DESIGN DESIGNATION

A.A.D.T. - 2024 = 1319
A.A.D.T. - 2044 = 1453
D.H.V.: = 9.94%
T = 13.05%
V = 55 M.P.H.
D (E/W) = 49.4.%/50.6%

FUNCTIONAL CLASSIFICATION - RURAL
MAJOR COLLECTOR

NORMAL RIGHT OF WAY WILL BE ACQUIRED FOR THIS PROJECT

CONVENTIONAL SYMBOLS
(USED IN PLANS)

	EXISTING	NEW
BUILDINGS AND STRUCTURES		
GUARD RAIL		
GUARD CABLE		
CONCRETE RIGHT-OF-WAY MARKER		
STEEL RIGHT-OF-WAY MARKER		
LOCATION SURVEY MARKER		
UTILITIES		
FIBER OPTICS	-FO-	~~FO~~
OVERHEAD CABLE TV	-OTV-	~~OTV~~
UNDERGROUND CABLE TV	-UTV-	~~UTV~~
OVERHEAD TELEPHONE	-OT-	~~OT~~
UNDERGROUND TELEPHONE	-UT-	~~UT~~
OVERHEAD POWER	-OE-	~~OE~~
UNDERGROUND POWER	-UE-	~~UE~~
SANITARY SEWER	-S-	~~S~~
STORM SEWER	-SS-	~~SS~~
GAS	-G-	~~G~~
WATER	-W-	~~W~~
MANHOLE	SAN	
FIRE HYDRANT	HYD	
WATER VALVE	WV	
WATER METER	WM	
DROP INLET	D	
DITCH BLOCK		
GROUND MOUNTED SIGN	SIGN	
LIGHT POLE		
H-FRAME POWER POLE		
TELEPHONE PEDESTAL	PED	
FENCE		
CHAIN LINK	-V-	
WOVEN WIRE	-X-	
GATE POST		
BENCHMARK	BM	
USE IN PLACE	(UIP)	
DO NOT DISTURB	(DND)	
REMOVE	(R)	
REMOVE AND REPLACE	(R&R)	
REMOVE AND RELOCATE	(R&RELOC)	
COUNTY RIGHT OF WAY MARKER	(CRM)	
FLAT BOTTOM DITCH	(FBD)	

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

ABBREVIATIONS

PR = PROPOSED
R/W = RIGHT OF WAY
PE = PERMANENT EASEMENT
TE = TEMPORARY EASEMENT

LAYOUT	DMP	05/2023
DRAWN	JM/SL	04/2025
REVIEWED	DJK	05/2025

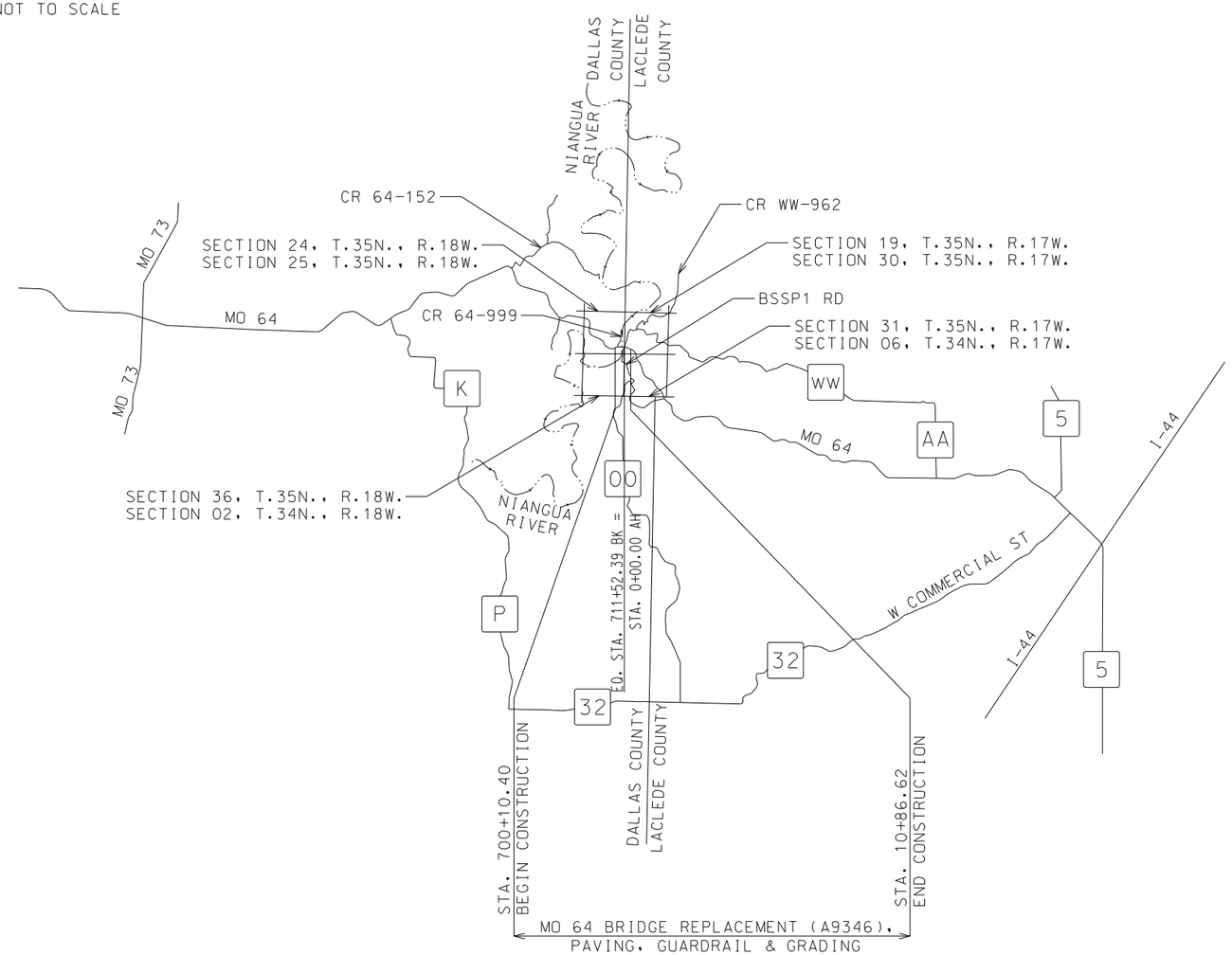
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
PLANS FOR PROPOSED STATE HIGHWAY



DALLAS COUNTY AND LACLEDE COUNTY

SECTION 25, T. 35 N., R. 18 W.
SECTION 30, T. 35 N., R. 17 W.

NOT TO SCALE



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

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LENGTH OF PROJECT

BEGINNING OF PROJECT	STA. 700+10.40	
END OF PROJECT	STA. 10+86.62 ℄ EXISTING MO 64	
APPARENT LENGTH	-68923.78	FEET
EQUATIONS AND EXCEPTIONS:		
STA. 711+52.39 BK = STA. 0+00.00	+71152.39	FEET
TOTAL CORRECTIONS	+71152.39	FEET
NET LENGTH OF PROJECT	2228.61	FEET
STATE LENGTH	0.422	MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	11.9	ACRES

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/25/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	1

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

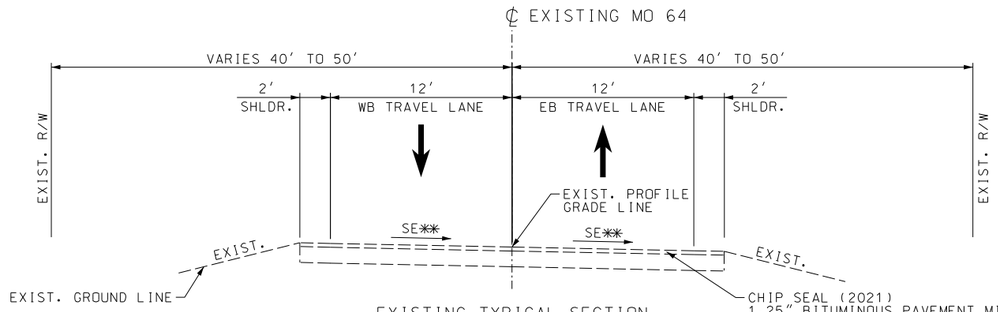
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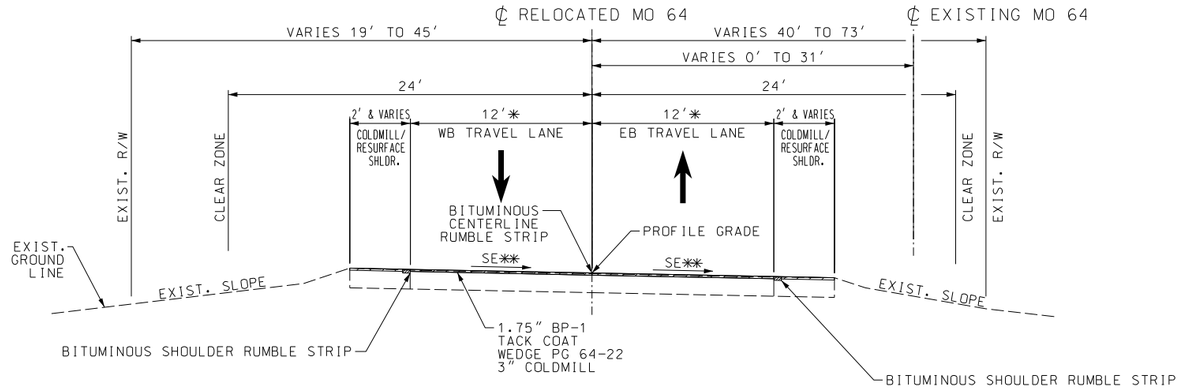
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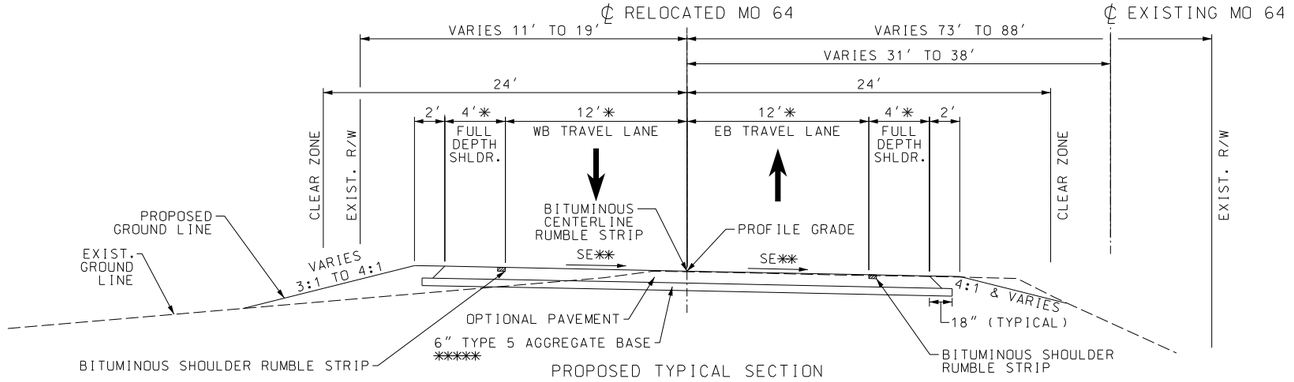
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EXISTING TYPICAL SECTION
MO 64
STA. 700+10.40 TO STA. 722+67.50
NOT TO SCALE

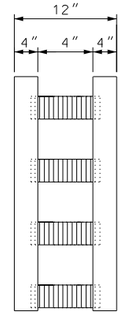


PROPOSED TYPICAL SECTION
MO 64
STA. 700+10.40 TO STA. 700+38.10 LT & RT (ASPHALT RESURFACING AND WEDGING)
STA. 700+10.40 TO STA. 700+66.66 RT (ASPHALT RESURFACING AND WEDGING)
NOT TO SCALE



PROPOSED TYPICAL SECTION
MO 64
STA. 700+38.10 TO STA. 700+66.66 LT (FULL DEPTH) & RT (ASPHALT RESURFACING AND WEDGING, SEE ABOVE)
STA. 700+66.66 TO STA. 703+95.11 LT & RT (FULL DEPTH)
NOT TO SCALE

CENTERLINE RUMBLE STRIP DETAIL



OPTIONAL PAVEMENT				
LOCATION	BASE TYPE	HMA DESIGN	PCCP DESIGN	SHOULDERS
MO 64	6" TYPE 5 AGG. BASE *****	9.5" HMA 1 3/4" BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-1) (2.0355 TONS/CY) OVER 7 3/4" BIT. BASE W/ PG64-22 (2.005 TONS/CY) TACK COAT (0.05 GAL/SY)	8" PCCP 15 FT. JOINT SPACING, 1 1/4" DOWELS, EXTENDED SLAB	*** Full Depth

* SEE SPECIAL SHEETS FOR SHOULDER/LANE TRANSTIONS.

** SEE PROFILE SHEET FOR SUPERELEVATION TRANSITIONS.

*** PAVEMENT SECTION OF SHOULDERS SHALL MATCH TRAVEL LANES.

***** AGGREGATE BASE SHALL BE 18 IN. WIDER THAN THE PAVEMENT. ADDITIONAL WIDTH NECESSARY FOR THIS SHALL BE INCIDENTAL TO THE PROJECT (NO DIRECT PAY).

TYPICAL SECTIONS
SHEET 1 OF 6

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DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

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DATE PREPARED: 8/21/2026
ROUTE: 64 | STATE: MO
DISTRICT: SW | SHEET NO.: 2
COUNTY: DALLAS/LACLEDE
JOB NO.: J7P3542
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9346

DESCRIPTION	DATE

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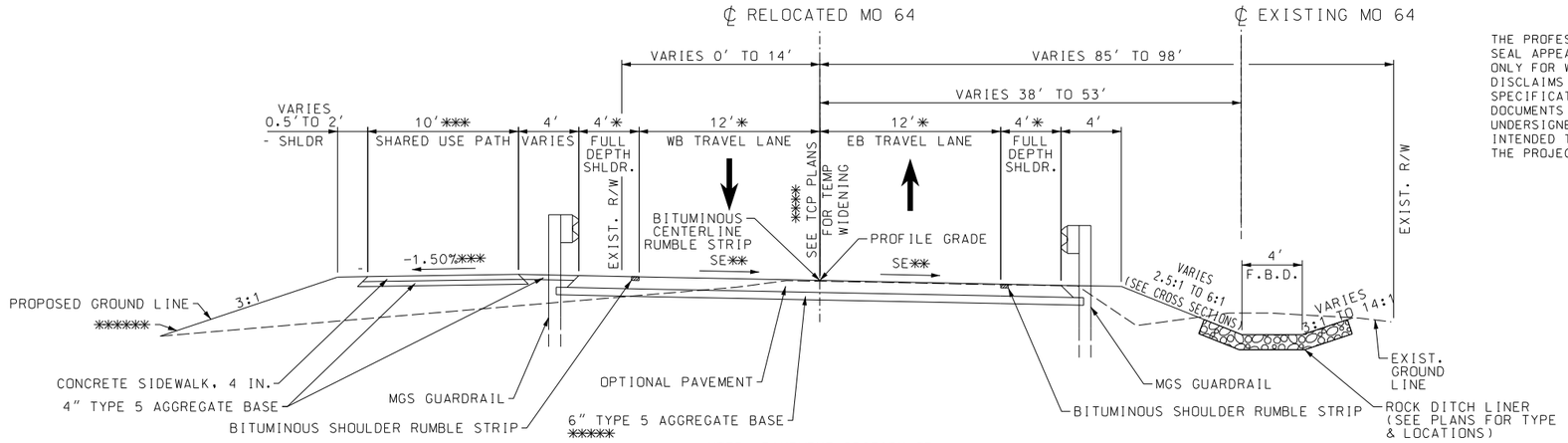
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REVIEWED	DJK	05/2025

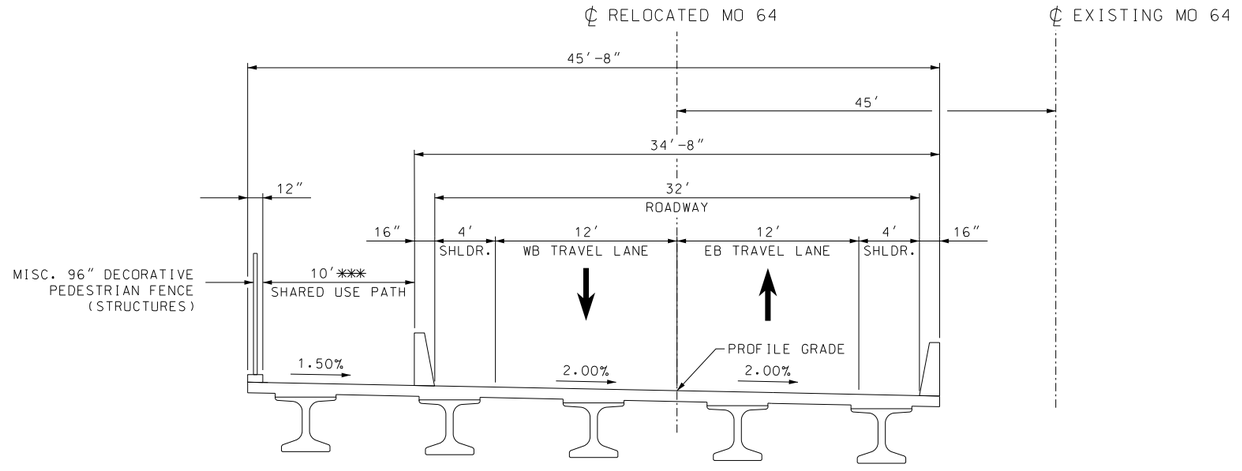
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NOTE: PAVEMENT SECTION OF SHOULDER SHALL MATCH TRAVEL LANES.

PROPOSED TYPICAL SECTION
MO 64
STA. 703+75.00 TO STA. 705+96.25
STA. 711+13.75 TO STA. 712+92.13
NOT TO SCALE

NOTE: CONTRACTOR SHALL PLACE A BRIDGE APPROACH BETWEEN THE END OF ROADWAY PAVEMENT AND BEGINNING OF THE BRIDGE. SEE STRUCTURAL PLANS FOR LOCATION.



PROPOSED TYPICAL SECTION
MO 64
STA. 706+15.75 TO STA. 710+94.25
NOT TO SCALE

NOTE: CONTRACTOR SHALL PLACE A BRIDGE APPROACH BETWEEN THE END OF BRIDGE AND ROADWAY PAVEMENT. SEE STRUCTURAL PLANS FOR LOCATION & BRIDGE DETAILS.

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* SEE SPECIAL SHEETS FOR SHOULDER/LANE TRANSTIONS.

** SEE PROFILE SHEET FOR SUPERELEVATION TRANSITIONS.

*** CONTRACTOR SHALL TRANSITION SHARED USE PATH FROM -1.5% TO +1.5% STA. 705+76.25 TO STA. 705+96.25 ℄ RELOCATED MO 64. CONTRACTOR SHALL TRANSITION SHARED USE PATH FROM +1.5% TO -1.5% STA. 711+13.75 TO STA. 711+33.75 ℄ RELOCATED MO 64.

**** SEE TRAFFIC CONTROL PLAN SHEETS FOR WIDENING OF EXISTING MO ROUTE 64.

***** AGGREGATE BASE SHALL BE 18 IN. WIDER THAN THE PAVEMENT. ADDITIONAL WIDTH NECESSARY FOR THIS SHALL BE INCIDENTAL TO THE PROJECT (NO DIRECT PAY).

****** SEE CROSS SECTIONS FOR A DITCH LOCATED IN PROXIMITY TO THE BRIDGE IN THIS STATION RANGE.

TYPICAL SECTIONS
SHEET 2 OF 6

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	2

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

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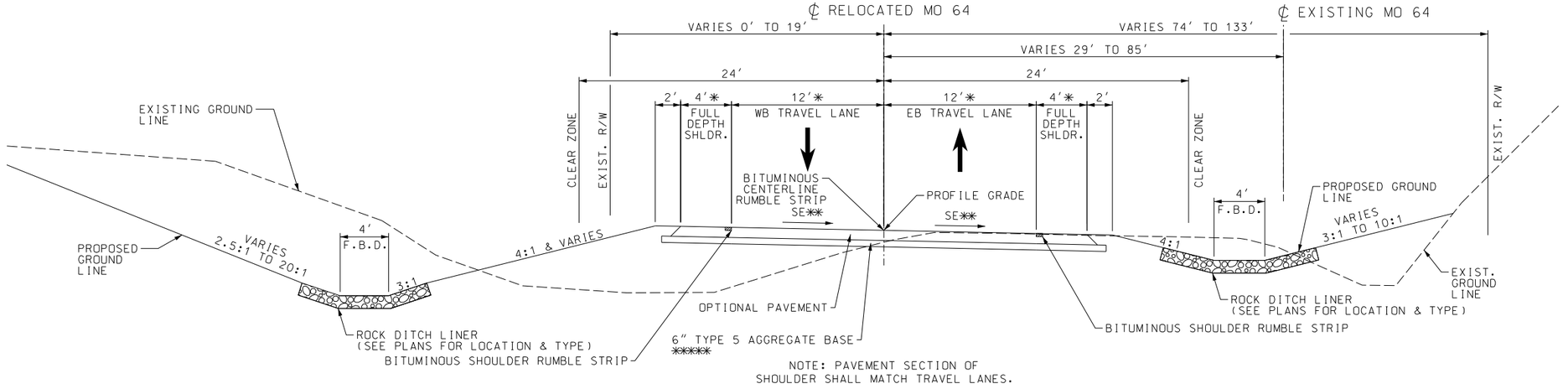
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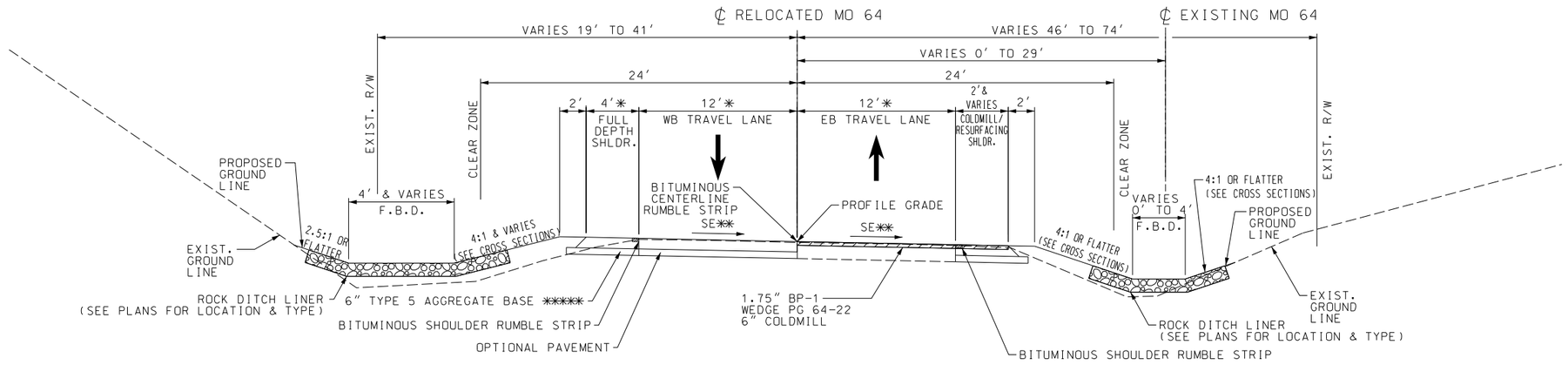
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DRAWN	SL	05/2025
REVIEWED	DJK	05/2025

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NOTE: PAVEMENT SECTION OF SHOULDER SHALL MATCH TRAVEL LANES.

PROPOSED TYPICAL SECTION
MO 64
STA. 712+92.13 TO STA. 721+16.51
NOT TO SCALE



NOTE: PAVEMENT SECTION OF SHOULDER SHALL MATCH TRAVEL LANES.

PROPOSED TYPICAL SECTION
MO 64
STA. 721+16.51 TO STA. 721+50.00
NOT TO SCALE

* SEE SPECIAL SHEETS FOR SHOULDER/LANE TRANSTIONS.

** SEE PROFILE SHEET FOR SUPERELEVATION TRANSITIONS.

***** AGGREGATE BASE SHALL BE 18 IN. WIDER THAN THE PAVEMENT. ADDITIONAL WIDTH NECESSARY FOR THIS SHALL BE INCIDENTAL TO THE PROJECT (NO DIRECT PAY).

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REVIEWED	DJK	05/2025

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/21/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	2

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

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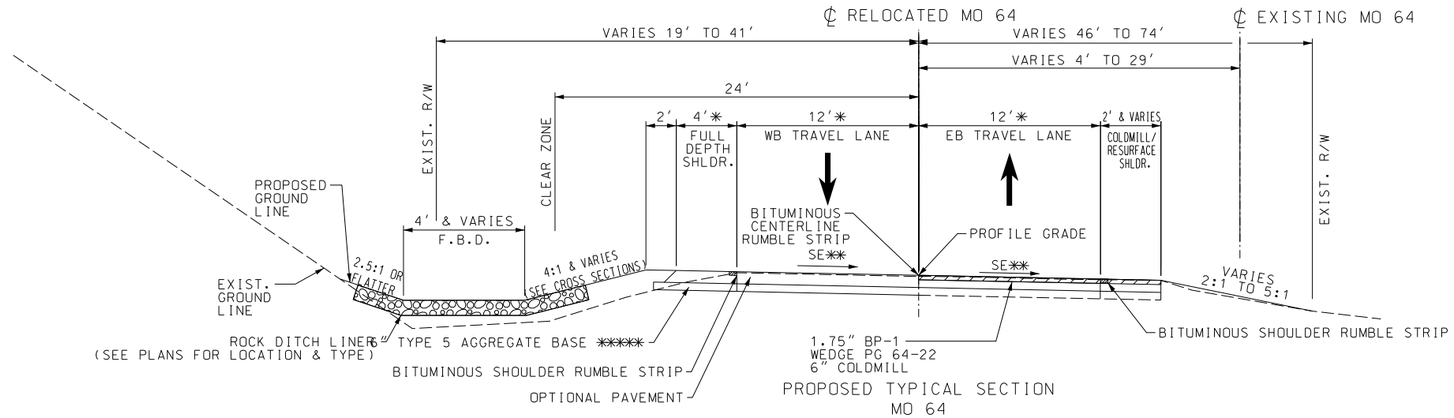
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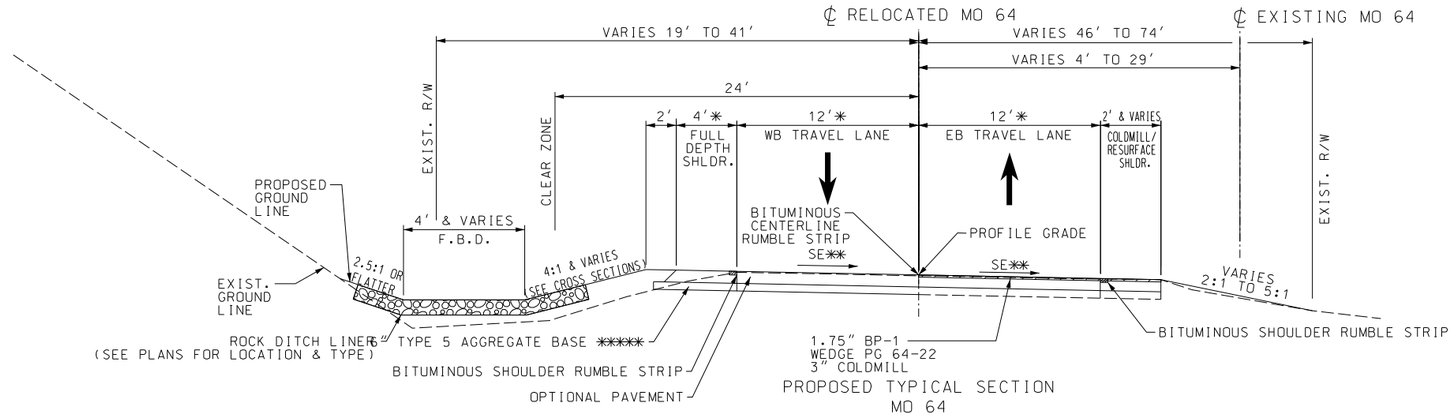
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TYPICAL SECTIONS
SHEET 3 OF 6

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PROPOSED TYPICAL SECTION
MO 64
STA. 721+50.00 TO STA. 722+00.00
(FULL DEPTH PAVEMENT LT)
(ASPHALT WEDGING AND RESURFACING RT)
NOT TO SCALE

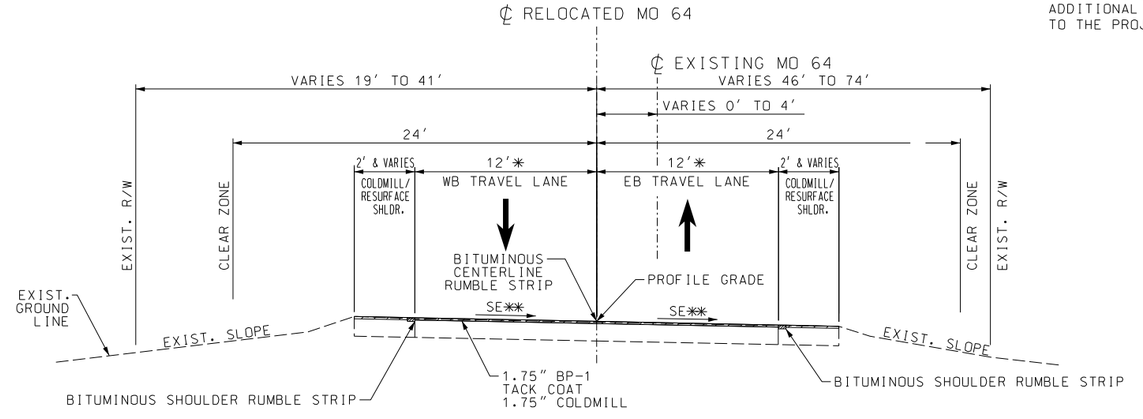


PROPOSED TYPICAL SECTION
MO 64
STA. 722+00.00 TO STA. 722+42.00
(FULL DEPTH PAVEMENT LT)
(ASPHALT WEDGING AND RESURFACING RT)
NOT TO SCALE

* SEE SPECIAL SHEETS FOR SHOULDER/LANE TRANSTIONS.

** SEE PROFILE SHEET FOR SUPERELEVATION TRANSITIONS.

***** AGGREGATE BASE SHALL BE 18 IN. WIDER THAN THE PAVEMENT. ADDITIONAL WIDTH NECESSARY FOR THIS SHALL BE INCIDENTAL TO THE PROJECT (NO DIRECT PAY).



PROPOSED TYPICAL SECTION
MO 64
STA. 722+42.00 TO STA. 722+67.50 LT & RT (ASPHALT RESURFACING)
NOT TO SCALE

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TYPICAL SECTIONS
SHEET 4 OF 6

STATE OF MISSOURI
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NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/21/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	2

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

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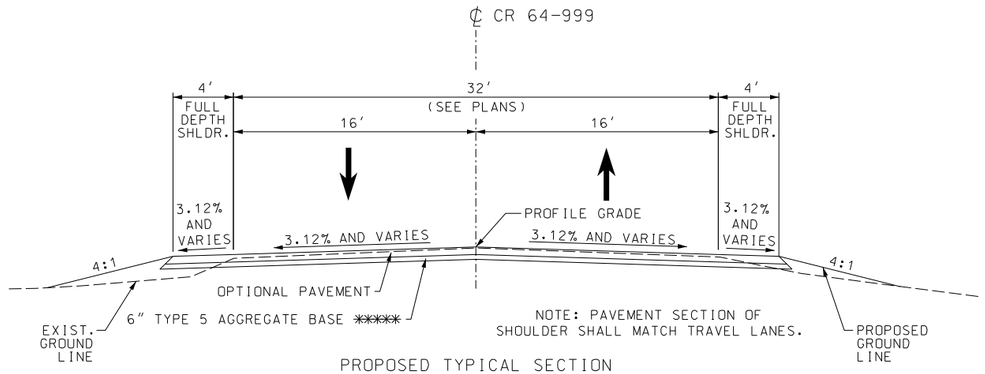
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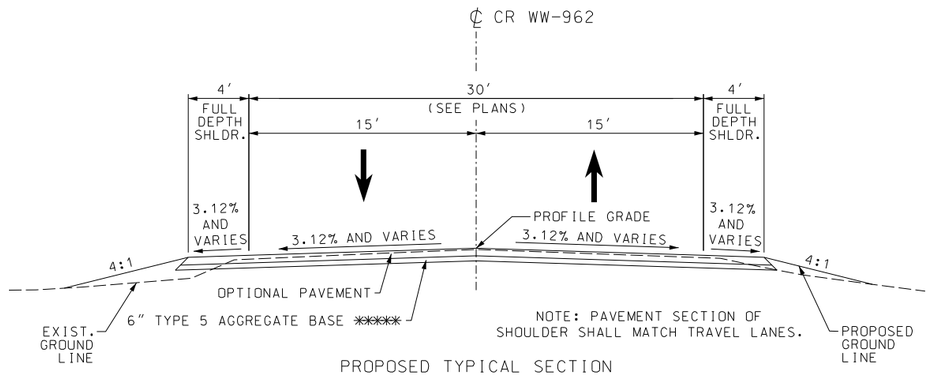
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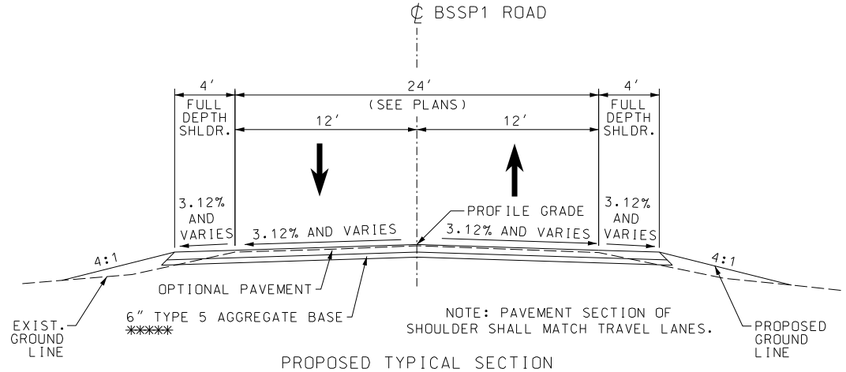
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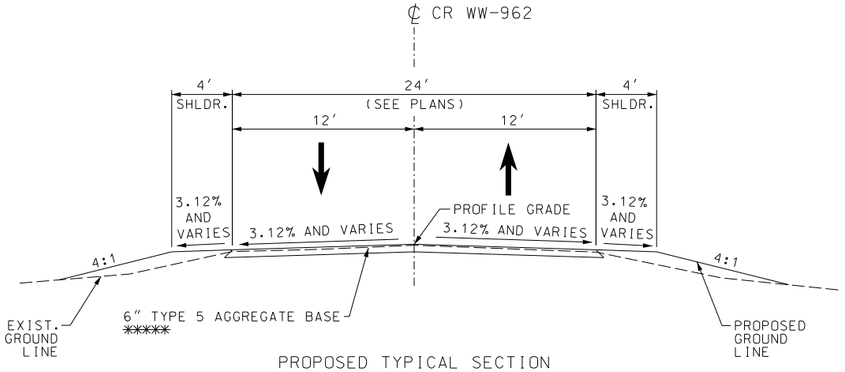
PROPOSED TYPICAL SECTION
CR 64-999 STA. 10+12.94 TO STA. 11+21.97
NOT TO SCALE



PROPOSED TYPICAL SECTION
CR WW-962 STA. 40+12.00 TO STA. 40+83.59
NOT TO SCALE



PROPOSED TYPICAL SECTION
BSSP1 ROAD STA. 30+13.21 TO STA. 31+05.23
NOT TO SCALE



PROPOSED TYPICAL SECTION
CR WW-962 STA. 40+83.59 TO STA. 41+96.00
NOT TO SCALE

OPTIONAL PAVEMENT				
LOCATION	BASE TYPE	HMA DESIGN	PCCP DESIGN	SHOULDERS
MO 64	6″ TYPE 5 AGG. BASE *****	9.5″ HMA 1 3/4″ BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-1) (2.0355 TONS/CY) OVER 7 3/4″ BIT. BASE W/ PG64-22 (2.005 TONS/CY) TACK COAT (0.05 GAL/SY)	8″ PCCP 15 FT. JOINT SPACING, 1 1/4″ DOWELS, EXTENDED SLAB	A1 OR FULL DEPTH

***** AGGREGATE BASE SHALL BE 18 IN. WIDER THAN THE PAVEMENT. ADDITIONAL WIDTH NECESSARY FOR THIS SHALL BE INCIDENTAL TO THE PROJECT (NO DIRECT PAY).

TYPICAL SECTIONS
SHEET 5 OF 6

LAYOUT	DMP	06/2023
DRAWN	SL	05/2025
REVIEWED	DJK	05/2025

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/21/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	2

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

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

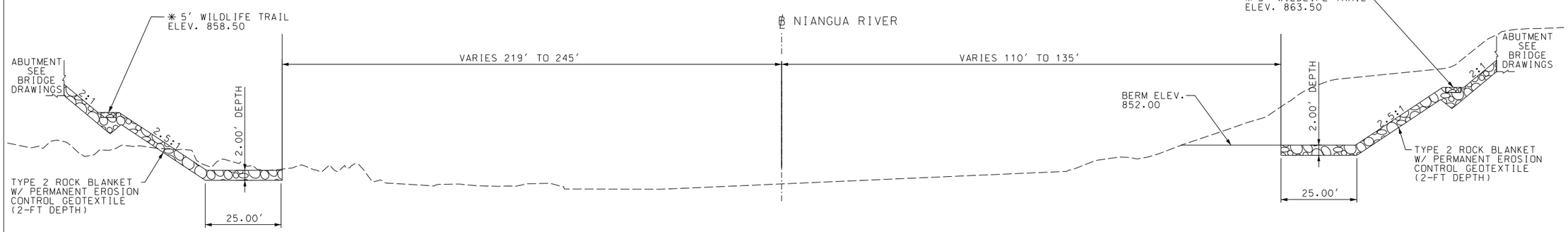
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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PROPOSED RIVER TYPICAL SECTION
NIANGUA RIVER BASELINE LOOKING NORTH
NOT TO SCALE

✳ 3 LAYERS OF 6″ TYPE 5 AGGREGATE BASE TO BE USED AS A CAPPING MATERIAL TO ROCK BLANKET. PLACE LAYER 2 AND 3 AS PER DIRECTION OF THE ENGINEER.

LAYOUT	DMP	06/2023
DRAWN	SL	05/2025
REVIEWED	DJK	05/2025

TYPICAL SECTIONS
SHEET 6 OF 6

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	2

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

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PAVEMENT AND BASE

PLAN SHEET NO.	STATION	STATION	LOCATION	CENTERLINE	TYPE 1 AGGREGATE FOR BASE (8 IN. THICK)	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	TYPE 5 AGGREGATE FOR BASE (6 IN. THICK)	BITUMINOUS PAVEMENT DEPTH	BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-1)	MISC. {O?TIONAL PAVEMENT-ASFHALT OR CONCRETE}	TACK COAT	COLDMILLING BITUMINOUS PAVEMENT FOR REMOVAL OF SURFACING (3 IN. THICK OR LESS)	LINEAR GRADING, CLASS 2	MISC. {LINEAR GRADING, CLASS 2 (MODIFIED)}	PAVEMENT EDGE TREATMENT	REMARKS
					SQ YD	SQ YD	SQ YD	IN	TONS	SQ YD	GAL	SQ YD	STA	STA	LF	
1	700+10.40	702+25.00	CL	RELOCATED MO 64	-	-	177.0	-	-	177.0	-	-	-	-	-	MO 64
2	702+25.00	707+50.00	CL	RELOCATED MO 64	-	-	1,153.0	-	-	:,153.0	-	-	-	-	-	MO 64
3	707+50.00	711+25.00	CL	RELOCATED MO 64	-	-	40.0	-	-	40.0	-	-	-	-	-	MO 64
4	711+25.00	714+50.00	CL	RELOCATED MO 64	-	-	923.0	-	-	923.0	-	-	-	-	-	MO 64
5	714+50.00	718+85.00	CL	RELOCATED MO 64	-	-	1,546.0	-	-	:,546.0	-	-	-	-	-	MO 64
6	718+85.00	722+67.50	CL	RELOCATED MO 64	-	-	1,275.0	-	-	:,275.0	-	-	-	-	-	MO 64
2	10+12.94	11+21.97	CL	CR 64-99	-	-	960.0	-	-	960.0	-	-	-	-	-	CR 64-99
2	11+21.97	11+70.02	CL	CR 64-99	-	-	275.0	-	-	275.0	-	-	-	-	-	CR 64-99
3	30+13.21	31+05.23	CL	BSSP1 RD.	-	-	844.0	-	-	844.0	-	-	-	-	-	BSSP1 RD.
3	40+12.00	40+83.59	CL	MARIGOLD DR.	-	-	759.0	-	-	759.0	-	-	-	-	-	MARIGOLD DR.
3	40+83.59	41+96.00	CL	MARIGOLD DR.	-	-	317.0	-	-	-	-	-	-	-	-	MARIGOLD DR.
TCP	0+00.00	4+67.15	CL	TEMP. MARIGOLD	-	-	1,603.0	-	-	-	-	-	-	4.5	-	INSTALL TEMPORARY MARIGOLD DR.
TCP	0+00.00	4+67.15	CL	TEMP. MARIGOLD	-	-	-	-	-	-	-	-	-	4.5	-	REMOVE TEMP. MARIGOLD DR.
TCP	701+29.15	706+13.84	RT	RELOCATED MO 64	62.5	-	-	-	-	-	-	-	-	-	-	FOR TEMP. PAVEMENT (USE AS DIRECTED BY ENGINEER)
TCP	718+84.85	724+67.50	RT	RELOCATED MO 64	62.5	-	-	-	-	-	-	-	-	-	-	FOR TEMP. PAVEMENT (USE AS DIRECTED BY ENGINEER)
2	704+32.6	705+96.25	LT	RELOCATED MO 64	-	207.0	-	-	-	-	-	-	-	-	-	SHARED USE PATH & CURB RAMP
3	711+13.75	711+25.00	LT	RELOCATED MO 64	-	13.0	-	-	-	-	-	-	-	-	-	SHARED USE PATH
4	711+25.00	712+36.90	LT	RELOCATED MO 64	-	153.0	-	-	-	-	-	-	-	-	-	SHARED USE PATH & CURB RAMP
1-2	700+38.10	703+29.70	LT	RELOCATED MO 64	-	-	495.9	-	-	495.9	-	-	-	-	-	MO 64
1-2	700+66.66	703+29.70	RT	RELOCATED MO 64	-	-	446.9	-	-	446.9	-	-	-	-	-	MO 64
1	700+10.40	700+38.10	LT	RELOCATED MO 64	-	-	-	3.0	3.0	-	4.0	40.0	-	-	-	** WEDGING LAYER 1
1	700+10.40	700+66.66	RT	RELOCATED MO 64	-	-	-	3.0	5.0	-	8.5	85.0	-	-	-	** WEDGING LAYER 2
6	721+16.51	721+50.00	RT	RELOCATED MO 64	-	-	-	6.0	14.0	-	12.0	120.0	-	-	-	** WEDGING LAYER. CONTRACTOR SHALL COLDMILL THIS AREA TO A DEPTH OF 3 IN. TO 6 IN. PAID FOR USING TWO LAYERS OF 3 IN. THICK OR LESS COLDMILLING.
6	721+50.00	722+00.00	RT	RELOCATED MO 64	-	-	-	6.0	20.0	-	17.6	176.0	-	-	-	
6	722+00.00	722+42.00	RT	RELOCATED MO 64	-	-	-	3.0	4.0	-	7.0	70.0	-	-	-	** WEDGING LAYER 3
6	722+42.00	722+67.50	CL	RELOCATED MO 64	-	-	-	1.8	3.0	-	7.8	78.0	-	-	-	** WEDGING LAYER 4
3-4	710+05.10	712+43.59	LT	RELOCATED MO 64	-	-	-		-	-	-	-	2.5	-	-	DITCH GRADING WEST OF MARIGOLD DR.
2	706+30.79	706+35.79	CL	RELOCATED MO 64	-	-	83.0		-	-	-	-	-	-	-	WEST WILDLIFE TRAIL
3	710+74.36	710+79.36	CL	RELOCATED MO 64	-	-	89.0		-	-	-	-	-	-	-	EAST WILDLIFE TRAIL
TCP	703+82.77	706+20.87	LT	RELOCATED MO 64	-	-	182.0		-	-	-	-	2.3	-	-	TCP-PHASE 1B TEMP. BARRIER
TCP	710+88.17	712+80.03	LT	RELOCATED MO 64	-	-	159.0		-	-	-	-	2.0	-	-	TCP-PHASE 1B TEMP. BARRIER
TCP	00+00.00	1+50.00	CL	TEMP. MARIGOLD	-	-	659.0	6.0	75.0	-	65.9	-	-	2.6	219	TCP-PHASE 1C TEMP WIDENING INSTALL CONSTRUCT PAVEMENT EDGE TREATMENT OUT OF ASPHALT
TCP	00+00.00	1+50.00	CL	TEMP. MARIGOLD	-	-	-		-	-	-	-	-	2.6	-	TCP-PHASE 1C TEMP. WIDENING REMOVAL
TCP	701+29.15	706+13.74	RT	RELOCATED MO 64	-	-	791.0	6.0	90.0	-	79.1	-	-	9.0	859	TCP-PHASE 2A TEMP. WIDENING INSTALL CONSTRUCT PAVEMENT EDGE TREATMENT OUT OF ASPHALT
TCP	702+37.17	703+77.33	LT	RELOCATED MO 64	-	-	172.0	6.0	20.0	-	17.2	-	-	2.4	200	TCP-PHASE 2A TEMP. WIDENING INSTALL CONSTRUCT PAVEMENT EDGE TREATMENT OUT OF ASPHALT
TCP	718+84.85	12+69.70	RT	RELOCATED MO 64 & EXIST MO 64	-	-	476.0	6.0	54.0	-	47.6	-	-	6.1	571	TCP-PHASE 2A TEMP WIDENING INSTALL CONSTRUCT PAVEMENT EDGE TREATMENT OUT OF ASPHALT
TCP	701+29.15	12+69.70	LT & RT	RELOCATED MO 64 & EXIST MO 64	-	-	-		-	-	-	-	-	17.5	-	TCP-PHASE 2A TEMP. WIDENING REMOVAL
TCP	699+54.37	701+32.59	LT	RELOCATED MO 64	-	-	52.0	6.0	6.0	-	5.2	-	-	1.2	-	TCP-PHASE 3A TEMP WIDENING INSTALL CONSTRUCT PAVEMENT EDGE TREATMENT OUT OF ASPHALT
TCP	704+09.46	704+50.71	LT	RELOCATED MO 64	-	-	101.0	6.0	12.0	-	10.1	-	-	1.1	109	TCP-PHASE 3A TEMP WIDENING INSTALL CONSTRUCT PAVEMENT EDGE TREATMENT OUT OF ASPHALT
TCP	704+09.46	704+50.71	LT	RELOCATED MO 64	-	372	-		-	-	-	-	-	2.3	-	TCP-PHASE 3A TEMP. WIDENING REMOVAL
				SHARED USE PATH	-	-	-	-	-	-	-	-	-	-	-	SHARED USE PATH ALONG MO 64
				TOTAL	125.0	745.0	13578.8	-	306.0	8894.8	282.0	569.0	6.9	53.8	*1958	
				TOTAL QUANTITY FROM LINEAR GRADING (QUANITY SHEET 5 OF 6)	-	-	-	-	-	-	-	-	-	9.0	-	
				PAY TOTAL	**125**	**745**	**13,579**	**-**	**306.0**	**8,895.0**	**282**	**569**	**6.9**	**63.0**	**-**	

APPLICATION RATES
BP-1 : 2.0355 TONS/CY
TACK COAT: 0.1 GAL/SY

* NO DIRECT PAY FOR PAVEMENT EDGE TREATMENT, SEE JSP'S.
** WEDGING LAYERS SHALL BE USED WHEN DIRECTED BY ENGINEER.

CLEARING AND GRUBBING

PLAN SHEET NO.	STATION	STATION	LOCATION	CENTERLINE	CLEARING AND GRUBBING	REMARKS
					AC	
1-3	700+10.40	708+24.67	CL	RELOCATED MO 64	2.675	WEST OF NIANGUA RIVER
3-7	709+97.75	722+67.50	CL	RELOCATED MO 64	6.18	EAST OF NIANGUA RIVER
				TOTAL	8.86	-
				PAY TOTAL	**9.0**	

MOBILIZATION

1 LUMP SUM

CONTRACTOR FURNISHED SURVEYING AND STAKING

1 LUMP SUM

ROCK SLABS

MISC. {ROCK SLAB (MEAN SIZE 3'X3'X9")}	REMARKS
EA	
75	PLACED AT THE DISCRETION OF THE ENGINEER
75.0	**PAY TOTAL**

CONCRETE

PLAN SHEET NO.	STATION	STATION	LOCATION	CENTERLINE	CONCRETE SIDEWALK 4 IN	CONCRETE CURB RAMPS	TRUNCATED DOMES	CONCRETE CURB (6 IN. HEIGHT AND UNDER) TYPE S	REMARKS
					SQ YD	SQ YD	SQ FT	LF	
2 OF 7	702+25	707+50	LT	RELOCATED MO 64	185.36	20.86	2.22	-	SHARED USE PATH
3 OF 7	707+50	711+25	LT	RELOCATED MO 64	12.48	-	-	-	SHARED USE PATH
4 OF 7	711+25	714+50	LT	RELOCATED MO 64	127.92	24.52	2.22	-	SHARED USE PATH
2 OF 7	704+12.11	704+33.57	LT	RELOCATED MO 64	-	-	-	30	WEST OF BRIDGE
2 OF 7	712+36.49	712+64.79	LT	RELOCATED MO 64	-	-	-	30	EAST OF BRIDGE
				TOTAL	325.76	45.38	4.44	60	-
				PAY TOTAL	**326**	**46**	**5**	**60**	

PAVEMENT MARKINGS

PLAN SHEET NO.	STATION	STATION	LOCATION	CENTERLINE	4 IN. WHITE CLASS 1 PAVEMENT MARKING PAINT (18-MIL. TYPE P BEADS)	4 IN. YELLOW CLASS 1 PAVEMENT MARKING PAINT (18-MIL. TYPE P BEADS)	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE	BITUMINOUS SHOULDER RUMBLE STRIP	BITUMINOUS CENTERLINE RUMBLE STRIP	PAVEMENT MARKING REMOVAL	4 IN TEMPORARY PAVEMENT MARKING PAINT	REMARKS
					LF	LF	LF	STA	STA	LF	LF	
1-2	700+10.40	705+96.25	CL	RELOCATED MO 64	-	-	-	11.7	5.86	-	-	EXCLUDES BRIDGE AND BRIDGE APPROACH SLAB
3-6	711+13.75	722+67.50	CL	RELOCATED MO 64	-	-	-	23.1	11.54	-	-	EXCLUDES BRIDGE AND BRIDGE APPROACH SLAB
1-6	700+10.40	722+67.50	CL	RELOCATED MO 64	4,514.20	4,514.20	-	-	-	-	-	ALONG MO 64
TCP	0+0.00	4+67.15	CL	TEMP MARIGOLD	-	-	-	-	-	934.00	934.00	PHASE 2 - TEMP MARIGOLD WHITE EDGELINE
TCP	0+00	4+67.15	CL	TEMP MARIGOLD	-	-	-	-	-	934.00	934.00	PHASE 2 - TEMP MARIGOLD YELLOW CENTERLINE
TCP	697+40.40	706+16.00	CL	RELOCATED MO 64	-	-	-	-	-	1,752.00	1,752.00	PHASE 2A - TEMP WIDENING YELLOW CENTERLINE
TCP	697+40.40	706+16.00	CL	RELOCATED MO 64	-	-	-	-	-	1,752.00	1,752.00	PHASE 2A - TEMP WIDENING WHITE EDGELINE
TCP	718+47.48	725+37.50	CL	RELOCATED MO 64	-	-	-	-	-	1,380.00	1,380.00	PHASE 2A - TEMP WIDENING YELLOW CENTERLINE
TCP	718+47.48	725+37.50	CL	RELOCATED MO 64	-	-	-	-	-	1,380.00	1,380.00	PHASE 2A - TEMP WIDENING WHITE EDGELINE
PAVEMENT MARKING & SIGNING	-	-	CL	CR 64-999	-	-	18.00	-	-	-	-	SIDESTREET STOP BARS
PAVEMENT MARKING & SIGNING	-	-	CL	MARIGOLD DR	-	-	20.16	-	-	-	-	SIDESTREET STOP BARS
PAVEMENT MARKING & SIGNING	-	-	CL	BSSP1 RD	-	-	12.00	-	-	-	-	SIDESTREET STOP BARS
				TOTAL	4,514.20	4,514.20	50.16	34.80	17.40	8,132.00	8,132.00	-
				PAY TOTAL	**4,515**	**4,515**	**51**	**34.8**	**17.4**	**8,132**	**8,132**	

SUMMARY OF QUANTITIES
SHEET 1 OF 6

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/12/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	3

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DRAINAGE - ROCK QUANTITIES

PLAN SHEET NO.	CULVERT SECTION SHEET NO.	STATION BEGIN	STATION END	OFFSET	LOCATION	CENTERLINE	ROCK DITCH LINER THICKNESS	BEDDING MATERIAL THICKNESS	LINEAR GRADING CLASS 1	FURNISHING TYPE 1 ROCK DITCH LINER	FURNISHING TYPE 2 ROCK DITCH LINER	FURNISHING TYPE 3 ROCK DITCH LINER	FURNISHING TYPE 4 ROCK DITCH LINER	PLACING TYPE 1 ROCK DITCH LINER	PLACING TYPE 2 ROCK DITCH LINER	PLACING TYPE 3 ROCK DITCH LINER	PLACING TYPE 4 ROCK DITCH LINER	BEDDING MATERIAL FOR ROCK DITCH LINER	SEPARATION GEOTEXTILE	REMARKS
							FT	FT	STA	CY	CY	CY	CY	CY	CY	CY	CY	CY	SQ YD	
2-3 OF 7	-	707+05.75	708+24.30	14.38	RT	RELOCATED MO 64	0.67	-	1.19	49.61	-	-	-	49.61	-	-	-	-	24.81	UNDER BRIDGE
3 OF 7	-	709+96.23	710+04.76	15.22	RT	RELOCATED MO 64	0.67	-	0.09	3.14	-	-	-	3.14	-	-	-	-	14.14	UNDER BRIDGE
3-4 OF 7	1 OF 3	711+15.75	711+44.33	50	RT	RELOCATED MO 64	0.67	-	-	2.82	-	-	-	2.82	-	-	-	-	12.70	PERMANENT DITCHES
4-6 OF 7	1 OF 3	713+50.07	721+93.76	-	RT	RELOCATED MO 64	1.83	0.67	-	-	-	441.55	-	-	-	441.55	-	160.56	722.53	PERMANENT DITCHES
3-4 OF 7	3 OF 3	710+04.55	712+50.90	-	LT	RELOCATED MO 64	2.50	1.00	-	-	-	-	331.55	-	-	-	331.55	132.62	291.05	PERMANENT DITCHES
4-6 OF 7	2-3 OF 3	713+58.13	722+50.01	-	LT	RELOCATED MO 64	2.00	-	-	-	580.76	-	-	-	580.76	-	-	-	871.14	PERMANENT DITCHES
MOT	-	2+38.77	4+67.15	15	RT	TEMP MARIGOLD	1.50	-	-	-	110.98	-	-	-	110.98	-	-	-	221.96	TEMP MARIGOLD DR. DITCH
								TOTAL	1.27	55.58	580.76	441.55	331.55	55.58	580.76	441.55	331.55	293.18	1936.37	-
								PAY TOTAL	**1.3**	**56**	**581**	**442**	**332**	**56**	**581**	**442**	**332**	**294**	**1937**	

STEEL RIGHT OF WAY MARKERS

ROW PLAN SHEET NO.	STATION	OFFSET	LOCATION	CENTERLINE	EACH
1 OF 6	701+43.00	42.05	LT	RELOCATED MO 64	1
2 OF 6	703+20.00	115.00	LT	RELOCATED MO 64	1
2 OF 6	703+66.11	102.00	LT	RELOCATED MO 64	1
3 OF 6	707+86.00	72.00	LT	RELOCATED MO 64	1
3 OF 6	707+84.00	121.00	LT	RELOCATED MO 64	1
3 OF 6	709+01.00	121.00	LT	RELOCATED MO 64	1
4 OF 6	711+73.27	121.00	LT	RELOCATED MO 64	1
4 OF 6	712+75.52	121.00	LT	RELOCATED MO 64	1
4 OF 6	713+09.66	127.00	LT	RELOCATED MO 64	1
4 OF 6	714+00.00	147.00	LT	RELOCATED MO 64	1
5 OF 6	714+50.00	72.00	LT	RELOCATED MO 64	1
5 OF 6	717+80.00	206.00	LT	RELOCATED MO 64	1
5 OF 6	718+50.00	201.00	LT	RELOCATED MO 64	1
6 OF 6	719+00.00	87.00	LT	RELOCATED MO 64	1
6 OF 6	722+50.00	95.00	LT	RELOCATED MO 64	1
6 OF 6	722+56.00	83.93	LT	RELOCATED MO 64	1
				TOTAL	16
				PAY TOTAL	**16**

DRAINAGE - STRUCTURE QUANTITIES

PLAN SHEET NO.	CULVERT SECTION SHEET NO.	STATION	OFFSET	LOCATION	CENTERLINE	STRUCTURE ID	DEPTH	GRATE AND BEARING PLATE (5 FT. X 3 FT. OR 1524 MM X 914 MM)	CURVED VANE GRATE AND FRAME (4 FT. X 2 FT. OR 1200MM X 600MM)	MANHOLE FRAME AND COVER, TYPE 1-B	PRECAST CONCRETE MANHOLE - 60 IN	PRECAST CONCRETE DROP INLET 4 FT X 2 FT	PRECAST CONCRETE DROP INLET 5 FT X 3 FT	CLASS 3 EXCVATION	CLASS 3 EXCAVATION IN ROCK	REMARKS
							FT	EA	EA	EA	FT	FT	FT	CY	CY	
2 OF 7	1 OF 3	705+89.05	14.40	RT	RELOCATED MO 64	6-1 DI	12	-	1	-	-	12	-	9.0	3.0	NEW STRUCTURE
2 OF 7	1 OF 3	705+89.05	32.00	RT	RELOCATED MO 64	6-2 DI	11	1	-	-	-	-	11	18.8	6.3	NEW STRUCTURE
3 OF 7	1 OF 3	711+14.75	51.50	RT	RELOCATED MO 64	1-4 DI	7	1	-	-	-	-	7	12.8	4.3	NEW STRUCTURE
3 OF 7	1 OF 3	711+20.95	14.40	RT	RELOCATED MO 64	1-3 DI	15	-	1	-	-	15	-	18.0	6.0	NEW STRUCTURE
6 OF 7	2 OF 3	720+50.00	75.00	LT	RELOCATED MO 64	5-2 MH	10	-	-	1	10	-	10	0.0	0.0	NEW STRUCTURE
4 OF 7	3 OF 3	713+56.24	38.25	RT	RELOCATED MO 64	1-6 DI	6	1	-	-	-	-	6	19.5	6.0	NEW STRUCTURE
TEMP	-	-	-	LT	RELOCATED MO 64	TEMP	-	-	-	-	10	-	-	24.0	8.0	* TCP PHASE 1C
							TOTAL	3	2	1	20	27	34	102.1	33.6	-
							PAY TOTAL	**3**	**2**	**1**	**20**	**27**	**34**	**SEE DRAINAGE - PIPE QUANTITIES**		

* TEMPORARY PIPES FOR TCP SHALL BE REMOVED WHEN PHASE OF CONSTRUCTION IS COMPLETED. NO DIRECT PAYMENT FOR REMOVAL OF ANY TEMPORARY DRAINGE AND GRADING WILL BE MADE. RESTORING THE SITE SHALL INCLUDE ANY DITCH GRADING, INCLUDING EXCAVATION AND EMBANKMENT.

DRAINAGE - PIPE QUANTITIES

PLAN SHEET NO.	CULVERT SECTION SHEET NO.	STRUCTURE FROM	STRUCTURE TO	12 IN. PIPE GROUP B	18 IN. PIPE GROUP B	24 IN. PIPE GROUP B	36 IN. PIPE GROUP B	48 IN. PIPE GROUP B	PIPE COLLAR, TYPE A	12 IN. OR ALLOWED SUBSTITUTE GROUP B FLARED END SECTION	18 IN. OR ALLOWED SUBSTITUTE GROUP B FLARED END SECTION	24 IN. OR ALLOWED SUBSTITUTE GROUP B FLARED END SECTION	36 IN. OR ALLOWED SUBSTITUTE GROUP B FLARED END SECTION	48 IN. OR ALLOWED SUBSTITUTE GROUP B FLARED END SECTION	CLASS 3 EXCAVATION	CLASS 3 EXCAVATION IN ROCK	REMARKS
				LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	CUYD	CUYD	
2 OF 7	1 OF 3	6-1 DI	6-2 DI	15	-	-	-	-	-	-	-	-	-	-	13.5	4.5	NEW PIPE
2 OF 7	1 OF 3	6-2 DI	6-3 FES	66	-	-	-	-	-	1	-	-	-	-	39	13	NEW PIPE
4 OF 7	1 OF 3	1-1 FES	1-2 FES	-	187	-	-	-	-	-	2	-	-	-	217.6	72.6	NEW PIPE
3 OF 7	1 OF 3	1-4 DI	1-5 FES	-	-	59	-	-	-	-	-	1	-	-	73.5	24.5	NEW PIPE
3 OF 7	1 OF 3	1-3 DI	1-4 DI	35	-	-	-	-	-	-	-	-	-	-	36.8	12.3	NEW PIPE
6 OF 7	2 OF 3	5-1 FES	5-2 MH	-	-	-	204	-	-	-	-	-	1	-	0.0	0.0	NEW PIPE
6 OF 7	2 OF 3	5-2 MH	5-3 FES	-	-	-	174	-	-	-	-	-	1	-	32.3	10.8	NEW PIPE
5 OF 7	2 OF 3	4-1 FES	4-2 FES	-	-	72	-	-	-	-	-	2	-	-	5.3	1.8	NEW PIPE
5 OF 7	2 OF 3	3-1 FES	3-2 FES	-	-	62	-	-	-	-	-	2	-	-	39.0	13.0	NEW PIPE
4 OF 7	3 OF 3	1-6 DI	2-3 FES	-	110	-	-	-	-	-	1	-	-	-	21.8	65.3	NEW PIPE
4 OF 7	3 OF 3	2-1 FES	2-2 FES	-	-	-	-	118	-	-	-	-	-	2	65.5	195.8	NEW PIPE
TCP	TCP	TEMP*	TEMP*	-	300	200	-	110	-	-	-	-	-	-	450.0	150.0	** TCP PHASE 1C
TCP	TCP	TEMP*	TEMP*	254	-	-	-	-	1	1	-	-	-	-	-	63	** TCP PHASE 2A - TEMP WIDENING LOCATE AS PER DIRECTION OF THE ENGINEER
			TOTAL	370	597	393	378	228	1	2	3	5	2	2	994.3	626.6	-
QUANTITY FROM DRAINAGE-STRUCTURE QUANTITES				-	-	-	-	-	-	-	-	-	-	-	103	34.0	
			PAY TOTAL	**370**	**597**	**393**	**378**	**228**	**1**	**2**	**3**	**5**	**2**	**2**	**1098**	**661**	

** TEMPORARY PIPES FOR TCP SHALL BE REMOVED WHEN PHASE OF CONSTRUCTION IS COMPLETED. NO DIRECT PAYMENT FOR REMOVAL OF ANY TEMPORARY DRAINGE AND GRADING WILL BE MADE. RESTORING THE SITE SHALL INCLUDE ANY DITCH GRADING, INCLUDING EXCAVATION AND EMBANKMENT.

ROCK BLANKET AND GEOTEXTILE

PLAN SHEET NO.	STATION	STATION	LOCATION	CENTERLINE	TYPE 2 ROCK BLANKET AREA	TYPE 2 ROCK BLANKET DEPTH	FURNISHING TYPE 2 ROCK BLANKET	PLACING TYPE 2 ROCK BLANKET	PERMANENT EROSION CONTROL GEOXTEXTILE	REMARKS
					SF	FT	CY	CY	SY	
2 OF 7	705+96.25	707+05.75	CL	RELOCATED MO 64	23,038.79	2.00	1,706.58	1,706.58	2,559.87	WEST BRIDGE APRON
3 OF 7	710+04.76	711+13.75	CL	RELOCATED MO 64	15,887.82	2.00	1,176.88	1,176.88	1,765.31	EAST BRIDGE APRON
TCP	703+82.77	706+20.87	LT	RELOCATED MO 64	7,922.00	2.00	586.81	586.81	-	TCP PHASE 1-B TEMP.BARRIER**
TCP	710+88.17	712+80.03	LT	RELOCATED MO 64	5,140.80	2.00	380.80	380.80	-	TCP PHASE 1-B TEMP.BARRIER**
TCP	00+00.00	1+50.00	CL	TEMP. MARIGOLD	5,927.00	2.00	439.04	439.04	-	TCP PHASE 1C TEMP WIDENING
TCP	697+39.85	706+03.97	RT	RELOCATED MO 64	8,394.00	2.00	621.78	621.78	-	TCP PHASE 2A TEMP. WIDENING**
TCP	702+37.17	703+77.33	LT	RELOCATED MO 64	1,540.00	2.00	114.07	114.07	-	TCP PHASE 2A TEMP. WIDENING**
TCP	718+83.38	12+69.70	RT	RELOCATED MO 64 & EXIST MO 64	4,281.95	2.00	317.18	317.18	-	TCP PHASE 2A TEMP. WIDENING**
TCP	704+09.46	704+50.71	LT	RELOCATED MO 64	901.00	2.00	66.74	66.74	5,104.80	TCP PHASE 3A TEMP. WIDENING**
						TOTAL	5,409.88	5,409.88	9,429.98	-
						PAY TOTAL	**5,410**	**5,410**	**9,430**	

**CONTRACTOR SHALL REMOVE TEMPORARY ROCK AND GEOTEXTILE AFTER USE. REMOVAL IS INCIDENTAL TO THE PROJECT (NO DIRECT PAY).

SUMMARY OF QUANTITIES
SHEET 2 OF 6

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE 64 | STATE MO
DISTRICT SW | SHEET NO. 3
COUNTY
DALLAS/LACLEDE
JOB NO.
J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO.
A9346

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

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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GUARDRAIL

PLAN SHEET NO.	STATION BEGIN	STATION END	LOCATION	CENTERLINE	MGS GUARDRAIL	MGS BRIDGE APPROACH TRANSITION SECTION (REGULAR/ NO CURB)	MGS END ANCHOR	TYPE A CRASHWORTHY END TERMINAL (MASH)	REMARKS
					LF	EA	EA	EA	
2 OF 7	705+34.36	705+96.25	LT	RELOCATED MO 64	25	1	-	1	WEST DEPARTURE OF BRIDGE
2 OF 7	704+20.05	705+59.35	RT	RELOCATED MO 64	137.5	1	-	1	WEST APPROACH OF BRIDGE
3-4 OF 7	711+51.25	711+88.23	LT	RELOCATED MO 64	37.5	1	-	1	EAST APPROACH OF BRIDGE
3-4 OF 7	711+51.19	712+00.31	RT	RELOCATED MO 64	50	1	1	-	EAST DEPARTURE OF BRIDGE
				TOTAL	250	4	1	3	-
				PAY TOTAL	**250**	**4**	**1**	**3**	

SANITARY SEWER

SPECIAL SHEETS PLAN NO.	STATION BEGIN	STATION END	LOCATION	CENTERLINE	MISC. {POT HOLING FOR UTILITY FACILITIES}	MISC. {6-INCH FORCE MAIN, HDPE (DR-11) (HDD INSTALLATION)}	MISC. {6-INCH FORCE MAIN, HDPE (DR-11) (OPEN CUT INSTALLATION)}	MISC. {CONNECTION TO EXISTING FORCE MAIN}	MISC. {SEWAGE COMBINATION AIR VALVE AND VAULT}	REMARKS
					EA	LF	LF	EA	EA	
4 OF 11	705+94.99	710+74.86	CL	RELOCATED MO 64	6	350	240	2	1	FORCE MAIN RELOC.
				TOTAL	6	350	240	2	1	-
				PAY TOTAL	**6**	**350**	**240**	**2**	**1**	

PERMANENT EROSION CONTROL

EROSION CONTROL SHEET NO.	STATION BEGIN	STATION END	LOCATION	CENTERLINE	SEEDING - COOL SEASON GRASSES	SEEDING - WARM SEASON GRASSES	TYPE 2D EROSION CONTROL BLANKET	ADDITIONAL MOBILIZATION FOR SEEDING	REMARKS
					AC	AC	SQYD	EA	
3	700+10.40	722+51.64	CL	RELOCATED MO 64	8.50	8.50	41,140.00	1.00	FOR FINAL GRADING
				TOTAL	8.50	8.50	41,140.00	1.00	
				TOTAL QUANTITY FROM TEMPORARY EROSION CONTROL	-	-	-	3.00	-
				PAY TOTAL	**8.5**	**8.5**	**41,140**	**4**	

TEMPORARY EROSION CONTROL

EROSION CONTROL SHEET NO.	STATION BEGIN	STATION END	LOCATION	CENERLINE	ROCK DITCH CHECK	SEDIMENT REMOVAL	TEMPORARY SEEDING	MULCHING	SILT FENCE	TYPE C BERM	ADDITIONAL MOBILIZATION FOR SEEDING	REMARKS
					LF	CY	AC	AC	LF	LF	EA	
1 OF 3	700+44.90	707+28.34	RT	RELOCATED M0 64	-	-	-	-	560	-	-	PHASE 1
1 OF 3	704+23.20	707+84.29	LT	RELOCATED M0 64	-	4.00	-	-	381.53	-	-	PHASE 1
1 OF 3	704+88.05	-	RT	RELOCATED M0 64	14.00	1.00	-	-	-	-	-	PHASE 1
1 OF 3	706+04.33	-	RT	RELOCATED M0 64	14.00	1.00	-	-	-	-	-	PHASE 1
1 OF 3	706+16.39	707+28.34	RT	RELOCATED M0 64	-	2.00	-	-	111.95	-	-	PHASE 1
1 OF 3	706+92.59	707+88.73	CL	RELOCATED M0 64	-	4.00	-	-	-	321.66	-	BERM WEST OF NIANGUA RIVER
1 OF 3	709+99.15	710+50.00	CL	RELOCATED M0 64	-	3.00	-	-	-	285.60	-	BERM EAST OF NIANGUA RIVER
1 OF 3	710+50.00	712+30.18	LT	RELOCATED M0 64	-	2.00	-	-	191.65	-	-	PHASE 1
1 OF 3	710+50.00	712+71.89	LT	RELOCATED M0 64	54.00	1.00	-	-	-	-	-	PHASE 1 - DITCH EAST OF NIANGUA RIVER
1 OF 3	713+16.34	-	LT	RELOCATED M0 64	-	1.00	-	-	30.80	-	-	UPSTREAM OF EXISTING CULVERT
1 OF 3	715+00.00	-	LT	RELOCATED M0 64	-	1.00	-	-	48.20	-	-	UPSTREAM OF TEMP PIPE
1 OF 3	715+98.16	-	LT	RELOCATED M0 64	-	1.00	-	-	34.90	-	-	UPSTREAM OF TEMP PIPE
1 OF 3	704+09.92	716+34.02	CL	RELOCATED M0 64	-	-	3.00	3.00	-	-	1	PHASE 1
2 OF 3	700+10.40	722+67.50	CL	RELOCATED M0 64	-	-	3.20	3.20	-	-	1	PHASE 2
2 OF 3	700+74.71	-	RT	RELOCATED M0 64	15.00	1.00	-	-	-	-	-	PHASE 2 - OUTLET OF BOX CULVERT
2 OF 3	700+10.40	703+60.25	LT	RELOCATED M0 64		5.00	-	-	409.80			PHASE 2 - WEST OF CR 64-999
2 OF 3	710+08.77	712+41.53	LT	RELOCATED M0 64	54.00	1.00	-	-	-	-	-	PHASE 2 - EAST OF NIANGUA RIVER
2 OF 3	715+87.51	718+42.13	LT	RELOCATED M0 64	84.00	1.00	-	-	-	-	-	PHASE 2 - EAST OF MARIGOLD
2 OF 3	716+25.19	718+61.38	RT	RELOCATED M0 64	78.00	1.00	-	-	-	-	-	PHASE 2 - EAST OF MARIGOLD
2 OF 3	719+22.05	-	RT	RELOCATED M0 64	8.00	1.00	-	-	-	-	-	PHASE 2
2 OF 3	12+67.39	-	RT	EXIST. MO 64	8.00	1.00	-	-	-	-	-	PHASE 2
3 OF 3	700+10.40	722+67.50	CL	RELOCATED M0 64	-	-	2.60	2.60	-	-	1	PHASE 3
3 OF 3	700+99.64	705+83.74	RT	RELOCATED M0 64	60.00	1.00	-	-	-	-	-	PHASE 3 - WEST OF BRIDGE
3 OF 3	705+82.32	707+28.34	RT	RELOCATED M0 64	-	2.00	-	-	177.60	-	-	PHASE 3 - WEST OF BRIDGE
3 OF 3	713+51.91	714+99.63	RT	RELOCATED M0 64	-	2.00	-	-	156.60	-	-	PHASE 3 - EAST OF BRIDGE
3 OF 3	713+47.58	714+99.50	LT	RELOCATED M0 64	-	3.00	-	-	213.70	-	-	PHASE 3 - EAST OF BRIDGE
3 OF 3	713+17.37	722+51.64	RT	RELOCATED M0 64	240.00	1.00	-	-	-	-	-	PHASE 3 - EAST OF BRIDGE
				TOTAL	629.00	41.00	8.80	8.80	2,316.73	607.26	3	-
				PAY TOTAL	**629**	**41**	**9**	**9**	**2,317**	**608**	**SEE PERMANENT EROSION CONTROL**	

REMOVAL OF IMPROVEMENTS - 1 LUMP SUM

SHEET	ROADWAY	STATION FROM	STATION TO)	LOCATION	CENTERLINE	LENGTH (FEET)	WIDTH (FEET)	AREA (SF)	AREA (SY)	EACH	DESCRIPTION OF REMOVAL
1	MO 64	700+10.40	702+25.00	LT, RT	RELOCATED MO 64	-	-	4654.77	517.20	-	FULL DEPTH SAWCUT
1	MO 64	700+10.40	702+25.00	RT	RELOCATED MO 64	-	-	1079.20	119.91	-	EXIST. FULL DEPTH PAVEMENT
1	MO 64	700+48.47	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (WEIGHT LIMIT)
2	MO 64	702+25.00	703+29.68	RT	RELOCATED MO 64	-	-	574.70	63.86	-	FULL DEPTH SAWCUT
2	MO 64	702+25.00	706+20.65	RT	RELOCATED MO 64	-	-	9518.12	1057.57	-	EXIST. FULL DEPTH PAVEMENT
2	MO 64	705+57.13	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (RIGHT WINDY ROAD)
2	MO 64	705+70.99	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (CHEVRON)
2	MO 64	705+72.48	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (CHEVRON)
2	MO 64	705+93.89	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (CHEVRON)
2	MO 64	705+96.51	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (CHEVRON)
2	MO 64	706+16.49	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (CHEVRON)
2	MO 64	706+16.54	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (CHEVRON)
2	MO 64	706+20.62	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (NIANGUA RIVER)
2	CR 64-999	0+00.00	11+60.00	-	CR 64-999	-	-	6074.69	674.97	-	GRAVEL DRIVEWAY
2-3	MO 64	710+87.52	710+87.52	-	RELOCATED MO 64	SEE BRIDGE PLANS					EXISTING BRIDGE
3	MO 64	710+88.04	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (NIANGUA RIVER)
3	MO 64	710+90.12	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (CHEVRON)
3	MO 64	710+90.85	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (CHEVRON)
3	MO 64	710+99.33	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (RIGHT WINDY ROAD)
3	MO 64	711+08.29	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (CHEVRON)
3	MO 64	711+09.00	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (CHEVRON)
4	MO 64	711+25.06	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (CHEVRON)
4	MO 64	711+28.32	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (CHEVRON)
4	MO 64	711+40.91	-	RT	RELOCATED MO 64	-	-	-	-	1	SIGN (CHEVRON)
4	MO 64	711+89.99	-	RT	RELOCATED MO 64	-	-	-	-	-	SIGN (WEIGHT LIMIT)
4	MO 64	711+62.29	-	RT	RELOCATED MO 64	-	-	-	-	1	CRM
4	MO 64	711+62.29	-	LT	RELOCATED MO 64	-	-	-	-	1	CRM
4	MARIGOLD DR	0+00.00	40+83.59	-	CR WW-962	-	-	3186.78	354.09	-	GRAVEL DRIVEWAY
4	BSSP1 RD	30+76.45	31+05.03	-	BSSP1 RD	-	-	2445.12	271.68	-	EXIST. PARK ROAD
4	MO 64	711+25.00	714+50.00	RT	RELOCATED MO 64	-	-	8922.30	991.37	-	EXIST. FULL DEPTH PAVEMENT
4	MO 64	712+23.63	-	LT, RT	RELOCATED MO 64	-	-	-	-	1	LARGE SIGN
4	MO 64	712+21.60	712+26.13	LT, RT	RELOCATED MO 64	4.53	13.00	64.06	7.12		CONCRETE FOUNDATIONS
4	MO 64	712+73.25	713+12.04	LT	RELOCATED MO 64	43.12	2.00	-	-		EXIST. 24 IN. CULVERT
4	MO 64	712+73.49	713+12.15	LT	RELOCATED MO 64	42.99	2.00	-	-		EXIST. 24 IN. CULVERT
4	MO 64	712+70.01	-	LT	RELOCATED MO 64	-	-	-	-	1	TREE (SEE CLEARING AND GRUBBING)
4	MO 64	712+78.44	-	LT	RELOCATED MO 64	-	-	-	-	1	TREE (SEE CLEARING AND GRUBBING)
4	MO 64	713+08.68	-	LT	RELOCATED MO 64	-	-	-	-	1	TREE (SEE CLEARING AND GRUBBING)
4	MO 64	713+16.83	-	LT	RELOCATED MO 64	-	-	-	-	1	TREE (SEE CLEARING AND GRUBBING)
4	MO 64	713+43.44	-	LT	RELOCATED MO 64	-	-	-	-	1	TREE (SEE CLEARING AND GRUBBING)
4	MARIGOLD DR	40+58.98	41+75.48	RT	CR WW-962	121.00	-	-	-	-	EXIST. FENCE
4	MARIGOLD DR	41+13.20	41+48.23	LT	CR WW-962	35.40	-	-	-	-	EXIST. FENCE
5	MO 64	714+50.00	718+85.00	RT	RELOCATED MO 64	-	-	11681.17	1297.91	-	EXIST. FULL DEPTH PAVEMENT
6	MO 64	718+85.00	722+27.14	RT	RELOCATED MO 64	-	-	5999.38	666.60	-	EXIST. FULL DEPTH PAVEMENT
6	MO 64	720+39.13	722+67.50	LT, RT	RELOCATED MO 64	-	-	4314.42	479.38	-	FULL DEPTH SAWCUT
2-3	MO 64	SEE SHEETS FOR LOCATION AND LENGTHS									EXIST FORCE MAIN SEWER
								PAY TOTAL	**1 LUMP SUM**		-

SUMMARY OF QUANTITIES
SHEET 3 OF 6

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/15/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	3

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DATE	DESCRIPTION

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

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

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Professional Engineer 001632
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314.770.0467

SIGNS						CONCRETE FOOTINGS, EMBEDDED	STRUCTURAL STEEL POSTS*						PIPE POSTS*					BACKING BARS**				U-CHANNEL POST	PERFORATED SQUARE STEEL TUBE											REMARKS AND OTHER REQUIRED ITEMS
																							2-INCH POST						2.5-INCH POST					
SIGN NO.	SIGN SIZE	STATION OR LOG MILE ℄ RELOCATED MO 64	HORIZ CLEAR IF NOT STD	LOCATION	SIGN DTL SHT NO.	ITEM NO. 9031010 CY	POST DES NO.	POST NO.1 LF	POST NO.2 LF	POST NO.3 LF	LBS PER FT	TOTAL ITEM NO. 9031210 LBS	PIPE SIZE IN	POST NO.1 LF	POST NO.2 LF	LBS PER FT	TOTAL ITEM NO. 9031220 LBS	2" X 3/8" BARS AT 2.55 LBS/FT NO. EACH	LGTH IN.	TOTAL LF	TOTAL LBS	ITEM NO. 9031250A LF	POST NO.1 LF	POST NO.2 LF	TOTAL ITEM NO. 9031270A LF	DRIVEN 12 GA. ITEM NO. 9031271A EACH	DRIVEN 7 GA. ITEM NO. 9031273A EACH	CONCRETE 7 GA. ITEM NO. 9031274 EACH	POST NO.1 LF	POST NO.2 LF	TOTAL ITEM NO. 9031280 LF	2.25" INSERT (6 FT) ITEM NO. 9031272A EACH	DRIVEN 7 GA. ITEM NO. 9031281A EACH	CONCRETE 7 GA. ITEM NO. 9031285 EACH	BREAK-AWAY ASSEMBLY ITEM NO. 9031241 EACH	
1	18"x24"	700+76		LT																									8.4		8.4			1		W1-8D CHEVRON ALIGNMENT
2	18"x24"	701+56		LT																									8.4		8.4			1		W1-8D CHEVRON ALIGNMENT
3	36"X36"	702+04		LT																									10.8		10.8			1		"STOP FOR SCHOOL BUS"
4	18"x24"	702+36		LT																									8.4		8.4			1		W1-8D CHEVRON ALIGNMENT
6	36"x36"	703+45		LT																									9.4		9.4			1		R1-1 STOP SIGN
7	18"x24"	704+94		LT																									7.6		7.6			1		W1-8D CHEVRON ALIGNMENT
8	36"x36"	705+86		LT																									9.5		9.5			1		W1-2L & W13-1P PLAQUE
9	120"x60"	704+00		RT		0.72							4	11.72	12.46	10.79	146.16																		"BENNET SPRING STATE PARK"
10	36"x36"	711+23		RT																									11.7		11.7			1		W1-2R & W13-1P PLAQUE
12	24"X18"	712+32		LT																									6.5		6.5			1		"ENTERING DALLAS COUNTY"
13	36"x36"	712+68		LT																									9.4		9.4			1		R1-1 STOP SIGN
14	24"x30"	713+05		LT																									8.8		8.8			1		R2-1 SPEED LIMIT 35mph
15	18"x24"	714+66		LT																									7.2		7.2			1		W1-8D CHEVRON ALIGNMENT
16	18"x24"	715+46		LT																									7.2		7.2			1		W1-8D CHEVRON ALIGNMENT
17	36"x36"	716+09		LT																									8.9		8.9			1		W2-1 CROSSROAD SIGN
18	36"x36"	712+83		RT																									9.4		9.4			1		R1-1 STOP SIGN
19	24"X18"	713+36		RT																									7.8		7.8			1		"LACLEDE COUNTY LINE" SIGN
20	18"x24"	721+73		LT																									7.2		7.2			1		W1-8D CHEVRON ALIGNMENT
21	24"x24"	705+56		LT																									7.0		7.0			1		R5-3 NO MOTOR VEHICLES PLACE ADJACENT TO SHARED USE PATH (SUP). MOUNTING HEIGHT SHALL BE 8-FT MEASURED FROM EDGE OF SUP & POST PLACED 3-FT FROM EDGE OF SUP
22	24"x24"	711+48		LT																									7.0		7.0			1		
				TOTAL		0.72											146.16														160.6			19.0		
				PAY TOTAL		1.0											147														161			19		

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

STANDARD SIGN ASSEMBLIES

SIGN NO.	STATION OR LOG MILE ℄ RELOCATED MO 64	LOCATION	SIGN, TYPE, DESIGNATION, SIZE & NUMBER OF EACH								
			SHF	SHF	SH	SHF	SH	SHF			
			W1-2L 36"X36"	W1-2R 36"X36"	R5-3 24"X24"	W1-8D 18"X24"	R1-1 36"X36"	W2-1 36"X36"			
1	700+76	LT				2					
2	701+56	LT				2					
3	702+04	LT							REMOVE AND RELOCATE		
4	702+36	LT				2					
5	703+33	LT							REMOVE AND RELOCATE		
6	703+45	LT					1				
7	704+94	LT				2					
8	705+86	LT	1								
9	704+00	RT							REMOVE AND RELOCATE		
10	711+23	LT		1							
11	712+23	LT							REMOVE SIGN		
12	712+32	LT							REMOVE AND RELOCATE		
13	712+68	LT					1				
14	713+05	LT							REMOVE AND RELOCATE		
15	714+66	LT				2					
16	715+46	LT				2					
17	716+09	LT						1			
18	712+83	RT					1				
19	713+36	LT							REMOVE AND RELOCATE		
20	721+73	LT				2					
21	705+56	LT			1						
22	711+48	LT			1						
		TOTALS	1	1	2	14	3	1			

SIGN SUMMARY

STANDARD OR SPECIAL SIGN DESIGNATION	SIGN DTL. SHT. NO.	NO. EACH	SIGN SIZE	TYPE & SQUARE FEET			
				SH- FLAT SHEET ITEM NO. 9035004A	SHF- FLAT SHEET FLUORESCENT* ITEM NO. 9035069A	STRUCTURAL ST ITEM NO. 9035011A	STRUCTURAL FLUORESCENT STF* ITEM NO. 9035071A
W1-2L, CURVE (LEFT)		1	36"x36"		9		
W1-2R, CURVE (RIGHT)		1	36"x36"		9		
R5-3, NO MOTOR VEHICLES		2	24"x24"	8			
W1-8D, DOUBLE SIDED CHEVRON		14	18"x24"		42		
R1-1, STOP		3	36"x36"	9			
W2-1, CROSSROAD SIGN		2	36"x36"		9		
			TOTALS	17	69		

*ORANGE, YELLOW AND YELLOW-GREEN

SUMMARY OF QUANTITIES
SHEET 4 OF 6

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 8/13/2026

ROUTE 64 | STATE MO
DISTRICT SW | SHEET NO. 3
COUNTY DALLAS/LACLEDE
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION	DATE

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

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

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Hanson Professional Services Inc.
600 Washington Ave., Suite 950
St. Louis, Missouri 63101
Professional Engineer 001632
www.hanson-inc.com
314.770.1447

EARTHWORK BY CONSTRUCTION PHASE [FOR INFORMATION ONLY]

XS SHEET NO.	ROUTE	STA	EARTHWORK SHOWN ON XS						PHASE 1B				PHASE 2						PHASE 3			
			FILL AREA SF	FILL VOLUME CY	CUT AREA SF	CUT VOLUME CY	CUT IN ROCK AREA SF	CUT IN ROCK VOLUME CY	FILL AREA SF	FILL VOLUME CY	CUT AREA SF	CUT VOLUME CY	FILL AREA SF	FILL VOLUME CY	CUT AREA SF	CUT VOLUME CY	CUT IN ROCK AREA SF	CUT IN ROCK VOLUME CY	FILL AREA SF	FILL VOLUME CY	CUT AREA SF	CUT VOLUME CY
1	RTE 64	700+10.4	0.4	0	3.7	0	0		0.0		0.0		0.2		1.8		0.0		0.2		1.9	
1	RTE 64	700+50.0	6.9	5.4	21.6	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	19.4	15.5	0.0	0.0	6.9	5.3	2.2	3.1
2	RTE 64	701+00.0	0.7	7.0	52.9	69.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.2	48.7	0.0	0.0	0.7	7.0	19.7	20.3
2	RTE 64	701+50.0	28.2	26.8	75.9	119.3	0.0	0.0	0.0	0.0	0.0	0.0	28.2	26.1	36.5	64.5	0.0	0.0	0.0	0.7	39.4	54.8
3	RTE 64	702+00.0	160.9	175.1	102.9	165.6	0.0	0.0	0.0	0.0	0.0	0.0	160.9	175.1	22.5	54.6	0.0	0.0	0.0	0.0	80.4	111.0
3	RTE 64	702+50.0	349.3	472.4	172.5	255.0	0.0	0.0	0.0	0.0	0.0	0.0	349.3	472.4	38.8	56.8	0.0	0.0	0.0	0.0	133.7	198.2
4	RTE 64	703+00.0	548.9	831.7	226.0	369.0	0.0	0.0	0.0	0.0	0.0	0.0	548.9	831.7	30.7	64.4	0.0	0.0	0.0	0.0	195.3	304.6
4	RTE 64	703+50.0	110.2	610.3	397.1	576.9	0.0	0.0	0.0	0.0	0.0	0.0	110.2	610.3	164.8	181.0	0.0	0.0	0.0	0.0	232.3	395.9
4	RTE 64	704+00.0	338.2	415.2	350.3	692.0	0.0	0.0	0.0	0.0	0.0	0.0	338.2	415.2	34.3	184.4	0.0	0.0	0.0	0.0	316.0	507.6
5	RTE 64	704+50.0	1191.0	1415.9	306.4	608.1	0.0	0.0	1191.0	1102.8	0.0	0.0	0.0	313.1	0.0	31.8	0.0	0.0	0.0	0.0	306.4	576.3
5	RTE 64	705+00.0	1255.2	2265.0	251.1	516.2	0.0	0.0	1255.2	2265.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	251.1	516.2
5	RTE 64	705+50.0	1270.5	2338.6	215.2	431.8	0.0	0.0	1270.5	2338.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	215.2	431.8
6	RTE 64	705+95.3	1233.4	2100.5	181.0	332.4	0.0	0.0	1233.4	2100.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	181.0	332.4
			BRIDGE EXCEPTION						BRIDGE EXCEPTION				BRIDGE EXCEPTION						BRIDGE EXCEPTION			
7	RTE 64	711+13.9	839.9		517.9		0.0		839.9		0.0		0.0		0.0		0.0		0.0		517.9	
7	RTE 64	711+50.0	980.9	1217.2	341.3	574.4	0.0	0.0	980.9	1217.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	341.3	574.4
7	RTE 64	712+00.0	1246.6	2062.5	193.4	495.1	0.0	0.0	1246.6	2062.5	10.2	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	183.2	485.6
8	RTE 64	712+50.0	1490.6	2534.4	177.7	343.6	0.0	0.0	1490.6	2534.4	73.7	77.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	104.0	265.9
8	RTE 64	713+00.0	717.2	2044.3	222.6	370.6	0.0	0.0	0.0	1380.2	0.0	68.2	717.2	664.1	131.5	121.8	0.0	0.0	0.0	0.0	91.1	180.6
9	RTE 64	713+50.0	900.0	1497.4	557.8	722.6	0.0	0.0	0.0	0.0	0.0	0.0	898.9	1496.4	0.0	121.8	0.0	0.0	1.1	1.0	557.8	600.8
9	RTE 64	714+00.0	755.0	1532.4	836.3	1290.8	0.0	0.0	0.0	0.0	0.0	0.0	742.3	1519.6	0.0	0.0	0.0	0.0	12.7	12.8	836.3	1290.8
10	RTE 64	714+50.0	784.8	1425.7	208.4	967.3	0.0	0.0	0.0	0.0	0.0	0.0	763.7	1394.4	0.0	0.0	0.0	0.0	21.1	31.3	208.4	967.3
10	RTE 64	715+00.0	932.5	1590.1	632.7	778.8	0.0	0.0	0.0	0.0	0.0	0.0	723.3	1376.8	0.0	0.0	0.0	0.0	209.2	213.3	632.7	778.8
11	RTE 64	715+50.0	593.8	1413.2	434.9	988.5	0.0	0.0	0.0	0.0	0.0	0.0	559.8	1188.0	0.0	0.0	0.0	0.0	34.0	225.2	434.9	988.5
11	RTE 64	716+00.0	448.4	965.0	295.8	676.6	696.3	644.7	0.0	0.0	0.0	0.0	360.6	852.2	229.8	212.8	696.3	644.7	87.8	112.8	66.0	463.8
12	RTE 64	716+50.0	400.0	785.6	520.2	755.6	1248.4	1800.6	0.0	0.0	0.0	0.0	393.2	698.0	460.7	639.4	1248.4	1800.6	6.8	87.6	59.5	116.2
12	RTE 64	717+00.0	426.3	765.1	525.1	967.9	1934.0	2946.7	0.0	0.0	0.0	0.0	416.9	750.1	467.7	859.6	1934.0	2946.7	9.4	15.0	57.4	108.3
13	RTE 64	717+50.0	464.8	825.1	635.3	1074.4	2168.9	3799.0	0.0	0.0	0.0	0.0	453.5	805.9	572.1	962.8	2168.9	3799.0	11.3	19.2	63.2	111.6
13	RTE 64	718+00.0	544.9	934.9	523.2	1072.7	2368.5	4201.3	0.0	0.0	0.0	0.0	523.6	904.8	458.1	953.9	2368.5	4201.3	21.3	30.1	65.1	118.8
14	RTE 64	718+50.0	1041.5	1468.9	324.9	785.3	1536.9	3616.1	0.0	0.0	0.0	0.0	1017.9	1427.3	274.0	677.9	1536.9	3616.1	23.6	41.6	50.9	107.4
14	RTE 64	719+00.0	1534.3	2385.0	91.1	385.2	0.0	1423.1	0.0	0.0	0.0	0.0	1513.4	2343.7	0.0	253.7	0.0	1423.1	20.9	41.3	91.1	131.5
15	RTE 64	719+50.0	1644.0	2942.9	144.5	218.1	0.0	0.0	0.0	0.0	0.0	0.0	1641.3	2921.0	0.0	0.0	0.0	0.0	2.7	21.9	144.5	218.1
15	RTE 64	720+00.0	1322.0	2746.3	104.1	230.2	0.0	0.0	0.0	0.0	0.0	0.0	1295.1	2718.9	0.0	0.0	0.0	0.0	26.9	27.4	104.1	230.2
16	RTE 64	720+50.0	1154.7	2293.2	89.2	179.0	0.0	0.0	0.0	0.0	0.0	0.0	1151.1	2265.0	0.0	0.0	0.0	0.0	3.6	28.2	89.2	179.0
16	RTE 64	721+00.0	1293.2	2266.6	66.9	144.5	0.0	0.0	0.0	0.0	0.0	0.0	1291.7	2261.9	0.0	0.0	0.0	0.0	1.5	4.7	66.9	144.5
17	RTE 64	721+50.0	1239.9	2345.5	48.2	106.6	0.0	0.0	0.0	0.0	0.0	0.0	1239.7	2343.9	0.0	0.0	0.0	0.0	0.2	1.6	48.2	106.6
17	RTE 64	722+00.0	1147.6	2210.6	21.5	64.5	0.0	0.0	0.0	0.0	0.0	0.0	1147.5	2210.4	0.0	0.0	0.0	0.0	0.1	0.2	21.5	64.5
18	RTE 64	722+50.0	1000.1	1988.6	6.0	25.5	0.0	0.0	0.0	0.0	0.0	0.0	1000.0	1988.4	0.0	0.0	0.0	0.0	0.1	0.2	6.0	25.5
18	RTE 64	722+67.5	1.4	324.6	3.9	3.2	0.0	0.0	0.0	0.0	0.0	0.0	1.4	324.5	0.0	0.0	0.0	0.0	0.0	0.1	3.9	3.2
19	CL RIVER	3+00.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
19	CL RIVER	3+50.0	0.7	0.7	1140.7	1056.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	1140.7	1056.2
19	CL RIVER	3+84.0	0.0	0.4	939.0	1309.4	0.0	0.0	0.0	0.0	939.0	591.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	718.2
20	CL RIVER	4+00.0	47.0	13.9	754.4	501.8	0.0	0.0	47.0	13.9	754.4	501.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	CL RIVER	4+25.0	171.0	100.9	341.5	507.4	0.0	0.0	171.0	100.9	341.5	507.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	CL RIVER	4+50.0	470.9	297.2	371.5	330.1	0.0	0.0	470.9	297.2	371.5	330.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	CL RIVER	5+00.0	0.0	436.0	42.1	382.9	0.0	0.0	0.0	436.0	0.0	344.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.1	38.9
		SUBTOTAL PER PHASE							15849.2		2429.9		35299.3		5505.4		18431.5		929.6		13527.4	

LINEAR GRADING

TC SHEET NO	ROADWAY	STA	STA	LOC	LINEAR GRADING CLASS 2 (MODIFIED) STA	REMARKS
4 OF 15	TEMP. MARIGOLD	0+13	4+67	LT&RT	4.5	INSTALL TEMP. MARIGOLD
10 OF 15	TEMP. MARIGOLD	0+13	4+67	LT&RT	4.5	REMOVE TEMP. MARIGOLD
				SUBTOTAL	9	
				PAY TOTAL	*	*SEE QUANTITY SHEET 1 OF 6 FOR PAY TOTAL.

