

DESIGN DESIGNATION

A.A.D.T. - 2013 = 6644 (SOUTHBOUND)
 6620 (NORTHBOUND)
 T = 36% (SOUTHBOUND)
 37% (NORTHBOUND)
 V = 70 M.P.H.

FUNCTIONAL CLASSIFICATION - INTERSTATE
 (MAJOR ROAD)

FULLY CONTROLLED ACCESS HIGHWAY

THIS SHALL BE A FULLY CONTROLLED ACCESS HIGHWAY BETWEEN STA. 789+82.00 AND STA. 802+53.60. NO ABUTTING OWNER SHALL HAVE THE RIGHT OF DIRECT ACCESS TO SAID HIGHWAY OR ITS RIGHT-OF-WAY EXCEPT THAT ACCESS WILL BE PERMITTED TO ANY ADJACENT OUTER ROADWAY OR SERVICE ROAD TO WHICH ACCESS IS NOT SPECIFICALLY PROHIBITED BY THE SPECIAL SYMBOL DENOTING "NO RIGHT OF ACCESS" AS SHOWN ON THE PLANS. NO ACCESS WILL BE PERMITTED FROM OUTER ROADWAYS AND SERVICE ROADS TO THROUGHWAYS EXCEPT ALONG ROUTES CONSTRUCTED FOR THAT PURPOSE. OUTER ROADWAYS AND SERVICE ROADS, AS THE CASE MAY BE, ARE SO DESIGNATED ON THE PLANS.

- BEGINNING AND ENDING OF CONTROLLED ACCESS
- ⊕-----⊕ CONTROLLED ACCESS
- ⊞-----⊞ NO RIGHT OF ACCESS OR CROSSING OF LINES BEARING THIS SYMBOL WILL BE PERMITTED UNDER ANY CIRCUMSTANCES.
- ⊞-----⊞ TEMPORARY ACCESS THROUGH FUTURE NO RIGHT OF ACCESS

**CONVENTIONAL SYMBOLS
 (USED IN PLANS)**

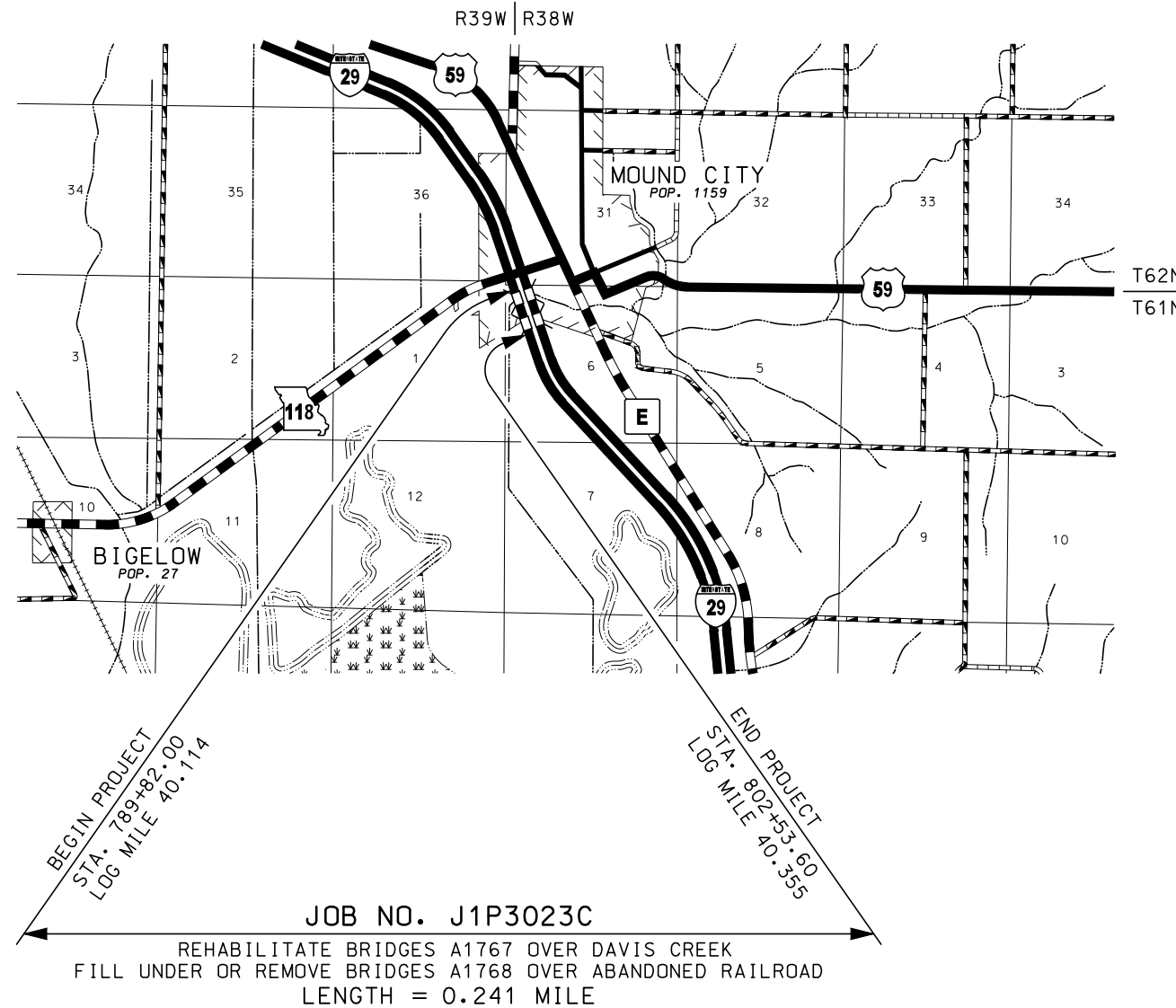
- | | | |
|------------------------------|----------|------|
| | EXISTING | NEW |
| BUILDINGS AND STRUCTURES | | |
| GUARD RAIL | | |
| CONCRETE RIGHT-OF-WAY MARKER | | |
| STEEL RIGHT-OF-WAY MARKER | | |
| LOCATION SURVEY MARKER | | |
| UTILITIES | | |
| FIBER OPTICS | -FO- | -FO- |
| OVERHEAD TELEPHONE | -T- | -T- |
| UNDERGROUND TELEPHONE | -T- | -T- |
| OVERHEAD POWER | -P- | -P- |
| UNDERGROUND POWER | -P- | -P- |
| GAS | -G- | -G- |
| WATER | -W- | -W- |
| MANHOLE | | |
| FIRE HYDRANT | | |
| WATER VALVE | | |
| WATER METER | | |
| DROP INLET | | |
| DITCH BLOCK | | |
| GROUND MOUNTED SIGN | | |
| LIGHT POLE | | |
| H-FRAME POWER POLE | | |
| TELEPHONE PEDESTAL | | |
| FENCE | | |
| CHAIN LINK | | |
| WOVEN WIRE | | |
| GATE POST | | |
| BENCHMARK | | |

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED STATE HIGHWAY

HOLT COUNTY

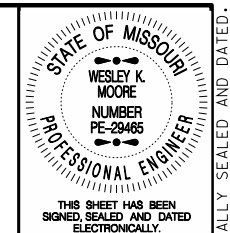


JOB NO. J1P3023C
 REHABILITATE BRIDGES A1767 OVER DAVIS CREEK
 FILL UNDER OR REMOVE BRIDGES A1768 OVER ABANDONED RAILROAD
 LENGTH = 0.241 MILE

THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS SHOWN ON THE PLANS, ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION.

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DATE PREPARED
 3/28/2017
 ROUTE I-29 STATE MO
 DISTRICT NW SHEET NO. 1
 COUNTY HOLT
 JOB NO. J1P3023C
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO.

DATE	DESCRIPTION

LENGTH OF PROJECT

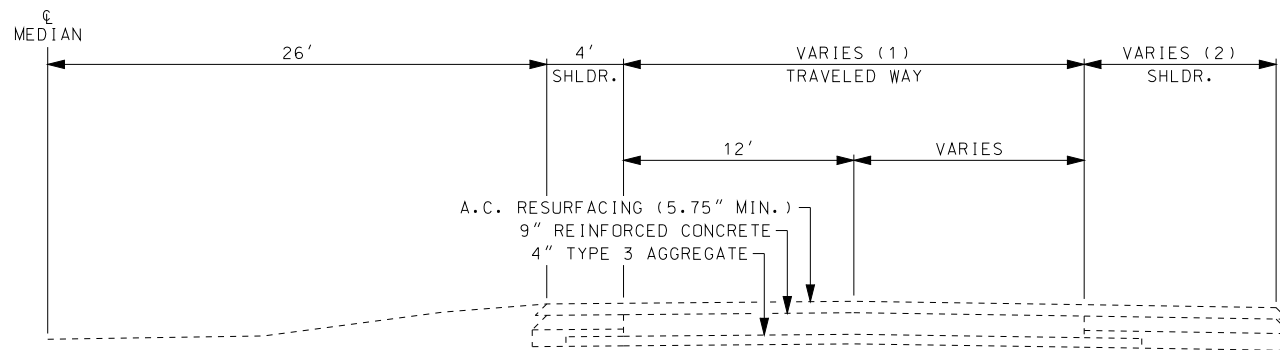
BEGINNING OF PROJECT STA. 789+82.00
 END OF PROJECT STA. 802+53.60
 APPARENT LENGTH 1271.60 FEET
 EQUATIONS AND EXCEPTIONS:
 NONE

TOTAL CORRECTIONS 0.00 FEET
 NET LENGTH OF PROJECT 1271.60 FEET
 STATE LENGTH 0.241 MILES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

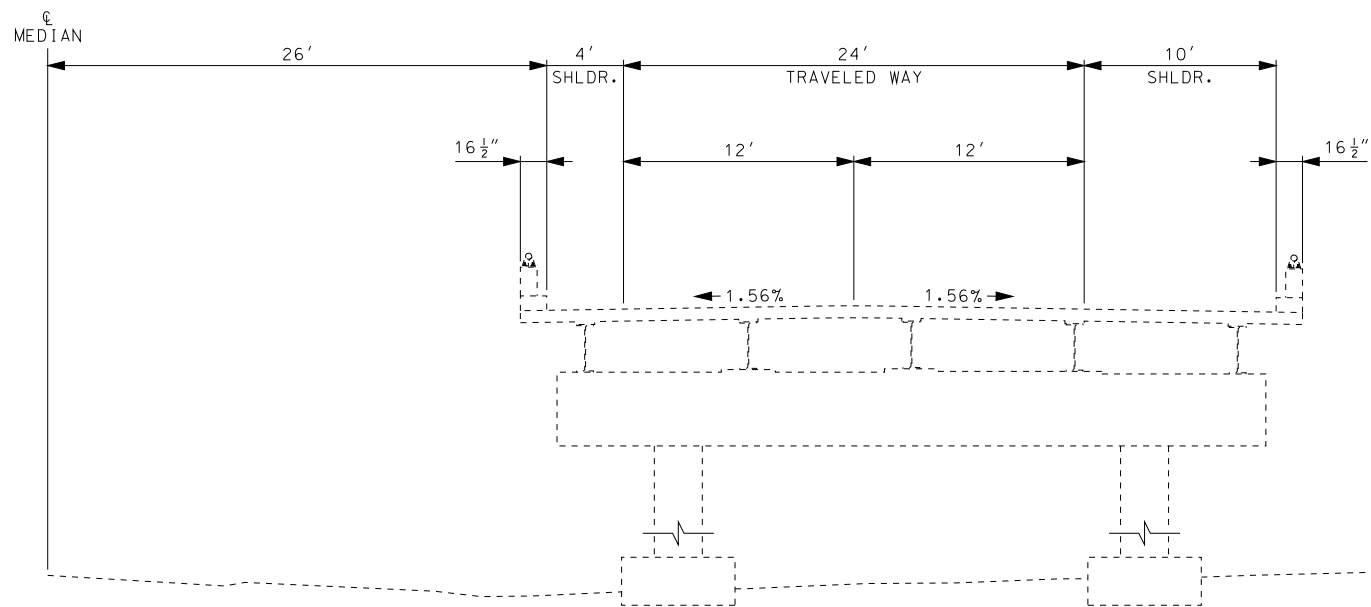
105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

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



SECTION ON TANGENT
EXISTING HALF-SECTION ROUTE I-29

STA. 789+52.00 TO STA. 790+02.00 N.B.L.
 STA. 792+11.00 TO STA. 796+99.89 N.B.L.
 STA. 798+39.91 TO STA. 802+62.73 N.B.L.
 STA. 789+52.00 TO STA. 790+02.00 S.B.L.
 STA. 792+11.00 TO STA. 797+14.70 S.B.L.
 STA. 798+54.72 TO STA. 802+78.60 S.B.L.



SECTION ON TANGENT
EXISTING HALF-SECTION ROUTE I-29

STA. 796+99.89 TO STA. 798+39.91 N.B.L.
 (BRIDGE A17681)
 STA. 797+14.70 TO STA. 798+54.72 S.B.L.
 (BRIDGE A17682)

NOTES:

- (1) TRAVELED WAY WIDTH - N.B.L. & S.B.L.
 789+52.00 TO 792+90.42 - 36'
 792+90.42 TO 795+40.42 - TAPER 36'-24'
 795+40.42 TO 802+78.60 - 24'
- (2) OUTSIDE SHOULDER WIDTH - N.B.L. & S.B.L.
 789+52.00 TO 794+57.23 - 6'
 794+57.23 TO 795+40.42 - TAPER 6'-10'
 795+40.42 TO 802+78.60 - 10'



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DATE PREPARED
3/28/2017

ROUTE	STATE
I-29	MO
DISTRICT	SHEET NO.
NW	2

COUNTY
HOLT

JOB NO.
J1P3023C

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

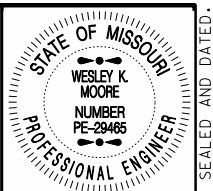
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

MoDOT

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

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DATE PREPARED
3/28/2017

ROUTE I-29 STATE MO

DISTRICT NW SHEET NO. 2

COUNTY HOLT

JOB NO. J1P3023C

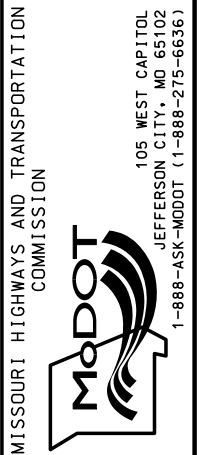
CONTRACT ID.

PROJECT NO.

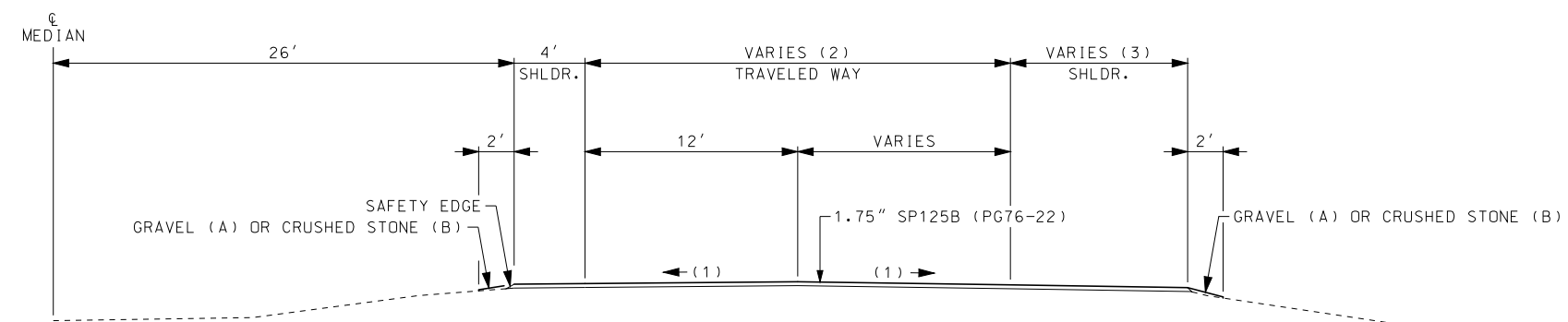
BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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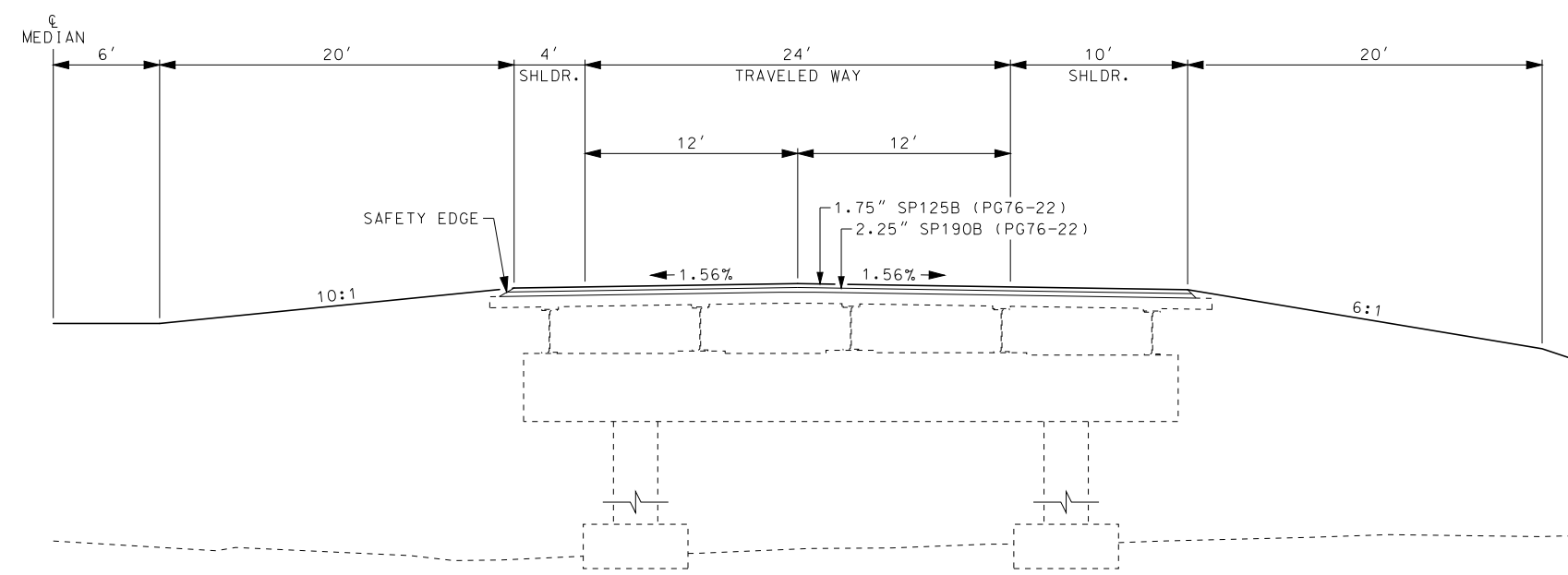


- NOTES:
- (1) MATCH EXISTING SLOPE
 - (2) TRAVELED WAY WIDTH - N.B.L. & S.B.L.
789+52.00 TO 792+90.42 - 36'
792+90.42 TO 795+40.42 - TAPER 36'-24'
795+40.42 TO 802+78.60 - 24'
 - (3) OUTSIDE SHOULDER WIDTH - N.B.L. & S.B.L.
789+52.00 TO 794+57.23 - 6'
794+57.23 TO 795+40.42 - TAPER 6'-10'
795+40.42 TO 802+78.60 - 10'

SECTION ON TANGENT
HALF-SECTION ROUTE I-29

- STA. 789+52.00 TO STA. 790+02.00 N.B.L.
STA. 792+11.00 TO STA. 796+76.01 N.B.L.
STA. 798+62.73 TO STA. 802+62.73 N.B.L.

STA. 789+52.00 TO STA. 790+02.00 S.B.L.
STA. 792+11.00 TO STA. 796+91.88 S.B.L.
STA. 798+78.60 TO STA. 802+78.60 S.B.L.



NOTE:
EXISTING BRIDGE CURB, PARAPET AND RAIL (NOT SHOWN) TO BE REMOVED.

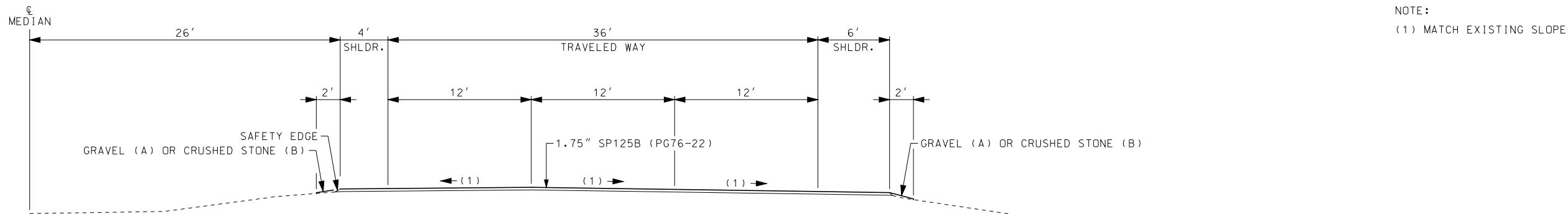
SECTION ON TANGENT
HALF-SECTION ROUTE I-29

- STA. 796+76.01 TO STA. 798+62.73 N.B.L.
(U.I.P. AND FILL UNDER BRIDGE A17681)

STA. 796+91.88 TO STA. 798+78.60 S.B.L.
(U.I.P. AND FILL UNDER BRIDGE A17682)

ESTIMATE FACTORS	
ITEM	RATE
GRAVEL (A) OR CRUSHED STONE (B)	2.10 TONS/C.Y.
ASPHALTIC CONCRETE MIXTURE PG76-22 (SP125B)	1.98 TONS/C.Y.
ASPHALTIC CONCRETE MIXTURE PG76-22 (SP190B)	1.99 TONS/C.Y.
TACK COAT - BETWEEN LIFTS	0.05 GAL./S.Y.
TACK COAT - ON EXISTING ASPHALT (NOT MILLED)	0.08 GAL./S.Y.
TACK COAT - MILLED SURFACE OR EXISTING CONCRETE	0.10 GAL./S.Y.

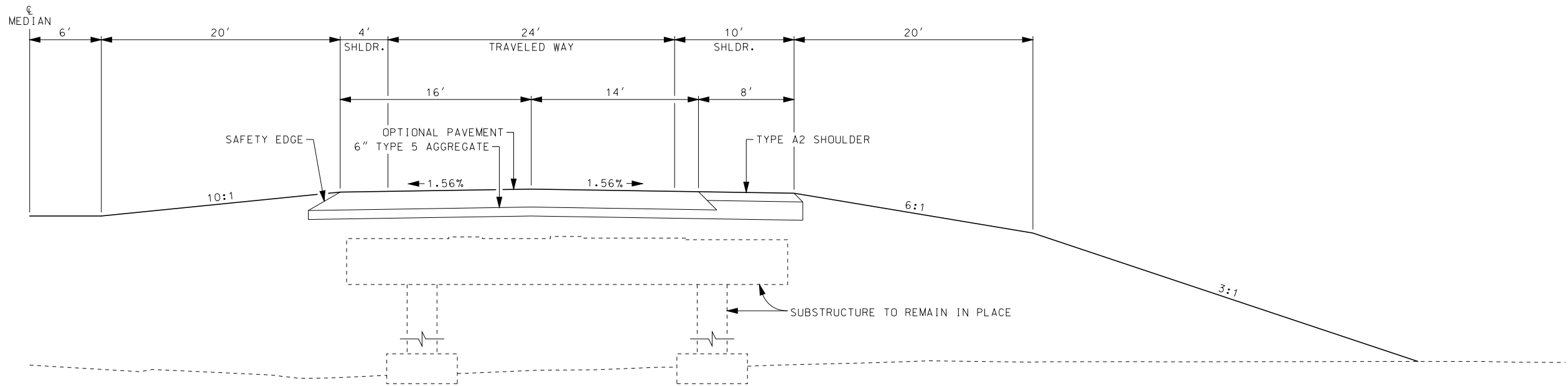
ALTERNATE A



NOTE:
(1) MATCH EXISTING SLOPE

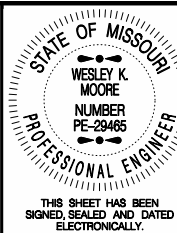
SECTION ON TANGENT
HALF-SECTION ROUTE 1-29

STA. 789+52.00 TO STA. 790+02.00 N.B.L.
 STA. 792+11.00 TO STA. 792+61.00 N.B.L.
 STA. 789+52.00 TO STA. 790+02.00 S.B.L.
 STA. 792+11.00 TO STA. 792+61.00 S.B.L.



SECTION ON TANGENT
HALF-SECTION ROUTE 1-29

STA. 796+76.01 TO STA. 798+62.73 N.B.L.
 (REMOVE BRIDGE A17681)
 STA. 796+91.88 TO STA. 798+78.60 S.B.L.
 (REMOVE BRIDGE A17682)



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DATE PREPARED
3/28/2017

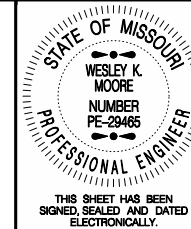
ROUTE I-29	STATE MO
DISTRICT NW	SHEET NO. 2
COUNTY HOLT	
JOB NO. J1P3023C	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

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DATE PREPARED
3/28/2017

ROUTE I-29 STATE MO
DISTRICT NW SHEET NO. 2

COUNTY HOLT
JOB NO. J1P3023C
CONTRACT ID.

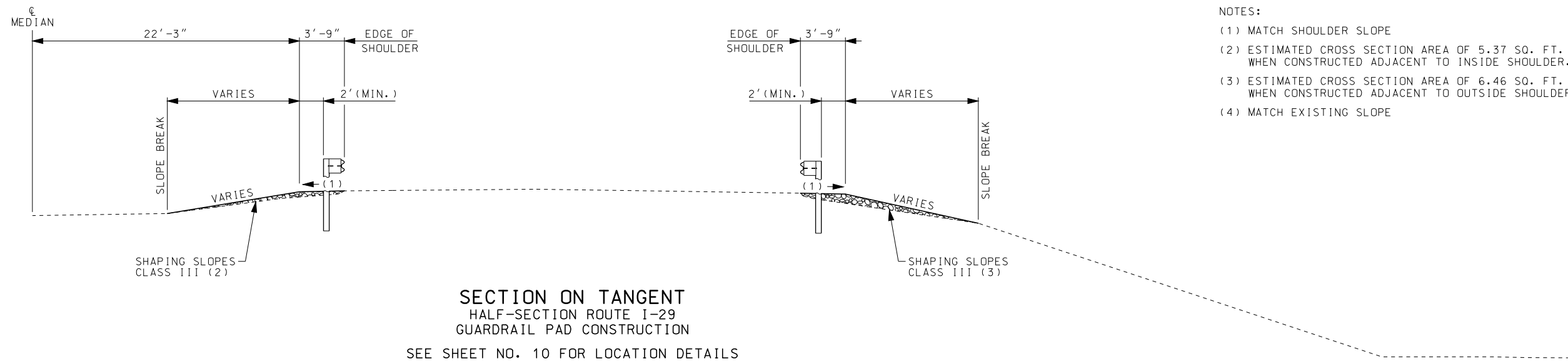
PROJECT NO.
BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

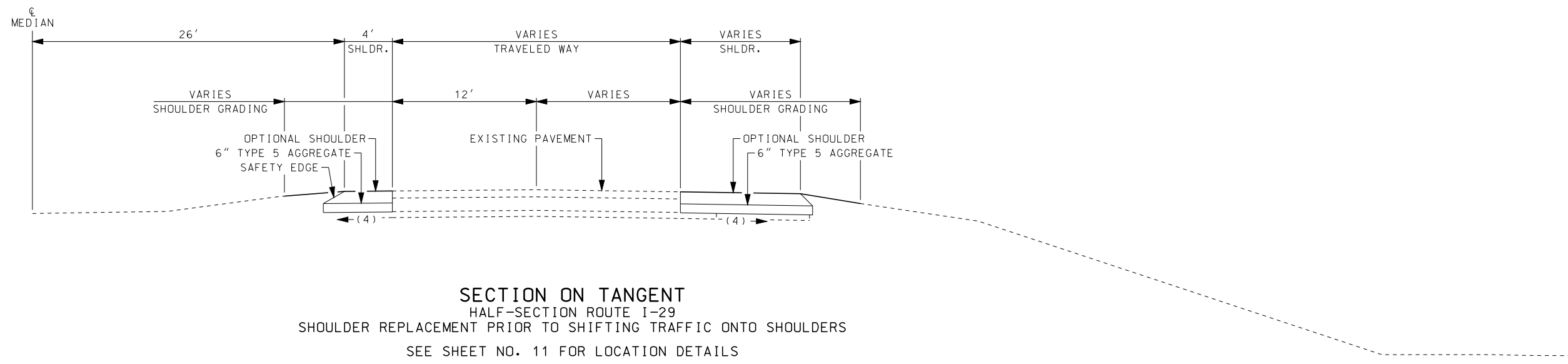
 105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-278-6636)

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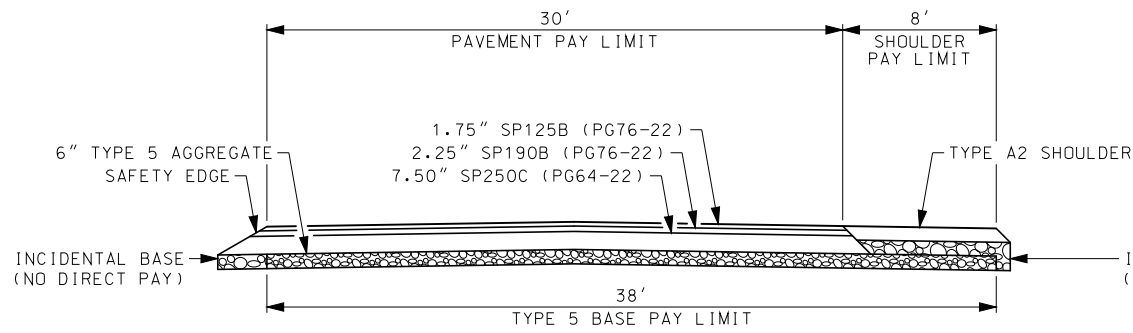


SECTION ON TANGENT
 HALF-SECTION ROUTE I-29
 GUARDRAIL PAD CONSTRUCTION
 SEE SHEET NO. 10 FOR LOCATION DETAILS

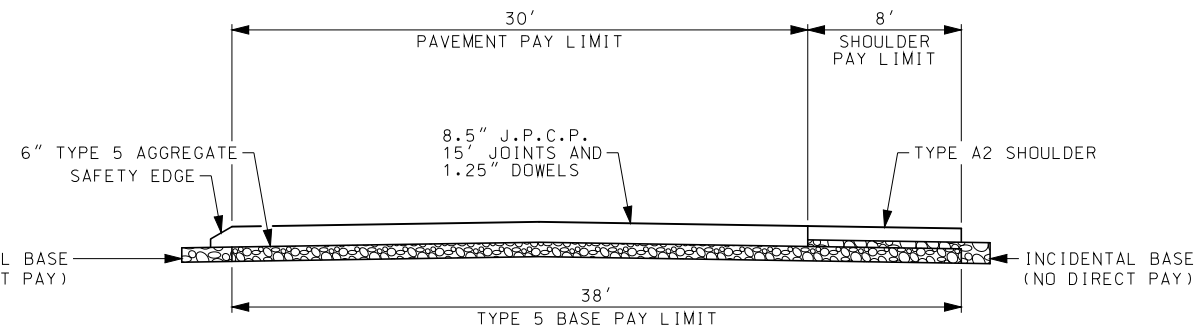
- NOTES:
- (1) MATCH SHOULDER SLOPE
 - (2) ESTIMATED CROSS SECTION AREA OF 5.37 SQ. FT. WHEN CONSTRUCTED ADJACENT TO INSIDE SHOULDER.
 - (3) ESTIMATED CROSS SECTION AREA OF 6.46 SQ. FT. WHEN CONSTRUCTED ADJACENT TO OUTSIDE SHOULDER.
 - (4) MATCH EXISTING SLOPE



SECTION ON TANGENT
 HALF-SECTION ROUTE I-29
 SHOULDER REPLACEMENT PRIOR TO SHIFTING TRAFFIC ONTO SHOULDERS
 SEE SHEET NO. 11 FOR LOCATION DETAILS

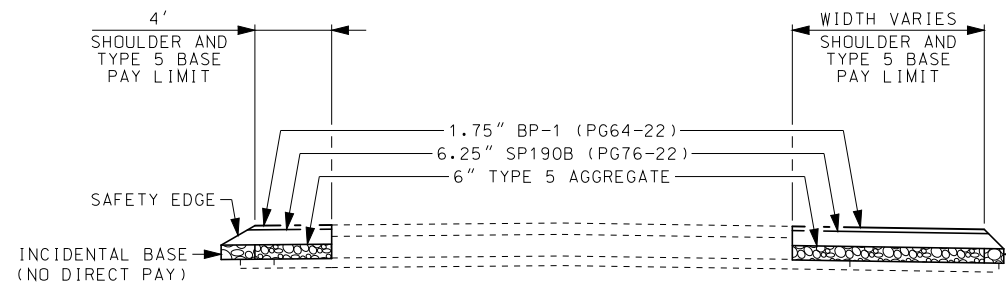


HOT-MIX ASPHALT DESIGN

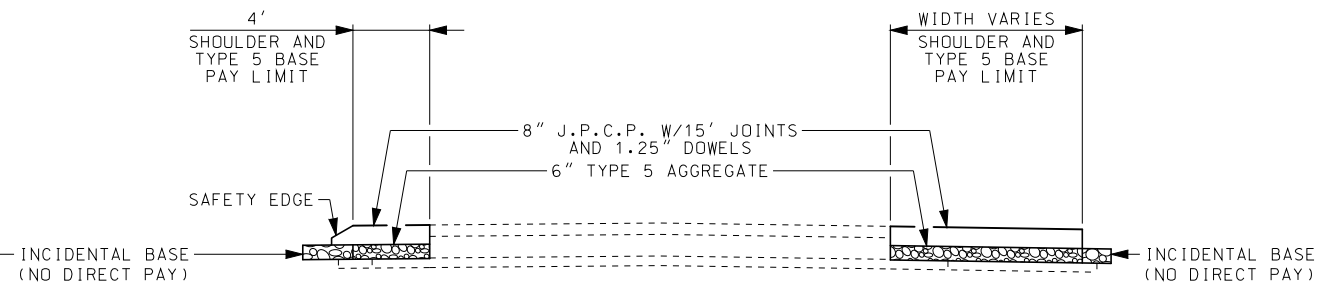


P.C.C.P. DESIGN

OPTIONAL PAVEMENTS
ALTERNATE B

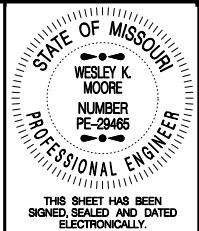


HOT-MIX ASPHALT DESIGN



P.C.C.P. DESIGN

OPTIONAL SHOULDERS
ALTERNATES A AND B



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ELECTRONICALLY.

