

DESIGN DESIGNATION

A.A.D.T. I-44 (2025) = 56,859
A.A.D.T. I-44 (2050) = 75,782
TRUCKS = 27.2%
DHV = 30.0%
DESIGN SPEED = 60 M.P.H.
D = 50.7%

FUNCTIONAL CLASSIFICATION - INTERSTATE

FULLY CONTROLLED ACCESS HIGHWAY

THIS SHALL BE A FULLY CONTROLLED ACCESS HIGHWAY. NO ABUTTING OWNERSHALL HAVE THE RIGHT OF DIRECT ACCESS TO SAID HIGHWAY OR ITS RIGHT-OF-WAY EXCEPT THAT ACCESS WILL BE PERMITTED TO ANY ADJACENT OUTER ROADWAY OR SERVICE ROAD TO WHICH ACCESS IS NOT SPECIFICALLY PROHIBITED BY THE SPECIAL SYMBOL DENOTING "NO RIGHT OF ACCESS" AS SHOWN ON THE PLANS. NO ACCESS WILL BE PERMITTED FROM OUTER ROADWAYS AND SERVICE ROADS TO THROUGHWAYS EXCEPT ALONG ROUTES CONSTRUCTED FOR THAT PURPOSE. OUTER ROADWAYS AND SERVICE ROADS, AS THE CASE MAY BE, ARE SO DESIGNATED ON THE PLANS.

 BEGINNING AND ENDING OF CONTROLLED ACCESS

 CONTROLLED ACCESS

 NO RIGHT OF ACCESS OR CROSSING OF LINES BEARING THIS SYMBOL WILL BE PERMITTED UNDER ANY CIRCUMSTANCES.

 TEMPORARY ACCESS THROUGH FUTURE NO RIGHT OF ACCESS

NO NEW ROW

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		
WOVEN WIRE		
GATE POST		
BENCHMARK		
REMOVE		(R)
USE IN PLACE		(UIP)
ADJUST TO GRADE		(ATG)
DO NOT DISTURB		(DND)
BY OTHERS		(BO)
TO BE ABANDONED		(TBA)
SLOPE LIMITS		SL

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

 N.T.S.

JOB JS10088B
 JOB J8I3044C
 SECTION 01 T29N R22W SECTION 02 T29N R22W
 SECTION 03 T29N R22W SECTION 06 T29N R21W

JOB JSU0076
 SECTION 03 T29N R21W SECTION 04 T29N R21W
 SECTION 05 T29N R21W SECTION 06 T29N R21W

PROJECT LIMITS GRADING, PAVING, DRAINAGE.

PROJECT LIMITS - BRIDGE, MSE WALL, LIGHTING, SIGNING

A9413: I-44 EB OVER BROADWAY
A9414: I-44 WB OVER BROADWAY
A9417: I-44 EB OVER GRANT
A9418: I-44 WB OVER GRANT
A9421: I-44 EB OVER NATIONAL
A9422: I-44 WB OVER NATIONAL

JOB JST0088B
JOB JSU0076 JOB J813044C

STA. 1071+99.40 BEGIN PROJECT
STA. 1213+22.32
STA. 1320+42.46 END PROJECT

GRANT AVE. BRIDGE #A0445
TRIPLE BOX CULVERT #A0446
BROADWAY AVE. BRIDGE #A0444
NATIONAL AVE. BRIDGE #A0447

KEARNEY ST.
DIVISION ST.
CHESTNUT EXPWY.
GLENSTONE AVE.

LOOP 44
BUS 65

SPRINGFIELD

WEST BYPASS
KANSAS EXPRESSWAY

160
13
65
44

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.

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KEY MAP
SHOWING LOCATION OF GREENE COUNTY

DESCRIPTION	SHEET NUMBER
TITLE SHEET -----	1
TYPICAL SECTIONS (TS) (38 SHEETS)---	2
QUANTITIES (QU) (55 SHEETS)-----	3
PLAN PROFILE SHEETS (PP)-----	4-25
REFERENCE POINTS (RP)-----	26-27
COORDINATE POINTS (CP)-----	28-29
SPECIAL SHEETS (SS)-----	30-49
TRAFFIC CONTROL (TC) -----	50-188
EROSION CONTROL (EC)-----	189-215
LIGHTING (LT) -----	216-232
CITY UTILITIES (CU) -----	E1
IT SYSTEMS (IT) -----	233-237
SIGNING (SN)-----	238-274
PAVEMENT MARKING (PM)-----	275-283
CULVERT SECTIONS (CS)-----	284-317
BRIDGE DRAWINGS (B)	
A9413-----	1-31
A9414-----	1-30
A9415-----	1-9
A9416-----	1-8
A9417-----	1-31
A9418-----	1-32
A9419-----	1-9
A9420-----	1-10
A9421-----	1-30
A9422-----	1-30
A9423-----	1-9
A9424-----	1-9
CROSS SECTIONS (XS)-----	1-198

<u>I-44 JST0088B</u>	
BEGINNING OF PROJECT	STA. 1071+99.40
END OF PROJECT	STA. 1320+42.46
APPARENT LENGTH	24,843.06 FEET
EQUATIONS AND EXCEPTIONS:	12.35 FEET
NET LENGTH	24,830.71 FEET
<u>I-44 JSU0076</u>	
BEGINNING OF PROJECT	STA. 1071+99.40
END OF PROJECT	STA. 1213+22.32
APPARENT LENGTH	14,122.92 FEET
EQUATIONS AND EXCEPTIONS:	6.76 FEET
NET LENGTH	14,116.16 FEET
<u>I-44 J813044C</u>	
BEGINNING OF PROJECT	STA. 1213+22.32
END OF PROJECT	STA. 1320+42.46
APPARENT LENGTH	10,720.14 FEET
EQUATIONS AND EXCEPTIONS:	5.59 FEET
NET LENGTH	10,714.55 FEET
<u>PROJECT</u>	
APPARENT LENGTH OF PROJECT	24,843.06 FEET
TOTAL PROJECT CORRECTIONS	12.35 FEET
NET LENGTH OF PROJECT	24,830.71 FEET
STATE LENGTH	4.703 MILES
<u>PROJECT EQUATIONS</u>	
STA. 1092+80.28 BK = STA. 1092+83.20 AH	
STA. 1190+00.00 BK = STA. 1190+03.84 AH	
STA. 1279+56.21 BK = STA. 1279+61.80 AH	
<u>ESTIMATED DISTURBED AREA</u>	
I-44 JSU0076	65.78 ACRES
I-44 J813044C	45.20 ACRES

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

EQUIVALENT PAVEMENT DESIGNS				
CATEGORY	BASE TYPE *	HMA DESIGN	PCCP DESIGN	SHOULDERS
I-44 MAINLINE & RAMPS	12" ROCK BASE *	15.0" HMA 2" SP125BSM W/PG 76-22 OVER 2" SP125B W/PG 76-22 OVER 11" SP250C W/PG 64-22	11.5" PCCP 15" JOINTS 1 1/2" DOWELS	A2 OR FULL DEPTH
	18" ROCK BASE *	14.0" HMA 2" SP125BSM W/PG 76-22 OVER 2" SP125B W/PG 76-22 OVER 10" SP250C W/PG 64-22	11.5" PCCP 15" JOINTS 1 1/2" DOWELS	A2 OR FULL DEPTH

* DESIGNS FOR ALTERNATE PAVEMENT DESIGNS - GRADING, BASE AND PAVING, SEE JSPS.

ASPHALT APPLICATION RATES:
ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125BSM MIX)= 1.950 TON/C.Y. @ 6.3%
ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125B MIX)= 1.985 TON/C.Y. @ 5.4%
ASPHALTIC CONCRETE MIXTURE PG 64-22 (SP250C MIX)= 2.005 TON/C.Y. @ 4.3%

TACK COAT 0.05 GAL/S.Y.

NOTE: STATE FUNDS ARE ONLY UTILIZED FOR EXISTING THROUGH LANE PAVEMENT REMOVAL, REPLACEMENT, & NEW OPTIONAL ROCK BASE.

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DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
2

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL

JEFFERSON CITY, MO 65102

1-888-ASK-MODOT (1-888-278-6636)

MoDOT

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ASPHALT ALTERNATES A & C

I-44 WIDENING

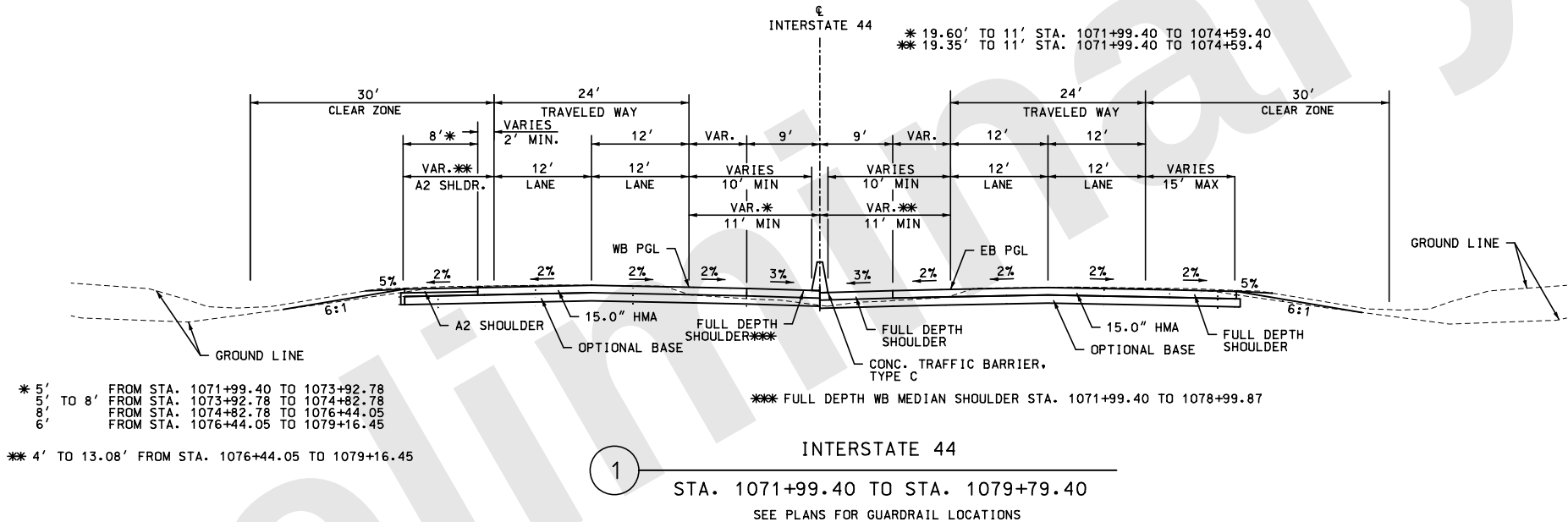
JSU0076 & JST0088B

TYPICAL SECTIONS

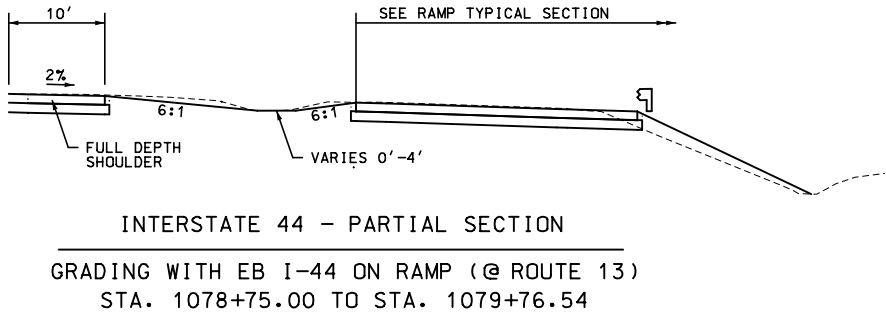
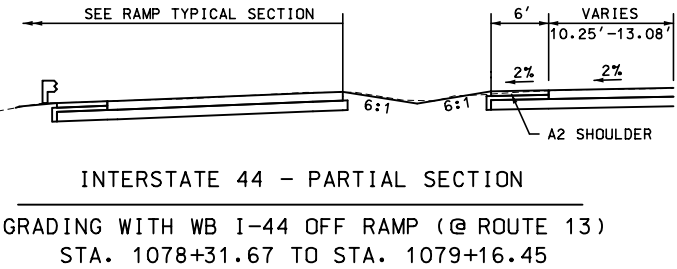
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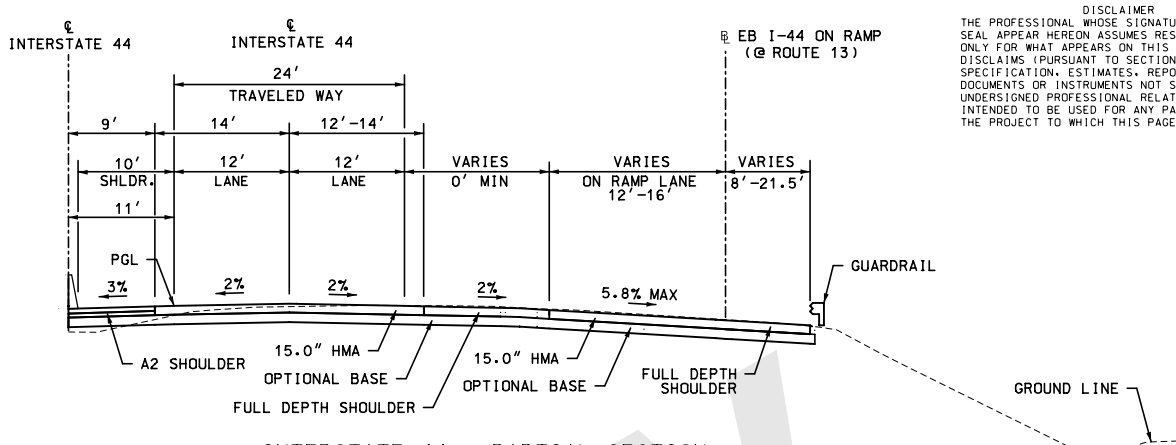
REV.

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- NOTES:
1. SEE PLAN SHEETS FOR SAWCUT LOCATIONS. NO DIRECT PAY FOR PAVEMENT SAWCUTS.
 2. WHEN CONCRETE OPTIONAL PAVEMENT IS USED, CONTRAST PAVEMENT MARKINGS ARE REQUIRED. NO DIRECT PAYMENT WILL BE MADE FOR CONTRAST MARKINGS.
 3. THE THINNER PAVEMENT OPTION OF EACH OPTIONAL PAIR WAS USED IN THE COMPUTATION OF EARTHWORK FOR THIS PROJECT.

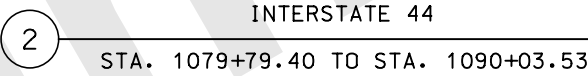




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INTERSTATE 44 - PARTIAL SECTION
EB I-44 ON RAMP (@ ROUTE 13)
STA. 1079+79.54 TO STA. 1081+80.56



INTERSTATE 44	* FULL DEPTH MEDIAN SHOULDER	STA. 1120+70.50 TO 1137+74.01
	** FULL DEPTH WB OUTSIDE SHOULDER	STA. 1116+49.08 TO 1141+41.27

STA. 1090+03.53 TO STA. 1094+19.40
STA. 1104+23.40 TO STA. 1107+39.16
STA. 1117+66.31 TO STA. 1125+29.57
STA. 1136+25.00 TO STA. 1152+53.81

SEE PLANS FOR GUARDRAIL LOCATIONS

ASPHALT
ALTERNATES A & C
I-44 WIDENING
JSU0076 & JST0088
TYPICAL SECTIONS
2 OF 38



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ROUTE	STATE
I-44	MO

DISTRICT	SHEET NO.
SW	2

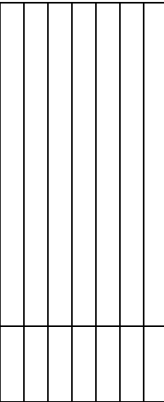
COUNTY
GREENE

JOB NO.
110076 18130446

& JST0088B

PROJECT NO.

BRIDGE NO.



5

SEE PLANS FOR GUARDRAIL LOCATIONS



6

SEE PLANS FOR GUARDRAIL LOCATIONS

I-44 WIDENING
JSU0076 & JST0088B

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ROUTE

I-44

STATE

MO

DISTRICT

SW

SHEET NO.

2

COUNTY

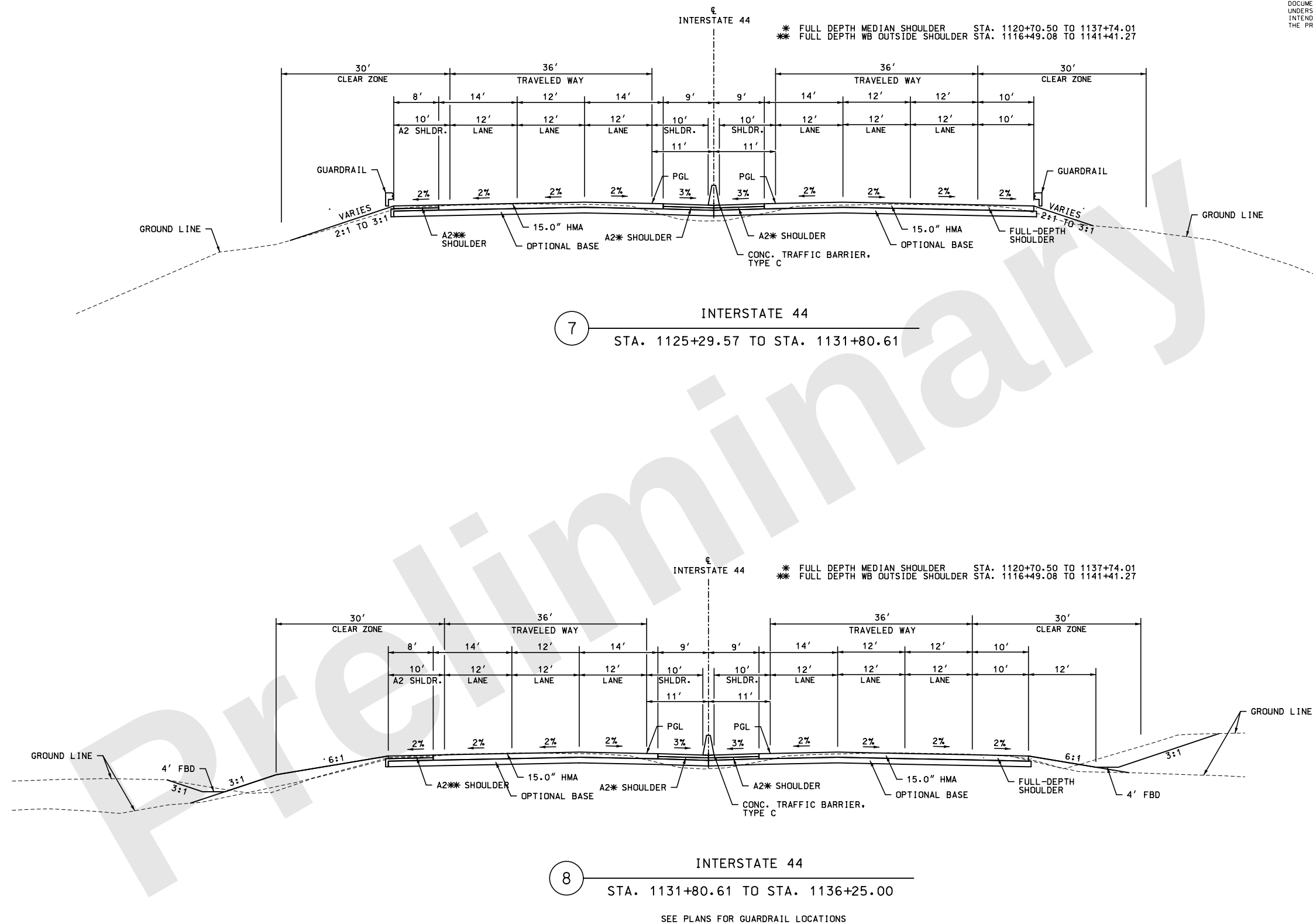
GREENE

JOB NO.

JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.



ASPHALT
ALTERNATES A & C
I-44 WIDENING
JSU0076 & JST0088B
TYPICAL SECTIONS
4 OF 38

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I-44	MO
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REENE

JSU0076, J8I3044C,

& JST0088B

PROJECT NO.

PROJECT NO.

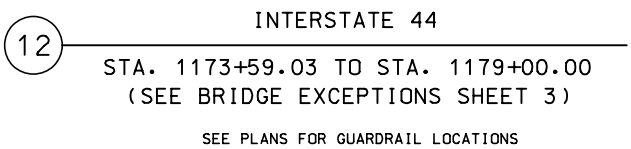
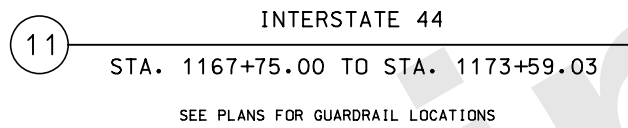
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ASPHALT
ALTERNATES A & C
I-44 WIDENING
JSU0076 & JST0088B
TYPICAL SECTIONS
6 OF 38

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9/26/2024

I-44	MO
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SW	2
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REENE

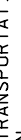
JSU0076, J8I3044C,

& JST0088B

PROJECT NO. _____

PROJECT NO.

BRIDGE NO.



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COMMISSION

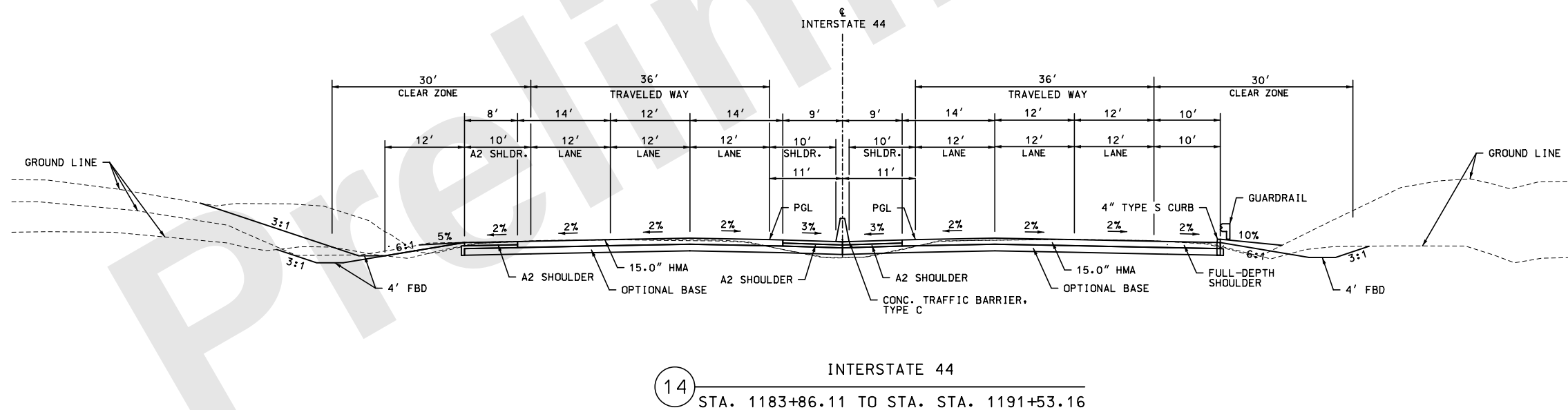
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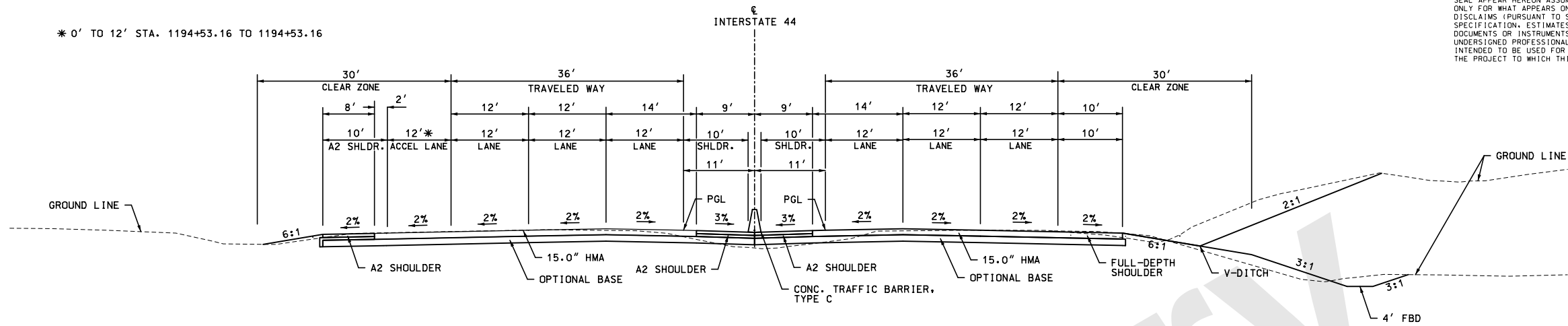
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REV.



* 0' TO 12' STA. 1194+53.16 TO 1194+53.16



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ROUTE

I-44

STATE

MO

DISTRICT

SW

SHEET NO.

2

COUNTY

GREENE

JOB NO.

JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

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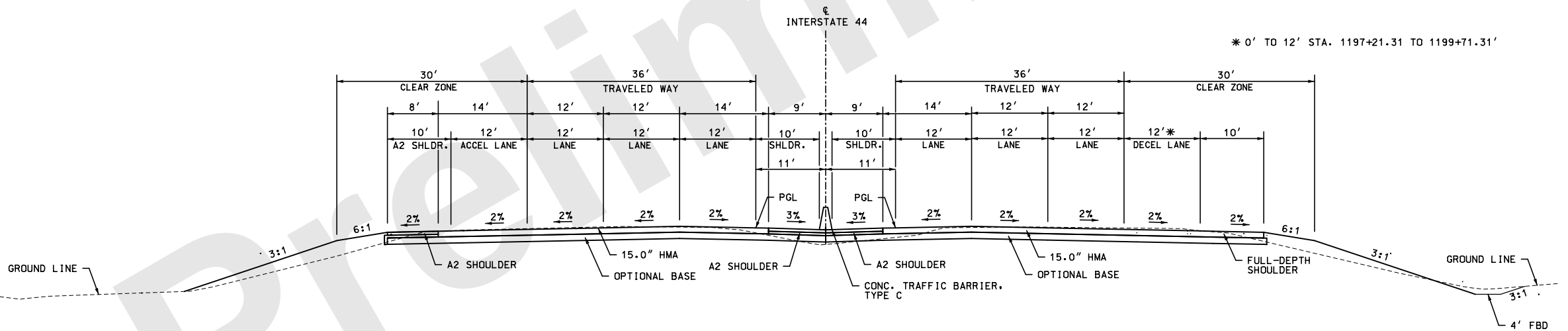
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STA. 1191+53.16 TO STA. 1197+21.31

SEE PLANS FOR GUARDRAIL LOCATIONS

INTERSTATE 44

* 0' TO 12' STA. 1197+21.31 TO 1199+71.31'



INTERSTATE 44

16

STA. 1197+21.31 TO STA. 1201+97.04

SEE PLANS FOR GUARDRAIL LOCATIONS

ASPHALT
ALTERNATES A & C

I-44 WIDENING
JSU0076 & JST0088B

TYPICAL SECTIONS
8 OF 38

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ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 2

BRIDGE NO.

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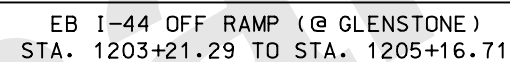
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TRANSPORTATION

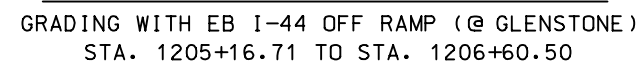
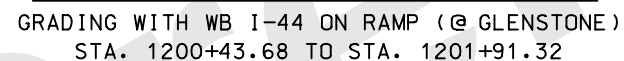
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TYPICAL SECTIONS
9 OF 38



* FULL DEPTH SHOULDER 1203+21.29 TO 1204+47.13



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ROUTE

I-44

STATE

MO

DISTRICT

SW

SHEET NO.

2

COUNTY

GREENE

JOB NO.

JSU0076, J813044C,

& JST0088B

PROJECT NO.

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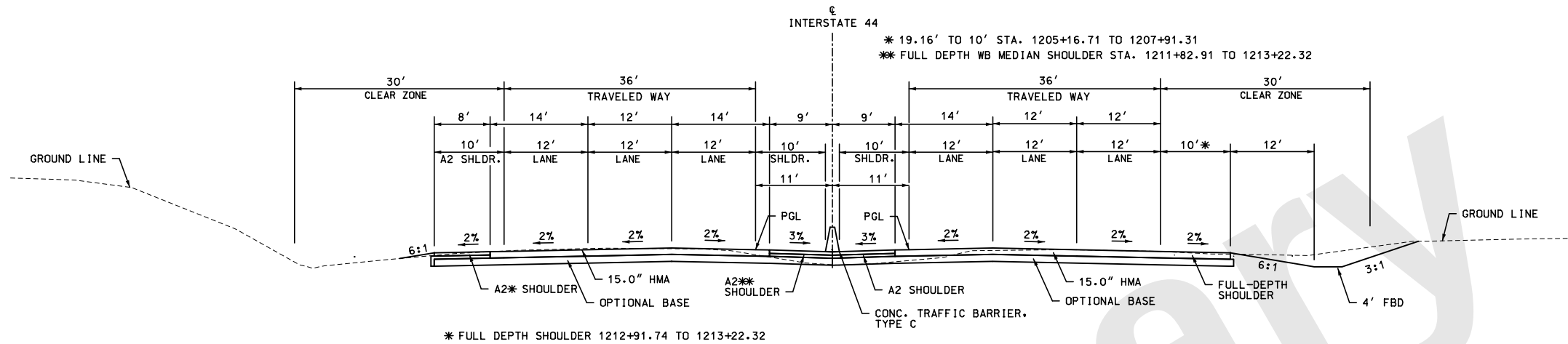
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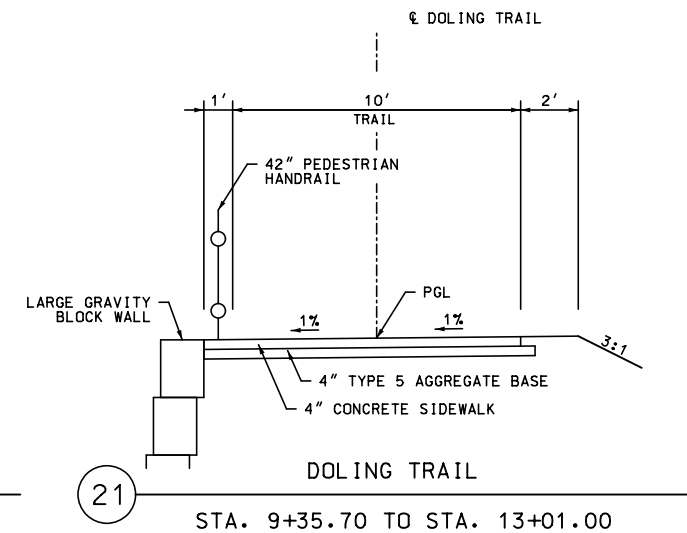
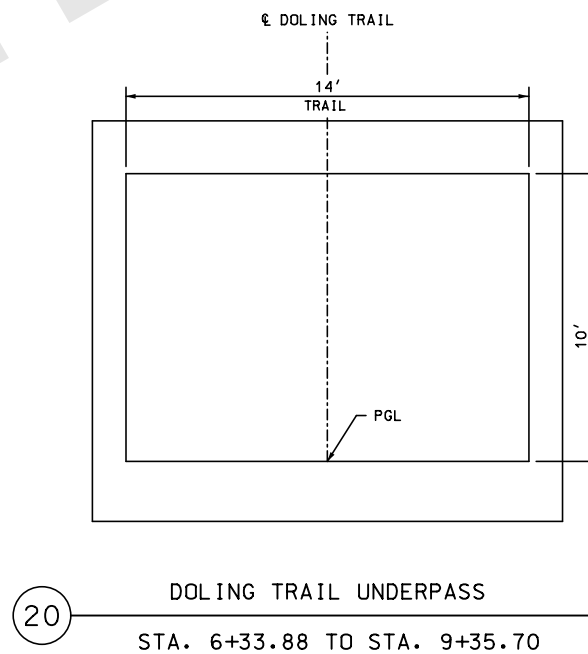
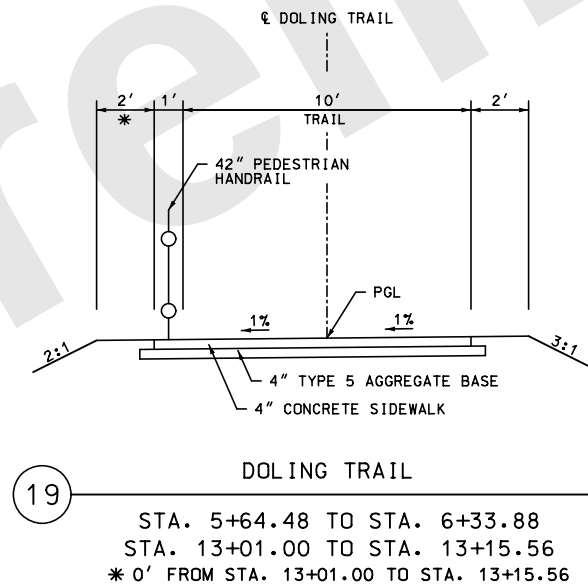
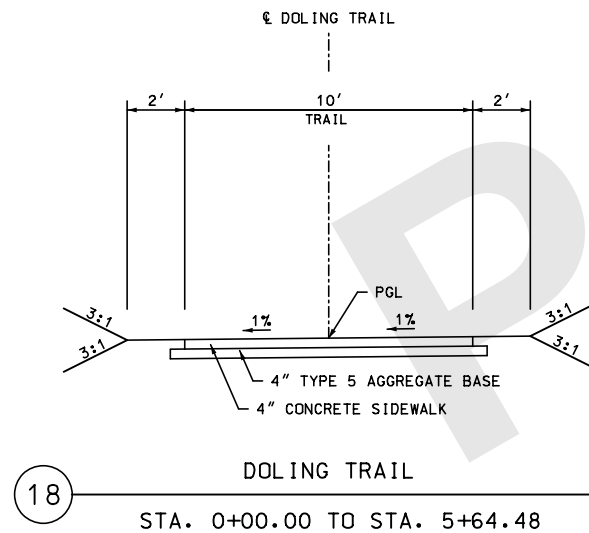
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17 INTERSTATE 44
STA. 1201+97.04 TO STA. STA. 1213+22.32
SEE PLANS FOR GUARDRAIL LOCATIONS



ASPHALT
ALTERNATES A & C
I-44 WIDENING
JSU0076 & JST0088B
TYPICAL SECTIONS
10 OF 38

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION
MoDOT
105 WEST CAPITOL
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9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
2

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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JEFFERSON CITY, MO 65102
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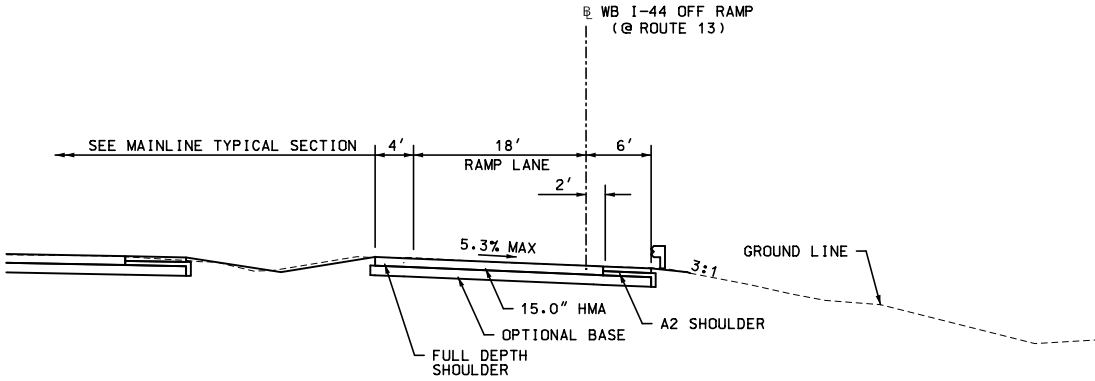
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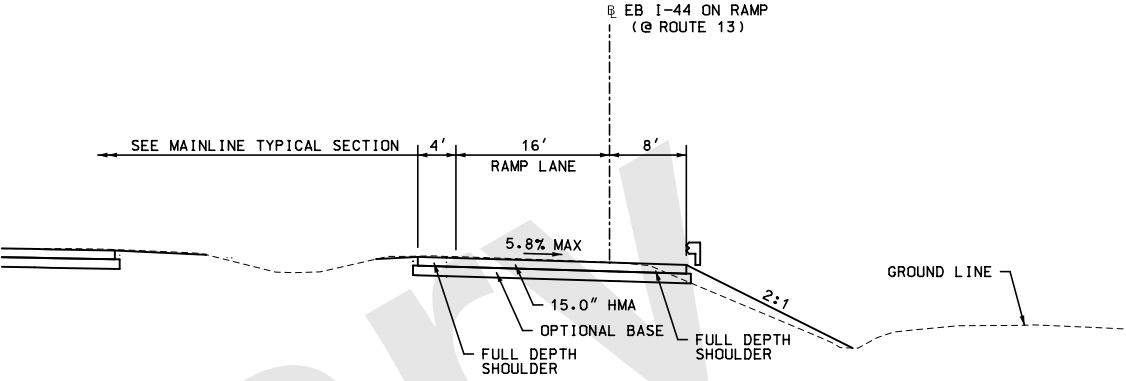
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ENGINEERING CORPORATION - 000631

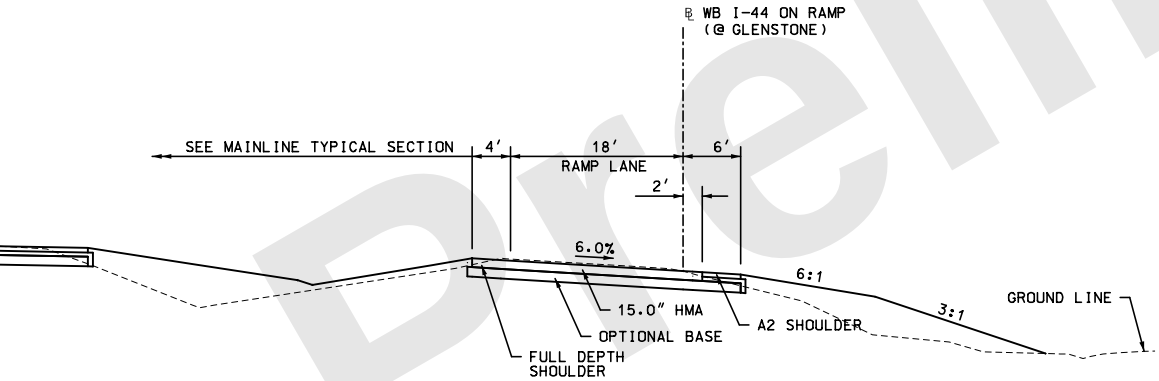
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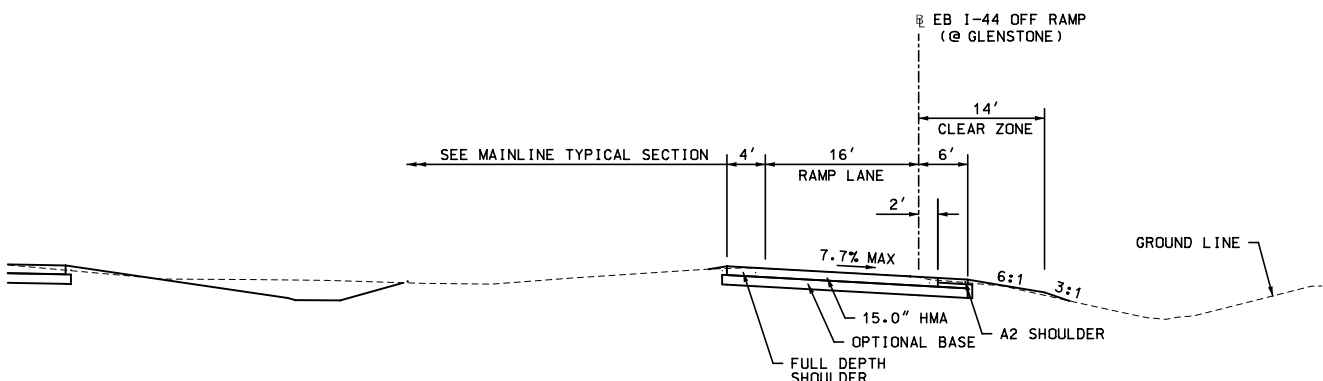
22 WB I-44 OFF RAMP (@ ROUTE 13)
STA. 2+21.42 TO STA. 3+09.04



23 EB I-44 ON RAMP (@ ROUTE 13)
STA. 2+06.55 TO STA. 3+91.49



24 WB I-44 ON RAMP (@ GLENSTONE)
STA. 3+17.00 TO STA. 4+77.13



25 EB I-44 OFF RAMP (@ GLENSTONE)
STA. 1+92.46 TO STA. 3+45.04

ASPHALT
ALTERNATES A & C

I-44 WIDENING
JSU0076 & JST0088B

TYPICAL SECTIONS
11 OF 38

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9/26/2024

DISTRICT	SHEET NO.
SW	2

GREENE

J0076, J8I3044C, 二

PROJECT NO.

BRIDGE NO.

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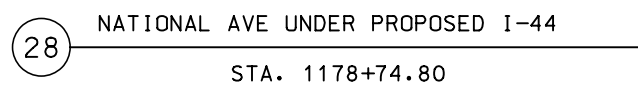
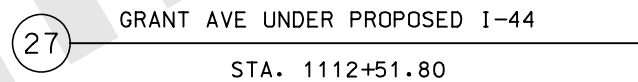
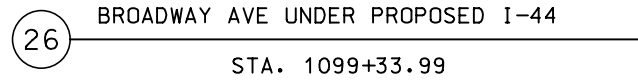
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ENGINEERING CORPORATION - 0006

REV.



TYPICAL SECTIONS
12 OF 38

EQUIVALENT PAVEMENT DESIGNS				
CATEGORY	BASE TYPE *	HMA DESIGN	PCCP DESIGN	SHOULDERS
I-44 MAINLINE & RAMPS	12" ROCK BASE *	15.0" HMA 2" SP125BSM W/PG 76-22 OVER 2" SP125B W/PG 76-22 OVER 11" SP250C W/PG 64-22	11.5" PCCP 15" JOINTS 1 1/2" DOWELS	A2 OR FULL DEPTH
	18" ROCK BASE *	14.0" HMA 2" SP125BSM W/PG 76-22 OVER 2" SP125B W/PG 76-22 OVER 10" SP250C W/PG 64-22	11.5" PCCP 15" JOINTS 1 1/2" DOWELS	A2 OR FULL DEPTH

* DESIGNS FOR ALTERNATE PAVEMENT DESIGNS - GRADING, BASE AND PAVING, SEE JSPS.

ASPHALT APPLICATION RATES:
ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125BSM MIX)= 1.950 TON/C.Y. @ 6.3%
ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125B MIX)= 1.985 TON/C.Y. @ 5.4%
ASPHALTIC CONCRETE MIXTURE PG 64-22 (SP250C MIX)= 2.005 TON/C.Y. @ 4.3%

TACK COAT 0.05 GAL/S.Y.

NOTE: STATE FUNDS ARE ONLY UTILIZED FOR EXISTING THROUGH LANE PAVEMENT REMOVAL, REPLACEMENT, & NEW OPTIONAL ROCK BASE.

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9/26/2024

ROUTE

I-44 MO

DISTRICT

SW SHEET NO. 2

COUNTY

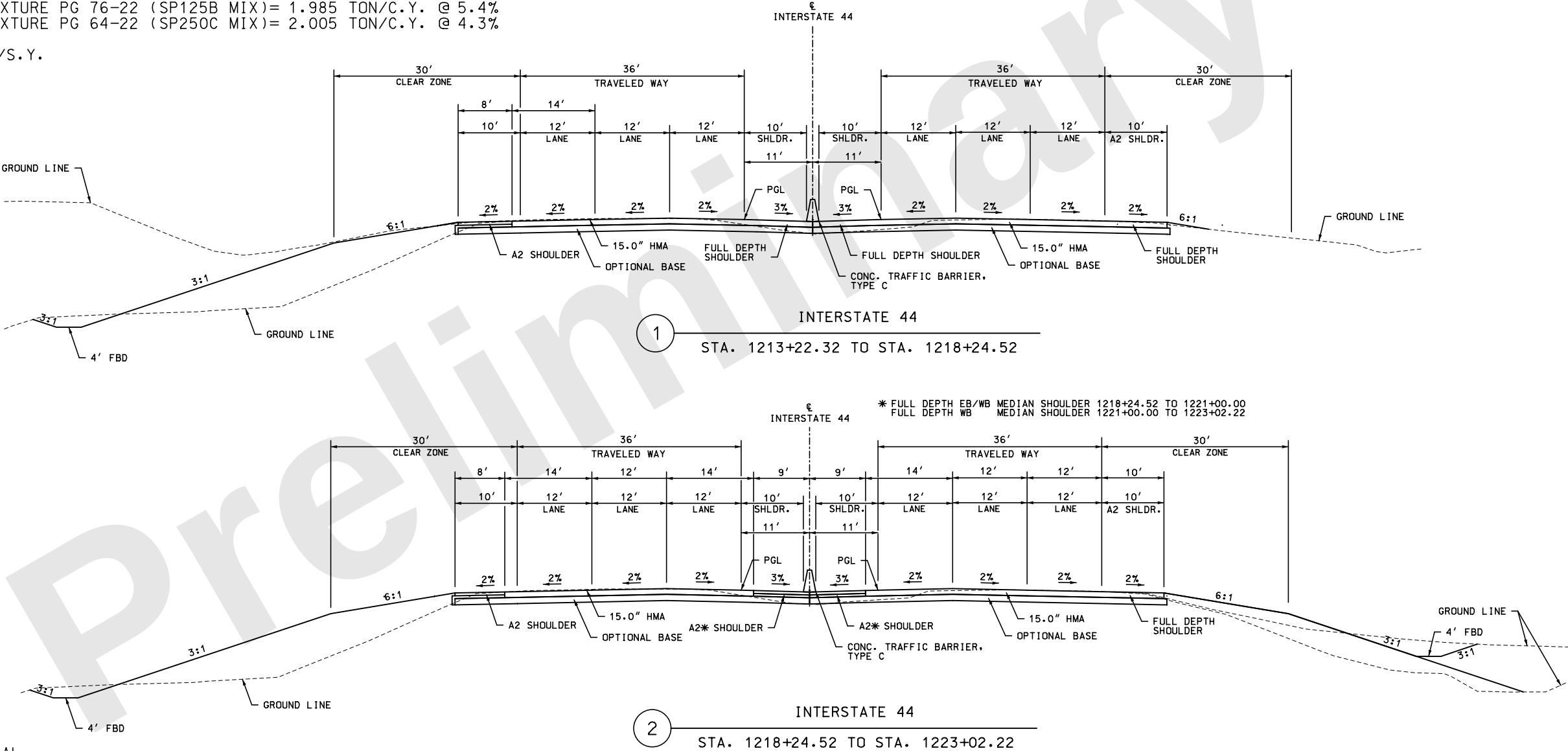
GREENE

JOB NO.

JSU0076, J813044C, & JST0088B

PROJECT NO.

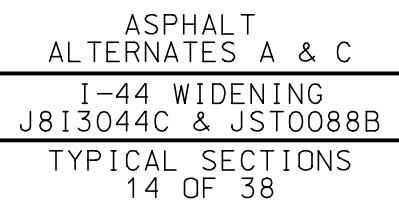
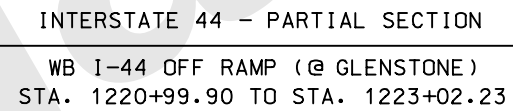
BRIDGE NO.



- NOTES:
1. SEE PLAN SHEETS FOR SAWCUT LOCATIONS. NO DIRECT PAY FOR PAVEMENT SAWCUTS.
 2. WHEN CONCRETE OPTIONAL PAVEMENT IS USED, CONTRAST PAVEMENT MARKINGS ARE REQUIRED. NO DIRECT PAYMENT WILL BE MADE FOR CONTRAST MARKINGS.
 3. THE THINNER PAVEMENT OPTION OF EACH OPTIONAL PAIR WAS USED IN THE COMPUTATION OF EARTHWORK FOR THIS PROJECT.

ASPHALT
ALTERNATES A & C
I-44 WIDENING
J813044C & JST0088B
TYPICAL SECTIONS
13 OF 38

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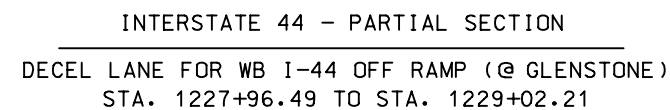
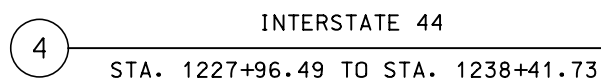
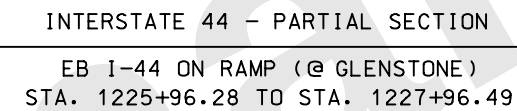
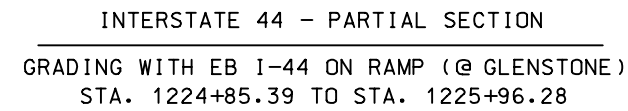
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ALTERNATES A & C
I-44 WIDENING
J813044C & JST0088E
TYPICAL SECTIONS
15 OF 38



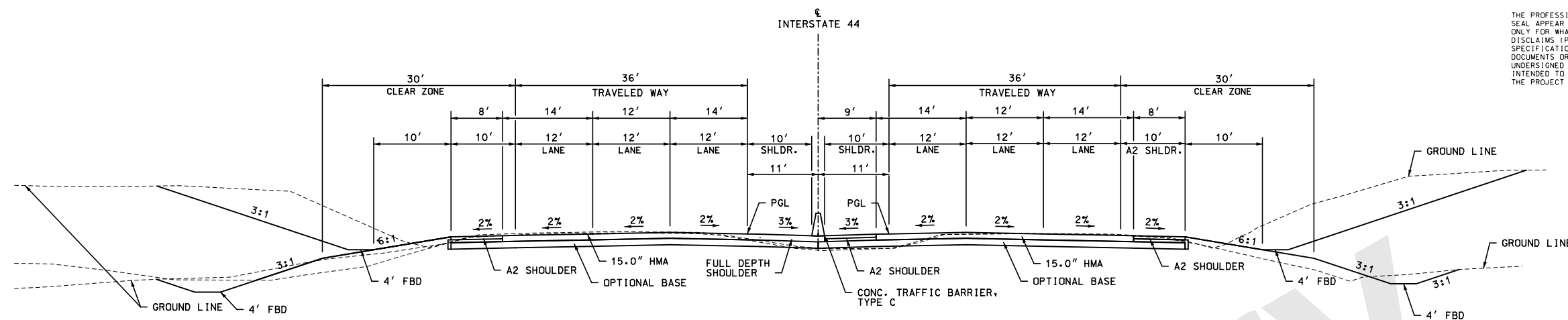
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I-44

STATE
MO

DISTRICT
SW

SHEET NO.
2

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

DATE

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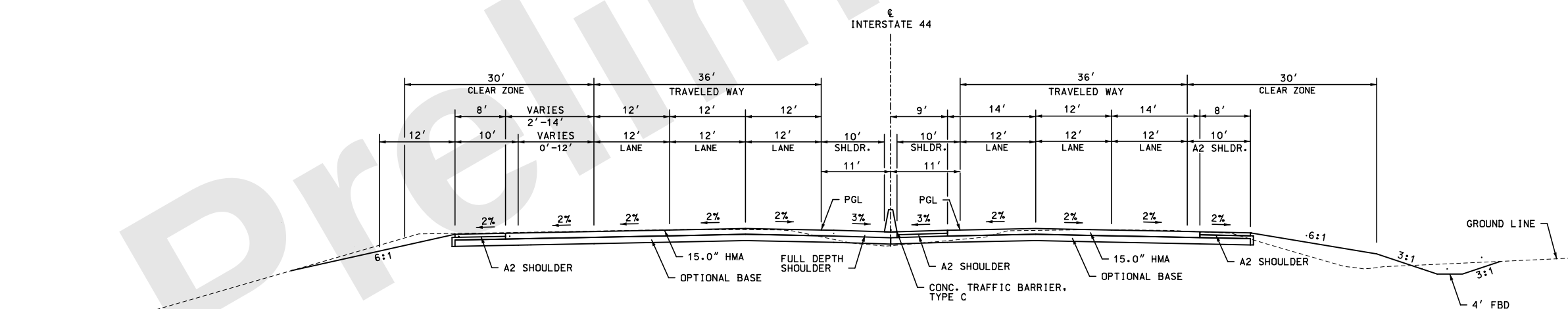
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DATE

INTERSTATE 44
STA. 1238+41.73 TO STA. 1292+72.22
SEE PLANS FOR GUARDRAIL LOCATIONS



INTERSTATE 44
STA. 1292+72.22 TO STA. 1302+12.43

ASPHALT
ALTERNATES A & C
I-44 WIDENING
J813044C & JST0088B
TYPICAL SECTIONS
16 OF 38

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JOB NO.

JSU0076, J8I3044C,

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PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

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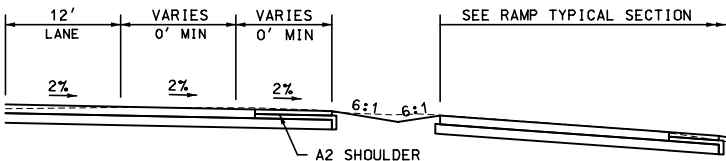


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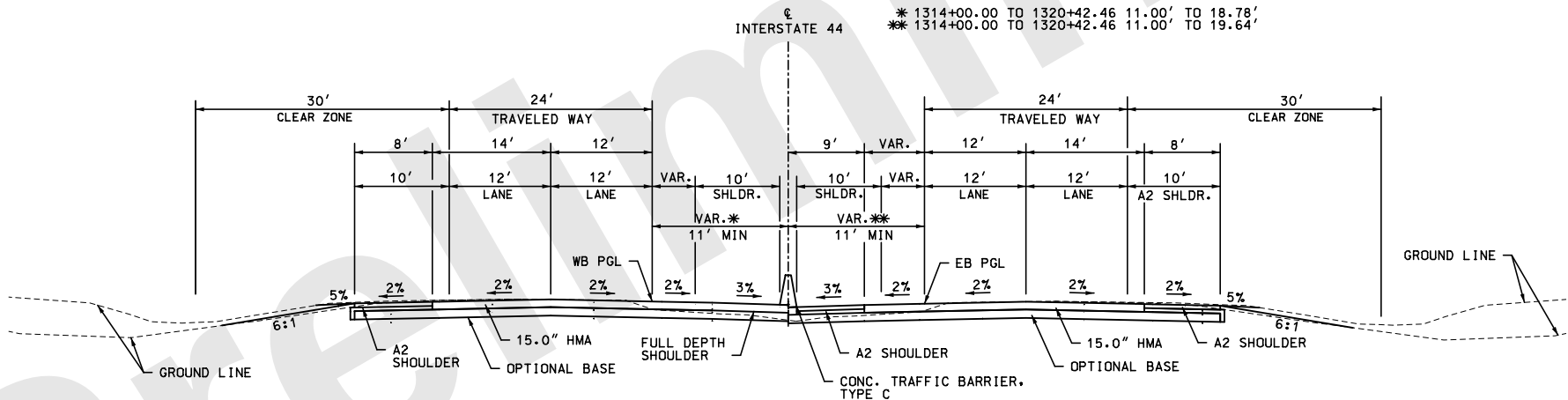
I-44 WIDENING
J8I3044C & JST0088B

TYPICAL SECTIONS
18 OF 38



INTERSTATE 44 - PARTIAL SECTION

GRADING WITH EB I-44 OFF RAMP (@ US 65)
STA. 1312+90.92 TO STA. 1314+28.49



INTERSTATE 44

8
STA. 1314+00.00 TO STA. 1320+42.46

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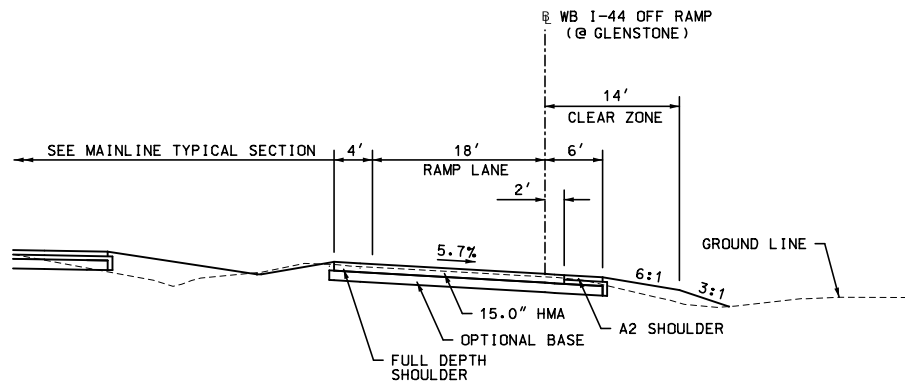
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JOB NO.

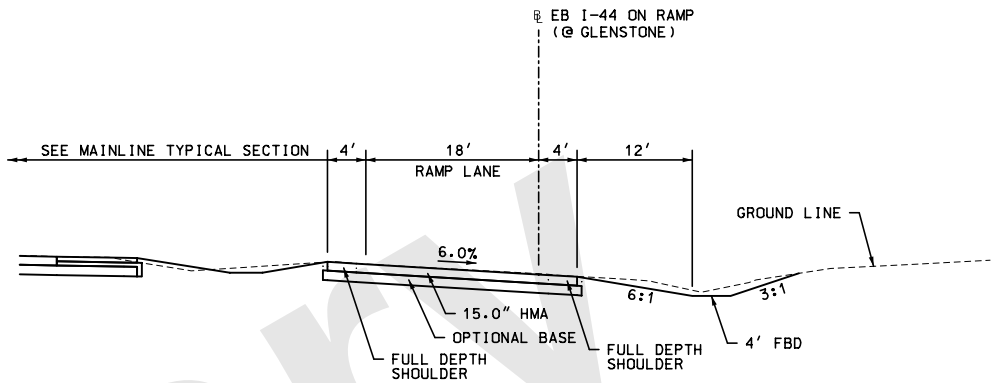
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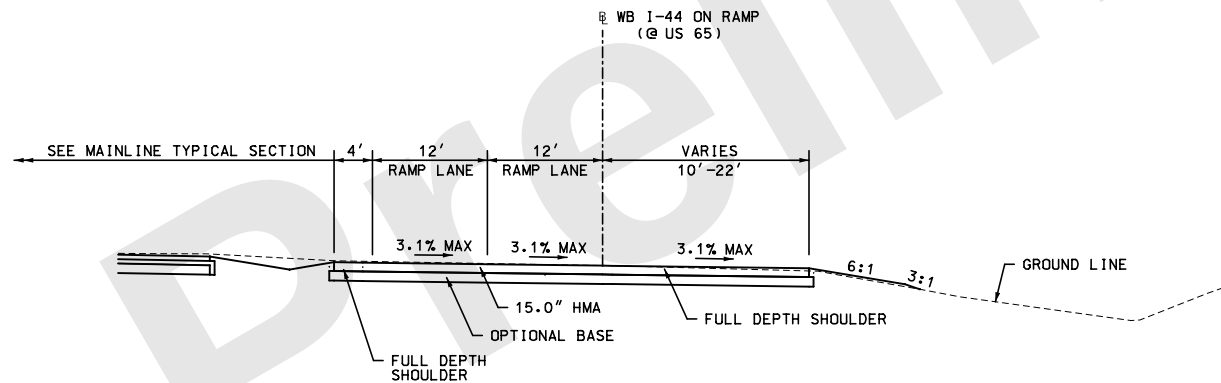
BRIDGE NO.



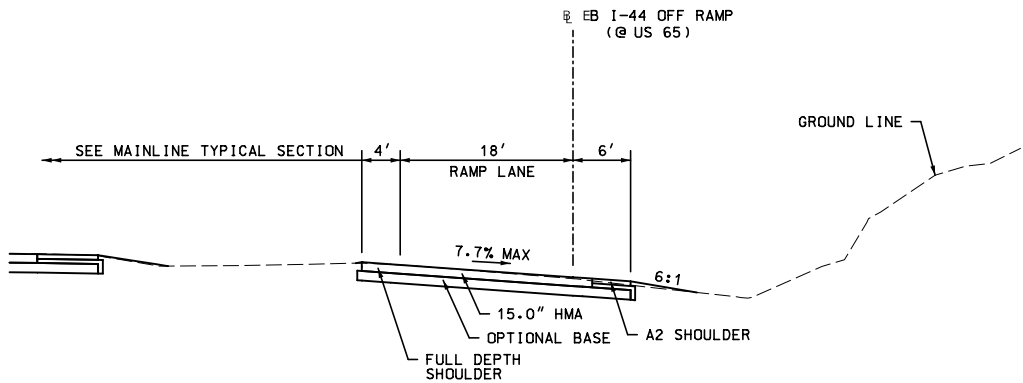
9 WB I-44 OFF RAMP (@ GLENSTONE)
STA. 1+98.79 TO STA. 3+18.62



10 EB I-44 ON RAMP (@ GLENSTONE)
STA. 3+98.21 TO STA. 5+15.77



11 WB I-44 ON RAMP (@ US 65)
STA. 3+65.00 TO STA. 4+82.34



12 EB I-44 OFF RAMP (@ US 65)
STA. 2+66.95 TO STA. 4+12.42

ASPHALT
ALTERNATES A & C

I-44 WIDENING
J813044C & JST0088B

TYPICAL SECTIONS
19 OF 38

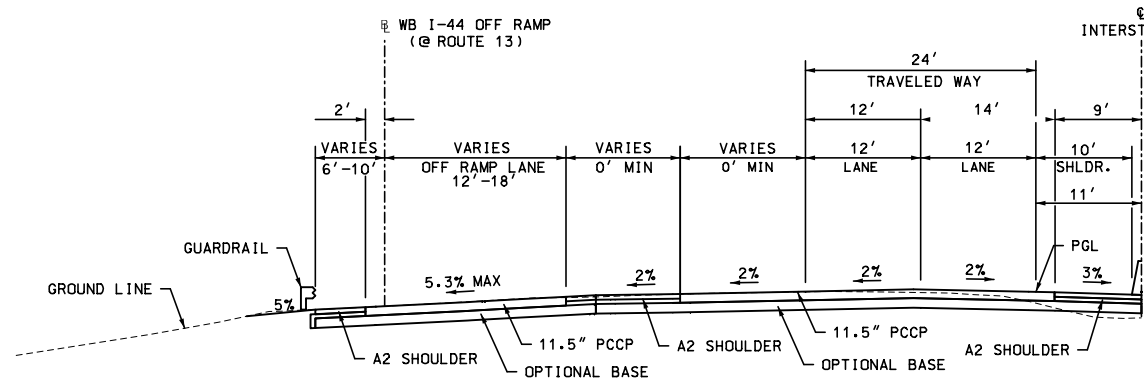
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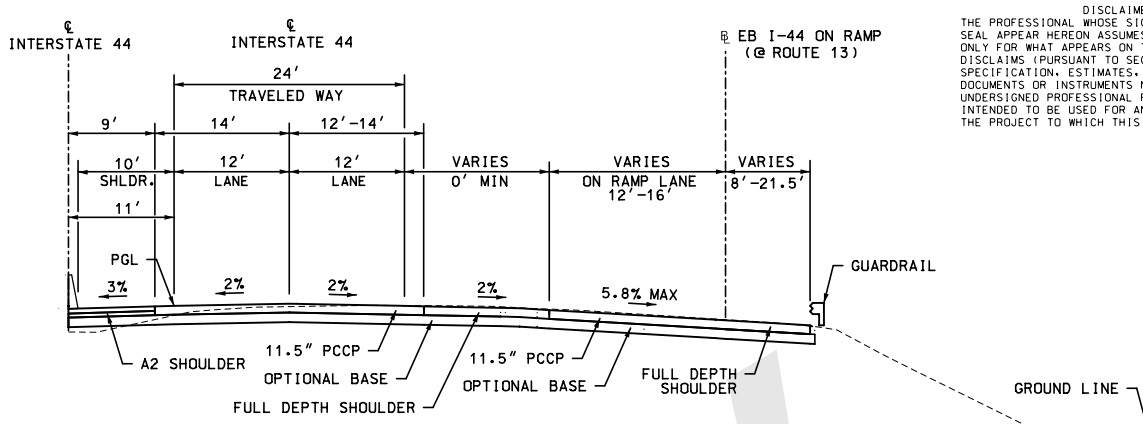
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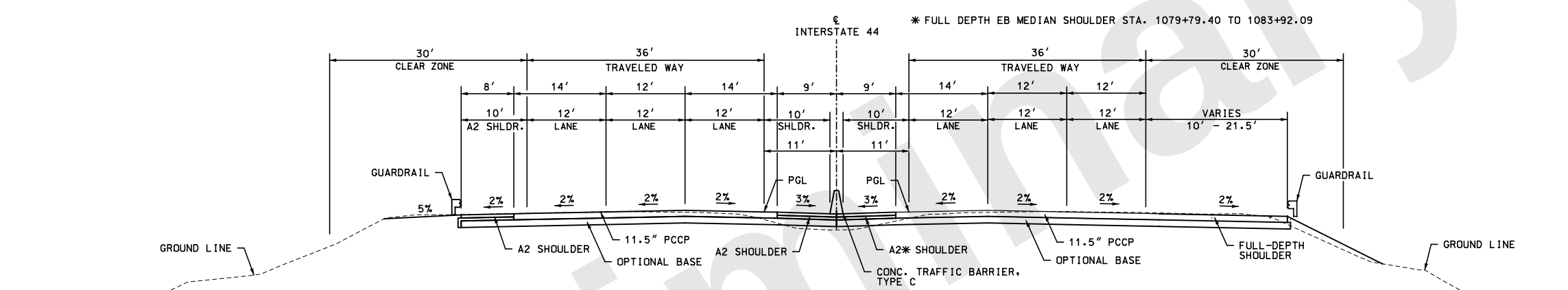
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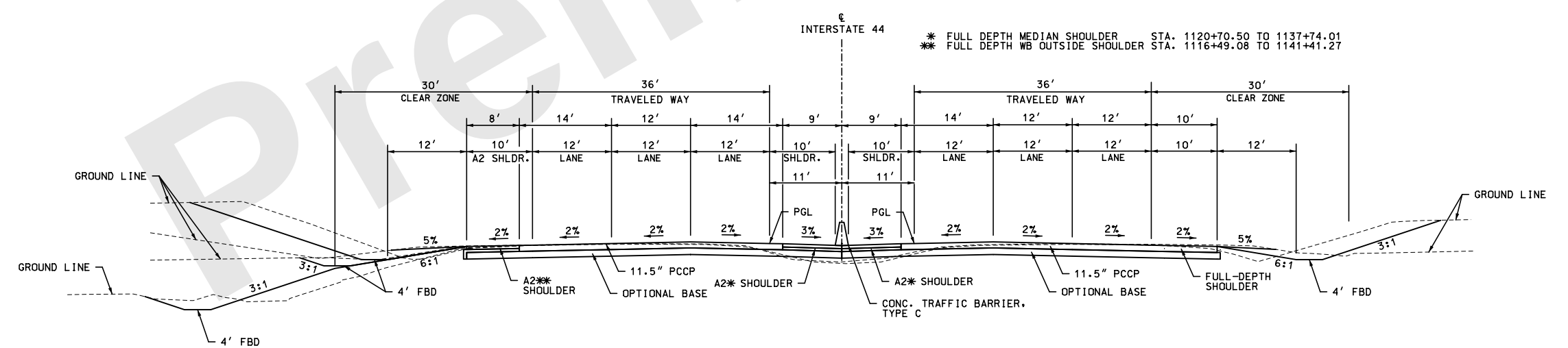
INTERSTATE 44 - PARTIAL SECTION
WB I-44 OFF RAMP (@ ROUTE 13)
STA. 1079+16.45 TO STA. 1081+41.03



INTERSTATE 44 - PARTIAL SECTION
EB I-44 ON RAMP (@ ROUTE 13)
STA. 1079+79.54 TO STA. 1081+80.56



2
INTERSTATE 44
STA. 1079+79.40 TO STA. 1090+03.53



3
INTERSTATE 44
STA. 1090+03.53 TO STA. 1094+19.40
STA. 1104+23.40 TO STA. 1107+39.16
STA. 1117+66.31 TO STA. 1125+29.57
STA. 1136+25.00 TO STA. 1152+53.81

SEE PLANS FOR GUARDRAIL LOCATIONS

CONCRETE
ALTERNATES B & D
I-44 WIDENING
JSU0076 & JST0088B
TYPICAL SECTIONS
21 OF 38

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2

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

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SW 2

COUNTY

GREENE

JOB NO.

JSU0076, J813044C,

& JST0088B

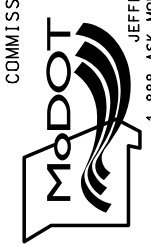
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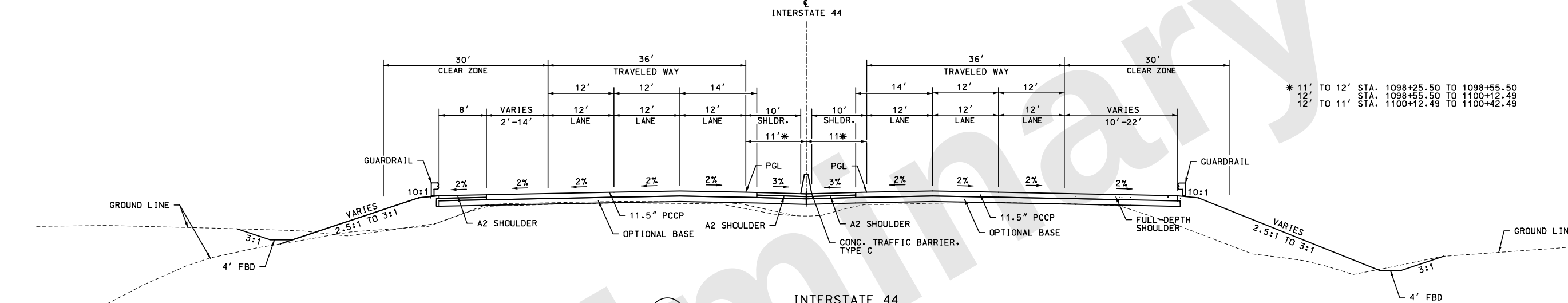
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BRIDGE EXCEPTIONS

4

STA. 1098+92.36 EB PGL/ STA. 1098+93.13 WB PGL
TO STA. 1099+74.86 EB PGL/ STA. 1099+75.63 WB PGL BR A9413 & A9414
STA. 1112+11.10 EB PGL/ STA. 1112+11.87 WB PGL
TO STA. 1112+93.60 EB PGL/ STA. 1112+94.37 WB PGL BR A9417 & A9418
STA. 1178+31.04 EB PGL/ STA. 1178+31.81 WB PGL
TO STA. 1179+13.54 EB PGL/ STA. 1179+14.31 WB PGL BR A9421 & A9422

INTERSTATE 44

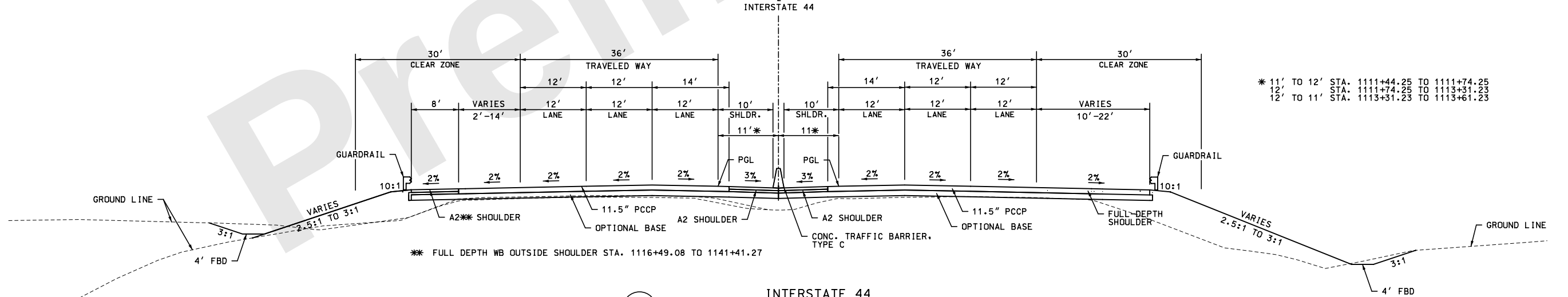


* 11' TO 12' STA. 1098+25.50 TO 1098+55.50
12' TO 11' STA. 1098+55.50 TO 1100+12.49
12' TO 11' STA. 1100+12.49 TO 1100+42.49

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INTERSTATE 44
STA. 1094+19.40 TO STA. 1104+23.40
(SEE BRIDGE EXCEPTIONS ABOVE)
SEE PLANS FOR GUARDRAIL LOCATIONS

INTERSTATE 44

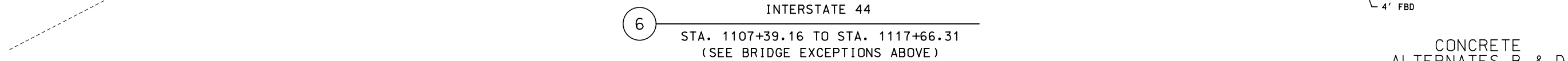


* 11' TO 12' STA. 1111+44.25 TO 1111+74.25
12' TO 11' STA. 1111+74.25 TO 1113+31.23
12' TO 11' STA. 1113+31.23 TO 1113+61.23

* FULL DEPTH WB OUTSIDE SHOULDER STA. 1116+49.08 TO 1141+41.27

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INTERSTATE 44
STA. 1107+39.16 TO STA. 1117+66.31
(SEE BRIDGE EXCEPTIONS ABOVE)
SEE PLANS FOR GUARDRAIL LOCATIONS

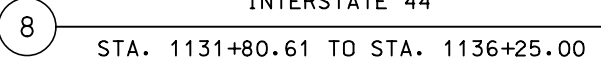
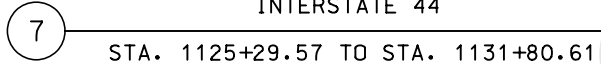


CONCRETE
ALTERNATES B & D

I-44 WIDENING
JSU0076 & JST0088B

TYPICAL SECTIONS
22 OF 38

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CONCRETE
ALTERNATES B & D

TYPICAL SECTIONS
23 OF 38

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I-44

STATE
MO

DISTRICT
SW

SHEET NO.
2

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,

& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL

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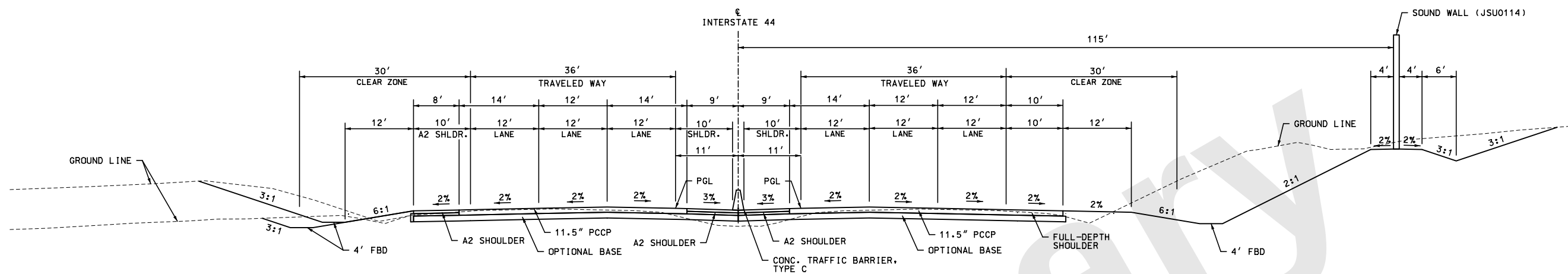
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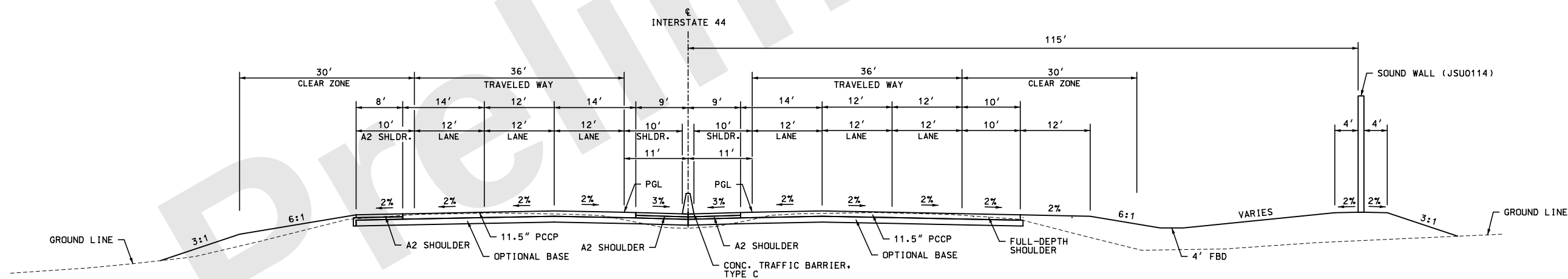
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9 INTERSTATE 44
STA. 1152+53.81 TO STA. 1162+00.00



10 INTERSTATE 44
STA. 1162+00.00 TO STA. 1167+75.00
SEE PLANS FOR GUARDRAIL LOCATIONS

NOTE:

SEE JSU0114 FOR SOUND WALL
DESIGN PLANS.

CONCRETE
ALTERNATES B & D
I-44 WIDENING
JSU0076 & JST0088B
TYPICAL SECTIONS
24 OF 38

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CONCRETE

ALTERNATES B & D

I-44 WIDENING

JSU0076 & JST0088B

TYPICAL SECTIONS

25 OF 38

NOTE:

SEE JSU0114 FOR SOUND WALL

DESIGN PLANS.

INTERSTATE 44

STA. 1167+75.00 TO STA. 1173+59.03

SEE PLANS FOR GUARDRAIL LOCATIONS

INTERSTATE 44

STA. 1173+59.03 TO STA. 1179+00.00

(SEE BRIDGE EXCEPTIONS SHEET 3)

SEE PLANS FOR GUARDRAIL LOCATIONS

CONCRETE

ALTERNATES B & D

I-44 WIDENING

JSU0076 & JST0088B

TYPICAL SECTIONS

25 OF 38

NOTE:

SEE JSU0114 FOR SOUND WALL

DESIGN PLANS.

INTERSTATE 44

STA. 1167+75.00 TO STA. 1173+59.03

SEE PLANS FOR GUARDRAIL LOCATIONS

INTERSTATE 44

STA. 1173+59.03 TO STA. 1179+00.00

(SEE BRIDGE EXCEPTIONS SHEET 3)

SEE PLANS FOR GUARDRAIL LOCATIONS

CONCRETE

ALTERNATES B & D

I-44 WIDENING

JSU0076 & JST0088B

TYPICAL SECTIONS

25 OF 38

NOTE:

SEE JSU0114 FOR SOUND WALL

DESIGN PLANS.

INTERSTATE 44

STA. 1167+75.00 TO STA. 1173+59.03

SEE PLANS FOR GUARDRAIL LOCATIONS

INTERSTATE 44

STA. 1173+59.03 TO STA. 1179+00.00

(SEE BRIDGE EXCEPTIONS SHEET 3)

SEE PLANS FOR GUARDRAIL LOCATIONS

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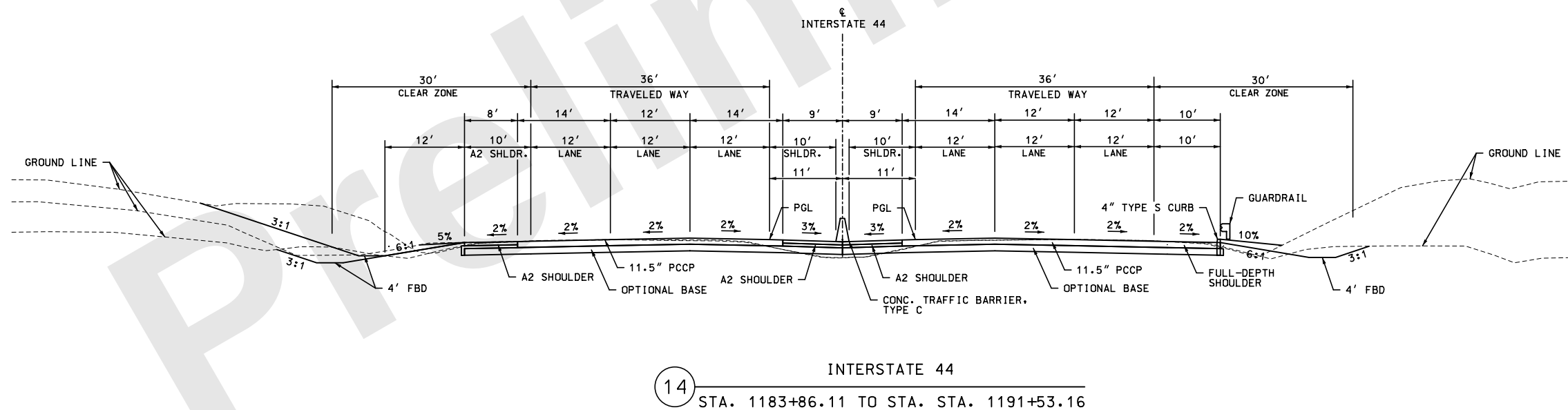
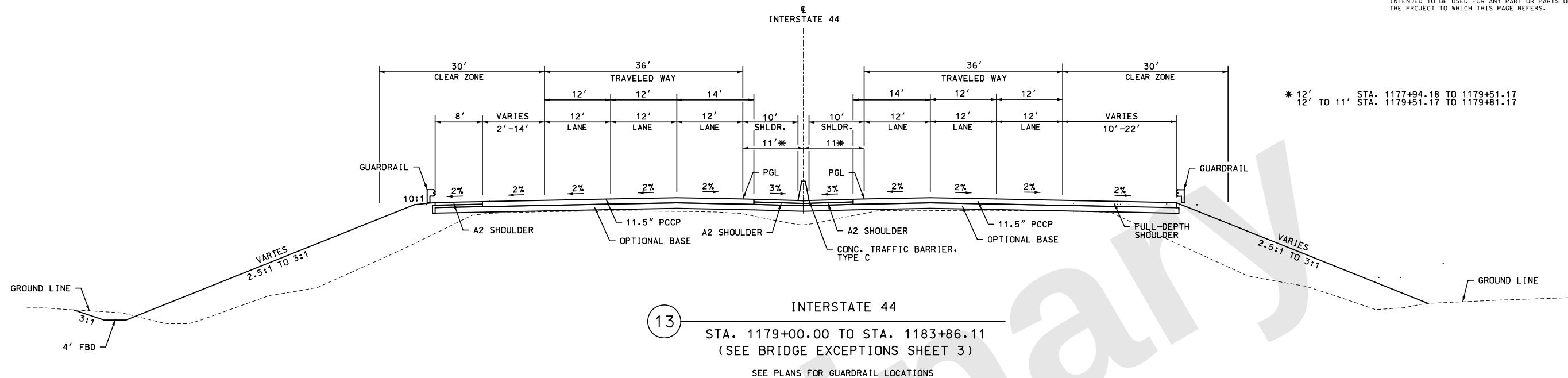
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JSU0076 & JST0088B
TYPICAL SECTIONS
26 OF 38

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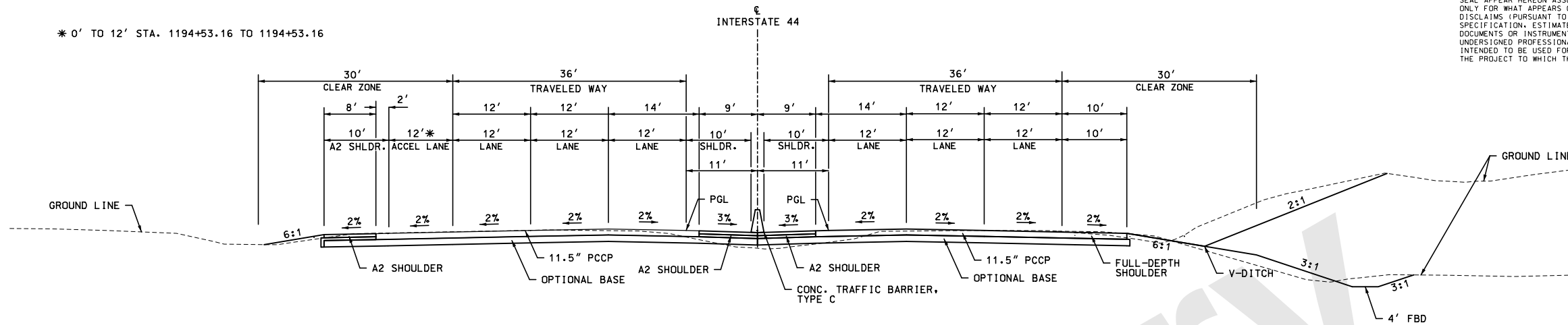
651 WEST ELFINDALE STREET

SPRINGFIELD, MO 65807 (417) 869-6009

ENGINEERING CORPORATION - 000631

REV.

* 0' TO 12' STA. 1194+53.16 TO 1194+53.16



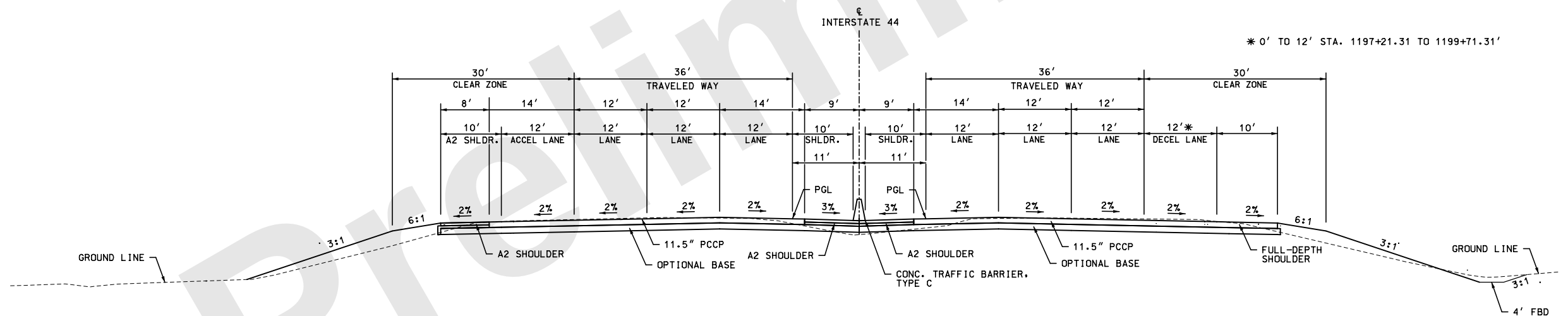
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INTERSTATE 44

STA. 1191+53.16 TO STA. 1197+21.31

SEE PLANS FOR GUARDRAIL LOCATIONS

* 0' TO 12' STA. 1197+21.31 TO 1199+71.31'



16

INTERSTATE 44

STA. 1197+21.31 TO STA. 1201+97.04

SEE PLANS FOR GUARDRAIL LOCATIONS

CONCRETE
ALTERNATES B & D

I-44 WIDENING
JSU0076 & JST0088B

TYPICAL SECTIONS
27 OF 38

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DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
2

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

DESCRIPTION

DATE

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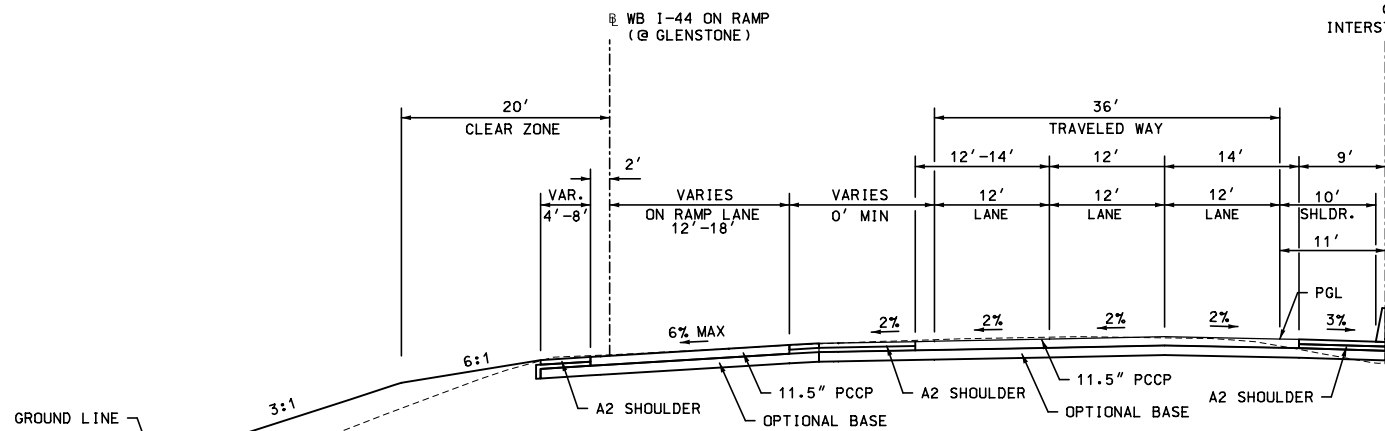
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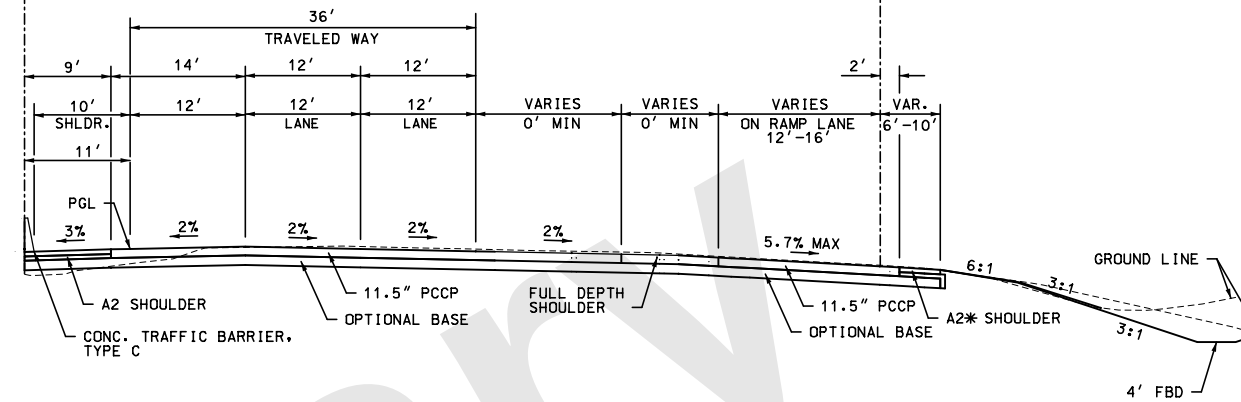
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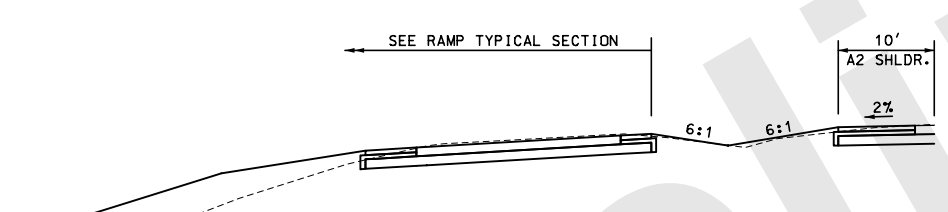
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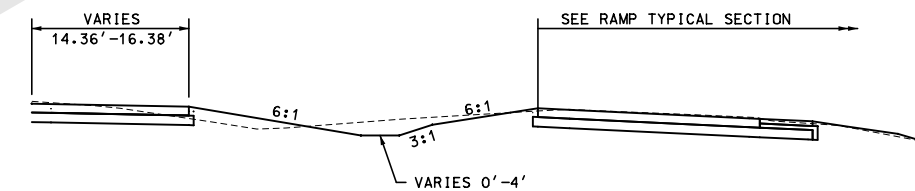
INTERSTATE 44 - PARTIAL SECTION
WB I-44 ON RAMP (@ GLENSTONE)
STA. 1198+73.14 TO STA. 1200+43.68



INTERSTATE 44 - PARTIAL SECTION
EB I-44 OFF RAMP (@ GLENSTONE)
STA. 1203+21.29 TO STA. 1205+16.71



INTERSTATE 44 - PARTIAL SECTION
GRADING WITH WB I-44 ON RAMP (@ GLENSTONE)
STA. 1200+43.68 TO STA. 1201+91.32



INTERSTATE 44 - PARTIAL SECTION
GRADING WITH EB I-44 OFF RAMP (@ GLENSTONE)
STA. 1205+16.71 TO STA. 1206+60.50

CONCRETE
ALTERNATES B & D
I-44 WIDENING
JSU0076 & JST0088B
TYPICAL SECTIONS
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ROUTE
I-44

STATE
MO

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SW

SHEET NO.
2

COUNTY
GREENE

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JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

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105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)

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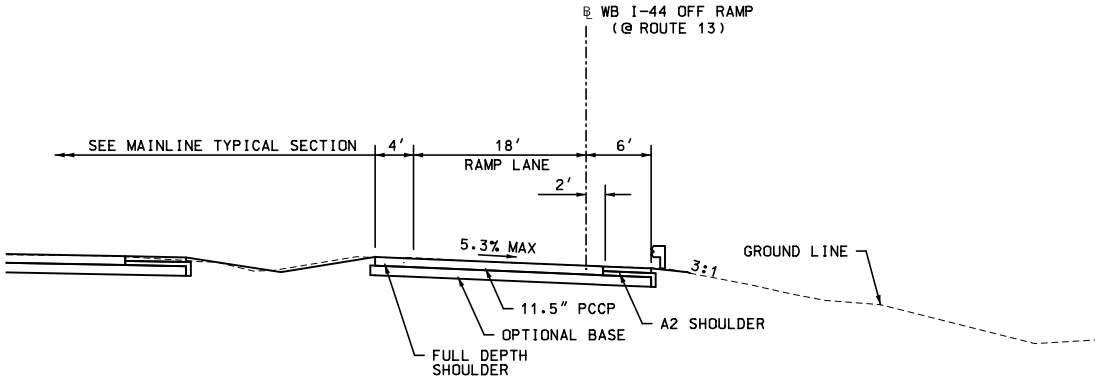
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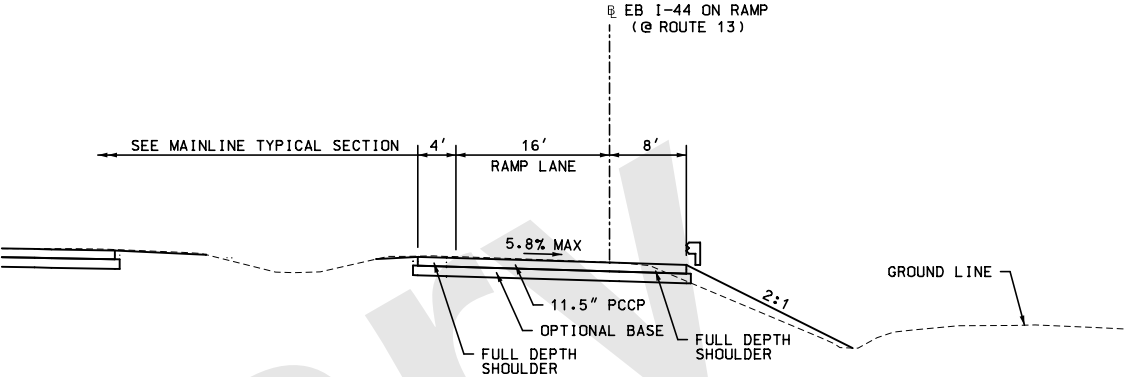
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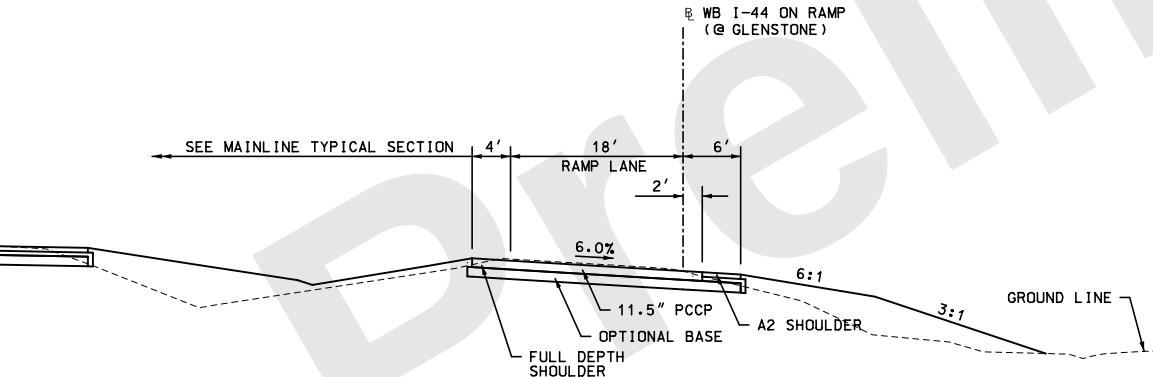
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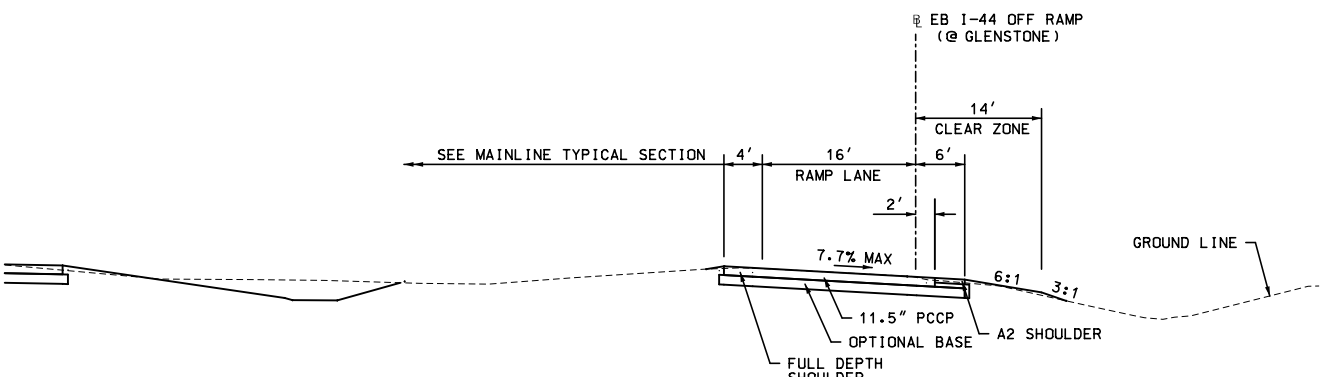
22 WB I-44 OFF RAMP (@ ROUTE 13)
STA. 2+21.42 TO STA. 3+09.04



23 EB I-44 ON RAMP (@ ROUTE 13)
STA. 2+06.55 TO STA. 3+91.49



24 WB I-44 ON RAMP (@ GLENSTONE)
STA. 3+17.00 TO STA. 4+77.13



25 EB I-44 OFF RAMP (@ GLENSTONE)
STA. 1+92.46 TO STA. 3+45.04

CONCRETE
ALTERNATES B & D
I-44 WIDENING
JSU0076 & JST0088B
TYPICAL SECTIONS
30 OF 38

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9/26/2024

DISTRICT	SHEET NO.
SW	2

GREENE

JOB NO.
10076, J813044C.

8 IST0088B

& JST0088B

PROJECT NO.

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BRIDGE NO.

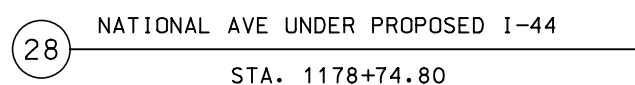
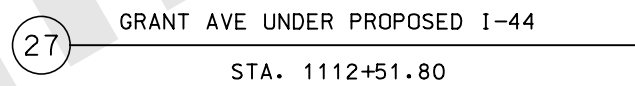
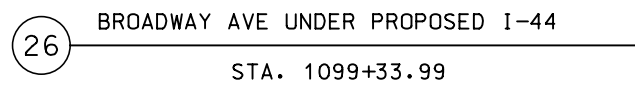


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CONCRETE
ALTERNATES B & D
I-44 WIDENING
JSU0076 & JST0088B
TYPICAL SECTIONS
31 OF 38

EQUIVALENT PAVEMENT DESIGNS				
CATEGORY	BASE TYPE *	HMA DESIGN	PCCP DESIGN	SHOULDERS
I-44 MAINLINE & RAMPS	12" ROCK BASE *	15.0" HMA 2" SP125BSM W/PG 76-22 OVER 2" SP125B W/PG 76-22 OVER 11" SP250C W/PG 64-22	11.5" PCCP 15" JOINTS 1 1/2" DOWELS	A2 OR FULL DEPTH
	18" ROCK BASE *	14.0" HMA 2" SP125BSM W/PG 76-22 OVER 2" SP125B W/PG 76-22 OVER 10" SP250C W/PG 64-22	11.5" PCCP 15" JOINTS 1 1/2" DOWELS	A2 OR FULL DEPTH

* DESIGNS FOR ALTERNATE PAVEMENT DESIGNS - GRADING, BASE AND PAVING, SEE JSPS.

ASPHALT APPLICATION RATES:
ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125BSM MIX)= 1.950 TON/C.Y. @ 6.3%
ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125B MIX)= 1.985 TON/C.Y. @ 5.4%
ASPHALTIC CONCRETE MIXTURE PG 64-22 (SP250C MIX)= 2.005 TON/C.Y. @ 4.3%

TACK COAT 0.05 GAL/S.Y.

NOTE: STATE FUNDS ARE ONLY UTILIZED FOR EXISTING THROUGH LANE PAVEMENT REMOVAL, REPLACEMENT, & NEW OPTIONAL ROCK BASE.

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DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
2

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

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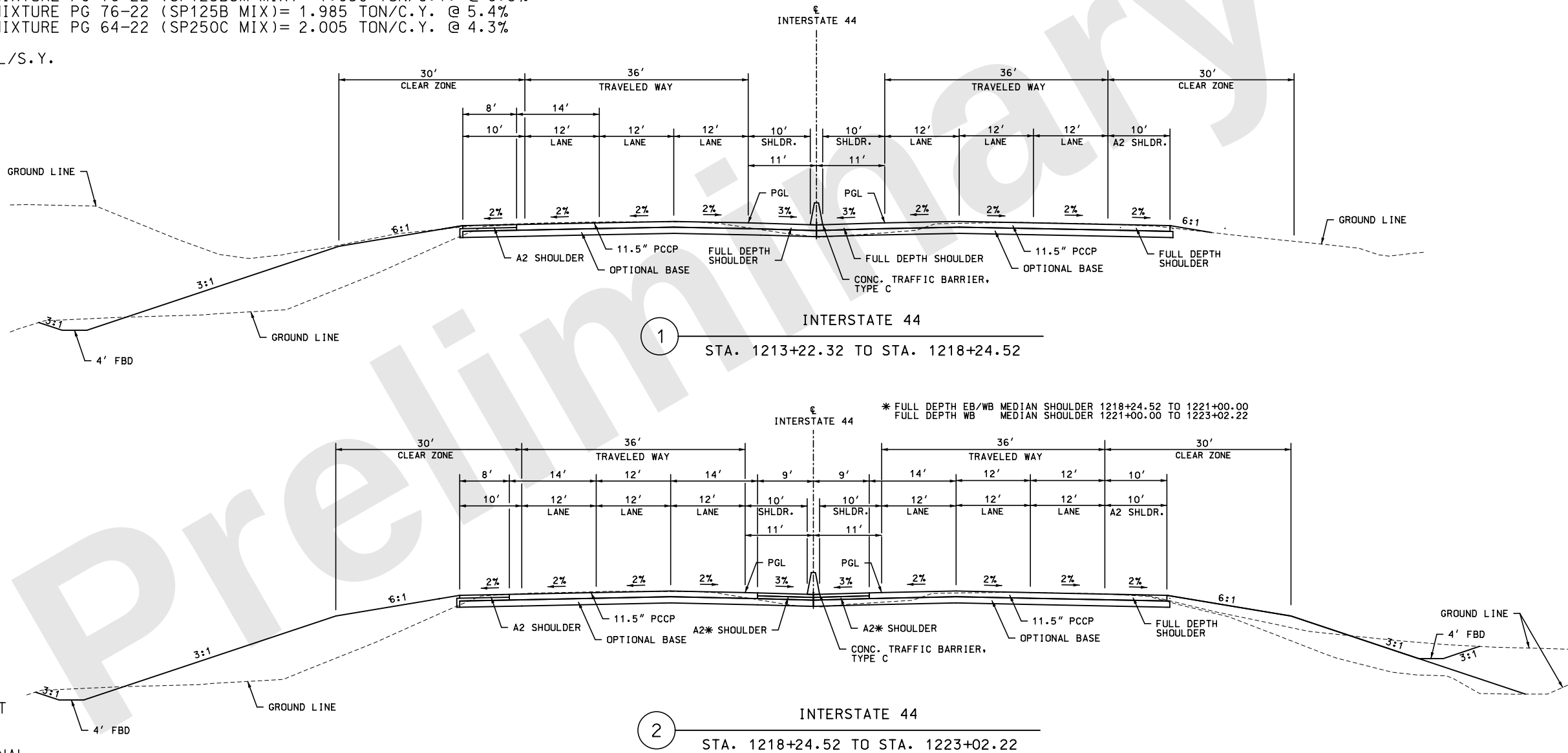
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- NOTES:
1. SEE PLAN SHEETS FOR SAWCUT LOCATIONS. NO DIRECT PAY FOR PAVEMENT SAWCUTS.
 2. WHEN CONCRETE OPTIONAL PAVEMENT IS USED, CONTRAST PAVEMENT MARKINGS ARE REQUIRED. NO DIRECT PAYMENT WILL BE MADE FOR CONTRAST MARKINGS.
 3. THE THINNER PAVEMENT OPTION OF EACH OPTIONAL PAIR WAS USED IN THE COMPUTATION OF EARTHWORK FOR THIS PROJECT.

CONCRETE
ALTERNATES B & D
I-44 WIDENING
J813044C & JST0088B
TYPICAL SECTIONS
32 OF 38

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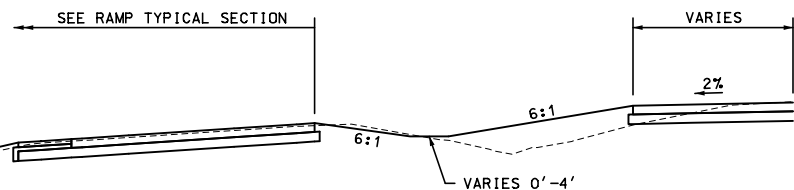
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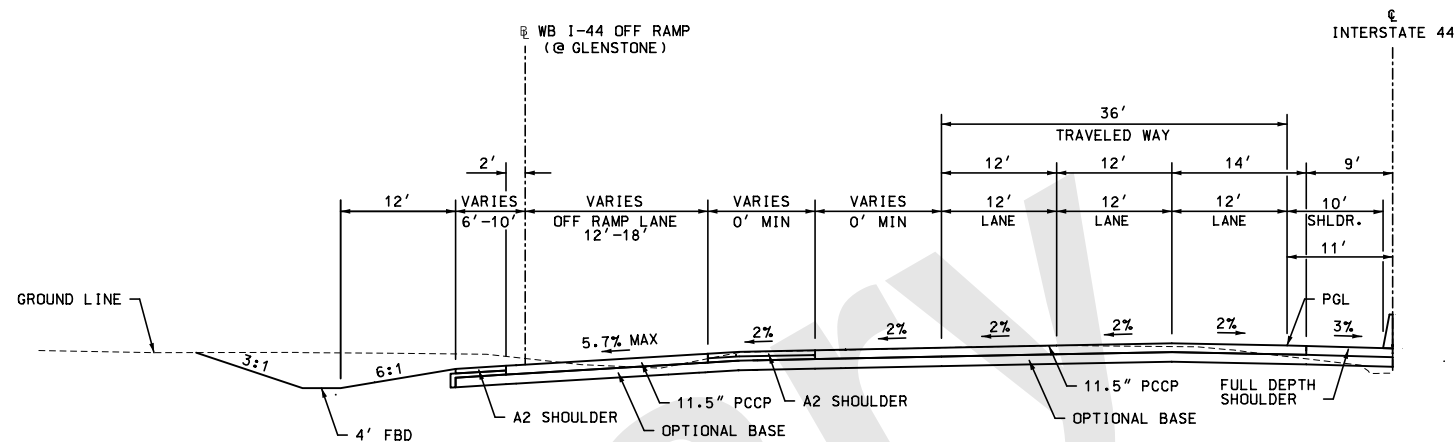
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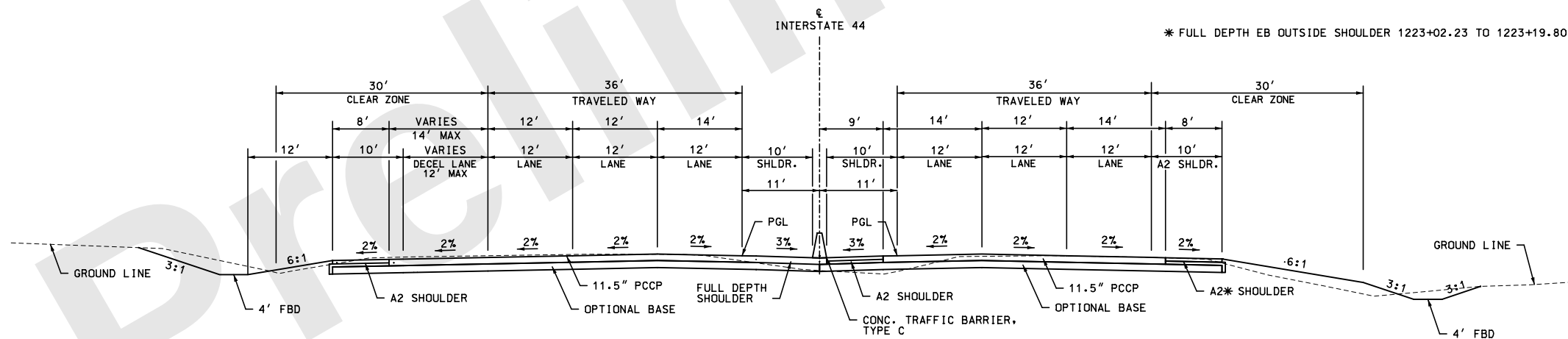
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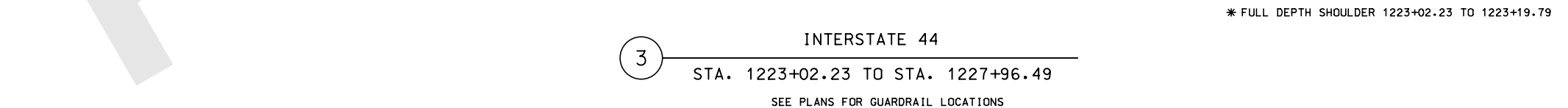
INTERSTATE 44 - PARTIAL SECTION
GRADING WITH WB I-44 OFF RAMP (@ GLENSTONE)
STA. 1219+92.00 TO STA. 1220+99.90



INTERSTATE 44 - PARTIAL SECTION
WB I-44 OFF RAMP (@ GLENSTONE)
STA. 1220+99.90 TO STA. 1223+02.23



* FULL DEPTH EB OUTSIDE SHOULDER 1223+02.23 TO 1223+19.80



* FULL DEPTH SHOULDER 1223+02.23 TO 1223+19.79

3
INTERSTATE 44
STA. 1223+02.23 TO STA. 1227+96.49
SEE PLANS FOR GUARDRAIL LOCATIONS

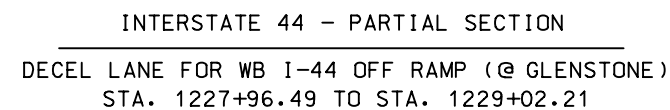
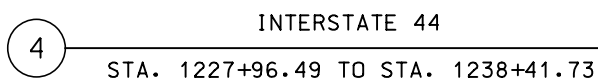
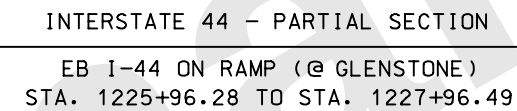
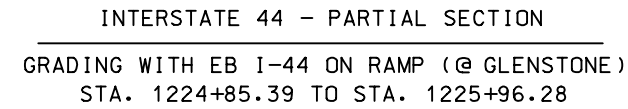
CONCRETE
ALTERNATES B & D

I-44 WIDENING
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TYPICAL SECTIONS
33 OF 38

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CONCRETE
ALTERNATES B & D
I-44 WIDENING
J8I3044C & JST0088
TYPICAL SECTIONS
34 OF 38



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9/26/2024

I-44	MO
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SW	2
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REENE

U0076, J8I3044C,

& JST0088B

PROJECT NO.

BRIDGE NO.

1101

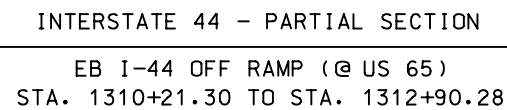
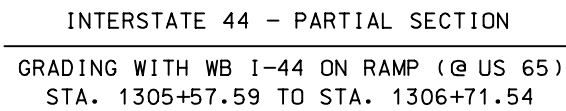
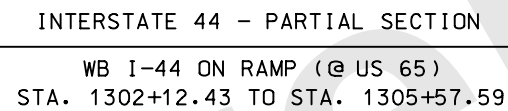
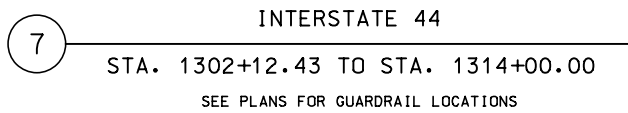
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CONCRETE
ALTERNATES B & D
I-44 WIDENING
18I3044C & JST0088E
TYPICAL SECTIONS
36 OF 38

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DATE PREPARED

9/26/2024

ROUTE STATE

I-44 MO

DISTRICT SHEET NO.

SW 2

COUNTY

GREENE

JOB NO.

JSU0076, J8I3044C,

& JST0088B

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)

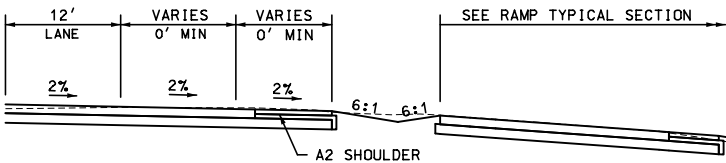


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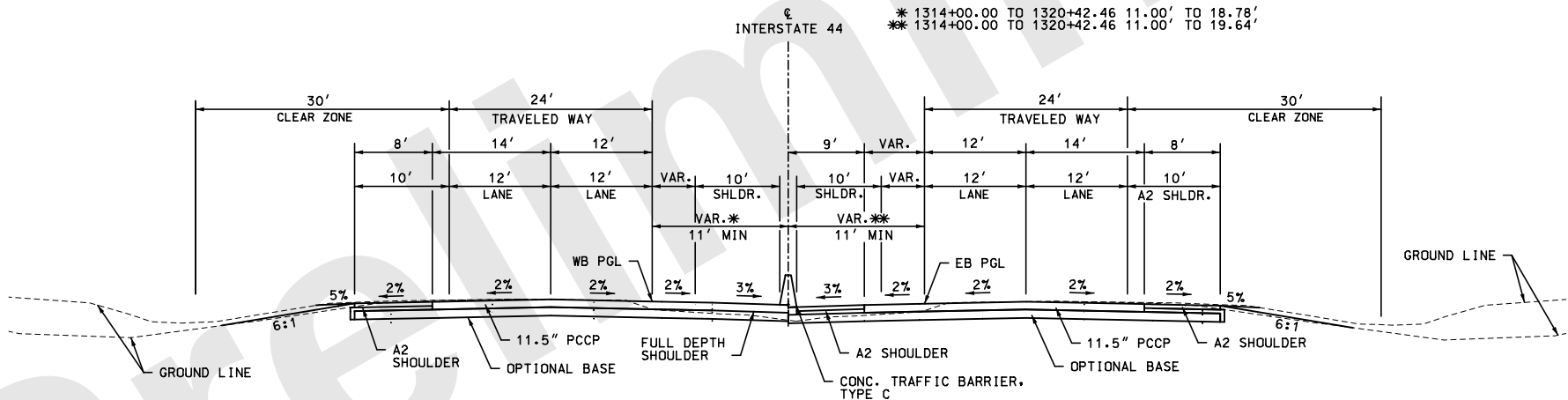
I-44 WIDENING
J8I3044C & JST0088B

TYPICAL SECTIONS
37 OF 38



INTERSTATE 44 - PARTIAL SECTION

GRADING WITH EB I-44 OFF RAMP (@ US 65)
STA. 1312+90.92 TO STA. 1314+28.49



INTERSTATE 44

8

STA. 1314+00.00 TO STA. 1320+42.46

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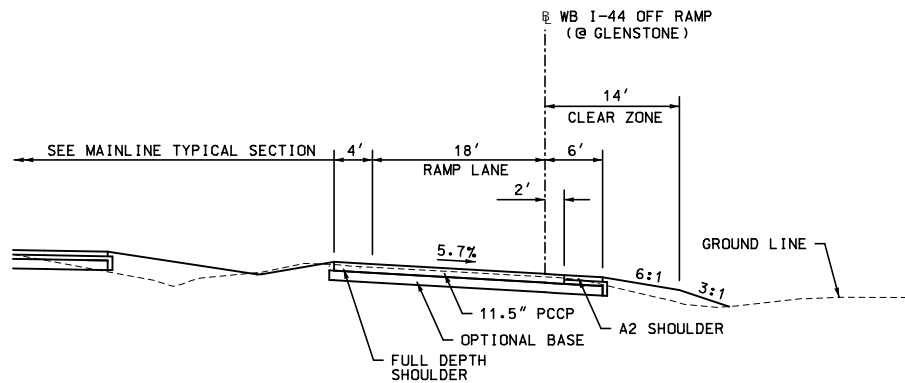
GREENE

JOB NO.

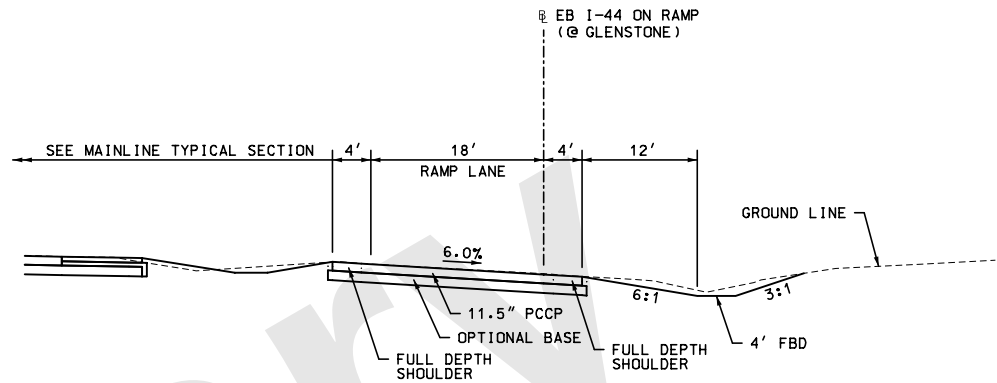
JSU0076, J813044C, & JST0088B

PROJECT NO.

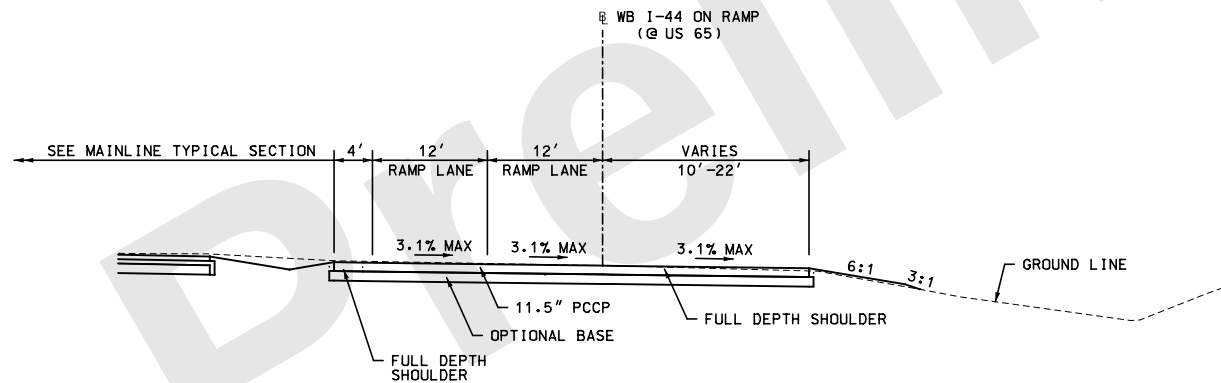
BRIDGE NO.



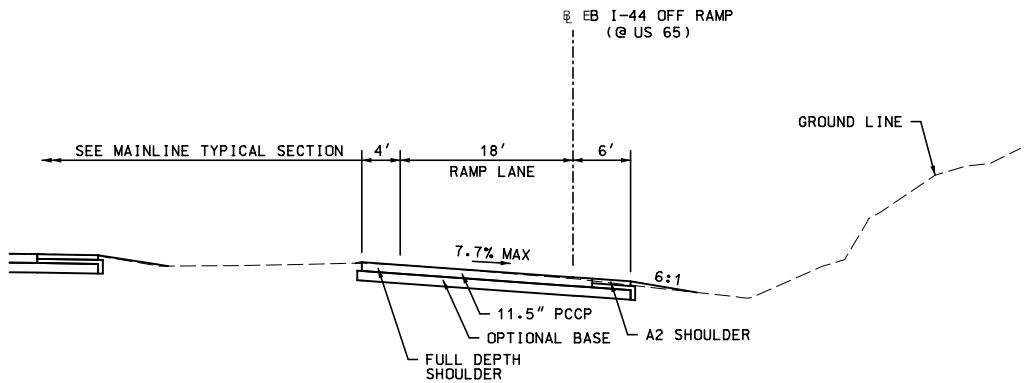
9 WB I-44 OFF RAMP (@ GLENSTONE)
STA. 1+98.79 TO STA. 3+18.62



10 EB I-44 ON RAMP (@ GLENSTONE)
STA. 3+98.21 TO STA. 5+15.77



11 WB I-44 ON RAMP (@ US 65)
STA. 3+65.00 TO STA. 4+82.34



12 EB I-44 OFF RAMP (@ US 65)
STA. 2+66.95 TO STA. 4+12.42

CONCRETE
ALTERNATES B & D

I-44 WIDENING
J813044C & JST0088B

TYPICAL SECTIONS
38 OF 38

CMT

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MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)

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

JSU0076 MOBILIZATION
1 LUMP SUM

JSU0076 CONTRACTOR FURNISHED SURVEYING AND STAKING
1 LUMP SUM

JSU0076 SAWCUTS FOR PAVEMENT REMOVAL
ALL SAWCUTS NOT SHOWN ARE INCIDENTAL TO REMOVAL OF IMPROVEMENTS

JSU0076 MOBILIZATION (COST SHARE)
1 LUMP SUM

JSU0076 CONTRACTOR FURNISHED SURVEYING AND STAKING (COST SHARE)
1 LUMP SUM

JSU0076 SAWCUTS FOR PAVEMENT REMOVAL (COST SHARE)
ALL SAWCUTS NOT SHOWN ARE INCIDENTAL TO REMOVAL OF IMPROVEMENTS

JSU0076 ADDITIONAL MOBILIZATION FOR SEEDING (COST SHARE)
1 EACH

JSU0076 REMOVAL OF IMPROVEMENTS								
PLAN SHEET	FROM STATION	TO STATION	BASELINE	OFFSET	DESCRIPTION	UNITS	QUANTITY	REMARKS
4	1071+99.40	1085+00.00	I-44	LT.	EB SHOULDER & RAMP PAVEMENT	SY	3106.7	INCLUDES OFF-RAMP AND DECELERATION PAVEMENT
4	1071+99.40	1085+00.00	I-44	RT.	WB SHOULDER & RAMP PAVEMENT	SY	3319.5	INCLUDES ON-RAMP AND ACCELERATION PAVEMENT
4	1071+55.24	1075+40.37	I-44	LT.	GUARDRAIL	LF	385.2	EXTERIOR OF WB
4	1072+55.98	1076+90.61	I-44	RT.	GUARDRAIL	LF	434.6	INTERIOR OF WB
4	1071+99.40	1073+60.06	I-44	RT.	GUARDRAIL	LF	160.5	INTERIOR OF EB
4	1071+99.40	1074+59.95	I-44	LT.	GUARDRAIL	LF	260.5	EXTERIOR OF EB
4	1071+99.40	1085+00.00	I-44	LT.	GUARDCABLE	LF	1300.6	
4	1071+99.41		I-44	LT.	HEADWALL	EACH	1.0	
4	1072+36.26	1072+56.23	I-44	LT.	18" PIPE	LF	23.2	
4	1072+36.26	1074+06.05	I-44	LT.	18" PIPE	LF	169.1	
4	1074+06.13		I-44	RT.	18" FES	EACH	1.0	
4	1075+31.66		I-44	RT.	SIGN	EACH	1.0	
4	1075+97.06		I-44	RT.	SIGN	EACH	2.0	
4	1076+02.08		I-44	LT.	SIGN	EACH	1.0	
4	1078+93.76		I-44	LT.	SIGN	EACH	1.0	
4	1080+32.04		I-44	LT.	SIGN	EACH	1.0	
4	1083+98.66		I-44	RT.	SIGN	EACH	2.0	
4	1078+46.40	1085+00.00	I-44	LT.	GUARDRAIL	LF	659.7	EXTERIOR OF EXIT RAMP
4	1078+52.45	1079+40.58	I-44	RT.	CONCRETE DITCH	SY	57.5	
4	1078+71.56	1085+00.00	I-44	RT.	GUARDRAIL	LF	632.2	EXTERIOR OF ENTRANCE RAMP
4	1080+43.36	1081+64.30	I-44	RT.	CONCRETE DITCH	SY	78.9	
6	1085+00.00	1099+00.00	I-44	LT.	WB PAVEMENT & SHOULDER	SY	4716.2	INCLUDES OFF-RAMP, DECELERATION LANE PAVEMENT, & PAVEMENT IN PROFILE ADJUSTMENT AREAS (WEST OF BR A9414)
6	1085+00.00	1099+00.00	I-44	RT.	EB PAVEMENT & SHOULDER	SY	4649.3	INCLUDES ON-RAMP, ACCELERATION LANE PAVEMENT, & PAVEMENT IN PROFILE ADJUSTMENT AREAS (WEST OF BR A9413)
6	1085+00.00	1098+42.23	I-44	LT.	GUARDCABLE	LF	1339.3	
6	1085+00.00	1090+31.30	I-44	LT.	GUARDRAIL	LF	531.3	EXTERIOR OF WB
6	1085+00.00	1090+03.53	I-44	RT.	GUARDRAIL	LF	503.5	EXTERIOR OF EB
6	1088+62.06	1089+50.07	I-44	LT.	15" PIPE	LF	126.4	ABANDON
6	1088+62.06		I-44	LT.	FES	EACH	1.0	
6	1089+50.07		I-44	LT.	INLET	EACH	1.0	BETWEEN EB AND WB
6	1086+05.03		I-44	RT.	SIGN	EACH	1.0	
6	1086+08.35		I-44	LT.	SIGN	EACH	1.0	
6	1091+81.44		I-44	RT.	LIGHT POLE	EACH	1.0	
6	1092+27.00		I-44	LT.	SIGN	EACH	2.0	
6	1093+48.95		I-44	RT.	LIGHT POLE	EACH	1.0	
6	1096+54.56		I-44	RT.	SIGN	EACH	1.0	
6	1096+60.43		I-44	LT.	SIGN	EACH	1.0	
6	1098+61.03		I-44	RT.	SIGN	EACH	1.0	
6	1094+74.90	1098+66.70	I-44	RT.	GUARDRAIL	LF	391.8	INTERIOR OF EB
6	1095+67.38	1098+65.50	I-44	RT.	GUARDRAIL	LF	298.2	EXTERIOR OF WB
6	1098+14.86		I-44	RT.	PULLBOX	EACH	1.0	
6	1098+26.58		I-44	RT.	PULLBOX	EACH	1.0	
6	1098+51.29	1098+58.26	I-44	RT.	CONCRETE DITCH	SY	8.6	
6	1098+54.09	1098+69.25	I-44	LT.	CONCRETE DITCH	SY	13.5	
6	1098+95.95		I-44	RT.	INLET	EACH	1.0	
6	1098+95.95	1099+00.00	I-44	RT.	18" PIPE	LF	12.3	
7	1100+02.68	1111+84.13	I-44	LT.	WB PAVEMENT & SHOULDER	SY	4109.1	INCLUDES PAVEMENT IN PROFILE ADJUSTMENT AREAS (EAST OF BR A9414 & WEST OF BR A9418)
7	1100+00.26	1111+82.05	I-44	RT.	EB PAVEMENT & SHOULDER	SY	4094.4	INCLUDES PAVEMENT IN PROFILE ADJUSTMENT AREAS (EAST OF BR A9413 & WEST OF BR A9417)
7	1100+00.79	1099+08.38	I-44	LT & RT	42" PIPE	LF	188.3	
7	1099+10.78	1099+23.14	I-44	LT & RT	SIDEWALK	SY	105.4	#A0444
7	1099+44.21	1099+56.86	I-44	LT & RT	SIDEWALK	SY	116.9	#A0444
7	1099+55.53	1100+49.71	I-44	RT.	CONCRETE DITCH	LF	14.7	
7	1100+04.00	1100+04.33	I-44	RT.	18" PIPE	LF	89.6	
7	1100+04.33		I-44	RT.	FES	EACH	1.0	
7	1100+04.00		I-44	RT.	INLET	EACH	1.0	
7	1100+04.00	1102+99.8707	I-44	LT.	GUARDRAIL	LF	295.9	EXTERIOR WB
7	1100+02.80	1103+87.34	I-44	LT.	GUARDRAIL	LF	384.6	INTERIOR WB
7	1100+13.74		I-44	LT.	SIGN	EACH	1.0	
7	1100+67.44		I-44	RT.	SIGN	EACH	1.0	
7	1105+58.17		I-44	RT.	SIGN	EACH	1.0	

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 1 OF 55

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I-44

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MO

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SW

SHEET NO.
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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JSU0076 REMOVAL OF IMPROVEMENTS								
PLAN SHEET	FROM STATION	TO STATION	BASELINE	OFFSET	DESCRIPTION	UNITS	QUANTITY	REMARKS
7	1107+04.45		I-44	RT.	SIGN	EACH	1.0	
7	1107+22.75		I-44	LT.	SIGN	EACH	1.0	
7	1110+34.40		I-44	RT.	DMS BOX	EACH	1.0	
7	1110+39.70		I-44	RT.	PULLBOX	EACH	1.0	
7	1110+70.11		I-44	RT.	DMS BOARD	EACH	1.0	
7	1111+78.09		I-44	RT.	SIGN	EACH	1.0	
7	1103+30.94	1111+63.95	I-44	LT.	GUARDCABLE	LF	833.1	
7	1107+87.79	1111+82.26	I-44	RT.	GUARDRAIL	LF	394.5	INTERIOR OF EB
7	1107+47.94	1111+81.09	I-44	RT.	GUARDRAIL	LF	433.2	EXTERIOR OF EB
7	1111+79.78	1111+81.93	I-44	RT.	PERMANENT BARRIER	LF	77.7	#A0445
7	1112+21.49	1112+34.34	I-44	LT & RT	SIDEWALK	SY	104.9	#A0445
7	1112+72.80	1112+84.04	I-44	LT & RT	SIDEWALK	SY	102.5	#A0445
SPS3\$ TO SPS4\$	1112+79.94	1125+04.88	I-44	RT.	ROW FENCE	LF	1224.7	
8	1113+22.67	1127+00.00	I-44	LT.	WB PAVEMENT & SHOULDER	SY	3795.8	INCLUDES PAVEMENT IN PROFILE ADJUSTMENT AREAS (EAST OF BR A9418)
8	1113+20.94	1127+00.00	I-44	RT.	EB PAVEMENT & SHOULDER	SY	3880.6	INCLUDES PAVEMENT IN PROFILE ADJUSTMENT AREAS (EAST OF BR A9417)
8	1113+14.99	1113+17.99	I-44	RT.	PERMANENT BARRIER	LF	48.0	#A0445
8	1113+66.10		I-44	RT.	HEADWALL	EACH	1.0	
8	1114+16.62		I-44	LT.	HEADWALL	EACH	1.0	
8	1113+32.47	1113+35.18	I-44	RT.	CONCRETE FLUME	SY	7.7	
8	1113+31.00		I-44	LT.	SIGN	EACH	1.0	
8	1118+12.35		I-44	LT.	SIGN	EACH	1.0	
8	1118+13.50		I-44	RT.	SIGN	EACH	1.0	
8	1125+13.00		I-44	LT.	SIGN	EACH	2.0	
8	1113+23.96	1118+30.87	I-44	LT.	GUARDRAIL	LF	506.9	EXTERIOR OF WB
8	1113+22.57	1117+06.16	I-44	LT.	GUARDRAIL	LF	383.6	INTERIOR OF WB
8	1116+64.26	1124+69.73	I-44	LT.	GUARDCABLE	LF	805.6	
8	1125+21.85	1127+00.00	I-44	RT.	GUARDCABLE	LF	178.2	
8	1125+80.63	1127+00.00	I-44	RT.	GUARDRAIL	LF	119.4	
8	1124+73.32		I-44	LT.	INLET	EACH	1.0	
8	1124+73.32	1124+73.45	I-44	LT.	24" PIPE	LF	72.5	
8	1124+73.45		I-44	LT.	FES	EACH	1.0	
SPS4\$ TO SPS5\$	1124+67.62	1127+75.71	I-44	LT.	CONCRETE DITCH	LF	309.3	
9	1127+00.00	1141+00.00	I-44	LT.	WB SHOULDER	SY	2066.6	
9	1127+00.00	1141+00.00	I-44	RT.	EB SHOULDER	SY	1866.9	
9	1127+00.00	1141+00.00	I-44	RT.	GUARDCABLE	LF	1400.0	
9	1127+00.00	1131+80.53	I-44	RT.	GUARDRAIL	LF	480.5	
9	1128+57.42		I-44	LT.	SIGN	EACH	1.0	
9	1128+54.38		I-44	RT.	SIGN	EACH	1.0	
9	1135+30.18		I-44	LT.	SIGN	EACH	2.0	
9	1137+99.48		I-44	LT.	SIGN	EACH	1.0	
9	1139+08.65		I-44	RT.	SIGN	EACH	1.0	
9	1139+09.03		I-44	LT.	SIGN	EACH	1.0	
9	1134+49.43		I-44	LT.	INLET	EACH	1.0	
9	1134+49.43	1134+49.69	I-44	LT.	24" PIPE	LF	68.8	
9	1134+49.69		I-44	LT.	FES	EACH	1.0	
10	1141+00.00	1155+00.00	I-44	LT.	WB SHOULDER	SY	2146.0	
10	1141+00.00	1155+00.00	I-44	RT.	EB SHOULDER	SY	2129.9	
10	1141+00.00	1155+00.00	I-44	RT.	GUARDCABLE	LF	1400.0	
10	1150+44.34		I-44	LT.	FES	EACH	1.0	
10	1150+44.34	1151+00.00	I-44	LT.	24" PIPE	LF	81.6	
10	1151+00.00		I-44	LT.	INLET	EACH	1.0	
10	1149+63.88		I-44	LT.	SIGN	EACH	1.0	
10	1149+63.69		I-44	RT.	SIGN	EACH	1.0	
11	1155+00.00	1169+00.00	I-44	LT.	WB SHOULDER	SY	2080.6	
11	1155+00.00	1169+00.00	I-44	RT.	EB SHOULDER	SY	2035.3	
11	1155+00.00	1169+00.00	I-44	RT.	GUARDCABLE	LF	1400.0	
11	1157+71.48	1157+80.87	I-44	RT.	CONCRETE	SY	19.4	
11	1160+21.13		I-44	RT.	SIGN	EACH	1.0	
11	1160+20.09		I-44	LT.	SIGN	EACH	1.0	
11	1165+43.22	1165+53.90	I-44	RT.	CONCRETE DITCH	SY	76.9	
11	1166+78.40		I-44	RT.	SIGN	EACH	2.0	
11	1167+24.77		I-44	LT	SIGN	EACH	1.0	
11	1165+49.42		I-44	RT.	HEADWALL	EACH	1.0	
11	1165+50.81	1165+59.57	I-44	LT & RT	24" PIPE	LF	8.8	
11	1165+51.31		I-44	RT.	TYPE A PIPE COLLAR	EACH	1.0	
11	1165+60.18		I-44	LT & RT	INLET	EACH	1.0	
12	1169+00.00	1178+07.05	I-44	LT.	WB PAVEMENT & SHOULDER	SY	2992.2	INCLUDES PAVEMENT IN PROFILE ADJUSTMENT AREAS (WEST OF BRIDGE A9422)
12	1169+00.00	1178+04.49	I-44	RT.	EB PAVEMENT & SHOULDER	SY	2846.4	INCLUDES PAVEMENT IN PROFILE ADJUSTMENT AREAS (WEST OF BR A9421)
12	1179+41.32	1183+00.00	I-44	LT.	WB PAVEMENT & SHOULDER	SY	1563.3	INCLUDES PAVEMENT IN PROFILE ADJUSTMENT AREAS (EAST OF BRIDGE A9422)
12	1179+38.82	1183+00.00	I-44	RT.	EB PAVEMENT & SHOULDER	SY	1680.0	INCLUDES PAVEMENT IN PROFILE ADJUSTMENT AREAS (EAST OF BR A9421)
12	1169+00.00	1176+05.23	I-44	RT.	GUARDCABLE	LF	543.4	
12	1170+80.26	1179+26.16	I-44	RT.	GUARDRAIL	LF	846.0	EXTERIOR OF EB
12	1170+77.22		I-44	LT.	SIGN	EACH	1.0	
12	1170+77.13		I-44	RT.	SIGN	EACH	1.0	
12	1177+98.81		I-44	RT.	SIGN	EACH	1.0	
12	1179+54.84		I-44	LT	SIGN	EACH	1.0	
12	1181+31.89		I-44	LT	SIGN	EACH	1.0	
12	1181+34.28		I-44	RT.	SIGN	EACH	1.0	
12	1171+91.06		I-44	LT.	HEADWALL	EACH	1.0	
12	1171+91.36		I-44	RT.	HEADWALL	EACH	1.0	

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 2 OF 55

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REV.

REMOVAL OF IMPROVEMENTS (BY OTHERS)								
SHEET	ROADWAY	FROM STATION	TO STATION	LOCATION	DESCRIPTION	UNIT	QUANTITY	REMARKS
4	I-44	1071+99.40	1085+00.00	CL.	UNDERGROUND FIBER	LF	1400.9	
6	I-44	1085+00.00	1099+00.00	CL.	UNDERGROUND FIBER	LF	1399.0	
6	I-44	1090+33.44		LT.	SIGN	EACH	1.0	RELOCATE
7	I-44	1099+00.00	1113+00.00	CL.	UNDERGROUND FIBER	LF	1402.8	
7	I-44	1102+01.91		LT.	SIGN	EACH	1.0	RELOCATE
7	I-44	1110+63.80		RT.	SIGN	EACH	1.0	REPLACE
8	I-44	1113+00.00	1127+00.00	CL.	UNDERGROUND FIBER	LF	1400.3	
8	I-44	1121+41.59		RT.	SIGN	EACH	1.0	RELOCATE
8	I-44	1125+16.03		RT.	SIGN	EACH	1.0	RELOCATE
9	I-44	1127+00.00	1141+00.00	CL.	UNDERGROUND FIBER	LF	1400.5	
9	I-44	1129+88.31		RT.	SIGN	EACH	1.0	RELOCATE
9	I-44	1137+52.50		RT.	SIGN	EACH	1.0	RELOCATE
10	I-44	1141+00.00	1155+00.00	CL.	UNDERGROUND FIBER	LF	1400.4	
10	I-44	1152+31.98	1152+39.04	LT. & RT.	UNDERGROUND FIBER	LF	283.4	
10	I-44	1152+33.52	1152+40.68	LT. & RT.	UNDERGROUND FIBER	LF	284.0	
10	I-44	1152+35.07	1152+42.49	LT. & RT.	UNDERGROUND FIBER	LF	292.1	
11	I-44	1155+00.00	1169+00.00	CL.	UNDERGROUND FIBER	LF	1400.4	
11	I-44	1156+92.76		RT.	SIGN	EACH	1.0	RELOCATE
12	I-44	1169+00.00	1183+00.00	CL.	UNDERGROUND FIBER	LF	1400.5	
12	I-44	1177+78.19		RT.	SIGN	EACH	1.0	RELOCATE
13	I-44	1183+00.00	1197+00.00	CL.	UNDERGROUND FIBER	LF	1396.9	
14	I-44	1197+00.00	1211+00.00	CL.	UNDERGROUND FIBER	LF	1400.1	
16	I-44	1211+00.00	1213+22.32	CL.	UNDERGROUND FIBER	LF	222.4	
				TOTAL	1 LUMP SUM			

JSU0076 CLEARING AND GRUBBING						
SHEET	FROM STATION	TO STATION	ROADWAY	LOCATION	CLEARING AND GRUBBING (ACRE)	REMARKS
5 TO 6	1080+87.49	1086+95.01	I-44	LT	0.2	
6	1097+90.35	1098+58.19	I-44	LT	0.4	
7	1101+00.80		I-44	RT	0.01	SINGLE TREE
7	1107+19.42		I-44	RT	0.01	SINGLE TREE
7	1107+59.03		I-44	RT	0.01	SINGLE TREE
7	1107+95.81		I-44	RT	0.01	SINGLE TREE
7	1108+37.91		I-44	RT	0.01	SINGLE TREE
7	1108+78.34		I-44	RT	0.01	SINGLE TREE
8	1119+15.92	1119+91.71	I-44	LT	0.1	
8	1121+02.12		I-44	LT	0.01	SINGLE TREE
8	1122+55.04		I-44	RT	0.01	SINGLE TREE
9	1138+82.39		I-44	RT	0.01	SINGLE TREE
10	1147+97.64		I-44	RT	0.01	SINGLE TREE
10	1148+77.58	1150+46.73	I-44	RT	0.2	
11	1164+73.19		I-44	RT	0.01	SINGLE TREE
11	1164+73.21	1167+19.87	I-44	RT	0.2	
11 TO 12	1167+56.23	1170+19.20	I-44	RT	0.2	
12	1173+09.75		I-44	RT	0.01	SINGLE TREE
12	1174+05.40		I-45	RT	0.01	SINGLE TREE
12	1174+92.30		I-46	RT	0.01	SINGLE TREE
				TOTAL	2	

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 4 OF 55

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

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)



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651 WEST ELFINDALE STREET
SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631

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

REV.

JSU0076 CLEARING AND GRUBBING (COST SHARE)						
SHEET	FROM STATION	TO STATION	ROADWAY	LOCATION	CLEARING AND GRUBBING (ACRE)	REMARKS
45	0+00.00	6+78.46	DOLING TRAIL	LT & RT	0.3	
45	8+83.45	13+07.44	DOLING TRAIL	LT & RT	0.2	
TOTAL					1	

JSU0076 CULVERT CLEANOUT					
PLAN SHEET	STATION	ROUTE	LOCATION	CULVERT CLEANOUT (EA)	REMARKS
8	1113+90.5	I-44	LT. & RT.	1	EX. 42" PIPE
11	1157+48.5	I-44	LT. & RT.	1	EX. 30" PIPE
11	1165+49.5	I-44	LT. & RT.	1	EX. 30" PIPE
12	1171+91.2	I-44	LT. & RT.	1	EX. 48" PIPE
14	1199+14.8	I-44	LT. & RT.	1	EX. 6' X5' BOX CULVERT
TOTAL				5	

JSU0076 EARTHWORK										
ROADWAY	CUT	EARTH CUT	ROCK CUT	FILL	EXCAVATION TO BE USED IN EMBANKMENT (CUYD)	UNCLASSIFIED EXCAVATION (CUYD)	EMBANKMENT IN PLACE (CUYD)	COMPACTING EMBANKMENT (CUYD)	COMPACTING IN CUT (STA)	REMARKS
I-44	136,415	102,311	34,104	49,540					130.0	
I-44 PAVEMENT REMOVAL	-36,938	-36,938								
BROADWAY (INCLUDES WALLS)	2,075	1,868	208	0						10% OF TOTAL CUT ASSUMED TO BE ROCK CUT
WALL A9415										10% OF TOTAL CUT ASSUMED TO BE ROCK CUT
WALL A9416										10% OF TOTAL CUT ASSUMED TO BE ROCK CUT
GRANT (INCLUDES WALLS)	2,442	2,198	244	0						10% OF TOTAL CUT ASSUMED TO BE ROCK CUT
WALL A9419										10% OF TOTAL CUT ASSUMED TO BE ROCK CUT
WALL A9420										10% OF TOTAL CUT ASSUMED TO BE ROCK CUT
NATIONAL (INCLUDES WALLS)	3,005	2,705	301	0						10% OF TOTAL CUT ASSUMED TO BE ROCK CUT
WALL A9423										10% OF TOTAL CUT ASSUMED TO BE ROCK CUT
WALL A9424										10% OF TOTAL CUT ASSUMED TO BE ROCK CUT
GROUND IMPROVEMENT	5,594	2,797	2,797							50% OF TOTAL CUT ASSUMED TO BE ROCK CUT
SUBTOTALS	112,593	74,940	37,653	49,540	103,271					
TOTALS					112,593		0	49,540	130.0	

JSU0076 EARTHWORK (COST SHARE)										
ROADWAY	CUT	EARTH CUT	ROCK CUT	FILL	EXCAVATION TO BE USED IN EMBANKMENT (CUYD)	UNCLASSIFIED EXCAVATION (CUYD)	EMBANKMENT IN PLACE (CUYD)	COMPACTING EMBANKMENT (CUYD)	COMPACTING IN CUT (STA)	REMARKS
DOLING TRAIL	3,256	2,442	814	2,617					3.0	
SUBTOTALS	3,256	2,442	814	2,617	2,849					
TOTALS					3,256		0	2,617	3.0	

NOTE: 25% SHRINK AND SWELL ASSUMED DURING COMPACTION

I-44 WIDENING
JSU0076
SUMMARY OF QUANTITIES
SHEET 5 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/26/2024

ROUTE
I-44

DISTRICT
SW

STATE
MO

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

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ENGINEERING CORPORATION - 000631

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

REV.

L:\MoDOT\22004246-00_New\424600\Sheets\J813044C & JSU0076\003_QU_IJSU0076_i1.dgn 12:42:01 PM 9/26/2024

JSU0076 ALTERNATE A (ASPHALT) PAVEMENT							
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	15 INCHES, ASPHALTIC CONCRETE PAVEMENT SP125BLP OR SP125BSM (SQYD)	BITUMINOUS SHOULDER RUMBLE STRIP (STA)	REMARKS
4	1071+99.40	1074+59.40	I44	RT	562.5	5.2	INCLUDES FULL DEPTH INSIDE SHOULDER
4	1071+99.40	1078+99.80	I44	LT	1,520.4	14.0	INCLUDES FULL DEPTH INSIDE SHOULDER
4	1074+59.40	1083+92.09	I44	RT	3,542.9	18.7	INCLUDES FULL DEPTH SHOULDERS
4	1078+99.80	1085+00.00	I44	LT	1,252.1	12.0	INCLUDES FULL DEPTH INSIDE SHOULDER
4	1083+92.09	1085+00.00	I44	RT	402.6	2.2	INCLUDES FULL DEPTH OUTSIDE SHOULDER
4	2+21.42	3+09.04	WB I44 OFF RAMP @ ROUTE 13	LT & RT	240.5		INCLUDES FULL DEPTH INSIDE SHOULDER
4	2+06.55	3+69.42	EB I44 ON RAMP @ ROUTE 13	LT & RT	508.7		INCLUDES FULL DEPTH SHOULDERS
6	1085+00.00	1098+56.50	I44	LT	4,024.7	27.1	INCLUDES PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
6	1085+00.00	1098+56.50	I44	RT	5,632.0	27.1	INCLUDES FULL DEPTH OUTSIDE SHOULDER & PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
7	1100+12.49	1111+74.25	I44	LT	4,413.3	23.2	INCLUDES PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
7	1100+12.49	1111+74.25	I44	RT	5,642.4	23.2	INCLUDES FULL DEPTH OUTSIDE SHOULDER & PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
8	1113+31.23	1116+49.08	I44	LT	1,620.0	6.4	INCLUDES PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
8	1113+31.23	1120+70.50	I44	RT	3,825.1	14.8	INCLUDES FULL DEPTH OUTSIDE SHOULDER & PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
8	1116+49.08	1120+70.50	I44	LT	1,818.1	8.4	INCLUDES FULL DEPTH OUTSIDE SHOULDER & PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
8	1120+70.50	1127+00.00	I44	LT	2,129.3	12.6	INCLUDES FULL DEPTH SHOULDERS
8	1120+70.50	1127+00.00	I44	RT	2,120.1	12.6	INCLUDES FULL DEPTH SHOULDERS
9	1127+00.00	1137+74.01	I44	LT	3,643.4	21.5	INCLUDES FULL DEPTH SHOULDERS
9	1127+00.00	1137+74.01	I44	RT	3,616.5	21.5	INCLUDES FULL DEPTH SHOULDERS
9	1137+74.01	1141+00.00	I44	LT	788.1	6.5	INCLUDES FULL DEPTH OUTSIDE SHOULDER
9	1137+74.01	1141+00.00	I44	RT	766.4	6.5	INCLUDES FULL DEPTH OUTSIDE SHOULDER
10	1141+00.00	1141+41.27	I44	LT	99.1	0.8	INCLUDES FULL DEPTH OUTSIDE SHOULDER
10	1141+00.00	1155+00.00	I44	RT	3,306.9	28.0	INCLUDES FULL DEPTH OUTSIDE SHOULDER
10	1141+41.27	1155+00.00	I44	LT	2,035.3	27.2	
11	1155+00.00	1169+00.00	I44	LT	2,070.7	28.0	
11	1155+00.00	1169+00.00	I44	RT	3,285.3	28.0	INCLUDES FULL DEPTH OUTSIDE SHOULDER
12	1169+00.00	1177+94.18	I44	LT	3,001.0	17.9	INCLUDES PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
12	1169+00.00	1177+94.18	I44	RT	3,920.0	17.9	INCLUDES FULL DEPTH OUTSIDE SHOULDER & PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
12	1179+51.17	1183+00.00	I44	LT	1,757.8	7.0	INCLUDES PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
12	1179+51.17	1183+00.00	I44	RT	2,162.1	7.0	INCLUDES FULL DEPTH OUTSIDE SHOULDER & PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
13	1183+00.00	1197+00.00	I44	LT	2,618.0	28.0	
13	1183+00.00	1197+00.00	I44	RT	3,370.5	28.0	INCLUDES FULL DEPTH OUTSIDE SHOULDER
14	1197+00.00	1211+00.00	I44	LT	2,662.2	28.0	
14	1197+00.00	1211+00.00	I44	RT	4,490.8	28.0	INCLUDES FULL DEPTH OUTSIDE SHOULDER
14	3+17.00	4+77.13	WB I44 ON RAMP @ GLENSTONE	LT & RT	433.4		INCLUDES FULL DEPTH INSIDE SHOULDER
14	1+92.46	3+45.04	EB I44 OFF RAMP @ GLENSTONE	LT & RT	378.0		INCLUDES FULL DEPTH INSIDE SHOULDER
16	1211+00.00	1211+82.91	I44	LT	129.7	1.7	
16	1211+82.91	1213+22.32	I44	LT	397.6	2.8	INCLUDES FULL DEPTH INSIDE SHOULDER
16	1211+00.00	1213+22.32	I44	RT	532.4	4.4	INCLUDES FULL DEPTH OUTSIDE SHOULDER
				TOTALS	84,719.7	546.2	

SHEETS 6 & 7: BREAK FROM STATION 1098+55.50 TO STATION 1100+12.49 FOR BRIDGES A9413 & A9414

SHEETS 7 & 8: BREAK FROM STATION 1111+74.25 TO STATION 1113+31.23 FOR BRIDGES A9417 & A9418

SHEET 12: BREAK FROM STATION 1177+94.18 TO STATION 1179+51.17 FOR BRIDGES A9421 & A9422

I-44 WIDENING
JSU0076
SUMMARY OF QUANTITIES
SHEET 6 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

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SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631

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REV.

JSU0076 ALTERNATE B (CONCRETE) PAVEMENT							
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	CONCRETE PAVEMENT (11 ½ IN. NON-REINFORCED, 15 FT. JOINTS) (SQYD)	PORTLAND CEMENT CONCRETE SHOULDER RUMBLE STRIP (STA)	REMARKS
4	1071+99.40	1074+59.40	I44	RT	562.5	5.2	INCLUDES FULL DEPTH INSIDE SHOULDER
4	1071+99.40	1078+99.80	I44	LT	1,520.4	14.0	INCLUDES FULL DEPTH INSIDE SHOULDER
4	1074+59.40	1083+92.09	I44	RT	3,542.9	18.7	INCLUDES FULL DEPTH SHOULDERS
4	1078+99.80	1085+00.00	I44	LT	1,252.1	12.0	INCLUDES FULL DEPTH INSIDE SHOULDER
4	1083+92.09	1085+00.00	I44	RT	402.6	2.2	INCLUDES FULL DEPTH OUTSIDE SHOULDER
4	2+21.42	3+09.04	WB I44 OFF RAMP @ ROUTE 13	LT & RT	240.5		INCLUDES FULL DEPTH INSIDE SHOULDER
4	2+06.55	3+69.42	EB I44 ON RAMP @ ROUTE 13	LT & RT	508.7		INCLUDES FULL DEPTH SHOULDERS
6	1085+00.00	1098+56.50	I44	LT	4,024.7	27.1	INCLUDES PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
6	1085+00.00	1098+56.50	I44	RT	5,632.0	27.1	INCLUDES FULL DEPTH OUTSIDE SHOULDER & PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
7	1100+12.49	1111+74.25	I44	LT	4,413.3	23.2	INCLUDES PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
7	1100+12.49	1111+74.25	I44	RT	5,642.4	23.2	INCLUDES FULL DEPTH OUTSIDE SHOULDER & PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
8	1113+31.23	1116+49.08	I44	LT	1,620.0	6.4	INCLUDES PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
8	1113+31.23	1120+70.50	I44	RT	3,825.1	14.8	INCLUDES FULL DEPTH OUTSIDE SHOULDER & PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
8	1116+49.08	1120+70.50	I44	LT	1,818.1	8.4	INCLUDES FULL DEPTH OUTSIDE SHOULDER & PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
8	1120+70.50	1127+00.00	I44	LT	2,129.3	12.6	INCLUDES FULL DEPTH SHOULDERS
8	1120+70.50	1127+00.00	I44	RT	2,120.1	12.6	INCLUDES FULL DEPTH SHOULDERS
9	1127+00.00	1137+74.01	I44	LT	3,643.4	21.5	INCLUDES FULL DEPTH SHOULDERS
9	1127+00.00	1137+74.01	I44	RT	3,616.5	21.5	INCLUDES FULL DEPTH SHOULDERS
9	1137+74.01	1141+00.00	I44	LT	788.1	6.5	INCLUDES FULL DEPTH OUTSIDE SHOULDER
9	1137+74.01	1141+00.00	I44	RT	766.4	6.5	INCLUDES FULL DEPTH OUTSIDE SHOULDER
10	1141+00.00	1141+41.27	I44	LT	99.1	0.8	INCLUDES FULL DEPTH OUTSIDE SHOULDER
10	1141+00.00	1155+00.00	I44	RT	3,306.9	28.0	INCLUDES FULL DEPTH OUTSIDE SHOULDER
10	1141+41.27	1155+00.00	I44	LT	2,035.3	27.2	
11	1155+00.00	1169+00.00	I44	LT	2,070.7	28.0	
11	1155+00.00	1169+00.00	I44	RT	3,285.3	28.0	INCLUDES FULL DEPTH OUTSIDE SHOULDER
12	1169+00.00	1177+94.18	I44	LT	3,001.0	17.9	INCLUDES PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
12	1169+00.00	1177+94.18	I44	RT	3,920.0	17.9	INCLUDES FULL DEPTH OUTSIDE SHOULDER & PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
12	1179+51.17	1183+00.00	I44	LT	1,757.8	7.0	INCLUDES PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
12	1179+51.17	1183+00.00	I44	RT	2,162.1	7.0	INCLUDES FULL DEPTH OUTSIDE SHOULDER & PAVEMENT REPLACEMENT IN PROFILE ADJUSTMENT AREAS
13	1183+00.00	1197+00.00	I44	LT	2,618.0	28.0	
13	1183+00.00	1197+00.00	I44	RT	3,370.5	28.0	INCLUDES FULL DEPTH OUTSIDE SHOULDER
14	1197+00.00	1211+00.00	I44	LT	2,662.2	28.0	
14	1197+00.00	1211+00.00	I44	RT	4,490.8	28.0	INCLUDES FULL DEPTH OUTSIDE SHOULDER
14	3+17.00	4+77.13	WB I44 ON RAMP @ GLENSTONE	LT & RT	433.4		INCLUDES FULL DEPTH INSIDE SHOULDER
14	1+92.46	3+45.04	EB I44 OFF RAMP @ GLENSTONE	LT & RT	378.0		INCLUDES FULL DEPTH INSIDE SHOULDER
16	1211+00.00	1211+82.91	I44	LT	129.7	1.7	
16	1211+82.91	1213+22.32	I44	LT	397.6	2.8	INCLUDES FULL DEPTH INSIDE SHOULDER
16	1211+00.00	1213+22.32	I44	RT	532.4	4.4	INCLUDES FULL DEPTH OUTSIDE SHOULDER
				TOTALS	84,719.7	546.2	

SHEETS 6 & 7: BREAK FROM STATION 1098+55.50 TO STATION 1100+12.49 FOR BRIDGES A9413 & A9414

SHEETS 7 & 8: BREAK FROM STATION 1111+74.25 TO STATION 1113+31.23 FOR BRIDGES A9417 & A9418

SHEET 12: BREAK FROM STATION 1177+94.18 TO STATION 1179+51.17 FOR BRIDGES A9421 & A9422

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 7 OF 55

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/26/2024

ROUTE
I-44

DISTRICT
SW

STATE
MO

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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REV.

JSU0076 ALTERNATE C (ASPHALT) SHOULDERS							
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	TYPE A2 SHOULDER (SQYD)	CONCRETE CURB (6 IN. HEIGHT AND UNDER) TYPE S (LF)	REMARKS
4	1071+99.40	1074+59.40	I44	RT	214.6		
4	1071+99.40	1079+44.05	I44	LT	519.6		
4	1078+99.80	1083+92.09	I44	LT	437.6		
4	1079+23.08	1085+00.00	I44	LT	440.4		
4	1083+92.09	1085+00.00	I44	LT & RT	215.8		
4	2+21.42	3+09.04	WB I44 OFF RAMP @ ROUTE 13	RT	38.9		
6	1085+00.00	1098+56.50	I44	LT & RT	2,708.3		
6	1085+00.00	1098+56.50	I44	LT	1,202.6		
7	1100+11.49	1111+74.23	I44	LT & RT	2,330.0		
7	1100+11.49	1111+74.23	I44	LT	1,033.3		
8	1113+31.25	1116+49.08	I44	LT	282.8		
8	1113+31.25	1120+70.50	I44	LT & RT	1,481.9		
9	1137+74.01	1141+00.00	I44	LT & RT	652.0		
10	1141+00.00	1155+00.00	I44	LT & RT	2,800.0		
10	1141+41.27	1155+00.00	I44	LT	1,207.8		
11	1155+00.00	1169+00.00	I44	LT & RT	2,800.0		
11	1155+00.00	1169+00.00	I44	LT	1,244.4		
12	1169+00.00	1177+94.03	I44	LT & RT	1,791.7		
12	1169+00.00	1177+94.03	I44	LT	795.1		
12	1179+51.05	1183+00.00	I44	LT & RT	701.0		
12	1179+51.05	1183+00.00	I44	LT	310.4		
13	1183+00.00	1197+00.00	I44	LT & RT	2,792.3		
13	1183+00.00	1197+00.00	I44	LT	1,241.2		
13	1184+50.00	1192+00.00	I44	RT		750	
14	1197+00.00	1211+00.00	I44	LT & RT	2,800.0		
14	1197+00.00	1200+37.59	I44	LT	248.8		
14	1199+88.29	1211+00.00	I44	LT	985.8		
14	1204+46.36	1205+10.36	I44	RT	28.9		
14	3+17.00	4+77.13	WB I44 ON RAMP @ GLENSTONE	RT	70.7		
14	1+92.46	3+45.04	EB I44 OFF RAMP @ GLENSTONE	RT	67.4		
16	1211+00.00	1211+82.91	I44	LT & RT	165.8		
16	1211+00.00	1212+91.73	I44	LT	197.6		
16	1211+82.91	1212+91.73	I44	RT	100.8		
				TOTALS	31,907.5	750	

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 8 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)

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REV.

JSU0076 ALTERNATE D (CONCRETE) SHOULDERS							
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	TYPE A2 SHOULDER (SQYD)	INTEGRAL CURB (6 IN. HEIGHT AND UNDER) TYPE A (LF)	REMARKS
4	1078+99.80	1074+59.40	I44	RT	214.6		
4	1078+99.80	1079+44.05	I44	LT	519.6		
4	1078+99.80	1083+92.09	I44	LT	437.6		
4	1079+23.08	1085+00.00	I44	LT	440.4		
4	1083+92.09	1085+00.00	I44	LT & RT	215.8		
4	2+21.42	3+09.04	WB I44 OFF RAMP @ ROUTE 13	RT	38.9		
6	1085+00.00	1098+56.50	I44	LT & RT	2,708.3		
6	1085+00.00	1098+56.50	I44	LT	1,202.6		
7	1100+11.49	1111+74.23	I44	LT & RT	2,330.0		
7	1100+11.49	1111+74.23	I44	LT	1,033.3		
8	1113+31.25	1116+49.08	I44	LT	282.8		
8	1113+31.25	1120+70.50	I44	LT & RT	1,481.9		
9	1137+74.01	1141+00.00	I44	LT & RT	652.0		
10	1141+00.00	1155+00.00	I44	LT & RT	2,800.0		
10	1141+41.27	1155+00.00	I44	LT	1,207.8		
11	1155+00.00	1169+00.00	I44	LT & RT	2,800.0		
11	1155+00.00	1169+00.00	I44	LT	1,244.4		
12	1169+00.00	1177+94.03	I44	LT & RT	1,791.7		
12	1169+00.00	1177+94.03	I44	LT	795.1		
12	1179+51.05	1183+00.00	I44	LT & RT	701.0		
12	1179+51.05	1183+00.00	I44	LT	310.4		
13	1183+00.00	1197+00.00	I44	LT & RT	2,792.3		
13	1183+00.00	1197+00.00	I44	LT	1,241.2		
13	1184+50.00	1192+00.00	I44	RT		750	
14	1197+00.00	1211+00.00	I44	LT & RT	2,800.0		
14	1197+00.00	1200+37.59	I44	LT	248.8		
14	1199+88.29	1211+00.00	I44	LT	985.8		
14	1204+46.36	1205+10.36	I44	RT	28.9		
14	3+17.00	4+77.13	WB I44 ON RAMP @ GLENSTONE	RT	70.7		
14	1+92.46	3+45.04	EB I44 OFF RAMP @ GLENSTONE	RT	67.4		
16	1211+00.00	1211+82.91	I44	LT & RT	165.8		
16	1211+00.00	1212+91.73	I44	LT	197.6		
16	1211+82.91	1212+91.73	I44	RT	100.8		
				TOTALS	31,907.5	750	

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 9 OF 55

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9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

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REV.

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JSU0076 BOX CULVERTS									
SHEET	CENTERLINE STATION	BASELINE	LOCATION	LENGTH (FT)	CLASS 4 EXCAVATION (CUYD)	CLASS 4 EXCAVATION IN ROCK (CUYD)	CLASS B-1 CONCRETE (CULVERTS) (CUYD)	REINFORCING STEEL (CULVERTS) (LB)	REMARKS
14	1199+14.43	I-44	LEFT	34'-5 5/8"	44	3	19.3	2,930	SINGLE 6' X 5' BOX CULVERT EXTENSION
14	1199+14.43	I-44	RIGHT	35'-6 3/8"	52	3	19.9	3,000	SINGLE 6' X 5' BOX CULVERT EXTENSION
					496		5.2	1,020	FROM MEDIAN DETENTION BOXES AND END CAPS TABLE
				TOTALS	592	6	44.4	6,950	

JSU0076 BOX CULVERTS (COST SHARE)									
SHEET	CENTERLINE STATION	BASELINE	LOCATION	LENGTH (FT)	CLASS 4 EXCAVATION (CUYD)	CLASS 4 EXCAVATION IN ROCK (CUYD)	CLASS B-1 CONCRETE (CULVERTS) (CUYD)	REINFORCING STEEL (CULVERTS) (LB)	REMARKS
9	1129+27.24	I-44	LEFT/RIGHT	301'-9 7/8"	4,676	520	751.9	102,140	DOLING TRAIL - SINGLE 14' X 10' BOX CULVERT UNDER I-44
				TOTALS	4,676	520	751.9	102,140	

JSU0076 MEDIAN DETENTION BOXES AND END CAPS										
PLAN SHEET	CULVERT SECTION SHEET	FROM STATION	TO STATION	ROADWAY	12' X 3' BOX CULVERT (UNDERGROUND DETENTION) (LF)	12' X 4' BOX CULVERT (UNDERGROUND DETENTION) (LF)	CLASS B-1 CONCRETE (CULVERTS)* (CUYD)	REINFORCING STEEL (CULVERTS)* (LB)	CLASS 4 EXCAVATION* (CUYD)	REMARKS
9	6	1134+20.5	1135+22.5	I-44	100		2.2	430	156	
13 & 14	10	1195+56.8	1197+58.8	I-44		200	3.0	590	340	
				TOTAL	100	200	5.2	1,020	496	

NOTE: SEE BOX CULVERT TABLE FOR TOTAL CLASS B-1 CONCRETE (CULVERTS), REINFORCING STEEL (CULVERTS), AND CLASS 4 EXCAVATION QUANTITY TOTALS

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 11 OF 55

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I-44

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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JSU0076 DRAINAGE PIPES													
PLAN SHEET	CULVERT SECTION SHEET	FROM STRUCT.	TO STRUCT.	PIPE COLLAR, TYPE A (EA)	12 IN. PIPE GROUP A (LF)	15 IN. PIPE GROUP A (LF)	18 IN. PIPE GROUP A (LF)	24 IN. PIPE GROUP A (LF)	30 IN. PIPE GROUP A (LF)	42 IN. PIPE GROUP A (LF)	48 IN. PIPE GROUP A (LF)	CLASS 3 EXCAVATION (CUYD)	REMARKS
4	1	1	2					189				172	
4	1	2	3					247				164	
4	1	3	4B					247				155	
4	1 TO 2	4B	5			247						107	
4	2	5	6B			247						86	
4	2	6B	6A		2							1	
4	2	4B	4A		2							1	
6	3	7	8A			91						80	
6	3	8A	8B			2						1	
6	3	8B	9			297						115	
6	3	9	10B			297						105	
6	3	10B	10A		2							1	
7	4	12A	12C			81						37	
7	4	12C	12E			8						2	
7	4	12E	13B			363						124	
7	4	13B	14B			373						139	
7	4	14B	14A		2							1	
7	4	13B	13A		2							1	
7	4	12C	12B		2							1	
7	4	12B	12D		8							1	
8	5	17A	17B		2							1	
8	5	17B	18			247						71	
8	5	18	19B			247						87	
8	5	19B	20			247						85	
8	5	20	21			247						97	
8	5	21	22				87					79	
8	5	19B	19A		2							1	
9	6	23A	23B		2							1	
9	6	23B	24			247						87	
9	6	24	25			150						69	
9	6	25	26				100					102	
9	7	25	27					164				110	
9	7	27	28B					285				161	
9 TO 10	7	28B	29					285				157	
10	7	29	30B					285				158	
10	7 TO 8	30B	31				285					121	
10	8	31	32B				285					117	
10	8	32B	33			285						101	
10 TO 11	8	33	34B			285						98	
11	8	34B	34A		2							1	
9	8	28B	28A		2							1	
10	8	30A	30B		2							1	
10	8	32A	32B		2							1	
11	9	37	38					52				12	
11	9	38	39	1				10				2	
11	9	39	41			346						146	
SUBTOTALS:				1	34	4,307	757	1,754	10	0	0		

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 12 OF 55

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ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)



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

REV.

JSU0076 DRAINAGE PIPES													
PLAN SHEET	CULVERT SECTION SHEET	FROM STRUCT.	TO STRUCT.	PIPE COLLAR, TYPE A (EA)	12 IN. PIPE GROUP A (LF)	15 IN. PIPE GROUP A (LF)	18 IN. PIPE GROUP A (LF)	24 IN. PIPE GROUP A (LF)	30 IN. PIPE GROUP A (LF)	42 IN. PIPE GROUP A (LF)	48 IN. PIPE GROUP A (LF)	CLASS 3 EXCAVATION (CUYD)	REMARKS
12	9	41	44B			347						117	
12	9	44B	44A		2							1	
13	10	45A	45B		2							1	
13	10	45B	46			247						94	
13	10	46	47B			247						96	
13	10	47B	48					247				142	
13	10	48	49B					248				146	
13	10	49B	50					103				77	
13	10	50	51			94						84	
13	11	47B	47A		2							1	
13	11	49B	49A		2							1	
14	11	50	52B						242			212	
14	11	52B	53A						247			211	
14	11 TO 12	53A	54B						247			241	
14	12	54B	55					247				166	
14	12	55	56					247				168	
14 + 16	12	56	57					307				250	
16	12	57	58A					187				150	
16	12	58A	59				247					134	
16	12 TO 13	59	60A				247					129	
16	13	60A	60B		2							1	
14	13	52B	52A		2							1	
14	13	54B	54A		2							1	
16	13	58A	58B		2							1	
8	14	15	-	1						28		12	
8	14	-	16	1						16		14	
11	14	36B	36A				46					22	
11	14	35B	-	1				17				1	
11	14	-	35A	1				6				2	
6 TO 7	14	11D	11C							26		27	
7	14	11C	11B							170		265	
6 TO 7	14	11B	11A				28					16	
12	15	43	-	1							13	2	
12	15	-	42	1							41	12	
12	15	95	96				58					8	
12	15	96	97				221					124	
14	16	106	107					120				130	
14	16	108	109				105					83	
13	17	98	99			123						78	
13	17	99	100			123						78	
13	17	100	101			98						61	
13	17	101	102				98					68	
13	17	102	103				133					96	
13	17	103	104				467					252	
13	17	104	105				27					6	
12	16	40	-					4				1	
12	16	-	-					2				2	
SUBTOTALS:				6	16	1,279	1,631	1,758	759	240	54		
TOTALS:				7	50	5,586	2,388	3,506	769	240	54	6,946	SEE STRUCTURES FOR TOTAL

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 13 OF 55

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DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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JSU0076 DRAINAGE STRUCTURES																			
STRUCT. NO.	PLAN SHEET	CULVERT SECTION SHEET	STATION	ROADWAY	LOCATION	STD.	TYPE	ACTUAL DEPTH	PRECAST CONCRETE MANHOLE - 48 IN. (FT)	PRECAST CONCRETE MANHOLE - 72 IN. (FT)	PRECAST CONCRETE DROP INLET 3 FT X 3 FT (FT)	PRECAST CONCRETE DROP INLET 4 FT X 2 FT (FT)	PRECAST CONCRETE DROP INLET 5 FT X 3 FT (FT)	SPECIAL INLET NO. 1 (FT)	SPECIAL INLET NO. 2 (FT)	CLASS 3 EXCAVATION (CUYD)	CLASS 3 EXCAVATION IN ROCK (CUYD)	PIPE OPENINGS (NUMBER - SIZE)	REMARKS
45A	12	10	1184+50.0	144	LT	731.10S	A 4 X 2	4.51				4				5		1-12"	
45B	13	10	1184+50.0	144	RT	731.10S	A 4 X 2	4.76				4				5		1-12", 1-15"	
46	13	10	1187+00.0	144	RT	731.00U	4' MH	4.98	5							5		2-15"	
47B	13	10	1189+50.0	144	RT	731.10S	A 4 X 2	5.51				5				6		1-15", 1-12", 1-24"	
48	13	10	1192+03.9	144	RT	731.00U	4' MH	5.63	6							7		2-24"	
49B	13	10	1194+54.0	144	RT	731.10S	A 4 X 2	5.66				5				6		2-24", 1-12"	
47A	13	11	1189+50.0	144	LT	731.10S	A 4 X 2	4.54				4				4		1-12"	
49A	13	11	1194+54.0	144	LT	731.10S	A 4 X 2	4.50				4				5		1-12"	
52B	13	11	1200+00.0	144	RT	731.10S	A 4 X 2	6.53				6				8		2-30", 1-12"	
53A	14	11	1202+50.0	144	RT	731.00U	4' MH	6.50	7							9		2-30"	
54B	14	12	1205+00.0	144	RT	731.10S	A 4 X 2	5.87				5				6		1-30", 1-24", 1-12"	
55	14	12	1207+50.0	144	RT	731.00U	4' MH	5.84	6							8		2-24"	
56	14	12	1210+00.00	144	CL		SPC1	5.58						5		14		2-24"	
57	15	12	1213+10.0	144	LT	731.00U	4' MH	5.70	6							10		2-24"	
58A	16	12	1215+00.0	144	LT	731.10S	A 4 X 2	5.56				5				8		1-24", 1-12", 1-18"	
59	16	12	1217+50.0	144	LT	731.00U	4' MH	5.11	5							7		2-18"	
60A	16	13	1220+00.0	144	LT	731.10S	A 4 X 2	5.01				4				6		1-18", 1-12"	
60B	16	13	1220+00.0	144	RT	731.10S	A 4 X 2	4.51				4				5		1-12"	
52A	14	13	1200+00.0	144	LT	731.10S	A 4 X 2	4.61				4				5		1-12"	
54A	14	13	1205+00.0	144	LT	731.10S	A 4 X 2	4.51				4				5		1-12"	
58B	16	13	1215+00.0	144	RT	731.10S	A 4 X 2	4.61				4				6		1-12"	
11C	7	14	1099+14.7	144	LT	731.00U	6' MH	8.68		9						26		2-42"	
11B	7	14	1099+08.4	144	RT	731.00U	6' MH	5.20		5						21		1-42', 1-18"	
11A	6	14	1098+94.3	144	RT			4.59					5			14		1-18"	
96	12	15	1180+56.8	144	RT	731.00U	4' MH	9.10	9							7		2-18"	
97	12	15	1182+80.7	144	RT			5.81					6			16		1-18"	
107	14	16	1202+30.7	144	LT			3.35			3					12		1-24"	
109	14	16	1206+43.7	144	RT			4.52			5					18		1-18"	
98	13	17	1186+10.0	144	RT	731.10S	A 4 X 2	4.76				4				9		1-15"	
99	13	17	1187+35.0	144	RT	731.10S	A 4 X 2	4.85				4				9		2-15"	
100	13	17	1188+60.0	144	RT	731.10S	A 4 X 2	4.89				4				9		2-15"	
101	13	17	1189+60.0	144	RT	731.10S	A 4 X 2	4.95				4				9		2-15"	
102	13	17	1190+63.8	144	RT	731.10S	A 4 X 2	5.08				4				9		2-15"	
103	13	17	1191+98.1	144	RT	731.10S	A 4 X 2	5.16				4				9		2-15"	
104	13	17	1196+67.5	144	RT	731.00U	4' MH	6.29	6							4		2-15"	
25	9	6	1134+71.50	144	RT/LT			6.00				6						1-15", 1-18", 1-24"	
50	13 TO 14	10	1196+62.37	144	RT/LT			6.00				6						1-24", 1-15", 1-30"	
								SUBTOTALS	50	14	8	98	11	5	0	312	0		
																6,943			TOTAL FROM PIPES
																	752		10% OF CLASS 3 EXC.
								TOTALS	108	14	8	230	16	14	7	6,770	752		

NOTE: EXCAVATION QUANTITIES ASSUME PRECAST CONCRETE STRUCTURES

I-44 WIDENING
JSU0076
SUMMARY OF QUANTITIES
SHEET 16 OF 55



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

REV.

JSU0076 DRAINAGE STRUCTURE LIDS											
STRUCT. NO.	PLAN SHEET	CULVERT SECTION SHEET	STATION	ROADWAY	LOCATION	MANHOLE FRAME AND COVER, TYPE 1B (EA)	MANHOLE FRAME AND COVER, TYPE 3 (EA)	GRATE AND BEARING PLATE (3 FT. X 3 FT. OR 914MM X 914MM) (EA)	GRATE AND BEARING PLATE (5 FT. X 3 FT. OR 1500MM X 914MM) (EA)	CURVED VANE GRATE AND FRAME (4 FT. X 2 FT. OR 1200MM X 600MM) (EA)	REMARKS
2	4	1	1073+95.3	I44	RT						
3	4	1	1076+45.0	I44	RT	1					
4B	4	1	1078+95.0	I44	RT					1	
5	4	2	1081+45.0	I44	RT	1					
6B	4	2	1083+95.0	I44	RT					1	
6A	4	2	1083+95.0	I44	LT					1	
4A	4	2	1078+95.0	I44	LT					1	
8A	6	3	1088+47.1	I44	LT					1	
8B	6	3	1088+47.1	I44	RT					1	
9	6	3	1091+47.1	I44	RT	1					
10B	6	3	1094+50.0	I44	RT					1	
10A	6	3	1094+50.0	I44	LT					1	
12C	7	4	1100+50.0	I44	RT					1	
12E	7	4	1100+60.0	I44	RT					1	
13B	7	4	1104+25.0	I44	RT					1	
14B	7	4	1108+00.0	I44	RT					1	
14A	7	4	1108+00.0	I44	LT					1	
13A	7	4	1104+25.0	I44	LT					1	
12B	7	4	1100+50.0	I44	LT					1	
12D	7	4	1100+60.0	I44	LT					1	
17A	8	5	1115+75.0	I44	LT					1	
17B	8	5	1115+75.0	I44	RT					1	
18	8	5	1118+25.0	I44	RT	1					
19B	8	5	1120+75.0	I44	RT					1	
20	8	5	1123+25.1	I44	RT	1					
21	8	5	1125+75.0	I44	LT						
19A	8	5	1120+75.0	I44	LT					1	
23A	9	6	1130+20.0	I44	LT					1	
23B	9	6	1130+20.0	I44	RT					1	
24	9	6	1132+70.0	I44	RT	1					
27	9	7	1136+87.5	I44	RT	1					
28B	9	7	1139+75.0	I44	RT					1	
29	10	7	1142+62.5	I44	RT	1					
30B	10	7	1145+50.0	I44	RT					1	
31	10	8	1148+37.5	I44	RT	1					
32B	10	8	1151+25.0	I44	RT					1	
33	10	8	1154+12.5	I44	RT	1					
34B	11	8	1157+00.0	I44	RT					1	
34A	11	8	1157+00.0	I44	LT					1	
28A	9	8	1139+75.0	I44	LT					1	
30A	9	8	1145+50.0	I44	LT					1	
32A	10	8	1151+25.0	I44	LT					1	
38	11	9	1165+49.5	I44	RT			1			
39	10	9	1165+49.4	I44	CL						
41	11	9	1168+99.5	I44	RT	1					
44B	11	9	1172+49.5	I44	RT					1	
44A	12	9	1172+49.5	I44	LT					1	
SUBTOTALS						11	0	0	1	32	

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 17 OF 55

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9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)

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REV.

JSU0076 DRAINAGE STRUCTURE LIDS											
STRUCT. NO.	PLAN SHEET	CULVERT SECTION SHEET	STATION	ROADWAY	LOCATION	MANHOLE FRAME AND COVER, TYPE 1B (EA)	MANHOLE FRAME AND COVER, TYPE 3 (EA)	GRATE AND BEARING PLATE (3 FT. X 3 FT. OR 914MM X 914MM) (EA)	GRATE AND BEARING PLATE (5 FT. X 3 FT. OR 1500MM X 914MM) (EA)	CURVED VANE GRATE AND FRAME (4 FT. X 2 FT. OR 1200MM X 600MM) (EA)	REMARKS
45A	12	10	1184+50.0	I44	LT					1	
45B	13	10	1184+50.0	I44	RT					1	
46	13	10	1187+00.0	I44	RT	1					
47B	13	10	1189+50.0	I44	RT					1	
48	13	10	1192+03.9	I44	RT	1					
49B	13	10	1194+54.0	I44	RT					1	
47A	13	11	1189+50.0	I44	LT					1	
49A	13	11	1194+54.0	I44	LT					1	
52B	13	11	1200+00.0	I44	RT					1	
53A	14	11	1202+50.0	I44	RT	1					
54B	14	12	1205+00.0	I44	RT					1	
55	14	12	1207+50.0	I44	RT	1					
56	14	12	1210+00.00	I44	CL						
57	15	12	1213+10.0	I44	LT	1					
58A	16	12	1215+00.0	I44	LT					1	
59	16	12	1217+50.0	I44	LT	1					
60A	16	13	1220+00.0	I44	LT					1	
60B	16	13	1220+00.0	I44	RT					1	
52A	14	13	1200+00.0	I44	LT					1	
54A	14	13	1205+00.0	I44	LT					1	
58B	16	13	1215+00.0	I44	RT					1	
11C	7	14	1099+14.7	I44	LT		1				
11B	7	14	1099+08.4	I44	RT		1				
11A	6	14	1098+94.3	I44	RT			1			
96	12	15	1180+56.8	I44	RT		1				
97	12	15	1182+80.7	I44	RT			1			
107	14	16	1202+30.7	I44	LT			1			
109	14	16	1206+43.7	I44	RT			1			
98	13	17	1186+10.0	I44	RT					1	
99	13	17	1187+35.0	I44	RT					1	
100	13	17	1188+60.0	I44	RT					1	
101	13	17	1189+60.0	I44	RT					1	
102	13	17	1190+63.8	I44	RT					1	
103	13	17	1191+98.1	I44	RT					1	
104	13	17	1196+67.5	I44	RT		1				
25	9	6	1134+64.7	I44	RT/LT					6	Curved Vane Grate and Frame in Box
50	13 TO 14	10	1196+50.0	I44	RT/LT					6	Curved Vane Grate and Frame in Box
					SUBTOTALS	6	4	2	2	26	
					TOTALS	17	4	2	3	64	

NOTE: EXCAVATION QUANTITIES ASSUME PRECAST CONCRETE STRUCTURES

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 18 OF 55

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DATE PREPARED
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ROUTE
I-44

STATE
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SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



105 WEST CAPITOL
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REV.

JSU0076 DRAINAGE PIPES (COST SHARE)						
PLAN SHEET	CULVERT SECTION SHEET	FROM STRUCT.	TO STRUCT.	15 IN. PIPE GROUP A (LF)	CLASS 3 EXCAVATION (CUYD)	REMARKS
45	-	D1	D2	32	6	
45	-	D3	D4	38	6	
45	-	D5	D6	20	7	
		SUBTOTAL:		90	19	

JSU0076 FLARED END SECTIONS (COST SHARE)						
PLAN SHEET	CULVERT SECTION SHEET	FROM STRUCT.	TO STRUCT.	15 IN. OR ALLOWED SUBSTITUTE GROUP A FLARED END SECTION (EA)	ROCK LINING (CUYD)	REMARKS
45	-	D1	D2	2	-	
45	-	D3	D4	2	-	
45	-	D5	D6	2	-	
		SUBTOTAL:		6	0	

JSU0076 GRAVITY WALL (COST SHARE)						
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	GRAVITY WALL (SQFT)	REMARKS
45	9+39.04	13+01.00	DOLING TRAIL	LT	3810	
		TOTALS			3,810	

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REV.

JSU0076 CONCRETE TRAFFIC BARRIER							
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	CONCRETE TRAFFIC BARRIER, TYPE C (LF)	TYPE C BARRIER TRANSITION (LF)	REMARKS
4	1071+99.40	1085+00.00	I-44	CL	1,301		
6	1085+00.00	1098+60.74	I-44	CL	1,358		
6	1098+60.74	1098+72.74	I-44	LT & RT		24	
7	1099+95.25	1100+07.25	I-44	LT & RT		24	
7	1100+07.25	1111+79.49	I-44	CL	1,172		
7	1111+79.49	1111+91.49	I-44	LT & RT		24	
8	1113+13.99	1113+25.99	I-44	LT & RT		24	
8	1113+25.99	1127+00.00	I-44	CL	1,374		
9	1127+00.00	1141+00.00	I-44	CL	1,400		
10	1141+00.00	1155+00.00	I-44	CL	1,400		
11	1155+00.00	1169+00.00	I-44	CL	1,400		
12	1169+00.00	1177+99.42	I-44	CL	900		
12	1177+99.42	1178+11.42	I-44	LT & RT		24	
12	1179+33.93	1179+45.93	I-44	LT & RT		24	
12	1179+45.93	1183+00.00	I-44	CL	354		
13	1183+00.00	1197+00.00	I-44	CL	1,400		
14	1197+00.00	1211+00.00	I-44	CL	1,400		
16	1211+00.00	1213+22.32	I-44	CL	227		
				TOTALS	13,686	144	

JSU0076 GUARDRAIL & FENCING (COST SHARE)								
PLAN SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	MGS END ANCHOR (EA)	SIDEWALK HAND-RAILING WITH BALUSTERS (LF)	PIPE BOLLARD (EA)	REMARKS
45	5+64.48	6+37.19	DOLING TRAIL	LT		79		
45	9+39.04	13+14.34	DOLING TRAIL	LT		379		
45	13+00.65		DOLING TRAIL	RT	1			
45	13+14.27		DOLING TRAIL	LT	1			
45	13+13.56		DOLING TRAIL	CL			1	
				TOTALS	2	458	1	

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 21 OF 55

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REV.

JSU0076 PAVEMENT (NON-ALTERNATE)									
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	CONCRETE GUTTER TYPE B (LF)	CONCRETE APPROACH PAVEMENT (SQYD)	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK) (SQYD)	PAVED DITCH (SQYD)	REMARKS
4	2+55.00	3+35.00	EB I44 ON RAMP @ ROUTE 13	RT				40.9	
4	4+40.00	5+80.00	EB I44 ON RAMP @ ROUTE 13	RT				71.7	
6	1098+55.50	1098+74.98	I44	LT & RT		268.2	274		
6 - 7	3+82.14	4+39.35	BROADWAY	RT	120				
6 - 7	4+39.35	6+00.36	BROADWAY	RT	161				
6	6+00.36	6+39.17	BROADWAY	RT	55				
7	1099+93.00	1100+12.49	I44	LT & RT		268.2	274		
7	1111+74.25	1111+93.73	I44	LT & RT		268.2	274		
7	4+08.06	4+37.44	BROADWAY	LT	42				
7	4+37.44	5+98.76	BROADWAY	LT	161				
7	5+98.76	6+39.53	BROADWAY	LT	57				
7	8+85.86	9+16.34	GRANT	RT	43				
7	9+16.34	10+75.56	GRANT	RT	159				
7	10+75.56	11+06.13	GRANT	RT	43				
7 - 8	8+67.73	9+14.07	GRANT	LT	65				
7	9+14.07	10+73.29	GRANT	LT	159				
7 - 8	10+73.29	11+11.13	GRANT	LT	53				
8	1113+11.75	1113+31.23	I44	LT & RT		268.2	274		
12	1177+94.18	1178+13.67	I44	LT & RT		268.2	274		
12	1179+31.69	1179+51.17	I44	LT & RT		268.2	274		
12	8+74.17	9+21.33	NATIONAL	RT	66				
12	9+21.33	10+80.54	NATIONAL	RT	159				
12	10+80.54	11+14.96	NATIONAL	RT	49				
12	8+71.85	9+19.57	NATIONAL	LT	68				
12	9+19.57	10+78.78	NATIONAL	LT	159				
12	11+14.96	11+15.74	NATIONAL	LT	52				
14	1198+96.85	1199+21.46	I-44	LT				66.6	
\$SP10\$	1199+01.49	1199+14.19	I-44	RT				9.5	
				TOTALS	1,671	1609.2	1,644	188.7	

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 22 OF 55

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ROUTE
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MO

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& JST0088B

PROJECT NO.

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REV.

JSU0076 SIDEWALK							
PLAN SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK) (SQYD)	CONCRETE SIDEWALK, 4 IN. (SQYD)	REMARKS
7	4+01.26	6+17.80	BROADWAY	LT	119	118.5	
7	4+22.81	6+15.64	BROADWAY	RT	106	105.5	
7	8+97.62	10+90.43	GRANT	LT	106	105.1	
7	8+99.03	10+91.97	GRANT	RT	105	105.0	
12	9+02.91	10+95.88	NATIONAL	LT	130	129.1	
12	9+04.16	10+97.23	NATIONAL	RT	131	130.3	
					1,644		TOTAL FROM PAVEMENT NON-ALTERNATE
				TOTALS	2,341	693.5	

JSU0076 SIDEWALK (COST SHARE)							
PLAN SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK) (SQYD)	CONCRETE SIDEWALK, 4 IN. (SQYD)	REMARKS
45	0+00.00	6+33.88	DOLING TRAIL	LT & RT	730	729.9	
45	9+35.70	13+15.56	DOLING TRAIL	LT & RT	468	468.0	
				TOTALS	1,198	1,197.9	

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 23 OF 55

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REV.

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

JSU0076 PAVEMENT MARKING								
PAVEMENT MARKING SHEET OF 9	FROM STATION	TO STATION	ROADWAY	LOCATION	6 IN. WHITE HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS (LF)	6 IN. YELLOW HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS (LF)	12 IN. WHITE HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS (LF)	REMARKS
1 TO 6	1071+99.40	1213+22.32	I-44	LT.		14,116		WB INTERIOR
1 TO 6	1071+99.40	1213+22.32	I-44	RT.		14,116		EB INTERIOR
1 TO 6	1071+99.40	1213+22.32	I-44	LT.	3,529.1			WB INTERMEDIATE
1 TO 6	1071+99.40	1213+22.23	I-44	RT.	3,529.1			EB INTERMEDIATE
1	1071+99.40	1079+16.32	I-44	LT.	717.1			EB BEGINNING OF JSU0076
1	1079+16.32	1085+42.97	I-44	LT.			626.6	EXIT LANE TRANSITION
1	1078+32.89	1079+16.32	I-44	LT.	86.9			INTERIOR EXIT LANE
1	1079+16.32	1080+42.97	I-44	LT.			129.4	INTERIOR EXIT LANE
1 TO 6	1078+38.99	1201+86.56	I-44	LT.	12,361.6			EXTERIOR RAMP TO RAMP
1 TO 3	1085+42.97	1107+83.93	I-44	LT.			559.5	DOTTED
1 TO 6	1107+83.93	1213+22.32	I-44	LT.	2,633.7			INTERMEDIATE
1	1071+99.40	1079+76.38	I-44	RT.	777.0			EB BEGINNING OF JSU0076
1	1077+97.63	1079+76.58	I-44	RT.	186.0			INTERIOR ENTRANCE LANE
1	1079+76.58	1080+89.23	I-44	RT.			113.1	INTERIOR ENTRANCE LANE
1	1079+76.38	1081+80.56	I-44	RT.			204.5	ENTRANCE LANE TRANSITION
1 TO 6	1081+80.56	1213+22.32	I-44	RT.	3,283.8			INTERMEDIATE
1 TO 5	1078+02.53	1206+50.52	I-44	RT.	12,865.8			EXTERIOR RAMP TO RAMP
5	1191+53.16	1198+73.14	I-44	LT.	180.0			DOTTED
5	1198+73.14	1200+43.68	I-44	LT.			170.5	ENTRANCE LANE TRANSITION
5	1199+62.47	1200+43.68	I-44	LT.			82.9	INTERIOR ENTRANCE LANE
5	1200+43.68	1201+95.13	I-44	LT.	163.4			INTERIOR ENTRANCE LANE
5 TO 6	1200+43.68	1213+22.32	I-44	LT.	1,278.6			WB EXTERIOR
5	1197+21.31	1203+21.29	I-44	RT.	150.0			DOTTED
5	1203+21.29	1205+16.07	I-44	RT.			194.8	EXIT LANE TRANSITION
5	1203+94.17	1205+17.80	I-44	RT.			125.5	INTERIOR EXIT LANE
5	1205+17.80	1206+58.51	I-44	RT.	154.8			INTERIOR EXIT LANE
5 TO 6	1205+16.07	1213+22.32	I-44	RT.	806.2			EB EXTERIOR
			TOTALS		42,703	28,233	2,207	

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 24 OF 55

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GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)

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6831 WEST ELFINDALE STREET
SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631

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

REV.

JSU0076 ROCK FILL							
PLAN SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	FURNISHING ROCK FILL (CUYD)	PLACING ROCK FILL (CUYD)	REMARKS
3 TO 4	3+80.87	6+40.18	BROADWAY	RT	1,135	1,135	MSE WALL A9415
4	4+07.05	6+43.33	BROADWAY	LT	974	974	MSE WALL A9416
4	8+84.85	11+07.13	GRANT	RT	849	849	MSE WALL A9419
4 TO 5	8+66.73	11+12.13	GRANT	LT	894	894	MSE WALL A9420
9	8+73.17	11+15.97	NATIONAL	RT	839	839	MSE WALL A9423
9	8+70.84	11+16.74	NATIONAL	LT	903	903	MSE WALL A9424
				TOTALS	5,594	5,594	

JSU0076 ROCK LINING						
PLAN SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	ROCK LINING (CUYD)	REMARKS
3	1098+00.00	1099+00.00	I44	CL	94	
3	1098+50.00	1098+50.00	I44	RT	3	
4	1099+00.00	1100+00.00	I44	CL	94	
4	1100+00.00	1100+00.00	I44	LT	3	
4	1100+00.00	1100+00.00	I44	RT	3	
4	1112+00.00	1112+00.00	I44	CL	92	
4	1112+00.00	1112+00.00	I44	LT	3	
4	1112+00.00	1112+00.00	I44	RT	3	
4 TO 5	1113+00.00	1113+00.00	I44	CL	92	
5	1113+00.00	1113+00.00	I44	LT	3	
5	1113+00.00	1113+00.00	I44	RT	1	
9	1178+00.00	1178+00.00	I44	CL	92	
9	1178+00.00	1178+00.00	I44	LT	1	
9	1178+00.00	1178+00.00	I44	RT	24	
9	1179+00.00	1179+00.00	I44	CL	91	
9	1179+00.00	1179+00.00	I44	LT	3	
TOTAL FROM DRAINAGE TABLE					197	
				TOTALS	799	

I-44 WIDENING
JSU0076

SUMMARY OF QUANTITIES
SHEET 25 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

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REV.

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9/26/2024

J8I3044C MOBILIZATION
1 LUMP SUM

J8I3044C CONTRACTOR FURNISHED SURVEYING AND STAKING
1 LUMP SUM

J8I3044C SAWCUTS FOR PAVEMENT REMOVAL
ALL SAWCUTS NOT SHOWN ARE INCIDENTAL TO REMOVAL OF IMPROVEMENTS

J8I3044C REMOVAL OF IMPROVEMENTS								
PLAN SHEET	FROM STATION	TO STATION	BASELINE	OFFSET	DESCRIPTION	UNITS	QUANTITY	REMARKS
16	1213+22.32	1225+00.00	I-44	LT.	WB PAVEMENT & SHOULDER	SY	2695.6	INCLUDES OFF-RAMP AND DECELERATION PAVEMENT
16	1213+22.32	1225+00.00	I-44	RT.	EB SHOULDER	SY	1723.6	
16	1213+22.32	1217+22.51	I-44	LT.	GUARDRAIL	LF	400.2	
16	1213+22.32	1213+75.67	I-44	RT	GUARDRAIL	LF	53.4	
16	1213+22.32	1225+00.00	I-44	LT.	GUARDCABLE	LF	1177.7	
16	1213+61.83	1214+15.22	I-44	CL.	18" PIPE	LF	53.4	
16	1214+93.30		I-44	RT.	PULLBOX	EACH	1.0	
16	1217+99.25	1218+51.89	I-44	LT.	CONCRETE DITCH	SY	105.4	
16	1218+44.08	1219+88.38	I-44	LT & RT	HEADWALL	EACH	2.0	
16	1219+85.21	1220+49.39	I-44	RT.	CONCRETE DITCH	SY	120.9	
16	1220+69.47		I-44	LT.	PULLBOX	EACH	1.0	
16	1220+82.37		I-44	LT.	SIGN	EACH	1.0	
16	1220+88.31	1222+40.03	I-44	CL.	18" PIPE	LF	152.0	
16	1220+88.31	1222+40.03	I-44	CL.	HEADWALL	EACH	2.0	
16	1222+04.29		I-44	LT.	SIGN	EACH	1.0	
16	1223+35.06		I-44	LT.	SIGN	EACH	1.0	
16	1223+32.61		I-44	RT.	SIGN	EACH	1.0	
16	1224+36.33		I-44	RT.	FES	EACH	1.0	
18	1225+00.00	1239+00.00	I-44	LT.	WB PAVEMENT & SHOULDER	SY	2212.6	INCLUDES DECELERATION LANE PAVEMENT
18	1225+00.00	1239+00.00	I-44	RT.	EB PAVEMENT & SHOULDER	SY	3537.2	INCLUDES RAMP & ACCELERATION LANE PAVEMENT
18	1225+00.00		I-44	CL.	INLET	EACH	1.0	
18	1226+58.53		I-44	LT.	SIGN	EACH	2.0	
18	1227+45.27		I-44	RT.	PULLBOX	EACH	1.0	
18	1230+04.58		I-44	RT.	PULLBOX	EACH	1.0	
18	1232+52.40		I-44	RT.	PULLBOX	EACH	1.0	
18	1233+50.10		I-44	RT.	SIGN	EACH	1.0	
18	1233+86.51		I-44	LT.	SIGN	EACH	1.0	
18	1234+00.55		I-44	LT.	SIGN	EACH	1.0	
18	1225+00.00	1239+00.00	I-44	LT.	GUARDCABLE	LF	1400.0	
19	1239+00.00	1253+00.00	I-44	LT.	WB SHOULDER	SY	1818.1	
19	1239+00.00	1253+00.00	I-44	RT.	EB SHOULDER	SY	1947.8	
19	1241+56.99		I-44	RT.	HEADWALL	EACH	1.0	
19	1241+99.01		I-44	CL.	INLET	EACH	1.0	
19	1242+40.55		I-44	LT.	HEADWALL	EACH	1.0	
19	1243+97.26		I-44	LT.	SIGN	EACH	1.0	
19	1243+99.78		I-44	RT	SIGN	EACH	1.0	
19	1244+53.27		I-44	LT.	SIGN	EACH	1.0	
19	1244+54.26		I-44	RT.	SIGN	EACH	1.0	
19	1244+55.88		I-44	RT.	PULLBOX	EACH	1.0	
19	1239+00.00	1253+00.00	I-44	LT.	GUARDCABLE	LF	1400.1	
20	1253+00.00	1267+00.00	I-44	LT.	WB PAVEMENT & SHOULDER	SY	1890.3	INCLUDES ACCELERATION LANE PAVEMENT
20	1253+00.00	1267+00.00	I-44	RT.	EB SHOULDER	SY	1919.4	
20	1255+12.20		I-44	RT.	SIGN	EACH	1.0	
20	1255+15.32		I-44	LT.	SIGN	EACH	1.0	
20	1260+69.89		I-44	RT.	SIGN	EACH	2.0	
20	1265+68.50		I-44	LT.	SIGN	EACH	1.0	
20	1265+68.65		I-44	RT.	SIGN	EACH	1.0	
20	1253+00.00	1267+00.00	I-44	LT.	GUARDCABLE	LF	1400.0	
20	1257+56.41		I-44	LT.	HEADWALL	EACH	1.0	
20	1257+56.58		I-44	RT.	HEADWALL	EACH	1.0	
20	1257+56.69		I-44	CL.	INLET	EACH	1.0	
21	1267+00.00	1281+00.00	I-44	LT.	WB PAVEMENT & SHOULDER	SY	3498.9	INCLUDES ACCELERATION LANE PAVEMENT
21	1267+00.00	1281+00.00	I-44	RT.	EB SHOULDER	SY	1983.9	
21	1272+87.52		I-44	RT.	PULLBOX	EACH	1.0	
21	1275+25.32		I-44	LT.	SIGN	EACH	1.0	
21	1276+11.98	1276+36.75	I-44	CL.	18" PIPE	LF	24.8	
21	1276+11.98	1276+36.75	I-44	CL.	FES	EACH	2.0	

I-44 WIDENING
J8I3044C

SUMMARY OF QUANTITIES
SHEET 26 OF 55

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DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

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SW

SHEET NO.
3

COUNTY
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JOB NO.
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REV.

J8I3044C REMOVAL OF IMPROVEMENTS								
PLAN SHEET	FROM STATION	TO STATION	BASELINE	OFFSET	DESCRIPTION	UNITS	QUANTITY	REMARKS
21		1276+26.68	I-44	LT.	SIGN	EACH	1.0	
21		1276+26.01	I-44	RT.	SIGN	EACH	1.0	
21		1276+42.68	I-44	CL.	SIGN	EACH	2.0	
21		1279+12.25	I-44	LT.	SIGN	EACH	2.0	
21		1280+81.80	I-44	RT.	SIGN	EACH	1.0	
21	1267+00.00	1281+00.00	I-44	LT.	GUARDCABLE	LF	1345.6	
21	1270+70.51	1273+22.80	I-44	LT.	GUARDRAIL	LF	252.3	
22	1281+00.00	1295+00.00	I-44	LT.	WB PAVEMENT & SHOULDER	SY	3697.4	INCLUDES ACCELERATION LANE PAVEMENT
22	1281+00.00	1295+00.00	I-44	RT.	EB SHOULDER	SY	1936.3	
22		1281+81.20	I-44	LT.	SIGN	EACH	2.0	
22		1284+64.31	I-44	RT.	SIGN	EACH	1.0	
22		1286+83.80	I-44	LT.	SIGN	EACH	1.0	
22		1286+89.01	I-44	RT.	SIGN	EACH	1.0	
22		1289+99.63	I-44	LT.	SIGN	EACH	1.0	
22		1290+84.09	I-44	RT.	SIGN	EACH	1.0	
22	1281+00.00	1295+00.00	I-44	LT.	GUARDCABLE	LF	1400.0	
22		1285+92.02	I-44	CL.	INLET	EACH	1.0	
22	1285+92.02	1286+39.20	I-44	CL.	24" PIPE	LF	49.8	
22		1285+94.14	I-44	RT.	HEADWALL	EACH	1.0	
23	1295+00.00	1309+00.00	I-44	LT.	WB PAVEMENT & SHOULDER	SY	5558.2	INCLUDES ON-RAMP & ACCELERATION LANE PAVEMENT INCLUDES DECELERATION LANE PAVEMENT
23	1295+00.00	1309+00.00	I-44	RT.	EB PAVEMENT & SHOULDER	SY	2225.4	
23		1295+01.67	I-44	CL.	INLET	EACH	1.0	
23		1297+26.41	I-44	LT.	SIGN	EACH	1.0	
23		1297+46.49	I-44	RT.	SIGN	EACH	1.0	
23		1299+30.88	I-44	LT.	SIGN	EACH	1.0	
23		1303+30.32	I-44	LT.	SIGN	EACH	2.0	
23		1304+63.89	I-44	RT.	SIGN	EACH	2.0	
23		1307+93.58	I-44	LT.	SIGN	EACH	1.0	
23		1307+94.49	I-44	RT.	SIGN	EACH	1.0	
23	1295+00.00	1309+00.00	I-44	LT.	GUARDCABLE	LF	1400.0	
23		1298+57.34	I-44	RT.	HEADWALL	EACH	1.0	
23		1301+18.16	I-44	RT.	PULLBOX	EACH	1.0	
23	1307+57.82	1309+00.00	I-44	RT.	GUARDRAIL	LF	142.2	
24	1309+00.00	1320+42.46	I-44	LT.	WB SHOULDER	SY	1495.1	
24	1309+00.00	1320+42.46	I-44	RT.	EB PAVEMENT & SHOULDER	SY	2563.1	INCLUDES OFF-RAMP & DECELERATION LANE PAVEMENT
24		1311+58.01	I-44	RT.	SIGN BRIDGE	EACH	5.0	
24		1311+58.33	I-44	RT.	SIGN	EACH	1.0	
24		1313+39.32	I-44	RT.	SIGN	EACH	1.0	
24	1309+00.00	1319+24.76	I-44	LT.	GUARDCABLE	LF	1024.8	
24	1309+00.00	1311+75.76	I-44	RT.	GUARDRAIL	LF	275.8	
24	1309+66.44	1311+79.98	I-44	RT.	GUARDRAIL	LF	214.2	ALONG EXIT SHOULDER
24	1310+94.99	1312+46.99	I-44	CL.	18" PIPE	LF	152.0	
24	1310+94.99	1312+46.99	I-44	CL.	FES	EACH	2.0	
24	1319+04.45	1320+50.89	I-44	LT.	GUARDRAIL	LF	146.4	END OF J8I3044C
24	1318+75.92	1320+93.76	I-44	RT.	GUARDRAIL	LF	217.8	END OF J8I3044C
TOTAL:						1 LUMP SUM		

I-44 WIDENING
J8I3044C

SUMMARY OF QUANTITIES
SHEET 27 OF 55

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REV.

REMOVAL OF IMPROVEMENTS (BY OTHERS)								
SHEET	ROADWAY	FROM STATION	TO STATION	LOCATION	DESCRIPTION	UNIT	QUANTITY	REMARKS
16	I-44	1213+22.32	1225+00.00	CL.	UNDERGROUND FIBER	LF	1178.1	
18	I-44	1225+00.00	1239+00.00	CL.	UNDERGROUND FIBER	LF	1400.0	
18	I-44	1234+66.88		LT.	SIGN	EACH	1	RELOCATE
19	I-44	1239+00.00	1253+00.00	CL.	UNDERGROUND FIBER	LF	1400.1	
19	I-44	1242+62.32		LT.	SIGN	EACH	1	RELOCATE
20	I-44	1253+00.00	1267+00.00	CL.	UNDERGROUND FIBER	LF	1400.3	
20	I-44	1253+73.52		LT.	SIGN	EACH	1	RELOCATE
20	I-44	1261+32.18		LT.	SIGN	EACH	1	RELOCATE
20	I-44	1266+94.18		LT.	SIGN	EACH	1	RELOCATE
21	I-44	1267+00.00	12810+00.00	CL.	UNDERGROUND FIBER	LF	1394.9	
22	I-44	12810+00.00	1295+00.00	CL.	UNDERGROUND FIBER	LF	1400.8	
23	I-44	1295+00.00	1303+08.76	CL.	UNDERGROUND FIBER	LF	846.4	
23	I-44	1296+97.46	1301+59.48	LT.	UNDERGROUND ELEC.	LF	461.0	
24	I-44	1310+90.74	1313+43.37	LT. & RT.	UNDERGROUND ELEC.	LF	464.6	
				TOTAL	1 LUMP SUM			

I-44 WIDENING
J8I3044C

SUMMARY OF QUANTITIES
SHEET 28 OF 55

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REV.

J8I3044C CULVERT CLEANOUT					
PLAN SHEET	STATION	ROUTE	LOCATION	CULVERT CLEANOUT (EA)	REMARKS
14	1219+15.0	I-44	LT. & RT.	1	EX. 9' X6' BOX CULVERT
16	1241+98.7	I-44	LT. & RT.	1	EX. 18" PIPE
17	1257+56.7	I-44	LT. & RT.	1	EX. 18" PIPE
19	1286+42.5	I-44	LT. & RT.	1	EX. 6' X6' BOX CULVERT
20	1297+92.0	I-44	LT. & RT.	1	EX. 5' X5' BOX CULVERT
			TOTAL	5	

J8I3044C EARTHWORK										
ROADWAY	CUT	EARTH CUT	ROCK CUT	FILL	EXCAVATION TO BE USED IN EMBANKMENT (CUYD)	UNCLASSIFIED EXCAVATION (CUYD)	EMBANKMENT IN PLACE (CUYD)	COMPACTING EMBANKMENT (CUYD)	COMPACTING IN CUT (STA)	REMARKS
I-44	96,313	72,235	24,078	12,218					107.2	25% OF TOTAL CUT ASSUMED TO BE ROCK CUT
I-44 PAVEMENT REMOVAL	-20,117	-20,117								
SUBTOTALS	76,196	52,118	24,078	12,218	69,186					
					TOTALS	76,196	0	12,218	107.2	

NOTE: 25% SHRINK AND SWELL ASSUMED DURING COMPACTION

I-44 WIDENING
J8I3044C

SUMMARY OF QUANTITIES
SHEET 29 OF 55

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J8I3044C ALTERNATE A (ASPHALT) PAVEMENT							
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	15 INCHES, ASPHALTIC CONCRETE PAVEMENT SP125BLP OR SP125BSM (SQYD)	BITUMINOUS SHOULDER RUMBLE STRIP (STA)	REMARKS
16	1213+22.32	1225+00.00	I44	LT	3,974.6	23.6	INCLUDES FULL DEPTH INSIDE SHOULDER
16	1213+22.32	1221+00.00	I44	RT	2,626.2	15.6	INCLUDES FULL DEPTH SHOULDERS
16	1221+00.00	1223+19.80	I44	RT	519.3	4.4	INCLUDES FULL DEPTH OUTSIDE SHOULDER
16	1223+19.80	1225+00.00	I44	RT	270.2	3.6	
16	1+98.79	3+18.62	WB I44 OFF RAMP @ GLENSTONE	LT & RT	324.4		INCLUDES FULL DEPTH INSIDE SHOULDER
\$PS11\$ & \$PS12\$	3+98.21	5+15.77	EB I44 ON RAMP @ GLENSTONE	LT & RT	343.0		INCLUDES FULL DEPTH SHOULDERS
18	1225+00.00	1239+00.00	I44	LT	3,889.8	28.0	INCLUDES FULL DEPTH INSIDE SHOULDER
18	1225+00.00	1239+00.00	I44	RT	3,738.4	28.0	
19	1239+00.00	1253+00.00	I44	LT	3,656.8	28.0	INCLUDES FULL DEPTH INSIDE SHOULDER
19	1239+00.00	1253+00.00	I44	RT	2,172.5	28.0	
20	1253+00.00	1267+00.00	I44	LT	3,690.7	28.0	INCLUDES FULL DEPTH INSIDE SHOULDER
20	1253+00.00	1267+00.00	I44	RT	2,179.4	28.0	
21	1267+00.00	1281+00.00	I44	LT	3,649.4	28.0	INCLUDES FULL DEPTH INSIDE SHOULDER
21	1267+00.00	1281+00.00	I44	RT	2,175.1	28.0	
22	1281+00.00	1295+00.00	I44	LT	3,704.5	28.0	INCLUDES FULL DEPTH INSIDE SHOULDER
22	1281+00.00	1295+00.00	I44	RT	2,174.5	28.0	
23	1295+00.00	1309+00.00	I44	LT	4,609.8	28.0	INCLUDES FULL DEPTH INSIDE SHOULDER
23	1295+00.00	1309+00.00	I44	RT	2,157.8	28.0	
23	3+65.00	4+82.34	WB I44 ON RAMP @ US 65	LT & RT	391.6		INCLUDES FULL DEPTH INSIDE SHOULDER
24	1309+00.00	1320+42.46	I44	LT	1,794.5	22.8	INCLUDES FULL DEPTH INSIDE SHOULDER
24	1309+00.00	1320+42.46	I44	RT	1,546.0	22.8	
24	2+66.36	4+12.42	EB I44 OFF RAMP @ US 65	LT & RT	393.2		INCLUDES FULL DEPTH INSIDE SHOULDER
				TOTALS	49,981.8	428.8	

I-44 WIDENING
J8I3044C

SUMMARY OF QUANTITIES
SHEET 30 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J8I3044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)



CRAWFORD, MURPHY & TILLY, INC.
681 WEST ELFINDALE STREET
SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631

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J8I3044C ALTERNATE B (CONCRETE) PAVEMENT							
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	CONCRETE PAVEMENT (11 ½ IN. NON-REINFORCED, 15 FT. JOINTS) (SQYD)	PORTLAND CEMENT CONCRETE SHOULDER RUMBLE STRIP (STA)	REMARKS
16	1213+22.32	1225+00.00	I44	LT	3,974.6	23.6	INCLUDES FULL DEPTH INSIDE SHOULDER
16	1213+22.32	1221+00.00	I44	RT	2,626.2	15.6	INCLUDES FULL DEPTH SHOULDERS
16	1221+00.00	1223+19.80	I44	RT	519.3	4.4	INCLUDES FULL DEPTH OUTSIDE SHOULDER
16	1223+19.80	1225+00.00	I44	RT	270.2	3.6	
16	1+98.79	3+18.62	WB I44 OFF RAMP @ GLENSTONE	LT & RT	324.4		INCLUDES FULL DEPTH INSIDE SHOULDER
\$PS11\$ & \$PS12\$	3+98.21	5+15.77	EB I44 ON RAMP @ GLENSTONE	LT & RT	343.0		INCLUDES FULL DEPTH SHOULDERS
18	1225+00.00	1239+00.00	I44	LT	3,889.8	28.0	INCLUDES FULL DEPTH INSIDE SHOULDER
18	1225+00.00	1239+00.00	I44	RT	3,738.4	28.0	
19	1239+00.00	1253+00.00	I44	LT	3,656.8	28.0	INCLUDES FULL DEPTH INSIDE SHOULDER
19	1239+00.00	1253+00.00	I44	RT	2,172.5	28.0	
20	1253+00.00	1267+00.00	I44	LT	3,690.7	28.0	INCLUDES FULL DEPTH INSIDE SHOULDER
20	1253+00.00	1267+00.00	I44	RT	2,179.4	28.0	
21	1267+00.00	1281+00.00	I44	LT	3,649.4	28.0	INCLUDES FULL DEPTH INSIDE SHOULDER
21	1267+00.00	1281+00.00	I44	RT	2,175.1	28.0	
22	1281+00.00	1295+00.00	I44	LT	3,704.5	28.0	INCLUDES FULL DEPTH INSIDE SHOULDER
22	1281+00.00	1295+00.00	I44	RT	2,174.5	28.0	
23	1295+00.00	1309+00.00	I44	LT	4,609.8	28.0	INCLUDES FULL DEPTH INSIDE SHOULDER
23	1295+00.00	1309+00.00	I44	RT	2,157.8	28.0	
23	3+65.00	4+82.34	WB I44 ON RAMP @ US 65	LT & RT	391.6		INCLUDES FULL DEPTH INSIDE SHOULDER
24	1309+00.00	1320+42.46	I44	LT	1,794.5	22.8	INCLUDES FULL DEPTH INSIDE SHOULDER
24	1309+00.00	1320+42.46	I44	RT	1,546.0	22.8	
24	2+66.36	4+12.42	EB I44 OFF RAMP @ US 65	LT & RT	393.2		INCLUDES FULL DEPTH INSIDE SHOULDER
				TOTALS	49,981.8	428.8	

I-44 WIDENING
J8I3044C

SUMMARY OF QUANTITIES
SHEET 31 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J8I3044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)

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SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631

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REV.

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J8I3044C ALTERNATE C (ASHPHALT) SHOULDERS							
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	TYPE A2 SHOULDER (SQYD)	CONCRETE CURB (6 IN. HEIGHT AND UNDER) TYPE S (LF)	REMARKS
16	1213+22.32	1213+27.15	I44	RT	3.3		
16	1213+22.32	1221+24.52	I44	LT	648.6		
16	1221+00.00	1225+00.00	I44	RT	355.6		
16	1221+07.13	1225+00.00	I44	LT	284.8		
16	1223+19.80	1225+00.00	I44	RT	160.2		
16	1+98.79	3+18.62	WB I44 OFF RAMP @ GLENSTONE	RT	52.9		
18	1225+00.00	1239+00.00	I44	LT	1,244.7		
18	1225+00.00	1239+00.00	I44	RT	1,244.4		
18	1225+00.00	1226+61.29	I44	RT	140.6		
18	1226+92.97	1239+00.00	I44	RT	1,050.2		
19	1239+00.00	1253+00.00	I44	LT	1,244.4		
19	1239+00.00	1253+00.00	I44	RT	1,244.4		
19	1239+00.00	1253+00.00	I44	RT	1,244.4		
20	1253+00.00	1267+00.00	I44	LT	1,244.4		
20	1253+00.00	1267+00.00	I44	RT	1,244.4		
20	1253+00.00	1267+00.00	I44	RT	1,244.4		
20	1253+00.00	1267+00.00	I44	RT	1,244.4		
21	1267+00.00	1281+00.00	I44	LT	1,239.5		
21	1267+00.00	1281+00.00	I44	RT	1,239.5		
21	1267+00.00	1281+00.00	I44	RT	1,239.5		
22	1281+00.00	1295+00.00	I44	LT	1,244.6		
22	1281+00.00	1295+00.00	I44	RT	1,244.3		
22	1281+00.00	1295+00.00	I44	RT	1,244.6		
23	1295+00.00	1305+54.82	I44	LT	966.3		
23	1295+00.00	1309+00.00	I44	RT	1,244.3		
23	1295+00.00	1309+00.00	I44	RT	1,244.6		
23	1303+85.06	1309+00.00	I44	LT	445.0		
23	3+65.00	4+82.34	WB I44 ON RAMP @ US 65	RT	221.9		
24	1309+00.00	1312+84.84	I44	RT	254.2		
24	1309+00.00	1320+23.14	I44	LT	1,211.4		
24	1309+00.00	1320+42.46	I44	RT	1,015.4		
24	1312+57.56	1320+42.46	I44	RT	602.1		
24	2+66.36	4+12.42	EB I44 OFF RAMP @ US 65	RT	64.7		
				TOTALS	27,373.6	0.0	

I-44 WIDENING
J8I3044C

SUMMARY OF QUANTITIES
SHEET 32 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J8I3044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

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REV.

J8I3044C ALTERNATE D (CONCRETE) SHOULDERS							
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	TYPE A2 SHOULDER (SQYD)	INTEGRAL CURB (6 IN. HEIGHT AND UNDER) TYPE A (LF)	REMARKS
16	1213+22.32	1213+27.15	I44	RT	3.3		
16	1213+22.32	1221+24.52	I44	LT	648.6		
16	1221+00.00	1225+00.00	I44	RT	355.6		
16	1221+07.13	1225+00.00	I44	LT	284.8		
16	1223+19.80	1225+00.00	I44	RT	160.2		
16	1+98.79	3+18.62	WB I44 OFF RAMP @ GLENSTONE	RT	52.9		
18	1225+00.00	1239+00.00	I44	LT	1,244.7		
18	1225+00.00	1239+00.00	I44	RT	1,244.4		
18	1225+00.00	1226+61.29	I44	RT	140.6		
18	1226+92.97	1239+00.00	I44	RT	1,050.2		
19	1239+00.00	1253+00.00	I44	LT	1,244.4		
19	1239+00.00	1253+00.00	I44	RT	1,244.4		
19	1239+00.00	1253+00.00	I44	RT	1,244.4		
20	1253+00.00	1267+00.00	I44	LT	1,244.4		
20	1253+00.00	1267+00.00	I44	RT	1,244.4		
20	1253+00.00	1267+00.00	I44	RT	1,244.4		
21	1267+00.00	1281+00.00	I44	LT	1,239.5		
21	1267+00.00	1281+00.00	I44	RT	1,239.5		
21	1267+00.00	1281+00.00	I44	RT	1,239.5		
22	1281+00.00	1295+00.00	I44	LT	1,244.6		
22	1281+00.00	1295+00.00	I44	RT	1,244.3		
22	1281+00.00	1295+00.00	I44	RT	1,244.6		
23	1295+00.00	1305+54.82	I44	LT	966.3		
23	1295+00.00	1309+00.00	I44	RT	1,244.3		
23	1295+00.00	1309+00.00	I44	RT	1,244.6		
23	1303+85.06	1309+00.00	I44	LT	445.0		
23	3+65.00	4+82.34	WB I44 ON RAMP @ US 65	RT	221.9		
24	1309+00.00	1312+84.84	I44	RT	254.2		
24	1309+00.00	1320+23.14	I44	LT	1,211.4		
24	1309+00.00	1320+42.46	I44	RT	1,015.4		
24	1312+57.56	1320+42.46	I44	RT	602.1		
24	2+66.36	4+12.42	EB I44 OFF RAMP @ US 65	RT	64.7		
				TOTALS	27,373.6	0.0	

I-44 WIDENING
J8I3044C

SUMMARY OF QUANTITIES
SHEET 33 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J8I3044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

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651 WEST ELFINDALE STREET
SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631

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REV.

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J8I3044C BASE						
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	OPTIONAL BASE (SQYD)	REMARKS
16	1213+22.32	1225+00.00	I44	LT	4,994	
16	1213+22.32	1225+00.00	I44	RT	4,110	
16	1+98.79	3+18.62	WB I44 OFF RAMP @ GLENSTONE	LT & RT	404	
\$PS11\$ & \$PS12\$	3+98.21	5+15.77	EB I44 ON RAMP @ GLENSTONE	LT & RT	369	
18	1225+00.00	1239+00.00	I44	LT	5,290	
18	1225+00.00	1239+00.00	I44	RT	6,484	
19	1239+00.00	1253+00.00	I44	LT	4,901	
19	1239+00.00	1253+00.00	I44	RT	4,973	
20	1253+00.00	1267+00.00	I44	LT	4,935	
20	1253+00.00	1267+00.00	I44	RT	4,979	
21	1267+00.00	1281+00.00	I44	LT	4,889	
21	1267+00.00	1281+00.00	I44	RT	4,964	
22	1281+00.00	1295+00.00	I44	LT	4,949	
22	1281+00.00	1295+00.00	I44	RT	4,975	
23	1295+00.00	1309+00.00	I44	LT	6,021	
23	1295+00.00	1309+00.00	I44	RT	4,958	
23	3+65.00	4+82.34	WB I44 ON RAMP @ US 65	LT & RT	640	
24	1309+00.00	1320+42.46	I44	LT	3,004	
24	1309+00.00	1320+42.46	I44	RT	3,671	
24	2+66.36	4+12.42	EB I44 OFF RAMP @ US 65	LT & RT	491	
				TOTALS	80,000	

I-44 WIDENING
J8I3044C

SUMMARY OF QUANTITIES
SHEET 34 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J8I3044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)

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REV.

J8I3044C BOX CULVERTS									
SHEET	CENTERLINE STATION	BASELINE	LOCATION	LENGTH (FT)	CLASS 4 EXCAVATION (CUYD)	CLASS 4 EXCAVATION IN ROCK (CUYD)	CLASS B-1 CONCRETE (CULVERTS) (CUYD)	REINFORCING STEEL (CULVERTS) (LB)	REMARKS
	1219+15.25	I-44	LEFT	57'-0"	88	5	45.5	7,950	SINGLE 9' X 6' BOX CULVERT EXTENSION
	1219+15.25	I-44	RIGHT	50'-6 1/8"	134	8	38.0	6,620	SINGLE 9' X 6' BOX CULVERT EXTENSION
	1286+42.31	I-44	RIGHT	49'-8 1/8"	72	4	30.9	5,510	SINGLE 6' X 6' BOX CULVERT EXTENSION
	1297+91.48	I-44	RIGHT	47'-9 3/4"	64	4	24.7	3,820	SINGLE 5' X 5' BOX CULVERT EXTENSION
					258		2.2	430	FROM MEDIAN DETENTION BOXES AND END CAPS TABLE
				TOTALS	616	21	141.3	24,330	

J8I3044C MEDIAN DETENTION BOXES AND END CAPS									
PLAN SHEET	CULVERT SECTION SHEET	FROM STATION	TO STATION	ROADWAY	12' X 3' BOX CULVERT (UNDERGROUND DETENTION) (LF)	CLASS B-1 CONCRETE (CULVERTS)* (CUYD)	REINFORCING STEEL (CULVERTS)* (LB)	CLASS 4 EXCAVATION* (CUYD)	REMARKS
22	27	1284+73.5	1286+15.5	I-44	140	2.2	430	258	
				TOTALS	140	2.2	430	258	

NOTE: SEE BOX CULVERT TABLE FOR TOTAL CLASS B-1 CONCRETE (CULVERTS), REINFORCING STEEL (CULVERTS), AND CLASS 4 EXCAVATION QUANTITY TOTALS

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I-44

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& JST0088B

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105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)



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651 WEST ELFINDALE STREET
SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631

J8I3044C DRAINAGE PIPES											
PLAN SHEET	CULVERT SECTION SHEET	FROM STRUCT.	TO STRUCT.	PIPE COLLAR, TYPE A (EA)	12 IN. PIPE GROUP A (LF)	15 IN. PIPE GROUP A (LF)	18 IN. PIPE GROUP A (LF)	24 IN. PIPE GROUP A (LF)	30 IN. PIPE GROUP A (LF)	CLASS 3 EXCAVATION (CY)	REMARKS
16	21	61	62B				19			8	
18	21	62B	63				210			43	
18	21	63	64B				210			45	
18	21	64B	65			210				33	
18	21 TO 22	65	66B			210				34	
18	22	66B	67			210				34	
18	22	67	68B			210				36	
18	22	68B	68A		2					1	
18	22	62B	62A		2					1	
18	22	64B	64A		2					1	
18	22	66B	66A		2					1	
19	23	73	72			191				14	
19	23	72	71				33			6	
19	23	71	70				8			2	
19	23	70	69				9			1	
19	24	70	74			257				36	
19	24	74	75B			257				31	
19	24	75B	76			257				31	
19	24	76	77B			257				30	
19	24	77B	77A		2					1	
19	24	75B	75A		2					1	
20	25	78	-	1					7	6	
20	25	-	80	1					20	1	
21	26	81B	81A		2					1	
21	26	81A	82			272				46	
21	26	82	83A			272				48	
21	26	83A	84				273			60	
21	26 TO 27	84	85A				274			61	
21 TO 22	27	85A	86					272		89	
22	27	86	87A					141		115	
22	27	87A	EX			25				37	
21	27	83A	83B		2					1	
21	27	85A	85B		2					1	
22	28	89	88A			82				24	
22 TO 23	28	88A	90			330				56	
23	28	90	91A		330					42	
23	28	91A	91B		2					1	
22	28	88A	88B		2					1	
24	29	92B	92A		2					1	
24	29	92A	93		297					42	
24	29	93	94A		297					42	
24	29	94A	95			348				73	
24	29	94A	94B		2					1	
											SEE STRUCTURES FOR TOTAL
			TOTALS:	2	950	3,388	1,036	413	27	--	

I-44 WIDENING
J8I3044C

SUMMARY OF QUANTITIES
SHEET 36 OF 55

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I-44

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JEFFERSON CITY, MO 65102
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REV.

J8I3044C FLARED END SECTIONS								
PLAN SHEET	CULVERT SECTION SHEET	FROM STRUCT.	TO STRUCT.	15 IN. OF ALLOWED SUBSTITUTE GROUP A FLARED END SECTION (EA)	18 IN. OR ALLOWED SUBSTITUTE GROUP A FLARED END SECTION (EA)	30 IN. OR ALLOWED SUBSTITUTE GROUP A FLARED END SECTION (EA)	ROCK LINING (CUYD)	PAVED DITCH (SQYD)
16	30		-					59.9
16	31		-					23.2
16	21	61	61		1		2.11	
19	23	69	69		1		2.00	
19	23	73	73		1		0	
20	25	78	78			1	0	
20	25	80	80			1	4.15	
22	28	89	89	1			1.78	
			TOTALS:	1	3	2	10	83.1

I-44 WIDENING
J8I3044C

SUMMARY OF QUANTITIES
SHEET 37 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J8I3044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)

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REV.

J8I3044C DRAINAGE STRUCTURES																
STRUCT. NO.	PLAN SHEET	CULVERT SECTION SHEET	STATION	ROADWAY	LOCATION	STD.	TYPE	ACTUAL DEPTH	PRECAST CONCRETE MANHOLE - 48 IN. (FT)	PRECAST CONCRETE DROP INLET 4 FT X 2 FT (FT)	PRECAST CONCRETE DROP INLET 5 FT X 3 FT (FT)	SPECIAL INLET NO. 1 (FT)	CLASS 3 EXCAVATION (CUYD)	CLASS 3 EXCAVATION IN ROCK (CUYD)	PIPE OPENINGS (NUMBER - SIZE)	REMARKS
62B	18	21	1225+00.0	144	RT	731.10S	A 4 X 2	4.84		4			4		1-12", 1-24"	
63	18	21	1227+12.5	144	RT	731.00U	4' MH	5.15	5				6		2-24"	
64B	18	21	1229+25.0	144	RT	731.10S	A 4 X 2	5.16		4			6		1-24", 1-12", 1-18"	
65	18	21	1231+37.5	144	RT	731.00U	4' MH	4.79	5				5		2-18"	
66B	18	22	1233+50.0	144	RT	731.10S	A 4 X 2	4.80		4			6		1-18", 1-15", 1-12"	
67	18	22	1235+62.5	144	RT	731.00U	4' MH	4.81	5				6		2-15"	
68B	18	22	1237+75.0	144	RT	731.10S	A 4 X 2	4.80		4			6		1-15", 1-12"	
68A	18	22	1237+75.0	144	LT	731.10S	A 4 X 2	4.55		4			6		1-12"	
62A	18	22	1225+00.0	144	LT	731.10S	A 4 X 2	4.21		3			4		1-12"	
64A	18	22	1229+25.0	144	LT	731.10S	A 4 X 2	4.51		4			6		1-12"	
66A	18	22	1233+50.0	144	LT	731.10S	A 4 X 2	4.50		4			6		1-12"	
72	19	23	1242+78.4	144	LT			3.16			3		8		2-18"	
71	19	23	1242+40.6	144	LT	731.00U	4' MH	3.58	4				3		1-18", 1-15"	
70	19	23	1241+97.3	144	CL		SPC1	7.44				7	20		1-18", 1-15"	
74	19	24	1244+57.0	144	RT	731.00U	4' MH	4.91	5				6		2-15", 1-12"	
75B	19	24	1247+17.0	144	RT	731.10S	A 4 X 2	4.92		4			5		2-15"	
76	19	24	1249+77.0	144	RT	731.00U	4' MH	4.90	5				5		2-15"	
77B	19	24	1252+37.0	144	RT	731.10S	A 4 X 2	4.80		4			5		1-15", 1-12"	
77A	19	24	1252+37.0	144	LT	731.10S	A 4 X 2	4.55		4			5		1-12"	
75A	19	24	1241+17.0	144	LT	731.10S	A 4 X 2	4.56		4			5		1-12"	
81B	21	26	1269+50.0	144	RT	731.10S	A 4 X 2	4.55		4			5		1-12"	
81A	21	26	1269+50.0	144	LT	731.10S	A 4 X 2	4.80		4			5		1-12", 1-15"	
82	21	26	1272+25.0	144	LT	731.00U	4' MH	4.90	5				7		2-15"	
83A	21	26	1275+00.0	144	LT	731.10S	A 4 X 2	4.91		4			6		1-15", 1-12", 1-18"	
84	21	26	1277+75.4	144	LT	731.00U	4' MH	5.17	5				6		2-18"	
85A	21	27	1280+57.0	144	LT	731.10S	A 4 X 2	5.56		5			7		1-18", 1-12", 1-24"	
86	22	27	1283+31.9	144	LT	731.00U	4' MH	5.66	6				8		2-24"	
83B	21	27	1275+00.0	144	RT	731.10S	A 4 X 2	4.56		4			5		1-12"	
85B	21	27	1280+57.0	144	RT	731.10S	A 4 X 2	4.56		4			6		1-12"	
88A	22	28	1292+70.0	144	LT	731.10S	A 4 X 2	4.90		4			6		2-15", 1-12"	
90	23	28	1296+02.5	144	LT	731.00U	4' MH	4.90	5				6		2-15"	
91A	23	28	1299+35.0	144	LT	731.10S	A 4 X 2	4.80		4			5		1-12" 1-15"	
91B	23	28	1299+35.0	144	RT	731.10S	A 4 X 2	4.55		4			5		1-12"	
88B	22	28	1292+70.0	144	RT	731.10S	A 4 X 2	4.56		4			6		1-12"	
92B	24	29	1312+00.0	144	RT	731.10S	A 4 X 2	4.50		4			8		1-12"	
92A	24	29	1312+00.0	144	LT	731.10S	A 4 X 2	4.78		4			9		1-12", 1-15"	
93	24	29	1315+00.0	144	LT	731.00U	4' MH	4.89	5				6		2-15"	
94A	24	29	1318+00.0	144	LT	731.10S	A 4 X 2	4.90		4			7		2-15", 1-12"	
94B	24	29	1318+00.0	144	RT	731.10S	A 4 X 2	4.49		4			6		1-12"	
87A	22	27	1286+10.0	144	RT/LT					6			250		1-24", 1-15"	1 FT EACH FOR 6 INLETS
													1,139			TOTAL FROM PIPES
														163		10% OF CLASS 3 EXC.
								TOTALS	55	110	3	7	1,468	163		

NOTE: EXCAVATION QUANTITIES ASSUME PRECAST CONCRETE STRUCTURES

I-44 WIDENING
J8I3044C
SUMMARY OF QUANTITIES
SHEET 38 OF 55

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I-44

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MO

SHEET NO.
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GREENE

JOB NO.
JSU0076, J8I3044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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JEFFERSON CITY, MO 65102
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J8I3044C DRAINAGE STRUCTURE LIDS										
STRUCT. NO.	PLAN SHEET	CULVERT SECTION SHEET	STATION	ROADWAY	LOCATION	MANHOLE FRAME AND COVER, TYPE 1B (EA)	MANHOLE FRAME AND COVER, TYPE 3 (EA)	GRATE AND BEARING PLATE (5 FT. X 3 FT. OR 1500MM X 914MM)	CURVED VANE GRATE AND FRAME (4 FT. X 2 FT. OR 1200MM X 600MM) (EA)	REMARKS
62B	18	21	1225+00.0	I44	RT				1	
63	18	21	1227+12.5	I44	RT	1				
64B	18	21	1229+25.0	I44	RT				1	
65	18	21	1231+37.5	I44	RT	1				
66B	18	22	1233+50.0	I44	RT				1	
67	18	22	1235+62.5	I44	RT	1				
68B	18	22	1237+75.0	I44	RT				1	
68A	18	22	1237+75.0	I44	LT				1	
62A	18	22	1225+00.0	I44	LT				1	
64A	18	22	1229+25.0	I44	LT				1	
66A	18	22	1233+50.0	I44	LT				1	
72	19	23	1242+78.4	I44	LT			1		
71	19	23	1242+40.6	I44	LT		1			
70	19	23	1241+97.3	I44	CL					
74	19	24	1244+57.0	I44	RT	1				
75B	19	24	1247+17.0	I44	RT				1	
76	19	24	1249+77.0	I44	RT	1				
77B	19	24	1252+37.0	I44	RT				1	
77A	19	24	1252+37.0	I44	LT				1	
75A	19	24	1241+17.0	I44	LT				1	
81B	21	26	1269+50.0	I44	RT				1	
81A	21	26	1269+50.0	I44	LT				1	
82	21	26	1272+25.0	I44	LT	1				
83A	21	26	1275+00.0	I44	LT				1	
84	21	26	1277+75.4	I44	LT	1				
85A	21	27	1280+57.0	I44	LT				1	
86	22	27	1283+31.9	I44	LT	1				
83B	21	27	1275+00.0	I44	RT				1	
85B	21	27	1280+57.0	I44	RT				1	
88A	22	29	1292+70.0	I44	LT				1	
90	23	29	1296+02.5	I44	LT	1				
91A	23	29	1299+35.0	I44	LT				1	
91B	23	29	1299+35.0	I44	RT				1	
88B	22	29	1292+70.0	I44	RT				1	
92B	24	30	1312+00.0	I44	RT				1	
92A	24	30	1312+00.0	I44	LT				1	
93	24	30	1315+00.0	I44	LT	1				
94A	24	30	1318+00.0	I44	LT				1	
94B	24	30	1318+00.0	I44	RT				1	
87A	22	27	1286+10.0	I44	RT/LT				6	Curved Vane Grate and Frame in Box
					TOTALS	10	1	1	32	

NOTE: EXCAVATION QUANTITIES ASSUME PRECAST CONCRETE STRUCTURES

I-44 WIDENING
J8I3044C & JST0088B

SUMMARY OF QUANTITIES
SHEET 39 OF 55

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DATE PREPARED
9/26/2024

ROUTE
I-44

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SW

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JSU0076, J8I3044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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JEFFERSON CITY, MO 65102
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J8I3044C PAVEMENT MARKING								
PAVEMENT MARKING SHEET X OF X	FROM STATION	TO STATION	ROADWAY	LOCATION	6 IN. WHITE HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS (LF)	6 IN. YELLOW HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS (LF)	12 IN. WHITE HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS (LF)	REMARKS
6 TO 9	1213+22.32	1313+22.39	I-44	LT.		9,994.5		SOLID
6 TO 9	1213+22.32	1313+22.40	I-44	RT.		9,994.5		SOLID
6 TO 9	1213+22.32	1313+89.43	I-44	LT.	2,515.4			INTERMEDIATE
6 TO 9	1213+22.32	1283+81.30	I-44	RT.	1,763.4			INTERMEDIATE
6 TO 9	1213+22.32	1302+12.43	I-44	LT.	2,221.1			INTERMEDIATE
6 TO 9	1213+22.32	1283+81.30	I-44	RT.	1,763.4			INTERMEDIATE
6 TO 9	1219+96.22	1306+71.74	I-44	LT.	8,684.1			EXTERIOR RAMP TO EXTERIOR RAMP
6 TO 9	1224+88.30	1314+24.88	I-44	RT.	8,946.5			EXTERIOR RAMP TO EXTERIOR RAMP
6	1213+22.32	1221+00.61	I-44	LT.	778.3			SOLID
6	1213+22.32	1225+96.28	I-44	RT.	1,248.8			SOLID
6	1219+86.44	1220+99.76	I-44	LT.	121.9			INTERIOR OF RAMP
6	1224+88.30	1225+96.28	I-44	RT.	119.0			INTERIOR OF RAMP
6	1220+99.76	1222+12.90	I-44	LT.			116.1	INTERIOR OF RAMP
6	1221+00.61	1226+52.23	I-44	LT.			201.6	EXIT LANE TRANSITION
6	1223+02.23	1226+52.23	I-44	LT.	87.5			DOTTED
6	1225+96.28	1226+91.71	I-44	RT.			96.8	INTERIOR OF RAMP
6	1225+96.28	1227+96.49	I-44	RT.			200.2	ENTRANCE LANE TRANSITION
6	1227+96.49	1235+41.71	I-44	RT.	186.3			DOTTED
8 TO 9	1292+72.22	1302+12.43	I-44	LT.	235.1			DOTTED, EXTERIOR ENTRANCE LANE
9	1302+12.43	1306+72.98	I-44	LT.	115.4			INTERMEDIATE
9	1302+12.43	1305+57.59	I-44	LT			345.7	INTERIOR OF RAMP
9	1302+12.43	1305+57.59	I-44	LT			345.2	ENTRANCE LANE TRANSITION
9	1305+57.59	1306+74.21	I-44	LT.	117.2			INTERIOR OF RAMP
9	1305+57.59	1312+57.15	I-44	LT.	699.6			SOLID, EXTERIOR LANE
8 TO 9	1283+81.30	1306+39.78	I-44	RT.	564.6			DOTTED
9	1312+57.15	1320+42.46	I-44	LT.	785.4			SOLID, END OF J8I3044C
9	1306+39.78	1312+90.47	I-44	RT.			650.7	EXIT LANE TRANSITION
9	1311+39.81	1312+91.01	I-44	RT.			151.2	INTERIOR OF RAMP
9	1312+90.47	1313+22.40	I-44	RT.	81.2			INTERIOR OF RAMP
9	1313+22.40	1314+31.37	I-44	RT.	65.7			INTERIOR OF RAMP
9	1313+89.43	1320+42.46	I-44	LT.	163.3			INTERMEDIATE
9	1313+22.39	1320+42.46	I-44	LT.		720.1		SOLID
9	1313+22.40	1320+42.46	I-44	RT.		720.1		SOLID
9	1313+89.43	1320+42.46	I-44	RT.	163.3			INTERMEDIATE
9	1312+90.47	1320+42.46	I-44	RT.	752.1			SOLID, EXTERIOR LANE
			TOTALS		32,178	21,429	2,107	

I-44 WIDENING
J8I3044C

SUMMARY OF QUANTITIES
SHEET 41 OF 55

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REV.

JST0088B SAWCUTS FOR PAVEMENT REMOVAL

ALL SAWCUTS NOT SHOWN ARE INCIDENTAL TO REMOVAL OF IMPROVEMENTS

JST0088B REMOVAL OF IMPROVEMENTS								
PLAN SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	DESCRIPTION	UNITS	QUANTITY	REMARKS
4	1071+99.40	1085+00.00	I44	LT	WB PAVEMENT	SY	3593.4	
4	1071+99.40	1085+00.00	I44	RT	EB PAVEMENT	SY	3584.9	
6	1085+00.00	1093+00.00	I44	LT	WB PAVEMENT	SY	2190.6	WEST OF BR A9414
6	1085+00.00	1093+00.00	I44	RT	EB PAVEMENT	SY	2260.5	WEST OF BR A9413
7	1104+50.00	1108+70.00	I44	LT	WB PAVEMENT	SY	1159.8	BETWEEN BR'S A9414 & A9418
7	1104+50.00	1108+70.00	I44	RT	EB PAVEMENT	SY	1179.2	BETWEEN BR'S A9413 & A9417
8	1119+25.00	1127+00.00	I44	LT	WB PAVEMENT	SY	2287.4	EAST OF BR A9418
8	1119+25.00	1127+00.00	I44	RT	EB PAVEMENT	SY	2298.5	EAST OF BR A9417
9	1127+00.00	1141+00.00	I44	LT	WB PAVEMENT	SY	4109.1	
9	1127+00.00	1141+00.00	I44	RT	EB PAVEMENT	SY	4157.8	
10	1141+00.00	1155+00.00	I44	LT	WB PAVEMENT	SY	4124.5	
10	1141+00.00	1155+00.00	I44	RT	EB PAVEMENT	SY	4159.7	
11	1155+00.00	1169+00.00	I44	LT	WB PAVEMENT	SY	4151.6	
11	1155+00.00	1169+00.00	I44	RT	EB PAVEMENT	SY	4181.3	
12	1169+00.00	1172+95.00	I44	LT	WB PAVEMENT	SY	1173.9	WEST OF BR A9422
12	1169+00.00	1172+95.00	I44	RT	EB PAVEMENT	SY	1164.1	WEST OF BR A9421
13	1183+00.00	1197+00.00	I44	LT	WB PAVEMENT	SY	4116.3	EAST OF BR A9422
13	1183+00.00	1197+00.00	I44	RT	EB PAVEMENT	SY	4088.1	EAST OF BR A9421
14	1197+00.00	1211+00.00	I44	LT	WB PAVEMENT	SY	4106.2	
14	1197+00.00	1211+00.00	I44	RT	EB PAVEMENT	SY	4121.7	
16	1211+00.00	1225+00.00	I44	LT	WB PAVEMENT	SY	4067.2	
16	1211+00.00	1225+00.00	I44	RT	EB PAVEMENT	SY	4132.8	
18	1225+00.00	1239+00.00	I44	LT	WB PAVEMENT	SY	4102.1	
18	1225+00.00	1239+00.00	I44	RT	EB PAVEMENT	SY	4069.5	
19	1239+00.00	1253+00.00	I44	LT	WB PAVEMENT	SY	4121.0	
19	1239+00.00	1253+00.00	I44	RT	EB PAVEMENT	SY	4049.7	
20	1253+00.00	1267+00.00	I44	LT	WB PAVEMENT	SY	4087.1	
20	1253+00.00	1267+00.00	I44	RT	EB PAVEMENT	SY	4042.9	
21	1267+00.00	1281+00.00	I44	LT	WB PAVEMENT	SY	4097.2	
21	1267+00.00	1281+00.00	I44	RT	EB PAVEMENT	SY	4022.3	
22	1281+00.00	1295+00.00	I44	LT	WB PAVEMENT	SY	4188.5	
22	1281+00.00	1295+00.00	I44	RT	EB PAVEMENT	SY	4047.7	
23	1295+00.00	1309+00.00	I44	LT	WB PAVEMENT	SY	4170.6	
23	1295+00.00	1309+00.00	I44	RT	EB PAVEMENT	SY	4064.4	
24	1309+00.00	1320+42.46	I44	LT	WB PAVEMENT	SY	3399.1	
24	1309+00.00	1320+42.46	I44	RT	EB PAVEMENT	SY	3358.8	
TOTAL:						1 LUMP SUM		

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REV.

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SHEETS 6 & 7: BREAK FROM STATION 1093+00.00 TO STATION 1104+50.00 FOR BRIDGES A9413 & A9414 AND PROFILE ADJUSTMENT (INCLUDED IN JSU0076 PAVEMENT)

SHEETS 7 & 8: BREAK FROM STATION 1108+70.00 TO STATION 1119+25.00 FOR BRIDGES A9417 & A9418 AND PROFILE ADJUSTMENT LOCATIONS (INCLUDED IN JSU0076 PAVEMENT)

SHEET 12: BREAK FROM STATION 1172+95.00 TO STATION 1183+00.00 FOR BRIDGES A9421 & A9422 AND PROFILE ADJUSTMENT LOCATIONS (INCLUDED IN JSU0076 PAVEMENT)

JST0088B ALTERNATE A (ASPHALT) PAVEMENT						
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	15 INCHES, ASPHALTIC CONCRETE PAVEMENT SP125BLP OR SP125BSM (SQYD)	REMARKS
4	1071+99.40	1085+00.00	144	LT	3,593.4	
4	1071+99.40	1085+00.00	144	RT	3,584.9	
6	1085+00.00	1093+00.00	144	LT	2,190.6	WEST OF BR A9414
6	1085+00.00	1093+00.00	144	RT	2,260.5	WEST OF BR A9413
7	1104+50.00	1108+70.00	144	LT	1,159.8	BETWEEN BR'S A9414 & A9418
7	1104+50.00	1108+70.00	144	RT	1,179.2	BETWEEN BR'S A9413 & A9417
8	1119+25.00	1127+00.00	144	LT	2,287.4	EAST OF BR A9418
8	1119+25.00	1127+00.00	144	RT	2,298.5	EAST OF BR A9417
9	1127+00.00	1141+00.00	144	LT	4,109.1	
9	1127+00.00	1141+00.00	144	RT	4,157.8	
10	1141+00.00	1155+00.00	144	LT	4,124.5	
10	1141+00.00	1155+00.00	144	RT	4,159.7	
11	1155+00.00	1169+00.00	144	LT	4,151.6	
11	1155+00.00	1169+00.00	144	RT	4,181.3	
12	1169+00.00	1172+95.00	144	LT	1,173.9	WEST OF BR A9422
12	1169+00.00	1172+95.00	144	RT	1,164.1	WEST OF BR A9421
13	1183+00.00	1197+00.00	144	LT	4,116.3	EAST OF BR A9422
13	1183+00.00	1197+00.00	144	RT	4,088.1	EAST OF BR A9421
14	1197+00.00	1211+00.00	144	LT	4,106.2	
14	1197+00.00	1211+00.00	144	RT	4,121.7	
16	1211+00.00	1225+00.00	144	LT	4,067.2	
16	1211+00.00	1225+00.00	144	RT	4,132.8	
18	1225+00.00	1239+00.00	144	LT	4,102.1	
18	1225+00.00	1239+00.00	144	RT	4,069.5	
19	1239+00.00	1253+00.00	144	LT	4,121.0	
19	1239+00.00	1253+00.00	144	RT	4,049.7	
20	1253+00.00	1267+00.00	144	LT	4,087.1	
20	1253+00.00	1267+00.00	144	RT	4,042.9	
21	1267+00.00	1281+00.00	144	LT	4,097.2	
21	1267+00.00	1281+00.00	144	RT	4,022.3	
22	1281+00.00	1295+00.00	144	LT	4,188.5	
22	1281+00.00	1295+00.00	144	RT	4,047.7	
23	1295+00.00	1309+00.00	144	LT	4,170.6	
23	1295+00.00	1309+00.00	144	RT	4,064.4	
24	1309+00.00	1320+42.46	144	LT	3,399.1	
24	1309+00.00	1320+42.46	144	RT	3,358.8	
				TOTALS	126,229.6	

I-44 REBUILD
JST0088B

SUMMARY OF QUANTITIES
SHEET 43 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

CMT

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651 WEST ELFINDALE STREET
SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631

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SHEETS 6 & 7: BREAK FROM STATION 1093+00.00 TO STATION 1104+50.00 FOR BRIDGES A9413 & A9414 AND PROFILE ADJUSTMENT (INCLUDED IN JSU0076 PAVEMENT)

SHEETS 7 & 8: BREAK FROM STATION 1108+70.00 TO STATION 1119+25.00 FOR BRIDGES A9417 & A9418 AND PROFILE ADJUSTMENT LOCATIONS (INCLUDED IN JSU0076 PAVEMENT)

SHEET 12: BREAK FROM STATION 1172+95.00 TO STATION 1183+00.00 FOR BRIDGES A9421 & A9422 AND PROFILE ADJUSTMENT LOCATIONS (INCLUDED IN JSU0076 PAVEMENT)

JST0088B ALTERNATE B (CONCRETE) PAVEMENT						
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	CONCRETE PAVEMENT (11 1/2 IN. NON-REINFORCED, 15 FT. JOINTS) (SQYD)	REMARKS
4	1071+99.40	1085+00.00	I44	LT	3,593.4	
4	1071+99.40	1085+00.00	I44	RT	3,584.9	
6	1085+00.00	1093+00.00	I44	LT	2,190.6	WEST OF BR A9414
6	1085+00.00	1093+00.00	I44	RT	2,260.5	WEST OF BR A9413
7	1104+50.00	1108+70.00	I44	LT	1,159.8	BETWEEN BR'S A9414 & A9418
7	1104+50.00	1108+70.00	I44	RT	1,179.2	BETWEEN BR'S A9413 & A9417
8	1119+25.00	1127+00.00	I44	LT	2,287.4	EAST OF BR A9418
8	1119+25.00	1127+00.00	I44	RT	2,298.5	EAST OF BR A9417
9	1127+00.00	1141+00.00	I44	LT	4,109.1	
9	1127+00.00	1141+00.00	I44	RT	4,157.8	
10	1141+00.00	1155+00.00	I44	LT	4,124.5	
10	1141+00.00	1155+00.00	I44	RT	4,159.7	
11	1155+00.00	1169+00.00	I44	LT	4,151.6	
11	1155+00.00	1169+00.00	I44	RT	4,181.3	
12	1169+00.00	1172+95	I44	LT	1,173.9	WEST OF BR A9422
12	1169+00.00	1172+95	I44	RT	1,164.1	WEST OF BR A9421
13	1183+00.00	1197+00.00	I44	LT	4,116.3	EAST OF BR A9422
13	1183+00.00	1197+00.00	I44	RT	4,088.1	EAST OF BR A9421
14	1197+00.00	1211+00.00	I44	LT	4,106.2	
14	1197+00.00	1211+00.00	I44	RT	4,121.7	
16	1211+00.00	1225+00.00	I44	LT	4,067.2	
16	1211+00.00	1225+00.00	I44	RT	4,132.8	
18	1225+00.00	1239+00.00	I44	LT	4,102.1	
18	1225+00.00	1239+00.00	I44	RT	4,069.5	
19	1239+00.00	1253+00.00	I44	LT	4,121.0	
19	1239+00.00	1253+00.00	I44	RT	4,049.7	
20	1253+00.00	1267+00.00	I44	LT	4,087.1	
20	1253+00.00	1267+00.00	I44	RT	4,042.9	
21	1267+00.00	1281+00.00	I44	LT	4,097.2	
21	1267+00.00	1281+00.00	I44	RT	4,022.3	
22	1281+00.00	1295+00.00	I44	LT	4,188.5	
22	1281+00.00	1295+00.00	I44	RT	4,047.7	
23	1295+00.00	1309+00.00	I44	LT	4,170.6	
23	1295+00.00	1309+00.00	I44	RT	4,064.4	
24	1309+00.00	1320+42.46	I44	LT	3,399.1	
24	1309+00.00	1320+42.46	I44	RT	3,358.8	

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)

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6831 WEST ELFINDALE STREET
SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631

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REV.

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JST088B BASE						
SHEET	FROM STATION	TO STATION	BASELINE	LOCATION	OPTIONAL BASE (SQYD)	REMARKS
4	1071+99.40	1085+00.00	144	LT	3,593.4	
4	1071+99.40	1085+00.00	144	RT	3,584.9	
6	1085+00.00	1093+00.00	144	LT	2,190.6	WEST OF BR A9414
6	1085+00.00	1093+00.00	144	RT	2,260.5	WEST OF BR A9413
7	1104+50.00	1108+70.00	144	LT	1,159.8	BETWEEN BR'S A9414 & A9418
7	1104+50.00	1108+70.00	144	RT	1,179.2	BETWEEN BR'S A9413 & A9417
8	1119+25.00	1127+00.00	144	LT	2,287.4	EAST OF BR A9418
8	1119+25.00	1127+00.00	144	RT	2,298.5	EAST OF BR A9417
9	1127+00.00	1141+00.00	144	LT	4,109.1	
9	1127+00.00	1141+00.00	144	RT	4,157.8	
10	1141+00.00	1155+00.00	144	LT	4,124.5	
10	1141+00.00	1155+00.00	144	RT	4,159.7	
11	1155+00.00	1169+00.00	144	LT	4,151.6	
11	1155+00.00	1169+00.00	144	RT	4,181.3	
12	1169+00.00	1172+95	144	LT	1,173.9	WEST OF BR A9422
12	1169+00.00	1172+95	144	RT	1,164.1	WEST OF BR A9421
13	1183+00.00	1197+00.00	144	LT	4,116.3	EAST OF BR A9422
13	1183+00.00	1197+00.00	144	RT	4,088.1	EAST OF BR A9421
14	1197+00.00	1211+00.00	144	LT	4,106.2	
14	1197+00.00	1211+00.00	144	RT	4,121.7	
16	1211+00.00	1225+00.00	144	LT	4,067.2	
16	1211+00.00	1225+00.00	144	RT	4,132.8	
18	1225+00.00	1239+00.00	144	LT	4,102.1	
18	1225+00.00	1239+00.00	144	RT	4,069.5	
19	1239+00.00	1253+00.00	144	LT	4,121.0	
19	1239+00.00	1253+00.00	144	RT	4,049.7	
20	1253+00.00	1267+00.00	144	LT	4,087.1	
20	1253+00.00	1267+00.00	144	RT	4,042.9	
21	1267+00.00	1281+00.00	144	LT	4,097.2	
21	1267+00.00	1281+00.00	144	RT	4,022.3	
22	1281+00.00	1295+00.00	144	LT	4,188.5	
22	1281+00.00	1295+00.00	144	RT	4,047.7	
23	1295+00.00	1309+00.00	144	LT	4,170.6	
23	1295+00.00	1309+00.00	144	RT	4,064.4	
24	1309+00.00	1320+42.46	144	LT	3,399.1	
24	1309+00.00	1320+42.46	144	RT	3,358.8	
				TOTALS	126,230	

I-44 REBUILD
JST0088B

SUMMARY OF QUANTITIES
SHEET 45 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
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SHEET NO.
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GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

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REV.

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
SUMMARY OF QUANTITIES

ALTERNATE DITCH CHECKS (JSU0076)						
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	ALTERNATE DITCH CHECK	SEDIMENT REMOVAL
					(LF)	(CUYD)
198	I-44	1074+06	-	CL	8	1
198	I-44	1077+90	-	RT	15	1
198	I-44	1078+03	-	LT	15	1
198	I-44	1089+50	-	CL	25	1
198	I-44	1093+74	1096+49	RT	132	6
198	I-44	1094+76	1095+22	LT	66	3
199	I-44	1101+04	1106+55	LT	418	19
199	I-44	1104+00	1109+03	RT	242	11
199	I-44	1115+68	1124+52	LT	638	29
199	I-44	1118+99	1124+49	RT	220	10
199	I-44	1124+73	-	CL	25	1
200	I-44	1133+61	1154+95	LT	968	44
200	I-44	1134+13	1154+74	RT	836	38
200	I-44	1134+49	-	CL	25	1
200	I-44	1151+00	-	CL	25	1
201	I-44	1155+49	1167+63	RT	418	19
201	I-44	1155+70	1160+83	LT	308	14
201	I-44	1157+70	-	RT	8	1
201	I-44	1165+49	-	RT	8	1
201	I-44	1165+60	-	CL	25	1
201	I-44	1180+48	-	CL	25	1
201	I-44	1182+76	1182+92	LT	44	2
202	I-44	1183+07	1188+45	LT	198	9
202	I-44	1193+55	1196+88	RT	154	7
202	I-44	1197+02	-	CL	25	1
202	I-44	1199+15	-	RT	15	1
202	I-44	1201+60	-	LT	20	1
202	I-44	1204+83	-	CL	20	1
202	I-44	1205+66	-	RT	20	1
202	I-44	1207+98	1210+94	RT	66	3
TOTAL:					5012	230

SEDIMENT TRAP (JSU0076)						
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	SEDIMENT TRAP (EXCAV. & ROCK)	SEDIMENT REMOVAL
					(CUYD)	(CUYD)
198	I-44	1093+25	-	LT	1.3	1.0
198	I-44	1093+25	-	RT	1.3	1.0
198	I-44	1098+73	-	RT	1.3	1.0
199	I-44	1099+67	-	RT	1.3	1.0
199	I-44	1099+70	-	LT	1.3	1.0
199	I-44	1114+35	-	LT	1.3	1.0
199	I-44	1125+28	-	RT	1.3	1.0
199	I-44	1125+30	-	LT	1.3	1.0
200	I-44	1133+50	-	LT	1.3	1.0
200	I-44	1133+99	-	RT	1.3	1.0
201	I-44	1157+12	-	LT	2.9	1.0
201	I-44	1171+90	-	LT	1.5	1.0
201	I-44	1177+59	-	LT	1.3	1.0
201	I-44	1177+90	-	RT	1.3	1.0
201	I-44	1179+33	-	LT	1.3	1.0
201	I-44	1179+50	-	RT	1.3	1.0
202	I-44	1183+54	-	RT	1.3	1.0
202	I-44	1188+72	-	LT	1.3	1.0
TOTAL:					25.2	18

ROCK DITCH CHECKS (JSU0076)						
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	ROCK DITCH CHECK	SEDIMENT REMOVAL
					(LF)	(CUYD)
198	I-44	1096+81	1098+43	RT	132	6
198	I-44	1098+96	-	RT	25	1
199	I-44	1099+54	-	RT	20	1
199	I-44	1099+57	-	LT	15	1
199	I-44	1100+04	-	CL	25	1
199	I-44	1100+04	1100+85	LT	132	6
199	I-44	1100+23	1103+27	RT	396	18
199	I-44	1107+05	1108+05	LT	44	2
199	I-44	1113+32	1118+24	RT	286	13
199	I-44	1113+66	-	RT	10	1
199	I-44	1114+53	1115+55	LT	176	8
199	I-44	1121+64	1125+19	LT	132	6
201	I-44	1167+75	1177+43	RT	440	20
201	I-44	1170+83	1177+36	LT	330	15
201	I-44	1171+91	-	RT	10	1
201	I-44	1178+32	-	RT	6	1
201	I-44	1178+40	-	LT	20	1
201	I-44	1179+17	-	LT	6	1
201	I-44	1179+28	-	RT	8	1
201	I-44	1179+81	-	RT	22	1
201	I-44	1180+11	1182+49	LT	176	8
201	I-44	1182+80	-	RT	25	1
202	I-44	1197+31	1204+08	RT	132	6
TOTAL:					2568	120

EROSION CONTROL BLANKET (JSU0076)					
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	TYPE 3B EROSION CONTROL BLANKET
					(S.Y.)
198	I-44	1080+26	1081+81	RT	777
198	I-44	1097+13	1098+83	RT	764
198	I-44	1097+75	1098+79	LT	527
199	I-44	1099+79	1101+97	RT	1024
199	I-44	1099+85	1100+74	LT	359
199	I-44	1106+58	1108+38	RT	783
199	I-44	1110+56	1112+07	LT	791
199	I-44	1111+11	1112+00	RT	415
199	I-44	1112+98	1115+36	RT	1389
199	I-44	1113+05	1117+25	LT	1837
199	I-44	1118+75	1124+58	RT	2739
199	I-44	1119+37	1122+88	LT	1427
199	I-44	1124+74	1125+30	LT	299
199-200	I-44	1126+75	1129+27	LT	367
200	I-44	1128+00	1130+01	RT	306
200	I-44	1138+12	1154+10	LT	9414
200-201	I-44	1138+80	1161+30	RT	9975
201	I-44	1169+32	1178+27	LT	4977
201	I-44	1170+41	1178+20	RT	5613
201	I-44	1179+18	1183+55	RT	1958
201	I-44	1179+25	1182+40	LT	1813
202	I-44	1191+75	1196+00	RT	1149
202	I-44	1198+25	1200+51	LT	991
202	I-44	1198+72	1203+22	RT	2407
203	I-44	1211+25	1212+25	RT	335
TOTAL:					52436

SILT FENCE (JSU0076)						
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	SILT FENCE	SEDIMENT REMOVAL
					(LF)	(CUYD)
189 & 198	I-44	1071+97	1077+48	LT	553	5.6
189 & 198	I-44	1071+97	1078+42	RT	707	7.1
189 & 198	I-44	1078+01	1085+00	RT	741	7.5
189 & 198	I-44	1078+41	1085+00	LT	663	6.7
189 & 198	I-44	1085+00	1093+24	RT	819	8.2
189 & 198	I-44	1085+00	1093+18	LT	821	8.3
189 & 198	I-44	1095+50	1099+00	LT	377	3.8
189 & 198	I-44	1108+98	1112+32	LT	347	3.5
189 & 198	I-44	1109+47	1112+23	RT	291	3.0
190 & 199	I-44	1113+00	1114+22	LT	121	1.3
190 & 199	I-44	1125+29	1127+00	RT	171	1.8
190 & 199	I-44	1125+36	1127+00	LT	165	1.7
191 & 200	I-44	1127+00	1133+82	RT	683	6.9
191 & 200	I-44	1127+00	1133+46	LT	647	6.5
192 & 201	I-44	1162+00	1169+00	LT	701	7.1
192 & 201	I-44	1169+00	1170+79	LT	180	1.8
193 & 202	I-44	1188+80	1197+00	LT	818	8.2
193 & 202	I-44	1197+00	1199+08	LT	209	2.1
193 & 202	I-44	1199+15	1201+72	LT	263	2.7
193 & 202	I-44	1202+27	1211+00	LT	874	8.8
193 & 202	I-44	1204+41	1206+42	RT	215	2.2
194 & 203	I-44	1211+00	1212+89	LT	189	1.9
TOTAL:					10555	107

SILT FENCE (JSU0076 COST SHARE)						
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	SILT FENCE	SEDIMENT REMOVAL
					(LF)	(CUYD)
-	DOLING TRAIL	0+00	2+10	LT	205	2.1
-	DOLING TRAIL	0+00	1+85	RT	193	2.0
-	DOLING TRAIL	4+50	7+04	LT	309	3.1
-	DOLING TRAIL	8+94	13+15	LT	412	4.2
TOTAL:					1119	12

ROCK DITCH LINER (JSU0076)						
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	TYPE 3 ROCK DITCH LINER (FURNISH & PLACE)	BEDDING MATERIAL
					(CUYD)	(CUYD)
208	I-44	1099+70	1100+50	LT	41	15
208	I-44	1100+36	1100+50	RT	64	24
208	I-44	1124+25	1125+29	LT	61	22
TOTAL:					166	61

SUMMARY OF QUANTITIES
SHEET 46 OF 55

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

Burns & McDonnell Engineering Co., Inc.

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



9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165

BURNS
MCDONNELL

Bmcd Project No. 146617

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

SUMMARY OF QUANTITIES

SEDIMENT REMOVAL SUMMARY (JSU0076)				
SHEET NO.	CENTERLINE	TYPE	LOCATION	SEDIMENT REMOVAL (CUYD)
198-203	I-44	SILT FENCE	LT-RT	107
198-203	I-44	CURB INLET CHECK	LT-RT	72
198-203	I-44	DITCH CHECK	LT-RT	350
198-203	I-44	SEDIMENT TRAP	LT-RT	18
TOTAL:				547

ADDITIONAL MOBILIZATION FOR SEEDING (JSU0076)
1 EA

SEEDING AND MULCHING (JSU0076 COST SHARE)							
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	TEMPORARY SEEDING	SEEDING - WARM	MULCHING
					(ACRE)	(ACRE)	(ACRE)
-	DOLING TRAIL	0+00	7+05	LT	0.2	0.2	0.2
-	DOLING TRAIL	0+00	7+01	RT	0.2	0.2	0.2
-	DOLING TRAIL	8+54	13+15	RT	0.1	0.1	0.1
TOTAL:					0.5	0.5	0.5

ROCK DITCH LINER (J813044C)						
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	TYPE 3 ROCK DITCH LINER (FURNISH & PLACE)	BEDDING MATERIAL
					(CUYD)	(CUYD)
203	I-44	1217+01	1218+03	LT	60	22
203	I-44	1218+27	1219+75	LT	83	30
TOTAL:					143	52

SUMMARY OF DOUGLASS TRAIL LIGHTING (COST SHARE) QUANTITIES (JSU0076)		
ITEM DESCRIPTION	UNIT	QTY
CONDUIT, 2 IN. RIGID, IN TRENCH	LF	44
TRENCHING TYPE I	LF	44
PULL BOX, CONCRETE STANDARD	EA	3
CABLE, 2 AWG, 1 CONDUCTOR, POWER	LF	270
CABLE, 6 AWG 1 CONDUCTOR	LF	1230
CABLE, 8 AWG 1 CONDUCTOR	LF	80
WIRE, 6 AWG, BARE NEUTRAL	LF	620
WIRE, 8 AWG, BARE NEUTRAL	LF	40
CABLE-CONDUIT, 1 IN., 2 CONDUCTORS AND 1 BARE NEUTRAL, 6 AWG	LF	820
CABLE-CONDUIT, 1 IN., 2 CONDUCTORS AND 1 BARE NEUTRAL, 8 AWG	LF	400
POWER SUPPLY ASSEMBLY, TYPE 2, 240/120 VOLT SERVICE, LIGHTING ONLY	EA	1
CONDUIT, 2 IN. RIGID, EXTERNAL ON STRUCTURE	LF	600
LED TUNNEL LUMINAIRE, 100W	EA	15
POWER PACK RELAY	EA	2
DIMMING CABLE, 18 AWG, 1 CONDUCTOR, 600V	LF	1140
PULL BOX, TYPE METAL NEMA	EA	19
TUNNEL DIMMING CONTROLLER	EA	1

EROSION CONTROL BLANKET (J813044C)					
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	TYPE 31 EROSION CONTROL BLANKET (S.Y.)
203	I-44	1217+00	1219+82	LT	1912
203	I-44	1219+00	1222+63	RT	1863
203	I-44	1229+50	1231+00	RT	437
204	I-44	1247+49	1252+75	RT	2282
205-205	I-44	1263+49	1271+50	RT	3273
205	I-44	1283+28	1287+62	RT	2880
206	I-44	1295+25	1298+10	LT	1419
206	I-44	1296+75	1300+88	RT	2523
TOTAL:					16589

SHEET 47 OF 55

PROJECT NO.
BRIDGE NO.



MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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



SUMMARY OF QUANTITIES

SILT FENCE (J8I3044C)						
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	SILT FENCE	SEDIMENT REMOVAL
					(LF)	(CUYD)
194	I-44	1213+79	1216+01	LT	222	2.3
194	I-44	1214+67	1220+11	RT	555	5.6
194	I-44	1219+86	1221+41	LT	168	1.7
194	I-44	1224+80	1225+00	RT	21	0.3
194	I-44	1225+00	1225+10	RT	11	0.2
194	I-44	1234+00	1239+00	RT	504	5.1
194	I-44	1235+75	1239+00	LT	325	3.3
195	I-44	1239+00	1239+47	RT	54	0.6
195	I-44	1239+00	1242+74	LT	374	3.8
196	I-44	1280+78	1281+00	LT	23	0.3
196	I-44	1281+00	1295+00	LT	1405	14.1
197	I-44	1295+00	1306+71	LT	1209	12.1
197	I-44	1308+12	1309+00	LT	89	0.9
197	I-44	1309+00	1320+19	LT	1121	11.3
197	I-44	1314+14	1320+01	RT	634	6.4
TOTAL:					6715	68

ROCK DITCH CHECKS (J813044C)						
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	ROCK DITCH CHECK	SEDIMENT REMOVAL
					(LF)	(CUYD)
203	I-44	1217+01	1217+76	LT	176	8
203	I-44	1218+93	1219+72	LT	154	7
203	I-44	1219+81	-	RT	25	1
203	I-44	1220+52	1224+00	RT	198	9
204	I-44	1239+79	1242+72	RT	88	4
204	I-44	1242+41	-	LT	10	1
204	I-44	1242+78	-	LT	25	1
204	I-44	1244+74	-	LT	8	1
204	I-44	1255+89	1260+09	LT	132	6
204	I-44	1257+57	-	RT	8	1
205	I-44	1282+44	1288+02	RT	462	21
205	I-44	1285+94	-	RT	15	1
206	I-44	1296+17	1297+58	RT	110	5
206	I-44	1298+58	-	RT	15	1
206	I-44	1299+54	1301+86	RT	154	7
206	I-44	1310+91	-	CL	25	1
206	I-44	1319+37	-	RT	15	1
206	I-44	1321+51	-	CL	30	1
206	I-44	1322+25	-	CL	25	1
206	I-44	1322+93	-	CL	10	1
TOTAL:					1685	79

SEDIMENT TRAP (J813044C)						
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	SEDIMENT TRAP (EXCAV. & ROCK)	SEDIMENT REMOVAL
					(CUYD)	(CUYD)
203	I-44	1217+99	-	LT	1.3	1.0
203	I-44	1218+32	-	LT	1.3	1.0
203	I-44	1235+60	-	LT	1.3	1.0
204	I-44	1239+50	-	RT	1.3	1.0
204	I-44	1257+56	-	LT	2.8	1.0
205	I-44	1280+75	-	LT	1.3	1.0
206	I-44	1308+07	-	LT	0.6	1.0
TOTAL:					9.9	7

CURB INLET CHECKS (J813044C)						
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	CURB INLET CHECK	SEDIMENT REMOVAL
					(EA)	(CUYD)
203	I-44	1215+00	-	CL	2	2
203	I-44	1220+00	-	CL	2	2
203	I-44	1225+00	-	CL	2	2
203	I-44	1229+25	-	CL	2	2
203	I-44	1233+50	-	CL	2	2
203	I-44	1237+75	-	CL	2	2
204	I-44	1241+97	-	CL	2	2
204	I-44	1247+17	-	CL	2	2
204	I-44	1252+37	-	CL	2	2
204	I-44	1257+57	-	CL	2	2
205	I-44	1269+50	-	CL	2	2
205	I-44	1275+00	-	CL	2	2
205	I-44	1280+57	-	CL	2	2
205	I-44	1286+07	1286+13	CL	6	6
205	I-44	1292+70	-	CL	2	2
206	I-44	1299+35	-	CL	2	2
206	I-44	1312+00	-	CL	2	2
206	I-44	1318+00	-	CL	2	2
TOTAL:					40	40

ALTERNATE DITCH CHECKS (J813044C)						
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	ALTERNATE DITCH CHECK	SEDIMENT REMOVAL
					(LF)	(CUYD)
203	I-44	1214+15	-	CL	6	1
203	I-44	1216+20	1216+77	LT	88	4
203	I-44	1219+85	1220+46	LT	176	8
203	I-44	1221+76	1235+25	LT	264	12
203	I-44	1222+46	-	CL	25	1
203	I-44	1224+32	1225+07	RT	132	6
203	I-44	1225+00	-	CL	25	1
203	I-44	1225+38	1232+84	RT	176	8
204	I-44	1242+00	-	CL	25	1
204	I-44	1243+05	1254+81	LT	418	19
204	I-44	1243+72	1257+34	RT	528	24
204	I-44	1257+57	-	CL	25	1
204	I-44	1257+84	1266+01	RT	308	14
204	I-44	1260+59	1264+44	LT	176	8
205	I-44	1267+13	1282+14	RT	374	17
205	I-44	1271+36	1280+42	LT	286	13
205	I-44	1276+11	-	CL	8	1
205	I-44	1285+92	-	CL	25	1
205	I-44	1288+30	1294+83	RT	242	11
206	I-44	1295+02	-	CL	25	1
206	I-44	1295+20	1295+57	RT	44	2
206	I-44	1302+28	1304+41	RT	220	10
206	I-44	1306+87	1307+38	LT	44	2
206	I-44	1314+18	-	RT	10	1
TOTAL:					3650	167

SEEDING AND MULCHING (J8I3044C)							
SHEET NO.	CENTERLINE	STA.	STA.	LOCATION	TEMPORARY SEEDING (ACRE)	SEEDING - WARM SEASON MIX (ACRE)	MULCHING (ACRE)
212	I-44	1212+92	1221+00	LT	0.6	0.6	0.6
212	I-44	1215+00	1225+00	RT	0.7	0.7	0.7
212	I-44	1219+99	1225+00	LT	0.3	0.3	0.3
212	I-44	1225+00	1239+00	LT	1.0	1.0	1.0
212	I-44	1225+00	1225+96	RT	0.1	0.1	0.1
212	I-44	1225+00	1239+00	RT	0.7	0.7	0.7
212	I-44	1239+00	1253+00	LT	1.1	1.1	1.1
212	I-44	1239+00	1253+00	RT	1.3	1.3	1.3
212	I-44	1253+00	1267+00	LT	1.0	1.0	1.0
212	I-44	1253+00	1267+00	RT	1.2	1.2	1.2
213	I-44	1267+00	1281+00	LT	0.8	0.8	0.8
213	I-44	1267+00	1281+00	RT	1.3	1.3	1.3
213	I-44	1281+00	1295+00	LT	0.6	0.6	0.6
213	I-44	1281+00	1295+00	RT	1.4	1.4	1.4
214	I-44	1295+00	1306+70	LT	0.7	0.7	0.7
214	I-44	1295+00	1309+00	RT	1.2	1.2	1.2
214	I-44	1305+58	1309+00	LT	0.1	0.1	0.1
214	I-44	1309+00	1320+43	LT	0.3	0.3	0.3
214	I-44	1309+00	1314+23	RT	0.1	0.1	0.1
214	I-44	1312+91	1320+43	RT	0.1	0.1	0.1
TOTAL:					14.6	14.6	14.6

SUMMARY OF LIGHTING SYSTEM QUANTITIES (J813044C)		
ITEM DESCRIPTION	UNIT	QTY
RELOCATED POLE	EA	6
CONDUIT, 2 IN. RIGID, IN TRENCH	LF	440
CONDUIT, 3 IN. RIGID, PUSHED	LF	110
TRENCHING TYPE I	LF	2450
PULL BOX, CONCRETE, STANDARD	EA	6
CABLE, 2 AWG 1 CONDUCTOR	LF	880
WIRE, 6 AWG, BARE NEUTRAL	LF	440
CABLE-CONDUIT, 1 IN., 2 CONDUCTORS AND 1 BARE NEUTRAL, 8 AWG	LF	2110
POLE FOUNDATION (45 FT. OR 13.5 M MOUNTING HEIGHT)	EA	6
INSTALL CONDUIT INTO EXISTING PULL BOX	EA	2

REMOVAL OF IMPROVEMENTS (J83044C)					
SHEET NO.	STA.	STA.	ALIGNMENT	LOCATION	DESCRIPTION
221	1219+29.24	-	I-44	LT	LIGHT POLE FOOTING
221	1222+03.14	-	I-44	LT	LIGHT POLE FOOTING
221	1235+73.23	-	I-44	RT	LIGHT POLE FOOTING
222	1266+24.87	-	I-44	LT	LIGHT POLE AND LIGHT POLE FOOTING
223	1268+19.52	-	I-44	LT	LIGHT POLE AND LIGHT POLE FOOTING
223	1270+24.95	-	I-44	LT	LIGHT POLE AND LIGHT POLE FOOTING
224	1296+97.46	-	I-44	LT	LIGHT POLE FOOTING
224	1298+78.97	-	I-44	LT	LIGHT POLE FOOTING
224	1313+43.20	-	I-44	LT	LIGHT POLE FOOTING

SEDIMENT REMOVAL SUMMARY (J813044C)				
SHEET NO.	CENTERLINE	TYPE	LOCATION	SEDIMENT REMOVAL (CUYD)
203-206	I-44	SILT FENCE	LT-RT	68
203-206	I-44	CURB INLET CHECK	LT-RT	40
203-206	I-44	DITCH CHECK	LT-RT	246
203-206	I-44	SEDIMENT TRAP	LT-RT	7
TOTAL:				361

ADDITIONAL MOBILIZATION
FOR SEEDING (J813044C)
1 EA

SUMMARY OF QUANTITIES
SHEET 48 OF 55

DATE PREPARED	
9/26/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
SW	3
COUNTY	
GREENE	
JOB NO.	
JSU0076, J813044C, & JST0088B	
CONTRACT ID.	

PROJECT NO.
BRIDGE NO.

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

Burns & McDonnell Engineering Co., Inc.

**BURNS
MCDONNELL**

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165
BSMCD Project No. 146617

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

TEMPORARY PAVEMENT MARKING									
PHASE NO.	STA	STA	DIRECTION	4-IN SOLID WHITE	4-IN INTERMITTENT WHITE	4-IN DOTTED WHITE	4-IN SOLID YELLOW	REMOVAL AFTER PHASE	REMARKS
				LF	LF	LF	LF	LF	
1	1066+11	1220+98	EB I-44				15,485		REMAINS FOR PHASE 1B / 2
1	1066+76	1072+46	EB I-44	570				570	REMOVED FOR PHASE 1B
1	1066+76	1072+46	EB I-44	570				570	REMOVED FOR PHASE 1B
1	1067+15	1220+98	EB I-44	15,382					REMAINS FOR PHASE 1B / 2
1	1213+25	1219+46	EB I-44	621				621	
1	1213+90	1220+99	EB I-44	709				709	REMOVE 556 LF BEFORE PHASE 1B, LEAVE LAST 153 LF TO TIE INTO FOR PHASE 1B AND CROSSOVER. REMOVE ADDITIONAL 153 FT AT END OF PHASE 1B
1	1062+00	1068+00	WB I-44	600					STAYS FOR PHASE 1B / 2
1	1062+00	1079+74	WB I-44	1,775					STAYS FOR PHASE 1B / 2
1	1062+00	1223+56	WB I-44				16,149		STAYS FOR PHASE 1B / 2
1	1068+00	1219+00	WB I-44		3,770				STAYS FOR PHASE 1B / 2
1	1079+74	1082+76	WB I-44			76			STAYS FOR PHASE 1B / 2
1	1082+76	1223+56	WB I-44	14,073				132	STAYS FOR PHASE 1B / 2. FIRST 126 FT REPLACED WITH DOTTED WHITE IN PHASE 2
1	1219+00	1223+56	WB I-44	456					STAYS FOR PHASE 1B / 2
1B	1066+76	1072+46	EB I-44	571				571	
1B	1066+76	1219+46	EB I-44	15,264				15,264	
1B	1072+46	1213+90	EB I-44				14,137	14,137	
1B	1213+90	1219+49	EB I-44	556				556	152 FT OVERLAP FROM PHASE 1 TIE IN TO CROSSOVER
2	1082+76	1084+07	WB I-44			33			132 FT SW REMOVAL AND 33 FT OF DOTTED WHITE REPLACEMENT ARE ONLY CHANGES TO WB PAVEMENT MARKING BETWEEN PHASE 1 AND PHASE 2.
2	1062+00	1068+00	WB I-44					600	
2	1062+00	1079+74	WB I-44					1,775	
2	1062+00	1223+56	WB I-44					16,149	
2	1068+00	1219+00	WB I-44					3,770	
2	1079+74	1084+07	WB I-44					108	
2	1084+07	1223+56	WB I-44					13,941	
2	1219+00	1223+56	WB I-44					456	
2	1066+11	1190+00	EB I-44					12,388	CROSSOVER. IN PHASE 2 SY STOPS HERE AND CONTINUES AT 1215+09. REMOVE ALL FOR PHASE 3
2	1066+76	1071+38	EB I-44	462				462	SW EB LANE SHIFT
2	1066+76	1082+91	EB I-44	1,615				1,615	
2	1066+92	1220+98	EB I-44					15,406	CROSSOVER / EB SW TEMP STRIPING / CROSSOVER
2	1071+37	1213+22	EB I-44				14,179	14,179	
2	1078+42	1080+47	EB I-44	208				208	SW RAMP
2	1078+57	1104+47	EB I-44	2,590				2,590	SW RAMP / EB SW TEMP STRIPING
2	1082+91	1086+33	EB I-44		86			86	ACCEL.
2	1104+01	1202+66	EB I-44	9,861				9,861	
2	1202+66	1204+62	EB I-44			49		49	
2	1204+62	1219+92	EB I-44	1,530				1,530	
2	1213+22	1221+99	EB I-44	776				776	
2	1215+09	1220+98	EB I-44					591	CROSSOVER
3	1071+99	1220+42	WB I-44				14,806	14,806	ALONG BARRIER THAT RUNS BETWEEN EB AND WB LANES / INCLUDES BOTH CROSSOVERS
3	1072+33	1083+91	WB I-44	1,160				1,160	MIDDLE LANE SW CROSSOVER
3	1072+33	1092+80	WB I-44	2,050				2,050	OUTSIDE CROSSOVER LANE, TIES INTO PROP EOP
3	1083+91	1214+31	WB I-44		3,258			3,258	TRAVEL LANE INT. STRIPING
3	1092+83	1190+04	WB I-45	9,717					
3	1190+04	1220+42	WB I-44	3,040				3,040	CROSSOVER OUTSIDE SW LANE LINE / TIES IN WITH PROP EOP
3	1214+31	1220+42	WB I-44	612				612	CROSSOVER MIDDLE SW LANE LINE
3	1220+42	1309+83	WB I-44		2,234			5,914	OUTSIDE LANE INT. WHITE
3	1220+42	1313+89	WB I-44		2,336			5,914	MIDDLE LANE INT. WHITE
3	1075+48	1223+20	EB I-44				14,766	14,766	
3	1075+48	1077+51	EB I-44	203				203	
3	1075+48	1083+91	EB I-44	843				843	
3	1077+51	1080+41	EB I-44		72			72	
3	1078+25	1083+91	EB I-44	569				569	
3	1078+30	1202+75	EB I-44	12,442				12,442	RAMP AND LANE REDUCTION
3	1080+41	1083+91	EB I-44	350				350	SHIFT
3	1083+91	1086+33	EB I-44			61		61	ACCEL.
3	1083+91	1218+95	EB I-44		3,335			3,335	
3	1202+75	1204+66	EB I-44			48		48	
3	1204+66	1223+20	EB I-44	1,854				1,854	
3	1218+95	1223+19	EB I-44	425				425	
3	1220+54	1313+89	EB I-44		2,336			2,336	
3	1279+62	1338+20	EB I-44	5,858				5,858	
4	1103+91	138+73	EB I-44	3,487					TAPERS / LANE MERGE / CROSSOVER
4	1120+71	1137+73	EB I-44	1,706					CROSSOVERS AND MIDDLE LANE
4	1120+71	1137+73	EB I-44				17,056		CROSSOVERS AND OUTSIDE LANE
4	1115+49	1158+21	WB I-44				4,273		TAPERS / LANE SHIFT
4	1116+49	1141+41	WB I-44	2,492					MIDDLE LANE SW
4	1116+49	1141+41	WB I-44	2,492					OUTSIDE LANE SW
SUBTOTAL				117,489	17,427	267	110,851	209,586	
TOTAL					246,034			209,586	

SUMMARY OF QUANTITIES
JSU0076
SHEET 49 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/27/2024

ROUTE
I-44

DISTRICT
SW

STATE
MO

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

consult engineers inc planners

9111 NE 79th Street, Kansas City, MO 64181 (816)912-4720

Hg CONSULT, INC.

PRO. ENGINEER 2010005873

G:\Shared drives\Hg Projects (Yr 2021-2022)\2022\22.040 I-44 Widening_Springfield (MoDOT)\Civil\Sheet_Files\Quantities\JSU0076\003_QU_49-50_JSU0076_I1.dgn 8:59:05 AM 9/27/2024

TEMPORARY TRAFFIC BARRIER										
PHASE NO.	STA	STA	LOCATION	CONTRACTOR CONTRACTOR FURNISHED/RETAINED TEMP. CONCRETE BARRIER	CONTRACTOR FURNISHED/RETAINED TEMP. CONCRETE BARRIER (ANCHORED)	IMPACT ATTENUATORS (60 M.P.H.)	RELOCATE IMPACT ATTENUATORS	TYPE A CRASHWORTHY END TERMINAL (MASH)	WORK ZONE CRASH CUSHION (NARROW)	REMARKS
				LIN. FT.	LIN. FT.	EA.	EA.	EA.	EA.	
1	1067+28	1220+98	WB I-44		15,363					
1	1072+07		WB I-44					1		
1	1098+31		WB I-44						1	AT BROADWAY BRIDGE
1	1111+46		WB I-44						1	AT GRANT BRIDGE
1	1177+69		WB I-44						1	AT NATIONAL BRIDGE
1	1070+43	1080+47	EB I-44		1,000	1				
1	1088+14	1092+80	EB I-44		463	1				
1	1092+83	1196+63	EB I-44		10,850					
1	1204+34	1213+26	EB I-44		888	1				
1	1211+94		WB I-44					1		
1B	1070+43	1088+14	EB I-44		1,775		1			
1B	1088+14	1092+16	EB I-44		400					
1B	1196+63	1204+34	EB I-44		775					
1B	1204+34	1204+89	EB I-44		50					
2	1070+43	1213+22	EB I-44	14,275			1			WB BARRIERS REMAIN IN PLACE FROM PHASE 1
3	1073+35	1092+80	EB I-44		1,950		1			
3	1092+83	1098+70	EB I-44		588					
3	1098+70	1100+07	EB I-44	138						BRIDGE OVER BROADWAY
3	1100+07	1111+84	EB I-44		1,175					
3	1111+84	1113+25	EB I-44	138						BRIDGE OVER GRANT
3	1113+25	1178+09	EB I-44		6,488					
3	1178+09	1179+44	EB I-44	138						BRIDGE OVER NATIONAL
3	1179+44	1190+00	EB I-44		1,063					
3	1190+04	1221+00	EB I-44		3,100					
4	1121+37	1137+74	WB I-44		1,638					
4	1122+55	1131+72	EB I-44		925	1				
TOTAL				14,689	48,491	4	3	2	3	

TEMPORARY LINEAR GRADING AND PAVEMENT								
PHASE NO.	STA	STA	LOCATION	LINEAR GRADING	ASPHALTIC CONCRETE PG 64-22 (SP250C) (7 IN. THICK)	ASPHALTIC CONCRETE PG 70-22 (SP125C) (4 IN. THICK)	TY. 5 AGGR. BASE (6 IN. THICK)	REMARKS
				STA	TONS	TONS	SY	
0	1078+25	1098+72	I-44 WB SHOULDER		657	375	1,668	WB INSIDE SHOULDER
0	1100+06	1111+87	I-44 WB SHOULDER		336	192	854	WB INSIDE SHOULDER
0	1113+26	1178+10	I-44 WB SHOULDER		1,557	890	3,955	WB INSIDE SHOULDER
0	1179+45	1205+20	I-44 WB SHOULDER		537	307	1,363	WB INSIDE SHOULDER
0B	1066+39	1079+00	I-44 WB SHOULDER		471	269	1,197	WB OUTSIDE SHOULDER
0B	1092+50	1098+73	I-44 WB SHOULDER		227	130	577	WB OUTSIDE SHOULDER
0B	1100+07	1111+88	I-44 WB SHOULDER		508	290	1,290	WB OUTSIDE SHOULDER
0B	1113+27	1178+11	I-44 WB SHOULDER		2,426	1,386	6,161	WB OUTSIDE SHOULDER
0B	1179+46	1195+32	I-44 WB SHOULDER		792	452	2,011	WB OUTSIDE SHOULDER
0B	1200+48	1213+23	I-44 WB SHOULDER		543	311	1,380	WB OUTSIDE SHOULDER
0	1066+50	1072+50	I-44 MEDIAN	6	379	216	962	WEST END SINGLE LANE CROSSOVER CONSTRUCTION FOR PHASES 1 & 2
3	1066+50	1072+50	I-44 MEDIAN	6				WEST END SINGLE LANE CROSSOVER CONSTRUCTION REMOVAL
3	1073+50	1078+50	I-44 MEDIAN	7	420	240	1,066	WEST END DUAL LANE CROSSOVER CONSTRUCTION PRIOR TO PHASE 3
3	1073+50	1078+50	I-44 MEDIAN	7				WEST END DUAL LANE CROSSOVER CONSTRUCTION REMOVAL
3	1128+31	1130+31	I-44 EB MAINLINE		508	290	1,289	FOR EB PHASE 4 DOLING TRAIL RCB EXCAVTION RECONSTRUCTION
TOTAL				26	8,853	5,058	23,773	

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/27/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

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)



Consult
engineers
Inc.
planners

9111 NE 79th Street Kansas City, MO 64151 (816) 912-4720

Hg CONSULT, INC.
PRO. ENGINEER 2010005873

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

TEMPORARY PAVEMENT MARKING									
PHASE NO.	STA	STA	DIRECTION	4-IN SOLID WHITE	4-IN INTERMITTENT WHITE	4-IN DOTTED WHITE	4-IN SOLID YELLOW	REMOVAL AFTER PHASE	REMARKS
				LF	LF	LF	LF	LF	
1	1200+62	1322+12	EB I-44				12,145		
1	1200+62	1207+68	EB I-44	707					
1	1200+62	1227+62	EB I-44	2,700					
1	1207+68	1319+12	EB I-44		2,785				
1	1225+53	1227+62	EB I-44	210					
1	1225+68	1309+58	EB I-44	8,386					
1	1227+62	1231+48	EB I-44			97			REMOVE 97' AFTER PHASE 3
1	1309+58	1312+56	EB I-44			75			
1	1312+56	1322+12	EB I-44	957					
1	1319+12	1322+12	EB I-44	300					
1	1205+27	1323+00	WB I-44				11,772		
1	1205+92	1323+00	WB I-44	11,696				28	REMOVE 28' BEGINNING AT STA. 1205+92 FOR PHASE 2
1	1205+92	1210+70	WB I-44	478					
1	1315+89	1330+91	WB I-44	1,502					
2	1200+62	1227+62	EB I-44						NO CHANGE TO EASTBOUND PAVEMENT MARKING FROM PHASE 1 TO PHASE 2
2	1200+62	1207+68	EB I-44						
2	1200+62	1322+07	EB I-44						
2	1207+68	1319+12	EB I-44						
2	1225+53	1227+62	EB I-44						
2	1225+68	1309+52	EB I-44						
2	1227+62	1231+48	EB I-44						
2	1309+52	1312+50	EB I-44						
2	1312+50	1322+07	EB I-44						NO CHANGE FROM PHASE 1
2	1319+07	1322+07	EB I-44						
2	1205+27	1322+95	WB I-44						NO CHANGE FROM PHASE 1
2	1205+92	1213+09	WB I-44	718					
2	1205+92	1224+99	WB I-44	1,907					NO CHANGE FROM PHASE 1
2	1206+32	1322+95	WB I-44						
2	1213+09	1314+35	WB I-44				10,126		
2	1221+87	1224+99	WB I-44	313				157	
2	1223+02	1303+82	WB I-44	8,082				748	
2	1297+85	1303+88	WB I-44	604				249	
2	1297+85	1321+42	WB I-44	2,358					
2	1314+35	1322+95	WB I-44	860					
2B	1205+27	1322+95	WB I-44						NO CHANGE FROM PHASE 2
2B	1205+92	1213+09	WB I-44						NO CHANGE FROM PHASE 2
3	1205+56	1322+86	EB I-44				11,735		
3	1206+53	1211+96	EB I-44	543					
3	1206+53	1211+96	EB I-44	543				543	
3	1206+59	1321+62	EB I-44	11,505					
3	1211+96	1320+38	EB I-44				10,836		
3	1309+77	1312+51	EB I-44			68		68	
3	1312+51	1320+32	EB I-44	782				782	
3	1200+62	1206+91	WB I-44	629					
3	1200+62	1320+37	WB I-44				11,976		
3	1200+62	1221+72	WB I-44	2,110					
3	1206+91	1299+94	WB I-44		2,326				
3	1220+98	1306+66	WB I-44	8,572					
3	1295+83	1299+94	WB I-44			103			
3	1299+94	1304+95	WB I-44	501					
3	1299+95	1320+37	WB I-44	2,042					
3	1303+45	1306+69	WB I-44	325					
3	1303+57	1306+67	WB I-44			78			
4	1205+56	1322+86	EB I-44						NO CHANGE FROM PHASE 3
4	1206+53	1232+09	EB I-44	2,556					
4	1206+53	1213+22	EB I-44	669					
4	1206+59	1321+62	EB I-44						NO CHANGE FROM PHASE 3
4	1213+22	1316+77	EB I-44				10,355		
4	1227+44	1232+09	EB I-44	466				254	
4	1227+49	1311+91	EB I-44	8,444				674	
4	1309+13	1312+25	EB I-44	313				129	
4	1309+13	1320+32	EB I-44	1,120					
4	1317+68	1322+86	EB I-44	609					
SUBTOTAL THIS SHEET				83,507	5,111	421	78,945	3,632	

SUMMARY OF QUANTITIES
J813044C
SHEET 51 OF 55

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/27/2024

ROUTE
I-44

DISTRICT
SW

STATE
MO

SHEET NO.
3

COUNTY
GREENE

JOB NO.
JSU0076, J813044C & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

consult engineers planners

9111 NE 79th Street, Kansas City, MO 64181 (816)912-4720

Hg CONSULT, INC.
PRO. ENGINEER 2010005873

TEMPORARY PAVEMENT MARKING (CONTINUED FROM LAST SHEET)									
PHASE NO.	STA	STA	DIRECTION	4-IN SOLID WHITE	4-IN INTERMITTENT WHITE	4-IN DOTTED WHITE	4-IN SOLID YELLOW	REMOVAL AFTER PHASE	REMARKS
				LF	LF	LF	LF	LF	
4	1200+62	1206+91	WB I-44						NO CHANGE TO WESTBOUND PAVEMENT MARKING FROM PHASE 3 TO PHASE 4
4	1200+62	1320+37	WB I-44						
4	1200+62	1221+72	WB I-44						
4	1206+91	1299+94	WB I-44						
4	1220+98	1307+29	WB I-44						
4	1295+83	1299+94	WB I-44						
4	1299+94	1307+31	WB I-44						
4	1299+94	1320+37	WB I-44						
4	1299+95	1304+95	WB I-44						
4	1302+30	1304+44	WB I-44						
4	1304+44	1307+30	WB I-44						
4B	1232+09	1240+98	EB I-44	879				879	
4B	1303+51	1309+13	EB I-44	559				559	
SUBTOTAL THIS SHEET				1,438	0	0	0	1,438	
TOTAL ALL SHEETS				84,945	5,111	421	78,945	5,070	
TOTAL				169,422				5,070	

TEMPORARY TRAFFIC BARRIER								
PHASE NO.	STA	STA	LOCATION	CONTRACTOR FURNISHED/RETAINED TEMP. CONCRETE BARRIER	CONTRACTOR FURNISHED/RETAINED TEMP. CONCRETE BARRIER (ANCHORED)	IMPACT ATTENUATORS (60 M.P.H.)	RELOCATE IMPACT ATTENUATORS	TYPE A CRASHWORTHY END TERMINAL (MASH)
				LIN. FT.	LIN. FT.	EA.	EA.	EA.
1	1206+44	1320+39	EB I-44		11,390	1		
1	1210+71	1318+19	WB I-44	10,748		1		
1	1204+44		EB I-44					1
1	1318+19		WB I-44					1
2	1213+24	1221+52	WB I-44		828	1		
2	1231+42	1293+01	WB I-44		6,154	1		
2	1303+85	1318+19	WB I-44		1,435		1	
2B	1220+02	1221+52	WB I-44	150				
2B	1221+52	1231+42	WB I-44	990				
2B	1290+00	1293+00	WB I-44	302				
2B	1293+00	1318+18	WB I-44	1,083				
3	1211+04	1316+14	EB I-44	10,505			1	
3	1212+59		EB I-44			1		
3	1207+01	1213+22	WB I-44	623				
3	1300+00	1320+67	WB I-44	2,073			1	
4	1210+86	1225+56	EB I-44	1,471			1	
4	1235+47	1303+57	EB I-44	6,805		1		
4B	1225+56	1235+47	EB I-44	990				
4B	1235+47	1241+00	EB I-44	554				
4B	1303+57	1316+03	EB I-44	1,246				
TOTAL				37,540	19,807	6	4	2

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I-44

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COUNTY
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JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

consult engineers inc planners

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Hg CONSULT, INC.
PRO. ENGINEER 2010005873

TEMPORARY LINEAR GRADING AND PAVEMENT								
PHASE NO.	STA	STA	LOCATION	LINEAR GRADING	ASPHALTIC CONCRETE PG 64-22 (SP250C) (7 IN. THICK)	ASPHALTIC CONCRETE PG 70-22 (SP125C) (4 IN. THICK)	TY. 5 AGGR. BASE (6 IN. THICK)	REMARKS
				STA	TONS	TONS	SY	
0	1212+78	1315+70	I-44 EB SHOULDER		1,843	1,053	4681	EB INSIDE SHOULDER
0B	1205+13	1225+86	I-44 EB SHOULDER		849	485	2155	EB OUTSIDE SHOULDER
0B	1228+81	1307+54	I-44 EB SHOULDER		3,130	1,788	7948	EB OUTSIDE SHOULDER
0B	1313+12	1320+47	I-44 EB SHOULDER		223	127	566	EB OUTSIDE SHOULDER
0	1205+25	1212+78	I-44 MEDIAN	8	881	503	2,237	WEST TEMP. CROSSOVER CONSTRUCTION
4	1205+25	1212+78	I-44 MEDIAN	8				WEST TEMP. CROSSOVER CONSTRUCTION REMOVAL
0	1315+70	1322+94	I-44 MEDIAN	7	854	488	2,169	EAST TEMP. CROSSOVER CONSTRUCTION
4	1315+70	1322+94	I-44 MEDIAN	7				EAST TEMP. CROSSOVER CONSTRUCTION REMOVAL
TOTAL				30	7,780	4,444	19,756	

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consult engineers inc planners

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8

Hg CONSULT, INC. PRO. ENGINEER 2010005873

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

SUMMARY OF QUANTITIES

J813044C

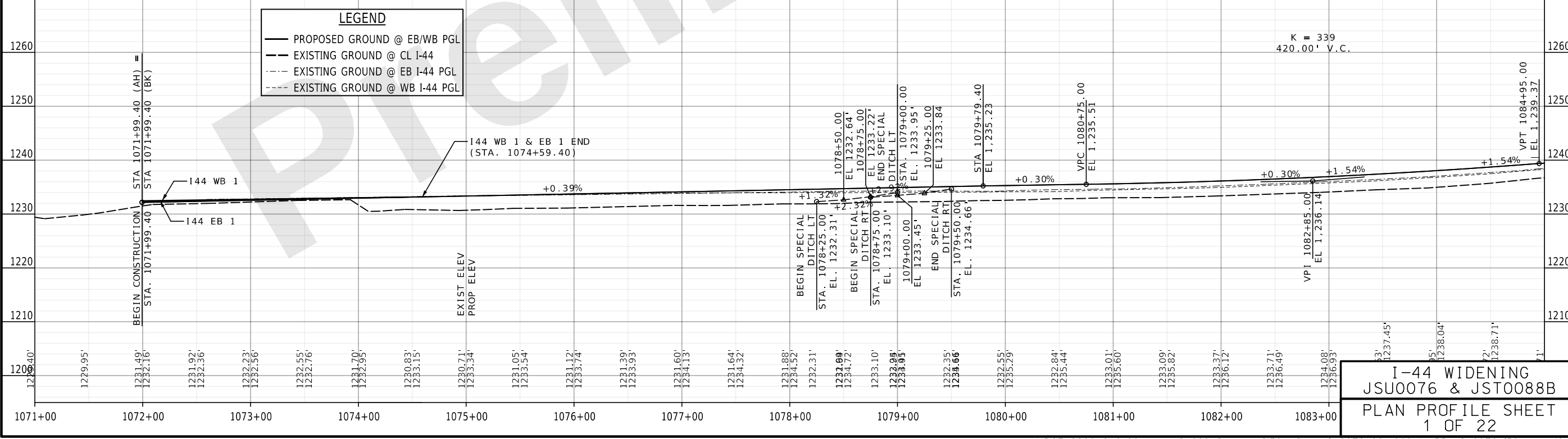
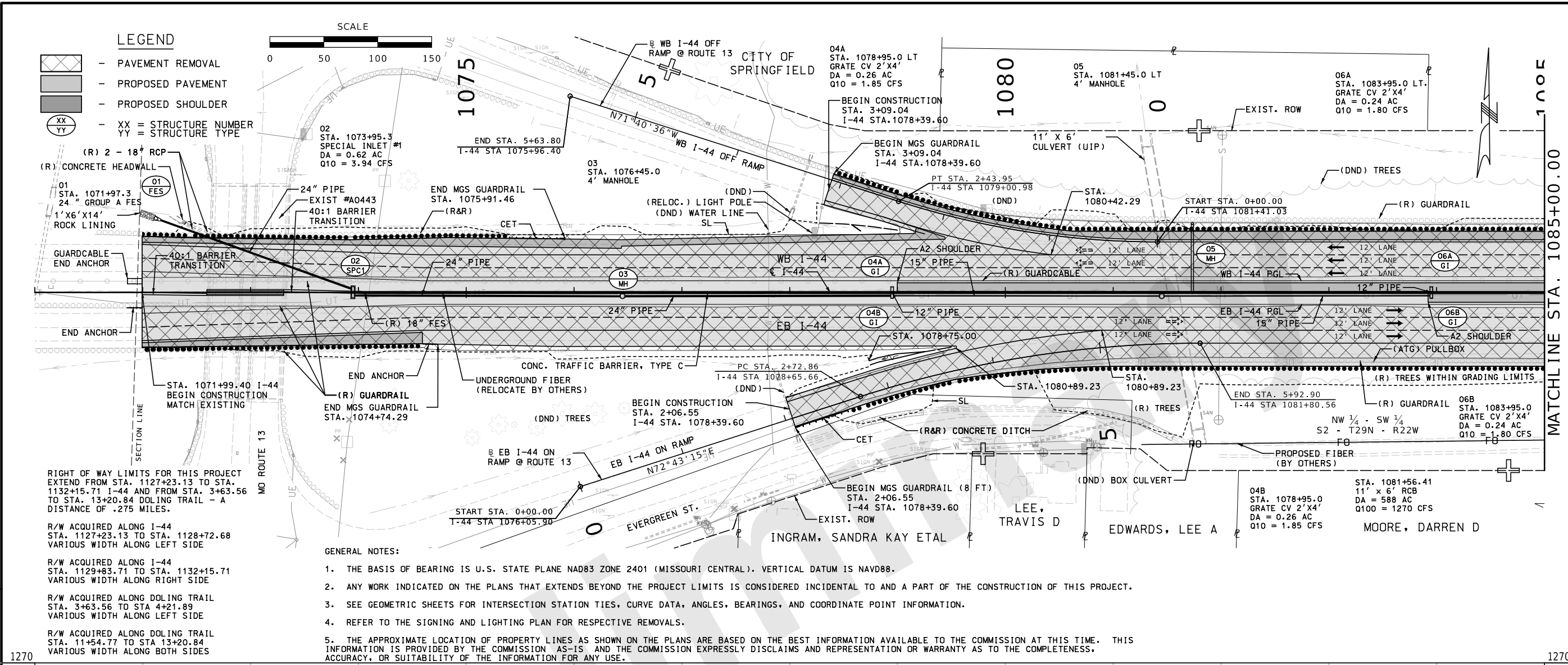
SHEET 53 OF 55

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9/27/2024

EFFECTIVE: 07-01-2024																					
SIGN	SIZE IN.	AREA SQ. FT.	QTY EACH	TOTAL AREA SQ. FT.	QTY RELOC EACH	TOTAL RELOC SQ. FT.	SIGN NUM.	DESCRIPTION	SIGN	SIZE IN.	AREA SQ. FT.	QTY EACH	TOTAL AREA SQ. FT.	QTY RELOC EACH	TOTAL RELOC SQ. FT.	SIGN NUM.	DESCRIPTION	ITEM NUMBER	TOTAL QTY	DESCRIPTION	
WARNING SIGNS								GUIDE SIGNS								DESCRIPTION					
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT)	E05-1	36X48	12.00	2	24.00				49	GORE EXIT	6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT)	E05-2	48X36	12.00	1	12.00				58	EXIT OPEN	6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT)	E05-2a	48X36	12.00	3	36.00				59	EXIT CLOSED	6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT)	GO20-1	60X24	10.00							ROAD WORK NEXT XX MILES	6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT)	GO20-2	48X24	8.00							END ROAD WORK	6122014	*	IMPACT ATTENUATOR 60 MPH (SAND BARRELS)
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT)	GO20-4	36X18	4.50							PILOT CAR FOLLOW ME	6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)
WO1-4L	48X48	16.00	2	32.00			15(L)	REVERSE CURVE (SYMBOL LEFT)	GO20-4a	42X30	8.75							PILOT CAR IN USE WAIT & FOLLOW	6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)
WO1-4R	48X48	16.00	2	32.00			15(R)	REVERSE CURVE (SYMBOL RIGHT)	GO20-4a	18X12	1.50							PILOT CAR IN USE WAIT & FOLLOW	6122020	5	REPLACEMENT SAND BARREL
WO1-4bL	48X48	16.00	2	32.00			32(L)	DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)	GO20-5aP	36X24	6.00	4	24.00				54	WORK ZONE (PLAQUE)	6122030	*	IMPACT ATTENUATOR (RELOCATION)
WO1-4bR	48X48	16.00	3	48.00			32(R)	DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4-8a	24X18	3.00	2	6.00				52	END DETOUR	6123001	1	TRUCK MOUNTED ATTENUATOR (TMA)
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)	MO4-9L	48X36	12.00							DETOUR (LEFT)	6161008	4	ADVANCED WARNING RAIL SYSTEM
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4-9R	48X36	12.00							DETOUR (RIGHT)	6161012		BUOYS (BOATS KEEP OUT)
WO1-6	60X30	12.50	4	50.00			16	HORIZONTAL ARROW (SYMBOL)	MO4-9P	48X12	4.00							STREET NAME (PLAQUE)	6161013		BUOYS (NO WAKE)
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)	MO4-10L	48X18	6.00							DETOUR ARROW (LEFT)	6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)	MO4-10R	48X18	6.00							DETOUR ARROW (RIGHT)	6161025	250	CHANNELIZER (TRIM LINE)
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)	REGULATORY SIGNS												
WO1-8	18X24	3.00						CHEVRON (SYMBOL)	R1-1	48X48	13.25							STOP	6161030	8	TYPE III MOVEABLE BARRICADE
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)	R1-2	48TRI.	12.5	1	12.50				13	YIELD	6161033	28	DIRECTION INDICATOR BARRICADE
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)	R1-2a	36X36	9.00							TO ONCOMING TRAFFIC (PLAQUE)	6161040	2	FLASHING ARROW PANEL
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)	R1-3P	30X12	2.50							ALL WAY (PLAQUE)	6161047		TYPE III OBJECT MARKER
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)	R2-1	36X48	12.00	4	48.00				4	SPEED LIMIT (4 @ 50)	6161055		SEQUENTIAL FLASHING WARNING LIGHT
WO3-4	48X48	16.00	1	16.00			11	BE PREPARED TO STOP	R3-1	48X48	16.00	2	32.00				62	NO RIGHT TURN (SYMBOL)	6161070		TUBULAR MARKER
WO3-5	48X48	16.00						SPEED LIMIT AHEAD	R3-2	48X48	16.00	1	16.00				61	NO LEFT TURN (SYMBOL)	6161095		RADAR SPEED ADVISORY SYSTEM
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)	R3-3	36X36	9.00							NO TURNS	6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
WO4-1R	48X48	16.00	3	48.00			60	MERGE (SYMBOL FROM RIGHT)	R3-4	48X48	16.00							NO U-TURN (SYMBOL)	6161098A		CHANGEABLE MESSAGE SIGN W/O COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED
WO4-1aL	48X48	16.00	1	16.00			6A	MERGE (LEFT)	R3-7L	30X30	6.25							LEFT LANE MUST TURN LEFT	6161099	4	CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE - CONTRACTOR FURNISHED/RETAINED
WO4-1aR	48X48	16.00	2	32.00			6A	MERGE (RIGHT)	R3-7R	30X30	6.25							RIGHT LANE MUST TURN RIGHT	6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM
WO5-1	48X48	16.00	3	48.00			43	ROAD/BRIDGE/RAMP NARROWS	R4-1	36X48	12.00							DO NOT PASS	6162002	4	TEMPORARY LONG-TERM RUMBLE STRIPS
WO5-3	48X48	16.00						ONE LANE BRIDGE	R4-2	36X48	12.00							PASS WITH CARE	6173600D	*	TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/RETAINED
WO5-5	48X48	16.00	4	64.00			34	NARROW LANES	R4-7a	36X48	12.00							KEEP RIGHT (HORIZONTAL ARROW)	6173602B		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)	R4-8a	36X48	12.00							KEEP LEFT (HORIZONTAL ARROW)	6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)	R5-1	30X30	6.25							DO NOT ENTER	6175010A	*	RELOCATING TEMPORARY TRAFFIC BARRIER
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)	R5-1a	36X24	6.00							WRONG WAY	6176000B		TEMPORARY TRAFFIC BARRIER COMMISSION FURNISHED/RETAINED
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)	R6-1L	54X18	6.75							ONE WAY ARROW (LEFT)	6177000B		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION COMMISSION FURNISHED/RETAINED
WO8-1	48X48	16.00						BUMP	R6-1R	54X18	6.75							ONE WAY ARROW (RIGHT)	6208064A		TEMPORARY RAISED PAVEMENT MARKER
WO8-2	48X48	16.00						DIP	R6-2L	24X30	5.00							ONE WAY (LEFT)	9029400		TEMPORARY TRAFFIC SIGNALS
WO8-3	48X48	16.00						PAVEMENT ENDS	R6-2R	24X30	5.00							ONE WAY (RIGHT)	9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING
WO8-4	48X48	16.00						SOFT SHOULDER	R9-9	24X12	2.00							SIDEWALK CLOSED	6169901	1	WORK ZONE INTELLIGENT TRANSPORTATION SYS.
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)	R9-11L	24X18	3.00							SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE	6191000	23,917	PAVEMENT EDGE TREATMENT
WO8-6	48X48	16.00						TRUCK CROSSING	R9-11R	24X18	3.00							SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE			
WO8-6c	48X48	16.00						TRUCK ENTRANCE	R10-6	24X36	6.00							STOP HERE ON RED (45° ARROW)			
WO8-7	36X36	9.00						LOOSE GRAVEL	R11-2	48X30	10.00	2	24.00				29	ROAD CLOSED			
WO8-7a	36X36	9.00						FRESH OIL / LOOSE GRAVEL	R11-3a	60X30	12.50	1	12.50				66	ROAD CLOSED XX MILES AHEAD			
WO8-9	48X48	16.00						LOW SHOULDER	R11-4	60X30	12.50							LOCAL TRAFFIC ONLY			
WO8-11	48X48	16.00						UNEVEN LANES	CONST-3A	60X48	20.00							ROAD CLOSED TO THRU TRAFFIC			
WO8-12	48X48	16.00						NO CENTER LINE	CONST-3X	56X12	4.67							FINE SIGN			
WO8-15	48X48	1																			



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JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

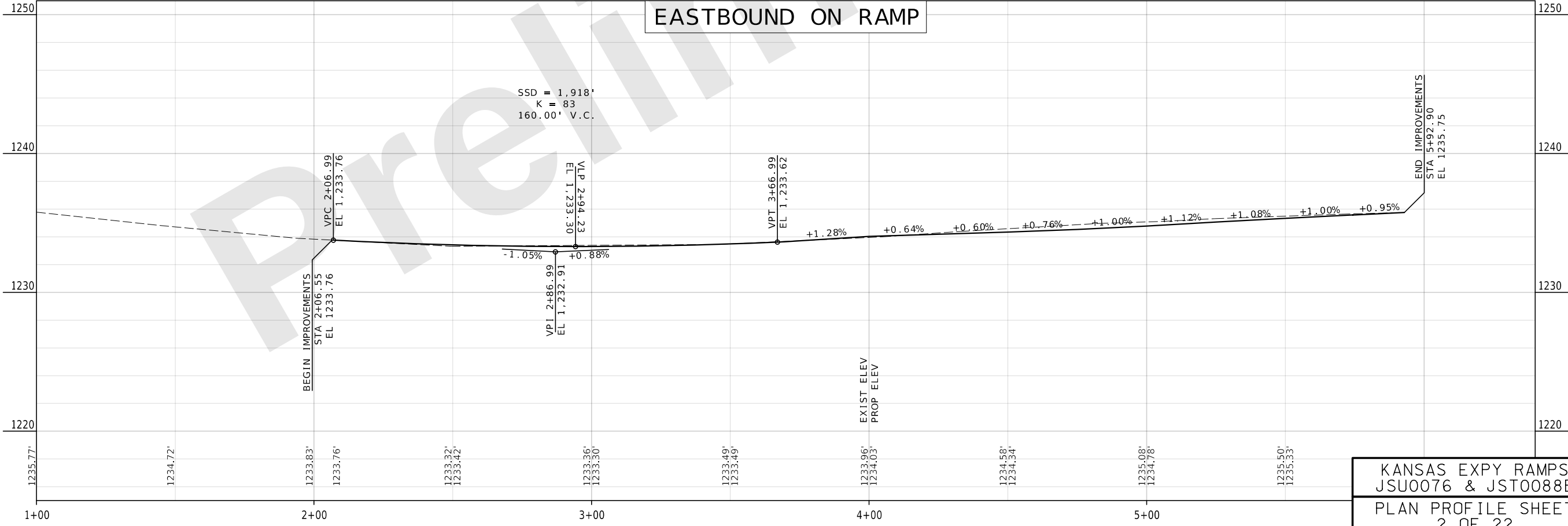
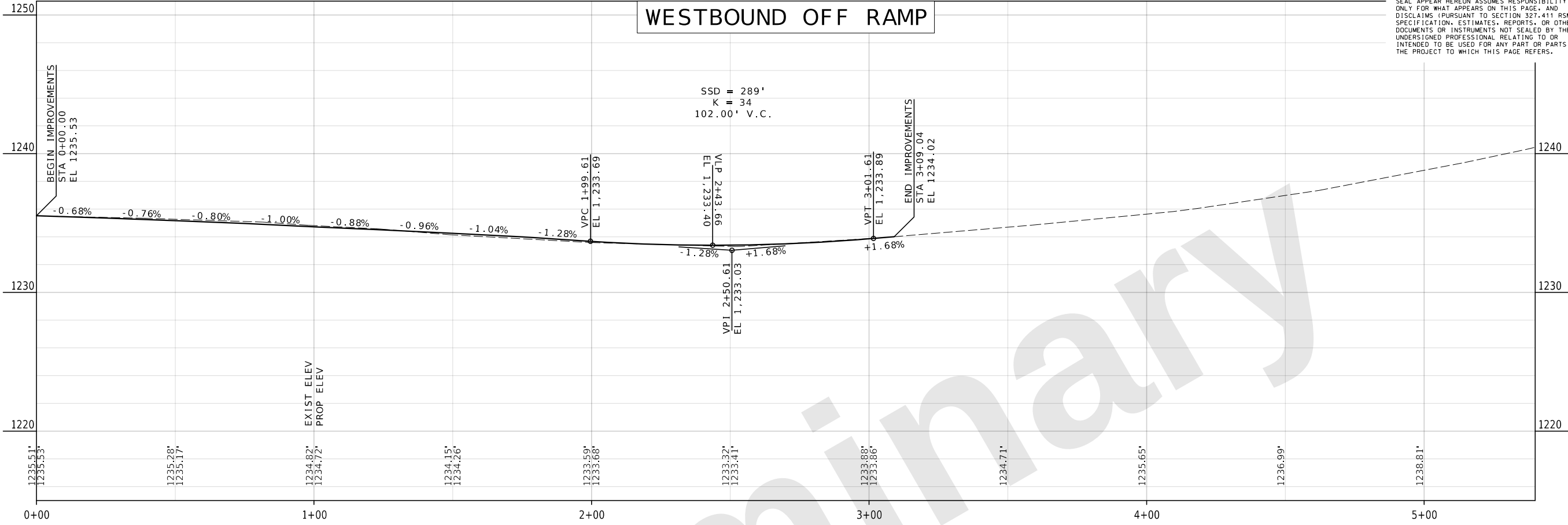
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2 OF 22

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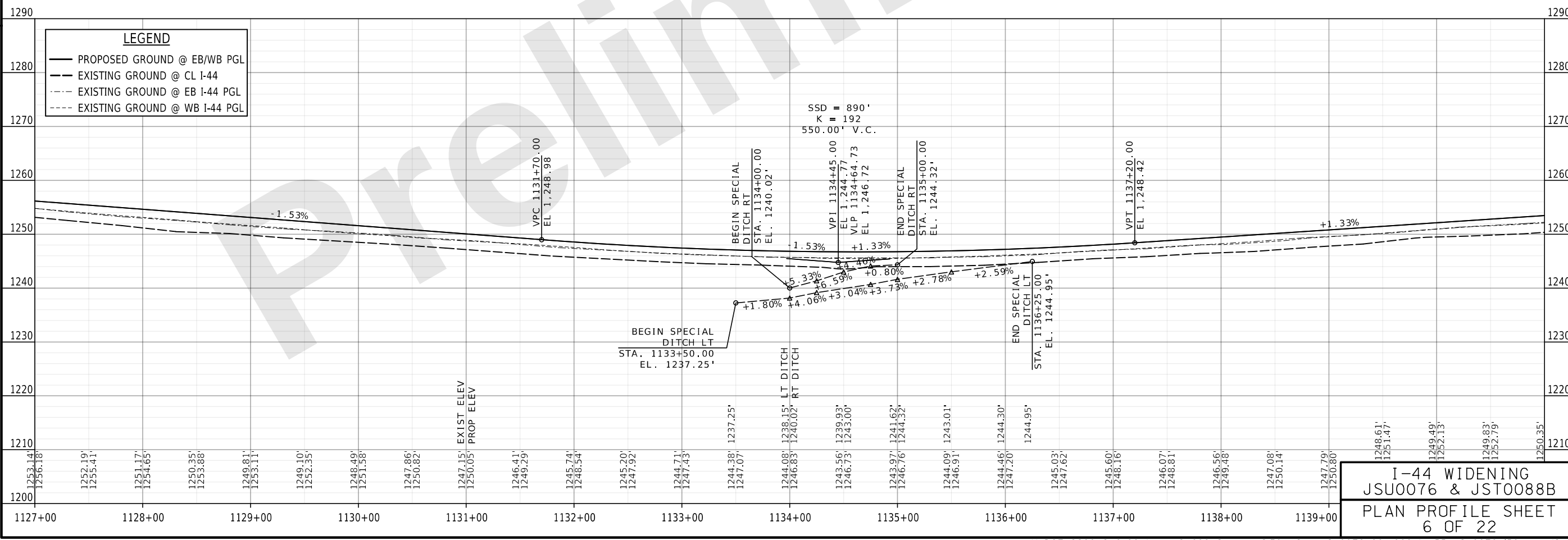
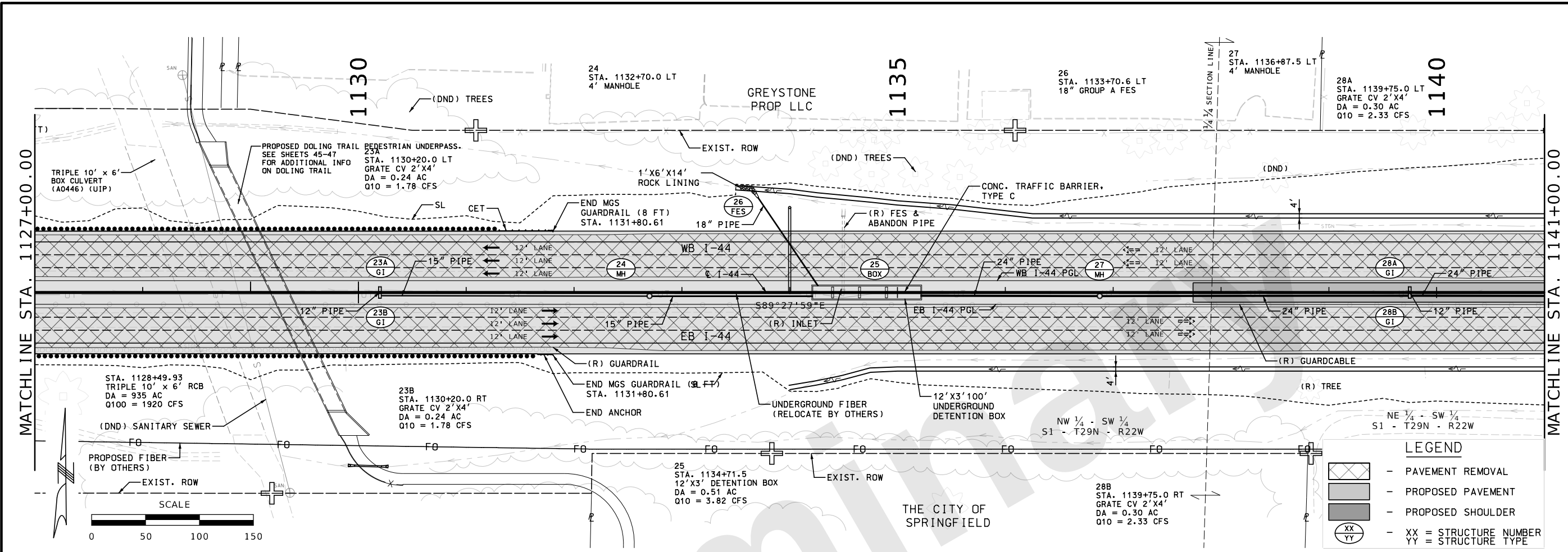
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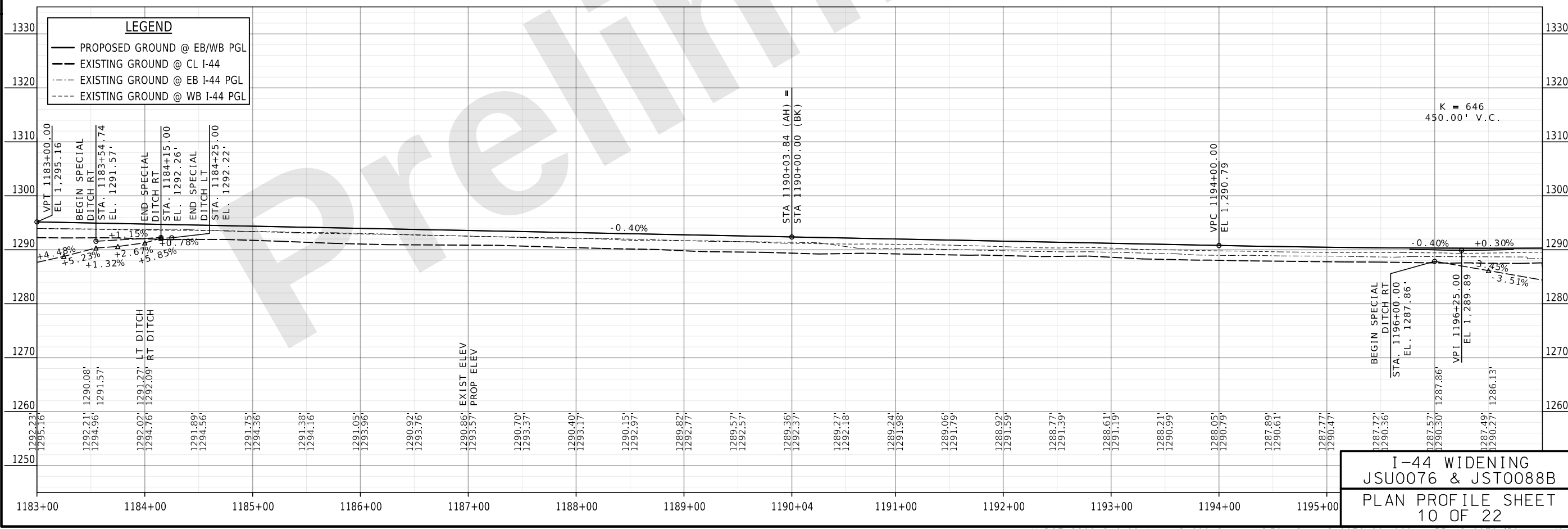
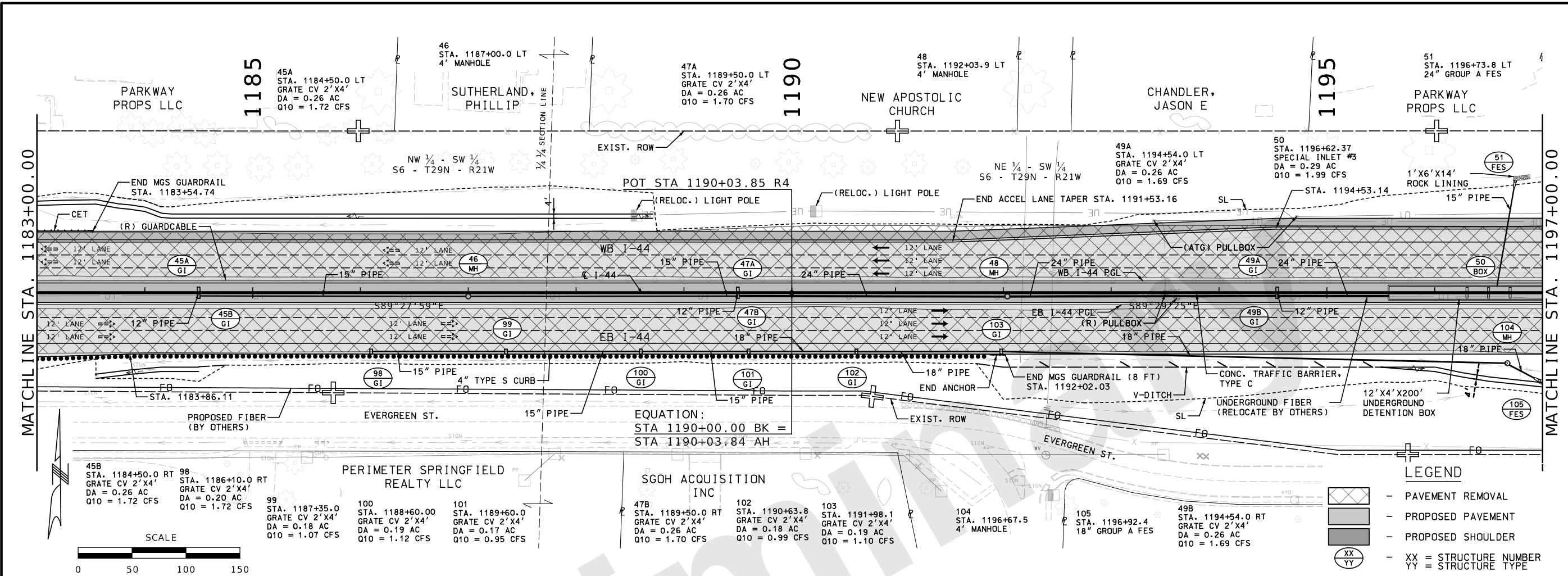
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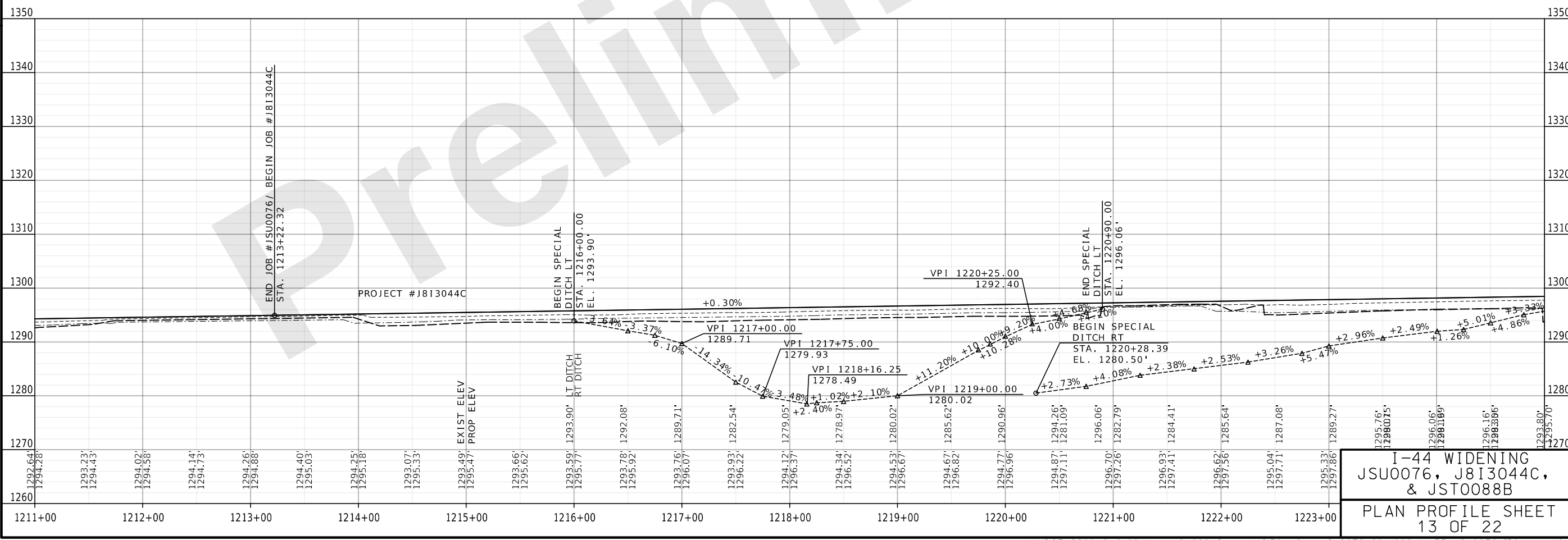
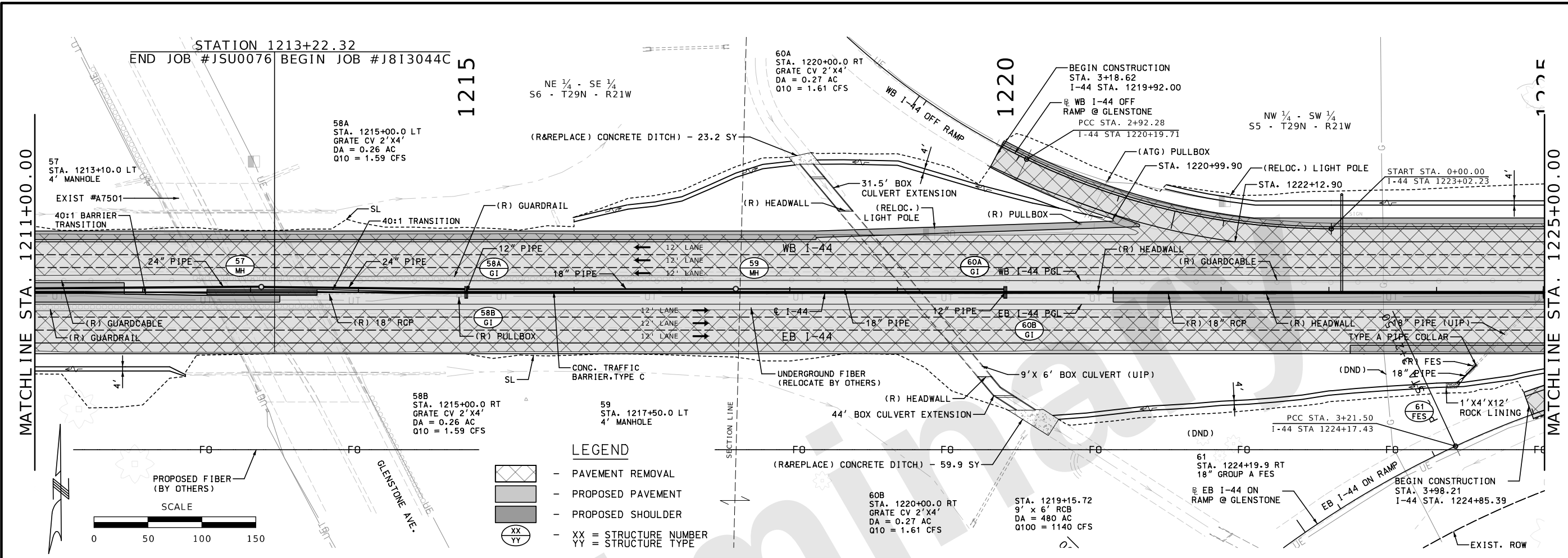
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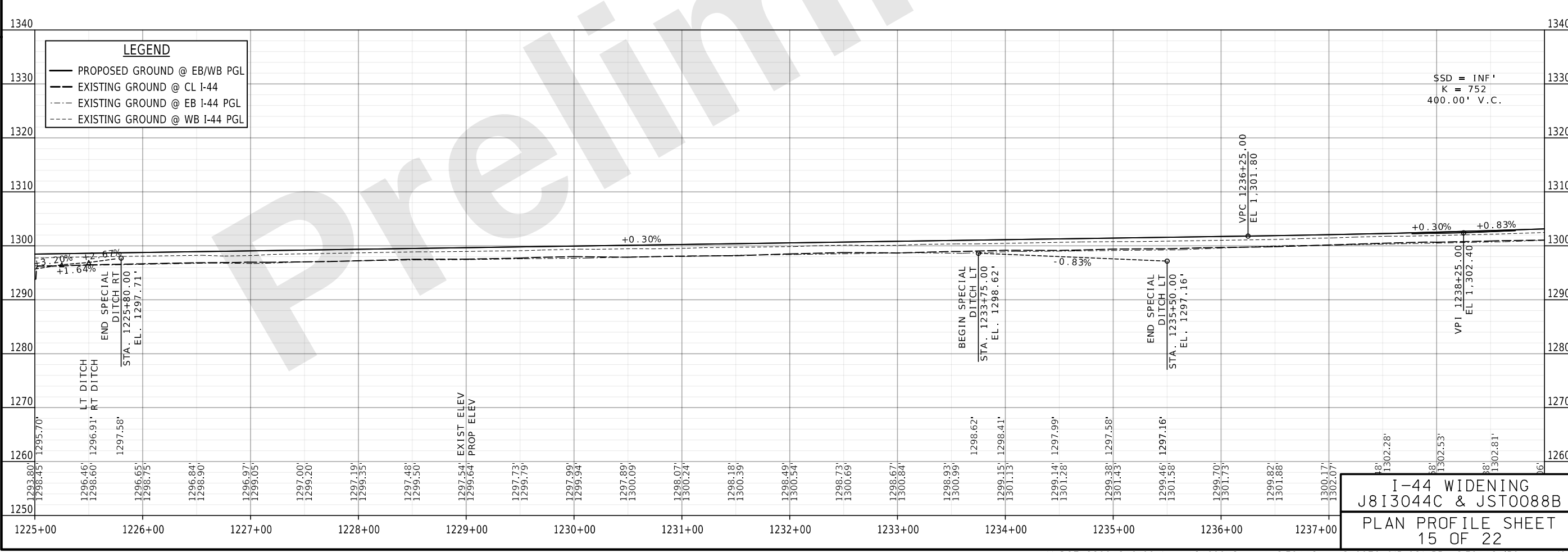
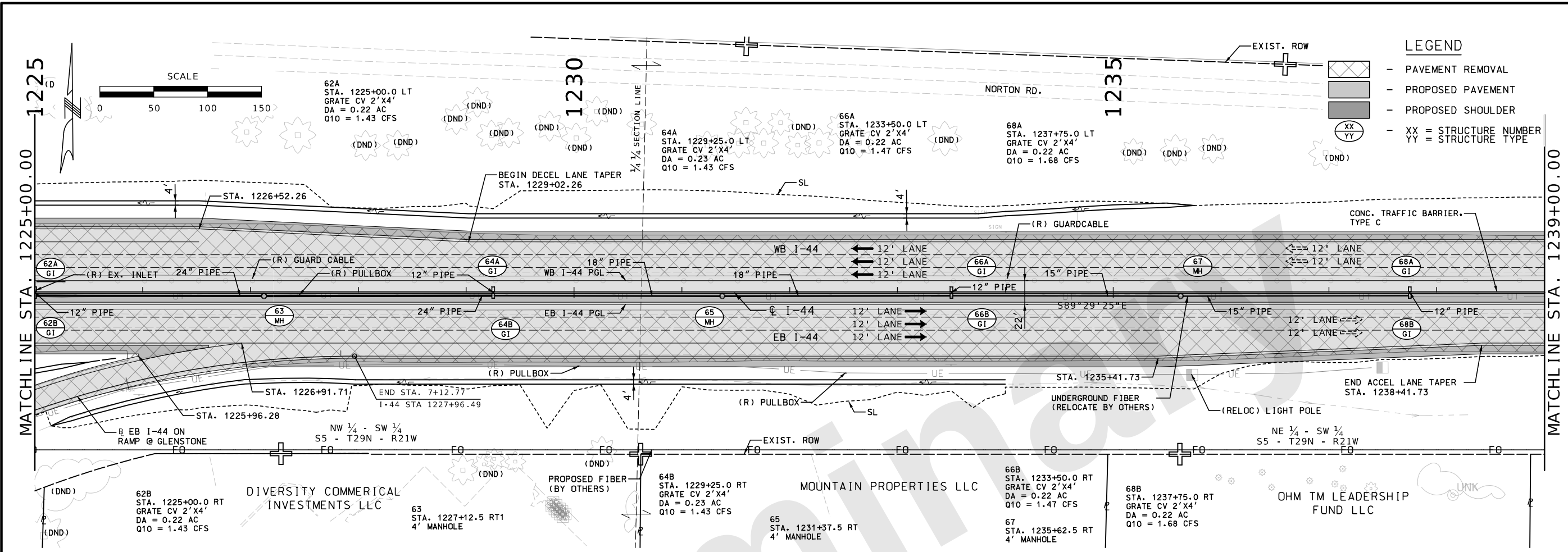
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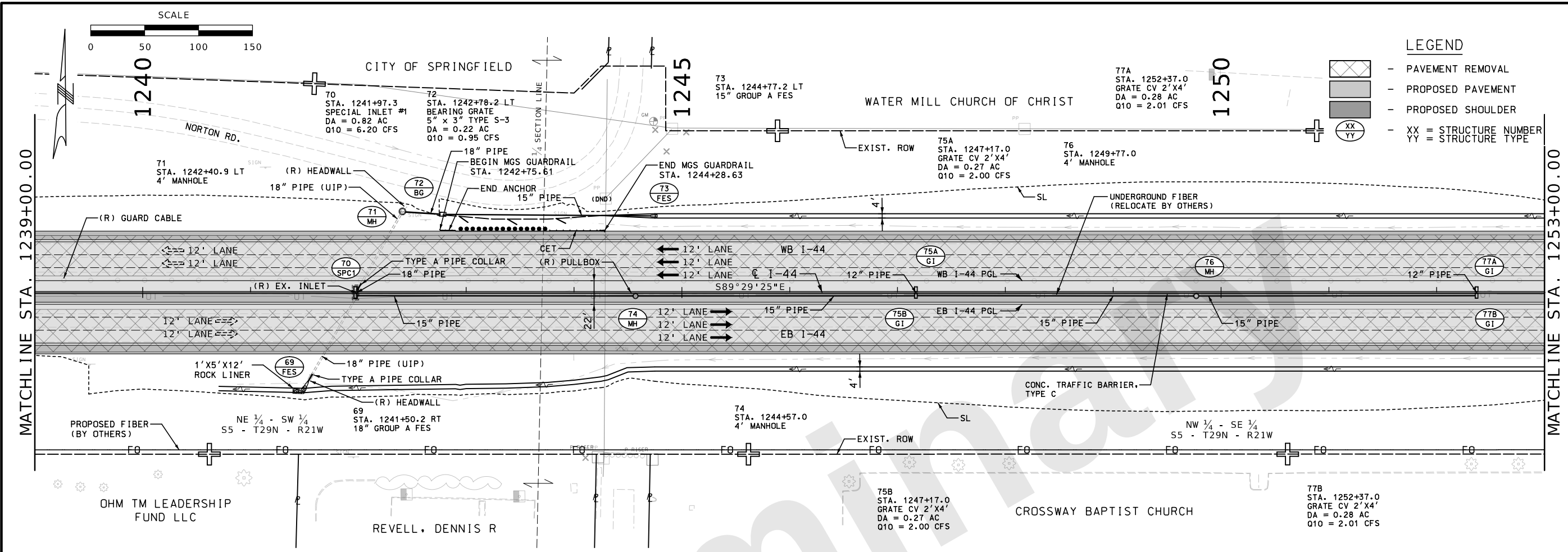
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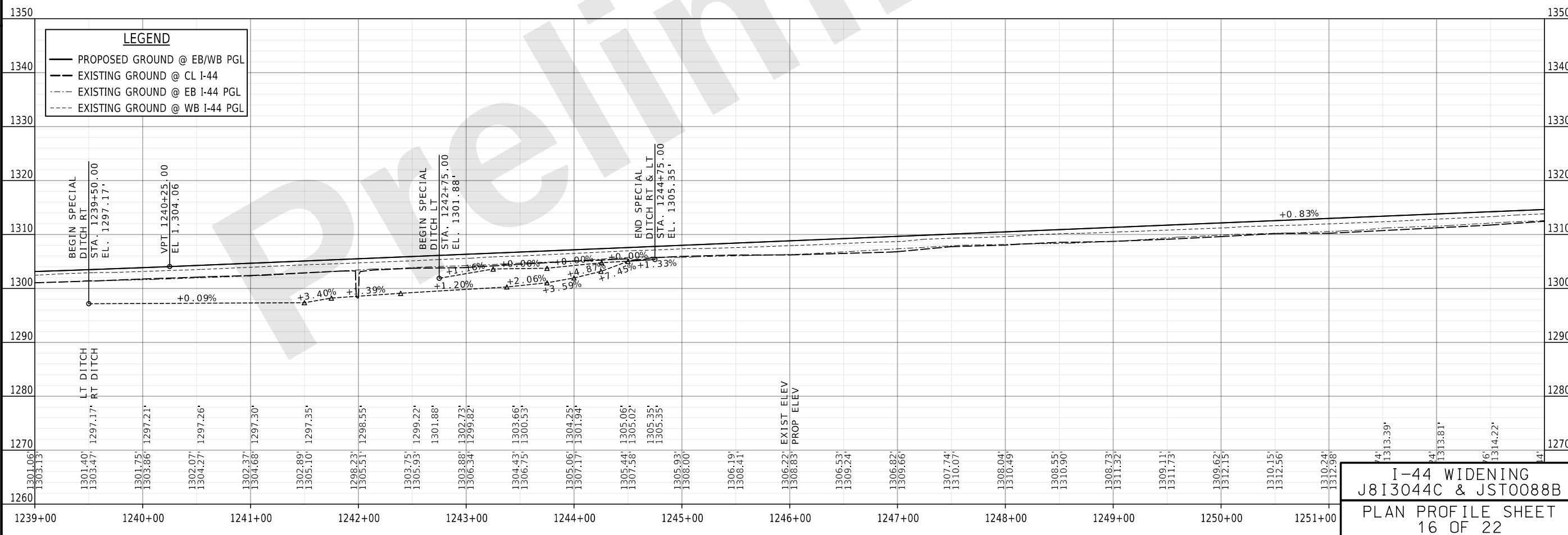
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PLAN PROFILE SHEET
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- LEGEND**
- PAVEMENT REMOVAL
 - PROPOSED PAVEMENT
 - PROPOSED SHOULDER
 - XX = STRUCTURE NUMBER
YY = STRUCTURE TYPE



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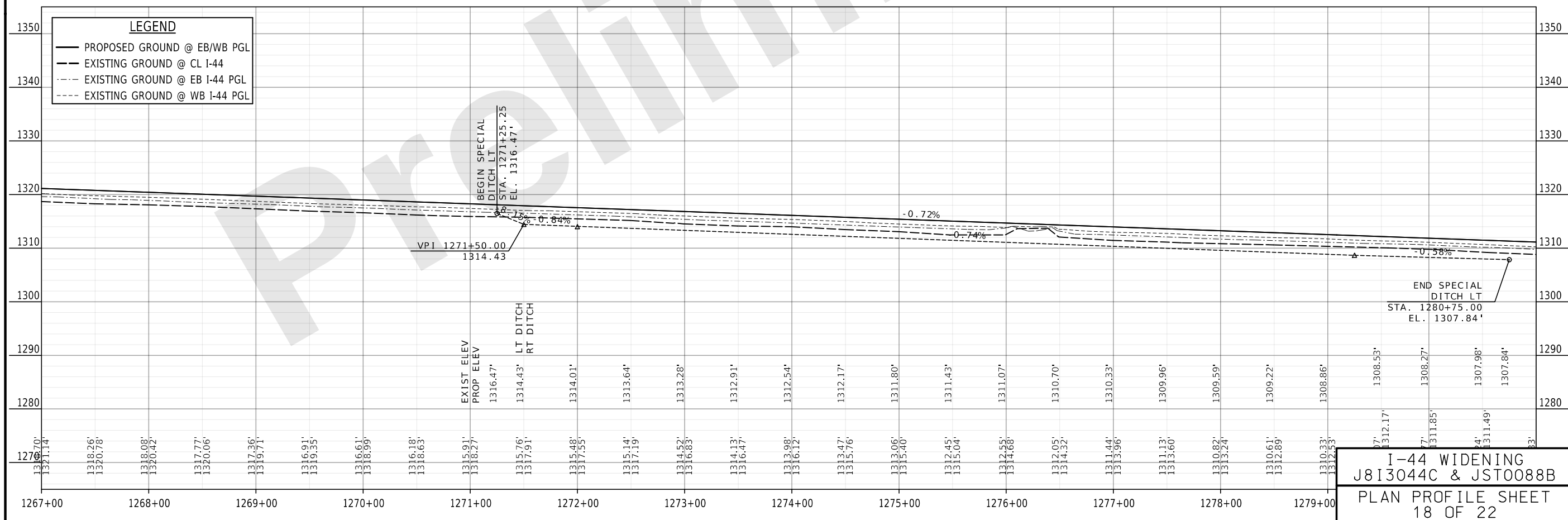
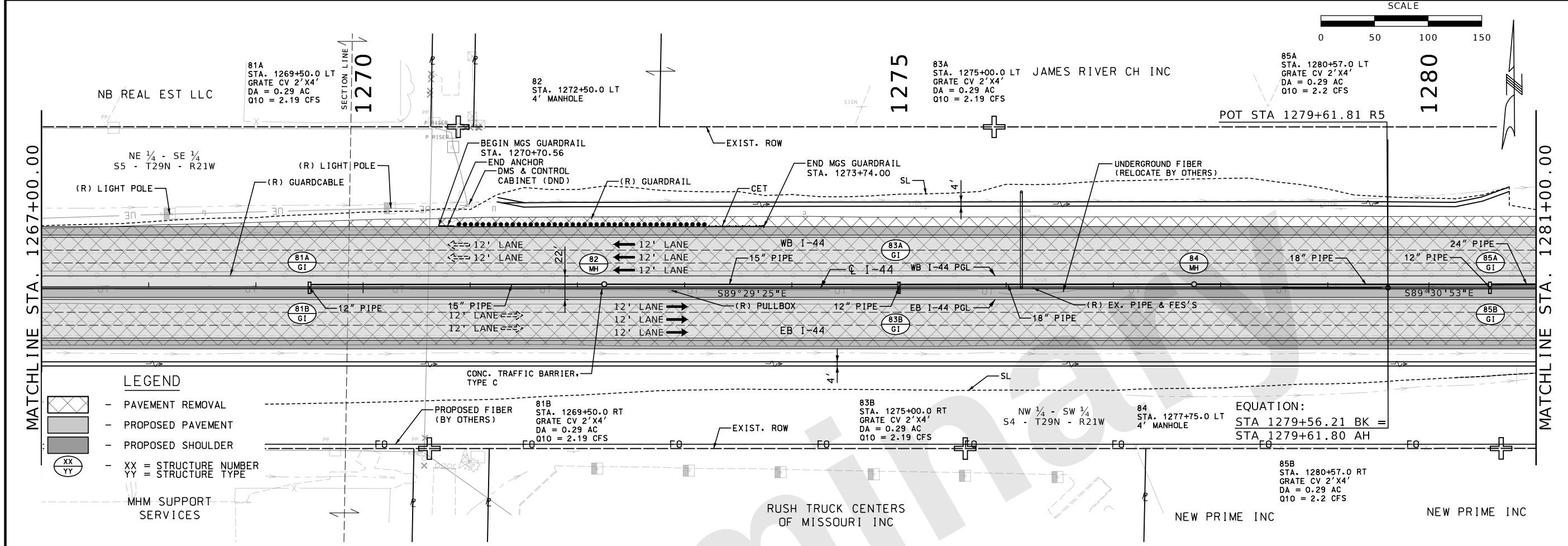
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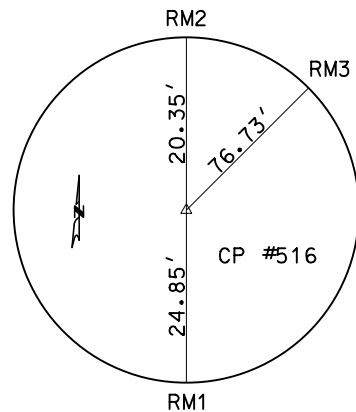
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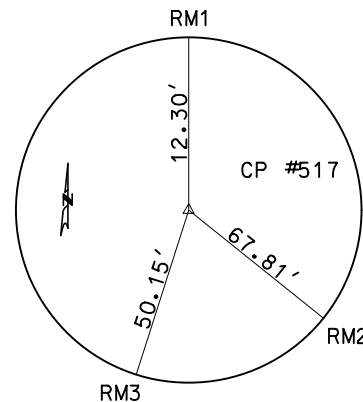
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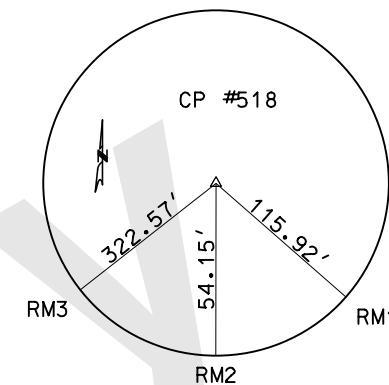
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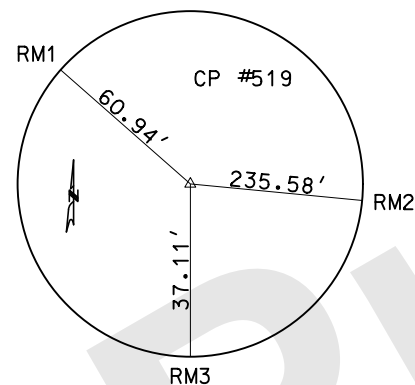
CONTROL POINT #516
N: 517010.02
E: 1402625.88
EL: 1241.093
STA. 1053+66.22 R3 OFF. -100.14' I-44
5/8" I.B. W/ ALUMINUM CAP SET S OF N
OUTER RD ON TOP ROCK OUTCROP
RM1: TOP ROCK OUTCROP N SIDE
RM2: EOP OF N OUTER RD
RM3: END GUARDRAIL



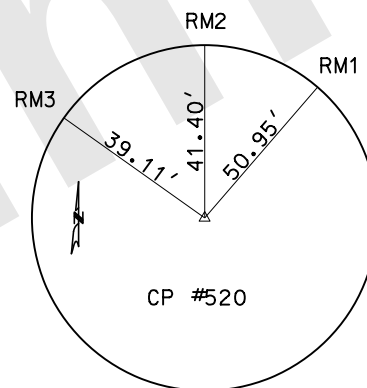
CONTROL POINT #517
N: 516798.57
E: 1404140.63
EL: 1241.083
STA. 1068+82.92 R2 OFF. 96.81' I-44
5/8" I.B. W/ ALUMINUM CAP SET TOP OF
ROCK OUTCROP S OF EB & N OF EXIT
RAMP TO HIGHWAY 13
RM1: MAC NC IN ROCK CROP
RM2: CORNER N SIGN POST
RM3: EOP INSIDE CORNER



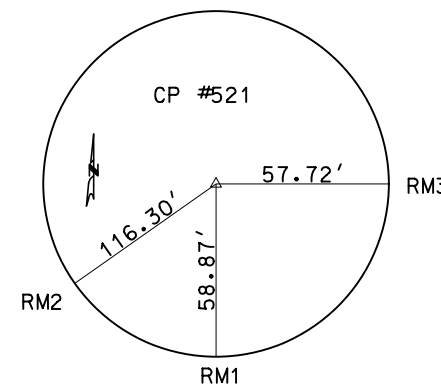
CONTROL POINT #518
N: 516970.86
E: 1407875.36
EL: 1277.588
STA. 1106+18.78 R3 OFF. -110.87' I-44
5/8" I.B. W/ ALUMINUM CAP SET 25' N
OF N TOP BANK OF WB I-44
RM1: FACE OF MM SIGN
RM2: EOP WB I-44
RM3: END GUARDRAIL



CONTROL POINT #519
N: 516936.87
E: 1409536.49
EL: 1270.576
STA. 1122+80.16 R3 OFF. -92.35' I-44
5/8" I.B. W/ ALUMINUM CAP SET TOP N
BANK I-44 WB
RM1: 6' CHAIN LINK FENCE COR POST
RM2: SIGN POST TO LODGING NEXT EXIT
SIGN
RM3: EOP WB I-44



CONTROL POINT #520
N: 516717.69
E: 1412985.72
EL: 1278.572
STA. 1157+31.28 R3 OFF. 94.7' I-44
5/8" I.B. W/ ALUMINUM CAP SET S TOP
BANK EB I-44
RM1: CONC BEAM WALL S OF EB I-44
RM2: EOP EB I-44
RM3: POST OF GAS/LODGING EXIT 80



CONTROL POINT #521
N: 516902.41
E: 1415632.78
EL: 1294.629
STA. 1183+76.50 R3 OFF. -114.67' I-44
5/8" I.B. W/ ALUMINUM CAP SET N TOP
BANK WB I-44
RM1: EOP WB I-44
RM2: END GUARDRAIL
RM3: NAIL IN S FACE 15" PINE TREE

I-44 WIDENING
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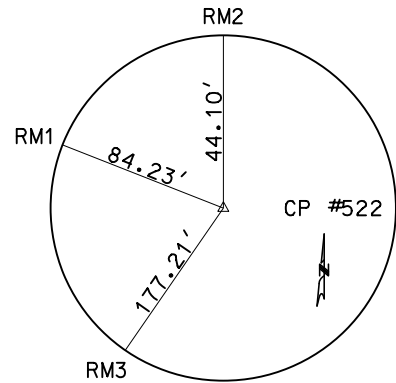
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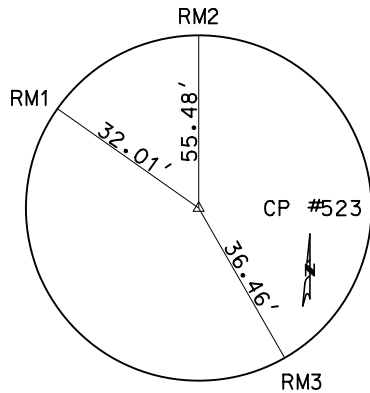
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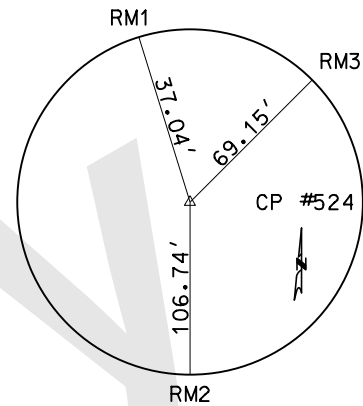
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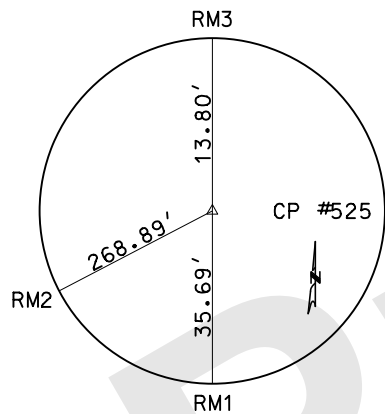
CONTROL POINT #522
N: 516659.82
E: 1418805.95
EL: 1300.485
STA. 1215+55.60 R4 OFF. 99.42' I-44
5/8" I.B. W/ ALUMINUM CAP SET S TOP BANK
EB I-44
RM1: MAG NAIL SET IN TOP CONC. BRIDGE
ABUTMENT WALL
RM2: EOP I-44 EB
RM3: COR MOST SOUTHERNLY GUARDRAIL POST



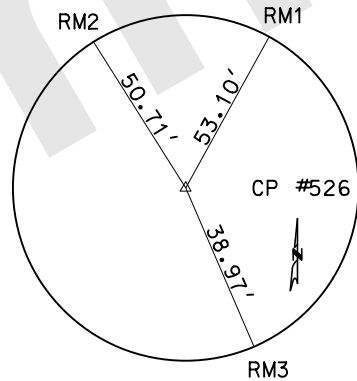
CONTROL POINT #523
N: 516625.7
E: 1420455.68
EL: 1310.752
STA. 1232+05.56 R4 OFF. 118.86' I-44
5/8" I.B. W/ ALUMINUM CAP SET S TOP
SLOPE EB I-44 ABOVE ROCK OUTCROP
RM1: MAG NAIL SET IN TOP ROCK OUTCROP
RM2: EDGE CONC OF EB I-44 ENTRANCE LANE
RM3: MAG NAIL IN N FACE MOST
NORTHERNLY OF 9 POSTS FOR ADV. SIGN



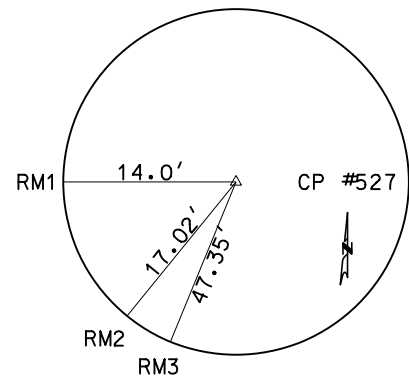
CONTROL POINT #524
N: 516621.73
E: 1423825.66
EL: 1329.677
STA. 1265+75.44 R4 OFF. 92.85' I-44
5/8" I.B. W/ ALUMINUM CAP SET S TOP SLOPE EB
I-44
RM1: S FACE 81.4 MM SIGN POST
RM2: COR 2909 N NEARGARD AVE BLDG FOUNDATION
RM3: MAG NAIL SET IN TOP ROCK OUTCROP



CONTROL POINT #525
N: 516837.12
E: 1425425.7
EL: 1309.181
STA. 1281+79.15 R5 OFF. -136.67' I-44
5/8" I.B. W/ ALUMINUM CAP SET 25' N OF N TOP
SLOPE OF WB I-44
RM1: FACE N POST GLENSTONE AVE EXIT 80 SIGN
RM2: FACE LANE ENDS SIGN POST
RM3: "T" POST OF BARB WIRE ROW FENCE



CONTROL POINT #526
N: 516554.15
E: 1428380.65
EL: 1334.405
STA. 1311+36.39 R5 OFF. 121.26' I-44
5/8" I.B. W/ ALUMINUM CAP SET S TOP SLOPE
ABOVE ROCK OUTCROP @ BEG EXIT RAMP TO SB
US65 HWY
RM1: COR OF EXPANSION SIGN BASE FOR S
SUPPORT OVER EB I-44
RM2: FACE LP
RM3: COR BLACK ROD IRON FENCE POST @ NW COR
FENCE



CONTROL POINT #527
N: 516780.71
E: 1429731.09
EL: 1326.828
STA. 1324+84.87 R5 OFF. -116.74' I-44
5/8" I.B. W/ ALUMINUM CAP SET E TOP
SLOPE OF NB US-65 HWY
RM1: EDGE CONC SHOULDER NB US-65 HWY
RM2: COR CONC STREET LIGHTING MM PAD
RM3: COR CONC BRIDGE WALL @ NE COR
US-65 BRIDGE OVER I-44 HWY

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REFERENCE POINTS
2 OF 2

ALL PROJECT COORDINATES HAVE BEEN PROJECTED FROM THE MISSOURI STATE PLANE COORDINATE (SPC) SYSTEM OF 1983 USING AN AVERAGE PROJECT PROJECTION (GRID TO GROUND) FACTOR. TO GET BACK KTO STATE PLANE COORDINATES, MULTIPLY THE PROJECT COORDINATES BY THE AVERAGE GRID FACTOR AS SHOWN IN THE "REFERENCE CONTROL INFORMATION" PORTION OF THIS TABLE.				COORDINATE POINT LISTING							POINT ID			
PROJECT COORDINATE INFORMATION				SHEET NO	STATION	LOCATION	OFFSET	STATE PLANE		MOD. STATE PLANE		ELEVATION (US SURVEY (FEET))	DESCRIPTION	
								NORTHING (US SURVEY FEET)	EASTING (US SURVEY (FEET))	NORTHING (US SURVEY FEET)	EASTING (US SURVEY (FEET))			
COORDINATE SYSTEM				PROJECT CONTROL POINTS										
HORIZONTAL DATUM				26	1053+66.22 R2	I-44	100.14 LT	516973.73	1402527.43	517010.02	1402625.88	1241.06	5/8" I.B. W/ ALUMINUM CAP	516
VERTICAL DATUM				26	1068+82.92 R2	I-44	96.81 RT	516762.30	1404042.07	516798.57	1404140.63	1241.08	5/8" I.B. W/ ALUMINUM CAP	517
GEOID MODEL				26	1106+18.78 R3	I-44	110.87 LT	516934.57	1407776.54	516970.86	1407875.36	1277.59	5/8" I.B. W/ ALUMINUM CAP	518
ELEVATIONS DETERMINED BY				26	1122+80.16 R3	I-44	92.35 LT	516900.58	1409437.55	516936.87	1409536.49	1270.58	5/8" I.B. W/ ALUMINUM CAP	519
				26	1157+31.28 R3	I-44	94.70 RT	516681.42	1412886.54	516717.69	1412985.72	1278.57	5/8" I.B. W/ ALUMINUM CAP	520
				26	1183+76.50 R3	I-44	114.67 LT	516866.13	1415533.41	516902.41	1415632.78	1294.63	5/8" I.B. W/ ALUMINUM CAP	521
PROJECT PROJECTION FACTOR				27	1215+55.60 R4	I-44	99.42 RT	516623.56	1418706.36	516659.82	1418805.95	1300.45	5/8" I.B. W/ ALUMINUM CAP	522
REFERENCE CONTROL INFORMATION				27	1232+05.56 R4	I-44	118.86 RT	516589.44	1420355.97	516625.70	1420455.68	1310.75	5/8" I.B. W/ ALUMINUM CAP	523
COORDINATE SYSTEM				27	1265+75.44 R4	I-44	92.85 RT	516585.47	1423725.71	516621.73	1423825.66	1329.68	5/8" I.B. W/ ALUMINUM CAP	524
CONTROL STATION				27	1281+79.15 R5	I-44	136.67 LT	516800.84	1425325.64	516837.12	1425425.70	1309.18	5/8" I.B. W/ ALUMINUM CAP	525
DESIGNATION				27	1311+36.39 R5	I-44	121.26 RT	516517.89	1428280.39	516554.15	1428380.65	1334.41	5/8" I.B. W/ ALUMINUM CAP	526
CORS_ID				27	1324+84.87 R5	I-44	116.74 LT	516744.44	1429630.74	516780.71	1429731.09	1326.83	5/8" I.B. W/ ALUMINUM CAP	527
PID				ALIGNMENTS										
LATITUDE				28	883+96.55	I-44	00.00 RT	516910.87	1398580.84	516947.16	1398679.01	1233.07	PI I-44	1
LONGITUDE				28	1052+30.81 R2	I-44	00.00 RT	516874.90	1402391.07	516911.18	1402489.52	1233.07	PI I-44	2
NORTHING (M)				28	1071+99.40 R2	I-44	00.00 RT	516856.06	1404359.43	516892.35	1404458.02	1232.40	BEGIN PROJECT	3
EASTING (M)				28	1092+83.21 R3	I-44	00.00 RT	516836.16	1406440.09	516872.44	1406538.82	1251.45	PI I-44	4
ZONE				28	0+00.00	WB OFF @ ROUTE 13	00.00 RT	516894.05	1405301.41	516930.34	1405400.06	1235.23	START WB OFF RAMP @ ROUTE 13	5
PROJECT AVERAGE GRID FACTOR				28	1+22.96	WB OFF @ ROUTE 13	9.56' LT	516895.23	1405178.46	516931.51	1405277.10	1234.03	PI I-44	6
EXAMPLE OF PROJECT COORDINATE TO S.P.C.				28	2+43.95	WB OFF @ ROUTE 13	00.00 RT	516933.88	1405061.74	516970.17	1405160.37	1233.22	PT I-44	7
PROJECT NORTHING X AVERAGE GRID FACTOR				28	5+63.80	WB OFF @ ROUTE 13	00.00 RT	517034.43	1404758.13	517070.72	1404856.74	1233.94	END WB OFF RAMP @ ROUTE 13	8
= STATE PLANE NORTHING				28	0+00.00	EB ON @ ROUTE 13	00.00 RT	516672.27	1404764.17	516708.54	1404862.78	1234.53	BEGIN ALIGNMENT - EB ON @ ROUTE 13	9
PROJECT EASTING X AVERAGE GRID FACTOR				28	2+72.86	EB ON @ ROUTE 13	00.00 RT	516753.31	1405024.70	516789.59	1405123.33	1233.25	PC I-44	10
= STATE PLANE EASTING				28	4+34.19	EB ON @ ROUTE 13	12.57' LT	516801.23	1405178.73	516837.51	1405277.37	1234.05	PI I-44	11
EXAMPLE: CONTROL POINT #[512]				28	5+92.90	EB ON @ ROUTE 13	00.00 RT	516799.68	1405340.03	516835.96	1405438.68	1235.67	END ALIGNMENT - EB ON @ ROUTE 13	12
N [514723.75] X [0.9999298073] = N [514687.62]				28	0+00.00	DOLING TRAIL	00.00 RT	516215.60	1410290.30	516284.44	1410478.15	1228.16	BEGIN PROJECT	13
E [1393079.80] X [0.9999298073] = E [1392982.01]				28	0+36.26	DOLING TRAIL	00.00 RT	516250.22	1410301.32	516318.98	1410489.18	1227.08	PC DOLING TRAIL	14
LINEAR UNIT CONVERSION				28	0+57.11	DOLING TRAIL	150.00' LT	516270.08	1410307.66	516338.85	1410495.52	1226.10	PI DOLING TRAIL - CURVE 1	15
1 METER = 3.280833333 US SURVEY FEET (USFT)				28	0+77.69	DOLING TRAIL	00.00 RT	516290.91	1410308.34	516359.68	1410496.20	1225.11	PT DOLING TRAIL	16
				28	3+19.29	DOLING TRAIL	00.00 RT	516532.34	1410316.24	516601.15	1410504.10	1227.36	PC DOLING TRAIL	17
				28	3+80.29	DOLING TRAIL	60.00' LT	516593.72	1410318.25	516662.53	1410506.11	1227.27	PI DOLING TRAIL - CURVE 2	18
				28	4+14.93	DOLING TRAIL	00.00 RT	516594.30	1410256.85	516663.11	1410444.70	1226.09	PT DOLING TRAIL	19
				28	5+64.48	DOLING TRAIL	00.00 RT	516595.70	1410107.33	516664.51	1410295.16	1221.42	PC DOLING TRAIL	20
				28	5+96.01	DOLING TRAIL	50.00' RT	516596.00	1410075.80	516664.81	1410263.63	1221.27	PI DOLING TRAIL - CURVE 3	21
				28	6+20.74	DOLING TRAIL	00.00 RT	516624.57	1410062.49	516693.39	1410250.31	1221.13	PT DOLING TRAIL	22
				28	9+48.18	DOLING TRAIL	00.00 RT	516921.33	1409924.19	516990.18	1410111.99	1219.45	PC DOLING TRAIL	23
				28	9+60.04	DOLING TRAIL	50.00' RT	516932.07	1409919.18	517000.93	1410106.99	1219.43	PI DOLING TRAIL - CURVE 4	24
				28	9+71.46	DOLING TRAIL	00.00 RT	516943.92	1409919.53	517012.78	1410107.34	1219.38	PT DOLING TRAIL	25
				28	11+20.24	DOLING TRAIL	00.00 RT	517092.61	1409923.92	517161.49	1410111.72	1221.82	PC DOLING TRAIL	26
				28	11+63.28	DOLING TRAIL	50.00' LT	517135.63	1409925.18	517204.51	1410112.99	1222.68	PI DOLING TRAIL - CURVE 5	27
				28	11+91.31	DOLING TRAIL	00.00 RT	517143.28	1409882.83	517212.17	1410070.63	1223.66	PT DOLING TRAIL	28

WB OFF RAMP @ ROUTE 13	
PI	1+22.96
PC	0+00.00
PT	2+43.95
Δ	17°46'30.4" (RT)
D	7°17'11.0"
L	243.95' (ARC)
T	122.96'
R	786.34'

EB ON RAMP @ ROUTE 13	
PI	4+34.19
PC	2+72.86
PT	5+92.90
Δ	17°49'38.4" (RT)
D	5°34'13.4"
L	320.04' (ARC)
T	161.32'
R	1,028.58'

DOLING TRAIL CURVE 1	
PI	0+57.11
PC	0+36.26
PT	0+77.69
Δ	15°49'35.7" (LT)
D	38°11'49.9"
L	41.43' (ARC)
T	20.85'
R	150.00'

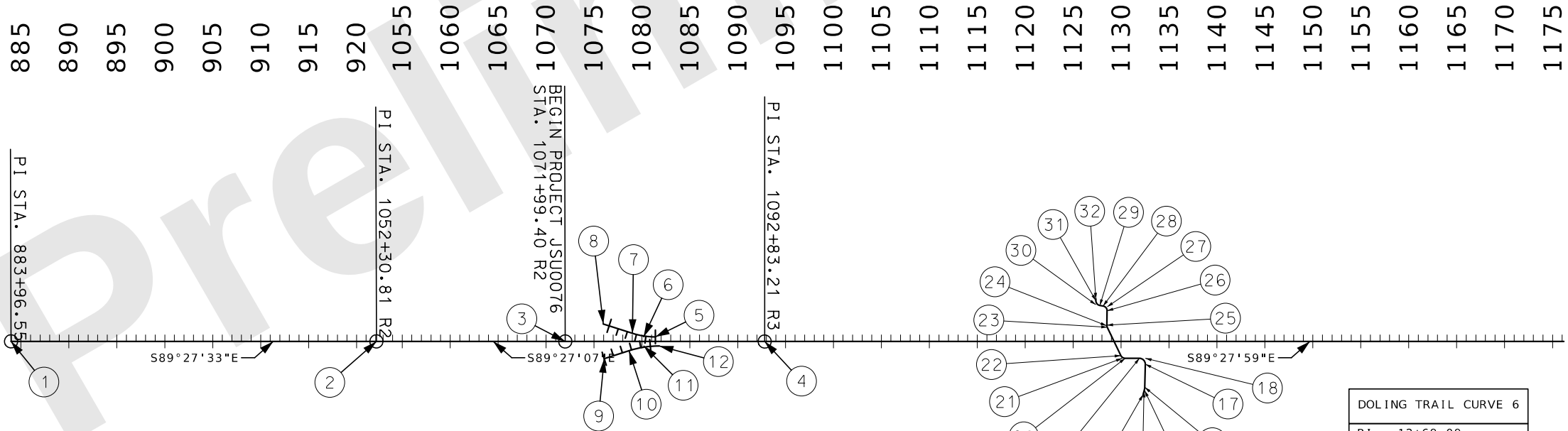
DOLING TRAIL CURVE 2	
PI	3+80.29
PC	3+19.29
PT	4+14.93
Δ	91°20'11.9" (LT)
D	95°29'34.7"
L	95.65' (ARC)
T	61.42'
R	60.00'

DOLING TRAIL CURVE 3	
PI	5+96.01
PC	5+64.48
PT	6+20.74
Δ	64°28'31.2" (RT)
D	114°35'29.6"
L	56.27' (ARC)
T	31.53'
R	50.00'

DOLING TRAIL CURVE 4	
PI	9+60.04
PC	9+48.18
PT	9+71.46
Δ	26°40'30.2" (RT)
D	114°35'29.6"
L	23.28' (ARC)
T	11.85'
R	50.00'

DOLING TRAIL CURVE 5	
PI	11+63.28
PC	11+20.24
PT	11+91.31
Δ	81°26'41.8" (LT)
D	114°35'29.6"
L	71.07' (ARC)
T	43.04'
R	50.00'

DOLING TRAIL CURVE 6	
PI	12+69.09
PC	12+26.59
PT	12+97.04
Δ	80°43'37.5" (RT)
D	114°35'29.6"
L	70.45' (ARC)
T	42.50'
R	50.00'



I-44 WIDENING
JSU0076 & JST0088B
COORDINATE POINTS
1 OF 2

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
28

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

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)

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651 WEST LINDALE STREET
SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631

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

PROJECT COORDINATE INFORMATION	
COORDINATE SYSTEM	MISSOURI STATE PLANE
HORIZONTAL DATUM	NAD83
VERTICAL DATUM	NAVD88
GEOID MODEL	GEOID 12B
ELEVATIONS DETERMINED BY	OPUS FOR PRIMARY CONTROL
PROJECT PROJECTION FACTOR	1.0000702

REFERENCE CONTROL INFORMATION	
COORDINATE SYSTEM	MISSOURI STATE PLANE
CONTROL STATION	MODOT GNSS
DESIGNATION	
CORS_ID	
PID	
LATITUDE	
LONGITUDE	
NORTHING (M)	
EASTING (M)	
ZONE	CENTRAL

PROJECT AVERAGE GRID FACTOR 0.9999298073

EXAMPLE OF PROJECT COORDINATE TO S.P.C.

PROJECT NORTHING X AVERAGE GRID FACTOR
= STATE PLANE NORTHING
PROJECT EASTING X AVERAGE GRID FACTOR
= STATE PLANE EASTING

EXAMPLE: CONTROL POINT #[XXX]
N [XXXXXX.XXXX] X [X.XXXXXXXX] = N [XXXXXX.XX]
E [XXXXXX.XXXX] X [X.XXXXXXXX] = E [XXXXXX.XX]

LINEAR UNIT CONVERSION

1 METER = 3.280833333 US SURVEY FEET (USFT)

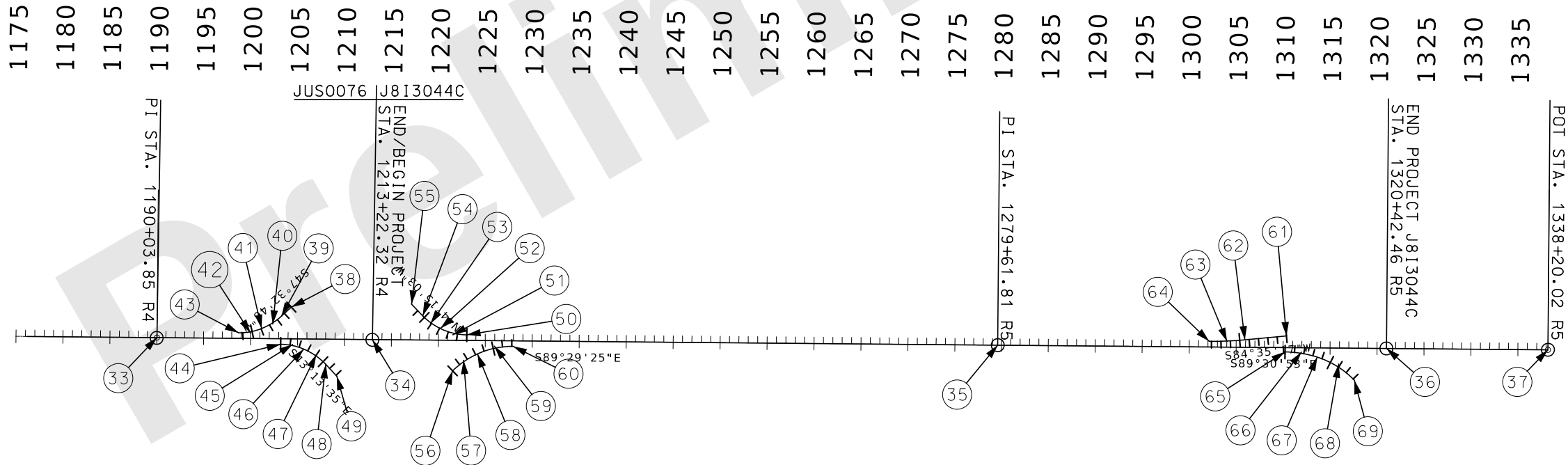
COORDINATE POINT LISTING										
SHEET NO	STATION	LOCATION	OFFSET	STATE PLANE		MOD. STATE PLANE			DESCRIPTION	POINT ID
				NORTHING (US SURVEY FEET)	EASTING (US SURVEY FEET)	NORTHING (US SURVEY FEET)	EASTING (US SURVEY FEET)	ELEVATION (US SURVEY FEET)		
28	12+26.59	DOLING TRAIL	00.00 RT	517149.55	1409848.12	517218.44	1410035.92	1224.48	PC DOLING TRAIL	29
28	12+69.09	DOLING TRAIL	50.00' RT	517157.11	1409806.31	517226.00	1409994.10	1225.29	PI DOLING TRAIL - CURVE 6	30
28	12+97.04	DOLING TRAIL	00.00 RT	517199.60	1409807.03	517268.49	1409994.81	1225.72	PT DOLING TRAIL	31
28	13+25.12	DOLING TRAIL	00.00 RT	517218.11	1409807.34	517287.01	1409995.13	1225.90	END PROJECT	32
29	1190+03.85 R4	I-44	00.00 RT	516745.66	1416155.79	516781.94	1416255.20	1292.37	PI I-44	33
29	1213+22.32 R4	I-44	00.00 RT	516725.04	1418473.99	516761.31	1418573.57	1294.95	END JSU0076 - BEGIN J8I3044C	34
29	1279+61.81 R5	I-44	00.00 RT	516666.03	1425107.17	516702.30	1425207.21	1312.12	PI I-44	35
29	1320+42.46 R5	I-44	00.00 RT	516631.46	1429187.38	516667.73	1429287.71	1309.60	END PROJECT	36
29	1338+20.02 R5	I-44	00.00 RT	516616.40	1430964.75	516652.67	1431065.20	1310.63	POT I-44	37
29	0+00.00	GLENSTONE WB ON	00.00 RT	517070.80	1417586.99	517107.10	1417686.51	1288.64	BEGIN ALIGNMENT - WB ON @ GLENSTONE	38
29	1+42.00	GLENSTONE WB ON	00.00 RT	516974.96	1417482.23	517011.25	1417581.73	1288.64	PC RAMP - WB ON @ GLENSTONE	39
29	2+68.53	GLENSTONE WB ON	11.51' LT	516889.56	1417388.88	516925.84	1417488.37	1288.64	PI RAMP - WB ON @ GLENSTONE	40
29	3+92.29	GLENSTONE WB ON	00.00 RT	516842.83	1417271.29	516879.12	1417370.78	1288.51	PCC RAMP - WB ON @ GLENSTONE	41
29	5+19.70	GLENSTONE WB ON	12.37' LT	516795.79	1417152.90	516832.07	1417252.38	1289.14	PI RAMP - WB ON @ GLENSTONE	42
29	6+43.92	GLENSTONE WB ON	00.00 RT	516796.92	1417025.50	516833.20	1417124.98	1289.96	END ALIGNMENT - WB ON @ GLENSTONE	43
29	0+00.00	GLENSTONE EB OFF	00.00 RT	1417025.50	1417472.55	1417124.98	1417572.05	1291.13	BEGIN ALIGNMENT - EB OFF @ GLENSTONE	44
29	1+28.69	GLENSTONE EB OFF	12.62' LT	516673.80	1417601.22	516710.07	1417700.73	1290.48	PI RAMP - EB OFF @ GLENSTONE	45
29	2+54.09	GLENSTONE EB OFF	00.00 RT	516623.72	1417719.75	516659.98	1417819.27	1290.71	PCC RAMP - EB OFF @ GLENSTONE	46
29	3+99.86	GLENSTONE EB OFF	15.24' LT	516566.98	1417854.02	516603.24	1417953.55	1291.54	PI RAMP - EB OFF @ GLENSTONE	47
29	5+41.41	GLENSTONE EB OFF	00.00 RT	516460.77	1417953.85	516497.02	1418053.39	1291.54	PT RAMP - EB OFF @ GLENSTONE	48
29	7+12.78	GLENSTONE EB OFF	00.00 RT	516335.57	1418071.53	516371.82	1418171.08	1291.54	END ALIGNMENT - EB OFF @ GLENSTONE	49
29	0+00.00	GLENSTONE WB OFF	00.00 RT	516775.31	1419454.33	516811.59	1419553.97	1297.03	BEGIN ALIGNMENT - WB OFF @ GLENSTONE	50
29	1+48.65	GLENSTONE WB OFF	15.24' LT	516776.64	1419305.69	516812.91	1419405.33	1295.58	PI RAMP - WB OFF @ GLENSTONE	51
29	2+92.28	GLENSTONE WB OFF	00.00 RT	516842.43	1419172.41	516878.71	1419272.03	1292.66	PCC RAMP - WB OFF @ GLENSTONE	52
29	4+09.01	GLENSTONE WB OFF	9.94' LT	516894.10	1419067.74	516930.38	1419167.36	1290.90	PI RAMP - WB OFF @ GLENSTONE	53
29	5+23.49	GLENSTONE WB OFF	00.00 RT	516977.71	1418986.29	517014.00	1419085.90	1290.90	PT RAMP - WB OFF @ GLENSTONE	54
29	6+95.45	GLENSTONE WB OFF	00.00 RT	517100.87	1418866.31	517137.17	1418965.55	1290.90	END ALIGNMENT - WB OFF @ GLENSTONE	55
29	0+00.00	GLENSTONE EB ON	00.00 RT	516392.55	1419303.30	516428.80	1419402.93	1295.70	BEGIN ALIGNMENT - EB ON @ GLENSTONE	56
29	1+62.35	GLENSTONE EB ON	16.78' LT	516505.53	1419303.30	516541.79	1419402.93	1295.70	PI RAMP - EB ON @ GLENSTONE	57
29	3+21.50	GLENSTONE EB ON	00.00 RT	516572.59	1419567.72	516608.85	1419667.37	1295.70	PCC RAMP - EB ON @ GLENSTONE	58
29	5+20.28	GLENSTONE EB ON	9.94' LT	516654.70	1419748.73	516690.97	1419848.39	1296.70	PI RAMP - EB ON @ GLENSTONE	59
29	7+12.77	GLENSTONE EB ON	00.00 RT	516652.93	1419947.48	516689.20	1420047.16	1298.75	END ALIGNMENT - EB ON @ GLENSTONE	60
29	0+00.00	WB ON @ US 65	00.00 RT	516764.23	1428180.90	516800.50	1428281.15	1319.75	BEGIN ALIGNMENT - WB ON @ US 65	61
29	4+44.27	WB ON @ US 65	00.00 RT	516722.33	1427738.64	516758.60	1427838.87	1319.88	PC RAMP - WB ON @ US 65	62
29	6+35.00	WB ON @ US 65	4.91' LT	516704.34	1427548.77	516740.61	1427648.98	1319.55	PI RAMP - WB ON @ US 65	63
29	8+25.40	WB ON @ US 65	00.00 RT	516705.96	1427358.05	516742.23	1427458.25	1318.56	END ALIGNMENT - WB ON @ US 65	64
29	0+00.00	EB OFF @ US 65	00.00 RT	516593.12	1428165.94	516629.38	1428266.19	1318.14	BEGIN ALIGNMENT - EB OFF @ US 65	65
29	1+75.29	EB OFF @ US 65	13.23' LT	516591.63	1428341.20	516627.90	1428441.47	1316.03	PI RAMP - EB OFF @ US 65	66
29	3+47.92	EB OFF @ US 65	00.00 RT	516538.21	1428508.14	516574.47	1428608.41	1313.26	PCC RAMP - EB OFF @ US 65	67
29	5+88.36	EB OFF @ US 65	29.80' LT	516464.92	1428737.12	516501.18	1428837.41	1312.47	PI RAMP - EB OFF @ US 65	68
29	8+19.01	EB OFF @ US 65	00.00 RT	516291.95	1428904.10	516328.19	1429004.41	1312.47	END ALIGNMENT - EB OFF @ US 65	69

EB OFF RAMP @ GLENSTONE (1)	
PI	1+28.69
PC	0+00.00
PT	2+54.09
Δ	22°23'49.1" (RT)
D	8°48'53.0"
L	254.09' (ARC)
T	128.69'
R	650.00'

EB OFF RAMP @ GLENSTONE (2)	
PI	3+99.86
PC	2+54.09
PT	5+41.41
Δ	23°52'1.0" (RT)
D	8°18'23.4"
L	287.33' (ARC)
T	145.78'
R	689.77'

WB ON RAMP @ GLENSTONE (1)	
PI	2+68.53
PC	1+42.00
PT	3+92.29
Δ	20°46'59.5" (RT)
D	8°18'13.5"
L	250.29' (ARC)
T	126.53'
R	690.00'

WB ON RAMP @ GLENSTONE (2)	
PI	5+19.70
PC	3+92.29
PT	6+43.92
Δ	22°10'49.2" (RT)
D	8°48'53.0"
L	251.63' (ARC)
T	127.41'
R	650.00'



WB OFF RAMP @ GLENSTONE (1)	
PI	1+48.65
PC	0+00.00
PT	2+92.28
Δ	25°45'48.3" (RT)
D	8°48'53.0"
L	292.28' (ARC)
T	148.65'
R	650.00'

WB OFF RAMP @ GLENSTONE (2)	
PI	4+09.01
PC	2+92.28
PT	5+23.49
Δ	19°28'34.1" (RT)
D	8°25'25.0"
L	231.21' (ARC)
T	116.73'
R	680.18'

EB ON RAMP @ GLENSTONE (1)	
PI	1+62.35
PC	-0+00.00
PT	3+21.50
Δ	19°42'16.7" (RT)
D	6°7'44.4"
L	321.50' (ARC)
T	162.35'
R	934.83'

EB ON RAMP @ GLENSTONE (2)	
PI	5+20.28
PC	3+21.50
PT	7+12.77
Δ	24°54'32.9" (RT)
D	6°21'58.3"
L	391.27' (ARC)
T	198.78'
R	900.00'

EB OFF RAMP @ US 65 (1)	
PI	1+75.29
PC	0+00.00
PT	3+47.92
Δ	17°15'40.8" (RT)
D	4°57'40.8"
L	347.92' (ARC)
T	175.29'
R	1,154.84'

EB OFF RAMP @ US 65 (2)	
PI	5+88.36
PC	3+47.92
PT	8+19.01
Δ	28°15'48.0" (RT)
D	5°59'58.4"
L	471.09' (ARC)
T	240.44'
R	955.00'

WB ON RAMP @ US 65	
PI	6+35.00
PC	4+44.27
PT	8+25.40
Δ	5°53'50.1" (RT)
D	1°32'50.2"
L	381.14' (ARC)
T	190.74'
R	3,703.00'

I-44 WIDENING JSU0076,
J8I3044C, & JST0088B
COORDINATE POINTS
2 OF 2

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DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
29

COUNTY
GREENE

JOB NO.
JSU0076, J8I3044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

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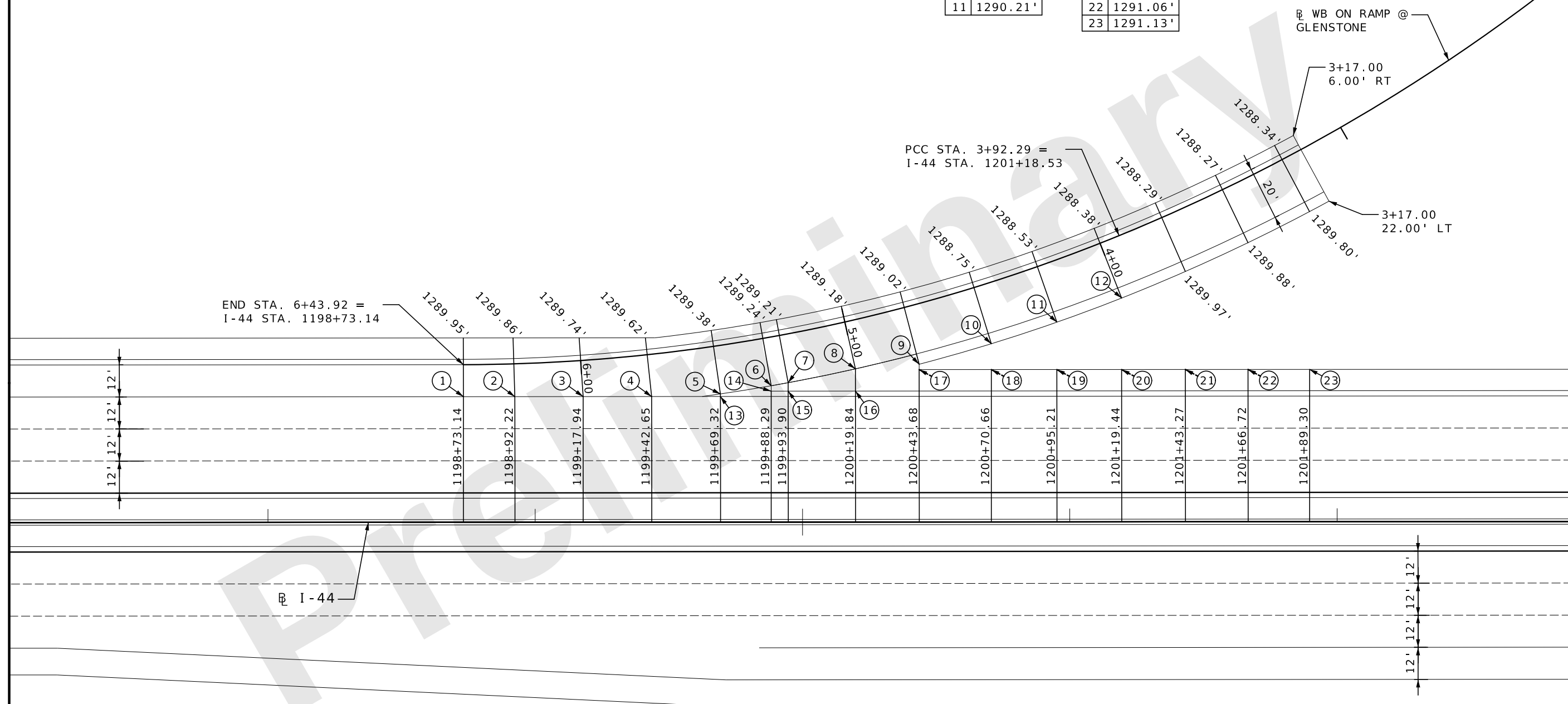
CRAWFORD, MURPHY & TILLY, INC.
651 WEST LINDALE STREET
SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631

PI	2+68.53
PC	1+42.00
PT	3+92.29
Δ	20°46'59.5" (RT)
D	8°18'13.5"
L	250.29' (ARC)
T	126.53'
R	690.00'

PI	5+19.70
PC	3+92.29
PT	6+43.92
Δ	22°10'49.2" (RT)
D	8°48'53.0"
L	251.63' (ARC)
T	127.41'
R	650.00'

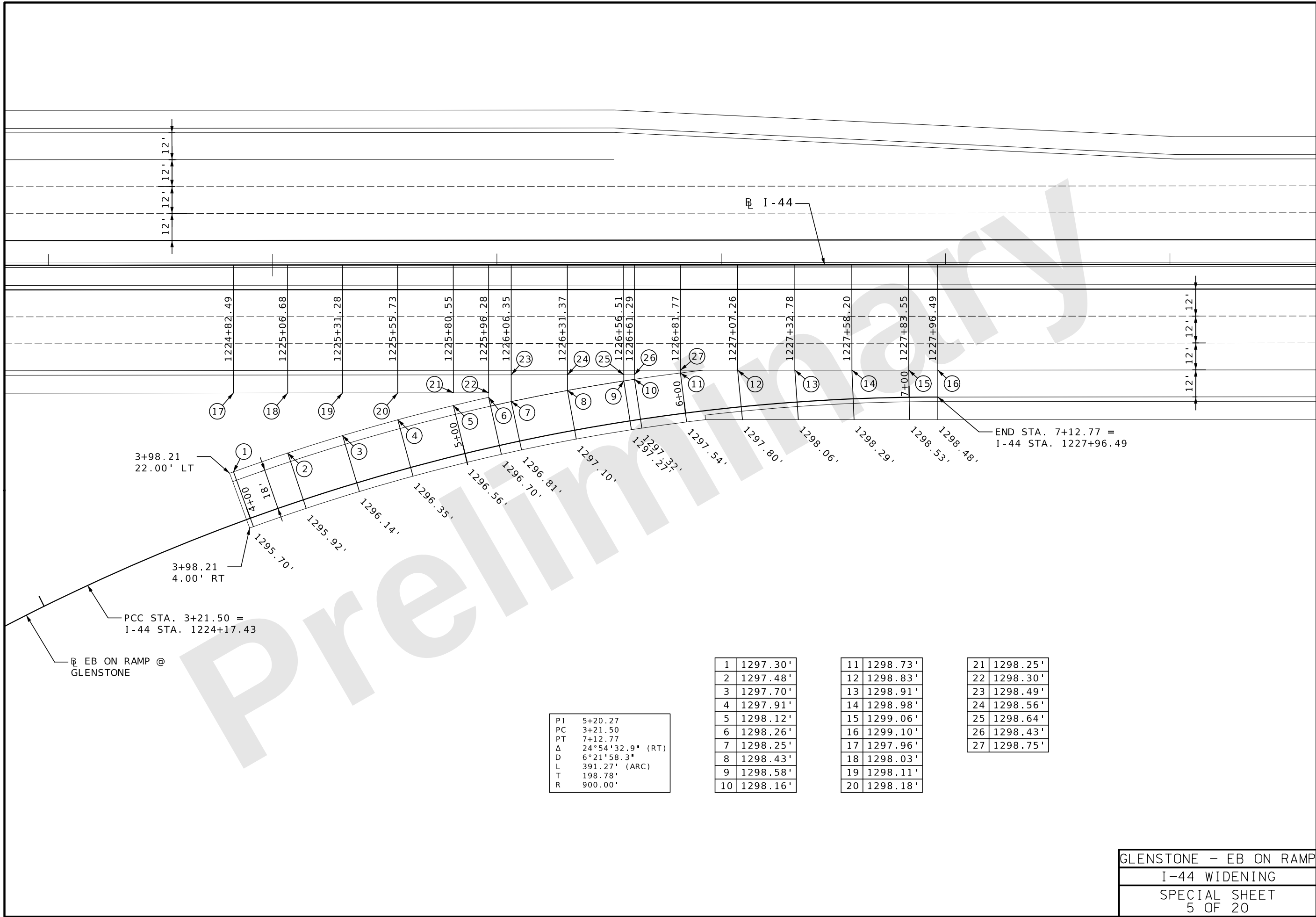
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5	1290.66'
6	1290.65'
7	1290.65'
8	1290.62'
9	1289.74'
10	1290.43'
11	1290.21'

12	1290.06'
13	1290.68'
14	1290.69'
15	1290.71'
16	1290.79'
17	1289.96'
18	1290.78'
19	1290.85'
20	1290.92'
21	1290.99'
22	1291.06'
23	1291.13'



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DATE PREPARED 9/26/2024				
ROUTE I-44	STATE MO			
DISTRICT SW	SHEET NO. 31			
COUNTY GREENE				
JOB NO. JSU00076, J813044C, & JST0088B				
PROJECT NO.				
BRIDGE NO.				
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION		 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)		DESCRIPTION
DATE				

GLENSTONE - WB ON RAMP
I-44 WIDENING
SPECIAL SHEET
2 OF 20



3+98.21
22.00' LT

3+98.21
4.00' RT

PCC STA. 3+21.50 =
I-44 STA. 1224+17.43

EB ON RAMP @
GLENSTONE

PI	5+20.27
PC	3+21.50
PT	7+12.77
Δ	24°54'32.9" (RT)
D	6°21'58.3"
L	391.27' (ARC)
T	198.78'
R	900.00'

1	1297.30'
2	1297.48'
3	1297.70'
4	1297.91'
5	1298.12'
6	1298.26'
7	1298.25'
8	1298.43'
9	1298.58'
10	1298.16'

11	1298.73'
12	1298.83'
13	1298.91'
14	1298.98'
15	1299.06'
16	1299.10'
17	1297.96'
18	1298.03'
19	1298.11'
20	1298.18'

21	1298.25'
22	1298.30'
23	1298.49'
24	1298.56'
25	1298.64'
26	1298.43'
27	1298.75'

GLENSTONE - EB ON RAMP
I-44 WIDENING
SPECIAL SHEET
5 OF 20

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DATE PREPARED
9/26/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 34

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)

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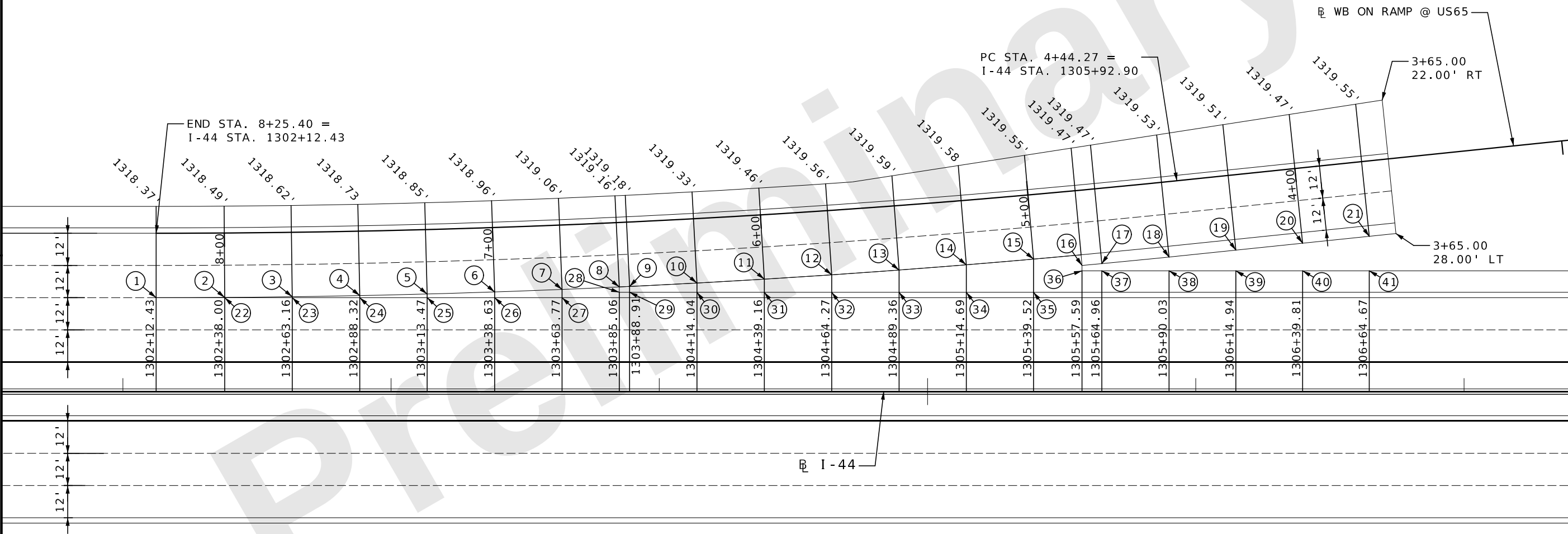
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3	1319.40'
4	1319.57'
5	1319.74'
6	1319.91'
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8	1320.21'
9	1320.23'
10	1320.38'

11	1320.51'
12	1320.61'
13	1320.68'
14	1320.73'
15	1320.75'
16	1319.87'
17	1320.29'
18	1320.54'
19	1320.45'
20	1320.39'

21	1320.18'
22	1319.23'
23	1319.41'
24	1319.59'
25	1319.77'
26	1319.95'
27	1320.13'
28	1320.25'
29	1320.28'
30	1320.45'

31	1320.61'
32	1320.74'
33	1320.85'
34	1320.94'
35	1320.98'
36	1320.06'
37	1320.50'
38	1320.89'
39	1320.88'
40	1320.86'
41	1320.79'

PI	6+35.00
PC	4+44.27
PT	8+25.40
Δ	5°53'50.1" (RT)
D	1°32'50.2"
L	381.14' (ARC)
T	190.74'
R	3,703.00'



US65 - WB ON RAMP
I-44 WIDENING
SPECIAL SHEET
6 OF 20

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DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
35

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITAL

JEFFERSON CITY, MO 65102

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

REV.

CMT

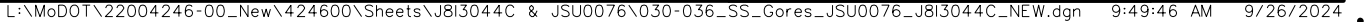
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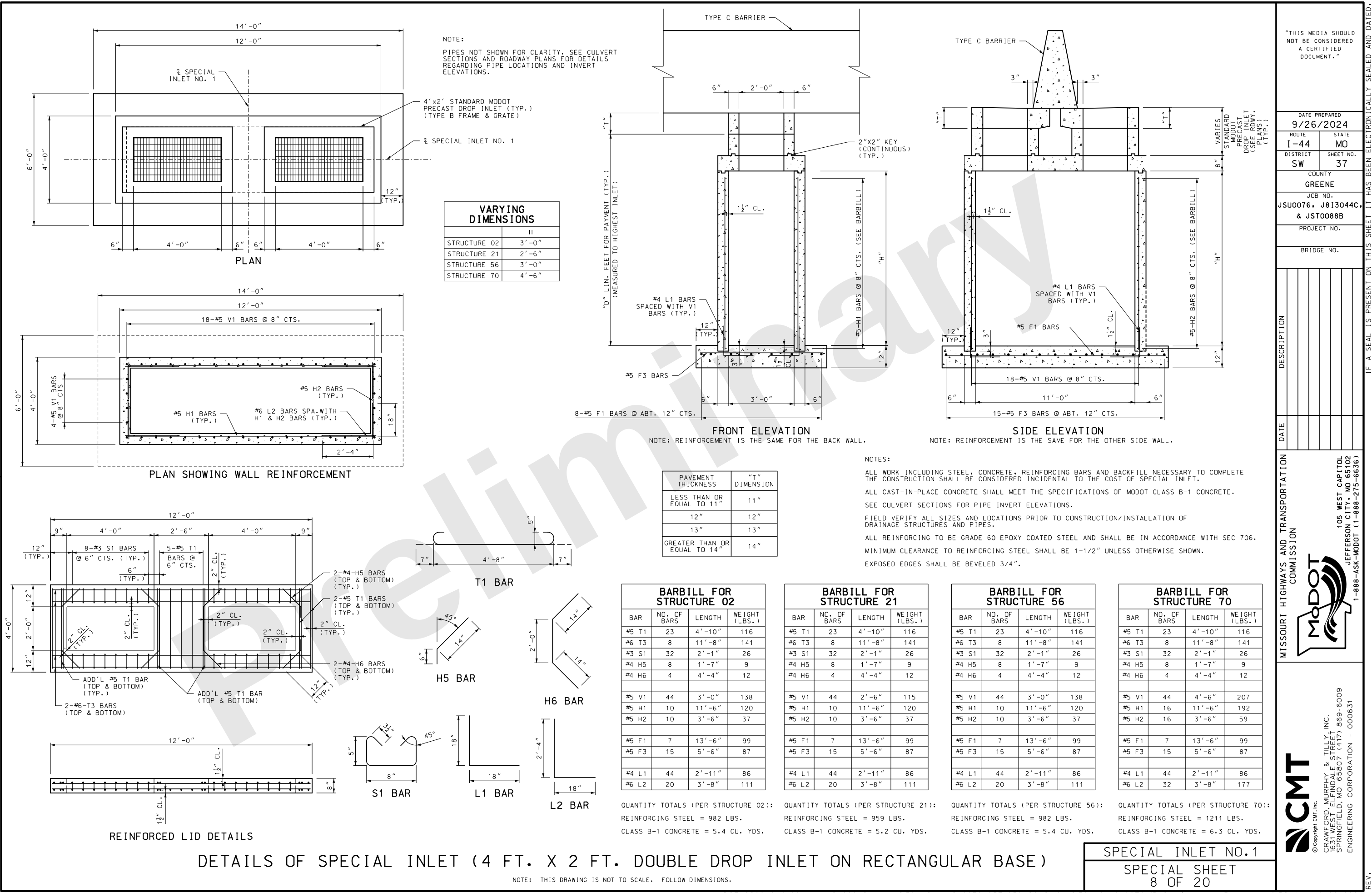
CRAWFORD, MURPHY & TILLY, INC.

651 WEST ELFINDALE STREET

SPRINGFIELD, MO 65807 (417) 869-6009

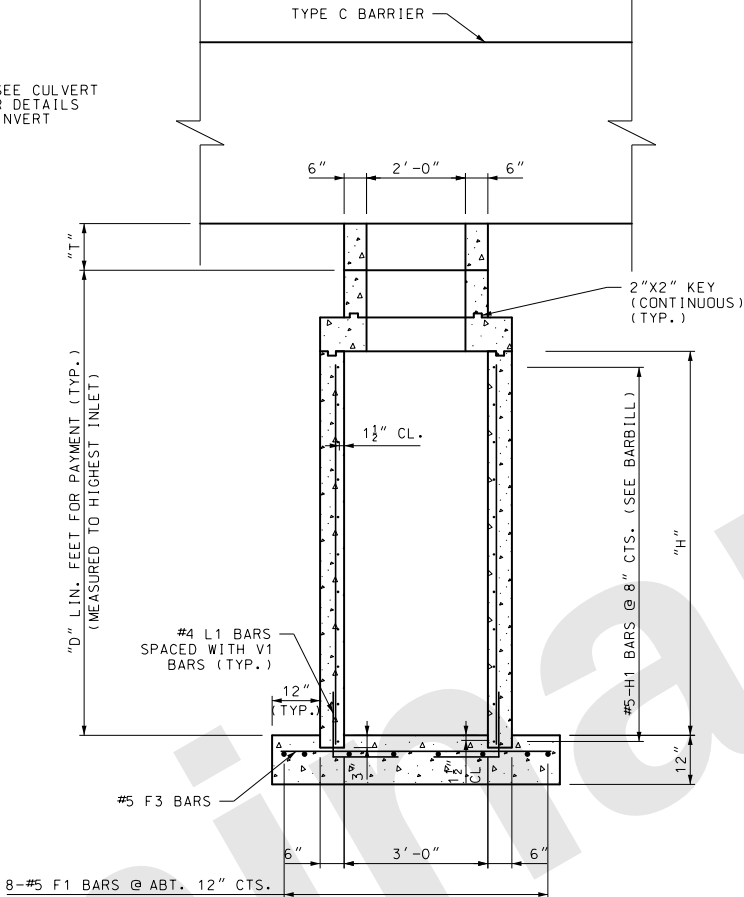
ENGINEERING CORPORATION - 000631



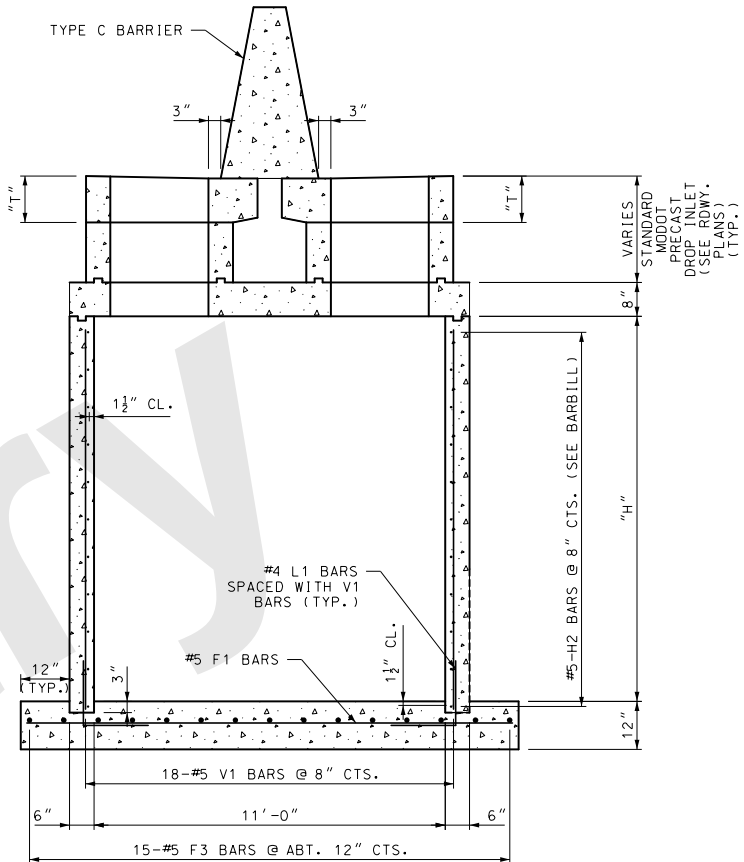


NOTE:
PIPES NOT SHOWN FOR CLARITY. SEE CULVERT
SECTIONS AND ROADWAY PLANS FOR DETAILS
REGARDING PIPE LOCATIONS AND INVERT
ELEVATIONS.

VARYING DIMENSIONS	
	H
STRUCTURE 02	3'-0"
STRUCTURE 21	2'-6"
STRUCTURE 56	3'-0"
STRUCTURE 70	4'-6"



FRONT ELEVATION
NOTE: REINFORCEMENT IS THE SAME FOR THE BACK WALL.



SIDE ELEVATION
NOTE: REINFORCEMENT IS THE SAME FOR THE OTHER SIDE WALL.

PAVEMENT THICKNESS	"T" DIMENSION
LESS THAN OR EQUAL TO 11"	11"
12"	12"
13"	13"
GREATER THAN OR EQUAL TO 14"	14"

NOTES:
ALL WORK INCLUDING STEEL, CONCRETE, REINFORCING BARS AND BACKFILL NECESSARY TO COMPLETE
THE CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO THE COST OF SPECIAL INLET.
ALL CAST-IN-PLACE CONCRETE SHALL MEET THE SPECIFICATIONS OF MODOT CLASS B-1 CONCRETE.
SEE CULVERT SECTIONS FOR PIPE INVERT ELEVATIONS.
FIELD VERIFY ALL SIZES AND LOCATIONS PRIOR TO CONSTRUCTION/INSTALLATION OF
DRAINAGE STRUCTURES AND PIPES.
ALL REINFORCING TO BE GRADE 60 EPOXY COATED STEEL AND SHALL BE IN ACCORDANCE WITH SEC 706.
MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1-1/2" UNLESS OTHERWISE SHOWN.
EXPOSED EDGES SHALL BE BEVELED 3/4".

BARBILL FOR STRUCTURE 02				
BAR	NO. OF BARS	LENGTH	WEIGHT (LBS.)	
#5 T1	23	4'-10"	116	
#6 T3	8	11'-8"	141	
#3 S1	32	2'-1"	26	
#4 H5	8	1'-7"	9	
#4 H6	4	4'-4"	12	
#5 V1	44	3'-0"	138	
#5 H1	10	11'-6"	120	
#5 H2	10	3'-6"	37	
#5 F1	7	13'-6"	99	
#5 F3	15	5'-6"	87	
#4 L1	44	2'-11"	86	
#6 L2	20	3'-8"	111	

QUANTITY TOTALS (PER STRUCTURE 02):
REINFORCING STEEL = 982 LBS.
CLASS B-1 CONCRETE = 5.4 CU. YDS.

BARBILL FOR STRUCTURE 21				
BAR	NO. OF BARS	LENGTH	WEIGHT (LBS.)	
#5 T1	23	4'-10"	116	
#6 T3	8	11'-8"	141	
#3 S1	32	2'-1"	26	
#4 H5	8	1'-7"	9	
#4 H6	4	4'-4"	12	
#5 V1	44	2'-6"	115	
#5 H1	10	11'-6"	120	
#5 H2	10	3'-6"	37	
#5 F1	7	13'-6"	99	
#5 F3	15	5'-6"	87	
#4 L1	44	2'-11"	86	
#6 L2	20	3'-8"	111	

QUANTITY TOTALS (PER STRUCTURE 21):
REINFORCING STEEL = 959 LBS.
CLASS B-1 CONCRETE = 5.2 CU. YDS.

BARBILL FOR STRUCTURE 56				
BAR	NO. OF BARS	LENGTH	WEIGHT (LBS.)	
#5 T1	23	4'-10"	116	
#6 T3	8	11'-8"	141	
#3 S1	32	2'-1"	26	
#4 H5	8	1'-7"	9	
#4 H6	4	4'-4"	12	
#5 V1	44	3'-0"	138	
#5 H1	10	11'-6"	120	
#5 H2	10	3'-6"	37	
#5 F1	7	13'-6"	99	
#5 F3	15	5'-6"	87	
#4 L1	44	2'-11"	86	
#6 L2	20	3'-8"	111	

QUANTITY TOTALS (PER STRUCTURE 56):
REINFORCING STEEL = 982 LBS.
CLASS B-1 CONCRETE = 5.4 CU. YDS.

BARBILL FOR STRUCTURE 70				
BAR	NO. OF BARS	LENGTH	WEIGHT (LBS.)	
#5 T1	23	4'-10"	116	
#6 T3	8	11'-8"	141	
#3 S1	32	2'-1"	26	
#4 H5	8	1'-7"	9	
#4 H6	4	4'-4"	12	
#5 V1	44	4'-6"	207	
#5 H1	16	11'-6"	192	
#5 H2	16	3'-6"	59	
#5 F1	7	13'-6"	99	
#5 F3	15	5'-6"	87	
#4 L1	44	2'-11"	86	
#6 L2	32	3'-8"	177	

QUANTITY TOTALS (PER STRUCTURE 70):
REINFORCING STEEL = 1211 LBS.
CLASS B-1 CONCRETE = 6.3 CU. YDS.

SPECIAL INLET NO.1
SPECIAL SHEET
8 OF 20

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9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
37

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

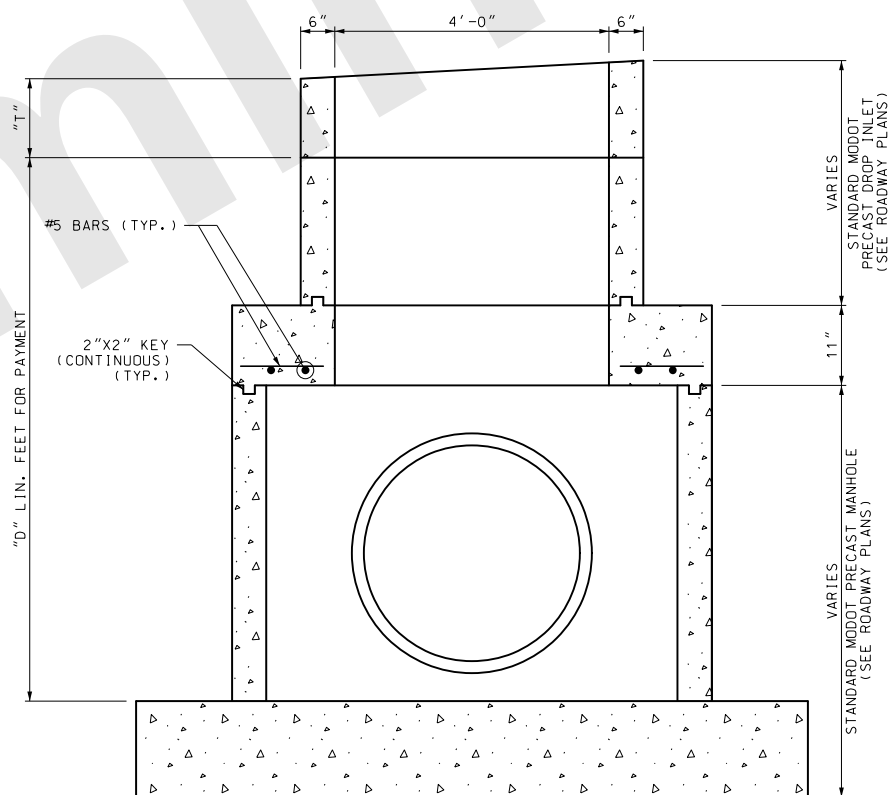
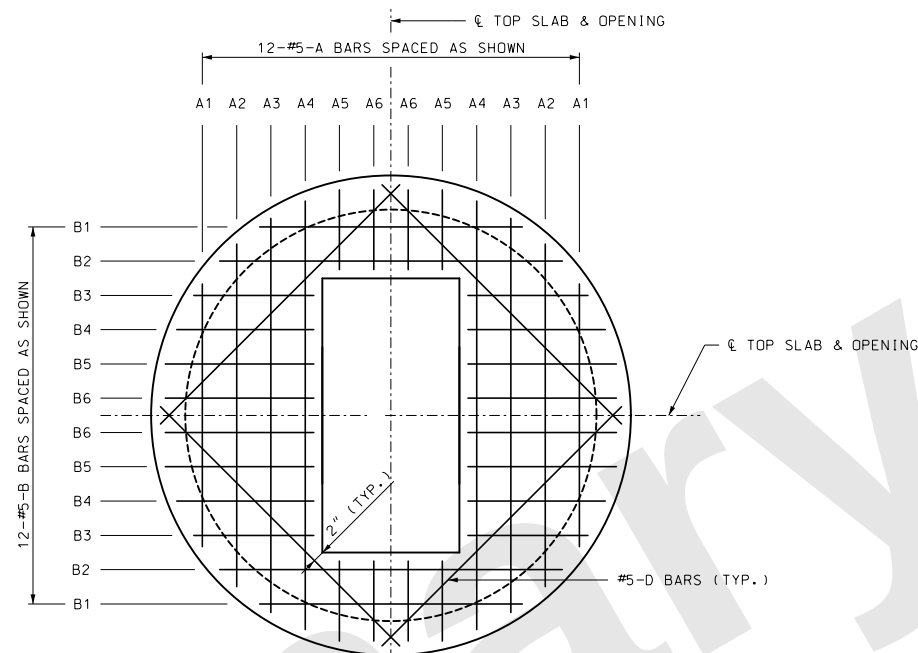
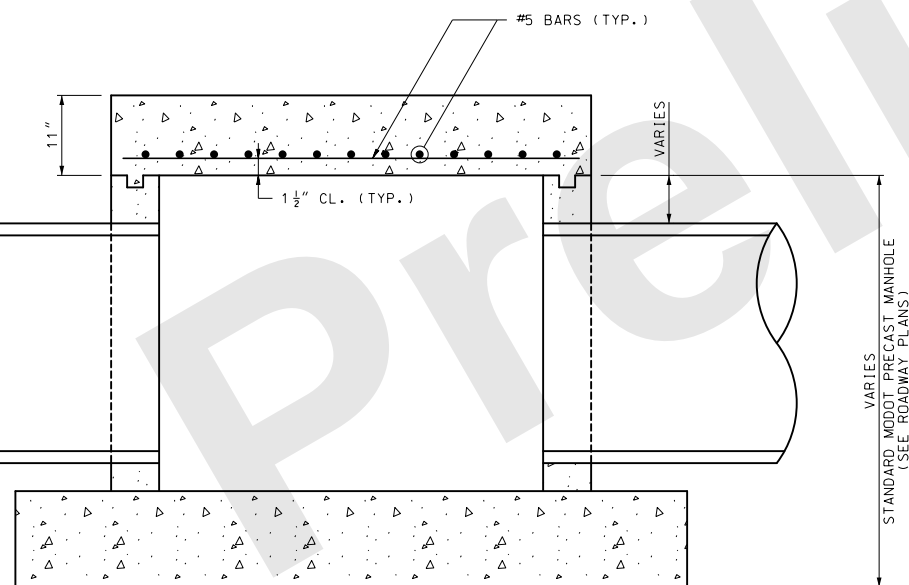
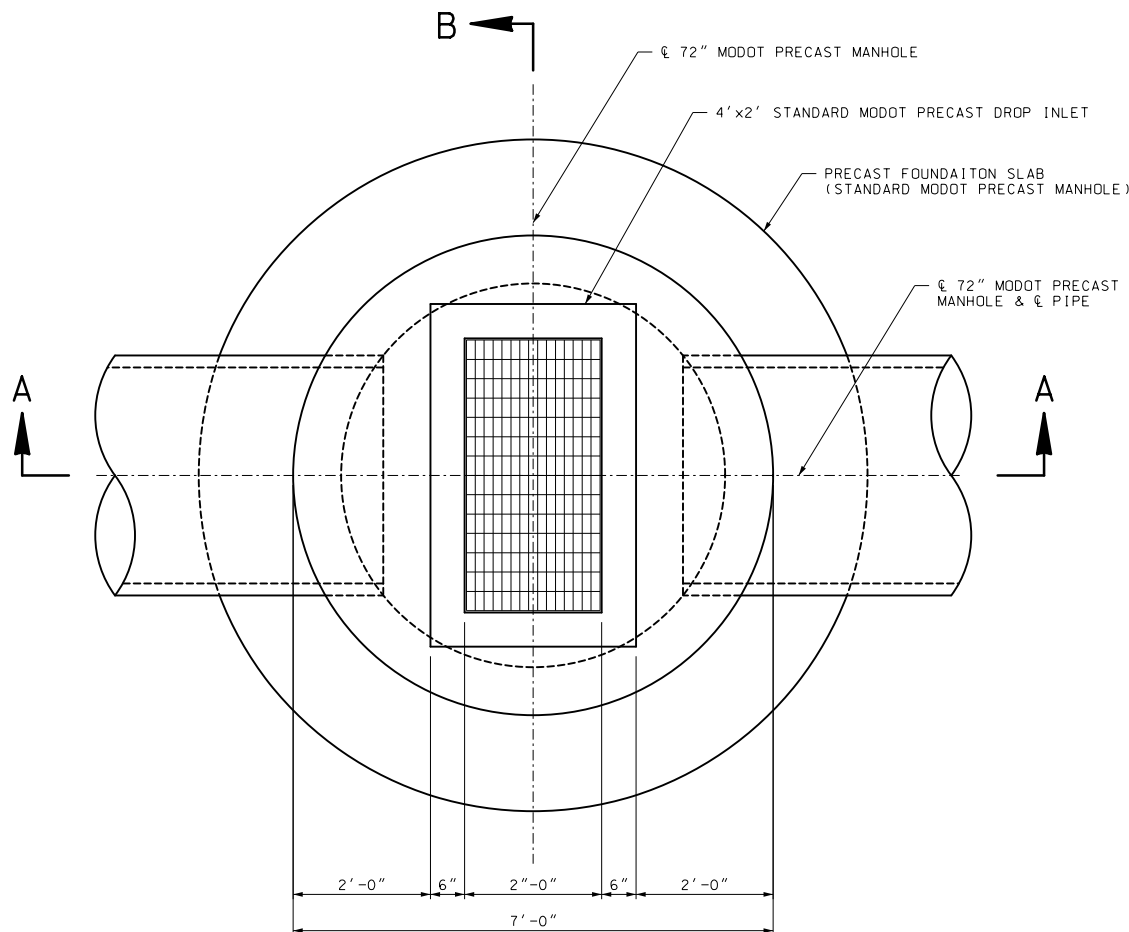
DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

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SPRINGFIELD, MO 65807 (417) 869-6009
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PAVEMENT THICKNESS	"T" DIMENSION
LESS THAN OR EQUAL TO 11"	11"
12"	12"
13"	13"
GREATER THAN OR EQUAL TO 14"	14"

BARBILL FOR TOP SLAB			
BAR	NO. OF BARS	LENGTH	WEIGHT (LBS.)
#5 A1	2	3'-10"	8
#5 A2	2	5'-0"	11
#5 A3	2	5'-9"	12
#5 A4	2	6'-3"	14
#5 A5	4	1'-2"	5
#5 A6	4	1'-2"	5
#5 B1	2	3'-10"	8
#5 B2	2	5'-0"	11
#5 B3	4	1'-9"	8
#5 B4	4	2'-0"	9
#5 B5	4	2'-2"	10
#5 B6	4	2'-2"	10
#5 D	4	4'-11"	21

QUANTITY TOTALS (PER TOP SLAB):
 REINFORCING STEEL = 132 LBS.
 CLASS B-1 CONCRETE = 1.07 CU. YDS.

NOTES:
 ALL WORK INCLUDING STEEL, CONCRETE, REINFORCING BARS AND BACKFILL NECESSARY TO COMPLETE THE CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO THE COST OF SPECIAL INLET.
 ALL CAST-IN-PLACE CONCRETE SHALL MEET THE SPECIFICATIONS OF MODOT CLASS B-1 CONCRETE.
 SEE CULVERT SECTIONS FOR PIPE INVERT ELEVATIONS.
 FIELD VERIFY ALL SIZES AND LOCATIONS PRIOR TO CONSTRUCTION/INSTALLATION OF DRAINAGE STRUCTURES AND PIPES.
 ALL REINFORCING TO BE GRADE 60 EPOXY COATED STEEL AND SHALL BE IN ACCORDANCE WITH SEC 706.
 MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1-1/2" UNLESS OTHERWISE SHOWN.

DETAILS OF SPECIAL INLET (4 FT. X 2 FT. DROP INLET ON 72 IN. MANHOLE BASE)

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SPECIAL INLET NO.3
 SPECIAL SHEET
 10 OF 20



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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
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DATE PREPARED
 9/26/2024

ROUTE
 I-44

STATE
 MO

DISTRICT
 SW

SHEET NO.
 39

COUNTY
 GREENE

JOB NO.
 JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

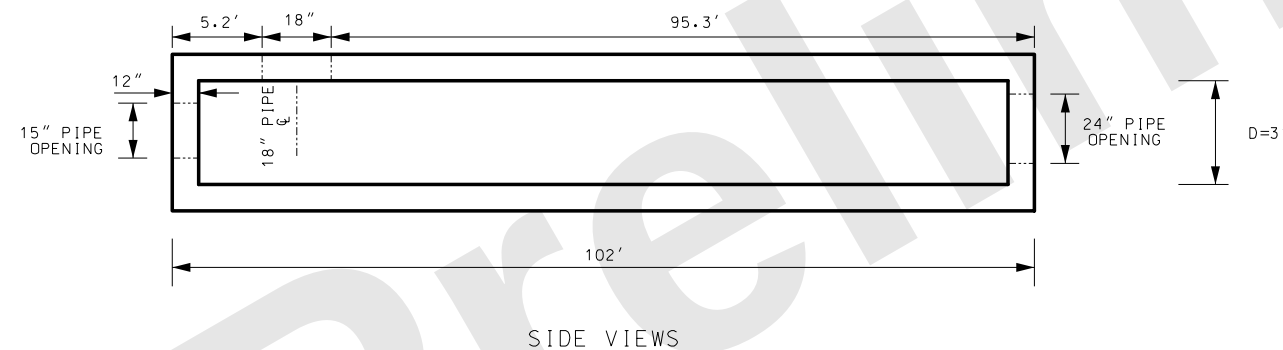
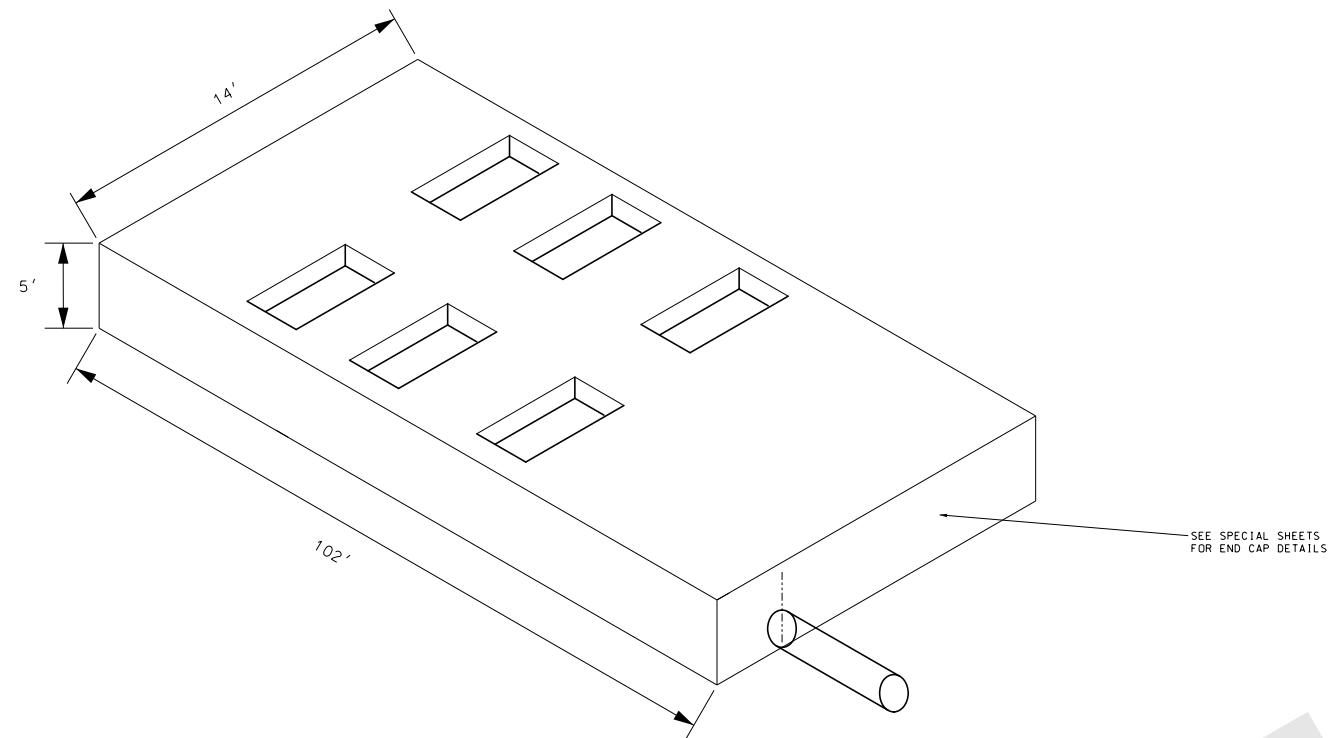
DESCRIPTION

DATE

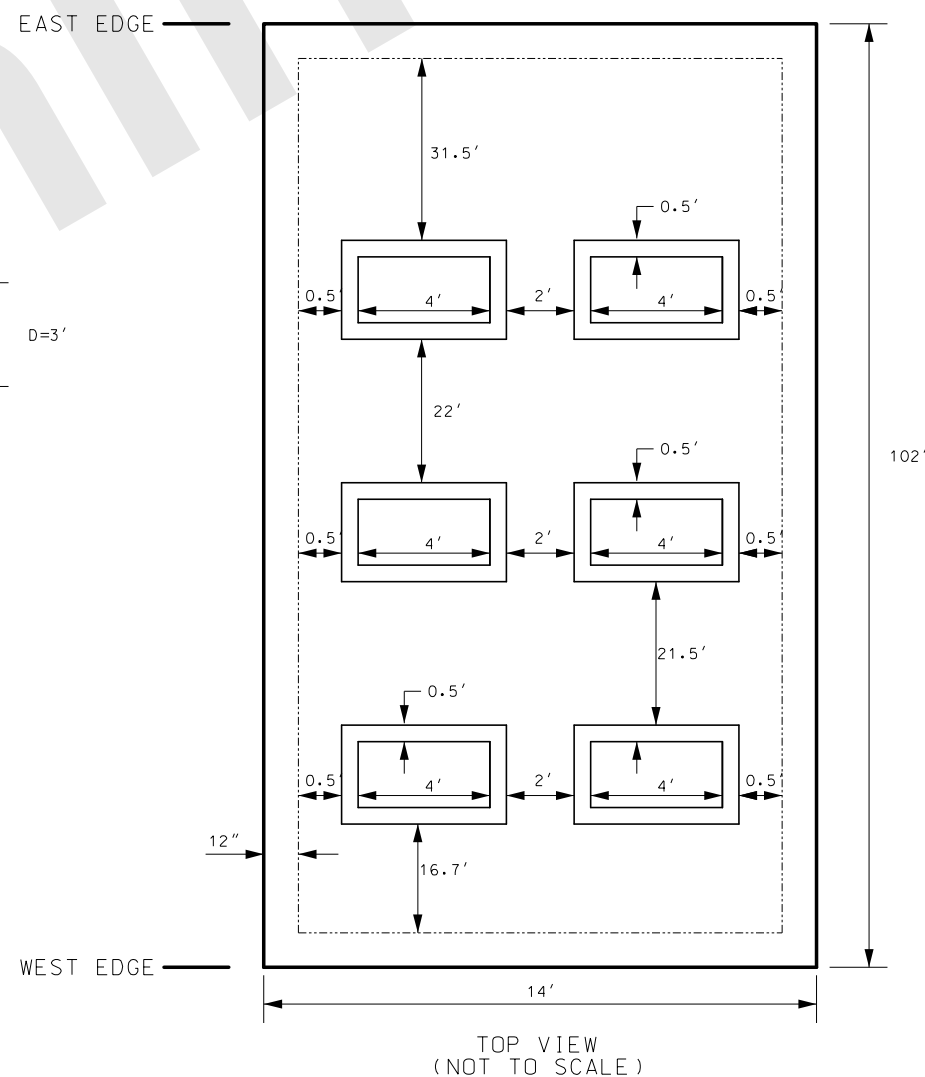
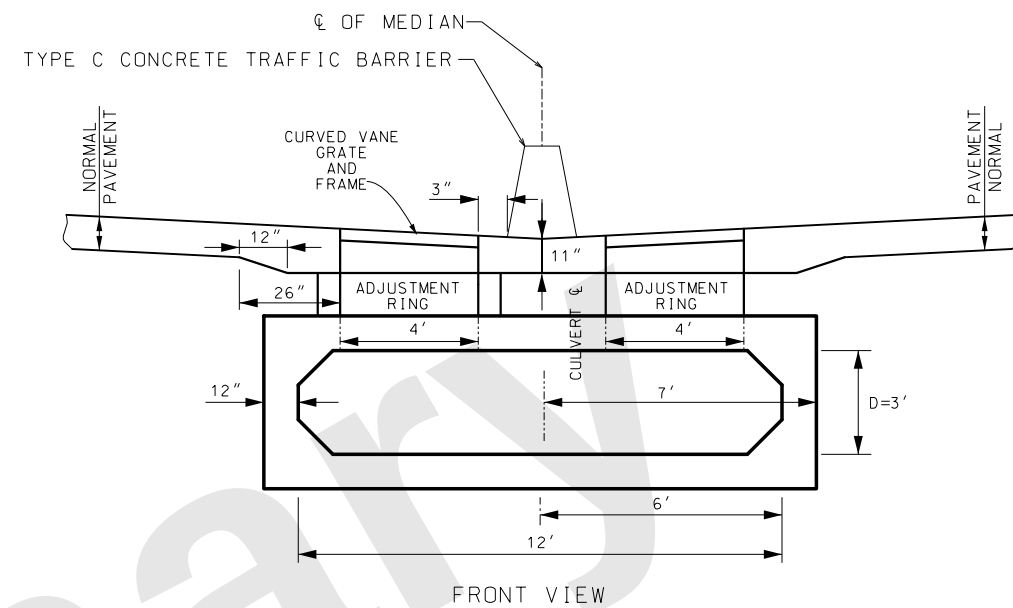
DATE

REV.

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

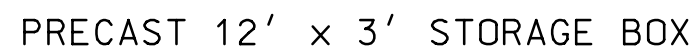


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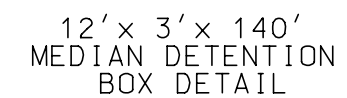


12' x 3' x 100'
MEDIAN DETENTION
BOX DETAIL

[illegible]

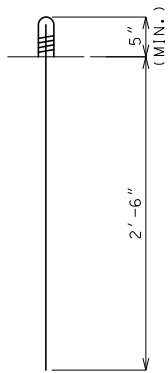


SEE STD DWG 731.10 FOR BAR LOCATIONS.
SEE STD DWG 614.11 FOR CURVED VANE GRATES.
ADJUSTMENT RING REQUIRED FOR INLETS INTO 12' X 3' BOX.
ADJUSTMENT RING PAID FOR AS TYPE B INLET
PRECAST STORAGE BOX SHALL BE IN ACCORDANCE WITH SEC. 733
OF THE MISSOURI STANDARD SPECIFICATIONS AND ASTM C1577.



SPECIAL SHEET
13 OF 20

[illegible]



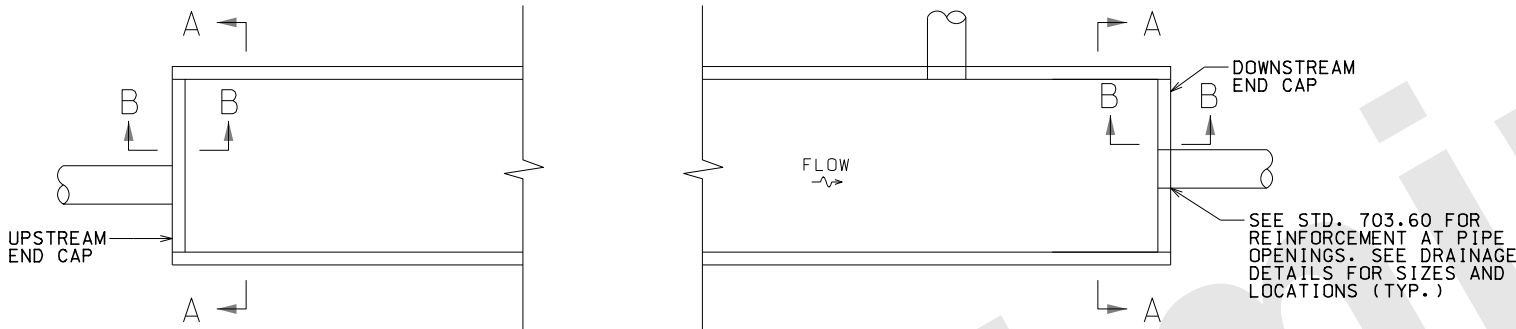
NOTES:
THE CONTRACTOR SHALL USE ONE OF THE QUALIFIED RESIN ANCHOR SYSTEMS IN ACCORDANCE WITH SEC 1039

COST OF FURNISHING AND INSTALLING THE RESIN ANCHOR SYSTEMS, COMPLETE IN PLACE, WILL BE CONSIDERED COMPLETELY COVERED BY THE CONTRACT UNIT PRICE FOR CLASS B-1 CONCRETE

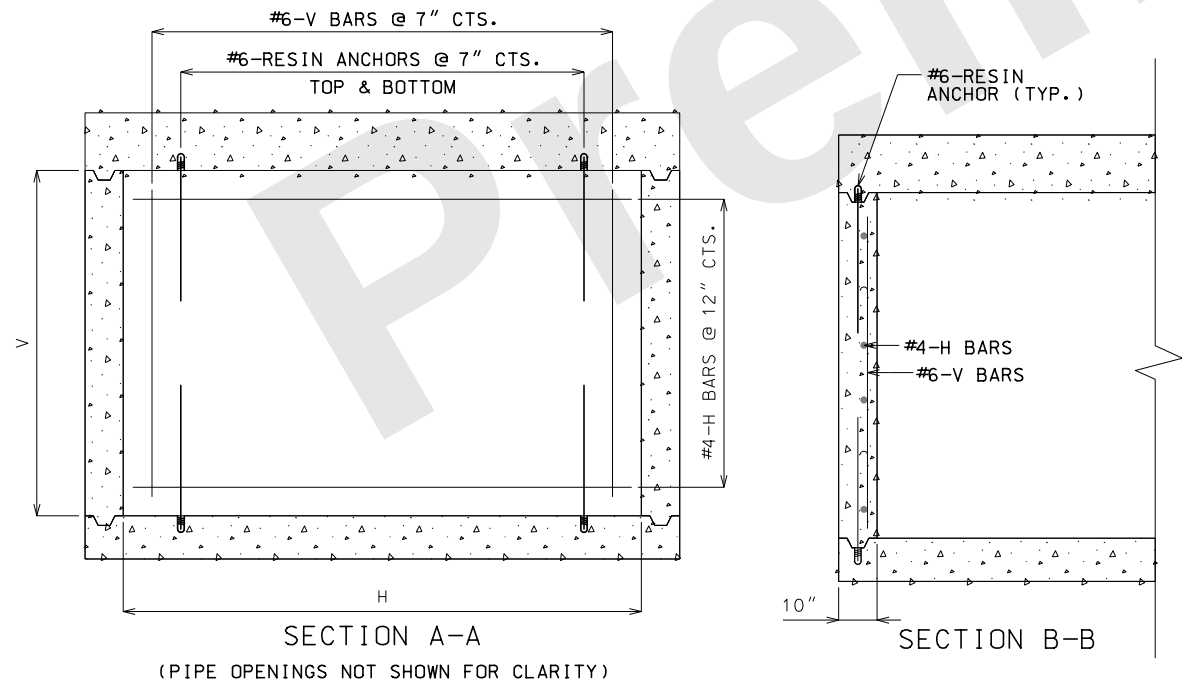
THE MINIMUM EMBEDMENT DEPTH IN CONCRETE WITH $f'_c = 4,000$ PSI FOR THE RESIN ANCHOR SYSTEM SHALL BE THAT REQUIRED TO MEET THE MINIMUM ULTIMATE PULLOUT STRENGTH IN ACCORDANCE WITH SEC 1039 BUT SHALL NOT BE LESS THAN 5".

A #6 GRADE 60 REINFORCING BAR SHALL BE SUBSTITUTED FOR THE 3/4" Ø THREADED ROD.

RESIN ANCHOR SYSTEM

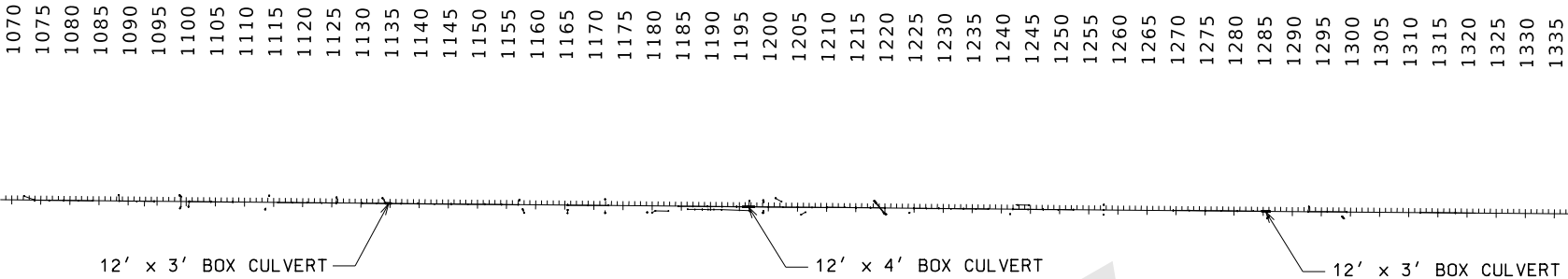


GENERAL PLAN OF DETENTION STRUCTURE



SECTION A-A
(PIPE OPENINGS NOT SHOWN FOR CLARITY)

SECTION B-B



LOCATION SKETCH

QUANTITIES FOR END CAPS ONLY		
	12' X 3'	12' X 4'
H DIMENSION	12'-0"	12'-0"
V DIMENSION	3'-0"	4'-0"
CLASS B-1 CONCRETE	2.2 CY	3.0 CY
REINFORCING STEEL	430 LB	590 LB

DESIGN SPECIFICATIONS:
2010 AASHTO LRD BRIDGE DESIGN SPECIFICATIONS AND 2010 INTERIM REVISIONS

DESIGN LOADINGS:
VEHICULAR = HL-93 MINUS LANE LOAD, EARTH = 120 LB/CF
EQUIVALENT FLUID PRESSURE = 30 LB/CF (MIN.), 60 LB/CF (MAX.)

DESIGN UNIT STRESSES:
CLASS B-1 CONCRETE (BOX CULVERT) $f'_c = 4,000$ PSI
REINFORCING STEEL (GRADE 60) $f_y = 60,000$ PSI

MISCELLANEOUS:
MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1 1/2"

STANDARD CULVERT REINFORCING NOT SHOWN FOR CLARITY.

DETENTION END CAPS

SPECIAL SHEET
14 OF 20

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DATE PREPARED

9/26/2024

ROUTE

I-44 MO

DISTRICT

SW SHEET NO. 43

COUNTY

GREENE

JOB NO.

JSU0076, J813044C, & JST0088B

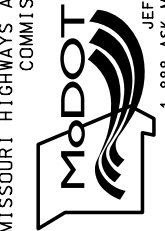
PROJECT NO.

BRIDGE NO.

DESCRIPTION

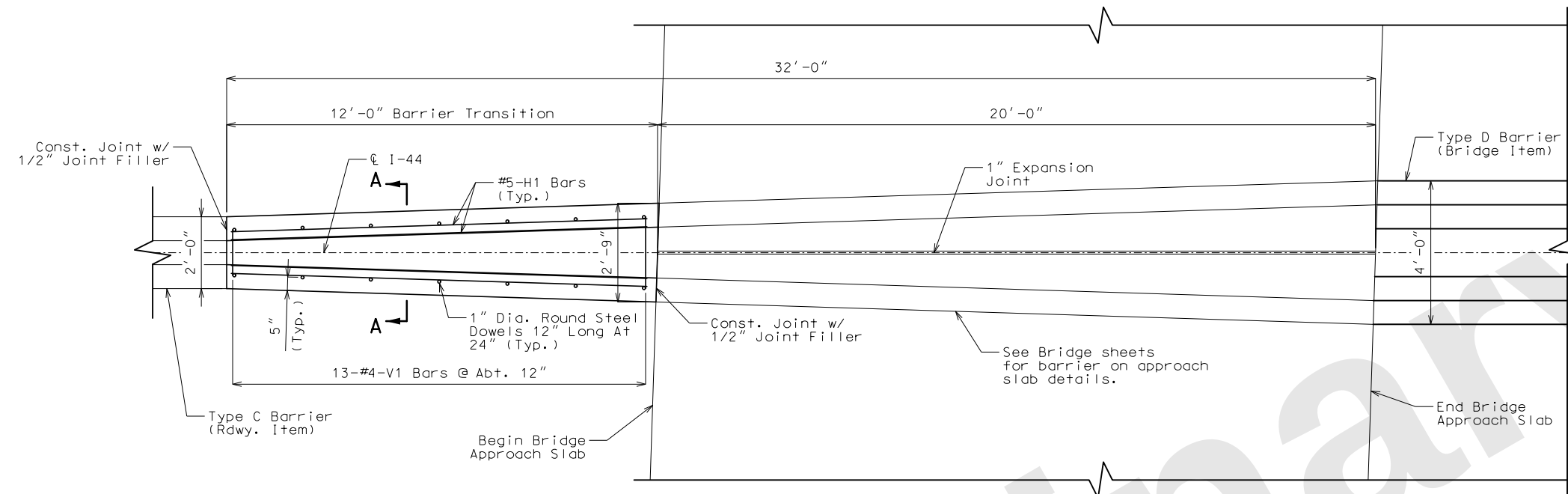
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

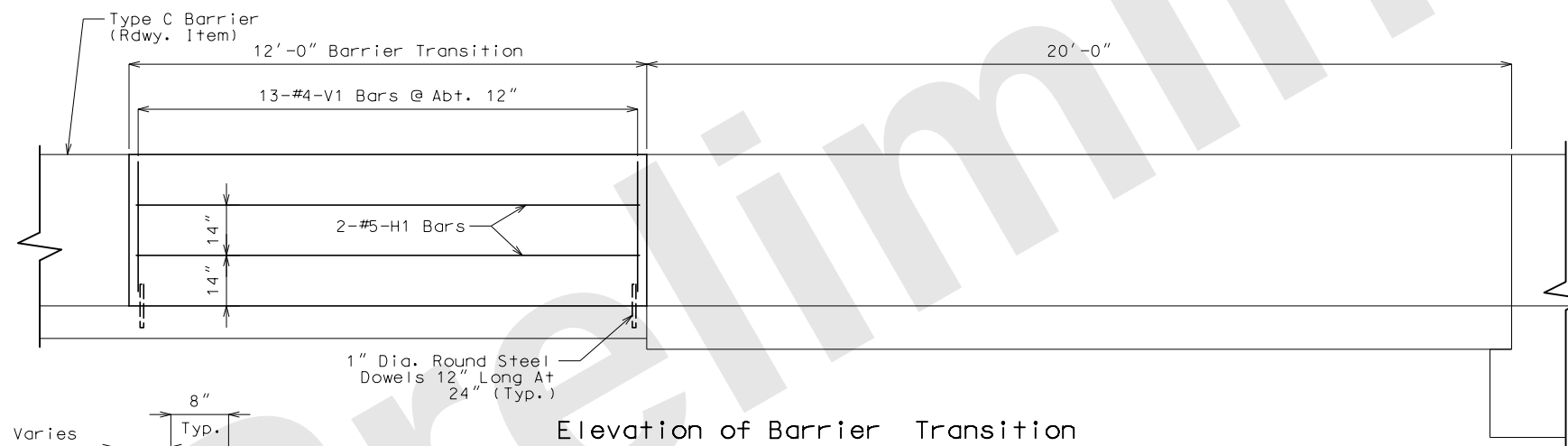


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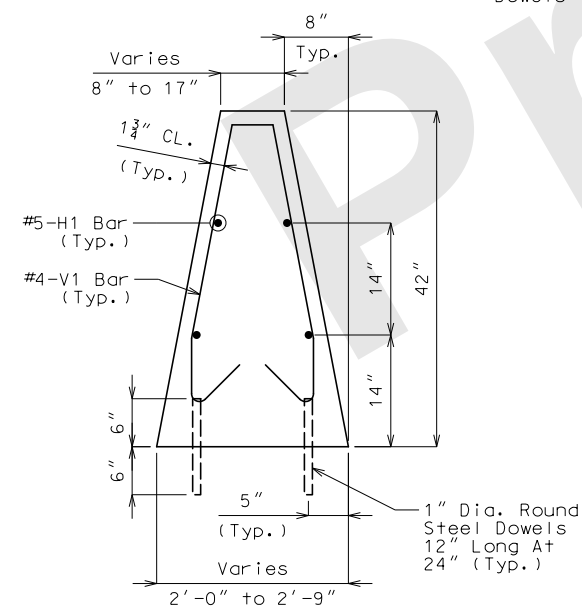
BRIDGE BARRIER TRANSITION DETAILS



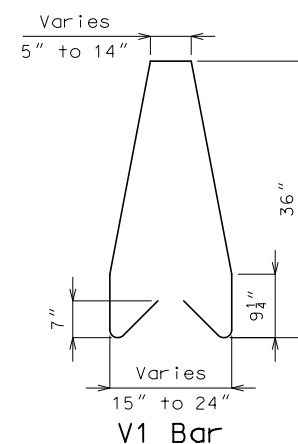
Plan of Barrier Transition



Elevation of Barrier Transition



Section A-A



V1 Bar

Notes:

Longitudinal dimensions are horizontal.

Top of barrier shall be built parallel to grade
and barrier joints normal to grade.

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

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Barrier Transition per linear foot.

All concrete in barrier shall be Class B-1.

All reinforcement shall be Grade 60 Epoxy Coated.

Bar splices shall be a minimum of 24 times the nominal diameter of the bar.

Any reinforcing bar installation method devised by the Contractor and approved by the Engineer that will assure the longitudinal reinforcing steel will be positioned $\pm 1/2$ inch as dimensioned will be satisfactory.

#8 reinforcing bars with an epoxy anchor system may be substituted for smooth 1" diameter round steel dowels.

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9/26/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 44

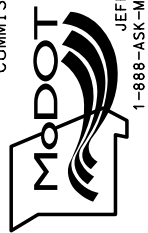
COUNTY

GREENE

JOB NO.
SU0076, J8I3044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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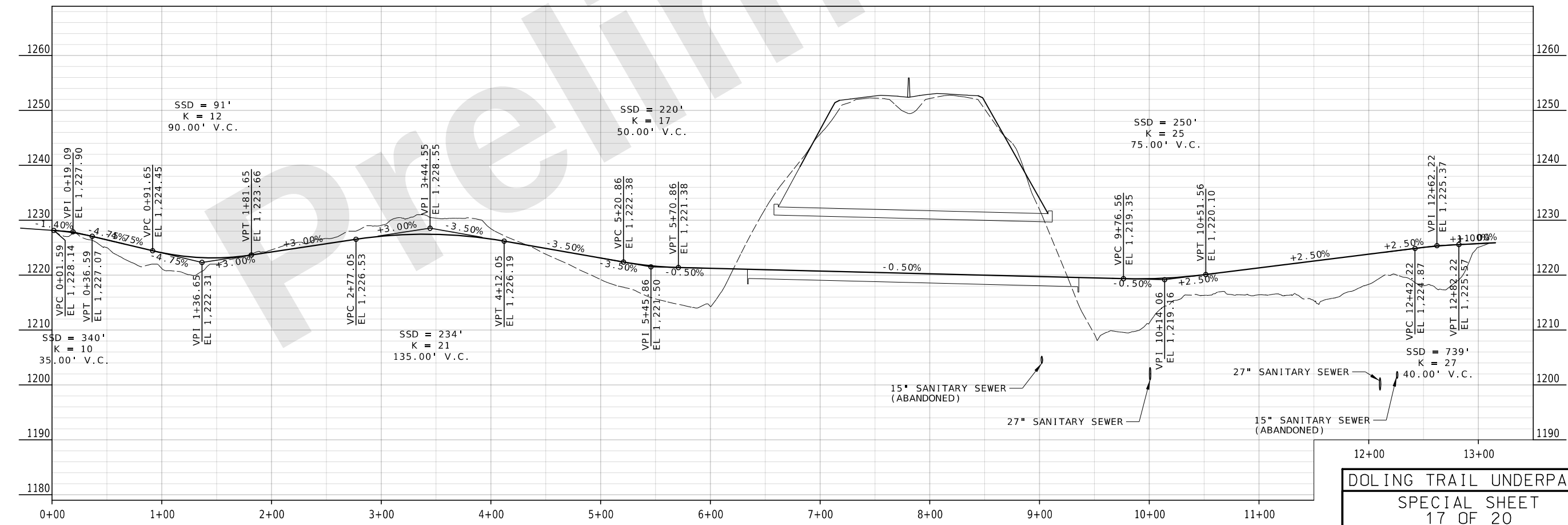
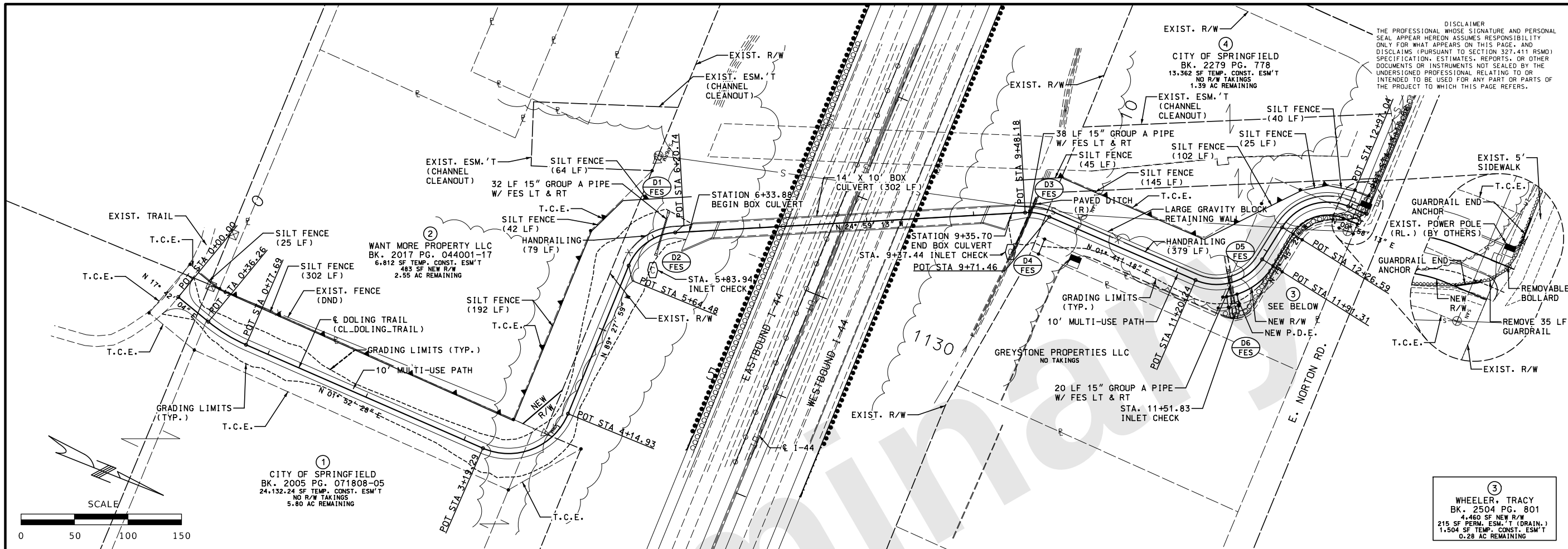
I-44 WIDENING
SPECIAL SHEET
15 OF 20

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

L:\MoDOT\22004246-00_New\424600\Sheets\J813044C & JSU0076\043_SS-15_Barrier Transition Details-JSU0076.dgn 9:50:27 AM 9/26/2024

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

REV.



**DOLING TRAIL UNDERPASS
SPECIAL SHEET
17 OF 20**

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ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
46

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,

& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

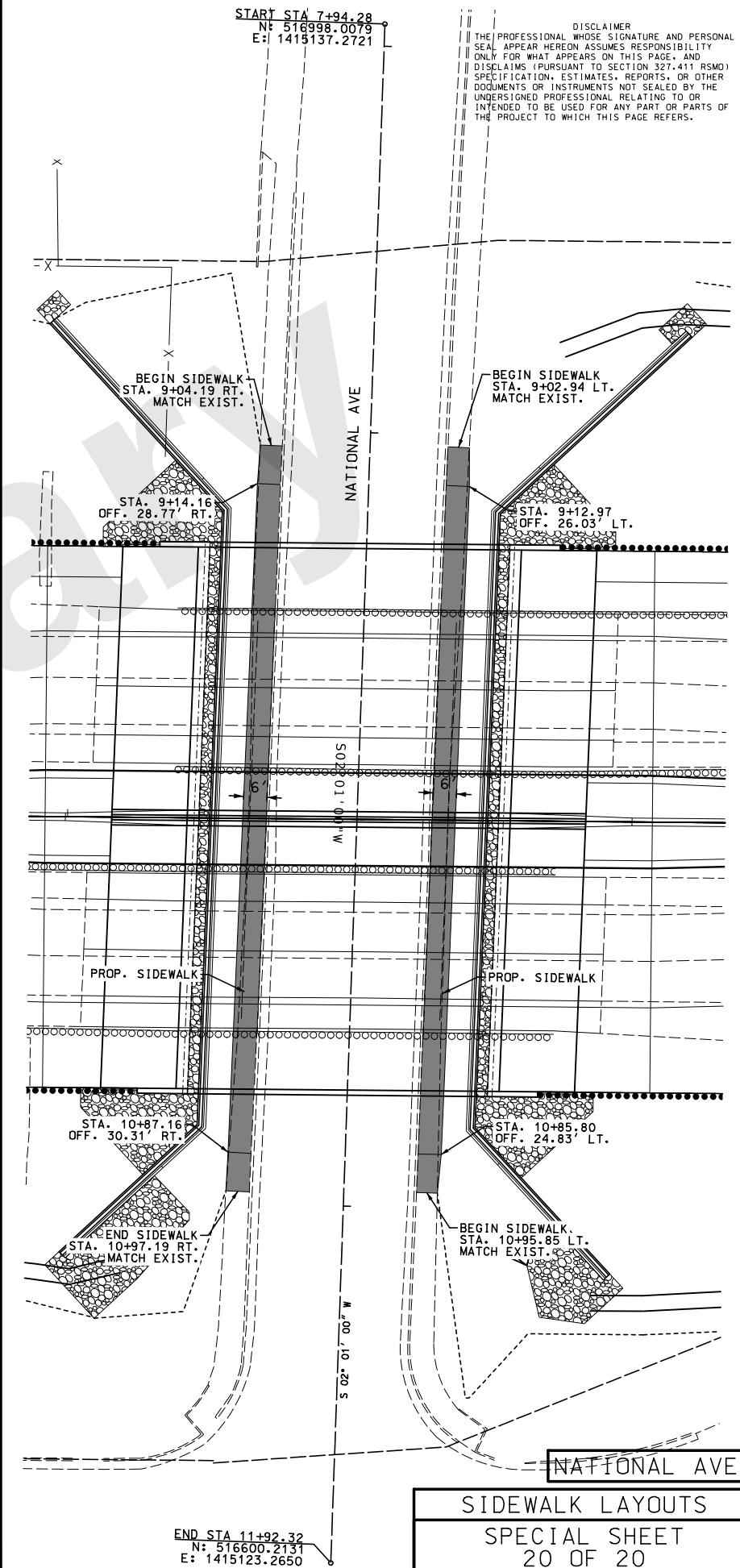
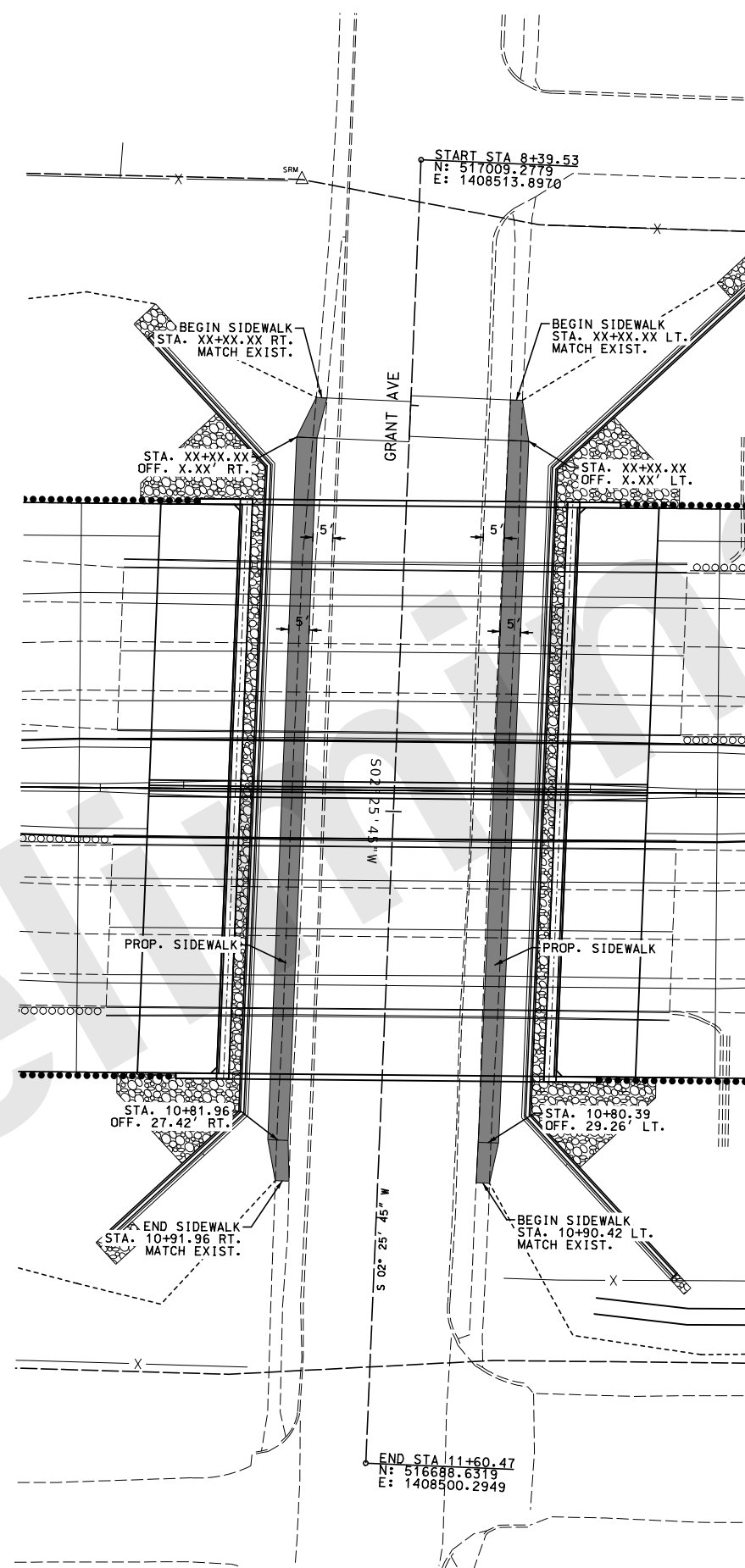
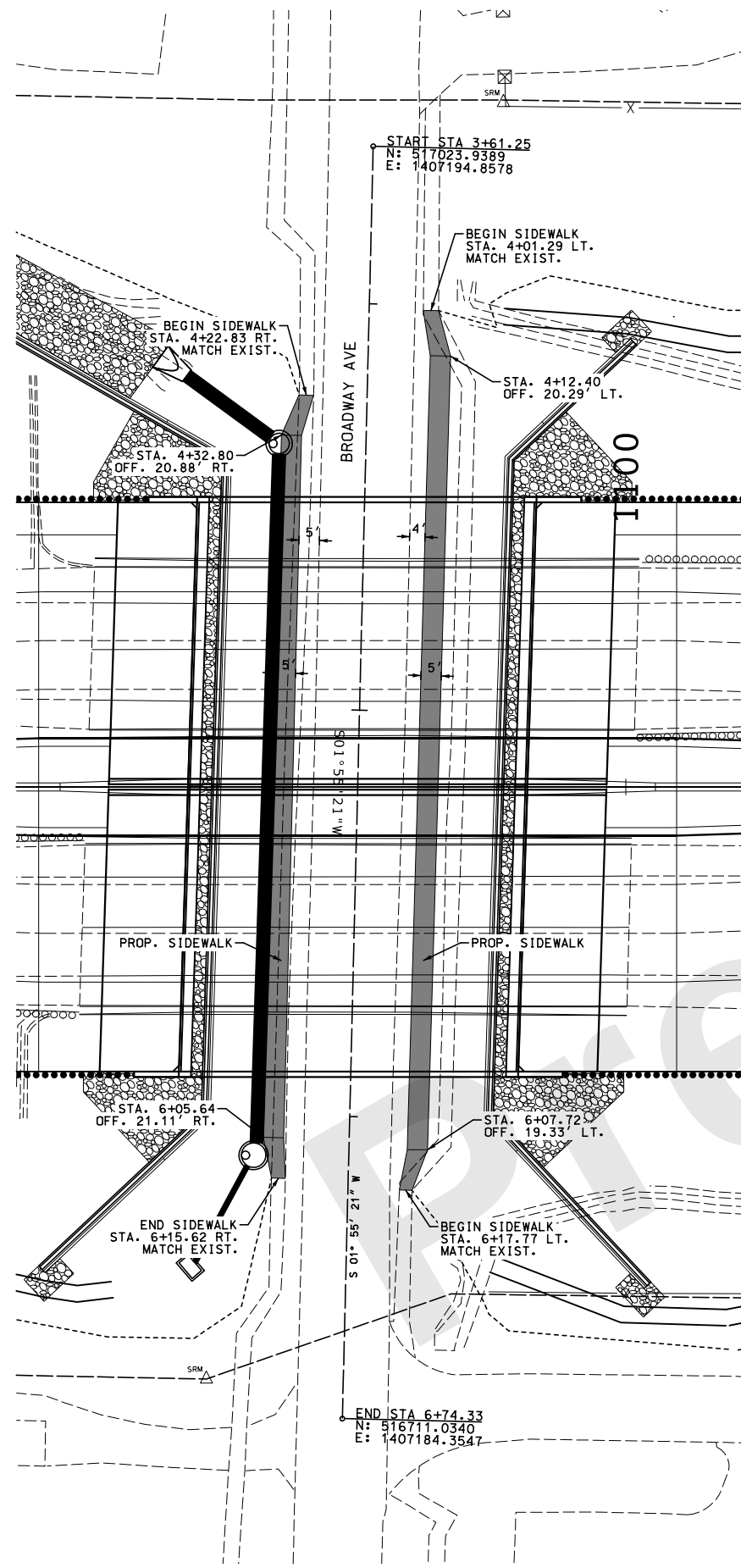
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SIDEWALK LAYOUTS

SPECIAL SHEET

20 OF 20

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J8I3044C, I-44 WIDENING GLENSTONE TO US 65
STAGED CONSTRUCTION

STAGE 0

UTILIZE OVERNIGHT I-44 EB AND WB INSIDE LANE CLOSURES NEAR ROUTE 13 AND US 65.
CONSTRUCT TEMPORARY CROSSTOVERS FOR SINGLE I-44 WB LANE.

STAGE 0B

UTILIZE OVERNIGHT I-44 EB OUSIDE LANE CLOSURE.
CONSTRUCT FULL DEPTH OUTSIDE SHOULDER.

STAGE 1

SPLIT WB I-44 TRAFFIC WITH ONE LANE CROSSING OVER TO EXISTING EB LANES AND THE SECOND LANE SHIFTED TO THE EXISTING WB OUTSIDE SHOULDER. MAINTAIN TWO EB LANES AND ONE WB LANE SEPARATED BY TEMP. ANCHORED BARRIER ON THE EXISTING EB TRAVELWAY. ACCESS TO EB GLENSTONE ENTRANCE RAMP, WB EXIT RAMP, EB US 65 EXIT RAMP AND US 65 TO I-44 WB ENTRANCE RAMPS SHALL BE MAINTAINED AT ALL TIMES.
CONSTRUCT MEDIAN GRADING AND DRAINAGE.
CONSTRUCT INSIDE SHOULDER AND TWO PROPOSED LANES OF I-44 WB.

STAGE 2

MAINTAIN TRAFFIC CONFIGURATION ON THE EXISTING EB TRAVELWAY OF TWO EB LANES AND ONE WB LANE SEPARATED BY TEMP. ANCHORED BARRIER. SHIFT WB LANE ON WB TRAVELWAY TO INSIDE ONTO NEWLY CONSTRUCTED PAVEMENT. ACCESS TO EB GLENSTONE ENTRANCE RAMP, WB EXIT RAMP, EB US 65 EXIT RAMP AND WB ENTRANCE RAMPS SHALL BE MAINTAINED AT ALL TIMES.
CONSTRUCT OUTSIDE SHOULDERS AND PROPOSED LANES OF I-44 WB.

STAGE 2B

I-44 MAINLINE LANES TO REMAIN IN TRAFFIC CONFIGURATION FROM STAGE 2. CLOSE AND DETOUR US-65 TO I-44 WB ENTRANCE RAMP VIA I-44 EB/MULROY INTERCHANGE/I-44 WB. CLOSE AND DETOUR I-44 WB TO GLENSTONE EXIT RAMP VIA ROUTE 13/I-44 EB/GLENSTONE. RAMP CLOSURE PHASES MAY OCCUR INDIVIDUALLY TO MINIMIZE TRAFFIC DISRUPTIONS AT EACH RAMP.
CONSTRUCT WB RAMP GORES AND REMAINING ACCEL/DECEL LANES.

STAGE 3

SPLIT EB I-44 TRAFFIC WITH ONE LANE CROSSING OVER TO EXISTING WB LANES AND THE SECOND LANE SHIFTED TO THE EXISTING EB OUTSIDE SHOULDER. MAINTAIN TWO WB LANES AND ONE EB LANE SEPARATED BY TRAFFIC BARRIER. ACCESS TO EB GLENSTONE ENTRANCE RAMP, WB EXIT RAMP, EB US 65 EXIT RAMP AND WB ENTRANCE RAMPS SHALL BE MAINTAINED AT ALL TIMES.
CONSTRUCT MEDIAN GRADING AND DRAINAGE.
CONSTRUCT INSIDE SHOULDER AND TWO PROPOSED LANES OF I-44 EB.

STAGE 4

MAINTAIN TRAFFIC CONFIGURATION ON THE EXISTING WB TRAVELWAY OF TWO WB LANES AND ONE EB LANE SEPARATED BY TEMP. BARRIER. SHIFT EB LANE ON EB TRAVELWAY TO INSIDE ONTO NEWLY CONSTRUCTED PAVEMENT. ACCESS TO EB GLENSTONE ENTRANCE RAMP, WB EXIT RAMP, EB US 65 EXIT RAMP AND WB ENTRANCE RAMPS SHALL BE MAINTAINED AT ALL TIMES.
CONSTRUCT OUTSIDE SHOULDERS AND PROPOSED LANES OF I-44 EB.

STAGE 4B

I-44 MAINLINE LANES TO REMAIN IN TRAFFIC CONFIGURATION FROM STAGE 4. CLOSE AND DETOUR GLENSTONE TO I-44 EB ENTRANCE RAMP VIA KEARNEY/US-65 NB/I-44 EB. CLOSE AND DETOUR I-44 EB TO US-65 SB EXIT RAMP VIA MULROY INTERCHANGE/I-44 WB/US-65 SB. RAMP CLOSURE PHASES MAY OCCUR INDIVIDUALLY TO MINIMIZE TRAFFIC DISRUPTIONS AT EACH RAMP.
CONSTRUCT EB RAMP GORES AND REMAINING ACCEL/DECEL LANES.

STAGE 5

UTILIZE SHORT-TERM/OVERNIGHT LANE CLOSURES OF I-44 NEAR US 65.
REMOVE TEMPORARY CROSSTOVERS.
CONSTRUCT PROPOSED PAVEMENT AND SHOULDER TRANSITIONS AT THE EAST END OF THE PROJECT.

TRAFFIC CONTROL PLAN
STAGING WRITE-UP
J8I3044C

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DATE PREPARED
9/27/2024

ROUTE	STATE
I-44	MO
DISTRICT	SHEET NO.
SW	50

COUNTY
GREENE

JOB NO.
JSU0076, J8I3044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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27/2024

-44	MO
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SW	51
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GREENE

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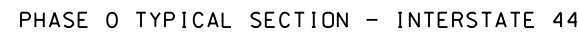
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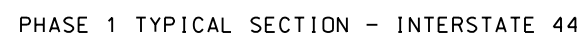
REV. 07/27/2021



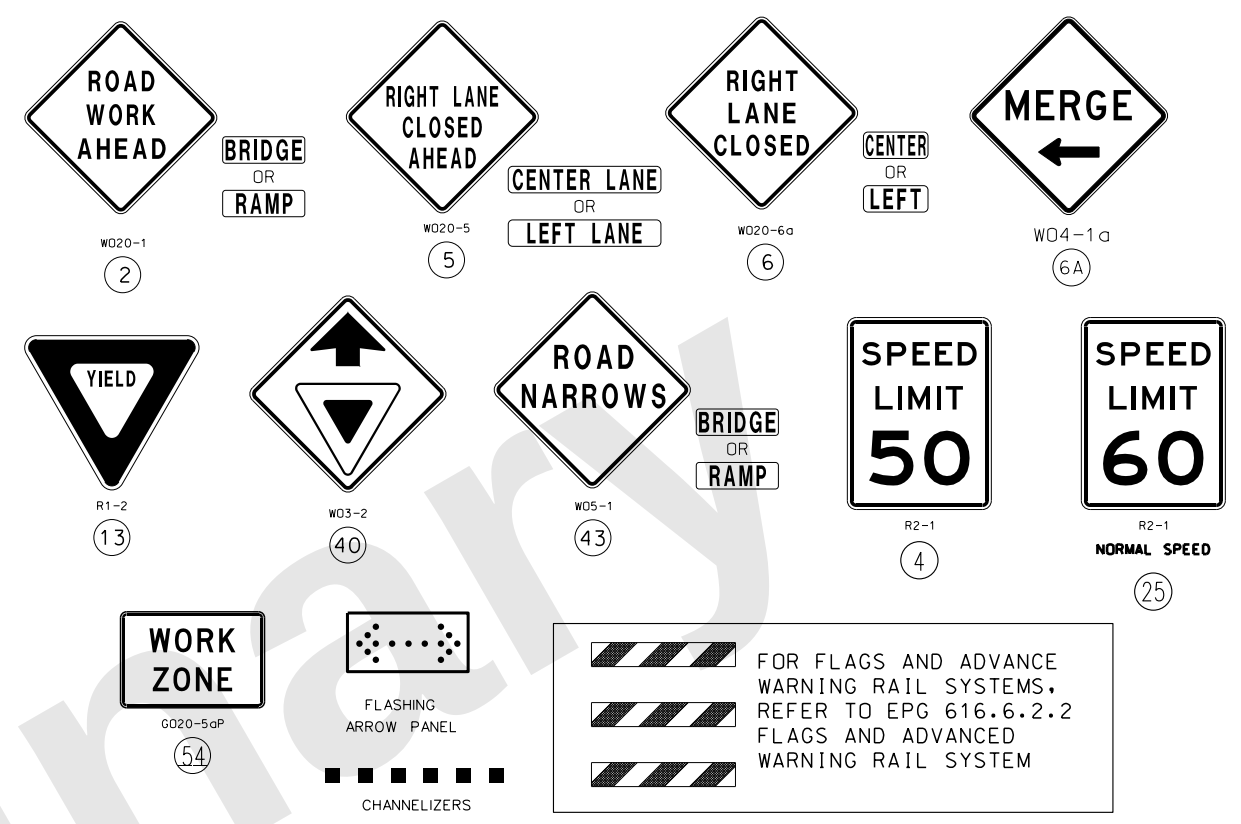
* SHLDR. VARIES FROM 4' TO 6'



* SHLDR. VARIES FROM 4' TO 6'



SHEET 1 OF 2

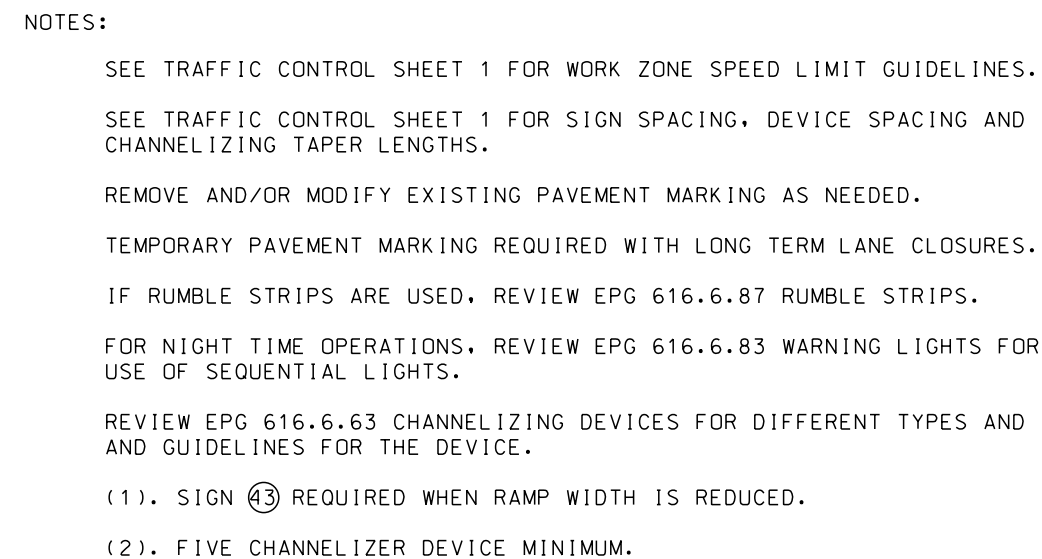
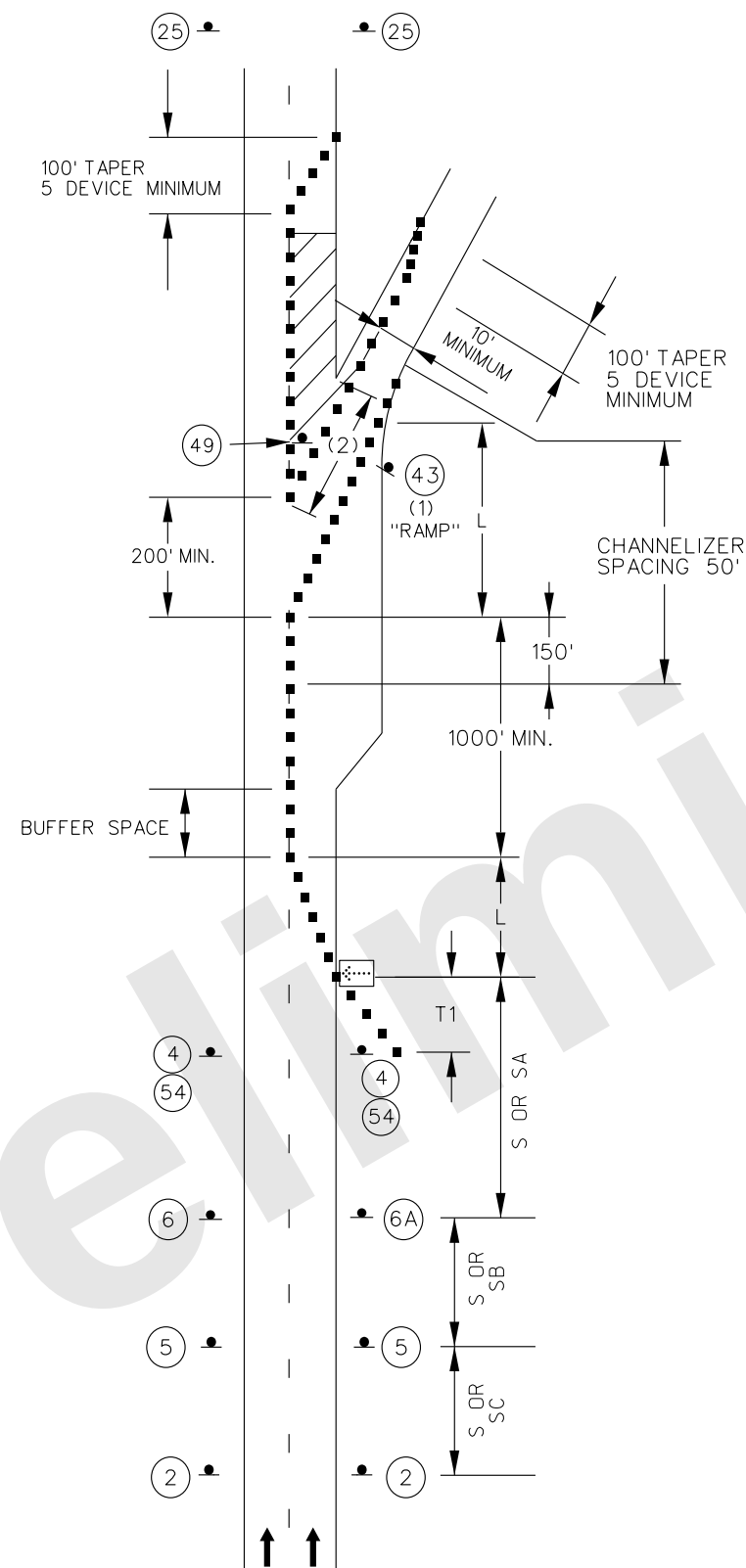


NOTES:

LANE CLOSURE
ENTRANCE RAMP AREAS

TRAFFIC CONTROL PLAN
TYPICAL APPLICATIONS
WORK IN VICINITY OF
ENTRANCE RAMP
J813044C & JSU0076
SHEET 2 OF 5

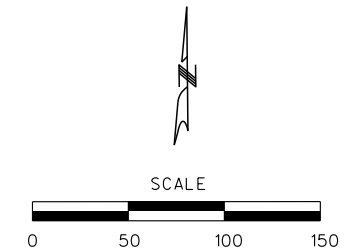
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TRAFFIC CONTROL PLAN
TYPICAL APPLICATIONS
WORK IN VICINITY OF
EXIT RAMP
J8I3044C & JSU0076
SHEET 3 OF 5

[illegible]

2" SP125C W/ PG 70-22
OVER 2" SP125C W/ PG 70-22
OVER 6" SP250C W/ PG 64-22
W/ 6" TYPE 5 BASE ROCK



DATE PREPARED
9/27/2024

ROUTE -44	STATE MO
STRICT SW	SHEET NO. 59

COUNTY
GREENE

JOB NO.
0076, J813044C,
& JST0088B

PROJECT NO.	
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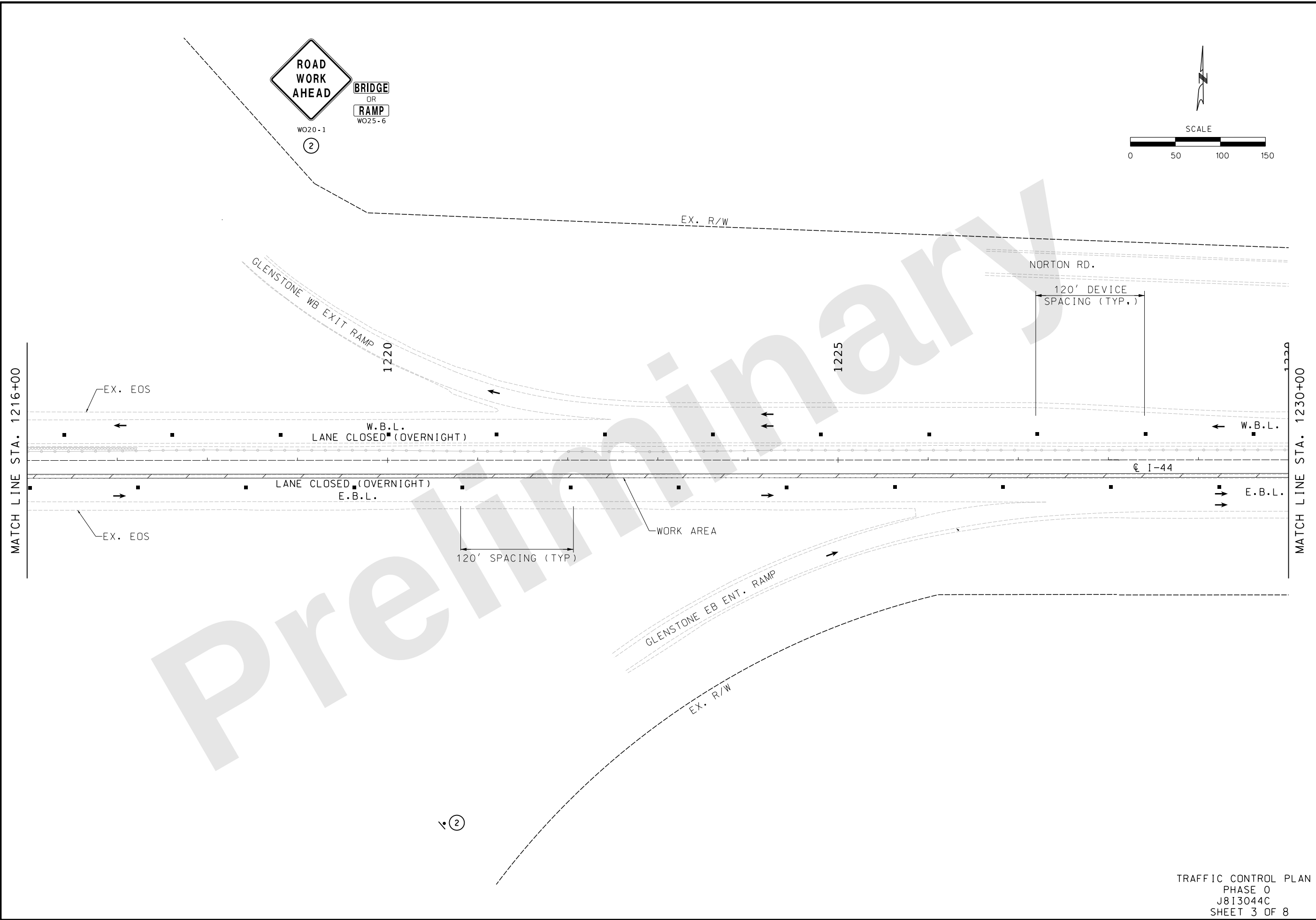
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TRAFFIC CONTROL PLAN
PHASE 0
J8I3044C
SHEET 2 OF 8



TRAFFIC CONTROL PLAN
PHASE 0
J813044C
SHEET 3 OF 8

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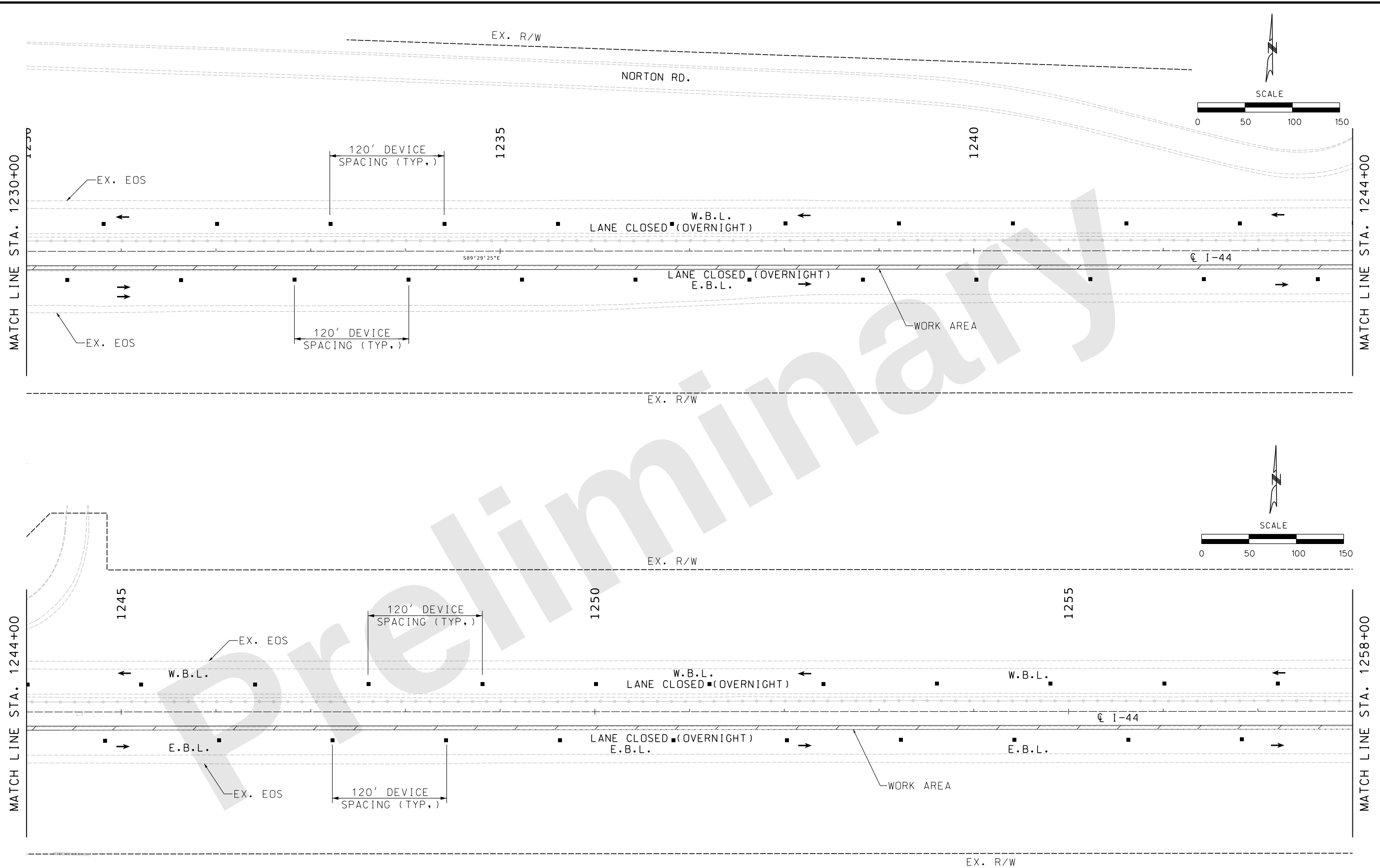
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DISTRICT SW	SHEET NO. 60
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
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BRIDGE NO.	

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PHASE 0
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SHEET 4 OF 8

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DISTRICT SW	SHEET NO. 61
COUNTY GREENE	
JOB NO. JSU0076, J813044C & JST0088B	
PROJECT NO.	
BRIDGE NO.	

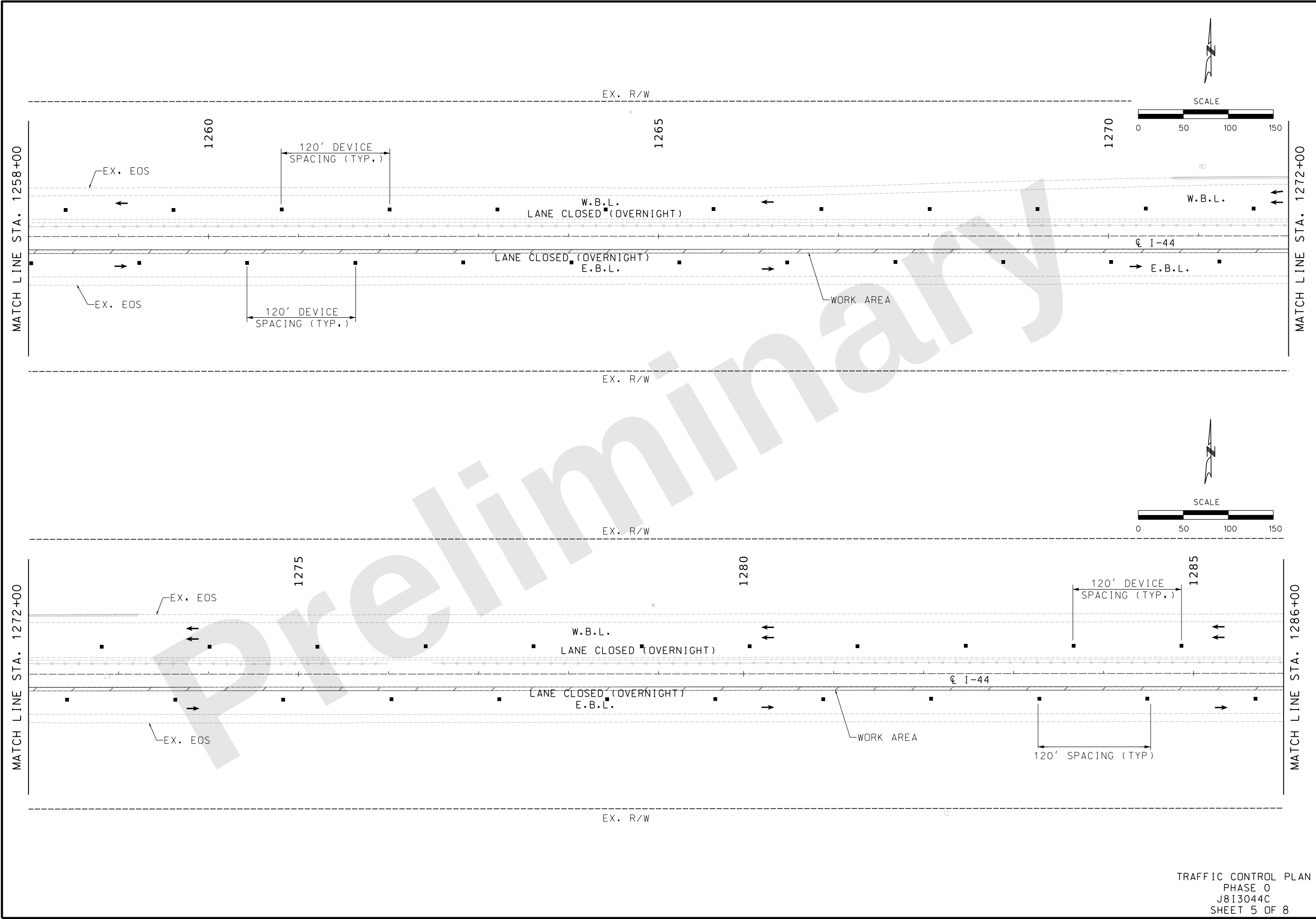
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COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

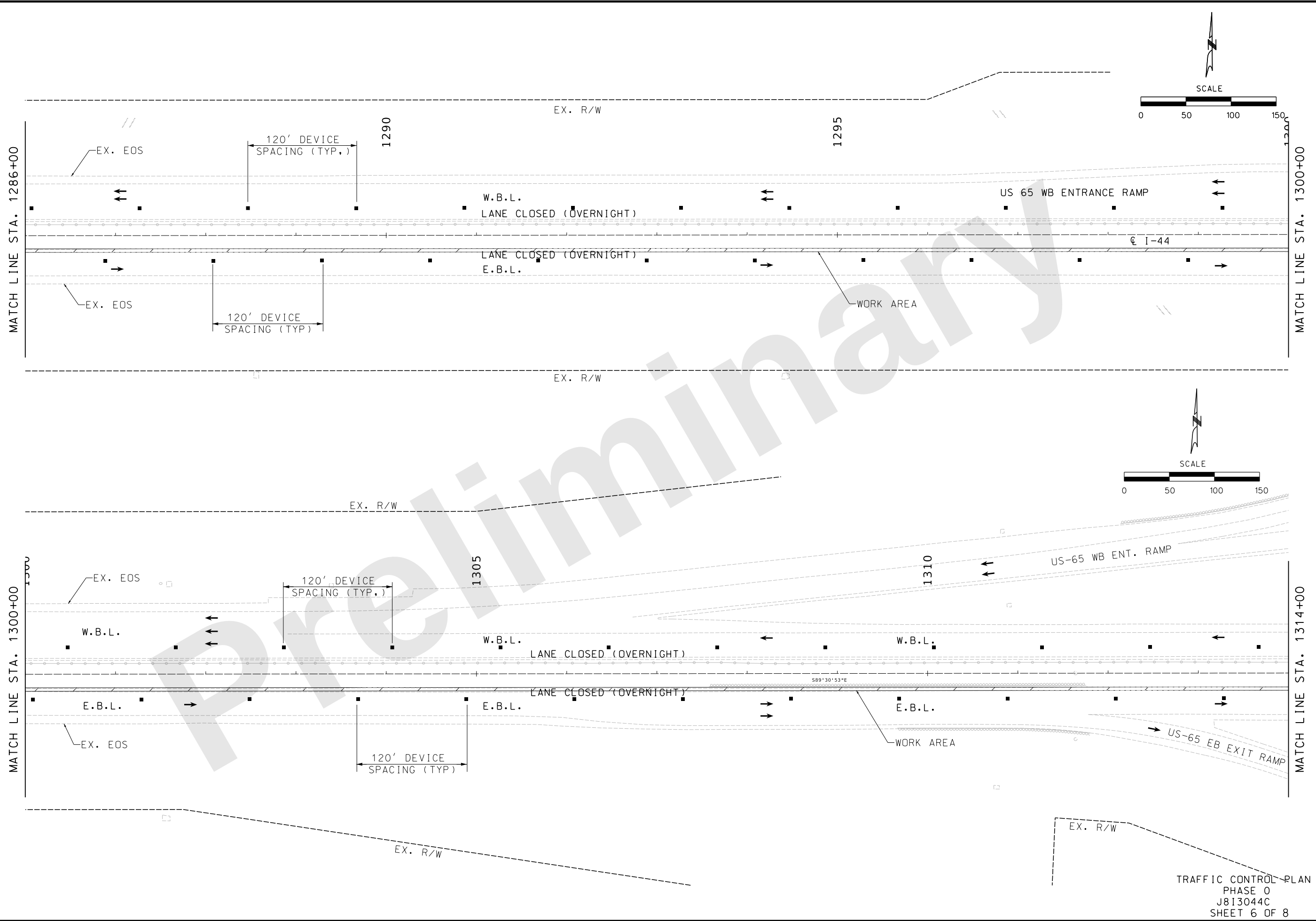
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DISTRICT SW	SHEET NO. 63
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

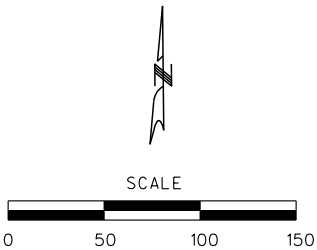
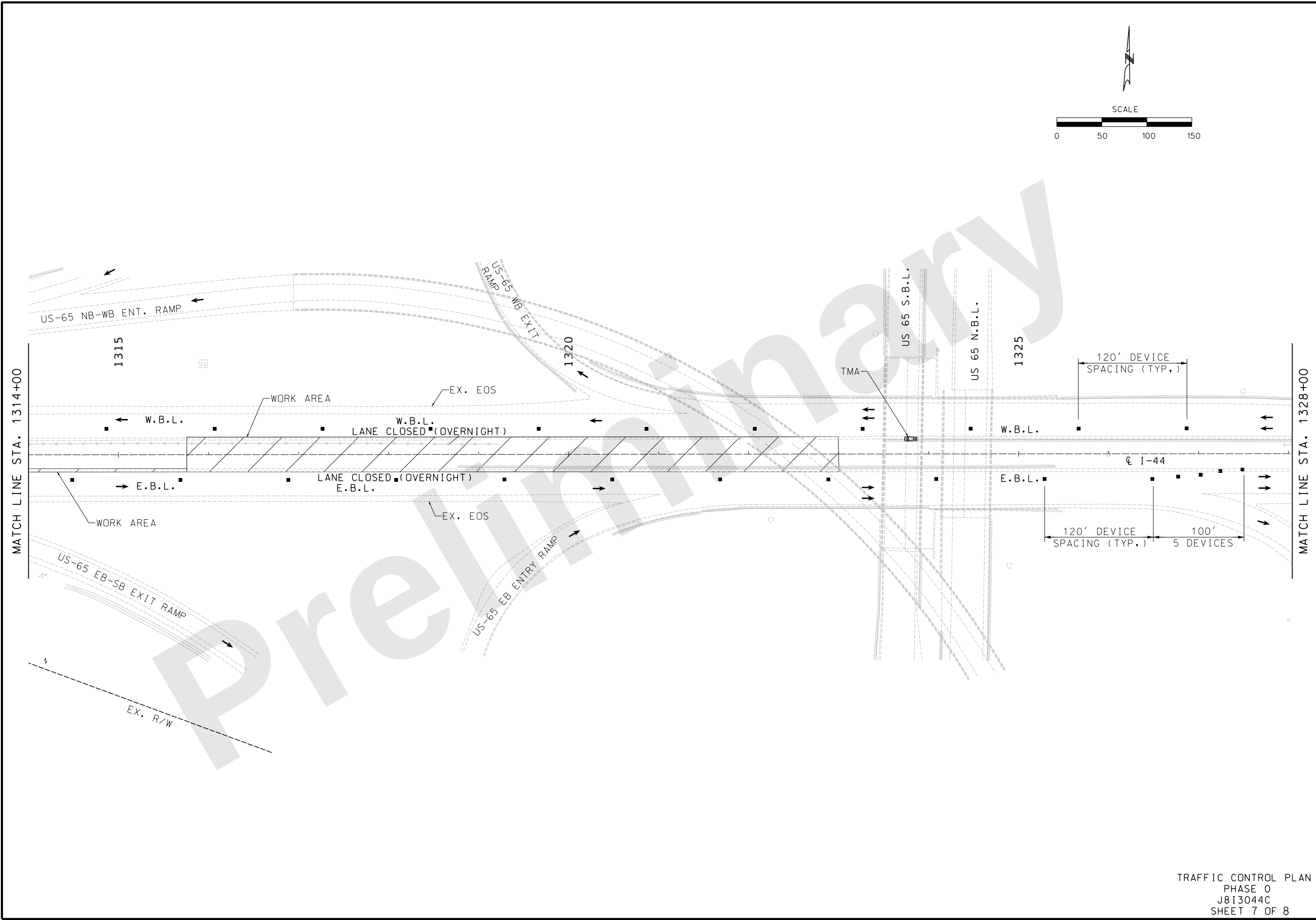
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PHASE 0
J813044C
SHEET 6 OF 8



TRAFFIC CONTROL PLAN
PHASE 0
J813044C
SHEET 7 OF 8

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ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
64

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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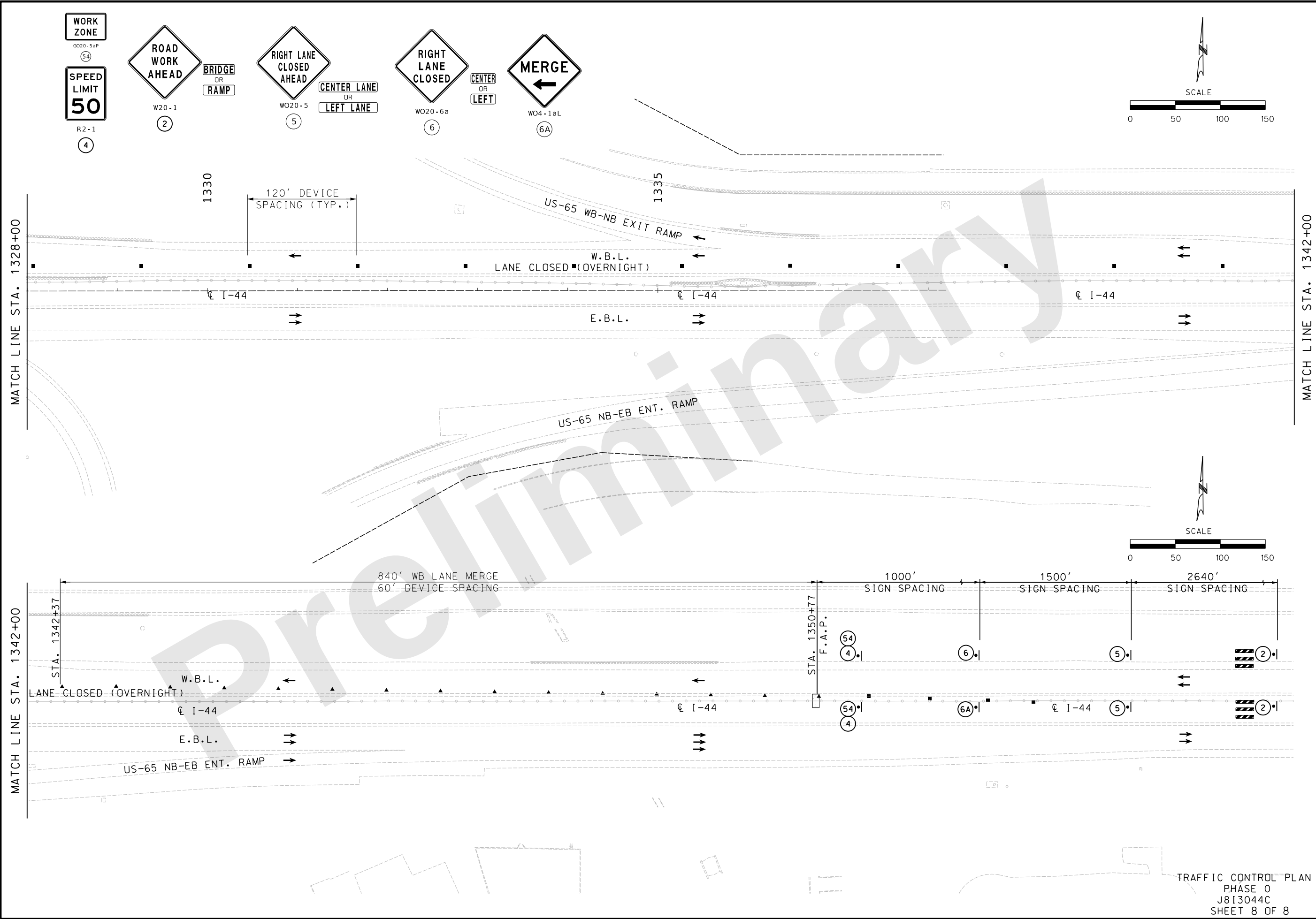
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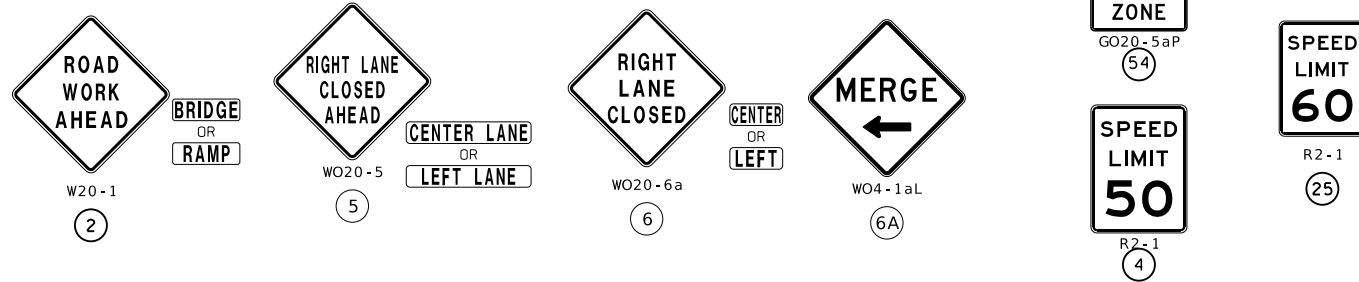
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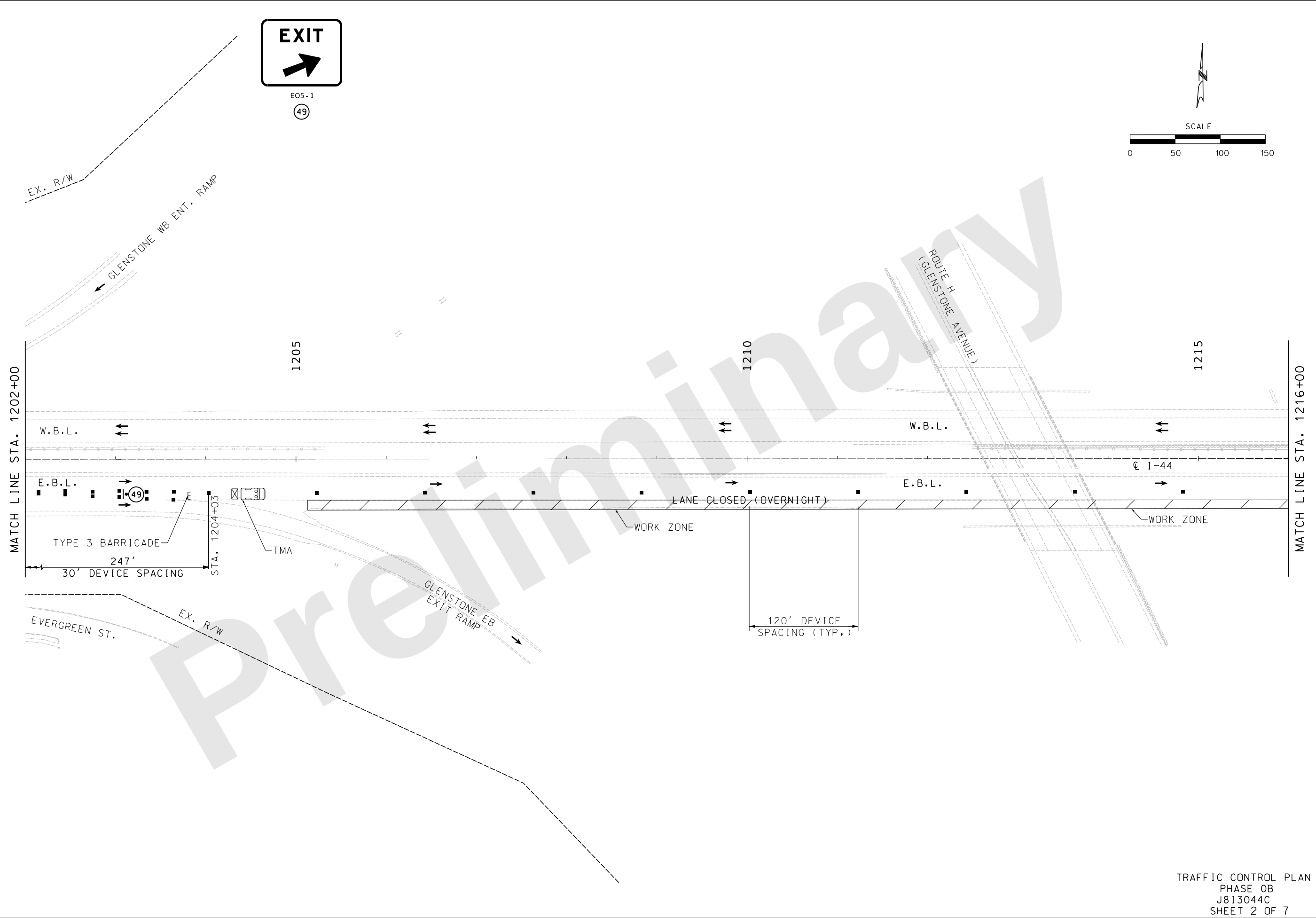
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TRAFFIC CONTROL PLAN
PHASE 0
J813044C
SHEET 8 OF 8

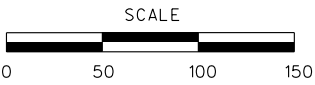
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- ▲ DIRECTIONAL INDICATOR
BARRICADES (DIB) W/ LIGHTS
- CHANNELIZER
- E TYPE 3 BARRICADE
- CHANGEABLE MESSAGE BOARD (CMS)
- III TEMP. LONG TERM RUMBLE
STRIPS (T.L.T.R.S.)
- FLASHING ARROW PANEL (FAP)
- TRUCK MOUNTED ATTENUATOR (TMA)
- ADVANCE WARNING RAIL SYSTEM (AWRS)



ENGINEER 2010005873



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(49)



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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 67
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

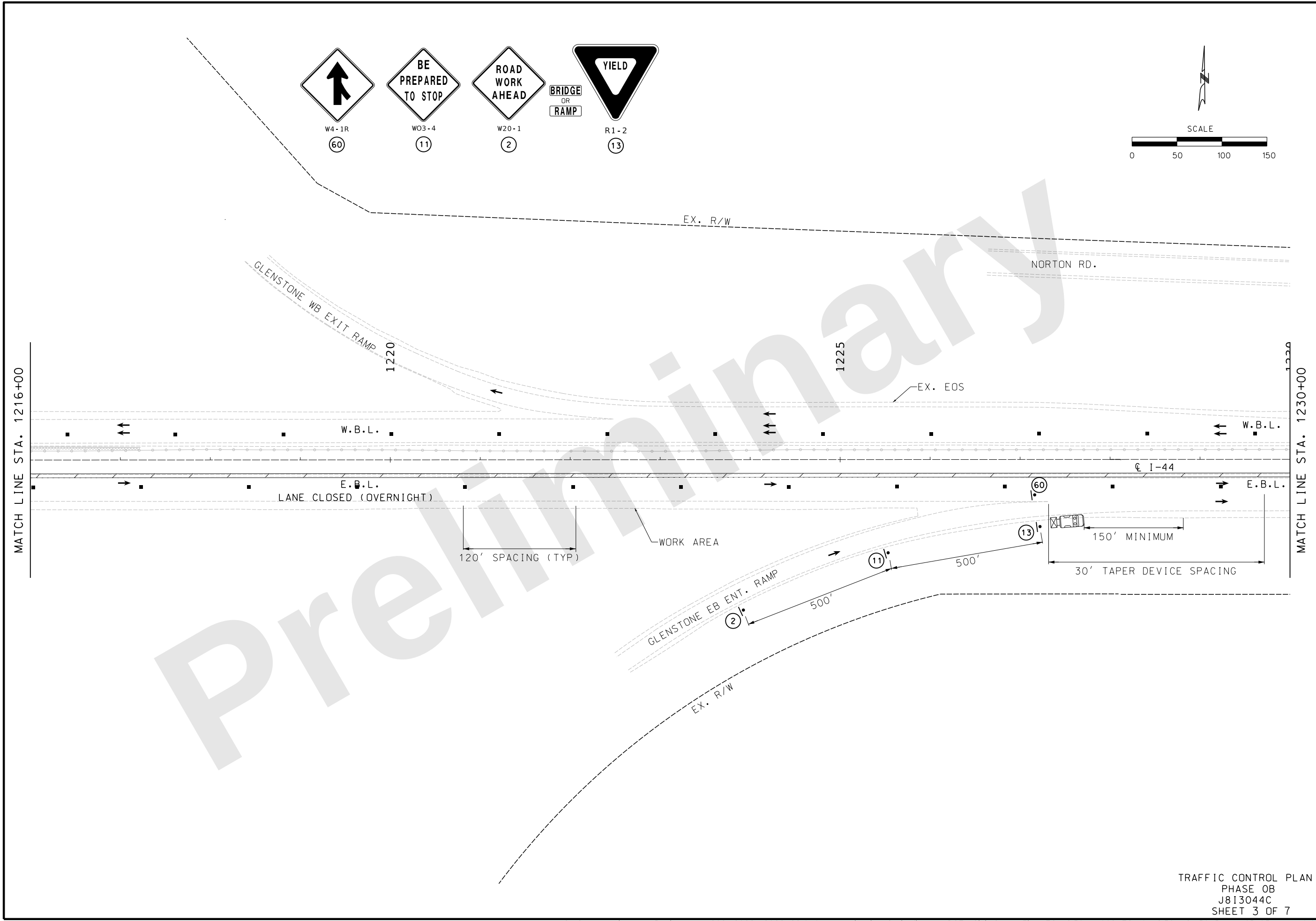
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TRAFFIC CONTROL PLAN
PHASE 0B
J813044C
SHEET 2 OF 7



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9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 68

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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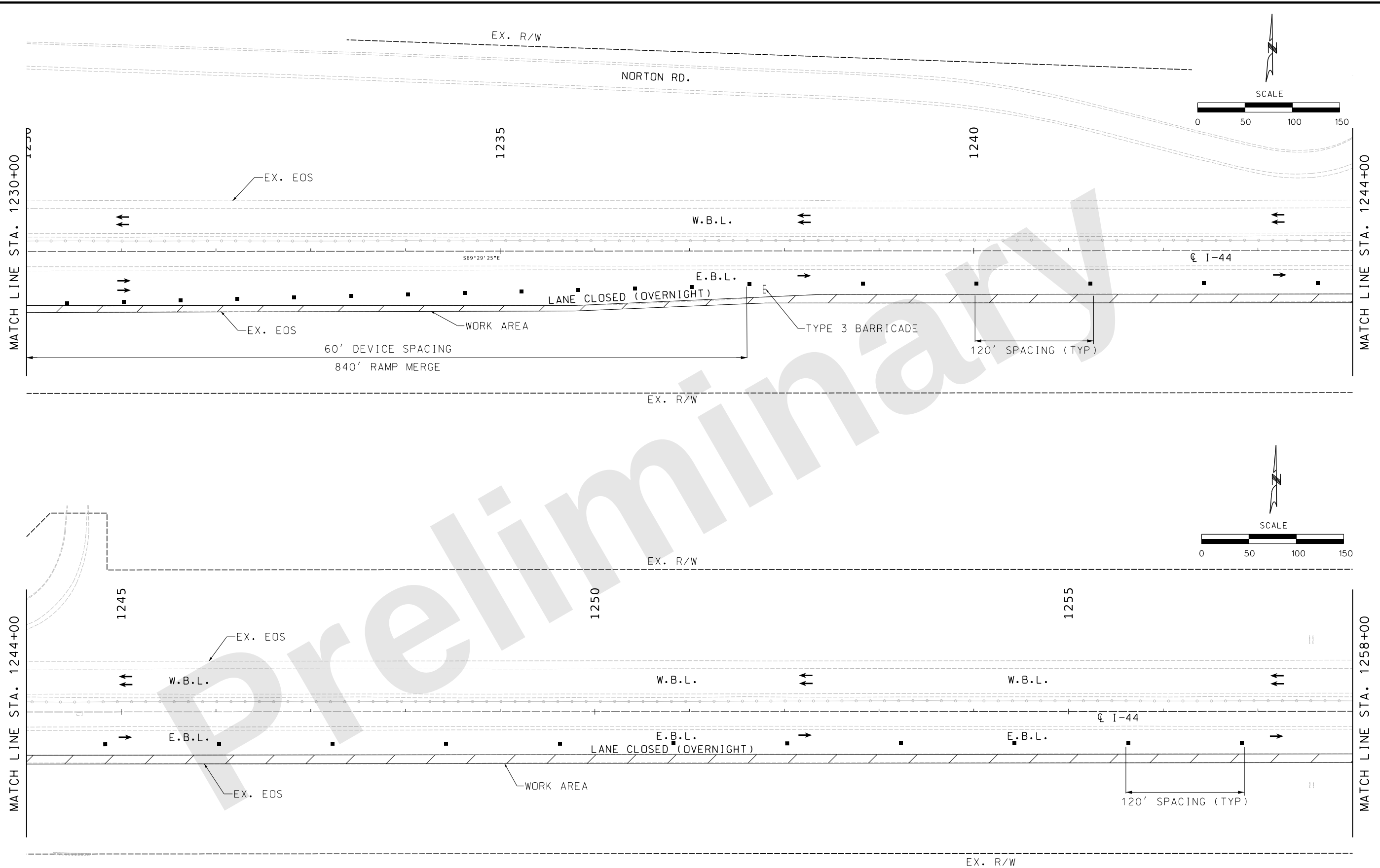
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TRAFFIC CONTROL PLAN
PHASE 0B
J813044C
SHEET 3 OF 7



TRAFFIC CONTROL PLAN
PHASE 0B
J813044C
SHEET 4 OF 7

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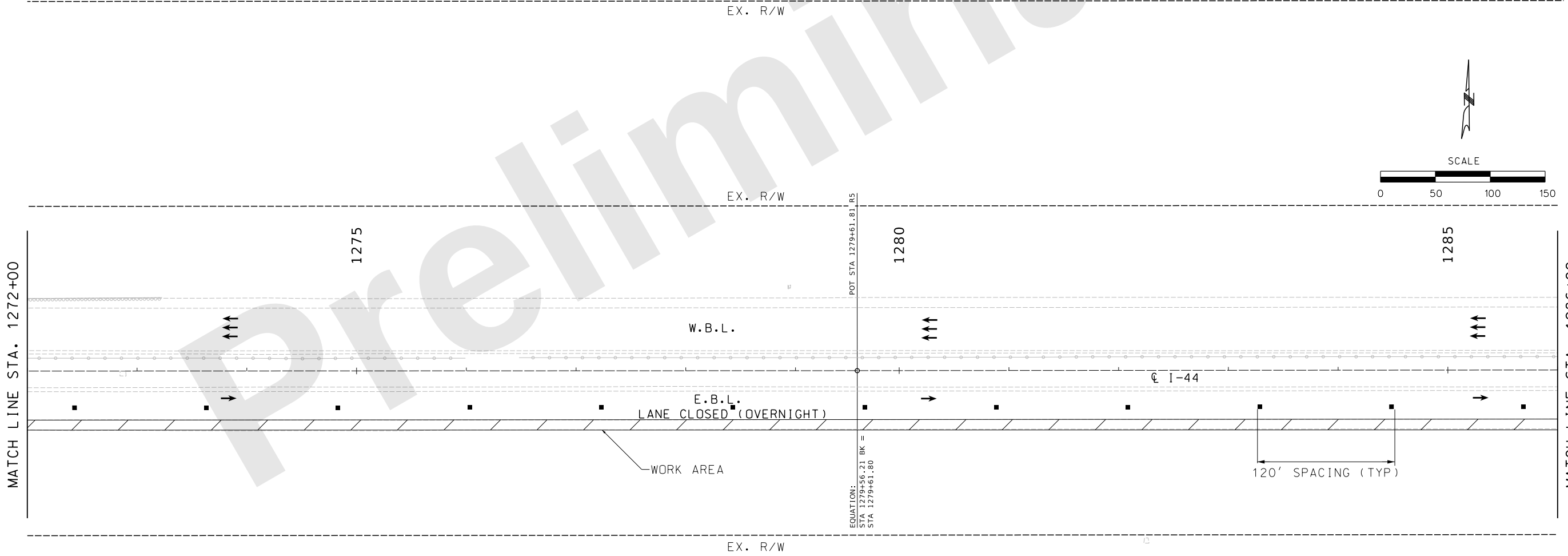
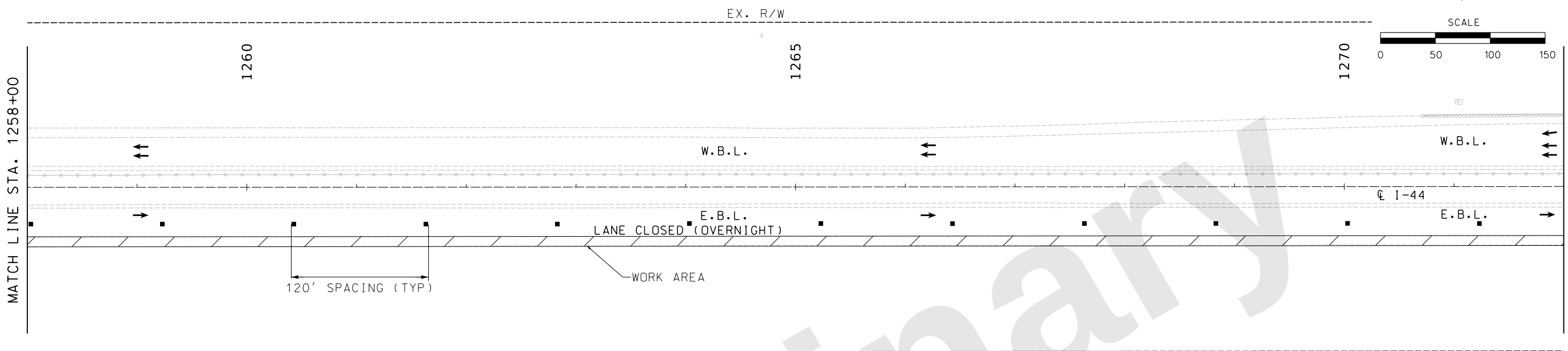
DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 69
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

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PHASE 0B
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DISTRICT SW	SHEET NO. 70
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

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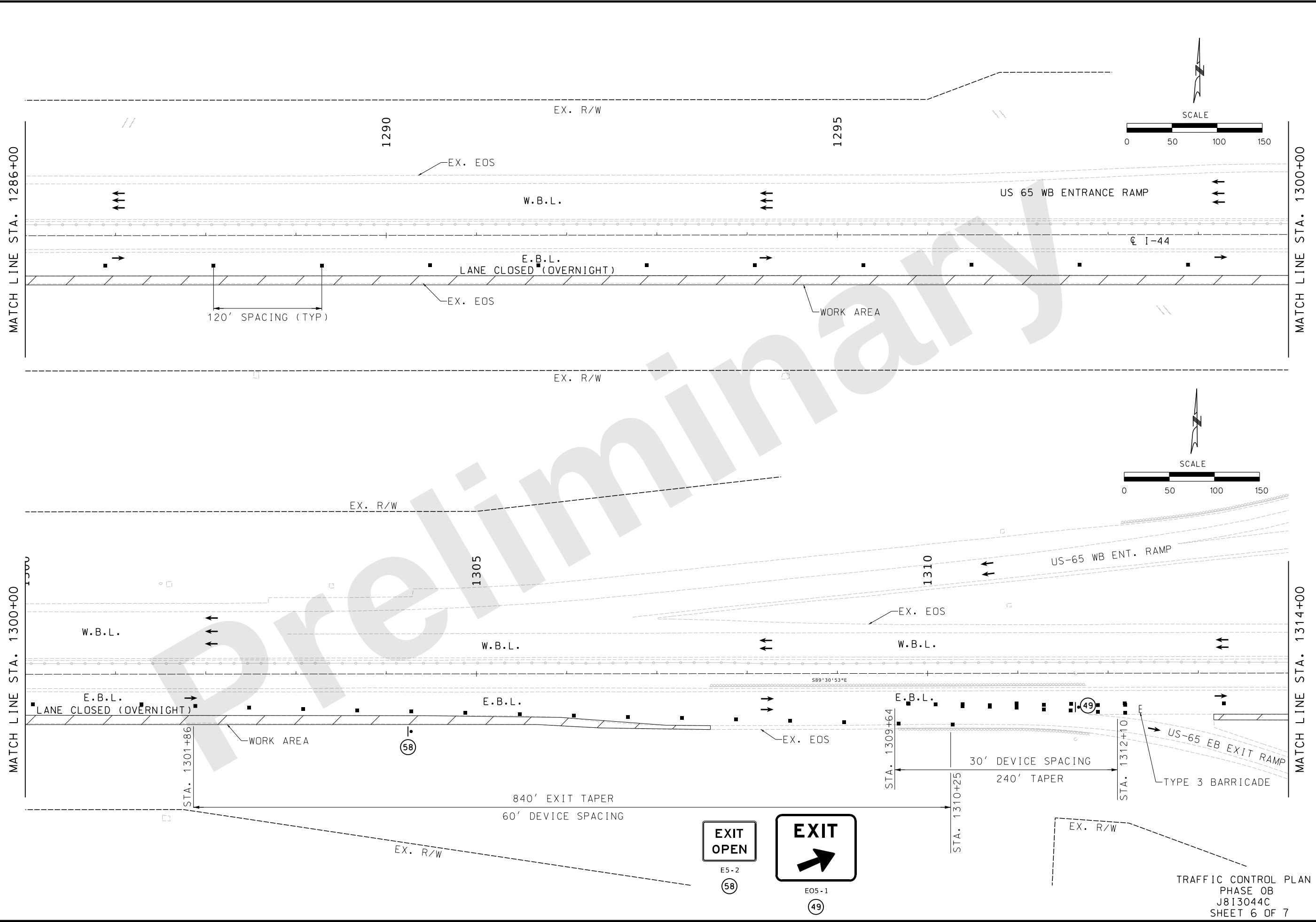
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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 71
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITAL
JEFFERSON CITY, MO 65102
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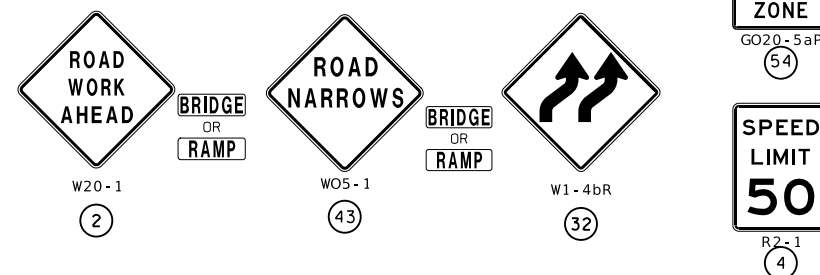
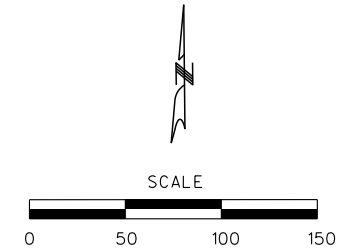
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TRAFFIC CONTROL PLAN
PHASE 0B
J813044C
SHEET 6 OF 7

	SIGN (SINGLE SIDED)
	DIRECTIONAL INDICATOR BARRICADES (DIB) W/ LIGHTS
	CHANNELIZER
	TYPE 3 BARRICADE
	CHANGEABLE MESSAGE BOARD (CMS)
	TEMP. LONG TERM RUMBLE STRIPS (T.L.T.R.S.)
	FLASHING ARROW PANEL (FAP)
	TRUCK MOUNTED ATTENUATOR (TMA)
 	ADVANCE WARNING RAIL SYSTEM (AWRS)



TRAFFIC CONTROL PLAN
PHASE 1
J813044C
SHEET 1 OF 7

BRIDGE NO.