COMPACTING IN CUT

XS SHEET NO	ROUTE	STA	STA	LOC	COMPACTING IN CUT STA	REMARKS
1-4	RTE 64	700+50	704+00	LT&RT	3.5	
27-29	RTE 64	712+00	713+50	LT&RT	1.5	
31-33	RTE 64	716+00	718+00	LT&RT	2.0	
35-38	RTE 64	720+00	722+67.50	LT&RT	2.7	
				SUBTOTAL	9.7	
				PAYTOTAL	9.7	

EARTHWORK

XS SHEET NO	ROUTE	PHASE	CLASS A EXCAVATION C.Y.	CLASS C EXCAVATION C.Y.	FILL C.Y.	COMPACTING EMBANKMENT C.Y.	EMBANKMENT IN PLACE C.Y.	REMARKS
1-21	RTE 64	1B	2429.9		15849.2	1943.9	13905.3	INCLUDING SPILL SLOPE
1-21	RTE 64	2A & B	5505.4	18431.5	35299.3	4404.3	30895.0	
1-21	RTE 64	3A & B	13527.4		929.6	929.6	0.0	INCLUDING SPILL SLOPE
	SUBTOTAL		21,462.7	18,431.5		7,277.8	44,800.3	
	PAY TOTALS		21,463	18,432		7,278	44,800	

NOTE: ASSUMED SHRINKAGE FOR EARTHWORK CALCULATIONS IS 20%.

DISCLAIMER
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SUMMARY OF QUANTITIES
SHEET 5 OF 6

STATE OF MISSOURI
NICHOLAS MICHAEL CORRENTI
NUMBER PE-2010006809
PROFESSIONAL ENGINEER

06:11:2026 4:09:30 PM
Nicholas Michael Correnti - Civil
MO.PE-2010006809

DATE PREPARED
6/11/2026

ROUTE 64 | STATE MO
DISTRICT SW | SHEET NO. 3
COUNTY DALLAS/LACLEDE
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DATE	DESCRIPTION

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

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

EFK•Moen
Civil Engineering Design
13523 Barrett Parkway Dr
Suite 250
St. Louis, MO 63021
Phone 314-394-3100
Fax 314-394-3199
Missouri Certificate of Authority: 001578

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NO.	DESCRIPTION
WARNING SIGNS								
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT)
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT)
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT)
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT)
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT)
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT)
WO1-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT)
WO1-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT)
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT)
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)
WO1-8	18X24	3.00						CHEVRON (SYMBOL)
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)
WO3-4	48X48	16.00						BE PREPARED TO STOP
WO3-5	48X48	16.00	5	80.00				SPEED LIMIT AHEAD
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)
WO4-1aL	48X48	16.00						MERGE (LEFT)
WO4-1aR	48X48	16.00						MERGE (RIGHT)
WO5-1	48X48	16.00						ROAD/BRIDGE/RAMP NARROWS
WO5-3	48X48	16.00						ONE LANE BRIDGE
WO5-5	48X48	16.00						NARROW LANES
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
WO6-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)
WO8-1	48X48	16.00						BUMP
WO8-2	48X48	16.00						DIP
WO8-3	48X48	16.00						PAVEMENT ENDS
WO8-4	48X48	16.00						SOFT SHOULDER
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)
WO8-6	48X48	16.00						TRUCK CROSSING
WO8-6c	48X48	16.00						TRUCK ENTRANCE
WO8-7	36X36	9.00						LOOSE GRAVEL
WO8-7a	36X36	9.00						FRESH OIL / LOOSE GRAVEL
WO8-9	48X48	16.00						LOW SHOULDER
WO8-11	48X48	16.00						UNEVEN LANES
WO8-12	48X48	16.00						NO CENTER LINE
WO8-15	48X48	16.00						GROOVED PAVEMENT
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)
WO8-17L	48X48	16.00						SHOULDER DROP-OFF (SYMBOL LEFT)
WO8-17R	48X48	16.00	2	32.00				SHOULDER DROP-OFF (SYMBOL RIGHT)
WO8-17P	30X24	5.00	2	10.00				SHOULDER DROP-OFF (PLAQUE)
W10-1	42RND.	9.62						RAILROAD CROSSING
WO12-1	24X24	4.00						DOUBLE DOWN ARROW (SYMBOL)
WO12-2	48X48	16.00						LOW CLEARANCE (SYMBOL)
WO12-2x	24X18	3.00						LOW CLEARANCE (PLAQUE)
WO12-2a	84X24	14.00						OVERHEAD LOW CLEARANCE (FEET AND INCHES)
WO12-4	120X60	50.00						LOW CLEARANCE XX FT XX IN XX MILES AHEAD
WO12-5	120X60	50.00						WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD
WO13-1	30X30	6.25						ADVISORY SPEED (PLAQUE)
WO16-2	30X24	5.00						XXX FEET (PLAQUE)
WO16-3	30X24	5.00						X MILE (PLAQUE)
WO20-1	48X48	16.00	9	144.00				ROAD/BRIDGE/RAMP WORK AHEAD
WO20-2	48X48	16.00						DETOUR AHEAD
WO20-3	48X48	16.00						ROAD CLOSED AHEAD
WO20-4	48X48	16.00	5	80.00				ONE LANE ROAD AHEAD
WO20-5	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED AHEAD
WO20-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
WO20-6a	48X48	16.00						RIGHT/CENTER/LEFT LANE CLOSED
WO20-7a	48X48	16.00	5	80.00				FLAGGER (SYMBOL)
WO21-2	36X36	9.00						FRESH OIL
WO21-5	48X48	16.00	2	32.00				SHOULDER WORK / SHOULDER WORK AHEAD
WO22-1	48X48	16.00						BLASTING ZONE AHEAD
WO22-2	42X36	10.50						TURN OFF 2-WAY RADIO AND PHONE
WO22-3	42X36	10.50						END BLASTING ZONE
GO22-1	21X15	2.19	2	4.38				WET PAINT (ARROW PIVOTS)

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NO.	DESCRIPTION
GUIDE SIGNS								
E05-1	36X48	12.00						GORE EXIT
E05-2	48X36	12.00						EXIT OPEN
E05-2a	48X36	12.00						EXIT CLOSED
GO20-1	60X24	10.00	2	20.00				ROAD WORK NEXT XX MILES
GO20-2	48X24	8.00	2	16.00				END ROAD WORK
GO20-4	36X18	4.50						PILOT CAR FOLLOW ME
GO20-4a	42X30	8.75	3	26.25				PILOT CAR IN USE WAIT & FOLLOW
GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
GO20-5aP	36X24	6.00	5	30.00				WORK ZONE (PLAQUE)
MO4-8a	24X18	3.00						END DETOUR
MO4-9L	48X36	12.00						DETOUR (LEFT)
MO4-9R	48X36	12.00						DETOUR (RIGHT)
MO4-9P	48X12	4.00						STREET NAME (PLAQUE)
MO4-10L	48X18	6.00						DETOUR ARROW (LEFT)
MO4-10R	48X18	6.00						DETOUR ARROW (RIGHT)
REGULATORY SIGNS								
R1-1	48X48	13.25	1	13.25				STOP
R1-2	48TRI.	6.93						YIELD
R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)
R1-3P	30X12	2.50						ALL WAY (PLAQUE)
R2-1	36X48	12.00	10	120.00				SPEED LIMIT XX
R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00						NO TURNS
R3-4	48X48	16.00						NO U-TURN (SYMBOL)
R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00						DO NOT PASS
R4-2	36X48	12.00						PASS WITH CARE
R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)
R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)
R5-1	30X30	6.25						DO NOT ENTER
R5-1a	36X24	6.00						WRONG WAY
R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)
R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00						ONE WAY (LEFT)
R6-2R	24X30	5.00						ONE WAY (RIGHT)
R9-9	24X12	2.00						SIDEWALK CLOSED
R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE
R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE
R10-6	24X36	6.00						STOP HERE ON RED (45^ ARROW)
R11-2	48X30	10.00	7	70.00				ROAD CLOSED
R11-3a	60X30	12.50						ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50						ROAD CLOSED TO THRU TRAFFIC
CONST-3A	60X48	20.00						FINE SIGN
CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)
MISCELLANEOUS SIGNS								
CONST-5	48X36	12.00						POINT OF PRESENCE
CONST-5	96X48	32.00						POINT OF PRESENCE
CONST-8	48X36	12.00	2	24.00				WORK ZONE NO PHONE ZONE

616-10.05 CONSTRUCTION SIGNS	TOTAL	782
616-10.10 RELOCATED SIGNS	TOTAL	*

ITEM NUMBER	TOTAL QTY	EFFECTIVE: 07-01-2025 DESCRIPTION
6122008		IMPACT ATTENUATOR 40 MPH (SAND BARREL ARRAY)
6122009		IMPACT ATTENUATOR 45 MPH (SAND BARREL ARRAY)
6122010		IMPACT ATTENUATOR 50 MPH (SAND BARREL ARRAY)
6122012	2	IMPACT ATTENUATOR 55 MPH (SAND BARREL ARRAY)
6122014		IMPACT ATTENUATOR 60 MPH (SAND BARREL ARRAY)
6122017		IMPACT ATTENUATOR 65 MPH (SAND BARREL ARRAY)
6122019		IMPACT ATTENUATOR 70 MPH (SAND BARREL ARRAY)
6122020	2	REPLACEMENT SAND BARREL
6122030		IMPACT ATTENUATOR (RELOCATION)
6122040		WORK ZONE CRASH CUSHION (NARROW)
6122041		WORK ZONE CRASH CUSHION (RELOCATION)
6123001	1	TRUCK MOUNTED ATTENUATOR (TMA)
6161012	5	BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014	4	SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161020		CHANNELIZER (DRUM-LIKE)
6161022		CHANNELIZER (CONE)
6161025	86	CHANNELIZER (TRIM-LINE)
6161026		CHANNELIZER (VERTICAL PANEL)
6161030	56	TYPE III MOVEABLE BARRICADE
6161033		DIRECTION INDICATOR BARRICADE
6161040	2	FLASHING ARROW PANEL
6161047		TYPE 3 OBJECT MARKER
6161055		SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A		CHANGEABLE MESSAGE SIGN WITHOUT COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED
6161099	2	CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED
6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002	4	TEMPORARY LONG-TERM RUMBLE STRIPS
6173600D	480	TEMPORARY TRAFFIC BARRIER, CONTRACTOR FURNISHED/RETAINED
6173700B		TEMP. TRAFFIC BARRIER ANCHORED, CONTRACTOR FURNISHED/RETAINED
6173706		TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION CONTRACTOR FURNISHED/RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION, CONTRACTOR FURNISHED/RETAINED
6175010A		RELOCATING TEMPORARY TRAFFIC BARRIER
6175011B		RELOCATING TEMP. TRAFFIC BARRIER ANCHORED
6175013		RELOCATING TEMP. TRAFFIC BARRIER STIFFNESS
6175020A		RELOCATING TEMP. TRAFFIC BARRIER HEIGHT
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400		TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING

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NOTES:
1. ✱ NO DIRECT PAY WILL BE MADE FOR RELOCATING OR COVERING AND UNCOVERING TCP SIGNS AND DEVICES.
2. SIGN AND DEVICE LOCATION WILL BE FIELD VERIFIED AND APPROVED BY THE ENGINEER.
3. CMS LOCATIONS TO BE DETERMINED BY THE ENGINEER.

SUMMARY OF QUANTITIES
SHEET 6 OF 6

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 6/10/2026
ROUTE 64 | STATE MO
DISTRICT SW | SHEET NO. 3
COUNTY DALLAS/LACLEDE
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION | DATE

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

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

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GENERAL NOTES:
1. ANY WORK INDICATED ON THE PLANS THAT EXTENDS BEYOND THE PROJECT LIMITS IS CONSIDERED INCIDENTAL TO AND A PART OF THE CONSTRUCTION OF THIS PROJECT (NO DIRECT PAY).
2. THE APPROXIMATE LOCATION OF PROPERTY LINES 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.
3. THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO BE EXISTING, 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. SEE THE JOB SPECIAL PROVISIONS FOR A LIST OF UTILITY COMPANIES ON OR WITHIN THE VICINITY OF THE PROJECT LIMITS.
4. ALL BEARINGS BASED ON MISSOURI COORDINATE SYSTEM OF 1983, CENTRAL ZONE.
5. TWO R5-3 "NO MOTOR VEHICLES" SIGNS SHALL BE PLACED ON BOTH SIDES OF THE BRIDGE ADJACENT TO THE SHARED USE PATH. SIGNAGE SHALL BE PLACED AT A HEIGHT OF 8' ON U-CHANNEL POST. THE SIGNS SHALL BE 24"X24".
6. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.

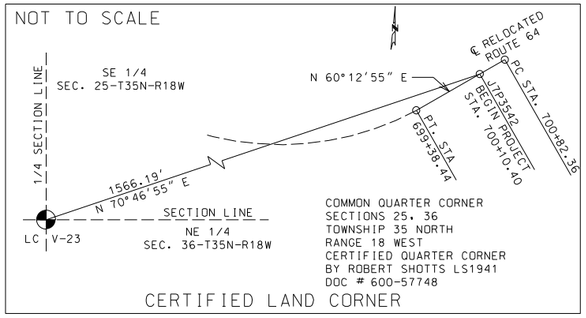
SCALE
0 20 40 60

LEGEND
- ASPHALT RESURFACING AND WEDGING
- FULL DEPTH PAVEMENT REMOVAL LIMITS
- BRIDGE REMOVAL
- 6" TYPE 5 AGGREGATE BASE (GRAVEL SURFACE)
- ENVIRONMENTALLY SENSITIVE AREA
- WETLAND

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LEGEND
UIP = USE IN PLACE
DND = DO NOT DISTURB
R = REMOVE
SRM = RIGHT OF WAY MARKER
OHW = ORDINARY HIGH WATER
FBD = FLAT BOTTOM DITCH

NOT TO SCALE



COMMON QUARTER CORNER
SECTIONS 25, 36
TOWNSHIP 35 NORTH
RANGE 18 WEST
CERTIFIED QUARTER CORNER
BY ROBERT SHOTTS LS1941
DOC # 600-57748

CERTIFIED LAND CORNER

CURVE 1 EXISTING MO 64
PI 702+27.61
PC 700+82.36
PT 703+66.53
Δ 28°24'59.2" (RT)
D 9°59'59.1"
L 284.53' (CHORD)
T 145.26'
R 573.70'

CURVE 2 RELOCATED MO 64
PI 703+21.76
PC 701+31.86
PT 705+03.83
Δ 28°25'0.0" (RT)
D 7°38'22.0"
L 371.97' (ARC)
T 189.90'
R 750.00'
SE 8.0%
V 55 MPH

CURVE 8 EXIST. R/W
Δ 28°25'0.0" (RT)
D 9°15'38.0"
L 306.85' (ARC)
T 156.65'
R 618.70'

CURVE 12 EXISTING MO 64
PI 696+61.50
PC 696+33.97
PT 699+38.44
Δ 54°24'0.0" (LT)
D 8°59'58.7"
L 605.09' (CHORD)
T 327.53'
R 637.30'

1
N/F
MISSOURI CONSERVATION COMMISSION
EXISTING = 174.8 ACRES
NEW R/W = 1.24 ACRES
TEMP. CONSTRUCTION ESMT. = 0.46 ACRES
REMAINDER = 173.56 ACRES

SECTION 25, T. 35 N., R. 18 W.

EXIST. R/W
CRM
℄ EXIST. MO 64
CURVE 12 EXISTING MO 64
SIGN (DND)
EX. 15 IN. CULVERT (DND)
UTILITY POLE (DND)
FLAG (DND)
OTV
OVERHEAD ELECTRIC (DND)
PAC (DND)
PRIVATE GRAVEL ROAD (DND)
SAND SPRING RESORT
SECTION 25, T. 35 N., R. 18 W.
N/F GLENDENNING, JACK D. & VICKY LYNN *NO TAKING*
DRIVEWAY 1 (DND)
SKEW= 113°10'10"
BEARING= N 06°36'54 W
WIDTH= 18'-0"
EXISTING GRADE= -0.86%
EXIST. FIELD ENTRANCE (DND) DRIVEWAY 1
R= 17.70' (UIP)
OE
OVERHEAD ELECTRIC (DND)
BEGIN PROJECT STA. 700+10.40 ℄ EXIST. MO 64 = STA. 700+10.40 ℄ RELOCATED MO 64
POB STA. 700+10.40
113°10'10"
ASPHALT RESURFACING AND WEDGING
MO 64
℄ RELOCATED MO 64
N60°12'54"E
PC STA. 701+31.86
FULL DEPTH SAWCUT (R)
CURVE 2 RELOCATED MO 64
CURVE 1 EXISTING MO 64
EXIST. FULL DEPTH PAVEMENT (R)
S.L.
NEW RIGHT OF WAY
EXIST. R/W
CURVE 8 EXIST. R/W
BEGIN SHOULDER WIDENING LT. STA. 700+38.10
10'X10' RCB (UIP)
BEGIN SHOULDER WIDENING RT. STA. 700+66.66
ENVIRONMENTALLY SENSITIVE AREA (DND)
(SEE JSPS'S FOR INFORMATION)
STA. 702+24.83 MATCH LINE EXISTING MO 64 = STA. 702+25.00 RELOCATED MO 64

PLAN SHEETS
SHEET 1 OF 7

LAYOUT	CRW	05/2025
DRAWN	SMC	05/2024
REVIEWED	DJK	05/2025

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STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 6/10/2026
ROUTE 64 | STATE MO
DISTRICT SW | SHEET NO. 4
COUNTY DALLAS/LACLEDE
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION	DATE

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

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

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GENERAL NOTES:
1. SEE NOTES ON PLAN SHEET 1 OF 7.
2. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.
3. SEE SPECIAL SHEETS FOR ALL DETAILS AND LIMITS OF THE 6-INCH SANITARY SEWER FORCE MAIN.

BENNETT SPRING PUBLIC FISHING ACCESS MO CONSERVATION DEPARTMENT

CURVE 1 & 2
EXISTING &
RELOCATED MO 64
(SEE PREVIOUS SHEET
FOR CURVE DATA)

CURVE 3 CR 64-999
PI 11+23.94
PC 10+62.28
PT 11+85.33
Δ 9°24'2.3" (RT)
D 7°38'22.0"
L 123.05' (ARC)
T 61.67'
R 750.00'

CURVE 8 EXIST. R/W
(SEE PREVIOUS SHEET
FOR CURVE DATA)

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SECTION 25, T. 35 N., R. 18 W.

+01.24
217.93'

SCALE
0 20 40 60

PROPOSED BRIDGE A9346
STA. 706+15.75 TO STA. 710+94.25, 0.00°
℄ RELOCATED MO 64
OVER NIANGUA RIVER
478'-6" LENGTH
PRESTRESSED CONCRETE
NU-GIRDERS
32'-0" INSIDE DECK WIDTH
DA= 441 SQ. MI.
Q50= 48,300 CFS

6" SANITARY SEWER FORCE MAIN. (SEE UTILITY PLAN SHEETS FOR DETAILS, REQUIREMENTS, AND RELOCATION DETAILS.)
N81°42'14"W EXIST. DRIVEWAY (DND)
+71.21 16.31' LT END ASPHALT RESURFACING
+53.10 47.27' LT END ASPHALT RESURFACING
+68.76 14.75' RT END ASPHALT RESURFACING
+41.46 49.56' LT END ASPHALT RESURFACING
+21.97 0.00' RT
+12.94 0.00' RT
CR 64-999
EXIST. R/W
PT STA. 11+85.33
N18°40'42"E
T.C.E.
R=88.1'
R=38.5'
S.L.
FM
S
1 N/F MISSOURI CONSERVATION COMMISSION (SEE R/W PLAN SHEET 1 OF 7)
ENVIRONMENTALLY SENSITIVE AREA (DND) (SEE JSP'S FOR INFORMATION)
EXIST. 8" WW EFFLUENT PIPE (DND)
6" SANITARY SEWER FORCE MAIN. (SEE UTILITY PLAN SHEETS FOR DETAILS & LIMITS OF SANITARY SEWER WORK)
+96.25 68.75' LT
5' WILDLIFE TRAIL +30.91 73.18' LT
1 N/F MISSOURI CONSERVATION COMMISSION (SEE PREVIOUS SHEET FOR R/W INFORMATION)
NEW RIGHT OF WAY
FURNISHING AND PLACING TYPE 2 ROCK BLANKET W/ PERMANENT EROSION CONTROL GEOTEXTILE (2-FT DEPTH)
BRIDGE APPROACH SLAB (SEE STRUCTURAL PLANS)
+96.25 27.33' LT
+16.25 27.33' LT
PROPOSED 6" FORCE MAIN (SEE UTILITY PLAN FOR DETAILS AND LIMITS OF SANITARY SEWER FORCE MAIN WORK)
+86.49 42.61' LT
NEW BRIDGE A9346
10' SHARED USE PATH
+24.29 46.00' LT
END TYPE S CURB STA. +33.57 44.26' LT
+34.50 43.63' LT
ADA RAMP
TYPE 1-A
CONTRACTOR SHALL TRANSITION SHARED USE PATH FROM -1.5% TO +1.5% STA. 705+76.25 TO STA. 705+96.25
+18.13 30.00' LT
+76.25 30.00' LT
BEGIN TYPE S CURB STA. +12.11 46.42' LT
B1N
B1S
B2 N88°37'55"E
EXIST. R/W
CURVE 2 RELOCATED MO 64
℄ RELOCATED MO 64
PT STA. 705+03.83
12" GROUP B PIPE
6-1 DI
6-3 FES
+01.74 15.29' RT
+01.74 32.29' RT
MO 64
STA. 703+52.67 RELOCATED MO 64 = POB STA. 10+00.00 CR 64-999
4' F.B.D. W/ FURNISHING AND PLACING TYPE 1 ROCK DITCH LINER
SEE SPECIAL SHEETS FOR GUARDRAIL DETAILS
6-2 DI
EXIST. BRIDGE J0782 (R) (SEE BRIDGE PLANS)
+86.49 46.37' RT
BM #2
+96.25 70.22' RT
℄ EXIST. MO 64
EXIST. FULL DEPTH PAVEMENT (R)
FULL DEPTH SAWCUT (R)
CONSERVATION DEPARTMENT SIGN (R&RELOC)
SIGN (R&R)
SIGN (R)
SIGN (R&RELOC)
ENVIRONMENTALLY SENSITIVE AREA - STREAM (DND) (SEE JSP'S FOR INFORMATION)
+60.82 77.61'
+59.76 82.52'
(DND) CRM
EXIST. R/W
+30.67 75.79' RT
LINEAR GRADING CLASS I AND TYPE 1 ROCK DITCH LINER TO RIVER BANK (SEE NEXT SHEET)
DRIVEWAY 2
SKEW= 68°00'03"
BEARING= N 09°16'40" E
WIDTH= 34'-0"
EXISTING GRADE= 8%
(GRAVEL DWY(R))
DWY 2
68.00 0.2
R1
10
705
20
POB STA. 20+00.00 EXIST. DRIVEWAY STA. 11+53.62
CURVE 2 CR 64-999
PC STA. 10+62.28
N09°16'40"E ℄ CR 64-999
STA. 702+24.83 = STA. 702+25.00
MATCH LINE EXISTING MO 64 RELOCATED MO 64

MATCH LINE = STA. 707+50.00 ℄ RELOCATED MO 64
STA. 707+37.35 ℄ EXISTING MO 64

N/F
GLENDENNING, JACK D.
& VICKY LYNN
NO TAKING
SAND SPRING RESORT

BENCHMARK (NAVD 88)
BM #2, "D" CUT ON SW CORNER OF EXISTING BRIDGE WINGWALL, STA. 706+12, 13.0' RT., ℄ RELOCATED MO 64, ELEV. 871.36

SECTION 25, T. 35 N., R. 18 W.

REMOVE EXISTING BRIDGE J0782
STA. 706+21.10 TO STA. 710+87.52
℄ RELOCATED MO 64
(101'-9"/100'-0"/100'-0"/100'-0"/76'-9")

LEGEND
- ASPHALT RESURFACING AND WEDGING
- FULL DEPTH PAVEMENT REMOVAL LIMITS
- BRIDGE REMOVAL
- 6" TYPE 5 AGGREGATE BASE (GRAVEL SURFACE)
- ENVIRONMENTALLY SENSITIVE AREA
- WETLAND
- FURNISH/PLACE TYPE 1 ROCK DITCH LINER (TYPICAL)

LEGEND
UIP = USE IN PLACE
DND = DO NOT DISTURB
R = REMOVE
SRM = RIGHT OF WAY MARKER
OHW = ORDINARY HIGH WATER
FBD = FLAT BOTTOM DITCH

LAYOUT	CRW	05/2025
DRAWN	SMC	05/2024
REVIEWED	DJK	05/2025

PLAN SHEETS
SHEET 2 OF 7

I:\23jobs\23H0018\CAD\Road\Sheet\005_PS_02_J7P3542_I20.dgn

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	5

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

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

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

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St. Louis, Missouri 63101
Professional Engineer 001632
www.hanson-inc.com
314.770.0467

MATCH LINE
SEE PLAN SHEET 7 OF 7

MATCH LINE
STA. 707+37.35 ℄ EXISTING MO 64 =
STA. 707+50.00 ℄ RELOCATED MO 64

MATCH LINE
STA. 711+15.13 ℄ EXISTING MO 64 =
STA. 711+25.00 ℄ RELOCATED MO 64

(1) N/F
MISSOURI CONSERVATION COMMISSION
(SEE R/W PLAN SHEET 1 OF 7)

(2) N/F
LKLR REAL ESTATE, LLC
EXISTING DALLAS COUNTY = 17.36 ACRES
EXISTING LACLEDE COUNTY = 67.49 ACRES
EXISTING TOTAL = 84.85 ACRES
NEW R/W DALLAS COUNTY = 0.76 ACRES
NEW R/W LACLEDE COUNTY = 0.29 ACRES
TEMP. CONSTRUCTION ESMT. LACLEDE COUNTY = 0.15 ACRES
REMAINDER = 83.80 ACRES
SECTION 25, T. 35 N., R. 18 W.

PROPOSED BRIDGE A9346
STA. 706+15.75 TO STA. 710+94.25, 0.00°
℄ RELOCATED MO 64
OVER NIANGUA RIVER
100'-100'-100'-100'-75'
PRESTRESSED CONCRETE
NU-GIRDERS
45'-8" OUT-OUT
DA= 441 SQ. MI.
Q100= 56.100 CFS

NIANGUA RIVER

APPROXIMATE EDGE OF RIVER BANK

T.C.E.

NEW RIGHT OF WAY

R/W

ISLAND (DND)

+04.72
109.20' LT

BEGIN LINEAR GRADING CLASS II
+04.51
102.09' LT

+04.30
94.99' LT

FURNISHING AND PLACING TYPE 4 ROCK DITCH LINER W/ SEPARATION GEOTEXTILE

+13.75
78.96' LT

+74.50
83.96' LT

+91.25
27.33' LT

S.L.

FURNISHING AND PLACING TYPE 2 ROCK BLANKET W/ PERMANENT EROSION CONTROL GEOTEXTILE (2-FT DEPTH)

CONTRACTOR SHALL TRANSITION SHARED USE PATH FROM +1.5% TO -1.5% STA. 711+13.75 TO STA. 711+33.75

PROPOSED 6" FORCE MAIN (SEE UTILITY PLAN FOR DETAILS AND LIMITS OF SANITARY SEWER FORCE MAIN WORK)

710

+24.07
53.96' LT

NEW R/W

EXIST. 8" WW EFFLUENT PIPE (DND)

6" SANITARY SEWER FORCE MAIN. SEE SPECIAL SHEETS FOR DETAILS, REQUIREMENTS, AND RELOCATION DETAILS.

NEW BRIDGE A9346

B4

B5

B6N

10' SHARED USE PATH

MO 64

EXIST. R/W

N88°37'55"E

℄ RELOCATED MO 64

+24.67
15.29' RT

+07.93
13.16' RT

+16.03
10.83' RT

12" GROUP B PIPE

LINEAR GRADING CLASS I AND TYPE 1 ROCK DITCH LINER TO RIVER BANK (SEE PREVIOUS SHEET)

+22.67
32.29' RT

+04.27
3.47' RT

℄ EXIST. MO 64

EXIST. BRIDGE J0782 (R) (SEE BRIDGE PLANS)

+22.68
23.08' RT

REMOVE EXISTING BRIDGE J0782
STA. 706+21.10 TO STA. 710+87.52
℄ RELOCATED MO 64
(101'-9"/100'-0"/100'-0"/100'-0"/76'-9")

ENVIRONMENTALLY SENSITIVE AREA - STREAM (DND)

ENVIRONMENTALLY SENSITIVE AREA - WETLAND (DND) (SEE JSP'S FOR INFORMATION)

N/F
STATE OF MISSOURI
NO TAKING

N/F
GLENDENNING, JACK D. & VICKY LYNN
NO TAKING

SAND SPRING RESORT

1-5 FES

1-3 D1

1-4 D1

+15.88
48.46' RT

+16.43
44.50' RT

4' F.B.D. W/ FURNISHING AND PLACING TYPE 1 ROCK DITCH LINER

24" GROUP B PIPE

BM #1
+11.31
64.90' RT

5' WILDLIFE TRAIL
+74.24
75.60' RT

N/F
STATE OF MISSOURI
(MISSOURI STATE PARK BOARD)
NO TAKING

SECTION 25, T. 35 N., R. 18 W.

BENNETT SPRINGS STATE PARK

(DND)
PP (DND)
F RISER (DND)
(DND)
OVERHEAD ELECTRIC (DND)

BENCHMARK (NAVD 88)
BM #1, "□" CUT ON SE CORNER OF EXISTING BRIDGE WINGWALL, STA. 710+79, 13.5' RT., ℄ RELOCATED MO 64, ELEV. 875.97

GENERAL NOTES:
1. SEE NOTES ON PLAN SHEET 1 OF 7.
2. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.

LEGEND
- ASPHALT RESURFACING AND WEDGING
- FULL DEPTH PAVEMENT REMOVAL LIMITS
- BRIDGE REMOVAL
- 6" TYPE 5 AGGREGATE BASE (GRAVEL SURFACE)
- ENVIRONMENTALLY SENSITIVE AREA
- WETLAND

LEGEND
UIP = USE IN PLACE
DND = DO NOT DISTURB
R = REMOVE
SRM = RIGHT OF WAY MARKER
OHW = ORDINARY HIGH WATER
FBD = FLAT BOTTOM DITCH

LAYOUT	CRW	05/2025
DRAWN	SMC	05/2024
REVIEWED	DJK	05/2025

SCALE
0 20 40 60

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STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	6

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
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1-888-ASK-MODOT (1-888-275-6636)

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PLAN SHEETS
SHEET 3 OF 7

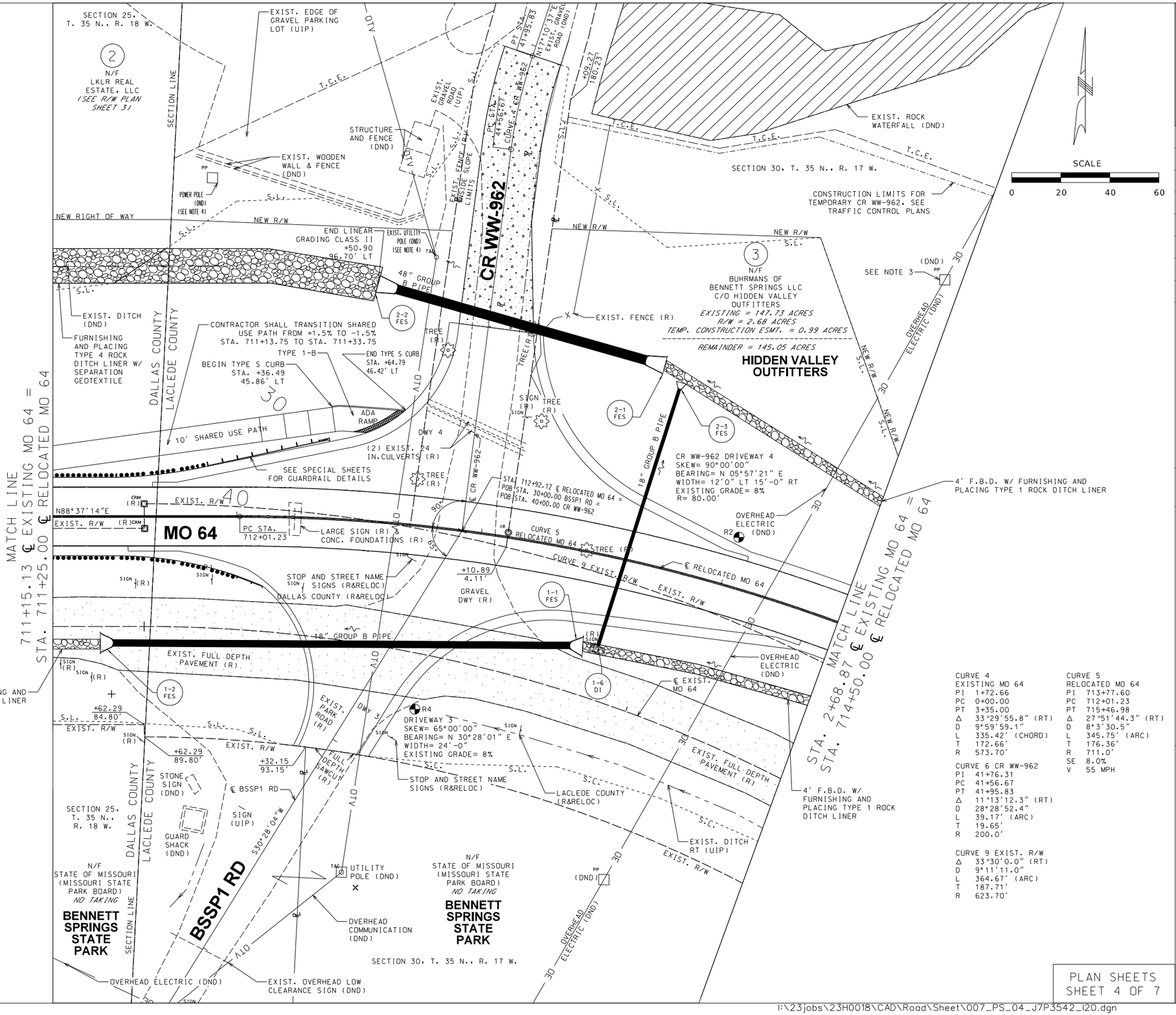
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GENERAL NOTES:

1. SEE NOTES ON PLAN SHEET 1 OF 7.
2. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.
3. CONTRACTOR SHALL PROTECT THIS POWER POLE AND ELECTRIC LINE THROUGH ALL PHASES OF CONSTRUCTION. IF THE LINE NEEDS TO BE TEMPORARILY RAISED TO PROVIDE VERTICAL CLEARANCE BETWEEN TEMPORARY MERIGOLD AND WIRE, THE WORK SHALL BE COORDINATED BY CONTRACTOR WITH THE ELECTRIC COMPANY.
4. CONTRACTOR SHALL PROTECT THIS POLE AND SERVICE LINE THROUGH ALL PHASES OF CONSTRUCTION. IF IT NEEDS TO BE RAISED TO PROVIDED ADDITIONAL VERTICAL CLEARANCE THE WORK SHALL BE COORDINATED BY THE CONTRACTOR WITH THE UTILITY COMPANY.



LEGEND

- ASPHALT RESURFACING AND WEDGING
- FULL DEPTH PAVEMENT REMOVAL LIMITS
- BRIDGE REMOVAL
- 6" TYPE 5 AGGREGATE BASE (GRAVEL SURFACE)
- ENVIRONMENTALLY SENSITIVE AREA
- WETLAND

CURVE 4
EXISTING MO 64
PI 1+72.66
PC 0+00.00
PT 3+35.00
Δ 33°29'55.8" (RT)
D 9°59'59.1"
L 335.42' (CHORD)
T 172.66'
R 573.70'

CURVE 5
RELOCATED MO 64
PI 713+77.60
PC 712+01.23
PT 715+46.98
Δ 27°51'44.3" (RT)
D 8°3'30.5"
L 345.75' (ARC)
T 176.36'
R 711.0'
SE 8.0%
V 55 MPH

CURVE 6 CR WW-962
PI 41+76.31
PC 41+56.67
PT 41+95.83
Δ 11°13'12.3" (RT)
D 28°28'52.4"
L 39.17' (ARC)
T 19.65'
R 200.0'

CURVE 9 EXIST. R/W
Δ 33°30'0.0" (RT)
D 9°11'11.0"
L 364.67' (ARC)
T 187.71'
R 623.70'

LAYOUT	CRW	05/2024
DRAWN	SMC & SL	05/2025
REVIEWED	DJK	05/2025

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	7

COUNTY: DALLAS/LACLEDE
JOB NO.: J7P3542
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

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

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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PLAN SHEETS
SHEET 4 OF 7

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CURVE 4 & 5
EXISTING & RELOCATED
MO 64
(SEE PREVIOUS SHEET FOR CURVE DATA)

CURVE 9 EXIST. R/W
(SEE PREVIOUS SHEET FOR CURVE DATA)

CURVE 10 EXIST. R/W
Δ 19°30'0.0" (LT)
D 9°50'22.0"
L 198.18' (ARC)
T 100.06'
R 582.30'

CURVE 11 EXISTING MO 64
PI 5+74.88
PC 4+65.37
PT 6+82.04
Δ 19°30'0.0" (LT)
D 8°59'58.7"
L 216.90' (CHORD)
T 109.51'
R 637.30'

SECTION 30, T. 35 N., R. 17 W.

OVERHEAD ELECTRIC (DND)

T.C.E.

CONSTRUCTION LIMITS FOR TEMPORARY CR WW 962, SEE TRAFFIC CONTROL PLANS

UTILITY POLE (DND)

S.L.

NEW R/W

715

3
N/F
BUHRMANS OF
BENNETT SPRINGS LLC
C/O HIDDEN VALLEY
OUTFITTERS
(SEE R/W PLAN SHEET 4 OF 7)

HIDDEN VALLEY OUTFITTERS

SCALE
0 20 40 60

STA. 2+68.87 ℄ EXISTING MO 64 = STA. 714+50.00 ℄ RELOCATED MO 64
MATCH LINE

+00.34 44.82' LT
+49.96 44.62' LT
+99.96 44.25' LT
+49.84 45.63' LT
+99.87 48.32' LT
+49.86 48.88' LT
+39.02 53.64' LT
+69.46 70.72' LT

4' F.B.D.

+00.00 40.00'
3-2 FES

4' F.B.D. W/ FURNISHING AND PLACING TYPE 2 ROCK DITCH LINER W/SEPARATION GEOTEXTILE

5-3 FES
4-2 FES

R3

PT STA. 715+46.98

MO 64

℄ RELOCATED MO 64

S63°30'22"E

CURVE 5 RELOCATED MO 64

24" GROUP B PIPE

24" GROUP B PIPE

EXIST. R/W
CURVE 6 EXIST. R/W

+74.09 29.90' RT
3-1 FES

4' F.B.D. W/ FURNISHING AND PLACING TYPE 3 ROCK DITCH LINER

EXIST. R/W

+46.98 36.00' RT

EXIST. R/W

CURVE 7 EXIST. R/W

+50.20 36.00' RT
EXIST. 24 IN. CULVERT (UIP)
4-1 FES

5

SECTION 30, T. 35 N., R. 17 W.

SIGN CHEVRON (R)
CHEVRON (R) SIGN
(R) SIGN

EXIST. FULL DEPTH PAVEMENT (R)

EXIST. EDGE OF PAVEMENT

EXIST. FULL DEPTH PAVEMENT (R)

CURVE 4 EXIST. MO 64

℄ EXIST. MO 64

CURVE 11 EXIST. MO 64

SIGN

SIGN

SIGN

CRW

MATCH LINE
STA. 6+96.79 ℄ EXISTING MO 64 = STA. 718+85.00 ℄ RELOCATED MO 64

LEGEND

UIP = USE IN PLACE
DND = DO NOT DISTURB
R = REMOVE
SRM = RIGHT OF WAY MARKER
OHW = ORDINARY HIGH WATER
FBD = FLAT BOTTOM DITCH

GENERAL NOTES:
1. SEE NOTES ON PLAN SHEET 1 OF 7.
2. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.

LEGEND

- ASPHALT RESURFACING AND WEDGING
- FULL DEPTH PAVEMENT REMOVAL LIMITS
- BRIDGE REMOVAL
- 6" TYPE 5 AGGREGATE BASE (GRAVEL SURFACE)
- ENVIRONMENTALLY SENSITIVE AREA
- WETLAND

LAYOUT	CRW	05/2025
DRAWN	SMC	05/2024
REVIEWED	DJK	05/2025

PLAN SHEETS
SHEET 5 OF 7

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	8

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
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LEGEND	
	ASPHALT RESURFACING AND WEDGING
	ASPHALT RESURFACING
	FULL DEPTH PAVEMENT REMOVAL LIMITS
	BRIDGE REMOVAL
	6" TYPE 5 AGGREGATE BASE (GRAVEL SURFACE)
	ENVIRONMENTALLY SENSITIVE AREA
	WETLAND

LEGEND	
UIP	= USE IN PLACE
DND	= DO NOT DISTURB
R	= REMOVE
SRM	= RIGHT OF WAY MARKER
OHW	= ORDINARY HIGH WATER
FBD	= FLAT BOTTOM DITCH

GENERAL NOTES:
1. SEE NOTES ON PLAN SHEET 1 OF 7.
2. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.

CURVE 7 EXISTING MO 64		CURVE 13 RELOCATED MO 64	
PI	12+50.94	PI	723+70.13
PC	8+86.29	PC	723+03.75
PT	15+71.99	PT	724+35.75
Δ	48°0'0.0" (RT)	Δ	15°07'32.87" (RT)
D	7°0'0.0"	D	11°27'33.0"
L	686.12' (CHORD)	L	132.00' (CHORD)
T	364.64'	T	66.39'
R	819.00'	R	500.00'

MATCH LINE
STA. 12+56.45 ℄ EXISTING MO 64 =
STA. 724+38.16 ℄ RELOCATED MO 64

(3) N/F BUHRMANS OF BENNETT SPRINGS LLC C/O HIDDEN VALLEY OUTFITTERS

S48°22'49"E
SIGN (UIP)
EXIST. PAVEMENT (UIP)
CURVE 7 EXIST. MO 64
EXIST. DITCH RT (UIP)
EXIST. R/W

(3) N/F BUHRMANS OF BENNETT SPRINGS LLC C/O HIDDEN VALLEY OUTFITTERS
(SEE R/W PLAN SHEET 4 OF 7)

SECTION 30, T. 35 N., R. 17 W.

HIDDEN VALLEY OUTFITTERS

MATCH LINE
STA. 6+96.79 ℄ EXISTING MO 64 = STA. 718+85.00 ℄ RELOCATED MO 64

T.C.E.
S.L.
NEW RIGHT OF WAY
36" GROUP B PIPE
5-2 MH
5-1 FES
+49.73 74.38' LT
+99.93 76.04' LT
+50.00 76.23' LT
+49.90 69.68' LT
+99.74 67.09' LT
+99.81 69.26' LT
4' F.B.D. W/ FURNISHING AND PLACING TYPE 2 ROCK DITCH LINER W/SEPARATION GEOTEXTILE
720
CRACK SEAL
COLD MILL 3" TO 6", WEDGE, & RESURFACE ASPHALT
COLD MILL 3", WEDGE, & RESURFACE ASPHALT
COLD MILL 1.75" & RESURFACE ASPHALT
721+16.51
722+00
722+42
END PROJECT
STA. 10+86.62 ℄ EXIST. MO 64
STA. 722+67.50 ℄ RELOCATED MO 64
CHEVRON (R&R)
+42.00 14.00' LT
+16.51 0.00' LT
+42.00 0.00' LT
MO 64
℄ RELOCATED MO 64
S63°30'22"E
FULL DEPTH SAWCUT (R)
ASPHALT RESURFACING AND WEDGING
ASPHALT RESURFACING
℄ EXIST. MO 64
CURVE 13 RELOCATED MO 64
CURVE 7 EXIST. MO 64
EXIST. 24 IN. CULVERT (UIP)
EXIST. R/W
+50.00 24.82' RT
4' F.B.D. W/ FURNISHING AND PLACING TYPE 3 ROCK DITCH LINER
EXIST. DITCH RT (UIP)
+93.76 23.62' RT
EXIST. FULL DEPTH PAVEMENT (R)
SEE NOTE 2
EXIST. 24 IN. CULVERT (UIP)

N/F STATE OF MISSOURI (MISSOURI STATE PARK BOARD)

BENNETT SPRINGS STATE PARK

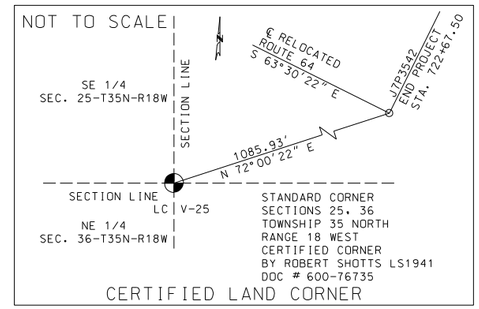
SECTION 30, T. 35 N., R. 17 W.

MATCH LINE
STA. 12+56.45 ℄ EXISTING MO 64 =
STA. 724+38.16 ℄ RELOCATED MO 64

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SCALE
0 20 40 60

NOT TO SCALE



STANDARD CORNER
SECTIONS 25, 36
TOWNSHIP 35 NORTH
RANGE 18 WEST
CERTIFIED CORNER
BY ROBERT SHOTTS LS1941
DOC # 600-76735

CERTIFIED LAND CORNER

PLAN SHEETS
SHEET 6 OF 7

LAYOUT	CCRW	05/2025
DRAWN	SMC	05/2024
REVIEWED	DJK	05/2025

DENNIS KOSCIELSKI
NUMBER PE-2005000712
STATE OF MISSOURI
PROFESSIONAL ENGINEER

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DATE PREPARED: 6/25/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	9

COUNTY: DALLAS/LACLEDE
JOB NO.: J7P3542
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9346

DESCRIPTION	DATE

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

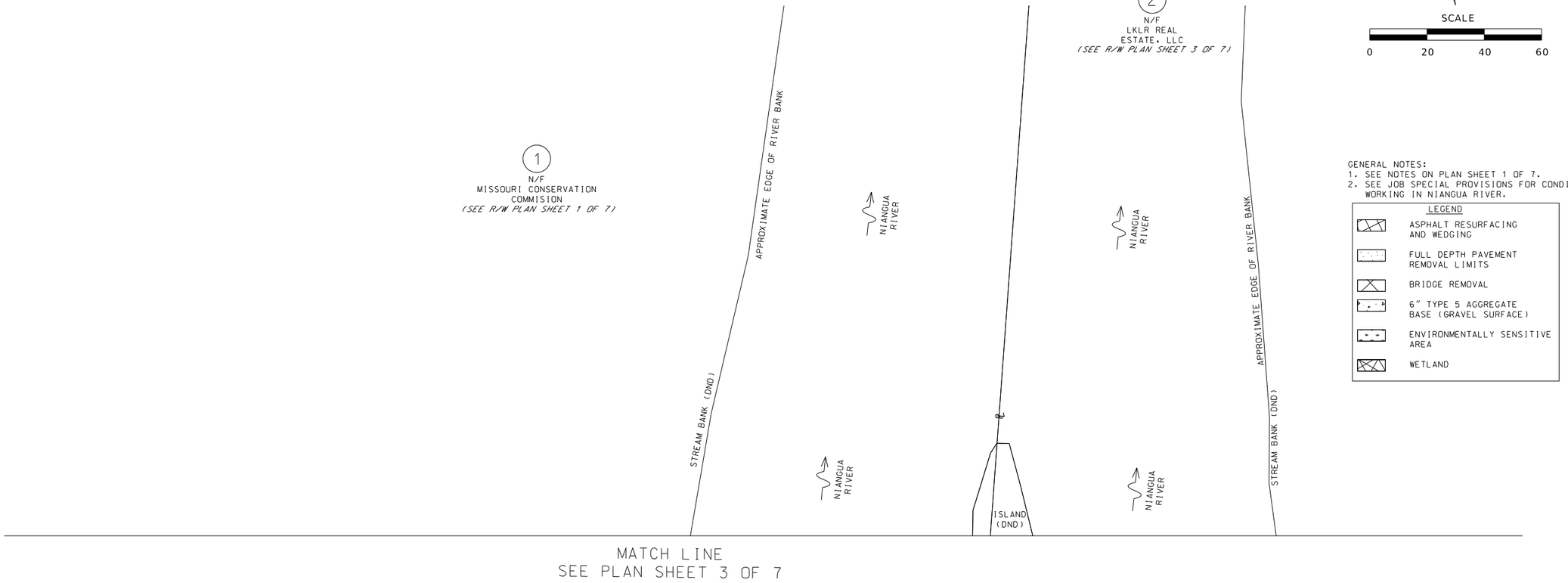
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105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

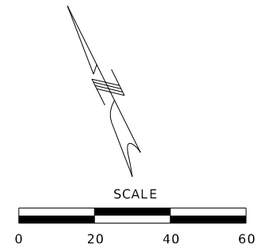
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GENERAL NOTES:
1. SEE NOTES ON PLAN SHEET 1 OF 7.
2. SEE JOB SPECIAL PROVISIONS FOR CONDITIONS WORKING IN NIANGUA RIVER.

LEGEND

- ASPHALT RESURFACING AND WEDGING
- FULL DEPTH PAVEMENT REMOVAL LIMITS
- BRIDGE REMOVAL
- 6" TYPE 5 AGGREGATE BASE (GRAVEL SURFACE)
- ENVIRONMENTALLY SENSITIVE AREA
- WETLAND

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
6/10/2026	
ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	10

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

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JEFFERSON CITY, MO 65102
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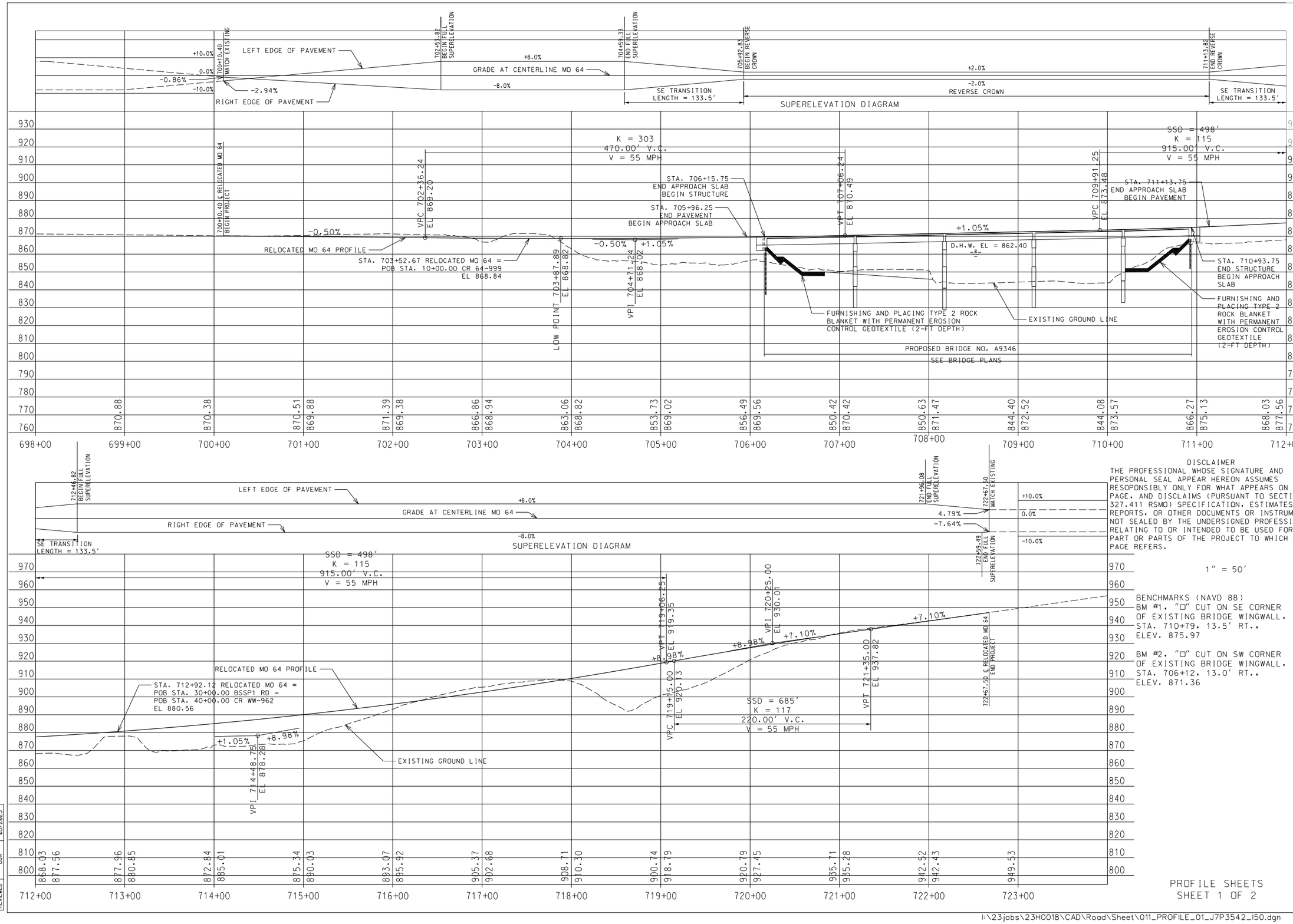
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LAYOUT	CRW	05/2025
DRAWN	SMC	05/2024
REVIEWED	DJK	05/2025

PLAN SHEETS
SHEET 7 OF 7

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1" = 50'

BENCHMARKS (NAVD 88)
BM #1, "□" CUT ON SE CORNER OF EXISTING BRIDGE WINGWALL, STA. 710+79, 13.5' RT., ELEV. 875.97

BM #2, "□" CUT ON SW CORNER OF EXISTING BRIDGE WINGWALL, STA. 706+12, 13.0' RT., ELEV. 871.36

PROFILE SHEETS
SHEET 1 OF 2

	DATE	DESCRIPTION
LAYOUT	05/2025	
DRAWN	05/2023	
REVIEWED	05/2025	
	N.L.S	
	N.L.S	
	D.J.K	

STATE OF MISSOURI
DENNIS J. KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

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DATE PREPARED	
6/10/2026	
ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	11
COUNTY	
DALLAS/LACLEDE	
JOB NO.	
J7P3542	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
A9346	

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JEFFERSON CITY, MO 65102
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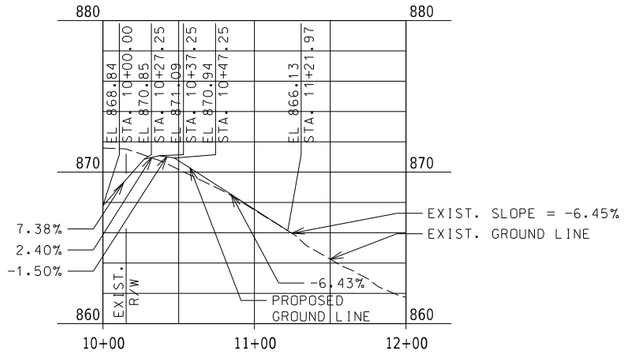
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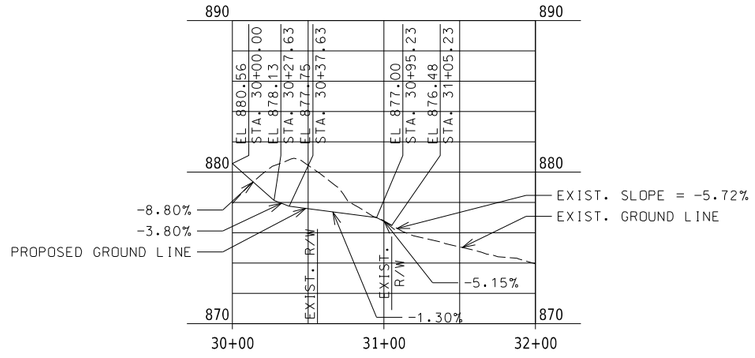
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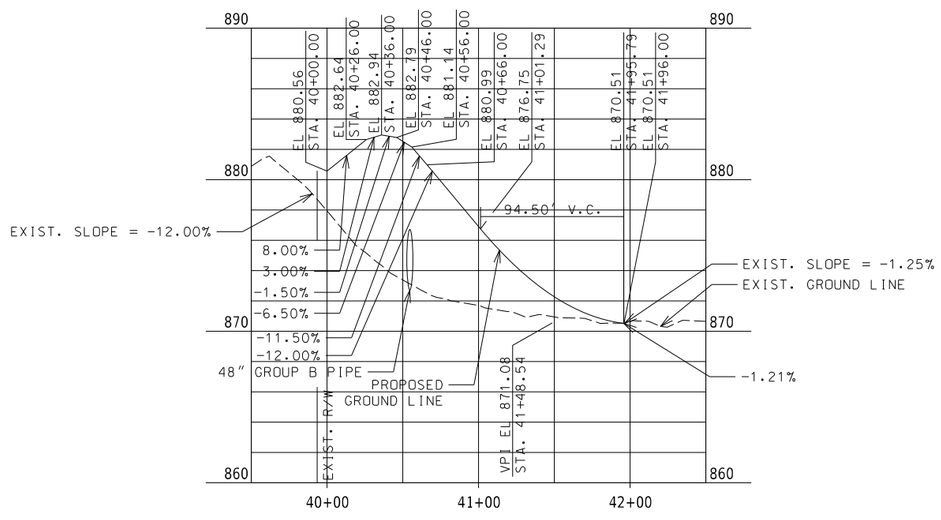
PROPOSED SIDE ROAD PROFILE
CR 64-999 - STA. 703+52.67 ℄ RELOCATED MO 64
NOT TO SCALE



PROPOSED SIDE ROAD PROFILE
BSSP1 ROAD - STA. 712+92.12 ℄ RELOCATED MO 64
NOT TO SCALE



PROPOSED SIDE ROAD PROFILE
CR WW-962 - STA.712+92.12 ℄ RELOCATED MO 64
NOT TO SCALE



PROFILE SHEETS
SHEET 2 OF 2

LAYOUT	CRW	05/2023
DRAWN	CRW	05/2023
REVIEWED	DJK	05/2023

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

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DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	12

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

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RIGHT OF WAY LIMITS FOR THIS PROJECT EXTEND FROM ℄ EXISTING MO 64 STA. 701+42.25 TO STA. 703+60.16. A DISTANCE OF 0.041 MILES AND FROM ℄ EXISTING MO 64 STA. 703+63.02 TO STA. 10+86.40. A DISTANCE OF 0.356 MILES.

GENERAL NOTES:

1. ANY WORK INDICATED ON THE PLANS THAT EXTENDS BEYOND THE PROJECT LIMITS IS CONSIDERED INCIDENTAL TO AND A PART OF THE CONSTRUCTION OF THIS PROJECT (NO DIRECT PAY).
2. THE APPROXIMATE LOCATION OF PROPERTY LINES 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.
3. THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO BE EXISTING, 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. SEE THE JOB SPECIAL PROVISIONS FOR A LIST OF UTILITY COMPANIES ON OR WITHIN THE VICINITY OF THE PROJECT LIMITS.
4. ALL BEARINGS BASED ON MISSOURI COORDINATE SYSTEM OF 1983, CENTRAL ZONE.
5. TWO R5-3 "NO MOTOR VEHICLES" SIGNS SHALL BE PLACED ON BOTH SIDES OF THE BRIDGE ADJACENT TO THE SHARED USE PATH. SIGNAGE SHALL BE PLACED AT A HEIGHT OF 8' ON U-CHANNEL POST. THE SIGNS SHALL BE 24"X24".
6. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.

SCALE

0 20 40 60

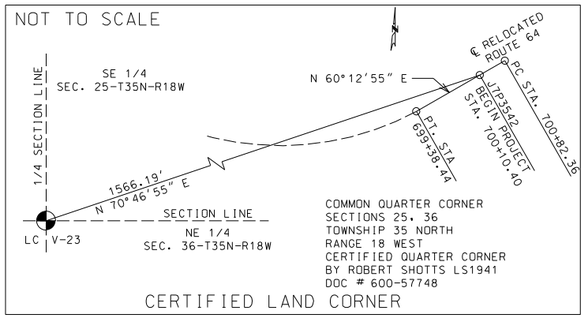
LEGEND

- ASPHALT RESURFACING AND WEDGING
- FULL DEPTH PAVEMENT REMOVAL LIMITS
- BRIDGE REMOVAL
- 6" TYPE 5 AGGREGATE BASE (GRAVEL SURFACE)
- ENVIRONMENTALLY SENSITIVE AREA
- WETLAND
- 8" TYPE 1 AGGREGATE BASE (STEEP SLOPE)

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NOT TO SCALE



COMMON QUARTER CORNER
SECTIONS 25, 36
TOWNSHIP 35 NORTH
RANGE 18 WEST
CERTIFIED QUARTER CORNER
BY ROBERT SHOTTS LS1941
DOC # 600-57748

CERTIFIED LAND CORNER

CURVE 1 EXISTING MO 64
PI 702+27.61
PC 700+82.36
PT 703+66.53
Δ 28°24'59.2" (RT)
D 9°59'59.1"
L 284.53' (CHORD)
T 145.26'
R 573.70'

CURVE 2 RELOCATED MO 64
PI 703+21.76
PC 701+31.86
PT 705+03.83
Δ 28°25'0.0" (RT)
D 7°38'22.0"
L 371.97' (ARC)
T 189.90'
R 750.00'
SE 8.0%
V 55 MPH

CURVE 8 EXIST. R/W
Δ 28°25'0.0" (RT)
D 9°15'38.0"
L 306.85' (ARC)
T 156.65'
R 618.70'

CURVE 12 EXISTING MO 64
PI 696+61.50
PC 696+33.97
PT 699+38.44
Δ 54°24'0.0" (LT)
D 8°59'58.7"
L 605.09' (CHORD)
T 327.53'
R 637.30'

(1)
N/F
MISSOURI CONSERVATION COMMISSION
EXISTING = 174.8 ACRES
NEW R/W = 1.24 ACRES
TEMP. CONSTRUCTION ESMT. = 0.46 ACRES
REMAINDER = 173.56 ACRES

SECTION 25, T. 35 N., R. 18 W.

MATCH LINE STA. 702+24.83 EXISTING MO 64 = STA. 702+25.00 RELOCATED MO 64

EXIST. R/W
NEW RIGHT OF WAY
S.L.
CURVE 8 EXIST. R/W
+82.36 40.00'
+82.36 45.00'
+43.00 42.05'
PC STA. 700+82.36 ℄ EXIST. MO 64
PC STA. 701+31.86 ℄ RELOCATED MO 64
(R&RELOC)
SIGN (R)
FULL DEPTH SAWCUT (R)
CURVE 2 RELOCATED MO 64
CURVE 1 EXISTING MO 64
EXIST. FULL DEPTH PAVEMENT (R)
℄ MO 64
MO 64
POB STA. 700+10.40
ASPHALT RESURFACING AND WEDGING
113°10'10"
10'X10' RCB (UIP)
+38.44 40.00'
PT STA. 699+38.44 ℄ EXIST. MO 64
N60°12'55"E
BEGIN PROJECT
STA. 700+10.40 ℄ EXIST. MO 64 = STA. 700+10.40 ℄ RELOCATED MO 64
℄ EXIST. MO 64
CURVE 12 EXISTING MO 64
SIGN (DND)
(DND)
(R&RELOC)
+82.36 40.00'
+81.85 45.00'
ENVIRONMENTALLY SENSITIVE AREA (DND)
(SEE JSPS'S FOR INFORMATION)
EX. 15 IN. CULVERT (DND)
CRM
+38.44 40.00'
OE OTV
UTILITY POLE (DND)
EXIST. R/W
OTW
FLAG (DND)
TAC
OVERHEAD ELECTRIC (DND)
PAC (DND)
DRIVEWAY 1(DND)
SKEW= 113°10'10"
BEARING= N 06°36'54 W
WIDTH= 18'-0"
EXISTING GRADE= -0.86%
EXIST. FIELD ENTRANCE (DND) DRIVEWAY 1
700
OVERHEAD ELECTRIC (DND)
OE
SAND SPRING RESORT
PRIVATE GRAVEL ROAD (DND)
SECTION 25, T. 35 N., R. 18 W.
N/F
GLENDENNING, JACK D. & VICKY LYNN
NO TAKING

R/W PLAN SHEETS
SHEET 1 OF 6

LAYOUT	CRW	05/2024
DRAWN	SMC	05/2024
REVIEWED	DJK	05/2024

DENNIS J. KOSCIELSKI
NUMBER PE-2005000712
STATE OF MISSOURI
PROFESSIONAL ENGINEER

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DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	13

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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BENNETT SPRING
PUBLIC FISHING ACCESS
MO CONSERVATION
DEPARTMENT

CURVE 1 & 2
EXISTING &
RELOCATED MO 64
(SEE PREVIOUS SHEET
FOR CURVE DATA)

CURVE 3 CR 64-999
PI 11+23.94
PC 10+62.28
PT 11+85.33
Δ 9°24'2.3" (RT)
D 7°38'22.0"
L 123.05' (ARC)
T 61.67'
R 750.00'

CURVE 8 EXIST. R/W
(SEE PREVIOUS SHEET
FOR CURVE DATA)

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SECTION 25, T. 35 N., R. 18 W.

SCALE
0 20 40 60

PROPOSED BRIDGE A9346
STA. 706+15.75 TO STA. 710+94.25, 0.00°
℄ RELOCATED MO 64
OVER NIANGUA RIVER
478'-6" LENGTH
PRESTRESSED CONCRETE
NU-GIRDERS
32'-0" INSIDE DECK WIDTH
DA= 441 SQ. MI.
Q50= 48,300 CFS

EXIST. 8" WW EFFLUENT PIPE (DND)
6" SANITARY SEWER FORCE MAIN. (DND)
N81°42'14"W EXIST. DRIVEWAY (DND)
1 N/F MISSOURI CONSERVATION COMMISSION (SEE R/W PLAN SHEET 1)
CR 64-999
EXIST. R/W
PT STA. 11+85.33
N18°40'42"E
+12.98 219.47'
+47.25 211.69'
+33.64 177.12'
+23.57 150.00'
+20.47 142.00'
+75.00 121.00'
+75.00 180.00'
+91.17 165.95'
+92.49 169.00'
T.C.E.
S.L.
FM
S
+45.00 130.00'
+74.36 124.45'
+20.00 115.00'
+66.11 102.00'
+06.27 120.02'
+04.13 104.33'
+00.58 94.00'
+92.25 70.81'
NEW RIGHT OF WAY
POB STA. 20+00.00 EXIST. DRIVEWAY STA. 11+53.62 ℄ CR 64-999 =
CURVE 2 CR 64-999
PC STA. 10+62.28
N09°16'40"E
℄ CR 64-999
+84.55 49.85'
+43.42 46.31'
+77.73 31.27'
+78.46 15.88'
+77.64 10.95'
+73.95 111.58'
+36.65 17.75'
GRAVEL DWY 2
DWY(R)
68°00'03"
DRIVEWAY 2
SKEW= 68°00'03"
BEARING= N 09°16'40" E
WIDTH= 34'-0"
EXISTING GRADE= 8%
10
705
ENVIRONMENTALLY SENSITIVE AREA (DND) (SEE JSPS'S FOR INFORMATION)
TYPE 1-A SLOPE=4.5%
ADA RAMP
BRIDGE APPROACH SLAB (SEE STRUCTURAL PLANS)
CONTRACTOR SHALL TRANSITION SHARED USE PATH FROM -1.5% TO +1.5%
10' SHARED USE PATH
6" SANITARY SEWER FORCE MAIN.
1 N/F MISSOURI CONSERVATION COMMISSION (SEE PREVIOUS SHEET FOR R/W INFORMATION)
EXIST. 8" WW EFFLUENT PIPE (DND)
FURNISHING AND PLACING TYPE 2 ROCK BLANKET W/ PERMANENT EROSION CONTROL GEOTEXTILE (2-FT DEPTH)
NEW BRIDGE A9346
℄ RELOCATED MO 64
EXIST. R/W
N88°37'55"E
CURVE 2 RELOCATED MO 64
MO 64
PT STA. 705+03.83
12" GROUP B PIPE
6-1 DI
6-2 DI
6-3 FES
STA. 703+52.67 MO 64 = POB STA. 10+00.00 CR 64-999
CONSERVATION DEPARTMENT SIGN (R&RELOC)
SIGN (R) (R&RELOC)
℄ EXISTING MO 64
CURVE 1 EXISTING MO 64
PT STA. 703+66.53
EXIST. FULL DEPTH PAVEMENT (R)
FULL DEPTH SAWCUT (R)
ASPHALT RESURFACING AND WEDGING
EXIST. BRIDGE J0782 (R) (SEE BRIDGE PLANS)
BM #2
LINEAR GRADING CLASS I AND TYPE 1 ROCK DITCH LINER TO RIVER BANK (SEE NEXT SHEET)
ENVIRONMENTALLY SENSITIVE AREA - STREAM (DND) (SEE JSP'S FOR INFORMATION)
(DND) CRM +60.82 77.61'
(DND) CRM +59.76 82.52'
STA. 702+24.83 EXISTING MO 64 = STA. 702+25.00 RELOCATED MO 64 ℄
MATCH LINE
STA. 707+37.35 ℄ EXISTING MO 64 = STA. 707+50.00 ℄ RELOCATED MO 64
MATCH LINE

GENERAL NOTES:
1. SEE NOTES ON PLAN SHEET 1.
2. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.

LEGEND
- ASPHALT RESURFACING AND WEDGING
- FULL DEPTH PAVEMENT REMOVAL LIMITS
- BRIDGE REMOVAL
- 6" TYPE 5 AGGREGATE BASE (GRAVEL SURFACE)
- ENVIRONMENTALLY SENSITIVE AREA
- WETLAND

N/F
GLENDENNING, JACK D.
& VICKY LYNN
NO TAKING

SAND SPRING RESORT

BENCHMARK (NAVD 88)
BM #2, "□" CUT ON SW CORNER OF EXISTING BRIDGE WINGWALL, STA. 706+12. 13.0' RT., ℄ RELOCATED MO 64, ELEV. 871.36

REMOVE EXISTING BRIDGE J0782
STA. 706+21.10 TO STA. 710+87.52
℄ RELOCATED MO 64
(101'-9"/100'-0"/100'-0"/100'-0"/76'-9")

SECTION 25, T. 35 N., R. 18 W.

R/W PLAN SHEETS
SHEET 2 OF 6

LAYOUT	CRW	05/2024
DRAWN	SMC	05/2024
REVIEWED	DJK	05/2024

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DENNIS J KOSCIELSKI
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PROFESSIONAL ENGINEER

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ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	14

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

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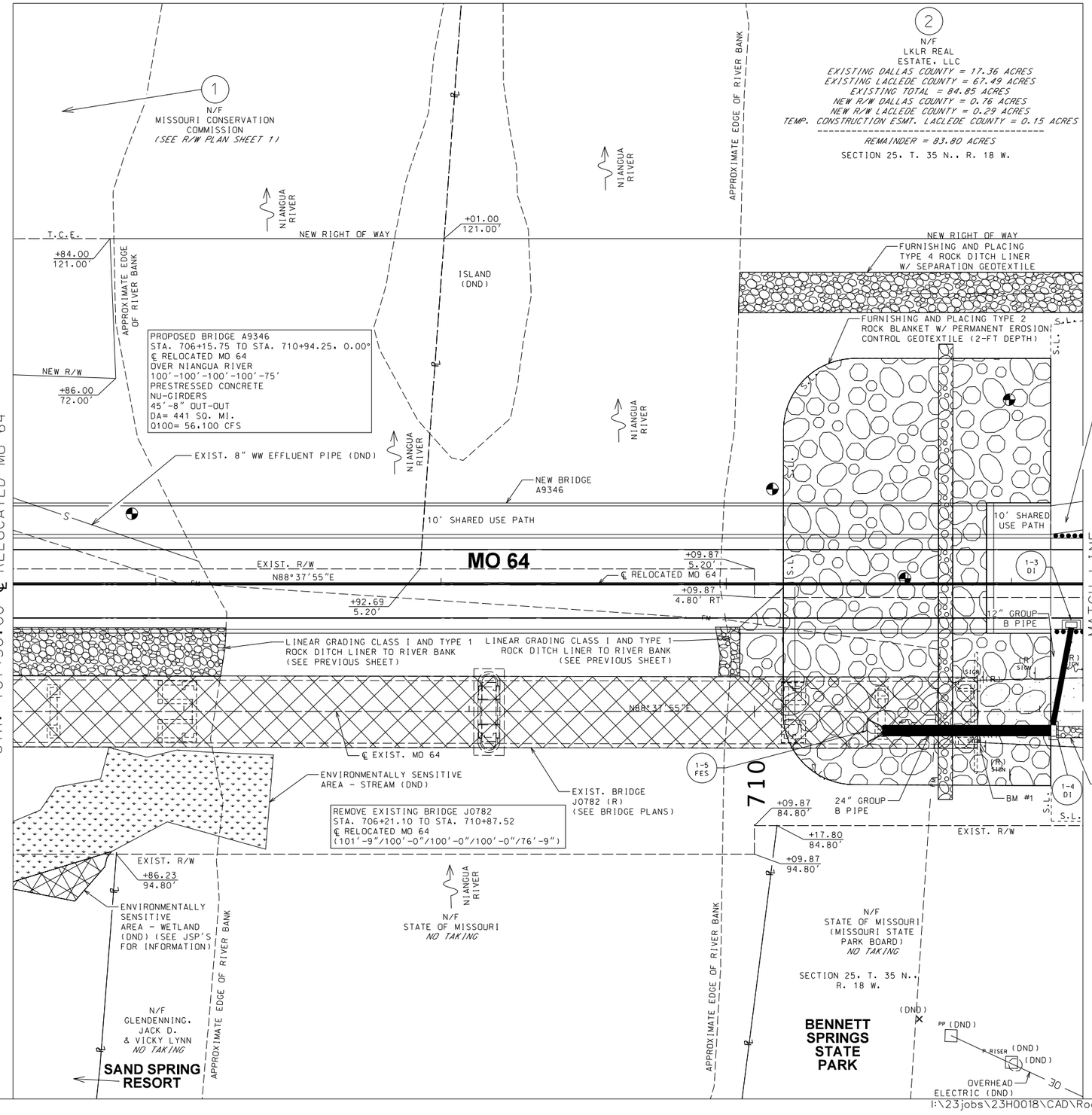
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GENERAL NOTES:
1. SEE NOTES ON PLAN SHEET 1.
2. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.

LEGEND
- ASPHALT RESURFACING AND WEDGING
- FULL DEPTH PAVEMENT REMOVAL LIMITS
- BRIDGE REMOVAL
- 6" TYPE 5 AGGREGATE BASE (GRAVEL SURFACE)
- ENVIRONMENTALLY SENSITIVE AREA
- WETLAND

LAYOUT	CRW	05/2024
DRAWN	SMC	05/2024
REVIEWED	DJK	05/2024

BENCHMARK (NAVD 88)
BM #1, "□" CUT ON SE CORNER OF EXISTING BRIDGE WINGWALL, STA. 710+79, 13.5' RT., ℄ RELOCATED MO 64.
ELEV. 875.97

R/W PLAN SHEETS
SHEET 3 OF 6

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
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DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	15

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

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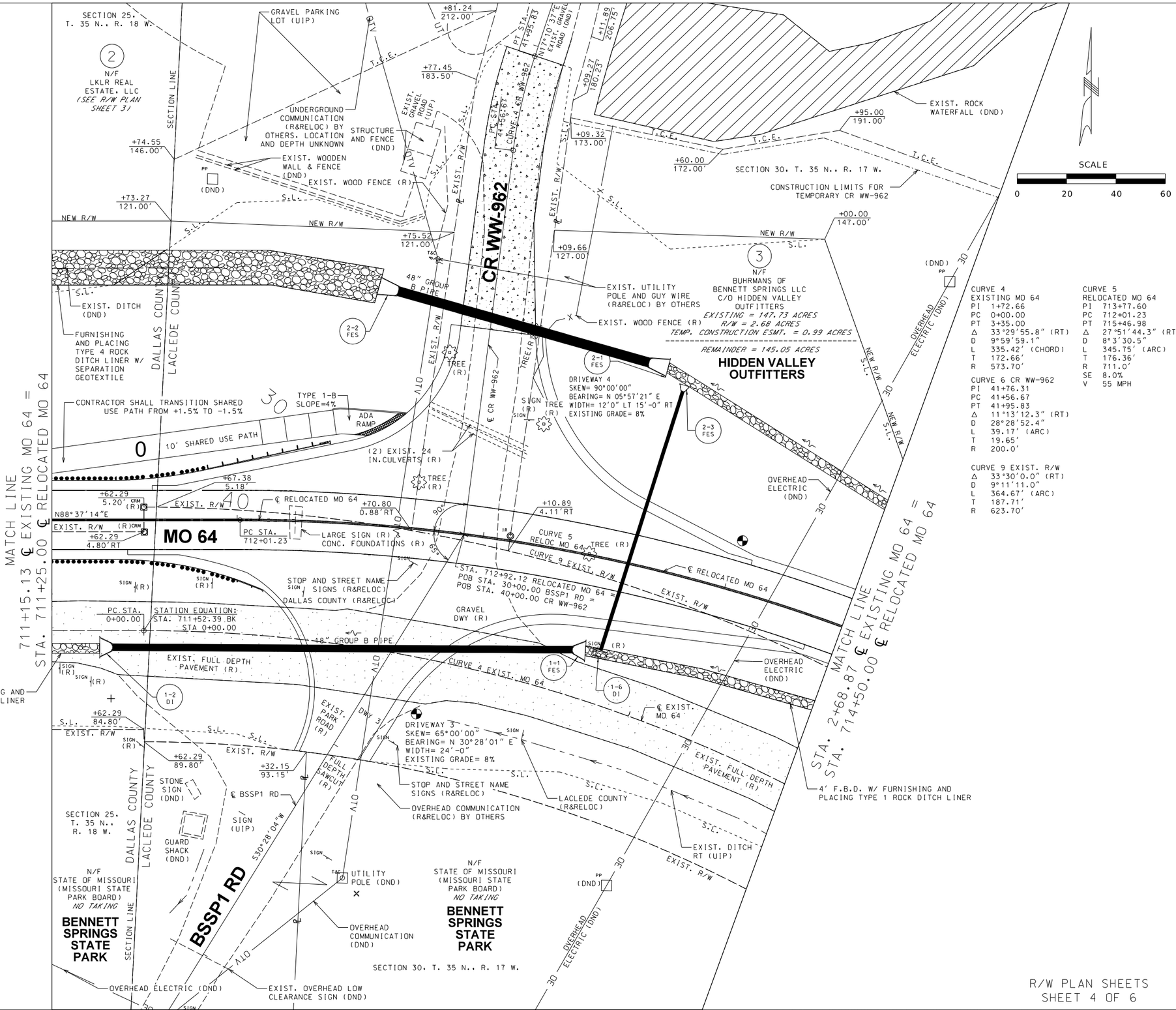
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GENERAL NOTES:
1. SEE NOTES ON PLAN SHEET 1.
2. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.

LEGEND
- ASPHALT RESURFACING AND WEDGING
- FULL DEPTH PAVEMENT REMOVAL LIMITS
- BRIDGE REMOVAL
- 6" TYPE 5 AGGREGATE BASE (GRAVEL SURFACE)
- ENVIRONMENTALLY SENSITIVE AREA
- WETLAND

CURVE 4
EXISTING MO 64
PI 1+72.66
PC 0+00.00
PT 3+35.00
Δ 33°29'55.8" (RT)
D 9°59'59.1"
L 335.42' (CHORD)
T 172.66'
R 573.70'

CURVE 6 CR WW-962
PI 41+76.31
PC 41+56.67
PT 41+95.83
Δ 11°13'12.3" (RT)
D 28°28'52.4"
L 39.17' (ARC)
T 19.65'
R 200.0'

CURVE 9 EXIST. R/W
Δ 33°30'0.0" (RT)
D 9°11'11.0"
L 364.67' (ARC)
T 187.71'
R 623.70'

CURVE 5
RELOCATED MO 64
PI 713+77.60
PC 712+01.23
PT 715+46.98
Δ 27°51'44.3" (RT)
D 8°3'30.5"
L 345.75' (ARC)
T 176.36'
R 711.0'
SE 8.0%
V 55 MPH

LAYOUT	CRW	05/2024
DRAWN	SMC	05/2024
REVIEWED	DJK	05/2024

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	16

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

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

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SECTION 30, T. 35 N., R. 17 W.

SCALE
0 20 40 60

OVERHEAD ELECTRIC (DND)
30
30

+00.00
204.00'
T.C.E.
CONSTRUCTION LIMITS FOR TEMPORARY CR WW-962
+50.00
168.00'
T.C.E.
+85.00
213.00'
T.C.E.
NEW R/W
S.L.
+80.00
206.00'
+50.00
201.00'
+50.00
212.00'
T.C.E.
NEW R/W
S.L.

