MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED STATE HIGHWAY

CALLAWAY COUNTY

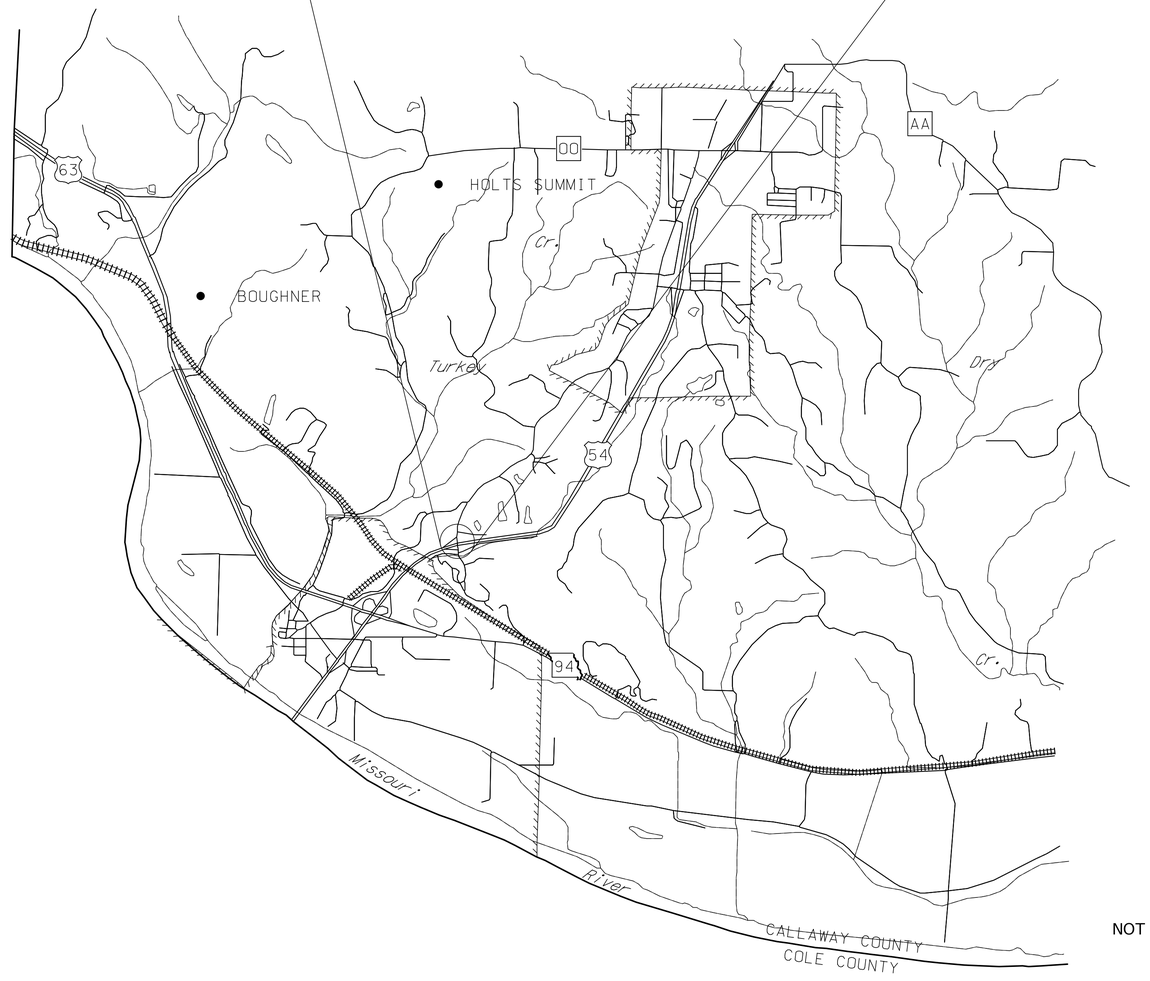


KEY MAP
LOCATION OF CALLAWAY COUNTY

BEGIN PROJECT
LM 1.674

SOUTH SUMMIT DRIVE
BRIDGE A3521 REHAB OVER US 54
SHOULDER REPLACEMENT AND GUARDRAIL IMPROVEMENTS

END PROJECT
LM 1.786



NOT TO SCALE

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

DESIGN DESIGNATION

A.A.D.T. - 2024 = 2889

V = 35 M.P.H.

FUNCTIONAL CLASSIFICATION- MINOR ARTERIAL

NO NEW R/W REQUIRED

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		
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

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A3521	1-5

LENGTH OF PROJECT

BEGINNING OF PROJECT	LOG MILE 1.674
END OF PROJECT	LOG MILE 1.786
APPARENT LENGTH	591.36 FEET
EQUATIONS AND EXCEPTIONS:	NONE
TOTAL CORRECTIONS	0.00 FEET
NET LENGTH OF PROJECT	591.36 FEET
STATE LENGTH	0.112 MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	0.10 ACRES

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:03:06 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

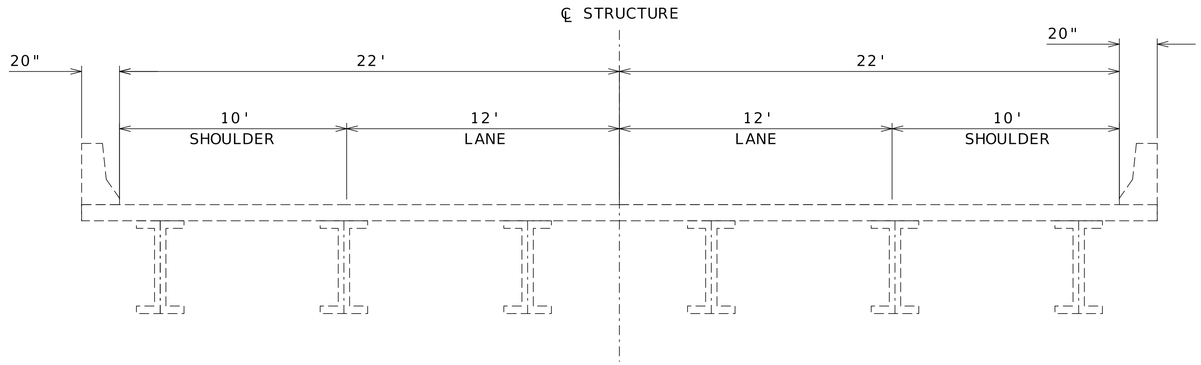
DATE PREPARED: 9/28/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	1

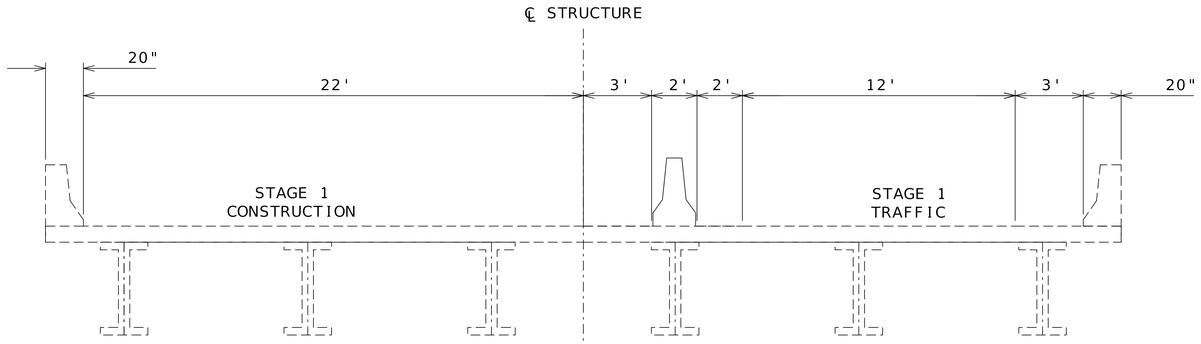
COUNTY: CALLAWAY
JOB NO.: JCD0072
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION	DATE

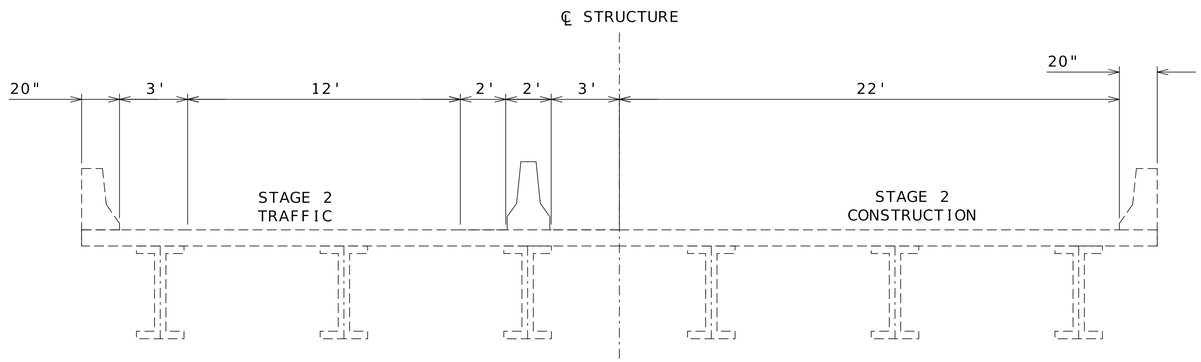
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



CRD S SUMMIT DRIVE
TYPICAL BRIDGE SECTION
BRIDGE #A3521
LOG MILE 1.707 TO LOG MILE 1.758



CRD S SUMMIT DRIVE
STAGE 1 - TRAFFIC CONTROL
TYPE F TEMPORARY CONCRETE TRAFFIC BARRIER
DURING STAGE 1 CONSTRUCTION.



CRD S SUMMIT DRIVE
STAGE 2 - TRAFFIC CONTROL
TYPE F TEMPORARY CONCRETE TRAFFIC BARRIER
DURING STAGE 2 CONSTRUCTION.

TYPICAL SECTION
SHEET 1 OF 2

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:04:14 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	2

COUNTY
CALLAWAY

JOB NO.
JCD0072

CONTRACT ID.

PROJECT NO.

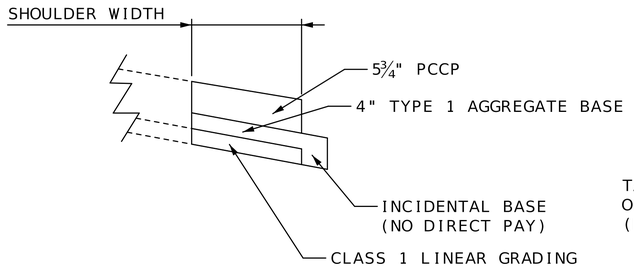
BRIDGE NO.

DESCRIPTION	DATE

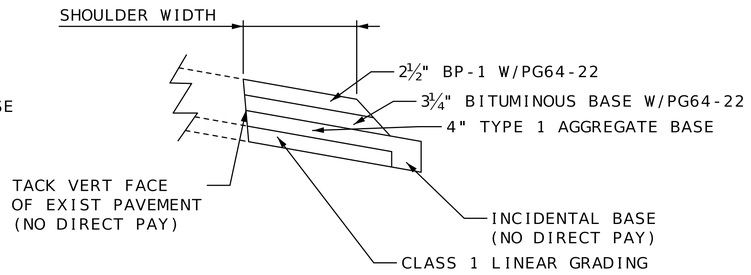
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

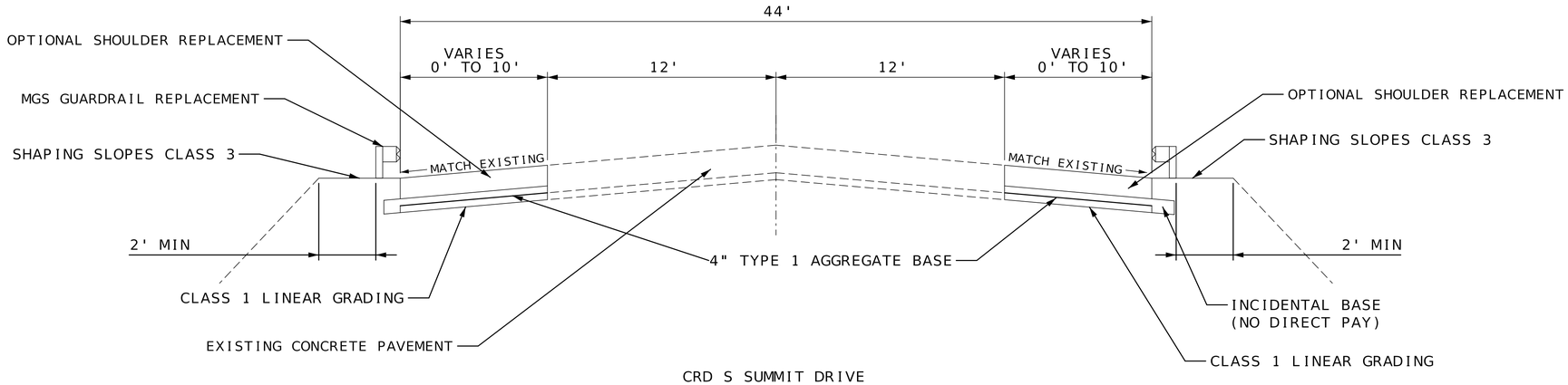
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

DETAIL
OPTIONAL SHOULDER
PORTLAND CEMENT CONCRETE PAVEMENT (PCCP)



DETAIL
OPTIONAL SHOULDER
HOT MIX ASPHALT





CRD S SUMMIT DRIVE
TYPICAL SECTION

LOG MILE 1.674 TO LOG MILE 1.703 (LT) - WIDTH VARIES 8' TO 0'
LOG MILE 1.683 TO LOG MILE 1.703 (RT) - WIDTH VARIES 5' TO 10'
LOG MILE 1.764 TO LOG MILE 1.784 (RT) - WIDTH VARIES 0' TO 5'

TYPICAL SECTION
SHEET 2 OF 2

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:04:29 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	2

COUNTY
CALLAWAY

JOB NO.
JCD0072

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

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

MGS GUARDRAIL

LOG MILE	LOG MILE	LOCATION	LENGTH FT	MGS BRIDGE APPROACH TRANS. (REG/NO CURB) EA	MGS GUARDRAIL LF	TYPE A CRASHWORTHY END TERMINAL EA	SHAPING SLOPES CLASS III 100 FT	REMARKS
1.683	1.707	S SUMMIT DR	125	1	37.5	1	1.5	NORTH END OF BRIDGE A3521
1.690	1.707	S SUMMIT DR	87.5	1		1	1	NORTH END OF BRIDGE A3521
1.760	1.778	S SUMMIT DR	87.5	1		1	1	SOUTH END OF BRIDGE A3521
1.760	1.783	S SUMMIT DR	125	1	37.5	1	1.5	SOUTH END OF BRIDGE A3521
			TOTAL	4	75	4	5.0	
			USE	4	75	4	5	

TYPE 1 ROCK DITCH LINER

LOG MILE	LOG MILE	LOC	AREA SF	FURNISHING TYPE 1 ROCK DITCH LINER CY	PLACING TYPE 1 ROCK DITCH LINER CY	EROSION CONTROL GEOTEXTILE SY	REMARKS
1.761		LT	248.25	6.1	6.1	27.6	8" THICK ROCK FLUME
1.761		RT	285.38	7.0	7.0	31.7	8" THICK ROCK FLUME
			TOTAL	13.1	13.1	59.3	
			USE	13	13	59	

TYPE 2 ROCK BLANKET

LOG MILE	LOG MILE	LOC	AREA SF	FURNISHING TYPE 2 ROCK BLANKET CY	PLACING TYPE 2 ROCK BLANKET CY	EROSION CONTROL GEOTEXTILE SY	REMARKS
1.707	1.715	RT	200	14.8	14.8	31.1	2' ROCK BLANKET
1.707	1.711	LT	90	6.7	6.7	16.7	2' ROCK BLANKET
			TOTAL	21.5	21.5	47.8	
			USE	22	22	32	

