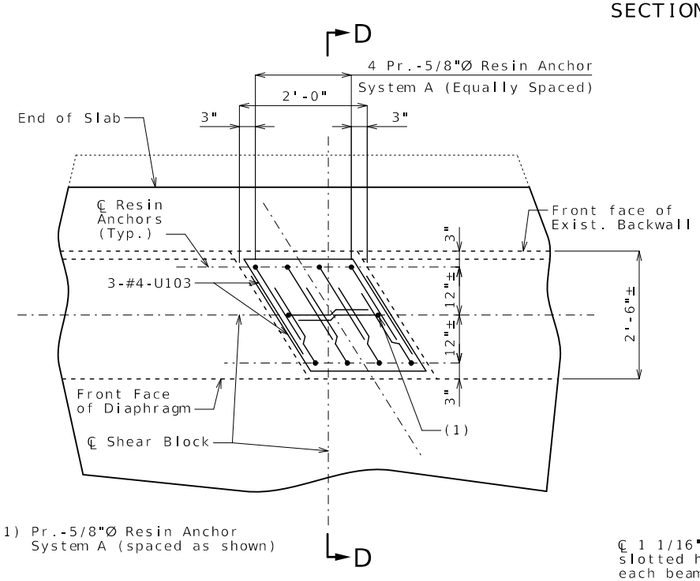
SECTION A-A



SECTION B-B

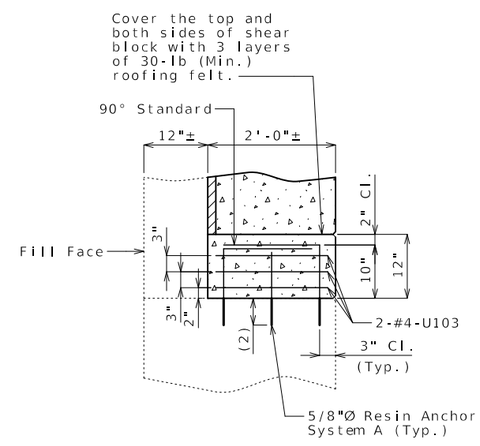


SECTION C-C

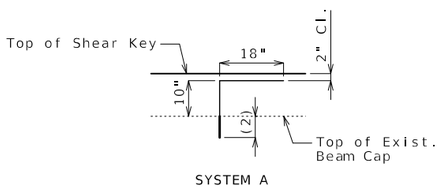


(1) Pr.-5/8"Ø Resin Anchor
System A (spaced as shown)

DETAIL A



PART SECTION D-D

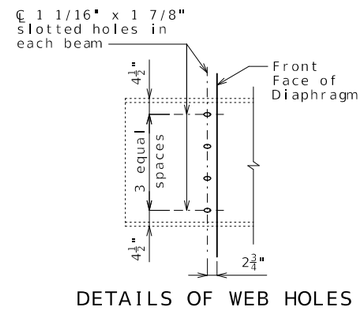


SYSTEM A

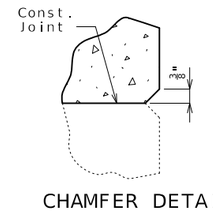
(20 Req'd per Bent)

DETAILS OF RESIN ANCHOR SYSTEMS

(2) Manufacturer's recommended
embedment length (5" min.)



DETAILS OF WEB HOLES



CHAMFER DETAIL

DETAILS OF END BENTS

(End Bent No. 1 shown, End Bent No. 4 similar)

Notes:

Work this sheet with Sheet No. 3.

** Full length of diaphragm.

Cost of cutting existing anchor bolts and placing roofing felt will be considered completely covered by the contract unit price for Slab on Steel.

Cost of field drilling holes in existing wide flange beam webs will be considered completely covered by the contract unit price for Slab on Steel.

Required temporary support load of 20 kips at each bearing is a service load without a factor of safety. It includes the dead load (without the slab) and a construction load of 50 psf applied to the deck area. Live load is not included in the support load.

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

Cost of furnishing and installing the resin anchor systems, complete in place, will be considered completely covered by the contract unit price for Slab on Steel.

The minimum embedment depth in concrete with f'c = 4,000 psi for the resin anchor systems 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"Ø threaded rod.