UTILITY POLE
(DND)

S.L.
NEW R/W
S.L.
715
S.L.
NEW R/W
+50.00
72.00'

3
N/F
BUHRMANS OF
BENNETT SPRINGS LLC
C/O HIDDEN VALLEY
OUTFITTERS
(SEE R/W PLAN SHEET 4)

HIDDEN VALLEY OUTFITTERS

CURVE 4 & 5
EXISTING & RELOCATED
MO 64
(SEE PREVIOUS SHEET
FOR CURVE DATA)

CURVE 9 EXIST. R/W
(SEE PREVIOUS SHEET
FOR CURVE DATA)

CURVE 10 EXIST. R/W
Δ 19°30'0.0" (LT)
D 9°50'22.0"
L 198.18' (ARC)
T 100.06'
R 582.30'

CURVE 11 EXISTING MO 64
PI 5+74.88
PC 4+65.37
PT 6+82.04
Δ 19°30'0.0" (LT)
D 8°59'58.7"
L 216.90' (CHORD)
T 109.51'
R 637.30'

5-3 FES

FURNISHING AND PLACING TYPE 2 ROCK BLANKET W/ PERMANENT EROSION CONTROL GEOTEXTILE (2-FT DEPTH)
4' F.B.D.
FURNISHING AND PLACING TYPE 2 ROCK BLANKET W/ PERMANENT EROSION CONTROL GEOTEXTILE (2-FT DEPTH)
4-2 FES
3-2 FES

STA. 2+68.87 ℄ EXISTING MO 64 =
STA. 714+50.00 ℄ RELOCATED MO 64
MATCH LINE

PT STA.
715+46.98
CURVE 5 RELOCATED MO 64
MO 64
℄ RELOCATED MO 64
S63°30'22"E
24" GROUP B PIPE
24" GROUP B PIPE

EXIST. R/W
CURVE 9 EXIST. R/W
+29.92
26.55'RT
3-1 FES
+60.79
34.58'RT
4' F.B.D. W/ FURNISHING AND PLACING TYPE 3 ROCK DITCH LINER
EXIST. R/W
+57.50
20.43'RT
4-1 FES
EXIST. R/W
CURVE 7 EXIST. R/W
+60.29
39.55'RT
4' F.B.D. W/ FURNISHING AND PLACING TYPE 1 ROCK DITCH LINER TO STA. 716+00.00 ℄ RELOCATED MO 64.
FURNISHING AND PLACING TYPE 3 ROCK DITCH LINER PAST STA. 716+00.00 ℄ RELOCATED MO 64.

SIGN
CHEVRON (R)
CHEVRON (R) SIGN
(R) SIGN
5
EXIST. EDGE OF PAVEMENT
EXIST. 24 IN. CULVERT (UIP)
PT STA.
3+35.00
EXIST. FULL DEPTH PAVEMENT (R)
CURVE 4 EXISTING MO 64
℄ EXIST. MO 64
S57°52'10"E
PC STA.
4+65.37
CURVE 11 EXIST. MO 64
EXIST. FULL DEPTH PAVEMENT (R)
PT STA.
6+82.04
SIGN
SIGN
SIGN
CRW
CRW

STA. 6+96.79 ℄ EXISTING MO 64 =
STA. 718+85.00 ℄ RELOCATED MO 64
MATCH LINE

SECTION 30, T. 35 N., R. 17 W.

GENERAL NOTES:
1. SEE NOTES ON PLAN SHEET 1.
2. SEE SHEET NUMBER 14 FOR SLOPE LIMITS.
3. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.

LEGEND
- ASPHALT RESURFACING AND WEDGING
- FULL DEPTH PAVEMENT REMOVAL LIMITS
- BRIDGE REMOVAL
- 6" TYPE 5 AGGREGATE BASE (GRAVEL SURFACE)
- ENVIRONMENTALLY SENSITIVE AREA
- WETLAND

LAYOUT	CRW	05/2024
DRAWN	SMC	05/2024
REVIEWED	DJK	05/2024

R/W PLAN SHEETS
SHEET 5 OF 6

I:\23jobs\23H0018\CAD\Road\Sheet\017_ROW_05_J7P3542_I20.dgn

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	17

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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

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

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LEGEND

- ASPHALT RESURFACING AND WEDGING
- FULL DEPTH PAVEMENT REMOVAL LIMITS
- BRIDGE REMOVAL
- 6" TYPE 5 AGGREGATE BASE (GRAVEL SURFACE)
- ENVIRONMENTALLY SENSITIVE AREA
- WETLAND

GENERAL NOTES:
1. SEE NOTES ON PLAN SHEET 1.
2. SEE SHEET NUMBER 14 FOR SLOPE LIMITS.
3. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.

CURVE 7 EXISTING MO 64		CURVE 13 RELOCATED MO 64	
PI	12+50.94	PI	723+70.13
PC	8+86.29	PC	723+03.75
PT	15+71.99	PT	724+35.75
Δ	48°0'0.0" (RT)	Δ	15°07'32.87" (RT)
D	7°0'0.0"	D	11°27'33.0"
L	686.12' (CHORD)	L	132.00' (CHORD)
T	364.64'	T	66.39'
R	819.00'	R	500.00'

STA. 12+56.45 ℄ EXISTING MO 64 = STA. 724+38.16 ℄ RELOCATED MO 64

MATCH LINE

POE 724+81.71 ℄ RELOCATED MO64, 0' RT
POC 13+00.00 ℄ EXISTING MO 64, 0' RT

S48°22'49"E

EXIST. PAVEMENT (UIP)

CURVE 7 EXIST. MO 64

EXIST. DITCH RT (UIP)

EXIST. R/W

SIGN (UIP)

3 SECTION 30, T. 35 N., R. 17 W.

N/F
BUHRMANS OF
BENNETT SPRINGS LLC
C/O HIDDEN VALLEY
OUTFITTERS
(SEE R/W PLAN SHEET 4)

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SCALE
0 20 40 60

NOT TO SCALE

SE 1/4 SEC. 25-T35N-R18W
SECTION LINE
NE 1/4 SEC. 36-T35N-R18W
SECTION LINE
LC V-25
℄ RELOCATED ROUTE 64
S63°30'22" E
1085.93'
N 72°00'22" E
J7P3542 END PROJECT STA. 722+67.50

STANDARD CORNER
SECTIONS 25, 36
TOWNSHIP 35 NORTH
RANGE 18 WEST
CERTIFIED CORNER
BY ROBERT SHOTTS LS1941
DOC # 600-76735

CERTIFIED LAND CORNER

3 SECTION 30, T. 35 N., R. 17 W.

N/F
BUHRMANS OF
BENNETT SPRINGS LLC
C/O HIDDEN VALLEY
OUTFITTERS
(SEE R/W PLAN SHEET 4)

HIDDEN VALLEY OUTFITTERS

STA. 6+96.79 ℄ EXISTING MO 64 = STA. 718+85.00 ℄ RELOCATED MO 64

MATCH LINE

+97.00 / 107.00'
+00.00 / 87.00'
NEW RIGHT OF WAY
T.C.E.
S.L.

+50.00 / 136.00'
+67.00 / 133.00'
+50.00 / 95.00'
+56.00 / 83.93'
+67.00 / 83.97'

5-2 MH
5-1 FES
36" GROUP B PIPE
EXIST. R/W

+48.61 / 57.64'
+55.75 / 28.50'
4' F.B.D. W/ FURNISHING AND PLACING TYPE 1 ROCK DITCH LINER TO SLOPE LIMITS

END PROJECT
STA. 10+86.62 ℄ EXIST. MO 64
STA. 722+67.50 ℄ RELOCATED MO 64

CHEVRON (R&R)
SIGN

MO 64

℄ RELOCATED MO 64
S63°30'22"E
FULL DEPTH SAWCUT (R)
ASPHALT RESURFACING AND WEDGING

PC STA. 8+86.29
PC STA. 723+03.75
PT STA. 724+35.75
CURVE 13 RELOCATED MO 64
CURVE 7 EXIST. MO 64

EXIST. 24 IN. CULVERT (UIP)

4' F.B.D. W/ FURNISHING AND PLACING TYPE 3 ROCK DITCH LINER

℄ EXIST. MO 64
S77°22'10"E
EXIST. FULL DEPTH PAVEMENT (R)
EXIST. DITCH RT (UIP)
+78.57 / 63.72'
SEE NOTE 2
EXIST. 24 LN. CULVERT (UIP)

STA. 12+56.45 ℄ EXISTING MO 64 = STA. 724+38.16 ℄ RELOCATED MO 64

MATCH LINE

N/F
STATE OF MISSOURI
(MISSOURI STATE PARK BOARD)
NO TAKING

BENNETT SPRINGS STATE PARK

SECTION 30, T. 35 N., R. 17 W.

10

R/W PLAN SHEETS
SHEET 6 OF 6

LAYOUT	CCRW	05/2024
DRAWN	SMC	05/2024
REVIEWED	DJK	05/2024

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	18

COUNTY: DALLAS/LACLEDE
JOB NO.: J7P3542
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION	DATE

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
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Coordinate Point Listing
Missouri Coordinate System of 1983 - CENTRAL ZONE

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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	MODIFIED STATE PLANE
HORIZONTAL DATUM	NAD83
VERTICAL DATUM	NAVD88
GEOID MODEL	GEOID12A
ELEVATIONS DETERMINED BY	CONVENTIONAL
PROJECT PROJECTION FACTOR	1.0000900
REFERENCE CONTROL INFORMATION	
COORDINATE SYSTEM	MODIFIED STATE PLANE
CONTROL STATION	SEE COORDINATE POINT LISTING TABLE
DESIGNATION	MODOT BUFFALO CORS ARP
CORS_ID	MOBU
PID	DM4668
LATITUDE	37° 39' 35.05468"
LONGITUDE	093° 06' 10.47465"
NORTHING (M)	202,838.895
EASTING (M)	446,804.519
ZONE	2402 (MO-CENTRAL)
PROJECT AVERAGE GRID FACTOR	0.99991
GEODETIC CONTROL GRID FACTOR	0.99992007

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 #
N 292,222.724 X 0.999935104 = N 292,203.760
E 165,758.736 X 0.999935104 = E 165,747.979

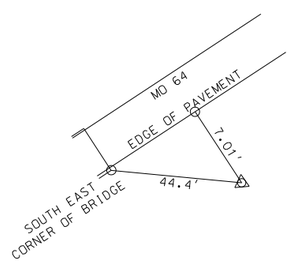
LINEAR UNIT CONVERSION
1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT LISTING

PLAN SHEET NO.	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND) NORTHING (USFT)	EASTING (USFT)	ELEVATION (USFT)	DESCRIPTION	ORD POINT ID
PROJECT CONTROL POINTS								
3 OF 7	710+79	EXIST. ROUTE 64	13.50' RT.	693,645.5300	1,536,487.0408	875.97	SQUARE CUT ON SE CORNER OF EXISTING BRIDGE WINGWALL	BM 1
2 OF 7	706+12	EXIST. ROUTE 64	13.00' RT.	693,634.5352	1,536,020.1703	871.36	SQUARE CUT ON SW CORNER OF EXISTING BRIDGE WINGWALL	BM 2
4 OF 7	711+31.85	RELOCATED ROUTE 64	64.71' RT.	693,640.1166	1,536,531.1667	875.26	5/8" REBAR W/PINK PLASTIC CAP EAST OF BRIDGE AND SOUTH OF RTE 64	CP 1
2 OF 7	703+23.50	RELOCATED ROUTE 64	5.95' RT.	693,655.5557	1,535,726.5629	871.39	5/8" REBAR W/PINK PLASTIC CAP WEST OF BRIDGE AT WEST SIDE ENTRANCE TO CONSERVATION ROAD	CP 2
ALIGNMENTS								
1 OF 7	701+31.861	RELOCATED ROUTE 64	0.00' RT.	693,590.932	1,535,547.293	N/A	RELOCATED RTE. 64 PC - CURVE 2	N/A
2 OF 7	703+21.76	RELOCATED ROUTE 64	0.00' RT	693,685.261	1,535,712.103	N/A	RELOCATED RTE. 64 PI - CURVE 2	N/A
2 OF 7	705+03.83	RELOCATED ROUTE 64	0.00' RT.	693,689.794	1,535,901.945	N/A	RELOCATED RTE. 64 PT - CURVE 2	N/A
2 OF 7	10+62.28	CR 64-999	0.00' RT.	693,732.496	1,535,762.248	N/A	CR 64-999 PC - CURVE 3	N/A
2 OF 7	11+23.94	CR 64-999	0.00' RT.	693,793.355	1,535,772.189	N/A	CR 64-999 PI - CURVE 3	N/A
2 OF 7	11+85.33	CR 64-999	0.00' RT.	693,851.772	1,535,791.938	N/A	CR 64-999 PT - CURVE 3	N/A
4 OF 7	712+01.23	RELOCATED ROUTE 64	0.00' RT.	693,706.443	1,536,599.145	N/A	RELOCATED RTE. 64 PC - CURVE 5	N/A
4 OF 7	713+77.60	RELOCATED ROUTE 64	0.00' RT.	693,710.653	1,536,775.459	N/A	RELOCATED RTE. 64 PI - CURVE 5	N/A
5 OF 7	715+46.98	RELOCATED ROUTE 64	0.00' RT.	693,631.975	1,536,933.302	N/A	RELOCATED RTE. 64 PT - CURVE 5	N/A
4 OF 7	41+56.67	CR WW-962	0.00' RT.	693,858.629	1,536,706.163	N/A	CR WW-962 PC - CURVE 6	N/A
4 OF 7	41+76.31	CR WW-962	0.00' RT.	693,878.168	1,536,708.201	N/A	CR WW-962 PI - CURVE 6	N/A
4 OF 7	41+95.83	CR WW-962	0.00' RT.	693,896.938	1,536,714.003	N/A	CR WW-962 PT - CURVE 6	N/A
4 OF 7	30+00.00	BSSP1	0.00' RT.	693,702.806	1,536,689.904	N/A	BSSP1 - POB	N/A
4 OF 7	32+33.99	BSSP1	0.00' RT.	693,501.126	1,536,571.258	N/A	BSSP1 - POE	N/A
1 OF 7	700+10.40	RELOCATED ROUTE 64	0.00' RT.	693,530.597	1,535,441.878	N/A	RELOCATED RTE. 64 - POB	N/A
6 OF 7	722+67.503	RELOCATED ROUTE 64	0.00' RT.	693,310.545	1,537,578.151	N/A	RELOCATED RTE. 64 - POE	N/A
2 OF 7	40+00.00	CR WW-962	0.00' RT.	693,702.806	1,536,689.904	N/A	CR WW-962 - POB	N/A
2 OF 7	42+94.01	CR WW-962	0.00' RT.	693,990.730	1,536,742.995	N/A	CR WW-962 - POE	N/A
4 OF 7	10+00.00	CR 64-999	0.00' RT.	693,671.032	1,535,752.207	N/A	CR 64-999 - POB	N/A
4 OF 7	15+73.78	CR 64-999	0.00' RT.	694,176.875	1,535,996.391	N/A	CR 64-999 - POE	N/A

CONTROL PT #1 (CP 1)

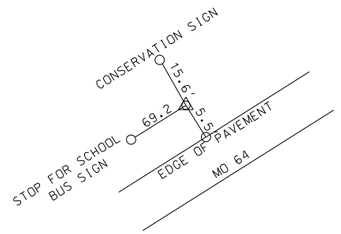
5/8" REBAR W/ PINK PLASTIC CAP
EAST OF BRIDGE AND SOUTH OF RTE 64



RELOCATED RTE. 64
STA. 711+31.85
OFFSET 64.71' RT.
N 693,640.1166
E 1,536,531.1667

CONTROL PT #2 (CP 2)

5/8" REBAR W/ PINK PLASTIC CAP WEST OF BRIDGE
AT WEST SIDE ENTRANCE TO CONSERVATION ROAD



RELOCATED RTE. 64
STA. 703+23.50
OFFSET 5.95' RT.
N 693,655.5557
E 1,535,726.5629

LAYOUT	SL	04/2025
DRAWN	SL	05/2025
REVIEWED	DJK	05/2025

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	19

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

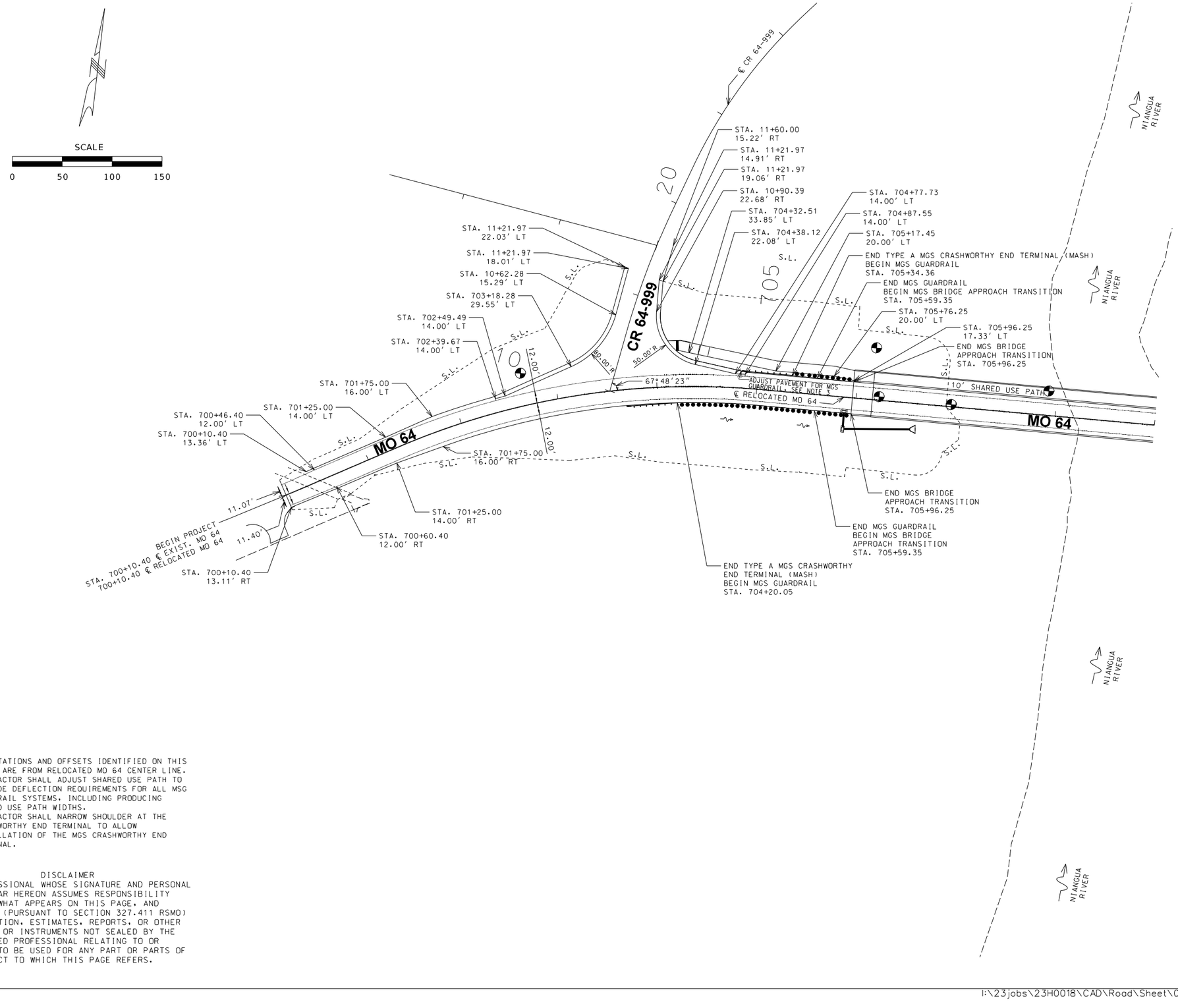
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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REFERENCE & COORDINATE POINTS
SHEET 1 OF 1



NOTES:
1. ALL STATIONS AND OFFSETS IDENTIFIED ON THIS SHEET ARE FROM RELOCATED MO 64 CENTER LINE.
2. CONTRACTOR SHALL ADJUST SHARED USE PATH TO PROVIDE DEFLECTION REQUIREMENTS FOR ALL MSG GUARDRAIL SYSTEMS, INCLUDING PRODUCING SHARED USE PATH WIDTHS.
3. CONTRACTOR SHALL NARROW SHOULDER AT THE CRASHWORTHY END TERMINAL TO ALLOW INSTALLATION OF THE MGS CRASHWORTHY END TERMINAL.

DISCLAIMER

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LAYOUT	CRW	06/2023
DRAWN	CRW	06/2023
REVIEWED	DJK	06/2023

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/15/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	20

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

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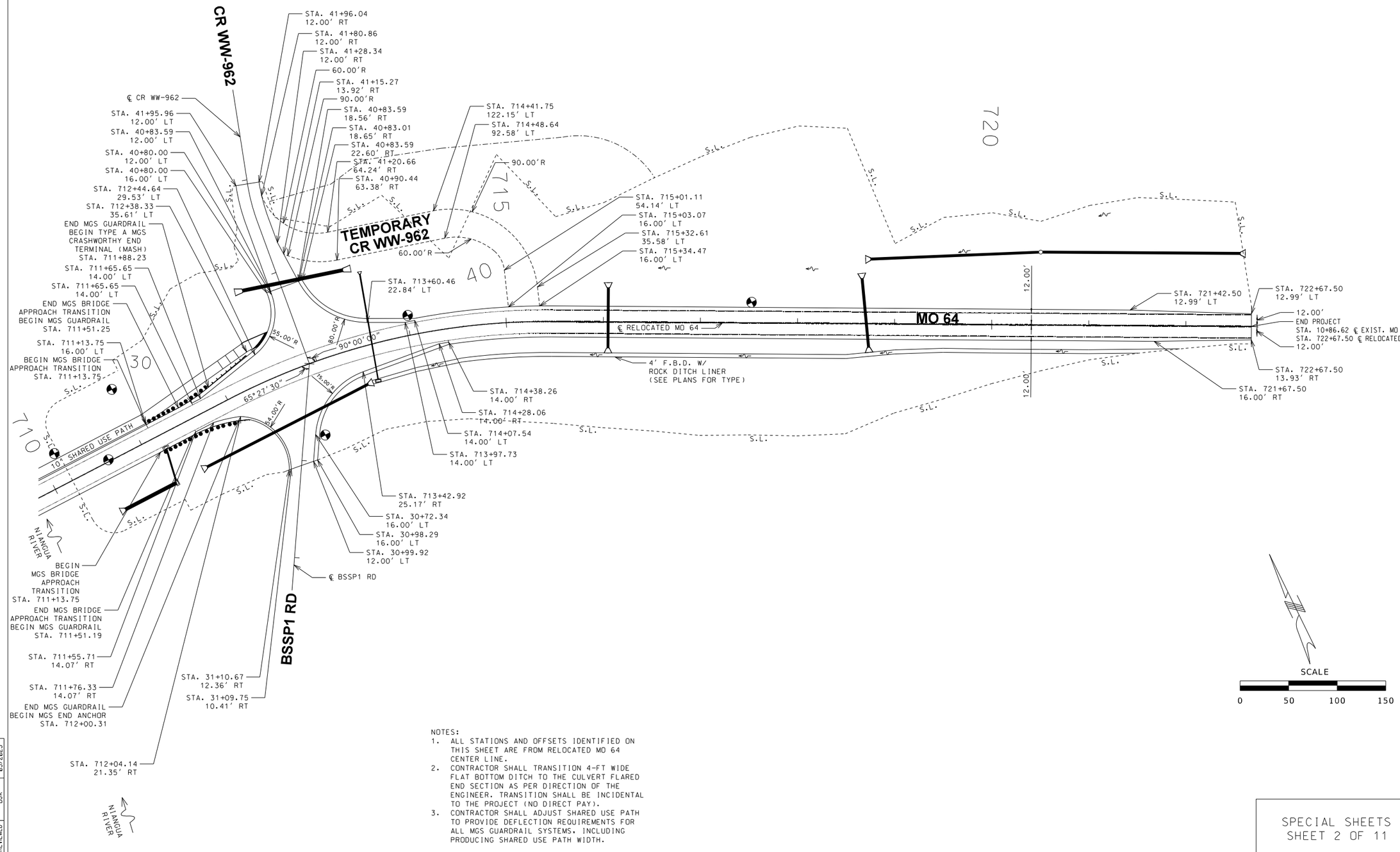
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SPECIAL SHEETS
SHEET 1 OF 11

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NOTES:
1. ALL STATIONS AND OFFSETS IDENTIFIED ON THIS SHEET ARE FROM RELOCATED MO 64 CENTER LINE.
2. CONTRACTOR SHALL TRANSITION 4-FT WIDE FLAT BOTTOM DITCH TO THE CULVERT FLARED END SECTION AS PER DIRECTION OF THE ENGINEER. TRANSITION SHALL BE INCIDENTAL TO THE PROJECT (NO DIRECT PAY).
3. CONTRACTOR SHALL ADJUST SHARED USE PATH TO PROVIDE DEFLECTION REQUIREMENTS FOR ALL MGS GUARDRAIL SYSTEMS, INCLUDING PRODUCING SHARED USE PATH WIDTH.

SCALE
0 50 100 150

SPECIAL SHEETS
SHEET 2 OF 11

LAYOUT	CRW	06/2023
DRAWN	SL & JM	05/2025
REVIEWED	DJK	05/2025

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

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DATE PREPARED 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	21

COUNTY: DALLAS/LACLEDE
JOB NO.: J7P3542
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9346

DESCRIPTION	DATE

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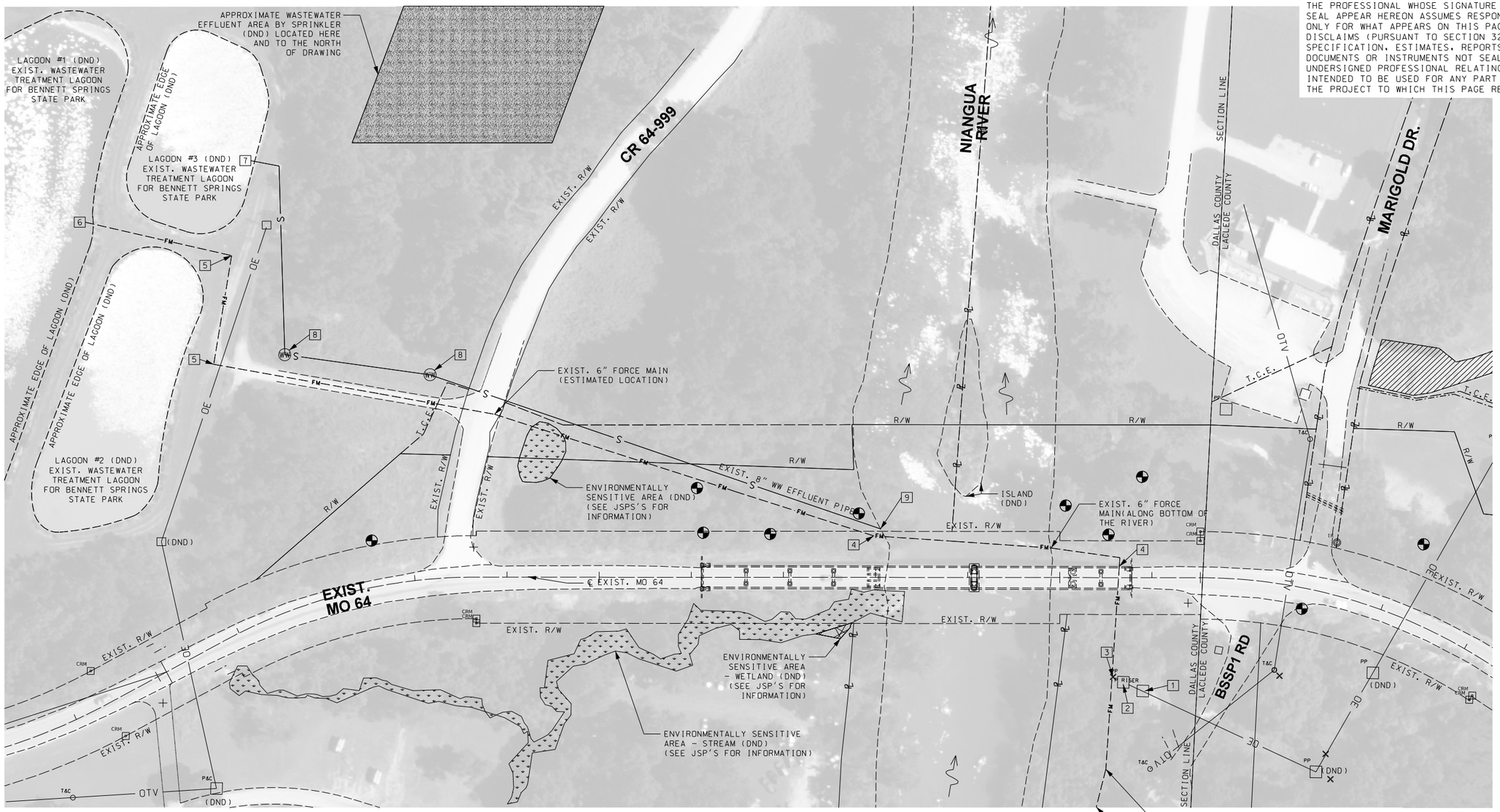
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NOTES:
1. A SECTION OF THE EXISTING SANITARY FORCE MAIN IS IN CONFLICT WITH THE NEW BRIDGE AND SHALL BE RELOCATED BY THE CONTRACTOR.

2. THE WASTEWATER LAGOON EFFLUENT PIPE SHALL BE PROTECTED BY THE CONTRACTOR THROUGHOUT THE CONTRACT. THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR) AT BENNETT SPRING STATE PARK ONLY USES THE EFFLUENT PIPE AS AN EMERGENCY DISCHARGE FROM THE WASTEWATER TREATMENT LAGOON. BECAUSE THE MDNR PERMIT IS FOR EFFLUENT DISCHARGE WITH ONSITE IRRIGATION SYSTEM.

3. CONTRACTOR SHALL KEEP ALL BENNETT SPRING STATE PARK LIFT STATIONS OPERATIONAL DURING CONSTRUCTION. THIS INCLUDES THE MAIN CAMPGROUND #1 LIFT STATION. SEE JSP'S FOR ADDITIONAL INFORMATION.

ABBREVIATIONS:

DND DO NOT DISTURB
DIP DUCTILE IRON PIPE
FM FORCE MAIN
HDPE HIGH DENSITY POLYETHYLENE
JSP JOB SPECIAL PROVISIONS
WW WASTEWATER
TBR TO BE REMOVED
UIP USE IN PLACE
HDD HORIZONTAL DIRECTINAL DRILLING

LEGEND
—S— = EXIST. WASTEWATER EFFLUENT PIPE
--FM-- = EXIST. FORCE MAIN
WW = WASTEWATER MANHOLE

KEY NOTES FOR EXISTING CONDITIONS:
1. EXIST. GRINDER LIFT STATION (DND)(THIS IS NOT THE CAMPGROUND #1 LIFT STATION)
2. EXIST. GRINDER LIFT STATION FM CONNECTION TO EXIST. 6" FM (DND)
3. EXIST. POWER POLE WITH ELECTRIC METER (DND)
4. EXIST. 6" FORCE MAIN FITTING WITH CONCRETE THRUST BLOCK (TBR. SEE NEXT SHEET)
5. EXIST. 6" FORCE MAIN FITTING (DND)
6. EXIST. 6" FORCE MAIN DISCHARGE AT LAGOON #1 (DND)
7. WASTEWATER EFFLUENT PIPE CONNECTION TO LAGOON (APPROX. LOCATION)(DND)
8. EXIST. WASTEWATER MANHOLE (DND)
9. EXIST. WASTEWATER EFFLUENT PIPE OUTFALL WITH FLAP GATE

SPECIAL SHEETS
WASTEWATER EXISTING CONDITIONS
SHEET 3 OF 11

LAYOUT	CW	05/2025
DRAWN	CW	05/2025
REVIEWED	DJK	05/2025

STATE OF MISSOURI
CLINT WOODS
NUMBER PE-2009018887
PROFESSIONAL ENGINEER

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64	MO
DISTRICT	SHEET NO.
SW	22

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JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

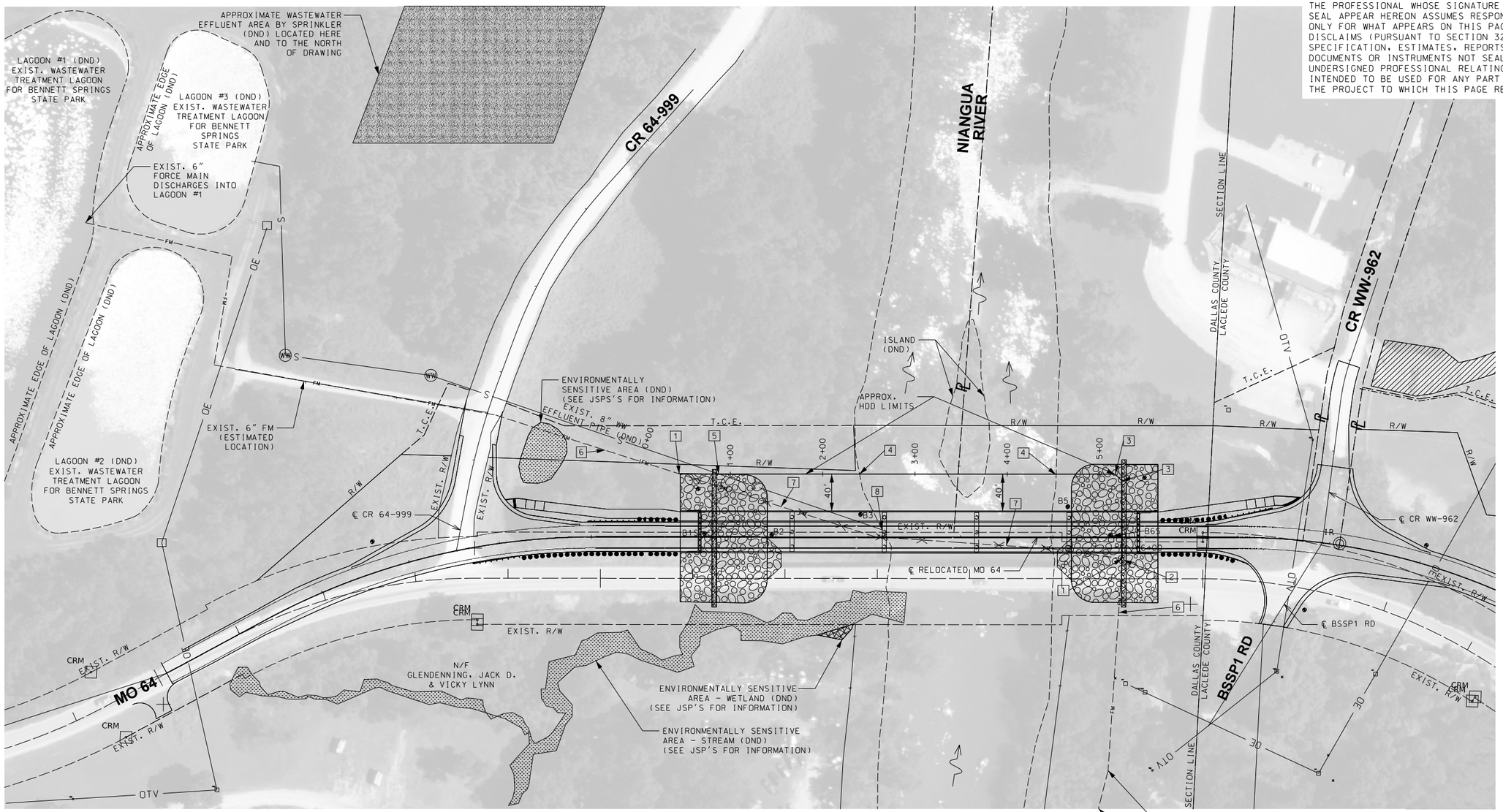
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SEQUENCE OF WORK:

1. THE CONTRACTOR SHALL INSTALL THE NEW 6-INCH FORCE MAIN UNDER THE NIANGUA RIVER WITH CONNECTIONS TO THE EXISTING FORCE MAIN AS INDICATED ON THE PLANS. THE FORCE MAIN SHALL BE INSTALLED IN BEDROCK UNDER THE NIANGUA RIVER WITH HORIZONTAL DIRECTIONAL DRILLING. THE NEW FORCE MAIN SHALL BE PRESSURE TESTED BEFORE CONNECTIONS ARE MADE TO THE EXISTING FORCE MAIN.

2. THE BENNETT SPRING STATE PARK (BSSP) CAMPGROUND NO. 1 LIFT STATION MUST BE TEMPORARILY SHUT DOWN TO MAKE CONNECTIONS TO THE NEW FORCE MAIN. THEREFORE THIS WORK MUST BE COMPLETED DURING A TIME WITH MINIMAL WASTEWATER FLOW. ONLY MDNR/BSSP EMPLOYEE SHOULD OPERATE THE CAMPGROUND NO.1 LIFT STATION. CONTRACTOR IS NOT PERMITTED TO PERFORM ANY WORK ON MDNR PROPERTY UNDER THIS CONTRACT. SEE THE JSP'S FOR MORE INFORMATION.

3. THE EXISTING 6-INCH FORCE MAIN CROSSING THE NIANGUA RIVER SHALL BE REMOVED AS NOTED ON THE PLANS. THE WORK SHALL BE COORDINATED WITH MDNR. THE SANITARY SEWAGE IN THE EXISTING FORCE MAIN SHALL BE PUMPED OUT AND DISCHARGED AT BSSP WASTEWATER TREATMENT FACILITY INFLUENT LAGOON. THE EXSITNG FORCE MAIN SHALL BE CLEANED WITH PRESSURIZED FRESH WATER TO MOVE CONTENTS TO THE TREATMENT FACILITY AND DISINFECTED BEFORE REMOVAL FROM NIANGUA RIVER. BEYOND THE LIMITS OF THE RIVER THE EXISTING FORCE MAIN SHALL BE CAPPED AND ABANDONED IN PLACE.

NOTE:
UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLATTED FROM AVAILABLE SURVEYS AND RECORDS. THE COMMISSION DOES NOT WARRANT THE LOCATIONS OF THESE FACILITIES AS PRECISE. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXISTENCE AND PRECISE LOCATION OF ALL FACILITIES AND TO AVOID DAMAGE TO THEM. SEE THE JOB SPECIAL PROVISIONS (ROADWAY) FOR A LIST OF UTILITY COMPANIES ON OR WITHIN THE VICINITY OF THE PROJECT LIMITS.

NOTICE AND DISCLAIMER REGARDING BORING LOG DATA:
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 THE A9346 BRIDGE PLAN SHEETS NO. 42-53 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 ANY OTHER DOCUMENTATION NOT EXPRESSLY WARRANTED, WHICH THE CONTRACTOR MAY OBTAIN FROM THE COMMISSION.

KEY NOTES FOR PROPOSED CONDITIONS:

1. CONNECTION TO EXISTING FORCE MAIN. LOCATION, SIZE & MATERIAL SHALL BE FIELD VERIFIED.
2. INSTALL COMBINATION AIR RELEASE VALVE IN VAULT. FINAL INSTALLED LOCATION DETERMINED DURING CONSTRUCTION.
3. INSTALL 6" 45° BEND.
4. INSTALL 6-INCH FORCE MAIN BY HDD UNDER THE NIANGUA RIVER. INSTALL GREEN FIBERGLASS MARKER POST ON EACH BANK OF THE RIVER INDICATING PRESSURIZED SEWER. SEE FORCE MAIN PROFILE SHEET.
5. FORCE MAIN SHALL CROSS OVER OR UNDER EXISTING WASTEWATER EFFLUENT PIPE WITH 12-INCH SEPARATION. CONTRACTOR SHALL FIELD VERIFY EXISTING PIPE LOCATION AND DEPTH.
6. EXISTING FORCE MAIN (UIP).
7. EXISTING FORCE MAIN IN CONFLICT WITH THE NEW BRIDGE SHALL BE REMOVED AS NOTED ON THE PLANS.
8. EXISTING 8" WASTEWATER EFFLUENT PIPE AND FLAP GATE (DND)

LEGEND

—S—	= EXIST. WASTEWATER EFFLUENT PIPE
—FM—	= EXIST. FORCE MAIN
	= PROPOSED FORCE MAIN
—FM—	= EXIST. FORCE MAIN TO BE REMOVED
	= LOCATION OF BORINGS

SCALE
0 60 120 180

SPECIAL SHEETS
WASTEWATER PROPOSED CONDITIONS
SHEET 4 OF 11

LAYOUT	CW	05/2023
DRAWN	CW	05/2023
REVIEWED	DJK	05/2023

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STATE OF MISSOURI
CLINT WOODS
NUMBER PE-2009018807
PROFESSIONAL ENGINEER

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DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	23

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

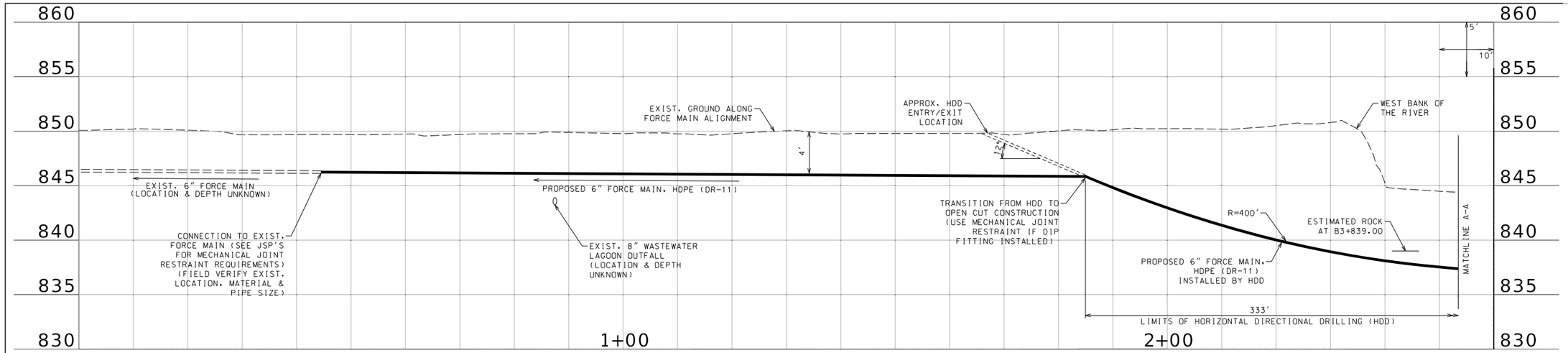
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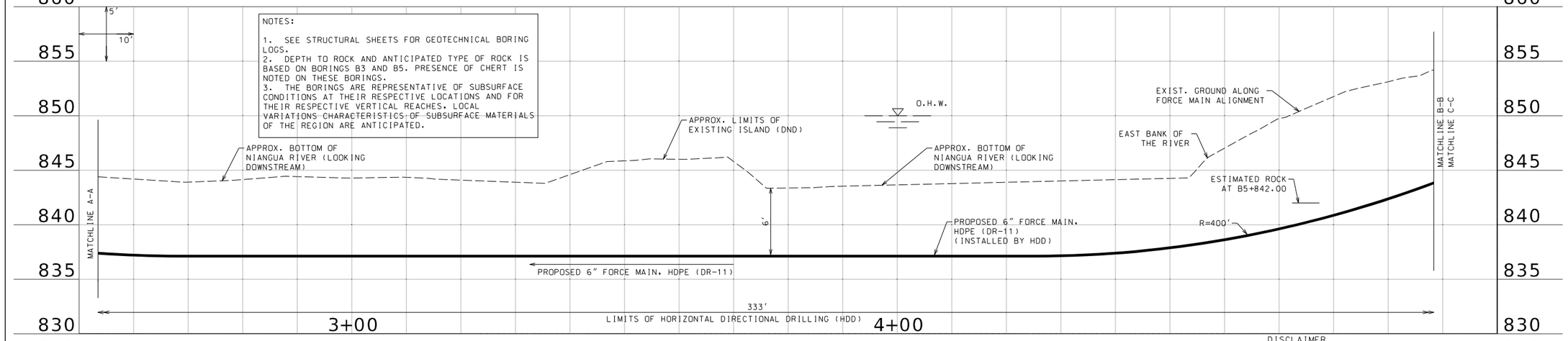
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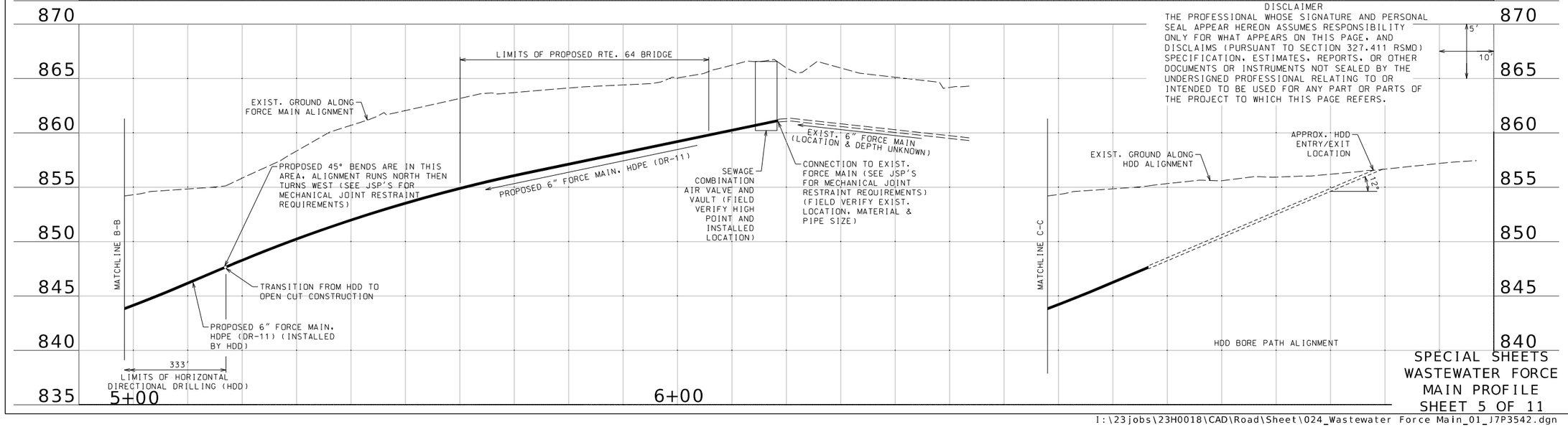
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NOTES:

1. SEE STRUCTURAL SHEETS FOR GEOTECHNICAL BORING LOGS.
2. DEPTH TO ROCK AND ANTICIPATED TYPE OF ROCK IS BASED ON BORINGS B3 AND B5. PRESENCE OF CHERT IS NOTED ON THESE BORINGS.
3. THE BORINGS ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THEIR RESPECTIVE LOCATIONS AND FOR THEIR RESPECTIVE VERTICAL REACHES. LOCAL VARIATIONS CHARACTERISTICS OF SUBSURFACE MATERIALS OF THE REGION ARE ANTICIPATED.





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SPECIAL SHEETS WASTEWATER FORCE MAIN PROFILE SHEET 5 OF 11

STATE OF MISSOURI
CLINT WOODS
NUMBER PE-2009018807
PROFESSIONAL ENGINEER

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DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	24

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

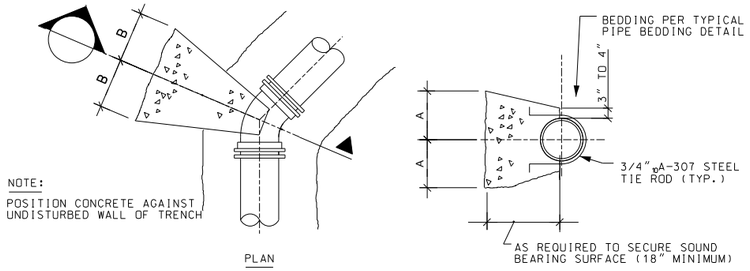
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TYPICAL THRUST BLOCK DETAILS

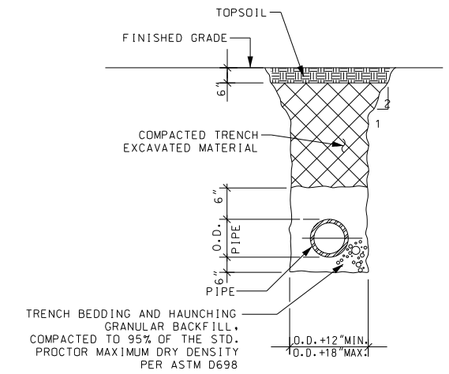
NOT TO SCALE

TABLE FOR THRUST BLOCK DIMENSIONS

PIPE SIZE	90° ELBOW			45° ELBOW			22 1/2° ELBOW 11 1/4° ELBOW			TEES, PLUGS, CAPS AND HYDRANTS		
D	A	B	MIN. AREA	A	B	MIN. AREA	A	B	MIN. AREA	A	B	MIN. AREA
4"	9"	12"	3 SF	9"	12"	3 SF	9"	9"	2.25 SF	9"	12"	3 SF
6"	15"	18"	7 SF	12"	15"	5 SF	9"	12"	3 SF	12"	18"	6 SF
8"	18"	24"	12 SF	15"	18"	7 SF	12"	12"	4 SF	15"	20"	8 SF
10"	24"	27"	18 SF	15"	24"	10 SF	18"	18"	6 SF	18"	24"	12 SF
12"	24"	36"	24 SF	18"	27"	14 SF	15"	20"	8 SF	24"	27"	18 SF
14"	30"	42"	34 SF	24"	30"	20 SF	15"	24"	10 SF	24"	36"	24 SF
16"	36"	44"	44 SF	24"	36"	24 SF	18"	24"	12 SF	27"	40"	30 SF
24"	78"	96"	96 SF	52"	78"	52 SF	40"	54"	27 SF	60"	90"	68 SF

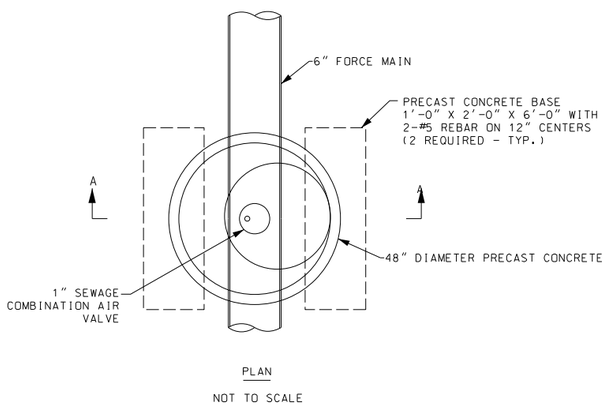
NOTES:

1. DIMENSIONS SHOWN ARE MINIMUM AND MEET THE REQUIREMENTS OF NFPA 24.
2. DIMENSIONS AND AREAS WERE DERIVED USING A WATER PRESSURE OF 225 PSI AND AN ALLOWABLE SOIL RESISTANCE OF 1500 PSF.
3. THRUST BLOCK CONCRETE SHALL HAVE A 28 DAY, COMPRESSIVE STRENGTH OF NOT LESS THAN 2000 PSI 4.
4. UNLESS NOTED OTHERWISE ON THE DRAWINGS CONCRETE THRUST BLOCKS ARE TO BE USED AT ALL HORIZONTAL CHANGES IN DIRECTION AND AT THE BOTTOM ELBOW OF ALL VERTICAL CHANGES IN DIRECTION.
5. TIE-RODS SHALL BE USED AT THE TOP ELBOW OF ALL VERTICAL CHANGES IN DIRECTION. SEE DETAILS ON THIS SHEET, FOR TIE-ROD CONNECTIONS AT VERTICAL TRANSITIONS.

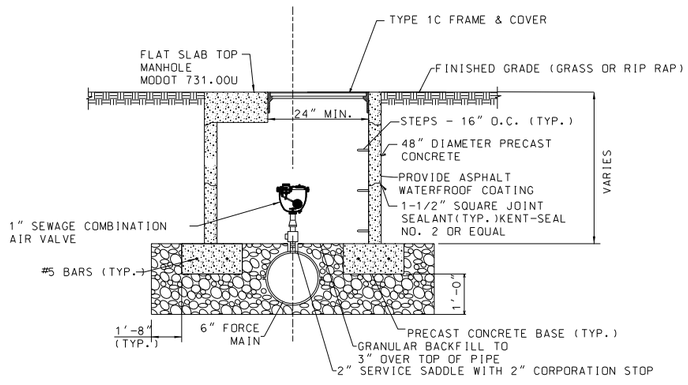


TRENCH BACKFILL FOR UNPAVED AREA

NOT TO SCALE



NOT TO SCALE



SECTION A-A

NOTES:

1. ALL FITTINGS AND VALVES SHALL BE 316 STAINLESS STEEL.

COMBINATION AIR VALVE & VAULT DETAIL

NOT TO SCALE

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STATE OF MISSOURI
CLINT WOODS
NUMBER PE-2009018807
PROFESSIONAL ENGINEER

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DATE PREPARED: 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	25

COUNTY: DALLAS/LACLEDE

JOB NO.: J7P3542

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.: A9346

DESCRIPTION	DATE

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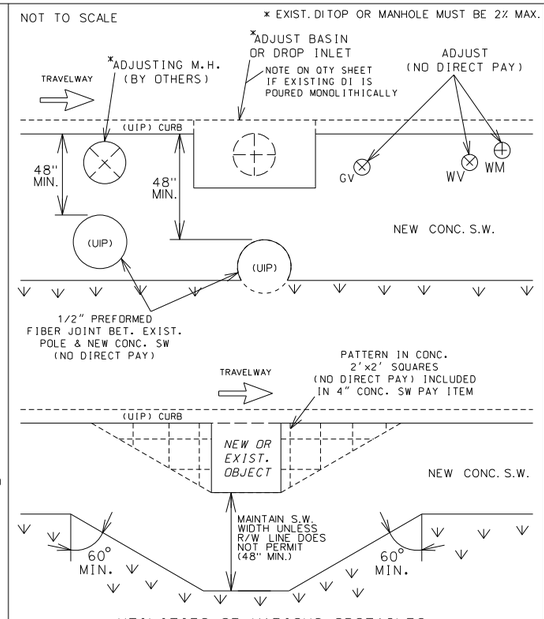
SPECIAL SHEETS
WASTEWATER DETAILS
SHEET 6 OF 11

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1. CONCRETE SIDEWALK, CURB RAMP AND DETECTABLE WARNING DEVICE (TRUNCATED DOMES) DETAILS SHALL CONFORM TO ADA REQUIREMENTS UNLESS NOTED OTHERWISE IN THESE PLANS. FOR SIDEWALK JOINT AND CURB DETAILS, SEE STANDARD PLAN 609.00.
2. TINTED CONCRETE SHALL NOT BE USED. TRUNCATED DOMES SHALL BE OF A COLOR CONTRASTING WITH UNTINTED CONCRETE AND APPROVED BY THE ENGINEER. TRUNCATED DOMES ARE REQ'D. AT STREET INTERSECTIONS AND COMMERCIAL ENTRANCES WITH TRAFFIC CONTROL ONLY. (STOP/YIELD SIGNS OR SIGNALS)
3. CONCRETE SHALL BE IN ACCORDANCE WITH SEC. 608 & SEC. 609. CURING COMPOUND SHALL BE TRANSPARENT.
4. ALL CONCRETE SIDEWALK AND CURB RAMP/TRANSITION/LANDING AREAS SHALL BE 4" THICK, WITH THE EXCEPTION OF THE BOTTOM TRANSITION WHICH TIES INTO THE EXISTING PAVED APPROACH AND ROADWAY. THIS TRANSITION, OR LANDING AREA, MUST BE 8" THICK IF IT FALLS WITHIN THE RADIUS OF THE APPROACH AND SITS AT THE BACK OF CURB OF THE ROADWAY. ALL CONCRETE SIDEWALK AND CURB RAMP/TRANSITION/LANDING AREAS SHALL BE ON 4" TYPE 1 AGGREGATE BASE.
5. AGGREGATE BASE DENSITY - CONTRACTOR SHALL EXERCISE GOOD COMPACTIVE EFFORT AS APPROVED BY THE ENGINEER. DENSITY REQUIREMENTS BY NUCLEAR METHOD WILL NOT BE REQUIRED DUE TO WORK AREA CONSTRAINTS.
6. CONCRETE CURB RAMP - WIDTH = 5' MIN. LENGTH = 5' MIN. TO 15' PREFERRED MAX. (16' MAX.)
   RUNNING SLOPE = >5% (MIN.) TO 8.33% (MAX.) UNIFORMLY DOWN THE LENGTH OF THE RAMP.

   CONCRETE LANDING - WIDTH = TO MATCH PROPOSED CURB RAMP AND SIDEWALK WIDTH LENGTH = 5' MIN.
   SLOPE IN ALL DIRECTIONS = 1% PREFFERED (2% MAX.) UNLESS TIED TO ROADWAY EXCEPTION.
7. ALL EXISTING UTILITIES SHALL BE USED IN PLACE UNLESS OTHERWISE NOTED. ALL MANHOLE OR VALVE COVER, ETC. ELEVATIONS SHALL BE ADJUSTED AS REQUIRED IF THEY ARE LOCATED WITHIN THE IMPROVEMENT AREA.
8. "PREFORMED FIBER JOINT" SHALL BE IN ACCORDANCE WITH SEC. 1057 FOR PREFORMED FIBER JOINT EXPANSION JOINT FILLER.
9. REINFORCING STEEL TIE BARS SHALL BE IN ACCORDANCE WITH SECTION 706. ALL REINFORCING STEEL SHALL BE EPOXY COATED AND USED AS APPROVED BY THE ENGINEER. WHERE TIE BARS ARE USED, THE CONCRETE SHALL BE 8" THICK (NO DIRECT PAY).
10. CONSTRUCTION AND LENGTH OF EACH CURB RAMP INCLUDING LANDINGS AND TRANSITION AREAS SHALL BE AS SHOWN ON THE PLANS UNLESS DIFFERING FIELD CONDITIONS ARE FOUND OR AS APPROVED BY THE ENGINEER. CURB RAMP CROSS SLOPES SHALL BE 1% PREFFERED (2% MAX.) TOWARD THE STREET. CURB RAMPS ARE TO BE FORMED UP AND HAVE A TRUE AND STRAIGHT LINE.
11. SIDEWALK AND CONCRETE CURB SHALL BE POURED MONOLITHICALLY. THE CONTRACTOR SHALL MATCH EXISTING GROUND SLOPES ADJACENT TO THE CURB RAMPS OR USE AN ALTERNATE METHOD APPROVED BY THE ENGINEER.
12. S-CURB 12"-30" HIGH (MODIFIED S-CURB) WILL REQUIRE #4 REINFORC. BARS ON MAX. 12" CENTERS - SEE DETAIL (NO DIRECT PAY)
13. SODDED SLOPES AT EDGES OF SIDEWALK OR S-CURB SHOULD BE GRADED TO BE 6:1 MIN.

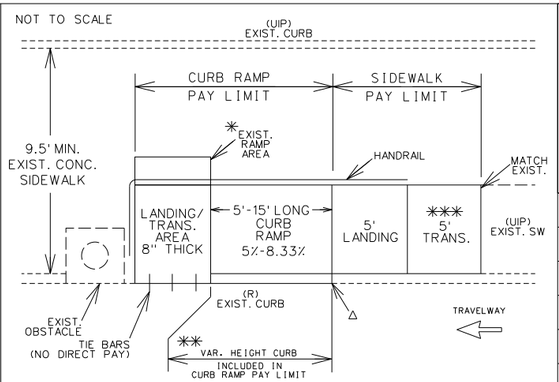
NOT TO SCALE



UTILITIES OR VARIOUS OBSTACLES

NO UTILITY POLES ARE ALLOWED IN THE RAMP LIMITS, BUT ARE PERMITTED IN THE LANDING AREAS AND SIDEWALK WITH A MINIMUM OF 4' CLEARANCE AROUND THE POLE

NOT TO SCALE



△ MATCH EXIST CURB

✳ FILL IN WHERE EXIST. RAMP WAS. SIZE WILL VARY. (SEE TYPICAL SHEET)

✳✳ VAR. HEIGHT CURB ALONG ROADSIDE MAY BE CONSTRUCTED MONOLITHIC OR SEPERATE DEPENDING ON CONST. OPERATIONS.

✳✳✳ TO BLEND CROSS SLOPE DISCREPENCY

—— HANDRAIL 2' OFF E.O.P (SEE HANDRAIL STANDARDS)

CURB RAMP - IN EXISTING 9.5'+ WIDE SW

PAY LIMITS

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	26

COUNTY DALLAS/LACLEDE

JOB NO. J7P3542

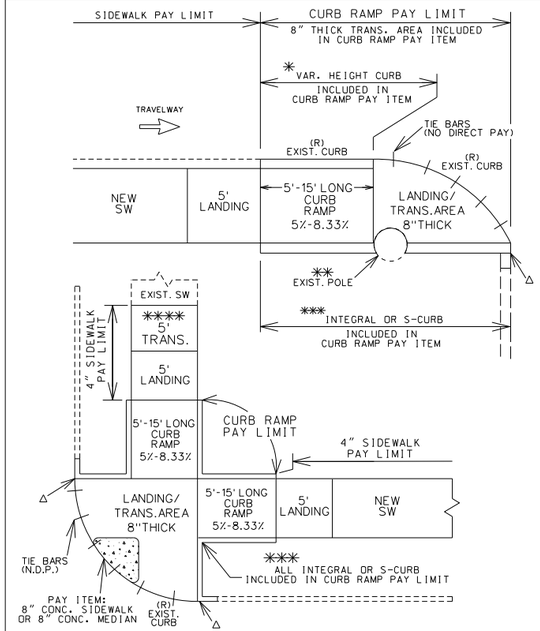
CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9346

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

DESCRIPTION	DATE



△ MATCH EXIST CURB HEIGHT, OPTIONAL 1' TIE-IN TO EXIST CURB

✳ VAR. HEIGHT CURB ALONG ROADSIDE MAY BE CONST. MONOLITHIC OR SEP. DEPENDING ON CONST. OPERATIONS.

✳✳ NO UTILITY POLES ARE ALLOWED IN THE RAMP LIMITS, BUT ARE PERMITTED IN THE LANDING AND TRANSITION AREAS.

✳✳✳ TYPE OF CURB WILL DEPEND ON FIELD CONDITIONS.

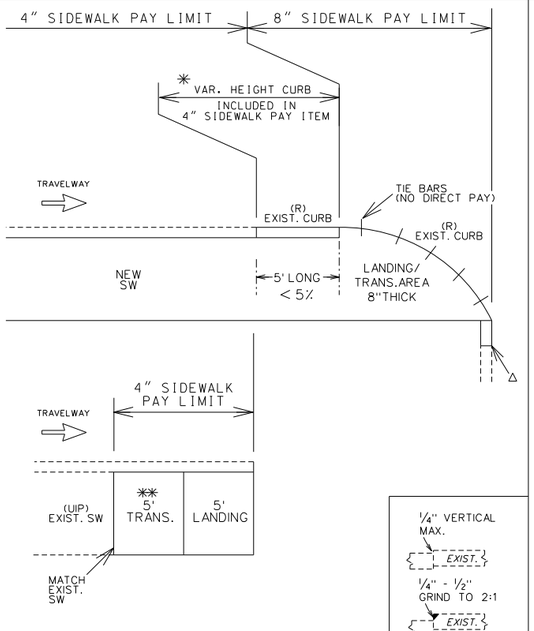
✳✳✳✳ TO BLEND CROSS SLOPE DISCREPENCY

CURB RAMP

PAY LIMITS

WHEN RAMP AREA IS LONGER THEN 5'AND BET. 5%-8.33% GRADE, IT IS CONSIDERED A CURB RAMP

NOT TO SCALE



△ MATCH EXIST CURB HEIGHT (1'TAPER FROM SIDEWALK UP TO EXIST CURB HEIGHT)

✳ VAR. HEIGHT CURB ALONG ROADSIDE MAY BE CONSTRUCTED MONOLITHIC OR SEPERATE DEPENDING ON CONST. OPERATIONS. DOWEL TO EXIST. GUTTER/PAVEMENT (NO DIRECT PAY).

✳✳ TO BLEND CROSS SLOPE DISCREPENCY

SIDEWALK

PAY LIMITS

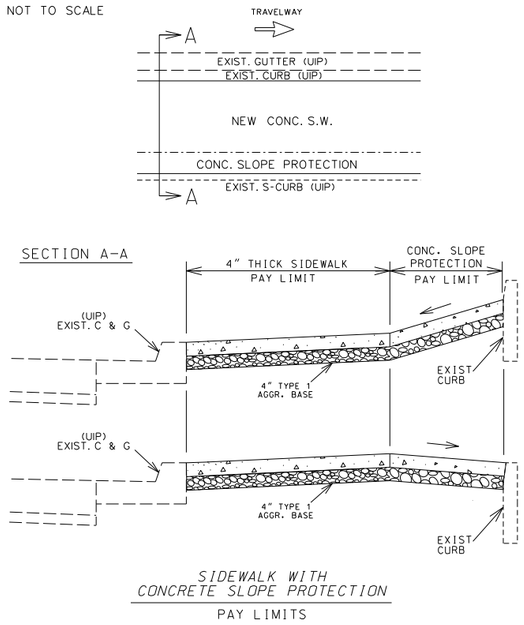
WHEN RAMP AREA IS 5'LONG AND LESS THEN 5% GRADE, IT IS CONSIDERED SIDEWALK

NOT TO SCALE

JOINT GRINDING

TRIP HAZARDS 622-99.03

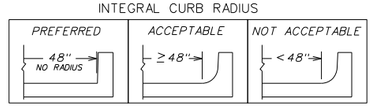
NOT TO SCALE



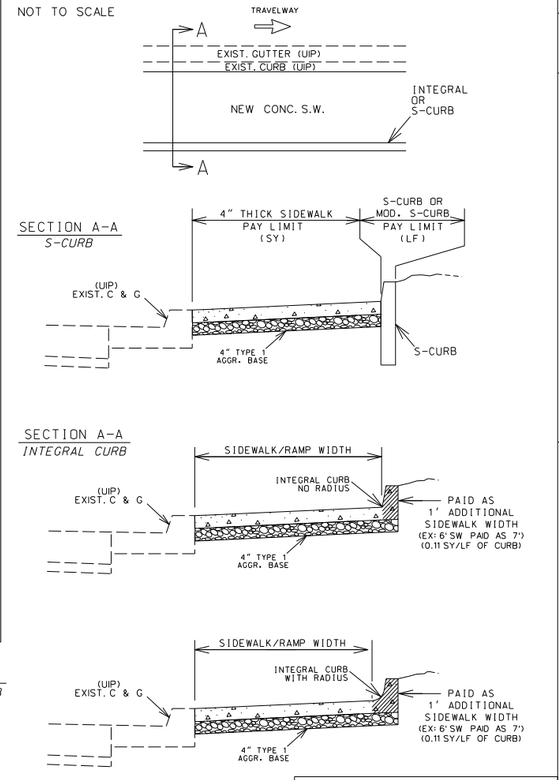
SIDEWALK WITH CONCRETE SLOPE PROTECTION

PAY LIMITS

INTEGRAL CURB RADIUS



NOT TO SCALE



SECTION A-A
INTEGRAL CURB WITH RADIUS

SIDEWALK & RAMP WITH CURB

PAY LIMITS

SPECIAL SHEETS
ADA CONSTRUCTION SHEET
SHEET 7 OF 11

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

PERPENDICULAR - TYPE 1

TYPE 1-A

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	-	10.0	12.0	-	10.0	12.0	-	10.0	12.0	
CURB RAMP SY	-	8.2	12.8	-	10.8	12.7	-	13.5	15.8	
CONC. SIDEWALK SY	-	5.6	6.4	-	5.6	6.4	-	4.9	6.4	
TYPE 1 AGGREGATE SY	-	13.8	16.0	-	16.4	19.1	-	18.3	22.2	
ADA LINEAR GRADING LF	-	22.0	22.0	-	27.5	27.5	-	30.0	30.5	
SODDING SY	-	5.8	5.7	-	6.8	6.9	-	7.5	7.9	

TYPE 1-B

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	-	22.0	24.0	-	22.0	24.0	-	22.0	24.0	
CURB RAMP SY	-	10.9	13.1	-	13.6	16.3	-	16.2	19.3	
CONC. SIDEWALK SY	-	5.6	6.3	-	5.6	6.4	-	4.9	5.7	
TYPE 1 AGGREGATE SY	-	16.5	19.4	-	19.2	22.7	-	21.1	25.0	
ADA LINEAR GRADING LF	-	28.0	28.0	-	34.5	34.5	-	38.0	38.0	
SODDING SY	-	7.4	7.8	-	8.4	8.7	-	9.1	9.5	

TYPE 1-C

LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	-	10.0	12.0	-	10.0	12.0	-	10.0	12.0	
CURB RAMP SY	-	8.8	10.3	-	11.5	13.4	-	14.1	16.5	
CONC. SIDEWALK SY	-	5.6	6.4	-	5.6	6.4	-	4.9	5.7	
TYPE 1 AGGREGATE SY	-	14.4	16.7	-	17.1	19.8	-	19.0	22.1	
ADA LINEAR GRADING LF	-	22.0	22.0	-	26.5	26.5	-	30.0	30.0	
SODDING SY	-	11.5	11.7	-	13.5	13.5	-	15.0	15.2	

TYPE 1-D

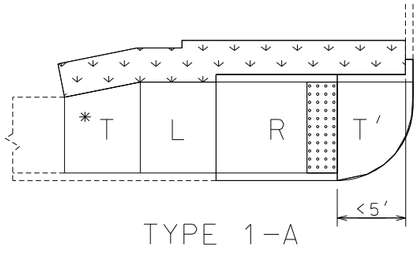
LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	-	18.0	24.0	-	18.0	24.0	-	18.0	24.0	
CURB RAMP SY	-	18.6	22.8	-	24.0	29.0	-	29.3	35.3	
CONC. SIDEWALK SY	-	11.2	12.8	-	11.2	12.8	-	9.8	11.4	
TYPE 1 AGGREGATE SY	-	29.8	35.6	-	35.2	41.8	-	39.1	46.7	
ADA LINEAR GRADING LF	-	42.0	50.0	-	57.0	61.0	-	67.0	72.0	
SODDING SY	-	11.0	11.3	-	13.0	13.3	-	14.5	14.9	

TYPE 1-E

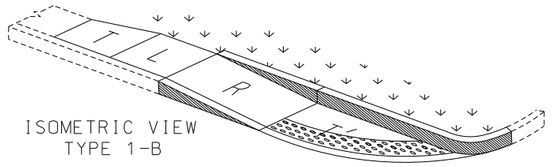
LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	-	18.0	24.0	-	18.0	24.0	-	18.0	24.0	
CURB RAMP SY	-	14.8	19.0	-	20.1	25.2	-	25.5	31.4	
CONC. SIDEWALK SY	-	11.2	12.8	-	11.2	12.8	-	9.8	11.4	
TYPE 1 AGGREGATE SY	-	26.0	31.8	-	31.3	38.0	-	35.3	42.8	
ADA LINEAR GRADING LF	-	43.0	46.0	-	52.0	55.0	-	59.0	62.0	
SODDING SY	-	13.3	13.6	-	16.0	16.9	-	18.6	19.3	

TYPE 1-F

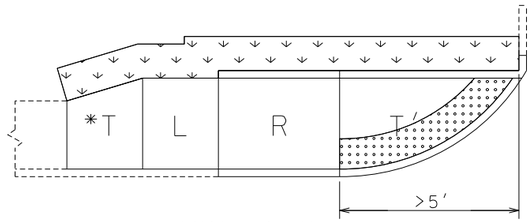
LENGTH (LF)	8			12			16			REMARKS
WIDTH (LF)	4	5	6	4	5	6	4	5	6	
TRUNCATED DOMES SF	-	14.0	16.0	-	14.0	16.0	-	14.0	16.0	
CURB RAMP SY	-	15.5	19.0	-	20.8	25.2	-	26.2	31.4	
CONC. SIDEWALK SY	-	11.2	12.8	-	11.2	12.8	-	9.8	11.4	
TYPE 1 AGGREGATE SY	-	26.7	31.8	-	32.0	38.0	-	36.0	42.8	
ADA LINEAR GRADING LF	-	43.0	46.0	-	52.0	55.0	-	59.0	62.0	
SODDING SY	-	18.4	18.8	-	22.4	22.8	-	25.6	25.9	



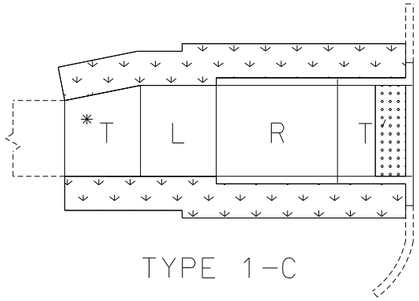
TYPE 1-A



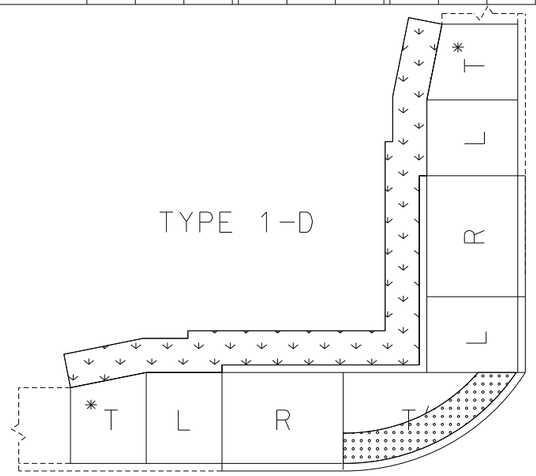
ISOMETRIC VIEW
TYPE 1-B



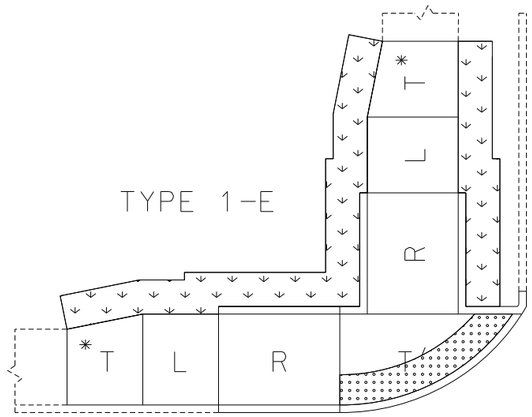
TYPE 1-B



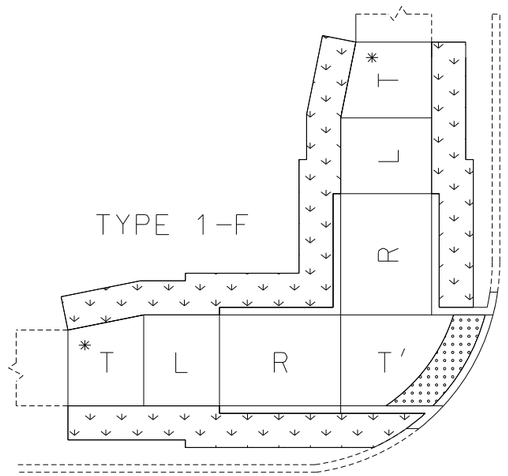
TYPE 1-C



TYPE 1-D



TYPE 1-E



TYPE 1-F

T' - IS TO BE 8" THICK AT ALL PAVED APPROACHES AND STREETS IF WITHIN THE RADIUS. PAID FOR AS CONCRETE CURB RAMP

T - TRANSITION TO EXISTING SW OR PAVED APPROACH (LANDING PREFERED AT PAVED APPROACH IF CONDITIONS ALLOW)

* - T IS STILL NEEDED EVEN IF THE EXISTING SIDEWALK IS THE SAME WIDTH AS THE NEW SIDEWALK.(IT WILL BLEND THE EXIST XSLOPE INTO THE NEW LANDING XSLOPE)

L - LANDING

R - RAMP

- CURB RAMP PAY LIMITS

- SOD SLOPE 6:1 MIN.

- TRUNCATED DOME LOCATION IF DIST. IS < 5' OR >5'

TRUNCATED DOMES ARE USED ONLY AT STREETS & ENTRANCES UTILIZING YIELD / STOP SIGNS OR SIGNALS

NOTE:
QUANTITIES ARE CALCULATED BY AREA AND MAY NOT MATCH EXACT FIELD CONDITIONS.

SPECIAL SHEETS
TYPE 1 PERPENDICULAR
CURB RAMPS
8 OF 11

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	27

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

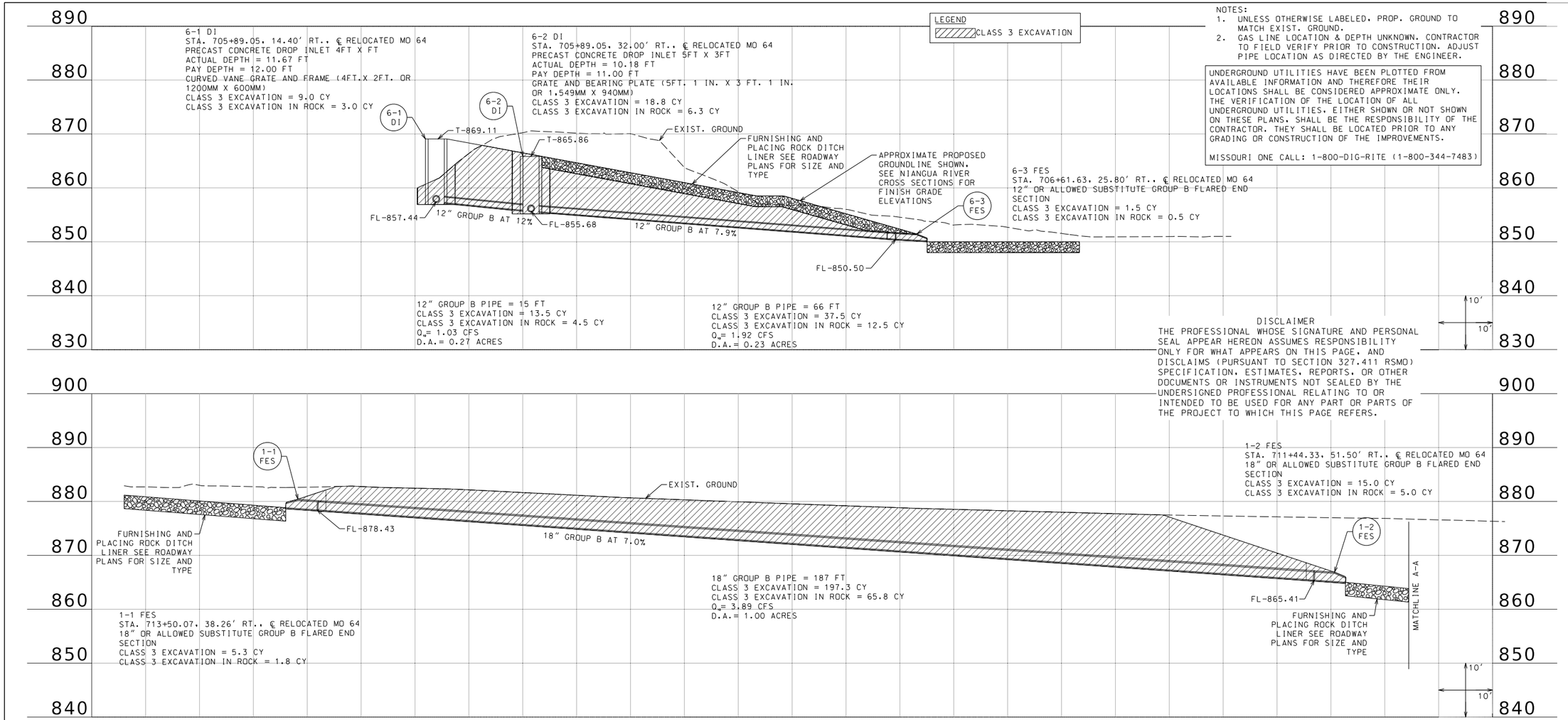
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide



SPECIAL SHEETS
CULVERT SECTIONS
SHEET 9 OF 11

DENNIS J KOSCIELSKI
NUMBER PE-2005000712
STATE OF MISSOURI
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	28

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

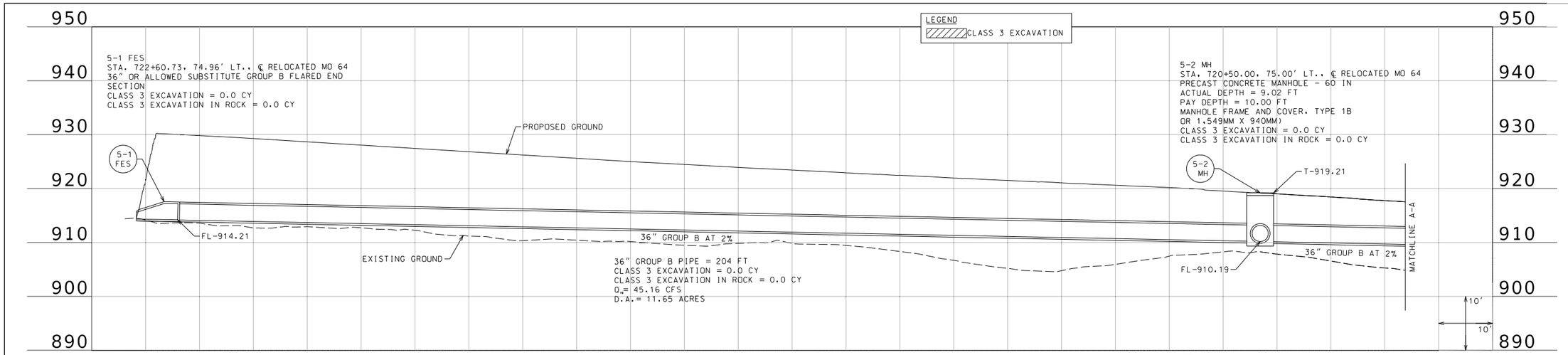
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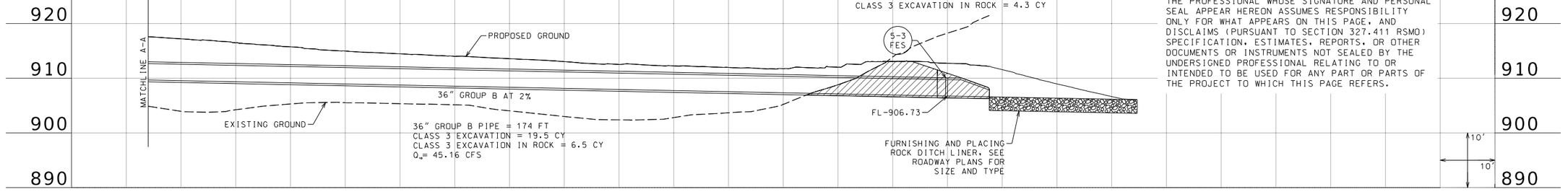
DESCRIPTION	DATE

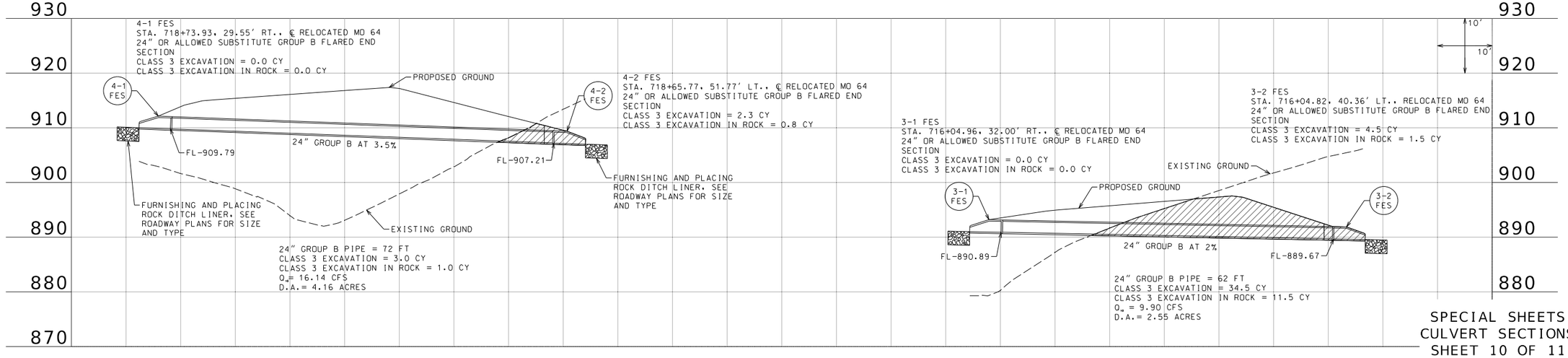
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St. Louis, Missouri 63101
Professional Engineer 001632
www.hanson-inc.com
314.770.1447

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NOTES:
1. UNLESS OTHERWISE LABELED, PROP. GROUND TO MATCH EXIST. GROUND.
2. GAS LINE LOCATION & DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. ADJUST PIPE LOCATION AS DIRECTED BY THE ENGINEER.

UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THEY SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF THE IMPROVEMENTS.

MISSOURI ONE CALL: 1-800-DIG-RITE (1-800-344-7483)

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SPECIAL SHEETS
CULVERT SECTIONS
SHEET 10 OF 11

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	29

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

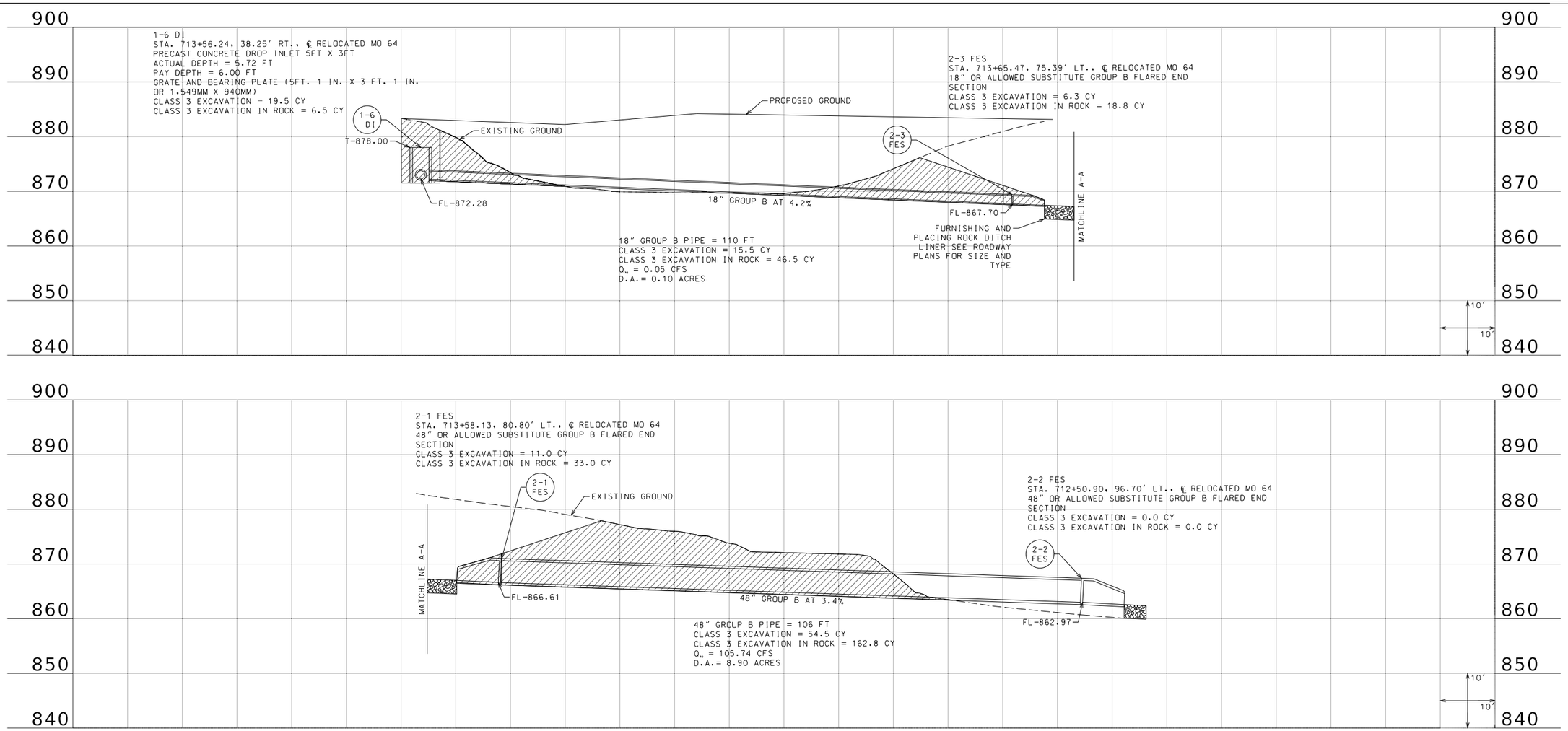
DESCRIPTION	DATE

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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NOTES:
1. UNLESS OTHERWISE LABELED, PROP. GROUND TO MATCH EXIST. GROUND.
2. GAS LINE LOCATION & DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. ADJUST PIPE LOCATION AS DIRECTED BY THE ENGINEER.

UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THEY SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF THE IMPROVEMENTS.