24" WHITE TEMPORARY REMOVABLE MARKING TAPE

LOG MILE	LOCATION	LENGTH	24" WHITE LF	REMARKS
VAR	S SUMMIT DR	24	24	TEMPORARY STOP BAR
		TOTAL	24	

24" WHITE THERMOPLATIC PAVEMENT MARKING

LOG MILE	LOCATION	LENGTH	24" WHITE LF	REMARKS
0.159	US 54 OFF RAMP	18	16	STOP BAR
		TOTAL	16	

SEEDING AND MULCHING - COOL SEASON GRASSES

1 LUMP SUM

MOBILIZATION

1 LUMP SUM

REMOVAL OF IMPROVEMNTS

LOG MILE	LOG MILE	LOCATION	QUANTITY	UNIT	REMARKS
1.683	1.707	S SUMMIT DR	110	LF	GUARDRAIL
1.690	1.707	S SUMMIT DR	100	LF	GUARDRAIL
1.760	1.778	S SUMMIT DR	90	LF	GUARDRAIL
1.760	1.783	S SUMMIT DR	125	LF	GUARDRAIL
1.683	1.703	S SUMMIT DR	127	SY	ASPHALT SHOULDER
1.674	1.707	S SUMMIT DR	70	SY	ASPHALT SHOULDER
1.760	1.784	S SUMMIT DR	58	SY	ASPHALT SHOULDER
1.76	1.763	S SUMMIT DR	2	EA	DRAIN BASINS
1.778	1.784	S SUMMIT DR	31	LF	CONCRETE CURB
SIGN OR SIGN SET	LOG MILE	LOCATION	SIGNS EA	POSTS EA	REMARKS
1	1.616	S SUMMIT DR	1	2	REMOVE SIGN AND POSTS
2	1.661	S SUMMIT DR	1	1	REMOVE AND REPLACE WITH 54 EXIT SIGN
3	1.660	S SUMMIT DR	1	2	REMOVE SIGN AND POSTS
4	1.691	S SUMMIT DR	2	-	REPLACE SIGN WITH 54 EXIT SIGN, R. ONE WAY SIGN
5	1.816	S SUMMIT DR	1	2	REMOVE SIGN AND POSTS
6	170.663	54 EB	1	2	REMOVE AND REPLACE WITH NEW EXIT SIGN
7	170.525	54 EB	1	2	REMOVE AND REPLACE WITH NEW EXIT QUARTER MILE SIGN
8	101.101	54 WB	1	-	REPLACE WITH NEW CITY LIMIT SIGN
		TOTAL	9	11	
				USE	1 LUMP SUM

OPTIONAL SHOULDER AND 4" TYPE 1 AGGREGATE BASE

LOG MILE	LOG MILE	LOCATION	AREA FT	OPTIONAL SHOULDER SY	4" TYPE 1 AGGREGATE BASE SY	LINEAR GRADING CLASS 1 STA.	REMARKS
1.674	1.707	S SUMMIT DR	633.11	70.35	70.35	1.4	NORTH OF BRIDGE LEFT
1.680	1.707	S SUMMIT DR	1139.94	126.66	126.66	1.6	NORTH OF BRIDGE RIGHT
1.760	1.784	S SUMMIT DR	525.22	58.36	58.36	1.2	SOUTH OF BRIDGE RIGHT
			TOTAL	255.37	255.37	4.2	
			USE	255.4	255	4	

CLASS 1 PAVEMENT MARKING PAINT, 18-MIL TYPE P BEADS

LOG MILE	LOG MILE	LOCATION	LENGTH	4" WHITE LF	4" YELLOW LF	REMARKS
1.678		WESTBOUND RAMP	1260	1260.0	1260.0	1 SOLID WHITE AND 1 SOLID YELLOW
1.600	1.846	S SUMMIT DR	1230	2460.0	307.5	2 SOLID WHITE AND DOTTED YELLOW
	1.785	EASTBOUND RAMP	755	755.0	755.0	1 SOLID WHITE AND 1 SOLID YELLOW
			TOTAL	4475.0	2322.5	
			USE	4475	2323	

TEMPORARY PAVEMENT MARKING AND REMOVAL

LOG MILE	LOG MILE	4" TEMPORARY PAVEMENT MARKING PAINT WHITE LF	PAVEMENT MARKING REMOVAL LF	REMARKS
1.678	1.794	1090	1240	REMOVE EXISTING PAVEMENT MARKING
1.678	1.794	1090	1090	REMOVE TEMPORARY PAVEMENT MARKING
1.678	1.794		1090	REMOVE TEMPORARY PAVEMENT MARKING
VAR	VAR		24	STOP BARS
	USE	2180	3444	

EROSION CONTROL

LOG MILE	LOG MILE	SILT FENCE LF	SEDIMENT REMOVAL CY	REMARKS
1.671	1.707	202	2.02	LEFT SHOULDER N
1.682	1.707	152	1.52	RIGHT SHOULDER N
1.760	1.782	147	1.47	RIGHT SHOULDER S
1.760	1.766	60	0.6	LEFT SHOULDER S
	TOTAL	561	5.61	
	USE	561	6	

SUMMARY OF QUANTITIES
SHEET 1 OF 2

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:03:20 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	3

COUNTY
CALLAWAY

JOB NO.
JCD0072

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NO.	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						REVERSE CURVE (SYMBOL LEFT)
WO1-4R	48X48	16.00						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						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	3	48.00			12	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						MERGE (SYMBOL FROM RIGHT)
WO4-1aL	48X48	16.00						MERGE (LEFT)
WO4-1aR	48X48	16.00						MERGE (RIGHT)
WO5-1	48X48	16.00						ROAD/BRIDGE/RAMP NARROWS
WO5-3	48X48	16.00						ONE LANE BRIDGE
WO5-5	48X48	16.00	2	32.00			34	NARROW LANES
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
WO6-3	48X48	16.00						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	8	128.00			2	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	6	96.00			7	ONE LANE ROAD AHEAD
WO20-5	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED AHEAD
WO20-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
WO20-6a	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED
WO20-7a	48X48	16.00	6	96.00			20	FLAGGER (SYMBOL)
WO21-2	36X36	9.00						FRESH OIL
WO21-5	48X48	16.00	2	32.00			21	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	2	4.38			55	WET PAINT (ARROW PIVOTS)

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NO.	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						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	2	12.00			54	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						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	4	48.00			4, 25	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						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	3	18.00			47	STOP HERE ON RED (45^ ARROW)
R11-2	48X30	10.00						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						POINT OF PRESENCE
CONST-8	48X36	12.00						WORK ZONE NO PHONE ZONE

616-10.05 CONSTRUCTION SIGNS	TOTAL
	515

616-10.10 RELOCATED SIGNS	TOTAL

EFFECTIVE: 07-01-2025

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)
6122040		WORK ZONE CRASH CUSHION (NARROW)
6122041		WORK ZONE CRASH CUSHION (RELOCATION)
6123001		TRUCK MOUNTED ATTENUATOR (TMA)
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161020		CHANNELIZER (DRUM-LIKE)
6161022		CHANNELIZER (CONE)
6161025	50	CHANNELIZER (TRIM-LINE)
6161026		CHANNELIZER (VERTICAL PANEL)
6161030		TYPE 3 MOVEABLE BARRICADE
6161033		DIRECTION INDICATOR BARRICADE
6161040		FLASHING ARROW PANEL
6161047		TYPE 3 OBJECT MARKER
6161055		SEQUENTIAL FLASHING WARNING LIGHT
6161070		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	1	WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002		TEMPORARY LONG-TERM RUMBLE STRIPS
6173600D	375	TEMPORARY TRAFFIC BARRIER, CONTRACTOR FURNISHED/RETAINED
6173700B		TEMP. TRAFFIC BARRIER ANCHORED, CONTRACTOR FURNISHED/RETAINED
6173706		TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION CONTRACTOR FURNISHED/RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION, CONTRACTOR FURNISHED/RETAINED
6175010A	375	RELOCATING TEMPORARY TRAFFIC BARRIER
6175011B		RELOCATING TEMP. TRAFFIC BARRIER ANCHORED
6175013		RELOCATING TEMP. TRAFFIC BARRIER STIFFNESS
6175020A		RELOCATING TEMP. TRAFFIC BARRIER HEIGHT
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400		TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:06:02 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED: 9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	3

COUNTY: CALLAWAY

JOB NO.: JCD0072

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.:

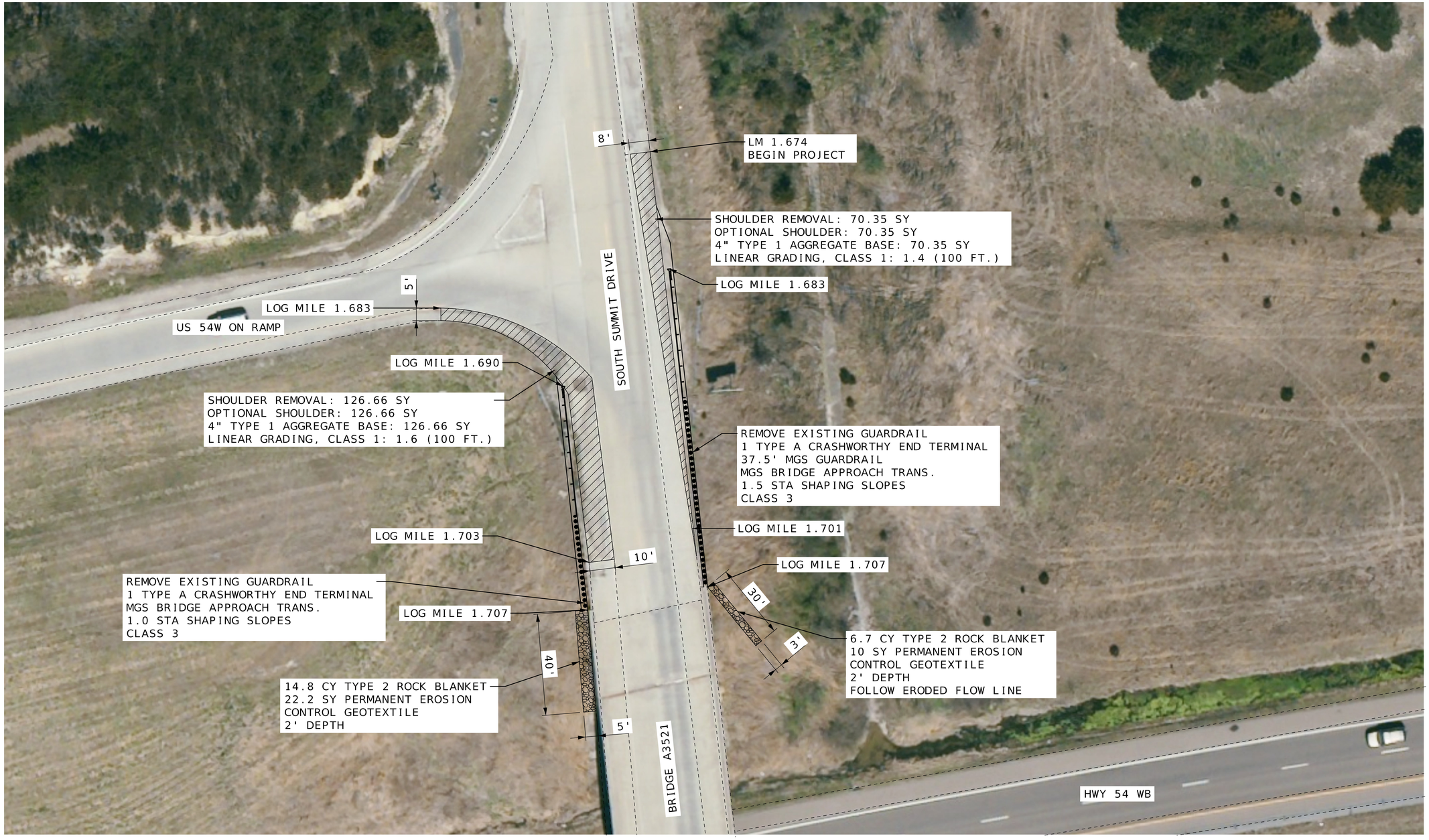
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

SUMMARY OF QUANTITIES

SHEET 2 OF 2



BRIDGE A3521 NORTH END
GUARDRAIL, ROCK BLANKET, AND SHOULDER REPLACEMENT
LOG MILE 1.674 BEGIN PROJECT TO LOG MILE 1.707

NOT TO SCALE

SPECIAL SHEET
1 OF 2

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:06:18 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	4

COUNTY
CALLAWAY

JOB NO.
JCD0072

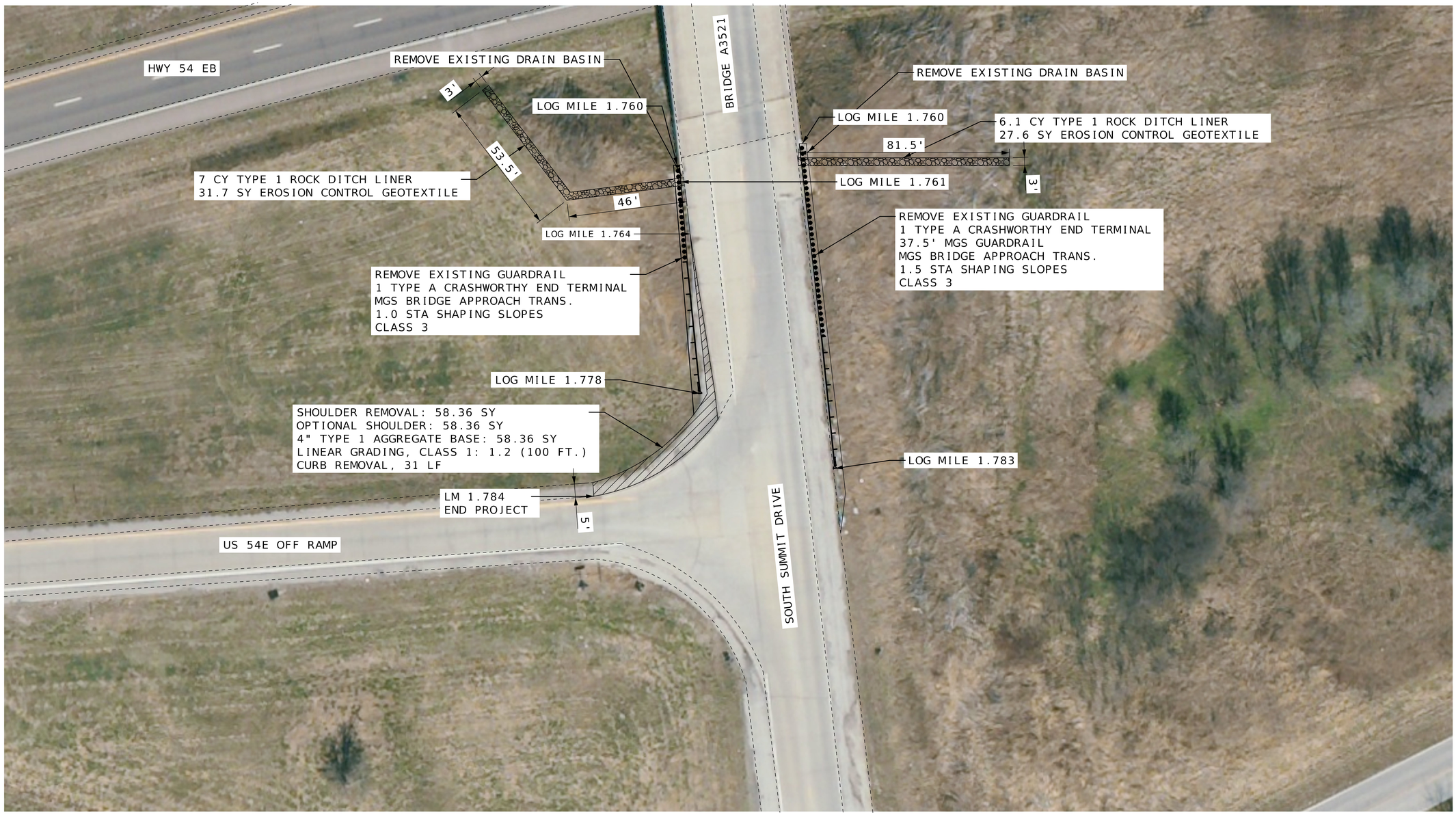
CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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



