

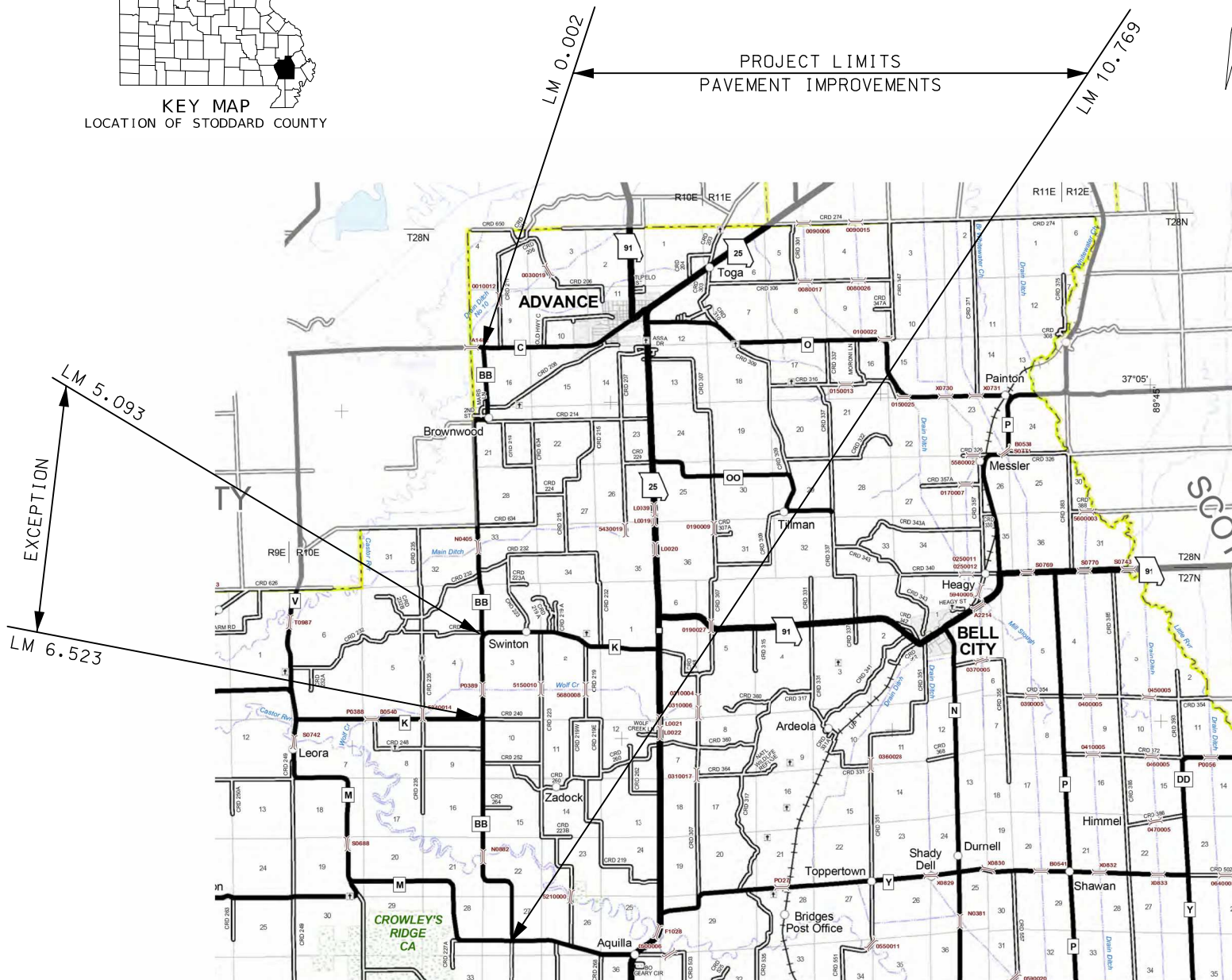
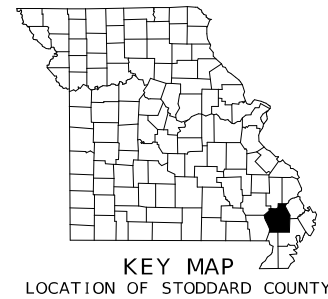
**DESIGN DESIGNATION**

A.A.D.T. - 2024 = 940  
 A.A.D.T. - 2034 = 987  
 D.H.V. = 7%  
 T = 10%  
 V = 55 M.P.H.  
 D = 50%

FUNCTIONAL CLASSIFICATION - MINOR COLLECTOR

**NO NEW RIGHT OF WAY**

# MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION PLANS FOR PROPOSED STATE HIGHWAY STODDARD COUNTY



**CONVENTIONAL SYMBOLS  
 (USED IN PLANS)**

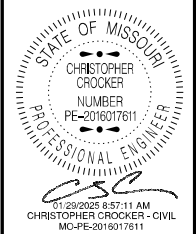
	EXISTING	NEW
BUILDINGS AND STRUCTURES	[Symbol]	[Symbol]
GUARD RAIL	[Symbol]	[Symbol]
GUARD CABLE	[Symbol]	[Symbol]
CONCRETE RIGHT-OF-WAY MARKER	[Symbol]	[Symbol]
STEEL RIGHT-OF-WAY MARKER	[Symbol]	[Symbol]
LOCATION SURVEY MARKER	[Symbol]	[Symbol]
UTILITIES		
FIBER OPTICS	-FO-	-FO-
OVERHEAD CABLE TV	-OTV-	-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	[Symbol]	[Symbol]
FIRE HYDRANT	[Symbol]	[Symbol]
WATER VALVE	[Symbol]	[Symbol]
WATER METER	[Symbol]	[Symbol]
DROP INLET	[Symbol]	[Symbol]
DITCH BLOCK	[Symbol]	[Symbol]
GROUND MOUNTED SIGN	[Symbol]	[Symbol]
LIGHT POLE	[Symbol]	[Symbol]
H-FRAME POWER POLE	[Symbol]	[Symbol]
TELEPHONE PEDESTAL	[Symbol]	[Symbol]
FENCE	[Symbol]	[Symbol]
CHAIN LINK	[Symbol]	[Symbol]
WOVEN WIRE	[Symbol]	[Symbol]
GATE POST	[Symbol]	[Symbol]
BENCHMARK	[Symbol]	[Symbol]

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

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.

**INDEX OF SHEETS**

DESCRIPTION	SHEET NUMBER
TITLE SHEET .....	1
TYPICAL SECTIONS (TS) (1 SHEET)----	2
QUANTITIES (QU) (2 SHEETS)-----	3
SPECIAL SHEETS (SS)-----	4-5
TRAFFIC CONTROL SHEETS (TC)-----	6-7
BRIDGE DRAWINGS (B)	
B0489-----	1-2
B0488-----	1-2
B0545-----	1-2



DATE PREPARED  
**1/23/2025**

ROUTE	STATE
<b>BB</b>	<b>MO</b>
DISTRICT	SHEET NO.
<b>SE</b>	<b>1</b>

COUNTY  
**STODDARD**

JOB NO.  
**JSE0122**

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

**LENGTH OF PROJECT**

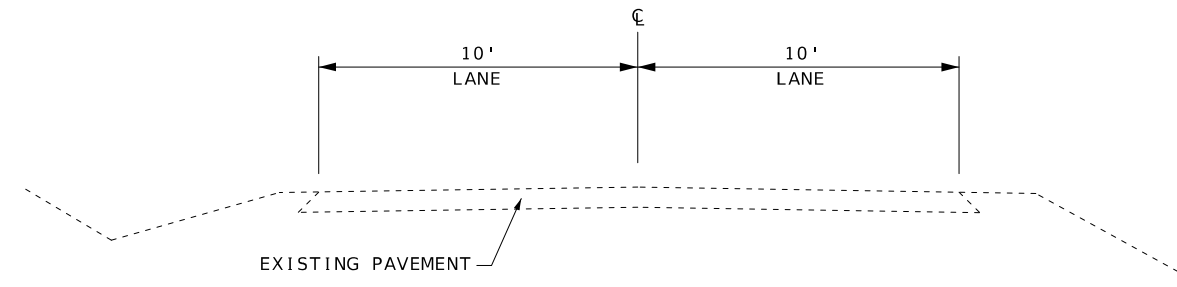
BEGINNING OF PROJECT	LM 0.002
END OF PROJECT	LM 10.769
APPARENT LENGTH	10.767 MILES
EQUATIONS AND EXCEPTIONS:	
ROUTE K	LM 5.093 - LM 6.523 -1.430 MILES

TOTAL CORRECTIONS	-1.430 MILES
NET LENGTH OF PROJECT	9.337 MILES
STATE LENGTH	9.337 MILES
FOR INFORMATION ONLY	
ESTIMATED DISTURBED ACRES	0 ACRES

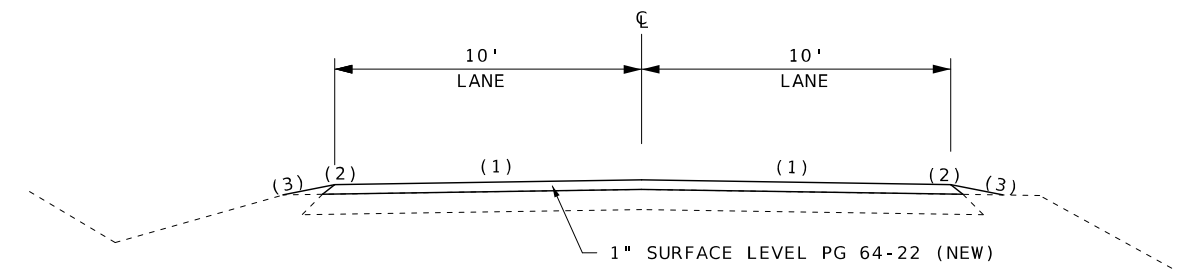
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

- (1) MATCH EXIST CROSS SLOPE
- (2) SAFETY EDGE
- (3) PERMANENT AGG EDGE TREATMENT



**EXISTING TYPICAL RTE BB**  
LM 0.002 TO LM 10.769



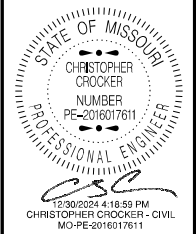
**PROPOSED TYPICAL RTE BB**  
LM 0.002 TO LM 5.093  
LM 6.523 TO LM 10.769

**NOTES:**

ANY EXISTING PAVEMENT SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. LAYERS MAY VARY FROM TYPICALS.

REMOVAL OF VEGETATIVE GROWTH OR SOIL FROM EXISTING PAVEMENT & SHOULDER SURFACE SHALL BE COMPLETELY COVERED BY SEC 407.4.1.

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.