MISSOURI ONE CALL: 1-800-DIG-RITE (1-800-344-7483)

LEGEND
CLASS 3 EXCAVATION

SPECIAL SHEETS
CULVERT SECTIONS
SHEET 11 OF 11

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	30

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

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

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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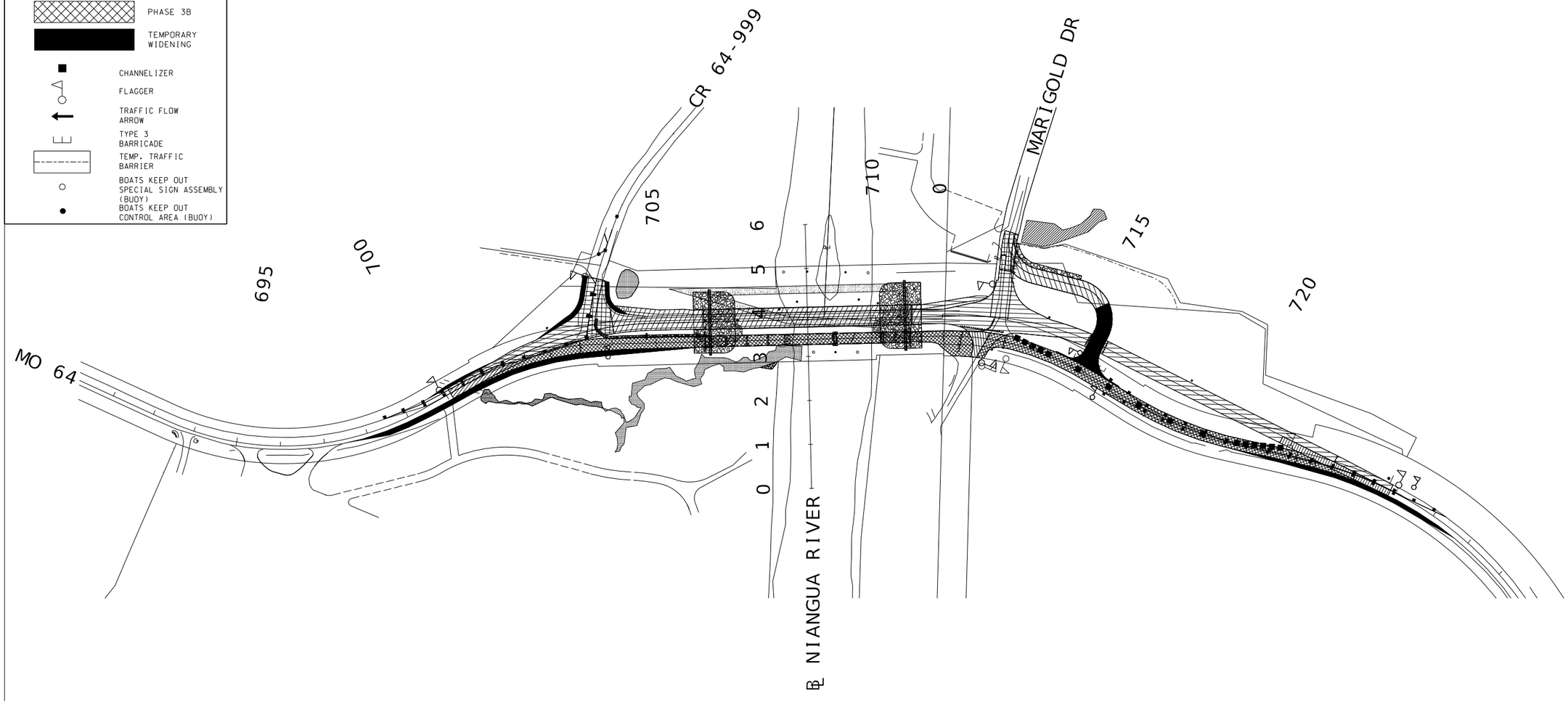
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TRAFFIC CONTROL LEGEND

- PHASE 1A
- PHASE 1B
- PHASE 1C
- PHASE 2A
- PHASE 2B
- PHASE 3A
- PHASE 3B
- TEMPORARY WIDENING
- CHANNELIZER
- FLAGGER
- TRAFFIC FLOW ARROW
- TYPE 3 BARRICADE
- TEMP. TRAFFIC BARRIER
- BOATS KEEP OUT SPECIAL SIGN ASSEMBLY (BUOY)
- BOATS KEEP OUT CONTROL AREA (BUOY)

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NOT TO SCALE



TRAFFIC CONTROL NOTES:
1. SEEE ADVANCE SIGNING SHEETS AND TCP DETAIL SHEETS FOR DETAILS.

LAYOUT	CRW	07/2023
DRAWN	CRW	07/2023
REVIEWED	DJK	07/2023

TRAFFIC CONTROL SHEETS
PHASE OVERVIEW
SHEET 1 OF 19

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 6/15/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	31

COUNTY: DALLAS/LACLEDE
JOB NO.: J7P3542
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9346

DESCRIPTION	DATE

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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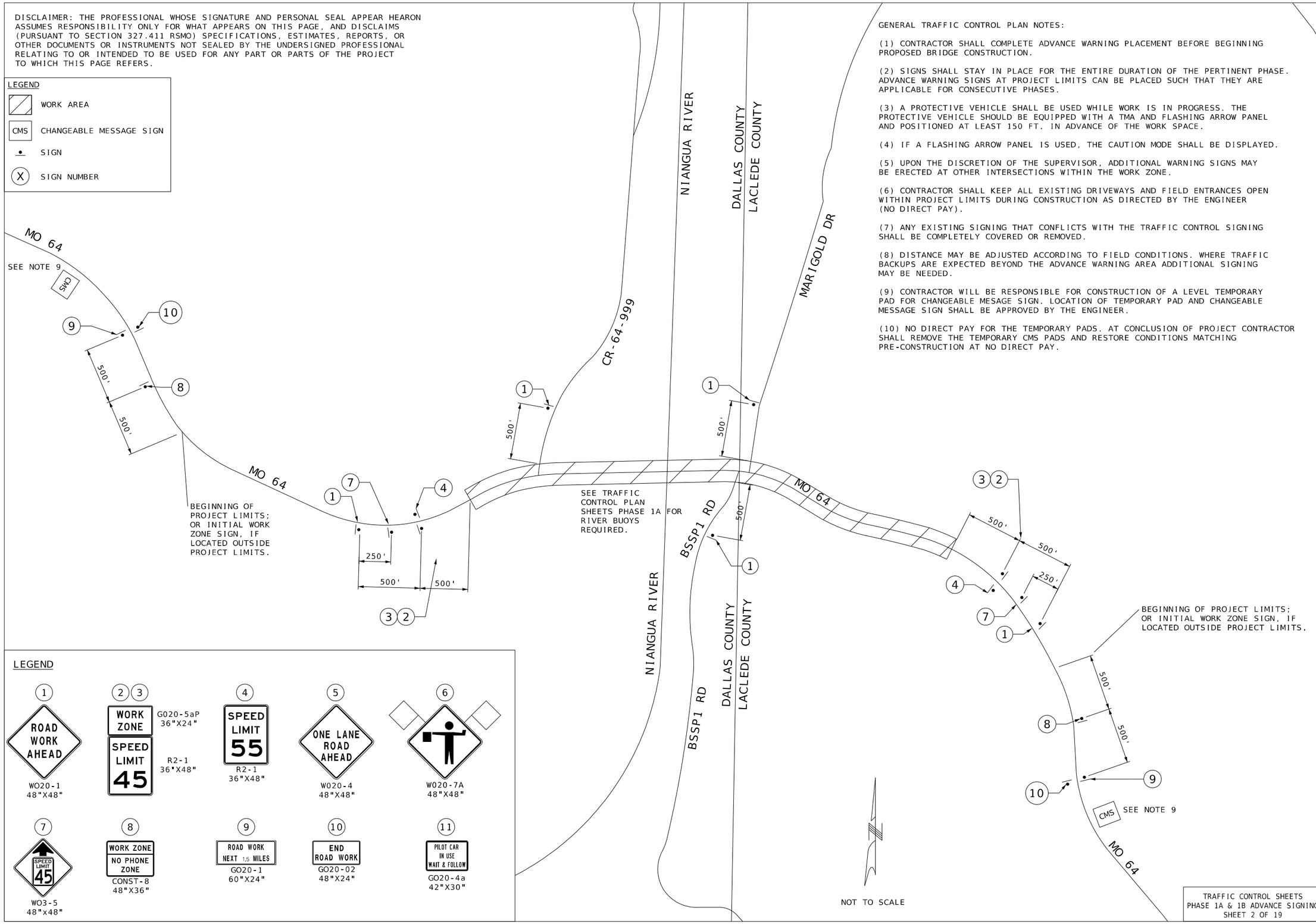
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LEGEND

- WORK AREA
- CMS — CHANGEABLE MESSAGE SIGN
- SIGN
- (X) SIGN NUMBER



LEGEND

1. ROAD WORK AHEAD — WO20-1, 48"X48"
2. 3. WORK ZONE / SPEED LIMIT 45 — G020-5aP 36"X24"; R2-1 36"X48"
4. SPEED LIMIT 55 — R2-1, 36"X48"
5. ONE LANE ROAD AHEAD — W020-4, 48"X48"
6. W020-7A, 48"X48"
7. SPEED LIMIT 45 — WO3-5, 48"x48"
8. WORK ZONE / NO PHONE ZONE — CONST-8, 48"X36"
9. ROAD WORK NEXT 1,5 MILES — GO20-1, 60"X24"
10. END ROAD WORK — GO20-02, 48"X24"
11. PILOT CAR IN USE WAIT & FOLLOW — GO20-4a, 42"X30"

NOT TO SCALE

GENERAL TRAFFIC CONTROL PLAN NOTES:

(1) CONTRACTOR SHALL COMPLETE ADVANCE WARNING PLACEMENT BEFORE BEGINNING PROPOSED BRIDGE CONSTRUCTION.

(2) SIGNS SHALL STAY IN PLACE FOR THE ENTIRE DURATION OF THE PERTINENT PHASE. ADVANCE WARNING SIGNS AT PROJECT LIMITS CAN BE PLACED SUCH THAT THEY ARE APPLICABLE FOR CONSECUTIVE PHASES.

(3) A PROTECTIVE VEHICLE SHALL BE USED WHILE WORK IS IN PROGRESS. THE PROTECTIVE VEHICLE SHOULD BE EQUIPPED WITH A TMA AND FLASHING ARROW PANEL AND POSITIONED AT LEAST 150 FT. IN ADVANCE OF THE WORK SPACE.

(4) IF A FLASHING ARROW PANEL IS USED, THE CAUTION MODE SHALL BE DISPLAYED.

(5) UPON THE DISCRETION OF THE SUPERVISOR, ADDITIONAL WARNING SIGNS MAY BE ERECTED AT OTHER INTERSECTIONS WITHIN THE WORK ZONE.

(6) CONTRACTOR SHALL KEEP ALL EXISTING DRIVEWAYS AND FIELD ENTRANCES OPEN WITHIN PROJECT LIMITS DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER (NO DIRECT PAY).

(7) ANY EXISTING SIGNING THAT CONFLICTS WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.

(8) DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS. WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCE WARNING AREA ADDITIONAL SIGNING MAY BE NEEDED.

(9) CONTRACTOR WILL BE RESPONSIBLE FOR CONSTRUCTION OF A LEVEL TEMPORARY PAD FOR CHANGEABLE MESAGE SIGN. LOCATION OF TEMPORARY PAD AND CHANGEABLE MESSAGE SIGN SHALL BE APPROVED BY THE ENGINEER.

(10) NO DIRECT PAY FOR THE TEMPORARY PADS. AT CONCLUSION OF PROJECT CONTRACTOR SHALL REMOVE THE TEMPORARY CMS PADS AND RESTORE CONDITIONS MATCHING PRE-CONSTRUCTION AT NO DIRECT PAY.

STATE OF MISSOURI — DENNIS J KOSCIELSKI — NUMBER PE-2005000712 — PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 6/10/2026

ROUTE	STATE
64	MO

DISTRICT	SHEET NO.
SW	32

COUNTY: DALLAS/LACLEDE

JOB NO.: J7P3542

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.: A9346

DESCRIPTION	DATE

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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TRAFFIC CONTROL SHEETS
PHASE 1A & 1B ADVANCE SIGNING
SHEET 2 OF 19

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LEGEND

- WORK AREA
- CMS — CHANGEABLE MESSAGE SIGN
- SIGN
- (X) SIGN NUMBER

GENERAL TRAFFIC CONTROL PLAN NOTES:

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(2) SIGNING SHALL STAY IN PLACE FOR THE ENTIRE DURATION OF THE PERTINENT PHASE. ADVANCE WARNING SIGNS AT PROJECT LIMITS CAN BE PLACED SUCH THAT THEY ARE APPLICABLE FOR CONSECUTIVE PHASES.

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(4) IF A FLASHING ARROW PANEL IS USED, THE CAUTION MODE SHALL BE DISPLAYED.

(5) UPON THE DISCRETION OF THE SUPERVISOR, ADDITIONAL WARNING SINGS MAY BE ERECTED AT OTHER INTERSECTIONS WITHIN THE WORK ZONE.

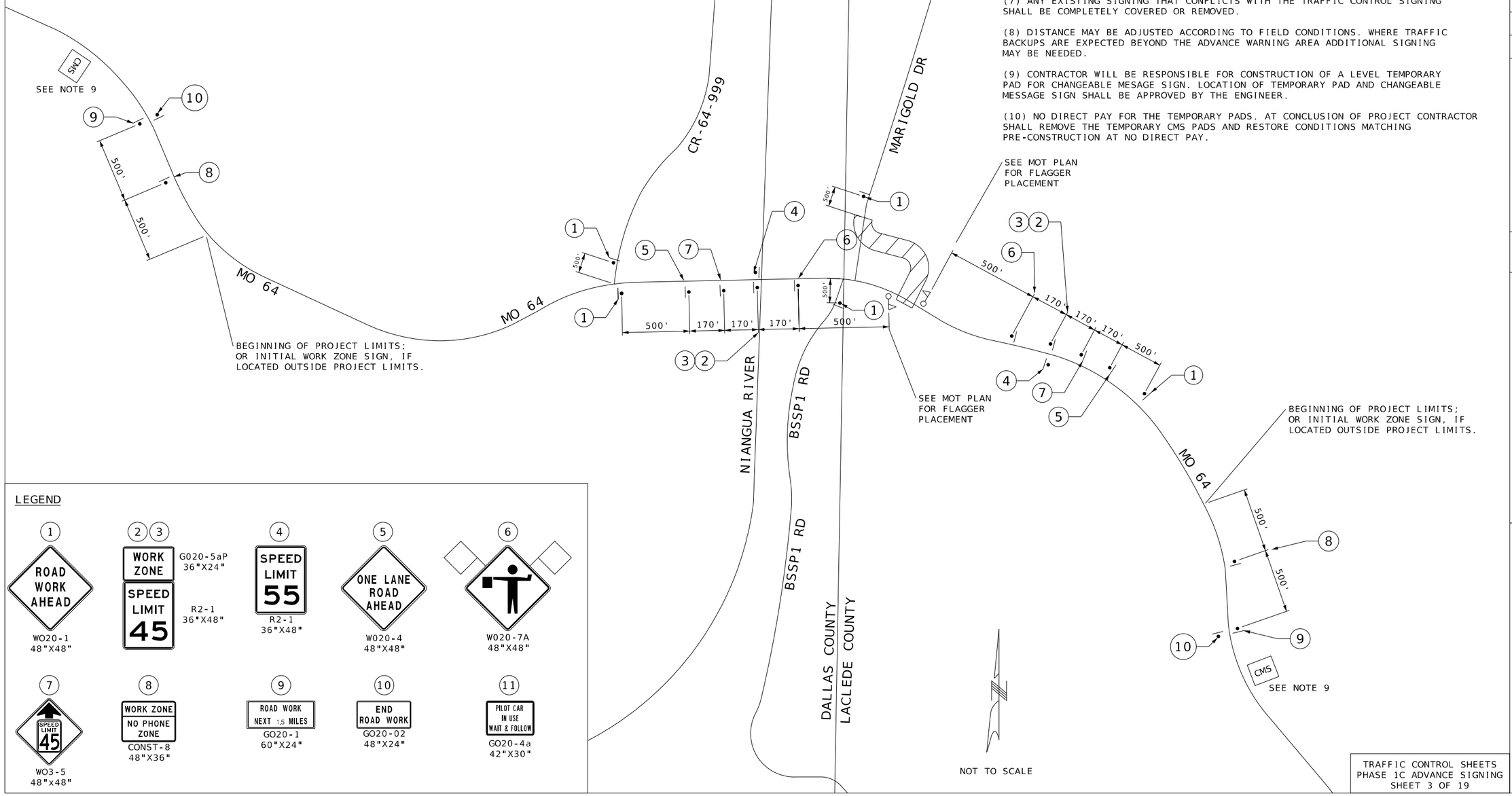
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LEGEND

1 ROAD WORK AHEAD — WO20-1 48"X48"	2 3 WORK ZONE / SPEED LIMIT 45 — G020-5aP 36"X24", R2-1 36"X48"	4 SPEED LIMIT 55 — R2-1 36"X48"	5 ONE LANE ROAD AHEAD — W020-4 48"X48"	6 — W020-7A 48"X48"
7 SPEED LIMIT 45 — WO3-5 48"x48"	8 WORK ZONE / NO PHONE ZONE — CONST-8 48"X36"	9 ROAD WORK NEXT 1.5 MILES — GO20-1 60"X24"	10 END ROAD WORK — GO20-02 48"X24"	11 PILOT CAR IN USE WAIT & FOLLOW — GO20-4a 42"X30"

NOT TO SCALE

TRAFFIC CONTROL SHEETS
PHASE 1C ADVANCE SIGNING
SHEET 3 OF 19

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 6/10/2026

ROUTE	STATE
64	MO

DISTRICT	SHEET NO.
SW	33

COUNTY: DALLAS/LACLEDE

JOB NO.: J7P3542

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.: A9346

DESCRIPTION	DATE

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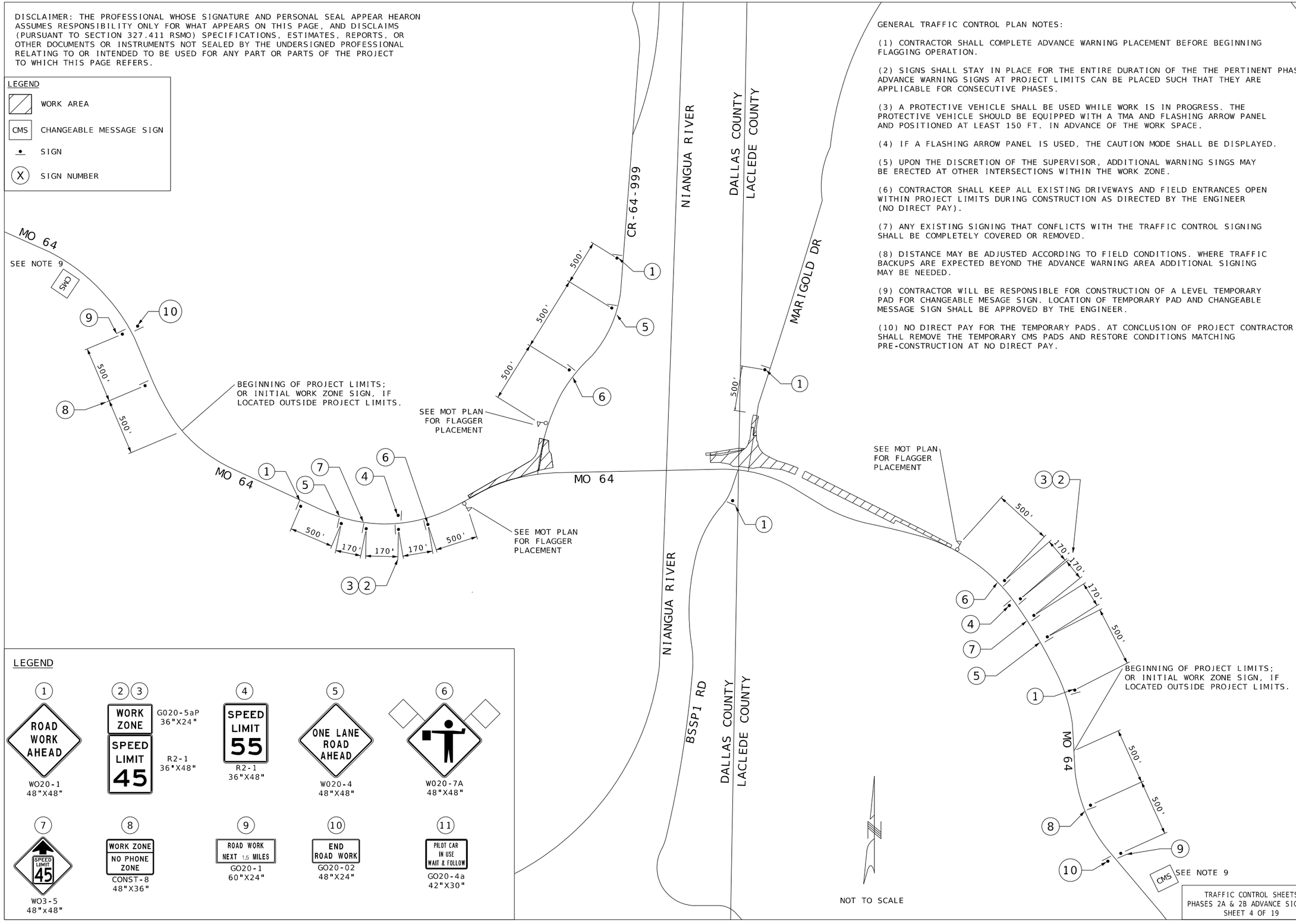
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LEGEND

- WORK AREA
- CMS — CHANGEABLE MESSAGE SIGN
- SIGN
- (X) — SIGN NUMBER



LEGEND

1	2 3	4	5	6
ROAD WORK AHEAD	WORK ZONE / SPEED LIMIT 45	SPEED LIMIT 55	ONE LANE ROAD AHEAD	
WO20-1 48"X48"	G020-5aP 36"X24"; R2-1 36"X48"	R2-1 36"X48"	W020-4 48"X48"	W020-7A 48"X48"
7	8	9	10	11
SPEED LIMIT 45	WORK ZONE / NO PHONE ZONE	ROAD WORK NEXT 1.5 MILES	END ROAD WORK	PILOT CAR IN USE WAIT & FOLLOW
WO3-5 48"x48"	CONST-8 48"X36"	GO20-1 60"X24"	GO20-02 48"X24"	GO20-4a 42"X30"

GENERAL TRAFFIC CONTROL PLAN NOTES:

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STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	34

COUNTY: DALLAS/LACLEDE

JOB NO.: J7P3542

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.: A9346

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

DESCRIPTION	DATE

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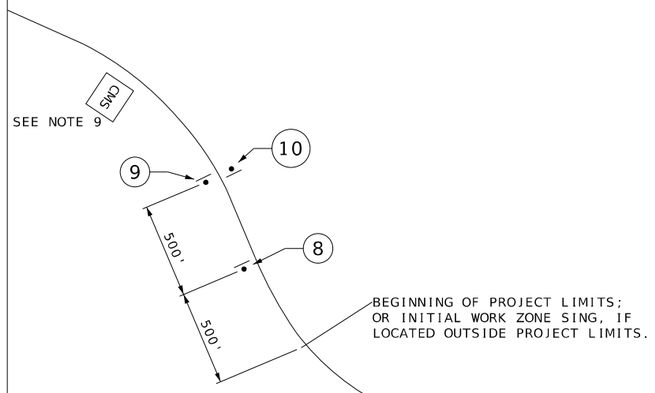
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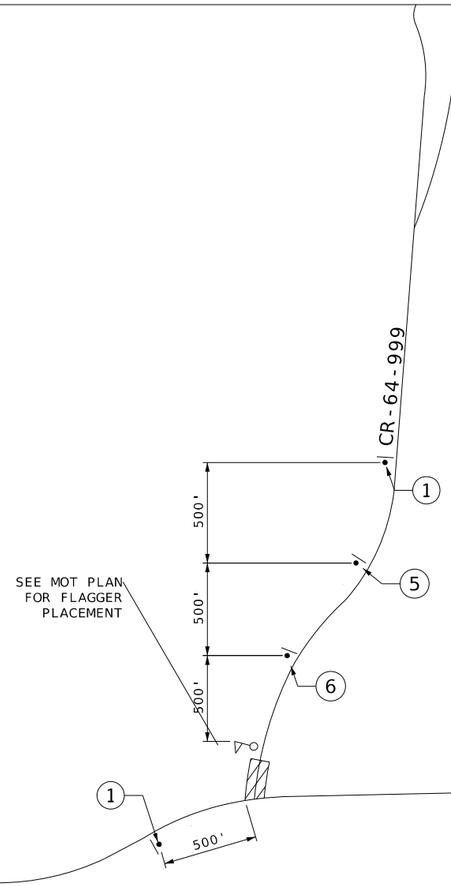
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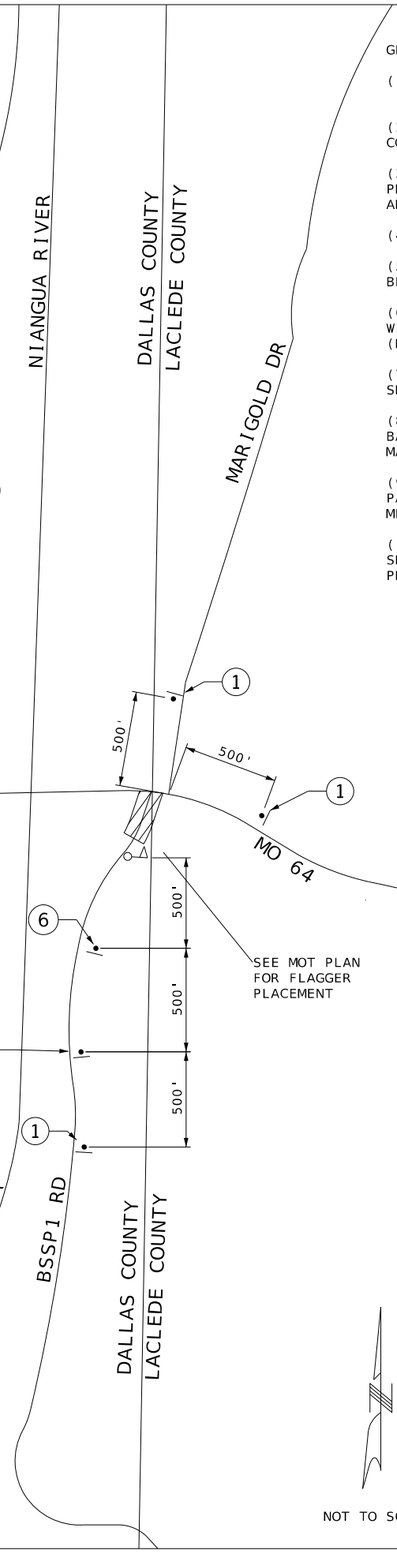
TRAFFIC CONTROL SHEETS
PHASES 2A & 2B ADVANCE SIGNING
SHEET 4 OF 19

LEGEND

- WORK AREA
- CMS — CHANGEABLE MESSAGE SIGN
- SIGN
- (X) SIGN NUMBER







LEGEND

1	2 3	4	5	6
ROAD WORK AHEAD WO20-1 48"X48"	WORK ZONE / SPEED LIMIT 45 G020-5aP 36"X24" R2-1 36"X48"	SPEED LIMIT 55 R2-1 36"X48"	ONE LANE ROAD AHEAD W020-4 48"X48"	W020-7A 48"X48"
7	8	9	10	11
SPEED LIMIT 45 WO3-5 48"x48"	WORK ZONE / NO PHONE ZONE CONST-8 48"X36"	ROAD WORK NEXT 1.5 MILES GO20-1 60"X24"	END ROAD WORK GO20-02 48"X24"	PILOT CAR IN USE WAIT & FOLLOW GO20-4a 42"X30"

GENERAL TRAFFIC CONTROL PLAN NOTES:

(1) CONTRACTOR SHALL COMPLETE ADVANCE WARNING PLACEMENT BEFORE BEGINNING FLAGGING OPERATION.

(2) FOR PLACEMENT OF ADVANCE WARNING SIGNS, FOLLOW DETAILS SHOWN ON TRAFFIC CONTROL SHEET 1 OF 3.

(3) A PROTECTIVE VEHICLE SHALL BE USED WHILE WORK IS IN PROGRESS. THE PROTECTIVE VEHICLE SHOULD BE EQUIPPED WITH A TMA AND FLASHING ARROW PANEL AND POSITIONED AT LEAST 150 FT. IN ADVANCE OF THE WORK SPACE.

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STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	35

COUNTY: DALLAS/LACLEDE

JOB NO.: J7P3542

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.:

DESCRIPTION	DATE

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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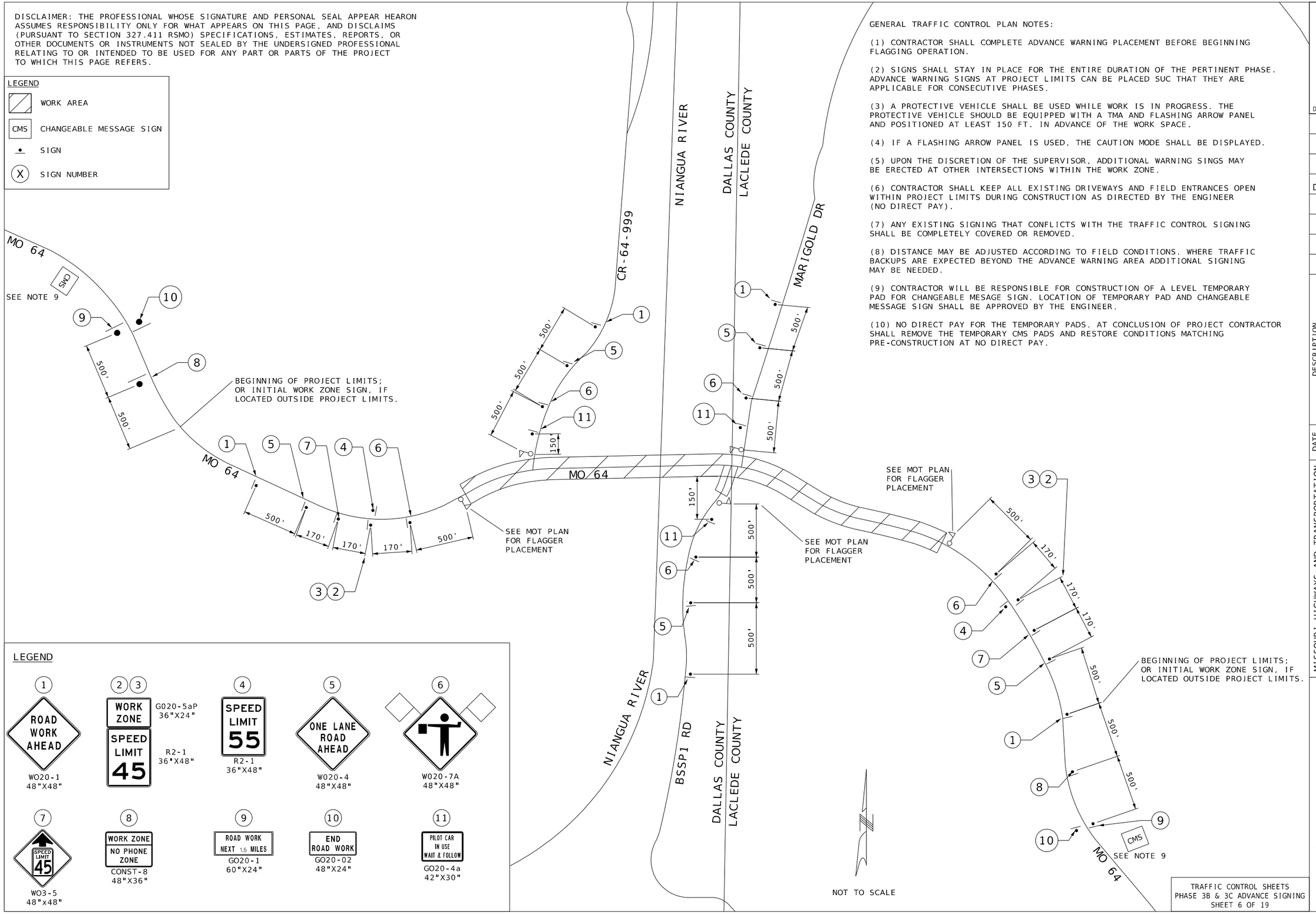
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TRAFFIC CONTROL SHEETS
PHASE 3A ADVANCE SIGNING
SHEET 5 OF 19

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LEGEND

- WORK AREA
- CMS — CHANGEABLE MESSAGE SIGN
- SIGN
- (X) SIGN NUMBER



LEGEND

1 ROAD WORK AHEAD — WO20-1 48"X48"	2 3 WORK ZONE / SPEED LIMIT 45 — G020-5aP 36"X24", R2-1 36"X48"	4 SPEED LIMIT 55 — R2-1 36"X48"	5 ONE LANE ROAD AHEAD — W020-4 48"X48"	6 — W020-7A 48"X48"
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STATE OF MISSOURI — DENNIS J KOSCIELSKI — NUMBER PE-2005000712 — PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	36

COUNTY: DALLAS/LACLEDE

JOB NO.: J7P3542

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.: A9346

DESCRIPTION	DATE

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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TRAFFIC CONTROL SHEETS
PHASE 3B & 3C ADVANCE SIGNING
SHEET 6 OF 19

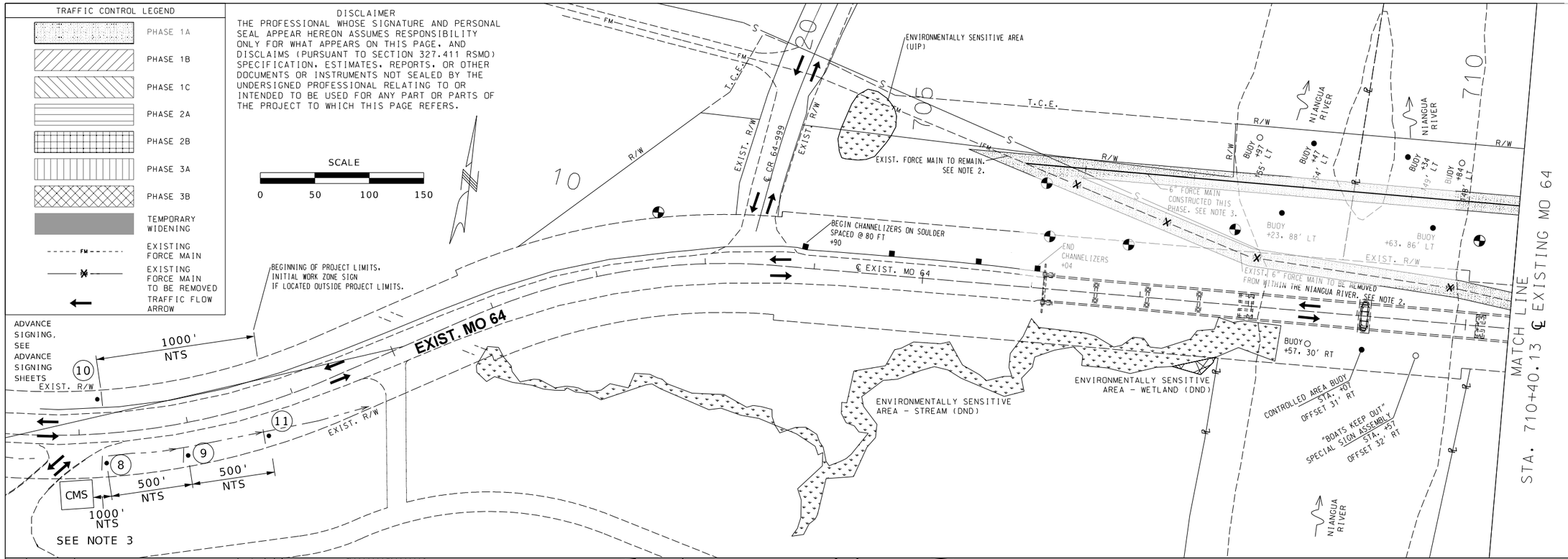
TRAFFIC CONTROL LEGEND

- PHASE 1A
- PHASE 1B
- PHASE 1C
- PHASE 2A
- PHASE 2B
- PHASE 3A
- PHASE 3B
- TEMPORARY WIDENING
- EXISTING FORCE MAIN
- EXISTING FORCE MAIN TO BE REMOVED
- TRAFFIC FLOW ARROW

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SCALE
0 50 100 150



TRAFFIC CONTROL NARRATIVE

PHASE 1A: MAINTAIN EXISTING TRAFFIC FLOW. TIE INTO THE EXISTING FORCE MAIN AT THE POINTS CALLED OUT IN PERTINENT SHEETS. REMOVE EXISTING FORCE MAIN AT LOCATIONS SHOWN IN WASTEWATER PROPOSED CONDITIONS SHEETS. REFER TO WORK BEYOND SHOULDER DETAIL SHEET FOR SIGNING OF WORK OUTSIDE OF SHOULDER.

TRAFFIC CONTROL NOTES

1. CONTRACTOR SHALL INSTALL PERMANENT FORCE MAIN AND REMOVE EXISTING FORCE MAIN BEFORE BEGINNING WORK ON PROPOSED NIANGUA BRIDGE.
2. REFER TO EXISTING WASTEWATER DEMOLITION AND PERMANENT CONDITION SHEETS FOR DETAILS ON FORCE MAIN CONNECTION TO EXISTING FORCE MAIN AND SEGMENT TO BE REMOVED.
3. CONTRACTOR WILL BE RESPONSIBLE FOR CONSTRUCTION OF A LEVEL TEMPORARY PAD FOR CHANGEABLE MESSAGE SIGN. LOCATION OF TEMPORARY PAD AND CHANGEABLE MESSAGE SIGN SHALL BE APPROVED BY THE ENGINEER. ANY SHOULDER WIDENING OR PAD CONSTRUCTION TO BE INCIDENTAL TO PROJECT (NO DIRECT PAY).
4. ALL STATIONS AND OFFSETS ARE TO ℄ EXISTING MO 64.
5. COORDINATE AND RELOCATE ALL BUOYS IN CONFLICT WITH TEMPORARY BERM INSTALLED TO CONSTRUCT THE BRIDGE.

SIGN LEGEND

8	9	10	11
WORK ZONE / NO PHONE ZONE	ROAD WORK NEXT 1.5 MILES	END ROAD WORK	SHOULDER WORK AHEAD
CONST-8 48"X36"	G020-1 60"X24"	G020-02 48"X24"	W021-5 48"X48"

TRAFFIC CONTROL SHEETS
PHASE 1A
SHEET 7 OF 19

LAYOUT	NLS	05/2023
DRAWN	SL	05/2025
REVIEWED	DJK	05/2025

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	37

COUNTY: DALLAS/LACLEDE
JOB NO.: J7P3542
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9346

DESCRIPTION	DATE

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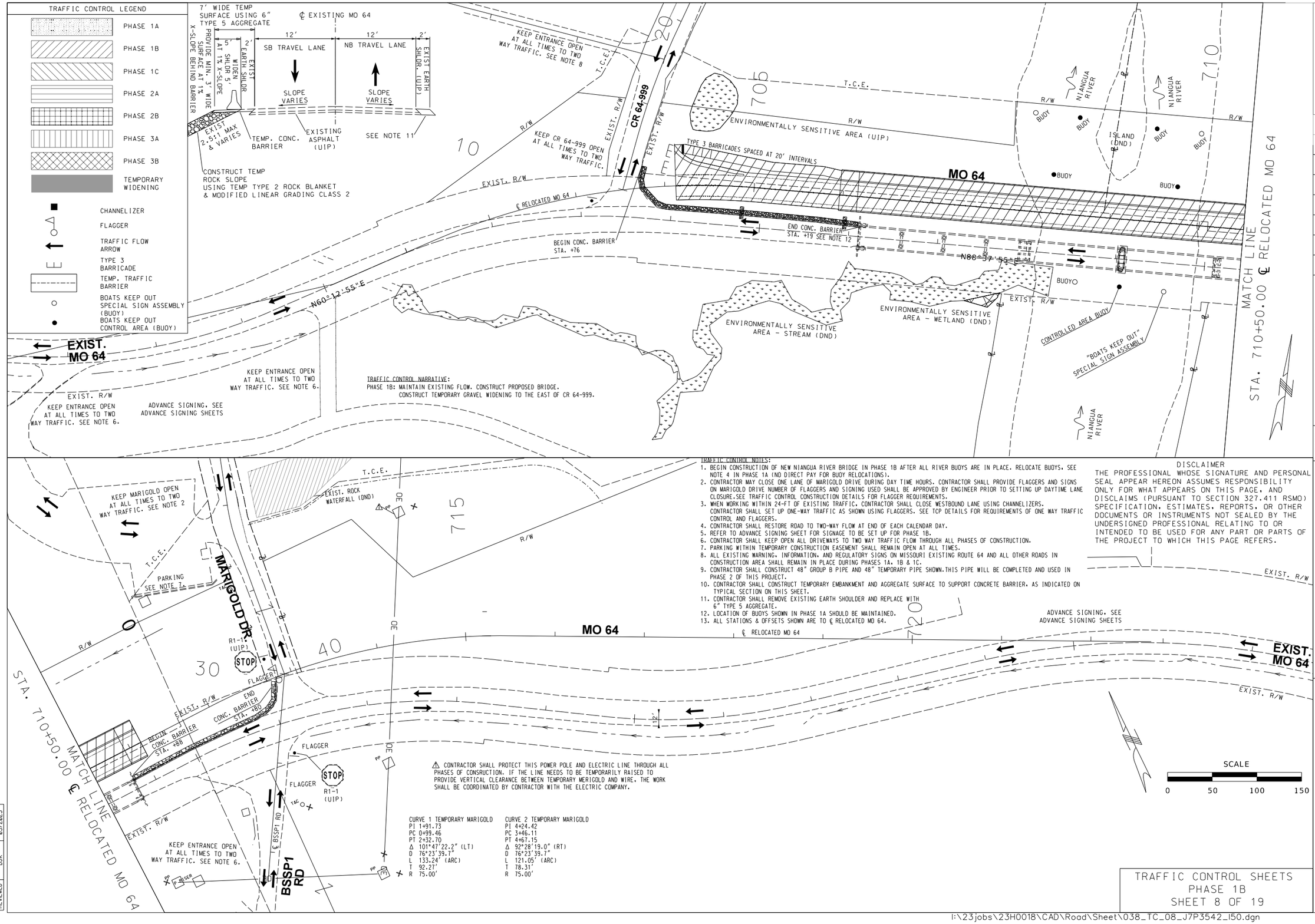
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TRAFFIC CONTROL LEGEND

- PHASE 1A
- PHASE 1B
- PHASE 1C
- PHASE 2A
- PHASE 2B
- PHASE 3A
- PHASE 3B
- TEMPORARY WIDENING
- CHANNELIZER
- FLAGGER
- TRAFFIC FLOW ARROW
- TYPE 3 BARRICADE
- TEMP. TRAFFIC BARRIER
- BOATS KEEP OUT SPECIAL SIGN ASSEMBLY (BUOY)
- BOATS KEEP OUT CONTROL AREA (BUOY)



TRAFFIC CONTROL NARRATIVE:
PHASE 1B: MAINTAIN EXISTING FLOW. CONSTRUCT PROPOSED BRIDGE.
CONSTRUCT TEMPORARY GRAVEL WIDENING TO THE EAST OF CR 64-999.

TRAFFIC CONTROL NOTES:
1. BEGIN CONSTRUCTION OF NEW NIANGUA RIVER BRIDGE IN PHASE 1B AFTER ALL RIVER BUOYS ARE IN PLACE. RELOCATE BUOYS, SEE NOTE 4 IN PHASE 1A (NO DIRECT PAY FOR BUOY RELOCATIONS).
2. CONTRACTOR MAY CLOSE ONE LANE OF MARIGOLD DRIVE DURING DAY TIME HOURS. CONTRACTOR SHALL PROVIDE FLAGGERS AND SIGNS ON MARIGOLD DRIVE NUMBER OF FLAGGERS AND SIGNING USED SHALL BE APPROVED BY ENGINEER PRIOR TO SETTING UP DAYTIME LANE CLOSURE.SEE TRAFFIC CONTROL CONSTRUCTION DETAILS FOR FLAGGER REQUIREMENTS.
3. WHEN WORKING WITHIN 24-FT OF EXISTING TRAFFIC, CONTRACTOR SHALL CLOSE WESTBOUND LANE USING CHANNELIZERS. CONTRACTOR SHALL SET UP ONE-WAY TRAFFIC AS SHOWN USING FLAGGERS. SEE TCP DETAILS FOR REQUIREMENTS OF ONE WAY TRAFFIC CONTROL AND FLAGGERS.
4. CONTRACTOR SHALL RESTORE ROAD TO TWO-WAY FLOW AT END OF EACH CALENDAR DAY.
5. REFER TO ADVANCE SIGNING SHEET FOR SIGNAGE TO BE SET UP FOR PHASE 1B.
6. CONTRACTOR SHALL KEEP OPEN ALL DRIVEWAYS TO TWO WAY TRAFFIC FLOW THROUGH ALL PHASES OF CONSTRUCTION.
7. PARKING WITHIN TEMPORARY CONSTRUCTION EASEMENT SHALL REMAIN OPEN AT ALL TIMES.
8. ALL EXISTING WARNING, INFORMATION, AND REGULATORY SIGNS ON MISSOURI EXISTING ROUTE 64 AND ALL OTHER ROADS IN CONSTRUCTION AREA SHALL REMAIN IN PLACE DURING PHASES 1A, 1B & 1C.
9. CONTRACTOR SHALL CONSTRUCT 48" GROUP B PIPE AND 48" TEMPORARY PIPE SHOWN.THIS PIPE WILL BE COMPLETED AND USED IN PHASE 2 OF THIS PROJECT.
10. CONTRACTOR SHALL CONSTRUCT TEMPORARY EMBANKMENT AND AGGREGATE SURFACE TO SUPPORT CONCRETE BARRIER. AS INDICATED ON TYPICAL SECTION ON THIS SHEET.
11. CONTRACTOR SHALL REMOVE EXISTING EARTH SHOULDER AND REPLACE WITH 6" TYPE 5 AGGREGATE.
12. LOCATION OF BUOYS SHOWN IN PHASE 1A SHOULD BE MAINTAINED.
13. ALL STATIONS & OFFSETS SHOWN ARE TO ℄ RELOCATED MO 64.

⚠ CONTRACTOR SHALL PROTECT THIS POWER POLE AND ELECTRIC LINE THROUGH ALL PHASES OF CONSRUCTION. IF THE LINE NEEDS TO BE TEMPORARILY RAISED TO PROVIDE VERTICAL CLEARANCE BETWEEN TEMPORARY MERIGOLD AND WIRE. THE WORK SHALL BE COORDINATED BY CONTRACTOR WITH THE ELECTRIC COMPANY.

CURVE 1 TEMPORARY MARIGOLD	CURVE 2 TEMPORARY MARIGOLD
PI 1+91.73	PI 4+24.42
PC 0+99.46	PC 3+46.11
PT 2+32.70	PT 4+67.15
Δ 101°47'22.2" (LT)	Δ 92°28'19.0" (RT)
D 76°23'39.7"	D 76°23'39.7"
L 133.24' (ARC)	L 121.05' (ARC)
T 92.27'	T 78.31'
R 75.00'	R 75.00'

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TRAFFIC CONTROL SHEETS
PHASE 1B
SHEET 8 OF 19

LAYOUT	NLS	05/2023
DRAWN	SL & JM	05/2025
REVIEWED	DJK	05/2025

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	38

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

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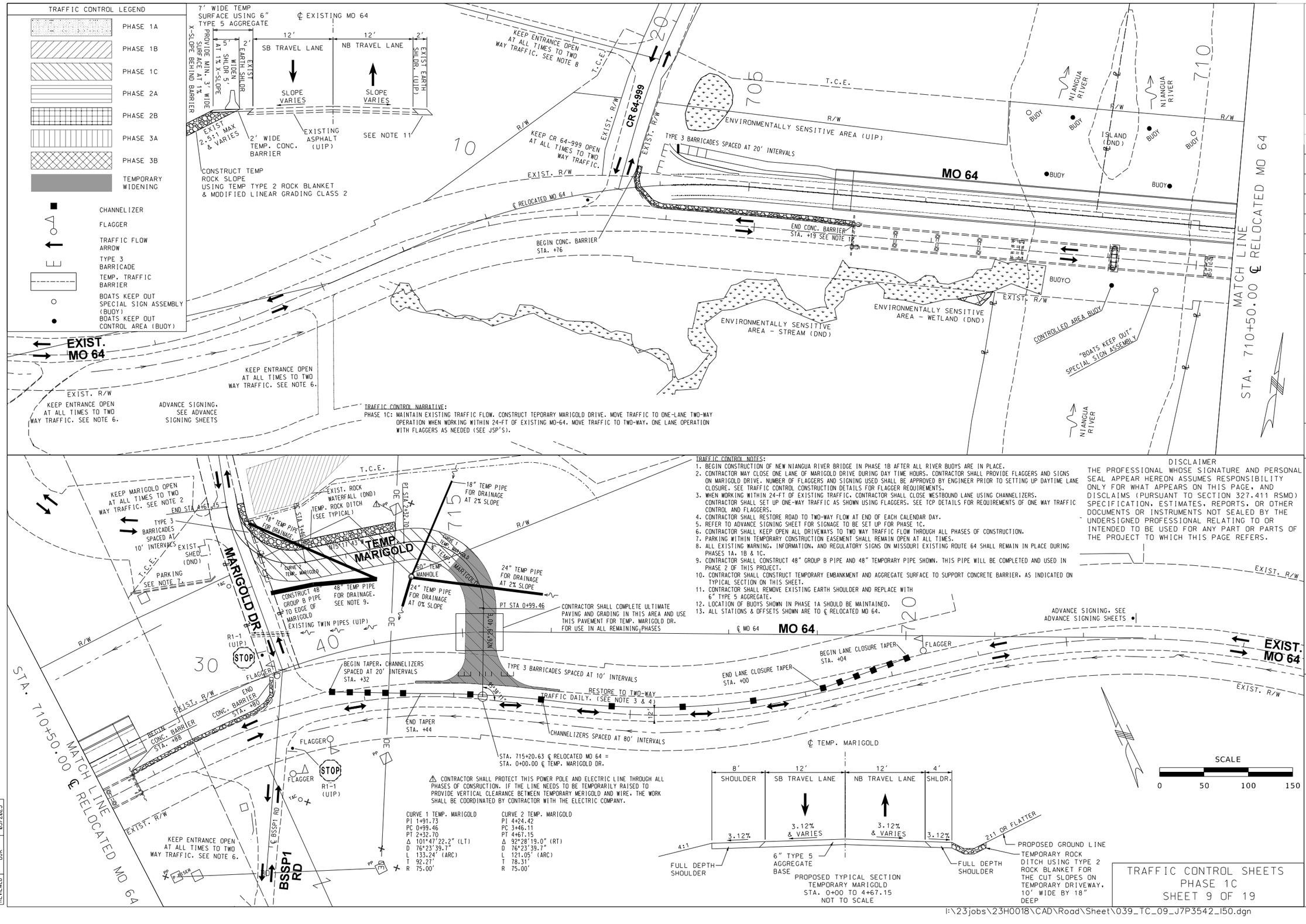
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TRAFFIC CONTROL LEGEND

- PHASE 1A
- PHASE 1B
- PHASE 1C
- PHASE 2A
- PHASE 2B
- PHASE 3A
- PHASE 3B
- TEMPORARY WIDENING
- CHANNELIZER
- FLAGGER
- TRAFFIC FLOW ARROW
- TYPE 3 BARRICADE
- TEMP. TRAFFIC BARRIER
- BOATS KEEP OUT SPECIAL SIGN ASSEMBLY (BUOY)
- BOATS KEEP OUT CONTROL AREA (BUOY)



TRAFFIC CONTROL NOTES:

1. BEGIN CONSTRUCTION OF NEW NIANGUA RIVER BRIDGE IN PHASE 1B AFTER ALL RIVER BUOYS ARE IN PLACE.
2. CONTRACTOR MAY CLOSE ONE LANE OF MARIGOLD DRIVE DURING DAY TIME HOURS. CONTRACTOR SHALL PROVIDE FLAGGERS AND SIGNS ON MARIGOLD DRIVE. NUMBER OF FLAGGERS AND SIGNING USED SHALL BE APPROVED BY ENGINEER PRIOR TO SETTING UP DAYTIME LANE CLOSURE. SEE TRAFFIC CONTROL CONSTRUCTION DETAILS FOR FLAGGER REQUIREMENTS.
3. WHEN WORKING WITHIN 24-FT OF EXISTING TRAFFIC, CONTRACTOR SHALL CLOSE WESTBOUND LANE USING CHANNELIZERS. CONTRACTOR SHALL SET UP ONE-WAY TRAFFIC AS SHOWN USING FLAGGERS. SEE TCP DETAILS FOR REQUIREMENTS OF ONE WAY TRAFFIC CONTROL AND FLAGGERS.
4. CONTRACTOR SHALL RESTORE ROAD TO TWO-WAY FLOW AT END OF EACH CALENDAR DAY.
5. REFER TO ADVANCE SIGNING SHEET FOR SIGNAGE TO BE SET UP FOR PHASE 1C.
6. CONTRACTOR SHALL KEEP OPEN ALL DRIVEWAYS TO TWO WAY TRAFFIC FLOW THROUGH ALL PHASES OF CONSTRUCTION.
7. PARKING WITHIN TEMPORARY CONSTRUCTION EASEMENT SHALL REMAIN OPEN AT ALL TIMES.
8. ALL EXISTING WARNING, INFORMATION, AND REGULATORY SIGNS ON MISSOURI EXISTING ROUTE 64 SHALL REMAIN IN PLACE DURING PHASES 1A, 1B & 1C.
9. CONTRACTOR SHALL CONSTRUCT 48" GROUP B PIPE AND 48" TEMPORARY PIPE SHOWN. THIS PIPE WILL BE COMPLETED AND USED IN PHASE 2 OF THIS PROJECT.
10. CONTRACTOR SHALL CONSTRUCT TEMPORARY EMBANKMENT AND AGGREGATE SURFACE TO SUPPORT CONCRETE BARRIER, AS INDICATED ON TYPICAL SECTION ON THIS SHEET.
11. CONTRACTOR SHALL REMOVE EXISTING EARTH SHOULDER AND REPLACE WITH 6" TYPE 5 AGGREGATE.
12. LOCATION OF BUOYS SHOWN IN PHASE 1A SHOULD BE MAINTAINED.
13. ALL STATIONS & OFFSETS SHOWN ARE TO ℄ RELOCATED MO 64.

PROPOSED TYPICAL SECTION TEMPORARY MARIGOLD STA. 0+00 TO 4+67.15 NOT TO SCALE

TRAFFIC CONTROL SHEETS
PHASE 1C
SHEET 9 OF 19

LAYOUT	N.S	05/2023
DRAWN	SL & JM	05/2025
REVIEWED	DJK	05/2025

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

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DATE PREPARED 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	39

COUNTY: DALLAS/LACLEDE
JOB NO.: J7P3542
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9346

DESCRIPTION	DATE

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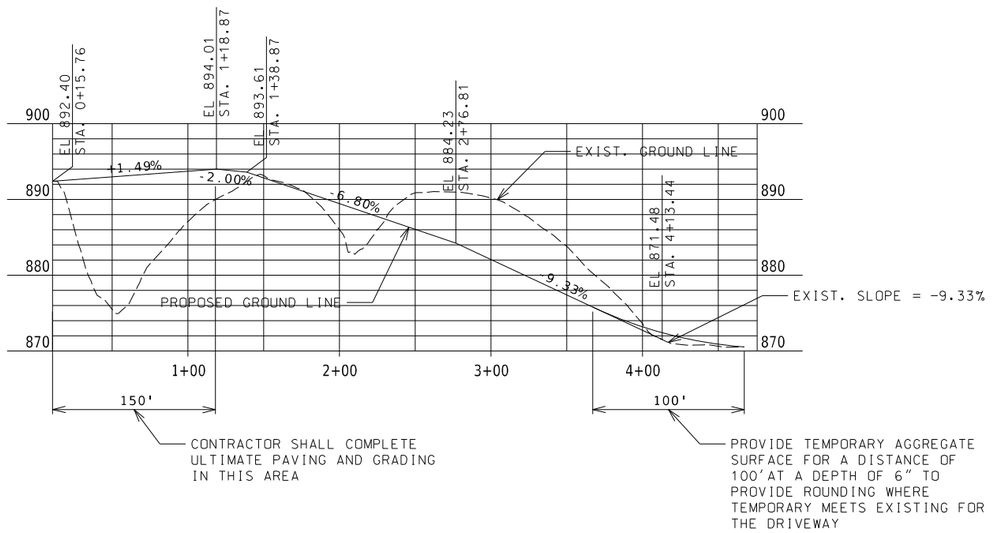
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PROPOSED TEMPORARY MARIGOLD CENTERLINE PROFILE



LAYOUT	CRW	05/2023
DRAWN	SL	05/2025
REVIEWED	DJK	05/2025

DENNIS J KOSCIELSKI
NUMBER PE-2005000712
STATE OF MISSOURI
PROFESSIONAL ENGINEER

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DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	40

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

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TRAFFIC CONTROL SHEETS
TEMPORARY MARIGOLD PROFILE
SHEET 10 OF 19

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TRAFFIC CONTROL LEGEND

- PHASE 1A
- PHASE 1B
- PHASE 1C
- PHASE 2A
- PHASE 2B
- PHASE 3A
- PHASE 3B
- TEMPORARY WIDENING
- CHANNELIZER
- FLAGGER
- TRAFFIC FLOW ARROW
- TYPE 3 BARRICADE
- TEMP. TRAFFIC BARRIER
- BOATS KEEP OUT SPECIAL SIGN ASSEMBLY (BUOY)
- BOATS KEEP OUT CONTROL AREA (BUOY)

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SCALE 0 50 100 150

℄ EXISTING MO 64
WORK AREA | 11′ WB TRAVEL LANE | 11′ EB TRAVEL LANE
9′ TEMPORARY WIDENING USING 2″ OF BP-1 ON 6″ TYPE 5 AGGREGATE BASE
CONSTRUCT TEMP ROCK SLOPE USING TEMP TYPE 2 ROCK BLANKET & MODIFIED LINEAR GRADING CLASS 2

℄ CR 64-999
TEMP. WIDENING | WORK AREA | 12′ TWO WAY TRAFFIC
9′ TEMPORARY WIDENING USING 2″ OF BP-1 ON 6″ TYPE 5 AGGREGATE BASE
CONSTRUCT TEMP ROCK SLOPE USING TEMP TYPE 2 ROCK BLANKET & MODIFIED LINEAR GRADING CLASS 2

CR 64-999 ℄ CR 64-999 EXIST. R/W T.C.E. R/W 720 705 710 715 30 40 10 OE OTV

KEEP ENTRANCE OPEN AT ALL TIMES. SEE NOTE 6

ENVIRONMENTALLY SENSITIVE AREA (DND)

NIANGUA RIVER

BUOY

MO 64 ℄ RELOCATED MO 64 ℄ EXIST. MO 64 EXIST. R/W

STA. 710+50.00 ℄ RELOCATED MO 64 MATCH LINE

END TAPER +41 BEGIN TAPER, CHANNELIZERS SPACED AT 20″ INTERVALS +47 KEEP ENTRANCES OPEN AT ALL TIMES. SEE NOTE 2 ADVANCE SIGNING, SEE ADVANCE SIGNING SHEETS

FLAGGER

+29.15 19.71′ RT +62.41 47.72′ RT END TAPER +47

BEGIN TAPER, CHANNELIZERS SPACED AT 20″ INTERVALS +34

NARROW THE TEMPORARY PAVEMENT AS DIRECTED BY THE ENGINEER AT THE BOX CULVERT. NO DIRECT PAY. ANY TEMPORARY SHORING IF NEEDED SHALL BE CONTRACTOR PROVIDED, CONTRACTOR PROVIDED, CONTRACTOR DESIGNED AT NO DIRECT PAY

+13.84 57.16′ RT

ENVIRONMENTALLY SENSITIVE AREA – STREAM (DND)

ENVIRONMENTALLY SENSITIVE AREA – WETLAND (DND)

CONTROLLED AREA BUOY

"BOATS KEEP OUT" SPECIAL SIGN ASSEMBLY

EXIST. ROCK WATERFALL (DND)

KEEP ENTRANCE OPEN AT ALL TIMES. SEE NOTE 2.

MARIGOLD DR. ℄ MARIGOLD DR. TEMP. MARIGOLD DR.

TYPE 3 BARRICADES SPACED AT 10′ INTERVALS COMPLETE 48″ TEMP PIPE FOR DRAINAGE

COMPLETE 48″ GROUP B PIPE TO PROPOSED DITCH CONSTRUCT 18″ GROUP B PIPE

TYPE 3 BARRICADES SPACED AT 10′ INTERVALS TYPE 3 BARRICADES SPACED AT 10′ INTERVALS

KEEP TEMP MARIGOLD OPEN AT ALL TIMES TO TWO WAY TRAFFIC. SEE NOTE 2.

R11-2 48″X30″ SEE NOTE 7. ROAD CLOSED

TYPE 3 BARRICADES SPACED AT 20′ INTERVALS FLAGGER

ADVANCE SIGNING, SEE ADVANCE SIGNING SHEETS

MO 64 ℄ RELOCATED MO 64 EXIST. MO 64

R1-1 48″X48″ STOP FLAGGER

BEGIN TAPER, CHANNELIZERS SPACED AT 20″ INTERVALS +83

+50.00 14′ RT +84.85 80.94′ RT END TAPER +90

CONSTRUCT 12″ GROUP B PIPE & TYPE A PIPE COLLAR +67.50 182.06′ RT

STA. 710+50.00 ℄ RELOCATED MO 64 MATCH LINE

KEEP ENTRANCE OPEN AT ALL TIMES

℄ BSSP1 RD BSSP1 RD

SCALE 0 50 100 150

℄ EXISTING MO 64
WORK AREA | 11′ WB TRAVEL LANE | 11′ EB TRAVEL LANE
9′ TEMPORARY WIDENING USING 2″ OF BP-1 ON 6″ TYPE 5 AGGREGATE BASE
CONSTRUCT TEMP ROCK SLOPE USING TEMP TYPE 2 ROCK BLANKET & MODIFIED LINEAR GRADING CLASS 2

TRAFFIC CONTROL NARRATIVE

PHASE 2A:CONSTRUCT TEMPORARY WIDENING ON WEST SIDE OF CR 64-999. CONSTRUCT TEMPORARY WIDENING BOTH EAST AND WEST OF THE BRIDGE. TEMPORARY WIDENING IS TO BE USED TO CARRY TRAFFIC IN PHASE 2B. MOVE MO-64 TRAFFIC TO ONE LANE TWO-WAY CONFIGURATION. CONSTRUCT NEW MO-64 EAST OF BRIDGE, HALF OF PROPOSED MARIGOLD DR., AND WEST HALF OF PROPOSED CR 64-999.

TRAFFIC CONTROL NOTES:

1. REFER TO ADVANCE WARNING SHEET FOR SIGNAGE TO BE SET UP FOR PHASE 2.
2. CONTRACTOR SHALL KEEP ALL DRIVEWAYS TO TWO WAY TRAFFIC FLOW THROUGH ALL PHASES OF CONSTRUCTION.
3. PARKING WITHIN TEMPORARY CONSTRUCTION EASEMENT SHALL REMAIN OPEN AT ALL TIMES.
4. ALL EXISTING WARNING, INFORMATION, AND REGULATORY SIGNS ON EXISTING MISSOURI ROUTE 64 SHALL REMAIN IN PLACE DURING PHASE 2.
5. CONTRACTOR SHALL CONSTRUCT REMAINING 48″ TEMPORARY PIPE PARTIALLY CONSTRUCTED IN PHASE 1B.
6. CONTRACTOR SHALL RESTORE MO 64 AND ALL ROADS TO TWO-WAY FLOW AT END OF EACH CALENDAR DAY AND WORKING DAY.
7. CONTRACTOR SHALL PROVIDE R11-2 SIGNS AT ALL TYPE 3 BARRICADE LOCATIONS SHOWN.
8. LOCATION OF BUOYS SHOWN IN PHASE 1A SHOULD BE MAINTAINED.
9. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.
10. CONTRACTOR SHALL CONSTRUCT 12″ GROUP B PIPE AND 12″ PIPE COLLAR SHOWN. PIPE TO BE COMPLETED BEFORE CONSTRUCTION OF TEMPORARY WIDENING.
11. CONTRACTOR SHALL MODIFY TYPE A PIPE COLLAR AS DIRECTED BY THE ENGINEER TO ACHIEVE THE SKEW ANGLE. ANY ADDITIONAL CONCRETE OR OTHER MATERIALS NECESSARY SHALL BE INCIDENTAL TO THE PAY ITEM (NO DIRECT PAY).

TRAFFIC CONTROL SHEETS
PHASE 2A
SHEET 11 OF 19

LAYOUT	NLS	05/2023
DRAWN	JM & SL	05/2025
REVIEWED	DJK	05/2025

STATE OF MISSOURI DENNIS J. KOSCIELSKI NUMBER PE-2005000712 PROFESSIONAL ENGINEER

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DATE PREPARED 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	41

COUNTY DALLAS/LACLEDE

JOB NO. J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9346

DATE	DESCRIPTION

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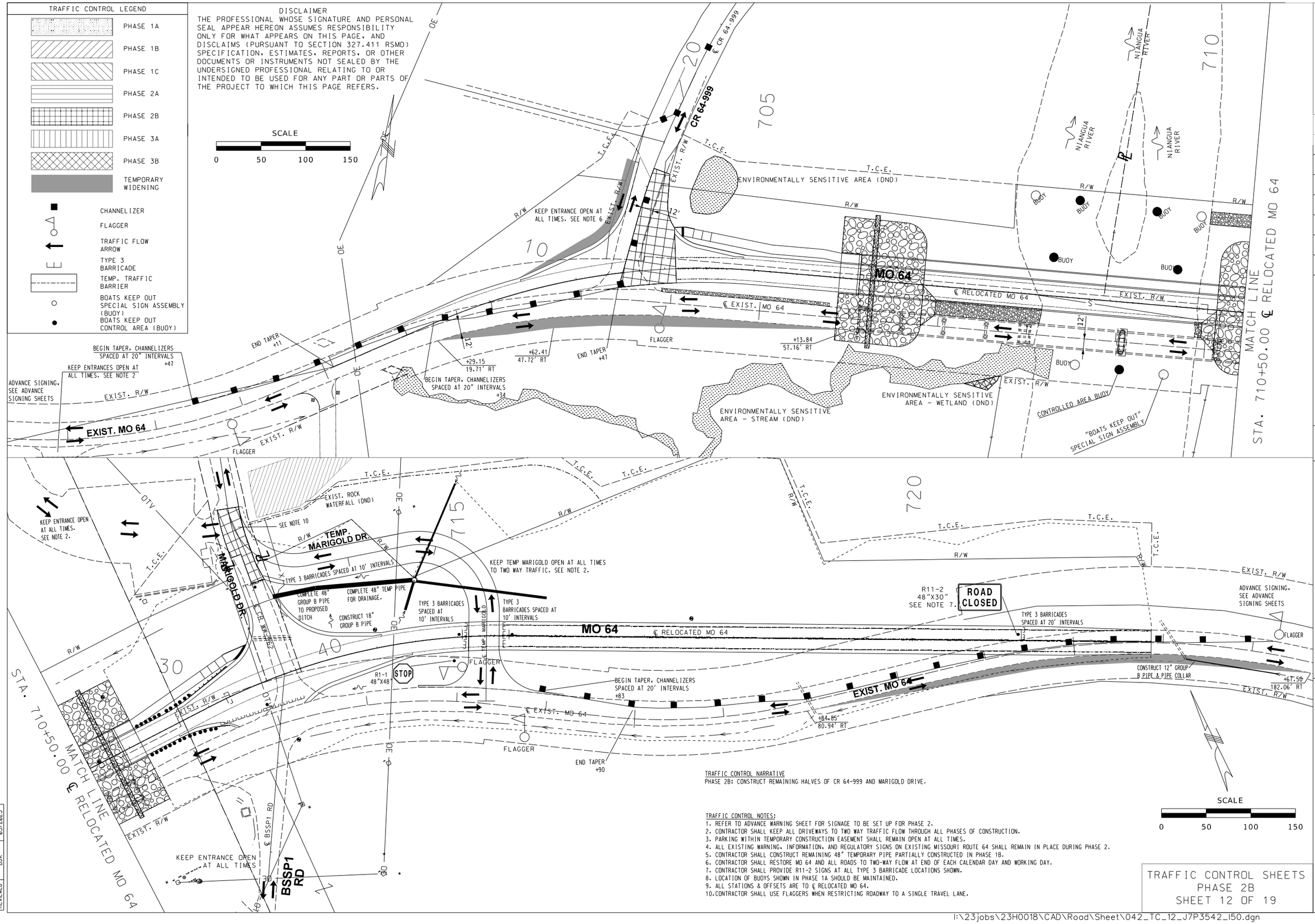
TRAFFIC CONTROL LEGEND

- PHASE 1A
- PHASE 1B
- PHASE 1C
- PHASE 2A
- PHASE 2B
- PHASE 3A
- PHASE 3B
- TEMPORARY WIDENING
- CHANNELIZER
- FLAGGER
- TRAFFIC FLOW ARROW
- TYPE 3 BARRICADE
- TEMP. TRAFFIC BARRIER
- BOATS KEEP OUT SPECIAL SIGN ASSEMBLY (BUOY)
- BOATS KEEP OUT CONTROL AREA (BUOY)

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TRAFFIC CONTROL NARRATIVE

PHASE 2B: CONSTRUCT REMAINING HALVES OF CR 64-999 AND MARIGOLD DRIVE.

TRAFFIC CONTROL NOTES:

1. REFER TO ADVANCE WARNING SHEET FOR SIGNAGE TO BE SET UP FOR PHASE 2.
2. CONTRACTOR SHALL KEEP ALL DRIVEWAYS TO TWO WAY TRAFFIC FLOW THROUGH ALL PHASES OF CONSTRUCTION.
3. PARKING WITHIN TEMPORARY CONSTRUCTION EASEMENT SHALL REMAIN OPEN AT ALL TIMES.
4. ALL EXISTING WARNING, INFORMATION, AND REGULATORY SIGNS ON EXISTING MISSOURI ROUTE 64 SHALL REMAIN IN PLACE DURING PHASE 2.
5. CONTRACTOR SHALL CONSTRUCT REMAINING 48" TEMPORARY PIPE PARTIALLY CONSTRUCTED IN PHASE 1B.
6. CONTRACTOR SHALL RESTORE MO 64 AND ALL ROADS TO TWO-WAY FLOW AT END OF EACH CALENDAR DAY AND WORKING DAY.
7. CONTRACTOR SHALL PROVIDE R11-2 SIGNS AT ALL TYPE 3 BARRICADE LOCATIONS SHOWN.
8. LOCATION OF BUOYS SHOWN IN PHASE 1A SHOULD BE MAINTAINED.
9. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.
10. CONTRACTOR SHALL USE FLAGGERS WHEN RESTRICTING ROADWAY TO A SINGLE TRAVEL LANE.

TRAFFIC CONTROL SHEETS
PHASE 2B
SHEET 12 OF 19

LAYOUT	NLS	05/2023
DRAWN	JM & SL	05/2025
REVIEWED	DJK	05/2025

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

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DATE PREPARED 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	42

COUNTY: DALLAS/LACLEDE

JOB NO.: J7P3542

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.: A9346

DESCRIPTION	DATE

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TRAFFIC CONTROL LEGEND

- PHASE 1A
- PHASE 1B
- PHASE 1C
- PHASE 2A
- PHASE 2B
- PHASE 3A
- PHASE 3B
- TEMPORARY WIDENING
- CHANNELIZER
- FLAGGER
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- BOATS KEEP OUT SPECIAL SIGN ASSEMBLY (BUOY)
- BOATS KEEP OUT CONTROL AREA (BUOY)

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SCALE 0 50 100 150

℄ CR 64-999

12' TWO WAY TRAFFIC | WORK AREA | TEMP. WIDENING

9' TEMPORARY WIDENING USING 2" OF BP-1 ON 6" TYPE 5 AGGREGATE BASE

CONSTRUCT TEMP ROCK SLOPE USING TEMP TYPE 2 ROCK BLANKET & MODIFIED LINEAR GRADING CLASS 2

NIANGUA RIVER

T.C.E.

ENVIRONMENTALLY SENSITIVE AREA (DND)

R/W

CONTRACTOR SHALL CONSTRUCT ADA RAMP AND SIDEWALK IN THIS AREA AFTER THE TEMP. PAVEMENT IS NO LONGER NEEDED FOR THE PROJECT

BUOY

KEEP ENTRANCE OPEN AT ALL TIMES.

CR 64-999

EXIST. R/W

CHANNELIZERS SPACED @ 80' INTERVALS

END TAPER +11

+32.59 14.11' LT

MO 64

℄ RELOCATED MO 64

EXIST. R/W

℄ EXIST. MO 64

EXIST. MO 64

KEEP ENTRANCES OPEN AT ALL TIMES TO TWO WAY TRAFFIC. SEE NOTE 3.

BEGIN TAPER. CHANNELIZERS SPACED AT 20" INTERVALS +47

ADVANCE SIGNING. SEE ADVANCE SIGNING SHEETS

+48.85 14.76' LT

FLAGGER

EXIST. BORROW PIT EASEMENT

KEEP ENTRANCE OPEN AT ALL TIMES TO TWO WAY TRAFFIC. SEE NOTE 3.

ENVIRONMENTALLY SENSITIVE AREA - STREAM (DND)

ENVIRONMENTALLY SENSITIVE AREA - WETLAND (DND)

CONTROLLED AREA BUOY

"BOATS KEEP OUT" SPECIAL SIGN ASSEMBLY

STA. 710+50.00 ℄ MATCH LINE ℄ RELOCATED MO 64

EXIST. ROCK WATERFALL (DND)

TEMP. MARIGOLD DR.

℄ MARIGOLD DR.

℄ TEMP. MARIGOLD DR.

CONTRACTOR SHALL REMOVE TEMPORARY MARIGOLD DR. DURING PHASE 3B.

CONTRACTOR SHALL COMPLETE THIS PIECE OF MO 64 PAVEMENT USING DAYTIME LANE CLOSURES. CONTRACTOR TO REMOVE THE TEMPORARY PAVEMENT FROM PHASE 1C AND CONSTRUCT THE PERMANENT PAVEMENT

KEEP ENTRANCE OPEN AT ALL TIMES TO TWO TRAFFIC. SEE NOTE 3.

+50.00 14.00' 5T

CHANNELIZERS SPACED @ 80' INTERVALS

ADVANCE SIGNING. SEE ADVANCE SIGNING SHEETS

BEGIN TAPER CHANNELIZERS SPACED @ 50' +24

END TAPER +24

ROAD CLOSED

R11-2 48"X30" SEE NOTE 5.

KEEP ENTRANCES OPEN AT ALL TIMES. SEE NOTE 4.

BSSP1 RD

℄ BSSP1 RD

SCALE 0 50 100 150

TRAFFIC CONTROL NARRATIVE

PHASE 3A: MOVE MO-64 TRAFFIC TO ONE LANE TWO-WAY CONFIGURATION ON NEW CONSTRUCTION. CONSTRUCT EAST BOUND CONNECTIONS TO EXISTING MO-64 AT BOTH ENDS OF THE PROJECT. MOVE BSSP-1 RD. TRAFFIC TO A ONE LANE TWO-WAY CONFIGURATION. CONSTRUCT WEST HALF OF PROPOSED BSSP-1 RD.

TRAFFIC CONTROL NOTES

1. REFER TO ADVANCE WARNING SHEET FOR SIGNAGE TO BE SET UP FOR PHASE 3A & 3B.
2. CONTRACTOR SHALL ONLY CLOSE MO 64 TO ONE LANE OF TRAFFIC DURING DAILY LANE CLOSURE. FLAGGING SHALL ONLY OCCUR DURING DAYLIGHT HOURS AT TIMES APPROVED BY THE ENGINEER.CONTRACTOR SHALL RETURN MO 64 TO TWO-WAY TRAFFIC AT THE CONCLUSION OF EACH WORKING DAY.
3. CONTRACTOR SHALL KEEP ALL DRIVEWAYS TO TWO WAY TRAFFIC FLOW THROUGH ALL PHASES OF CONSTRUCTION.
4. CONTRACTOR SHALL CLOSE ONE LANE OF BSSP-1 ROAD DURING DAY TIME HOURS. REFER TO ADVANCE WARNING SHEETS FOR 3A & 3B FOR FLAGGIN OPERATION SIGNS NOT SHOWN.
5. CONTRACTOR SHALL PLACE ROAD CLOSED SIGNS AT ALL TYPE 3 BARRICADE LOCATIONS SHOWN.
6. LOCATION OF BUOYS SHOWN IN PHASE 1A SHOULD BE MAINTAINED.
7. ALL STATIONS & OFFSETS SHOWN ARE TO ℄ RELOCATED MO 64.
8. CONTRACTOR SHALL RESTORE MO 64 AND ALL ROADS TO TWO-WAY FLOW AT THE END OF EACH CALENDAR DAY AND WORKING DAY.

TRAFFIC CONTROL SHEETS
PHASE 3A
SHEET 13 OF 19

LAYOUT	NLS	05/2023
DRAWN	SL & JM	05/2025
REVIEWED	DJK	05/2025

STATE OF MISSOURI · DENNIS J KOSCIELSKI · NUMBER PE-2005000712 · PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	43

COUNTY: DALLAS/LACLEDE

JOB NO. J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9346

DESCRIPTION	DATE

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

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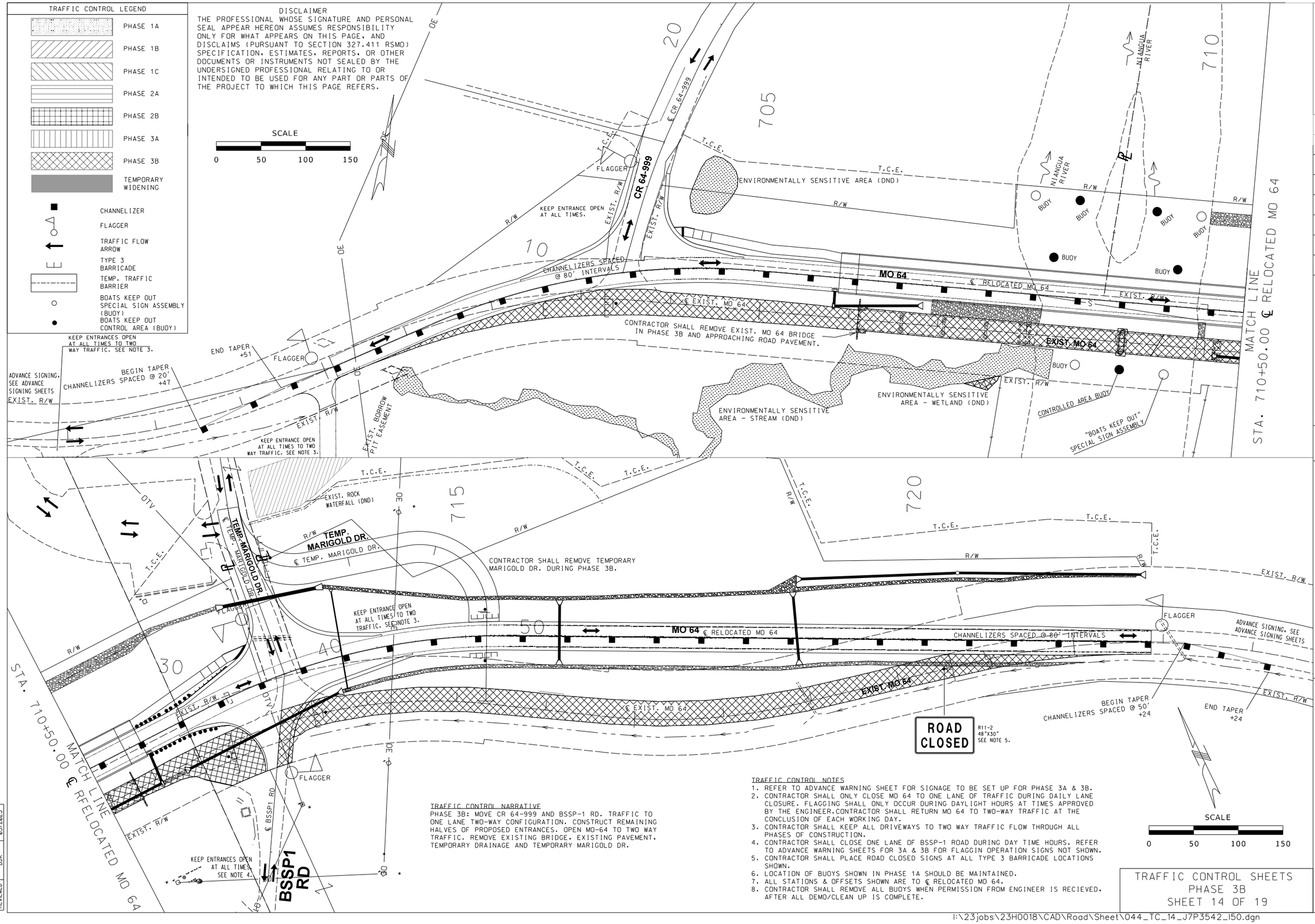
TRAFFIC CONTROL LEGEND

- PHASE 1A
- PHASE 1B
- PHASE 1C
- PHASE 2A
- PHASE 2B
- PHASE 3A
- PHASE 3B
- TEMPORARY WIDENING
- CHANNELIZER
- FLAGGER
- TRAFFIC FLOW ARROW
- TYPE 3 BARRICADE
- TEMP. TRAFFIC BARRIER
- BOATS KEEP OUT SPECIAL SIGN ASSEMBLY (BUOY)
- BOATS KEEP OUT CONTROL AREA (BUOY)

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SCALE 0 50 100 150



TRAFFIC CONTROL NARRATIVE

PHASE 3B: MOVE CR 64-999 AND BSSP-1 RD. TRAFFIC TO ONE LANE TWO-WAY CONFIGURATION. CONSTRUCT REMAINING HALVES OF PROPOSED ENTRANCES. OPEN MO-64 TO TWO WAY TRAFFIC. REMOVE EXISTING BRIDGE, EXISTING PAVEMENT, TEMPORARY DRAINAGE AND TEMPORARY MARIGOLD DR.

TRAFFIC CONTROL NOTES

1. REFER TO ADVANCE WARNING SHEET FOR SIGNAGE TO BE SET UP FOR PHASE 3A & 3B.
2. CONTRACTOR SHALL ONLY CLOSE MO 64 TO ONE LANE OF TRAFFIC DURING DAILY LANE CLOSURE. FLAGGING SHALL ONLY OCCUR DURING DAYLIGHT HOURS AT TIMES APPROVED BY THE ENGINEER.CONTRACTOR SHALL RETURN MO 64 TO TWO-WAY TRAFFIC AT THE CONCLUSION OF EACH WORKING DAY.
3. CONTRACTOR SHALL KEEP ALL DRIVEWAYS TO TWO WAY TRAFFIC FLOW THROUGH ALL PHASES OF CONSTRUCTION.
4. CONTRACTOR SHALL CLOSE ONE LANE OF BSSP-1 ROAD DURING DAY TIME HOURS. REFER TO ADVANCE WARNING SHEETS FOR 3A & 3B FOR FLAGGIN OPERATION SIGNS NOT SHOWN.
5. CONTRACTOR SHALL PLACE ROAD CLOSED SIGNS AT ALL TYPE 3 BARRICADE LOCATIONS SHOWN.
6. LOCATION OF BUOYS SHOWN IN PHASE 1A SHOULD BE MAINTAINED.
7. ALL STATIONS & OFFSETS SHOWN ARE TO ℄ RELOCATED MO 64.
8. CONTRACTOR SHALL REMOVE ALL BUOYS WHEN PERMISSION FROM ENGINEER IS RECIEVED. AFTER ALL DEMO/CLEAN UP IS COMPLETE.

LAYOUT	NLS	05/2023
DRAWN	SL & JM	05/2025
REVIEWED	DJK	05/2025

TRAFFIC CONTROL SHEETS
PHASE 3B
SHEET 14 OF 19

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	44

COUNTY: DALLAS/LACLEDE

JOB NO.: J7P3542

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.: A9346

DESCRIPTION	DATE

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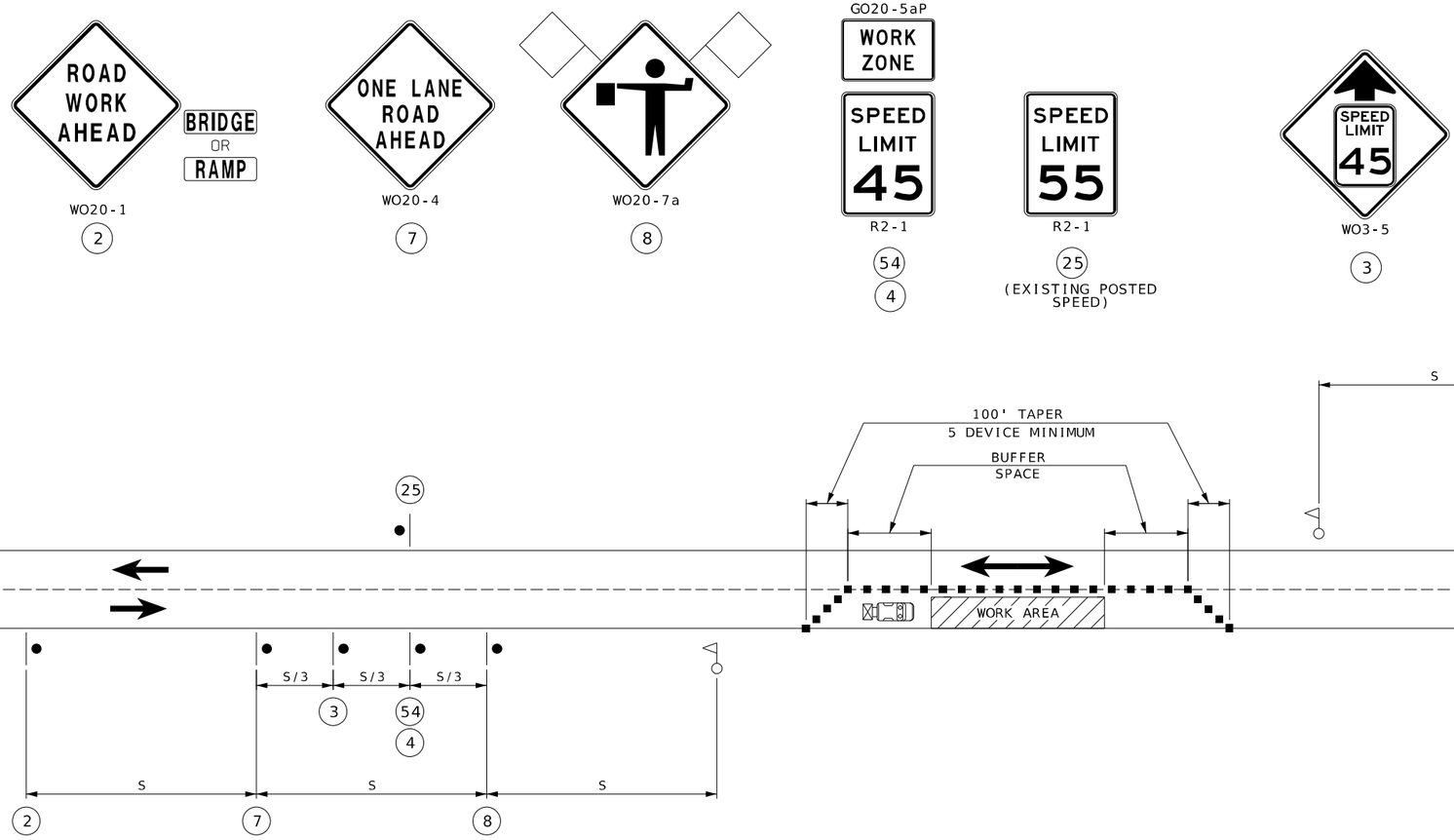
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NOTES:

CHANNELIZING DEVICES LOCATED DOWNSTREAM OF THE ONE-LANE, TWO-WAY TAPER ARE OPTIONAL.
THESE DEVICES SHOULD BE ELIMINATED WHEN THEIR USE WILL REDUCE THE USABLE LANE WIDTH, INCLUDING ANY ACCEPTABLE SHOULDERS, TO LESS THAN 10' OR WILL SIGNIFICANTLY AFFECT THE RESURFACING OPERATION.

FLAG ASSEMBLIES FOR SIGN W020-7a ARE SUBSIDIARY TO THE SIGN.

THIS PLAN IS FOR DAYLIGHT FLAGGING OPERATIONS ONLY. WHEN NIGHT WORK IS REQUIRED, OR OTHERWISE ALLOWED BY THE ENGINEER, WORK ZONE LIGHTING SHALL BE PROVIDED IN ACCORDANCE WITH SEC 616.5.5.

■ - CHANNELIZERS

- FLAGGER

SPEED	SIGN SPACING (FT) (1)	CHANNELIZER SPACING (FT)	OPTIONAL
PERMANENT POSTED (MPH)	UNDIVIDED HIGHWAYS (S)	BUFFER/ WORK AREAS	BUFFER LENGTH (FT)
0-35	200	40	280
40-45	350	80	400
50-55	500	80	560
60-70	1000	120	840

SPACING NOTES:

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

SPACINGS MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS, AS APPROVED BY ENGINEER.