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MO-PE-2019000128

DATE PREPARED	
4/8/2025	
ROUTE 50	STATE MO
DISTRICT BR	SHEET NO. 4
COUNTY JOHNSON	
JOB NO. JKR0102	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. L09012	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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Detailed Mar. 2025
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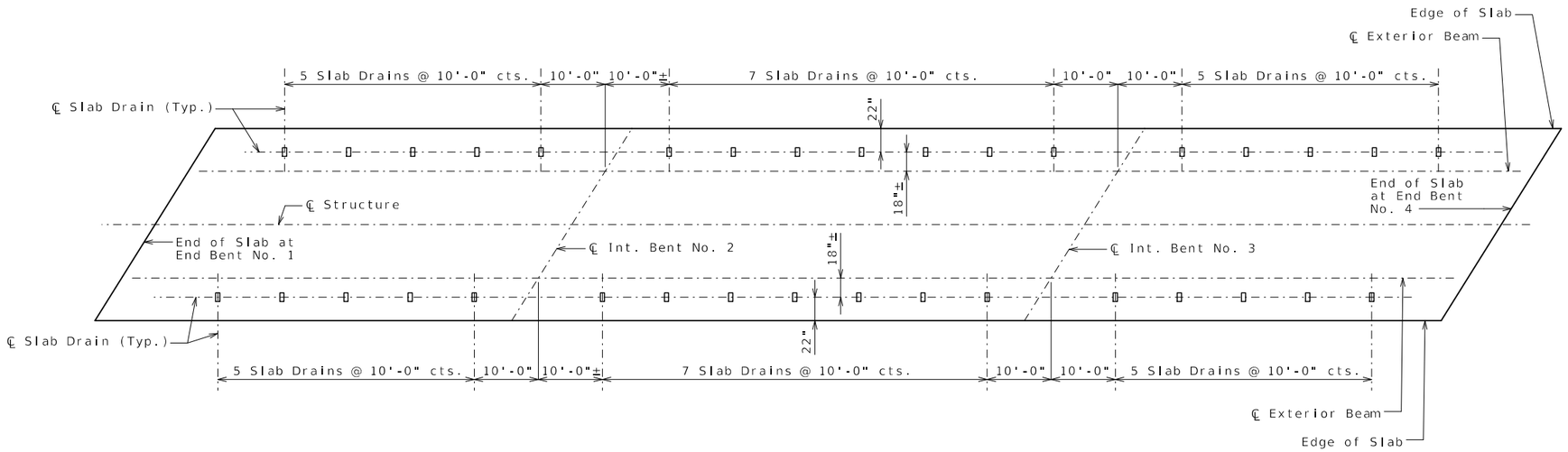
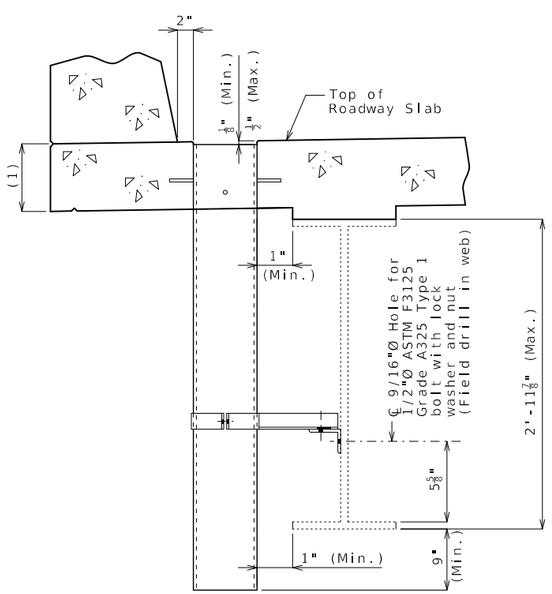
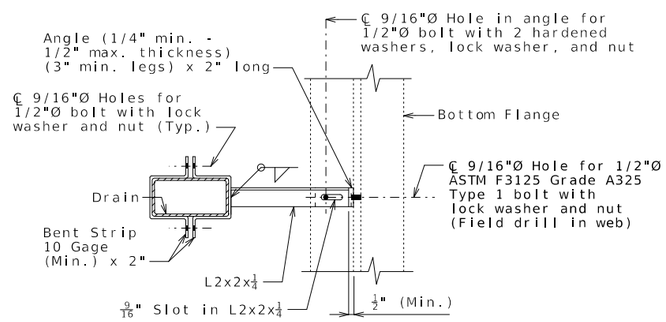


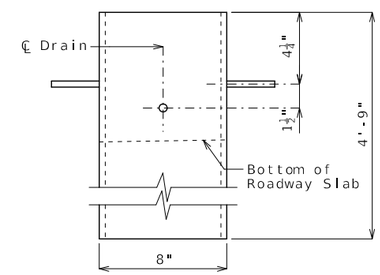
PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS



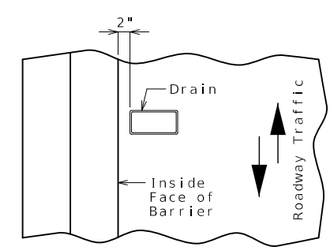
PART SECTION NEAR DRAIN



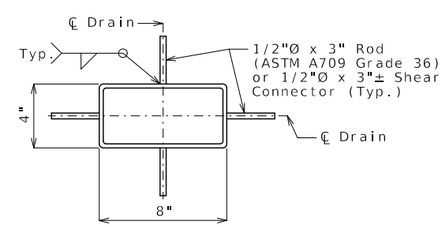
PART SECTION SHOWING BRACKET ASSEMBLY



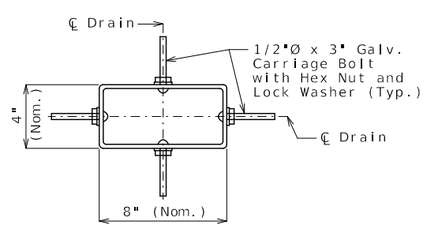
ELEVATION OF DRAIN



PART PLAN OF SLAB AT DRAIN



PLAN OF STEEL DRAIN OPTION



PLAN OF FRP DRAIN OPTION

General Notes:

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

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

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

Reinforcing steel shall be shifted to clear drains.

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

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

All 1/2"Ø bolts shall be ASTM A307, except as shown.

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

The bolt hole for the bracket assembly attachment shall be shifted to the minimum extent necessary to field drill in the existing web.

(1) See front sheet for slab thickness.

Notes for Steel Drain:

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

Outside dimensions of drains are 8" x 4".

The drains shall be galvanized in accordance with ASTM A123.

Notes for FRP Drain:

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

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

Minimum reinforced wall thickness shall be 1/4 inch.

