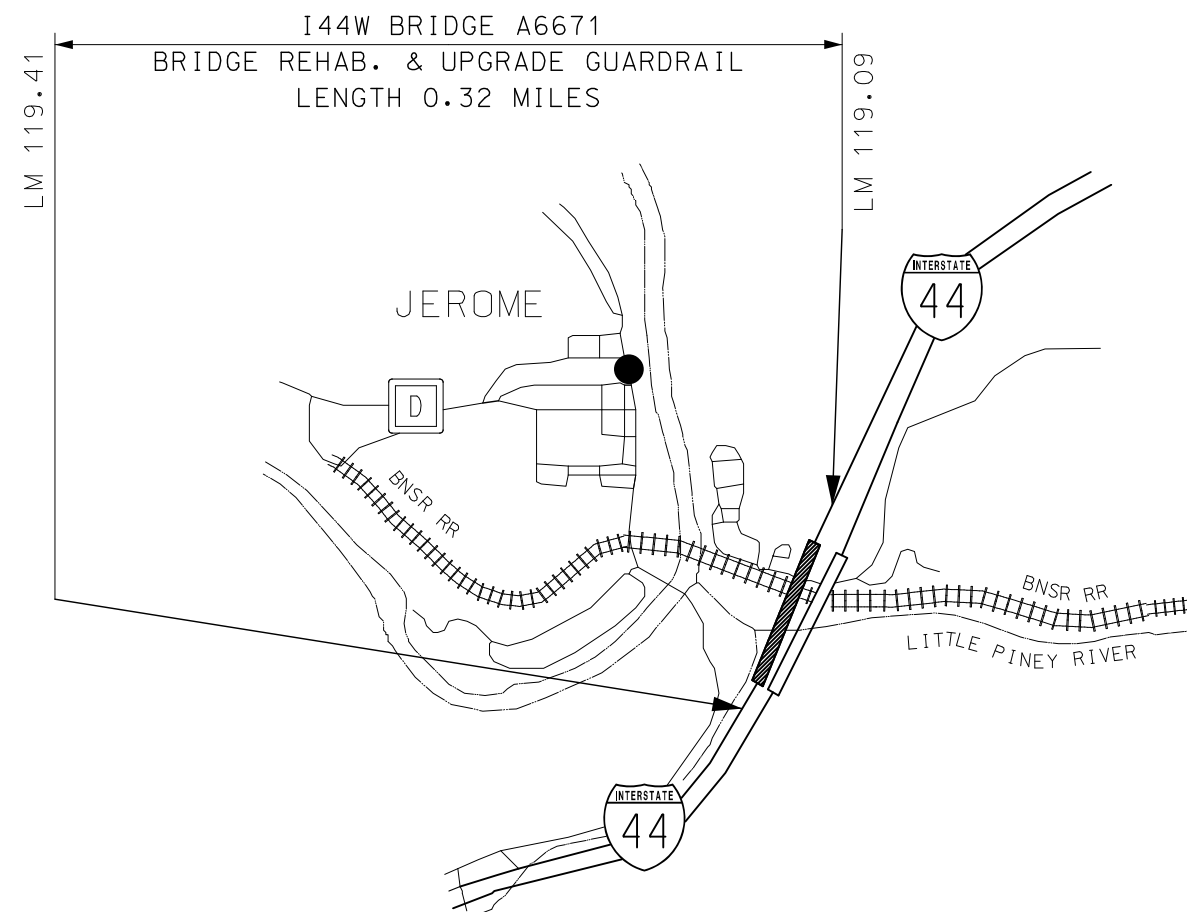


A.A.D.T. - 2022 = 16,698  
A.A.D.T. - 2042 = 31,726  
T = 43.60%  
V = 70 M.P.H.

### CONVENTIONAL SYMBOLS (USED IN PLANS)

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

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



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.

TITLE SHEET -----	1
TYPICAL SECTIONS (TS) (1 SHEETS)---	2
QUANTITIES (QU) (1 SHEETS)-----	3
SPECIAL SHEETS (SS)-----	4
TRAFFIC CONTROL SHEETS (TC)-----	5-7
BRIDGE DRAWINGS (B)	
A6671-----	1-2

STATE OF MISSOURI

JAMES V.  
BEATTIE

NUMBER  
PE-2018021150

PROFESSIONAL ENGINEER

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

DATE PREPARED	
10/2/2023	
ROUTE	STATE
I 44W	MO
DISTRICT	SHEET NO.
CD	1
COUNTY	
PHELPS	
JOB NO.	
J513481	
CONTRACT ID.	

PROJECT NO.
BRIDGE NO.

[illegible]

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

**MoDOT**

105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-2-75-6636)

BEGINNING OF PROJECT	LOG MILE 119.09
END OF PROJECT	LOG MILE 119.41

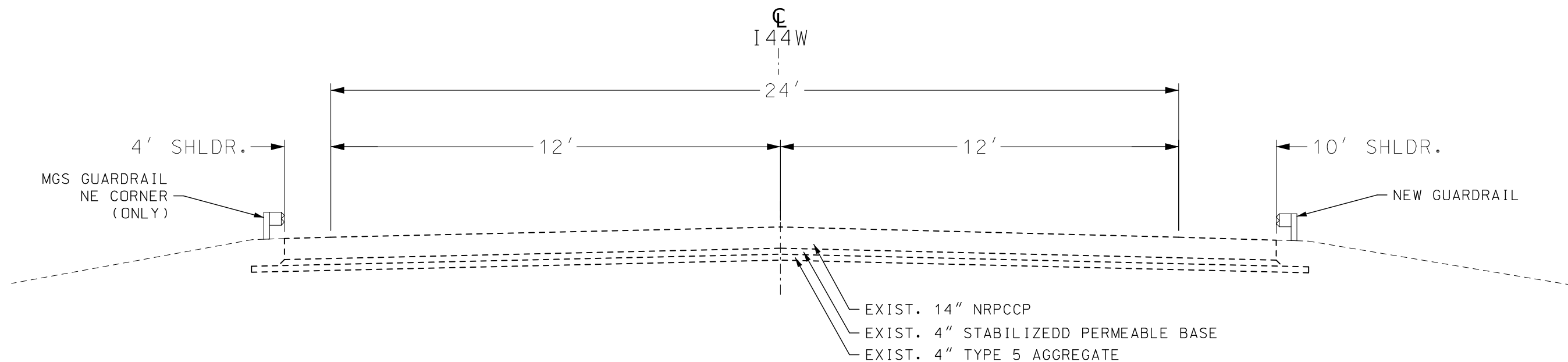
APPARENT LENGTH	0.32 MILES
-----------------	------------