LANE CLOSURE USING FLAGGERS
(UNDIVIDED HIGHWAY)

NOT TO SCALE

TRAFFIC CONTROL SHEETS
LANE CLOSURE DETAIL
SHEET 15 OF 19

LAYOUT	CTE	05/2025
DRAWN	CTE	05/2025
REVIEWED	DJK	05/2025

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

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DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	45

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

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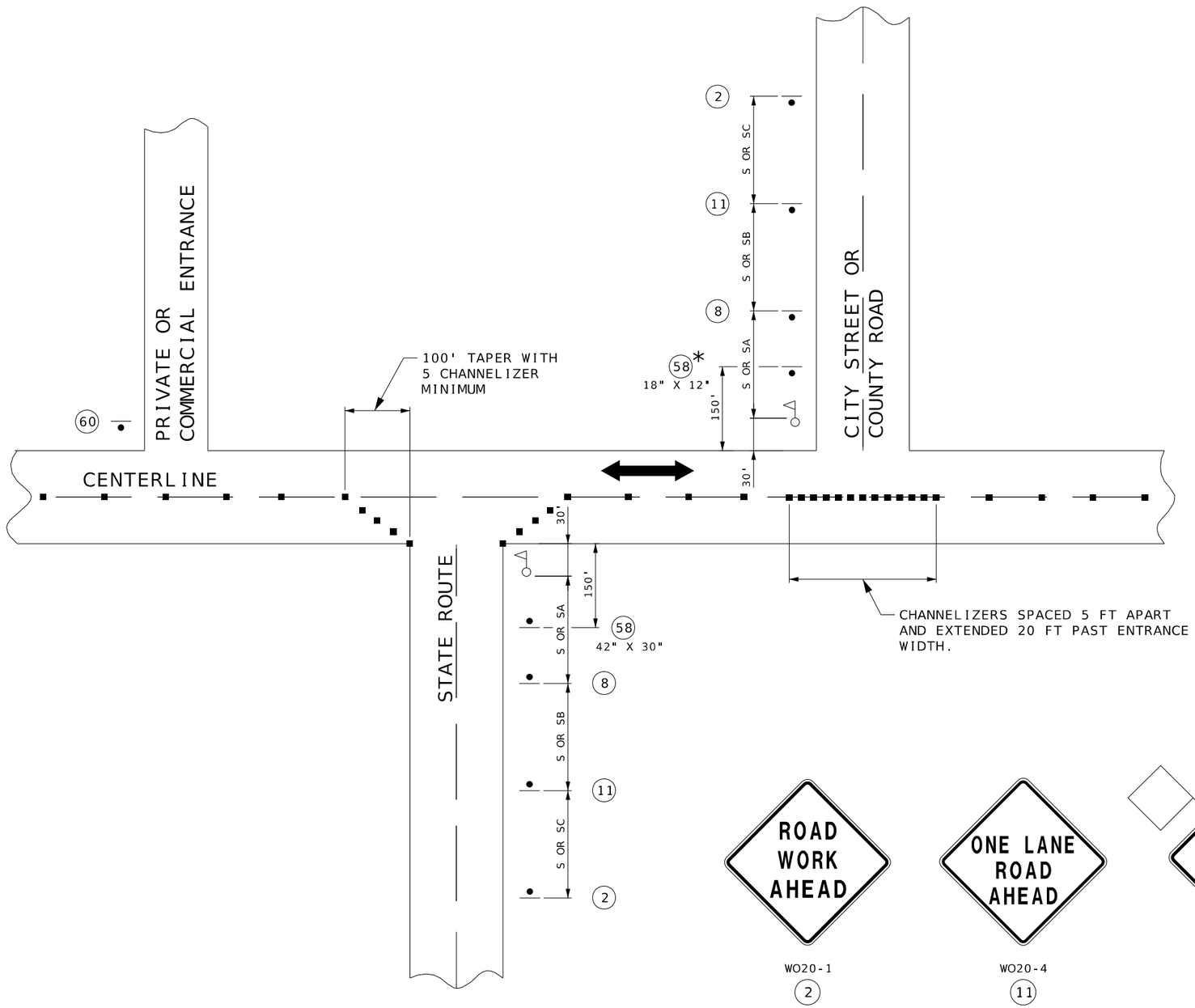
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SIDE ROADS ENTERING WORK ZONES



SPEED	SIGN SPACING (FT.)	
PERMANENT POSTED (MPH)	NON-DIVIDED HIGHWAYS (S)	DIVIDED HIGHWAYS (S)
0-35	200	200
40-45	350	500
50-55	500	1000
60-70	1000	(SA)-1000 (SB)-1500 (SC)-2640

DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS.

NOTES:
WARNING SIGNS SHALL BE ERECTED AT EACH INTERSECTION WITH ANOTHER STATE HIGHWAY WITHIN THE WORK ZONE.

ADDITIONAL WARNING SIGNS SHALL BE ERECTED AT OTHER INTERSECTIONS WITHIN THE WORK ZONE, AS DIRECTED BY THE ENGINEER.

■ - CHANNELIZERS

- FLAGGER

THIS PLAN IS FOR DAYLIGHT FLAGGING OPERATIONS ONLY. WHEN NIGHT WORK IS REQUIRED, OR OTHERWISE ALLOWED BY THE ENGINEER, WORK ZONE LIGHTING SHALL BE PROVIDED IN ACCORDANCE WITH SEC 616.5.5.



GO20-4a

(58)

SHALL BE USED ON ALL STATE ROUTES AND MAY BE USED ON ANY NON-STATE ROUTES, AS DETERMINED BY THE ENGINEER.

* THE SMALLER 18" X 12" SIGN 58 IS USED ON ALL OTHER NON-STATE ROUTES (CITY STREETS, COUNTY ROADS, ETC.).



24" X 18"

(60)

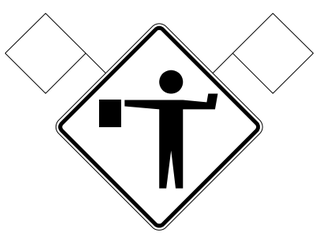
SHALL ONLY BE USED AT PRIVATE AND COMMERCIAL ENTRANCES. SEE STD PLAN 616.10

WO20-1

(2)

WO20-4

(11)



WO20-7a

(8)

NOT TO SCALE

TRAFFIC CONTROL SHEETS
SIDE ROADS DETAIL
SHEET 16 OF 19

LAYOUT	CTE	05/2025
DRAWN	CTE	05/2025
REVIEWED	DJK	05/2025

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

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DATE PREPARED: 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	46

COUNTY: DALLAS/LACLEDE

JOB NO.: J7P3542

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.: A9346

DESCRIPTION	DATE

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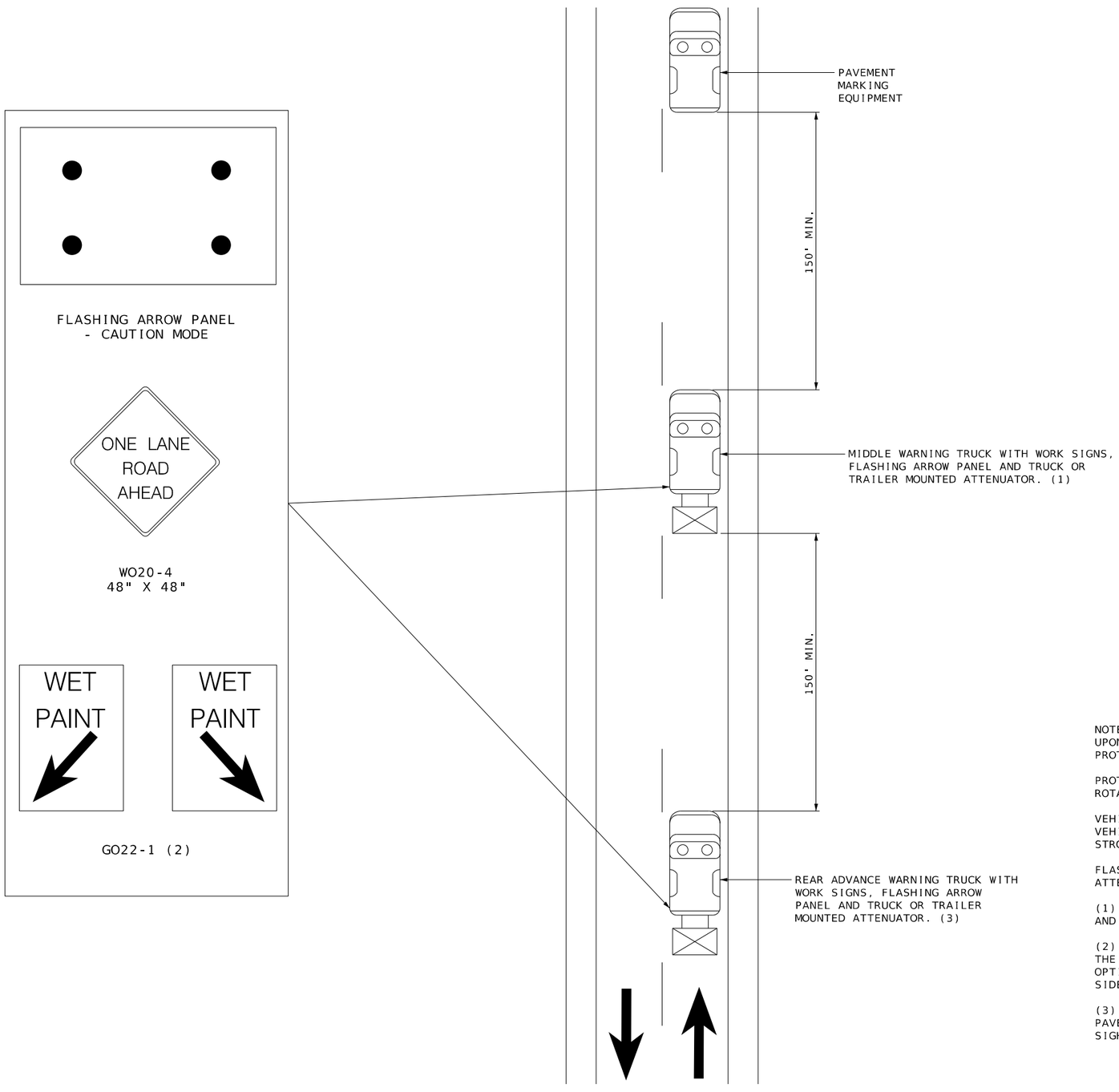
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CENTERLINE/EDGELINE STRIPING ON TWO-LANE HIGHWAYS

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

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

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

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

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

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

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

NOT TO SCALE

TRAFFIC CONTROL SHEETS
STRIPING DETAIL
SHEET 17 OF 19

LAYOUT	CRW	07/2023
DRAWN	CRW	07/2023
REVIEWED	DJK	07/2023

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	47

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

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

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SHOULDER WORK WITH MINOR TRAVELWAY ENCROACHMENT OR NO ENCROACHMENT (UNDIVIDED HIGHWAY)

SPEED	SIGN SPACING (FT)	TAPER LENGTH (FT)		OPTIONAL	CHANNELIZER SPACING (FT)	
PERMANENT POSTED (MPH)	UNDIVIDED HIGHWAYS (S)	SHOULDER(1) (T1)	LANE(2) (T2)	BUFFER LENGTH (FT) (B)	TAPERS	BUFFER/ WORK AREAS
0-35	200	70	245	280	35	40
40-45	350	150	540	400	40	80
50-55	500	185	660	560	50	80
60-70	1000	235	840	840	60	120

NOTES:

(1) SHOULDER TAPER LENGTH BASED ON 10 FT. (STANDARD SHOULDER WIDTH) OFFSET.
(2) LANE TAPER LENGTH BASED ON 12 FT. (STANDARD LANE WIDTH) OFFSET.
(3) NEXT XX MILES SIGN NOT REQUIRED FOR NARROW LANE SECTIONS LESS THAN ONE MILE.



WO20-1

(2)



WO21-5

(21)



WO5-1



(3)

WO7-3a

(43) ∗

∗OMIT SIGN 43 FOR NO TRAVELWAY ENCROACHMENT.

GO20-5aP





R2-1

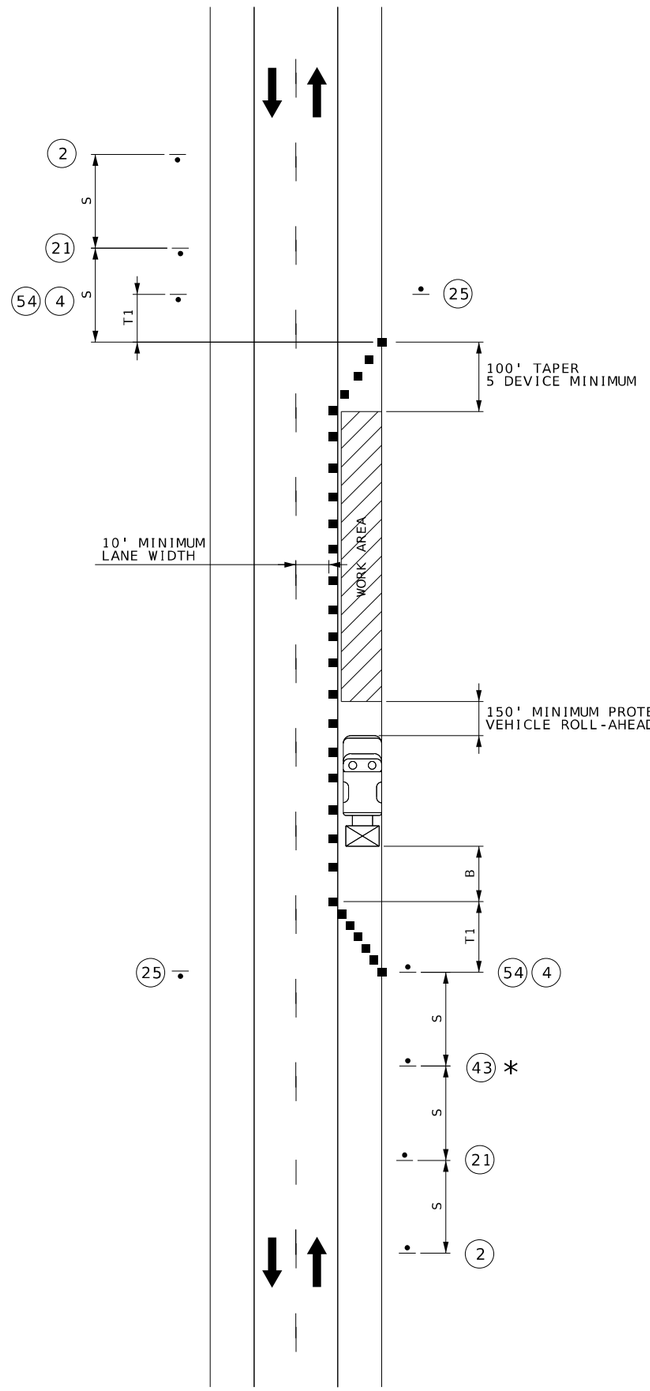
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(4)



R2-1

(25)

(NORMAL SPEED)



25

NOT TO SCALE

TRAFFIC CONTROL SHEETS
SHOULDER WORK DETAIL
SHEET 18 OF 19

LAYOUT	CRW	07/2023
DRAWN	CRW	07/2023
REVIEWED	DJK	07/2023

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	48

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

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

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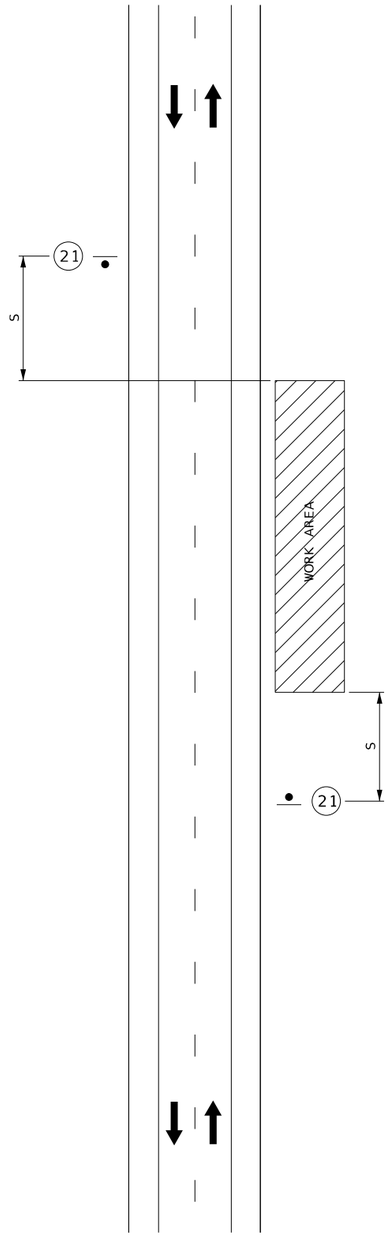
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WORK BEYOND THE SHOULDER

(UNDIVIDED HIGHWAY)



SPEED	SIGN SPACING (FT) (1)
PERMANENT POSTED (MPH)	UNDIVIDED HIGHWAYS (S)
0-35	200
40-45	350
50-55	500
60-70	1000

SPACING NOTES:

(1) SPACING BETWEEN SIGNS MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS, AS APPROVED BY ENGINEER.



WO21-5

21

NOT TO SCALE

TRAFFIC CONTROL SHEETS
WORK BEYOND SHOULDER DETAIL
SHEET 19 OF 19

LAYOUT	CRW	07/2023
DRAWN	CRW	07/2023
REVIEWED	DJK	07/2023

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO

DISTRICT	SHEET NO.
SW	49

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

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EROSION CONTROL LEGEND

- ROCK DITCH CHECK
- SILT FENCE
- TYPE C BERM
- TYPE 2 ROCK BLANKET
- TEMPORARY SEEDING AND MULCHING
- PHASE 1A
- PHASE 1B
- PHASE 1C
- PHASE 2A
- PHASE 2B
- PHASE 3A
- PHASE 3B
- TEMPORARY WIDENING

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SCALE
0 50 100 150

BEGIN PROJECT STA. 700+10.40
EXIST. R/W
KEEP ENTRANCE OPEN AT ALL TIMES
BEGIN SILT FENCE +44.90
BEGIN SILT FENCE +23.20
BEGIN TYPE C BERM +92.60
ENVIRONMENTALLY SENSITIVE AREA (DND)
END SILT FENCE +84.30
END SILT FENCE BEGIN TYPE C BERM +28.34
ENVIRONMENTALLY SENSITIVE AREA - STREAM (DND)
ENVIRONMENTALLY SENSITIVE AREA - WETLAND (DND)
NEW RIGHT OF WAY
T.C.E.
EXIST. R/W
℄ CR 64-999
CR 64-999
℄ EXIST. MO 64
+00.00
+84.33
+87.64
+04.72
+98.91
NEW R/W
EXIST. R/W
℄ RELOCATED MO 64
MO 64
EXIST. MO 64
NIANGUA RIVER
END TYPE C BERM +50.00
MATCH LINE STA. 710+50.00 ℄ RELOCATED MO 64
710
720
CONSTRUCTION LIMITS FOR TEMP. MARIGOLD DR.
SILT FENCE +90.90
TEMP. MARIGOLD DR.
NEW R/W
℄ TEMP. MARIGOLD DR.
+34.00
SILT FENCE +98.16
SECTION LINE
END SILT FENCE +30.18
BEGIN SILT FENCE +50.00
℄ MARIGOLD DR.
MARIGOLD DR.
LACLEDE COUNTY
TAXLOTS COUNTY
30
40
50
SILT FENCE +14.91
BEGIN ROCK DITCH CHECK +50.00 94.40
END ROCK DITCH CHECK +71.89 46.42
EXIST. R/W ℄ BSSP1 RD
BSSP1 RD
END PROJECT STA. 722+67.50

NOTES:
1. CONTRACTOR SHALL INSTALL SILT FENCE SHOWN BEFORE BEGINNING PHASE.
2. CONTRACTORS SHALL MAINTAIN DEVICES THROUGHOUT THE LENGTH OF CONSTRUCTION.
3. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.

SCALE
0 50 100 150

EROSION CONTROL
PHASE 1
SHEET 1 OF 3

LAYOUT	N.S	05/2025
DRAWN	N.S	05/2024
REVIEWED	D.K	05/2025

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

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DATE PREPARED 6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	50

COUNTY: DALLAS/LACLEDE
JOB NO.: J7P3542
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9346

DESCRIPTION	DATE

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EROSION CONTROL LEGEND

- (R) ROCK DITCH CHECK
- F SILT FENCE
- TYPE C BERM
- TYPE 2 ROCK BLANKET
- TEMPORARY SEEDING AND MULCHING
- PHASE 1A
- PHASE 1B
- PHASE 1C
- PHASE 2A
- PHASE 2B
- PHASE 3A
- PHASE 3B
- TEMPORARY WIDENING

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SCALE
0 50 100 150

END SILT FENCE +60.25
BEGIN SILT FENCE +10.40
BEGIN PROJECT STA. 700+10.40
+68.08 39.21' RT
BEGIN TYPE C BERM +92.60
ENVIRONMENTALLY SENSITIVE AREA (DND)
+84.30
+28.34
+87.64
+04.72
+98.91
BEGIN ROCK DITCH CHECK +05.50 95.95'LT
END TYPE C BERM +50.00
ENVIRONMENTALLY SENSITIVE AREA - STREAM (DND)
ENVIRONMENTALLY SENSITIVE AREA - WETLAND (DND)
NIANGUA RIVER
STA. 710+50.00 ℄ RELOCATED MO 64 MATCH LINE
CR 64-999
EXIST. MO 64
℄ EXIST. MO 64
℄ RELOCATED MO 64
EXIST. R/W
NEW RIGHT OF WAY
NEW R/W
T.C.E.
OE
OTV
705
710
720
715
TEMP. MARIGOLD DR.
CONSTRUCTION LIMITS FOR NEW RIGHT OF WAY TEMP. MARIGOLD DR.
℄ TEMP. MARIGOLD DR.
℄ MARIGOLD DR
MARIGOLD DR
BSSP1 RD
℄ BSSP1 RD
LACLEDE COUNTY
DALLAS COUNTY
SECTION LINE
30'
19'
END PROJECT STA. 722+67.50
CONTRACTOR SHALL MAINTAIN ROADSIDE DITCH THROUGH EACH PHASE OF CONSTRUCTION. ANY TEMP GRADING TO MAINTAIN DITCH FLOW SHALL BE INCIDENTAL TO THE PROJECT (NO DIRECT PAY) FOR TEMPORARY WIDENING.

NOTES:
1. CONTRACTOR SHALL INSTALL SILT FENCE SHOWN BEFORE BEGINNING PHASE.
2. CONTRACTORS SHALL MAINTAIN DEVICES THROUGHOUT THE LENGTH OF CONSTRUCTION.
3. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.

SCALE
0 50 100 150

EROSION CONTROL
PHASE 2
SHEET 2 OF 3

LAYOUT	NLS	05/2025
DRAWN	NLS	05/2024
REVIEWED	DJK	05/2025

STATE OF MISSOURI
DENNIS KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

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ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	51

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DATE	DESCRIPTION

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EROSION CONTROL LEGEND

- ROCK DITCH CHECK
- SILT FENCE
- TYPE C BERM
- TYPE 2 ROCK BLANKET
- TEMPORARY SEEDING AND MULCHING
- PHASE 1A
- PHASE 1B
- PHASE 1C
- PHASE 2A
- PHASE 2B
- PHASE 3A
- PHASE 3B
- TEMPORARY WIDENING

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SCALE
0 50 100 150

BEGIN PROJECT
STA. 700+10.40

EXIST. R/W

NEW RIGHT OF WAY

℄ CR 64-999

CR 64-999

EXIST. R/W

T.C.E.

OE

705

710

720

BEGIN TYPE C BERM
+92.60

ENVIRONMENTALLY SENSITIVE AREA (DND)
(SEE JSPS'S FOR INFORMATION)

NIANGUA RIVER

℄

+84.33

+04.72

NEW R/W

END TYPE C BERM
+50.00

MO 64

℄ RELOCATED MO 64

℄ EXIST. MO 64

EXIST. MO 64

SEE NOTE 3

50'

END SILT FENCE
END TYPE C BERM
+28.59

+87.64

+98.91

ENVIRONMENTALLY SENSITIVE AREA - WETLAND (DND)
(SEE JSP'S FOR INFORMATION)

ENVIRONMENTALLY SENSITIVE AREA - STREAM (DND)
(SEE JSP'S FOR INFORMATION)

BEGIN SILT FENCE
+82.32
88.98' RT

STA. 710+50.00 ℄ MATCH LINE RELOCATED MO 64

TEMP. MARIGOLD DR.

CONSTRUCTION LIMITS FOR TEMPORARY CR WW-962
℄ TEMP. MARIGOLD DR.

BEGIN SILT FENCE
+47.50

LACLEDE COUNTY
DALLAS COUNTY
SECTION LINE

OTV

MARIGOLD DR.

℄ MARIGOLD DR.

CONTRACTOR SHALL REMOVE TEMPORARY MARIGOLD DR. DURING PHASE 3B.

END SILT FENCE
+99.50

HIDDEN VALLEY OUTFITTERS

END PROJECT
STA. 722+67.50

℄ BSSP1 RD

BSSP1 RD

BEGIN SILT FENCE
+51.91

END SILT FENCE
+99.45

25'

NOTES:
1. CONTRACTOR SHALL INSTALL SILT FENCE SHOWN BEFORE BEGINNING PHASE.
2. CONTRACTORS SHALL MAINTAIN DEVICES THROUGHOUT THE LENGTH OF CONSTRUCTION.
3. CONTRACTOR SHALL REMOVE EXISTING MO 64 BRIDGE AND APPROACHING ROAD PAVEMENT IN PHASE 3B.
4. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.

EROSION CONTROL - PHASE 3
SHEET 3 OF 3

LAYOUT	NLS	05/2025
DRAWN	NLS	05/2024
REVIEWED	DJK	05/2025

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

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DATE PREPARED
6/10/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	52

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

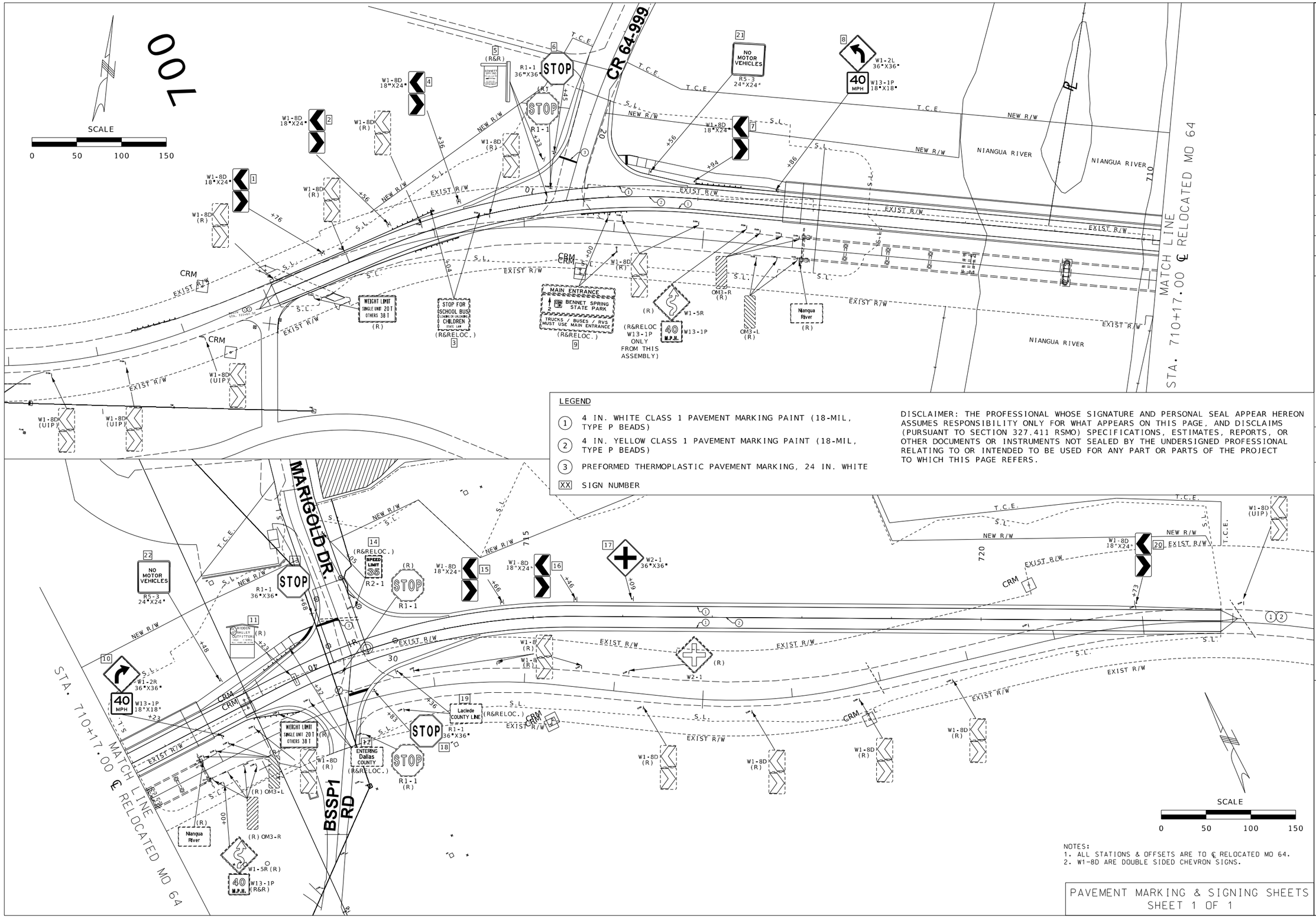
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LEGEND

(1) 4 IN. WHITE CLASS 1 PAVEMENT MARKING PAINT (18-MIL, TYPE P BEADS)

(2) 4 IN. YELLOW CLASS 1 PAVEMENT MARKING PAINT (18-MIL, TYPE P BEADS)

(3) PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE

XX SIGN NUMBER

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NOTES:
1. ALL STATIONS & OFFSETS ARE TO ℄ RELOCATED MO 64.
2. W1-8D ARE DOUBLE SIDED CHEVRON SIGNS.

PAVEMENT MARKING & SIGNING SHEETS
SHEET 1 OF 1

STATE OF MISSOURI
DENNIS J KOSCIELSKI
NUMBER PE-2005000712
PROFESSIONAL ENGINEER

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DATE PREPARED
8/12/2026

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
SW	53

COUNTY
DALLAS/LACLEDE

JOB NO.
J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO.
A9346

DESCRIPTION	DATE

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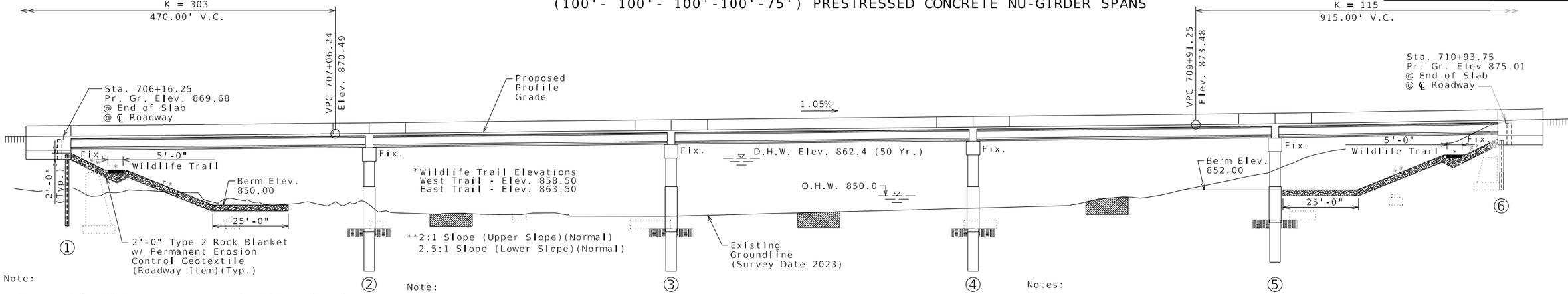
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SEC/SUR 25 TWP 35N RGE 18W

(100'- 100'- 100'-100'-75') PRESTRESSED CONCRETE NU-GIRDER SPANS



GENERAL ELEVATION

Note:

Underground facilities, structures and utilities have been platted from available surveys and records. The commission does not warrant the locations of these facilities as precise. It is possible there may be others, the existence of which is presently not known or shown. It is the contractor's responsibility to determine the existence and precise location of all facilities and to avoid damage to them. See the job special provisions (Roadway) for a list of utility companies on or within the vicinity of the project limits.

Note:

Roadway fill 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.

Old roadway fill under the ends of the bridge shall be removed as shown. Removal of old roadway fill will be considered completely covered by the contract unit price for roadway excavation.

Notes:

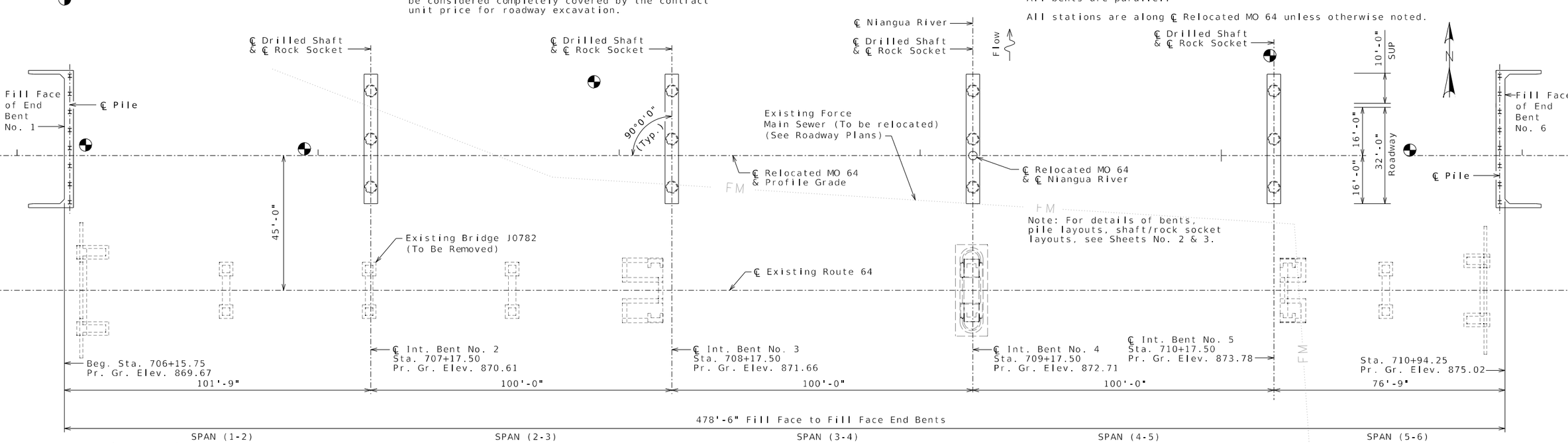
Outline of old work is indicated by light dashed lines. Heavy lines indicate new work.

For General Notes, Location Sketch, Foundation Data, Estimated Quantities for Slab on NU-Girder and Estimated Quantities, see Sheet No. 4.

All longitudinal dimensions are horizontal.

All bents are parallel.

All stations are along ℄ Relocated MO 64 unless otherwise noted.



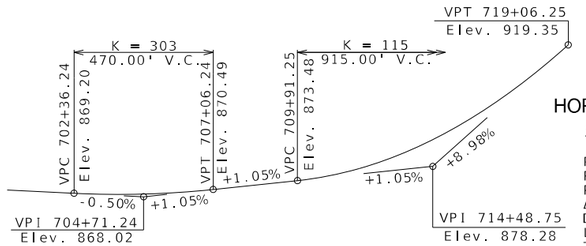
PLAN

"◔" Indicates location of borings.

Notice and Disclaimer Regarding Boring Log Data

The locations of all subsurface borings for this structure are shown on the plan sheet(s) 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. 43-49 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.



PROFILE GRADE DATA

HORIZONTAL CURVE INFORMATION

Curve 1 MO 64

PI = 703+21.76
PC = 701+31.86
PT = 705+03.83
Δ = 28°25'0.0" (RT)
D = 7°38'22.0"
L = 371.97' (ARC)
T = 189.90'
R = 750.00'
SE = 8.0%
V = 55 MPH

Curve 3 MO 64

PI = 713+77.60
PC = 712+01.23
PT = 715+46.98
Δ = 27°51'44.3" (RT)
D = 8°3'30.5"
L = 345.75'
T = 176.36'
R = 711.0'
SE = 8.0%
V = 55 MPH

BM #1 - Sta. 710+79 13.5' Rt. ℄ Exist. MO 64, Elev. 875.97
"□" cut on S.E. corner of existing bridge wingwall

BM #2 - Sta. 706+12 13.0' Rt. ℄ Exist. MO 64 Elev. 871.36
"□" cut on S.W. corner of existing bridge wingwall

BRIDGE: ROUTE 64 OVER NIANGUA RIVER

ROUTE 64 FROM ROUTE 5 TO ROUTE K
ABOUT 12.0 MILES WEST OF ROUTE 5
BEGINNING STATION 706+15.75

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

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DATE PREPARED 06/12/26
ROUTE 64
STATE MO
DISTRICT BR
SHEET NO. 1
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

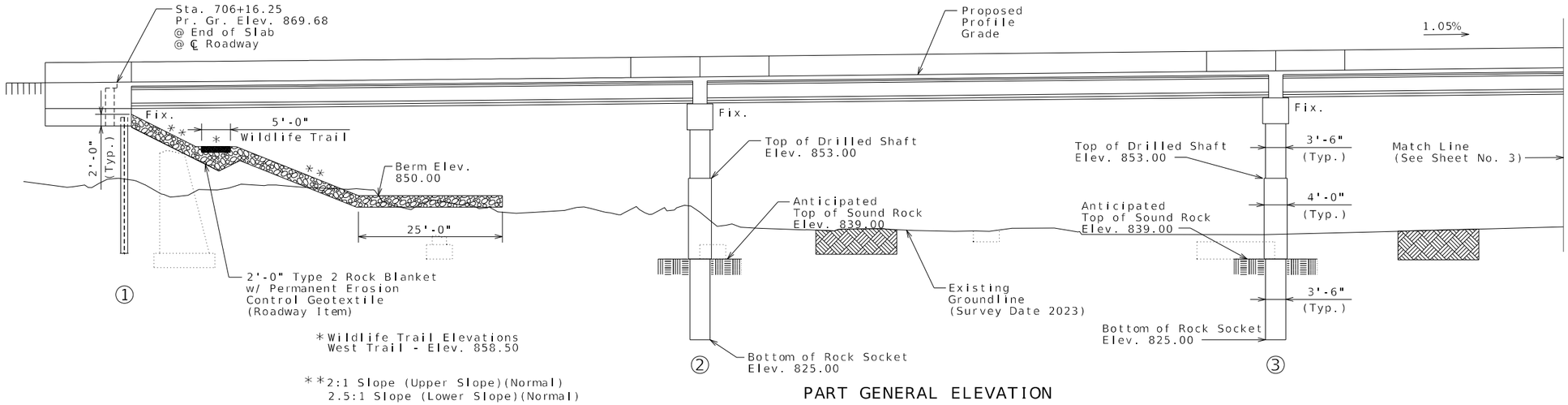
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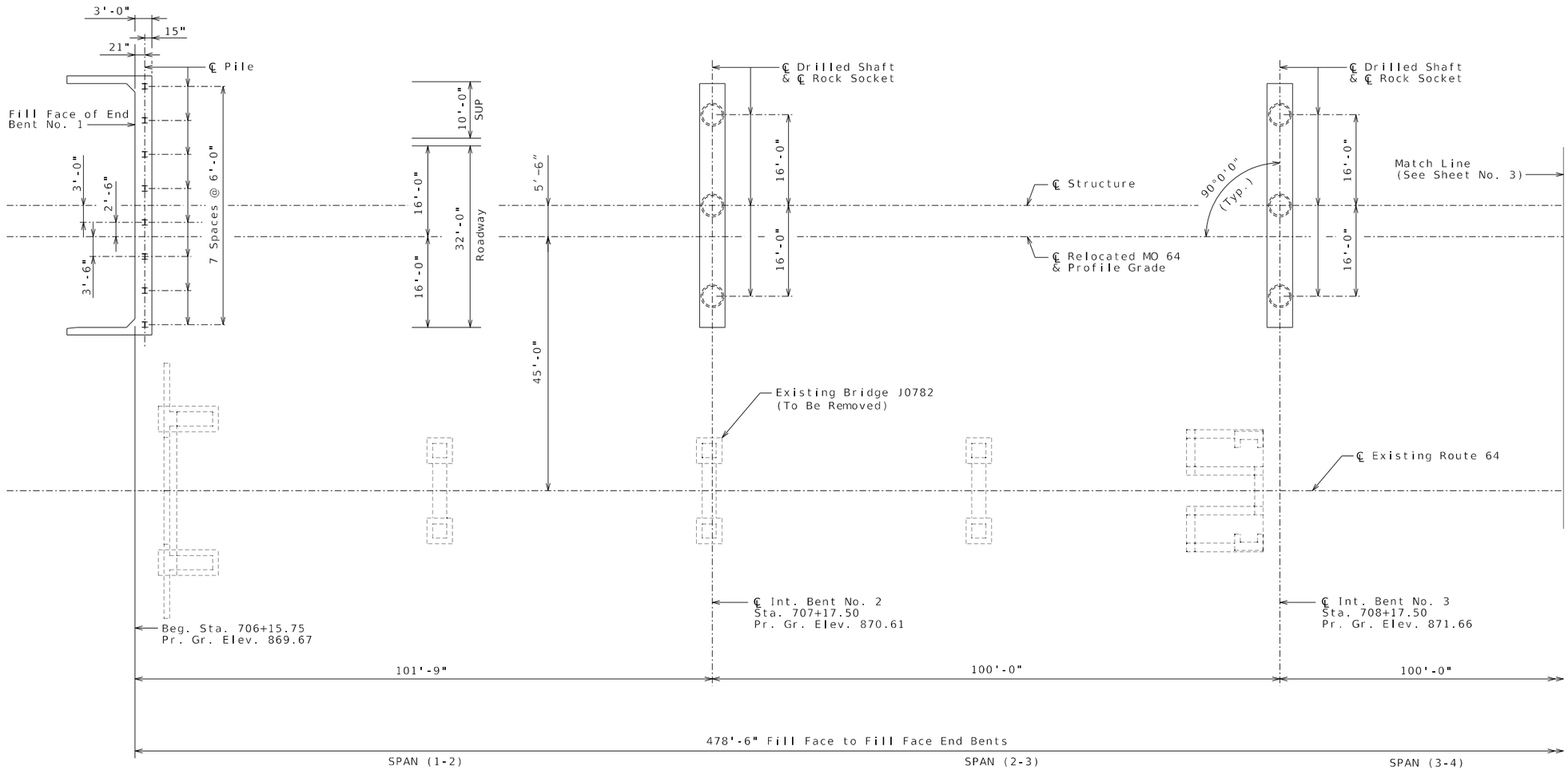
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*Wildlife Trail Elevations
West Trail - Elev. 858.50

**2:1 Slope (Upper Slope)(Normal)
2.5:1 Slope (Lower Slope)(Normal)

PART GENERAL ELEVATION



PART PLAN

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

PARTIAL PLAN AND ELEVATION

Work this sheet with Sheets No. 1 & 3.

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

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DATE PREPARED 06/12/26
ROUTE 64
STATE MO
DISTRICT BR
SHEET NO. 2
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

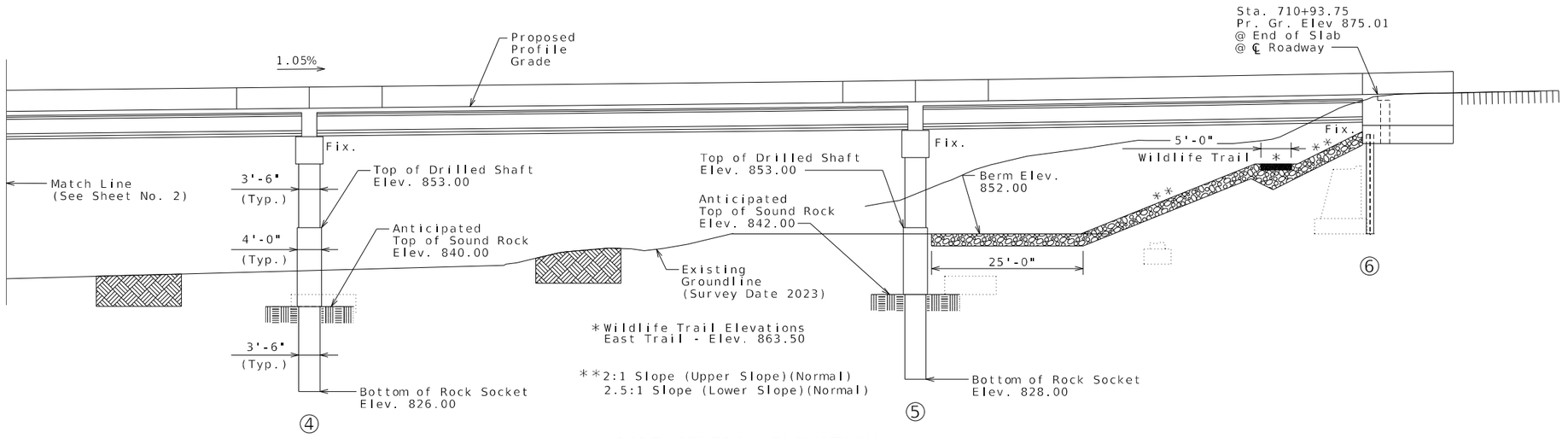
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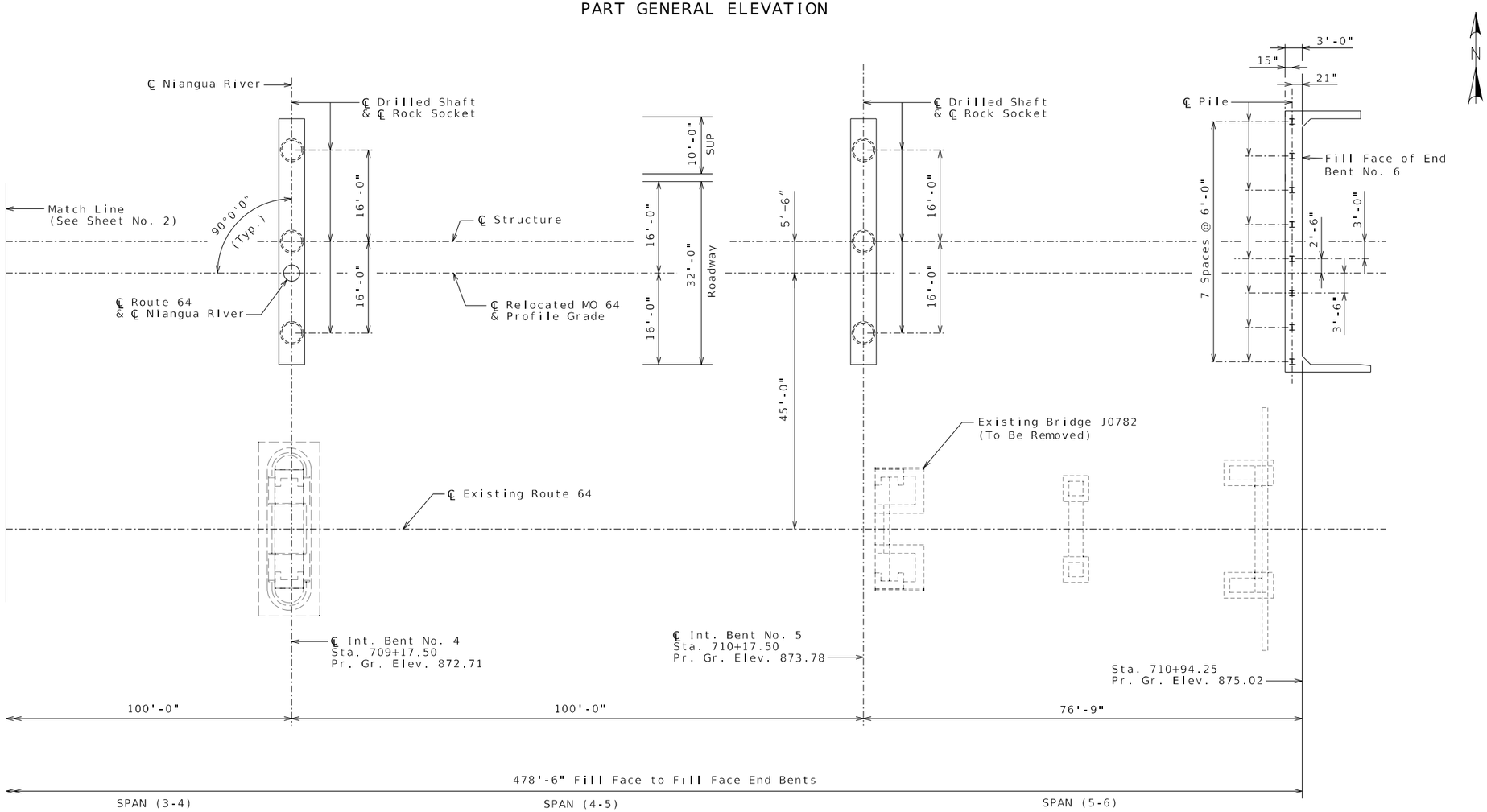
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PART GENERAL ELEVATION



PART PLAN

PARTIAL PLAN AND ELEVATION

Work this sheet with Sheets No. 1 & 2.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

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DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 3
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION | DATE

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Estimated Quantities for Slab on Concrete NU-Girder

Item		Total
Class B-2 Concrete	cu. yard	670
Reinforcing Steel (Epoxy Coated)	pound	210,200

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 coated and uncoated 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.

The prestressed panel quantities are not included in the table of Estimated Quantities for Concrete NU-Girder.

Class B-2 Concrete quantity is based on minimum top flange thickness and minimum joint material thickness.

Slab between Girders 1 and 2 shall be cast-in-place with conventional forms or stay-in-place corrugated steel forms. Precast prestressed panels will not be permitted.

Precast prestressed panels will be permitted between Girders 2 and 5.

ESTIMATED QUANTITIES

ITEM		SUBSTR.	SUPERSTR.	TOTAL
Removal of Miscellaneous ACM (Non-Friable)	sq. foot	——	——	418
Class 1 Excavation	cu. yard	240	——	240
Removal of Bridges (J0782)	lump sum	——	——	1
Bridge Approach Slab (Minor)	sq. yard	——	204	204
(96 in.) Decorative Pedestrian Fence (Structures)	linear foot	503	——	503
Drilled Shaft (4 ft. 0 in. Dia.)	linear foot	156	——	156
Rock Socket (3 ft. 6 in. Dia.)	linear foot	168	——	168
Video Camera Inspection	each	12	——	12
Foundation Inspection Holes	linear foot	288	——	288
Sonic Logging Testing	each	12	——	12
Galvanized Structural Steel Piles (14 in.)	linear foot	520	——	520
Pile Point Reinforcement	each	16	——	16
Class B Concrete (Substructure)	cu. yard	223.2	——	223.2
Type D Barrier	linear foot	——	1,020	1,020
Slab on Concrete NU-Girder	sq. yard	——	2,423	2,423
Concrete Curb (Bridge Rail)	linear foot	——	503	503
NU-43, Prestressed Concrete NU-Girder	linear foot	——	2,367	2,367
Reinforcing Steel (Bridges)	pound	72,320	——	72,320
Slab Drains	each	——	86	86
Vertical Drain at End Bents	each	——	——	2
Plain Neoprene Bearing Pad	each	——	5	5
Laminated Neoprene Bearing Pad (Tapered)	each	——	45	45

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.

All reinforcement in the intermediate bent concrete diaphragms except reinforcement embedded in the beam cap is included in the Estimated Quantities for Slab on Concrete NU-Girder.

All concrete above the intermediate beam cap is included in the Estimated Quantities for Slab on Concrete NU-Girder.

Foundation Data

Type	Design Data		Bent Number 1	2	3	4	5	6
Load Bearing Pile	HP Pile Type and Size		HP14x73	--	--	--	--	HP14x73
	Number		8	--	--	--	--	8
	Approximate Length Per Each	ft	35	--	--	--	--	30
	Pile Point Reinforcement	ea	All	--	--	--	--	All
	Min. Galvanized Penetration (Elev.)	ft	Full Length	--	--	--	--	Full Length
	Minimum Tip Penetration (Elev.)	ft	Elev. 833.00	--	--	--	--	Elev. 843.00
	Criteria for Min. Tip Penetration		Min. Embed.	--	--	--	--	Min. Embed.
	Pile Driving Verification Method		DF	--	--	--	--	DF
	Resistance Factor		0.4	--	--	--	--	0.4
	Minimum Nominal Axial Compressive Resistance	kip	550	--	--	--	--	465
Rock Socket	Number	ea	---	3	3	3	3	---
	Layer 1: Foundation Material		---	Strong Rock	Strong Rock	Strong Rock	Strong Rock	---
	Layer 1: Elevation Range	ft	---	839-809	839-809	840-809	842-812	---
	Layer 1: Design Side Friction (Side Resistance)	ksf	---	35.7	35.7	35.7	35.7	---
	Layer 1: Design End Bearing Minimum Nominal Axial Compressive Resistance (Tip Resistance)	ksf	---	215.0	215.0	215.0	215.0	---

DF = FHWA-modified Gates Dynamic Formula

Drilled Shaft Notes:

The contractor shall review the provided geotechnical report regarding the groundwater conditions of the site prior to commencement of drilling and construction of the drilled shafts and rock sockets.

Rock Socket (Drilled Shafts):

Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resitance Factor}}$
(Side Resistance + Tip Resistance)

Thickness of permanent steel casng shall be 3/8" in accordance with Sec 701.

Sonic logging testing shall be performed on all drilled shafts & rock sockets.

Driven Pile Notes:

Minimum Nominal Axial Compressive Resistance = $\frac{\text{Maximum Factored Loads}}{\text{Resitance Factor}}$

Manufactured pile point reinforcement shall be used on all piles in this structure.

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.

All piles shall be galvanized full length.

Hydrologic Data

Drainage Area = 441 sq mi
Design Flood Frequency = 50 years
Design Flood Discharge = 48,300 cfs
Design Flood (D.F.) Elevation = 862.4
Base Flood (100-year)
Base Flood Elevation = 863.7
Base Flood Discharge = 56,100 cfs
Estimated Backwater = 1.2 ft
Average Velocity thru Opening = 9.7 ft/s
Freeboard (50-year)
Freeboard = 3.6 ft
Roadway Overtopping
Overtopping Flood Discharge = N/A
Overtopping Flood Frequency = >500 years
500-Yr. Flood Elevation = 866.6

General Notes:

Design Specifications:
2020 AASHTO LRFD Bridge Design Specification (9th Ed.)

Seismic Design Category A

Design earthquake response spectral acceleration coefficient at 1.0 second period, S_{D1} < 0.15

Acceleration Coefficient (effective peak ground acceleration coefficient), As = 0.058.

Design Loading:
Vehicular = HL-93
Future Wearing Surface = 35 lb/sf (Min.)
Earth = 120 lb/cf
Equivalent Fluid Pressure = 45 lb/cf
Superstructure: Simply-Supported, Non-Composite for dead load.
Continuous Composite for live load.

Design Unit Stresses:

Class B Concrete (Substructure)	f'c = 3,000 psi
Class B-2 Concrete (Drilled Shafts & Rock Sockets)	f'c = 4,000 psi
Class B-1 Concrete (Barrier & Curb Rail)	f'c = 4,000 psi
Class B-2 Concrete (Superstructure, except Prestressed Girders and Barrier/Curb Rail)	f'c = 4,000 psi
Reinforcing Steel (ASTM A615 Grade 60)	fy = 60,000 psi
Structural Steel HP Pile (ASTM A709 Grade 50)	fy = 50,000 psi

For precast prestressed panel stresses, see Sheet No. 27.

For precast prestressed girder stresses, see Sheets No. 20 - 25.

Standard Plans:

606.22, 609.00, 617.10 and 706.35

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 1/2", unless otherwise shown.

Traffic Handling:

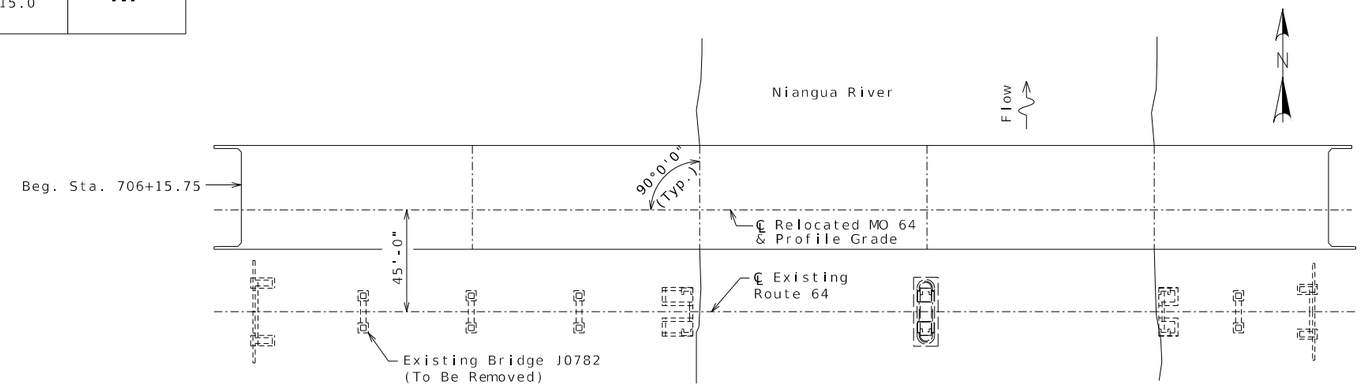
Traffic to be maintained on existing structure during construction. See roadway plans for traffic control.

Miscellaneous:

All stations are along ℄ Relocated MO 64 unless otherwise noted.

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



LOCATION SKETCH

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 4
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION | DATE

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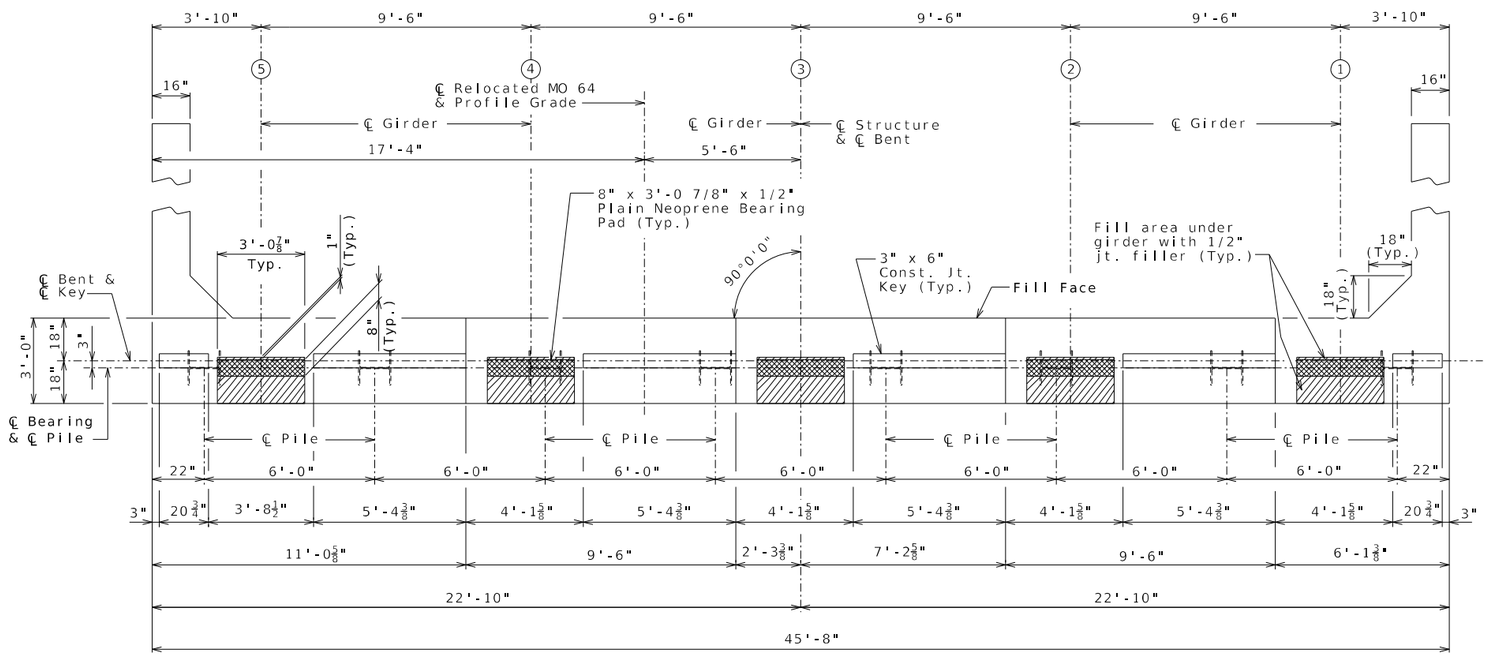
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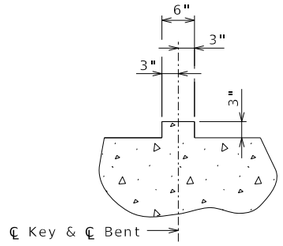
Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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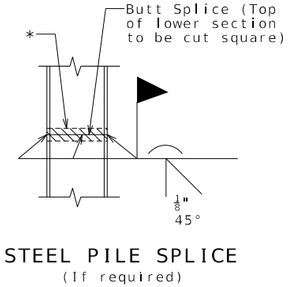
GENERAL NOTES AND ESTIMATED QUANTITIES



PLAN OF BEAM



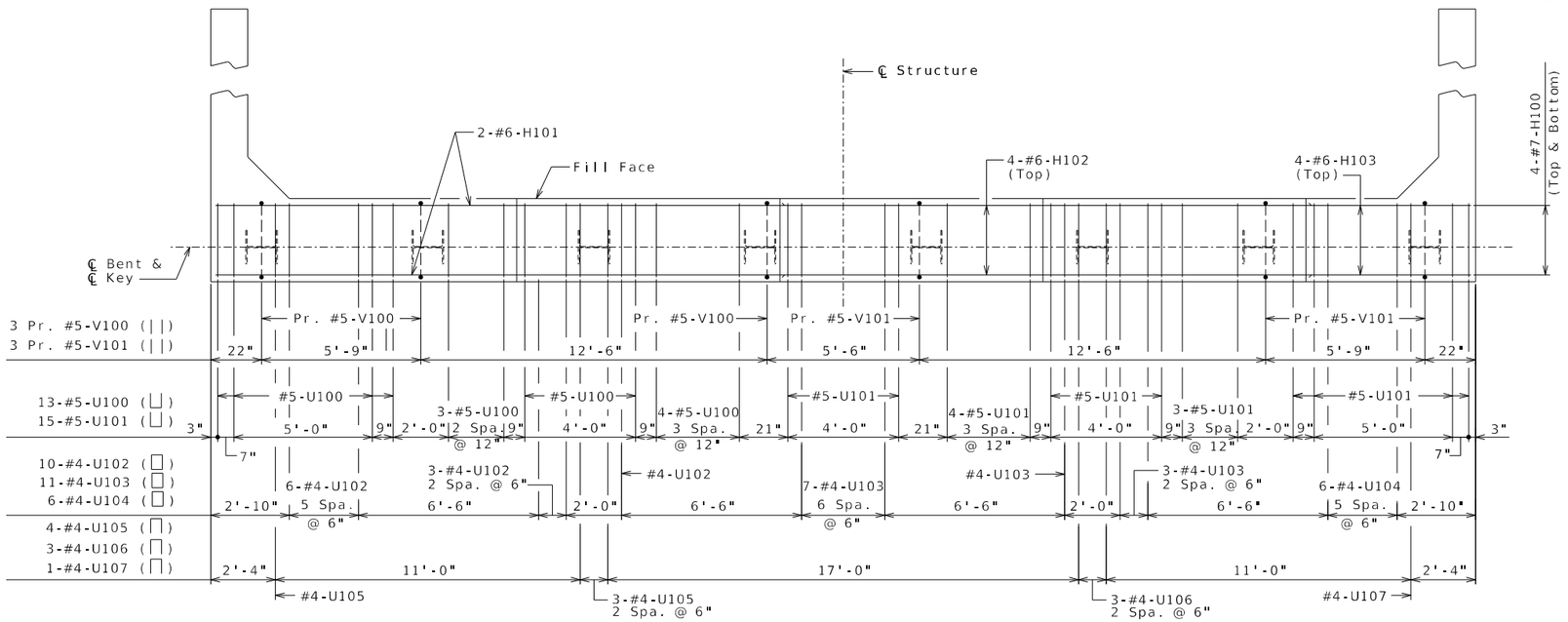
SECTION THRU KEY



STEEL PILE SPLICE

(If required)

* Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.



PLAN OF BEAM SHOWING REINFORCEMENT

Keys not shown for clarity.

General Notes:

Work this sheet with Sheets No. 6 & 7.

All U bars & 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.

SUBSTRUCTURE QUANTITY TABLE FOR END BENT NO. 1		
ITEM		QUANTITY
Class 1 Excavation	cu. yard	120
Galvanized Structural Steel Piles (14 in.)	linear foot	280
Pile Point Reinforcement	each	8
Class B Concrete (Substructure)	cu. yard	21.3

Note: These quantities are included in the Estimated Quantities table on Sheet No. 4.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

DETAILS OF END BENT NO. 1

STATE OF MISSOURI
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DISTRICT BR | SHEET NO. 5
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

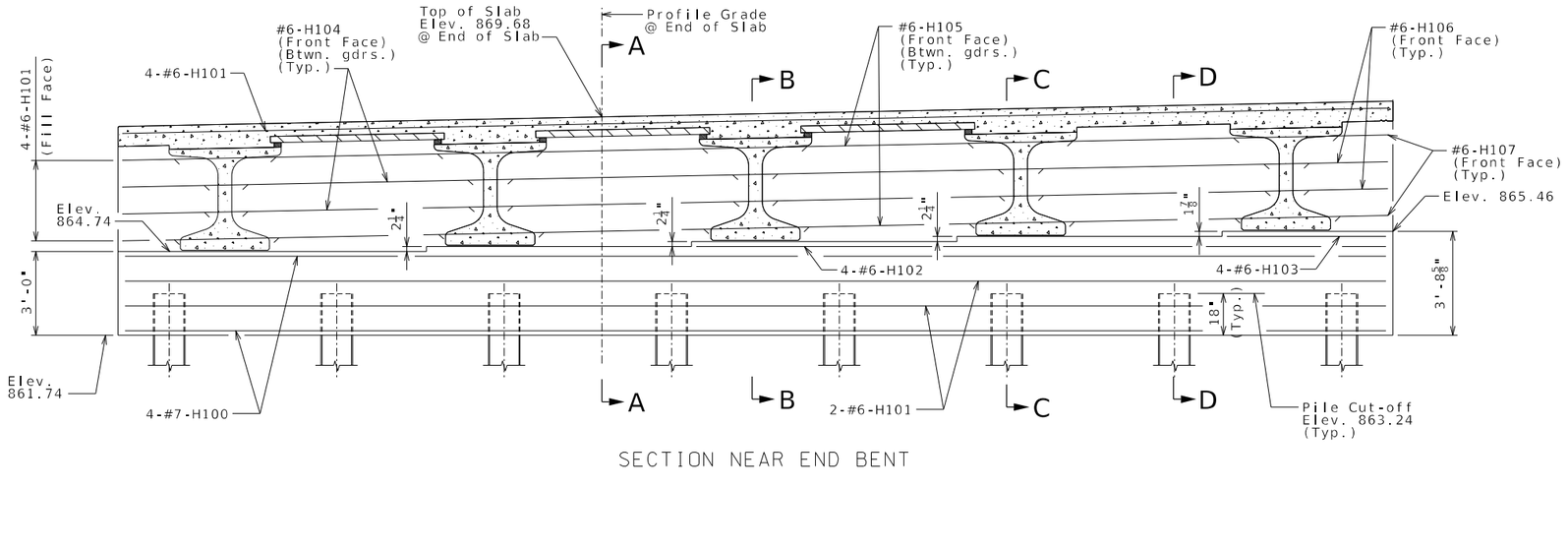
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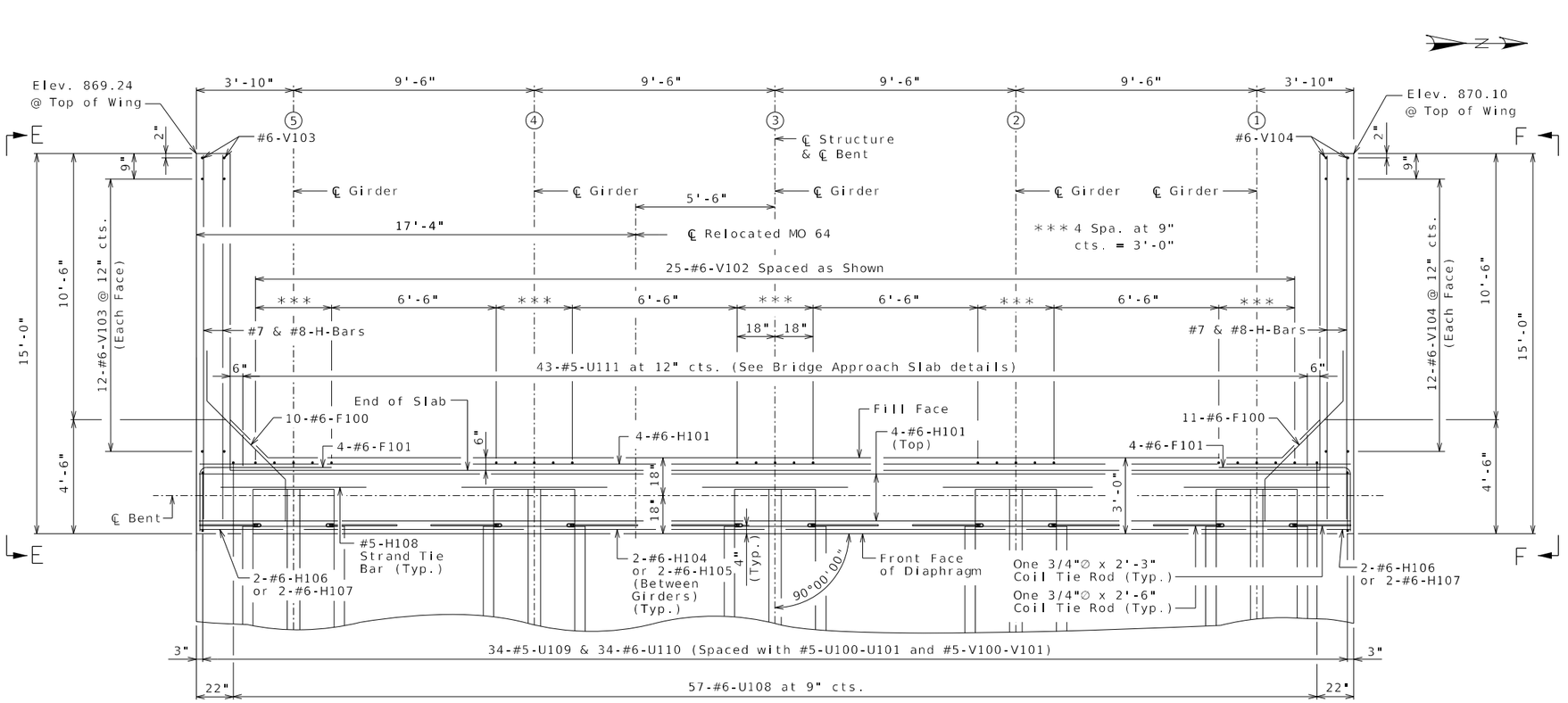
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SECTION NEAR END BENT



PART PLAN

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

General Notes:

Work this sheet with Sheets No. 5 & 7.

For Sections A-A, B-B, C-C & D-D and Elevations E-E & F-F, see Sheet No. 7.

The #6-F100 and #6-F101 bars shall be bent in the field to clear girders.

The U bars and pairs of V 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" minimum clearance to fill face of end bent.

For locations of coil tie rods and #5-H108 (strand tie bar), see Sheets No. 20 & 21.

For details of vertical drain at end bents, see Sheet No. 8.

For details of Bridge Approach Slab, see Sheet No. 37.

DETAILS OF END BENT NO. 1

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004007786
PROFESSIONAL ENGINEER

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DISTRICT BR | SHEET NO. 6
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

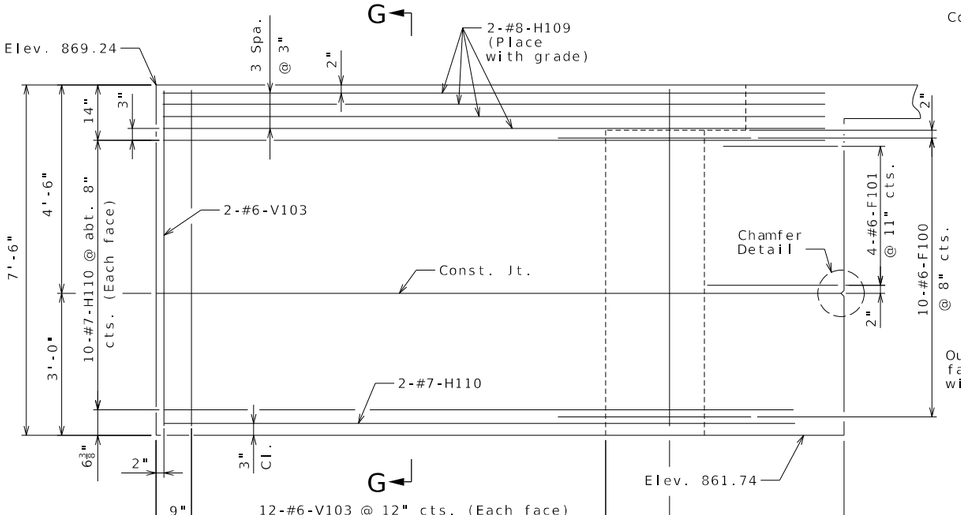
DESCRIPTION | DATE

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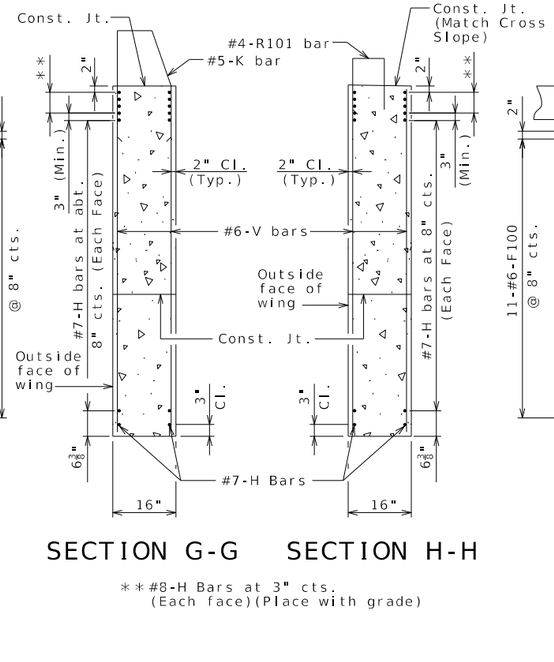
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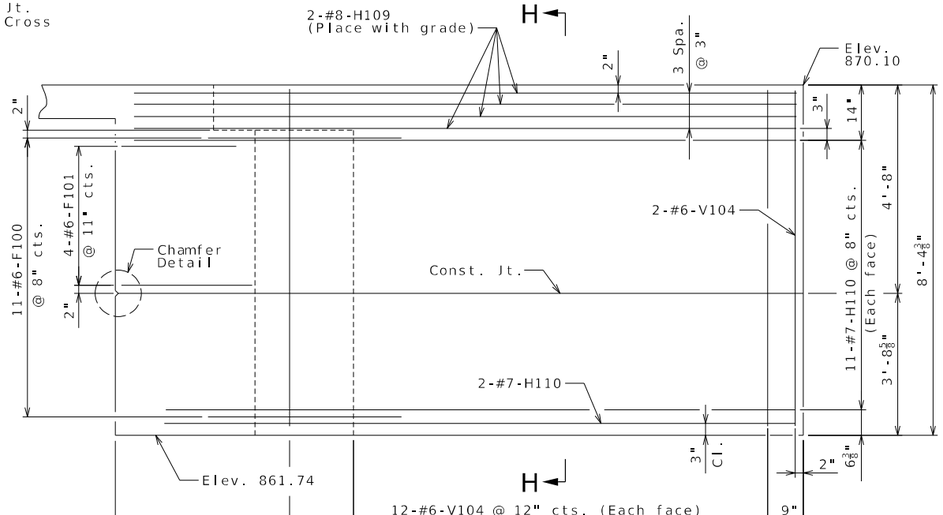


ELEVATION E-E

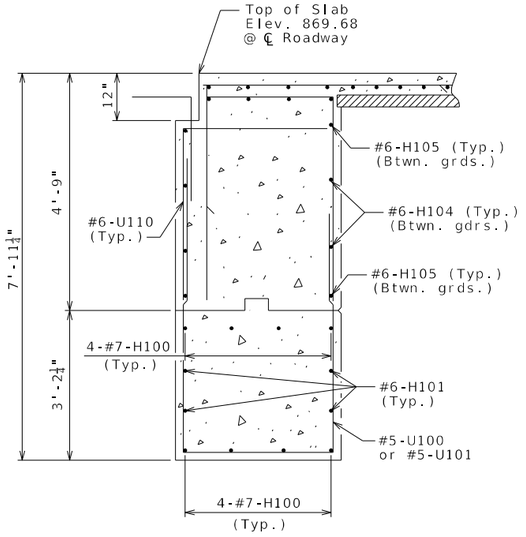


SECTION G-G SECTION H-H

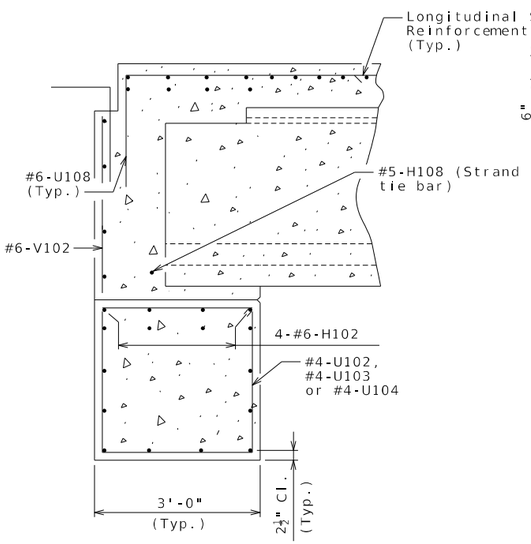
**#8-H Bars at 3" cts. (Each face)(Place with grade)



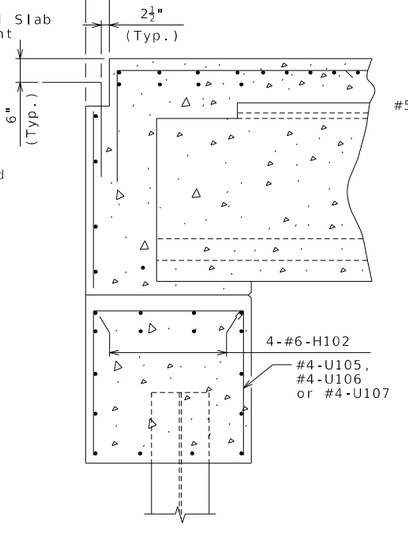
ELEVATION F-F



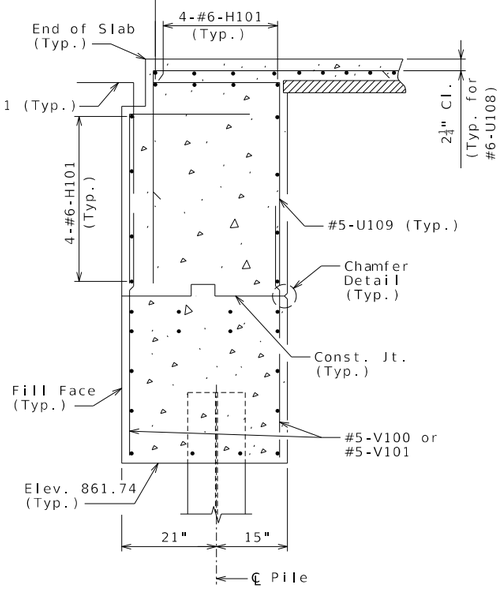
SECTION A-A



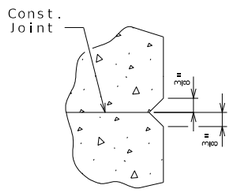
SECTION B-B



SECTION C-C



SECTION D-D



CHAMFER DETAIL

General Notes:

Work this sheet with Sheets No. 5 & 6.

For reinforcement of the Type D Barrier, see Sheet No. 32.

For location of Sections A-A, B-B, C-C & D-D and Elevations E-E & F-F, see Sheet No. 6.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

DETAILS OF END BENT NO. 1

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JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

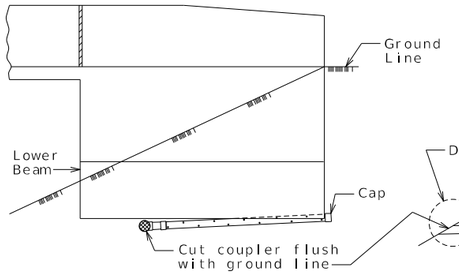
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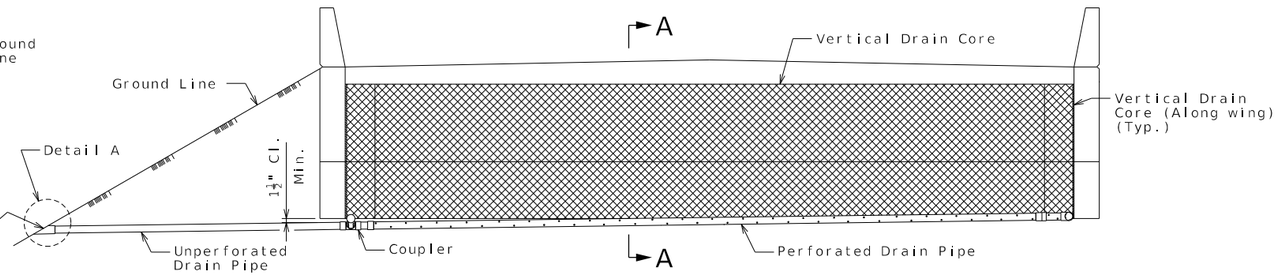
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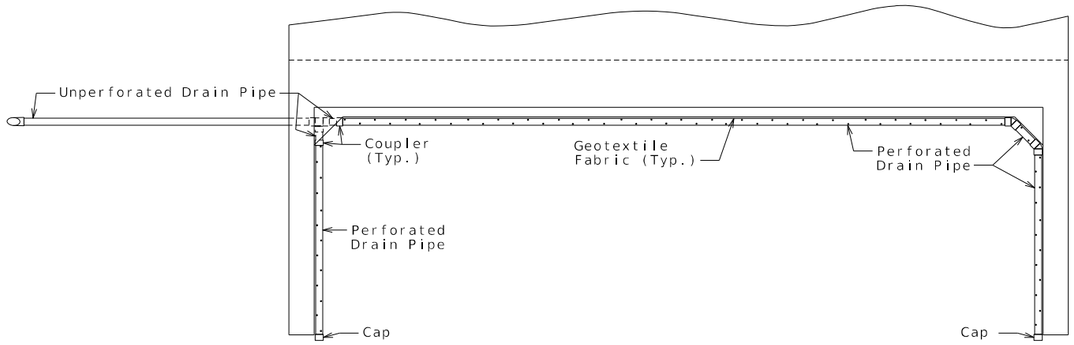
ELEVATION OF WING



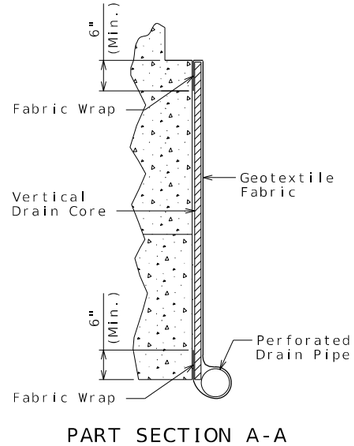
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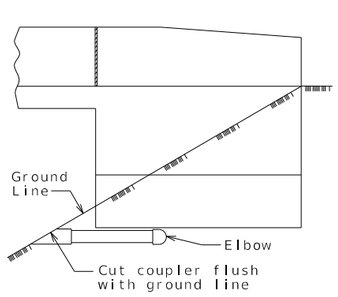
DETAIL A



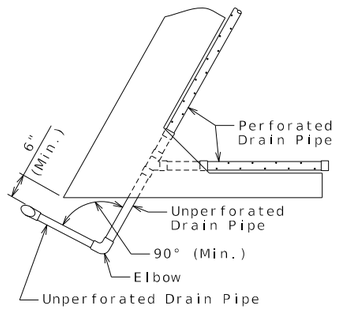
PLAN OF END BENT



PART SECTION A-A
(Section thru wing similar)



ELEVATION OF WING



PART PLAN

OPTIONAL TURNED DRAIN
(Use only when straight drain is not practical.)

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.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

VERTICAL DRAIN AT END BENTS

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

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COUNTY DALLAS
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CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

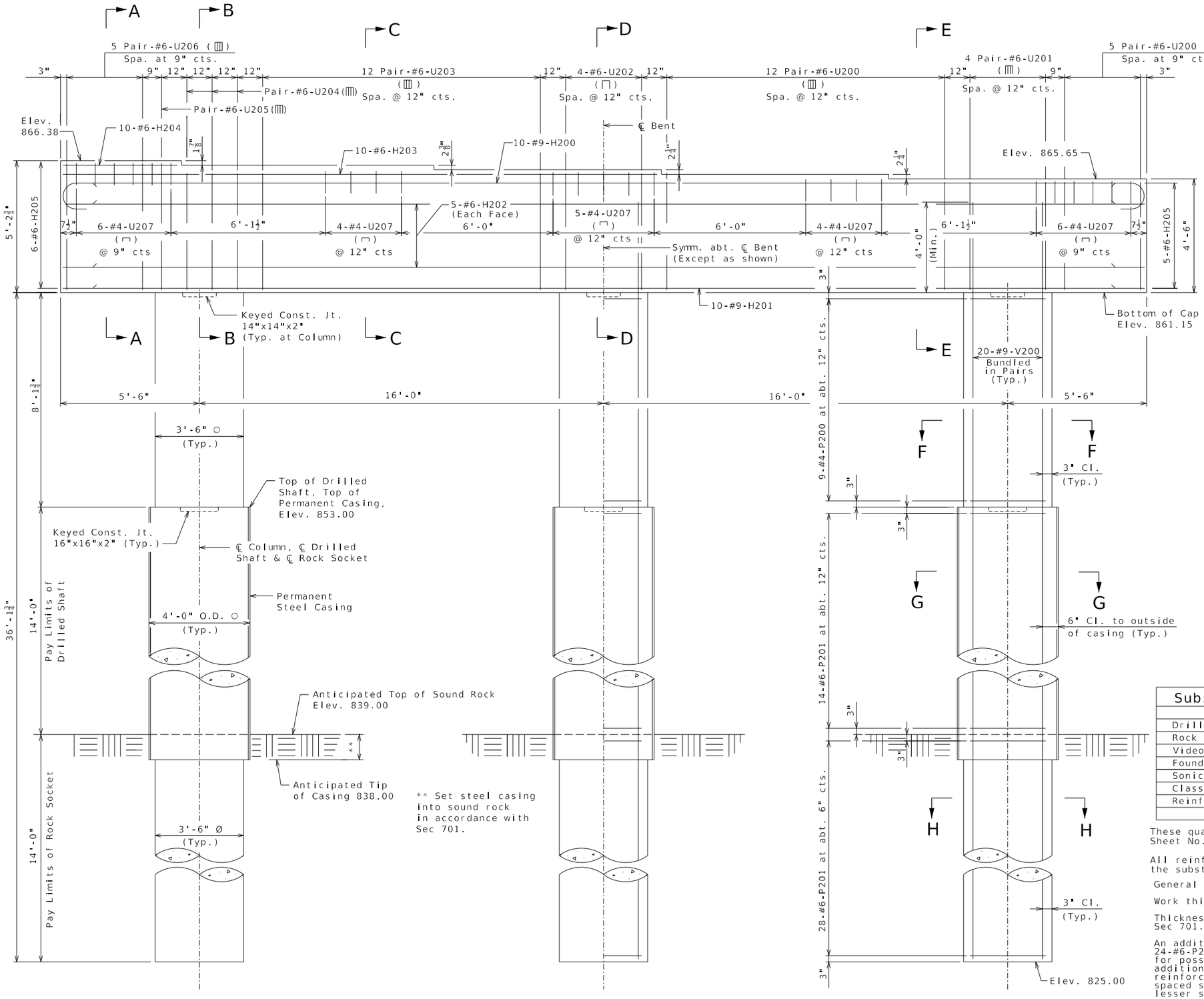
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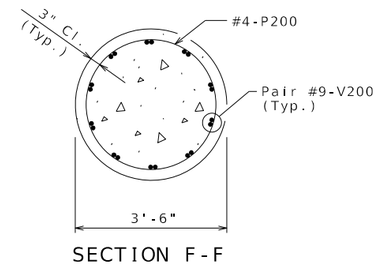
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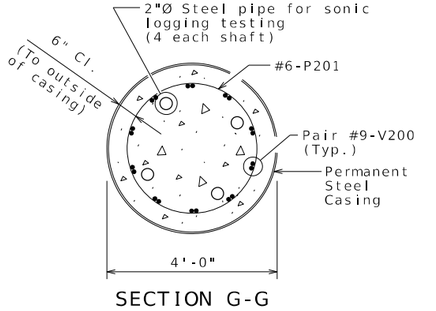


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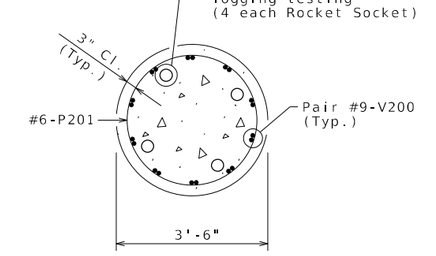
Beam Keys not shown for clarity.