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

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

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

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

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DATE PREPARED	
4/8/2025	
ROUTE 50	STATE MO
DISTRICT BR	SHEET NO. 5
COUNTY JOHNSON	
JOB NO. JKR0102	
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PROJECT NO.	
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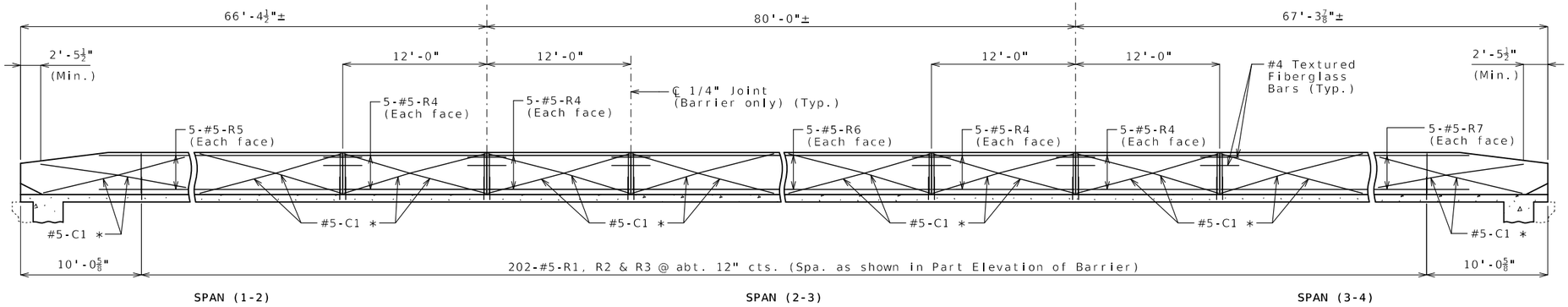
SLAB DRAINS

Detailed Mar. 2025
Checked Mar. 2025

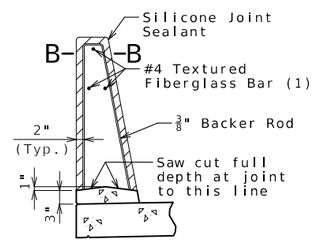
Note: This drawing is not to scale. Follow dimensions.



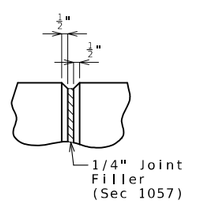
ELEVATION OF BARRIER

(Left barrier shown, right barrier similar)

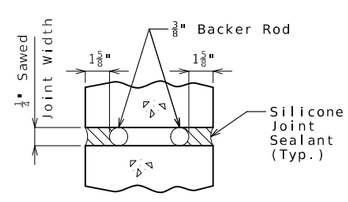
Longitudinal dimensions are horizontal.



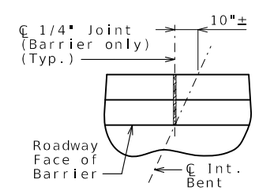
SECTION THRU SAW CUT JOINT



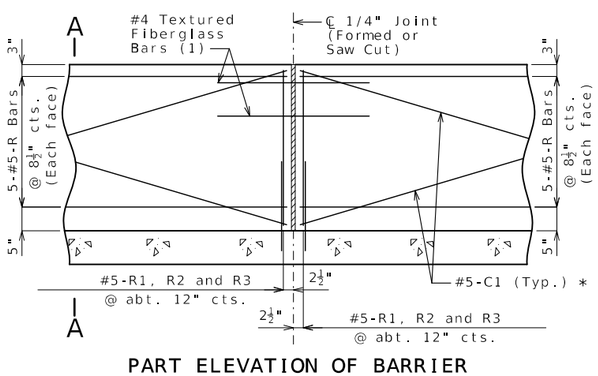
PART ELEVATION AT FORMED JOINT



SECTION B-B

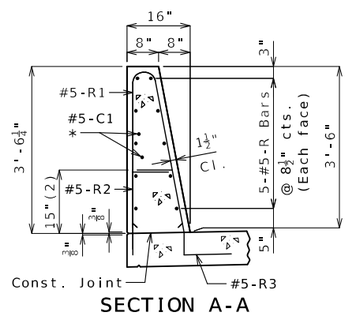


PART PLAN SHOWING JOINT LOCATION



PART ELEVATION OF BARRIER

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

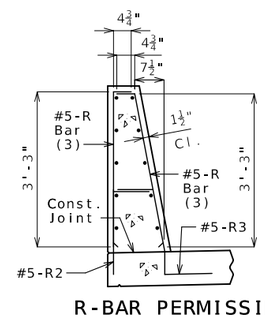


SECTION A-A

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 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 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.