EQUATIONS AND EXCEPTIONS: NONE

TOTAL CORRECTIONS	0.00	FEET
NET LENGTH OF PROJECT	1,689.6	FEET
STATE LENGTH	0.32	MILES

FOR INFORMATION ONLY	
ESTIMATED DISTURBED ACRES	0 ACRES



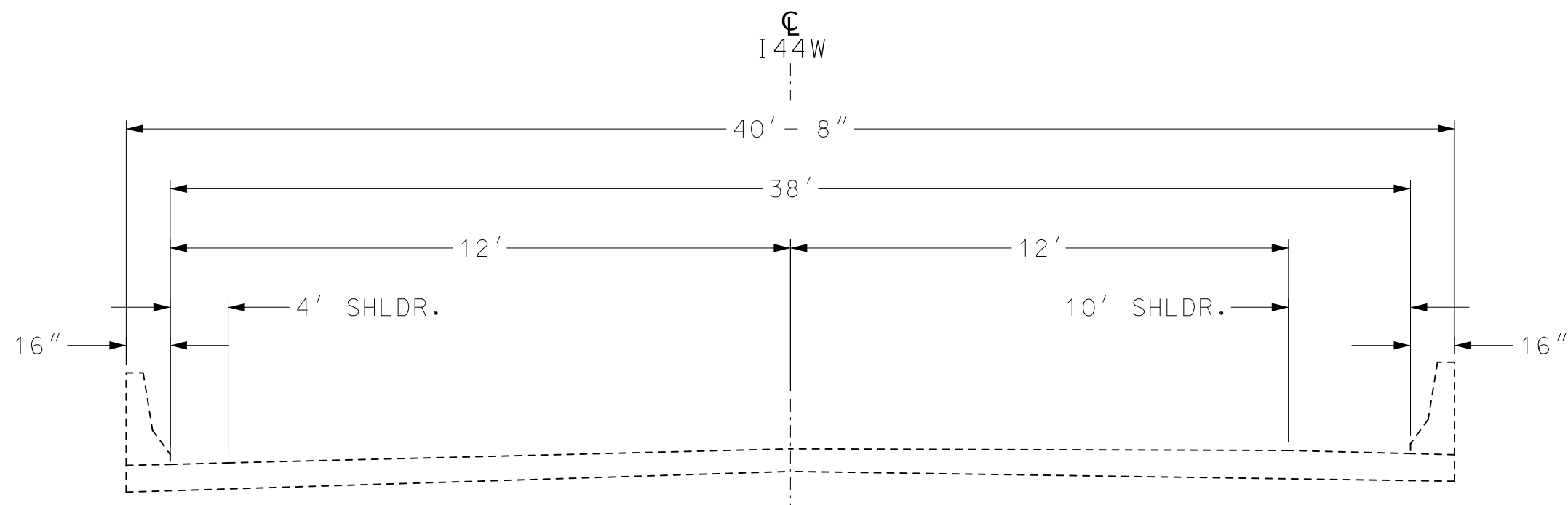


EXIST. TYPICAL SECTION

I44W

LM 119.090 TO LM 119.160

LM 119.390 TO LM 119.410



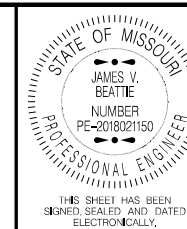
EXIST. TYPICAL SECTION

I44W (BRIDGE A6671)

LM 119.160 TO LM 119.390

NOT TO SCALE

TYPICAL SECTIONS  
ROADWAY & BRIDGE  
SHEET 1 OF 1



DATE PREPARED  
10/2/2023

ROUTE 144W STATE MO

DISTRICT CD SHEET NO. 2

COUNTY PHELPS

JOB NO. J513481

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE





CONSTRUCTION SIGNS						
SIGN NO.	SIGN	SIZE (IN)	AREA (SF)	QTY.	TOTAL AREA (SF)	DESCRIPTION
2	W020-1	48 x 48	16.00	2	32.00	ROAD WORK AHEAD
4	R2-1	48 x 48	16.00	2	32.00	SPEED LIMIT 60
5	W020-5	48 x 48	16.00	2	32.00	RIGHT LANE CLOSED AHEAD / CENTER LANE OR LEFT LANE
6	W020-6a	48 x 48	16.00	1	16.00	RIGHT LANE CLOSED / CENTER OR LEFT
6A	W04-1AL	48 x 48	16.00	1	16.00	MERGE W/LT. ARROW
6B	W04-1AR	48 x 48	16.00	1	16.00	MERGE W/RT. ARROW
25	R2-1	36 x 48	12.00	2	24.00	SPEED LIMIT 70 (NORMAL SPEED)
33	CONST-8	48 x 36	12.00	2	24.00	WORK ZONE NO PHONE ZONE
54	G020-5aP	36 x 24	8.00	2	16.00	WORK ZONE
56	CONST-7-72	48 x 24	8.00	1	8.00	RATE OUR WORK ZONE
57	CONST-5-96	96 X 48	2.19	1	2.19	BRIDGE IMPROVEMENTS / SUMMER 2024
					218.19	
616-10.05 CONSTRUCTION SIGNS TOTAL					218	

NOTE:  
REFER TO STANDARD PLAN 616.10 AND 903.03 FOR  
SIGN AND SIGN MOUNTING REQUIREMENTS.

GUARDRAIL							
LOG MILE	LOG MILE	LOCATION	TYPE A CRASHWORTHY END TERMINAL MASH (EA)	MGS BRIDGE APPROACH TRANSITION SECTION (REGULAR / NO CURB) (EA)	MGS GUARDRAIL (LF)	SHAPING SLOPES CLASS III AREA (100 FT)	REMARKS
119.09	119.16	144 (WB)	1	1	275	4.1	NW CORNER / RT / BRIDGE A6671
119.09	119.16	144 (WB)	1	1	275	4.1	NE CORNER / LT / BRIDGE A6671
119.39	119.41	144 (WB)	1	1	12.5	1.5	SE CORNER / LT/ BRIDGE A6671
SUB TOTAL			3	3	562.5	9.7	
USE			3	3	563	10	
VERIFY LOCATION IN THE FIELD BEFORE INSTALLATION.							