COMMISSION

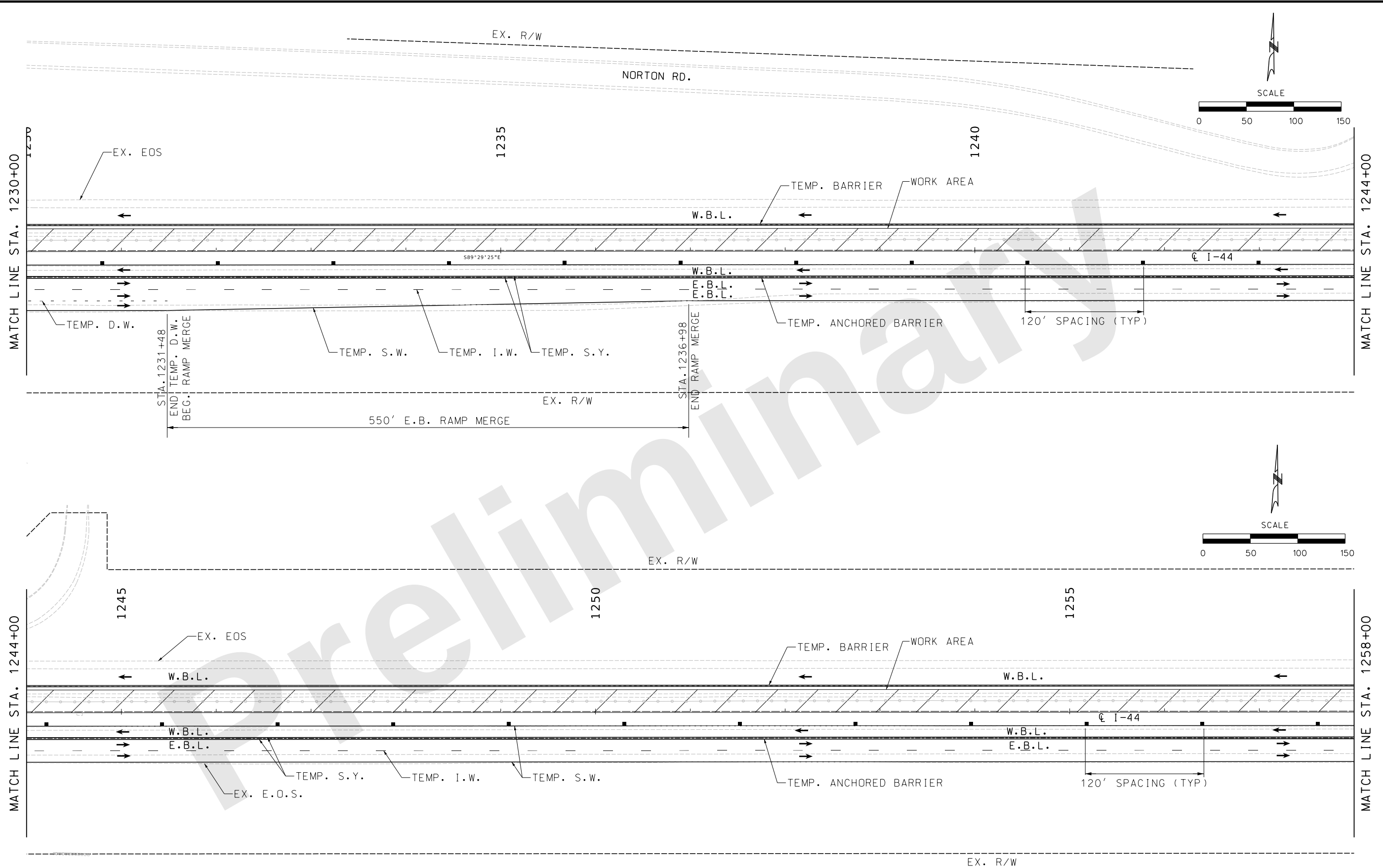


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ENGINEER 2010005873

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TRAFFIC CONTROL PLAN
PHASE 1
J813044C
SHEET 4 OF 7

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DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 76

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

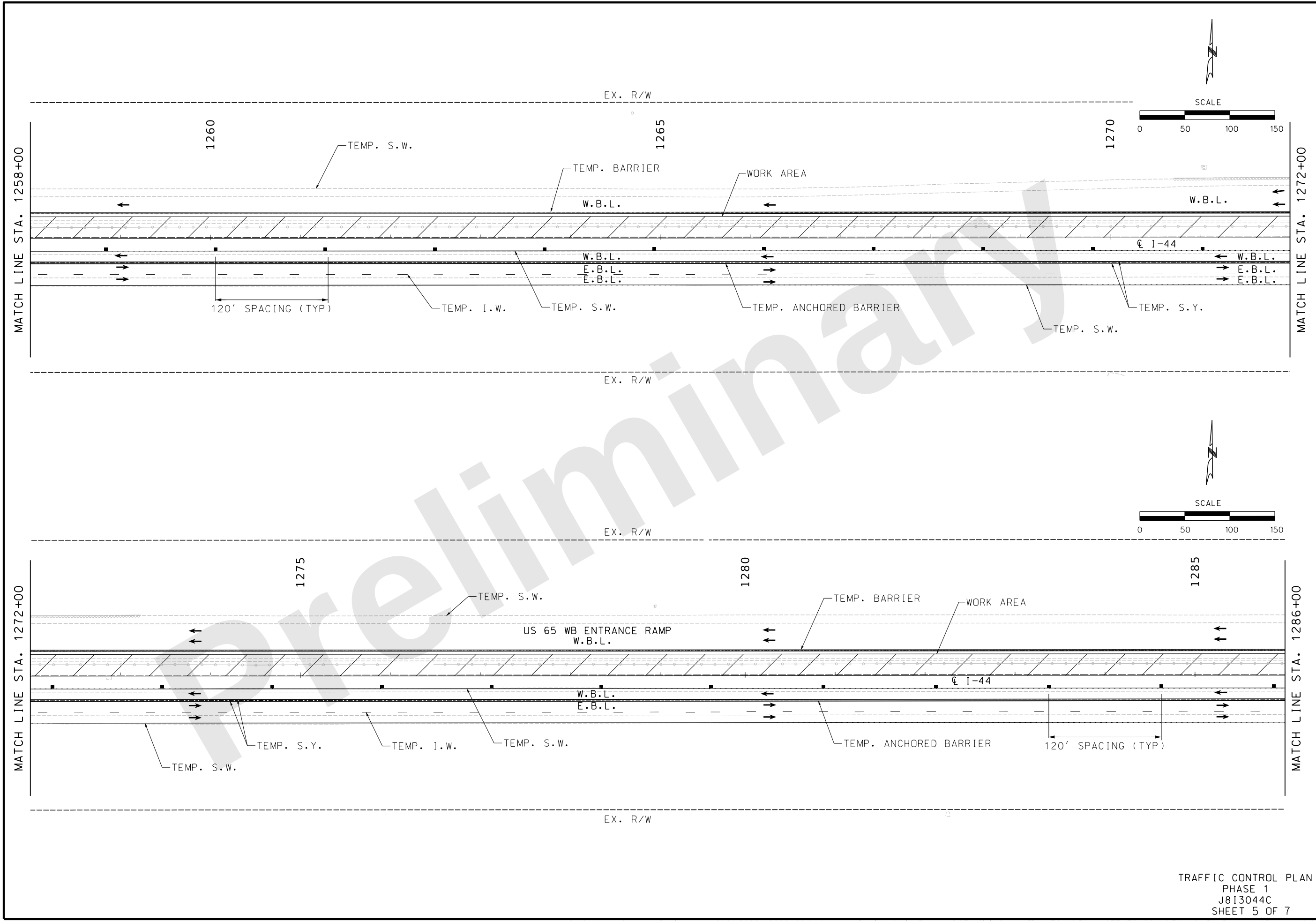
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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 77
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

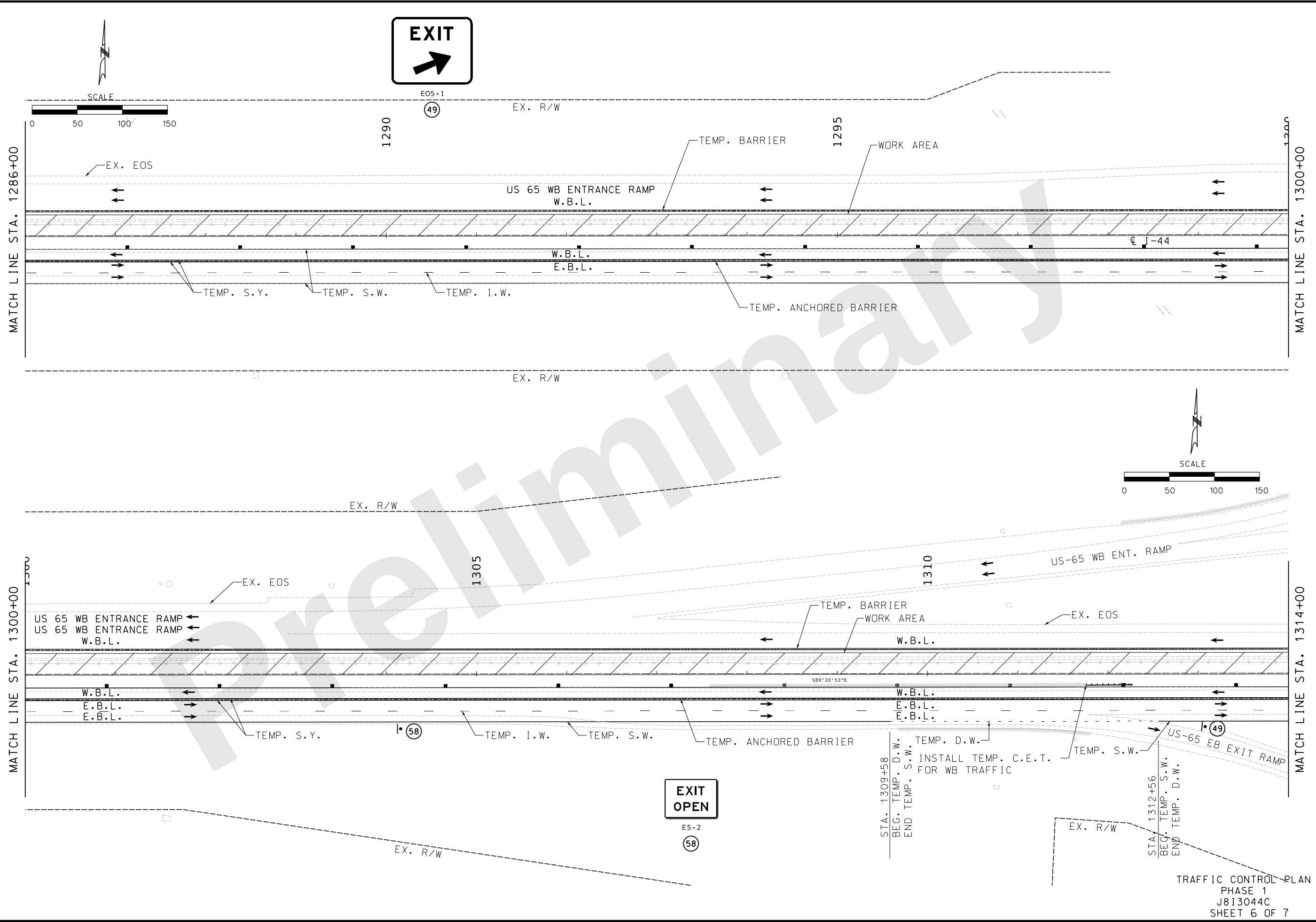
105 WEST CAPITAL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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TRAFFIC CONTROL PLAN
PHASE 1
J813044C
SHEET 5 OF 7



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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 78
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

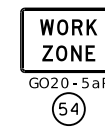
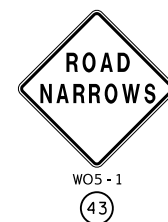
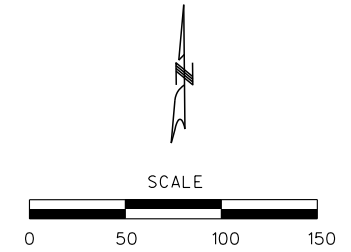
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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PRO. ENGINEER 2010005873

TRAFFIC CONTROL PLAN
PHASE 1
J813044C
SHEET 6 OF 7

- SIGN (SINGLE SIDED)
- DIRECTIONAL INDICATOR
BARRICADES (DIB) W/ LIGHTS
- CHANNELIZER
- TYPE 3 BARRICADE
- CHANGEABLE MESSAGE BOARD (CMS)
- TEMP. LONG TERM RUMBLE
STRIPS (T.L.T.R.S.)
- FLASHING ARROW PANEL (FAP)
- TRUCK MOUNTED ATTENUATOR (TMA)
- ADVANCE WARNING RAIL SYSTEM (AWRS)

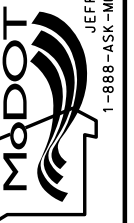


TRAFFIC CONTROL PLAN
PHASE 2
J813044C
SHEET 1 OF 7

BRIDGE NO.



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INEER 2010005873

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A horizontal scale bar labeled "SCALE" is positioned above the map. The bar has a total length of 150 units, with major markings at 0, 50, 100, and 150. The bar is divided into alternating black and white segments: a white segment from 0 to 50, a black segment from 50 to 100, and a white segment from 100 to 150.

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ROUTE I - 44	STATE MO
DISTRICT SW	SHEET NO. 81

COUNTY
GREENE

JOB NO.
SU0076, J813044C,
& JST0088B

PROJECT NO.	
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BRIDGE NO.	
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[illegible]

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

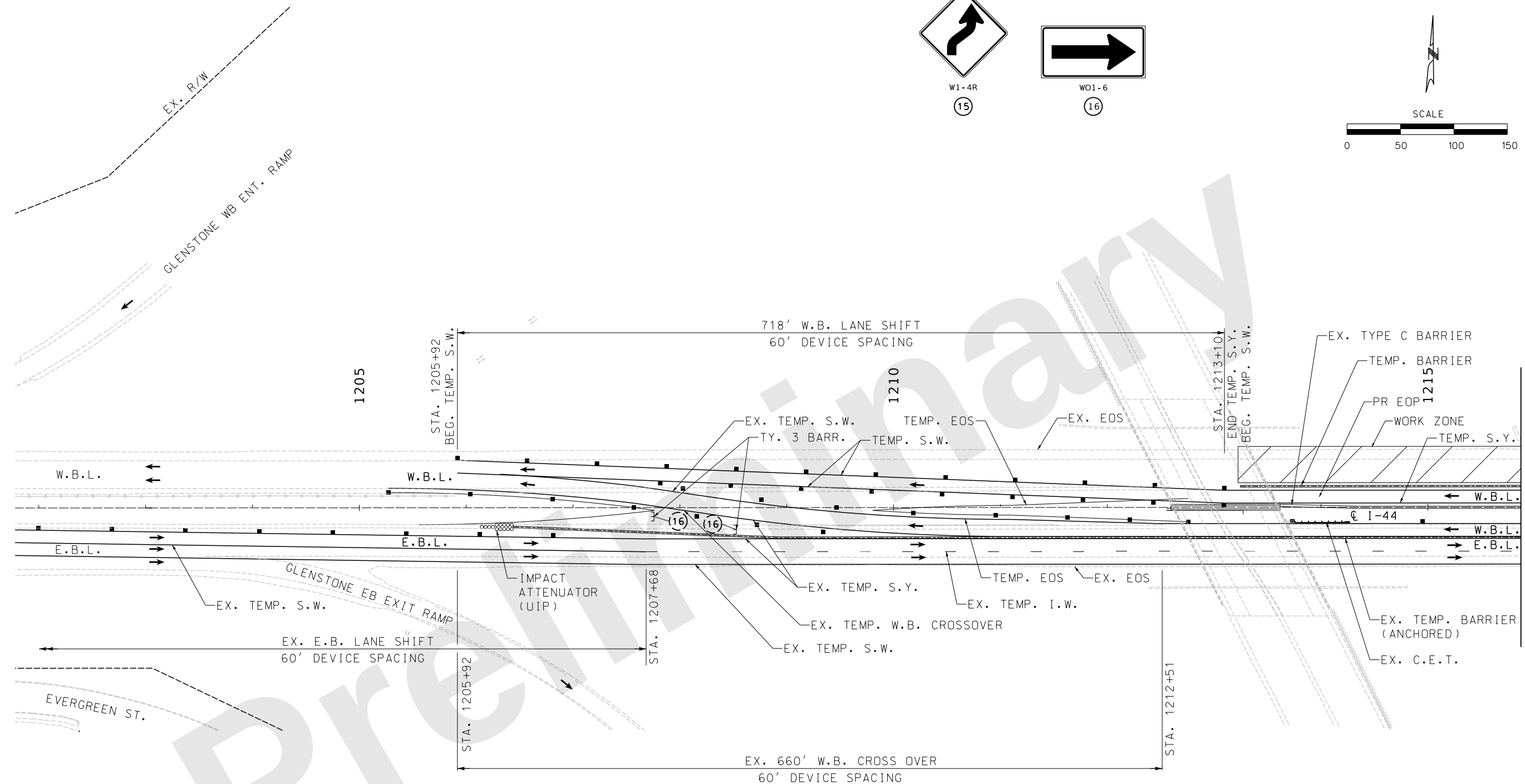
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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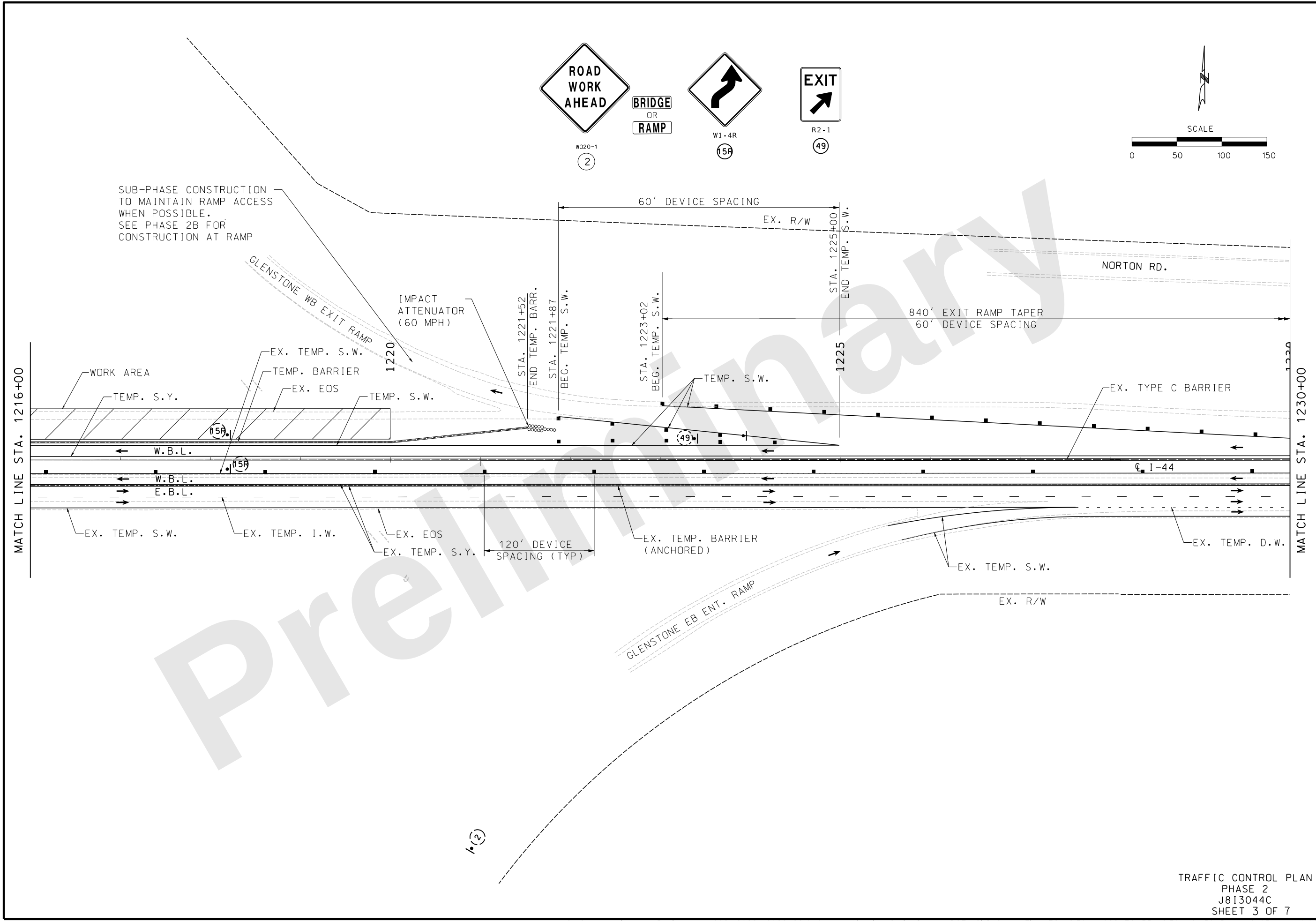
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TRAFFIC CONTROL PLAN
PHASE 2
J813044C
SHEET 2 OF 7



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DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 82

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

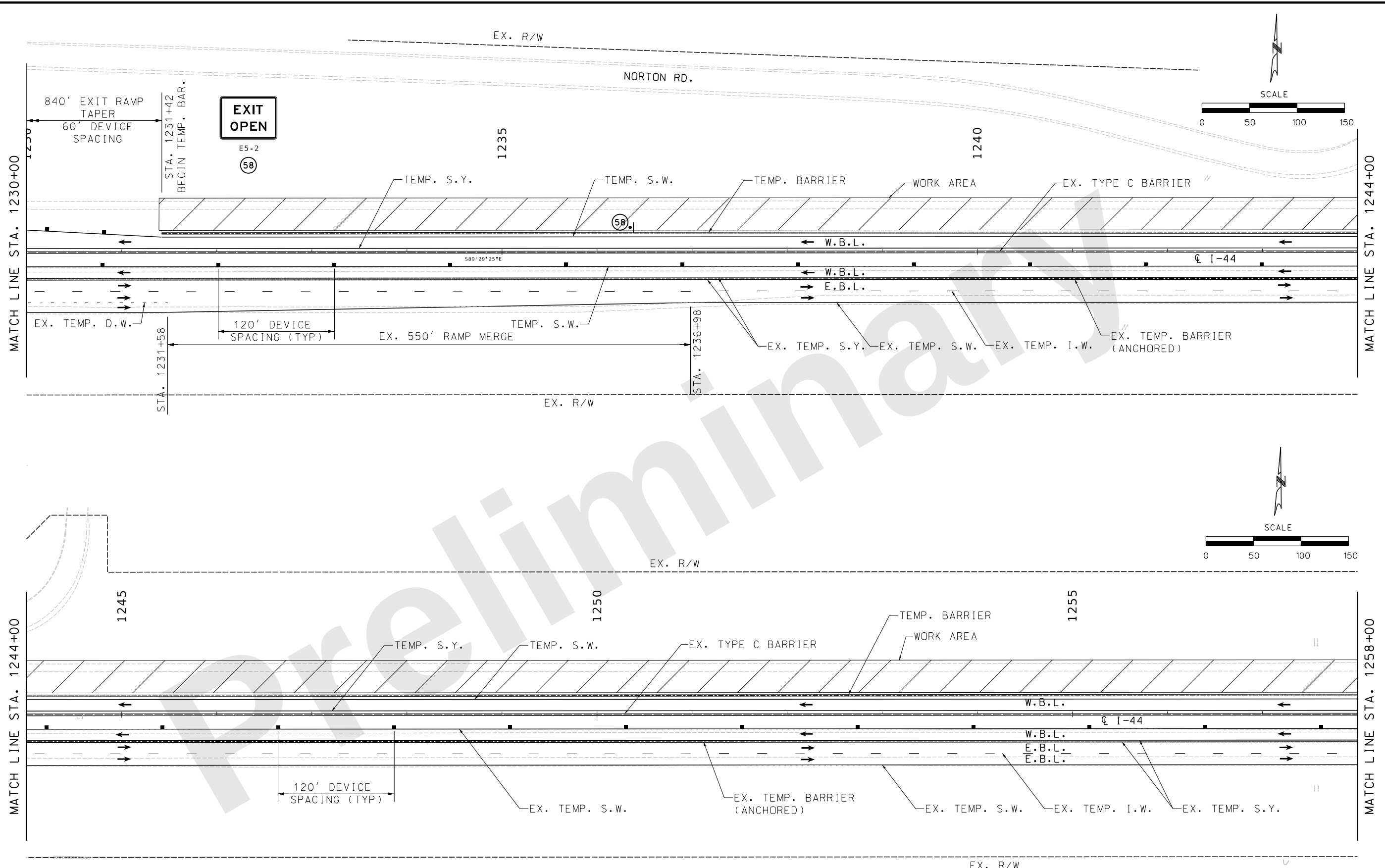
105 WEST CAPITAL
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TRAFFIC CONTROL PLAN
PHASE 2
J813044C
SHEET 3 OF 7



TRAFFIC CONTROL PLAN
PHASE 2
J813044C
SHEET 4 OF 7

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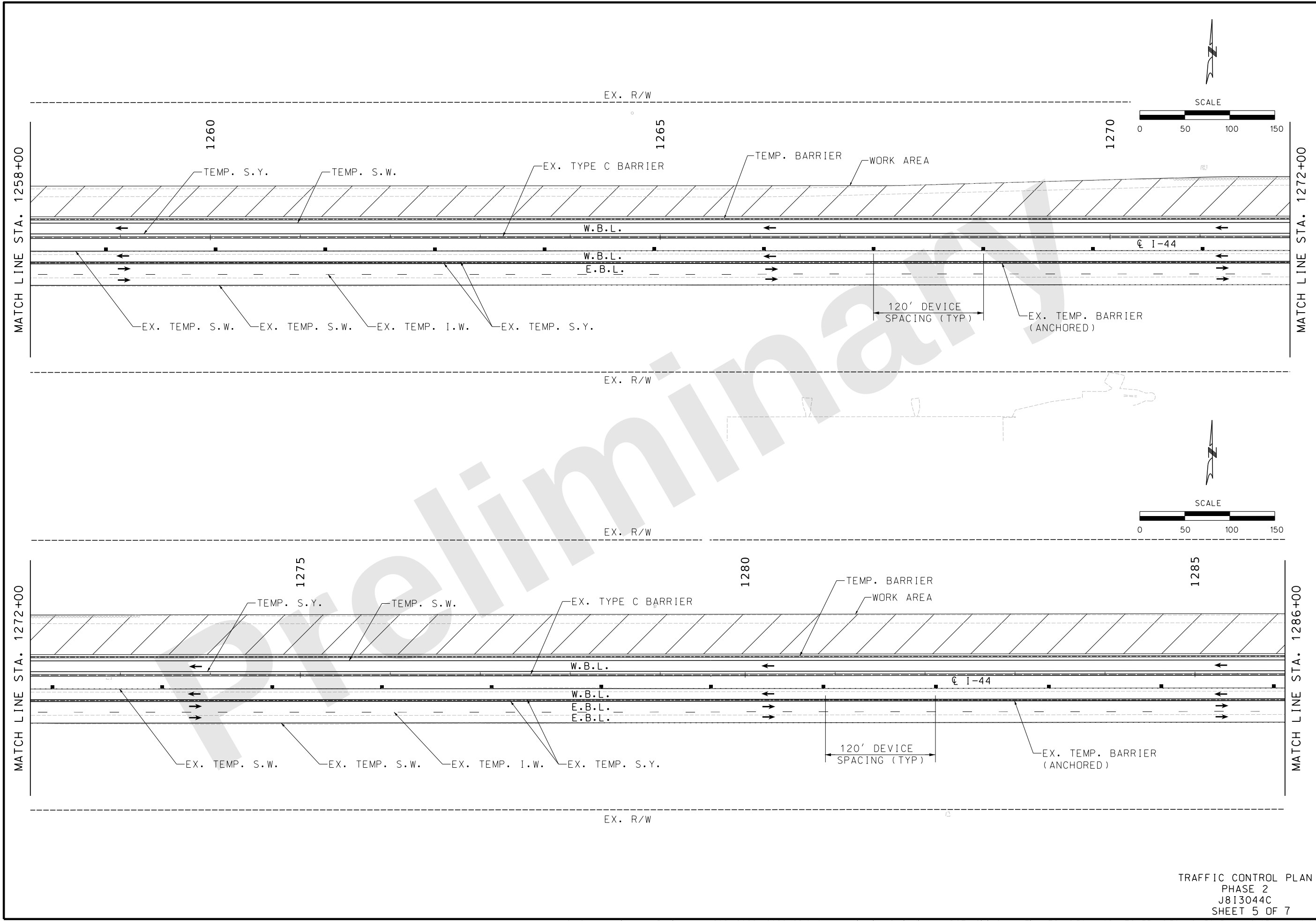
DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 83
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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TRAFFIC CONTROL PLAN
PHASE 2
J813044C
SHEET 5 OF 7

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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 84
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

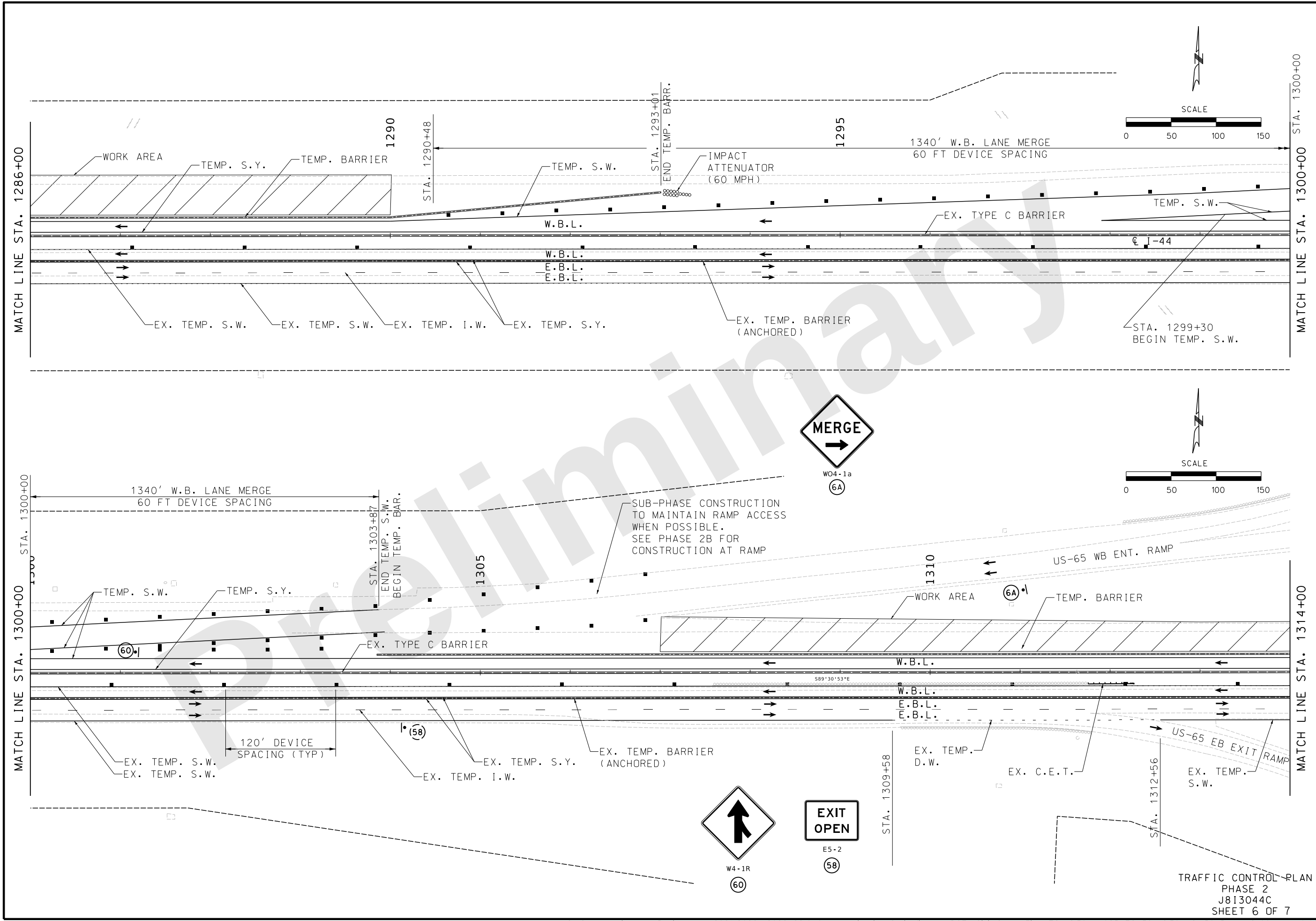
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 85

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

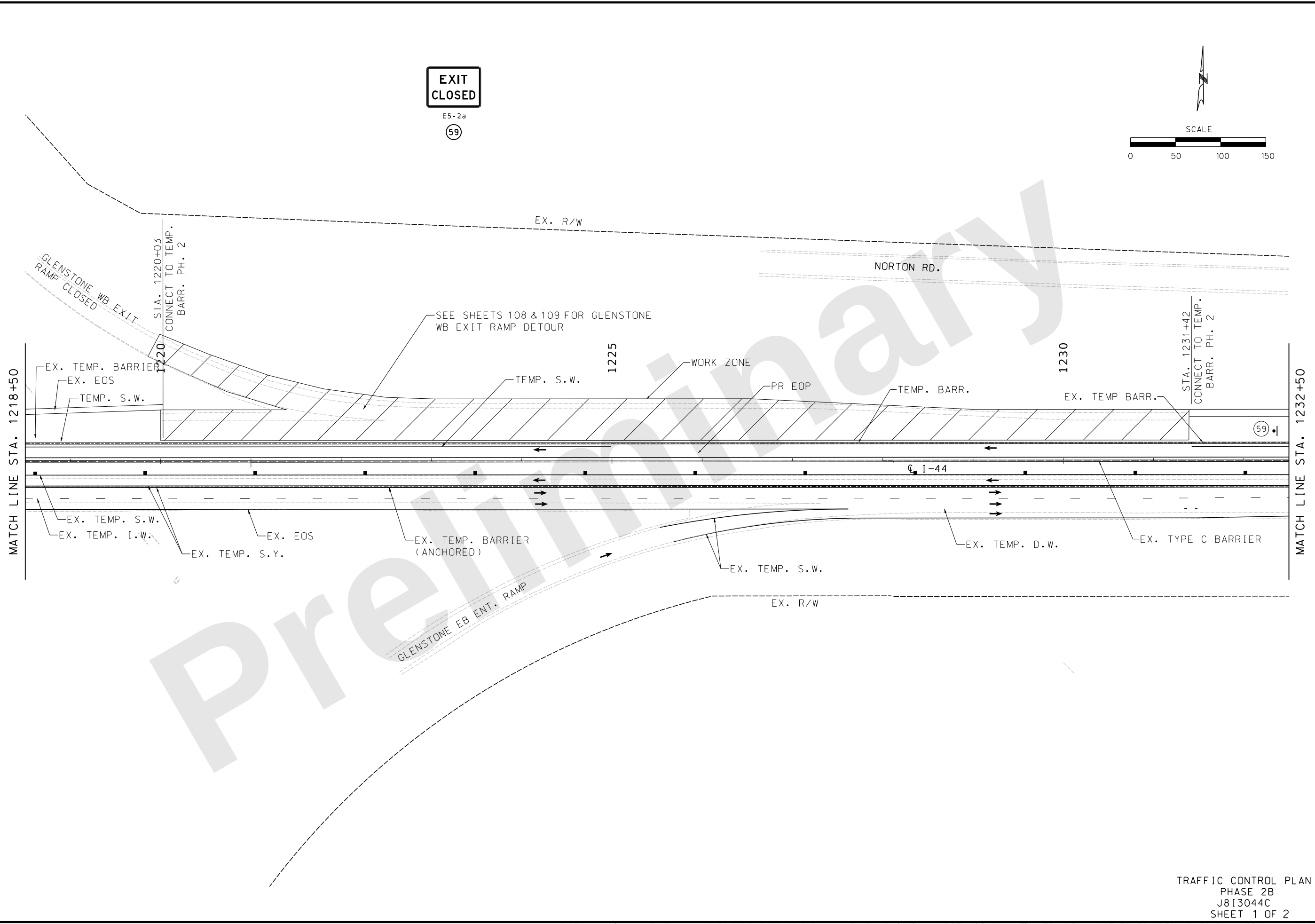
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North arrow pointing up.

SCALE: 0 50 100 150

EXIT
CLOSED

E5-2a

(59)

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9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 87

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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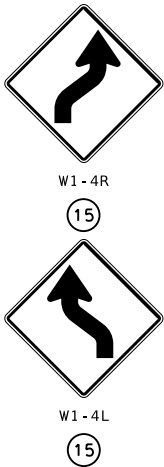
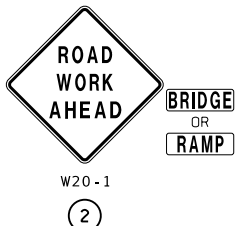
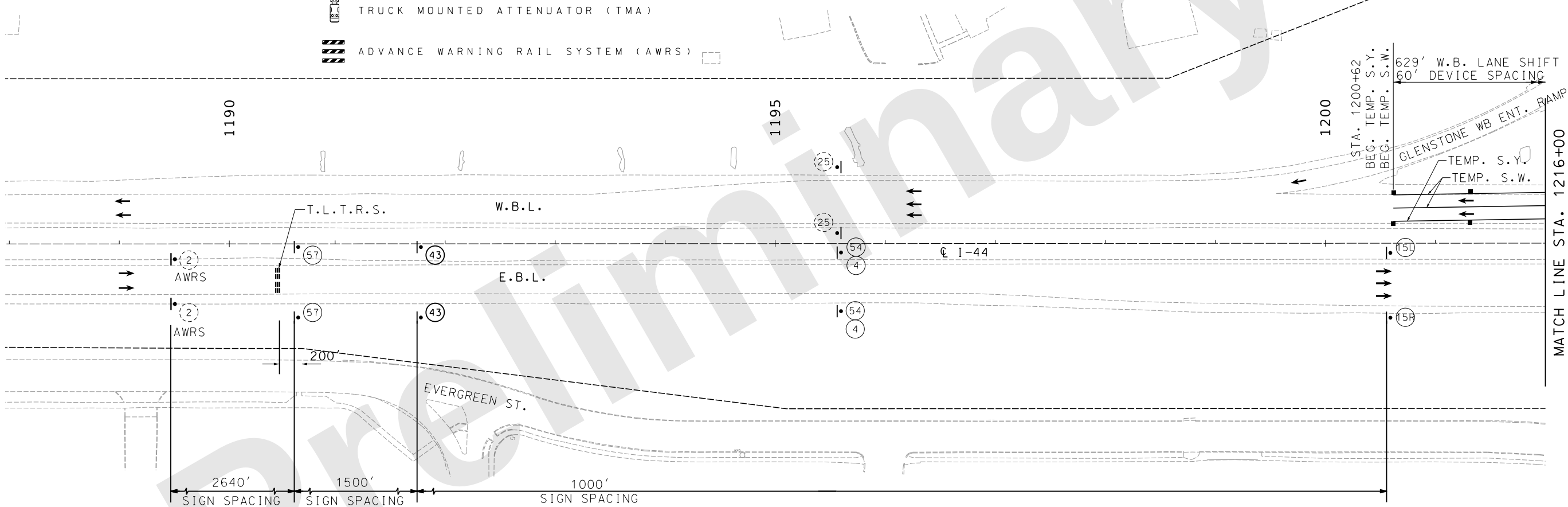
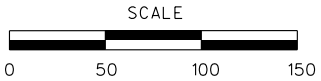
TRAFFIC CONTROL PLAN
PHASE 2B
J813044C
SHEET 1 OF 2

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- ▲ DIRECTIONAL INDICATOR BARRICADES (DIB) W/ LIGHTS
- CHANNELIZER
- E TYPE 3 BARRICADE
- CHANGEABLE MESSAGE BOARD (CMS)
- TEMP. LONG TERM RUMBLE STRIPS (T.L.T.R.S.)
- FLASHING ARROW PANEL (FAP)
- TRUCK MOUNTED ATTENUATOR (TMA)
- ADVANCE WARNING RAIL SYSTEM (AWRS)

SPEED
LIMIT
60

R2-1
(25)



TRAFFIC CONTROL PLAN
PHASE 3
J813044C
SHEET 1 OF 7

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ROUTE 1-44
DISTRICT SW
STATE MO
SHEET NO. 89

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

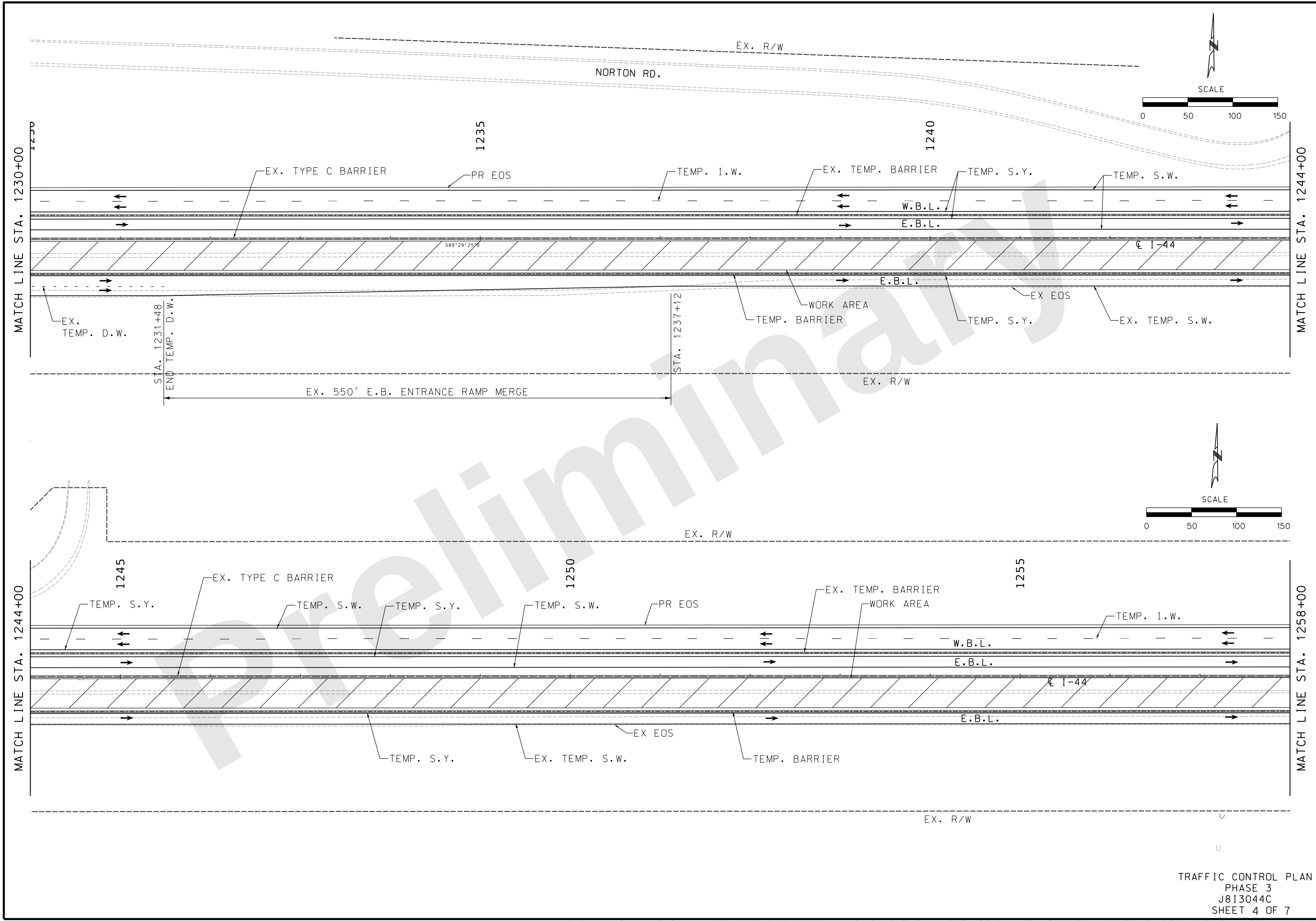
DESCRIPTION	DATE

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TRAFFIC CONTROL PLAN
PHASE 3
J813044C
SHEET 4 OF 7

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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 92
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

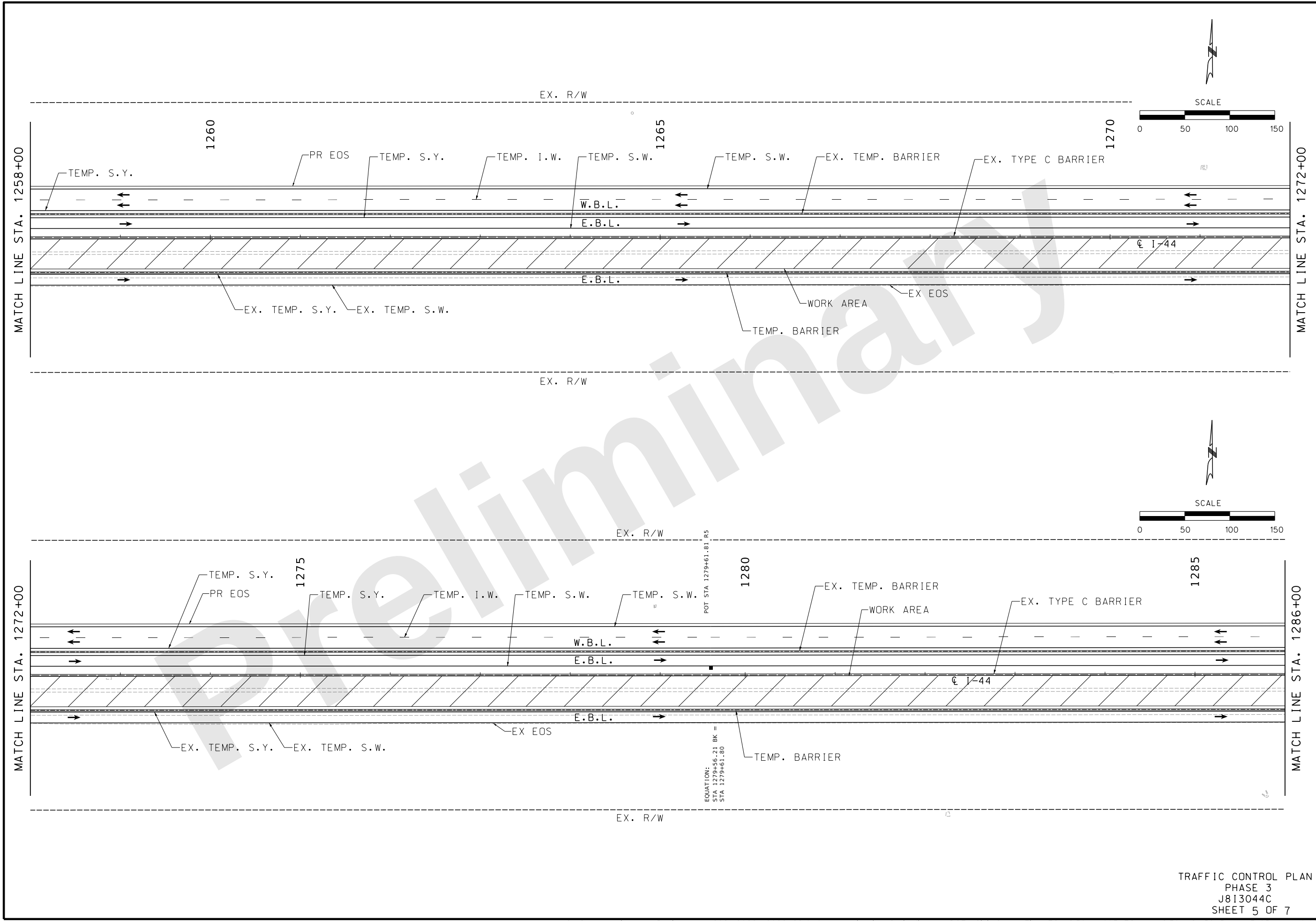
DESCRIPTION	DATE

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TRAFFIC CONTROL PLAN
PHASE 3
J813044C
SHEET 5 OF 7

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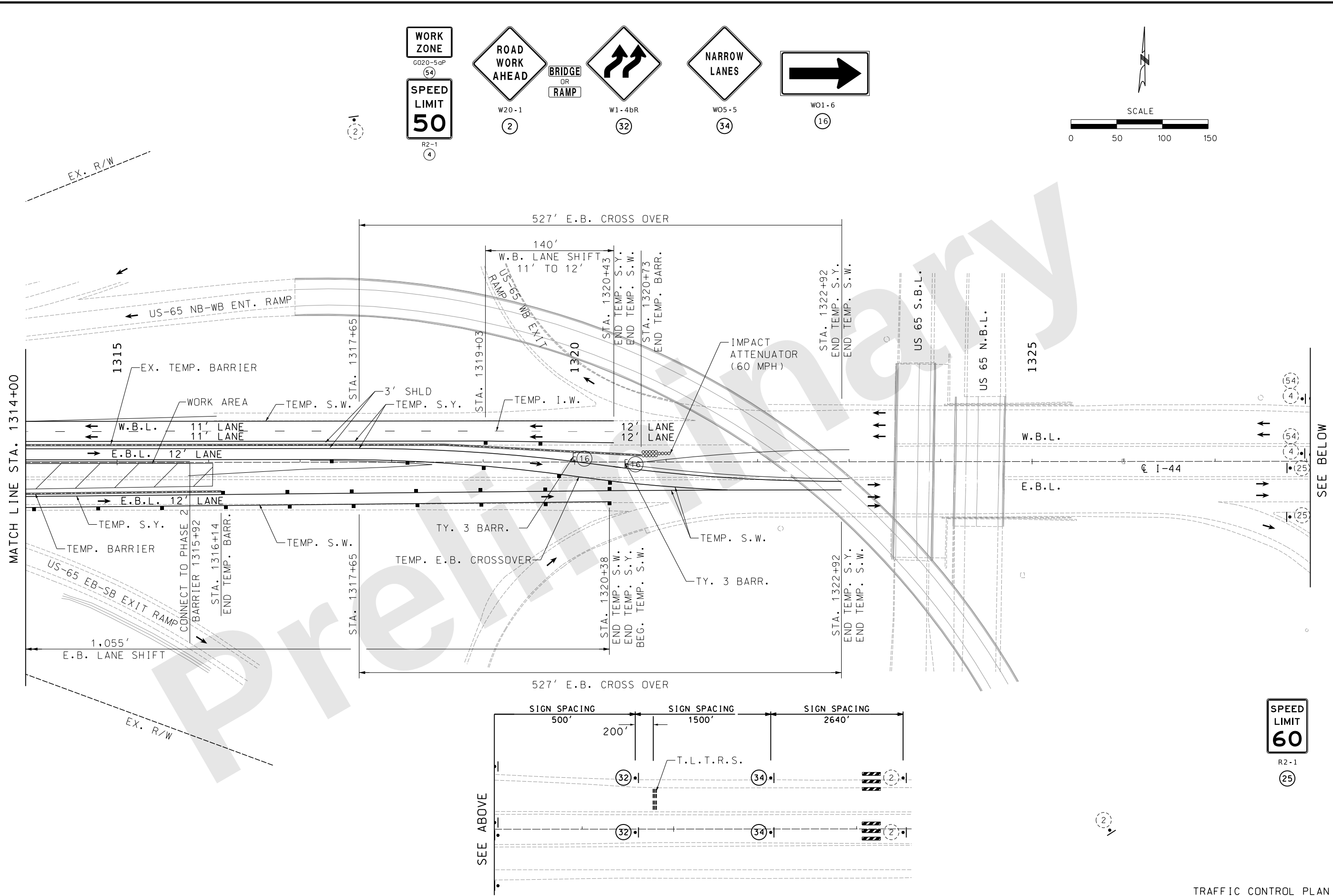
DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 93
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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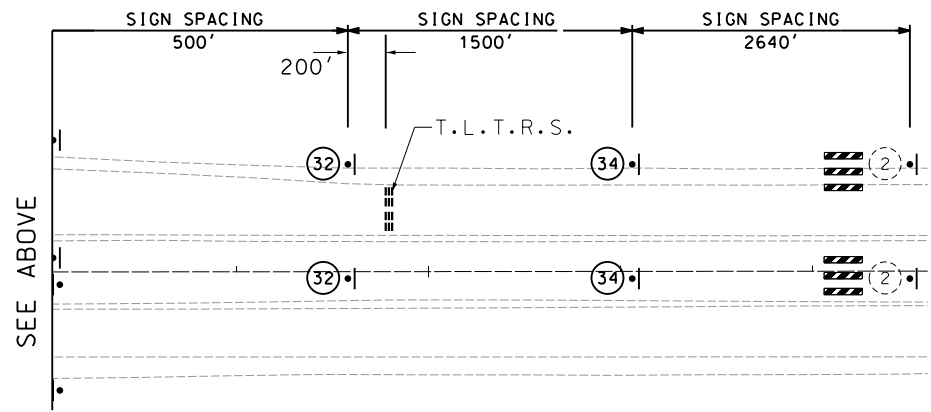
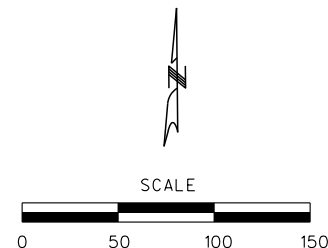
WORK ZONE
G020-5aP
(54)
SPEED LIMIT
50
R2-1
(4)

ROAD WORK AHEAD
W20-1
(2)

BRIDGE OR RAMP
W1-4bR
(32)

NARROW LANES
W05-5
(34)

→
W01-6
(16)



SPEED LIMIT
60
R2-1
(25)

TRAFFIC CONTROL PLAN
PHASE 3
J813044C
SHEET 7 OF 7

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DATE PREPARED
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ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
95

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

SEE BELOW

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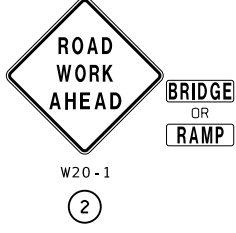
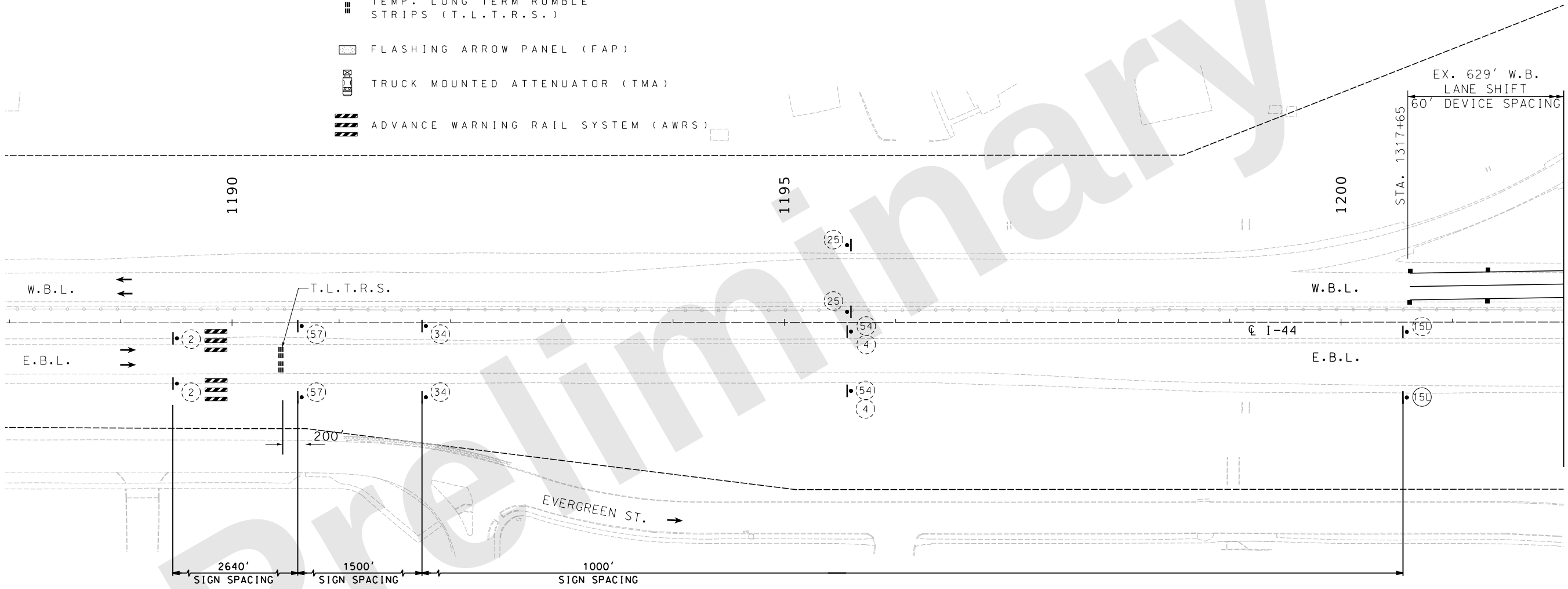
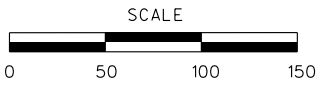
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PRO. ENGINEER 2010005873

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- ▲ DIRECTIONAL INDICATOR BARRICADES (DIB) W/ LIGHTS
- CHANNELIZER
- E TYPE 3 BARRICADE
- CHANGEABLE MESSAGE BOARD (CMS)
- TEMP. LONG TERM RUMBLE STRIPS (T.L.T.R.S.)
- FLASHING ARROW PANEL (FAP)
- TRUCK MOUNTED ATTENUATOR (TMA)
- ADVANCE WARNING RAIL SYSTEM (AWRS)

SPEED
LIMIT
60

R2-1
(25)



TRAFFIC CONTROL PLAN
PHASE 4
J813044C
SHEET 1 OF 7

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DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 96

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

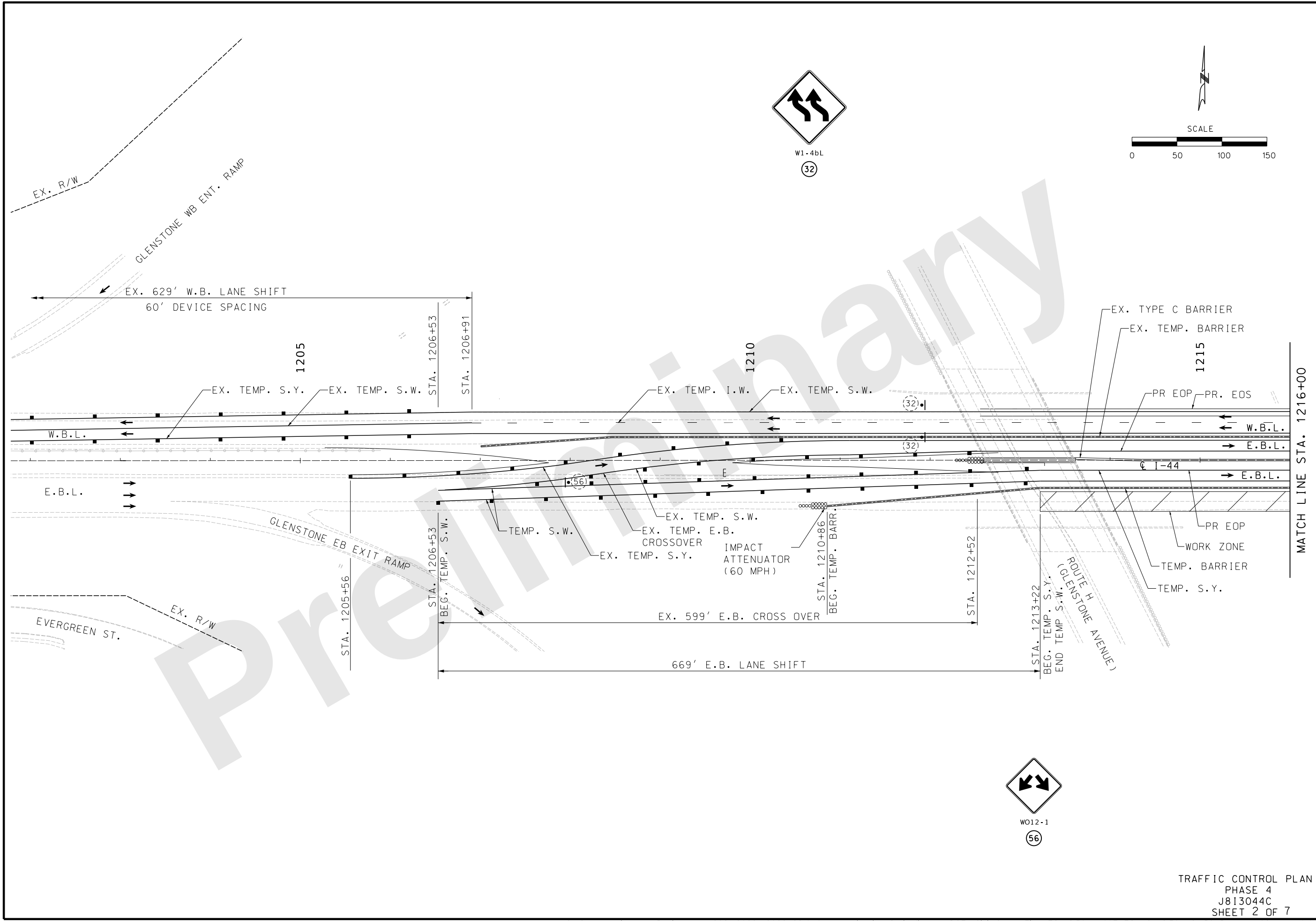
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

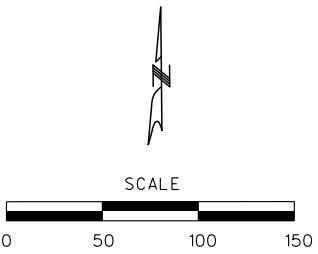
105 WEST CAPITAL
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W1-4bL
(32)



W012-1
(56)

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9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 97

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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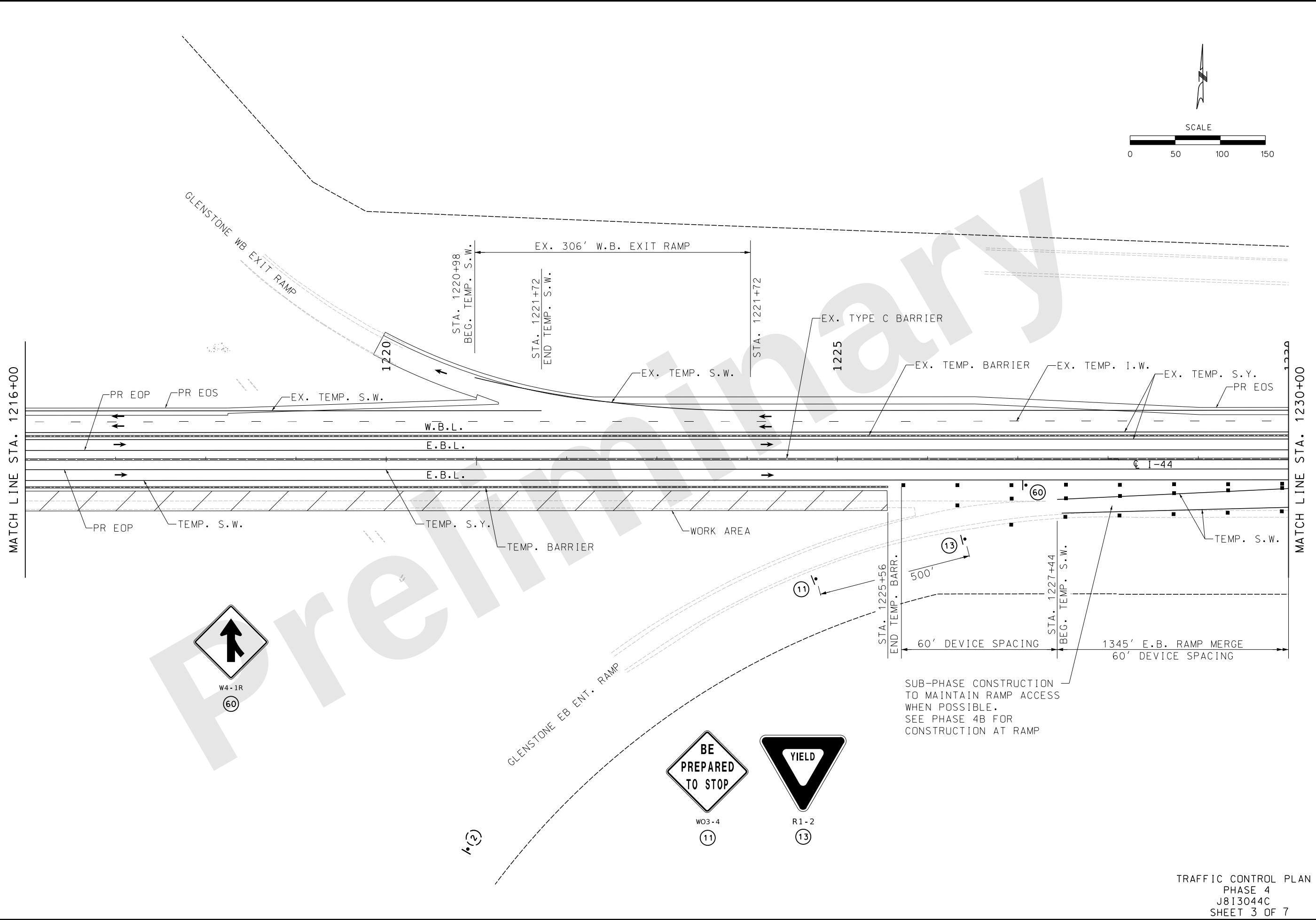
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PRO. ENGINEER 2010005873

TRAFFIC CONTROL PLAN
PHASE 4
J813044C
SHEET 2 OF 7



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DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 98

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

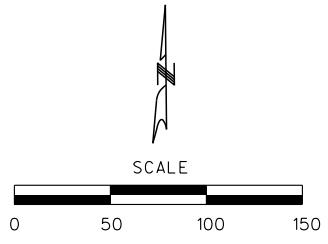
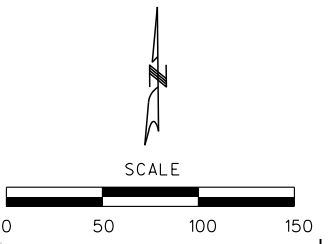
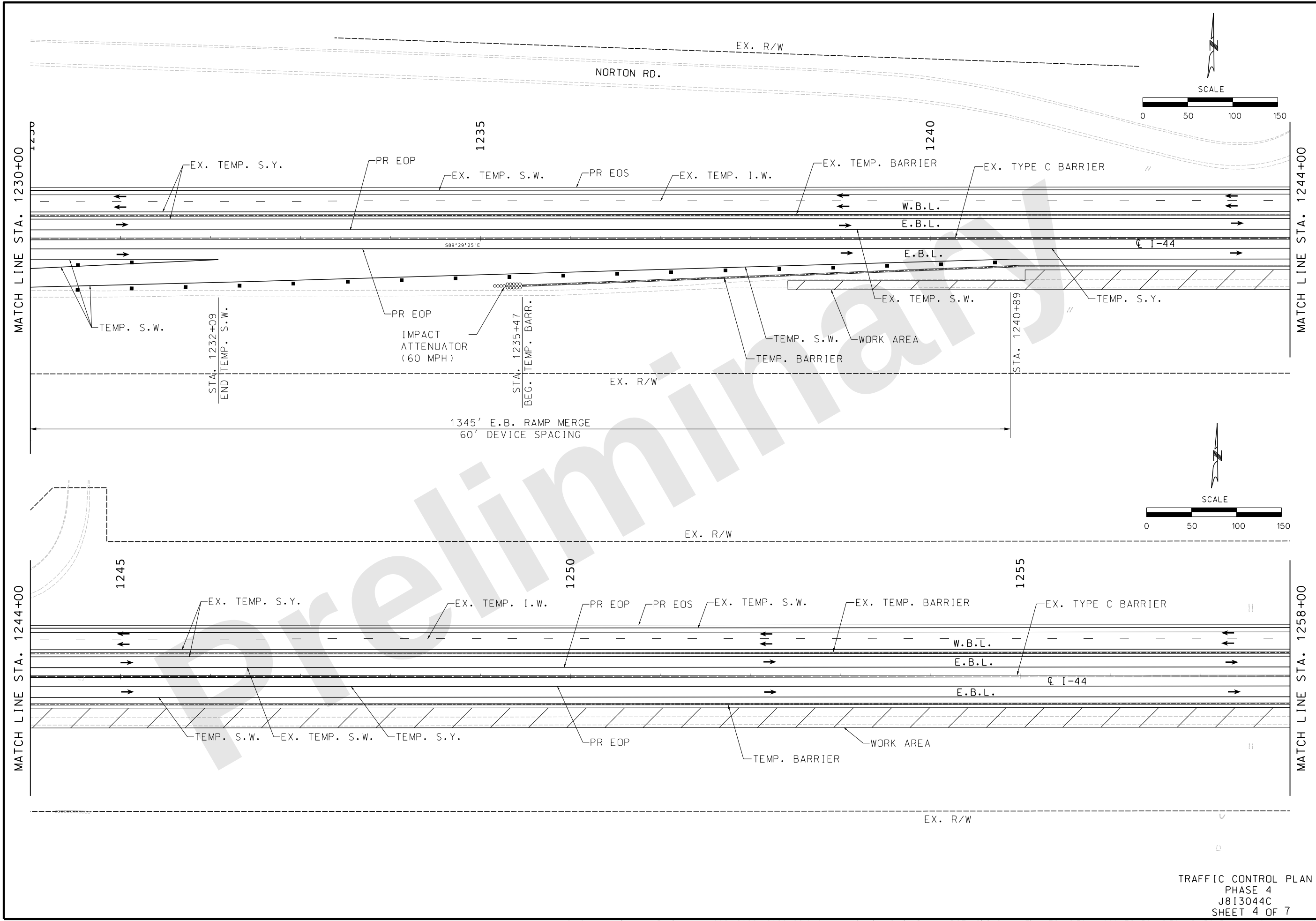
105 WEST CAPITAL
JEFFERSON CITY, MO 65102
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PRO. ENGINEER 201005873

TRAFFIC CONTROL PLAN
PHASE 4
J813044C
SHEET 3 OF 7



TRAFFIC CONTROL PLAN
PHASE 4
J813044C
SHEET 4 OF 7

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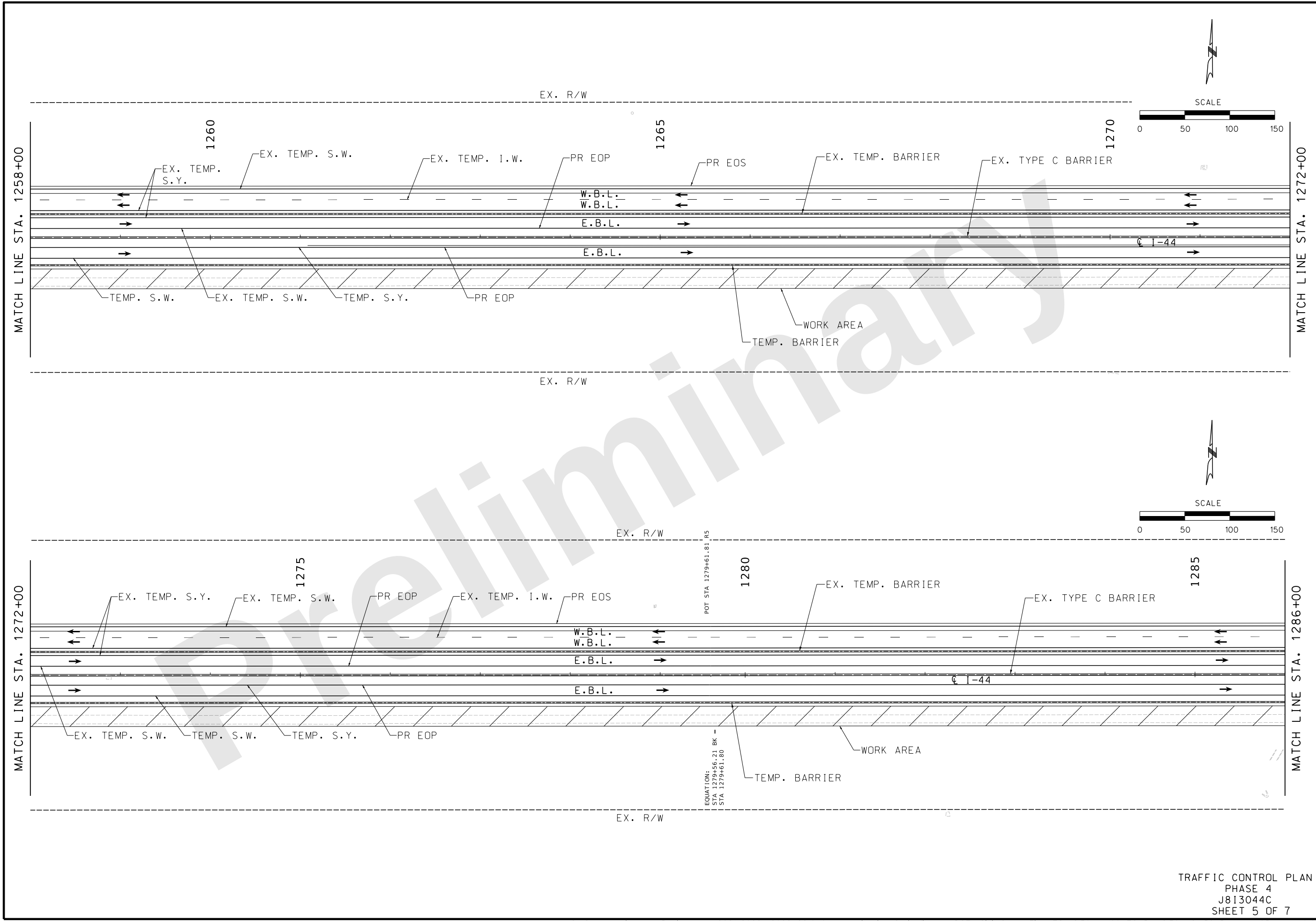
DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 99
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

consult inc planners
9111 NE 79th Street, Kansas City, MO 64151 (816) 912-4720
Hg CONSULT, INC.
PRO. ENGINEER 2010005873



TRAFFIC CONTROL PLAN
PHASE 4
J813044C
SHEET 5 OF 7

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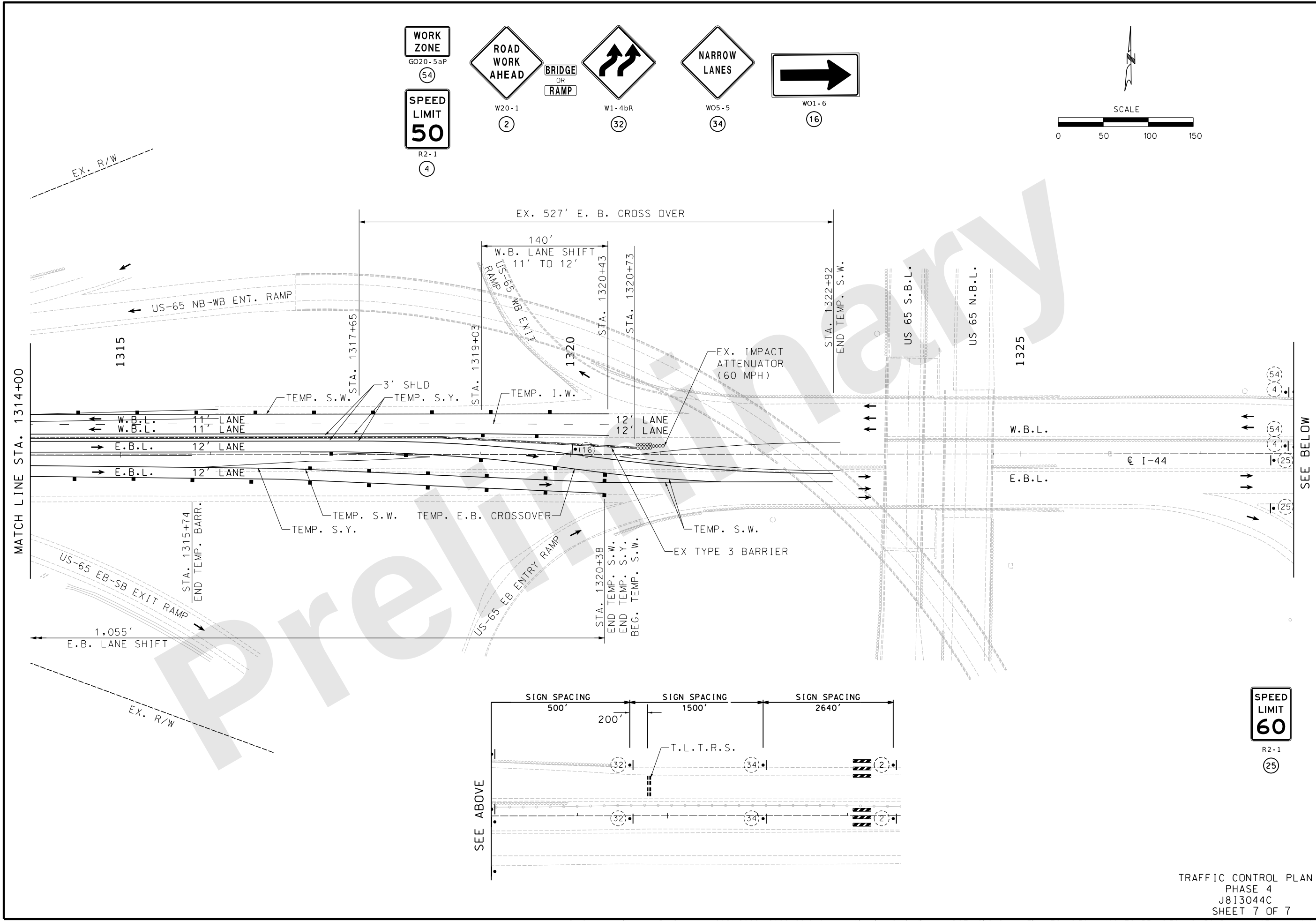
DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 100
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT
105 WEST CAPITAL
JEFFERSON CITY, MO 65102
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PRO. ENGINEER 2010005873



WORK ZONE
GO20-5aP
(54)
R2-1
(4)

SPEED LIMIT
50
(4)

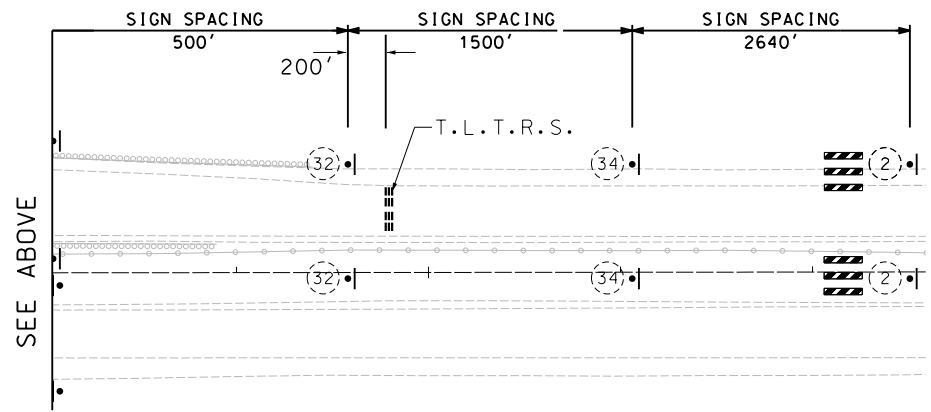
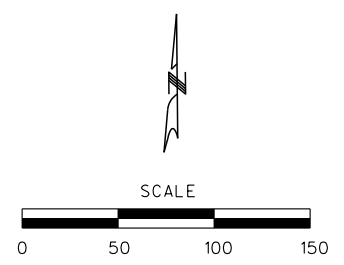
ROAD WORK AHEAD
W20-1
(2)

BRIDGE OR RAMP
(16)

W1-4bR
(32)

NARROW LANES
W05-5
(34)

W01-6
(16)



SPEED LIMIT
60
R2-1
(25)

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DATE PREPARED
9/27/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
102

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

SEE BELOW

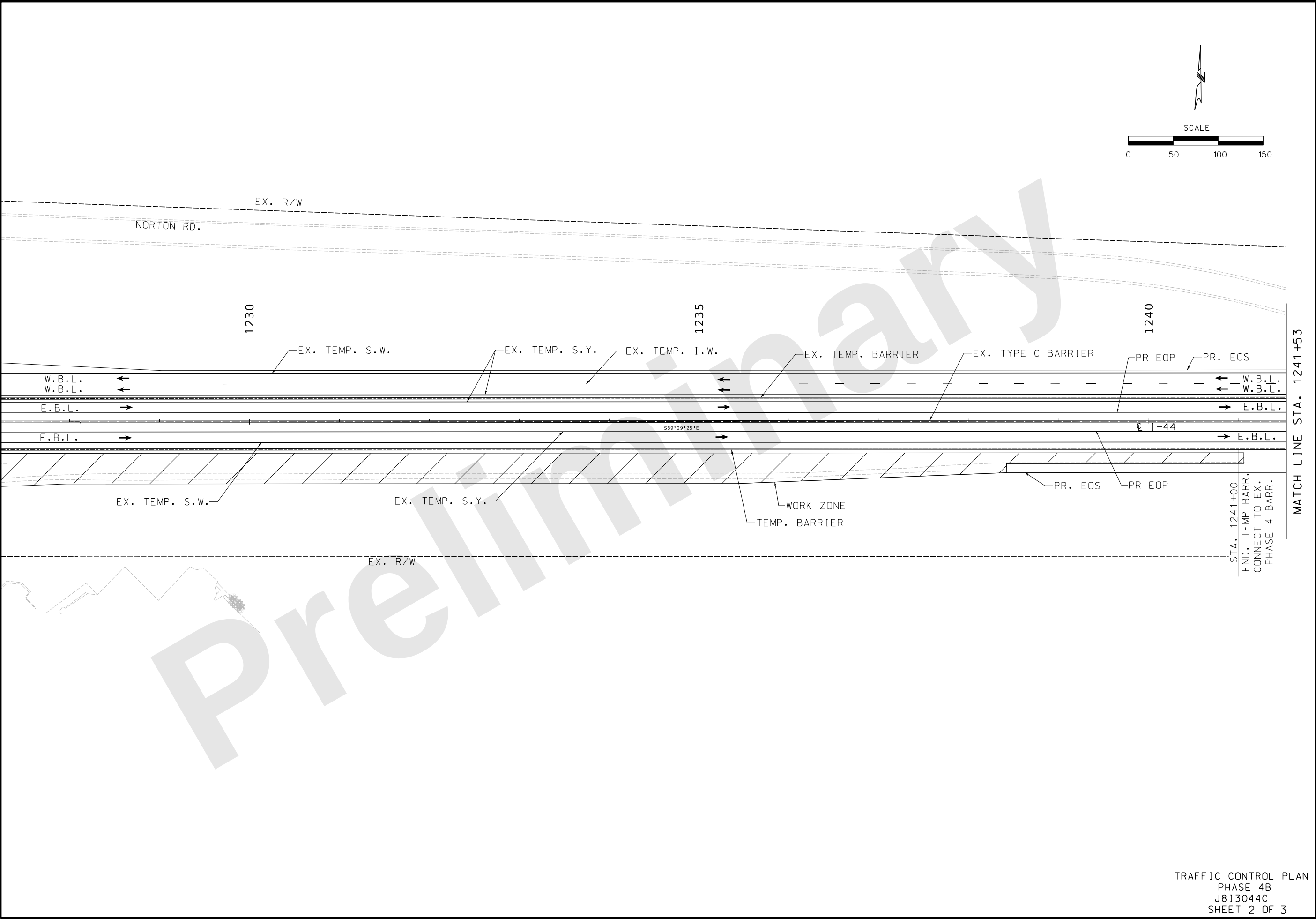
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TRAFFIC CONTROL PLAN
PHASE 4
J813044C
SHEET 7 OF 7



TRAFFIC CONTROL PLAN
PHASE 4B
J813044C
SHEET 2 OF 3

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DATE PREPARED
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ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 104

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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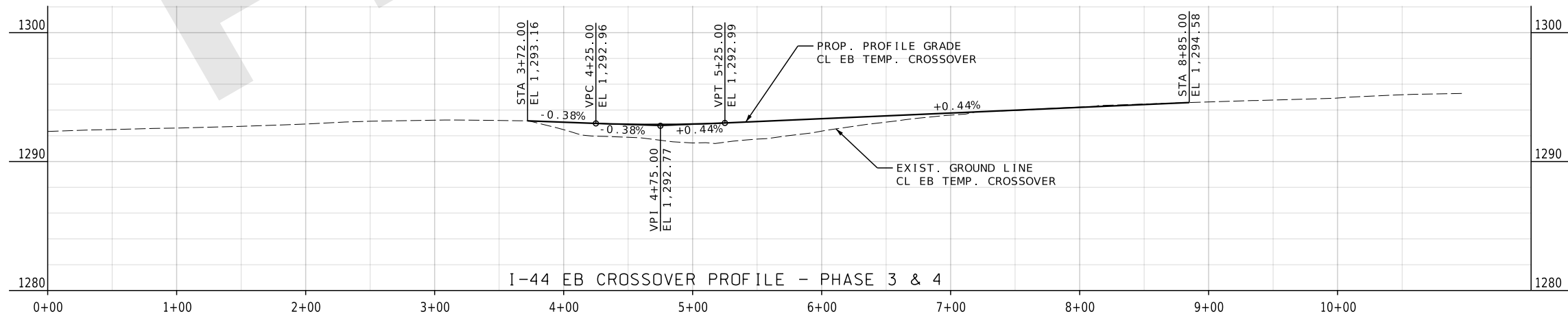
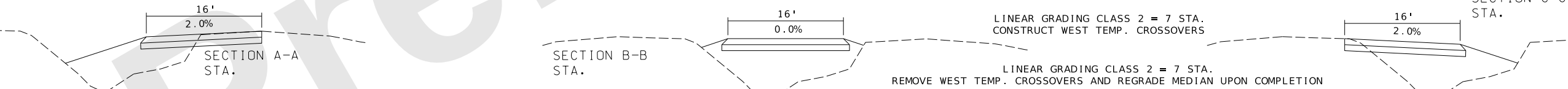
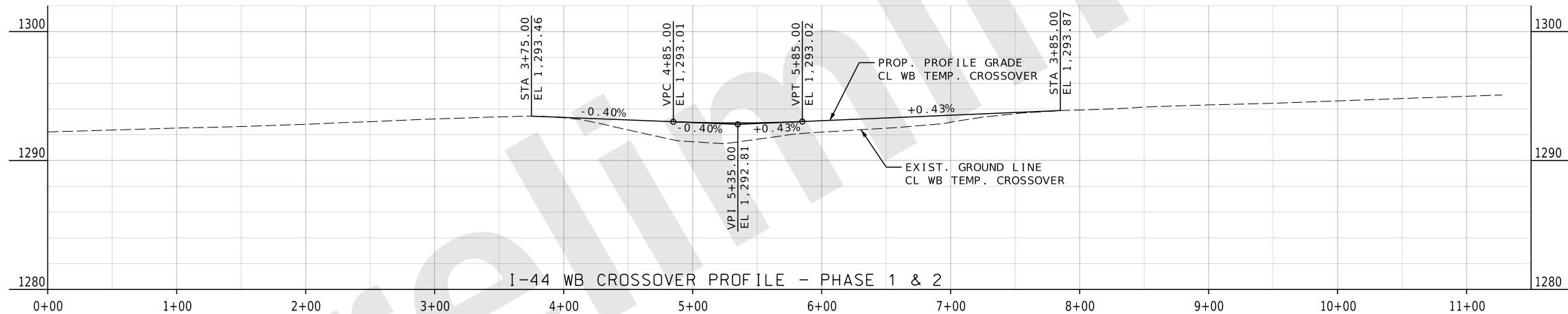
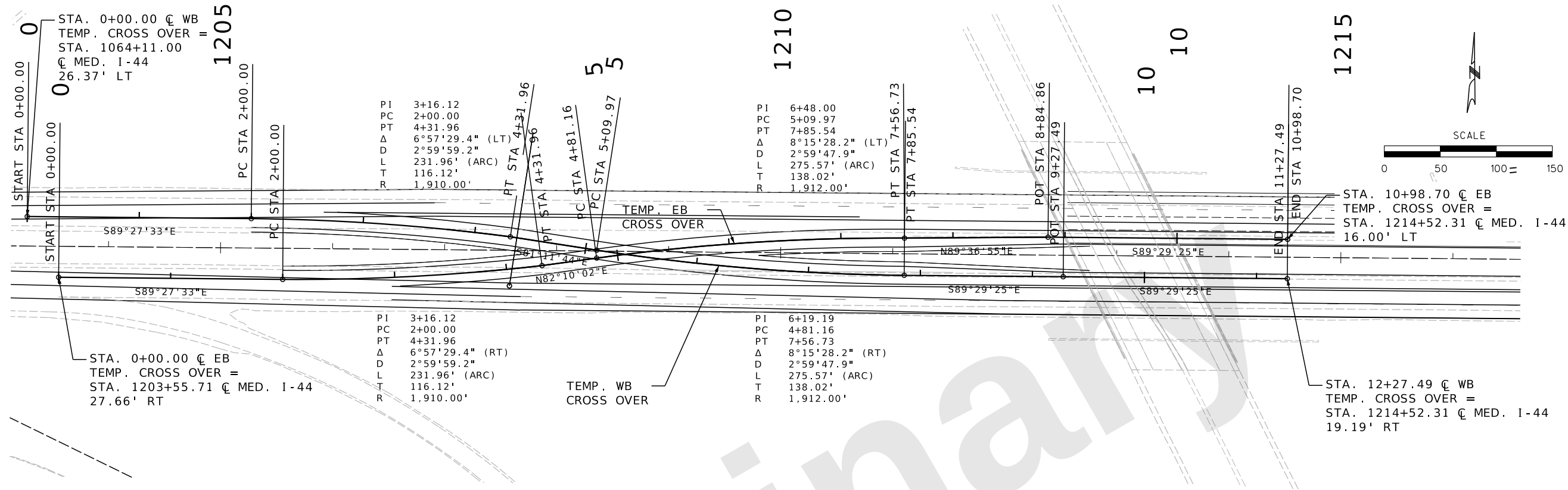
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TRAFFIC CONTROL PLAN
WEST END TEMP. CROSSOVERS
J813044C
SHEET 1 OF 2

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DATE PREPARED 9/27/2024

ROUTE I-44 STATE MO

DISTRICT SW SHEET NO. 106

COUNTY GREENE

JOB NO. JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

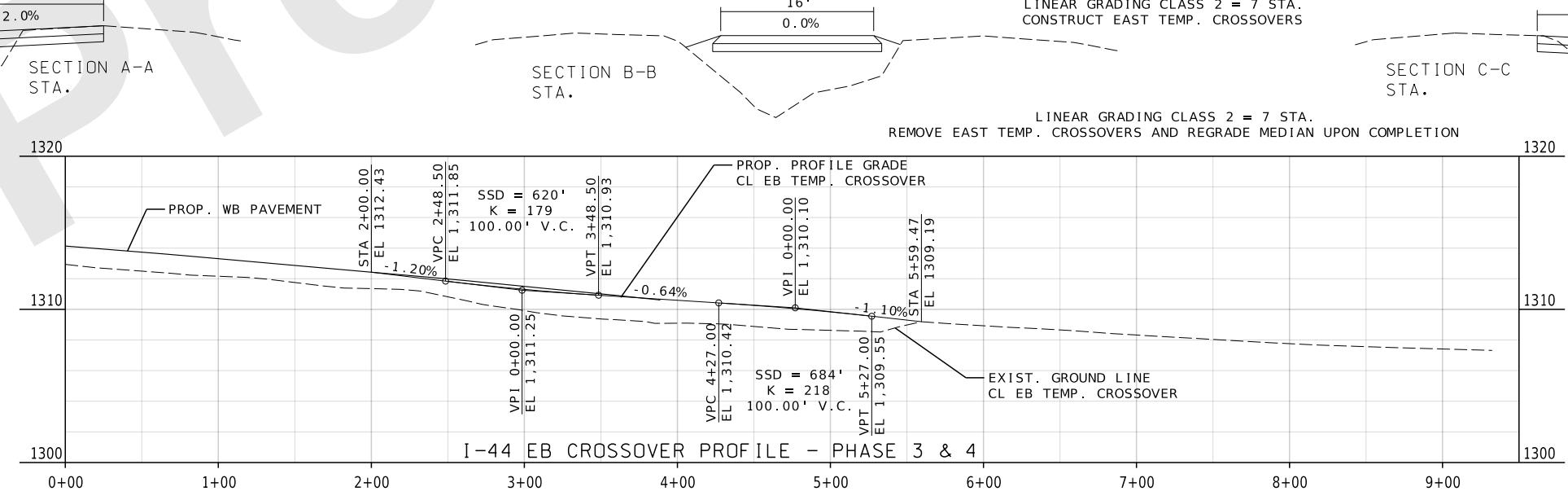
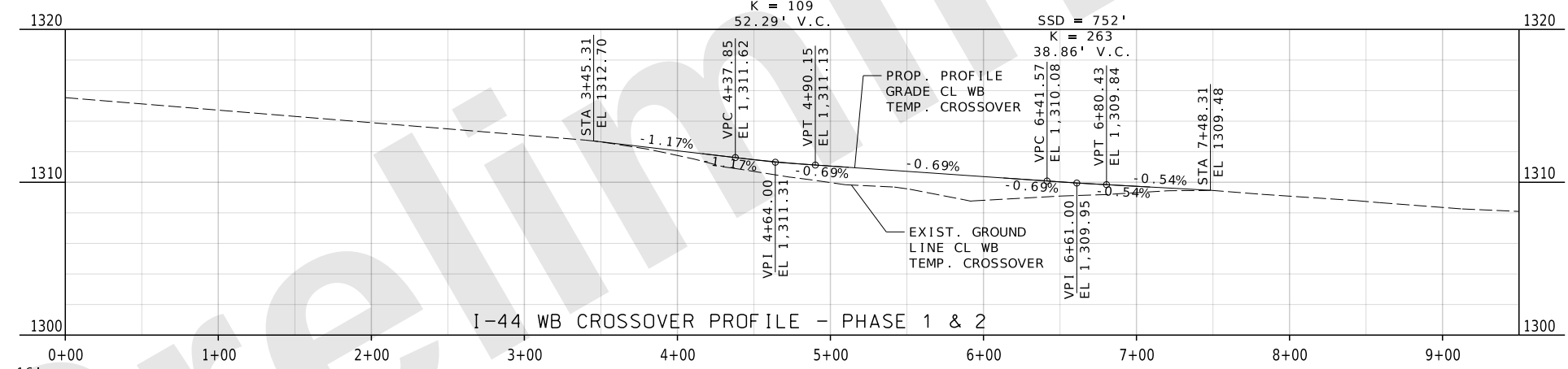
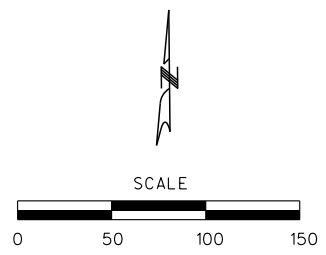
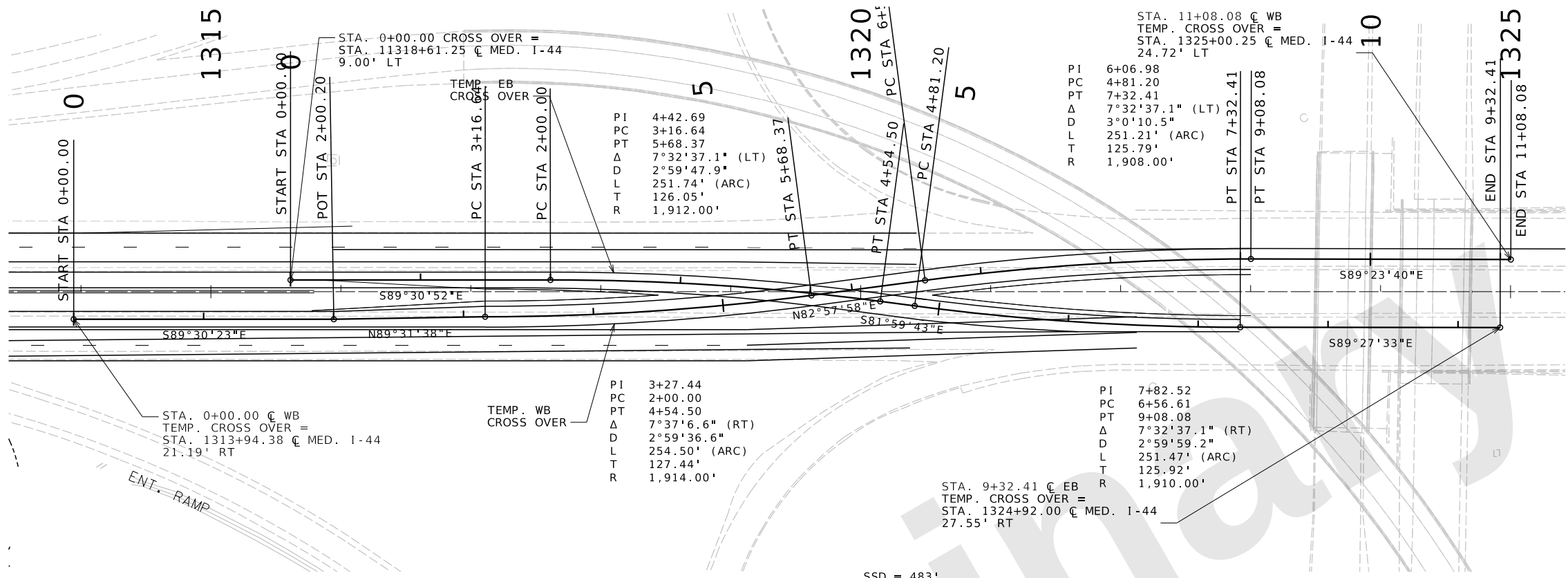
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Consult engineers inc planners

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TRAFFIC CONTROL PLAN
EAST END TEMP. CROSSTERS
J813044C
SHEET 2 OF 2

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DATE PREPARED
9/27/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
107

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

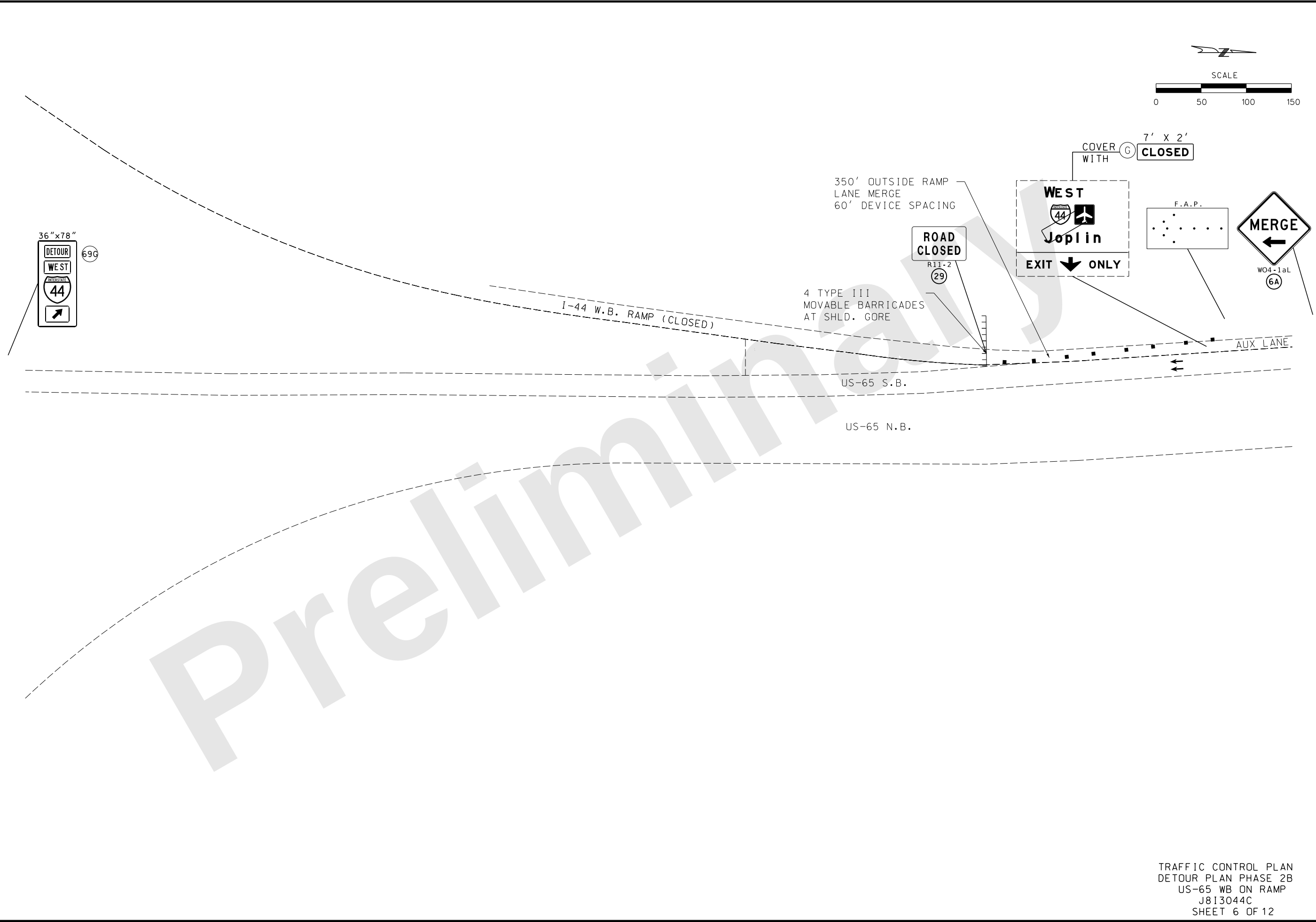
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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 113
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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TRAFFIC CONTROL PLAN
DETOUR PLAN PHASE 2B
US-65 WB ON RAMP
J813044C
SHEET 6 OF 12

JSU0076, I-44 WIDENING ROUTE 13 TO GLENSTONE
STAGED CONSTRUCTION

STAGE 0

UTILIZE OVERNIGHT I-44 EB AND WB INSIDE LANE CLOSURES NEAR ROUTE 13 AND GLENSTONE.
CONSTRUCT TEMPORARY CROSSTOVERS FOR SINGLE I-44 EB LANE.

STAGE 0B

UTILIZE OVERNIGHT I-44 WB OUTSIDE LANE CLOSURE.
CONSTRUCT FULL DEPTH OUTSIDE SHOULDER.

STAGE 1

SPLIT EB I-44 TRAFFIC WITH ONE LANE CROSSING OVER TO EXISTING WB LANES
AND THE SECOND LANE SHIFTED TO THE EXISTING EB INSIDE SHOULDER.
MAINTAIN TWO WB LANES AND ONE EB LANE SEPARATED BY TEMP. ANCHORED BARRIER
ON THE EXISTING WB TRAVELWAY.
CLOSE GLENSTONE WB ENTRANCE RAMP AND DETOUR KEARNEY/KANSAS EXPY/I-44 WB.
ACCESS TO ROUTE 13 WB EXIT RAMP, ROUTE 13 TO I-44 EB ENTRANCE RAMP AND
GLENSTONE EB EXIT RAMP SHALL BE PROVIDED AT ALL TIMES.

REMOVE AND CONSTRUCT OUTSIDE PORTION OF WB I-44 BRIDGES.
CONSTRUCT OUTSIDE SHOULDERS AND PROPOSED LANE OF I-44 WB.

STAGE 1B

MAINLINE I-44 TO STAY IN TRAFFIC CONFIGURATION FROM STAGE 1.
GLENSTONE WB ENTRANCE RAMP TO REMAIN CLOSED AND DETOURED.
CLOSE ROUTE 13 TO I-44 EB ENTRANCE RAMP AND DETOUR VIA KEARNEY/GLENSTONE/I-44 EB.
CLOSE I-44 EB TO GLENSTONE EXIT RAMP AND DETOUR VIA ROUTE 13/KEARNEY/GLENSTONE.

CONSTRUCT EB RAMP GORES AND REMAINING ACCEL/DECEL LANES.

STAGE 2

MAINTAIN TRAFFIC CONFIGURATION ON THE EXISTING WB TRAVELWAY OF TWO WB LANES AND
ONE EB LANE SEPARATED BY TEMP. ANCHORED BARRIER.
SHIFT EB LANE ON EB TRAVELWAY TO OUTSIDE ONTO NEWLY CONSTRUCTED PAVEMENT AND SHOULDERS.

ROUTE 13 EB ENTRANCE RAMP TO REMAIN CLOSED AND DETOURED WEST ON I-44 VIA THE US 160 INTERCHANGE.
ACCESS TO ROUTE 13 WB EXIT RAMP, GLENSTONE WB ENTRANCE RAMP, AND GLENSTONE EB
EXIT RAMP SHALL BE MAINTAINED AT ALL TIMES.
GLENSTONE WB ENTRANCE RAMP TO REMAIN CLOSED AND DETOURED.
ACCESS TO ALL OTHER RAMPS TO BE MAINTAINED AT ALL TIMES.

REMOVE AND CONSTRUCT INSIDE PORTION OF EB I-44 BRIDGES.
CONSTRUCT GRADING, DRAINAGE AND INSIDE SHOULDERS AND PROPOSED LANES OF I-44 EB.

STAGE 3

PROVIDE TWO-LANE Crossover TO SHIFT WB I-44 TRAFFIC TO THE EB TRAVELWAY.
MAINTAIN TWO LANES IN EACH DIRECTION SEPARATED BY ANCHORED TRAFFIC BARRIER.
ROUTE 13 EB ENTRANCE RAMP AND I-44 EB EXIT RAMP TO GLENSTONE SHALL BE MAINTAINED AT ALL TIMES.
GLENSTONE TO WB I-44 ENTRANCE RAMP TO REMAIN CLOSED AND DETOURED.
CLOSE AND DETOUR I-44 WB EXIT RAMP TO ROUTE 13 VIA THE US 160 INTERCHANGE.

REMOVE AND CONSTRUCT WB I-44 BRIDGES.
CONSTRUCT GRADING, DRAINAGE, SHOULDERS, PROPOSED LANES AND RAMPS OF I-44 WB.

STAGE 4

PROVIDE TWO-LANE Crossover TO SHIFT EB I-44 TRAFFIC TO THE WB TRAVELWAY.
MAINTAIN TWO LANES IN EACH DIRECTION SEPARATED BY ANCHORED TRAFFIC BARRIER.
ACCESS SHALL BE MAINTAINED TO ALL RAMPS AT ALL TIMES.

CONSTRUCT DOLING TRAIL RCB UNDER I-44 EB ROADBED.

STAGE 5

UTILIZE SHORT-TERM/OVERNIGHT LANE CLOSURES OF I-44 NEAR ROUTE 13.

REMOVE TEMPORARY CROSSTOVERS.
CONSTRUCT PROPOSED PAVEMENT AND SHOULDER TRANSITIONS AT THE WEST END OF THE PROJECT.

TRAFFIC CONTROL PLAN
STAGING WRITE-UP
JSU0076

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DATE PREPARED
9/27/2024

ROUTE	STATE
I-44	MO
DISTRICT	SHEET NO.
SW	120

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



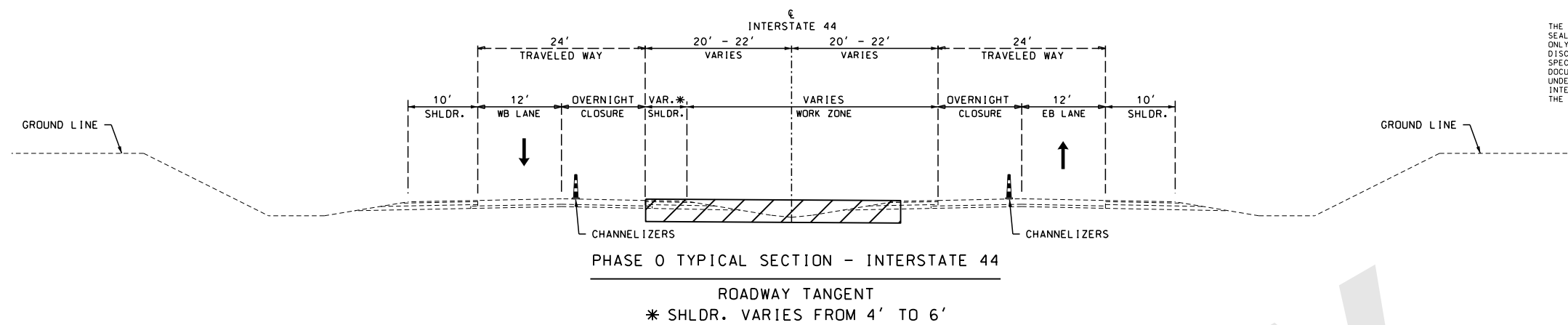
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JEFFERSON CITY, MO 65102
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PRO. ENGINEER 2010005873



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DOCUMENT."

ROUTE	STATE
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COUNTY

JOB NO.

PROJECT NO.

BRIDGE NO.

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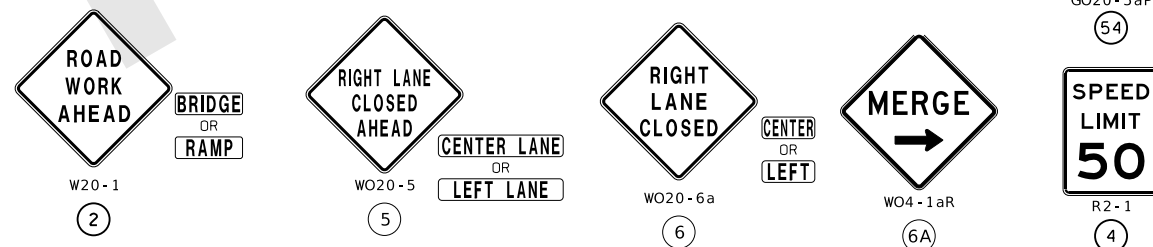
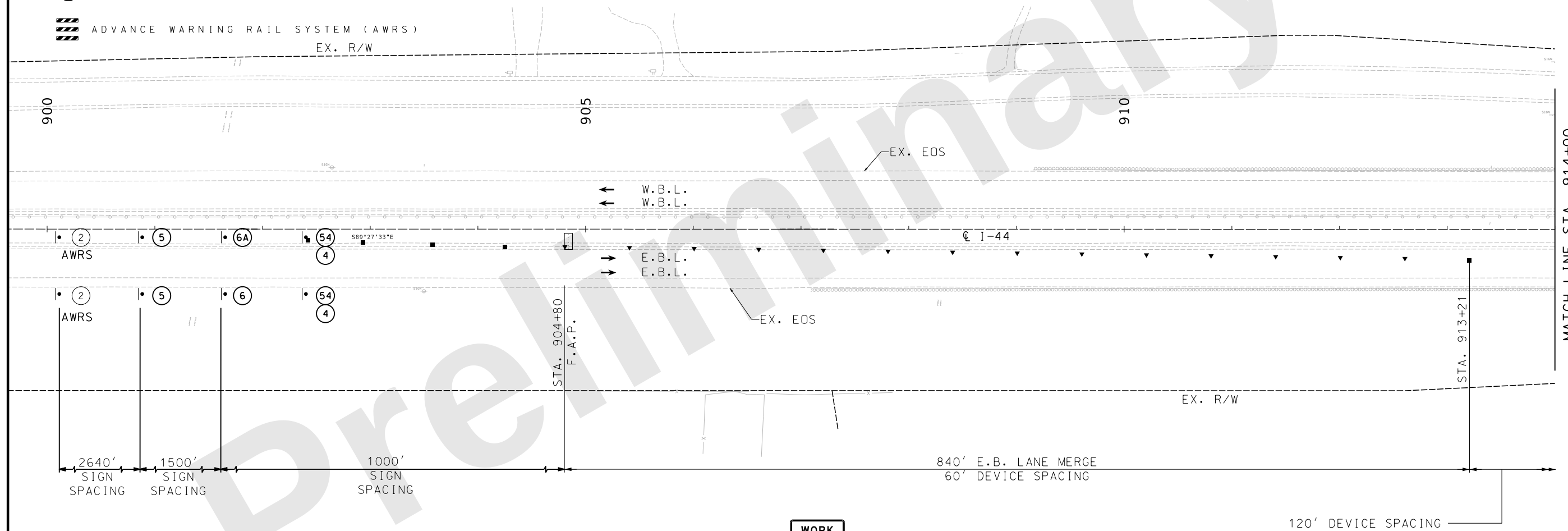
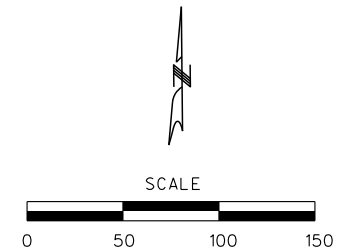
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engineers
Inc **planners**

9111 NE 28th Street, Commerce City, MN 55120
612.631.2420

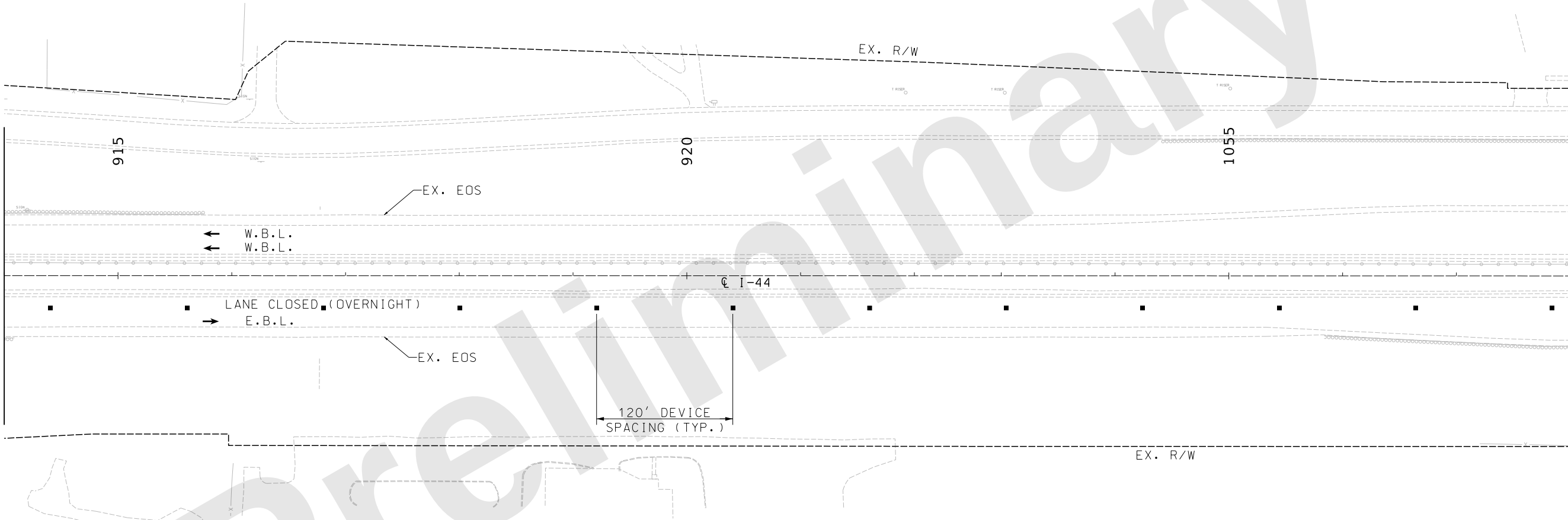
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PRG. ENGINEER 20100059

TRAFFIC CONTROL LEGEND

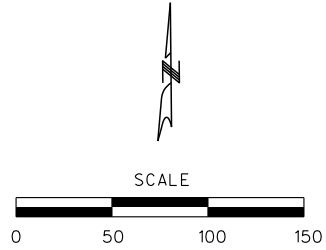
-  SIGN (SINGLE SIDED)
 DIRECTIONAL INDICATOR
 BARRICADES (DIB) W/ LIGHTS
 CHANNELIZER
 TYPE 3 BARRICADE
 CHANGEABLE MESSAGE BOARD (CMS)
 TEMP. LONG TERM RUMBLE
 STRIPS (T.L.T.R.S.)
 FLASHING ARROW PANEL (FAP)
 TRUCK MOUNTED ATTENUATOR (TMA)
 ADVANCE WARNING RAIL SYSTEM (AWRS)
 EX. R/W



MATCH LINE STA. 914+00



MATCH LINE STA. 1058+00



TRAFFIC CONTROL PLAN
PHASE 0
JSU0076
SHEET 2 OF 11

DATE PREPARED
9/27/2024

ROUTE
I-44

DISTRICT
SW

STATE
MO

SHEET NO.
125

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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



9111 NE 79th Street Kansas City, MO 64158 (816) 912-4720



PRO. ENGINEER 2010005873

SPEED
LIMIT
60

R2-1

(25)

100' 5 DEVICES

1000'
SIGN
SPACING
MIN.

EX. R/W

RTE. 13 WB ENT. RAMP

120' DEVICE
SPACING (TYP.)

1070

W.B.L.
LANE CLOSED (OVERNIGHT)

E.B.L.

WORK ZONE

120' DEVICE
SPACING (TYP.)

RTE. 13 EB EXIT RAMP

LANE CLOSED (OVERNIGHT)

EX. EOS

T.M.A.

EX. R/W

SCALE

0 50 100 150



MATCH LINE STA. 1058+00

MATCH LINE STA. 1072+00

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DATE PREPARED
9/27/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
126

COUNTY

GREENE

JOB NO.

JSU0076, J813044C,

& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



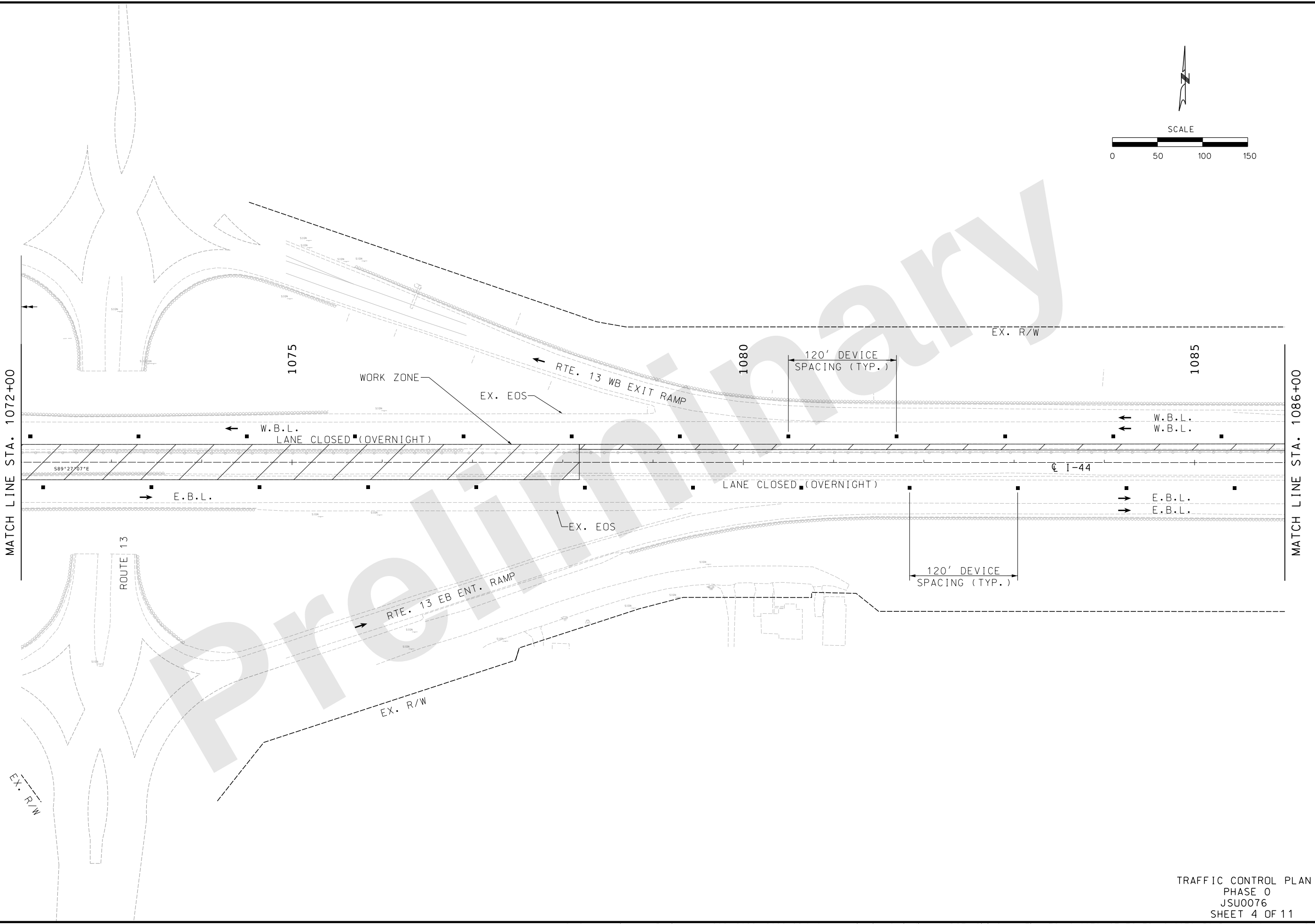
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1-888-ASK-MODOT (1-888-275-6636)

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PRO. ENGINEER 2010005873

TRAFFIC CONTROL PLAN
PHASE 0
JSU0076
SHEET 3 OF 11



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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 127
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

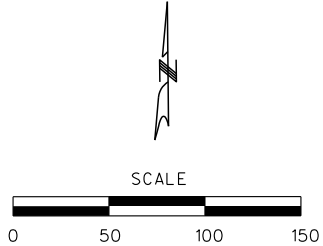
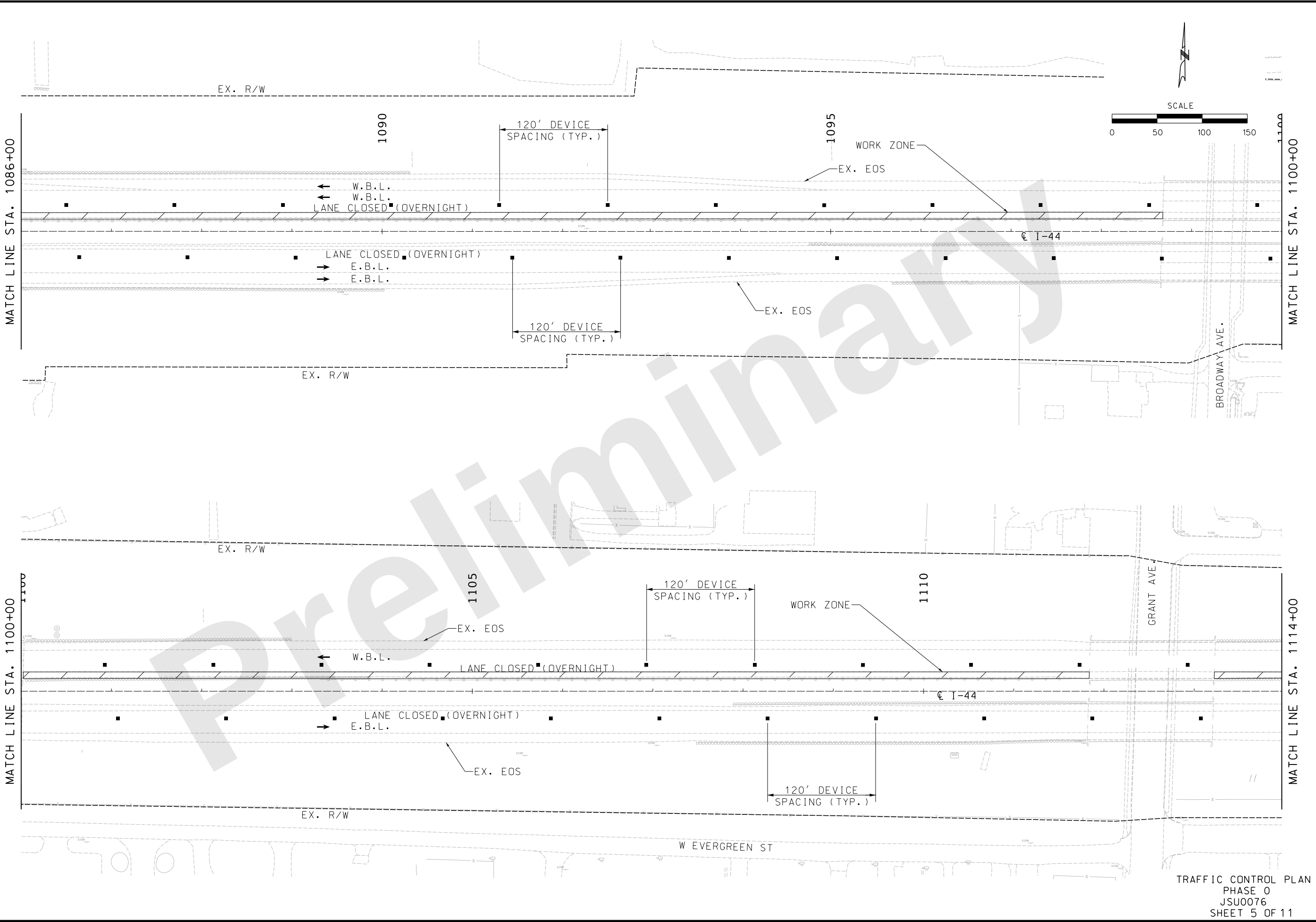
DESCRIPTION	DATE

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

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TRAFFIC CONTROL PLAN
PHASE 0
JSU0076
SHEET 4 OF 11



TRAFFIC CONTROL PLAN
PHASE 0
JSU0076
SHEET 5 OF 11

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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 128
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

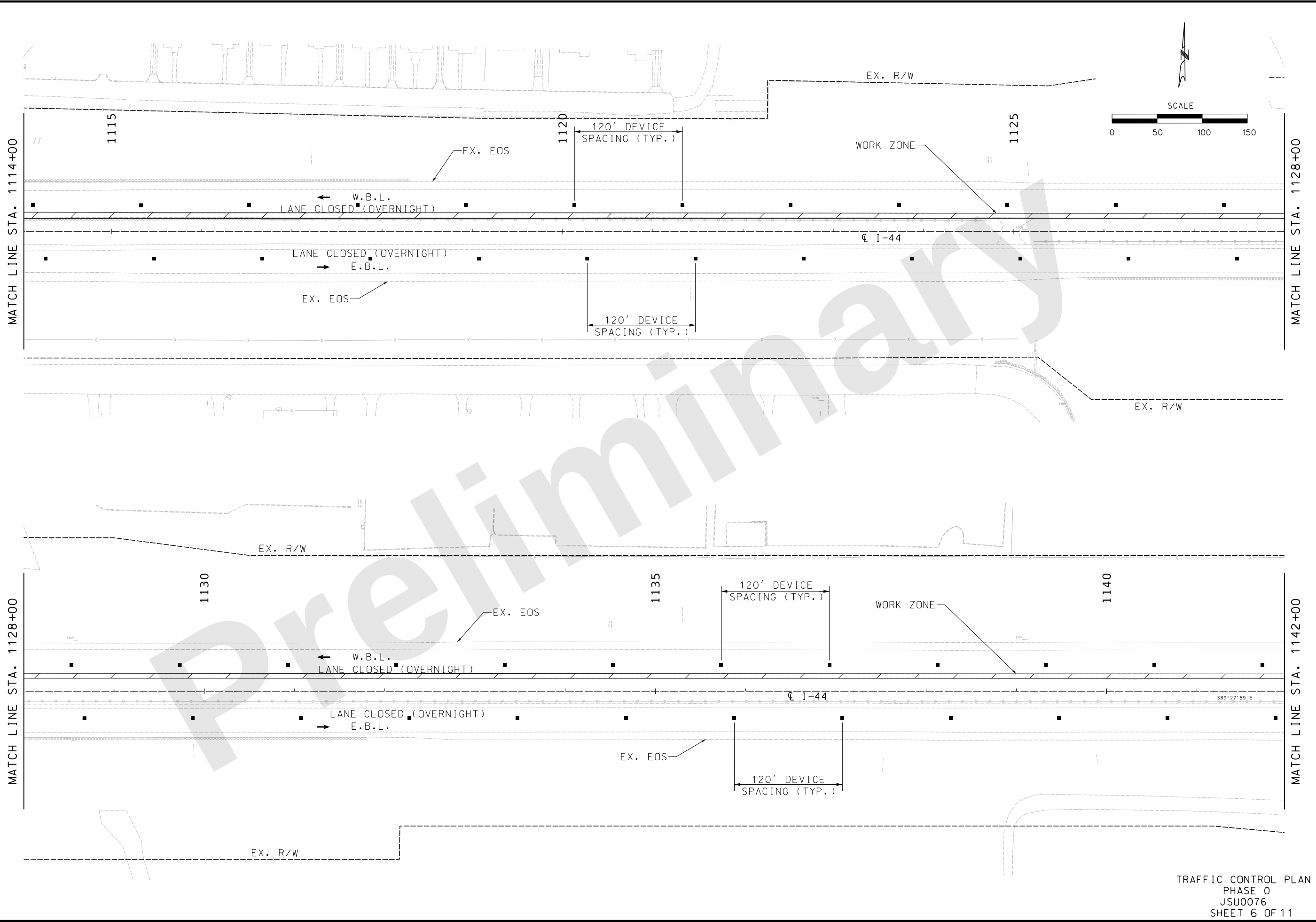
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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 129
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

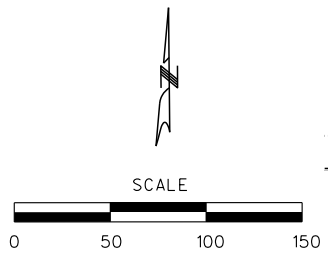
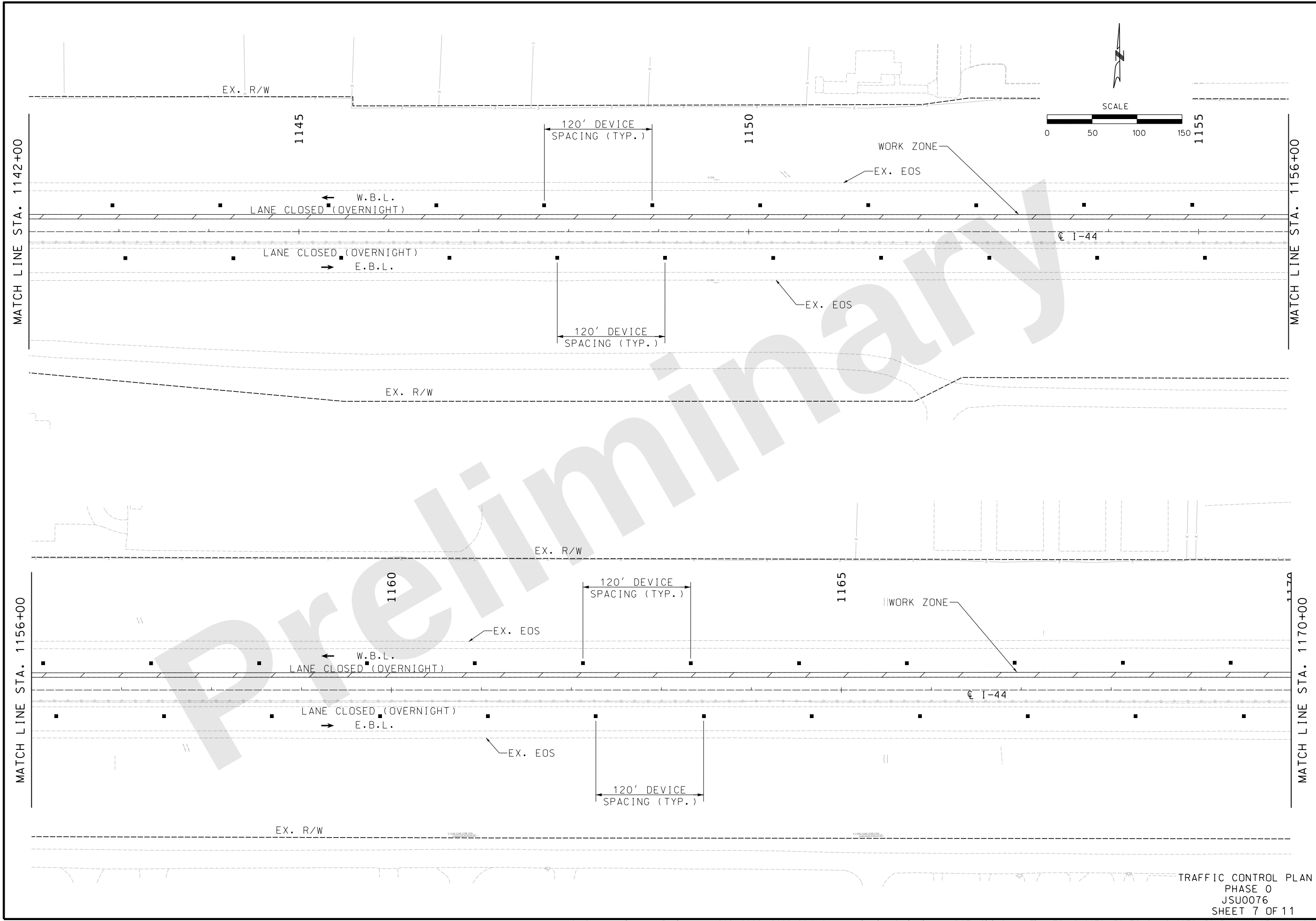
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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TRAFFIC CONTROL PLAN
PHASE 0
JSU0076
SHEET 6 OF 11



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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 130
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

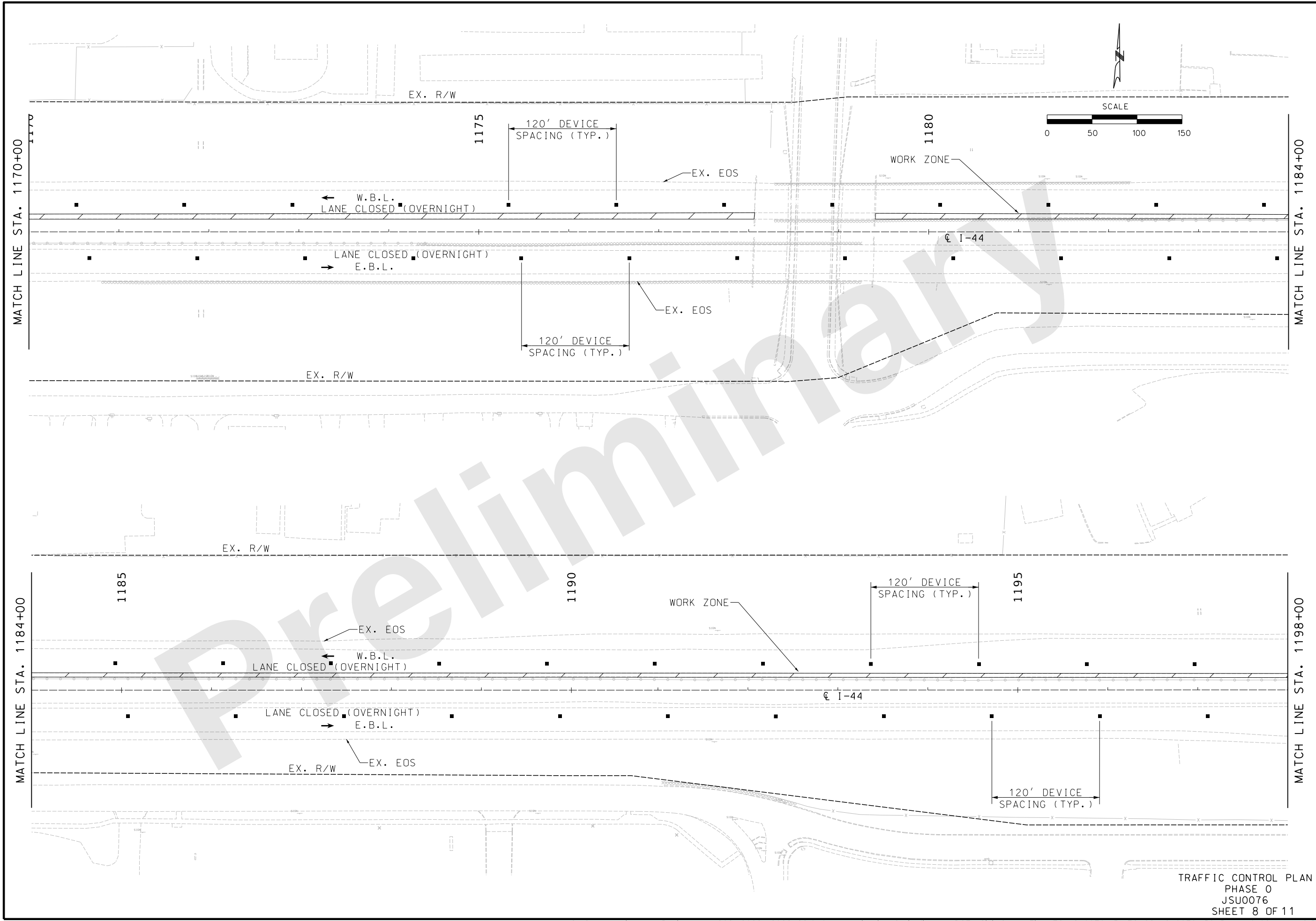
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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TRAFFIC CONTROL PLAN
PHASE 0
JSU0076
SHEET 7 OF 11



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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 131
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

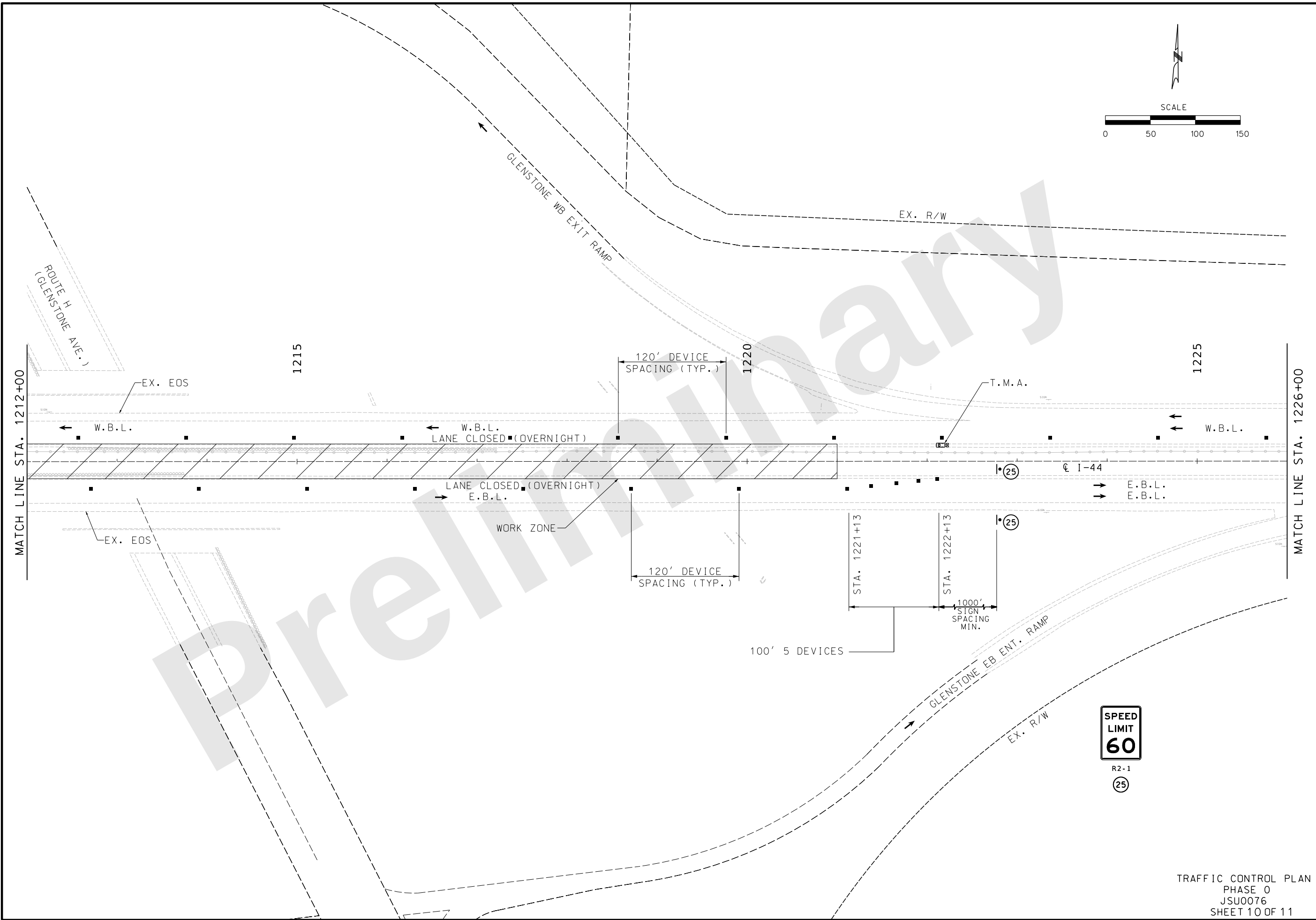
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

consult engineers inc planners
9111 NE 79th Street, Kansas City, MO 64151 (816)912-4720

Hg CONSULT, INC.
PRO. ENGINEER 201005873

TRAFFIC CONTROL PLAN
PHASE 0
JSU0076
SHEET 8 OF 11



THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 133

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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105 WEST CAPITAL
JEFFERSON CITY, MO 65102
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PRO. ENGINEER 2010005873

TRAFFIC CONTROL PLAN
PHASE 0
JSU0076
SHEET 10 OF 11

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- ▲

DIRECTIONAL INDICATOR BARRICADES (DIB) W/ LIGHTS
- CHANNELIZER
- E

TYPE 3 BARRICADE
- ☐

CHANGEABLE MESSAGE BOARD (CMS)
- ▬▬▬

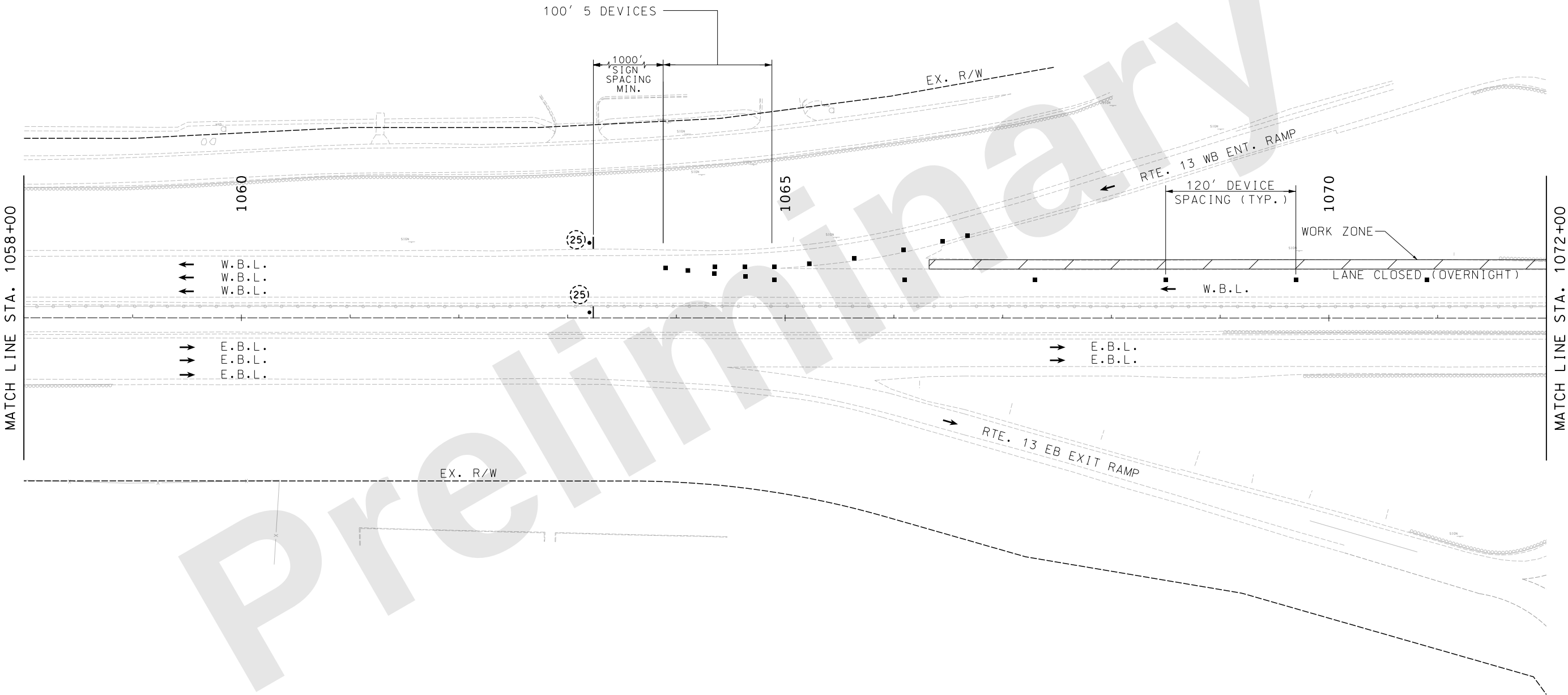
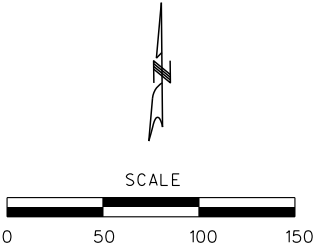
TEMP. LONG TERM RUMBLE STRIPS (T.L.T.R.S.)
- ☐

FLASHING ARROW PANEL (FAP)
- ☐

TRUCK MOUNTED ATTENUATOR (TMA)
- ▬▬▬

ADVANCE WARNING RAIL SYSTEM (AWRS)

SPEED
LIMIT
60
R2-1
(25)



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DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 135

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

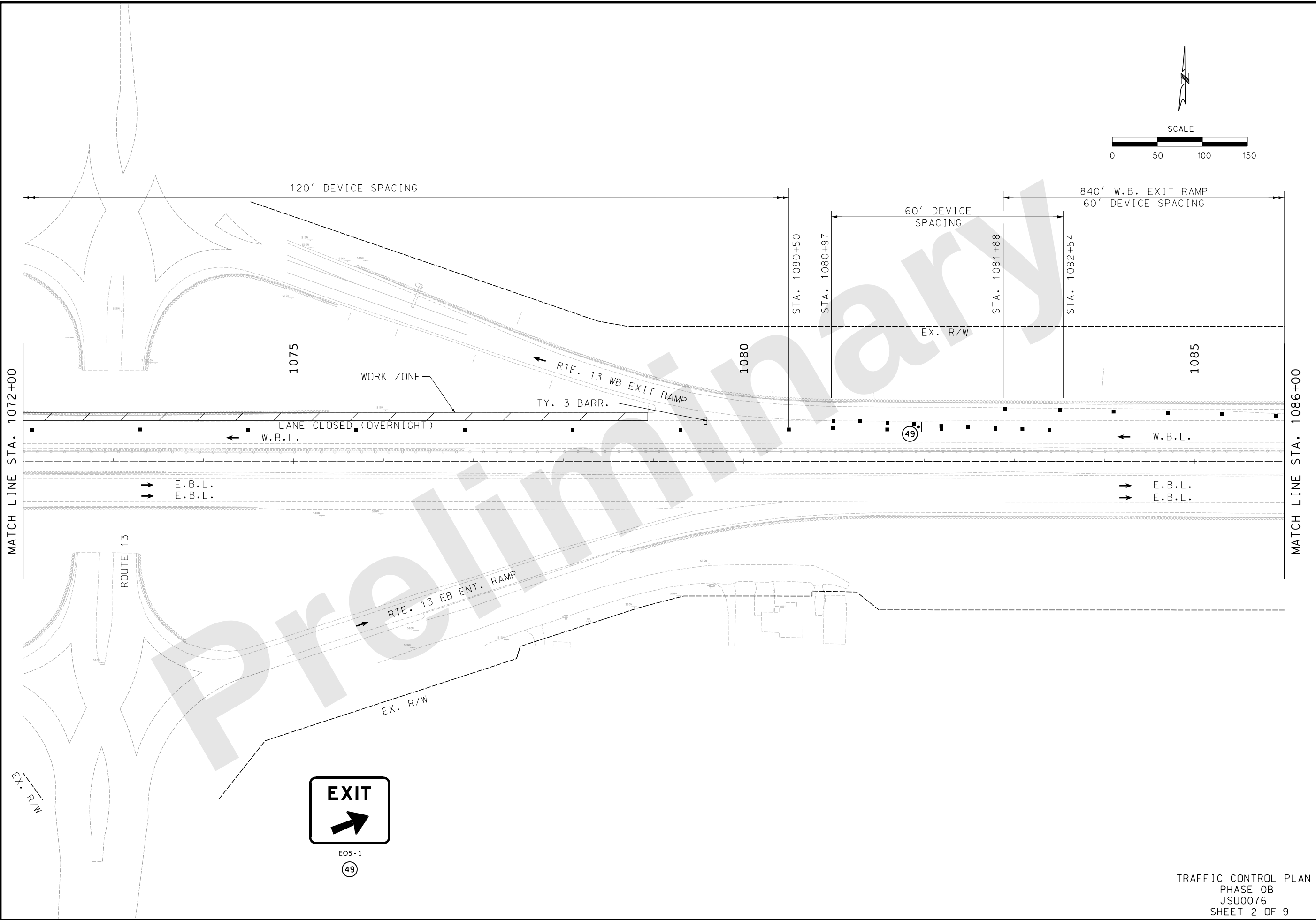
105 WEST CAPITAL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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engineers
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planners

9111 NE 79th Street, Kansas City, MO 64158 | (816) 912-4720

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PRO. ENGINEER 2010005873

TRAFFIC CONTROL PLAN
PHASE 0B
JSU0076
SHEET 1 OF 9



TRAFFIC CONTROL PLAN
PHASE 0B
JSU0076
SHEET 2 OF 9

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 136

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

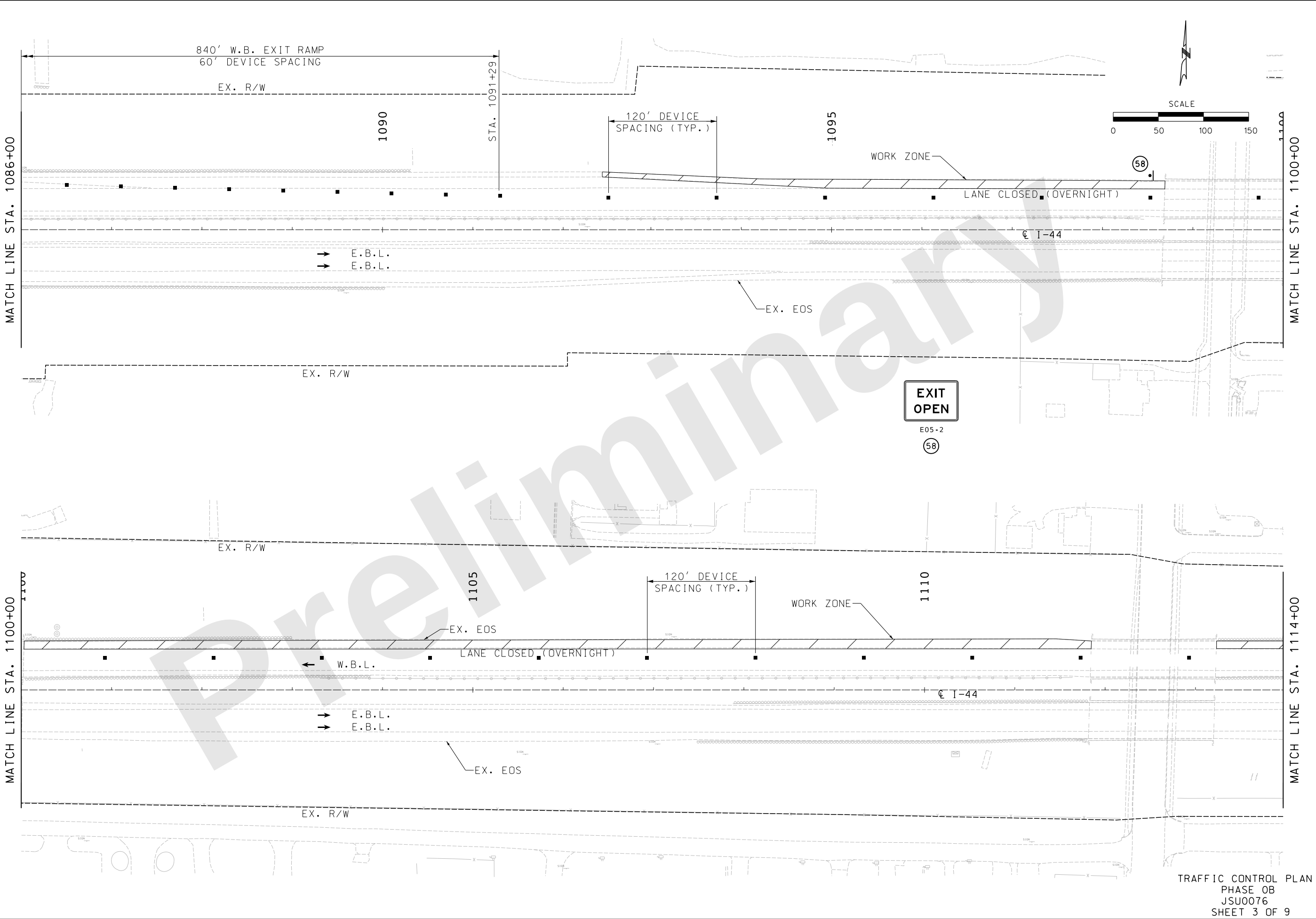
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

9111 NE 79th Street, Kansas City, MO 64158 (816) 912-4720

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PRO. ENGINEER 2010005873



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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 137
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



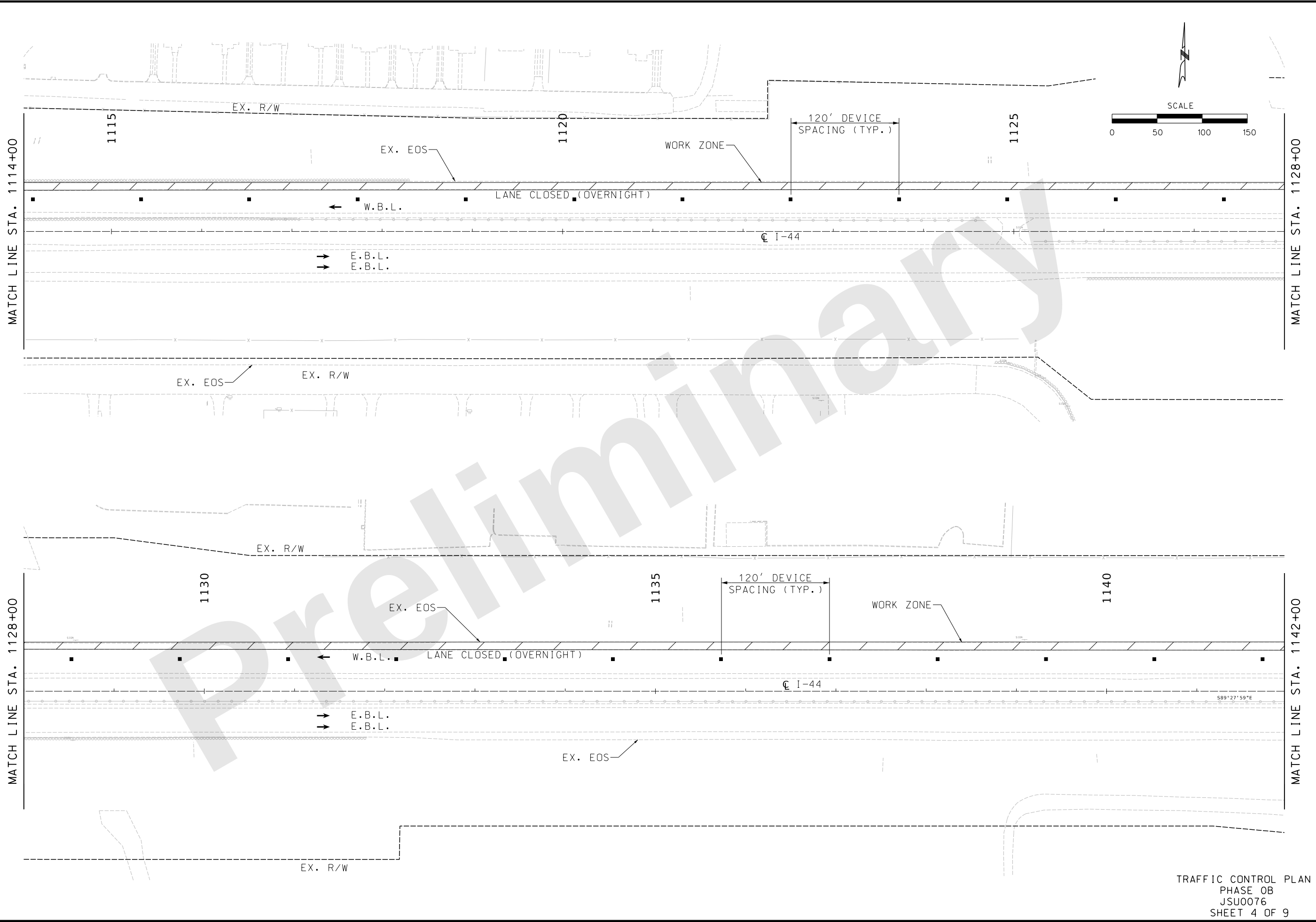
105 WEST CAPITAL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



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PRO. ENGINEER 2010005873

TRAFFIC CONTROL PLAN
PHASE 0B
JSU0076
SHEET 3 OF 9



TRAFFIC CONTROL PLAN
PHASE 0B
JSU0076
SHEET 4 OF 9

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 138
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

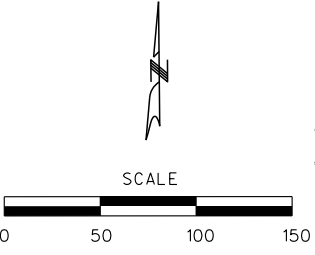
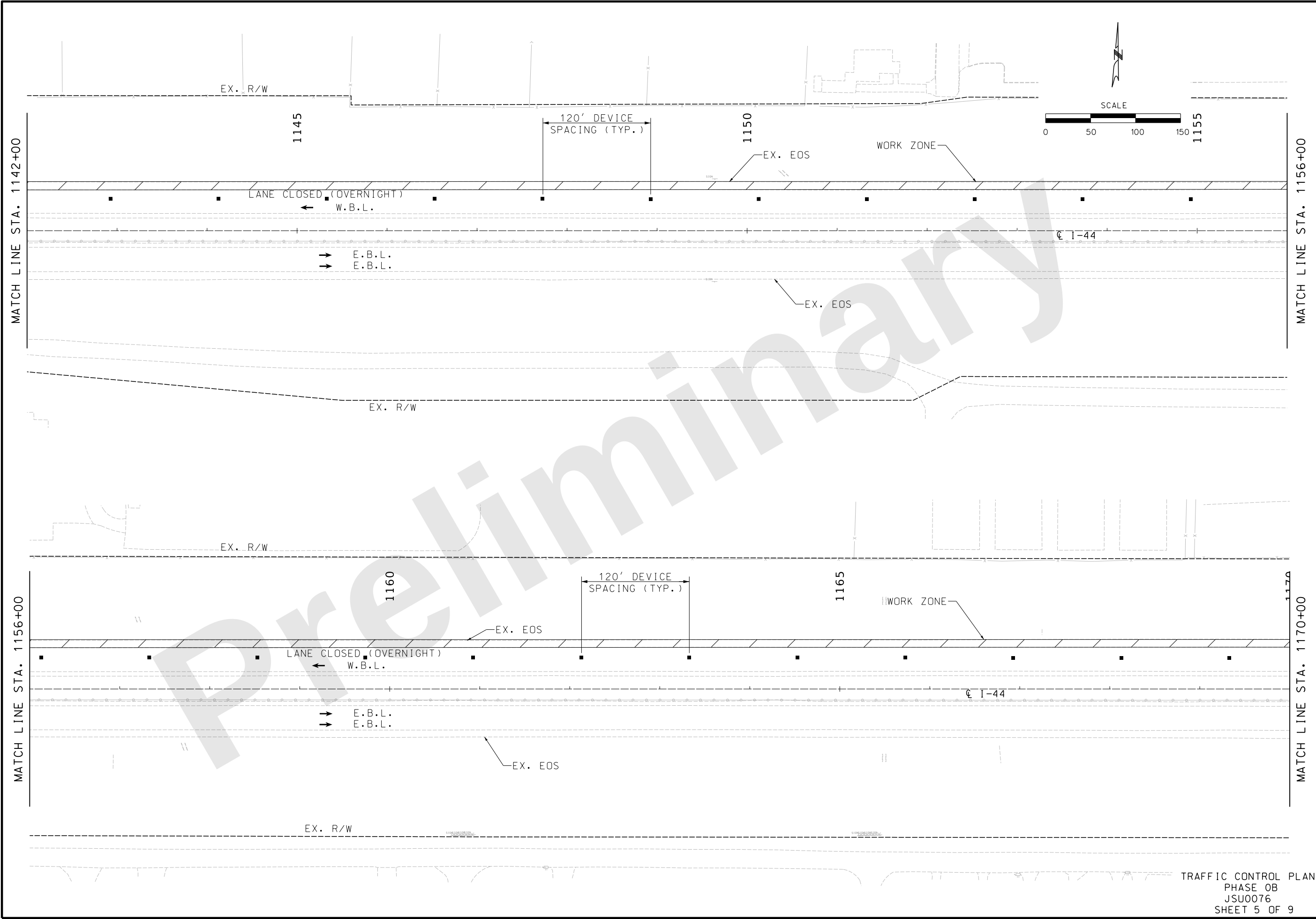
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 139
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



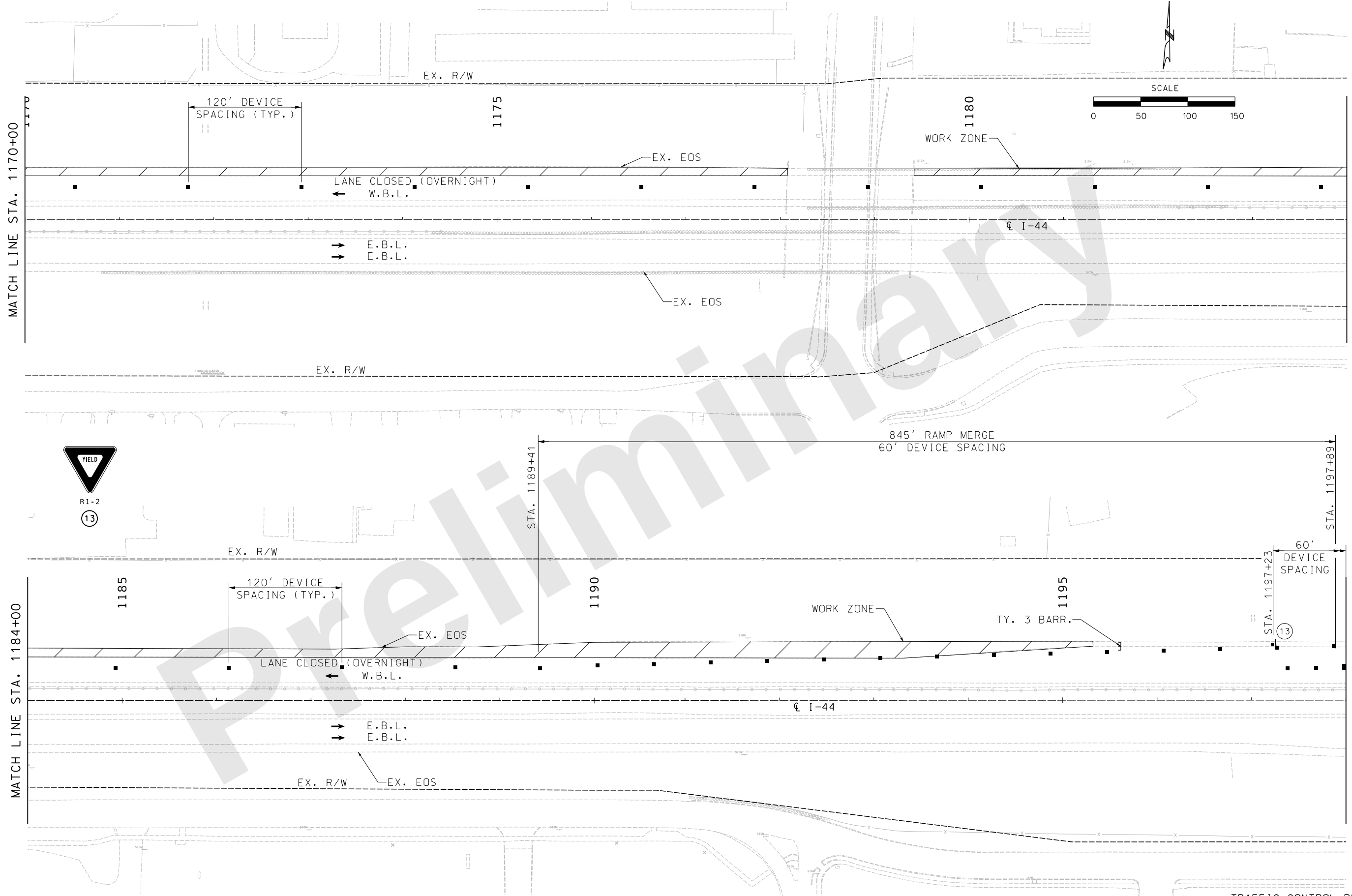
105 WEST CAPITAL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



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TRAFFIC CONTROL PLAN
PHASE 0B
JSU0076
SHEET 5 OF 9



"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 140
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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TRAFFIC CONTROL PLAN
PHASE 0B
JSU0076
SHEET 6 OF 9



TRAFFIC CONTROL LEGEND

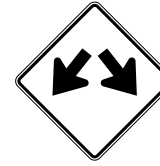
- | | |
|---|---|
|  | SIGN (SINGLE SIDED) |
|  | DIRECTIONAL INDICATOR
BARRICADES (DIB) W/ LIGHTS |
|  | CHANNELIZER |
|  | TYPE 3 BARRICADE |
|  | CHANGEABLE MESSAGE BOARD (CMS) |

- 
- TEMP. LONG TERM RUMBLE
-
- STRIPS (T.L.T.R.S.)
-
- 
- FLASHING ARROW PANEL (FAP)
-
- 
- TRUCK MOUNTED ATTENUATOR (TMA)
-
- ADVANCE WARNING RAIL SYSTEM (AWRS)

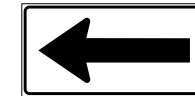


R2 - 1

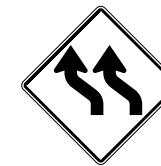
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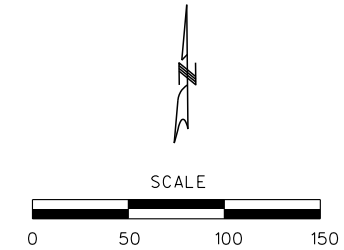
WO12-1



(16)



W1 - 4b



"THIS MEDIA SHOULD
NOT BE CONSIDERED
A CERTIFIED
DOCUMENT."

DATE PREPARED

ROUTE	STATE
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1-44	MU
DISTRICT	SHEET NO.

COUNTY

JOB NO.

8 IST0088B

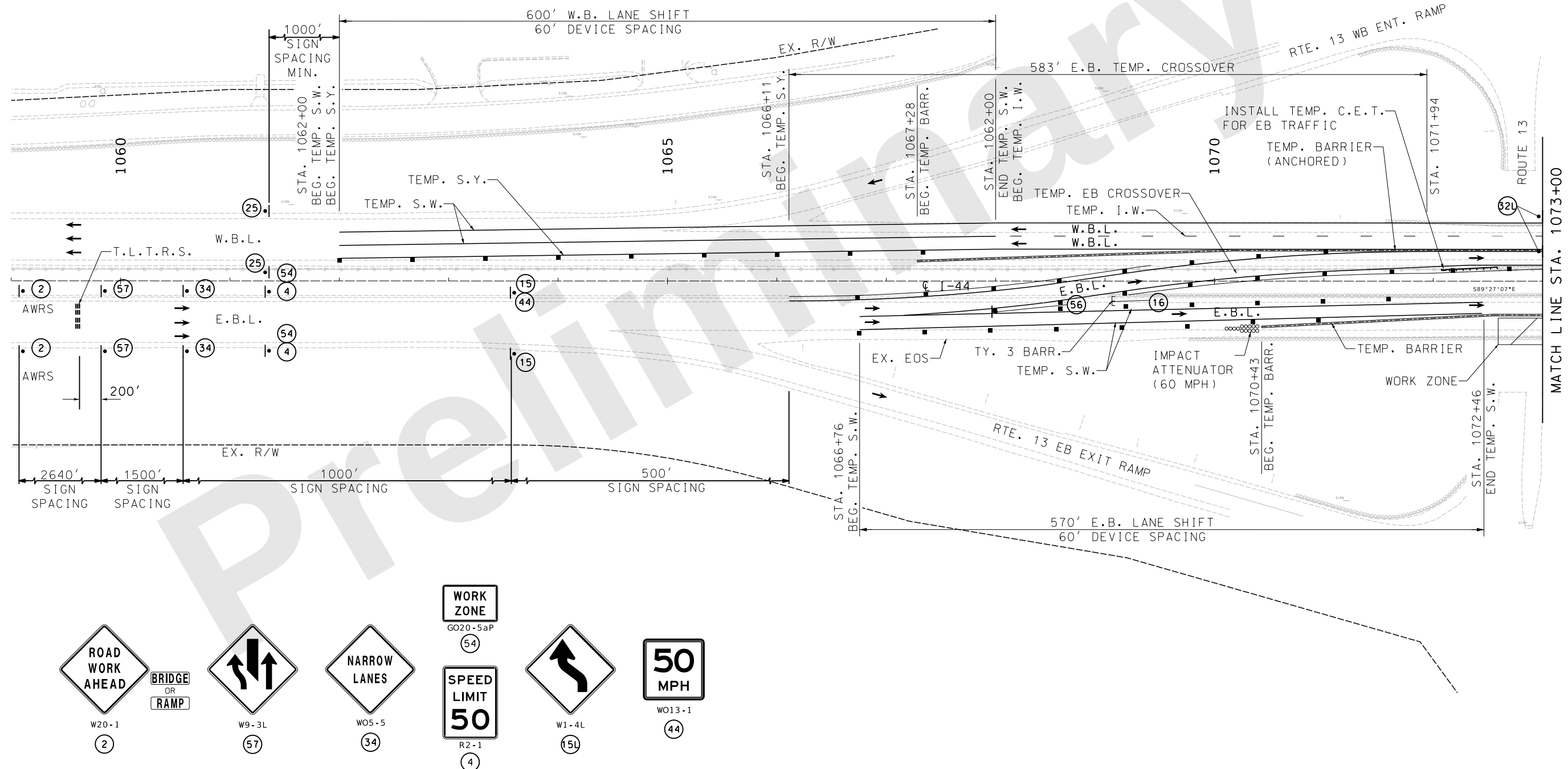
PROJECT NO.

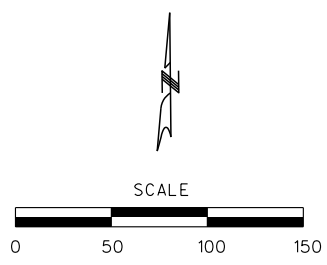
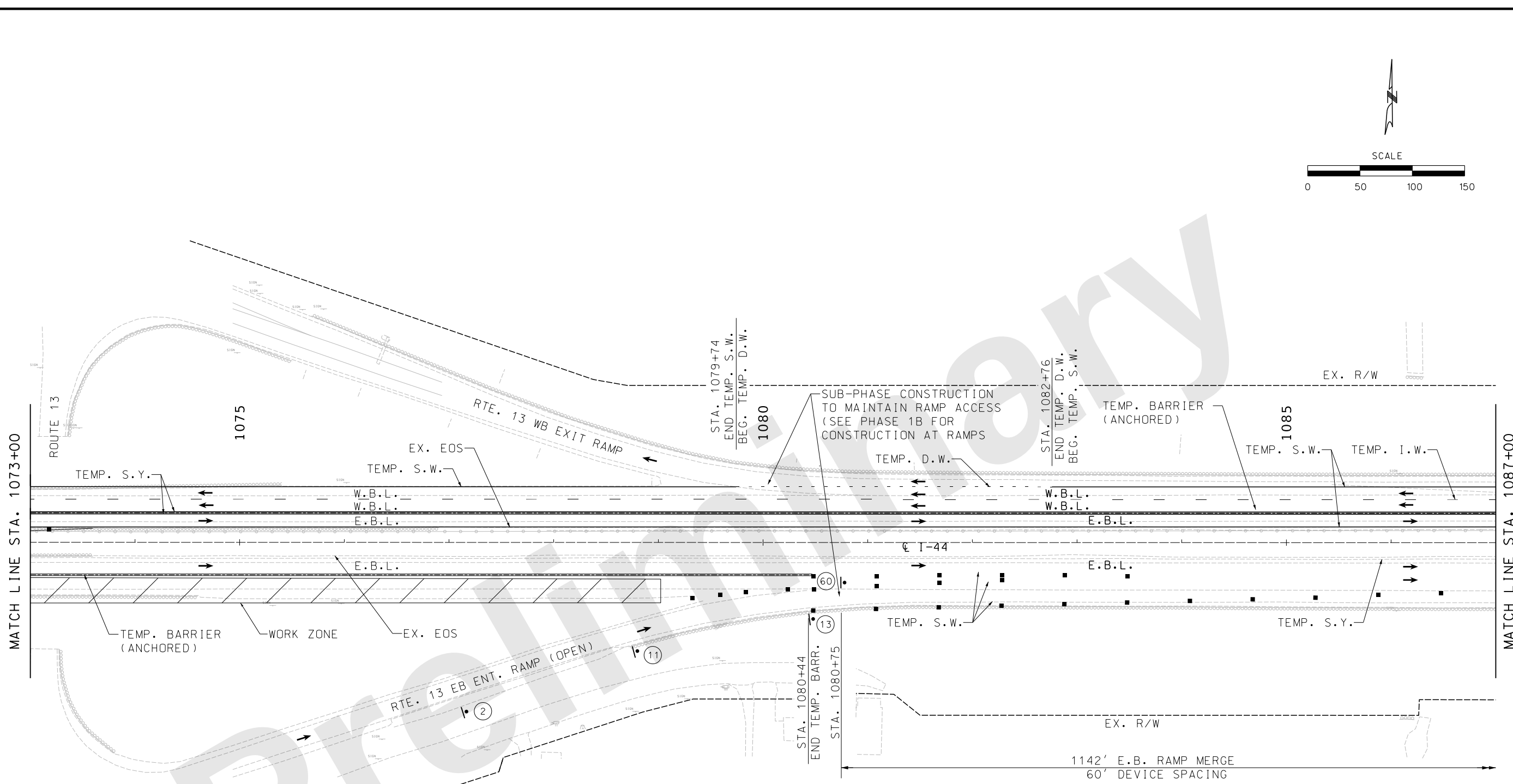
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(9)
20
70

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DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 145

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

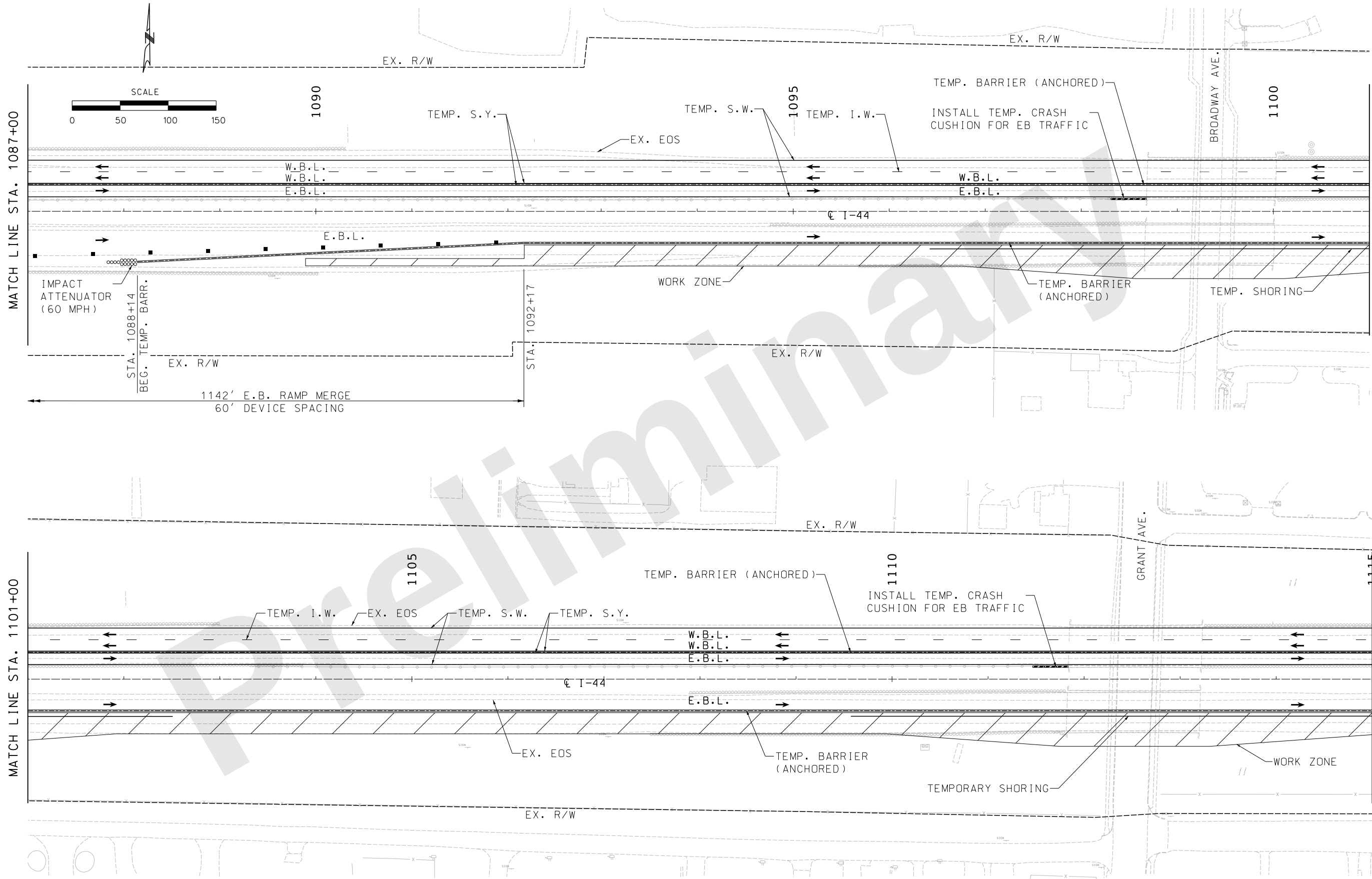
105 WEST CAPITAL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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PRO. ENGINEER 2010005873

TRAFFIC CONTROL PLAN
PHASE 1
JSU0076
SHEET 2 OF 8



MATCH LINE STA. 1087+00

MATCH LINE STA. 1101+00

MATCH LINE STA. 1101+00

MATCH LINE STA. 1115+00

TRAFFIC CONTROL PLAN
PHASE 1
JSU0076
SHEET 3 OF 8

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 146
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

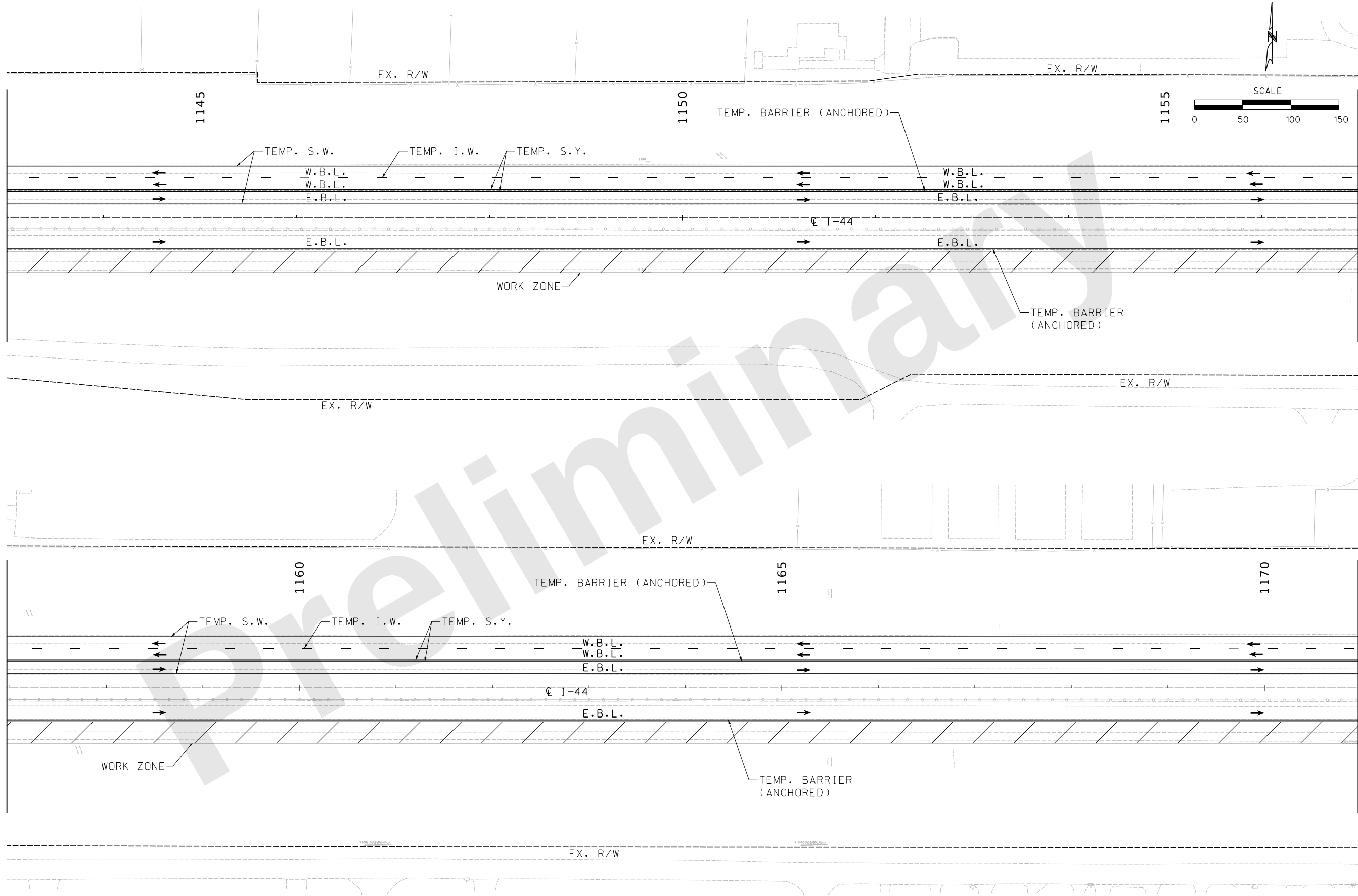
MoDOT
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1-888-ASK-MODOT (1-888-275-6636)

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MATCH LINE STA. 1143+00

MATCH LINE STA. 1157+00



TRAFFIC CONTROL PLAN
PHASE 1
JSU0076
SHEET 5 OF 8

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 148

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

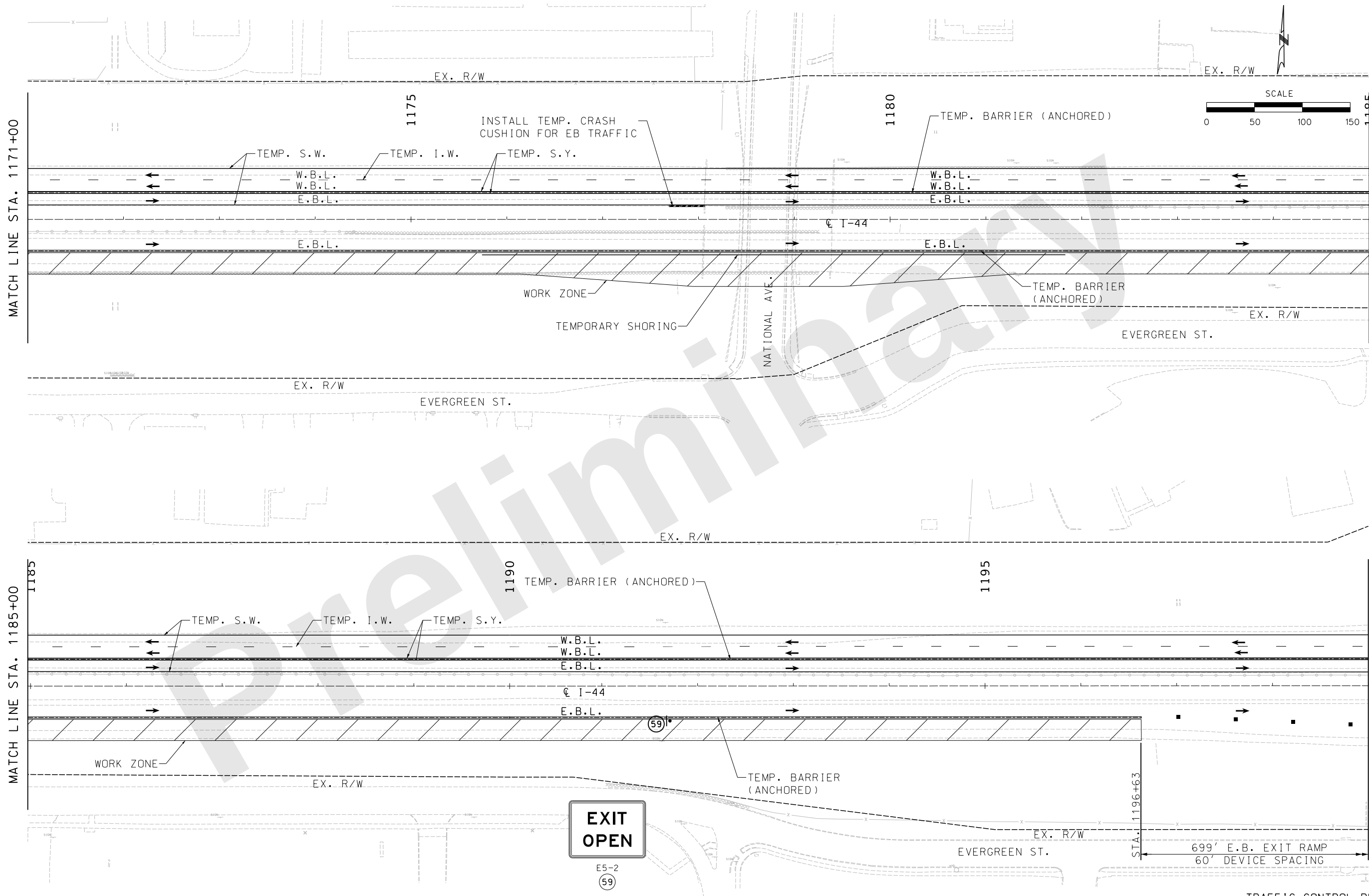
MoDOT

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

consult engineers inc planners

9111 NE 79th Street Kansas City, MO 64151 (816) 912-4720

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PRO. ENGINEER 2010005873

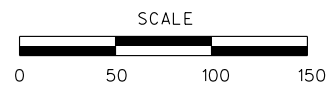


MATCH LINE STA. 1171+00

MATCH LINE STA. 1185+00

MATCH LINE STA. 1185+00

MATCH LINE STA. 1199+00



TRAFFIC CONTROL PLAN
PHASE 1
JSU0076
SHEET 6 OF 8

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 149

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

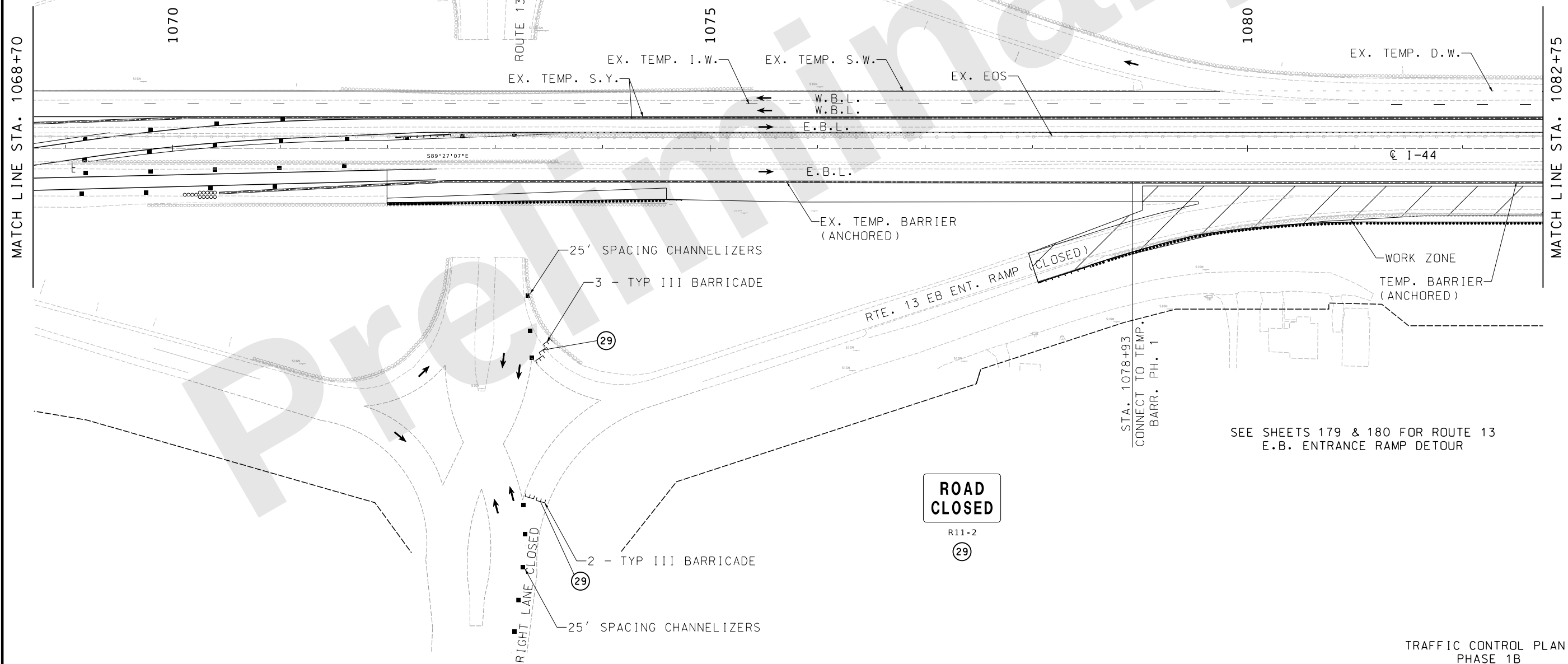
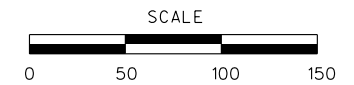
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PRO. ENGINEER 2010005873

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- ▲ DIRECTIONAL INDICATOR BARRICADES (DIB) W/ LIGHTS
- CHANNELIZER
- [] TYPE 3 BARRICADE
- [] CHANGEABLE MESSAGE BOARD (CMS)
- [] TEMP. LONG TERM RUMBLE STRIPS (T.L.T.R.S.)
- [] FLASHING ARROW PANEL (FAP)
- [] TRUCK MOUNTED ATTENUATOR (TMA)
- [] ADVANCE WARNING RAIL SYSTEM (AWRS)



"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/27/2024

ROUTE	STATE
I-44	MO
DISTRICT	SHEET NO.
SW	152

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

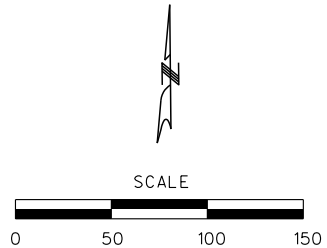
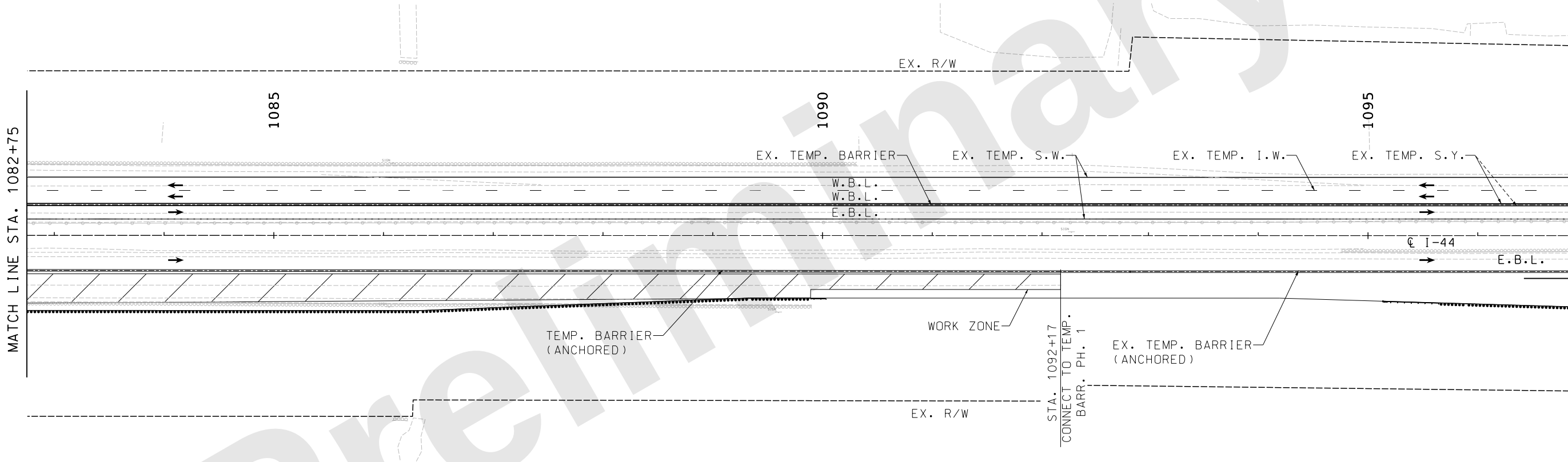
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PRO. ENGINEER 2010005873

TRAFFIC CONTROL PLAN
PHASE 1B
JSU0076
SHEET 1 OF 3



MATCH LINE STA. 1082+75

TRAFFIC CONTROL PLAN
PHASE 1B
JSU0076
SHEET 2 OF 3

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 153

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

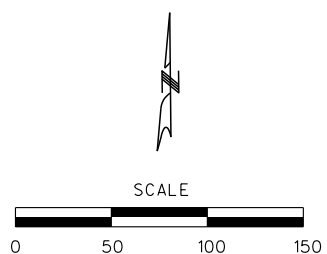
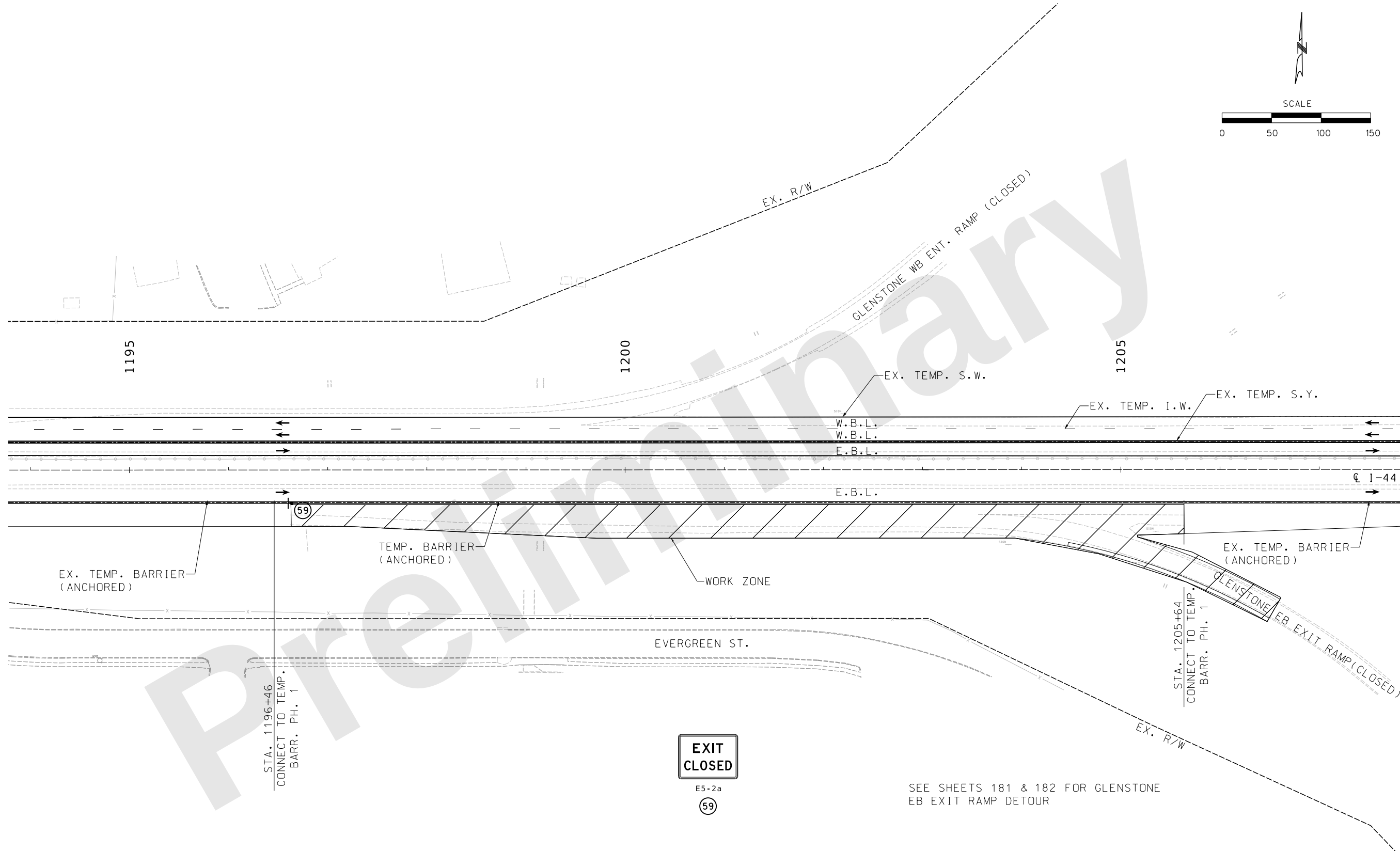
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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Hg CONSULT, INC.
PRO. ENGINEER 2010005873



STA. 1196+46
CONNECT TO TEMP.
BARR. PH. 1

EXIT
CLOSED

E5-2a
59

SEE SHEETS 181 & 182 FOR GLENSTONE
EB EXIT RAMP DETOUR

TRAFFIC CONTROL PLAN
PHASE 1B
JSU0076
SHEET 3 OF 3

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 154
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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JEFFERSON CITY, MO 65102
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PRO. ENGINEER 2010005873

TRAFFIC CONTROL LEGEND

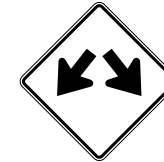
- | | |
|---|---|
|  | SIGN (SINGLE SIDED) |
|  | DIRECTIONAL INDICATOR
BARRICADES (DIB) W/ LIGHTS |
|  | CHANNELIZER |
|  | TYPE 3 BARRICADE |
|  | CHANGEABLE MESSAGE BOARD (CMS) |
|  | TEMP. LONG TERM RUMBLE
STRIPS (T.L.T.R.S.) |

- | | |
|---|------------------------------------|
|  | FLASHING ARROW PANEL (FAP) |
|  | TRUCK MOUNTED ATTENUATOR (TMA) |
|  | ADVANCE WARNING RAIL SYSTEM (AWRS) |



R2 - 1

(25)



SCALE



"THIS MEDIA SHOULD
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A CERTIFIED
DOCUMENT."

DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 155

COUNTY
GREENE

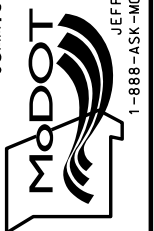
JOB NO.
JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

[illegible]

05 WEST CAPITOL
CITY, MD 65102
1-888-275-6636)

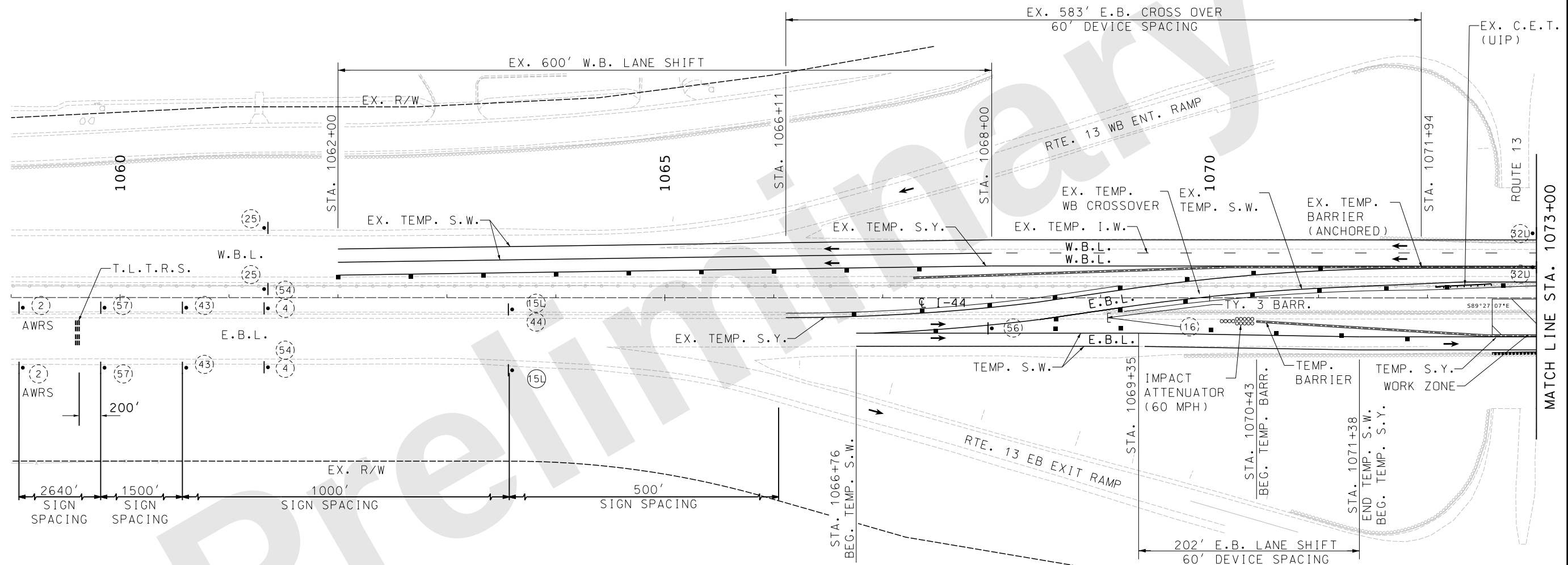


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PROF. ENGINEER 2010005873

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**engineers
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PRO. ENGINEER 2010005873



W20-1
(2)



WO5 - 1
(43)



R2 - 1

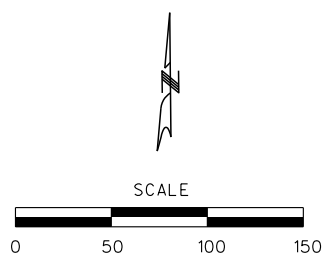
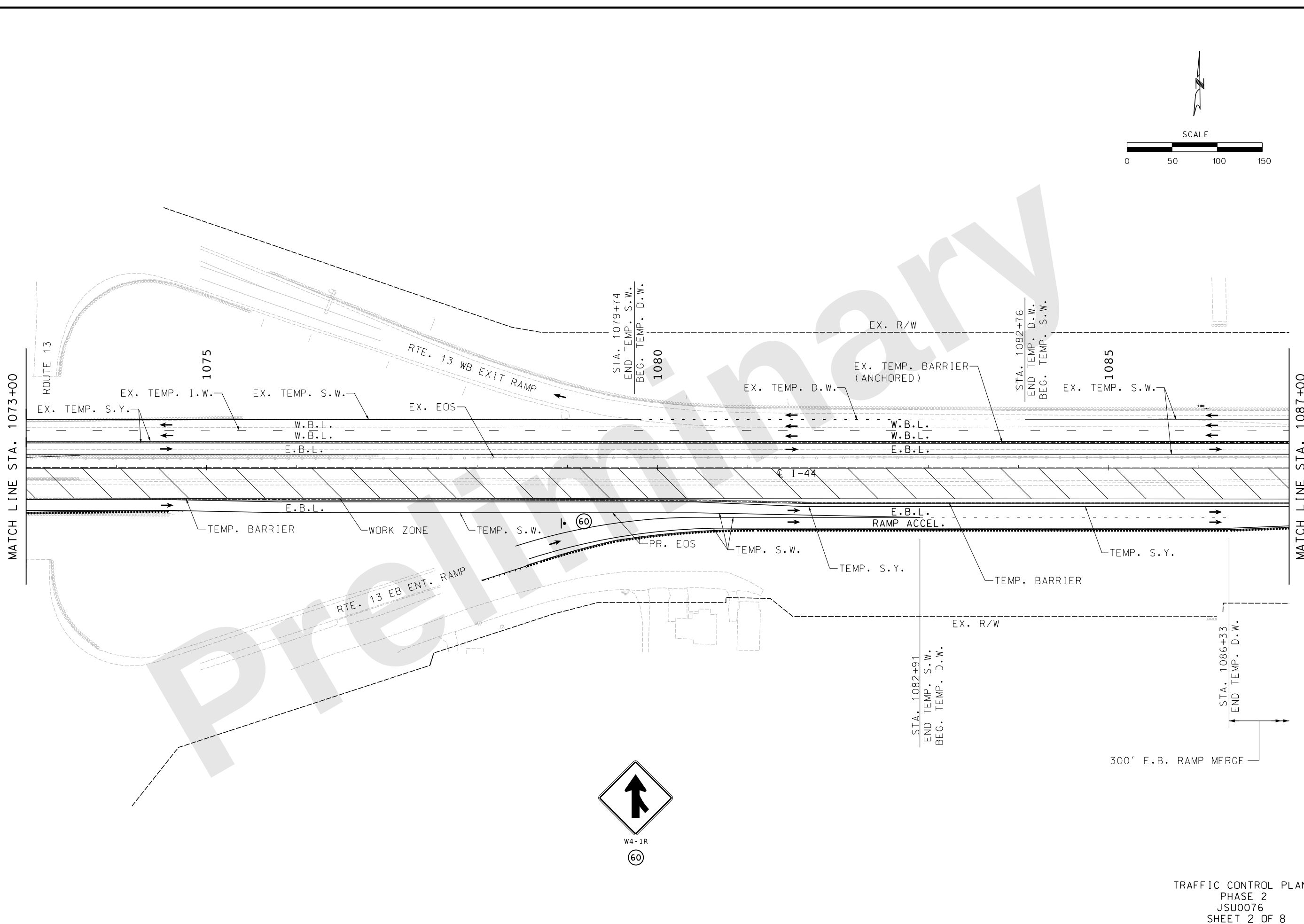
(4)



WO13-1

(44)

TRAFFIC CONTROL PLAN
PHASE 2
JSU0076
SHEET 1 OF 8



TRAFFIC CONTROL PLAN
PHASE 2
JSU0076
SHEET 2 OF 8

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 156
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

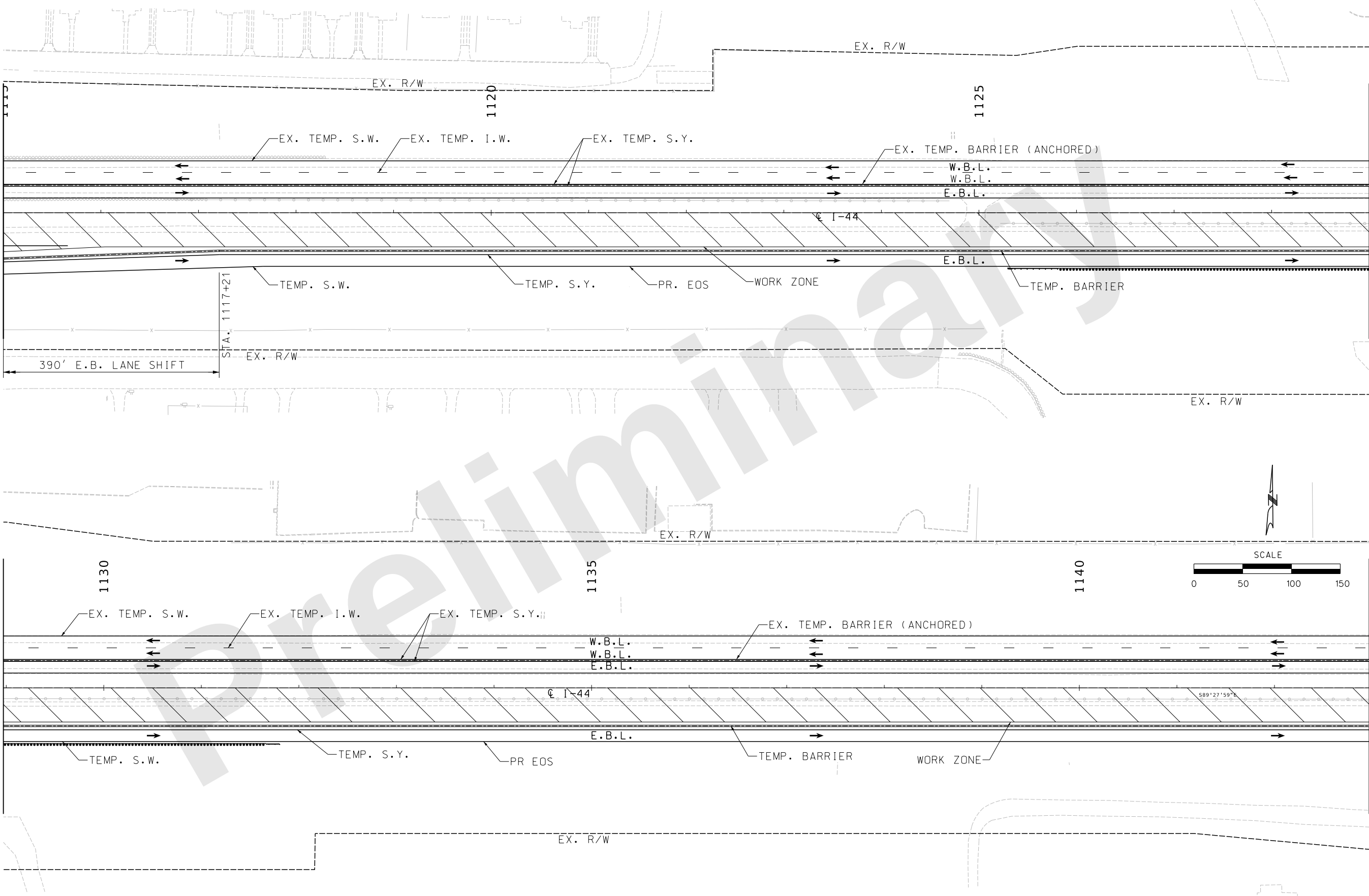
consult engineers inc planners
9111 NE 79th Street Kansas City, MO 64158 (816)912-4720
Hg CONSULT, INC.
PRO. ENGINEER 2010005873

MATCH LINE STA. 1115+00

MATCH LINE STA. 1129+00

MATCH LINE STA. 1129+00

MATCH LINE STA. 1143+00



TRAFFIC CONTROL PLAN
PHASE 2
JSU0076
SHEET 4 OF 8

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 158
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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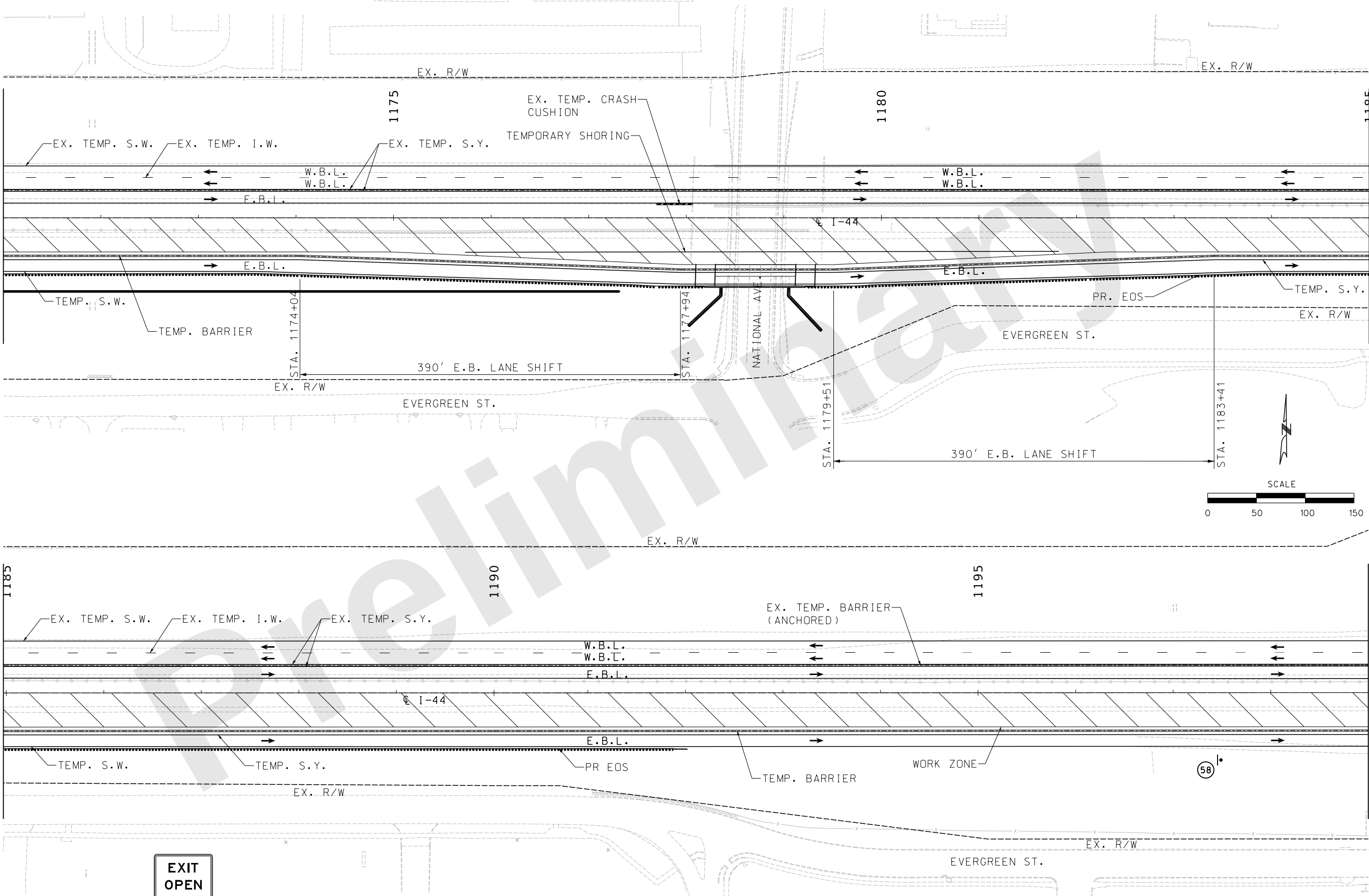
Hg CONSULT, INC.
PRO. ENGINEER 2010005873

MATCH LINE STA. 1171+00

MATCH LINE STA. 1185+00

MATCH LINE STA. 1185+00

MATCH LINE STA. 1199+00



E5-2
(58)

TRAFFIC CONTROL PLAN
PHASE 2
JSU0076
SHEET 6 OF 8

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 160
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

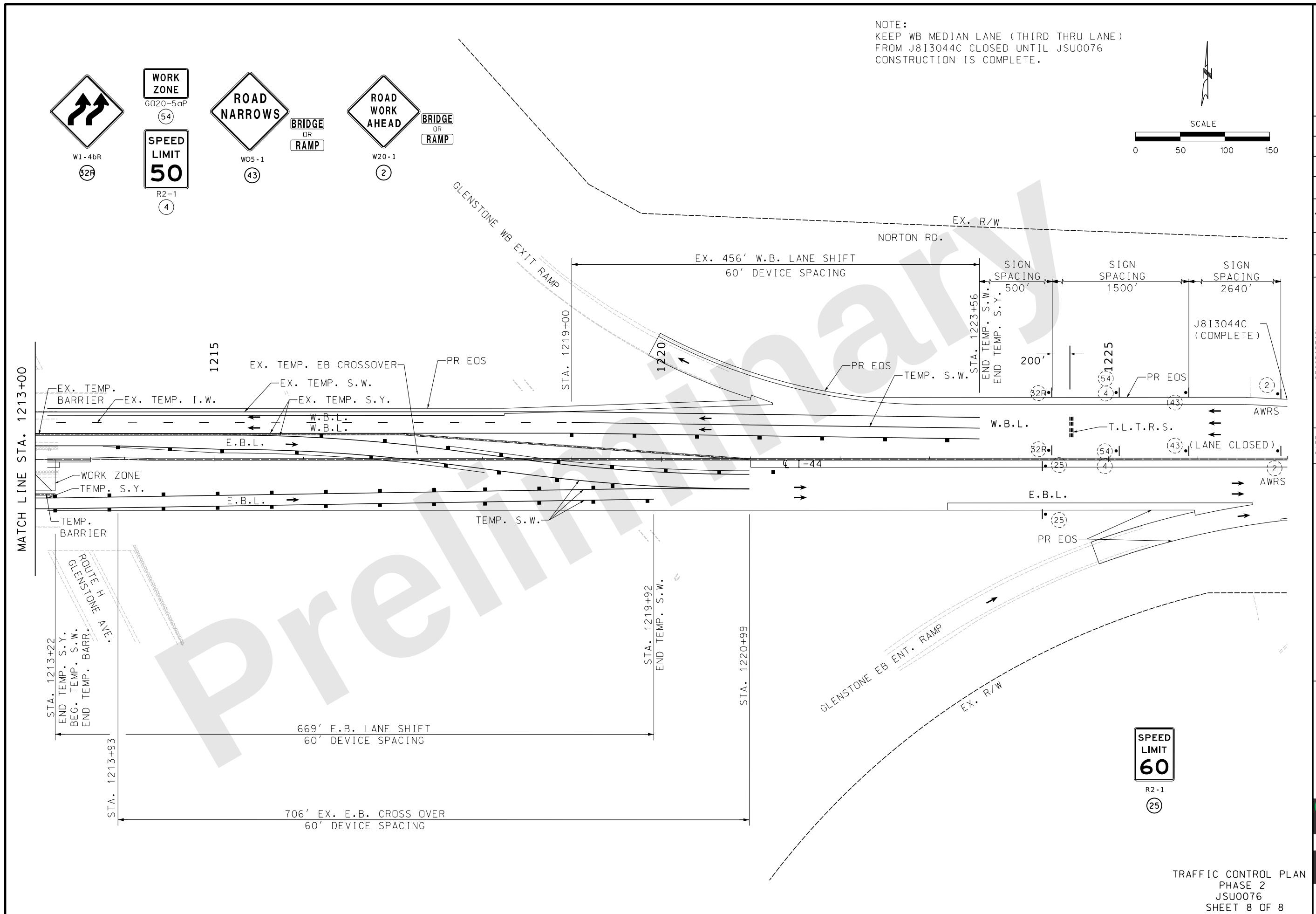
MoDOT

105 WEST CAPITAL
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DOCUMENT."

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO 162

JOB NO.
JSU0076, J813044
& JST0088B

BRIDGE NO.

[illegible]

Consult Inc.
engineers planners

8111 NE 29th Street, Room 210, Van Nuys, CA 91411-1720
 (818) 708-1100 • FAX (818) 708-1101 • Telex 980000 • E-mail: info@consultinc.com

HQ CONSULT, INC.
 PRO. ENGINEER 20100058

TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- ▲ DIRECTIONAL INDICATOR BARRICADES (DIB) W/ LIGHTS
- CHANNELIZER
- E TYPE 3 BARRICADE
- CHANGEABLE MESSAGE BOARD (CMS)
- TEMP. LONG TERM RUMBLE STRIPS (T.L.T.R.S.)
- FLASHING ARROW PANEL (FAP)
- TRUCK MOUNTED ATTENUATOR (TMA)
- ADVANCE WARNING RAIL SYSTEM (AWRS)

SPEED
LIMIT
60

R2-1
(25)

SCALE

0 50 100 150

684' W.B.
CROSS OVER
60' DEVICE SPACING

RTE. 13 WB ENT. RAMP

STA. 1072+33
BEGIN TEMP. S.W.
BEGIN TEMP. S.Y.

ROUTE 13

TEMP. S.W.

TEMP. S.Y.

PR EOP

MATCH LINE STA. 1073+00

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A CERTIFIED
DOCUMENT."

DATE PREPARED
9/27/2024

ROUTE
I-44
DISTRICT
SW

STATE
MO
SHEET NO.
163

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

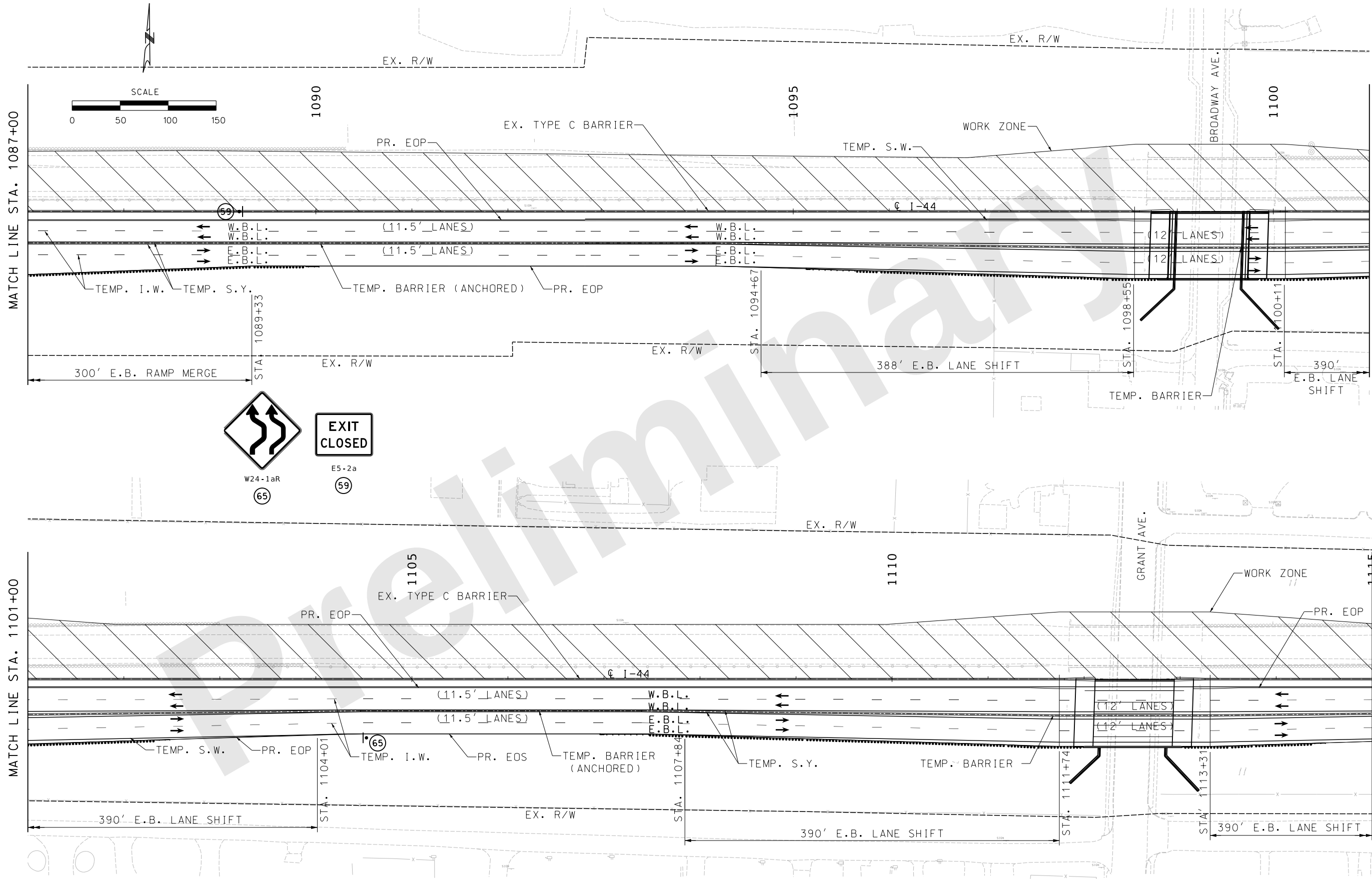
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engineers
inc
planners

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PRO. ENGINEER 2010005873

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TRAFFIC CONTROL PLAN
PHASE 3
JSU0076
SHEET 1 OF 8



"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 165
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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105 WEST CAPITAL
JEFFERSON CITY, MO 65102
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PRO. ENGINEER 2010005873

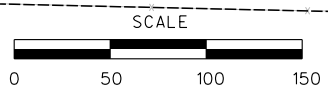
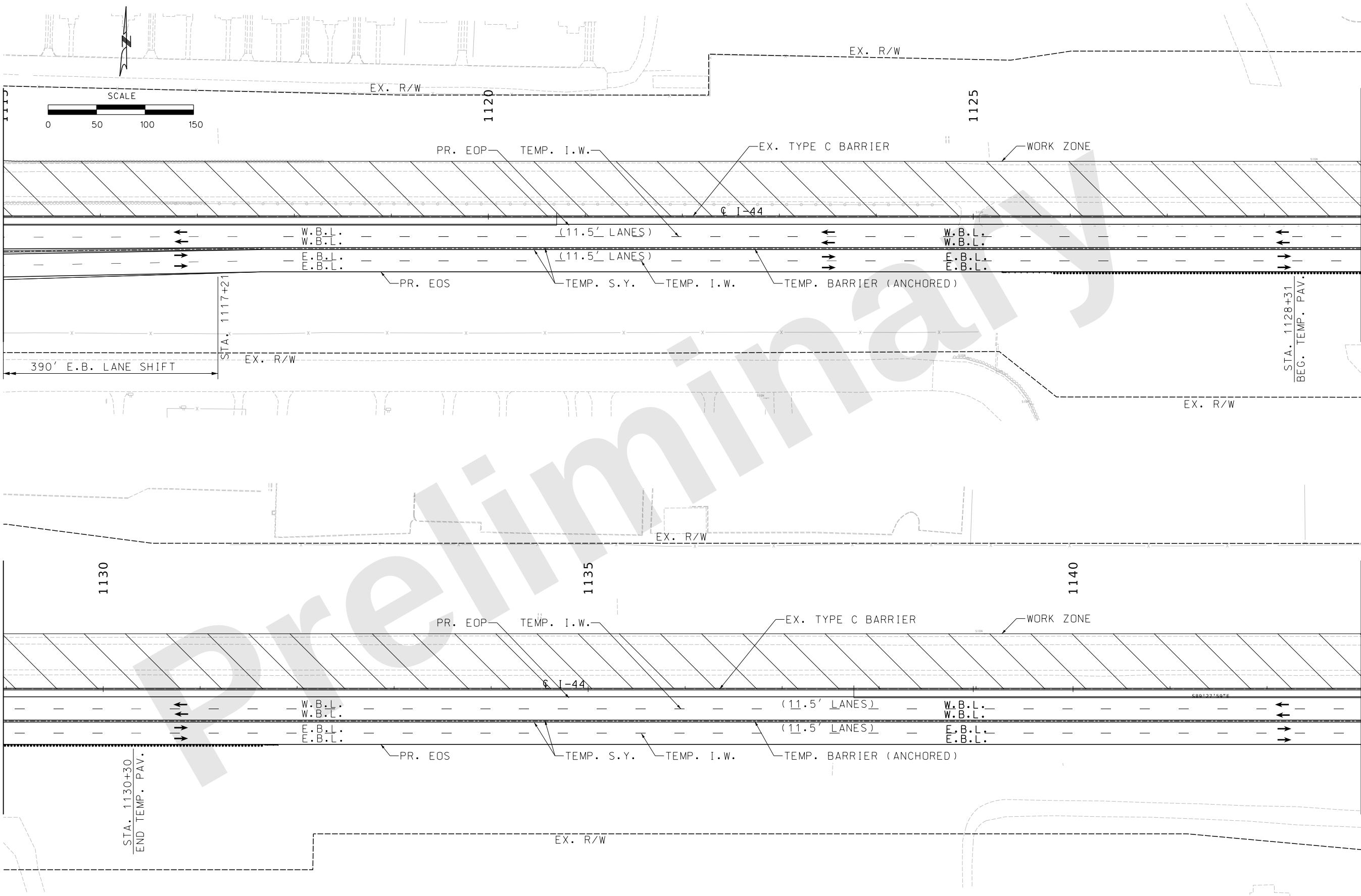
TRAFFIC CONTROL PLAN
PHASE 3
JSU0076
SHEET 3 OF 8

MATCH LINE STA. 1115+00

MATCH LINE STA. 1129+00

MATCH LINE STA. 1129+00

MATCH LINE STA. 1143+00



STA. 1130+30
END TEMP. PAV.

STA. 1128+31
BEG. TEMP. PAV.

TRAFFIC CONTROL PLAN
PHASE 3
JSU0076
SHEET 4 OF 8

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 166

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITAL
JEFFERSON CITY, MO 65102
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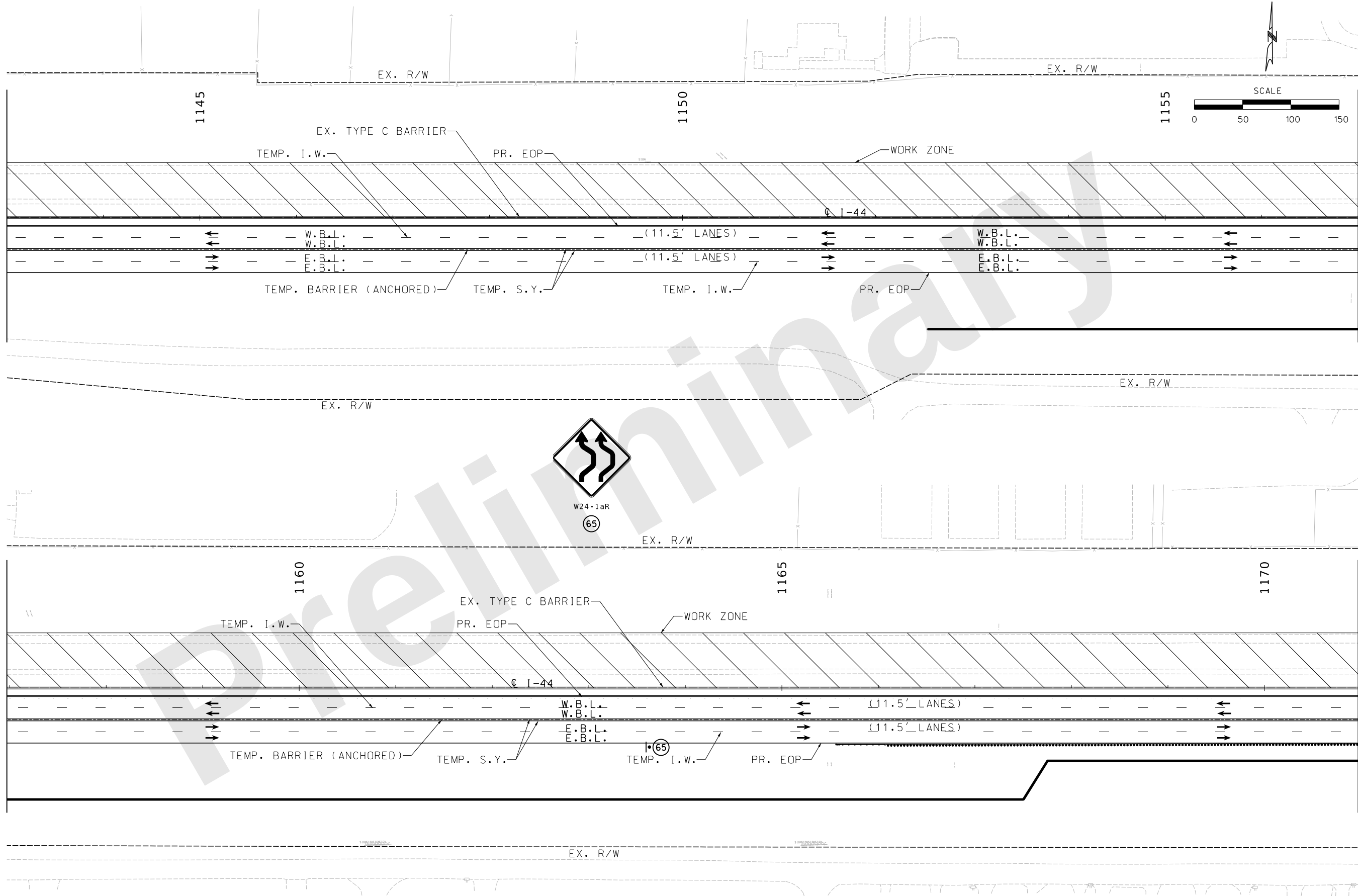
consult engineers inc planners

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PRO. ENGINEER 2010005873

MATCH LINE STA. 1143+00

MATCH LINE STA. 1157+00



TRAFFIC CONTROL PLAN
PHASE 3
JSU0076
SHEET 5 OF 8

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 167

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

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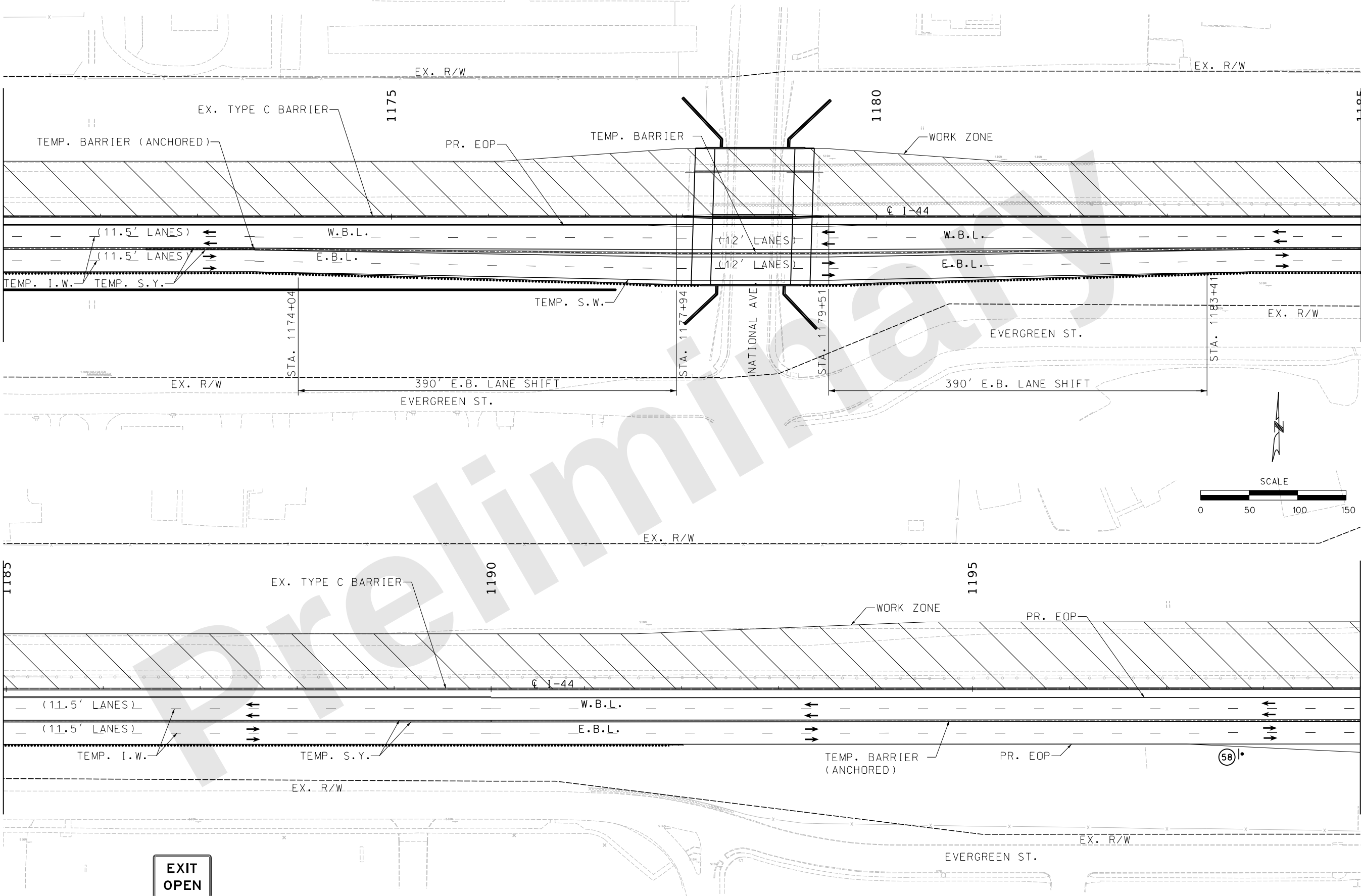
Hg CONSULT, INC.
PRO. ENGINEER 2010005873

MATCH LINE STA. 1171+00

MATCH LINE STA. 1185+00

MATCH LINE STA. 1185+00

MATCH LINE STA. 1199+00



EXIT
OPEN

E5-2
(58)

TRAFFIC CONTROL PLAN
PHASE 3
JSU0076
SHEET 6 OF 8

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 168

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

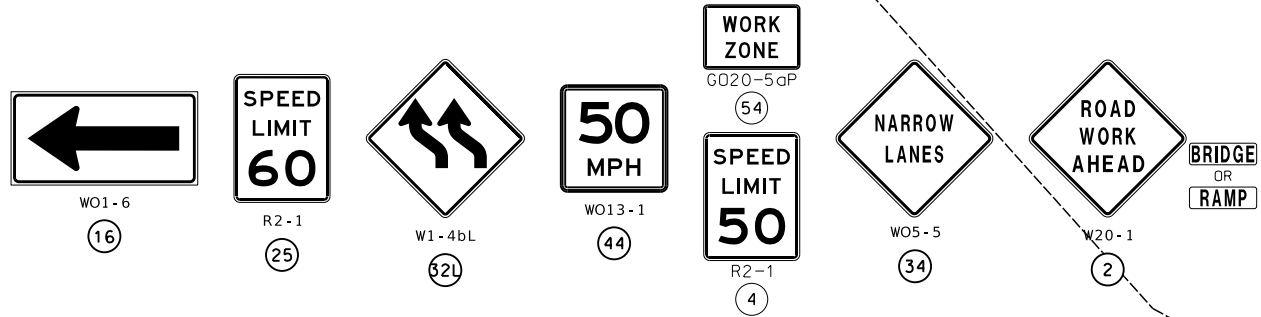
MoDOT

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

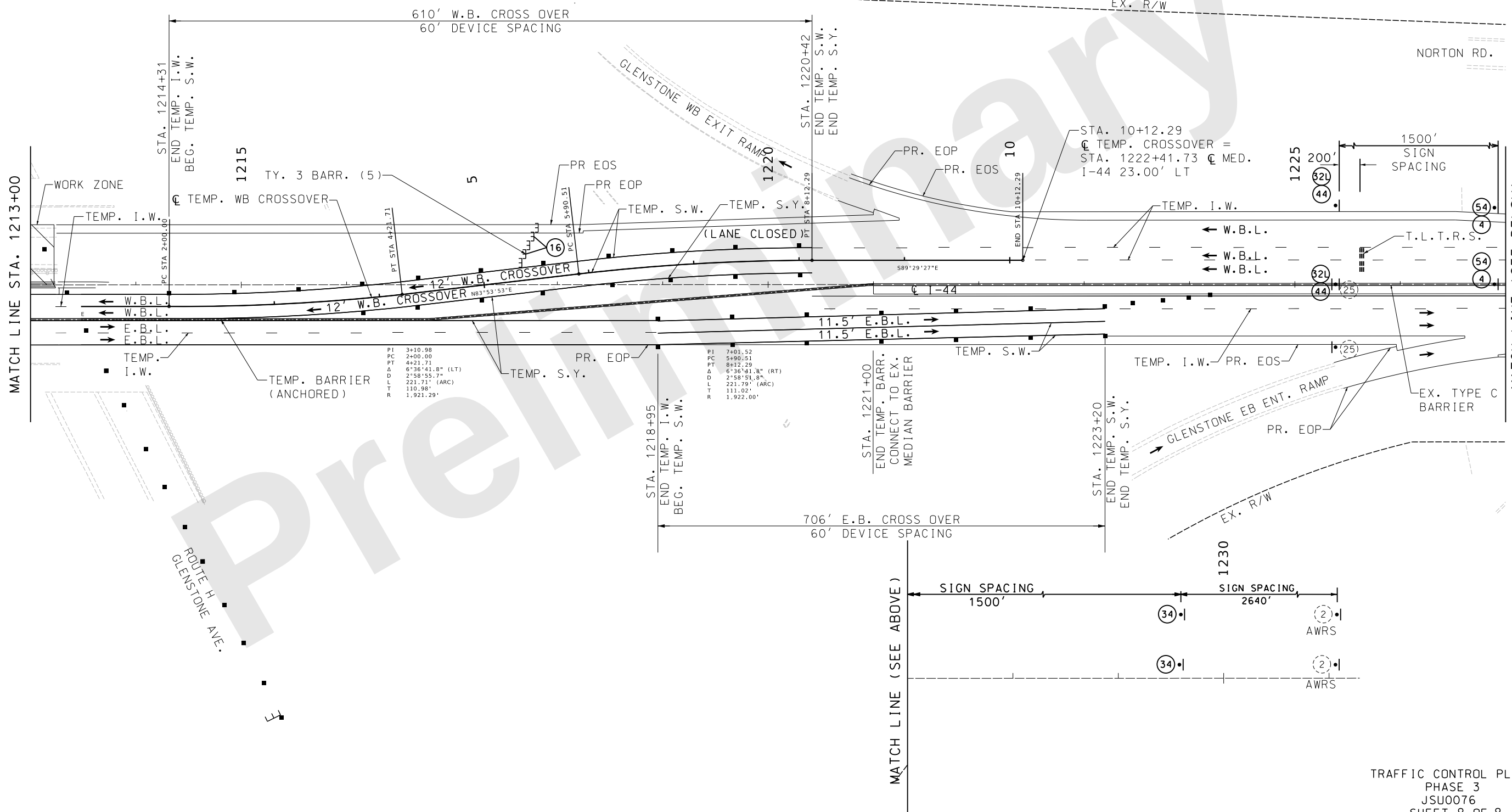
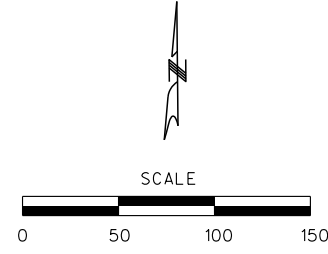
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PRO. ENGINEER 2010005873



NOTE:
KEEP THIRD WB THRU LANE
FROM J813044C CLOSED UNTIL JSU0076
CONSTRUCTION IS COMPLETE



"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/27/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 170

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

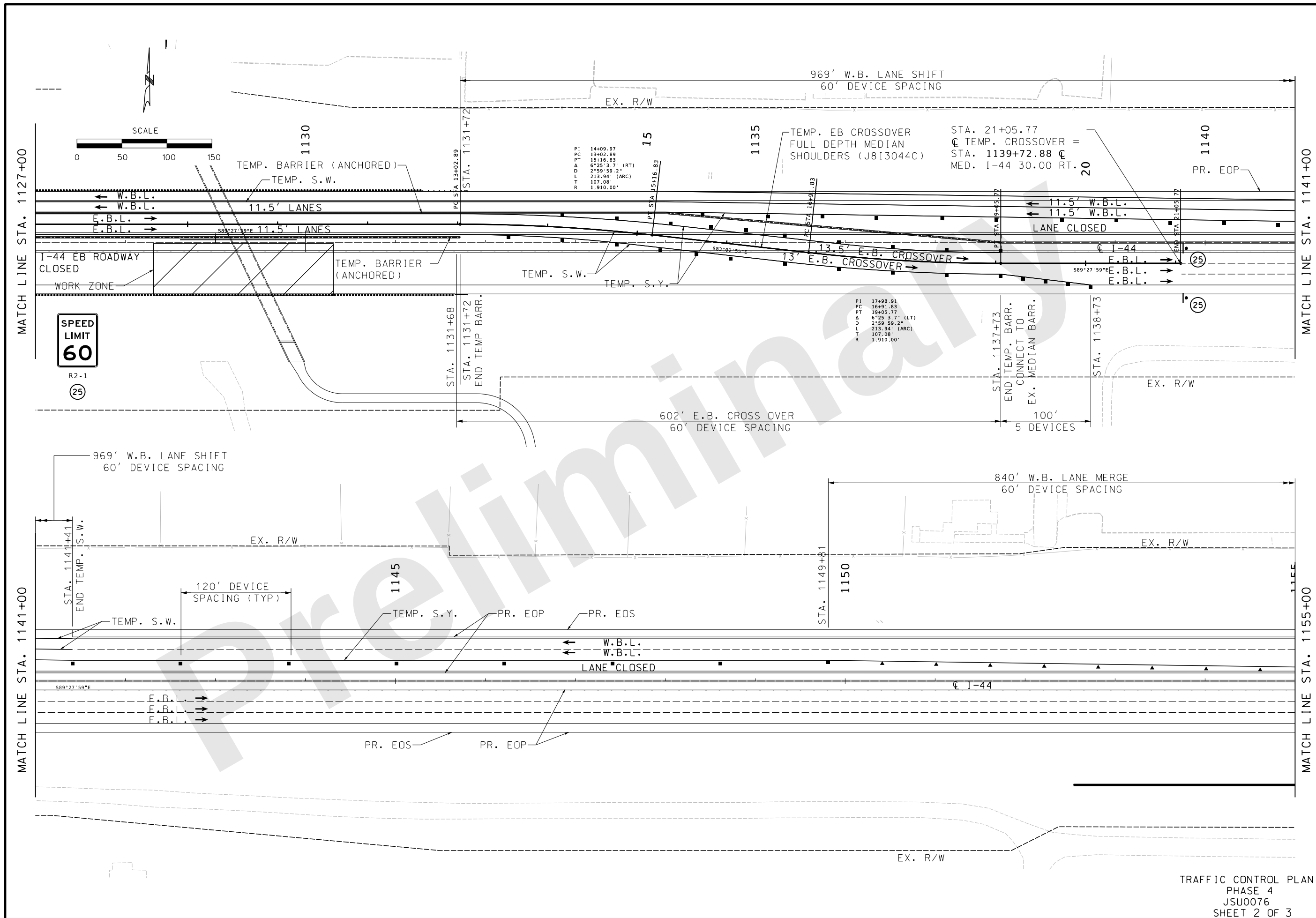
105 WEST CAPITAL
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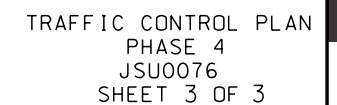
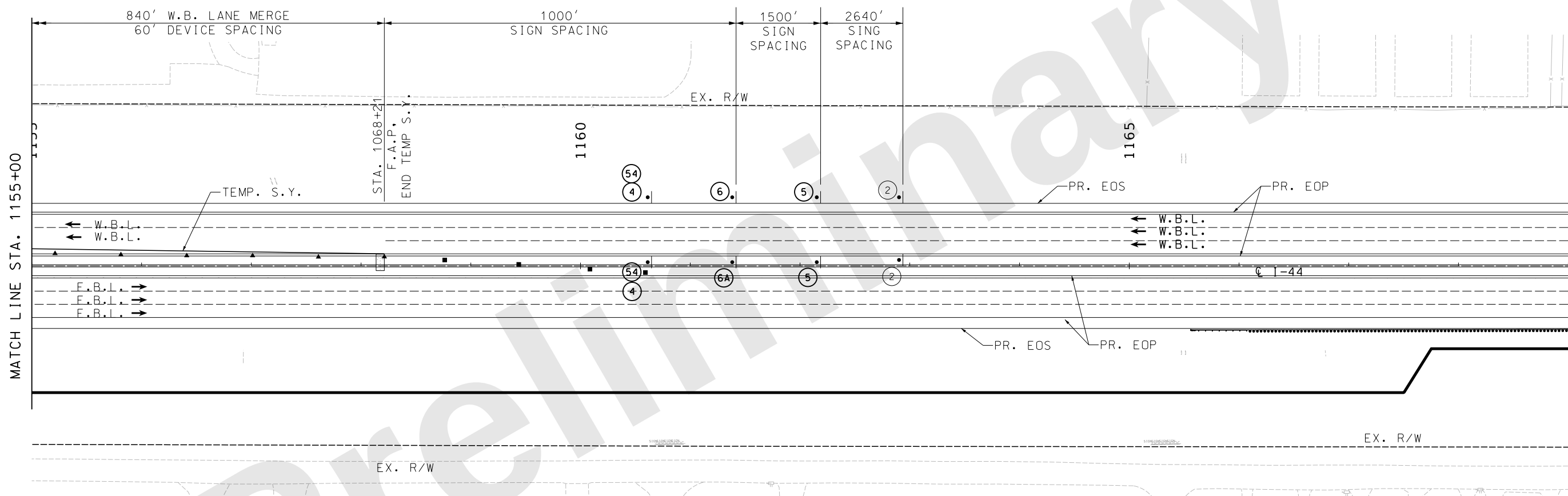
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TRAFFIC CONTROL PLAN
PHASE 3
JSU0076
SHEET 8 OF 8



"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."	
DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 172
COUNTY GREENE	
JBU0076, J813044C, & JST0088B	
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)	
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Hg CONSULT, INC. PRO. ENGINEER 2010005873	

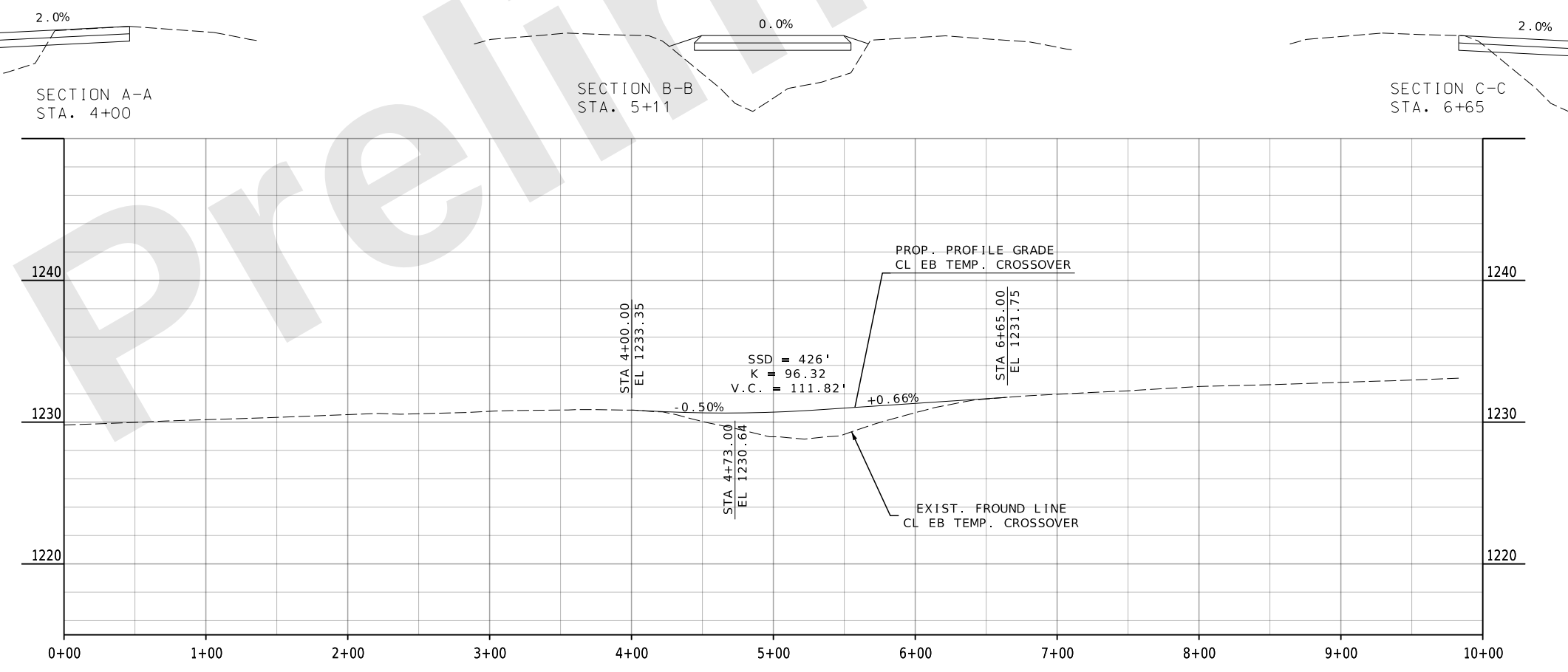
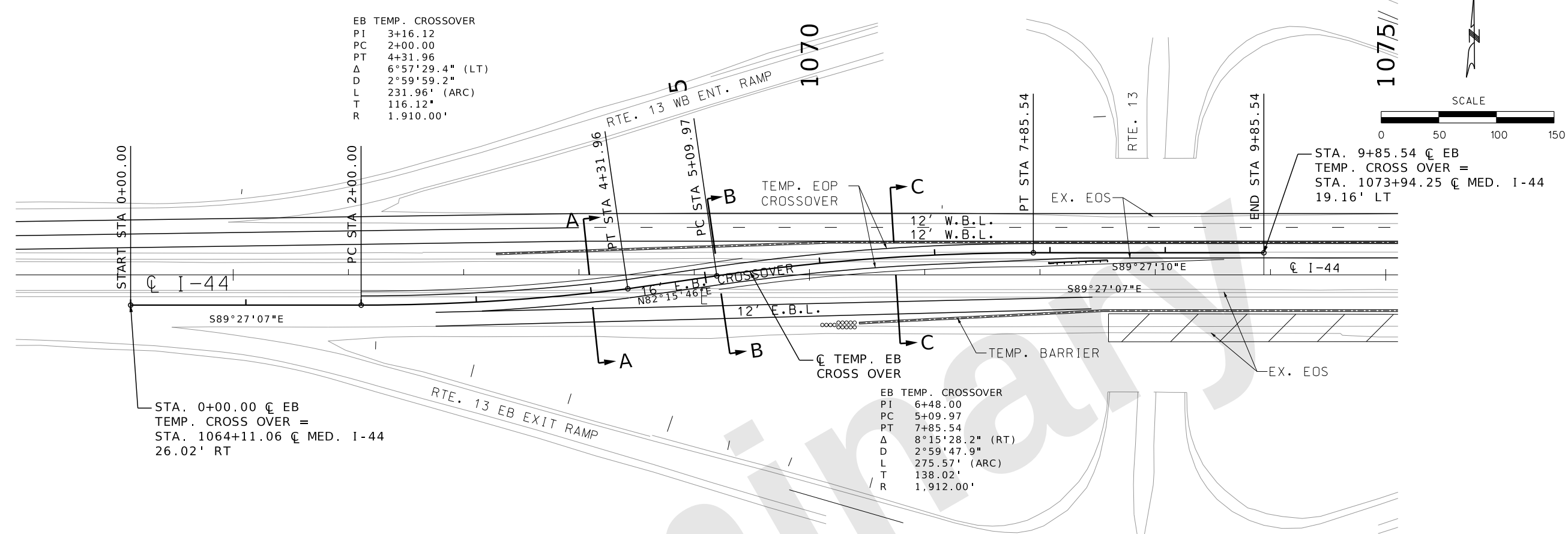


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PRO. ENGINEER 2010005973

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



TRAFFIC CONTROL PLAN
EB. TEMP. CROSSOVER
JSU0076
SHEET 1 OF 2

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 174
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

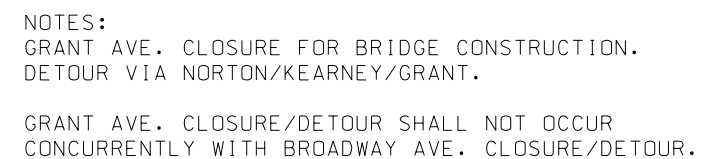
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PRG. ENGINEER 2010005873



DATE PREPARED	
9/27/2024	
ROUTE	STATE
I-44	MO
DISTRICT	SHEET NO.
SW	177
COUNTY	
GREENE	
JOB NO.	
JSU0076. J813044C.	
& JST0088B	
PROJECT NO.	
BRIDGE NO.	



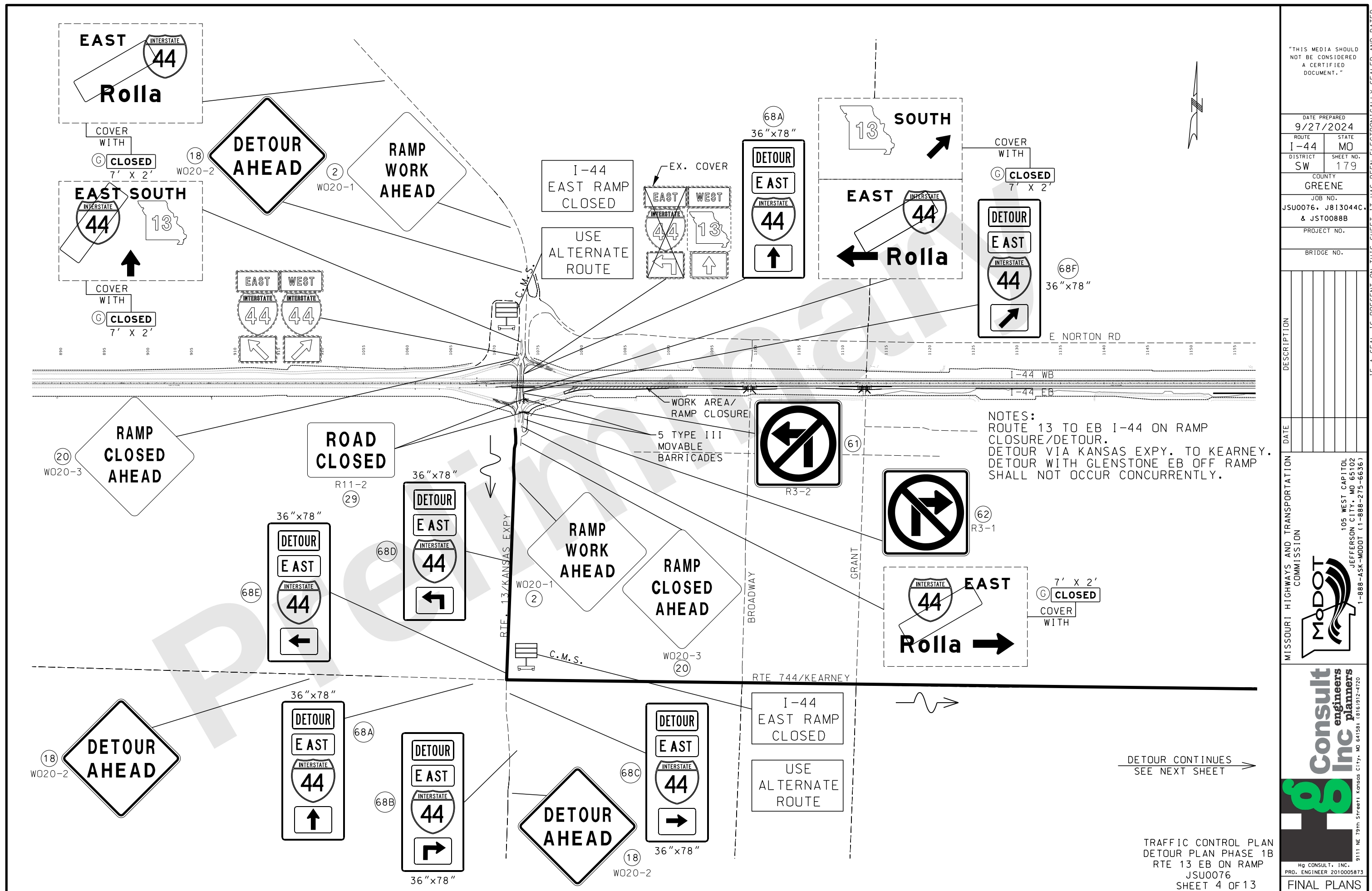
MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

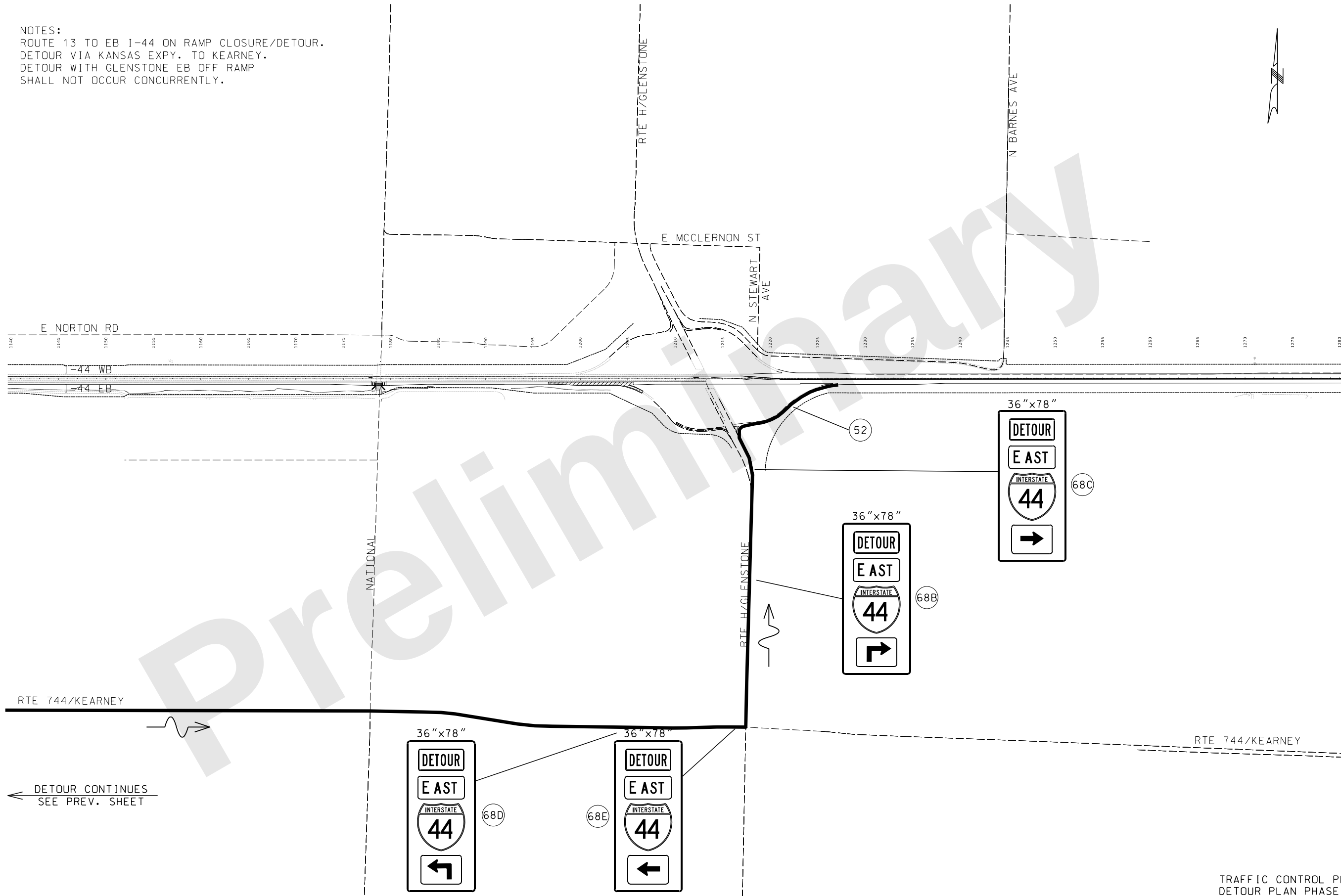
TRAFFIC CONTROL PLAN
DETOUR PLAN
GRANT BRIDGE CLOSURE
JSU0076
SHEET 2 OF 13

FINAL PLANS

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



NOTES:
ROUTE 13 TO EB I-44 ON RAMP CLOSURE/DETOUR.
DETOUR VIA KANSAS EXPY. TO KEARNEY.
DETOUR WITH GLENSTONE EB OFF RAMP
SHALL NOT OCCUR CONCURRENTLY.



DETOUR CONTINUES
SEE PREV. SHEET

TRAFFIC CONTROL PLAN
DETOUR PLAN PHASE 1B
RTE 13 EB ON RAMP
JSU0076
SHEET 5 OF 13

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 180
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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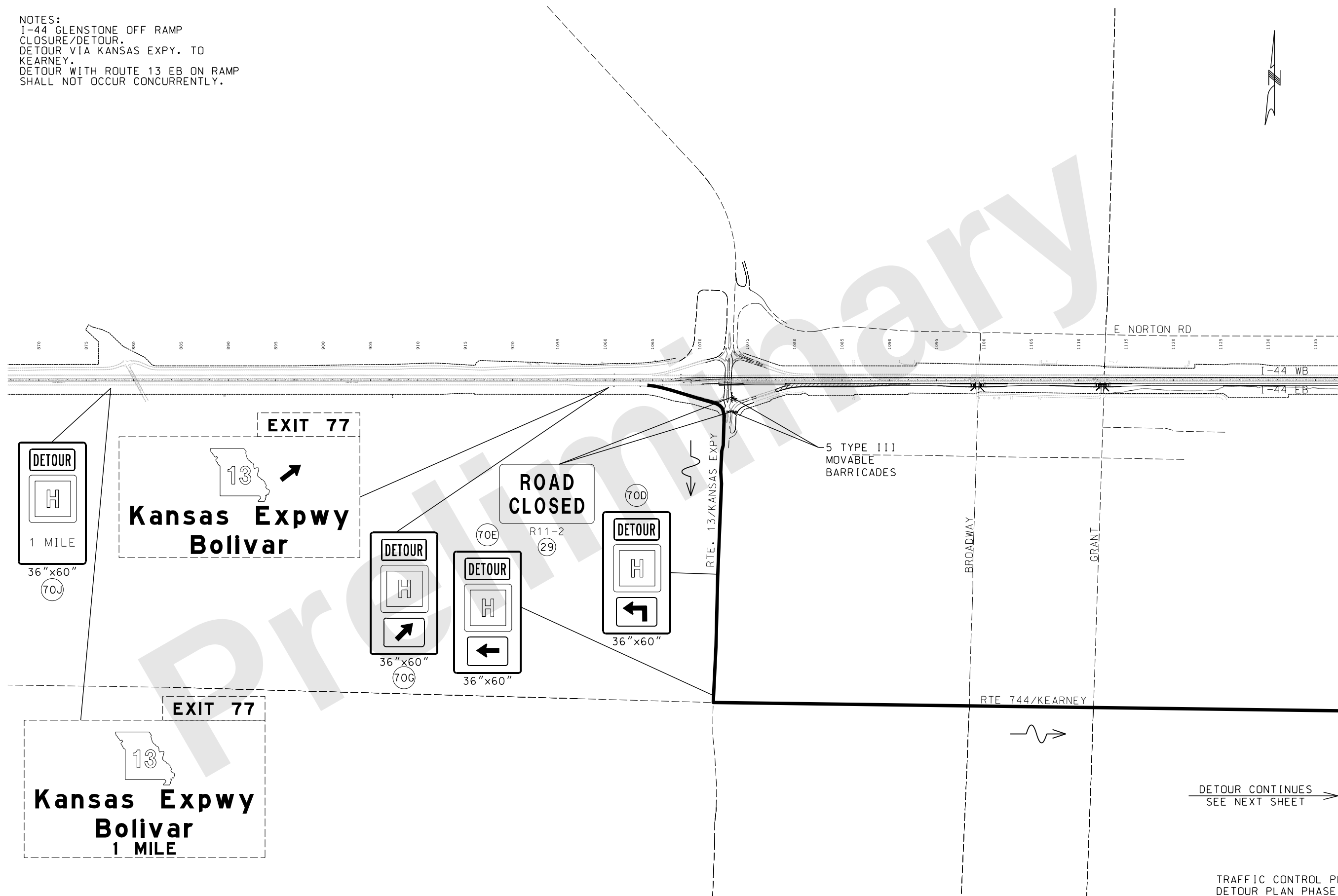
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PRO. ENGINEER 2010005873

FINAL PLANS

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

NOTES:
I-44 GLENSTONE OFF RAMP
CLOSURE/DETOUR.
DETOUR VIA KANSAS EXPY. TO
KEARNEY.
DETOUR WITH ROUTE 13 EB ON RAMP
SHALL NOT OCCUR CONCURRENTLY.



DETOUR CONTINUES
SEE NEXT SHEET →

TRAFFIC CONTROL PLAN
DETOUR PLAN PHASE 1B
GLENSTONE EB OFF RAMP
JSU0076
SHEET 6 OF 13

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 181
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

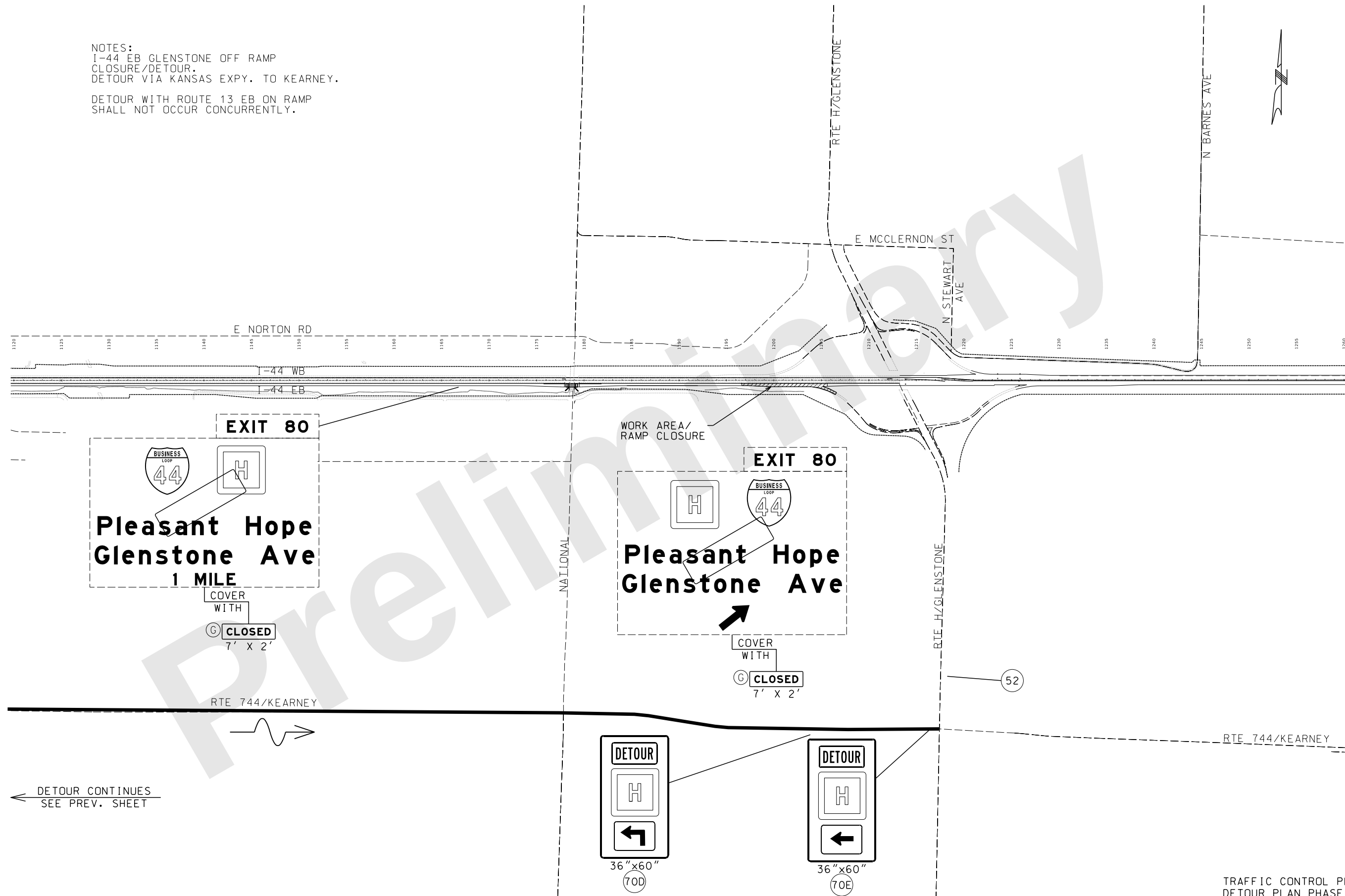
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PRO. ENGINEER 2010005873

FINAL PLANS

DETOUR WITH ROUTE 13 EB ON RAMP
SHALL NOT OCCUR CONCURRENTLY.



TRAFFIC CONTROL PLAN
DETOUR PLAN PHASE 1B
GLENSTONE EB OFF RAMP
JSU0076
SHEET 7 OF 13

BRIDGE NO.