BRIDGE A3521 SOUTH END
GUARDRAIL, DRAIN FLUME, AND SHOULDER REPLACEMENT
LOG MILE 1.760 TO LOG MILE 1.784 END PROJECT

NOT TO SCALE

SPECIAL SHEET
2 OF 2

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:04:43 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	5

COUNTY
CALLAWAY

JOB NO.
JCD0072

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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

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

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
- DIRECTION INDICATOR BARRICADE
- CHANNELIZER
- BARRICADE
- CHANGEABLE MESSAGE BOARD
- FLASHING ARROW PANEL
- TMA (TRUCK MOUNTED ATTENUATOR) WITH FLASHING ARROW PANEL

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER

09/28/2026 4:05:35 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	6

COUNTY
CALLAWAY

JOB NO.
JCD0072

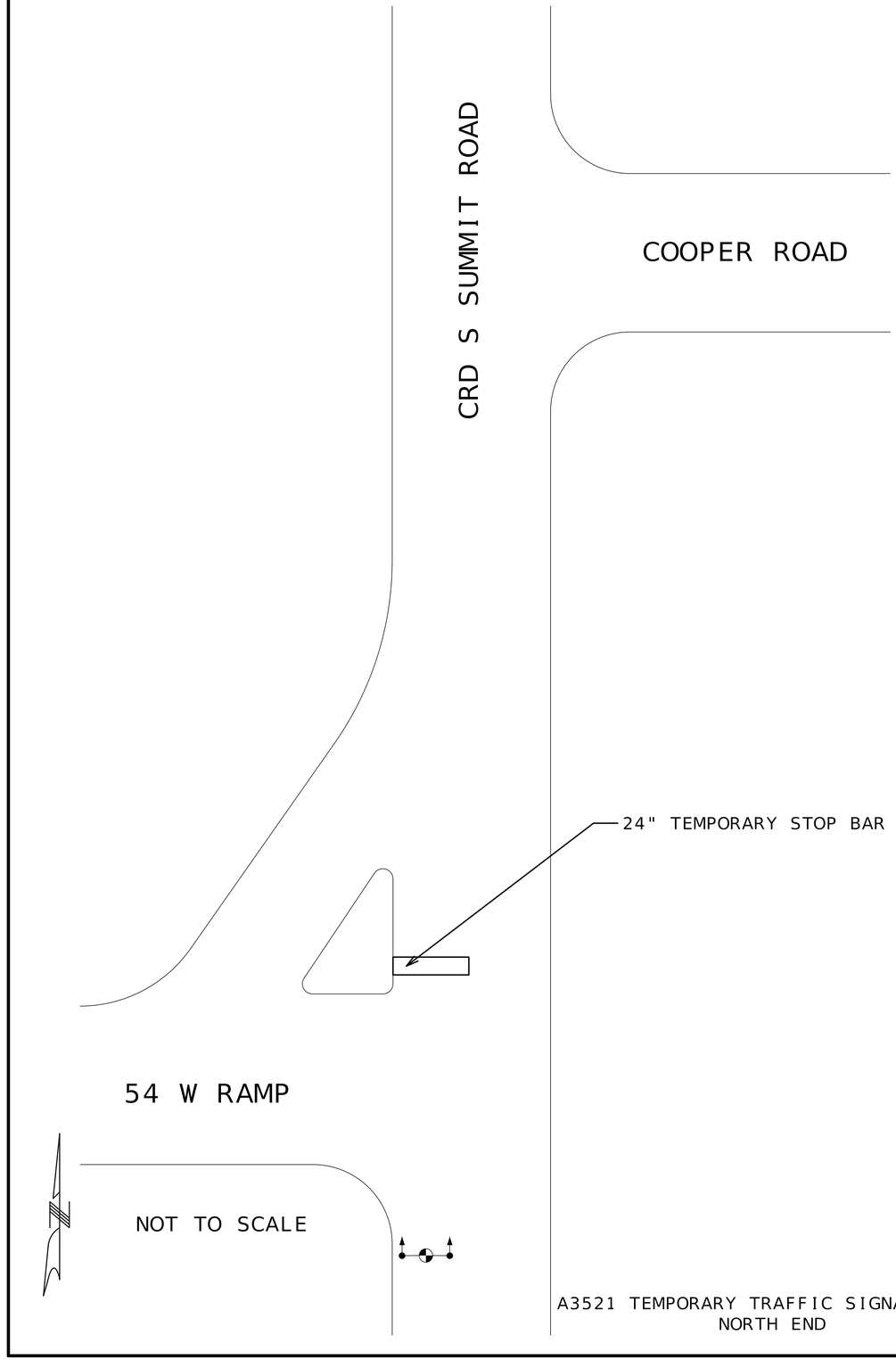
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PROJECT NO.

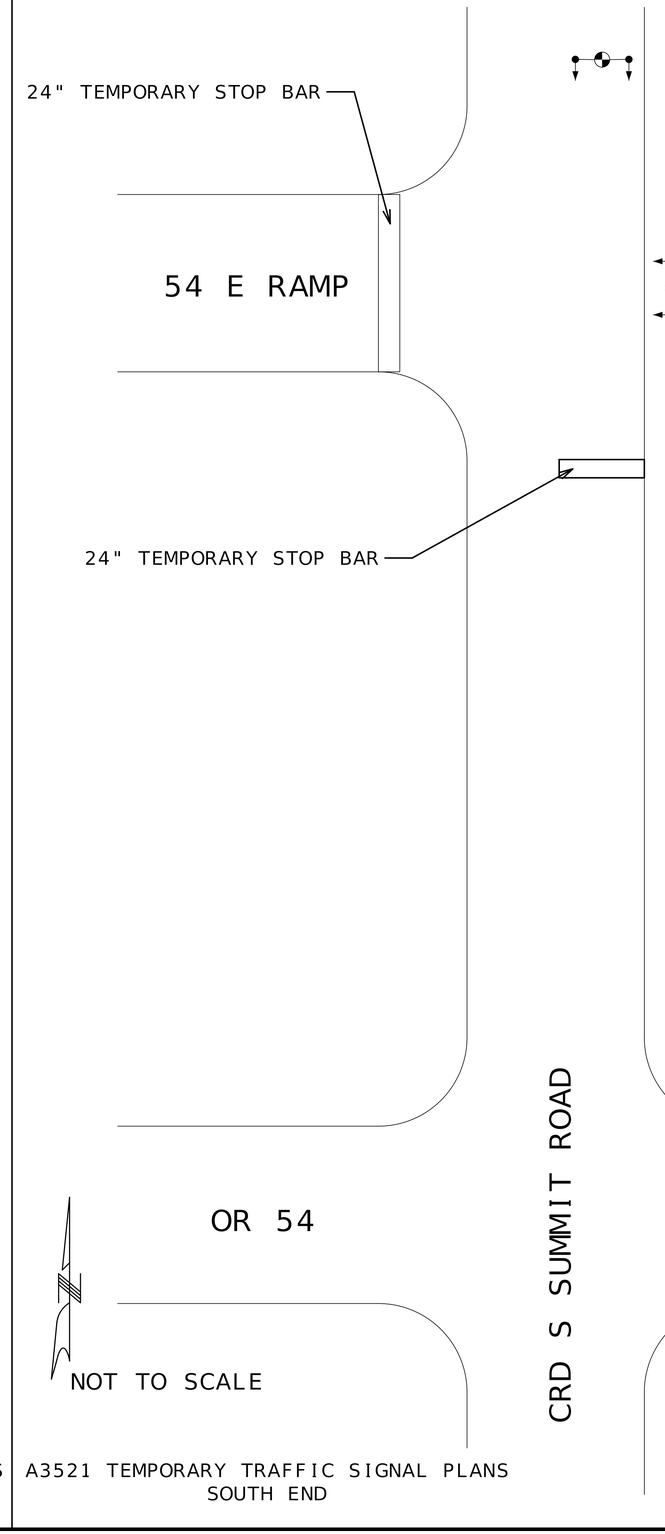
BRIDGE NO.

DESCRIPTION	DATE

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



A3521 TEMPORARY TRAFFIC SIGNAL PLANS
NORTH END



A3521 TEMPORARY TRAFFIC SIGNAL PLANS
SOUTH END



TRAFFIC CONTROL SHEET
2 OF 7

LEGEND

PORTABLE TRAFFIC SIGNAL W/ LUMINAIRE

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:03:34 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	7

COUNTY
CALLAWAY

JOB NO.
JCD0072

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

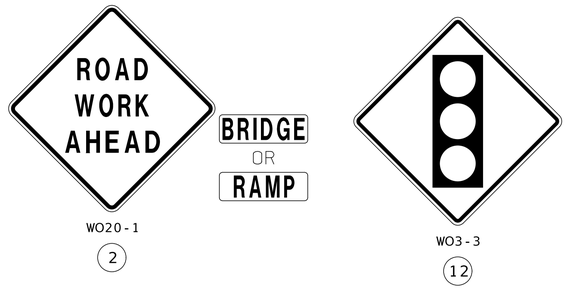
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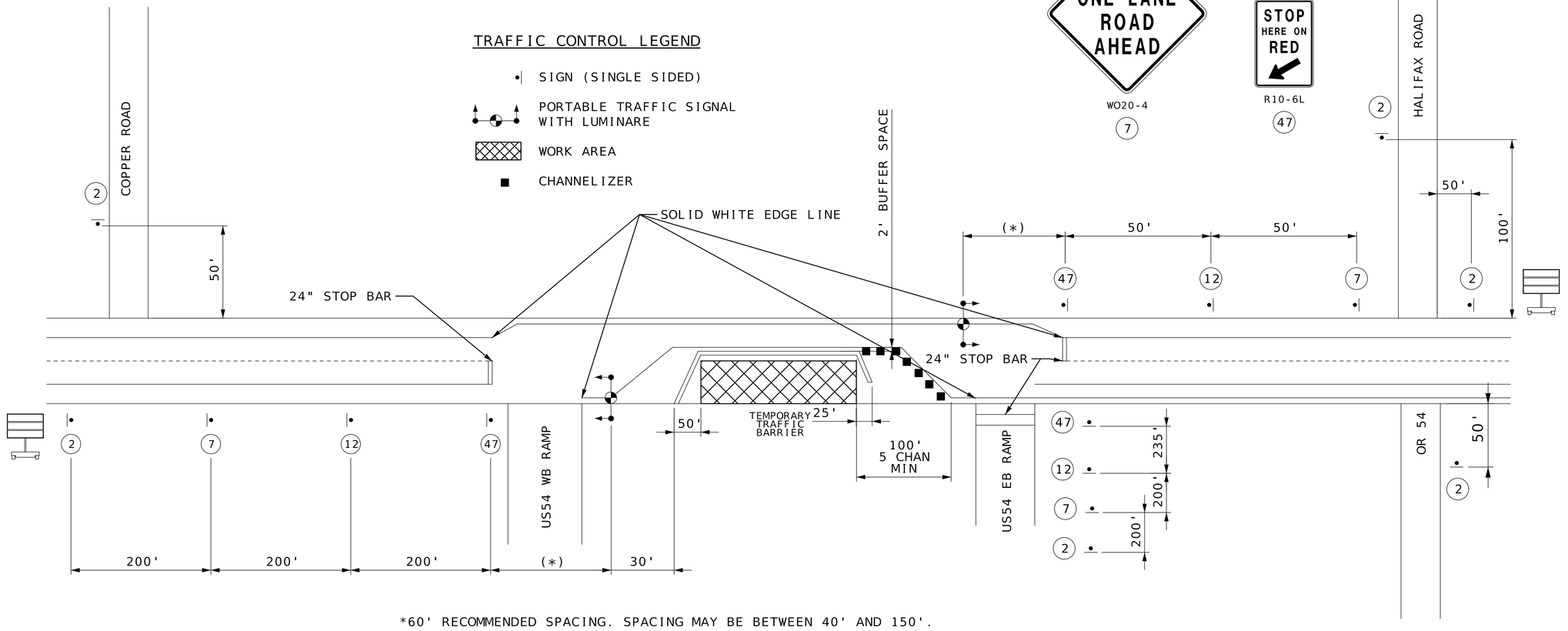
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

TRAFFIC CONTROL NOTES

1. FOR PORTABLE TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNAL, AND TYPICAL ACTUATED PHASING, SEE EPG 616.8.12 ESTIMATED AVERAGE PEAK HOUR SIGNAL DELAY FOR SIGNAL CONTROL ONE-LANE TWO-WAY OPERATION.
2. TEMPORARY TRAFFIC CONTROL SIGNAL TIMING SHALL BE INSTALLED PER MANUFACTURER GUIDANCE AND OPERATED AS APPROVED BY THE ENGINEER. TRAFFIC CONTROL SIGNALS SHALL MEET THE PHYSICAL DISPLAY AND OPERATIONAL REQUIREMENTS OF CONVENTIONAL TRAFFIC CONTROL STANDARDS.
3. TEMPORARY TRAFFIC CONTROL SIGNAL TIMING SHALL BE ESTABLISHED BY AUTHORIZED OFFICIALS. DURATION OF RED CLEARANCE INTERVALS SHALL BE ADEQUATE TO CLEAR THE ONE-LANE SECTION OF CONFLICTING VEHICLES.
4. WHEN THE TEMPORARY TRAFFIC CONTROL SIGNAL IS CHANGED TO THE FLASHING MODE, EITHER MANUALLY OR AUTOMATICALLY, RED SIGNAL INDICATION SHALL BE FLASHED TO ALL APPROACHES.
5. STOP LINES SHALL BE INSTALLED WITH TEMPORARY TRAFFIC CONTROL SIGNALS FOR INTERMEDIATE AND LONG-TERM CLOSURES. EXISTING CONFLICTING PAVEMENT MARKINGS AND RAISED PAVEMENT MARKER REFLECTORS BETWEEN THE ACTIVITY AREA AND THE STOP LINE SHALL BE REMOVED. AFTER THE TEMPORARY TRAFFIC CONTROL SIGNAL IS REMOVED, THE STOP LINE SHALL BE REMOVED, THE STOP LANES AND OTHER TEMPORARY MARKINGS SHALL BE REMOVED AND THE PERMANENT PAVEMENT MARKINGS RESTORED.
6. SAFEGUARDS SHALL BE INCORPORATED TO AVOID THE POSSIBILITY OF CONFLICTING SIGNAL INDICATIONS AT EACH END OF THE TTC ZONE.
7. DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS. WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCE WARNING AREA, ADDITIONAL SIGNING MAY BE NEEDED.





*60' RECOMMENDED SPACING. SPACING MAY BE BETWEEN 40' AND 150'.

TRAFFIC CONTROL SHEET
3 OF 7

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:03:48 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	8

COUNTY
CALLAWAY

JOB NO.
JCD0072

CONTRACT ID.

PROJECT NO.