DATE PREPARED	
12/10/2024	
ROUTE	STATE
BB	MO
DISTRICT	SHEET NO.
SE	2
COUNTY	
STODDARD	
JOB NO.	
JSE0122	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

**TYPICAL SECTION**  
SHEET 1 OF 1

REMOVAL OF IMPROVEMENTS - LUMP SUM 1				
LM	LOC	DESCRIPTION	REMARKS	
2.260	RT	APPROX 60' GUARDRAIL	BR B0489	
2.920	RT	APPROX 60' GUARDRAIL	BR B0488	
2.940	LT	APPROX 60' GUARDRAIL	BR B0488	
10 OBJECT MARKERS			BR B0489(4), BR B0488(2), BR B0405(4)	
LOCATIONS AND QUANTITIES ARE APPROXIMATE FOLLOW SEC 202.30				

GRAVEL A OR CRUSHED STONE B							
LM	LM	LOC	LENGTH FT	WIDTH FT	DEPTH IN	GRAVEL A OR CRUSHED STONE B 1.75 TON/CY TONS	REMARKS
0.002	1.769	LT & RT	2520	2	1	27.2	PRIVATE & COMM ENTRANCE (UNPAVED)
ADD QUANTITY			VAR	VAR	VAR	5.0	ENTRANCES AS DIRECTED BY ENGINEER
TOTAL						33	

COLDMILLING								
LM	LM	LOC	LENGTH FT	WIDTH FT	DEPTH IN	COLDMILLING DEPTH TRANSITIONS SY	COLDMILLING ≤3" SY	REMARKS
0.002	0.021	€	100	VAR	VAR	111.1	335.0	BEGIN PROJECT
2.255	2.293	€	201	LM	VAR	244.4	246.9	B0489
2.932	2.962	€	158	22	VAR	244.4	141.8	B0488
3.547	3.615	€	359	22	VAR	611.1	633.1	N0405
8.891	8.941	€	264	22	VAR	611.1	400.9	B0545
10.750	10.769	€	100	22	VAR	111.1	135.0	END PROJECT
5.074	5.093	€	100	VAR	VAR	111.1	305.0	RTE K
6.523	6.542	€	100	VAR	VAR	111.1	360.0	RTE K
ADD QUANTITY		LT & RT	VAR	VAR	VAR	40.0		ENTRANCES AS DIRECTED BY ENGINEER
TOTAL						2196	2558	

GUARDRAIL											
LM	LM	BR#	OFFSET	MGS		CRASHWORTHY END TERMINAL		MODIFIED LINEAR GRADING CLASS II STA	MODIFIED SHAPING SLOPES CLASS III 100 FT	18" GROUP B PIPE FT	REMARKS
				BRIDGE APPROACH TRANSITION EACH	6' POST GUARDRAIL FT	TYPE A (MASH) EACH	TYPE C (MASH) EACH				
	2.255	B0489	RT	1	87.5	1			1.8		
	2.255	B0489	LT	1		1			0.9		
2.293		B0489	RT	1		1			0.9		
2.293		B0489	LT				1	0.5	0.3	15.0	LINEAR GRADING FOR DRIVEWAY ADJUSTMENTS
	2.932	B0488	RT	1	12.5	1			1.0		
	2.932	B0488	LT	1		1			0.9		
2.962		B0488	RT	1		1			0.9		
2.962		B0488	LT	1	12.5	1			1.0		
	8.891	B0545	RT	1	87.5	1			1.8		
	8.891	B0545	LT	1		1			0.9		
8.941		B0545	RT	1		1			0.9		
8.941		B0545	LT	1	87.5	1			1.8		
TOTAL				11	288	11	1	0.5	14	15	

SEE STD 606.81 FOR GRADING LIMITS. USE PREFERRED GRADING UNLESS OTHERWISE NOTED OR APPROVED BY ENGINEER. ANY ADDITIONAL MATERIAL AND LABOR REQUIRED TO INSTALL PER MANUFACTURER'S RECOMMENDATION SHALL BE CONSIDERED COMPLETELY COVERED BY THE ABOVE PAY ITEMS. SEE SPECIAL SHEETS FOR ADDITIONAL DETAIL.

BITUMINOUS PAVEMENT									
LM	LM	LOC	LENGTH FT	WIDTH FT	DEPTH IN	SURFACE LEVEL PG 64-22 2.034 TON/CY		TACK 0.08 GAL/SY GAL	REMARKS
						CY	TON		
0.002	0.021	€	100	VAR	1	12.39	25.20	35.7	BEGIN PROJECT
0.021	5.074	€	26680	20.00	1	1646.91	3349.81	4743.1	2 - 10' LANES
5.074	5.093	€	100	VAR	1	6.84	13.91	19.7	RTE K INTERSECTION
6.523	6.542	€	100	VAR	1	11.56	23.51	33.3	RTE K INTERSECTION
6.542	10.750	€	22218	20.00	1	1371.48	2789.59	3949.9	2 - 10' LANES
10.750	10.769	€	100	VAR	1	13.09	26.63	37.7	END PROJECT
ADD QUANTITY			VAR	VAR	VAR	124.57			2% FOR SAFETY EDGE
0.020	10.769	LT & RT	2400.00	2.00	1	14.81	30.12		PRIVATE & COMM ENTRANCE (NON-PAVED)
0.020	10.769	LT & RT	640.00	10.00	3	59.26	120.53		COUNTY RD & CITY ST (NON-PAVED)
0.020	10.769	LT & RT	120.00	2.00	1	0.74	1.51	2.1	PRIVATE & COMM ENTRANCE (PAVED)
ADD QUANTITY			VAR	VAR	VAR	15.00			ENTRANCES AS DIRECTED BY ENGINEER
ADD QUANTITY			€	49298.00	VAR	933.67			100 TON/MI IRREGULARITIES
TOTAL						7454.1	8822		

MOBILIZATION - LUMP SUM 1

PERMANENT AGGREGATE EDGE TREATMENT								
LM	LM	LOC	LENGTH FT	WIDTH FT	DEPTH IN	PERM AGG EDGE TREATMENT 1.7 TON/CY		REMARKS
						TONS		
0.002	5.093	LT	26880.48	2	3	423.12		
0.002	5.093	RT	26880.48	2	3	423.12		
6.523	10.769	LT	22418.88	2	3	352.89		
6.523	10.769	RT	22418.88	2	3	352.89		
LINEAR GRADING FOR DRIVEWAY ADJUSTMENTS								
TOTAL						1552.1		

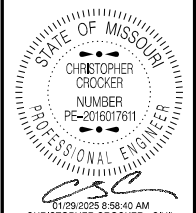
APPLICATION RATE MAY BE ADJUSTED AS APPROVED BY ENGINEER

BRIDGE SEAL COAT							
LOG MI	LOG MI	LOC	LENGTH FT	WIDTH FT	EMULSIFIED ASPHALT SEAL COAT (0.4 GAL/SY) GAL	SEAL COAT AGGREGATE GRADE B1 SY	REMARKS
2.941	2.953	CL	63.4	20.0	56.4	140.9	BRIDGE #B0488
3.571	3.591	CL	105.6	20.0	93.9	234.7	BRIDGE #N0405
8.900	8.932	CL	169.0	20.0	150.2	375.6	BRIDGE #B0545
TOTAL					394	986	

LOG MILES ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY ENGINEER.

PAVEMENT MARKING						
LOC	WATERBORNE PAINT			TYPE 1 PREFORMED MARKING TAPE		
	YELLOW		WHITE	4" WHITE		4" YELLOW
	4" SOLID LF	4" INTER LF	4" SOLID LF	WHITE LF	WHITE LF	YELLOW LF
RTE BB	34431	9583	98599	144	1200	6000
TOTAL	44014		98599	144	1200	6000

SEE JSP FOR CONTRACTOR'S RESPONSIBILITY TO CREATE A PAVEMENT MARKING LOG PRIOR TO ANY CONSTRUCTION OPERATIONS THAT MAY AFFECT EXISTING PAVEMENT MARKING.