GUARDCABLE						
LOG MILE	LOG MILE	LOCATION	ANCHOR ASSEMBLY GUARD CABLE 3-STRAND (EA)	MEDIAN GUARD CABLE 3-STRAND (LF)	AGGREGATE BEDDING FOR 3-STRAND GUARD CABLE (CY)	REMARKS
119.04	119.15	144 MEDIAN	1	570	28.14	BRIDGE A6671 / EAST END / MEDIAN
SUB TOTAL			1	570	28.1	
USE			1	570	28	
VERIFY LOCATION IN THE FIELD BEFORE INSTALLATION.						

REMOVAL OF IMPROVEMENTS				
LOG MILE	LOG MILE	LOCATION	ITEMS OF REMOVAL	REMARKS
119.11	119.16	144 (WB)	ENDS & GUARDRAIL	NW CORNER / RT / BRIDGE A6671
119.09	119.16	144 (WB)	ENDS & GUARDRAIL	NE CORNER / LT / BRIDGE A6671
119.39	119.41	144 (WB)	ENDS & GUARDRAIL	SE CORNER / LT / BRIDGE A6671
1 LUMP SUM				

SCOUR REPAIR			
LOG MILE	SIZE	FLOWABLE BACKFILL (CY)	REMARKS
119.38	8' L x 2' W x 3' D	5.3	WEST ABUTMENT
USE		6.00	

MOBILIZATION
1 LUMP SUM

DROP INLET & PIPE CLEANOUT
1 LUMP SUM

NOT TO SCALE

SUMMARY OF QUANTITIES  
SHEET 1 OF 1

STATE OF MISSOURI

JAMES V. BEATTIE

NUMBER PE-2018021150

PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN  
SIGNED, SEALED AND DATED  
ELECTRONICALLY.

DATE PREPARED  
10/6/2023

ROUTE  
144W

STATE  
MO

DISTRICT  
CD

SHEET NO.  
3

COUNTY  
PHELPS

JOB NO.  
J513481

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

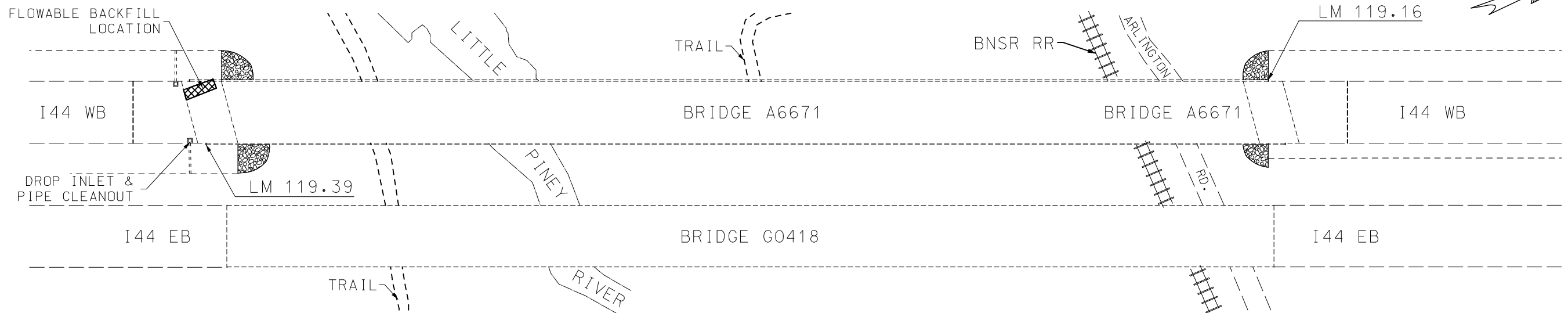
MISSOURI HIGHWAYS AND TRANSPORTATION  
COMMISSION

105 WEST CAPITOL  
JEFFERSON CITY, MO 65102

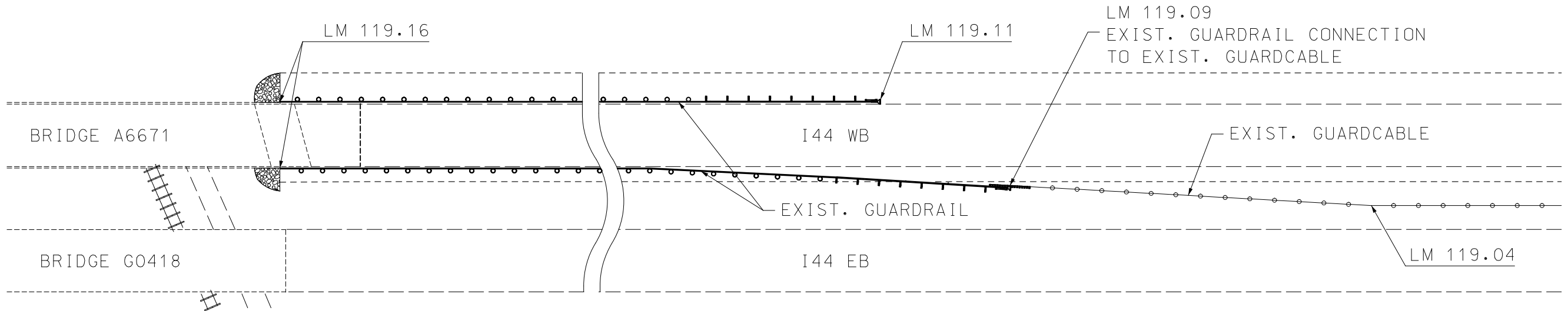
1-888-ASK-MODOT (1-888-275-6636)



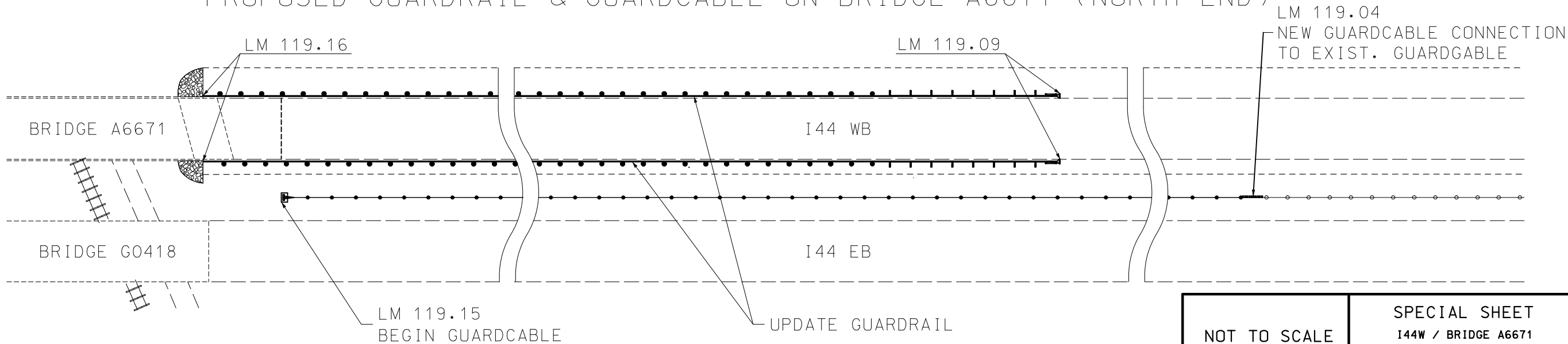
EXIXT. BRIDGE A6671 ON I44 WB



EXIXT. GUARDRAIL & GUARDCABLE ON BRIDGE A6671 (NORTH END)