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

Detailed Mar. 2025
Checked Mar. 2025

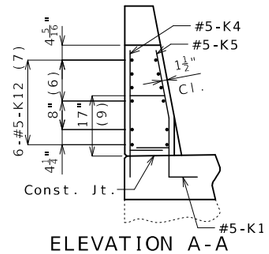
Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TYLER R. LINDSAY
NUMBER PE-2019000128
PROFESSIONAL ENGINEER
04/08/2025 10:03:15 AM
TYLER R. LINDSAY - CIVIL
MO-PE-2019000128

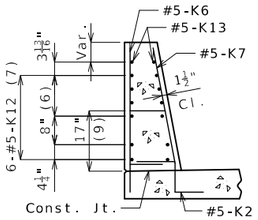
DATE PREPARED	
4/8/2025	
ROUTE 50	STATE MO
DISTRICT BR	SHEET NO. 6
COUNTY JOHNSON	
JOB NO. JKR0102	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. L09012	

DESCRIPTION	DATE

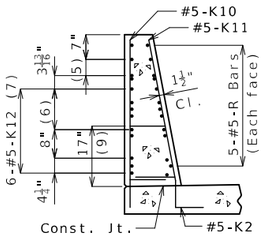
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



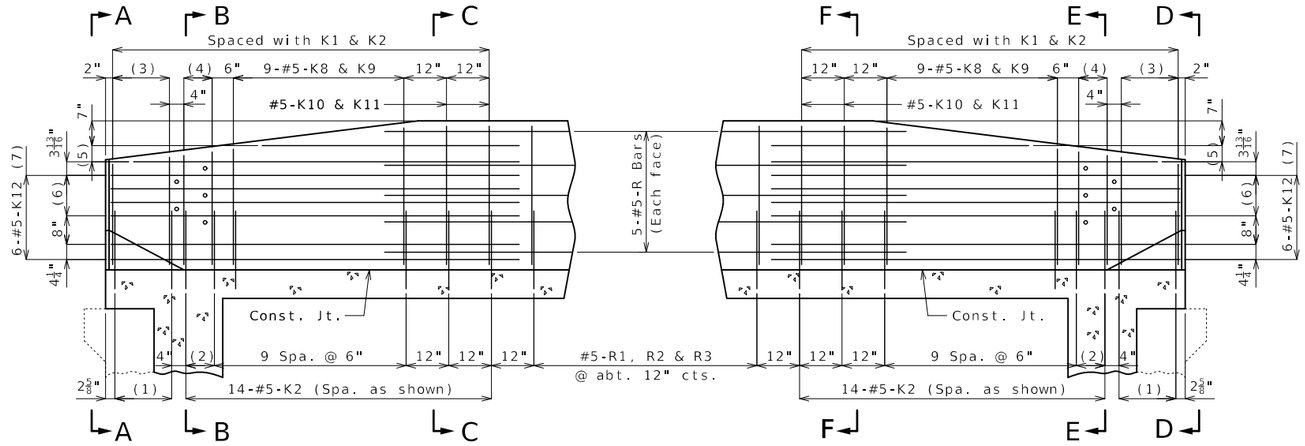
ELEVATION A-A



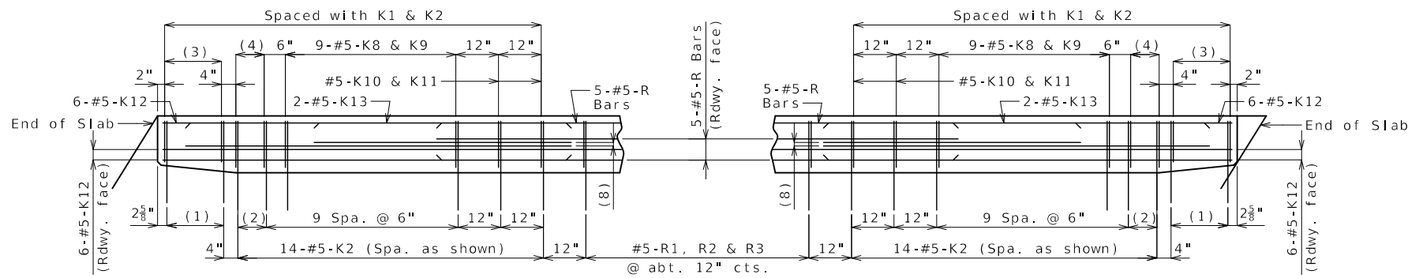
SECTION B-B



SECTION C-C

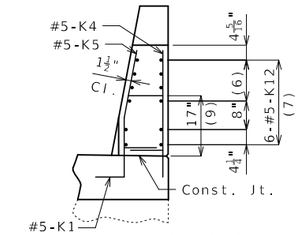


PART ELEVATION

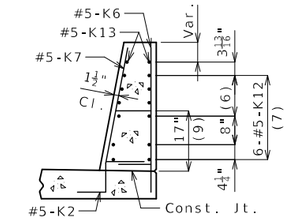


PART PLAN

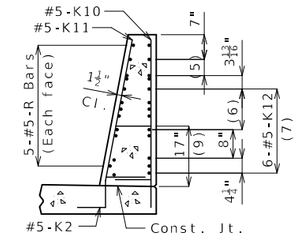
(Top of barrier not shown for clarity.)



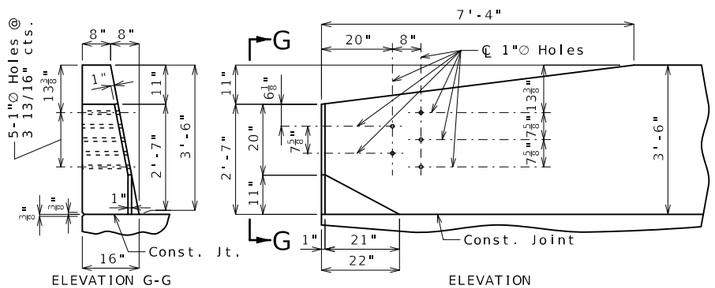
ELEVATION D-D

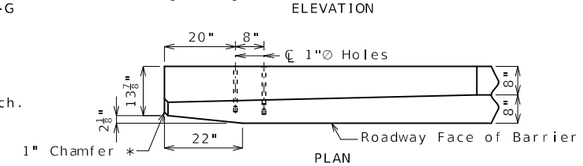


SECTION E-E



SECTION F-F





DETAILS OF GUARD RAIL ATTACHMENT

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

(1) 5-#5-K1 @ 4" cts.