[illegible]

COMMISSION



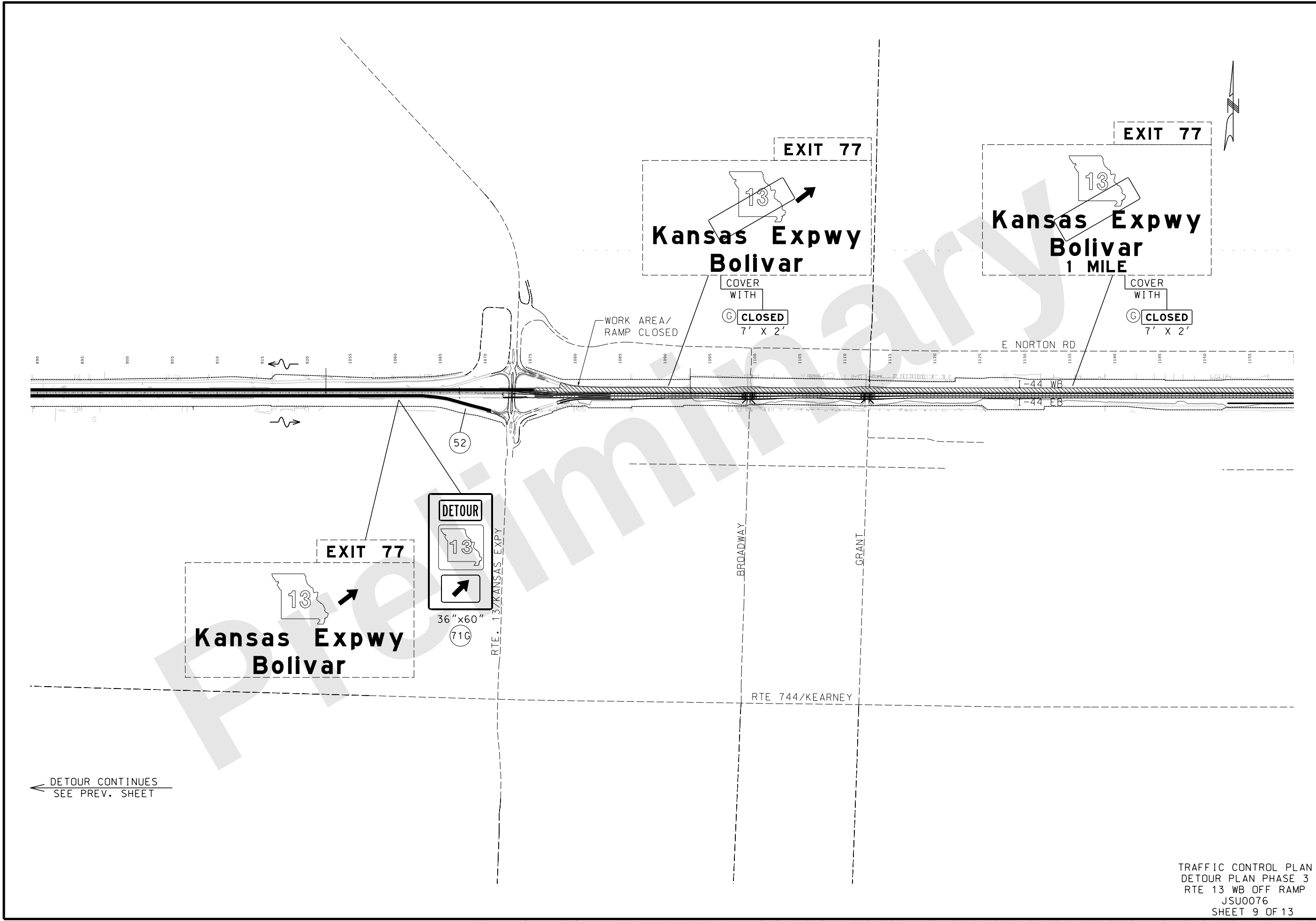
1-888-ASK-MODOT (1-888-275-6636)



1911 NE 79th Street: Kansas

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O. ENGINEER 2010005873

FINAL PLANS



← DETOUR CONTINUES
SEE PREV. SHEET

TRAFFIC CONTROL PLAN
DETOUR PLAN PHASE 3
RTE 13 WB OFF RAMP
JSU0076
SHEET 9 OF 13

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 184
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

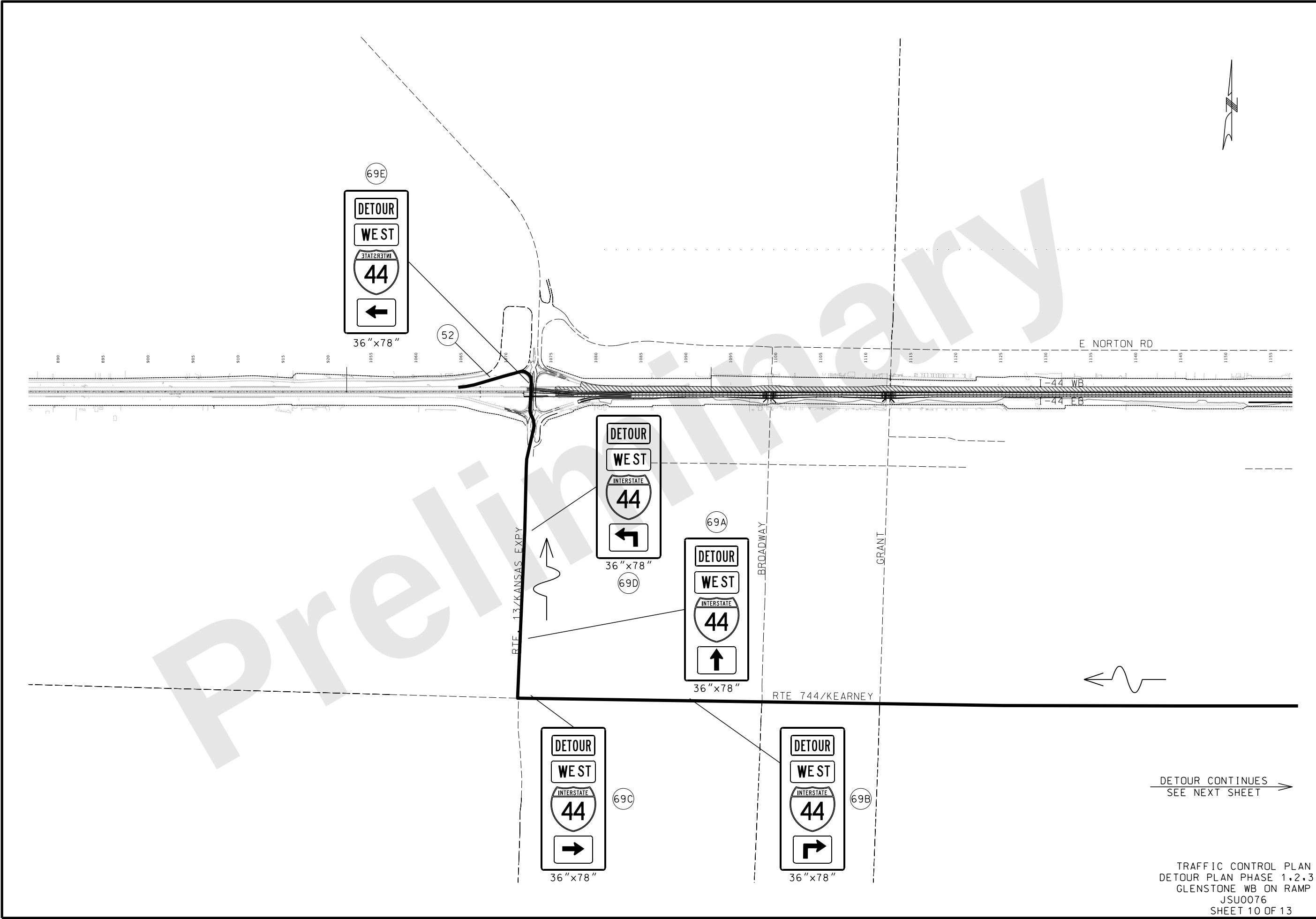
105 WEST CAPITAL
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1-888-ASK-MODOT (1-888-275-6636)

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FINAL PLANS



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DATE PREPARED 9/27/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 185
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

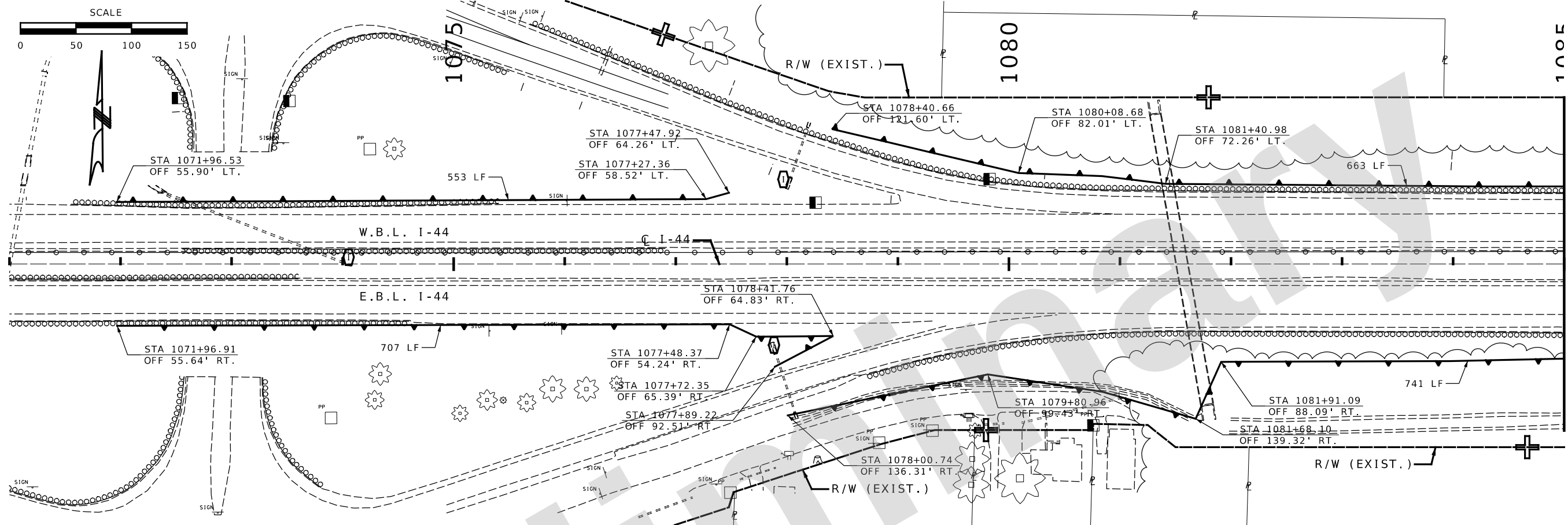
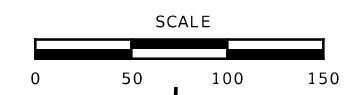
consult engineers inc planners

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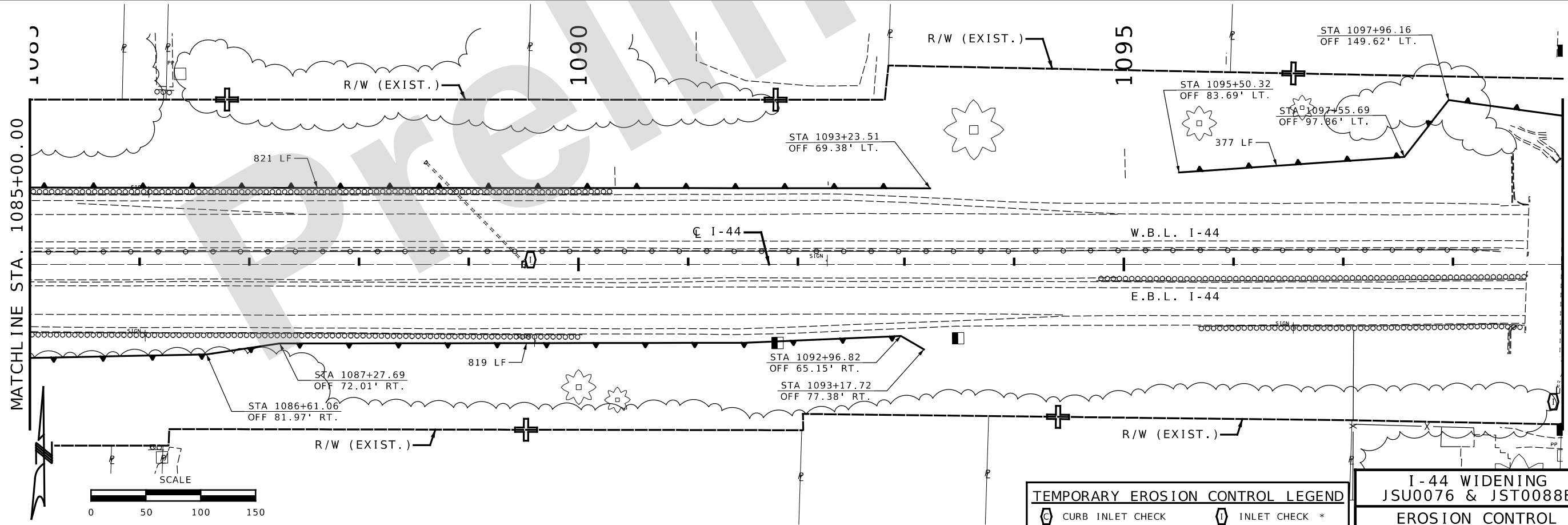
Hg CONSULT, INC.
PRO. ENGINEER 2010005873

FINAL PLANS

TRAFFIC CONTROL PLAN
DETOUR PLAN PHASE 1,2,3
GLENSTONE WB ON RAMP
JSU0076
SHEET 10 OF 13



MATCHLINE STA. 1085+00.00

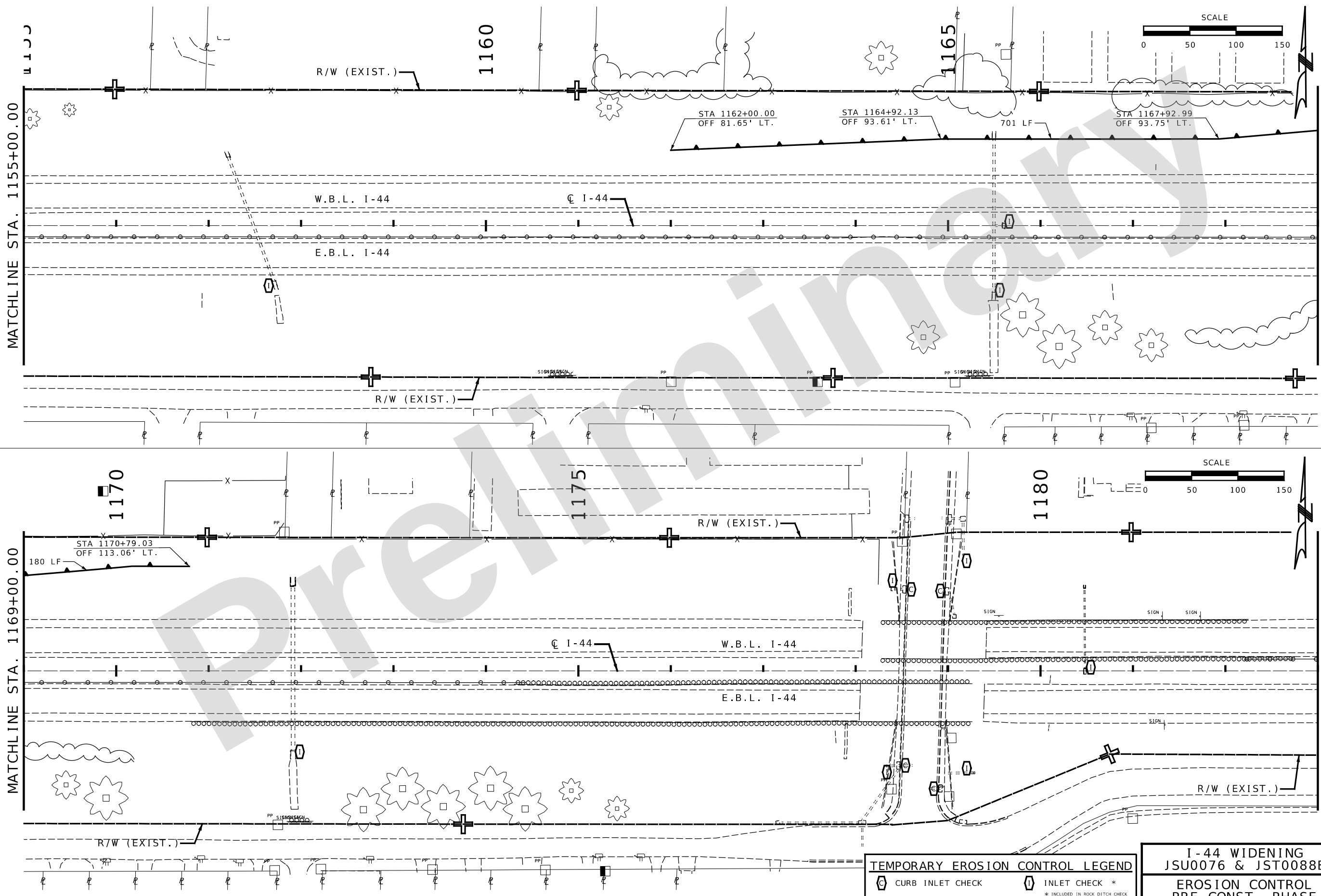


MATCHLINE STA. 1099+00.00

TEMPORARY EROSION CONTROL LEGEND	
	CURB INLET CHECK
	INLET CHECK *
	SILT FENCE
* INCLUDED IN ROCK DITCH CHECK AND ALTERNATE DITCH CHECK MEASUREMENT FOR PAYMENT	

I-44 WIDENING
JSU0076 & JST0088B
EROSION CONTROL
PRE-CONST. PHASE
SHEET 1 OF 27

DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 189
COUNTY GREENE	
JOB NO. JSU0076, JST0088B, & JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-273-6636)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	



TEMPORARY EROSION CONTROL LEGEND	
	CURB INLET CHECK
	INLET CHECK *
	SILT FENCE
* INCLUDED IN ROCK DITCH CHECK AND ALTERNATE DITCH CHECK MEASUREMENT FOR PAYMENT	

I-44 WIDENING
JSU0076 & JST0088B
EROSION CONTROL
PRE-CONST. PHASE
SHEET 4 OF 27

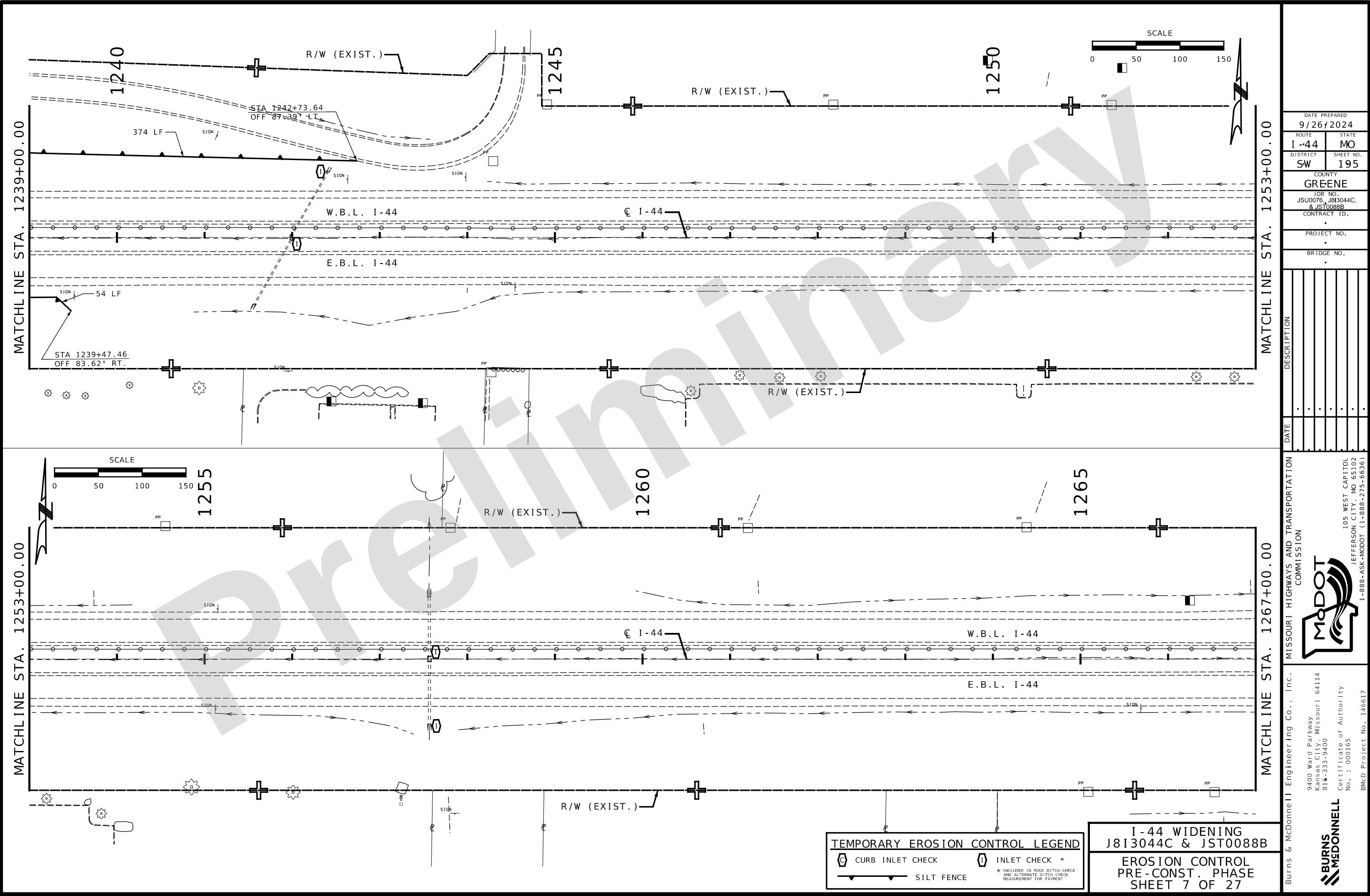
DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 192

COUNTY
GREENE
JOB NO.
JSU0076, J813044C,
& JST0088B
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)

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617



DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 195
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

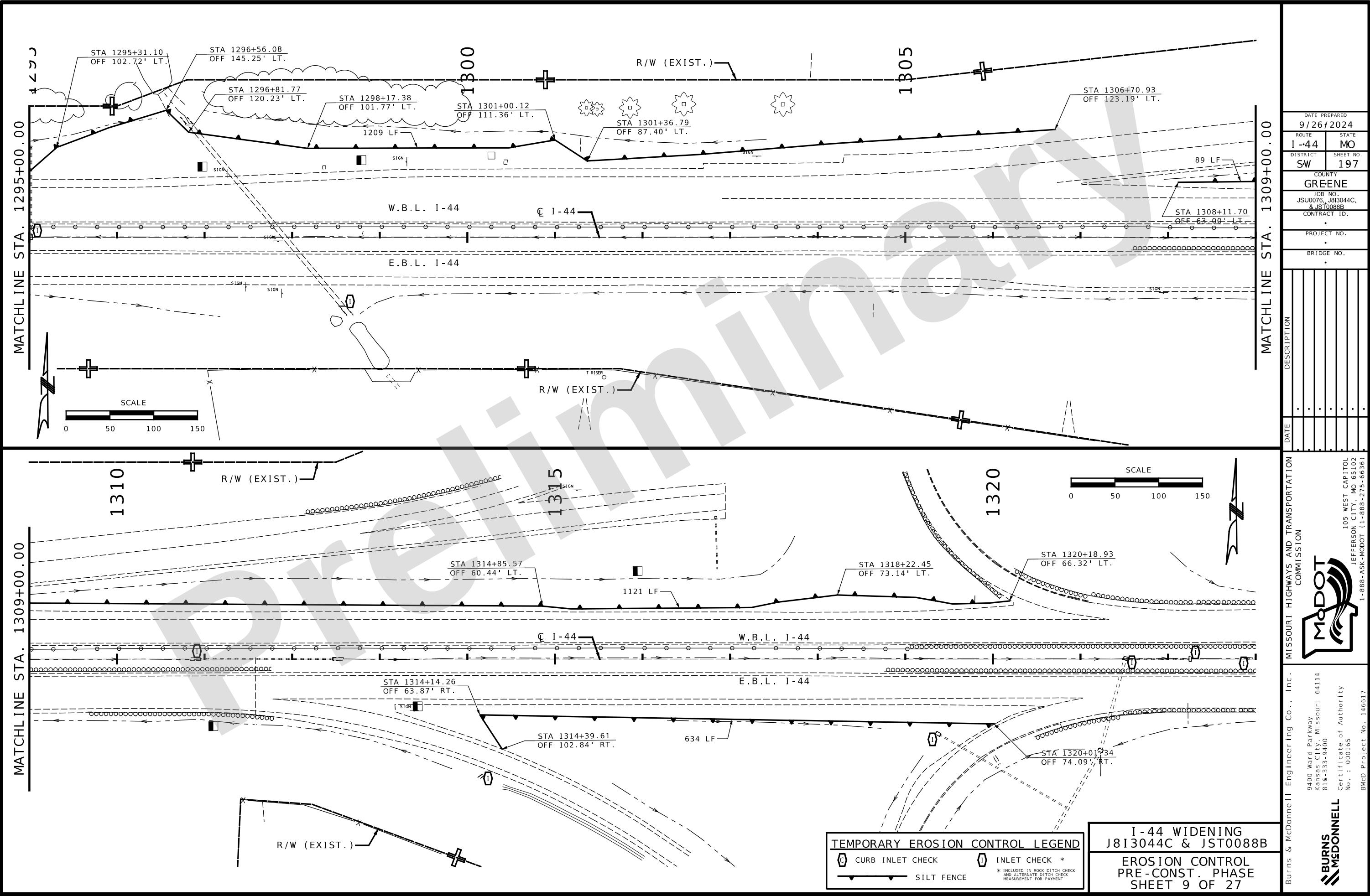
MoDOT

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

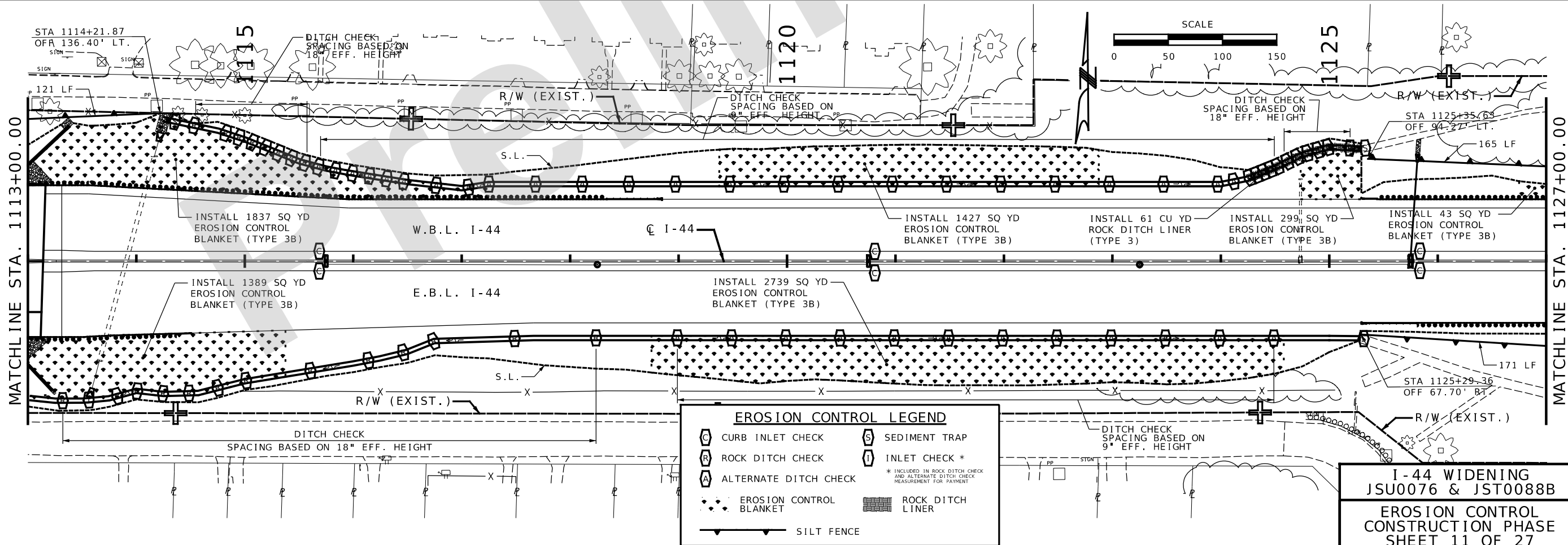
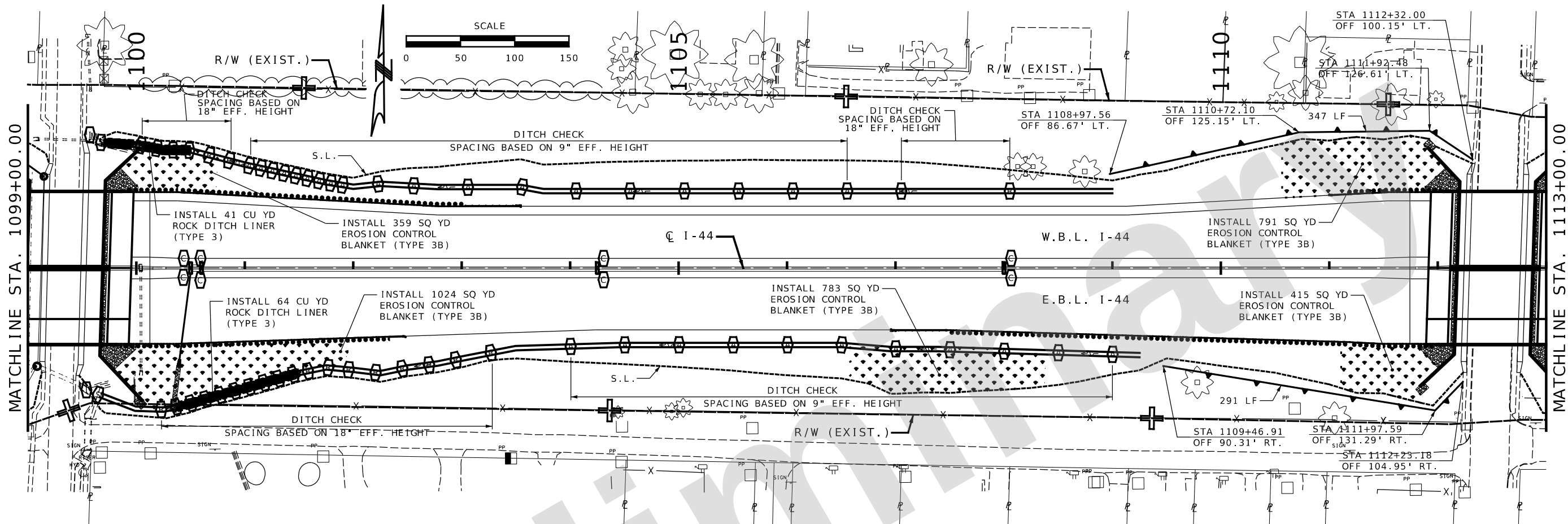
Certificate of Authority
No. : 000165

BMcD Project No. 146617

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



DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 197
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
MoDOT 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 Bmcd Project No. 146617	



EROSION CONTROL LEGEND			
	CURB INLET CHECK		SEDIMENT TRAP
	ROCK DITCH CHECK		INLET CHECK *
	ALTERNATE DITCH CHECK	* INCLUDED IN ROCK DITCH CHECK AND ALTERNATE DITCH CHECK MEASUREMENT FOR PAYMENT	
	EROSION CONTROL BLANKET		ROCK DITCH LINER
	SILT FENCE		

**I-44 WIDENING
JSU0076 & JST0088B
EROSION CONTROL
CONSTRUCTION PHASE
SHEET 11 OF 27**

DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 199
COUNTY GREENE	
JOB NO. JSU0076, JST0088B, & JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
DESCRIPTION	
DATE	

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

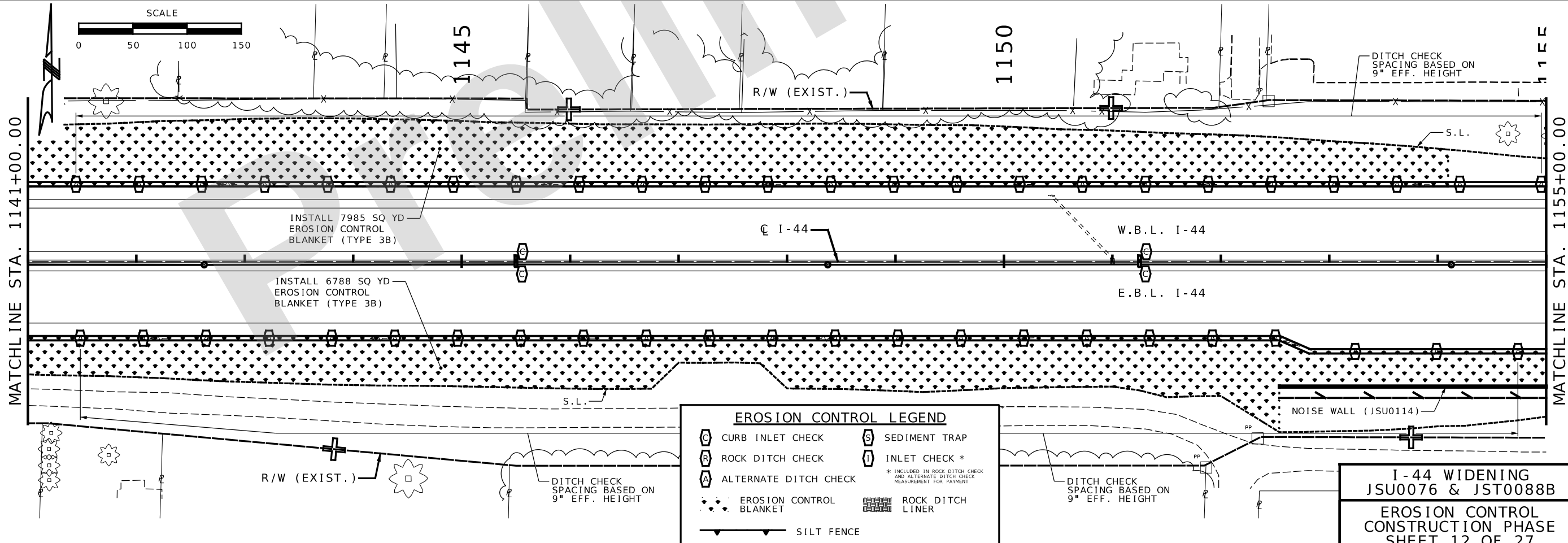
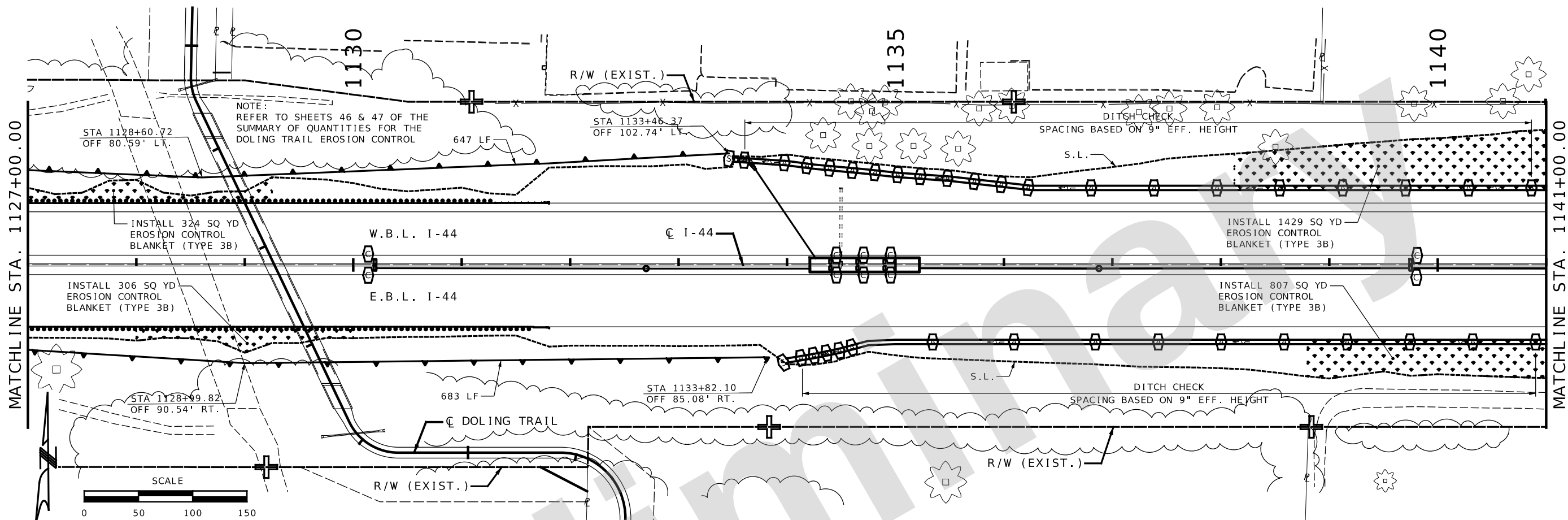
MODOT

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

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165
BMcD Project No. 146617

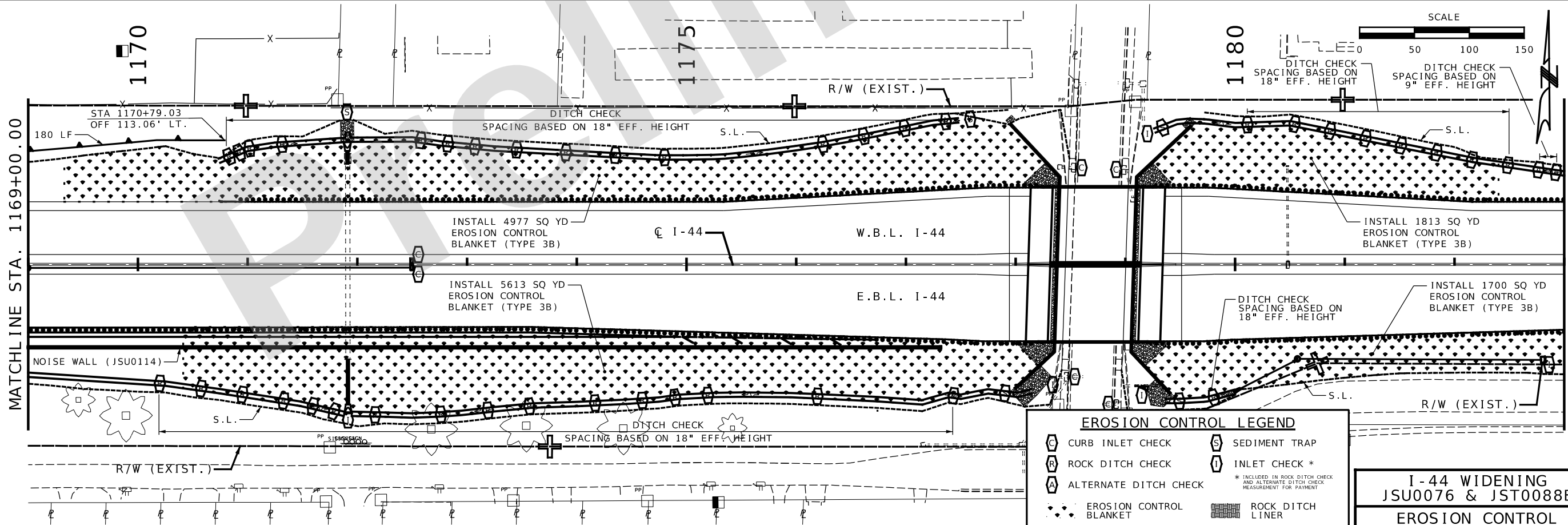
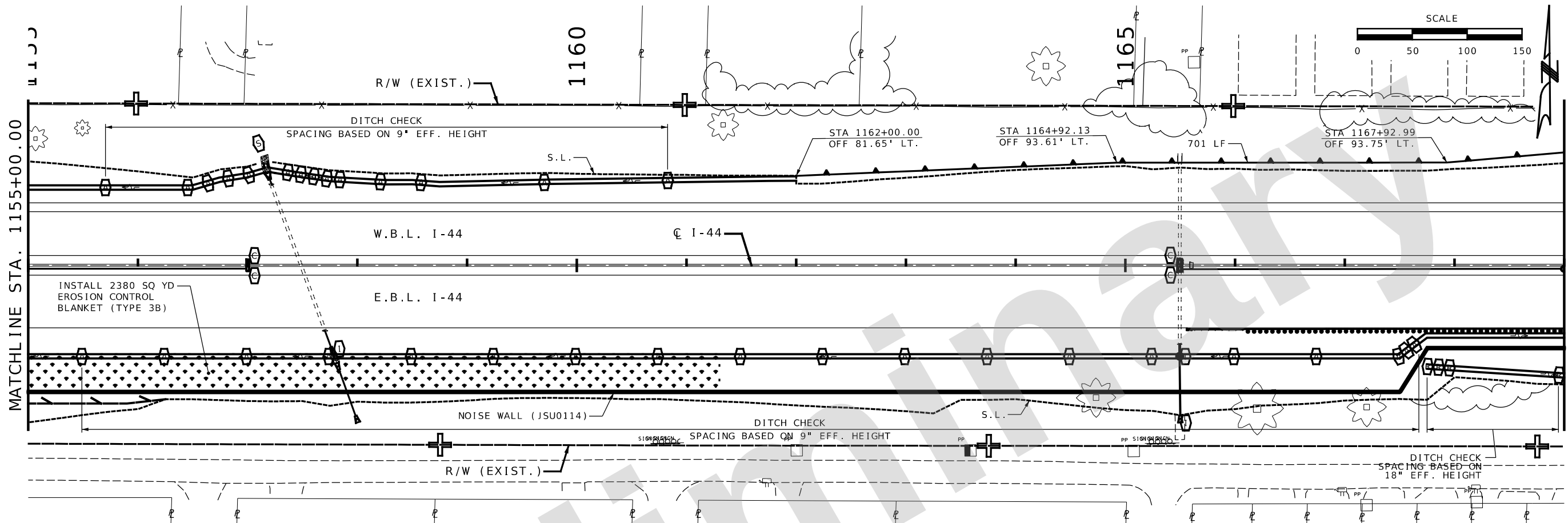
**BURNS
& MCDONNELL**



EROSION CONTROL LEGEND			
C	CURB INLET CHECK	S	SEDIMENT TRAP
R	ROCK DITCH CHECK	I	INLET CHECK *
A	ALTERNATE DITCH CHECK		
	EROSION CONTROL BLANKET		ROCK DITCH LINER
	SILT FENCE		

I-44 WIDENING
JSU0076 & JST0088B
EROSION CONTROL
CONSTRUCTION PHASE
SHEET 12 OF 27

DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 200
COUNTY GREENE	
JOB NO. JSU0076, JST0044C, & JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
Burns & McDonnell Engineering Co., Inc.	
9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400	
Certificate of Authority No. : 000165	
BMcD Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-273-6636)	



EROSION CONTROL LEGEND			
	CURB INLET CHECK		SEDIMENT TRAP
	ROCK DITCH CHECK		INLET CHECK *
	ALTERNATE DITCH CHECK	* INCLUDED IN ROCK DITCH CHECK AND ALTERNATE DITCH CHECK MEASUREMENT FOR PAYMENT	
	EROSION CONTROL BLANKET		ROCK DITCH LINER
	SILT FENCE		

I-44 WIDENING
JSU0076 & JST0088B
EROSION CONTROL
CONSTRUCTION PHASE
SHEET 13 OF 27

DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 201
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
DESCRIPTION	
DATE	

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

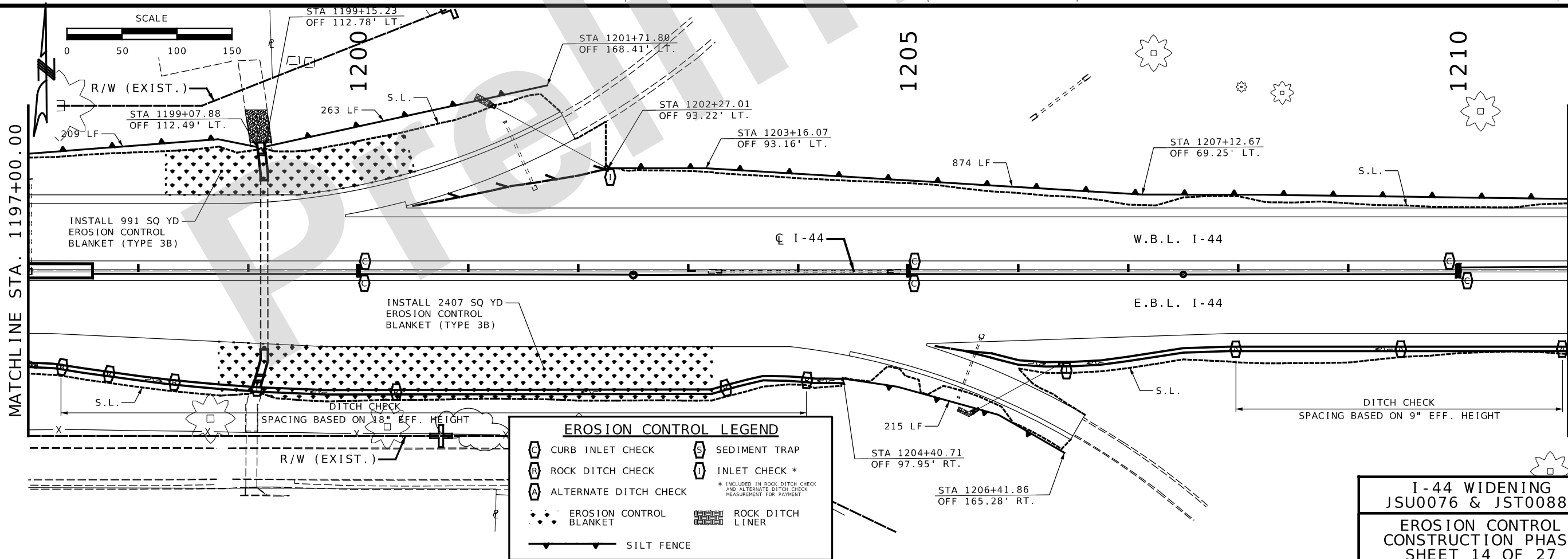
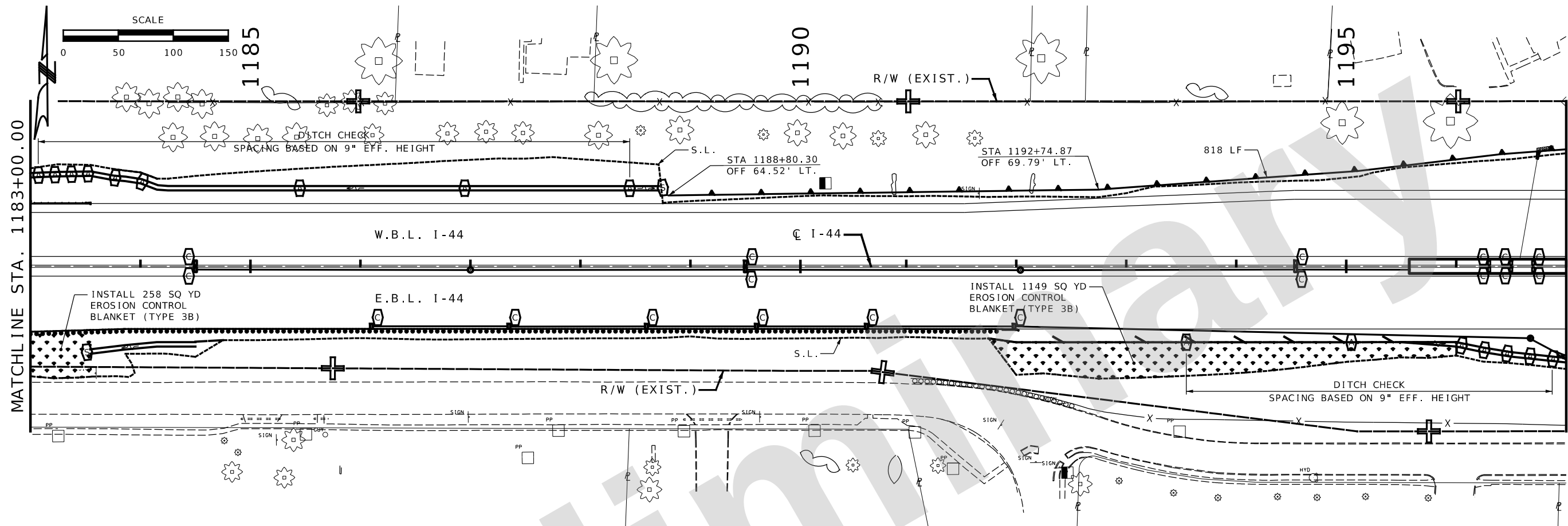
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-273-6636)

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617

BURNS & MCDONNELL
Engineering Co., Inc.



EROSION CONTROL LEGEND			
	CURB INLET CHECK		SEDIMENT TRAP
	ROCK DITCH CHECK		INLET CHECK *
	ALTERNATE DITCH CHECK	* INCLUDED IN ROCK DITCH CHECK AND ALTERNATE DITCH CHECK MEASUREMENT FOR PAYMENT	
	EROSION CONTROL BLANKET		ROCK DITCH LINER
	SILT FENCE		

I-44 WIDENING
JSU0076 & JST0088B
EROSION CONTROL
CONSTRUCTION PHASE
SHEET 14 OF 27

DATE PREPARED
9/26/2024
ROUTE
I-44
DISTRICT
SW
STATE
MO
SHEET NO.
202

COUNTY
GREENE
JOB NO.
JSU0076, J813044C,
& JST0088B
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)

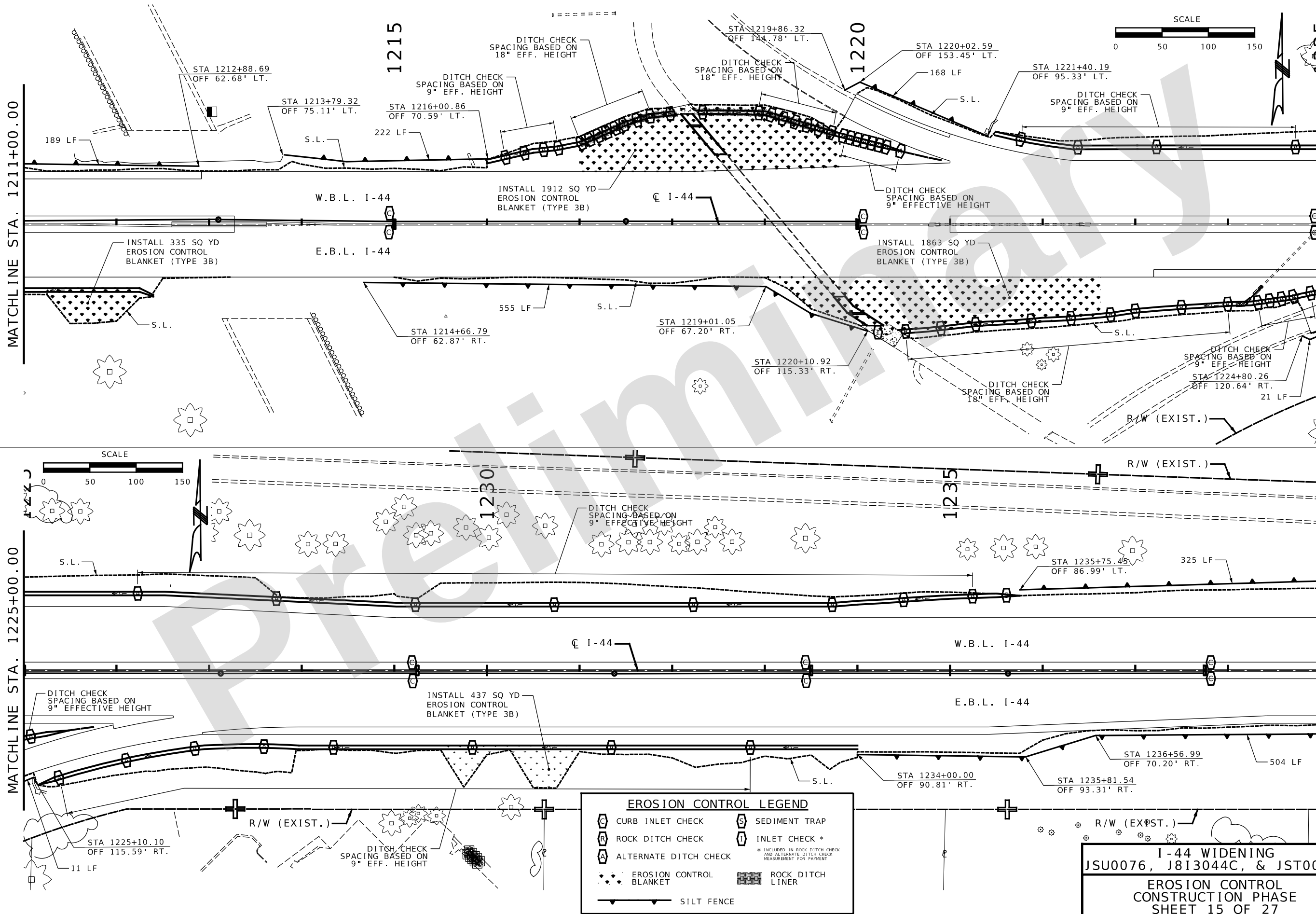
Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

MATCHLINE STA. 1211+00.00

MATCHLINE STA. 1225+00.00

MATCHLINE STA. 1225+00.00

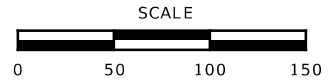
MATCHLINE STA. 1239+00.00



EROSION CONTROL LEGEND

CURB INLET CHECK	SEDIMENT TRAP
ROCK DITCH CHECK	INLET CHECK *
ALTERNATE DITCH CHECK	* INCLUDED IN ROCK DITCH CHECK AND ALTERNATE DITCH CHECK MEASUREMENT FOR PAYMENT
EROSION CONTROL BLANKET	ROCK DITCH LINER
SILT FENCE	

I-44 WIDENING
JSU0076, J813044C, & JST0088B
EROSION CONTROL
CONSTRUCTION PHASE
SHEET 15 OF 27



DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 203
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
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)

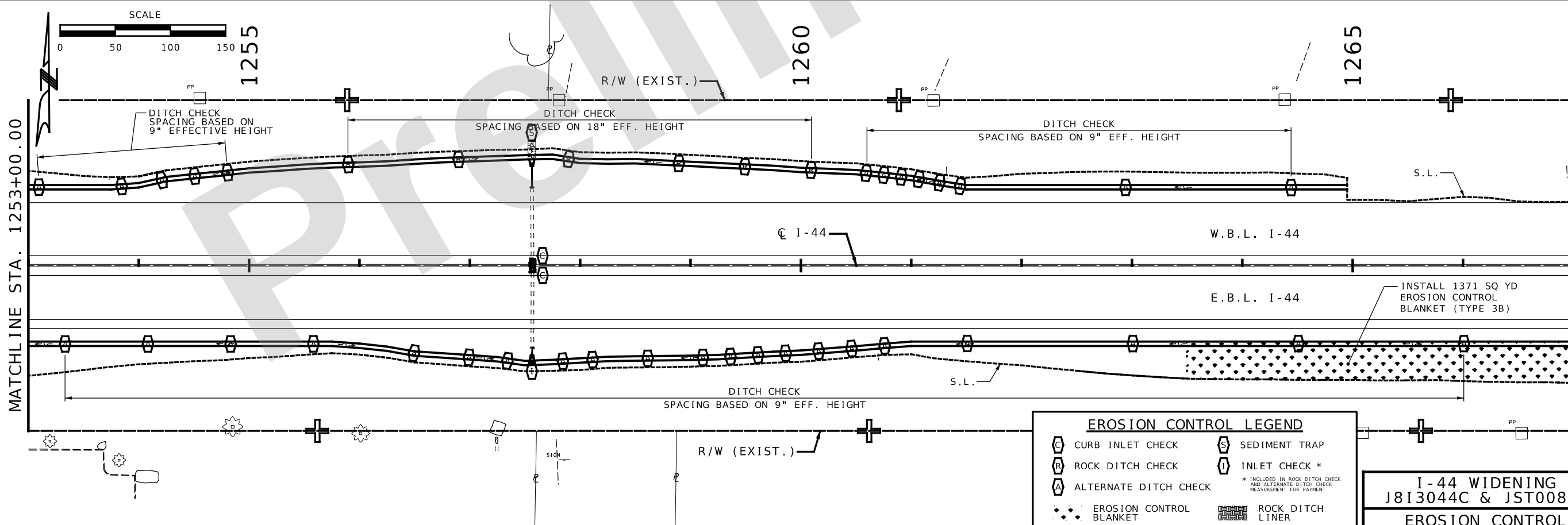
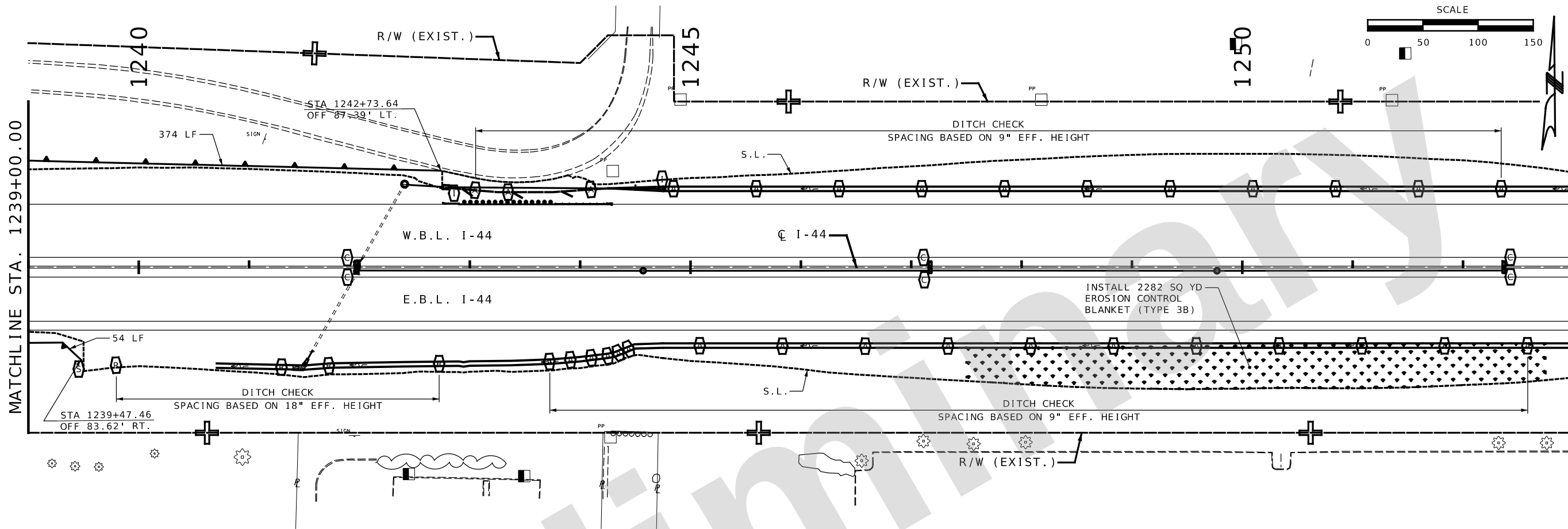
Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617

**BURNS
MCDONNELL**



EROSION CONTROL LEGEND			
	ROCK DITCH CHECK		SEDIMENT TRAP
	ALTERNATE DITCH CHECK		INLET CHECK *
	EROSION CONTROL BLANKET	* INCLUDED IN ROCK DITCH CHECK AND ALTERNATE DITCH CHECK MEASUREMENT FOR PAYMENT	
	ROCK DITCH LINER		
	SILTS FENCE		

I-44 WIDENING
J813044C & JST0088B
EROSION CONTROL
CONSTRUCTION PHASE
SHEET 16 OF 27

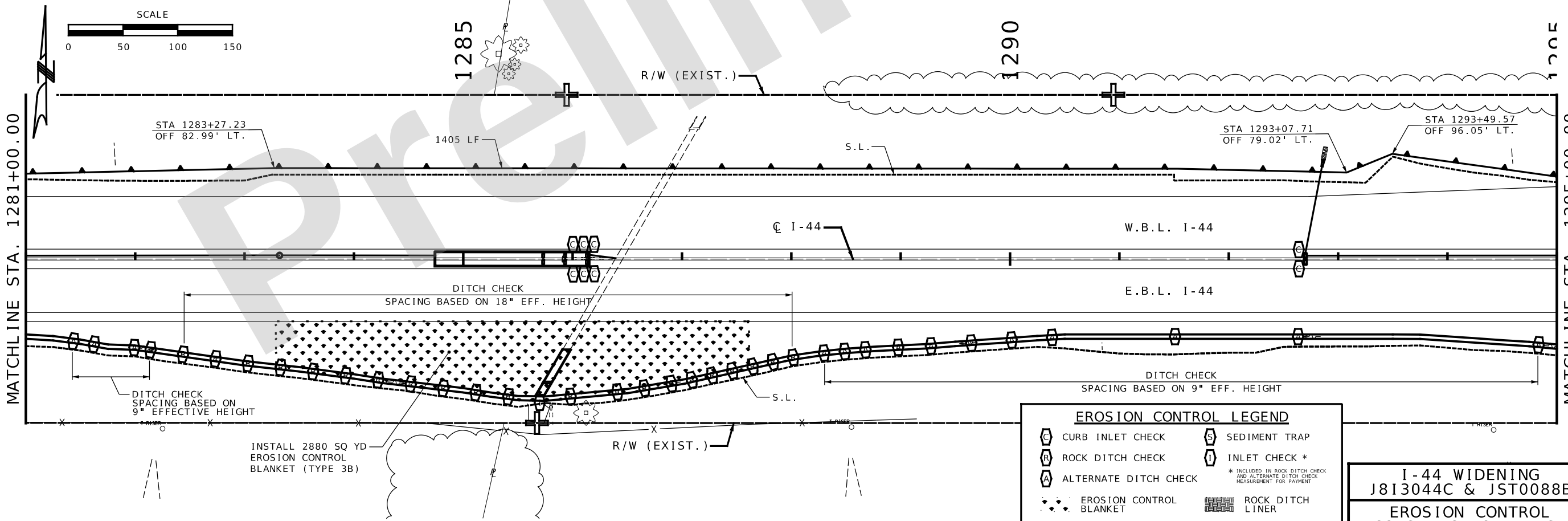
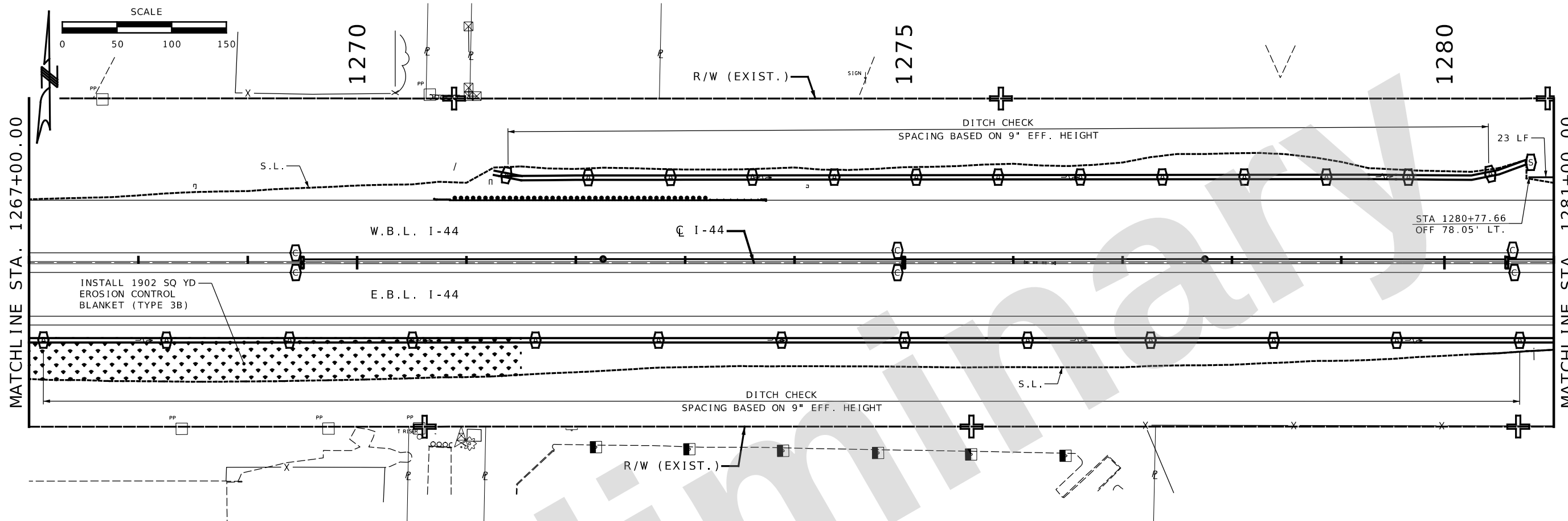
DATE PREPARED
9/26/2024
ROUTE
I-44
DISTRICT
SW
STATE
MO
SHEET NO.
204

COUNTY
GREENE
JOB NO.
JSU0076, J813044C,
& JST0088B
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-273-6636)

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617



EROSION CONTROL LEGEND			
	CURB INLET CHECK		SEDIMENT TRAP
	ROCK DITCH CHECK		INLET CHECK *
	ALTERNATE DITCH CHECK	* INCLUDED IN ROCK DITCH CHECK AND ALTERNATE DITCH CHECK MEASUREMENT FOR PAYMENT	
	EROSION CONTROL BLANKET		ROCK DITCH LINER
	SILT FENCE		

I-44 WIDENING
J813044C & JST0088B
EROSION CONTROL
CONSTRUCTION PHASE
SHEET 17 OF 27

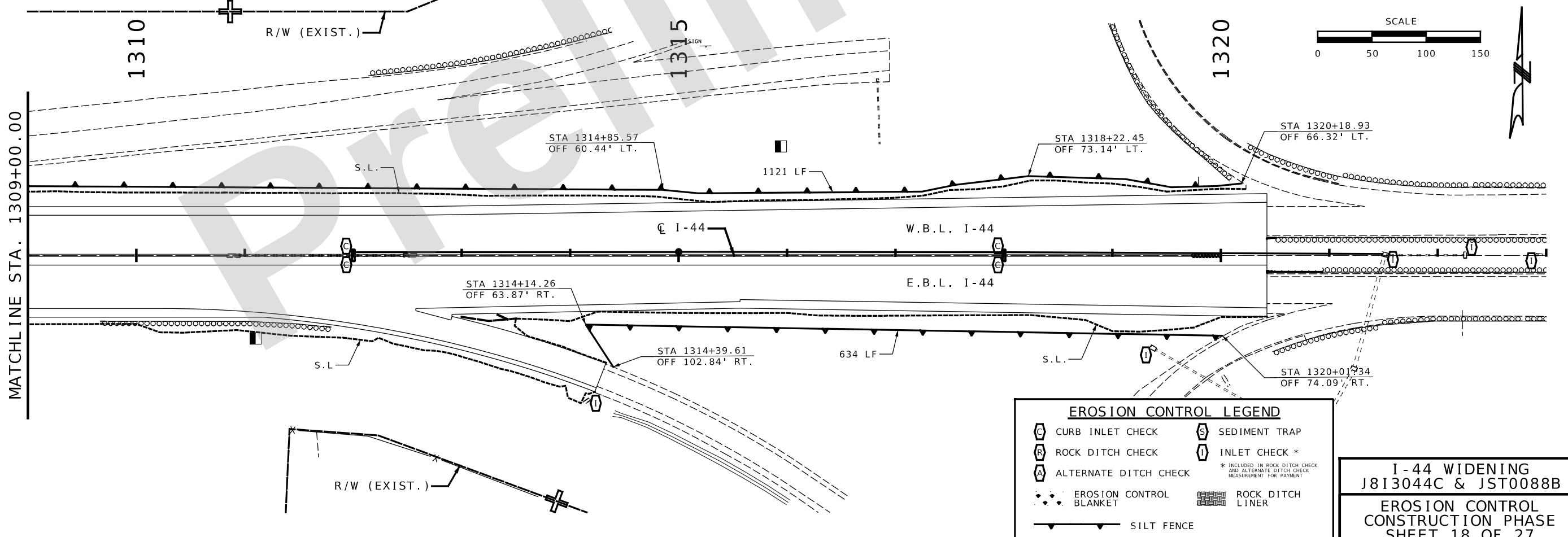
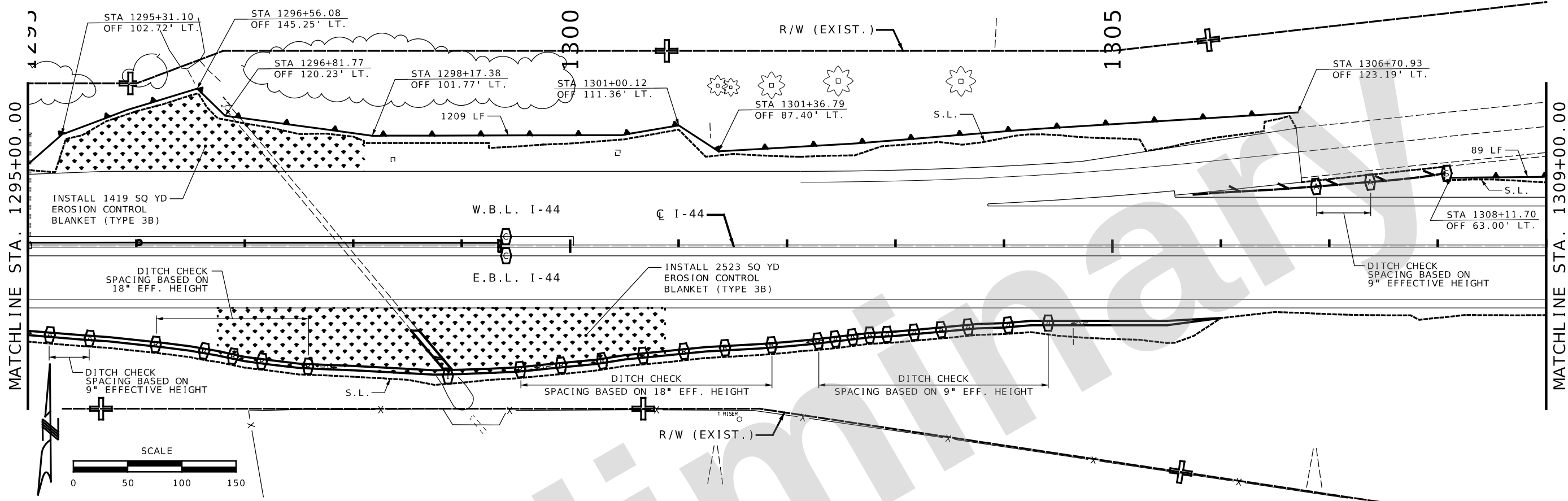
DATE PREPARED
9/26/2024
ROUTE
I-44
STATE
MO
DISTRICT
SW
SHEET NO.
205
COUNTY
GREENE
JOB NO.
JSU0076, J813044C,
& JST0088B
CONTRACT ID.

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)

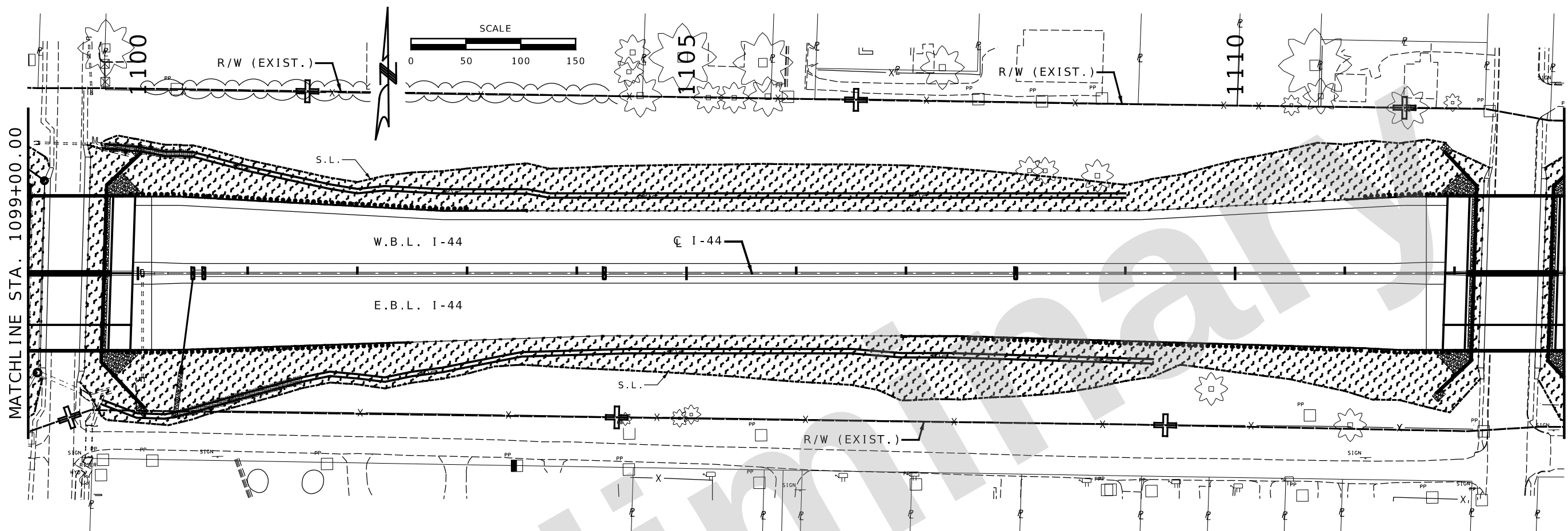
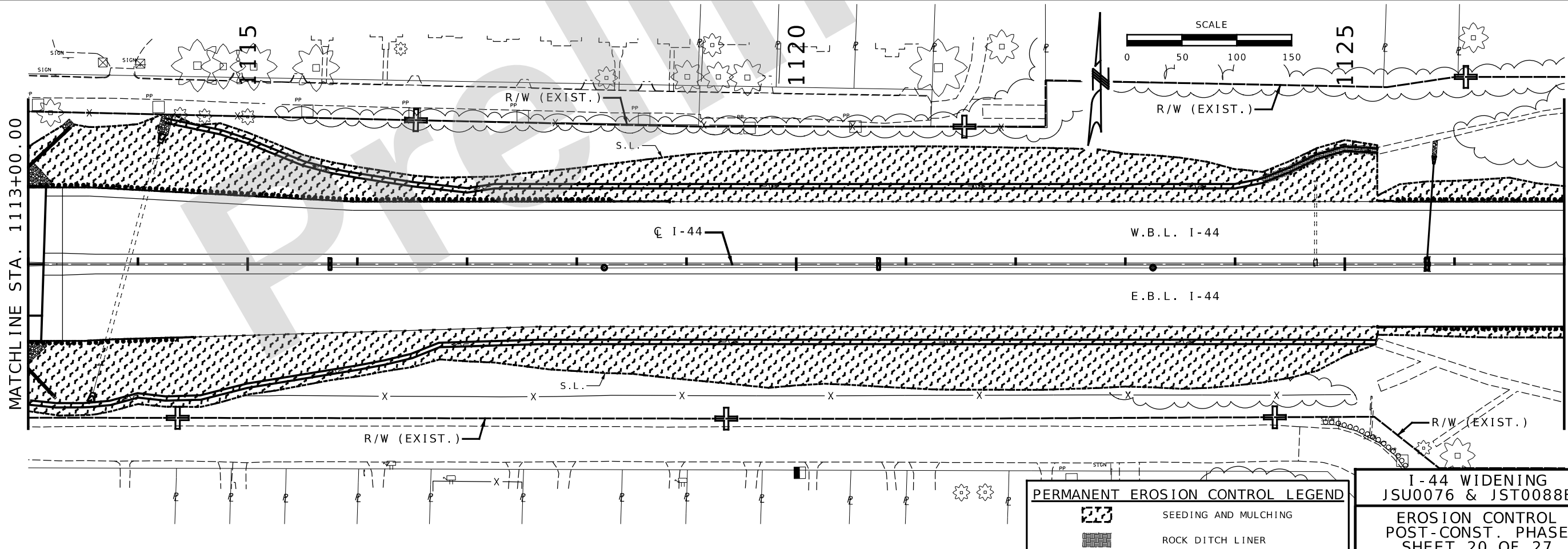
Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617



EROSION CONTROL LEGEND			
	CURB INLET CHECK		SEDIMENT TRAP
	ROCK DITCH CHECK		INLET CHECK *
	ALTERNATE DITCH CHECK	* INCLUDED IN ROCK DITCH CHECK AND ALTERNATE DITCH CHECK MEASUREMENT FOR PAYMENT	
	EROSION CONTROL BLANKET		ROCK DITCH LINER
	SILT FENCE		

I-44 WIDENING
J813044C & JST0088B
EROSION CONTROL
CONSTRUCTION PHASE
SHEET 18 OF 27

DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 206
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMCd Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	



PERMANENT EROSION CONTROL LEGEND	
	SEEDING AND MULCHING
	ROCK DITCH LINER

I-44 WIDENING
JSU0076 & JST0088B
EROSION CONTROL
POST-CONST. PHASE
SHEET 20 OF 27

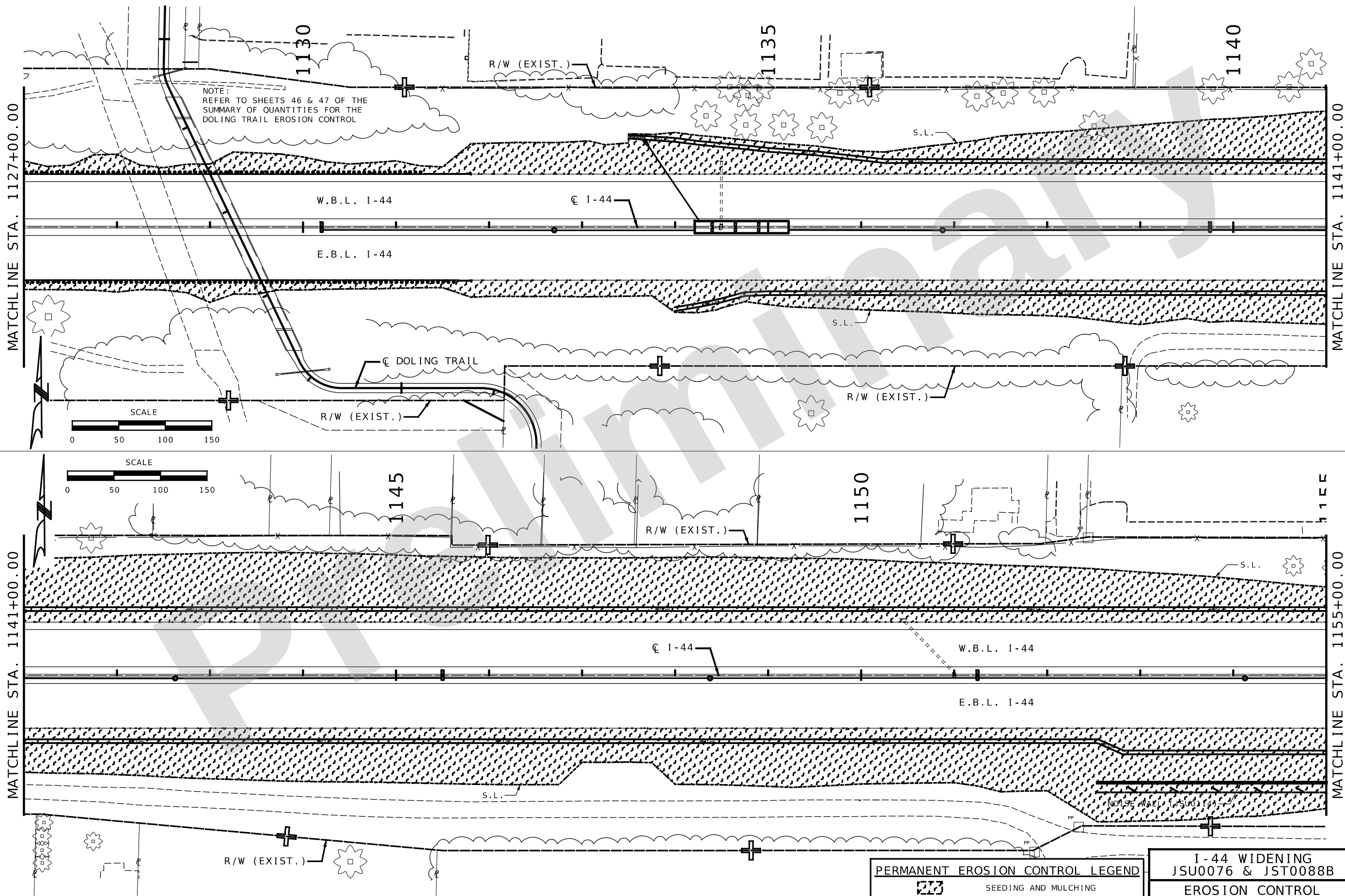
DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 208
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
DESCRIPTION	
DATE	

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

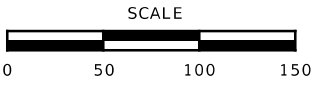
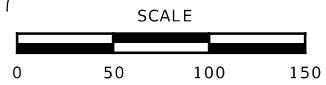
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

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



NOTE:
REFER TO SHEETS 46 & 47 OF THE
SUMMARY OF QUANTITIES FOR THE
DOLING TRAIL EROSION CONTROL



PERMANENT EROSION CONTROL LEGEND	
	SEEDING AND MULCHING
	ROCK DITCH LINER

I-44 WIDENING
JSU0076 & JST0088B
EROSION CONTROL
POST-CONST. PHASE
SHEET 21 OF 27

DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 209

COUNTY
GREENE
JOB NO.
JSU0076, JST0044C,
& JST0088B
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)

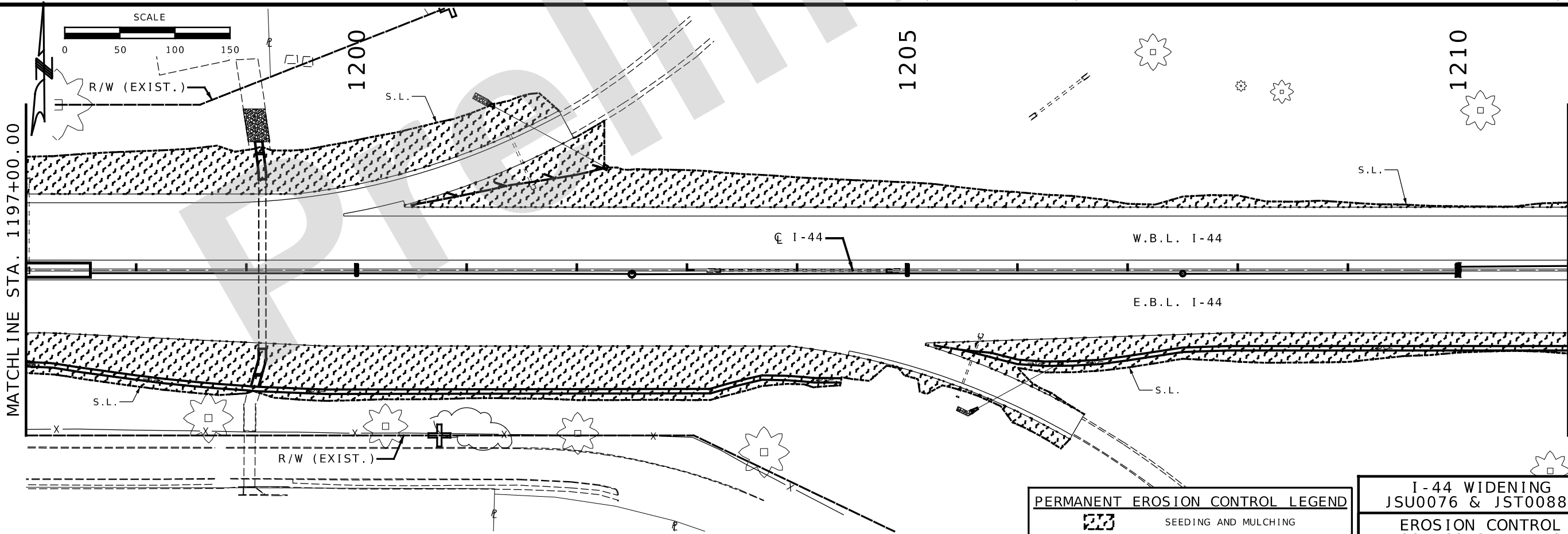
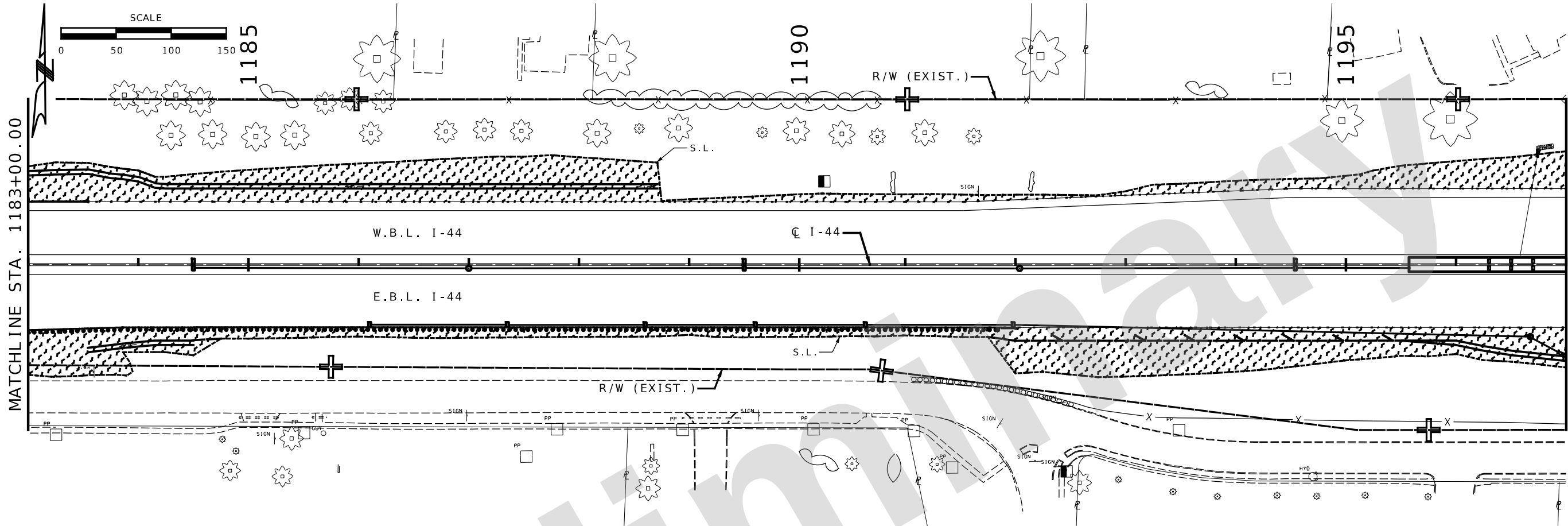
Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617





PERMANENT EROSION CONTROL LEGEND	
	SEEDING AND MULCHING
	ROCK DITCH LINER

I-44 WIDENING
JSU0076 & JST0088B
EROSION CONTROL
POST-CONST. PHASE
SHEET 23 OF 27

DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 211

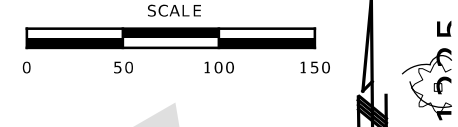
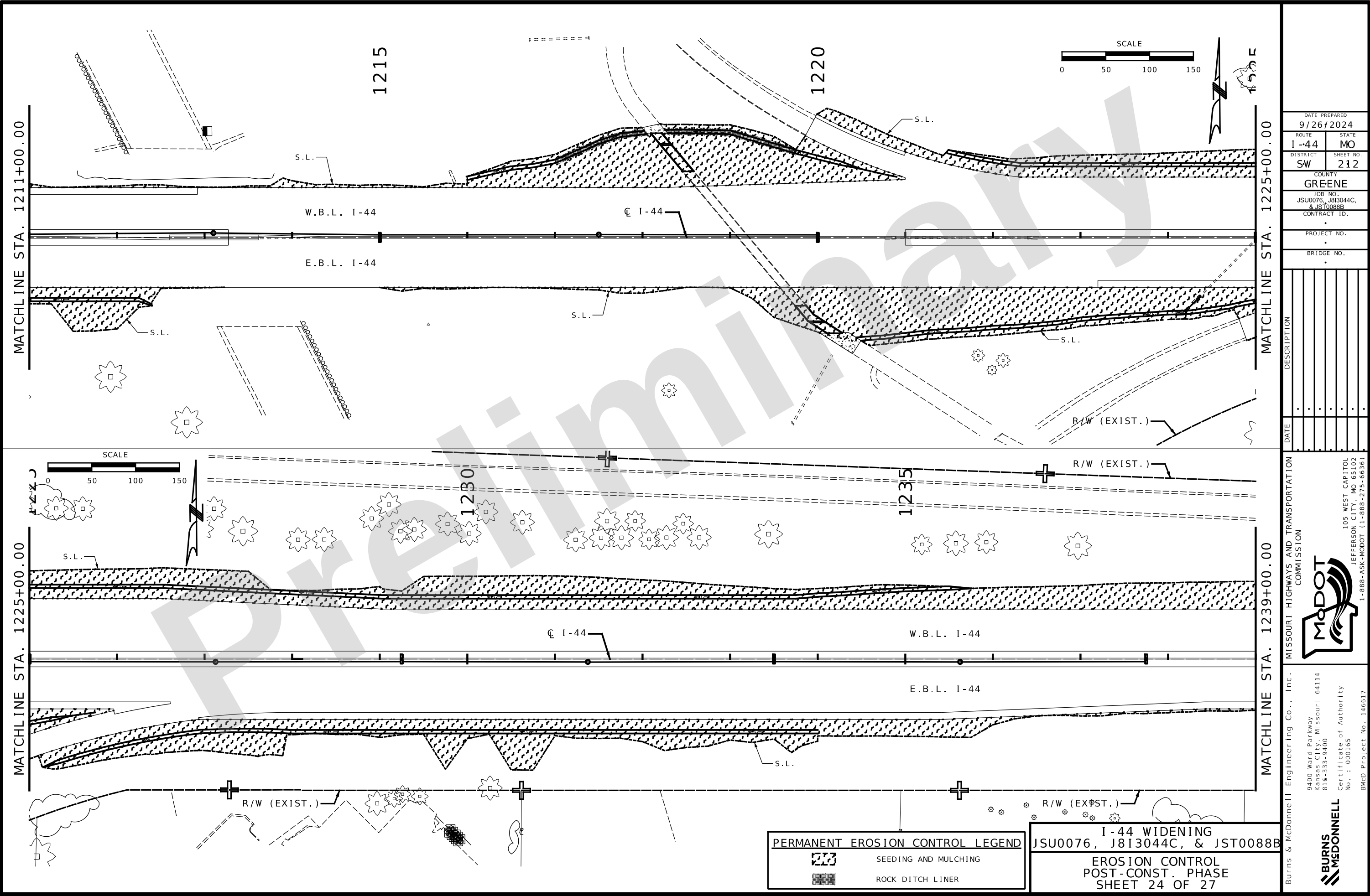
COUNTY
GREENE
JOB NO.
JSU0076, J813044C,
& JST0088B
CONTRACT ID.

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)

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617



PERMANENT EROSION CONTROL LEGEND

SEEDING AND MULCHING

ROCK DITCH LINER

I-44 WIDENING
JSU0076, J813044C, & JST0088B

EROSION CONTROL
POST-CONST. PHASE
SHEET 24 OF 27

DATE PREPARED
9/26/2024

ROUTE
I-44

DISTRICT
SW

STATE
MO

SHEET NO.
212

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

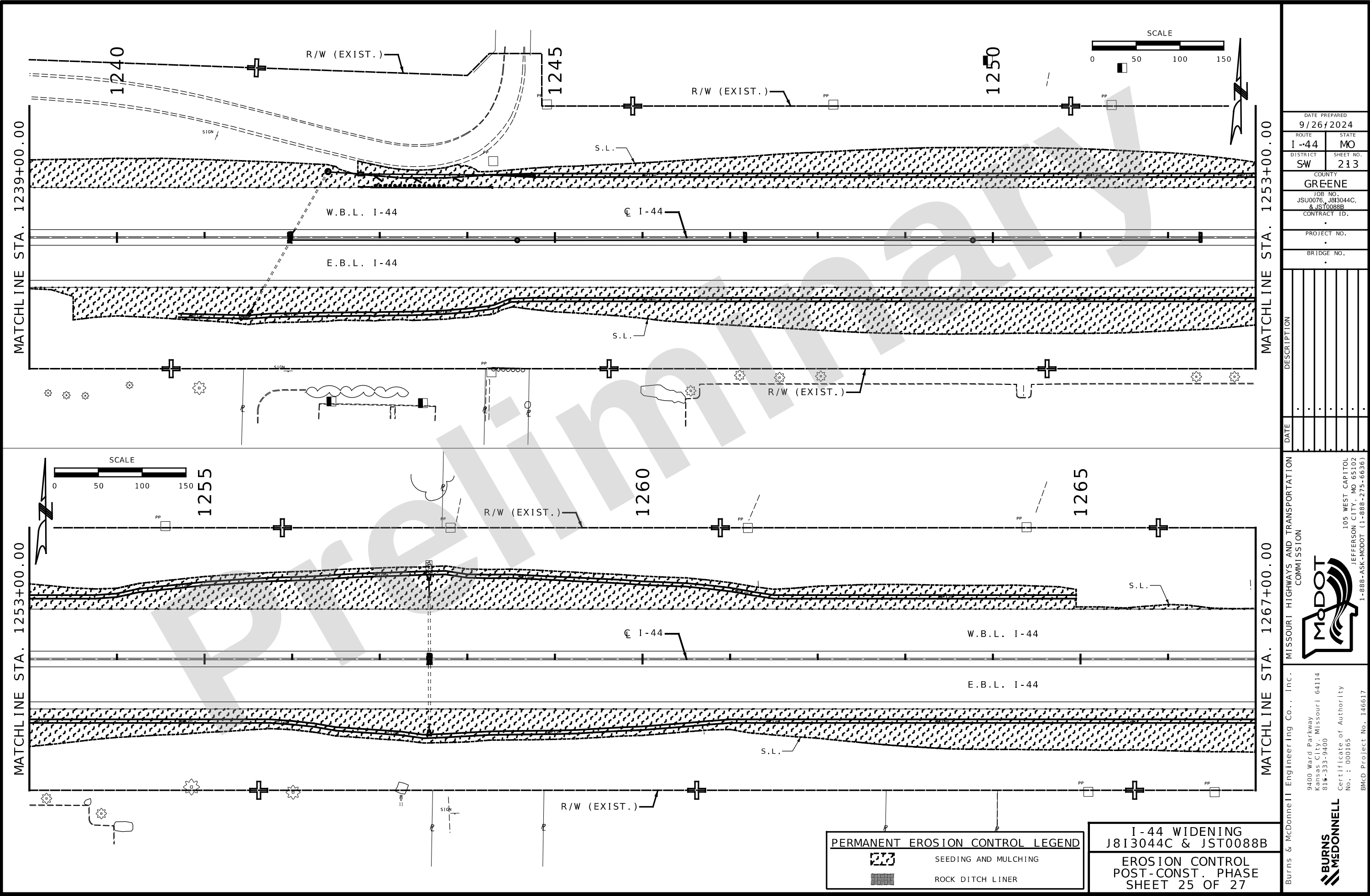
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

BURNS & MCDONNELL
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165
Bmcd Project No. 146617



DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 213

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

CONTRACT ID.
.

PROJECT NO.
.

BRIDGE NO.
.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

MoDOT

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

Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617

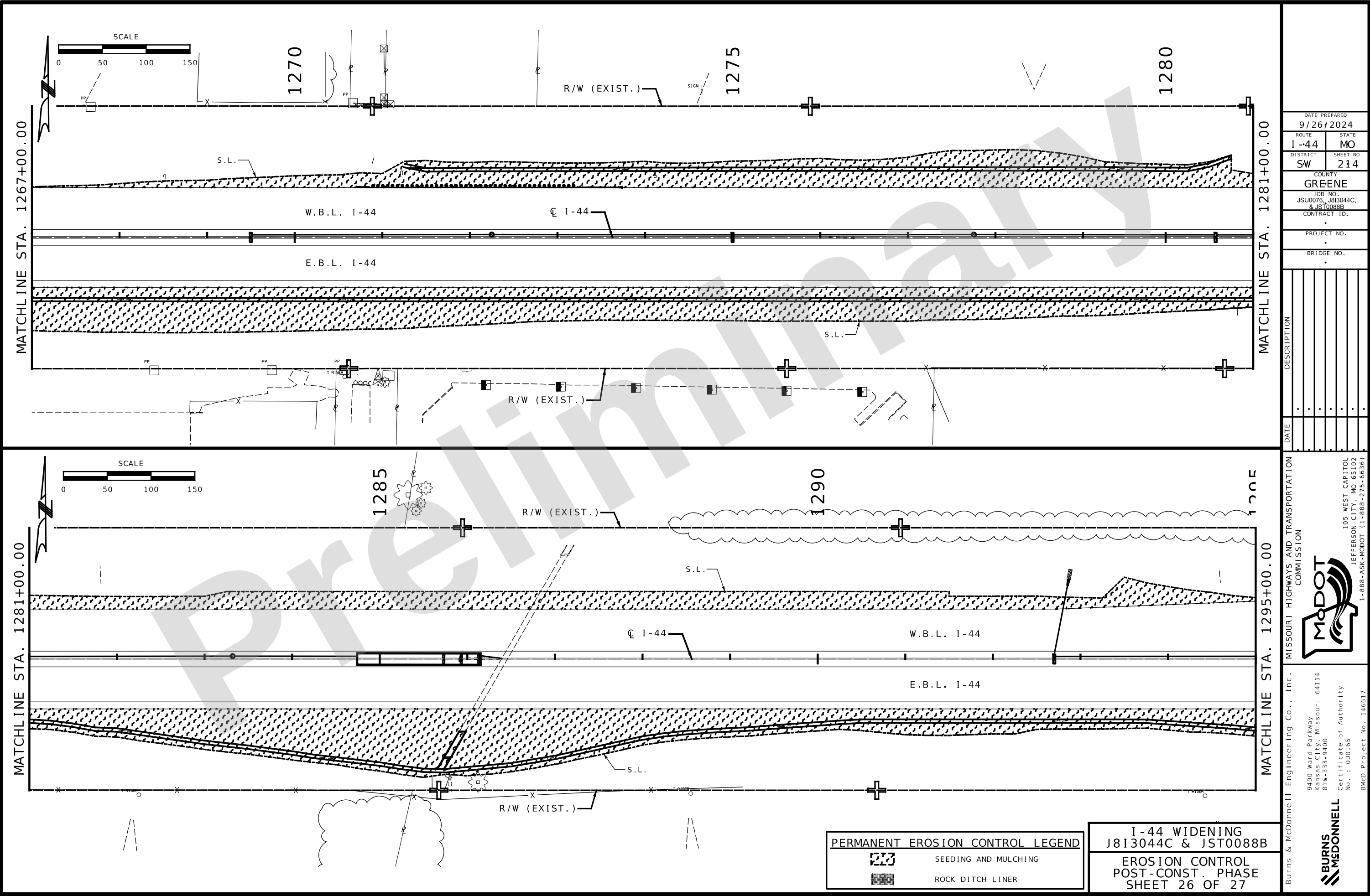
**BURNS
MCDONNELL**

PERMANENT EROSION CONTROL LEGEND	
	SEEDING AND MULCHING
	ROCK DITCH LINER

I-44 WIDENING
J813044C & JST0088B

EROSION CONTROL
POST-CONST. PHASE
SHEET 25 OF 27

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



PERMANENT EROSION CONTROL LEGEND	
	SEEDING AND MULCHING
	ROCK DITCH LINER

I-44 WIDENING
J8I3044C & JST0088B
EROSION CONTROL
POST-CONST. PHASE
SHEET 26 OF 27

DATE PREPARED
9/26/2024

ROUTE
I-44

DISTRICT
SW

COUNTY
GREENE

JOB NO.
JSU0076, J8I3044C,
& JST0088B

CONTRACT ID.
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PROJECT NO.
.

BRIDGE NO.
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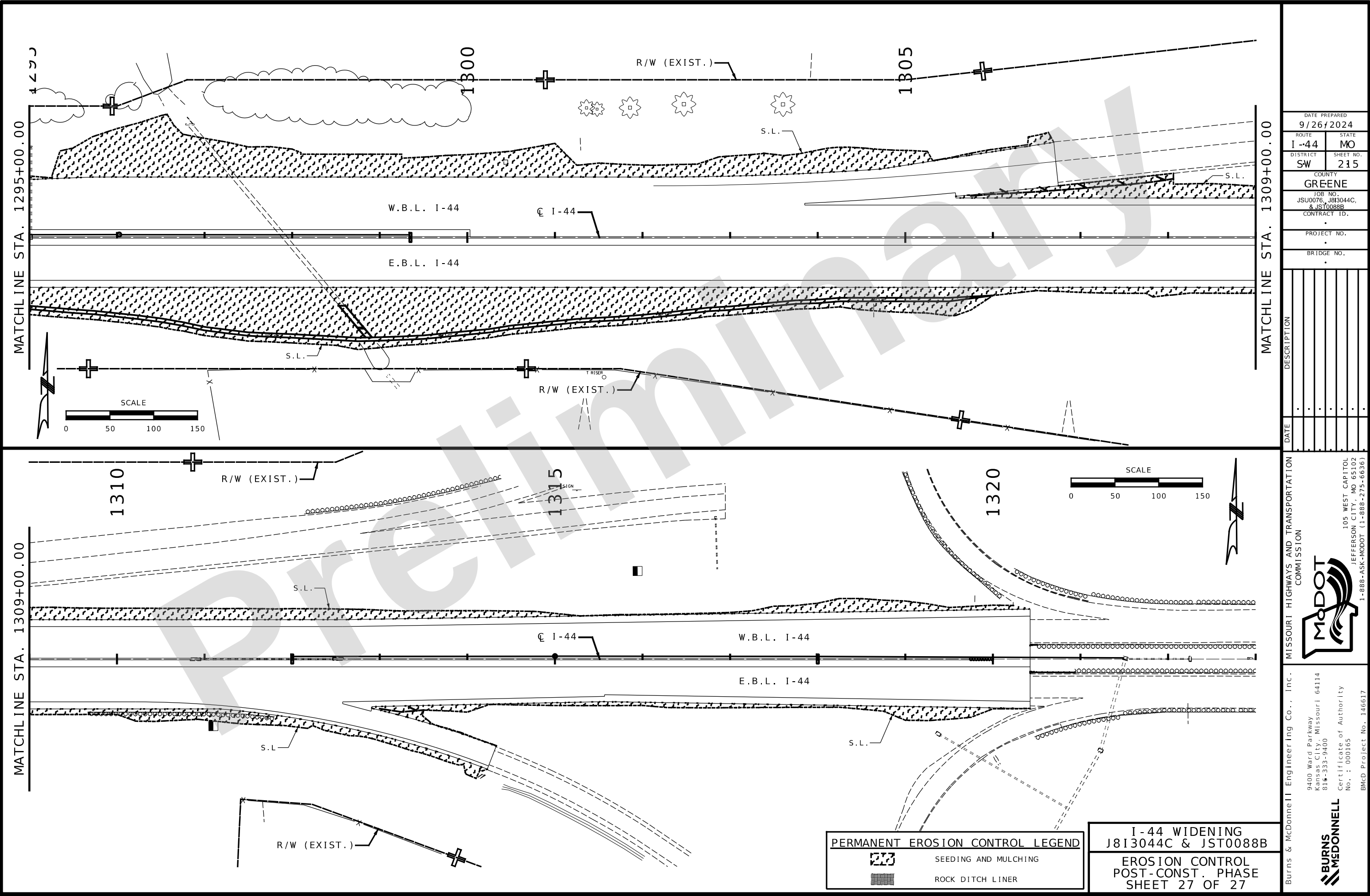
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
Bmcd Project No. 146617

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



DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 215

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

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)

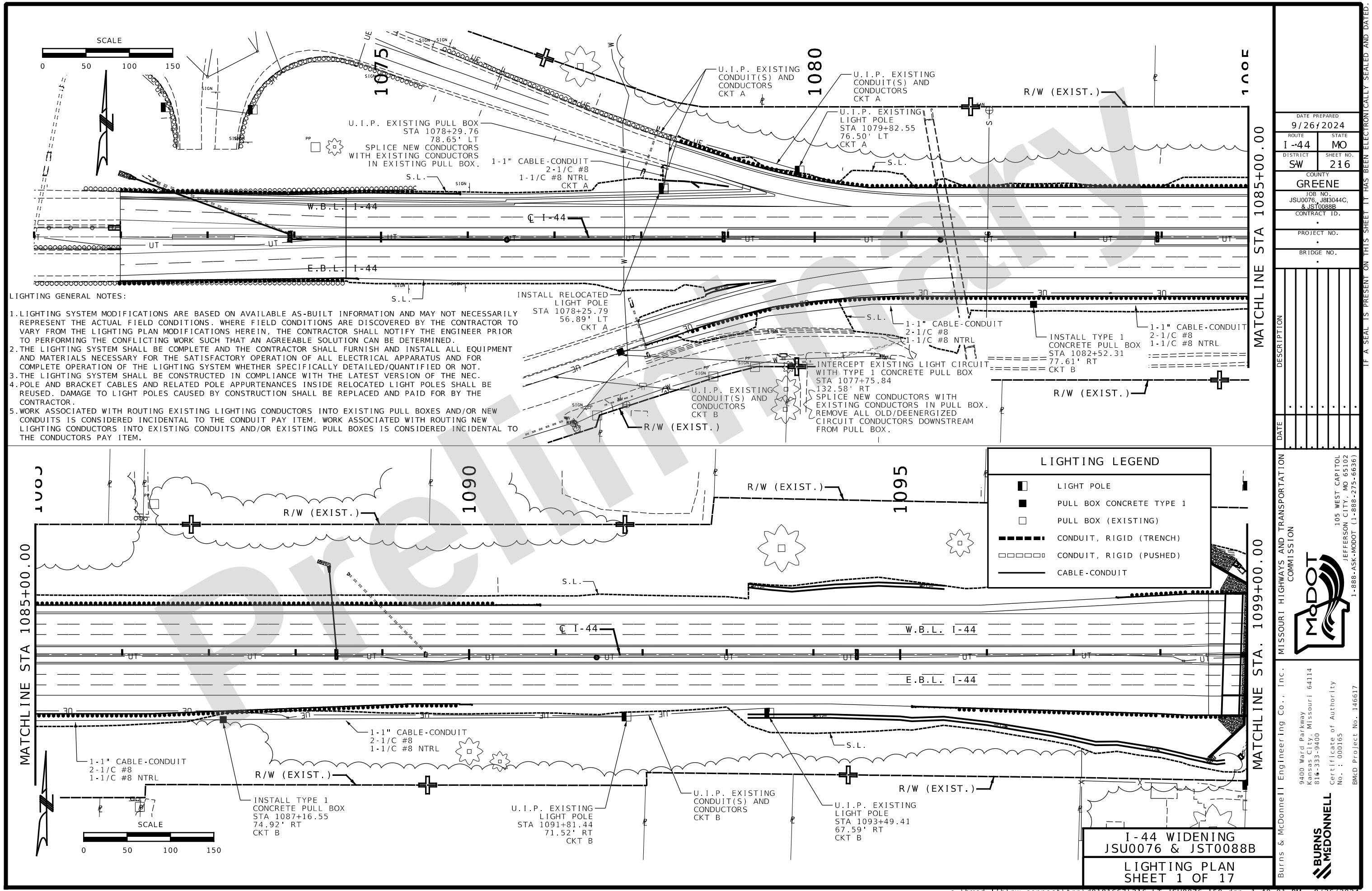
Burns & McDonnell Engineering Co., Inc.

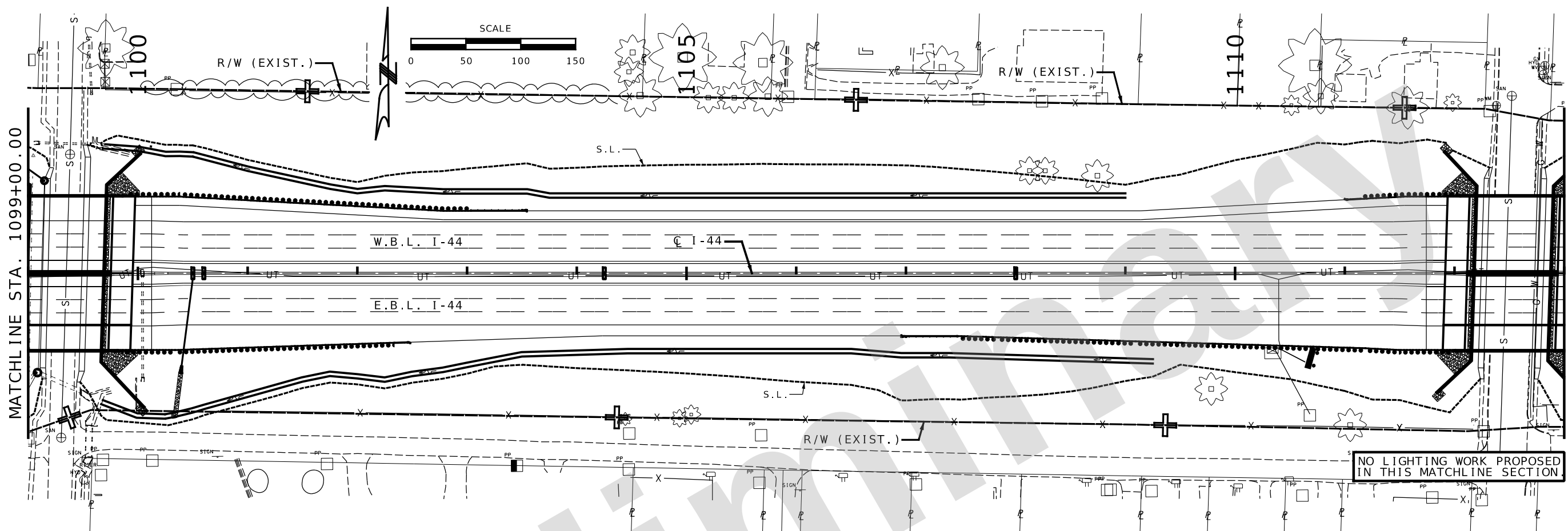
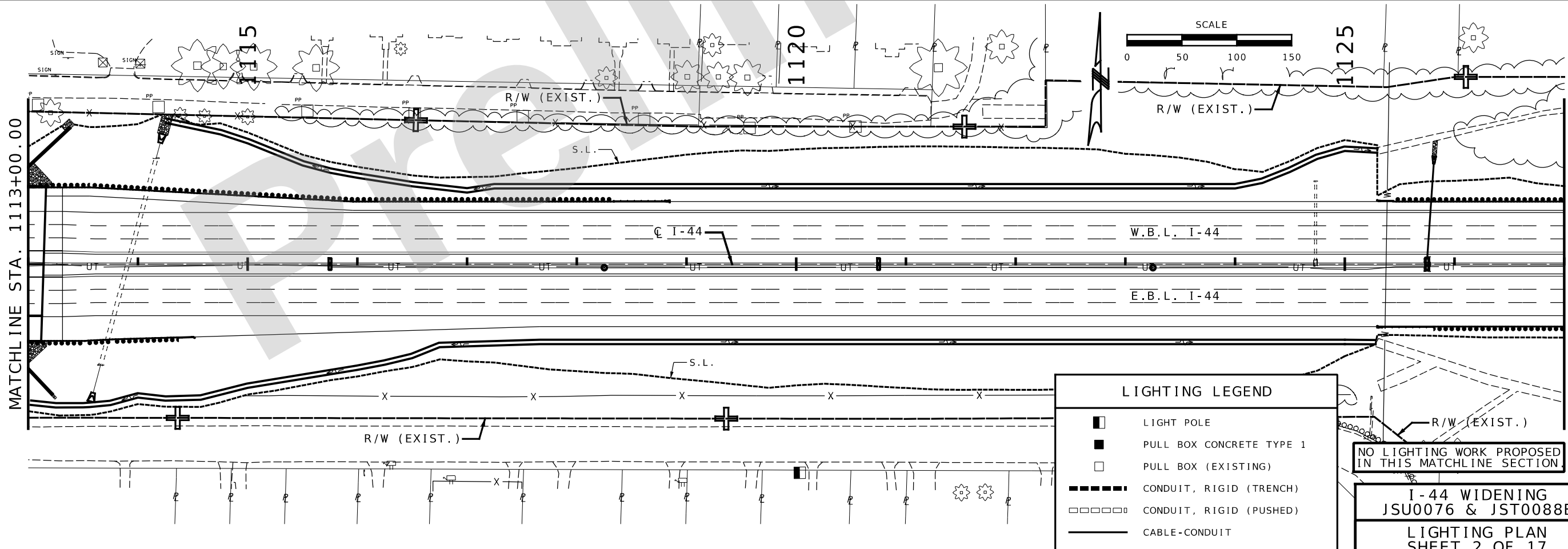
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617







LIGHTING LEGEND

- [Symbol] LIGHT POLE
- [Symbol] PULL BOX CONCRETE TYPE 1
- [Symbol] PULL BOX (EXISTING)
- [Symbol] CONDUIT, RIGID (TRENCH)
- [Symbol] CONDUIT, RIGID (PUSHED)
- [Symbol] CABLE-CONDUIT

NO LIGHTING WORK PROPOSED
IN THIS MATCHLINE SECTION.

I-44 WIDENING
JSU0076 & JST0088B

LIGHTING PLAN
SHEET 2 OF 17

DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 217
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

MODOT

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

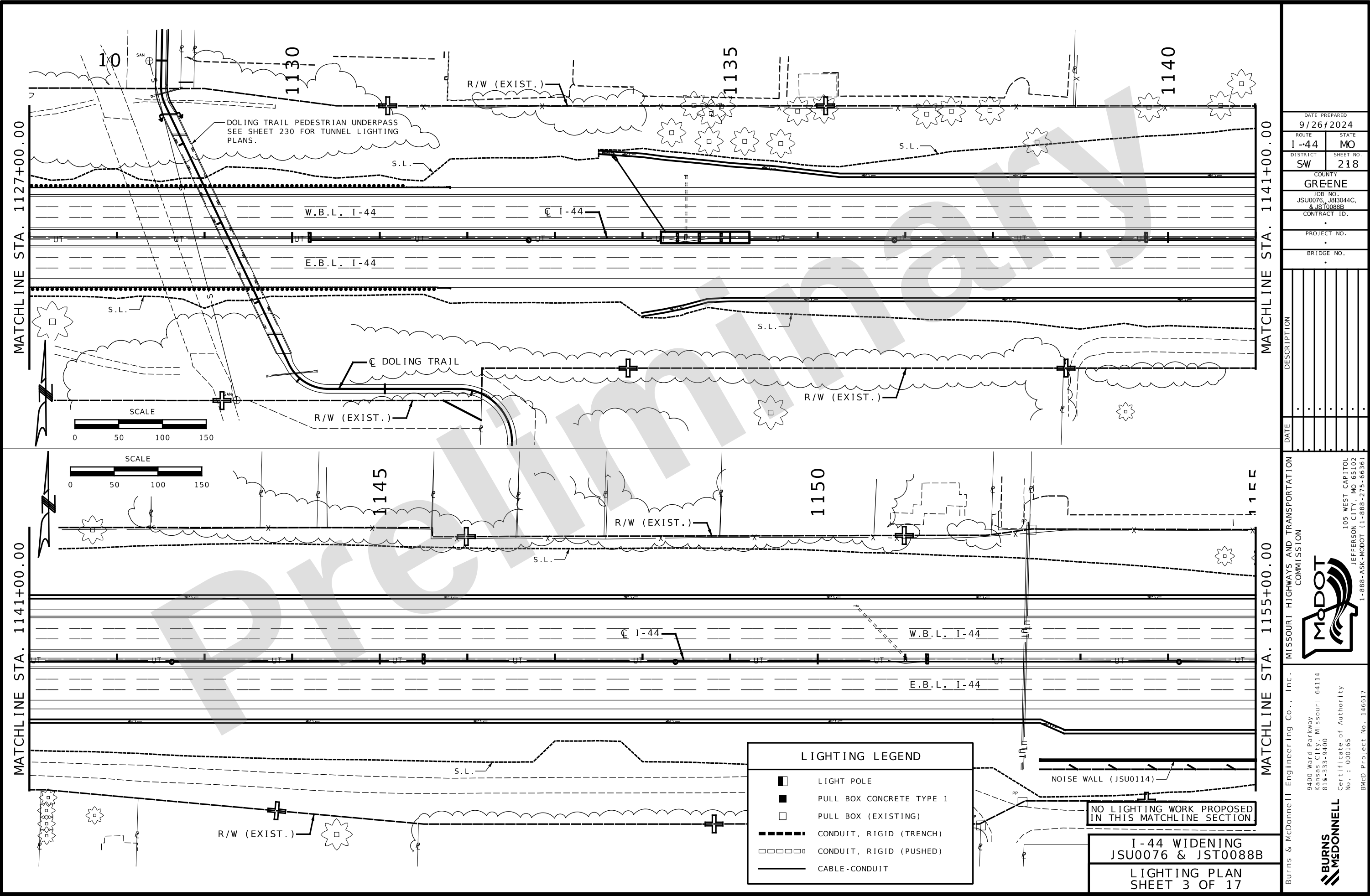
Certificate of Authority
No. : 000165

Burns & McDonnell Engineering Co., Inc.

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

BURNS
MCDONNELL

BMcD Project No. 146617



DATE PREPARED
9/26/2024

ROUTE
I-44

DISTRICT
SW

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

CONTRACT ID.

PROJECT NO.

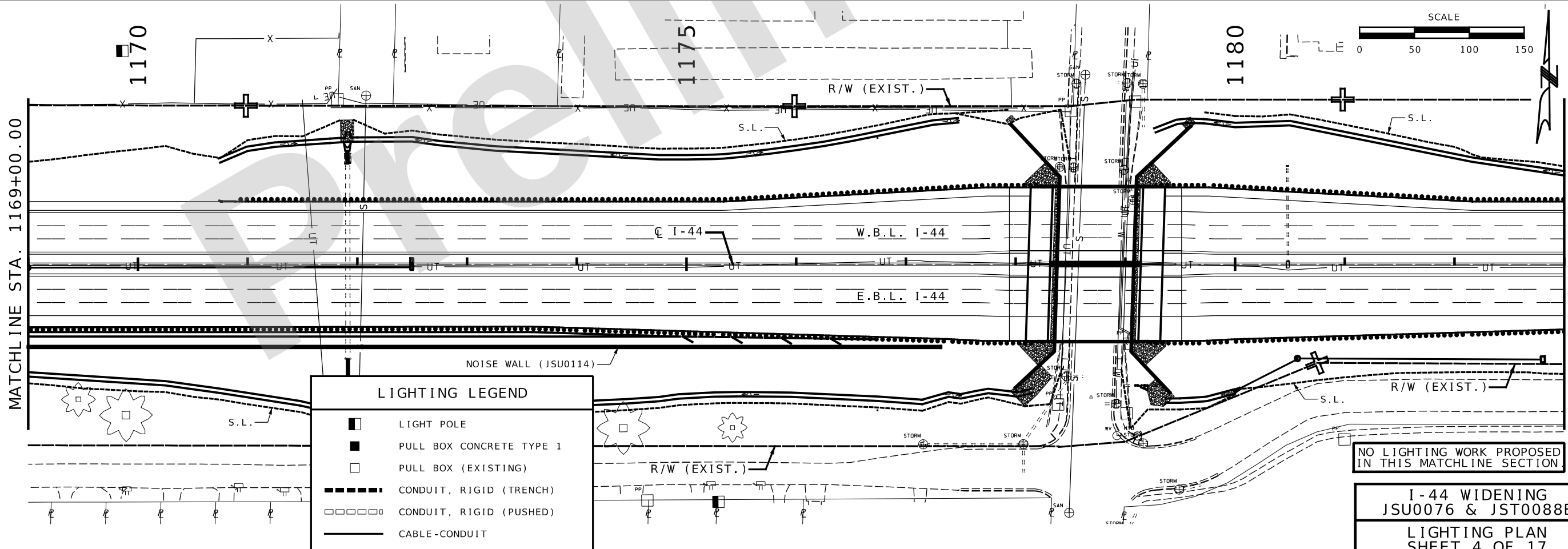
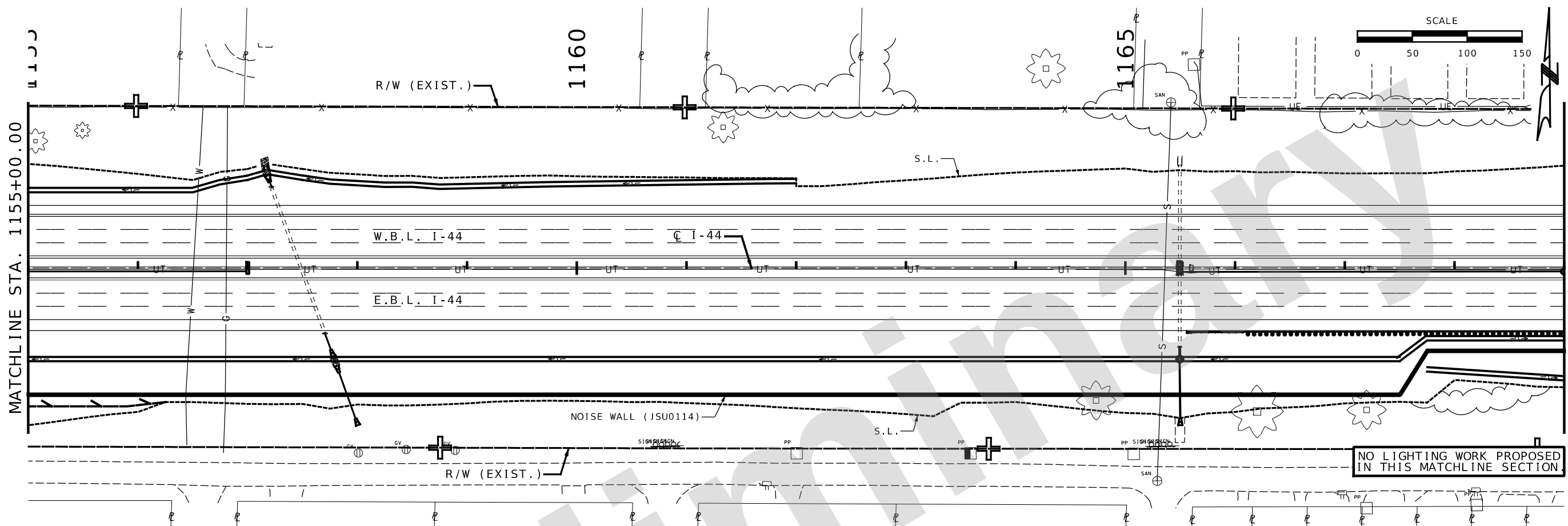
BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617



DATE PREPARED		9/26/2024	
ROUTE	I-44	STATE	MO
DISTRICT	SW	SHEET NO.	219
COUNTY			
GREENE			
JOB NO.			
JSU0076, J813044C, & JST0088B			
CONTRACT ID.			
PROJECT NO.			
BRIDGE NO.			

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

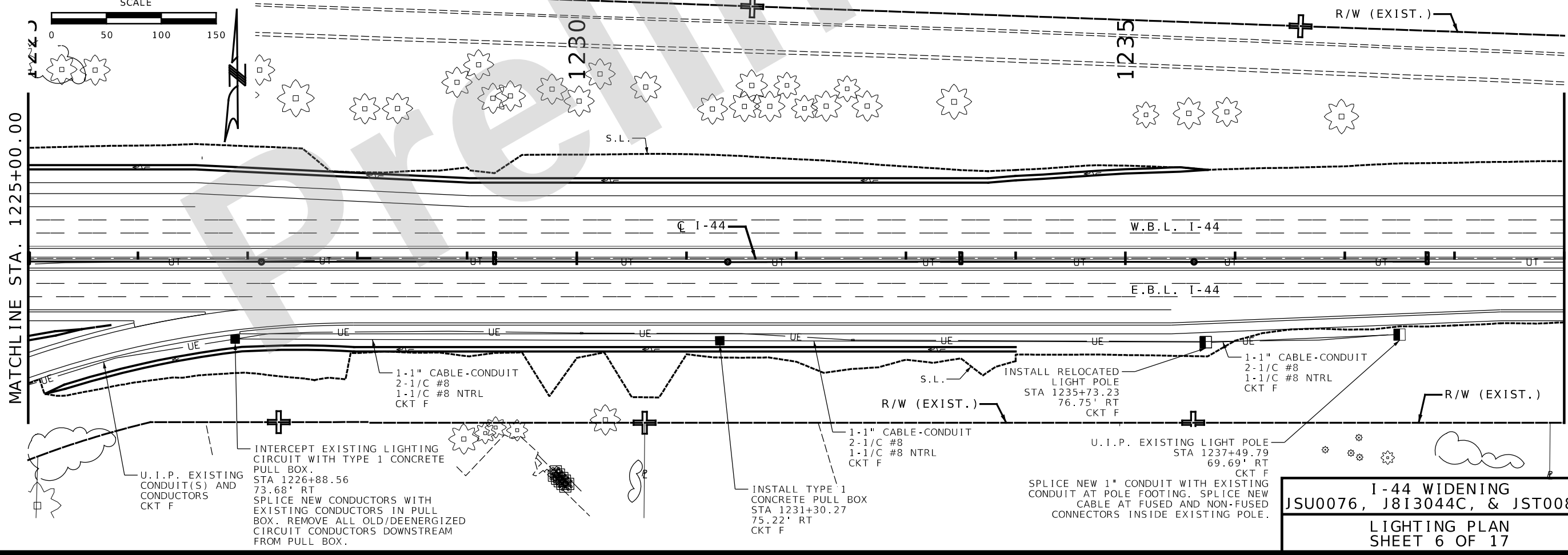
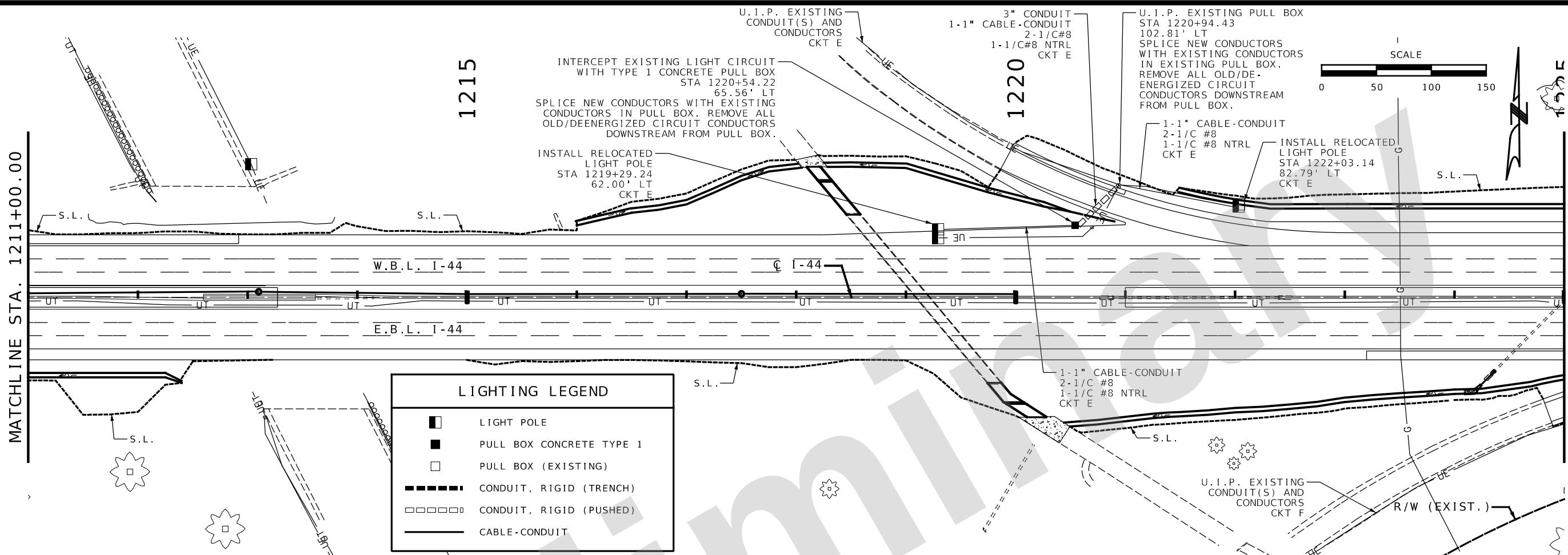
Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

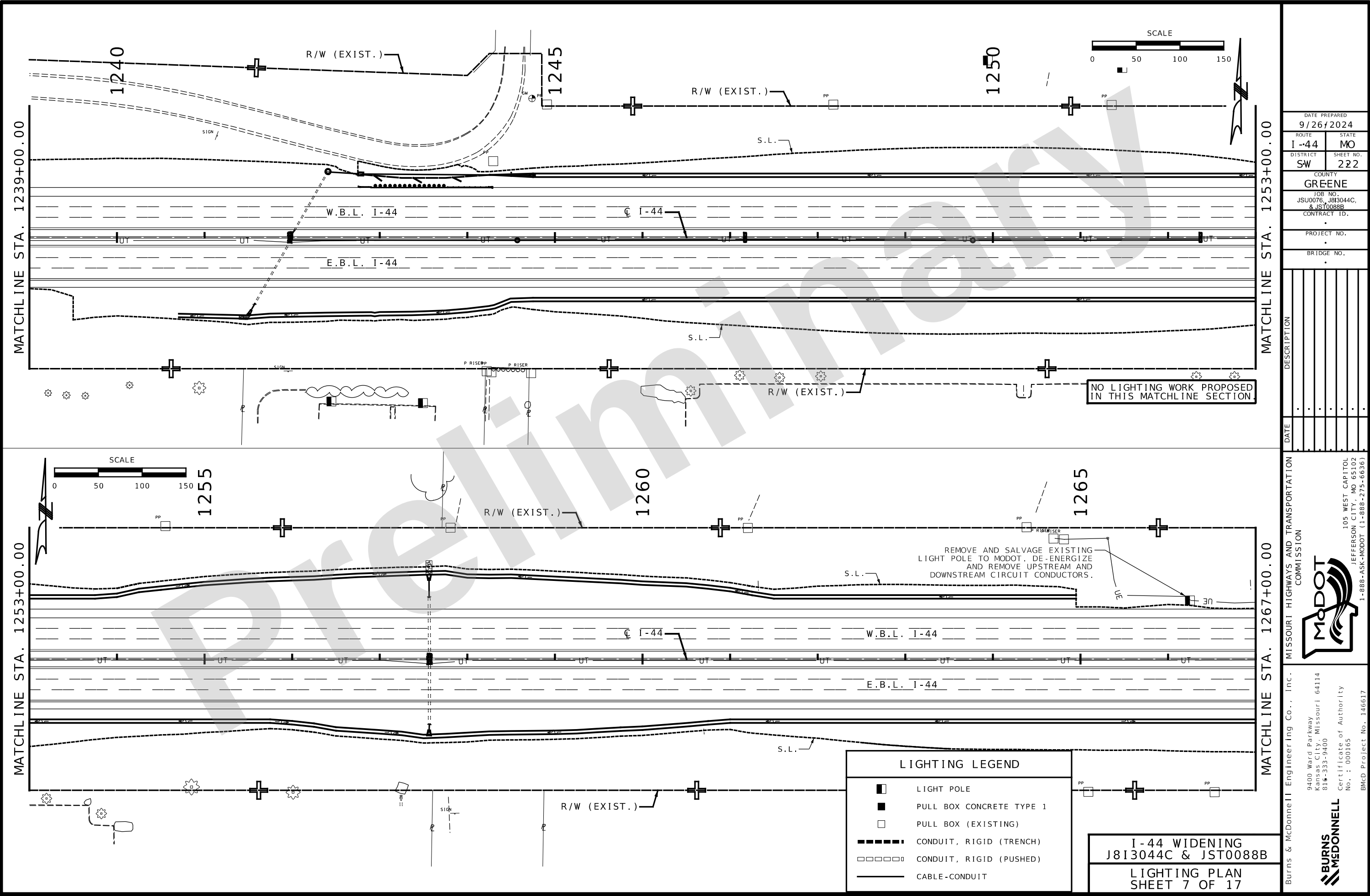
BMcD Project No. 146617

I-44 WIDENING
JSU0076 & JST0088B
LIGHTING PLAN
SHEET 4 OF 17



DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 221
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
Burns & McDonnell Engineering Co., Inc.	
9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400	
Certificate of Authority No. : 000165	
BMcD Project No. 146617	
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**I-44 WIDENING
JSU0076, J813044C, & JST0088B
LIGHTING PLAN
SHEET 6 OF 17**



DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 222

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

CONTRACT ID.
.

PROJECT NO.
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BRIDGE NO.
.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
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JEFFERSON CITY, MO 65102
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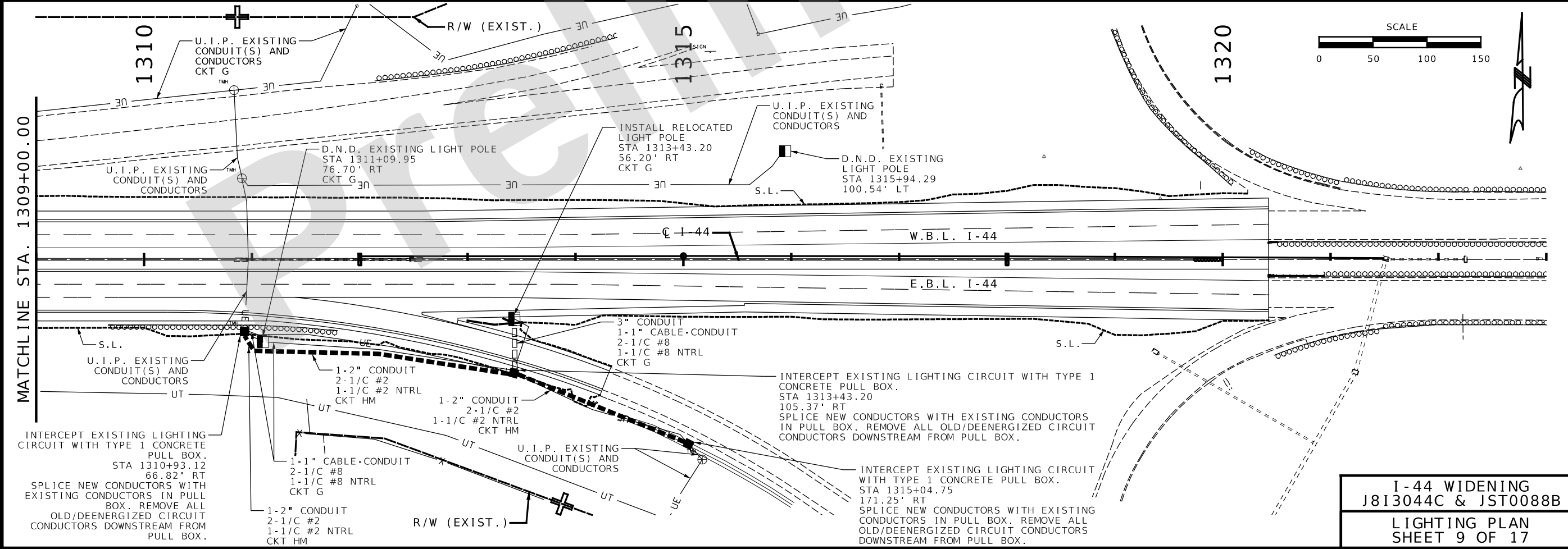
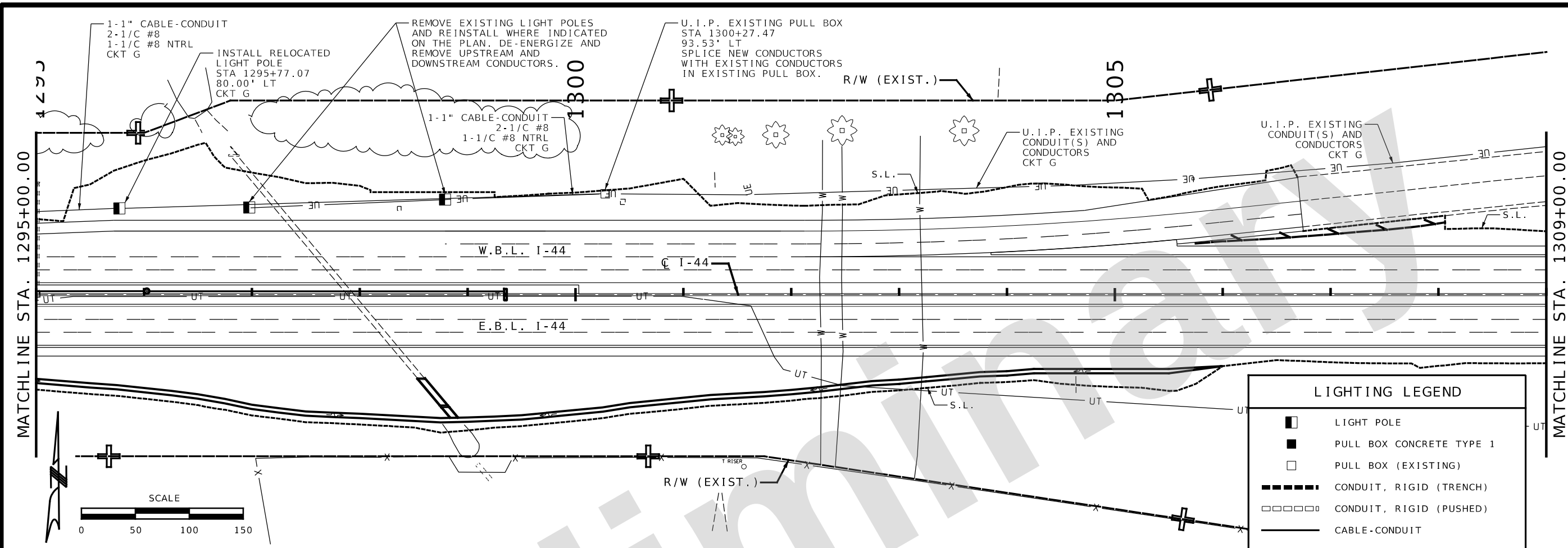
BMcD Project No. 146617

**BURNS
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LIGHTING LEGEND	
	LIGHT POLE
	PULL BOX CONCRETE TYPE 1
	PULL BOX (EXISTING)
	CONDUIT, RIGID (TRENCH)
	CONDUIT, RIGID (PUSHED)
	CABLE-CONDUIT

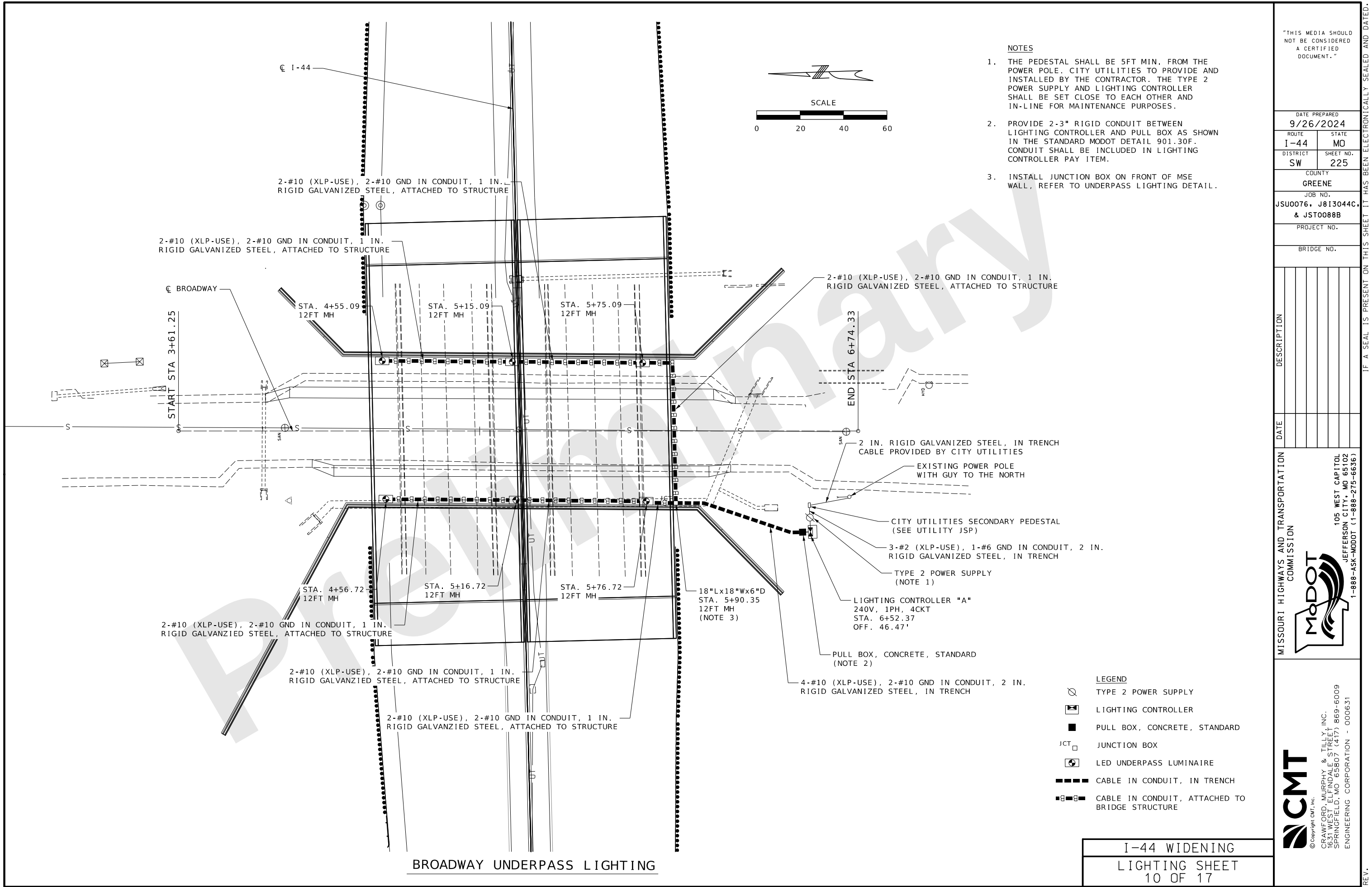
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J813044C & JST0088B

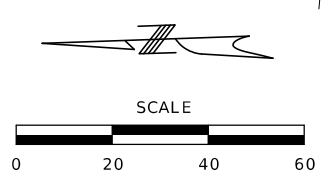
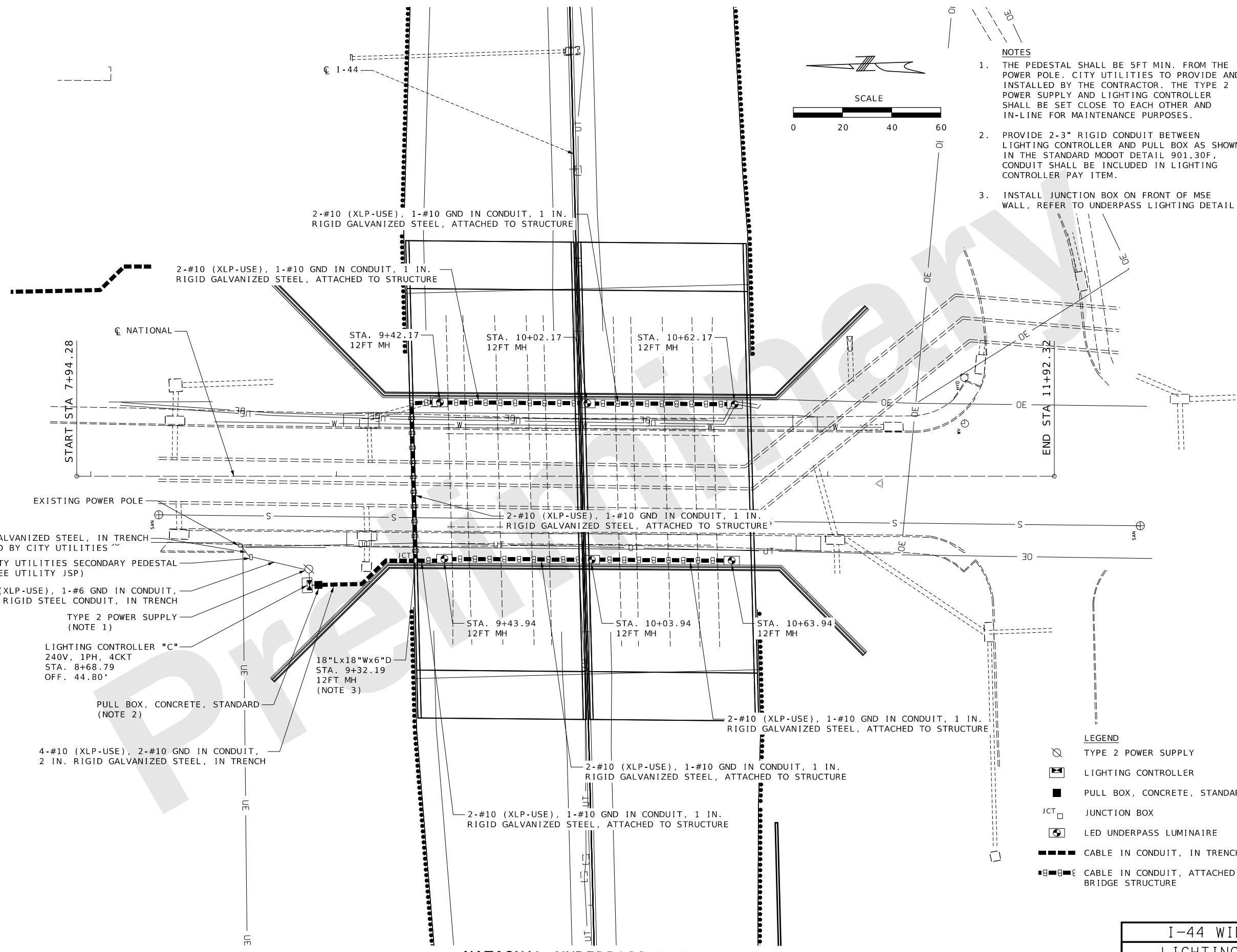
LIGHTING PLAN
SHEET 7 OF 17



I-44 WIDENING
J813044C & JST0088B
LIGHTING PLAN
SHEET 9 OF 17

DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 224
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMCD Project No. 146617	
Burns & McDonnell Engineering Co., Inc. 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	





- NOTES**
1. THE PEDESTAL SHALL BE 5FT MIN. FROM THE POWER POLE. CITY UTILITIES TO PROVIDE AND INSTALLED BY THE CONTRACTOR. THE TYPE 2 POWER SUPPLY AND LIGHTING CONTROLLER SHALL BE SET CLOSE TO EACH OTHER AND IN-LINE FOR MAINTENANCE PURPOSES.
 2. PROVIDE 2-3" RIGID CONDUIT BETWEEN LIGHTING CONTROLLER AND PULL BOX AS SHOWN IN THE STANDARD MODOT DETAIL 901.30F. CONDUIT SHALL BE INCLUDED IN LIGHTING CONTROLLER PAY ITEM.
 3. INSTALL JUNCTION BOX ON FRONT OF MSE WALL, REFER TO UNDERPASS LIGHTING DETAIL.

- LEGEND**
- TYPE 2 POWER SUPPLY
 - LIGHTING CONTROLLER
 - PULL BOX, CONCRETE, STANDARD
 - JUNCTION BOX
 - LED UNDERPASS LUMINAIRE
 - CABLE IN CONDUIT, IN TRENCH
 - CABLE IN CONDUIT, ATTACHED TO BRIDGE STRUCTURE

NATIONAL UNDERPASS LIGHTING

**I-44 WIDENING
LIGHTING SHEET
12 OF 17**

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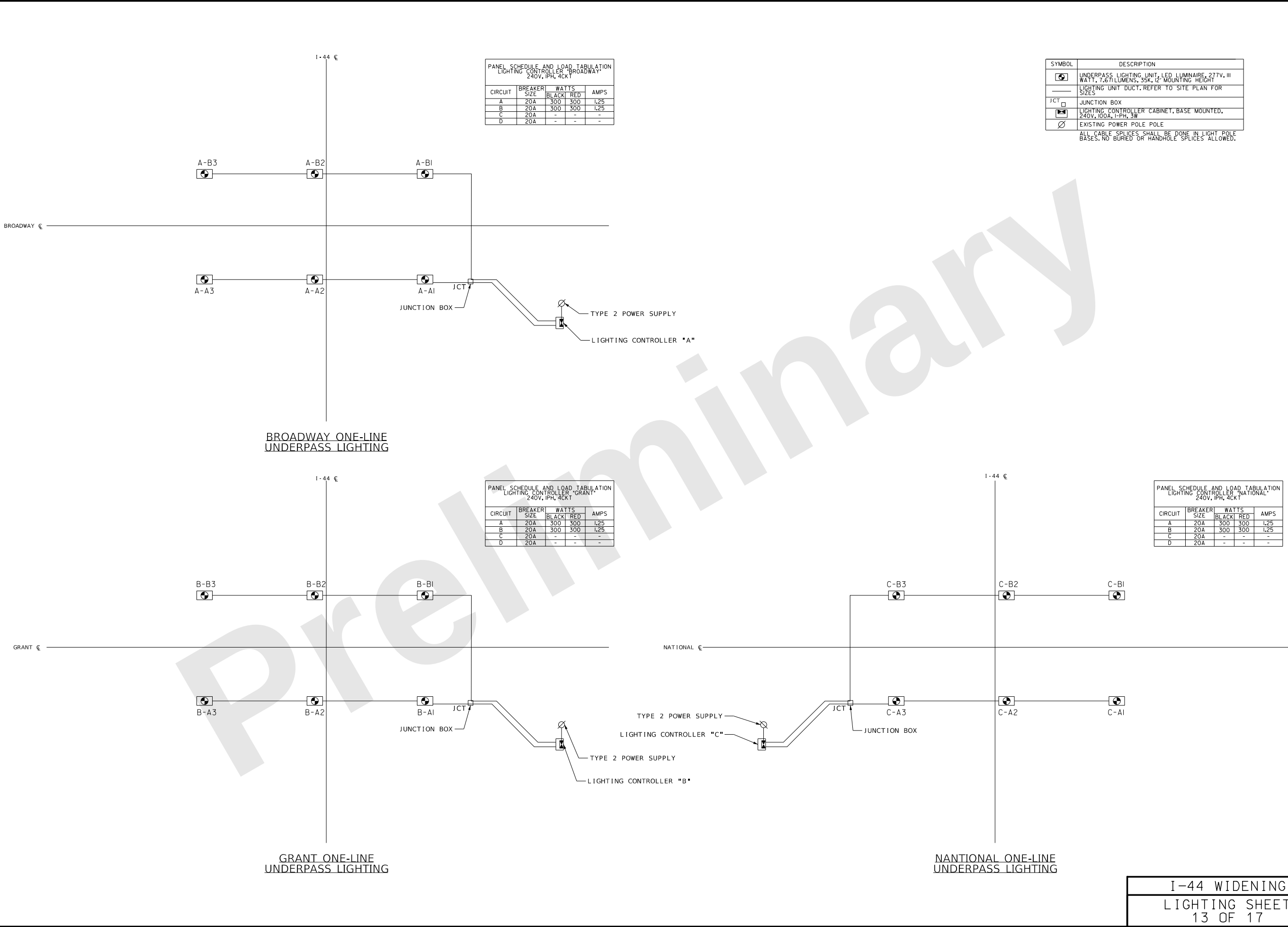
DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 227
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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6831 WEST ELFINDALE STREET
SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631



SYMBOL	DESCRIPTION
	UNDERPASS LIGHTING UNIT, LED LUMINAIRE, 277V, III WATT, 7.67 LUMENS, 35K, 12" MOUNTING HEIGHT
	LIGHTING UNIT DUCT, REFER TO SITE PLAN FOR SIZES
JCT	JUNCTION BOX
	LIGHTING CONTROLLER CABINET, BASE MOUNTED, 240V, 100A, 1-PH, 3W
	EXISTING POWER POLE POLE
ALL CABLE SPLICES SHALL BE DONE IN LIGHT POLE BASES. NO BURIED OR HANDHOLE SPLICES ALLOWED.	

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/26/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 228

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

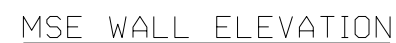
DESCRIPTION	DATE

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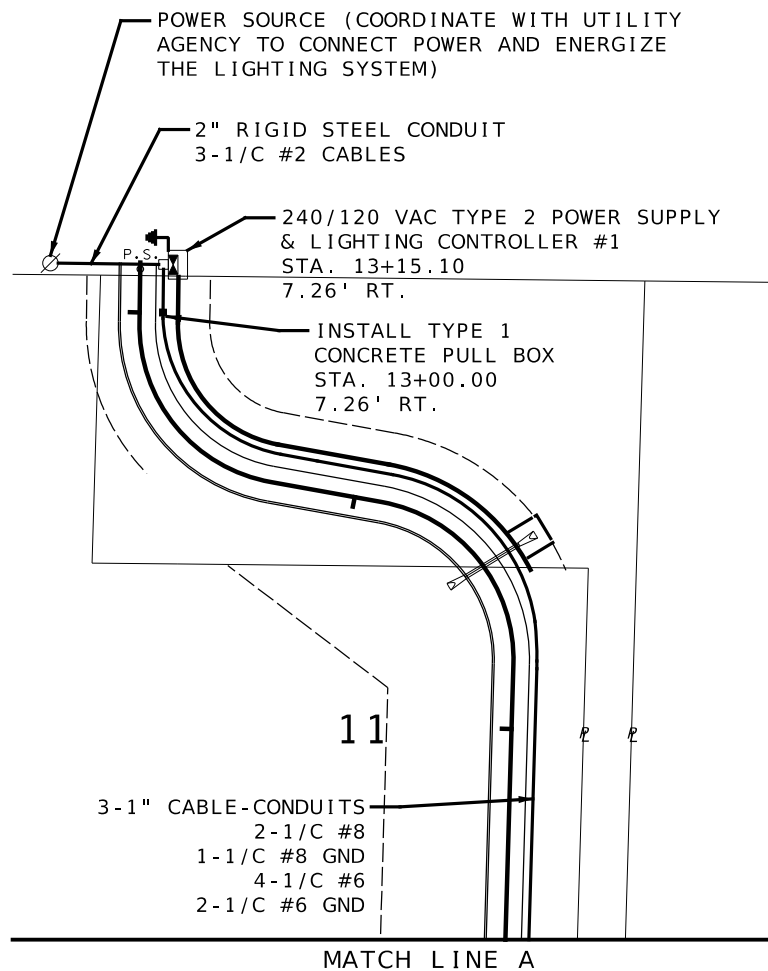
I-44 WIDENING
LIGHTING SHEET
13 OF 17

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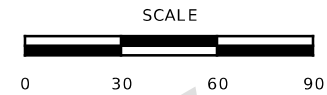
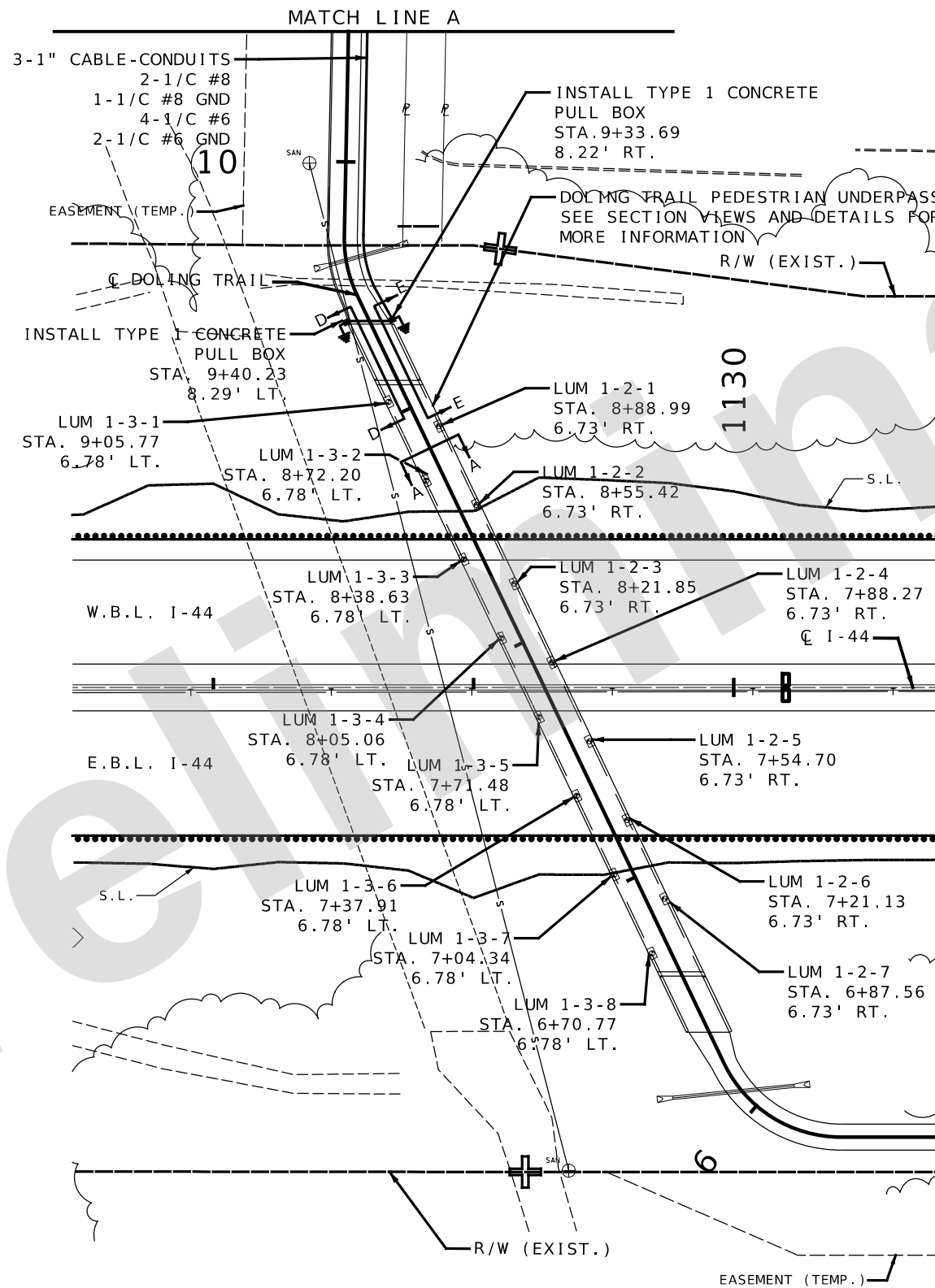
1. SEE PLANS FOR UNDERPASS LUMINAIRE LOCATIONS.
2. RIGID CONDUIT MAY BE USED IN LIEU OF FLEXIBLE CONDUIT.
3. ALL DIMENSIONS ARE IN INCHES.

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LIGHTING LEGEND	
	CONTROLLER, LIGHTING
	PULL BOX CONCRETE TYPE 1
	POWER SOURCE
	POWER SUPPLY
	CABLE-CONDUIT
	LED TUNNEL LUMINAIRE, 100W
	GROUND ROD



TUNNEL LIGHTING SYSTEM NOTES:

1. CONSTRUCTION AND MATERIALS FOR THE LIGHTING SYSTEM SHALL COMPLY WITH THE FOLLOWING MODOT SPEC SECTIONS:

- 707 CONDUIT SYSTEMS ON STRUCTURE
- 901 HIGHWAY LIGHTING
- 1060 ELECTRICAL CONDUIT
- 1061 ELECTRICAL CONDUCTORS
- 1062 PULL AND JUNCTION BOXES
- 1091 LIGHTING EQUIPMENT

2. CONDUIT FITTINGS, BUSHINGS, AND ADAPTERS REQUIRED ON THE TUNNEL LIGHTING SYSTEM ARE SUBSIDIARY TO THE "CONDUIT 2 IN, EXTERNAL ON STRUCTURE" PAY ITEM.

3. LUMINAIRES, CONTROLLERS, CONDUIT AND JUNCTION BOXES SHALL BE MOUNTED TO THE CONCRETE TUNNEL WALLS PER THE MANUFACTURER RECOMMENDATIONS AND PER MODOT SPECIFICATIONS. SEE NOTES ON SUBSEQUENT PAGES FOR ADDITIONAL MOUNTING DETAILS AND INFORMATION.

4. SPLICE KITS ALLOWED PER THE SPECIFICATIONS. SPLICES SHALL ONLY OCCUR WITHIN ENCLOSURES.

5. THE LIGHTING SYSTEM SHALL BE IN COMPLIANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRIC CODE AND MODOT SPECIFICATIONS.

6. THE FOLLOWING EQUIPMENT IS SPECIFIED FOR USE ON THE DOLING TRAIL TUNNEL LIGHTING SYSTEM:

- NLIGHT ECLYPSE SYSTEM CONTROLLER
MODEL #: NECY MVOLT_ENC NECYD NLIGHTAIR G2
- NLIGHT AIR RPP20 POWER PACK
MODEL #: RPP20_D_EFP_G2
- LED LUMINAIRE
MODEL #: ARV17HO_MIN10_100W_35_MVOLT_OP_GRY

INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

7. TUNNEL LIGHTING BASIS OF DESIGN:

- RP-43-22 LIGHTING FOR EXTERIOR APPLICATIONS
- LIGHTING ZONE 2
- DAYTIME HORIZONTAL ILLUMINANCE = 8.0 - 10.0
FC @ 4:1 UNIFORMITY
- DAYTIME VERTICAL ILLUMINANCE = 10.0 - 15.0 FC
@ 3:1 UNIFORMITY
- NIGHTTIME HORIZONTAL ILLUMINANCE = 1.0 - 2.0
FC @ 4:1 UNIFORMITY
- NIGHTTIME VERTICAL ILLUMINANCE = 1.0 - 2.0 FC
@ 3:1 UNIFORMITY

8. NLIGHT ECLYPSE SYSTEM CONTROLLER SETTINGS:

- DAYTIME OUTPUT = 60%
- NIGHTTIME OUTPUT = 12%

DOLING TRAIL
PEDESTRAIN UNDERPASS
I-44 WIDENING
JSU0076 & JST0088B
LIGHTING PLAN
SHEET 15 OF 17

DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 230

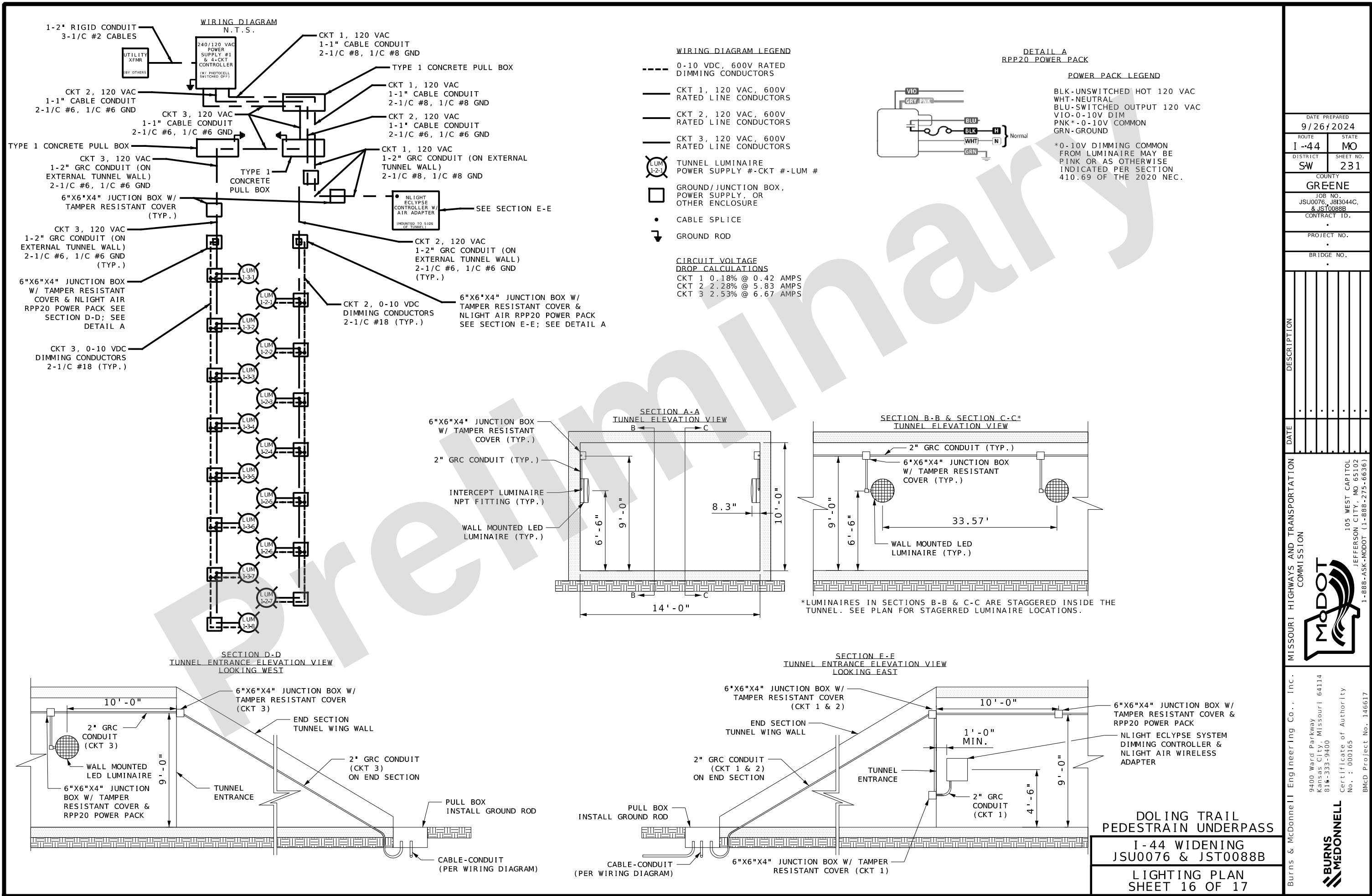
COUNTY GREENE	
JOB NO. JSU0076, JST0088B, & JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

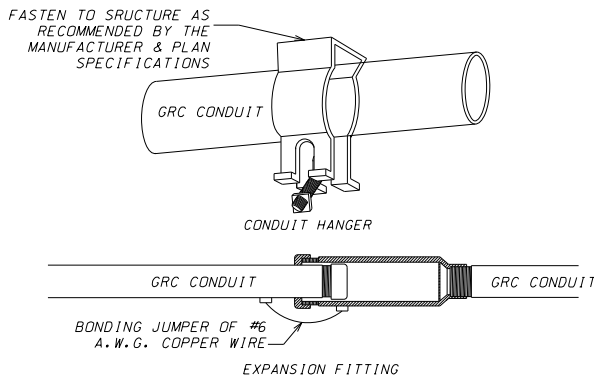
DATE	DESCRIPTION

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

Burns & McDonnell Engineering Co., Inc.	
9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400	
Certificate of Authority No. : 000165	
BMcD Project No. 146617	

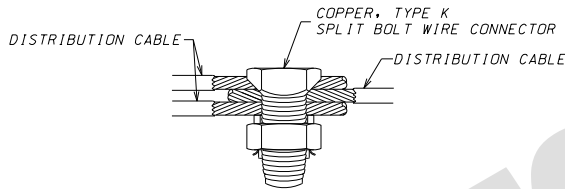
BURNS
& MCDONNELL





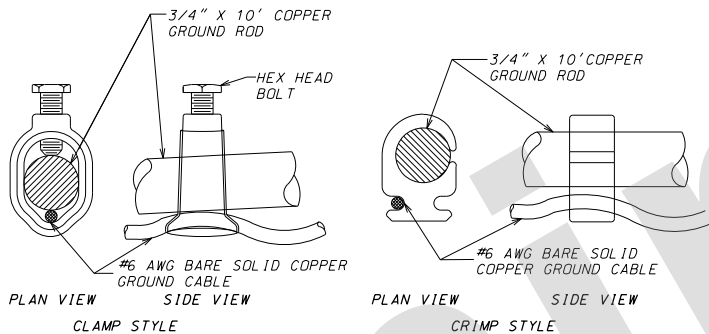
GRC CONDUIT DETAILS

- NOTES:
- 1. ALL CONDUITS INSTALLED ABOVE GROUND SHALL BE GRC.
 - 2. CONDUIT ATTACHED TO STRUCTURES SHALL HAVE EXPANSION FITTINGS INSTALLED AT EACH END OF THE STRUCTURE AND AT EACH EXPANSION JOINT ON THE STRUCTURE.
 - 3. ALL GRC CONDUITS SHALL BE ELECTRICALLY BONDED BY A GROUNDING BUSHING AND GROUND WIRE AS DETAILED.
 - 4. INSTALL THE CONDUIT AND CONNECTOR ASSEMBLY TO PERMIT A 1/2" MINIMUM LONGITUDINAL TRAVEL IN EITHER DIRECTION.

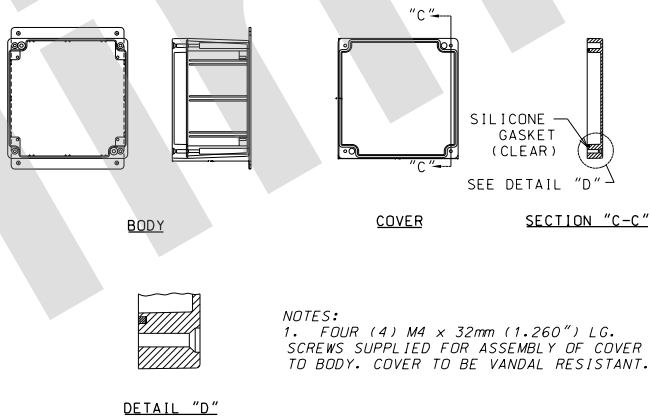


SPLICE KIT DETAILS

- NOTES:
- 1. TO BE USED ONLY IN JUNCTION OR PULL BOXES WHERE CIRCUITS BRANCH OR "TEE".
 - 2. ALL SPLICES SHALL BE PROTECTED WITH A RESIN SPLICE KIT (NOT SHOWN) INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.



GROUND ROD CONNECTION DETAILS



- NOTES:
- 1. FOUR (4) M4 x 32mm (1.260") LG. SCREWS SUPPLIED FOR ASSEMBLY OF COVER TO BODY. COVER TO BE VANDAL RESISTANT.

PULL BOX, TYPE METAL NEMA

ADDITIONAL TUNNEL LIGHTING SYSTEM NOTES:

GRC CONDUIT ON STRUCTURE:
GRC CONDUIT SHALL BE USED WHEN CONDUIT IS TO BE INSTALLED EXTERNALLY ON TUNNELS, WING WALLS OR OTHER STRUCTURES, AND SHALL BE INSTALLED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE FINAL LOCATION OF ALL CONDUIT AND JUNCTION BOXES SHALL BE APPROVED BY THE ENGINEER BEFORE INSTALLATION BEGINS. THE CONDUIT SHALL BE SECURED TO THE CONCRETE WITH CLAMPS AT NO MORE THAN 5-FOOT INTERVALS. CONCRETE ANCHORS SHALL BE IN ACCORDANCE WITH FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153, B 695-91 CLASS 50, OR CONSTRUCTED OF STAINLESS STEEL. THE MINIMUM EMBEDMENT IN CONCRETE SHALL BE 3 INCHES. A SUFFICIENT NUMBER OF CONDUIT HANGERS SHALL BE SUPPLIED TO ATTACH THE GRC CONDUIT TO THE STRUCTURE, AS RECOMMENDED BY THE MANUFACTURER. ONE (1) NO. 6 AWG, BARE COPPER GROUND WIRE SHALL BE ATTACHED TO EACH END OF THE GRC CONDUIT WITH A GROUNDING BUSHING. THE GROUND WIRE SHALL BE CONNECTED TO A GROUND ROD AT EACH END OF A GRC CONDUIT RUN, OR EXTENDED TO AN ADJACENT GRC CONDUIT OR GROUND ROD.

EXPANSION FITTINGS SHALL BE INSTALLED AT EACH END OF A STRUCTURE AND EACH LOCATION WHERE THE GRC CONDUIT CROSSES A STRUCTURE EXPANSION JOINT. THE EXPANSION FITTING SHALL PROVIDE A MINIMUM MOVEMENT IN EITHER DIRECTION AS SHOWN ON THE PLANS OR AS SPECIFIED BY THE ENGINEER. CLAMPS, CONCRETE ANCHORS, EXPANSION FITTINGS, AND ANY HARDWARE OR MATERIAL REQUIRED FOR CONDUIT INSTALLATION ON STRUCTURES SHALL BE AT THE CONTRACTOR'S EXPENSE.

SPLICES
SPLICES SHALL BE MADE IN JUNCTION BOXES OR PULL BOXES WITH COPPER TYPE K SPLIT BOLT CONNECTORS. ALL SPLICES SHALL BE PROTECTED WITH A WATERPROOF RESIN SPLICE KIT INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. IN LIEU OF TYPE K SPLIT BOLT CONNECTORS, CONTRACTOR MAY USE FUSED SLIP CONNECTOR ASSEMBLIES PER MODOT SPECS. LOW-VOLTAGE WIRING SPLICES SHALL BE CONNECTED PER THE LOW-VOLTAGE APPURTENANCE MANUFACTURER RECOMMENDATIONS AND PER THE NEC.

PULL BOXES, TYPE METAL NEMA
METAL PULL BOXES SHALL BE MADE OF DIE CAST ALUMINUM ALLOY WITH A GRAY OR NATURAL FINISH. THEY SHALL BE DESIGNED TO IP65 OF IEC529 AND NEMA 1, 2, 4, 4X, 12, AND 13 SPECIFICATIONS. THE BOXES SHALL BE SUITABLE FOR APPLICATIONS REQUIRING MOUNTING ON A WALL OR CEILING. THE COVER SHALL BE VANDAL RESISTANT AND INCORPORATE A RECESSED GASKET AND THE COVER ATTACHING SCREWS SHOULD BE OUTSIDE THE SEALING/GASKETED AREA TO PREVENT MOISTURE AND DUST INGRESS. THE METAL BOXES SHALL BE A MINIMUM NOMINAL SIZE OF 6"x6"x4" DEEP AND A MAXIMUM NOMINAL SIZE OF 8"x8"x6" DEEP AND ABLE TO ACCEPT THE CONDUITS AS SIZED ON THE PLANS. CONTRACTOR SHALL SEAL OFF ALL INGRESS/EGRESS OF CONDUITS THAT ENTER/EXIT THE BOX.

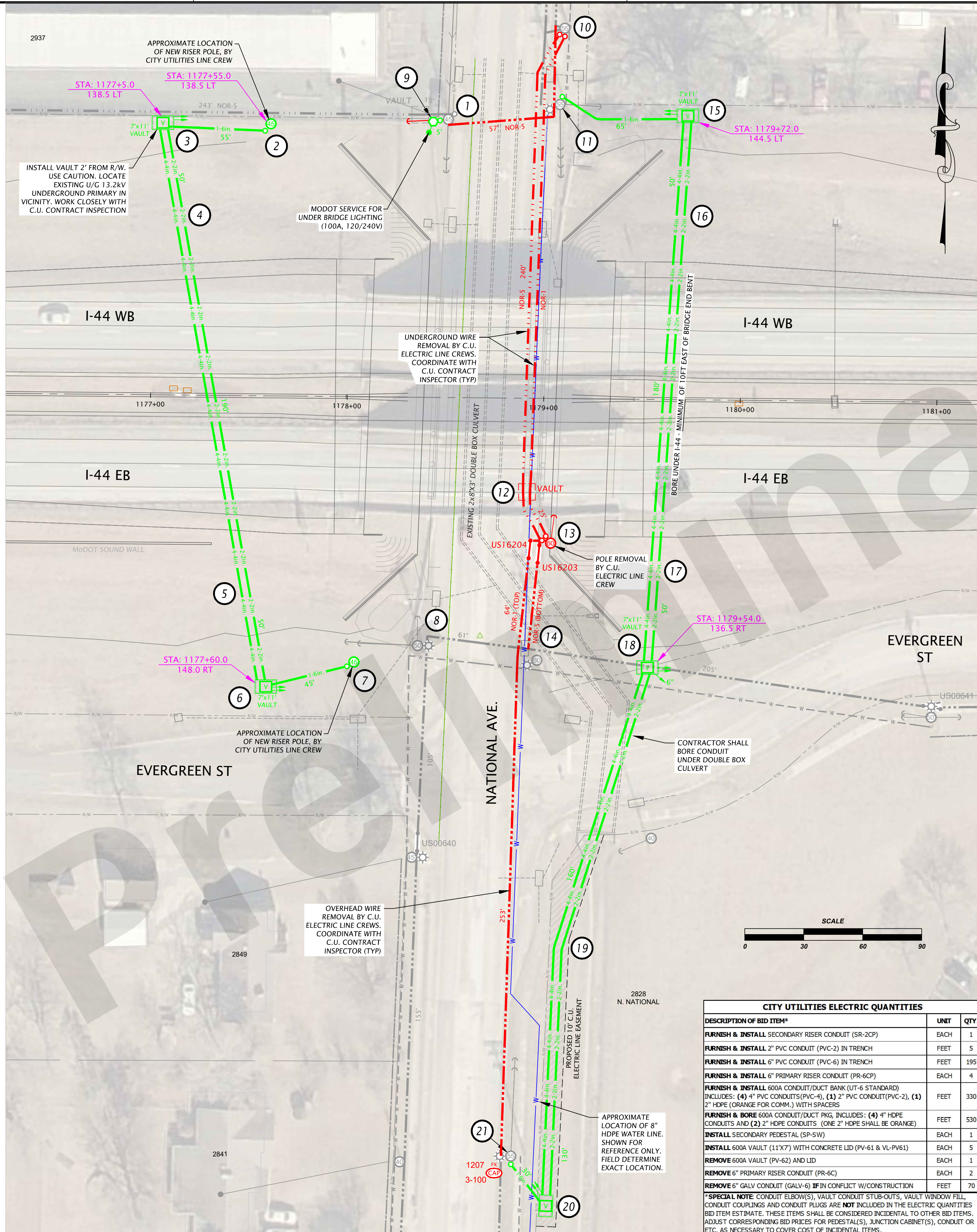
DOLING TRAIL
PEDESTRAIN UNDERPASS
I - 44 WIDENING
JSU0076 & JST0088B
LIGHTING PLAN
SHEET 17 OF 17

DATE PREPARED 9/26/2024	
ROUTE I -44	STATE MO
DISTRICT SW	SHEET NO. 232
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
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)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	

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



EXISTING
INSTALL
REMOVE
REPLACE
or TRANSFER
NOTE TO
G.I.S. DEPT.



CITY UTILITIES ELECTRIC QUANTITIES		
DESCRIPTION OF BID ITEM*	UNIT	QTY.
FURNISH & INSTALL SECONDARY RISER CONDUIT (SR-2CP)	EACH	1
FURNISH & INSTALL 2" PVC CONDUIT (PVC-2) IN TRENCH	FEET	5
FURNISH & INSTALL 6" PVC CONDUIT (PVC-6) IN TRENCH	FEET	195
FURNISH & INSTALL 6" PRIMARY RISER CONDUIT (PR-6CP)	EACH	4
FURNISH & INSTALL 600A CONDUIT/DUCT BANK (UT-6 STANDARD) INCLUDES: (4) 4" PVC CONDUITS (PVC-4), (1) 2" PVC CONDUIT (PVC-2), (1) 2" HDPE (ORANGE FOR COMM.) WITH SPACERS	FEET	330
FURNISH & BORE 600A CONDUIT/DUCT PKG. INCLUDES: (4) 4" HDPE CONDUITS AND (2) 2" HDPE CONDUITS (ONE 2" HDPE SHALL BE ORANGE)	FEET	530
INSTALL SECONDARY PEDESTAL (SP-SW)	EACH	1
INSTALL 600A VAULT (11'X7') WITH CONCRETE LID (PV-61 & VL-PV61)	EACH	5
REMOVE 600A VAULT (PV-62) AND LID	EACH	1
REMOVE 6" PRIMARY RISER CONDUIT (PR-6C)	EACH	2
REMOVE 6" GALV CONDUIT (GALV-6) IF IN CONFLICT W/CONSTRUCTION	FEET	70
*SPECIAL NOTE: CONDUIT ELBOW(S), VAULT CONDUIT STUB-OUTS, VAULT WINDOW FILL, CONDUIT COUPLINGS AND CONDUIT PLUGS ARE NOT INCLUDED IN THE ELECTRIC QUANTITIES BID ITEM ESTIMATE. THESE ITEMS SHALL BE CONSIDERED INCIDENTAL TO OTHER BID ITEMS. ADJUST CORRESPONDING BID PRICES FOR PEDESTAL(S), JUNCTION CABINET(S), CONDUIT OR ETC. AS NECESSARY TO COVER COST OF INCIDENTAL ITEMS.		

CONTRACTOR UNDERGROUND DISTRIBUTION CONSTRUCTION		CONTRACTOR UNDERGROUND DISTRIBUTION CONSTRUCTION	
E11 ~ 7003366/8001469 ~ UGD ~ 107000/108010	20	E11 ~ 7003366/8001469 ~ UGD ~ 107000/108010	20
1 INSTALL: 1 EACH SR-2CP (SECONDARY RISER CONDUIT)		1 INSTALL: 1 EACH PV-61 (7'X11'X6" CONCRETE VAULT)	
2 INSTALL: 1 EACH PR-6CP		1 EACH VL-PV-61 (VAULT LID)	
3 INSTALL: 1 EACH PV-61 (7'X11'X6" CONCRETE VAULT)		1 EACH PV-C66 (6" C. THRU VAULT WINDOW)	
1 EACH VL-PV-61 (VAULT LID)		4 EACH PV-C46 (4" C. THRU VAULT WINDOW)	
1 EACH PV-C66 (6" C. THRU VAULT WINDOW)		4 EACH PV-C26 (2" C. THRU VAULT WINDOW)	
4 EACH PV-C46 (4" C. THRU VAULT WINDOW)		5 FEET CONTRCTR (1-2" ORANGE HDPE)	
4 EACH PV-C26 (2" C. THRU VAULT WINDOW)		5 FEET PVC-2	
5 FEET CONTRCTR (1-2" ORANGE HDPE)		NOTE: CONTRACTOR SHALL INSTALL CABLE RACK ASSEMBLY. STUB OUT AND CAP SPARE 2" CONDUITS, 5 FT. MIN.	
4 INSTALL: 4 EACH ELOC4		21 INSTALL: 1 EACH PR-6CP	
2 EACH ELOC2		1-9 INSTALL: 5 FEET PVC-2	
5 INSTALL: 4 EACH ELOC4		5 FEET UT-524	
2 EACH ELOC2		2-3 INSTALL: 55 FEET PVC-6 (1-6" PVC)	
6 INSTALL: 1 EACH PV-61 (7'X11'X6" CONCRETE VAULT)		55 FEET UT-536	
1 EACH VL-PV-61 (VAULT LID)		3-4 INSTALL: 200 FEET PVC-4 (4-4" PVC)	
1 EACH PV-C66 (6" C. THRU VAULT WINDOW)		100 FEET PVC-2 (2-2" PVC)	
4 EACH PV-C46 (4" C. THRU VAULT WINDOW)		50 FEET UT-6	
4 EACH PV-C26 (2" C. THRU VAULT WINDOW)		4-5 INSTALL: 190 FEET UT-BORE-436 (4" HDPE)	
5 FEET CONTRCTR (1-2" ORANGE HDPE)		570 FEET UT-BORE-4 (3-4" HDPE)	
5 FEET PVC-2		190 FEET UT-BORE-236 (2" HDPE)	
NOTE: CONTRACTOR SHALL INSTALL CABLE RACK ASSEMBLY. STUB OUT AND CAP SPARE 2" CONDUITS, 5 FT. MIN.		190 FEET UT-BORE-2 (1-2" HDPE)	
7 INSTALL: 1 EACH PR-6CP		NOTE: BORE UNDER I-44. BORE SHALL BE MIN. OF 36" DEEP AND SHALL MEET OR EXCEED MODOT REQ'TS. REFER TO JSP.	
9 INSTALL: 1 EACH SP-SW (SECONDARY PEDESTAL)		5-6 INSTALL: 200 FEET PVC-4 (4-4" PVC)	
2 EACH P218-90W		100 FEET PVC-2 (2-2" PVC)	
11 INSTALL: 1 EACH PR-6CP		50 FEET UT-6	
12 REMOVE: 1 EACH PV-62 (4'X11' VAULT)		6-7 INSTALL: 45 FEET PVC-6 (1-6" PVC)	
1 EACH VL-PV-62 (VAULT LID)		45 FEET UT-536	
13 REMOVE: 2 EACH PR-6CP		10-12 REMOVE: 480 FEET GALV-6 (2-6" GRC)	
15 INSTALL: 1 EACH PV-61 (7'X11'X6" CONCRETE VAULT)		NOTE: ABANDON CONDUIT BELOW GRADE.	
1 EACH VL-PV-61 (VAULT LID)		11-15 INSTALL: 65 FEET PVC-6 (1-6" PVC)	
1 EACH PV-C66 (6" C. THRU VAULT WINDOW)		65 FEET UT-536	
4 EACH PV-C46 (4" C. THRU VAULT WINDOW)		12-13 REMOVE: 50 FEET GALV-6 (2-6" GRC)	
4 EACH PV-C26 (2" C. THRU VAULT WINDOW)		NOTE: ABANDON CONDUIT BELOW GRADE.	
5 FEET CONTRCTR (1-2" ORANGE HDPE)		15-16 INSTALL: 200 FEET PVC-4 (4-4" PVC)	
5 FEET PVC-2		100 FEET PVC-2 (2-2" PVC)	
NOTE: CONTRACTOR SHALL INSTALL CABLE RACK ASSEMBLY. STUB OUT AND CAP SPARE 2" CONDUITS, 5 FT. MIN.		50 FEET UT-6	
16 INSTALL: 4 EACH ELOC4		16-17 INSTALL: 180 FEET UT-BORE-436 (4" HDPE)	
2 EACH ELOC2		540 FEET UT-BORE-4 (3-4" HDPE)	
17 INSTALL: 4 EACH ELOC4		180 FEET UT-BORE-236 (2" HDPE)	
2 EACH ELOC2		180 FEET UT-BORE-2 (1-2" HDPE)	
18 INSTALL: 1 EACH PV-61 (7'X11'X6" CONCRETE VAULT)		NOTE: BORE UNDER I-44. BORE SHALL BE MIN. OF 36" DEEP AND SHALL MEET OR EXCEED MODOT REQ'TS. REFER TO JSP.	
1 EACH VL-PV-61 (VAULT LID)		17-18 INSTALL: 200 FEET PVC-4 (4-4" PVC)	
8 EACH PV-C46 (4" C. THRU VAULT WINDOW)		100 FEET PVC-2 (2-2" PVC)	
6 EACH PV-C26 (2" C. THRU VAULT WINDOW)		50 FEET UT-6	
1 EACH PV-C66 (6" C. THRU VAULT WINDOW)		18-19 INSTALL: 160 FEET UT-BORE-436 (4" HDPE)	
5 FEET CONTRCTR (1-2" ORANGE HDPE)		480 FEET UT-BORE-4 (3-4" HDPE)	
5 FEET PVC-2		160 FEET UT-BORE-236 (2" HDPE)	
NOTE: CONTRACTOR SHALL INSTALL CABLE RACK ASSEMBLY. STUB OUT AND CAP SPARE 2" CONDUITS, 5 FT. MIN.		160 FEET UT-BORE-2 (1-2" HDPE)	
19 INSTALL: 4 EACH ELOC4		NOTE: BORE MIN. OF 12" BELOW STORM WATER STRUCTURE.	
2 EACH ELOC2		19-20 INSTALL: 520 FEET PVC-4 (4-4" PVC)	
		260 FEET PVC-2 (2-2" PVC)	
		130 FEET UT-6	
		20-21 INSTALL: 30 FEET PVC-6 (1-6" PVC)	
		30 FEET UT-536	

GENERAL NOTES:

1 CITY UTILITIES CONTACTS:
** ELECTRIC CONDUIT INSPECTION: 417-450-7347 **
** CONTACT 24 HOURS PRIOR TO INSPECTIONS AND RECEIVING C.U. MATERIAL **
ENGINEERING: ERIC COCHRAN, ELECTRIC LINE ENGINEERING, 417-831-8612

2 ALL CONTRACTOR WORK SHALL BE DONE IN COMPLIANCE WITH C.U. SPECIFICATIONS. C.U. ELECTRIC DISTRIBUTION CONSTRUCTION STANDARDS AND HOW-TO VIDEOS CAN BE FOUND AT <https://www.cityutilities.net/business/construction/> OR SCAN QR CODE.

3 C.U. ELECTRIC LINE ENGINEERING DRAWINGS ARE DIAGRAMMATIC AND SHOULD NOT BE SCALED.

4 C.U. ELECTRIC SYMBOLS LEGEND CAN BE FOUND IN "GENERAL SPECIFICATIONS" SECTION OF C.U. ELECTRIC DISTRIBUTION CONSTRUCTION STANDARDS.

5 C.U. WILL FURNISH RISER STAND-OFF BRACKETS, JUNCTION CABINET(S), CONCRETE VAULTS AND LIDS (600A), SECONDARY PEDESTAL(S), E-LOC(S), RGS TO PVC ADAPTER(S), AND BELL END(S) FOR CONTRACTOR INSTALLATION. CONTRACTOR SHALL FURNISH ALL TRENCH BACKFILL MATERIAL. CONTRACTOR SHALL LOAD & TRANSPORT C.U.-FURNISHED MATERIAL FROM THE C.U. STOREROOM AT 742 N. BELCREST. THE STOREROOM IS TYPICALLY OPEN FROM 9 AM TO 3 PM. AT THE STOREROOM, THE CONTRACTOR WILL NEED TO REFERENCE THE SIX DIGIT PROJECT NUMBER FOR "CONDUIT BY OTHERS", AS SHOWN IN THE TITLE BLOCK OF THIS SHEET.

6 CONTRACTOR SHALL TRENCH AS INDICATED IN NOTES, AND/OR BORE STREETS, DRIVEWAYS, PARKING LOTS, ETC. AS REQ'D.

7 CONTRACTOR SHALL PRIMER ALL PVC-PVC CONNECTIONS PRIOR TO CEMENTING.

8 CONTRACTOR SHALL INSTALL A PULL STRING IN ALL CONDUITS TO ENSURE THE INTEGRITY OF THE CONDUIT SYSTEM.

9 IF C.U. ENCOUNTERS PROBLEMS WITH THESE FACILITIES DURING THE INITIAL INSTALLATION OF CABLES, ELBOWS, ETC., CONTRACTOR SHALL REPAIR/REPLACE CONDUIT SYSTEM, TRANSFORMER PAD, JUNCTION BOX, ETC. PER C.U. REQUIREMENTS.

10 CONTRACTOR SHALL CONTACT C.U. PRIOR TO BACKFILLING TRENCH. CONTRACTOR MAY BE REQUIRED TO EXPOSE CONDUIT INFRASTRUCTURE TO VERIFY SIZE, DEPTH, ETC. IF TRENCH IS BACKFILLED PRIOR TO INSPECTION.

11 IN LIEU OF PVC CONDUIT, HIGH DENSITY POLYETHYLENE CONDUIT (HDPE) SDR-11 AND FITTINGS MAY BE SUBSTITUTED FOR CONDUIT SPECIFIED IN NOTES (EXCLUDING RISERS). CONTRACTOR SHALL FURNISH ALL POLYETHYLENE CONDUIT MATERIAL AND C.U.-APPROVED FITTINGS. PIPE SHALL BE BLACK PIPE WITH RED STRIPE. CONTRACTOR SHALL GET APPROVAL FROM INSPECTOR BEFORE SUBSTITUTION OF PVC CONDUIT. ANY ADDITIONAL COST INCURRED BY THE USE OF HDPE PIPE SHALL BE BORNE BY THE CONTRACTOR. A BORING LOG SHALL BE PROVIDED TO C.U. INSPECTOR FOR ALL ELECTRICAL CONDUIT BORING.

12 WHERE CONSTRUCTION NOTES STATE THAT THE CONTRACTOR MAY ABANDON CONDUIT BELOW GRADE, THE INTENT IS THAT IT MAY BE ABANDONED BELOW GRADE, BUT ONLY IF NOT IN CONFLICT WITH THE NEW CONSTRUCTION. CONTRACTOR SHALL REMOVE UNUSED CONDUIT THAT IS IN CONFLICT WITH NEW CONSTRUCTION.

ELECTRIC LINE CONSTRUCTION

1/4 SEC. SEC-TWN-RNG. NW, 06-29-21

CONSTRUCTION: ☐ OVERHEAD ☒ UNDERGROUND

VOLTAGE: ☒ 0V ☐ 120V ☐ 240V ☐ 7.62KV ☐ 13.2KV ☐ 69KV ☐ 161KV ☐ 345KV

SUB/FEDER(S): **NOR-1** HOT LINE TAG AVAILABLE: ☐ **NOR-5** HOT LINE TAG AVAILABLE: ☐

CREW LEADER:

COMPLETION DATE:

☒ LOCATES REQD

☐ CUSTOMER TREE TRIM

☐ CU TREE TRIM

☐ SPRINGNET - WORK REQD

☐ CATV - WORK REQD

☒ PHONE - WORK REQD

☒ MODOT PERMIT REQD

☐ EASEMENT REQD

WORK TYPE

TRANSMISSION

DISTRIBUTION

CONDUIT (BY OTHERS)

STREETLIGHT

OTHER

OH

UG

PROJ

7003366

8001469

ELOC04

CITY UTILITIES

ELECTRIC PLAN

SHEET 1 OF 1

STATE OF MISSOURI
R. ERIC COCHRAN
NUMBER E-028959
07-24-24
PROFESSIONAL ENGINEER

ENGINEER:
ERIC COCHRAN

LICENSE NO.:
E-28959

DATE
7-24-24

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
E1

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-8636)

MoDOT

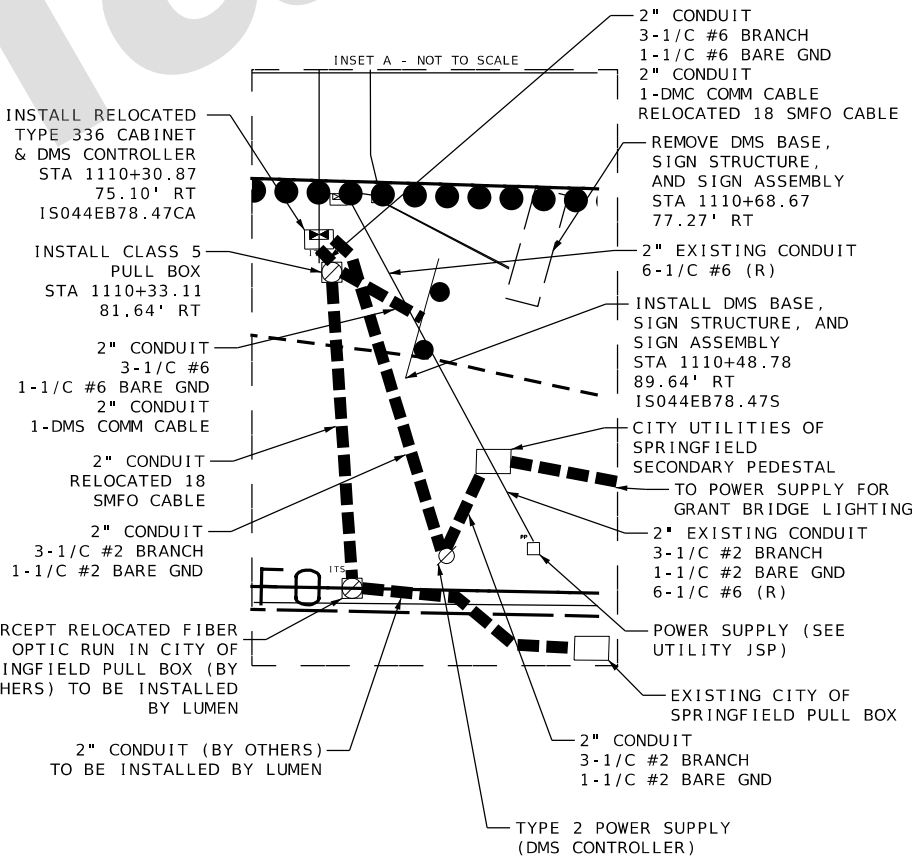
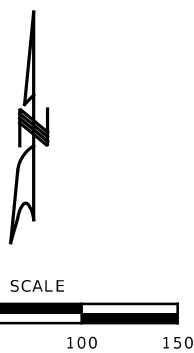
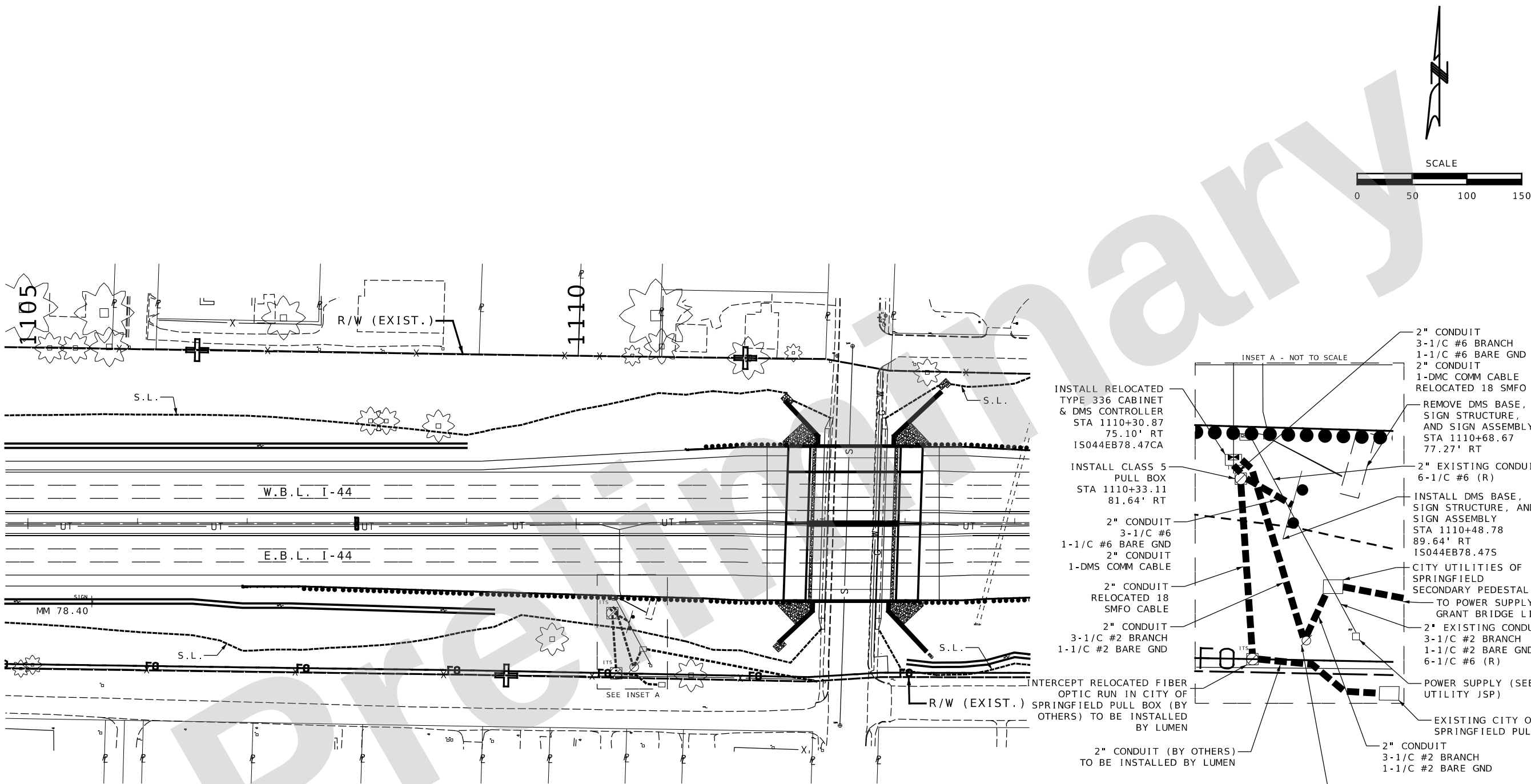
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

NATIONAL AVE AND EVERGREEN ST.

UNDERGROUND CONDUIT AND INFRASTRUCTURE FOR C.U. FOR MODOT BRIDGE WIDENING

APPROVAL NO.: 240954
DATE: 7-24-24
SCALE: 1" = 30'
DRAWING NO.: 92213
SHEET: 1 OF 1

REVIEWED BY: LINDSEY
APPROVED BY: LINDSEY



ITS LEGEND	
	CONTROLLER
	CONTROLLER (EXISTING)
	POWER SUPPLY
	DYNAMIC MESSAGE BOARD (DMS)
	ITS PULL BOX TYPE 5
	CONDUIT TRENCHED

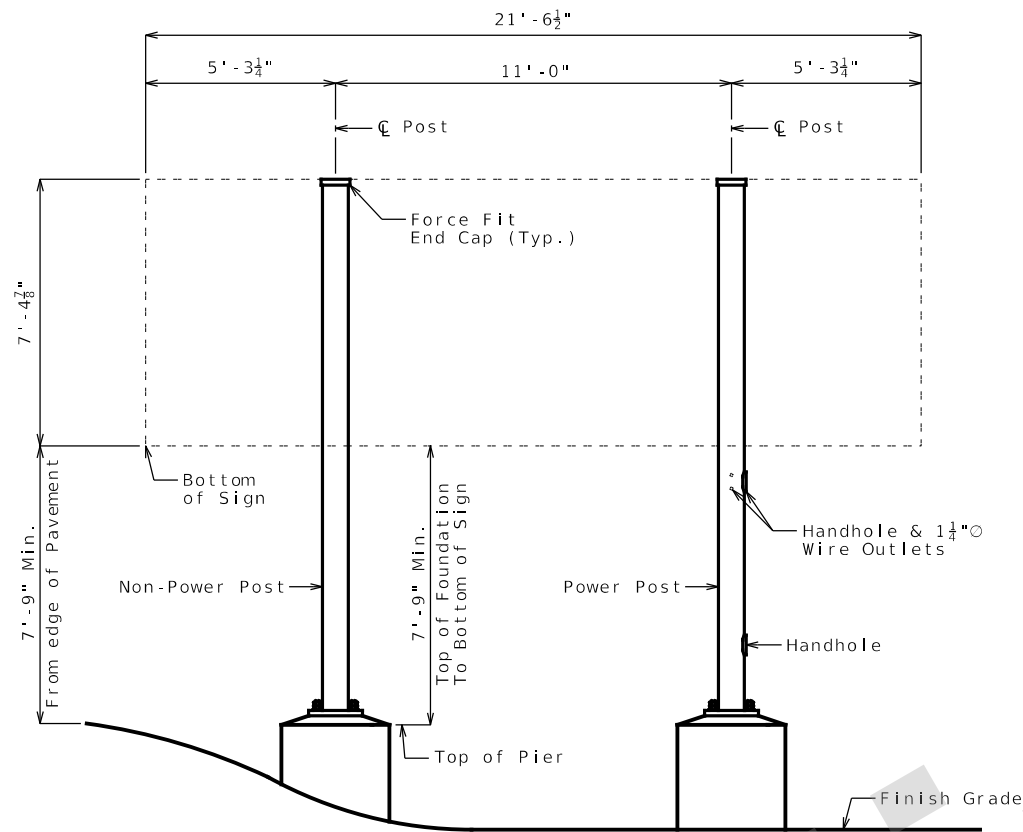
1-44 EASTBOUND
MM 78.47
(IS044EB78.47S)

1. REPLACE EXISTING DMS WITH CONTRACTOR FURNISHED COLOR HIGH RESOLUTION DMS. REPLACE DMS CONTROLLER IN EXISTING CABINET WITH NEW CONTROLLER. SEE THE SPECIAL PROVISIONS FOR MORE INFORMATION.
2. REFER TO DMS STRUCTURAL DETAIL SHEETS FOR INFORMATION ON MOUNTING THE DMS ON NEW POSTS.
3. PROVIDE ADDITIONAL PHASE CONDUCTOR BETWEEN POWER SUPPLY PEDESTAL AND DMS CONTROL CABINET FOR 120/240V 3W+G FEEDER IN LIEU OF EXISTING 120V 2W+G FEEDER.
4. JACKETED 0.10" THHN SOLID BLUE LOCATOR WIRE SHALL BE PLACED IN ALL UNDERGROUND NON-METALLIC CONDUITS BONDED TO GROUNDING RODS WITHIN A PULL BOX. APPROVED LOCATOR WIRE SHALL BE MOUNTED TO THE SIDE WALL OF EACH PULL BOX. TRACER WIRE IS SUBSIDIARY TO THE CONDUIT AND PULL BOX PAY ITEMS.
5. EXISTING DMS IS BEING SERVED BY CITY OF SPRINGFIELD 18 SMFO CABLE. THIS EXISTING 18 SMFO CABLE IS TO BE REMOVED AND REUSED IN NEW CONDUIT TO CONNECT TO THE NEW DMS CONTROLLER. REFER TO UTILITY JSP FOR DETAILS.

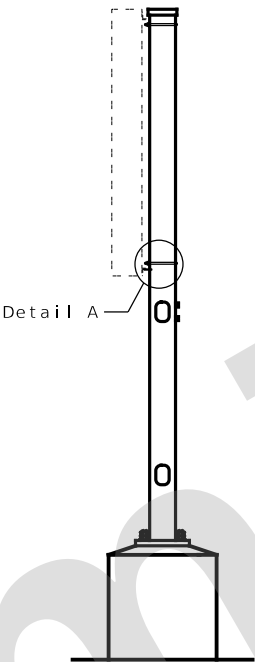
I-44 DMS DETAILS
I-44 WIDENING
JSU0076 & JST0088B
DMS PLAN
SHEET 1 OF 5

DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 233
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
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)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	

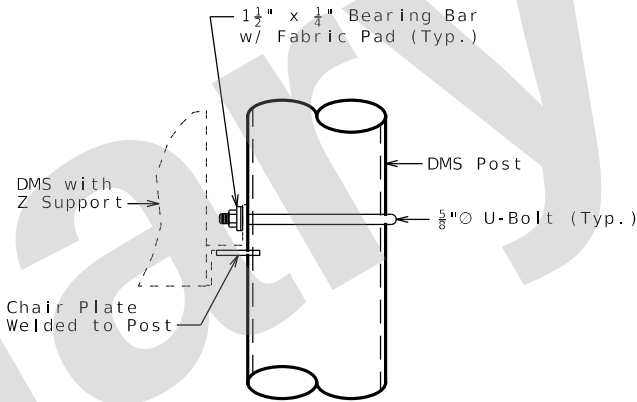
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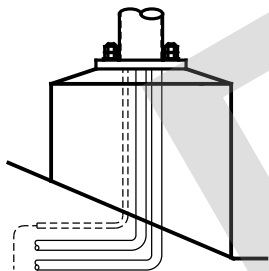
ELEVATION



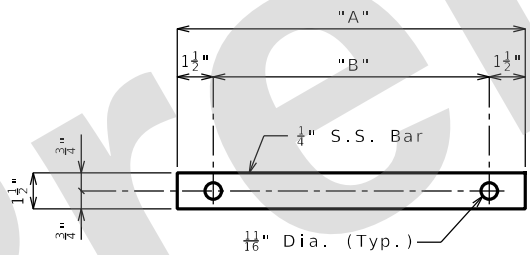
SIDE VIEW



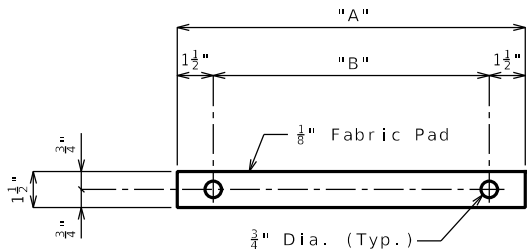
DETAIL A
Bottom Connection Shown
(Top Connection Similar but without Chair Plate)



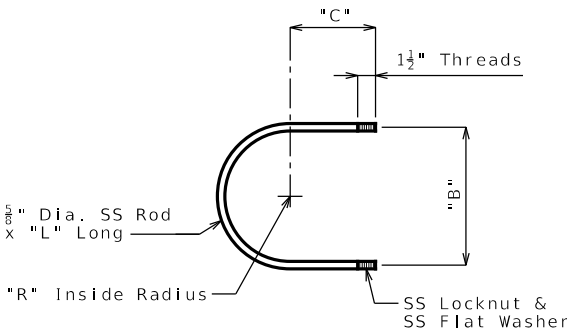
GROUNDING & CONDUIT DETAIL



U-BOLT BEARING BAR



FABRIC PAD



U-BOLT

DMS MOUNTING HARDWARE					
PIPE SIZE	A	B	C*	L*	R
8" STD. PIPE	12 3/4"	9 3/4"	6"	2'-2 3/4"	4 3/4"

* Confirm U-Bolt lengths are compatible with selected DMS

I-44 DMS DETAILS - JSU0076 & JST0088B

TYPICAL DMS STRUCTURE
SHEET 2 OF 5

Detailed: Jun. 2024
Checked: Jun. 2024

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

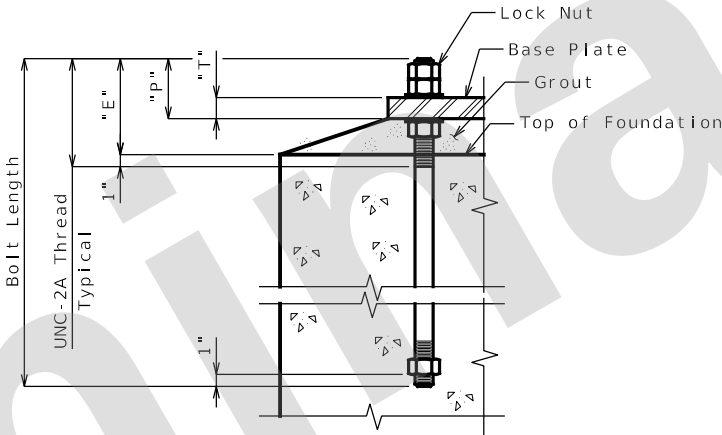
DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 234
COUNTY GREENE	
JOB NO. JSU0076, JST0088B, & JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-273-6636)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 Bmcd Project No. 146617	

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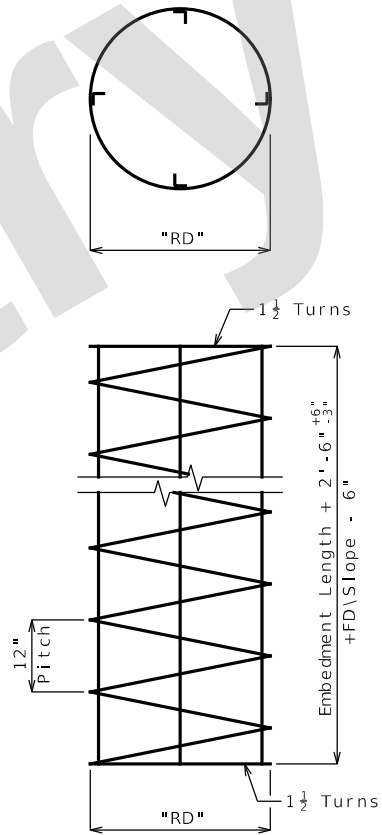
SCHEDULE OF NEW DMS POLE FOUNDATION								
LOCATION	EMBEDMENT LENGTH	FOUNDATION DIAMETER FD	TYPE "C-1"		*TYPE "C-2"			REMARKS
			NO. & SIZE	LENGTH	NO. & SIZE	RD	LENGTH	
Sta. 1110+45 Offset 89' Rt.	9'-0"	3'-0"	11-#9	12'-1"	1-#4	2'-6"	118'-2"	If rock is encountered shallower than the plan foundation length, a Rock Socket will be used. The Rock Socket shall be drilled to the shallower of: Design Depth, 3.5' (Hard Rock) or 5.0' (Poor Rock).

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

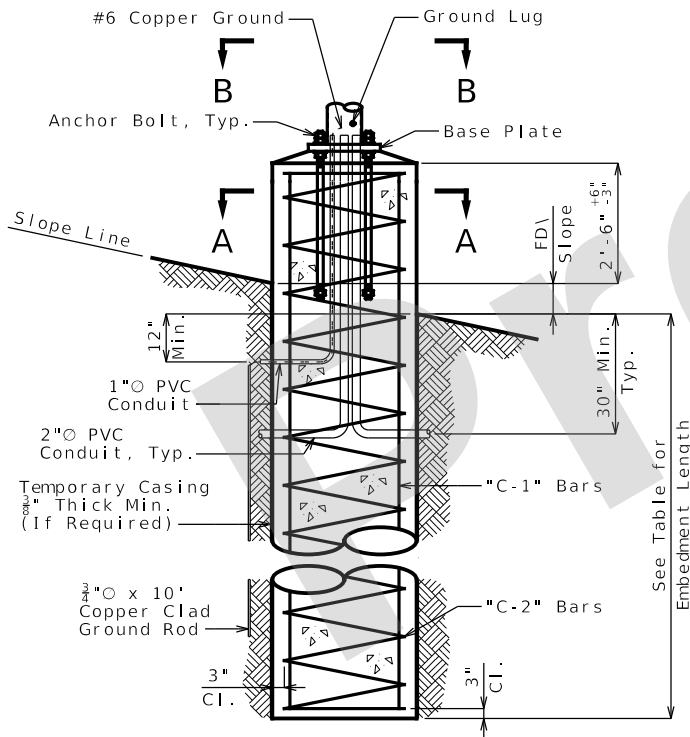
POLE BASE PLATE ASSEMBLY AND ANCHOR BOLTS													
LOCATION	POLE HEIGHT	BASE PLATE								ANCHOR BOLTS			
	L	B	C	F	H	J	S	R	T	P	SIZE DIA. x LENGTH	E	
Sta. 1110+45 Offset 89' Rt.	15'-1 $\frac{7}{8}$ "	17"	23"	12"	1 $\frac{3}{4}$ "	8 $\frac{11}{16}$ "	18"	3"	1 $\frac{3}{4}$ "	5"	1 $\frac{1}{2}$ " x 3'-6"	8"	



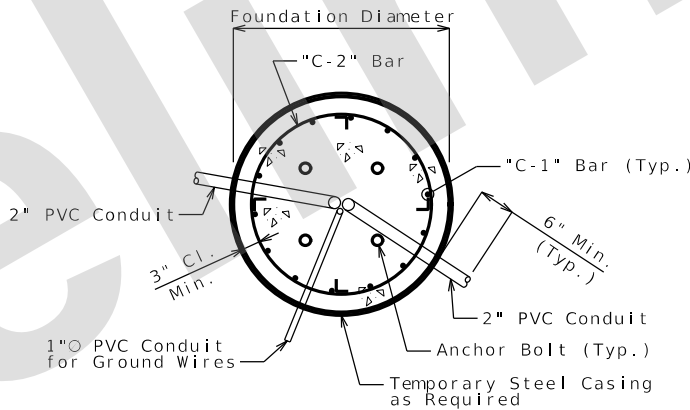
ANCHOR BOLT DETAIL



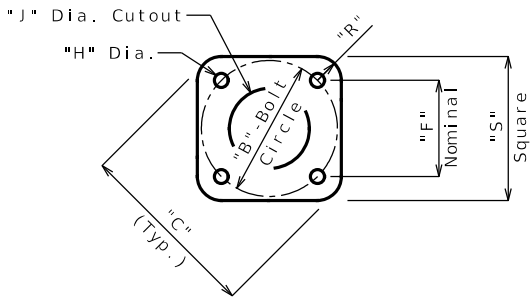
TYPE "C-2" SPIRAL DETAIL



TYPICAL DMS POLE FOUNDATION



SECTION A-A



SECTION B-B
Base Plate

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I-44 DMS DETAILS - JSU0076 & JST0088B

DMS SUPPORT FOUNDATION
SHEET 3 OF 5

Detailed: Jun. 2024
Checked: Jun. 2024

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

DATE PREPARED
9/26/2024

ROUTE
I-44

DISTRICT
SW

COUNTY
GREENE

JOB NO.
JSU0076, JST0088B, & JST0088B

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)

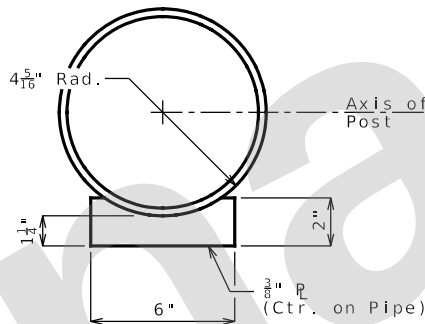
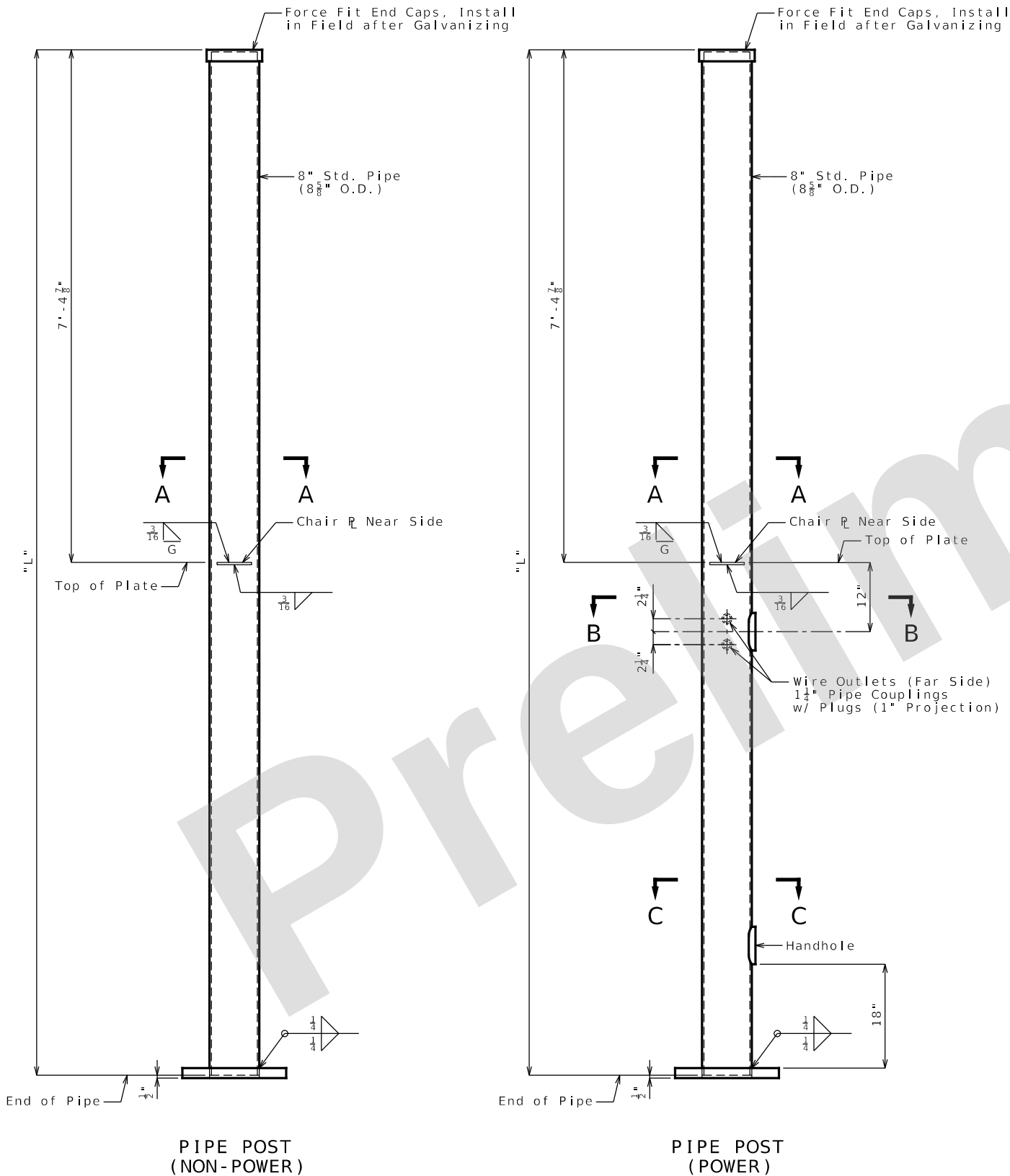
BURNS & MCDONNELL

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

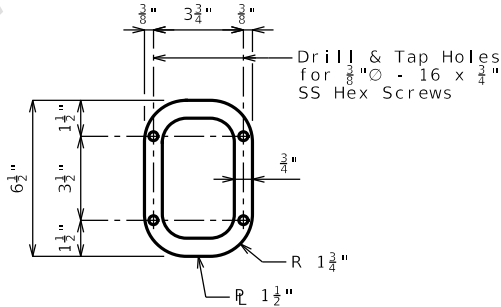
Certificate of Authority
No. : 000165

BMcD Project No. 146617

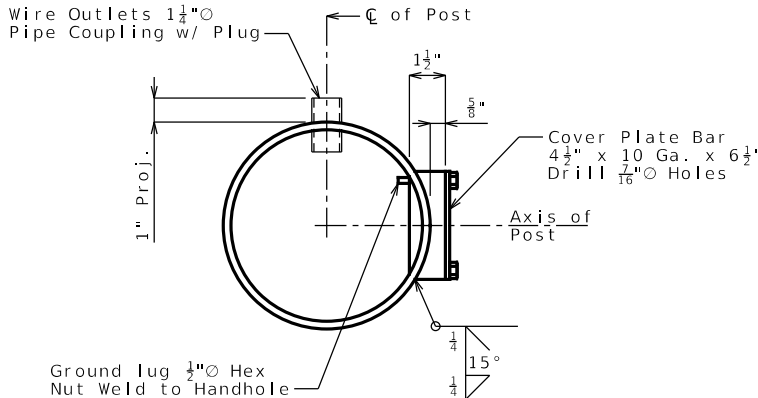
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SECTION A-A
CHAIR PLATE



HANDHOLE DETAIL



SECTION B-B
UPPER HANDHOLE
(Section C-C Similar but
without Couplings)

- NOTES:
- Pipe shall conform to the requirements of ASTM A53, Grade B.
 - Other steel shall conform to the requirements of ASTM A709, Grade 36.
 - Galvanize steel after fabrication per ASTM A123.
 - Welding shall be done in accordance with AWS D1.1.

I-44 DMS DETAILS - JSU0076 & JST0088B

DMS SUPPORT
SHEET 4 OF 5

Detailed: Jun. 2024
Checked: Jun. 2024

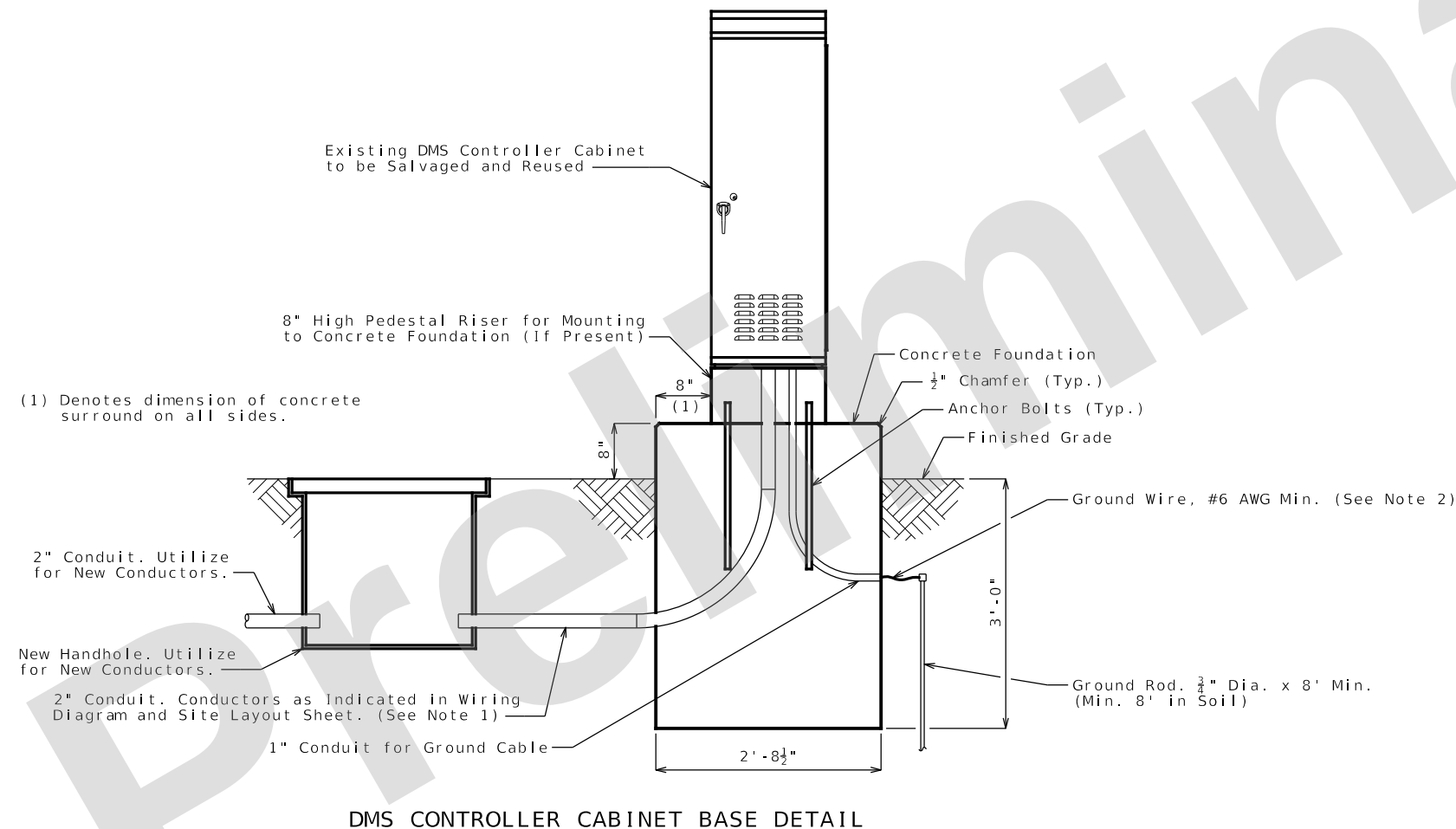
Note: This drawing is not to scale. Follow dimensions.

DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 236
COUNTY GREENE	
JOB NO. JSU0076, JST0088B	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-273-6636)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	

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- NOTES:

1. Conduit shall transition to rigid metal conduit prior to 90 degree elbow up into DMS controller cabinet.
2. Grounding electrode conductor shall be exothermically welded to ground rod, connected to incoming equipment grounding conductor, and bonded to equipment and cabinet as required by NEC.
3. See Special Provisions for further info.
4. Approximate location of DMS controller cabinet is Sta. 1010+30 Offset 80' Rt.

I - 44 DMS DETAILS - JSU0076 & JST0088B

DMS CONTROLLER CABINET BASE
SHEET 5 OF 5

Detailed: Jun. 2024
Checked: Jun. 2024

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

DATE PREPARED	
9/26/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
SW	237

COUNTY
GREENE

JOB NO.
JSU0076, J8I3044C,

& JST0088B
CONTRACT ID.

PROJECT NO.

BRIDGE NO.

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

Burns & McDonnell Engineering Co., Inc.

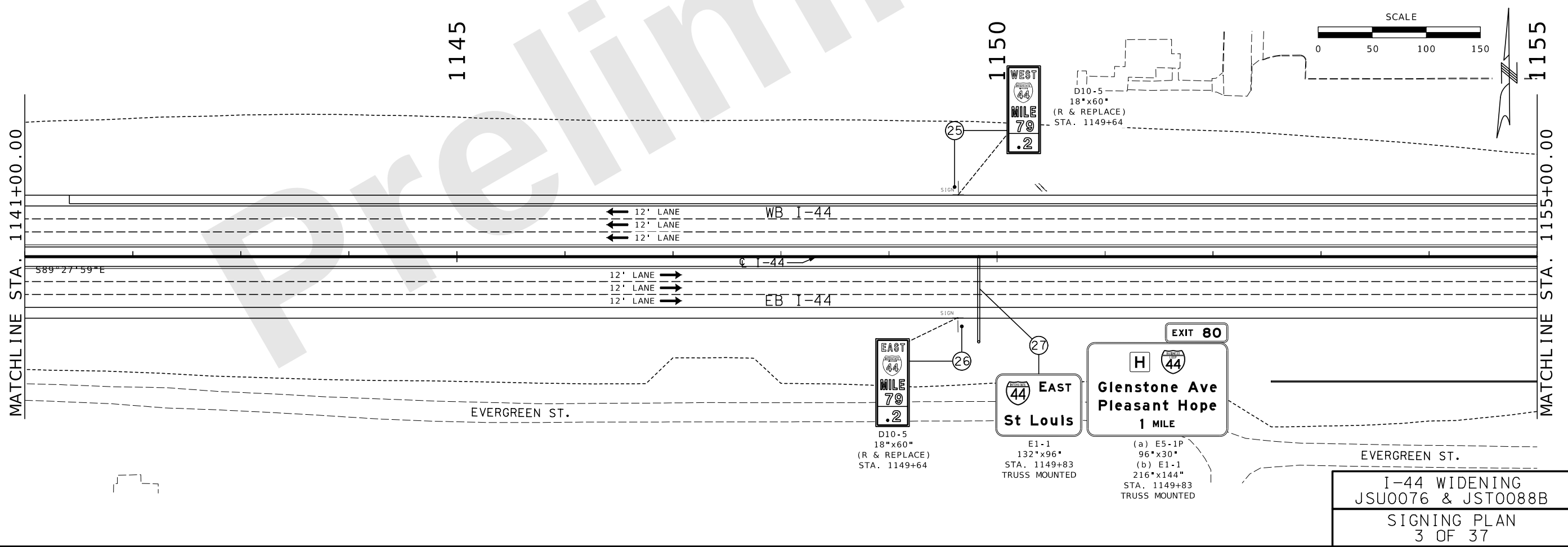
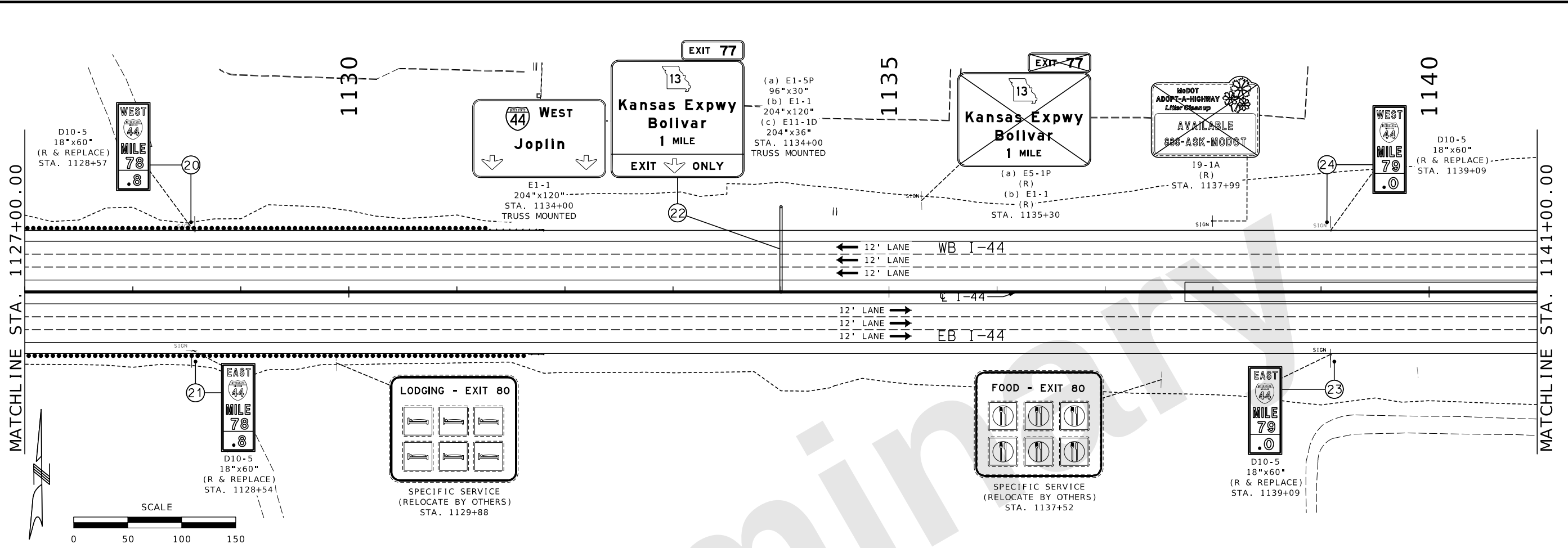
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

3McD Project No. 146617



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I-44 WIDENING
JSU0076 & JST0088B
SIGNING PLAN
3 OF 37

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/26/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 240

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

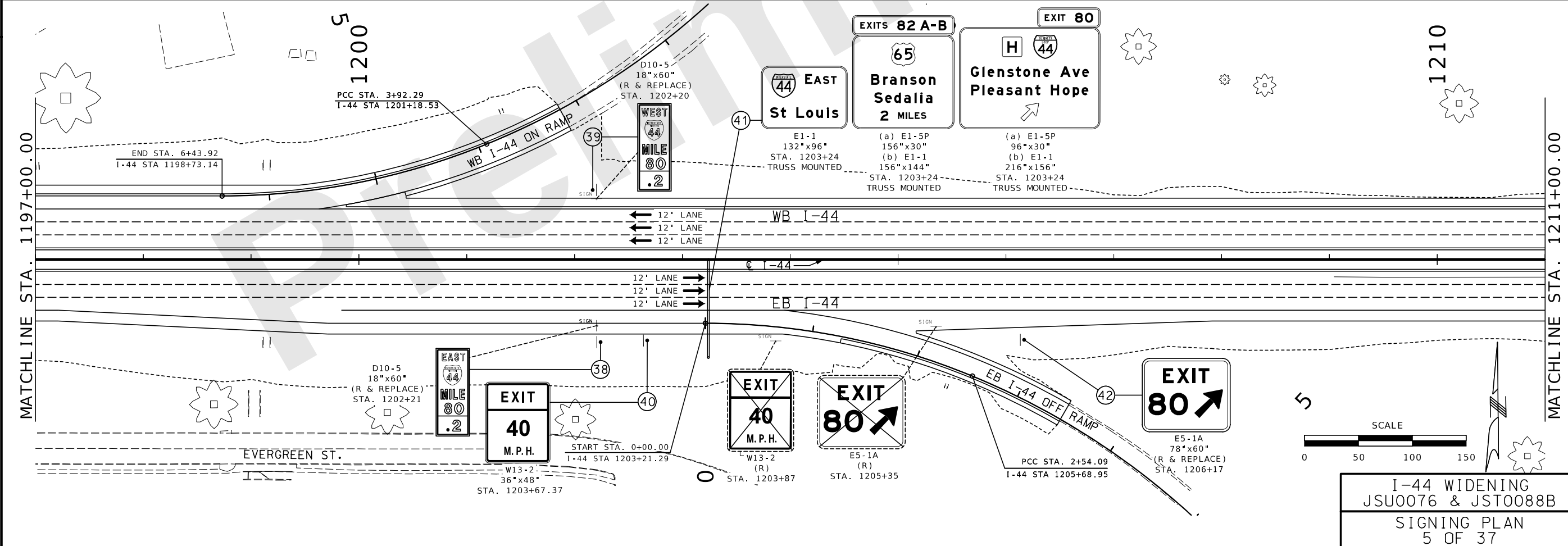
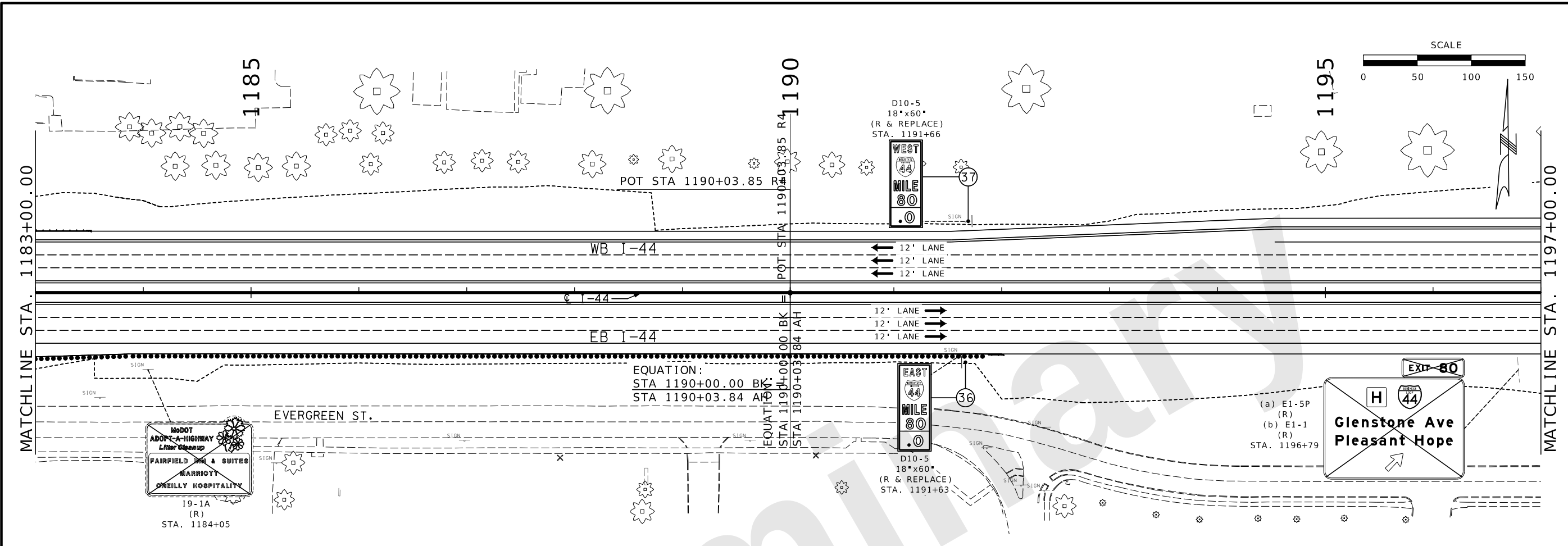
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

CMT

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6831 WEST ELFINDALE STREET
SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631



"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED: 9/26/2024

ROUTE: I-44	STATE: MO
DISTRICT: SW	SHEET NO.: 242

COUNTY: GREENE

JOB NO.: JSU0076, J813044C, & JST0088B

PROJECT NO.:

BRIDGE NO.:

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

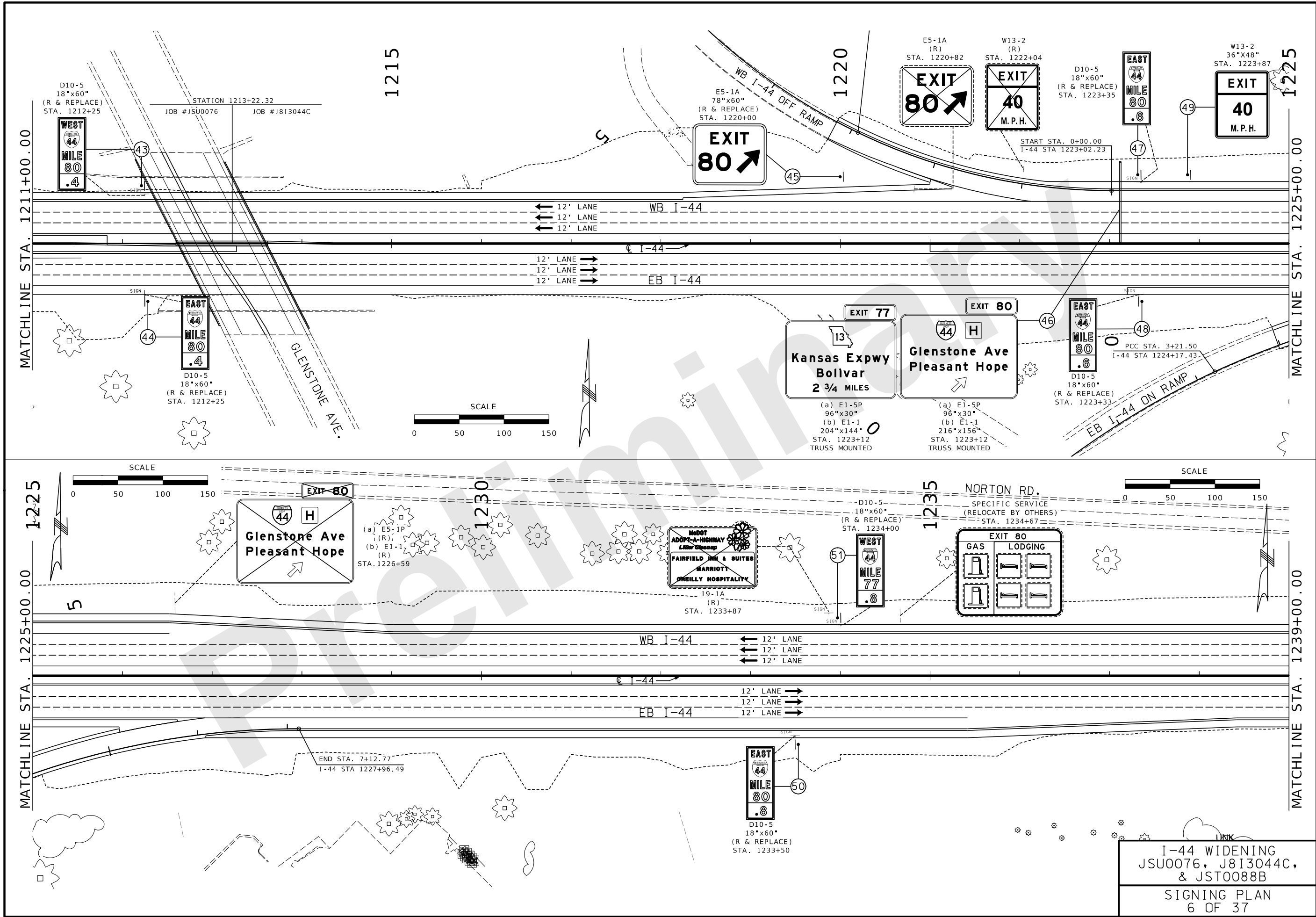
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JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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I-44 WIDENING
JSU0076 & JST0088B

SIGNING PLAN
5 OF 37



THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/26/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 243

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)

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ENGINEERING CORPORATION - 000631

I-44 WIDENING
JSU0076, J813044C,
& JST0088B

SIGNING PLAN
6 OF 37

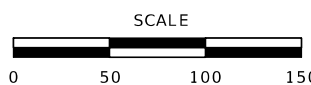
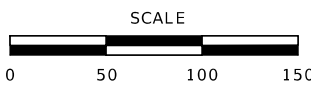
MATCHLINE STA. 1267+00.00

MATCHLINE STA. 1281+00.00

MATCHLINE STA. 1281+00.00

MATCHLINE STA. 1295+00.00

DYNAMIC MESSAGE
SIGN (DND)



"THIS MEDIA SHOULD
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A CERTIFIED
DOCUMENT."

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
245

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



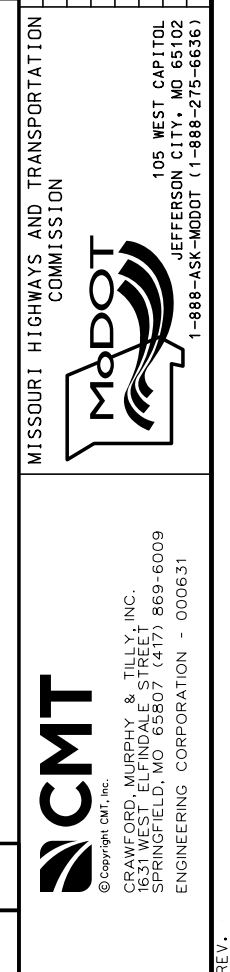
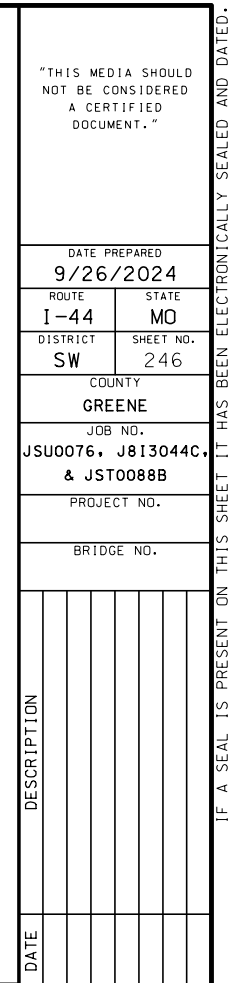
105 WEST CAPITOL
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ENGINEERING CORPORATION - 000631

I-44 WIDENING
J813044C & JST0088B

SIGNING PLAN
8 OF 37



The logo for the Missouri Department of Transportation (MoDOT) is located in the top right corner. It features the word "MoDOT" in a bold, sans-serif font, with "Missouri HIGHWAYS" written in a smaller font above it. To the right of the text is a stylized graphic of a road or highway curving upwards and to the right, with a series of curved lines above it suggesting motion or a bridge.

[illegible]

STANDARD SIGN ASSEMBLIES							
SIGN NUMBER	STATION	LOCATION	TYPE				
			D10-5 18"x60"	E5-1A 78"x60"	R2-4A 49"x96"	W4-3R 48"x48"	W12-2 48"x48"
			SIGN DESCRIPTION, SIZES & NUMBER OF EACH				
							
1	1075+32	I-44 RT	-	-	-	1	-
2	1075+97	I-44 RT	1	-	-	-	-
3	1076+02	I-44 LT	1	-	-	-	-
4	1078+76	I-44 LT	-	1	-	-	-
5	1082+11	I-44 LT	-	-	-	-	1
7	1086+05	I-44 RT	1	-	-	-	-
8	1086+08	I-44 LT	1	-	-	-	-
10	1092+27	I-44 LT	-	-	-	-	1
11	1092+27	I-44 LT	-	-	-	-	1
12	1096+57	I-44 RT	1	-	-	-	-
13	1096+57	I-44 LT	1	-	-	-	-
14	1100+86	I-44 RT	-	-	1	-	-
16	1107+04	I-44 RT	1	-	-	-	-
17	1107+23	I-44 LT	1	-	-	-	-
18	1118+12	I-44 LT	1	-	-	-	-
19	1118+13	I-44 RT	1	-	-	-	-
20	1128+57	I-44 LT	1	-	-	-	-
21	1128+57	I-44 RT	1	-	-	-	-
23	1139+09	I-44 RT	1	-	-	-	-
24	1139+09	I-44 LT	1	-	-	-	-
25	1149+63	I-44 LT	1	-	-	-	-
26	1149+63	I-44 RT	1	-	-	-	-
28	1160+21	I-44 RT	1	-	-	-	-
29	1160+21	I-44 LT	1	-	-	-	-
30	1167+25	I-44 LT	-	-	1	-	-
31	1170+77	I-44 LT	1	-	-	-	-
32	1170+77	I-44 RT	1	-	-	-	-
33	1181+32	I-44 LT	1	-	-	-	-
34	1181+34	I-44 RT	1	-	-	-	-
36	1191+63	I-44 RT	1	-	-	-	-
37	1191+66	I-44 LT	1	-	-	-	-
38	1202+20	I-44 RT	1	-	-	-	-
39	1202+20	I-44 LT	1	-	-	-	-
40	1203+86	I-44 RT	-	-	-	-	1
42	1205+58	I-44 RT	-	1	-	-	-
43	1212+25	I-44 LT	1	-	-	-	-
44	1212+25	I-44 RT	1	-	-	-	-
TOTAL			28	2	2	1	2

SIGN SUMMARY (JSU0076)							
STANDARD SIGN OR SPECIAL SIGN NUMBER	SIGN DETAIL SHEET NO.	NO. EACH	SIZE, TYPE & SQUARE FEET				
				FLAT SHEET SH	FLAT SHEET FLOURESCENT SHF *	STRUCTURAL STRUCTURAL	STRUCTURAL FLOURESCENT STF *
			SIZE (SQFT)				
				ITEM NO.	ITEM NO.	ITEM NO.	ITEM NO.
				9035004A	9035069A	9035011A	9035071A
D10-5 - 2, 3, 7, 8, 12, 13, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 28, 29, 31, 32, 33, 34, 36, 37, 38, 39, 43, 44	-	28	7.50	210	-	-	-
E5-1A - 4, 42	-	2	32.50	65	-	-	-
R2-4A - 14, 30	-	2	32.75	65.50	-	-	-
W4-3R - 1	-	1	16.00	16	-	-	-
W12-2 - 10, 11	-	2	16.00	32	-	-	-
W13-2 - 5, 40	-	2	12.00	24	-	-	-
EXIT 75 WEST BYPASS (SIGN 6A)	14 OF 37	1	212.00	-	-	212	-
EXIT 77 KANSAS EXPWY (SIGN 6B)	14 OF 37	1	241.00	-	-	190	51
JOPLIN (SIGN 15A)	15 OF 37	1	170.00	-	-	170	-
EXIT 77 KANSAS EXPWY (SIGN 15B)	15 OF 37	1	241.00	-	-	190	51
JOPLIN (SIGN 22A)	15 OF 37	1	170.00	-	-	170	-
EXIT 77 KANSAS EXPWY (SIGN 22B)	16 OF 37	1	275.00	-	-	224	51
ST LOUIS (SIGN 27A)	16 OF 37	1	88.00	-	-	88	-
EXIT 80 GLENSTONE AVE (SIGN 27B)	17 OF 37	1	236.00	-	-	236	-
ST LOUIS (SIGN 41A)	16 OF 37	1	88.00	-	-	88	-
EXIT 82 A-B BRANSON (SIGN 41B)	17 OF 37	1	236.00	-	-	236	-
EXIT 80 GLENSTONE AVE (SIGN 41C)	18 OF 37	1	254.00	-	-	254	-
TOTAL		48		413	-	2058	153

D-30
JSU0076

SIGNING PLAN
12 OF 37

THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
249

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

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)



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6831 WEST ELFINDALE STREET
SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631

STANDARD SIGN ASSEMBLIES										
SIGN NUMBER	STATION	LOCATION	TYPE							
			D10-5 18"x60"	E5-1A 78"x60"	M6-1 21"x15"	R2-4A 49"x96"	W4-2R 48"x48"	W9-2L 48"x48"	W13-2 36"x48"	W16-2P 30"x24"
			SIGN DESCRIPTION, SIZES & NUMBER OF EACH							
										
45	1220+59	I-44 LT	-	1	-	-	-	-	-	-
47	1223+32	I-44 LT	1	-	-	-	-	-	-	-
48	1223+35	I-44 RT	1	-	-	-	-	-	-	-
49	1223+87	I-44 LT	-	-	-	-	-	-	1	-
50	1233+50	I-44 RT	1	-	-	-	-	-	-	-
51	1234+00	I-44 LT	1	-	-	-	-	-	-	-
53	1243+96	I-44 LT	-	-	1	-	-	-	-	-
54	1244+00	I-44 RT	-	-	-	1	-	-	-	-
55	1244+54	I-44 LT	1	-	-	-	-	-	-	-
56	1244+54	I-44 RT	1	-	-	-	-	-	-	-
57	1255+12	I-44 RT	1	-	-	-	-	-	-	-
58	1255+15	I-44 LT	1	-	-	-	-	-	-	-
60	1265+69	I-44 LT	1	-	-	-	-	-	-	-
61	1265+69	I-44 RT	1	-	-	-	-	-	-	-
63	1276+26	I-44 LT	1	-	-	-	-	-	-	-
64	1276+26	I-44 RT	1	-	-	-	-	-	-	-
66	1286+84	I-44 LT	1	-	-	-	-	-	-	-
67	1286+89	I-44 RT	1	-	-	-	-	-	-	-
68	1289+00	I-44 LT	-	-	-	1	-	-	-	-
70	1295+67	I-44 LT	-	-	-	-	1	-	-	-
71	1297+26	I-44 LT	1	-	-	-	-	-	-	-
72	1297+26	I-44 RT	1	-	-	-	-	-	-	-
73	1299+71	I-44 LT	-	-	-	-	-	1	-	1
74	1307+94	I-44 LT	1	-	-	-	-	-	-	-
75	1307+94	I-44 RT	1	-	-	-	-	-	-	-
76	1309+40	I-44 RT	-	-	-	-	-	-	1	-
78	1313+45	I-44 RT	-	1	-	-	-	-	-	-
TOTAL			18	2	1	2	1	2	1	1

SIGN SUMMARY (J8I3044C)							
STANDARD SIGN OR SPECIAL SIGN NUMBER	SIGN DETAIL SHEET NO.	NO. EACH	SIZE, TYPE & SQUARE FEET				
			SIZE (SQFT)	FLAT SHEET SH	FLAT SHEET FLOURESCENT SHF *	STRUCTURAL STRUCTURAL	STRUCTURAL FLOURESCENT STF *
ITEM NO.	ITEM NO.	ITEM NO.	ITEM NO.				
9035004A	9035069A	9035011A	9035071A				
D10-5 - 47, 48, 50, 51, 55, 56, 57, 58, 60, 61, 63, 64, 66, 67, 71, 72, 74, 75	-	18	7.50	135	-	-	-
E5-1A - 45, 78	-	2	32.50	65	-	-	-
M6-1 - 53	-	1	2.25	2.25	-	-	-
R2-4A - 54, 68	-	2	32.75	65.50	-	-	-
W4-2R - 70	-	1	16.00	16	-	-	-
W9-2L - 73	-	1	16.00	16	-	-	-
W13-2 - 49, 76	-	2	12.00	24	-	-	-
W16-2P - 73	-	1	5.00	5	-	-	-
EXIT 77 KANSAS EXPWY (SIGN 46A)	19 OF 37	1	214.50	-	-	214.50	-
EXIT 80 GLENSTONE AVE (SIGN 46B)	19 OF 37	1	244.50	-	-	244.50	-
ST LOUIS (SIGN 59A)	20 OF 37	1	88.00	-	-	88	-
EXIT 82B SEDALIA (SIGN 59B)	20 OF 37	1	145.00	-	-	145	-
EXIT 82A BRANSON (SIGN 59C)	20 OF 37	1	194.00	-	-	155	39
JOPLIN (SIGN 62A)	21 OF 37	1	88.00	-	-	88	-
EXIT 80 GLENSTONE AVE (SIGN 62B)	21 OF 37	1	236.00	-	-	236	-
ST LOUIS (SIGN 65A)	20 OF 37	1	88.00	-	-	88	-
EXIT 82B SEDALIA (SIGN 65B)	22 OF 37	1	145.00	-	-	145	-
EXIT 82A BRANSON (SIGN 65C)	22 OF 37	1	194.00	-	-	155	39
EXIT 82B BUFFALO (SIGN 69)	23 OF 37	1	55.00	-	-	55	-
ST LOUIS (SIGN 77A)	20 OF 37	1	88.00	-	-	88	-
EXIT 82B SEDALIA (SIGN 77B)	23 OF 27	1	145.00	-	-	145	-
EXIT 82A BRANSON (SIGN 77C)	23 OF 37	1	168.00	-	-	129	39
TOTAL		42		329	-	1976	117

D-30
J8I3044C

SIGNING PLAN
13 OF 37

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DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
250

COUNTY
GREENE

JOB NO.
JSU0076, J8I3044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



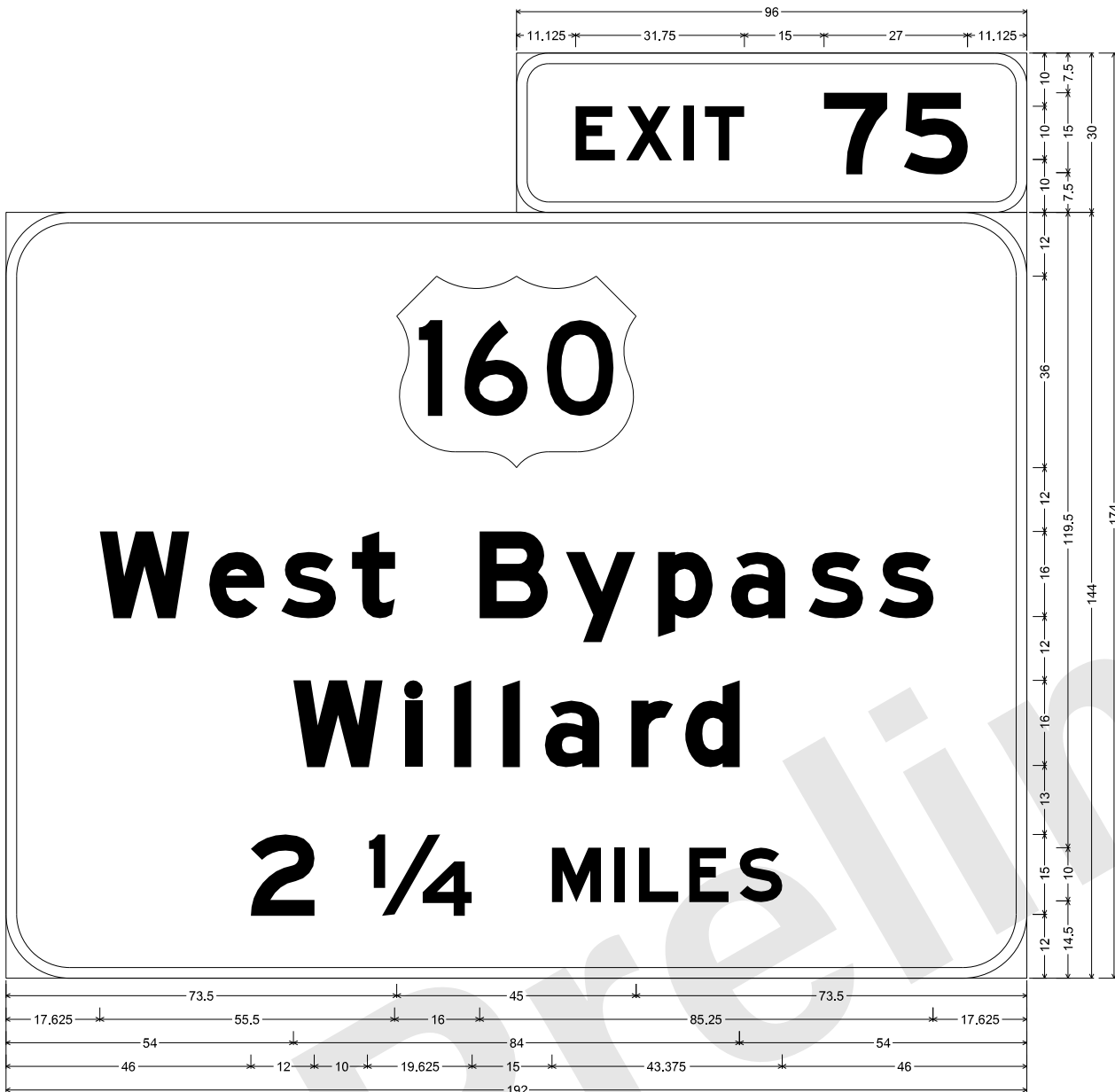
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)



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SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631

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

REV.



E1-5P ST-STRUCTURAL:
6,000" Radius, 2,000" Border, White on, Green;
"EXIT", E Mod; "75", E Mod;

E1-1 ST-STRUCTURAL:
12,000" Radius, 2,000" Border, White on, Green;
"West Bypass", E Mod; "Willard", E Mod; "2 1/4", E Mod; "MILES", E Mod;
Table of letter and object lefts

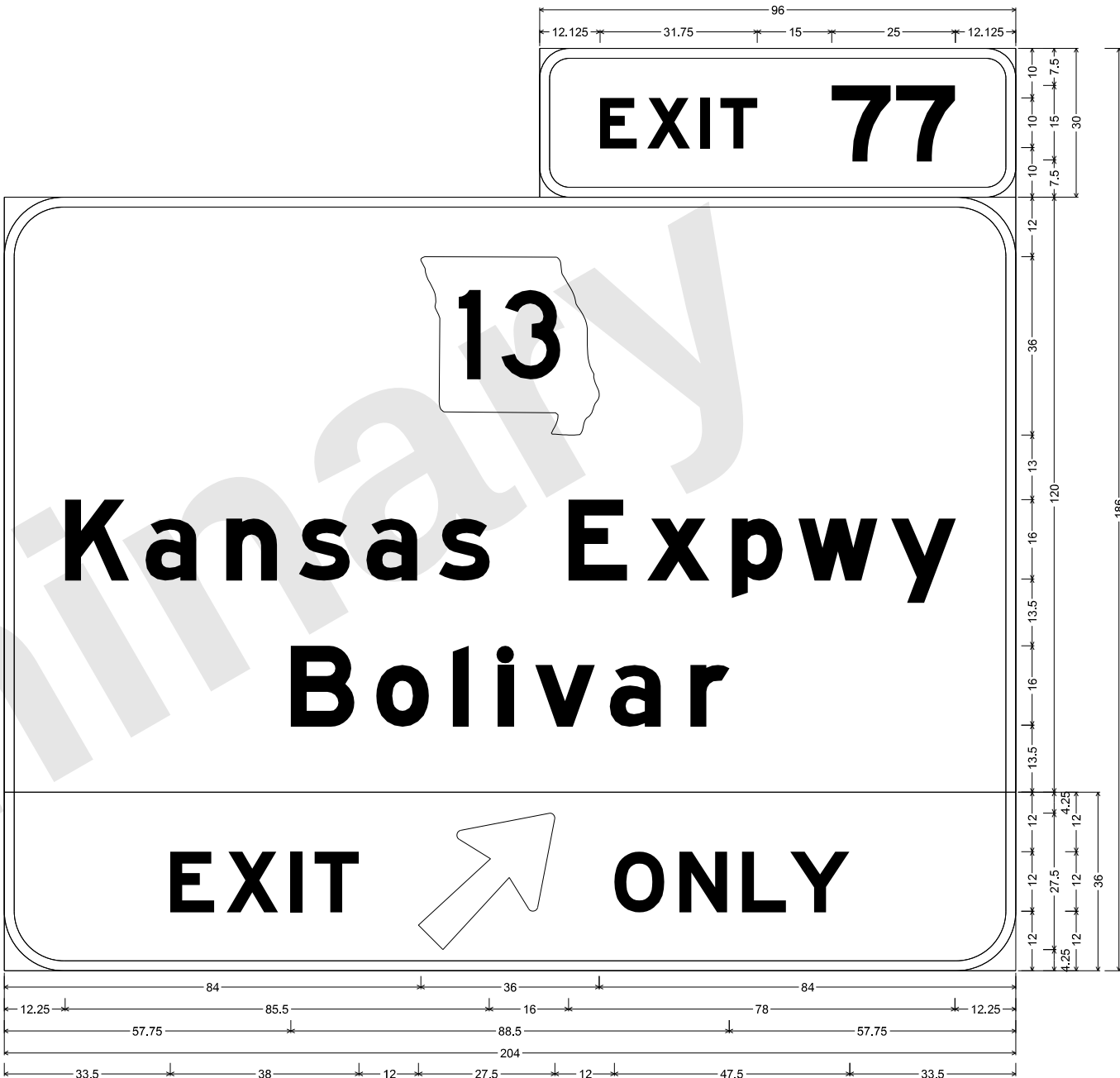
E	X	I	T	7	5
107.125	116.625	127.375	131.375	153.875	168.875

W	e	s	t	B	y	p	a	s	s
17.625	38.250	51.750	65.125	89.125	105.250	122.625	136.375	151.000	164.250

W	I	L	L	a	r	d
54.000	75.125	84.250	93.375	101.375	117.625	127.750

2	1/4	M	I	L	E	S
46.000	68.000	102.625	114.500	119.000	128.500	138.000

SIGN NO.	6A
STATION	1081+73
ROADWAY	I-44 (EB)



E1-5P ST-STRUCTURAL;
6.000" Radius, 2.000" Border, White on, Green;
"EXIT", E Mod; "77", E Mod;

E1-1 ST-STRUCTURAL;
12.000" Radius, 2.000" Border, White on, Green;
State Highway 13 M1-6a3 18.000" D; "Kansas Expwy", E Mod; "Bolivar", E Mod;

STF-STRUCTURAL FLUORESCENT;
12.000" Radius, 2.000" Border, Black on, Yellow;
"EXIT", E Mod; Arrow 160 - 35.000" 45"; "ONLY", E Mod;
Table of letter and object lefts

E	X	I	T	7	7
120.125	129.625	140.375	144.500	166.875	179.875

84.000

K	a	n	s	a	s	E	x	p	w	y
12.250	28.500	44.750	59.500	73.000	87.625	113.750	129.750	146.750	160.125	178.875

B	o	l	i	v	a	r
57.750	75.000	90.500	99.625	107.125	122.125	138.375

E	X	I	T	O	N	L	Y	
33.500	44.875	57.750	62.625	83.500	123.000	136.125	148.750	158.500

SIGN NO.	6B
STATION	1081+73
ROADWAY	I-44 (EB)

D-31
JSU0076
SIGNING PLAN
14 OF 37

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/26/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 251

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)

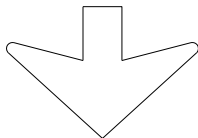
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6831 WEST ELFINDALE STREET
SPRINGFIELD, MO 65807 (417) 869-6009
ENGINEERING CORPORATION - 000631



SIGN NO.	15A
STATION	1107+13
ROADWAY	I-44 (WB)

13

Kansas Expwy
Bolivar

EXIT  **ONLY**

Dimensions (feet and inches):

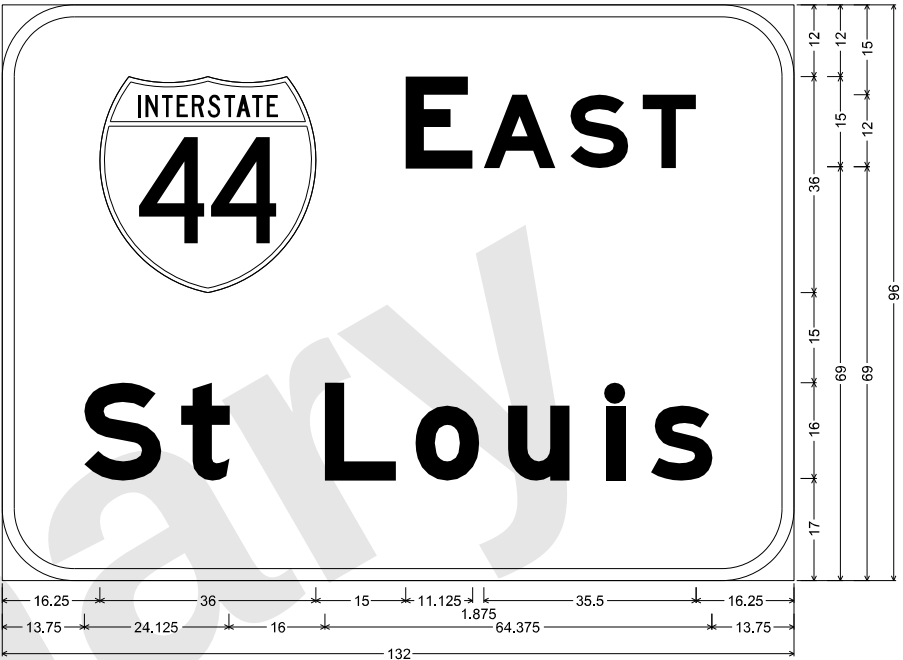
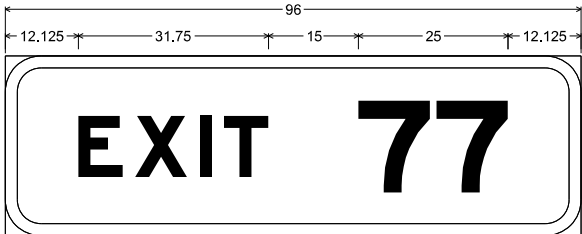
- Overall width: 120
- Overall height: 36
- Top section height: 12
- Bottom section height: 24
- Left margin: 12.25
- Right margin: 12.25
- Text 'EXIT' width: 31.25
- Text 'ONLY' width: 31.25
- Arrow width: 12
- Text 'Kansas Expwy' width: 84
- Text 'Bolivar' width: 84
- Text 'EXIT' height: 12
- Text 'ONLY' height: 12
- Arrow height: 12
- Text 'Kansas Expwy' height: 12
- Text 'Bolivar' height: 12
- Text '13' height: 12

SIGN NO.	15B
STATION	1107+13
ROADWAY	I-44 (WB)

E 120.125	X 129.625	I 140.375	T 144.500	7 166.875	7 179.875					
13 84.000										
K 12.250	a 28.500	n 44.750	s 59.500	a 73.000	s 87.625	E 113.750	x 129.750	p 146.750	w 160.125	y 178.875
B 57.750	o 75.000	I 90.500	I 99.625	v 107.125	a 122.125	r 138.375				
E 31.250	X 42.625	I 55.500	T 60.375	U 81.250	O 125.250	N 138.375	L 151.000	Y 160.750		

			
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION		DATE	
 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)		DESCRIPTION	
		JOB NO.	
		PROJECT NO.	
		BRIDGE NO.	
		COUNTY	
		DISTRICT	SHEET NO.
		ROUTE	MO
		DATE PREPARED	
		9/26/2024	
		THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.	