PROPOSED GUARDRAIL & GUARDCABLE ON BRIDGE A6671 (NORTH END)



NOT TO SCALE

SPECIAL SHEET  
144W / BRIDGE A6671  
SHEET 1 OF 1



DATE PREPARED  
10/6/2023

ROUTE  
144W

STATE  
MO

DISTRICT  
CD

SHEET NO.  
4

COUNTY  
PHELPS

JOB NO.  
J513481

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

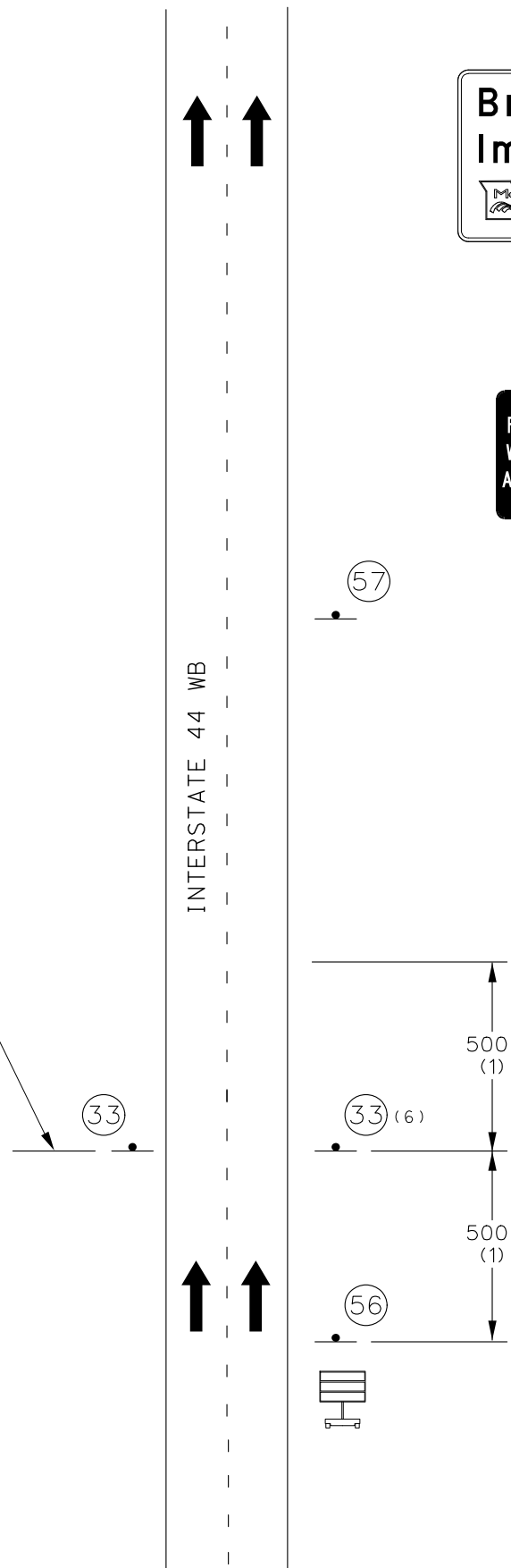
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION


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

MODOT

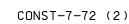




# Bridge Improvements

 Summer 2024

57




56



(33)

(6) THE "WORK ZONE NO PHONE ZONE" SIGN IS PLACED A MINIMUM OF 500 FEET BEFORE THE ROAD WORK AHEAD SIGN.