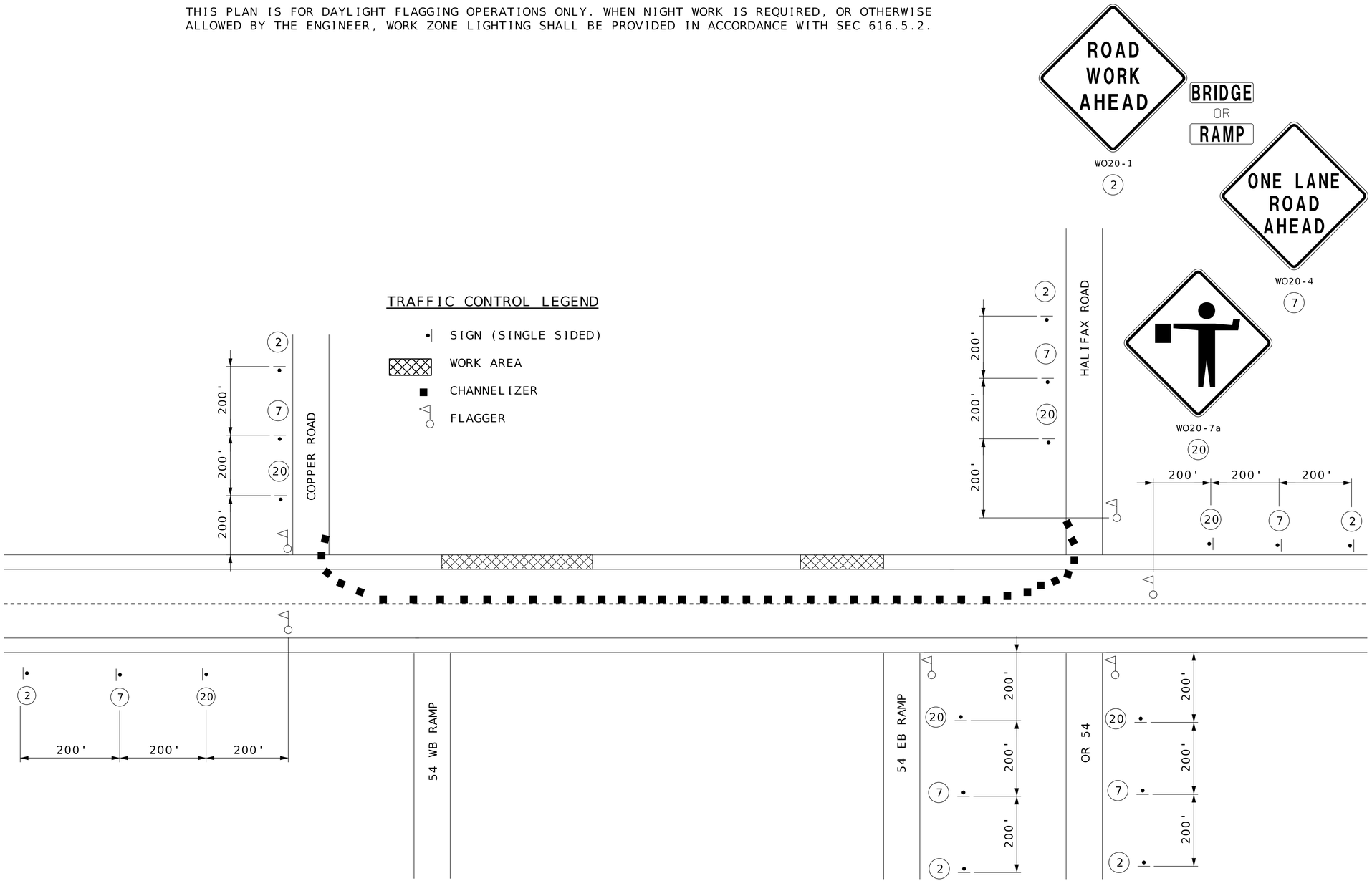
BRIDGE NO.

DATE	DESCRIPTION

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

TRAFFIC CONTROL NOTES

THIS PLAN IS FOR DAYLIGHT FLAGGING OPERATIONS ONLY. WHEN NIGHT WORK IS REQUIRED, OR OTHERWISE ALLOWED BY THE ENGINEER, WORK ZONE LIGHTING SHALL BE PROVIDED IN ACCORDANCE WITH SEC 616.5.2.



STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:05:46 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

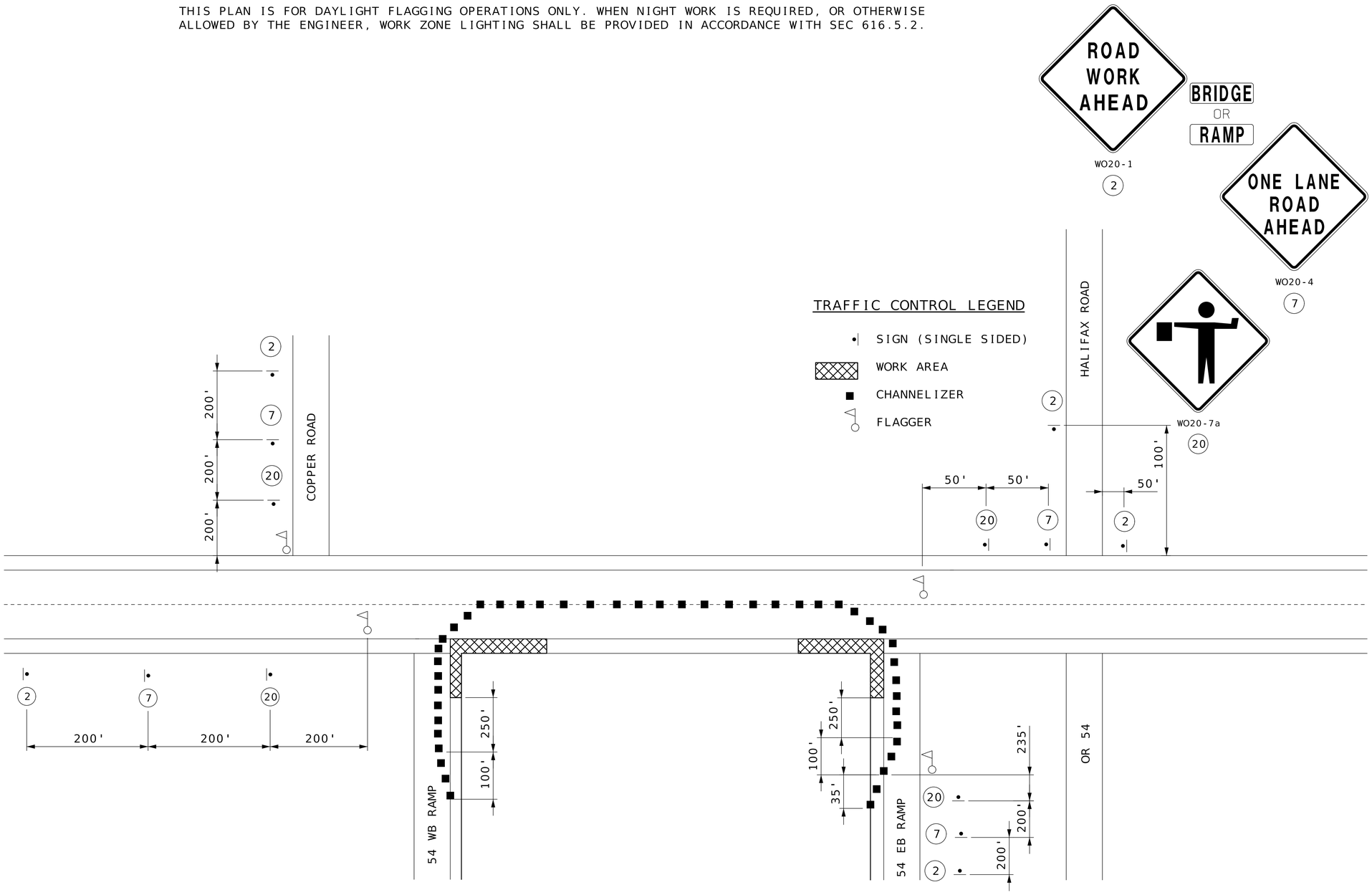
DATE PREPARED	9/2/2026
ROUTE	54
STATE	MO
DISTRICT	CD
SHEET NO.	9
COUNTY	CALLAWAY
JOB NO.	JCD0072
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION | DATE

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

TRAFFIC CONTROL NOTES

THIS PLAN IS FOR DAYLIGHT FLAGGING OPERATIONS ONLY. WHEN NIGHT WORK IS REQUIRED, OR OTHERWISE ALLOWED BY THE ENGINEER, WORK ZONE LIGHTING SHALL BE PROVIDED IN ACCORDANCE WITH SEC 616.5.2.

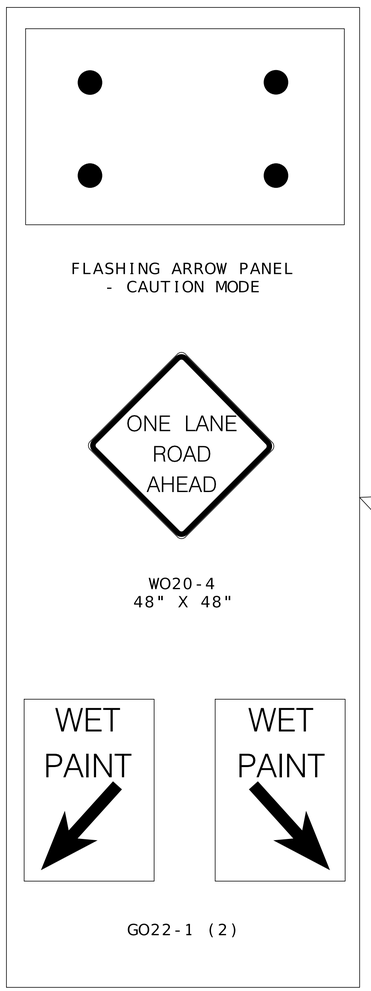


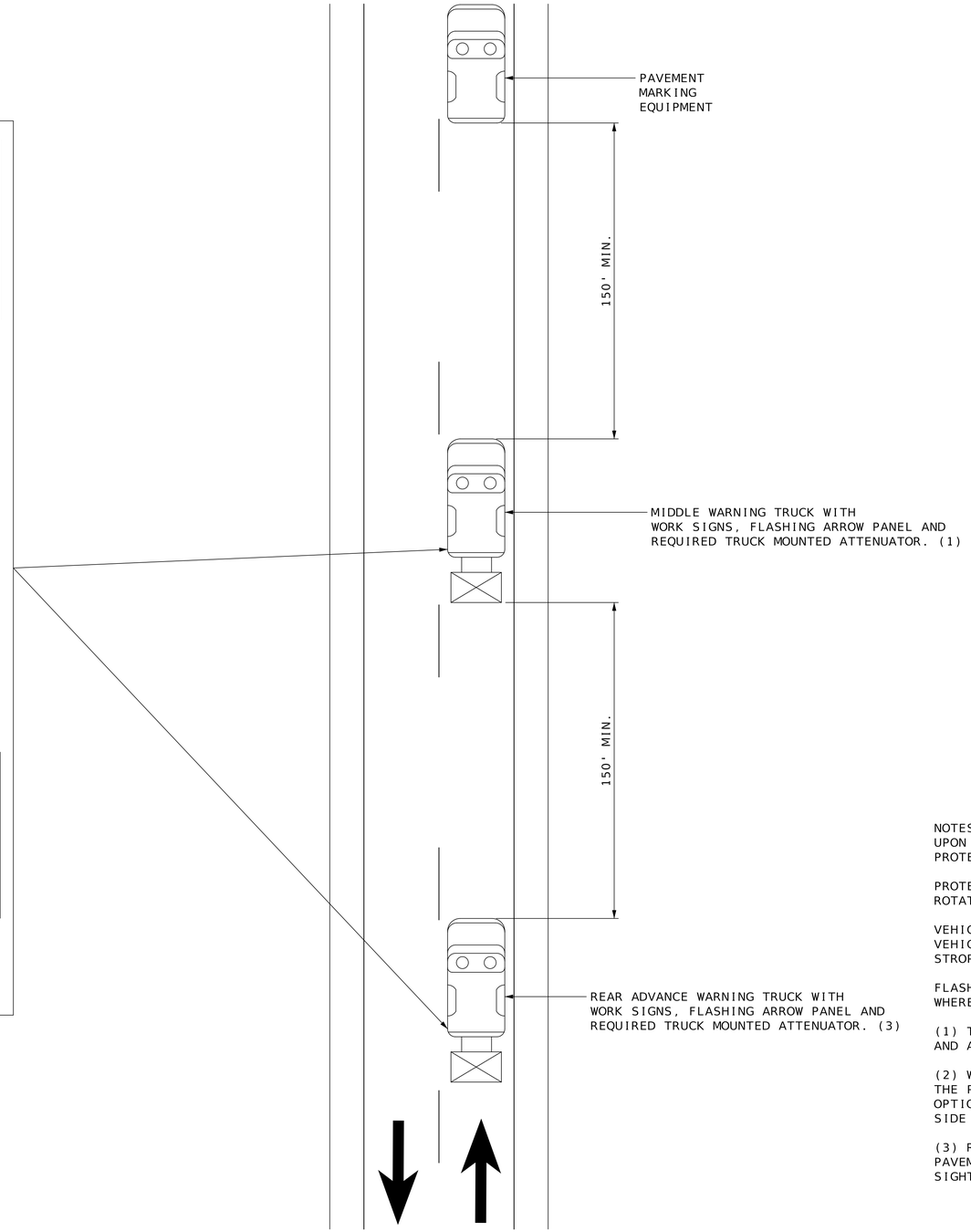
STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:04:00 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED	9/2/2026
ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	10
COUNTY	CALLAWAY
JOB NO.	JCD0072
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION | DATE

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





NOTES:
UPON APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY PROVIDE ADDITIONAL PROTECTIVE TRUCK EQUIPPED WITH PROPER WARNING DEVICES.

PROTECTIVE TRUCK AND WORK VEHICLES SHALL DISPLAY HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS.

VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROPE LIGHTS.

FLASHING ARROW PANELS SHALL BE INCIDENTAL TO TRUCK MOUNTED ATTENUATORS, WHEREVER USED. NO ADDITIONAL PAYMENT WILL BE MADE.

(1) TRUCK IS OPTIONAL ON TWO-LANE UNDIVIDED HIGHWAYS IF SIGNING AND ARROW BOARD IS MOUNTED ON THE PAVEMENT MARKING EQUIPMENT.

(2) WET PAINT SIGNS ARE INSTALLED TO INDICATE THE SIDE IN WHICH THE PAVEMENT MARKING MATERIAL IS BEING APPLIED. AT THE CONTRACTOR'S OPTION, A FRONT FACING WET PAINT SIGN MAY BE INSTALLED ON THE LEFT SIDE OF THE PAVEMENT MARKING EQUIPMENT.

(3) REAR ADVANCE WARNING TRUCK IS POSITIONED AT THE NO TRACK POINT OF THE PAVEMENT MARKING MATERIAL, OR VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE, OR SPACING SHOWN.