DATE PREPARED  
1/23/2025

ROUTE STATE  
BB MO

DISTRICT SHEET NO.  
SE 3

COUNTY  
STODDARD

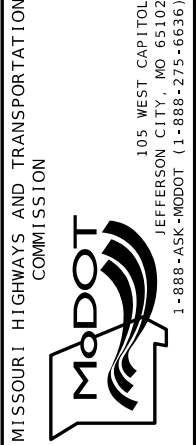
JOB NO.  
JSE0122

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

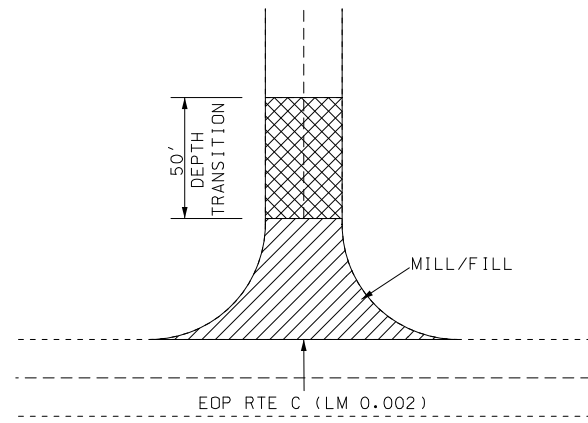
DATE	DESCRIPTION



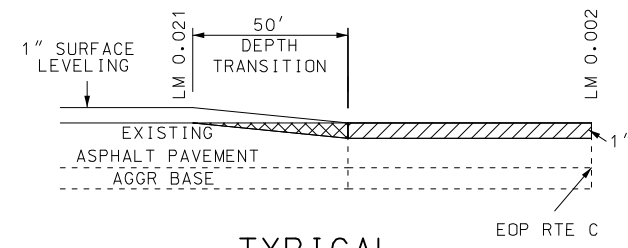
SUMMARY OF QUANTITIES  
SHEET 1 OF 2



BEGIN PROJECT

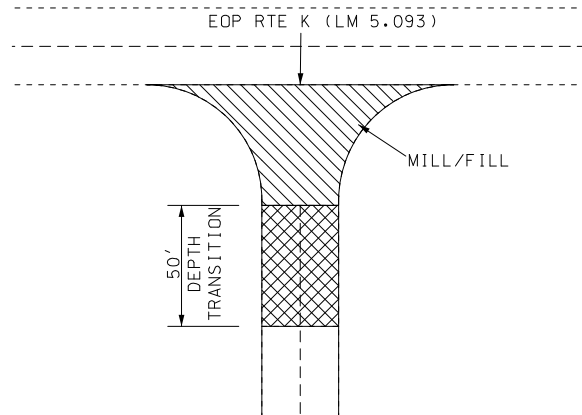


PLAN VIEW AT RTE C

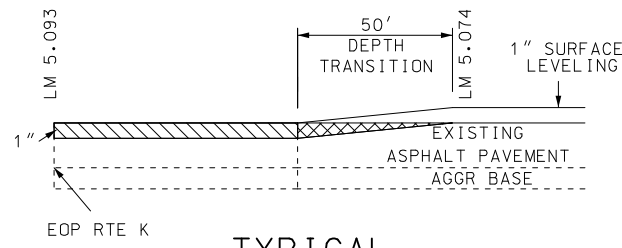


TYPICAL  
RTE BB

BEGIN EXCEPTION

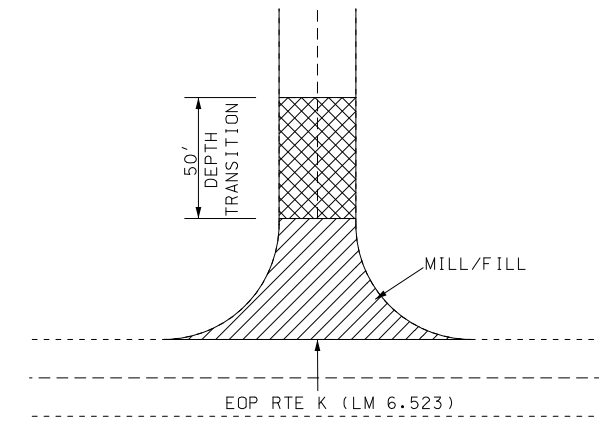


PLAN VIEW AT RTE K

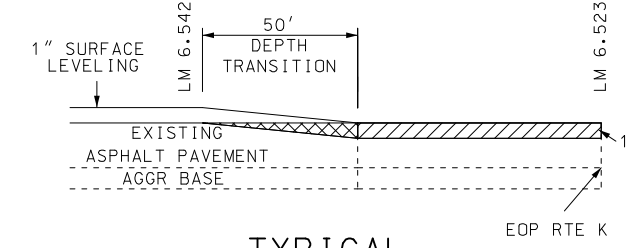


TYPICAL  
RTE BB

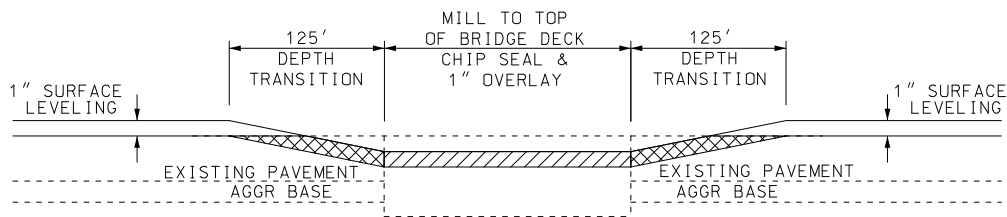
END EXCEPTION



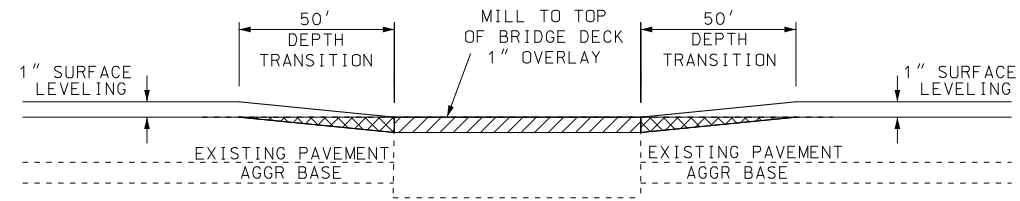
PLAN VIEW AT RTE K





TYPICAL  
RTE BB



TYPICAL AT BRIDGE N0405

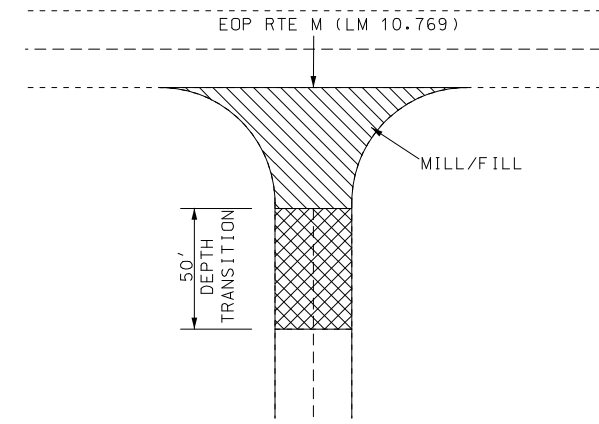


TYPICAL AT BRIDGE B0489, B0488, B0545

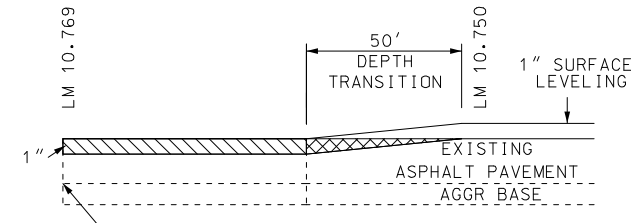
-  MILL/FILL
-  MODIFIED COLDMILLING

LOG MILE LOCATIONS APPROXIMATE  
ADJUST AS DIRECTED BY ENGINEER  
TO FIT FIELD CONDITIONS.

END PROJECT

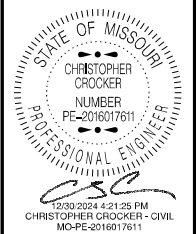


PLAN VIEW AT RTE M



TYPICAL  
RTE BB

DRAWING NOT TO SCALE



DATE PREPARED  
**12/10/2024**

ROUTE <b>BB</b>	STATE <b>MO</b>
DISTRICT <b>SE</b>	SHEET NO. <b>4</b>

COUNTY  
**STODDARD**

JOB NO.  
**JSE0122**

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

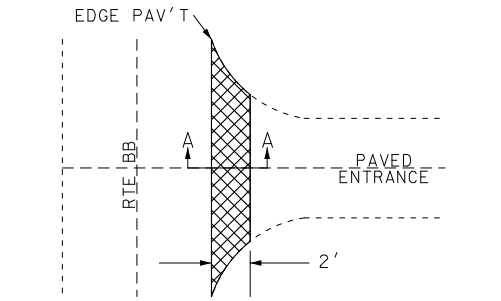
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION  
COMMISSION

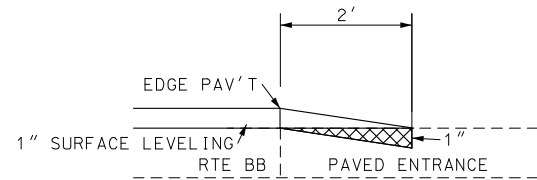


105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)

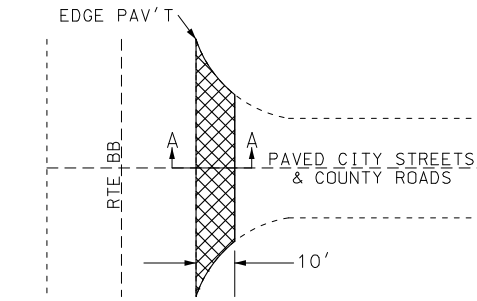
SPECIAL SHEET  
SHEET 1 OF 2



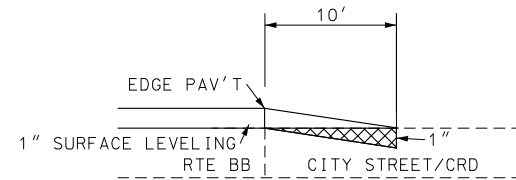
PLAN VIEW FOR PAVED PRIVATE AND COMMERCIAL ENTRANCES



TYPICAL SECTION A-A

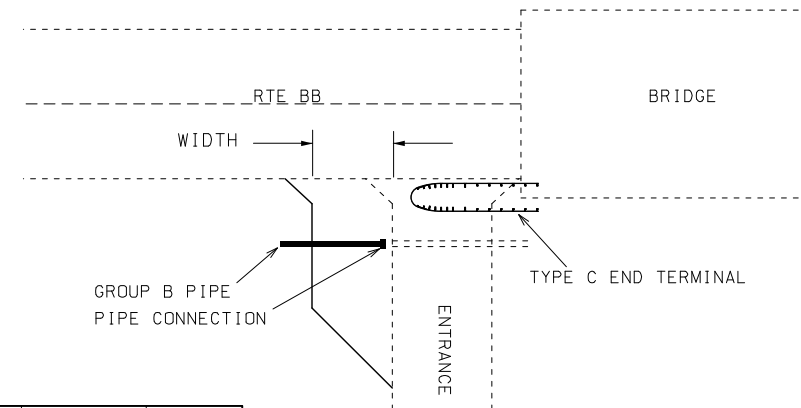


PLAN VIEW FOR PAVED CITY STREETS AND COUNTY ROADS



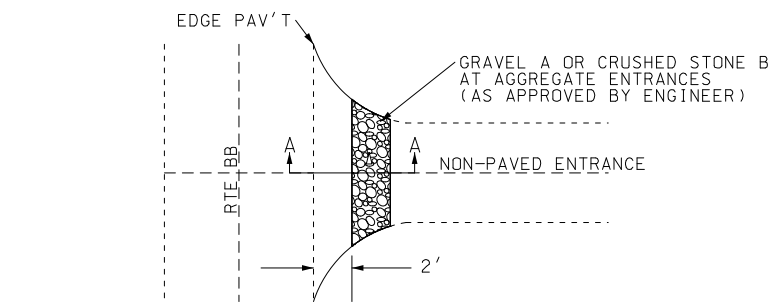
TYPICAL SECTION A-A

NOTES: WIDEN ENTRANCES TO ALLOW END TERMINAL PLACEMENT.  
 WIDEN ENTRANCES TO ALLOW A DRIVING SURFACE AT LEAST AS WIDE AS THE ENTRANCE BEFORE THE TYPE C END TERMINAL WAS PLACED.  
 IF END OF EXIST PIPE IS DAMAGED THEN REMOVE DAMAGED PORTION BEFORE ATTACHING THE NEW PIPE AND COLLAR.  
 PIPE CONNECTION TO BE PROVIDED AT NO DIRECT PAY.  
 FINAL ENTRANCE WIDTH SHALL BE MAINTAINED AT A MINIMUM OF 20'.