SIGN NO.	22B
STATION	1134+00
ROADWAY	I-44 (WB)



E1-1 ST-STRUCTURAL;
12,000" Radius, 2,000" Border, White on, Green;
Interstate 44 18,000" C; "EAST", E Mod; "St Louis", E Mod;
Table of letter and object lefts

	E	A	S	T		
16.250	67.250	80.250	94.750	106.750		
S	t	L	o	u	i	s
13.750	29.875	53.875	69.000	84.375	100.625	108.125

SIGN NO.	27A
STATION	1149+83
ROADWAY	I-44 (EB)

SIGN NO.	41A
STATION	1203+24
ROADWAY	I-44 (EB)

E1-5P ST-STRUCTURAL;
6,000" Radius, 2,000" Border, White on, Green;
"EXIT", E Mod; "77", E Mod;
E1-1 ST-STRUCTURAL;
12,000" Radius, 2,000" Border, White on, Green;
State Highway 13 M1-6a3 18,000" D; "Kansas Expwy", E Mod; "Bolivar", E Mod; "1", E Mod; "MILE", E Mod;
STF-STRUCTURAL FLUORESCENT;
12,000" Radius, 2,000" Border, Black on, Yellow;
"EXIT", E Mod; Down Arrow 22,000" 270'; "ONLY", E Mod;
Table of letter and object lefts

STF-STRUCTURAL FLUORESCENT;

12.000" Radius, 2.000" Border, Black on, Yellow;

"EXIT", E Mod; Down Arrow 22.000" 270"; "ONLY", E Mod;

Table of letter and object lefts

E	X	I	T	7	7					
120.125	129.625	140.375	144.500	166.875	179.875					
Ⓢ										
84.000										
K	a	n	s	a	s	E	x	p	w	y
12.250	28.500	44.750	59.500	73.000	87.625	113.750	129.750	146.750	160.125	178.875
B	o	i	v	a	r					
57.750	75.000	90.500	99.625	107.125	122.125	138.375				
I	M	I	L	E						
75.625	95.125	106.875	111.500	120.875						
E	X	I	T	o	N	L	Y			
31.250	42.625	55.500	60.375	81.250	125.250	138.375	151.000	160.750		

D-31
JSU0076
SIGNING PLAN
16 OF 37

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DATE PREPARED
9/26/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 253

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

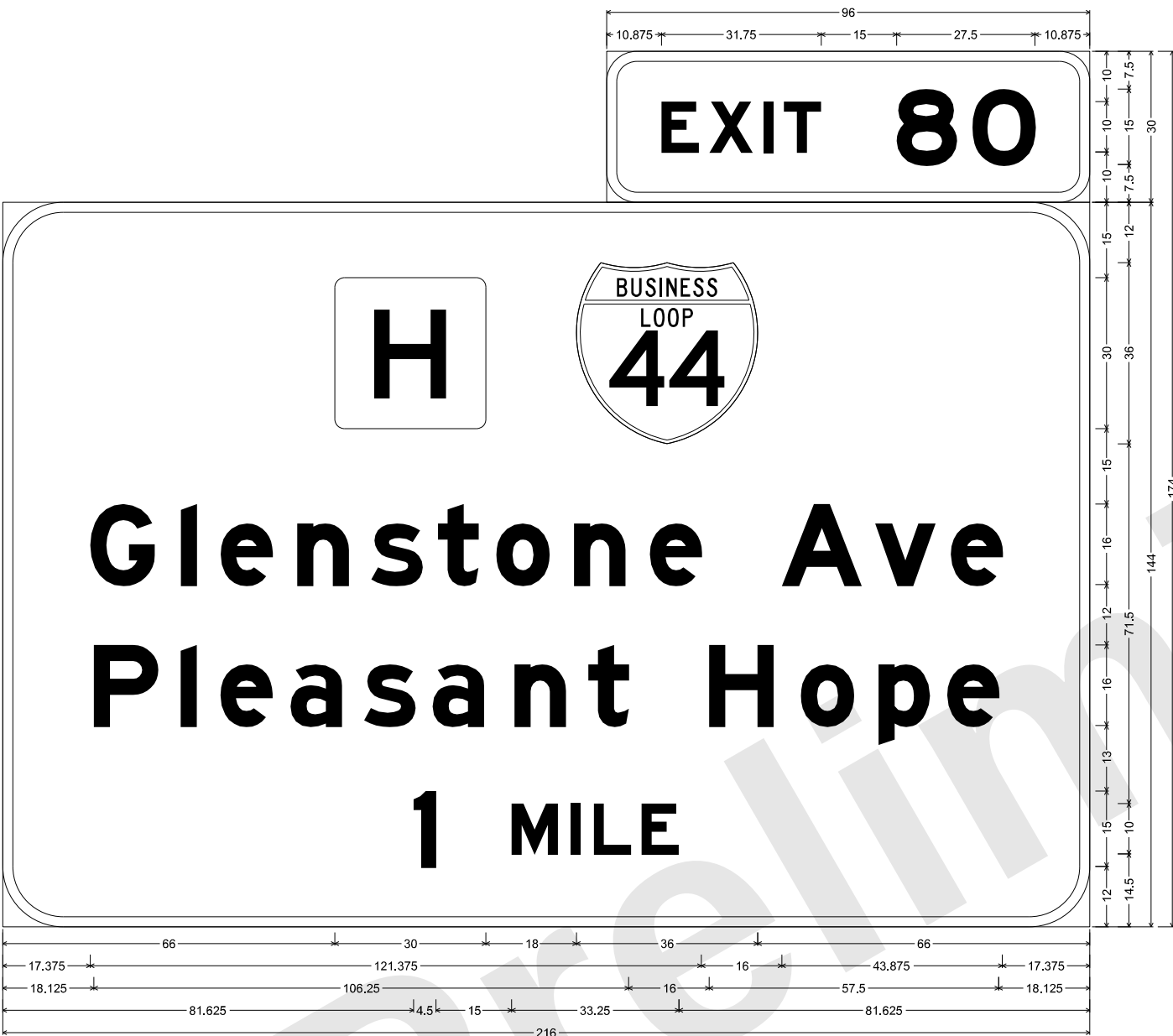
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MoDOT

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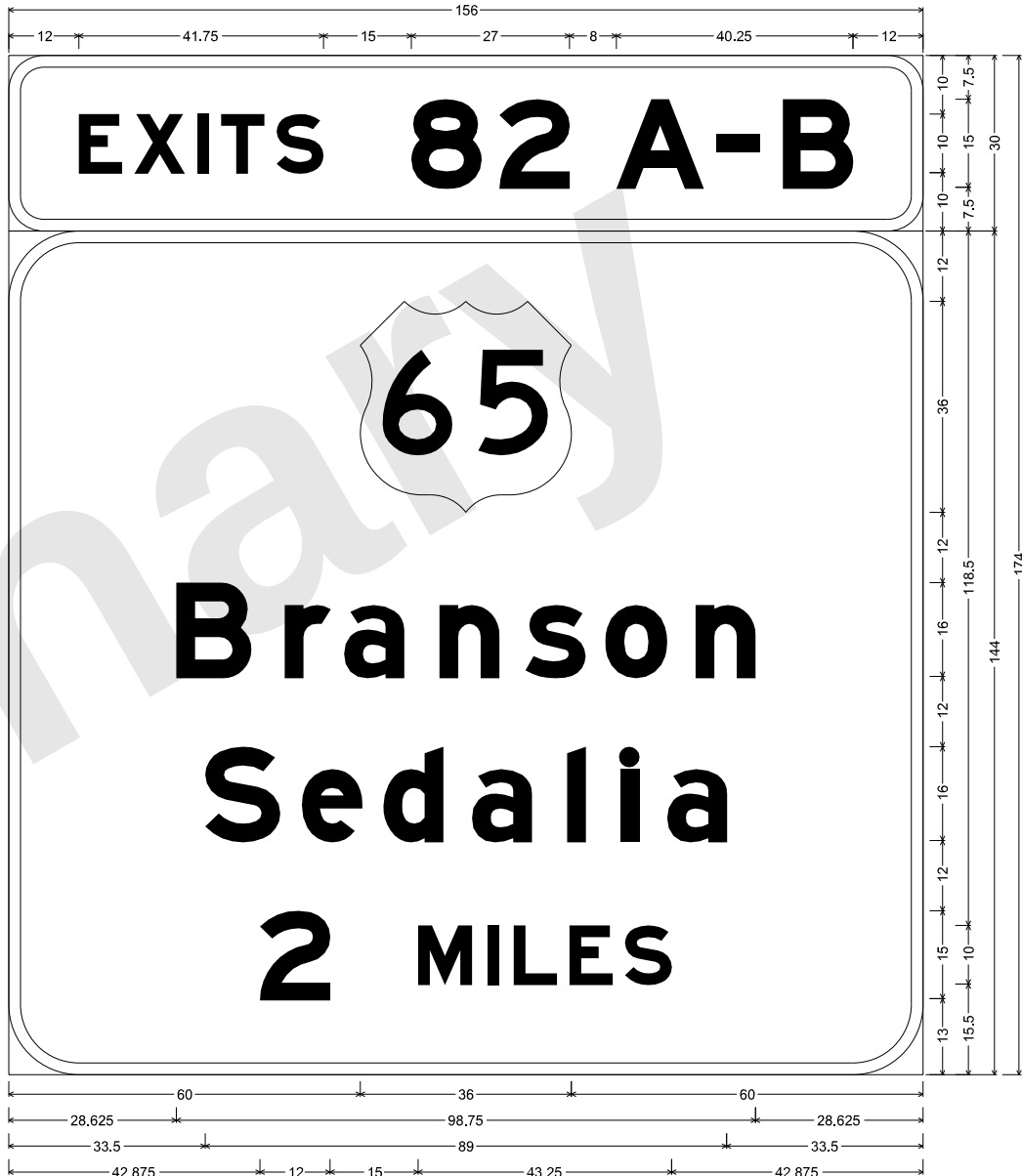


E1-5P ST-STRUCTURAL;
6,000" Radius, 2,000" Border, White on, Green;
"EXIT", E Mod; "80", E Mod;

E1-1 ST-STRUCTURAL;
12,000" Radius, 2,000" Border, White on, Green;
Rounded Rectangle 1.875" Radius;
"Glenstone Ave", E Mod; "Pleasant Hope", E Mod; "1", E Mod; "MILE", E Mod;
Table of letter and object lefts

E	X	I	T	B	O						
130.875	140.375	151.125	155.250	177.625	192.625						
	114.000										
66.000											
G	I	e	n	s	t	o	n	e	A	v	e
17.375	35.375	43.250	58.500	73.250	86.500	98.125	113.500	128.625	154.750	173.375	188.375
P	I	s	a	s	n	t	H	O	p	e	
18.125	35.375	43.250	57.125	71.750	85.375	101.625	116.375	140.375	158.625	174.000	187.625
I	M	I	L	E							
81.625	101.125	112.875	117.500	126.875							

SIGN NO.	27B
STATION	1149+83
ROADWAY	I-44 (EB)



E1-5P ST-STRUCTURAL;
6,000" Radius, 2,000" Border, White on, Green;
"EXITS", E Mod; "82 A-B", E Mod;

E1-1 ST-STRUCTURAL;
12,000" Radius, 2,000" Border, White on, Green;
"Branson", E Mod; "Sedalia", E Mod; "2", E Mod; "MILES", E Mod;
Table of letter and object lefts

E	X	I	T	S	B	Z	A	-	B
12.000	21.375	32.125	36.250	45.750	68.750	83.750	103.750	120.750	132.125
60.000									
B	r	a	n	s	o	n			
28.625	47.125	57.250	73.500	88.125	101.750	117.250			
S	e	d	a	l	i	a			
33.500	50.000	63.875	79.000	95.250	104.375	112.375			
Z	M	I	L	E	S				
42.875	69.875	81.625	86.125	95.625	105.125				

SIGN NO.	41B
STATION	1203+24
ROADWAY	I-44 (EB)

D-31
JSU0076
SIGNING PLAN
17 OF 37

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/26/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 254

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

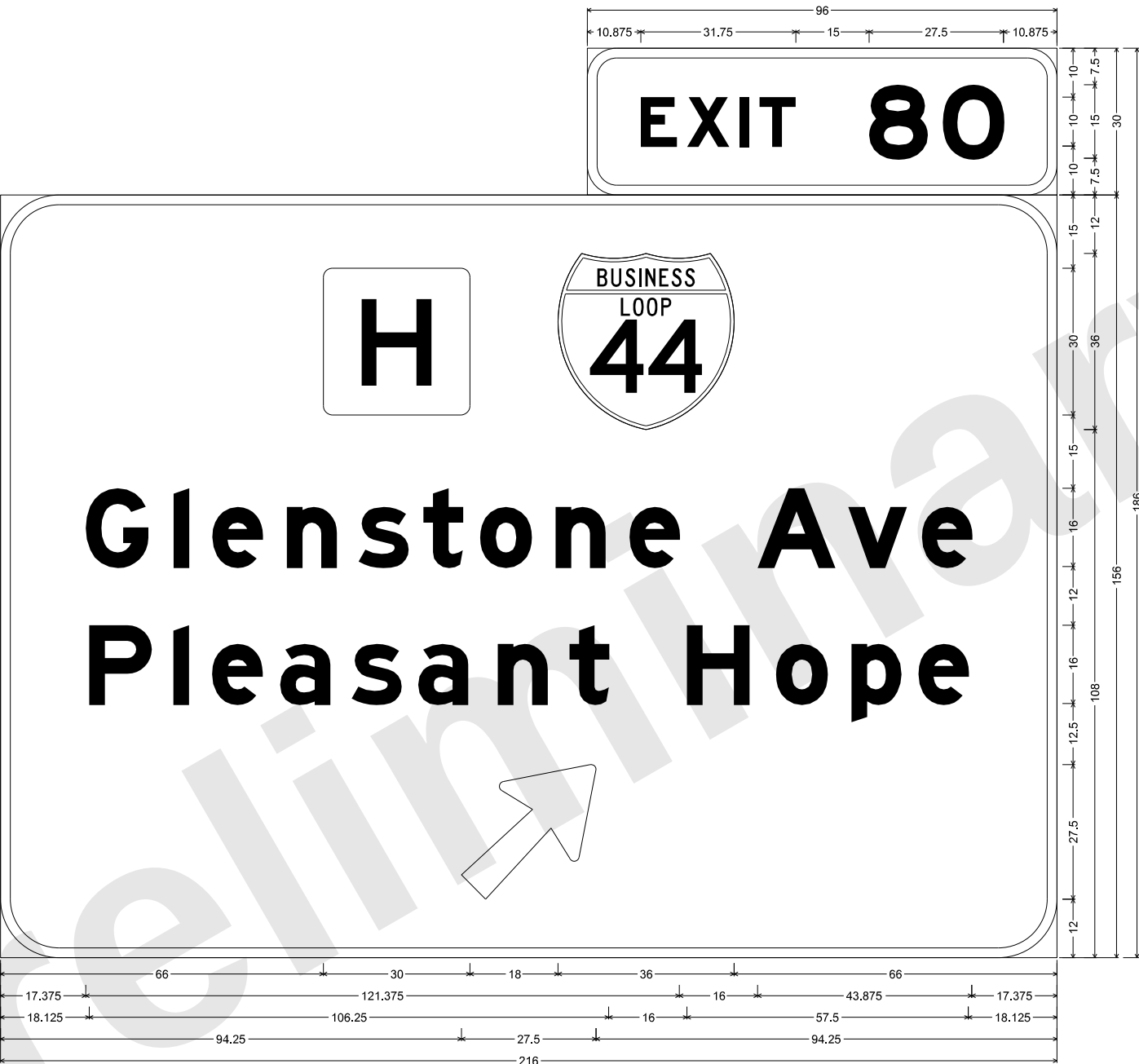
BRIDGE NO.

DESCRIPTION	DATE

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JEFFERSON CITY, MO 65102
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E1-5P ST-STRUCTURAL;
6.000" Radius, 2.000" Border, White on, Green;
"EXIT", E Mod; "80", E Mod;

E1-1 ST-STRUCTURAL;
12.000" Radius, 2.000" Border, White on, Green;
Rounded Rectangle 1.875" Radius;
"Glenstone Ave", E Mod; "Pleasant Hope", E Mod; Arrow 160 - 35.000" 45';
Table of letter and object lefts

E	X	I	T	B	O						
130.875	140.375	151.125	155.250	177.625	192.625						
66.000	114.000										
G	I	e	n	s	t	o	n	e	A	v	e
17.375	35.375	43.250	58.500	73.250	86.500	98.125	113.500	128.625	154.750	173.375	188.375
P	I	e	a	s	a	n	t	H	o	p	e
18.125	35.375	43.250	57.125	71.750	85.375	101.625	116.375	140.375	158.625	174.000	187.625
94.250											

SIGN NO.	41C
STATION	1203+24
ROADWAY	I-44 (EB)

D-31
JSU0076

SIGNING PLAN
18 OF 37

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DATE PREPARED
9/26/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 255

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

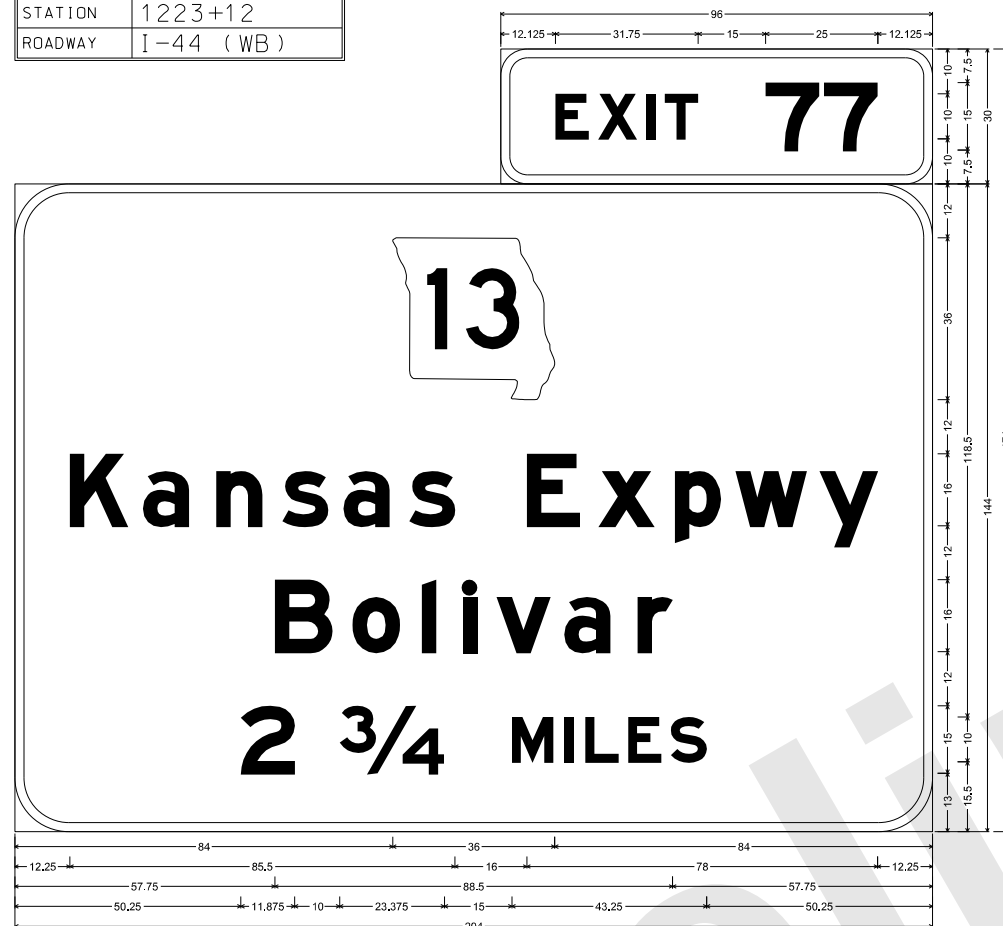
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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SIGN NO.	46A
STATION	1223+12
ROADWAY	I-44 (WB)



```
E1-5P ST-STRUCTURAL;
6.000" Radius, 2.000" Border, White on, Green;
"EXIT", E Mod; "77", E Mod;
```

E1-1 ST-STRUCTURAL;
12.000" Radius, 2.000" Border, White on, Green;
State Highway 13 M1-6a3 18.000" D; "Kansas Expwy", E Mod; "Bolivar", E Mod; "2 3/4", E Mod; "MILES", E Mod;
Table of letter and object lefts

E	X	I	T	7	7
120.125	129.625	140.375	144.500	166.875	179.875

13	84.000
----	--------

K	a	n	s	a	s	E	x	p	w	y
12.250	28.500	44.750	59.500	73.000	87.625	113.750	129.750	146.750	160.125	178.875

B	o	l	l	v	a	r
57.750	75.000	90.500	99.625	107.125	122.125	138.375

2	3/4	M	I	L	E	S
50.250	72.125	110.500	122.250	126.875	136.375	145.750

SIGN NO.	46B
STATION	1223+12
ROADWAY	I-44 (WB)



E1-5P ST-STRUCTURAL;
6.000" Radius, 2.000" Border, White on, Green;
"EXIT", E Mod; "80", E Mod;

E1-1 ST-STRUCTURAL;
12.000" Radius, 2.000" Border, White on, Green;
Rounded Rectangle 1.875" Radius;
"Glenstone Ave", E Mod; Arrow 160 - 35.000" 45';
Table of letter and object lefts

E	X	I	T	8	O
130.875	140.375	151.125	155.250	177.625	192.625

	☐
66.000	120.000

G	I	e	n	s	t	o	n	e	A	v	e
17.375	35.375	43.250	58.500	73.250	86.500	98.125	113.500	128.625	154.750	173.375	188.375

P	I	e	a	s	a	n	t	H	o	p	e
18.125	35.375	43.250	57.125	71.750	85.375	101.625	116.375	140.375	158.625	174.000	187.625

94.250

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DATE PREPARED
9/26/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 256

COUNTY
GREENE

JOB NO.
JSU0076, J8I3044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON _____



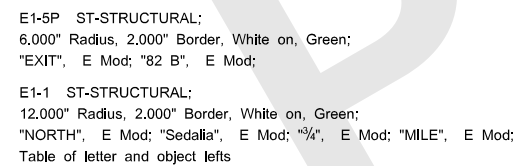
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ENGINEERING CORPORATION - 000631

D-31
J8 I3044C

SIGNING PLAN
19 OF 37



E 13.125	X 22.625	I 33.375	T 37.500	8 59.875	2 74.875	B 94.875
69 15.750	N 66.750	O 82.125	R 95.250	T 107.250	H 118.750	
S 27.500	e 44.000	d 57.875	a 73.000	I 89.250	I 98.375	a 106.375
3/4 36.250	M 74.500	I 86.250	L 90.875	E 100.375		

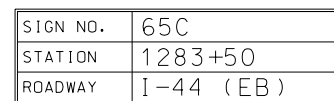
E1-5P ST-STRUCTURAL;
6,000" Radius, 2,000" Border, White on, Green;
"EXIT", E Mod; "82 A", E Mod;

E1-1 ST-STRUCTURAL;
12,000" Radius, 2,000" Border, White on, Green;
"SOUTH", E Mod; "Branson", E Mod; "1/2", E Mod; "MILE", E Mod;

STF-STRUCTURAL FLUORESCENT;
12,000" Radius, 2,000" Border, Black on, Yellow;
"EXIT", E Mod; Down Arrow 22,000" 270"; "ONLY", E Mod;

Table of letter and object lefts

E 47.625	X 57.125	I 67.875	T 71.875	B 94.375	Z 109.375	A 129.375
63 22.125	S 73.125	O 87.875	U 100.875	T 113.000	H 124.375	
B 28.625	r 47.125	a 57.250	n 73.500	s 88.125	o 101.750	n 117.250
1/2 43.375	M 79.375	I 91.125	L 95.625	E 105.125		
E 11.500	X 22.875	I 35.750	T 40.625	5 58.500	O 95.500	N 112.625
						L 125.250
						Y 135.000

[illegible]

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DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
261

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,

& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102

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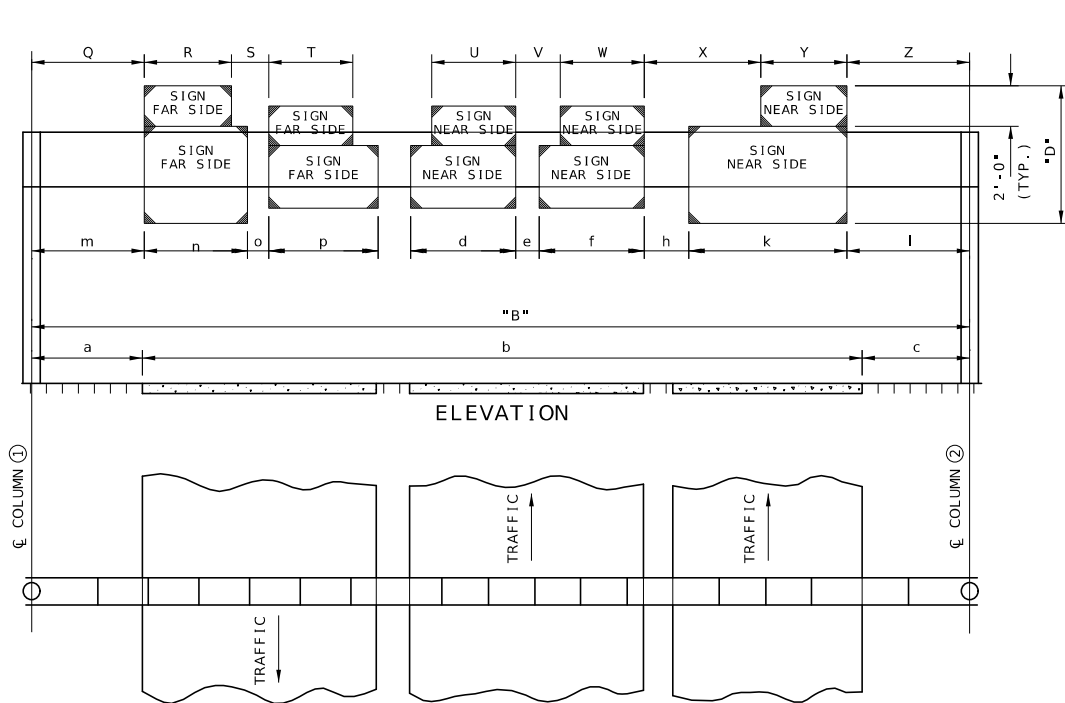
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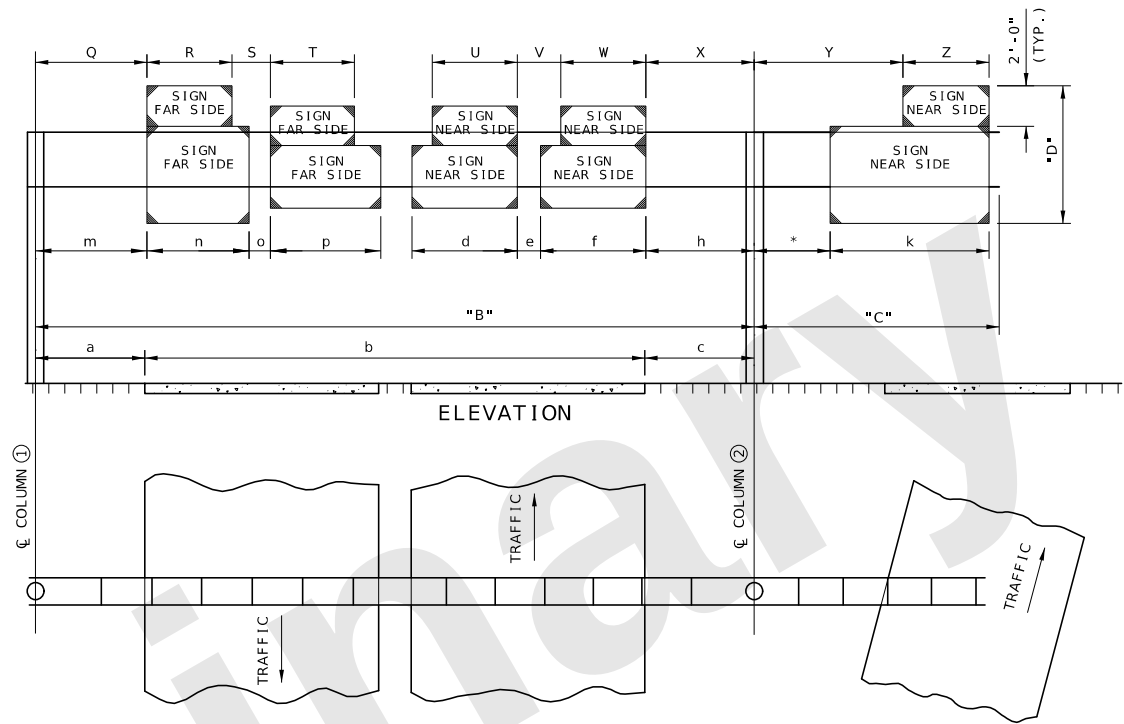
REVISIONS

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

REV.



PLAN
DIMENSIONS
TYPE 'B' SIGN BRIDGE



PLAN
DIMENSIONS
TYPE 'BC' SIGN BRIDGE

NOTE: ABOVE MINIMUMS ARE RECOMMENDED DIMENSIONS.

* MINIMUM = 6'-0" WHEN ALUMINUM IS USED.

SIGN BRIDGE DIMENSIONS

SIGN BRIDGE DIMENSIONS																																			
SIGN NO.	STATION NUMBER	TRUSS DESCRIPTION				ROADWAY DESCRIPTION			"D"	SIGN SPACING																COLUMN DATA				CONCRETE FOOTINGS (CU. YD.)					
		Type	"B"	"C"	CHORD		a	b		c	NEAR SIDE								FAR SIDE								COLUMN 1		COLUMN 2						
					ALUM.	STEEL					d	Ht.	e	f	Ht.	h	k	Ht.	l	m	n	Ht.	o	p	Ht.	H	TYPE	H	TYPE						
6	1081+73	B	64'-0"		4"ØX $\frac{1}{4}$ "	4"X4"X $\frac{3}{8}$ "	17'-0"	36'	11'	15'-6"														14'-6"	17'-0"	15'-6"	1'-6"	16'-0"	14'-6"	21'-1"	II	19'-5"	II	27.2	
15	1107+13	B	78'-9"		4"ØX $\frac{1}{4}$ "	4"X4"X $\frac{3}{8}$ "	31'-9"	36'	11'	15'-6"														29'-7"	17'-0"	15'-6"	0'-8"	17'-0"	10'-0"	21'-1"	II	19'-1"	II	27.2	
22	1134+00	B	78'-10"		4- $\frac{1}{2}$ "ØX $\frac{1}{4}$ "	5"X5"X $\frac{3}{8}$ "	31'-11"	36'	11'	17'-6"														21'-9"	17'-0"	17'-6"	0'-8"	17'-0"	10'-0"	23'-7"	III	20'-7"	III	31.3	
27	1149+83	B	78'-10"		4- $\frac{1}{2}$ "ØX $\frac{1}{4}$ "	5"X5"X $\frac{3}{8}$ "	11'	36'	31'-10"	14'-6"																								31.3	
41	1203+24	B	90'-10"		4- $\frac{1}{2}$ "ØX $\frac{1}{4}$ "	5"X5"X $\frac{3}{8}$ "	11'	36'	31'-10"	15'-6"	11'-0"	8'-0"	6'-0"	13'-0"	14'-6"	2'-6"	18'-0"	15'-6"	28'-10"																29.2

SIGN BRIDGE DIMENSIONS

SIGN BRIDGE DIMENSIONS																						
SIGN NO.	STATION NUMBER	TRUSS DESCRIPTION					ROADWAY DESCRIPTION			"D"	SIGN SPACING											
		Type	"B"	"C"	CHORD		a	b	c		NEAR SIDE						FAR SIDE					
					ALUM.	STEEL					U	V	W	X	Y	Z		Q	R	S	T	
6	1081+73	B	64'-0"	.	4"ØX $\frac{1}{4}$ "	4"X4"X $\frac{3}{8}$ "	17'-0"	36'	11'	15'-6"								14'-6"	8'-0"	10'-6"	8'-0"	
15	1107+13	B	78'-9"	.	4"ØX $\frac{1}{4}$ "	4"X4"X $\frac{3}{8}$ "	31'-9"	36'	11'	15'-6"								29'-7"	8'-0"	9'-8"		
22	1134+00	B	78'-10"	.	4- $\frac{1}{2}$ "ØX $\frac{1}{4}$ "	5"X5"X $\frac{3}{8}$ "	31'-11"	36'	11'	17'-6"								21'-9"	8'-0"	9'-8"		
27	1149+83	B	78'-10"	.	4- $\frac{1}{2}$ "ØX $\frac{1}{4}$ "	5"X5"X $\frac{3}{8}$ "	11'	36'	31'-10"	14'-6"				13'-6"	8'-0"	28'-10"						
41	1203+24	B	90'-10"	.	4- $\frac{1}{2}$ "ØX $\frac{1}{4}$ "	5"X5"X $\frac{3}{8}$ "	11'	36'	31'-10"	15'-6"		6'-0"	13'-0"	12'-6"	8'-0"	28'-10"						

OVERHEAD SIGN TRUSSES
STRUCTURAL STEEL OR ALUMINUM

DATA SHEET
(SEE STANDARD 903.10 OR 903.60)

GENERAL NOTES

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS - 1985 AND LATEST INTERIM.

BASIC ASSUMPTIONS: WIND VELOCITY = 70 mph, WIND PRESSURE ON SIGN AREA = 27 psf, ICE LOAD = 3 psf.

STRUCTURAL ALUMINUM STRESS = 10,000 psi.

STRUCTURAL CARBON STEEL (ASTM A709 GRADE 36) fs = 20,000 psi.

REINFORCING STEEL (GRADE 40) fs = 20,000 psi.

CLASS B CONCRETE fc = 1,200 psi.

ALLOWABLE SOIL PRESSURE = 2,750 psf.

ALLOWABLE UNIT STRESSES DUE TO WIND LOAD OR WIND LOAD IN COMBINATION WITH OTHER FORCES ARE INCREASED 40%.

MINIMUM CLEARANCE: VERTICAL ROADWAY CLEARANCE = 17'-6".

MINIMUM CLEARANCE TO REINFORCING SHALL BE 2", UNLESS OTHERWISE SHOWN.

TRUSS SHALL BE ALL WELDED CONSTRUCTION. ALL WELDING TO BE CONTINUOUS UNLESS OTHERWISE SHOWN.

QUALIFICATION OF WELDING OPERATORS WILL BE REQUIRED.

STRUCTURAL STEEL WELDING AND WELDER QUALIFICATION SHALL BE PERFORMED IN ACCORDANCE WITH THE A.W.S. D1.2 BRIDGE WELDING CODE AS AMENDED BY THE MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS ON STRUCTURAL STEEL CONSTRUCTION.

ALUMINUM WELDING AND WELDER QUALIFICATION SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF A.W.S. D1.2 STRUCTURAL WELDING CODE - ALUMINUM, EXCEPT AS AMENDED BY SECTION 903 OF THE MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ALL ALUMINUM FILLET WELDS SHALL BE 3/16" UNLESS OTHERWISE SHOWN.

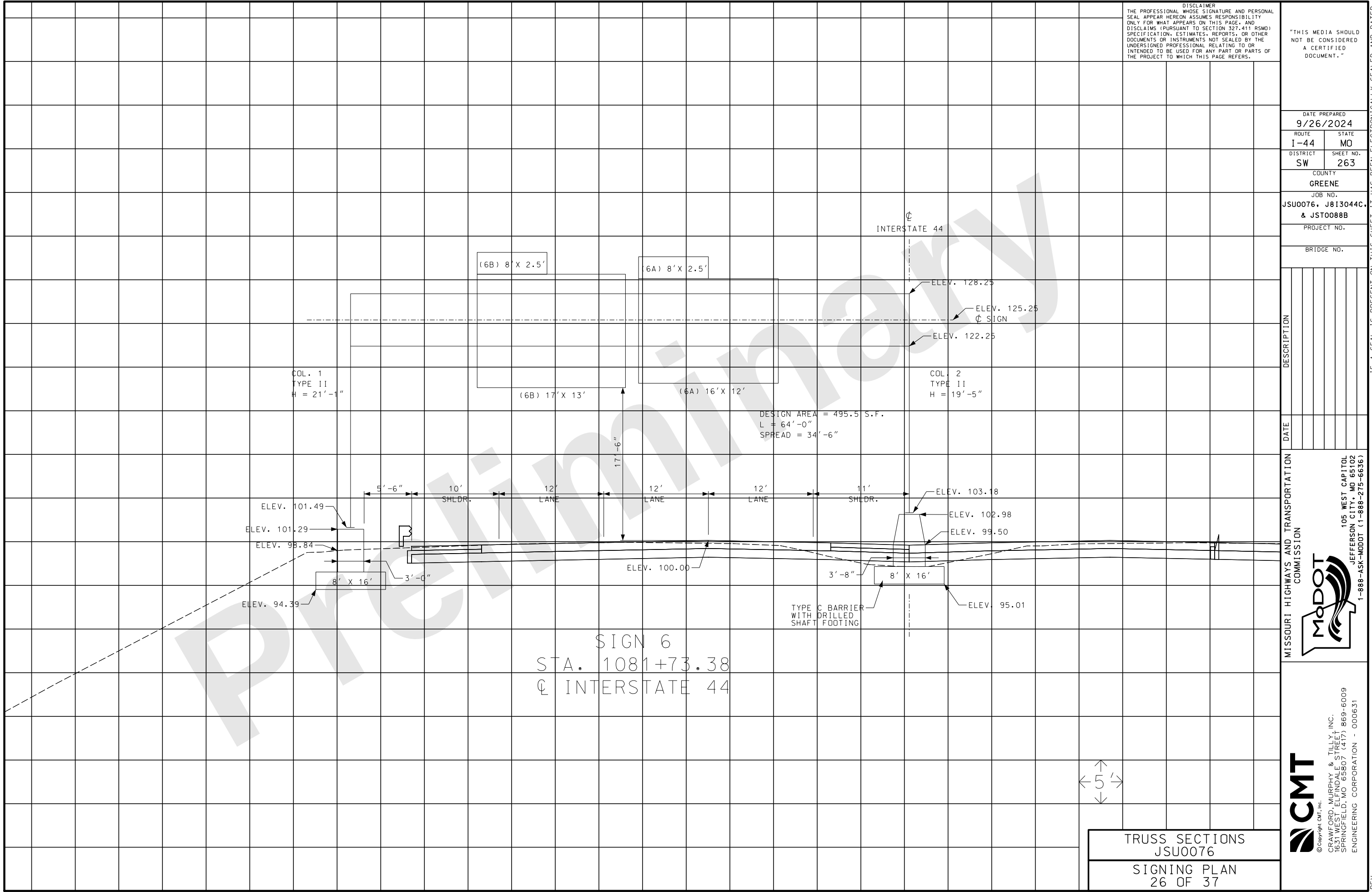
COATING: ALL COLUMNS SHALL BE GALVANIZED AS PER AASHTO M 111. ALL STRUCTURAL STEEL (EXCEPT THE COLUMNS) SHALL BE CLEANED AND COATED WITH SYSTEM G IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTIONS 712.12 AND 903.3.4. COLOR OF THE FINISHED COAT SHALL BE GRAY.

PAYMENT FOR GALVANIZING, CLEANING AND COATING SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER SIGN TRUSS. ALL THE STRUCTURAL STEEL MAY BE GALVANIZED IN LIEU OF COATING PORTIONS OF THE STEEL MAY BE GALVANIZED WITH THE APPROVAL OF THE ENGINEER.

PERMITS MUST BE OBTAINED FOR ALL TRUCK LOADS OVER LEGAL LENGTH.

D-33
JSU0076

SIGNING PLAN
24 OF 37



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ROUTE I-44 STATE MO

DISTRICT SW SHEET NO. 264

COUNTY

GREENE

JOB NO.

JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

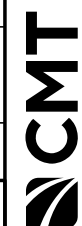
DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



105 WEST CAPITOL
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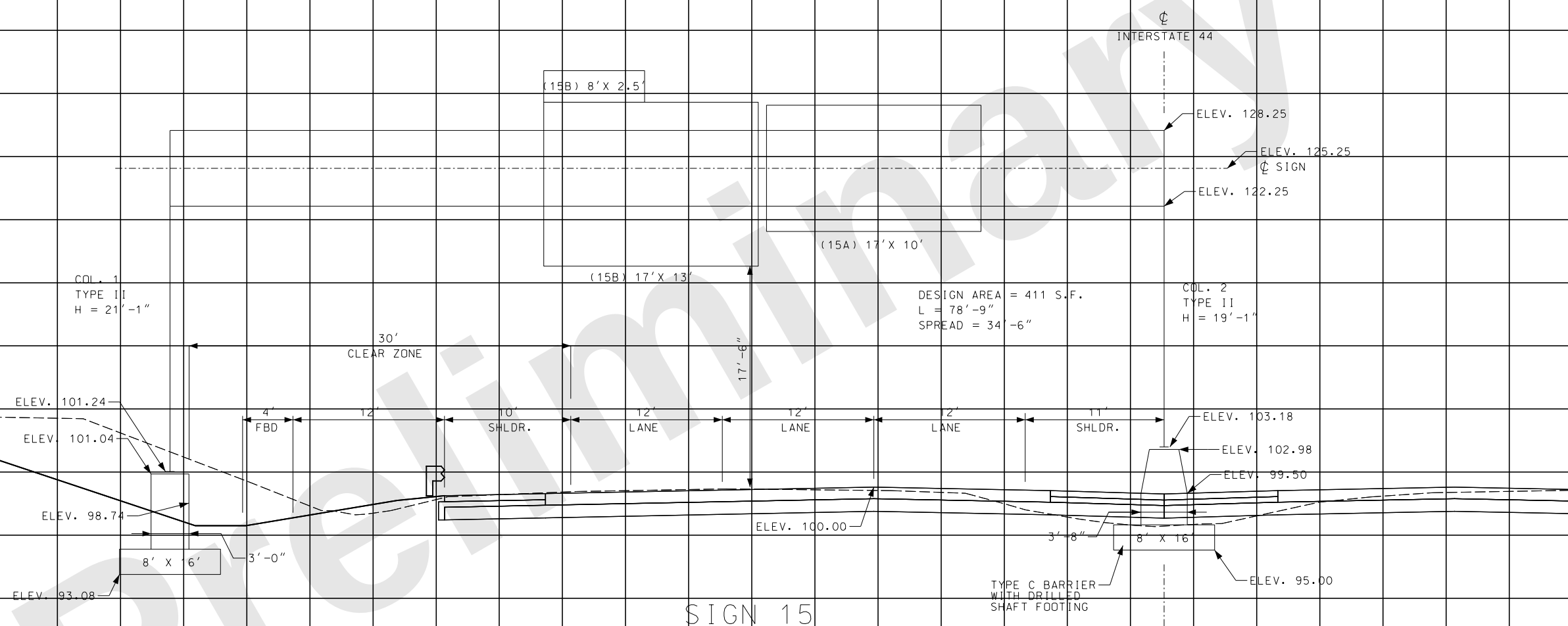
TRUSS SECTIONS
JSU0076

SIGNING PLAN
27 OF 37

SIGN 15
STA. 1107+12.93
Q INTERSTATE 44

NOTE

DESIGN OF SIGN TRUSS AND CONCRETE FOOTINGS
PREPARED TO ACCOMMODATE FUTURE AUXILIARY LANES



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DATE PREPARED
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ROUTE I-44 STATE MO

DISTRICT SW SHEET NO. 265

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

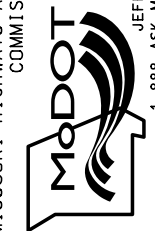
PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

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TRUSS SECTIONS
JSU0076

SIGNING PLAN
28 OF 37

(22B) 8' X 2.5'

(22A) 17' X 10'

INTERSTATE 44

ELEV. 129.71

ELEV. 126.71
SIGN

ELEV. 123.71

DESIGN AREA = 445 S.F.
L = 78'-10"
SPREAD = 34'-8"

COL. 2
TYPE II
H = 20'-7"

COL. 1
TYPE III
H = 23'-7"

30'
CLEAR ZONE

ELEV. 100.20

ELEV. 100.00

ELEV. 95.90

ELEV. 89.95

10'
SHLDR.

12'
LANE

12'
LANE

12'
LANE

11'
SHLDR.

ELEV. 103.21

ELEV. 103.01

ELEV. 99.50

ELEV. 100.00

3'-10"

8.5' X 16.5'

ELEV. 95.00

TYPE C BARRIER
WITH DRILLED
SHAFT FOOTING

SIGN 22
STA. 1134+00.00
INTERSTATE 44

NOTE

DESIGN OF SIGN TRUSS AND CONCRETE FOOTINGS
PREPARED TO ACCOMMODATE FUTURE AUXILIARY LANES

5'

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DATE PREPARED
9/26/2024

ROUTE I-44 STATE MO

DISTRICT SW SHEET NO. 266

COUNTY
GREENE

JOB NO.
JSU0076, J813044C,
& JST0088B

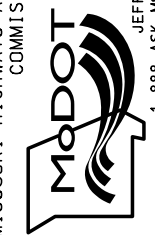
PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



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



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5'±

TRUSS SECTIONS
JSU0076

SIGNING PLAN
29 OF 37

INTERSTATE 44

COL. 1
TYPE III
H = 20'-7"

ELEV. 103.18
ELEV. 102.98
ELEV. 99.51

ELEV. 94.98
8.5' X 16.5'

TYPE C BARRIER
WITH DRILLED
SHAFT FOOTING

(27A) 11' X 8'

(27B) 8' X 2.5'

(27B) 18' X 12'

DESIGN AREA = 324 S.F.
L = 78'-10"
SPREAD = 32'-6"

ELEV. 129.75

ELEV. 126.75
SIGN

ELEV. 123.75

COL. 2
TYPE III
H = 21'-0"

ELEV. 102.79

ELEV. 102.59

ELEV. 99.71

3'-2"

8.5' X 16.5'

ELEV. 92.77

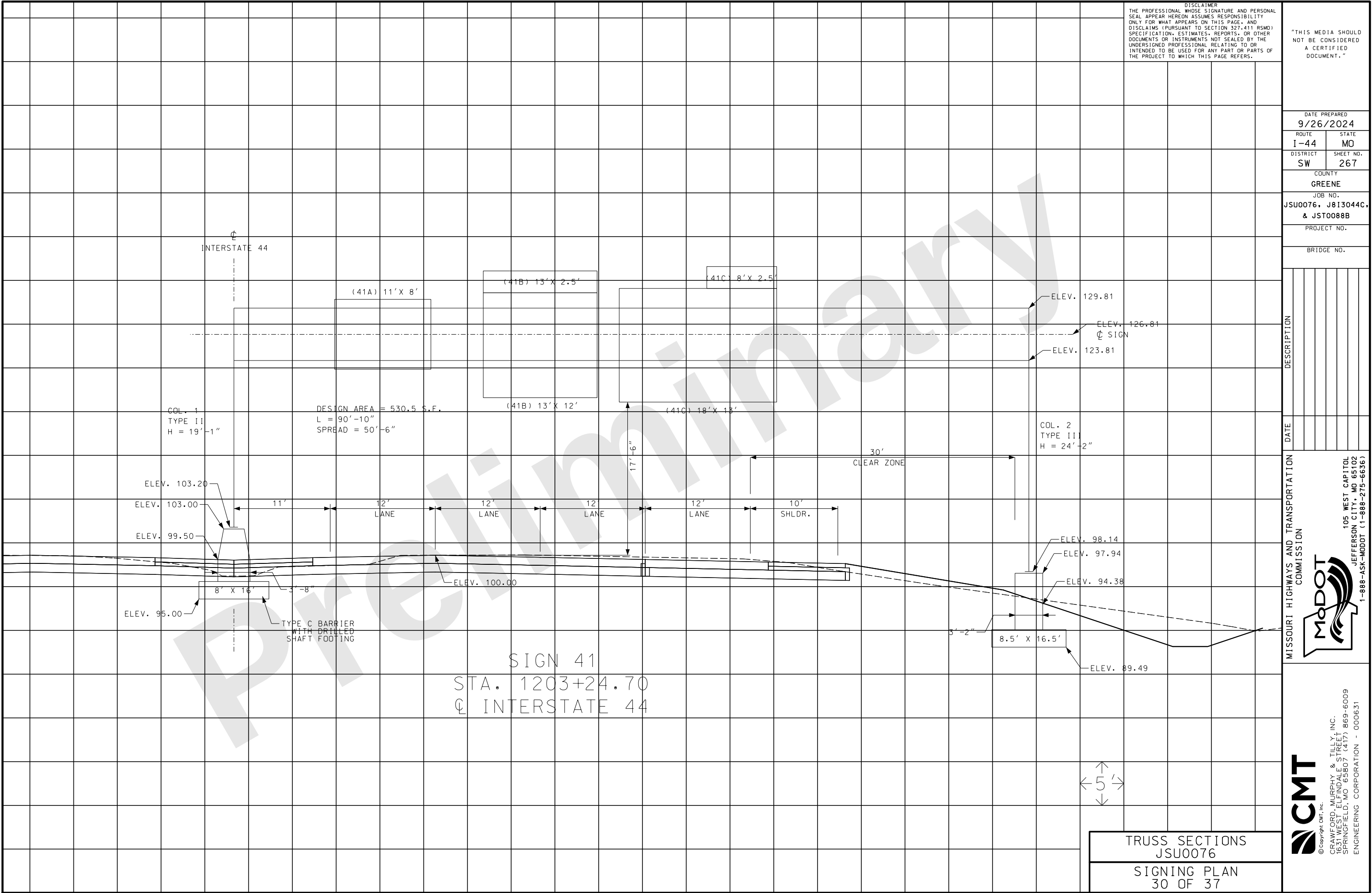
SIGN 27

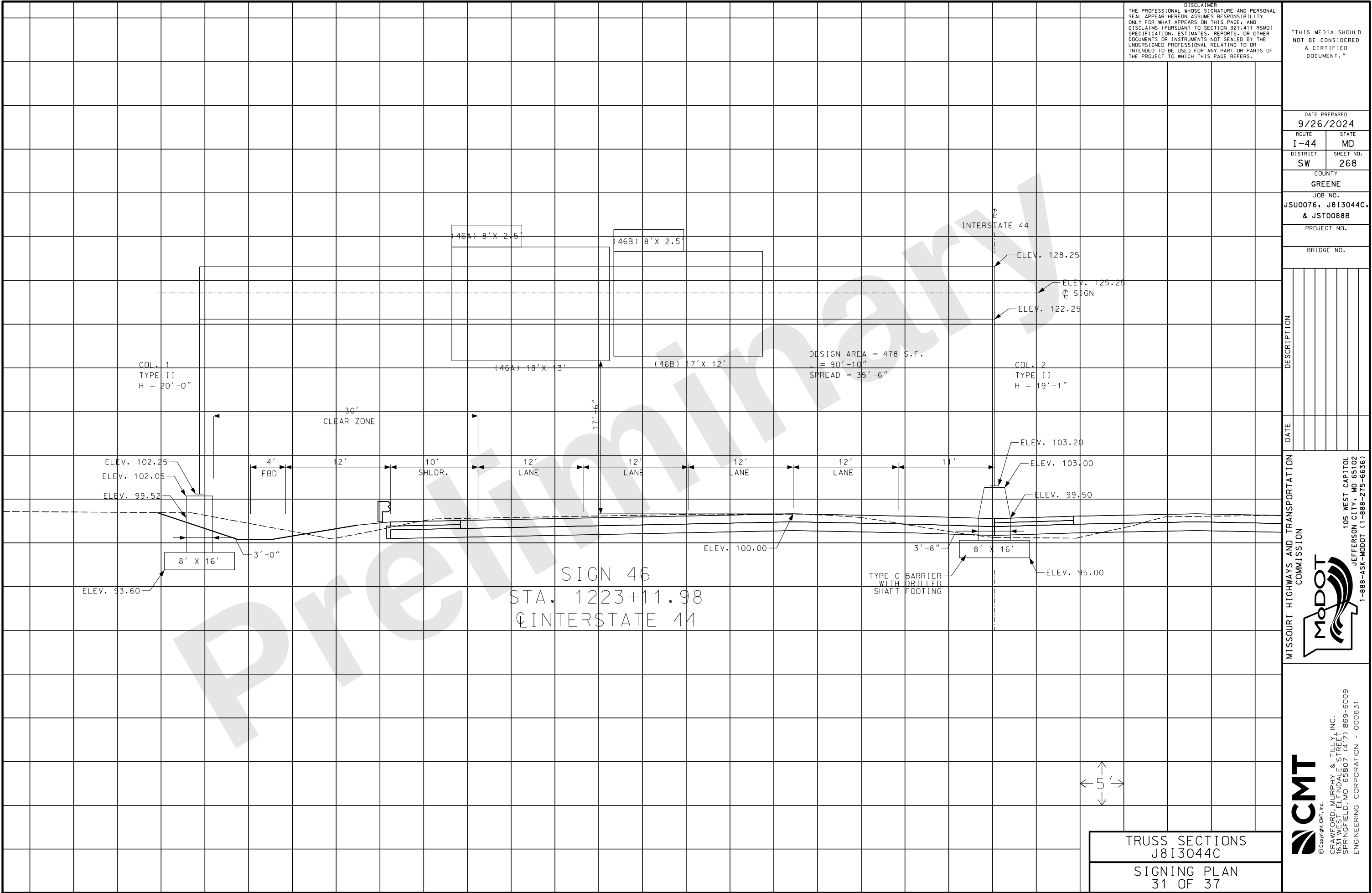
STA. 1149+83.08

INTERSTATE 44

NOTE

DESIGN OF SIGN TRUSS AND CONCRETE FOOTINGS
PREPARED TO ACCOMMODATE FUTURE AUXILIARY LANES





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I-44	MO
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SW	269
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GREENE

JOB NO.
JSU0076, J8130440

& JST0088B

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1. *Journal of the American Medical Association*, 2000; 284: 1039-1044.

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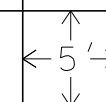
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1. *Journal of the American Medical Association*, 1997; 278: 1039-1044.

4:18 AM 9/26/202

REV.



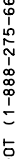
DESIGN OF SIGN TRUSS AND CONCRETE FOOTINGS
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SIGNING PLAN
32 OF 37

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I-44	MO
DISTRICT	SHEET NO.
SW	270
COUNTY	
GREENE	
JOB NO.	
JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

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COMMISSION

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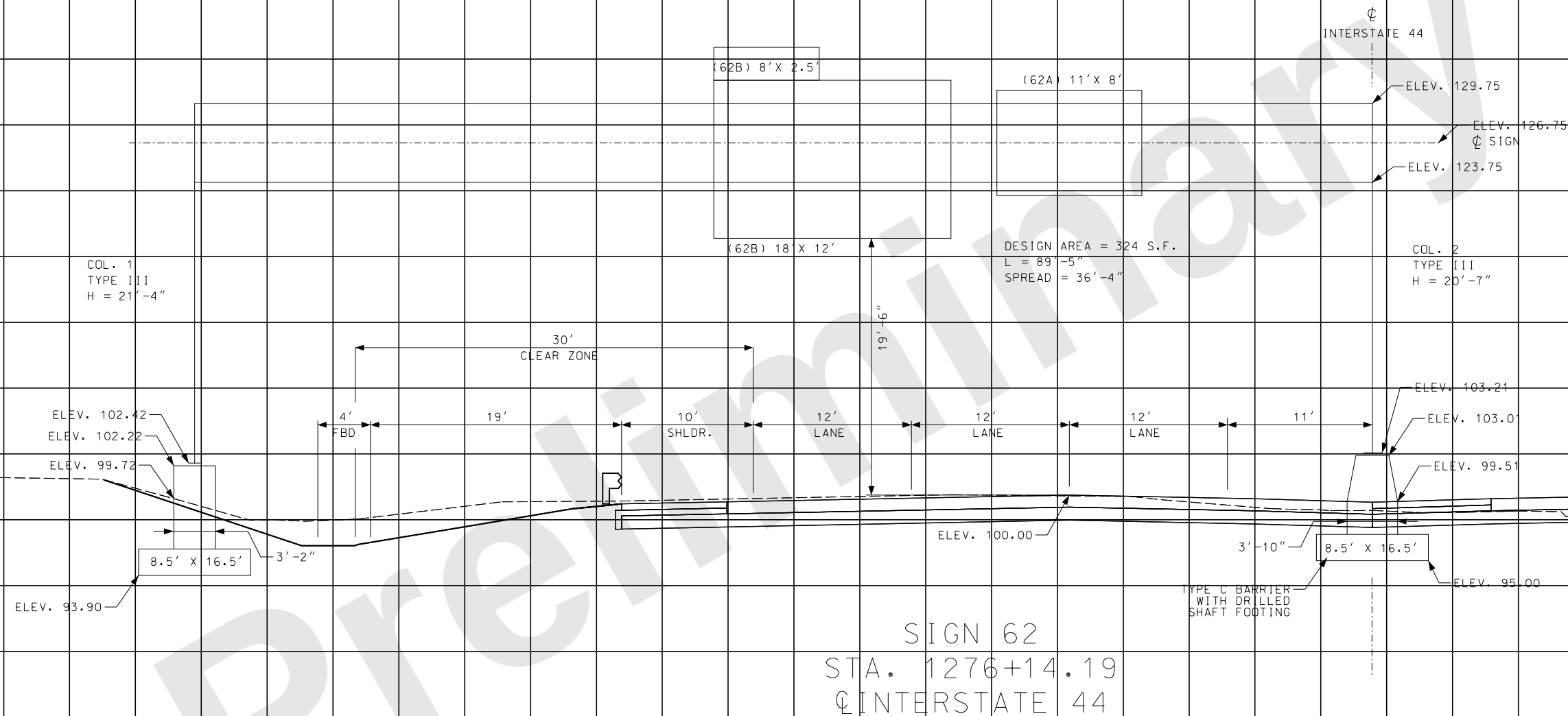
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TRUSS SECTIONS
J8I3044C

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33 OF 37

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9/26/2024

I-44	MO
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SW	271
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GREENE

JSU0076, J8I30440

PROJECT NO.

1. *Journal of the American Medical Association*, 2000; 284: 2689-2695.

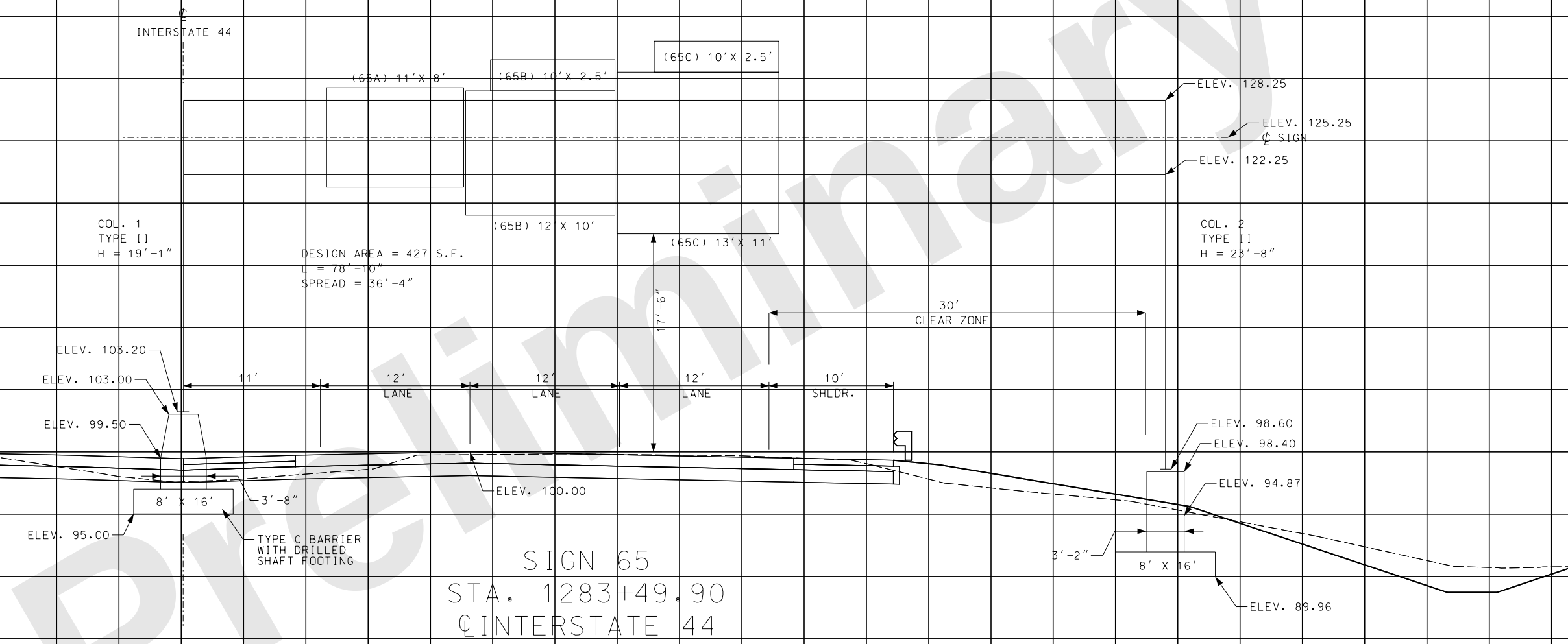
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DATE _____

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NOTE

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TRUSS SECTIONS
J8I3044C

SIGNING PLAN
34 OF 37

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ROUTE I-44 STATE MO

DISTRICT SW SHEET NO. 272

COUNTY GREENE

JOB NO. JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

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REV.

INTERSTATE 44

(77A) 11' X 8'

(77B) 10' X 2.5'

(77C) 10' X 2.5'

COL. 1
TYPE I
H = 18'-1"

DESIGN AREA = 401 S.F.
L = 78'-10"
SPREAD = 36'-4"

(77B) 12' X 10'

(77C) 13' X 11'

ELEV. 127.25

ELEV. 124.25

ELEV. 121.25

COL. 2
TYPE I
H = 17'-3"

30' CLEAR ZONE

ELEV. 103.20

ELEV. 103.00

ELEV. 99.50

ELEV. 95.00

11'

12' LANE

12' LANE

12' LANE

10' SHLD.

ELEV. 100.00

8' X 16'

3'-8"

TYPE C BARRIER
WITH DRILLED
SHAFT FOOTING

SIGN 77

STA. 1309+82.81

INTERSTATE 44

ELEV. 103.99

ELEV. 103.79

ELEV. 101.29

2'-11"

7' X 14'-6"

ELEV. 95.22

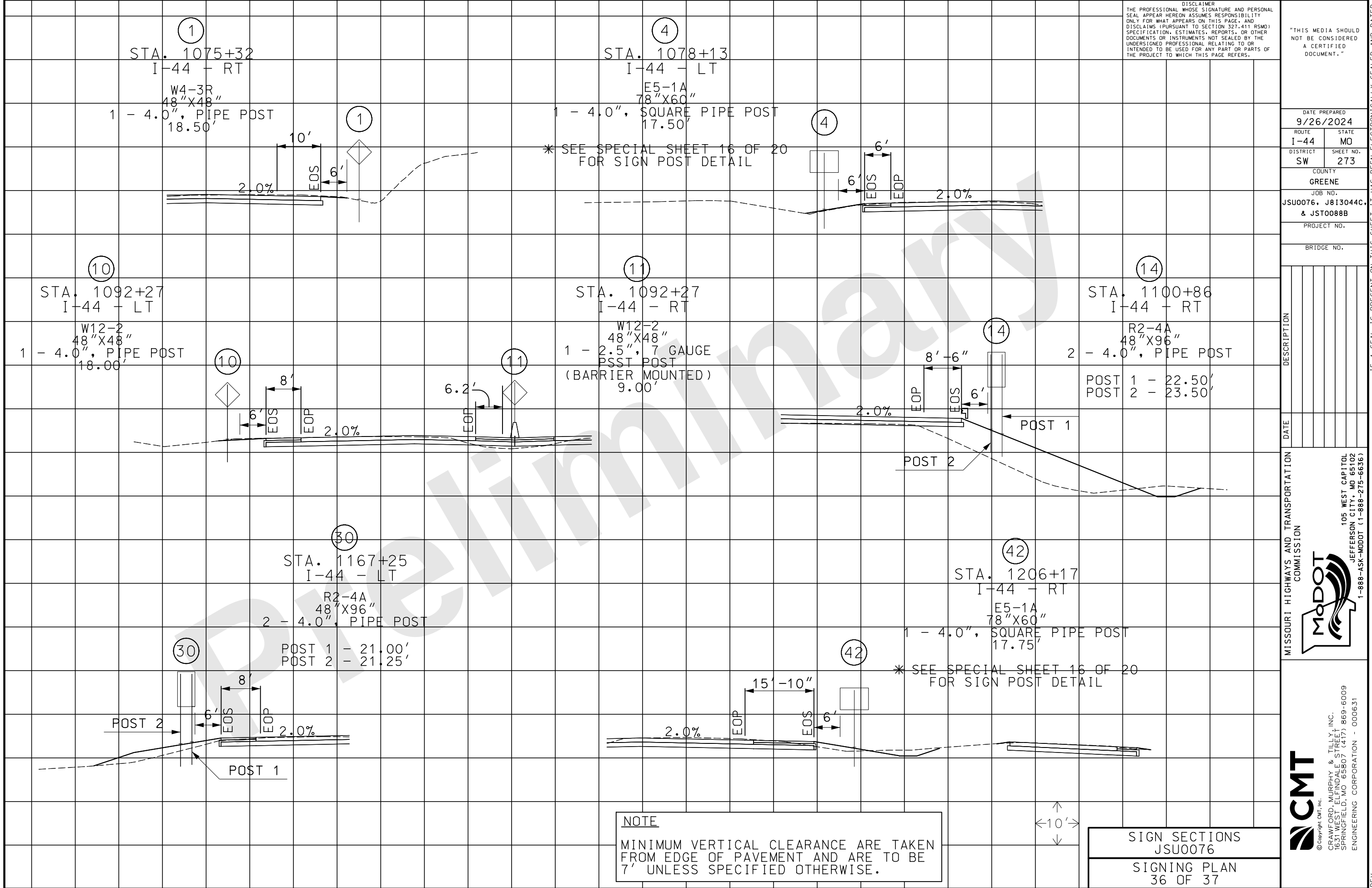
NOTE

DESIGN OF SIGN TRUSS AND CONCRETE FOOTINGS
PREPARED TO ACCOMMODATE FUTURE AUXILIARY LANES

5'

TRUSS SECTIONS
J813044C

SIGNING PLAN
35 OF 37



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ROUTE
I-44

DISTRICT
SW

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GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

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DESCRIPTION

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NOTE

MINIMUM VERTICAL CLEARANCE ARE TAKEN FROM EDGE OF PAVEMENT AND ARE TO BE 7' UNLESS SPECIFIED OTHERWISE.

↑
←10'→
↓

SIGN SECTIONS
JSU0076

SIGNING PLAN
36 OF 37

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SHEET NO.
274

COUNTY

GREENE

JOB NO.

JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

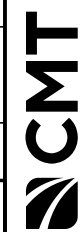
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(45)

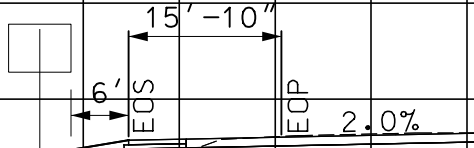
STA. 1220+59.00
I-44 - LT

E5-1A
78"X60"
17.50'

1 - 4.0", SQUARE PIPE POST

* SEE SPECIAL SHEET 16 OF 20
FOR SIGN POST DETAIL

(45)



(58)

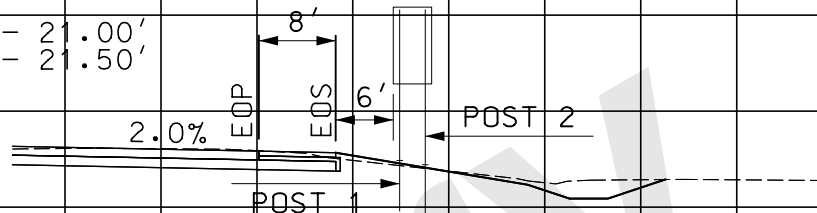
STA. 1244+00.00
I-44 - RT

R2-4A
48"X96"

2 - 4.0", PIPE POST

POST 1 - 21.00'
POST 2 - 21.50'

(58)



(72)

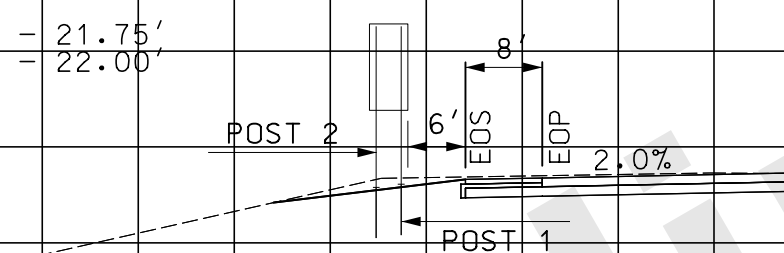
STA. 1289+00.00
I-44 - LT

R2-4A
48"X96"

2 - 4.0", PIPE POST

POST 1 - 21.75'
POST 2 - 22.00'

(72)



(73)

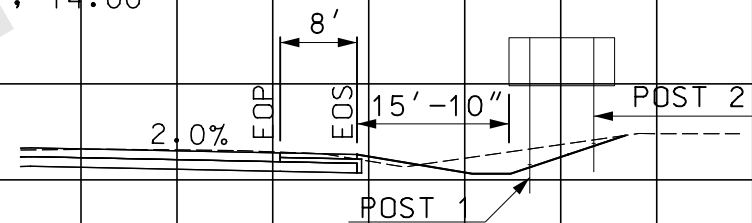
STA. 1290+84.00
I-44 - RT

E4-3
132"X60"

2 - NO. 1, STRUCTURAL POST

POST 1 - WF1, 16.25'
POST 2 - WF1, 14.00'

(73)



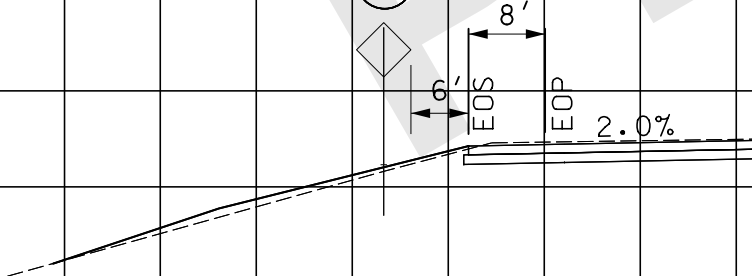
(70)

STA. 1295+67.00
I-44 - LT

W4-2R
48"X48"

1 - 4.0", PIPE POST
19.75'

(70)



(73)

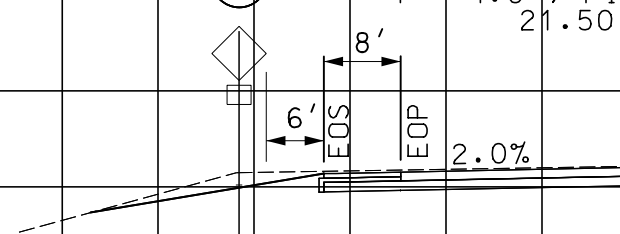
STA. 1299+71.00
I-44 - LT

(a) W9-2L
48"X48"

(b) W16-2P
30"X24"

1 - 4.0", PIPE POST
21.50'

(73)



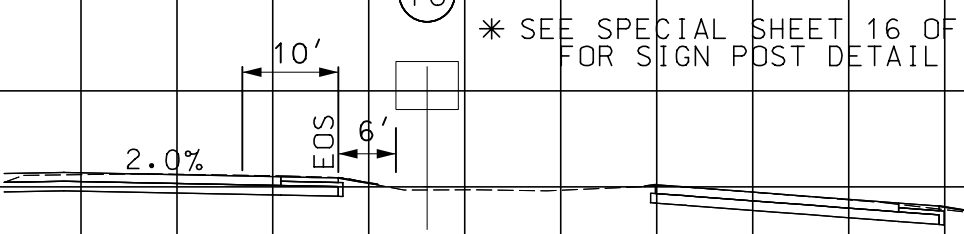
(78)

STA. 1313+45.00
I-44 - LT

E4-3
108"X60"

1 - 4.0", SQUARE PIPE POST
17.25'

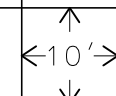
(78)



* SEE SPECIAL SHEET 16 OF 20
FOR SIGN POST DETAIL

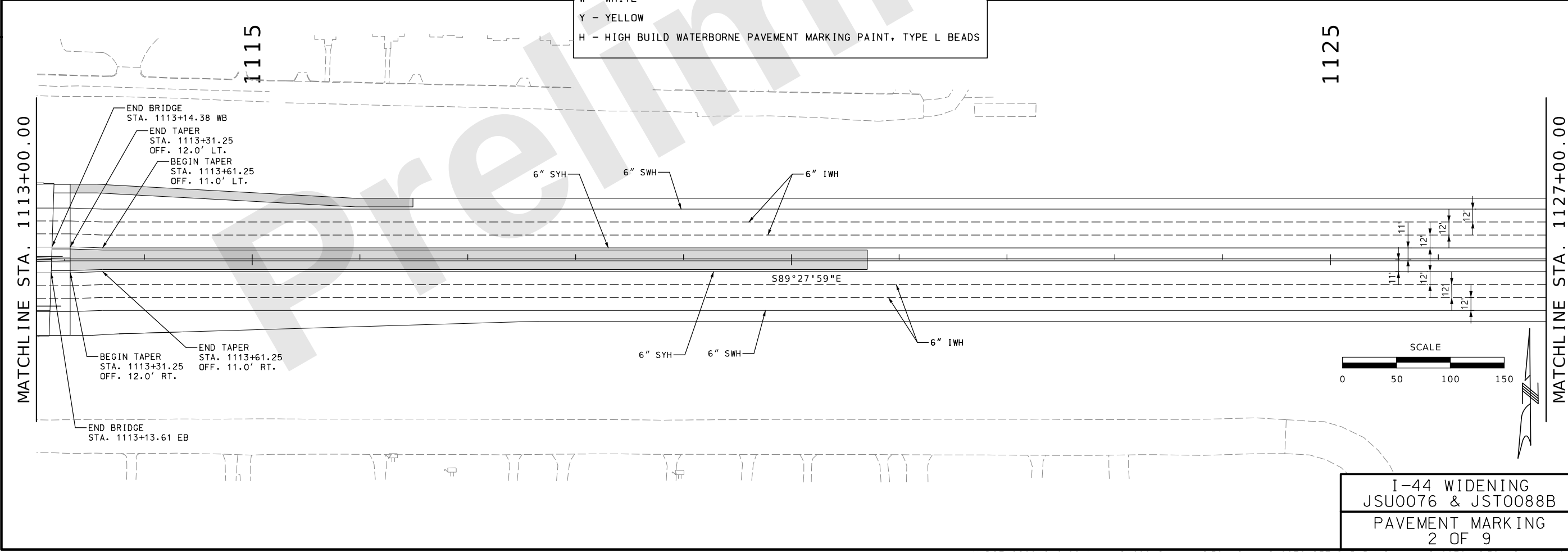
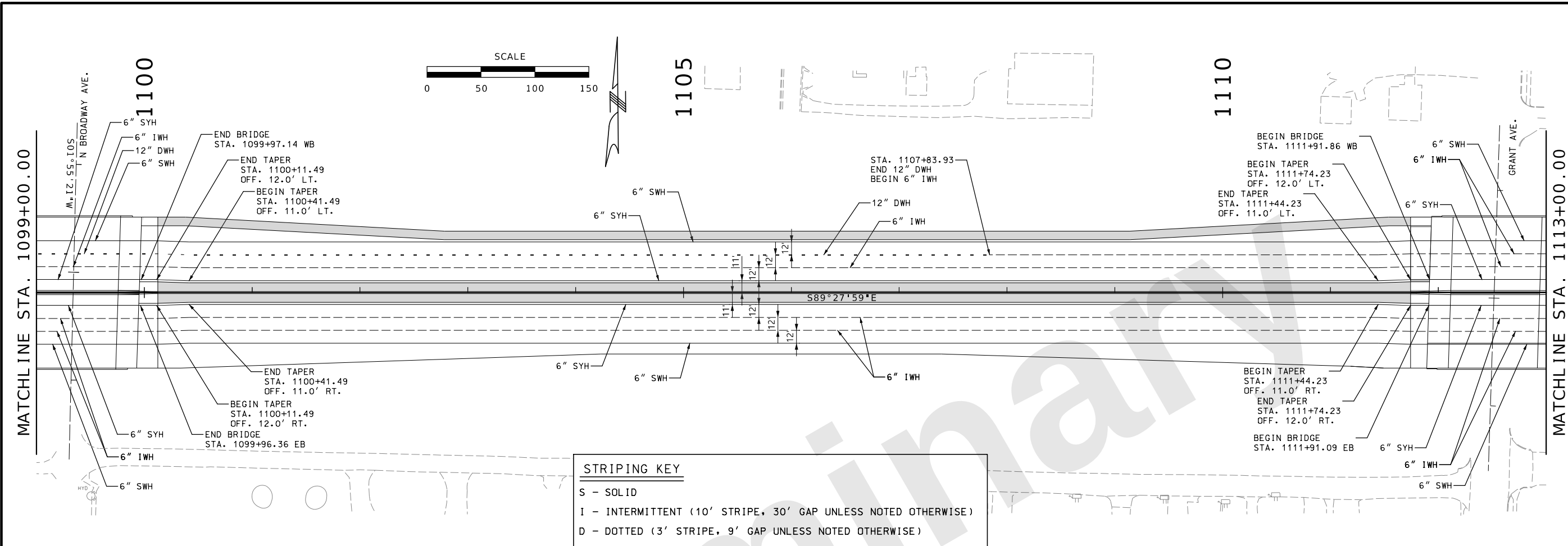
NOTE

MINIMUM VERTICAL CLEARANCE ARE TAKEN
FROM EDGE OF PAVEMENT AND ARE TO BE
7' UNLESS SPECIFIED OTHERWISE.



SIGN SECTIONS
J813044C

SIGNING PLAN
37 OF 37



STRIPING KEY	
S	SOLID
I	INTERMITTENT (10' STRIPE, 30' GAP UNLESS NOTED OTHERWISE)
D	DOTTED (3' STRIPE, 9' GAP UNLESS NOTED OTHERWISE)
W	WHITE
Y	YELLOW
H	HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS

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DISTRICT SW	SHEET NO. 276

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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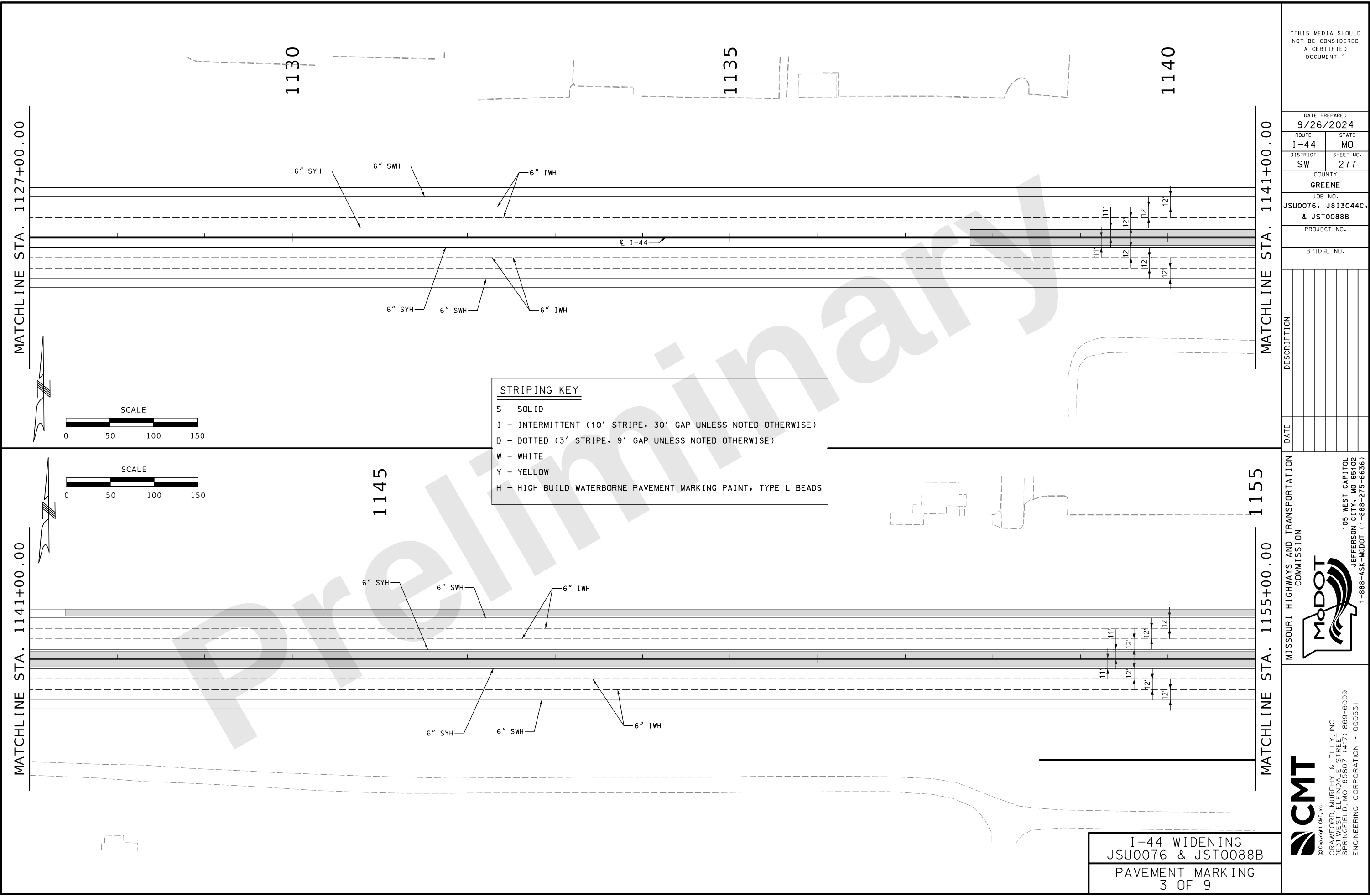
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I-44 WIDENING
JSU0076 & JST0088B
PAVEMENT MARKING
2 OF 9



MATCHLINE STA. 1127+00.00

MATCHLINE STA. 1141+00.00

MATCHLINE STA. 1141+00.00

MATCHLINE STA. 1155+00.00

STRIPING KEY

S - SOLID

I - INTERMITTENT (10' STRIPE, 30' GAP UNLESS NOTED OTHERWISE)

D - DOTTED (3' STRIPE, 9' GAP UNLESS NOTED OTHERWISE)

W - WHITE

Y - YELLOW

H - HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS

I-44 WIDENING

JSU0076 & JST0088B

PAVEMENT MARKING

3 OF 9

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ROUTE
I-44

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MO

DISTRICT
SW

SHEET NO.
277

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

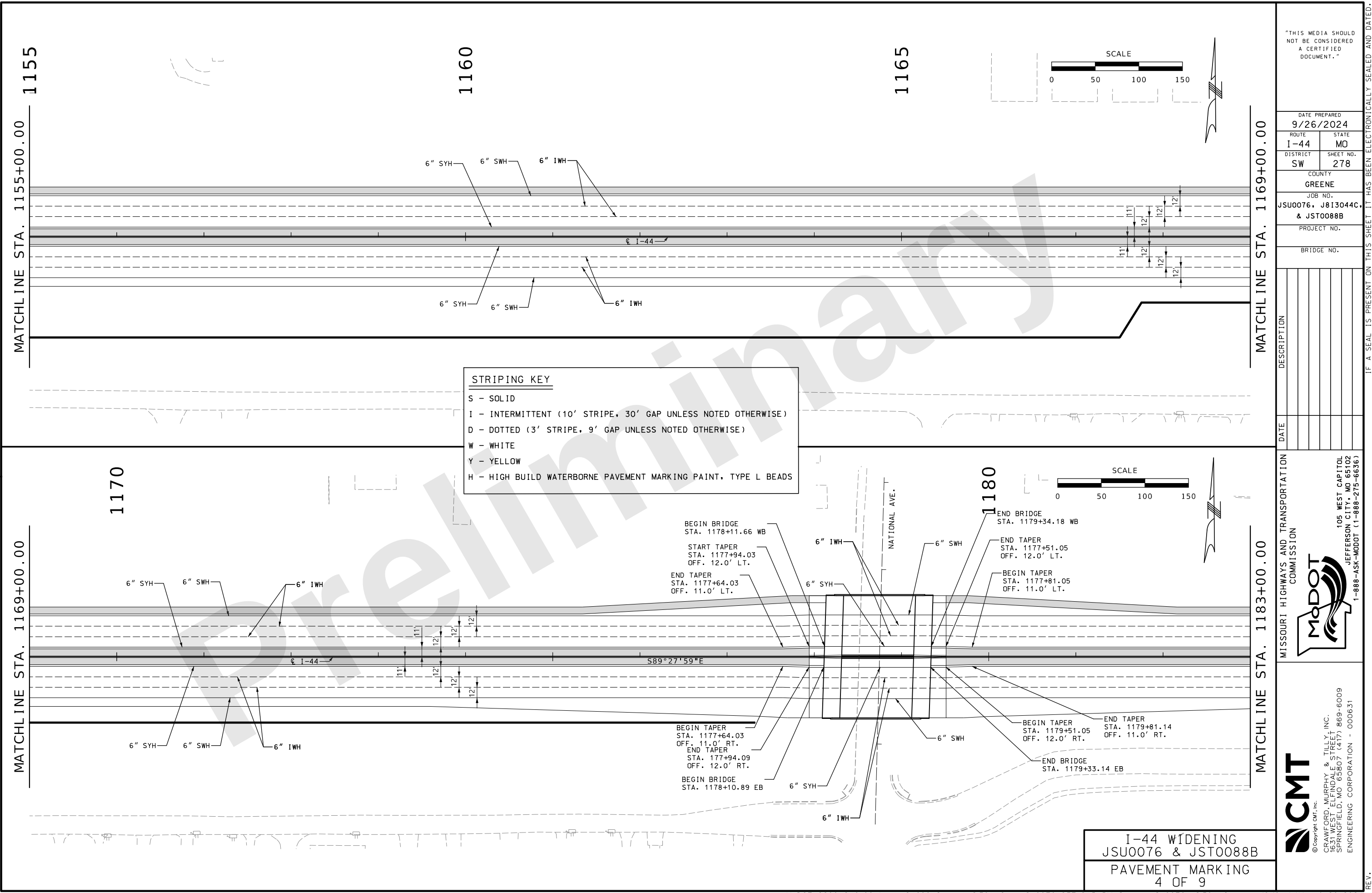
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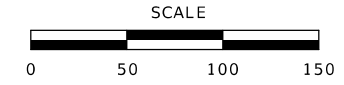
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MATCHLINE STA. 1155+00.00 1155

1160

1165



MATCHLINE STA. 1169+00.00

STRIPING KEY

S - SOLID
I - INTERMITTENT (10' STRIPE, 30' GAP UNLESS NOTED OTHERWISE)
D - DOTTED (3' STRIPE, 9' GAP UNLESS NOTED OTHERWISE)
W - WHITE
Y - YELLOW
H - HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS

MATCHLINE STA. 1169+00.00

1170

1180



MATCHLINE STA. 1183+00.00

I-44 WIDENING
JSU0076 & JST0088B
PAVEMENT MARKING
4 OF 9

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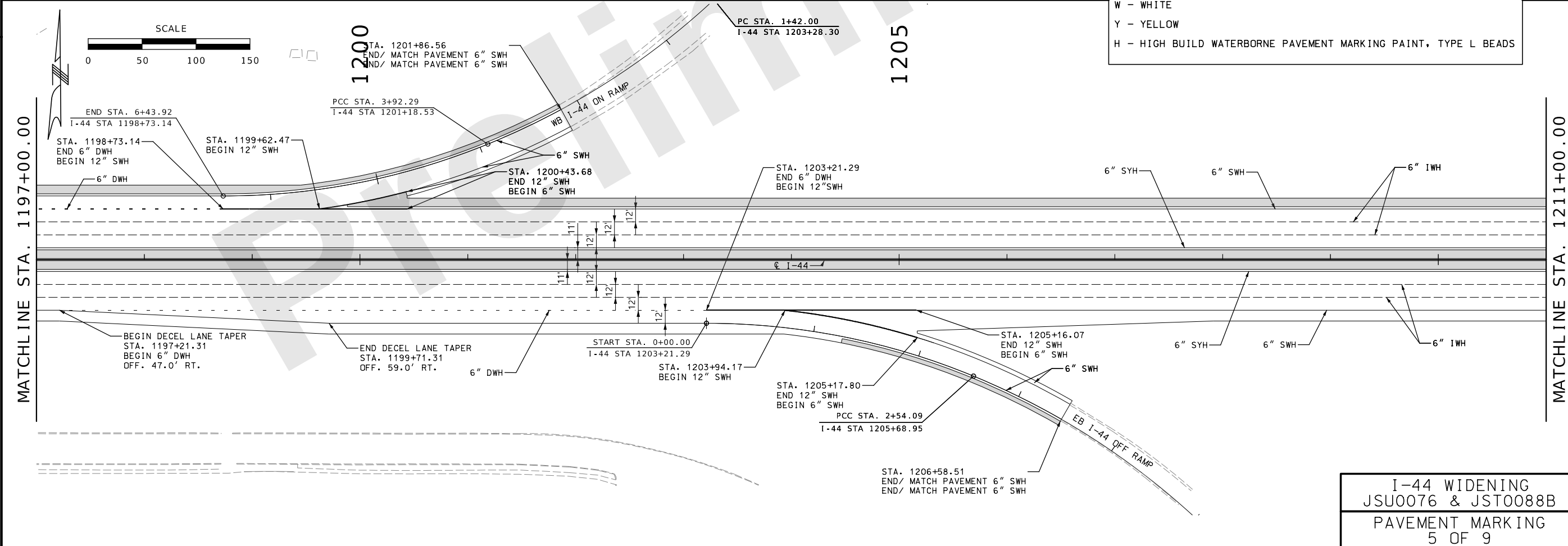
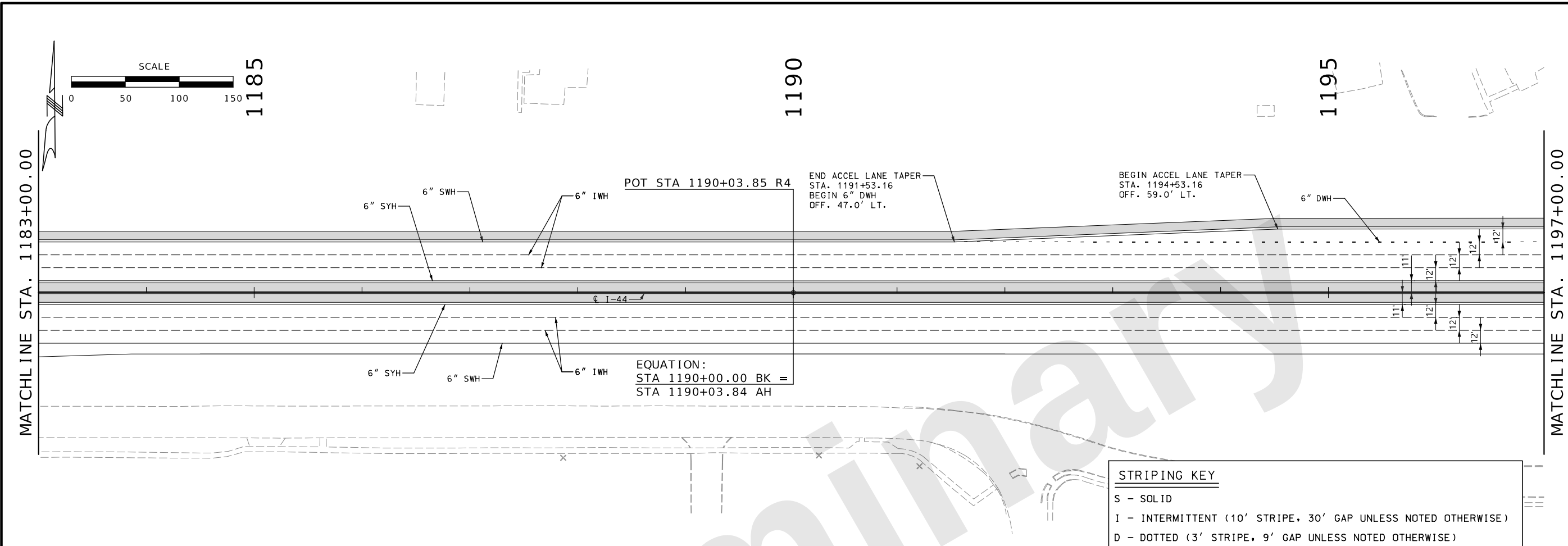
DATE PREPARED 9/26/2024	
ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 278
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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STRIPING KEY	
S	- SOLID
I	- INTERMITTENT (10' STRIPE, 30' GAP UNLESS NOTED OTHERWISE)
D	- DOTTED (3' STRIPE, 9' GAP UNLESS NOTED OTHERWISE)
W	- WHITE
Y	- YELLOW
H	- HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS

I-44 WIDENING
JSU0076 & JST0088B
PAVEMENT MARKING
5 OF 9

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DATE PREPARED
9/26/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 279

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

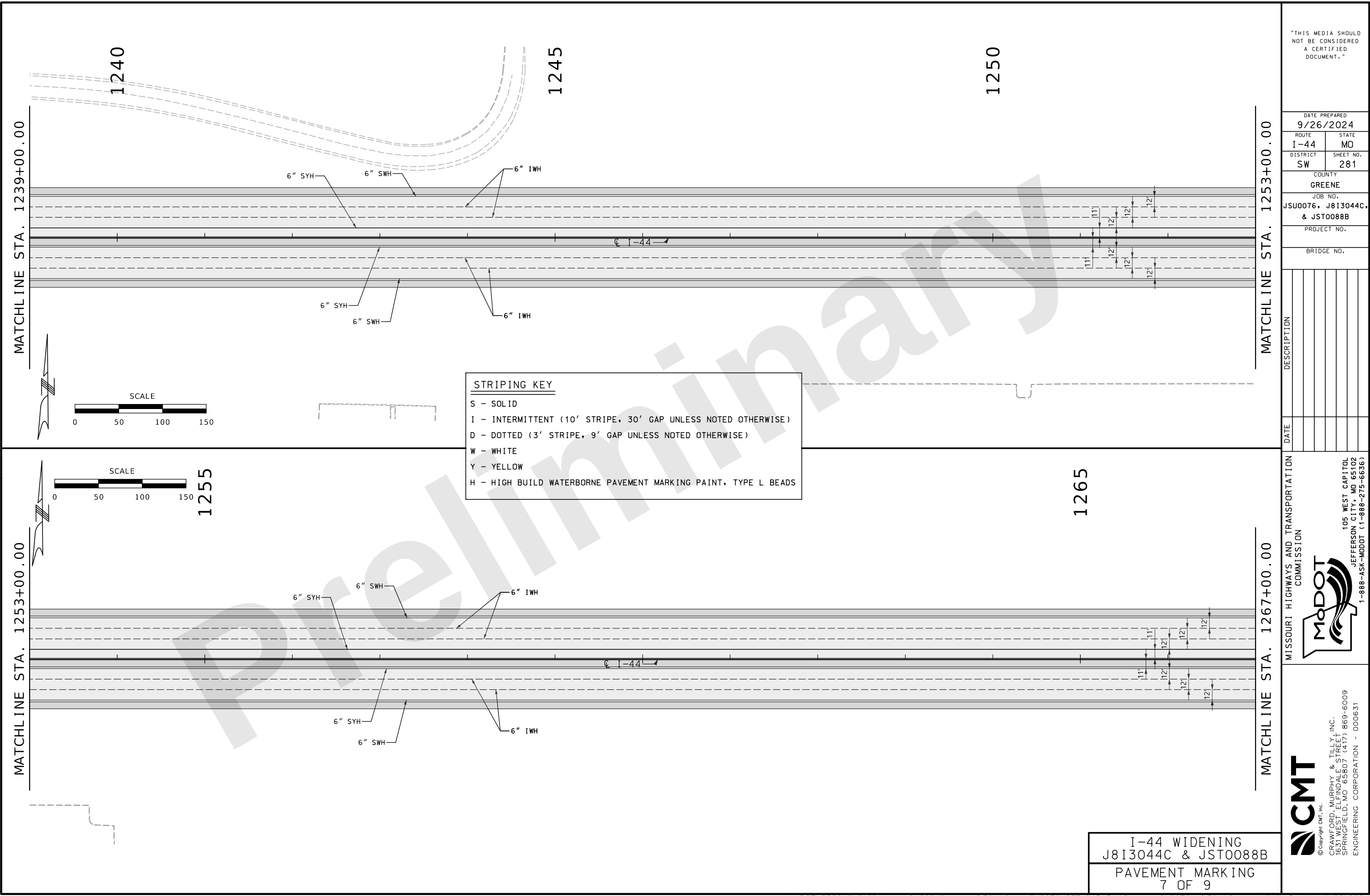
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MATCHLINE STA. 1239+00.00

MATCHLINE STA. 1253+00.00

MATCHLINE STA. 1253+00.00

MATCHLINE STA. 1267+00.00

STRIPING KEY

S - SOLID

I - INTERMITTENT (10' STRIPE, 30' GAP UNLESS NOTED OTHERWISE)

D - DOTTED (3' STRIPE, 9' GAP UNLESS NOTED OTHERWISE)

W - WHITE

Y - YELLOW

H - HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS

I-44 WIDENING

J8I3044C & JST0088B

PAVEMENT MARKING

7 OF 9

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ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
281

COUNTY
GREENE

JOB NO.
JSU0076, J8I3044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

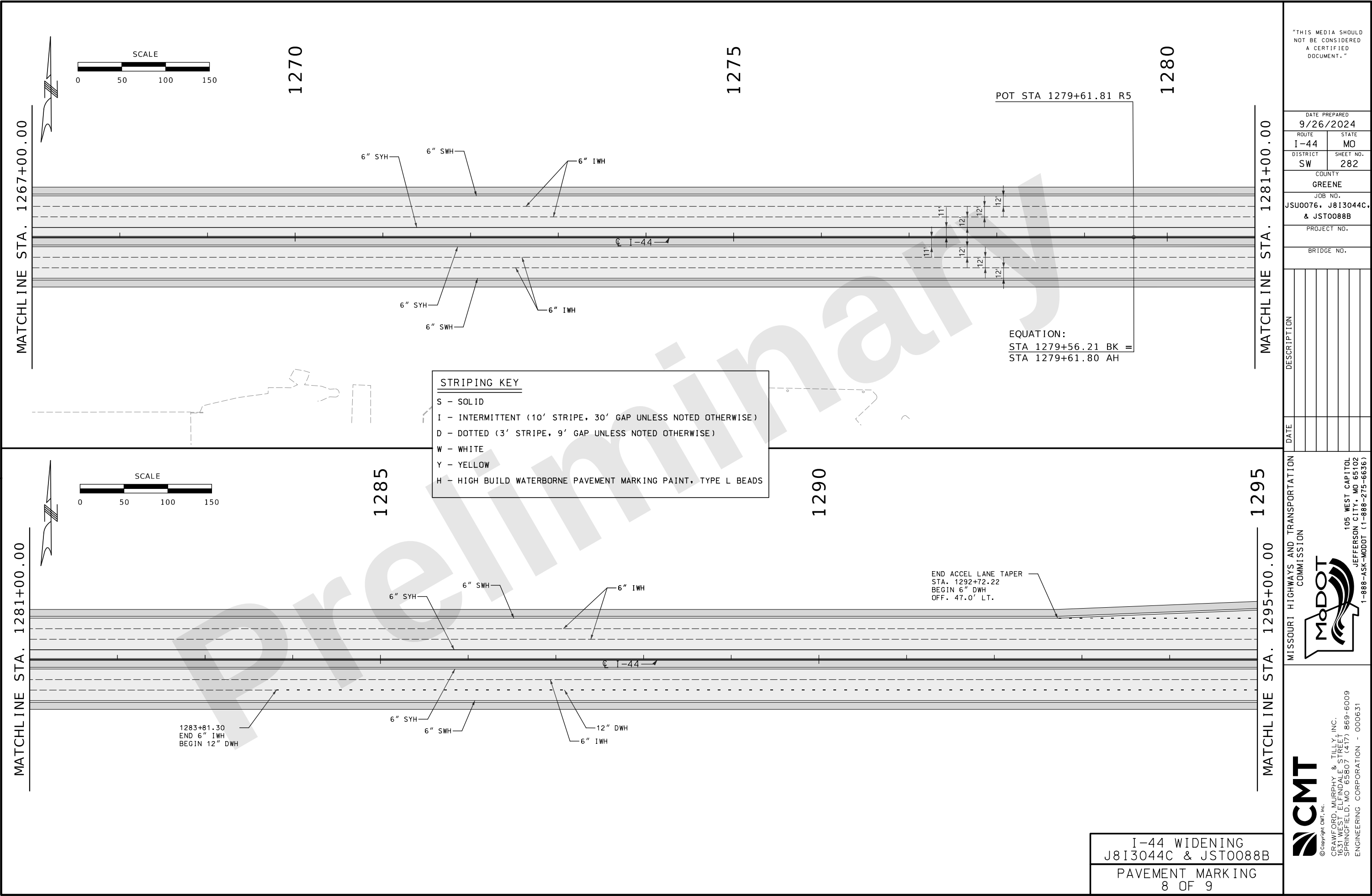
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I-44 WIDENING
J8I3044C & JST0088B
PAVEMENT MARKING
8 OF 9

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PROJECT NO.

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EGL = EXISTING GROUND LINE
PGL = PROPOSED GROUND LINE

 LIMITS OF CLASS 3
CULVERT EXCAVATION

* MATCHLINE

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1. PROPOSED STATION, OFFSET AND RIM ELEVATION IS CALLED OUT AT THE CENTER OF STRUCTURES AND AT THE FLOW LINE OF FLARED END SECTIONS.
2. THE SEWER CONTRACTOR IS TO VERIFY ALL EXISTING PIPE SIZES AND INVERTS PRIOR TO CONSTRUCTION. DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER IN THE FIELD.
3. GRANULAR BACKFILL WILL BE PROVIDED PER MODOT STANDARD SPECIFICATIONS. THE COST OF GRANULAR BACKFILL WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR PIPES.
4. 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.
5. THE SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE FIELD VERIFICATION OF THE SEWER GRADE, OR REMOVAL AND REPLACEMENT OF THE SEWER PIPE OR ASSOCIATED APPURTENANCES.
6. CONTRACTOR SHALL EXPOSE ALL UTILITIES PRIOR TO STORM SEWER PIPE INSTALLATION AND VERIFY TOP ELEVATION OF UTILITIES.
7. CONNECTOR TO EXISTING BOX CULVERT WILL BE CONSIDERED INCIDENTAL TO PIPE. NO SEPARATE PAYMENT WILL BE MADE.

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U0076, J8I3044C,
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PROJECT NO.

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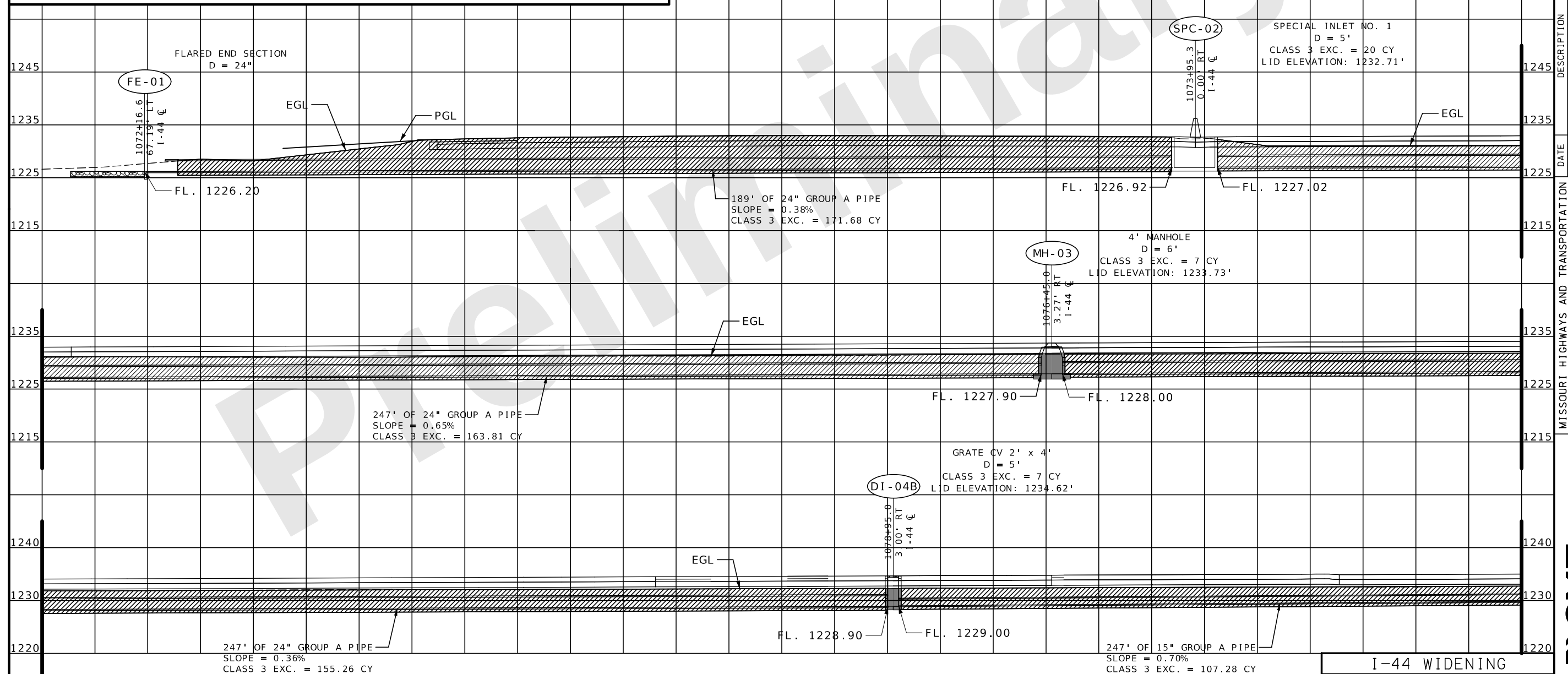
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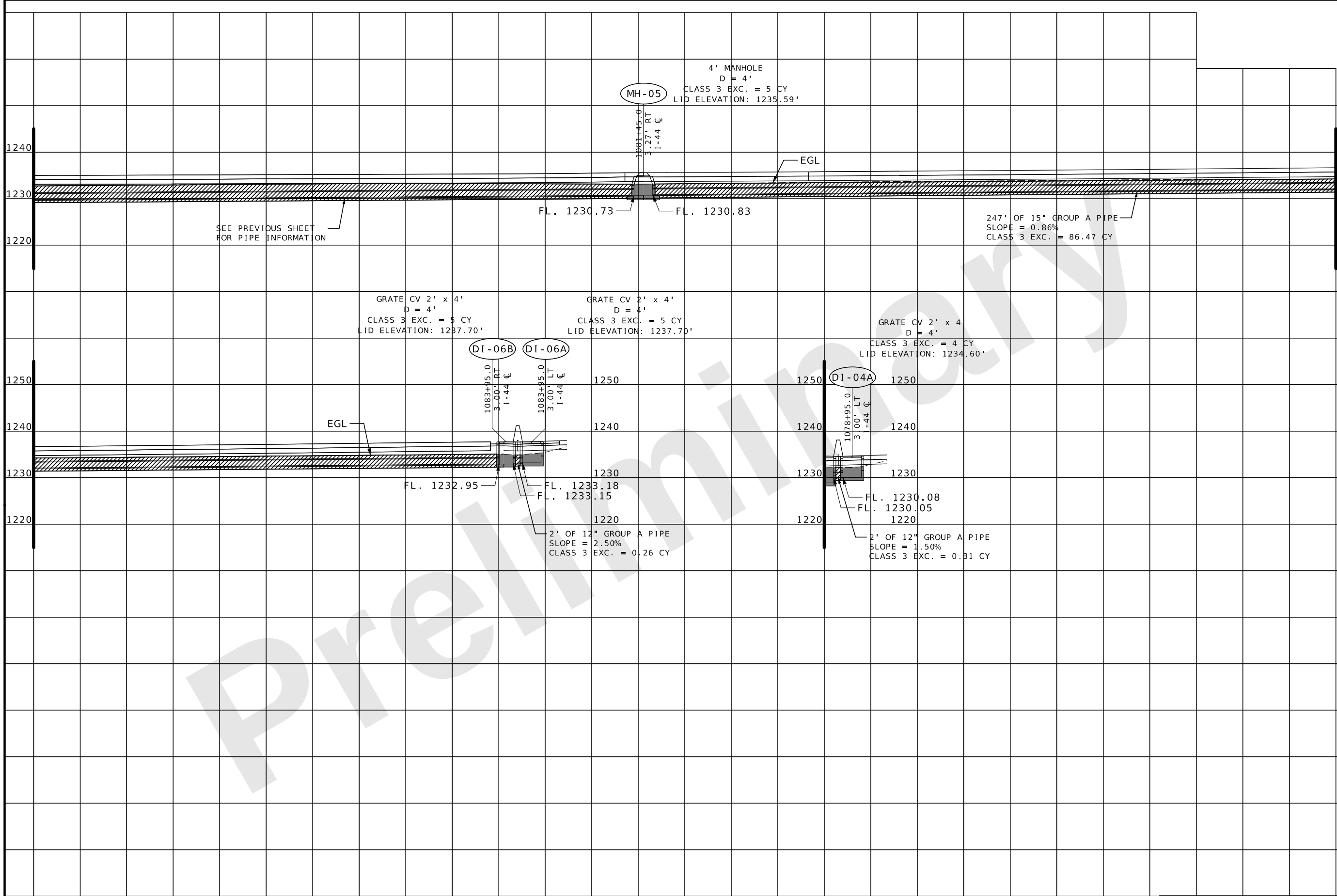
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2



RUN 1

I-44 WIDENING
CULVERT SECTIONS
1 OF 34



RUN 1

I-44 WIDENING
CULVERT SECTIONS
2 OF 34

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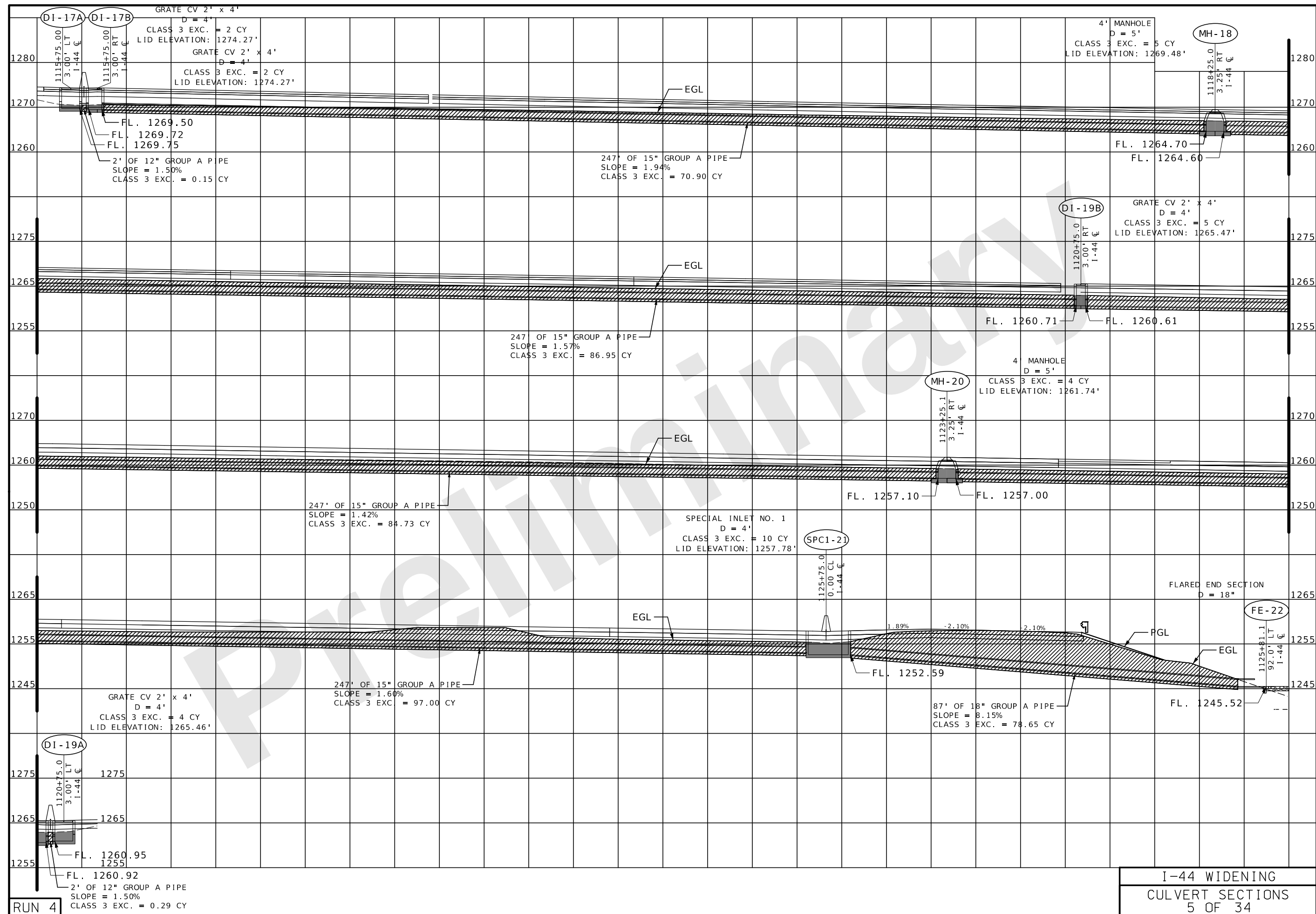


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REPORT

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Logo of the American Society of Human Genetics (ASHG). The logo features a stylized 'A' and 'H' intertwined, with the text 'AMERICAN SOCIETY OF HUMAN GENETICS' and 'ASHG' below it.



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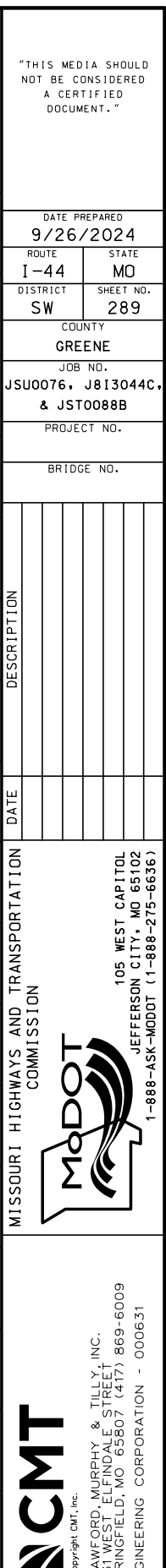
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1. *Journal of the American Medical Association*, 1997; 277: 1039-1043.

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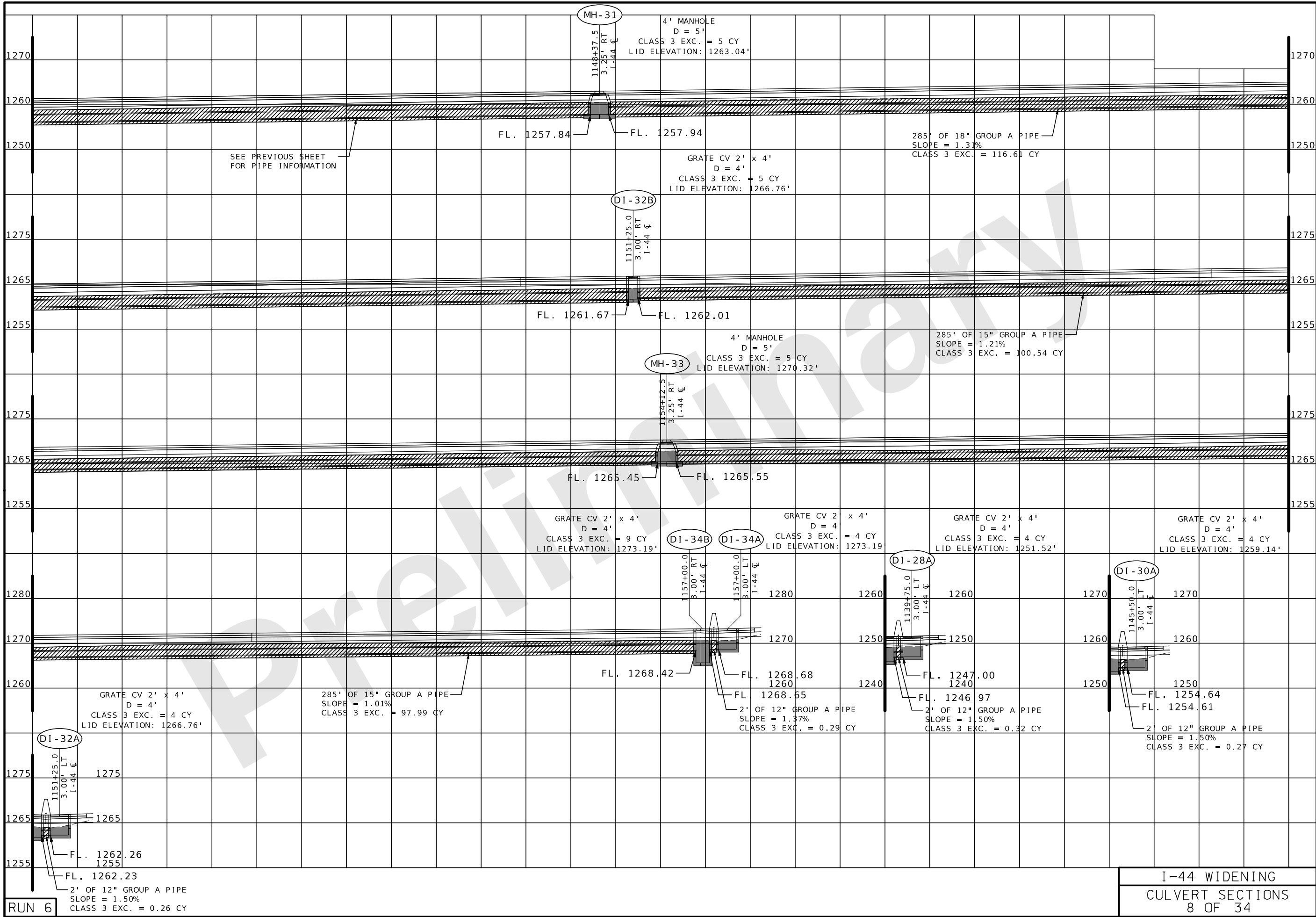
I-44 WIDENING CULVERT SECTIONS 6 OF 34



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JOB NO. JSU0076, J813044C, & JST0088B	
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BRIDGE NO.	

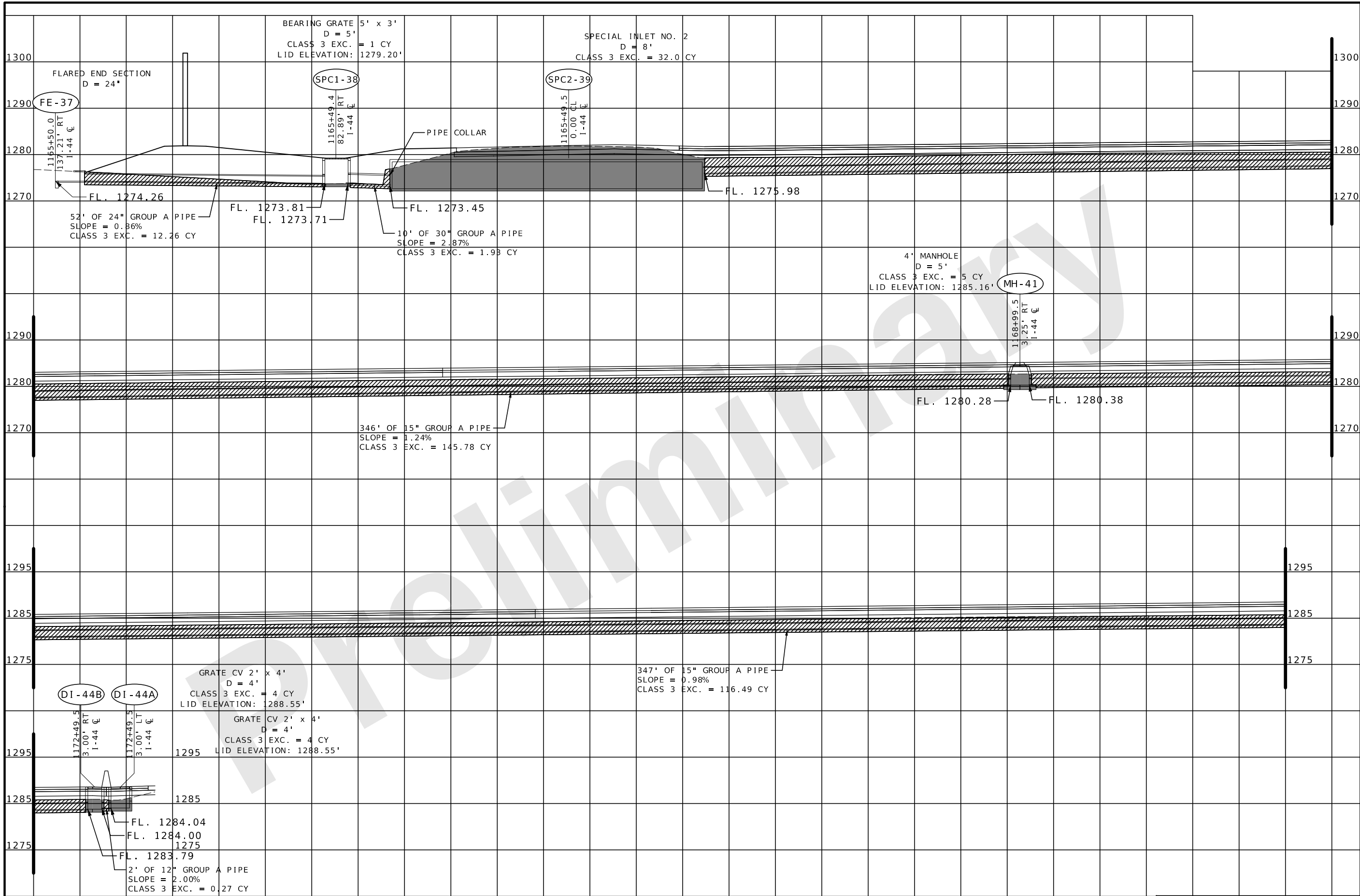
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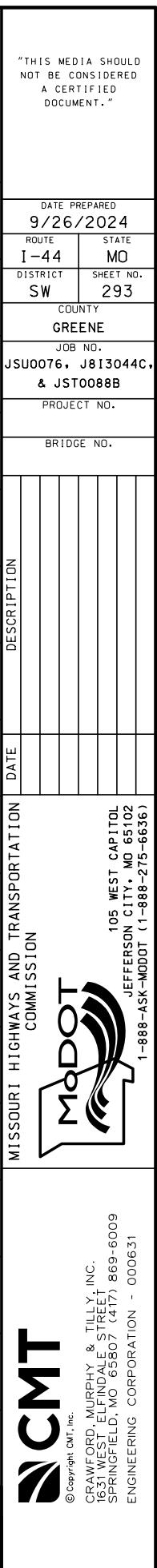
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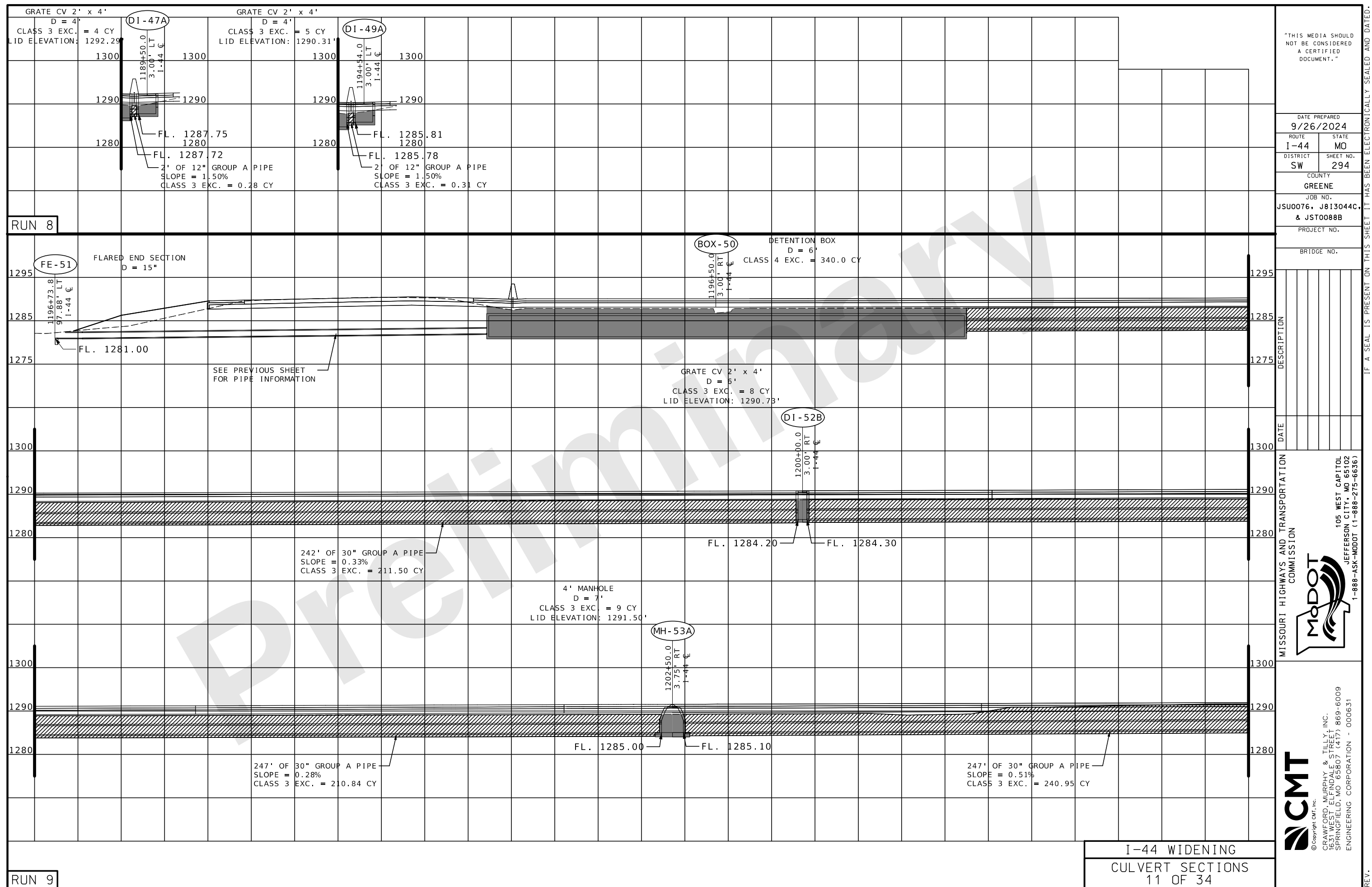
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I-44 WIDENING
CULVERT SECTIONS
9 OF 34

RUN 7





GRATE CV 2' x 4'
D = 5'
CLASS 3 EXC. = 6 CY
LID ELEVATION: 1292.22'

DI-54B
1205+00.0
3.00' LT
1-44 €

FL. 1286.35 FL. 1286.45

SEE PREVIOUS SHEET
FOR PIPE INFORMATION

MH-55
4' MANHOLE
D = 6'
CLASS 3 EXC. = 8 CY
LID ELEVATION: 1293.04'

1207+50.0
3.25' RT
1-44 €

FL. 1287.20 FL. 1287.30

SPC1-56
SPECIAL INLET NO. 1
D = 5'
CLASS 3 EXC. = 14 CY
LID ELEVATION: 1293.68'

1210+00.0
0.00 CL
1-44 €

FL. 1288.10 FL. 1288.20

MH-57
4' MANHOLE
D = 6'
CLASS 3 EXC. = 10 CY
LID ELEVATION: 1294.75'

1213+10.0
5.05' LT
1-44 €

FL. 1289.05 FL. 1289.15

DI-58A
GRATE CV 2' x 4'
D = 5'
CLASS 3 EXC. = 8 CY
LID ELEVATION: 1295.25'

1215+00.0
3.00' LT
1-44 €

FL. 1290.19
FL. 1289.69

187' OF 24" GROUP A PIPE
SLOPE = 0.29%
CLASS 3 EXC. = 149.90 CY

MH-59
4' MANHOLE
D = 5'
CLASS 3 EXC. = 7 CY
LID ELEVATION: 1296.02'

1217+50.0
3.25' LT
1-44 €

FL. 1290.91 FL. 1291.01

247' OF 18" GROUP A PIPE
SLOPE = 0.29%
CLASS 3 EXC. = 134.17 CY

247' OF 24" GROUP A PIPE
SLOPE = 0.30%
CLASS 3 EXC. = 165.99 CY

247' OF 24" GROUP A PIPE
SLOPE = 0.37%
CLASS 3 EXC. = 168.12 CY

307' OF 24" GROUP A PIPE
SLOPE = 0.28%
CLASS 3 EXC. = 250.09 CY

I-44 WIDENING
CULVERT SECTIONS
12 OF 34

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ROUTE
I-44 STATE
MO

DISTRICT
SW SHEET NO.
295

COUNTY
GREENE

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PROJECT NO.

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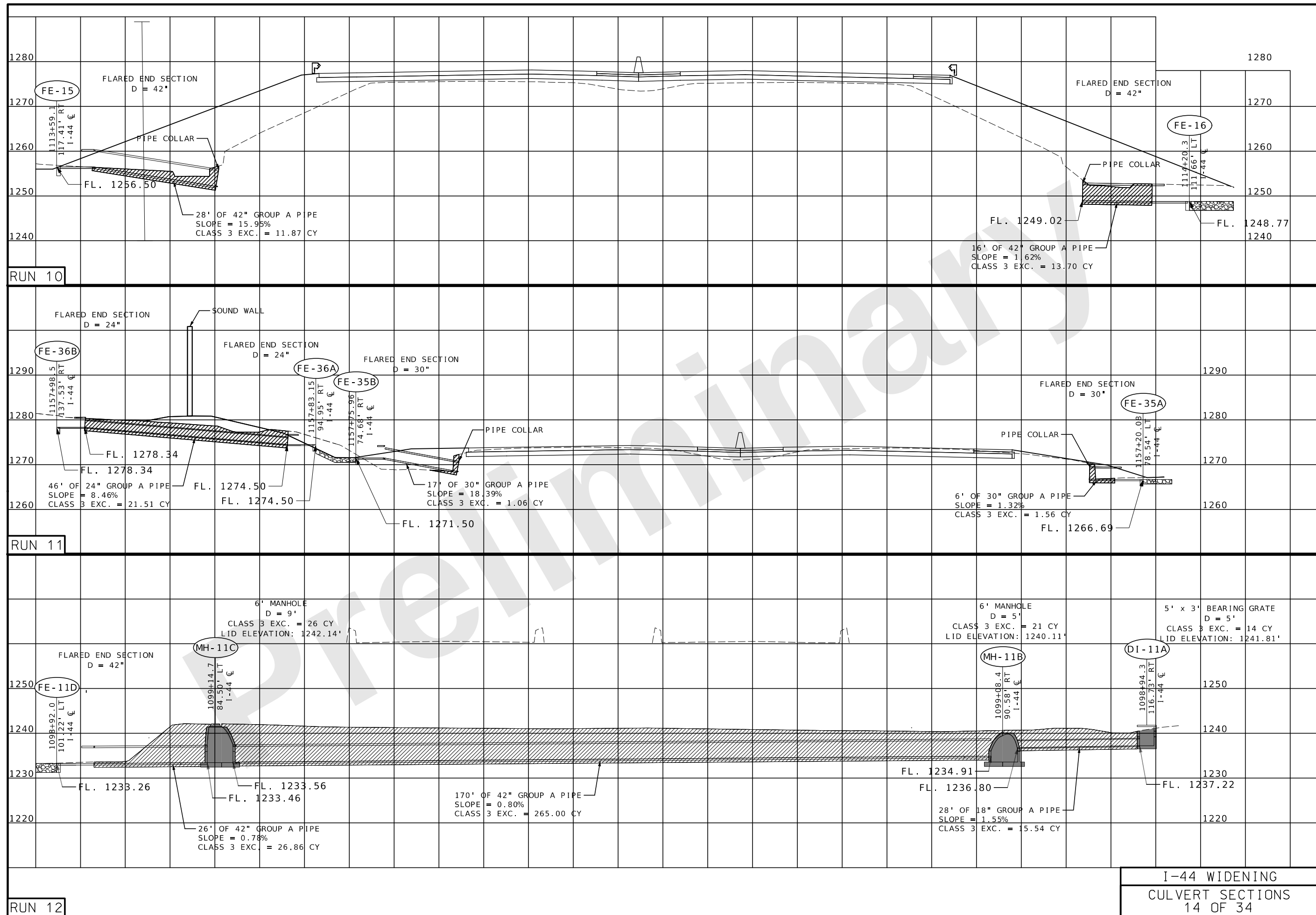
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RUN 9





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ROUTE I-44 STATE MO

DISTRICT SW SHEET NO. 297

COUNTY GREENE

JOB NO. JSU0076, J813044C, & JST0088B

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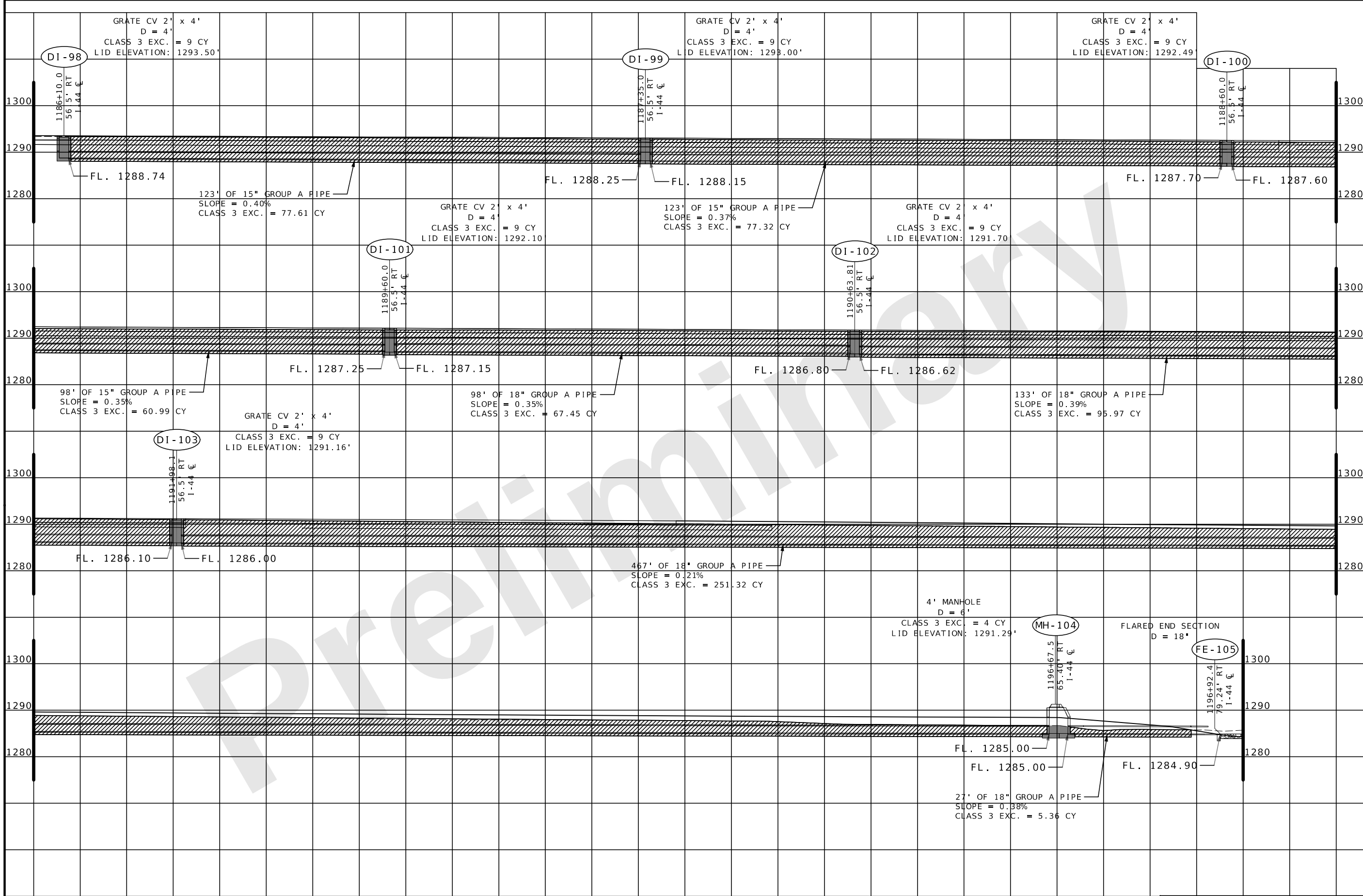
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I-44 WIDENING
CULVERT SECTIONS
14 OF 34







RUN 17

I-44 WIDENING
CULVERT SECTIONS
17 OF 34

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REV.

SINGLE (14'x 10') CONCRETE BOX CULVERT

Elevations

Upstream (Elev. 1) = 1219.55
Downstream (Elev. 2) = 1221.06
Pr. Gr. at Tie Sta. = 1252.70

Fill Heights

Crown WB I-44 at ∇ Culvert = 21.41 ft
∇ Rdwy at ∇ Culvert = 20.54 ft
Design (All units) = 22 ft

Dimensions are based on end units.
Fill heights are measured from the top of top slab to the top of earth fill or roadway.

Layout Dimensions

Var.	Equation	Dim.	Var.	Equation	Dim.	Var.	Equation	Dim.
S	- - -	14'-0"	I	$3''(\cos Z)$	0'-2 $\frac{3}{4}$ "	BB	$(A + B)(\sec Z)$	129'-0 $\frac{1}{4}$ "
HT	- - -	10'-0"	J	$(A + B + E)(\tan Z)$	66'-8 $\frac{3}{8}$ "	CC	$(A + C)(\sec Z)$	121'-1 $\frac{3}{8}$ "
TS	SEE MEMBER THICKNESS TABLE	18"	K	$S(\sec Z) / 2$	7'-9 $\frac{1}{8}$ "	EE	$E(\sec Z)$	25'-10 $\frac{1}{8}$ "
BS	SEE MEMBER THICKNESS TABLE	20"	L	$2EE + BB + CC$	301'-9 $\frac{7}{8}$ "	HH	$20''(\sec Z)$	1'-10 $\frac{3}{8}$ "
TX	SEE MEMBER THICKNESS TABLE	12"	D	$I + YY$	0'-7 $\frac{7}{8}$ "	QQ	$TX(\cos Z)$	0'-10 $\frac{3}{8}$ "
A	- - -	57'-0"	P1	$(G+0-I-YY1)(\sec(Z-20^\circ))-3''-TX(\tan 10^\circ)$	0'-7 $\frac{7}{8}$ "	QQ1	$TX(\cos(Z-20^\circ))$	0'-12"
B	- - -	59'-5 $\frac{1}{8}$ "	P2	$(G+0-I-YY2)(\sec(Z+20^\circ))-3''$	29'-3 $\frac{3}{8}$ "	QQ2	$TX(\cos(Z+20^\circ))$	0'-8 $\frac{3}{8}$ "
C	- - -	52'-3 $\frac{3}{8}$ "	T	$G(\sec Z)$	23'-3 $\frac{3}{8}$ "	YY	$TX(\sin Z)$	0'-5 $\frac{1}{8}$ "
E	$G + 0 + 20''$	23'-3 $\frac{3}{8}$ "	V	$HT + TS - 12''$	10'-6"	YY1	$TX(\sin(Z-20^\circ))$	0'-1 $\frac{1}{8}$ "
F	$S + 2TX$	16'-0"	W	$2A + B + C + 2E$	272'-4 $\frac{1}{2}$ "	YY2	$TX(\sin(Z+20^\circ))$	0'-8 $\frac{1}{2}$ "
G	$2V$	21'-0"	X	$3'' + TX(\tan Z)$	0'-8 $\frac{3}{4}$ "	TW	$\text{Max}\{3'-4'' \text{ or } (BS + 12'')\}$	3'-4"
H	$(A + C + E)(\tan Z)$	63'-3 $\frac{3}{4}$ "	Z	SKEW ANGLE	25°31'14"			

Estimated Quantities

		TOTAL
Class 4 Excavation	cu. yard	4,676
Class 4 Excavation in Rock	cu. yard	520
Class B-1 Concrete (Culverts-Bridge)	cu. yard	751.9
Reinforcing Steel (Culverts-Bridge)	pound	102,140

General Notes:

Design Specifications:
2010 AASHTO LRFD Bridge Design Specifications and 2010 Interim Revisions

Design Loading:
Vehicular = HL-93 minus lane load. Earth = 120 lb/cf
Equivalent Fluid Pressure = 30 lb/cf (min.), 60 lb/cf (max.)

Design Unit Stresses:
Class B-1 Concrete (Box Culvert) $f'_c = 4,000$ psi
Reinforcing Steel (Grade 60) $f_y = 60,000$ psi

Miscellaneous:
See Standard Plans for reinforcement details.

Drawing not to scale. Follow dimensions.

Dimensions are in inches unless otherwise noted.

MoDOT Construction personnel will indicate the type of box culvert constructed:

- ☐ Precast Concrete Box used
☐ Cast-in-Place Concrete Box used

When alternate precast concrete box sections are used, the minimum distance from inside face of headwalls to precast sections measured along the shortest wall shall be 3 feet. Reinforcement and dimensions for wings and headwalls shall be in accordance with Missouri Standard Plans.

Channel bottom shall be graded within the right of way for transition of channel bed to culvert openings. Channel banks shall be tapered to match culvert openings. (Roadway Item)

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

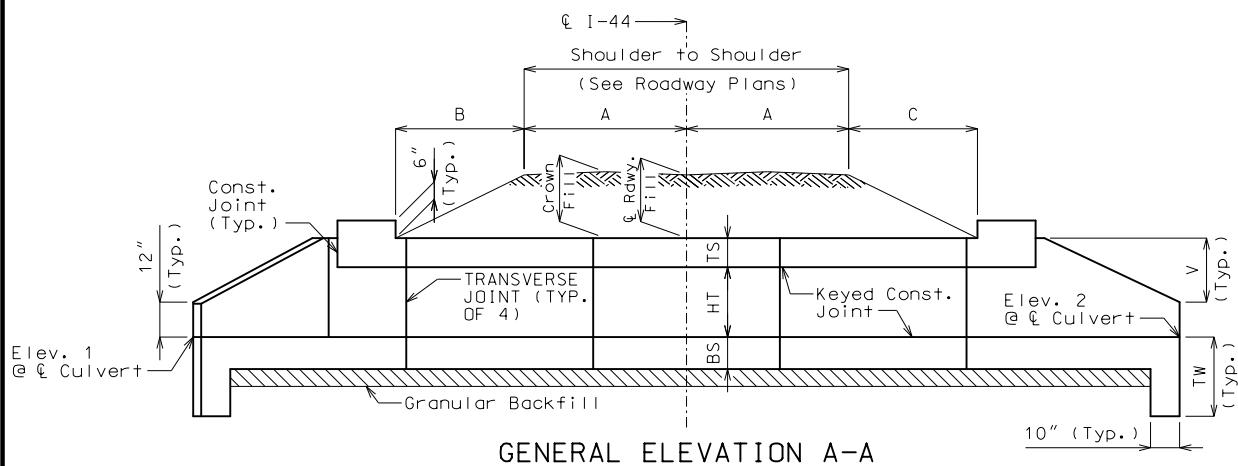
B.M.
Control Point #519
N:516936.87 E:1409536.49
EL. 1270.576
STA. 1122+80.16, 92.35' Lt (I-44)
5/8" I.B. w/ aluminum cap set top
North bank WB I-44

Culvert: I-44
Tie Station 1129+27.24

DOLING TRAIL UNDERPASS
CULVERT SECTIONS
18 OF 34

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

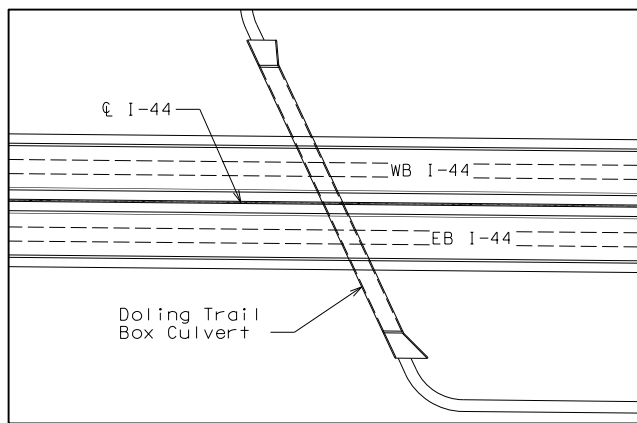
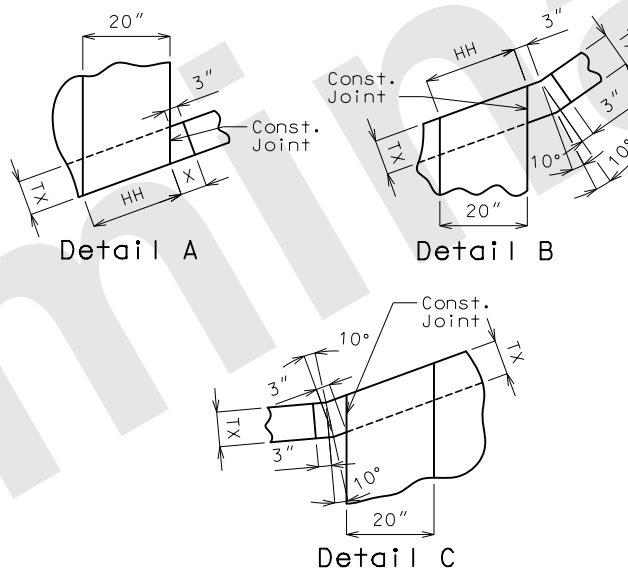
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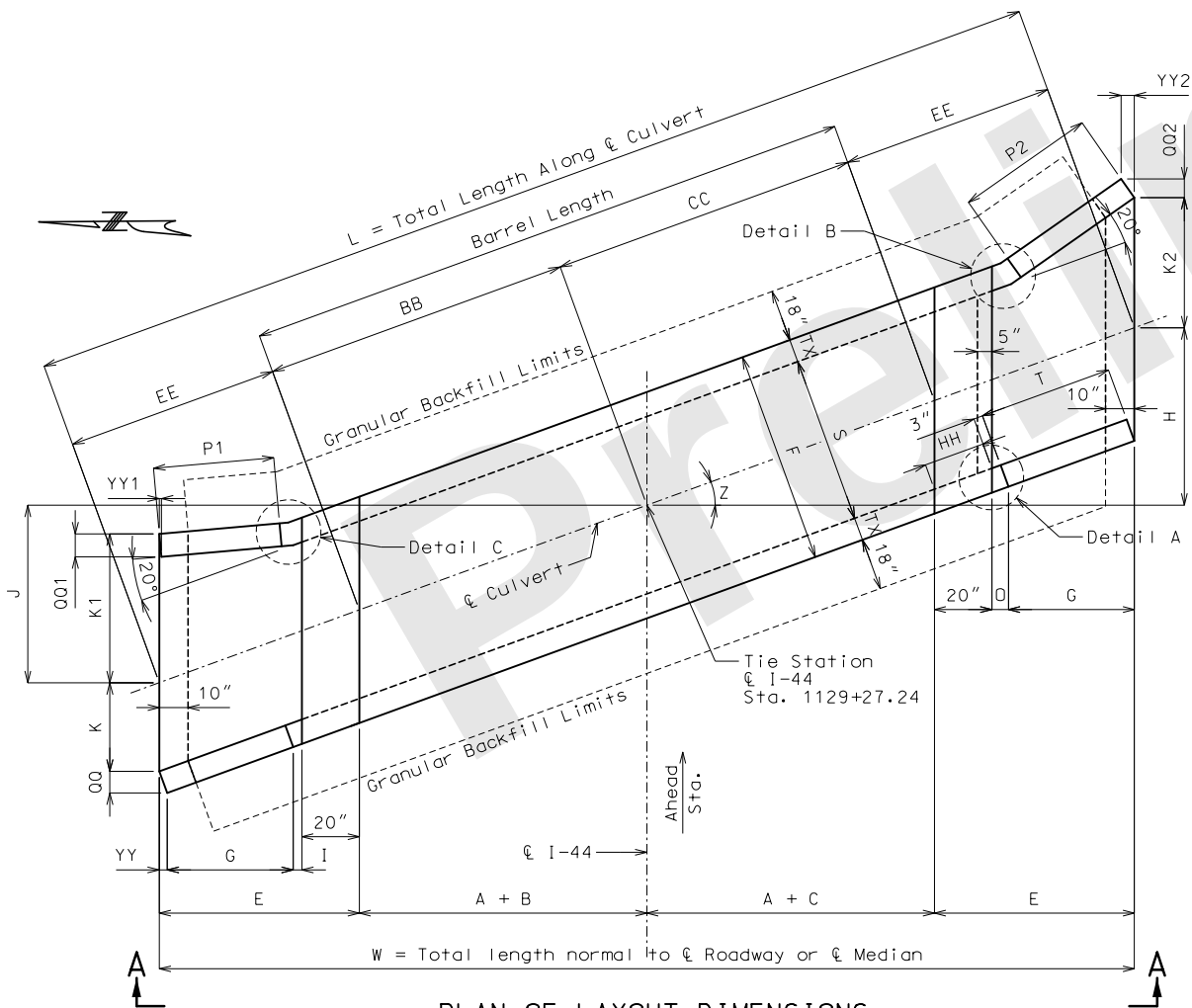
Construction joint key not shown for clarity, see standard plans for details.

If any part of the barrel is exposed, the roadway fill shall be warped to provide 12 inches minimum cover. (Roadway Item)

If unsuitable material is encountered, excavation of unsuitable material and furnishing and placing of granular backfill shall be in accordance with Sec 206.



Location Sketch



PLAN OF LAYOUT DIMENSIONS

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I-44

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JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

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MoDOT

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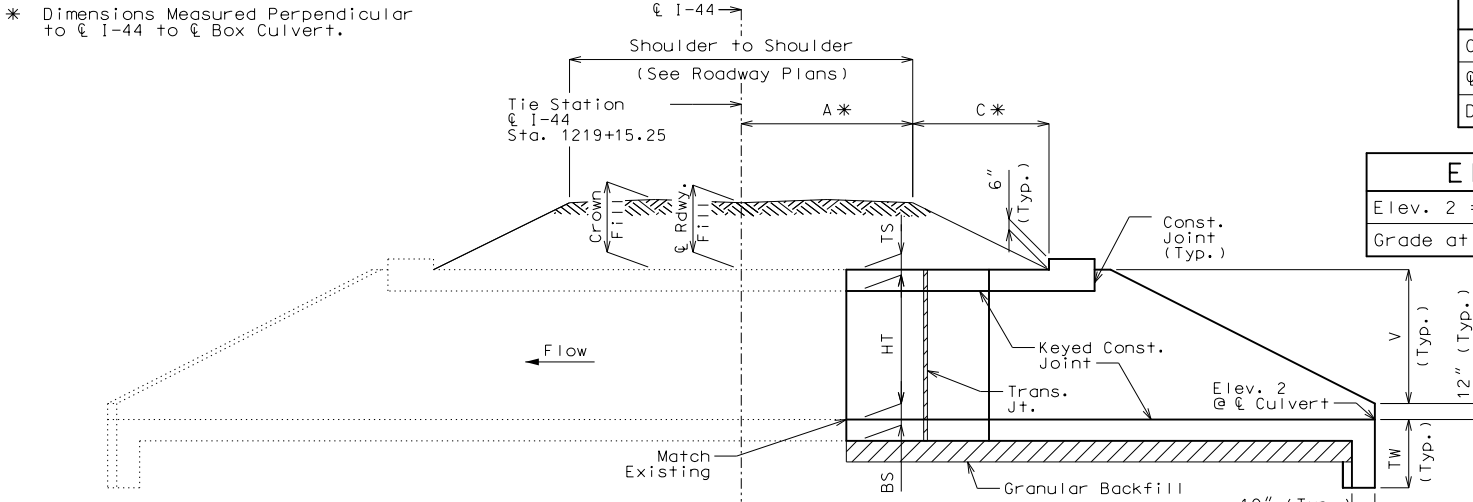
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REV.

SINGLE (6' x 5') CONCRETE BOX CULVERT

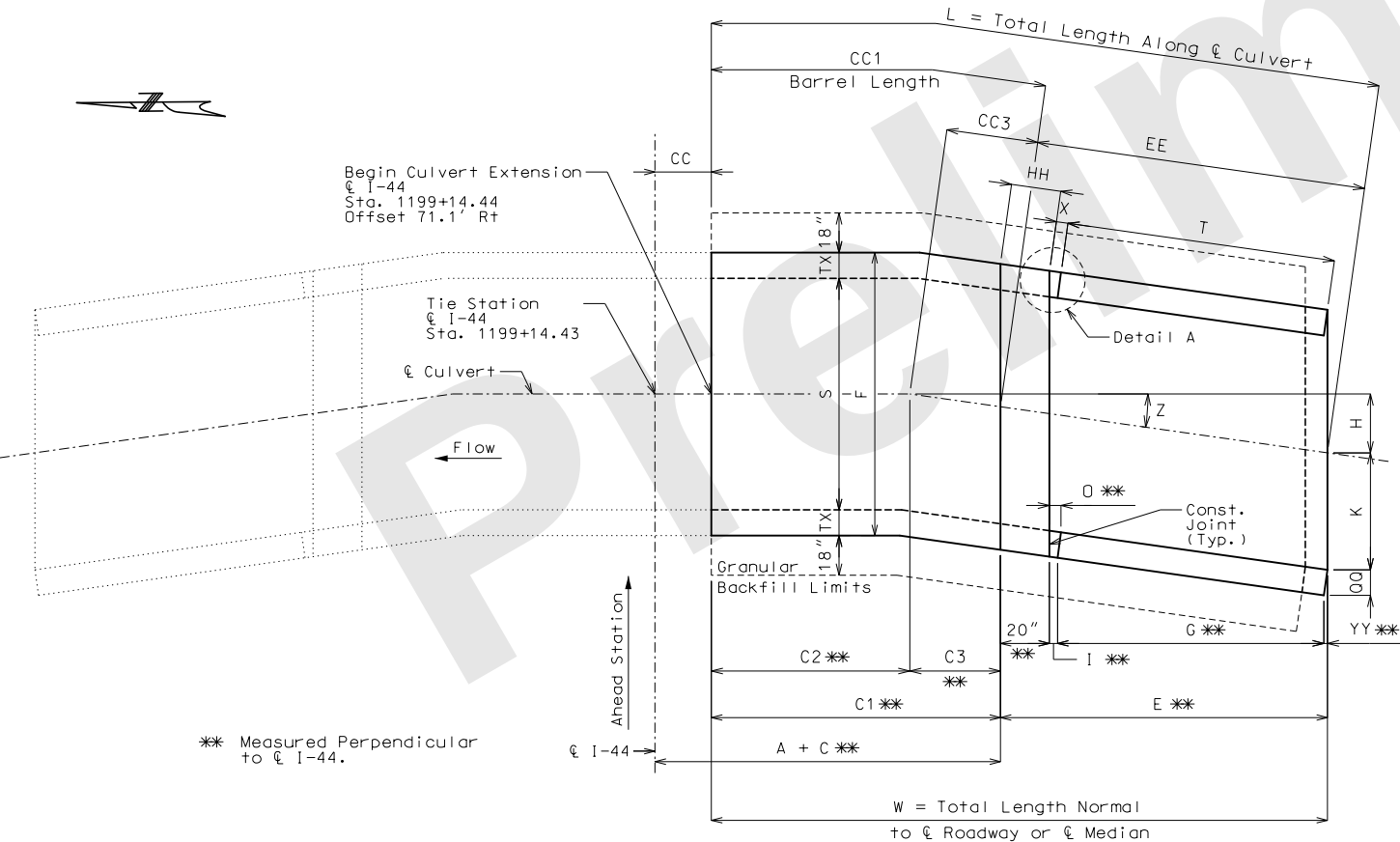
* Dimensions Measured Perpendicular to ℓ I-44 to ℓ Box Culvert.



Construction joint key not shown for clarity, see standard plans for details.

If any part of the barrel is exposed, the roadway fill shall be warped to provide 12 inches minimum cover. (Roadway Item)

If unsuitable material is encountered, excavation of unsuitable material and furnishing and placing of granular backfill shall be in accordance with Sec 206.

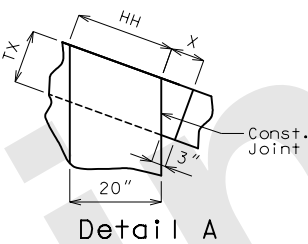


PLAN OF LAYOUT DIMENSIONS

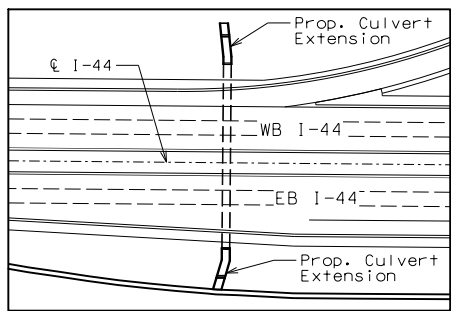


Fill Heights	
Crown WB I-44 at ℓ Culvert = 6.21 ft	
ℓ I-44 at ℓ Culvert = 5.75 ft	
Design (All Units) = 8 ft	

Elevations	
Elev. 2 = 1280.20	
Grade at Tie Sta. = 1290.42	



Hydrologic Data	
Drainage Area = 0.33 Sq. Miles	
Design Flood Frequency = 100 Years	
Design Flood Discharge = 253 cfs	
Design Flood (D.F.) Elevation = 1287.25	
Base Flood (100 Year)	
Estimated Backwater = 7.05 ft	
Outlet Velocity = 14.90 ft/s	
Roadway Overtopping	
Overtopping Flood Discharge = 410 cfs	
Overtopping Flood Frequency = >500 Years	
>500 Flood Elevation = 1290.14	



Location Sketch

Estimated Quantities		Total
Class 4 Excavation	cu. yard	52
Class 4 Excavation in Rock	cu. yard	3
Class B-1 Concrete (Culverts)	cu. yard	19.9
Reinforcing Steel (Culverts)	pound	3,000

Layout Dimensions					
Variable	Equation	Dimension	Variable	Equation	DIMENSION
S	---	6'-0"	L	CC1 + EE	35'-6 $\frac{3}{8}$ "
HT	---	5'-0"	O	I + YY	5"
TS	---	8"	T	G(SEC Z)	9'-8 $\frac{3}{8}$ "
BS	---	8"	V	HT + TS - 12"	4'-8"
TX	---	8"	W	C1 + E	34'-7"
A	---	66'-3 $\frac{3}{8}$ "	X	3" + TX(TAN Z)	5 $\frac{1}{4}$ "
C	---	27'-11 $\frac{3}{4}$ "	Z	SKEW ANGLE	15°44'8"
C1	---	23'-1 $\frac{1}{8}$ "	CC	(A + C - C1)	71'-1 $\frac{1}{4}$ "
C2	---	10'-1 $\frac{1}{8}$ "	CC1	(C2 + CC3)	23'-8"
C3	---	13'-0"	CC3	(C3)(SEC Z)	13'-6 $\frac{1}{8}$ "
E	G + O + 20"	11'-5"	EE	E(SEC Z)	11'-10 $\frac{3}{8}$ "
F	S + 2TX	7'-4"	HH	20"(SEC Z)	1'-8 $\frac{3}{4}$ "
G	2V	9'-4"	OO	TX(COS Z)	7 $\frac{3}{4}$ "
H	(C1 + E - C2)(TAN Z)	6'-10 $\frac{3}{8}$ "	YY	TX(SIN Z)	2 $\frac{1}{8}$ "
I	3"(COS Z)	2 $\frac{7}{8}$ "	TW	MAX{3'-4" OR (BS + 12")}	3'-4"
K	S(SEC Z)/2	3'-1 $\frac{3}{8}$ "			

General Notes:

Design Specifications:
2010 AASHTO LRFD Bridge Design Specifications and 2010 Interim Revisions

Design Loading:
Vehicular = HL-93 minus lane load, Earth = 120 lb/cf
Equivalent Fluid Pressure = 30 lb/cf (min.), 60 lb/cf (max.)

Design Unit Stresses:
Class B-1 Concrete (Box Culvert) f'_c = 4,000 psi
Reinforcing Steel (Grade 60) f_y = 60,000 psi

Miscellaneous:
See Standard Plans for reinforcement details.

Drawing not to scale. Follow dimensions.

Dimensions are in inches unless otherwise noted.

MoDOT Construction personnel will indicate the type of box culvert constructed:
☐ Precast Concrete Box used
☐ Cast-in-Place Concrete Box used

When alternate precast concrete box sections are used, the minimum distance from inside face of headwalls to precast sections measured along the shortest wall shall be 3 feet. Reinforcement and dimensions for wings and headwalls shall be in accordance with Missouri Standard Plans.

Channel bottom shall be graded within the right of way for transition of channel bed to culvert openings. Channel banks shall be tapered to match culvert openings. (Roadway Item)

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

B.M.
Control Point #521
N:516902.41 E:1415632.78
EL. 1294.629
STA. 1183.76.50, 114.67' Lt (I-44)
5/8" I.B. w/ aluminum cap set
North Top Bank of WB I-44

Culvert: I-44
Tie Station 1199+14.43

I-44 WIDENING
CULVERT SECTIONS
19 OF 34

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

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9/26/2024

ROUTE I-44 STATE MO

DISTRICT SW SHEET NO. 302

COUNTY GREENE

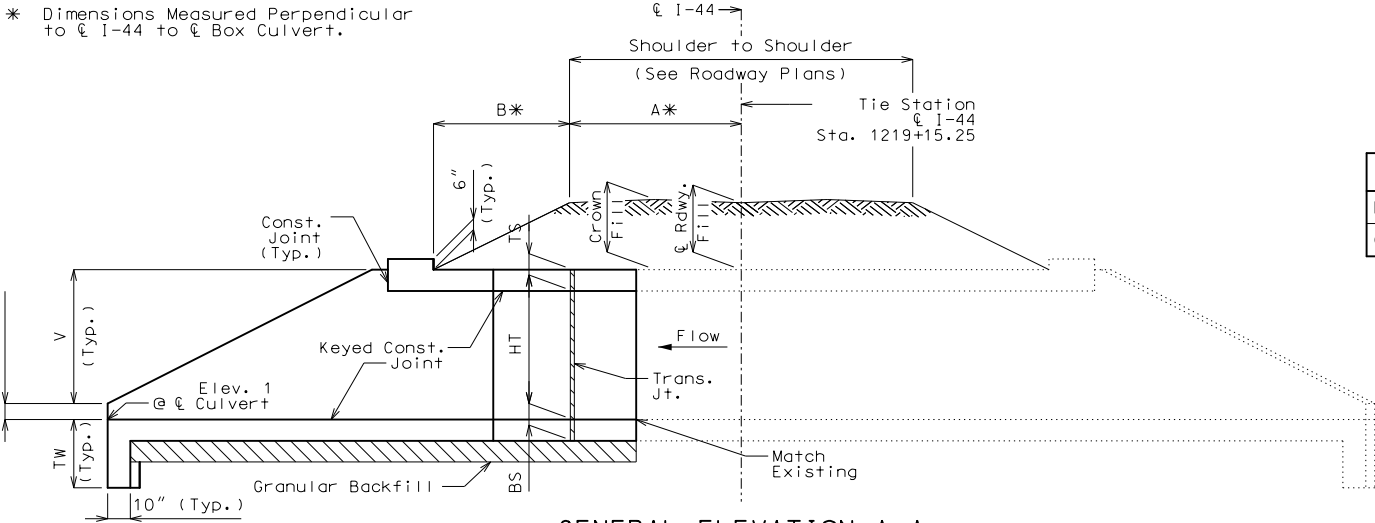
JOB NO. JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

SINGLE (6' x 5') CONCRETE BOX CULVERT

* Dimensions Measured Perpendicular to ℓ I-44 to ℓ Box Culvert.

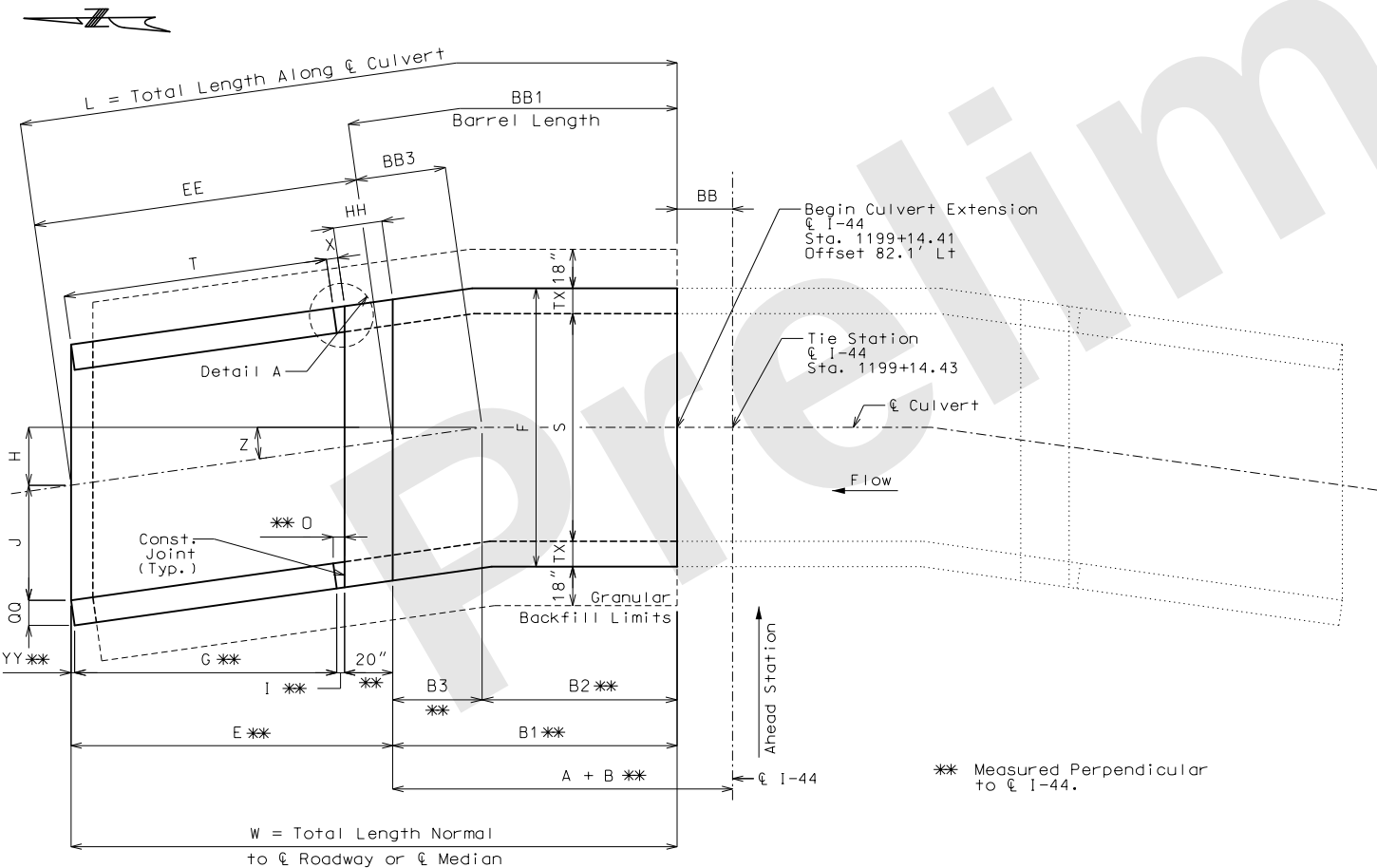


GENERAL ELEVATION A-A

Construction joint key not shown for clarity, see standard plans for details.

If any part of the barrel is exposed, the roadway fill shall be warped to provide 12 inches minimum cover. (Roadway Item)

If unsuitable material is encountered, excavation of unsuitable material and furnishing and placing of granular backfill shall be in accordance with Sec 206.



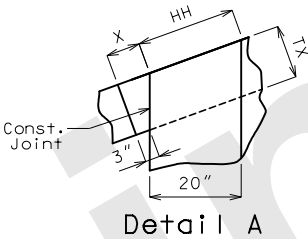
PLAN OF LAYOUT DIMENSIONS

A

A

Fill Heights	
Crown WB I-44 at ℓ Culvert =	6.21 ft
ℓ I-44 at ℓ Culvert =	5.75 ft
Design (All Units) =	8 ft

Elevations	
Elev. 1 =	1277.70
Grade at Tie Sta. =	1290.42



Detail A

Layout Dimensions					
Variable	Equation	Dimension	Variable	Equation	DIMENSION
S	---	6'-0"	L	BB1 + EE	34'-5 $\frac{5}{8}$ "
HT	---	5'-0"	O	I + YY	3 $\frac{7}{8}$ "
TS	---	8"	T	G(SEC Z)	9'-4 $\frac{3}{4}$ "
BS	---	8"	V	HT + TS - 12"	4'-8"
TX	---	8"	W	B1 + E	34'-2 $\frac{3}{8}$ "
A	---	69'-0"	X	3" + TX(TAN Z)	4"
B	---	35'-11 $\frac{3}{8}$ "	Z	SKEW ANGLE	6°41'48"
B1	---	22'-10 $\frac{1}{2}$ "	BB	(A + B - B1)	82'-1"
B2	---	6'-3 $\frac{3}{4}$ "	BB1	(B2 + BB3)	22'-11 $\frac{7}{8}$ "
B3	---	16'-6 $\frac{3}{4}$ "	BB3	(B3)(SEC Z)	16'-8 $\frac{1}{8}$ "
E	G + O + 20"	11'-3 $\frac{7}{8}$ "	EE	E(SEC Z)	11'-4 $\frac{7}{8}$ "
F	S + 2TX	7'-4"	HH	20"(SEC Z)	1'-8 $\frac{3}{4}$ "
G	2V	9'-4"	OO	TX(COS Z)	8"
H	(B1 + E - B2)(TAN Z)	3'-3 $\frac{1}{4}$ "	YY	TX(SIN Z)	0 $\frac{7}{8}$ "
I	3"(COS Z)	3"	TW	MAX{3'-4" OR (BS + 12")}	3'-4"
J	S(SEC Z)/2	3'-0 $\frac{1}{4}$ "			

General Notes:

Design Specifications:
2010 AASHTO LRFD Bridge Design Specifications and 2010 Interim Revisions

Design Loading:
Vehicular = HL-93 minus lane load, Earth = 120 lb/cf
Equivalent Fluid Pressure = 30 lb/cf (min.), 60 lb/cf (max.)

Design Unit Stresses:
Class B-1 Concrete (Box Culvert) f'_c = 4,000 psi
Reinforcing Steel (Grade 60) f_y = 60,000 psi

Miscellaneous:
See Standard Plans for reinforcement details.

Drawing not to scale. Follow dimensions.

Dimensions are in inches unless otherwise noted.

MoDOT Construction personnel will indicate the type of box culvert constructed:

- ☐ Precast Concrete Box used
☐ Cast-in-Place Concrete Box used

When alternate precast concrete box sections are used, the minimum distance from inside face of headwalls to precast sections measured along the shortest wall shall be 3 feet. Reinforcement and dimensions for wings and headwalls shall be in accordance with Missouri Standard Plans.

Channel bottom shall be graded within the right of way for transition of channel bed to culvert openings. Channel banks shall be tapered to match culvert openings. (Roadway Item)

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

B.M.
Control Point #521
N:516902.41 E:1415632.78
EL: 1294.629
STA. 1183.76.50, 114.67' Lt (I-44)
5/8" I.B. w/ aluminum cap set
North Top Bank of WB I-44

Culvert: I-44
Tie Station 1199+14.43

I-44 WIDENING
CULVERT SECTIONS
20 OF 34

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

L:\MoDOT\22004246-00_New\424600\Sheets\J813044C & JSU0076\265_CS_20_6x5-Box Culvert Extension_Downstream_JSU0076.dgn 10:38:18 AM 9/26/2024

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ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
303

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITAL

JEFFERSON CITY, MO 65102

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

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LEGEND:

EGL = EXISTING GROUND LINE
PGL = PROPOSED GROUND LINE

 LIMITS OF CLASS 3
CULVERT EXCAVATION

 LIMITS OF CLASS 3
INLET EXCAVATION

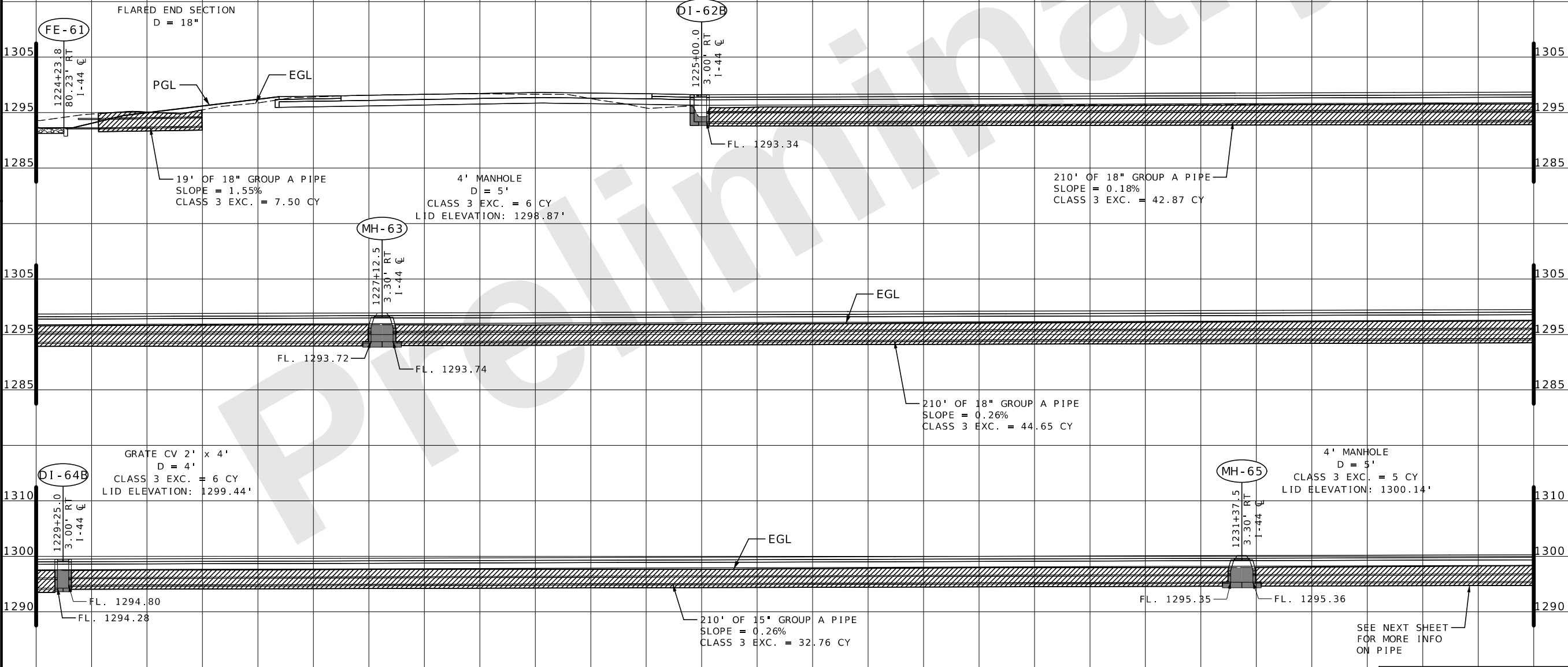
NOTES:

* MATCHLINE

1. PROPOSED STATION, OFFSET AND RIM ELEVATION IS CALLED OUT AT THE CENTER OF STRUCTURES AND AT THE FLOW LINE OF FLARED END SECTIONS.
2. THE SEWER CONTRACTOR IS TO VERIFY ALL EXISTING PIPE SIZES AND INVERTS PRIOR TO CONSTRUCTION. DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER IN THE FIELD.
3. GRANULAR BACKFILL WILL BE PROVIDED PER MODOT STANDARD SPECIFICATIONS. THE COST OF GRANULAR BACKFILL WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR PIPES.
4. 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.
5. THE SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE FIELD VERIFICATION OF THE SEWER GRADE, OR REMOVAL AND REPLACEMENT OF THE SEWER PIPE OR ASSOCIATED APPURTENANCES.
6. CONTRACTOR SHALL EXPOSE ALL UTILITIES PRIOR TO STORM SEWER PIPE INSTALLATION AND VERIFY TOP ELEVATION OF UTILITIES.
7. CONNECTOR TO EXISTING BOX CULVERT WILL BE CONSIDERED INCIDENTAL TO PIPE. NO SEPARATE PAYMENT WILL BE MADE.

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GRATE CV 2' x 4'
D = 4'
CLASS 3 EXC. = 4 CY
LID ELEVATION: 1298.18'



SEE NEXT SHEET
FOR MORE INFO
ON PIPE

I-44 WIDENING
CULVERT SECTIONS
21 OF 34

RUN 1

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ROUTE

I-44

STATE

MO

DISTRICT

SW

SHEET NO.

304

COUNTY

GREENE

JOB NO.

JSU0076, J813044C,
& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-278-6636)

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MISSOURI HIGHWAYS AND TRAIL COMMISSION



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PROJECT NO.	
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BRIDGE NO.

JOB NO.
JSU0076, J8I3044
& JST0088B

COUNTY
GREENE

DISTRICT	SHEET NO.
SW	305

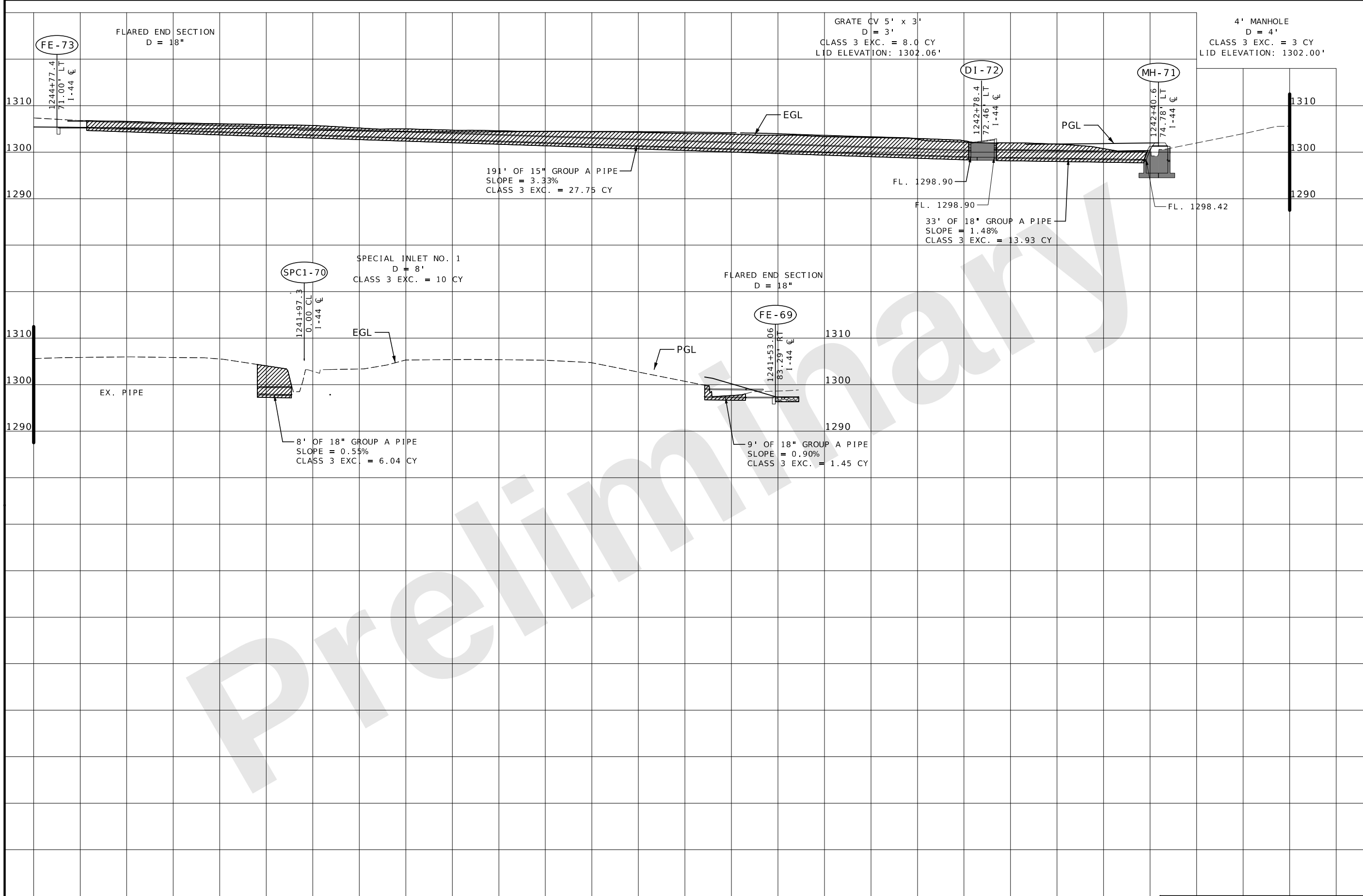
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I-44	MO

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RUN 2

I-44 WIDENING
CULVERT SECTIONS
23 OF 34

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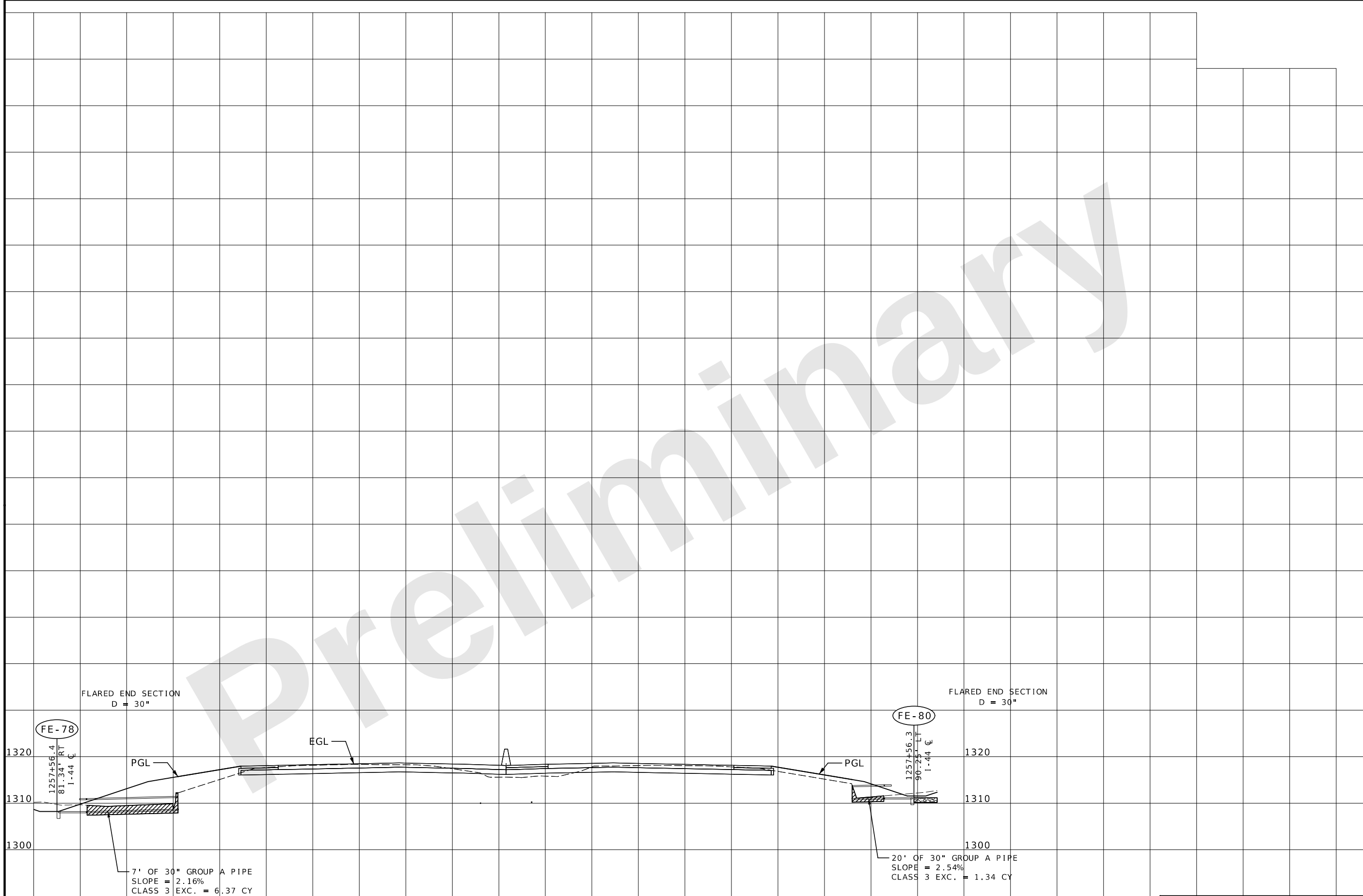
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ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 306
COUNTY GREENE	
JOB NO. JSU0076, J813044C, & JST0088B	
PROJECT NO.	
BRIDGE NO.	

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RUN 4

I-44 WIDENING
CULVERT SECTIONS
25 OF 34

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9/26/2024

ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 308

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

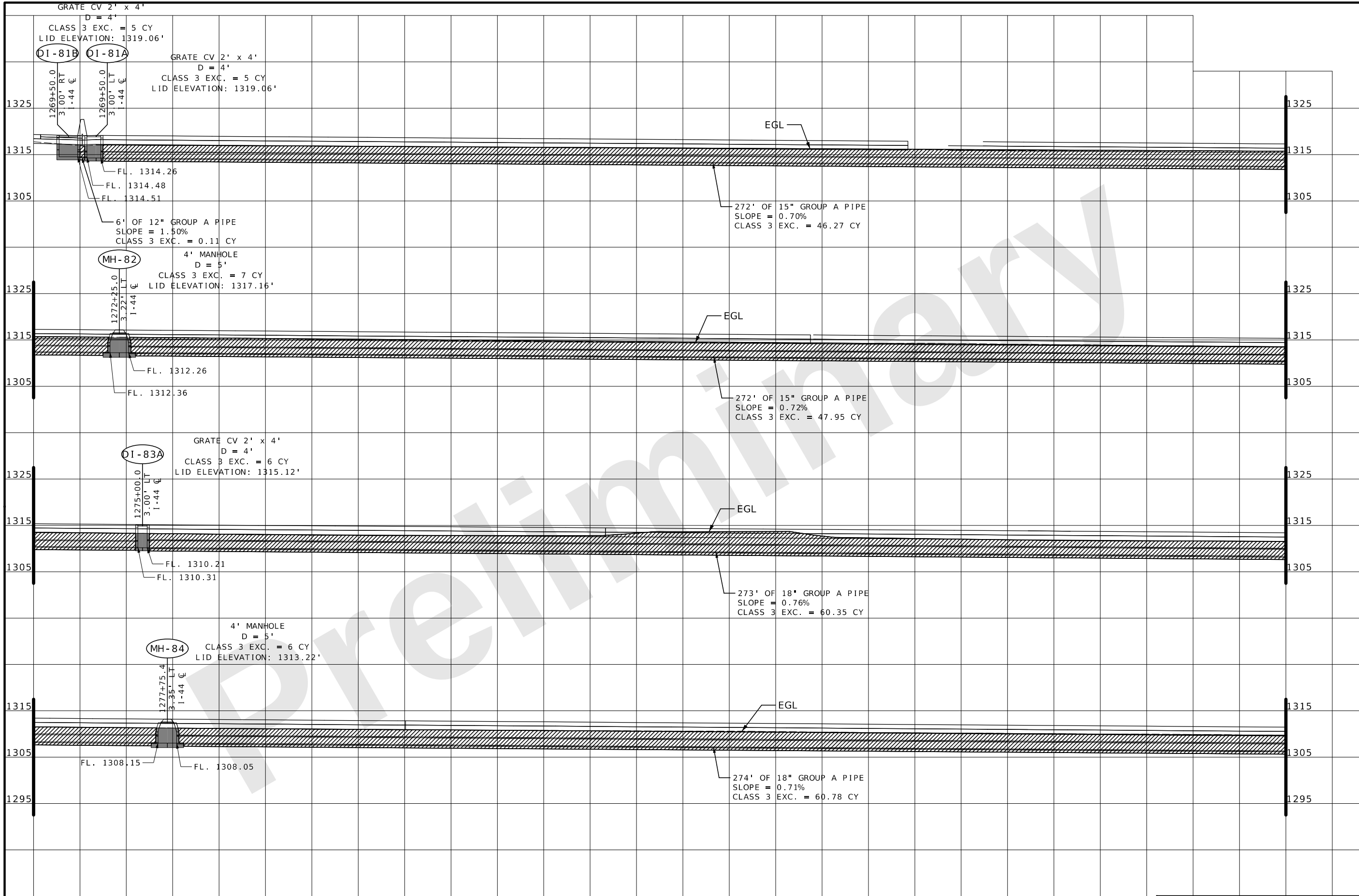
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RUN 5

I-44 WIDENING
CULVERT SECTIONS
26 OF 34

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9/26/2024

ROUTE I-44 STATE MO

DISTRICT SW SHEET NO. 309

COUNTY

GREENE

JOB NO.

JSU0076, J813044C,

& JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

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COMMISSION

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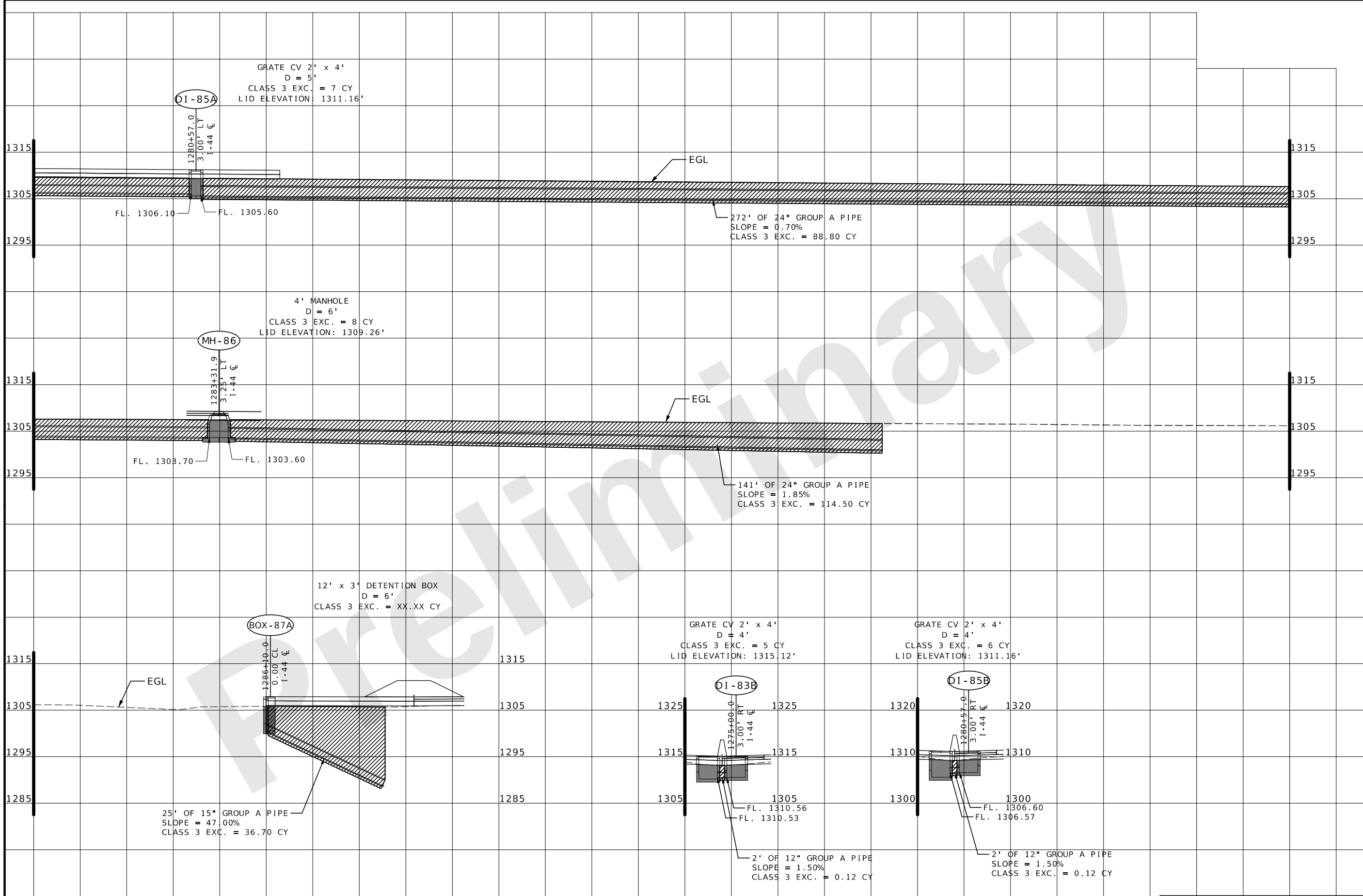
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RUN 5

I-44 WIDENING
CULVERT SECTIONS
27 OF 34

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ROUTE I-44	STATE MO
DISTRICT SW	SHEET NO. 310

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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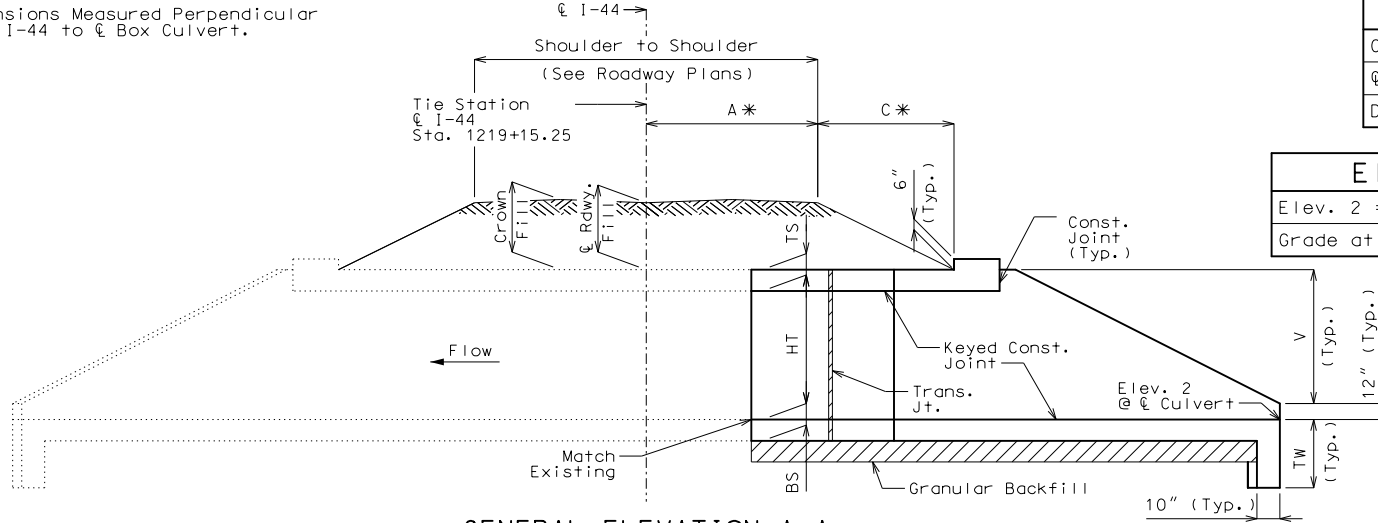


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REV.

SINGLE (9' x 6') CONCRETE BOX CULVERT

* Dimensions Measured Perpendicular to ℓ I-44 to ℓ Box Culvert.



GENERAL ELEVATION A-A

Construction joint key not shown for clarity, see standard plans for details.

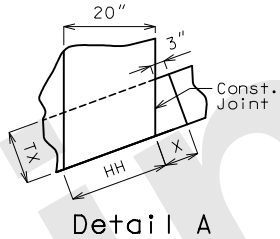
If any part of the barrel is exposed, the roadway fill shall be warped to provide 12 inches minimum cover. (Roadway Item)

If unsuitable material is encountered, excavation of unsuitable material and furnishing and placing of granular backfill shall be in accordance with Sec 206.

Fill Heights	
Crown WB I-44 at ℓ Culvert = 10.89 ft	
ℓ I-44 at ℓ Culvert = 10.31 ft	
Design (All Units) = 12 ft	

Elevations	
Elev. 2 = 1280.53	
Grade at Tie Sta. = 1296.72	

Layout Dimensions					
Variable	Equation	Dimension	Variable	Equation	DIMENSION
S	---	9'-0"	L	CC1 + EE	50'-6 $\frac{1}{8}$ "
HT	---	6'-0"	O	I + YY	8 $\frac{3}{8}$ "
TS	---	8"	T	G(SEC Z2)	20'-11 $\frac{1}{4}$ "
BS	---	10"	V	HT + TS - 12"	5'-8"
TX	---	8"	W	C1 + E	31'-4 $\frac{1}{8}$ "
A	---	57'-0"	X	3" + TX(TAN Z2)	1'-3 $\frac{1}{2}$ "
C	---	38'-8"	Z1	SKEW ANGLE	39°55'14"
C1	---	17'-7 $\frac{1}{4}$ "	Z2	SKEW ANGLE	57°17'54"
C2	---	13'-8 $\frac{3}{8}$ "	CC	(A + C - C1)(SEC Z1)	101'-8 $\frac{3}{4}$ "
C3	---	3'-11 $\frac{1}{8}$ "	CC1	(CC2 + CC3)	25'-1 $\frac{7}{8}$ "
E	G + O + 20"	13'-8 $\frac{3}{8}$ "	CC2	(C2)(SEC Z1)	17'-10 $\frac{3}{4}$ "
F	S + 2TX	10'-4"	CC3	(C3)(SEC Z2)	7'-3 $\frac{1}{8}$ "
G	2V	11'-4"	EE	E(SEC Z2)	25'-4 $\frac{1}{8}$ "
H1	(C1 + E - C2)(TAN Z2)	27'-5 $\frac{3}{8}$ "	HH	20"(SEC Z2)	3'-1"
H2	(C2)(TAN Z1)	11'-5 $\frac{1}{4}$ "	OO	TX(COS Z2)	4 $\frac{3}{8}$ "
H3	(A + C - C1)(TAN Z2)	65'-3 $\frac{3}{8}$ "	YY	TX(SIN Z2)	6 $\frac{3}{4}$ "
I	3"(COS Z2)	1 $\frac{5}{8}$ "	TW	MAX{3'-4" OR (BS + 12")}	3'-4"
K	S(SEC Z2)/2	8'-4"			



Detail A

Hydrologic Data	
Drainage Area = 0.75 Sq. Miles	
Design Flood Frequency = 100 Years	
Design Flood Discharge = 578 cfs	
Design Flood (D.F.) Elevation = 1289.06	
Base Flood (100 Year)	
Estimated Backwater = 8.53 ft	
Outlet Velocity = 12.04 ft/s	
Roadway Overtopping	
Overtopping Flood Discharge = 845 cfs	
Overtopping Flood Frequency = >500 Years	
>500 Flood Elevation = 1296.45	

General Notes:

Design Specifications:
2010 AASHTO LRFD Bridge Design Specifications and 2010 Interim Revisions

Design Loading:
Vehicular = HL-93 minus lane load, Earth = 120 lb/cf
Equivalent Fluid Pressure = 30 lb/cf (min.), 60 lb/cf (max.)

Design Unit Stresses:
Class B-1 Concrete (Box Culvert) f'_c = 4,000 psi
Reinforcing Steel (Grade 60) f_y = 60,000 psi

Miscellaneous:
See Standard Plans for reinforcement details.

Drawing not to scale. Follow dimensions.

Dimensions are in inches unless otherwise noted.

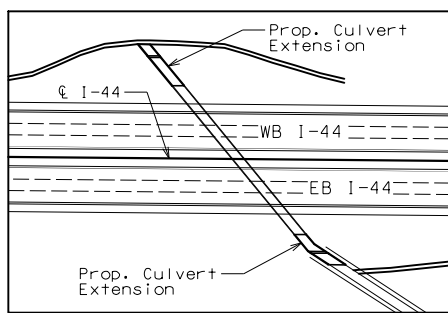
MoDOT Construction personnel will indicate the type of box culvert constructed:
☐ Precast Concrete Box used
☐ Cast-in-Place Concrete Box used

When alternate precast concrete box sections are used, the minimum distance from inside face of headwalls to precast sections measured along the shortest wall shall be 3 feet. Reinforcement and dimensions for wings and headwalls shall be in accordance with Missouri Standard Plans.

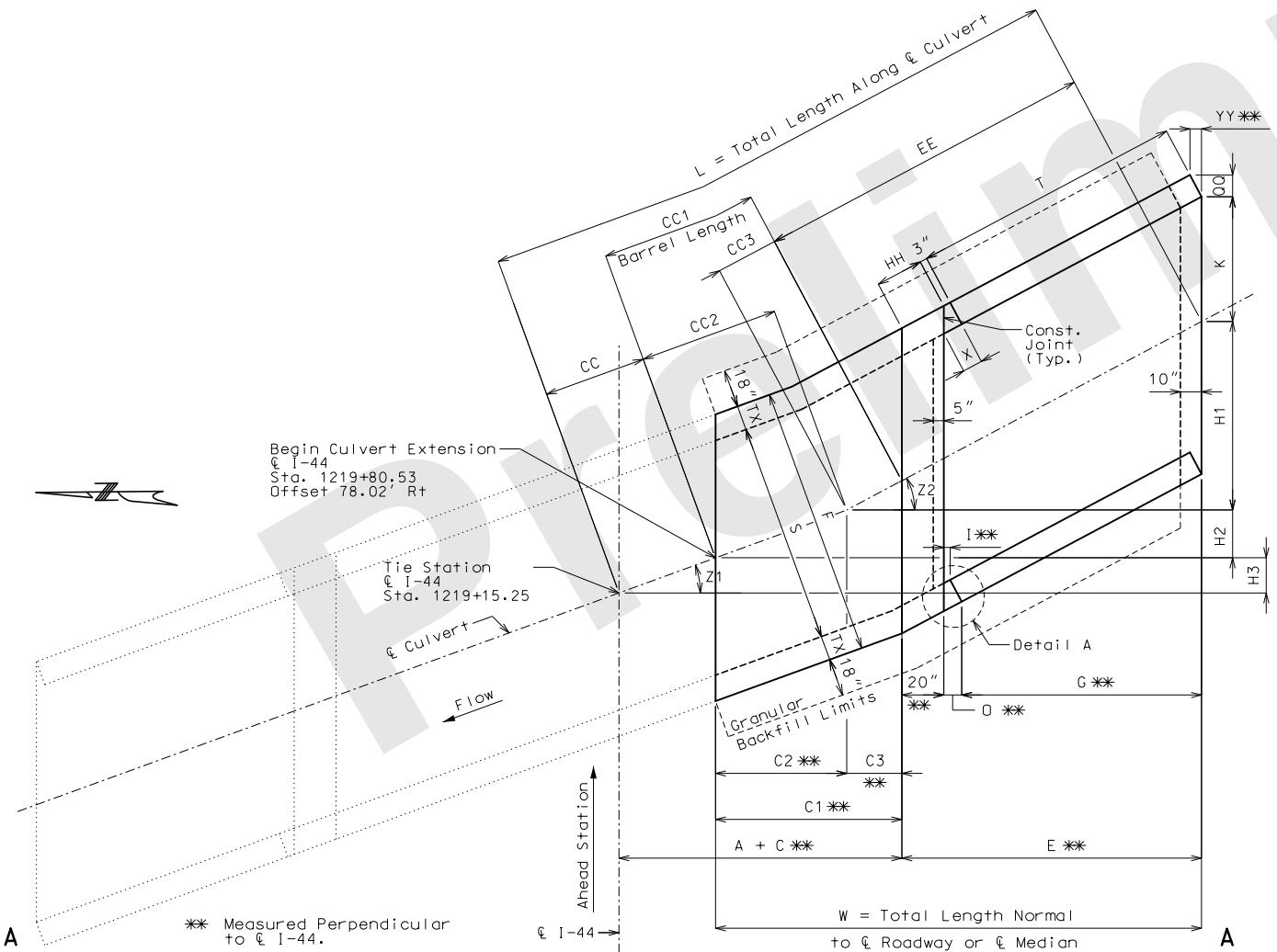
Channel bottom shall be graded within the right of way for transition of channel bed to culvert openings. Channel banks shall be tapered to match culvert openings. (Roadway Item)

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

B.M.
Control Point #522
N:516659.82 E:1418805.95
EL. 1300.485
STA. 1215+55.60, 99.42' Rt (I-44)
5/8" I.B. w/ aluminum cap set
South Top Bank of EB I-44



Location Sketch



PLAN OF LAYOUT DIMENSIONS

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

Culvert: I-44
Tie Station 1219+15.25

I-44 WIDENING
CULVERT SECTIONS
30 OF 34

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9/26/2024

ROUTE I-44 STATE MO
DISTRICT SW SHEET NO. 313
COUNTY GREENE
JOB NO. JSU0076, J813044C, & JST0088B
PROJECT NO.
BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITAL
JEFFERSON CITY, MO 65102
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* Dimensions Measured Perpendicular to ϕ I-44 to ϕ Box Culvert.



Variable	Equation	Dimension	Variable	Equation	Dimension
S	---	9'-0"	L	BB1 + EE	57'-0"
HT	---	6'-0"	O	I + YY	7 $\frac{3}{8}$ "
TS	---	8"	T	G (SEC Z)	14'-9 $\frac{3}{8}$ "
BS	---	10"	V	HT + TS - 12"	5'-8"
TX	---	8"	W	B1 + E	43'-8 $\frac{3}{8}$ "
A	---	57'-0"	X	3" + TX (TAN Z)	9 $\frac{3}{8}$ "
B	---	48'-4 $\frac{3}{8}$ "	Z	SKREW ANGLE	39°55'14"
B1	---	30'-1 $\frac{1}{8}$ "	BB	(A + B - B1) (SEC Z)	98'-2 $\frac{1}{4}$ "
E	G + O + 20"	13'-7 $\frac{3}{8}$ "	BB1	B1 (SEC Z)	39'-2 $\frac{3}{8}$ "
F	S + 2TX	10'-4"	EE	E (SEC Z)	17'-9 $\frac{3}{8}$ "
G	2V	11'-4"	HH	20" (SEC Z)	2'-2 $\frac{1}{8}$ "
J1	(B1 + E) (TAN Z)	36'-7"	QQ	TX (COS Z)	6 $\frac{1}{8}$ "
J2	(A + B - B1) (TAN Z)	63'-0 $\frac{1}{8}$ "	YY	TX (SIN Z)	5 $\frac{1}{8}$ "
I	3" (COS Z)	2 $\frac{1}{4}$ "	TW	MAX{3'-4" OR (BS + 12")}	3'-4"
K	S (SEC Z) / 2	5'-10 $\frac{3}{8}$ "			

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

I-44 WIDENING CULVERT SECTIONS 31 OF 34

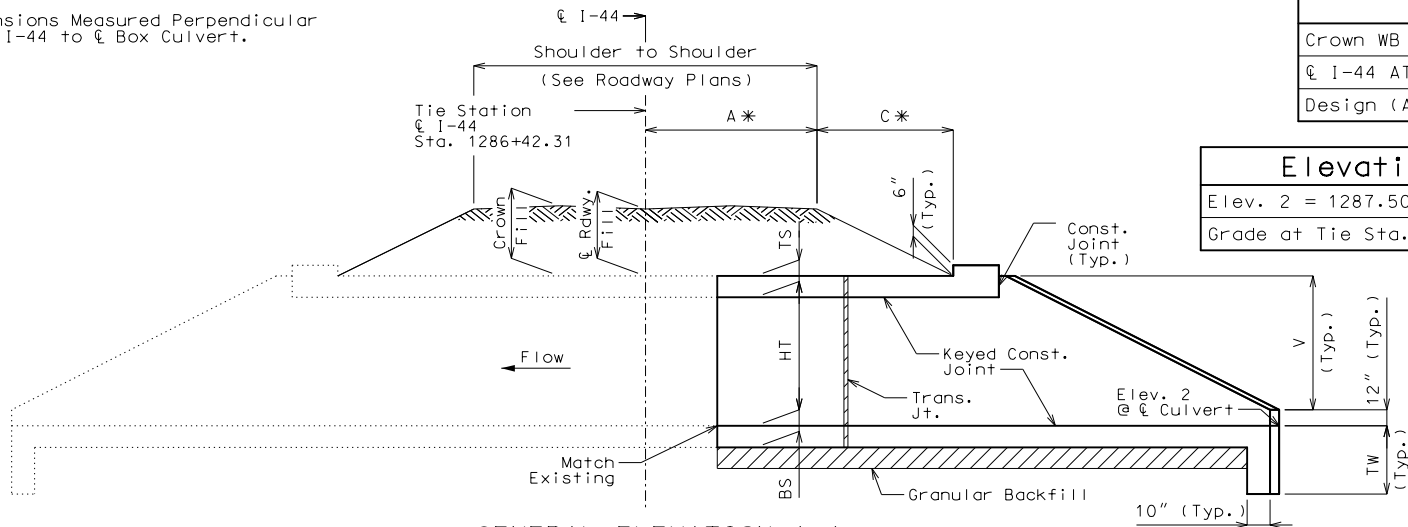
CMT
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GRAFFORD, MURPHY & TILLY, INC.
100 WEST ELMHURST STREET
SPRINGFIELD, MD 65507 (417) 869-6009
ENGINEERING CORPORATION - 000631

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REV.

SINGLE (6'x6') CONCRETE BOX CULVERT

* Dimensions Measured Perpendicular to ℓ I-44 to ℓ Box Culvert.



Construction joint key not shown for clarity, see standard plans for details.

If any part of the barrel is exposed, the roadway fill shall be warped to provide 12 inches minimum cover. (Roadway Item)

If unsuitable material is encountered, excavation of unsuitable material and furnishing and placing of granular backfill shall be in accordance with Sec 206.

Fill Heights	
Crown WB I-44 at ℓ Culvert = 15.85 ft	
ℓ I-44 AT ℓ CULVERT = 15.70 ft	
Design (All Units) = 16 ft	

Elevations	
Elev. 2 = 1287.50	
Grade at Tie Sta. = 1308.16	

Estimated Quantities		Total
Class 4 Excavation	cu. yard	72
Class 4 Excavation in Rock	cu. yard	4
Class B-1 Concrete (Culverts)	cu. yard	30.9
Reinforcing Steel (Culverts)	pound	5,510

Layout Dimensions					
Variable	Equation	Dimension	Variable	Equation	DIMENSION
S	---	6'-0"	L	CC1 + EE	49'-8 $\frac{1}{8}$ "
HT	---	6'-0"	O	I + YY	6 $\frac{7}{8}$ "
TS	---	8"	T	G (SEC Z)	13'-1 $\frac{1}{8}$ "
BS	---	9"	V	HT + TS - 12"	5'-8"
TX	---	8"	W	C1 + E	42'-11 $\frac{7}{8}$ "
A	---	57'-0"	X	3" + TX (TAN Z)	7 $\frac{7}{8}$ "
C	---	55'-0 $\frac{1}{8}$ "	Z	SKEW ANGLE	30° 4' 58"
C1	---	29'-5 $\frac{1}{4}$ "	CC	(A + C - C1) (SEC Z)	95'-5 $\frac{1}{4}$ "
E	G + O + 20"	13'-6 $\frac{3}{8}$ "	CC1	(C1) (SEC Z)	34'-0 $\frac{1}{4}$ "
F	S + 2TX	7'-4"	EE	E (SEC Z)	15'-7 $\frac{7}{8}$ "
G	2V	11'-4"	HH	20" (SEC Z)	1'-11 $\frac{1}{8}$ "
H1	(W) (TAN Z)	24'-10 $\frac{3}{4}$ "	OO	TX (COS Z)	6 $\frac{7}{8}$ "
H2	(A + C - C1) (TAN Z)	47'-10"	YY	TX (SIN Z)	4"
I	3" (COS Z)	2 $\frac{5}{8}$ "	TW	MAX{3'-4" OR (BS + 12")}	3'-4"
K	S (SEC Z) / 2	3'-5 $\frac{5}{8}$ "			

Hydrologic Data	
Drainage Area = 0.44 Sq. Miles	
Design Flood Frequency = 100 Years	
Design Flood Discharge = 423 cfs	
Design Flood (D.F.) Elevation = 1297.79	
Base Flood (100 Year)	
Estimated Backwater = 10.3 ft	
Outlet Velocity = 17.0 ft/s	
Roadway Overtopping	
Overtopping Flood Discharge = 680 cfs	
Overtopping Flood Frequency = >500 Years	
>500 Flood Elevation = 1306.65	

General Notes:

Design Specifications:
2010 AASHTO LRFD Bridge Design Specifications and 2010 Interim Revisions

Design Loading:
Vehicular = HL-93 minus lane load, Earth = 120 lb/cf
Equivalent Fluid Pressure = 30 lb/cf (min.), 60 lb/cf (max.)

Design Unit Stresses:
Class B-1 Concrete (Box Culvert) f'_c = 4,000 psi
Reinforcing Steel (Grade 60) f_y = 60,000 psi

Miscellaneous:
See Standard Plans for reinforcement details.

Drawing not to scale. Follow dimensions.

Dimensions are in inches unless otherwise noted.

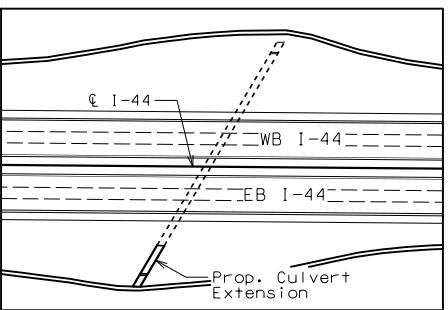
MoDOT Construction personnel will indicate the type of box culvert constructed:
☐ Precast Concrete Box used
☐ Cast-in-Place Concrete Box used

When alternate precast concrete box sections are used, the minimum distance from inside face of headwalls to precast sections measured along the shortest wall shall be 3 feet. Reinforcement and dimensions for wings and headwalls shall be in accordance with Missouri Standard Plans.

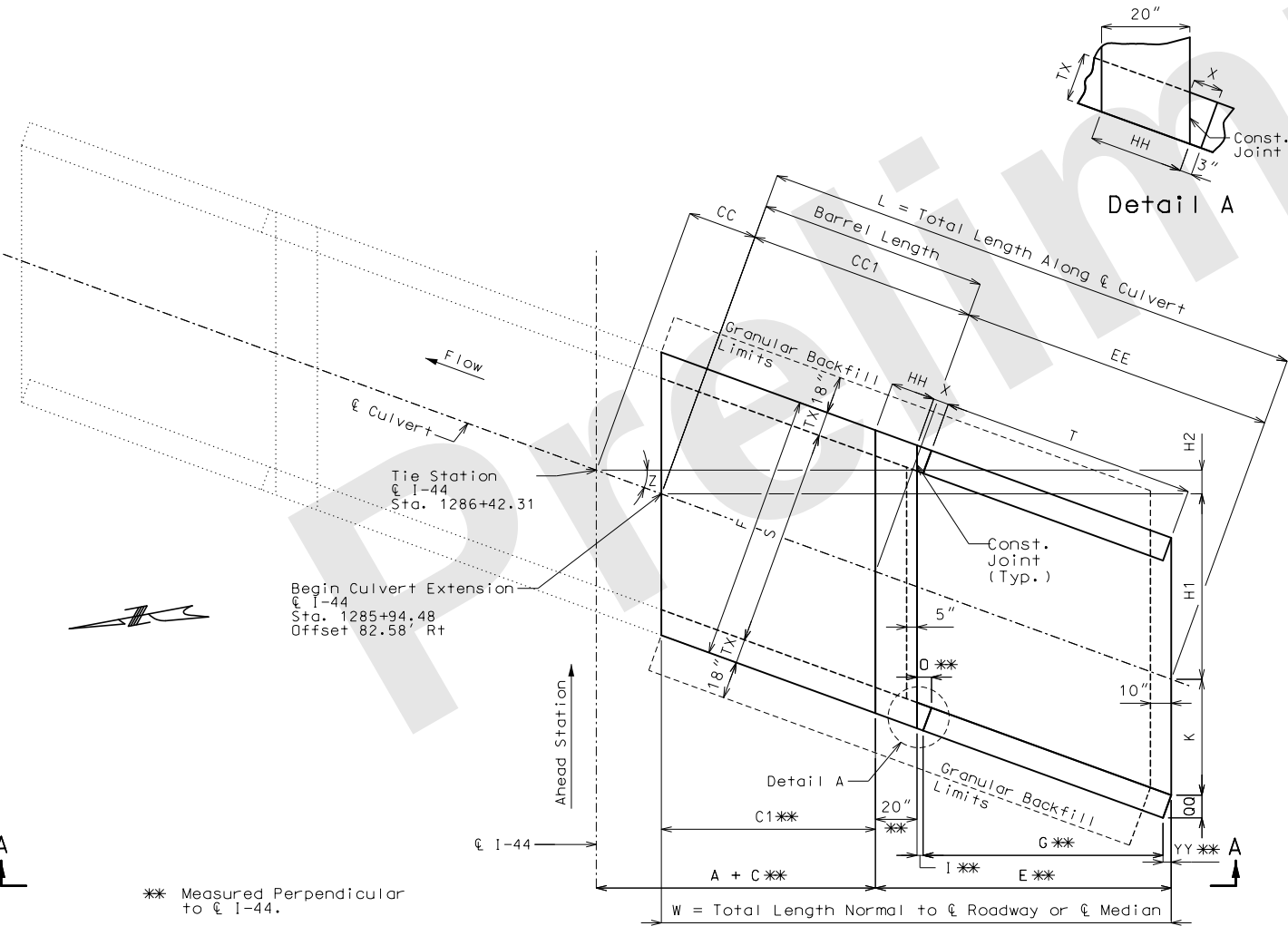
Channel bottom shall be graded within the right of way for transition of channel bed to culvert openings. Channel banks shall be tapered to match culvert openings. (Roadway Item)

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

B.M.
Control Point #525
N:516837.12 E:1425425.70
EL. 1309.181
STA. 1281+79.15, 136.67' Lt (I-44)
5/8" I.B. w/ aluminum cap set 25'
North of North Top Slope of WB I-44



Location Sketch



** Measured Perpendicular to ℓ I-44.

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

Culvert: I-44
Tie Station 1286+42.31

I-44 WIDENING
CULVERT SECTIONS
32 OF 34

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED
9/26/2024

ROUTE
I-44

STATE
MO

DISTRICT
SW

SHEET NO.
315

COUNTY
GREENE

JOB NO.
JSU0076, J813044C, & JST0088B

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITAL

JEFFERSON CITY, MO 65102

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

MoDOT

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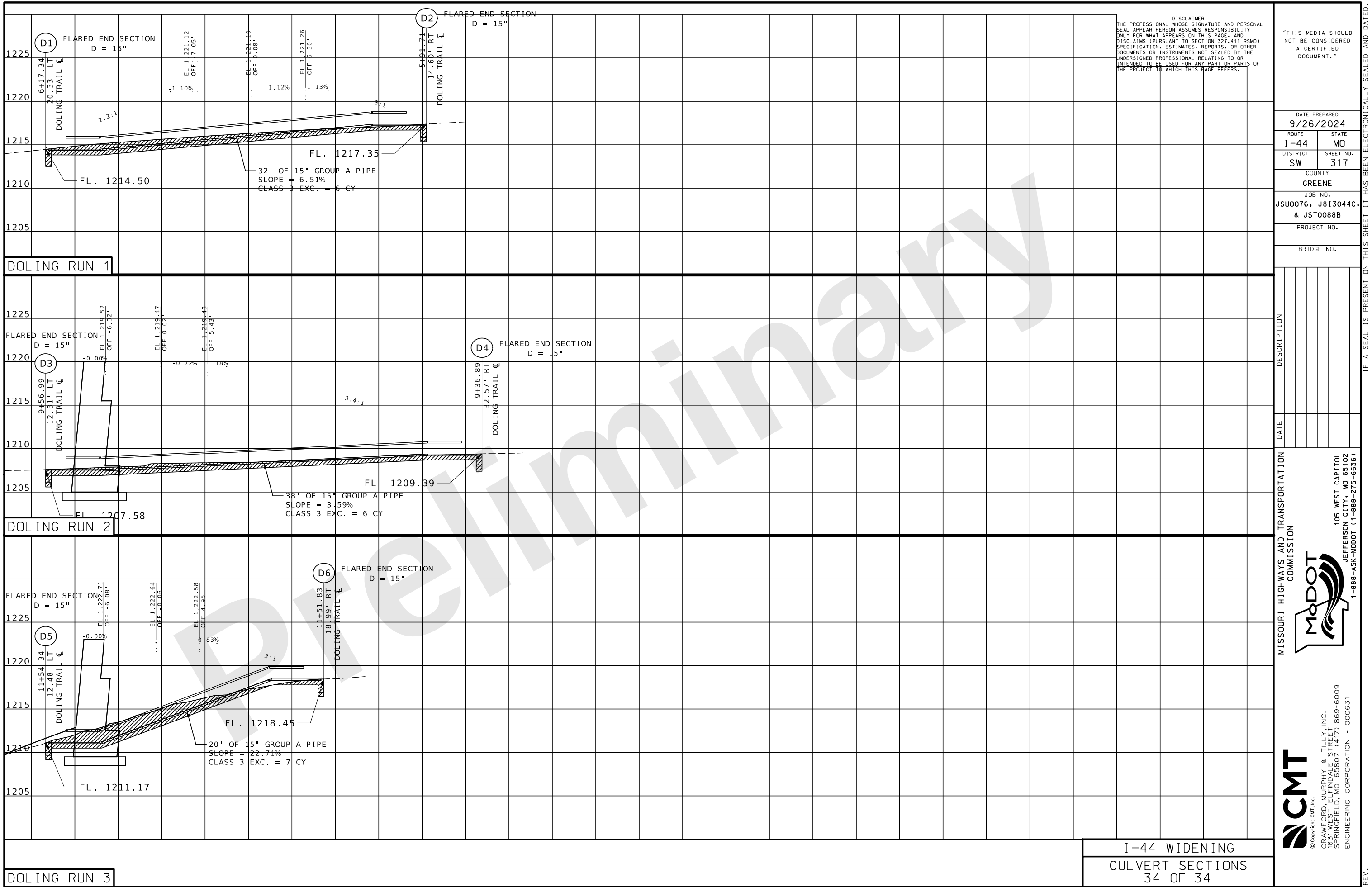
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ENGINEERING CORPORATION - 000631

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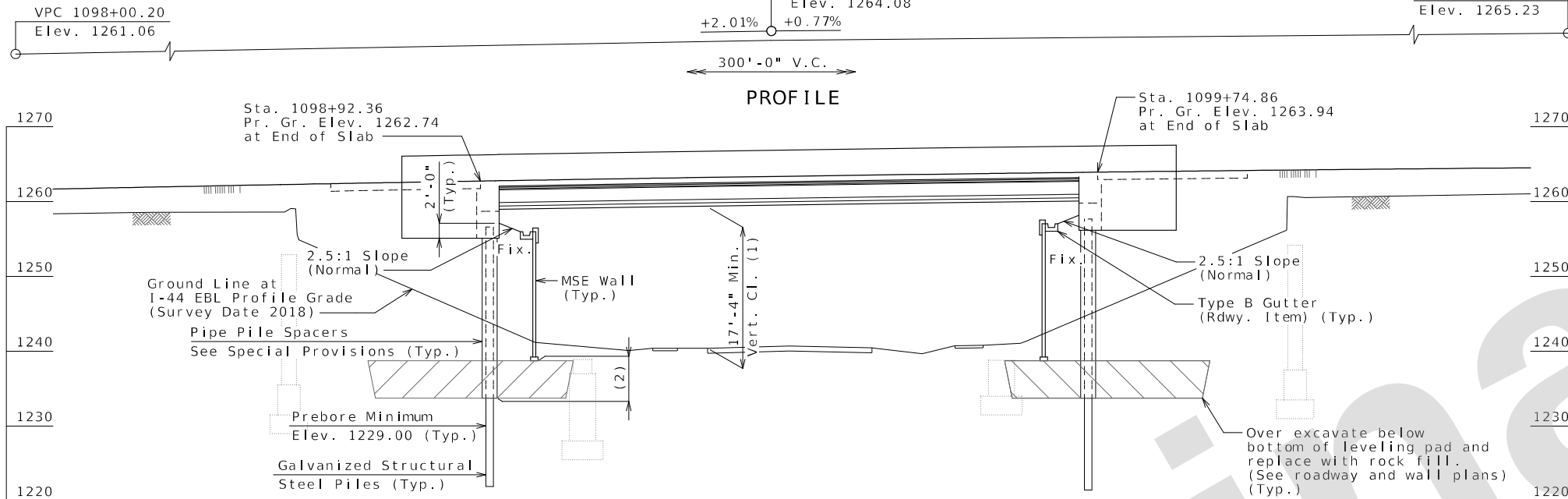


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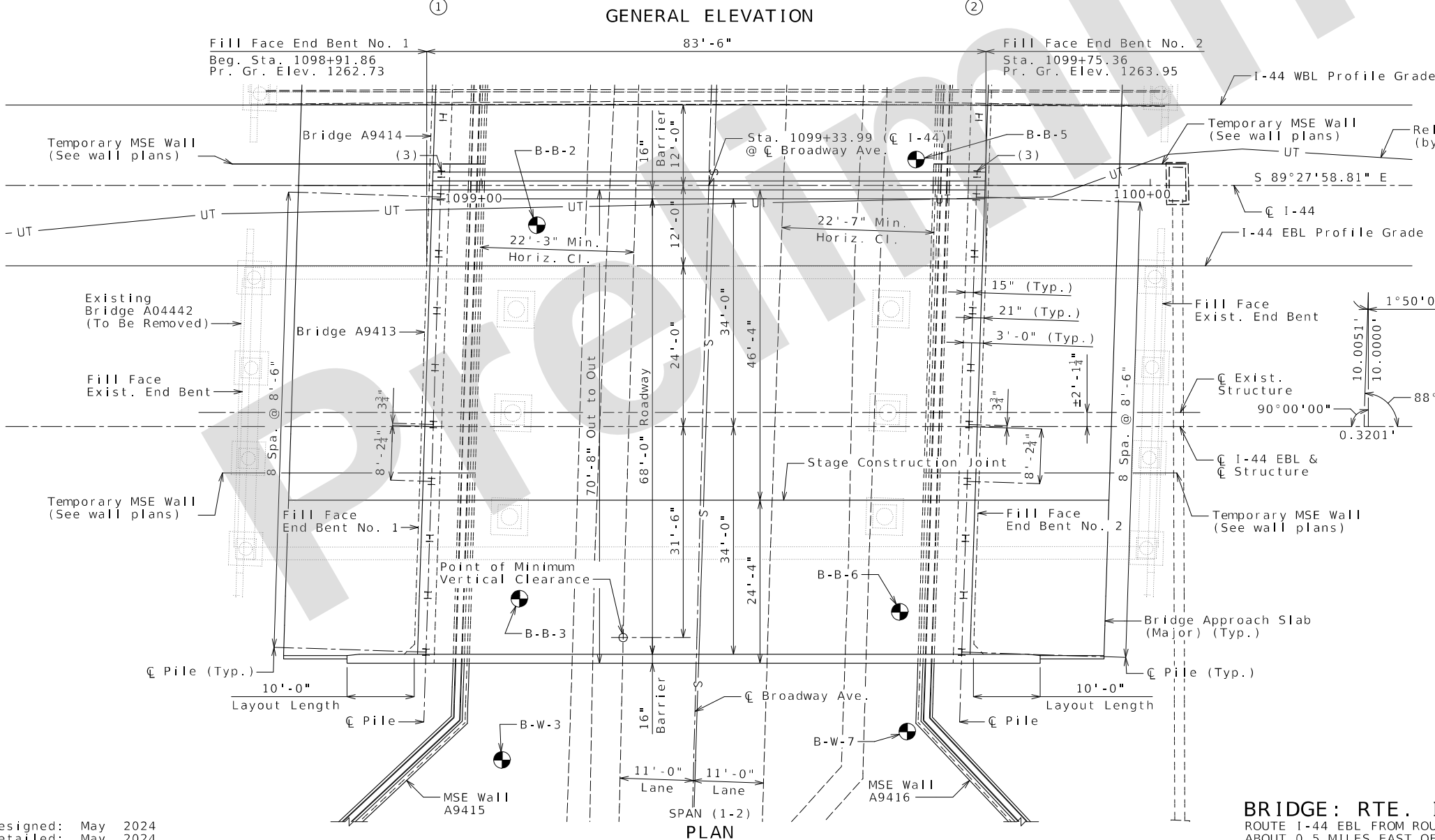
(80') PRESTRESSED CONCRETE NU-GIRDER SPAN

SEC/SUR 2 TWP 29N RGE 22W



Pile Encasement	Option Used (✓)
Pipe Pile Spacer	
Pile Jacket	

MoDOT Construction personnel will indicate the pile encasement used.



- (1) Minimum vertical clearance is controlled by adjacent Bridge A9414 at 15'-10".
- (2) Bottom of pipe pile spacer shall be 5'-0" minimum below bottom of leveling pad.
- (3) Pile in Bridge A9414 shall be driven during Stage 2 Construction of Bridge A9413.

NOTES:

Indicates location of borings.

For notice and disclaimer regarding boring log data, see Sheet No. 2.

Roadway fill, exclusive of Select Granular Backfill for Structural Systems, shall be completed to the final roadway section and up to the elevation of the bottom of the concrete beam within the limits of the structure and for not less than 25 feet in back of the fill face of the end bents before any piles are driven for any bents falling within the embankment section.

C.P. #518 - 5/8" I.B. w/ 2" Aluminum Cap
Sta. 1106+18.78, 110.87' Lt. of C I-44
Elev. 1277.59

C.P. #519 - 5/8" I.B. w/ 2" Aluminum Cap
Sta. 1122+80.16, 92.35' Lt. of C I-44
Elev. 1270.58

BRIDGE: RTE. I-44 EBL OVER BROADWAY AVE.

ROUTE I-44 EBL FROM ROUTE 13 TO ROUTE H
ABOUT 0.5 MILES EAST OF ROUTE 13
BEGINNING STATION 1098+91.86

Designed: May 2024
Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 1 of 31

DATE PREPARED 9/16/2024	
ROUTE I-44	STATE MO
DISTRICT BR	SHEET NO. 1
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9413	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	

GENERAL NOTES:

DESIGN SPECIFICATIONS:

2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
Operational Importance = Essential
2011 AASHTO Guide Specifications for LRFD Seismic Bridge Design (2nd Ed.)
and 2014 Interim Revisions (Seismic)
Seismic Design Category = A
Design earthquake response spectral acceleration coefficient at 1.0 second
period, S_{D1} = 0.104g
Acceleration Coefficient (effective peak ground acceleration coefficient), A_s = 0.089g

DESIGN LOADING:

Vehicular = HL-93
Future Wearing Surface = 35 lb/sf
Earth = 120 lb/cf
Equivalent Fluid Pressure = 45 lb/cf (Min.)
Superstructure: Non-composite for dead load.
Composite for live load.

DESIGN UNIT STRESSES:

Class B Concrete (Substructure) $f'c$ = 3,000 psi
Class B-1 Concrete (Type D Barrier) $f'c$ = 4,000 psi
Class B-2 Concrete (Superstructure, except
Prestressed Girders and Type D Barrier) $f'c$ = 4,000 psi
Reinforcing Steel (Grade 60) f_y = 60,000 psi
Structural Steel HP Pile (ASTM A709 Grade 50S) f_y = 50,000 psi
For precast prestressed panel stresses, see Sheet No. 18.
For prestressed girder stresses, see Sheets No. 16 thru 17.

NEOPRENE PADS:

Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

JOINT FILLER:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber
expansion and partition joint filler, except as noted.

REINFORCING STEEL:

Minimum clearance to reinforcing steel shall be 1½", unless otherwise shown.

MBS refers to 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 splices and they
will be considered completely covered by the contract unit price for other items.

TRAFFIC HANDLING:

Vertical clearance for Broadway Avenue traffic during construction shall be 14'-6"
minimum over a 11'-0" wide horizontal opening of the roadway in each direction.

Traffic to be maintained on structures during construction. See roadway plans for traffic
control and Sheets No. 3 thru 4 for staged construction details.

MISCELLANEOUS:

MoDOT Construction personnel will indicate the type of joint filler option used under the
precast panels for this structure:

- ☐ Constant Joint Filler
☐ Variable Joint Filler

NOTICE AND DISCLAIMER REGARDING BORING LOG DATA:

The locations of all subsurface borings for this structure are shown on the plan sheets for
this structure. The boring data for all locations indicated, as well as any other boring
logs or other factual records of subsurface data and investigations performed by the
department for the design of the project, are shown on Sheets No. 28 thru 31 and may be
included in the Electronic Bridge Deliverables. They will also be available from the
Project Contact upon written request. No greater significance or weight should be given to
the boring data depicted on the plan sheets than is given to the subsurface data
available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts
the conditions to be encountered in constructing this project. A contractor assumes all
risks it may encounter in basing its bid prices, time or schedule of performance on the
boring data depicted here or those available from the district, or on any other
documentation not expressly warranted, which the contractor may obtain from the Commission.

Foundation Data				
Type	Design Data	Bent Number		
		1	2	
Load Bearing Pile	Pile Type and Size	HP 12x53	HP 12x53	
	Number	ea 9	9	
	Approximate Length Per Each	ft 30	30	
	Pile Point Reinforcement	ea All	All	
	Min. Galvanized Penetration (Elev.)	ft Full Length	Full Length	
	Pile Driving Verification Method	DF	DF	
	Resistance Factor	0.4	0.4	
	Minimum Nominal Axial Compressive Resistance	kip 590	590	

DF = FHWA - modified Gates Dynamic Pile Formula.

Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resistance Factor}}$

Manufactured pile point reinforcement shall be used on all piles in this structure.

Pile point reinforcement need not be galvanized. Shop drawings will not be required for
pile point reinforcement.

Prebore for piles at Bents No. 1 and 2 to elevation 1229.0.

HP piles are anticipated to be driven to refusal on rock. Review all borings for depth
of rock and restrict driving as appropriate to comply with hard rock driving criteria
in accordance with Sec 702. When pile refusal on rock occurs, as approved by the
engineer, the minimum nominal axial compressive resistance is verified and no
additional pile driving verification method is required.

The contractor shall make every effort to achieve the minimum galvanized penetration
(elevation) shown on the plans for all piles.

Estimated Quantities				
Item	Substr.	Superstr.	Total	
Removal of Bridges (A04442)	Lump sum		1	
Bridge Approach Slab (Major)	sq. yard	314	314	
Galvanized Structural Steel Piles (12 in.)	linear foot	534	534	
Pre-Bore for Piling	linear foot	189	189	
Pile Point Reinforcement	each	18	18	
Class B Concrete (Substructure)	cu. yard	58.4	58.4	
Type D Barrier	linear foot	226	226	
Slab on Concrete NU-Girder	sq. yard	648	648	
NU 35, Prestressed Concrete NU-Girder	linear foot	647	647	
Vertical Drain at End Bents	each	2	2	
Plain Neoprene Bearing Pad	each	8	8	
Laminated Neoprene Bearing Pad (Tapered)	each	8	8	
Pile Spacers	each	18	18	

All concrete above the construction joint in the end bents is included in the Estimated
Quantities for Slab on Concrete NU-Girder.

All reinforcement in the end bents is included in the Estimated Quantities for Slab on
Concrete NU-Girder.

Estimated Quantities for Slab on Concrete NU-Girder		
Item		Total
Class B-2 Concrete	cu. yard	204
Reinforcing Steel (Epoxy Coated)	pound	46,160

The table of Estimated Quantities for Slab on Concrete NU-Girder represents the quantities
used by the State in preparing the cost estimate for concrete slabs. The area of the
concrete slab will be measured to the nearest square yard longitudinally from end of slab
to end of slab and transversely from out to out of bridge slab (or with the horizontal
dimensions as shown on the plan of slab). Payment for prestressed panels, conventional
forms, all concrete and epoxy coated reinforcing steel will be considered completely
covered by the contract unit price for the slab. Variations may be encountered in the
estimated quantities but the variations cannot be used for an adjustment in the contract
unit price.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703.
All hardware for forming the slab to be left in place as a permanent part of the structure
shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and a
finish type I, II or III.

PRECAST PRESTRESSED PANELS:

The Estimated Quantities for Slab on Concrete NU-Girder are based on skewed precast prestressed end panels.

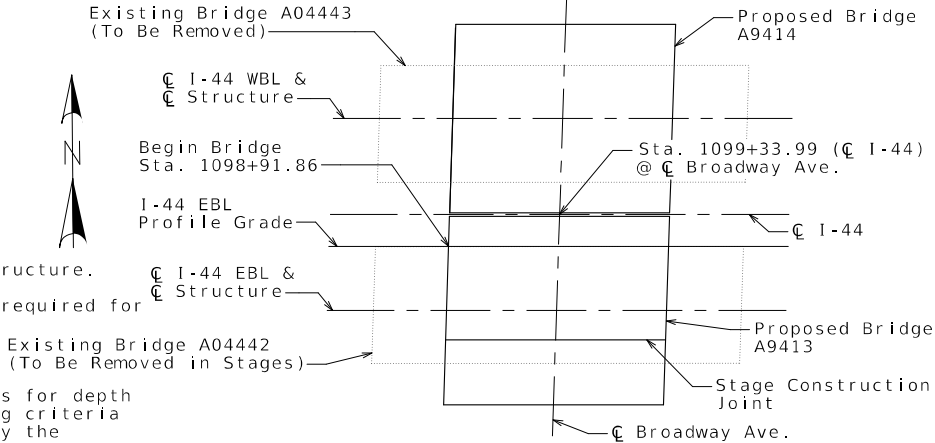
Class B-2 Concrete quantity is based on minimum top flange and minimum joint material thickness.

The prestressed panel quantities are not included in the table of Estimated Quantities for
Slab on Concrete NU-Girder.

STAGED CONSTRUCTION:

The Contractor shall verify that the existing bridge is sufficient to carry traffic during Stage 1 Construction.
The design, installation and monitoring of any temporary supports will be considered completely covered by the
contract unit price for the Removal of Bridges (A04442).

The Contractor shall remove the existing end bents as necessary for Stage 1 Construction as shown on Sheet No. 3.



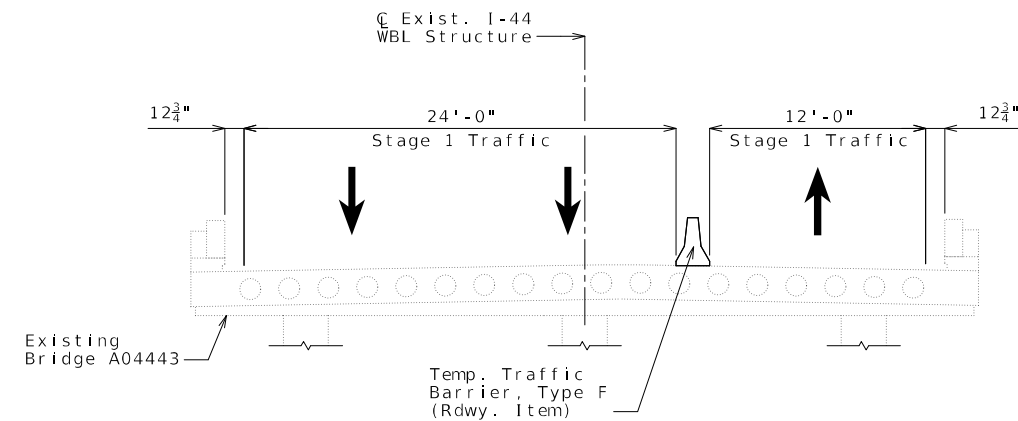
LOCATION SKETCH

GENERAL NOTES & QUANTITIES

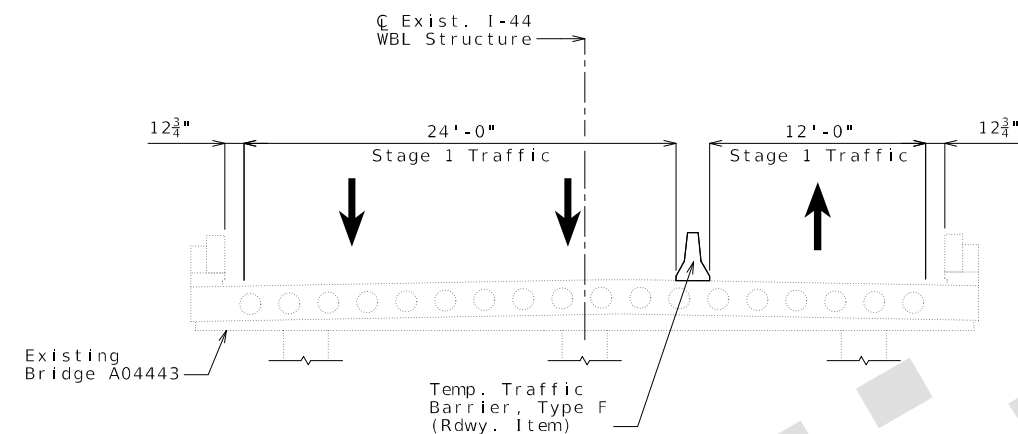
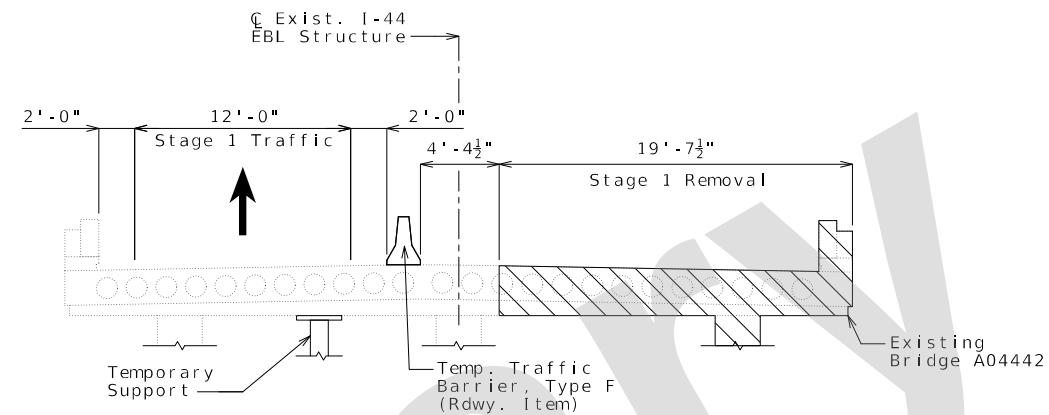
Detailed: May 2024
Checked: Jun. 2024

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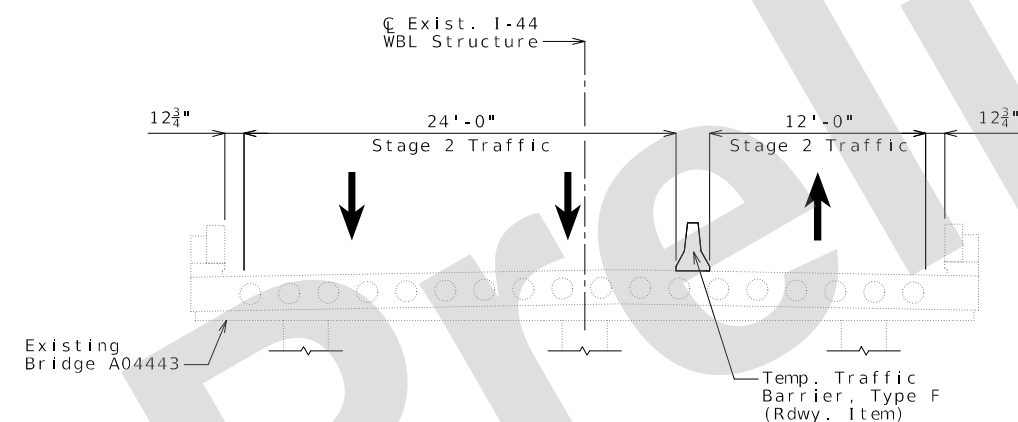
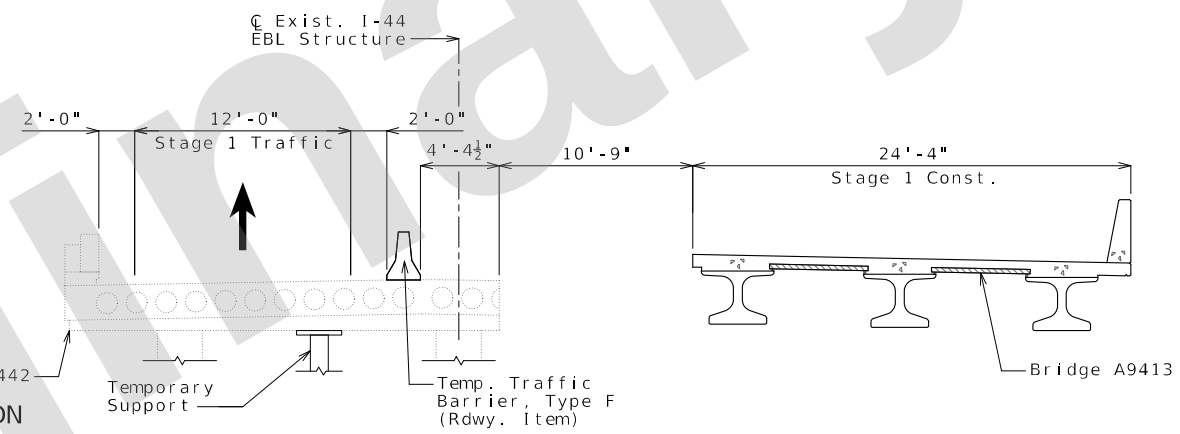
Sheet No. 2 of 31



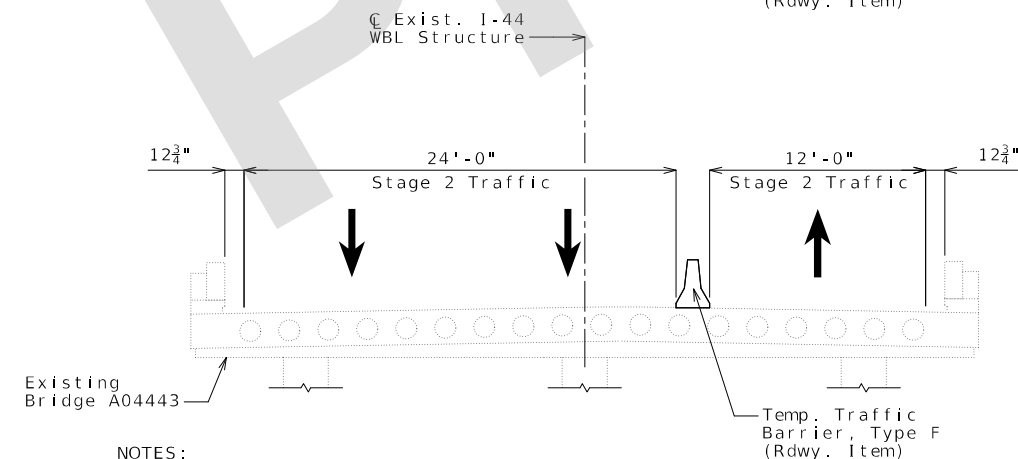
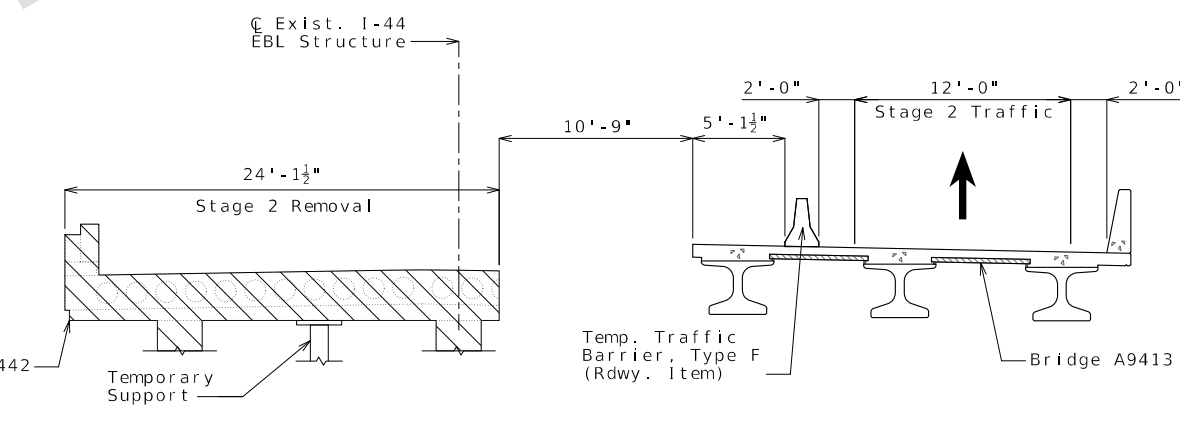
STAGE 1 REMOVAL



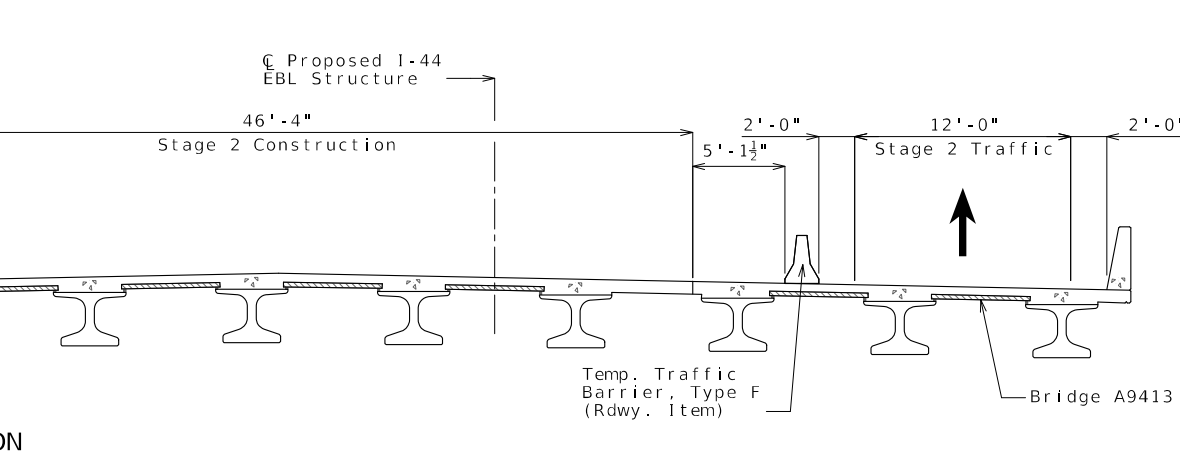
STAGE 1 CONSTRUCTION



STAGE 2 REMOVAL



STAGE 2 CONSTRUCTION



NOTES:

All typical sections are looking east.

Hatched area indicates removal of existing structures.

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

Sheet No. 3 of 31

STAGED CONSTRUCTION

Detailed: May 2024
Checked: Jun. 2024

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DATE PREPARED
9/16/2024
ROUTE
1-44
DISTRICT
BR
STATE
MO
SHEET NO.
3

COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9413

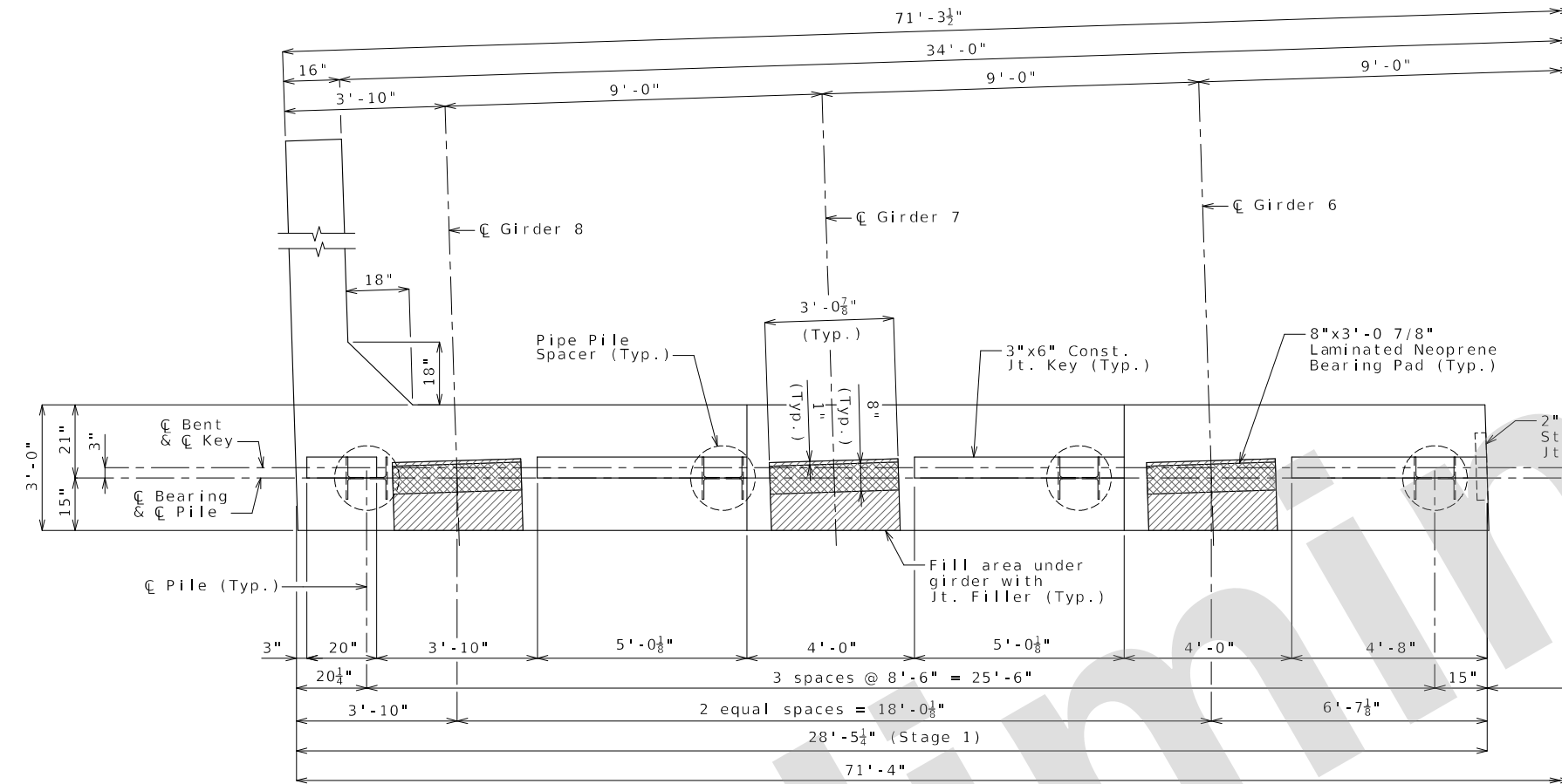
DESCRIPTION	DATE

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

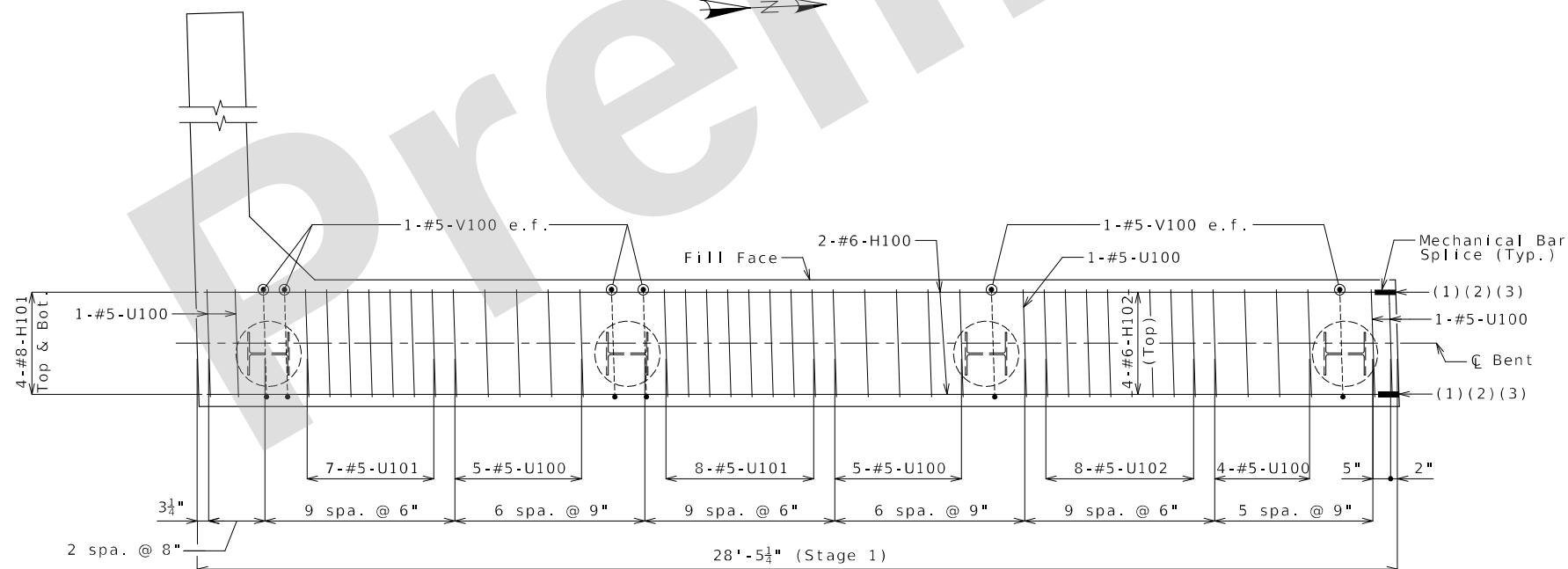
Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

BURNS
MCDONNELL

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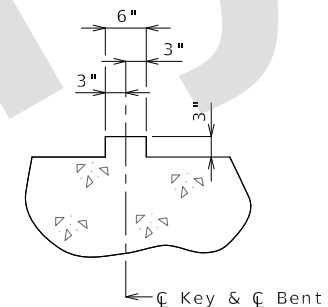
PART PLAN OF BEAM



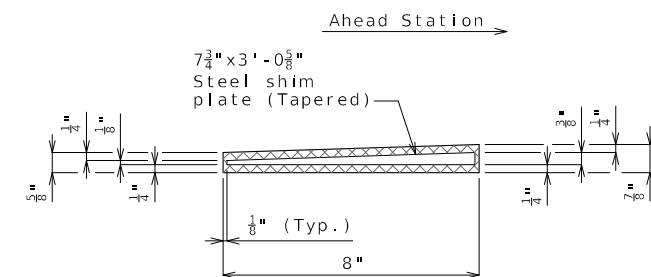
PART PLAN OF BEAM SHOWING REINFORCEMENT
(Keys and steps not shown for clarity)

Substructure Quantity Table for End Bent No. 1		
Item		Quantity
Galvanized Structural Steel Piles (12 in.)	linear foot	266
Pre-Bore for Piling	linear foot	90
Pile Point Reinforcement	each	9
Class B Concrete (Substructure)	cu. yard	29.2

These quantities are included in the Estimated Quantities table on Sheet No. 2.



SECTION THRU KEY



TYPICAL SECTION THRU
8"X3'-0 7/8"X3/4"
LAMINATED NEOPRENE BEARING PAD
(8 Required)

NOTES:

Work this sheet with Sheets No. 6 thru 9.

All U bars and pairs of V bars shall be placed parallel to centerline of roadway.

Reinforcing steel shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.

e.f. denotes each face.

- (1) 4-MBS H101-H104 Top & Bot.
- (2) 2-MBS H100-H103 Each Face
- (3) 4-MBS H102-H105 Top

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 5 of 31

END BENT NO. 1
BEAM DETAILS 1 OF 2

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DATE PREPARED
9/16/2024
ROUTE
1-44
DISTRICT
BR

STATE
MO

SHEET NO.
5

COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9413

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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



Burns & McDonnell Engineering Co., Inc.

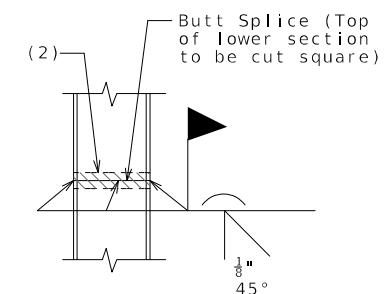
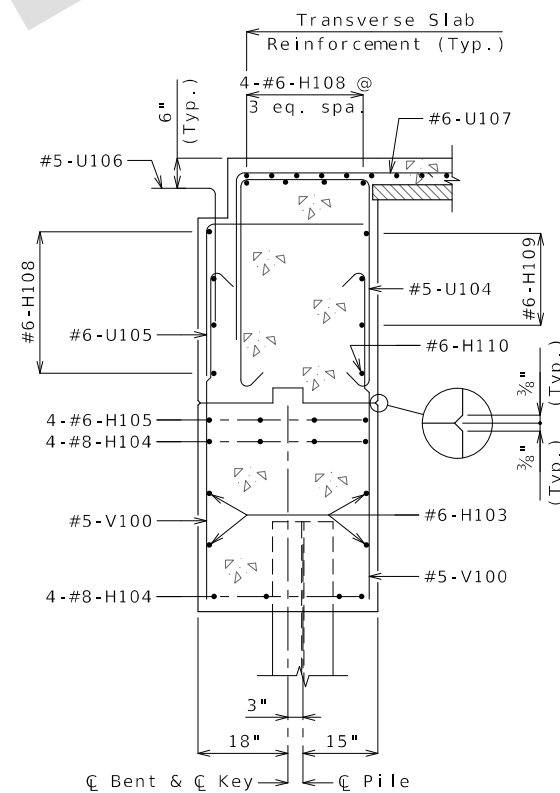
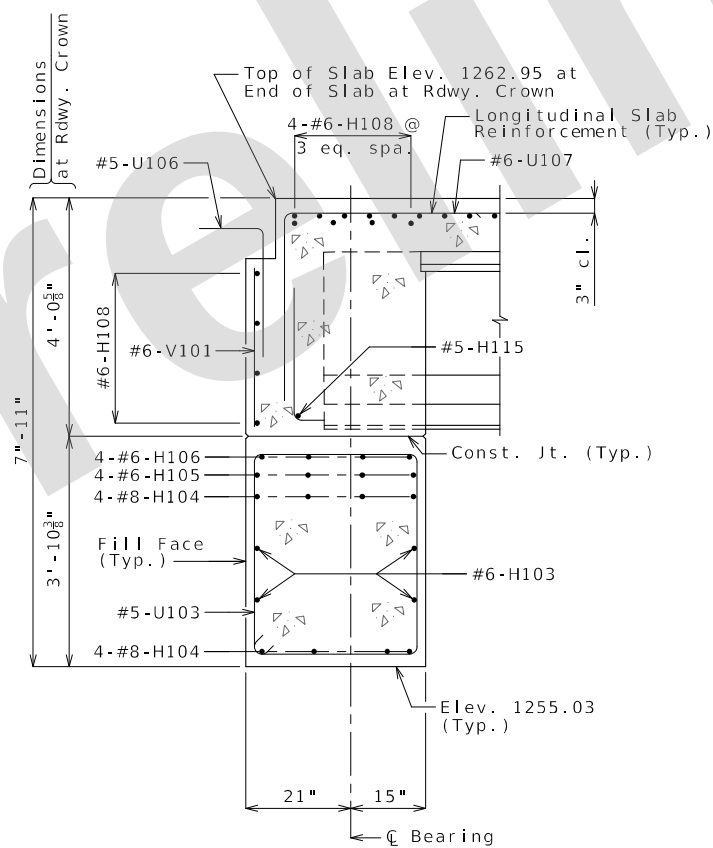
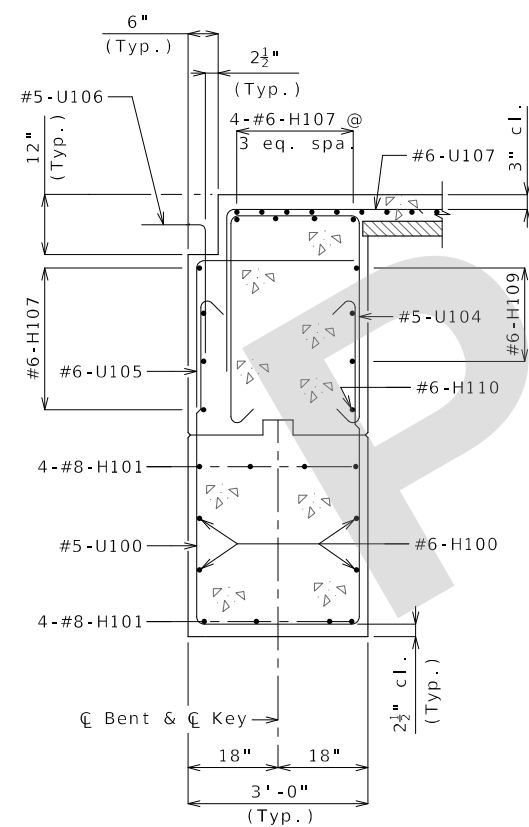
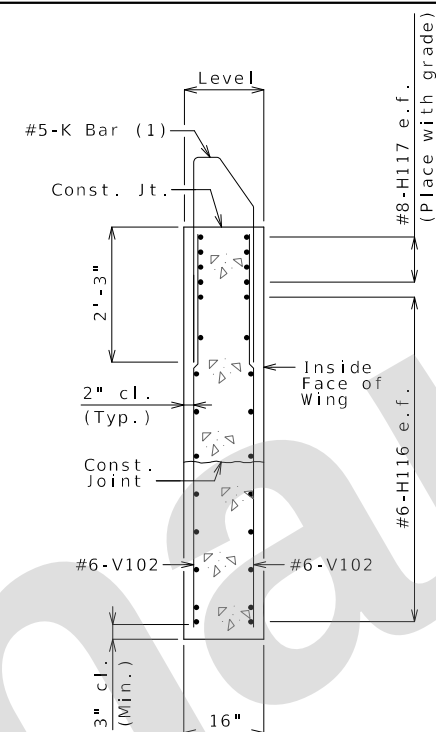
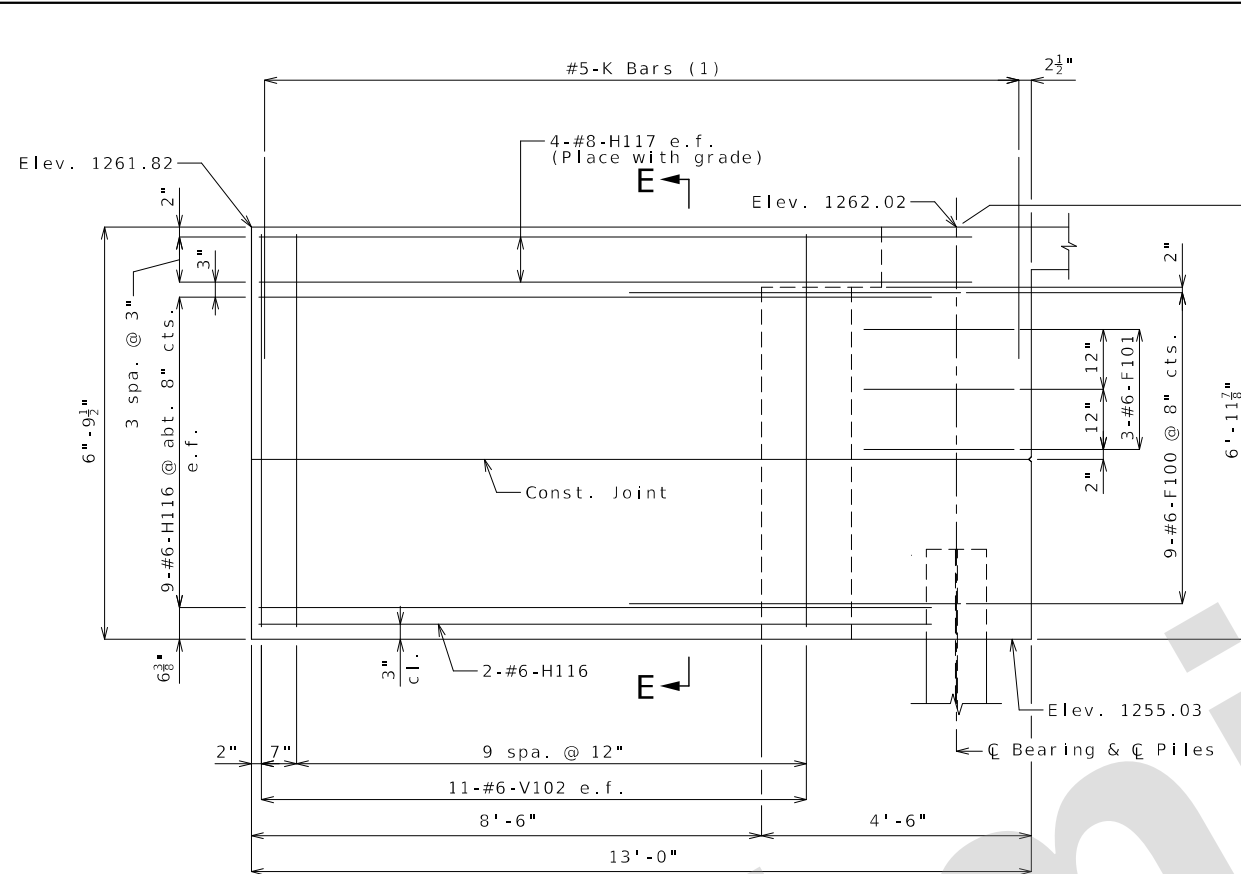
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165
BMcD Project No. 146617



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REV.