CENTERLINE/EDGELINE STRIPING ON TWO-LANE HIGHWAYS

TRAFFIC CONTROL
SHEET 6 OF 7

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:04:56 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	11

COUNTY
CALLAWAY

JOB NO.
JCD0072

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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



W020-1

(2)



W021-5

(21)



W05-5

(34)



G020-5aP

(54)



R2-1

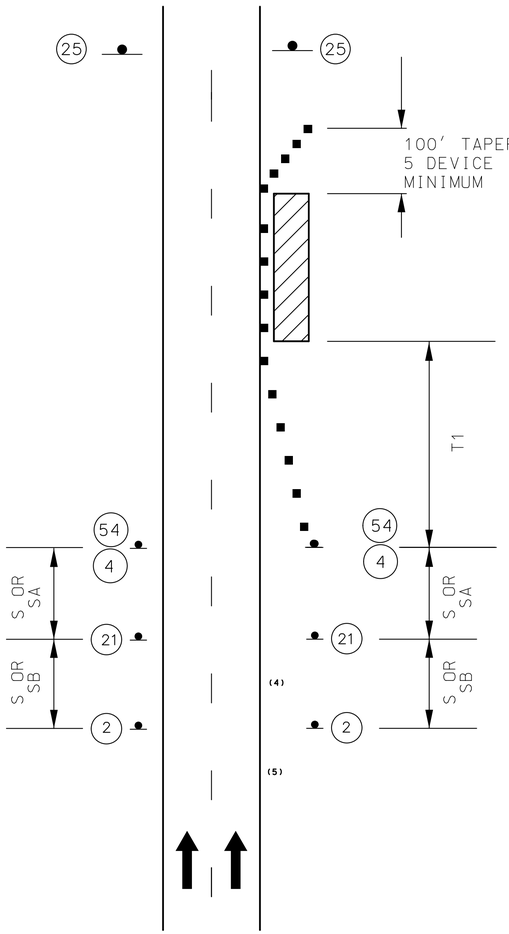
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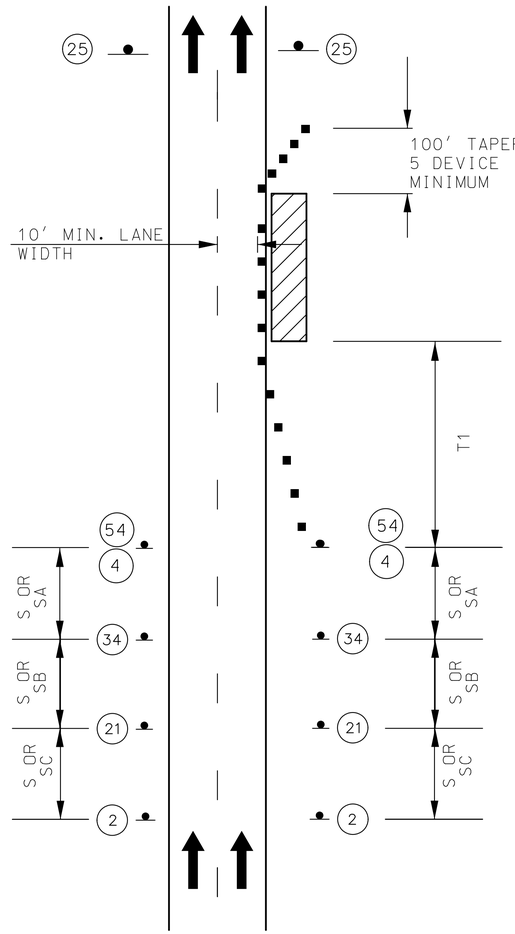
R2-1

NORMAL SPEED

(25)



NO TRAVELWAY ENCROACHMENT
DIVIDED HIGHWAY



MINOR TRAVELWAY ENCROACHMENT
DIVIDED HIGHWAY

NOTES:

LAYOUTS ARE TYPICAL FOR EITHER LANE.

SIGN (2) NOT NEEDED IF LOCATED WITHIN LIMITS OF AN ACTIVITY AREA WHERE ANOTHER SIGN (2) IS ALREADY USED.

MAXIMUM WORK ZONE LENGTH 2 MILES

TAPER LENGTHS AND SPACING OF CHANNELIZING DEVICES					
SPEED MPH (S)	MINIMUM TAPER LENGTHS			MAXIMUM CHANNELIZER SPACING	
	T1	T2	BUFFER	THROUGH TAPER	THROUGH WORK AREA
0-35	70 FT	245FT	280FT	35FT	40FT
40-45	150FT	540FT	400FT	40FT	80 FT
50-55	185FT	660FT	560FT	50FT	80 FT
60-70	235FT	840FT	840FT	60FT	120FT

SIGN SPACING FOR ADVANCE SIGN SERIES		
SPACING BETWEEN SIGNS AND SPACING BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER, OR SIGNED CONDITION. SPACINGS MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS.		
POSTED SPEED MPH (P)	NON-DIVIDED HIGHWAYS (S)	DIVIDED HIGHWAYS (S)
0-35	200 FT	200 FT
40-45	350 FT	500 FT
50-55	500 FT	1000 FT
60-70	SA - 1000 FT, SB - 1500 FT AND SC - 2640 FT	

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- DIRECTIONAL INDICATOR BARRICADE
- CHANNELIZER
- WORK ZONE
- FLASHING ARROW PANEL

TEMPORARY TRAFFIC CONTROL SHEET
STATIONARY SHOULDER CLOSURE
ON DIVIDED HIGHWAY
SHEET 7 OF 7

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:05:22 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED: 9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	12

COUNTY: CALLAWAY
JOB NO.: JCD0072
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



BRIDGE A3521 NORTH END
EROSION CONTROL
LOG MILE 1.674 BEGIN PROJECT TO LOG MILE 1.707

NOT TO SCALE

EROSION CONTROL
SHEET 1 OF 2

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:05:06 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	13

COUNTY
CALLAWAY

JOB NO.
JCD0072

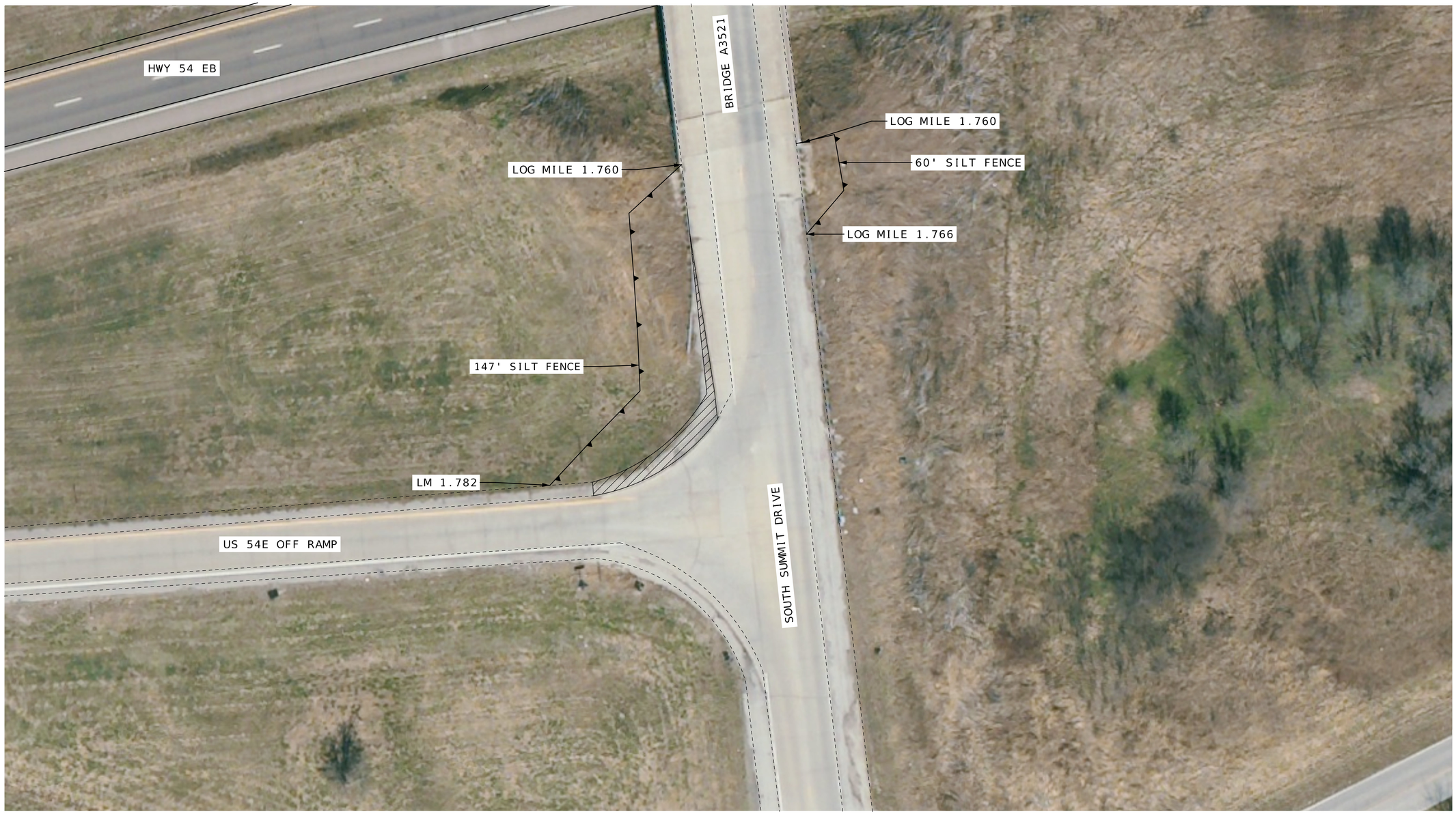
CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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



BRIDGE A3521 SOUTH END
EROSION CONTROL
LOG MILE 1.760 TO LOG MILE 1.784 END PROJECT

NOT TO SCALE

EROSION CONTROL
SHEET 2 OF 2

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:08:48 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED	9/2/2026
ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	14
COUNTY	CALLAWAY
JOB NO.	JCD0072
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



1 (R) SIGN, POSTS, STUBS AND FOOTINGS LM 1.616



(R) 3 SIGNS, POST, AND FOOTINGS LM 1.661 (2)

E8-1
144"x84"
LM 1.661
NEW POSTS, STUBS, AND FOOTINGS (2)



(R) SIGN, POSTS, STUBS AND FOOTINGS LM 1.660 (3)



E8-1
144"x84"
(UIP) POSTS, STUBS, FOOTINGS AND EXISTING ONE WAY SIGNS
LM 1.691



(4) (R) SIGN

LOG MILE 1.616 TO LOG MILE 1.691
S SUMMIT DRIVE

NOT TO SCALE

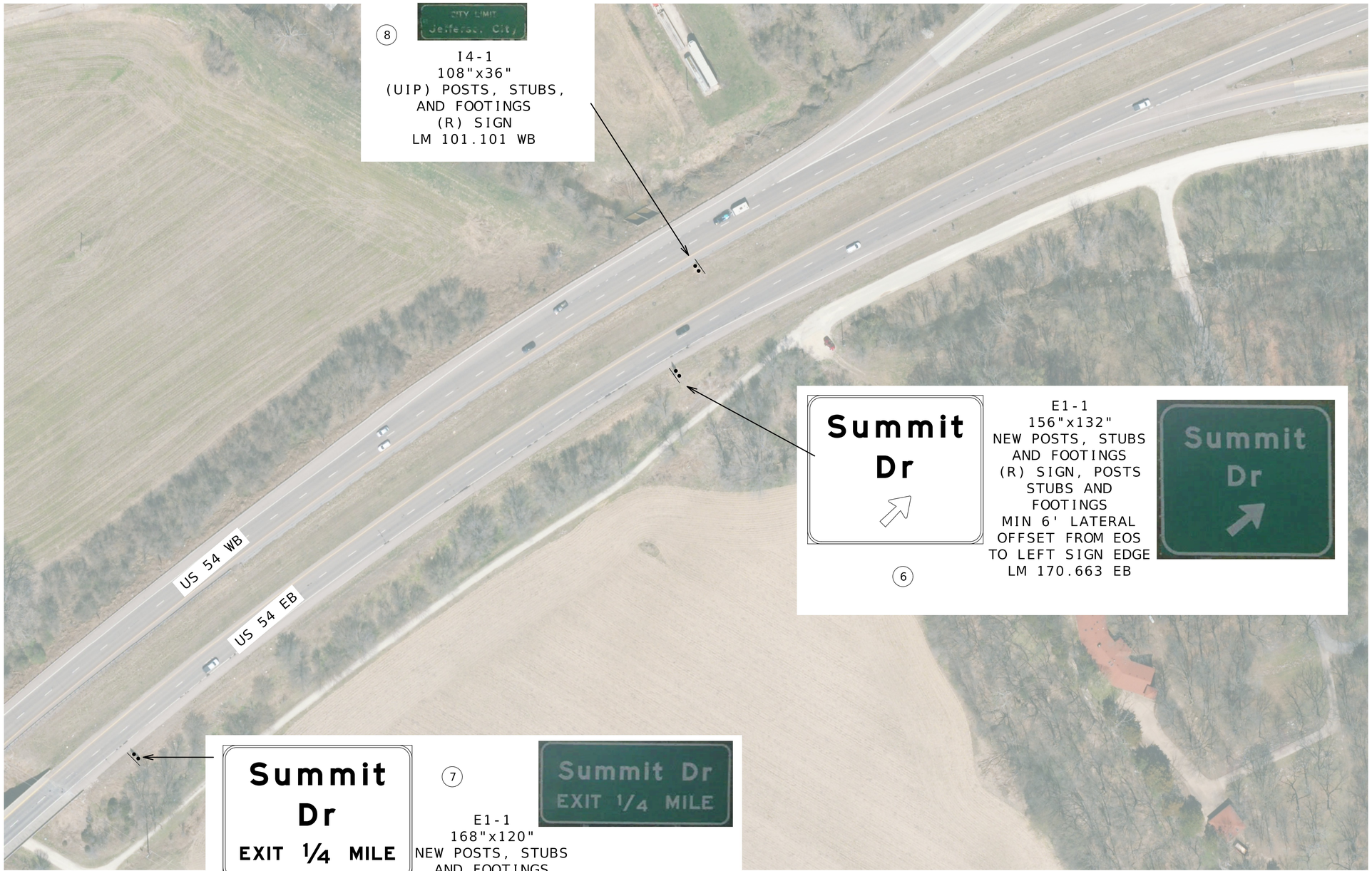
SIGNING SHEET
PLAN VIEWS
SHEET 2 OF 7

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:09:31 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED 9/2/2026
ROUTE 54 | STATE MO
DISTRICT CD | SHEET NO. 16
COUNTY CALLAWAY
JOB NO. JCD0072
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION
DATE

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



Jefferson City
CITY LIMIT

8

I4-1
108"x36"
(UIP) POSTS, STUBS,
AND FOOTINGS
(R) SIGN
LM 101.101 WB

Summit
Dr

6

E1-1
156"x132"
NEW POSTS, STUBS
AND FOOTINGS
(R) SIGN, POSTS
STUBS AND
FOOTINGS
MIN 6' LATERAL
OFFSET FROM EOS
TO LEFT SIGN EDGE
LM 170.663 EB

Summit
Dr
EXIT 1/4 MILE

7

E1-1
168"x120"
NEW POSTS, STUBS
AND FOOTINGS
(R) POSTS, STUBS
AND FOOTINGS
MIN. 6' LATERAL
OFFSET FROM EOS
TO LEFT SIGN EDGE
LM 170.525 EB

LOG MILE 170.525 TO LOG MILE 170.732 EB
LOG MILE 101.101 WB
US 54

NOT TO SCALE

SIGNING SHEET
PLAN VIEWS
SHEET 1 OF 7

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/29/2026 4:08:26 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	15