DATE PREPARED
3/28/2017

ROUTE I-29 STATE MO

DISTRICT NW SHEET NO. 2

COUNTY HOLT

JOB NO. J1P3023C

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

DATE	DESCRIPTION

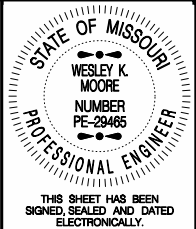
MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/28/2017

ROUTE STATE
I-29 MO
DISTRICT SHEET NO.
NW 3

COUNTY
HOLT
JOB NO.
J1P3023C

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

REMOVAL OF IMPROVEMENTS				
STATION	LOCATION	STATION	LOCATION	DESCRIPTION
784+45.00	S.B.L. OUTSIDE	786+94.50	S.B.L. OUTSIDE	262.9 S.Y. EXISTING SHOULDER
785+10.69	S.B.L. INSIDE	789+94.50	S.B.L. INSIDE	484 L.F. GUARDRAIL, INCLUDES CET, TRANSITION, AND BRIDGE ANCHOR SECTION
785+60.00	N.B.L. OUTSIDE	787+14.50	N.B.L. OUTSIDE	168.7 S.Y. EXISTING SHOULDER
786+61.47	S.B.L. OUTSIDE	789+94.50	S.B.L. OUTSIDE	334 L.F. GUARDRAIL, INCLUDES CET, TRANSITION, AND BRIDGE ANCHOR SECTION
792+18.50	N.B.L. OUTSIDE	795+28.81	N.B.L. OUTSIDE	311 L.F. GUARDRAIL, INCLUDES CET, TRANSITION, AND BRIDGE ANCHOR SECTION
792+18.50	N.B.L. INSIDE	795+29.00	N.B.L. INSIDE	311 L.F. GUARDRAIL, INCLUDES CET, TRANSITION, AND BRIDGE ANCHOR SECTION
793+30.00	S.B.L. OUTSIDE	796+91.90	S.B.L. OUTSIDE	331.7 S.Y. EXISTING SHOULDER
793+30.00	N.B.L. OUTSIDE	796+76.00	N.B.L. OUTSIDE	314.1 S.Y. EXISTING SHOULDER
793+95.88	S.B.L. INSIDE	797+04.32	S.B.L. INSIDE	308 L.F. GUARDRAIL, INCLUDES CET, TRANSITION, AND BRIDGE ANCHOR SECTION
794+05.04	S.B.L. OUTSIDE	797+10.48	S.B.L. OUTSIDE	305 L.F. GUARDRAIL, INCLUDES CET, TRANSITION, AND BRIDGE ANCHOR SECTION
795+15.00	N.B.L. INSIDE	796+76.00	N.B.L. INSIDE	71.6 S.Y. EXISTING SHOULDER
795+25.00	S.B.L. INSIDE	796+91.90	S.B.L. INSIDE	74.2 S.Y. EXISTING SHOULDER
796+74.50	MEDIAN	796+93.55	MEDIAN	84.6 S.Y. PAVED DITCH
796+74.79	N.B.L. INSIDE	796+93.67	N.B.L. INSIDE	DRAIN BASIN
796+76.01	N.B.L.	796+99.89	N.B.L.	98.6 S.Y. BRIDGE APPROACH SLAB (ALTERNATE B ONLY)
796+78.45	N.B.L. INSIDE	796+78.58	N.B.L. INSIDE	8" X 8 L.F. C.M.P.
796+84.25	S.B.L. INSIDE	797+03.06	S.B.L. INSIDE	DRAIN BASIN
796+87.73	S.B.L. INSIDE	796+87.83	S.B.L. INSIDE	8" X 8 L.F. C.M.P.
796+91.88	S.B.L.	797+14.70	S.B.L.	98.6 S.Y. BRIDGE APPROACH SLAB (ALTERNATE B ONLY)
797+06.50	N.B.L. & S.B.L.	797+59.00	N.B.L. & S.B.L.	934.9 S.Y. CONCRETE SLOPE PROTECTION
797+93.05	S.B.L. OUTSIDE	--	--	GATE POST - 169' LT.
797+97.00	N.B.L. & S.B.L.	798+48.10	N.B.L. & S.B.L.	934.5 S.Y. CONCRETE SLOPE PROTECTION
798+25.65	S.B.L. OUTSIDE	--	--	GATE POST - 169' LT.
798+39.91	N.B.L.	798+62.73	N.B.L.	98.6 S.Y. BRIDGE APPROACH SLAB (ALTERNATE B ONLY)
798+44.00	N.B.L. OUTSIDE	801+49.81	N.B.L. OUTSIDE	306 L.F. GUARDRAIL, INCLUDES CET, TRANSITION, AND BRIDGE ANCHOR SECTION
798+49.61	N.B.L. INSIDE	801+55.71	N.B.L. INSIDE	306 L.F. GUARDRAIL, INCLUDES CET, TRANSITION, AND BRIDGE ANCHOR SECTION
798+51.15	N.B.L. INSIDE	798+70.21	N.B.L. INSIDE	DRAIN BASIN
798+54.72	S.B.L.	798+78.60	S.B.L.	98.6 S.Y. BRIDGE APPROACH SLAB (ALTERNATE B ONLY)
798+60.84	S.B.L. INSIDE	798+79.72	S.B.L. INSIDE	DRAIN BASIN
798+62.65	MEDIAN	798+81.60	MEDIAN	84.3 S.Y. PAVED DITCH
798+62.70	N.B.L. OUTSIDE	803+95.00	N.B.L. OUTSIDE	591.4 S.Y. EXISTING SHOULDER (ALTERNATE A ONLY)
798+62.70	N.B.L. OUTSIDE	806+10.00	N.B.L. OUTSIDE	830.3 S.Y. EXISTING SHOULDER (ALTERNATE B ONLY)
798+62.70	N.B.L. INSIDE	801+35.00	N.B.L. INSIDE	121 S.Y. EXISTING SHOULDER
798+66.79	N.B.L. INSIDE	798+66.79	N.B.L. INSIDE	8" X 8 L.F. C.M.P.
798+76.19	S.B.L. INSIDE	798+76.20	S.B.L. INSIDE	8" X 8 L.F. C.M.P.
798+78.60	S.B.L. OUTSIDE	802+35.00	S.B.L. OUTSIDE	396 S.Y. EXISTING SHOULDER
798+78.60	S.B.L. INSIDE	800+25.00	S.B.L. INSIDE	65.1 S.Y. EXISTING SHOULDER
798+90.12	N.B.L. OUTSIDE	--	--	MILE MARKER SIGN - REMOVE AS NEEDED AND RESET AFTER CONSTRUCTION
799+58.41	N.B.L. OUTSIDE	--	--	CITY LIMIT SIGN - REMOVE AS NEEDED AND RESET AFTER CONSTRUCTION
1 LUMP SUM				

SEEDING				
STATION	STATION	LOCATION	SEEDING COOL SEASON MIXTURES (ACRE)	REMARKS
784+45.00	785+90.70	S.B.L. OUTSIDE	0.03	ADJACENT TO NEW SHDR.; EST. 10' WIDE
793+30.00	796+07.50	S.B.L. OUTSIDE	0.06	ADJACENT TO NEW SHDR.; EST. 10' WIDE
796+07.50	799+50.00	S.B.L. OUTSIDE	0.75	
799+50.00	802+35.00	S.B.L. OUTSIDE	0.07	ADJACENT TO NEW SHDR.; EST. 10' WIDE
795+25.00	796+07.50	S.B.L. INSIDE	0.02	ADJACENT TO NEW SHDR.; EST. 10' WIDE
799+50.00	800+25.00	S.B.L. INSIDE	0.02	ADJACENT TO NEW SHDR.; EST. 10' WIDE
796+07.50	799+50.00	MEDIAN	0.41	
795+15.00	796+07.50	N.B.L. INSIDE	0.02	ADJACENT TO NEW SHDR.; EST. 10' WIDE
799+50.00	801+35.00	N.B.L. INSIDE	0.04	ADJACENT TO NEW SHDR.; EST. 10' WIDE
785+60.00	786+59.66	N.B.L. OUTSIDE	0.02	ADJACENT TO NEW SHDR.; EST. 10' WIDE
793+30.00	796+07.50	N.B.L. OUTSIDE	0.06	ADJACENT TO NEW SHDR.; EST. 10' WIDE
796+07.50	799+50.00	N.B.L. OUTSIDE	0.86	
799+50.00	806+10.00	N.B.L. OUTSIDE	0.15	ADJACENT TO NEW SHDR.; EST. 10' WIDE
TOTAL			2.51	
PAY TOTAL			2.5	

TEMPORARY EROSION CONTROL						
STATION	STATION	LOCATION	ROCK DITCH CHECK (LIN. FT.)	SEDIMENT REMOVAL (CU. YD.)	SILT FENCE (LIN. FT.)	REMARKS
796+02.50	799+55.00	S.B.L. OUTSIDE		10.8	1080.9	THREE ROWS @ 360.3 L.F. EACH
796+02.50	799+55.00	N.B.L. OUTSIDE		10.8	1077.3	THREE ROWS @ 359.1 L.F. EACH
796+07.50	--	MEDIAN	49.9	1.0		
796+07.50	--	N.B.L. OUTSIDE	28.2	1.0		ESTIMATED 6" EFFECTIVE HEIGHT, 12" TOTAL HEIGHT
799+50.00	--	MEDIAN	50.5	1.0		
799+50.00	--	N.B.L. OUTSIDE	15.6	1.0		ESTIMATED 9" EFFECTIVE HEIGHT, 15" TOTAL HEIGHT
TOTALS			144.2	25.6	2158.2	
PAY TOTALS			144	26	2158	

FENCING				
STATION	LOCATION	STATION	LOCATION	WOVEN WIRE FENCE (LIN. FT.)
795+91.75	185' LT.	798+97.03	184' LT.	305.3
797+57.02	169' RT.	798+58.68	169' RT.	101.7
TOTAL				407.0
PAY TOTAL				407

WATER POLLUTION CONTROL MANAGER	
(WEEKS)	REMARKS
42	BASED ON N.T.P. OF 7/10/17 THROUGH 5/01/18

GUARDRAIL					
STATION	STATION	LOCATION	MGS GUARDRAIL (LIN. FT.)	MGS BRIDGE APPROACH TRANSITION SECTION (REGULAR / NO CURB) (EACH)	TYPE A CRASHWORTHY END TERMINAL (MASH) (EACH)
786+43.78	789+94.50	S.B.L. OUTSIDE	262.5	1	1
786+67.61	789+94.50	S.B.L. INSIDE	237.5	1	1
792+18.50	795+07.70	N.B.L. OUTSIDE	200.0	1	1
792+18.50	795+45.39	N.B.L. INSIDE	237.5	1	1
TOTALS			937.5	4	4
PAY TOTALS			938	4	4

SHAPING SLOPES				
STATION	STATION	LOCATION	SHAPING SLOPES CLASS III (100 FT.)	REMARKS
786+15.6	789+92.0	N.B.L. OUTSIDE	3.8	GUARDRAIL GRADING - EST. 88 C.Y.
786+39.9	789+92.0	N.B.L. INSIDE	3.5	GUARDRAIL GRADING - EST. 68 C.Y.
792+21.0	795+35.4	S.B.L. OUTSIDE	3.1	GUARDRAIL GRADING - EST. 73 C.Y.
792+21.0	795+73.1	S.B.L. INSIDE	3.5	GUARDRAIL GRADING - EST. 68 C.Y.
TOTAL			13.9	
PAY TOTAL			14	

CLEARING AND GRUBBING				
STATION	STATION	LOCATION	CLEARING AND GRUBBING (ACRE)	REMARKS
796+07.50	797+97.34	S.B.L. OUTSIDE	0.4	BEGIN TO RAILBED
797+97.70	799+50.00	S.B.L. OUTSIDE	0.3	RAILBED TO END
796+07.50	797+62.55	N.B.L. OUTSIDE	0.4	BEGIN TO RAILBED
797+61.31	799+50.00	N.B.L. OUTSIDE	0.5	RAILBED TO END
TOTAL			1.6	
PAY TOTAL			2	

MOBILIZATION
1 LUMP SUM

ADDITIONAL MOBILIZATION FOR SEEDING
4 EACH

DESCRIPTION	DATE

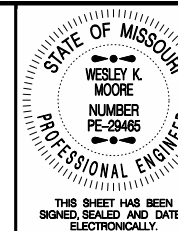
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES



DATE PREPARED
3/28/2017

ROUTE I-29 STATE MO
DISTRICT NW SHEET NO. 3

COUNTY HOLT

JOB NO. J1P3023C

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

PAVING

STATION	STATION	LOCATION	LENGTH (FT.)	ASPHALTIC CONCRETE MIX. PG76-22 (SP125B)					ASPHALTIC CONCRETE MIX. PG76-22 (SP190B)					TACK COAT				REMARKS	
				AVERAGE WIDTH (FT.)	AVERAGE THICKNESS (IN.)	VOLUME (CU. YD.)	ESTIMATE FACTOR (T/CY)	(TONS)	AVERAGE WIDTH (FT.)	AVERAGE THICKNESS (IN.)	VOLUME (CU. YD.)	ESTIMATE FACTOR (T/CY)	(TONS)	AVERAGE WIDTH (FT.)	AREA (SQ. YD.)	ESTIMATE FACTOR (G/SY)	(GAL.)		
789+52.00	790+02.00	S.B.L.	50.00	46.2039	1.750	12.48	1.98	24.71							46.4077	257.82	0.10	25.8	
792+11.00	792+90.56	S.B.L.	79.56	46.2039	1.750	19.85	1.98	39.30							46.4077	410.24	0.10	41.0	
792+90.56	793+36.00	S.B.L.	45.44	45.1135	1.750	11.07	1.98	21.92							45.3174	228.80	0.10	22.9	WIDTH TRANSITION 46' TO 43.82'
793+36.00	794+57.23	S.B.L.	121.23	41.1134	1.750	26.92	1.98	53.30							41.3173	556.54	0.08	44.5	WIDTH TRANSITION 43.82' TO 38'
794+57.23	794+66.88	S.B.L.	9.65	38.2039	1.750	1.99	1.98	3.94							38.4077	41.18	0.08	3.3	
794+66.88	796+91.88	S.B.L.	225.00	38.2039	1.750	46.43	1.98	91.93	38.5388	1.125	30.11	1.99	59.92	38.6699	966.75	0.13	125.7	SP190 VARIES 0" TO 2.25" THICK	
796+91.88	798+78.60	S.B.L.	186.72	38.2039	1.750	38.53	1.98	76.29	38.6699	2.250	50.14	1.99	99.78	38.9320	807.71	0.15	121.2		
798+78.60	801+03.60	S.B.L.	225.00	38.2039	1.750	46.43	1.98	91.93	38.5388	1.125	30.11	1.99	59.92	38.6699	966.75	0.13	125.7	SP190 VARIES 2.25" TO 0" THICK	
801+03.60	802+78.60	S.B.L.	175.00	38.2039	1.750	36.11	1.98	71.50						38.4077	746.82	0.10	74.7		
789+52.00	790+02.00	N.B.L.	50.00	46.2039	1.750	12.48	1.98	24.71						46.4077	257.82	0.10	25.8		
792+11.00	792+90.56	N.B.L.	79.56	46.2039	1.750	19.85	1.98	39.30						46.4077	410.24	0.10	41.0		
792+90.56	793+36.00	N.B.L.	45.44	45.1135	1.750	11.07	1.98	21.92						45.3147	228.79	0.10	22.9	WIDTH TRANSITION 46' TO 43.82'	
793+36.00	794+51.01	N.B.L.	115.01	41.2627	1.750	25.63	1.98	50.75						41.4666	529.90	0.08	42.4	WIDTH TRANSITION 43.82' TO 38.30'	
794+51.01	794+57.23	N.B.L.	6.22	38.3532	1.750	1.29	1.98	2.55	38.5607	0.031	0.02	1.99	0.04	38.5643	26.65	0.13	3.5	WIDTH TRANSITION 38.30' TO 38' SP190 VARIES 0" TO 0.06" THICK	
794+57.23	796+76.01	N.B.L.	218.78	38.2039	1.750	45.14	1.98	89.38	38.5424	1.156	30.09	1.99	59.88	38.6771	940.20	0.13	122.2	SP190 VARIES 0.06" TO 2.25" THICK	
796+76.01	798+62.73	N.B.L.	186.72	38.2039	1.750	38.53	1.98	76.29	38.6699	2.250	50.14	1.99	99.78	38.9320	807.71	0.15	121.2		
798+62.73	800+87.73	N.B.L.	225.00	38.2039	1.750	46.43	1.98	91.93	38.5388	1.125	30.11	1.99	59.92	38.6699	966.75	0.13	125.7	SP190 VARIES 2.25" TO 0" THICK	
800+87.73	802+62.73	N.B.L.	175.00	38.2039	1.750	36.11	1.98	71.50						38.4077	746.82	0.10	74.7		
TOTALS								943.15					439.24					1164.2	
PAY TOTALS								943.2					439.2					1160	

GRAVEL (A) OR CRUSHED STONE (B)

STATION	STATION	LOCATION	LENGTH (FT.)	AVERAGE RESURFACING THICKNESS (IN.)	ESTIMATED CROSS-SECTION AREA (SQ. FT.)	VOLUME (CU. YD.)	ESTIMATE FACTOR (T/CY)	GRAVEL (A) OR CRUSHED STONE (B) (TONS)	REMARKS
792+21.00	794+66.88	S.B.L. OUTSIDE	245.88	1.75	0.23	2.09	2.10	4.4	SHLDR. DROP-OFF
794+66.88	796+07.50	S.B.L. OUTSIDE	140.82	2.45	0.27	1.41	2.10	3.0	SHLDR. DROP-OFF, TO BEGIN GRADING
799+50.00	801+03.60	S.B.L. OUTSIDE	153.60	2.52	0.28	1.59	2.10	3.3	SHLDR. DROP-OFF, FROM END GRADING
801+03.60	802+78.60	S.B.L. OUTSIDE	175.00	1.75	0.23	1.49	2.10	3.1	SHLDR. DROP-OFF
792+21.00	794+66.88	S.B.L. INSIDE	245.88	1.75	0.23	2.09	2.10	4.4	SHLDR. DROP-OFF
794+66.88	796+07.50	S.B.L. INSIDE	140.82	2.45	0.27	1.41	2.10	3.0	SHLDR. DROP-OFF, TO BEGIN GRADING
799+50.00	801+03.60	S.B.L. INSIDE	153.60	2.52	0.28	1.59	2.10	3.3	SHLDR. DROP-OFF, FROM END GRADING
801+03.60	802+78.60	S.B.L. INSIDE	175.00	1.75	0.23	1.49	2.10	3.1	SHLDR. DROP-OFF
789+52.00	789+92.00	N.B.L. OUTSIDE	40.00	1.75	0.23	0.34	2.10	0.7	SHLDR. DROP-OFF
795+35.40	796+07.50	N.B.L. OUTSIDE	72.10	2.95	0.30	0.80	2.10	1.7	SHLDR. DROP-OFF, TO BEGIN GRADING
799+50.00	800+87.73	N.B.L. OUTSIDE	137.73	2.44	0.27	1.38	2.10	2.9	SHLDR. DROP-OFF, FROM END GRADING
800+87.73	802+62.73	N.B.L. OUTSIDE	175.00	1.75	0.23	1.49	2.10	3.1	SHLDR. DROP-OFF
789+52.00	789+92.00	N.B.L. INSIDE	40.00	1.75	0.23	0.34	2.10	0.7	SHLDR. DROP-OFF
795+73.10	796+07.50	N.B.L. INSIDE	34.40	3.14	0.30	0.38	2.10	0.8	SHLDR. DROP-OFF, TO BEGIN GRADING
799+50.00	800+87.73	N.B.L. INSIDE	137.73	2.44	0.27	1.38	2.10	2.9	SHLDR. DROP-OFF, FROM END GRADING
800+87.73	802+62.73	N.B.L. INSIDE	175.00	1.75	0.23	1.49	2.10	3.1	SHLDR. DROP-OFF
TOTAL								43.5	
PAY TOTAL								44	

MODIFIED COLDMILLING

STATION	STATION	LOC.	LENGTH (FT.)	AVERAGE WIDTH (FT.)	MODIFIED COLDMILLING DEPTH TRANSITION (SQ. YD.)	REMARKS
789+52.00	790+02.00	S.B.L.	50.00	46.00	255.6	1.75" TO 1.25"
792+11.00	792+90.56	S.B.L.	79.56	46.00	406.6	1.25" TO 0.45"
792+90.56	793+36.00	S.B.L.	45.44	44.91	226.7	0.45" TO 0.00"
801+03.60	802+78.60	S.B.L.	175.00	38.00	738.9	0.00" TO 1.75"
789+52.00	790+02.00	N.B.L.	50.00	46.00	255.6	1.75" TO 1.25"
792+11.00	792+90.56	N.B.L.	79.56	46.00	406.6	1.25" TO 0.45"
792+90.56	793+36.00	N.B.L.	45.44	44.91	226.7	0.45" TO 0.00"
800+87.73	802+62.73	N.B.L.	175.00	38.00	738.9	0.00" TO 1.75"
TOTAL					3255.6	
PAY TOTAL					3256	

TEMPORARY TRAFFIC BARRIER

STATION	STATION	LOCATION	TEMPORARY TRAFFIC BARRIER, CONTRACTOR FURNISHED, RETAINED (LIN. FT.)	REMARKS
787+69.21	789+72.31	S.B.L. - STAGE 1	205	8:1 TAPER
789+72.31	798+81.10	S.B.L. - STAGE 1	909	
789+80.84	798+64.04	N.B.L. - STAGE 1	883	
798+64.04	800+67.14	N.B.L. - STAGE 1	205	8:1 TAPER
PAY TOTAL			2202	

NOTE: QUANTITY OF "RELOCATING TEMPORARY TRAFFIC BARRIER" (FOR USE IN STAGE 2) SHOWN ON SUMMARY SHEET 6 OF 6.

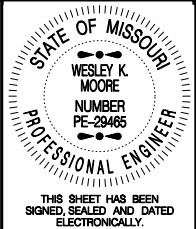
CURB REMOVAL

STATION	STATION	LOCATION	CURB REMOVAL (LIN. FT.)	REMARKS
796+88.01	798+44.03	N.B.L. OUTSIDE	156.02	A1768 NB, REMOVE EXISTING END POSTS, CURB, PARAPET AND BRIDGE RAILS
796+94.71	798+50.73	N.B.L. INSIDE	156.02	A1768 NB, REMOVE EXISTING END POSTS, CURB, PARAPET AND BRIDGE RAILS
797+03.88	798+59.90	S.B.L. INSIDE	156.02	A1768 SB, REMOVE EXISTING END POSTS, CURB, PARAPET AND BRIDGE RAILS
797+10.58	798+66.60	S.B.L. OUTSIDE	156.02	A1768 SB, REMOVE EXISTING END POSTS, CURB, PARAPET AND BRIDGE RAILS
TOTAL			624.08	
PAY TOTAL			624	

ALTERNATE A ITEMS

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/28/2017

ROUTE STATE
I-29 MO

DISTRICT SHEET NO.
NW 3

COUNTY
HOLT

JOB NO.
J1P3023C

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE

DESCRIPTION

DATE

DESCRIPTION

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PAVING																			
STATION	STATION	LOCATION	LENGTH (FT.)	TYPE 5 AGGREGATE FOR BASE		TYPE A2 SHOULDER		OPTIONAL PAVEMENT		ASPHALTIC CONCRETE MIX. PG76-22 (SP125B)				TACK COAT					
				WIDTH (FT.)	6 IN. THICK (SQ. YD.)	WIDTH (FT.)	(SQ. YD.)	WIDTH (FT.)	(SQ. YD.)	AVERAGE WIDTH (FT.)	AVERAGE THICKNESS (IN.)	VOLUME (CU. YD.)	ESTIMATE FACTOR (T/CY)	(TONS)	AVERAGE WIDTH (FT.)	AREA (SQ. YD.)	ESTIMATE FACTOR (G/SY)	(GAL.)	
789+52.00	790+02.00	S.B.L.	50.00							46.2039	1.75	12.48	1.98	24.71	46.4078	257.82	0.10	25.8	
792+11.00	792+61.00	S.B.L.	50.00							46.2039	1.75	12.48	1.98	24.71	46.4078	257.82	0.10	25.8	
796+91.88	798+78.60	S.B.L.	186.72	38.00	788.4	8.00	165.97	30.00	622.40										
789+52.00	790+02.00	N.B.L.	50.00							46.2039	1.75	12.48	1.98	24.71	46.4078	257.82	0.10	25.8	
792+11.00	792+61.00	N.B.L.	50.00							46.2039	1.75	12.48	1.98	24.71	46.4078	257.82	0.10	25.8	
796+76.01	798+62.73	N.B.L.	186.72	38.00	788.4	8.00	165.97	30.00	622.40										
TOTALS					1576.8		331.94		1244.80					98.84					103.2
PAY TOTALS					1577		331.9		1244.8					98.8					100

EARTHWORK					
STATION	STATION	STAGE	CLASS A EXCAVATION (CU. YD.)	EMBANKMENT IN PLACE (CU. YD.)	COMPACTING EMBANKMENT (CU. YD.)
796+07.50	799+50.00	1	196	9303	151
796+07.50	799+50.00	2	253	13328	195
TOTALS			449	22631	346
ROUNDING			32		
PAY TOTALS			481	22631	346

MODIFIED COLDMILLING						
STATION	STATION	LOCATION	LENGTH (FT.)	AVERAGE WIDTH (FT.)	MODIFIED COLDMILLING DEPTH TRANSITION (SQ. YD.)	REMARKS
789+52.00	790+02.00	S.B.L.	50.00	46.00	255.6	1.75" TO 1.25"
792+11.00	792+61.00	S.B.L.	50.00	46.00	255.6	1.25" TO 1.75"
789+52.00	790+02.00	N.B.L.	50.00	46.00	255.6	1.75" TO 1.25"
792+11.00	792+61.00	N.B.L.	50.00	46.00	255.6	1.25" TO 1.75"
TOTAL					1022.4	
PAY TOTAL					1022	

RUMBLE STRIPS			
STATION	STATION	LOCATION	OPTIONAL SHOULDER RUMBLE STRIP (STA.)
784+45.00	786+94.50	S.B.L. OUTSIDE	2.50
794+98.80	802+35.00	S.B.L. OUTSIDE	7.36
789+52.00	790+02.00	S.B.L. INSIDE	0.50
792+11.00	792+61.00	S.B.L. INSIDE	0.50
795+25.00	800+25.00	S.B.L. INSIDE	5.00
785+60.00	787+14.50	N.B.L. OUTSIDE	1.55
794+98.80	806+10.00	N.B.L. OUTSIDE	11.11
789+52.00	790+02.00	N.B.L. INSIDE	0.50
792+11.00	792+61.00	N.B.L. INSIDE	0.50
795+15.00	801+35.00	N.B.L. INSIDE	6.20
TOTAL			35.72
PAY TOTAL			35.7

CUT COMPACTION			
STATION	STATION	LOCATION	COMPACTING IN CUT (STA.)
796+76.01	797+02.71	N.B.L.	0.27
796+91.88	797+18.58	S.B.L.	0.27
798+36.03	798+62.73	N.B.L.	0.27
798+51.90	798+78.60	S.B.L.	0.27
TOTAL			1.08
PAY TOTAL			1.1

REMOVAL OF BRIDGES		
STRUCTURE	OVER	REMARKS
A1768 NB	ABANDONED RAILROAD	STAGED REMOVAL OF DECK AND SUPERSTRUCTURE, SUBSTRUCTURE TO REMAIN IN PLACE
A1768 SB	ABANDONED RAILROAD	STAGED REMOVAL OF DECK AND SUPERSTRUCTURE, SUBSTRUCTURE TO REMAIN IN PLACE
1 LUMP SUM		

SHOULDER CONSTRUCTION							
STATION	STATION	LOCATION	LENGTH (FT.)	WIDTH (FT.)	SHOULDER GRADING (100 FT.)	TYPE 5 AGGREGATE FOR BASE (6 IN.) (SQ. YD.)	OPTIONAL SHOULDER (SQ. YD.)
784+45.0	786+94.5	S.B.L. OUTSIDE	249.5	VARIES	2.5	262.9	262.9
793+30.0	796+91.9	S.B.L. OUTSIDE	361.9	VARIES	3.6	331.7	331.7
795+25.0	796+91.9	S.B.L. INSIDE	166.9	4	1.7	74.2	74.2
798+78.6	802+35.0	S.B.L. OUTSIDE	356.4	10	3.6	396.0	396.0
798+78.6	800+25.0	S.B.L. INSIDE	146.4	4	1.5	65.1	65.1
785+60.0	787+14.5	N.B.L. OUTSIDE	154.5	VARIES	1.5	168.7	168.7
793+30.0	796+76.0	N.B.L. OUTSIDE	346.0	VARIES	3.5	314.1	314.1
795+15.0	796+76.0	N.B.L. INSIDE	161.0	4	1.6	71.6	71.6
798+62.7	806+10.0	N.B.L. OUTSIDE	747.3	10	7.5	830.3	830.3
798+62.7	801+35.0	N.B.L. INSIDE	272.3	4	2.7	121.0	121.0
TOTALS					29.7	2635.6	2635.6
PAY TOTALS					30	2636	2635.6

GRAVEL A OR CRUSHED STONE (B)									
STATION	STATION	LOCATION	LENGTH (FT.)	AVERAGE RESURFACING THICKNESS (IN.)	ESTIMATED CROSS-SECTION AREA (SQ. FT.)	VOLUME (CU. YD.)	ESTIMATE FACTOR (T/CY)	GRAVEL (A) OR CRUSHED STONE (B) (TONS)	REMARKS
792+21.00	792+61.00	S.B.L. OUTSIDE	40.0	1.75	0.23	0.34	2.10	0.7	SHLDR. DROP-OFF
792+21.00	792+61.00	S.B.L. INSIDE	40.0	1.75	0.23	0.34	2.10	0.7	SHLDR. DROP-OFF
789+52.00	789+92.00	N.B.L. OUTSIDE	40.0	1.75	0.23	0.34	2.10	0.7	SHLDR. DROP-OFF
789+52.00	789+92.00	N.B.L. INSIDE	40.0	1.75	0.23	0.34	2.10	0.7	SHLDR. DROP-OFF
TOTAL								2.8	
PAY TOTAL								3	

ALTERNATE B ITEMS

SUMMARY OF QUANTITIES
SHEET 4 OF 6

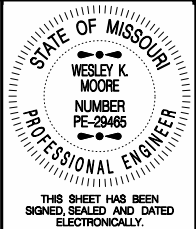
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/28/2017

ROUTE STATE
I-29 MO
DISTRICT SHEET NO.
NW 3

COUNTY
HOLT

JOB NO.
J1P3023C

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

TEMPORARY PAVEMENT MARKING					
STATION	STATION	LOCATION	PREFORMED REMOVABLE MARKING TAPE		REMARKS
			4 IN. WHITE (LIN. FT.)	4 IN. YELLOW (LIN. FT.)	
771+16.25	800+64.44	S.B.L. - STAGE 1		2949.7	INSIDE EDGE LINE
784+46.25	788+66.25	S.B.L. - STAGE 1	420.2		OUTSIDE EDGE LINE
793+32.09	802+31.10	S.B.L. - STAGE 1	899.2		OUTSIDE EDGE LINE
785+60.84	787+36.96	N.B.L. - STAGE 1	176.2		OUTSIDE EDGE LINE
786+90.97	787+36.96	RAMP 3 - STAGE 1		47.0	INSIDE EDGE LINE
787+36.96	789+80.84	N.B.L. - STAGE 1	61.0		OUTSIDE EDGE LINE DOTTED
787+97.51	819+51.79	N.B.L. - STAGE 1		3143.5	INSIDE EDGE LINE
793+32.09	806+07.73	N.B.L. - STAGE 1	1275.8		OUTSIDE EDGE LINE
771+16.25	772+01.83	S.B.L. - STAGE 2	20.0		INTERMITTENT LANE LINE
772+01.83	802+31.10	S.B.L. - STAGE 2	3030.4		OUTSIDE EDGE LINE
789+32.00	792+81.00	S.B.L. - STAGE 2		349.0	INSIDE EDGE LINE
795+26.37	800+24.62	S.B.L. - STAGE 2		498.4	INSIDE EDGE LINE
800+17.96	800+64.44	S.B.L. - STAGE 2	20.0		INTERMITTENT LANE LINE
784+80.90	787+80.90	N.B.L. - STAGE 2	300.7		OUTSIDE EDGE LINE
786+90.97	787+80.90	RAMP 3 - STAGE 2		94.8	INSIDE EDGE LINE
786+94.66	789+80.90	RAMP 3 - STAGE 2	289.7		OUTSIDE EDGE LINE
789+32.00	792+81.00	N.B.L. - STAGE 2		349.0	INSIDE EDGE LINE
789+80.90	816+82.20	N.B.L. - STAGE 2	2689.7		OUTSIDE EDGE LINE
795+18.44	801+32.10	N.B.L. - STAGE 2		613.8	INSIDE EDGE LINE
816+82.20	819+51.79	N.B.L. - STAGE 2	70.0		INTERMITTENT LANE LINE
TOTALS			9252.9	8045.2	
PAY TOTALS			9253	8045	

PERMANENT PAVEMENT MARKING						
STATION	STATION	LOCATION	HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS			REMARKS
			6 IN. WHITE (LIN. FT.)	6 IN. YELLOW (LIN. FT.)	12 IN. WHITE (LIN. FT.)	
769+92.91	771+53.87	S.B.L.			321.9	RAMP 2 GORE MARKINGS
771+53.87	786+12.66	S.B.L.	1458.8			OUTSIDE EDGE LINE
786+12.66	787+62.75	S.B.L.			300.0	RAMP 4 GORE MARKINGS
786+17.72	802+35.00	S.B.L.	1619.1			OUTSIDE EDGE LINE, BEGINS ON RAMP 4
787+62.75	791+30.75	S.B.L.	92.0			INTERMITTENT LANE LINE, ACCELERATION LANE
771+16.25	802+35.00	S.B.L.	779.7			INTERMITTENT LANE LINE
771+16.25	802+35.00	S.B.L.		3118.8		INSIDE EDGE LINE
784+80.90	819+51.79	N.B.L.		3460.8		INSIDE EDGE LINE
784+80.90	819+51.79	N.B.L.	864.2			INTERMITTENT LANE LINE
784+80.90	786+74.69	N.B.L.	193.8			OUTSIDE EDGE LINE
786+74.69	788+32.51	N.B.L.			315.7	RAMP 3 GORE MARKINGS
788+32.51	791+65.63	N.B.L.	83.3			INTERMITTENT LANE LINE, DECELERATION LANE
786+79.98	819+51.79	N.B.L.	3255.8			OUTSIDE EDGE LINE, BEGINS ON RAMP 3
TOTALS			8346.7	6579.6	937.6	
PAY TOTALS			8347	6580	938	

TEMPORARY TRAFFIC BARRIER						
STATION	STATION	LOCATION	TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED / RETAINED			REMARKS
			(LIN. FT.)	ANCHORED (LIN. FT.)	STIFFNESS TRANSITION (LIN. FT.)	
787+69.21	789+72.31	S.B.L. - STAGE 1	205			8:1 TAPER
789+72.31	794+71.59	S.B.L. - STAGE 1	499			
794+71.59	796+89.22	S.B.L. - STAGE 1			218	
796+89.22	798+81.10	S.B.L. - STAGE 1		192		
789+80.84	796+72.01	N.B.L. - STAGE 1	691			
796+72.01	798+64.04	N.B.L. - STAGE 1		192		
798+64.04	800+81.67	N.B.L. - STAGE 1			218	
800+81.67	802+84.77	N.B.L. - STAGE 1	205			8:1 TAPER
PAY TOTALS			1600	384	436	

NOTE: QUANTITY OF "RELOCATING TEMPORARY TRAFFIC BARRIER" (FOR USE IN STAGE 2) SHOWN ON SUMMARY SHEET 6 OF 6.