STEEL PILE SPLICE
(If required)

(2) Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.

NOTES :

- (1) For reinforcement of the Type D Barrier at End Bents, see Sheet No. 23.
- e.f. denotes each face.
- For details of bridge approach slab, see Sheet No. 24.
- Work this sheet with Sheets No. 5 thru 8.

END BENT NO. 1
WING DETAILS & SECTIONS

Detailed: May 2024
Checked: Jun. 2024

Checked: Jun. 2024

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

Sheet No. 9 of 31

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DATE PREPARED		EEN ELECTRONI
9/16/2024		
ROUTE	STATE	
I - 44	MO	
DISTRICT	SHEET NO.	
BR	9	

COUNTY	LET IT HAS B
GREENE	
JOB NO.	
JSU0076	
CONTRACT ID.	

PROJECT NO.	SHEET

BRIDGE NO.	A9413	N THIS

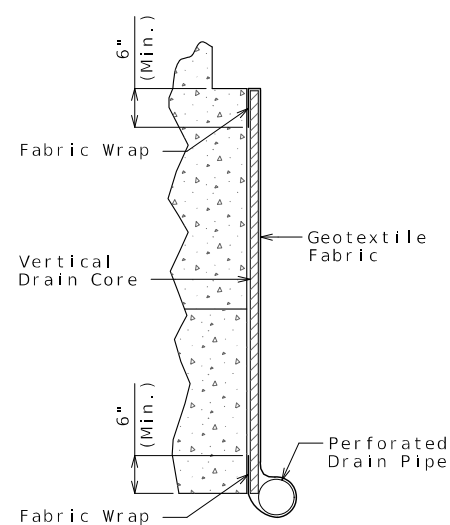
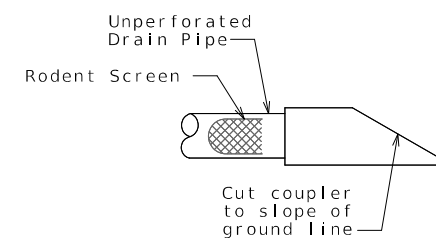
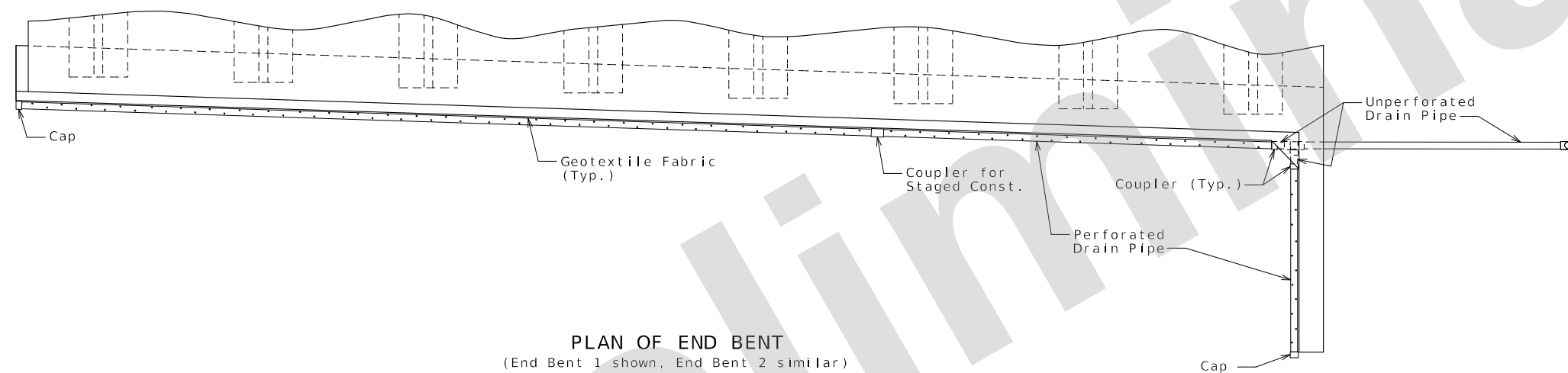
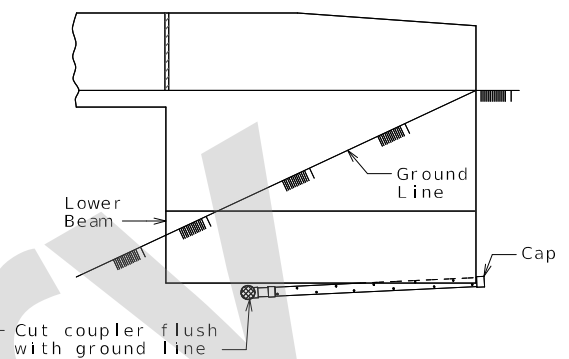
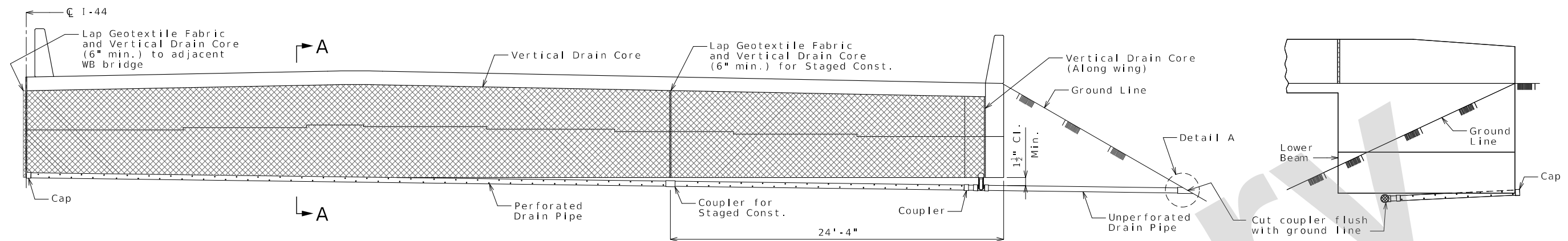
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

**BURNS
MCDONNELL**
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMCD Project No. 146617



General Notes:

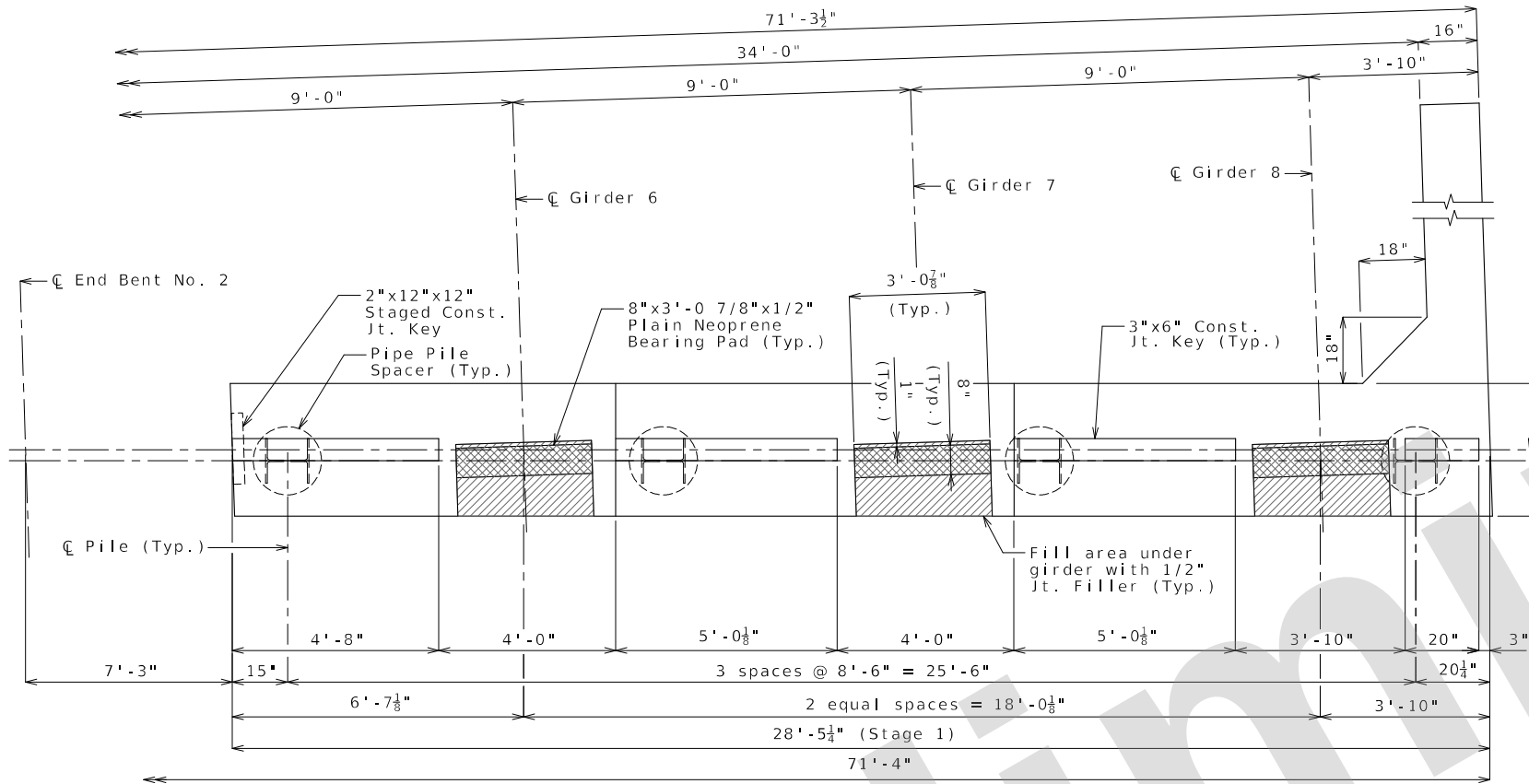
All drain pipe shall be sloped 1 to 2 percent.

Drain pipe may be either 6-inch diameter corrugated metallic-coated steel pipe underdrain, 4-inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4-inch diameter corrugated polyethylene (PE) drain pipe.

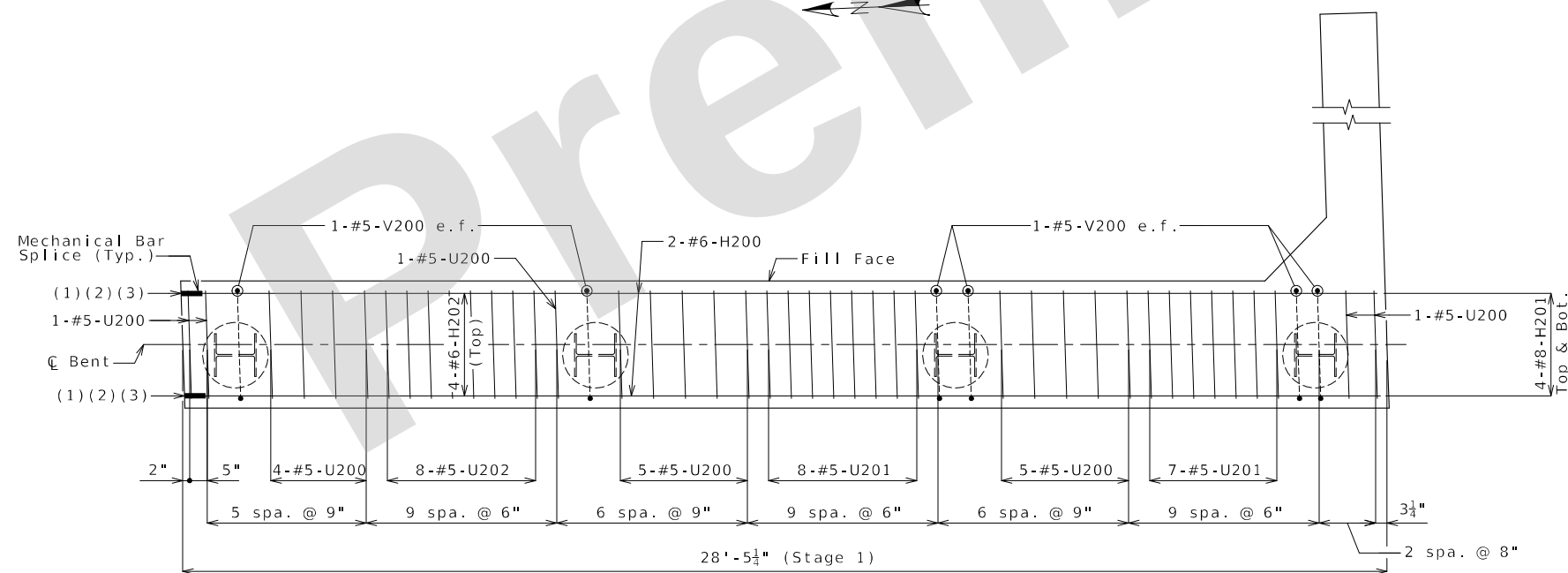
Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.

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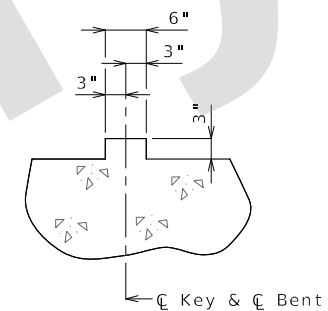
PART PLAN OF BEAM



PART PLAN OF BEAM SHOWING REINFORCEMENT
(Keys and steps not shown for clarity)

Substructure Quantity Table for End Bent No. 2			
Item		Quantity	
Galvanized Structural Steel Piles (12 in.)	linear foot	268	
Pre-Bore for Piling	linear foot	99	
Pile Point Reinforcement	each	9	
Class B Concrete (Substructure)	cu. yard	29.2	

These quantities are included in the Estimated Quantities table on Sheet No. 2.



SECTION THRU KEY

NOTES:

Work this sheet with Sheets No. 12 thru 15.

All U bars and pairs of V bars shall be placed parallel to centerline of roadway.

Reinforcing steel shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.

e.f. denotes each face.

- (1) 4-MBS H201-H204 Top & Bot.
- (2) 2-MBS H200-H203 Each Face
- (3) 4-MBS H202-H205 Top

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 11 of 31

END BENT NO. 2
BEAM DETAILS 1 OF 2

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DATE PREPARED
9/16/2024
ROUTE
1-44
DISTRICT
BR

STATE
MO

SHEET NO.
11

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9413

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

Burns & McDonnell Engineering Co., Inc.

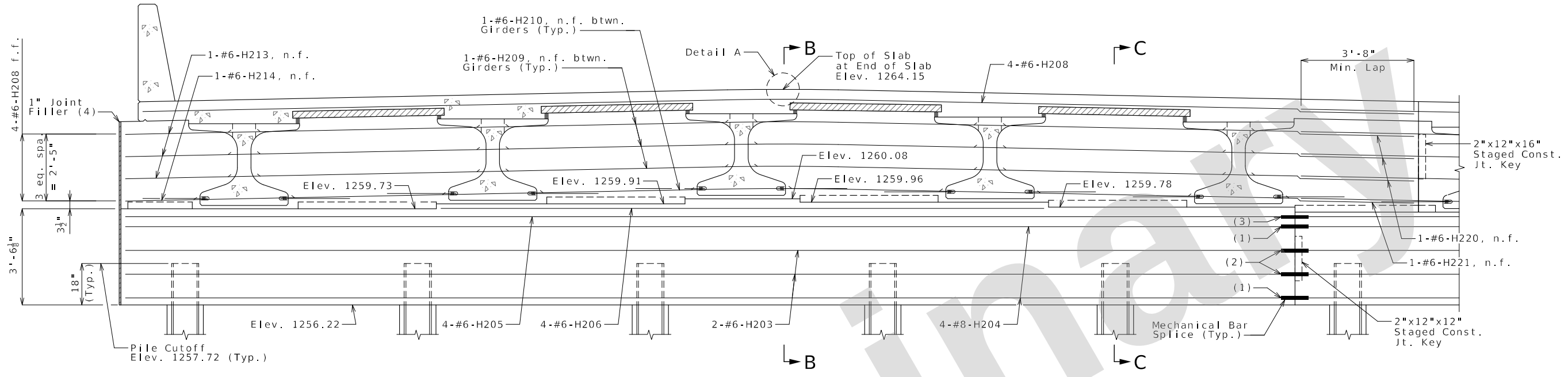
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165
BMcD Project No. 146617

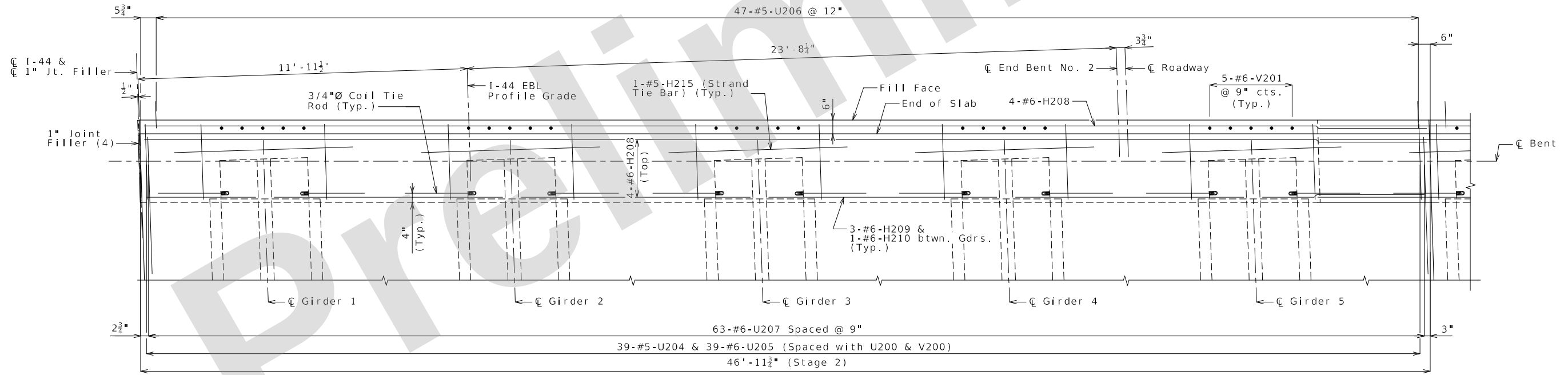
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MCDONNELL

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REV.



SECTION NEAR END BENT
(Looking Ahead Station)



PART PLAN
(Keys and steps not shown for clarity)

NOTES:

Work this sheet with Sheets No. 11 thru 13 & 15.

For Section A-A see Sheet No. 15.

For Detail A see Sheet No. 21.

The U bars shall be placed parallel to centerline of roadway.

All concrete in the end bent above top of beam and below top of slab shall be Class B-2.

Strands at end of girders shall be field bent or, if necessary, cut in field to maintain 1 1/2 inch minimum clearance to fill face of end bent.

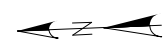
For location of coil tie rods and #5-H215, see Sheets No. 16 and 17.

For details of vertical drain at end bents, see Sheet No. 10.

For details of bridge approach slab, see Sheet No. 24.

f.f. denotes far face
n.f. denotes near face

(1) 4-MBS H201-H204 Top & Bot.
(2) 2-MBS H200-H203 Each Face
(3) 4-MBS H202-H205 Top
(4) Seal joint between vertical face of EB and WB bearing beams and diaphragms with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.



END BENT NO. 2
DIAPHRAGM DETAILS 2 of 2

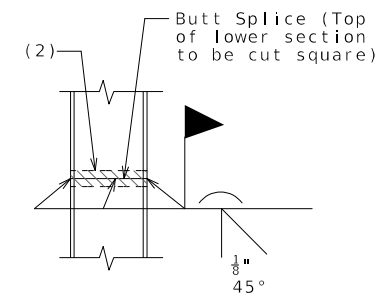
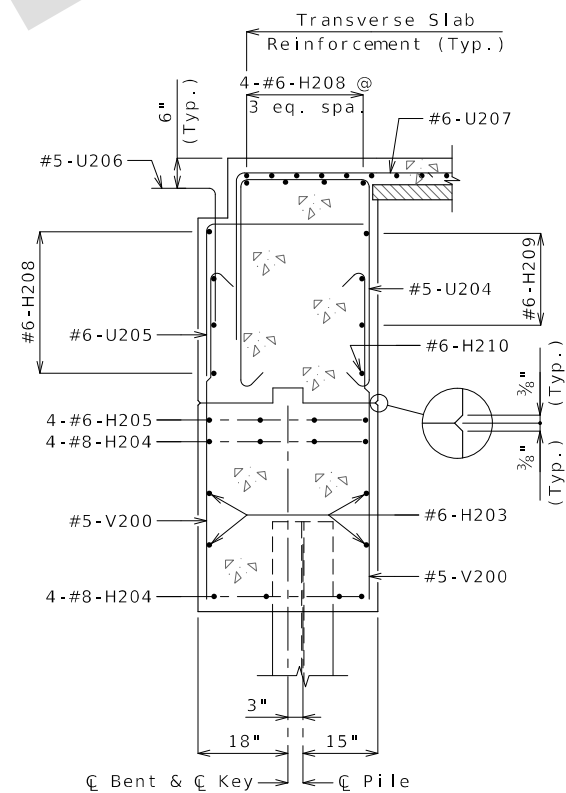
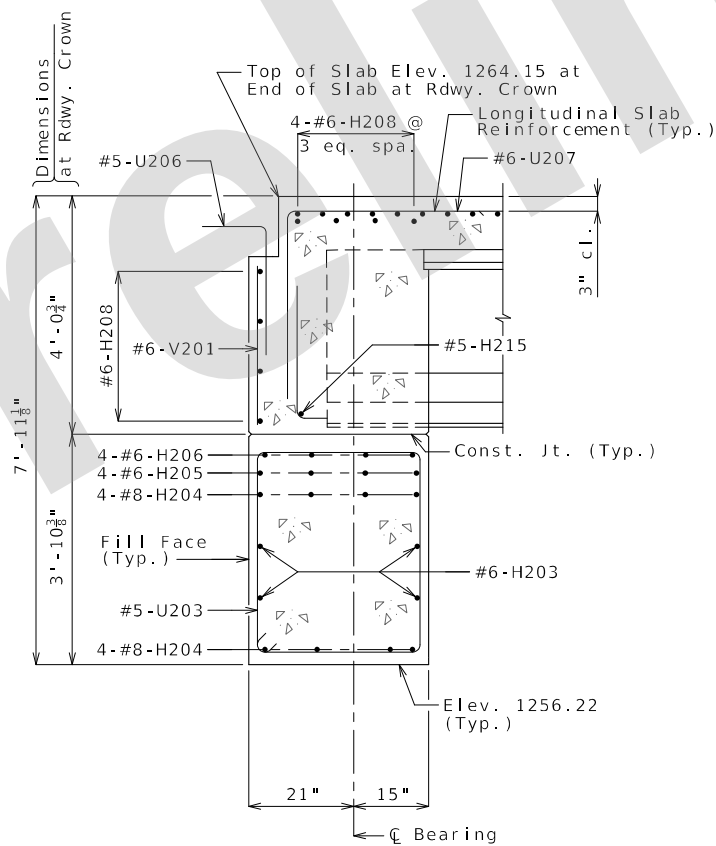
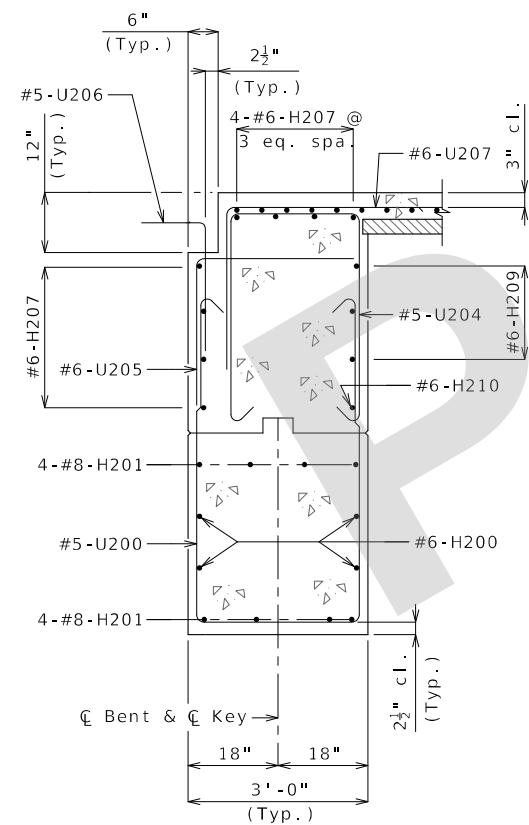
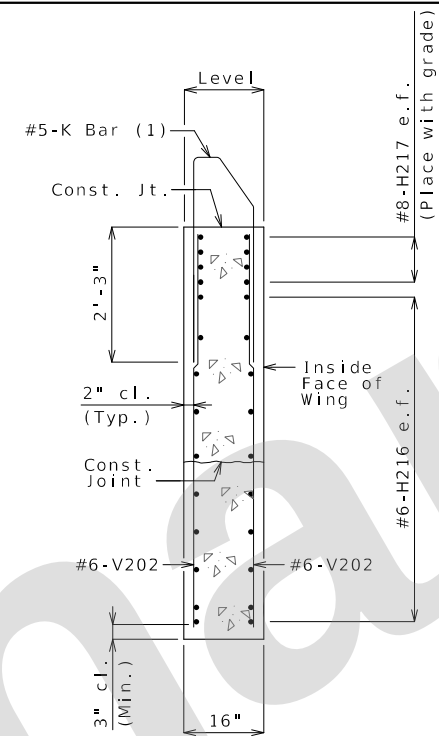
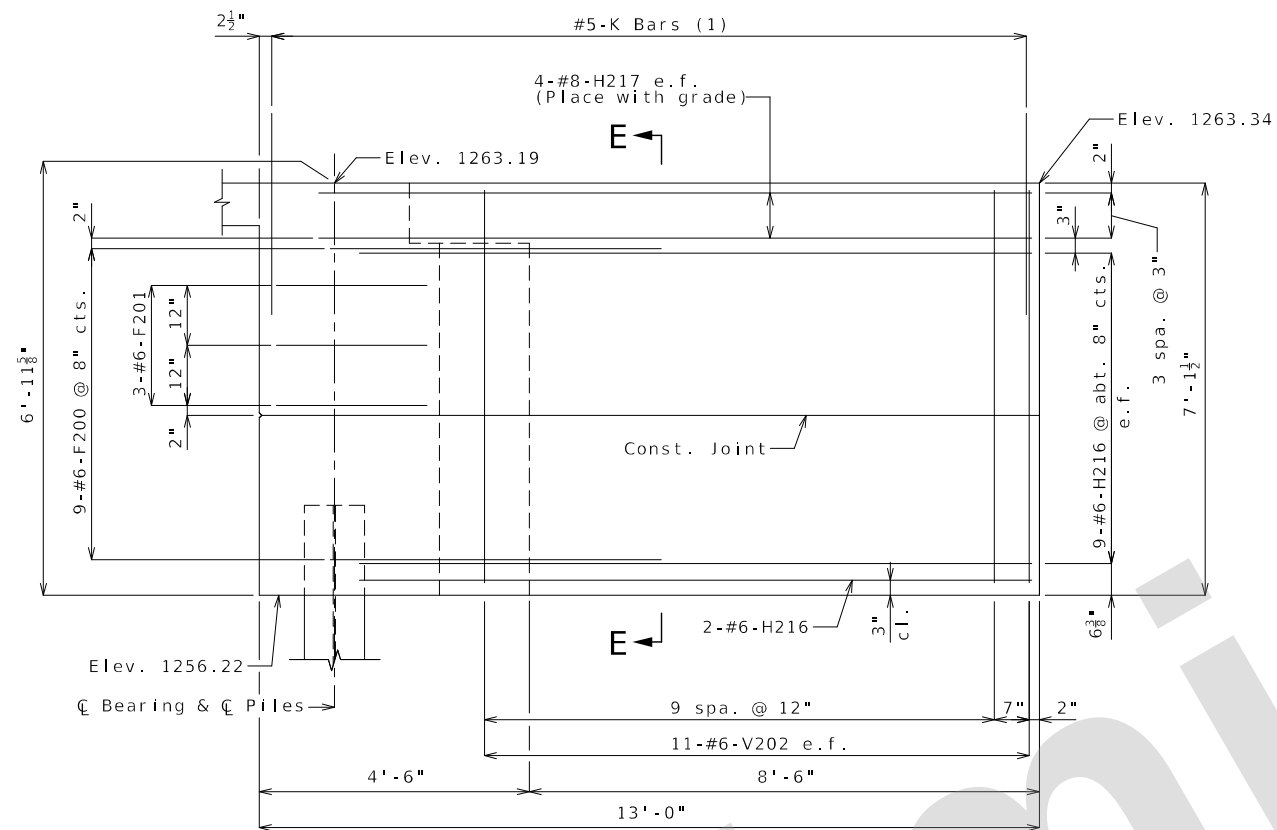
Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 14 of 31

DATE PREPARED 9/16/2024	
ROUTE I-44	STATE MO
DISTRICT BR	SHEET NO. 14
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9413	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	

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STEEL PILE SPLICE
(If required)

(2) Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.

NOTES :

- (1) For reinforcement of the Type D Barrier at End Bent, see Sheet No. 23.
- e.f. denotes each face.
- For details of bridge approach slab, see Sheet No. 24.
- Work this sheet with Sheets No. 11 thru 14.

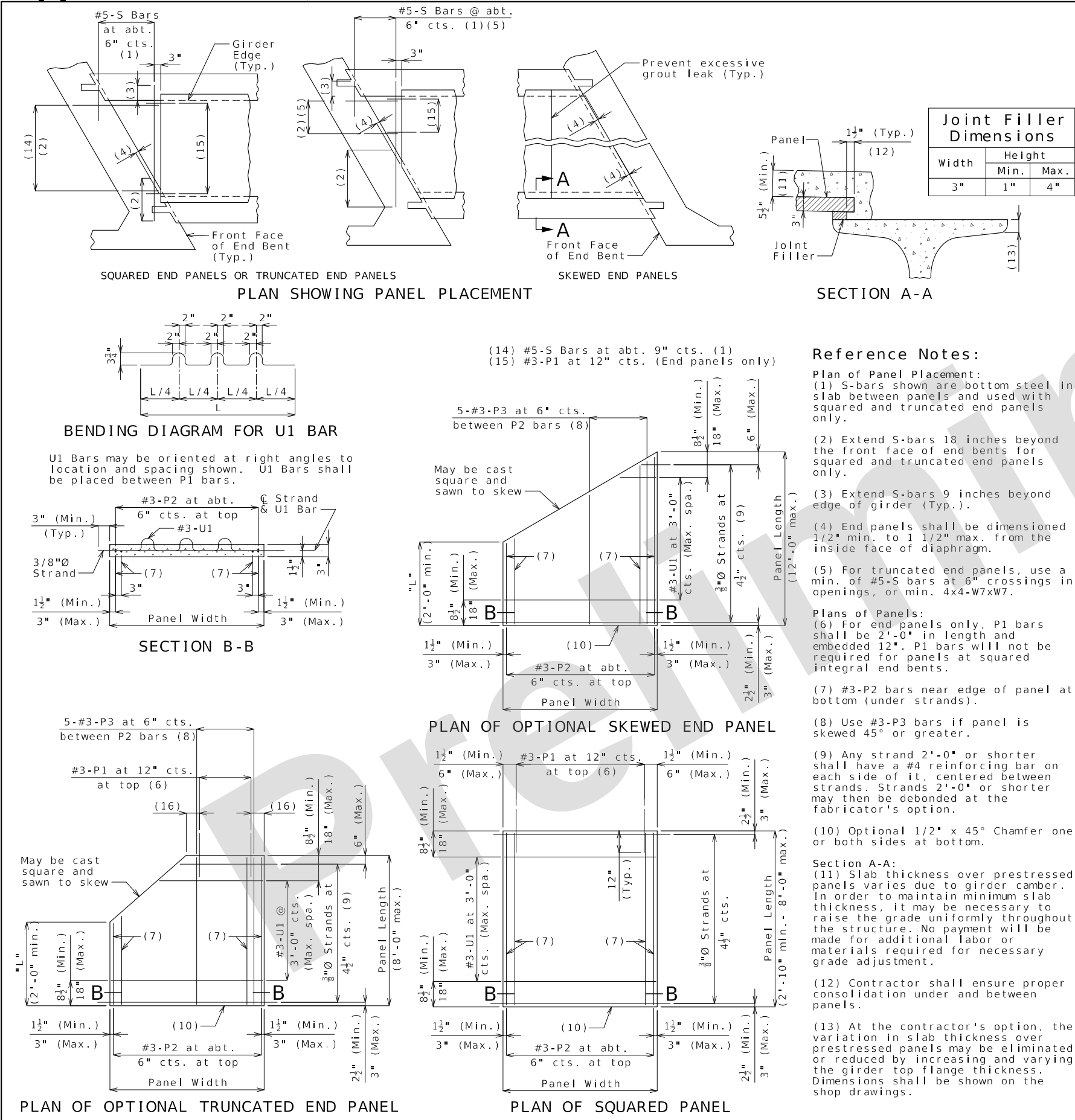
Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 15 of 31

END BENT NO. 2
WING DETAILS & SECTIONS

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General Notes:

Prestressed Panels:
Concrete for prestressed panels shall be Class A-1 with $f'c = 6,000$ psi, $f'ci = 4,000$ psi.

The top surface of all panels shall receive a scored finish with a depth of scoring of 1/8" perpendicular to the prestressing strands in the panels.

Prestressing tendons shall be high-tensile strength, uncoated, seven-wire, low-relaxation strands for prestressed concrete in accordance with AASHTO M 203 Grade 270, with nominal diameter of strand = 3/8" and nominal area = 0.085 sq.in. and minimum ultimate strength = 22.95 kips (270 ksi). Larger strands may be used with the same spacing and initial tension.

Initial prestressing force = 17.2 kips/strand.

The method and sequence of releasing the strands shall be shown on the shop drawings.

Suitable anchorage devices for lifting panels may be cast in panels, provided the devices are shown on the shop drawings and approved by the engineer. Panel lengths shall be determined by the contractor and shown on the shop drawings.

When squared end panels are used at skewed bents, the skewed portion shall be cast full depth. No separate payment will be made for additional concrete and reinforcing required.

Support from diaphragm forms is required under the optional skewed end until cast-in-place concrete has reached 3,000 psi compressive strength.

Prestressed panels shall be brought to saturated surface-dry (SSD) condition just prior to the deck pour. There shall be no free standing water on the panels or in the area to be cast.

The prestressed panel quantities are not included in the table of estimated quantities for the slab.

Reinforcing Steel:
All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

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

If U1 bars interfere with placement of slab steel, U1 loops may be bent over, as necessary, to clear slab steel.

Deformed welded wire reinforcement (WWR) providing a minimum area of reinforcing perpendicular to strands of 0.22 sq in./ft, with spacing parallel to strands sufficient to ensure proper handling, may be used in lieu of the #3-P2 bars shown. Wire diameter shall not be larger than 0.375 inch. The above alternative reinforcement criteria may be used in lieu of the #3-P3 bars, when required, and placed over a width not less than 2 feet.

The following reinforcing steel shall be tied securely to the strands with the following maximum spacing in each direction:
#3-P2 bars at 16 inches.
WWR at 24 inches.

The #3-U1 bars shall be tied securely to #3-P2 bars, to WWR or to strands (when placed between P1 bars) at about 3-foot centers.

Minimum reinforcement steel length shall be 2'-0".

All reinforcement other than prestressing strands shall be epoxy coated.

Precast panels may be in contact with stirrup reinforcing in diaphragms.

S-bars are not listed in the bill of reinforcing.

Cost of S-bars will be considered completely covered by the contract unit price for the slab.

Joint Filler:
Joint filler shall be preformed fiber expansion joint material in accordance with Sec 1057 or expanded or extruded polystyrene bedding material in accordance with Sec 1073.

Use Slab Haunching Diagram on Sheet No. 19 for determining thickness of joint filler within the limits noted in the table of Joint Filler Dimensions.

Thicker material may be used on one or both sides of the girder to reduce cast-in-place concrete thickness to within tolerances.

The same thickness of preformed fiber expansion joint material shall be used under any one edge of any panel except at locations where top flange thickness may be stepped. The maximum change in thickness between adjacent panels shall be 1/2 inch. The polystyrene bedding material may be cut with a transition to match haunch height above top of flange.

Joint filler shall be glued to the girder. When thickness exceeds 1 1/2 inches, the joint filler shall be glued top and bottom. The glue used shall be the type recommended by the joint filler manufacturer.

Edges of panels shall be uniformly seated on the joint filler before slab reinforcement is placed.

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 18 of 31

PRESTRESSED PANELS

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9413

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

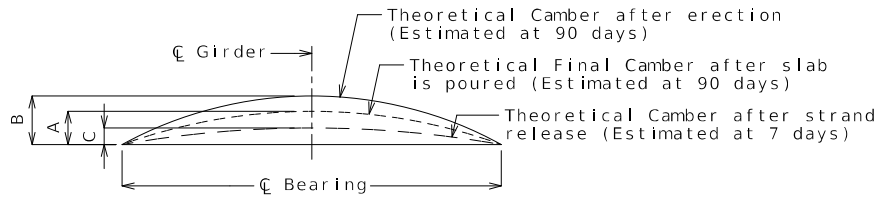
Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617

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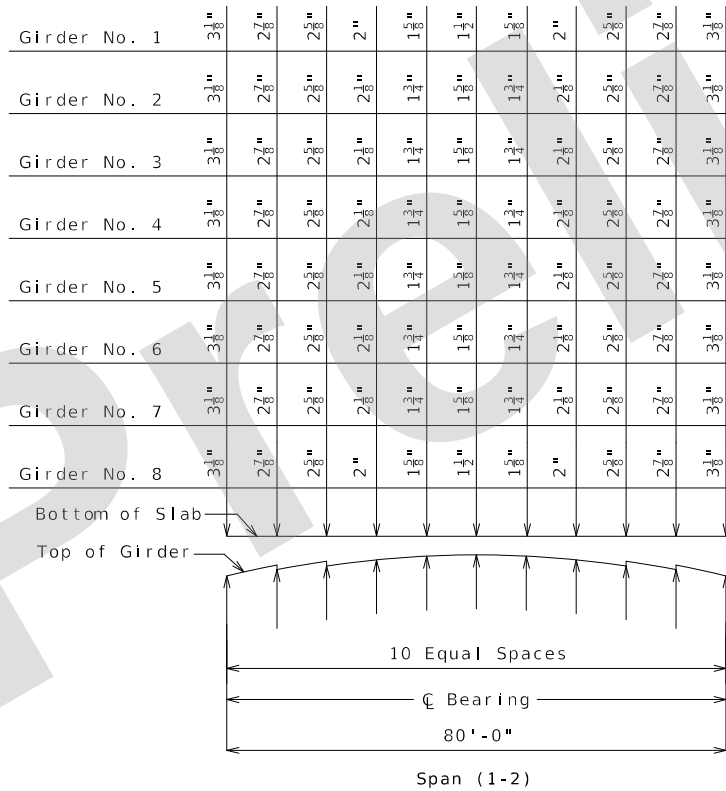


Girder	Span (1-2)		
	A	B	C
Exterior	3"	4 5/8"	2 3/8"
Interior	2 7/8"		

GIRDER CAMBER DIAGRAM

Conversion Factors for Girder Camber (Estimated at 90 days):

0.1 pt. = 0.314 x 0.5 pt.
0.2 pt. = 0.593 x 0.5 pt.
0.3 pt. = 0.813 x 0.5 pt.
0.4 pt. = 0.952 x 0.5 pt.



THEORETICAL SLAB HAUNCHING DIAGRAM (ESTIMATED AT 90 DAYS)

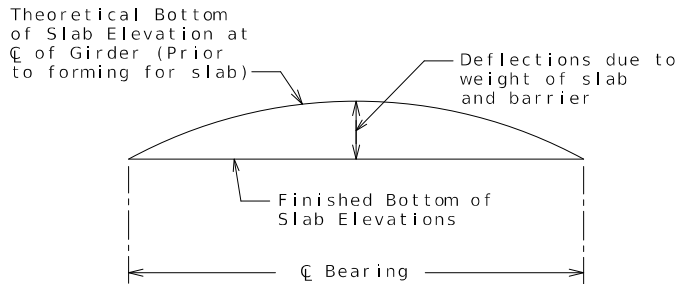
If girder camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness, an adjustment of the slab haunches, an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in haunching, slab thickness or grade adjustment.

Concrete in the slab haunches is included in the Estimated Quantities for Slab on Concrete NU-Girder.

Theoretical slab haunches are measured at C Girder.

Theoretical Bottom of Slab Elevations at Centerline of Girder (Prior to forming for slab) (Estimated at 90 days)											
Girder Number	Span (1-2) (80'-0" C Brg. - C Brg.)										
	C Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	C Brg.
1	1261.90	1262.07	1262.23	1262.38	1262.52	1262.65	1262.76	1262.85	1262.93	1263.00	1263.07
2	1262.08	1262.25	1262.41	1262.57	1262.71	1262.83	1262.94	1263.03	1263.11	1263.18	1263.24
3	1262.25	1262.42	1262.59	1262.74	1262.88	1263.01	1263.12	1263.21	1263.29	1263.36	1263.42
4	1262.13	1262.30	1262.46	1262.62	1262.76	1262.88	1262.99	1263.09	1263.17	1263.24	1263.30
5	1261.94	1262.12	1262.28	1262.43	1262.57	1262.70	1262.81	1262.90	1262.98	1263.05	1263.11
6	1261.76	1261.93	1262.10	1262.25	1262.39	1262.52	1262.62	1262.72	1262.80	1262.87	1262.93
7	1261.57	1261.75	1261.91	1262.07	1262.21	1262.33	1262.44	1262.53	1262.61	1262.68	1262.75
8	1261.39	1261.56	1261.72	1261.87	1262.01	1262.14	1262.25	1262.34	1262.43	1262.50	1262.56

Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab (including precast panel) and barrier.



TYPICAL SLAB ELEVATIONS DIAGRAM

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9413

DESCRIPTION

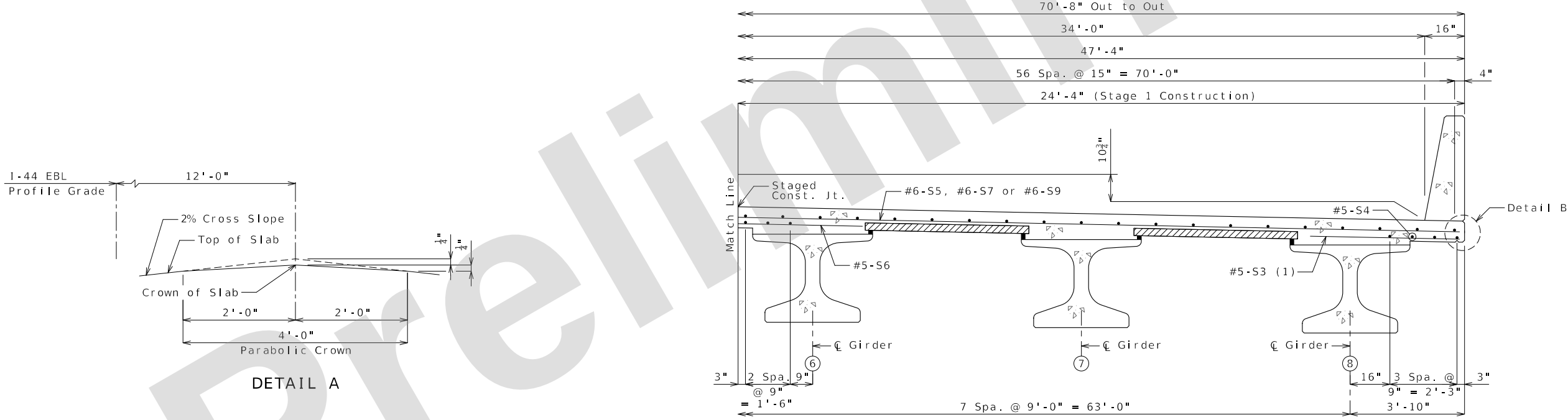
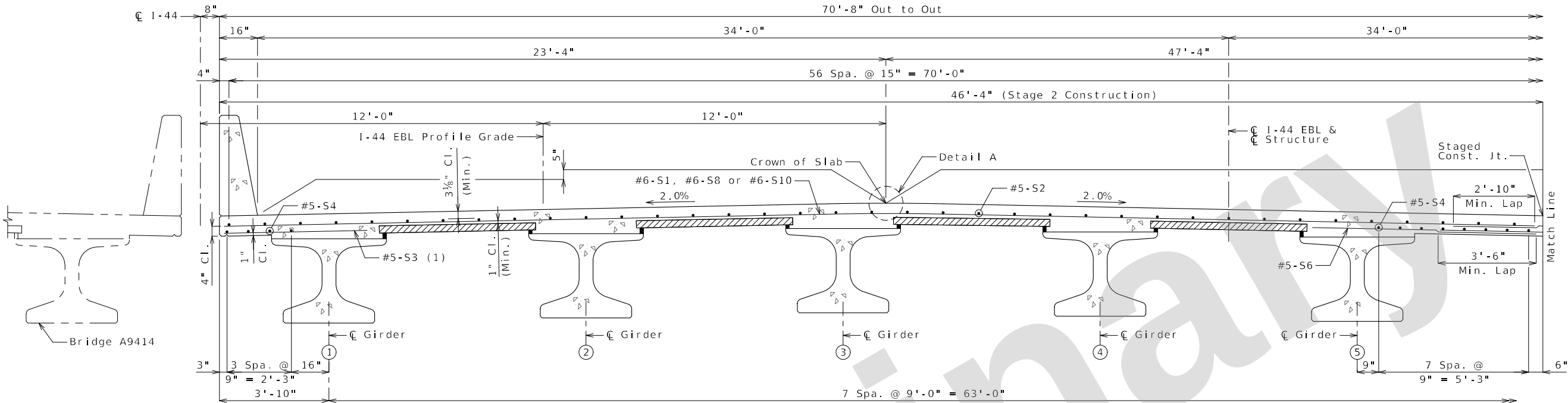
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

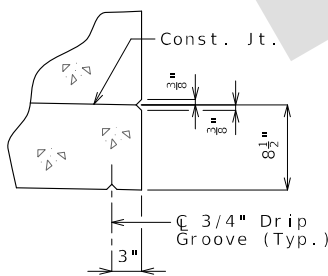
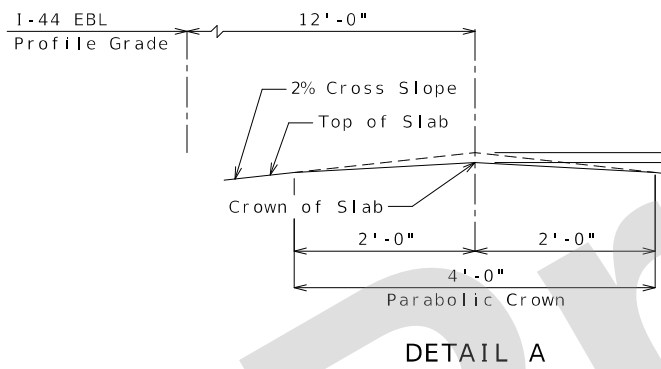
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-273-6636)

19400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

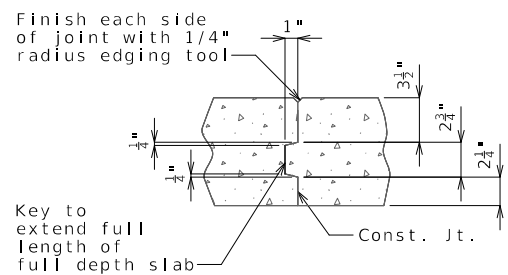
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SECTION THRU SLAB
(1) Alternate bar shape available, see Sheet No. 22.



DETAIL B



FULL DEPTH SLAB
SLAB CONSTRUCTION JOINT

NOTES:
For details of precast prestressed panels, see Sheet No. 18.
For reinforcement of barrier not shown, see Sheet No. 22.
For Theoretical Bottom of Slab Elevations, Girder Camber Diagram and Theoretical Slab Haunching Diagram, see Sheet No. 19.
For Plan of Slab Showing Reinforcement, see Sheet No. 20.
Bridge will be cast in a single pour.

TYPICAL SLAB SECTION

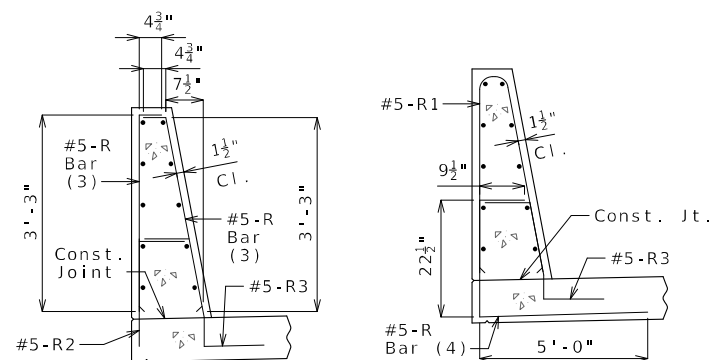
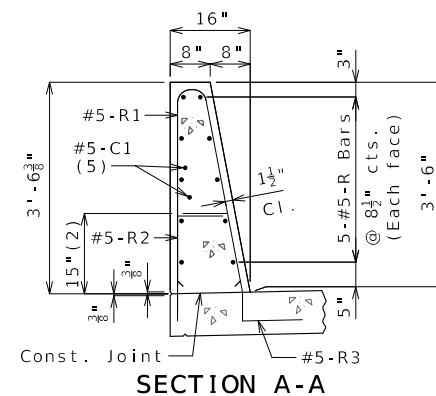
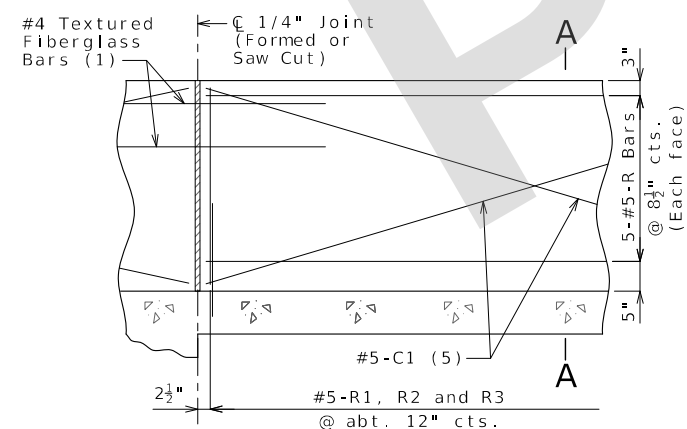
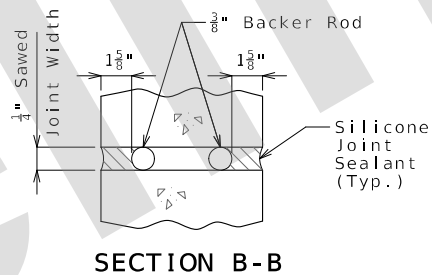
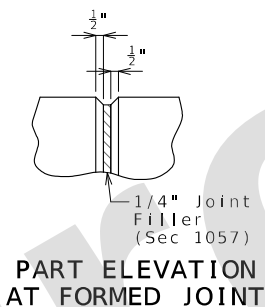
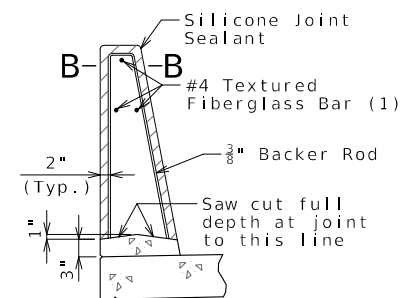
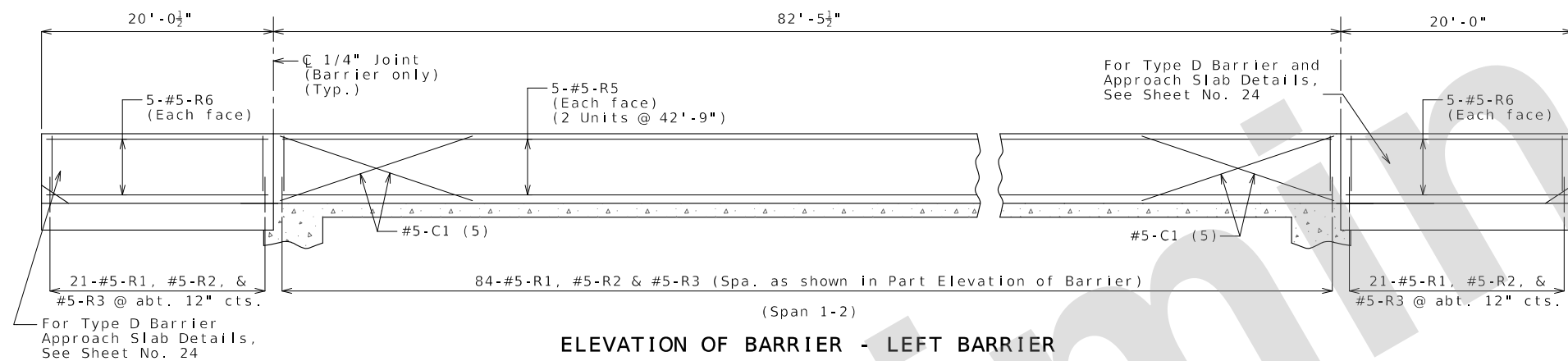
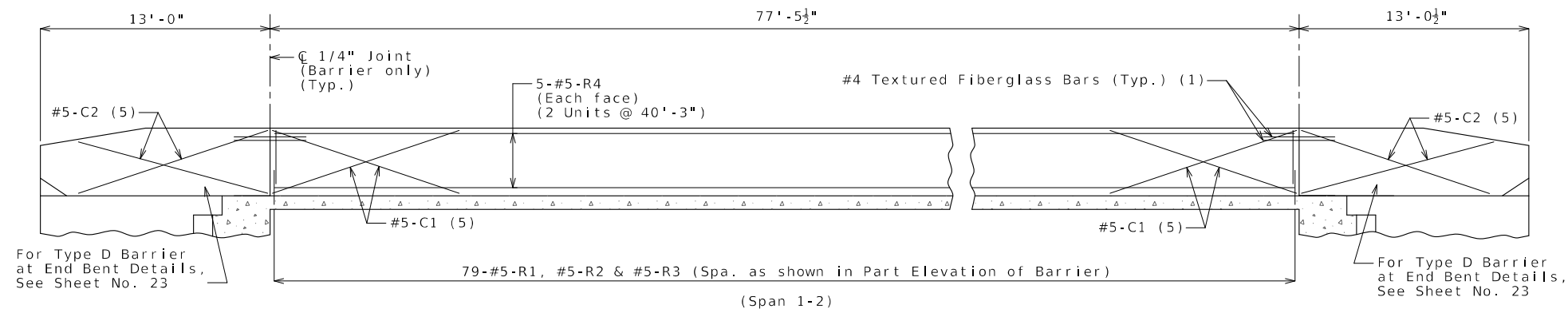
Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 21 of 31

DATE PREPARED 9/16/2024	
ROUTE 1-44	STATE MO
DISTRICT BR	SHEET NO. 21
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9413	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	

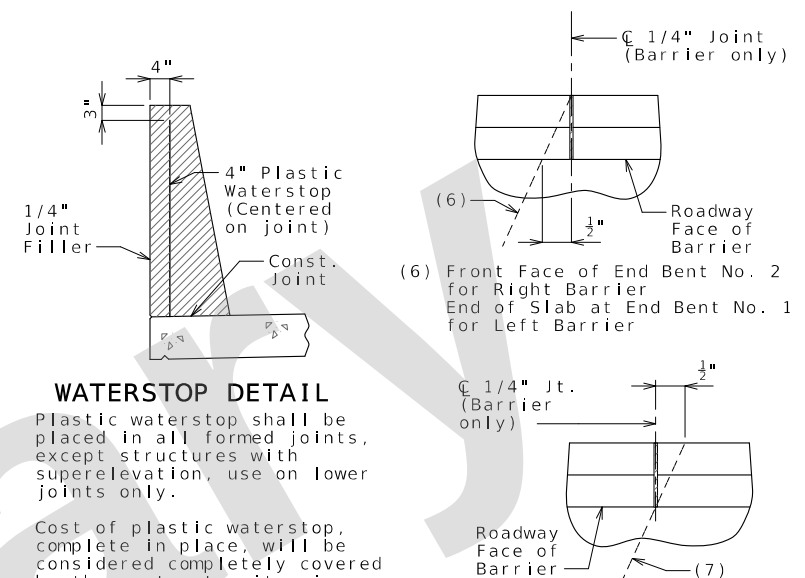
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- (3) The R1 bar may be separated into two bars as shown, at the contractor's option, only when slip forming is not used. (All dimensions are out to out.)
- (4) The R2 bar and #5 bottom transverse slab bar in cantilever (prestressed panels only) combination may be furnished as one bar as shown, at the contractor's option.
- (5) Slip-formed option only.

- (4) The R2 bar and #5 bottom transverse slab bar in cantilever (prestressed panels only) combination may be furnished as one bar as shown, at the contractor's option.

- (5) Slip-formed option only.



- (7) Front Face of End Bent No. 1
for Right Barrier
End of Slab at End Bent No. 2
for Left Barrier

PART PLAN SHOWING
JOINT LOCATION

General Notes:

Longitudinal dimensions are horizontal.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

Top of barrier shall be built parallel to grade and barrier joints (except at end bents) normal to grade.

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

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Type D Barrier per linear foot.

Concrete in barrier shall be Class B-1.

Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing for Right Barrier and from end of approach slab to end of approach slab for Left Barrier.

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

Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.

Plastic waterstop shall not be used with saw cut joints.

DATE PREPARED	
9/16/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
BR	22

ROUTE I - 44	STATE MO
DISTRICT BR	SHEET NO. 22

COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9413

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
316-333-9400

Certificate of Authority
No. : 000165

3McD Project No. 146617



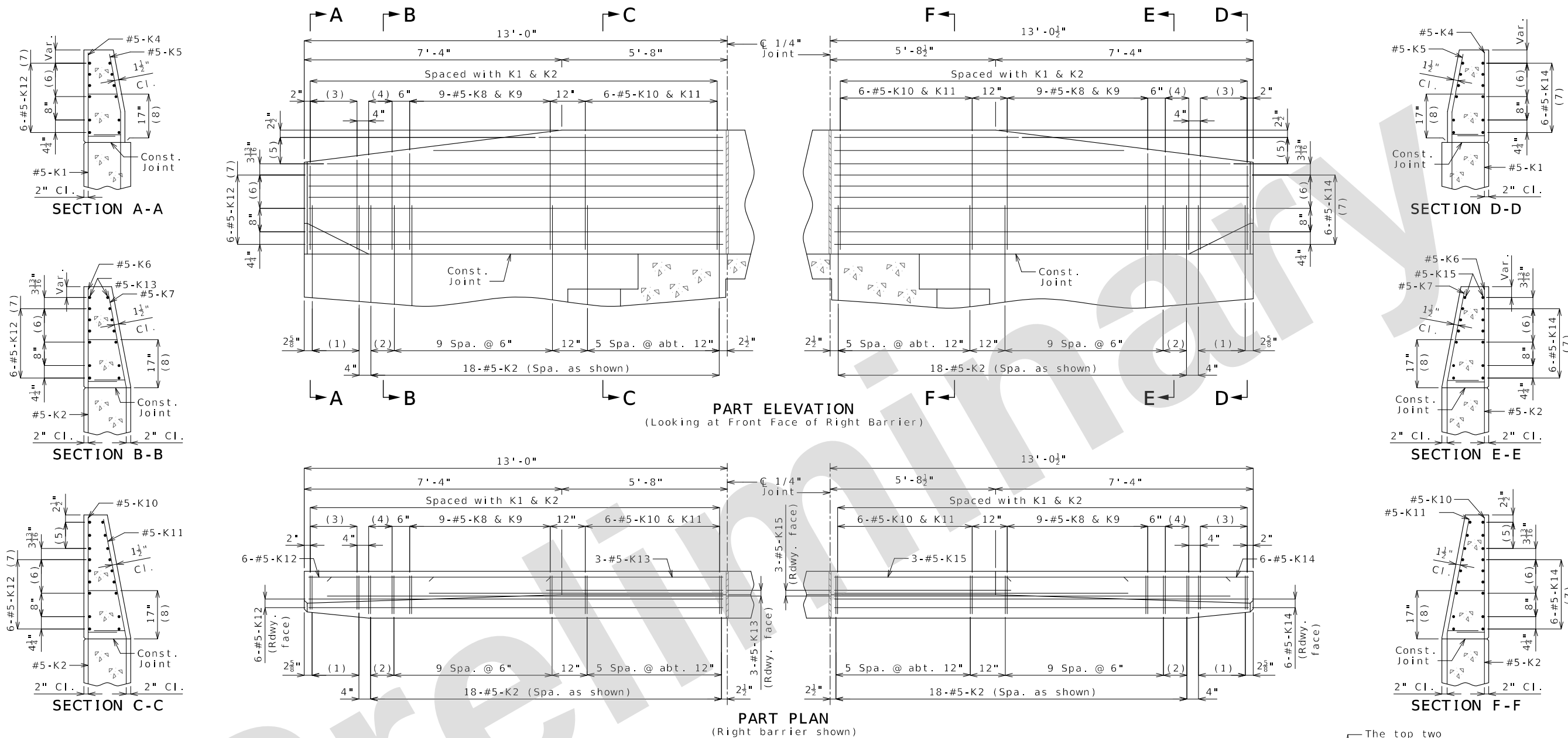
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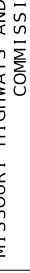
Detailed: May 2024
Checked: Jun. 2024

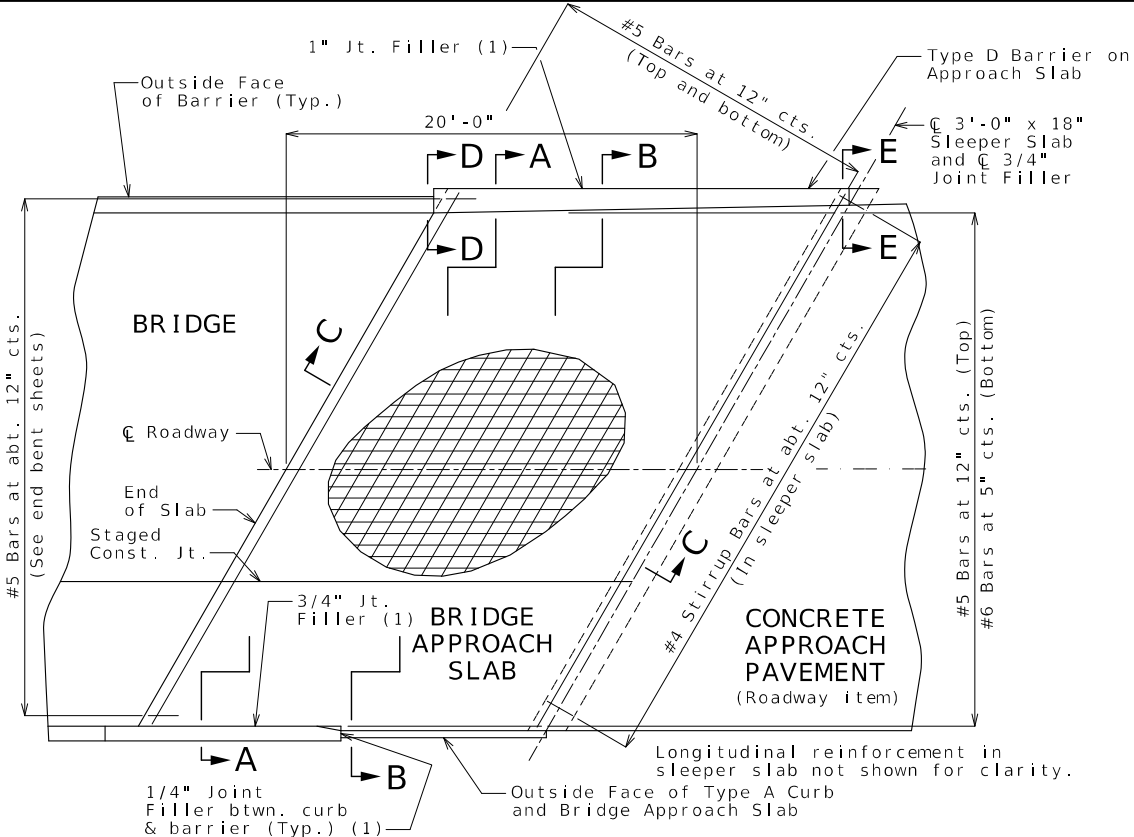
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 22 of 31

TYPE D BARRIER

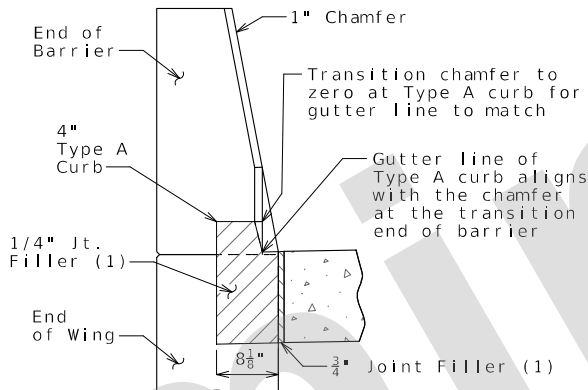


Burns & McDonnell Engineering Co., Inc.		MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION		DATE		DESCRIPTION	
9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400		 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)					
Certificate of Authority No. : 000165							
BMCD Project No. 146617							
		DATE PREPARED		9/16/2024			
		ROUTE		I - 44		STATE	
		DISTRICT		BR		SHEET NO.	
				23			
				COUNTY		GREENE	
				JOB NO.		JSU0076	
				CONTRACT ID.			
		PROJECT NO.					
		BRIDGE NO.		A9413			



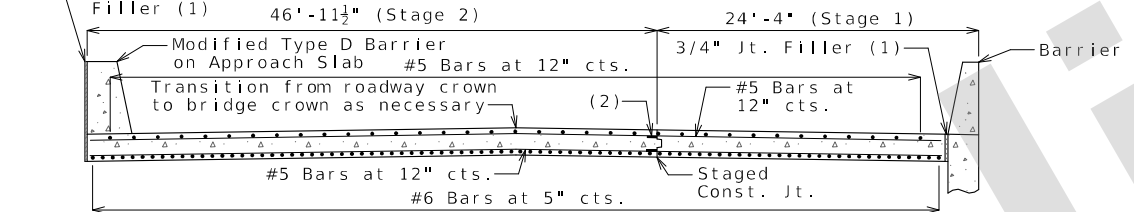
UNDERSEAL ACCESS HOLE DETAIL
(If required)

CONSTRUCTION JOINT DETAIL

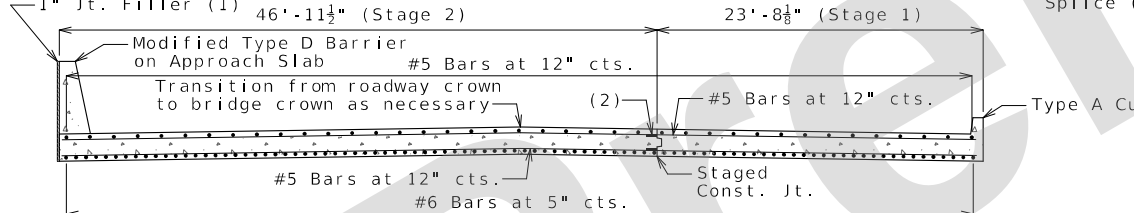


SECTION BETWEEN CURB AND BARRIER

PART PLAN SHOWING REINFORCEMENT

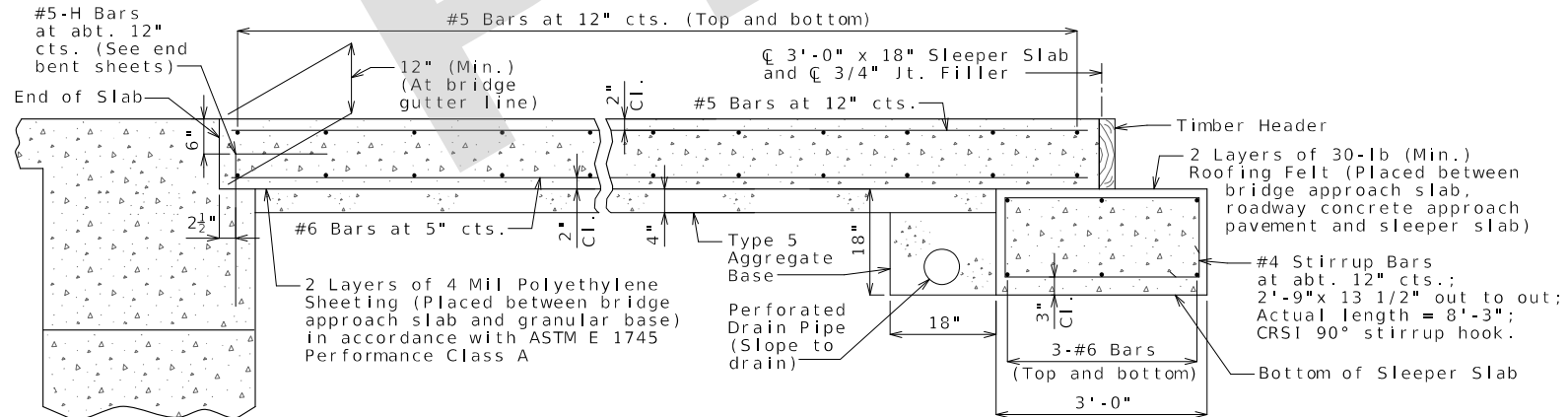


SECTION A-A

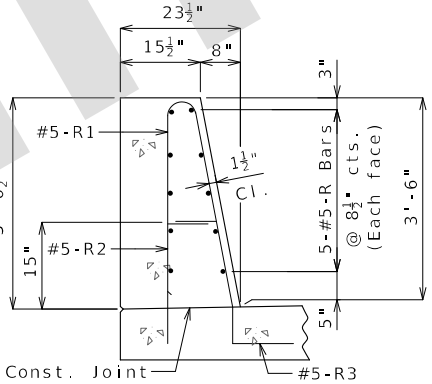


SECTION B-B

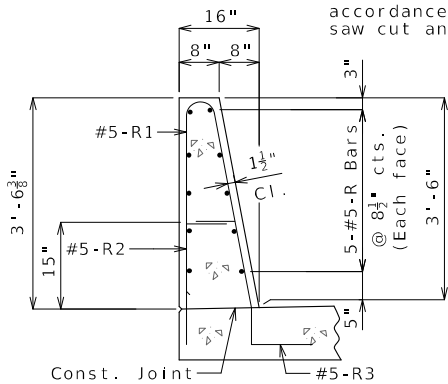
With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.



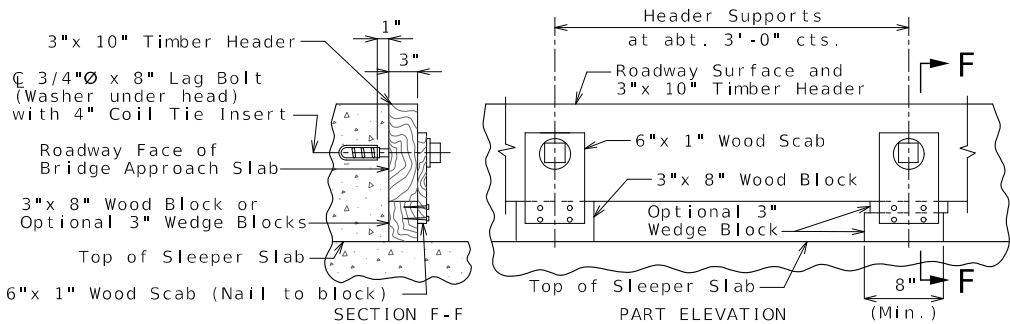
SECTION C-C



SECTION D-D



SECTION E-E



DETAILS OF TIMBER HEADER

Remove timber header when concrete pavement is placed.

General Notes:

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

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

Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

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

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

Mechanical bar splices shall be in accordance with Sec. 710. (Estimated 48 splices per slab)

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

The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.

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

For concrete approach pavement details, see roadway plans.

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

Payment for furnishing all materials, labor and excavation necessary to construct the approach slab, including the timber header, sleeper slab, underdrain, Type 5 aggregate base, joint filler and all other appurtenances and incidental work as shown on this sheet, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Major) per square yard.

For details of Type D Barrier on Approach Slab, See Sheet No. 22.

- (1) Seal joint between vertical face of approach slab and wing and joint between vertical face of the approach slabs and Type D barriers along C 1-44 with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

Detailed: May 2024
Checked: Jun. 2024

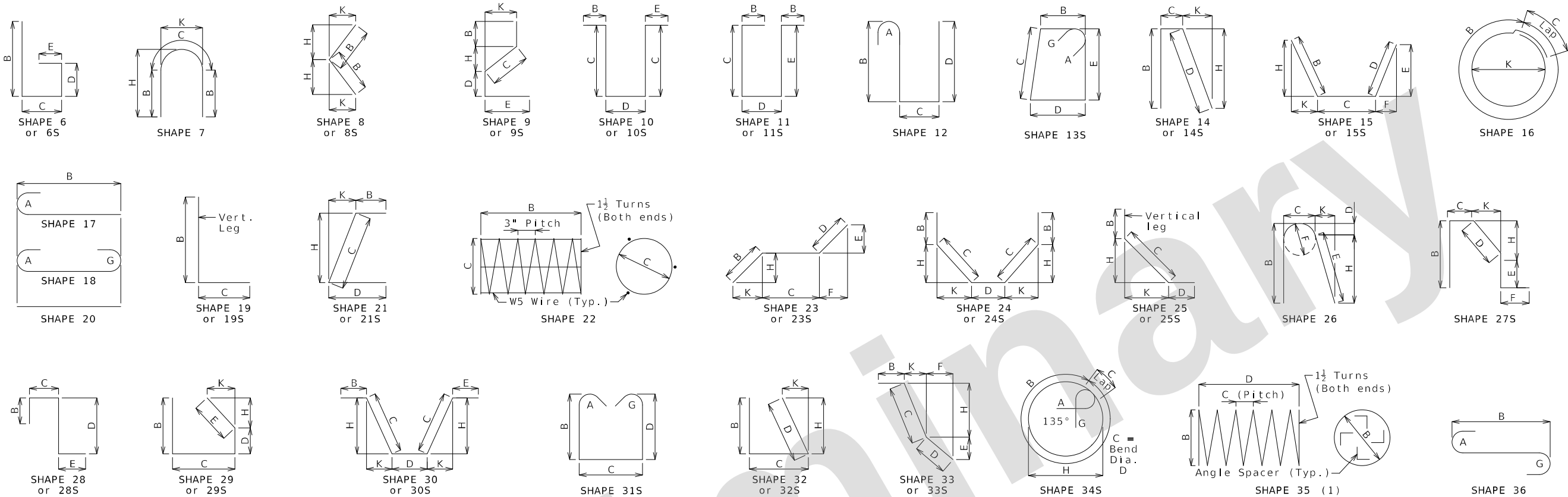
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 24 of 31

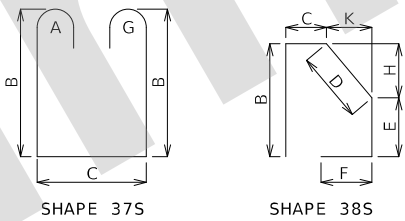
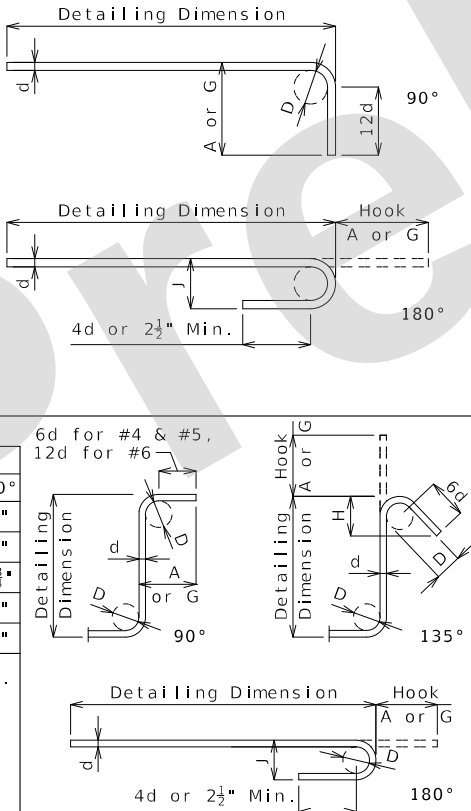
BRIDGE APPROACH SLAB (MAJOR)

DATE PREPARED 9/16/2024		ROUTE 1-44		STATE MO	
DISTRICT BR		SHEET NO. 24		COUNTY GREENE	
JOB NO. JSU0076		CONTRACT ID.		PROJECT NO.	
BRIDGE NO. A9413		DESCRIPTION		DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION		MoDOT		105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
Burns & McDonnell Engineering Co., Inc.		9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400		Certificate of Authority No. : 000165 BMcD Project No. 146617	

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



Finished Bend Dimensions 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	3 3/4"	10"	7"	5"	
#6	1	4 1/2"	12"	8 1/4"	6"	
#7	2	5 1/4"	14"	9 3/4"	7"	
	3	7"	15"	11 1/2"	8 3/4"	
#8	2	6"	16"	11"	8"	
	3	8"	17"	13 1/4"	10"	
#9	1	9 1/2"	19 1/2"	15 1/2"	11 3/4"	
#10	1	10 3/4"	22"	17 1/2"	13 1/4"	
#11	1	12"	24 1/2"	19 1/2"	14 7/8"	
#14	1	18 1/4"	31 1/4"	27 1/2"	21 5/8"	
#18	1	24"	41 1/2"	36 1/4"	28 1/2"	
Stirrup Pin Bend Shapes (S)						
Size	Case	D	A or G		H	J
			90°	135°	180°	135°
#4	2	2"	4 1/2"	4 1/2"	5"	2 7/8"
	3	3"	5"	5 1/4"	6"	3"
#5	2	2 1/2"	5 3/4"	5 3/4"	5 3/4"	3 3/8"
	3	3 3/4"	6 1/4"	6 1/4"	7"	3 5/8"
#6	1	4 1/2"	12"	7 3/4"	8 1/4"	4 5/8"
Applicable for all grades of steel.						
Case 1 applies to all reinforcement. Case 2 applies to all reinforcement except for galvanized bars. Case 3 applies to galvanized bars only.						



BENDING DIAGRAMS

All dimensions are out to out.

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

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

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

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

Reinforcing Steel Totals (Pounds)								
Size	Substructure		Superstructure			Entire Bridge		
	Plain	Epoxy	Slab		Barrier	Slip Form	Plain	Epoxy
			Plain	Epoxy				
W5	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	15,550	5,989	141	0	21,680
6	0	0	0	27,052	0	0	0	27,052
7	0	0	0	0	0	0	0	0
8	0	0	0	3,562	0	0	0	3,562
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
By Type	0	0	0	46,164	5,989	141	0	52,294

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

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9413

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

BURNS & MCDONNELL

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

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

Bill of Reinforcing Steel																	
No. Req.	Size/ Mark	Location	Codes			Dimensions						Nom.	Actual	Weight			
						B	C	D	E	F	H	K	Length		Length		
			C	SH	V	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	Lb	
		END BENT 1															
9	6	F100	Wing	E	23S	2	3.000	4	5.000	14.000	9.750	10.000	18.750	19.375	7 10	7 9	105
3	6	F101	Diaphragm	E	6S	5	5.000	2	7.000						8 0	7 10	35
4	6	H100	Beam	E	20	28	3.000								28 3	28 3	170
8	8	H101	Beam	E	20	28	3.000								28 3	28 3	603
4	6	H102	Beam	E	20	8	6.000								8 6	8 6	51
4	6	H103	Beam	E	20	42	8.000								42 8	42 8	256
8	8	H104	Beam	E	20	42	8.000								42 8	42 8	911
4	6	H105	Beam	E	20	42	8.000								42 8	42 8	256
4	6	H106	Beam	E	20	21	10.00								21 10	21 10	131
8	6	H107	Diaphragm	E	20	28	0.000								28 0	28 0	336
8	6	H108	Diaphragm	E	20	46	8.000								46 8	46 8	561
18	6	H109	Diaphragm	E	20	7	11.000								7 11	7 11	214
6	6	H110	Diaphragm	E	20	5	6.000								5 6	5 6	50
3	6	H111	Diaphragm	E	20	3	2.000								3 2	3 2	14
1	6	H112	Diaphragm	E	20	23.000									0 23	0 23	3
3	6	H113	Diaphragm	E	20	3	9.000								3 9	3 9	17
1	6	H114	Diaphragm	E	20	2	6.000								2 6	2 6	4
8	5	H115	Strand Tie	E	20	5	0.000								5 0	5 0	42
20	6	H116	Wing	E	20	11	8.000								11 8	11 8	350
8	8	H117	Wing	E	20	12	6.000								12 6	12 6	267
3	6	H118	Diaphragm	E	20	5	11.000								5 11	5 11	27
1	6	H119	Diaphragm	E	20	4	7.000								4 7	4 7	7
3	6	H120	Diaphragm	E	20	5	10.000								5 10	5 10	26
1	6	H121	Diaphragm	E	20	4	7.000								4 7	4 7	7
43	5	U100	Beam	E	31S	5	8.000	2	9.000	5	8.000				15 1	14 10	665
15	5	U101	Beam	E	13S	2	9.000	2	8.000	2	9.000	2	8.000		11 10	11 6	180
24	5	U102	Beam	E	13S	2	9.000	3	0.000	2	9.000	3	0.000		12 6	12 2	305
24	5	U103	Beam	E	13S	2	9.000	3	4.000	2	9.000	3	4.000		13 2	12 10	321
58	5	U104	Diaphragm	E	31S	3	4.000	2	3.000	3	4.000				9 11	9 8	585
58	6	U105	Diaphragm	E	19S	2	7.000	2	8.000						5 3	5 1	443
70	5	U106	Diaphragm	E	19S	2	0.000	15.000							3 3	3 2	231
94	6	U107	Diaphragm	E	19S	3	3.000	4	7.000						7 10	7 8	1082
30	5	V100	Beam	E	17	5	8.000								6 3	6 3	196
40	6	V101	Diaphragm	E	20	2	7.000								2 7	2 7	155
22	6	V102	Wing	E	20	6	7.000								6 7	6 7	218
		END BENT 2															
9	6	F200	Wing	E	23S	2	3.000	4	5.000	14.000	9.750	10.000	18.750	19.375	7 10	7 9	105
3	6	F201	Diaphragm	E	6S	5	5.000	2	7.000						8 0	7 10	35
4	6	H200	Beam	E	20	28	3.000								28 3	28 3	170
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4	6	H205	Beam	E	20	42	8.000								42 8	42 8	256
4	6	H206	Beam	E	20	21	10.00								21 10	21 10	131
8	6	H207	Diaphragm	E	20	28	0.000								28 0	28 0	336
8	6	H208	Diaphragm	E	20	46	8.000								46 8	46 8	561
18	6	H209	Diaphragm	E	20	7	11.000								7 11	7 11	214
6	6	H210	Diaphragm	E	20	5	6.000								5 6	5 6	50
3	6	H211	Diaphragm	E	20	3	2.000								3 2	3 2	14
1	6	H212	Diaphragm	E	20	23.000									0 23	0 23	3
3	6	H213	Diaphragm	E	20	3	9.000								3 9	3 9	17
1	6	H214	Diaphragm	E	20	2	6.000								2 6	2 6	4
8	5	H215	Strand Tie	E	20	5	0.000								5 0	5 0	42
20	6	H216	Wing	E	20	11	8.000								11 8	11 8	350
8	8	H217	Wing	E	20	12	6.000								12 6	12 6	267
3	6	H218	Diaphragm	E	20	5	11.000								5 11	5 11	27
1	6	H219	Diaphragm	E	20	4	7.000								4 7	4 7	7
3	6	H220	Diaphragm	E	20	5	10.000								5 10	5 10	26
1	6	H221	Diaphragm	E	20	4	7.000								4 7	4 7	7
43	5	U200	Beam	E	31S	5	8.000	2	9.000	5	8.000				15 1	14 10	665
15	5	U201	Beam	E	13S	2	9.000	2	8.000	2	9.000	2	8.000		11 10	11 6	180
24	5	U202	Beam	E	13S	2	9.000	3	0.000	2	9.000	3	0.000		12 6	12 2	305
24	5	U203	Beam	E	13S	2	9.000	3	4.000	2	9.000	3	4.000		13 2	12 10	321

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

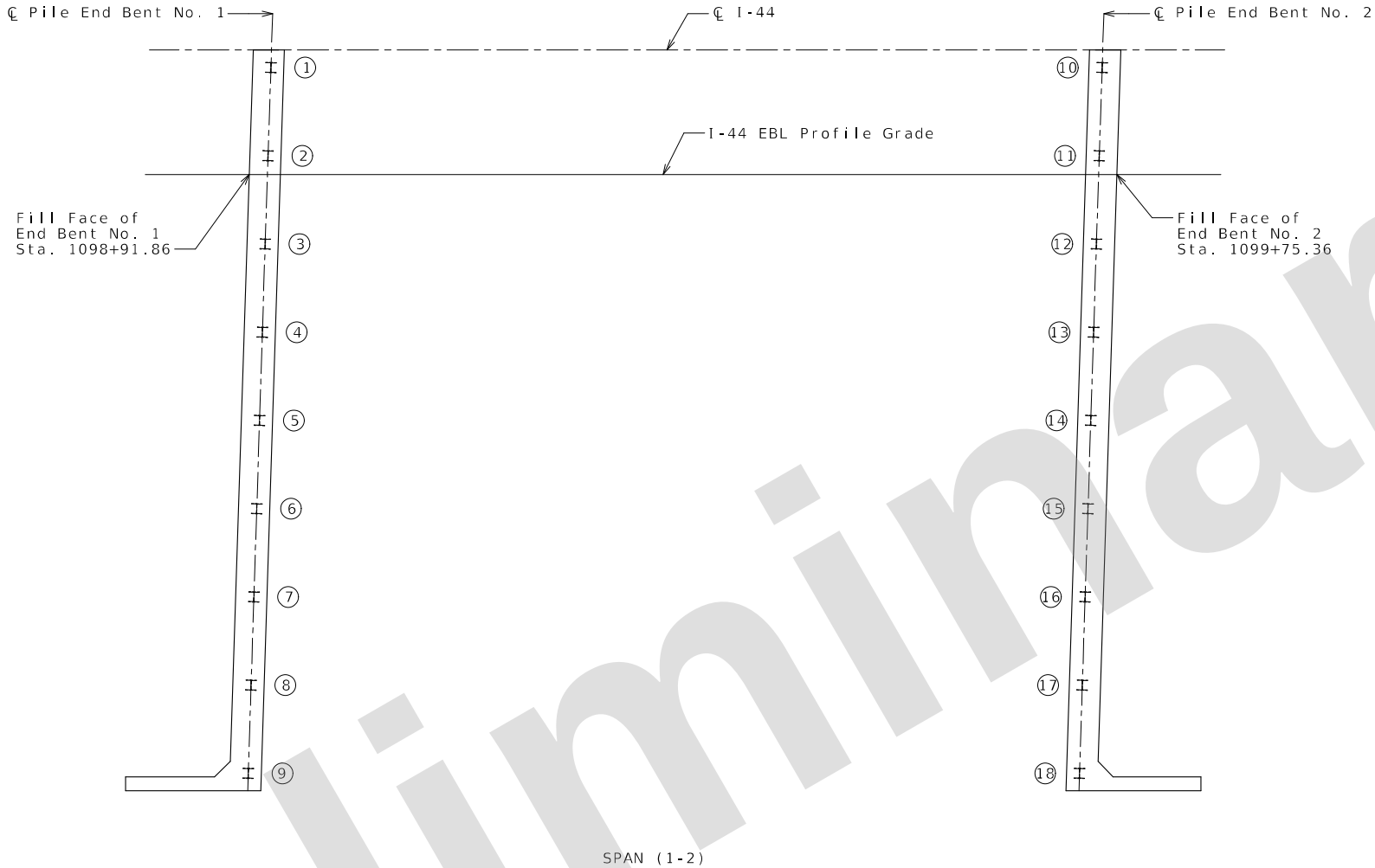
For bending diagrams and steel reinforcing totals, see Sheet No. 25.

Detailed: May 2024
Checked: Jun. 2024

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

Codes:
C = Required coatings, where E = Epoxy Coated and G = Galvanized.
SH = Required shape, see bending diagrams.
V = Sets of varied bars and number of bars of each length. Bar dimensions vary in equal increments between dimensions shown on this line and the following line and the actual length dimension shown on this line and the following line vary by the specified increment.

Bill of Reinforcing Steel														
Size/ Mark	Location	Codes			Dimensions						Nom.	Actual	Weight lb	
		C	SH	V	B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.	K ft in.	Length ft in.		Length ft in.
	END BENT 2 Cont.													
U204	Diaphragm	E	31S		3 4.000	2 3.000	3 4.000					9 11	9 8	585
U205	Diaphragm	E	19S		2 7.000	2 8.000						5 3	5 1	443
U206	Diaphragm	E	19S		2 0.000	15.000						3 3	3 2	231
U207	Diaphragm	E	19S		3 3.000	4 7.000						7 10	7 8	1082
V200	Beam	E	17		5 8.000							6 3	6 3	196
V201	Diaphragm	E	20		2 7.000							2 7	2 7	155
V202	Wing	E	20		6 7.000							6 7	6 7	218
	SLAB													
S1	Slab	E	20		46 0.000							46 0	46 0	11124
S2	Slab	E	20		42 4.000							42 4	42 4	5034
S3	Slab	E	20		5 0.000							5 0	5 0	1471
S4	Slab	E	20		42 8.000							42 8	42 8	1691
S5	Slab	E	20	1	11 7.000							11 7	11 7	
	Inc. = 15'-7"				27 2.000							27 2	27 2	58
S6	Slab	E	20		7 10.000							7 10	7 10	2304
S7	Slab	E	20		27 2.000							27 2	27 2	6610
S8	Slab	E	20	1	18 6.000							18 6	18 6	
	Inc. = 15'-7"				34 1.000							34 1	34 1	79
S9	Slab	E	20		15 3.000							15 3	15 3	23
S10	Slab	E	20	1	42 9.000							42 9	42 9	
	Inc. = 15'-7"				11 7.000							11 7	11 7	122
	BARRIER													
K1	Barrier	E	27S		3 8.000	9.250	5.375	3 2.750		5.250	1.000	8 1	7 11	83
K2	Barrier	E	27S		3 8.000	9.250	14.500	2 5.750		14.250	2.750	8 2	7 11	297
K4	Barrier	E	19S	2	2 4.250	10.000						3 2	3 1	
	Inc. = 0.500"				2 6.250	10.000						3 4	3 3	33
K5	Barrier	E	38S	2			18.500	9.500	8.250	18.000	4.000	3 0	2 11	
	Inc. = 0.500"						20.500	9.500	8.250	20.000	4.500	3 2	3 1	31
K6	Barrier	E	19S		2 6.750	10.000						3 5	3 4	21
K7	Barrier	E	21S			2 6.625	10.000			2 6.000	6.250	3 5	3 3	20
K8	Barrier	E	19S	2	2 8.500	10.000						3 7	3 5	
	Inc. = 0.750"				3 2.500	10.000						4 1	3 11	70
K9	Barrier	E	21S	2		2 8.500	10.000		2 7.750	6.750		3 6	3 5	
	Inc. = 0.750"					3 2.500	10.000		3 1.750	7.750		4 1	3 11	68
K10	Barrier	E	19S		3 3.000	10.000						4 1	4 0	50
K11	Barrier	E	21S			3 3.000	10.000		3 2.250	7.750		4 1	3 11	49
K12	Barrier	E	20		12 9.000							12 9	12 9	160
K13	Barrier	E	20	2	6 0.000							6 0	6 0	
	Inc. = 3'-0"				12 0.000							12 0	12 0	56
K14	Barrier	E	20		12 9.000							12 9	12 9	160
K15	Barrier	E	20	2	6 0.000							6 0	6 0	
	Inc. = 3'-0"				12 0.000							12 0	12 0	56
R1	Barrier	E	26		3 3.000	5.500	2.250	3 1.375	5.500	3 0.750	6.750	6 11	6 10	1461
R2	Barrier	E	19S		20.500	9.500						2 6	2 5	517
R3	Barrier	E	27S			9.500	15.250	5.000	12.000	15.000	3.000	3 6	3 4	713
R4	Barrier	E	20		40 3.000							40 3	40 3	840
R5	Barrier	E	20		42 9.000							42 9	42 9	892
R6	Barrier	E	20		19 9.000							19 9	19 9	412
	SLIP FORM													
C1	Slip Form	E	20		12 0.000							12 0	12 0	100
C2	Slip Form	E	20		9 9.000							9 9	9 9	41



PART PLAN SHOWING PILE NUMBERING FOR RECORDING AS-BUILT PILE DATA

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 1 (HP 12x53)			
1			
2			
3			
4			
5			
6			
7			
8			
9			

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 2 (HP 12x53)			
10			
11			
12			
13			
14			
15			
16			
17			
18			

Note:
Indicate in remarks column:
A. Pile type and grade
B. Batter
C. Driven to practical refusal

This sheet to be completed by MoDOT construction personnel.

DATE PREPARED 9/16/2024	
ROUTE I-44	STATE MO
DISTRICT BR	SHEET NO. 27
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9413	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-273-6636)	

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



Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: 4.5' S, 2' E
Elevation: 1241.3
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
Drill No.: _____

Missouri Department of Transportation
Construction and Materials

County: Greene
Route: I-44
Location: Springfield, Missouri
Logged By: JM
Operator: LRK
Northing: 516860.6864
Date of Work: 07/13/23-07/13/23
Easting: 1407163.8597
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____
Hammer Efficiency: 90%
Drilling Method: HSA

BORING NO. B-B-2
Page 1 of 2

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-8.0' (CH) FILL: Red and brown, fat CLAY, trace sand, gravel and organics	1240		56	4-4-4 (12)		PP = 3.50 tsf	MC = 39.2%
5		3.0' -trace chert below 3.0 ft.			38		Qu Test Results MC = 35.8% γ _{moist} = 94.9 pcf	PP >4.50 tsf	
			1235		11	4-3-6 (14)			MC = 34.1%
10		8.0-16.0' (CH) Brown, fat CLAY, trace sand and gravel			83	2-2-3 (8)		PP = 2.00 tsf	LL = 56 PL = 20 MC = 24.4%
		11.0' -trace chert below 11.0 ft.	1230		67	9-11-5 (24)		PP >4.50 tsf	MC = 25.3%
15		13.5' -with chert below 13.5 ft.			44	2-7-4 (17)		PP = 2.00 tsf	MC = 33.2%
20		16.0-30.5' LIMESTONE, gray, hard, slightly weathered, very finely to finely crystalline, thin bedded	1225		100 (83)		Qu Test Results UCS = 900 ksf		
25			1220		100 (90)		Qu Test Results UCS = 1120 ksf		

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983
Coordinate Datum: NAD 83 (CONUS)
Coordinate Zone: Missouri Central
Coordinate Units: U.S. Survey Feet
Coordinate Proj. Factor: 1.0000701976

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.



Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: 4.5' S, 2' E
Elevation: 1241.3
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
Drill No.: _____

Missouri Department of Transportation
Construction and Materials

County: Greene
Route: I-44
Location: Springfield, Missouri
Logged By: JM
Operator: LRK
Northing: 516860.6864
Date of Work: 07/13/23-07/13/23
Easting: 1407163.8597
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____
Hammer Efficiency: 90%
Drilling Method: HSA

BORING NO. B-B-2
Page 2 of 2

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		16.0-30.5' LIMESTONE, gray, hard, slightly weathered, very finely to finely crystalline, thin bedded (continued)	1215		100 (97)		Qu Test Results UCS = 1240 ksf		
30		Refusal at 16.0 feet. Bottom of borehole at 30.5 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983
Coordinate Datum: NAD 83 (CONUS)
Coordinate Zone: Missouri Central
Coordinate Units: U.S. Survey Feet
Coordinate Proj. Factor: 1.0000701976

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Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 28 of 31

BORING DATA

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DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165



BMcD Project No. 146617

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

DATE PREPARED
9/16/2024
ROUTE
I - 44
STATE
MO
DISTRICT
BR
SHEET NO.
28
COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.
BRIDGE NO.
A9413

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



Missouri Department of Transportation
Construction and Materials

BORING NO. B-B-3
Page 1 of 2

Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: _____
Elevation: 1241.1
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
County: Greene
Skew: _____
Logged By: JM
Northing: 516804.9433
Easting: 1407160.7242
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____
Route: I-44
Location: Springfield, Missouri
Operator: LRK
Date of Work: 07/13/23-07/13/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Hammer Efficiency: 90%
Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-10.0' (CH) Red and brown, fat CLAY, trace sand and gravel	1240		83	4-9-6 (23)		PP >4.50 tsf	LL = 159 PL = 34 MC = 24.4%
5					56	12-9-10 (29)		PP >4.50 tsf	MC = 12.2%
		8.5' -dark brown below 8.5 ft.	1235		50		Qu Test Results UCS = 2.26 ksf MC = 22.6% γ _{moist} = 126.6 pcf	PP = 3.50 tsf	
10		10.0-12.7' weathered LIMESTONE	1230		78	6-3-28 (47)		PP = 3.00 tsf	MC = 20.1%
15		12.7-28.0' LIMESTONE, gray, hard, slightly weathered, very finely crystalline, thin bedded	1225		72 (43)		Qu Test Results UCS = 1250 ksf		
20					100 (88)		Qu Test Results UCS = 1220 ksf		
25		20.7' -chert nodules from 20.7 to 21.0 ft.	1220		100 (80)		Qu Test Results UCS = 1330 ksf		

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983
Coordinate Datum: NAD 83 (CONUS)
Coordinate Zone: Missouri Central
Coordinate Units: U.S. Survey Feet
Coordinate Proj. Factor: 1.0000701976

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.



Missouri Department of Transportation
Construction and Materials

BORING NO. B-B-3
Page 2 of 2

Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: _____
Elevation: 1241.1
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
County: Greene
Skew: _____
Logged By: JM
Northing: 516804.9433
Easting: 1407160.7242
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____
Route: I-44
Location: Springfield, Missouri
Operator: LRK
Date of Work: 07/13/23-07/13/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Hammer Efficiency: 90%
Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		12.7-28.0' LIMESTONE, gray, hard, slightly weathered, very finely crystalline, thin bedded (continued) 26.5' -chert nodules below 26.5 ft.	1215		100 (72)		Qu Test Results UCS = 1680 ksf		
		Refusal at 12.7 feet. Bottom of borehole at 28.0 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983
Coordinate Datum: NAD 83 (CONUS)
Coordinate Zone: Missouri Central
Coordinate Units: U.S. Survey Feet
Coordinate Proj. Factor: 1.0000701976

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 29 of 31

BORING DATA

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DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMCD Project No. 146617



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



Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: _____
Elevation: 1241.7
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
Drill No.: _____

Missouri Department of Transportation
Construction and Materials

County: Greene
Skew: _____
Logged By: JM
Northing: 516802.4399
Easting: 1407217.508
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler
Location Note: _____
Hammer Efficiency: 90%

BORING NO. B-B-6
Page 2 of 2

Route: I-44
Location: Springfield, Missouri
Operator: LRK
Date of Work: 07/12/23-07/12/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		14.3-27.1' LIMESTONE, gray and light gray, hard, slightly weathered, very finely to finely crystalline, thin bedded (continued)	1215	1	100 (100)				
		Refusal at 12.0 feet. Bottom of borehole at 27.1 feet.							

N₆₀ = (E_m/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; E_m - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual
Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

Detailed: May 2024
Checked: Jun. 2024

Note: For locations of borings, see Sheet No. 1.
Note: This drawing is not to scale. Follow dimensions.
Sheet No. 31 of 31

BORING DATA

DATE PREPARED
9/16/2024

ROUTE
I - 44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9413

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

MoDOT

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

Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMCD Project No. 146617

BURNS
MCDONNELL

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

GENERAL NOTES:

DESIGN SPECIFICATIONS:

2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
Operational Importance = Essential
2011 AASHTO Guide Specifications for LRFD Seismic Bridge Design (2nd Ed.)
and 2014 Interim Revisions (Seismic)
Seismic Design Category = A
Design earthquake response spectral acceleration coefficient at 1.0 second
period, $S_{D1} = 0.104g$
Acceleration Coefficient (effective peak ground acceleration coefficient), $A_s = 0.089g$

DESIGN LOADING:

Vehicular = HL-93
Future Wearing Surface = 35 lb/sf
Earth = 120 lb/cf
Equivalent Fluid Pressure = 45 lb/cf (Min.)
Superstructure: Non-composite for dead load.
Composite for live load.

DESIGN UNIT STRESSES:

Class B Concrete (Substructure)	f'c = 3,000 psi
Class B-1 Concrete (Type D Barrier)	f'c = 4,000 psi
Class B-2 Concrete (Superstructure, except Prestressed Girders and Type D Barrier)	f'c = 4,000 psi
Reinforcing Steel (Grade 60)	f _y = 60,000 psi
Structural Steel HP Pile (ASTM A709 Grade 50S)	f _y = 50,000 psi
For precast prestressed panel stresses, see Sheet No. 18.	
For prestressed girder stresses, see Sheets No. 16 thru 17.	

NEOPRENE PADS:

Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

JOINT FILLER:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

REINFORCING STEEL:

Minimum clearance to reinforcing steel shall be 1½", unless otherwise shown.

TRAFFIC HANDLING:

Vertical clearance for Broadway Avenue traffic during construction shall be 14'-6" minimum over a 11'-0" wide horizontal opening of the roadway in each direction.

Traffic to be maintained on structures during construction. See roadway plans for traffic control and Sheets No. 3 thru 4 for staged construction details.

MISCELLANEOUS :

MoDOT Construction personnel will indicate the type of joint filler option used under the precast panels for this structure:

- ☐ Constant Joint Filler
- ☐ Variable Joint Filler

NOTICE AND DISCLAIMER REGARDING BORING LOG DATA:

The locations of all subsurface borings for this structure are shown on the plan sheets for this structure. The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations performed by the department for the design of the project, are shown on Sheets No. 28 thru 30 and may be included in the Electronic Bridge Deliverables. They will also be available from the Project Contact upon written request. No greater significance or weight should be given to the boring data depicted on the plan sheets than is given to the subsurface data available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A contractor assumes all risks it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the Commission.

Foundation Data			
Type	Design Data	Bent Number	
		1	2
Load Bearing Pile	Pile Type and Size	HP 12x53	HP 12x53
	Number ea	9	9
	Approximate Length Per Each ft	31	29
	Pile Point Reinforcement ea	All	All
	Min. Galvanized Penetration (Elev.) ft	Full Length	Full Length
	Pile Driving Verification Method	DF	DF
	Resistance Factor	0.4	0.4
	Minimum Nominal Axial Compressive Resistance kip	590	590

DF = FHWA - modified Gates Dynamic Pile Formula.

$$\text{Minimum Nominal Axial Compressive Resistance} = \frac{\text{Maximum Factored Loads}}{\text{Resistance Factor}}$$

Manufactured pile point reinforcement shall be used on all piles in this structure.

Pile point reinforcement need not be galvanized. Shop drawings will not be required for pile point reinforcement.

Prebore for piles at Bents No. 1 and 2 to elevation 1229.0.

HP piles are anticipated to be driven to refusal on rock. Review all borings for depth of rock and restrict driving as appropriate to comply with hard rock driving criteria in accordance with Sec 702. When pile refusal on rock occurs, as approved by the engineer, the minimum nominal axial compressive resistance is verified and no additional pile driving verification method is required.

The contractor shall make every effort to achieve the minimum galvanized penetration (elevation) shown on the plans for all piles.

Estimated Quantities			
Item	Substr.	Superstr.	Total
Removal of Bridges (A04443)	lump sum		1
Bridge Approach Slab (Major)	sq. yard	314	314
Galvanized Structural Steel Piles (12 in.)	linear foot	539	539
Pre-Bore for Piling	linear foot	207	207
Pile Point Reinforcement	each	18	18
Class B Concrete (Substructure)	cu. yard	59.0	59.0
Type D Barrier	linear foot	226	226
Slab on Concrete NU-Girder	sq. yard	648	648
NU 35, Prestressed Concrete NU-Girder	linear foot	647	647
Vertical Drain at End Bents	each	2	2
Plain Neoprene Bearing Pad	each	8	8
Laminated Neoprene Bearing Pad (Tapered)	each	8	8
Pile Spacers	each	18	18

All concrete above the construction joint in the end bents is included in the Estimated Quantities for Slab on Concrete NU-Girder.

All reinforcement in the end bents is included in the Estimated Quantities for Slab on Concrete NU-Girder.

Estimated Quantities for Slab on Concrete NU-Girder		
Item		Total
Class B-2 Concrete	cu. yard	200
Reinforcing Steel (Epoxy Coated)	pound	43,110

The table of Estimated quantities for Slab on Concrete NU-Girder represents the quantities used by the State in preparing the cost estimate for concrete slabs. The area of the concrete slab will be measured to the nearest square yard longitudinally from end of slab to end of slab and transversely from out to out of bridge slab (or with the horizontal dimensions as shown on the plan of slab). Payment for prestressed panels, conventional forms, all concrete and epoxy coated reinforcing steel will be considered completely covered by the contract unit price for the slab. Variations may be encountered in the estimated quantities but the variations cannot be used for an adjustment in the contract unit price.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703. All hardware for forming the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and a finish type I, II or III.

PRECAST PRESTRESSED PANELS:

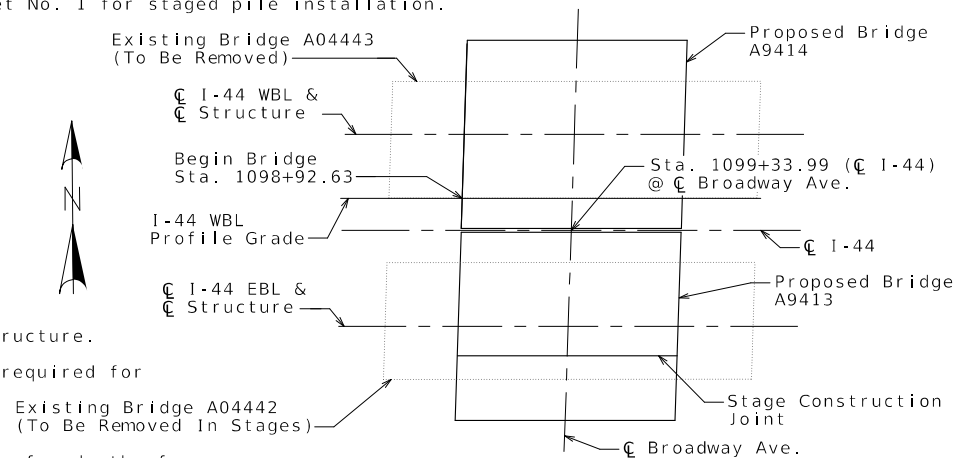
The Estimated Quantities for Slab on Concrete NU-Girder are based on skewed precast prestressed end panels.

Class B-2 Concrete quantity is based on minimum top flange and minimum joint material thickness.

The prestressed panel quantities are not included in the table of Estimated Quantities for Slab on Concrete NU-Girder.

STAGED CONSTRUCTION:

See General Plan and Elevation Sheet No. 1 for staged pile installation.



LOCATION SKETCH

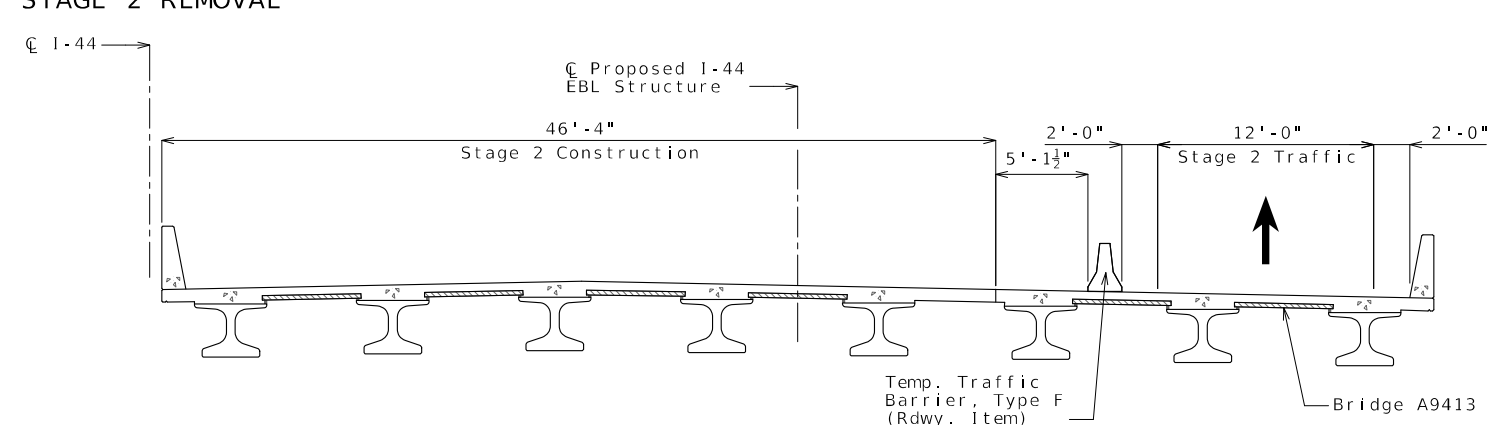
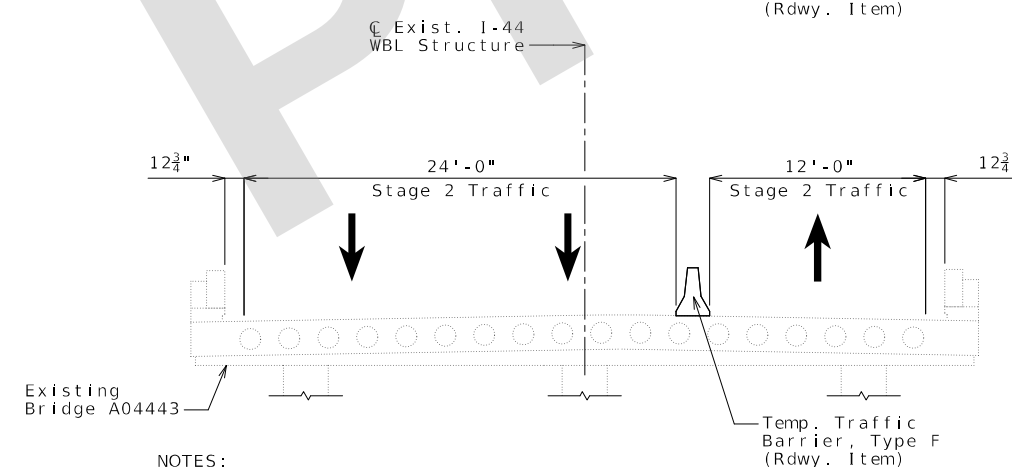
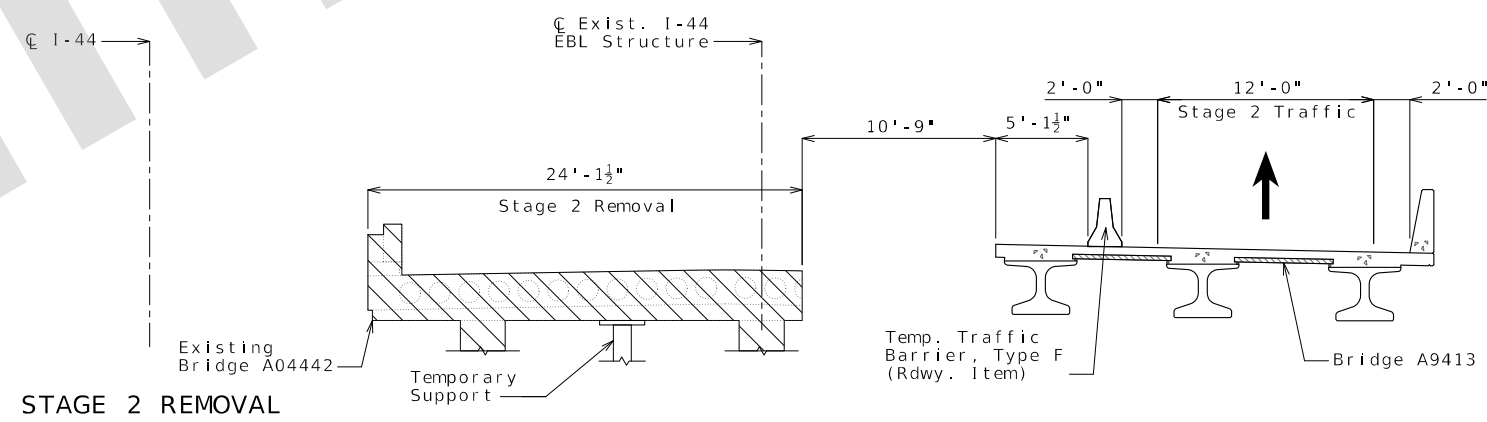
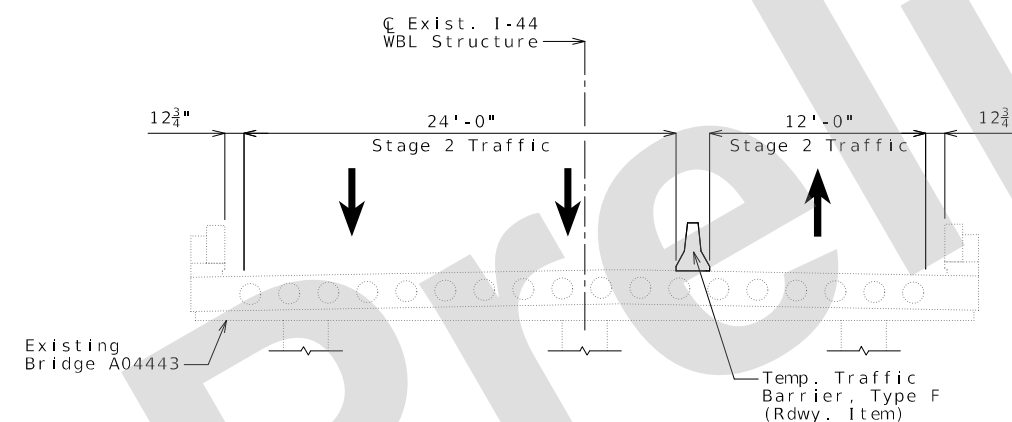
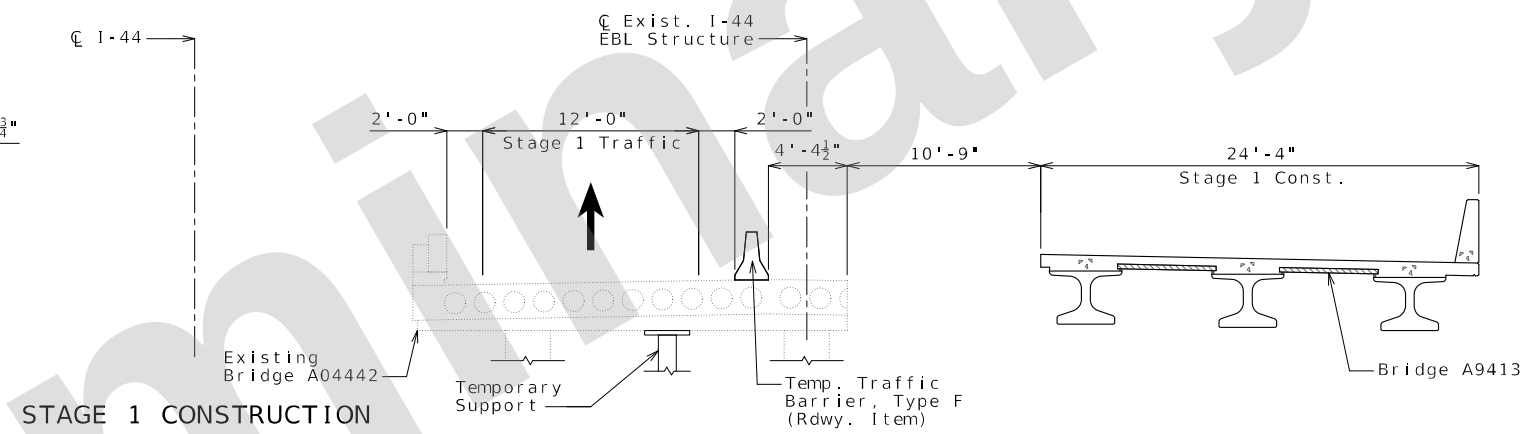
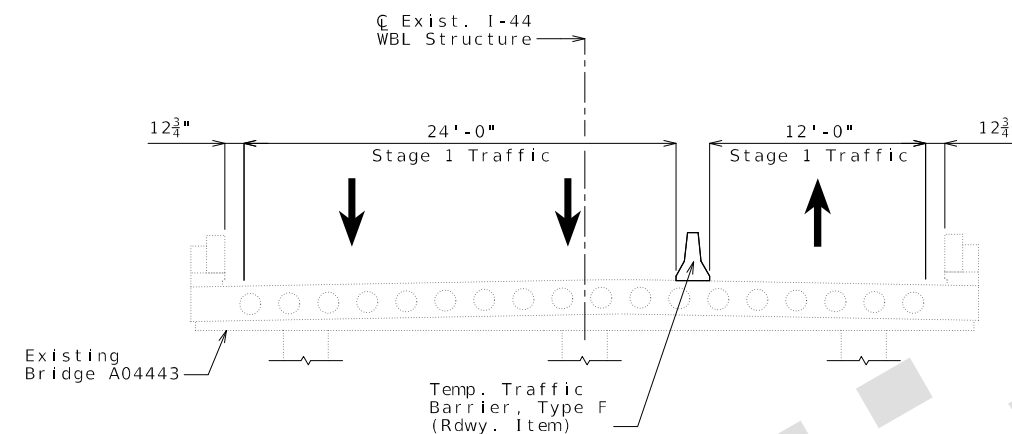
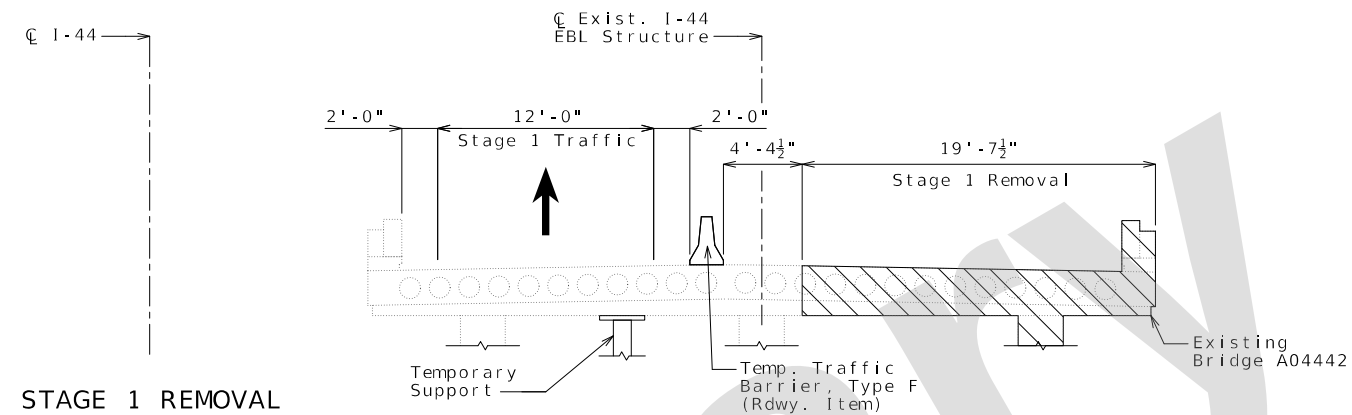
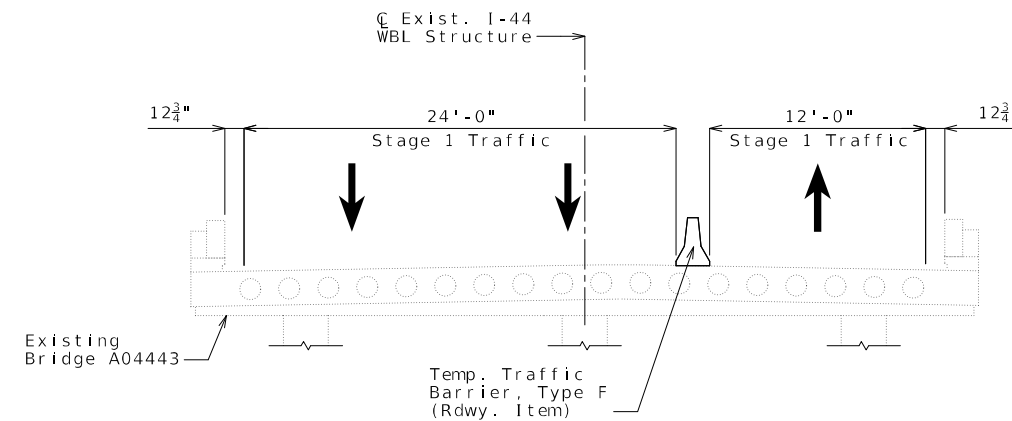
GENERAL NOTES & QUANTITIES

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 2 of 30

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NOTES :

All typical sections are looking east.

Hatched area indicates removal of existing structures.

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

Sheet No. 3 of 30

STAGED CONSTRUCTION

DATE PREPARED	
9/16/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
BR	3

COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

	PROJECT NO.
	BRIDGE NO. A9414

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

Burns & McDonnell Engineering Co., Inc.

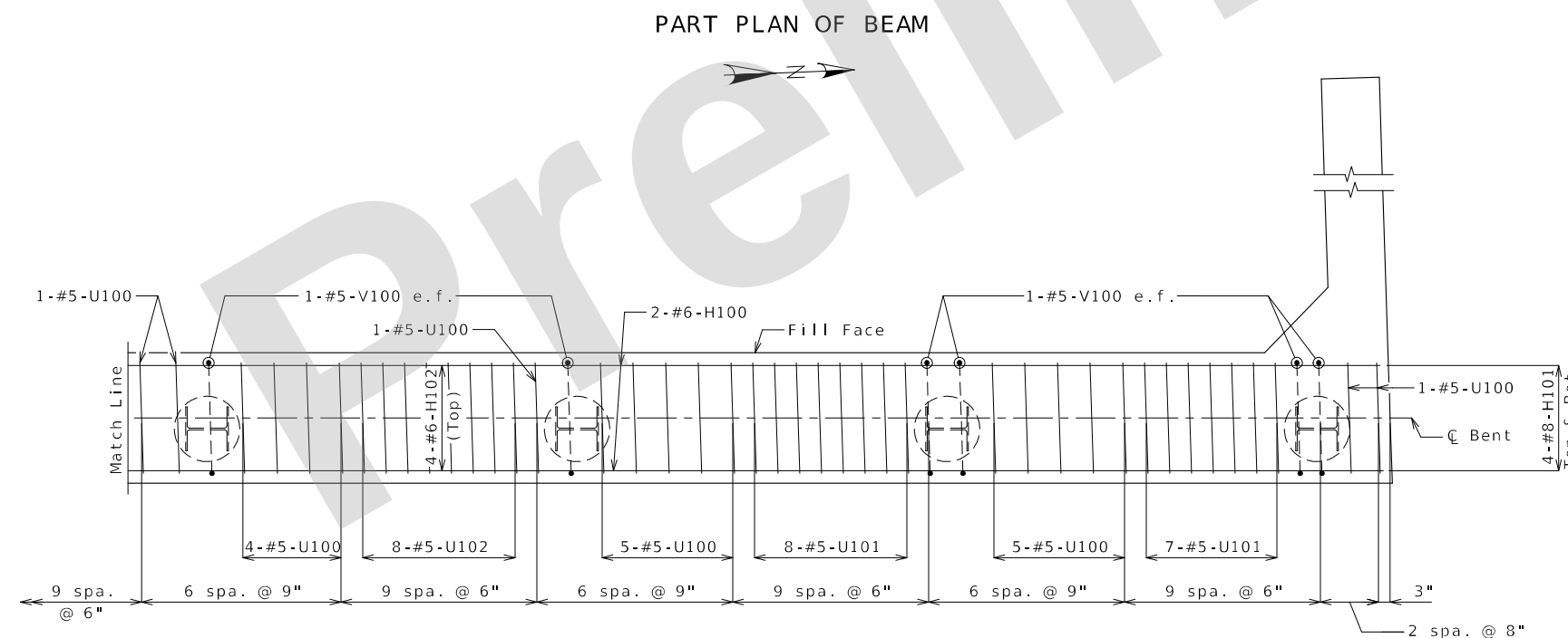
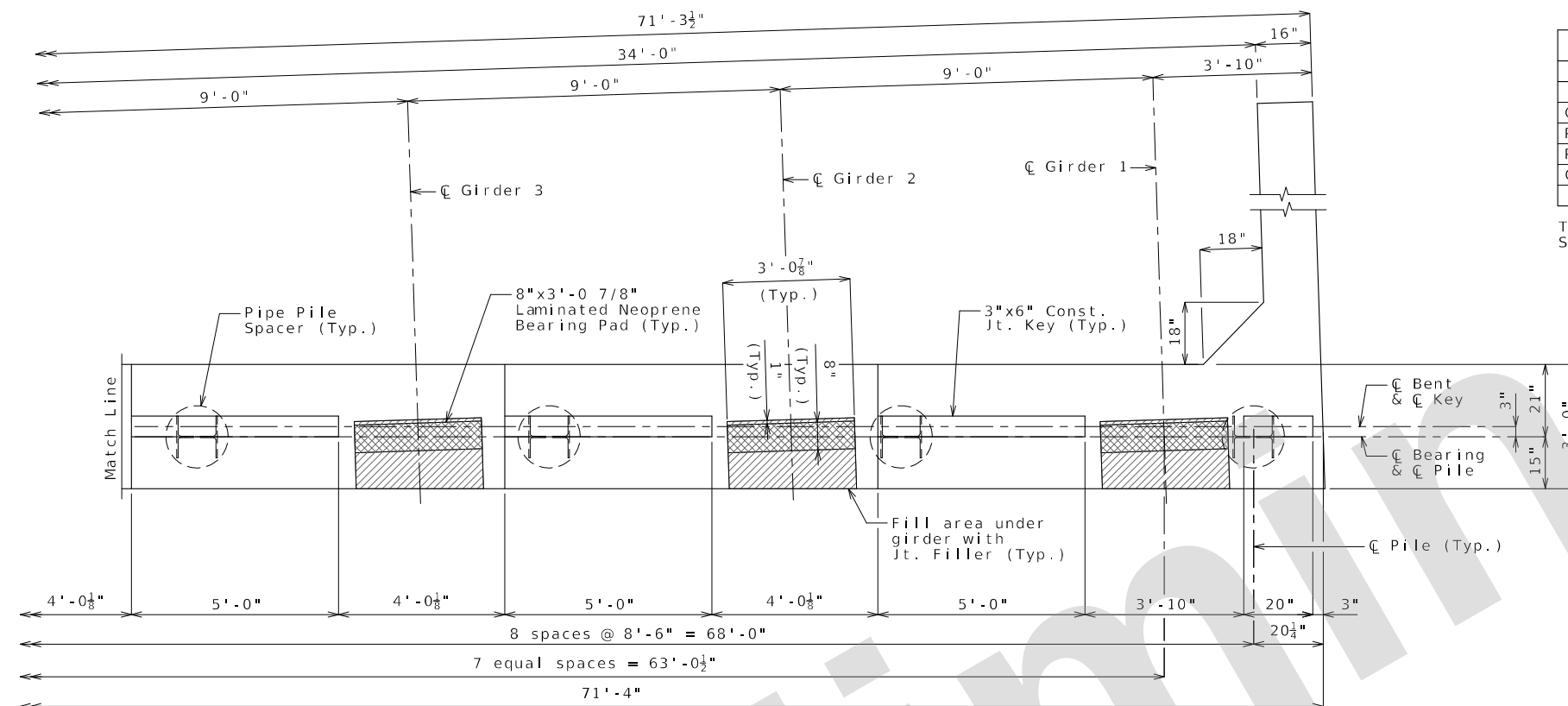
9400 Ward Parkway
Kansas City, Missouri 64114
316-333-9400

Certificate of Authority
No. : 000165

3McD Project No. 146617

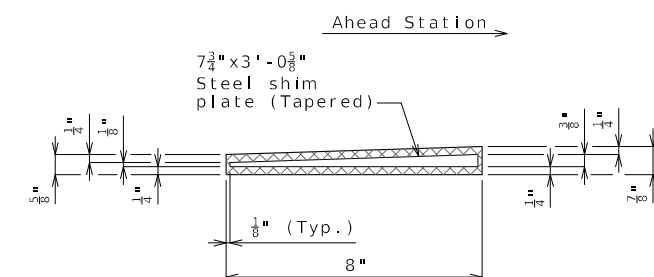
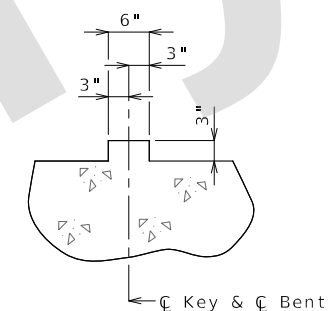


IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



Substructure Quantity Table for End Bent No. 1		
Item		Quantity
Galvanized Structural Steel Piles (12 in.)	linear foot	280
Pre-Bore for Piling	linear foot	99
Pile Point Reinforcement	each	9
Class B Concrete (Substructure)	cu. yard	29.5

These quantities are included in the Estimated Quantities table on Sheet No. 2.



TYPICAL SECTION THRU
8"X3'-0 7/8"X3/4"
LAMINATED NEOPRENE BEARING PAD
(8 Required)

NOTES:

Work this sheet with Sheets No.6 thru 9.

All U bars and pairs of V bars shall be placed parallel to centerline of roadway.

Reinforcing steel shall be shifted to clear piles.
U bars shall clear piles by at least 1 1/2 inches.

e.f. denotes each face.

Detailed: May 2024
Checked: Jun. 2024

Checked: Jun. 2024

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

Sheet No. 5 of 30

END BENT NO. 1
BEAM DETAILS 1 OF 2

BEAM DETAILS 1 OF 2

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DATE PREPARED		GREEN ELECTRONIC
9/16/2024		
ROUTE	STATE	
I - 44	MO	
DISTRICT	SHEET NO.	
BB	5	

COUNTY	GREENE
JOB NO.	JSU0076
CONTRACT ID.	

PROJECT NO.	SHEET

	BRIDGE NO.	N THIS
	A9414	

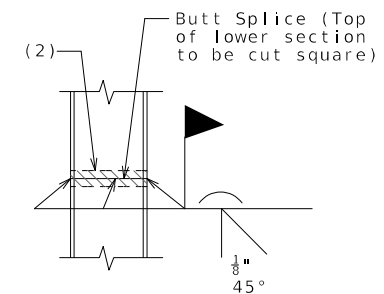
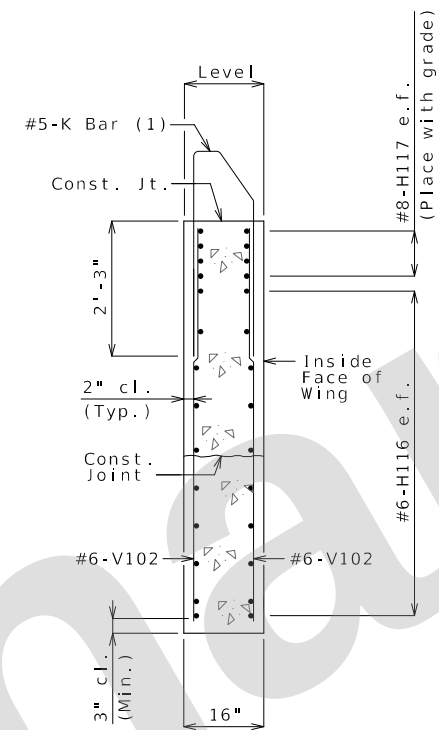
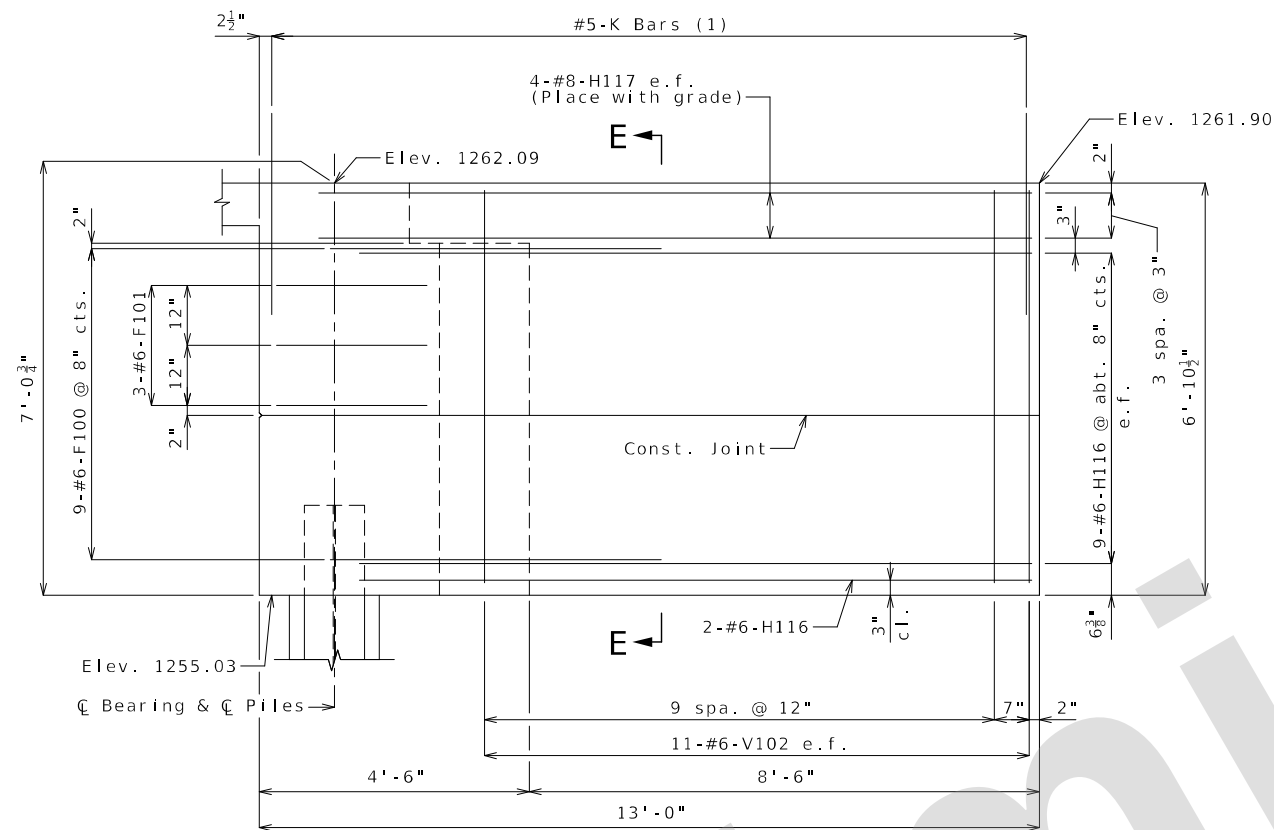
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MISSOURI HIGHWAYS AND TRANSPORTATION
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JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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MCDONNELL**
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Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMCd Project No. 146617



STEEL PILE SPLICE
(If required)

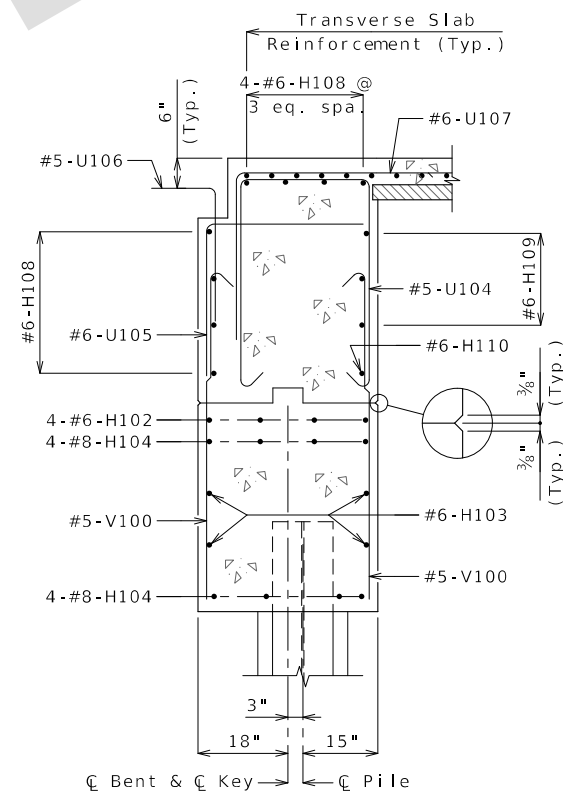
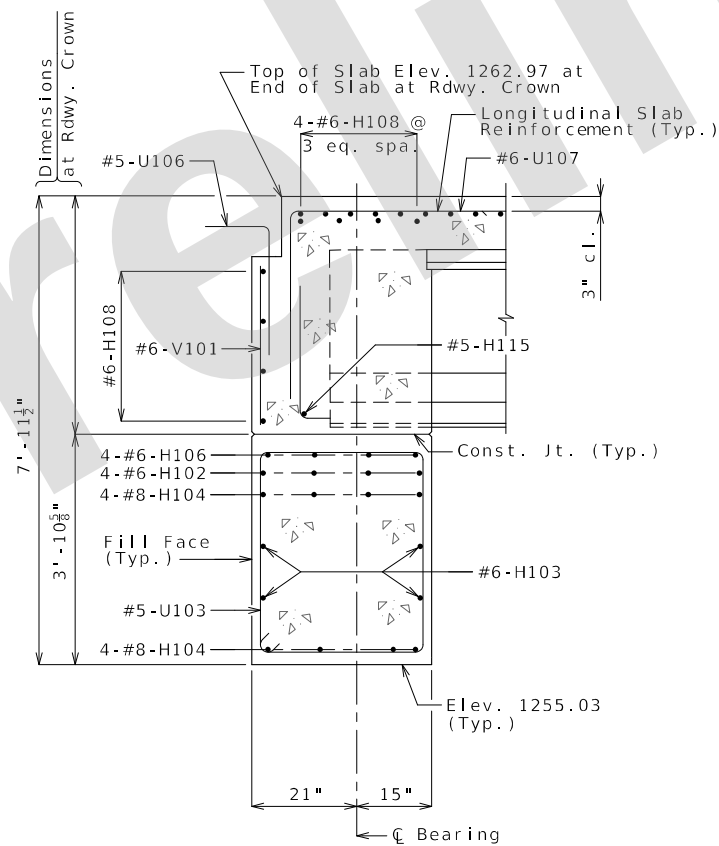
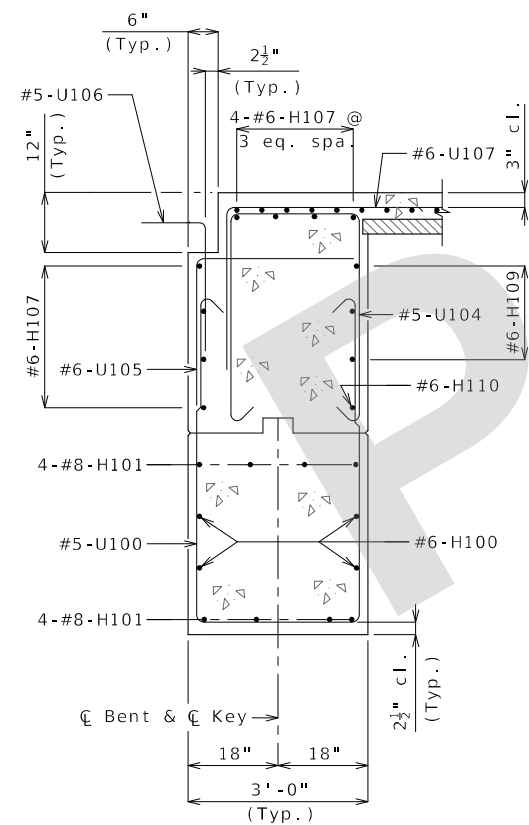
(2) Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.

NOTES :

- (1) For reinforcement of the Type D Barrier at End Bent, see Sheet No. 23.
- e.f. denotes each face.

For details of bridge approach slab,
see Sheet No. 24.

Work this sheet with Sheets No. 5 thru 8.



SECTION A-A

SECTION B-B

SECTION C-C

END BENT NO. 1
WING DETAILS & SECTIONS

Detailed: May 2024
Checked: Jun. 2024

Checked: Jun. 2024

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

Sheet No. 9 of 30

DATE PREPARED	
9/16/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
BR	9

9 / 16 / 2024

ROUTE	STATE
1-1-1	MO

1 - 44	MO
DISTRICT	SHEET NO

COUNTY

GREENE

JOB NO.
ISU0076

CONTRACT ID.

PROJECT NO. _____

DESCRIPTION

DATE _____

MISSOURI HIGHWAYS AND TRANSPORTATION



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

Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
316-333-9400

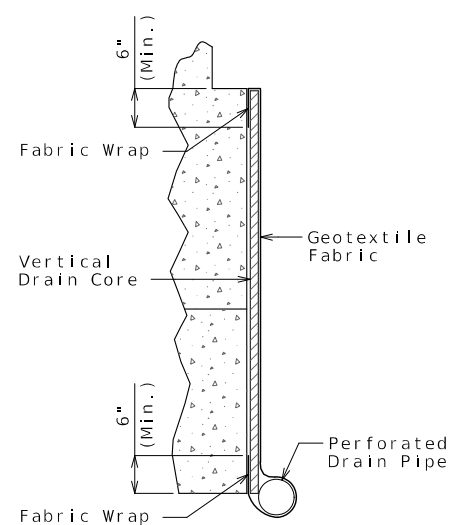
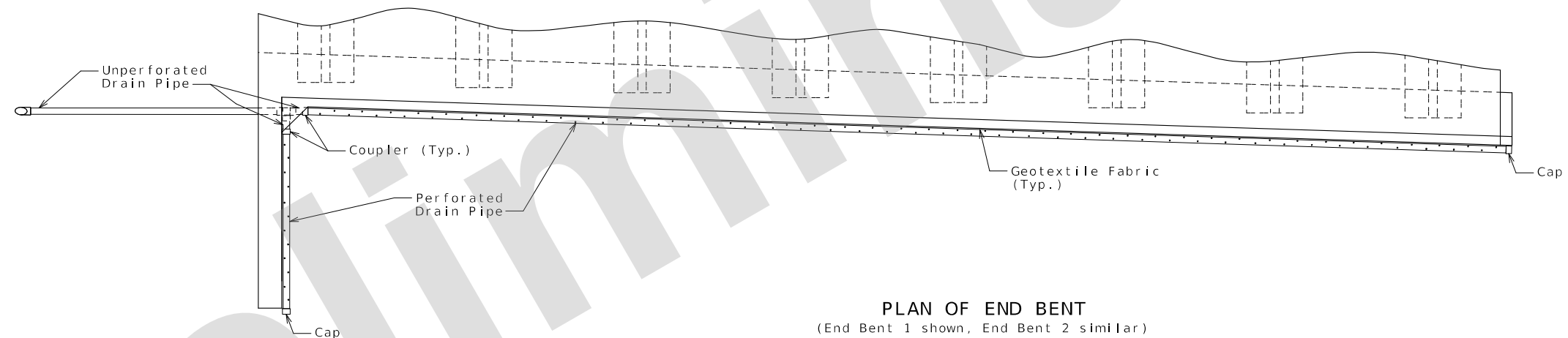
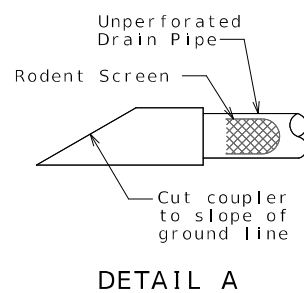
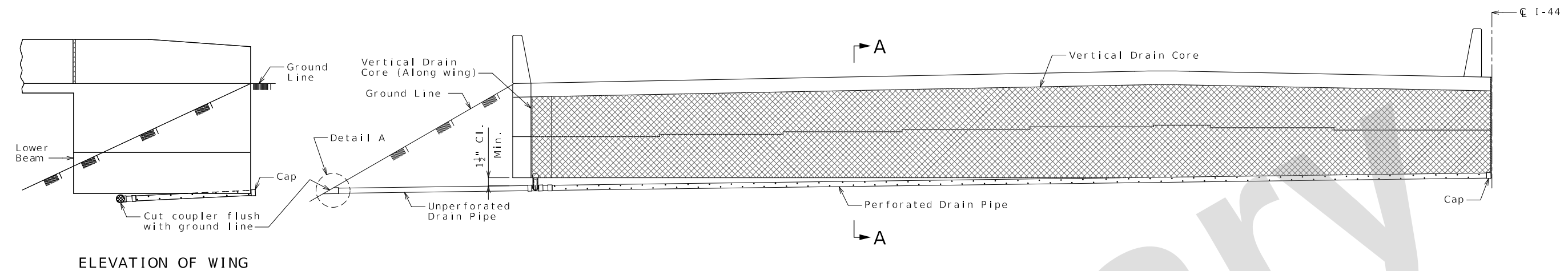
Certificate of Authority
No. : 000165
3McD Project No. 146617

3McD Project No. 146617

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PLAN OF END BENT
(End Bent 1 shown, End Bent 2 similar)

General Notes:

All drain pipe shall be sloped 1 to 2 percent.

Drain pipe may be either 6-inch diameter corrugated metallic-coated steel pipe underdrain, 4-inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4-inch diameter corrugated polyethylene (PE) drain pipe.

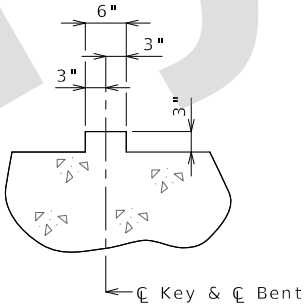
Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.

<

Substructure Quantity Table for End Bent No. 2			
Item		Quantity	
Galvanized Structural Steel Piles (12 in.)		linear foot	259
Pre-Bore for Piling		linear foot	108
Pile Point Reinforcement		each	9
Class B Concrete (Substructure)		cu. yard	29.5

These quantities are included in the Estimated Quantities table on Sheet No. 2.



SECTION THRU KEY

NOTES:
Work this sheet with Sheets No. 12 thru 15.
All U bars and pairs of V bars shall be placed parallel to centerline of roadway.
Reinforcing steel shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.
e.f. denotes each face.

END BENT NO. 2
BEAM DETAILS 1 OF 2

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9414

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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1-888-ASK-MODOT (1-888-273-6636)

Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617

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PART PLAN OF BEAM

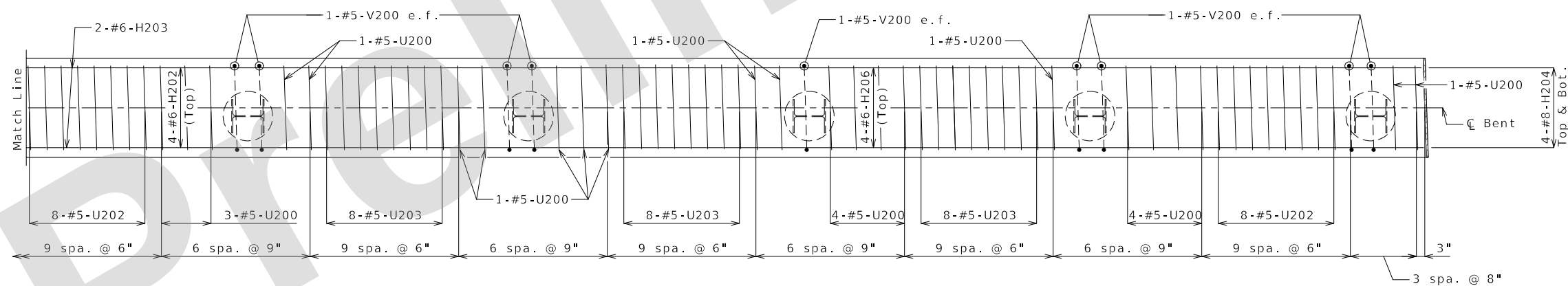
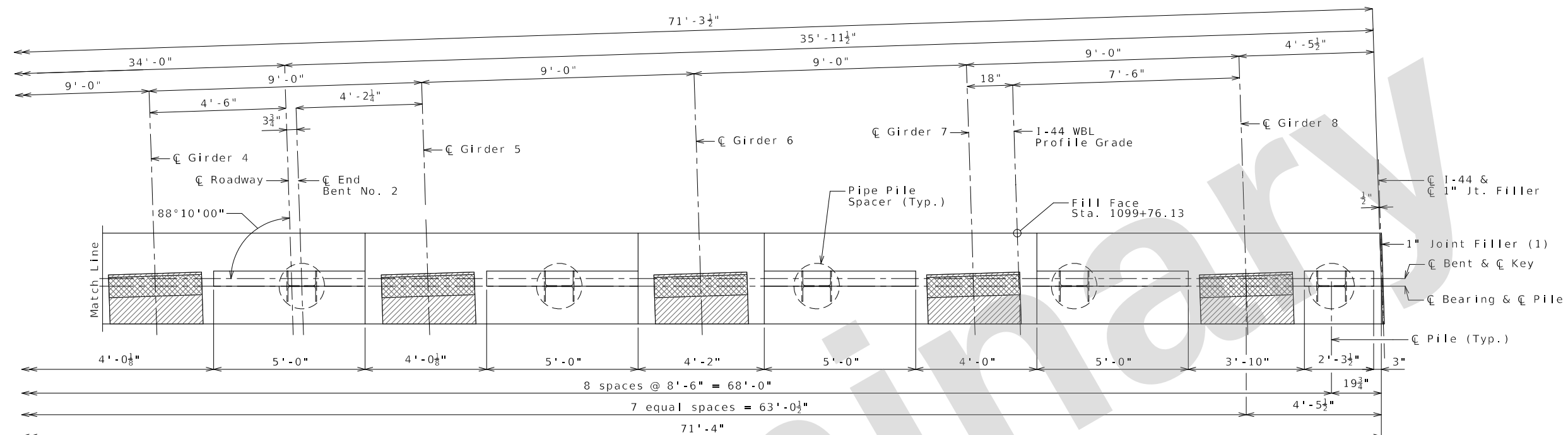
PART PLAN OF BEAM SHOWING REINFORCEMENT
(Keys and steps not shown for clarity)

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 11 of 30

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NOTES:

Work this sheet with Sheets No. 11 & 13 thru 15.

All U bars and pairs of V bars shall be placed parallel to centerline of roadway.

Reinforcing steel shall be shifted to clear piles.
U bars shall clear piles by at least 1 1/2 inches.

e.f. denotes each face.

- (1) Seal joint between vertical face of EB and WB bearing beams with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 12 of 30

END BENT NO. 2
BEAM DETAILS 2 OF 2

DATE PREPARED	
9/16/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
BR	12

COUNTY	GREENE
JOB NO.	JSU0076
CONTRACT ID.	

PROJECT NO.

BRIDGE NO.
A9414

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COMMISSION

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

Burns & McDonnell Engineering Co., Inc.

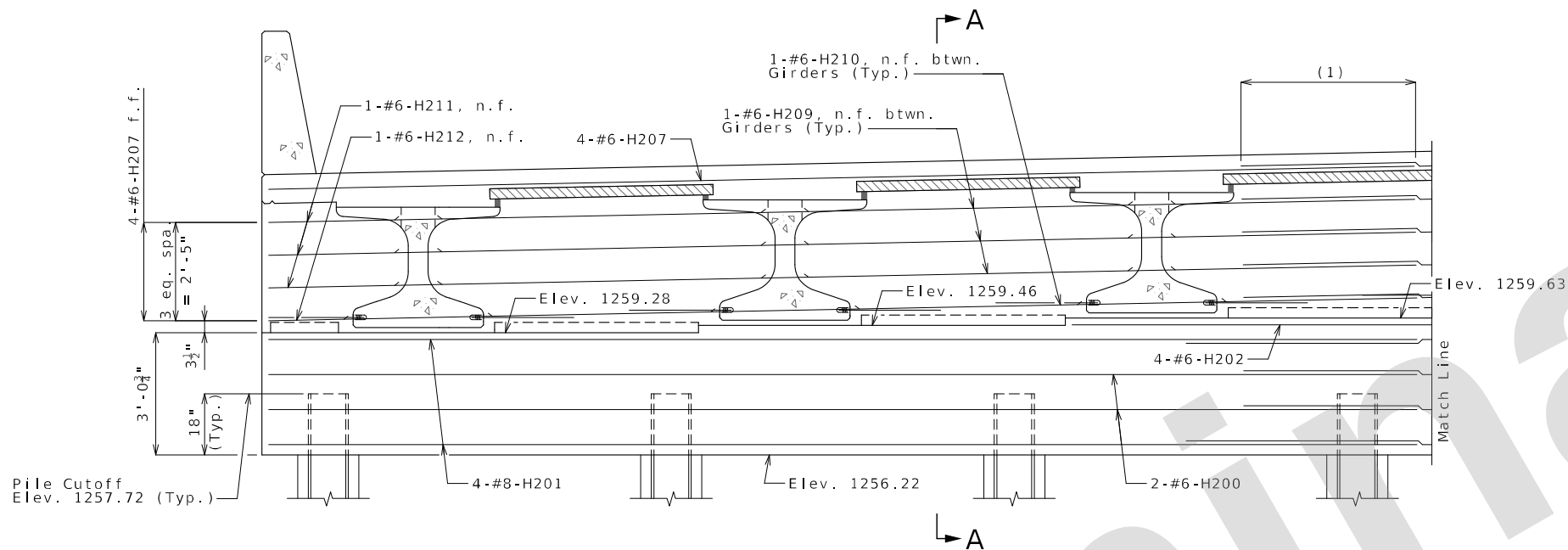
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

010-333-9400
Certificate of Authority
No. : 000165

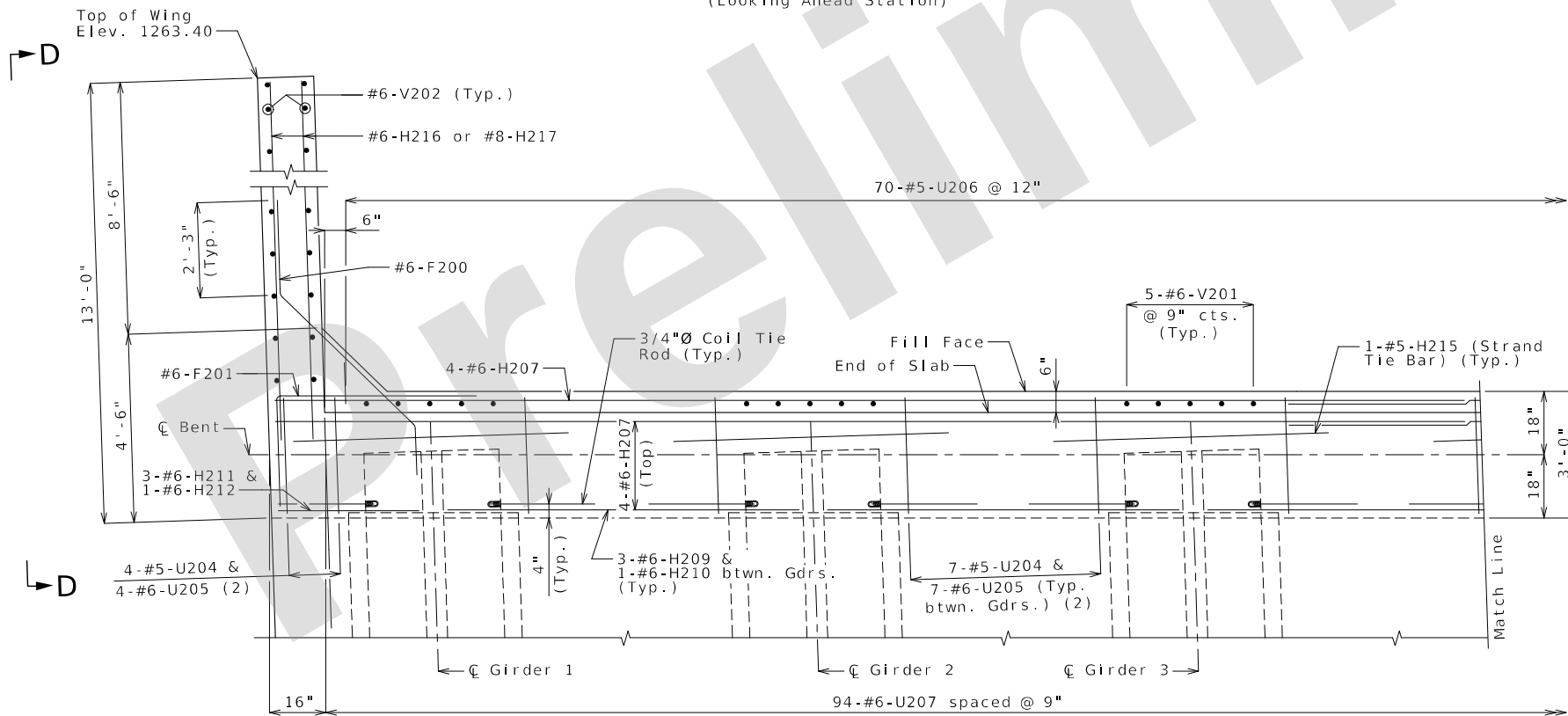
NO. : 000163
3McD Project No. 146617

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SECTION NEAR END BENT
(Looking Ahead Station)



PART PLAN

(2) Space bars to match #5-V200 & #5-U200 bars.
(Keys and steps not shown for clarity)

NOTES:

Work this sheet with Sheets No. 11, 12, 14 and 15.

For Section A-A see Sheet No. 15.

The #6-F200 shall be bent in the field to clear girders.

The U bars shall be placed parallel to centerline of roadway.

All concrete in the end bent above top of beam and below top of slab shall be Class B-2.

Strands at end of girders shall be field bent or, if necessary, cut in field to maintain 1 1/2 inch minimum clearance to fill face of end bent.

For location of coil tie rods and #5-H215, see Sheets No. 16 and 17.

For details of vertical drain at end bents, see Sheet No. 10.

For details of bridge approach slab, see Sheet No. 24.

f.f. denotes far face
n.f. denotes near face

(1) Minimum Lap #6 Bars = 4'-3"
Minimum Lap #8 Bars = 5'-8"

Detailed: May 2024
Checked: Jun. 2024

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

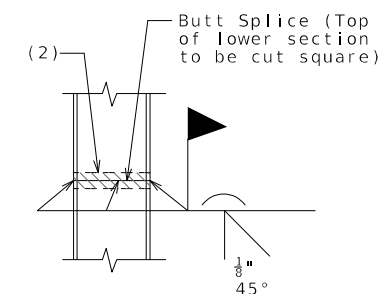
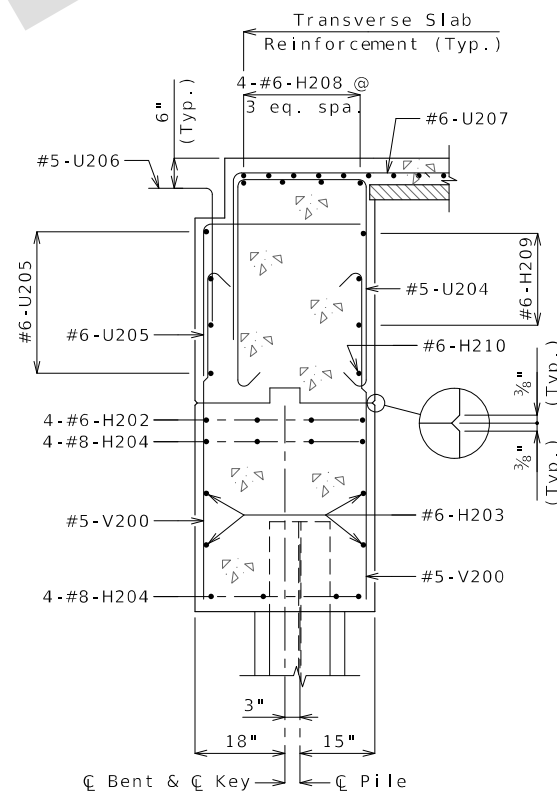
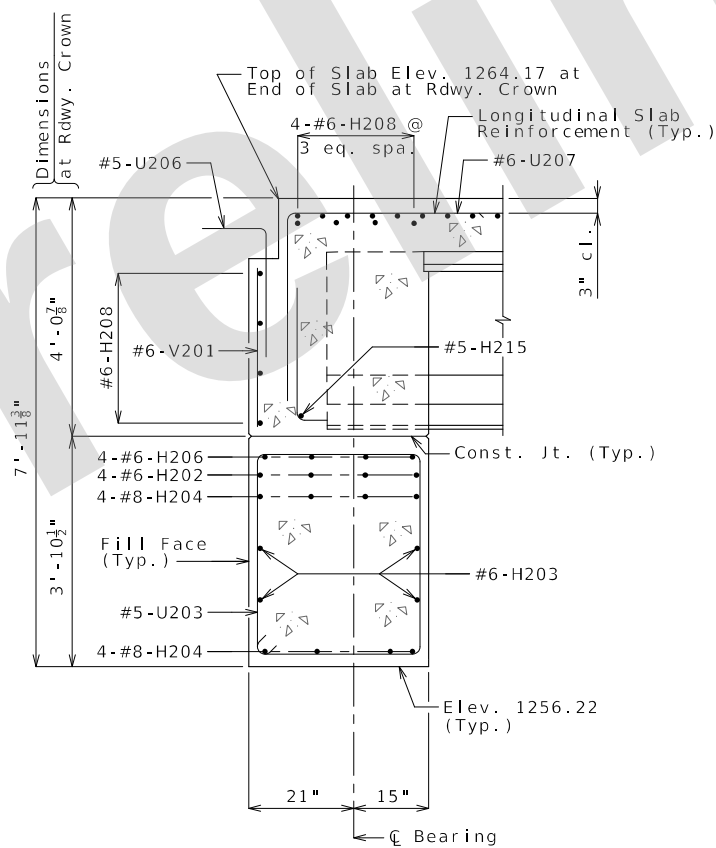
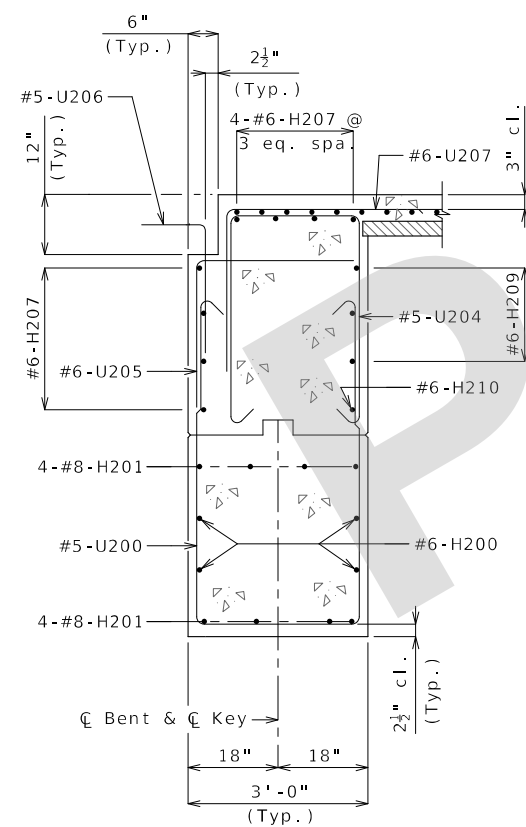
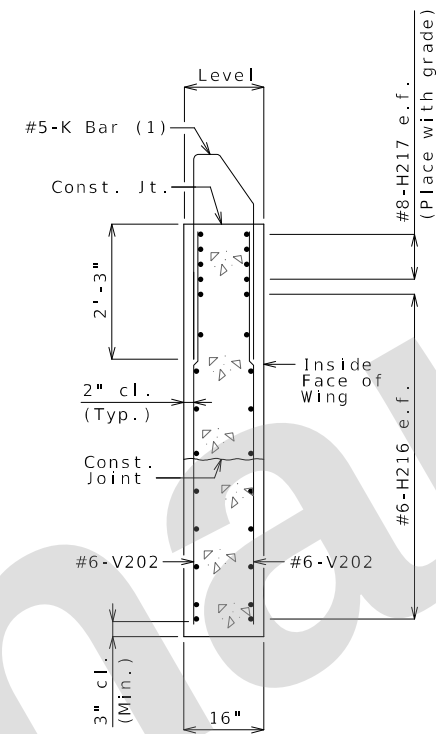
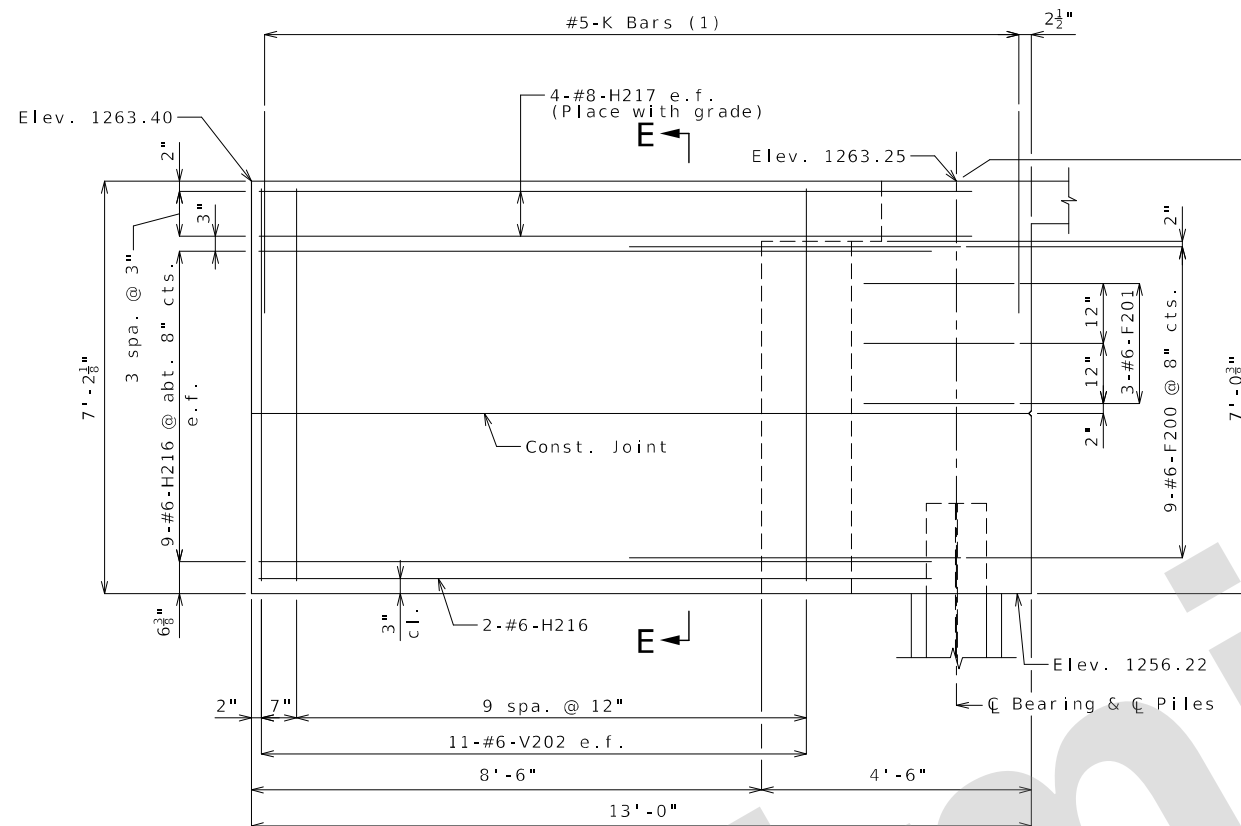
Sheet No. 13 of 30

END BENT NO. 2
DIAPHRAGM DETAILS 1 of 2

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DATE PREPARED 9/16/2024	
ROUTE 1-44	STATE MO
DISTRICT BR	SHEET NO. 13
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9414	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
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STEEL PILE SPLICE
(If required)

(2) Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.

NOTES :

- (1) For reinforcement of the Type D Barrier at End Bent, see Sheet No. 23.
- e.f. denotes each face.

e.f. denotes each face.

For details of bridge approach slab,
see Sheet No. 24.

Work this sheet with Sheets No. 11 thru 14.

Detailed: May 2024
Checked: Jun. 2024

Checked: Jun. 2024

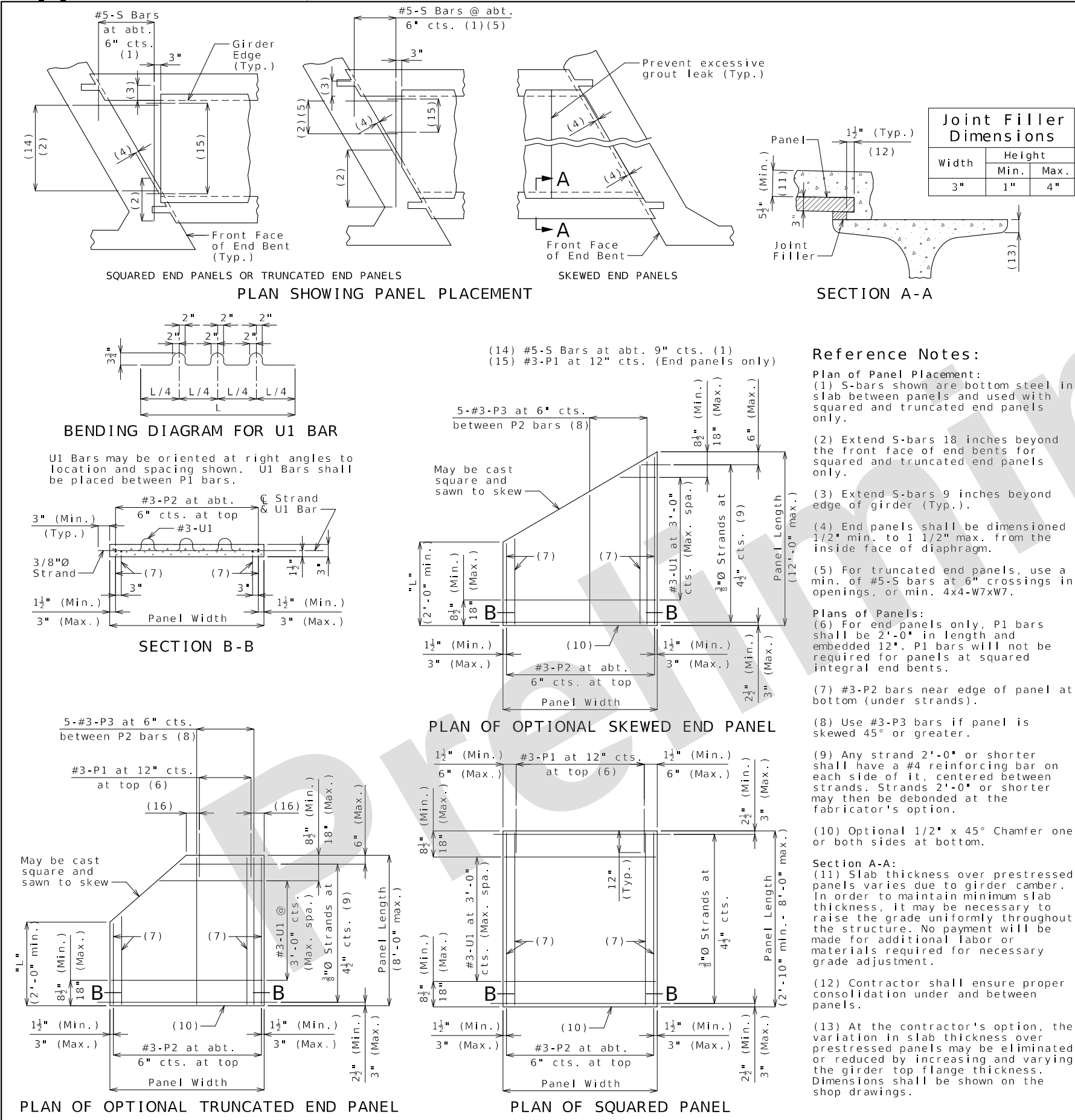
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 15 of 30

END BENT NO. 2
WING DETAILS & SECTIONS

WING DETAILS & SECTIONS

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General Notes:
Prestressed Panels:
Concrete for prestressed panels shall be Class A-1 with $f'c = 6,000$ psi, $f'ci = 4,000$ psi.

The top surface of all panels shall receive a scored finish with a depth of scoring of 1/8" perpendicular to the prestressing strands in the panels.

Prestressing tendons shall be high-tensile strength, uncoated, seven-wire, low-relaxation strands for prestressed concrete in accordance with AASHTO M 203 Grade 270, with nominal diameter of strand = 3/8" and nominal area = 0.085 sq.in. and minimum ultimate strength = 22.95 kips (270 ksi). Larger strands may be used with the same spacing and initial tension.

Initial prestressing force = 17.2 kips/strand.

The method and sequence of releasing the strands shall be shown on the shop drawings.

Suitable anchorage devices for lifting panels may be cast in panels, provided the devices are shown on the shop drawings and approved by the engineer. Panel lengths shall be determined by the contractor and shown on the shop drawings.

When squared end panels are used at skewed bents, the skewed portion shall be cast full depth. No separate payment will be made for additional concrete and reinforcing required.

Support from diaphragm forms is required under the optional skewed end until cast-in-place concrete has reached 3,000 psi compressive strength.

Prestressed panels shall be brought to saturated surface-dry (SSD) condition just prior to the deck pour. There shall be no free standing water on the panels or in the area to be cast.

The prestressed panel quantities are not included in the table of estimated quantities for the slab.

Reinforcing Steel:
All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

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

If U1 bars interfere with placement of slab steel, U1 loops may be bent over, as necessary, to clear slab steel.

Deformed welded wire reinforcement (WWR) providing a minimum area of reinforcing perpendicular to strands of 0.22 sq in./ft, with spacing parallel to strands sufficient to ensure proper handling, may be used in lieu of the #3-P2 bars shown. Wire diameter shall not be larger than 0.375 inch. The above alternative reinforcement criteria may be used in lieu of the #3-P3 bars, when required, and placed over a width not less than 2 feet.

The following reinforcing steel shall be tied securely to the strands with the following maximum spacing in each direction:
#3-P2 bars at 16 inches.
WWR at 24 inches.

The #3-U1 bars shall be tied securely to #3-P2 bars, to WWR or to strands (when placed between P1 bars) at about 3-foot centers.

Minimum reinforcement steel length shall be 2'-0".

All reinforcement other than prestressing strands shall be epoxy coated.

Precast panels may be in contact with stirrup reinforcing in diaphragms.

S-bars are not listed in the bill of reinforcing.

Cost of S-bars will be considered completely covered by the contract unit price for the slab.

Joint Filler:
Joint filler shall be preformed fiber expansion joint material in accordance with Sec 1057 or expanded or extruded polystyrene bedding material in accordance with Sec 1073.

Use Slab Haunching Diagram on Sheet No. 19 for determining thickness of joint filler within the limits noted in the table of Joint Filler Dimensions.

Thicker material may be used on one or both sides of the girder to reduce cast-in-place concrete thickness to within tolerances.

The same thickness of preformed fiber expansion joint material shall be used under any one edge of any panel except at locations where top flange thickness may be stepped. The maximum change in thickness between adjacent panels shall be 1/2 inch. The polystyrene bedding material may be cut with a transition to match haunch height above top of flange.

Joint filler shall be glued to the girder. When thickness exceeds 1 1/2 inches, the joint filler shall be glued top and bottom. The glue used shall be the type recommended by the joint filler manufacturer.

Edges of panels shall be uniformly seated on the joint filler before slab reinforcement is placed.

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 18 of 30

PRESTRESSED PANELS

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9414

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

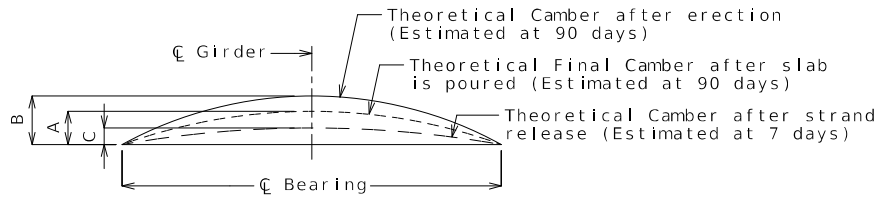
Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617

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

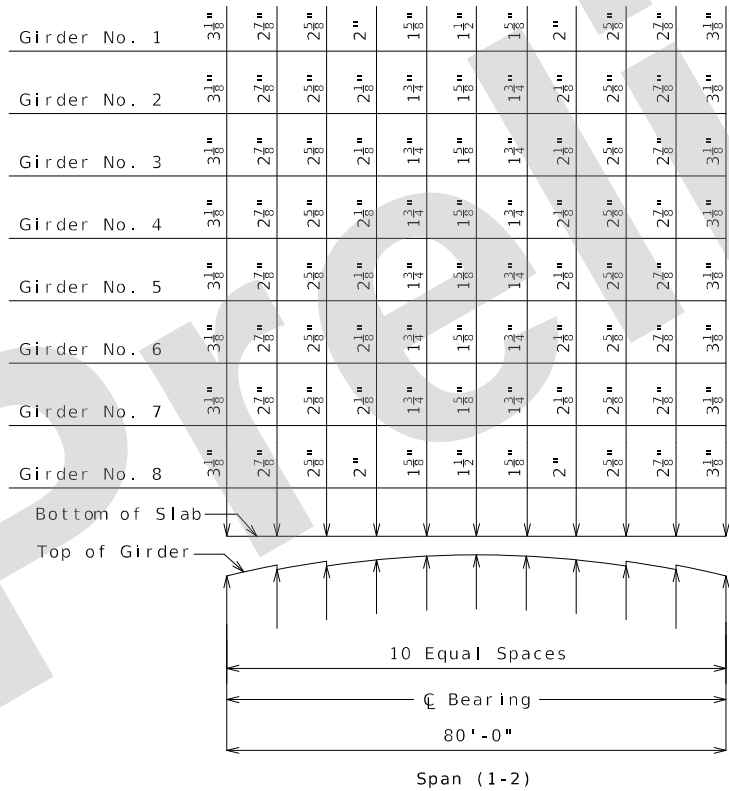


Girder	Span (1-2)		
	A	B	C
Exterior	3"	4 5/8"	2 3/8"
Interior	2 7/8"		

GIRDER CAMBER DIAGRAM

Conversion Factors for Girder Camber (Estimated at 90 days):

0.1 pt. = 0.314 x 0.5 pt.
0.2 pt. = 0.593 x 0.5 pt.
0.3 pt. = 0.813 x 0.5 pt.
0.4 pt. = 0.952 x 0.5 pt.



THEORETICAL SLAB HAUNCHING DIAGRAM (ESTIMATED AT 90 DAYS)

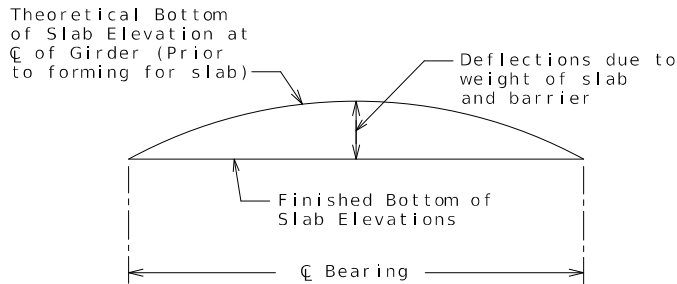
If girder camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness, an adjustment of the slab haunches, an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in haunching, slab thickness or grade adjustment.

Concrete in the slab haunches is included in the Estimated Quantities for Slab on Concrete NU-Girder.

Theoretical slab haunches are measured at C Girder.

Theoretical Bottom of Slab Elevations at Centerline of Girder (Prior to forming for slab) (Estimated at 90 days)											
Girder Number	Span (1-2) (80'-0" C Brg. - C Brg.)										
	C Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	C Brg.
1	1261.46	1261.63	1261.79	1261.94	1262.08	1262.20	1262.31	1262.40	1262.48	1262.55	1262.62
2	1261.63	1261.81	1261.97	1262.12	1262.26	1262.39	1262.49	1262.59	1262.67	1262.73	1262.79
3	1261.81	1261.98	1262.14	1262.30	1262.44	1262.56	1262.67	1262.76	1262.84	1262.91	1262.97
4	1261.98	1262.16	1262.32	1262.47	1262.61	1262.74	1262.85	1262.94	1263.02	1263.09	1263.15
5	1262.16	1262.33	1262.50	1262.65	1262.79	1262.91	1263.02	1263.11	1263.19	1263.26	1263.32
6	1262.28	1262.45	1262.61	1262.76	1262.90	1263.03	1263.14	1263.23	1263.31	1263.38	1263.44
7	1262.09	1262.26	1262.43	1262.58	1262.72	1262.84	1262.95	1263.05	1263.13	1263.19	1263.26
8	1261.91	1262.08	1262.24	1262.39	1262.53	1262.65	1262.76	1262.85	1262.94	1263.01	1263.07

Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab (including precast panel) and barrier.



TYPICAL SLAB ELEVATIONS DIAGRAM

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9414

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

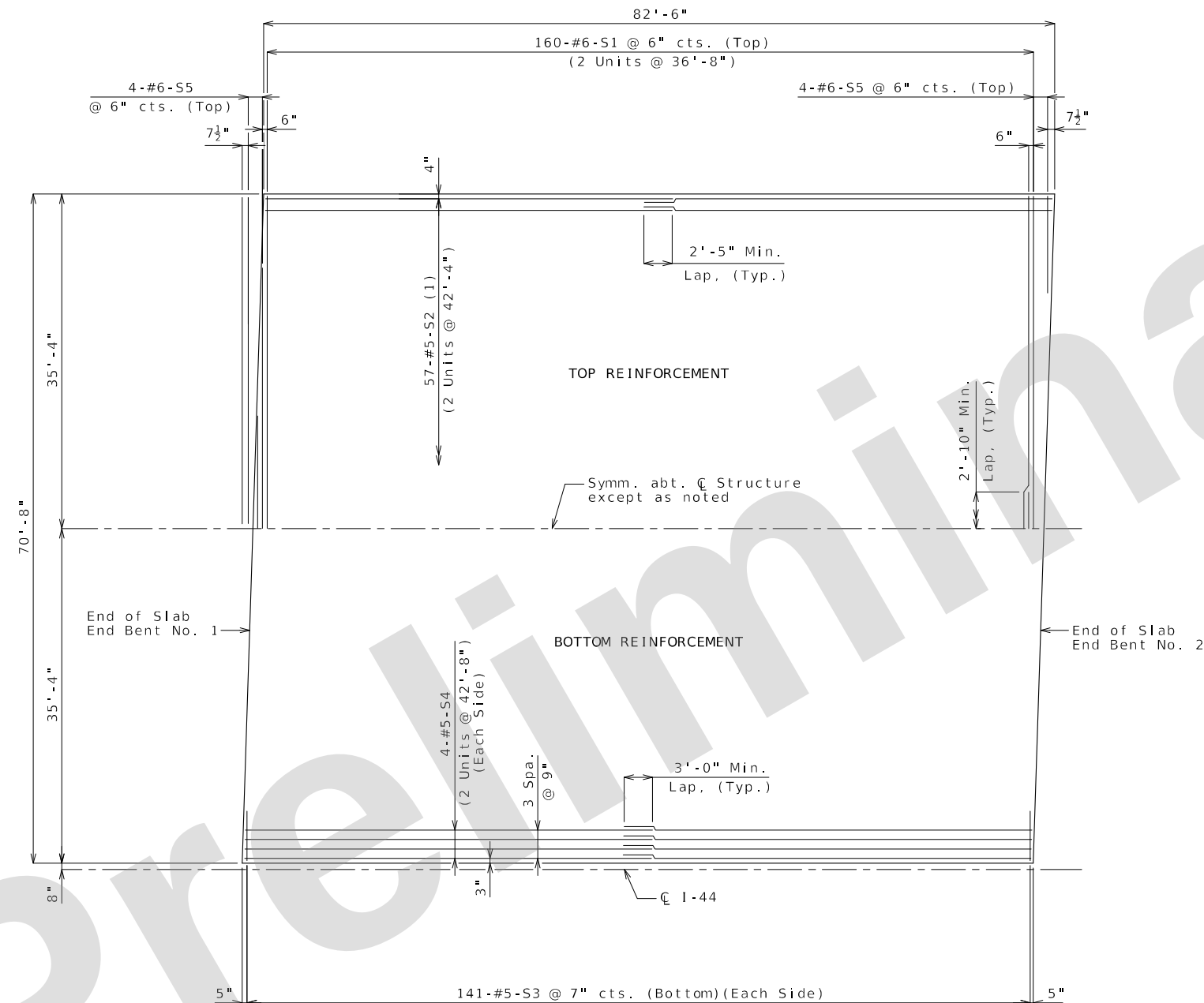
MoDOT

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

BURNS & MCDONNELL

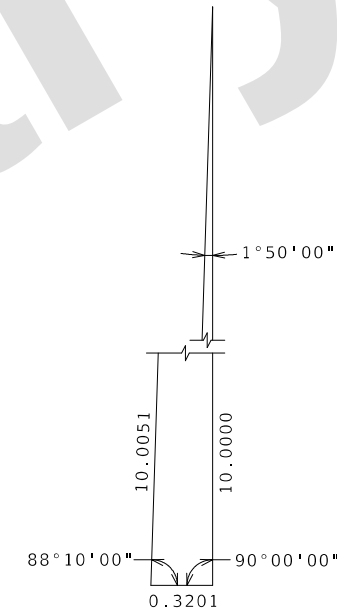
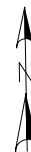
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

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



SPAN (1-2)

PLAN OF SLAB REINFORCEMENT



NOTES :

Longitudinal slab dimensions shown are horizontal.

For Theoretical Slab Haunching Diagram and Theoretical Bottom of Slab Elevations, see Sheet No. 19.

For Details of Precast Prestressed Panels, see Sheet No. 18.

For Details and Reinforcement of Safety Barrier Curb not shown, see Sheets No. 22 & 23.

(1) For spacing of longitudinal bars not shown, see Slab Section & Details on Sheet No. 21.

Detailed: May 2024
Checked: Jun. 2024

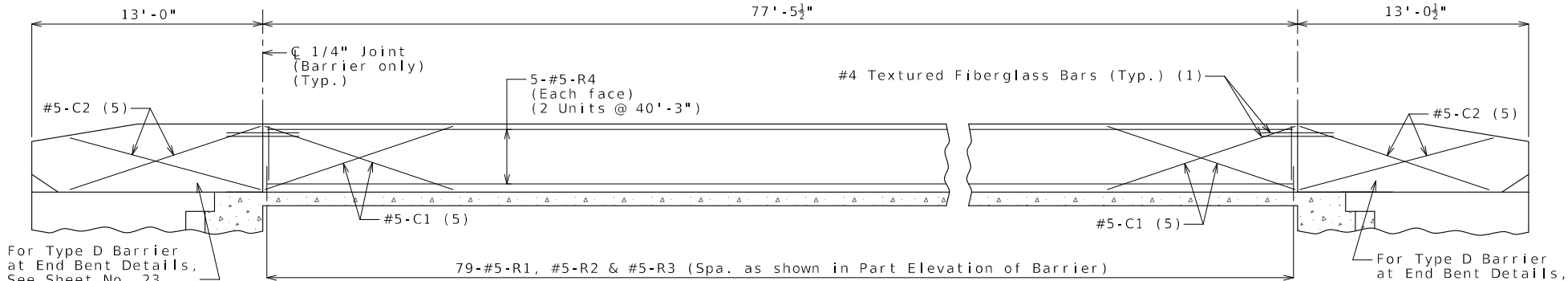
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 20 of 30

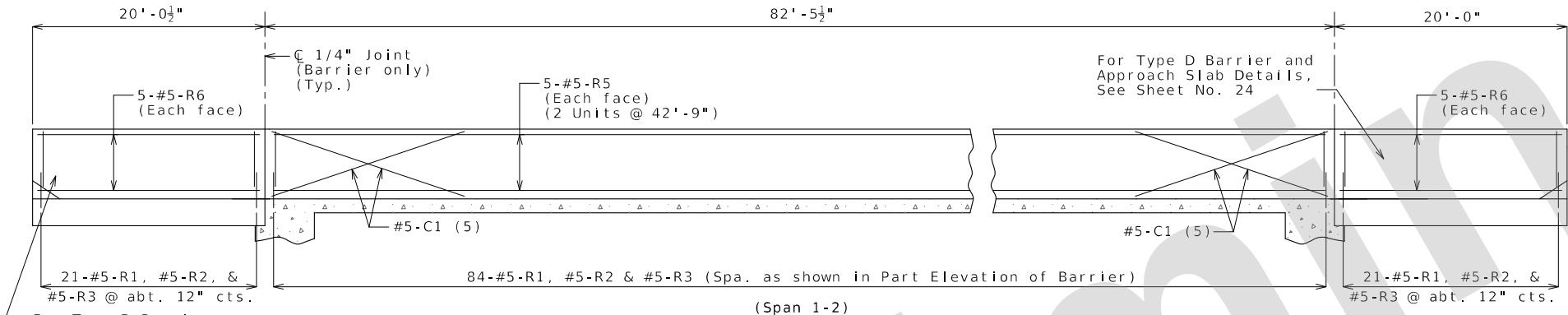
SLAB PLAN

BURNS MCDONNELL Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	MoDOT MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	DATE	DESCRIPTION	DATE PREPARED 9/16/2024	
				ROUTE I - 44	STATE MO
				DISTRICT BR	SHEET NO. 20
				COUNTY GREENE	
				JOB NO. JSU0076	
				CONTRACT ID.	
				PROJECT NO.	
				BRIDGE NO. A9414	

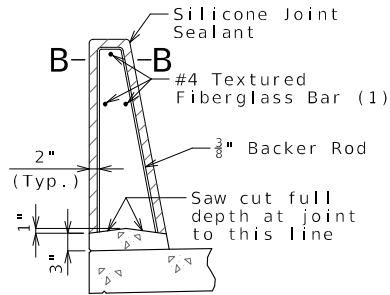
REV. : IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



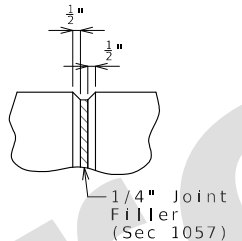
ELEVATION OF BARRIER - LEFT BARRIER



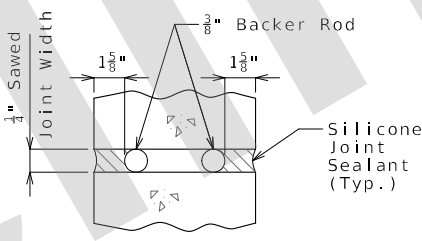
ELEVATION OF BARRIER - RIGHT BARRIER



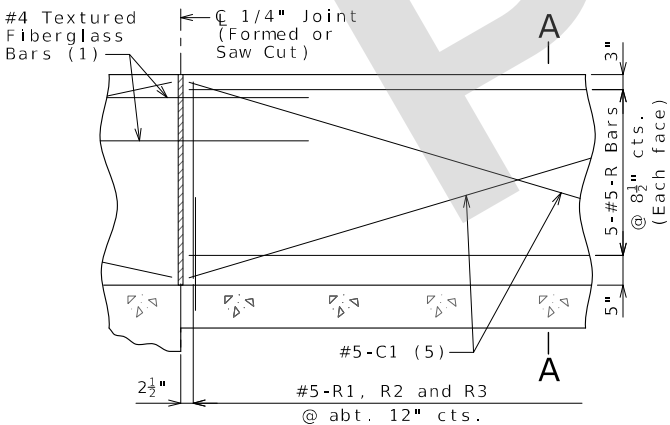
SECTION THRU
SAW CUT JOINT



PART ELEVATION
AT FORMED JOINT

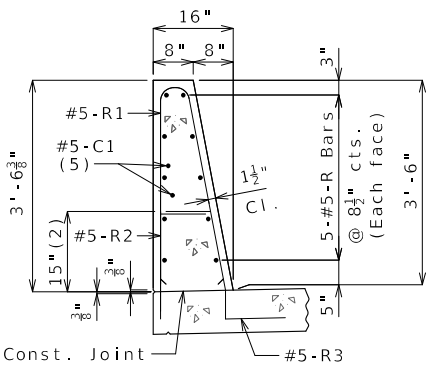


SECTION B-B



PART ELEVATION OF BARRIER

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

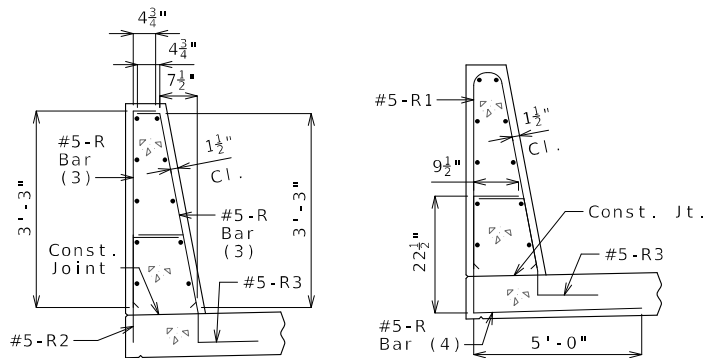


SECTION A-A

Use a minimum lap of 3'-1\"/>

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

(2) To top of bar

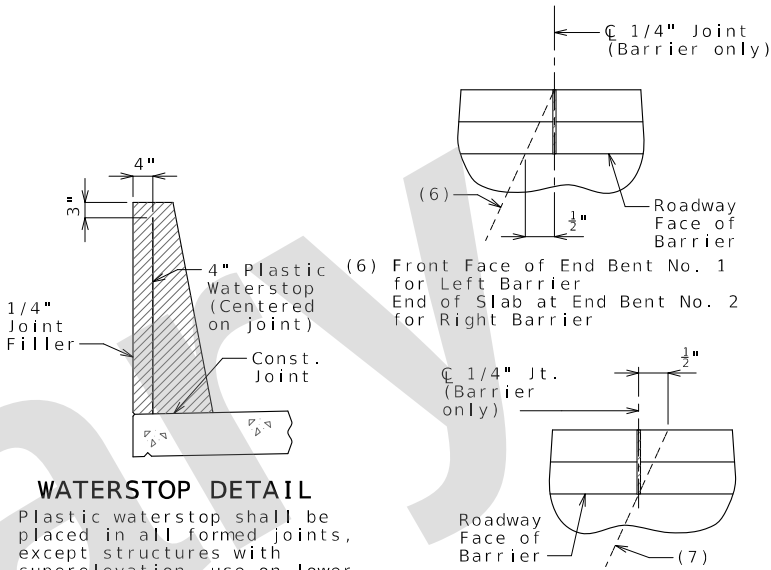


R-BAR PERMISSIBLE ALTERNATE SHAPE

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

(4) The R2 bar and #5 bottom transverse slab bar in cantilever (prestressed panels only) combination may be furnished as one bar as shown, at the contractor's option.

(5) Slip-formed option only.



WATERSTOP DETAIL

Plastic waterstop shall be placed in all formed joints, except structures with superelevation, use on lower joints only.

Cost of plastic waterstop, complete in place, will be considered completely covered by the contract unit price for Type D Barrier.

(7) Front Face of End Bent No. 2 for Left Barrier End of Slab at End Bent No. 1 for Right Barrier

PART PLAN SHOWING
JOINT LOCATION

General Notes:

Longitudinal dimensions are horizontal.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

Top of barrier shall be built parallel to grade and barrier joints (except at end bents) normal to grade.

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

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Type D Barrier per linear foot.

Concrete in barrier shall be Class B-1.

Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing for Right Barrier and from end of approach slab to end of approach slab for Left Barrier.

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

Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.

Plastic waterstop shall not be used with saw cut joints.

TYPE D BARRIER

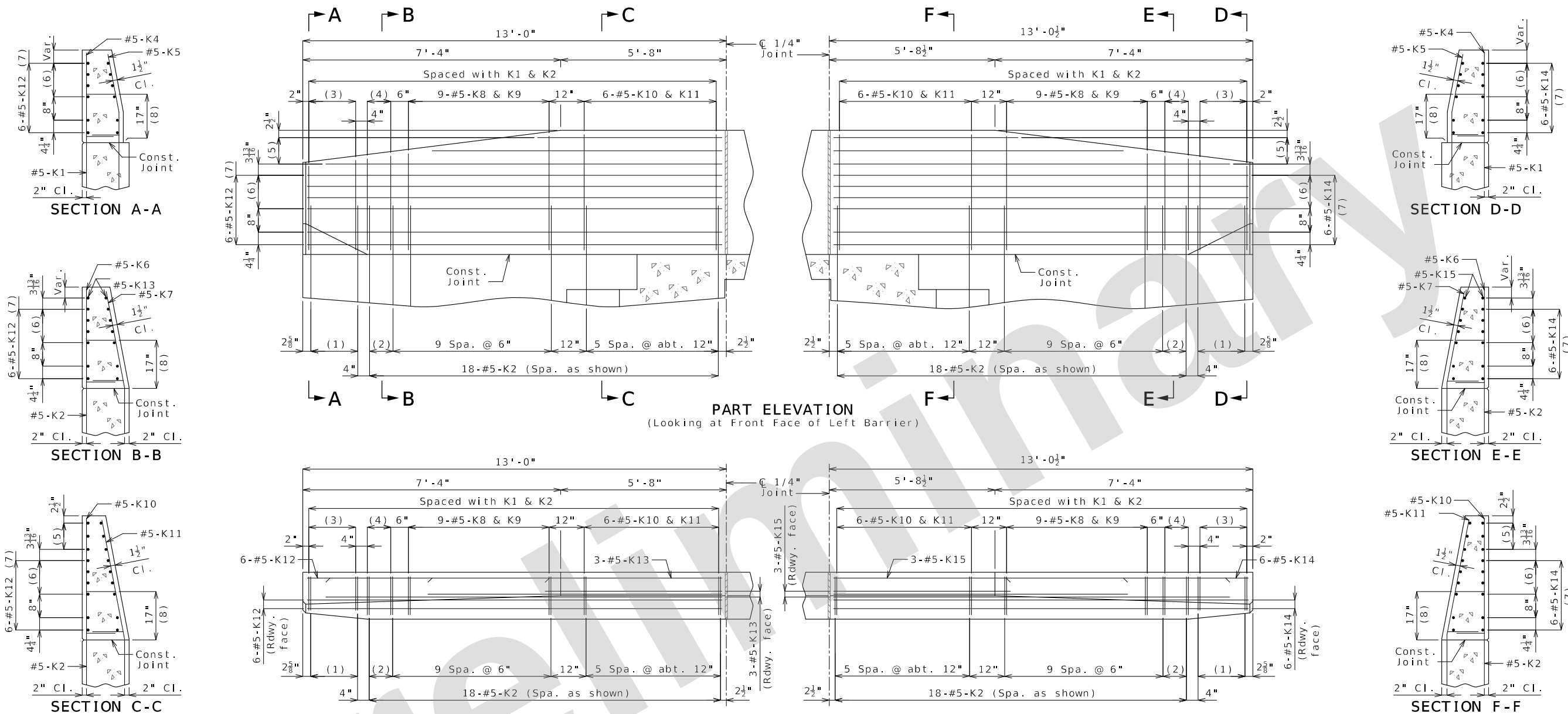
Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 22 of 30

DATE PREPARED 9/16/2024	
ROUTE 1-44	STATE MO
DISTRICT BR	SHEET NO. 22
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9414	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)

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



- (1) 5-#5-K1 @ 4" cts.
- (2) 2 spaces @ 4"
- (3) 5-#5-K4 & K5
- (4) 3-#5-K6 & K7
- (5) 3-#5-K13 or K15 @ $4\frac{1}{2}$ " cts., each face
- (6) 3 spaces @ $3\frac{13}{16}$ "
- (7) Spaced as shown, each face
- (8) To top of bar
- (9) Transition to zero at Type A curb for gutter lines to match.

K10-K11 BAR PERMISSIBLE ALTERNATE SHAPE

(Other K bars not shown for clarity)

The K10-K11 bar combination may be furnished as one bar as shown, at the contractor's option.

All dimensions are out to out.

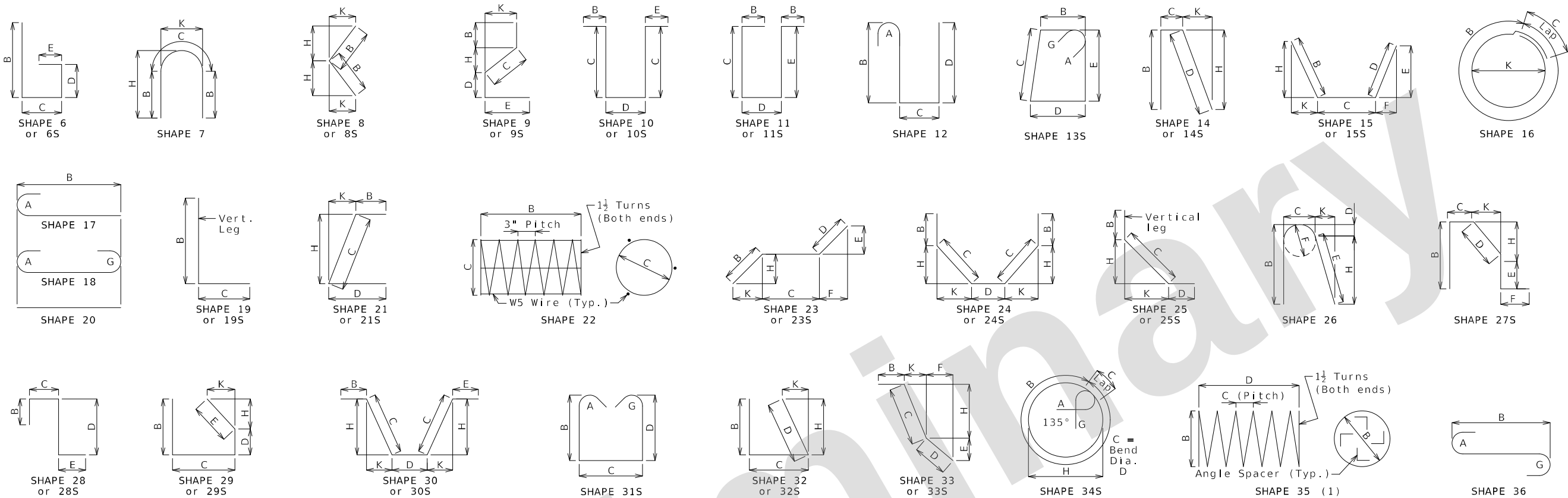
Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 23 of 30

TYPE D BARRIER AT END BENTS

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



Finished Bend Dimensions 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	3 ³ / ₄ "	10"	7"	5"	
#6	1	4 ¹ / ₂ "	12"	8 ¹ / ₂ "	6"	
#7	2	5 ¹ / ₄ "	14"	9 ³ / ₄ "	7"	
	3	7"	15"	11 ¹ / ₂ "	8 ³ / ₄ "	
#8	2	6"	16"	11"	8"	
	3	8"	17"	13 ¹ / ₄ "	10"	
#9	1	9 ¹ / ₂ "	19 ¹ / ₂ "	15 ¹ / ₂ "	11 ³ / ₄ "	
#10	1	10 ³ / ₄ "	22"	17 ¹ / ₂ "	13 ¹ / ₄ "	
#11	1	12"	24 ¹ / ₂ "	19 ¹ / ₂ "	14 ⁷ / ₈ "	
#14	1	18 ¹ / ₄ "	31 ¹ / ₄ "	27 ¹ / ₂ "	21 ⁵ / ₈ "	
#18	1	24"	41 ¹ / ₂ "	36 ¹ / ₄ "	28 ¹ / ₂ "	
Stirrup Pin Bend Shapes (S)						
Size	Case	D	A or G		H	J
			90°	135°	180°	135°
#4	2	2"	4 ¹ / ₂ "	4 ¹ / ₂ "	5"	2 ⁷ / ₈ "
	3	3"	5"	5 ¹ / ₄ "	6"	3"
#5	2	2 ³ / ₄ "	5 ³ / ₄ "	5 ³ / ₄ "	5 ³ / ₄ "	3 ³ / ₄ "
	3	3 ³ / ₄ "	6 ¹ / ₄ "	6 ¹ / ₄ "	7"	3 ³ / ₈ "
#6	1	4 ¹ / ₂ "	12"	7 ³ / ₄ "	8 ¹ / ₄ "	4 ³ / ₈ "
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

Reinforcing Steel Totals (Pounds)								
Size	Substructure		Superstructure			Entire Bridge		
	Plain	Epoxy	Slab		Barrier	Slip Form	Plain	Epoxy
			Plain	Epoxy				
W5	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	12,217	5,989	141	0	18,347
6	0	0	0	27,085	0	0	0	27,085
7	0	0	0	0	0	0	0	0
8	0	0	0	3,808	0	0	0	3,808
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
By Type	0	0	0	43,110	5,989	141	0	49,240

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

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 25 of 30

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

STATE
MO

SHEET NO.
25

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9414

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

MoDOT

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

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

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Bill of Reinforcing Steel																			
No. Req.	Size/ Mark	Location	Codes			Dimensions							Nom. Length	Actual Length	Weight				
						B	C	D	E	F	H	K							
			C	SH	V	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	lb	
END BENT 1																			
9	6	F100	Wing	E	23S	2	3.000	4	5.000	14.000	9.750	10.000	18.750	19.375	7	10	7	9	105
3	6	F101	Diaphragm	E	6S	5	5.000	2	7.000						8	0	7	10	35
4	6	H100	Beam	E	20	28	3.000								28	3	28	3	170
8	8	H101	Beam	E	20	28	3.000								28	3	28	3	603
4	6	H102	Beam	E	20	51	3.000								51	3	51	3	308
4	6	H103	Beam	E	20	47	0.000								47	0	47	0	282
8	8	H104	Beam	E	20	48	5.000								48	5	48	5	1034
4	6	H106	Beam	E	20	21	10.00								21	10	21	10	131
8	6	H107	Diaphragm	E	20	28	3.000								28	3	28	3	339
8	6	H108	Diaphragm	E	20	47	0.000								47	0	47	0	565
21	6	H109	Diaphragm	E	20	7	11.000								7	11	7	11	250
7	6	H110	Diaphragm	E	20	5	6.000								5	6	5	6	58
3	6	H111	Diaphragm	E	20	3	2.000								3	2	3	2	14
1	6	H112	Diaphragm	E	20	23	0.000								0	23	0	23	3
3	6	H113	Diaphragm	E	20	3	9.000								3	9	3	9	17
1	6	H114	Diaphragm	E	20	2	6.000								2	6	2	6	4
8	5	H115	Strand Tie	E	20	5	0.000								5	0	5	0	42
20	6	H116	Wing	E	20	11	8.000								11	8	11	8	350
8	8	H117	Wing	E	20	12	6.000								12	6	12	6	267
42	5	U100	Beam	E	31S	5	8.000	2	9.000	5	8.000				15	1	14	10	650
15	5	U101	Beam	E	13S	2	9.000	2	8.000	2	9.000	2	8.000		11	10	11	6	180
24	5	U102	Beam	E	13S	2	9.000	3	0.000	2	9.000	3	0.000		12	6	12	2	305
24	5	U103	Beam	E	13S	2	9.000	3	4.000	2	9.000	3	4.000		13	2	12	10	321
57	5	U104	Diaphragm	E	31S	3	4.000	2	3.000	3	4.000				9	11	9	8	575
57	6	U105	Diaphragm	E	19S	2	7.000	2	8.000						5	3	5	1	435
70	5	U106	Diaphragm	E	19S	2	0.000	15.000							3	3	3	2	231
94	6	U107	Diaphragm	E	19S	3	3.000	4	7.000						7	10	7	8	1082
30	5	V100	Beam	E	17	5	8.000								6	3	6	3	196
40	6	V101	Diaphragm	E	20	2	7.000								2	7	2	7	155
22	6	V102	Wing	E	20	6	7.000								6	7	6	7	218
END BENT 2																			
9	6	F200	Wing	E	23S	2	3.000	4	5.000	14.000	9.750	10.000	18.750	19.375	7	10	7	9	105
3	6	F201	Diaphragm	E	6S	5	5.000	2	7.000						8	0	7	10	35
4	6	H200	Beam	E	20	28	3.000								28	3	28	3	170
8	8	H201	Beam	E	20	28	3.000								28	3	28	3	603
4	6	H202	Beam	E	20	51	3.000								51	3	51	3	308
4	6	H203	Beam	E	20	47	0.000								47	0	47	0	282
8	8	H204	Beam	E	20	48	5.000								48	5	48	5	1034
4	6	H206	Beam	E	20	21	10.00								21	10	21	10	131
8	6	H207	Diaphragm	E	20	28	3.000								28	3	28	3	339
8	6	H208	Diaphragm	E	20	47	0.000								47	0	47	0	565
21	6	H209	Diaphragm	E	20	7	11.000								7	11	7	11	250
7	6	H210	Diaphragm	E	20	5	6.000								5	6	5	6	58
3	6	H211	Diaphragm	E	20	3	2.000								3	2	3	2	14
1	6	H212	Diaphragm	E	20	23	0.000								0	23	0	23	3
3	6	H213	Diaphragm	E	20	3	9.000								3	9	3	9	17
1	6	H214	Diaphragm	E	20	2	6.000								2	6	2	6	4
8	5	H215	Strand Tie	E	20	5	0.000								5	0	5	0	42
20	6	H216	Wing	E	20	11	8.000								11	8	11	8	350
8	8	H217	Wing	E	20	12	6.000								12	6	12	6	267
42	5	U200	Beam	E	31S	5	8.000	2	9.000	5	8.000				15	1	14	10	650
15	5	U201	Beam	E	13S	2	9.000	2	8.000	2	9.000	2	8.000		11	10	11	6	180
24	5	U202	Beam	E	13S	2	9.000	3	0.000	2	9.000	3	0.000		12	6	12	2	305
24	5	U203	Beam	E	13S	2	9.000	3	4.000	2	9.000	3	4.000		13	2	12	10	321
57	5	U204	Diaphragm	E	31S	3	4.000	2	3.000	3	4.000				9	11	9	8	575
57	6	U205	Diaphragm	E	19S	2	7.000	2	8.000						5	3	5	1	435
70	5	U206	Diaphragm	E	19S	2	0.000	15.000							3	3	3	2	231
94	6	U207	Diaphragm	E	19S	3	3.000	4	7.000						7	10	7	8	1082
30	5	V200	Beam	E	17	5	8.000								6	3	6	3	196
40	6	V201	Diaphragm	E	20	2	7.000								2	7	2	7	155
22	6	V202	Wing	E	20	6	7.000								6	7	6	7	218

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

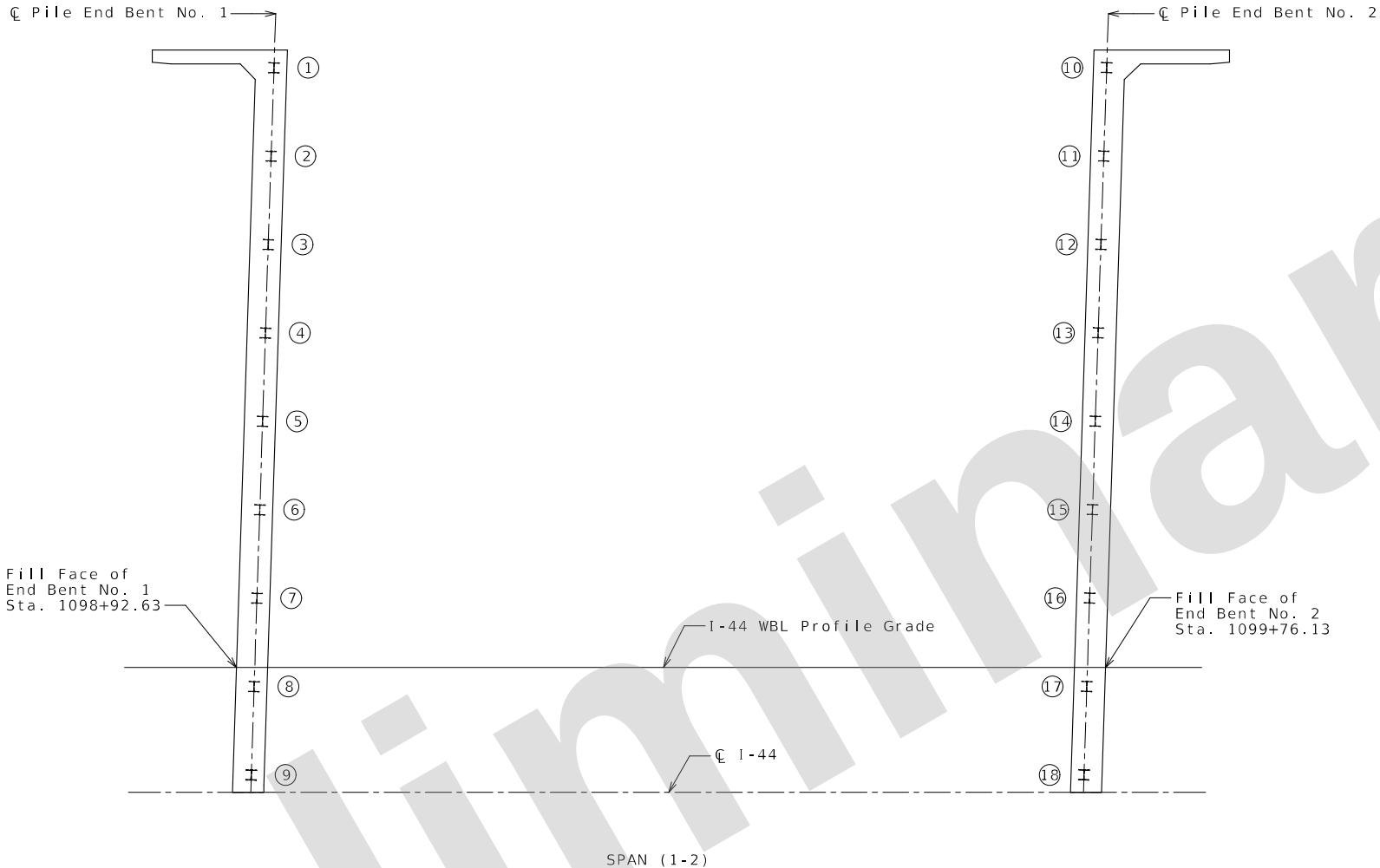
For bending diagrams and steel reinforcing totals, see Sheet No. 25.

Detailed: May 2024
Checked: Jun. 2024

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.

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

Bill of Reinforcing Steel																			
No. Req.	Size/ Mark		Location	Codes			Dimensions							Nom. Length	Actual Length	Weight			
				C	SH	V	B		C	D	E		F				H	K	
							ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	lb
			SLAB																
320	6	S1	Slab	E	20		36	8.000									36	8	17623
114	5	S2	Slab	E	20		42	4.000									42	4	5034
282	5	S3	Slab	E	20		5	0.000									5	0	1471
16	5	S4	Slab	E	20		42	8.000									42	8	712
8	6	S5	Slab	E	20	2	11	7.000									11	7	
			Inc. = 15'-7"				58	4.000									58	4	420
			BARRIER																
10	5	K1	Barrier	E	27S		3	8.000	9.250	5.375	3	2.750		5.250	1.000		8	1	83
36	5	K2	Barrier	E	27S		3	8.000	9.250	14.500	2	5.750		14.250	2.750		8	2	297
10	5	K4	Barrier	E	19S	2	2	4.250	10.000								3	2	
			Inc. = 0.500"				2	6.250	10.000								3	4	33
10	5	K5	Barrier	E	38S	2				18.500	9.500	8.250	18.000	4.000			3	0	
			Inc. = 0.500"							20.500	9.500	8.250	20.000	4.500			3	2	31
6	5	K6	Barrier	E	19S		2	6.750	10.000								3	5	21
6	5	K7	Barrier	E	21S			2	6.625	10.000				2	6.000	6.250	3	5	20
18	5	K8	Barrier	E	19S	2	2	8.500	10.000								3	7	
			Inc. = 0.750"				3	2.500	10.000								4	1	70
18	5	K9	Barrier	E	21S	2		2	8.500	10.000				2	7.750	6.750	3	6	
			Inc. = 0.750"					3	2.500	10.000				3	1.750	7.750	4	1	68
12	5	K10	Barrier	E	19S		3	3.000	10.000								4	1	50
12	5	K11	Barrier	E	21S			3	3.000	10.000				3	2.250	7.750	4	1	49
12	5	K12	Barrier	E	20		12	9.000									12	9	160
6	5	K13	Barrier	E	20	2	6	0.000									6	0	
			Inc. = 3'-0"				12	0.000									12	0	56
12	5	K14	Barrier	E	20		12	9.000									12	9	160
6	5	K15	Barrier	E	20	2	6	0.000									6	0	
			Inc. = 3'-0"				12	0.000									12	0	56
205	5	R1	Barrier	E	26		3	3.000	5.500	2.250	3	1.375	5.500	3	0.750	6.750	6	11	1461
205	5	R2	Barrier	E	19S			20.500	9.500								2	6	517
205	5	R3	Barrier	E	27S				9.500	15.250	5.000	12.000	15.000	3.000			3	6	713
20	5	R4	Barrier	E	20		40	3.000									40	3	840
20	5	R5	Barrier	E	20		42	9.000									42	9	892
20	5	R6	Barrier	E	20		19	9.000									19	9	412



PART PLAN SHOWING PILE NUMBERING FOR RECORDING AS-BUILT PILE DATA

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 1 (HP 12x53)			
1			
2			
3			
4			
5			
6			
7			
8			
9			

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 2 (HP 12x53)			
10			
11			
12			
13			
14			
15			
16			
17			
18			

Note:
Indicate in remarks column:
A. Pile type and grade
B. Batter
C. Driven to practical refusal

This sheet to be completed by MoDOT construction personnel.

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 27 of 30

AS-BUILT PILE DATA

DATE PREPARED
9/16/2024

ROUTE
1 - 44

DISTRICT
BR

STATE
MO

SHEET NO.
27

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9414

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

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



Missouri Department of Transportation
Construction and Materials

BORING NO. B-B-1
Page 1 of 2

Job No.: 20231075.00 County: Greene Route: I-44
Design: Skew: Location: Springfield, Missouri
Bent: Logged By: SO Operator: LRK
Station: Northing: 516928.6479 Date of Work: 07/17/23-07/17/23
Offset: 6' E Easting: 1407161.9967 Depth to Water:
Elevation: 1242.1 Requested Northing: Depth Hole Open:
Requested Station: Requested Easting: Time Change:
Requested Offset: Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Requested Elevation: Location Note:
Drill No.: Hammer Efficiency: 90% Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-16.5' (CH) Red and brown, fat CLAY, with gravel	1240	X	33	7-7-8 (23)		PP = 3.50 tsf	MC = 18.5%
5				X	72	17-4-3 (11)		PP = 1.00 tsf	MC = 45.8%
10			1235		54		Qu Test Results UCS = 0.800 ksf MC = 44.9% γ _{moist} = 110.8 pcf		
15		12.0' - trace gravel below 12.0 ft.	1230	X	61	2-3-2 (8)		PP = 0.50 tsf	LL = 76 PL = 20 MC = 23.0%
20				X	100	3-5-6 (17)		PP = 2.50 tsf	MC = 53.7%
25		16.5-20.5' LIMESTONE, gray, slightly weathered, fine to coarse crsytalline, medium bedded, dense to pitted	1225		94 (81)		Qu Test Results UCS = 1290 ksf		
		20.5-21.5' CHERT and weathered LIMESTONE							
		21.5-31.8' LIMESTONE, gray, moderately hard to hard, fresh to slightly weathered, aphanitic to medium crystalline, dense	1220		80 (59)				

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.



Missouri Department of Transportation
Construction and Materials

BORING NO. B-B-1
Page 2 of 2

Job No.: 20231075.00 County: Greene Route: I-44
Design: Skew: Location: Springfield, Missouri
Bent: Logged By: SO Operator: LRK
Station: Northing: 516928.6479 Date of Work: 07/17/23-07/17/23
Offset: 6' E Easting: 1407161.9967 Depth to Water:
Elevation: 1242.1 Requested Northing: Depth Hole Open:
Requested Station: Requested Easting: Time Change:
Requested Offset: Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Requested Elevation: Location Note:
Drill No.: Hammer Efficiency: 90% Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		21.5-31.8' LIMESTONE, gray, moderately hard to hard, fresh to slightly weathered, aphanitic to medium crystalline, dense (continued) 25.5' -medium to thick bedded below 25.5 ft.	1215		98 (82)		Qu Test Results UCS = 1380 ksf		
30		Refusal at 16.5 feet. Bottom of borehole at 31.8 feet.			100 (100)				

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

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Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 28 of 30

BORING DATA

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DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165



BMcD Project No. 146617

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

DATE PREPARED
9/16/2024
ROUTE
I - 44 STATE
MO
DISTRICT
BR SHEET NO.
28
COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.
BRIDGE NO.
A9414

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



Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: 4.5' S, 2' E
Elevation: 1241.3
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
Drill No.: _____

Missouri Department of Transportation
Construction and Materials

County: Greene
Route: I-44
Skew: _____
Location: Springfield, Missouri
Logged By: JM
Operator: LRK
Northing: 516860.6864
Date of Work: 07/13/23-07/13/23
Easting: 1407163.8597
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____
Hammer Efficiency: 90%
Drilling Method: HSA

BORING NO. B-B-2
Page 1 of 2

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-8.0' (CH) FILL: Red and brown, fat CLAY, trace sand, gravel and organics	1240		56	4-4-4 (12)		PP = 3.50 tsf	MC = 39.2%
5		3.0' -trace chert below 3.0 ft.			38		Qu Test Results MC = 35.8% γ _{moist} = 94.9 pcf	PP >4.50 tsf	
10		8.0-16.0' (CH) Brown, fat CLAY, trace sand and gravel	1235		11	4-3-6 (14)			MC = 34.1%
15		11.0' -trace chert below 11.0 ft.	1230		67	9-11-5 (24)		PP >4.50 tsf	MC = 25.3%
20		13.5' -with chert below 13.5 ft.			44	2-7-4 (17)		PP = 2.00 tsf	MC = 33.2%
25		16.0-30.5' LIMESTONE, gray, hard, slightly weathered, very finely to finely crystalline, thin bedded	1225		100 (83)		Qu Test Results UCS = 900 ksf		
			1220		100 (90)		Qu Test Results UCS = 1120 ksf		

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983
Coordinate Datum: NAD 83 (CONUS)
Coordinate Zone: Missouri Central
Coordinate Units: U.S. Survey Feet
Coordinate Proj. Factor: 1.0000701976

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.



Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: 4.5' S, 2' E
Elevation: 1241.3
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
Drill No.: _____

Missouri Department of Transportation
Construction and Materials

County: Greene
Route: I-44
Skew: _____
Location: Springfield, Missouri
Logged By: JM
Operator: LRK
Northing: 516860.6864
Date of Work: 07/13/23-07/13/23
Easting: 1407163.8597
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____
Hammer Efficiency: 90%
Drilling Method: HSA

BORING NO. B-B-2
Page 2 of 2

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		16.0-30.5' LIMESTONE, gray, hard, slightly weathered, very finely to finely crystalline, thin bedded (continued)	1215		100 (97)		Qu Test Results UCS = 1240 ksf		
30		Refusal at 16.0 feet. Bottom of borehole at 30.5 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983
Coordinate Datum: NAD 83 (CONUS)
Coordinate Zone: Missouri Central
Coordinate Units: U.S. Survey Feet
Coordinate Proj. Factor: 1.0000701976

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Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 29 of 30

BORING DATA

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DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

Burns & McDonnell Engineering Co., Inc.



9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165



BMcD Project No. 146617

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

DATE PREPARED
9/16/2024
ROUTE
I - 44
STATE
MO
DISTRICT
BR
SHEET NO.
29
COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.
BRIDGE NO.
A9414

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



Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: _____
Elevation: 1243.2
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
Drill No.: _____

Missouri Department of Transportation
Construction and Materials

County: Greene
Skew: _____
Logged By: SO
Northing: 516927.8846
Easting: 516927.8846
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler
Location Note: _____
Hammer Efficiency: 90%

BORING NO. B-B-4
Page 1 of 1

Route: I-44
Location: Springfield, Missouri
Operator: LRK
Date of Work: 07/18/23-07/18/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-5.5' (CH) Red and brown, gravelly fat CLAY							
			1240	X	50	7-5-5 (15)		PP = 3.00 tsf	MC = 34.6%
5				X	67	13-10-9 (29)		PP = 2.00 tsf	MC = 19.5% Sieve Analysis Sieve # % Passing #200 59.0
		5.5-9.5' weathered LIMESTONE			33	50/0.3'			MC = 2.5%
			1235		86 (0)				
10		9.5-21.5' LIMESTONE, gray, moderately hard to hard, slightly to moderately weathered, fine to coarse crystalline, thin to thick bedded, dense			99 (87)		Qu Test Results UCS = 1160 ksf		
			1230						
15					100 (88)		Qu Test Results UCS = 1370 ksf		
			1225						
20					100 (96)		Qu Test Results UCS = 1570 ksf		
		Refusal at 6.5 feet. Bottom of borehole at 21.5 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.



Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: 4' N, 2' E
Elevation: 1242.5
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
Drill No.: _____

Missouri Department of Transportation
Construction and Materials

County: Greene
Skew: _____
Logged By: JM
Northing: 516869.9543
Easting: 1407220.5685
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler
Location Note: _____
Hammer Efficiency: 90%

BORING NO. B-B-5
Page 1 of 1

Route: I-44
Location: Springfield, Missouri
Operator: LRK
Date of Work: 07/13/23-07/13/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-8.0' (CH) Red and brown, fat CLAY, trace sand, gravel, and organics							
			1240	X	67	4-4-8 (18)		PP = 2.50 tsf	MC = 23.3%
5		3.5' -with gravel from 3.5 to 5.0 ft.		X	44	10-15-9 (36)		PP = 4.25 tsf	MC = 40.3%
		6.0' -brown from 6.0 to 7.5 ft.		X	22	10-13-5 (27)			MC = 19.1%
		8.0-9.0' weathered LIMESTONE							
10		9.0-24.0' LIMESTONE, gray, hard, slightly weathered, very finely crystalline, thin bedded 9.6' -1" clay seam			100 (79)		Qu Test Results UCS = 1120 ksf		
			1230		100 (82)		Qu Test Results UCS = 1480 ksf		
15					100 (88)		Qu Test Results UCS = 1810 ksf		
			1225						
20					100 (56)		Qu Test Results UCS = 1090 ksf		
		22.3' -chert nodules from 22.3 to 23.2 ft.	1220						
		Refusal at 19.0 feet. Bottom of borehole at 24.0 feet							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

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Detailed: May 2024
Checked: Jun. 2024

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

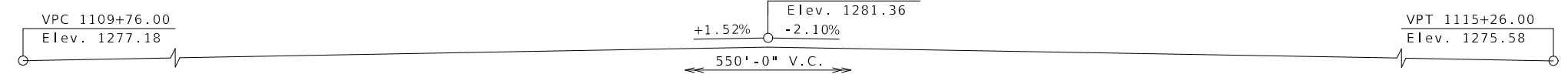
Note: For locations of borings, see Sheet No. 1.

Sheet No. 30 of 30

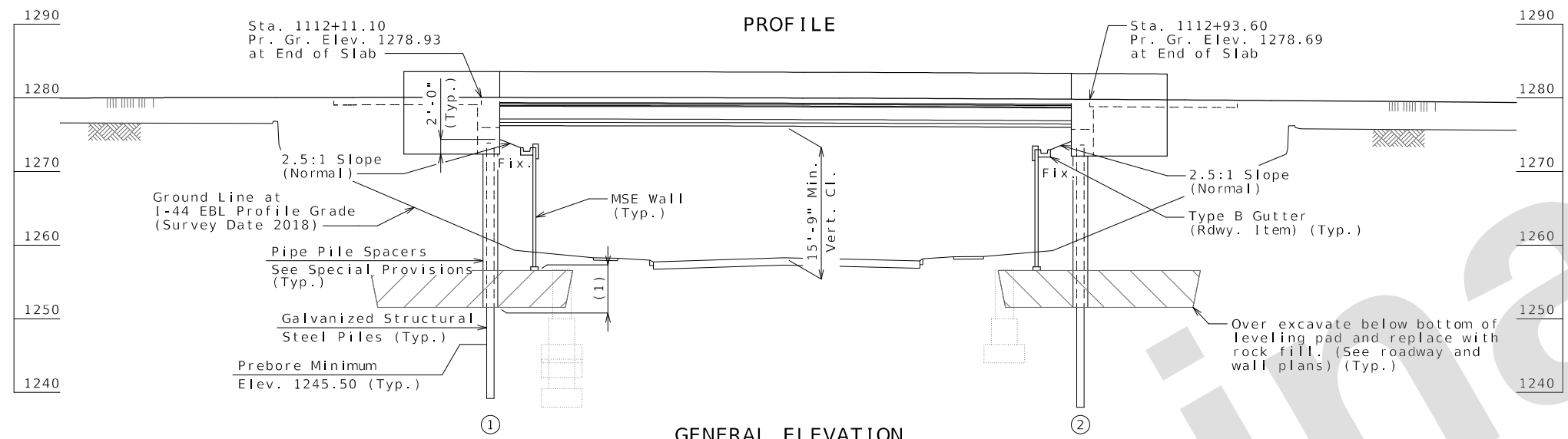
BORING DATA

(80') PRESTRESSED CONCRETE NU-GIRDER SPAN

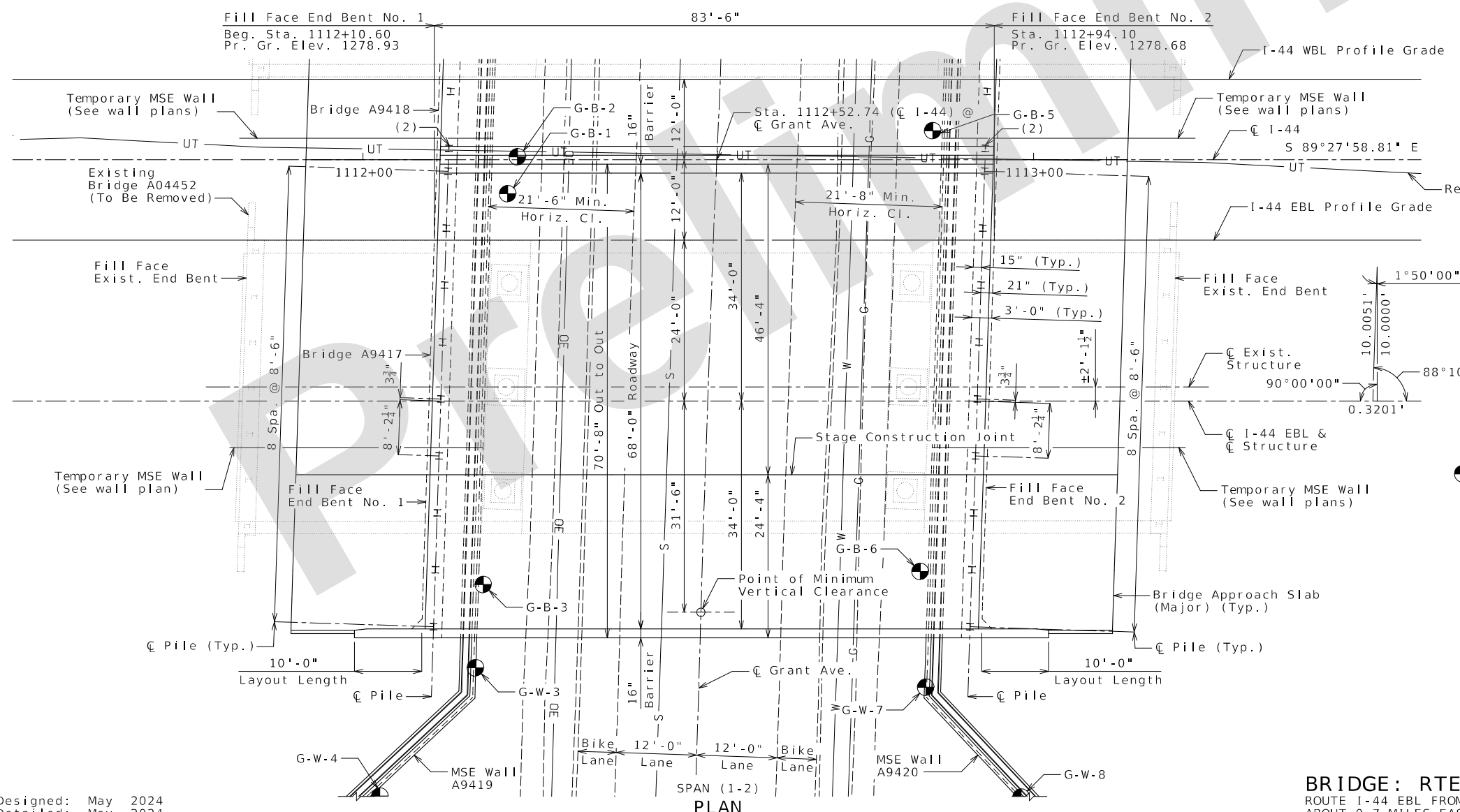
SEC/SUR 2 TWP 29N RGE 22W



PROFILE



GENERAL ELEVATION



PLAN

Pile Encasement	Option Used (✓)
Pipe Pile Spacer	
Pile Jacket	

MoDot Construction personnel will indicate the pile encasement used.

- (1) Bottom of pipe pile spacer shall be 5'-0" minimum below bottom of leveling pad.
- (2) Pile in Bridge A9418 shall be driven during Stage 2 Construction of Bridge A9417.

NOTES:

Indicates location of borings.

For notice and disclaimer regarding boring log data, see Sheet No. 2.

Roadway fill, exclusive of Select Granular Backfill for Structural Systems, shall be completed to the final roadway section and up to the elevation of the bottom of the concrete beam within the limits of the structure and for not less than 25 feet in back of the fill face of the end bents before any piles are driven for any bents falling within the embankment section.

C.P. #518 - 5/8" I.B. w/ 2" Aluminum Cap
Sta. 1106+18.78, 110.87' Lt. of C I-44
Elev. 1277.59

C.P. #519 - 5/8" I.B. w/ 2" Aluminum Cap
Sta. 1122+80.16, 92.35' Lt. of C I-44
Elev. 1270.58

BRIDGE: RTE. I-44 EBL OVER GRANT AVE.
ROUTE I-44 EBL FROM ROUTE 13 TO ROUTE H
ABOUT 0.7 MILES EAST OF ROUTE 13
BEGINNING STATION 1112+10.60

Designed: May 2024
Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 1 of 31

DATE PREPARED 9/16/2024	
ROUTE I-44	STATE MO
DISTRICT BR	SHEET NO. 1
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9417	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	

GENERAL NOTES:

DESIGN SPECIFICATIONS:

2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
Operational Importance = Essential
2011 AASHTO Guide Specifications for LRFD Seismic Bridge Design (2nd Ed.)
and 2014 Interim Revisions (Seismic)
Seismic Design Category = A
Design earthquake response spectral acceleration coefficient at 1.0 second
period, S_{D1} = 0.104g
Acceleration Coefficient (effective peak ground acceleration coefficient), A_s = 0.089g

DESIGN LOADING:

Vehicular = HL-93
Future Wearing Surface = 35 lb/sf
Earth = 120 lb/cf
Equivalent Fluid Pressure = 45 lb/cf (Min.)
Superstructure: Non-composite for dead load.
Composite for live load.

DESIGN UNIT STRESSES:

Class B Concrete (Substructure) $f'c$ = 3,000 psi
Class B-1 Concrete (Type D Barrier) $f'c$ = 4,000 psi
Class B-2 Concrete (Superstructure, except
Prestressed Girders and Type D Barrier) $f'c$ = 4,000 psi
Reinforcing Steel (Grade 60) f_y = 60,000 psi
Structural Steel HP Pile (ASTM A709 Grade 50S) f_y = 50,000 psi
For precast prestressed panel stresses, see Sheet No. 18.
For prestressed girder stresses, see Sheets No. 16 thru 17.

NEOPRENE PADS:

Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

JOINT FILLER:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber
expansion and partition joint filler, except as noted.

REINFORCING STEEL:

Minimum clearance to reinforcing steel shall be 1½", unless otherwise shown.

MBS refers to 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 splices and they
will be considered completely covered by the contract unit price for other items.

TRAFFIC HANDLING:

Vertical clearance for Grant Avenue traffic during construction shall be 14'-6" minimum
over a 12'-0" wide horizontal opening of the roadway in each direction.

Traffic to be maintained on structures during construction. See roadway plans for traffic
control and Sheets No. 3 thru 4 for staged construction details.

MISCELLANEOUS:

MoDOT Construction personnel will indicate the type of joint filler option used under the
precast panels for this structure:

- ☐ Constant Joint Filler
☐ Variable Joint Filler

NOTICE AND DISCLAIMER REGARDING BORING LOG DATA:

The locations of all subsurface borings for this structure are shown on the plan sheets for
this structure. The boring data for all locations indicated, as well as any other boring
logs or other factual records of subsurface data and investigations performed by the
department for the design of the project, are shown on Sheets No. 28 thru 31 and may be
included in the Electronic Bridge Deliverables. They will also be available from the Project
Contact upon written request. No greater significance or weight should be given to the
boring data depicted on the plan sheets than is given to the subsurface data
available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts
the conditions to be encountered in constructing this project. A contractor assumes all
risks it may encounter in basing its bid prices, time or schedule of performance on the
boring data depicted here or those available from the district, or on any other
documentation not expressly warranted, which the contractor may obtain from the Commission.

Foundation Data				
Type	Design Data	Bent Number		
		1	2	
Load Bearing Pile	Pile Type and Size	HP 12x53	HP 12x53	
	Number	ea 9	9	
	Approximate Length Per Each	ft 32	35	
	Pile Point Reinforcement	ea All	All	
	Min. Galvanized Penetration (Elev.)	ft Full Length	Full Length	
	Pile Driving Verification Method	DF	DF	
	Resistance Factor	0.40	0.40	
	Minimum Nominal Axial Compressive Resistance	kip 590	590	

DF = FHWA - modified Gates Dynamic Pile Formula.

Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resistance Factor}}$

Manufactured pile point reinforcement shall be used on all piles in this structure.

Pile point reinforcement need not be galvanized. Shop drawings will not be
required for pile point reinforcement.

Prebore for piles at Bents No. 1 and 2 to elevation 1245.5.

HP piles are anticipated to be driven to refusal on rock. Review all borings for
depth of rock and restrict driving as appropriate to comply with hard rock driving
criteria in accordance with Sec 702. When pile refusal on rock occurs, as approved
by the engineer, the minimum nominal axial compressive resistance is verified and
no additional pile driving verification method is required.

The contractor shall make every effort to achieve the minimum galvanized
penetration (elevation) shown on the plans for all piles.

Estimated Quantities				
Item		Substr.	Superstr.	Total
Removal of Bridges (A04452)		Lump sum		1
Bridge Approach Slab (Major)		sq. yard	314	314
Galvanized Structural Steel Piles (12 in.)		linear foot	595	595
Pre-Bore for Piling		linear foot	198	198
Pile Point Reinforcement		each	18	18
Class B Concrete (Substructure)		cu. yard	58.2	58.2
Type D Barrier		linear foot	226	226
Slab on Concrete NU-Girder		sq. yard	648	648
NU 35, Prestressed Concrete NU-Girder		linear foot	647	647
Vertical Drain at End Bents		each	2	2
Plain Neoprene Bearing Pad		each	8	8
Laminated Neoprene Bearing Pad (Tapered)		each	8	8
Pile Spacers		each	18	18

All concrete above the construction joint in the end bents is included in the Estimated
Quantities for Slab on Concrete NU-Girder.

All reinforcement in the end bents is included in the Estimated Quantities for Slab on
Concrete NU-Girder.

Estimated Quantities for Slab on Concrete NU-Girder		
Item		Total
Class B-2 Concrete	cu. yard	205
Reinforcing Steel (Epoxy Coated)	pound	46,160

The table of Estimated Quantities for Slab on Concrete NU-Girder represents the quantities used by the State in
preparing the cost estimate for concrete slabs. The area of the concrete slab will be measured to the nearest square
yard longitudinally from end of slab to end of slab and transversely from out to out of bridge slab (or with the
horizontal dimensions as shown on the plan of slab). Payment for prestressed panels, conventional forms, all
concrete and epoxy coated reinforcing steel will be considered completely covered by the contract unit price for the
slab. Variations may be encountered in the estimated quantities but the variations cannot be used for an adjustment
in the contract unit price.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703. All hardware for forming
the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or
ASTM B633 with a thickness class SC 4 and a finish type I, II or III.

PRECAST PRESTRESSED PANELS:

The Estimated Quantities for Slab on Concrete NU-Girder are based on skewed precast prestressed end panels.

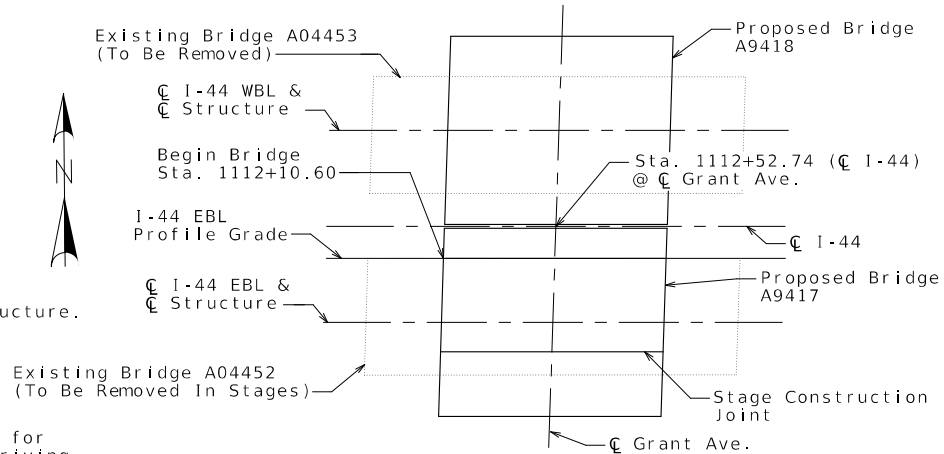
Class B-2 Concrete quantity is based on minimum top flange and minimum joint material thickness.

The prestressed panel quantities are not included in the table of Estimated Quantities for Slab on Concrete NU-
Girder.

STAGED CONSTRUCTION:

The Contractor shall verify that the existing bridge is sufficient to carry traffic during Stage 1 Construction.
the design, installation and monitoring of any temporary supports will be considered completely covered by the
contract unit price for the Removal of Bridges (A04452).

The Contractor shall remove the existing end bents as necessary for Stage 1 Construction as shown on Sheet No. 3.



LOCATION SKETCH

GENERAL NOTES & QUANTITIES

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 2 of 31

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9417

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

MoDOT

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

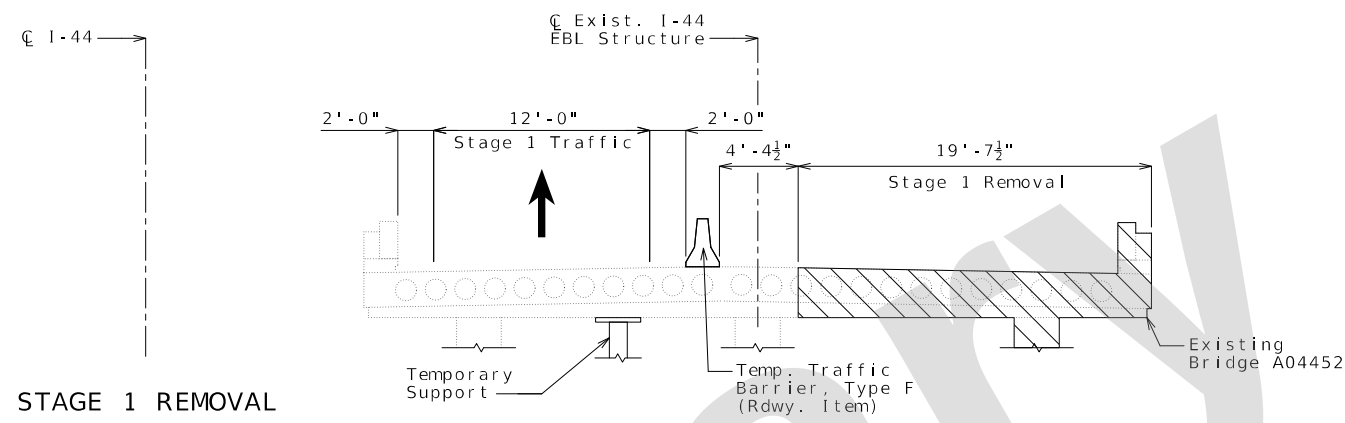
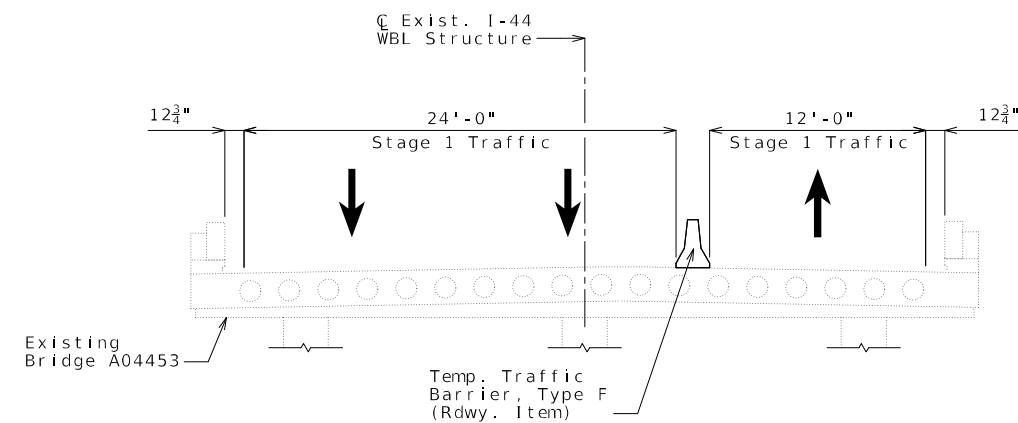
Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

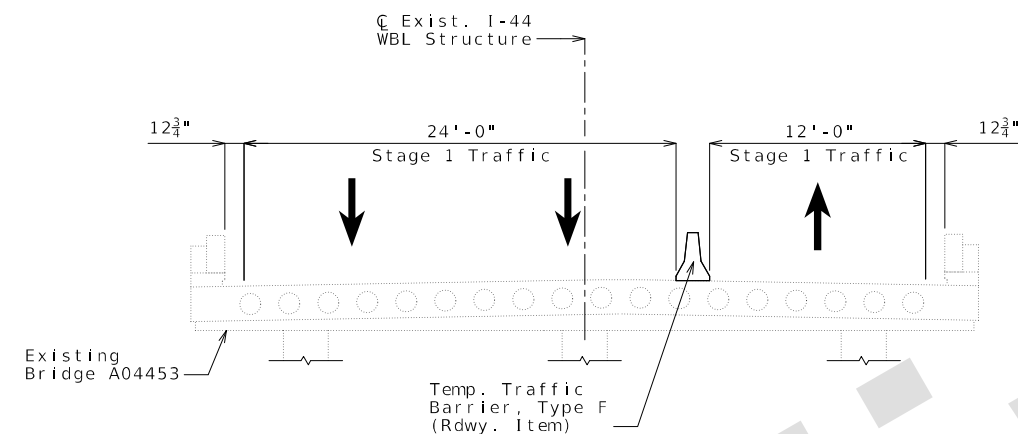
Certificate of Authority
No. : 000165

BMcD Project No. 146617

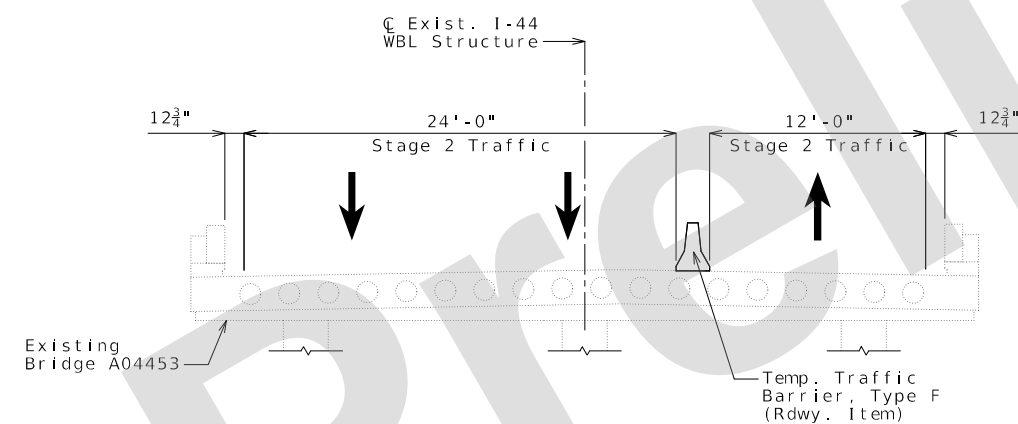
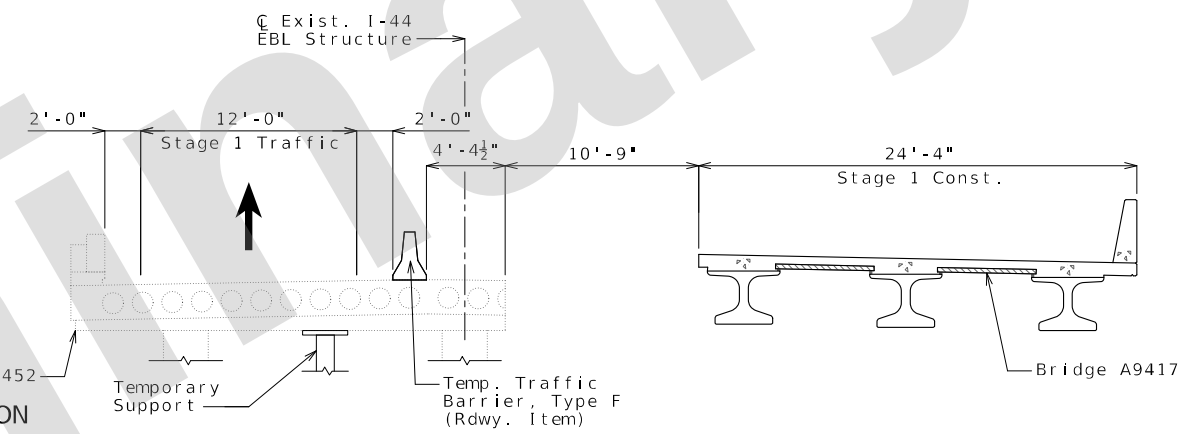
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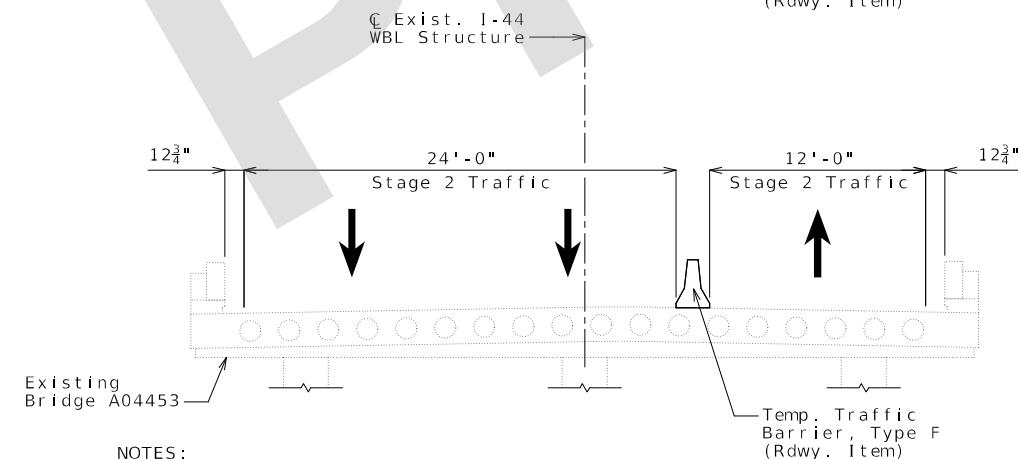
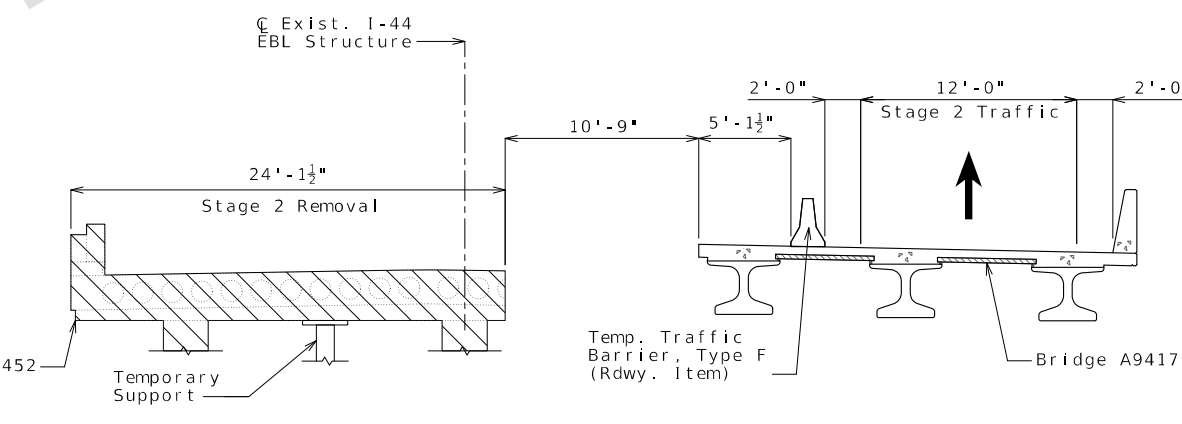
STAGE 1 REMOVAL



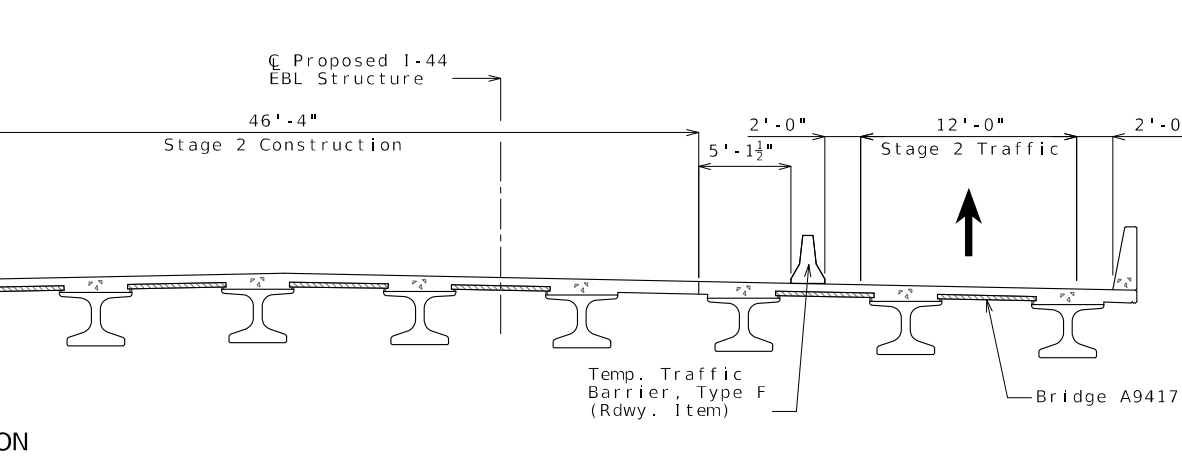
STAGE 1 CONSTRUCTION



STAGE 2 REMOVAL



STAGE 2 CONSTRUCTION



NOTES:

All typical sections are looking east.

Hatched area indicates removal of existing structures.

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

STAGED CONSTRUCTION

Detailed: May 2024
Checked: Jun. 2024

Sheet No. 3 of 31

STAGED CONSTRUCTION

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DATE PREPARED
9/16/2024
ROUTE
1-44
DISTRICT
BR
STATE
MO
SHEET NO.
3

COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.

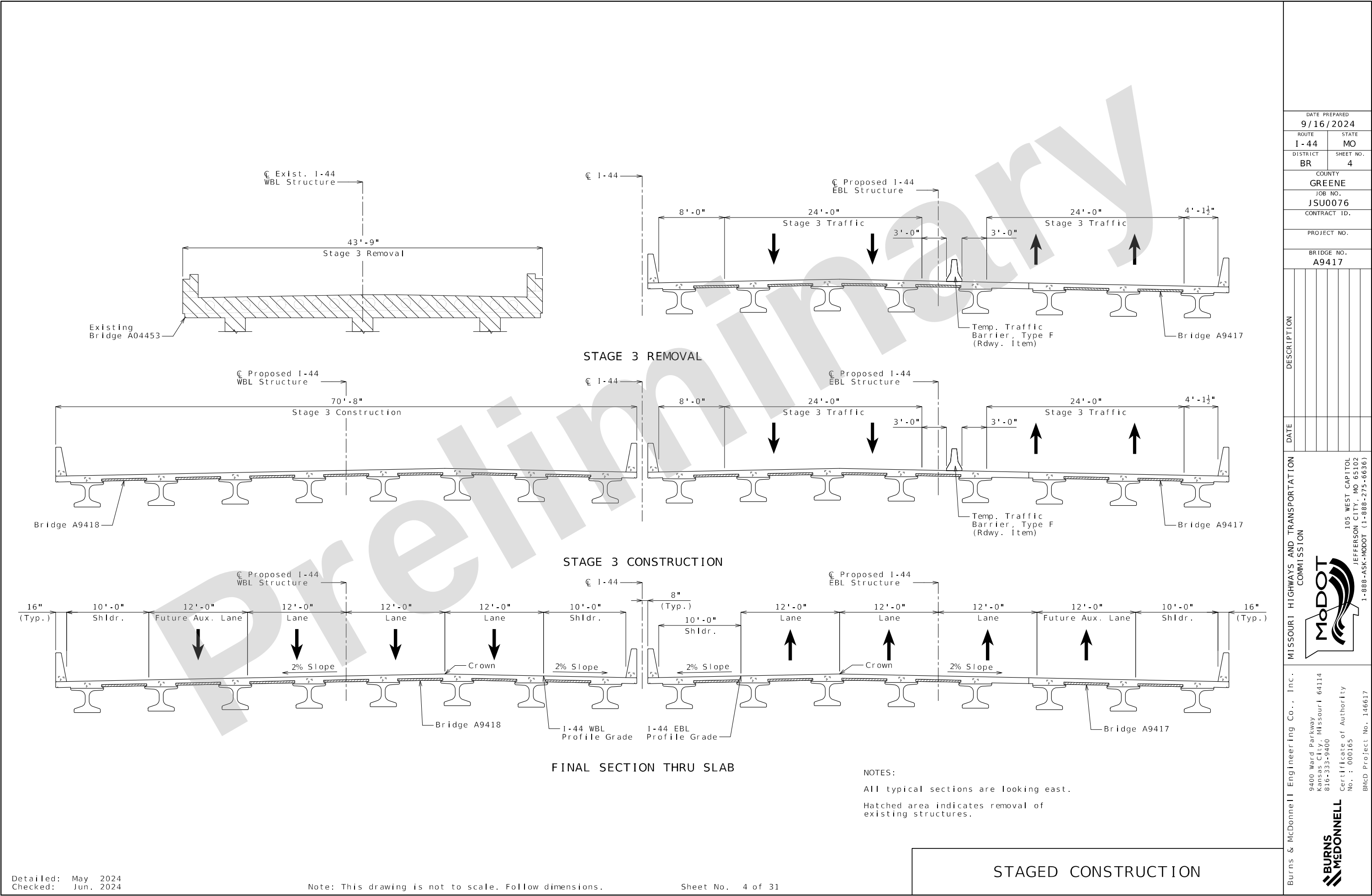
BRIDGE NO.
A9417

DESCRIPTION	DATE

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

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

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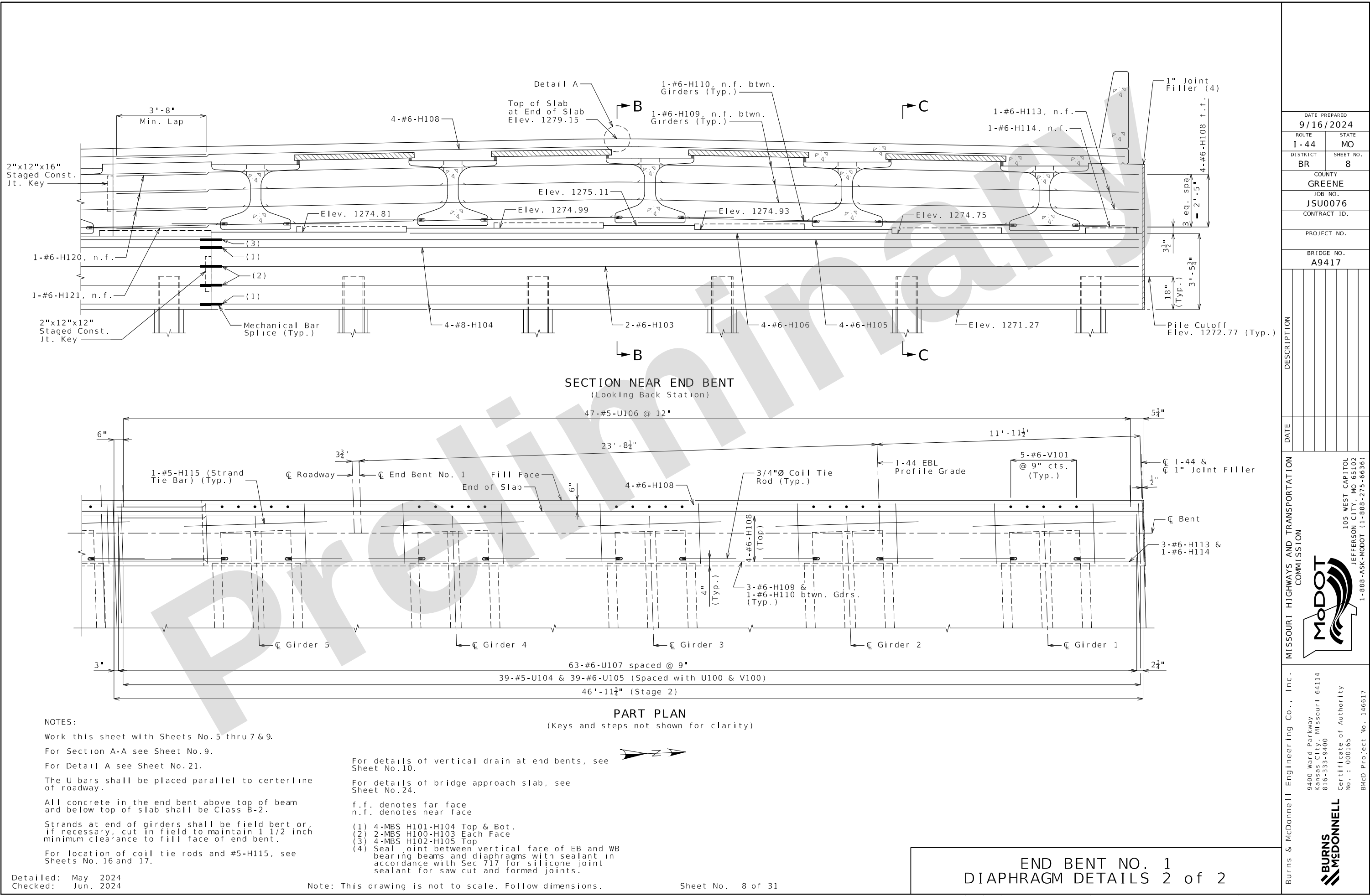
Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 4 of 31

DATE PREPARED 9/16/2024	
ROUTE I-44	STATE MO
DISTRICT BR	SHEET NO. 4
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9417	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
MoDOT 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	

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



NOTES:

Work this sheet with Sheets No. 5 thru 7 & 9.

For Section A-A see Sheet No. 9.

For Detail A see Sheet No. 21.

The U bars shall be placed parallel to centerline of roadway.

All concrete in the end bent above top of beam and below top of slab shall be Class B-2.

Strands at end of girders shall be field bent or, if necessary, cut in field to maintain 1 1/2 inch minimum clearance to fill face of end bent.

For location of coil tie rods and #5-H115, see Sheets No. 16 and 17.

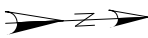
For details of vertical drain at end bents, see Sheet No. 10.