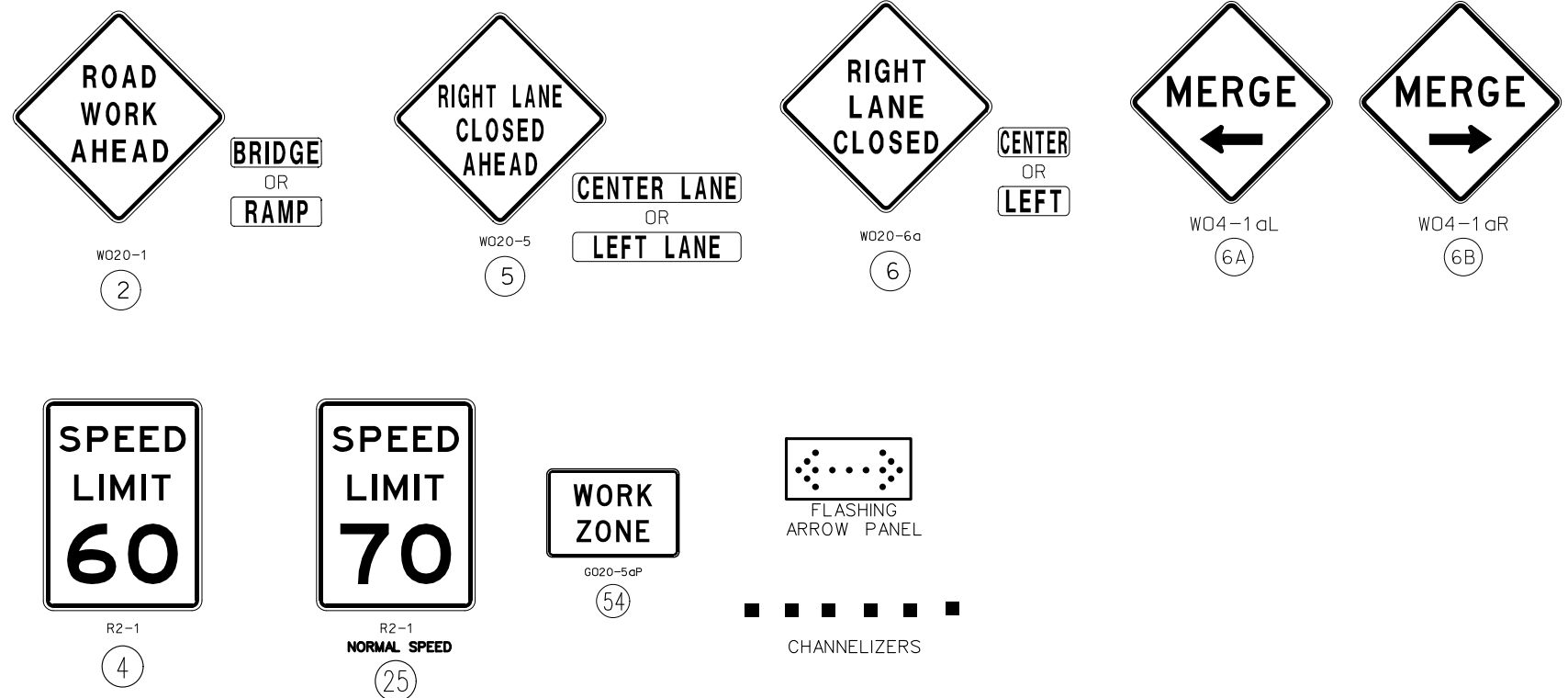
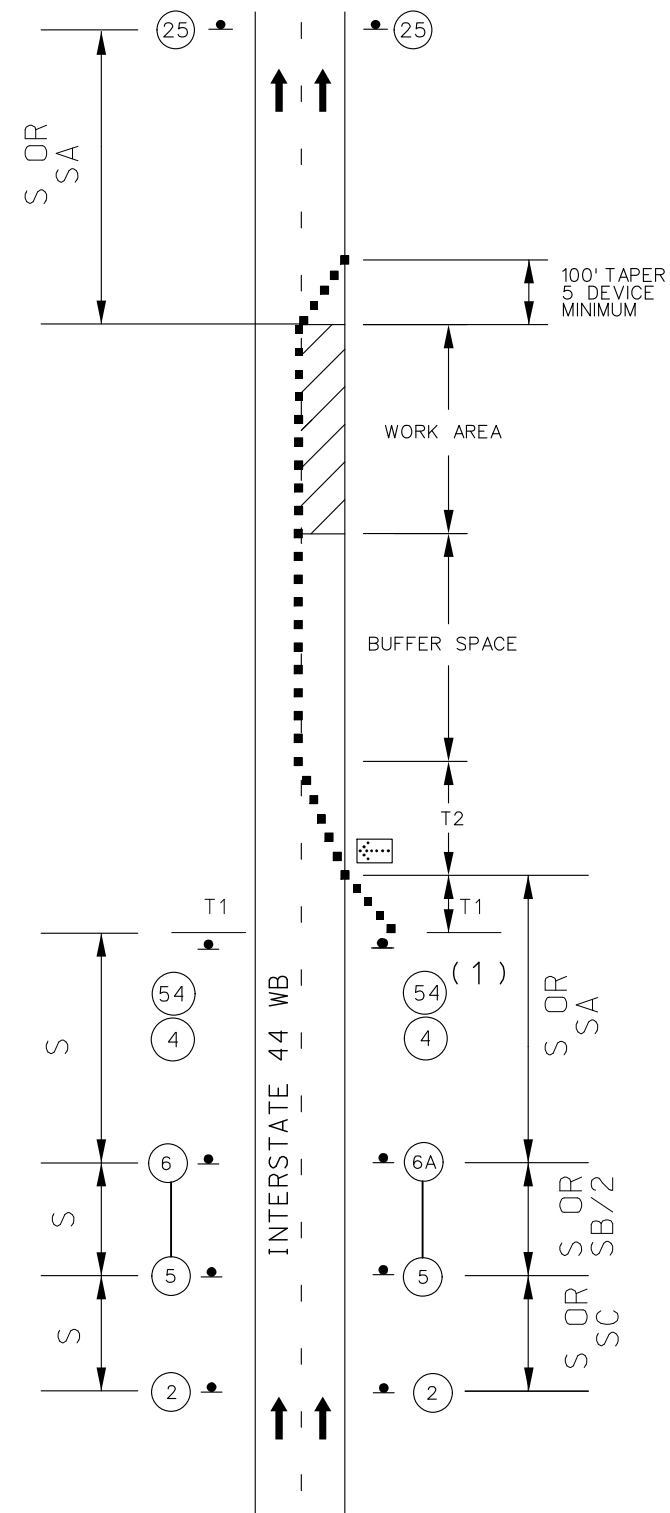
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105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)






CHANGEABLE MESSAGE BOARD

SHEET 1 OF 3

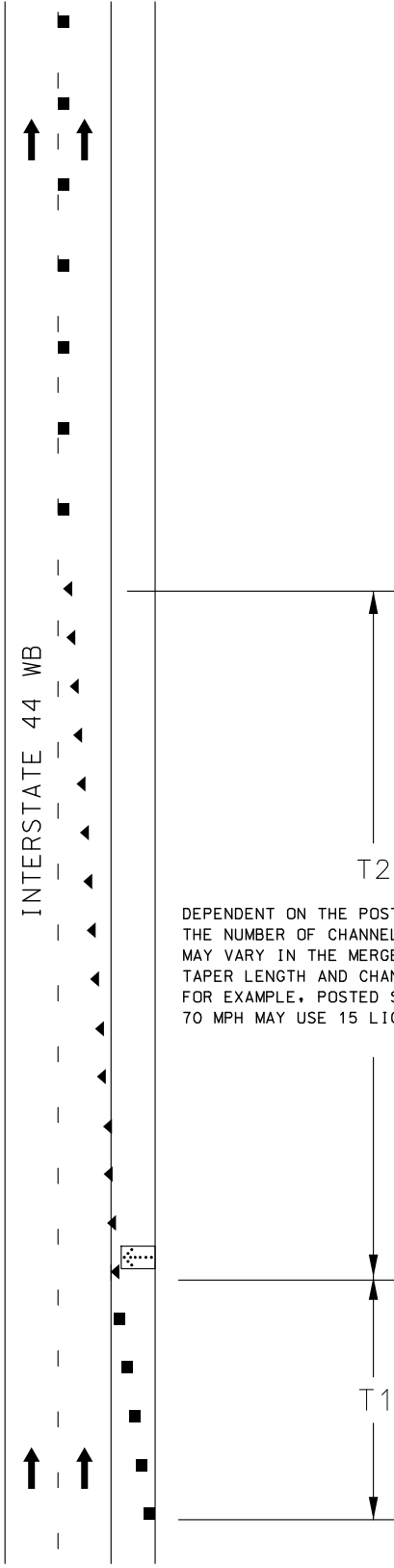




## TRAFFIC CONTROL LEGEND

	SIGN (SINGLE SIDED)
	DIRECTIONAL INDICATOR BARRICADE WITH SEQUENTIAL FLASHING WARNING LIGHTS
	CHANNELIZER
	FLASHING ARROW PANEL
	WORK ZONE