PAVEMENT MARKING REMOVAL				
STATION	STATION	LOCATION	PAVEMENT MARKING REMOVAL (LIN. FT.)	REMARKS
771+16.25	779+56.25	S.B.L. - STAGE 1	210.0	EXISTING INTERMITTENT LANE LINE
784+46.25	786+12.66	S.B.L. - STAGE 1	166.4	EXISTING OUTSIDE EDGE LINE
786+12.66	787+11.15	S.B.L. - STAGE 1	145.0	PORTION OF EXISTING GORE LINES
787+11.15	788+92.00	S.B.L. - STAGE 1	45.2	EXISTING INTERMITTENT LANE LINE - ACCELERATION LANE
793+32.09	802+31.10	S.B.L. - STAGE 1	899.3	EXISTING OUTSIDE EDGE LINE
799+64.44	800+64.44	S.B.L. - STAGE 1	25.0	EXISTING INTERMITTENT LANE LINE
771+16.25	802+31.10	S.B.L. - STAGE 1	4269.1	REMOVAL OF STAGE 1 TEMPORARY PAVEMENT MARKING
785+60.84	786+74.69	N.B.L. - STAGE 1	113.8	EXISTING OUTSIDE EDGE LINE
786+74.69	787+82.54	N.B.L. - STAGE 1	200.6	PORTION OF EXISTING GORE LINES
787+82.54	792+11.00	N.B.L. - STAGE 1	107.1	EXISTING INTERMITTENT LANE LINE - DECELERATION LANE
787+97.51	788+97.51	N.B.L. - STAGE 1	25.0	EXISTING INTERMITTENT LANE LINE
793+32.09	806+07.73	N.B.L. - STAGE 1	1275.9	EXISTING OUTSIDE EDGE LINE
810+99.29	819+51.79	N.B.L. - STAGE 1	213.1	EXISTING INTERMITTENT LANE LINE
785+60.84	819+51.79	N.B.L. - STAGE 1	4703.5	REMOVAL OF STAGE 1 TEMPORARY PAVEMENT MARKING
779+56.25	780+41.83	S.B.L. - STAGE 2	21.4	EXISTING INTERMITTENT LANE LINE
795+26.37	800+24.62	S.B.L. - STAGE 2	498.2	EXISTING INSIDE EDGE LINE
799+17.96	799+64.44	S.B.L. - STAGE 2	11.6	EXISTING INTERMITTENT LANE LINE
771+16.25	802+31.10	S.B.L. - STAGE 2	3917.8	REMOVAL OF STAGE 2 TEMPORARY PAVEMENT MARKING
784+80.90	785+80.90	N.B.L. - STAGE 2	25.0	EXISTING INTERMITTENT LANE LINE
787+80.90	787+97.51	N.B.L. - STAGE 2	4.2	EXISTING INTERMITTENT LANE LINE
788+97.51	789+80.90	N.B.L. - STAGE 2	20.8	EXISTING INTERMITTENT LANE LINE
795+18.44	801+32.10	N.B.L. - STAGE 2	613.7	EXISTING INSIDE EDGE LINE
808+32.10	810+99.29	N.B.L. - STAGE 2	66.8	EXISTING INTERMITTENT LANE LINE
784+80.90	819+51.79	N.B.L. - STAGE 2	4407.7	REMOVAL OF STAGE 2 TEMPORARY PAVEMENT MARKING
TOTAL			21986.2	
PAY TOTAL			21986	

DESCRIPTION
DATE
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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

SIGN	SIZE (IN.)	AREA (SQ. FT.)	QTY	TOTAL AREA	QTY RELOC	TOTAL RELOC AREA	DESCRIPTION	SIGN	SIZE (IN.)	AREA (SQ. FT.)	QTY	TOTAL AREA	QTY RELOC	TOTAL RELOC AREA	DESCRIPTION	ITEM NUMBER	TOTAL QTY	DESCRIPTION		
WARNING SIGNS																				
WO1-1L	48X48	16.00					TURN (SYMBOL LEFT ARROW)	WO20-4	48X48	16.00					ONE LANE ROAD AHEAD	6122008		IMPACT ATTENUATOR (8 SAND BARRELS)		
WO1-1R	48X48	16.00					TURN (SYMBOL RIGHT ARROW)	WO20-5	48X48	16.00	4	64.0	8	128.0	RT/CENTER/LT LANE CLOSED AHEAD #5(L&R)	6122009		IMPACT ATTENUATOR (9 SAND BARRELS)		
WO1-2L	48X48	16.00					CURVE (SYMBOL LEFT ARROW)	WO20-5a	48X48	16.00					2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD	6122010		IMPACT ATTENUATOR (10 SAND BARRELS)		
WO1-2R	48X48	16.00					CURVE (SYMBOL RIGHT ARROW)	WO20-6a	48X48	16.00	4	64.0	4	64.0	RIGHT/CENTER/LEFT LANE CLOSED #6(L&R)	6122012		IMPACT ATTENUATOR (12 SAND BARRELS)		
WO1-3L	48X48	16.00					REVERSE TURN (SYMBOL LEFT ARROW)	WO20-7a	48X48	16.00					FLAGGER (SYMBOL) WITH FLAGS	6122014		IMPACT ATTENUATOR (14 SAND BARRELS)		
WO1-3R	48X48	16.00					REVERSE TURN (SYMBOL RIGHT ARROW)	WO21-2	36X36	9.00					FRESH OIL	6122017		IMPACT ATTENUATOR (17 SAND BARRELS)		
WO1-4L	48X48	16.00	4	64.0	4	64.0	REVERSE CURVE (SYMBOL LEFT ARROW) #15L	WO21-5	48X48	16.00	4	64.0			SHOULDER WORK AHEAD #21	6122019	2	IMPACT ATTENUATOR (19 SAND BARRELS)		
WO1-4R	48X48	16.00	4	64.0	4	64.0	REVERSE CURVE (SYMBOL RIGHT ARROW) #15R	WO22-1	48X48	16.00					BLASTING ZONE AHEAD	6122020	8	REPLACEMENT SAND BARREL		
WO1-4bL	48X48	16.00					DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT ARROWS)	WO22-2	42X36	10.50					TURN OFF 2-WAY RADIO AND PHONE	6122030	2	IMPACT ATTENUATOR (RELOCATION)		
WO1-4bR	48X48	16.00					DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT ARROWS)	WO22-3	42X36	10.50					END BLASTING ZONE	6123000A	2	TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)		
WO1-4cL	48X48	16.00					TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT ARROWS)	WO22-6e	21X15	2.19	4	8.8			WET PAINT (ARROW PIVOTS)	6161007		SPEED LIMIT AND STROBE LIGHT ASSEMBLY		
WO1-4cR	48X48	16.00					TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT ARROWS)	GUIDE SIGNS										6161008	8	ADVANCED WARNING RAIL SYSTEM
WO1-6	60X30	12.50					HORIZONTAL ARROW (SYMBOL)	SPECIAL	36X36	9.00					FRESH OIL/LOOSE GRAVEL	6161009	8	FLAG ASSEMBLY		
WO1-6a	72X36	18.00					HORIZONTAL ARROW (SYMBOL ON PERMANENT BARRICADE)	E05-1	36X48	12.00	1	12.0			GORE EXIT #49	6161020		CHANNELIZER (DRUM-LIKE)		
WO1-7	60X30	12.50					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)	E05-2	48X36	12.00					EXIT OPEN	6161022		CHANNELIZER (CONES)		
WO1-7a	72X36	18.00					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL ON PERMANENT BARRICADE)	E05-2a	48X36	12.00					EXIT CLOSED	6161024		CHANNELIZER (TRIM LINE) WITH LIGHT		
WO1-8	18X24	3.00					CHEVRON (SYMBOL)	G020-1	60X24	10.00	4	40.0			ROAD WORK NEXT 2 MILES #1	6161025	94	CHANNELIZER (TRIM LINE)		
WO1-8a	30X36	7.50					CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)	G020-2	48X24	8.00	4	32.0			END ROAD WORK #26	6161026		CHANNELIZER (VERTICAL PANEL)		
WO3-1	48X48	16.00					STOP AHEAD (SYMBOL)	G020-4	36X18	4.50					PILOT CAR FOLLOW ME	6161027		CHANNELIZER (VERTICAL PANEL) WITH LIGHT		
WO3-2	48X48	16.00					YIELD AHEAD (SYMBOL)	SPECIAL	42X30	8.75					PLEASE WAIT FOR PILOT CAR	6161028		CHANNELIZER		
WO3-3	48X48	16.00					SIGNAL AHEAD (SYMBOL)	G020-5aP	36X24	6.00	12	72.0	8	48.0	WORK ZONE (PLAQUE) #54	6161030	12	TYPE III MOVEABLE BARRICADE		
WO3-4	48X48	16.00					BE PREPARED TO STOP	MO4-8a	24X18	3.00					END DETOUR	6161031		TYPE III MOVEABLE BARRICADE WITH LIGHT		
WO3-5	48X48	16.00					SPEED LIMIT AHEAD	MO4-9L	48X36	12.00					DETOUR (LEFT ARROW)	6161033		DIRECTION INDICATOR BARRICADE		
WO4-1L	48X48	16.00					MERGE (SYMBOL FROM LEFT)	MO4-9R	48X36	12.00					DETOUR (RIGHT ARROW)	6161034		DIRECTION INDICATOR BARRICADE, WITH LIGHT		
WO4-1aL	48X48	16.00	2	32.0	2	32.0	MERGE (LEFT ARROW AT LANE DROP) #7L	MO4-10L	48X18	6.00	2	12.0			DETOUR (ARROW LEFT) #17L	6161040	2	FLASHING ARROW PANEL		
WO4-1R	48X48	16.00					MERGE (SYMBOL FROM RIGHT)	MO4-10R	48X18	6.00					DETOUR (ARROW RIGHT)	6161047		TYPE III OBJECT MARKER		
WO4-1aR	48X48	16.00	2	32.0	2	32.0	MERGE (RIGHT ARROW AT LANE DROP) #7R	REGULATORY SIGNS										6161051		WARNING LIGHT, TYPE A
WO5-1	48X48	16.00	4	64.0	4	64.0	ROAD/BRIDGE/RAMP NARROWS #8	R1-1	48X48	13.25					STOP	6161052		WARNING LIGHT, TYPE B		
WO5-3	48X48	16.00					ONE LANE BRIDGE	R1-2	48 TRI.	6.93					YIELD	6161053		WARNING LIGHT, TYPE C		
WO5-5	48X48	16.00	4	64.0			NARROW LANES #34	R1-2a	36X36	9.00					TO ONCOMING TRAFFIC (PLAQUE)	6161055	30	SEQUENTIAL FLASHING WARNING LIGHT		
WO6-1	48X48	16.00					DIVIDED HIGHWAY (SYMBOL)	R1-3	20X9	1.25					X-WAY (PLAQUE)	6161070		TUBULAR MARKER		
WO6-2	48X48	16.00					DIVIDED HIGHWAY END (SYMBOL)	R2-1	36X48	12.00	8	96.0	16	192.0	SPEED LIMIT XX 4-#4 60 MPH/4-#25 70 MPH	6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED		
WO6-3	48X48	16.00					TWO WAY TRAFFIC (SYMBOL)	R3-1	48X48	16.00					NO RIGHT TURN (SYMBOL)	6161098A	4	CHANGEABLE MESSAGE SIGN WITHOUT COMMUNICATION INTERFACE, CONTRACTOR FURNISHED/RETAINED		
WO7-3a	30X24	5.00					NEXT XX MILES (PLAQUE)	R3-2	48X48	16.00					NO LEFT TURN (SYMBOL)	6161099		CHANGEABLE MESSAGE SIGN WITH COMMUNICATION INTERFACE, CONTRACTOR FURNISHED/RETAINED		
WO8-1	48X48	16.00					BUMP	R3-3	36X36	9.00					NO TURNS	6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM		
WO8-2	48X48	16.00					DIP	R3-4	48X48	16.00					NO U-TURN (SYMBOL)	6173600D	*	CONTRACTOR FURNISHED/RETAINED TEMPORARY TRAFFIC BARRIER		
WO8-3	48X48	16.00					PAVEMENT ENDS	R3-7L	30X30	6.25					LEFT LANE MUST TURN LEFT	6173700B	**	TEMPORARY TRAFFIC BARRIER ANCHORED, CONTRACTOR FURNISHED/RETAINED		
WO8-4	48X48	16.00					SOFT SHOULDER	R3-7R	30X30	6.25					RIGHT LANE MUST TURN RIGHT	6173706	**	TEMPORARY TRAFFIC BARRIER STIFFNESS TRANS. SECTION, CONTRACTOR FURNISHED/RETAINED		
WO8-5	48X48	16.00					SLIPPERY WHEN WET (SYMBOL)	R4-1	36X48	12.00	4	48.0			DO NOT PASS #46	6175010A	2202	RELOCATING TEMPORARY TRAFFIC BARRIER		
WO8-6	48X48	16.00					TRUCK CROSSING WITH FLAGS	R4-2	36X48	12.00	4	48.0			PASS WITH CARE #46A	6176000B		COMMISSION FURNISHED/RETAINED TEMPORARY TRAFFIC BARRIER		
WO8-6c	48X48	16.00					TRUCK ENTRANCE	R4-7aL	36X48	12.00					KEEP LEFT (HORIZONTAL ARROW)	6177000B		COMMISSION FURNISHED/RETAINED TEMPORARY TRAFFIC BARRIER HEIGHT TRANSITION		
WO8-7	36X36	9.00					LOOSE GRAVEL	R4-7a	36X48	12.00					KEEP RIGHT (HORIZONTAL ARROW)	9019400		TEMPORARY LIGHTING		
WO8-9	48X48	16.00					LOW SHOULDER	R5-1	30X30	6.25					DO NOT ENTER	9029400		TEMPORARY TRAFFIC SIGNALS		
WO8-11	48X48	16.00					UNEVEN LANES	R5-1a	36X24	6.00					WRONG WAY	9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING		
WO8-12	48X48	16.00					NO CENTER LINE	R6-1L	48X18	6.00					ONE WAY ARROW (LEFT)					
W10-1	42 RND.	9.62					RAILROAD CROSSING	R6-1R	48X18	6.00					ONE WAY ARROW (RIGHT)					
WO12-1	24X24	4.00					DOUBLE DOWN ARROW (SYMBOL)	R6-2L	24X30	5.00					ONE WAY (LEFT)					
WO12-2	48X48	16.00					LOW CLEARANCE (SYMBOL)	R6-2R	24X30	5.00					ONE WAY (RIGHT)					
WO12-2x	24X18	3.00					LOW CLEARANCE (PLAQUE)	R10-6	24X36	6.00					STOP HERE ON RED (45° ARROW)					
WO12-2a	84X24	14.00					OVERHEAD LOW CLEARANCE (FEET AND INCHES)	R11-2	48X30	10.00	2	20.0			ROAD CLOSED #29					
WO8-15	48X48	16.00					GROOVED PAVEMENT	R11-3a	60X30	12.50					ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY					
WO8-15p	30X24	5.00					MOTORCYCLE (PLAQUE)	R11-4	60X30	12.50					ROAD CLOSED TO THRU TRAFFIC					
WO8-17	48X48	16.00					SHOULDER DROP-OFF (SYMBOL)	S4-4	36X15	3.75					WHEN FLASHING					
WO8-17p	30X24	5.00					SHOULDER DROP-OFF (PLAQUE)	CONST-3A	60X48	20.00	4	80.0			FINE SIGN #53/53A					
SPECIAL	120X60	50.00					LOW CLEARANCE XX FT XX IN XX MILES AHEAD	CONST-3X	56X12	4.67	4	18.7			SPEEDING/PASSING (PLATE) #53A					
SPECIAL	120X60	50.00	6	300.0			WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD #60 12 FT-2 MI/#61 12 FT-5 MI	MISCELLANEOUS SIGNS												
WO13-1	30X30	6.25					ADVISORY SPEED (PLAQUE)	SPECIAL	96X48	32.00	2	64.0			POINT OF PRESENCE #55					
WO16-2	30X24	5.00					XXX FEET (PLAQUE)	SPECIAL	48X36	12.00	4	48.0			WORK ZONE NO PHONE ZONE #57					
WO16-3	30X24	5.00					X MILE (PLAQUE)	CONST-7-72	72X36	18.00	2	36.0			RATE OUR WORK ZONE #56					
WO20-1	48X48	16.00	4	64.0	8	128.0	ROAD/BRIDGE/RAMP WORK AHEAD #2	DETOUR-1	36X78	19.50	5	97.5			DETOUR SOUTH 29 STRAIGHT #50A					
WO20-2	48X48	16.00	3	48.0			DETOUR AHEAD #18	DETOUR-2	36X78	19.50	2	39.0			DETOUR SOUTH 29 STRAIGHT #50B					
WO20-3	48X48	16.00					ROAD CLOSED AHEAD	DETOUR-3	36X78	19.50	2	39.0			DETOUR SOUTH 29 STRAIGHT #50C					
								616-10.05 CONSTRUCTION SIGNS TOTAL	DETOUR-4	36X78	19.50	2	39.0			DETOUR SOUTH 29 STRAIGHT #50D				
								616-10.10 RELOCATED SIGNS TOTAL	DETOUR-5	36X78	19.50	2	39.0			DETOUR SOUTH 29 STRAIGHT #50E				

SUMMARY OF QUANTITIES
SHEET 6 OF 6

* QUANTITY SHOWN ON SUMMARY SHEETS 2 OF 6 (ALTERNATE A) AND 5 OF 6 (ALTERNATE B)
** QUANTITIES SHOWN ON SUMMARY SHEET 5 OF 6 (ALTERNATE B ONLY)

STATE OF MISSOURI
WESLEY K. MOORE
NUMBER PE-29485
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/28/2017

ROUTE I-29 STATE MO
DISTRICT NW SHEET NO. 3

COUNTY
HOLT

JOB NO.
J1P3023C

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

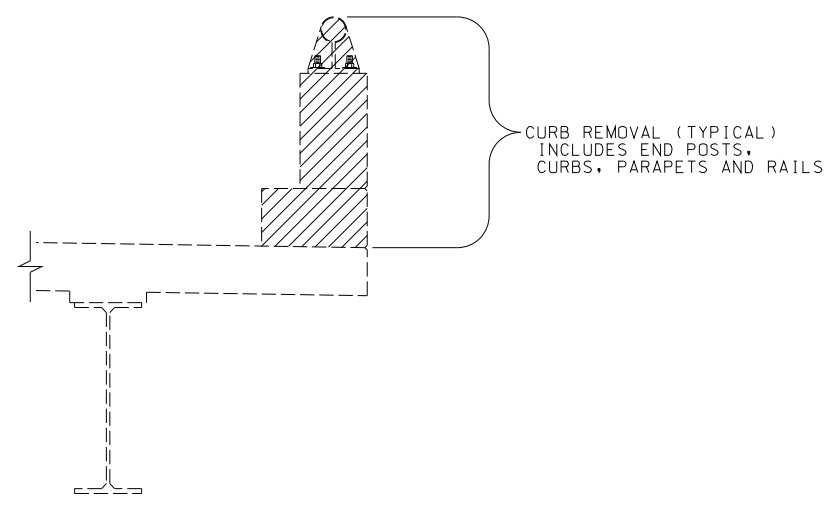
DESCRIPTION

DATE

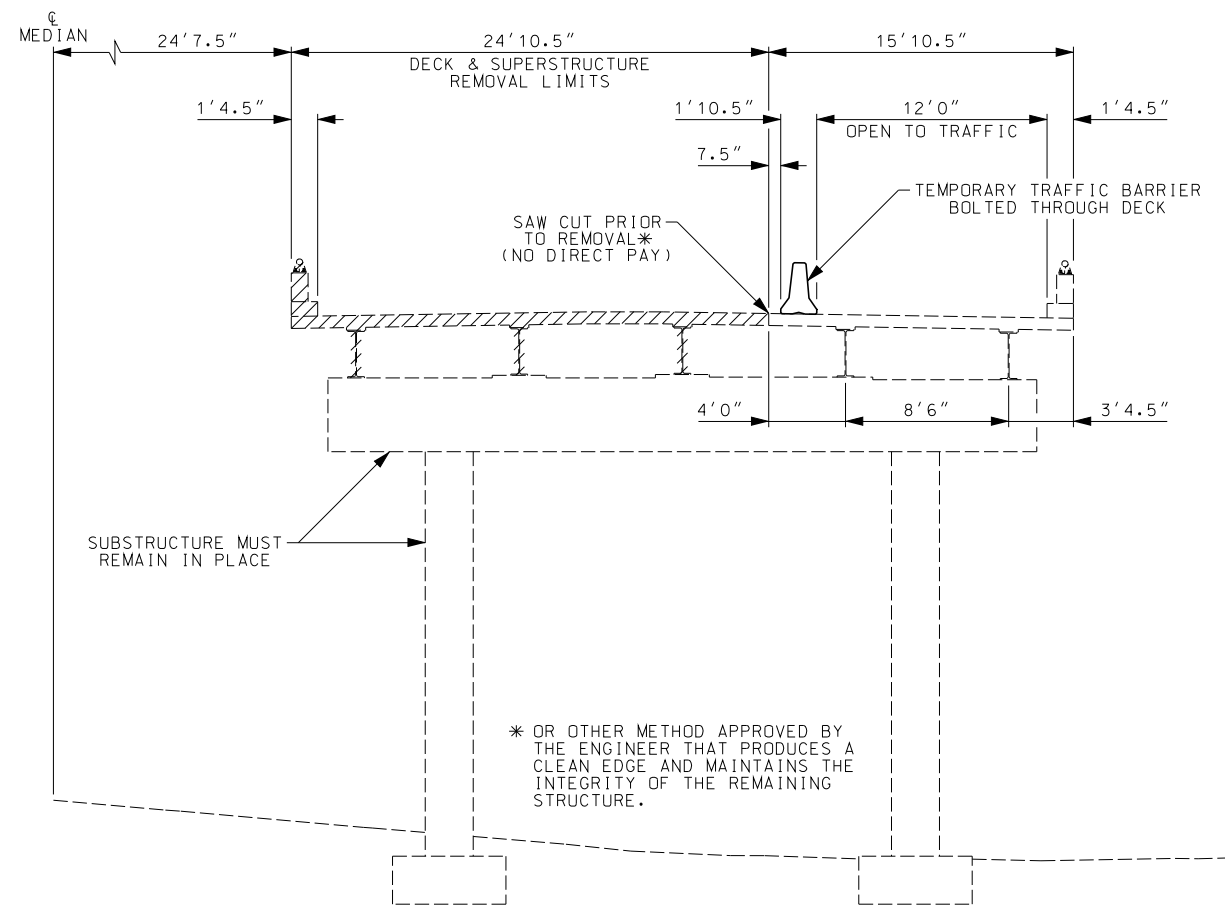
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

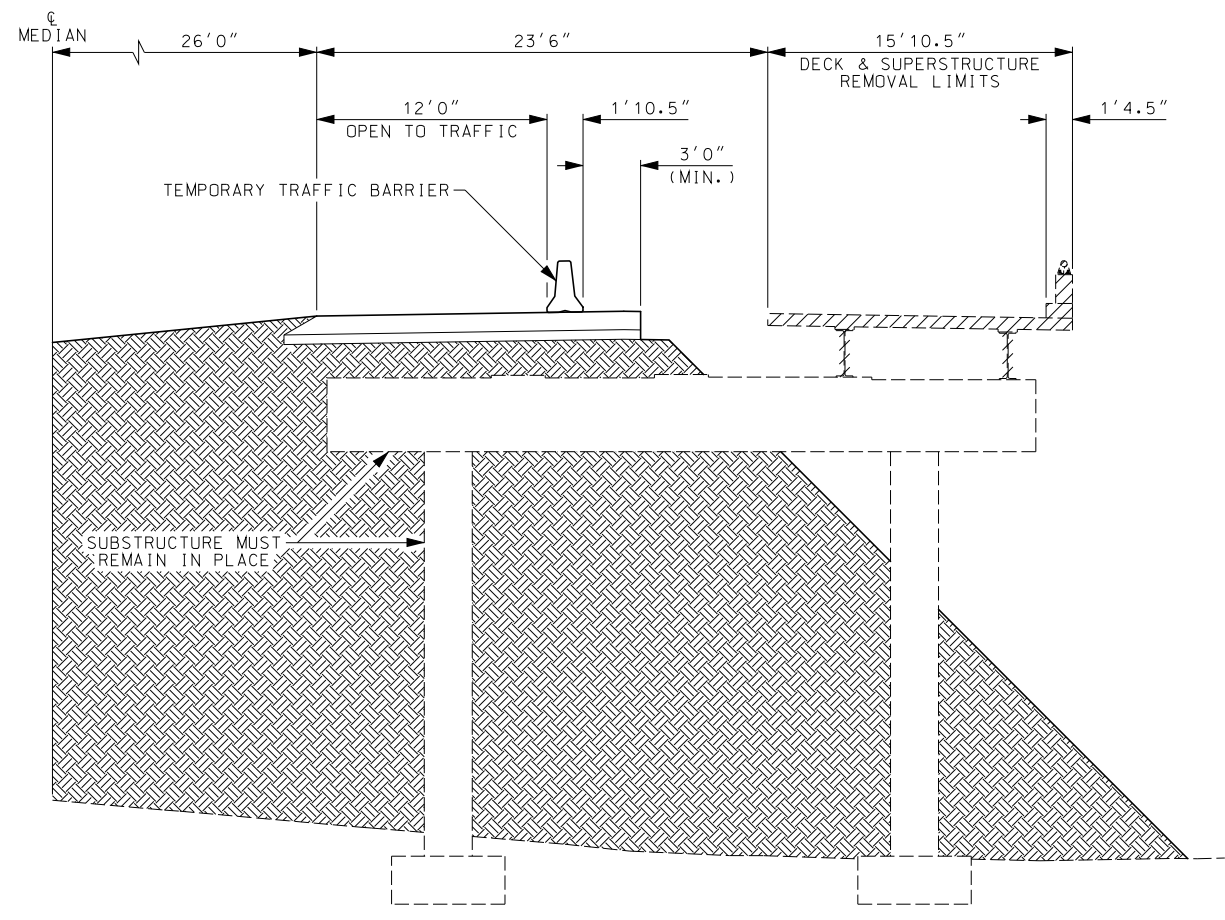
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



CURB REMOVAL - ALTERNATE A



STAGE 1



STAGE 2

REMOVAL OF BRIDGES - ALTERNATE B

NOT TO SCALE

CURB REMOVAL / REMOVAL OF BRIDGES
SPECIAL SHEET 1 OF 4

STATE OF MISSOURI
WESLEY K. MOORE
NUMBER PE-29485
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/28/2017

ROUTE I-29 STATE MO

DISTRICT NW SHEET NO. 8

COUNTY HOLT

JOB NO. J1P3023C

CONTRACT ID.

PROJECT NO.

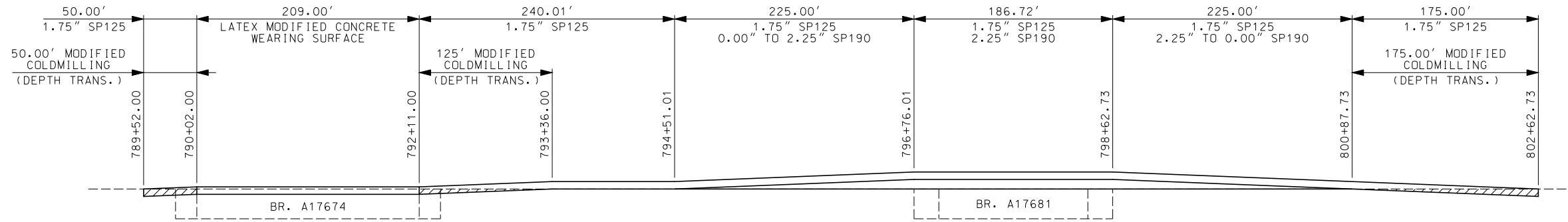
BRIDGE NO.

DESCRIPTION	DATE

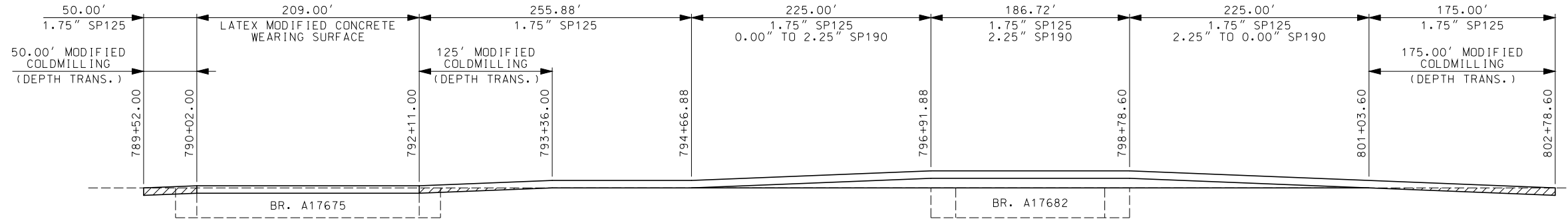
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

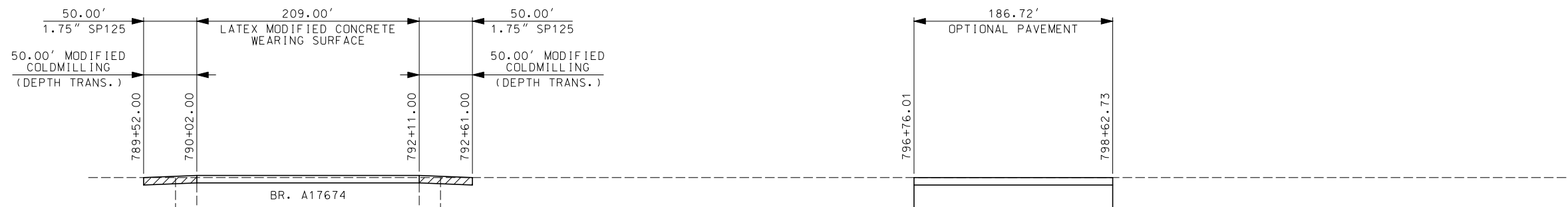


NORTHBOUND LANES

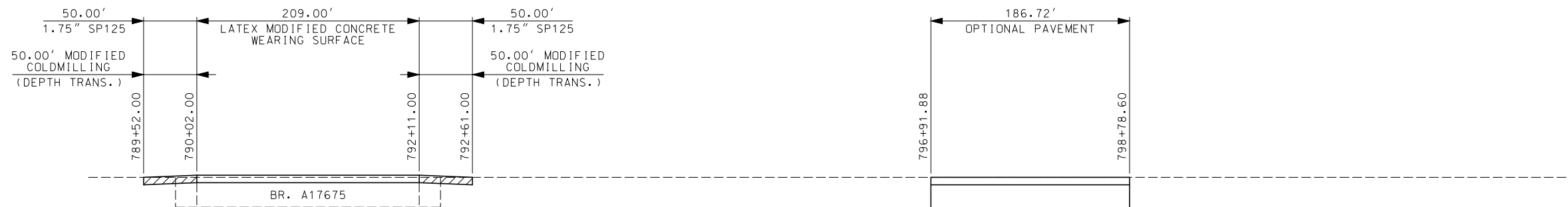


SOUTHBOUND LANES

ALTERNATE A



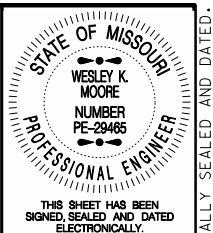
NORTHBOUND LANES



SOUTHBOUND LANES

ALTERNATE B

RESURFACING AND PAVEMENT DETAILS
SPECIAL SHEET 2 OF 4



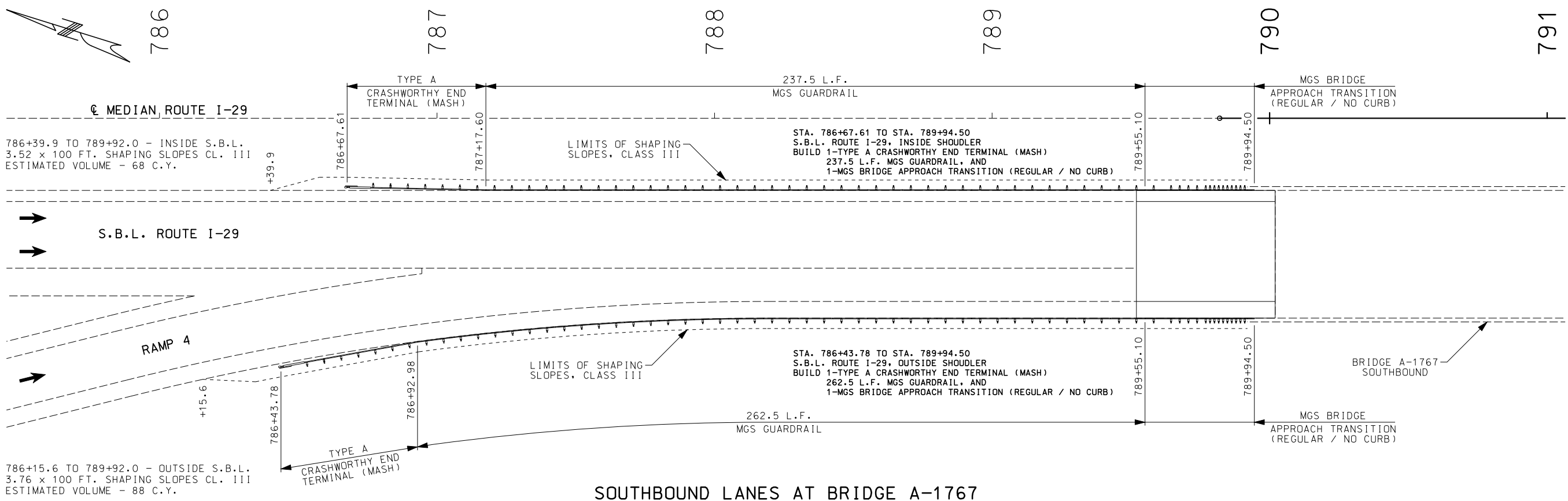
STATE OF MISSOURI
WESLEY K. MOORE
NUMBER PE-29485
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.
DATE PREPARED 3/28/2017
ROUTE I-29 STATE MO
DISTRICT NW SHEET NO. 9
COUNTY HOLT
JOB NO. J1P3023C
CONTRACT ID.

PROJECT NO.
BRIDGE NO.

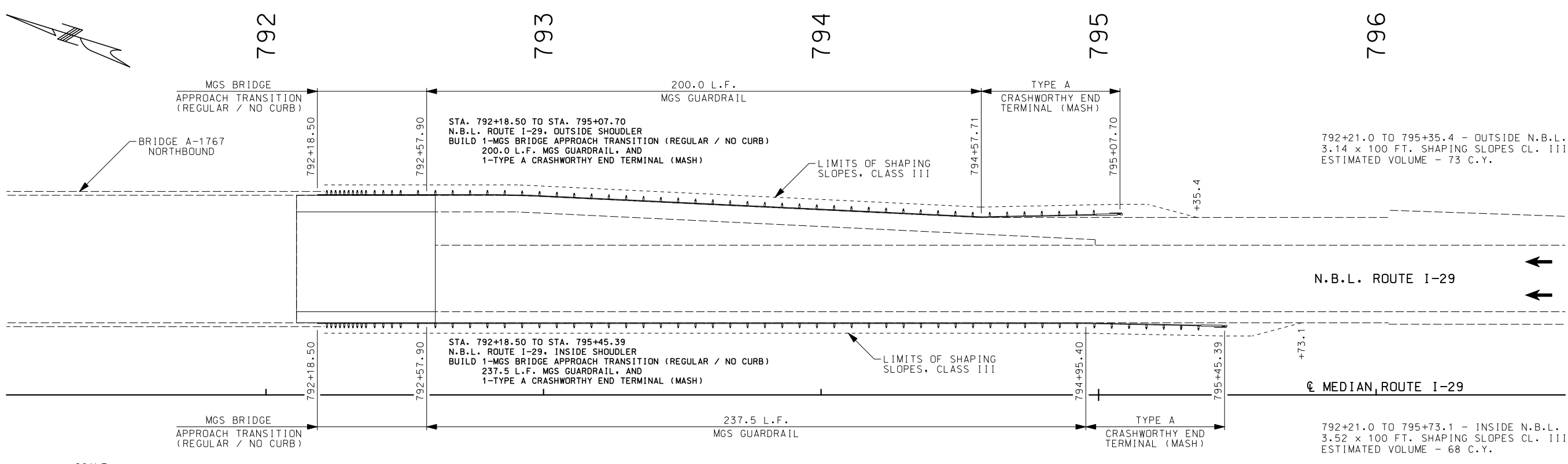
DATE	DESCRIPTION

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

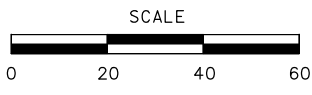
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



SOUTHBOUND LANES AT BRIDGE A-1767



NORTHBOUND LANES AT BRIDGE A-1767



GUARDRAIL LAYOUT
SPECIAL SHEET 3 OF 4

STATE OF MISSOURI
WESLEY K. MOORE
NUMBER PE-29485
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN
SIGNED, SEALED AND DATED
ELECTRONICALLY.

DATE PREPARED
3/28/2017

ROUTE I-29	STATE MO
DISTRICT NW	SHEET NO. 10

COUNTY
HOLT

JOB NO.
J1P3023C

CONTRACT ID.

PROJECT NO.

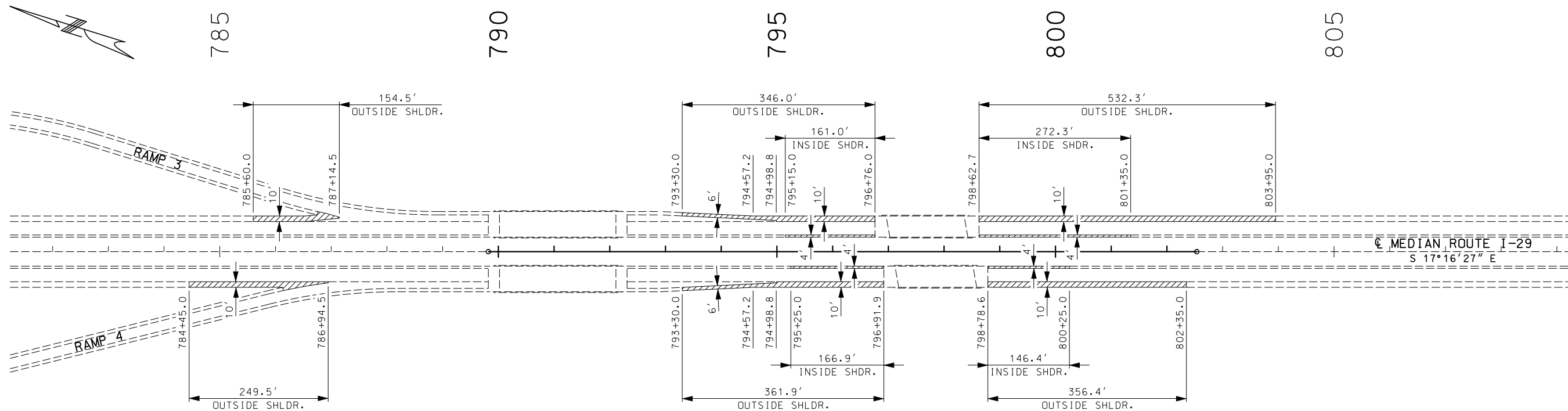
BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

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

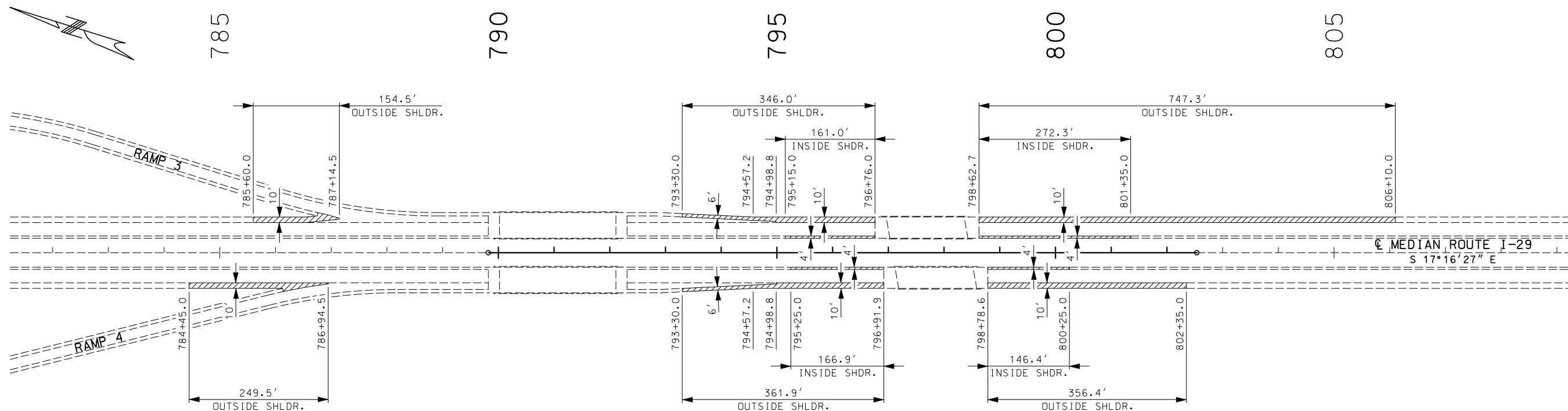
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



NOTE: REMOVE AND REPLACE SHOULDERS THAT WILL RECEIVE TRAFFIC (AS SHOWN ON THE TRAFFIC CONTROL PLAN) PRIOR TO SHIFTING TRAFFIC ONTO THE SHOULDER.