For details of bridge approach slab, see Sheet No. 24.

f.f. denotes far face
n.f. denotes near face

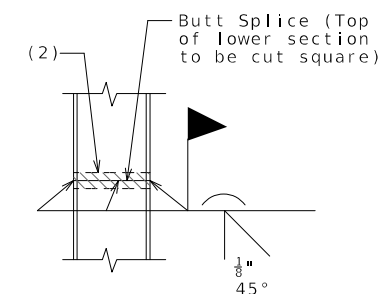
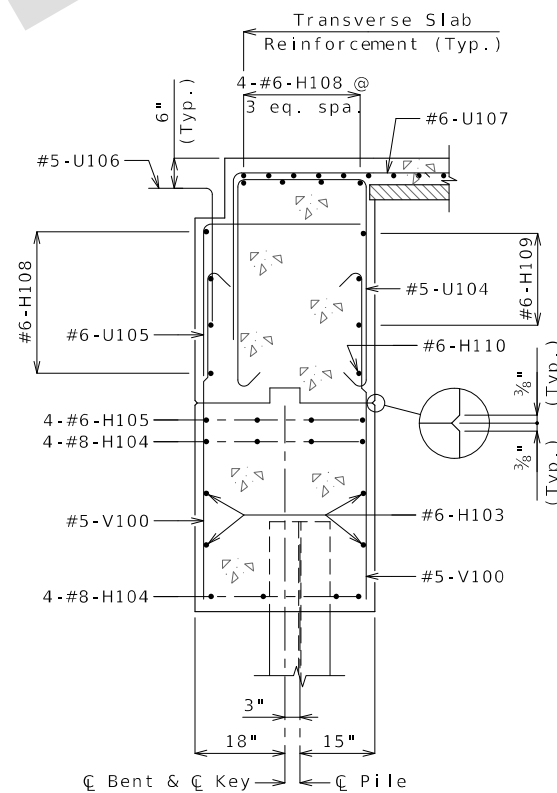
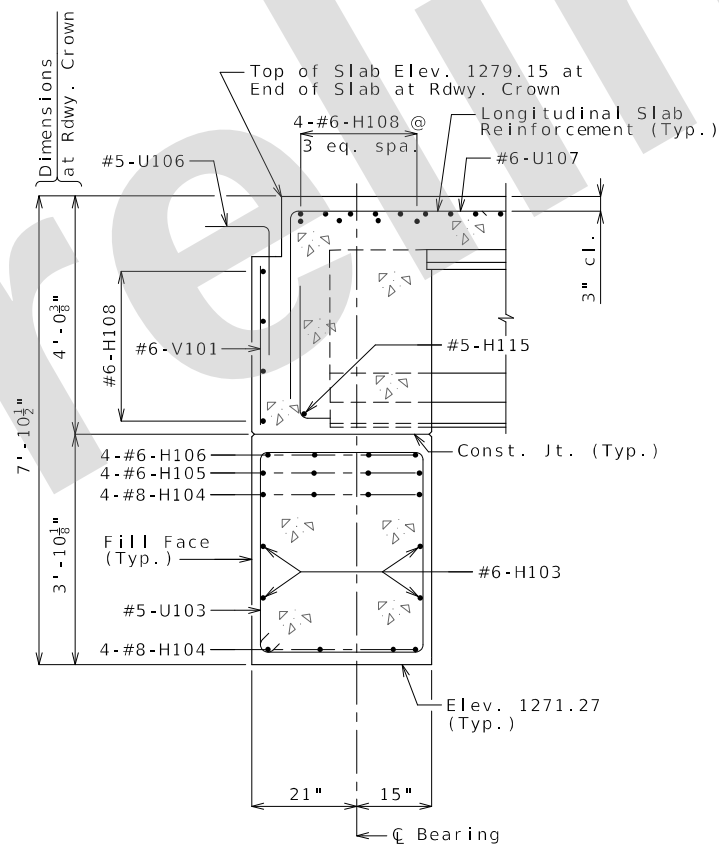
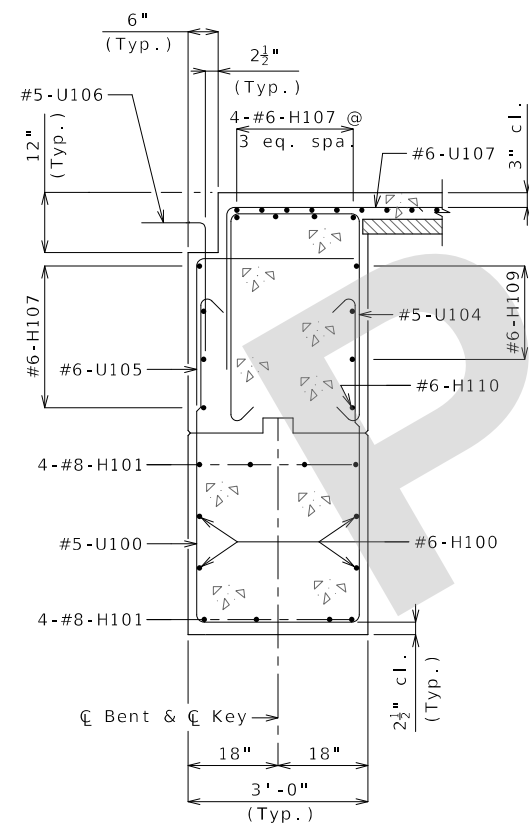
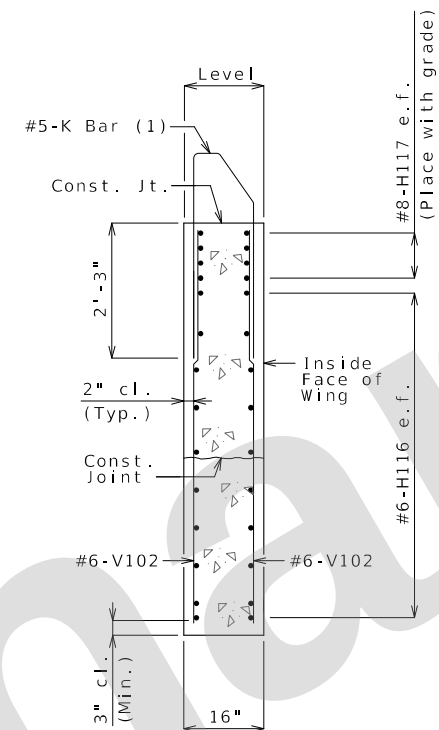
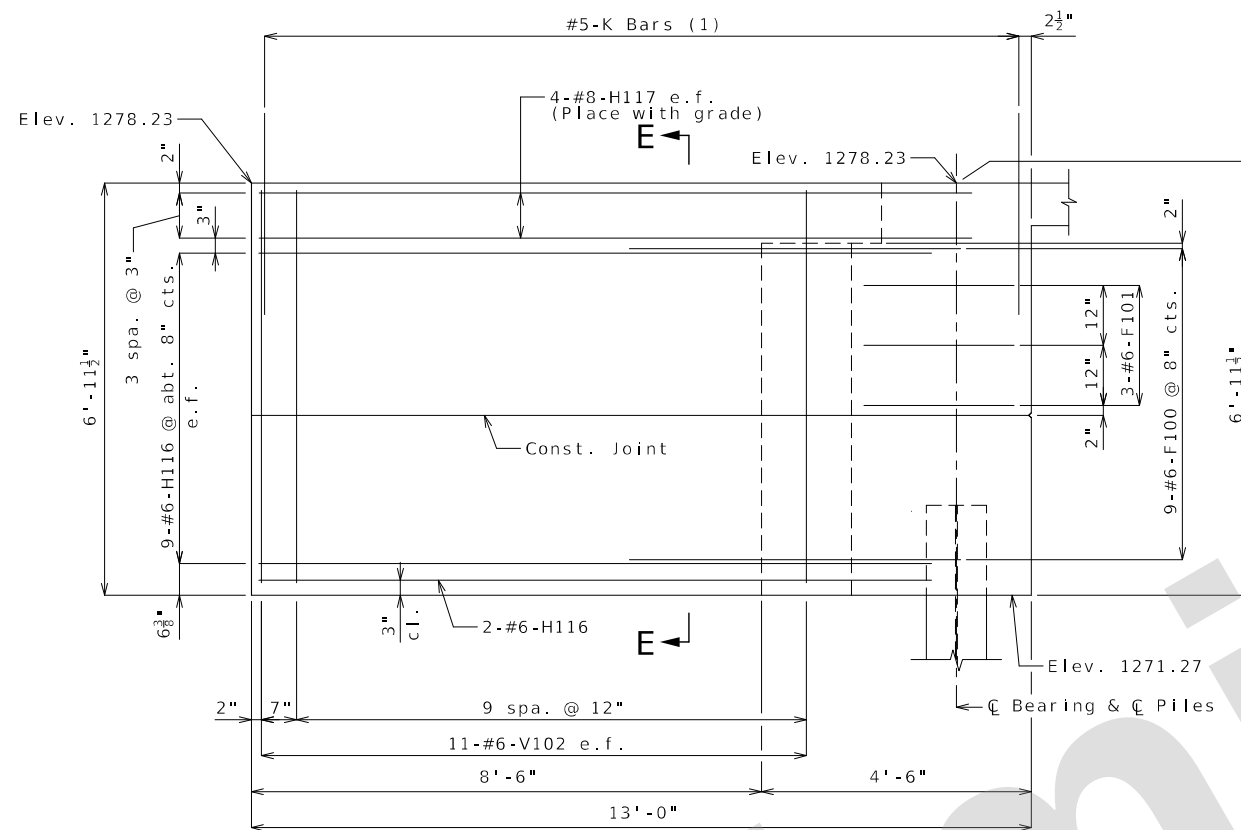
(1) 4-MBS H101-H104 Top & Bot.
(2) 2-MBS H100-H103 Each Face
(3) 4-MBS H102-H105 Top
(4) Seal joint between vertical face of EB and WB bearing beams and diaphragms with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

PART PLAN
(Keys and steps not shown for clarity)



END BENT NO. 1
DIAPHRAGM DETAILS 2 of 2

DATE PREPARED 9/16/2024	
ROUTE 1-44	STATE MO
DISTRICT BR	SHEET NO. 8
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9417	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	



STEEL PILE SPLICE
(If required)

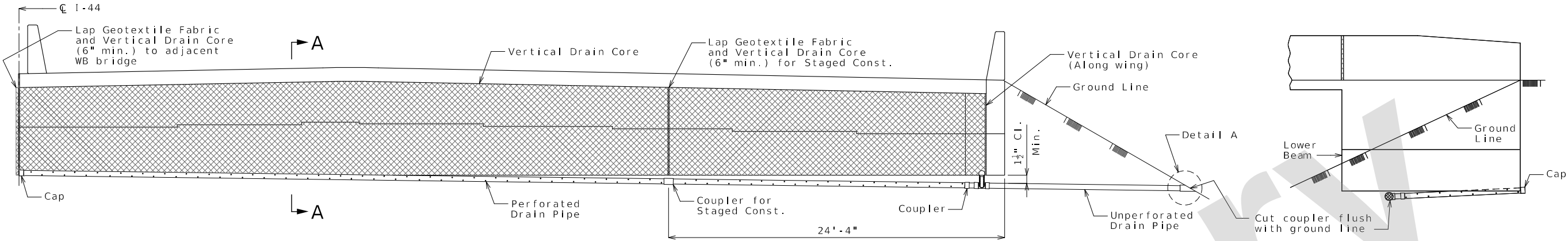
(2) Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.

NOTES :

- (1) For reinforcement of the Type D Barrier at End Bents, see Sheet No. 23.
- e.f. denotes each face.
- For details of bridge approach slab, see Sheet No. 24.
- Work this sheet with Sheets No. 5 thru 8.

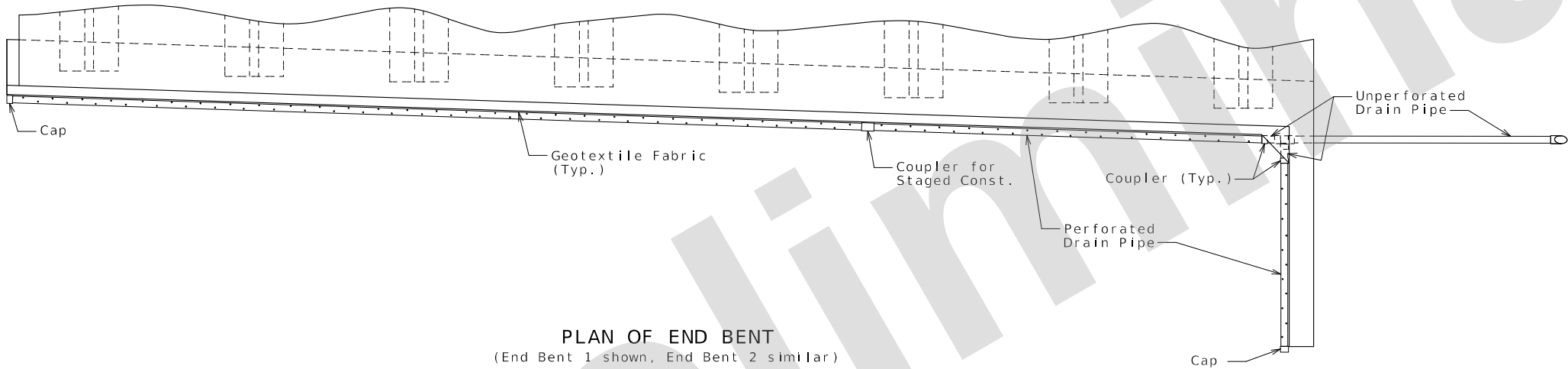
END BENT NO. 1
WING DETAILS & SECTIONS

Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400	 BURNS McDONNELL
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-4ASK-MODOT (1-888-275-6636)
DATE	DESCRIPTION
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED:	
DATE PREPARED 9/16/2024	
ROUTE I - 44	STATE MO
DISTRICT BR	SHEET NO. 9
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9417	

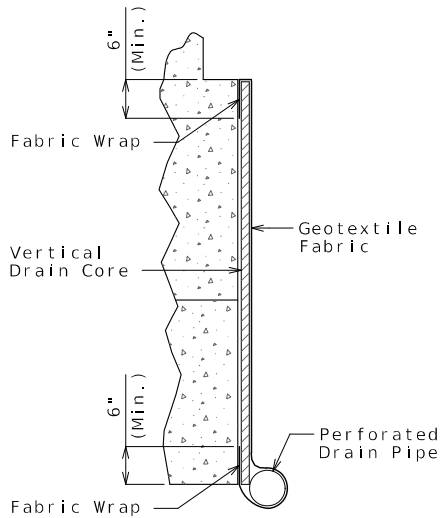


ELEVATION OF END BENT

ELEVATION OF WING



PLAN OF END BENT
(End Bent 1 shown, End Bent 2 similar)



PART SECTION A-A
(Section thru wing similar)

General Notes:

All drain pipe shall be sloped 1 to 2 percent.

Drain pipe may be either 6-inch diameter corrugated metallic-coated steel pipe underdrain, 4-inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4-inch diameter corrugated polyethylene (PE) drain pipe.

Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.

DATE PREPARED	
9/16/2024	
ROUTE	STATE
I-44	MO
DISTRICT	SHEET NO.
BR	10

COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.
BRIDGE NO.
A9417

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617

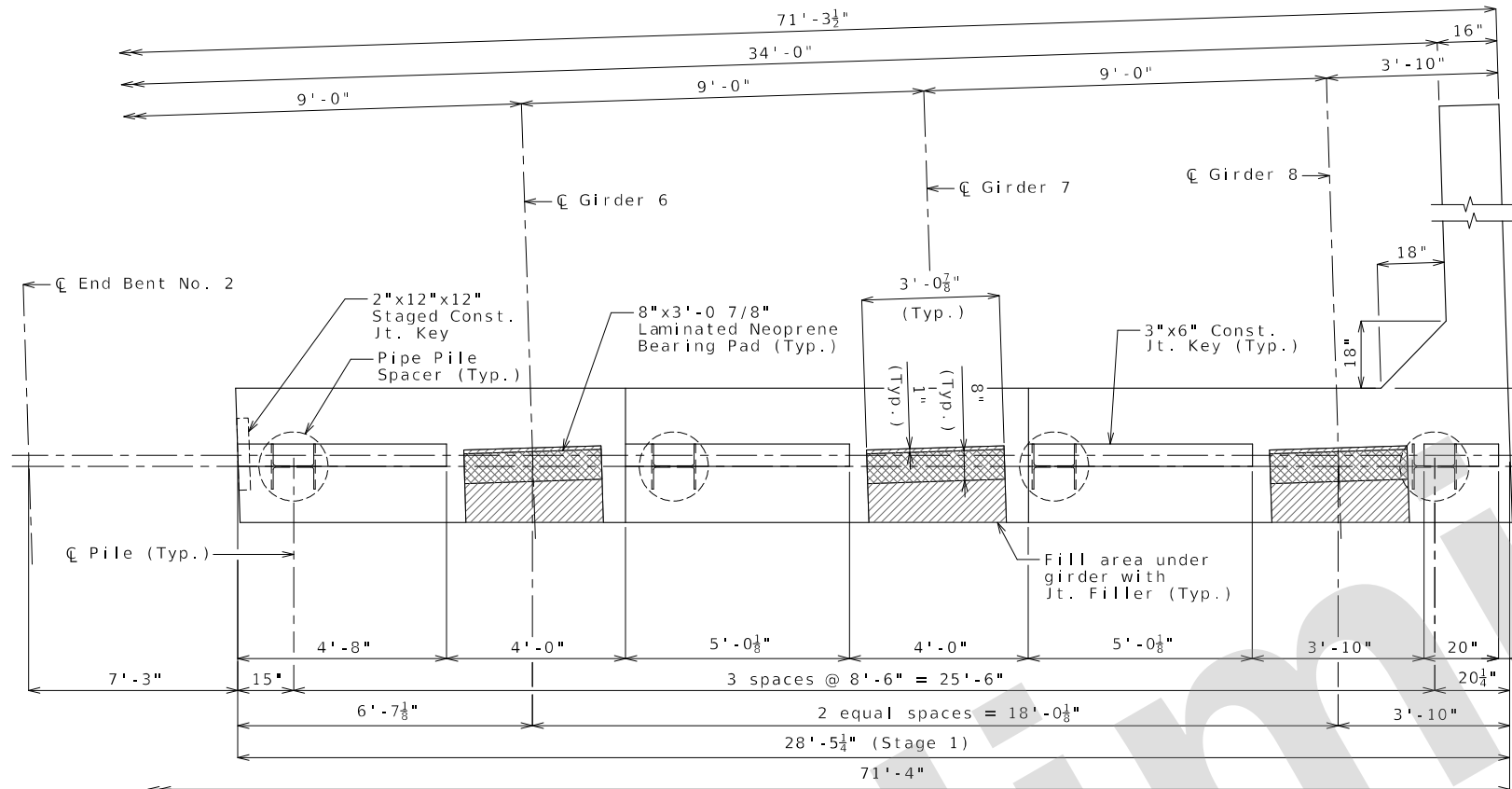
**BURNS
MCDONNELL**

Detailed: May 2024
Checked: Jun. 2024

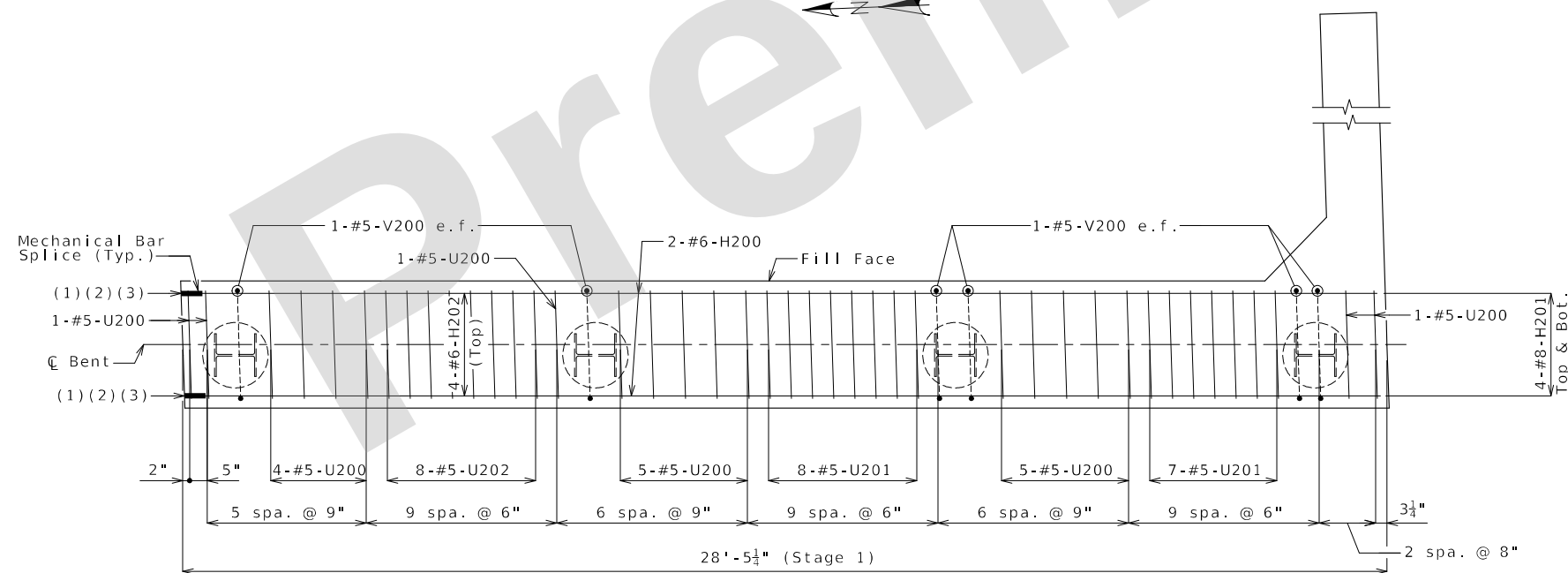
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 10 of 31

VERTICAL DRAIN AT END BENTS



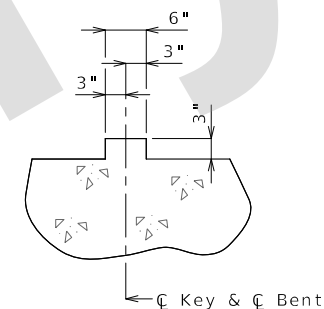
PART PLAN OF BEAM



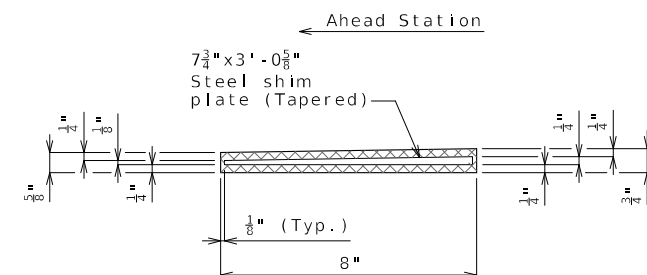
PART PLAN OF BEAM SHOWING REINFORCEMENT
(Keys and steps not shown for clarity)

Substructure Quantity Table for End Bent No. 2			
Item		Quantity	
Galvanized Structural Steel Piles (12 in.)	linear foot	311	
Pre-Bore for Piling	linear foot	99	
Pile Point Reinforcement	each	9	
Class B Concrete (Substructure)	cu. yard	29.2	

These quantities are included in the Estimated Quantities table on Sheet No. 2.



SECTION THRU KEY



TYPICAL SECTION THRU
8"X3'-0 7/8"X11/16"
LAMINATED NEOPRENE BEARING PAD
(8 Required)

NOTES:

Work this sheet with Sheets No. 12 thru 15.

All U bars and pairs of V bars shall be placed parallel to centerline of roadway.

Reinforcing steel shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.

e.f. denotes each face.

- (1) 4-MBS H201-H204 Top & Bot.
- (2) 2-MBS H200-H203 Each Face
- (3) 4-MBS H202-H205 Top

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 11 of 31

END BENT NO. 2
BEAM DETAILS 1 OF 2

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DATE PREPARED
9/16/2024
ROUTE
1-44
DISTRICT
BR

STATE
MO

SHEET NO.
11

COUNTY

GREENE

JOB NO.

JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

A9417

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

Burns & McDonnell Engineering Co., Inc.

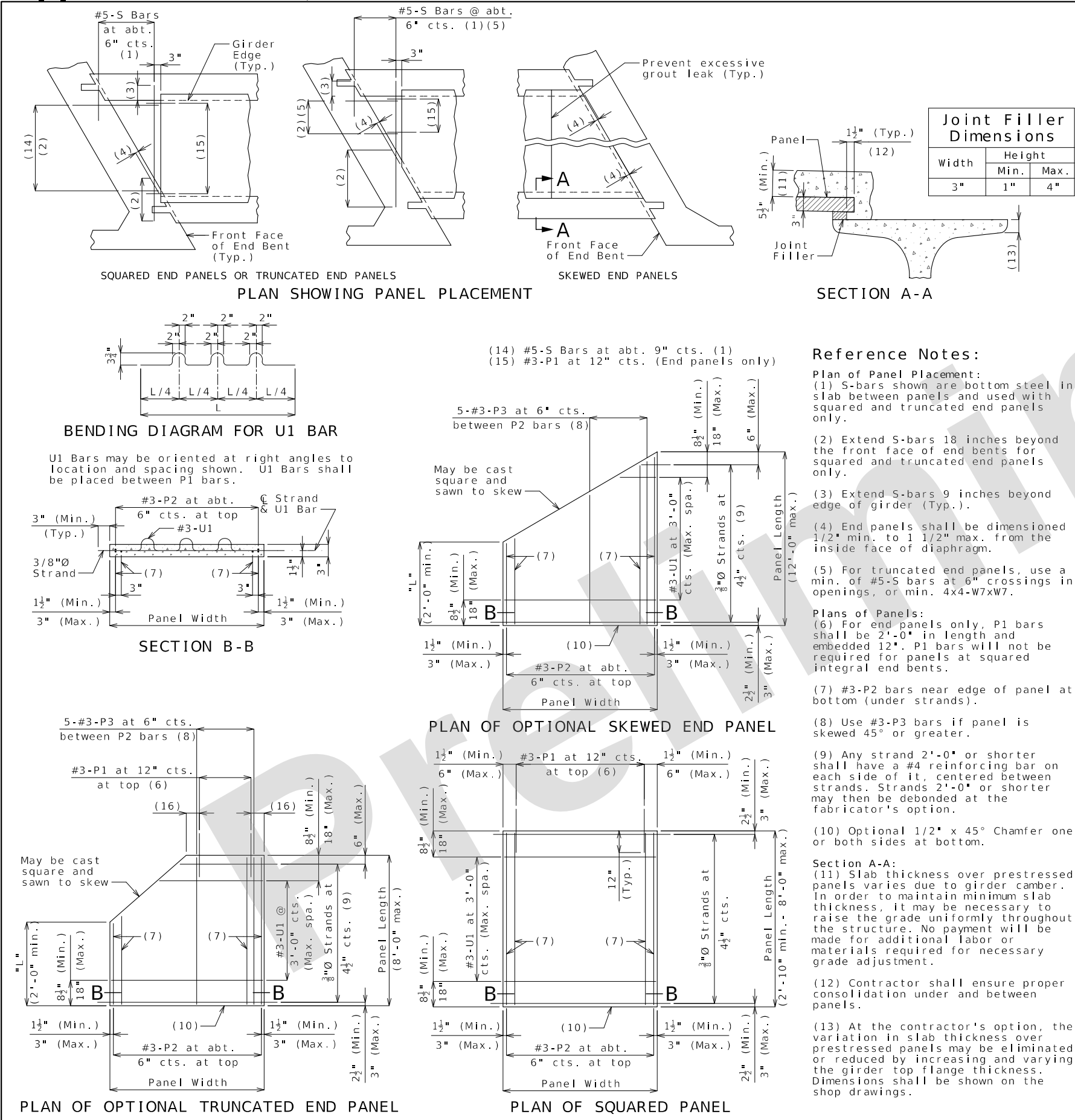
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165
BMcD Project No. 146617

BURNS
MCDONNELL

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REV.



General Notes:
Prestressed Panels:
Concrete for prestressed panels shall be Class A-1 with $f'c = 6,000$ psi, $f'ci = 4,000$ psi.

The top surface of all panels shall receive a scored finish with a depth of scoring of 1/8" perpendicular to the prestressing strands in the panels.

Prestressing tendons shall be high-tensile strength, uncoated, seven-wire, low-relaxation strands for prestressed concrete in accordance with AASHTO M 203 Grade 270, with nominal diameter of strand = 3/8" and nominal area = 0.085 sq.in. and minimum ultimate strength = 22.95 kips (270 ksi). Larger strands may be used with the same spacing and initial tension.

Initial prestressing force = 17.2 kips/strand.

The method and sequence of releasing the strands shall be shown on the shop drawings.

Suitable anchorage devices for lifting panels may be cast in panels, provided the devices are shown on the shop drawings and approved by the engineer. Panel lengths shall be determined by the contractor and shown on the shop drawings.

When squared end panels are used at skewed bents, the skewed portion shall be cast full depth. No separate payment will be made for additional concrete and reinforcing required.

Support from diaphragm forms is required under the optional skewed end until cast-in-place concrete has reached 3,000 psi compressive strength.

Prestressed panels shall be brought to saturated surface-dry (SSD) condition just prior to the deck pour. There shall be no free standing water on the panels or in the area to be cast.

The prestressed panel quantities are not included in the table of estimated quantities for the slab.

Reinforcing Steel:
All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

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

If U1 bars interfere with placement of slab steel, U1 loops may be bent over, as necessary, to clear slab steel.

Deformed welded wire reinforcement (WWR) providing a minimum area of reinforcing perpendicular to strands of 0.22 sq in./ft, with spacing parallel to strands sufficient to ensure proper handling, may be used in lieu of the #3-P2 bars shown. Wire diameter shall not be larger than 0.375 inch. The above alternative reinforcement criteria may be used in lieu of the #3-P3 bars, when required, and placed over a width not less than 2 feet.

The following reinforcing steel shall be tied securely to the strands with the following maximum spacing in each direction:
#3-P2 bars at 16 inches.
WWR at 24 inches.

The #3-U1 bars shall be tied securely to #3-P2 bars, to WWR or to strands (when placed between P1 bars) at about 3-foot centers.

Minimum reinforcement steel length shall be 2'-0".

All reinforcement other than prestressing strands shall be epoxy coated.

Precast panels may be in contact with stirrup reinforcing in diaphragms.

S-bars are not listed in the bill of reinforcing.

Cost of S-bars will be considered completely covered by the contract unit price for the slab.

Joint Filler:
Joint filler shall be preformed fiber expansion joint material in accordance with Sec 1057 or expanded or extruded polystyrene bedding material in accordance with Sec 1073.

Use Slab Haunching Diagram on Sheet No. 19 for determining thickness of joint filler within the limits noted in the table of Joint Filler Dimensions.

Thicker material may be used on one or both sides of the girder to reduce cast-in-place concrete thickness to within tolerances.

The same thickness of preformed fiber expansion joint material shall be used under any one edge of any panel except at locations where top flange thickness may be stepped. The maximum change in thickness between adjacent panels shall be 1/2 inch. The polystyrene bedding material may be cut with a transition to match haunch height above top of flange.

Joint filler shall be glued to the girder. When thickness exceeds 1 1/2 inches, the joint filler shall be glued top and bottom. The glue used shall be the type recommended by the joint filler manufacturer.

Edges of panels shall be uniformly seated on the joint filler before slab reinforcement is placed.

PRESTRESSED PANELS

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9417

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

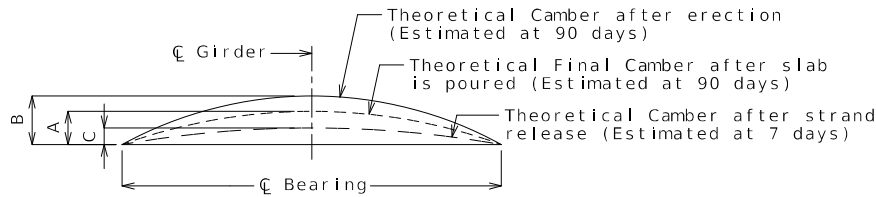
Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617

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

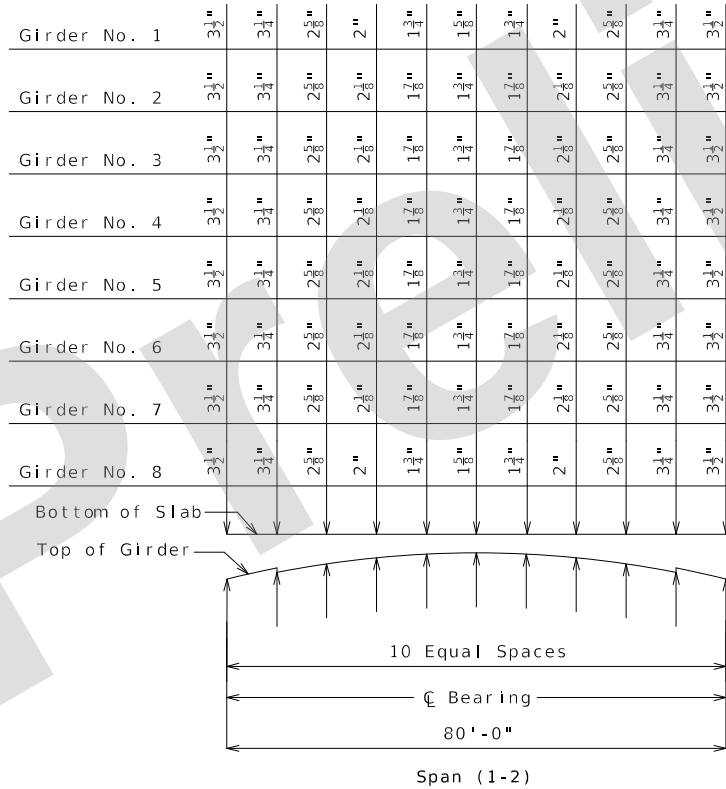


Girder	Span (1-2)		
	A	B	C
Exterior	3"	4 ⁵ / ₈ "	2 ⁵ / ₈ "
Interior	2 ⁷ / ₈ "		

GIRDER CAMBER DIAGRAM

Conversion Factors for Girder Camber (Estimated at 90 days):

0.1 pt. = 0.314 x 0.5 pt.
0.2 pt. = 0.593 x 0.5 pt.
0.3 pt. = 0.813 x 0.5 pt.
0.4 pt. = 0.952 x 0.5 pt.



THEORETICAL SLAB HAUNCHING DIAGRAM (ESTIMATED AT 90 DAYS)

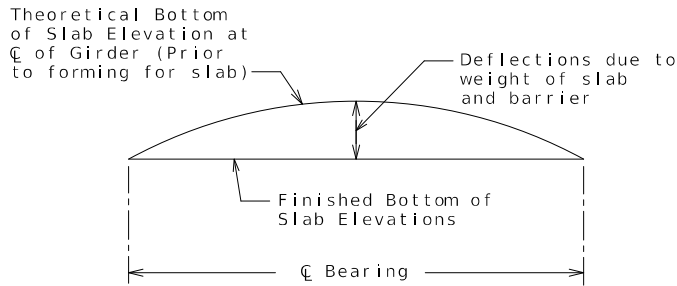
If girder camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness, an adjustment of the slab haunches, an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in haunching, slab thickness or grade adjustment.

Concrete in the slab haunches is included in the Estimated Quantities for Slab on Concrete NU-Girder.

Theoretical slab haunches are measured at C Girder.

Theoretical Bottom of Slab Elevations at Centerline of Girder (Prior to forming for slab) (Estimated at 90 days)											
Girder Number	Span (1-2) (80'-0" C Brg. - C Brg.)										
	C Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	C Brg.
1	1278.08	1278.11	1278.14	1278.15	1278.15	1278.14	1278.10	1278.06	1277.99	1277.92	1277.83
2	1278.26	1278.29	1278.32	1278.34	1278.34	1278.33	1278.29	1278.24	1278.18	1278.10	1278.02
3	1278.44	1278.47	1278.50	1278.52	1278.52	1278.51	1278.47	1278.43	1278.36	1278.28	1278.20
4	1278.32	1278.35	1278.38	1278.40	1278.40	1278.39	1278.36	1278.31	1278.24	1278.16	1278.08
5	1278.14	1278.17	1278.20	1278.22	1278.22	1278.21	1278.18	1278.13	1278.06	1277.99	1277.90
6	1277.96	1277.99	1278.02	1278.04	1278.04	1278.03	1278.00	1277.95	1277.88	1277.81	1277.72
7	1277.78	1277.81	1277.84	1277.86	1277.86	1277.85	1277.82	1277.77	1277.71	1277.63	1277.54
8	1277.60	1277.63	1277.66	1277.68	1277.68	1277.66	1277.63	1277.58	1277.52	1277.45	1277.37

Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab (including precast panel) and barrier.



TYPICAL SLAB ELEVATIONS DIAGRAM

GIRDER CAMBER AND SLAB HAUNCHING

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 19 of 31

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9417

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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

BURNS & McDONNELL

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

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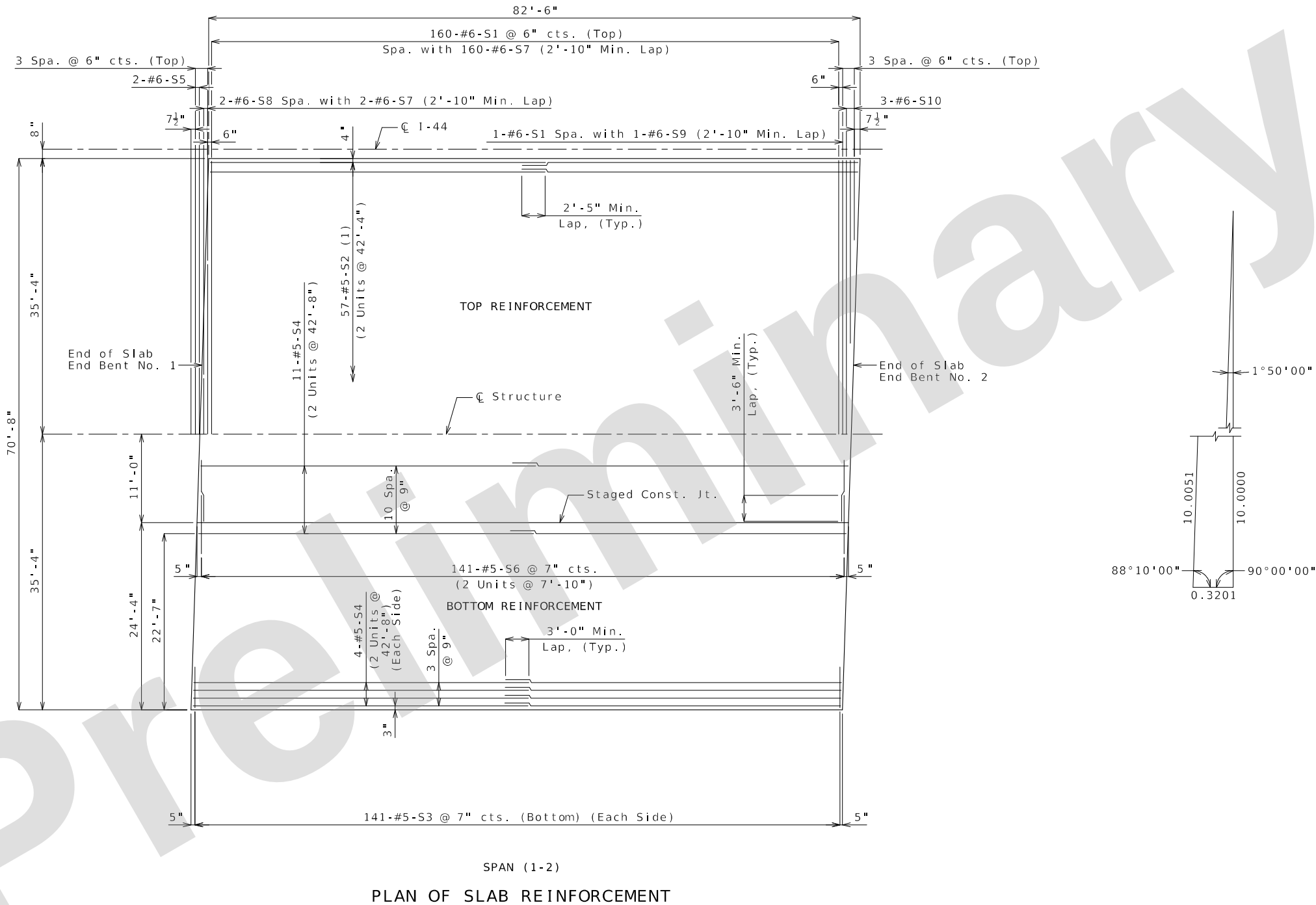
Detailed: May 2024
Checked: Jun. 2024

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

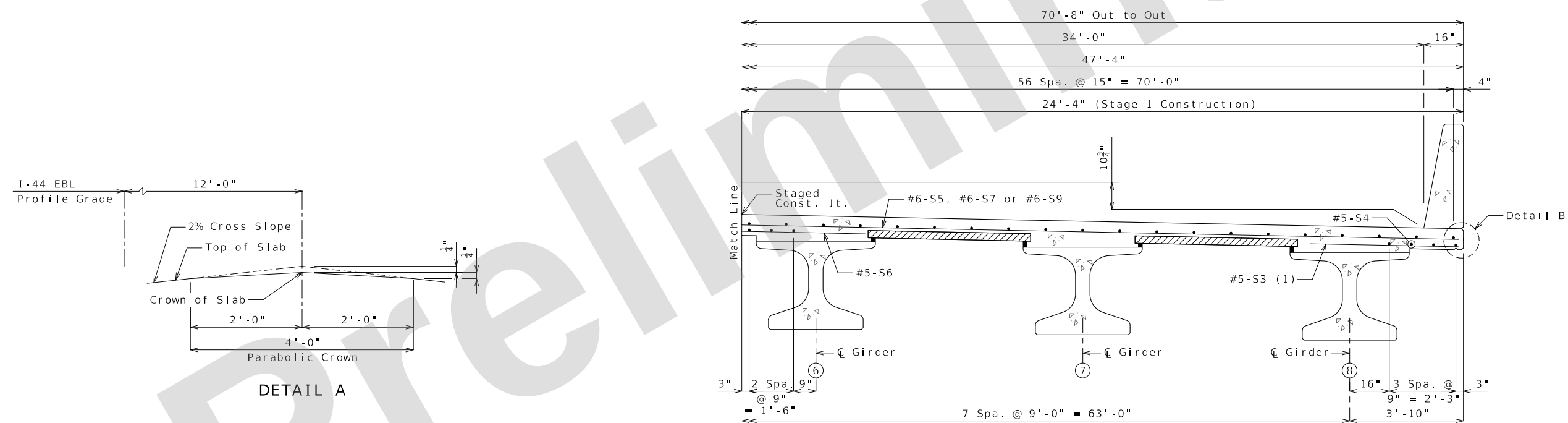
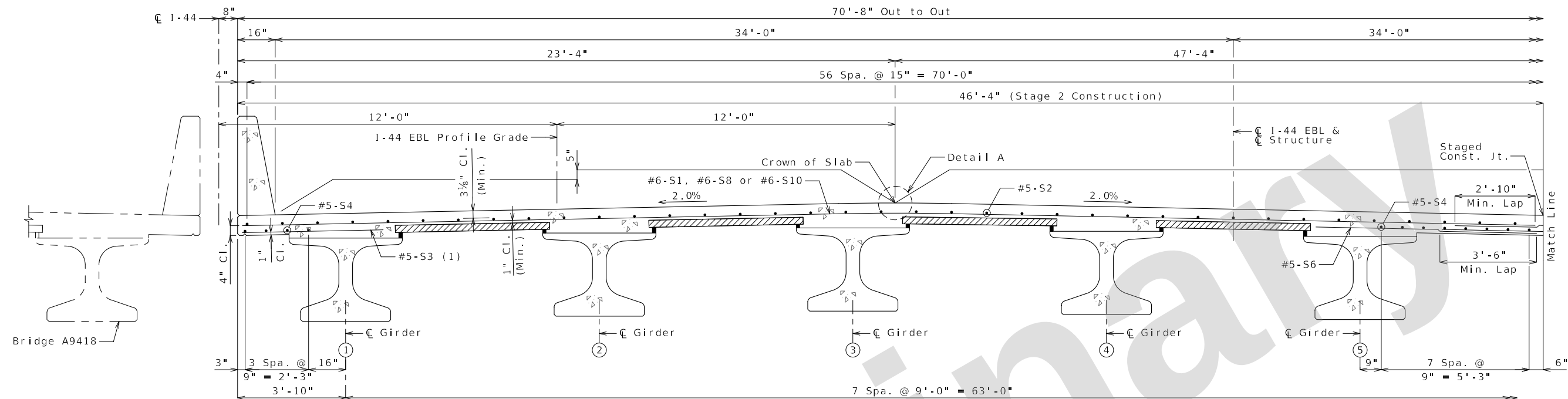
Sheet No. 20 of 31

SLAB PLAN

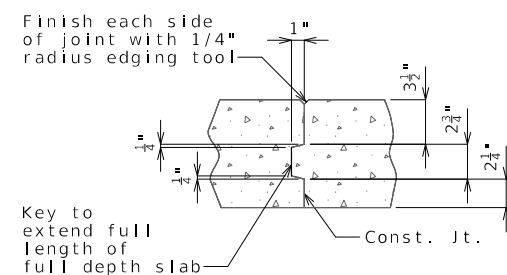
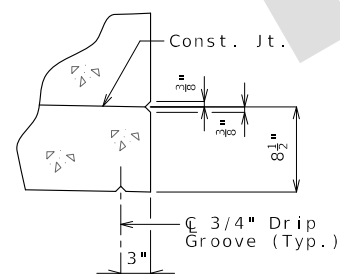
- NOTES:
- Longitudinal slab dimensions shown are horizontal.
- For Theoretical Slab Haunching Diagram and Theoretical Bottom of Slab Elevations, see Sheet No. 19.
- For Details of Precast Prestressed Panels, see Sheet No. 18.
- For Details and Reinforcement of Safety Barrier Curb not shown, see Sheets No. 22 & 23.
- (1) For spacing of longitudinal bars not shown, see Slab Section & Details on Sheet No. 21.



DATE PREPARED 9/16/2024		COUNTY GREENE	
ROUTE 1-44	STATE MO	JOB NO. JSU0076	BRIDGE NO. A9417
DISTRICT BR	SHEET NO. 20	CONTRACT ID.	PROJECT NO.
DESCRIPTION		DATE	IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
Burns & McDonnell Engineering Co., Inc.			
9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400			
Certificate of Authority No. : 000165			
Blmcd Project No. 146617			
MoDOT			
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)			



SECTION THRU SLAB
(1) Alternate bar shape available, see Sheet No. 22.



FULL DEPTH SLAB
SLAB CONSTRUCTION JOINT

NOTES:

For details of precast prestressed panels, see Sheet No. 18.

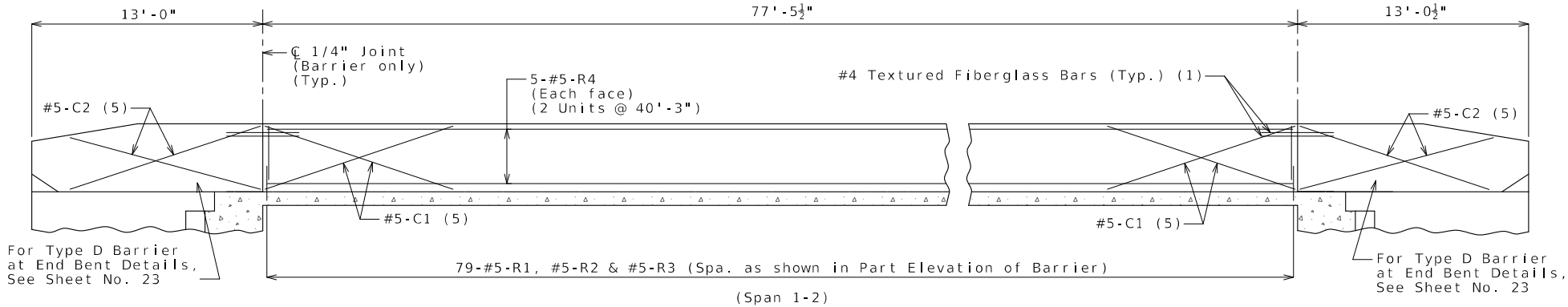
For reinforcement of barrier not shown, see Sheet No. 22.

For Theoretical Bottom of Slab Elevations, Girder Camber Diagram and Theoretical Slab Haunching Diagram, see Sheet No. 19.

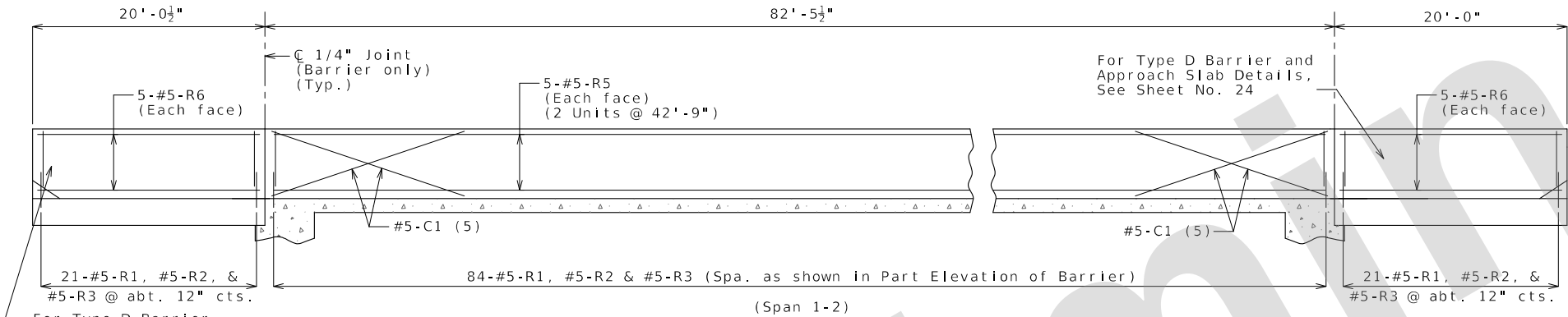
For Plan of Slab Showing Reinforcement, see Sheet No. 20.

Bridge will be cast in a single pour.

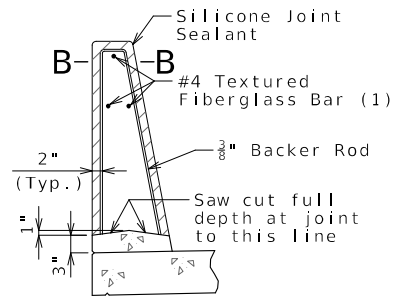
 BURNS MCDONNELL Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMCD Project No. 146617	 MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	DATE		DESCRIPTION	
		BRIDGE NO.		A9417	
		PROJECT NO.			
		CONTRACT ID.			
		JOB NO.		JSU0076	
		COUNTY		GREENE	
DISTRICT	BR	SHEET NO.	21		
ROUTE	I - 44	STATE	MO		
DATE PREPARED		9/16/2024			



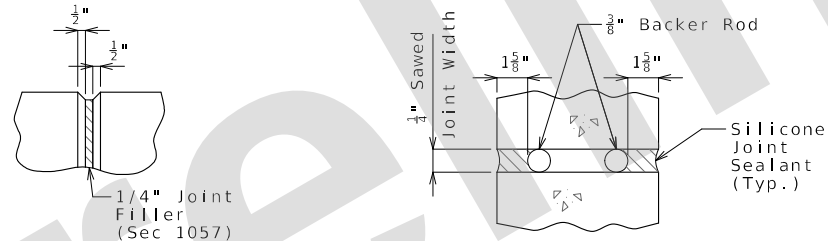
ELEVATION OF BARRIER - RIGHT BARRIER



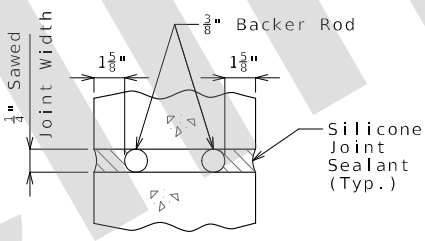
ELEVATION OF BARRIER - LEFT BARRIER



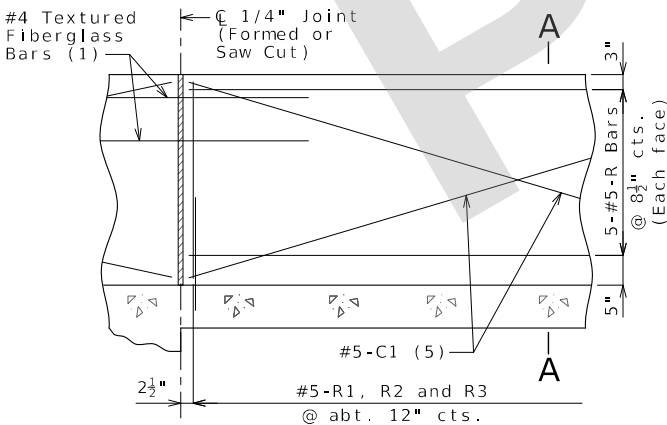
SECTION THRU SAW CUT JOINT



PART ELEVATION AT FORMED JOINT

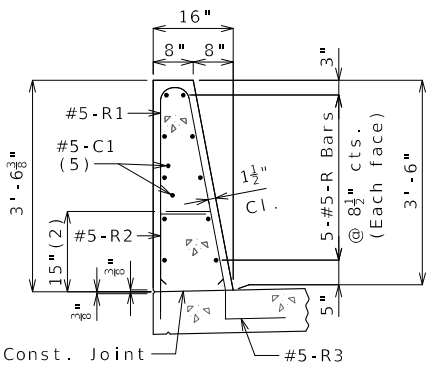


SECTION B-B



PART ELEVATION OF BARRIER

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

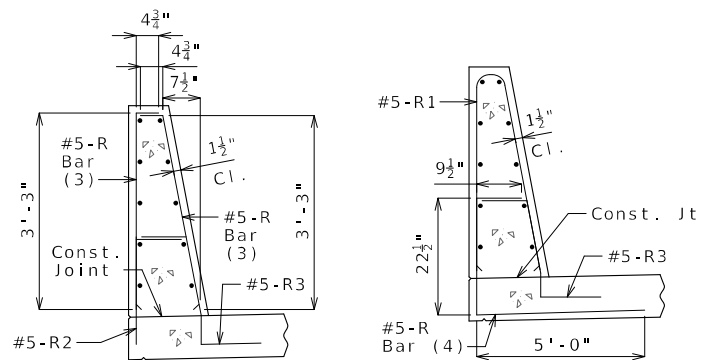


SECTION A-A

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

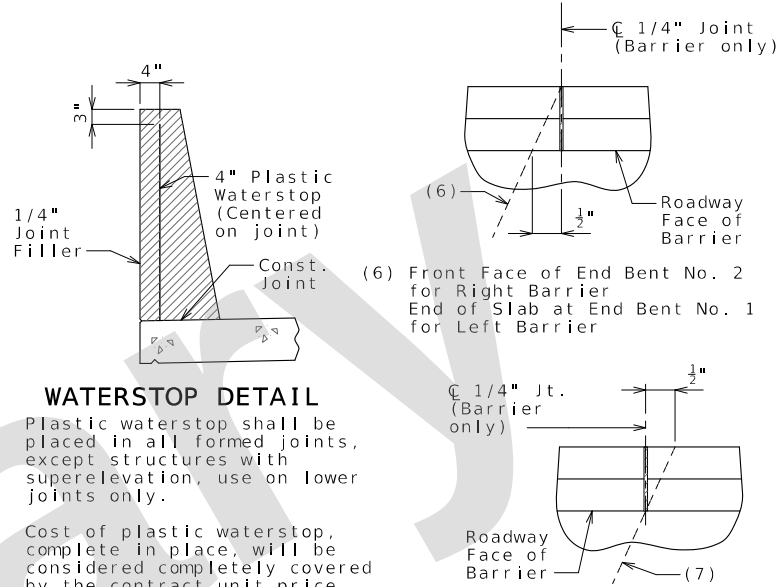
The cross-sectional area above the slab is 3.52 square feet.

- (2) To top of bar



R-BAR PERMISSIBLE ALTERNATE SHAPE

- (3) The R1 bar may be separated into two bars as shown, at the contractor's option, only when slip forming is not used. (All dimensions are out to out.)
- (4) The R2 bar and #5 bottom transverse slab bar in cantilever (prestressed panels only) combination may be furnished as one bar as shown, at the contractor's option.
- (5) Slip-formed option only.



WATERSTOP DETAIL

Plastic waterstop shall be placed in all formed joints, except structures with superelevation, use on lower joints only.

Cost of plastic waterstop, complete in place, will be considered completely covered by the contract unit price for Type D Barrier.

PART PLAN SHOWING JOINT LOCATION

General Notes:

Longitudinal dimensions are horizontal.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

Top of barrier shall be built parallel to grade and barrier joints (except at end bents) normal to grade.

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

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Type D Barrier per linear foot.

Concrete in barrier shall be Class B-1.

Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing for Right Barrier and from end of approach slab to end of approach slab for Left Barrier.

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

Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.

Plastic waterstop shall not be used with saw cut joints.

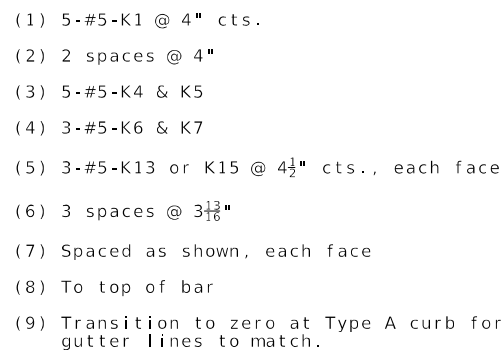
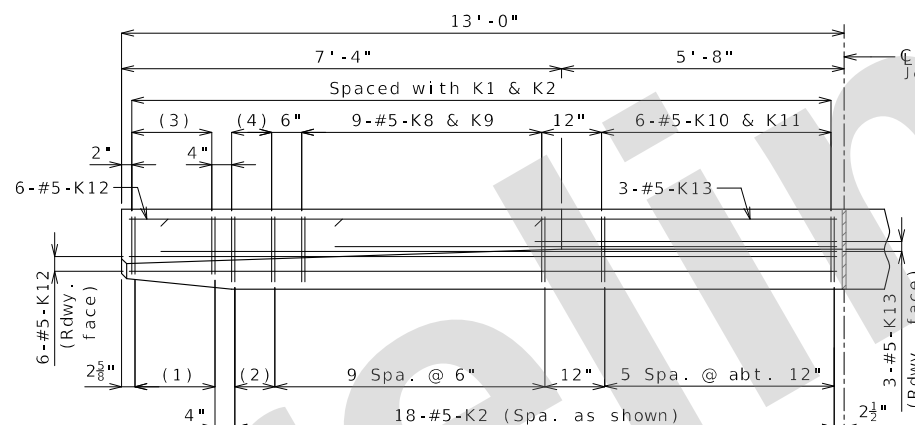
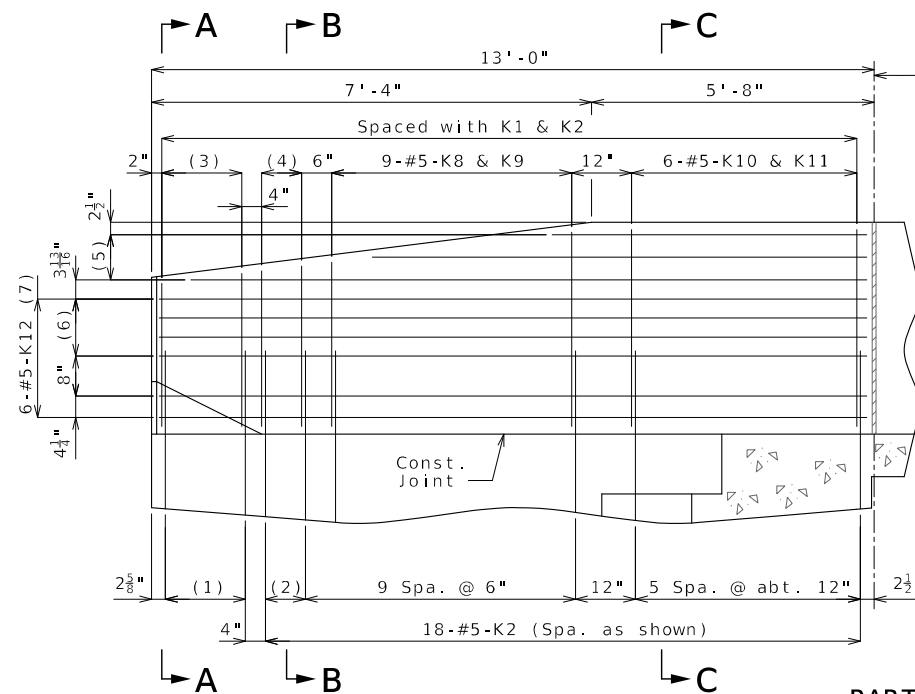
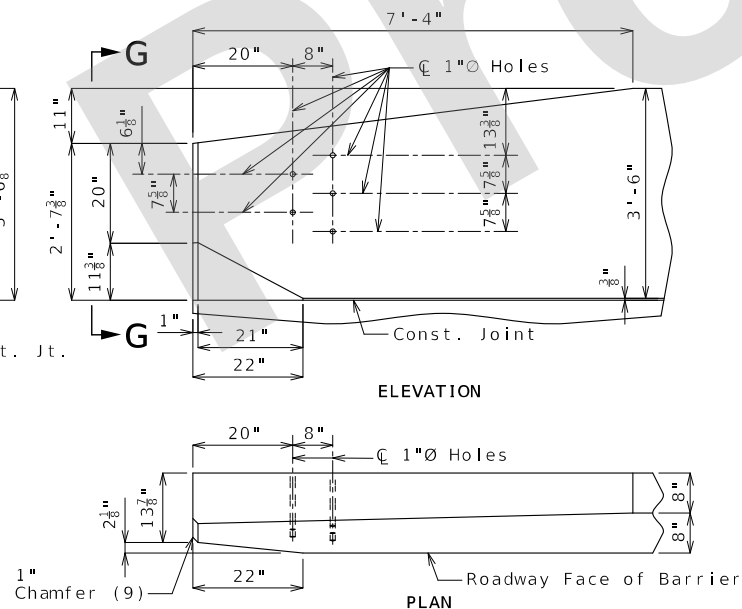
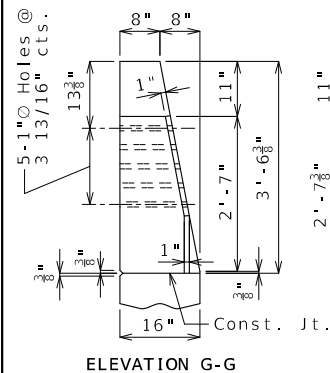
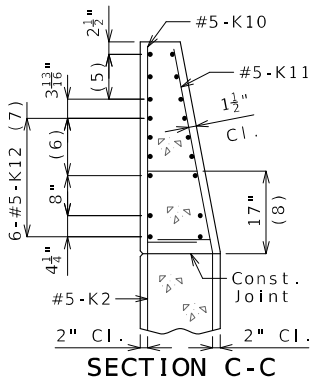
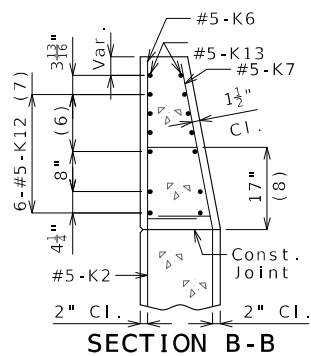
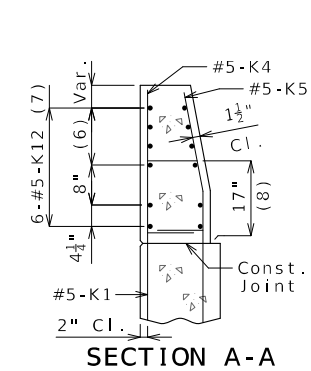
TYPE D BARRIER

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 22 of 31

DATE PREPARED 9/16/2024	
ROUTE I-44	STATE MO
DISTRICT BR	SHEET NO. 22
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9417	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	DATE
Burns & McDonnell Engineering Co., Inc.	DATE
9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400	DATE
Certificate of Authority No. : 000165	DATE
BMcD Project No. 146617	DATE
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	DATE

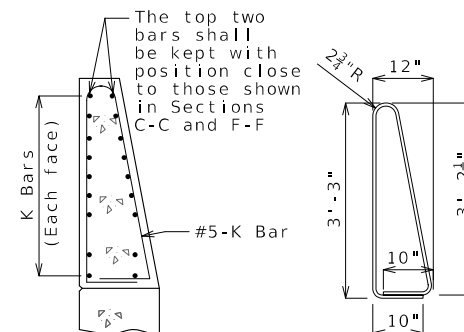
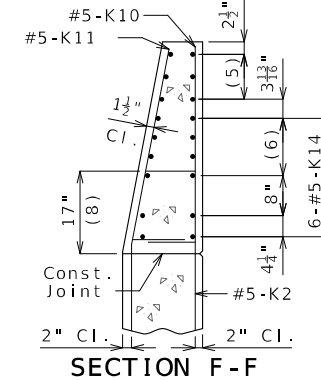
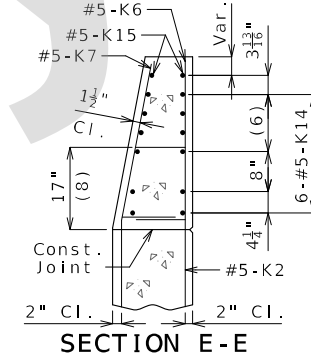
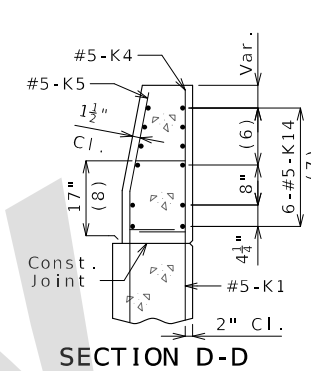
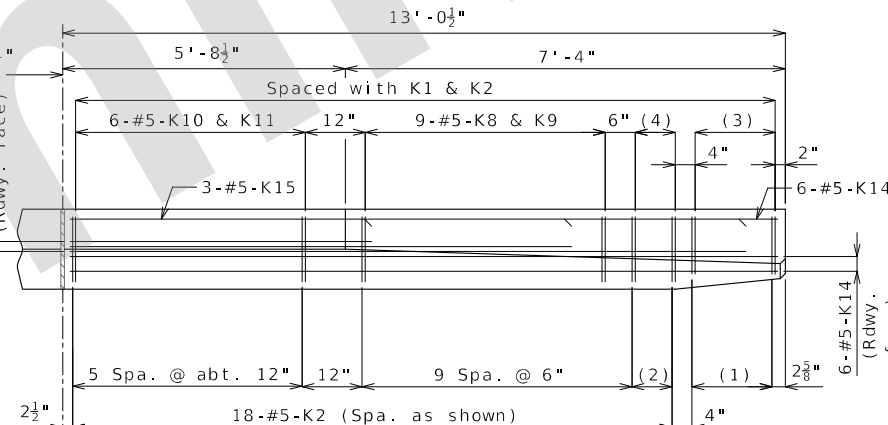
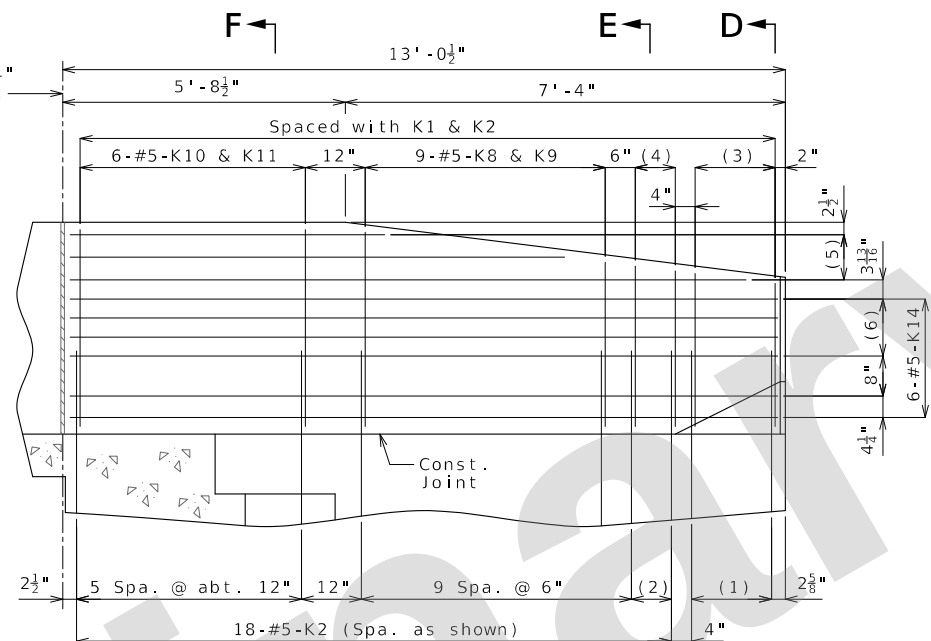


General Notes:

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

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2" except as shown for bars embedded into end bent.

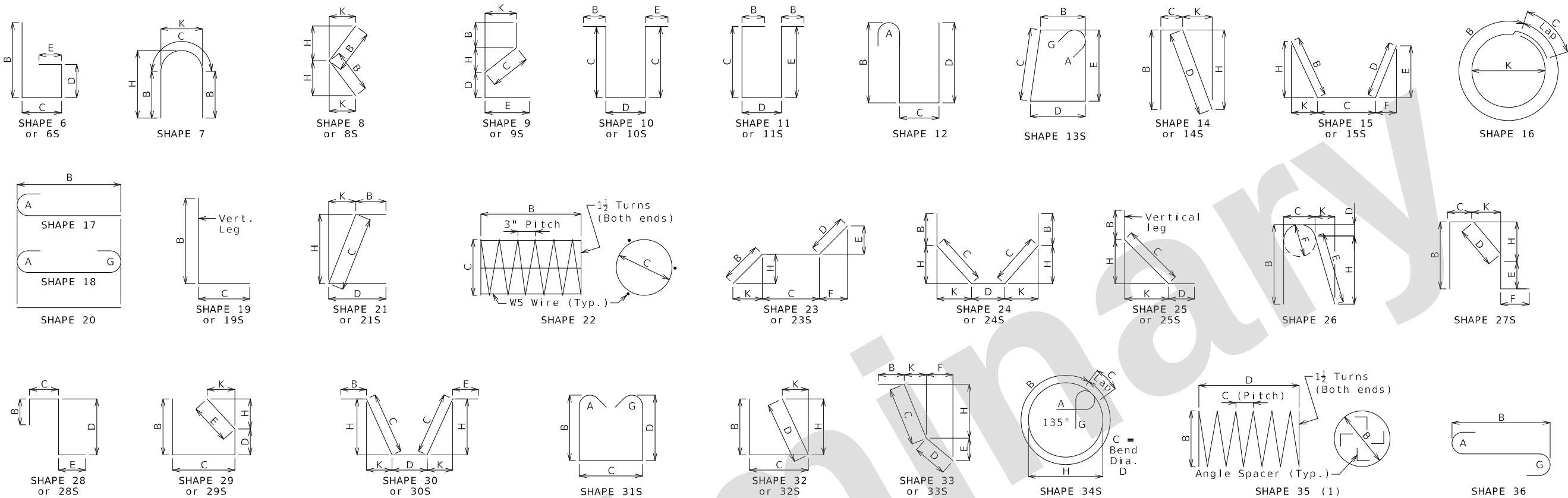


**K10-K11 BAR PERMISSIBLE
ALTERNATE SHAPE**
(Other K bars not shown for clarity)

The K10-K11 bar combination may be furnished as one bar as shown, at the contractor's option.

All dimensions are out to out.

</
--



Finished Bend Dimensions 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	3 3/4"	10"	7"	5"	
#6	1	4 1/2"	12"	8 1/4"	6"	
#7	2	5 1/4"	14"	9 3/4"	7"	
	3	7"	15"	11 1/2"	8 3/4"	
#8	2	6"	16"	11"	8"	
	3	8"	17"	13 1/4"	10"	
#9	1	9 1/2"	19 1/2"	15 1/2"	11 3/4"	
#10	1	10 3/4"	22"	17 1/2"	13 1/4"	
#11	1	12"	24 1/2"	19 1/2"	14 7/8"	
#14	1	18 1/4"	31 1/4"	27 1/2"	21 5/8"	
#18	1	24"	41 1/2"	36 1/4"	28 1/2"	
Stirrup Pin Bend Shapes (S)						
Size	Case	D	A or G		H	J
			90°	135°	180°	135°
#4	2	2"	4 1/2"	4 1/2"	5"	2 7/8"
	3	3"	5"	5 1/4"	6"	3"
#5	2	2 1/2"	5 3/4"	5 3/4"	5 3/4"	3 3/8"
	3	3 3/4"	6 1/4"	6 1/4"	7"	3 5/8"
#6	1	4 1/2"	12"	7 3/4"	8 1/4"	4 5/8"

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.

Detailing Dimension

Hook

90°

135°

180°

4d or 2 1/2" Min.

BENDING DIAGRAMS

Reinforcing Steel Totals (Pounds)								
Size	Substructure		Superstructure			Entire Bridge		
	Plain	Epoxy	Slab		Barrier	Slip Form	Plain	Epoxy
			Plain	Epoxy				
W5	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	15,550	5,989	141	0	21,680
6	0	0	0	27,052	0	0	0	27,052
7	0	0	0	0	0	0	0	0
8	0	0	0	3,562	0	0	0	3,562
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
By Type	0	0	0	46,164	5,989	141	0	52,294

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

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.

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9417

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

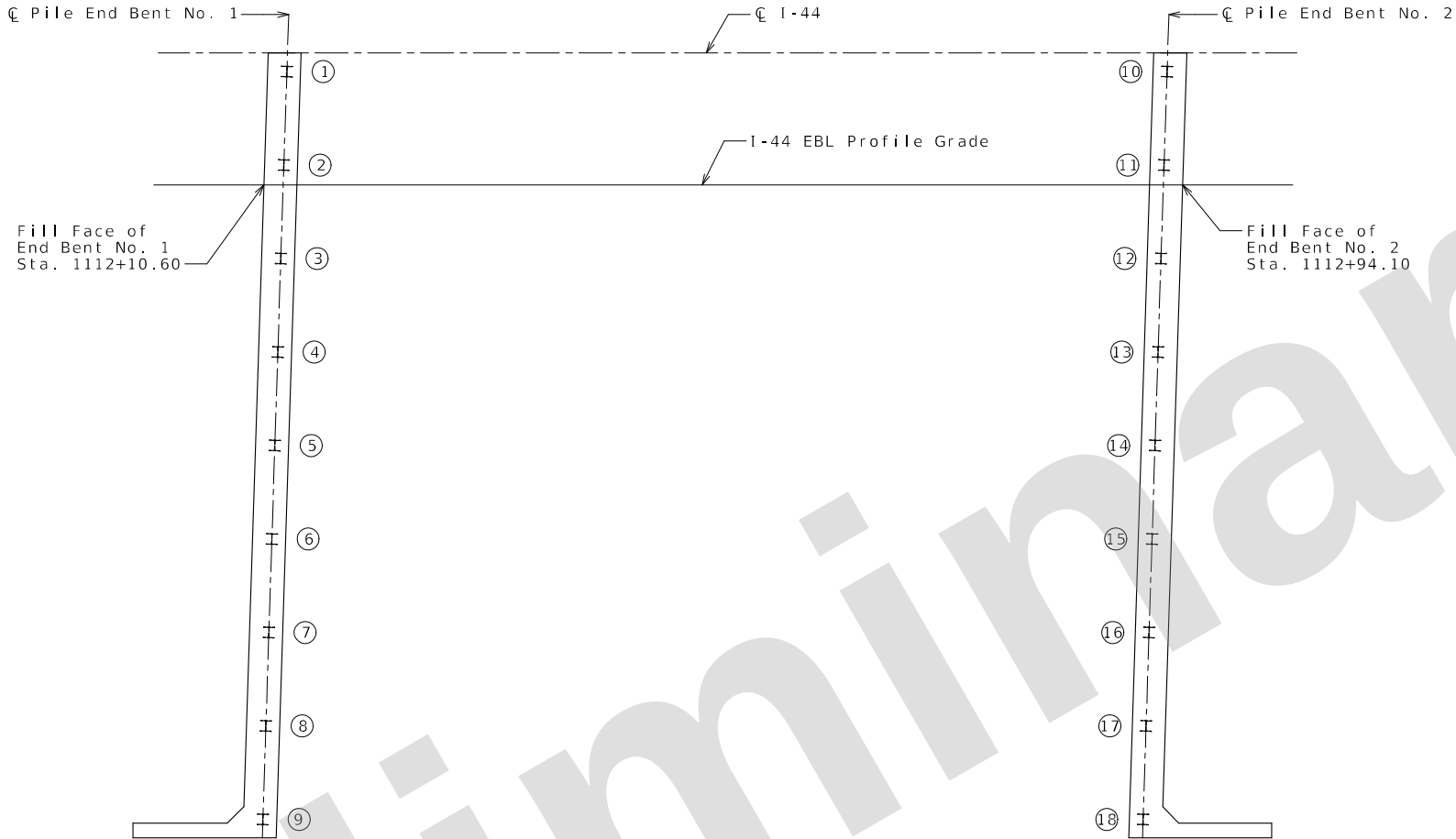
105 WEST CAPITOL
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MoDOT

BURNS & McDONNELL

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

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PART PLAN SHOWING PILE NUMBERING FOR RECORDING AS-BUILT PILE DATA

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 1 (HP 12x53)			
1			
2			
3			
4			
5			
6			
7			
8			
9			

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 2 (HP 12x53)			
10			
11			
12			
13			
14			
15			
16			
17			
18			

Note:
Indicate in remarks column:
A. Pile type and grade
B. Batter
C. Driven to practical refusal

This sheet to be completed by MoDOT construction personnel.

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 27 of 31

AS-BUILT PILE DATA

DATE PREPARED 9/16/2024	
ROUTE I-44	STATE MO
DISTRICT BR	SHEET NO. 27
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9417	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-273-6636)	

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



Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-2
Page 1 of 2

Job No.: 20231075.00 County: Greene Route: I-44
Design: Skew: Location: Springfield, Missouri
Bent: Logged By: SO Operator: LRK
Station: Northing: 516854.8221 Date of Work: 07/20/23-07/20/23
Offset: 6' S Easting: 1408478.5498 Depth to Water:
Elevation: 1258.8 Requested Northing: Depth Hole Open:
Requested Station: Requested Easting: Time Change:
Requested Offset: Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Requested Elevation: Location Note:
Drill No.: Hammer Efficiency: 90% Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-13.0' (CH) Red and brown, fat CLAY 1.0' -with gravel from 1.0 to 5.0 ft.			56	4-7-8 (23)		PP = 2.25 tsf	MC = 26.0%
5			1255		39	2-1-2 (5)		PP = 1.00 tsf	MC = 27.8%
		6.0' -trace sand and gravel from 6.0 to 10.0 ft.			67	6-12-13 (38)		PP = 2.25 tsf	MC = 31.9%
10			1250		0			PP = 1.50 tsf	
					100	2-3-4 (11)		PP = 1.50 tsf	MC = 52.0%
15		13.0-15.2' Weathered LIMESTONE	1245		33	50/0.3'			MC = 12.9%
		15.2-30.5' LIMESTONE, gray, moderately hard to hard, slightly weathered to fresh, fine to coarse crystalline, thin to thick bedded, dense 16.2' -5" core loss	1240		92 (76)		Qu Test Results UCS = 1390 ksf		
20					100 (82)		Qu Test Results UCS = 1110 ksf		
25		21.5' -cherty from 21.5 to 23.0 ft.	1235						

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual
Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.



Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-2
Page 2 of 2

Job No.: 20231075.00 County: Greene Route: I-44
Design: Skew: Location: Springfield, Missouri
Bent: Logged By: SO Operator: LRK
Station: Northing: 516854.8221 Date of Work: 07/20/23-07/20/23
Offset: 6' S Easting: 1408478.5498 Depth to Water:
Elevation: 1258.8 Requested Northing: Depth Hole Open:
Requested Station: Requested Easting: Time Change:
Requested Offset: Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Requested Elevation: Location Note:
Drill No.: Hammer Efficiency: 90% Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		15.2-30.5' LIMESTONE, gray, moderately hard to hard, slightly weathered to fresh, fine to coarse crystalline, thin to thick bedded, dense (continued)			100 (100)			Qu Test Results UCS = 1530 ksf	
30		Refusal at 15.2 feet. Bottom of borehole at 30.5 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual
Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

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Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 28 of 31

BORING DATA



Job No.: 20231075.00

Design: _____

Bent: _____

Station: _____

Offset: _____

Elevation: 1259.2

Requested Station: _____

Requested Offset: _____

Requested Elevation: _____

Drill No.: _____

Missouri Department of Transportation
Construction and Materials

County: Greene

Skew: _____

Logged By: SO

Northing: 516791.0587

Easting: 1408472.847

Requested Northing: _____

Requested Easting: _____

Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube

Location Note: _____

Hammer Efficiency: 90%

Route: I-44

Location: Springfield, Missouri

Operator: LRK

Date of Work: 07/24/23-07/24/23

Depth to Water: _____

Depth Hole Open: _____

Time Change: _____

Drilling Method: HSA

BORING NO. G-B-3
Page 1 of 2

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-18.8' (CH) Red and brown, fat CLAY, with gravel			83	50		PP >4.50 tsf	MC = 18.1%
5		6.0' -red below 6.0 ft.	1255		100		Qu Test Results MC = 38.0% γ _{moist} = 105.7 pcf	PP = 2.50 tsf	LL = 92 PL = 28
10			1250		100	4-5-10 (23)		PP = 2.50 tsf	MC = 48.0%
15			1245		100	5-23-6 (44)		PP = 2.00 tsf	MC = 44.2%
20		18.8-20.0' Weathered LIMESTONE	1240		100	50/0.3'		PP = 1.50 tsf	MC = 47.9%
25		20.0-30.0' LIMESTONE, gray, moderately hard to hard, slightly weathered, fine to coarse crystalline, thin to thick bedded, dense 22.0' -cherty from 22.0 to 23.0 ft.	1235		100 (84)		Qu Test Results UCS = 944 ksf		

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976

Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

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Job No.: 20231075.00

Design: _____

Bent: _____

Station: _____

Offset: _____

Elevation: 1259.2

Requested Station: _____

Requested Offset: _____

Requested Elevation: _____

Drill No.: _____

Missouri Department of Transportation
Construction and Materials

County: Greene

Skew: _____

Logged By: SO

Northing: 516791.0587

Easting: 1408472.847

Requested Northing: _____

Requested Easting: _____

Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube

Location Note: _____

Hammer Efficiency: 90%

Route: I-44

Location: Springfield, Missouri

Operator: LRK

Date of Work: 07/24/23-07/24/23

Depth to Water: _____

Depth Hole Open: _____

Time Change: _____

Drilling Method: HSA

BORING NO. G-B-3
Page 2 of 2

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		20.0-30.0' LIMESTONE, gray, moderately hard to hard, slightly weathered, fine to coarse crystalline, thin to thick bedded, dense (continued)			100 (95)		Qu Test Results UCS = 1340 ksf		
30		30.0-35.0' LIMESTONE, gray, moderately hard to hard, slightly weathered, aphanitic to finely crystalline, thin to thick bedded, dense to pitted	1230		100 (96)		Qu Test Results UCS = 1660 ksf		
35		Refusal at 20.0 feet. Bottom of borehole at 35.0 feet.	1225						

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976

Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

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Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 29 of 31

BORING DATA

c:\bmcd_lib\pw_connect\trn\d0171012\B_A9417_029_JSU0076.dgn 1:31:28 PM 9/16/2024

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165



BMcD Project No. 146617

BRIDGE NO.
A9417

CONTRACT ID.

JOB NO.
JSU0076

COUNTY
GREENE

DISTRICT
BR

ROUTE
I - 44

STATE
MO

DATE PREPARED
9/16/2024

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Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-5
Page 1 of 2

Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: 6' N
Elevation: 1258.6
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
County: Greene
Skew: _____
Logged By: SO
Northing: 516858.1379
Easting: 1408540.4977
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____
Route: I-44
Location: Springfield, Missouri
Operator: LRK
Date of Work: 07/20/23-07/20/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Drill No.: _____
Hammer Efficiency: 90%
Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-10.5' (CH) Red and brown, fat CLAY, with gravel							
				X	83	7-10-6 (24)		PP = 4.50 tsf	MC = 26.5%
			1255	X	39	7-10-15 (38)		PP = 1.50 tsf	MC = 16.9%
5					100		Qu Test Results MC = 34.8% γ _{moist} = 88.6 pcf	PP = 2.50 tsf	
			1250	X	94	4-10-50 (90)		PP = 2.50 tsf	MC = 42.4%
10		10.5-16.0' LIMESTONE, gray, moderately hard to hard, slightly weathered to fresh, fine to coarse crystalline, thin to thick bedded, dense to pitted					Qu Test Results UCS = 1270 ksf		
			1245		83 (75)				
15		16.0-20.0' Core loss							
			1240		18 (7)				
20		20.0-30.5' LIMESTONE, gray, moderately hard to hard, slightly weathered to fresh, fine to coarse crystalline, thin to thick bedded, dense to pitted					Qu Test Results UCS = 1290 ksf		
			1235		100 (90)				
25									

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983
Coordinate Datum: NAD 83 (CONUS)
Coordinate Zone: Missouri Central
Coordinate Units: U.S. Survey Feet
Coordinate Proj. Factor: 1.0000701976

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Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-5
Page 2 of 2

Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: 6' N
Elevation: 1258.6
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
County: Greene
Skew: _____
Logged By: SO
Northing: 516858.1379
Easting: 1408540.4977
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____
Route: I-44
Location: Springfield, Missouri
Operator: LRK
Date of Work: 07/20/23-07/20/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Drill No.: _____
Hammer Efficiency: 90%
Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		20.0-30.5' LIMESTONE, gray, moderately hard to hard, slightly weathered to fresh, fine to coarse crystalline, thin to thick bedded, dense to pitted (continued)							
			1230		100 (97)		Qu Test Results UCS = 1210 ksf		
30		Refusal at 10.5 feet. Bottom of borehole at 30.5 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983
Coordinate Datum: NAD 83 (CONUS)
Coordinate Zone: Missouri Central
Coordinate Units: U.S. Survey Feet
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Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 30 of 31

BORING DATA

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165



BMcD Project No. 146617

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

DATE PREPARED
9/16/2024
ROUTE
I - 44
STATE
MO
DISTRICT
BR
SHEET NO.
30
COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9417

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



Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-6
Page 1 of 2

Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: _____
Elevation: 1258.5
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
County: Greene
Skew: _____
Logged By: SO
Northing: 516792.3959
Easting: 1408538.0076
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____
Route: I-44
Location: Springfield, Missouri
Operator: LRK
Date of Work: 07/25/23-07/25/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Hammer Efficiency: 90%
Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-5.5' (CH) Red and brown, fat CLAY, with gravel							
			1255		44	11-8-8 (24)		PP = 2.25 tsf	MC = 23.5%
5					44	7-8-11 (29)		PP = 2.25 tsf	MC = 28.0%
		5.5-12.0' (CL) Red and gray, lean CLAY, trace gravel			78	2-2-2 (6)		PP <0.50 tsf	MC = 21.8%
			1250		50			PP <0.50 tsf	MC = 32.1%
10									
		12.0-20.5' (CH) Red, fat CLAY			100	3-3-4 (11)		PP = 1.50 tsf	MC = 53.4%
15			1245						
		18.5' -trace gravel below 18.5 ft.			50	4-3-3 (9)		PP = 1.00 tsf	MC = 54.2%
20			1240						
		20.5-30.0' LIMESTONE, gray, moderately hard to hard, fresh to slightly weathered, thin to thick bedded, aphanitic to finely crystalline, dense			100 (91)		Qu Test Results UCS = 1120 ksf		
25			1235						

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983
Coordinate Datum: NAD 83 (CONUS)
Coordinate Zone: Missouri Central
Coordinate Units: U.S. Survey Feet
Coordinate Proj. Factor: 1.0000701976

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Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-6
Page 2 of 2

Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: _____
Elevation: 1258.5
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
County: Greene
Skew: _____
Logged By: SO
Northing: 516792.3959
Easting: 1408538.0076
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____
Route: I-44
Location: Springfield, Missouri
Operator: LRK
Date of Work: 07/25/23-07/25/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Hammer Efficiency: 90%
Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		20.5-30.0' LIMESTONE, gray, moderately hard to hard, fresh to slightly weathered, thin to thick bedded, aphanitic to finely crystalline, dense (continued) 25.0' -aphanitic to coarsely crystalline below 25.0 ft.			100 (95)		Qu Test Results UCS = 1290 ksf		
			1230						
30		30.0-35.0' LIMESTONE, gray, moderately hard to hard, fresh to slightly weathered, medium to thick bedded, aphanitic to finely crystalline, dense			100 (95)		Qu Test Results UCS = 1140 ksf		
			1225						
35		Refusal at 20.5 feet. Bottom of borehole at 35.0 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983
Coordinate Datum: NAD 83 (CONUS)
Coordinate Zone: Missouri Central
Coordinate Units: U.S. Survey Feet
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Detailed: May 2024
Checked: Jun. 2024

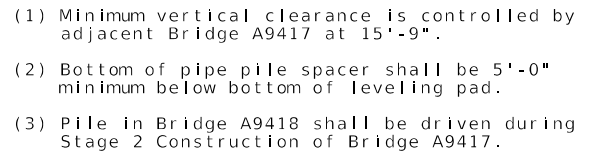
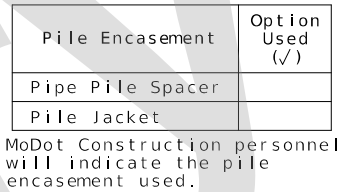
Note: This drawing is not to scale. Follow dimensions.

Note: For locations of borings, see Sheet No. 1.

Sheet No. 31 of 31

BORING DATA

SEC / SUR	2	TWP	29N	RGE	22W
-----------	---	-----	-----	-----	-----



- NOTES:
-  Indicates location of borings.
- For notice and disclaimer regarding boring log data, see Sheet No. 2.
- Roadway fill, exclusive of Select Granular Backfill for Structural Systems, shall be completed to the final roadway section and up to the elevation of the bottom of the concrete beam within the limits of the structure and for not less than 25 feet in back of the fill face of the end bents before any piles are driven for any bents falling within the embankment section.
- C.P. #518 - 5/8" I.B. w/ 2" Aluminum Cap
Sta. 1106+18.78, 110.87' Lt. of C-1-44
Elev. 1277.59
- C.P. #519 - 5/8" I.B. w/ 2" Aluminum Cap
Sta. 1122+80.16, 92.35' Lt. of C-1-44
Elev. 1270.58

BRIDGE: RTE. I-44 WBL OVER GRANT AVE.
ROUTE I-44 WBL FROM ROUTE H TO ROUTE 13
ABOUT 1.9 MILES WEST OF ROUTE H
BEGINNING STATION 1112+11.37

[illegible]

REV.	BRICD PROJ/ECT NO. 146617	1-000-PGR-M0001 (1-000-ZJ-0000)	IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.									
------	---------------------------	---------------------------------	---	--	--	--	--	--	--	--	--	--

GENERAL NOTES:

DESIGN SPECIFICATIONS:

2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
Operational Importance = Essential
2011 AASHTO Guide Specifications for LRFD Seismic Bridge Design (2nd Ed.)
and 2014 Interim Revisions (Seismic)
Seismic Design Category = A
Design earthquake response spectral acceleration coefficient at 1.0 second
period, $S_{D1} = 0.104g$
Acceleration Coefficient (effective peak ground acceleration coefficient), $A_5 = 0.089g$

DESIGN LOADING:

Vehicular = HL-93
Future Wearing Surface = 35 lb/sf
Earth = 120 lb/cf
Equivalent Fluid Pressure = 45 lb/cf (Min.)
Superstructure: Non-composite for dead load.
Composite for live load.

DESIGN UNIT STRESSES:

Class B Concrete (Substructure) $f'c = 3,000$ psi
Class B-1 Concrete (Type D Barrier) $f'c = 4,000$ psi
Class B-2 Concrete (Superstructure, except
Prestressed Girders and Type D Barrier) $f'c = 4,000$ psi
Reinforcing Steel (Grade 60) $f_y = 60,000$ psi
Structural Steel HP Pile (ASTM A709 Grade 50S) $f_y = 50,000$ psi
For precast prestressed panel stresses, see Sheet No. 18.
For prestressed girder stresses, see Sheets No. 16 thru 17.

NEOPRENE PADS:

Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

JOINT FILLER:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber
expansion and partition joint filler, except as noted.

REINFORCING STEEL:

Minimum clearance to reinforcing steel shall be $1\frac{1}{2}"$, unless otherwise shown.

TRAFFIC HANDLING:

Vertical clearance for Grant Avenue traffic during construction shall be 14'-6" minimum
over a 12'-0" wide horizontal opening of the roadway in each direction.

Traffic to be maintained on structures during construction. See roadway plans for traffic
control and Sheets No. 3 thru 4 for staged construction details.

MISCELLANEOUS:

MoDOT Construction personnel will indicate the type of joint filler option used under the
precast panels for this structure:

- ☐ Constant Joint Filler
☐ Variable Joint Filler

NOTICE AND DISCLAIMER REGARDING BORING LOG DATA:

The locations of all subsurface borings for this structure are shown on the plan sheets
for this structure. The boring data for all locations indicated, as well as any other
boring logs or other factual records of subsurface data and investigations performed by
the department for the design of the project, are shown on Sheets No. 28 thru 32 and may
be included in the Electronic Bridge Deliverables. They will also be available from the
Project Contact upon written request. No greater significance or weight should be given to
the boring data depicted on the plan sheets than is given to the subsurface data
available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts
the conditions to be encountered in constructing this project. A contractor assumes all
risks it may encounter in basing its bid prices, time or schedule of performance on the
boring data depicted here or those available from the district, or on any other
documentation not expressly warranted, which the contractor may obtain from the
Commission.

Foundation Data			
Type	Design Data	Bent Number	
		1	2
Load Bearing Pile	Pile Type and Size	HP 12x53	HP 12x53
	Number	9	9
	Approximate Length Per Each	ft 30	34
	Pile Point Reinforcement	ea All	All
	Min. Galvanized Penetration (Elev.)	ft Full Length	Full Length
	Pile Driving Verification Method	DF	DF
	Resistance Factor	0.40	0.40
	Minimum Nominal Axial Compressive Resistance	kip 590	590

DF = FHWA - modified Gates Dynamic Pile Formula.

Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resistance Factor}}$

Manufactured pile point reinforcement shall be used on all piles in this structure.

Pile point reinforcement need not be galvanized. Shop drawings will not be required for
pile point reinforcement.

Prebore for piles at Bents No. 1 and 2 to elevation 1245.5.

HP piles are anticipated to be driven to refusal on rock. Review all borings for depth of
rock and restrict driving as appropriate to comply with hard rock driving criteria in
accordance with Sec 702. When pile refusal on rock occurs, as approved by the engineer,
the minimum nominal axial compressive resistance is verified and no additional pile
driving verification method is required.

The contractor shall make every effort to achieve the minimum galvanized penetration
(elevation) shown on the plans for all piles.

Estimated Quantities				
Item	Substr.	Superstr.	Total	
Removal of Bridges (A04453)	Lump sum		1	
Bridge Approach Slab (Major)	sq. yard		314	
Galvanized Structural Steel Piles (12 in.)	linear foot		566	
Pre-Bore for Piling	linear foot		198	
Pile Point Reinforcement	each		18	
Class B Concrete (Substructure)	cu. yard		58.0	
Type D Barrier	linear foot		226	
Slab on Concrete NU-Girder	sq. yard		648	
NU 35, Prestressed Concrete NU-Girder	linear foot		647	
Vertical Drain at End Bents	each		2	
Plain Neoprene Bearing Pad	each		8	
Laminated Neoprene Bearing Pad (Tapered)	each		8	
Pile Spacers	each		18	

All concrete above the construction joint in the end bents is included in the Estimated
Quantities for Slab on Concrete NU-Girder.

All reinforcement in the end bents is included in the Estimated Quantities for Slab on
Concrete NU-Girder.

Estimated Quantities for Slab on Concrete NU-Girder		
Item		Total
Class B-2 Concrete	cu. yard	201
Reinforcing Steel (Epoxy Coated)	pound	43,110

The table of Estimated Quantities for Slab on Concrete NU-Girder represents the quantities
used by the State in preparing the cost estimate for concrete slabs. The area of the
concrete slab will be measured to the nearest square yard longitudinally from end of slab
to end of slab and transversely from out to out of bridge slab (or with the horizontal
dimensions as shown on the plan of slab). Payment for prestressed panels, conventional
forms, all concrete and epoxy coated reinforcing steel will be considered completely
covered by the contract unit price for the slab. Variations may be encountered in the
estimated quantities but the variations cannot be used for an adjustment in the contract
unit price.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703.
All hardware for forming the slab to be left in place as a permanent part of the structure
shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and
a finish type I, II or III.

PRECAST PRESTRESSED PANELS:

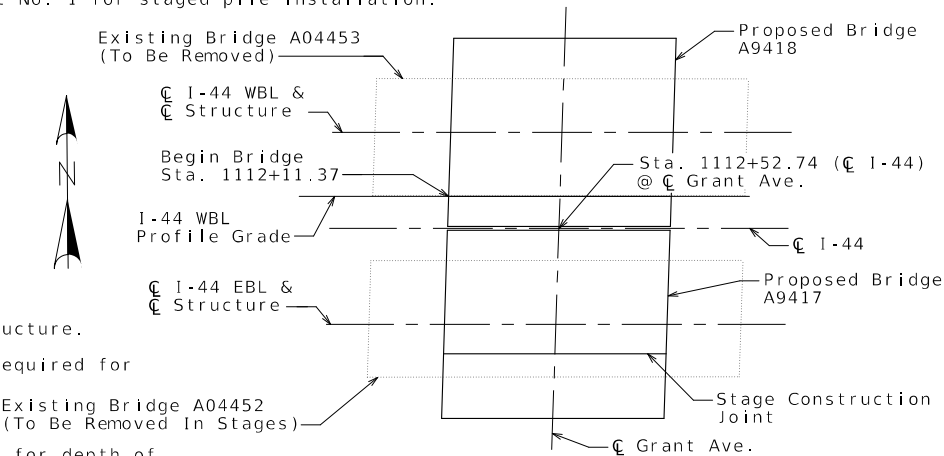
The Estimated Quantities for Slab on Concrete NU-Girder are based on skewed precast
prestressed end panels.

Class B-2 Concrete quantity is based on minimum top flange and minimum joint material
thickness.

The prestressed panel quantities are not included in the table of Estimated Quantities
for Slab on Concrete NU-Girder.

STAGED CONSTRUCTION:

See General Plan and Elevation Sheet No. 1 for staged pile installation.

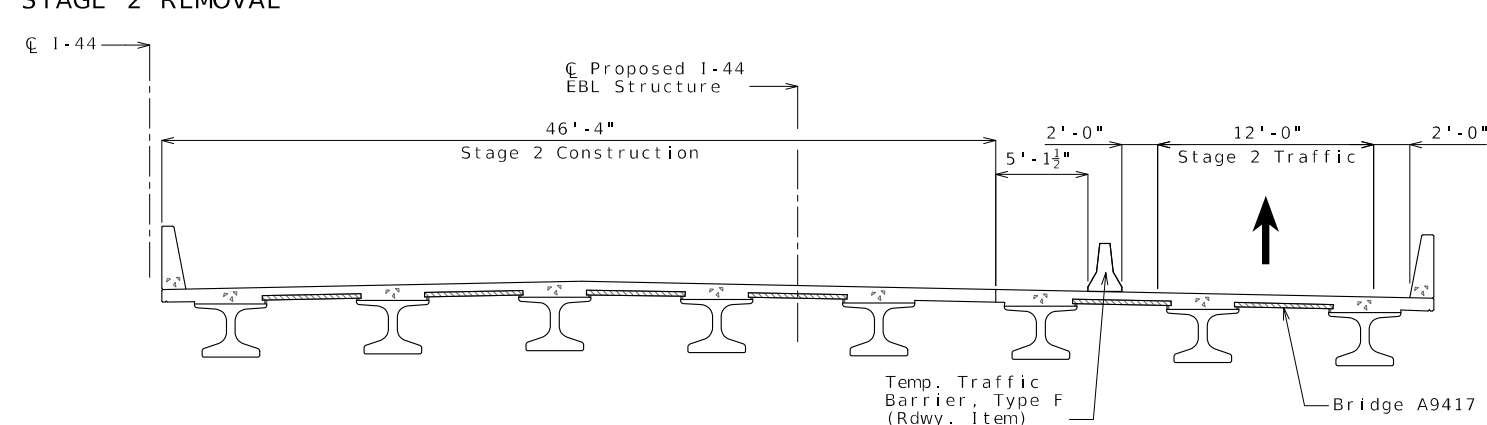
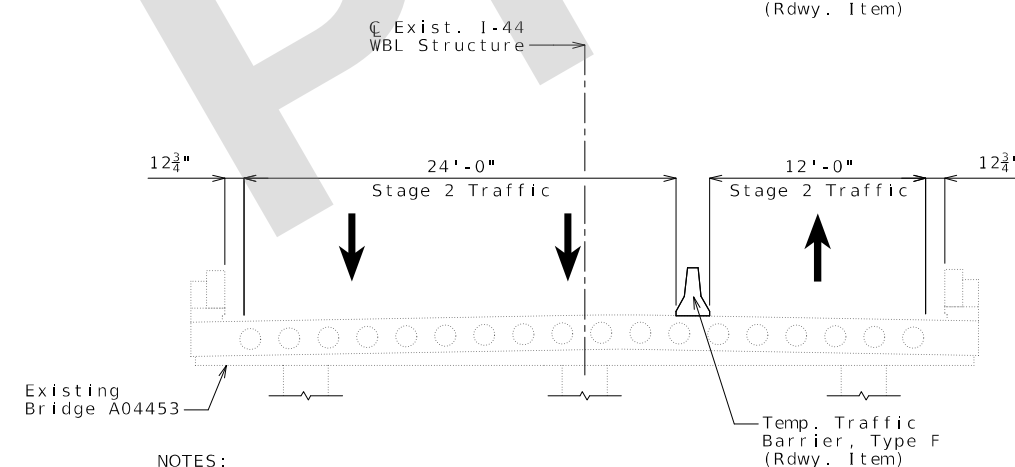
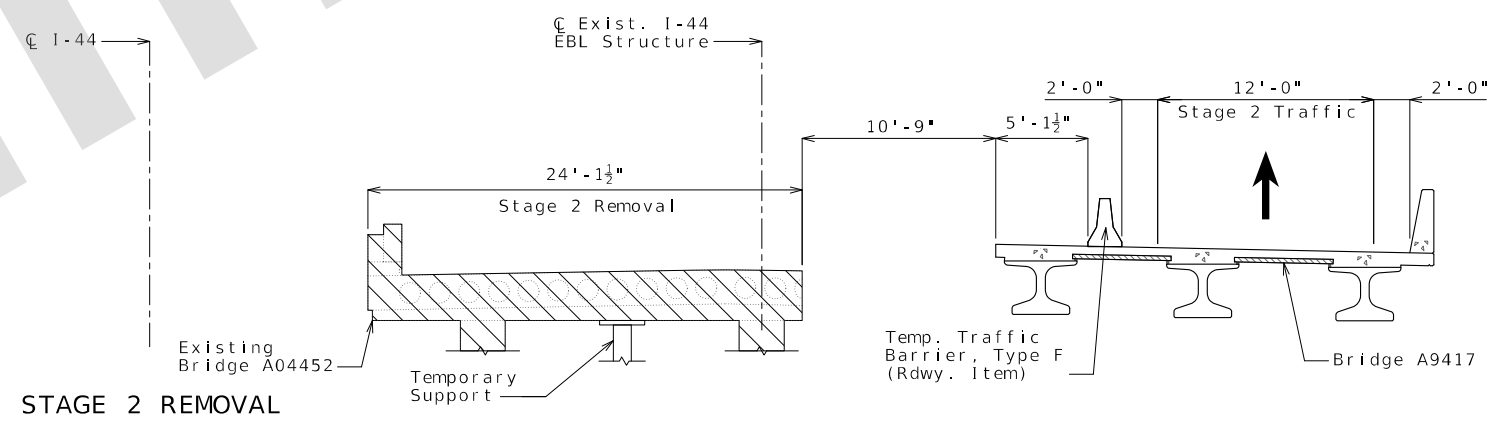
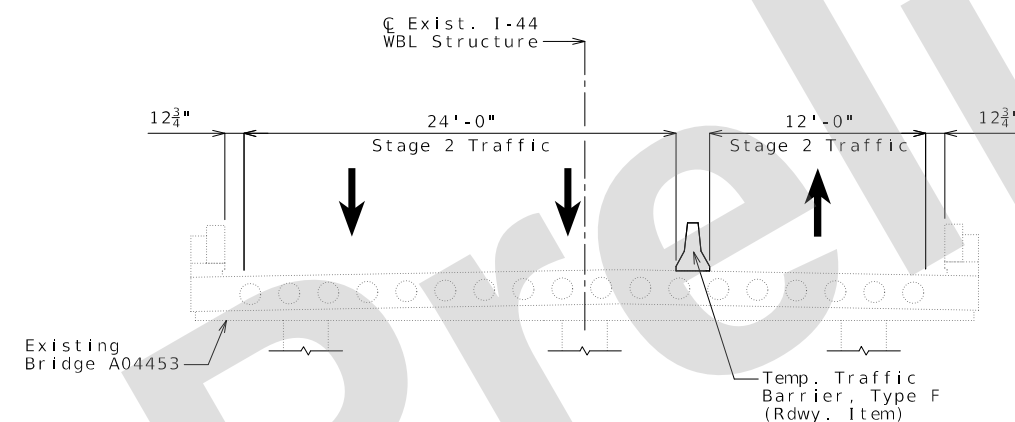
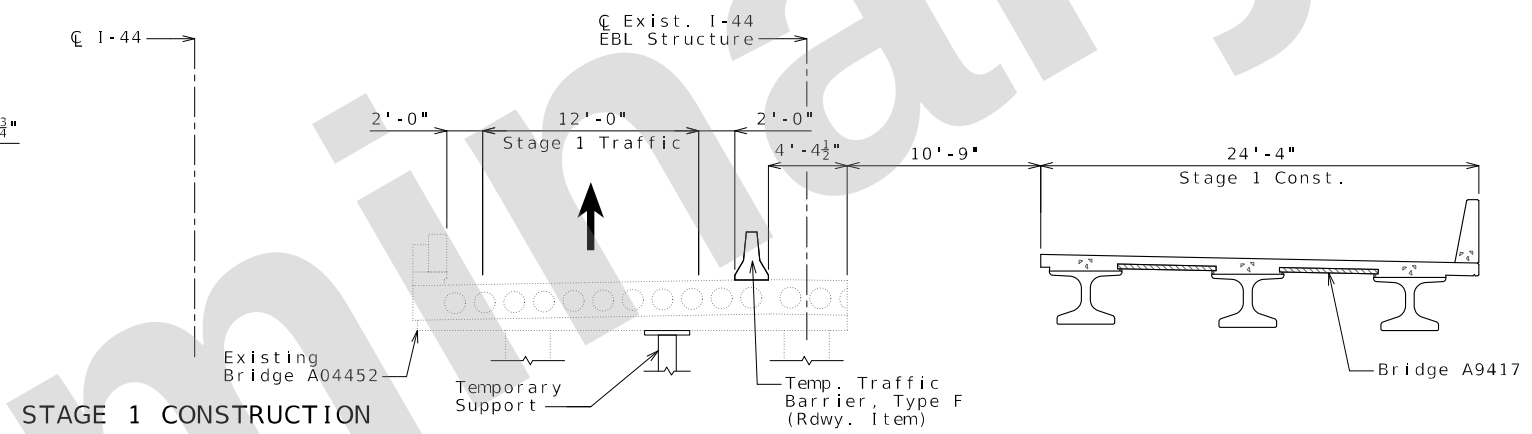
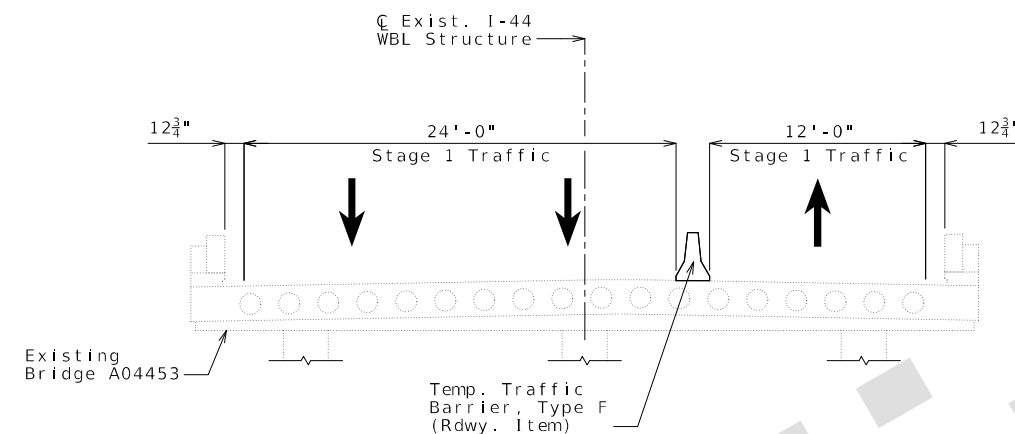
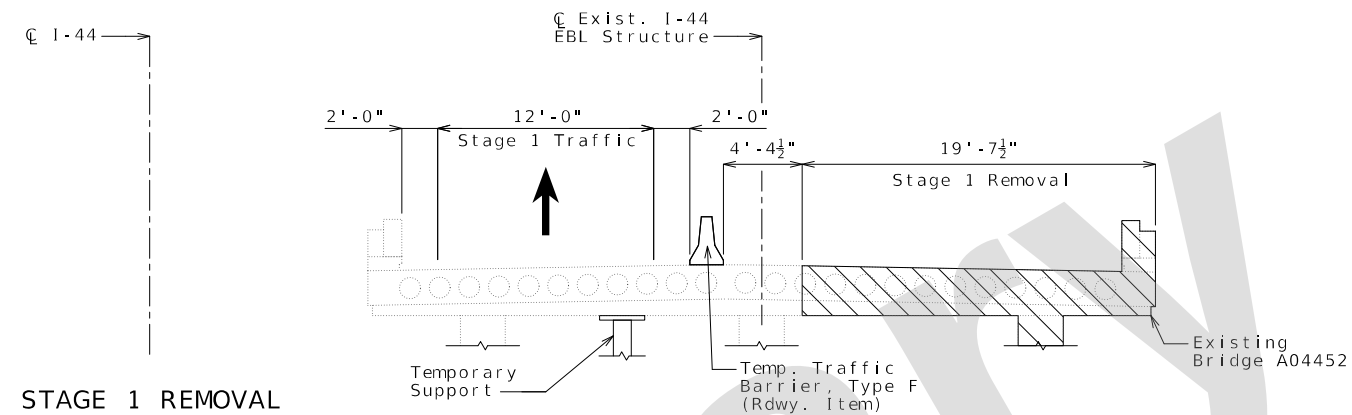
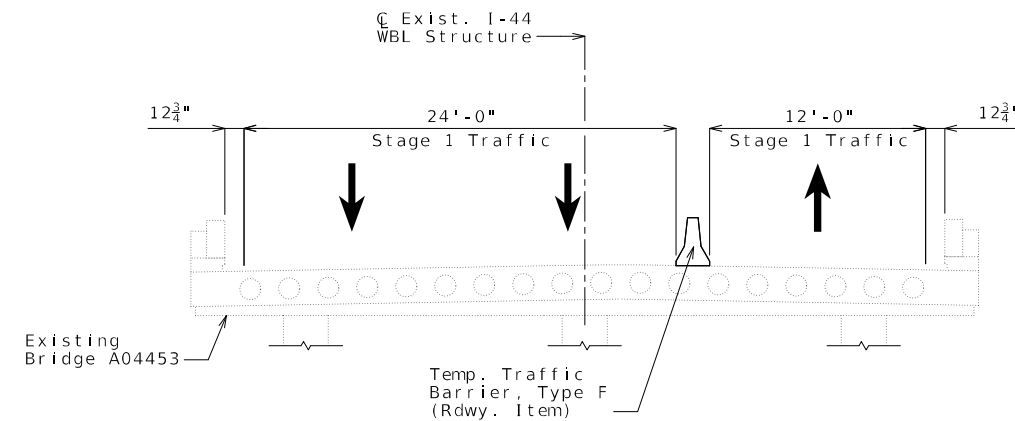


GENERAL NOTES & QUANTITIES

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 2 of 32



NOTES :

All typical sections are looking east.

Hatched area indicates removal of existing structures.

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

Sheet No. 3 of 32

STAGED CONSTRUCTION

DATE PREPARED	
9/16/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
BR	3

COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

	PROJECT NO.
	BRIDGE NO. A9418

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

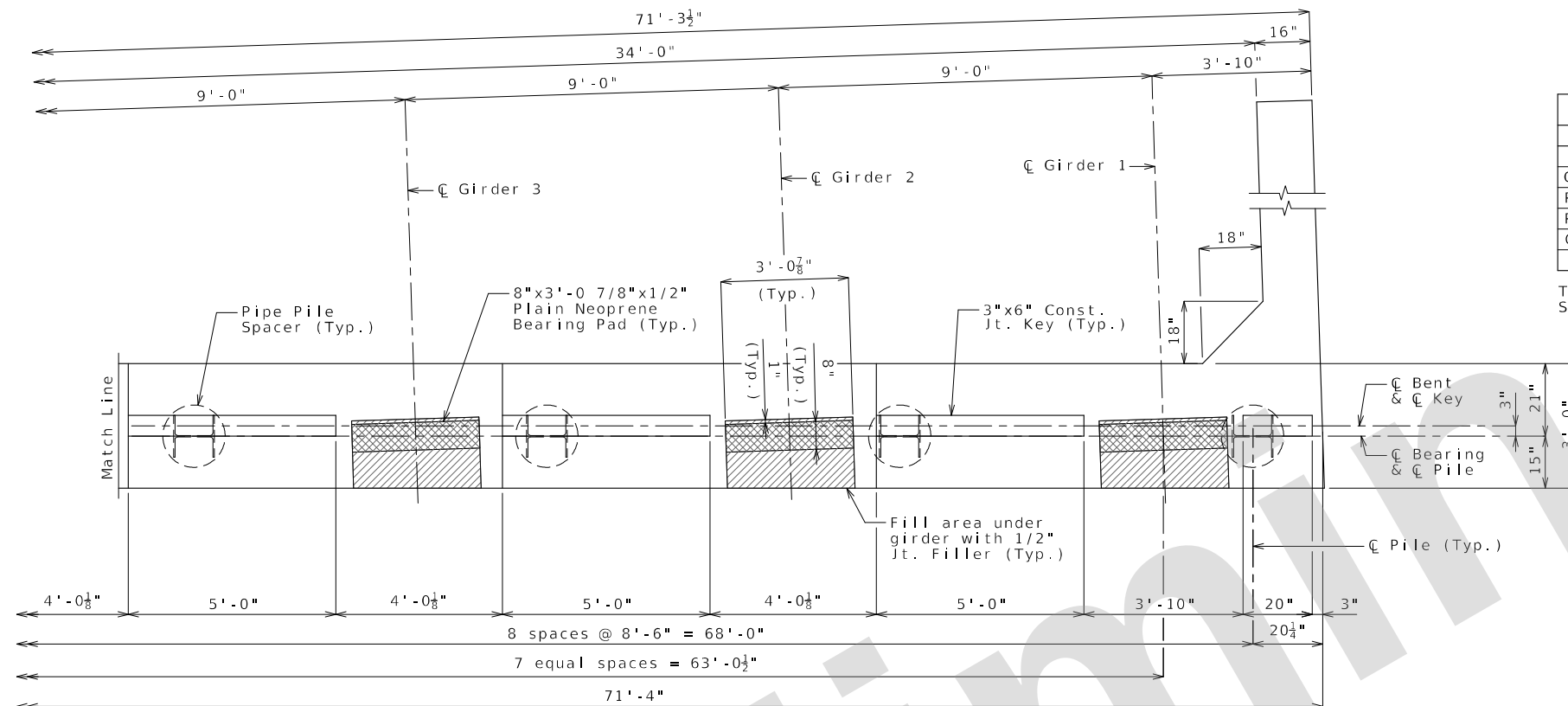
Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
316-333-9400

Certificate of Authority
No. : 000165

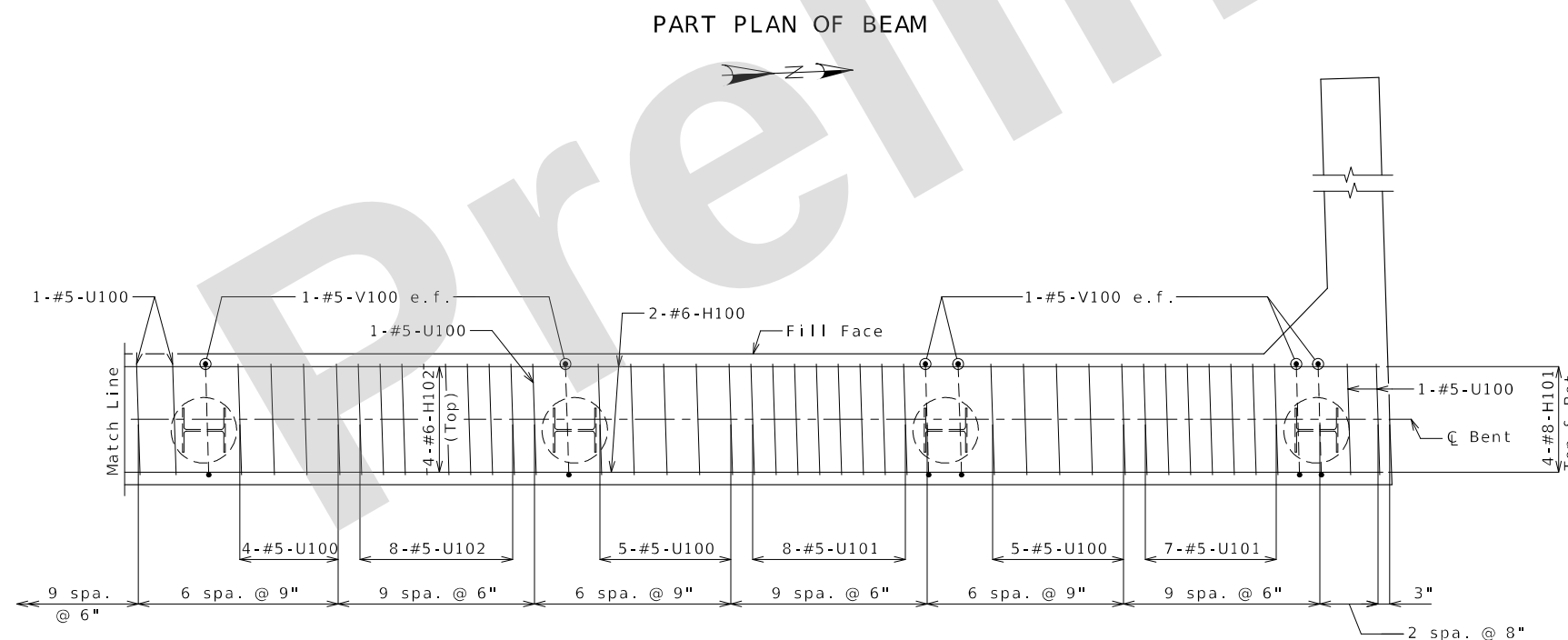
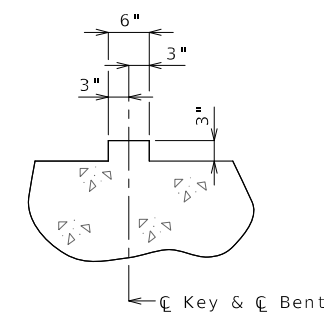
3McD Project No. 146617

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



Substructure Quantity Table for End Bent No. 1		
Item		Quantity
Galvanized Structural Steel Piles (12 in.)	linear foot	264
Pre-Bore for Piling	linear foot	99
Pile Point Reinforcement	each	9
Class B Concrete (Substructure)	cu. yard	29.0

These quantities are included in the Estimated Quantities table on Sheet No. 2.



NOTES:

Work this sheet with Sheets No. 6 thru 9.

All U bars and pairs of V bars shall be placed parallel to centerline of roadway.

Reinforcing steel shall be shifted to clear piles.
U bars shall clear piles by at least 1 1/2 inches.

e.f. denotes each face.

END BENT NO. 1
BEAM DETAILS 1 OF 2

DATE PREPARED	
9/16/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
BR	5
COUNTY	
GREENE	
JOB NO.	
JSU0076	
CONTRACT ID.	

PROJECT NO.	
BRIDGE NO.	
A9418	

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DATE



MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

**BURNS
MEDONNELL**
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMCd Project No. 146617

Detailed: May 2024
Checked: Jun. 2024

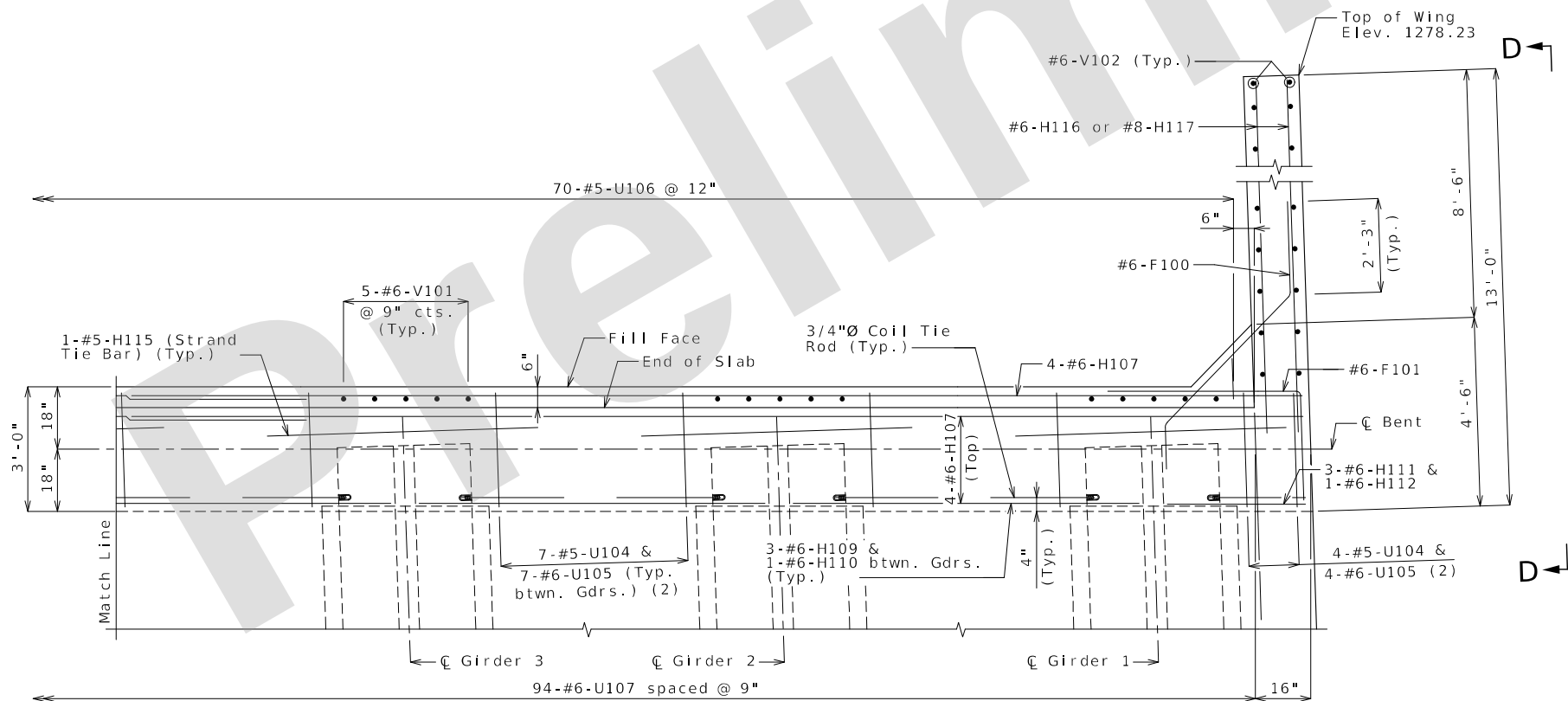
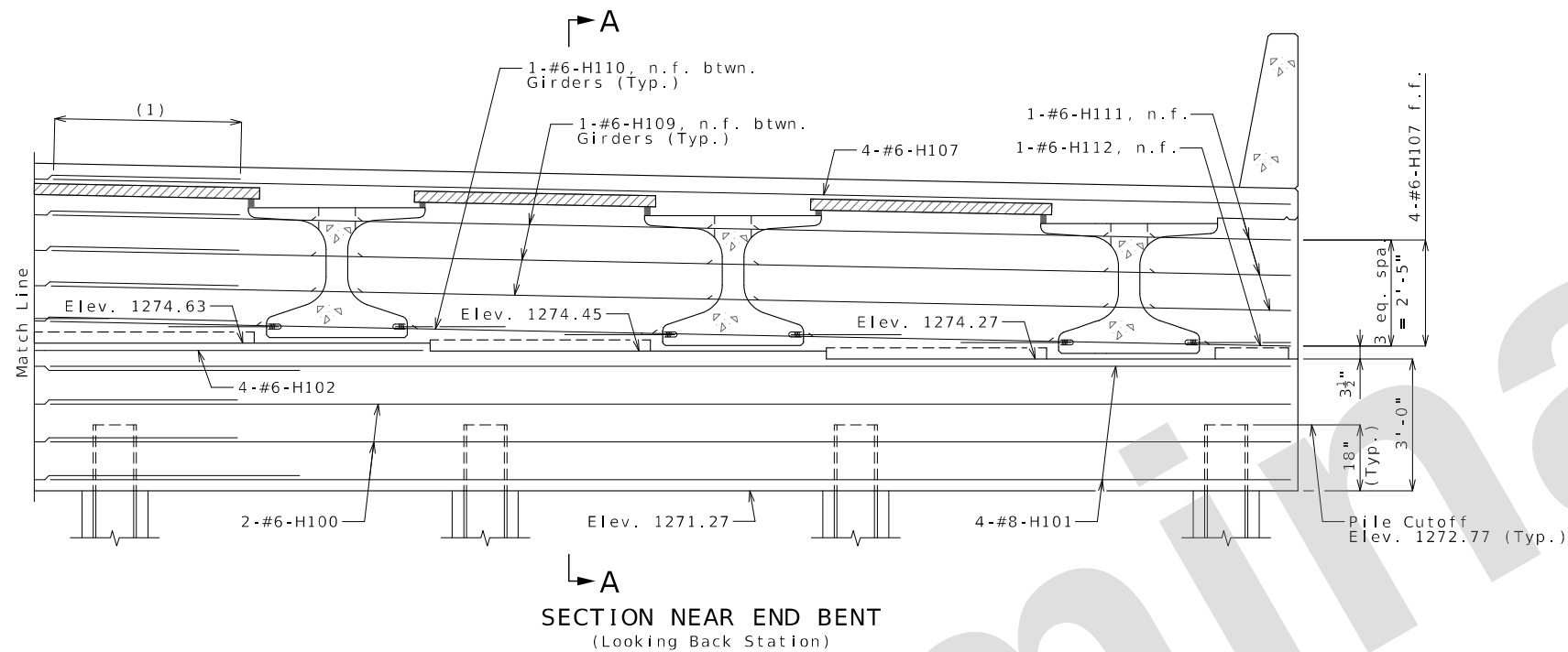
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 5 of 32

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

REV.



NOTES:

Work this sheet with Sheets No. 5, 6, 8 and 9.
For Section A-A see Sheet No. 9.

The #6-F100 shall be bent in the field to clear girders.

The U bars shall be placed parallel to centerline of roadway.

All concrete in the end bent above top of beam and below top of slab shall be Class B-2.

Strands at end of girders shall be field bent or, if necessary, cut in field to maintain 1 1/2 inch minimum clearance to fill face of end bent.

For location of coil tie rods and #5-H115, see Sheets No. 16 and 17.

For details of vertical drain at end bents, see Sheet No. 10.

For details of bridge approach slab, see Sheet No. 24.

f.f. denotes far face
n.f. denotes near face

(1) Minimum Lap #6 Bars = 4'-3"
Minimum Lap #8 Bars = 5'-8"

END BENT NO. 1
DIAPHRAGM DETAILS 1 of 2

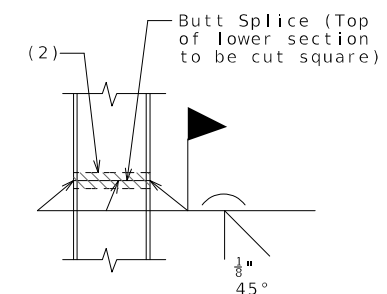
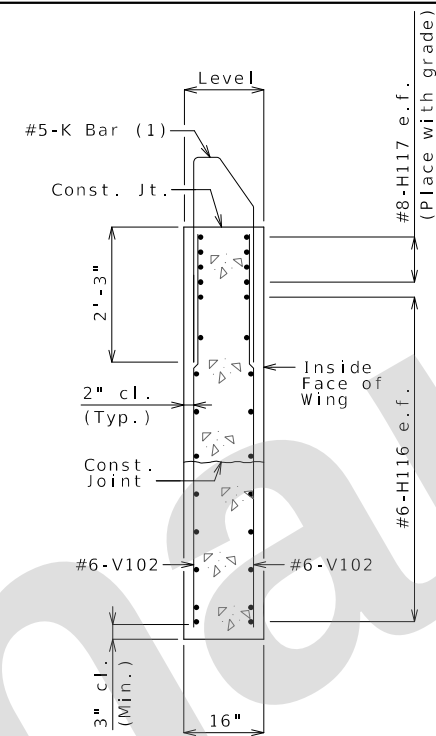
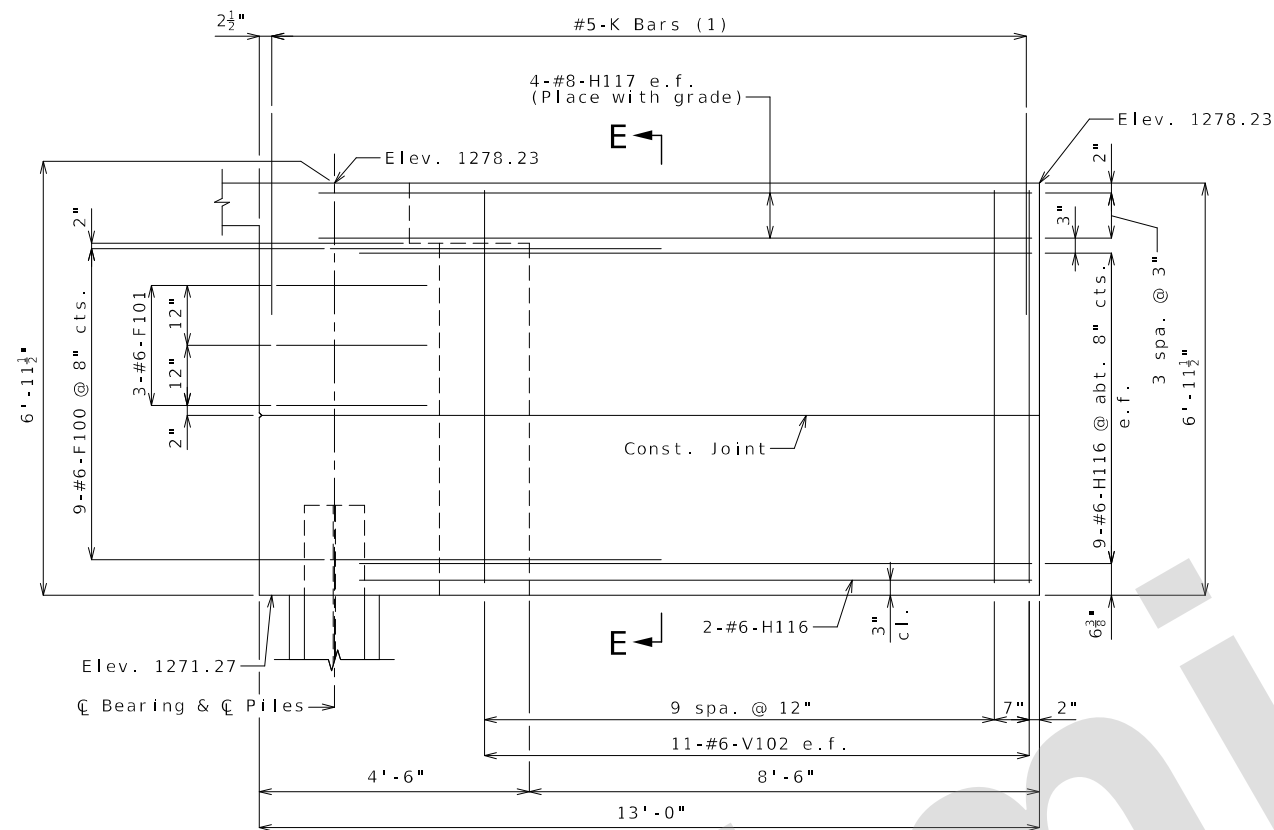
Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 7 of 32

DATE PREPARED 9/16/2024	
ROUTE 1-44	STATE MO
DISTRICT BR	SHEET NO. 7
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9418	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-273-6636)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400	Certificate of Authority No. : 000165 BMcD Project No. 146617

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

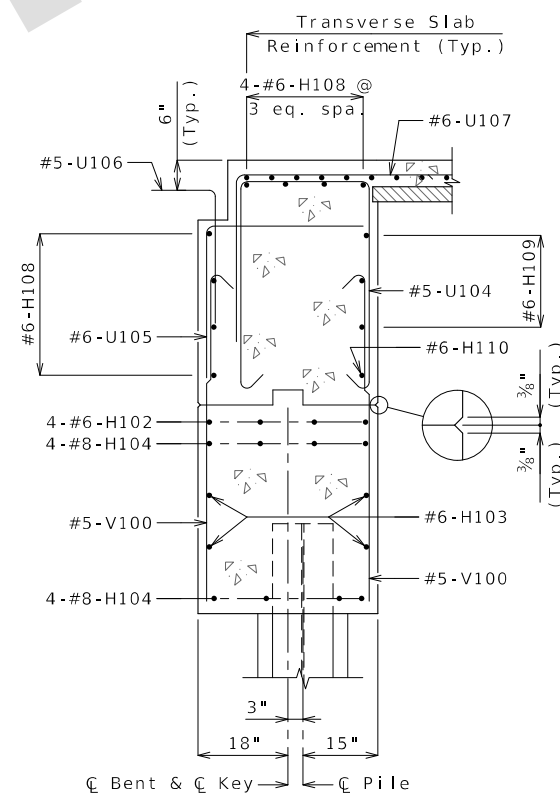
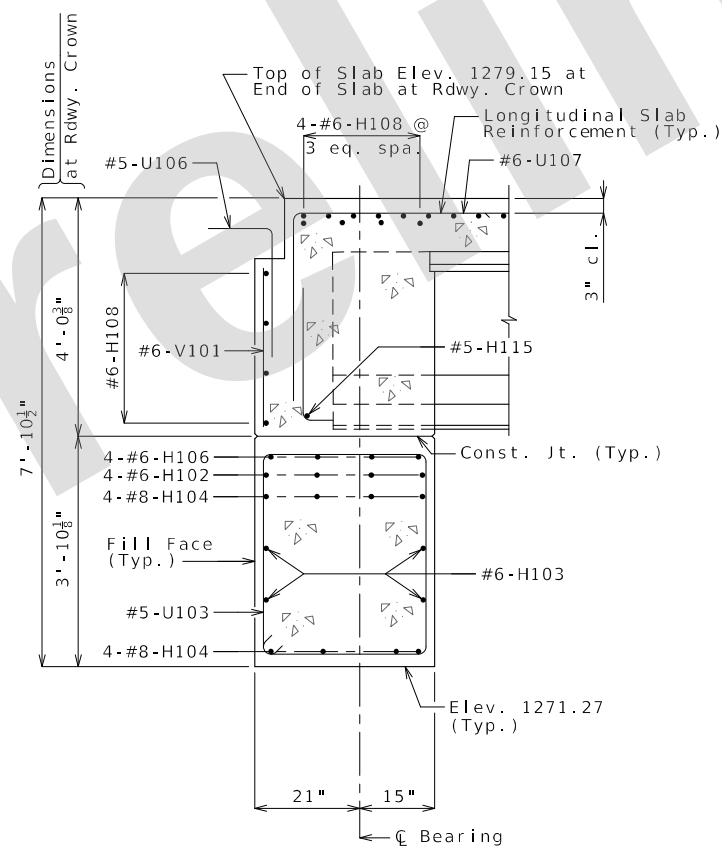
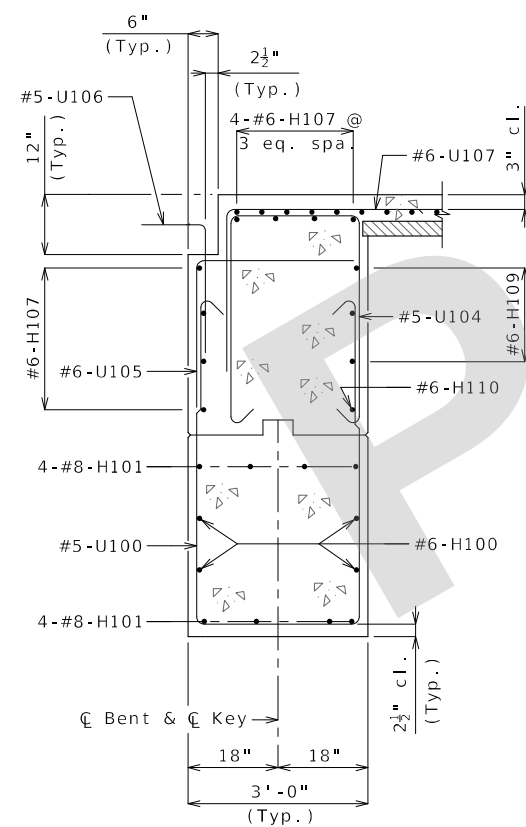


STEEL PILE SPLICE
(If required)

(2) Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.

NOTES :

- (1) For reinforcement of the Type D Barrier at End Bent, see Sheet No. 23.
- e.f. denotes each face.
- For details of bridge approach slab, see Sheet No. 24.
- Work this sheet with Sheets No. 5 thru 8.



SECTION A-A

SECTION B-B

SECTION C-C

END BENT NO. 1
WING DETAILS & SECTIONS

Detailed: May 2024
Checked: Jun. 2024

Checked: Jun. 2024

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

Sheet No. 9 of 32

DATE PREPARED	
9/16/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
BR	9

COUNTY	
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GREENE	svh
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JOB NO.
15110076

1500076	
CONTRACT ID.	

338

PROJECT NO.	5
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116

BRIDGE NO.
A 0 4 1 0

A9418								ZC

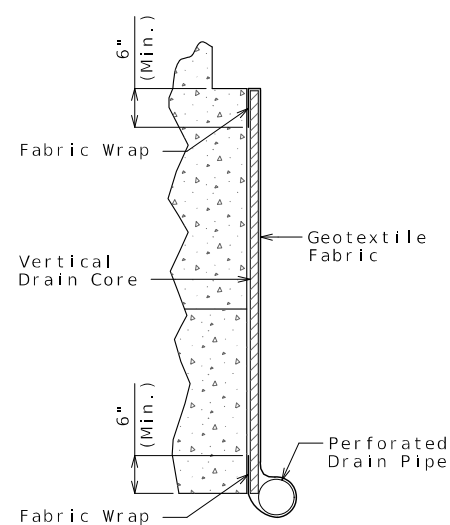
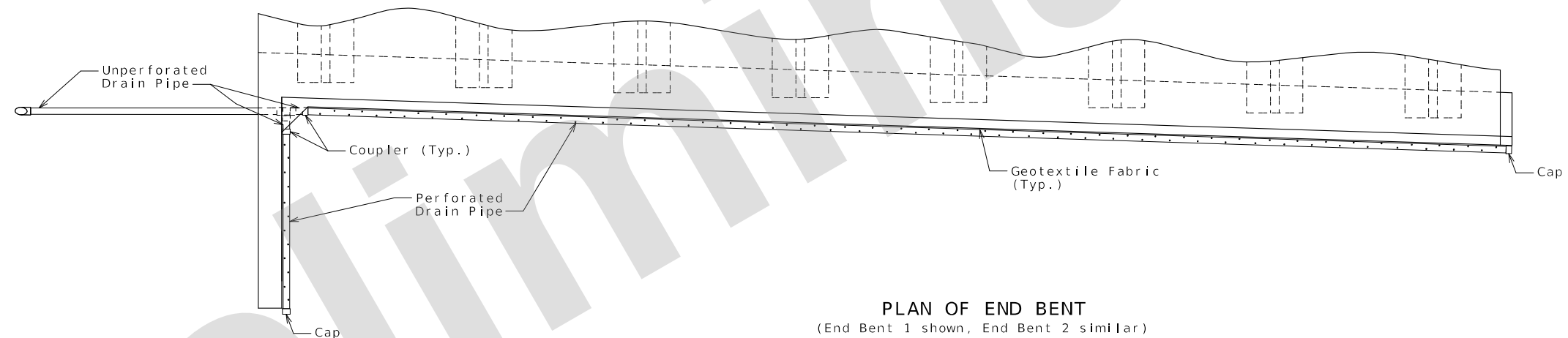
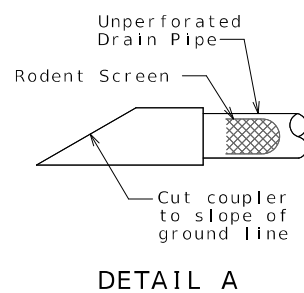
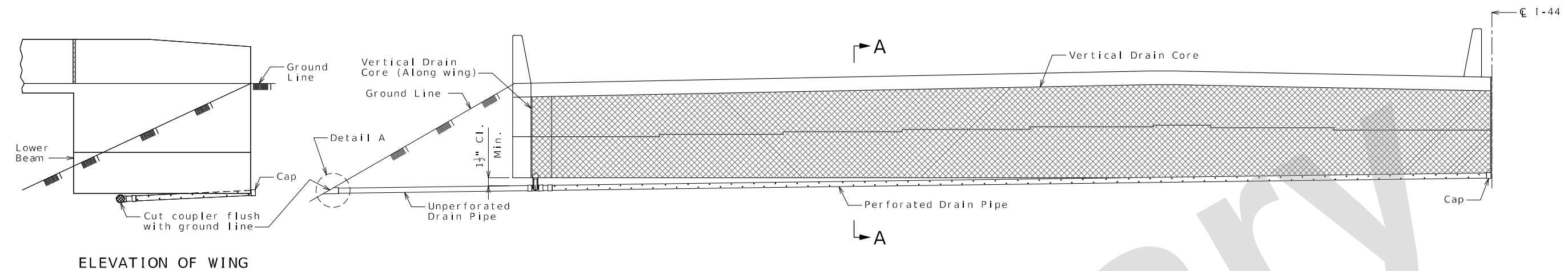
UNIT

CEN

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



PLAN OF END BENT
(End Bent 1 shown, End Bent 2 similar)

General Notes:

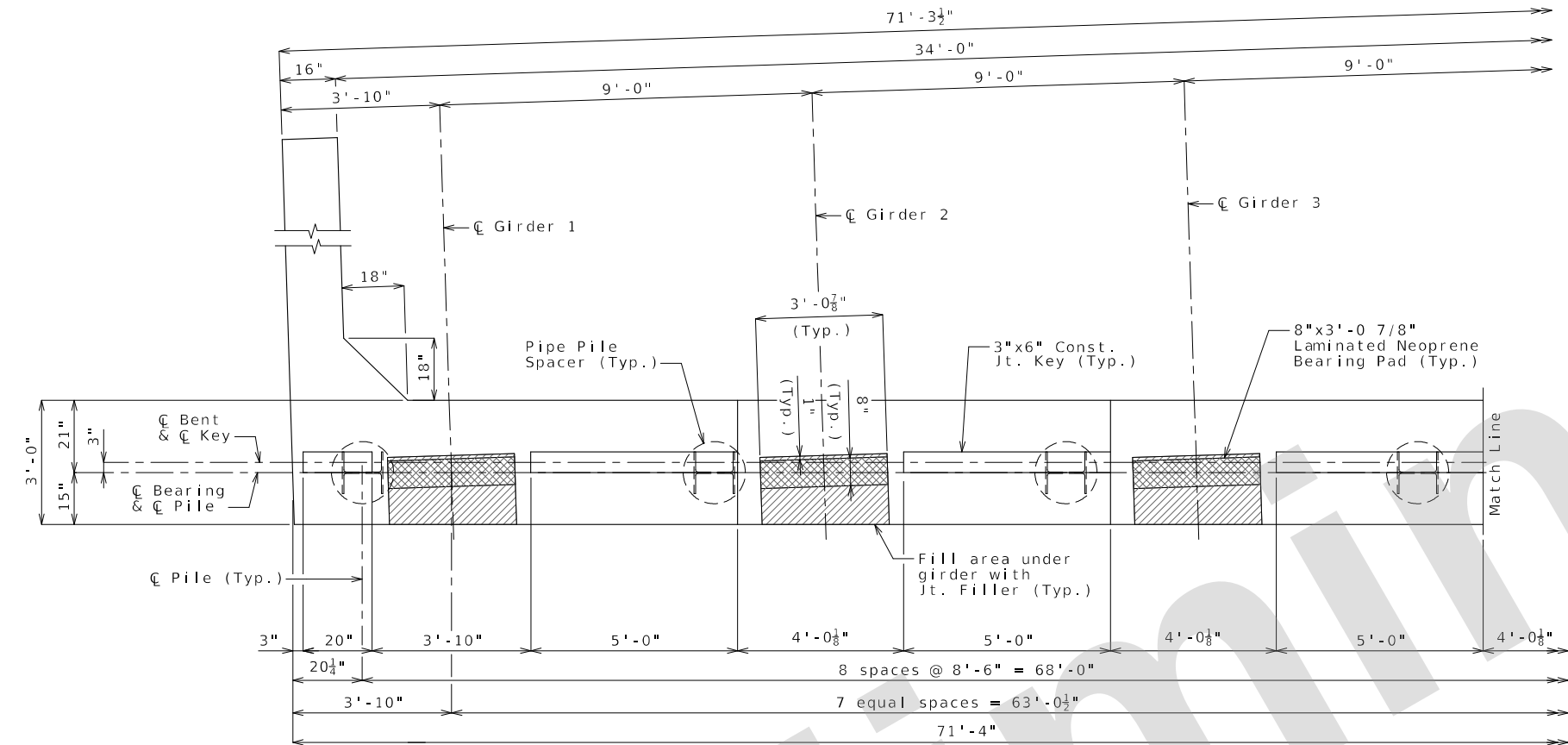
All drain pipe shall be sloped 1 to 2 percent.

Drain pipe may be either 6-inch diameter corrugated metallic-coated steel pipe underdrain, 4-inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4-inch diameter corrugated polyethylene (PE) drain pipe.

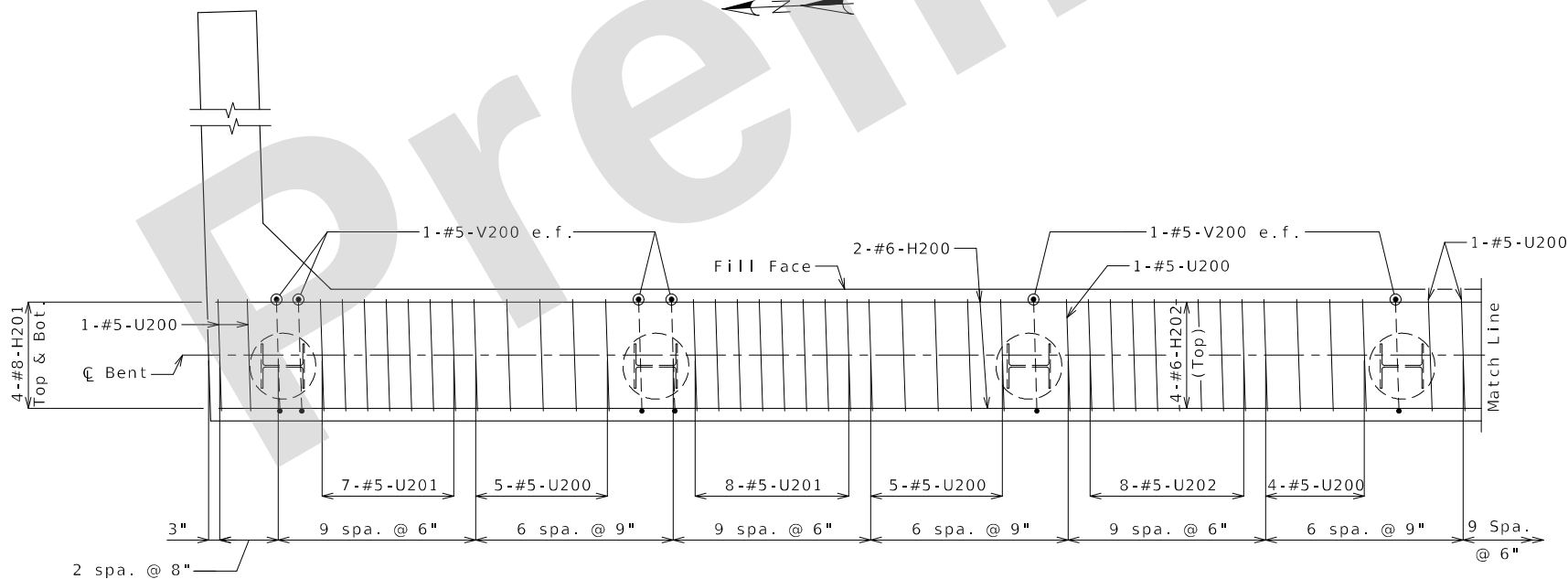
Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.

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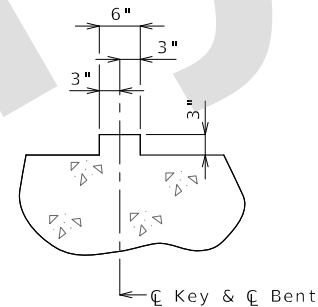
PART PLAN OF BEAM



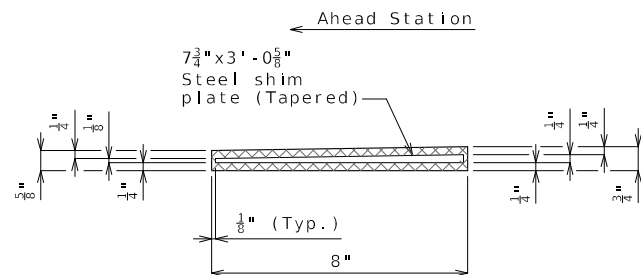
PART PLAN OF BEAM SHOWING REINFORCEMENT
(Keys and steps not shown for clarity)

Substructure Quantity Table for End Bent No. 2			
Item		Quantity	
Galvanized Structural Steel Piles (12 in.)		linear foot	302
Pre-Bore for Piling		linear foot	99
Pile Point Reinforcement		each	9
Class B Concrete (Substructure)		cu. yard	29.0

These quantities are included in the Estimated Quantities table on Sheet No. 2.



SECTION THRU KEY



TYPICAL SECTION THRU
8"X3'-0 7/8"X11/16"
LAMINATED NEOPRENE BEARING PAD
(8 Required)

NOTES:

Work this sheet with Sheets No. 12 thru 15.

All U bars and pairs of V bars shall be placed parallel to centerline of roadway.

Reinforcing steel shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches. e.f. denotes each face.

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 11 of 32

END BENT NO. 2
BEAM DETAILS 1 OF 2

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DATE PREPARED
9/16/2024
ROUTE
1-44
DISTRICT
BR

STATE
MO
SHEET NO.
11

COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9418

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

MoDOT

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

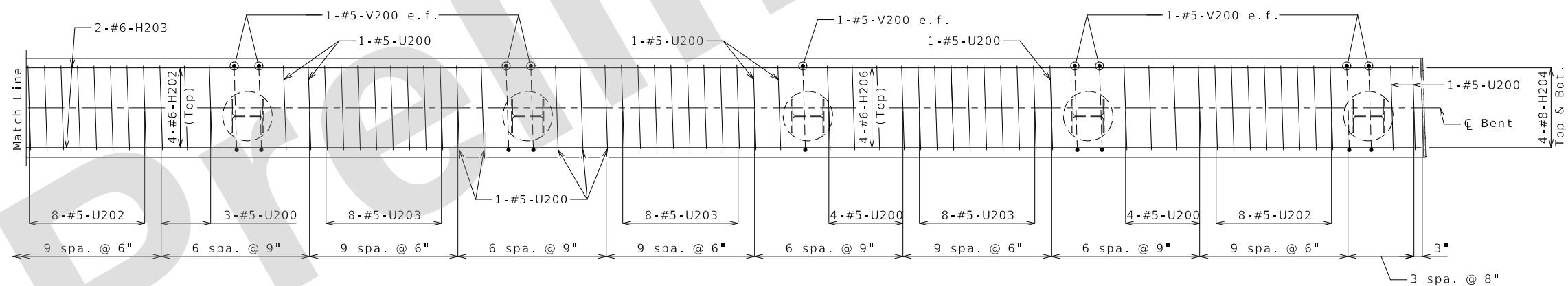
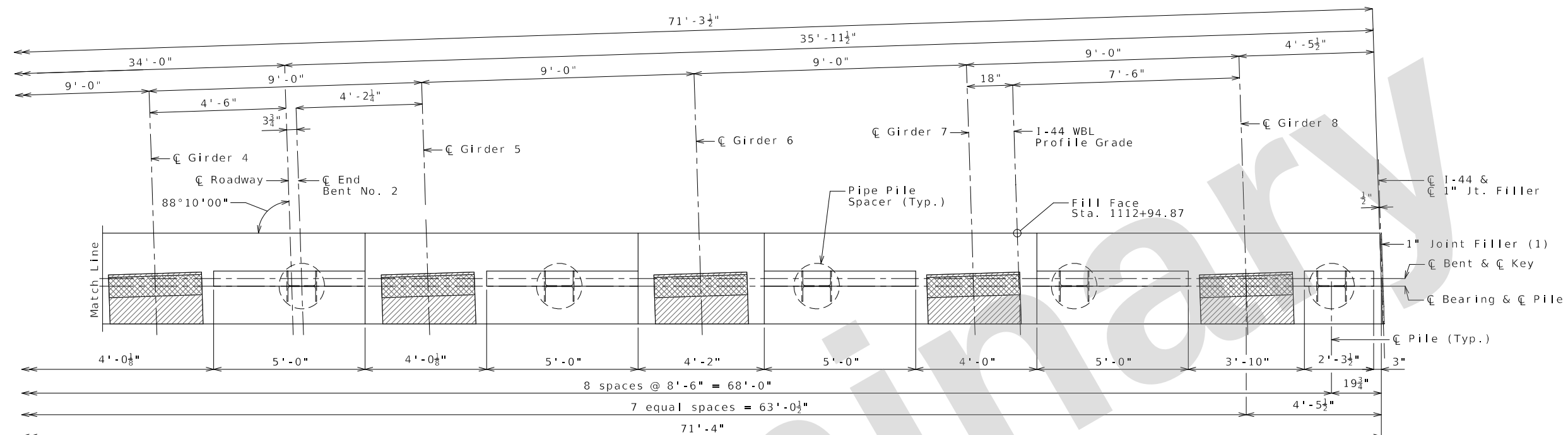
Certificate of Authority
No. : 000165
BMcD Project No. 146617

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165
BMcD Project No. 146617

BURNS
MCDONNELL

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



NOTES:

Work this sheet with Sheets No. 11 & 13 thru 15.

All U bars and pairs of V bars shall be placed parallel to centerline of roadway.

Reinforcing steel shall be shifted to clear piles.
U bars shall clear piles by at least 1 1/2 inches.

e.f. denotes each face.

- (1) Seal joint between vertical face of EB and WB bearing beams with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

PART PLAN OF BEAM SHOWING REINFORCEMENT
(Keys and steps not shown for clarity)

PART PLAN OF BEAM

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 12 of 32

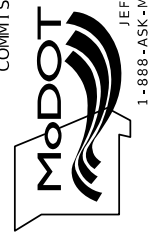
END BENT NO. 2
BEAM DETAILS 2 OF 2

DATE PREPARED	
9/16/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
BR	12

COUNTY	GREENE
JOB NO.	JSU0076
CONTRACT ID.	

PROJECT NO.

BRIDGE NO.
A9418

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

Burns & McDonnell Engineering Co., Inc.

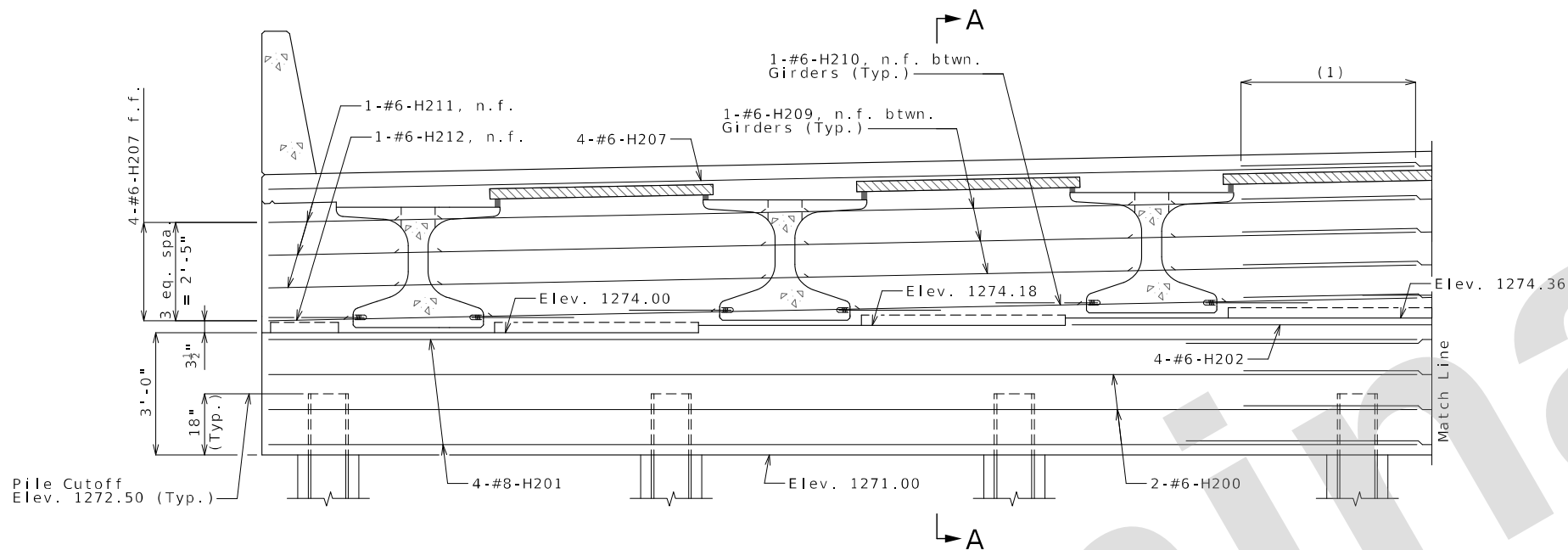
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165
BMcD Project No. 146617

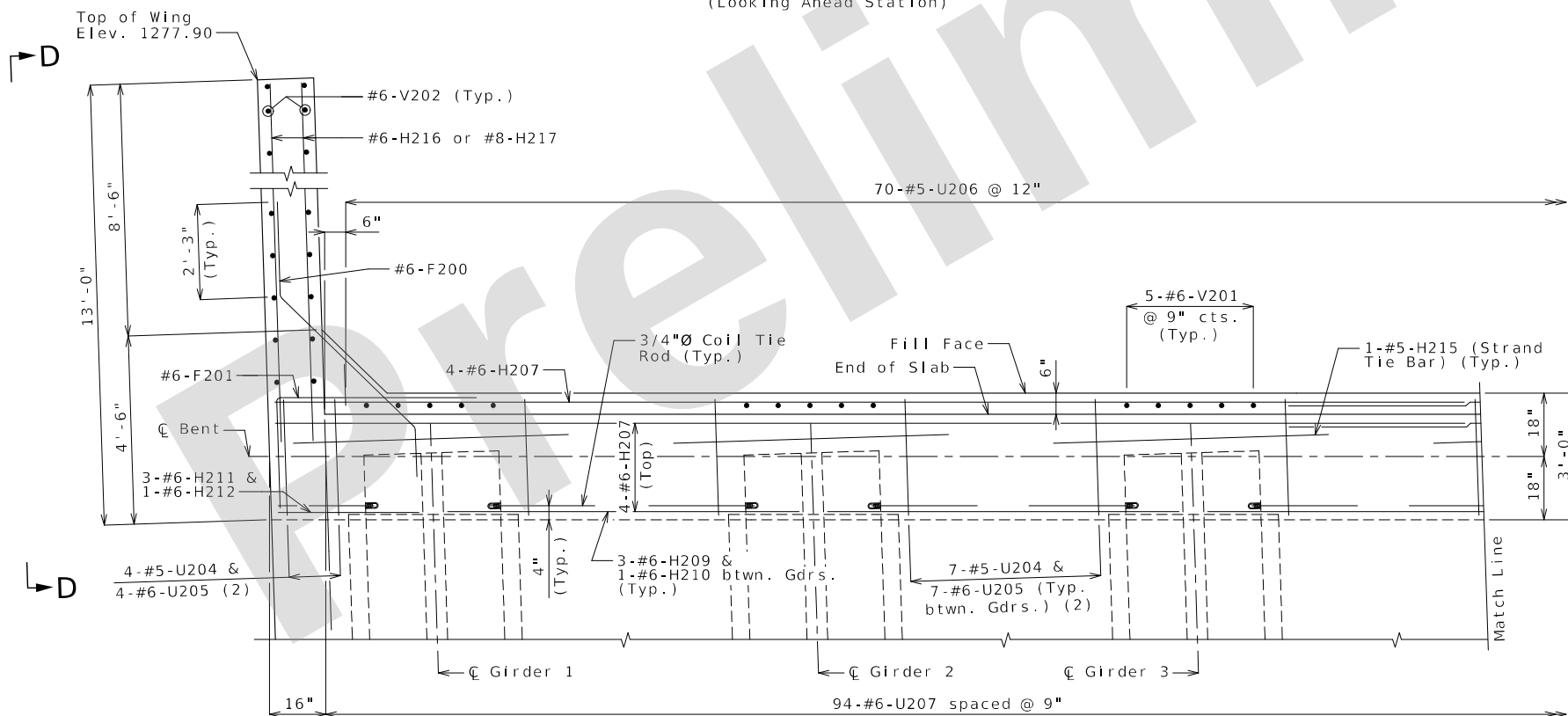
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REV.

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SECTION NEAR END BENT
(Looking Ahead Station)



PART PLAN

(2) Space bars to match #5-V200 & #5-U200 bars.
(Keys and steps not shown for clarity)

NOTES:

Work this sheet with Sheets No. 11, 12, 14 and 15.

For Section A-A see Sheet No. 15.

The #6-F200 shall be bent in the field to clear girders.

The U bars shall be placed parallel to centerline of roadway.

All concrete in the end bent above top of beam and below top of slab shall be Class B-2.

Strands at end of girders shall be field bent or, if necessary, cut in field to maintain 1 1/2 inch minimum clearance to fill face of end bent.

For location of coil tie rods and #5-H215, see Sheets No. 16 and 17.

For details of vertical drain at end bents, see Sheet No. 10.

For details of bridge approach slab, see Sheet No. 24.

f.f. denotes far face
n.f. denotes near face

(1) Minimum Lap #6 Bars = 4'-3"
Minimum Lap #8 Bars = 5'-8"

END BENT NO. 2
DIAPHRAGM DETAILS 1 of 2

Detailed: May 2024
Checked: Jun. 2024

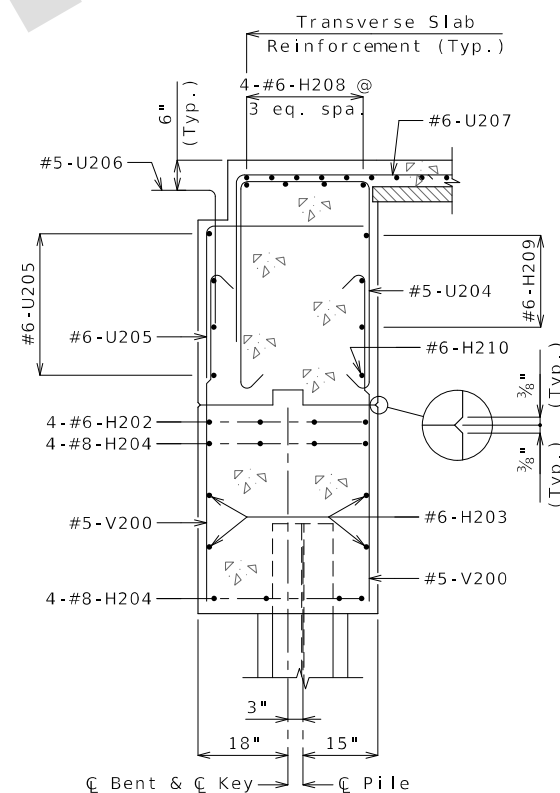
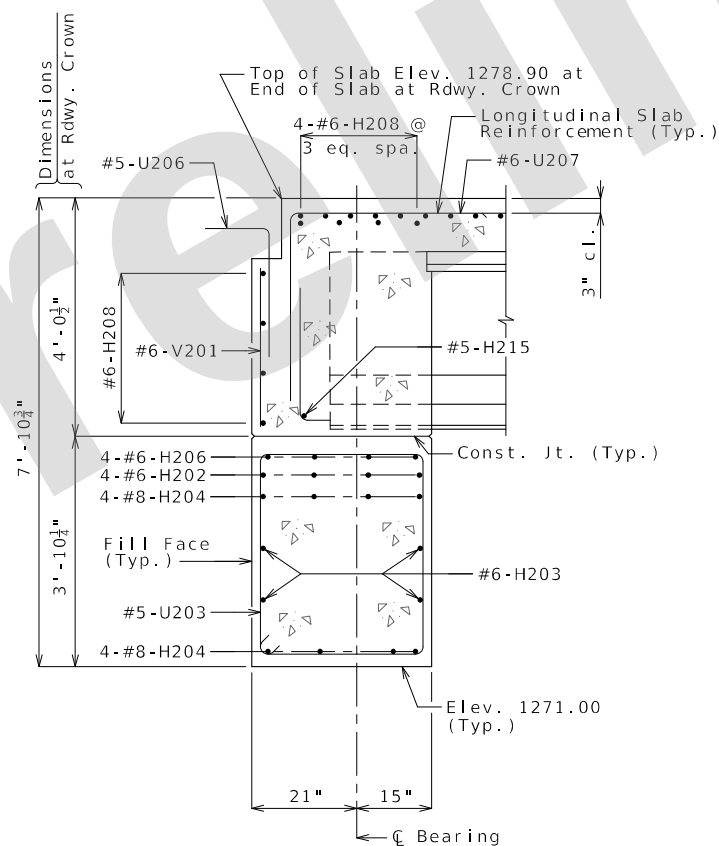
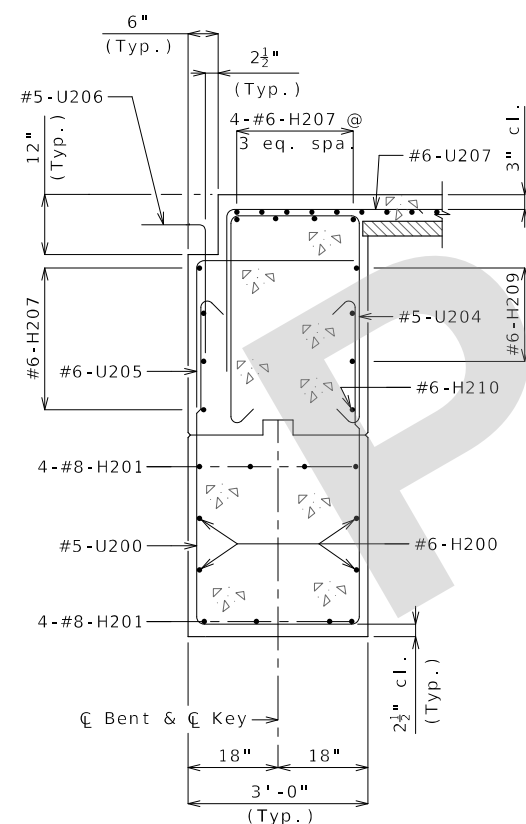
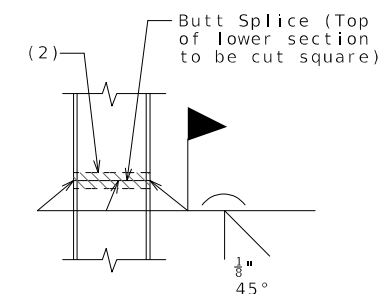
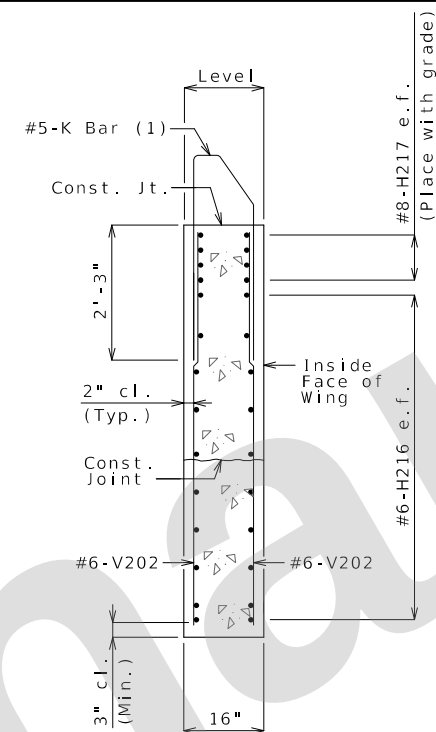
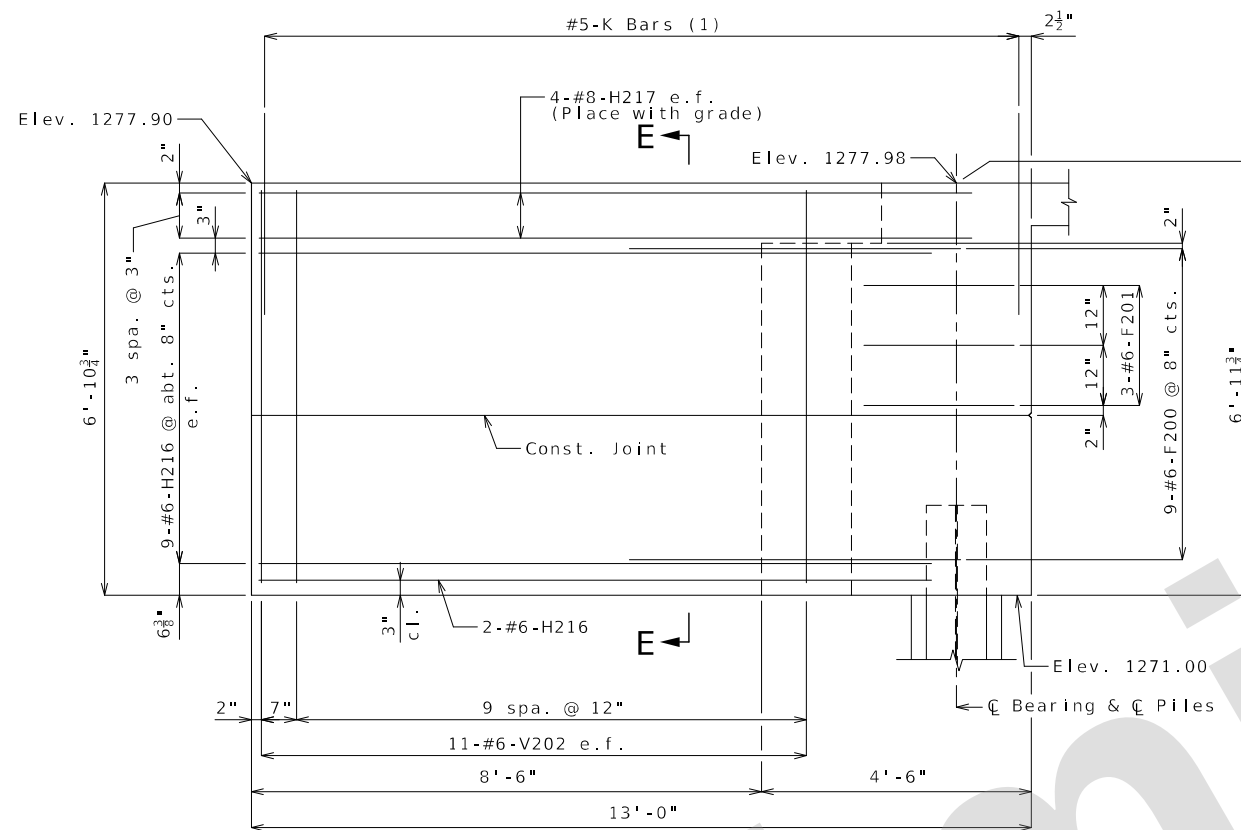
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 13 of 32

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DATE PREPARED 9/16/2024	
ROUTE 1-44	STATE MO
DISTRICT BR	SHEET NO. 13
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9418	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-273-6636)	
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IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



NOTES:

(1) For reinforcement of the Type D Barrier at End Bent, see Sheet No. 23.

e.f. denotes each face.

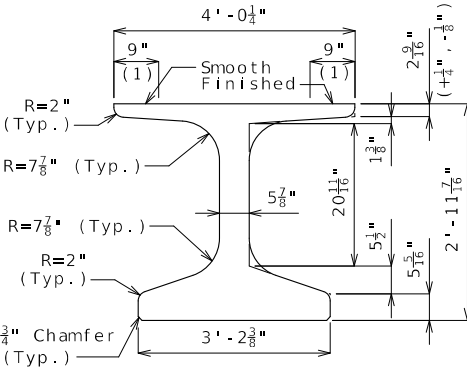
For details of bridge approach slab, see Sheet No. 24.

Work this sheet with Sheets No. 11 thru 14.

END BENT NO. 2
WING DETAILS & SECTIONS

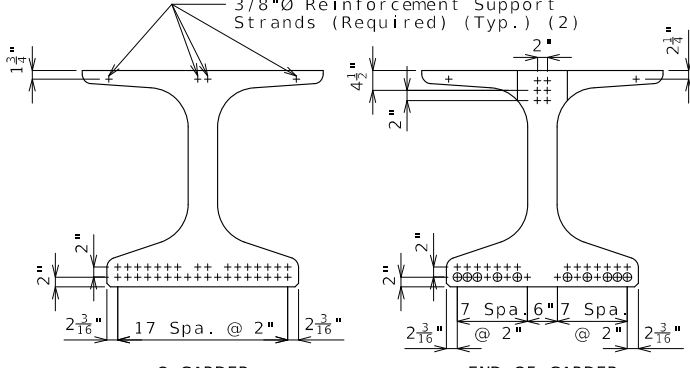
[illegible]

(1) Fabricator shall apply a bond breaker to this region excluding where joint filler will be applied.



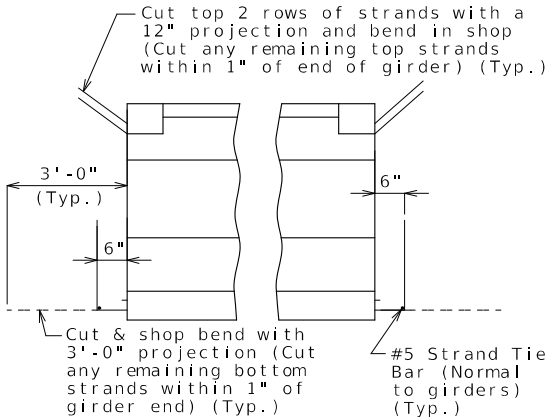
DIMENSIONS AT MID-SPAN

(2) Outer strands tensioned to 2.02 kips/strand and inner strands to 8 kips/strand. Placed symmetrical about $\bar{C}$ Girder. May be moved laterally in pairs.



STRAND ARRANGEMENT

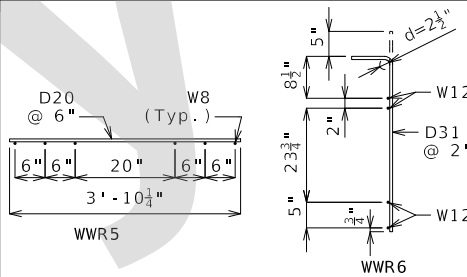
+ Indicates prestressing strand. o Indicates cut & shop bend with 3'-0" projection.



STRANDS AT GIRDER ENDS

Bill of Reinforcing Steel - Each Girder					Bending Diagrams	
No.	Size/Mark	Length	Shape			
180	5 B1	4'-4"	11S			
200	4 D1	4'-0"	9S			
2	4 G3	3'-10 1/4"	20			

Welded Wire Reinforcement - Each Girder



All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

Actual bar lengths are measured along centerline of bar to the nearest inch.

Minimum clearance to reinforcing shall be one inch.

All bar reinforcement shall be Grade 60.

The two D1 bars may be furnished as one bar at the fabricator's option.

All B1 bars shall be epoxy coated.

General Notes:

Concrete for prestressed girders shall be Class A-1 with $f'c = 8000$ psi and $f'ci = 6500$ psi.

Use 34 strands, 0.6"Ø Grade 270, with an initial prestress force of 1494 kips.

Pretensioned members shall be in accordance with Sec 1029.

Fabricator shall be responsible for location and design of lifting devices.

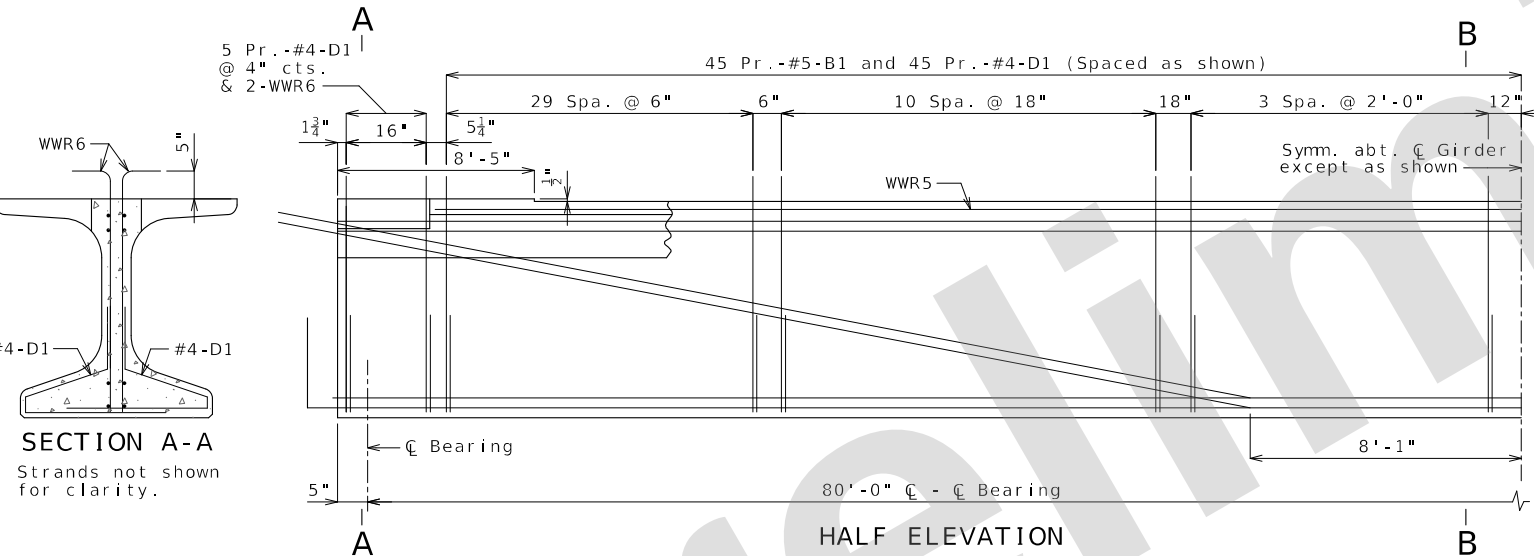
Exterior and interior girders are the same except for coil ties and application of bond breaker.

The contractor shall provide bracing necessary for lateral and torsional stability of the girders during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not drill holes in the girders.

For Girder Camber Diagram, see Sheet No.19.

For location of coil ties at integral bents, see Sheets No. 7, 8, 13 and 14.

Alternate bar reinforcing steel details are provided and may be used. The same type of reinforcing steel shall be used for all girders in all spans.



HALF ELEVATION

Reinforcement support strands not shown for clarity.

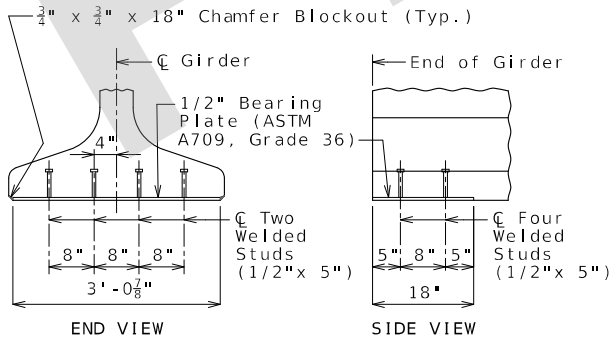
SECTION A-A

Strands not shown for clarity.

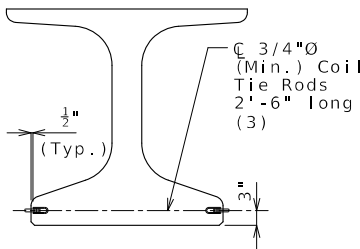
SECTION B-B

Strands not shown for clarity.

TOP FLANGE BLOCKOUT



BEARING PLATE

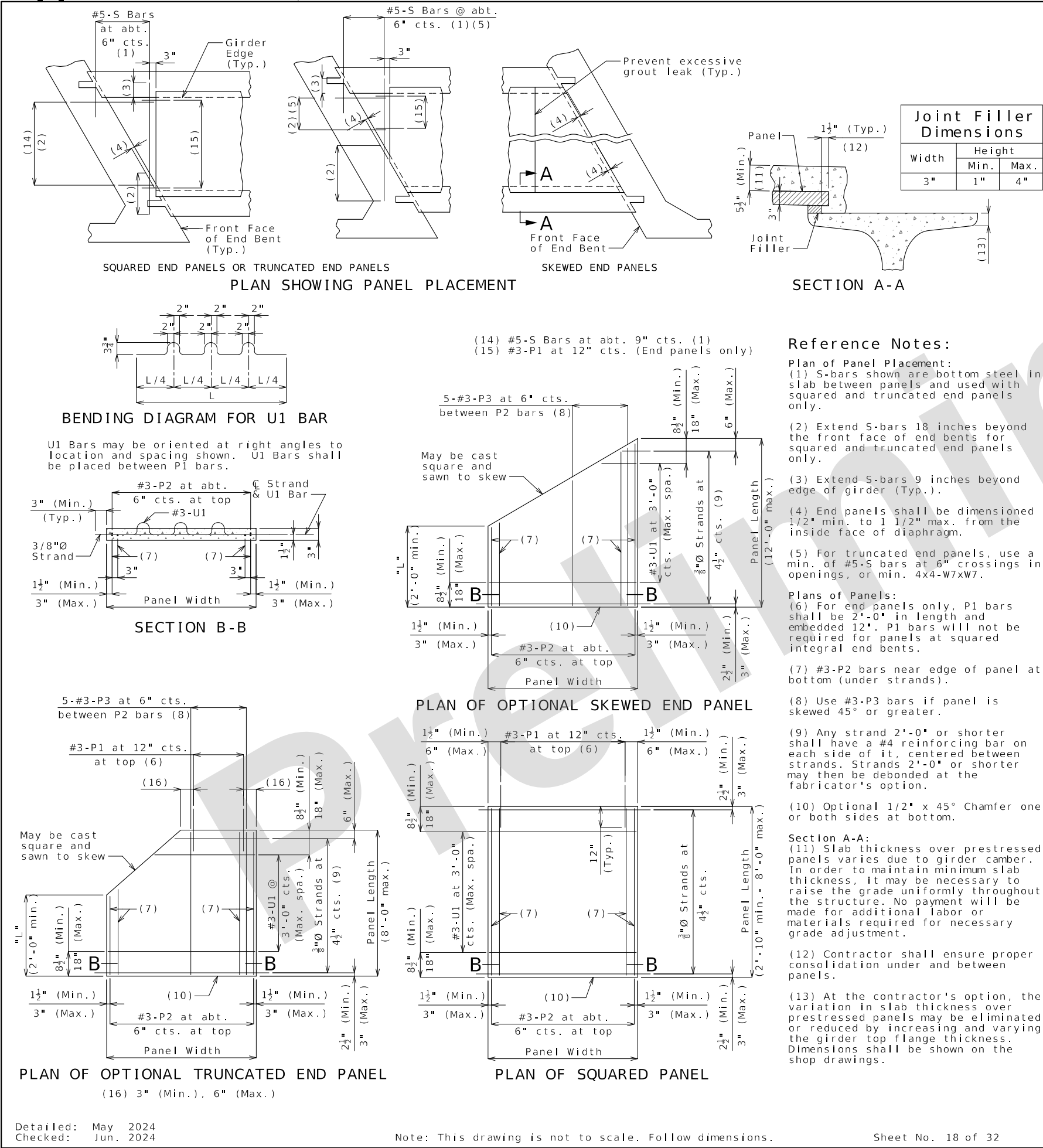


COIL TIES

(3) 2'-3" at exterior face of Girder 1 at end bents

DATE PREPARED 9/16/2024	
ROUTE 1-44	STATE MO
DISTRICT BR	SHEET NO. 17
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9418	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
MoDOT	
105 WEST CAPITAL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
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General Notes:
Prestressed Panels:
Concrete for prestressed panels shall be Class A-1 with $f'c = 6,000$ psi, $f'ci = 4,000$ psi.

The top surface of all panels shall receive a scored finish with a depth of scoring of 1/8" perpendicular to the prestressing strands in the panels.

Prestressing tendons shall be high-tensile strength, uncoated, seven-wire, low-relaxation strands for prestressed concrete in accordance with AASHTO M 203 Grade 270, with nominal diameter of strand = 3/8" and nominal area = 0.085 sq.in. and minimum ultimate strength = 22.95 kips (270 ksi). Larger strands may be used with the same spacing and initial tension.

Initial prestressing force = 17.2 kips/strand.

The method and sequence of releasing the strands shall be shown on the shop drawings.

Suitable anchorage devices for lifting panels may be cast in panels, provided the devices are shown on the shop drawings and approved by the engineer. Panel lengths shall be determined by the contractor and shown on the shop drawings.

When squared end panels are used at skewed bents, the skewed portion shall be cast full depth. No separate payment will be made for additional concrete and reinforcing required.

Support from diaphragm forms is required under the optional skewed end until cast-in-place concrete has reached 3,000 psi compressive strength.

Prestressed panels shall be brought to saturated surface-dry (SSD) condition just prior to the deck pour. There shall be no free standing water on the panels or in the area to be cast.

The prestressed panel quantities are not included in the table of estimated quantities for the slab.

Reinforcing Steel:
All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

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

If U1 bars interfere with placement of slab steel, U1 loops may be bent over, as necessary, to clear slab steel.

Deformed welded wire reinforcement (WWR) providing a minimum area of reinforcing perpendicular to strands of 0.22 sq in./ft, with spacing parallel to strands sufficient to ensure proper handling, may be used in lieu of the #3-P2 bars shown. Wire diameter shall not be larger than 0.375 inch. The above alternative reinforcement criteria may be used in lieu of the #3-P3 bars, when required, and placed over a width not less than 2 feet.

The following reinforcing steel shall be tied securely to the strands with the following maximum spacing in each direction:
#3-P2 bars at 16 inches.
WWR at 24 inches.

The #3-U1 bars shall be tied securely to #3-P2 bars, to WWR or to strands (when placed between P1 bars) at about 3-foot centers.

Minimum reinforcement steel length shall be 2'-0".

All reinforcement other than prestressing strands shall be epoxy coated.

Precast panels may be in contact with stirrup reinforcing in diaphragms.

S-bars are not listed in the bill of reinforcing.

Cost of S-bars will be considered completely covered by the contract unit price for the slab.

Joint Filler:
Joint filler shall be preformed fiber expansion joint material in accordance with Sec 1057 or expanded or extruded polystyrene bedding material in accordance with Sec 1073.

Use Slab Haunching Diagram on Sheet No. 19 for determining thickness of joint filler within the limits noted in the table of Joint Filler Dimensions.

Thicker material may be used on one or both sides of the girder to reduce cast-in-place concrete thickness to within tolerances.

The same thickness of preformed fiber expansion joint material shall be used under any one edge of any panel except at locations where top flange thickness may be stepped. The maximum change in thickness between adjacent panels shall be 1/2 inch. The polystyrene bedding material may be cut with a transition to match haunch height above top of flange.

Joint filler shall be glued to the girder. When thickness exceeds 1 1/2 inches, the joint filler shall be glued top and bottom. The glue used shall be the type recommended by the joint filler manufacturer.

Edges of panels shall be uniformly seated on the joint filler before slab reinforcement is placed.

PRESTRESSED PANELS

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 18 of 32

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9418

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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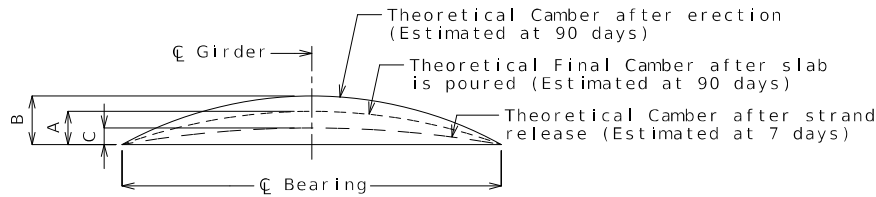
Burns & McDonnell Engineering Co., Inc.

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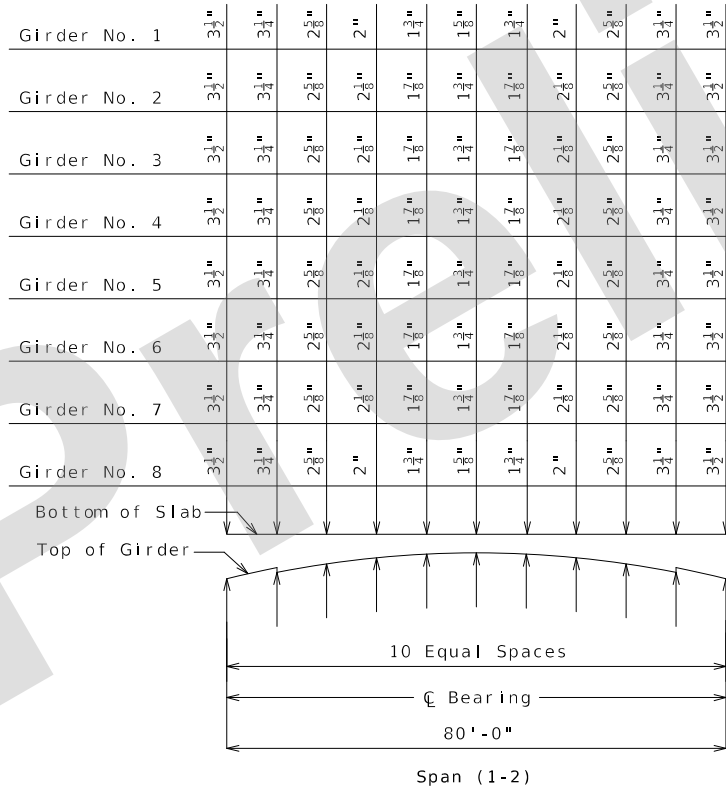


Girder	Span (1-2)		
	A	B	C
Exterior	3"	4 5/8"	2 5/8"
Interior	2 7/8"		

GIRDER CAMBER DIAGRAM

Conversion Factors for Girder Camber (Estimated at 90 days):

0.1 pt. = 0.314 x 0.5 pt.
0.2 pt. = 0.593 x 0.5 pt.
0.3 pt. = 0.813 x 0.5 pt.
0.4 pt. = 0.952 x 0.5 pt.



THEORETICAL SLAB HAUNCHING DIAGRAM (ESTIMATED AT 90 DAYS)

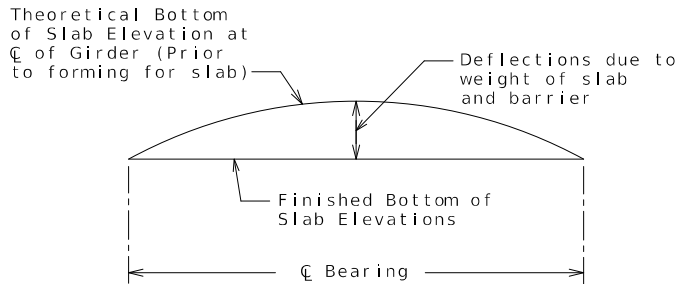
If girder camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness, an adjustment of the slab haunches, an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in haunching, slab thickness or grade adjustment.

Concrete in the slab haunches is included in the Estimated Quantities for Slab on Concrete NU-Girder.

Theoretical slab haunches are measured at C Girder.

Theoretical Bottom of Slab Elevations at Centerline of Girder (Prior to forming for slab) (Estimated at 90 days)											
Girder Number	Span (1-2) (80'-0" C Brg. - C Brg.)										
	C Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	C Brg.
1	1277.59	1277.63	1277.65	1277.67	1277.67	1277.65	1277.62	1277.57	1277.50	1277.43	1277.34
2	1277.77	1277.81	1277.84	1277.86	1277.86	1277.84	1277.81	1277.75	1277.69	1277.61	1277.52
3	1277.95	1277.99	1278.02	1278.04	1278.04	1278.02	1277.99	1277.94	1277.87	1277.79	1277.70
4	1278.13	1278.17	1278.20	1278.22	1278.22	1278.20	1278.17	1278.12	1278.05	1277.97	1277.89
5	1278.31	1278.35	1278.38	1278.40	1278.40	1278.38	1278.35	1278.30	1278.23	1278.15	1278.07
6	1278.43	1278.47	1278.50	1278.52	1278.52	1278.50	1278.47	1278.42	1278.35	1278.28	1278.19
7	1278.25	1278.29	1278.32	1278.34	1278.34	1278.32	1278.29	1278.24	1278.18	1278.10	1278.01
8	1278.08	1278.11	1278.14	1278.15	1278.15	1278.14	1278.10	1278.05	1277.99	1277.92	1277.83

Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab (including precast panel) and barrier.



TYPICAL SLAB ELEVATIONS DIAGRAM

GIRDER CAMBER AND SLAB HAUNCHING

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 19 of 32

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9418

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

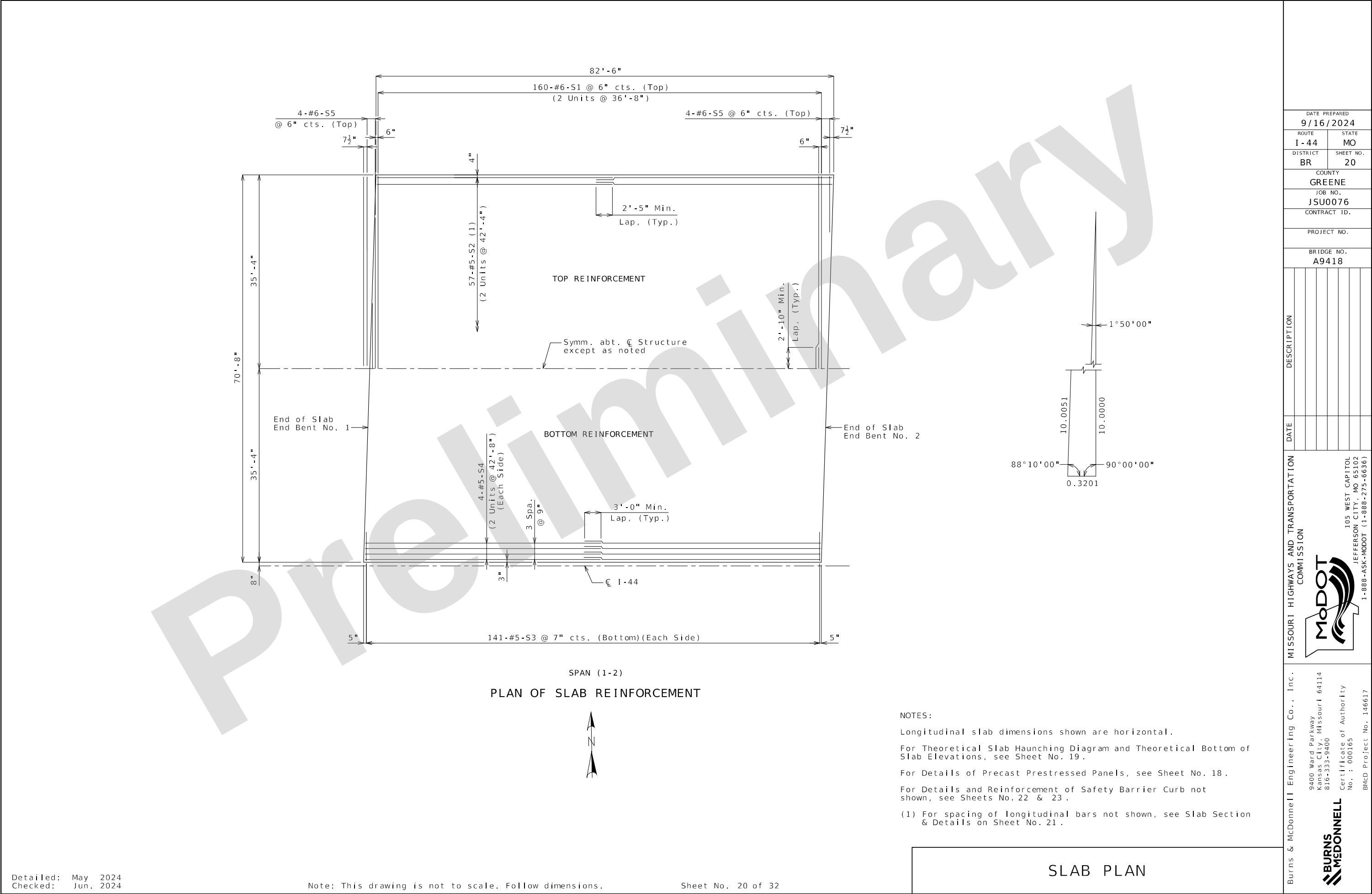
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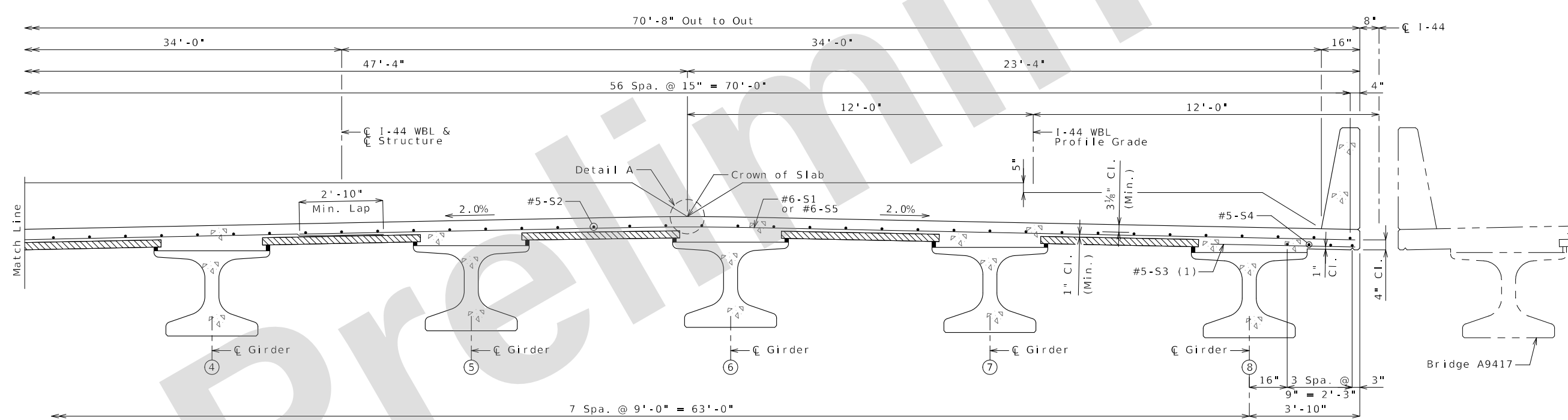
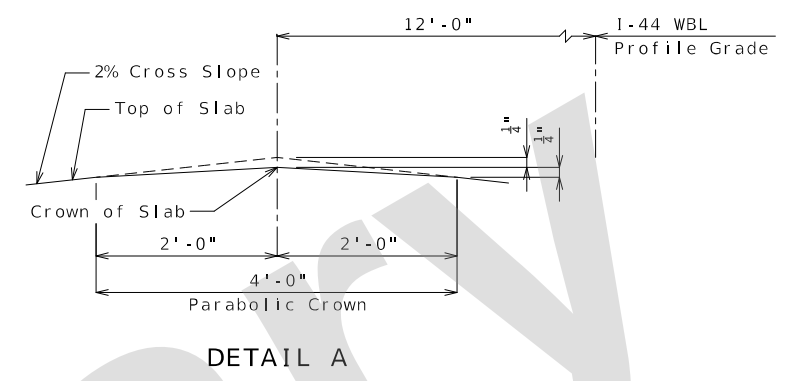
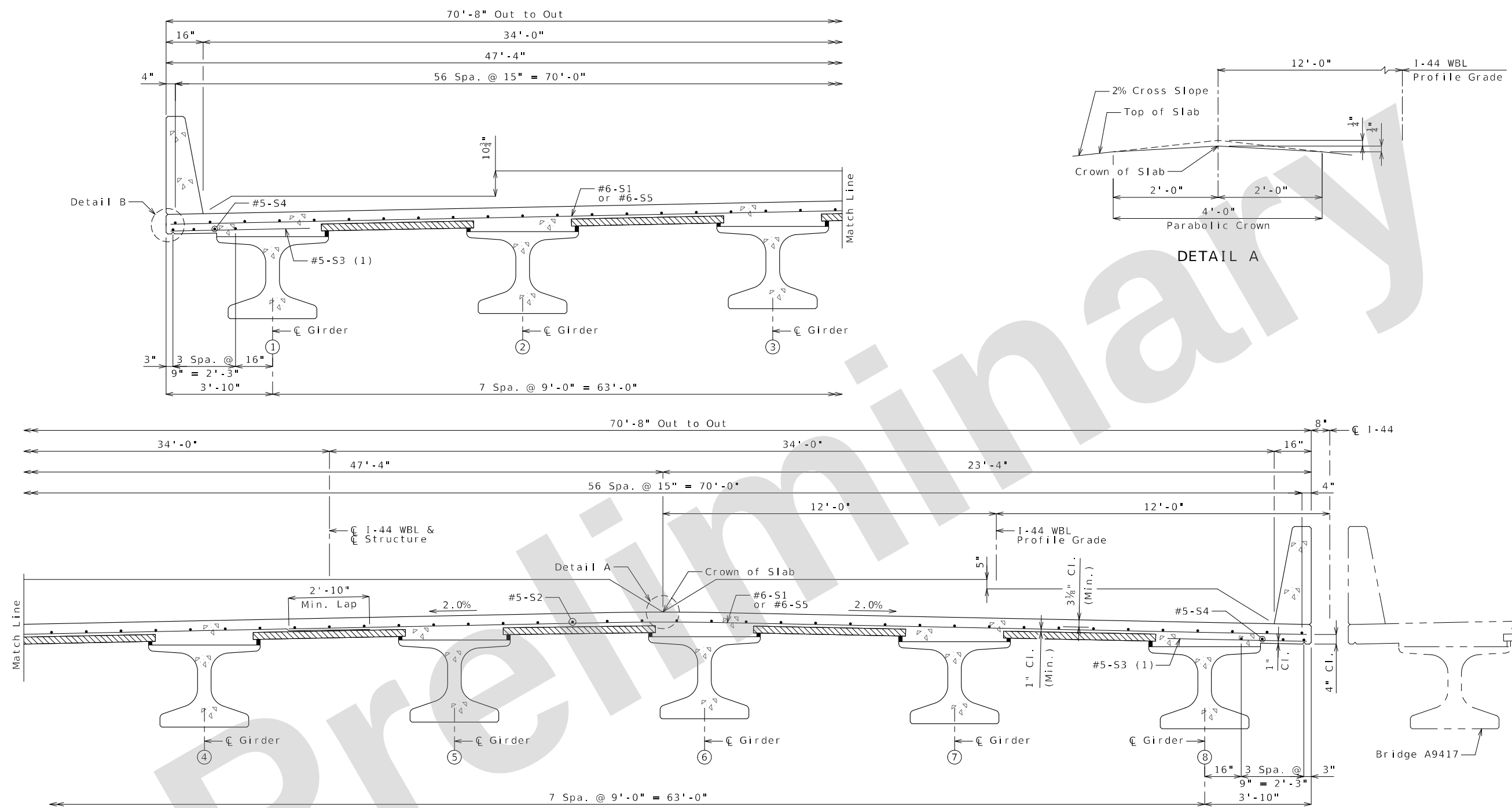
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No. : 000165
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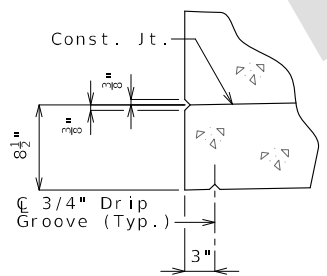
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SECTION THRU SLAB
(1) Alternate bar shape available, see Sheet No. 22.



DETAIL B

- NOTES:
- For details of precast prestressed panels, see Sheet No. 18.
 - For reinforcement of barrier not shown, see Sheet No. 22.
 - For Theoretical Bottom of Slab Elevations, Girder Camber Diagram and Theoretical Slab Haunching Diagram, see Sheet No. 19.
 - For Plan of Slab Showing Reinforcement, see Sheet No. 20.
 - Bridge will be cast in a single pour.

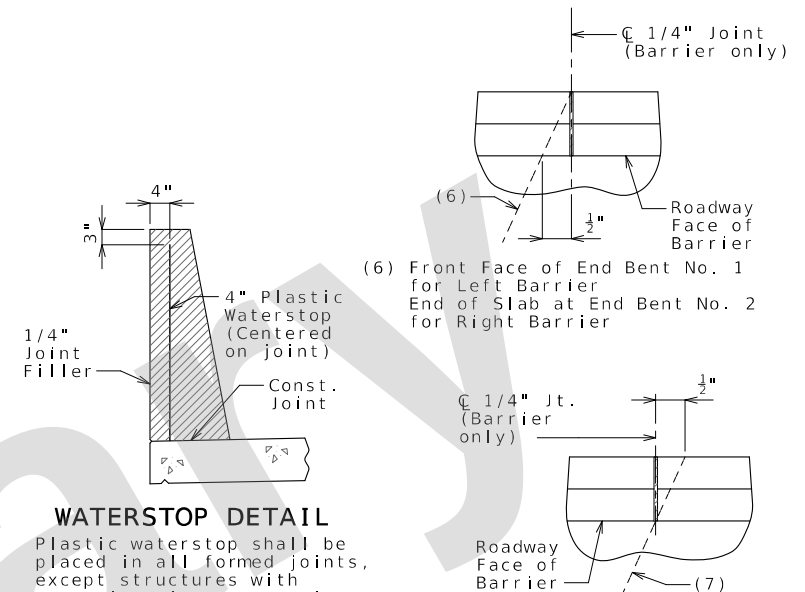
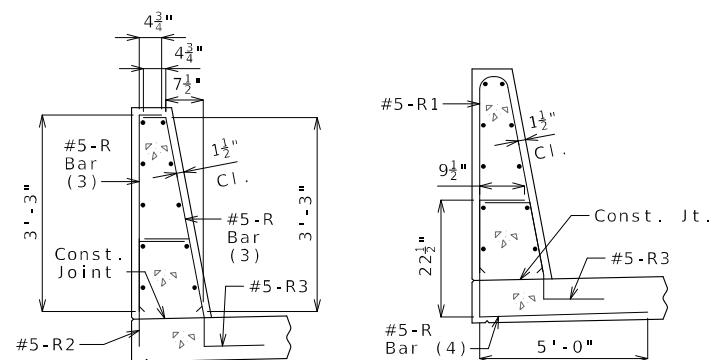
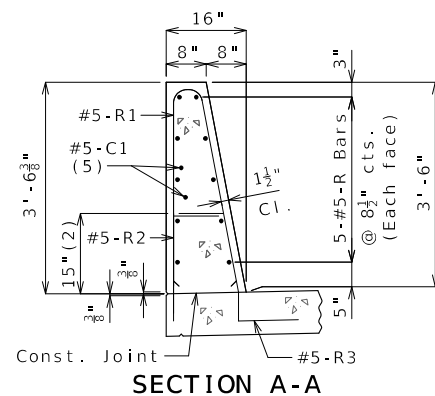
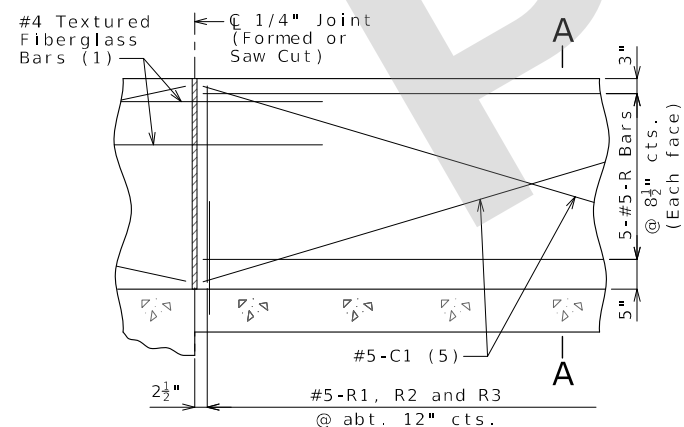
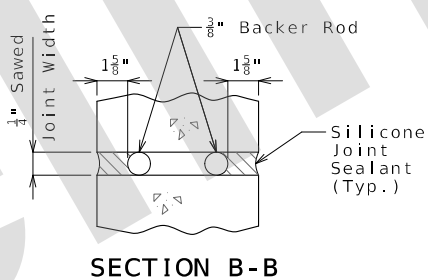
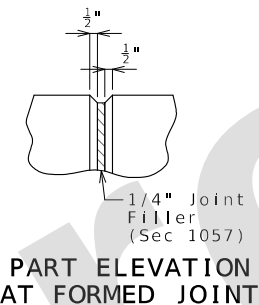
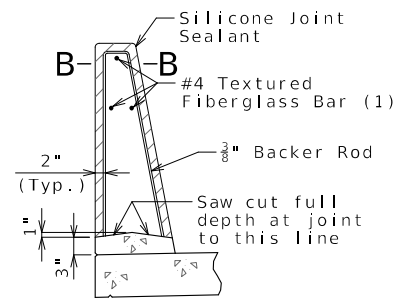
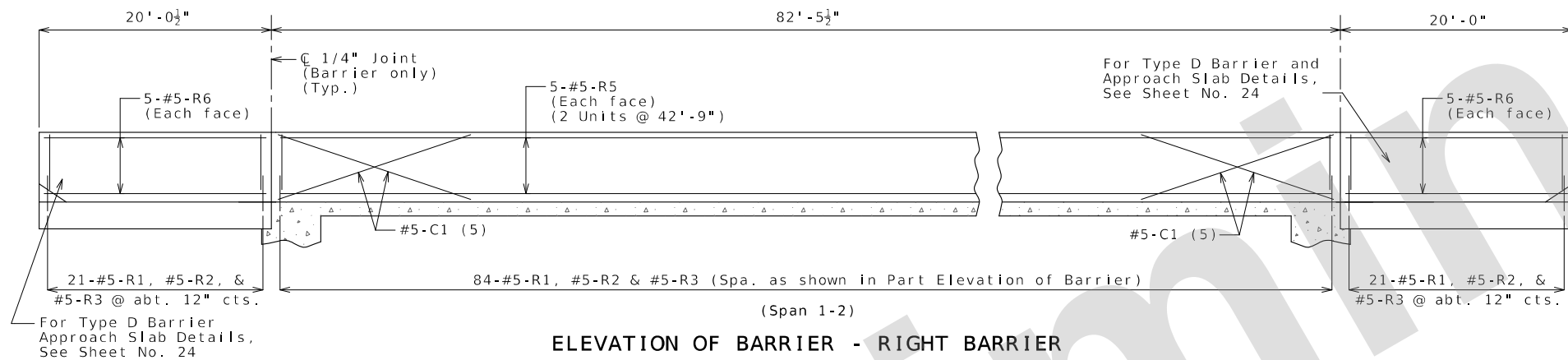
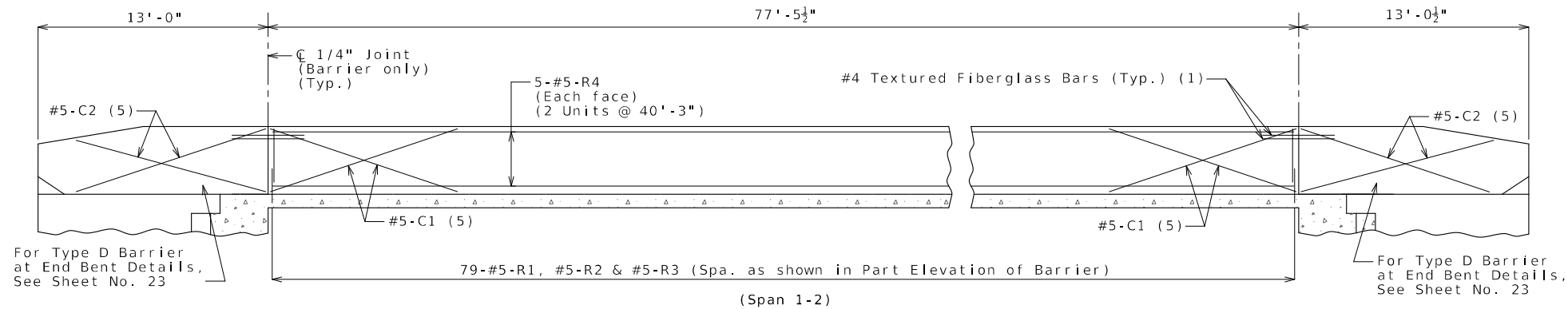
TYPICAL SLAB SECTION

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 21 of 32

DATE PREPARED 9/16/2024	
ROUTE 1-44	STATE MO
DISTRICT BR	SHEET NO. 21
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9418	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400	
Certificate of Authority No. : 000165	
BMcD Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	



General Notes:

Longitudinal dimensions are horizontal.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

Top of barrier shall be built parallel to grade and barrier joints (except at end bents) normal to grade.

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

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Type D Barrier per linear foot.

Concrete in barrier shall be Class B-1.

Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing for Right Barrier and from end of approach slab to end of approach slab for Left Barrier.

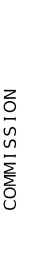
Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be considered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

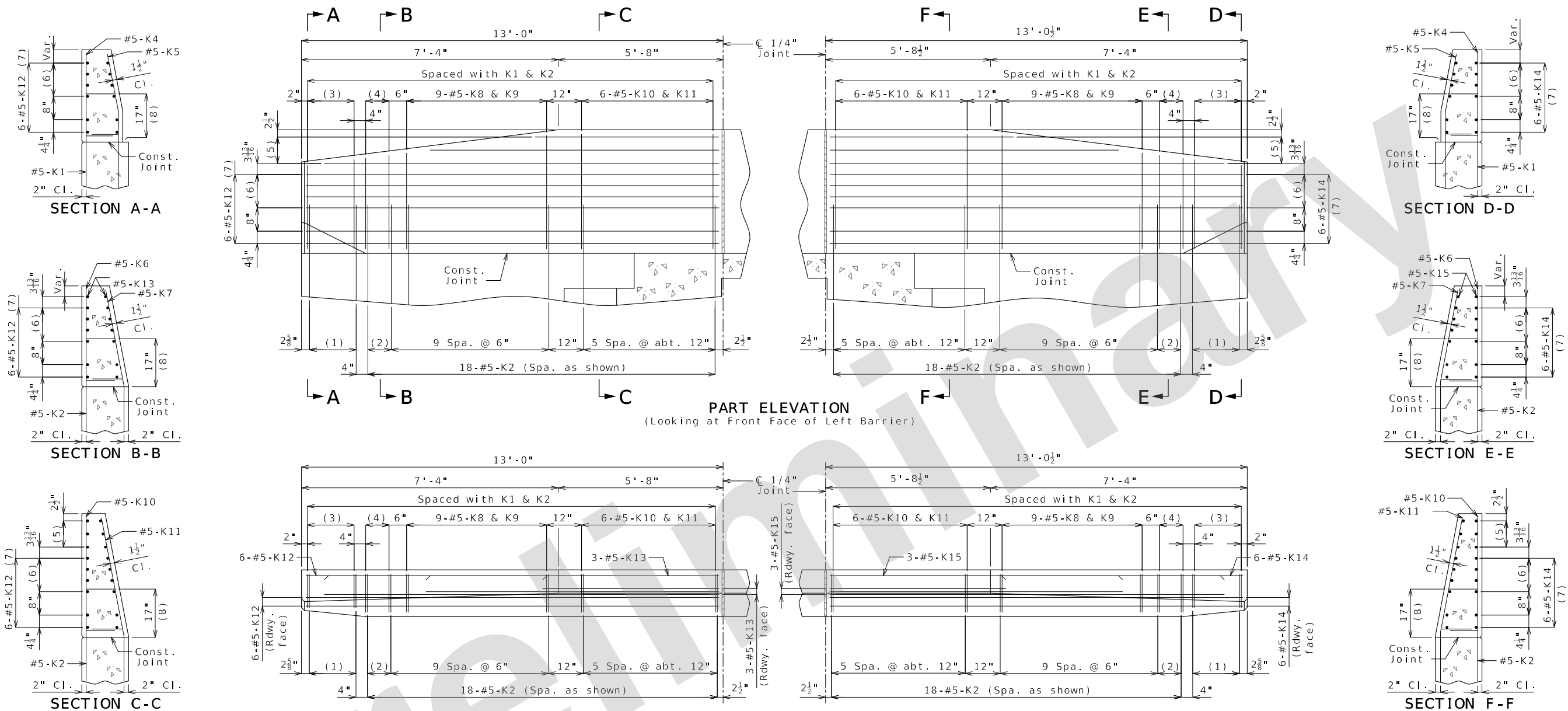
Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.

Plastic waterstop shall not be used with saw cut joints.

TYPE D BARRIER

BURNS MCDONNELL Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMCD Project No. 145617	MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)		DATE	DESCRIPTION	IF A SEAL IS PRESENT ON THIS SHEET, IT HAS BEEN ELECTRONICALLY SIGNED.
	DATE PREPARED 9/16/2024				
	ROUTE I-44	STATE MO			
	DISTRICT BR	SHEET NO. 22			
	COUNTY GREENE				
	JOB NO. JSU0076				
	CONTRACT ID.				
	PROJECT NO.				
	BRIDGE NO. A9418				



- (1) 5-#5-K1 @ 4" cts.
- (2) 2 spaces @ 4"
- (3) 5-#5-K4 & K5
- (4) 3-#5-K6 & K7
- (5) 3-#5-K13 or K15 @ $4\frac{1}{2}$ " cts., each face
- (6) 3 spaces @ $3\frac{13}{16}$ "
- (7) Spaced as shown, each face
- (8) To top of bar
- (9) Transition to zero at Type A curb for gutter lines to match.

K10-K11 BAR PERMISSIBLE ALTERNATE SHAPE

(Other K bars not shown for clarity)

The K10-K11 bar combination may be furnished as one bar as shown, at the contractor's option.

All dimensions are out to out.

Detailed: May 2024
Checked: Jun. 2024

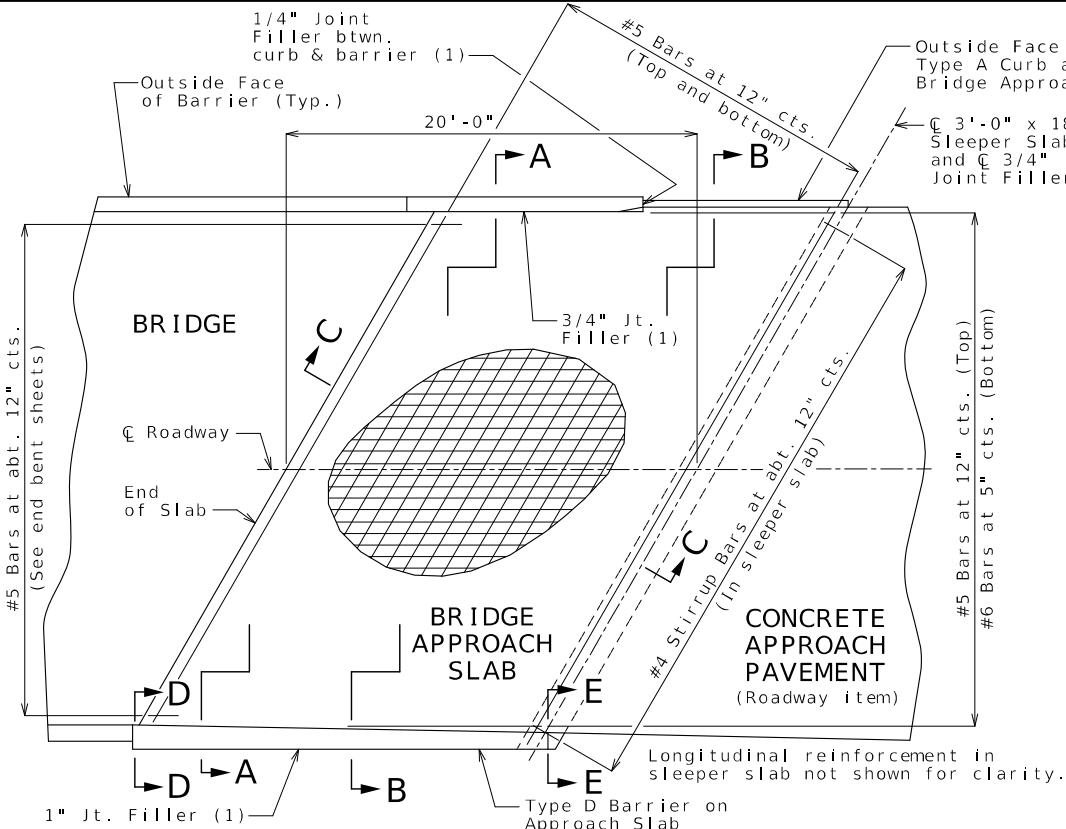
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 23 of 32

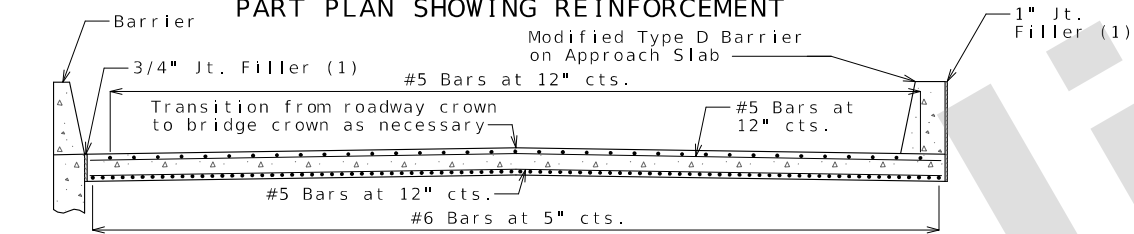
TYPE D BARRIER AT END BENTS

c:\bmc\lib\pw connect\trn\d0171017\B A9418 023 JSU0076.dgn 1:40:38 PM 9/16/2024

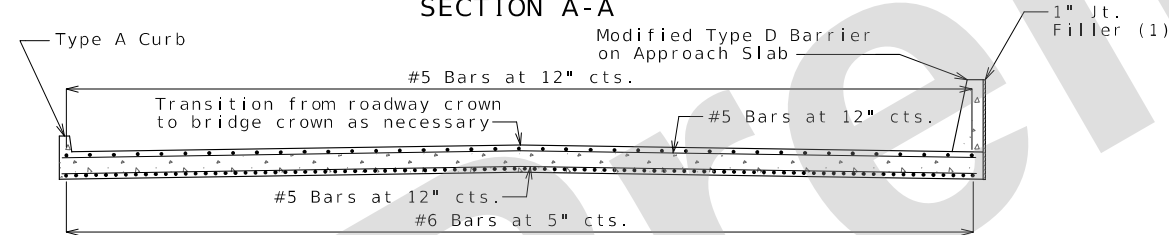
</	
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PART PLAN SHOWING REINFORCEMENT

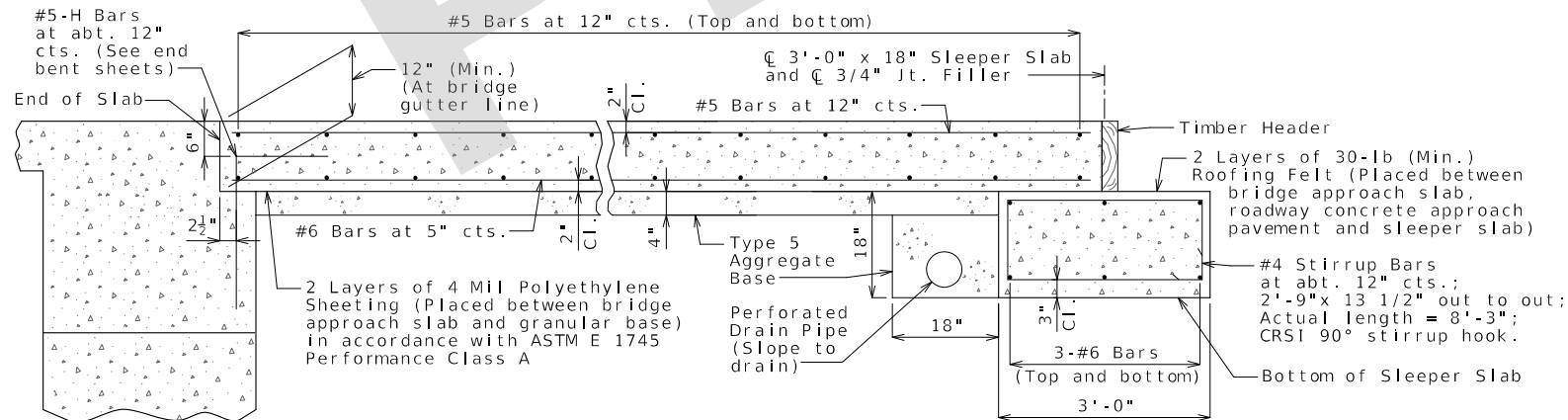


SECTION A-A



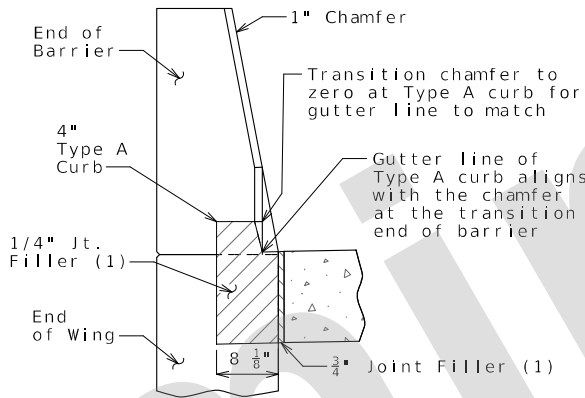
SECTION B-B

With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.

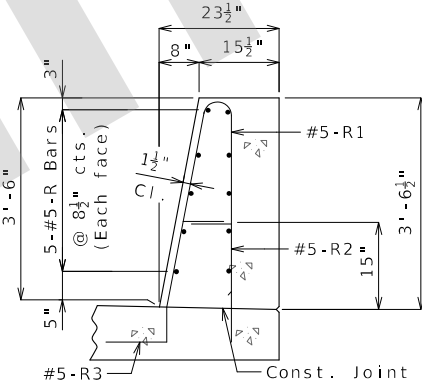


SECTION C-C

SECTION BETWEEN CURB AND BARRIER



SECTION D-D



General Notes:

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

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

Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

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

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

Mechanical bar splices shall be in accordance with Sec. 710.

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

The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.

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

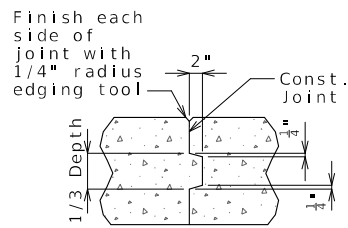
For concrete approach pavement details, see roadway plans.

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

Payment for furnishing all materials, labor and excavation necessary to construct the approach slab, including the timber header, sleeper slab, underdrain, Type 5 aggregate base, joint filler and all other appurtenances and incidental work as shown on this sheet, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Major) per square yard.

For details of Type D Barrier on Approach Slab, see Sheet No. 22.

- (1) Seal joint between vertical face of approach slab and wing and joint between vertical face of the approach slabs and Type D barriers along C 1-44 with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.



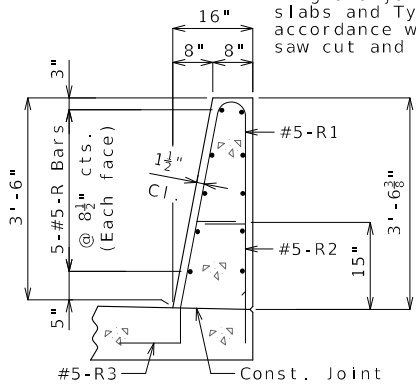
CONSTRUCTION JOINT DETAIL

UNDERSEAL ACCESS HOLE DETAIL

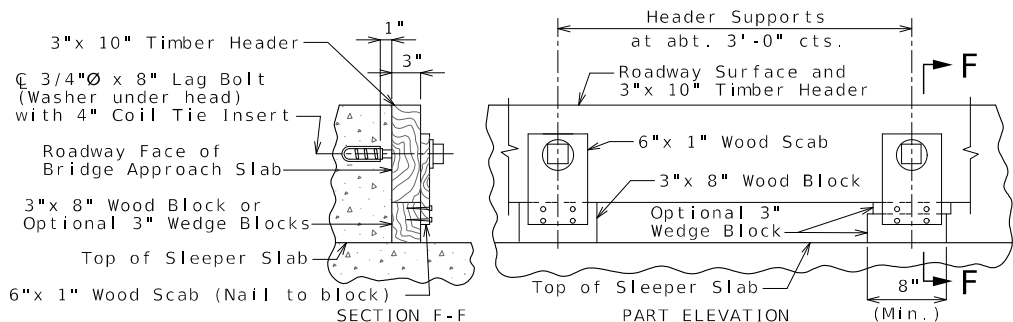
(If required)

SECTION BETWEEN CURB AND BARRIER

SECTION E-E



DETAILS OF TIMBER HEADER



Remove timber header when concrete pavement is placed.

BRIDGE APPROACH SLAB (MAJOR)

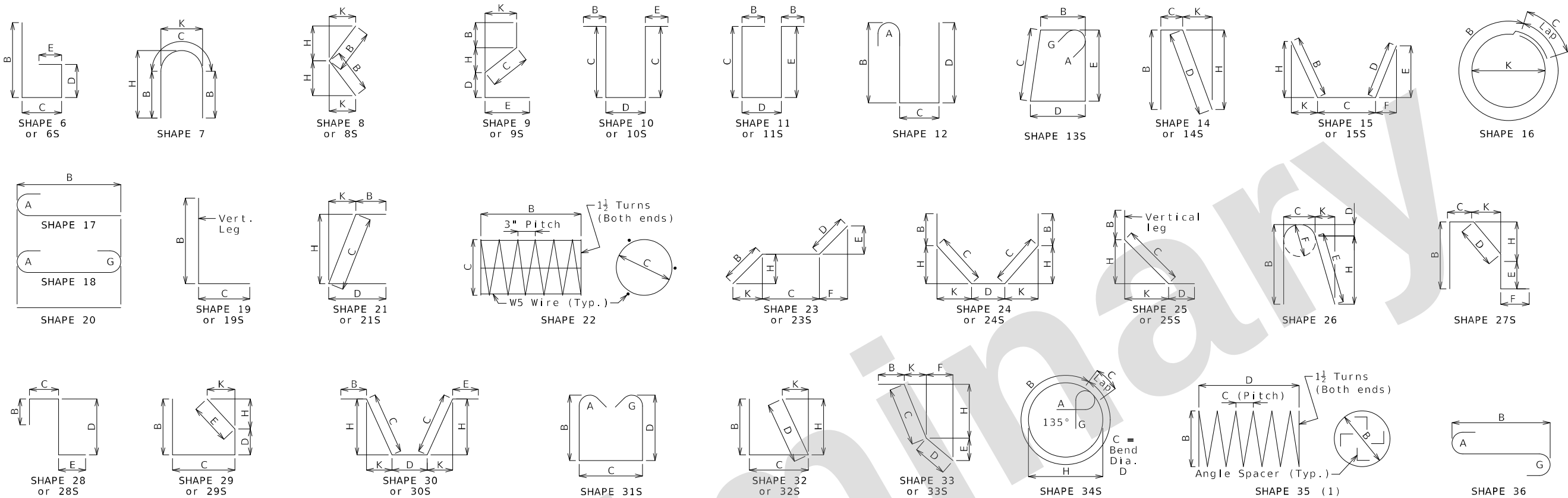
Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 24 of 32

DATE PREPARED 9/16/2024	
ROUTE 1-44	STATE MO
DISTRICT BR	SHEET NO. 24
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9418	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
MoDOT 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	

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



Finished Bend Dimensions 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	3 3/4"	10"	7"	5"	
#6	1	4 1/2"	12"	8 1/4"	6"	
#7	2	5 1/4"	14"	9 3/4"	7"	
	3	7"	15"	11 1/2"	8 3/4"	
#8	2	6"	16"	11"	8"	
	3	8"	17"	13 1/4"	10"	
#9	1	9 1/2"	19 1/2"	15 1/2"	11 3/4"	
#10	1	10 3/4"	22"	17 1/2"	13 1/4"	
#11	1	12"	24 1/2"	19 1/2"	14 7/8"	
#14	1	18 1/4"	31 1/4"	27 1/2"	21 5/8"	
#18	1	24"	41 1/2"	36 1/4"	28 1/2"	
Stirrup Pin Bend Shapes (S)						
Size	Case	D	A or G		H	J
			90°	135°	180°	135°
#4	2	2"	4 1/2"	4 1/2"	5"	2 7/8"
	3	3"	5"	5 1/4"	6"	3"
#5	2	2 1/2"	5 3/4"	5 3/4"	5 3/4"	3 3/8"
	3	3 3/4"	6 1/4"	6 1/4"	7"	3 5/8"
#6	1	4 1/2"	12"	7 3/4"	8 1/4"	4 5/8"
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

Reinforcing Steel Totals (Pounds)								
Size	Substructure		Superstructure			Entire Bridge		
	Plain	Epoxy	Slab		Barrier	Slip Form	Plain	Epoxy
			Plain	Epoxy				
W5	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	12,217	5,989	141	0	18,347
6	0	0	0	27,085	0	0	0	27,085
7	0	0	0	0	0	0	0	0
8	0	0	0	3,808	0	0	0	3,808
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
By Type	0	0	0	43,110	5,989	141	0	49,240

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

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 25 of 32

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9418

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

MoDOT

Certificate of Authority
No. : 000165
BMcD Project No. 146617

Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

BURNS
MCDONNELL

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

Bill of Reinforcing Steel																			
No. Req.	Size/ Mark	Location	Codes			Dimensions							Nom. Length	Actual Length	Weight				
						B	C	D	E	F	H	K							
			C	SH	V	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	lb	
END BENT 1																			
9	6	F100	Wing	E	23S	2	3.000	4	5.000	14.000	9.750	10.000	18.750	19.375	7	10	7	9	105
3	6	F101	Diaphragm	E	6S	5	5.000	2	7.000						8	0	7	10	35
4	6	H100	Beam	E	20	28	3.000								28	3	28	3	170
8	8	H101	Beam	E	20	28	3.000								28	3	28	3	603
4	6	H102	Beam	E	20	51	3.000								51	3	51	3	308
4	6	H103	Beam	E	20	47	0.000								47	0	47	0	282
8	8	H104	Beam	E	20	48	5.000								48	5	48	5	1034
4	6	H106	Beam	E	20	21	10.00								21	10	21	10	131
8	6	H107	Diaphragm	E	20	28	3.000								28	3	28	3	339
8	6	H108	Diaphragm	E	20	47	0.000								47	0	47	0	565
21	6	H109	Diaphragm	E	20	7	11.000								7	11	7	11	250
7	6	H110	Diaphragm	E	20	5	6.000								5	6	5	6	58
3	6	H111	Diaphragm	E	20	3	2.000								3	2	3	2	14
1	6	H112	Diaphragm	E	20	23	0.000								0	23	0	23	3
3	6	H113	Diaphragm	E	20	3	9.000								3	9	3	9	17
1	6	H114	Diaphragm	E	20	2	6.000								2	6	2	6	4
8	5	H115	Strand Tie	E	20	5	0.000								5	0	5	0	42
20	6	H116	Wing	E	20	11	8.000								11	8	11	8	350
8	8	H117	Wing	E	20	12	6.000								12	6	12	6	267
42	5	U100	Beam	E	31S	5	8.000	2	9.000	5	8.000				15	1	14	10	650
15	5	U101	Beam	E	13S	2	9.000	2	8.000	2	9.000	2	8.000		11	10	11	6	180
24	5	U102	Beam	E	13S	2	9.000	3	0.000	2	9.000	3	0.000		12	6	12	2	305
24	5	U103	Beam	E	13S	2	9.000	3	4.000	2	9.000	3	4.000		13	2	12	10	321
57	5	U104	Diaphragm	E	31S	3	4.000	2	3.000	3	4.000				9	11	9	8	575
57	6	U105	Diaphragm	E	19S	2	7.000	2	8.000						5	3	5	1	435
70	5	U106	Diaphragm	E	19S	2	0.000	15.000							3	3	3	2	231
94	6	U107	Diaphragm	E	19S	3	3.000	4	7.000						7	10	7	8	1082
30	5	V100	Beam	E	17	5	8.000								6	3	6	3	196
40	6	V101	Diaphragm	E	20	2	7.000								2	7	2	7	155
22	6	V102	Wing	E	20	6	7.000								6	7	6	7	218
END BENT 2																			
9	6	F200	Wing	E	23S	2	3.000	4	5.000	14.000	9.750	10.000	18.750	19.375	7	10	7	9	105
3	6	F201	Diaphragm	E	6S	5	5.000	2	7.000						8	0	7	10	35
4	6	H200	Beam	E	20	28	3.000								28	3	28	3	170
8	8	H201	Beam	E	20	28	3.000								28	3	28	3	603
4	6	H202	Beam	E	20	51	3.000								51	3	51	3	308
4	6	H203	Beam	E	20	47	0.000								47	0	47	0	282
8	8	H204	Beam	E	20	48	5.000								48	5	48	5	1034
4	6	H206	Beam	E	20	21	10.00								21	10	21	10	131
8	6	H207	Diaphragm	E	20	28	3.000								28	3	28	3	339
8	6	H208	Diaphragm	E	20	47	0.000								47	0	47	0	565
21	6	H209	Diaphragm	E	20	7	11.000								7	11	7	11	250
7	6	H210	Diaphragm	E	20	5	6.000								5	6	5	6	58
3	6	H211	Diaphragm	E	20	3	2.000								3	2	3	2	14
1	6	H212	Diaphragm	E	20	23	0.000								0	23	0	23	3
3	6	H213	Diaphragm	E	20	3	9.000								3	9	3	9	17
1	6	H214	Diaphragm	E	20	2	6.000								2	6	2	6	4
8	5	H215	Strand Tie	E	20	5	0.000								5	0	5	0	42
20	6	H216	Wing	E	20	11	8.000								11	8	11	8	350
8	8	H217	Wing	E	20	12	6.000								12	6	12	6	267
42	5	U200	Beam	E	31S	5	8.000	2	9.000	5	8.000				15	1	14	10	650
15	5	U201	Beam	E	13S	2	9.000	2	8.000	2	9.000	2	8.000		11	10	11	6	180
24	5	U202	Beam	E	13S	2	9.000	3	0.000	2	9.000	3	0.000		12	6	12	2	305
24	5	U203	Beam	E	13S	2	9.000	3	4.000	2	9.000	3	4.000		13	2	12	10	321
57	5	U204	Diaphragm	E	31S	3	4.000	2	3.000	3	4.000				9	11	9	8	575
57	6	U205	Diaphragm	E	19S	2	7.000	2	8.000						5	3	5	1	435
70	5	U206	Diaphragm	E	19S	2	0.000	15.000							3	3	3	2	231
94	6	U207	Diaphragm	E	19S	3	3.000	4	7.000						7	10	7	8	1082
30	5	V200	Beam	E	17	5	8.000								6	3	6	3	196
40	6	V201	Diaphragm	E	20	2	7.000								2	7	2	7	155
22	6	V202	Wing	E	20	6	7.000								6	7	6	7	218

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

For bending diagrams and steel reinforcing totals, see Sheet No. 25.

Detailed: May 2024
Checked: Jun. 2024

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.

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

Bill of Reinforcing Steel																							
Size/ Mark	Location	Codes			Dimensions								Nom.		Actual		Weight						
					B		C		D		E		F		H			K		Length		Length	
		C	SH	V	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	lb
	SLAB																						
S1	Slab	E	20		36	8.000											36	8	36	8	17623		
S2	Slab	E	20		42	4.000											42	4	42	4	5034		
S3	Slab	E	20		5	0.000											5	0	5	0	1471		
S4	Slab	E	20		42	8.000											42	8	42	8	712		
S5	Slab	E	20	2	11	7.000											11	7	11	7			
	Inc. = 15'-7"				58	4.000											58	4	58	4	420		
	BARRIER																						
K1	Barrier	E	27S		3	8.000	9.250	5.375	3	2.750			5.250	1.000			8	1	7	11	83		
K2	Barrier	E	27S		3	8.000	9.250	14.500	2	5.750			14.250	2.750			8	2	7	11	297		
K4	Barrier	E	19S	2	2	4.250	10.000										3	2	3	1			
	Inc. = 0.500"				2	6.250	10.000										3	4	3	3	33		
K5	Barrier	E	38S	2				18.500	9.500	8.250	18.000	4.000					3	0	2	11			
	Inc. = 0.500"							20.500	9.500	8.250	20.000	4.500					3	2	3	1	31		
K6	Barrier	E	19S		2	6.750	10.000										3	5	3	4	21		
K7	Barrier	E	21S			2	6.625	10.000							2	6.000	6.250	3	5	3	3	20	
K8	Barrier	E	19S	2	2	8.500	10.000										3	7	3	5			
	Inc. = 0.750"				3	2.500	10.000										4	1	3	11	70		
K9	Barrier	E	21S	2		2	8.500	10.000							2	7.750	6.750	3	6	3	5		
	Inc. = 0.750"					3	2.500	10.000							3	1.750	7.750	4	1	3	11	68	
K10	Barrier	E	19S		3	3.000	10.000										4	1	4	0	50		
K11	Barrier	E	21S			3	3.000	10.000							3	2.250	7.750	4	1	3	11	49	
K12	Barrier	E	20		12	9.000											12	9	12	9	160		
K13	Barrier	E	20	2	6	0.000											6	0	6	0			
	Inc. = 3'-0"				12	0.000											12	0	12	0	56		
K14	Barrier	E	20		12	9.000											12	9	12	9	160		
K15	Barrier	E	20	2	6	0.000											6	0	6	0			
	Inc. = 3'-0"				12	0.000											12	0	12	0	56		
R1	Barrier	E	26		3	3.000	5.500	2.250	3	1.375	5.500	3	0.750	6.750			6	11	6	10	1461		
R2	Barrier	E	19S			20.500	9.500										2	6	2	5	517		
R3	Barrier	E	27S				9.500	15.250	5.000	12.000	15.000	3.000					3	6	3	4	713		
R4	Barrier	E	20		40	3.000											40	3	40	3	840		
R5	Barrier	E	20		42	9.000											42	9	42	9	892		
R6	Barrier	E	20		19	9.000											19	9	19	9	412		
	SLIP FORM																						
C1	Slip Form	E	20		12	0.000											12	0	12	0	100		
C2	Slip Form	E	20		9	9.000											9	9	9	9	41		



PART PLAN SHOWING PILE NUMBERING FOR RECORDING AS-BUILT PILE DATA

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 1 (HP 12x53)			
1			
2			
3			
4			
5			
6			
7			
8			
9			

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 2 (HP 12x53)			
10			
11			
12			
13			
14			
15			
16			
17			
18			

Note:
Indicate in remarks column:
A. Pile type and grade
B. Batter
C. Driven to practical refusal

This sheet to be completed by MoDOT construction personnel.

AS-BUILT PILE DATA

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 27 of 32

DATE PREPARED 9/16/2024	
ROUTE I - 44	STATE MO
DISTRICT BR	SHEET NO. 27
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9418	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMCd Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-273-6636)	

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



Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-1
Page 1 of 2

Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: _____
Elevation: 1258.5
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
County: Greene
Skew: _____
Logged By: SO
Northing: 516849.3279
Easting: 1408477.028
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____
Route: I-44
Location: Springfield, Missouri
Operator: LRK
Date of Work: 07/20/23-07/21/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Hammer Efficiency: 90%
Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-9.0' (CH) Red and brown, fat CLAY, with gravel.							
				X	56	4-6-5 (17)		PP = 1.50 tsf	MC = 19.7%
			1255						
				X	28	2-3-4 (11)		PP = 0.50 tsf	MC = 30.0%
5									
								PP = 1.00 tsf	
			1250						
				X	70	50/0.4'		PP = 2.25 tsf	MC = 53.2%
10		9.0-25.1' LIMESTONE, gray, moderately hard to hard, slightly weathered, fine to coarse crystalline, thin to thick bedded, dense to pitted			100 (100)		Qu Test Results UCS = 1160 ksf		
		11.6' -5" CHERT			97 (78)		Qu Test Results UCS = 1050 ksf		
15			1245						
		16.1' Core loss from 16.1 to 17.9 ft.			47 (35)				
		18.1' -highly weathered from 18.1 to 20.1 ft. -pitted to vuggy from 18.1 to 23.0 ft.	1240		83 (0)				
20									
		20.1' -moderately weathered from 20.1 to 23.1 ft.			100 (50)		Qu Test Results UCS = 1150 ksf		
			1235						
25									

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual
Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.



Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-1
Page 2 of 2

Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: _____
Elevation: 1258.5
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
County: Greene
Skew: _____
Logged By: SO
Northing: 516849.3279
Easting: 1408477.028
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____
Route: I-44
Location: Springfield, Missouri
Operator: LRK
Date of Work: 07/20/23-07/21/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Hammer Efficiency: 90%
Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		Refusal at 9.0 feet. Bottom of borehole at 25.1 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual
Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

Detailed: May 2024
Checked: Jun. 2024

Note: For locations of borings, see Sheet No. 1.
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 28 of 32

BORING DATA



Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-2
Page 1 of 2

Job No.: 20231075.00 County: Greene Route: I-44
Design: Skew: Location: Springfield, Missouri
Bent: Logged By: SO Operator: LRK
Station: Northing: 516854.8221 Date of Work: 07/20/23-07/20/23
Offset: 6' S Easting: 1408478.5498 Depth to Water:
Elevation: 1258.8 Requested Northing: Depth Hole Open:
Requested Station: Requested Easting: Time Change:
Requested Offset: Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Requested Elevation: Location Note:
Drill No.: Hammer Efficiency: 90% Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-13.0' (CH) Red and brown, fat CLAY 1.0' -with gravel from 1.0 to 5.0 ft.			56	4-7-8 (23)		PP = 2.25 tsf	MC = 26.0%
5			1255		39	2-1-2 (5)		PP = 1.00 tsf	MC = 27.8%
		6.0' -trace sand and gravel from 6.0 to 10.0 ft.			67	6-12-13 (38)		PP = 2.25 tsf	MC = 31.9%
10			1250		0			PP = 1.50 tsf	
					100	2-3-4 (11)		PP = 1.50 tsf	MC = 52.0%
15		13.0-15.2' Weathered LIMESTONE	1245		33	50/0.3'			MC = 12.9%
		15.2-30.5' LIMESTONE, gray, moderately hard to hard, slightly weathered to fresh, fine to coarse crystalline, thin to thick bedded, dense 16.2' -5" core loss	1240		92 (76)		Qu Test Results UCS = 1390 ksf		
20					100 (82)		Qu Test Results UCS = 1110 ksf		
25		21.5' -cherty from 21.5 to 23.0 ft.	1235						

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

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Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-2
Page 2 of 2

Job No.: 20231075.00 County: Greene Route: I-44
Design: Skew: Location: Springfield, Missouri
Bent: Logged By: SO Operator: LRK
Station: Northing: 516854.8221 Date of Work: 07/20/23-07/20/23
Offset: 6' S Easting: 1408478.5498 Depth to Water:
Elevation: 1258.8 Requested Northing: Depth Hole Open:
Requested Station: Requested Easting: Time Change:
Requested Offset: Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Requested Elevation: Location Note:
Drill No.: Hammer Efficiency: 90% Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		15.2-30.5' LIMESTONE, gray, moderately hard to hard, slightly weathered to fresh, fine to coarse crystalline, thin to thick bedded, dense (continued)			100 (100)		Qu Test Results UCS = 1530 ksf		
30		Refusal at 15.2 feet. Bottom of borehole at 30.5 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 29 of 32

BORING DATA



Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-4
Page 1 of 2

Job No.: 20231075.00 County: Greene Route: I-44
Design: Skew: Location: Springfield, Missouri
Bent: Logged By: SO Operator: LRK
Station: Northing: 516919.0926 Date of Work: 07/18/23-07/19/23
Offset: Easting: 1408543.4992 Depth to Water:
Elevation: 1258.0 Requested Northing: Depth Hole Open:
Requested Station: Requested Easting: Time Change:
Requested Offset: Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Requested Elevation: Location Note:
Drill No.: Hammer Efficiency: 90% Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-8.0' (CH) Red and brown, gravelly fat CLAY							
			1255	X	17	11-18-19 (56)		PP = 2.00 tsf	MC = 23.5%
					58		Qu Test Results UCS = 1.29 ksf MC = 29.7% γ _{moist} = 113.6 pcf		Sieve Analysis Sieve # % Passing #200 75.1
5				X	72	2-10-11 (32)		PP = 3.50 tsf	MC = 30.4%
		8.0-17.0' (CH) Red and brown, fat CLAY, trace gravel, sand, and organics	1250	X	100	2-4-4 (12)		PP = 2.50 tsf	MC = 49.9%
10									
		13.5' -red, with chert below 13.5 ft.	1245	X	50	8-5-50 (83)		PP = 1.50 tsf	MC = 47.6%
15									
		17.0-18.5' Weathered LIMESTONE	1240						
20		18.5-30.0' LIMESTONE, gray, hard, slightly weathered, finely crystalline, thin bedded, dense to pitted 19.5' - boring offset 5.0 ft. NW			75 (75)				
			1235		97 (74)		Qu Test Results UCS = 920 ksf		
25									

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

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Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-4
Page 2 of 2

Job No.: 20231075.00 County: Greene Route: I-44
Design: Skew: Location: Springfield, Missouri
Bent: Logged By: SO Operator: LRK
Station: Northing: 516919.0926 Date of Work: 07/18/23-07/19/23
Offset: Easting: 1408543.4992 Depth to Water:
Elevation: 1258.0 Requested Northing: Depth Hole Open:
Requested Station: Requested Easting: Time Change:
Requested Offset: Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Requested Elevation: Location Note:
Drill No.: Hammer Efficiency: 90% Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		18.5-30.0' LIMESTONE, gray, hard, slightly weathered, finely crystalline, thin bedded, dense to pitted (continued)	1230		100 (92)		Qu Test Results UCS = 1020 ksf		
30		30.0-35.0' LIMESTONE, gray, hard, slightly weathered, finely crystalline, thin bedded, dense to pitted	1225		93 (82)		Qu Test Results UCS = 1410 ksf		
35		Refusal at 18.5 feet. Bottom of borehole at 35.0 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 30 of 32

BORING DATA



Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-4A
Page 1 of 2

Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: 4' N, 3" W
Elevation: 1258.0
Requested Station: _____
Requested Offset: _____
Requested Elevation: 1258.0

County: Greene
Route: I-44
Location: Springfield, Missouri
Logged By: JM
Operator: LRK
Northing: 516919.0926
Date of Work: 07/19/23-07/19/23
Easting: 1408543.4992
Depth to Water: _____
Requested Northing: 516882.8087
Depth Hole Open: _____
Requested Easting: 1408444.6298
Time Change: _____
Equipment: CME 550X
Location Note: _____

Drill No.: _____ Hammer Efficiency: 90% Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-19.5' See Log G-B-4							
			1255						
5			1250						
10			1245						
15			1240						
20		19.5-30.0' LIMESTONE, gray, hard, slightly weathered, finely crystalline, thin bedded, dense to pitted	1235		97 (74)		Qu Test Results UCS = 920 ksf		
25									

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

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Missouri Department of Transportation
Construction and Materials

BORING NO. G-B-4A
Page 2 of 2

Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: 4' N, 3" W
Elevation: 1258.0
Requested Station: _____
Requested Offset: _____
Requested Elevation: 1258.0

County: Greene
Route: I-44
Location: Springfield, Missouri
Logged By: JM
Operator: LRK
Northing: 516919.0926
Date of Work: 07/19/23-07/19/23
Easting: 1408543.4992
Depth to Water: _____
Requested Northing: 516882.8087
Depth Hole Open: _____
Requested Easting: 1408444.6298
Time Change: _____
Equipment: CME 550X
Location Note: _____

Drill No.: _____ Hammer Efficiency: 90% Drilling Method: HSA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		19.5-30.0' LIMESTONE, gray, hard, slightly weathered, finely crystalline, thin bedded, dense to pitted (continued)	1230		100 (92)		Qu Test Results UCS = 1020 ksf		
30		30.0-35.0' LIMESTONE, gray, hard, slightly weathered, finely crystalline, thin bedded, dense to pitted	1225		93 (82)		Qu Test Results UCS = 1410 ksf		
35		Bottom of borehole at 35.0 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 31 of 32

BORING DATA

c:\bmcd_lib\pw_connect\trn\d0171017\B_A9418_031_JSU0076.dgn 1:42:19 PM 9/16/2024

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

Burns & McDonnell Engineering Co., Inc.



9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMCD Project No. 146617



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



BORING NO. G-B-5
Page 1 of 2

County: Greene Route: I-44
 Skew: _____ Location: Springfield, Missouri
 Logged By: SO Operator: LRK
 Northing: 516858.1379 Date of Work: 07/20/23-07/20/23
 Easting: 1408540.4977 Depth to Water: _____
 Requested Northing: _____ Depth Hole Open: _____
 Requested Easting: _____ Time Change: _____
 Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
 Location Note: _____

Drill No.: _____ Hammer Efficiency: 90% Drilling Method: HSA

$N_{60} = (E_m/60)N_m$ N_{60} - Corrected N value for standard 60% SPT efficiency; E_m - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 32 of 32



BORING NO. G-B-5
Page 2 of 2

County: Greene Route: I-44
Skew: _____ Location: Springfield, Missouri
Logged By: SO Operator: LRK
Northing: 516858.1379 Date of Work: 07/20/23-07/20/23
Easting: 1408540.4977 Depth to Water: _____
Requested Northing: _____ Depth Hole Open: _____
Requested Easting: _____ Time Change: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____

Drill No.: _____ Hammer Efficiency: 90% Drilling Method: HSA

$N_{60} = (Em/60)N_m$ N_{60} - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

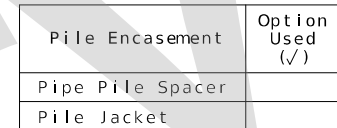
Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

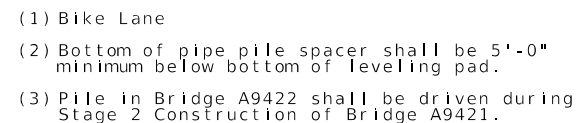
BORING DATA

c:\bmcd\lib\pw connect\trn\d0171017\B A9418 032 JSU0076.dgn 1:42:35 PM 9/16/2024

SEC/SUR	1	TWP	29N	RGE	22W
---------	---	-----	-----	-----	-----



MoDot Construction personnel will indicate the pile encasement used.



- NOTES:
- Indicates location of borings.
- For notice and disclaimer regarding boring log data, see Sheet No. 2.
- Roadway fill, exclusive of Select Granular Backfill for Structural Systems, shall be completed to the final roadway section and up to the elevation of the bottom of the concrete beam within the limits of the structure and for not less than 25 feet in back of the fill face of the end bents before any piles are driven for any bents falling within the embankment section.
- C.P. #520 - 5/8" I.B. w/ 2" Aluminum Cap
Sta. 1157+31.28, 94.70' Rt. of C 1-44
Elev. 1278.57
- C.P. #521 - 5/8" I.B. w/ 2" Aluminum Cap
Sta. 1184+76.50, 114.67' Lt. of C 1-44
Elev. 1294.63

Designed: May 2024
Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 1 of 30

BRIDGE: RTE. I-44 EBL OVER NATIONAL AVE.
ROUTE 1-44 EBL FROM ROUTE 13 TO ROUTE H
ABOUT 2.0 MILES EAST OF ROUTE 13
BEGINNING STATION 1178+30.54

DATE PREPARED 9/16/2024	
ROUTE I - 44	STATE MO
DISTRICT BR	SHEET NO. 1

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID

PROJECT NO.

BRIDGE NO.
A9421

DATE	DESCRIPTION
------	-------------

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165



3McD Project No. 146617

[illegible]

REV.

GENERAL NOTES:

DESIGN SPECIFICATIONS:

2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
Operational Importance = Essential
2011 AASHTO Guide Specifications for LRFD Seismic Bridge Design (2nd Ed.)
and 2014 Interim Revisions (Seismic)
Seismic Design Category = A
Design earthquake response spectral acceleration coefficient at 1.0 second
period, $S_{D1} = 0.104g$
Acceleration Coefficient (effective peak ground acceleration coefficient), $A_s = 0.089g$

DESIGN LOADING:

Vehicular = HL-93
Future Wearing Surface = 35 lb/sf
Earth = 120 lb/cf
Equivalent Fluid Pressure = 45 lb/cf (Min.)
Superstructure: Non-composite for dead load.
Composite for live load.

DESIGN UNIT STRESSES:

Class B Concrete (Substructure) $f'_c = 3,000$ psi
Class B-1 Concrete (Type D Barrier) $f'_c = 4,000$ psi
Class B-2 Concrete (Superstructure, except
Prestressed Girders and Type D Barrier) $f'_c = 4,000$ psi
Reinforcing Steel (Grade 60) $f_y = 60,000$ psi
Structural Steel HP Pile (ASTM A709 Grade 50S) $f_y = 50,000$ psi
For precast prestressed panel stresses, see Sheet No. 18.
For prestressed girder stresses, see Sheets No. 16 thru 17.

NEOPRENE PADS:

Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

JOINT FILLER:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber
expansion and partition joint filler, except as noted.

REINFORCING STEEL:

Minimum clearance to reinforcing steel shall be $1\frac{1}{2}"$, unless otherwise shown.

MBS refers to 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 splices and they
will be considered completely covered by the contract unit price for other items.

TRAFFIC HANDLING:

Vertical clearance for National Avenue traffic during construction shall be 14'-6"
minimum over a 11'-0" wide horizontal opening of the roadway in each direction.

Traffic to be maintained on structures during construction. See roadway plans for traffic
control and Sheets No. 3 thru 4 for staged construction details.

MISCELLANEOUS:

MoDOT Construction personnel will indicate the type of joint filler option used under the
precast panels for this structure:

- ☐ Constant Joint Filler
☐ Variable Joint Filler

NOTICE AND DISCLAIMER REGARDING BORING LOG DATA:

The locations of all subsurface borings for this structure are shown on the plan sheets
for this structure. The boring data for all locations indicated, as well as any other
boring logs or other factual records of subsurface data and investigations performed by
the department for the design of the project, are shown on Sheets No. 28 thru 30 and may
be included in the Electronic Bridge Deliverables. They will also be available from the
Project Contact upon written request. No greater significance or weight should be given to
the boring data depicted on the plan sheets than is given to the subsurface data
available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts
the conditions to be encountered in constructing this project. A contractor assumes all
risks it may encounter in basing its bid prices, time or schedule of performance on the
boring data depicted here or those available from the district, or on any other
documentation not expressly warranted, which the contractor may obtain from the
Commission.

Foundation Data			
Type	Design Data	Bent Number	
		1	2
Load Bearing Pile	Pile Type and Size	HP 12x53	HP 12x53
	Number	ea 9	9
	Approximate Length Per Each	ft 27	28
	Pile Point Reinforcement	ea All	All
	Min. Galvanized Penetration (Elev.)	ft Full Length	Full Length
	Pile Driving Verification Method	DF	DF
	Resistance Factor	0.4	0.4
Minimum Nominal Axial Compressive Resistance		kip 590	590

DF = FHWA - modified Gates Dynamic Pile Formula.

Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resistance Factor}}$

Manufactured pile point reinforcement shall be used on all piles in this structure.

Pile point reinforcement need not be galvanized. Shop drawings will not be required for
pile point reinforcement.

Prebore for piles at Bents No. 1 and 2 to elevation 1263.0.

HP piles are anticipated to be driven to refusal on rock. Review all borings for depth of
rock and restrict driving as appropriate to comply with hard rock driving criteria in
accordance with Sec 702. When pile refusal on rock occurs, as approved by the engineer,
the minimum nominal axial compressive resistance is verified and no additional pile
driving verification method is required.

The contractor shall make every effort to achieve the minimum galvanized penetration
(elevation) shown on the plans for all piles.

Estimated Quantities				
Item	Substr.	Superstr.	Total	
Removal of Bridges (A04472)	Lump sum		1	
Bridge Approach Slab (Major)	sq. yard		314	
Galvanized Structural Steel Piles (12 in.)	linear foot		492	
Pre-Bore for Piling	linear foot		216	
Pile Point Reinforcement	each		18	
Class B Concrete (Substructure)	cu. yard		58.2	
Type D Barrier	linear foot		226	
Slab on Concrete NU-Girder	sq. yard		648	
NU 35, Prestressed Concrete NU-Girder	linear foot		647	
Vertical Drain at End Bents	each		2	
Plain Neoprene Bearing Pad	each		8	
Laminated Neoprene Bearing Pad (Tapered)	each		8	
Pile Spacers	each		18	

All concrete above the construction joint in the end bents is included in the Estimated
Quantities for Slab on Concrete NU-Girder.

All reinforcement in the end bents is included in the Estimated Quantities for Slab on
Concrete NU-Girder.

Estimated Quantities for Slab on Concrete NU-Girder		
Item	Total	
Class B-2 Concrete	cu. yard	205
Reinforcing Steel (Epoxy Coated)	pound	46,160

The table of Estimated Quantities for Slab on Concrete NU-Girder represents the quantities used by the
State in preparing the cost estimate for concrete slabs. The area of the concrete slab will be measured
to the nearest square yard longitudinally from end of slab to end of slab and transversely from out to
out of bridge slab (or with the horizontal dimensions as shown on the plan of slab). Payment for
prestressed panels, conventional forms, all concrete and epoxy coated reinforcing steel will be
considered completely covered by the contract unit price for the slab. Variations may be encountered in
the estimated quantities but the variations cannot be used for an adjustment in the contract unit
price.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703. All hardware
for forming the slab to be left in place as a permanent part of the structure shall be coated in
accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and a finish type I, II or III.

PRECAST PRESTRESSED PANELS:

The Estimated Quantities for Slab on Concrete NU-Girder are based on skewed precast prestressed end
panels.

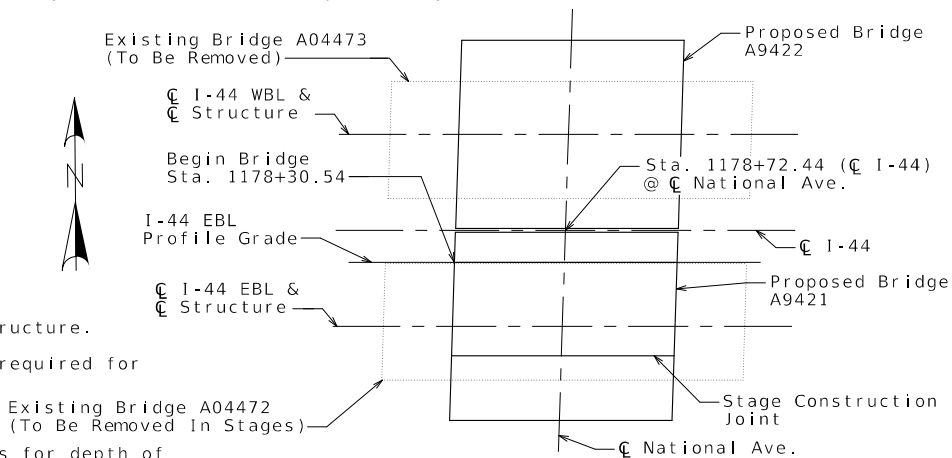
Class B-2 Concrete quantity is based on minimum top flange and minimum joint material thickness.

The prestressed panel quantities are not included in the table of Estimated Quantities for
Slab on Concrete NU-Girder.

STAGED CONSTRUCTION:

The Contractor shall verify that the existing bridge is sufficient to carry traffic during Stage 1
Construction. The design, installation and monitoring of any temporary supports will be considered
completely covered by the contract unit price for the Removal of Bridges (A04472).

The Contractor shall remove the existing end bents as necessary for Stage 1 Construction as shown on
Sheet No. 3.

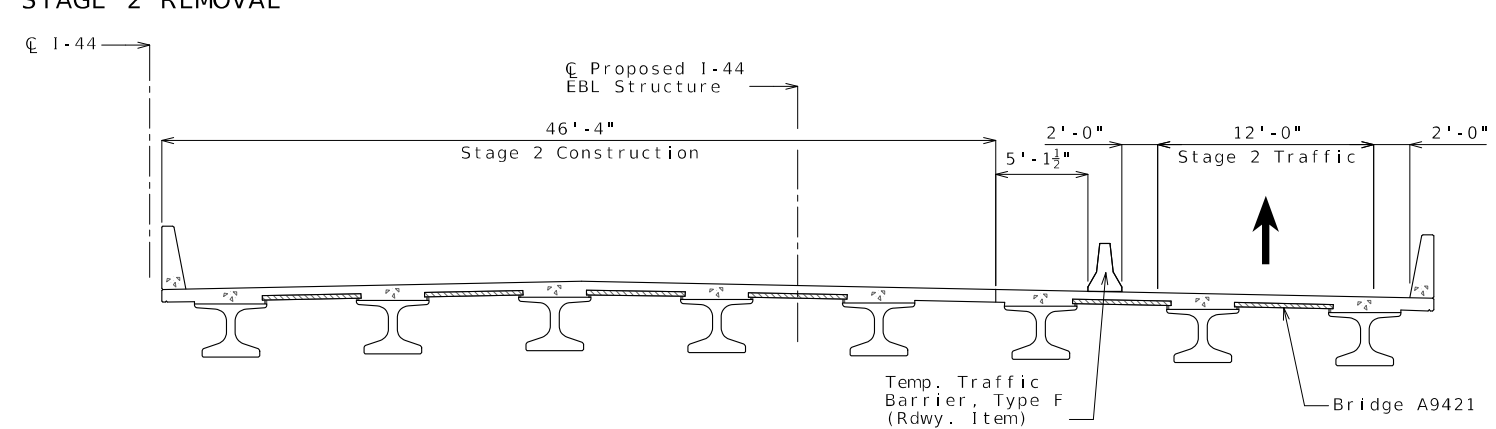
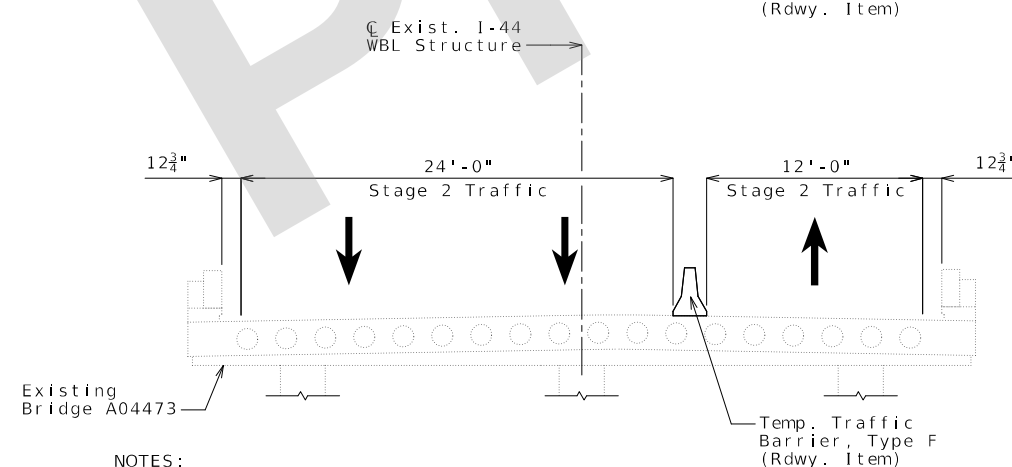
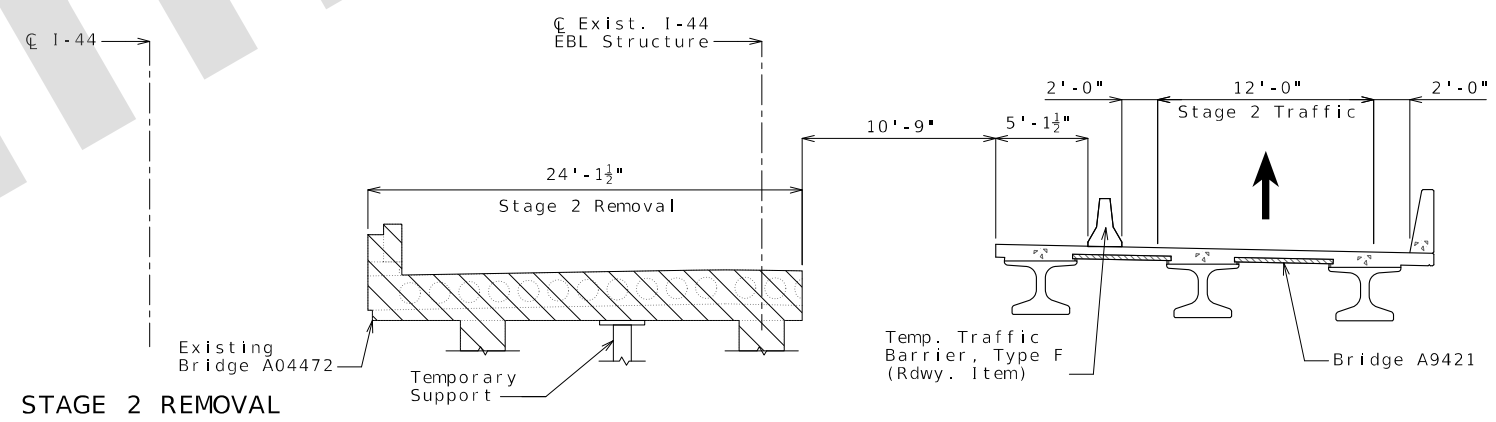
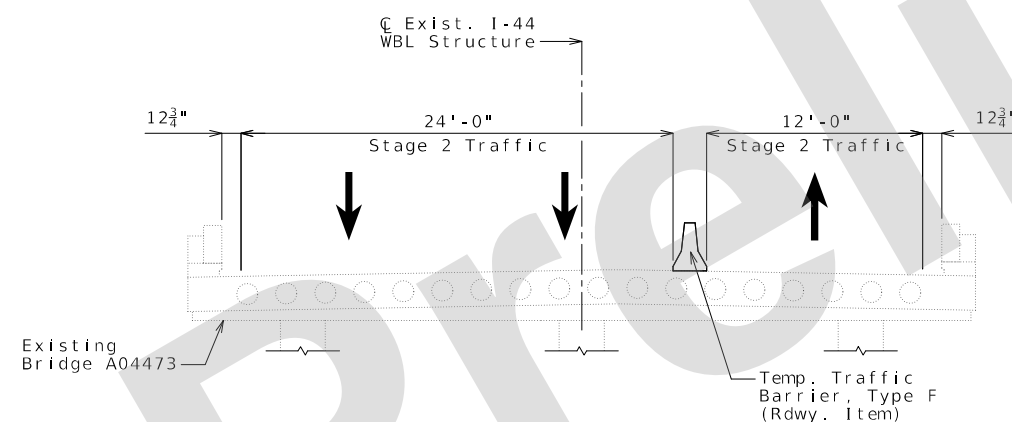
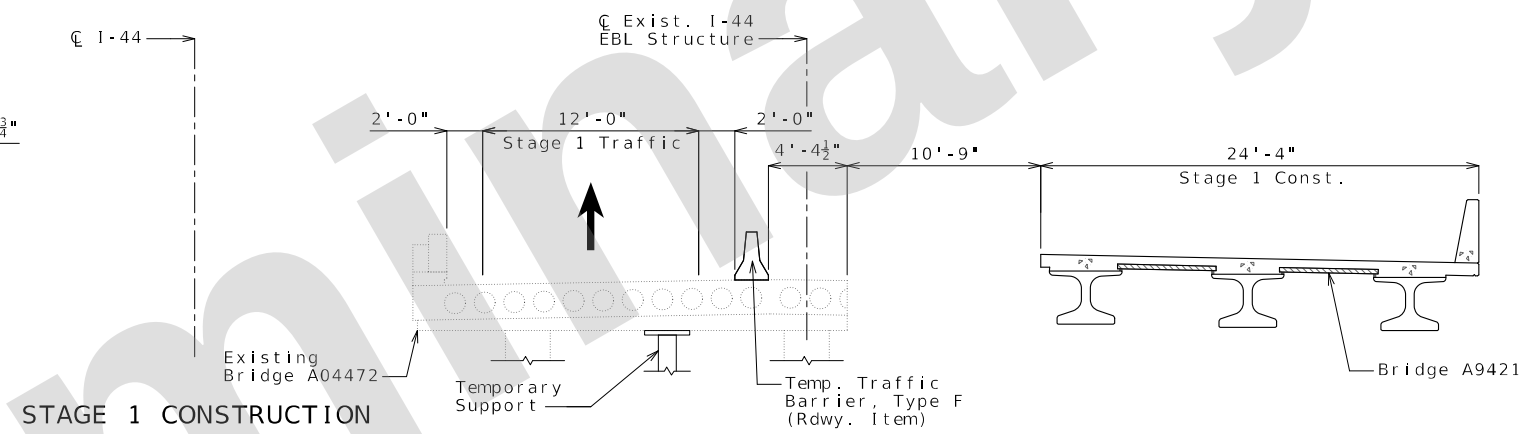
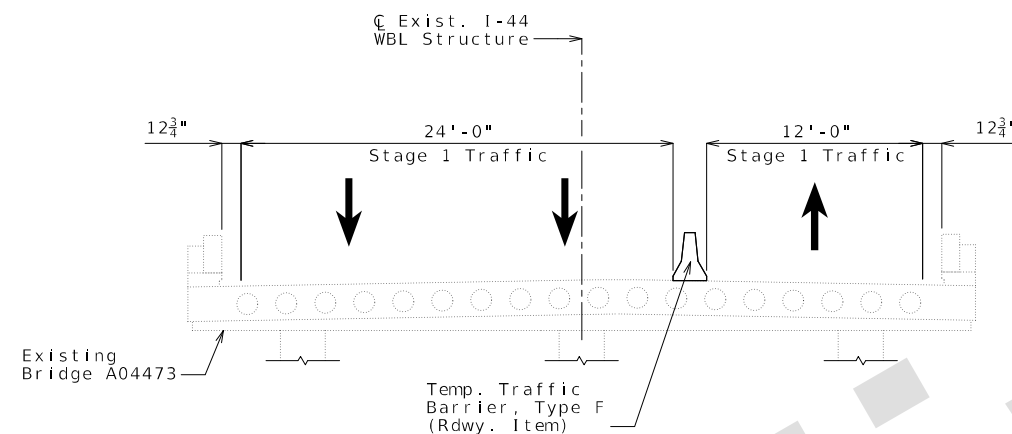
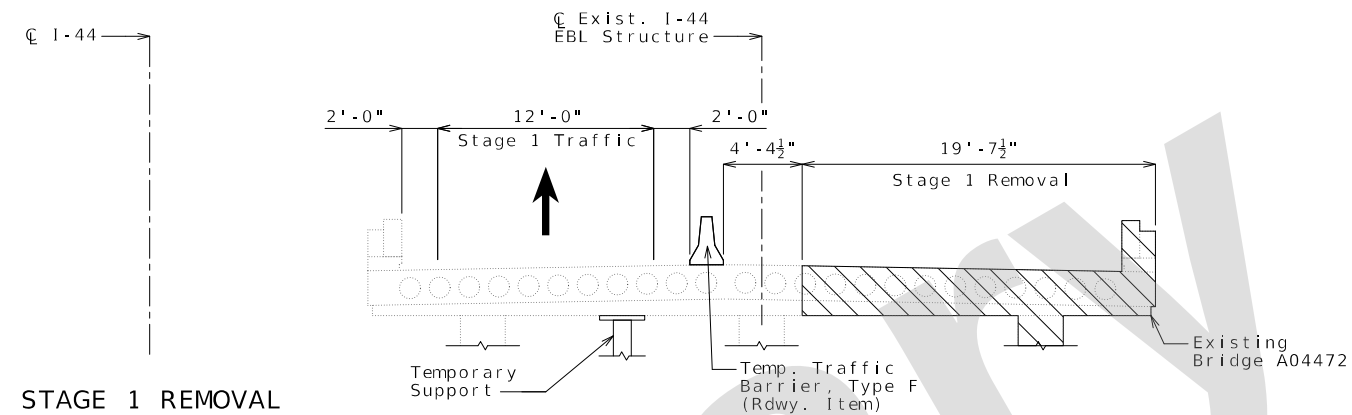
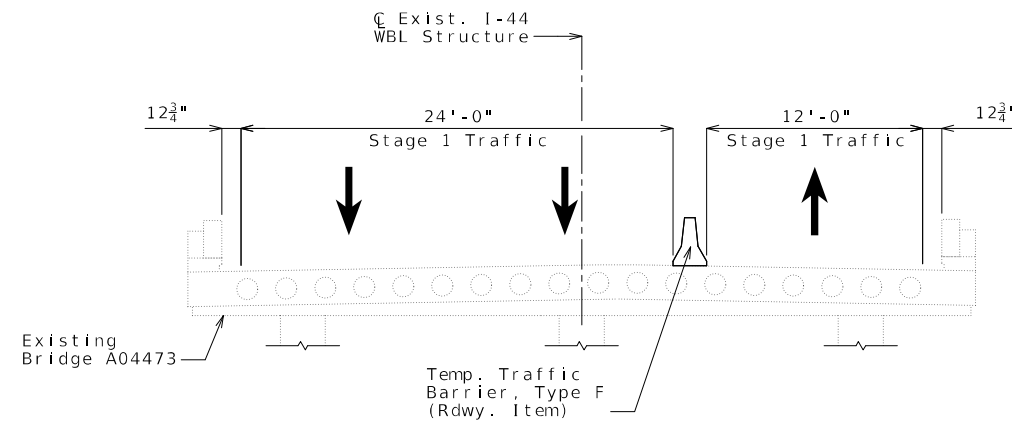


GENERAL NOTES & QUANTITIES

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 2 of 30



NOTES :

All typical sections are looking east.