INTERSTATE 44 WB

SEQUENTIAL FLASHING WARNING LIGHT  
FOR LEFT OR RIGHT LANE CLOSURE  
MULTI LANE DIVIDED HIGHWAY

SIGNING AND SEQUENTIAL FLASHING WARNING LIGHT SPACING							
SPEED	SIGN SPACING (ft.)		TAPER LENGTH (ft.)		OPTIONAL	CHANNELIZER SPACING (ft.)	
	UNDIVIDED (S)	DIVIDED (S)	SHOULDER (1) (T1)	LANE (2) (T2)	BUFFER LENGTH (ft.) (B)	TAPERS	BUFFER WORK AREAS
0-35	200'	200'	70'	245'	250'	35'	50'
40-45	350'	500'	150'	540'	360'	40'	100'
50-55	500'	1000'	185'	660'	495'	50'	100'
60-70	SA - 1000' SB - 1500', AND SC - 2640'		235'	840'	730'	60'	100'
1 SHOULDER TAPER LENGTH BASED ON 10 FT. (STANDARD SHOULDER WIDTH) OFFSET. 2 LANE TAPER LENGTH BASED ON 12 FT. (STANDARD LANE WIDTH) OFFSET.							

- NOTES:
- (1) SPACINGS MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS ND VISIBILTY.
- (2) TAPER LENGTHS SHOWN INCLUDE LENGTH REQUIRED FOR LANE AND 10' SHOULDER.

TRAFFIC CONTROL LEGEND

SIGN (SINGLE SIDED)

DIRECTIONAL INDICATOR BARRICADE WITH SEQUENTIAL FLASHING WARNING LIGHTS

CHANNELIZER

FLASHING ARROW PANEL

STATE OF MISSOURI

JAMES V. BEATTIE

NUMBER PE-2018021150

PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED

10/2/2023

ROUTE

144W

STATE

MO

DISTRICT

CD

SHEET NO.

7

COUNTY

PHELPS

JOB NO.

J513481

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

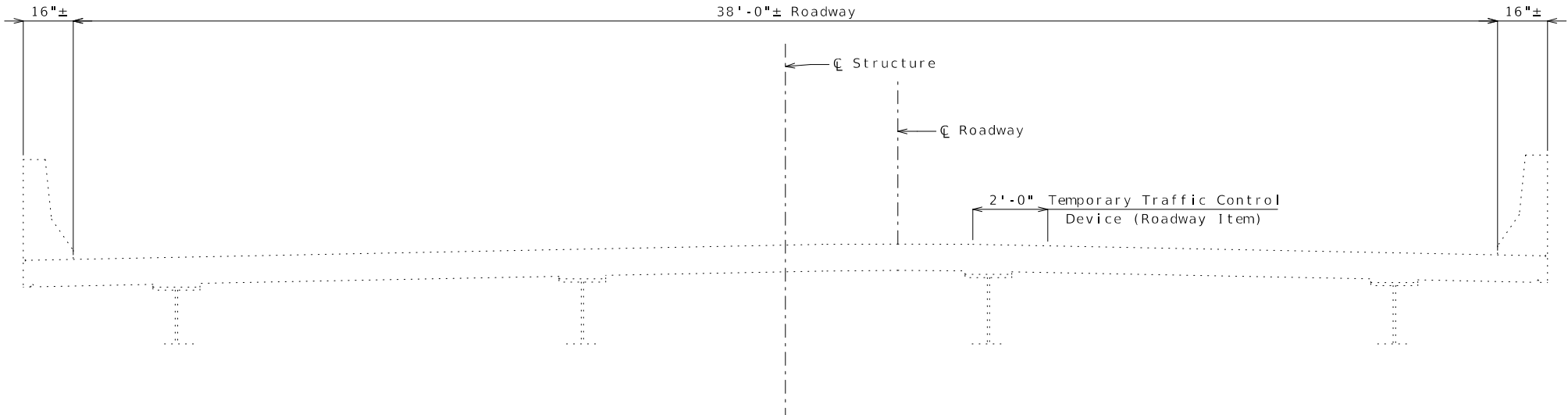
105 WEST CAPITOL

JEFFERSON CITY, MO 65102

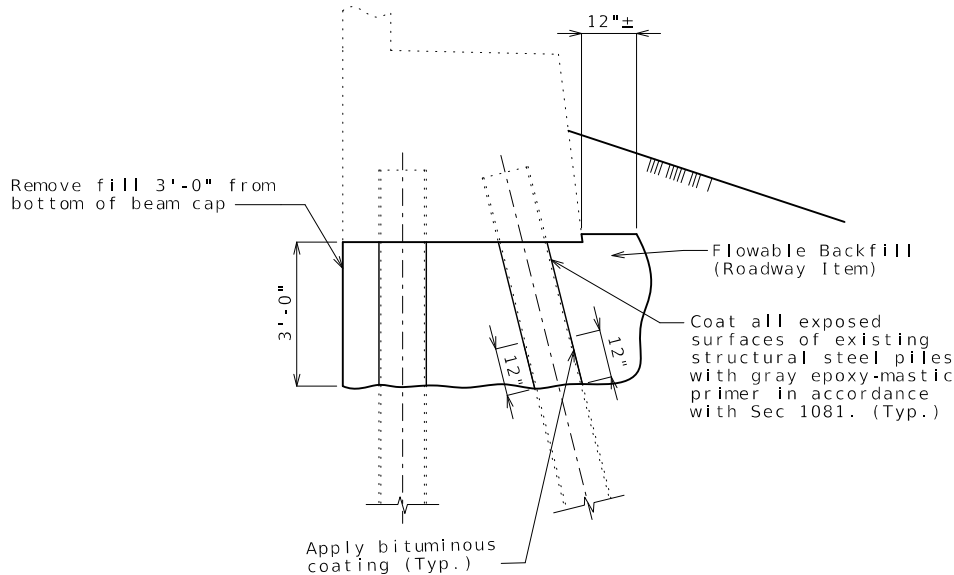
1-888-ASK-MODOT (1-888-275-6636)



U.I.P. AND REHABILITATE EXISTING (107'-115'-165'-143'-165'-165'-165'-85') CONTINUOUS COMPOSITE PLATE GIRDER SPANS (SKEW: 15° R.A.)