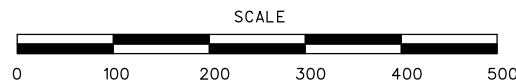
ALTERNATE A

KEY TO SYMBOLS



ALTERNATE B

SHOULDER REPLACEMENT SPECIAL SHEET 4 OF 4



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 3/28/2017

ROUTE I-29 STATE MO
DISTRICT NW SHEET NO. 11

COUNTY HOLT

JOB NO. J1P3023C

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

ROAD WORK
NEXT 2 MILES

G020-1
①

END
ROAD WORK

G020-2
②6

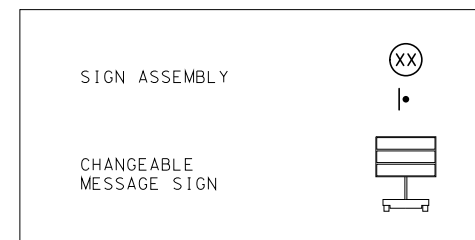
Bridge
Improvements
MADOT
WINTER 2017

CONST-5-96
⑤5

ROAD
WORK
AHEAD
Rate Our
Work Zone
MADOT
modot.org

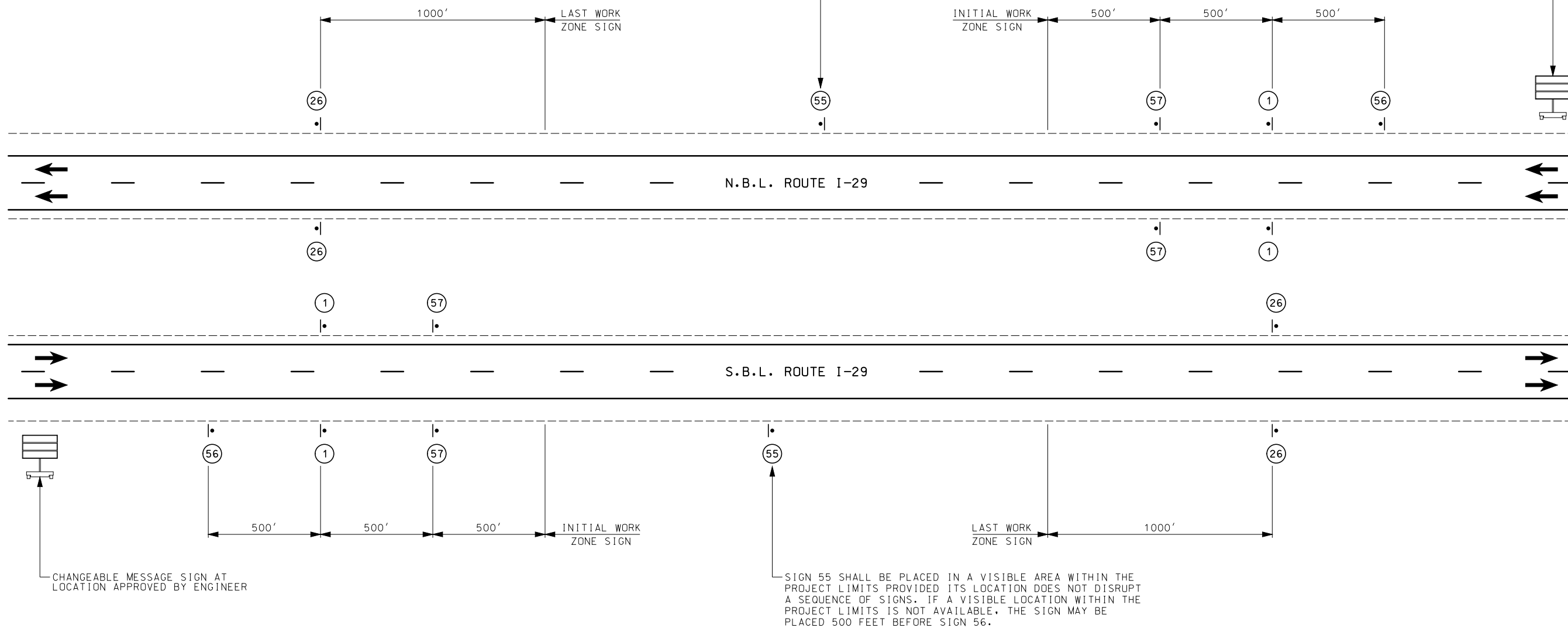
CONST-7-72
⑤6

WORK ZONE
NO PHONE
ZONE
SPECIAL
⑤7



SIGN 55 SHALL BE PLACED IN A VISIBLE AREA WITHIN THE PROJECT LIMITS PROVIDED ITS LOCATION DOES NOT DISRUPT A SEQUENCE OF SIGNS. IF A VISIBLE LOCATION WITHIN THE PROJECT LIMITS IS NOT AVAILABLE, THE SIGN MAY BE PLACED 500 FEET BEFORE SIGN 56.

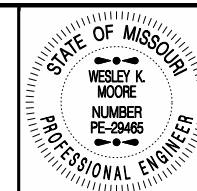
CHANGEABLE MESSAGE SIGN AT LOCATION APPROVED BY ENGINEER



NOT TO SCALE

BEGINNING AND END OF PROJECT

TRAFFIC CONTROL
SHEET 1 OF 15



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/28/2017

ROUTE I-29 STATE MO

DISTRICT NW SHEET NO. 12

COUNTY HOLT

JOB NO. J1P3023C

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

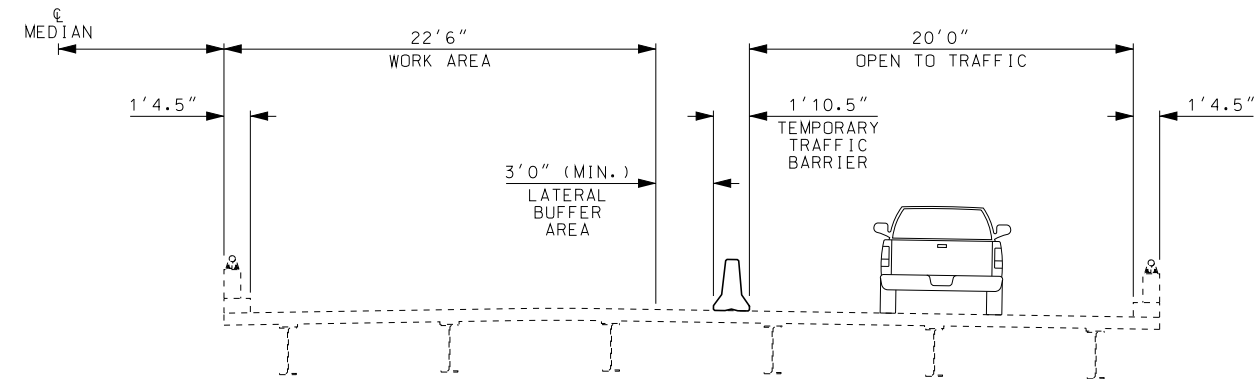


IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



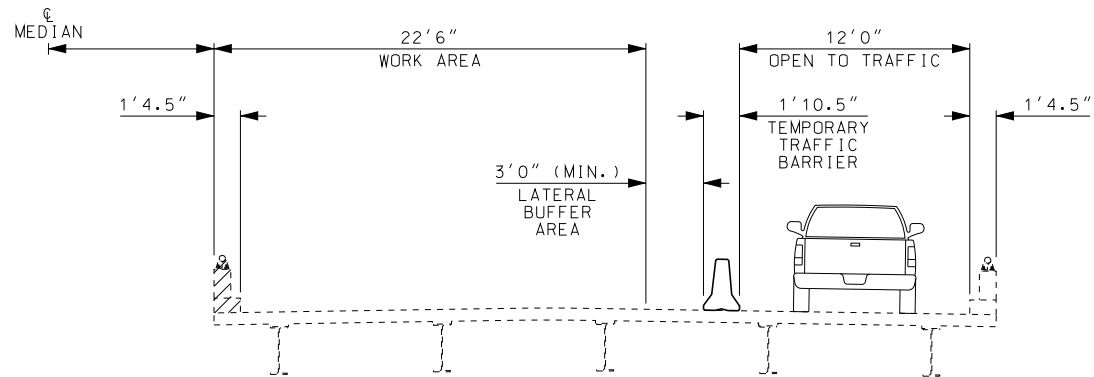
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/29/2017
ROUTE I-29 STATE MO
DISTRICT NW SHEET NO. 13
COUNTY HOLT
JOB NO. J1P3023C
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

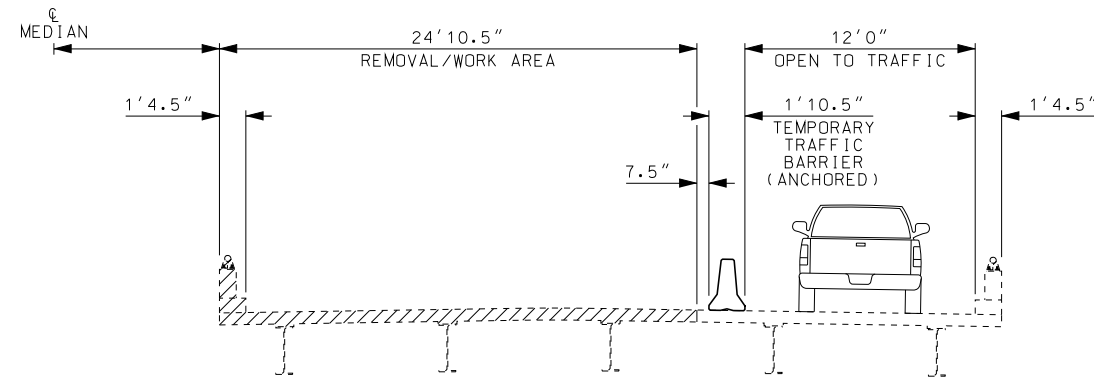


ALTERNATES A AND B

BRIDGES A-1767 OVER DAVIS CREEK

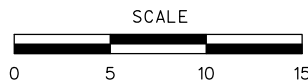


ALTERNATE A



ALTERNATE B

BRIDGES A-1768 OVER ABANDONED RAILROAD



STAGE 1 - INSIDE LANES CLOSED
TEMPORARY CONCRETE TRAFFIC BARRIER - TYPICAL SECTIONS

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
MoDOT
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.



W020-1
2



R2-1
4



W020-5
5L



W020-6a
6L



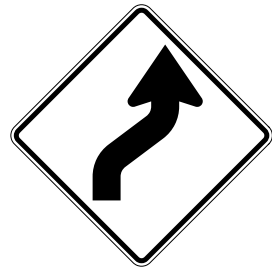
W04-1aR
7R



W05-1
8



W01-4L
15L



W01-4R
15R



R2-1
25



R11-2
29



G020-5aP
54

SIGN ASSEMBLY: XX

SIGN ASSEMBLY WITH FLAGS: XX

SIGN ASSEMBLY WITH FLAGS AND ADVANCE WARNING RAIL SYSTEM: XX

IMPACT ATTENUATOR (19 SAND BARRELS): [Symbol]

CHANNELIZERS: [Symbol]

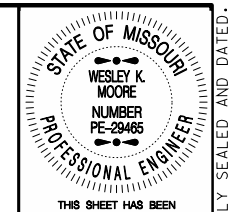
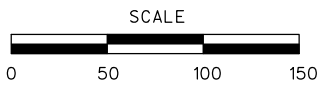
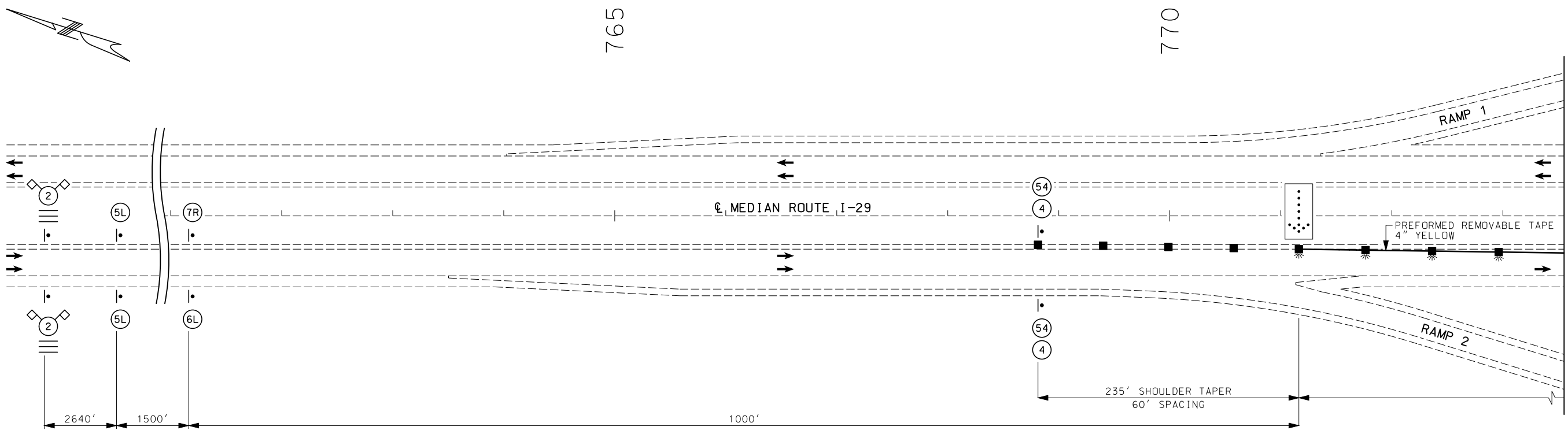
CHANNELIZERS WITH SEQUENTIAL FLASHING WARNING LIGHTS: [Symbol] OR [Symbol]

FLASHING ARROW PANEL: [Symbol]

MOVABLE BARRICADE: m

TEMPORARY TRAFFIC BARRIER: [Symbol]

STAGE 1 - INSIDE LANES CLOSED



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 3/28/2017

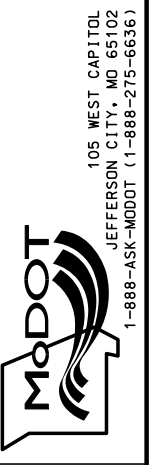
ROUTE	STATE
I-29	MO
DISTRICT	SHEET NO.
NW	14

COUNTY: HOLT
JOB NO.: J1P3023C
CONTRACT ID.:

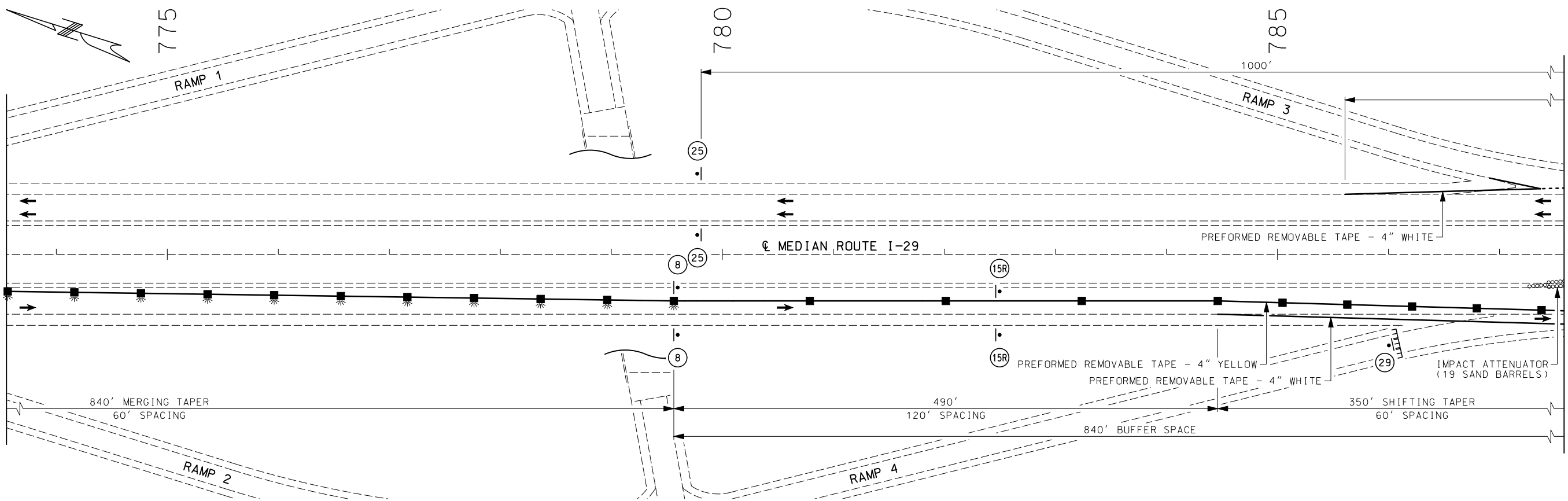
PROJECT NO.
BRIDGE NO.

DATE	DESCRIPTION

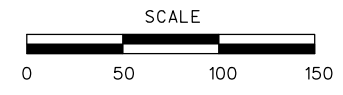
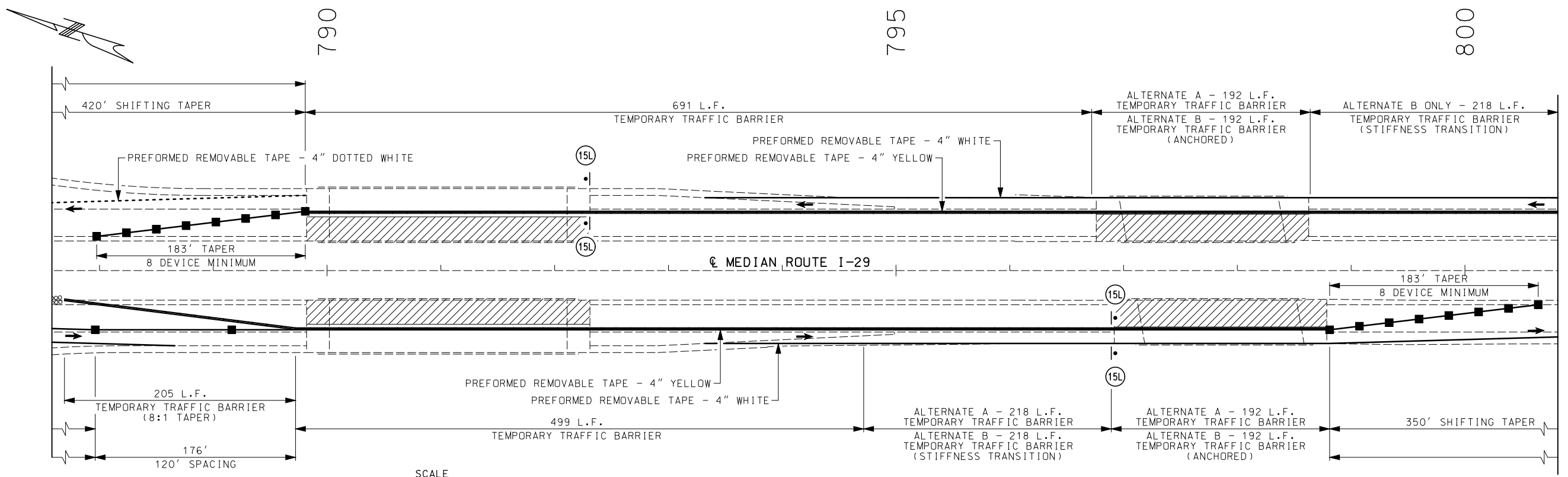
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



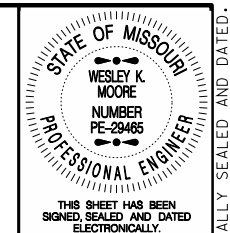
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



STAGE 1 - INSIDE LANES CLOSED



TRAFFIC CONTROL SHEET 4 OF 15

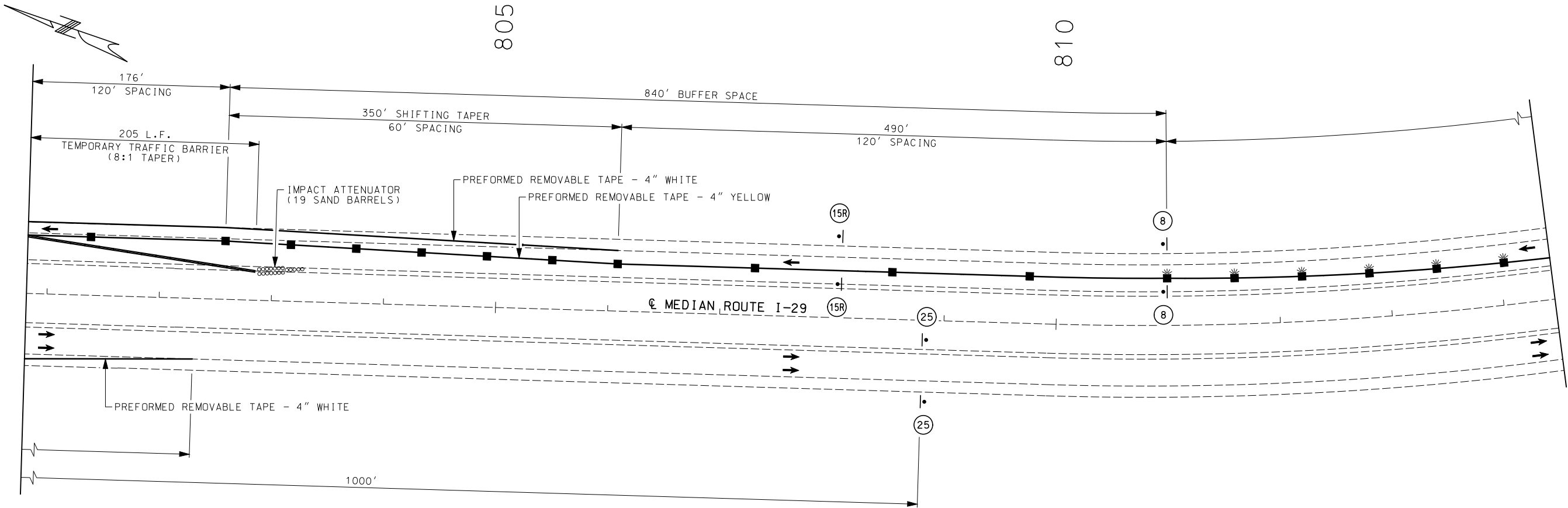


STATE OF MISSOURI
 WESLEY K. MOORE
 NUMBER PE-29485
 PROFESSIONAL ENGINEER
 THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.
 DATE PREPARED 3/28/2017
 ROUTE I-29 STATE MO
 DISTRICT NW SHEET NO. 15
 COUNTY HOLT
 JOB NO. J1P3023C
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO.

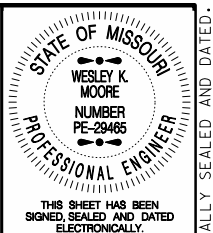
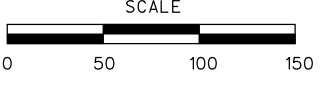
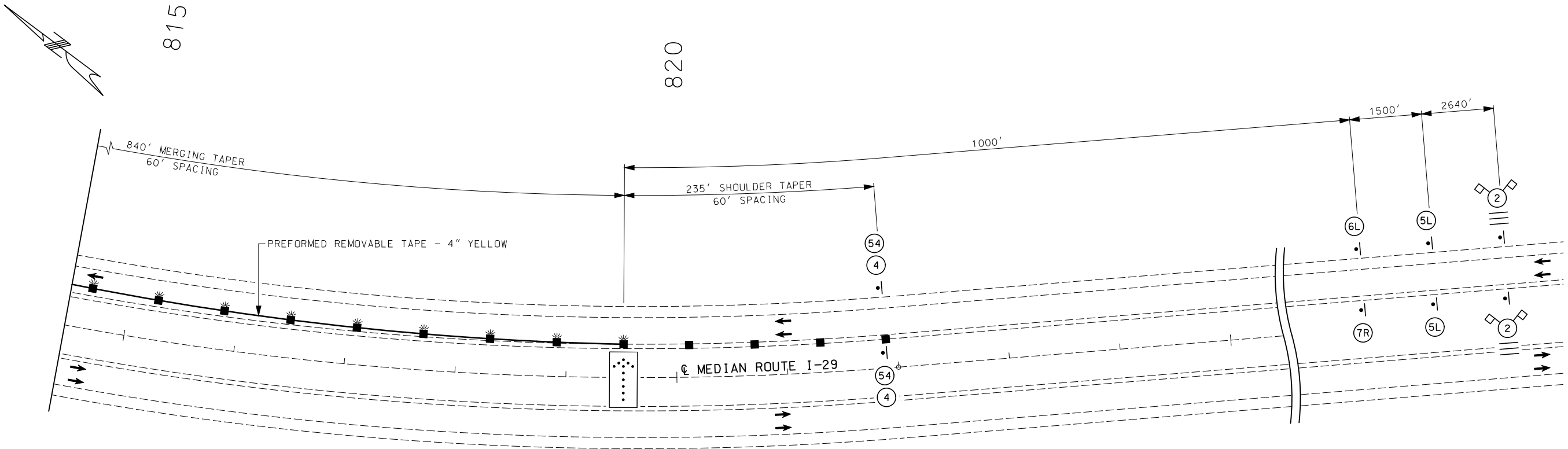
DATE	DESCRIPTION

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

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



STAGE 1 - INSIDE LANES CLOSED



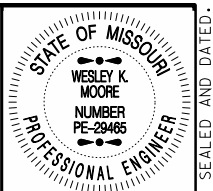
STATE OF MISSOURI
 WESLEY K. MOORE
 NUMBER PE-29485
 PROFESSIONAL ENGINEER
 THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.
 DATE PREPARED 3/28/2017
 ROUTE I-29 STATE MO
 DISTRICT NW SHEET NO. 16
 COUNTY HOLT
 JOB NO. J1P3023C
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/29/2017

ROUTE I-29 STATE MO

DISTRICT NW SHEET NO. 17

COUNTY HOLT

JOB NO. J1P3023C

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

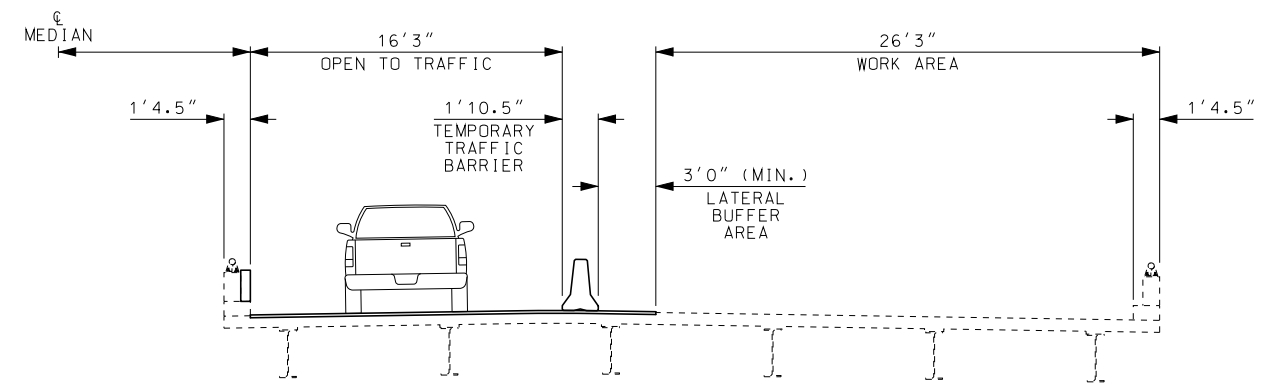
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

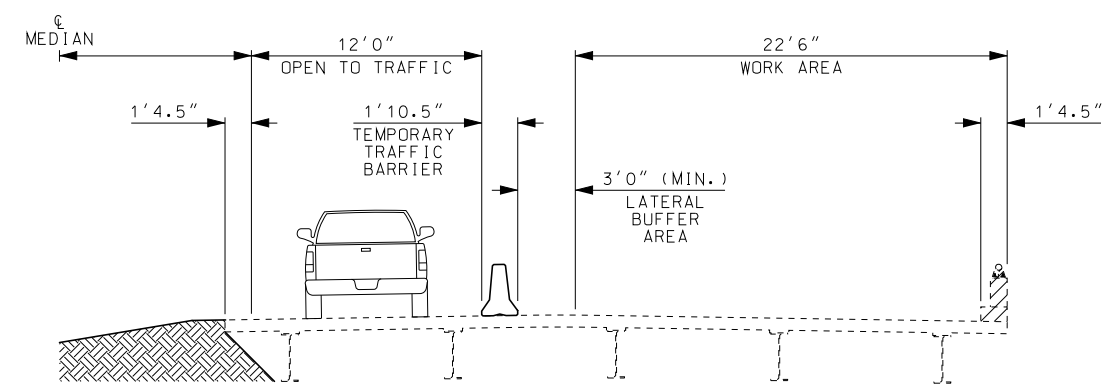
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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

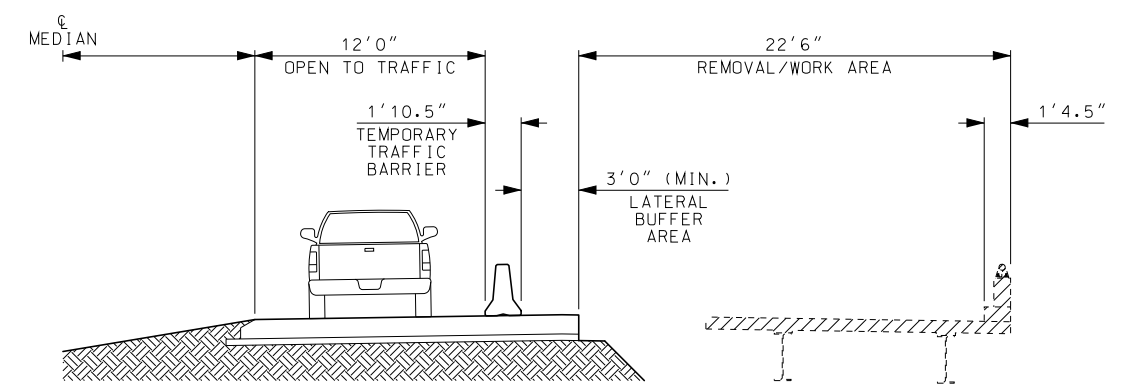


ALTERNATES A AND B

BRIDGES A-1767 OVER DAVIS CREEK

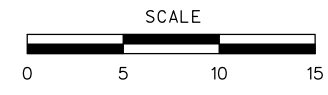


ALTERNATE A

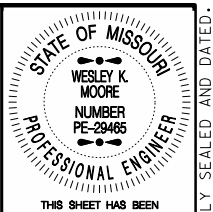


ALTERNATE B

BRIDGES A-1768 OVER ABANDONED RAILROAD



STAGE 2 - OUTSIDE LANES CLOSED
TEMPORARY CONCRETE TRAFFIC BARRIER - TYPICAL SECTIONS



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 3/28/2017
 ROUTE: I-29 STATE: MO
 DISTRICT: NW SHEET NO.: 18
 COUNTY: HOLT
 JOB NO.: J1P3023C
 CONTRACT ID:

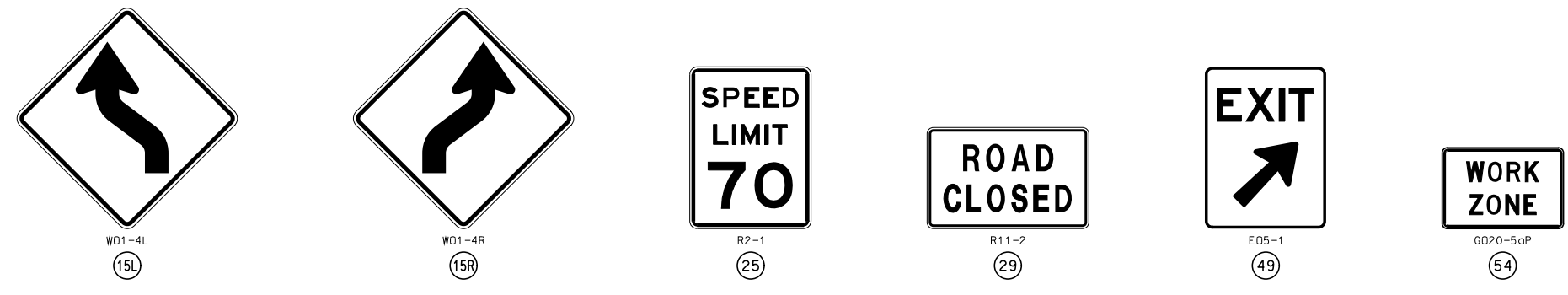
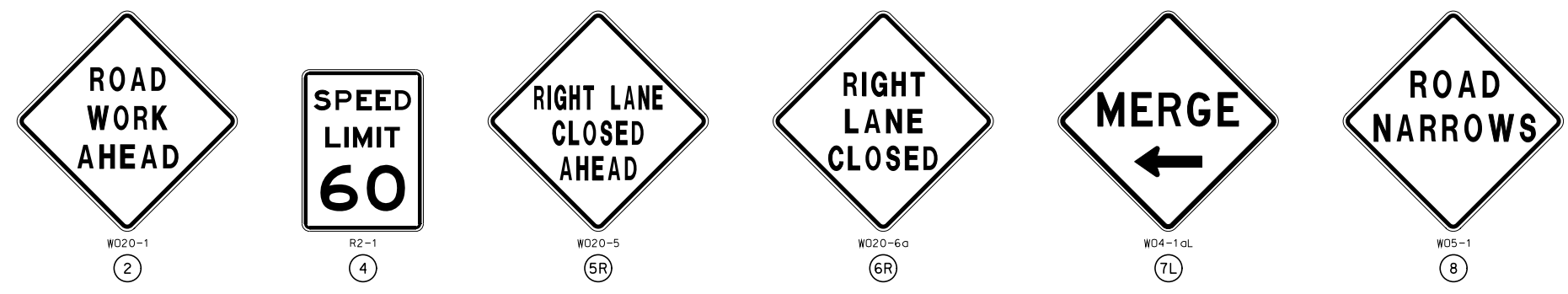
PROJECT NO.:
 BRIDGE NO.:

DATE	DESCRIPTION

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

TRAFFIC CONTROL SHEET 7 OF 15

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



SIGN ASSEMBLY: XX

SIGN ASSEMBLY WITH FLAGS: XX

SIGN ASSEMBLY WITH FLAGS AND ADVANCE WARNING RAIL SYSTEM: XX

IMPACT ATTENUATOR (19 SAND BARRELS): [Symbol]

CHANNELIZERS: [Symbol]

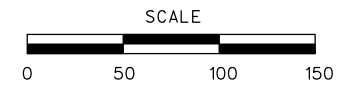
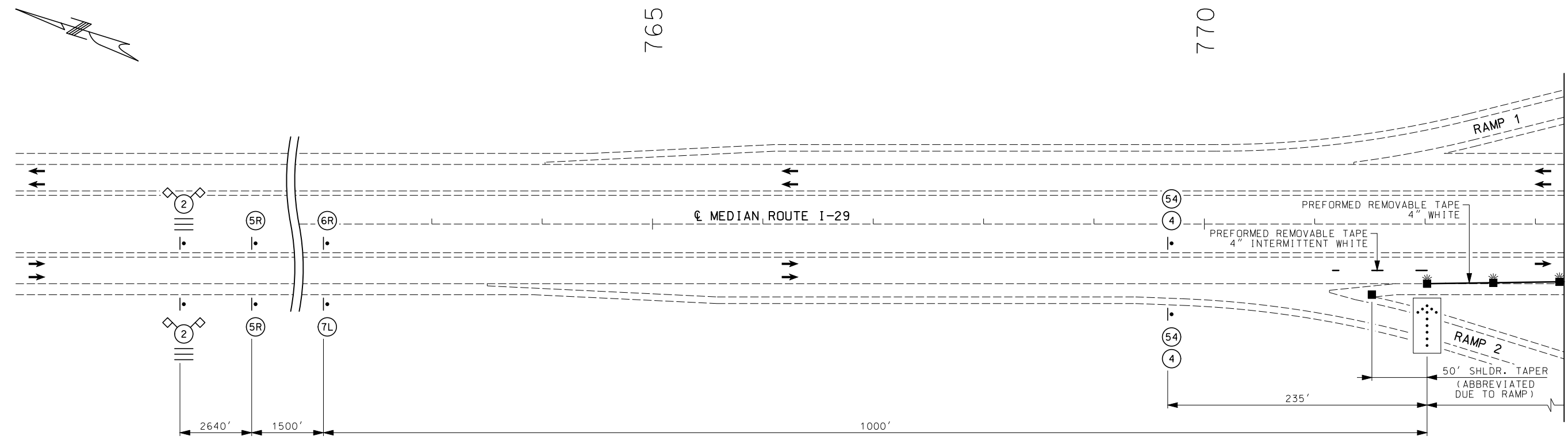
CHANNELIZERS WITH SEQUENTIAL FLASHING WARNING LIGHTS: [Symbol] OR [Symbol]

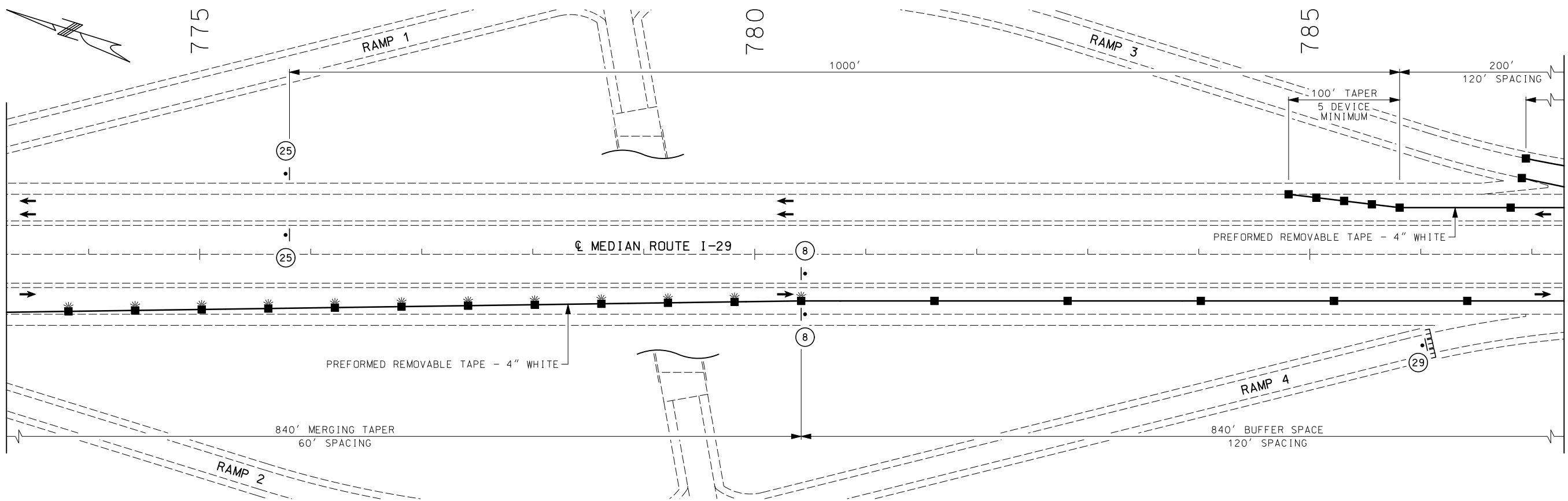
FLASHING ARROW PANEL: [Symbol]

MOVABLE BARRICADE: [Symbol]

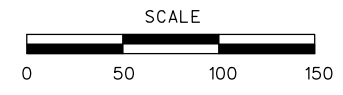
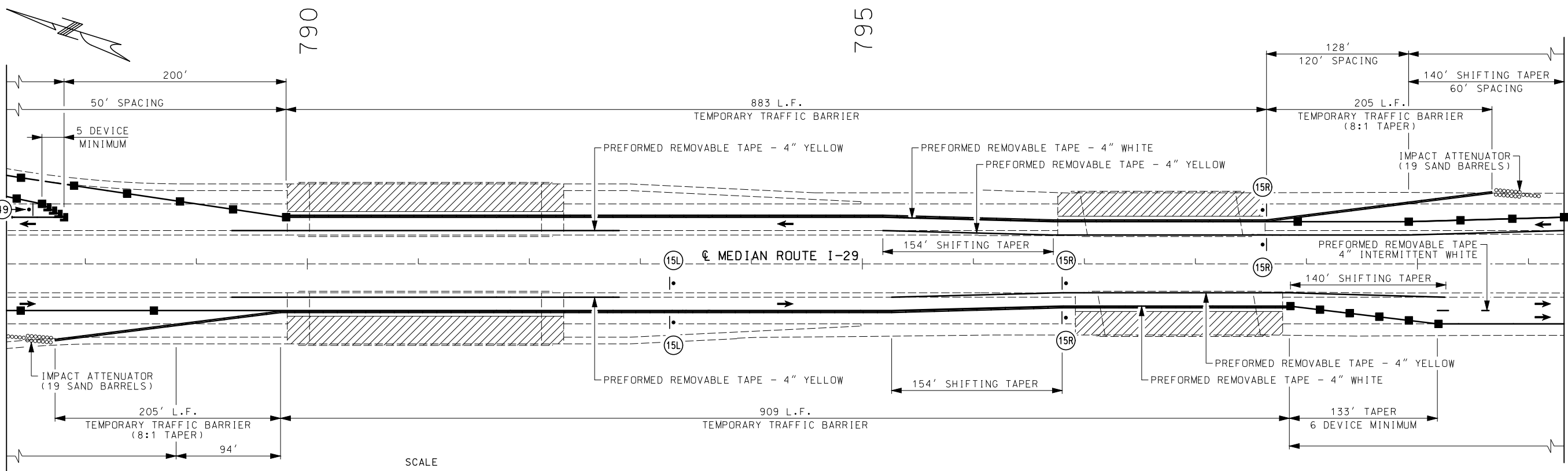
TEMPORARY TRAFFIC BARRIER: [Symbol]

STAGE 2 - OUTSIDE LANES CLOSED

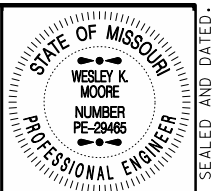




STAGE 2 - OUTSIDE LANES CLOSED



TRAFFIC CONTROL SHEET 8 OF 15



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 3/28/2017

ROUTE I-29 STATE MO DISTRICT NW SHEET NO. 19

COUNTY HOLT

JOB NO. J1P3023C

CONTRACT ID.