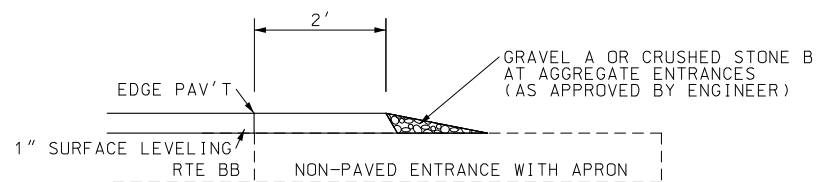


PLAN VIEW FOR WIDENING ENTRANCES

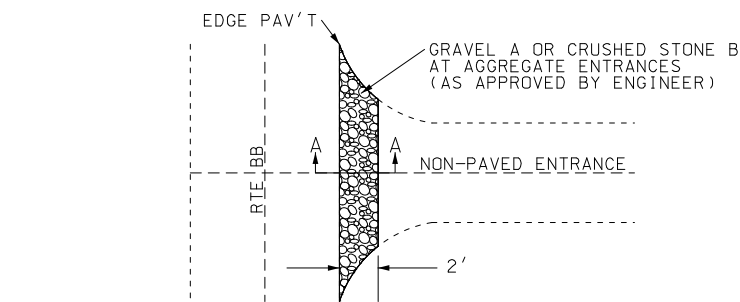
LOG	WIDTH	BRIDGE	LOC
2.293	15	B0489	SE
3.562	15	N0405	NW
3.562	25	N0405	NE
3.6	25	N0405	SW
3.6	25	N0405	SE



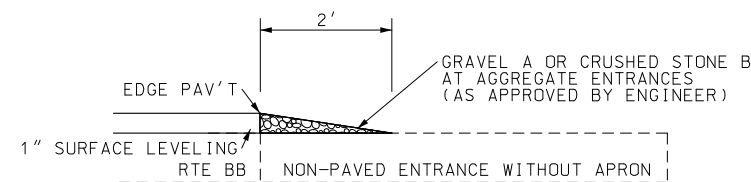
PLAN VIEW FOR NON-PAVED PRIVATE AND COMMERCIAL ENTRANCES WITH EXISTING APRON



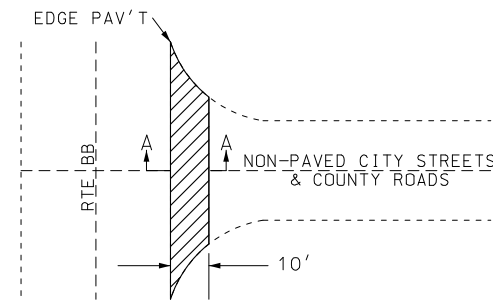
TYPICAL SECTION A-A



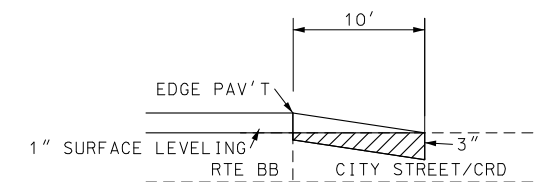
PLAN VIEW FOR NON-PAVED PRIVATE AND COMMERCIAL ENTRANCES WITHOUT EXISTING APRON



TYPICAL SECTION A-A



PLAN VIEW FOR NON-PAVED CITY STREETS AND COUNTY ROADS



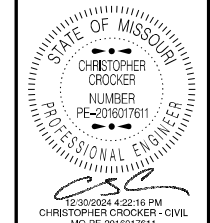
TYPICAL SECTION A-A

- COLDMILLING
- GRADING
- GRAVEL A OR CRUSHED STONE B

NOTES

ALL GRADING NECESSARY FOR THE PROPER CONSTRUCTION OF HOT MIX AND AGGREGATE APRONS SHALL BE CONSIDERED INCIDENTAL WORK AND AT NO DIRECT PAY.

THE WIDTH OF ALL HOT MIX AND AGGREGATE APRONS MAY BE ADJUSTED BY THE ENGINEER AS NECESSARY TO OBTAIN SUITABLE TRANSITIONS.



DATE PREPARED  
12/17/2024

ROUTE STATE  
BB MO  
DISTRICT SHEET NO.  
SE 5

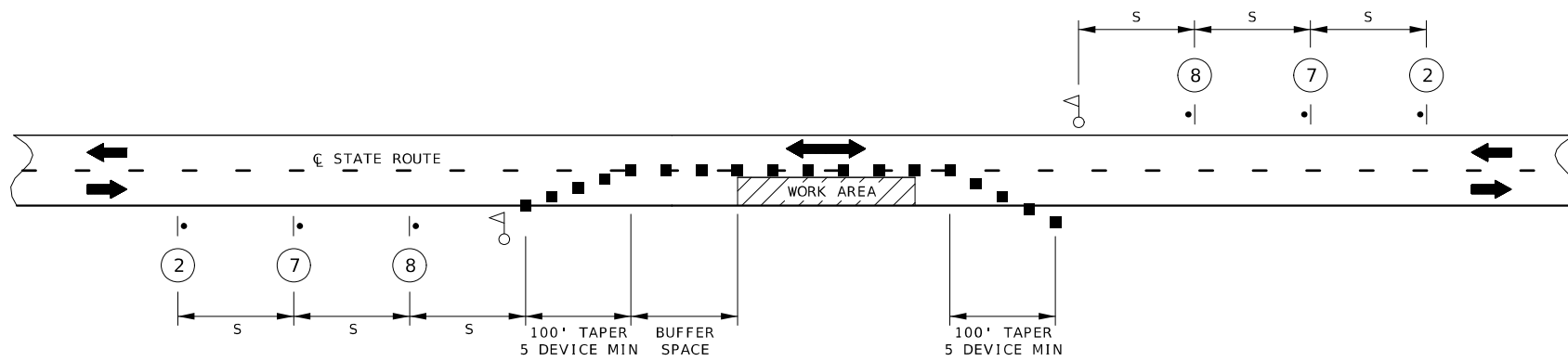
COUNTY  
STODDARD  
JOB NO.  
JSE0122  
CONTRACT ID.

PROJECT NO.  
BRIDGE NO.

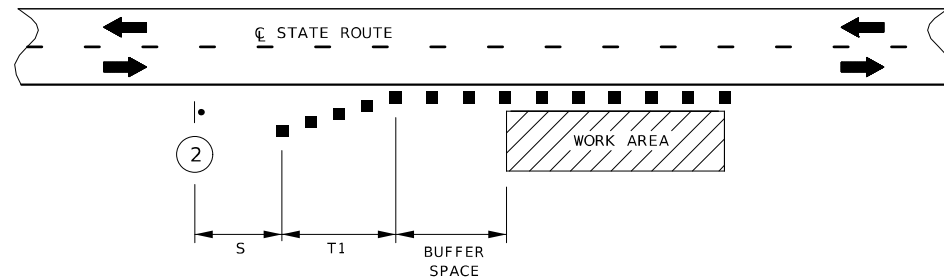
DESCRIPTION	DATE

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

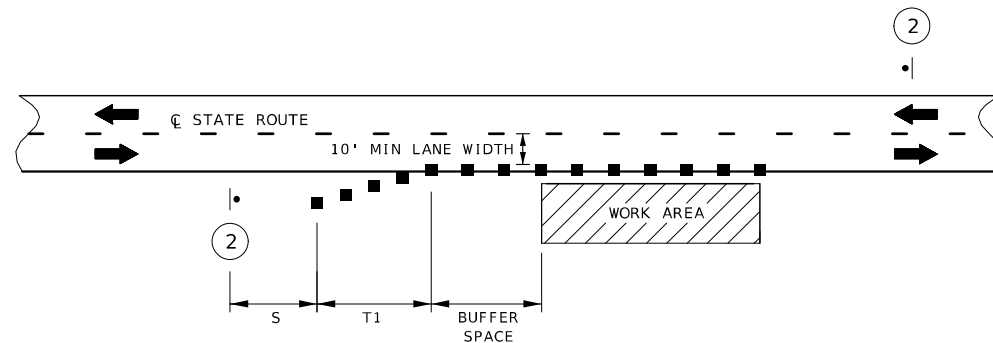
SPECIAL SHEET  
SHEET 2 OF 2



LANE CLOSURE WITH FLAGGER CONTROL



SHOULDER WORK



SHOULDER WORK WITH MINOR ENCROACHMENT

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- CHANNELIZER
- FLAGGER



W020-1  
2



W020-4  
7



W020-7a  
8



W020-1  
2

PERMANENT POSTED SPEED (MPH)	SIGN SPACING (1) (FT)	
	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	1000 FT	SA - 1000 FT SB - 1500 FT SC - 2640 FT

(1) SPACING BETWEEN SIGNS, BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER OR SIGNED CONDITION. SPACINGS MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS.

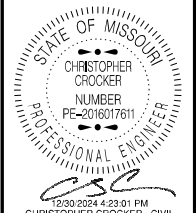
PERMANENT POSTED SPEED (MPH)	TAPER LENGTH T1 SHOULDER (1)	TAPER LENGTH L FOR LATERAL SHIFTS (2)			BUFFER SPACE LENGTH	CHANNELIZER SPACING (3)	
		10 FT	11 FT	12 FT		TAPERS	BUFFER SPACE WORK AREA
		0 - 35	70 FT	205 FT		225 FT	245 FT
40 - 45	150 FT	450 FT	495 FT	540 FT	400 FT	40 FT (4)	80 FT (4)
50 - 55	185 FT	550 FT	605 FT	660 FT	560 FT	50 FT (5)	80 FT (5)
60 - 70	235 FT	700 FT	770 FT	840 FT	840 FT	60 FT (5)	120 FT (5)

- (1) SHOULDER TAPER LENGTH BASED ON 10' (STANDARD SHOULDER WIDTH) OFFSET.
- (2) TAPER LENGTHS MAY BE ADJUSTED TO ACCOMMODATE CROSSROADS, CURVES, RAMPS, INTERSECTIONS, OR OTHER GEOMETIC FEATURES.
- (3) SPACING MAY BE REDUCED TO DISCOURAGE TRAFFIC ENCROACHMENT.
- (4) SPACING REDUCED TO ONE-HALF AT INTERSECTIONS.
- (5) SPACING MAY BE REDUCED TO ONE-HALF AT INTERSECTIONS.

NOTES:

- DAYLIGHT FLAGGING OPERATIONS ONLY.
- DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS.
- NO PAYMENT WILL BE MADE FOR RELOCATION OF CONSTRUCTION SIGNS.
- ANY EXISTING SIGNING THAT CONFLICTS WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.
- AUTOMATED FLAGGER ASSISTANCE DEVICES AND PORTABLE SIGNAL FLAGGING DEVICES MAY BE USED AS AN ALTERNATIVE FLAGGING OPERATION.
- FOR ADDITIONAL TRAFFIC CONTROL PLANS FOR THIS PROJECT, USE STANDARD PLANS 616.20 (SHEETS 1 THROUGH 5).