SECTION F-F



SECTION G-G



SECTION H-H

Substructure Quantity Table for Bent No. 2		
Item		Quantity
Drilled Shaft (4 ft. 0 in. Dia.)	linear foot	42
Rock Socket (3 ft. 6 in. Dia.)	linear foot	42
Video Camera Inspection	each	3
Foundation Inspection Holes	linear foot	72
Sonic Logging Testing	each	3
Class B Concrete (Substructure)	cu. yard	43.5
Reinforcing Steel (Bridges)	pounds	18,030

These quantities are included in the estimated quantities table on Sheet No. 4.

All reinforcement in drilled shafts and rock sockets is included in the substructure quantities.

General Notes:

Work this sheet with Sheet No. 10.

Thickness of permanent steel casing shall be in accordance with Sec 701.

An additional 4 feet has been added to V-bar lengths and additional 24-#6-P201 bars have been added in the quantities, if required, for possible change in drilled shaft or rock socket length. The additional V-bar length shall be cut off or included in the reinforcement lap if not required. The additional P bars shall be spaced similarly to that shown in elevation, if required, or to a lesser spacing if not required, but not less than 6-inch centers.

Sonic logging testing shall be performed on all drilled shafts and rock sockets.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

DETAILS OF INTERMEDIATE BENT NO. 2

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DISTRICT BR | SHEET NO. 9
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

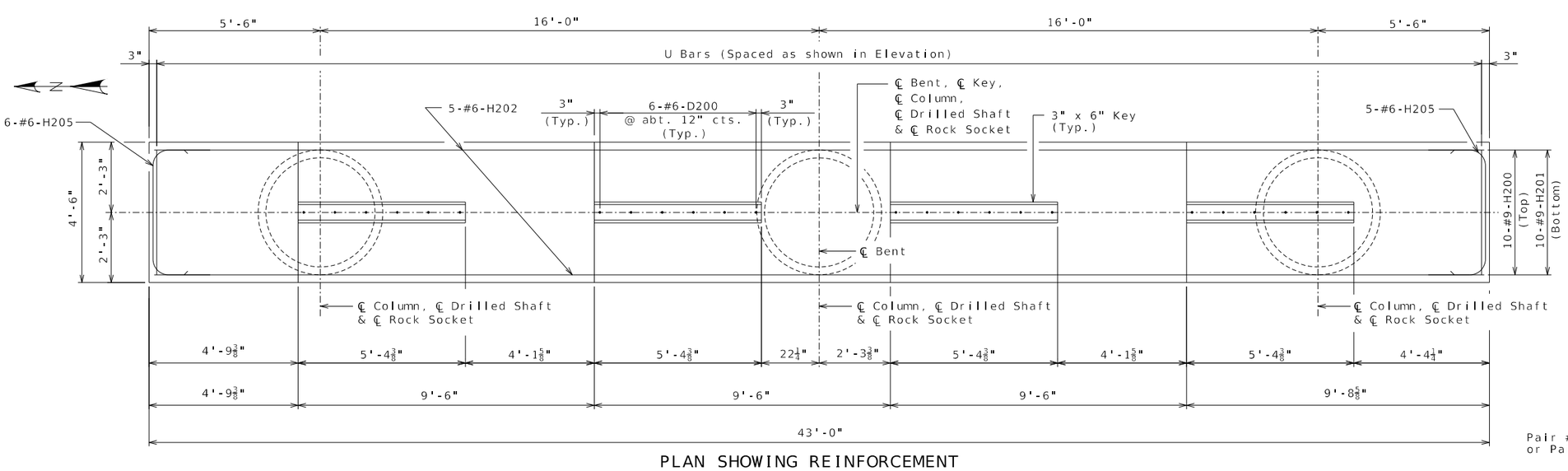
NO.	DESCRIPTION	DATE

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

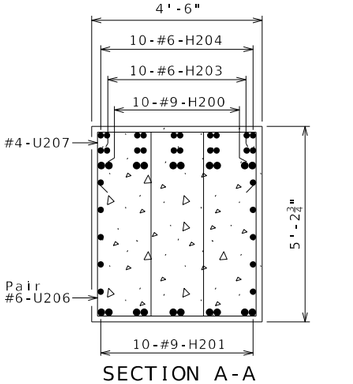
MISSOURI HIGHWAYS AND TRANSPORTION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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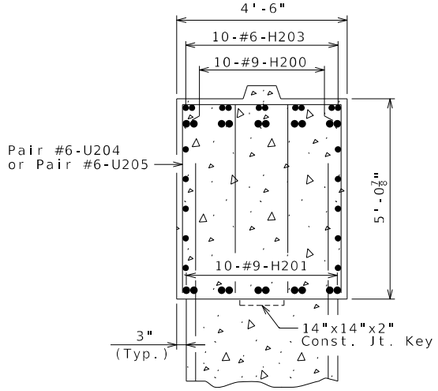
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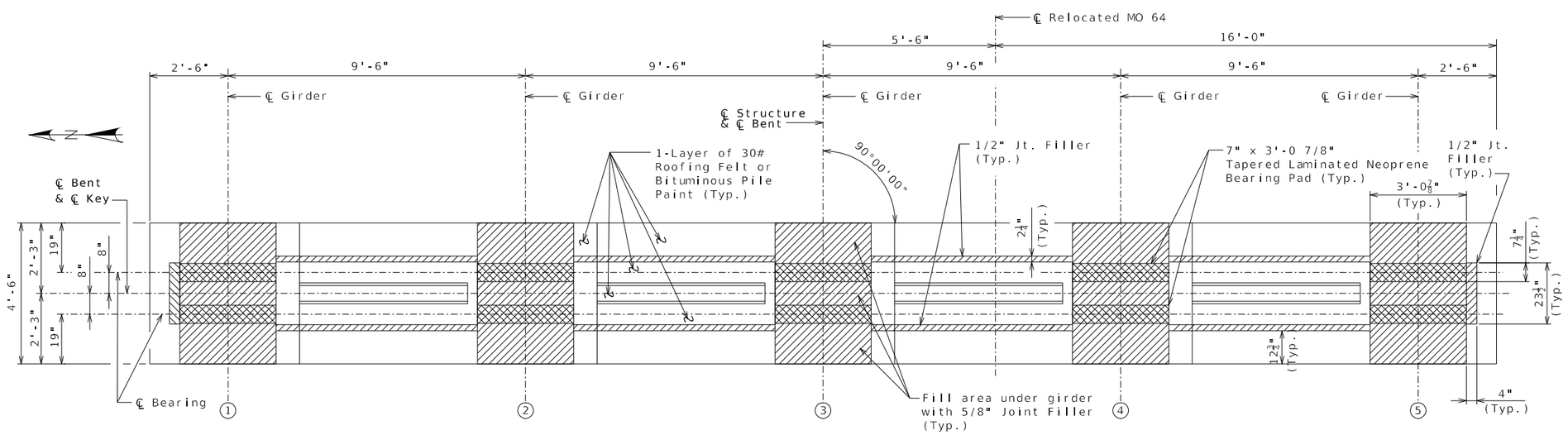
PLAN SHOWING REINFORCEMENT



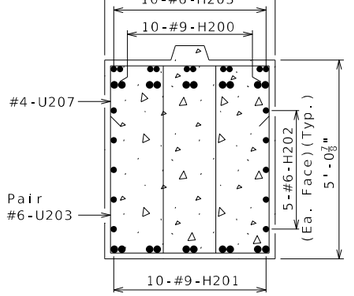
SECTION A-A



SECTION B-B



PLAN OF BEAM

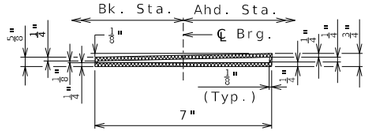


SECTION C-C

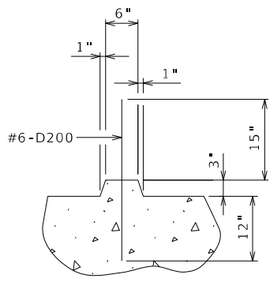
General Notes:

Work this sheet with Sheet No. 9.

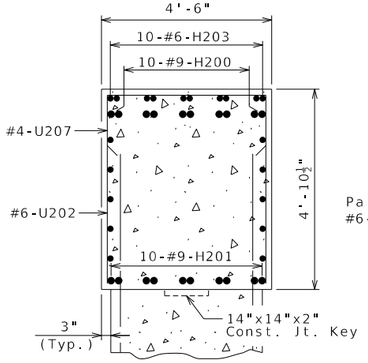
For steps 2 inches or more, use 2 1/4 x 1/2-inch joint filler up vertical face.



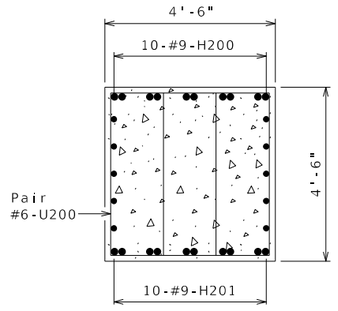
SECTION THRU TAPERED LAMINATED NEOPRENE BEARING PAD



SECTION THRU KEY



SECTION D-D



SECTION E-E

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

DETAILS OF INTERMEDIATE BENT NO. 2

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 10
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

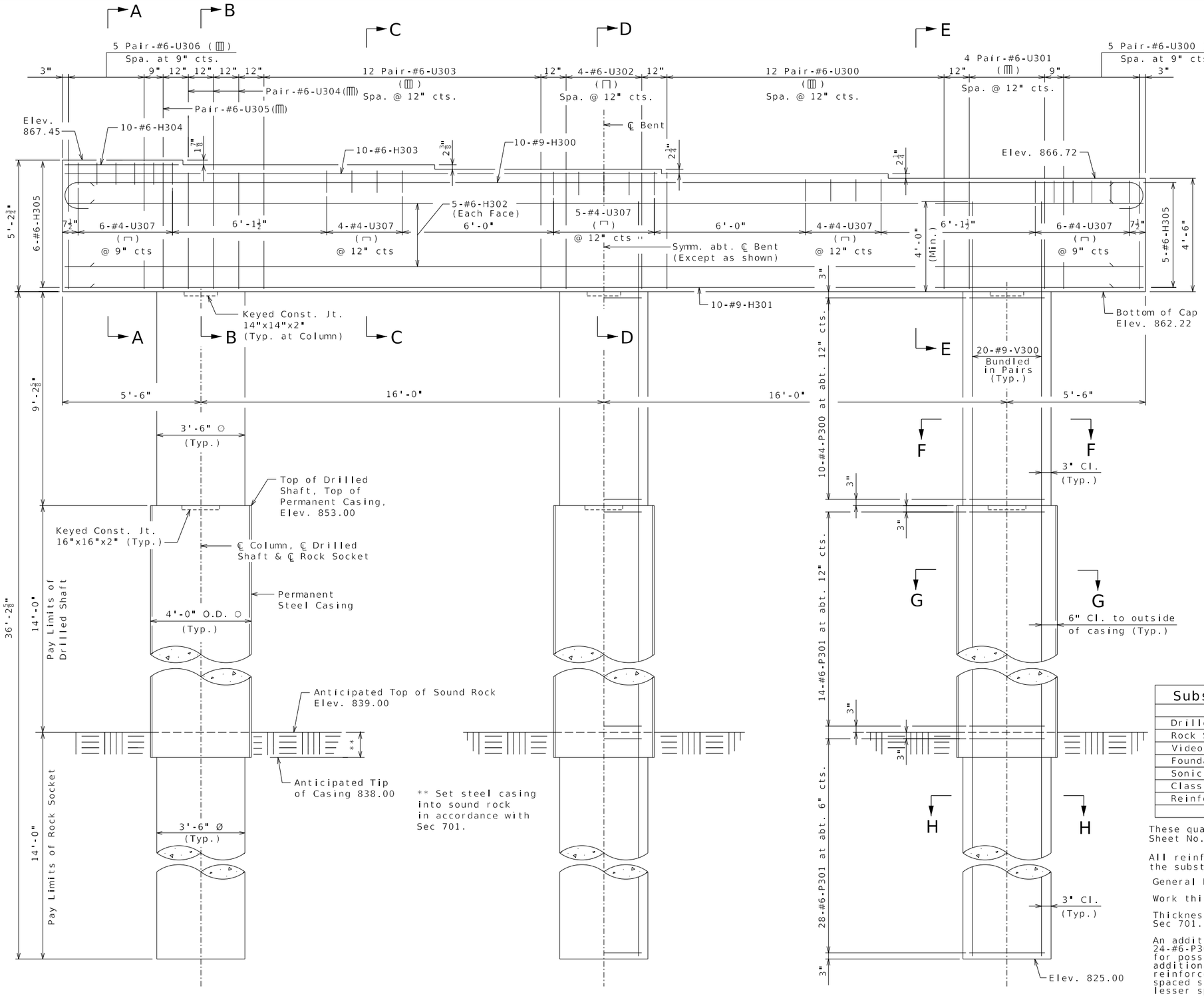
DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
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.

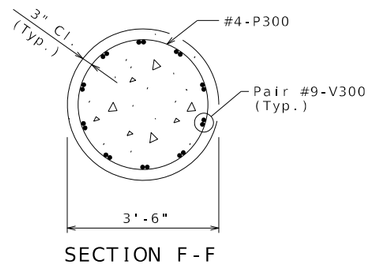
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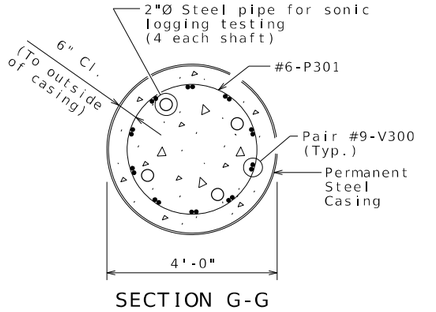


ELEVATION

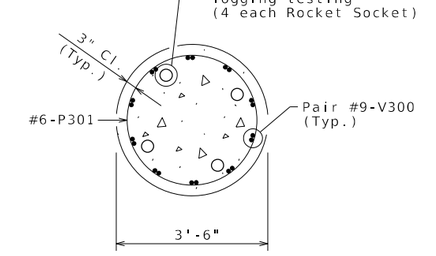
Beam Keys not shown for clarity.



SECTION F-F



SECTION G-G



SECTION H-H

Substructure Quantity Table for Bent No. 3		
Item		Quantity
Drilled Shaft (4 ft. 0 in. Dia.)	linear foot	42
Rock Socket (3 ft. 6 in. Dia.)	linear foot	42
Video Camera Inspection	each	3
Foundation Inspection Holes	linear foot	72
Sonic Logging Testing	each	3
Class B Concrete (Substructure)	cu. yard	44.6
Reinforcing Steel (Bridges)	pounds	18,070

These quantities are included in the estimated quantities table on Sheet No. 4.

All reinforcement in drilled shafts and rock sockets is included in the substructure quantities.

General Notes:

Work this sheet with Sheet No. 12.

Thickness of permanent steel casing shall be in accordance with Sec 701.

An additional 4 feet has been added to V-bar lengths and additional 24-#6-P301 bars have been added in the quantities, if required, for possible change in drilled shaft or rock socket length. The additional V-bar length shall be cut off or included in the reinforcement lap if not required. The additional P bars shall be spaced similarly to that shown in elevation, if required, or to a lesser spacing if not required, but not less than 6-inch centers.

Sonic logging testing shall be performed on all drilled shafts and rock sockets.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

DETAILS OF INTERMEDIATE BENT NO. 3

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 11
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

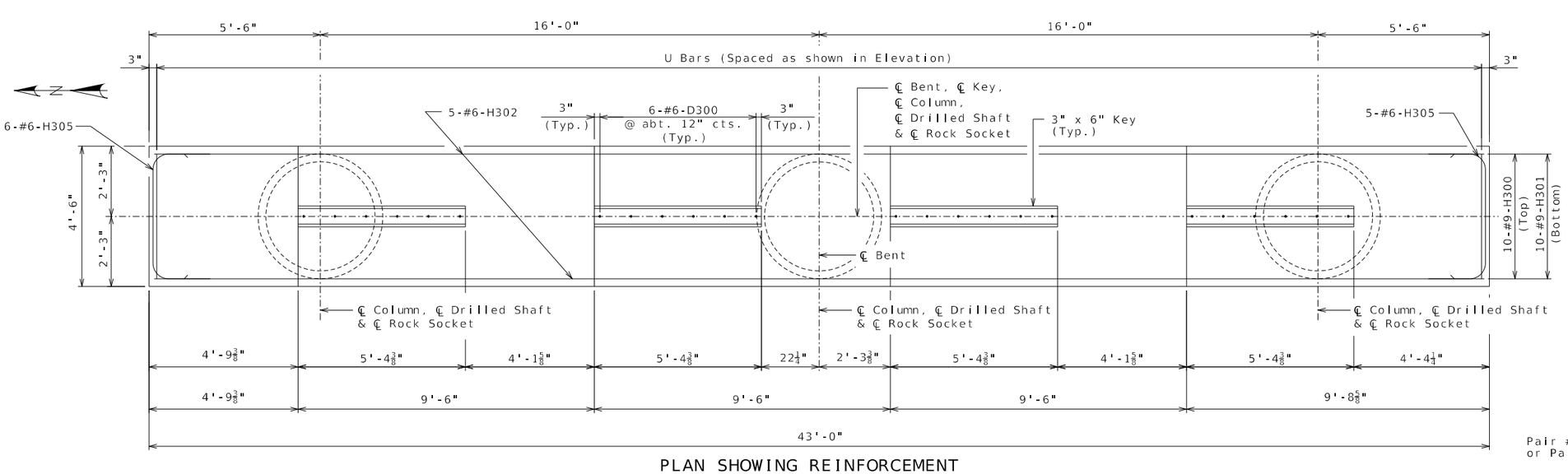
DESCRIPTION | DATE

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

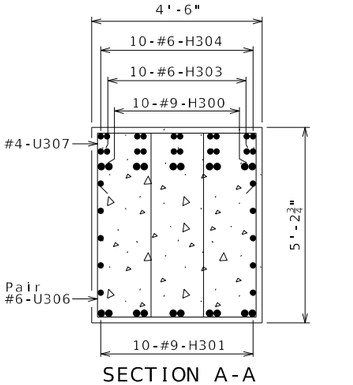
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105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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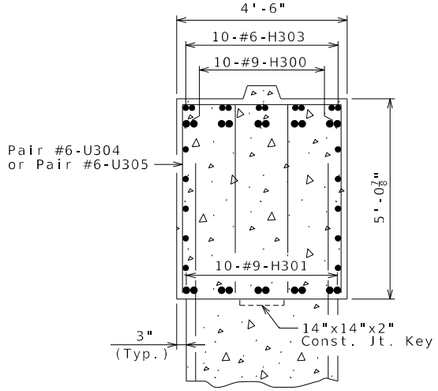
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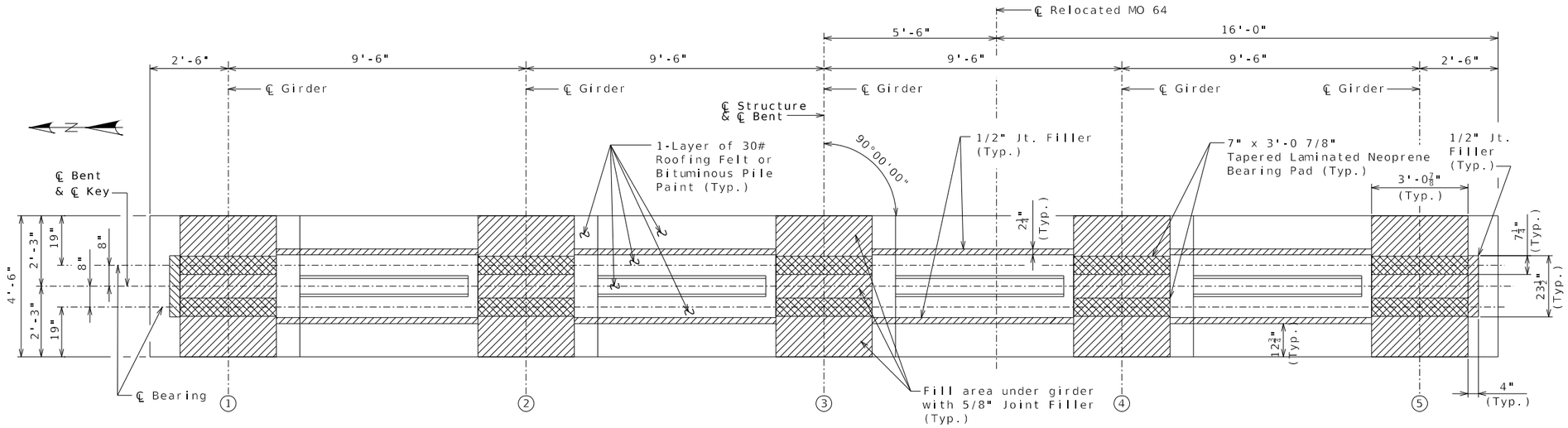
PLAN SHOWING REINFORCEMENT



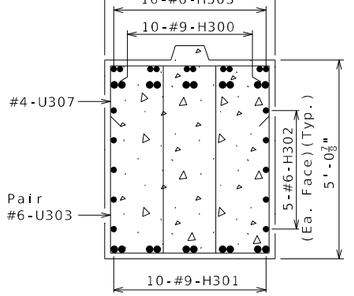
SECTION A-A



SECTION B-B



PLAN OF BEAM

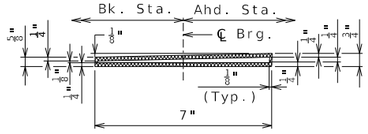


SECTION C-C

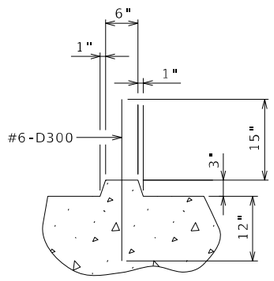
General Notes:

Work this sheet with Sheet No. 11.

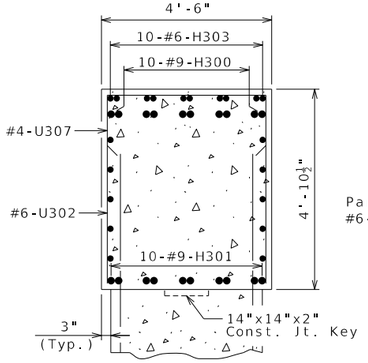
For steps 2 inches or more, use 2 1/4 x 1/2-inch joint filler up vertical face.



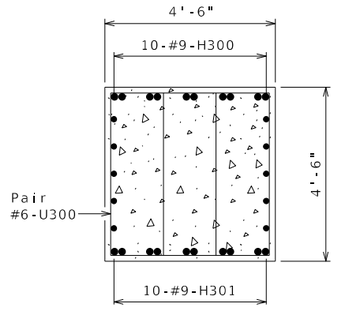
SECTION THRU TAPERED LAMINATED NEOPRENE BEARING PAD



SECTION THRU KEY



SECTION D-D



SECTION E-E

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

Sheet No.12 of 49

DETAILS OF INTERMEDIATE BENT NO. 3

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 12
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

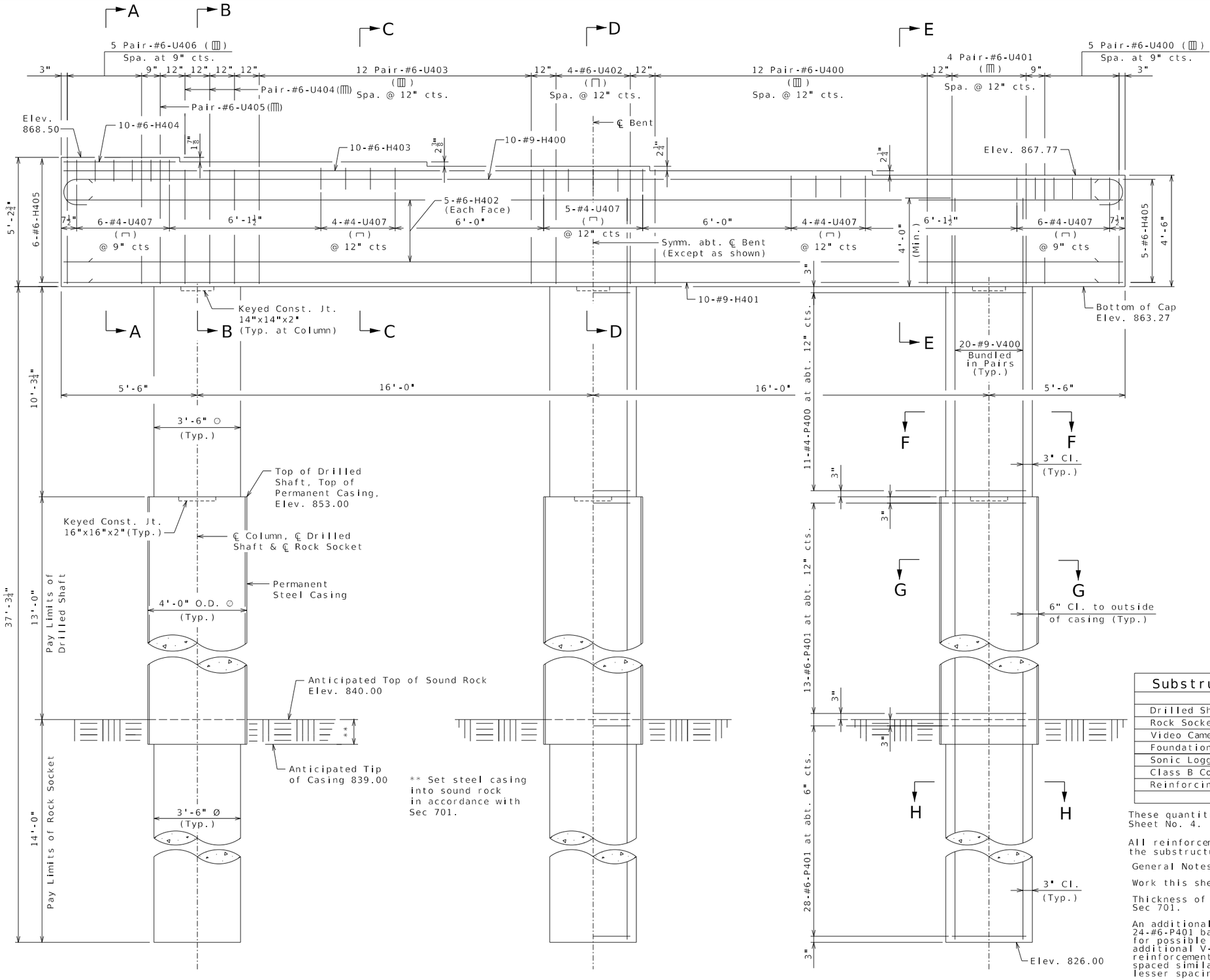
DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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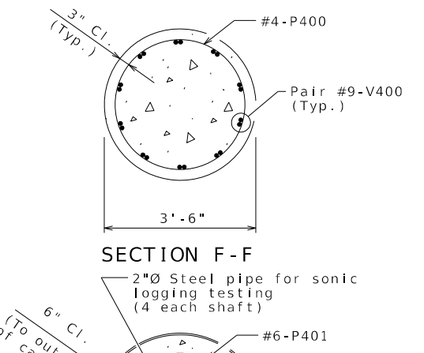
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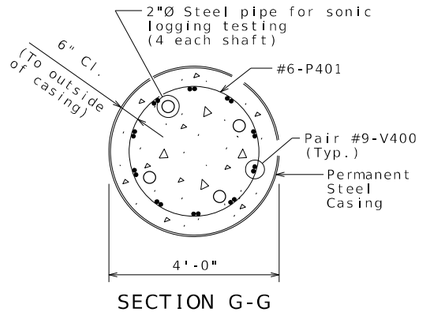


ELEVATION

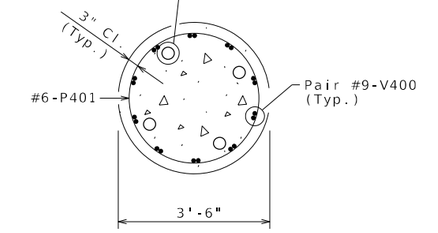
Beam Keys not shown for clarity.



SECTION F-F



SECTION G-G



SECTION H-H

Substructure Quantity Table for Bent No. 4		
Item		Quantity
Drilled Shaft (4 ft. 0 in. Dia.)	linear foot	39
Rock Socket (3 ft. 6 in. Dia.)	linear foot	42
Video Camera Inspection	each	3
Foundation Inspection Holes	linear foot	72
Sonic Logging Testing	each	3
Class B Concrete (Substructure)	cu. yard	45.7
Reinforcing Steel (Bridges)	pounds	18,240

These quantities are included in the estimated quantities table on Sheet No. 4.

All reinforcement in drilled shafts and rock sockets is included in the substructure quantities.

General Notes:

Work this sheet with Sheet No. 14.

Thickness of permanent steel casing shall be in accordance with Sec 701.

An additional 4 feet has been added to V-bar lengths and additional 24-#6-P401 bars have been added in the quantities, if required, for possible change in drilled shaft or rock socket length. The additional V-bar length shall be cut off or included in the reinforcement lap if not required. The additional P bars shall be spaced similarly to that shown in elevation, if required, or to a lesser spacing if not required, but not less than 6-inch centers.

Sonic logging testing shall be performed on all drilled shafts and rock sockets.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

DETAILS OF INTERMEDIATE BENT NO. 4

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

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DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 13
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

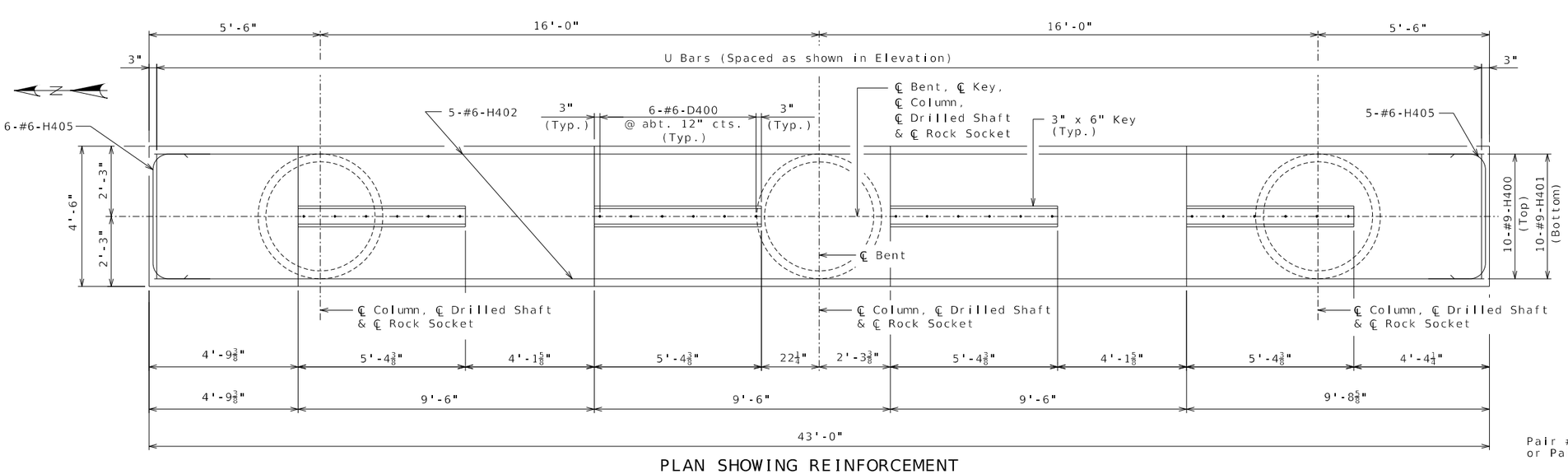
DESCRIPTION | DATE

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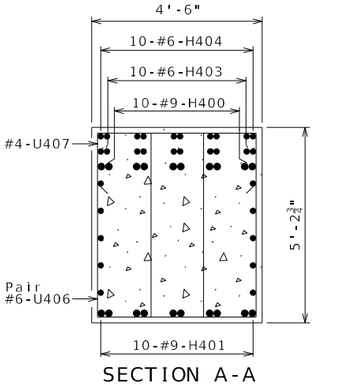
MISSOURI HIGHWAYS AND TRANSPORTION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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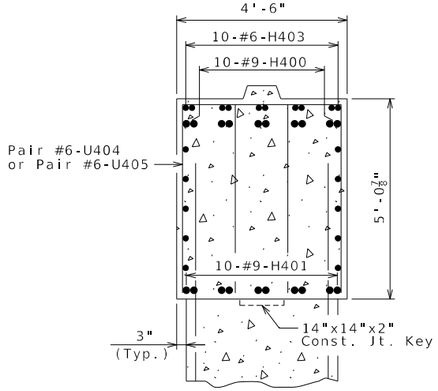
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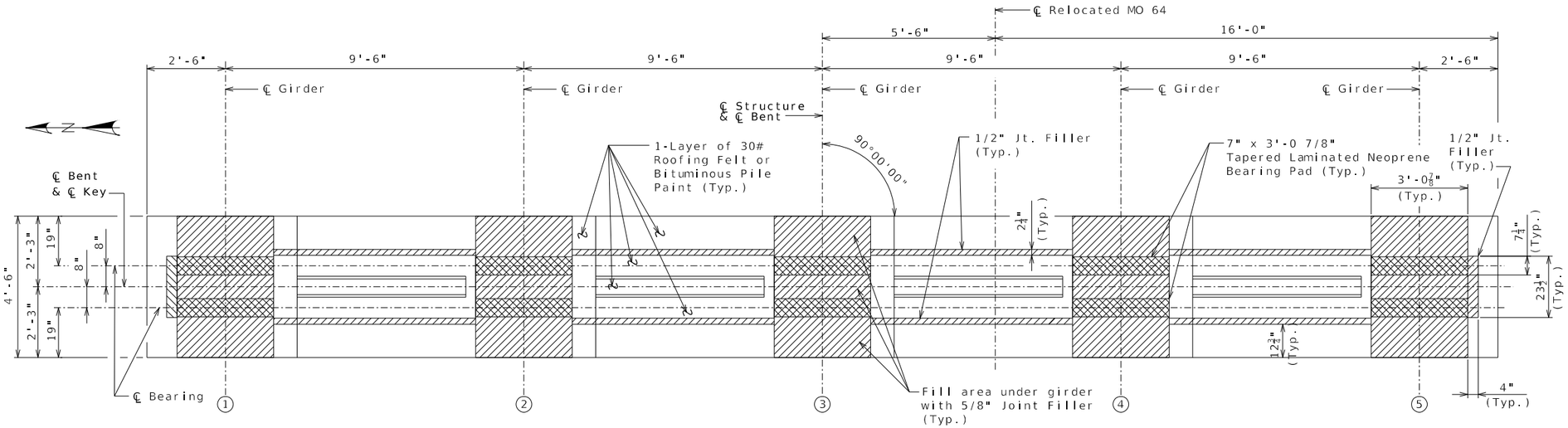
PLAN SHOWING REINFORCEMENT



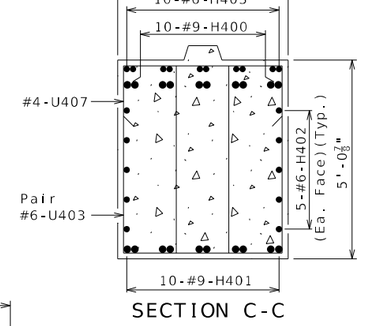
SECTION A-A



SECTION B-B



PLAN OF BEAM

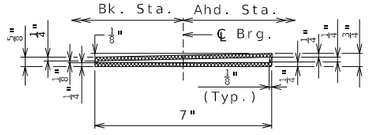


SECTION C-C

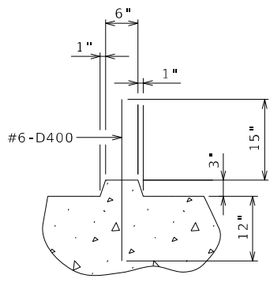
General Notes:

Work this sheet with Sheet No. 13.

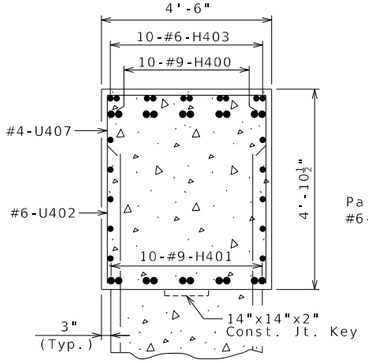
For steps 2 inches or more, use 2 1/4 x 1/2-inch joint filler up vertical face.



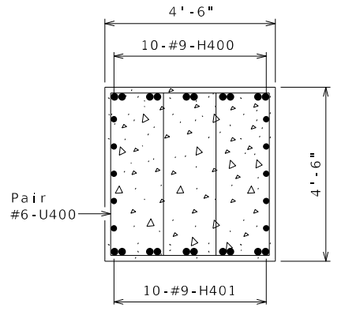
SECTION THRU TAPERED
LAMINATED NEOPRENE BEARING PAD



SECTION THRU KEY



SECTION D-D



SECTION E-E

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

DETAILS OF INTERMEDIATE BENT NO. 4

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 14
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

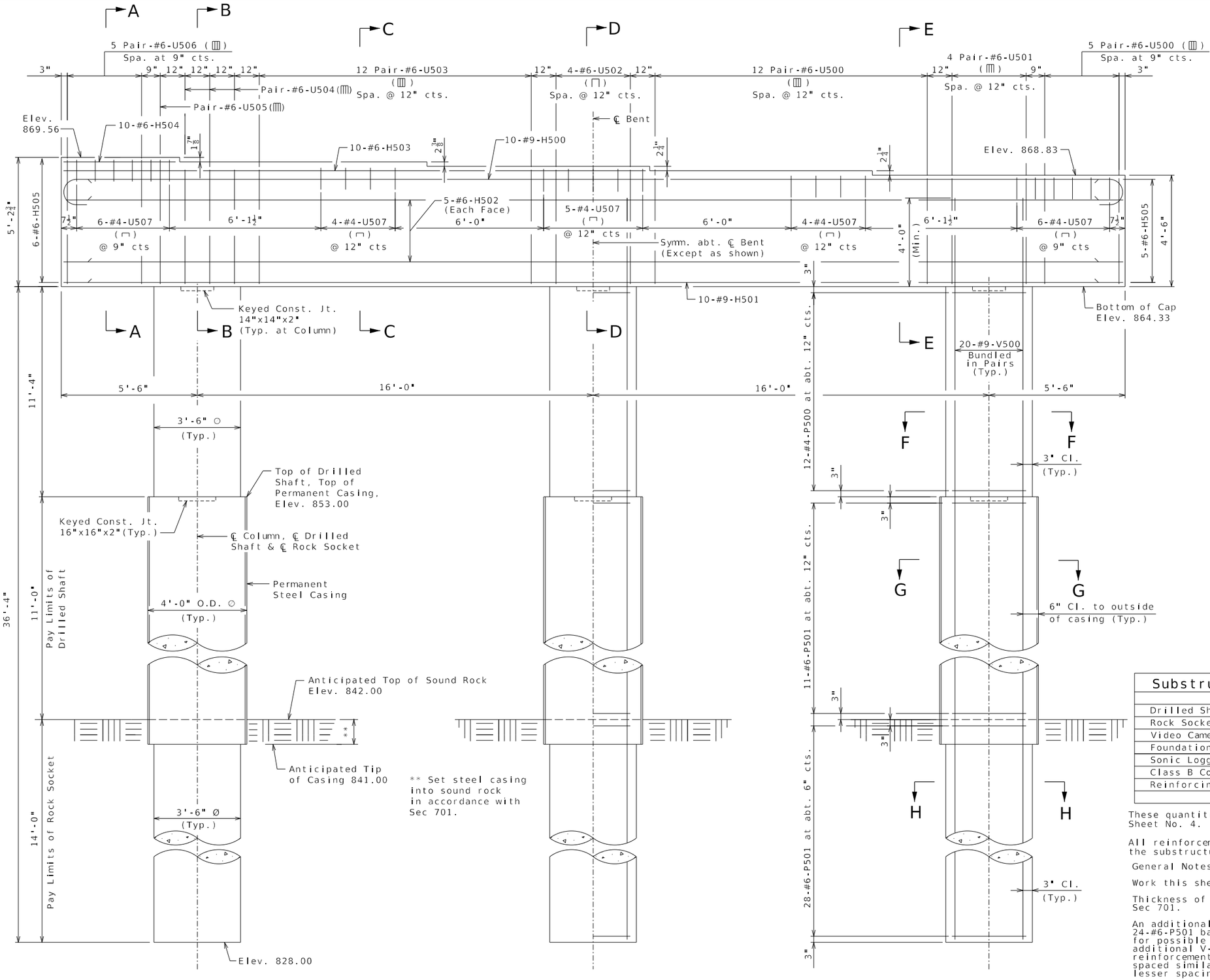
DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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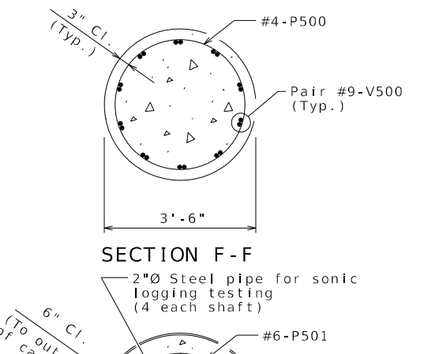
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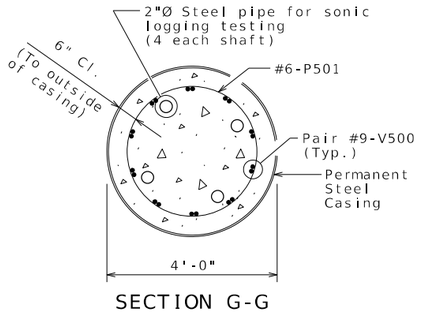


ELEVATION

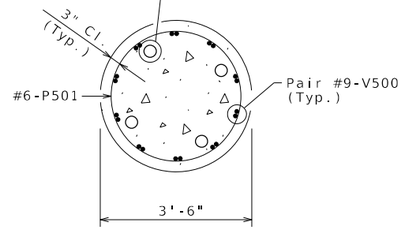
Beam Keys not shown for clarity.



SECTION F-F



SECTION G-G



SECTION H-H

Substructure Quantity Table for Bent No. 5		
Item		Quantity
Drilled Shaft (4 ft. 0 in. Dia.)	linear foot	33
Rock Socket (3 ft. 6 in. Dia.)	linear foot	42
Video Camera Inspection	each	3
Foundation Inspection Holes	linear foot	72
Sonic Logging Testing	each	3
Class B Concrete (Substructure)	cu. yard	46.9
Reinforcing Steel (Bridges)	pounds	17,970

These quantities are included in the estimated quantities table on Sheet No. 4.

All reinforcement in drilled shafts and rock sockets is included in the substructure quantities.

General Notes:

Work this sheet with Sheet No. 16.

Thickness of permanent steel casing shall be in accordance with Sec 701.

An additional 4 feet has been added to V-bar lengths and additional 24-#6-P501 bars have been added in the quantities, if required, for possible change in drilled shaft or rock socket length. The additional V-bar length shall be cut off or included in the reinforcement lap if not required. The additional P bars shall be spaced similarly to that shown in elevation, if required, or to a lesser spacing if not required, but not less than 6-inch centers.

Sonic logging testing shall be performed on all drilled shafts and rock sockets.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

DETAILS OF INTERMEDIATE BENT NO. 5

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 15
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

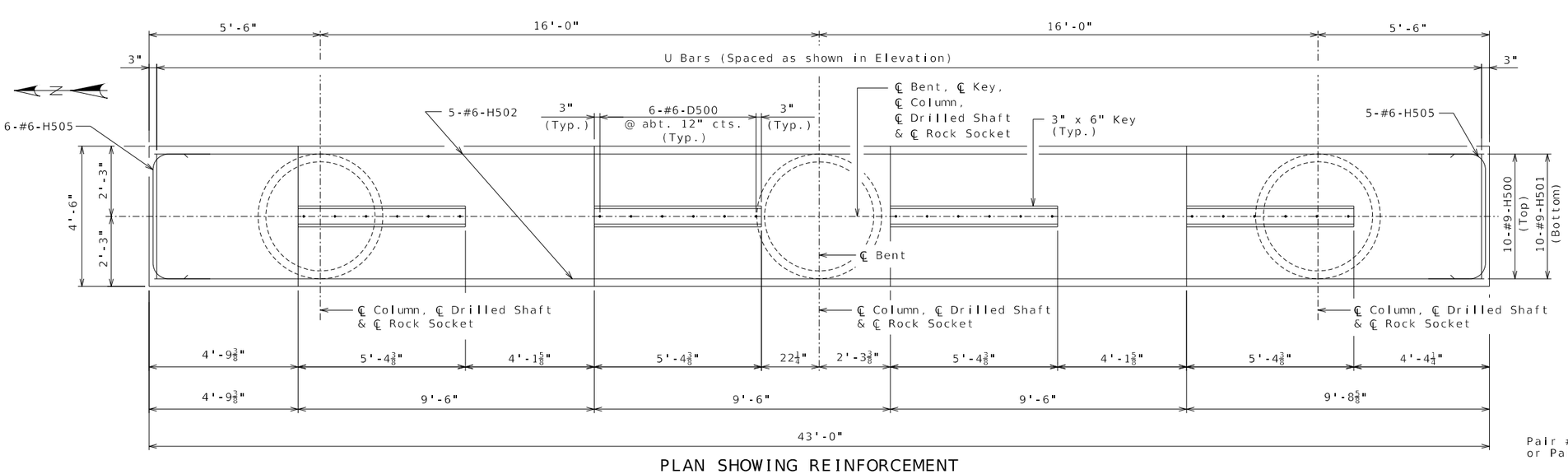
NO.	DESCRIPTION	DATE

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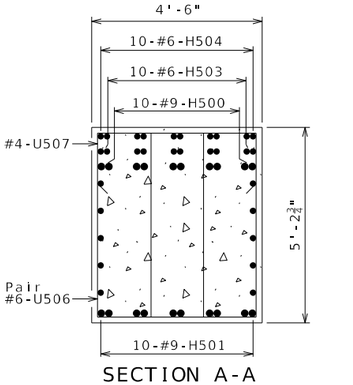
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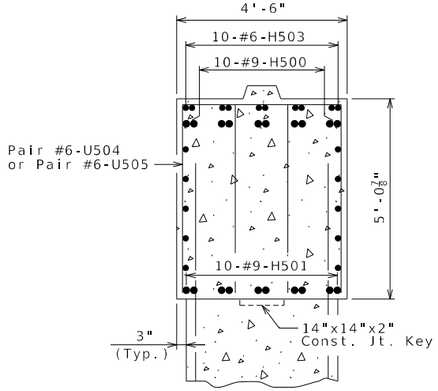
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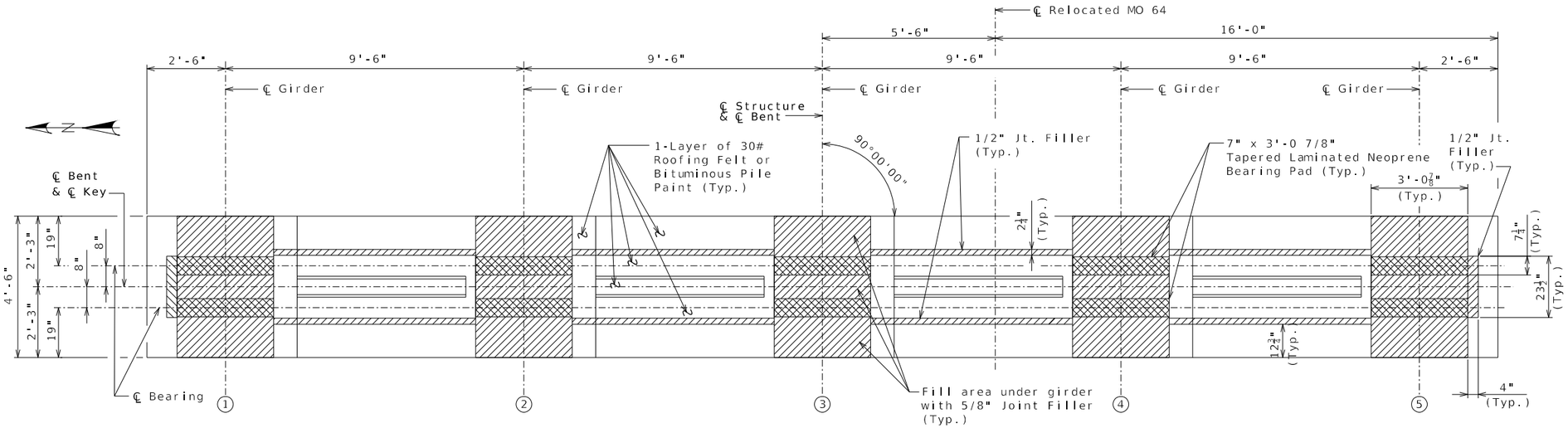
PLAN SHOWING REINFORCEMENT



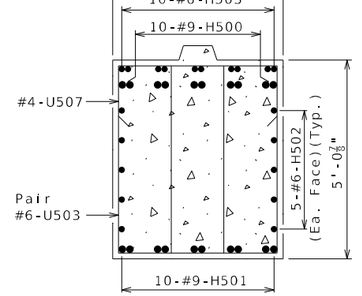
SECTION A-A



SECTION B-B



PLAN OF BEAM

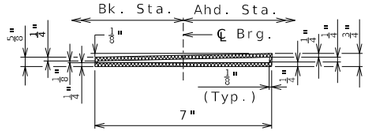


SECTION C-C

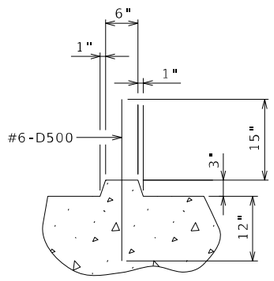
General Notes:

Work this sheet with Sheet No. 15.

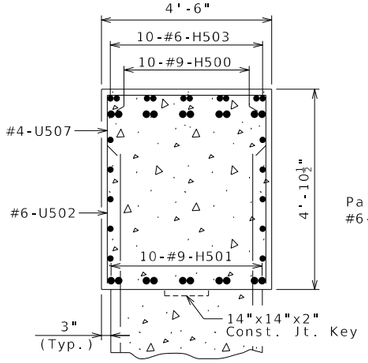
For steps 2 inches or more, use 2 1/4 x 1/2-inch joint filler up vertical face.



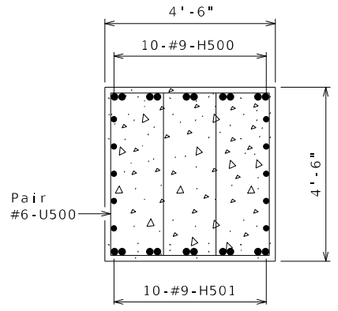
SECTION THRU TAPERED
LAMINATED NEOPRENE BEARING PAD



SECTION THRU KEY



SECTION D-D



SECTION E-E

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

DETAILS OF INTERMEDIATE BENT NO. 5

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 16
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

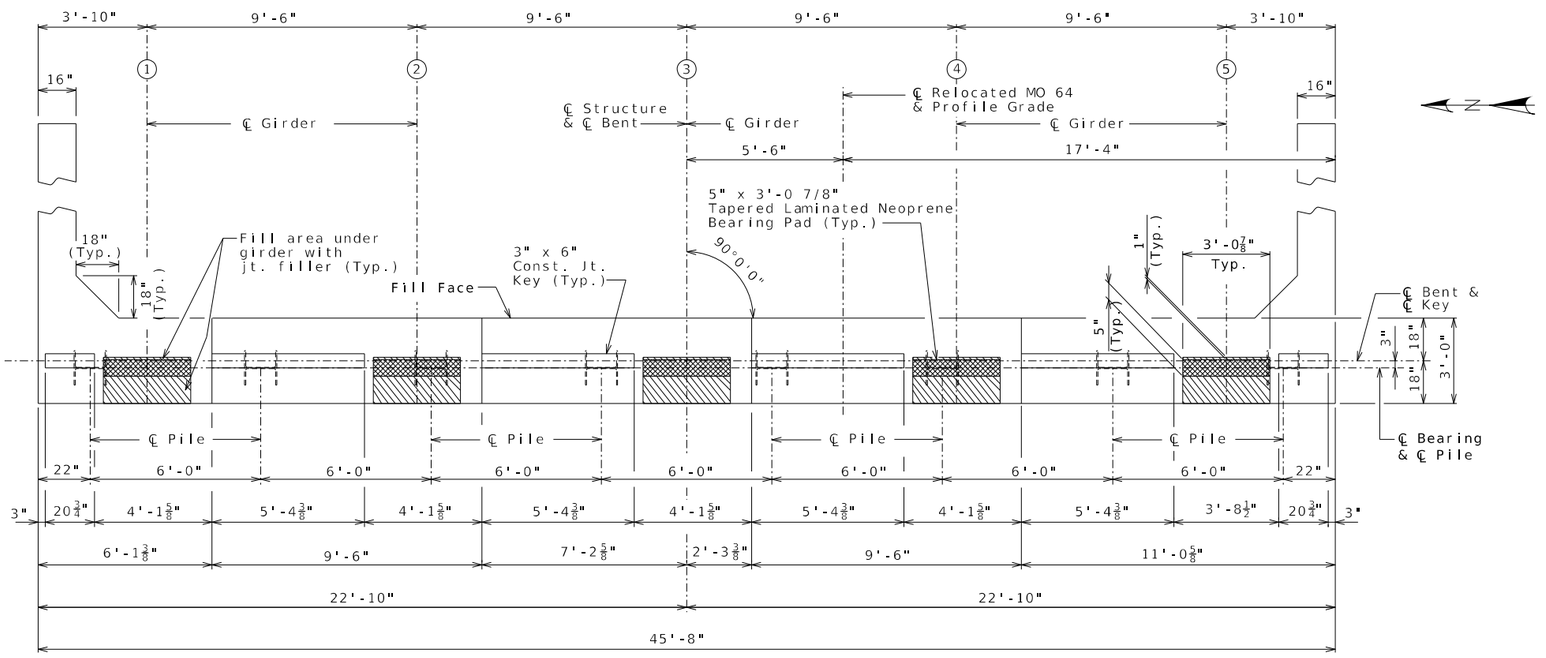
DESCRIPTION | DATE

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105 WEST CAPITOL
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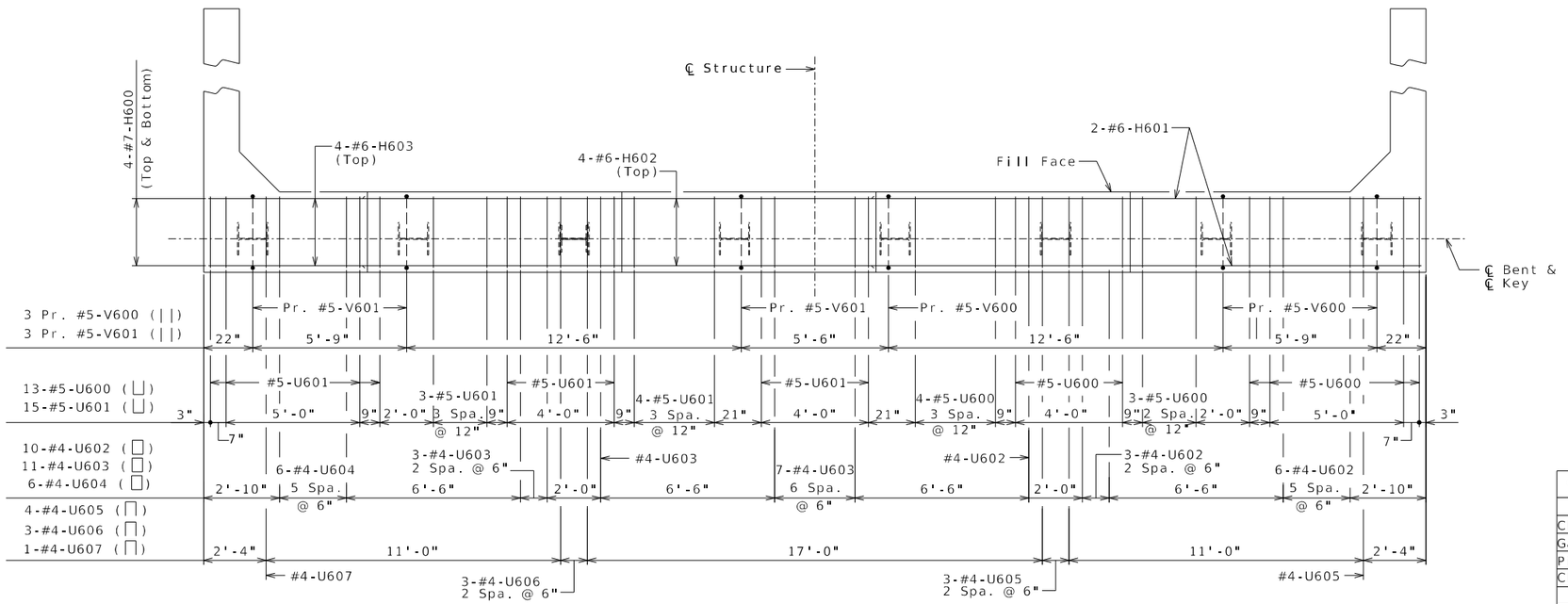
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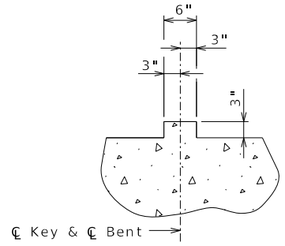
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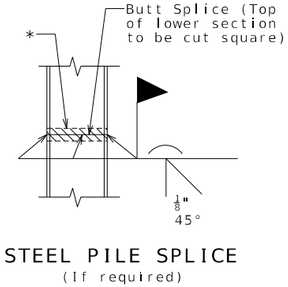
PLAN OF BEAM



PLAN OF BEAM SHOWING REINFORCEMENT
Keys not shown for clarity.

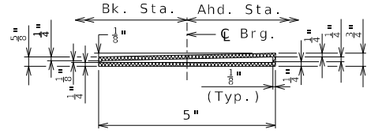


SECTION THRU KEY



STEEL PILE SPLICE
(If required)

* Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.



SECTION THRU TAPERED LAMINATED NEOPRENE BEARING PAD

General Notes:

Work this sheet with Sheets No. 18 & 19.

All U bars & 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.

SUBSTRUCTURE QUANTITY TABLE FOR END BENT NO. 6		
ITEM		QUANTITY
Class 1 Excavation	cu. yard	120
Galvanized Structural Steel Piles (14 in.)	linear foot	240
Pile Point Reinforcement	each	8
Class B Concrete (Substructure)	cu. yard	21.3

Note: These quantities are included in the Estimated Quantities table on Sheet No. 4.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

DETAILS OF END BENT NO. 6

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

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DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 17
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

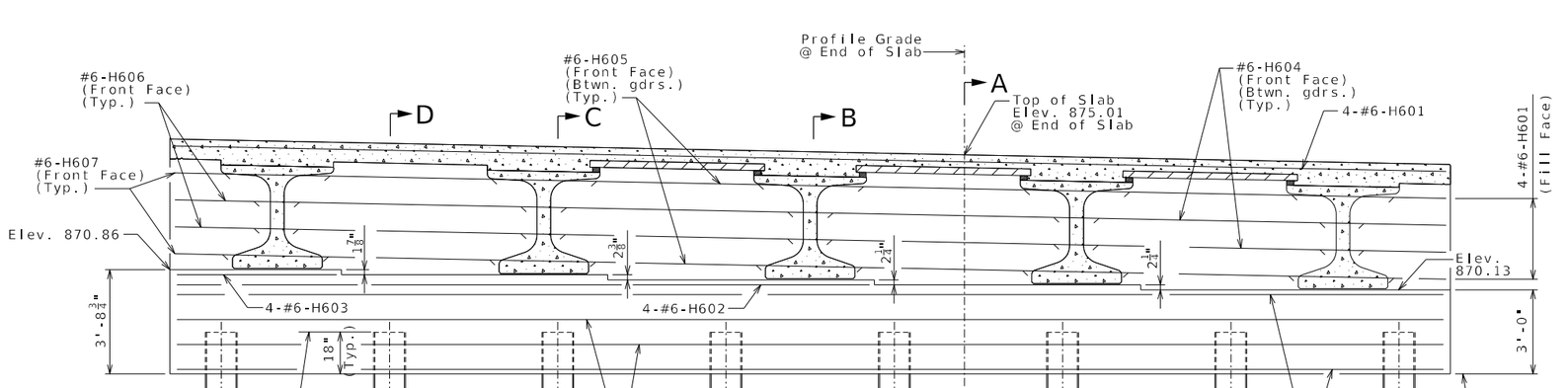
NO.	DESCRIPTION	DATE

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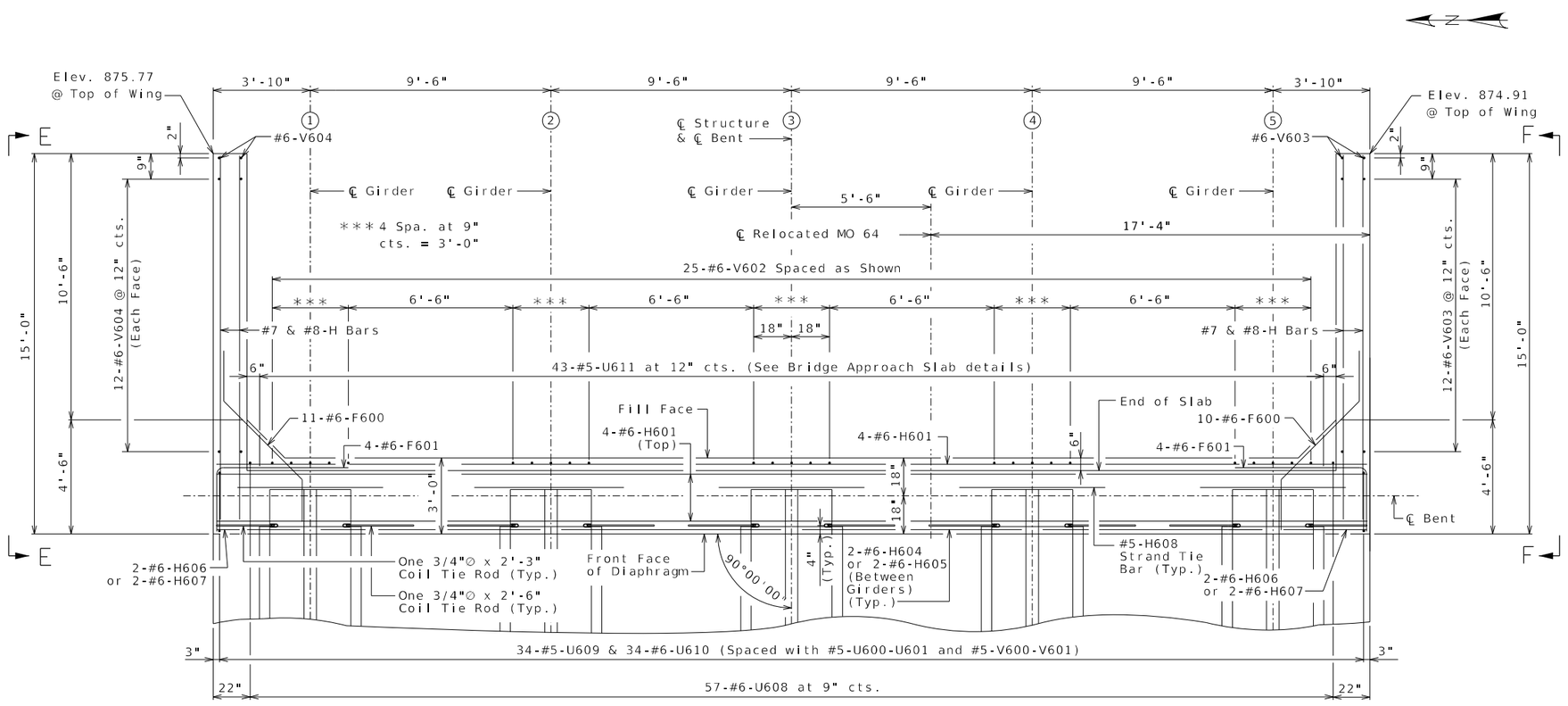
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SECTION NEAR END BENT



PART PLAN

General Notes:

Work this sheet with Sheets No. 17 & 19.

For Sections A-A, B-B, C-C & D-D and Elevations E-E & F-F, see Sheet No. 19.

The #6-F600 and #6-F601 bars shall be bent in the field to clear girders.

The U bars and pairs of V 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" minimum clearance to fill face of end bent.

For locations of coil tie rods and #5-H608 (strand tie bar), see Sheets No. 24 & 25.

For details of vertical drain at end bents, see Sheet No. 8.

For details of Bridge Approach Slab, see Sheet No. 37.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

DETAILS OF END BENT NO. 6

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004007786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 18
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

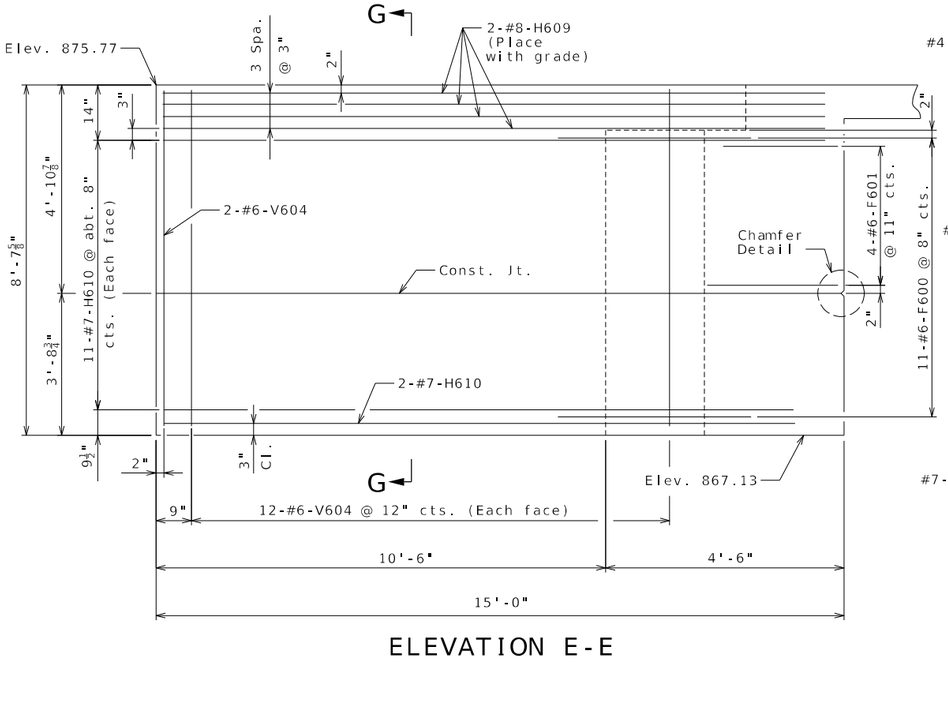
DESCRIPTION | DATE

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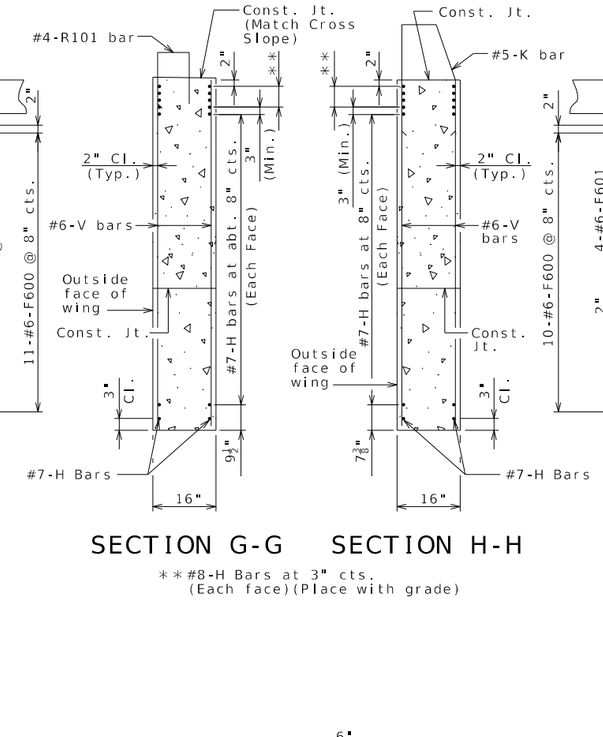
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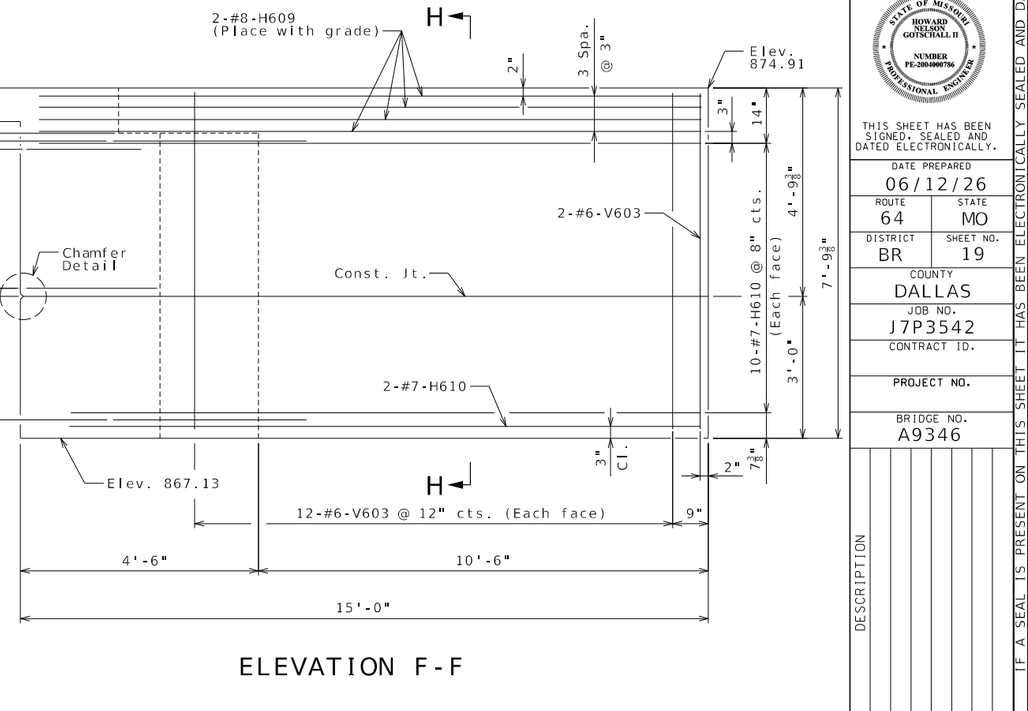


ELEVATION E-E

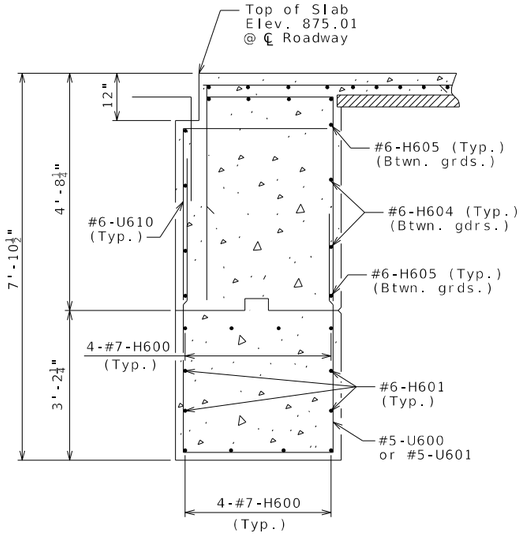


SECTION G-G SECTION H-H

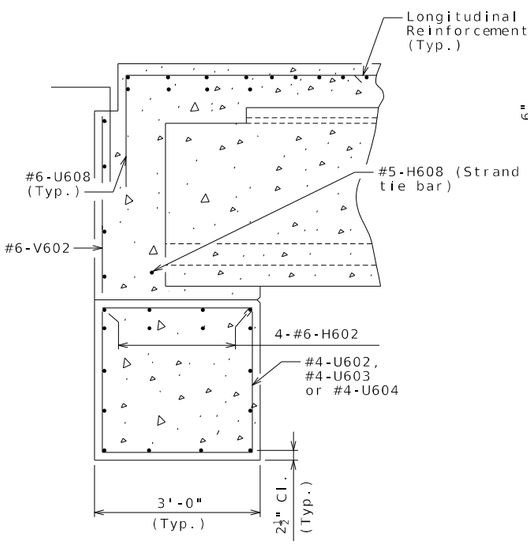
**#8-H Bars at 3" cts. (Each face)(Place with grade)



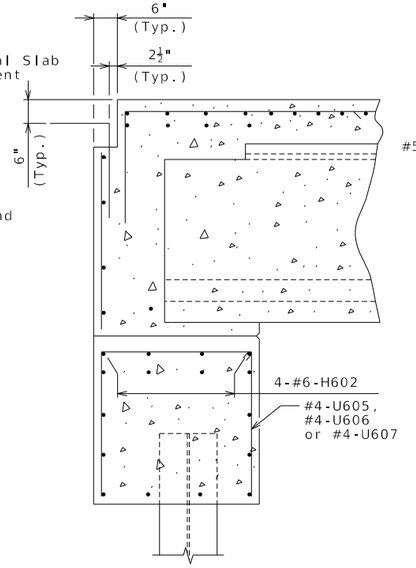
ELEVATION F-F



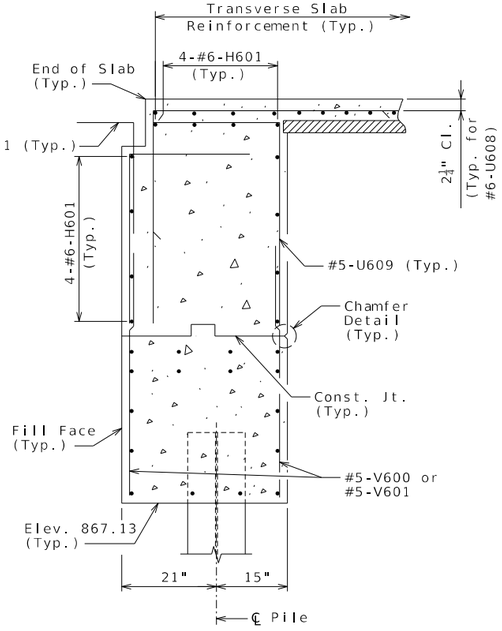
SECTION A-A



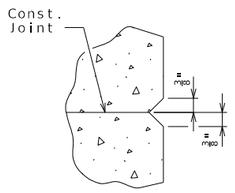
SECTION B-B



SECTION C-C



SECTION D-D



CHAMFER DETAIL

General Notes:

Work this sheet with Sheets No. 17 & 18.

For reinforcement of the Type D Barrier, see Sheet No. 32.

For location of Sections A-A, B-B, C-C & D-D and Elevations E-E & F-F, see Sheet No. 18.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

Sheet No. 19 of 49

DETAILS OF END BENT NO. 6

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 19
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION | DATE

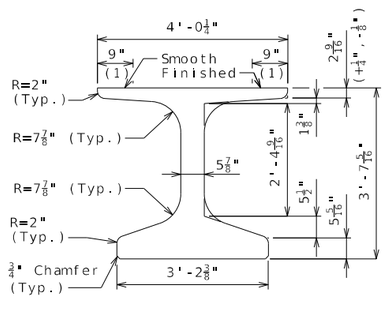
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MISSOURI HIGHWAYS AND TRANSPORTION COMMISSION
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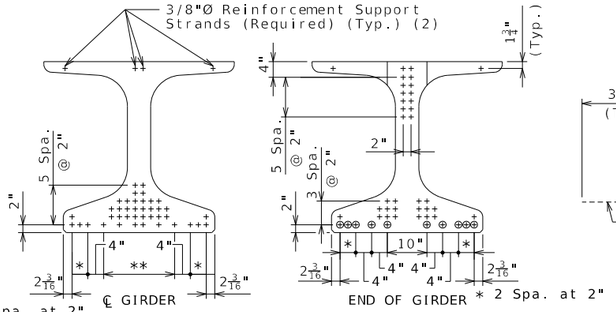
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(1) Fabricator shall apply a bond breaker to this region excluding where joint filler will be applied.



DIMENSIONS

(2) Outer strands tensioned to 2.02 kips/strand and inner strands to 8 kips/strand. Placed symmetrical about ℄ Girder. May be moved laterally in pairs.

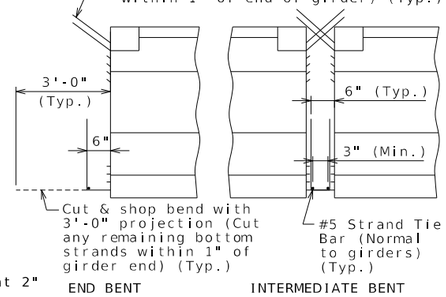


* 2 Spa. at 2"
** 9 Spa. at 2"

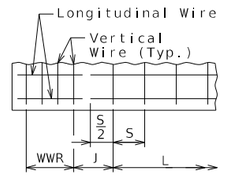
STRAND ARRANGEMENT

\+ Indicates prestressing strand.

o Indicates cut & shop bend with 3'-0" projection.



STRANDS AT GIRDER ENDS

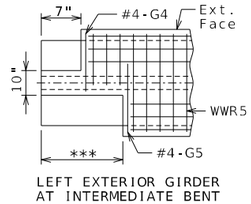


WELDED WIRE PLACEMENT

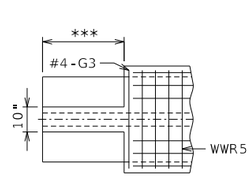
S = Vertical wire spacing

L = Length of WWR mats

J = Distance between WWR mats



LEFT EXTERIOR GIRDER AT INTERMEDIATE BENT
Rotate 180° for right ext.



INTERIOR GIRDER AT ALL BENTS & EXTERIOR GIRDER AT END BENT

Span	Bent	***
(1-2)	1	18¾"
(1-2)	2	9½"

TOP FLANGE BLOCKOUT

Bill of Reinforcing Steel

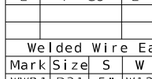
Bars Each Girder

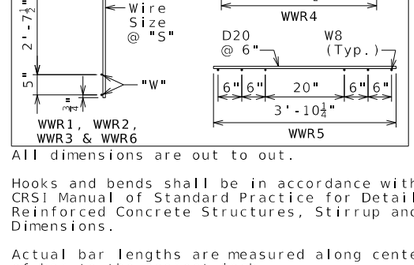
No.	Size	Mark	Length	Shape
122	3	G1	2'-10"	8
2	4	G3	3'-10¼"	20
2	4	G4	2'-3"	20
2	4	G5	2'-8⅛"	20

Welded Wire Each Girder

Mark	Size	S	W	L	J
WWR1	D31	5"	W12	8'-4"	6"
WWR2	D31	12"	W12	21'-0"	16"
WWR3	D31	24"	W12	16'-0"	12"
WWR6	D31	2"	W12	16"	5"

Bending Diagrams





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 1", unless otherwise shown.

All bar reinforcement shall be Grade 60.

WWR shall not be epoxy coated.

G4 and G5 not required for interior girders. G3 not required for exterior girders of intermediate spans.

General Notes:

Concrete for prestressed beams shall be Class A-1 with f'c = 8500 psi and f'ci = 6500 psi.

Use 40 strands, 0.6"Ø Grade 270, with an initial prestress force of 1758 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: top flange blockout, coil ties & coil inserts for slab drains.

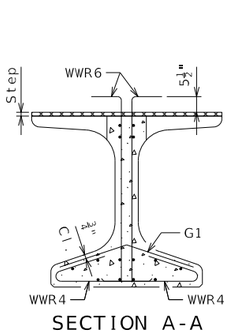
The contractor shall provide bracing necessary for lateral and torsional stability of the girders during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not drill holes in the girders.

For Girder Camber Diagram, see Sheet No. 29.

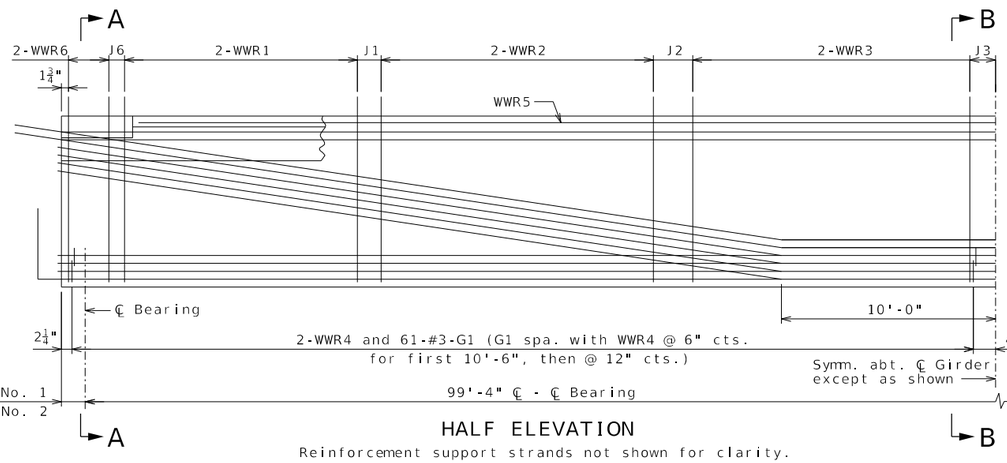
For location of coil inserts at slab drains, see Sheet No. 28.

For location of coil ties at concrete diaphragms and integral bents, see Sheets No. 6 and 26.

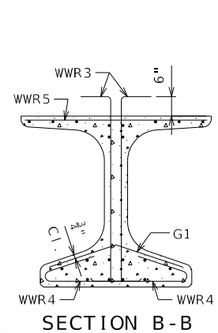
Alternate bar reinforcing steel details are provided and may be used. The same type of reinforcing steel shall be used for all girders in all spans.



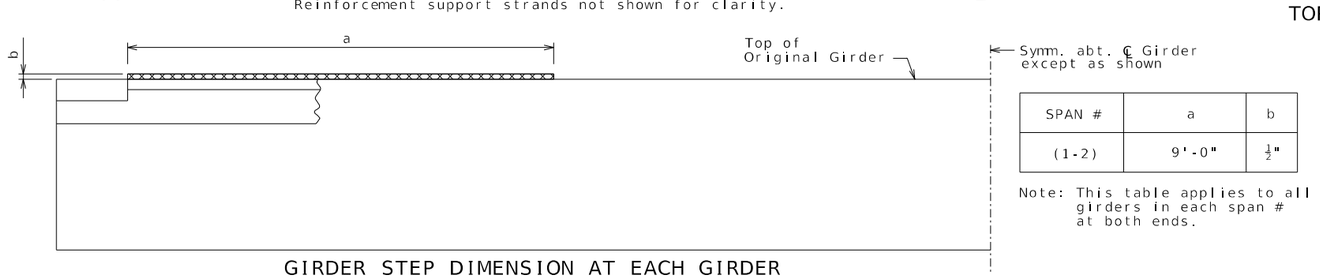
SECTION A-A
Strands not shown for clarity.



HALF ELEVATION
Reinforcement support strands not shown for clarity.



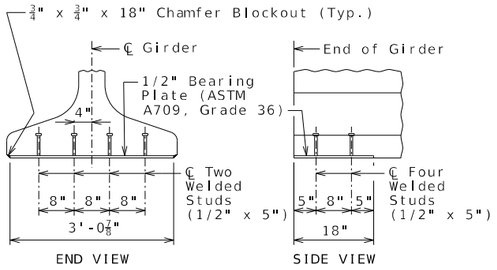
SECTION B-B
Strands not shown for clarity.



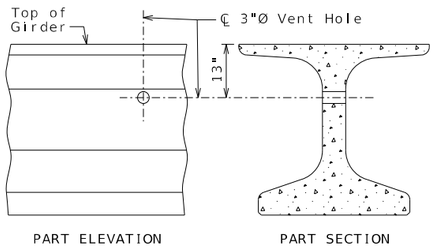
SPAN #	a	b
(1-2)	9'-0"	½"

Note: This table applies to all girders in each span # at both ends.

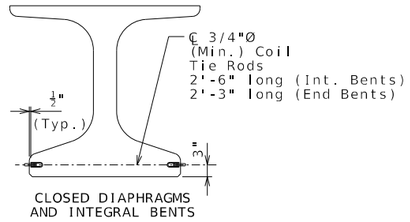
GIRDER STEP DIMENSION AT EACH GIRDER



BEARING PLATE



VENT HOLE
Place vent holes at or near upgrade 1/3 point of girders and clear reinforcing steel or strands by 1 1/2" minimum.



CLOSED DIAPHRAGMS AND INTEGRAL BENTS

COIL TIES
Exclude coil tie at exterior face of exterior girders except at integral end bents.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

NU-GIRDERS - SPAN (1-2)

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 STATE MO
DISTRICT BR SHEET NO. 20
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION | DATE

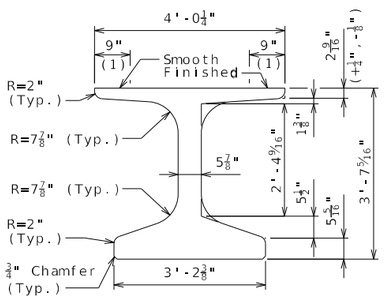
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)
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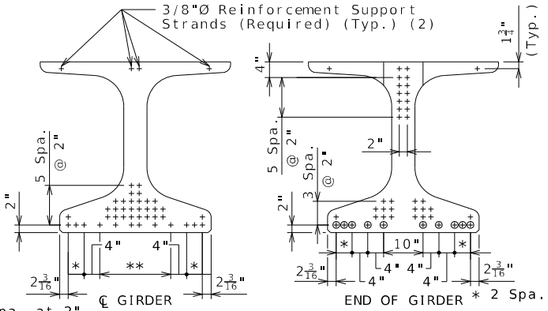
HANSON
Hanson Professional Services Inc.
600 Washington Ave., Suite 950
St. Louis, Missouri 63101
Professional Engineer 00162
www.hanson-inc.com
314.770.0467

(1) Fabricator shall apply a bond breaker to this region excluding where joint filler will be applied.



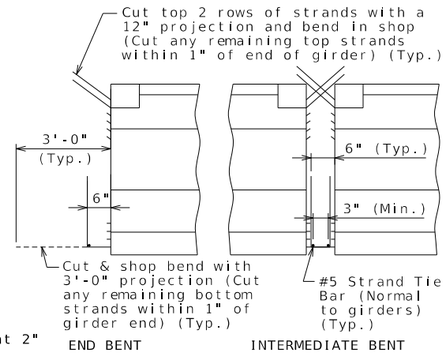
DIMENSIONS

(2) Outer strands tensioned to 2.02 kips/strand and inner strands to 8 kips/strand. Placed symmetrical about ℄ Girder. May be moved laterally in pairs.



* 2 Spa. at 2"
** 9 Spa. at 2"

STRAND ARRANGEMENT

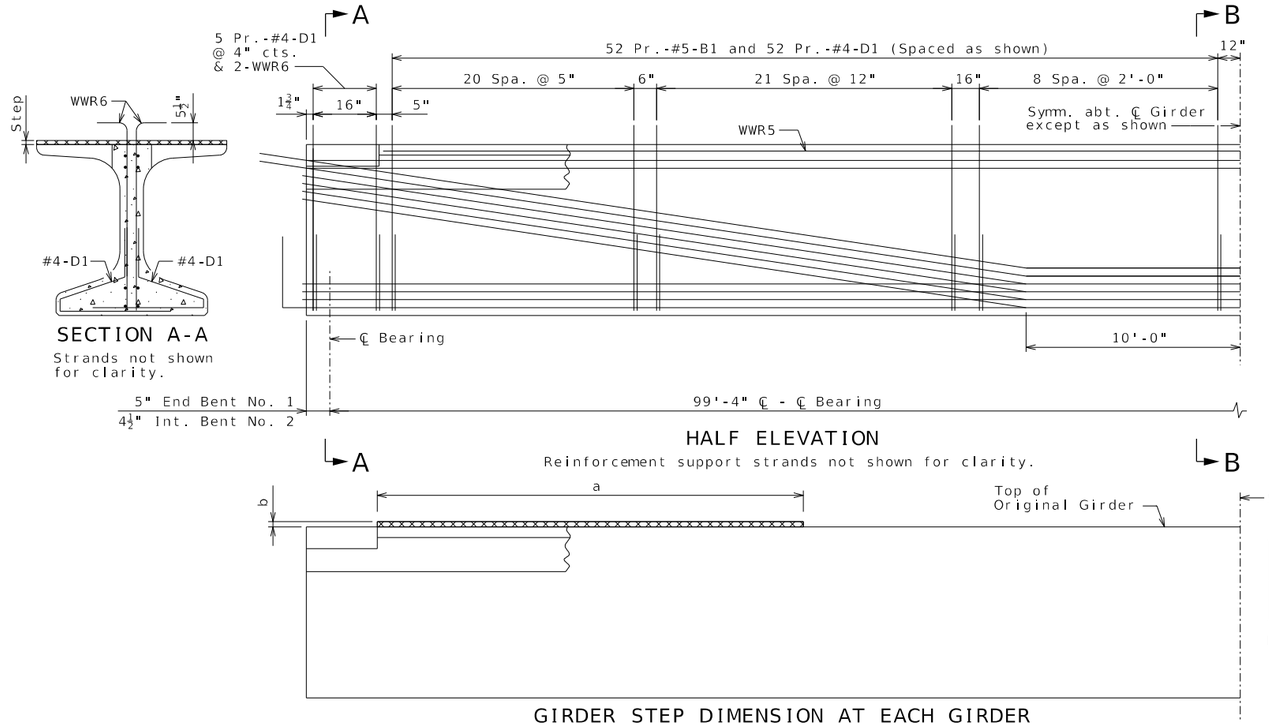


* 2 Spa. at 2"

STRANDS AT GIRDER ENDS

\+ Indicates prestressing strand.