TYPICAL SECTION THRU EXISTING DECK



TYPICAL SECTION THRU END BENT NO. 1 SHOWING PROTECTIVE COATING AND FLOWABLE BACKFILL

All exposed surfaces of the existing structural steel piles shall be recoated with one 6-mil thickness of gray epoxy-mastic primer applied over an SSPC-SP3 surface preparation in accordance with Sec 1081. The bituminous coating shall be applied one foot above the existing ground line and in accordance with Sec 702. These protective coatings will not be required below the normal low water line. The cost of surface preparation will be considered completely covered by the contract lump sum price for Surface Preparation for Applying Epoxy-Mastic Primer. The cost of the gray epoxy-mastic primer and bituminous coating will be considered completely covered by the contract lump sum price for Gray Epoxy-Mastic Primer.

General Notes:

Design Specifications:

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

Design Loading:

HS20 Modified (2002), HS20 Modified (New Construction)

Miscellaneous:

High strength bolts, nuts and washers will be samples for quality assurance as specified in Sec 106.

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

Contractor shall verify all dimensions in field before ordering new material.

Traffic Handling:

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

Estimated Quantities		
Item		Total
Class 1 Excavation	cu. yard	5
Removal of Existing Bearings	each	2
Surface Preparation for Applying Epoxy-Mastic Primer	lump sum	1
Gray Epoxy-Mastic Primer	lump sum	1
Type N PTFE Bearing	each	2

REPAIRS TO BRIDGE: ROUTE I-44  
OVER LITTLE PINEY RIVER, BNSF  
RAILWAY & OUTER ROAD

ROUTE I-44 WB FROM ROUTE T TO ROUTE J  
ABOUT 5.6 MILES SOUTHWEST OF ROUTE T  
BEGINNING STATION 264+74.55 ± (Match Existing)

STATE OF MISSOURI

TED S. KOESTER

NUMBER

PE-2013000591

PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN  
SIGNED, SEALED AND DATED  
ELECTRONICALLY.

DATE PREPARED

10/12/2023

ROUTE

I - 44

STATE

MO

DISTRICT

BR

SHEET NO.

1

COUNTY

PHELPS

JOB NO.

J513481

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A66711

DESCRIPTION

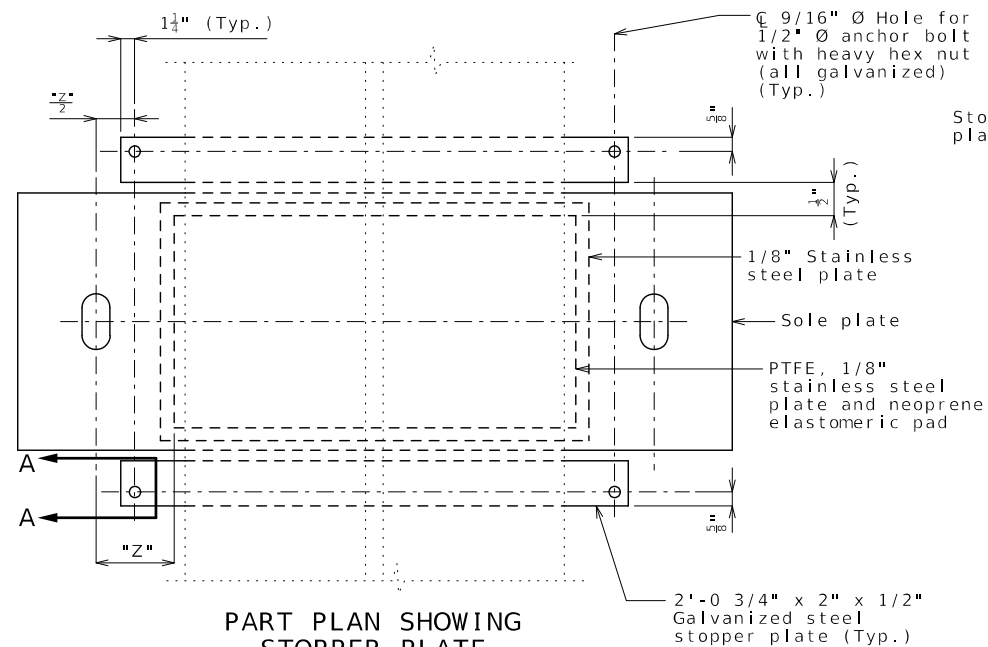
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION  
COMMISSION