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

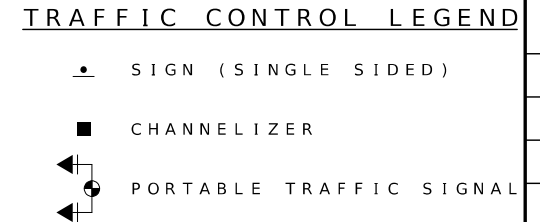
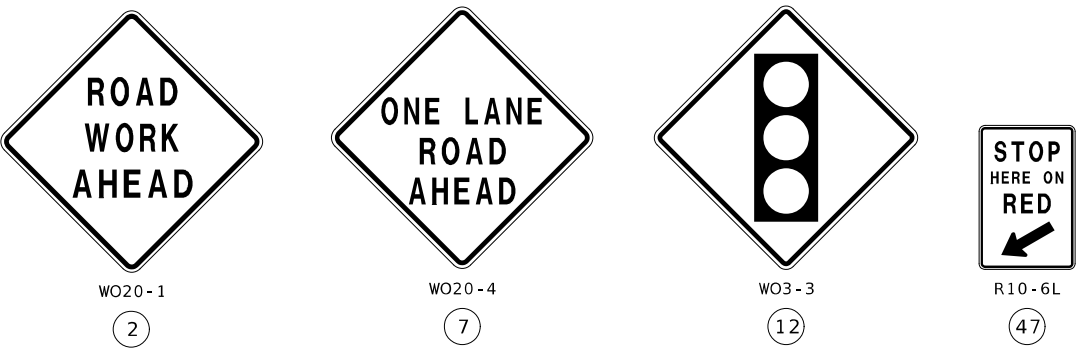
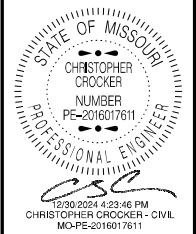


DATE PREPARED  
12/10/2024  
ROUTE STATE  
BB MO  
DISTRICT SHEET NO.  
SE 6  
COUNTY  
STODDARD  
JOB NO.  
JSE0122  
CONTRACT ID.  
PROJECT NO.  
BRIDGE NO.

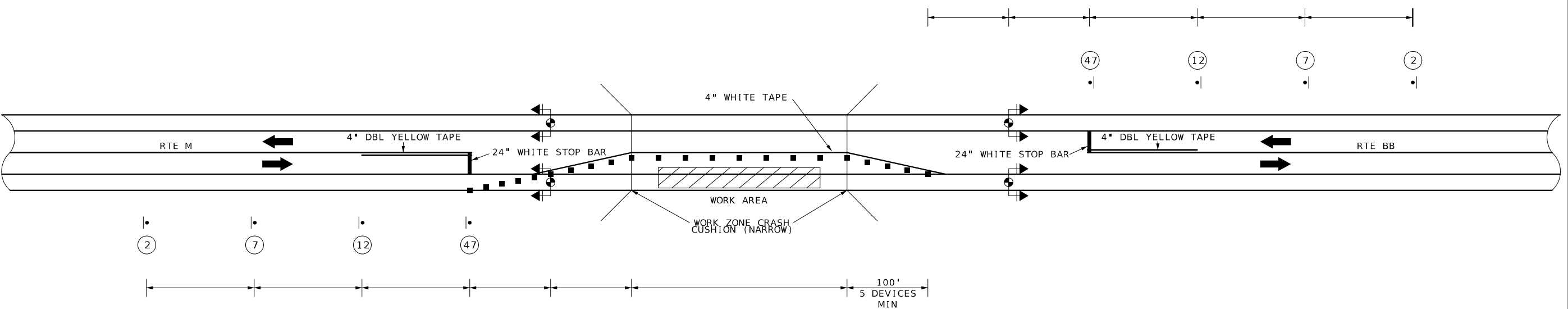
DESCRIPTION	DATE

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

TRAFFIC CONTROL SHEET 1 OF 2



DATE PREPARED	
12/10/2024	
ROUTE	STATE
BB	MO
DISTRICT	SHEET NO.
SE	7
COUNTY	
STODDARD	
JOB NO.	
JSE0122	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	



### LANE CLOSURE WITH SIGNALS FOR BRIDGE WORK

NOTES:

- DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS.
- ANY EXISTING SIGNING THAT CONFLICTS WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.
- NO PAYMENT WILL BE MADE FOR RELOCATION OF CONSTRUCTION SIGNS.
- CONTRACTOR SHALL CONSULT WITH THE ENGINEER REGARDING PHASING, INTERCONNECTION AND OPERATION OF SIGNALS PRIOR TO ENGINEER'S APPROVAL OF SIGNAL INSTALLATIONS

DRAWING NOT TO SCALE. FOLLOW DIMENSIONS

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



U.I.P. & REHABILITATE EXISTING (60') PRESTRESSED CONCRETE CORED SLAB SPAN (SKEW: SQUARED)



DATE PREPARED  
12/19/2024

ROUTE STATE  
BB MO

DISTRICT SHEET NO.  
BR 1

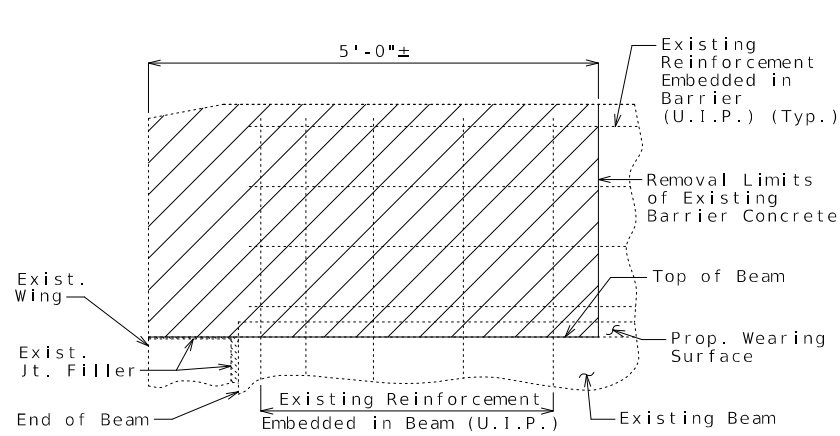
COUNTY  
STODDARD

JOB NO.  
JSE0122

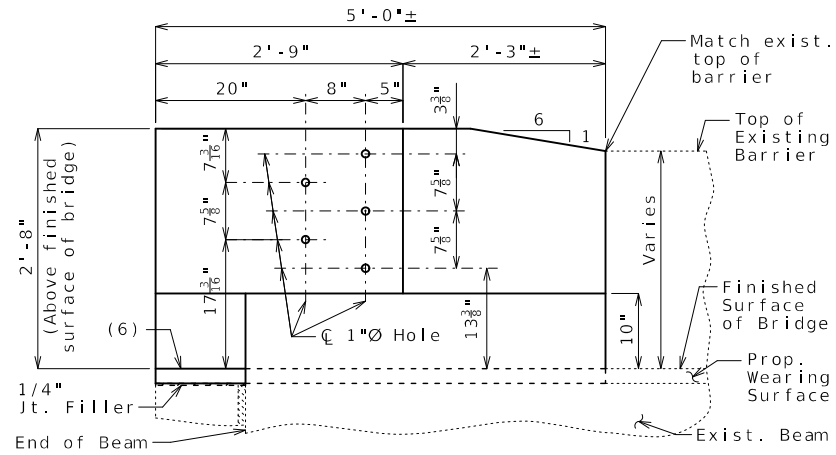
CONTRACT ID.

PROJECT NO.

BRIDGE NO.  
B04881



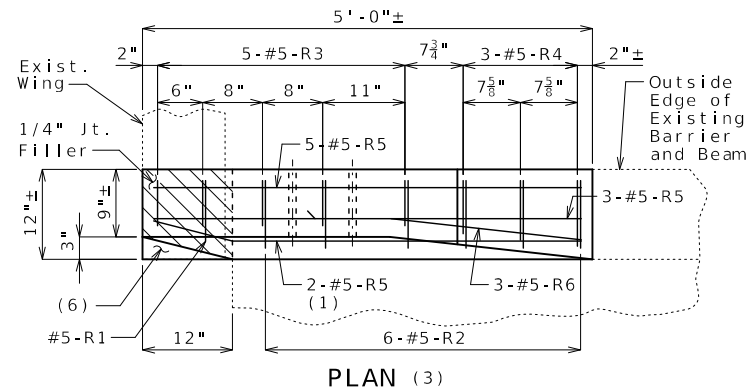
PART ELEVATION SHOWING CONCRETE REMOVAL



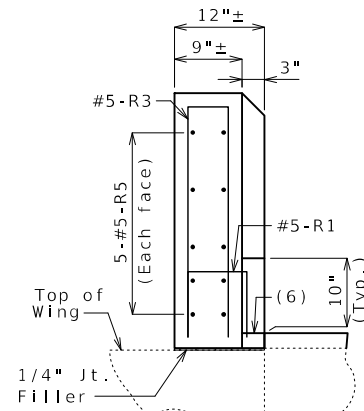
ELEVATION

**Estimated Quantities**

Item	Total
Barrier End Modification	each 4

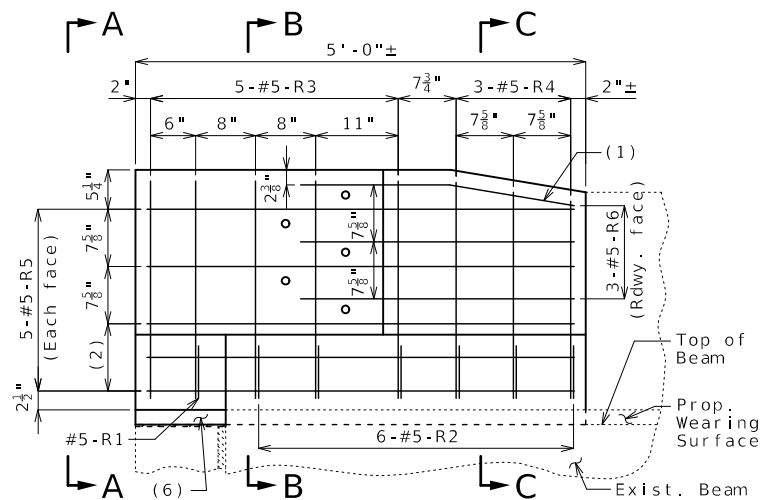


PLAN (3)

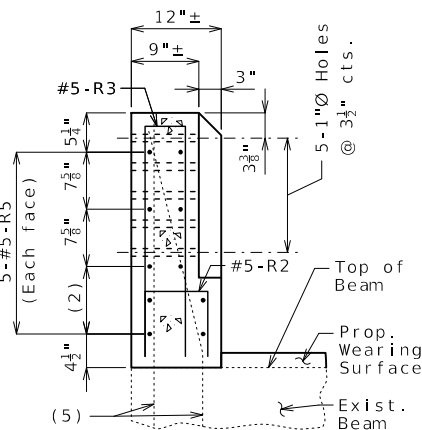


ELEVATION A-A

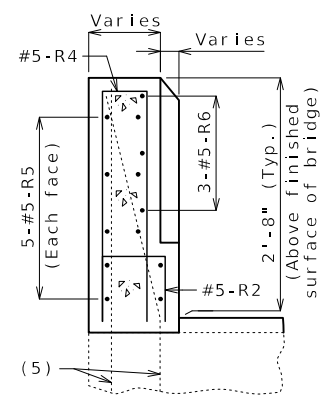
- (1) Bend in field.
- (2) 2 Spa. @ 4 1/2"
- (3) Existing reinforcement not shown for clarity.
- (4) Existing longitudinal reinforcement not shown for clarity.
- (5) Existing reinforcement embedded in beam (U.I.P.) ( Bend in field as needed) (Typ.)
- (6) Fill with mortar or concrete.