PROJECT NO.

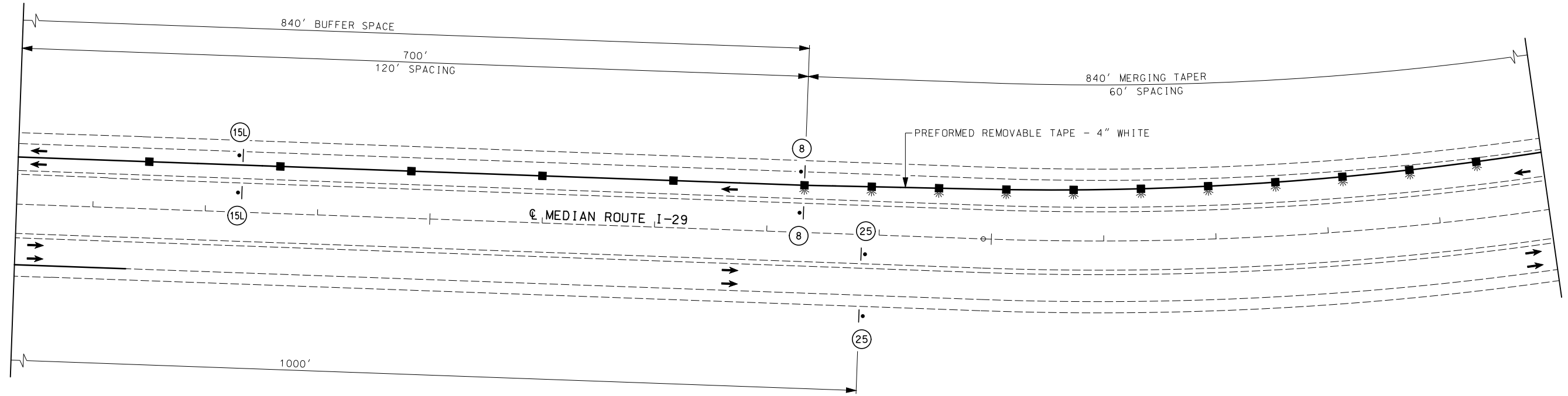
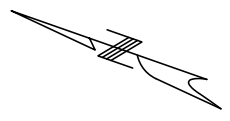
BRIDGE NO.

DATE	DESCRIPTION

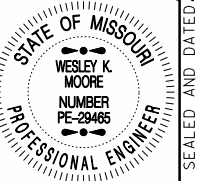
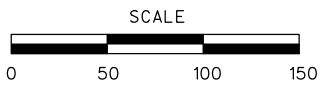
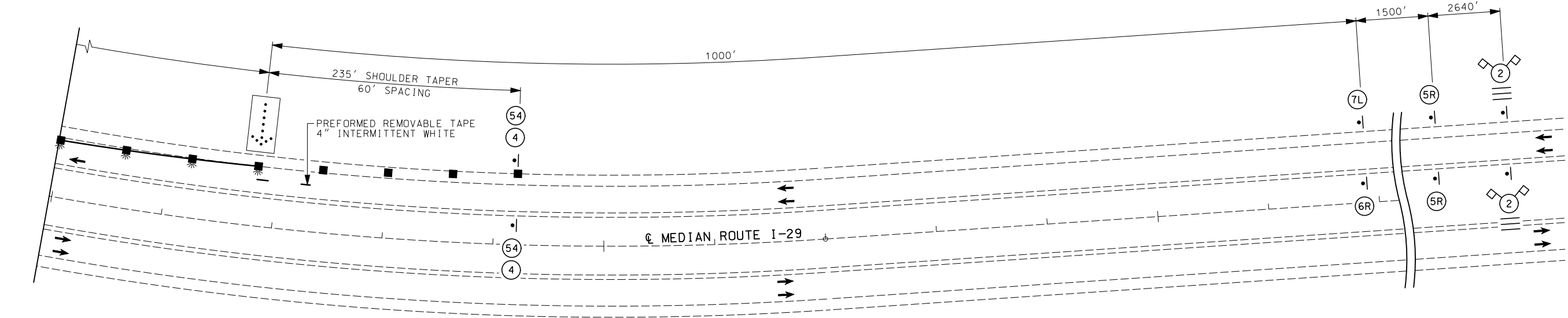
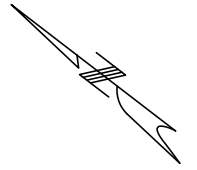
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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



STAGE 2 - OUTSIDE LANES CLOSED



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/28/2017

ROUTE	STATE
I-29	MO
DISTRICT	SHEET NO.
NW	20

COUNTY
HOLT

JOB NO.
J1P3023C

CONTRACT ID.

PROJECT NO.

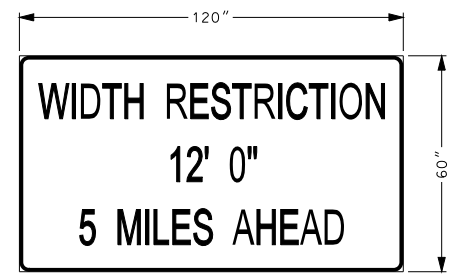
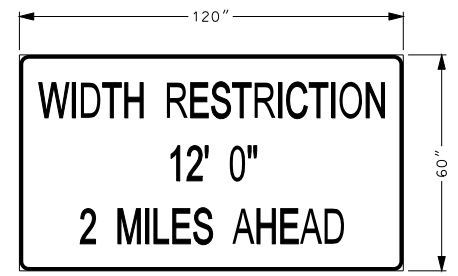
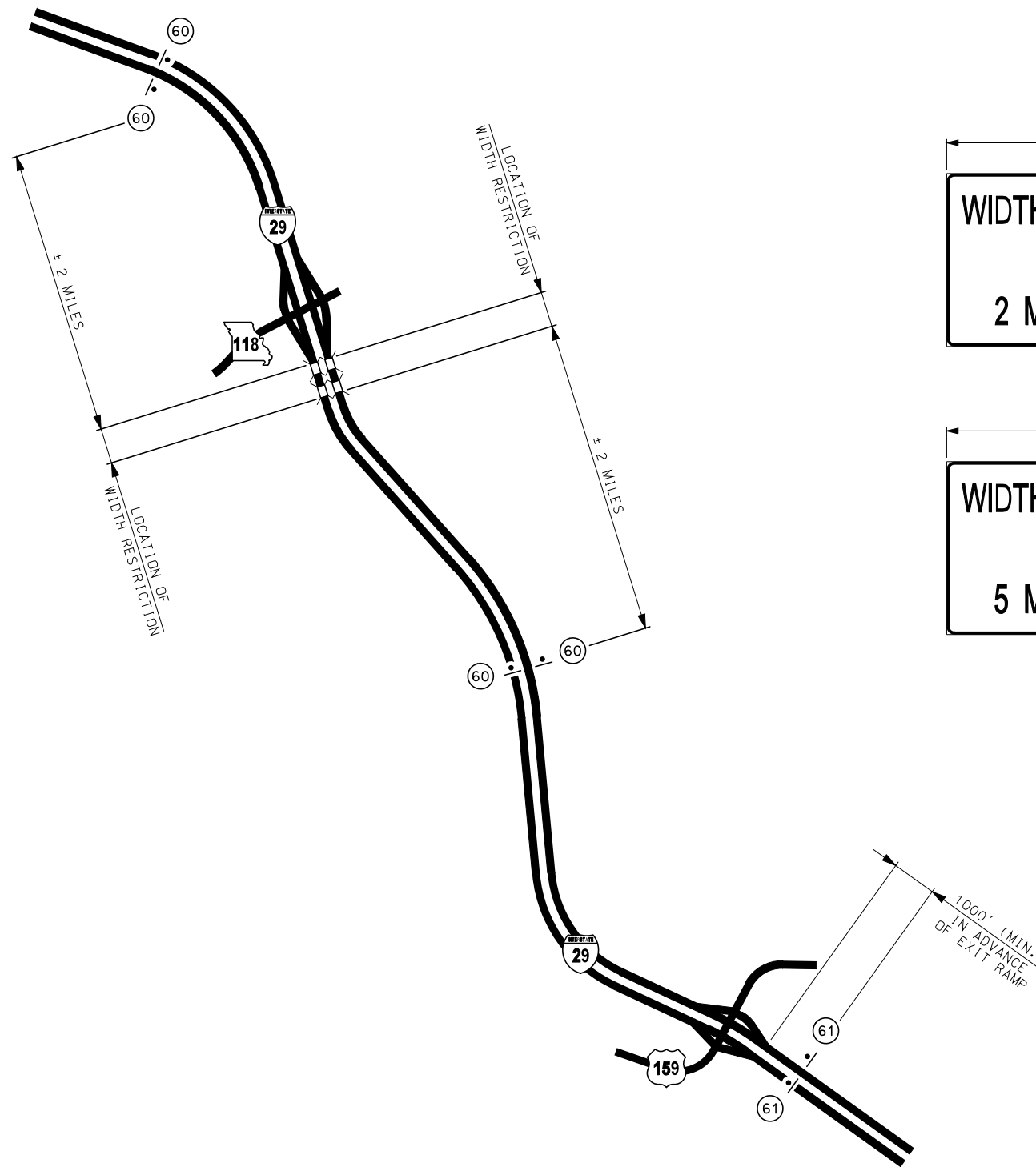
BRIDGE NO.

DATE	DESCRIPTION

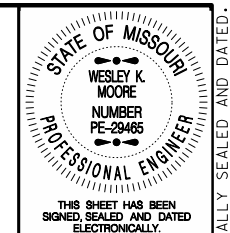
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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



SIGN ASSEMBLY XX



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.
 DATE PREPARED: 3/28/2017
 ROUTE: I-29 STATE: MO
 DISTRICT: NW SHEET NO.: 21
 COUNTY: HOLT
 JOB NO.: J1P3023C
 CONTRACT ID.:
 PROJECT NO.:
 BRIDGE NO.:

DATE	DESCRIPTION

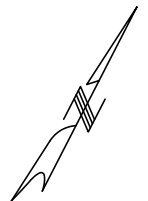
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

NOT TO SCALE

WIDTH RESTRICTION SIGNING

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



158

159

166

167

180

ROUTE 118

ROUTE 118

VEST ROAD

RAMP 4

RAMP 2

ROUTE 59

ROUTE 59

NOTES:
 SEE SHEET 23 FOR ADDITIONAL DETOUR SIGNING.
 SIGN AND DEVICE LOCATIONS SHOWN ON THIS SHEET ARE APPROXIMATE AND MAY BE ADJUSTED TO ACCOMMODATE FIELD CONDITIONS. LOCATIONS SELECTED SHALL BE APPROVED BY THE ENGINEER.

SIGN ASSEMBLY	
CHANGEABLE MESSAGE SIGN	
MOVABLE BARRICADE	



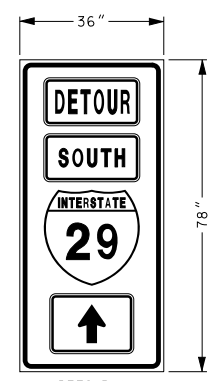
MD4-10L (17L)



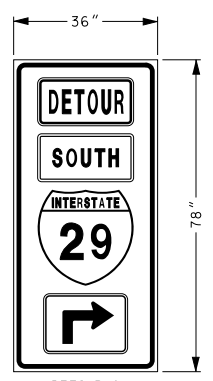
WD20-2 (18)



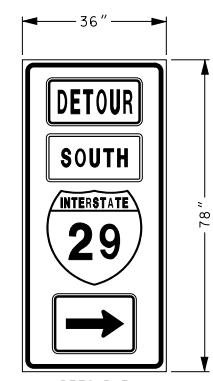
R11-2 (29)



DETOUR-1 (50A)



DETOUR-2 (50B)

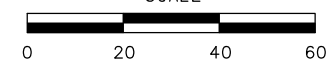


DETOUR-3 (50C)

(18)

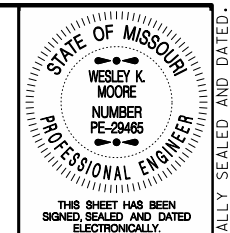
(50A)

SCALE



RAMP 4 CLOSURE

TRAFFIC CONTROL SHEET 11 OF 15



DATE PREPARED
3/28/2017

ROUTE	STATE
I-29	MO
DISTRICT	SHEET NO.
NW	22

COUNTY
HOLT

JOB NO.
J1P3023C

CONTRACT ID.

PROJECT NO.

BRIDGE NO.


DATE	DESCRIPTION

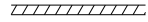
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

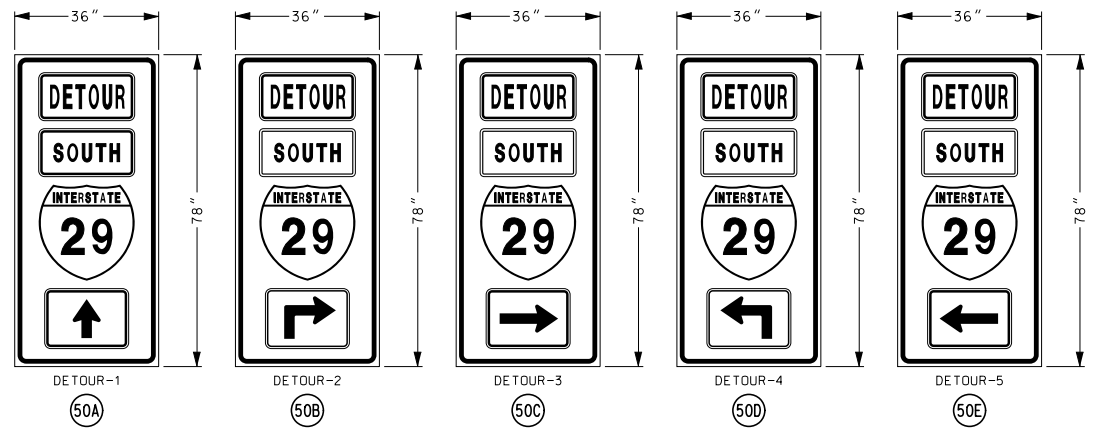
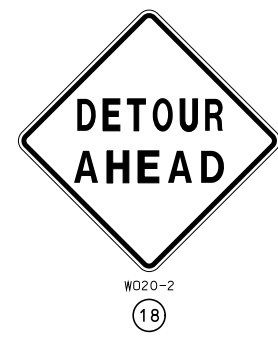
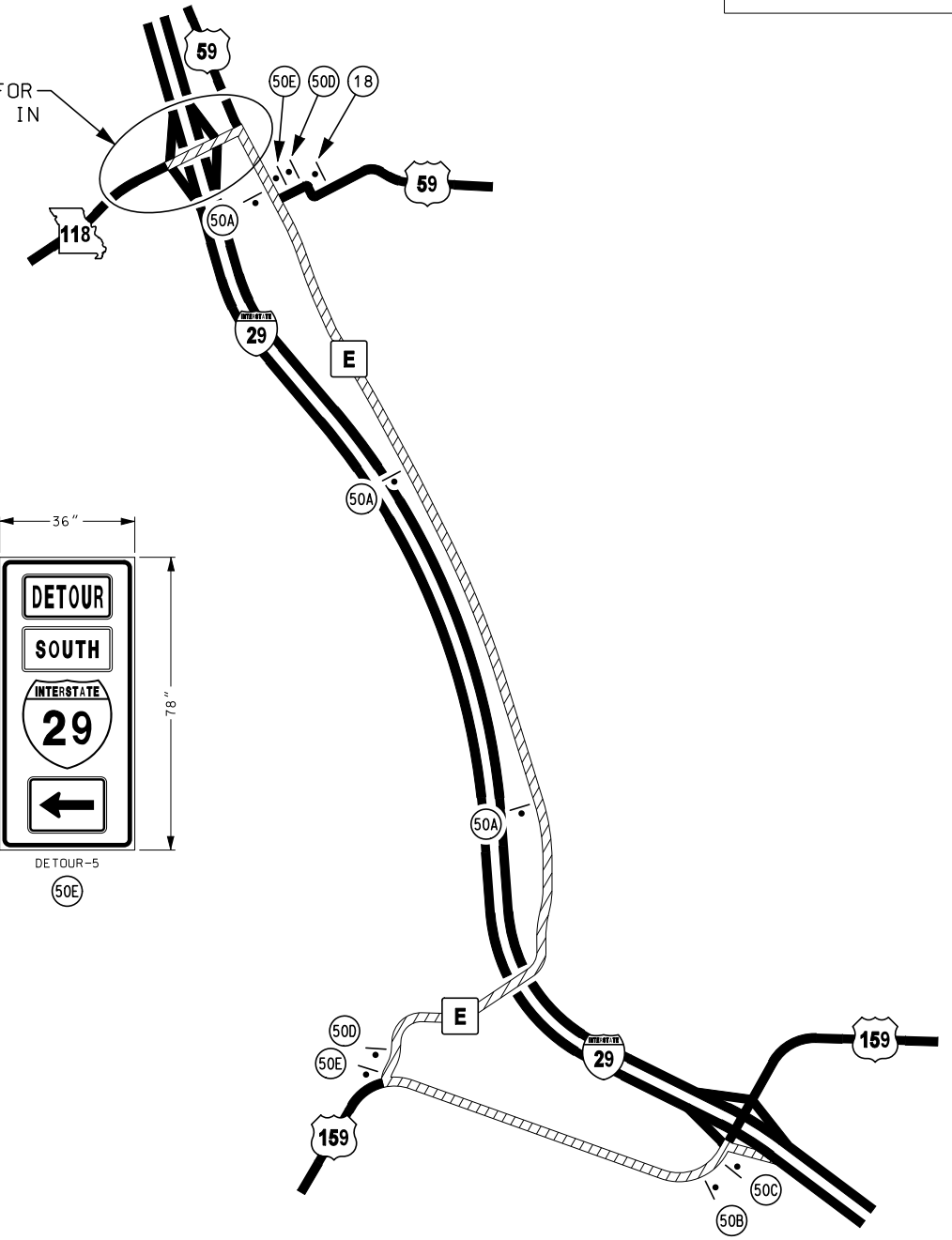
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



SIGN ASSEMBLY 

DETOUR ROUTE 

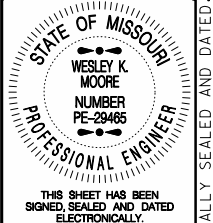
SEE SHEET 22 FOR
DETOUR SIGNING IN
THIS AREA



NOT TO SCALE

RAMP 4 CLOSURE - DETOUR SIGNING

TRAFFIC CONTROL
SHEET 12 OF 15




DATE PREPARED
3/28/2017

ROUTE	STATE
I-29	MO
DISTRICT	SHEET NO.
NW	23
COUNTY	
HOLT	
JOB NO.	
J1P3023C	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

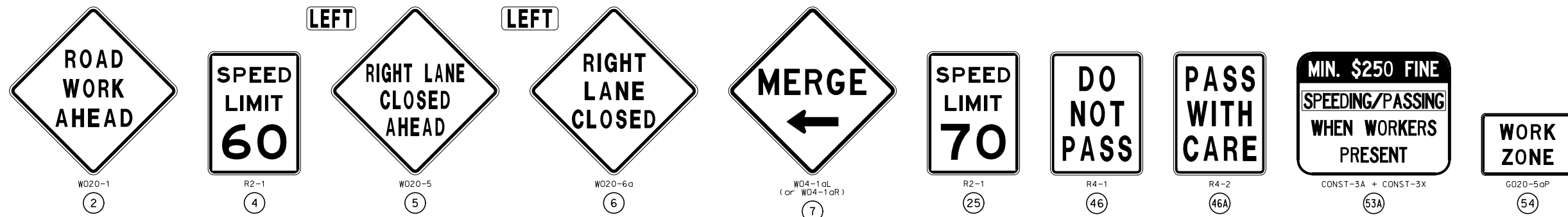
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

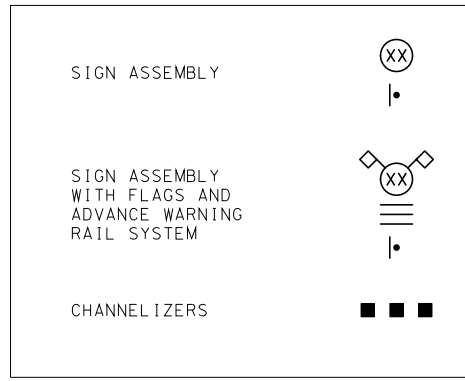
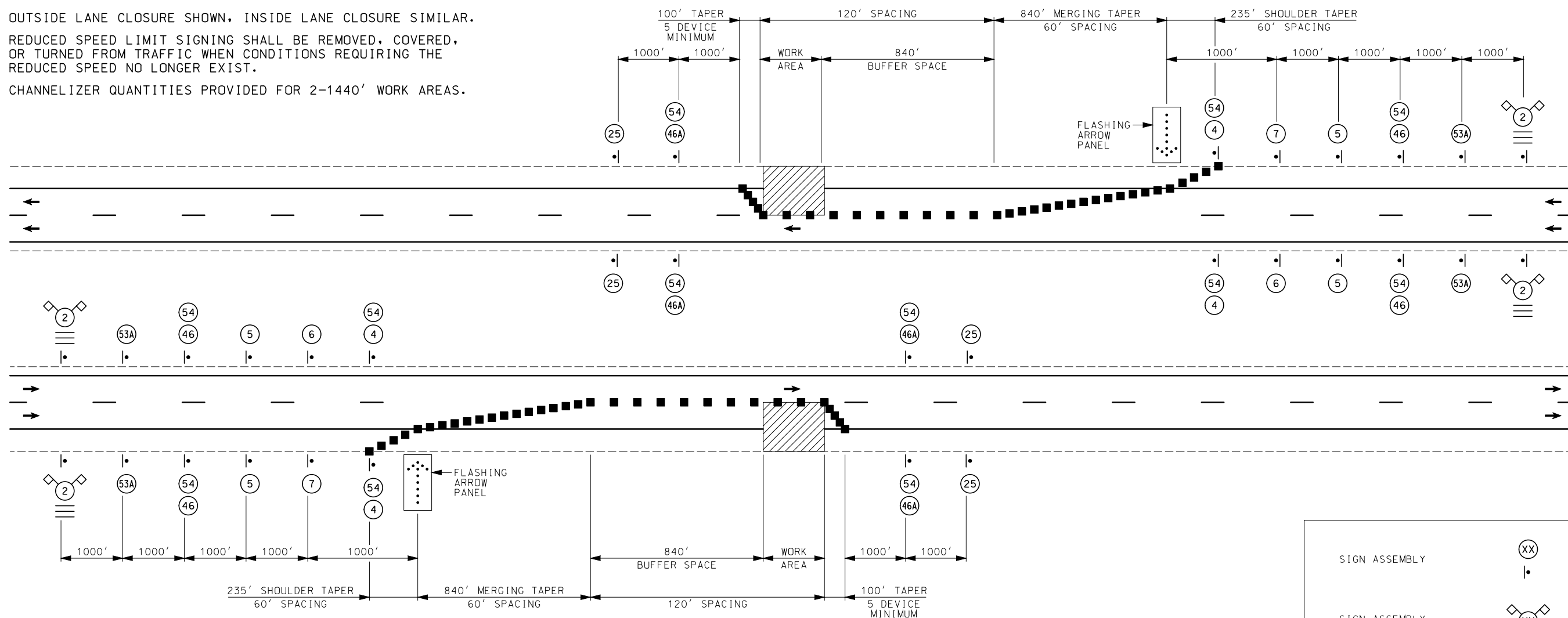


105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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



NOTES:
 OUTSIDE LANE CLOSURE SHOWN, INSIDE LANE CLOSURE SIMILAR.
 REDUCED SPEED LIMIT SIGNING SHALL BE REMOVED, COVERED,
 OR TURNED FROM TRAFFIC WHEN CONDITIONS REQUIRING THE
 REDUCED SPEED NO LONGER EXIST.
 CHANNELIZER QUANTITIES PROVIDED FOR 2-1440' WORK AREAS.



NOT TO SCALE

LANE CLOSURE (WITHOUT BARRIER)

STATE OF MISSOURI
 WESLEY K. MOORE
 NUMBER PE-29465
 PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 3/28/2017
 ROUTE: I-29 STATE: MO
 DISTRICT: NW SHEET NO.: 24
 COUNTY: HOLT
 JOB NO.: J1P3023C
 CONTRACT ID.:
 PROJECT NO.:
 BRIDGE NO.:

DATE	DESCRIPTION


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

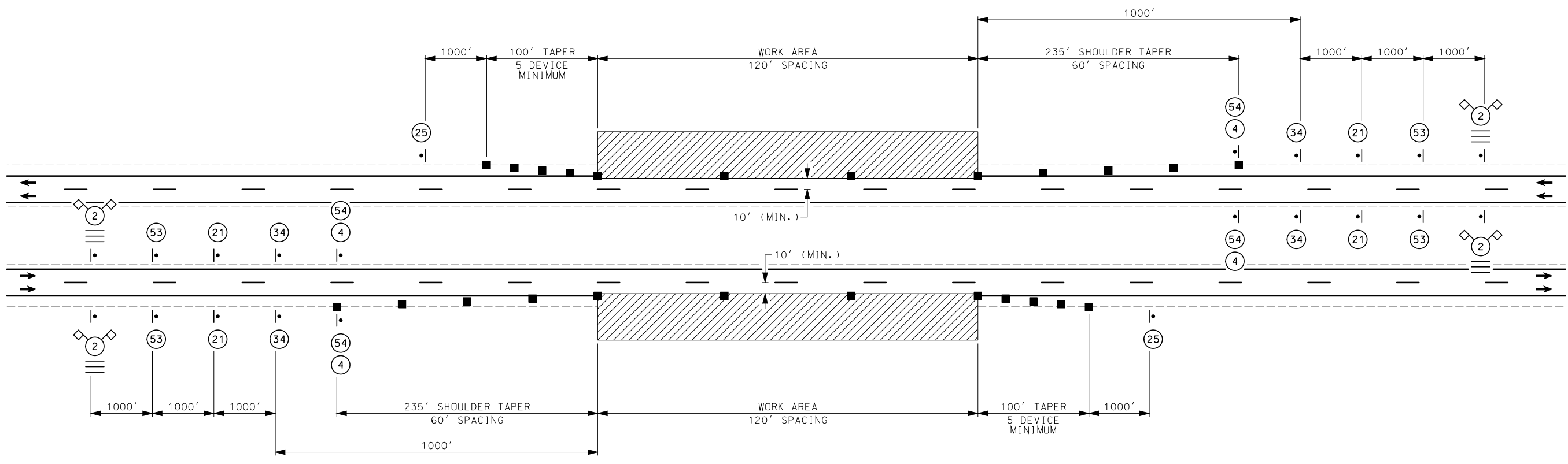
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

STATE OF MISSOURI
 WESLEY K. MOORE
 NUMBER PE-29485
 PROFESSIONAL ENGINEER
 THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
 3/28/2017
 ROUTE I-29 STATE MO
 DISTRICT NW SHEET NO. 25
 COUNTY HOLT
 JOB NO. J1P3023C
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO.

DATE	DESCRIPTION

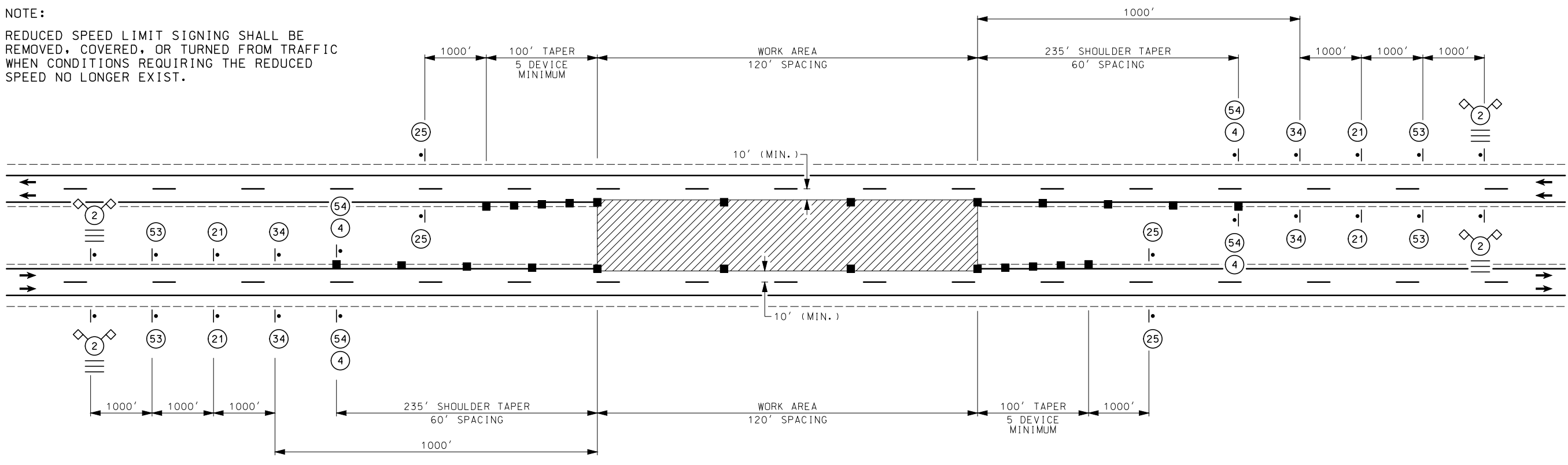
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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



OUTSIDE SHOULDER CLOSURE

SEE TRAFFIC CONTROL SHEET 15 OF 15 FOR KEY TO SHOULDER CLOSURE SIGNS AND DEVICES.

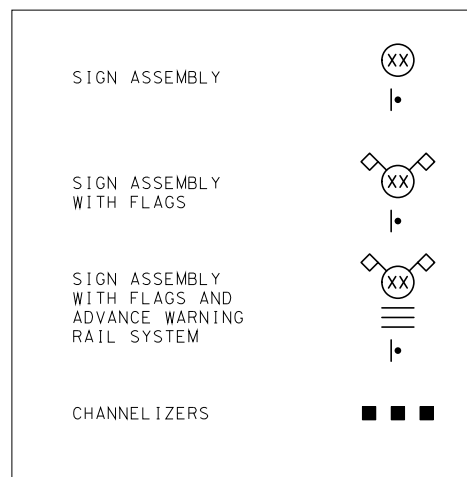
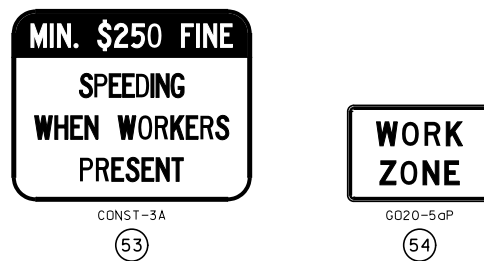
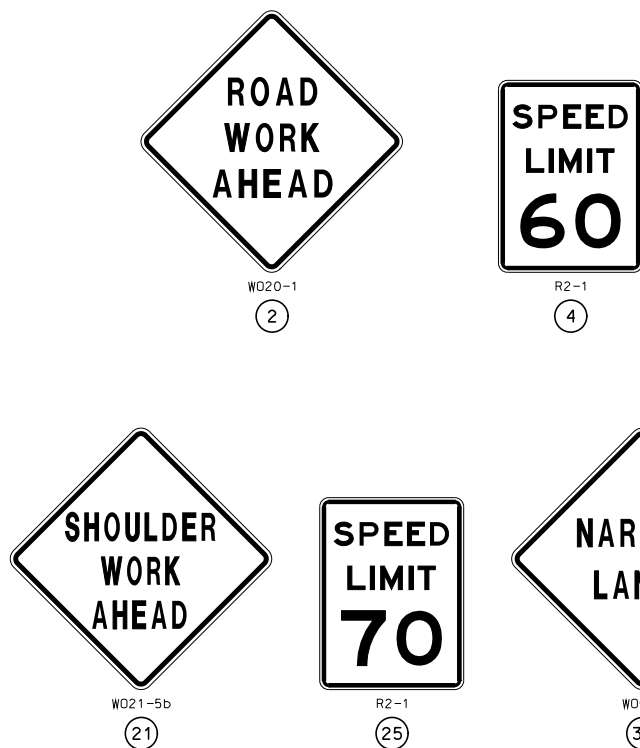
NOTE:
 REDUCED SPEED LIMIT SIGNING SHALL BE REMOVED, COVERED, OR TURNED FROM TRAFFIC WHEN CONDITIONS REQUIRING THE REDUCED SPEED NO LONGER EXIST.



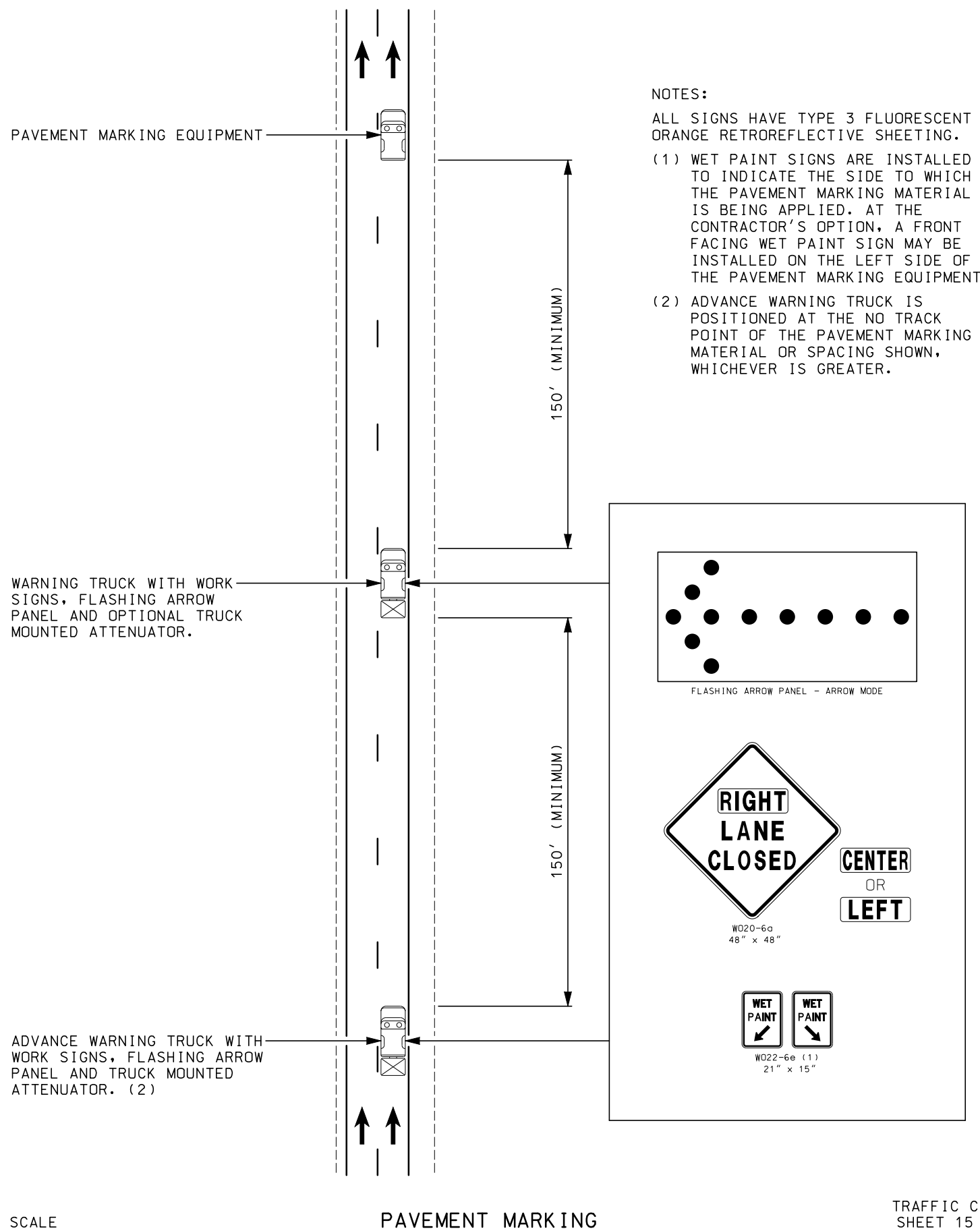
INSIDE SHOULDER CLOSURE

NOT TO SCALE

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



SHOULDER CLOSURE SIGNS AND DEVICES



NOTES:

ALL SIGNS HAVE TYPE 3 FLUORESCENT ORANGE RETROREFLECTIVE SHEETING.

(1) WET PAINT SIGNS ARE INSTALLED TO INDICATE THE SIDE TO 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.

(2) ADVANCE WARNING TRUCK IS POSITIONED AT THE NO TRACK POINT OF THE PAVEMENT MARKING MATERIAL OR SPACING SHOWN, WHICHEVER IS GREATER.