○ Indicates cut & shop bend with 3'-0" projection.

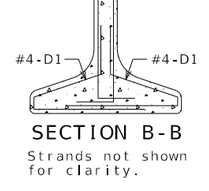


SECTION A-A

Strands not shown for clarity.

HALF ELEVATION

Reinforcement support strands not shown for clarity.



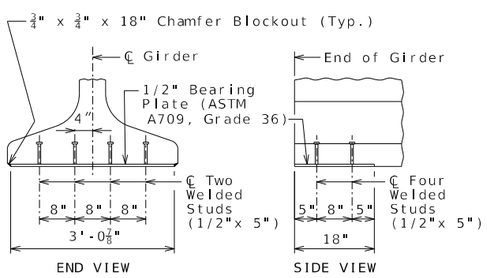
SECTION B-B

Strands not shown for clarity.

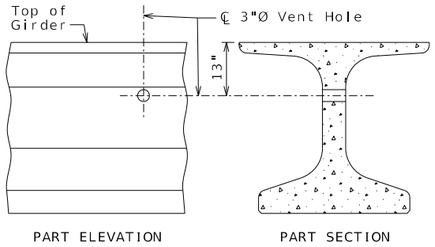
SPAN #	a	b
(1-2)	9'-0"	½"

Note: This table applies to all girders in each span # at both ends.

GIRDER STEP DIMENSION AT EACH GIRDER

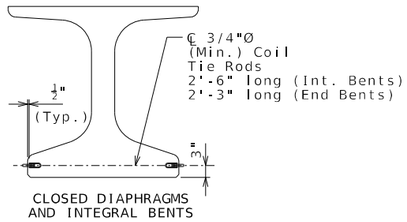


BEARING PLATE



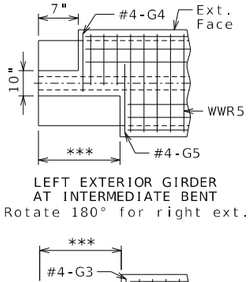
VENT HOLE

Place vent holes at or near upgrade 1/3 point of girders and clear reinforcing steel or strands by 1 1/2" minimum.



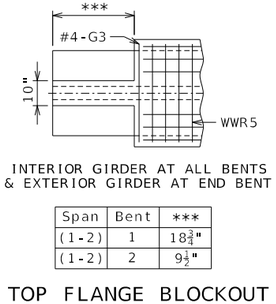
COIL TIES

Exclude coil tie at exterior face of exterior girders except at integral end bents.



LEFT EXTERIOR GIRDER AT INTERMEDIATE BENT

Rotate 180° for right ext.

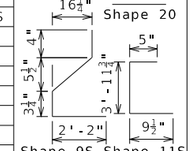


INTERIOR GIRDER AT ALL BENTS & EXTERIOR GIRDER AT END BENT

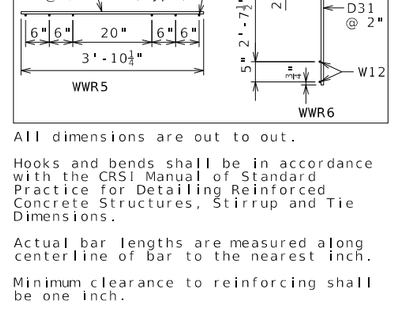
Span	Bent	***
(1-2)	1	18¾"
(1-2)	2	9½"

TOP FLANGE BLOCKOUT

Bill of Reinforcing Steel - Each Girder				
No.	Size/ Mark	Length	Shape	Bending Diagrams
208	5 B1	5'-0"	11S	
228	4 D1	4'-0"	9S	
2	4 G3	3'-10¼"	20	
2	4 G4	2'-3"	20	
2	4 G5	2'-8⅛"	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.

G4 and G5 not required for interior girders. G3 not required for exterior girders of intermediate spans.

General Notes:

Concrete for prestressed girders shall be Class A-1 with f'c = 8500 psi and f'ci = 6500 psi.

Use 40 strands, 0.6"Ø Grade 270, with an initial prestress force of 1758 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: top flange blockout, coil ties & coil inserts for slab drains.

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. 29.

For location of coil inserts at slab drains, see Sheet No. 28.

For location of coil ties at concrete diaphragms and integral bents, see Sheets No. 6 and 26.

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.

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
06/12/26	
ROUTE 64	STATE MO
DISTRICT BR	SHEET NO. 21
COUNTY DALLAS	
JOB NO. J7P3542	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A9346	

DESCRIPTION	DATE

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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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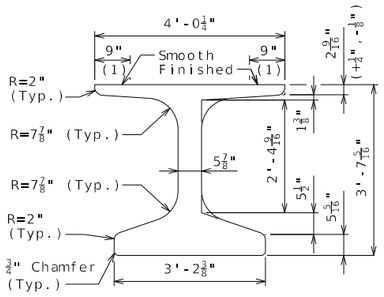
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Hanson Professional Services Inc.
600 Washington Ave., Suite 950
St. Louis, Missouri 63101
Professional Engineer 001632
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314.770.0467

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

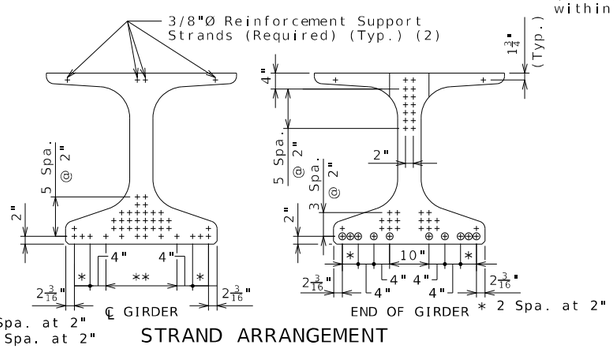
NU-GIRDERS (ALTERNATE REINFORCEMENT) - SPAN (1-2)

(1) Fabricator shall apply a bond breaker to this region excluding where joint filler will be applied.



DIMENSIONS

(2) Outer strands tensioned to 2.02 kips/strand and inner strands to 8 kips/strand. Placed symmetrical about ℄ Girder. May be moved laterally in pairs.

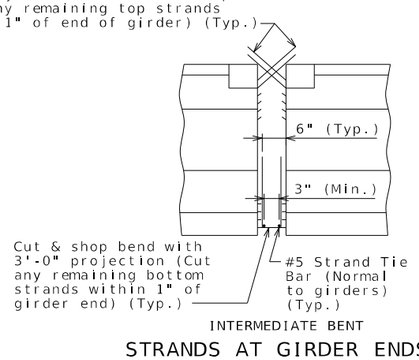


* 2 Spa. at 2"
** 9 Spa. at 2"

STRAND ARRANGEMENT

\+ Indicates prestressing strand.

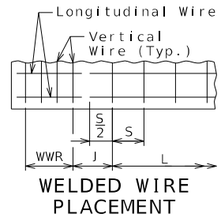
Cut top 2 rows of strands with a 12" projection and bend in shop (Cut any remaining top strands within 1" of end of girder) (Typ.)



INTERMEDIATE BENT

STRANDS AT GIRDER ENDS

o Indicates cut & shop bend with 3'-0" projection.

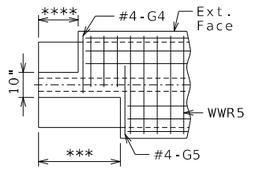


WELDED WIRE PLACEMENT

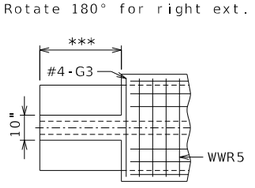
S = Vertical wire spacing

L = Length of WWR mats

J = Distance between WWR mats



LEFT EXTERIOR GIRDER AT INTERMEDIATE BENT
Rotate 180° for right ext.



INTERIOR GIRDER AT ALL BENTS & EXTERIOR GIRDER AT END BENT

Span	Bent	***	****
(2-3)	2	10½"	7⅞"
(2-3)	3	9½"	7"
(3-4)	3	10½"	7⅞"
(3-4)	4	9½"	7"
(4-5)	4	10½"	7⅞"
(4-5)	5	9½"	7"

TOP FLANGE BLOCKOUT

Bill of Reinforcing Steel

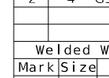
Bars Each Girder

No.	Size/Mark	Length	Shape
120	3 G1	2'-10"	8
2	4 G3	3'-10½"	20
2	4 G4	2'-3"	20
2	4 G5	2'-8⅛"	20

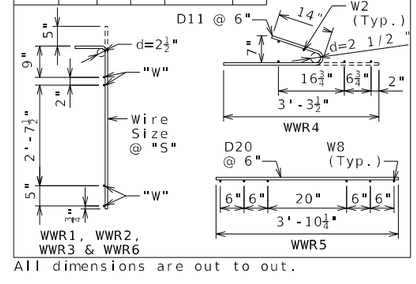
Welded Wire Each Girder

Mark	Size	S	W	L	J
WWR1	D31	6"	W12	8'-0"	8"
WWR2	D31	12"	W12	19'-0"	12¾"
WWR3	D31	24"	W12	18'-0"	12"
WWR6	D31	2"	W12	16"	6"

Bending Diagrams



Shape 20



WWR1, WWR2, WWR3 & WWR6

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 1", unless otherwise shown.

All bar reinforcement shall be Grade 60.

WWR shall not be epoxy coated.

G4 and G5 not required for interior girders. G3 not required for exterior girders of intermediate spans.

General Notes:

Concrete for prestressed beams shall be Class A-1 with f'c = 8500 psi and f'ci = 6500 psi.

Use 40 strands, 0.6"Ø Grade 270, with an initial prestress force of 1758 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: top flange blockout & coil inserts for slab drains.

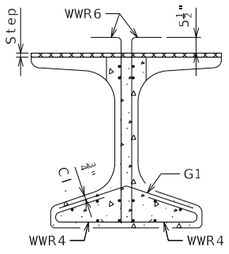
The contractor shall provide bracing necessary for lateral and torsional stability of the girders during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not drill holes in the girders.

For Girder Camber Diagram, see Sheet No. 29.

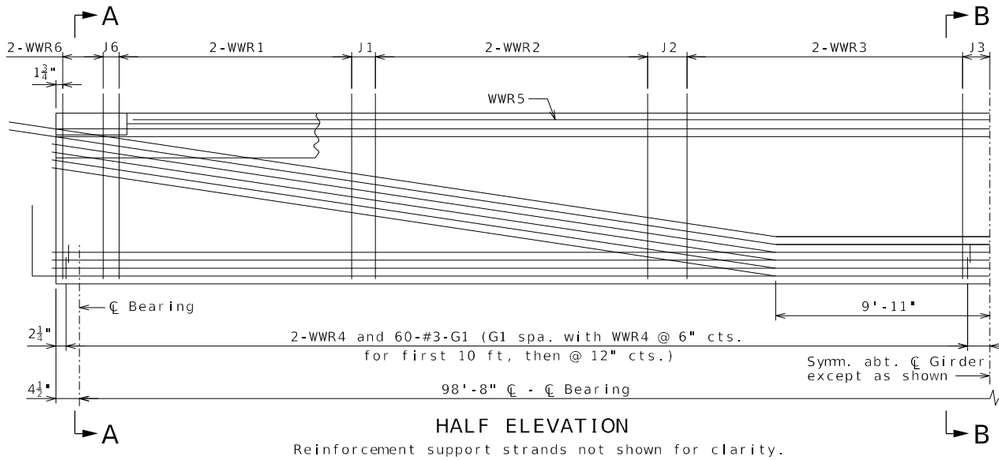
For location of coil inserts at slab drains, see Sheet No. 28.

For location of coil ties at concrete diaphragms and integral bents, see Sheets No. 6 and 26.

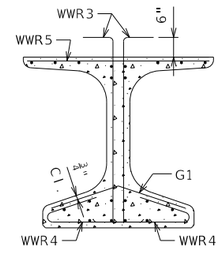
Alternate bar reinforcing steel details are provided and may be used. The same type of reinforcing steel shall be used for all girders in all spans.



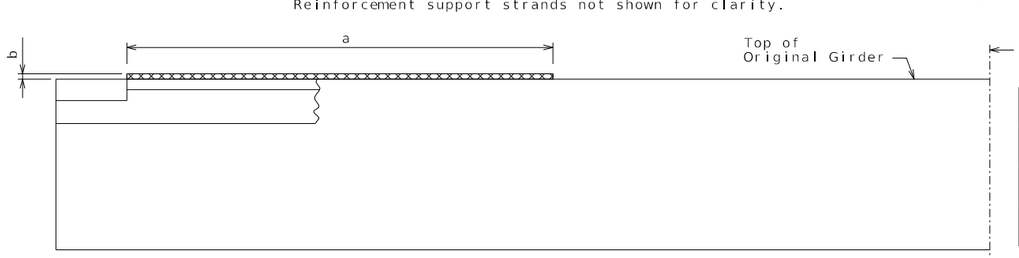
SECTION A-A
Strands not shown for clarity.



HALF ELEVATION
Reinforcement support strands not shown for clarity.



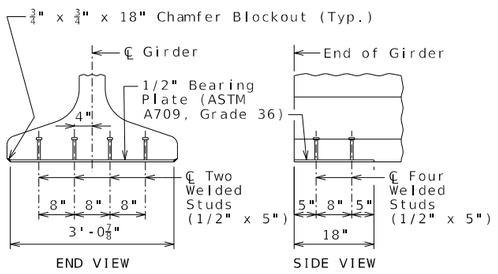
SECTION B-B
Strands not shown for clarity.



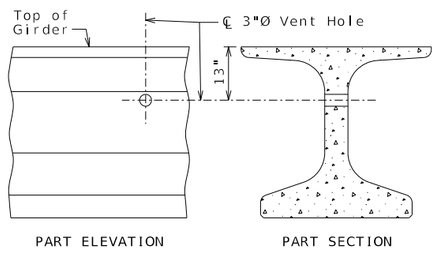
GIRDER STEP DIMENSION AT EACH GIRDER

SPAN #	a	b
(2-3)	9'-0"	½"
(3-4)	9'-0"	½"
(4-5)	9'-0"	½"

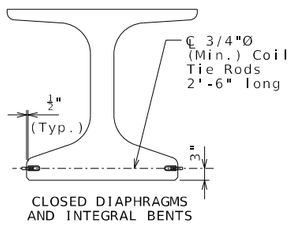
Note: This table applies to all girders in each span # at both ends.



BEARING PLATE



VENT HOLE
Place vent holes at or near upgrade 1/3 point of girders and clear reinforcing steel or strands by 1 1/2" minimum.



CLOSED DIAPHRAGMS AND INTEGRAL BENTS

COIL TIES
Exclude coil tie at exterior face of exterior girders except at integral end bents.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

NU-GIRDERS - SPAN (2-3), (3-4) & (4-5)

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 STATE MO
DISTRICT BR SHEET NO. 22
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION | DATE

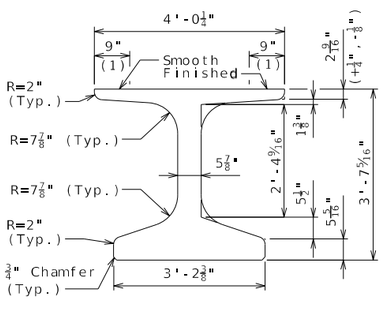
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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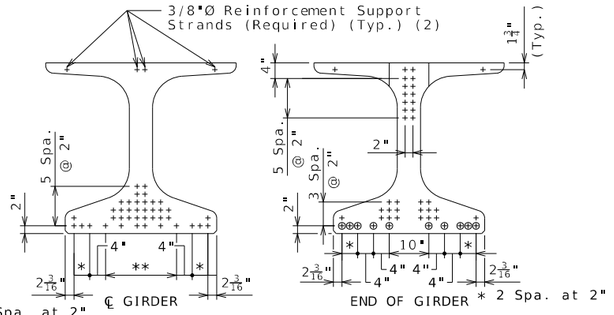
HANSON
Hanson Professional Services Inc.
600 Washington Ave., Suite 950
St. Louis, Missouri 63101
Professional Engineer 001632
www.hanson-inc.com
314.770.0467

(1) Fabricator shall apply a bond breaker to this region excluding where joint filler will be applied.



DIMENSIONS

(2) Outer strands tensioned to 2.02 kips/strand and inner strands to 8 kips/strand. Placed symmetrical about ℄ Girder. May be moved laterally in pairs.

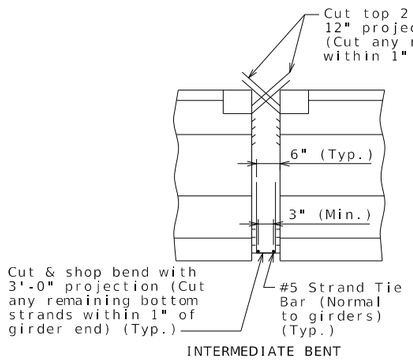


* 2 Spa. at 2"
** 9 Spa. at 2"

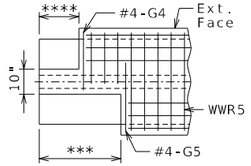
STRAND ARRANGEMENT

\+ Indicates prestressing strand.

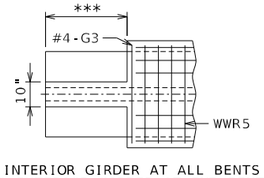
o Indicates cut & shop bend with 3'-0" projection.



STRANDS AT GIRDER ENDS



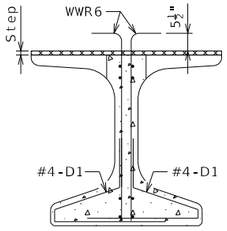
LEFT EXTERIOR GIRDER AT INTERMEDIATE BENT
Rotate 180° for right ext.



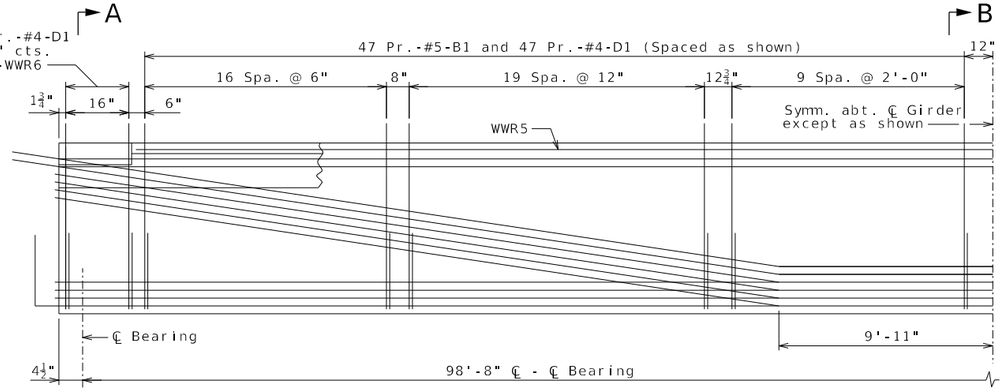
INTERIOR GIRDER AT ALL BENTS & EXTERIOR GIRDER AT END BENT

Span	Bent	***	****
(2-3)	2	10½"	7⅞"
(2-3)	3	9½"	7"
(3-4)	3	10½"	7⅞"
(3-4)	4	9½"	7"
(4-5)	4	10½"	7⅞"
(4-5)	5	9½"	7"

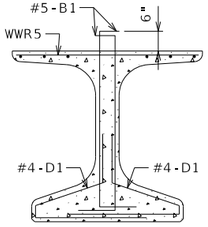
TOP FLANGE BLOCKOUT



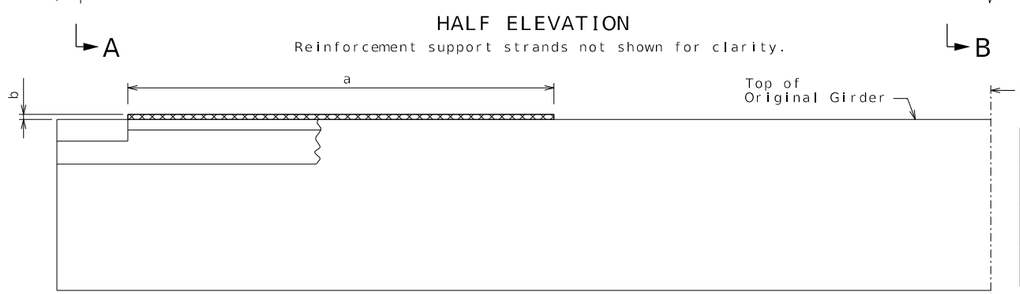
SECTION A-A
Strands not shown for clarity.



HALF ELEVATION
Reinforcement support strands not shown for clarity.



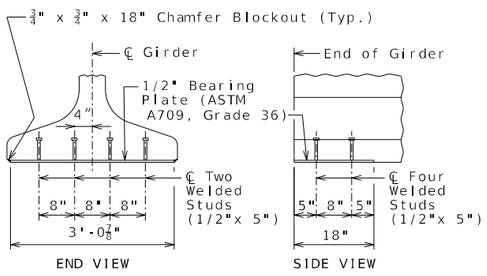
SECTION B-B
Strands not shown for clarity.



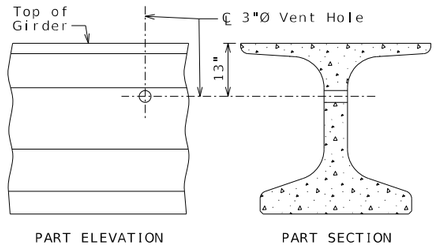
SPAN #	a	b
(2-3)	9'-0"	½"
(3-4)	9'-0"	½"
(4-5)	9'-0"	½"

Note: This table applies to all girders in each span # at both ends.

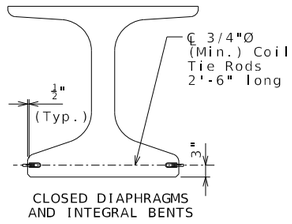
GIRDER STEP DIMENSION AT EACH GIRDER



BEARING PLATE



VENT HOLE
Place vent holes at or near upgrade 1/3 point of girders and clear reinforcing steel or strands by 1 1/2" minimum.

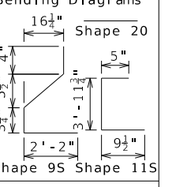


CLOSED DIAPHRAGMS AND INTEGRAL BENTS

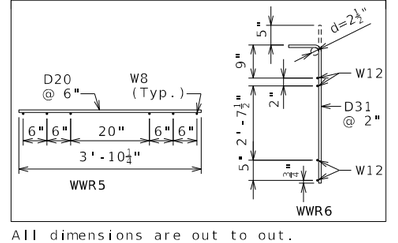
COIL TIES
Exclude coil tie at exterior face of exterior girders except at integral end bents.

Bill of Reinforcing Steel - Each Girder			
No.	Size/ Mark	Length	Shape
188	5 B1	5'-0"	11S
208	4 D1	4'-0"	9S
2	4 G3	3'-10¼"	20
2	4 G4	2'-3"	20
2	4 G5	2'-8⅛"	20

Bending Diagrams



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.

G4 and G5 not required for interior girders. G3 not required for exterior girders of intermediate spans.

General Notes:

Concrete for prestressed girders shall be Class A-1 with f'c = 8500 psi and f'ci = 6500 psi.

Use 40 strands, 0.6"Ø Grade 270, with an initial prestress force of 1758 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: top flange blockout & coil inserts for slab drains.

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. 29.

For location of coil inserts at slab drains, see Sheet No. 28.

For location of coil ties at concrete diaphragms and integral bents, see Sheets No. 6 and 26.

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.

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 23
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION | DATE

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

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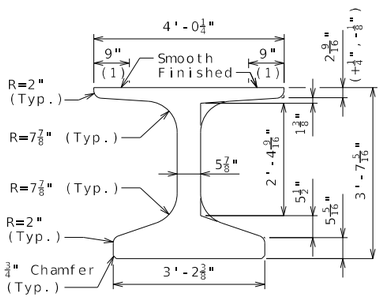
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600 Washington Ave., Suite 950
St. Louis, Missouri 63101
Professional Engineer 001632
www.hanson-inc.com
314.770.0467

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

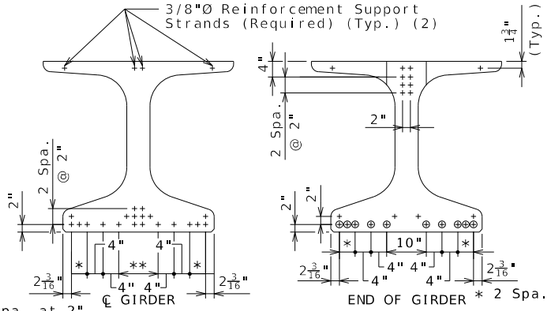
NU-GIRDERS (ALTERNATE REINFORCEMENT) - SPAN (2-3), (3-4) & (4-5)

(1) Fabricator shall apply a bond breaker to this region excluding where joint filler will be applied.



DIMENSIONS

(2) Outer strands tensioned to 2.02 kips/strand and inner strands to 8 kips/strand. Placed symmetrical about ℄ Girder. May be moved laterally in pairs.

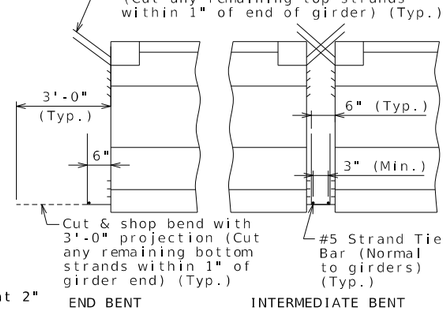


* 2 Spa. at 2"
** 5 Spa. at 2"

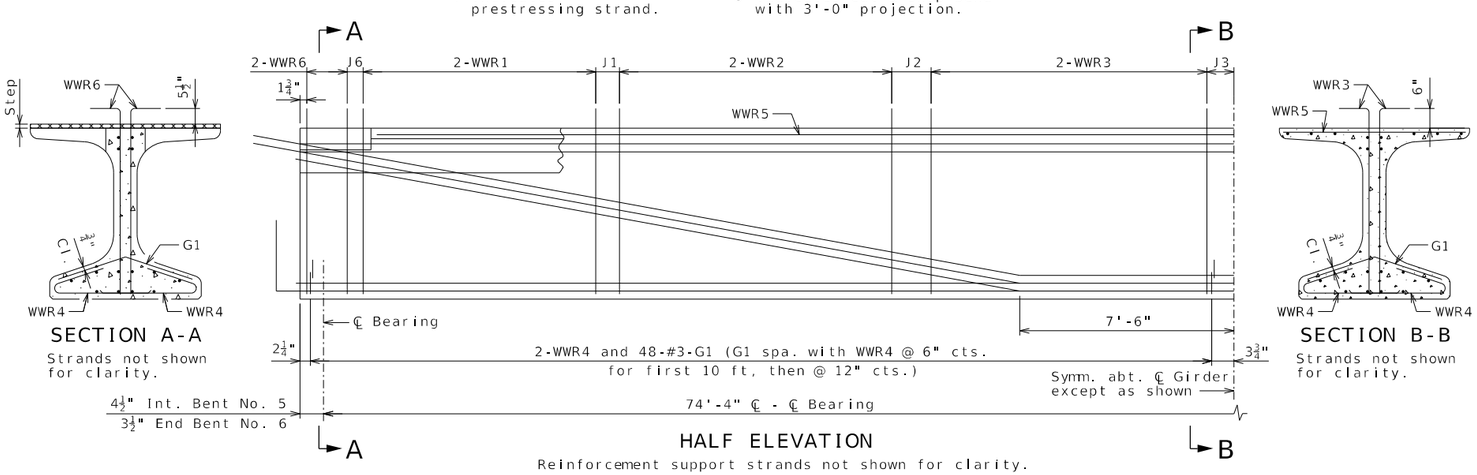
STRAND ARRANGEMENT

\+ Indicates prestressing strand.

o Indicates cut & shop bend with 3'-0" projection.



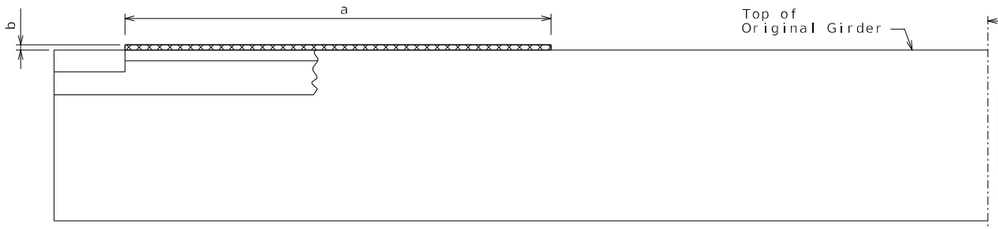
STRANDS AT GIRDER ENDS



SECTION A-A
Strands not shown for clarity.

SECTION B-B
Strands not shown for clarity.

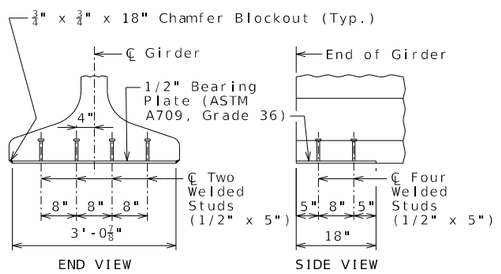
HALF ELEVATION
Reinforcement support strands not shown for clarity.



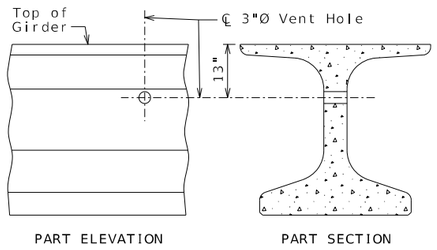
SPAN #	a	b
(5-6)	7'-0"	½"

Note: This table applies to all girders in each span # at both ends.

GIRDER STEP DIMENSION AT EACH GIRDER

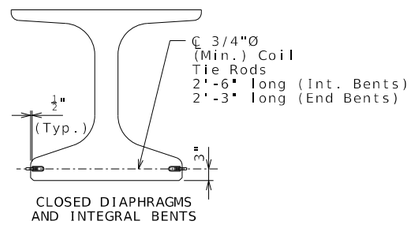


BEARING PLATE



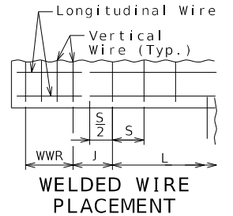
VENT HOLE

Place vent holes at or near upgrade 1/3 point of girders and clear reinforcing steel or strands by 1 1/2" minimum.



COIL TIES

Exclude coil tie at exterior face of exterior girders except at integral end bents.

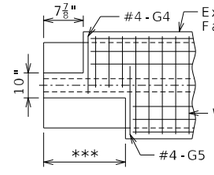


WELDED WIRE PLACEMENT

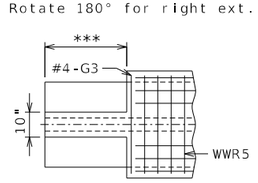
S = Vertical wire spacing

L = Length of WWR mats

J = Distance between WWR mats



LEFT EXTERIOR GIRDER AT INTERMEDIATE BENT
Rotate 180° for right ext.



INTERIOR GIRDER AT ALL BENTS & EXTERIOR GIRDER AT END BENT

Span	Bent	***
(5-6)	5	10¼"
(5-6)	6	16⅛"

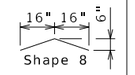
TOP FLANGE BLOCKOUT

Bill of Reinforcing Steel

Bars Each Girder

No.	Size/Mark	Length	Shape
96	3 G1	2'-10"	8
2	4 G3	3'-10¼"	20
2	4 G4	2'-3"	20
2	4 G5	2'-8⅛"	20

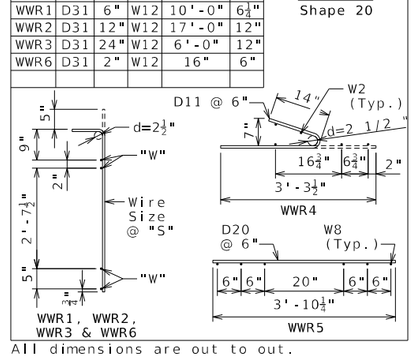
Bending Diagrams



Shape 20

Welded Wire Each Girder

Mark	Size	S	W	L	J
WWR1	D31	6"	W12	10'-0"	6½"
WWR2	D31	12"	W12	17'-0"	12"
WWR3	D31	24"	W12	6'-0"	12"
WWR6	D31	2"	W12	16"	6"



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 1", unless otherwise shown.

All bar reinforcement shall be Grade 60.

WWR shall not be epoxy coated.

G4 and G5 not required for interior girders. G3 not required for exterior girders of intermediate spans.

General Notes:

Concrete for prestressed beams shall be Class A-1 with f'c = 8500 psi and f'ci = 6500 psi.

Use 20 strands, 0.6"Ø Grade 270, with an initial prestress force of 880 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: top flange blockout, coil ties & coil inserts for slab drains.

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. 29.

For location of coil inserts at slab drains, see Sheet No. 28.

For location of coil ties at concrete diaphragms and integral bents, see Sheets No. 6 and 26.

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.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

NU-GIRDERS - SPAN (5-6)

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

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DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 24
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION | DATE

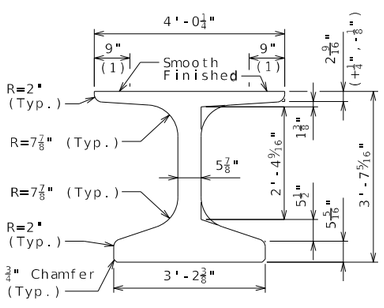
MISSOURI HIGHWAYS AND TRANSPORTION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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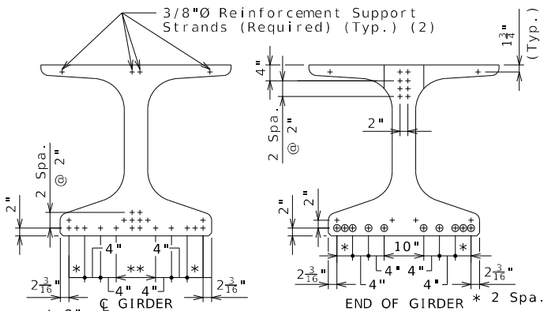
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Hanson Professional Services Inc.
600 Washington Ave., Suite 950
St. Louis, Missouri 63101
Professional Engineer 001632
www.hanson-inc.com
314.770.0467

(1) Fabricator shall apply a bond breaker to this region excluding where joint filler will be applied.



DIMENSIONS

(2) Outer strands tensioned to 2.02 kips/strand and inner strands to 8 kips/strand. Placed symmetrical about ℄ Girder. May be moved laterally in pairs.

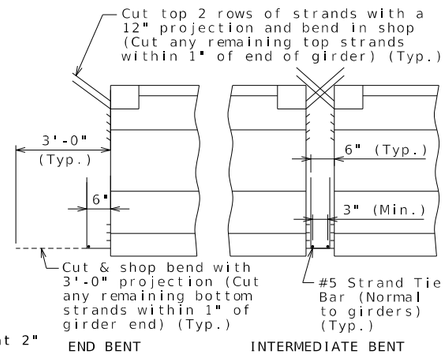


* 2 Spa. at 2"
** 5 Spa. at 2"

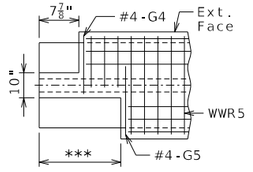
STRAND ARRANGEMENT

\+ Indicates prestressing strand.

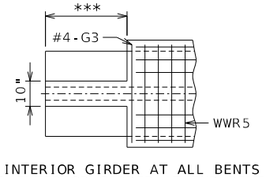
○ Indicates cut & shop bend with 3'-0" projection.



STRANDS AT GIRDER ENDS



LEFT EXTERIOR GIRDER AT INTERMEDIATE BENT
Rotate 180° for right ext.

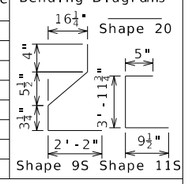


INTERIOR GIRDER AT ALL BENTS & EXTERIOR GIRDER AT END BENT

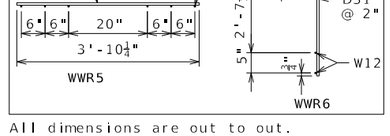
Span	Bent	***
(5-6)	5	10½"
(5-6)	6	16⅛"

TOP FLANGE BLOCKOUT

Bill of Reinforcing Steel - Each Girder				
No.	Size/ Mark	Length	Shape	Bending Diagrams
172	5 B1	5'-0"	11S	
192	4 D1	4'-0"	9S	
2	4 G3	3'-10½"	20	
2	4 G4	2'-3"	20	
2	4 G5	2'-8⅜"	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.

G4 and G5 not required for interior girders. G3 not required for exterior girders of intermediate spans.

General Notes:

Concrete for prestressed girders shall be Class A-1 with f'c = 8500 psi and f'ci = 6500 psi.

Use 20 strands, 0.6"Ø Grade 270, with an initial prestress force of 880 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: top flange blockout, coil ties & coil inserts for slab drains.

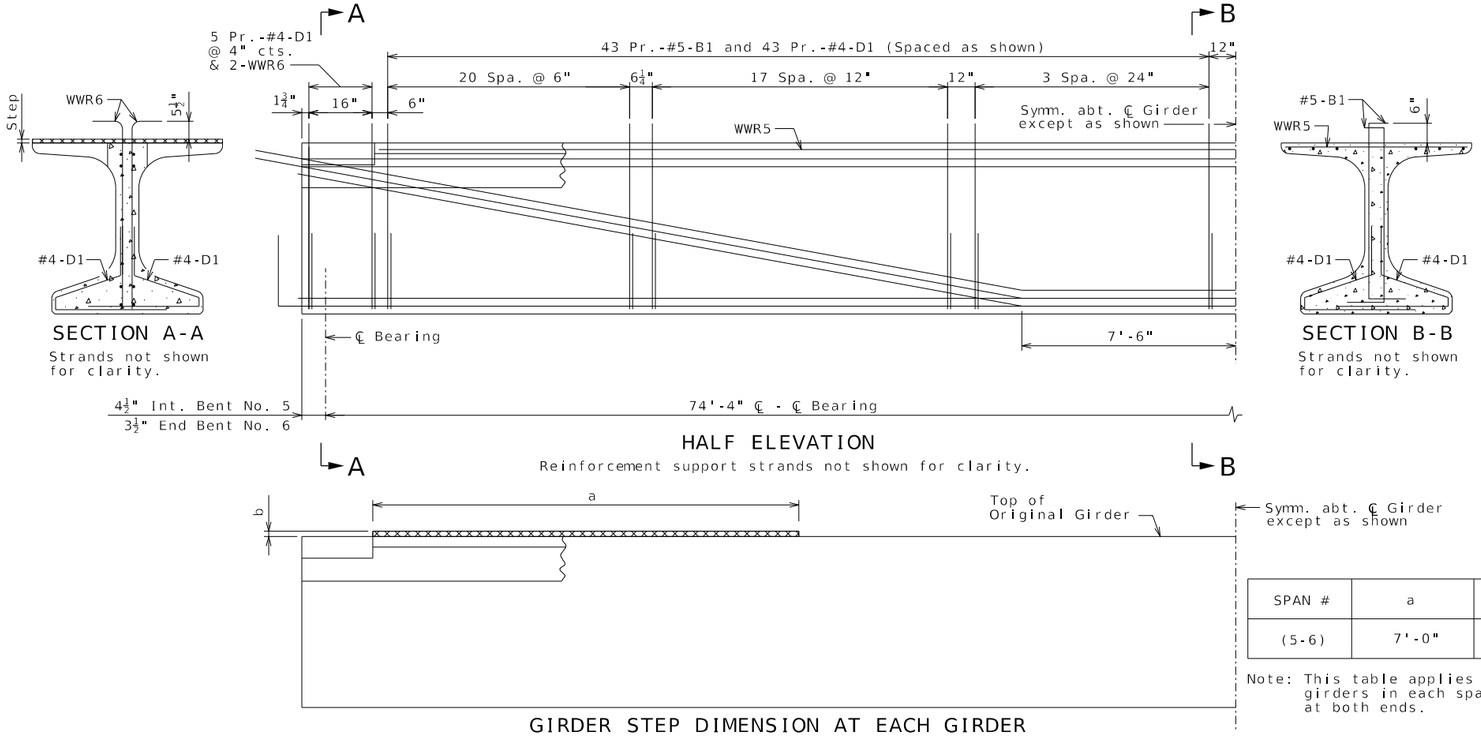
The contractor shall provide bracing necessary for lateral and torsional stability of the girders during construction of the concrete slab and remove the bracing after the slab has attained 75% design strength. Contractor shall not drill holes in the girders.

For Girder Camber Diagram, see Sheet No. 29.

For location of coil inserts at slab drains, see Sheet No. 28.

For location of coil ties at concrete diaphragms and integral bents, see Sheets No. 6 and 26.

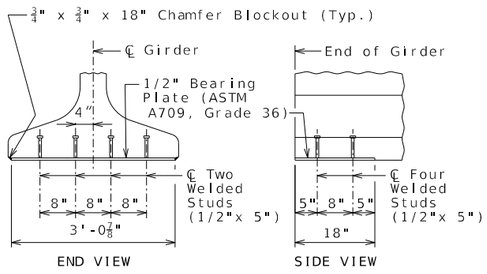
Alternate bar reinforcing steel details are provided and may be used. The same type of reinforcing steel shall be used for all girders in all spans.



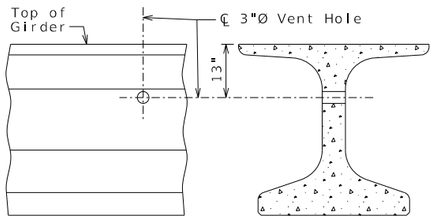
SPAN #	a	b
(5-6)	7'-0"	½"

Note: This table applies to all girders in each span # at both ends.

GIRDER STEP DIMENSION AT EACH GIRDER

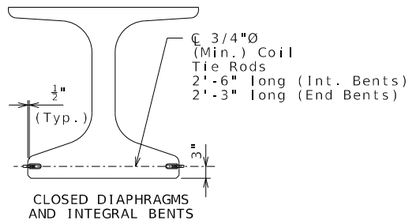


BEARING PLATE



VENT HOLE

Place vent holes at or near upgrade 1/3 point of girders and clear reinforcing steel or strands by 1 1/2" minimum.



COIL TIES

Exclude coil tie at exterior face of exterior girders except at integral end bents.

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Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

NU-GIRDERS (ALTERNATE REINFORCEMENT) - SPAN (5-6)

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BRIDGE NO. A9346

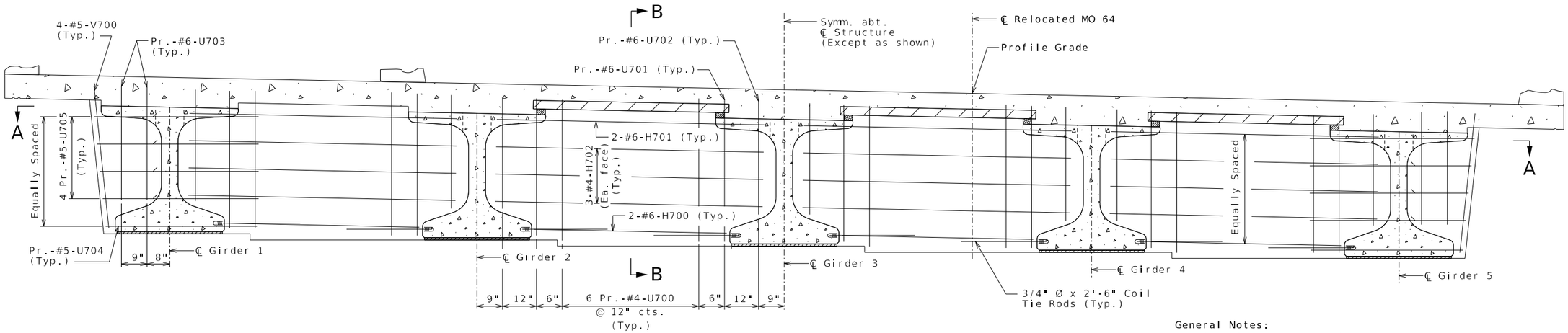
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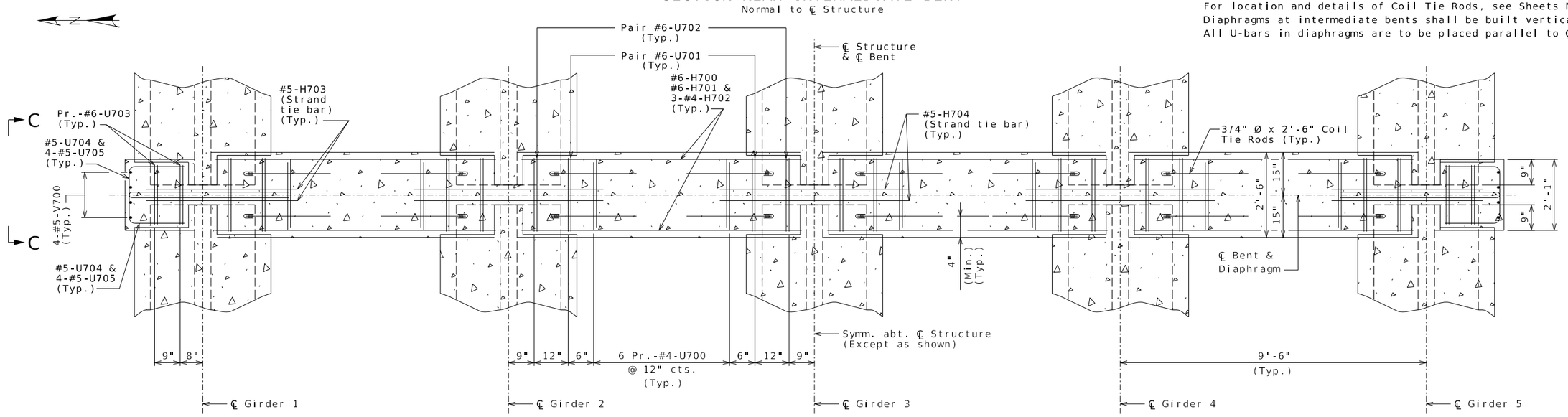
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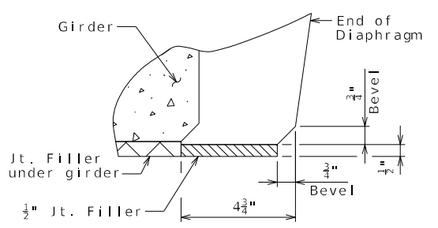


SECTION NEAR INTERMEDIATE BENT

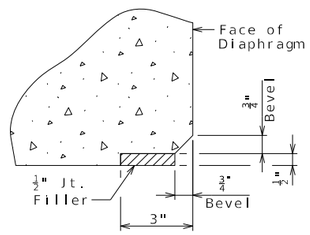
Normal to ℄ Structure



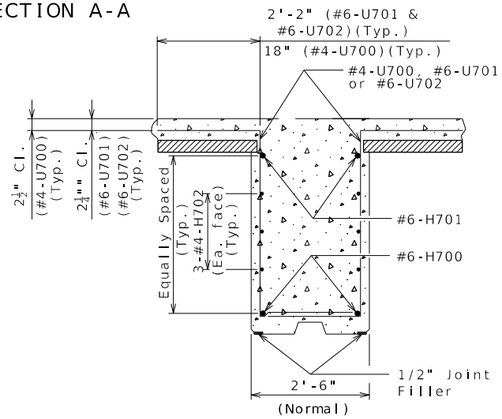
SECTION A-A



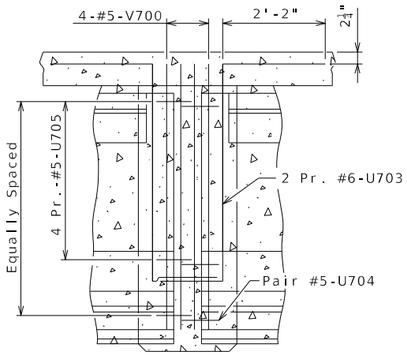
END DETAIL



EDGE DETAIL



SECTION B-B



SECTION C-C

General Notes:
For location of Strand Tie Bars, see Sheets No. 20 thru 25.
For location and details of Coil Tie Rods, see Sheets No. 20 thru 25.
Diaphragms at intermediate bents shall be built vertical.
All U-bars in diaphragms are to be placed parallel to ℄ Roadway.

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CONCRETE DIAPHRAGM AT INTERMEDIATE BENTS NO. 2,3,4 & 5

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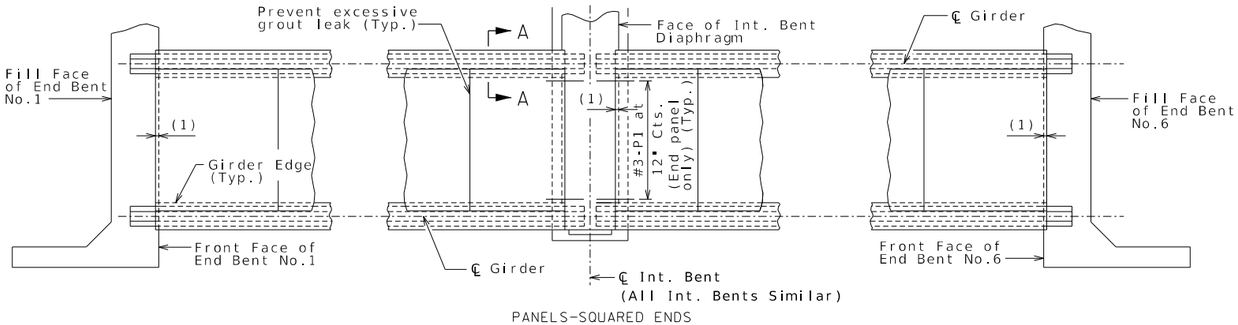
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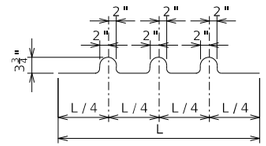
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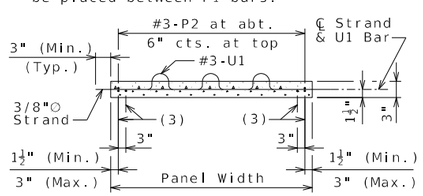
PANELS-SQUARED ENDS

PLAN SHOWING PANEL PLACEMENT

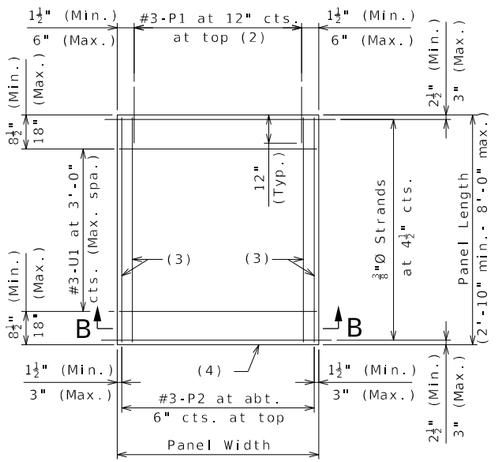


BENDING DIAGRAM FOR U1 BAR

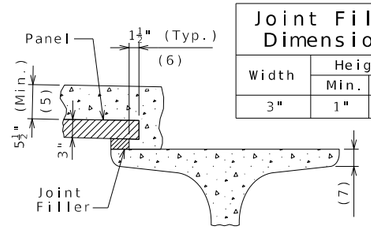
U1 Bars may be oriented at right angles to location and spacing shown. U1 Bars shall be placed between P1 bars.



SECTION B-B



PLAN OF SQUARED PANEL



SECTION A-A

Joint Filler Dimensions

Width	Height	
	Min.	Max.
3"	1"	4"

Reference Notes:

Plan of Panel Placement:

(1) End panels shall be dimensioned 1/2" min. to 1 1/2" max. from the inside face of diaphragm.

Plans of Panels:

(2) For end panels only, P1 bars shall be 2'-0" in length and embedded 12". P1 bars will not be required for panels at squared integral end bents.

(3) #3-P2 bars near edge of panel at bottom (under strands).

(4) Optional 1/2" x 45° Chamfer one or both sides at bottom.

Section A-A:

(5) Slab thickness over prestressed panels varies due to girder camber. In order to maintain minimum slab thickness, it may be necessary to raise the grade uniformly throughout the structure. No payment will be made for additional labor or materials required for necessary grade adjustment.

(6) Contractor shall ensure proper consolidation under and between panels.

(7) At the contractor's option, the variation in slab thickness over prestressed panels may be eliminated or reduced by increasing and varying the girder top flange thickness. Dimensions shall be shown on the shop drawings.

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.

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.

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. 29 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.

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HOWARD NELSON GOTSCHALL II
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PROFESSIONAL ENGINEER

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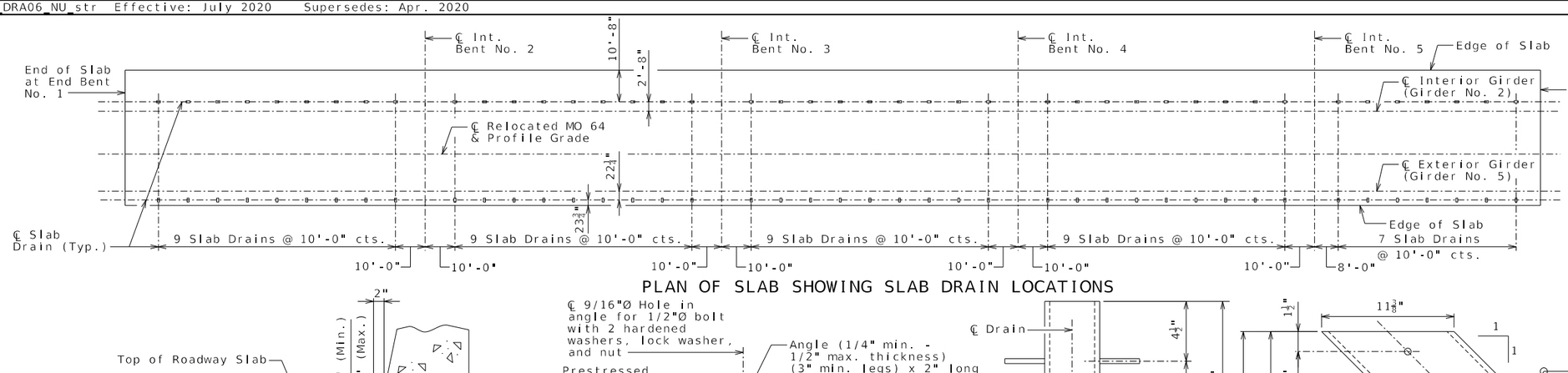
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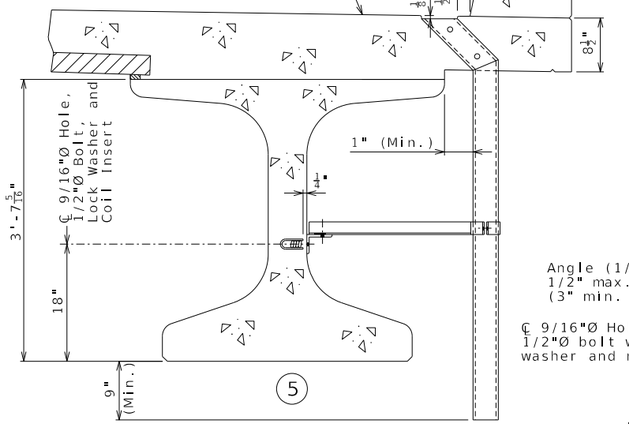
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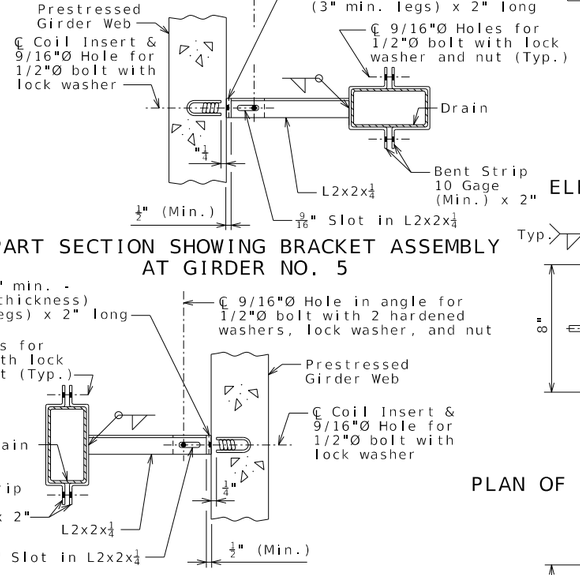
PRESTRESSED PANELS



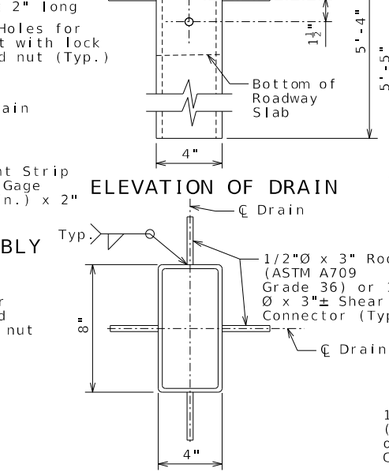
PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS



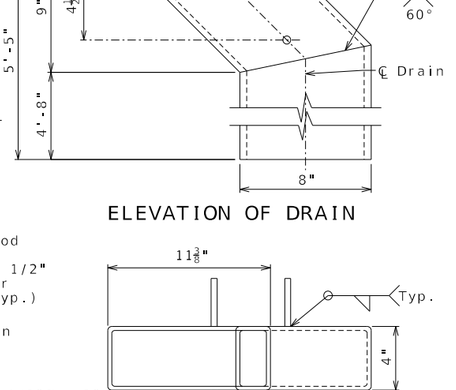
PART SECTION NEAR DRAIN AT GIRDER NO. 5



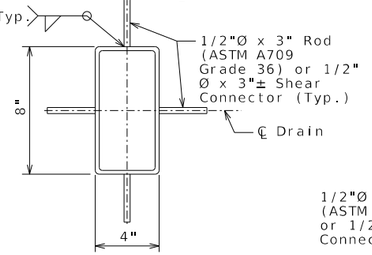
PART SECTION SHOWING BRACKET ASSEMBLY AT GIRDER NO. 5



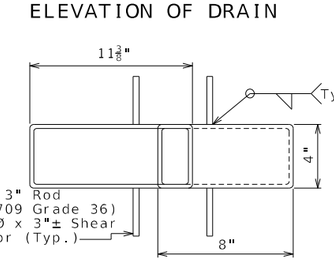
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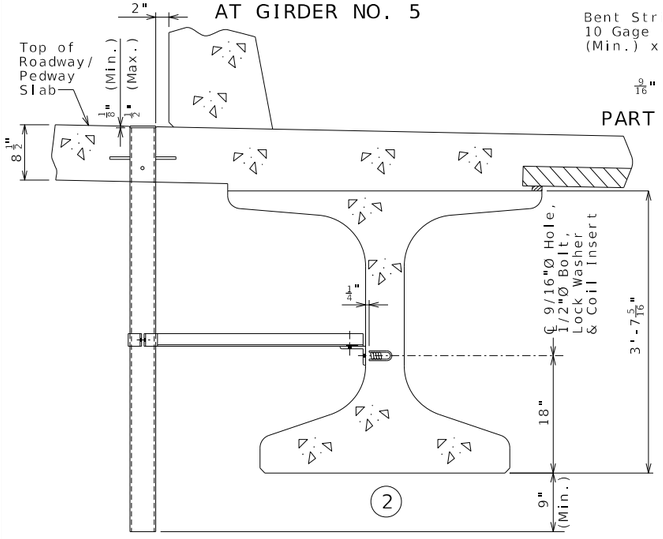
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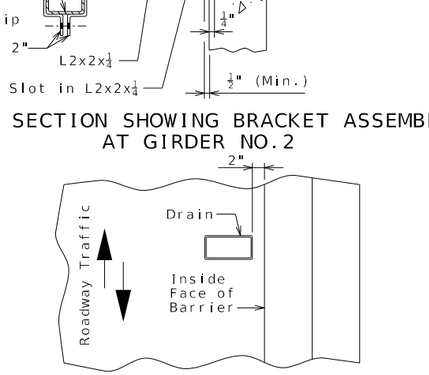
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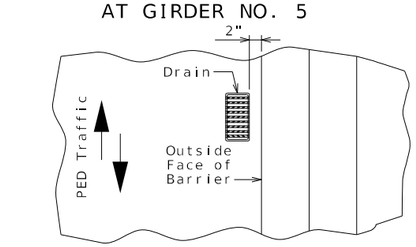
PLAN OF STEEL DRAIN OPTION



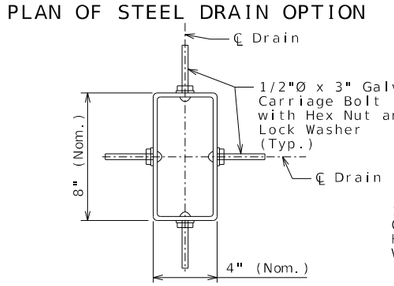
PART SECTION NEAR DRAIN AT GIRDER NO. 2



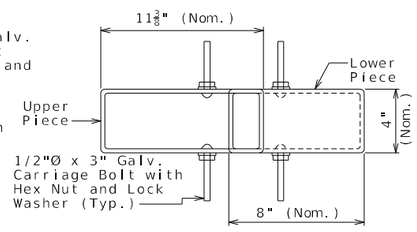
PART PLAN OF SLAB AT DRAIN AT GIRDER NO. 5



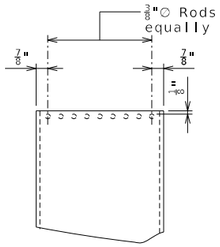
PART PLAN OF SLAB AT DRAIN AT GIRDER NO. 2



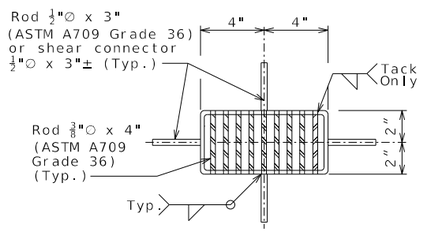
PLAN OF FRP DRAIN OPTION
PLAN AT GIRDER NO. 2



PLAN OF FRP DRAIN OPTION
PLAN AT GIRDER NO. 5



END OF DRAIN SHOWING GRATE



PLAN OF DRAIN SHOWING GRATE

GRATE DETAILS AT GIRDER NO. 2

General Notes:

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

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

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

Reinforcing steel shall be shifted to clear drains.

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

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

All 1/2"Ø bolts shall be ASTM A307.

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

The coil insert required for the bracket assembly attachment shall be located on the prestressed girder shop drawings.

Coil inserts shall have a concrete pull-out strength (ultimate load) of at least 2,500 pounds in 5,000 psi concrete.

The bolt required to attach the slab drain bracket assembly to the prestressed girder web shall be supplied by the prestressed girder fabricator.

Payment for grates and drains shall be completely covered by the contract unit price for Slab Drains.

Notes for Steel Drain:

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

Outside dimensions of drains are 8" x 4".

The drains shall be galvanized in accordance with ASTM A123.

Notes for FRP Drain:

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

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

Minimum reinforced wall thickness shall be 1/4 inch.

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

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

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

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

Both upper and lower drain pieces shall be rigidly connected to each other. Drain flow shall not be obstructed. Approval of the engineer is required.

SLAB DRAINS

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Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

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PROFESSIONAL ENGINEER

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

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600 Washington Ave., Suite 950
St. Louis, Missouri 63101
Professional Engineer 001632
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314.770.0467

Theoretical Bottom of Slab Elevations at ℄ of Girder (Prior to Forming for Slab) **

	Span (1-2) (99'-4" ℄ brg. - ℄ brg.)										
	℄ brg.	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	℄ brg.
Girder No. 1	869.44	869.57	869.71	869.84	869.95	870.05	870.13	870.20	870.26	870.30	870.34
Girder No. 2	869.28	869.43	869.57	869.70	869.81	869.91	869.99	870.06	870.11	870.15	870.19
Girder No. 3	869.09	869.24	869.38	869.51	869.62	869.72	869.80	869.87	869.92	869.96	870.00
Girder No. 4	868.90	869.05	869.19	869.32	869.43	869.53	869.61	869.68	869.73	869.77	869.81
Girder No. 5	868.71	868.85	868.99	869.11	869.23	869.32	869.41	869.48	869.53	869.58	869.62

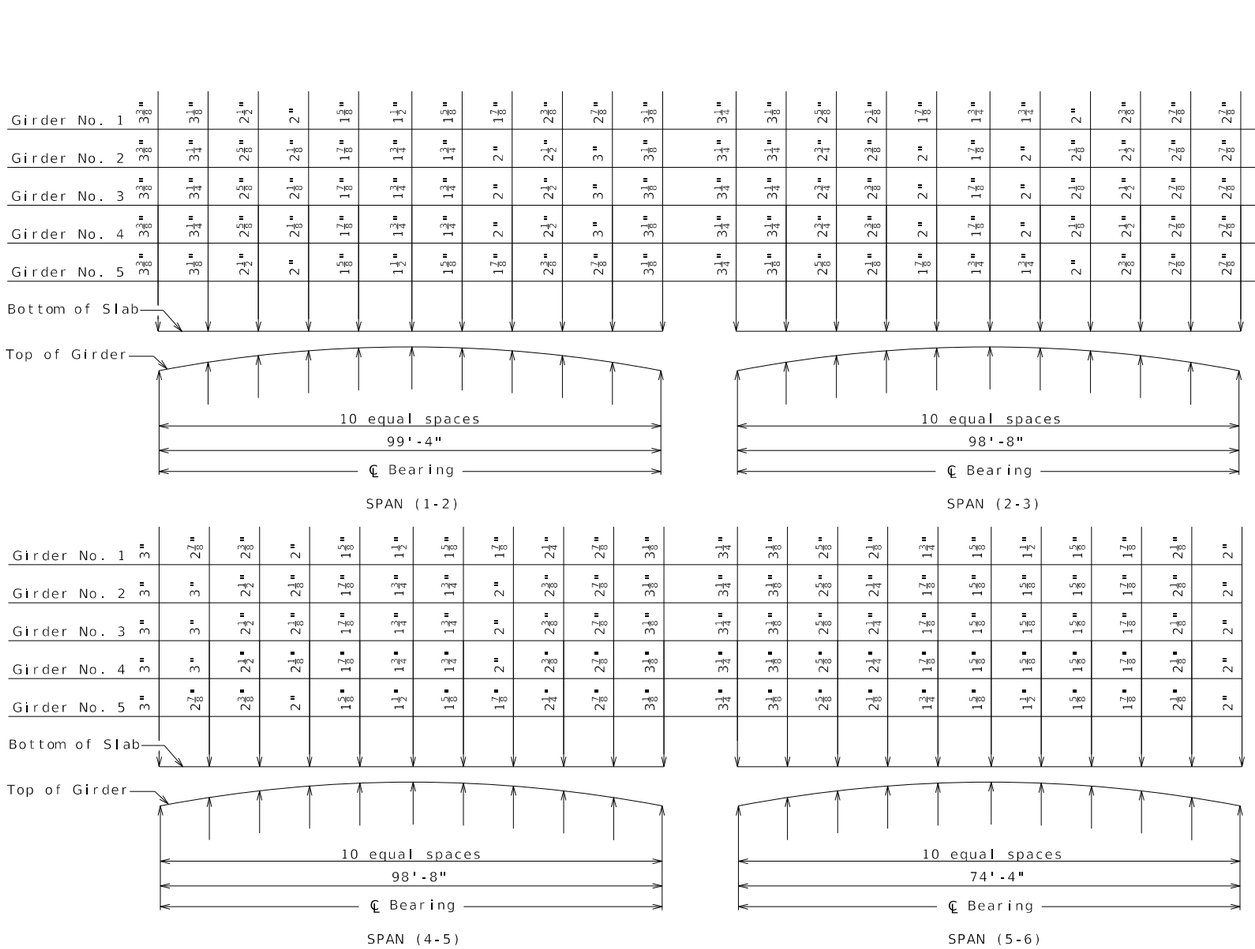
	Span (2-3) (98'-8" ℄ brg. - ℄ brg.)										
	℄ brg.	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	℄ brg.
Girder No. 1	870.36	870.52	870.67	870.82	870.95	871.06	871.15	871.23	871.29	871.35	871.39
Girder No. 2	870.20	870.37	870.53	870.68	870.81	870.92	871.02	871.09	871.15	871.20	871.24
Girder No. 3	870.01	870.18	870.34	870.49	870.62	870.73	870.83	870.90	870.96	871.01	871.05
Girder No. 4	869.82	869.99	870.15	870.30	870.43	870.54	870.64	870.71	870.77	870.82	870.86
Girder No. 5	869.63	869.79	869.95	870.09	870.22	870.33	870.43	870.51	870.57	870.62	870.67

	Span (3-4) (98'-8" ℄ brg. - ℄ brg.)										
	℄ brg.	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	℄ brg.
Girder No. 1	871.41	871.57	871.72	871.87	872.00	872.11	872.20	872.28	872.35	872.40	872.44
Girder No. 2	871.25	871.42	871.58	871.73	871.86	871.97	872.07	872.14	872.20	872.25	872.29
Girder No. 3	871.06	871.23	871.39	871.54	871.67	871.78	871.88	871.95	872.01	872.06	872.10
Girder No. 4	870.87	871.04	871.20	871.35	871.48	871.59	871.69	871.76	871.82	871.87	871.91
Girder No. 5	870.68	870.85	871.00	871.14	871.27	871.39	871.48	871.56	871.62	871.67	871.72

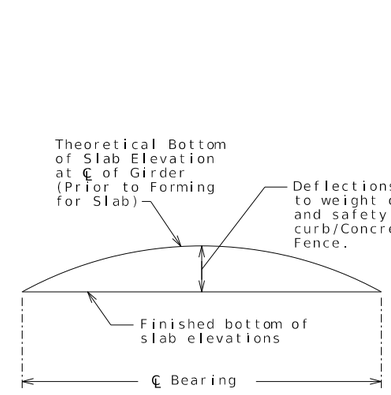
	Span (4-5) (98'-8" ℄ brg. - ℄ brg.)										
	℄ brg.	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	℄ brg.
Girder No. 1	872.46	872.62	872.77	872.92	873.05	873.16	873.26	873.33	873.40	873.46	873.52
Girder No. 2	872.30	872.47	872.63	872.78	872.91	873.02	873.12	873.19	873.25	873.31	873.37
Girder No. 3	872.11	872.28	872.44	872.59	872.72	872.83	872.93	873.00	873.06	873.12	873.18
Girder No. 4	871.92	872.09	872.25	872.40	872.53	872.64	872.74	872.81	872.87	872.93	872.99
Girder No. 5	871.73	871.90	872.05	872.19	872.32	872.44	872.53	872.61	872.67	872.73	872.80

	Span (5-6) (74'-4" ℄ brg. - ℄ brg.)										
	℄ brg.	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	℄ brg.
Girder No. 1	873.54	873.66	873.77	873.89	874.01	874.13	874.25	874.37	874.49	874.61	874.73
Girder No. 2	873.39	873.50	873.62	873.74	873.87	873.99	874.11	874.22	874.34	874.46	874.58
Girder No. 3	873.20	873.31	873.43	873.55	873.68	873.80	873.92	874.03	874.15	874.27	874.39
Girder No. 4	873.01	873.12	873.24	873.36	873.49	873.61	873.73	873.84	873.96	874.08	874.20
Girder No. 5	872.82	872.93	873.05	873.17	873.29	873.41	873.53	873.65	873.77	873.89	874.01

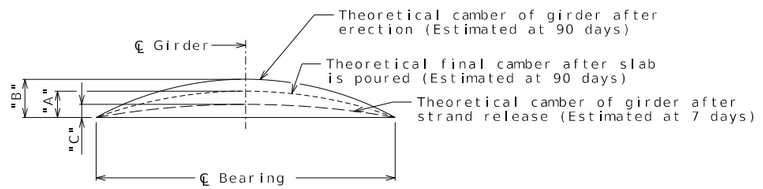
** Elevations are based on a constant slab thickness of 8 1/2" and include allowance for theoretical dead load deflections due to weight of slab (including precast panel and barrier curb).



THEORETICAL SLAB HAUNCHING DIAGRAM



TYPICAL SLAB ELEVATIONS DIAGRAM



	Span (1-2)			Span (2-3)			Span (3-4)			Span (4-5)			Span (5-6)		
	"A"	"B"	"C"	"A"	"B"	"C"	"A"	"B"	"C"	"A"	"B"	"C"	"A"	"B"	"C"
Ext. Girders	1¾"	4"	2¼"	1⅞"	4"	2¼"	1⅞"	4"	2¼"	1⅞"	4"	2¼"	⅞"	1½"	⅞"
Int. Girders	1⅝"			1⅝"			1⅝"			1⅝"			¾"		

GIRDER CAMBER DIAGRAM

If girder camber is different from that shown in the camber diagram, 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.

Conversion factor 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.

0.25 pt.= 0.7125 x 0.5 pt.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

DEFLECTION/CAMBER, SLAB HAUNCHING & BOTTOM OF SLAB ELEVATIONS

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

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DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 29
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

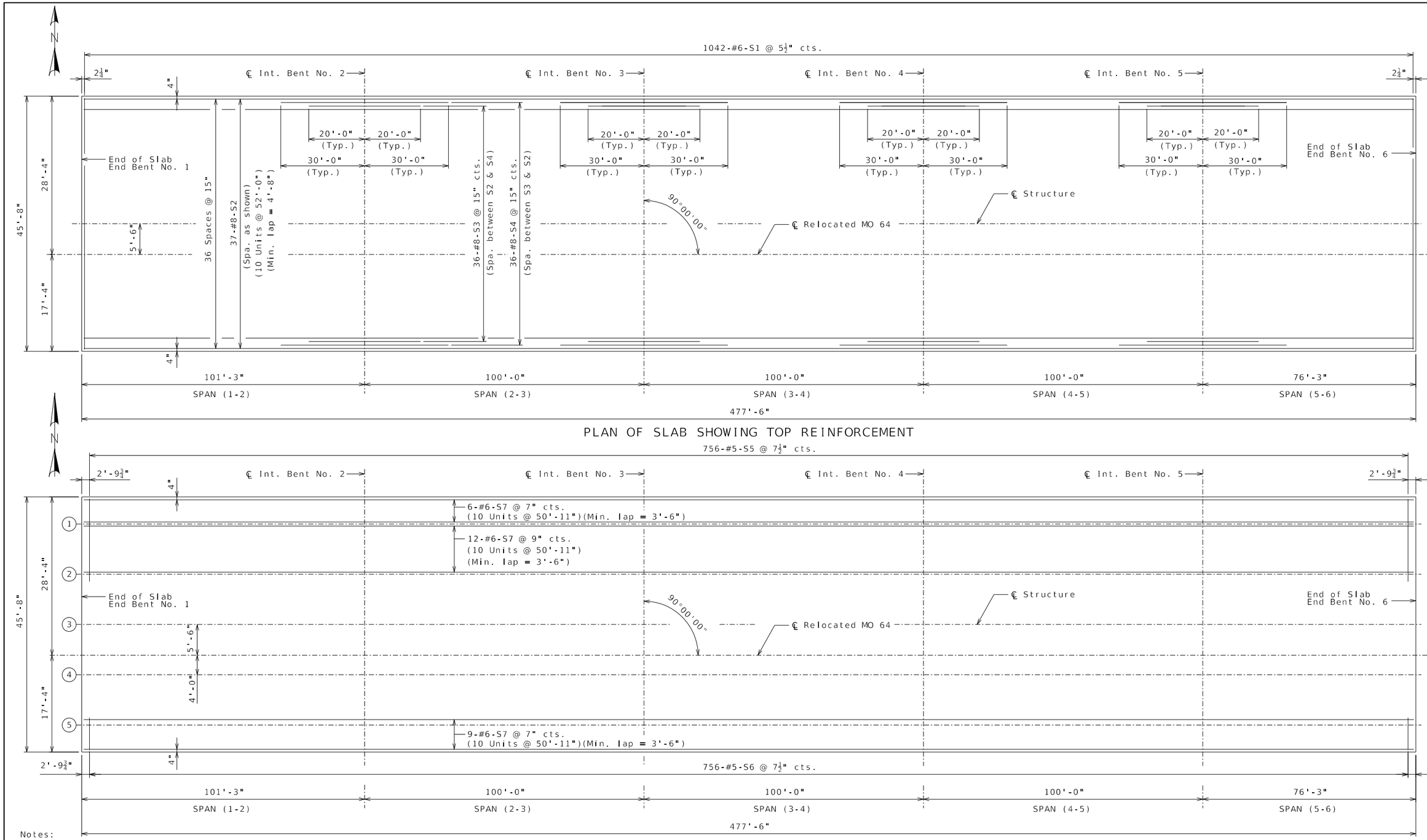
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PLAN OF SLAB SHOWING TOP REINFORCEMENT

PLAN OF SLAB SHOWING BOTTOM REINFORCEMENT

Notes:

Longitudinal slab dimensions are measured horizontally.
For Section Thru Slab, see Sheet No. 31.
For Slab Pouring Sequence, see Sheet No. 31.
For Details and Reinforcement of Type D Barrier not shown, see Sheets No. 32, 33 & 34.
For Theoretical Slab Haunching Diagram, see Sheet No. 29.
For Details of Precast Prestressed Panels, see Sheet No. 27.
For Theoretical Bottom of Slab Elevations, see Sheet No. 29.
For details and locations of Slab Drains, see Sheet No. 28.
For Details and Reinforcement of the Pedestrian Curb, see Sheet No. 35.
For Details of Decorative Pedestrian Fence, see Sheet No. 36.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

PLAN OF SLAB SHOWING REINFORCEMENT

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

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DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 30
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

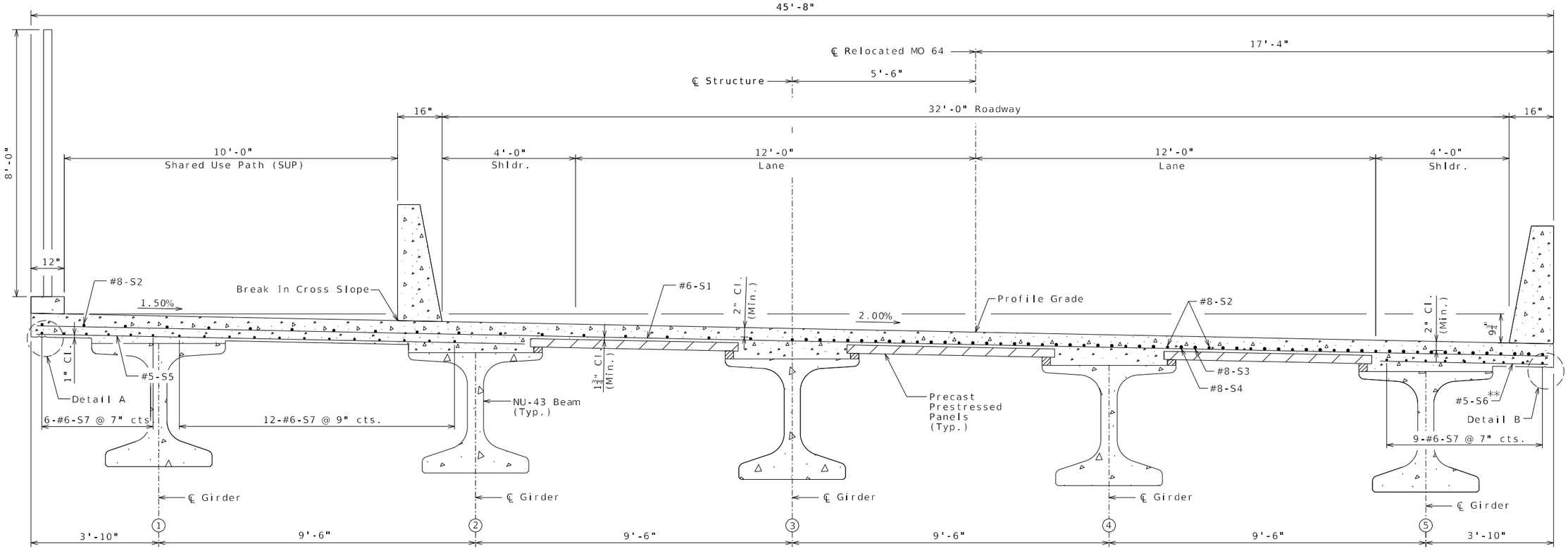
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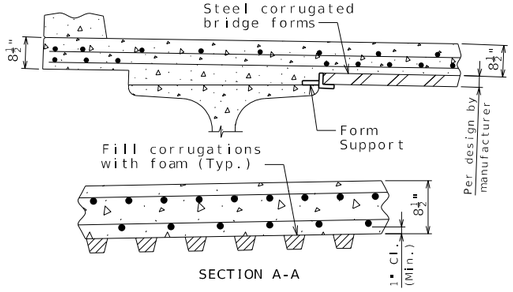
HALF SECTION NEAR MIDSPAN

HALF SECTION NEAR INTERMEDIATE BENT

SECTION THRU SLAB

(Looking ahead station)

**Alternate bar shape available, see barrier sheet.



OPTIONAL STAY-IN-PLACE FORM DETAILS

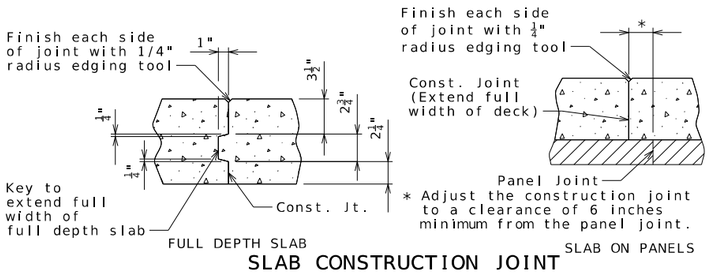
Stay-In-Place Forms:

Corrugated steel forms, supports, closure elements and accessories shall be in accordance with grade requirement and coating designation G165 of ASTM A653. Complete shop drawings of the permanent steel deck forms shall be required in accordance with Sec 1080.

Corrugations of stay-in-place forms shall be filled with an expanded polystyrene material. The polystyrene material shall be placed in the forms with an adhesive in accordance with the manufacturer's recommendations.

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

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



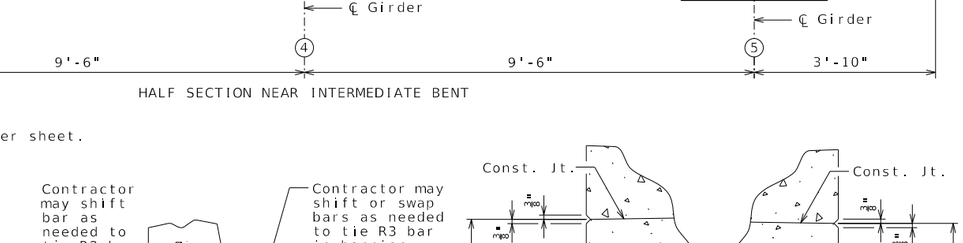
SLAB CONSTRUCTION JOINT

	Sequence of Pours									Min. Rate of Pour Cu. Yds./Hr.
	Direction									With Retarder
Basic Sequence	1	2	3	4	5	6	7	8	9	25
	Either Direction									
Alternate pours to the basic skip sequence are subject to the approval of the engineer in accordance with Sec 703.										
Alternate A Pours	1		9 + 2		8 + 3		7 + 4		6 + 5	34
	End to 9		1 to 8		2 to 7		3 to 6		4 to End	
Alternate B Pours	1 + 9 + 2			8 + 3			7 + 4 + 6 + 5			34
	End to 8			2 to 7			3 to End			
Alternate C Pours	1 + 9 + 2 + 8 + 3					7 + 4 + 6 + 5				34
	End to 7					3 to End				
Alternate D Pours	1 + 9 + 2 + 8 + 3 + 7 + 4 + 6 + 5									34
	End to End									

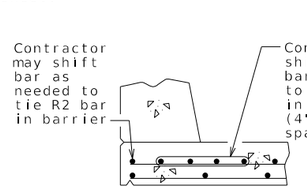
The contractor shall furnish an approved retarder to retard the set of the concrete to 2.5 hours, and shall pour and satisfactorily finish the slab pours at the rate given.

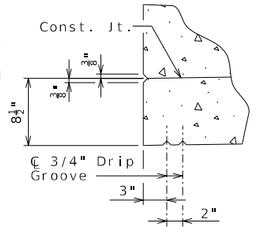
The concrete diaphragm at the intermediate bents and integral end bents shall be poured a minimum of 30 minutes and a maximum of 2 hours before the slab is poured.

SLAB POURING SEQUENCE

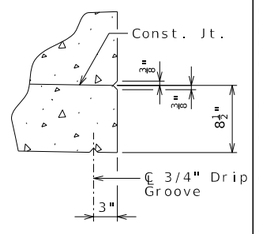


OPTIONAL SHIFTING TOP BARS AT BARRIER





DETAIL A



DETAIL B

Notes:

For details of precast prestressed panels, see Sheet No. 27.

For reinforcement of barrier not shown, see Sheet No. 32.

For Theoretical Bottom of Slab Elevations, Girder Camber Diagram & Theoretical Slab Haunching Diagram, see Sheet No. 29.

For Plan of Slab Showing Reinforcement, see Sheet No. 30.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

SLAB DETAILS

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

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ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
BR	31

COUNTY: DALLAS

JOB NO.: J7P3542

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO.: A9346

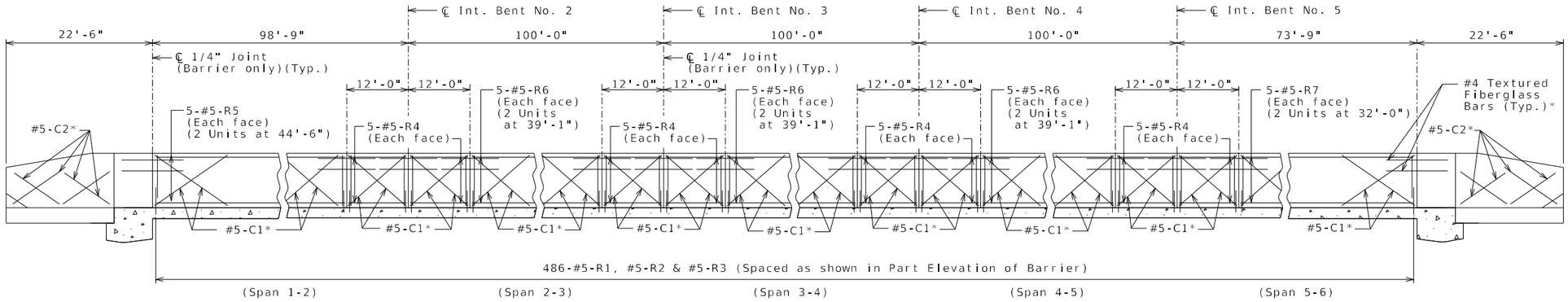
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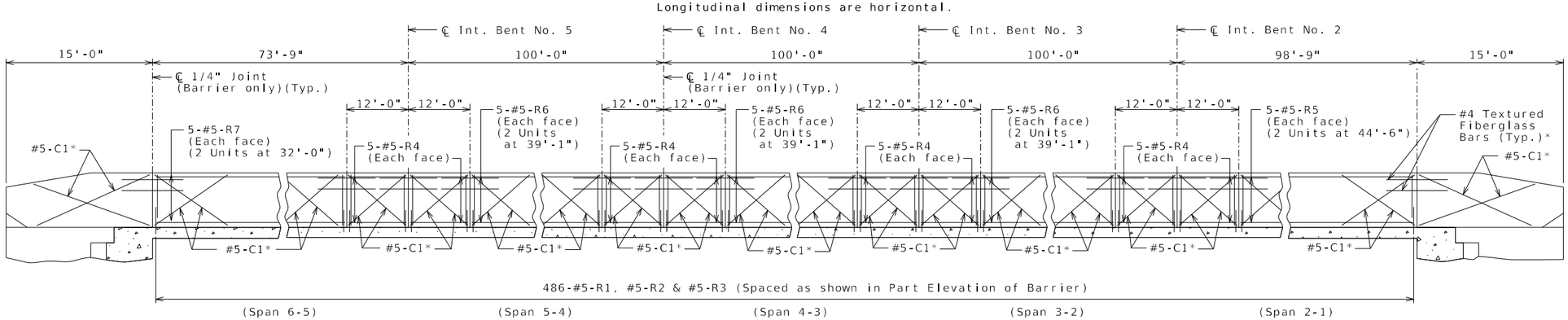
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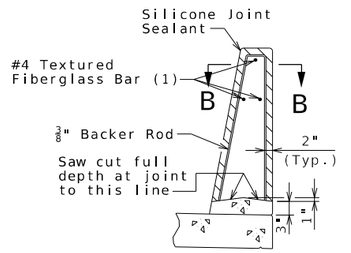
ELEVATION OF LEFT BARRIER

Longitudinal dimensions are horizontal.