ELEVATION SHOWING REINFORCEMENT (3)



SECTION B-B (4)



SECTION C-C (4)

**General Notes:**

Design Specifications:  
2002 AASHTO LFD (17th Ed.) Standard Specifications

Design Unit Stresses:  
Class B-1 Concrete f'c = 4,000 psi  
Reinforcing Steel (Grade 60) fy = 60,000 psi

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

Miscellaneous:  
One lane of traffic shall remain open during construction. See roadway plans for traffic control.

All exposed edges of barrier shall have either a 1/2-inch radius or a 3/8-inch bevel, unless otherwise shown.  
Outline of existing work is indicated by light dashed lines. Heavy lines indicate new work.

All reinforcement in barrier end modification shall be epoxy coated.

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

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

Cost of removing existing barrier concrete, and cost of furnishing and installing new concrete, new reinforcing steel, and any other work incidental to the barrier end modification, complete in place, will be considered completely covered by the contract unit price for Barrier End Modification.

For details of proposed wearing surface see Roadway Plans (Roadway Item).

**BARRIER MODIFICATION FOR GUARDRAIL ATTACHMENT**

REPAIRS TO BRIDGE: B0488  
ROUTE BB OVER DRAINAGE DITCH #11

ROUTE BB FROM ROUTE K TO ROUTE C  
ABOUT 2.2 MILES N OF ROUTE K  
BEGINNING STATION 99+95.50± (MATCH EXISTING)

DESCRIPTION

DATE

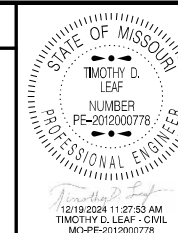
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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



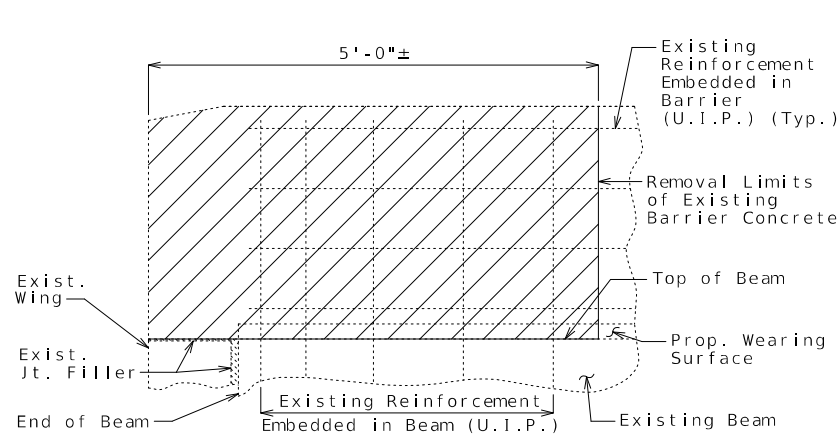
U.I.P. & REHABILITATE EXISTING (75',30') PRESTRESSED CONCRETE CORED SLAB SPAN (SKEW: 30° R.A.)



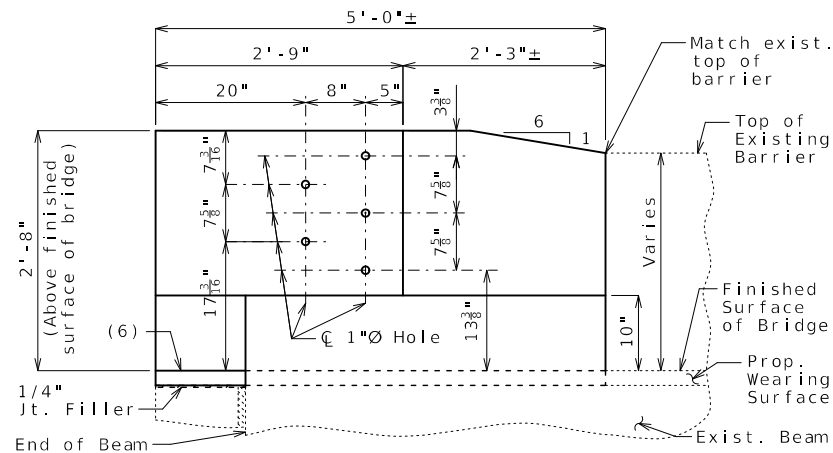
DATE PREPARED  
12/19/2024  
ROUTE BB STATE MO  
DISTRICT BR SHEET NO. 1

COUNTY STODDARD  
JOB NO. JSE0122  
CONTRACT ID.

PROJECT NO.  
BRIDGE NO. B04891

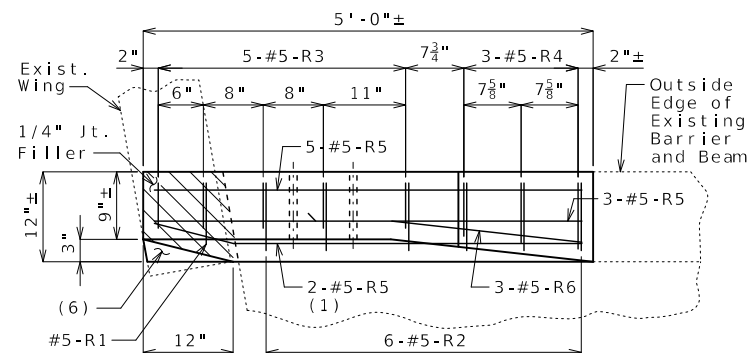


PART ELEVATION SHOWING CONCRETE REMOVAL

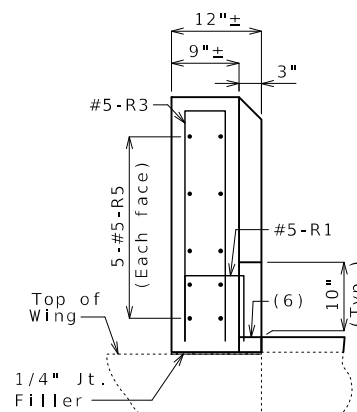


ELEVATION

Estimated Quantities		
Item	each	Total
Barrier End Modification	4	4



PLAN (3)



ELEVATION A-A

- (1) Bend in field.
- (2) 2 Spa. @ 4 1/2"
- (3) Existing reinforcement not shown for clarity.
- (4) Existing longitudinal reinforcement not shown for clarity.
- (5) Existing reinforcement embedded in beam (U.I.P.) ( Bend in field as needed) (Typ.)
- (6) Fill with mortar or concrete.

General Notes:

Design Specifications:  
2002 AASHTO LFD (17th Ed.) Standard Specifications

Design Unit Stresses:  
Class B-1 Concrete f'c = 4,000 psi  
Reinforcing Steel (Grade 60) fy = 60,000 psi

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

Miscellaneous:  
One lane of traffic shall remain open during construction. See roadway plans for traffic control.

All exposed edges of barrier shall have either a 1/2-inch radius or a 3/8-inch bevel, unless otherwise shown.

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

All reinforcement in barrier end modification shall be epoxy coated.

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

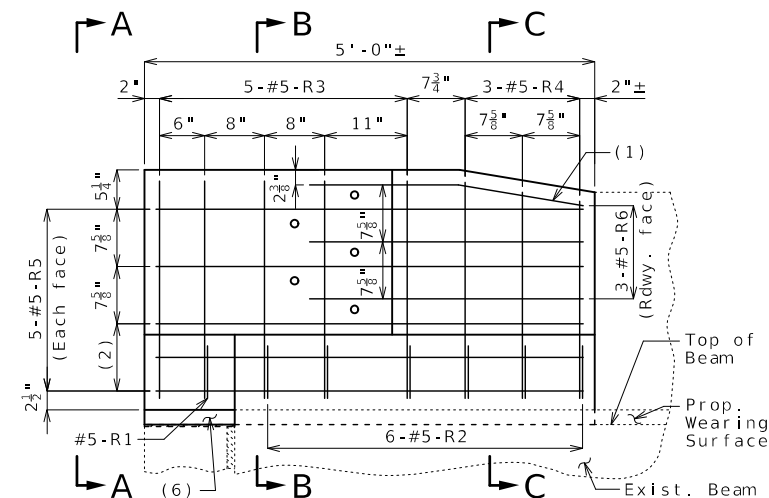
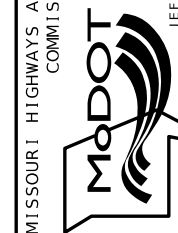
The area exposed by the removal of concrete and not covered with new concrete shall be coated with a qualified special mortar in accordance with Sec 704.

Cost of removing existing barrier concrete, and cost of furnishing and installing new concrete, new reinforcing steel, and any other work incidental to the barrier end modification, complete in place, will be considered completely covered by the contract unit price for Barrier End Modification.

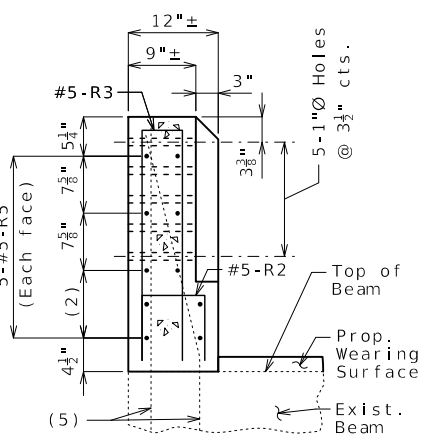
For details of proposed wearing surface see Roadway Plans (Roadway Item).