STATE OF MISSOURI
 WESLEY K. MOORE
 NUMBER PE-29485
 PROFESSIONAL ENGINEER
 THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 3/28/2017

ROUTE	STATE
I-29	MO
DISTRICT	SHEET NO.
NW	26

COUNTY
 HOLT
 JOB NO.
 J1P3023C
 CONTRACT ID.

PROJECT NO.

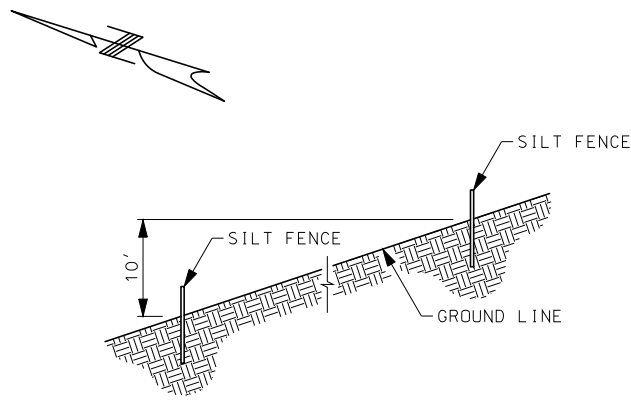
BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



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

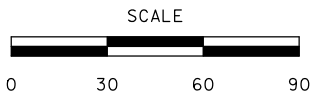
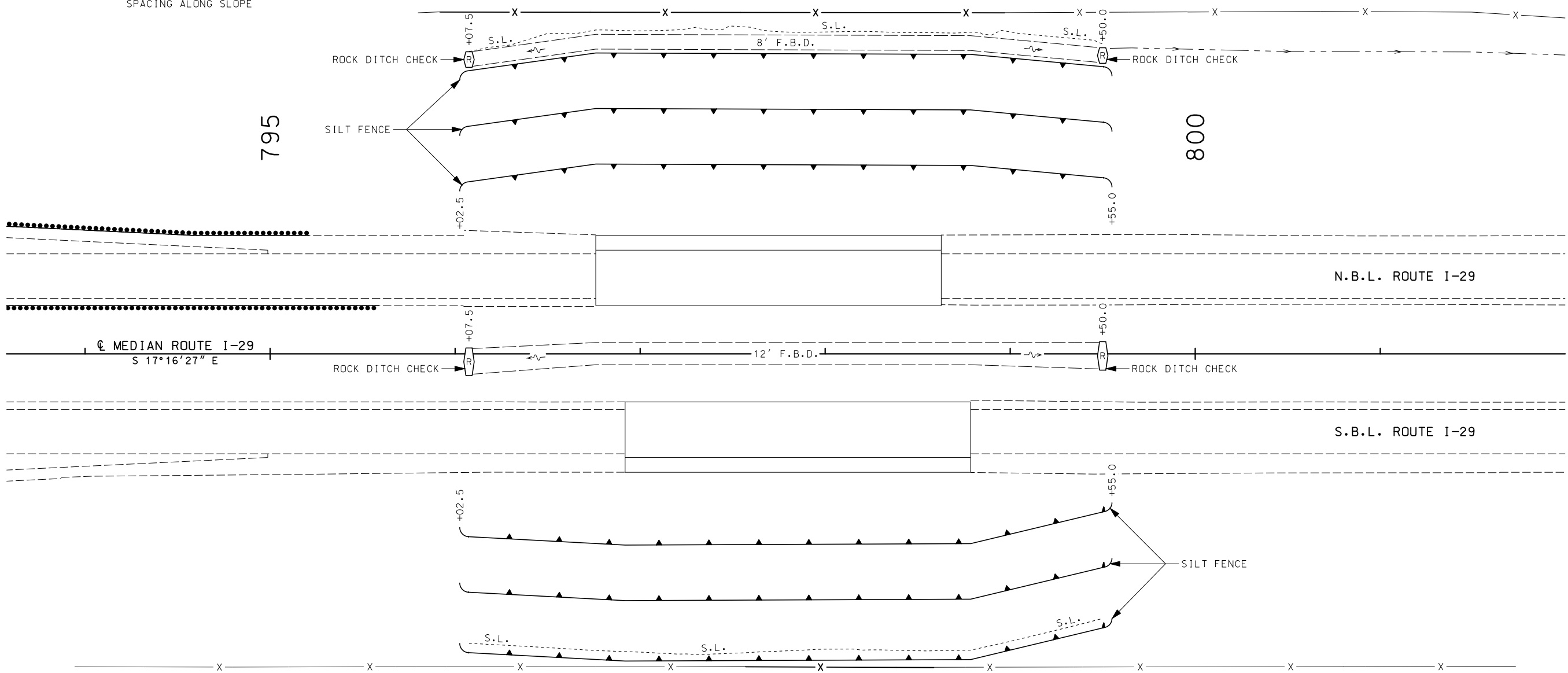
MoDOT



DETAIL OF
SILT FENCE
SPACING ALONG SLOPE

TEMPORARY EROSION CONTROL LEGEND

-  ROCK DITCH CHECK
-  SILT FENCE



STATE OF MISSOURI
WESLEY K. MOORE
NUMBER PE-29485
PROFESSIONAL ENGINEER


THIS SHEET HAS BEEN
SIGNED, SEALED AND DATED
ELECTRONICALLY.

DATE PREPARED
3/28/2017

ROUTE I-29	STATE MO
DISTRICT NW	SHEET NO. 27
COUNTY HOLT	
JOB NO. J1P3023C	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



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

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



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/28/2017

ROUTE	STATE
I-29	MO
DISTRICT	SHEET NO.
NW	28

COUNTY
HOLT

JOB NO.
J1P3023C

CONTRACT ID.

PROJECT NO.

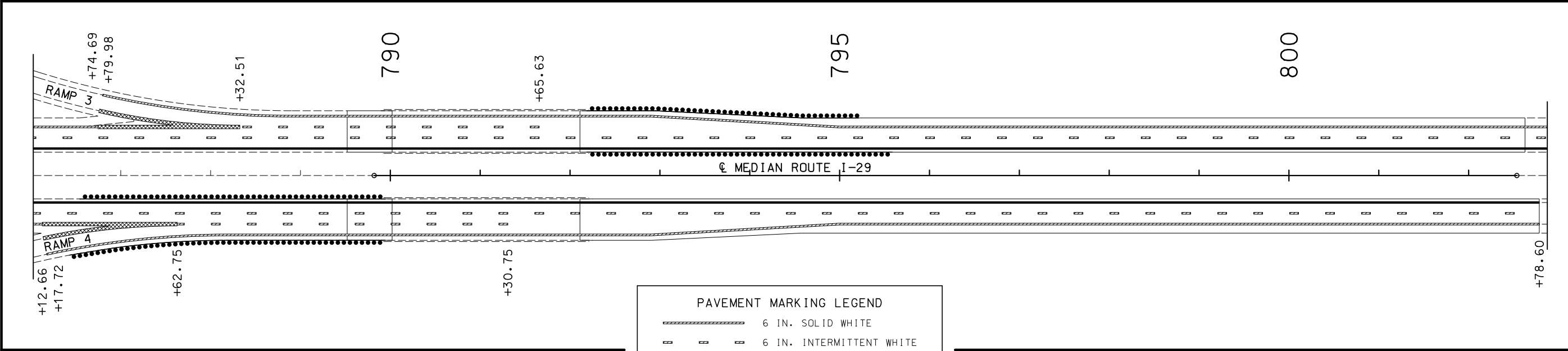
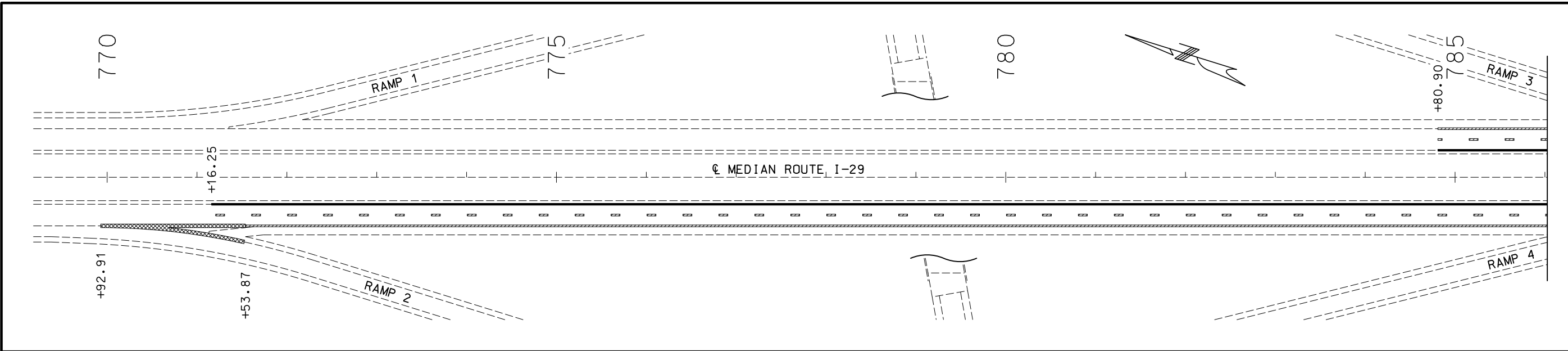
BRIDGE NO.

DATE	DESCRIPTION

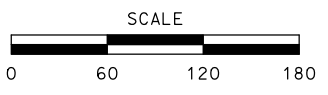
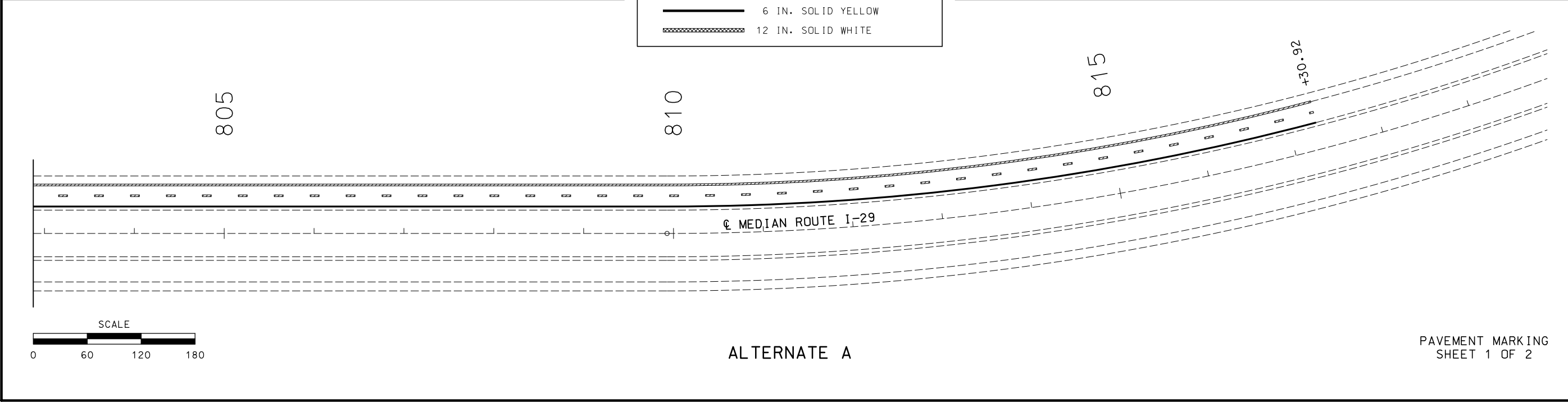
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

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

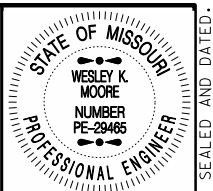


PAVEMENT MARKING LEGEND	
	6 IN. SOLID WHITE
	6 IN. INTERMITTENT WHITE
	6 IN. SOLID YELLOW
	12 IN. SOLID WHITE



ALTERNATE A

PAVEMENT MARKING SHEET 1 OF 2



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
3/28/2017

ROUTE I-29 STATE MO
DISTRICT NW SHEET NO. 29

COUNTY
HOLT


JOB NO.
J1P3023C
CONTRACT ID.

PROJECT NO.

BRIDGE NO.

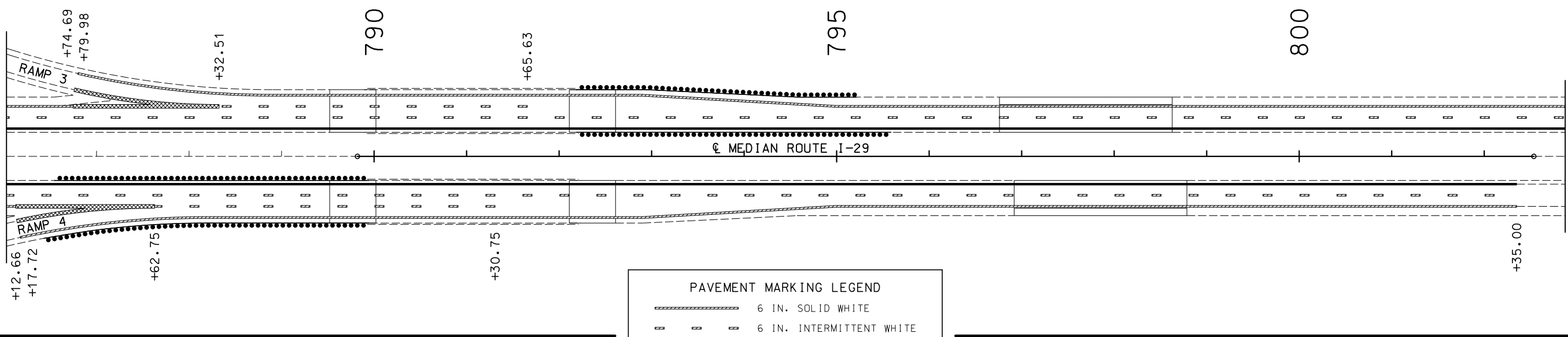
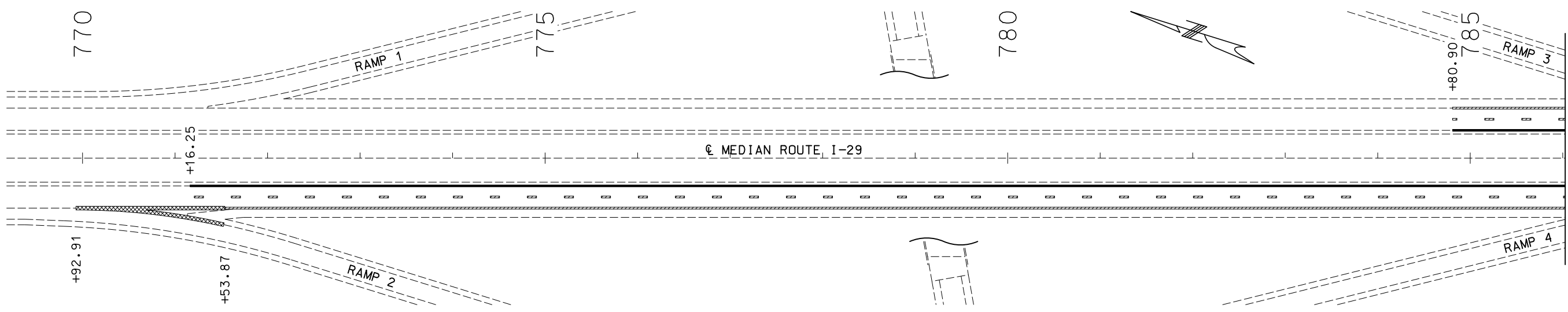
DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



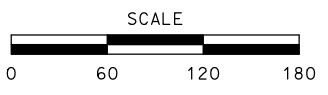
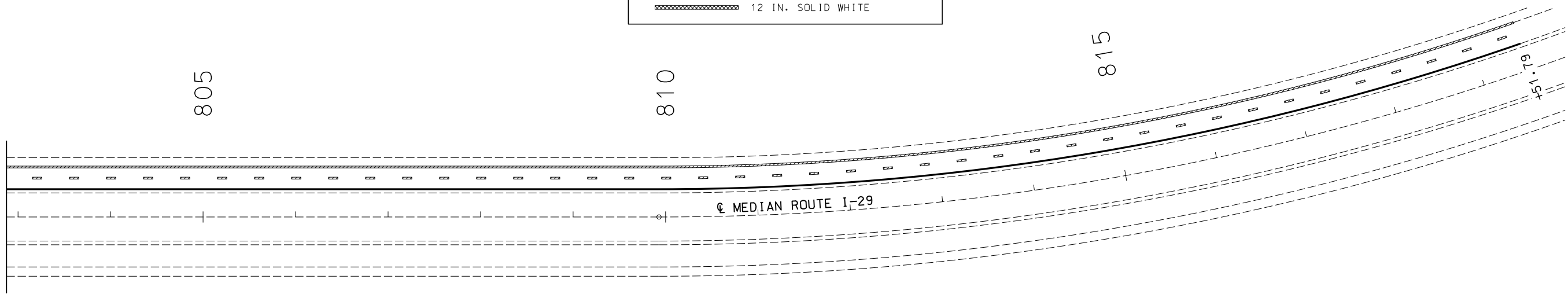
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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



PAVEMENT MARKING LEGEND

	6 IN. SOLID WHITE
	6 IN. INTERMITTENT WHITE
	6 IN. SOLID YELLOW
	12 IN. SOLID WHITE

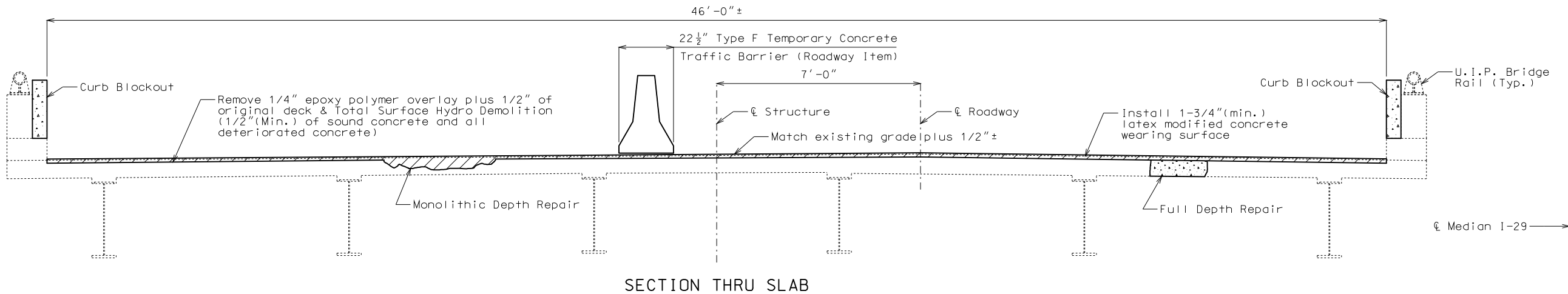


ALTERNATE B

PAVEMENT MARKING SHEET 2 OF 2

U.I.P. & REHAB. EXISTING (63'-81'-63') CONTINUOUS COMPOSITE PLATE GIRDER SPANS (SKEW: SQUARE)

SEC/SUR 6 TWP 61N RGE 38W



SECTION THRU SLAB

GENERAL NOTES:

Design Specifications:

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

Design Unit Stresses:

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

Reinforcing Steel:

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

Miscellaneous:

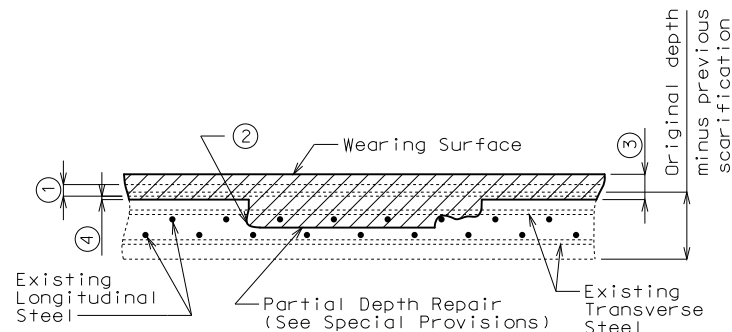
Maintain traffic during construction. See Roadway plans for traffic control.

All exposed edges of curb blockout shall have either a 1/2" radius or a 3/8" bevel unless otherwise shown.

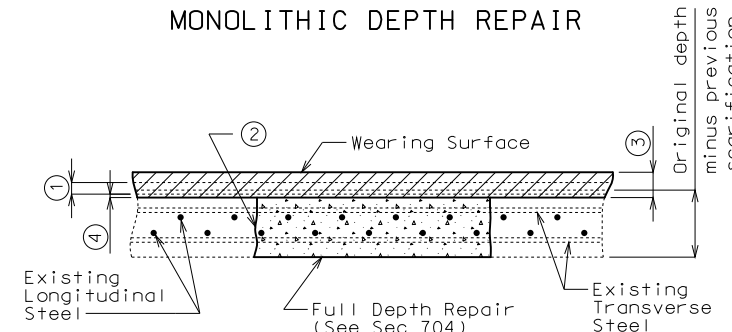
Outline of old work is indicated by light dashed lines. Heavy line indicate new work.

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

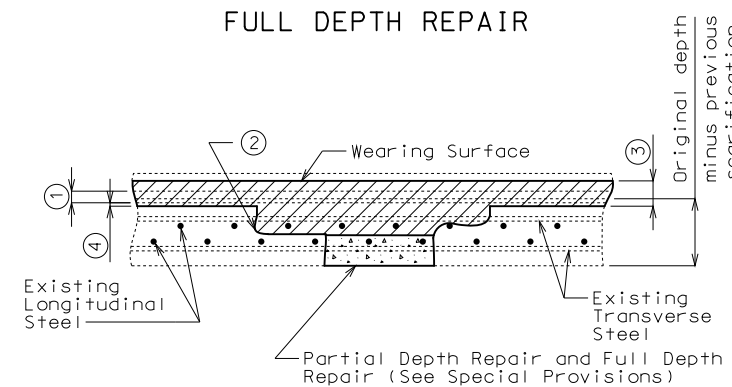
Bars bonded in old concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, old bars shall extend into new concrete at least 40 diameters for plain bars and 30 diameters for deformed bars, unless otherwise noted.



MONOLITHIC DEPTH REPAIR

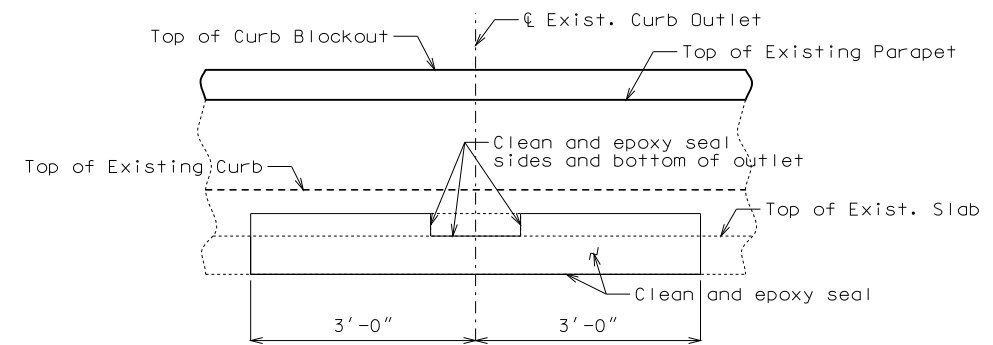


FULL DEPTH REPAIR



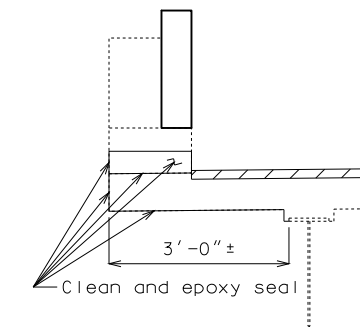
FULL DEPTH REPAIR WITH MONOLITHIC DEPTH REPAIR

DECK REPAIR DETAILS



TYPICAL SECTION AT CURB OUTLET

(Wearing surface not shown for clarity)



TYPICAL SECTION OF EXISTING CURB OUTLET SHOWING LIMITS OF EPOXY SEAL

- ① Remove existing wearing surface plus 1/2" of existing deck.
- ② One inch vertical side shall be established outside the deteriorated area. See Sec 704.
- ③ 1 3/4" (min.) for Latex Modified Concrete Wearing Surface
- ④ Total surface hydro demolition of existing deck 1/2" min. of sound concrete and all deteriorated concrete.

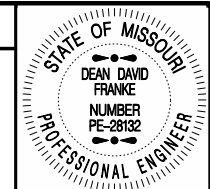
Estimated Quantities		
Item		Total
Removal of Epoxy Polymer Overlay	sq. foot	9614
Removal of Existing Deck Repairs	sq. foot	500
Latex Modified Concrete Wearing Surface	sq. yard	1068
Curb Blockout	linear foot	458
Full Depth Repair	sq. foot	100
Total Surface Hydro Demolition	sq. yard	1068
Clean and Epoxy Seal	sq. foot	1210
* Monolithic Deck Repairs	cu. yard	15

* Monolithic Deck Repairs will be made at a fixed unit price (See Job Special Provisions).

REPAIRS TO BRIDGE: ROUTE I-29 N.B. OVER DAVIS CREEK

ROUTE I-29 NB FROM RTE. 159 TO RTE. 118
ABOUT 0.2 MILE SOUTH OF RTE. 118
STA. 790+02.00± (Match Existing)

STD. 617.10
STD. 706.35



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
6/30/2016

ROUTE I-29 STATE MO
DISTRICT BR SHEET NO. 1

COUNTY HOLT
JOB NO. J1P3023C
CONTRACT ID.

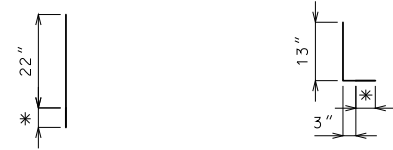
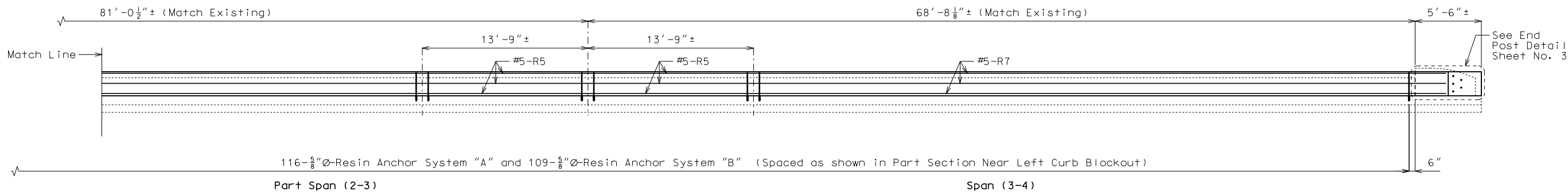
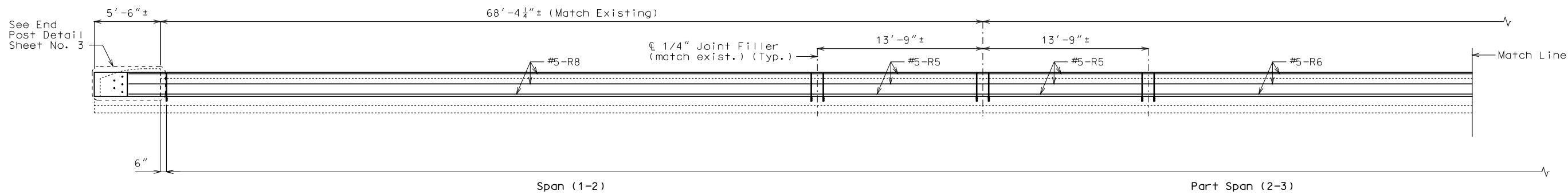
PROJECT NO.

BRIDGE NO. A17674

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.



System "A"
(148 required)
(Install in curb)

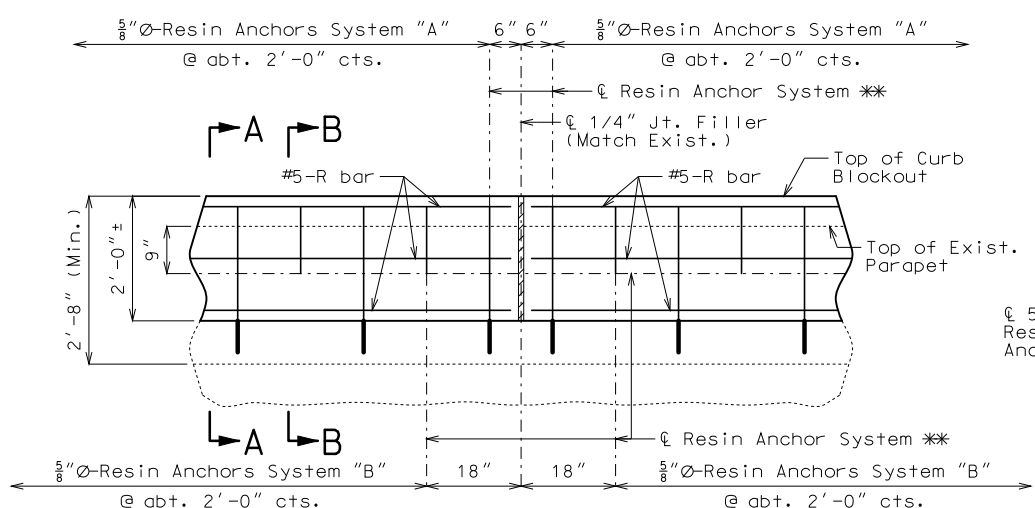
System "B"
(109 required)
(Install in parapet)

* Use manufacturer's embedment length.
(5" minimum embedment)

DETAILS OF RESIN ANCHORS

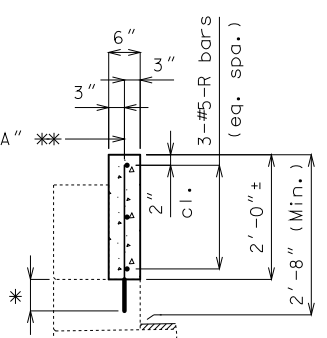
SECTION NEAR LEFT CURB BLOCKOUT
(Right curb blockout similar)

Note: Longitudinal dimensions shown are along grade and are taken at top outside edge of parapet.
Bridge rail not shown for clarity.

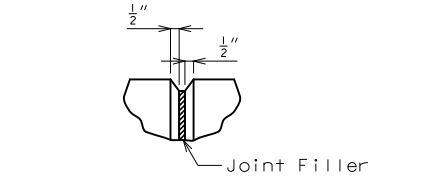


** Shift resin anchors where necessary to clear existing anchor bolts for bridge rail, miss curb outlets (if present) and clear existing reinforcement.

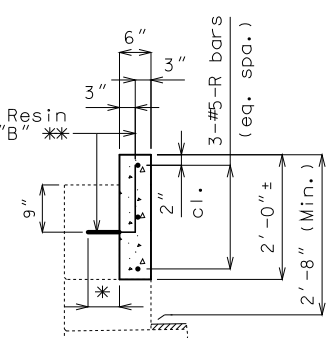
PART SECTION NEAR LEFT CURB BLOCKOUT



SECTION A-A



FILLED JOINT DETAIL



SECTION B-B

DETAILS OF LEFT CURB BLOCKOUT

Notes:
Concrete in curb blockout shall be Class B-1 with $f'_c = 4000$ psi.

Measurement of curb blockout is to the nearest linear foot, measured at the top outside edge of parapet from end of wing to end of wing.

All exposed edges of curb blockout shall have 1/2" radius or 3/8" bevel unless otherwise shown.

Payment for concrete, reinforcing steel, resin anchor systems, and any other work incidental to the curb blockout, complete in place, will be included in the contract unit price for Curb Blockout per linear foot.

Cost of any concrete curb or parapet repair will be included in the contract unit price for Curb Blockout.

All reinforcement shall be epoxy coated.

Use a minimum lap of 2'-11" for #5 horizontal curb blockout bars.

Concrete traffic barrier delineators shall be placed on top of the curb blockout similarly as shown on Missouri Standard Plans 617.10 and in accordance with Sec 617. Delineators shall have retroreflective sheeting on side facing oncoming traffic only. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for "Curb Blockout".

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

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

An epoxy coated #5 Grade 60 reinforcing bar shall be substituted for the 5/8" threaded rod.

STATE OF MISSOURI
DEAN DAVID FRANK
NUMBER PE-28132
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

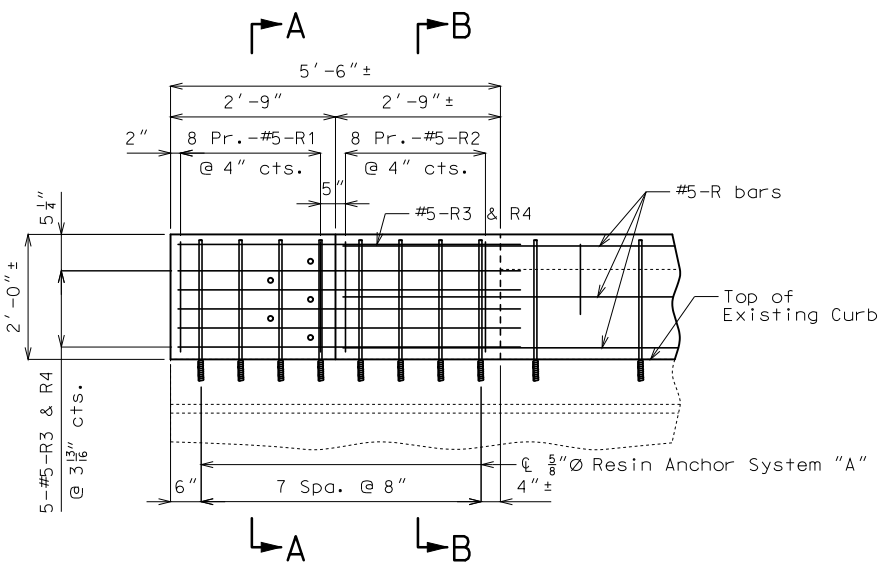
DATE PREPARED 2/11/2016	
ROUTE I-29	STATE MO
DISTRICT BR	SHEET NO. 2
COUNTY HOLT	
JOB NO. J1P3023C	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO. A17674	

DATE	DESCRIPTION

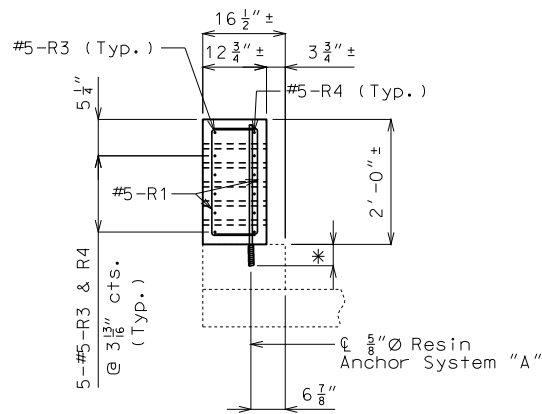
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

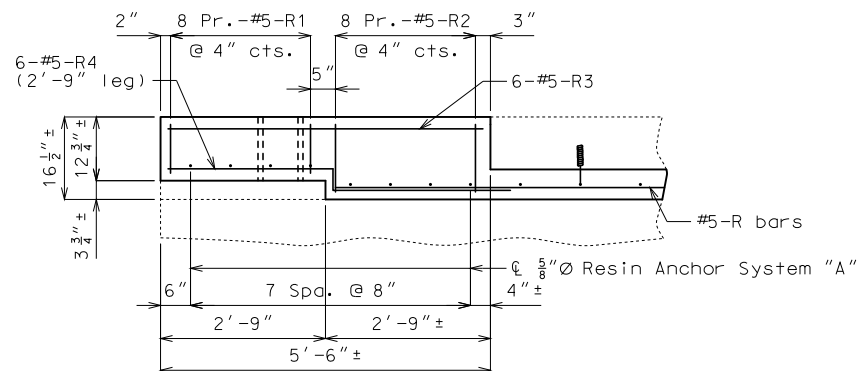
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



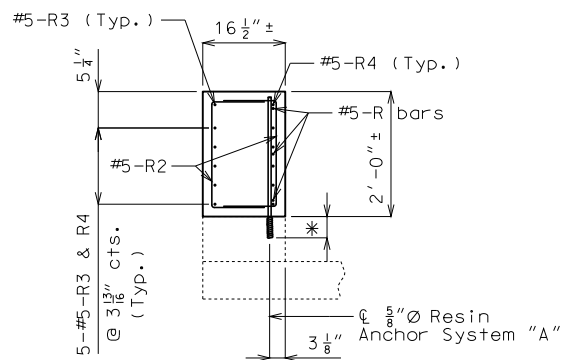
ELEVATION SHOWING END POST REINFORCEMENT



SECTION A-A

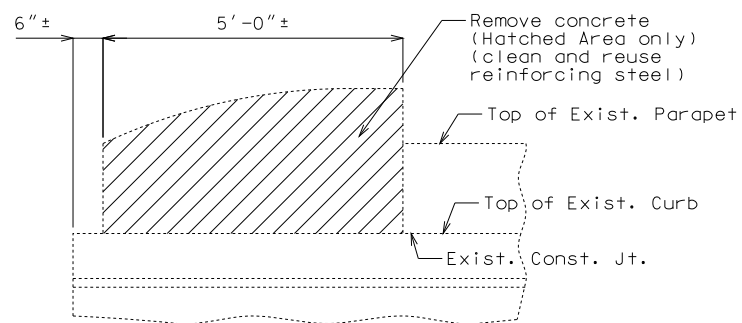


PLAN SHOWING END POST REINFORCEMENT



SECTION B-B

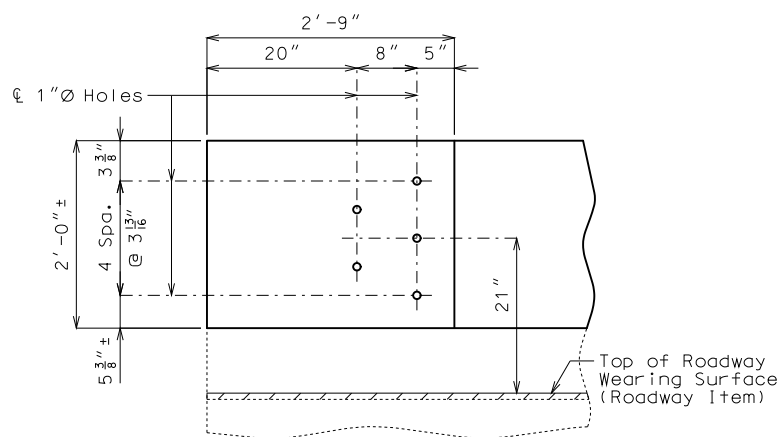
* Manufacturer's recommended embedment length (5" min.)