COUNTY
CALLAWAY

JOB NO.
JCD0072

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



5

(R) SIGN, POSTS AND FOOTINGS

LOG MILE 1.816
S SUMMIT DRIVE

NOT TO SCALE

SIGNING SHEET
PLAN VIEWS
SHEET 3 OF 7

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER

09/28/2026 4:08:14 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	17

COUNTY
CALLAWAY

JOB NO.
JCD0072

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

SIGNS						CONCRETE FOOTINGS EMBEDDED	STRUCTURAL STEEL POSTS*						PIPE POSTS*						BACKING BARS**				U-CHANNEL POST	PERFORATED SQUARE STEEL TUBE														BREAK-AWAY ASSEMBLY	REMARKS AND OTHER REQUIRED ITEMS
902 SIGNAL SIGNS TABULATED ON D-37A SHEET																								2-INCH POST						2.5-INCH POST									
																											ANCHORS						ANCHORS						
SIGN NO.	SIGN SIZE	STATION OR LOG MILE	HORIZ CLEAR IF NOT STD	LOCATION	SIGN DTL SHT NO.	ITEM NO. 9031010 CY	POST DES NO.	POST NO. 1 LF	POST NO. 2 LF	POST NO. 3 LF	LBS PER FT	TOTAL ITEM NO. 9031210 LBS	PIPE SIZE IN	POST NO. 1 LF	POST NO. 2 LF	LBS PER FT	TOTAL ITEM NO. 9031220 LBS	2" X 3/8" BARS AT 2.55 LBS/FT NO. EACH	LGTH IN.	TOTAL LF	TOTAL LBS	ITEM NO. 9031250A LF	POST NO. 1 LF	POST NO. 2 LF	TOTAL ITEM NO. 9031270A LF	DRIVEN 12 GA. ITEM NO. 9031271A EACH	DRIVEN 7 GA. ITEM NO. 9031273A EACH	CONCRETE 7 GA. ITEM NO. 9031274 EACH	POST NO. 1 LF	POST NO. 2 LF	TOTAL ITEM NO. 9031280 LF	2.25" INSERT (6 FT) ITEM NO. 9031272A EACH	DRIVEN 7 GA. ITEM NO. 9031281A EACH	CONCRETE 7 GA. ITEM NO. 9031285 EACH	ITEM NO. 9031241 EACH	
1		1.616		S SUMMIT DR																																		REMOVE
2	144X84	1.661		S SUMMIT DR		1.00	2	18.5	19.5		9	342.00																											
3		1.660		S SUMMIT DR																																		REMOVE
4	144X84	1.691		S SUMMIT DR																																		UIP EX. POSTS & FOOTINGS, R. ONE-WAY
5		1.816		S SUMMIT DR																																		REMOVE
6	156X132	170.663		US 54 EB		1.46	3	24	25		18	882.00																										
7	168X120	170.525		US 54 EB		1.48	3	22.25	24		18	832.50																										
8	108X36	101.101		US 54 WB																																		UIP EX. POSTS & FOOTINGS
				SUBTOTAL		3.94						2056.5																										
				TOTAL		3.9						2060									**																		

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

EFFECTIVE: 07-01-2024

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:09:03 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE 54 | STATE MO
DISTRICT CD | SHEET NO. 18
COUNTY CALLOWAY
JOB NO. JCD0072
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

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

SIGNING SHEET
4 OF 7

STANDARD SIGN ASSEMBLIES

SIGN NO.	STATION OR LOG MILE	LOCATION	SIGN, TYPE, DESIGNATION, SIZE & NUMBER OF EACH															
			ST E8-1 144X84	ST E1-1 168X120	ST E1-1 156X132	ST I4-1 108X36												
2	1.661	S SUMMIT DR SB	1															
4	1.691	S SUMMIT DR NB	1															
6	170.663	US 54 EB		1														
7	170.525	US 54 EB			1													
8	101.101	US 54 WB				1												
		TOTALS	2	1	1	1												

SIGN SUMMARY

EFFECTIVE: 10-01-2016

STANDARD OR SPECIAL SIGN DESIGNATION	SIGN DTL. SHT. NO.	NO. EACH	SIGN SIZE	TYPE & SQUARE FEET			
				FLAT SHEET SH ITEM NO. 9035004A	FLAT SHEET FLUORESCENT SHF* ITEM NO. 9035069A	STRUCTURAL ST ITEM NO. 9035011A	STRUCTURAL FLUORESCENT STF* ITEM NO. 9035071A
E8-1		2	144X84			168.00	
E1-1		1	168X120			140.00	
E1-1		1	156X132			143.00	
I4-1		1	108X36			27.00	
			TOTALS			478	

*ORANGE, YELLOW AND YELLOW-GREEN

SIGNING SHEETS
5 OF 7

D-30

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER
09/28/2026 4:08:35 PM
GREGORY G LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE 54 | STATE MO

DISTRICT CD | SHEET NO. 19

COUNTY
CALLAWAY

JOB NO.
JCD0072

CONTRACT ID.

PROJECT NO.

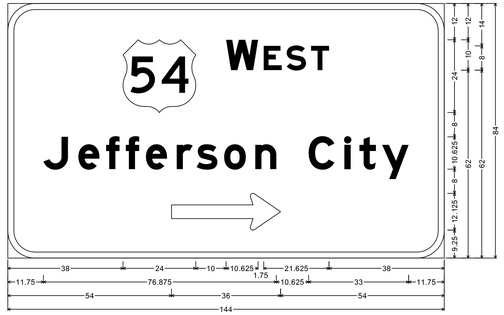
BRIDGE NO.

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

SIGN 2



E8-1 ST-STRUCTURAL;
9.000" Radius, 2.000" Border, White on Green;
"WEST", E Mod; "Jefferson City", E Mod specified length; Standard Arrow Custom 36.000" X 12.125" 0^;
Table of letter and object lefts

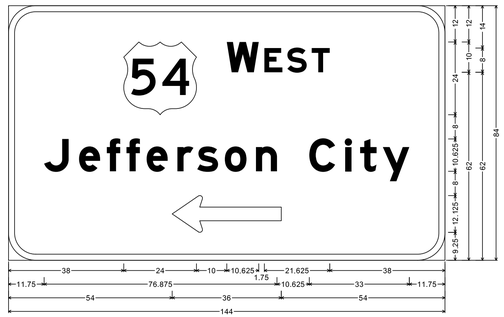
⇨ 38.000	W 72.000	E 84.375	S 92.000	T 100.000

J 11.750	e 23.250	f 32.375	f 38.875	e 45.625	r 55.750	s 62.250	o 71.375	n 81.625	C 99.250	l 111.125	t 116.000	y 123.500		

⇦ 54.000

SIGN NO.	2
LOG MILE	1.661
ROADWAY	S SUMMIT RD

SIGN 4



E8-1 ST-STRUCTURAL;
9.000" Radius, 2.000" Border, White on Green;
"WEST", E Mod; "Jefferson City", E Mod specified length; Standard Arrow Custom 36.000" X 12.125" 180^;
Table of letter and object lefts

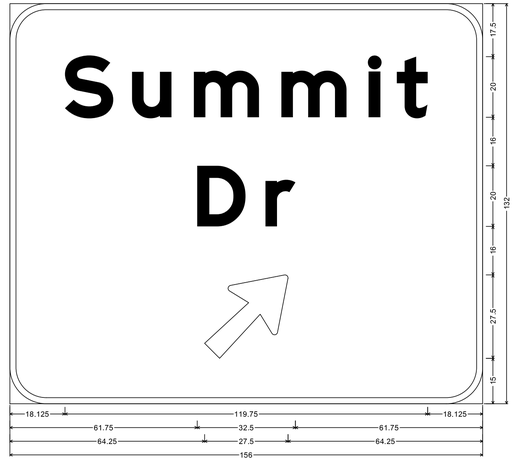
⇨ 38.000	W 72.000	E 84.375	S 92.000	T 100.000

J 11.750	e 23.250	f 32.375	f 38.875	e 45.625	r 55.750	s 62.250	o 71.375	n 81.625	C 99.250	l 111.125	t 116.000	y 123.500		

⇦ 54.000

SIGN NO.	4
LOG MILE	1.691
ROADWAY	S SUMMIT RD

SIGN 6



E1-1 ST-STRUCTURAL;
12.000" Radius, 2.000" Border, White on Green;
"Summit", E Mod specified length; "Dr", E Mod specified length; Arrow 160 - 35.000" 45^;
Table of letter and object lefts

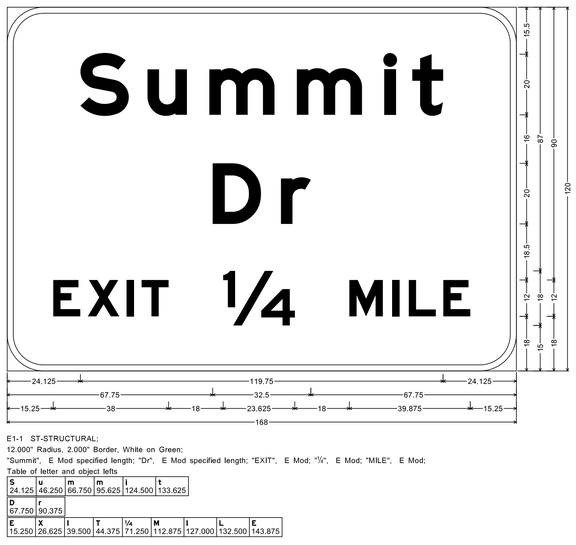
S 18.125	u 40.250	m 60.750	m 89.625	l 118.500	t 127.625

D 61.750	r 84.375

⇗ 64.250

SIGN NO.	6
LOG MILE	170.663
ROADWAY	US 54 EB

SIGN 7



E1-1 ST-STRUCTURAL;
12.000" Radius, 2.000" Border, White on Green;
"Summit", E Mod specified length; "Dr", E Mod specified length; "EXIT", E Mod; "¼", E Mod; "MILE", E Mod;
Table of letter and object lefts

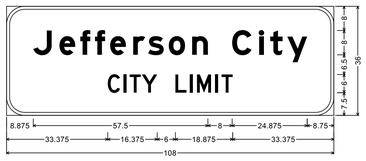
S 24.125	u 46.250	m 66.750	m 95.625	l 124.500	t 133.625

D 67.750	r 90.375

E 15.250	X 26.625	I 39.500	T 44.375	¼ 71.250	M 112.875	I 127.000	L 132.500	E 143.875	

SIGN NO.	7
LOG MILE	170.525
ROADWAY	US 54 EB

SIGN 8



I4-1 ST-STRUCTURAL;
6.000" Radius, 1.000" Border, White on Green;
"Jefferson City", E Mod specified length; "CITY LIMIT", D specified length;
Table of letter and object lefts

J 8.875	e 17.500	f 24.375	f 29.250	e 34.125	r 41.750	s 46.750	o 53.500	n 61.250

C 74.375	I 83.375	t 87.000	y 92.625	

C 33.375	I 38.500	T 40.625	Y 44.625	L 55.750	I 60.500	M 62.875	I 68.875	T 71.000	

SIGN NO.	8
LOG MILE	101.101
ROADWAY	US 54 WB

SIGNING SHEET
SIGN DETAILS
SHEET 6 OF 7

STATE OF MISSOURI
GREGORY G. LEARY
NUMBER PE-026654
PROFESSIONAL ENGINEER

09/28/2026 4:09:42 PM
GREGORY G. LEARY - CIVIL
MO-PE-026654

DATE PREPARED
9/2/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
CD	20

COUNTY
CALLAWAY

JOB NO.
JCD0072

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

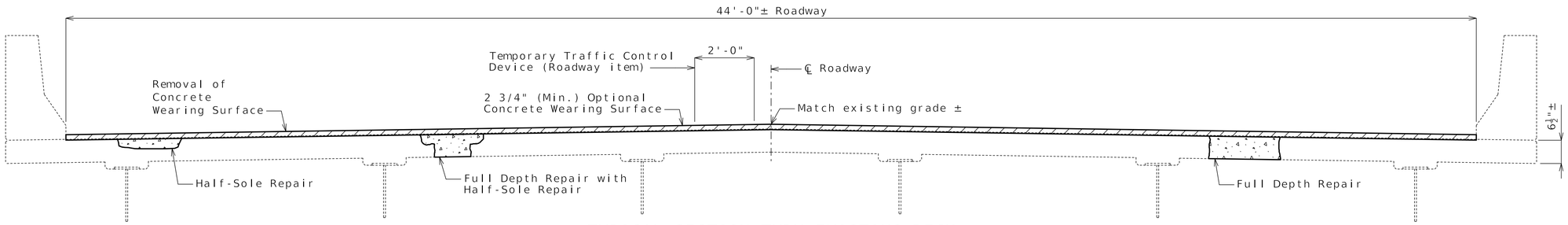
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

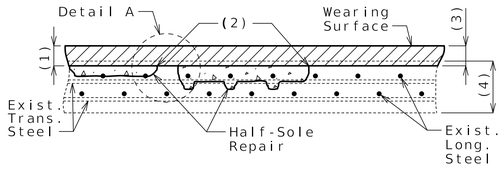
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

SEC/SUR 10 TWP 44N RGE 11W

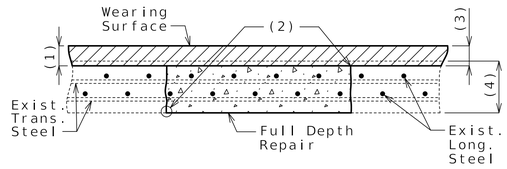
U.I.P. AND REHABILITATE EXISTING (121'-107') CONTINUOUS COMPOSITE PLATE GIRDER SPANS (SKEW: 6° R.A.)



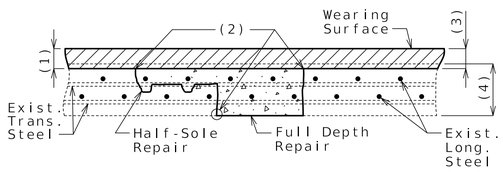
TYPICAL SECTION THRU EXISTING DECK



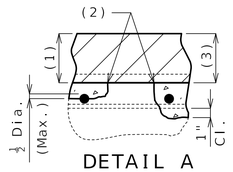
HALF-SOLE REPAIR



FULL DEPTH REPAIR



FULL DEPTH REPAIR WITH HALF-SOLE REPAIR



DETAIL A

Clearance around top bar and around bottom bar at the intersection of top bar shall be required when more than half the diameter of the top bar is exposed.

(1) Removal of existing 2 1/4"± low slump wearing surface plus 1/2" of existing deck

(2) 1" vertical side shall be established outside the deteriorated area.

(3) 2 3/4" minimum optional concrete wearing surface

(4) Original depth of deck minus previous scarification

Optional Concrete Wearing Surface	
Type of Concrete Wearing Surface	Type Used (✓)
Low Slump Concrete Wearing Surface	
Latex Modified Concrete Wearing Surface	

MoDOT construction personnel will complete column labeled "Type Used (✓)".

The contractor shall select one of the alternate concrete wearing surfaces listed in the table. The alternate concrete wearing surface method of measurement and basis of payment shall be in accordance with Sec 505.

Estimated Quantities

Item		Total
Removal of Miscellaneous ACM (Non-Friable)	sq. foot	5
Removal of Concrete Wearing Surface	sq. foot	11,931
Removal of Existing Expansion Joint & Adjacent Concrete	linear foot	88
Remove and Replace Barrier Curb	linear foot	13
Optional Concrete Wearing Surface	sq. yard	1311
Diamond Grinding	sq. yard	1311
Class B-2 Concrete	cu. yard	14.9
Substructure Repair (Formed)	sq. foot	1100
Half-Sole Repair	sq. foot	200
Full Depth Repair	sq. foot	50
Reinforcing Steel (Epoxy Coated)	pound	1690
Protective Coating - Concrete Bents and Piers (Epoxy)	lump sum	1
Strip Seal Expansion Joint System	linear foot	88

General Notes:

Design Specifications:

2002 AASHTO LFD (17th Ed.) Standard Specifications
Bridge Deck Rating = 6

Design Loading:

H20-44 (1973), HS20-44 (New Construction)

Design Unit Stresses:

Class B-1 Concrete (Barrier and Substructure) f'c = 4,000 psi
Class B-2 Concrete (Superstruce, except Barrier, Half-Sole and Full Depth Repair) f'c = 4,000 psi
Reinforcing Steel (ASTM A615 Grade 60) fy = 60,000 psi

Reinforcing Steel:

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

Miscellaneous:

Roadway surfacing adjacent to bridge ends shall match new bridge wearing surface (roadway item).