DESCRIPTION	DATE

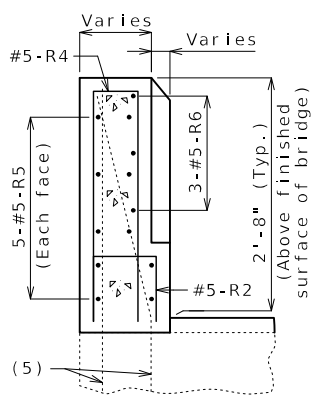
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  
105 WEST CAPITOL JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)



ELEVATION SHOWING REINFORCEMENT (3)



SECTION B-B (4)

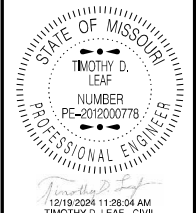
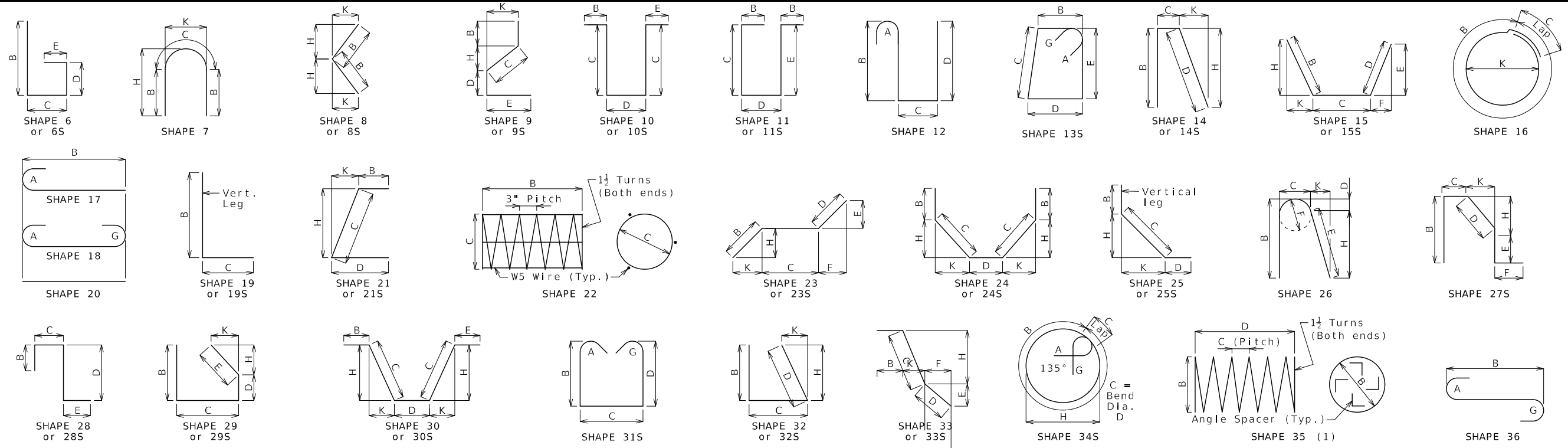


SECTION C-C (4)

BARRIER MODIFICATION FOR GUARDRAIL ATTACHMENT

REPAIRS TO BRIDGE: B0488  
ROUTE BB OVER LITTLE RIVER

ROUTE BB FROM ROUTE K TO ROUTE C  
ABOUT 2.8 MILES N OF ROUTE K  
BEGINNING STATION 99+91.67± (MATCH EXISTING)



DATE PREPARED  
**12/19/2024**

ROUTE **BB** STATE **MO**

DISTRICT **BR** SHEET NO. **2**

COUNTY  
**STODDARD**

JOB NO.  
**JSE0122**

CONTRACT ID.

PROJECT NO.

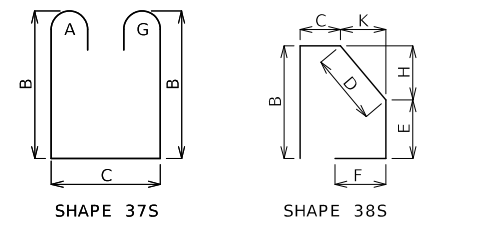
BRIDGE NO.  
**B04891**

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

Stirrup Pin Bend Shapes (S)							
Size	Case	D	A or G		H	J	
			90°	135°			180°
#4	2	2"	4 1/2"	4 1/2"	5"	2 3/8"	3"
	3	3"	5"	5 1/4"	6"	3"	4"
#5	2	2 1/2"	5 3/4"	5 3/4"	5 3/4"	3 7/8"	3 3/4"
	3	3 3/4"	6 1/4"	6 1/2"	7"	3 7/8"	5"
#6	1	4 1/2"	12"	7 3/4"	8 1/4"	4 7/8"	6"

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



**BENDING DIAGRAMS**

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

All bars shall be Grade 60.

Codes: C = Required coatings, where E = Epoxy Coated and G = Galvanized.  
 SH = Required shape, see bending diagrams.

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

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

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

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

By Size	Reinforcing Steel Totals (Pounds)							
	Size	Substructure		Superstructure			Entire Bridge	
		Plain	Epoxy	Slab	Barrier	Slip Form	Plain	Epoxy
4	0	0	0	0	0	0	0	
5	0	0	0	473	0	0	473	
6	0	0	0	0	0	0	0	
7	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	
By Type	0	0	0	473	0	0	473	

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

Bill of Reinforcing Steel														
No. Req.	Size/Mark	Location	Codes	Dimensions							Nom. Length	Actual Length	Weight	
				B	C	D	E	F	H	K				
				ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	lb
End Post Mod.														
4	5 R1	MODIFIED END	E 10S			9.00	8.00					2 2	1 11	8
24	5 R2	MODIFIED END	E 10S			9.00	9.00					2 3	2 0	50
20	5 R3	MODIFIED END	E 10S			2 7.00	6.00					5 8	5 5	113
12	5 R4	MODIFIED END	E 10S 4			2 6.75	7.00					5 9	5 6	67
						2 4.25	8.50					5 5	5 2	67
						4 9.00						4 9	4 9	198
12	5 R6	MODIFIED END	E 15S			11.25	2 1.50			1.25	11.25	3 1	2 11	37

**BENDING DIAGRAMS AND REINFORCING STEEL TOTALS**

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

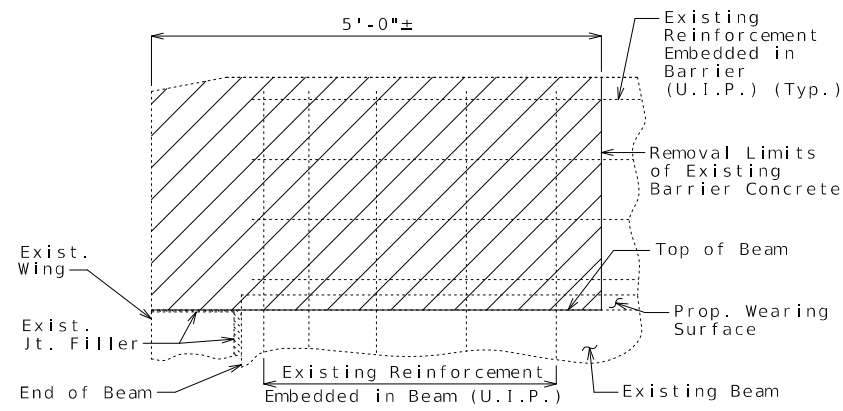
105 WEST CAPITOL JEFFERSON CITY, MO 65102  
 1-888-ASK-MODOT (1-888-275-6636)

U.I.P. & REHABILITATE EXISTING (40', 40') SIMPLE PRESTRESSED CONCRETE CORED SLAB SPANS & (90') SIMPLE PRESTRESSED CONCRETE BOX BEAM SPAN (SKEW: SQUARED)

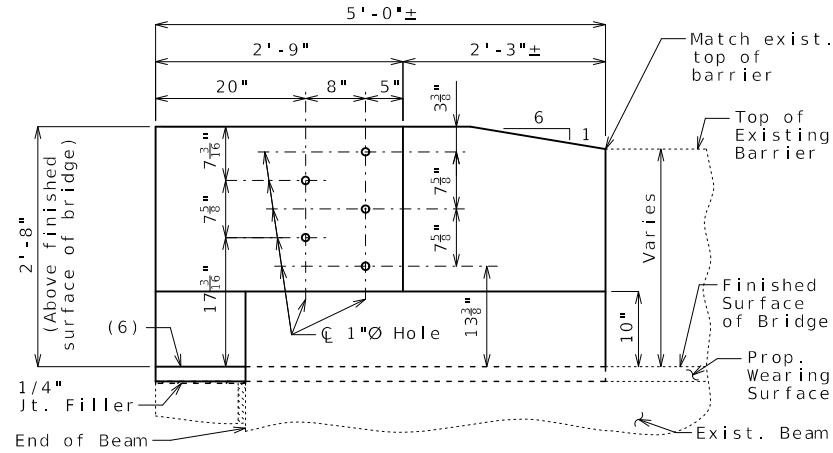


DATE PREPARED 12/19/2024	
ROUTE BB	STATE MO
DISTRICT BR	SHEET NO. 1
COUNTY STODDARD	
JOB NO. JSE0122	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. B05451	

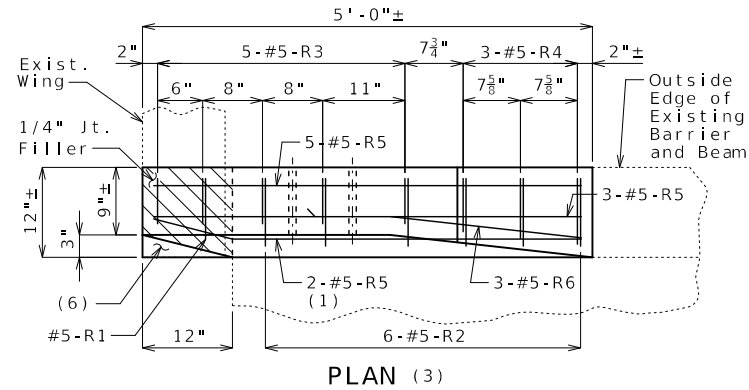
Estimated Quantities		
Item	each	Total
Barrier End Modification	4	4