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

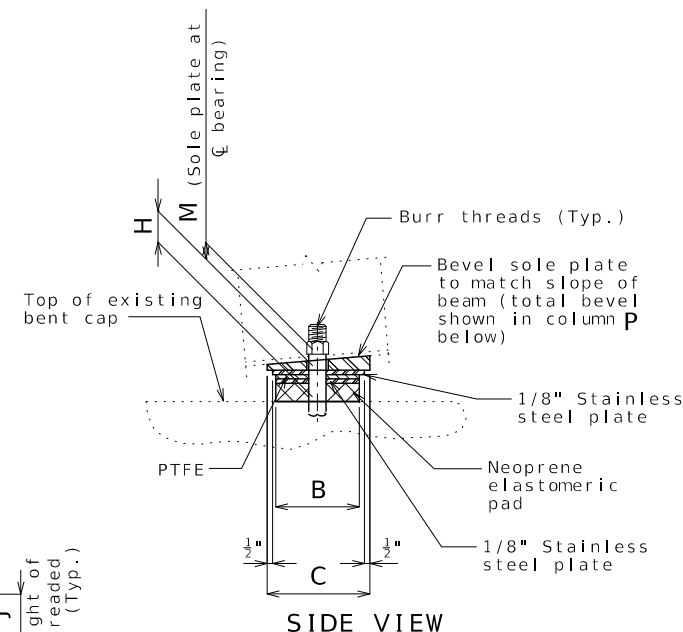
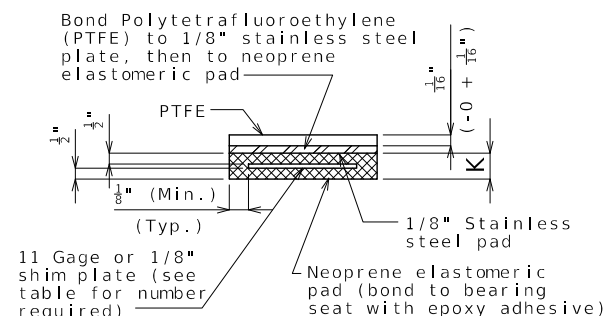
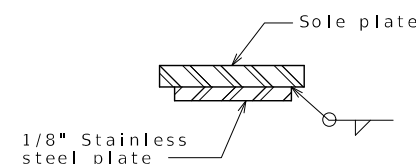
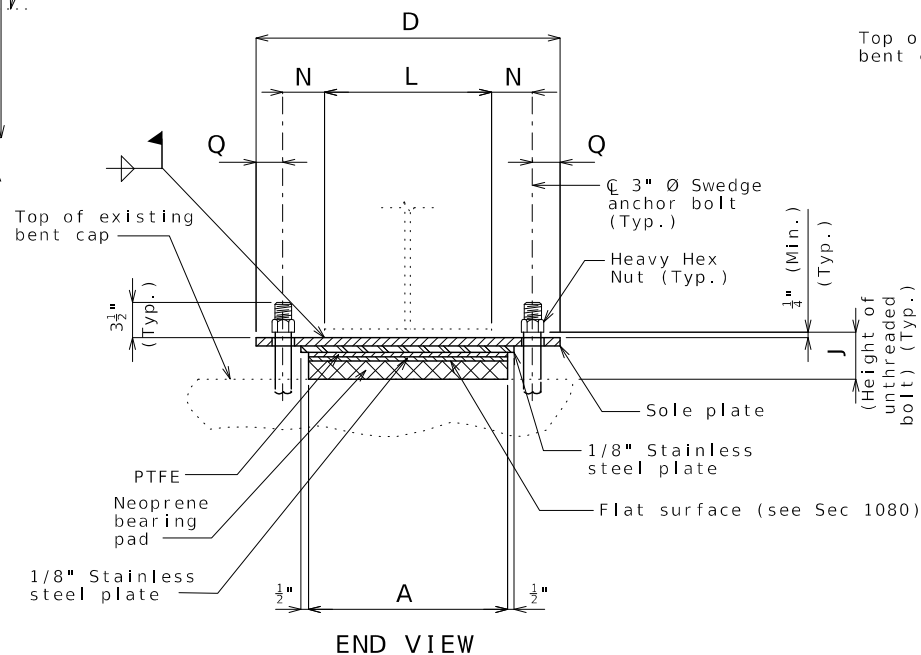
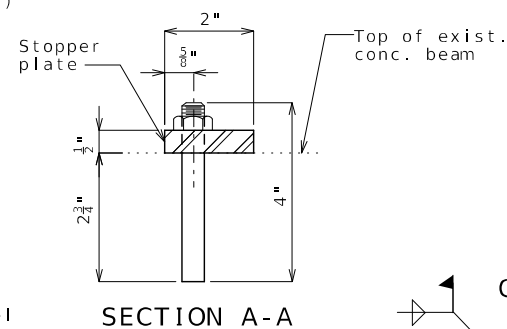
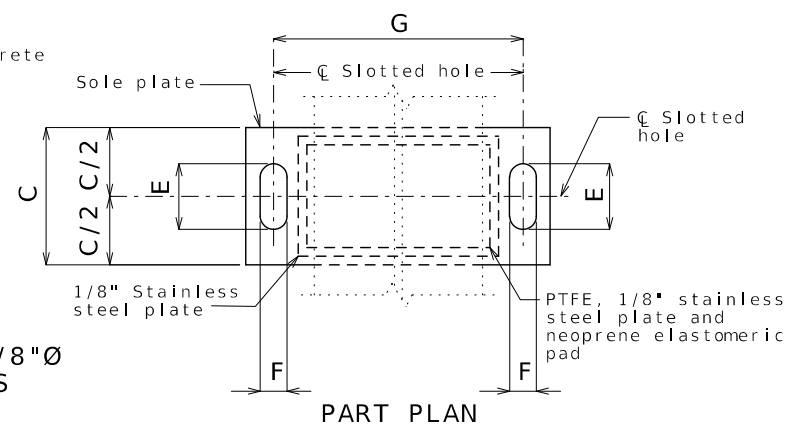
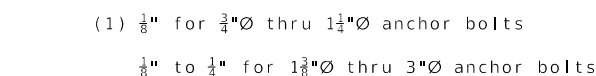
MoDOT





Stopper plates and straps shall be provided to prevent loss of support due to creeping of PTFE bearings. Payment for fabricating and installing the stopper plates and straps will be considered completely covered by the contract unit price for Type N PTFE Bearing.

The bottom face of the 1/8" stainless steel plate that is welded to the sole plate shall be lubricated with a lubricant that is approved by the bearing manufacturer.



GENERAL NOTES:

Design coefficient of friction equals 0.06.

Anchor bolts shall be 3"Ø ASTM F1554 Grade 55 swedged bolts and shall extend 2'-8" into the concrete with ASTM A563 Grade A Heavy Hex nuts. Actual manufacturer's certified mill test reports (chemical and mechanical) shall be provided. Swedging shall be 1" less than extension into the concrete.

Anchor bolts shall be at the centerline of slotted hole at 60°F. Bearing position shall be adjusted **R** for each 10° fall or rise in temperature at installation.

Anchor bolts and heavy hex nuts 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 Sec 1081.

Neoprene Elastomeric Pads shall be 70 Durometer.

Structural steel for sole plate shall be ASTM A709 Grade 50W. The welds shall have corrosion resistance and weathering characteristics compatible with the base material.

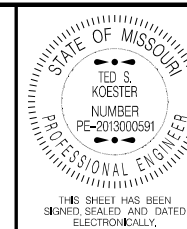
Type N PTFE Bearings shall be in accordance with Sec 716.

PTFE surface shall be fabricated as a single piece. Splicing will not be permitted.

INTERMEDIATE BENT NO. 8-PTFE SLIDING BEARINGS																		
GIRDER NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	NUMBER OF SHIM PLATES *	NUMBER REQUIRED
1 & 2	20"	28"	35½"	33½"	9"	3⅛"	24½"	31½"	51½"	3⅝"	15"	1¾"	4¾"	1½"	4½"	5⅞"	5	2
* The required shim plate shall be placed between layers of elastomer and molded together to form an integral unit.																	TOTAL BEARINGS	2

\* The required shim plate shall be placed between layers of elastomer and molded together to form an integral unit.

## INTERMEDIATE BENT NO. 8-TYPE N PTFE BEARINGS



DATE PREPARED  
10/12/2023

ROUTE	STATE
I - 44	MO

DISTRICT	SHEET 1
BR	2

COUNTY  
PHELPS

JOB NO.  
151348

CONTRACT

PROJECT N

BRIDGE NO.  
A6671[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION  
COMMISSION

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