All concrete repairs shall be in accordance with Sec 704, unless otherwise noted.

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 or ordering new matierals.

In order to maintain grade and a minimum thickness of wearing surface as shown on plans it may be necessary to use additional quantities of wearing surface at various locations throughout the structure. The cost of furnishing and installing the wearing surface will be considered completely covered in the contract unit price, including all additional labor, materials or equipment for variations in thickness of wearing surface.

Traffic Handling:

Traffic to be maintained on structure during construction. See roadway plans for traffic control.

REPAIRS TO BRIDGE: ROUTE SUMMIT DRIVE OVER ROUTE 54

ROUTE 54 FROM ROUTE 94 TO ROUTE AA
ABOUT 0.9 MILES NORTH OF ROUTE 94
BEGINNING STATION 860+72.15± (Match Existing)

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
07/29/2026 10:57:34 AM
TIMOTHY D. LEAF - CIVIL
MO-PE-2012000778

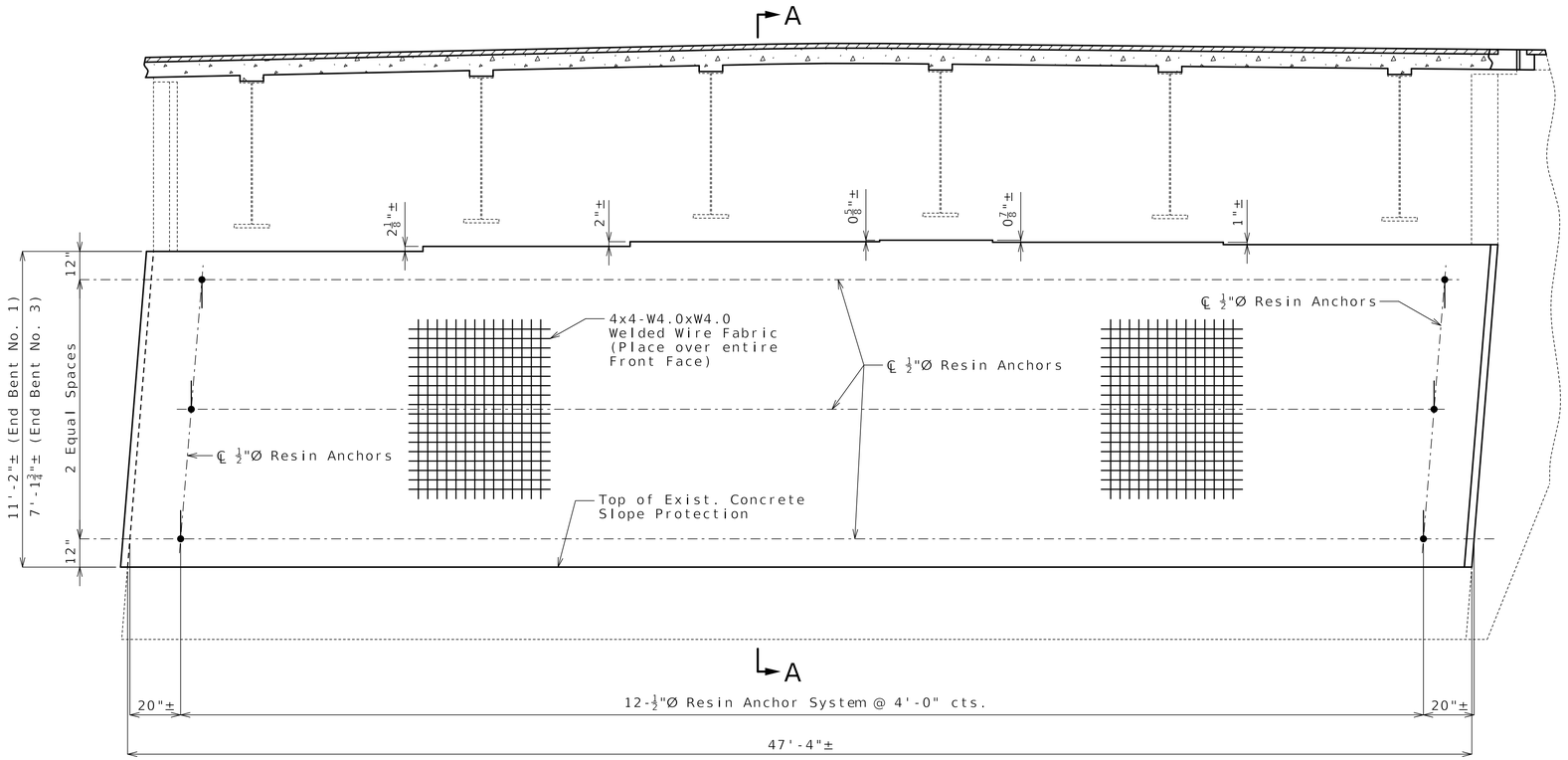
DATE PREPARED 7/29/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
BR	1

COUNTY CALLAWAY
JOB NO. JCD0072
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A35212

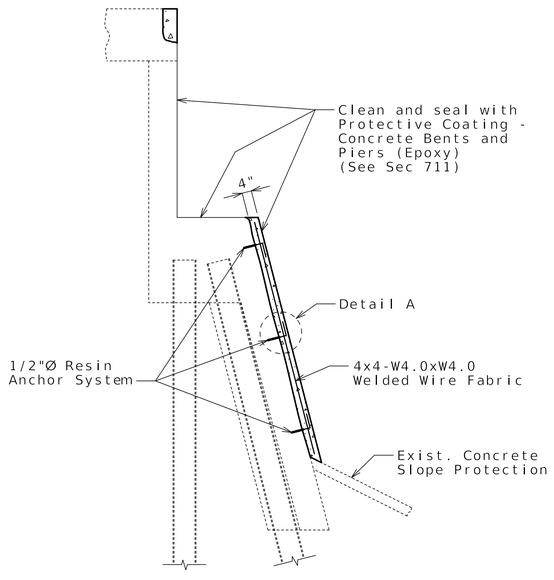
DESCRIPTION	DATE

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

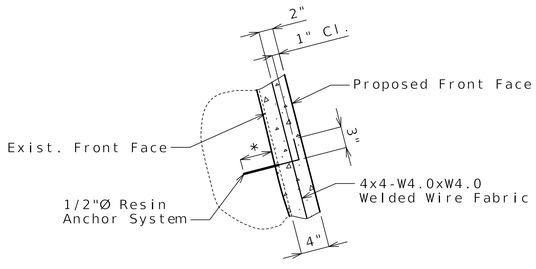


ELEVATION OF END BENT SHOWING FRONT FACE REPAIR

(End Bent No. 1 shown, End Bent No. 3 similar by mirroring)

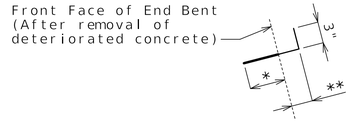


SECTION A-A



DETAIL A

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



DETAILS OF RESIN ANCHOR SYSTEM

(36 Req'd per bent)

** 3" plus repair depth

Notes:

All concrete shall be Class B-1.

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

All deteriorated concrete shall be removed prior to installing new concrete. All reinforcing steel exposed shall have a minimum of one inch beyond the inside edge removed.

Sandblasting shall be required on existing concrete surface that will be in contact with new concrete.

The cost of removing deteriorated concrete and installing new concrete, complete in place, will be considered completely covered by the contract unit price for Substructure Repair (Formed).

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

An epoxy coated #4 Grade 60 reinforcing bar shall be substituted for the 1/2" Ø threaded rod.

The cost of furnishing and installing the resin anchor systems, complete in place, will be considered completely covered by the contract unit price for Substructure Repair (Formed).

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

The cost of furnishing and installing all bar reinforcing steel as shown, complete in place, will be considered completely covered by the contract unit price for Substructure Repair (Formed).

The cost of furnishing and installing approximately 913 pounds of Welded Wire Reinforcement as shown, complete in place, will be considered completely covered by the contract unit price for Substructure Repair (Formed).

Concrete encasement shall meet the requirements of Sec 704 for Substructure Repair (Formed). All other applicable sections from Sec 704 shall be required.

DETAILS OF SUBSTRUCTURE REPAIR AT END BENTS NO. 1 & 3

Detailed Apr. 2026
Checked Apr. 2026

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

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
07/29/2026 10:59:49 AM
TIMOTHY D LEAF - CIVIL
MO-PE-2012000778

DATE PREPARED: 7/29/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
BR	2

COUNTY: CALLAWAY

JOB NO.: JCD0072

CONTRACT ID.:

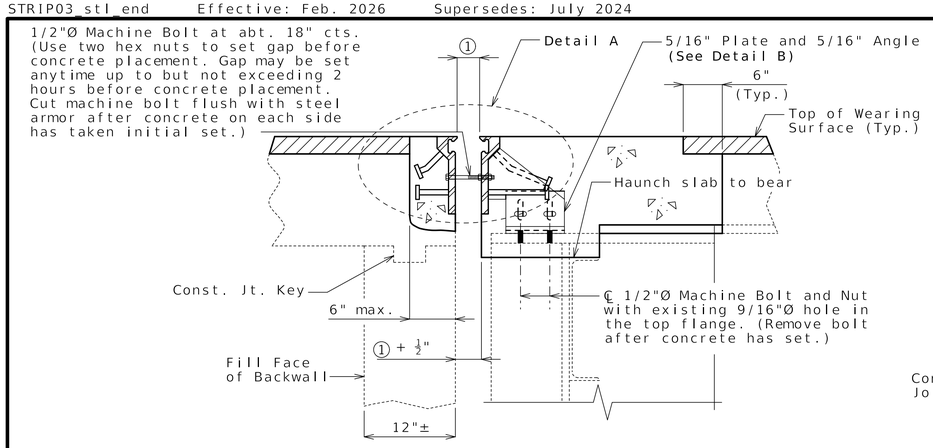
PROJECT NO.:

BRIDGE NO.: A35212

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

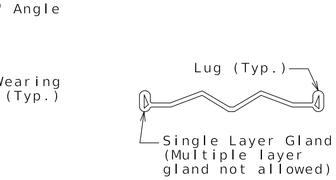
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



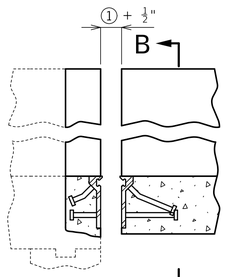
SECTION A-A

Strip seal gland not shown for clarity.

Slab Reinforcement not shown for clarity.

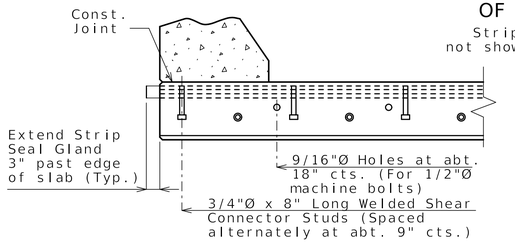


DETAIL OF GLAND



PART ELEVATION OF BARRIER

Strip seal gland not shown for clarity.



PART SECTION B-B

GENERAL NOTES:

Expansion joint system shall be fabricated in one section, except for staged construction and when the length is over 50 feet. A complete joint penetration groove welded splice shall be required. Welds shall be ground flush to provide a smooth surface. The expansion joint system shall be fabricated and installed to the crown and grade of the roadway.

The strip seal gland shall be installed in joints in one continuous piece without field splices. Factory splicing will be permitted for joints in excess of 53 feet.

Structural steel for the expansion joint system shall be ASTM A709 Grade 36 except the steel armor may be ASTM A709 Grade 50W. Anchors for the expansion joint system shall be in accordance with Sec 1037. Strip seal expansion joint system shall be in accordance with Sec 717.

Structural steel for the expansion joint system shall be coated with a minimum of two coats of inorganic zinc primer to provide a total dry film thickness of 4 mils minimum, 6 mils maximum, or galvanized in accordance with ASTM A123. Anchors need not be protected from overspray.

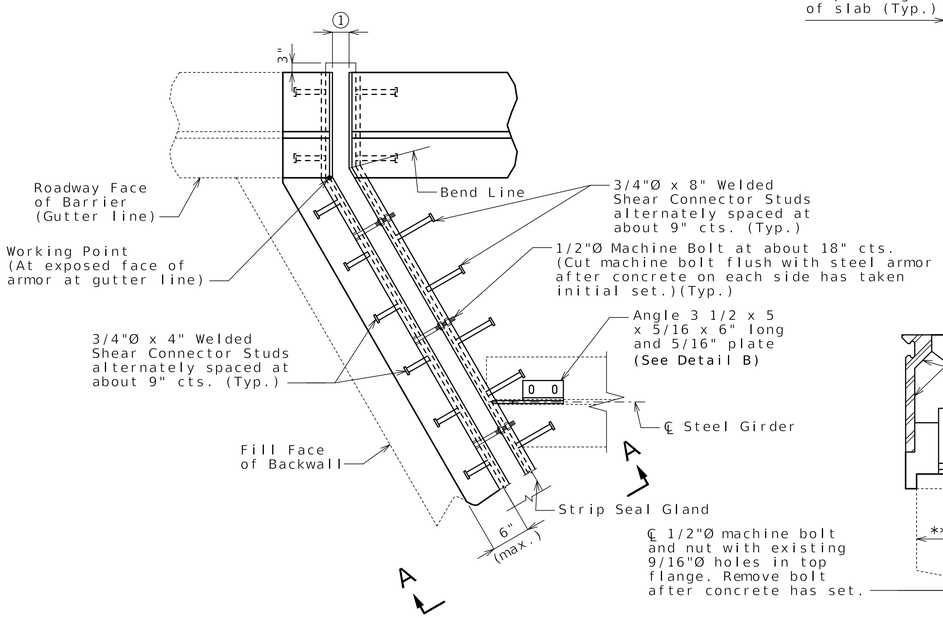
Longitudinal reinforcing steel shall be placed so that ends shall be 1" from the vertical leg of the steel armor at the expansion joint system.

Concrete shall be forced under and around steel armor and anchors. Proper consolidation of the concrete shall be achieved by localized internal vibration.

② The installation temperature shall be taken as the actual air temperature averaged over the 24-hour period immediately preceding installation.

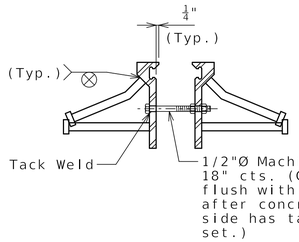
③ MoDOT Construction personnel will indicate the strip seal expansion joint system installed.

Steel armor may also be referred to as extrusion or rail.

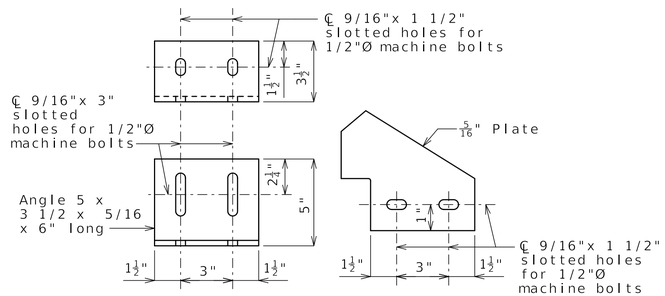


PART PLAN

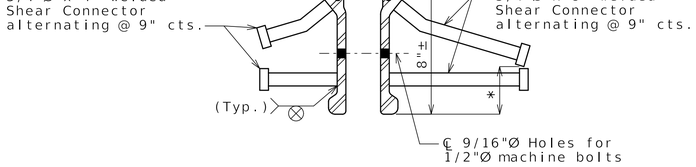
(Reinforcing steel not shown for clarity)



DETAIL A



DETAIL B



DETAIL OF JOINT ARMOR

* Bend stud in shop to maintain 1" min. from bottom of steel armor.