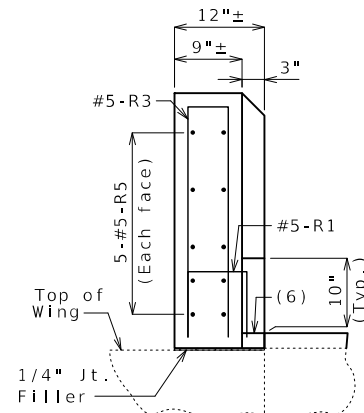
PART ELEVATION SHOWING CONCRETE REMOVAL



ELEVATION

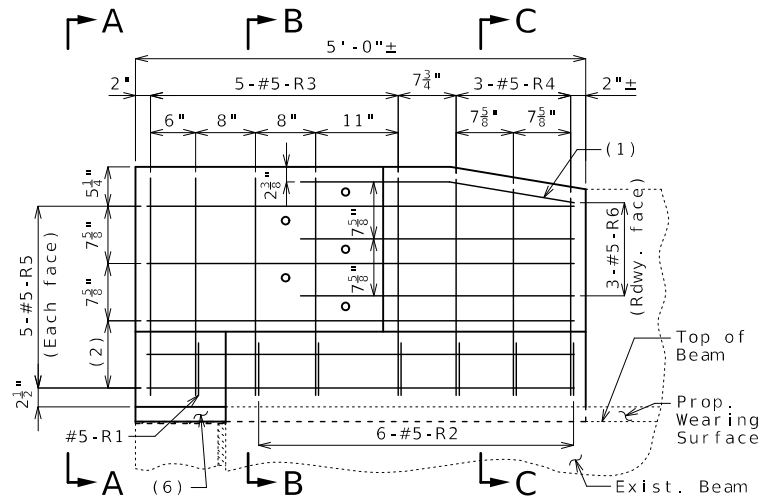


PLAN (3)

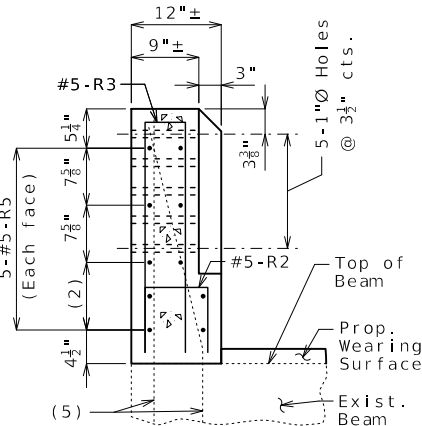


ELEVATION A-A

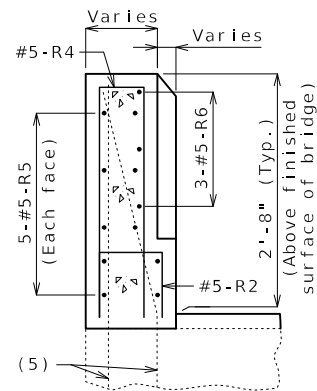
- (1) Bend in field.
- (2) 2 Spa. @ 4 1/2"
- (3) Existing reinforcement not shown for clarity.
- (4) Existing longitudinal reinforcement not shown for clarity.
- (5) Existing reinforcement embedded in beam (U.I.P.) (Bend in field as needed) (Typ.)
- (6) Fill with mortar or concrete.



ELEVATION SHOWING REINFORCEMENT (3)



SECTION B-B (4)



SECTION C-C (4)

General Notes:

Design Specifications:  
2002 AASHTO LFD (17th Ed.) Standard Specifications

Design Unit Stresses:  
Class B-1 Concrete f'c = 4,000 psi  
Reinforcing Steel (Grade 60) fy = 60,000 psi

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

Miscellaneous:  
One lane of traffic shall remain open during construction. See roadway plans for traffic control.

All exposed edges of barrier shall have either a 1/2-inch radius or a 3/8-inch bevel, unless otherwise shown.  
Outline of existing work is indicated by light dashed lines. Heavy lines indicate new work.

All reinforcement in barrier end modification shall be epoxy coated.

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

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

Cost of removing existing barrier concrete, and cost of furnishing and installing new concrete, new reinforcing steel, and any other work incidental to the barrier end modification, complete in place, will be considered completely covered by the contract unit price for Barrier End Modification.

For details of proposed wearing surface see Roadway Plans (Roadway Item).

BARRIER MODIFICATION FOR GUARDRAIL ATTACHMENT

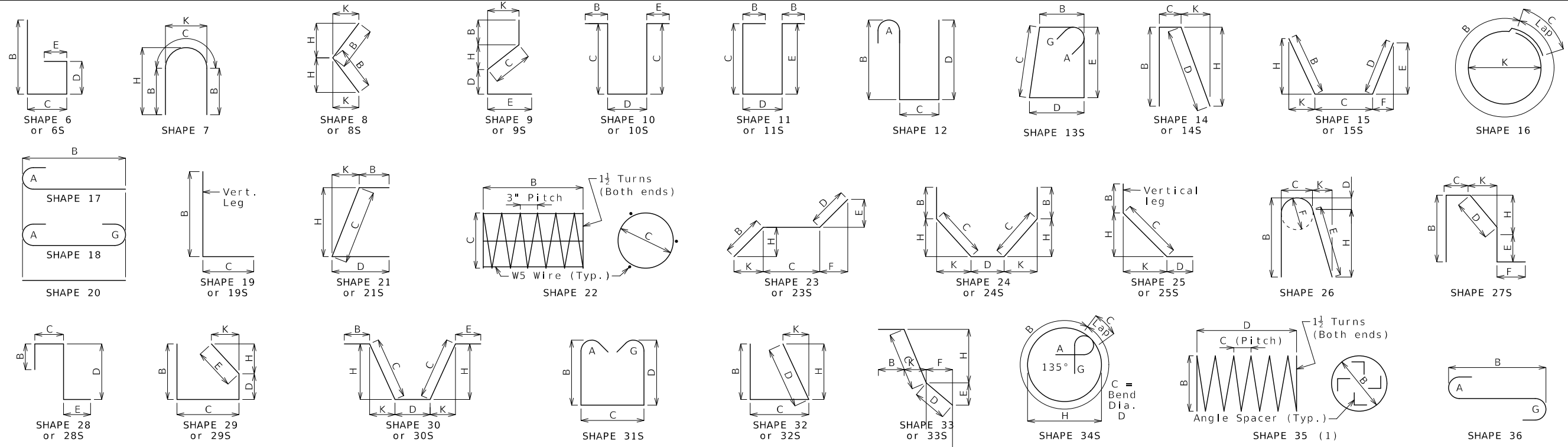
REPAIRS TO BRIDGE: B0545  
ROUTE BB OVER CASTOR RIVER

ROUTE BB FROM ROUTE M TO ROUTE K  
ABOUT 1.8 MILES N OF ROUTE M  
BEGINNING STATION 100+13.00± (MATCH EXISTING)

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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

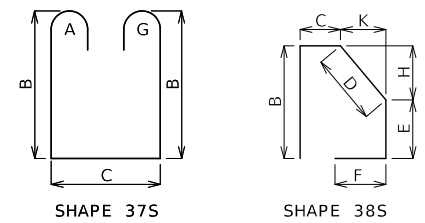
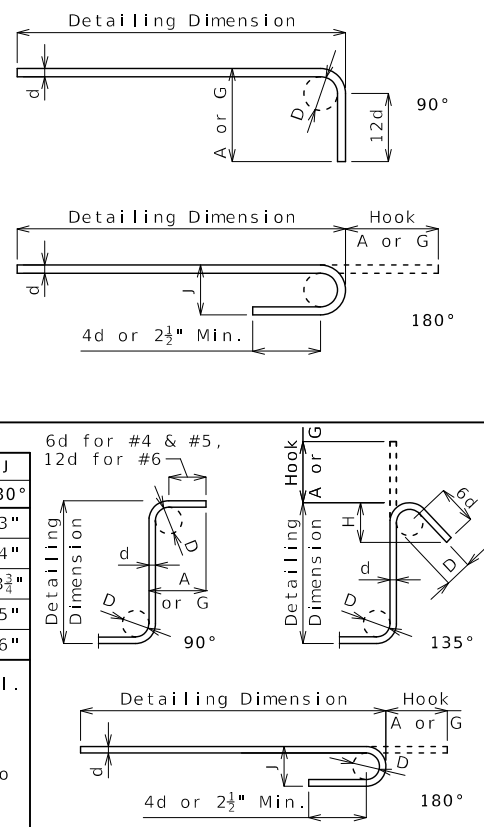


**Finished Bend Diameters D and Hook Dimensions**

Standard Pin Bend Shapes					
Size	Case	D	A or G		J
			90°	180°	180°
#4	1	3"	8"	6"	4"
#5	1	3½"	10"	7"	5"
#6	1	4½"	12"	8½"	6"
	2	5¼"	14"	9¾"	7"
#7	3	7"	15"	11½"	8¾"
	2	6"	16"	11"	8"
#8	3	8"	17"	13¼"	10"
	1	9½"	19½"	15½"	11¼"
#10	1	10¾"	22"	17½"	13¼"
#11	1	12"	24½"	19½"	14¾"
#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"	2½"	3"
	3	3"	5"	5¼"	6"	3"	4"
#5	2	2½"	5¼"	5¼"	5¾"	3⅝"	3¾"
	3	3¾"	6¼"	6¼"	7"	3⅝"	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.  
All bars shall be Grade 60.  
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. (1) Shall be a deformed or plain spiral bar or wire.  
Shapes ending with an S shall be bent in accordance with stirrup pin bend shapes.  
Unless otherwise noted, finished bending diameter D is the same for all bends of a shape.  
Four angle or channel spacers are required for each column spiral. Spacers are to be placed on inside of spirals. Length and weight of column spirals do not include splices or spacers.

**Reinforcing Steel Totals (Pounds)**

Size	Substructure		Superstructure			Entire Bridge	
	Plain	Epoxy	Slab	Barrier	Slip Form	Plain	Epoxy
	By Type						
4	0	0	0	0	0	0	0
5	0	0	0	473	0	0	473
6	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0
By Type		0	0	0	473	0	473

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

**Bill of Reinforcing Steel**

No. Req.	Size/Mark	Location	Codes	Dimensions							Nom. Length	Actual Length	Weight		
				B	C	D	E	F	H	K					
				ft	in.	ft	in.	ft	in.	ft				in.	ft
		End Post Mod.													
4	5 R1	MODIFIED END	E 10S		9.00	8.00						2 2	1 11	8	
24	5 R2	MODIFIED END	E 10S		9.00	9.00						2 3	2 0	50	
20	5 R3	MODIFIED END	E 10S		2 7.00	6.00						5 8	5 5	113	
12	5 R4	MODIFIED END	E 10S 4		2 6.75	7.00						5 9	5 6	67	
		Incr. = 2.000"			2 4.25	8.50						5 5	5 2	67	
40	5 R5	MODIFIED END	E 20	4	9.00							4 9	4 9	198	
12	5 R6	MODIFIED END	E 15S		11.25	2 1.50				1.25	11.25	3 1	2 11	37	

**BENDING DIAGRAMS AND REINFORCING STEEL TOTALS**

STATE OF MISSOURI  
TIMOTHY D. LEAF  
NUMBER  
PE-201200778  
PROFESSIONAL ENGINEER

DATE PREPARED  
12/19/2024

ROUTE	STATE
BB	MO
DISTRICT	SHEET NO.
BR	2

COUNTY  
STODDARD

JOB NO.  
JSE0122

CONTRACT ID.

PROJECT NO.

BRIDGE NO.  
B05451

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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