(2) 2 spaces @ 4"

(3) 5-#5-K4 & K5

(4) 3-#5-K6 & K7

(5) 2-#5-K13 @ $4\frac{1}{2}$" cts., each face

(6) 3 spaces @ $3\frac{13}{16}$"

(7) Spaced as shown, each face

(8) 2-#5-K13 (Roadway face)

(9) To top of bar

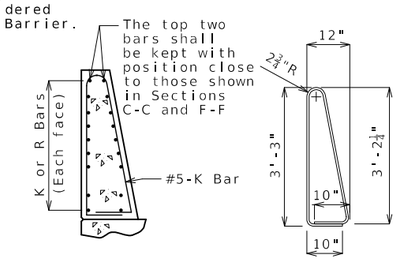
General Notes:

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

Reinforcing Steel:

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

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



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.

TYPE D BARRIER AT END BENTS

(Left barrier shown, right barrier similar)

Detailed Mar. 2025
Checked Mar. 2025

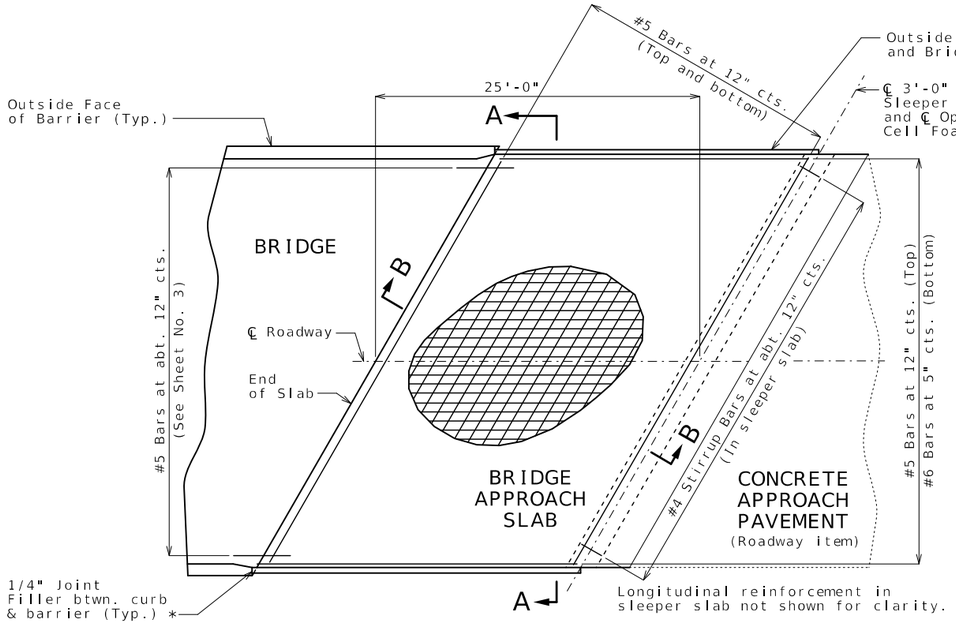
Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TYLER R. LINDSAY
NUMBER PE-2019000128
PROFESSIONAL ENGINEER
04/08/2025 10:03:25 AM
TYLER R. LINDSAY - CIVIL
MO-PE-2019000128

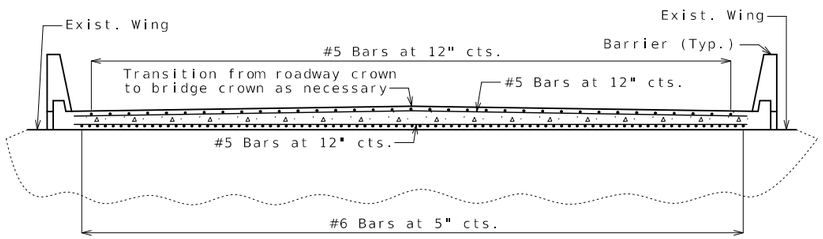
DATE PREPARED	
4/8/2025	
ROUTE 50	STATE MO
DISTRICT BR	SHEET NO. 7
COUNTY JOHNSON	
JOB NO. JKR0102	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. L09012	

DATE	DESCRIPTION

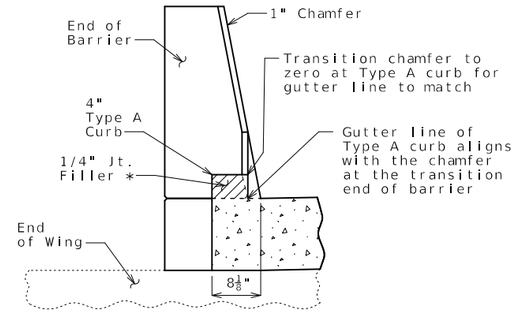
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



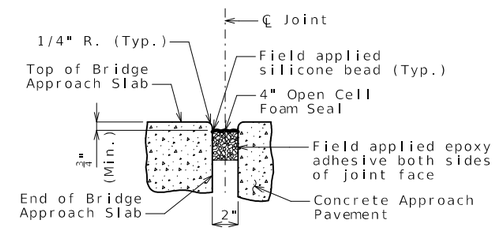
PART PLAN SHOWING REINFORCEMENT



SECTION A-A



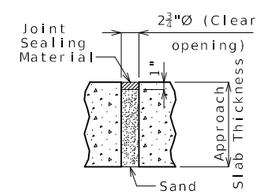
SECTION BETWEEN CURB AND BARRIER



SECTION THRU JOINT AT END OF BRIDGE APPROACH SLAB

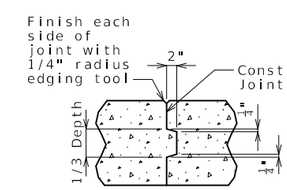
SKEW = 32°

Extend seal full width of apporach slab.