PART ELEVATION SHOWING END POST CONCRETE REMOVAL

Note:

Cost of removing existing end posts will be considered completely covered by the contract unit price for Curb Blockout.



DETAILS OF GUARD RAIL ATTACHMENT

DETAILS OF END POST AT END BENTS

Notes:

All exposed edges of curb blockout shall have 1/2" radius or 3/8" bevel unless otherwise shown.

Use a minimum lap of 2'-11" for #5 horizontal curb blockout bars.

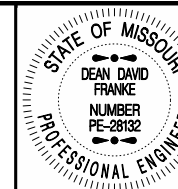
Payment for concrete, reinforcing steel, resin anchor systems, and any other work incidental to the curb blockout, complete in place, will be included in the contract unit price for Curb Blockout per linear foot.

Cost of any concrete curb or parapet repair will be included in the contract unit price for Curb Blockout.

Aluminum railing is not shown for clarity.

All reinforcement shall be epoxy coated.

For Details of Resin Anchors, see Sheet No. 2.



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
2/11/2016

ROUTE 1-29 STATE MO

DISTRICT BR SHEET NO. 3

COUNTY HOLT

JOB NO. J1P3023C

CONTRACT ID.

PROJECT NO.

BRIDGE NO. A17674

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

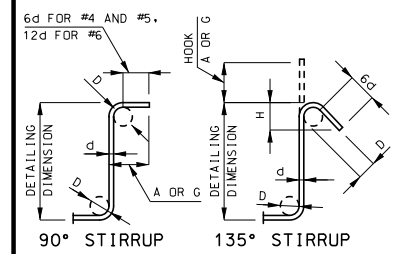
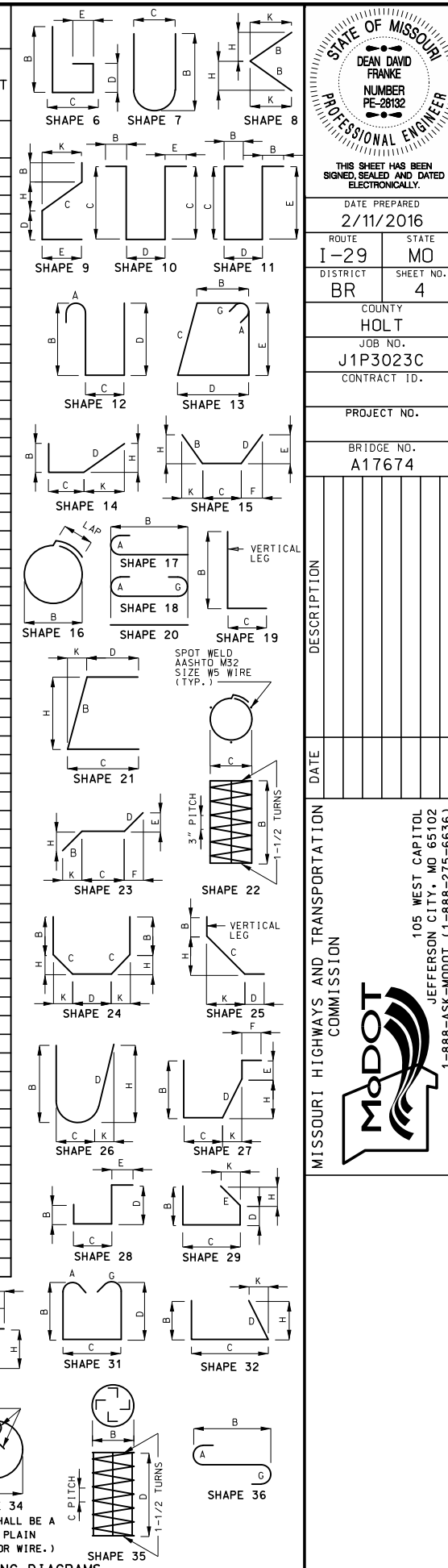
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

BILL OF REINFORCING STEEL

NO.	REQ'D.	MARK NO.	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS								NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT								
										B	C	D	E	F	H	K	FT.				IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.
64	5	R1	BLOCKOUT	E	10	S													3	5	3	2				211		
64	5	R2	BLOCKOUT	E	10	S														4	0	3	10				256	
24	5	R3	BLOCKOUT	E	20															5	3	5	3				131	
24	5	R4	BLOCKOUT	E	28	S														6	1	5	10				146	
24	5	R5	BLOCKOUT	E	20															13	6	13	6				338	
6	5	R6	BLOCKOUT	E	20															53	3	53	3				333	
6	5	R7	BLOCKOUT	E	20															57	5	57	5				359	
6	5	R8	BLOCKOUT	E	20															57	1	57	1				357	
TOTALS																												
5				E																						2131		
			TOTAL																							0		
			TOTAL																							2131		
			Slab on Girder																							2131		
			TOTAL																							2131		

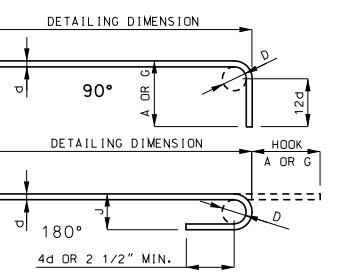
BILL OF REINFORCING STEEL

NO.	REQ'D.	MARK NO.	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS								NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT									
										B	C	D	E	F	H	K	FT.				IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.



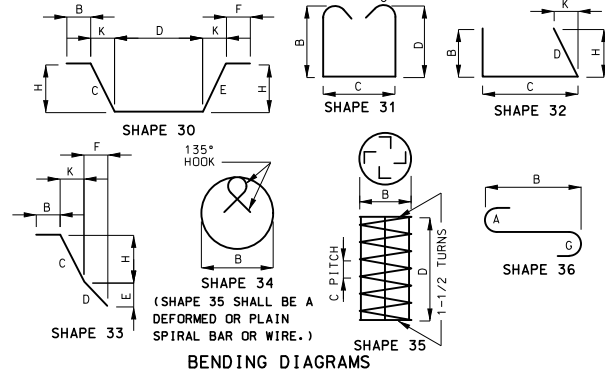
STIRRUP HOOK DIMENSIONS			
BAR SIZE	D (IN.)	GRADES 40 - 50 - 60 KSI	
		90° HOOK	135° HOOK
#4	2"	4 1/2"	3"
#5	2 1/2"	6"	3 3/4"
#6	4 1/2"	12"	4 1/2"

NOTE: UNLESS OTHERWISE NOTED, DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.



BAR SIZE	D (IN.)	END HOOK DIMENSIONS			
		180° HOOKS		90° HOOKS	
		A	B	C	D
#3	2 1/4"	5"	3"	6"	6"
#4	3"	6"	4"	8"	8"
#5	3 3/4"	7"	5"	10"	10"
#6	4 1/2"	8"	6"	12"	12"
#7	5 1/4"	10"	7"	14"	14"
#8	6"	11"	8"	16"	16"
#9	9 1/2"	15"	11 3/4"	19"	19"
#10	10 3/4"	17"	13 1/4"	22"	22"
#11	12"	19"	14 3/4"	2'-0"	2'-0"
#14	18 1/4"	2'-3"	21 3/4"	2'-7"	2'-7"

NOTE: ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEGREE ARE TO BE BENT WITH SAME PROCEDURE AS FOR 90 DEGREE STANDARD HOOKS. HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET. E = EPOXY COATED REINFORCEMENT. S = STIRRUP. X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES. Y = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE. NO. EA. = NUMBER OF BARS OF EACH LENGTH. NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATORS USE. (NEAREST INCH) ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH. PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS. FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF SPIRALS DO NOT INCLUDE SPLICES OR SPACERS. REINFORCING STEEL (GRADE 60) FY = 60,000 PSI.



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

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	81	

GENERAL NOTES:

Design Specifications: A.A.S.H.O. - 1969

Design Loading:

H520-44, 15 #/sq ft Future Wearing Surface
Earth 120# Equivalent Fluid Pressure 30#
Modified 24,000# Tandem Axle; Fatigue stress - Case I

Design Unit Stresses:

Class B Concrete (substructure) $f_c = 1,200$ psi
Class B1 Concrete (superstructure) $f_c = 1,600$ psi
Reinforcing steel $f_s = 20,000$ psi
Structural Steel $f_s = 20,000$ psi

Fabricated Steel:

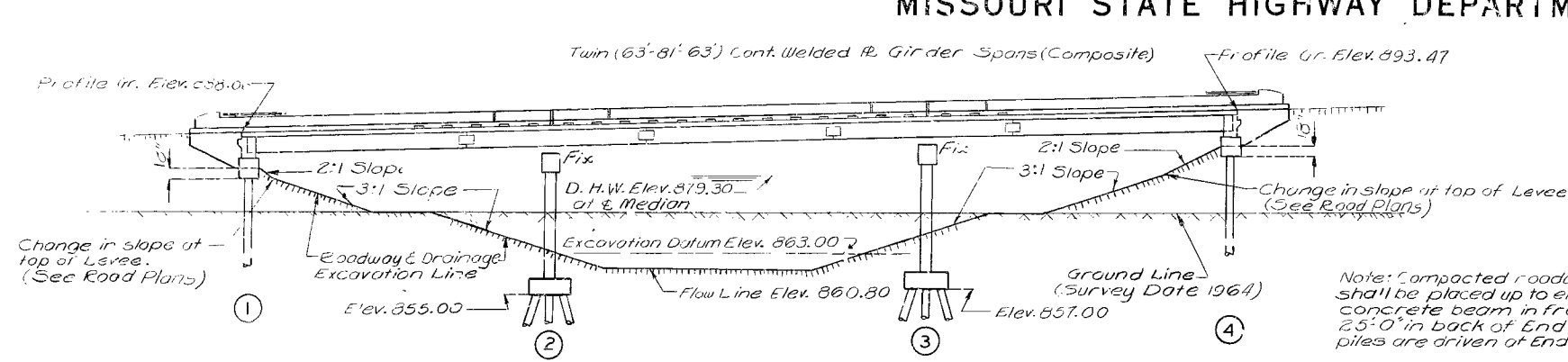
Field connections, High Strength Bolts $\frac{3}{4}$ " ϕ , holes $\frac{1}{16}$ " ϕ except as noted.

Paint:

Shop, none; Field, by contractor in accordance with Std. Spec. 712.12.

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be $\frac{1}{2}$ ", unless otherwise shown.



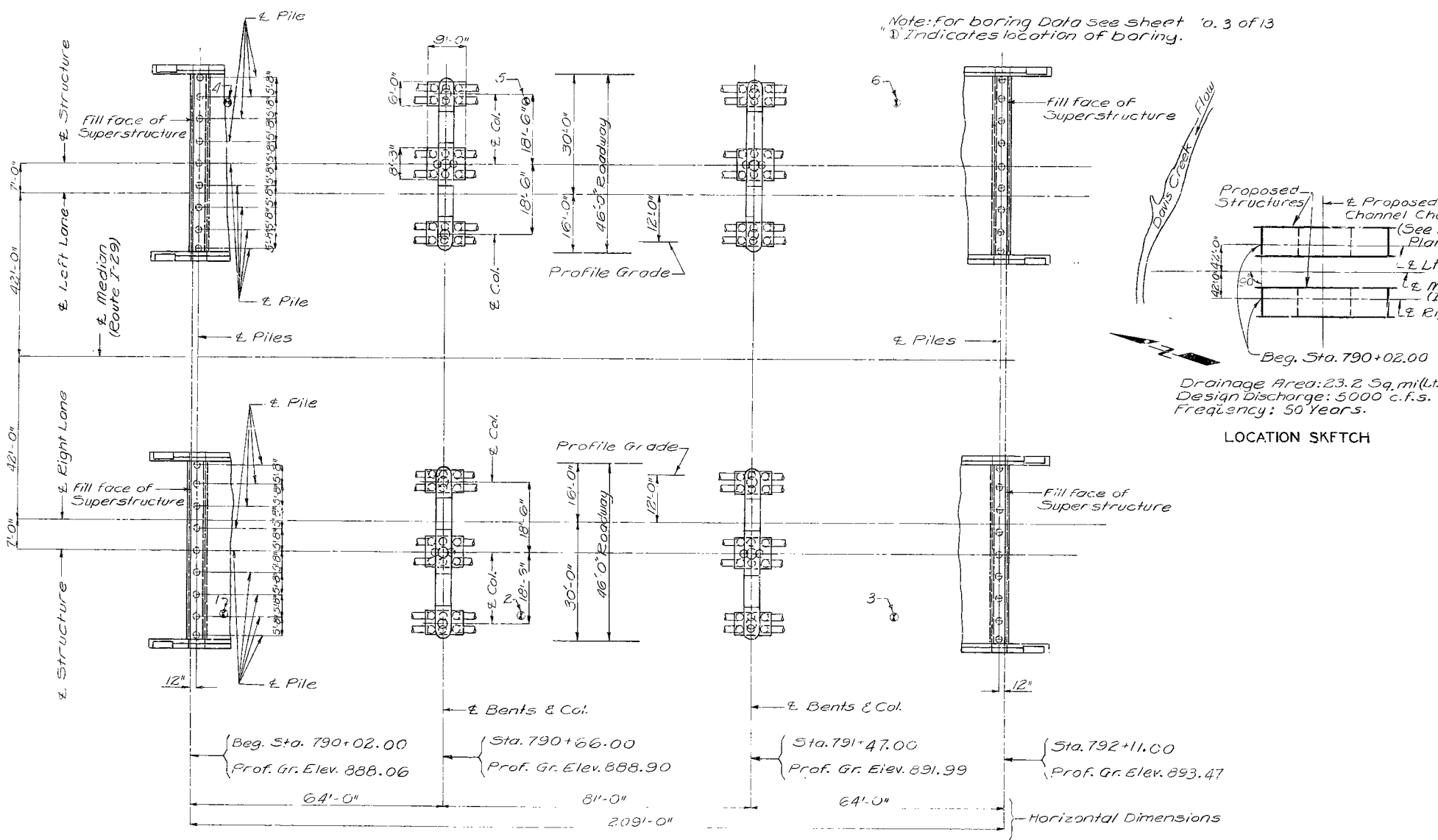
P.I. Sta. 791+75.00
Elev. 911.25
 $+3.0\%$ -3.0%
1250' V.C.

GENERAL ELEVATION RIGHT LANE
(LEFT LANE SIMILAR)

Note: for boring data see sheet 'o. 3 of 13
① indicates location of boring.

ESTIMATED QUANTITIES			
ITEM		SUBSTR.	SUPERSTR. TOTAL
Class 1 Excavation	Cu. Yd.	160	160
Class 2 Excavation	Cu. Yd.	362	362
Cast In Place Concrete Piles	Lin. Ft.	5735	5735
Class B Concrete	Cu. Yd.	237.6	237.6
Class B-1 Concrete	Cu. Yd.	652.8	652.8
Reinforcing Steel	Lbs.	36,840	185,020
Fabricated Structural Carbon Steel	Lbs.	34070	34070
Painting	Ton	1690	1690
Bridge Baul (One Tube)	Lin. Ft.	870	870

Note: All concrete and reinforcement in end bents (except pile cap beam) is included with superstructure quantities.
Note: Payweight for fabricated steel will be based on welded field splices, regardless of type used.



LOCATION SKETCH

PILE DATA LEFT & RIGHT LANE					
Bent No.		1	2	3	4
Type		Found.	Found.	Found.	Found.
Kind		C.I.P.	C.I.P.	C.I.P.	C.I.P.
Number	Left Lane	9	20	20	9
	Right Lane	9	20	20	9
Approximate Ft. Length	Left Lane	72	38	38	67
	Right Lane	61	37	50	75
Design Bearing	Tons	27.0	31.0	31.0	27.0
Min. Tip Penetration	Elev.	840.0	840.0	840.0	840.0
Pile Standard		762.02			
Hammer Energy required	Ft. Lbs.	3000	8,000	8000	8,000

Minimum energy requirement of hammer based on plan length of piles.
All pile shall be driven to the minimum penetrations and to not less than the design bearings noted.

B.M. Elev. 868.14, Bronze Tablet Set in Conc.
1500' Rt. Sta. 786+98.46 (U.S. G.S. Datum 1929 Adj.)

BRIDGE OVER DAVIS CREEK

STATE ROAD: INTERSTATE ROUTE 29

ABOUT 0.3 MILE W. OF MOUND CITY

PROJECT NO. I-29-215, RTE. I-29 STA. 790+02.00

HOLT COUNTY

SUBMITTED BY: W.A. Cassey, BRIDGE ENGINEER, DATE: 9-5-70
APPROVED BY: Robert M. Switzer, CHIEF ENGINEER, DATE: 9-5-70

STD. 702.02
STD. 706.30A
A-1767

DESIGNED FEB. 1970 BY LINDSEY
DETAILED MAR 1970 BY JAVAHERIAN
CHECKED May 1970 BY H. A. J.

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

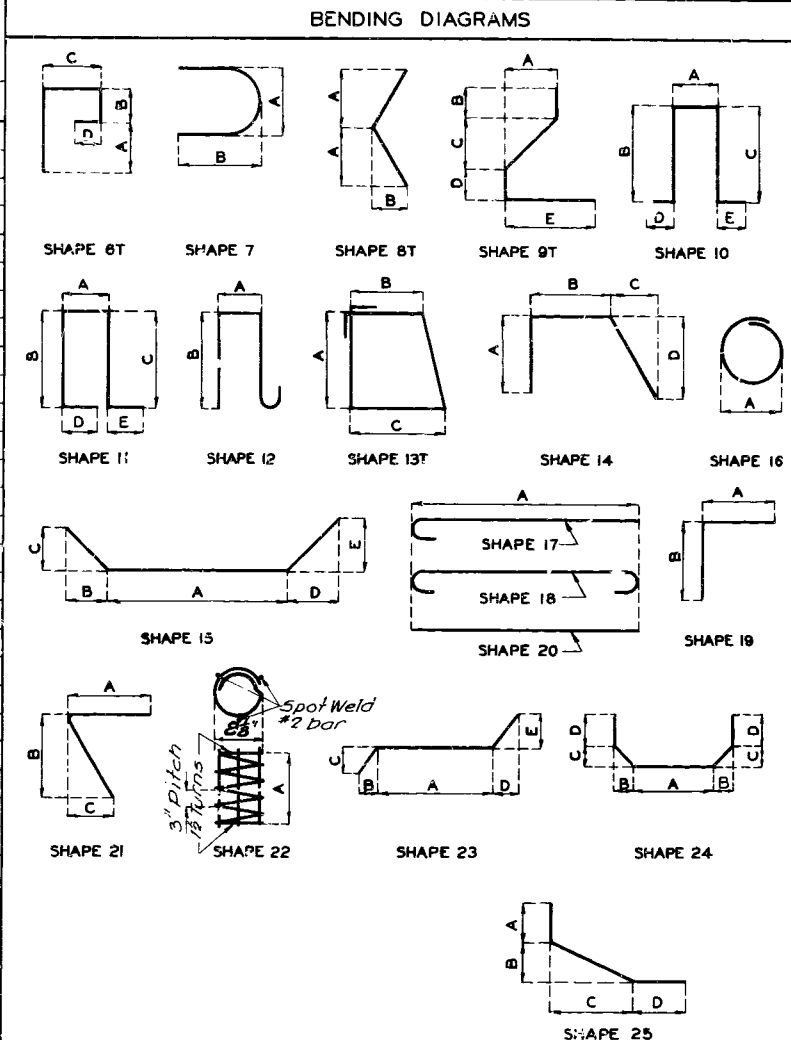
Sheet No. 1 of 13

MISSOURI STATE HIGHWAY DEPARTMENT

Table with 7 columns: FED. ROAD DIST. NO., STATE, FED. AID PROJ. NO., FISCAL YEAR, SHEET NO., TOTAL SHEETS. Values: 5, MO, 19, 82.

Main bar list table for left side, columns: NO. REQD., MARK NO. SIZE MARK, LOCATION, SHAPE NO., TIE OR STIR. SUBSTR. VARIES NO. EA., DIMENSIONS (A-E), LENGTH, WEIGHT.

Main bar list table for right side, columns: NO. REQD., MARK NO. SIZE MARK, LOCATION, SHAPE NO., TIE OR STIR. SUBSTR. VARIES NO. EA., DIMENSIONS (A-E), LENGTH, WEIGHT.



Note: All bending dimensions are out to out. Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for detailing reinforced concrete structures.

T-tie or stirrup 5-bar is included in substructure quantities. Length - Total lengths are measured along centerline bar to the nearest inch. V-bar dimensions vary in equal increments between dimensions shown on this line and the following line. No. Ea - Number of bars of each length.

390 (vertical handwritten number)

REVISED JULY 1969, MAR 6 1970

Drawn MAY 1970 by MOLAJI, MOKFI & JAVAHERIAN Checked May 1970 by Ault

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

Sheet No. 2 of 13

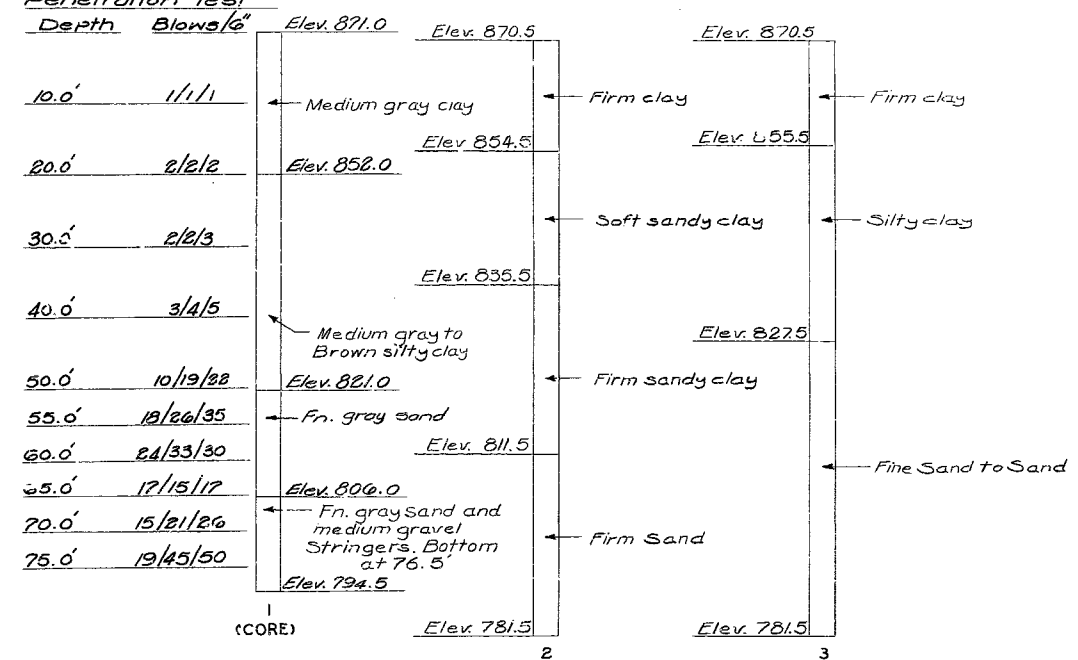
HOLT COUNTY

A-1767

MISSOURI STATE HIGHWAY DEPARTMENT

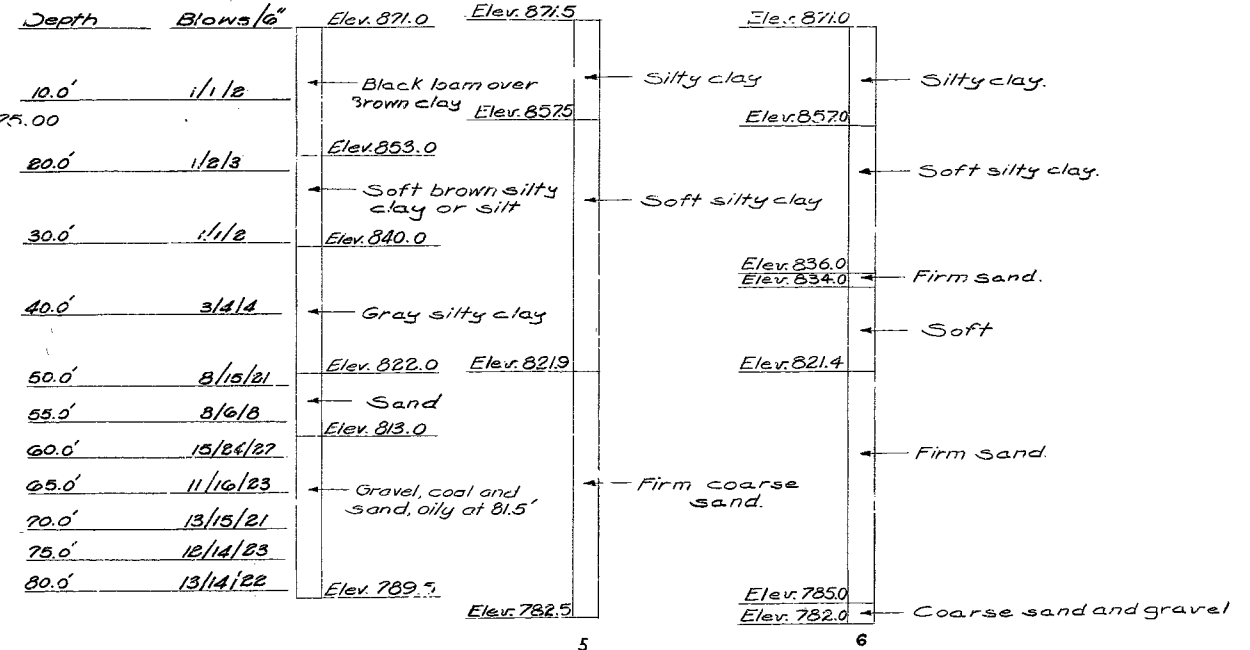
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	83	

Standard Penetration Test

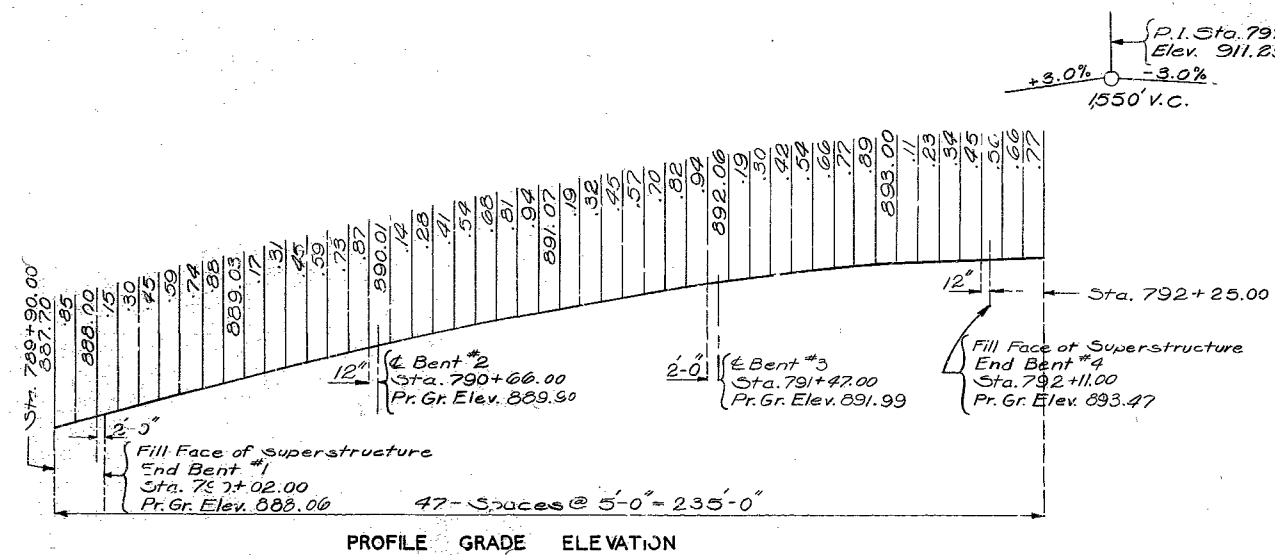


RIGHT LANE

Standard Penetration Test



LEFT LANE



PROFILE GRADE ELEVATION

391

DETAILED FEB. 1970 BY MOLAI
CHECKED April 1970 BY Ault

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

BORING DATA
SEE SHEET #1 FOR LOCATION OF BORINGS

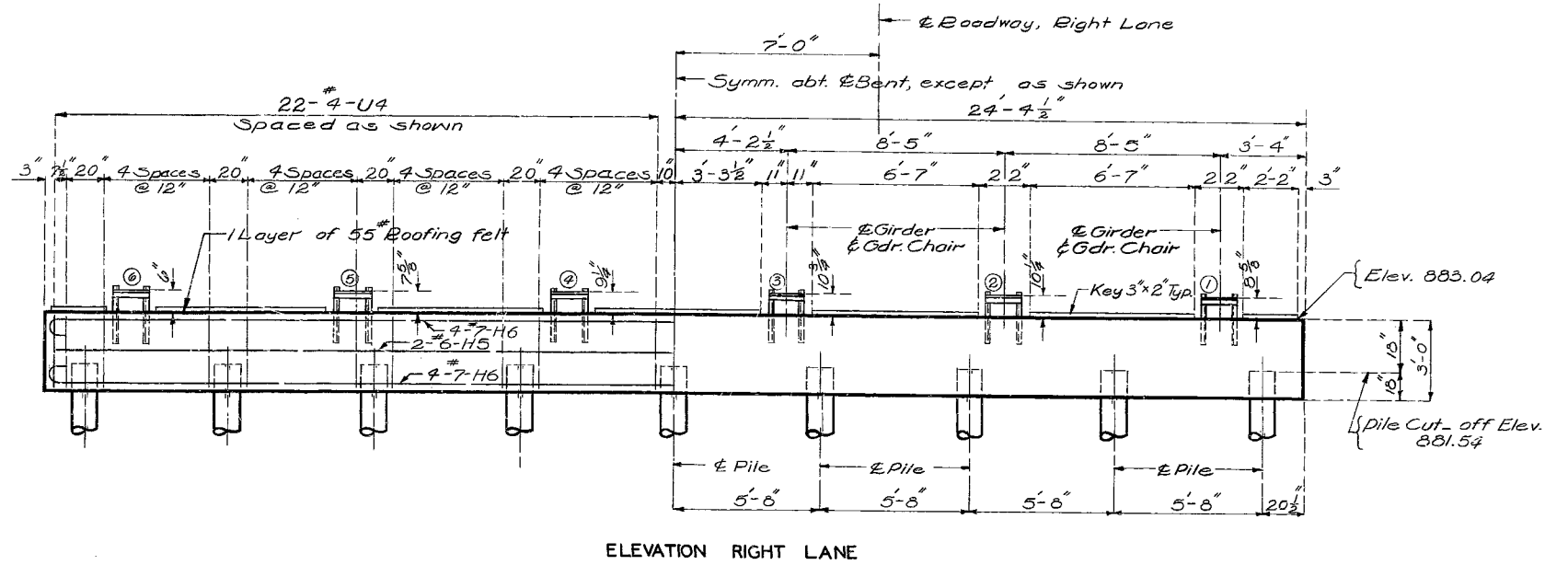
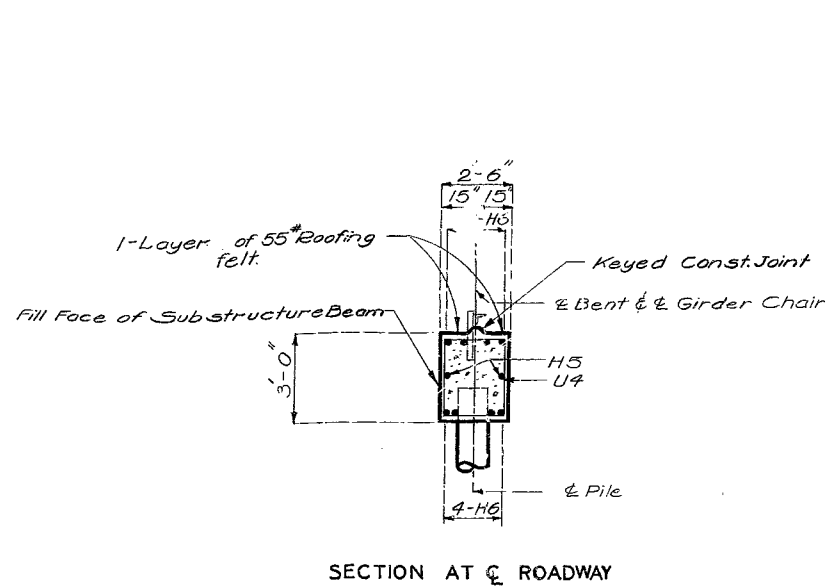
Sheet No. 3 of 13

HOLT COUNTY

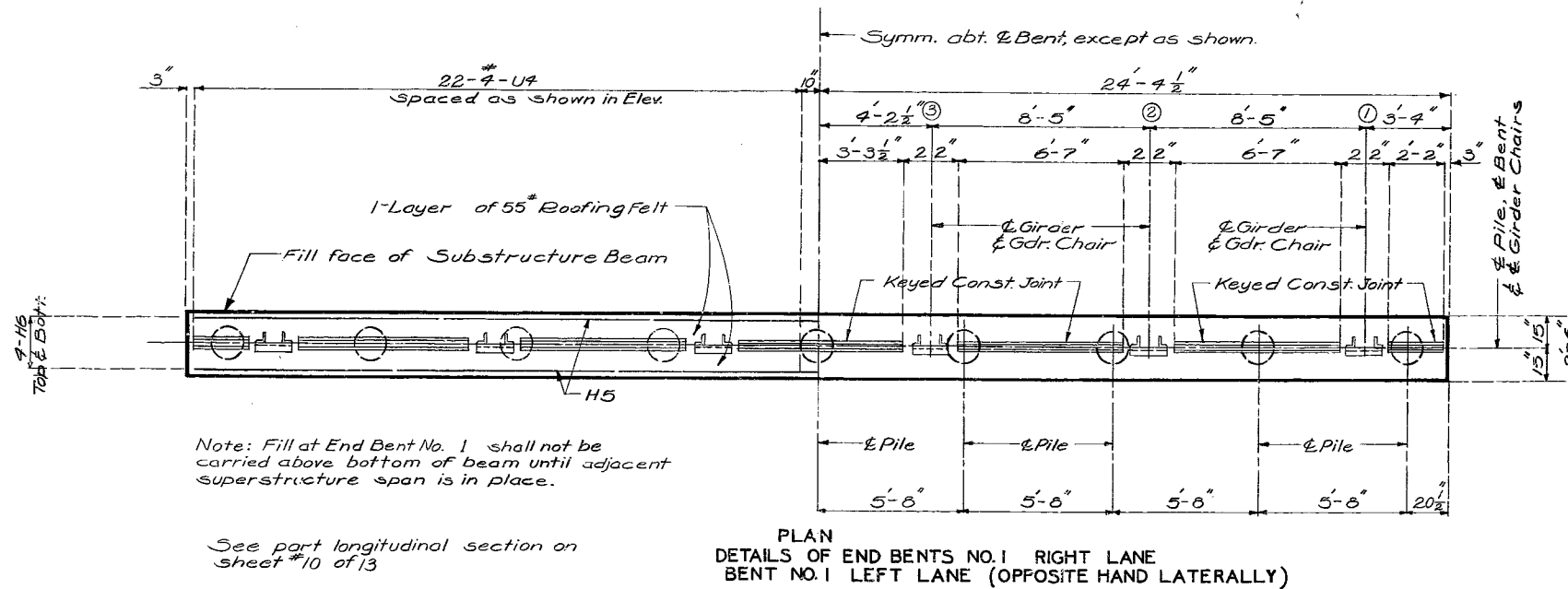
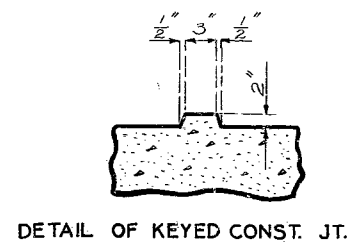
A-1767

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	84	



Note: See sheet No. 11 of 13 for details of Girder Chair



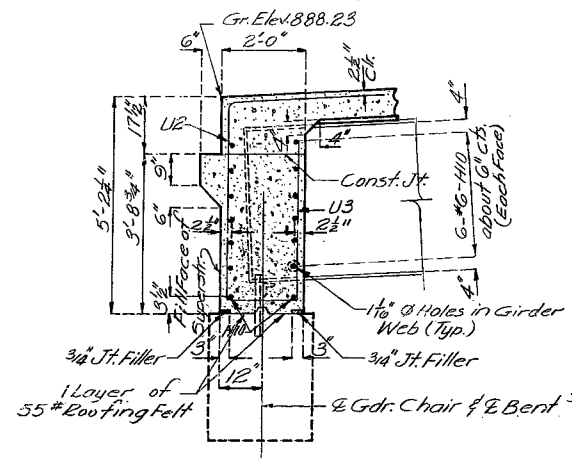
Note: Fill at End Bent No. 1 shall not be carried above bottom of beam until adjacent superstructure span is in place.