Hatched area indicates removal of existing structures.

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

Sheet No. 3 of 30

STAGED CONSTRUCTION

DATE PREPARED	
9/16/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
BR	3

COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.	

BRIDGE NO.	
A9421	

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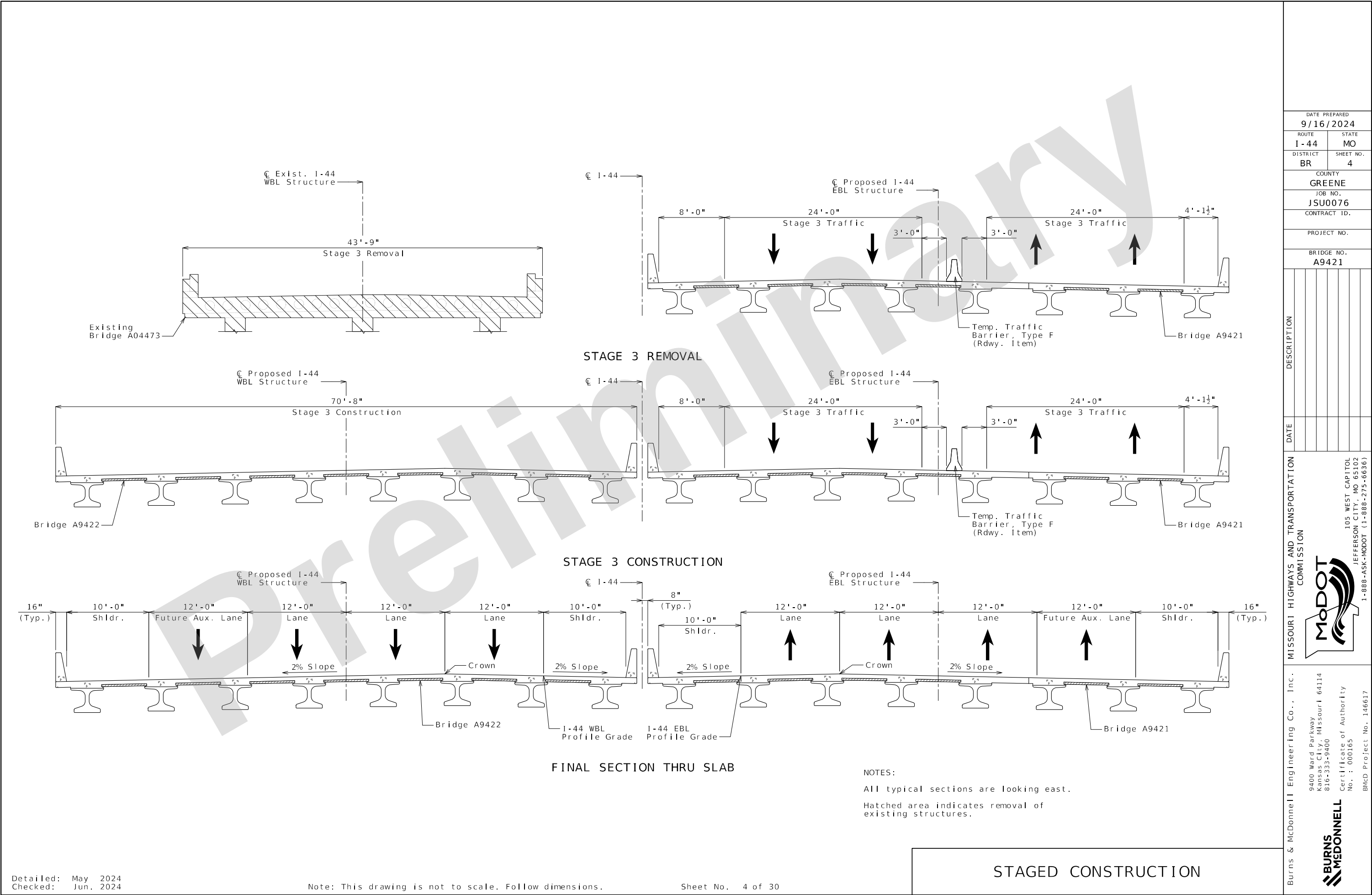
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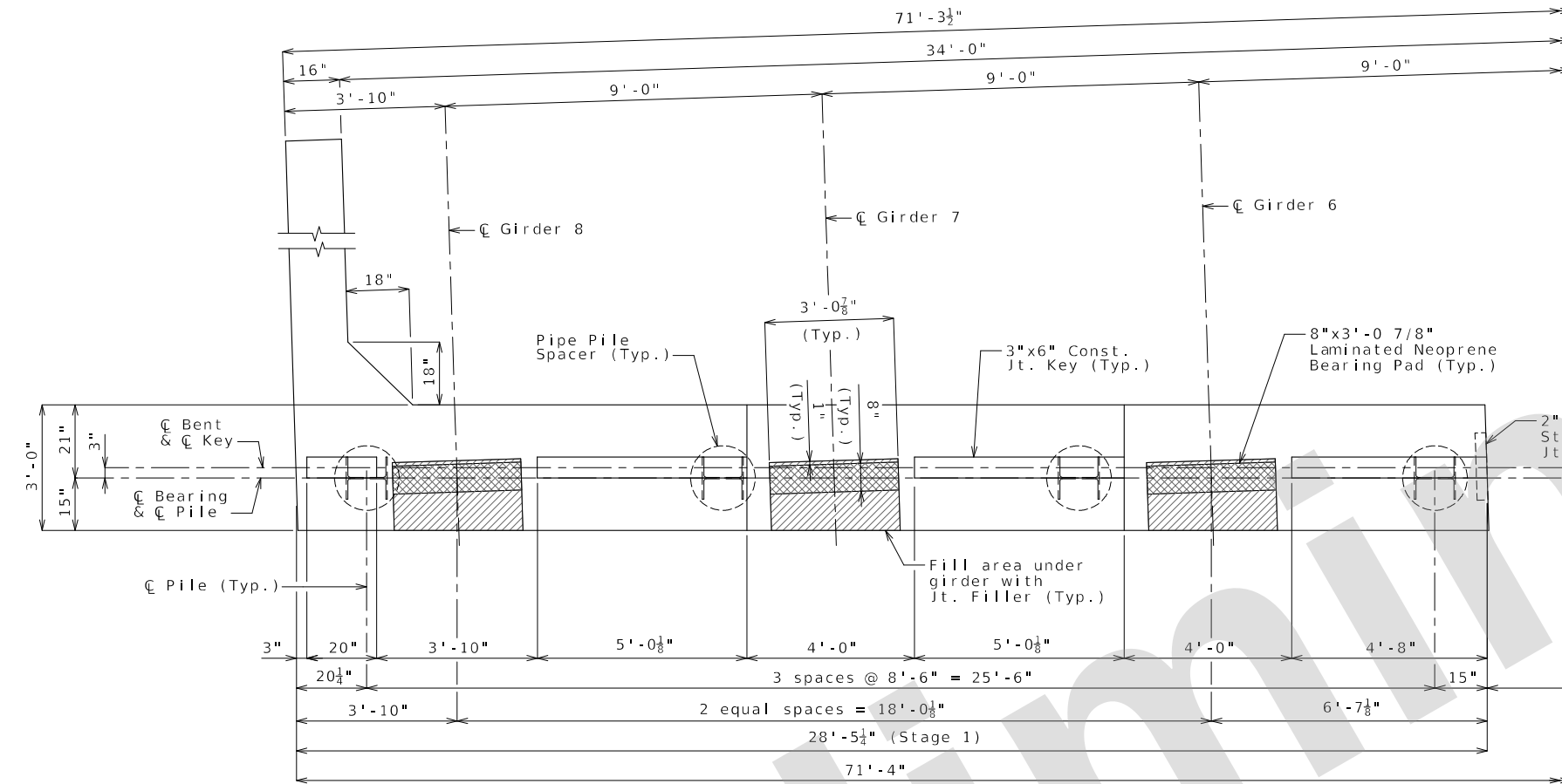
Detailed: May 2024
Checked: Jun. 2024

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

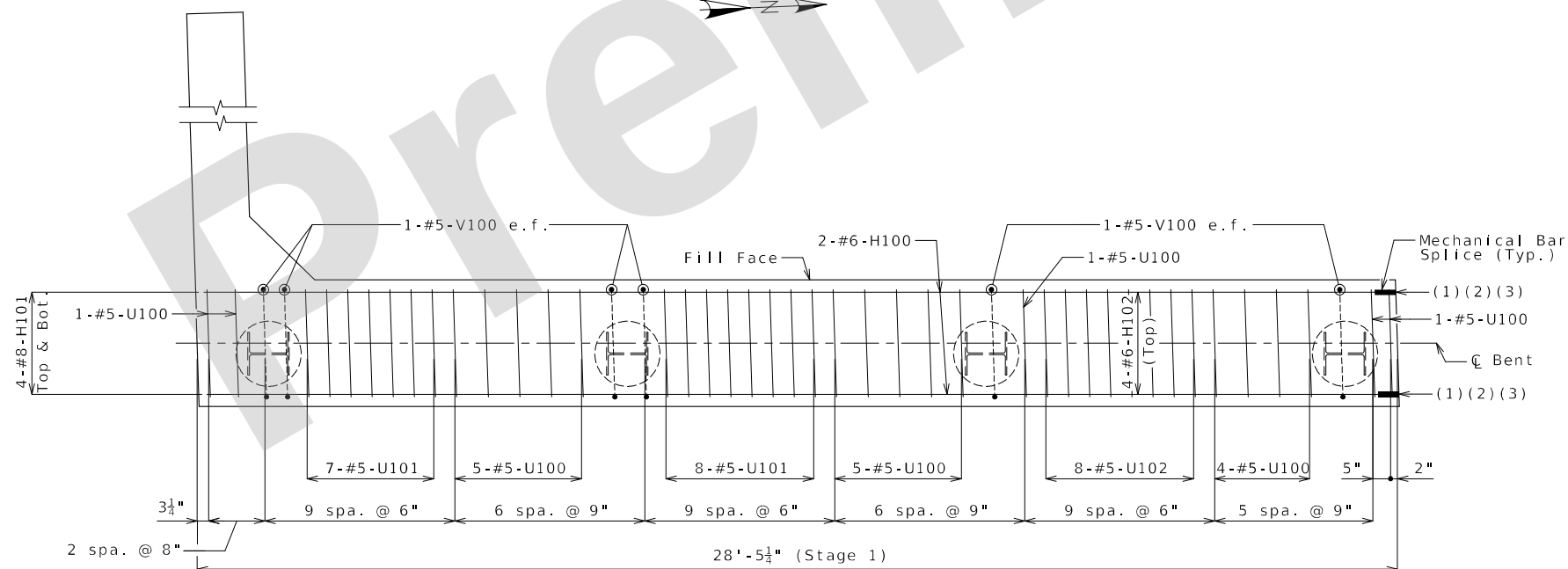
Sheet No. 4 of 30

DATE PREPARED 9/16/2024	
ROUTE I-44	STATE MO
DISTRICT BR	SHEET NO. 4
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9421	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	

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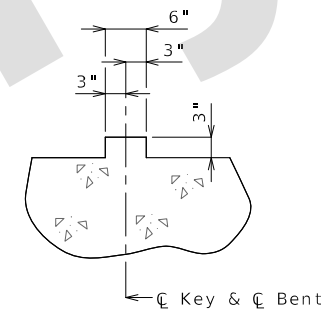
PART PLAN OF BEAM



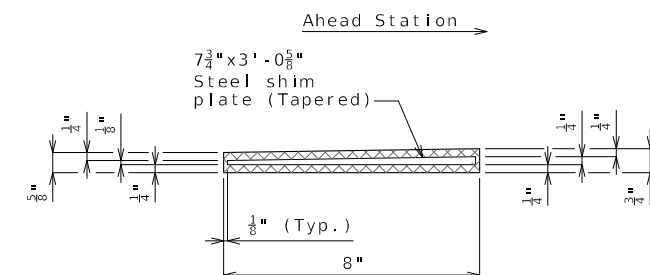
PART PLAN OF BEAM SHOWING REINFORCEMENT
(Keys and steps not shown for clarity)

Substructure Quantity Table for End Bent No. 1		
Item		Quantity
Galvanized Structural Steel Piles (12 in.)	linear foot	244
Pre-Bore for Piling	linear foot	108
Pile Point Reinforcement	each	9
Class B Concrete (Substructure)	cu. yard	29.1

These quantities are included in the Estimated Quantities table on Sheet No. 2.



SECTION THRU KEY



TYPICAL SECTION THRU
8"X3'-0 7/8"X11/16"
LAMINATED NEOPRENE BEARING PAD
(8 Required)

NOTES:

Work this sheet with Sheets No. 6 thru 9.

All U bars and pairs of V bars shall be placed parallel to centerline of roadway.

Reinforcing steel shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.

e.f. denotes each face.

- (1) 4-MBS H101-H104 Top & Bot.
- (2) 2-MBS H100-H103 Each Face
- (3) 4-MBS H102-H105 Top

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 5 of 30

END BENT NO. 1
BEAM DETAILS 1 OF 2

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DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9421

DESCRIPTION

DATE

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JEFFERSON CITY, MO 65102
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MoDOT

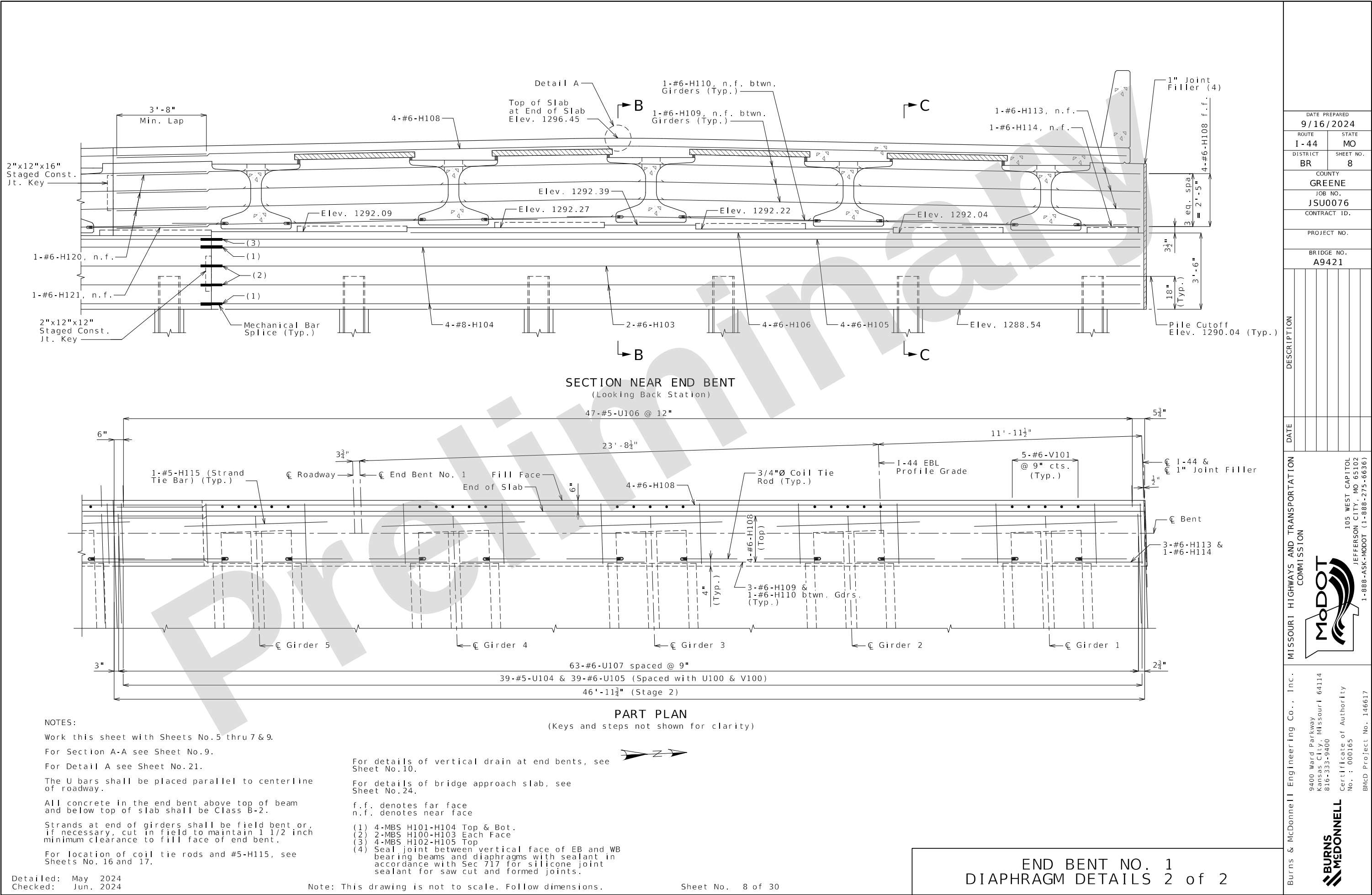
Certificate of Authority
No. : 000165
BMcD Project No. 146617

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

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REV.



Detailed: May 2024
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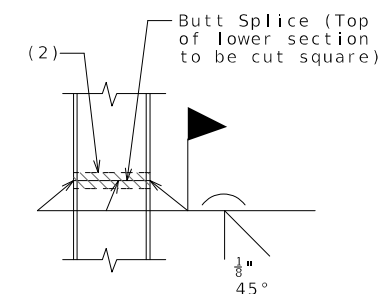
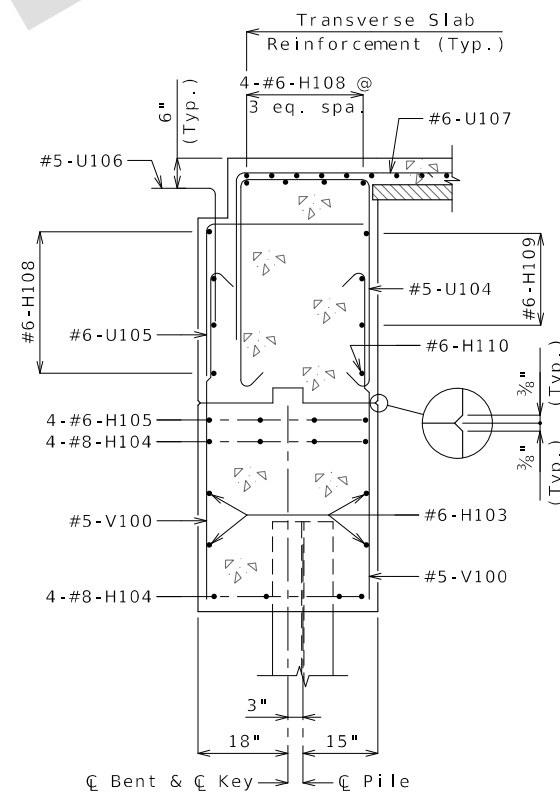
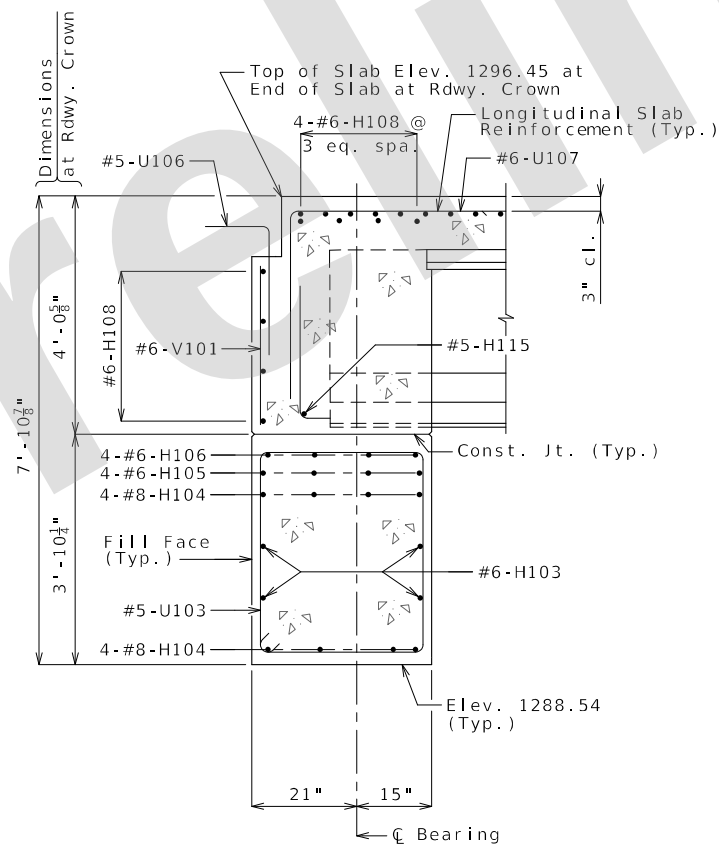
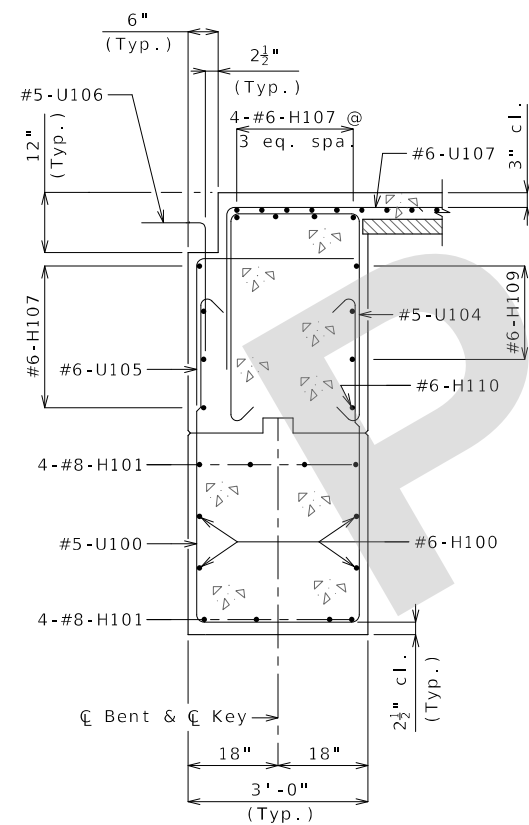
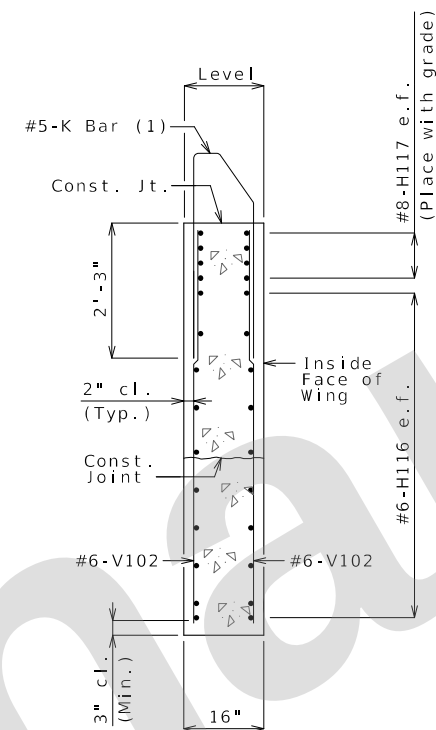
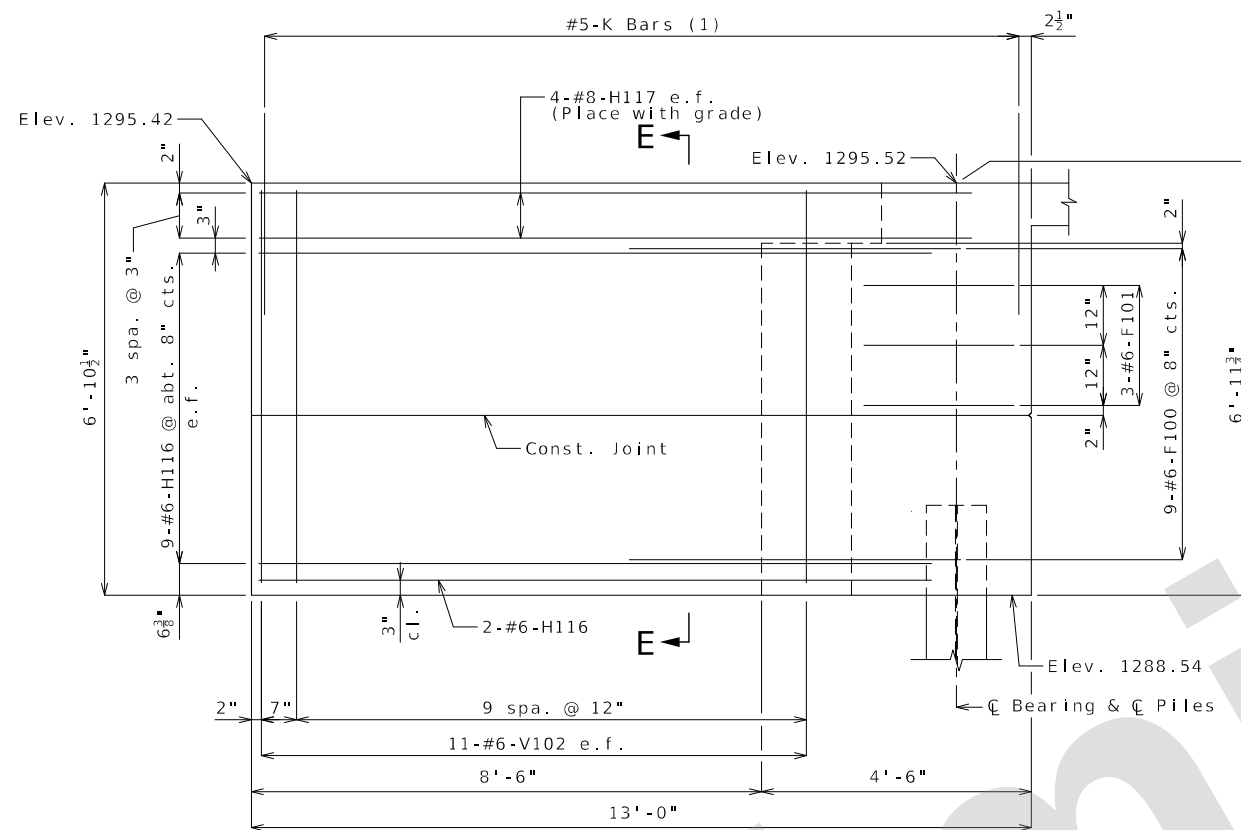
Sheet No. 8 of 30

END BENT NO. 1
DIAPHRAGM DETAILS 2 of 2

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DATE PREPARED 9/16/2024	
ROUTE 1-44	STATE MO
DISTRICT BR	SHEET NO. 8
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9421	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
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105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	

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STEEL PILE SPLICE
(If required)

(2) Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.

NOTES :

(1) For reinforcement of the Type D Barrier at End Bents, see Sheet No.23.

e.f. denotes each face.

For details of bridge approach slab,
see Sheet No. 24.

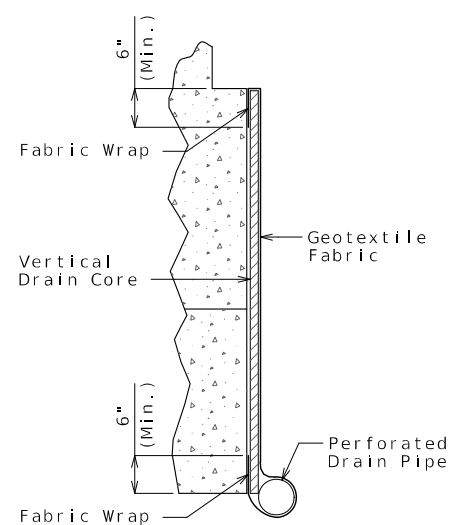
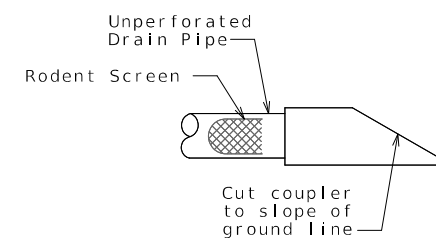
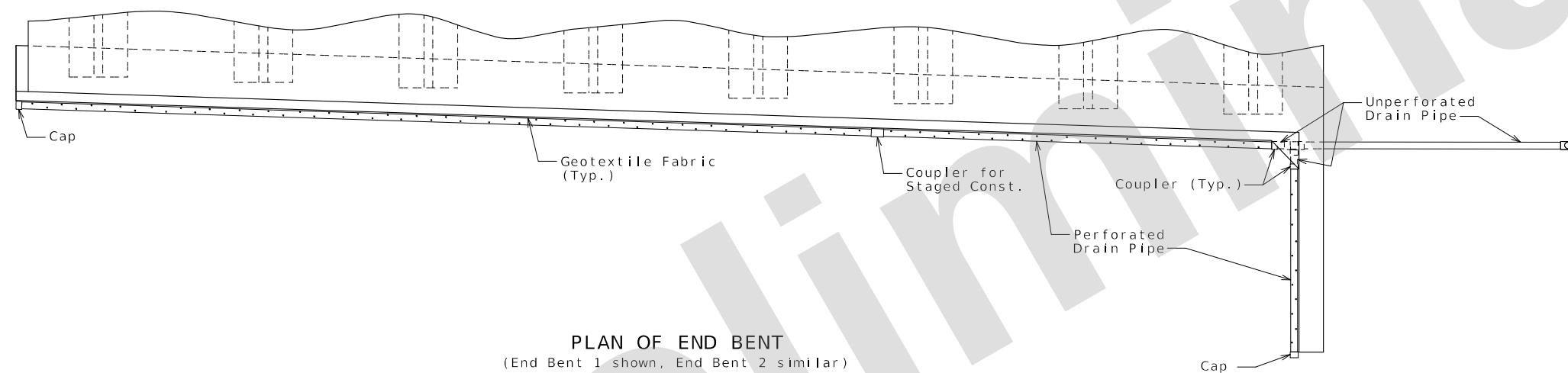
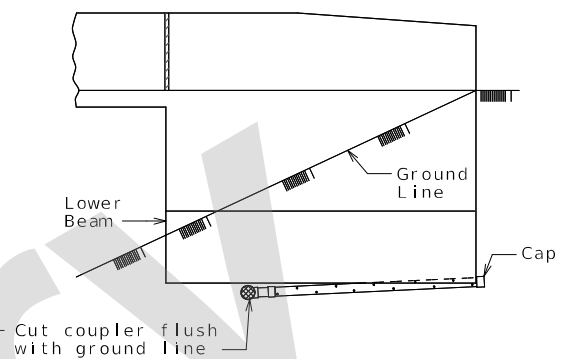
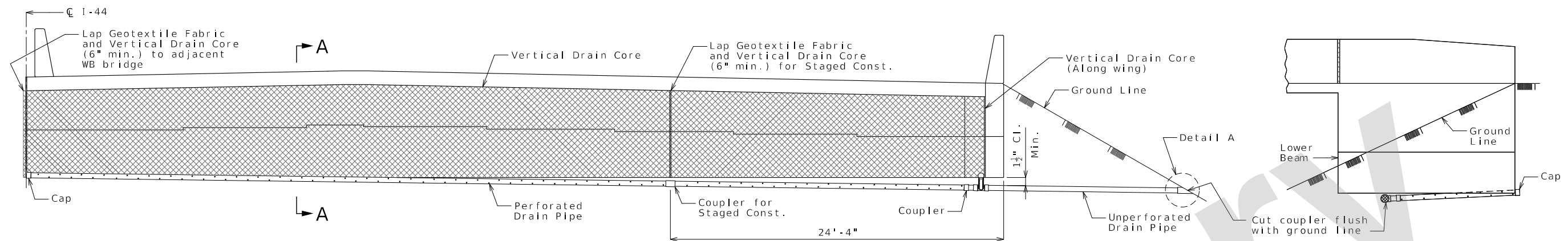
Work this sheet with Sheets No. 5 thru 8.

END BENT NO. 1
WING DETAILS & SECTIONS

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REV.



General Notes:

All drain pipe shall be sloped 1 to 2 percent.

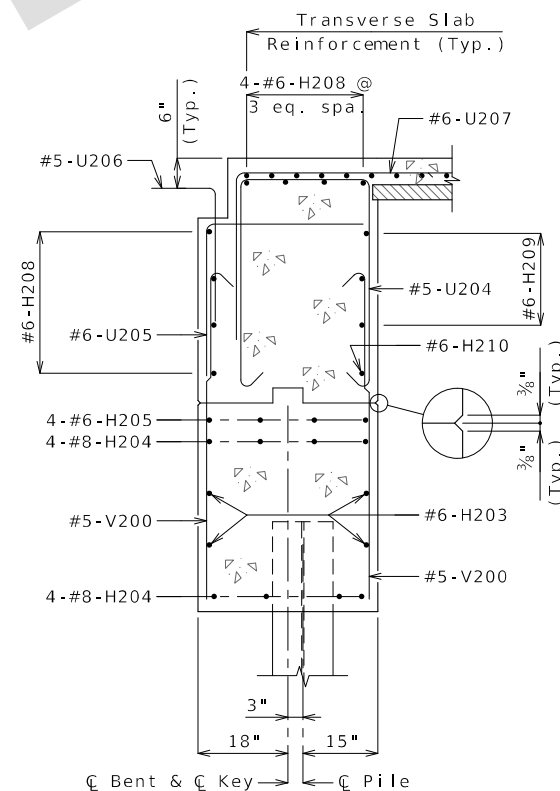
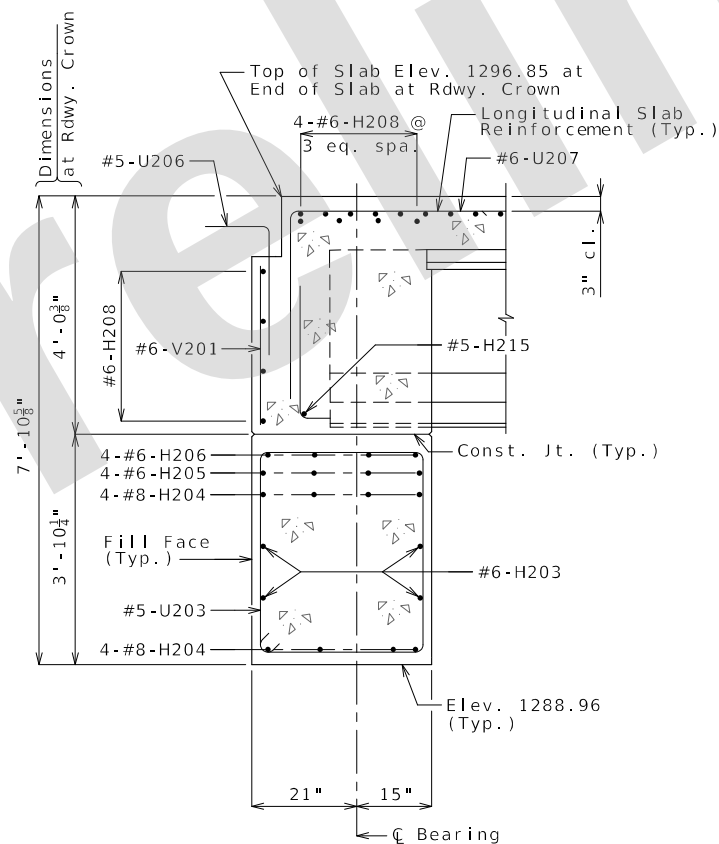
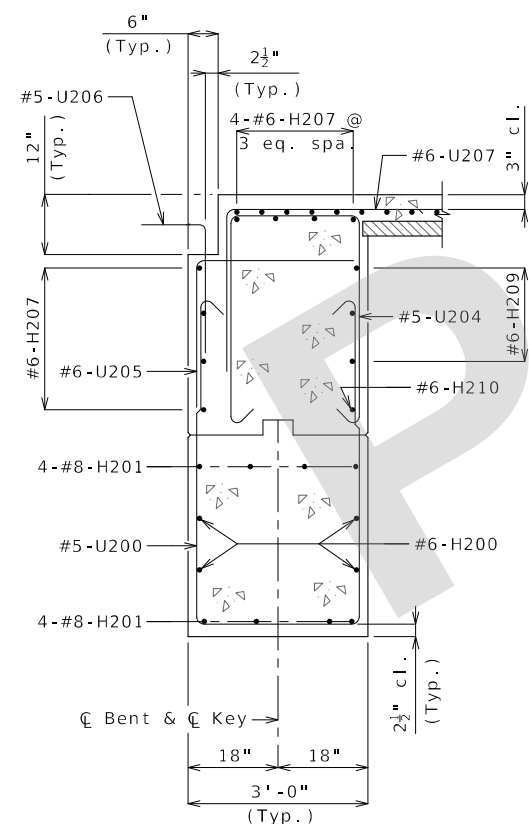
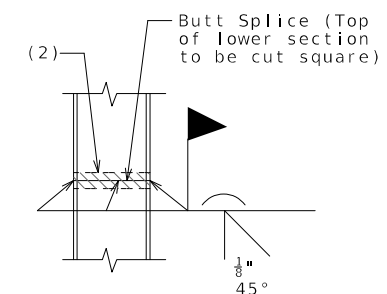
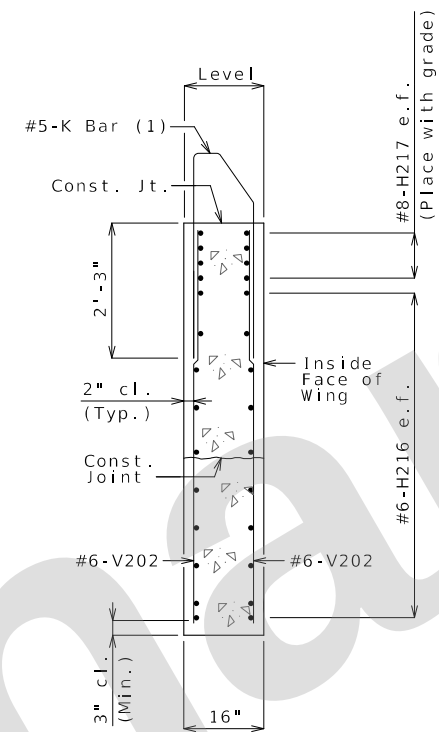
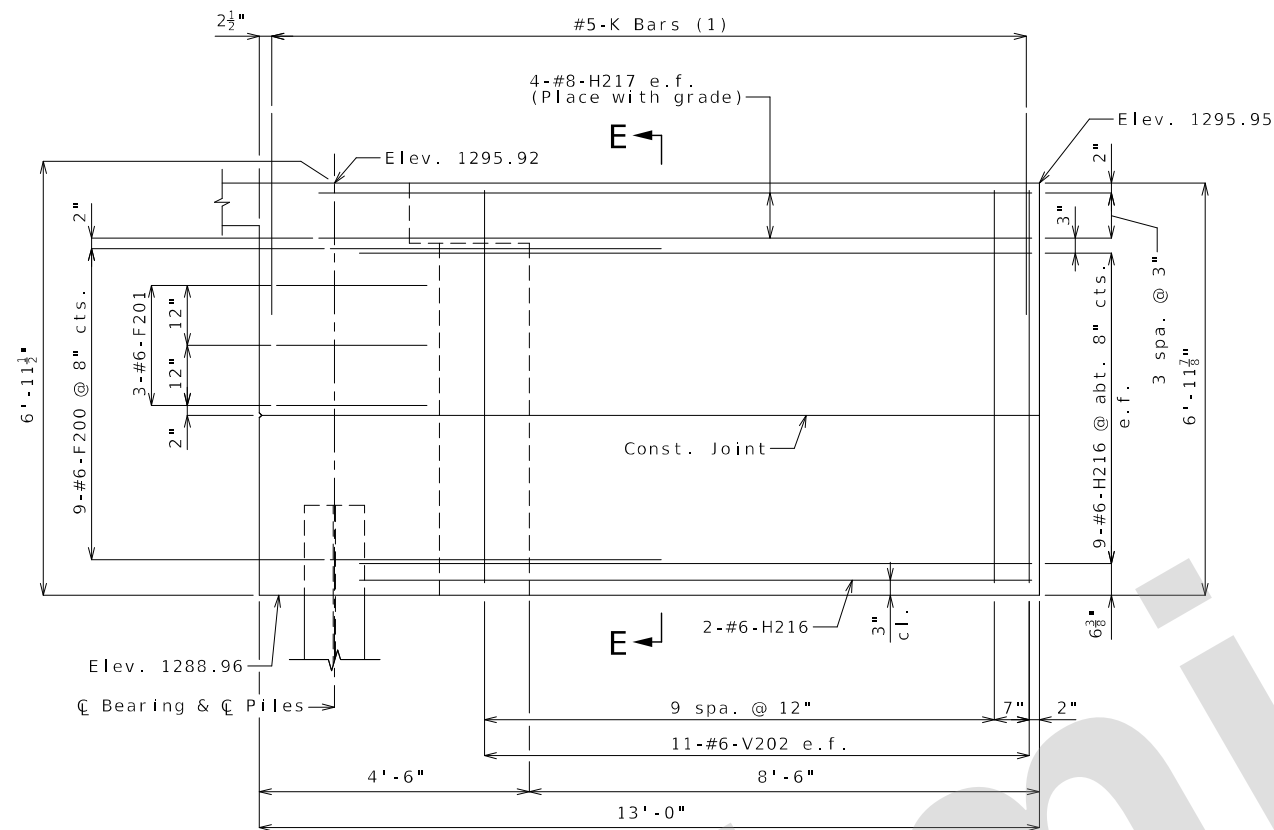
Drain pipe may be either 6-inch diameter corrugated metallic-coated steel pipe underdrain, 4-inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4-inch diameter corrugated polyethylene (PE) drain pipe.

Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.

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DATE PREPARED 9/16/2024			ROUTE 1 - 44		
DISTRICT BR			STATE MO		
COUNTY GREENE			SHEET NO. 10		
JOB NO. JSU0076					
CONTRACT ID.					
PROJECT NO.					
BRIDGE NO. A9421					

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



NOTES :

- (1) For reinforcement of the Type D Barrier at End Bent, see Sheet No. 23.
- e.f. denotes each face.

e.f. denotes each face.

For details of bridge approach slab,
see Sheet No. 24.

Work this sheet with Sheets No. 11 thru 14.

Detailed: May 2024
Checked: Jun. 2024

Checked: Jun. 2024

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

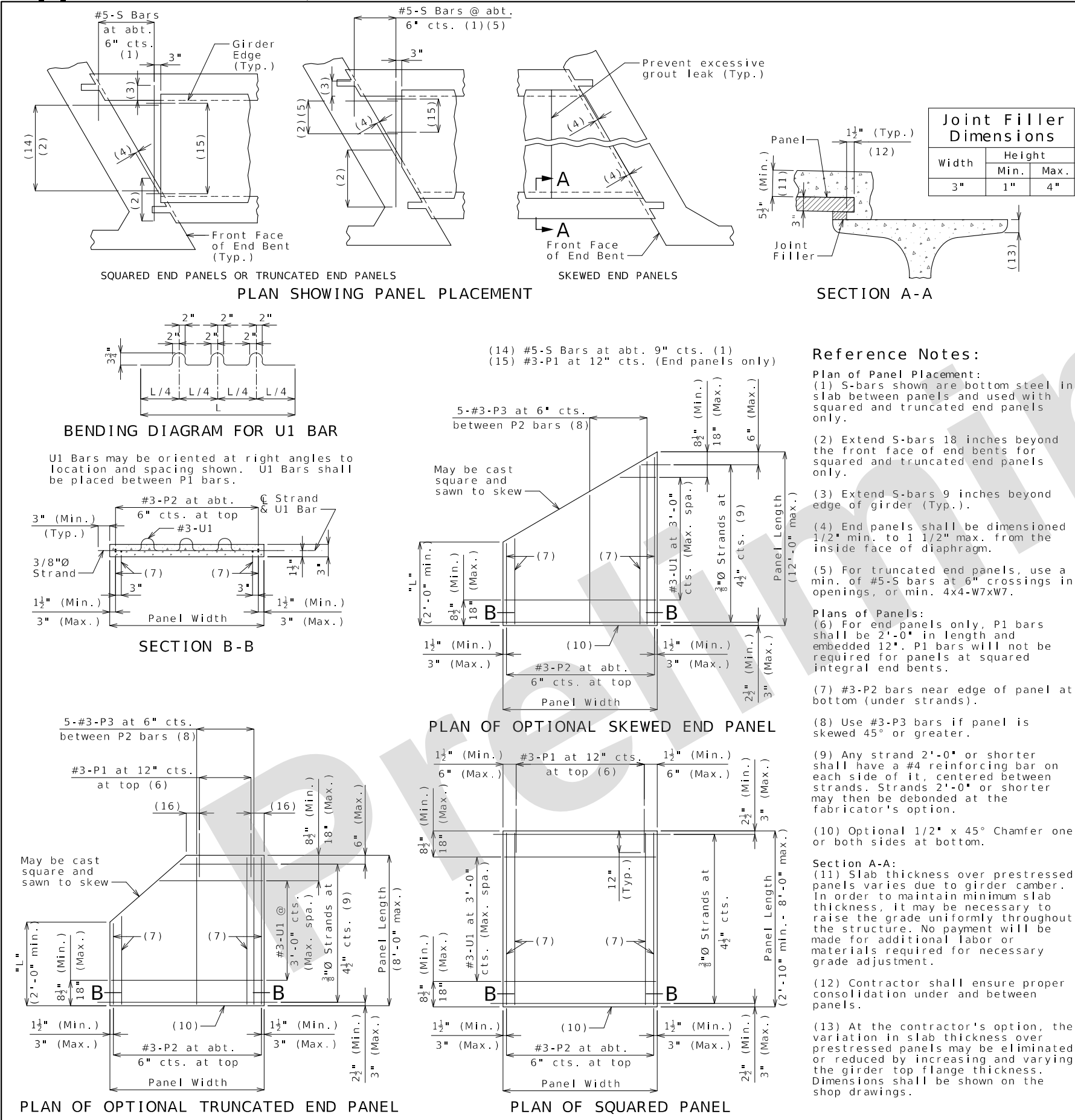
Sheet No. 15 of 30

END BENT NO. 2
WING DETAILS & SECTIONS

WING DETAILS & SECTIONS

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DATE PREPARED 9/16/2024		ROUTE I - 44	STATE MO	
DISTRICT BR	SHEET NO. 15		COUNTY GREENE JOB NO. JSU0076 CONTRACT ID.	
PROJECT NO.				
BRIDGE NO. A9421				

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



General Notes:
Prestressed Panels:
Concrete for prestressed panels shall be Class A-1 with $f'c = 6,000$ psi, $f'ci = 4,000$ psi.

The top surface of all panels shall receive a scored finish with a depth of scoring of 1/8" perpendicular to the prestressing strands in the panels.

Prestressing tendons shall be high-tensile strength, uncoated, seven-wire, low-relaxation strands for prestressed concrete in accordance with AASHTO M 203 Grade 270, with nominal diameter of strand = 3/8" and nominal area = 0.085 sq.in. and minimum ultimate strength = 22.95 kips (270 ksi). Larger strands may be used with the same spacing and initial tension.

Initial prestressing force = 17.2 kips/strand.

The method and sequence of releasing the strands shall be shown on the shop drawings.

Suitable anchorage devices for lifting panels may be cast in panels, provided the devices are shown on the shop drawings and approved by the engineer. Panel lengths shall be determined by the contractor and shown on the shop drawings.

When squared end panels are used at skewed bents, the skewed portion shall be cast full depth. No separate payment will be made for additional concrete and reinforcing required.

Support from diaphragm forms is required under the optional skewed end until cast-in-place concrete has reached 3,000 psi compressive strength.

Prestressed panels shall be brought to saturated surface-dry (SSD) condition just prior to the deck pour. There shall be no free standing water on the panels or in the area to be cast.

The prestressed panel quantities are not included in the table of estimated quantities for the slab.

Reinforcing Steel:
All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

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

If U1 bars interfere with placement of slab steel, U1 loops may be bent over, as necessary, to clear slab steel.

Deformed welded wire reinforcement (WWR) providing a minimum area of reinforcing perpendicular to strands of 0.22 sq in./ft, with spacing parallel to strands sufficient to ensure proper handling, may be used in lieu of the #3-P2 bars shown. Wire diameter shall not be larger than 0.375 inch. The above alternative reinforcement criteria may be used in lieu of the #3-P3 bars, when required, and placed over a width not less than 2 feet.

The following reinforcing steel shall be tied securely to the strands with the following maximum spacing in each direction:
#3-P2 bars at 16 inches.
WWR at 24 inches.

The #3-U1 bars shall be tied securely to #3-P2 bars, to WWR or to strands (when placed between P1 bars) at about 3-foot centers.

Minimum reinforcement steel length shall be 2'-0".

All reinforcement other than prestressing strands shall be epoxy coated.

Precast panels may be in contact with stirrup reinforcing in diaphragms.

S-bars are not listed in the bill of reinforcing.

Cost of S-bars will be considered completely covered by the contract unit price for the slab.

Joint Filler:
Joint filler shall be preformed fiber expansion joint material in accordance with Sec 1057 or expanded or extruded polystyrene bedding material in accordance with Sec 1073.

Use Slab Haunching Diagram on Sheet No. 19 for determining thickness of joint filler within the limits noted in the table of Joint Filler Dimensions.

Thicker material may be used on one or both sides of the girder to reduce cast-in-place concrete thickness to within tolerances.

The same thickness of preformed fiber expansion joint material shall be used under any one edge of any panel except at locations where top flange thickness may be stepped. The maximum change in thickness between adjacent panels shall be 1/2 inch. The polystyrene bedding material may be cut with a transition to match haunch height above top of flange.

Joint filler shall be glued to the girder. When thickness exceeds 1 1/2 inches, the joint filler shall be glued top and bottom. The glue used shall be the type recommended by the joint filler manufacturer.

Edges of panels shall be uniformly seated on the joint filler before slab reinforcement is placed.

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 18 of 30

PRESTRESSED PANELS

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9421

DESCRIPTION

DATE

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

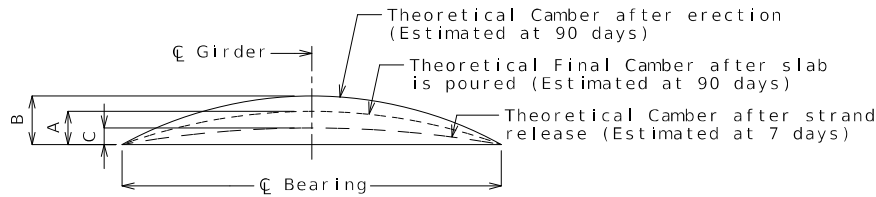
Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617

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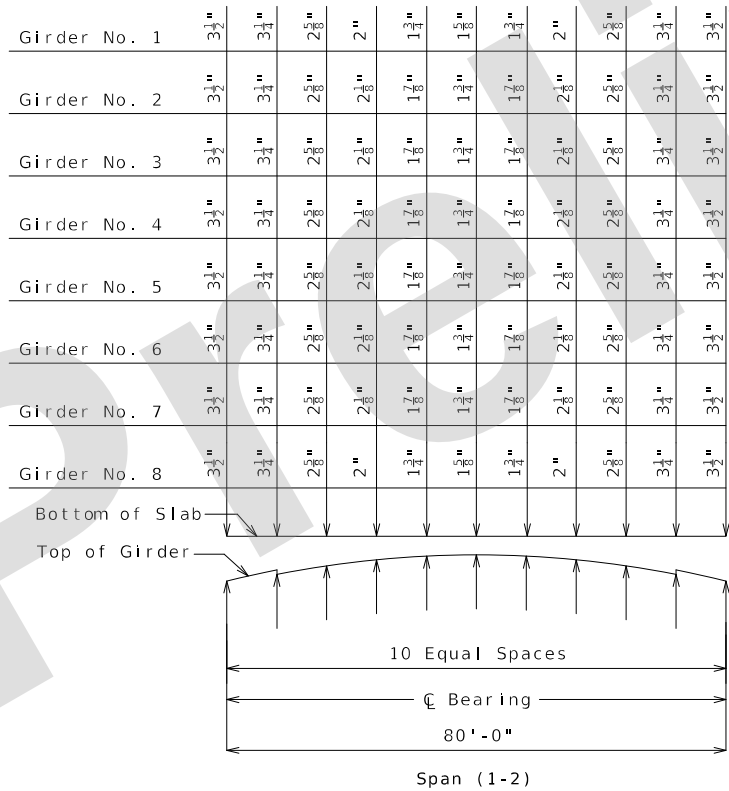


Girder	Span (1-2)		
	A	B	C
Exterior	3"	4 5/8"	2 5/8"
Interior	2 7/8"		

GIRDER CAMBER DIAGRAM

Conversion Factors for Girder Camber (Estimated at 90 days):

0.1 pt. = 0.314 x 0.5 pt.
0.2 pt. = 0.593 x 0.5 pt.
0.3 pt. = 0.813 x 0.5 pt.
0.4 pt. = 0.952 x 0.5 pt.



THEORETICAL SLAB HAUNCHING DIAGRAM (ESTIMATED AT 90 DAYS)

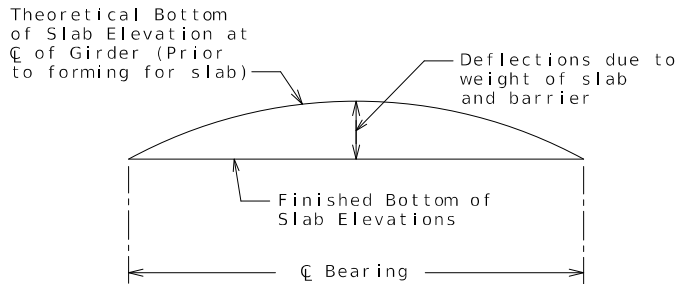
If girder camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness, an adjustment of the slab haunches, an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in haunching, slab thickness or grade adjustment.

Concrete in the slab haunches is included in the Estimated Quantities for Slab on Concrete NU-Girder.

Theoretical slab haunches are measured at C Girder.

Theoretical Bottom of Slab Elevations at Centerline of Girder (Prior to forming for slab) (Estimated at 90 days)											
Girder Number	Span (1-2) (80'-0" C Brg. - C Brg.)										
	C Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	C Brg.
1	1295.38	1295.48	1295.57	1295.65	1295.71	1295.76	1295.79	1295.81	1295.81	1295.80	1295.77
2	1295.56	1295.66	1295.76	1295.84	1295.90	1295.95	1295.98	1295.99	1295.99	1295.98	1295.95
3	1295.74	1295.84	1295.93	1296.01	1296.08	1296.13	1296.16	1296.17	1296.17	1296.16	1296.13
4	1295.62	1295.72	1295.81	1295.89	1295.96	1296.01	1296.04	1296.05	1296.05	1296.04	1296.01
5	1295.43	1295.54	1295.63	1295.71	1295.78	1295.82	1295.86	1295.87	1295.87	1295.85	1295.83
6	1295.25	1295.35	1295.45	1295.53	1295.59	1295.64	1295.67	1295.69	1295.69	1295.67	1295.65
7	1295.07	1295.17	1295.27	1295.35	1295.41	1295.46	1295.49	1295.51	1295.51	1295.49	1295.47
8	1294.89	1294.99	1295.08	1295.16	1295.22	1295.27	1295.30	1295.32	1295.32	1295.31	1295.29

Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab (including precast panel) and barrier.



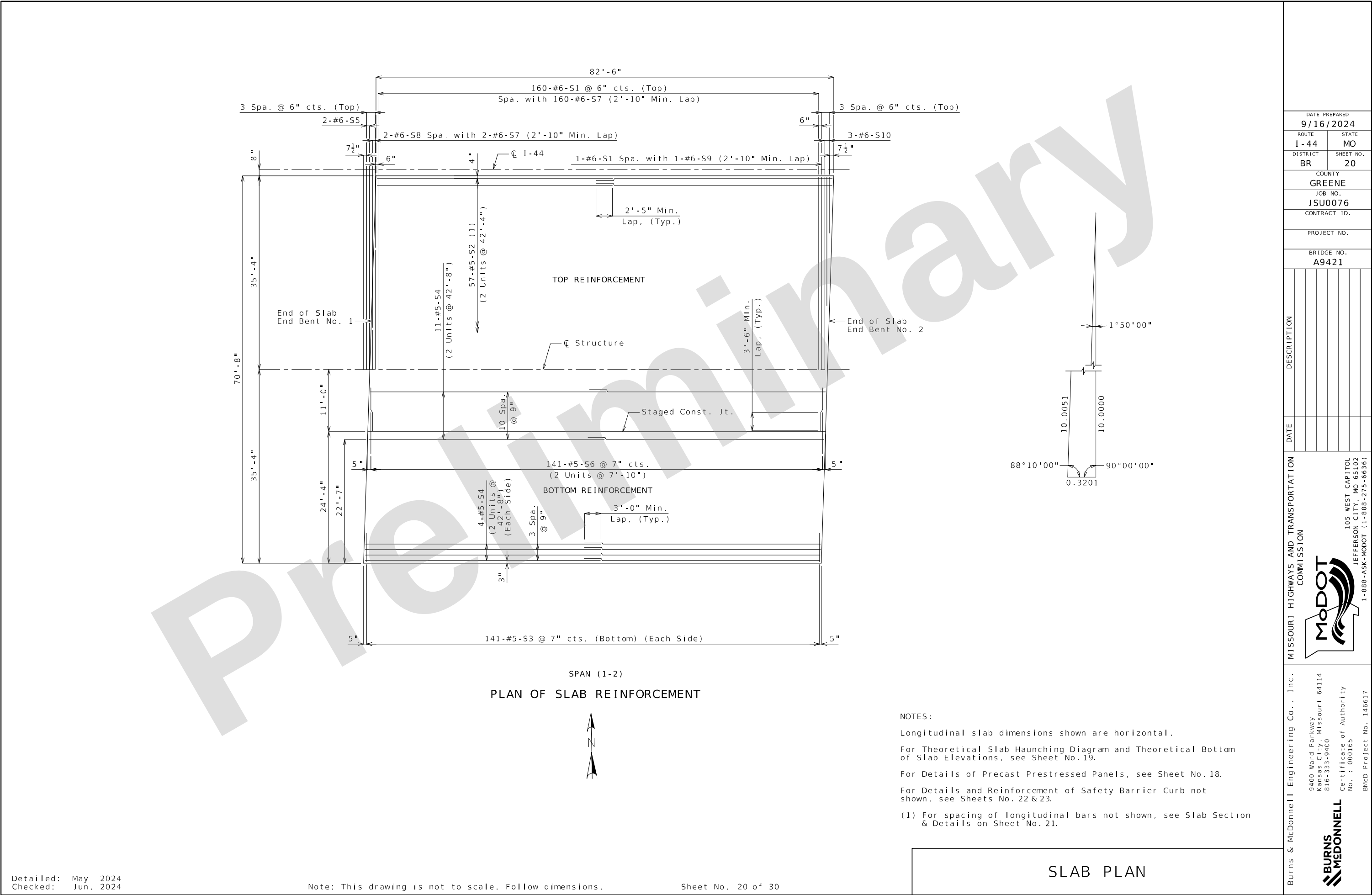
TYPICAL SLAB ELEVATIONS DIAGRAM

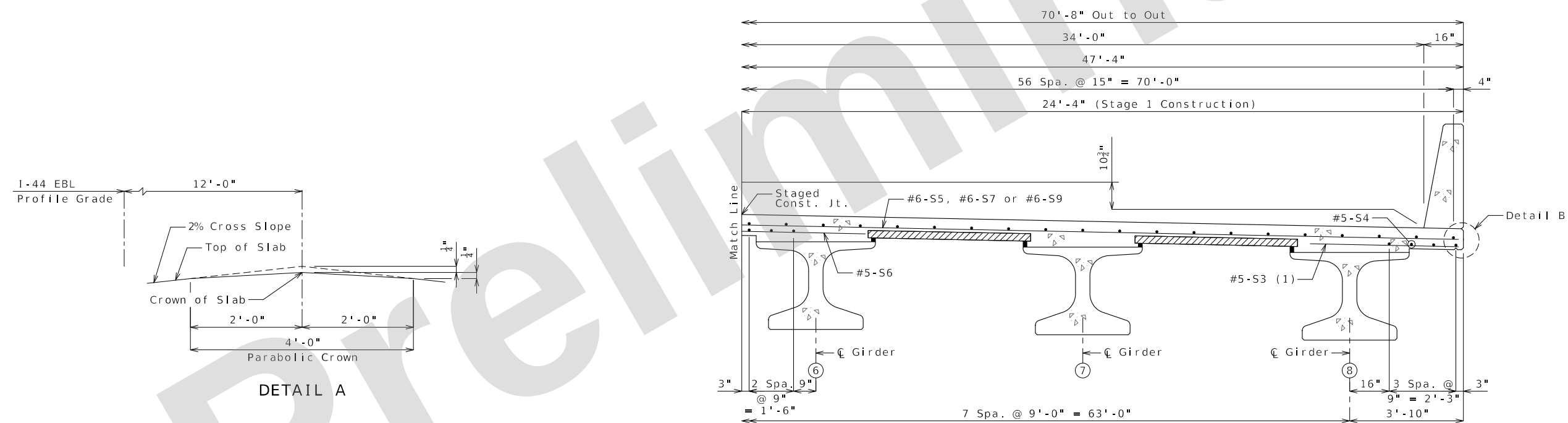
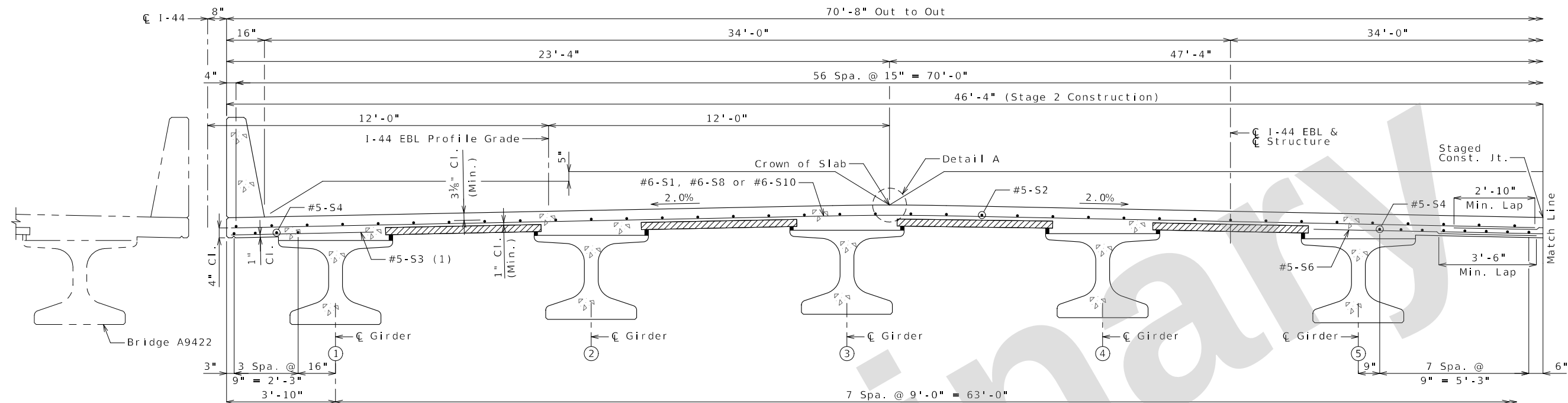
GIRDER CAMBER AND SLAB HAUNCHING

Detailed: May 2024
Checked: Jun. 2024

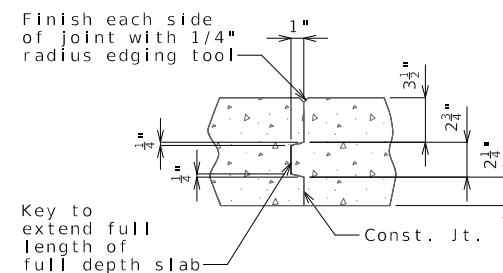
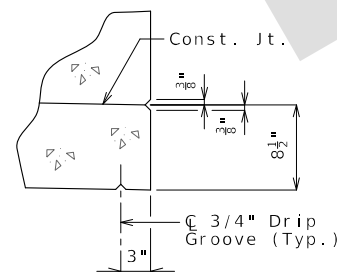
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 19 of 30





SECTION THRU SLAB
(1) Alternate bar shape available, see Sheet No. 22.



NOTES :

For details of precast prestressed panels, see Sheet No.18.

For reinforcement of barrier not shown, see Sheet No. 22.

For Theoretical Bottom of Slab Elevations, Girder Camber Diagram and Theoretical Slab Haunching Diagram, see Sheet No. 19.

For Plan of Slab Showing Reinforcement, see Sheet No. 20.

Bridge will be cast in a single pour.

DATE PREPARED	
9/16/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
BR	21

COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.
BRIDGE NO.
A9421

[illegible]

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

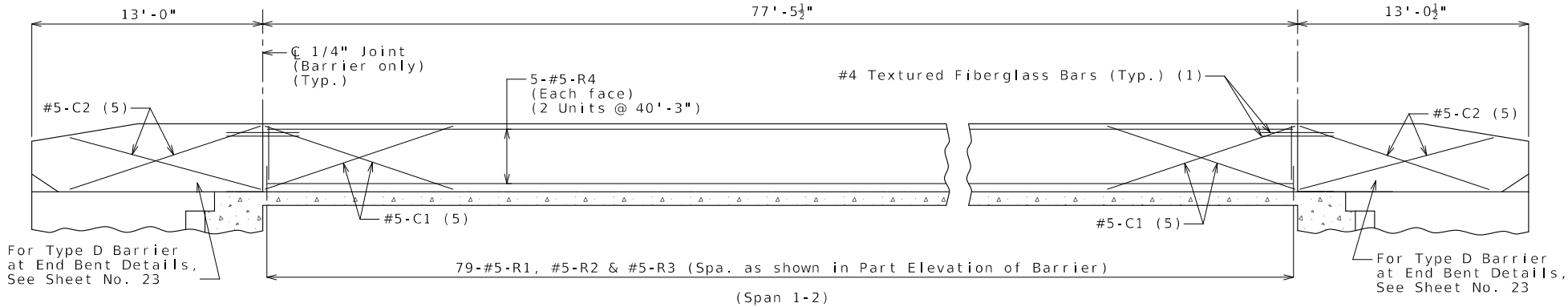
Detailed: May 2024
Checked: Jun. 2024

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

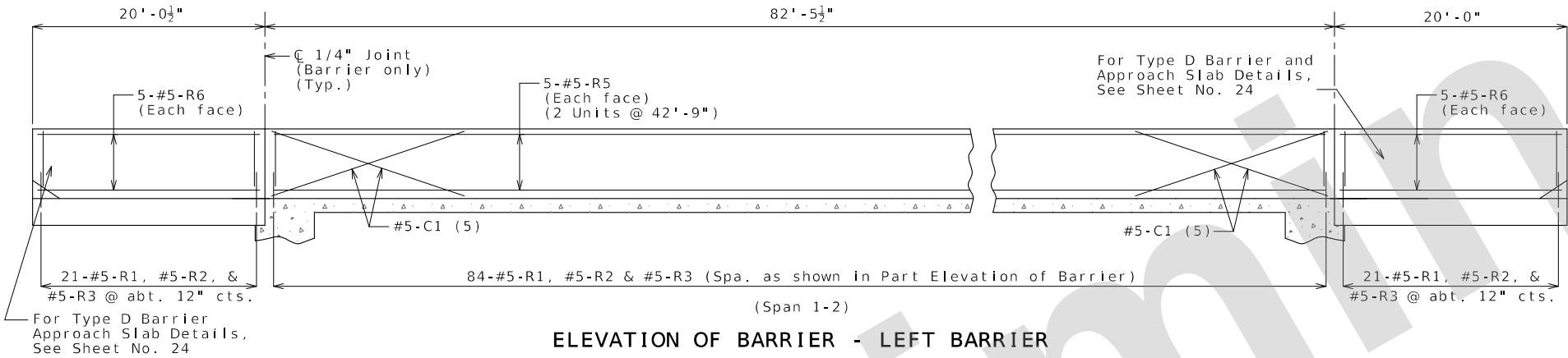
Sheet No. 21 of 30

TYPICAL SLAB SECTION

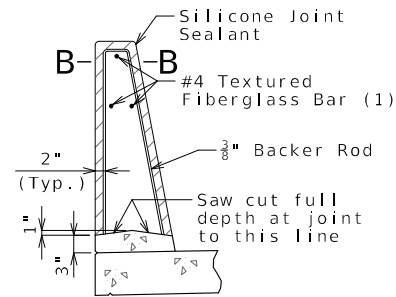
c:\bmc_d_lib\pw_connect\trn\d0171022\B_A9421_021_JSU0076.dgn 1:53:09 PM 9/16/2024



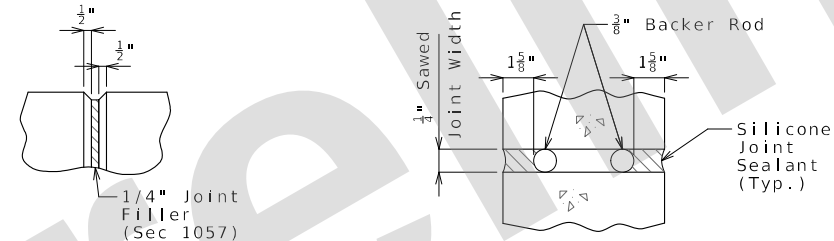
ELEVATION OF BARRIER - RIGHT BARRIER



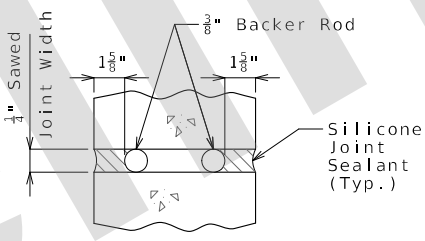
ELEVATION OF BARRIER - LEFT BARRIER



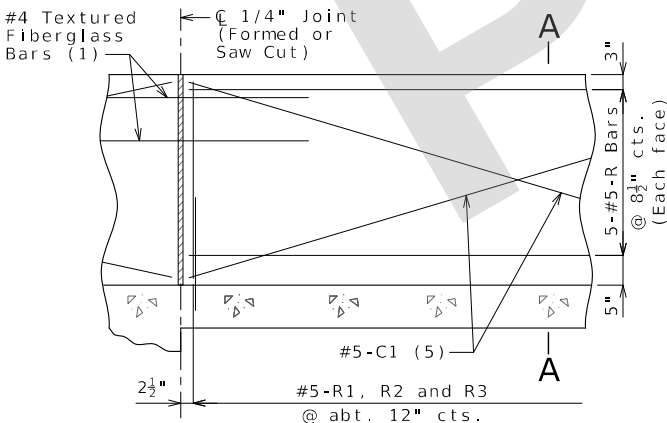
SECTION THRU SAW CUT JOINT



PART ELEVATION AT FORMED JOINT

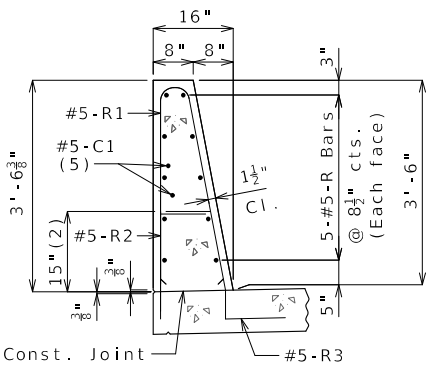


SECTION B-B



PART ELEVATION OF BARRIER

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

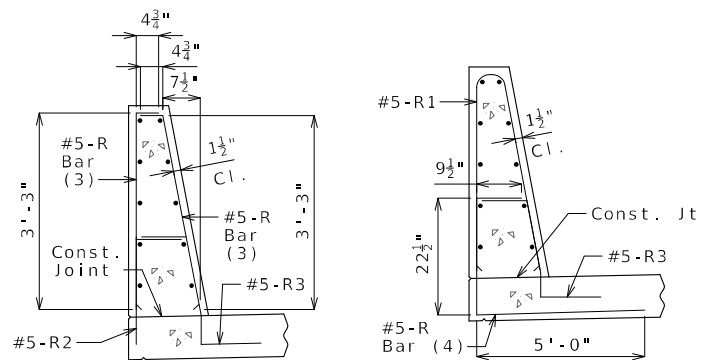


SECTION A-A

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

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

(2) To top of bar

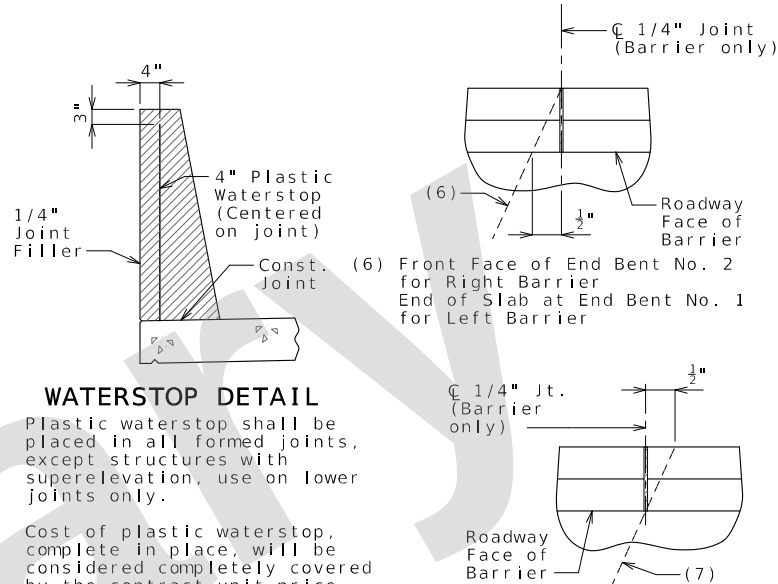


R-BAR PERMISSIBLE ALTERNATE SHAPE

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

(4) The R2 bar and #5 bottom transverse slab bar in cantilever (prestressed panels only) combination may be furnished as one bar as shown, at the contractor's option.

(5) Slip-formed option only.



WATERSTOP DETAIL

Plastic waterstop shall be placed in all formed joints, except structures with superelevation, use on lower joints only.

Cost of plastic waterstop, complete in place, will be considered completely covered by the contract unit price for Type D Barrier.

PART PLAN SHOWING JOINT LOCATION

General Notes:

Longitudinal dimensions are horizontal.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

Top of barrier shall be built parallel to grade and barrier joints (except at end bents) normal to grade.

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

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Type D Barrier per linear foot.

Concrete in barrier shall be Class B-1.

Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing for Right Barrier and from end of approach slab to end of approach slab for Left Barrier.

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

Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.

Plastic waterstop shall not be used with saw cut joints.

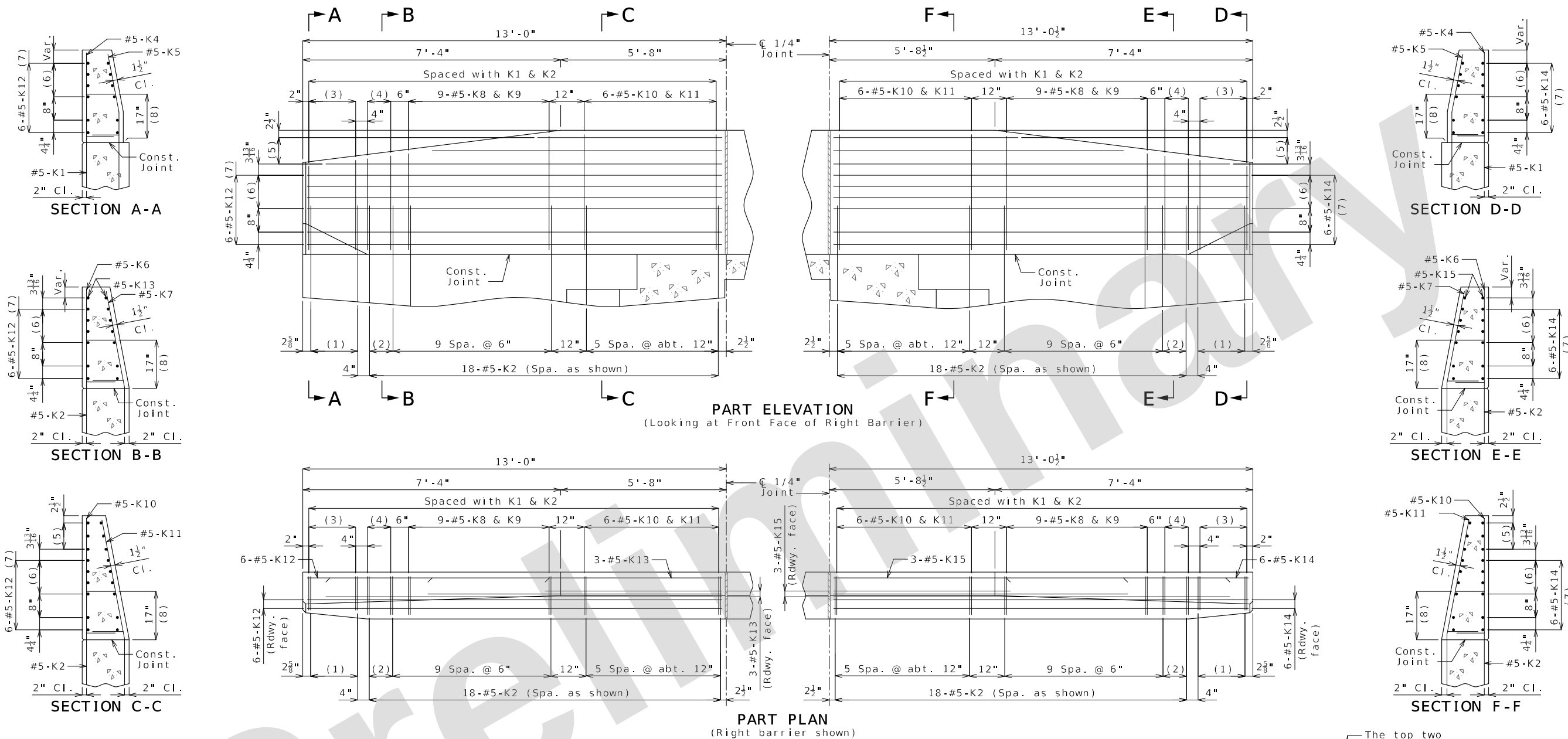
TYPE D BARRIER

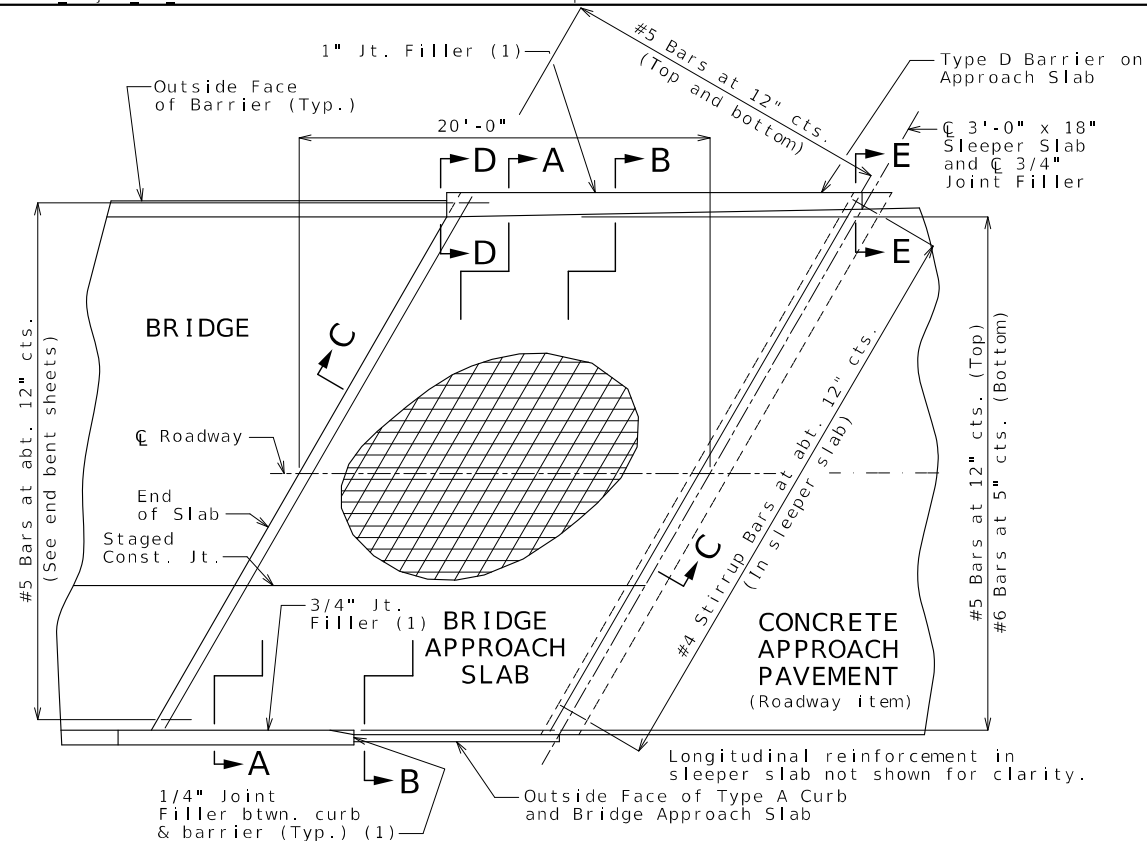
Detailed: May 2024
Checked: Jun. 2024

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

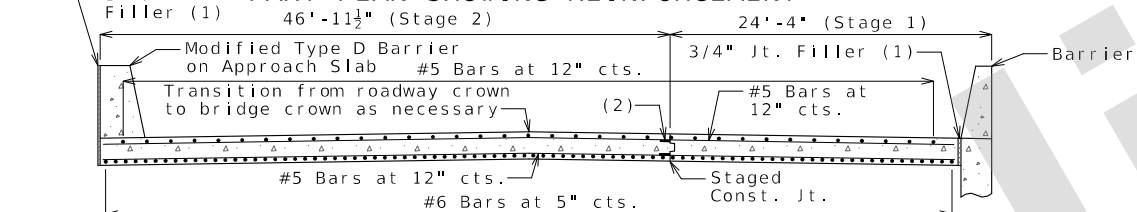
Sheet No. 22 of 30

DATE PREPARED		9/16/2024	
ROUTE	1-44	STATE	MO
DISTRICT	BR	SHEET NO.	22
COUNTY	GREENE		
JOB NO.	JSU0076		
CONTRACT ID.			
PROJECT NO.			
BRIDGE NO.	A9421		
DESCRIPTION			
DATE			
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
Burns & McDonnell Engineering Co., Inc.			
9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400			
Certificate of Authority No. : 000165			
BMcD Project No. 146617			
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)			

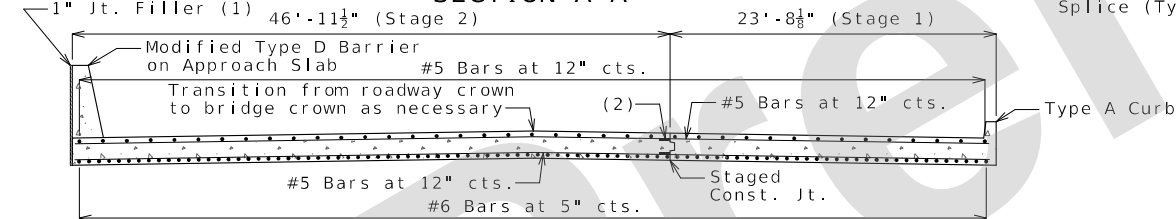
[illegible]



PART PLAN SHOWING REINFORCEMENT

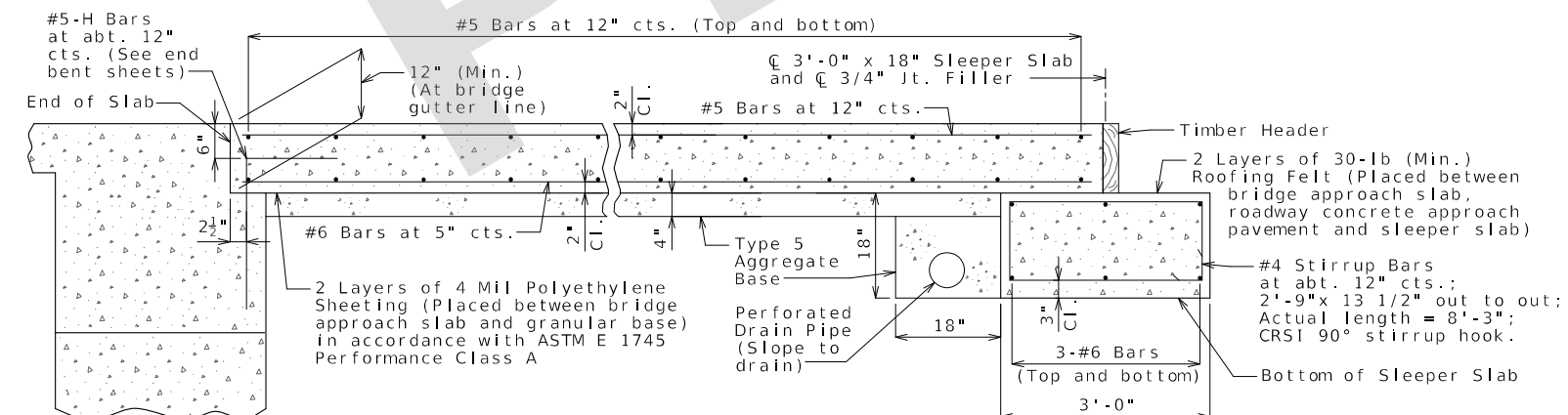


SECTION A-A

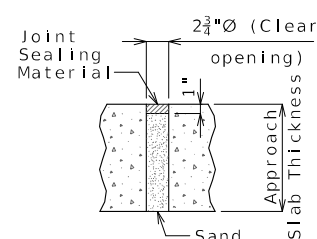


SECTION B-B

With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.

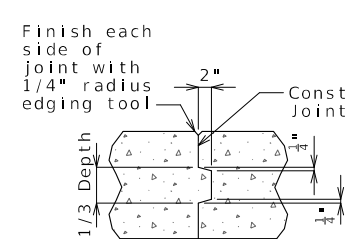


SECTION C-C

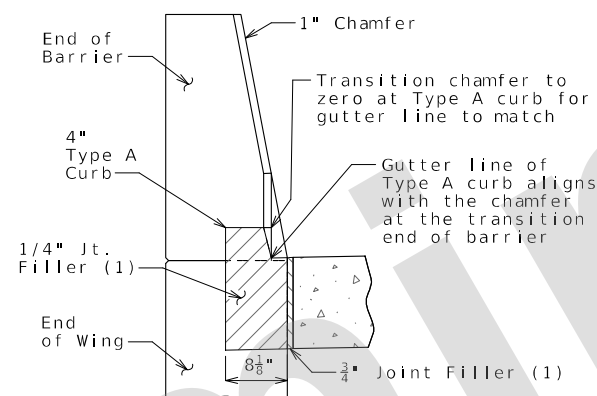


UNDERSEAL ACCESS HOLE DETAIL

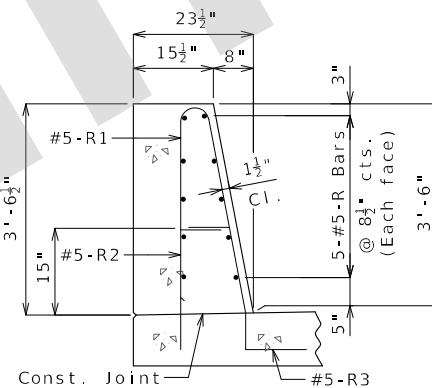
(If required)



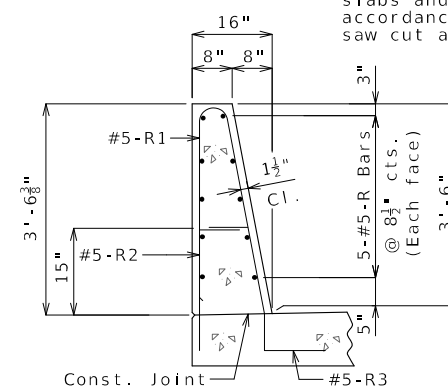
CONSTRUCTION JOINT DETAIL



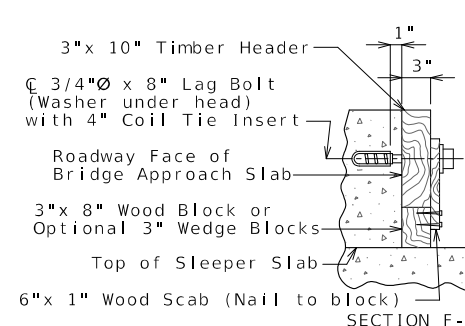
SECTION BETWEEN
CURB AND BARRIER



SECTION D-D

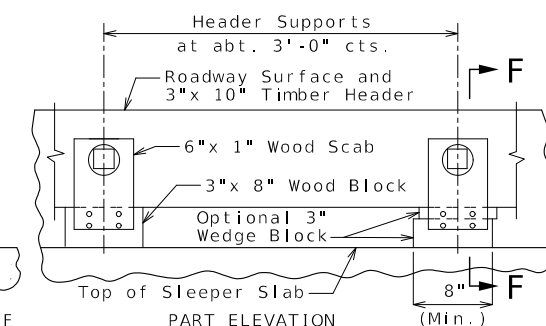


SECTION E-E



DETAILS OF TIMBER HEADER

Remove timber header when concrete pavement is placed.



PART ELEVATION

General Notes:

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

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

Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain; 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

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

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

Mechanical bar splices shall be in accordance with Sec. 710. (Estimated 48 splices per slab)

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

The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.

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

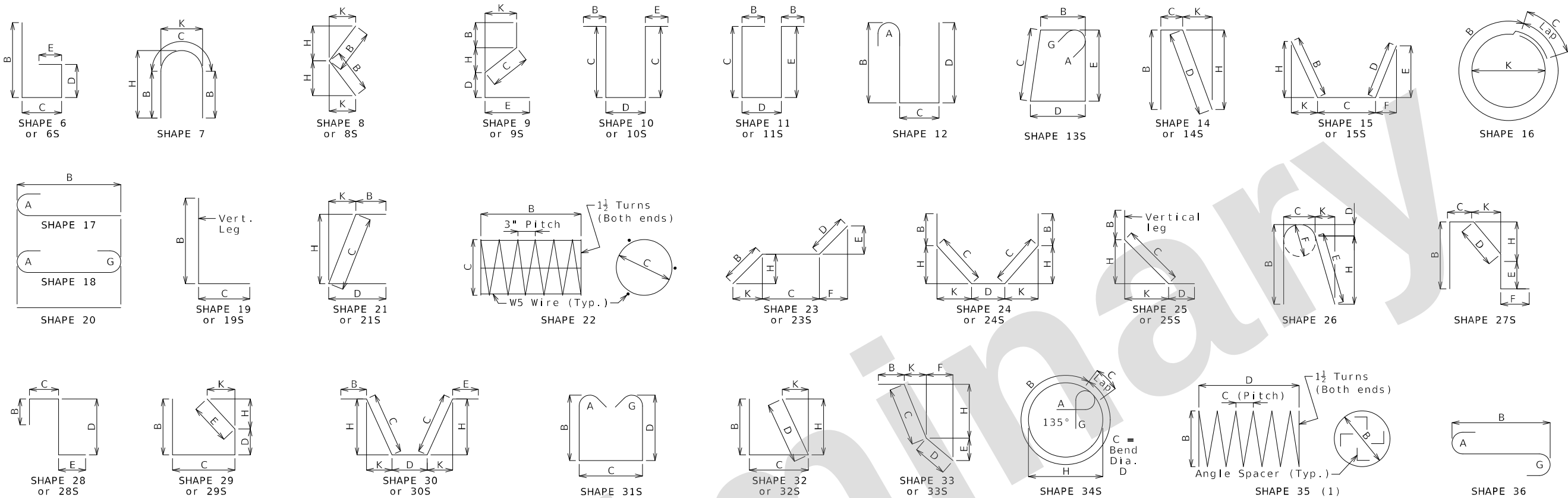
For concrete approach pavement details, see roadway plans.

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

Payment for furnishing all materials, labor and excavation necessary to construct the approach slab, including the timber header, sleeper slab, underdrain, Type 5 aggregate base, joint filler and all other appurtenances and incidental work as shown on this sheet, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Major) per square yard.

For details of Type D Barrier on Approach Slab, See Sheet No. 22.

(1) Seal joint between vertical face of approach slab and wing and joint between vertical face of the approach slabs and Type D barriers along C 1-44 with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.



Finished Bend Dimensions 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	3 3/4"	10"	7"	5"	
#6	1	4 1/2"	12"	8 1/4"	6"	
#7	2	5 1/4"	14"	9 3/4"	7"	
	3	7"	15"	11 1/2"	8 3/4"	
#8	2	6"	16"	11"	8"	
	3	8"	17"	13 1/4"	10"	
#9	1	9 1/2"	19 1/2"	15 1/2"	11 3/4"	
#10	1	10 3/4"	22"	17 1/2"	13 1/4"	
#11	1	12"	24 1/2"	19 1/2"	14 7/8"	
#14	1	18 1/4"	31 1/4"	27 1/2"	21 5/8"	
#18	1	24"	41 1/2"	36 1/4"	28 1/2"	
Stirrup Pin Bend Shapes (S)						
Size	Case	D	A or G		H	J
			90°	135°	180°	135°
#4	2	2"	4 1/2"	4 1/2"	5"	2 7/8"
	3	3"	5"	5 1/4"	6"	3"
#5	2	2 3/4"	5 3/4"	5 3/4"	5 3/4"	3 3/8"
	3	3 3/4"	6 1/4"	6 1/4"	7"	3 5/8"
#6	1	4 1/2"	12"	7 3/4"	8 1/4"	4 5/8"

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.

Detailing Dimension

Hook

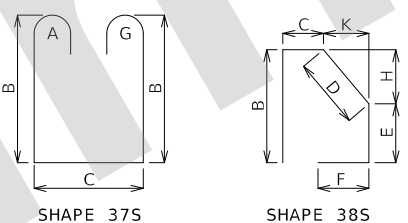
90°

135°

180°

4d or 2 1/2" Min.

6d for #4 & #5, 12d for #6



BENDING DIAGRAMS

All dimensions are out to out.

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

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

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

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

Reinforcing Steel Totals (Pounds)								
Size	Substructure		Superstructure			Entire Bridge		
	Plain	Epoxy	Slab		Barrier	Slip Form	Plain	Epoxy
			Plain	Epoxy				
W5	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	15,550	5,989	141	0	21,680
6	0	0	0	27,052	0	0	0	27,052
7	0	0	0	0	0	0	0	0
8	0	0	0	3,562	0	0	0	3,562
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
By Type	0	0	0	46,164	5,989	141	0	52,294

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

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

STATE
MO

SHEET NO.
25

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9421

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

BURNS & MCDONNELL

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

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

Bill of Reinforcing Steel															
No. Req.	Size/ Mark	Location	Codes		Dimensions						Nom.	Actual	Weight		
					B	C	D	E	F	H	K	Length		Length	
			C	SH	V	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	lb	
		END BENT 1													
9	6 F100	Wing	E	23S		2 3.000	4 5.000	14.000	9.750	10.000	18.750	19.375	7 10	7 9	105
3	6 F101	Diaphragm	E	6S		5 5.000	2 7.000						8 0	7 10	35
4	6 H100	Beam	E	20		28 3.000							28 3	28 3	170
8	8 H101	Beam	E	20		28 3.000							28 3	28 3	603
4	6 H102	Beam	E	20		8 6.000							8 6	8 6	51
4	6 H103	Beam	E	20		42 8.000							42 8	42 8	256
8	8 H104	Beam	E	20		42 8.000							42 8	42 8	911
4	6 H105	Beam	E	20		42 8.000							42 8	42 8	256
4	6 H106	Beam	E	20		21 10.00							21 10	21 10	131
8	6 H107	Diaphragm	E	20		28 0.000							28 0	28 0	336
8	6 H108	Diaphragm	E	20		46 8.000							46 8	46 8	561
18	6 H109	Diaphragm	E	20		7 11.000							7 11	7 11	214
6	6 H110	Diaphragm	E	20		5 6.000							5 6	5 6	50
3	6 H111	Diaphragm	E	20		3 2.000							3 2	3 2	14
1	6 H112	Diaphragm	E	20		23.000							0 23	0 23	3
3	6 H113	Diaphragm	E	20		3 9.000							3 9	3 9	17
1	6 H114	Diaphragm	E	20		2 6.000							2 6	2 6	4
8	5 H115	Strand Tie	E	20		5 0.000							5 0	5 0	42
20	6 H116	Wing	E	20		11 8.000							11 8	11 8	350
8	8 H117	Wing	E	20		12 6.000							12 6	12 6	267
3	6 H118	Diaphragm	E	20		5 11.000							5 11	5 11	27
1	6 H119	Diaphragm	E	20		4 7.000							4 7	4 7	7
3	6 H120	Diaphragm	E	20		5 10.000							5 10	5 10	26
1	6 H121	Diaphragm	E	20		4 7.000							4 7	4 7	7
43	5 U100	Beam	E	31S		5 8.000	2 9.000	5 8.000					15 1	14 10	665
15	5 U101	Beam	E	13S		2 9.000	2 8.000	2 9.000	2 8.000				11 10	11 6	180
24	5 U102	Beam	E	13S		2 9.000	3 0.000	2 9.000	3 0.000				12 6	12 2	305
24	5 U103	Beam	E	13S		2 9.000	3 4.000	2 9.000	3 4.000				13 2	12 10	321
58	5 U104	Diaphragm	E	31S		3 4.000	2 3.000	3 4.000					9 11	9 8	585
58	6 U105	Diaphragm	E	19S		2 7.000	2 8.000						5 3	5 1	443
70	5 U106	Diaphragm	E	19S		2 0.000	15.000						3 3	3 2	231
94	6 U107	Diaphragm	E	19S		3 3.000	4 7.000						7 10	7 8	1082
30	5 V100	Beam	E	17		5 8.000							6 3	6 3	196
40	6 V101	Diaphragm	E	20		2 7.000							2 7	2 7	155
22	6 V102	Wing	E	20		6 7.000							6 7	6 7	218
		END BENT 2													
9	6 F200	Wing	E	23S		2 3.000	4 5.000	14.000	9.750	10.000	18.750	19.375	7 10	7 9	105
3	6 F201	Diaphragm	E	6S		5 5.000	2 7.000						8 0	7 10	35
4	6 H200	Beam	E	20		28 3.000							28 3	28 3	170
8	8 H201	Beam	E	20		28 3.000							28 3	28 3	603
4	6 H202	Beam	E	20		8 6.000							8 6	8 6	51
4	6 H203	Beam	E	20		42 8.000							42 8	42 8	256
8	8 H204	Beam	E	20		42 8.000							42 8	42 8	911
4	6 H205	Beam	E	20		42 8.000							42 8	42 8	256
4	6 H206	Beam	E	20		21 10.00							21 10	21 10	131
8	6 H207	Diaphragm	E	20		28 0.000							28 0	28 0	336
8	6 H208	Diaphragm	E	20		46 8.000							46 8	46 8	561
18	6 H209	Diaphragm	E	20		7 11.000							7 11	7 11	214
6	6 H210	Diaphragm	E	20		5 6.000							5 6	5 6	50
3	6 H211	Diaphragm	E	20		3 2.000							3 2	3 2	14
1	6 H212	Diaphragm	E	20		23.000							0 23	0 23	3
3	6 H213	Diaphragm	E	20		3 9.000							3 9	3 9	17
1	6 H214	Diaphragm	E	20		2 6.000							2 6	2 6	4
8	5 H215	Strand Tie	E	20		5 0.000							5 0	5 0	42
20	6 H216	Wing	E	20		11 8.000							11 8	11 8	350
8	8 H217	Wing	E	20		12 6.000							12 6	12 6	267
3	6 H218	Diaphragm	E	20		5 11.000							5 11	5 11	27
1	6 H219	Diaphragm	E	20		4 7.000							4 7	4 7	7
3	6 H220	Diaphragm	E	20		5 10.000							5 10	5 10	26
1	6 H221	Diaphragm	E	20		4 7.000							4 7	4 7	7
43	5 U200	Beam	E	31S		5 8.000	2 9.000	5 8.000					15 1	14 10	665
15	5 U201	Beam	E	13S		2 9.000	2 8.000	2 9.000	2 8.000				11 10	11 6	180
24	5 U202	Beam	E	13S		2 9.000	3 0.000	2 9.000	3 0.000				12 6	12 2	305
24	5 U203	Beam	E	13S		2 9.000	3 4.000	2 9.000	3 4.000				13 2	12 10	321

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

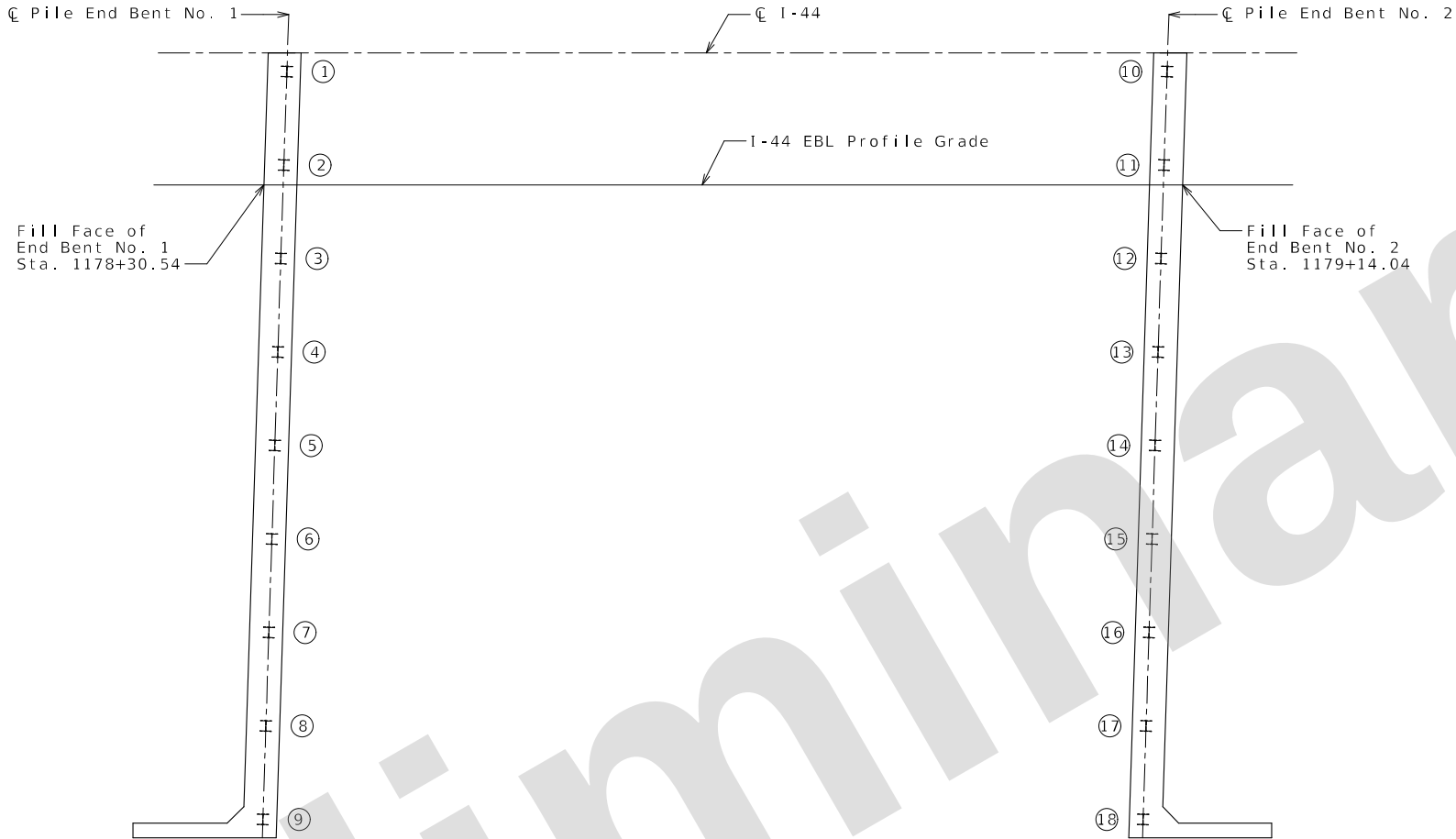
For bending diagrams and steel reinforcing totals, see Sheet No. 25.

Detailed: May 2024
Checked: Jun. 2024

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

Codes:
C = Required coatings, where E = Epoxy Coated and G = Galvanized.
SH = Required shape, see bending diagrams.
V = Sets of varied bars and number of bars of each length. Bar dimensions vary in equal increments between dimensions shown on this line and the following line and the actual length dimension shown on this line and the following line vary by the specified increment.

Bill of Reinforcing Steel														
Size/ Mark	Location	Codes			Dimensions						Nom.	Actual	Weight lb	
		C	SH	V	B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.	K ft in.	Length ft in.		Length ft in.
	END BENT 2 Cont.													
U204	Diaphragm	E	31S		3 4.000	2 3.000	3 4.000					9 11	9 8	585
U205	Diaphragm	E	19S		2 7.000	2 8.000						5 3	5 1	443
U206	Diaphragm	E	19S		2 0.000	15.000						3 3	3 2	231
U207	Diaphragm	E	19S		3 3.000	4 7.000						7 10	7 8	1082
V200	Beam	E	17		5 8.000							6 3	6 3	196
V201	Diaphragm	E	20		2 7.000							2 7	2 7	155
V202	Wing	E	20		6 7.000							6 7	6 7	218
	SLAB													
S1	Slab	E	20		46 0.000							46 0	46 0	11124
S2	Slab	E	20		42 4.000							42 4	42 4	5034
S3	Slab	E	20		5 0.000							5 0	5 0	1471
S4	Slab	E	20		42 8.000							42 8	42 8	1691
S5	Slab	E	20	1	11 7.000							11 7	11 7	
	Inc. = 15'-7"				27 2.000							27 2	27 2	58
S6	Slab	E	20		7 10.000							7 10	7 10	2304
S7	Slab	E	20		27 2.000							27 2	27 2	6610
S8	Slab	E	20	1	18 6.000							18 6	18 6	
	Inc. = 15'-7"				34 1.000							34 1	34 1	79
S9	Slab	E	20		15 3.000							15 3	15 3	23
S10	Slab	E	20	1	42 9.000							42 9	42 9	
	Inc. = 15'-7"				11 7.000							11 7	11 7	122
	BARRIER													
K1	Barrier	E	27S		3 8.000	9.250	5.375	3 2.750		5.250	1.000	8 1	7 11	83
K2	Barrier	E	27S		3 8.000	9.250	14.500	2 5.750		14.250	2.750	8 2	7 11	297
K4	Barrier	E	19S	2	2 4.250	10.000						3 2	3 1	
	Inc. = 0.500"				2 6.250	10.000						3 4	3 3	33
K5	Barrier	E	38S	2			18.500	9.500	8.250	18.000	4.000	3 0	2 11	
	Inc. = 0.500"						20.500	9.500	8.250	20.000	4.500	3 2	3 1	31
K6	Barrier	E	19S		2 6.750	10.000						3 5	3 4	21
K7	Barrier	E	21S			2 6.625	10.000			2 6.000	6.250	3 5	3 3	20
K8	Barrier	E	19S	2	2 8.500	10.000						3 7	3 5	
	Inc. = 0.750"				3 2.500	10.000						4 1	3 11	70
K9	Barrier	E	21S	2		2 8.500	10.000			2 7.750	6.750	3 6	3 5	
	Inc. = 0.750"					3 2.500	10.000			3 1.750	7.750	4 1	3 11	68
K10	Barrier	E	19S		3 3.000	10.000						4 1	4 0	50
K11	Barrier	E	21S			3 3.000	10.000			3 2.250	7.750	4 1	3 11	49
K12	Barrier	E	20		12 9.000							12 9	12 9	160
K13	Barrier	E	20	2	6 0.000							6 0	6 0	
	Inc. = 3'-0"				12 0.000							12 0	12 0	56
K14	Barrier	E	20		12 9.000							12 9	12 9	160
K15	Barrier	E	20	2	6 0.000							6 0	6 0	
	Inc. = 3'-0"				12 0.000							12 0	12 0	56
R1	Barrier	E	26		3 3.000	5.500	2.250	3 1.375	5.500	3 0.750	6.750	6 11	6 10	1461
R2	Barrier	E	19S		20.500	9.500						2 6	2 5	517
R3	Barrier	E	27S			9.500	15.250	5.000	12.000	15.000	3.000	3 6	3 4	713
R4	Barrier	E	20		40 3.000							40 3	40 3	840
R5	Barrier	E	20		42 9.000							42 9	42 9	892
R6	Barrier	E	20		19 9.000							19 9	19 9	412
	SLIP FORM													
C1	Slip Form	E	20		12 0.000							12 0	12 0	100
C2	Slip Form	E	20		9 9.000							9 9	9 9	41



SPAN (1-2)

PART PLAN SHOWING PILE NUMBERING FOR RECORDING AS-BUILT PILE DATA

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 1 (HP 12x53)			
1			
2			
3			
4			
5			
6			
7			
8			
9			

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 2 (HP 12x53)			
10			
11			
12			
13			
14			
15			
16			
17			
18			

Note:
Indicate in remarks column:
A. Pile type and grade
B. Batter
C. Driven to practical refusal

This sheet to be completed by MoDOT construction personnel.

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 27 of 30

AS-BUILT PILE DATA

DATE PREPARED 9/16/2024	
ROUTE I-44	STATE MO
DISTRICT BR	SHEET NO. 27
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9421	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMCd Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-273-6636)	

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



Job No.: 20231075.00

Design:

Bent:

Station:

Offset: 5' W

Elevation: 1275.1

Requested Station:

Requested Offset:

Requested Elevation:

Drill No.:

Missouri Department of Transportation
Construction and Materials

County: Greene

Skew:

Logged By: TB

Northing: 516794.5256

Easting: 1415110.2561

Requested Northing:

Requested Easting:

Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube

Location Note:

Hammer Efficiency: 90%

Drilling Method: CFA

BORING NO. N-B-2
Page 1 of 1

Route: I-44

Location: Springfield, Missouri

Operator: LRK

Date of Work: 08/15/23-08/15/23

Depth to Water:

Depth Hole Open:

Time Change:

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-0.5' Asphaltic concrete (5.0")	1275						
		0.5-6.0' (CH) FILL: Brown, fat CLAY, trace gravel and plastic sheet		X	56	3-4-6 (15)		PP = 2.50 tsf	MC = 20.2%
		3.0' - with gravel below 3.0 ft.			92			PP = 2.50 tsf	
5			1270						
		6.0-21.0' LIMESTONE, gray, very hard, slightly weathered, finely crystalline, thin bedded, dense			94 (60)		Qu Test Results UCS = 1230 ksf		
		8.0' -interbedded chert from 8.0 to 10.8 ft.							
10		9.3' - light gray- white below 9.3 ft.	1265				Qu Test Results UCS = 1180 ksf		
					100 (93)				
15			1260						
					97 (81)		Qu Test Results UCS = 1060 ksf		
20			1255						
		Refusal at 6.0 feet. Bottom of borehole at 21.0 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976

Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.



Job No.: 20231075.00

Design:

Bent:

Station:

Offset:

Elevation: 1293.1

Requested Station:

Requested Offset:

Requested Elevation:

Drill No.:

Missouri Department of Transportation
Construction and Materials

County: Greene

Skew:

Logged By: JU

Northing: 516744.648

Easting: 1415047.2711

Requested Northing:

Requested Easting:

Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube

Location Note:

Hammer Efficiency: 90%

Drilling Method: CFA

BORING NO. N-B-3
Page 1 of 2

Route: I-44

Location: Springfield, Missouri

Operator: LRK

Date of Work: 07/31/23-08/01/23

Depth to Water:

Depth Hole Open:

Time Change:

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-0.3' Asphaltic concrete (3.5")							
		0.3-1.5' Portland cement concrete (13.5")							
		1.5-1.9' (GP) FILL: Red and brown, clayey GRAVEL		X	44	15-24-11 (53)			MC = 24.2%
		1.9-3.5' FILL: Gray, crushed LIMESTONE	1290						
		3.5-12.0' (CH) FILL: Red and brown, fat CLAY with gravel		X	72	3-5-2 (11)		PP = 1.00 tsf	MC = 20.0%
5									
		6.0' -trace gravel below 6.0 ft.		X	100	1-1-3 (6)		PP = 1.75 tsf	MC = 40.1%
							Qu Test Results UCS = 1.55 ksf MC = 30.3% γ _{moist} = 111.0 pcf	PP = 1.75 tsf	
10					100				
		12.0-15.0' (GC) FILL: Red and brown, clayey GRAVEL	1280						
				X	50	6-13-12 (38)		PP = 2.00 tsf	MC = 20.8%
15									
		14.8' -trace clay below 14.8 ft.							
		15.0-19.2' (CL) FILL: Gray, lean CLAY, with gravel							
			1275						
		18.5' -dark brown and gray, trace sand below 18.5 ft.		X	56	28-33-9 (63)		PP = 2.75 tsf	MC = 18.9%
20									
		19.2-22.0' (GP) Gray, GRAVEL fragments (highly weathered rock)							
		22.0-24.7' (CH) Red and brown, fat CLAY, trace sand and gravel	1270						
				X	100	3-24-12 (54)		PP = 3.75 tsf	MC = 44.3%
25									

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976

Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 28 of 30

BORING DATA

c:\bmcd_lib\pw_connect\trn\d0171022\B_A9421_028_JSU0076.dgn 1:54:14 PM 9/16/2024

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMCD Project No. 146617



BURNS
& MCDONNELL

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



Missouri Department of Transportation
Construction and Materials

BORING NO. N-B-3
Page 2 of 2

Job No.: 20231075.00 County: Greene Route: I-44
Design: Skew: Location: Springfield, Missouri
Bent: Logged By: JU Operator: LRK
Station: Northing: 516744.648 Date of Work: 07/31/23-08/01/23
Offset: Easting: 1415047.2711 Depth to Water:
Elevation: 1293.1 Requested Northing: Depth Hole Open:
Requested Station: Requested Easting: Time Change:
Requested Offset: Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Requested Elevation: Location Note:
Drill No.: Hammer Efficiency: 90% Drilling Method: CFA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		24.7-29.2' (GP) Gray, GRAVEL fragments, with clay (highly weathered rock) (continued)							
			1265						
30		29.2-45.2' LIMESTONE, gray, hard to very hard, fresh to slightly weathered, aphanitic to coarsely crystalline, medium bedded, dense, cherty			100	50/0.1'			MC = 39.5%
			1260		100 (72)		Qu Test Results UCS = 1650 ksf		
35									
			1255		100 (87)		Qu Test Results UCS = 1250 ksf		
40		39.2' -chert nodules present below 39.2 ft.							
			1250		100 (70)		Qu Test Results UCS = 1850 ksf		
45		Refusal at 29.2 feet. Bottom of borehole at 45.2 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

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Missouri Department of Transportation
Construction and Materials

BORING NO. N-B-5
Page 1 of 1

Job No.: 20231075.00 County: Greene Route: I-44
Design: Skew: Location: Springfield, Missouri
Bent: Logged By: JU Operator: LRK
Station: Northing: 516794.6417 Date of Work: 08/08/23-08/08/23
Offset: 5' E Easting: 1415143.3374 Depth to Water:
Elevation: 1275.1 Requested Northing: Depth Hole Open:
Requested Station: Requested Easting: Time Change:
Requested Offset: Equipment: CME 550X, Split-Spoon Sampler
Requested Elevation: Location Note:
Drill No.: Hammer Efficiency: 90% Drilling Method: CFA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-0.3' Asphaltic concrete (4.0")	1275						
		0.3-1.4' (GP) FILL: Crushed limestone							
		1.4-3.8' (CL) FILL: Dark brown, lean CLAY (CL), trace sand			56	5-3-2 (8)		PP = 2.00 tsf	LL = 43 PL = 19 MC = 27.0%
		1.6' -silty from 1.4 to 1.8 ft.							
5		3.5' -with gravel below 3.5 ft.							
		3.8-6.1' (GP) White, gray, pink, GRAVEL, trace sand and fines	1270		22	17-13-14 (41)		PP = 1.50 tsf	MC = 7.3%
		6.0' -brown and gray, clayey below 6.0 ft.							
		6.1-7.3' Gray, weathered LIMESTONE			100	50/0.3'		PP = 1.00 tsf	MC = 25.6%
		7.3-25.0' LIMESTONE, gray, very hard, fresh, aphanitic to finely crystalline, medium to thick bedded, dense, occasional chert nodules present throughout			100 (94)		Qu Test Results UCS = 1250 ksf		
10			1265		105 (103)		Qu Test Results UCS = 1100 ksf		
15			1260		100 (95)		Qu Test Results UCS = 1300 ksf		
20			1255		100 (98)		Qu Test Results UCS = 2180 ksf		
25		Refusal at 7.3 feet							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual Bottom of borehole at 25.0 feet.

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 29 of 30

BORING DATA

c:\bmcd_lib\pw_connect\trn\d0171022\B_A9421_029_JSU0076.dgn 1:54:30 PM 9/16/2024

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165



BMcD Project No. 146617

BRIDGE NO.
A9421

CONTRACT ID.

JSU0076

JOB NO.

GREENE

COUNTY

DISTRICT

BR

ROUTE

I - 44

STATE

MO

DATE PREPARED

9/16/2024

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



Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: _____
Elevation: 1294.0
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
Drill No.: _____

Missouri Department of Transportation
Construction and Materials

County: Greene
Skew: _____
Logged By: JU
Northing: 516742.5508
Easting: 1415201.8537
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler
Location Note: _____
Hammer Efficiency: 90%

BORING NO. N-B-6
Page 1 of 2

Route: I-44
Location: Springfield, Missouri
Operator: LRK
Date of Work: 08/01/23-08/02/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Drilling Method: CFA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-0.5' Asphaltic concrete (6.0")							
		0.5-1.3' Portland cement concrete (10.0")							
		1.3-5.5' (CH) FILL: Red and brown, fat CLAY, with gravel		X	17	5-3-2 (8)		PP = 2.00 tsf	MC = 24.8%
		3.5' -trace gravel below 3.5 ft. 4.0' -dark gray below 4.0 ft.	1290	X	56	2-5-6 (17)		PP = 1.50 tsf	MC = 34.8%
5		5.5-16.0' (GC) FILL: Gray and brown, clayey GRAVEL		X	22	14-4-3 (11)		PP = 2.00 tsf	MC = 26.4%
		8.5' -red and brown below 8.5 ft.	1285	X	50	6-10-10 (30)		PP = 1.50 tsf	MC = 29.3%
10									
			1280	X	33	29-11-11 (33)		PP = 1.50 tsf	MC = 20.0%
15									
		16.0-22.0' (CL) FILL: Dark gray, lean CLAY, trace gravel	1275	X	83	3-8-10 (27)		PP = 2.00 tsf	LL = 48 PL = 18 MC = 24.6%
20									
		22.0-26.2' (GC) Red, brown, and gray, clayey GRAVEL	1270	X	72	17-10-11 (32)		PP = 2.00 tsf	MC = 20.6%
25									

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.



Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: _____
Elevation: 1294.0
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
Drill No.: _____

Missouri Department of Transportation
Construction and Materials

County: Greene
Skew: _____
Logged By: JU
Northing: 516742.5508
Easting: 1415201.8537
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler
Location Note: _____
Hammer Efficiency: 90%

BORING NO. N-B-6
Page 2 of 2

Route: I-44
Location: Springfield, Missouri
Operator: LRK
Date of Work: 08/01/23-08/02/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Drilling Method: CFA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		22.0-26.2' (GC) Red, brown, and gray, clayey GRAVEL (continued)							
		26.2-30.0' LIMESTONE, color, very hard, fresh to slightly weathered, aphanitic to coarsly crystalline, medium to thick bedded, dense, cherty	1265		98 (92)		Qu Test Results UCS = 1460 ksf		
30		30.0-36.2' LIMESTONE, color, very hard, fresh to slightly weathered, aphanitic to coarsly crystalline, medium to thick bedded, dense, cherty							
			1260		100 (100)		Qu Test Results UCS = 1230 ksf		
35		Refusal at 26.2 feet. Bottom of borehole at 36.2 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976
Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 30 of 30

BORING DATA

c:\bmcd_lib\pw_connect\trn\d0171022\B_A9421_030_JSU0076.dgn 1:54:46 PM 9/16/2024

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

Burns & McDonnell Engineering Co., Inc.



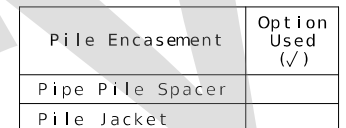
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMCD Project No. 146617

DATE PREPARED
9/16/2024
ROUTE
I - 44
STATE
MO
DISTRICT
BR
SHEET NO.
30
COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

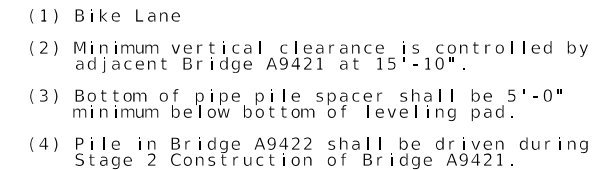
PROJECT NO.
BRIDGE NO.
A9421

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

SEC/SUR	1	TWP	29N	RGE	22W
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MoDot Construction personnel will indicate the pile encasement used.



NOTES:

 Indicates location of borings.

For notice and disclaimer regarding boring log data, see Sheet No. 2.

Roadway fill, exclusive of Select Granular Backfill for Structural Systems shall be completed to the final roadway section and up to the elevation of the bottom of the concrete beam within the limits of the structure and for not less than 25 feet in back of the back of the bent. No bents before any piles are driven for any bents falling within the embankment section.

C.P. #520 - 5/8" I.B. w/ 2" Aluminum Cap
Sta. 1157+31.28, 94.70' Rt. of C 1-44
Elev. 1278.57

C.P. #521 - 5/8" I.B. w/ 2" Aluminum Cap
Sta. 1184+76.50, 114.67' Lt. of C I-44
Elev. 1294.63

Designed: May 2024
Detailed: May 2024
Checked: Jun. 2024

Beg. Sta.	1178+31.31
Pr. Gr. Elev	1296.23

SPAN (1-2)
PLAN

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

Sheet No. 1 of 30

BRIDGE: RTE. I-44 WBL OVER NATIONAL AVE.
ROUTE I-44 WBL FROM ROUTE H TO ROUTE 13
ABOUT 0.6 MILES WEST OF ROUTE H
BEGINNING STATION 1178+31.31

DATE PREPARED	
9/16/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
BR	1

COUNTY
GREENE

JOB NO. 1510070

JSU0076

CONTRACT ID

PROJECT NO. _____

BRIDGE NO.

A9422

DESCRIPTION

DATE _____

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority

No. : 000165

[illegible]

GENERAL NOTES:

DESIGN SPECIFICATIONS:

2020 AASHTO LRFD Bridge Design Specifications (9th Ed.)
Operational Importance = Essential
2011 AASHTO Guide Specifications for LRFD Seismic Bridge Design (2nd Ed.)
and 2014 Interim Revisions (Seismic)
Seismic Design Category = A
Design earthquake response spectral acceleration coefficient at 1.0 second
period, $S_{D1} = 0.104g$
Acceleration Coefficient (effective peak ground acceleration coefficient), $A_s = 0.089g$

DESIGN LOADING:

Vehicular = HL-93
Future Wearing Surface = 35 lb/sf
Earth = 120 lb/cf
Equivalent Fluid Pressure = 45 lb/cf (Min.)
Superstructure: Non-composite for dead load.
Composite for live load.

DESIGN UNIT STRESSES:

Class B Concrete (Substructure) $f'c = 3,000$ psi
Class B-1 Concrete (Type D Barrier) $f'c = 4,000$ psi
Class B-2 Concrete (Superstructure, except
Prestressed Girders and Type D Barrier) $f'c = 4,000$ psi
Reinforcing Steel (Grade 60) $f_y = 60,000$ psi
Structural Steel HP Pile (ASTM A709 Grade 50S) $f_y = 50,000$ psi
For precast prestressed panel stresses, see Sheet No. 18.
For prestressed girder stresses, see Sheets No. 16 thru 17.

NEOPRENE PADS:

Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

JOINT FILLER:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber
expansion and partition joint filler, except as noted.

REINFORCING STEEL:

Minimum clearance to reinforcing steel shall be $1\frac{1}{2}"$, unless otherwise shown.

TRAFFIC HANDLING:

Vertical clearance for National Avenue traffic during construction shall be 14'-6"
minimum over a 11'-0" wide horizontal opening of the roadway in each direction.

Traffic to be maintained on structures during construction. See roadway plans for traffic
control and Sheets No. 3 thru 4 for staged construction details.

MISCELLANEOUS:

MoDOT Construction personnel will indicate the type of joint filler option used under the
precast panels for this structure:

- ☐ Constant Joint Filler
☐ Variable Joint Filler

NOTICE AND DISCLAIMER REGARDING BORING LOG DATA:

The locations of all subsurface borings for this structure are shown on the plan sheets
for this structure. The boring data for all locations indicated, as well as any other
boring logs or other factual records of subsurface data and investigations performed by
the department for the design of the project, are shown on Sheets No. 28 thru 30 and may
be included in the Electronic Bridge Deliverables. They will also be available from the
Project Contact upon written request. No greater significance or weight should be given to
the boring data depicted on the plan sheets than is given to the subsurface data
available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts
the conditions to be encountered in constructing this project. A contractor assumes all
risks it may encounter in basing its bid prices, time or schedule of performance on the
boring data depicted here or those available from the district, or on any other
documentation not expressly warranted, which the contractor may obtain from the
Commission.

Foundation Data			
Type	Design Data	Bent Number	
		1	2
Load Bearing Pile	Pile Type and Size	HP 12x53	HP 12x53
	Number	9	9
	Approximate Length Per Each	ft 27	28
	Pile Point Reinforcement	ea All	All
	Min. Galvanized Penetration (Elev.)	ft Full Length	Full Length
	Pile Driving Verification Method	DF	DF
	Resistance Factor	0.40	0.40
	Minimum Nominal Axial Compressive Resistance	kip 590	590

DF = FHWA - modified Gates Dynamic Pile Formula.

Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resistance Factor}}$

Manufactured pile point reinforcement shall be used on all piles in this structure.

Pile point reinforcement need not be galvanized. Shop drawings will not be required for
pile point reinforcement.

Prebore for piles at Bents No. 1 and 2 to elevation 1263.0.

HP piles are anticipated to be driven to refusal on rock. Review all borings for depth of
rock and restrict driving as appropriate to comply with hard rock driving criteria in
accordance with Sec 702. When pile refusal on rock occurs, as approved by the engineer,
the minimum nominal axial compressive resistance is verified and no additional pile
driving verification method is required.

The contractor shall make every effort to achieve the minimum galvanized penetration
(elevation) shown on the plans for all piles.

Estimated Quantities				
Item	Substr.	Superstr.	Total	
Removal of Bridges (A04473)	Lump sum		1	
Bridge Approach Slab (Major)	sq. yard	314	314	
Galvanized Structural Steel Piles (12 in.)	linear foot	492	492	
Pre-Bore for Piling	linear foot	198	198	
Pile Point Reinforcement	each	18	18	
Class B Concrete (Substructure)	cu. yard	58.4	58.4	
Type D Barrier	linear foot	226	226	
Slab on Concrete NU-Girder	sq. yard	648	648	
NU 35, Prestressed Concrete NU-Girder	linear foot	647	647	
Vertical Drain at End Bents	each	2	2	
Plain Neoprene Bearing Pad	each	8	8	
Laminated Neoprene Bearing Pad (Tapered)	each	8	8	
Pile Spacers	each	18	18	

All concrete above the construction joint in the end bents is included in the Estimated
Quantities for Slab on Concrete NU-Girder.

All reinforcement in the end bents is included in the Estimated Quantities for Slab on
Concrete NU-Girder.

Estimated Quantities for Slab on Concrete NU-Girder		
Item		Total
Class B-2 Concrete	cu. yard	201
Reinforcing Steel (Epoxy Coated)	pound	43,110

The table of Estimated Quantities for Slab on Concrete NU-Girder represents the
quantities used by the State in preparing the cost estimate for concrete slabs. The area
of the concrete slab will be measured to the nearest square yard longitudinally from end
of slab to end of slab and transversely from out to out of bridge slab (or with the
horizontal dimensions as shown on the plan of slab). Payment for prestressed panels,
conventional forms, all concrete and epoxy coated reinforcing steel will be considered
completely covered by the contract unit price for the slab. Variations may be
encountered in the estimated quantities but the variations cannot be used for an
adjustment in the contract unit price.

Method of forming the slab shall be as shown on the plans and in accordance with Sec
703. All hardware for forming the slab to be left in place as a permanent part of the
structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness
class SC 4 and a finish type I, II or III.

PRECAST PRESTRESSED PANELS:

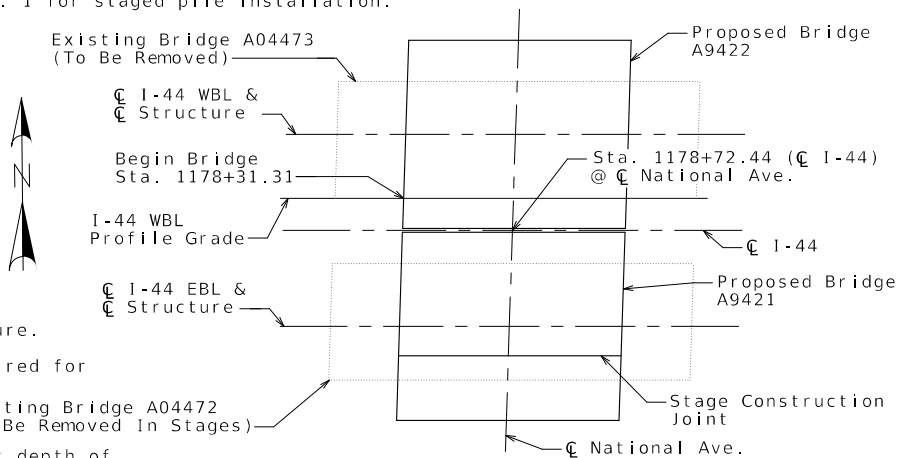
The Estimated Quantities for Slab on Concrete NU-Girder are based on skewed precast
prestressed end panels.

Class B-2 Concrete quantity is based on minimum top flange and minimum joint material
thickness.

The prestressed panel quantities are not included in the table of Estimated Quantities
for Slab on Concrete NU-Girder.

STAGED CONSTRUCTION:

See General Plan and Elevation Sheet No. 1 for staged pile installation.

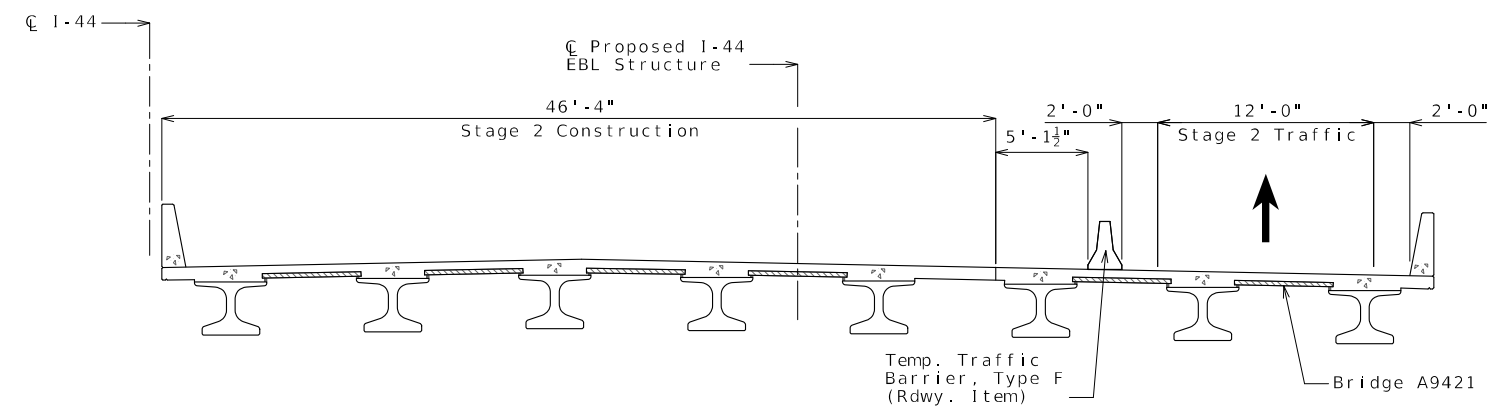
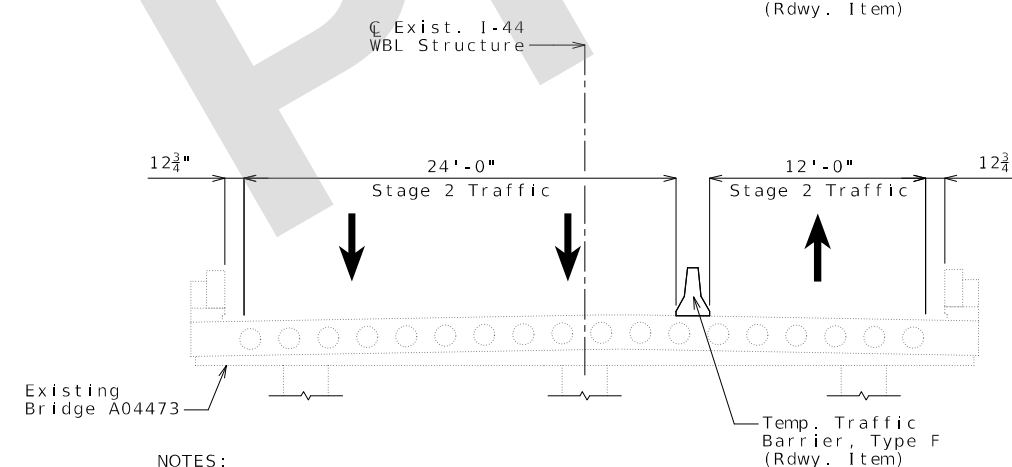
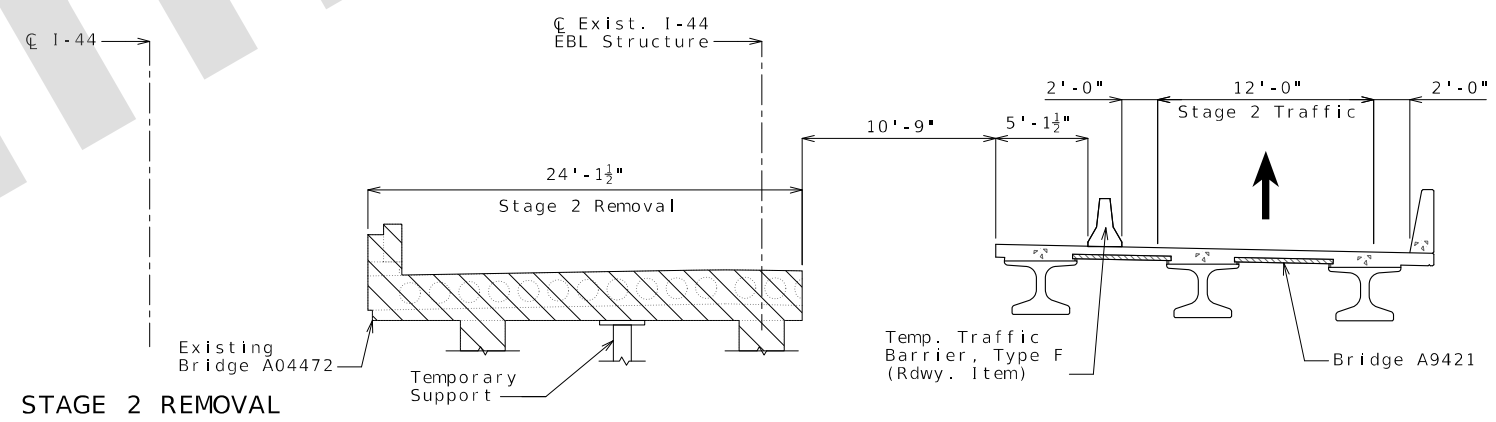
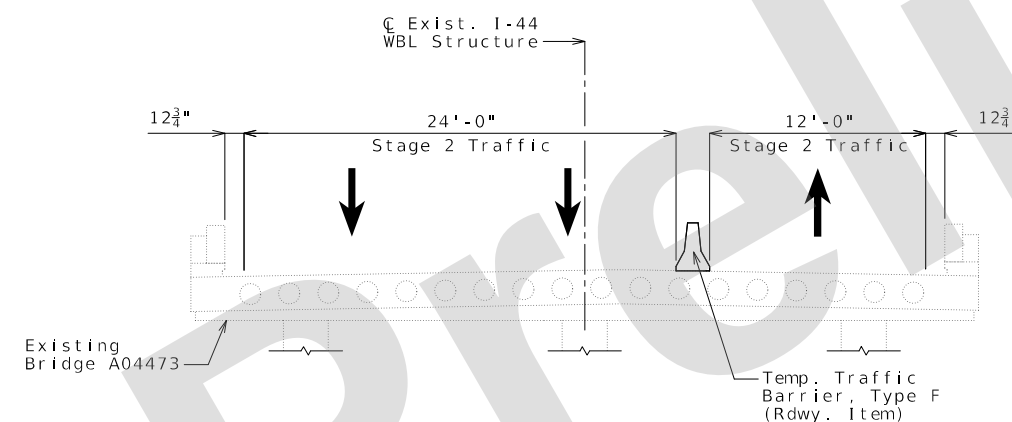
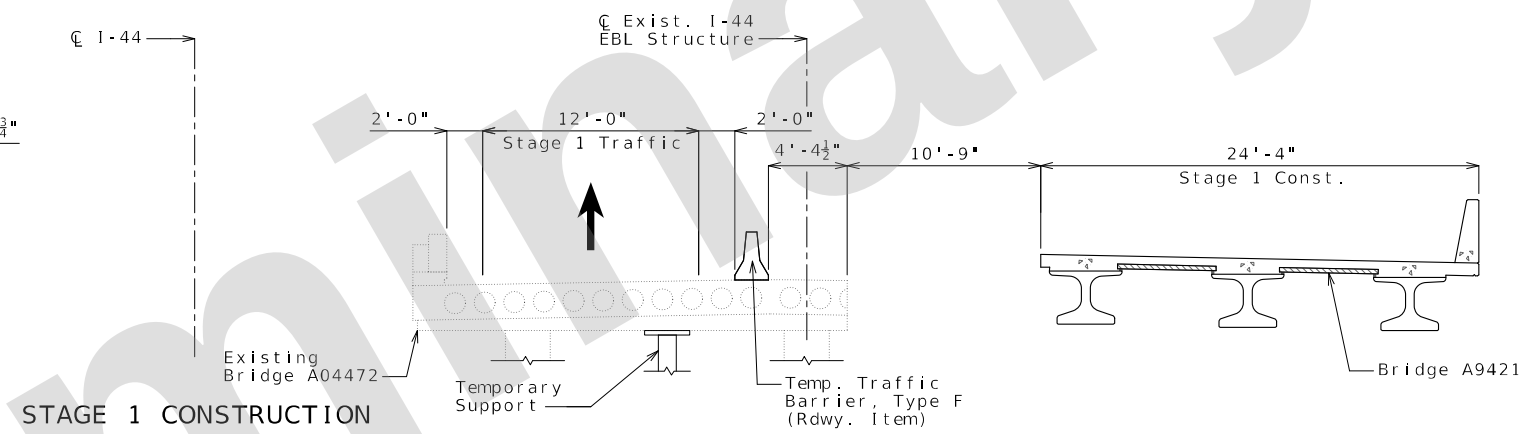
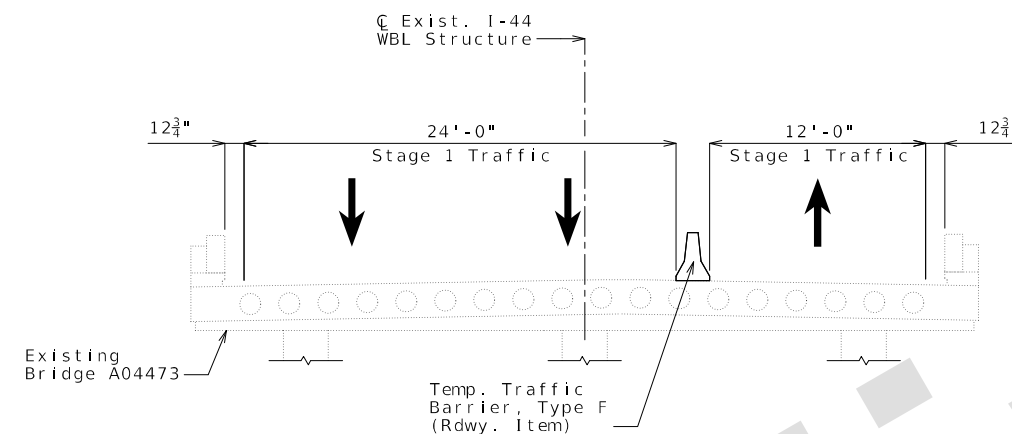
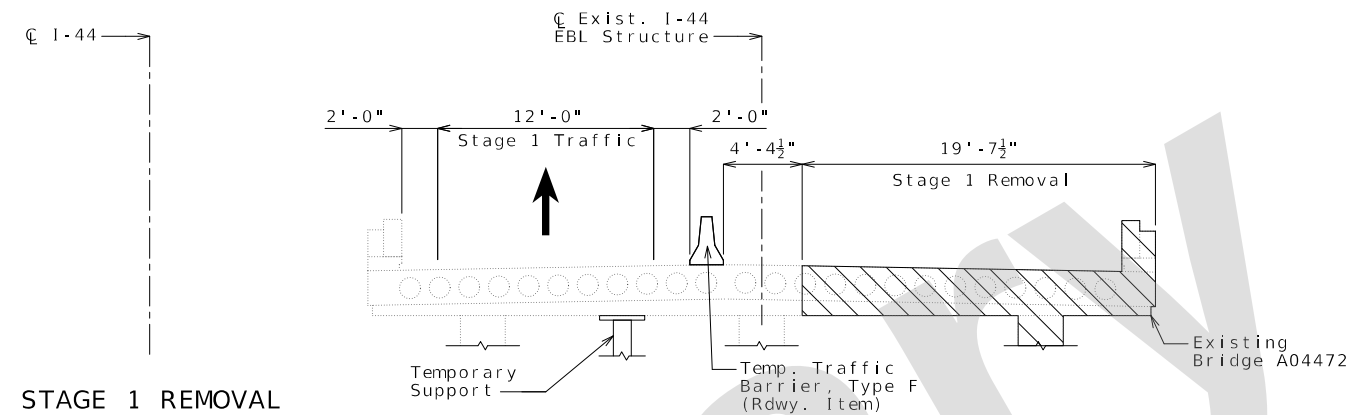
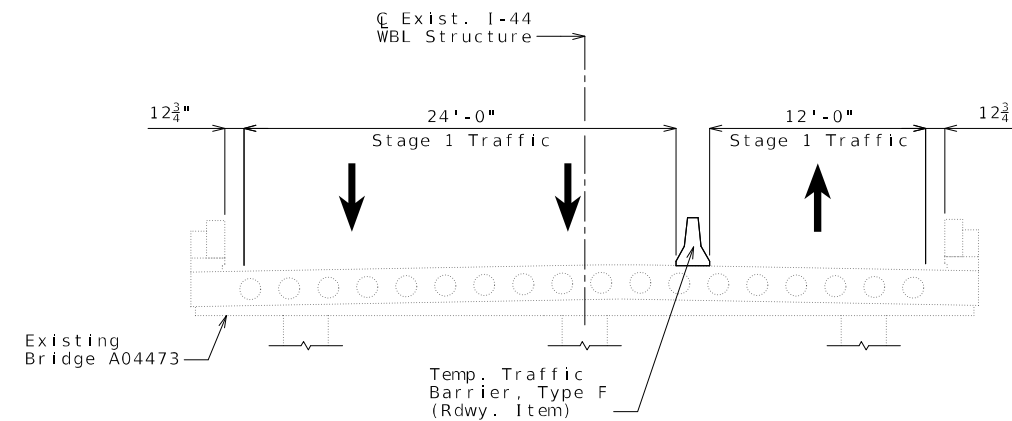


GENERAL NOTES & QUANTITIES

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 2 of 30



NOTES :

All typical sections are looking east.

Hatched area indicates removal of existing structures.

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

Sheet No. 3 of 30

STAGED CONSTRUCTION

DATE PREPARED	
9/16/2024	
ROUTE	STATE
I - 44	MO
DISTRICT	SHEET NO.
BR	3

COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.	
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BRIDGE NO.	
A9422	

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

Burns & McDonnell Engineering Co., Inc.

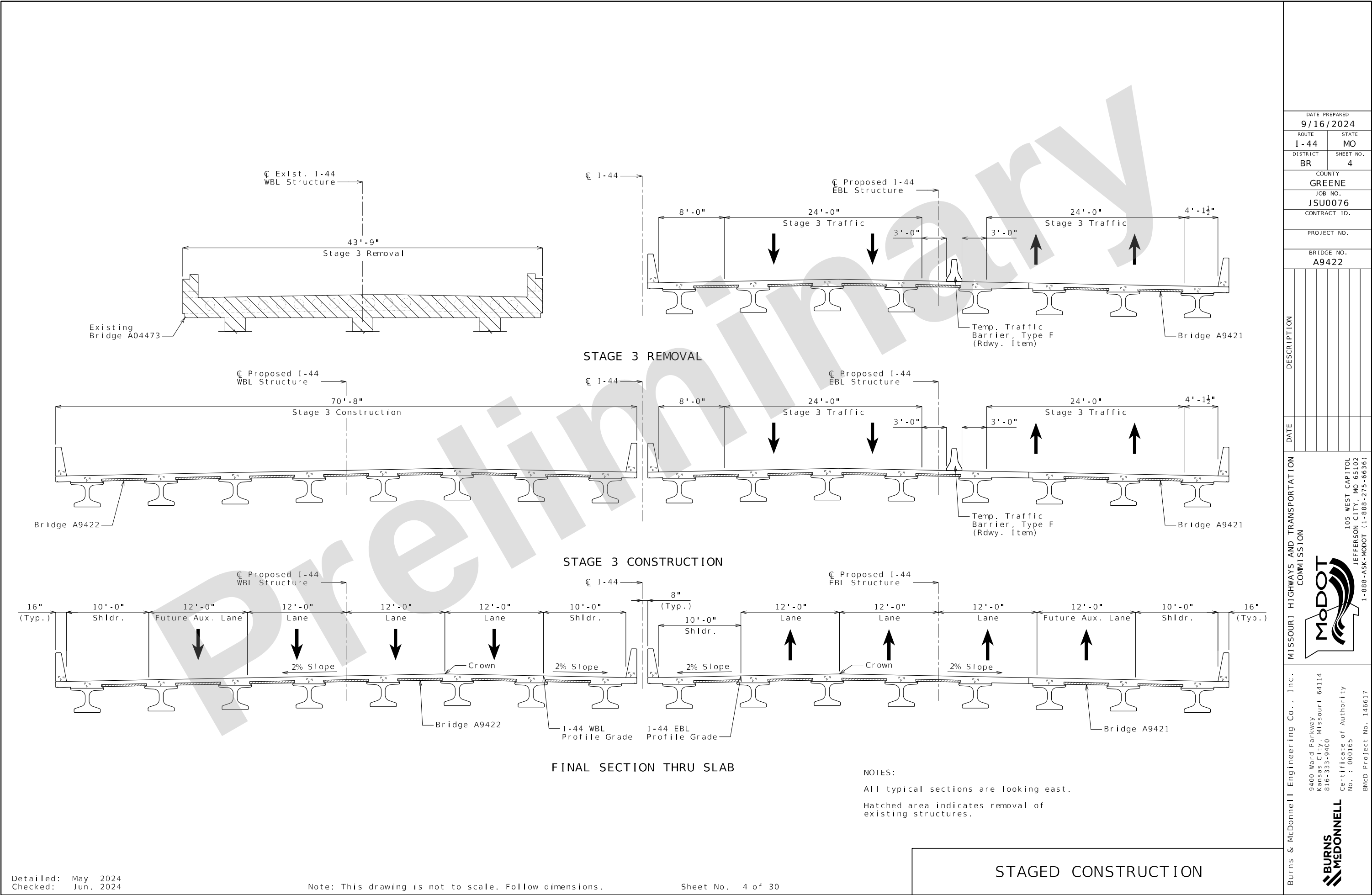
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

3McD Project No. 146617



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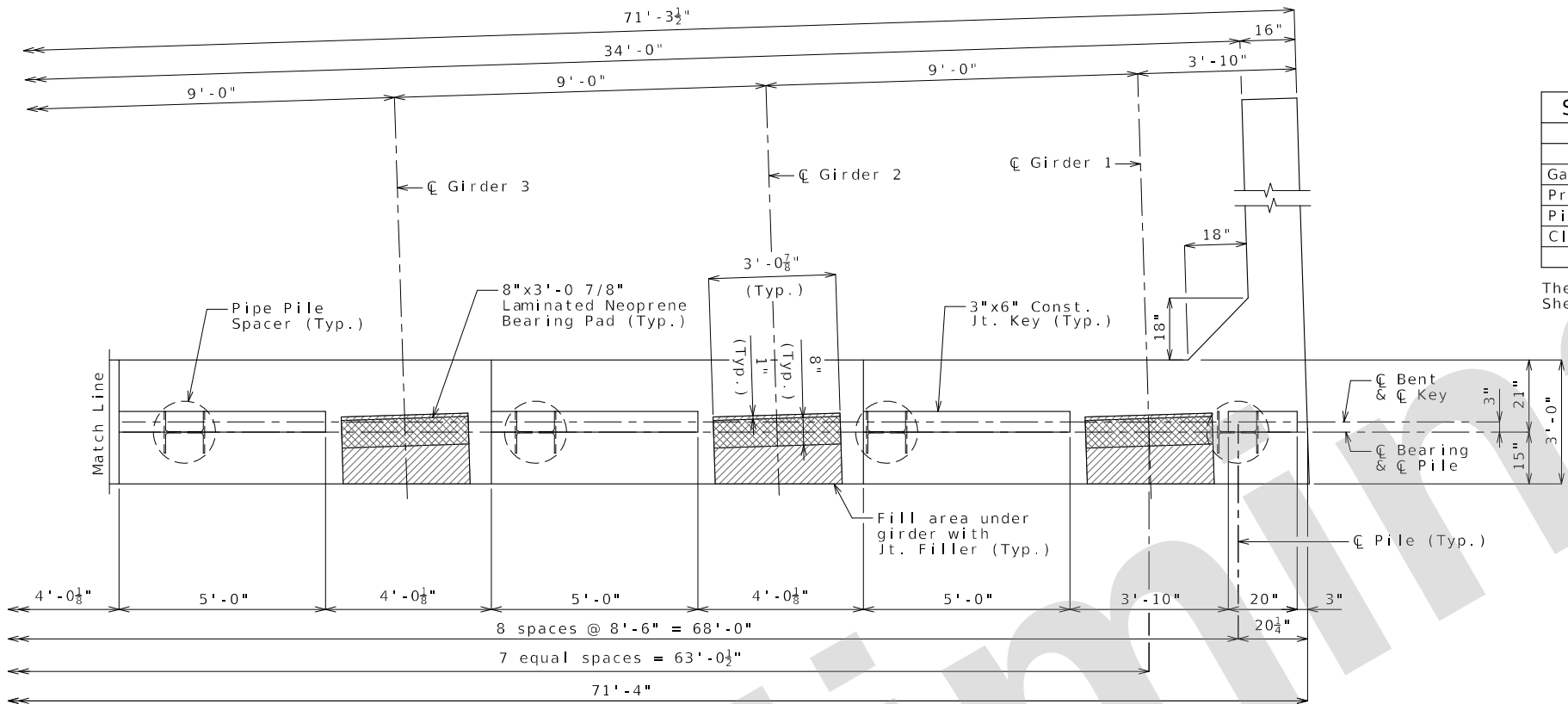
Detailed: May 2024
Checked: Jun. 2024

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

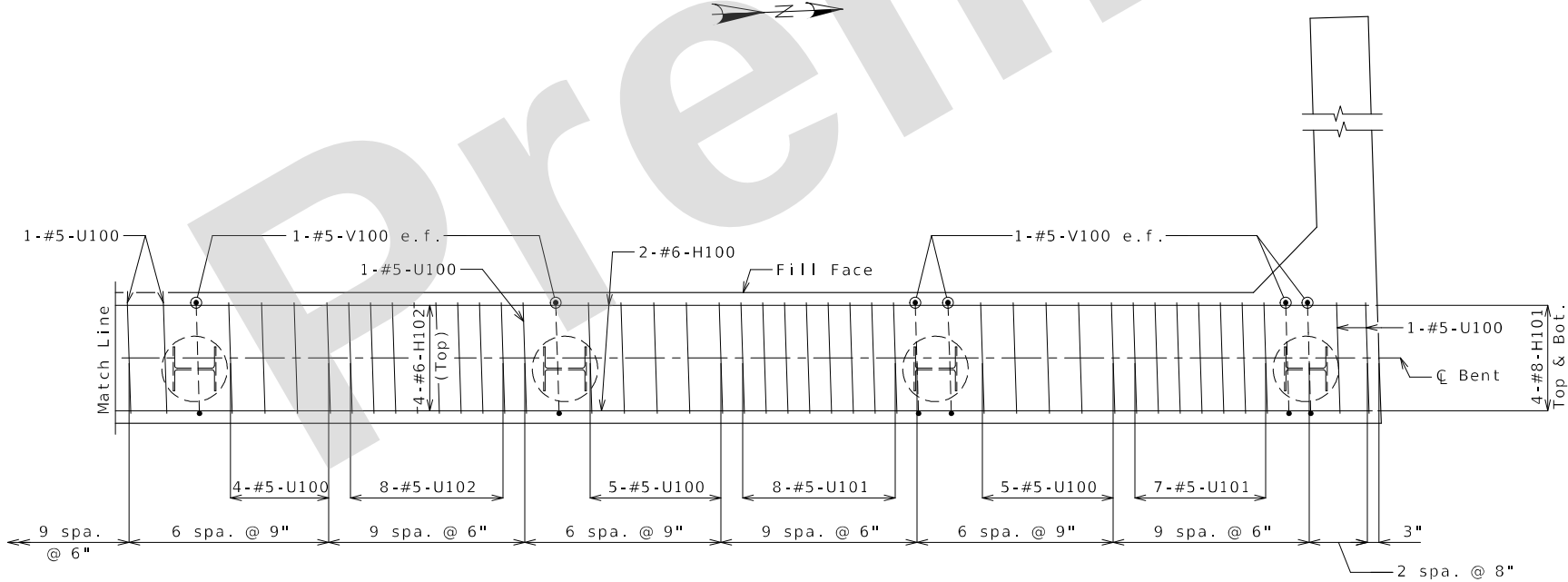
Sheet No. 4 of 30

DATE PREPARED 9/16/2024	
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DISTRICT BR	SHEET NO. 4
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9422	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
MoDOT 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	

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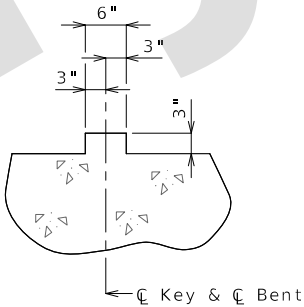
PART PLAN OF BEAM



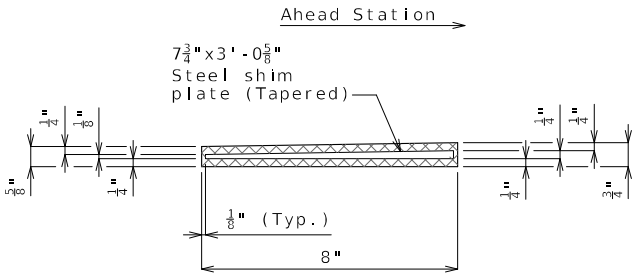
PART PLAN OF BEAM SHOWING REINFORCEMENT
(Keys and steps not shown for clarity)

Substructure Quantity Table for End Bent No. 1		
Item		Quantity
Galvanized Structural Steel Piles (12 in.)	linear foot	244
Pre-Bore for Piling	linear foot	99
Pile Point Reinforcement	each	9
Class B Concrete (Substructure)	cu. yard	29.3

These quantities are included in the Estimated Quantities table on Sheet No. 2.



SECTION THRU KEY



TYPICAL SECTION THRU
8"X3'-0 7/8"X11/16"
LAMINATED NEOPRENE BEARING PAD
(8 Required)

NOTES:
Work this sheet with Sheets No.6 thru 9.
All U bars and pairs of V bars shall be placed parallel to centerline of roadway.
Reinforcing steel shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.
e.f. denotes each face.

END BENT NO. 1
BEAM DETAILS 1 OF 2

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 5 of 30

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9422

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

MoDOT

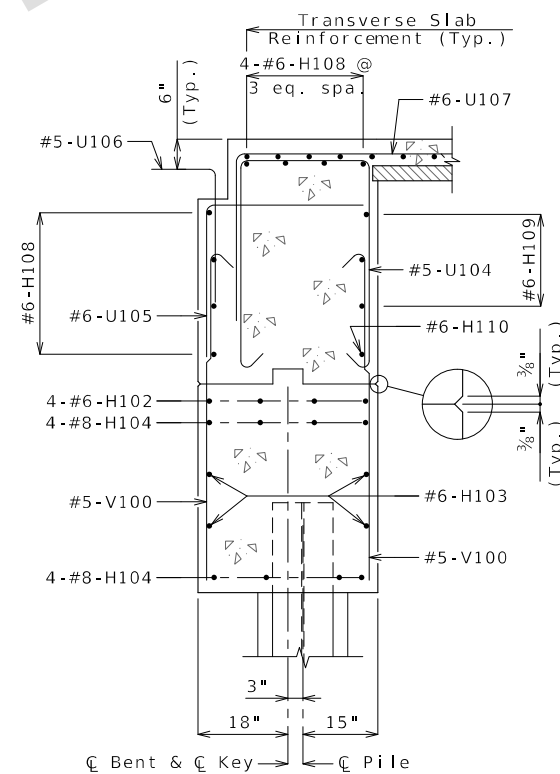
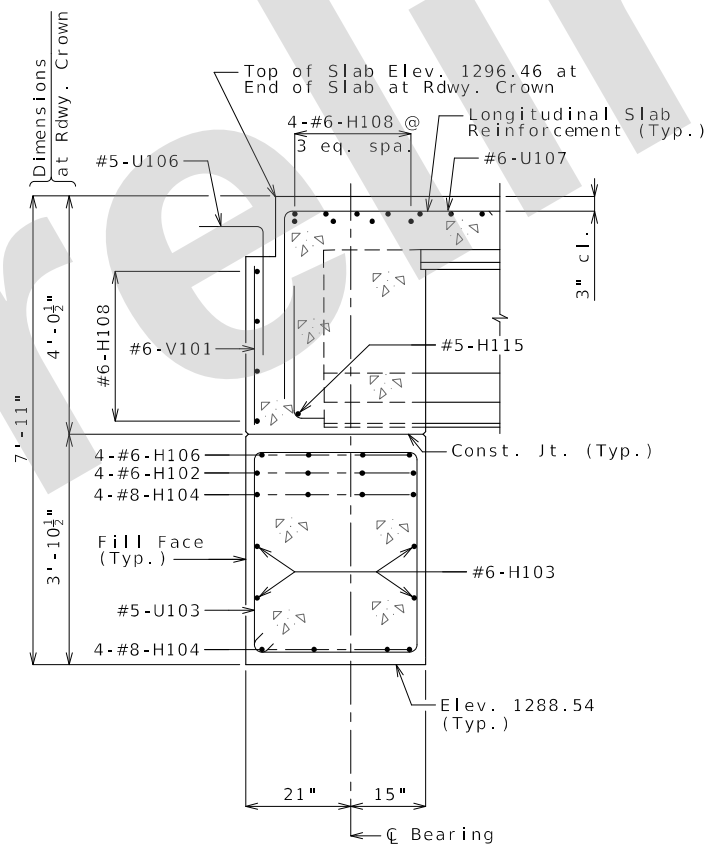
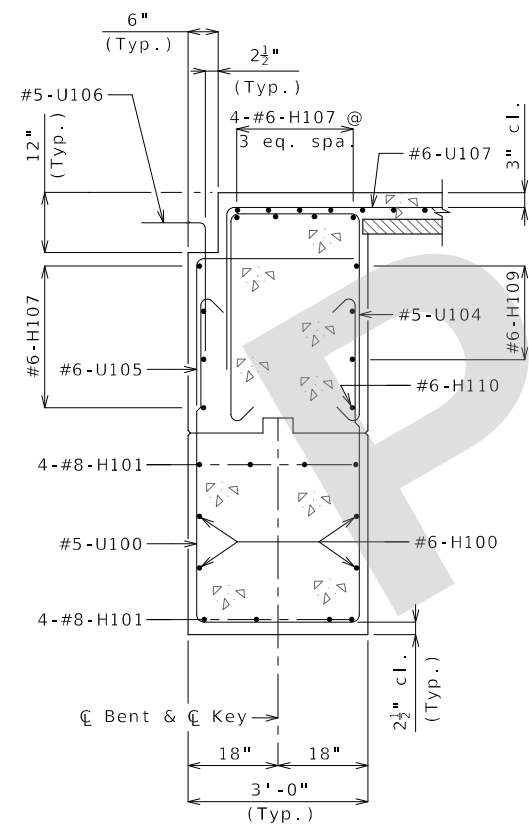
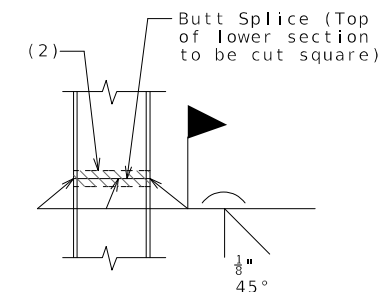
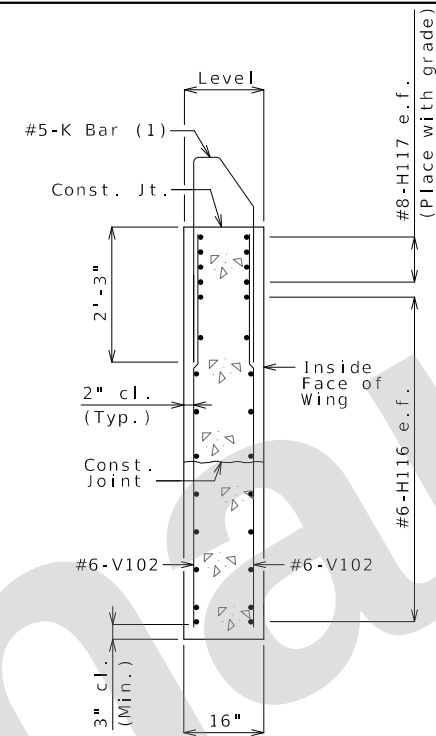
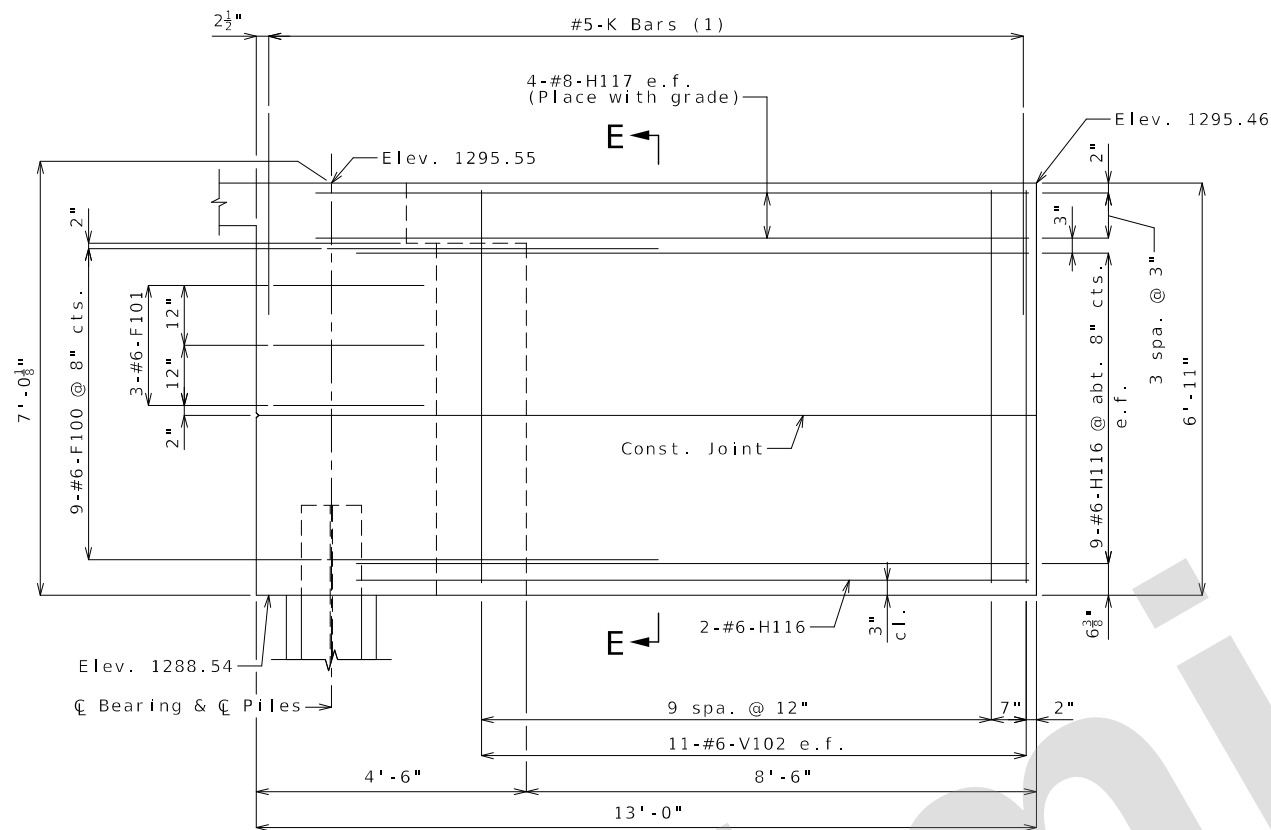
1-888-ASK-MODOT (1-888-275-6636)

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

BURNS
MCDONNELL

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REV.



NOTES:

(1) For reinforcement of the Type D Barrier at End Bent, see Sheet No. 23.

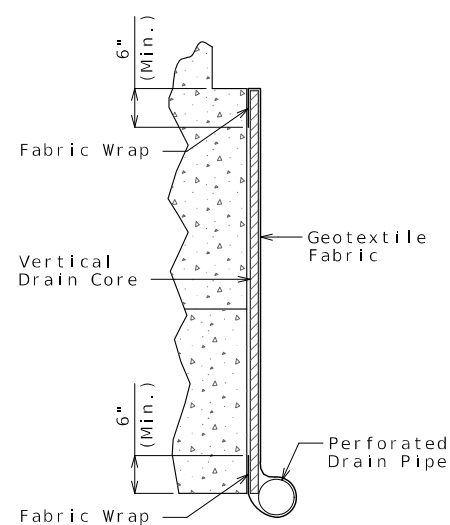
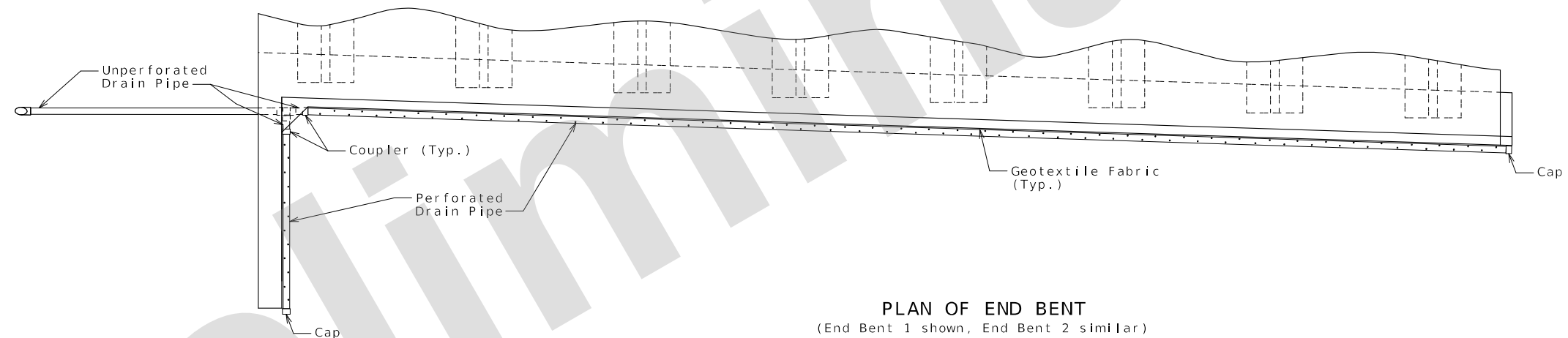
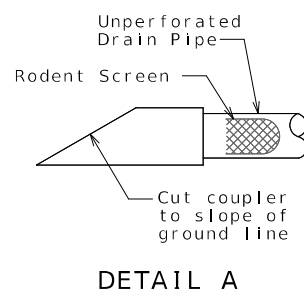
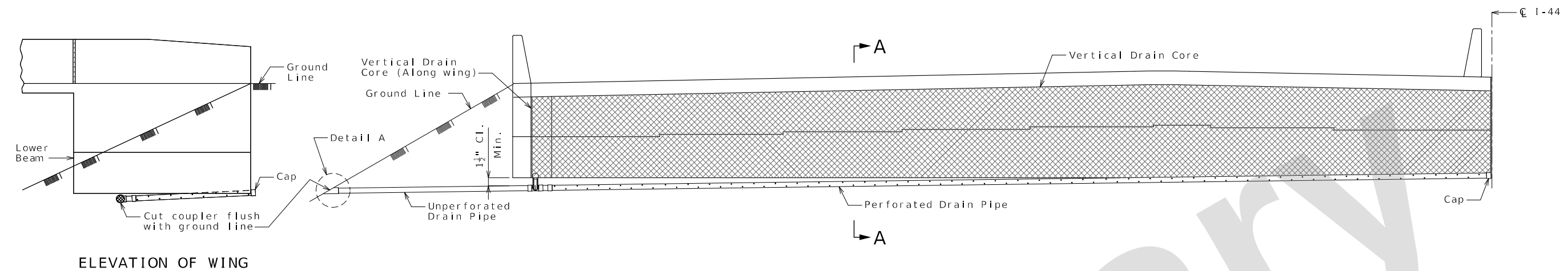
e.f. denotes each face.

For details of bridge approach slab, see Sheet No. 24.

Work this sheet with Sheets No. 5 thru 8.

END BENT NO. 1
WING DETAILS & SECTIONS

BURNS MEDONNELL Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION		MoDOT 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-273-6636)	DATE	DESCRIPTION	IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.
DATE PREPARED 9/16/2024						
ROUTE I - 44		STATE MO				
DISTRICT BR		SHEET NO. 9				
COUNTY GREENE						
JOB NO. JSU0076						
CONTRACT ID.						
PROJECT NO.						
BRIDGE NO. A9422						



PLAN OF END BENT
(End Bent 1 shown, End Bent 2 similar)

General Notes:

All drain pipe shall be sloped 1 to 2 percent.

Drain pipe may be either 6-inch diameter corrugated metallic-coated steel pipe underdrain, 4-inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4-inch diameter corrugated polyethylene (PE) drain pipe.

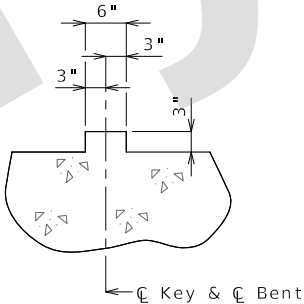
Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.

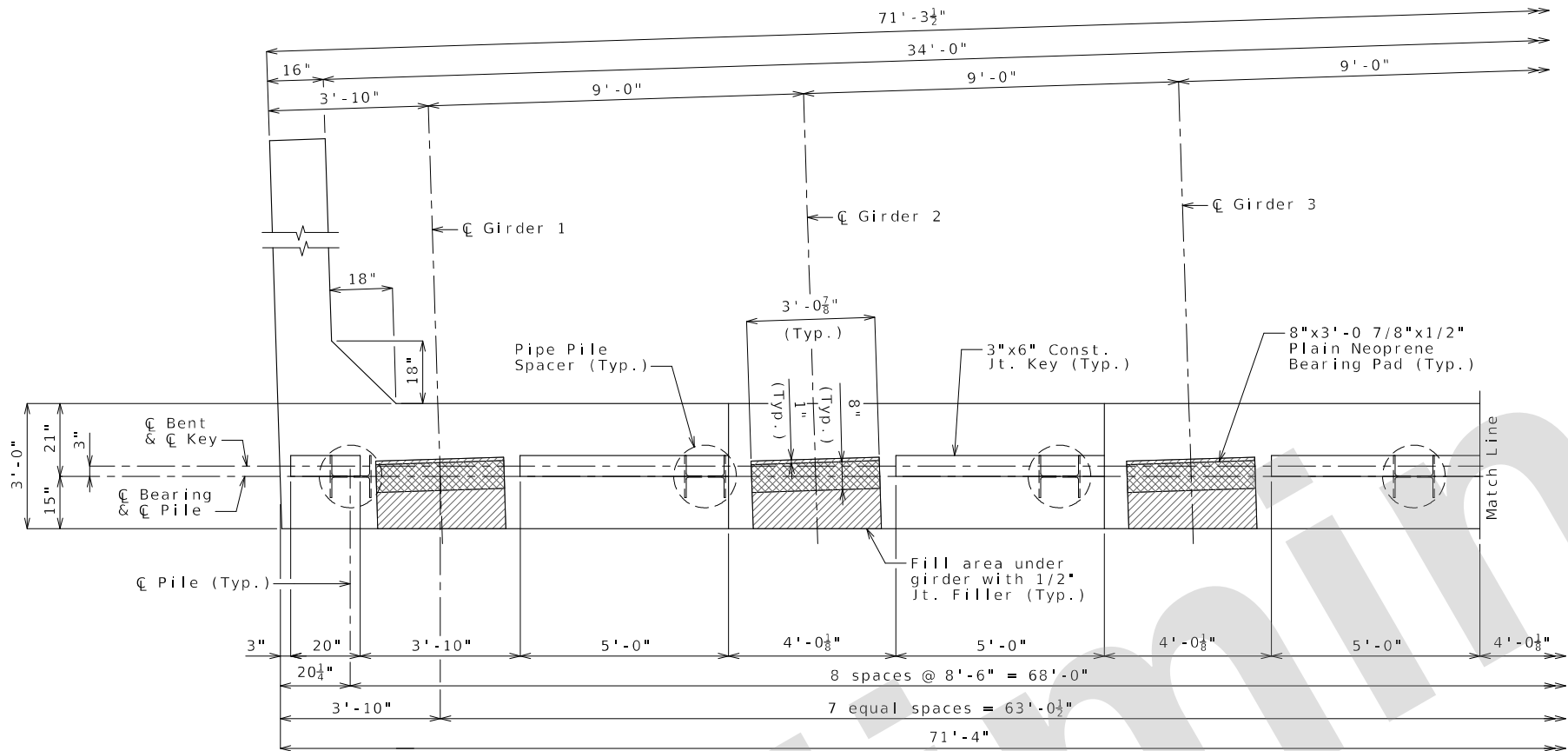
BURNS MCDONNELL Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BlmCd Project No. 146617	MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)		DATE	DESCRIPTION		

Substructure Quantity Table for End Bent No. 2			
Item		Quantity	
Galvanized Structural Steel Piles (12 in.)		linear foot	248
Pre-Bore for Piling		linear foot	99
Pile Point Reinforcement		each	9
Class B Concrete (Substructure)		cu. yard	29.1

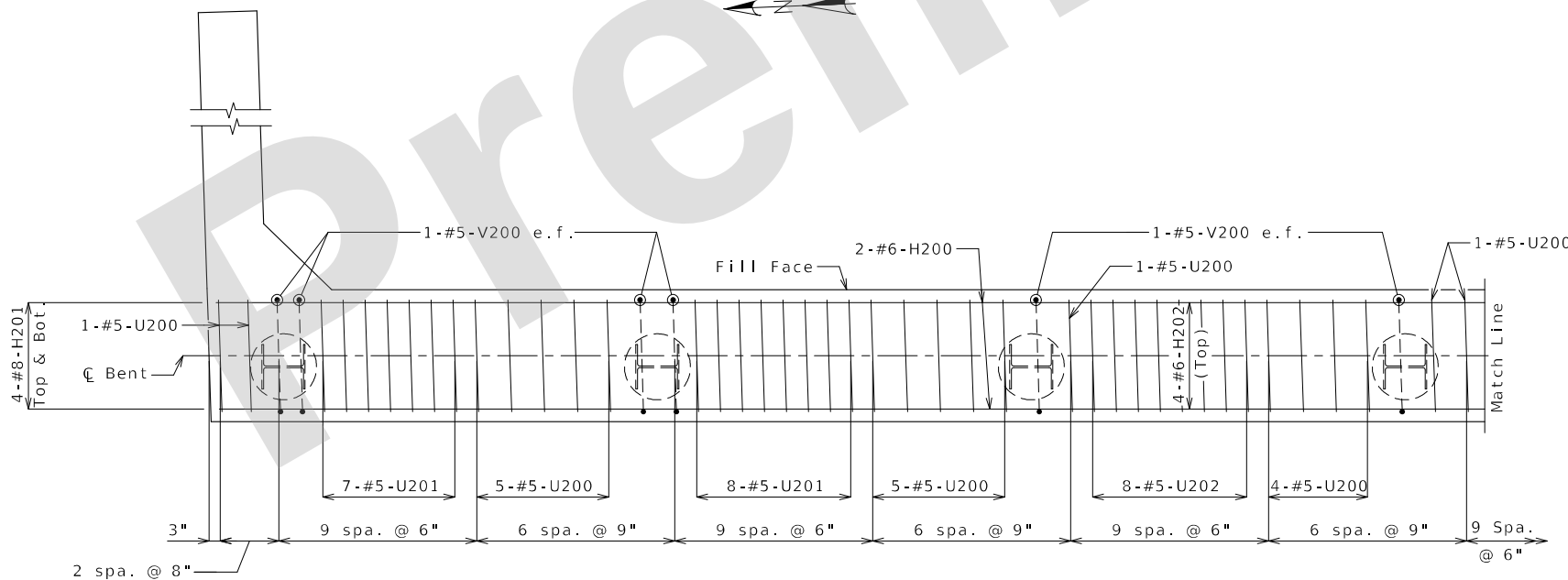
These quantities are included in the Estimated Quantities table on Sheet No. 2.



SECTION THRU KEY



PART PLAN OF BEAM



PART PLAN OF BEAM SHOWING REINFORCEMENT
(Keys and steps not shown for clarity)

NOTES:
Work this sheet with Sheets No. 12 thru 15.
All U bars and pairs of V bars shall be placed parallel to centerline of roadway.
Reinforcing steel shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.
e.f. denotes each face.

END BENT NO. 2
BEAM DETAILS 1 OF 2

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 11 of 30

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9422

DESCRIPTION

DATE

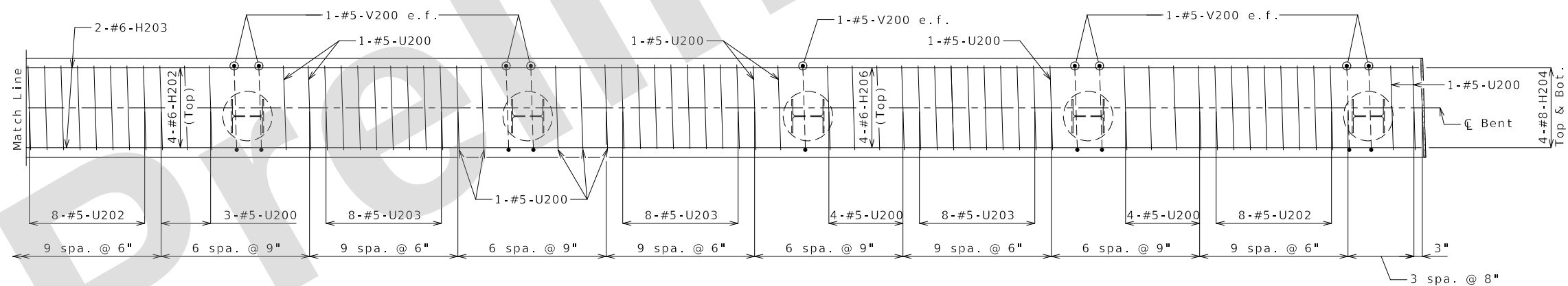
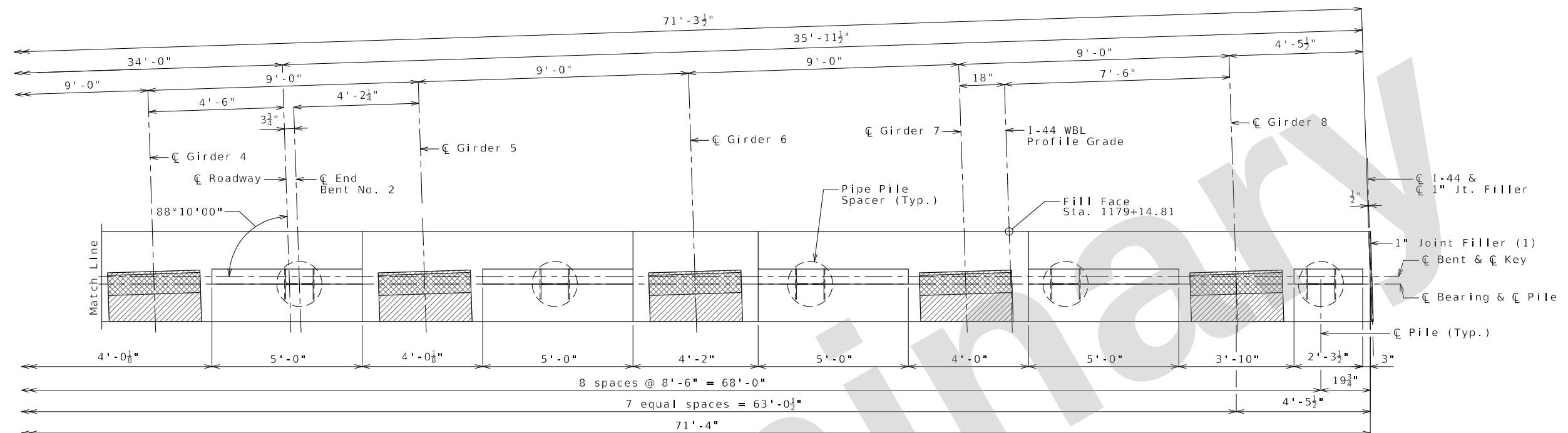
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

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

REV.



NOTES:

Work this sheet with Sheets No. 11 & 13 thru 15.

All U bars and pairs of V bars shall be placed parallel to centerline of roadway.

Reinforcing steel shall be shifted to clear piles.
U bars shall clear piles by at least 1 1/2 inches.

e.f. denotes each face.

- (1) Seal joint between vertical face of EB and WB bearing beams with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

PART PLAN OF BEAM SHOWING REINFORCEMENT
(Keys and steps not shown for clarity)

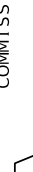
Detailed: May 2024
Checked: Jun. 2024

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

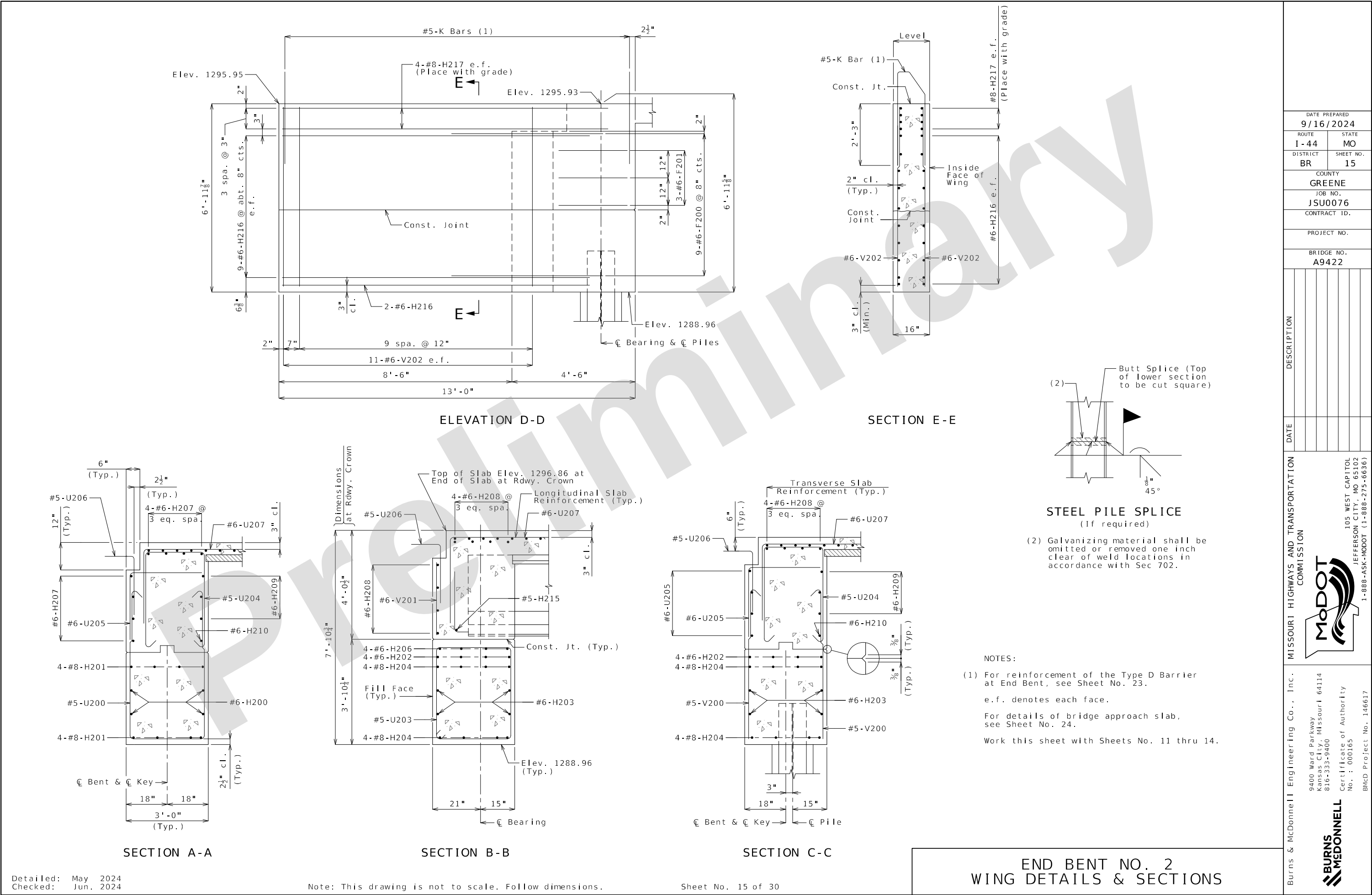
Sheet No. 12 of 30

END BENT NO. 2
BEAM DETAILS 2 OF 2

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DATE PREPARED 9/16/2024					
ROUTE I - 44			STATE MO		
DISTRICT BR			SHEET NO. 12		
COUNTY GREENE					
JOB NO. JSU0076					
CONTRACT ID.					
PROJECT NO.					
BRIDGE NO. A9422					
DESCRIPTION	DATE	MISOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
					
		105 WEST CAPITOL JEFFERSON CITY, MO 65102			
		1-888-ASK-MODOT (1-888-275-6636)			
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMCD Project No. 146617			 BURNS & MCDONNELL		

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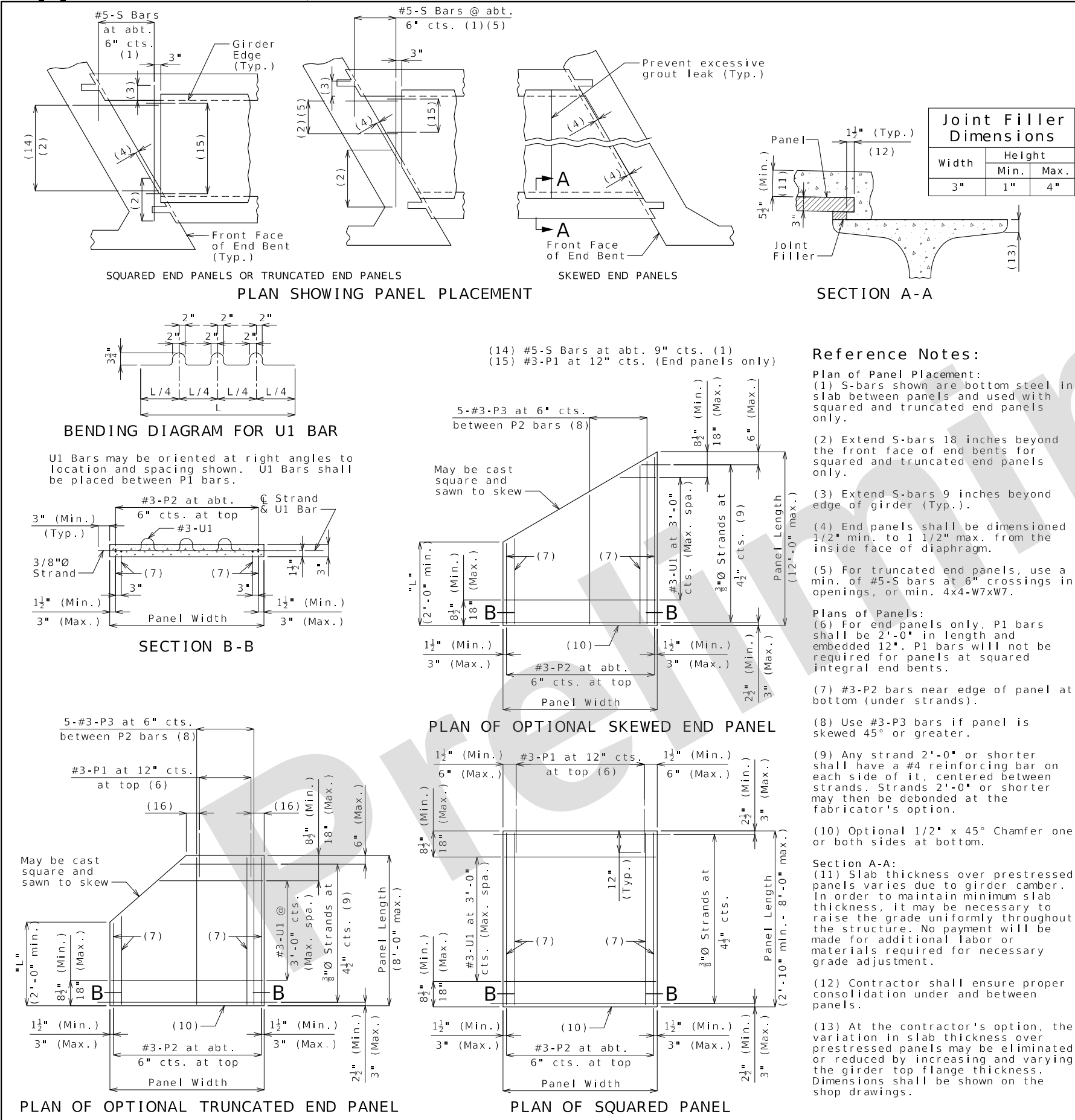
Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 15 of 30

DATE PREPARED 9/16/2024	
ROUTE 1-44	STATE MO
DISTRICT BR	SHEET NO. 15
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9422	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)

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General Notes:
Prestressed Panels:
Concrete for prestressed panels shall be Class A-1 with $f'c = 6,000$ psi, $f'ci = 4,000$ psi.

The top surface of all panels shall receive a scored finish with a depth of scoring of 1/8" perpendicular to the prestressing strands in the panels.

Prestressing tendons shall be high-tensile strength, uncoated, seven-wire, low-relaxation strands for prestressed concrete in accordance with AASHTO M 203 Grade 270, with nominal diameter of strand = 3/8" and nominal area = 0.085 sq.in. and minimum ultimate strength = 22.95 kips (270 ksi). Larger strands may be used with the same spacing and initial tension.

Initial prestressing force = 17.2 kips/strand.

The method and sequence of releasing the strands shall be shown on the shop drawings.

Suitable anchorage devices for lifting panels may be cast in panels, provided the devices are shown on the shop drawings and approved by the engineer. Panel lengths shall be determined by the contractor and shown on the shop drawings.

When squared end panels are used at skewed bents, the skewed portion shall be cast full depth. No separate payment will be made for additional concrete and reinforcing required.

Support from diaphragm forms is required under the optional skewed end until cast-in-place concrete has reached 3,000 psi compressive strength.

Prestressed panels shall be brought to saturated surface-dry (SSD) condition just prior to the deck pour. There shall be no free standing water on the panels or in the area to be cast.

The prestressed panel quantities are not included in the table of estimated quantities for the slab.

Reinforcing Steel:
All dimensions are out to out.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

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

If U1 bars interfere with placement of slab steel, U1 loops may be bent over, as necessary, to clear slab steel.

Deformed welded wire reinforcement (WWR) providing a minimum area of reinforcing perpendicular to strands of 0.22 sq in./ft, with spacing parallel to strands sufficient to ensure proper handling, may be used in lieu of the #3-P2 bars shown. Wire diameter shall not be larger than 0.375 inch. The above alternative reinforcement criteria may be used in lieu of the #3-P3 bars, when required, and placed over a width not less than 2 feet.

The following reinforcing steel shall be tied securely to the strands with the following maximum spacing in each direction:
#3-P2 bars at 16 inches.
WWR at 24 inches.

The #3-U1 bars shall be tied securely to #3-P2 bars, to WWR or to strands (when placed between P1 bars) at about 3-foot centers.

Minimum reinforcement steel length shall be 2'-0".

All reinforcement other than prestressing strands shall be epoxy coated.

Precast panels may be in contact with stirrup reinforcing in diaphragms.

S-bars are not listed in the bill of reinforcing.

Cost of S-bars will be considered completely covered by the contract unit price for the slab.

Joint Filler:
Joint filler shall be preformed fiber expansion joint material in accordance with Sec 1057 or expanded or extruded polystyrene bedding material in accordance with Sec 1073.

Use Slab Haunching Diagram on Sheet No. 19 for determining thickness of joint filler within the limits noted in the table of Joint Filler Dimensions.

Thicker material may be used on one or both sides of the girder to reduce cast-in-place concrete thickness to within tolerances.

The same thickness of preformed fiber expansion joint material shall be used under any one edge of any panel except at locations where top flange thickness may be stepped. The maximum change in thickness between adjacent panels shall be 1/2 inch. The polystyrene bedding material may be cut with a transition to match haunch height above top of flange.

Joint filler shall be glued to the girder. When thickness exceeds 1 1/2 inches, the joint filler shall be glued top and bottom. The glue used shall be the type recommended by the joint filler manufacturer.

Edges of panels shall be uniformly seated on the joint filler before slab reinforcement is placed.

PRESTRESSED PANELS

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 18 of 30

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9422

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

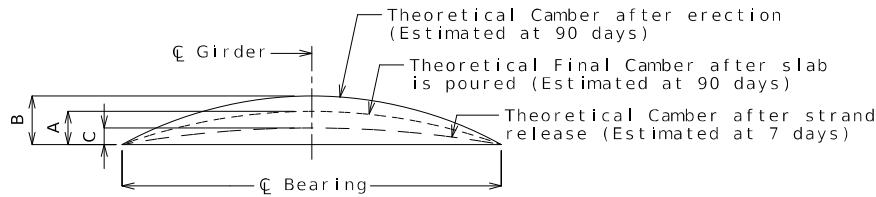
Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617

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

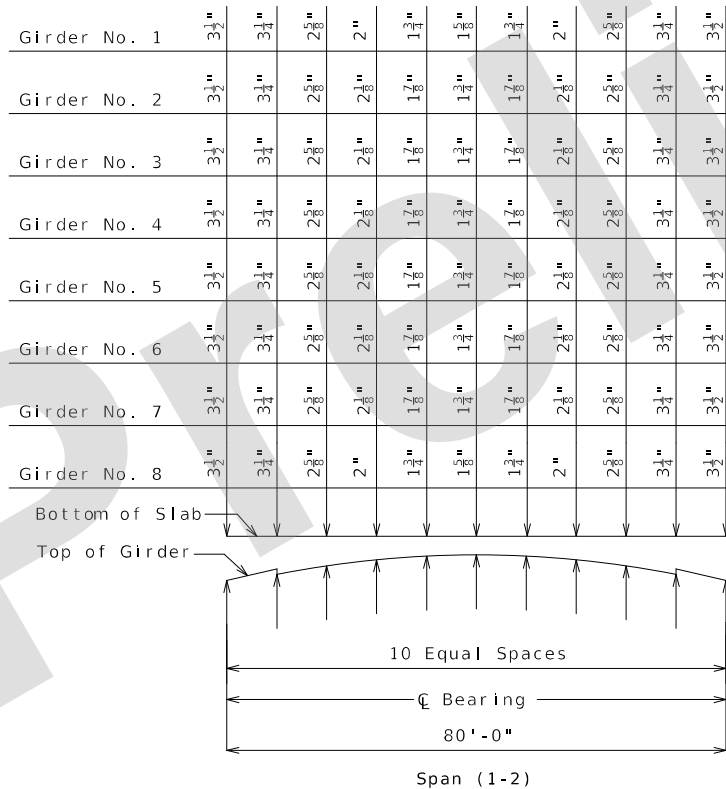


Girder	Span (1-2)		
	A	B	C
Exterior	3"	4 5/8"	2 5/8"
Interior	2 7/8"		

GIRDER CAMBER DIAGRAM

Conversion Factors for Girder Camber (Estimated at 90 days):

0.1 pt. = 0.314 x 0.5 pt.
0.2 pt. = 0.593 x 0.5 pt.
0.3 pt. = 0.813 x 0.5 pt.
0.4 pt. = 0.952 x 0.5 pt.



THEORETICAL SLAB HAUNCHING DIAGRAM (ESTIMATED AT 90 DAYS)

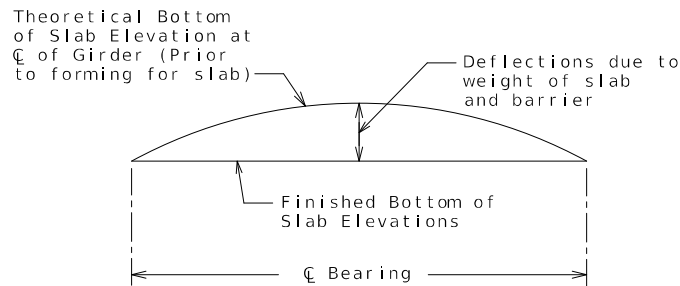
If girder camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness, an adjustment of the slab haunches, an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in haunching, slab thickness or grade adjustment.

Concrete in the slab haunches is included in the Estimated Quantities for Slab on Concrete NU-Girder.

Theoretical slab haunches are measured at C Girder.

Theoretical Bottom of Slab Elevations at Centerline of Girder (Prior to forming for slab) (Estimated at 90 days)											
Girder Number	Span (1-2) (80'-0" C Brg. - C Brg.)										
	C Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	C Brg.
1	1294.92	1295.02	1295.11	1295.18	1295.25	1295.29	1295.32	1295.33	1295.33	1295.32	1295.30
2	1295.10	1295.20	1295.29	1295.37	1295.43	1295.48	1295.51	1295.52	1295.52	1295.50	1295.48
3	1295.28	1295.38	1295.47	1295.55	1295.61	1295.66	1295.69	1295.70	1295.70	1295.68	1295.66
4	1295.45	1295.55	1295.65	1295.73	1295.79	1295.84	1295.87	1295.88	1295.88	1295.86	1295.84
5	1295.63	1295.73	1295.82	1295.90	1295.97	1296.02	1296.05	1296.06	1296.06	1296.04	1296.02
6	1295.75	1295.85	1295.94	1296.02	1296.09	1296.13	1296.16	1296.18	1296.17	1296.16	1296.14
7	1295.57	1295.67	1295.76	1295.84	1295.90	1295.95	1295.98	1296.00	1295.99	1295.98	1295.96
8	1295.39	1295.48	1295.57	1295.65	1295.71	1295.76	1295.79	1295.81	1295.81	1295.80	1295.78

Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab (including precast panel) and barrier.



TYPICAL SLAB ELEVATIONS DIAGRAM

GIRDER CAMBER AND SLAB HAUNCHING

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 19 of 30

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DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9422

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

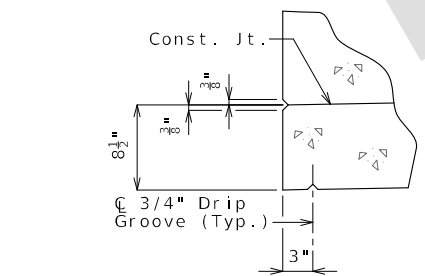
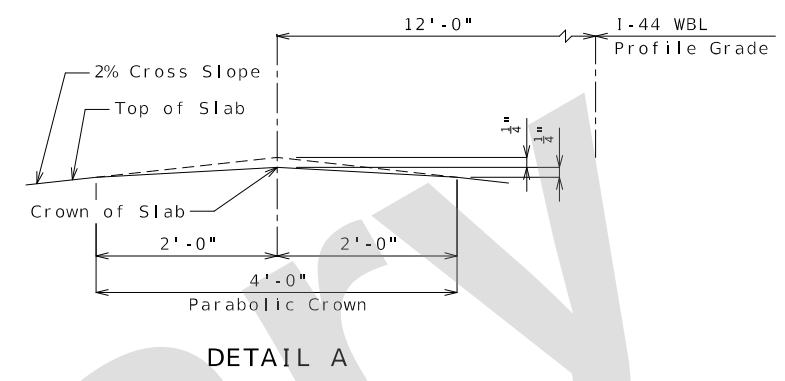
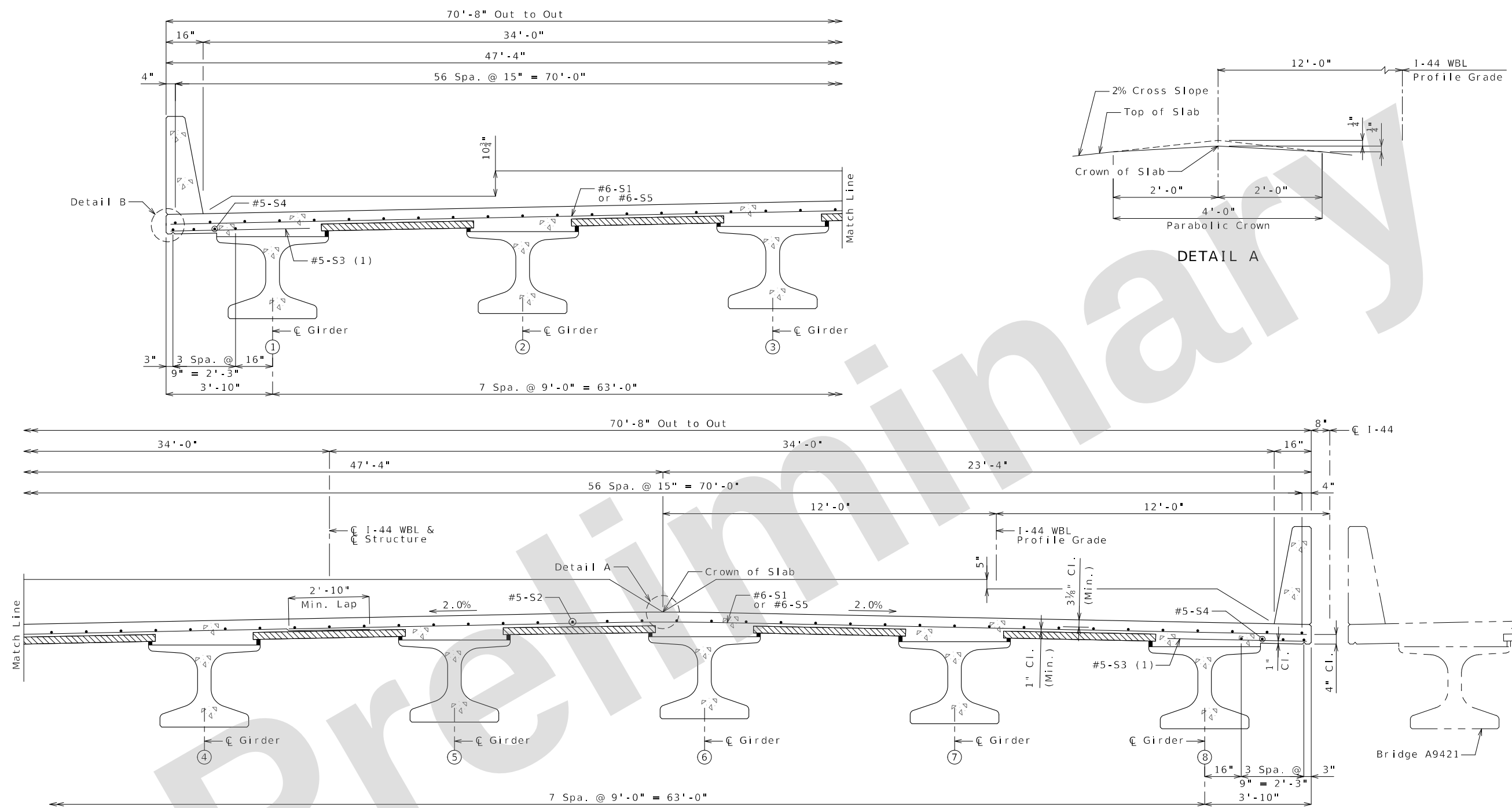
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JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-273-6636)

BURNS & MCDONNELL

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

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SECTION THRU SLAB
(1) Alternate bar shape available, see Sheet No. 22.

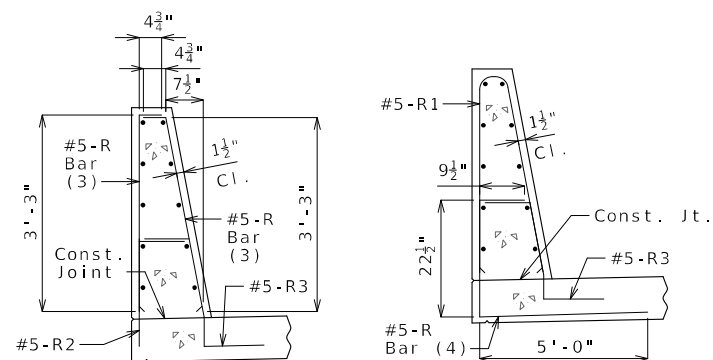
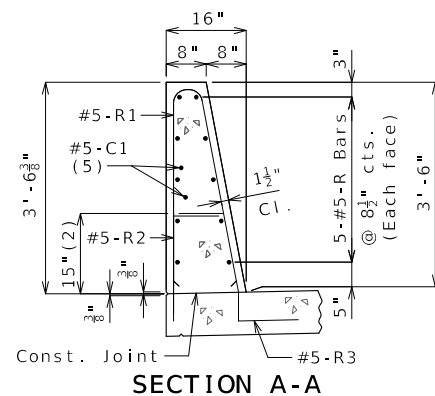
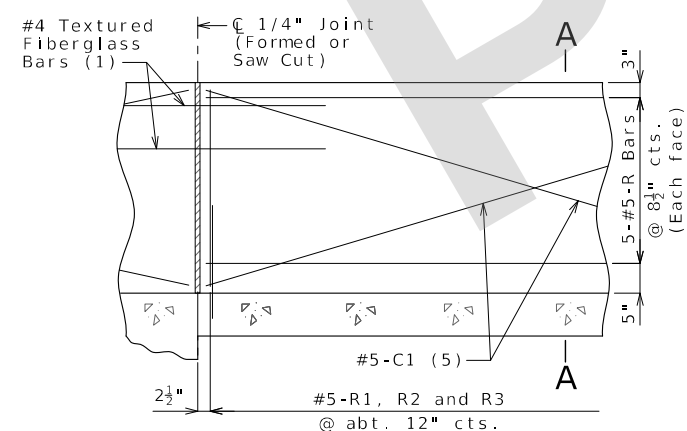
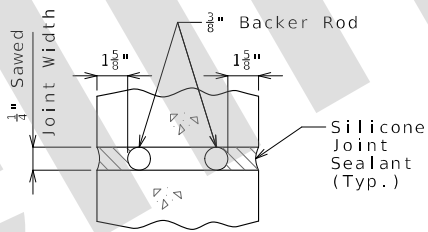
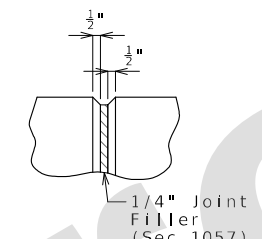
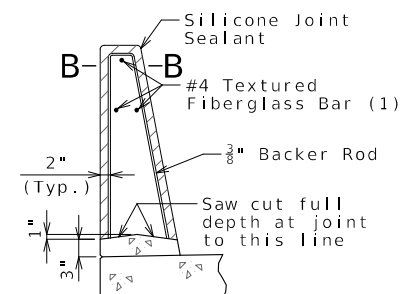
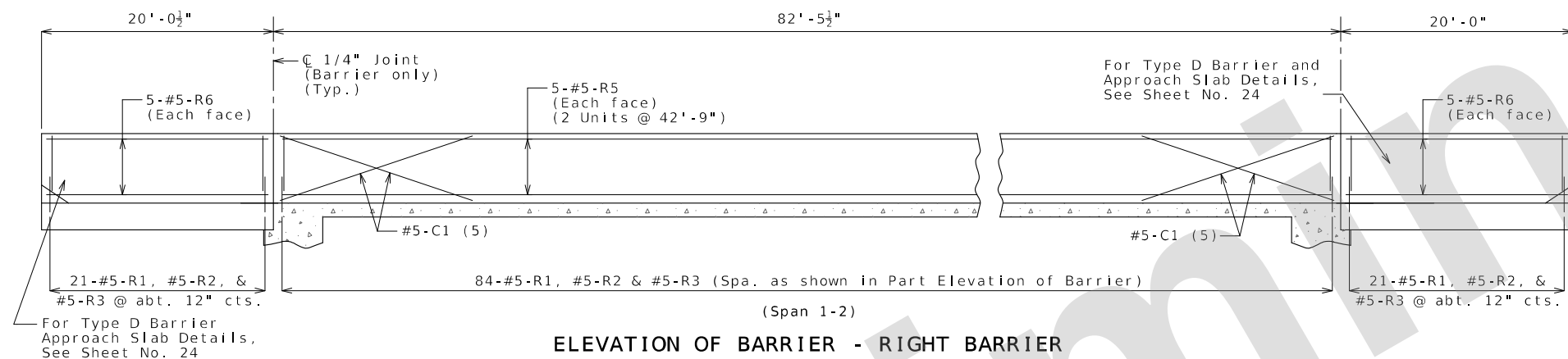
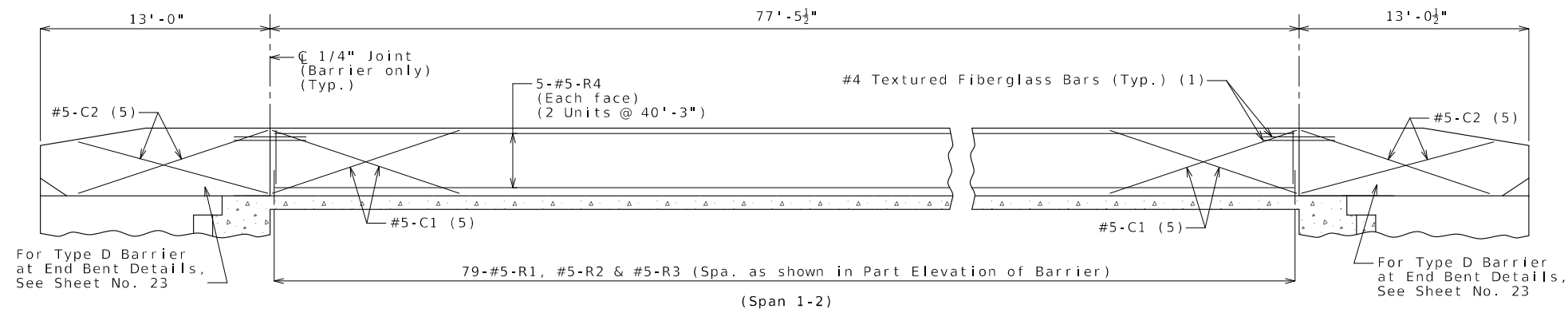
NOTES:
For details of precast prestressed panels, see Sheet No. 18.
For reinforcement of barrier not shown, see Sheet No. 22.
For Theoretical Bottom of Slab Elevations, Girder Camber Diagram and Theoretical Slab Haunching Diagram, see Sheet No. 19.
For Plan of Slab Showing Reinforcement, see Sheet No. 20.
Bridge will be cast in a single pour.

TYPICAL SLAB SECTION

Detailed: May 2024
Checked: Jun. 2024

Note: This drawing is not to scale. Follow dimensions.
Sheet No. 21 of 30

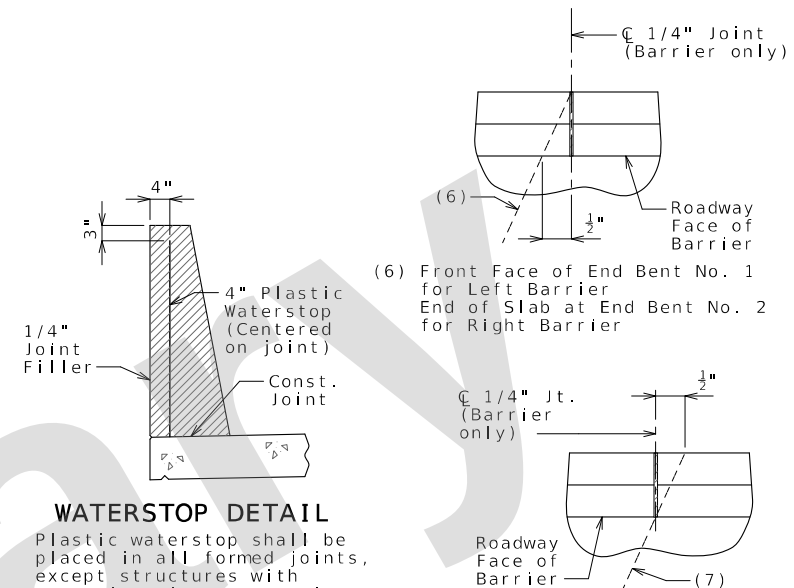
DATE PREPARED 9/16/2024	
ROUTE 1-44	STATE MO
DISTRICT BR	SHEET NO. 21
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9422	
DESCRIPTION	DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400	Certificate of Authority No. : 000165 BMcD Project No. 146617



- (3) The R1 bar may be separated into two bars as shown, at the contractor's option, only when slip forming is not used. (All dimensions are out to out.)
- (4) The R2 bar and #5 bottom transverse slab bar in cantilever (prestressed panels only) combination may be furnished as one bar as shown, at the contractor's option.
- (5) Slip-formed option only.

- (4) The R2 bar and #5 bottom transverse slab bar in cantilever (prestressed panels only) combination may be furnished as one bar as shown, at the contractor's option.

- (5) Slip-formed option only.



WATERSTOP DETAIL

Plastic waterstop shall be placed in all formed joints, except structures with superelevation, use on lower joints only.

Cost of plastic waterstop, complete in place, will be considered completely covered by the contract unit price for Type D Barrier.

PART PLAN SHOWING
JOINT LOCATION

General Notes:

Longitudinal dimensions are horizontal.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

Top of barrier shall be built parallel to grade and barrier joints (except at end bents) normal to grade.

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

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Type D Barrier per linear foot.

Concrete in barrier shall be Class B-1.

Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing for Right Barrier and from end of approach slab to end of approach slab for Left Barrier.

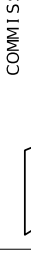
Concrete traffic barrier delineators shall be placed on top of the barrier as shown on Missouri Standard Plan 617.10 and in accordance with Sec 617.10. Delineators on bridges with two-lane, two-way traffic shall have retroreflective sheeting on both sides. Concrete traffic barrier delineators will be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

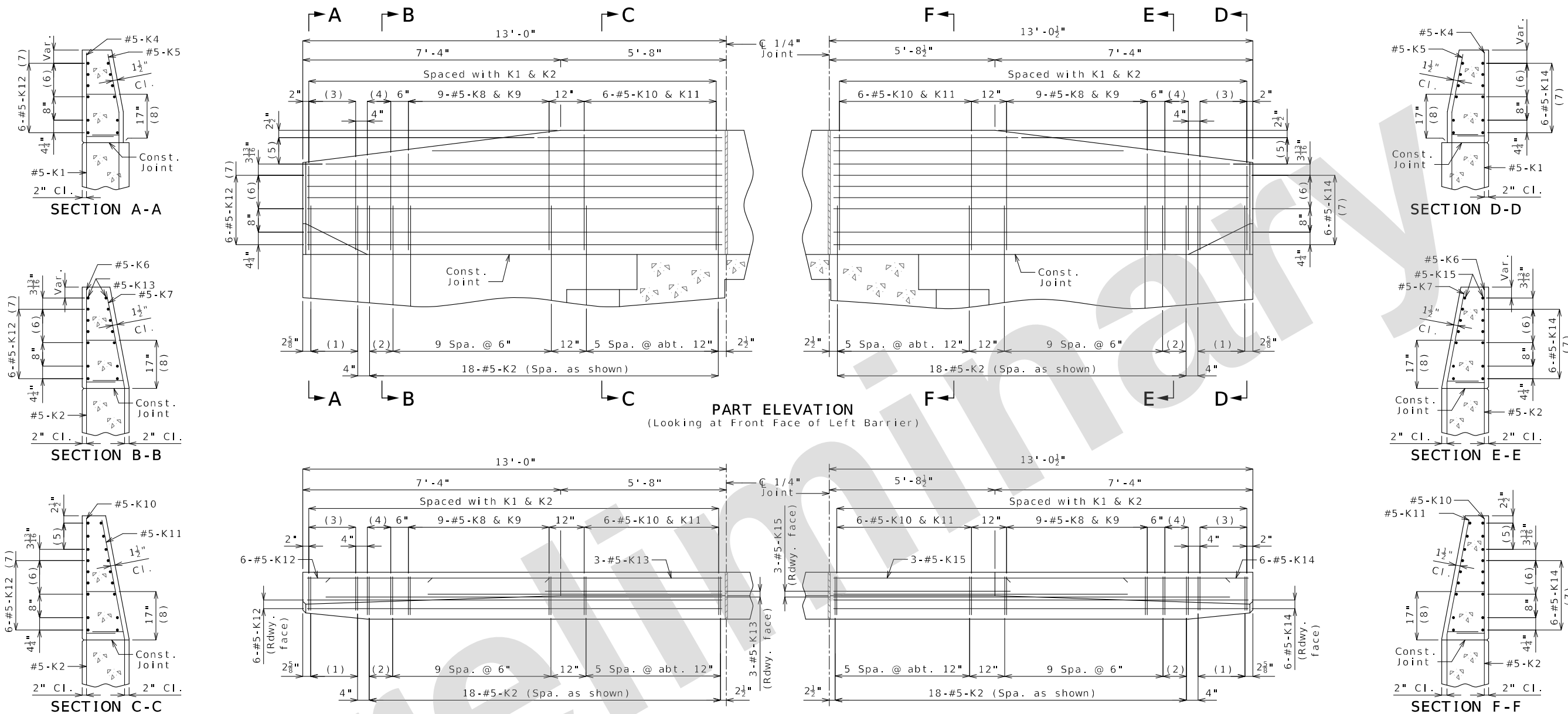
Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.

Plastic waterstop shall not be used with saw cut joints.

TYPE D BARRIER

 BURNS MCDONNELL	Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400		Certificate of Authority No. : 000165 BMcd Project No. 146617	
	MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
	 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)			
	DATE	DESCRIPTION		
CONTRACT ID.		BRIDGE NO.		
PROJECT NO.		A9422		
COUNTY		GREENE		
JOB NO.		JSU0076		
DISTRICT		BR		
ROUTE		I - 44		
STATE		MO		
DATE PREPARED				
9/16/2024				



- (1) 5-#5-K1 @ 4" cts.
- (2) 2 spaces @ 4"
- (3) 5-#5-K4 & K5
- (4) 3-#5-K6 & K7
- (5) 3-#5-K13 or K15 @ 4 $\frac{1}{2}$ " cts., each face
- (6) 3 spaces @ 3 $\frac{11}{16}$ "
- (7) Spaced as shown, each face
- (8) To top of bar
- (9) Transition to zero at Type A curb for gutter lines to match.

K10-K11 BAR PERMISSIBLE
ALTERNATE SHAPE

(Other K bars not shown for clarity)

The K10-K11 bar combination may be furnished as one bar as shown, at the contractor's option.

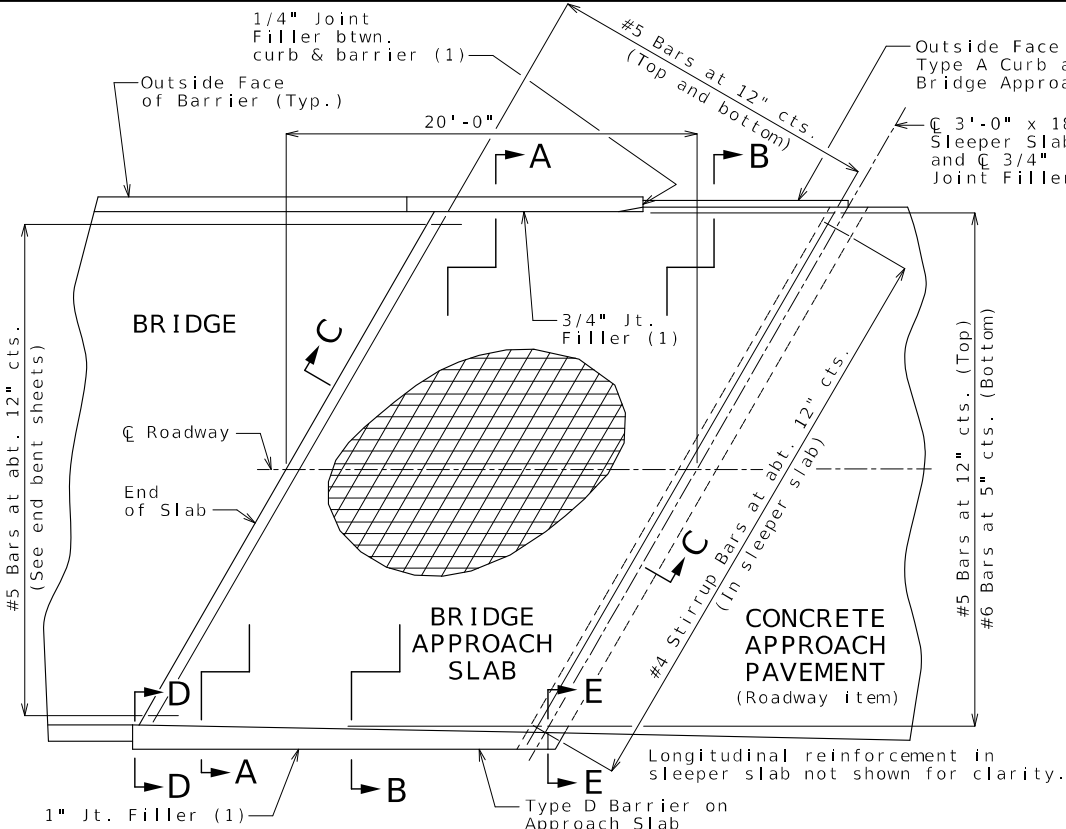
All dimensions are out to out.

Detailed: May 2024
Checked: Jun. 2024

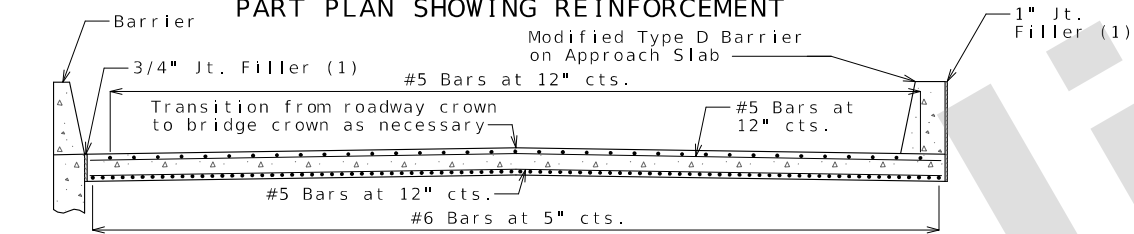
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 23 of 30

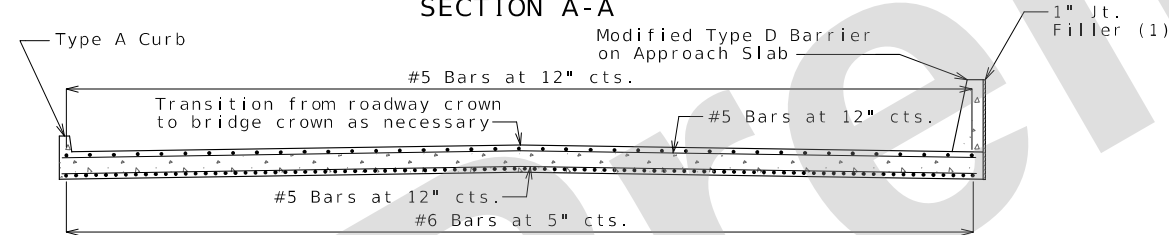
TYPE D BARRIER AT END BENTS



PART PLAN SHOWING REINFORCEMENT

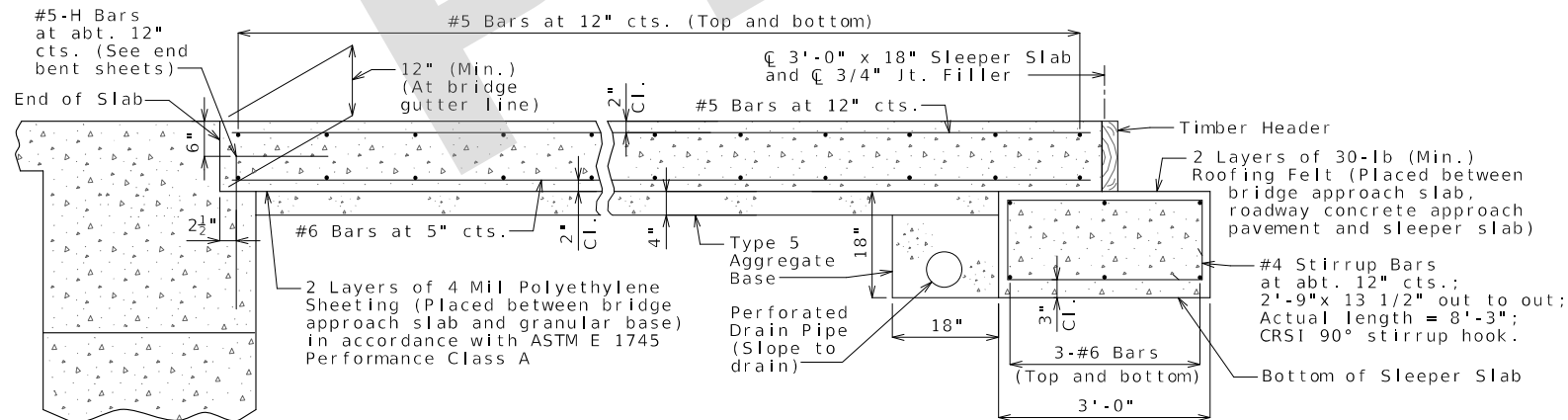


SECTION A-A



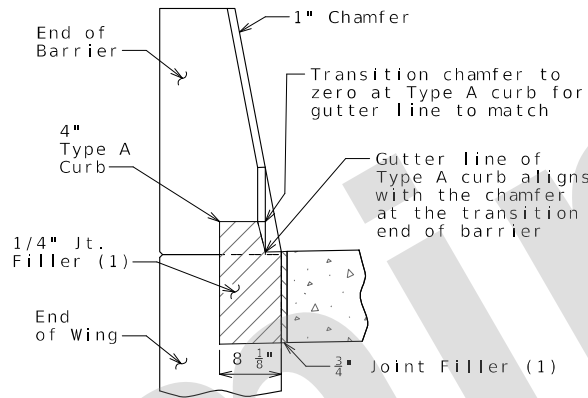
SECTION B-B

With the approval of the engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.

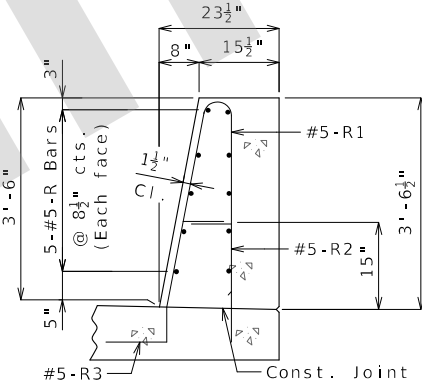


SECTION C-C

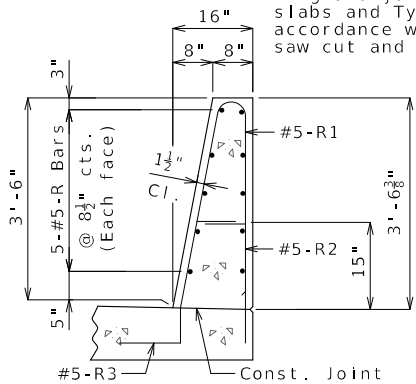
SECTION BETWEEN CURB AND BARRIER



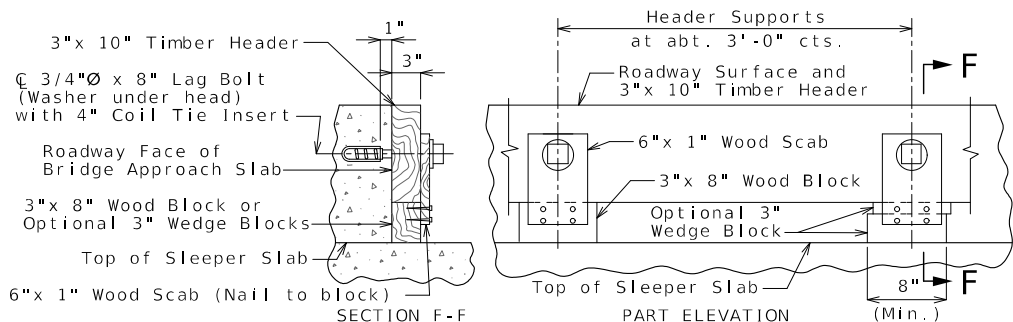
SECTION D-D



SECTION E-E



(1) Seal joint between vertical face of approach slab and wing and joint between vertical face of the approach slabs and Type D barriers along C 1-44 with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.



DETAILS OF TIMBER HEADER

Remove timber header when concrete pavement is placed.

General Notes:

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

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

Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

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

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

Mechanical bar splices shall be in accordance with Sec. 710.

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

The contractor shall pour and satisfactorily finish the bridge slab before placing the bridge approach slab.

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

For concrete approach pavement details, see roadway plans.

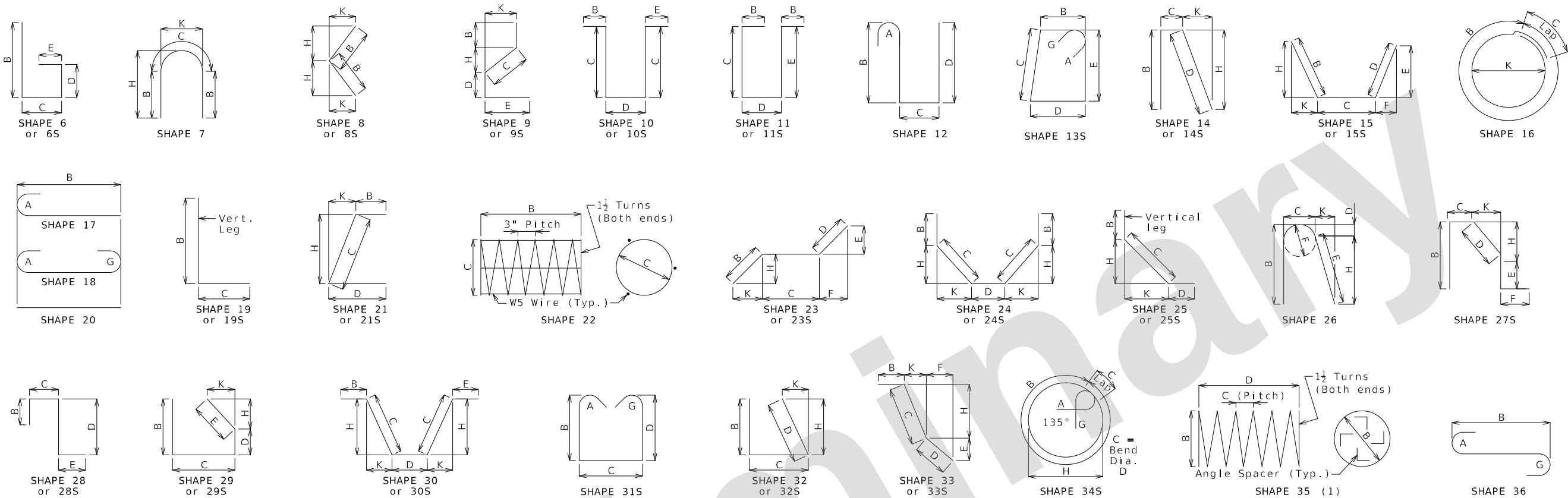
See Missouri Standard Plan 609.00 for details of Type A curb.

Payment for furnishing all materials, labor and excavation necessary to construct the approach slab, including the timber header, sleeper slab, underdrain, Type 5 aggregate base, joint filler and all other appurtenances and incidental work as shown on this sheet, complete in place, will be considered completely covered by the contract unit price for Bridge Approach Slab (Major) per square yard.

For details of Type D Barrier on Approach Slab, see Sheet No. 22.

(1) Seal joint between vertical face of approach slab and wing and joint between vertical face of the approach slabs and Type D barriers along C 1-44 with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

DATE PREPARED 9/16/2024	
ROUTE 1-44	STATE MO
DISTRICT BR	SHEET NO. 24
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9422	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMcD Project No. 146617	



Finished Bend Dimensions 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	3 3/4"	10"	7"	5"	
#6	1	4 1/2"	12"	8 1/4"	6"	
#7	2	5 1/4"	14"	9 3/4"	7"	
	3	7"	15"	11 1/2"	8 3/4"	
#8	2	6"	16"	11"	8"	
	3	8"	17"	13 1/4"	10"	
#9	1	9 1/2"	19 1/2"	15 1/2"	11 3/4"	
#10	1	10 3/4"	22"	17 1/2"	13 1/4"	
#11	1	12"	24 1/2"	19 1/2"	14 7/8"	
#14	1	18 1/4"	31 1/4"	27 1/2"	21 5/8"	
#18	1	24"	41 1/2"	36 1/4"	28 1/2"	
Stirrup Pin Bend Shapes (S)						
Size	Case	D	A or G		H	J
			90°	135°	180°	135°
#4	2	2"	4 1/2"	4 1/2"	5"	2 7/8"
	3	3"	5"	5 1/4"	6"	3"
#5	2	2 1/2"	5 3/4"	5 3/4"	5 3/4"	3 3/8"
	3	3 3/4"	6 1/4"	6 1/4"	7"	3 5/8"
#6	1	4 1/2"	12"	7 3/4"	8 1/4"	4 5/8"
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

Reinforcing Steel Totals (Pounds)								
Size	Substructure		Superstructure			Entire Bridge		
	Plain	Epoxy	Slab		Barrier	Slip Form	Plain	Epoxy
			Plain	Epoxy				
W5	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	12,217	5,989	141	0	18,347
6	0	0	0	27,085	0	0	0	27,085
7	0	0	0	0	0	0	0	0
8	0	0	0	3,808	0	0	0	3,808
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
By Type	0	0	0	43,110	5,989	141	0	49,240

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

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 25 of 30

DATE PREPARED
9/16/2024

ROUTE
1-44

DISTRICT
BR

STATE
MO

SHEET NO.
25

COUNTY
GREENE

JOB NO.
JSU0076

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9422

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

BURNS & MCDONNELL

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMcD Project No. 146617

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

Bill of Reinforcing Steel																			
No. Req.	Size/ Mark	Location	Codes			Dimensions							Nom. Length	Actual Length	Weight				
						B	C	D	E	F	H	K							
			C	SH	V	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	lb	
END BENT 1																			
9	6	F100	Wing	E	23S	2	3.000	4	5.000	14.000	9.750	10.000	18.750	19.375	7	10	7	9	105
3	6	F101	Diaphragm	E	6S	5	5.000	2	7.000						8	0	7	10	35
4	6	H100	Beam	E	20	28	3.000								28	3	28	3	170
8	8	H101	Beam	E	20	28	3.000								28	3	28	3	603
4	6	H102	Beam	E	20	51	3.000								51	3	51	3	308
4	6	H103	Beam	E	20	47	0.000								47	0	47	0	282
8	8	H104	Beam	E	20	48	5.000								48	5	48	5	1034
4	6	H106	Beam	E	20	21	10.00								21	10	21	10	131
8	6	H107	Diaphragm	E	20	28	3.000								28	3	28	3	339
8	6	H108	Diaphragm	E	20	47	0.000								47	0	47	0	565
21	6	H109	Diaphragm	E	20	7	11.000								7	11	7	11	250
7	6	H110	Diaphragm	E	20	5	6.000								5	6	5	6	58
3	6	H111	Diaphragm	E	20	3	2.000								3	2	3	2	14
1	6	H112	Diaphragm	E	20	23	0.000								0	23	0	23	3
3	6	H113	Diaphragm	E	20	3	9.000								3	9	3	9	17
1	6	H114	Diaphragm	E	20	2	6.000								2	6	2	6	4
8	5	H115	Strand Tie	E	20	5	0.000								5	0	5	0	42
20	6	H116	Wing	E	20	11	8.000								11	8	11	8	350
8	8	H117	Wing	E	20	12	6.000								12	6	12	6	267
42	5	U100	Beam	E	31S	5	8.000	2	9.000	5	8.000				15	1	14	10	650
15	5	U101	Beam	E	13S	2	9.000	2	8.000	2	9.000	2	8.000		11	10	11	6	180
24	5	U102	Beam	E	13S	2	9.000	3	0.000	2	9.000	3	0.000		12	6	12	2	305
24	5	U103	Beam	E	13S	2	9.000	3	4.000	2	9.000	3	4.000		13	2	12	10	321
57	5	U104	Diaphragm	E	31S	3	4.000	2	3.000	3	4.000				9	11	9	8	575
57	6	U105	Diaphragm	E	19S	2	7.000	2	8.000						5	3	5	1	435
70	5	U106	Diaphragm	E	19S	2	0.000	15.000							3	3	3	2	231
94	6	U107	Diaphragm	E	19S	3	3.000	4	7.000						7	10	7	8	1082
30	5	V100	Beam	E	17	5	8.000								6	3	6	3	196
40	6	V101	Diaphragm	E	20	2	7.000								2	7	2	7	155
22	6	V102	Wing	E	20	6	7.000								6	7	6	7	218
END BENT 2																			
9	6	F200	Wing	E	23S	2	3.000	4	5.000	14.000	9.750	10.000	18.750	19.375	7	10	7	9	105
3	6	F201	Diaphragm	E	6S	5	5.000	2	7.000						8	0	7	10	35
4	6	H200	Beam	E	20	28	3.000								28	3	28	3	170
8	8	H201	Beam	E	20	28	3.000								28	3	28	3	603
4	6	H202	Beam	E	20	51	3.000								51	3	51	3	308
4	6	H203	Beam	E	20	47	0.000								47	0	47	0	282
8	8	H204	Beam	E	20	48	5.000								48	5	48	5	1034
4	6	H206	Beam	E	20	21	10.00								21	10	21	10	131
8	6	H207	Diaphragm	E	20	28	3.000								28	3	28	3	339
8	6	H208	Diaphragm	E	20	47	0.000								47	0	47	0	565
21	6	H209	Diaphragm	E	20	7	11.000								7	11	7	11	250
7	6	H210	Diaphragm	E	20	5	6.000								5	6	5	6	58
3	6	H211	Diaphragm	E	20	3	2.000								3	2	3	2	14
1	6	H212	Diaphragm	E	20	23	0.000								0	23	0	23	3
3	6	H213	Diaphragm	E	20	3	9.000								3	9	3	9	17
1	6	H214	Diaphragm	E	20	2	6.000								2	6	2	6	4
8	5	H215	Strand Tie	E	20	5	0.000								5	0	5	0	42
20	6	H216	Wing	E	20	11	8.000								11	8	11	8	350
8	8	H217	Wing	E	20	12	6.000								12	6	12	6	267
42	5	U200	Beam	E	31S	5	8.000	2	9.000	5	8.000				15	1	14	10	650
15	5	U201	Beam	E	13S	2	9.000	2	8.000	2	9.000	2	8.000		11	10	11	6	180
24	5	U202	Beam	E	13S	2	9.000	3	0.000	2	9.000	3	0.000		12	6	12	2	305
24	5	U203	Beam	E	13S	2	9.000	3	4.000	2	9.000	3	4.000		13	2	12	10	321
57	5	U204	Diaphragm	E	31S	3	4.000	2	3.000	3	4.000				9	11	9	8	575
57	6	U205	Diaphragm	E	19S	2	7.000	2	8.000						5	3	5	1	435
70	5	U206	Diaphragm	E	19S	2	0.000	15.000							3	3	3	2	231
94	6	U207	Diaphragm	E	19S	3	3.000	4	7.000						7	10	7	8	1082
30	5	V200	Beam	E	17	5	8.000								6	3	6	3	196
40	6	V201	Diaphragm	E	20	2	7.000								2	7	2	7	155
22	6	V202	Wing	E	20	6	7.000								6	7	6	7	218

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

For bending diagrams and steel reinforcing totals, see Sheet No. 25.

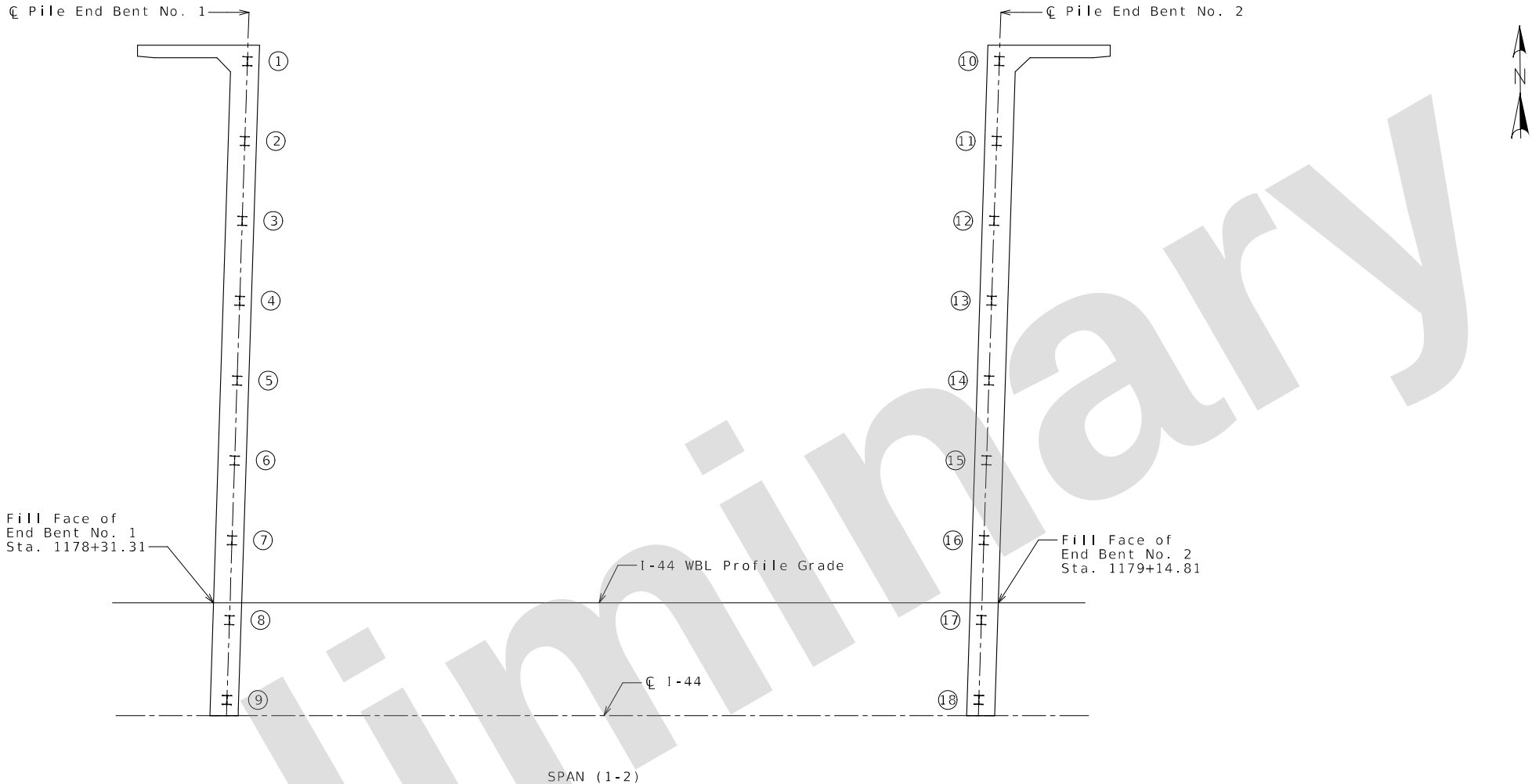
Detailed: May 2024
Checked: Jun. 2024

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

Codes:
C = Required coatings, where E = Epoxy Coated and G = Galvanized.
SH = Required shape, see bending diagrams.
V = Sets of varied bars and number of bars of each length. Bar dimensions vary in equal increments between dimensions shown on this line and the following line and the actual length dimension shown on this line and the following line vary by the specified increment.

Sheet No. 26 of 30

Bill of Reinforcing Steel																									
No. Req.	Size/ Mark		Location	Codes			Dimensions								Nom. Length	Actual Length	Weight								
				C	SH	V	B		C		D		E					F		H		K			
							ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	lb
			SLAB																						
320	6	S1	Slab	E	20		36	8.000																	
114	5	S2	Slab	E	20		42	4.000																	
282	5	S3	Slab	E	20		5	0.000																	
16	5	S4	Slab	E	20		42	8.000																	
8	6	S5	Slab	E	20	2	11	7.000																	
			Inc. = 15'-7"				58	4.000																	
			BARRIER																						
10	5	K1	Barrier	E	27S		3	8.000	9.250	5.375	3	2.750		5.250	1.000	8	1	7	11						83
36	5	K2	Barrier	E	27S		3	8.000	9.250	14.500	2	5.750		14.250	2.750	8	2	7	11						297
10	5	K4	Barrier	E	19S	2	2	4.250	10.000							3	2	3	1						
			Inc. = 0.500"				2	6.250	10.000							3	4	3	3						33
10	5	K5	Barrier	E	38S	2				18.500	9.500	8.250	18.000	4.000	3	0	2	11							
			Inc. = 0.500"							20.500	9.500	8.250	20.000	4.500	3	2	3	1							31
6	5	K6	Barrier	E	19S		2	6.750	10.000						3	5	3	4							21
6	5	K7	Barrier	E	21S			2	6.625	10.000				2	6.000	6.250	3	5	3	3					20
18	5	K8	Barrier	E	19S	2	2	8.500	10.000							3	7	3	5						
			Inc. = 0.750"				3	2.500	10.000							4	1	3	11						70
18	5	K9	Barrier	E	21S	2		2	8.500	10.000				2	7.750	6.750	3	6	3	5					
			Inc. = 0.750"					3	2.500	10.000				3	1.750	7.750	4	1	3	11					68
12	5	K10	Barrier	E	19S		3	3.000	10.000							4	1	4	0						50
12	5	K11	Barrier	E	21S			3	3.000	10.000				3	2.250	7.750	4	1	3	11					49
12	5	K12	Barrier	E	20		12	9.000								12	9	12	9						160
6	5	K13	Barrier	E	20	2	6	0.000								6	0	6	0						
			Inc. = 3'-0"				12	0.000								12	0	12	0						56
12	5	K14	Barrier	E	20		12	9.000								12	9	12	9						160
6	5	K15	Barrier	E	20	2	6	0.000								6	0	6	0						
			Inc. = 3'-0"				12	0.000								12	0	12	0						56
205	5	R1	Barrier	E	26		3	3.000	5.500	2.250	3	1.375	5.500	3	0.750	6.750	6	11	6	10					1461
205	5	R2	Barrier	E	19S			20.500	9.500							2	6	2	5						517
205	5	R3	Barrier	E	27S				9.500	15.250	5.000	12.000	15.000	3.000		3	6	3	4						713
20	5	R4	Barrier	E	20		40	3.000								40	3	40	3						840
20	5	R5	Barrier	E	20		42	9.000								42	9	42	9						892
20	5	R6	Barrier	E	20		19	9.000								19	9	19	9						412



PART PLAN SHOWING PILE NUMBERING FOR RECORDING AS-BUILT PILE DATA

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 1 (HP 12x53)			
1			
2			
3			
4			
5			
6			
7			
8			
9			

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
End Bent No. 2 (HP 12x53)			
10			
11			
12			
13			
14			
15			
16			
17			
18			

Note:
Indicate in remarks column:
A. Pile type and grade
B. Batter
C. Driven to practical refusal

This sheet to be completed by MoDOT construction personnel.

Detailed: May 2024
Checked: Jun. 2024

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

Sheet No. 27 of 30

AS-BUILT PILE DATA

DATE PREPARED 9/16/2024	
ROUTE I - 44	STATE MO
DISTRICT BR	SHEET NO. 27
COUNTY GREENE	
JOB NO. JSU0076	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9422	
DESCRIPTION	
DATE	
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	
Burns & McDonnell Engineering Co., Inc. 9400 Ward Parkway Kansas City, Missouri 64114 816-333-9400 Certificate of Authority No. : 000165 BMCd Project No. 146617	
105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-273-6636)	

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



Job No.: 20231075.00

Design:

Bent:

Station:

Offset:

Elevation: 1293.0

Requested Station:

Requested Offset:

Requested Elevation:

Drill No.:

Missouri Department of Transportation
Construction and Materials

County: Greene

Skew:

Logged By: JU

Northing: 516843.3301

Easting: 1415044.3222

Requested Northing:

Requested Easting:

Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube

Location Note:

Hammer Efficiency: 90%

Drilling Method: HSA

BORING NO. N-B-1
Page 1 of 2

Route: I-44

Location: Springfield, Missouri

Operator: LRK

Date of Work: 08/03/23-08/04/23

Depth to Water:

Depth Hole Open:

Time Change:

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-0.3' Asphaltic concrete (3.5")							
		0.3-1.6' Portland cement concrete (12.5")							MC = 12.7%
		1.6-3.0' (GP) FILL: Gray, GRAVEL, with clay, trace sand	1290	X	22	11-4-4 (12)			
		3.0-12.0' (CH) FILL: Red and brown, gravelly fat CLAY, trace sand		X	44	11-12-18 (45)		PP = 1.50 tsf	MC = 40.2%
5									
			1285		75		Qu Test Results MC = 26.5%	PP = 1.75 tsf	
									MC = 44.9%
10				X	61	3-6-4 (15)		PP = 2.25 tsf	
		12.0-14.5' (GC) FILL: Red and brown, clayey GRAVEL	1280						
15				X	50	4-3-4 (11)		PP = 3.00 tsf	MC = 22.4%
		14.5-17.0' (CL) Dark gray, lean CLAY, trace sand and gravel							
		17.0-27.0' (CH) Dark gray, fat CLAY, trace gravel	1275						
20				X	67	2-2-4 (9)		PP = 2.25 tsf	MC = 25.3%
			1270						
25		23.5' -Red and brown below 23.5 ft.		X	83	2-3-4 (11)		PP = 3.75 tsf	MC = 47.0%

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976

Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.



Job No.: 20231075.00

Design:

Bent:

Station:

Offset:

Elevation: 1293.0

Requested Station:

Requested Offset:

Requested Elevation:

Drill No.:

Missouri Department of Transportation
Construction and Materials

County: Greene

Skew:

Logged By: JU

Northing: 516843.3301

Easting: 1415044.3222

Requested Northing:

Requested Easting:

Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube

Location Note:

Hammer Efficiency: 90%

Drilling Method: HSA

BORING NO. N-B-1
Page 2 of 2

Route: I-44

Location: Springfield, Missouri

Operator: LRK

Date of Work: 08/03/23-08/04/23

Depth to Water:

Depth Hole Open:

Time Change:

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		17.0-27.0' (CH) Dark gray, fat CLAY, trace gravel (continued)							
		27.0-29.5' (GC) Gray, red, and brown, clayey GRAVEL	1265						
		29.5-40.0' LIMETONE, gray, hard to very hard, fresh, aphanitic, thin to thick bedded, dense, some chert		X	58	15-50		PP = 2.75 tsf	MC = 19.5%
30									
			1260		96 (88)		Qu Test Results UCS = 1050 ksf		
35		35.0' -aphanitic to crystalline below 35.0 ft.							
			1255		100 (84)		Qu Test Results UCS = 1330 ksf		
40		Refusal at 29.5 feet. Bottom of borehole at 40.0 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976

Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 28 of 30

BORING DATA

c:\bmcd_lib\pw_connect\trn\d0171032\B_A9422_028_JSU0076.dgn 2:16:55 PM 9/16/2024

DATE PREPARED
9/16/2024
ROUTE
I-44
STATE
MO
DISTRICT
BR
SHEET NO.
28

COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9422

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400
Certificate of Authority
No. : 000165
BMCD Project No. 146617

BURNS
MCDONNELL

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



Job No.: 20231075.00

Design:

Bent:

Station:

Offset: 5' W

Elevation: 1275.1

Requested Station:

Requested Offset:

Requested Elevation:

Drill No.:

Missouri Department of Transportation
Construction and Materials

County: Greene

Skew:

Logged By: TB

Northing: 516794.5256

Easting: 1415110.2561

Requested Northing:

Requested Easting:

Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube

Location Note:

Hammer Efficiency: 90%

Drilling Method: CFA

BORING NO. N-B-2
Page 1 of 1

Route: I-44

Location: Springfield, Missouri

Operator: LRK

Date of Work: 08/15/23-08/15/23

Depth to Water:

Depth Hole Open:

Time Change:

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-0.5' Asphaltic concrete (5.0")	1275						
		0.5-6.0' (CH) FILL: Brown, fat CLAY, trace gravel and plastic sheet		X	56	3-4-6 (15)		PP = 2.50 tsf	MC = 20.2%
		3.0' - with gravel below 3.0 ft.			92			PP = 2.50 tsf	
5			1270						
		6.0-21.0' LIMESTONE, gray, very hard, slightly weathered, finely crystalline, thin bedded, dense			94 (60)		Qu Test Results UCS = 1230 ksf		
		8.0' -interbedded chert from 8.0 to 10.8 ft.							
10		9.3' - light gray- white below 9.3 ft.	1265				Qu Test Results UCS = 1180 ksf		
					100 (93)				
15			1260						
					97 (81)		Qu Test Results UCS = 1060 ksf		
20			1255						
		Refusal at 6.0 feet. Bottom of borehole at 21.0 feet.							

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976

Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.



Job No.: 20231075.00

Design:

Bent:

Station:

Offset:

Elevation: 1293.9

Requested Station:

Requested Offset:

Requested Elevation:

Drill No.:

Missouri Department of Transportation
Construction and Materials

County: Greene

Skew:

Logged By: JU

Northing: 516840.5169

Easting: 1415205.9087

Requested Northing:

Requested Easting:

Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube

Location Note:

Hammer Efficiency: 90%

Drilling Method: CFA

BORING NO. N-B-4
Page 1 of 2

Route: I-44

Location: Springfield, Missouri

Operator: LRK

Date of Work: 08/02/23-08/03/23

Depth to Water:

Depth Hole Open:

Time Change:

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-0.3' Asphaltic concrete (3.25")							
		0.3-1.0' Portland cement concrete (10.0")							MC = 14.6%
		1.0-3.0' (GP) FILL: Gray, crushed limestone		X	31	3-4-8 (18)			
		3.0-5.5' (GC) FILL: Red, brown, and gray, clayey GRAVEL			39	6-7-4 (17)		PP = 1.50 tsf	MC = 32.2%
5			1290						
		5.5-8.9' (CH) FILL: Red, brown, and gray, gravelly fat CLAY			50		Qu Test Results UCS = 1.41 ksf MC = 37.7% γ _{moist} = 103.8 pcf	PP = 2.50 tsf	
					44	7-5-3 (12)		PP = 1.50 tsf	MC = 44.0%
10		8.9-12.0' (GC) FILL: Red, brown, and gray, clayey GRAVEL	1285						
		12.0-24.6' (CH) Dark gray, fat CLAY, with gravel							
15			1280					PP = 1.50 tsf	MC = 19.3%
					67	3-5-5 (15)			
20		18.5' -trace sand and gravel below 18.5 ft.	1275					PP = 2.25 tsf	MC = 23.4%
					100	2-3-4 (11)			
25			1270					PP = 3.50 tsf	MC = 20.9%
					100	5-15-13 (42)			

N₆₀ = (Em/60)N_m N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; N_m - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983 Coordinate Zone: Missouri Central Coordinate Proj. Factor: 1.0000701976

Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet

* Persons using this information are cautioned that the materials shown are determined by the equipment noted and accuracy of the "log of materials" is limited thereby and by judgement of the operator. THIS INFORMATION IS FOR DESIGN PURPOSES ONLY.

Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 29 of 30

BORING DATA

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DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617

BURNS
MCDONNELL

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



Missouri Department of Transportation
Construction and Materials

BORING NO. N-B-4
Page 2 of 2

Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: _____
Elevation: 1293.9
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
Drill No.: _____
County: Greene
Route: I-44
Location: Springfield, Missouri
Logged By: JU
Operator: LRK
Northing: 516840.5169
Easting: 1415205.9087
Date of Work: 08/02/23-08/03/23
Depth to Water: 28.0
Depth Hole Open: _____
Time Change: _____
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler, Shelby Tube
Location Note: _____
Hammer Efficiency: 90%
Drilling Method: CFA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
25		24.6-29.1' (GC) Gray, red, and brown, clayey GRAVEL (continued)							
30		29.1-30.5' (CH) Red and brown, fat CLAY, trace sand	1265		50	8-1-2 (5)		PP = 1.75 tsf	MC = 31.5%
35		30.5-40.5' LIMESTONE, gray, very hard, fresh, aphanitic to crystalline, medium to thick bedded, dense, chert present	1260		100 (93)			Qu Test Results UCS = 1170 ksf	
40			1255		100 (90)			Qu Test Results UCS = 1390 ksf	
		Refusal at 30.5 feet. Bottom of borehole at 40.5 feet.							

N₆₀ = (Em/60)Nm N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; Nm - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983
Coordinate Datum: NAD 83 (CONUS)
Coordinate Zone: Missouri Central
Coordinate Units: U.S. Survey Feet
Coordinate Proj. Factor: 1.0000701976

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Missouri Department of Transportation
Construction and Materials

BORING NO. N-B-5
Page 1 of 1

Job No.: 20231075.00
Design: _____
Bent: _____
Station: _____
Offset: 5' E
Elevation: 1275.1
Requested Station: _____
Requested Offset: _____
Requested Elevation: _____
County: Greene
Route: I-44
Location: Springfield, Missouri
Logged By: JU
Operator: LRK
Northing: 516794.6417
Easting: 1415143.3374
Date of Work: 08/08/23-08/08/23
Depth to Water: _____
Depth Hole Open: _____
Time Change: _____
Requested Northing: _____
Requested Easting: _____
Equipment: CME 550X, Split-Spoon Sampler
Location Note: _____
Hammer Efficiency: 90%
Drilling Method: CFA

Depth (ft)	Graphic	Description	Elevation (ft)	Sample Type	REC % (RQD %)	Blow Counts (N ₆₀)	Shear Data	Field Tests	Index Tests
0		0.0-0.3' Asphaltic concrete (4.0")	1275						
5		0.3-1.4' (GP) FILL: Crushed limestone			56	5-3-2 (8)		PP = 2.00 tsf	LL = 43 PL = 19 MC = 27.0%
		1.4-3.8' (CL) FILL: Dark brown, lean CLAY (CL), trace sand							
		1.6' -silty from 1.4 to 1.8 ft.							
		3.5' -with gravel below 3.5 ft.			22	17-13-14 (41)		PP = 1.50 tsf	MC = 7.3%
		3.8-6.1' (GP) White, gray, pink, GRAVEL, trace sand and fines	1270						
		6.0' -brown and gray, clayey below 6.0 ft.			100	50/0.3'		PP = 1.00 tsf	MC = 25.6%
		6.1-7.3' Gray, weathered LIMESTONE							
		7.3-25.0' LIMESTONE, gray, very hard, fresh, aphanitic to finely crystalline, medium to thick bedded, dense, occasional chert nodules present throughout			100 (94)			Qu Test Results UCS = 1250 ksf	
10			1265		105 (103)			Qu Test Results UCS = 1100 ksf	
15			1260		100 (95)			Qu Test Results UCS = 1300 ksf	
20			1255		100 (98)			Qu Test Results UCS = 2180 ksf	
25									

N₆₀ = (Em/60)Nm N₆₀ - Corrected N value for standard 60% SPT efficiency; Em - Measured hammer efficiency in percent; Nm - Observed N-value
(1) = Assumed, (2) = Actual

Coordinate System: U.S. State Plane 1983
Coordinate Datum: NAD 83 (CONUS)
Coordinate Zone: Missouri Central
Coordinate Units: U.S. Survey Feet
Coordinate Proj. Factor: 1.0000701976

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Detailed: May 2024
Checked: Jun. 2024

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

Note: For locations of borings, see Sheet No. 1.

Sheet No. 30 of 30

BORING DATA

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DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



Burns & McDonnell Engineering Co., Inc.

9400 Ward Parkway
Kansas City, Missouri 64114
816-333-9400

Certificate of Authority
No. : 000165

BMcD Project No. 146617

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

DATE PREPARED
9/16/2024
ROUTE
I-44
STATE
MO
DISTRICT
BR
SHEET NO.
30
COUNTY
GREENE
JOB NO.
JSU0076
CONTRACT ID.

PROJECT NO.
BRIDGE NO.
A9422

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