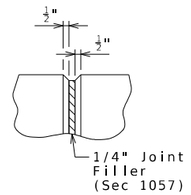


ELEVATION OF RIGHT BARRIER

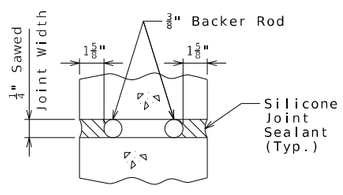
Longitudinal dimensions are horizontal.



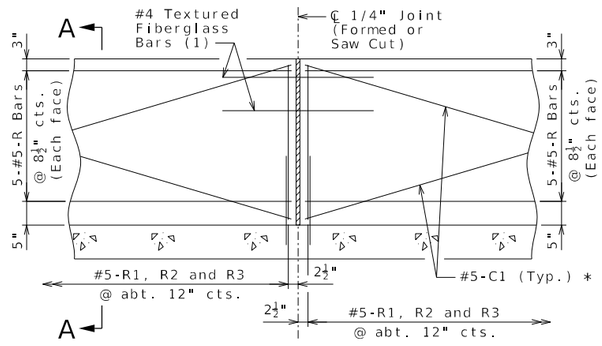
SECTION THRU SAW CUT JOINT



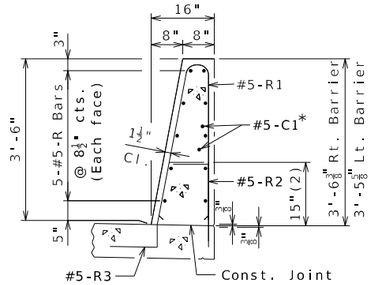
PART ELEVATION AT FORMED JOINT



SECTION B-B



PART ELEVATION OF BARRIER

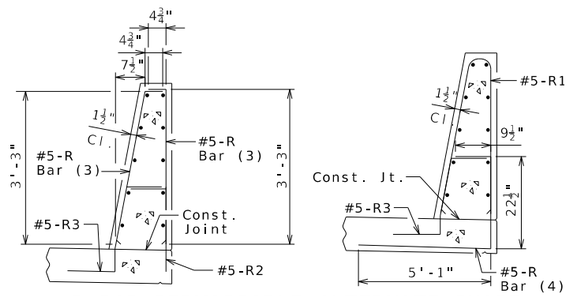


SECTION A-A

Use a minimum lap of 2'-6" 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.

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

General Notes:

* Slip-formed option only.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

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

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

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

Concrete in barrier shall be Class B-1.

Measurement of barrier is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing for the right barrier and from end of approach slab to end of approach slab for the 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.

TYPE D BARRIER

Designed:	BWC	05/01/25
Detailed:	BWC	05/01/25
Checked:	HNG	05/30/25

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

STATE OF MISSOURI HOWARD NELSON GOTSCHALL II NUMBER PE-2004000786 PROFESSIONAL ENGINEER

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DATE PREPARED 06/12/26

ROUTE 64 | STATE MO

DISTRICT BR | SHEET NO. 32

COUNTY DALLAS

JOB NO. J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9346

DESCRIPTION | DATE

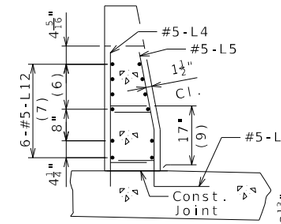
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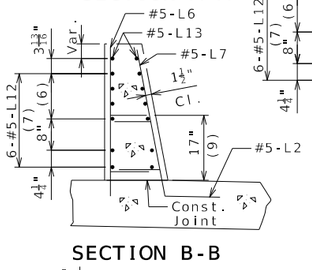
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1-888-ASK-MODOT (1-888-275-6636)

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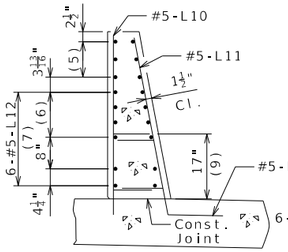
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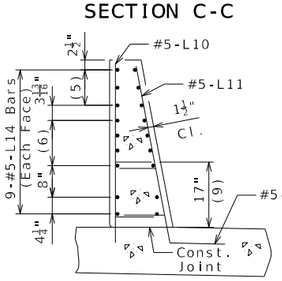
SECTION A-A



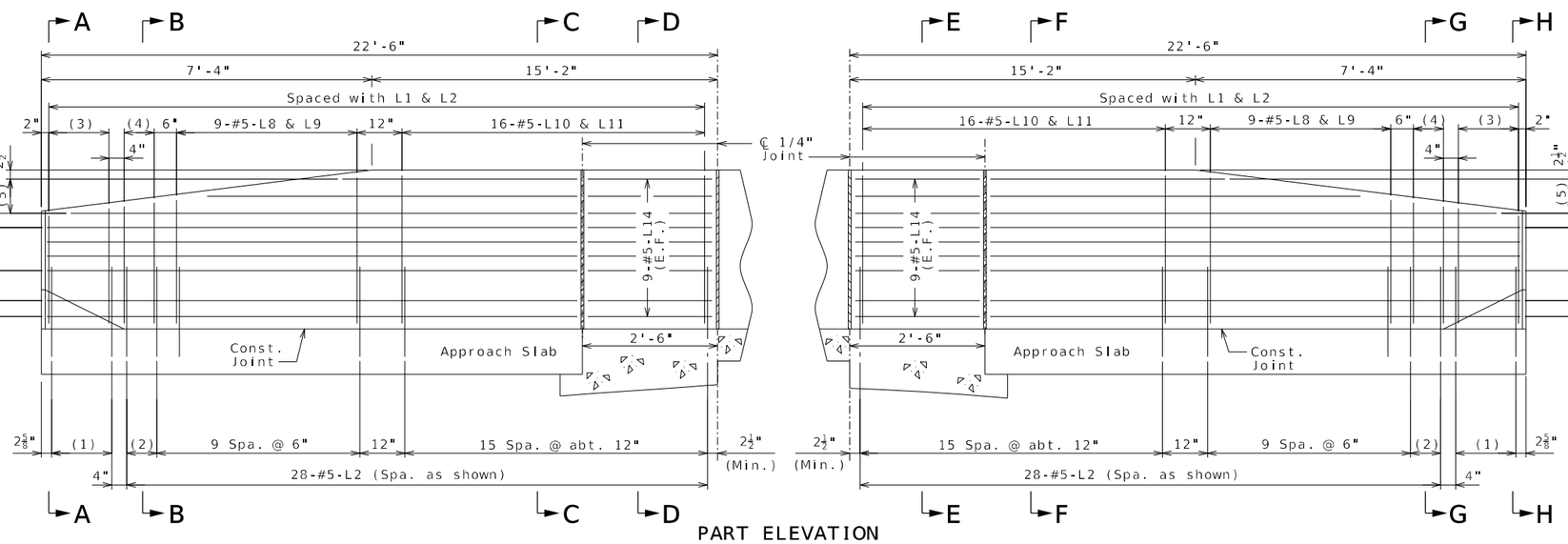
SECTION B-B



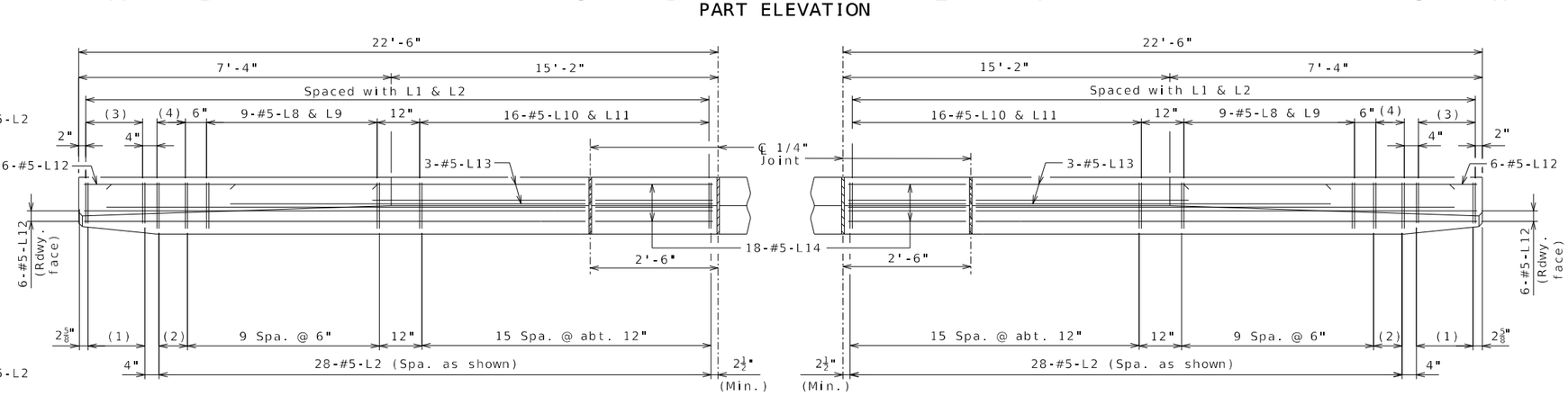
SECTION C-C



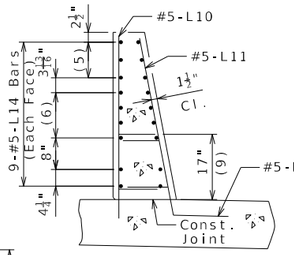
SECTION D-D



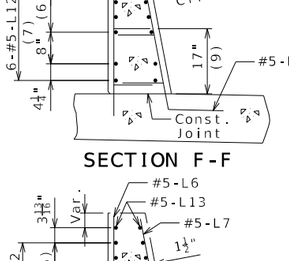
PART ELEVATION



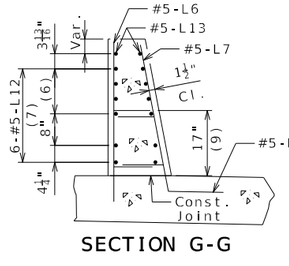
PART PLAN



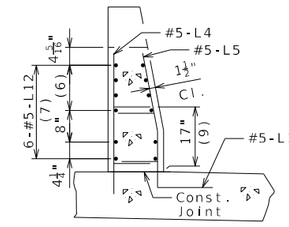
SECTION E-E



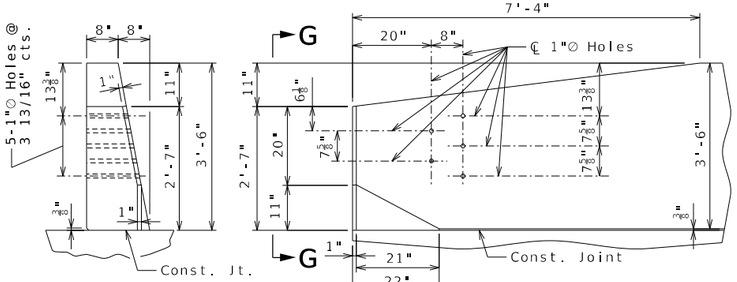
SECTION F-F



SECTION G-G



SECTION H-H



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

DETAILS OF GUARD RAIL ATTACHMENT

(1) 5-#5-L1 @ 4" cts.

(2) 2 spaces @ 4"

(3) 5-#5-L4 & L5

(4) 3-#5-L6 & L7

(5) 3-#5-L13 @ 4½" cts., each face

(6) 3 spaces @ 3 13/16"

(7) Spaced as shown, each face

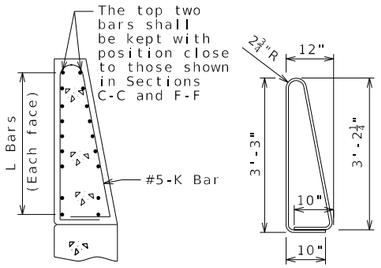
(8) 2-#5-L13 (Roadway Face)

(9) To top of bar

General Notes:

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

Reinforcing Steel:
Minimum clearance to reinforcing steel shall be 1 1/2" except as shown for bars embedded into end bent.



L10-L11 BAR PERMISSIBLE ALTERNATE SHAPE

(Other K bars not shown for clarity)

The L10-L11 bar combination may be furnished as one bar as shown, at the contractor's option.

All dimensions are out to out.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

TYPE D BARRIER AT END BENTS (LEFT BARRIER)

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 33
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

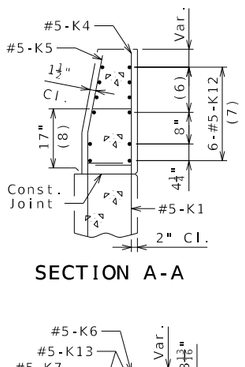
DESCRIPTION | DATE

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

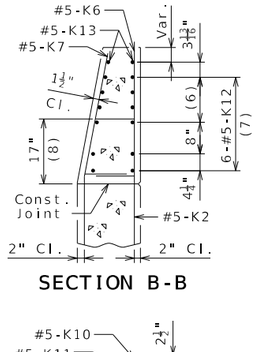
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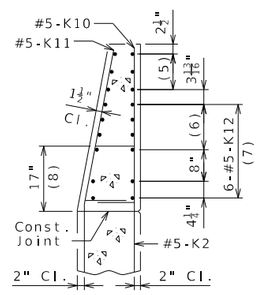
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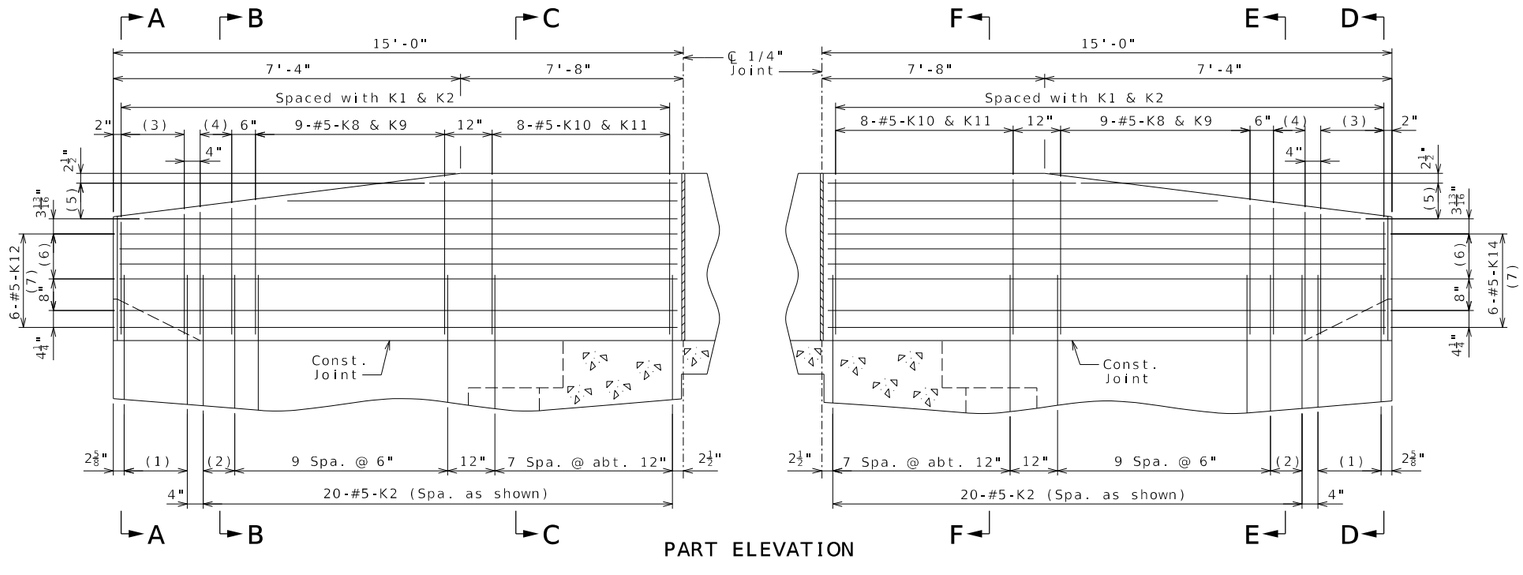
SECTION A-A



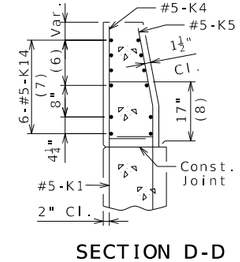
SECTION B-B



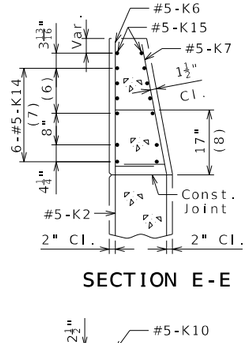
SECTION C-C



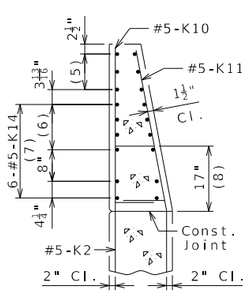
PART ELEVATION



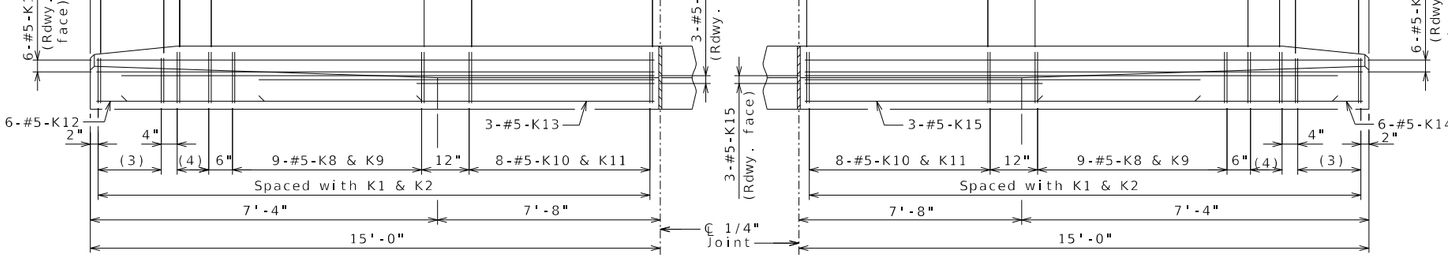
SECTION D-D



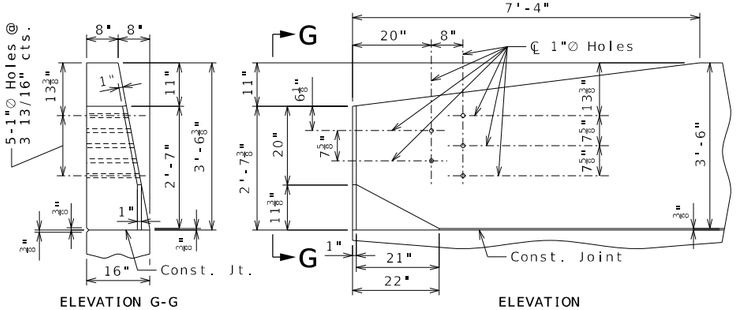
SECTION E-E



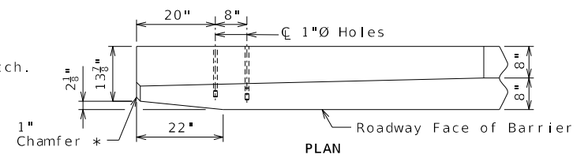
SECTION F-F



PART PLAN



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



DETAILS OF GUARD RAIL ATTACHMENT

(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 @ 4½" cts., each face

(6) 3 spaces @ 3 13/16"

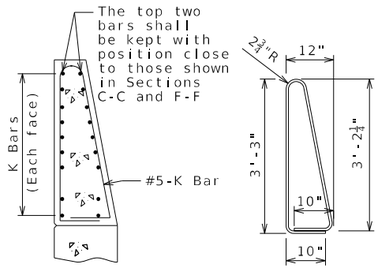
(7) Spaced as shown, each face

(8) To top of bar

General Notes:

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

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

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

TYPE D BARRIER AT END BENTS (RIGHT BARRIER)

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 34
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

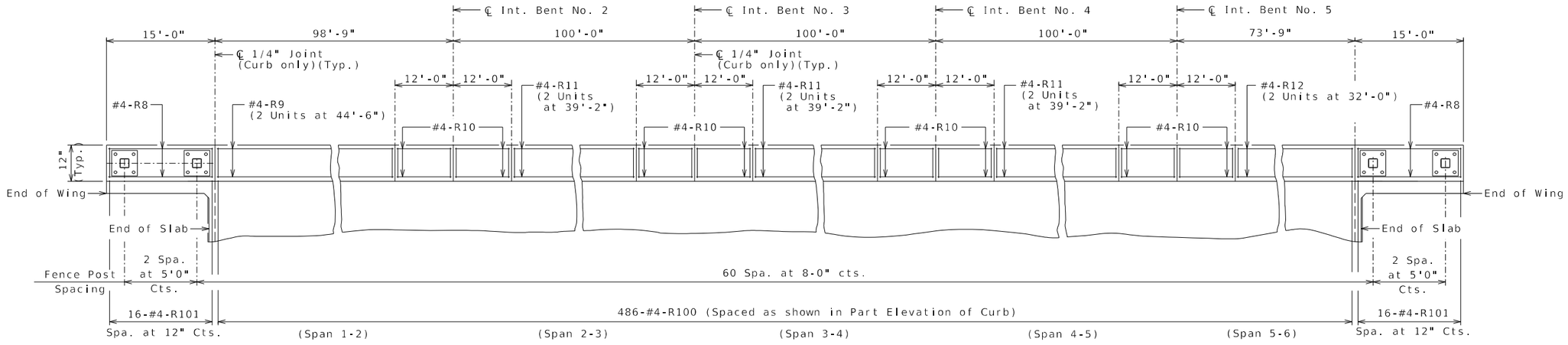
DESCRIPTION | DATE

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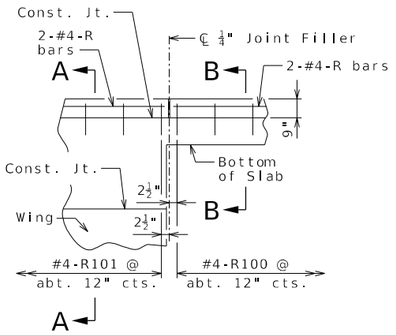
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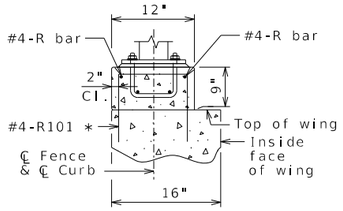


PLAN SHOWING PEDESTRIAN CURB

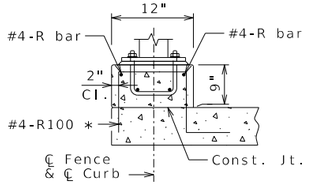
Longitudinal dimensions are horizontal.



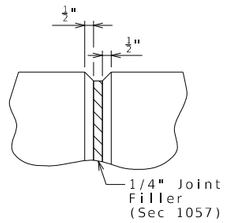
PART ELEVATION OF PEDESTRIAN CURB AT END BENT



SECTION A-A



SECTION B-B



PART ELEVATION AT CURB JOINT

* Shift in field to clear U-bolts.

Notes:

Top of curb shall be built parallel to grade and curb joints (except at end bents) normal to grade.

All exposed edges of curb 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 Pedestrian Curb per linear foot.

Concrete in curb shall be Class B-1.

Measurement of pedestrian curb is to the nearest linear foot for each structure, measured along the outside top of curb from end of curb to end of curb.

Center of posts shall clear curb joints or ends by at least 6 inches.

Minimum lap for longitudinal R-bars is 2'-7".

Slab reinforcement not shown for clarity.

For details of decorative pedestrian fence, see Sheet No. 36.

Fence post spacing "per manufacturer". (6" min. from joints and ends)

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

PEDESTRIAN CURB

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 35
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION | DATE

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MISSOURI HIGHWAYS AND TRANSPORTION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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Professional Engineer 001632
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314.770.0467

Notes:

These details are a general representation of a Decorative Pedestrian Fence. The actual fence components and component positions may be different than what is shown.

Fence shall have a gloss black finish (Federal Standard #17038). See special provisions.

Base plate shall be ASTM A709, Grade 50.

All base plates, U bolts, hex nuts and washers shall be galvanized in accordance with ASTM A123 and Sec 1081.

Measurement of pedestrian fence will be made horizontally and to the nearest linear foot along centerline fence.

Payment for furnishing and erecting the fence complete in place will be considered completely covered by the contract unit price for (96 in.) Decorative Pedestrian Fence (Structures).

All fence posts shall be vertical.

Mortar shall be placed under the post base plates in accordance with Sec 1066.

Decorative pedestrian fencing shall be in accordance with 2020-AASHTO LRFD Bridge Design Specifications, 9th Ed.

Shop drawings and structural calculations will not be required for the decorative pedestrian fences on the Bridge Pre-qualified Products List.

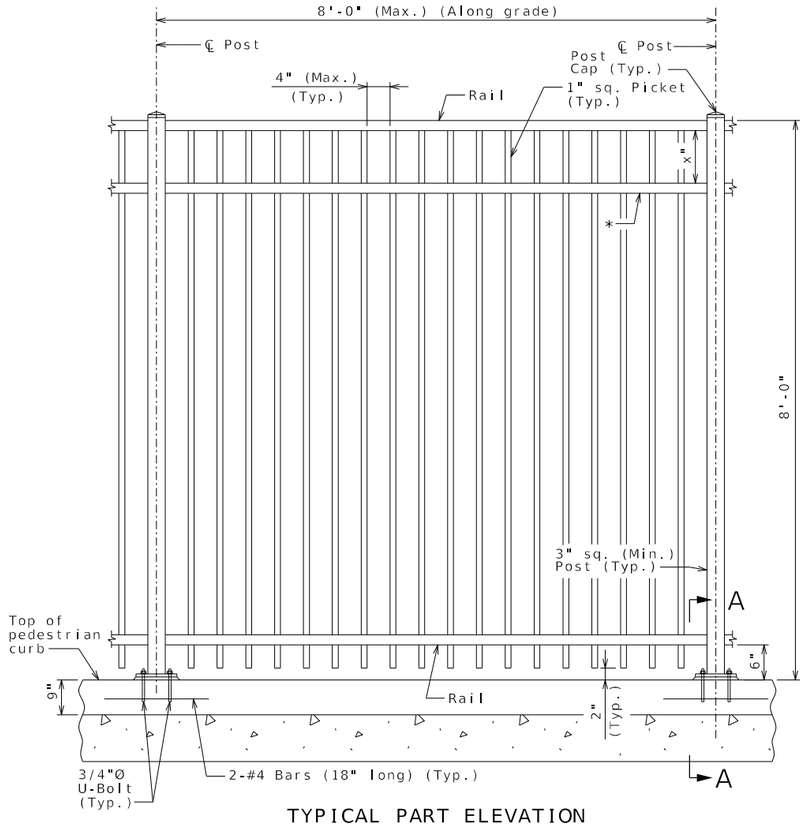
All materials used in fabrication and construction of the decorative pedestrian fencing shall be in accordance with the manufacturer's specifications, except as modified in the contract documents.

Decorative pedestrian fencing system shall be supplied by only one manufacturer. Decorative pedestrian fencing system shall include all components except the anchor bolts and hardware, and #4 bars welded to the anchor bolts. The assembly of the pickets to the rails and the rails to the posts shall be the same as the style mentioned for the manufacturer.

See Bridge Pre-qualified Products List (BPPL) for a list of approved manufacturers.

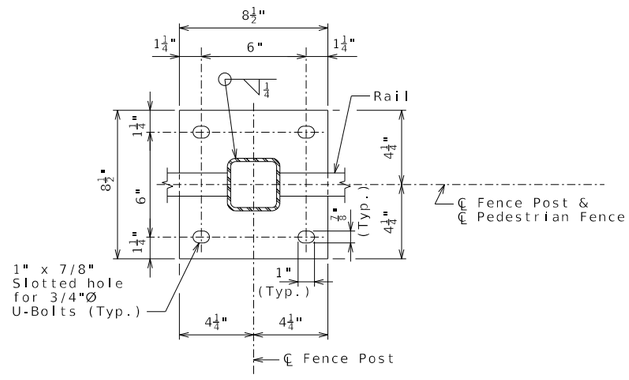
Substitution for the U-bolt cages will not be permitted.

For details of pedestrian curb, see Sheet No. 35.

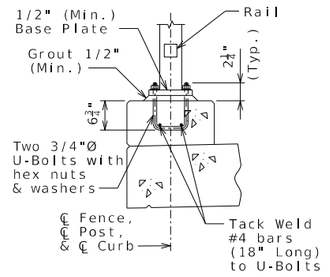


TYPICAL PART ELEVATION

* Optional rail. Need is based on design computations performed by the manufacturer and approved by MoDOT, or may be added for aesthetics.



PART PLAN SHOWING BASE PLATE



SECTION A-A

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26

ROUTE 64 | STATE MO

DISTRICT BR | SHEET NO. 36

COUNTY DALLAS

JOB NO. J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9346

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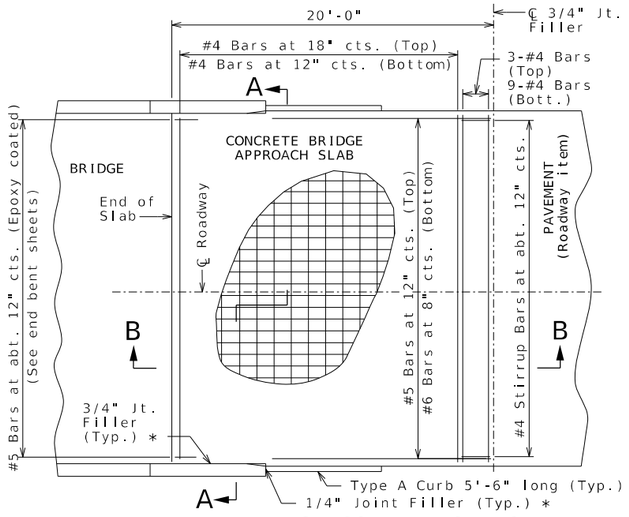
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Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

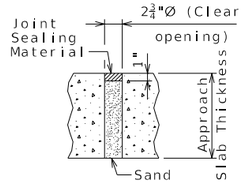
Note: This drawing is not to scale. Follow dimensions.

DECORATIVE PEDESTRIAN FENCE



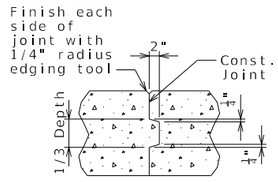
PART PLAN OF SQUARED STRUCTURE

(Skewed structure similar)

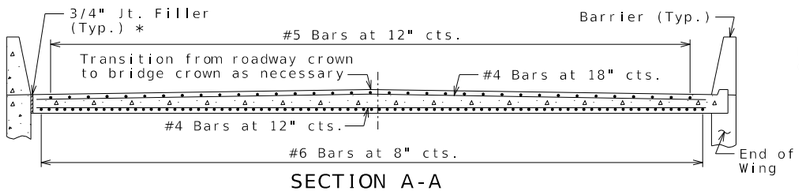


UNDERSEAL ACCESS HOLE DETAIL

(If required)

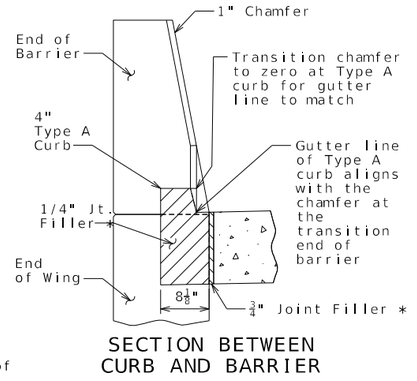


CONSTRUCTION JOINT DETAIL



SECTION A-A

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 BETWEEN CURB AND BARRIER

Notes:

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

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

Longitudinal construction joints in bridge approach slab shall be aligned with longitudinal construction joints in bridge slab.

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

The reinforcing steel in the bridge approach slab shall be continuous. The transverse reinforcing steel may be made continuous by providing a minimum lap splice of 23 inches for #4 bars, or by mechanical bar splice.

Mechanical bar splices shall be in accordance with Sec 710.

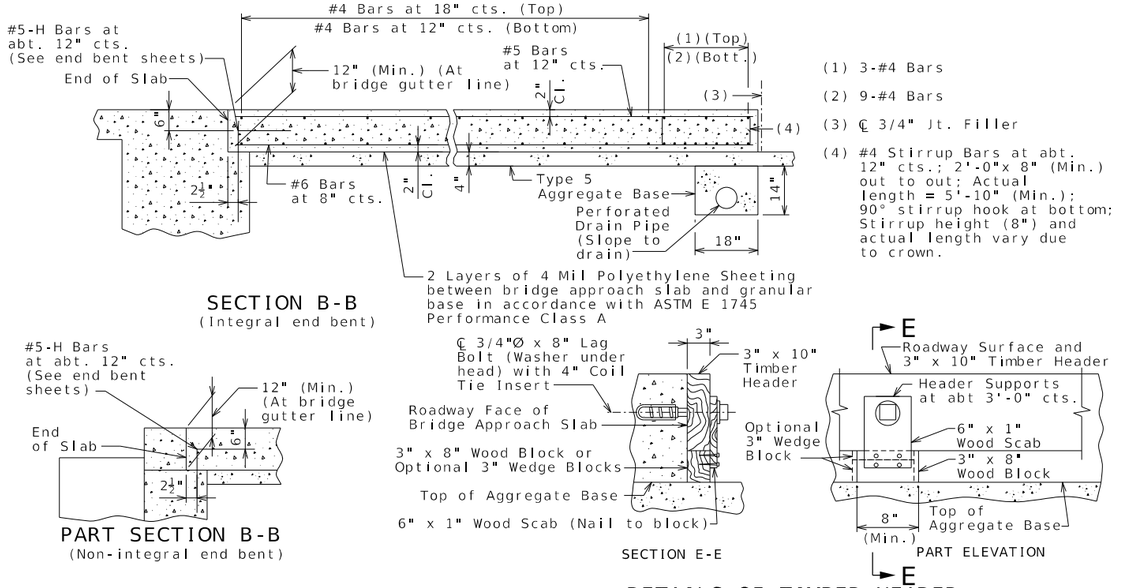
All joint filler shall be in accordance with Sec 1057 for preformed fiber expansion joint filler except as noted.

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

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

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.

* Seal joint between vertical face of approach slab and wing with sealant in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.



(1) 3-#4 Bars

(2) 9-#4 Bars

(3) ℄ 3/4" Jt. Filler

(4) #4 Stirrup Bars at abt. 12" cts.; 2'-0"x 8" (Min.) out to out; Actual length = 5'-10" (Min.); 90° stirrup hook at bottom; Stirrup height (8") and actual length vary due to crown.

SECTION B-B

(Integral end bent)

PART SECTION B-B

(Non-integral end bent)

SECTION E-E

PART ELEVATION

DETAILS OF TIMBER HEADER

Remove timber header when concrete pavement is placed.

CONCRETE SLAB

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

BRIDGE APPROACH SLAB (MINOR)

Integral end bents shown, non-integral end bent similar.

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26

ROUTE 64 | STATE MO

DISTRICT BR | SHEET NO. 37

COUNTY DALLAS

JOB NO. J7P3542

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A9346

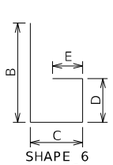
NO.	DESCRIPTION	DATE

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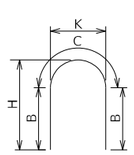
MISSOURI HIGHWAYS AND TRANSPORTION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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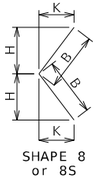
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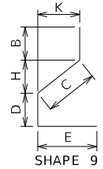
SHAPE 6
or 6S



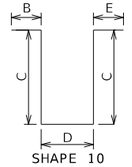
SHAPE 7



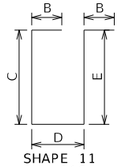
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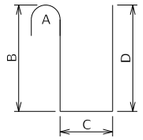
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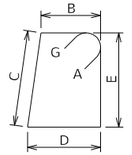
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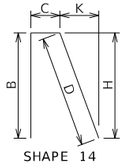
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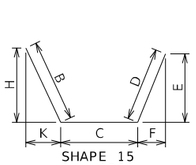
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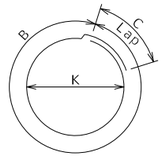
SHAPE 13S



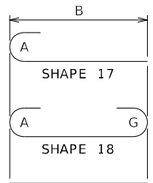
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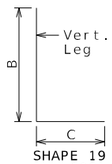
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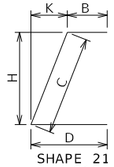
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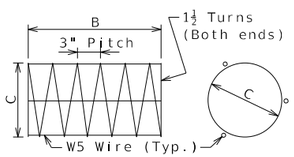
SHAPE 17
SHAPE 18
SHAPE 20



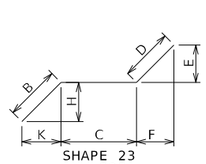
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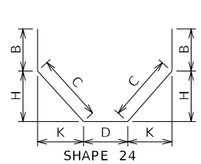
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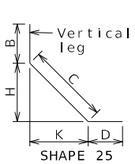
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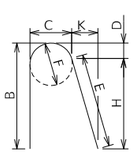
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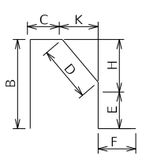
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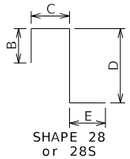
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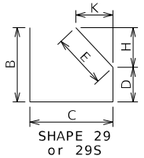
SHAPE 26



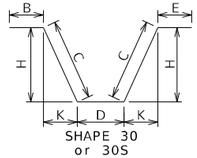
SHAPE 27S



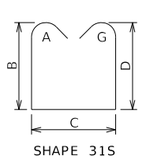
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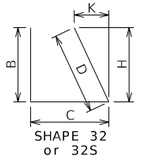
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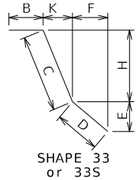
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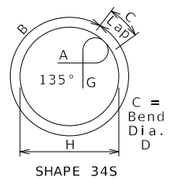
SHAPE 31S



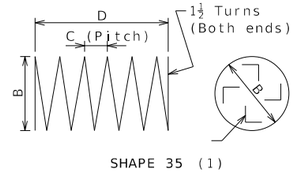
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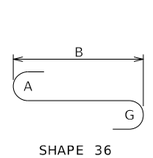
SHAPE 33
or 33S



SHAPE 34S



SHAPE 35 (1)

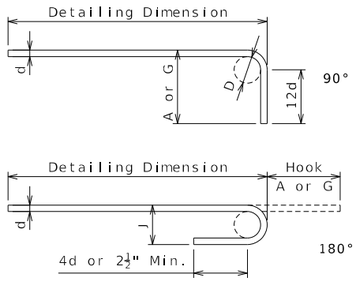


SHAPE 36

Finished Bend Diameters D and Hook Dimensions

Standard Pin Bend Shapes

Size	Case	D	A or G		J
			90°	180°	180°
#4	1	3"	8"	6"	4"
#5	1	3¾"	10"	7"	5"
#6	1	4½"	12"	8¼"	6"
#7	2	5¼"	14"	9¾"	7"
	3	7"	15"	11½"	8¾"
#8	2	6"	16"	11"	8"
	3	8"	17"	13¼"	10"
#9	1	9½"	19½"	15½"	11¾"
#10	1	10¾"	22"	17½"	13¼"
#11	1	12"	24½"	19½"	14⅝"
#14	1	18¼"	31¼"	27½"	21⅝"
#18	1	24"	41½"	36¼"	28½"

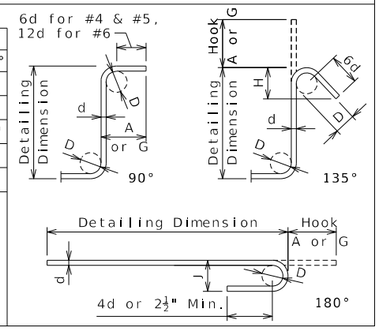


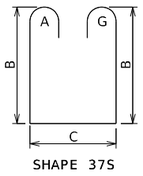
Stirrup Pin Bend Shapes (S)

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

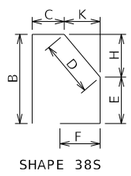
Applicable for all grades of steel.

Case 1 applies to all reinforcement. Case 2 applies to all reinforcement except for galvanized bars. Case 3 applies to galvanized bars only.





SHAPE 37S



SHAPE 38S

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	
				Slab			Slip		
		Plain	Epoxy	Plain	Epoxy	Barrier	Form	Plain	Epoxy
By Size	W5	0	0	0	0	0	0	0	0
	4	1,299	0	0	2,028	2,003	0	1,299	4,031
	5	0	0	0	33,003	25,704	1,018	0	59,725
	6	22,880	0	0	79,898	0	0	22,880	79,898
	7	0	0	0	4,209	0	0	0	4,209
	8	0	0	0	91,057	0	0	0	91,057
	9	48,136	0	0	0	0	0	48,136	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		72,315	0	0	210,195	27,707	1,018	72,315	238,920

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

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 38
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION | DATE

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

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Professional Engineer 001632
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Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B	C	D	E	F	H	K	Nom. Length	Actual Length	Weight
						ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	lb
		Substructure													
		Int Bent 2													
24	6 D200	BEAM		20		2 6.000							2 6	2 6	90
10	9 H200	BEAM		18		42 8.000							45 3	45 3	1,539
10	9 H201	BEAM		20		42 8.000							42 8	42 8	1,451
10	6 H202	BEAM		20		42 8.000							42 8	42 8	641
10	6 H203	BEAM		20		23 5.375							23 5	23 5	352
10	6 H204	BEAM		20		4 5.375							4 5	4 5	66
11	6 H205	BEAM		10S		———	12.000	4 1.500	———				6 2	5 10	96
27	4 P200	COLUMN		16S		9 5.125	15.000					3 0.000	10 8	10 8	192
150	6 P201	COLUMN		16S		9 5.125	2 1.000					3 0.000	11 6	11 6	2,591
34	6 U200	BEAM		13S		2 10.000	4 3.000	2 10.000	4 3.000				15 6	15 0	766
8	6 U201	BEAM		10S		———	4 3.000	2 10.000	———				11 4	11 0	132
4	6 U202	BEAM		10S		———	4 7.500	4 3.000	———				13 6	13 2	79
24	6 U203	BEAM		13S		2 10.000	4 7.500	2 10.000	4 7.500				16 3	15 9	568
6	6 U204	BEAM		10S		———	4 7.500	2 10.000	———				12 1	11 9	106
2	6 U205	BEAM		10S		———	4 11.750	2 10.000	———				12 10	12 6	38
10	6 U206	BEAM		13S		2 10.000	4 11.750	2 10.000	4 11.750				16 11	16 5	247
25	4 U207	BEAM		10S		———	12.000	4 3.000	———				6 3	6 0	100
60	9 V200	BEAM		20		43 11.750							44 0	44 0	8,976
		Int Bent 3													
24	6 D300	BEAM		20		2 6.000							2 6	2 6	90
10	9 H300	BEAM		18		42 8.000							45 3	45 3	1,539
10	9 H301	BEAM		20		42 8.000							42 8	42 8	1,451
10	6 H302	BEAM		20		42 8.000							42 8	42 8	641
10	6 H303	BEAM		20		23 5.375							23 5	23 5	352
10	6 H304	BEAM		20		4 5.375							4 5	4 5	66
11	6 H305	BEAM		10S		———	12.000	4 1.500	———				6 2	5 10	96
30	4 P300	COLUMN		16S		9 5.125	15.000					3 0.000	10 8	10 8	214
150	6 P301	COLUMN		16S		9 5.125	2 1.000					3 0.000	11 6	11 6	2,591
34	6 U300	BEAM		13S		2 10.000	4 3.000	2 10.000	4 3.000				15 6	15 0	766
8	6 U301	BEAM		10S		———	4 3.000	2 10.000	———				11 4	11 0	132
4	6 U302	BEAM		10S		———	4 7.500	4 3.000	———				13 6	13 2	79
24	6 U303	BEAM		13S		2 10.000	4 7.500	2 10.000	4 7.500				16 3	15 9	568
6	6 U304	BEAM		10S		———	4 7.500	2 10.000	———				12 1	11 9	106
2	6 U305	BEAM		10S		———	4 11.750	2 10.000	———				12 10	12 6	38
10	6 U306	BEAM		13S		2 10.000	4 11.750	2 10.000	4 11.750				16 11	16 5	247
25	4 U307	BEAM		10S		———	12.000	4 3.000	———				6 3	6 0	100
60	9 V300	BEAM		20		44 0.625							44 1	44 1	8,993

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B	C	D	E	F	H	K	Nom. Length	Actual Length	Weight
						ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	lb
		Int Bent 4													
24	6 D400	BEAM		20		2 6.000							2 6	2 6	90
10	9 H400	BEAM		18		42 8.000							45 3	45 3	1,539
10	9 H401	BEAM		20		42 8.000							42 8	42 8	1,451
10	6 H402	BEAM		20		42 8.000							42 8	42 8	641
10	6 H403	BEAM		20		23 5.375							23 5	23 5	352
10	6 H404	BEAM		20		4 5.375							4 5	4 5	66
11	6 H405	BEAM		10S		———	12.000	4 1.500	———				6 2	5 10	96
33	4 P400	COLUMN		16S		9 5.125	15.000					3 0.000	10 8	10 8	235
147	6 P401	COLUMN		16S		9 5.125	2 1.000					3 0.000	11 6	11 6	2,539
34	6 U400	BEAM		13S		2 10.000	4 3.000	2 10.000	4 3.000				15 6	15 0	766
8	6 U401	BEAM		10S		———	4 3.000	2 10.000	———				11 4	11 0	132
4	6 U402	BEAM		10S		———	4 7.500	4 3.000	———				13 6	13 2	79
24	6 U403	BEAM		13S		2 10.000	4 7.500	2 10.000	4 7.500				16 3	15 9	568
6	6 U404	BEAM		10S		———	4 7.500	2 10.000	———				12 1	11 9	106
2	6 U405	BEAM		10S		———	4 11.750	2 10.000	———				12 10	12 6	38
10	6 U406	BEAM		13S		2 10.000	4 11.750	2 10.000	4 11.750				16 11	16 5	247
25	4 U407	BEAM		10S		———	12.000	4 3.000	———				6 3	6 0	100
60	9 V400	BEAM		20		45 1.250							45 1	45 1	9,217
		Int Bent 5													
24	6 D500	BEAM		20		2 6.000							2 6	2 6	90
10	9 H500	BEAM		18		42 8.000							45 3	45 3	1,539
10	9 H501	BEAM		20		42 8.000							42 8	42 8	1,451
10	6 H502	BEAM		20		42 8.000							42 8	42 8	641
10	6 H503	BEAM		20		23 5.375							23 5	23 5	352
10	6 H504	BEAM		20		4 5.375							4 5	4 5	66
11	6 H505	BEAM		10S		———	12.000	4 1.500	———				6 2	5 10	96
36	4 P500	COLUMN		16S		9 5.125	15.000					3 0.000	10 8	10 8	257
141	6 P501	COLUMN		16S		9 5.125	2 1.000					3 0.000	11 6	11 6	2,435
34	6 U500	BEAM		13S		2 10.000	4 3.000	2 10.000	4 3.000				15 6	15 0	766
8	6 U501	BEAM		10S		———	4 3.000	2 10.000	———				11 4	11 0	132
4	6 U502	BEAM		10S		———	4 7.500	4 3.000	———				13 6	13 2	79
24	6 U503	BEAM		13S		2 10.000	4 7.500	2 10.000	4 7.500				16 3	15 9	568
6	6 U504	BEAM		10S		———	4 7.500	2 10.000	———				12 1	11 9	106
2	6 U505	BEAM		10S		———	4 11.750	2 10.000	———				12 10	12 6	38
10	6 U506	BEAM		13S		2 10.000	4 11.750	2 10.000	4 11.750				16 11	16 5	247
25	4 U507	BEAM		10S		———	12.000	4 3.000	———				6 3	6 0	100
60	9 V500	BEAM		20		44 2.000							44 2	44 2	9,010

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. 38.

All bars shall be ASTM 615 Grade 60.

Codes: C = Required coatings, where E = Epoxy Coated and G = Galvanized.

SH = Required shape, see bending diagrams.

V = Sets of varied bars and number of bars of each length. Bar dimensions vary in equal increments between dimensions shown on this line and the following line and the actual length dimension shown on this line and the following line vary by the specified increment.

BILL OF REINFORCING STEEL

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2010000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 39
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION	DATE

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

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

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Hanson Professional Services Inc.
600 Washington Ave., Suite 950
St. Louis, Missouri 63101
Professional Engineer 001632
www.hanson-inc.com
314.770.0467

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B	C	D	E	F	H	K	Nom. Length	Actual Length	Weight
						ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	lb
		Superstructure													
		End Bent 1													
21	6 F100	WING BRACE	E	23S		2 3.000	4 7.000	21.000	14.875	14.875	19.125	19.125	8 7	8 6	268
8	6 F101	DIAPHRAGM	E	6S		5 8.000	2 8.000	———	———				8 4	8 2	98
8	7 H100	BEAM	E	20		45 4.000							45 4	45 4	741
12	6 H101	BEAM/DIAPHRAGM	E	20		45 4.000							45 4	45 4	817
4	6 H102	BEAM	E	20		24 9.375							24 9	24 9	149
4	6 H103	DIAPHRAGM	E	20		5 9.375							5 9	5 9	35
8	6 H104	DIAPHRAGM	E	20		8 8.000							8 8	8 8	104
8	6 H105	DIAPHRAGM	E	20		5 1.750							5 2	5 2	62
4	6 H106	DIAPHRAGM	E	20		3 3.000							3 3	3 3	20
4	6 H107	DIAPHRAGM	E	20		23.000							1 11	1 11	12
5	5 H108	STRAND TIE	E	20		5 8.375							5 8	5 8	30
16	8 H109	WING	E	20		14 5.500							14 6	14 6	619
46	7 H110	WING	E	20		14 5.500							14 6	14 6	1,363
13	5 U100	BEAM	E	10S		———	5 11.875	2 9.000	———				14 9	14 6	197
15	5 U101	BEAM	E	10S		———	6 6.000	2 9.000	———				15 9	15 6	242
10	4 U102	BEAM	E	13S		2 9.000	2 8.000	2 9.000	2 8.000				11 7	11 4	76
11	4 U103	BEAM	E	13S		2 9.000	3 0.500	2 9.000	3 0.500				12 4	12 1	89
6	4 U104	BEAM	E	13S		2 9.000	3 4.625	2 9.000	3 4.625				13 0	12 9	51
4	4 U105	BEAM	E	10S		———	2 8.000	2 9.000	———				8 1	7 11	21
3	4 U106	BEAM	E	10S		———	3 0.500	2 9.000	———				8 10	8 8	17
1	4 U107	BEAM	E	10S		———	3 4.625	2 9.000	———				9 6	9 4	6
57	6 U108	DIAPHRAGM	E	19S		3 2.750	4 6.000						7 9	7 7	649
34	5 U109	DIAPHRAGM	E	10S		———	4 0.000	2 3.000	———				10 3	10 0	355
34	6 U110	DIAPHRAGM	E	19S		3 3.000	2 9.000						6 0	5 10	298
43	5 U111	DIAPHRAGM	E	19S		2 0.000	15.000						3 3	3 2	142
6	5 V100	BEAM	E	20		5 11.875							6 0	6 0	38
6	5 V101	BEAM	E	20		6 6.000							6 6	6 6	41
25	6 V102	DIAPHRAGM	E	20		3 4.000							3 4	3 4	125
26	6 V103	WING	E	20		7 2.000							7 2	7 2	280
26	6 V104	WING	E	20		8 0.375							8 0	8 0	312

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B	C	D	E	F	H	K	Nom. Length	Actual Length	Weight
						ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	lb
		Superstructure													
		End Bent 6													
21	6 F600	WING BRACE	E	23S		2 3.000	4 7.000	21.000	14.875	14.875	19.125	19.125	8 7	8 6	268
8	6 F601	DIAPHRAGM	E	6S		5 8.000	2 8.000	———	———				8 4	8 2	98
8	7 H600	BEAM	E	20		45 4.000							45 4	45 4	741
12	6 H601	BEAM/DIAPHRAGM	E	20		45 4.000							45 4	45 4	817
4	6 H602	BEAM	E	20		24 9.375							24 9	24 9	149
4	6 H603	DIAPHRAGM	E	20		5 9.375							5 9	5 9	35
8	6 H604	DIAPHRAGM	E	20		8 8.000							8 8	8 8	104
8	6 H605	DIAPHRAGM	E	20		5 1.750							5 2	5 2	62
4	6 H606	DIAPHRAGM	E	20		3 3.000							3 3	3 3	20
4	6 H607	DIAPHRAGM	E	20		23.000							1 11	1 11	12
5	5 H608	STRAND TIE	E	20		5 8.375							5 8	5 8	30
16	8 H609	WING	E	20		14 5.500							14 6	14 6	619
46	7 H610	WING	E	20		14 5.500							14 6	14 6	1,363
13	5 U600	BEAM	E	10S		———	5 11.875	2 9.000	———				14 9	14 6	197
15	5 U601	BEAM	E	10S		———	6 6.125	2 9.000	———				15 9	15 6	242
10	4 U602	BEAM	E	13S		2 9.000	2 8.000	2 9.000	2 8.000				11 7	11 4	76
11	4 U603	BEAM	E	13S		2 9.000	3 0.500	2 9.000	3 0.500				12 4	12 1	89
6	4 U604	BEAM	E	13S		2 9.000	3 4.750	2 9.000	3 4.750				13 1	12 9	51
4	4 U605	BEAM	E	10S		———	2 8.000	2 9.000	———				8 1	7 11	21
3	4 U606	BEAM	E	10S		———	3 0.500	2 9.000	———				8 10	8 9	18
1	4 U607	BEAM	E	10S		———	3 4.750	2 9.000	———				9 7	9 4	6
57	6 U608	DIAPHRAGM	E	19S		3 2.750	4 6.000						7 9	7 7	649
34	5 U609	DIAPHRAGM	E	10S		———	4 0.000	2 3.000	———				10 3	10 0	355
34	6 U610	DIAPHRAGM	E	19S		3 3.000	2 9.000						6 0	5 10	298
43	5 U611	DIAPHRAGM	E	19S		2 0.000	15.000						3 3	3 2	142
6	5 V600	BEAM	E	20		5 11.875							6 0	6 0	38
6	5 V601	BEAM	E	20		6 6.125							6 6	6 6	41
25	6 V602	DIAPHRAGM	E	20		3 4.000							3 4	3 4	125
26	6 V603	WING	E	20		7 5.375							7 5	7 5	290
26	6 V604	WING	E	20		8 3.625							8 4	8 4	325

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. 38.

All bars shall be ASTM 615 Grade 60.

Codes: C = Required coatings, where E = Epoxy Coated and G = Galvanized.

SH = Required shape, see bending diagrams.

V = Sets of varied bars and number of bars of each length. Bar dimensions vary in equal increments between dimensions shown on this line and the following line and the actual length dimension shown on this line and the following line vary by the specified increment.

BILL OF REINFORCING STEEL

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64
STATE MO
DISTRICT BR
SHEET NO. 40
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION	DATE

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MISSOURI HIGHWAYS AND TRANSPORTION COMMISSION

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St. Louis, Missouri 63101
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Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B	C	D	E	F	H	K	Nom. Length	Actual Length	Weight
						ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	lb
		Int Diaphragms													
32	6 H700	DIAPHRAGM	E	20		5 11.000							5 11	5 11	284
32	6 H701	DIAPHRAGM	E	20		8 4.000							8 4	8 4	401
96	4 H702	DIAPHRAGM	E	20		8 6.000							8 6	8 6	545
16	5 H703	DIAPHRAGM	E	20		4 4.000							4 4	4 4	72
24	5 H704	DIAPHRAGM	E	20		5 9.000							5 9	5 9	144
192	4 U700	DIAPHRAGM	E	28S		———	18.000	4 1.500	23.500				7 8	7 6	962
64	6 U701	DIAPHRAGM	E	28S		———	2 2.000	4 1.750	2 0.000				8 4	8 0	769
64	6 U702	DIAPHRAGM	E	28S		———	2 2.000	3 3.750	2 0.000				7 6	7 2	689
32	6 U703	DIAPHRAGM	E	28S		———	2 2.000	3 3.750	19.000				7 1	6 9	324
16	5 U704	DIAPHRAGM	E	6		4 10.000	10.000	———	———				5 8	5 7	93
64	5 U705	DIAPHRAGM	E	6		4 10.000	10.000	21.000	———				7 5	7 3	484
32	5 V700	DIAPHRAGM	E	20		4 3.000							4 3	4 3	142
		Slab													
1042	6 S1	SLAB	E	20		45 4.000							45 4	45 4	70,950
370	8 S2	SLAB	E	20		52 0.000							52 0	52 0	51,371
144	8 S3	SLAB	E	20		40 0.000							40 0	40 0	15,379
144	8 S4	SLAB	E	20		60 0.000							60 0	60 0	23,069
756	5 S5	SLAB	E	20		14 8.000							14 8	14 8	11,565
756	5 S6	SLAB	E	20		5 2.000							5 2	5 2	4,074
270	5 S7	SLAB	E	20		50 11.000							50 11	50 11	14,339

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B	C	D	E	F	H	K	Nom. Length	Actual Length	Weight
						ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	ft in.	lb
		Barrier Curb													
		Type D													
972	5 R1	BARRIER CURB	E	26S		3 3.000	5.500	2.250			3 0.750	6.750	6 11	6 10	6,928
972	5 R2	BARRIER CURB	E	19S		20.500	9.500						2 6	2 5	2,450
972	5 R3	BARRIER CURB	E	27S		———	9.500	15.375	5.000	12.000	15.000	3.000	3 6	3 4	3,379
160	5 R4	BARRIER CURB	E	20		11 8.000							11 8	11 8	1,947
40	5 R5	BARRIER CURB	E	20		44 6.000							44 6	44 6	1,857
120	5 R6	BARRIER CURB	E	20		39 1.000							39 1	39 1	4,892
40	5 R7	BARRIER CURB	E	20		32 0.000							32 0	32 0	1,335
		Pedestrian Curb													
4	4 R8	PEDESTRIAN CURB	E	20		14 8.000							14 8	14 8	39
4	4 R9	PEDESTRIAN CURB	E	20		44 6.000							44 6	44 6	119
16	4 R10	PEDESTRIAN CURB	E	20		11 8.000							11 8	11 8	125
12	4 R11	PEDESTRIAN CURB	E	20		39 2.000							39 2	39 2	314
4	4 R12	PEDESTRIAN CURB	E	20		32 0.000							32 0	32 0	86
486	4 R100	PEDESTRIAN CURB	E	28S		14.000	8.000	14.000	12.000				4 0	3 10	1,244
32	4 R101	PEDESTRIAN CURB	E	10S		———	19.000	8.000	———				3 10	3 7	77
		End Barrier													
		(Right Barrier)													
10	5 K1	END BARRIER	E	27S		3 5.000	9.250	5.375	2 11.750	———	5.250	1.000	7 8	7 5	77
40	5 K2	END BARRIER	E	27S		3 5.000	9.250	14.500	2 2.750	———	14.250	2.750	7 7	7 4	306
10	5 K4	END BARRIER	E	19S	V	2 4.250	10.000						3 2	3 1	33
		INCR.= 0.500 (B LEG)			2	2 6.250	10.000						3 4	3 3	
10	5 K5	END BARRIER	E	38S	V	———	———	18.500	9.500	8.250	18.000	4.000	3 1	3 0	32
		INCR.= 0.500 (D LEG)			2	———	———	20.500	9.500	8.250	20.000	4.500	3 3	3 2	
6	5 K6	END BARRIER	E	19S		2 6.750	10.000						3 5	3 4	21
6	5 K7	END BARRIER	E	21S		———	2 6.625	10.000			2 6.000	6.250	3 5	3 4	21
18	5 K8	END BARRIER	E	19S	V	2 8.500	10.000						3 7	3 6	70
		INCR.= 0.625 (B LEG)			2	3 2.500	10.000						4 1	4 0	
18	5 K9	END BARRIER	E	21S	V	———	2 8.500	10.000			2 7.750	6.750	3 7	3 6	70
		INCR.= 0.625 (C LEG)			2	———	3 2.500	10.000			3 1.750	7.750	4 1	4 0	
16	5 K10	END BARRIER	E	19S		3 3.000	10.000						4 1	4 0	67
16	5 K11	END BARRIER	E	21S		———	3 3.000	10.000			3 2.250	7.750	4 1	4 0	67
12	5 K12	END BARRIER	E	20		14 8.000							14 8	14 8	184
6	5 K13	END BARRIER	E	20	V	13 11.000							13 11	13 11	68
		INCR.= 3'-0"			2	7 11.000							7 11	7 11	
12	5 K14	END BARRIER	E	20		14 8.000							14 8	14 8	184
6	5 K15	END BARRIER	E	20	V	13 11.000							13 11	13 11	68
		INCR.= 3'-0"			2	7 11.000							7 11	7 11	
		(Left Barrier)													
10	5 L1	END BARRIER	E	27S		22.500	9.250	5.375	16.750	12.000	5.250	1.000	5 6	5 3	55
56	5 L2	END BARRIER	E	27S		22.500	9.250	17.250	5.000	12.000	17.000	3.250	5 6	5 3	307
10	5 L4	END BARRIER	E	19S	V	2 4.250	10.000						3 2	3 1	33
		INCR.= 0.500 (B LEG)			2	2 6.250	10.000						3 4	3 3	
10	5 L5	END BARRIER	E	38S	V	———	———	18.500	9.500	8.250	18.000	4.000	3 1	3 0	32
		INCR.= 0.500 (D LEG)			2	———	———	20.500	9.500	8.250	20.000	4.500	3 3	3 2	
6	5 L6	END BARRIER	E	19S		2 6.750	10.000						3 5	3 4	21
6	5 L7	END BARRIER	E	21S		———	2 6.625	10.000			2 6.000	6.250	3 5	3 4	21
18	5 L8	END BARRIER	E	19S	V	2 8.500	10.000						3 7	3 6	70
		INCR.= 0.625 (B LEG)			2	3 2.500	10.000						4 1	4 0	
18	5 L9	END BARRIER	E	21S	V	———	2 8.500	10.000			2 7.750	6.750	3 7	3 6	70
		INCR.= 0.625 (C LEG)			2	———	3 2.500	10.000			3 1.750	7.750	4 1	4 0	
32	5 L10	END BARRIER	E	19S		3 3.000	10.000						4 1	4 0	134
32	5 L11	END BARRIER	E	21S		———	3 3.000	10.000			3 2.250	7.750	4 1	4 0	134
24	5 L12	END BARRIER	E	20		19 8.000							19 8	19 8	492
12	5 L13	END BARRIER	E	20	V	18 11.000							18 11	18 11	199
		INCR.= 3'-0"			2	12 11.000							12 11	12 11	
36	5 L14	END BARRIER	E	20		2 2.000							2 2	2 2	81
		Slip Form													
76	5 C1	SLIP FORM	E	20		12 0.000							12 0	12 0	951
8	5 C2	SLIP FORM	E	20		8 0.000							8 0	8 0	67

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. 38.

All bars shall be ASTM 615 Grade 60.

Codes: C = Required coatings, where E = Epoxy Coated and G = Galvanized.

SH = Required shape, see bending diagrams.

V = Sets of varied bars and number of bars of each length. Bar dimensions vary in equal increments between dimensions shown on this line and the following line and the actual length dimension shown on this line and the following line vary by the specified increment.

BILL OF REINFORCING STEEL

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 41
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

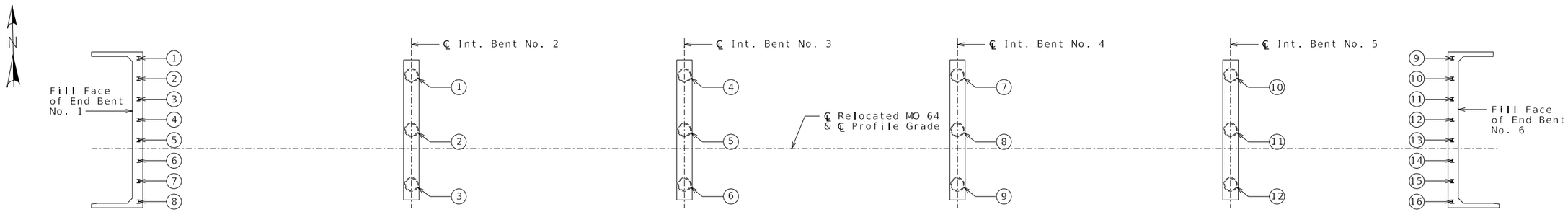
DATE	DESCRIPTION

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

MISSOURI HIGHWAYS AND TRANSPORTION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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PLAN SHOWING PILE & DRILLED SHAFT NUMBERING FOR RECORDING AS-BUILT PILE & AS-BUILT DRILLED SHAFT DATA

As-Built Pile Data			
Pile No.	Length in Place (ft)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
			End Bent No. 1
1			
2			
3			
4			
5			
6			
7			
8			
			End Bent No. 6
9			
10			
11			
12			
13			
14			
15			
16			

As-Built Drilled Shaft Data				
Shaft No.	Top of Sound Rock (Elev.)	Tip of Casing (Elev.)	Bottom of Rock Socket (Elev.)	Remarks
				Int. Bent No. 2
1				
2				
3				
				Int. Bent No. 3
4				
5				
6				
				Int. Bent No. 4
7				
8				
9				
				Int. Bent No. 5
10				
11				
12				

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.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

AS-BUILT PILE AND DRILLED SHAFT DATA

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004007786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 42
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION	DATE

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Project No. 23H0018	LOG OF BOREHOLE NO. B1N	Sheet 1 of 2
CLIENT: MoDOT	ENGINEER/GEOLOGIST: Hanson Professional Services Inc.	
SITE: Dallas County, Missouri	PROJECT: Route 64 over Niangua River Bridge Replacement	

N 693701.9 E 1535876.8

Surface Elevation: **850.0 ft** Datum: **NAVD 88**

	GRAPHIC LOG	DEPTH (ft)	SAMPLES: BLOWS/6in N$_{60}$ - VALUE RQD	SAMPLES: TYPE NUMBER	SAMPLES: RECOVERED (in) LTH SMPLD (in)	TESTS: MOISTURE, %	TESTS: DRY DENSITY (lb/ft^3)	TESTS: Qu (tsf) FAILURE TYPE	TESTS: FINE (%)	ADDITIONAL DATA REMARKS
0.5 TOPSOIL 849.5										
Sandy GRAVEL (GPS): Medium dense, light brown		2								
		4		SH- 1	0/24 0%				5.7	
		6	5-9-13 N$_{60}$= 29	SS- 2	18/18 100%					
10.0 840.0		8								
GRAVEL (GP): Loose, cherty, with sand, light grey		10	6-7-7 N$_{60}$= 18	SS- 3	4/18 22%					
		12								
14.5 835.5		14	9-50/5	SS- 4	7/11 64%					
Sandy GRAVEL (GPS): Very dense, light brown 15.5 834.5										
DOLOMITE: Strong, slightly weathered, sandy, cherty, with quartz, light gray		16	RQD= 73%	RC- 1	60/60 100%					
		18					158.2			Qu= 5219 PSI
- vuggy		20	RQD= 70%	RC- 2	60/60 100%					
		22					152.9			Qu= 2649 PSI
		24								

Continued Next Page

WATER LEVEL OBSERVATIONS
Dry - DD
Dry - ED

HANSON

STARTED	2/20/2024	FINISHED	2/20/2024
DRILL CO.	Palmerton & Parrish	DRILL RIG	CME-55
DRILLER	Ray Aufiero	ASS'T DRILLER	Ron Davis
LOGGED BY	G. Tabacchi	APPROVED	Kip Chepkoit

Project No. 23H0018	LOG OF BOREHOLE NO. B1N	Sheet 2 of 2
CLIENT: MoDOT	ENGINEER/GEOLOGIST: Hanson Professional Services Inc.	
SITE: Dallas County, Missouri	PROJECT: Route 64 over Niangua River Bridge Replacement	

N 693701.9 E 1535876.8

(continued)

	GRAPHIC LOG	DEPTH (ft)	SAMPLES: BLOWS/6in N$_{60}$ - VALUE RQD	SAMPLES: TYPE NUMBER	SAMPLES: RECOVERED (in) LTH SMPLD (in)	TESTS: MOISTURE, %	TESTS: DRY DENSITY (lb/ft^3)	TESTS: Qu (tsf) FAILURE TYPE	TESTS: FINE (%)	ADDITIONAL DATA REMARKS
25.5 824.5										
E.O.B. 79.0% Hammer Efficiency										

WATER LEVEL OBSERVATIONS
Dry - DD
Dry - ED

HANSON

STARTED	2/20/2024	FINISHED	2/20/2024
DRILL CO.	Palmerton & Parrish	DRILL RIG	CME-55
DRILLER	Ray Aufiero	ASS'T DRILLER	Ron Davis
LOGGED BY	G. Tabacchi	APPROVED	Kip Chepkoit

BORING DATA

Note: For location of borings, see Sheet No. 1.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

BORINGS

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
BR	43

COUNTY: DALLAS
JOB NO.: J7P3542
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9346

DESCRIPTION	DATE

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Project No. 23H0018	LOG OF BOREHOLE NO. B1S	Sheet 1 of 1
CLIENT: MoDOT	ENGINEER/GEOLOGIST: Hanson Professional Services Inc.	
SITE: Dallas County, Missouri	PROJECT: Route 64 over Niangua River Bridge Replacement	
N 693633.4 E 1535883.7		
Surface Elevation: 854.0 ft Datum: NAVD 88		

			GRAPHIC LOG	DEPTH (ft)	SAMPLES: BLOWS/6in N_{60} - VALUE RQD	SAMPLES: TYPE NUMBER	SAMPLES: RECOVERED (in) LTH SMPLD (in)	TESTS: MOISTURE, %	TESTS: DRY DENSITY (lb/ft³)	TESTS: Qu (tsf) FAILURE TYPE	ADDITIONAL DATA REMARKS
0.5	TOPSOIL	853.5									
	Sandy GRAVEL (GPS): Loose, light brown			2							
				4							
				6	8-7-8 N_{60}= 20	SS- 1	12/18 67%				
				8							
				10	6-10-15 N_{60}= 33	SS- 2	13/18 72%				
				12							Start mud rotary
14.0		840.0									
	Sandy GRAVEL (GPS): Medium dense, light gray			14	3-2-15 N_{60}= 22	SS- 3	6/18 33%				
15.9		838.1			50/2	SS- 4	0/2 0%				
	E.O.B.										
	79.0% Hammer Efficiency										

WATER LEVEL OBSERVATIONS	
	Dry - DD
	Dry - ED

HANSON

STARTED	2/20/2024	FINISHED	2/20/2024
DRILL CO.	Palmerton & Parrish	DRILL RIG	CME-55
DRILLER	Ray Aufiero	ASS'T DRILLER	Ron Davis
LOGGED BY	G. Tabacchi	APPROVED	Kip Chepkoit

BORING DATA

Note: For location of borings, see Sheet No. 1.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

Sheet No. 44 of 49

BORINGS

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 44
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION | DATE

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Project No. 23H0018	LOG OF BOREHOLE NO. B2	Sheet 1 of 2
CLIENT: MoDOT	ENGINEER/GEOLOGIST: Hanson Professional Services Inc.	
SITE: Dallas County, Missouri	PROJECT: Route 64 over Niangua River Bridge Replacement	

N 693632.1 E 1535956.4

Surface Elevation: **850.5 ft** Datum: **NAVD 88**

DEPTH (ft)	GRAPHIC LOG	SAMPLES: BLOWS/6in N_{60} - VALUE RQD	SAMPLES: TYPE NUMBER	SAMPLES: RECOVERED (in) LTH SMPLD (in)	TESTS: MOISTURE, %	TESTS: DRY DENSITY (lb/ft³)	TESTS: Qu (tsf) FAILURE TYPE	TESTS: LL (%)	TESTS: PL (%)	ADDITIONAL DATA REMARKS
0.5 TOPSOIL 850.0										
Sandy CLAY (CLS): Medium stiff, light brown		5-3-6 N_{60}= 12	SS- 1	12/18 67%	14		P 1	23	15	
10.0 840.5										
Gravelly SAND (SPG): Medium dense, medium grained, brown		3-1-25 N_{60}= 34	SS- 2	6/18 33%						
11.5 839.0										
DOLOMITE: Strong, slightly weathered, sandy, cherty, light gray, vuggy		RQD= 67%	RC- 1	44/48 92%		160.4				Qu= 4683 PSI
- clay washout (15 to 15.5 ft)		RQD= 40%	RC- 2	60/60 100%						
- 7 in. intensely fractured		RQD= 60%	RC- 3	60/60 100%		145.2				Qu= 1302 PSI
- 4 in. clay seam										

Continued Next Page

WATER LEVEL OBSERVATIONS		STARTED	2/21/2024	FINISHED	2/21/2024
	Dry - DD	DRILL CO.	Palmerton & Parrish	DRILL RIG	CME-55
	Dry - ED	DRILLER	Ray Aufiero	ASS'T DRILLER	Ron Davis
		LOGGED BY	G. Tabacchi	APPROVED	Kip Chepkoit

Project No. 23H0018	LOG OF BOREHOLE NO. B2	Sheet 2 of 2
CLIENT: MoDOT	ENGINEER/GEOLOGIST: Hanson Professional Services Inc.	
SITE: Dallas County, Missouri	PROJECT: Route 64 over Niangua River Bridge Replacement	

N 693632.1 E 1535956.4

(continued)

DEPTH (ft)	GRAPHIC LOG	SAMPLES: BLOWS/6in N_{60} - VALUE RQD	SAMPLES: TYPE NUMBER	SAMPLES: RECOVERED (in) LTH SMPLD (in)	TESTS: MOISTURE, %	TESTS: DRY DENSITY (lb/ft³)	TESTS: Qu (tsf) FAILURE TYPE	TESTS: LL (%)	TESTS: PL (%)	ADDITIONAL DATA REMARKS
DOLOMITE: Strong, slightly weathered, sandy, cherty, light gray, vuggy *(continued)*		RQD= 90%	RC- 4	60/60 100%						
- 2 in. clay seam						146.2				Qu= 1838 PSI
		RQD= 60%	RC- 5	60/60 100%						
						165.1				Qu= 5748 PSI
- 4 in. clay seam		RQD= 90%	RC- 6	60/60 100%						
- fresh, less vuggy						165.6				Qu= 10032 PSI
41.5 809.0		RQD= 100%	RC- 7	12/12 100%		150.6				Qu= 2292 PSI
E.O.B. 79.0% Hammer Efficiency										

WATER LEVEL OBSERVATIONS		STARTED	2/21/2024	FINISHED	2/21/2024
	Dry - DD	DRILL CO.	Palmerton & Parrish	DRILL RIG	CME-55
	Dry - ED	DRILLER	Ray Aufiero	ASS'T DRILLER	Ron Davis
		LOGGED BY	G. Tabacchi	APPROVED	Kip Chepkoit

BORING DATA

Note: For location of borings, see Sheet No. 1.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

BORINGS

STATE OF MISSOURI — HOWARD NELSON GOTSCHALL II — NUMBER PE-2004007786 — PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
BR	45

COUNTY: DALLAS
JOB NO.: J7P3542
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9346

DESCRIPTION	DATE

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

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Project No. 23H0018 | **LOG OF BOREHOLE NO. B3** | **Sheet 1 of 2**

CLIENT: **MoDOT**
ENGINEER/GEOLOGIST: **Hanson Professional Services Inc.**
SITE: **Dallas County, Missouri**
PROJECT: **Route 64 over Niangua River Bridge Replacement**

N 693654.4 E 1536052.6

Surface Elevation: **850.0 ft** Datum: **NAVD 88**

DESCRIPTION	DEPTH (ft)	SAMPLES: BLOWS/6in N_{60} - VALUE RQD	SAMPLES: TYPE NUMBER	SAMPLES: RECOVERED (in) LTH SMPLD (in)	TESTS: MOISTURE, %	TESTS: DRY DENSITY (lb/ft³)	TESTS: Qu (tsf) FAILURE TYPE	ADDITIONAL DATA REMARKS
0.5 TOPSOIL 849.5								
SAND (SW-SC): Loose, with chert, gravel, and Clay, orange								
9.5 840.5								
Sandy GRAVEL (GPS): Very loose, brown		9-7-7 N_{60}= 18	SS- 1	8/18 44%	6			
11.0 839.0		4-5-2 N_{60}= 9	SS- 2	6/18 33%				
DOLOMITE: Strong, slightly weathered, sandy, cherty, light gray		RQD= 50%	RC- 1	48/48 100%		153.9		Qu= 3707 PSI
- vuggy		RQD= 33%	RC- 2	60/60 100%				
- 6 in. intensily fractured, with clay								
- 10 in. highly weathered zone		RQD= 67%	RC- 3	60/60 100%		165.2		Qu= 4974 PSI
- very cherty								

Continued Next Page

WATER LEVEL OBSERVATIONS		STARTED	2/21/2024	FINISHED	2/21/2024
Dry - DD		DRILL CO.	Palmerton & Parrish	DRILL RIG	CME-55
Dry - ED		DRILLER	Ray Aufiero	ASS'T DRILLER	Ron Davis
		LOGGED BY	G. Tabacchi	APPROVED	Kip Chepkoit

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Project No. 23H0018 | **LOG OF BOREHOLE NO. B3** | **Sheet 2 of 2**

CLIENT: **MoDOT**
ENGINEER/GEOLOGIST: **Hanson Professional Services Inc.**
SITE: **Dallas County, Missouri**
PROJECT: **Route 64 over Niangua River Bridge Replacement**

N 693654.4 E 1536052.6

(continued)

DESCRIPTION	DEPTH (ft)	SAMPLES: BLOWS/6in N_{60} - VALUE RQD	SAMPLES: TYPE NUMBER	SAMPLES: RECOVERED (in) LTH SMPLD (in)	TESTS: MOISTURE, %	TESTS: DRY DENSITY (lb/ft³)	TESTS: Qu (tsf) FAILURE TYPE	ADDITIONAL DATA REMARKS
DOLOMITE: Strong, slightly weathered, sandy, cherty, light gray *(continued)*		RQD= 60%	RC- 4	60/60 100%				
						163.9		Qu= 3845 PSI
- 3 in. clay seam		RQD= 70%	RC- 5	60/60 100%				
		RQD= 87%	RC- 6	60/60 100%		159.1		Qu= 2965 PSI
- 2 in. clay seam						162.8		Qu= 6232 PSI
		RQD= 100%	RC- 7	12/12 100%				
41.0 809.0								
E.O.B. 79.0% Hammer Efficiency								

WATER LEVEL OBSERVATIONS		STARTED	2/21/2024	FINISHED	2/21/2024
Dry - DD		DRILL CO.	Palmerton & Parrish	DRILL RIG	CME-55
Dry - ED		DRILLER	Ray Aufiero	ASS'T DRILLER	Ron Davis
		LOGGED BY	G. Tabacchi	APPROVED	Kip Chepkoit

HANSON

BORING DATA

Note: For location of borings, see Sheet No. 1.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

BORINGS

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 46
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION | DATE

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

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Project No. 23H0018	LOG OF BOREHOLE NO. B5	Sheet 1 of 2
CLIENT: MoDOT	ENGINEER/GEOLOGIST: Hanson Professional Services Inc.	
SITE: Dallas County, Missouri	PROJECT: Route 64 over Niangua River Bridge Replacement	

N 693663.1 E 1536277.1

Surface Elevation: **849.0 ft** Datum: **NAVD 88**

DEPTH (ft)	GRAPHIC LOG	SAMPLES: BLOWS/6in N_{60} - VALUE RQD	SAMPLES: TYPE NUMBER	SAMPLES: RECOVERED (in) LTH SMPLD (in)	TESTS: MOISTURE, %	TESTS: DRY DENSITY (lb/ft³)	TESTS: Qu (tsf) FAILURE TYPE	TESTS: LL (%)	TESTS: PL (%)	ADDITIONAL DATA REMARKS
0.5 TOPSOIL 848.5 Sandy CLAY (CLS): Medium stiff, brown										
6.7 842.3 DOLOMITE: Strong, sandy, slightly weathered, light gray, vuggy		13-11-8 N_{60}= 25	SS- 1	13/18 72%	16			49	19	
		RQD= 66%	RC- 1	41/41 100%		148.6				Qu= 3566 PSI
- Fe staining		RQD= 55%	RC- 2	57/60 95%		159.8				Qu= 3560 PSI
- clay seams										
- cherty		RQD= 80%	RC- 3	60/60 100%		167.1				Qu= 5020 PSI
		RQD= 73%	RC- 4	60/60 100%		148.2				Qu= 4664 PSI

Continued Next Page

WATER LEVEL OBSERVATIONS
Dry - DD
Dry - ED

HANSON

STARTED	2/22/2024	FINISHED	2/22/2024
DRILL CO.	Palmerton & Parrish	DRILL RIG	CME-55
DRILLER	Ray Aufiero	ASS'T DRILLER	Ron Davis
LOGGED BY	G. Tabacchi	APPROVED	Kip Chepkoit

Project No. 23H0018	LOG OF BOREHOLE NO. B5	Sheet 2 of 2
CLIENT: MoDOT	ENGINEER/GEOLOGIST: Hanson Professional Services Inc.	
SITE: Dallas County, Missouri	PROJECT: Route 64 over Niangua River Bridge Replacement	

N 693663.1 E 1536277.1

(continued)

DEPTH (ft)	GRAPHIC LOG	SAMPLES: BLOWS/6in N_{60} - VALUE RQD	SAMPLES: TYPE NUMBER	SAMPLES: RECOVERED (in) LTH SMPLD (in)	TESTS: MOISTURE, %	TESTS: DRY DENSITY (lb/ft³)	TESTS: Qu (tsf) FAILURE TYPE	TESTS: LL (%)	TESTS: PL (%)	ADDITIONAL DATA REMARKS
DOLOMITE: Strong, sandy, slightly weathered, light gray, vuggy *(continued)* - 3 in. weathered zone		RQD= 80%	RC- 5	60/60 100%						
						159.2				Qu= 4371 PSI
		RQD= 83%	RC- 6	58/60 97%						
						168.7				Qu= 6237 PSI
36.8 812.2 E.O.B. 79.0% Hammer Efficiency		RQD= 75%	RC- 7	18/20 90%						

WATER LEVEL OBSERVATIONS
Dry - DD
Dry - ED

HANSON

STARTED	2/22/2024	FINISHED	2/22/2024
DRILL CO.	Palmerton & Parrish	DRILL RIG	CME-55
DRILLER	Ray Aufiero	ASS'T DRILLER	Ron Davis
LOGGED BY	G. Tabacchi	APPROVED	Kip Chepkoit

BORING DATA

Note: For location of borings, see Sheet No. 1.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

BORINGS

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 47
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION	DATE

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

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Project No. 23H0018	LOG OF BOREHOLE NO. B6N	Sheet 1 of 1
CLIENT: MoDOT	ENGINEER/GEOLOGIST: Hanson Professional Services Inc.	
SITE: Dallas County, Missouri	PROJECT: Route 64 over Niangua River Bridge Replacement	

N 693707.5 E 1536360.1

Surface Elevation: **856.5 ft** Datum: **NAVD 88**

	GRAPHIC LOG	DEPTH (ft)	SAMPLES: BLOWS/6in N_{60} - VALUE RQD	SAMPLES: TYPE NUMBER	SAMPLES: RECOVERED (in) LTH SMPLD (in)	TESTS: MOISTURE, %	TESTS: DRY DENSITY (lb/ft³)	TESTS: Qu (tsf) FAILURE TYPE	TESTS: LL (%)	TESTS: PL (%)	ADDITIONAL DATA REMARKS
0.5 TOPSOIL 856.0											
Clayey GRAVEL (GC): Medium dense, cherty, with sand, brown		2		SH- 1		19			34	21	
		4									
		6	7-12-13 N_{60}= 33	SS- 2	12/18 67%						
10.0 846.5		8									
Sandy GRAVEL (GWS): Medium dense, cherty, with clay, light brown		10	14-18-12 N_{60}= 40	SS- 3	14/18 78%						
13.4 843.1		12									
E.O.B. 79.0% Hammer Efficiency			50/2	SS- 4	0/2 0%						

WATER LEVEL OBSERVATIONS	
	Dry - DD
	Dry - ED

HANSON

STARTED	2/23/2024	FINISHED	2/23/2024
DRILL CO.	Palmerton & Parrish	DRILL RIG	CME-55
DRILLER	Ray Aufiero	ASST DRILLER	Ron Davis
LOGGED BY	G. Tabacchi	APPROVED	Kip Chepkoit

BORING DATA

Note: For location of borings, see Sheet No. 1.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

Sheet No. 48 of 49

BORINGS

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26

ROUTE	STATE
64	MO
DISTRICT	SHEET NO.
BR	48

COUNTY: DALLAS
JOB NO.: J7P3542
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A9346

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTION COMMISSION

MoDOT

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

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HANSON

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St. Louis, Missouri 63101
Professional Engineer 001632
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314.770.0467

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

Project No. 23H0018	LOG OF BOREHOLE NO. B6S	Sheet 1 of 2
CLIENT: MoDOT	ENGINEER/GEOLOGIST: Hanson Professional Services Inc.	
SITE: Dallas County, Missouri	PROJECT: Route 64 over Niangua River Bridge Replacement	

N 693631.7 E 1536323.6

Surface Elevation: **863.0 ft** Datum: **NAVD 88**

DEPTH (ft)	SAMPLES: BLOWS/6in N_{60} - VALUE RQD	SAMPLES: TYPE NUMBER	SAMPLES: RECOVERED (in) LTH SMPLD (in)	TESTS: MOISTURE, %	TESTS: DRY DENSITY (lb/ft³)	TESTS: Qu (tsf) FAILURE TYPE	ADDITIONAL DATA REMARKS
0.3 TOPSOIL 862.7 CLAY (CL): Soft, trace sand, gravel, brown	3-3-4 N_{60}= 9	SS- 1	14/18 78%	15			
3.0 860.0 Clayey GRAVEL (GC): Medium dense, fine	10-13-16 N_{60}= 38	SH- 2 SS- 3	0/0 % 16/18 89%				
	10-16-5 N_{60}= 28	SS- 4	18/12 150%				
10.0 853.0 CLAY (CL): Medium stiff, with fine gravel, brown	6-8-12 N_{60}= 26	SS- 5	18/12 150%	13			
15.0 848.0 Clayey GRAVEL (GC): Medium dense, iron staining, orange and brown	8-10-11 N_{60}= 28	SS- 6					
18.5 844.5 DOLOMITE: Strong, moderately weathered/broken core, sandy, cherty, light gray	RQD= 0%	RC- 1	18/18 100%				
- slightly Weathered, cherty, vuggy - 1 in. clay seam - 3 in. weathered zone clayey - vuggy - cherty	RQD= 80%	RC- 2	60/60 100%		158.6		Qu= 5505 PSI

Continued Next Page

WATER LEVEL OBSERVATIONS		STARTED	2/22/2024	FINISHED	2/22/2024
	Dry - DD	DRILL CO.	Palmerton & Parrish	DRILL RIG	CME-55
	Dry - ED	DRILLER	Ray Aufiero	ASST DRILLER	Ron Davis
		LOGGED BY	G. Tabacchi	APPROVED	Kip Chepkoit

Project No. 23H0018	LOG OF BOREHOLE NO. B6S	Sheet 2 of 2
CLIENT: MoDOT	ENGINEER/GEOLOGIST: Hanson Professional Services Inc.	
SITE: Dallas County, Missouri	PROJECT: Route 64 over Niangua River Bridge Replacement	

N 693631.7 E 1536323.6

(continued)

DEPTH (ft)	SAMPLES: BLOWS/6in N_{60} - VALUE RQD	SAMPLES: TYPE NUMBER	SAMPLES: RECOVERED (in) LTH SMPLD (in)	TESTS: MOISTURE, %	TESTS: DRY DENSITY (lb/ft³)	TESTS: Qu (tsf) FAILURE TYPE	ADDITIONAL DATA REMARKS
DOLOMITE: Strong, moderately weathered/broken core, sandy, cherty, light gray *(continued)* - 2 in. weathered zone	RQD= 67%	RC- 3	48/48 100%		165.6		Qu= 5807 PSI
29.0 834.0 E.O.B. 79.0% Hammer Efficiency							

WATER LEVEL OBSERVATIONS		STARTED	2/22/2024	FINISHED	2/22/2024
	Dry - DD	DRILL CO.	Palmerton & Parrish	DRILL RIG	CME-55
	Dry - ED	DRILLER	Ray Aufiero	ASST DRILLER	Ron Davis
		LOGGED BY	G. Tabacchi	APPROVED	Kip Chepkoit

BORING DATA

Note: For location of borings, see Sheet No. 1.

Designed: BWC 05/01/25
Detailed: BWC 05/01/25
Checked: HNG 05/30/25

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

BORINGS

STATE OF MISSOURI
HOWARD NELSON GOTSCHALL II
NUMBER PE-2004000786
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 06/12/26
ROUTE 64 | STATE MO
DISTRICT BR | SHEET NO. 49
COUNTY DALLAS
JOB NO. J7P3542
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A9346

DESCRIPTION | DATE

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MISSOURI HIGHWAYS AND TRANSPORTION COMMISSION
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