Table of Allowed Transverse Strip Seal Expansion Joint System

Manufacturer	Strip Seal System (Designated Name)	Movement Parallel to RDWY	Allowed Installation Gap ① Normal to Joint at RDWY Surface @ Air/Surface Temperature ②						③
			@ 40°F	@ 50°F	@ 60°F	@ 70°F	@ 80°F	@ 90°F	
D S Brown	Strip seal L2-400	1¾"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	□
D S Brown	Strip seal L2-500	1¾"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	□
Watson Bowman Acme (Wabo)	Strip seal SE-400	1¾"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	□
Watson Bowman Acme (Wabo)	Strip seal SE-500	1¾"	2¼"	2⅛"	2"	1⅞"	1¾"	1⅝"	□

STRIP SEAL EXPANSION JOINT SYSTEM AT END BENTS NO. 1 & 3

Detailed Apr. 2026
Checked Apr. 2026

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

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
07/29/2026 10:59:59 AM
TIMOTHY D LEAF - CIVIL
MO-PE-2012000778

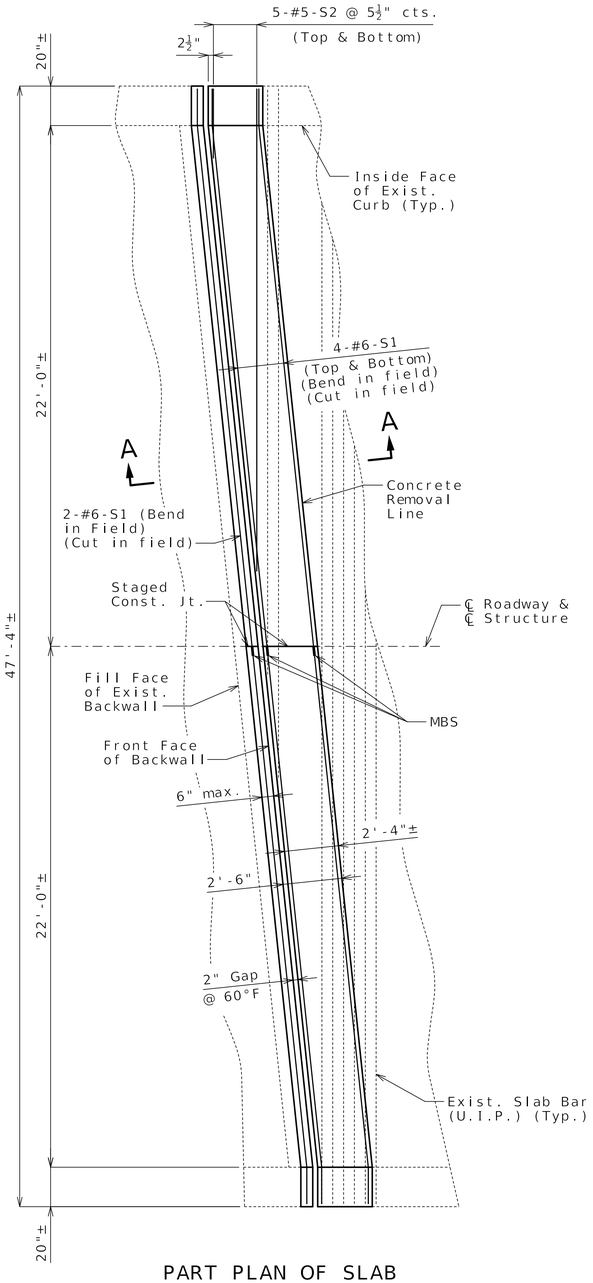
DATE PREPARED 7/29/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
BR	3

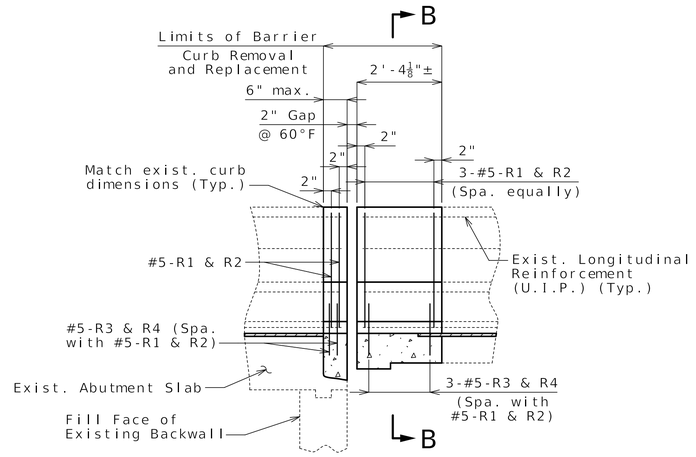
COUNTY: CALLAWAY
JOB NO.: JCD0072
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A35212

DESCRIPTION | DATE

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



PART PLAN OF SLAB

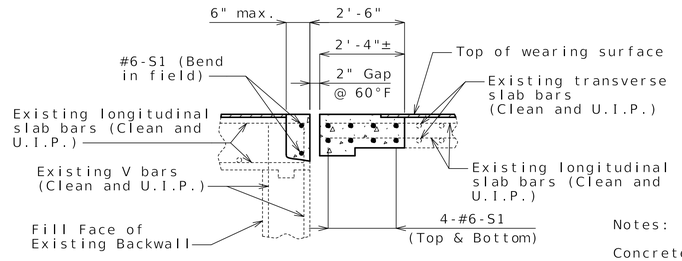


PART SECTION SHOWING
BARRIER CURB REINFORCEMENT

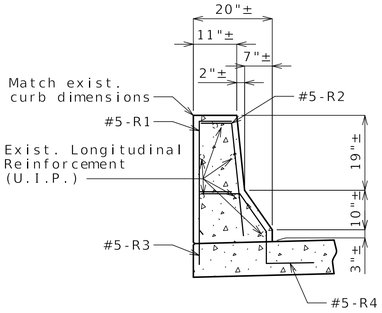
Notes:

Expansion joint system not shown for clarity.

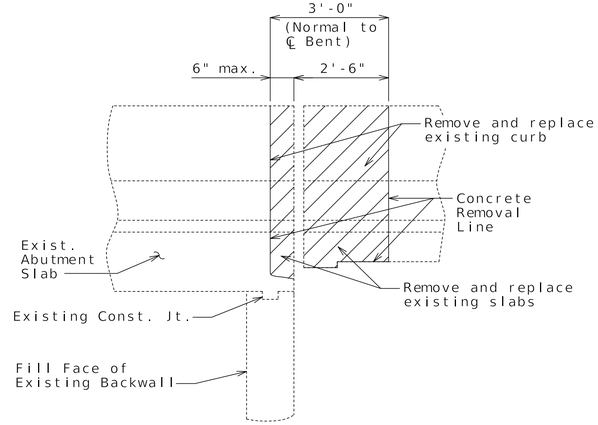
Dimensions for barrier curb shown are along outside edge of slab.



PART SECTION A-A
(Normal to ℄ Bent)



PART SECTION B-B



PART ELEVATION
SHOWING CONCRETE REMOVAL

Notes:

Concrete for slab and backwall replacement shall be Class B-2.

#6-S1 bars shall be shifted where necessary to clear shear connector studs on the expansion joint system.

Payment for slab concrete, complete in place, for expansion joint replacement will be considered completely covered by the contract unit price for Class B-2 Concrete.

Payment for furnishing and installing slab reinforcement will be considered completely covered by the contract unit price for Reinforcing Steel (Epoxy Coated).

Cost of removing existing expansion device and slab concrete within the limits shown will be considered completely covered by the contract unit price for Removal of Existing Expansion Joints & Adjacent Concrete.

Concrete for barrier curb replacement shall be Class B-1.

Payment for barrier curb removal and all new concrete and reinforcement for barrier curb, complete in place, will be considered completely covered by the contract unit price for Remove and Replace Barrier Curb.

All exposed edges of new barrier curb shall match existing barrier curb.

Joint armor and beams not shown for clarity.

The S1 bars are segmented to allow for staged construction. The total bar length of the S1 bars in the Bill of Reinforcing includes one additional foot to allow for cutting and installing the bars into the mechanical bar splices. The contractor will be responsible for determining the final length of the S1 bars, per the approval of the engineer.

No additional payment will be made for any additional bar lengths required for the mechanical bar splices. Mechanical bar splices shall be in accordance with Sec 706 or 710 except that no measurement will be made for mechanical bar splice and will be considered completely covered by the contract unit price for the Reinforcing Steel (Epoxy Coated).

DETAILS OF SLAB AND BARRIER CURB REPLACEMENT AT END BENTS NO. 1 & 3

Detailed Apr. 2026
Checked Apr. 2026

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

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
07/29/2026 11:00:09 AM
TIMOTHY D.LEAF - CIVIL
MO-PE-2012000778

DATE PREPARED
7/29/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
BR	4

COUNTY
CALLAWAY

JOB NO.
JCD0072

CONTRACT ID.

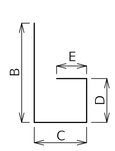
PROJECT NO.

BRIDGE NO.
A35212

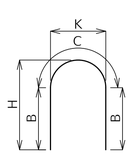
DESCRIPTION

DATE

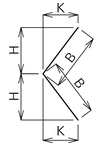
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



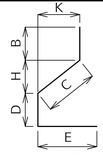
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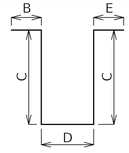
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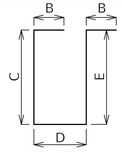
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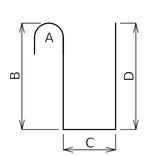
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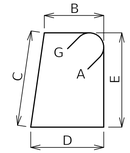
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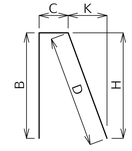
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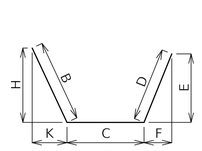
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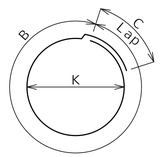
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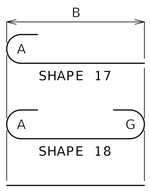
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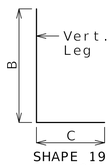
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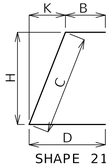
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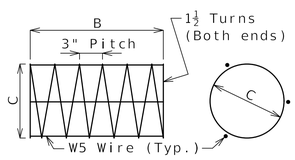
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SHAPE 18
SHAPE 20



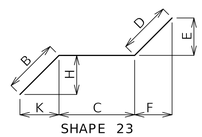
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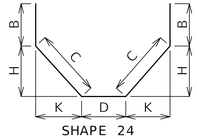
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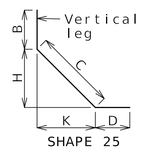
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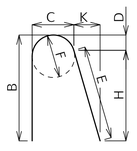
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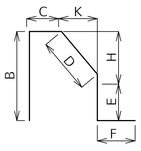
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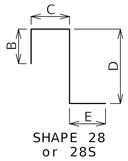
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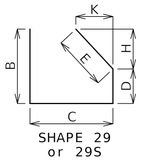
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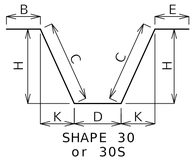
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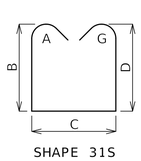
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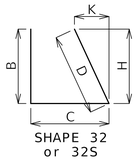
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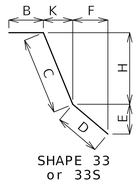
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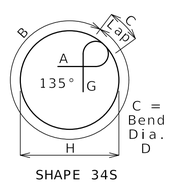
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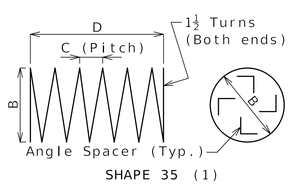
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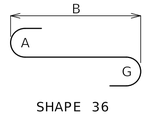
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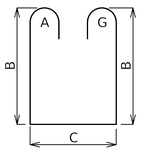
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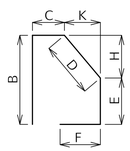
SHAPE 35 (1)



SHAPE 36



SHAPE 37S

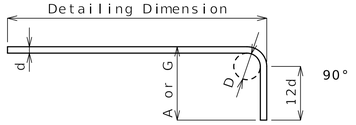


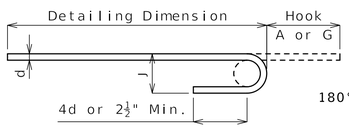
SHAPE 38S

Finished Bend Diameters D and Hook Dimensions

Standard Pin Bend Shapes

Size	Case	D	A or G		J
			90°	180°	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"



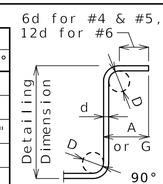


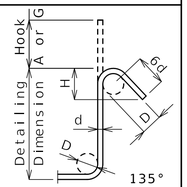
Stirrup Pin Bend Shapes (S)

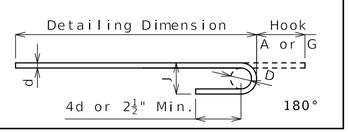
Size	Case	D	A or G		H	J
			90°	135°	180°	135°	180°
#4	2	2"	4½"	4½"	5"	2⅞"	3"
	3	3"	5"	5¼"	6"	3"	4"
#5	2	2½"	5¾"	5¾"	5¾"	3⅝"	3¾"
	3	3¾"	6¼"	6½"	7"	3⅞"	5"
#6	1	4½"	12"	7¾"	8¼"	4⅝"	6"

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

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.

Reinforcing steel (ASTM A615 Grade 60) fy = 60,000 psi

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.

All dimensions are out to out.

Shapes ending with an S shall be bent in accordance with stirrup pin bend shapes.

Unless otherwise noted, finished bending diameter D is the same for all bends of a shape.

(1) Shall be a deformed or plain spiral bar or wire.

Four angle or channel spacers are required for each column spiral. Spacers are to be placed on inside of spirals. Length and weight of column spirals do not include splices or spacers.

Reinforcing Steel Totals (Pounds)

	Size	Substructure		Superstructure			Entire Bridge	
		Plain	Epoxy	Slab	Barrier	Slip Form	Plain	Epoxy
By Size	W5	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0
	5	0	0	242	233	0	0	475
	6	0	0	1,452	0	0	0	1,452
	7	0	0	0	0	0	0	0
By Type		0	0	1,694	233	0	0	1,927

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

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes			Dimensions B	C	D	E	F	H	K	Nom. Length	Actual Length	Weight
			C	SH	V	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	lb
		SUPERSTRUCTURE													
		SLAB													
20	6 S1	SLAB	E	20		48 4.00							48 4	48 4	1,452
20	5 S2	SLAB	E	20	4	2 10.00							2 10	2 10	
		Incr. = 52.500"				20 4.00							20 4	20 4	242
		BARRIER													
		TYPE B													
20	5 R1	BARRIER	E	19S		2 6.00	6.00						3 0	2 11	61
20	5 R2	BARRIER	E	15S		2 6.25	6.00				2 6.00	3.00	3 0	2 10	59
20	5 R3	BARRIER	E	19S		19.00	9.00						2 4	2 3	47
20	5 R4	BARRIER	E	27S			9.00	11.25	7.50	12.00	9.25	6.50	3 4	3 2	66

BILL OF REINFORCING STEEL

STATE OF MISSOURI
TIMOTHY D. LEAF
NUMBER PE-2012000778
PROFESSIONAL ENGINEER
07/29/2026 11:00:18 AM
TIMOTHY D LEAF - CIVIL
MO-PE-2012000778

DATE PREPARED 7/29/2026

ROUTE	STATE
54	MO
DISTRICT	SHEET NO.
BR	5

COUNTY CALLAWAY

JOB NO. JCD0072

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A35212

DESCRIPTION	DATE

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