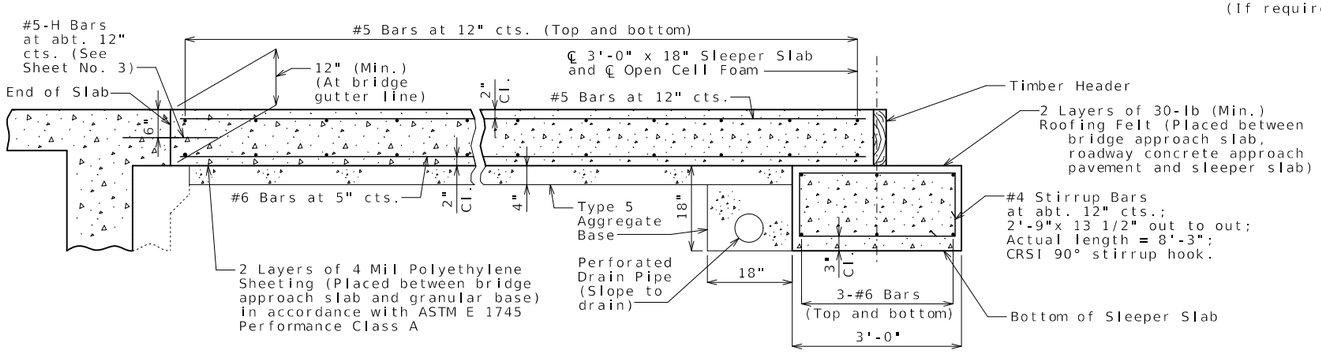


UNDERSEAL ACCESS HOLE DETAIL

(If required)

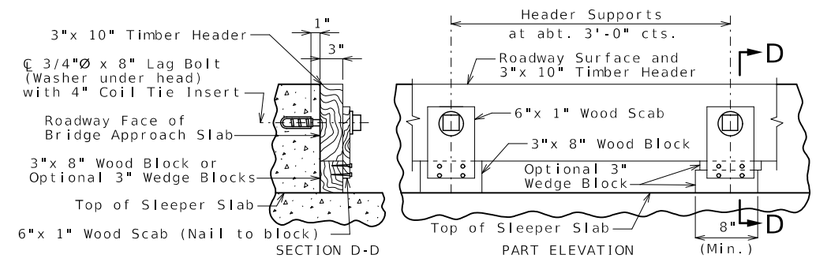


CONSTRUCTION JOINT DETAIL



SECTION B-B

BRIDGE APPROACH SLAB (MAJOR)



DETAILS OF TIMBER HEADER

Remove timber header when concrete pavement is placed.

General Notes:

All concrete for the bridge approach slab and sleeper slab shall be in accordance with Sec 503 (f'c = 4,000 psi).

The reinforcing steel in the bridge approach slab and the sleeper slab shall be epoxy coated Grade 60 with fy = 60,000 psi.

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.

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

The reinforcing steel in the bridge approach slab and the sleeper slab shall be continuous. The transverse reinforcing steel may be made continuous by providing a minimum lap splice of 29 inches for #5 bars and 44 inches for #6 bars, or by mechanical bar splice.

Mechanical bar splices shall be in accorance with Sec 710.

All joint filler shall be in accordance with Sec 1057 for preformed fiber expansion joint filler except as noted.

The contractor shall pour and satisfactorlly finish the br idge slab before placing the bridge approach slab.

Longitudinal construction joints in approach slab and sleeper slab shall be alligned with longitudinal construction joints in bridge slab.

For concrete approach pavement details, see roadway plans.

See Missouri Standard Plan 609.00 for details of Type A curb.

Payment for furnishing all materials, labor and excavation necessary to construct the approach slab, including the timber header, sleeper slab, 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 (Major) per square yard.

* Seal joint between vertical face of Type A curb and end of barrier with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

The open cell foam joint seal shall be installed according to the manufacturer's recommendations.

STATE OF MISSOURI
TYLER R. LINDSAY
NUMBER PE-2019000128
PROFESSIONAL ENGINEER
04/08/2025 10:03:45 AM
TYLER R. LINDSAY - CIVIL
MO-PE-2019000128

DATE PREPARED	4/8/2025
ROUTE 50	STATE MO
DISTRICT BR	SHEET NO. 8
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L09012

DESCRIPTION

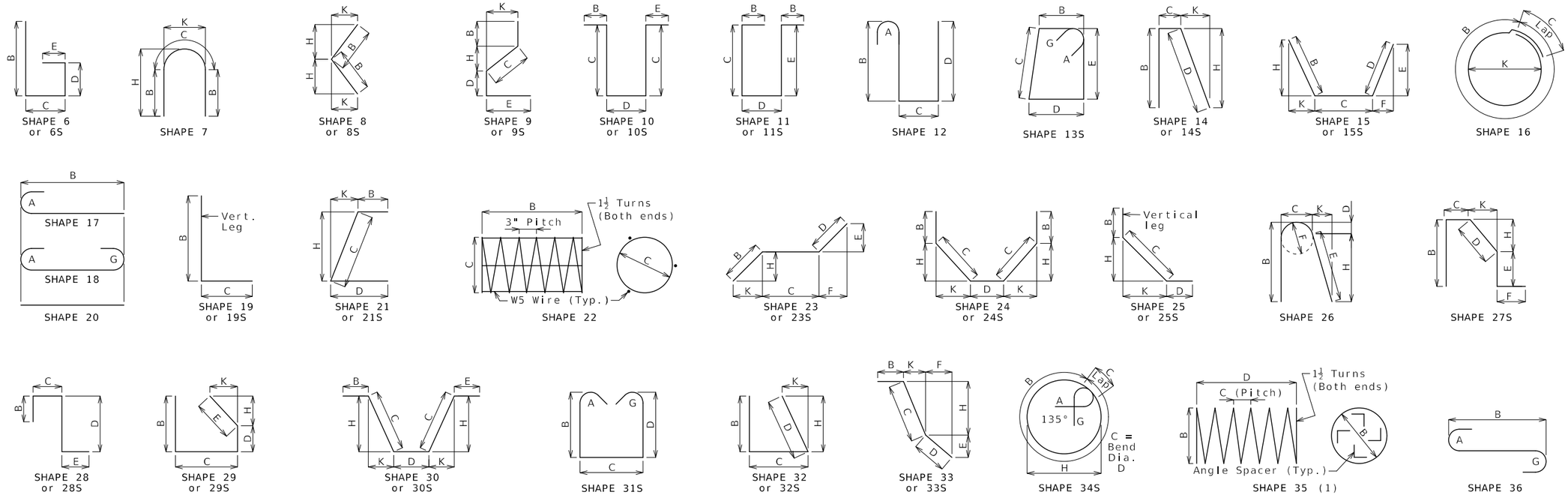
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

Detailed Mar. 2025
Checked Mar. 2025

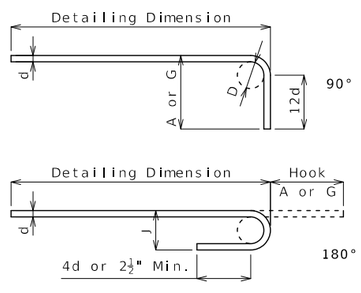
Note: This drawing is not to scale. Follow dimensions.



Finished Bend Diameters D and Hook Dimensions

Standard Pin Bend Shapes

Size	Case	D	A or G 90°	A or G 180°	J 180°
#4	1	3"	8"	6"	4"
#5	1	3¾"	10"	7"	5"
#6	1	4½"	12"	8¼"	6"
#7	2	5¼"	14"	9¾"	7"
	3	7"	15"	11½"	8¾"
#8	2	6"	16"	11"	8"
	3	8"	17"	13¼"	10"
#9	1	9½"	19½"	15½"	11¾"
#10	1	10¾"	22"	17½"	13¼"
#11	1	12"	24½"	19½"	14⅞"
#14	1	18¼"	31¼"	27½"	21⅝"
#18	1	24"	41½"	36¼"	28½"

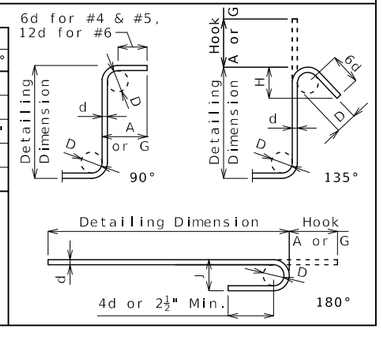


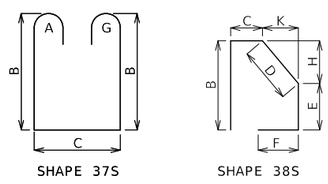
Stirrup Pin Bend Shapes (S)

Size	Case	D	A or G 90°	A or G 135°	A or G 180°	H 135°	J 180°
#4	2	2"	4½"	4½"	5"	2⅝"	3"
	3	3"	5"	5¼"	6"	3"	4"
#5	2	2½"	5¾"	5¾"	5¾"	3⅝"	3¾"
	3	3¾"	6¼"	6½"	7"	3⅞"	5"
#6	1	4½"	12"	7¾"	8¼"	4⅜"	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.

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 Plain	Substructure Epoxy	Superstructure Slab	Superstructure Barrier	Superstructure Slip Form	Entire Bridge Plain	Entire Bridge Epoxy
By Size	W5	0	0	0	0	0	0	0
	4	0	0	1,308	0	0	0	1,308
	5	0	0	18,231	10,911	501	0	29,643
	6	0	0	40,871	0	0	0	40,871
	7	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0
	9	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0
	18	0	0	0	0	0	0	0
By Type		0	0	60,410	10,911	501	0	71,822

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

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

Detailed Feb. 2025
Checked Mar. 2025

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

STATE OF MISSOURI
TYLER R. LINDSAY
NUMBER PE-2019000128
PROFESSIONAL ENGINEER
04/08/2025 10:03:47 AM
TYLER R. LINDSAY - CIVIL
MO-PE-2019000128

DATE PREPARED	4/8/2025
ROUTE	50
STATE	MO
DISTRICT	BR
SHEET NO.	9
COUNTY	JOHNSON
JOB NO.	JKR0102
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	L09012

DATE	DESCRIPTION

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

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	Codes SH	Codes V	Dimensions B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.	K ft in.	Nom. Length ft in.	Actual Length ft in.	Weight lb
		Superstructure													
		End Bent 1 & 4													
16	6 H100	DIAPHRAGM	E	20		36 8.00							36 8	36 8	881
10	6 H101	DIAPHRAGM	E	20		38 2.00							38 2	38 2	573
8	6 H102	DIAPHRAGM	E	20		40 7.00							40 7	40 7	488
12	6 H103	DIAPHRAGM	E	10S			2 6.00	17.50					6 6	6 2	111
12	6 H104	DIAPHRAGM	E	10S			2 0.00	17.50					5 6	5 2	93
60	5 H105	DIAPHRAGM	E	20		2 6.00							2 6	2 6	156
76	6 U100	DIAPHRAGM	E	19S		9.75	5 7.00						6 5	6 3	713
104	5 U101	DIAPHRAGM	E	10S			4 0.00	23.00					9 11	9 8	1,049
24	5 U102	DIAPHRAGM	E	10S			3 3.00	23.00					8 5	8 2	204
24	4 U103	SHEAR KEY	E	21S		21.00	20.50	21.00			17.25	11.00	5 3	4 11	79
		Slab													
288	5 S1	SLAB	E	20		56 0.00							56	56	16,822
100	6 S2	SLAB	E	20		38 0.00							38	38	5,708
601	6 S3	SLAB	E	20		32 5.00							32 5	32 5	29,263
62	6 S4	SLAB	E	20	2	2 0.00							2	2	
		Incr. = 12.000"				32 0.00							32	32	1,583
56	6 S5	SLAB	E	20	2	2 11.00							2 11	2 11	
		Incr. = 12.875"				31 9.00							31 9	31 9	1,458
418	4 S6	SLAB	E	10S		6.00	5.50	9.00	6.00				2 8	2 4	652
16	4 S7	SLAB	E	20		54 0.00							54	54	577
		Barrier													
		Type D													
20	5 K1	BARRIER	E	27S		21.50	9.25	5.25	15.75	12.00	5.25	1.00	5 4	5	104
56	5 K2	BARRIER	E	27S		21.50	9.25	17.25	4.00	12.00	17.00	3.25	5 4	5	292
20	5 K4	BARRIER	E	19S	4	2 4.25	10.00						3 2	3 1	
		Incr. = 0.500"				2 6.25	10.00						3 4	3 3	66
20	5 K5	BARRIER	E	38S	4			18.50	9.50	8.25	18.00	4.00	3	2 11	
		Incr. = 0.500"						20.50	9.50	8.25	20.00	4.50	3 2	3 1	63
12	5 K6	BARRIER	E	19S		2 6.75	10.00						3 5	3 3	41
12	5 K7	BARRIER	E	21S			2 6.75	10.00			2 6.00	6.25	3 5	3 4	42
36	5 K8	BARRIER	E	19S	4	2 8.50	10.00						3 7	3 5	
		Incr. = 0.750"				3 2.50	10.00						4 1	3 11	138
36	5 K9	BARRIER	E	21S	4		2 8.50	10.00			2 7.75	6.75	3 7	3 6	
		Incr. = 0.750"					3 2.50	10.00			3 1.75	7.75	4 1	4	141
8	5 K10	BARRIER	E	19S		3 3.00	10.00						4 1	4	33
8	5 K11	BARRIER	E	21S			3 3.00	10.00			3 2.25	7.75	4 1	4 0	33
48	5 K12	BARRIER	E	20		9 7.00							9 7	9 7	480
16	5 K13	BARRIER	E	20	8	5 10.00							5 10	5 10	
		Incr. = 36.000"				8 10.00							8 10	8 10	122
404	5 R1	BARRIER	E	26		3 3.00	5.50	2.25	3 1.25	5.50	3 0.75	6.75	7	6 9	2,844
404	5 R2	BARRIER	E	19S		19.50	9.50						2 5	2 4	983
404	5 R3	BARRIER	E	27S			9.50	15.25	4.00	12.00	15.00	3.00	3 5	3 3	1,369
80	5 R4	BARRIER	E	20		11 9.00							11 9	11 9	980
20	5 R5	BARRIER	E	20		47 10.00							47 10	47 10	998
20	5 R6	BARRIER	E	20		55 9.00							55 9	55 9	1,163
20	5 R7	BARRIER	E	20		48 10.00							48 10	48 10	1,019
		Slip-Form													
40	5 C1	SLIP FORM	E	20		12 0.00							12	12	501

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	Codes SH	Codes V	Dimensions B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.	K ft in.	Nom. Length ft in.	Actual Length ft in.	Weight lb

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 Mar. 2025
Checked Mar. 2025

All bars shall be Grade 60.

BILL OF REINFORCING STEEL

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

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.

STATE OF MISSOURI
TYLER R. LINDSAY
NUMBER PE-2019000128
PROFESSIONAL ENGINEER
04/08/2025 10:04:15 AM
TYLER R. LINDSAY - CIVIL
MO-PE-2019000128

DATE PREPARED 4/8/2025
ROUTE 50
STATE MO
DISTRICT BR
SHEET NO. 10
COUNTY JOHNSON
JOB NO. JKR0102
CONTRACT ID.
PROJECT NO.
BRIDGE NO. L09012

DESCRIPTION
DATE

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