See part longitudinal section on sheet #10 of 13

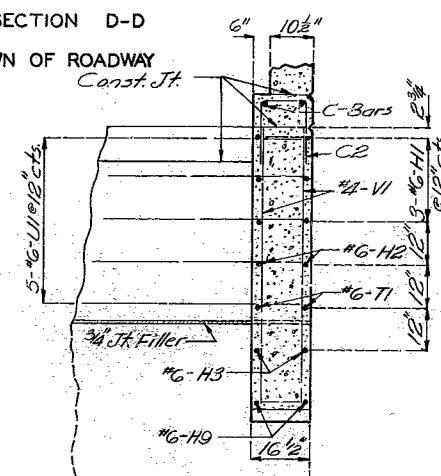
392

MISSOURI STATE HIGHWAY DEPARTMENT

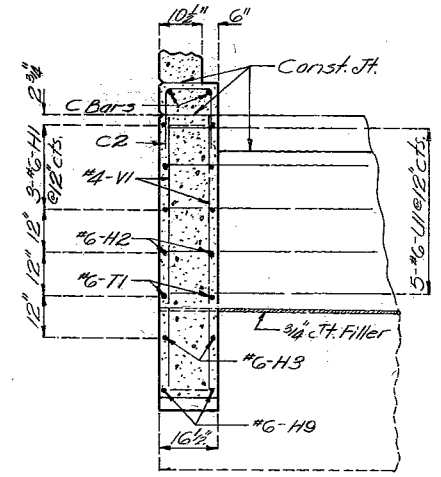
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	85	



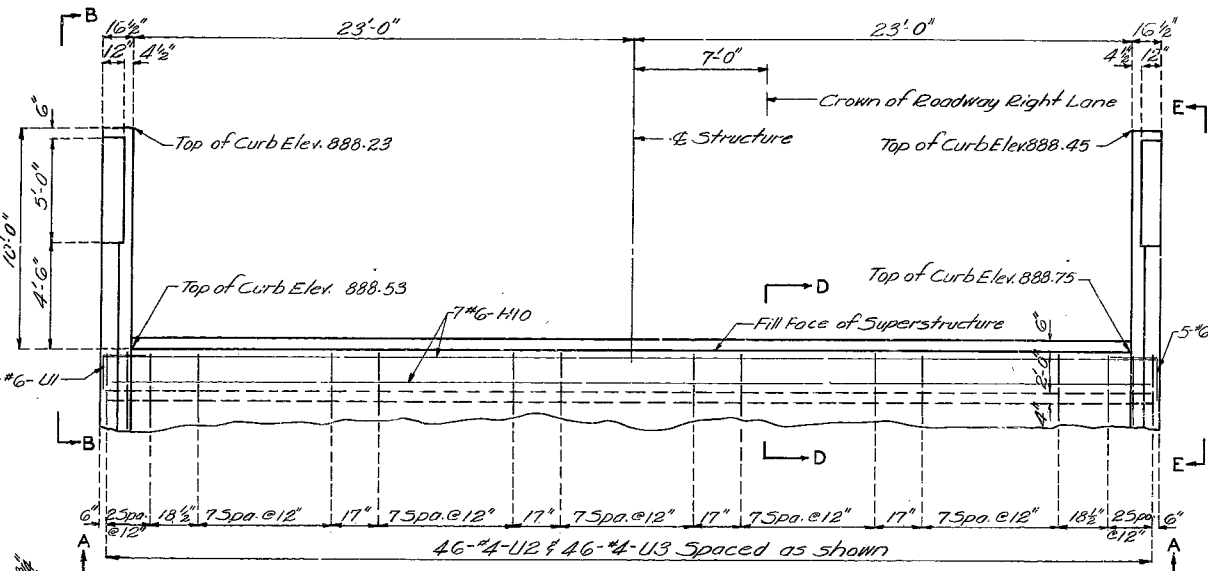
SECTION D-D
AT CROWN OF ROADWAY



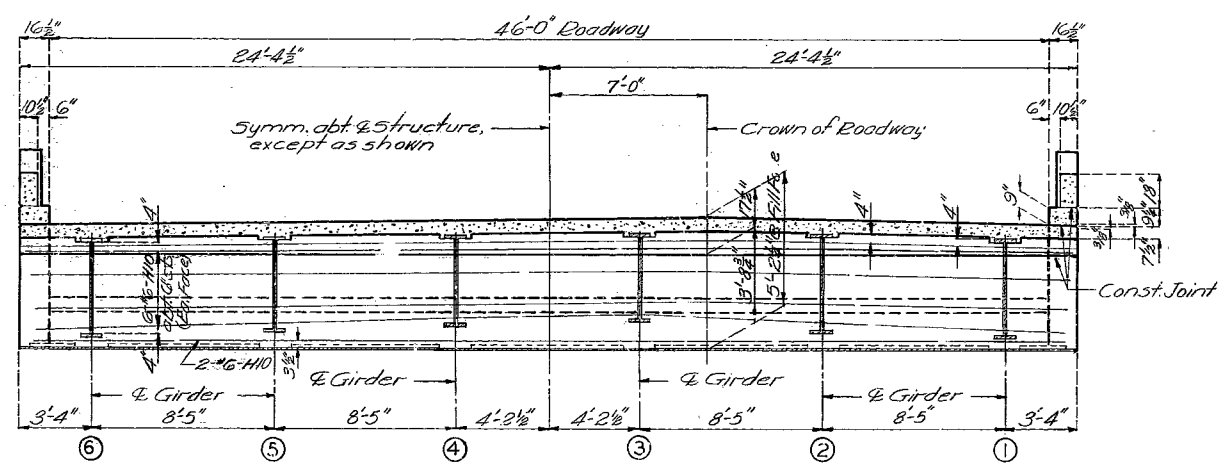
SECTION C-C



SECTION E-E

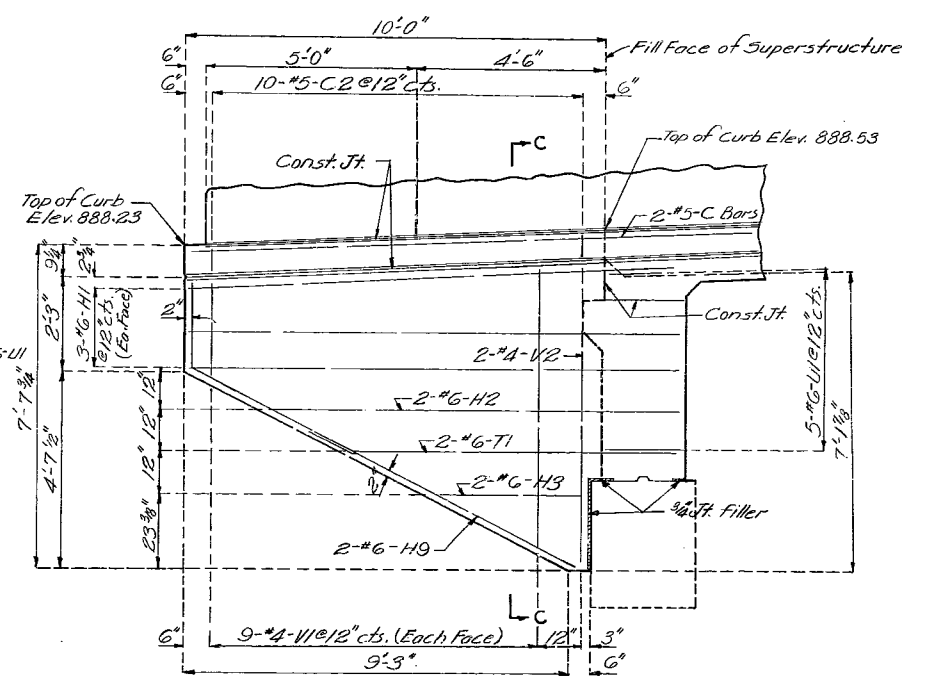


PLAN

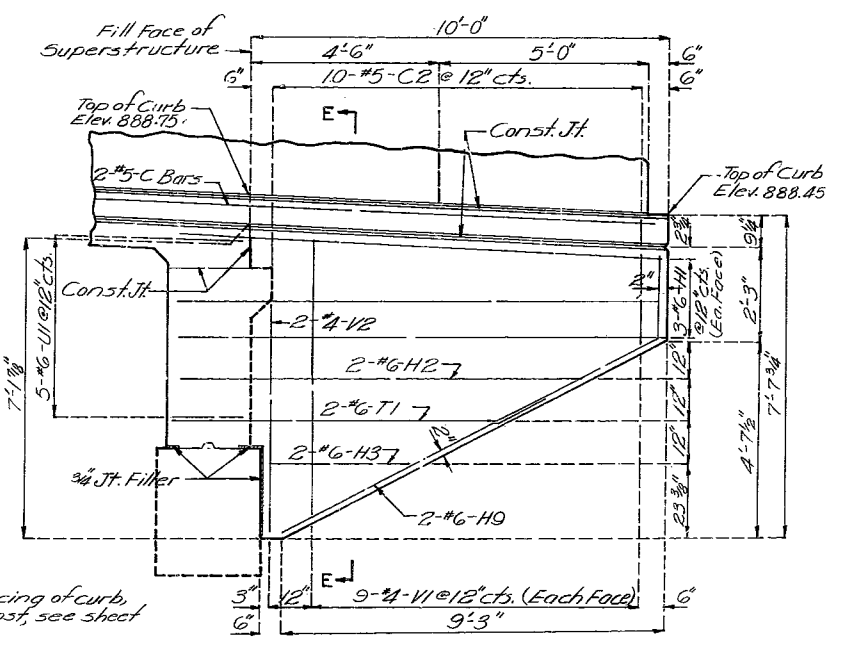


SECTION A-A

BENT NO. 1 RIGHT LANE
BENT NO. 1 LEFT LANE (OPPOSITE HAND LATERALLY)



ELEVATION B-B



ELEVATION E-E

Note: For additional reinforcing of curb, parapet and end post, see sheet No. 13 of 13.

393

DETAILED MAR. 1970 BY MOKFI
CHECKED April 1970 BY Ault

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

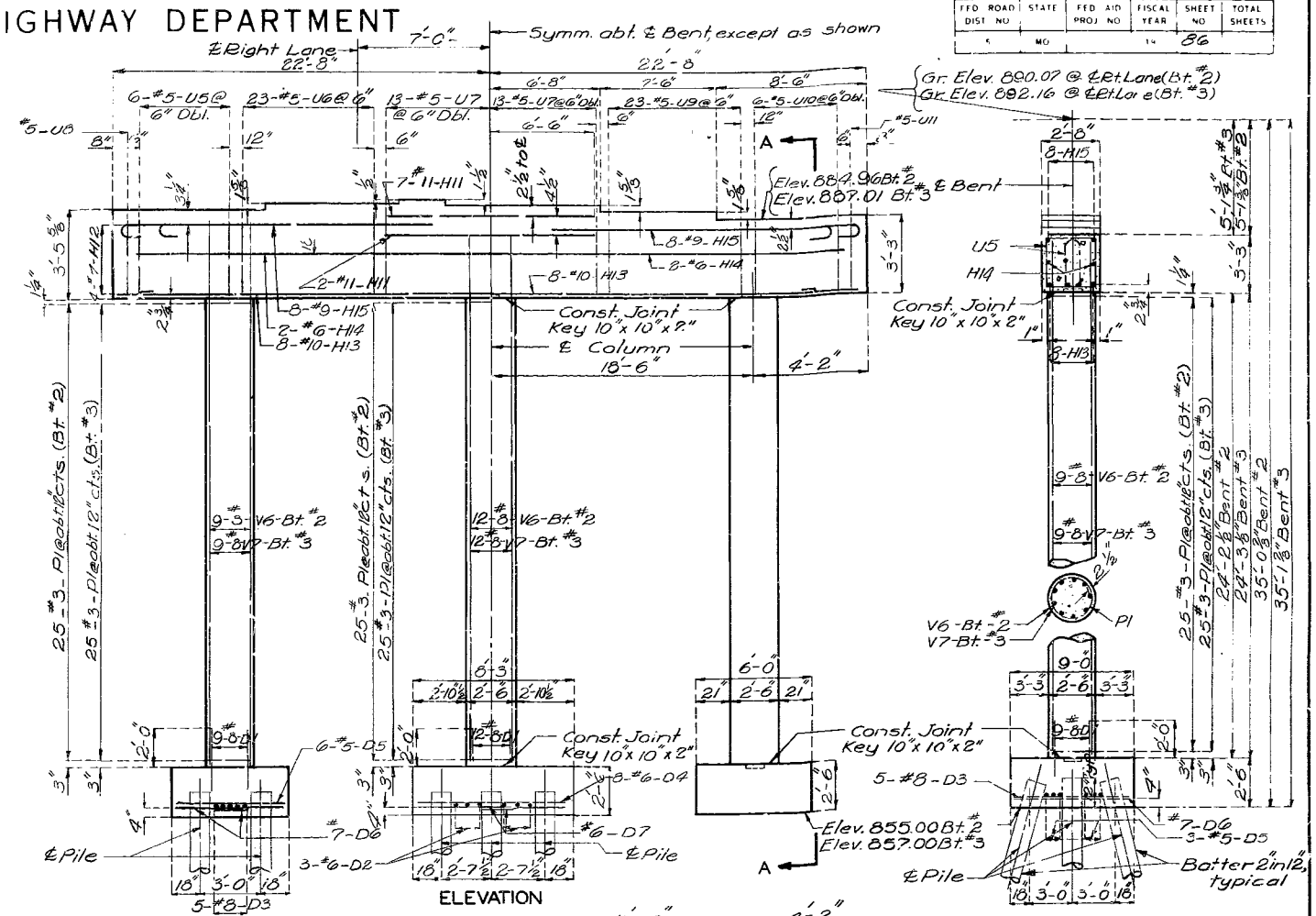
Sheet No. 5 of 13

HOLT COUNTY

A-1767

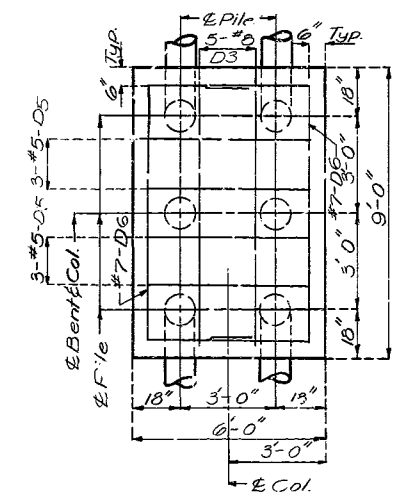
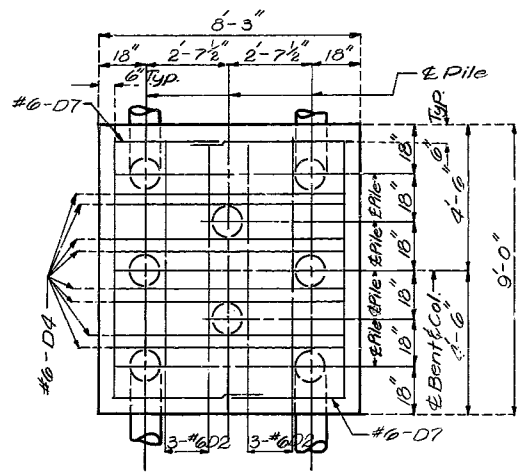
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		14	86	



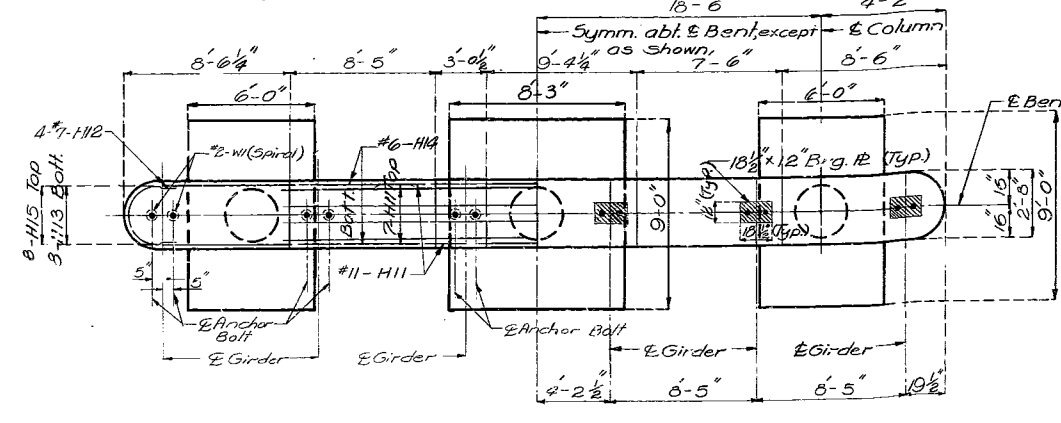
ELEVATION

SECTION A-A



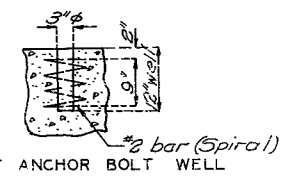
PLAN OF INT. COLUMN FOOTING SHOWING REINFORCEMENT BENTS NO. 2 & 3

PLAN OF EXT. COLUMN FOOTING SHOWING REINFORCEMENT BENTS NO. 2 & 3



PLAN

DETAILS OF INTERMEDIATE BENTS NO. 2 & 3 RIGHT LANE BENTS NO. 2 & 3 LEFT LANE (OPPOSITE HAND LATERALLY)



DETAIL OF ANCHOR BOLT WELL

394

NO. 1966 A
SEPT. 1962
REVISED
APRIL 1969

DETAILED MAR. 1970 BY MOLAI
CHECKED May 1970 BY AUIT

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

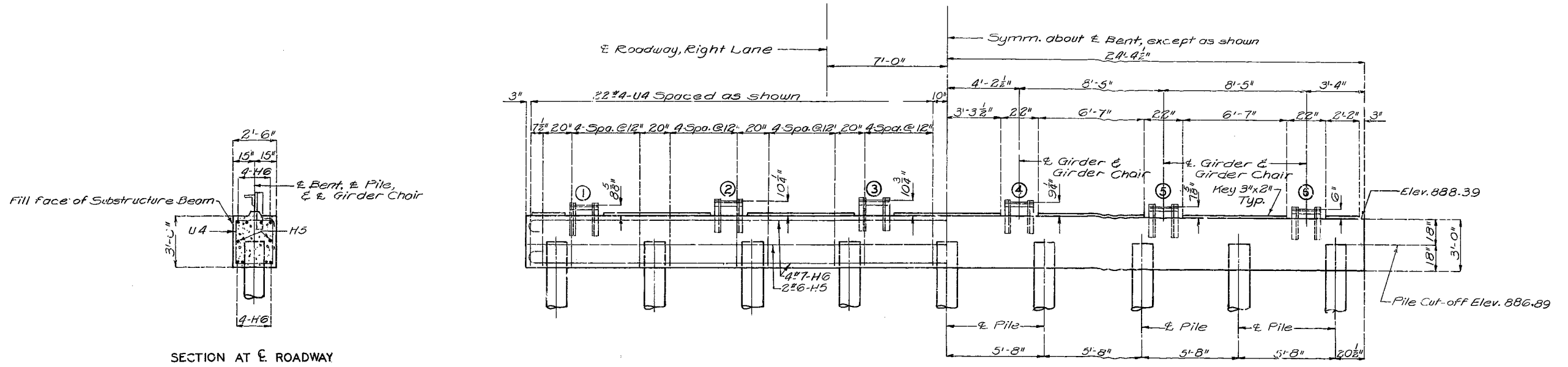
Sheet No. 6 of 13

HOLT COUNTY

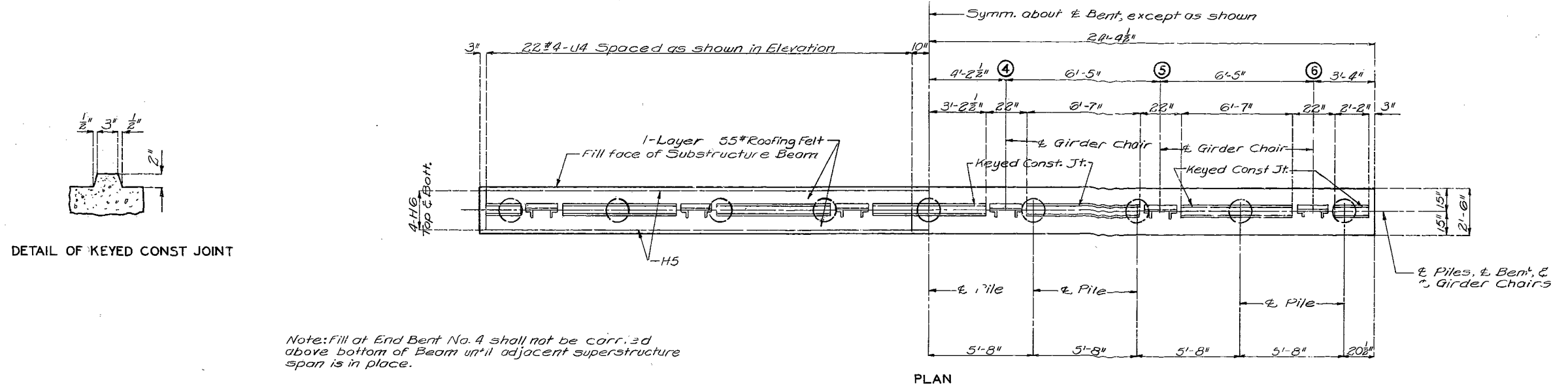
A-1767

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STAT.	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	87	



Note: See sheet No. 11 of 13 for Detail of Girder Chair



Note: See part longitudinal section on sheet No. 10 of 13

Note: Fill at End Bent No. 4 shall not be carried above bottom of Beam until adjacent superstructure span is in place.

DETAILS OF END BENT NO. 4 RIGHT LANE
BENT NO. 4 LEFT LANE (OPPOSITE HAND Laterally)

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

Sheet No. 7 of 13

HOLT COUNTY

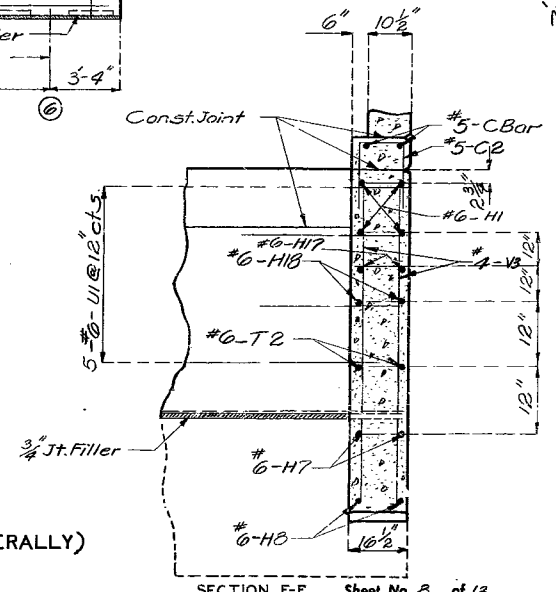
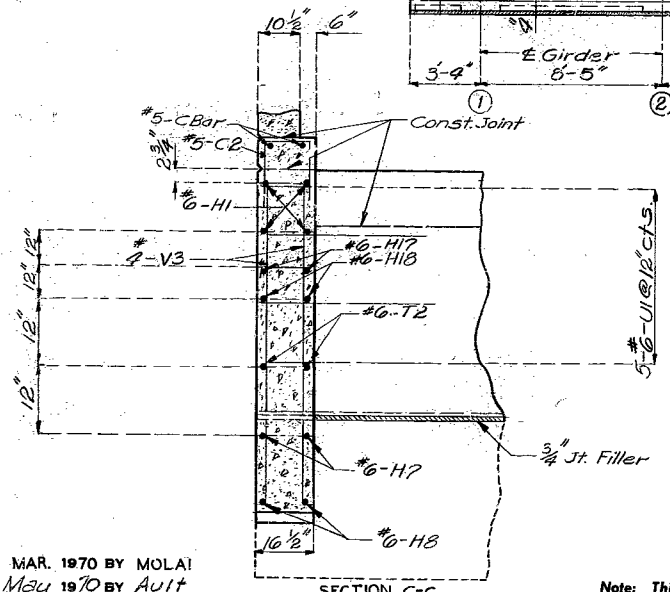
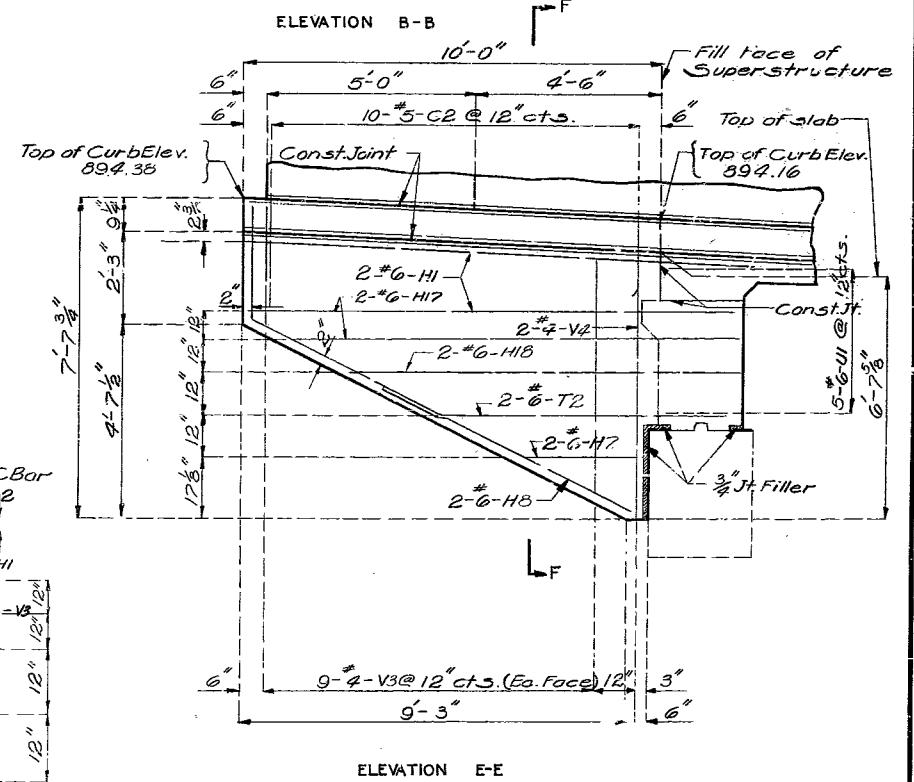
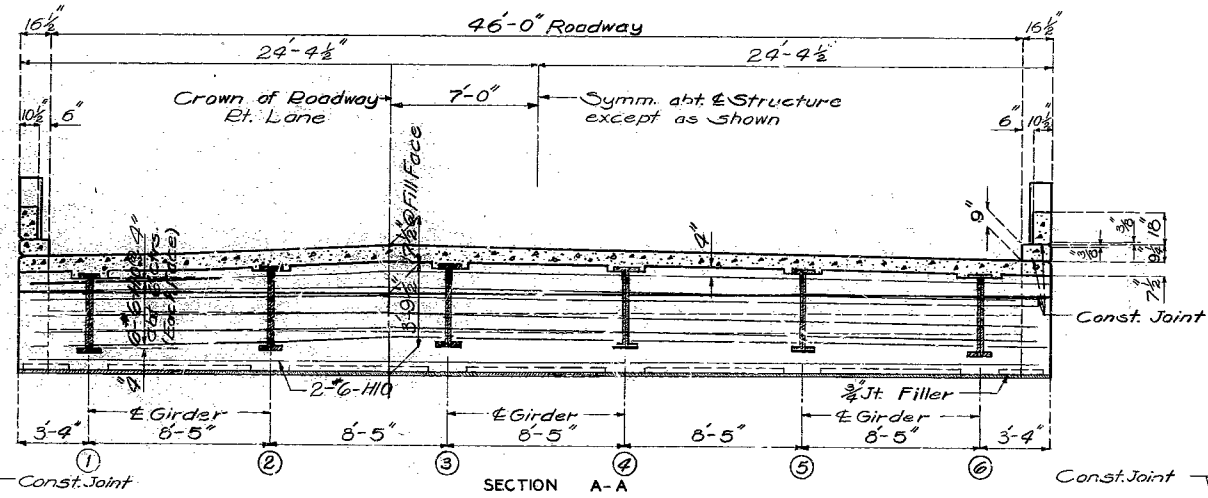
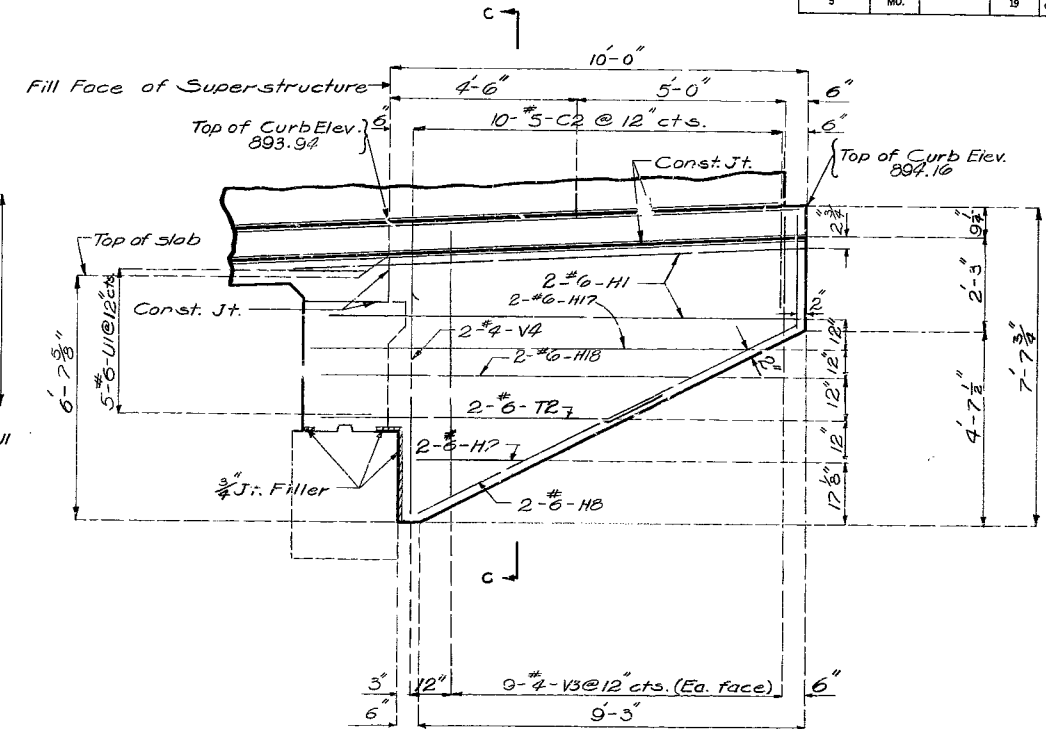
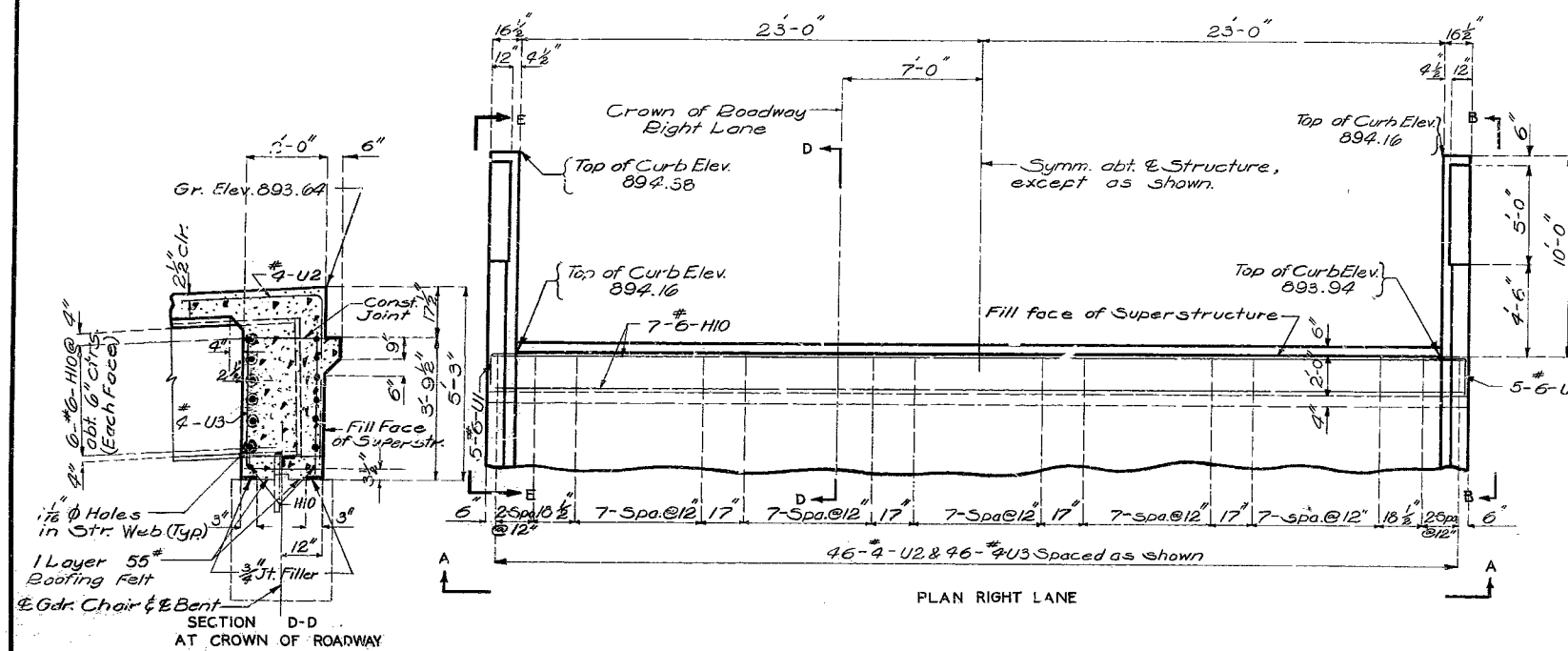
A-1767

395

DETAILED APRIL 1970 BY JAVAHERIAN
CHECKED April 1970 BY Ault

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	88	



Note: For Additional Reinf. of Curb, Parapet & End Post, see sheet No. 13 of 13.

BENT NO. 4 RIGHT LANE
BENT NO. 4 LEFT LANE (OPPOSITE HAND LATERALLY)

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

306

DETAILED MAR. 1970 BY MOLAI
CHECKED May 1970 BY AULT

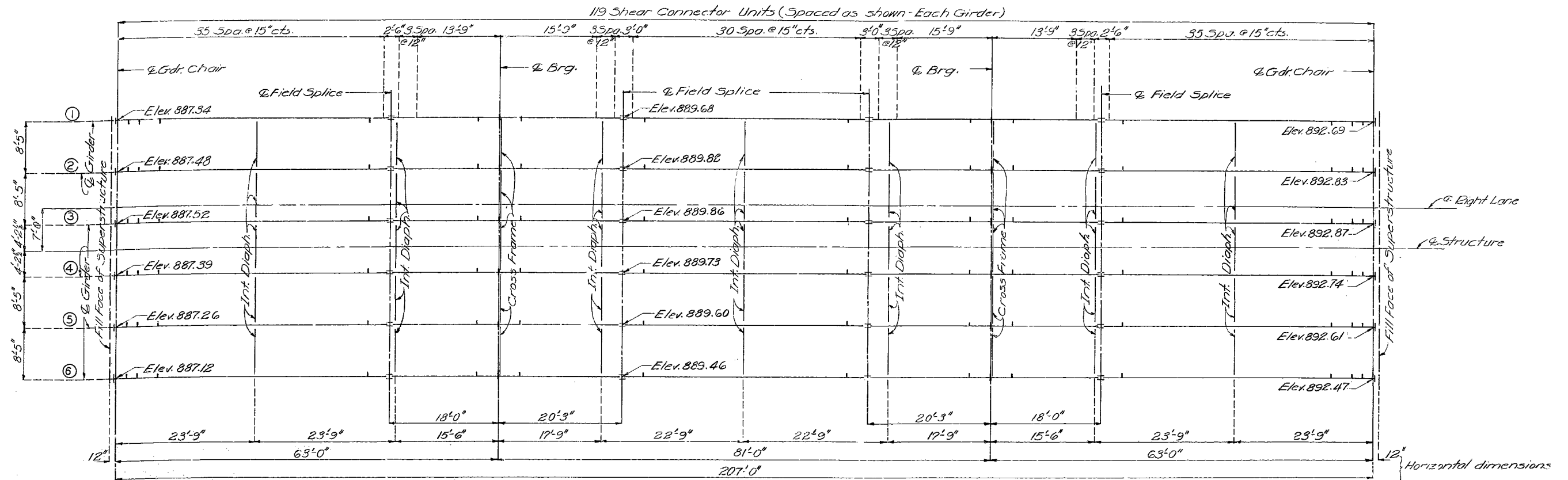
Sheet No. 8 of 13

HOLT COUNTY

A-1767

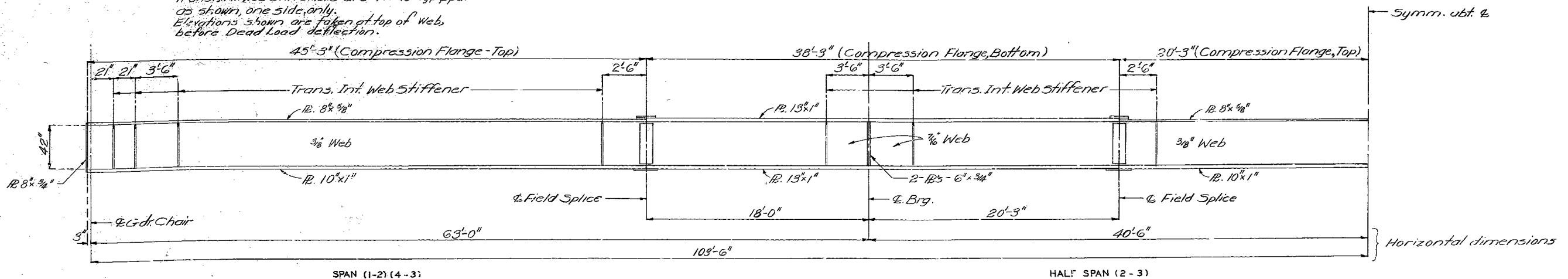
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	85	



Note: Left Lane similar, except it shall be constructed opposite hand laterally. Trans. Int. Web Stiffeners are 4" x 5/16" Typ. Spa. as shown, one side, only. Elevations shown are taken at top of Web, before Dead Load deflection.

PLAN OF STRUCTURAL STEEL (RIGHT LANE)



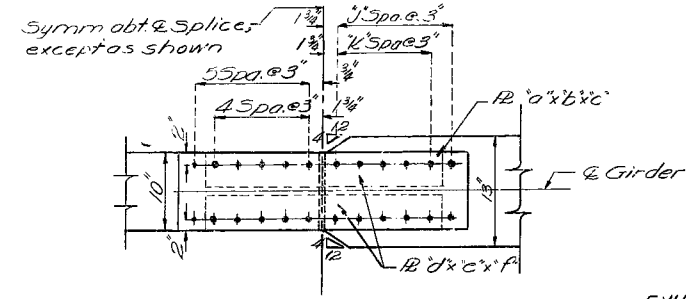
Note: Transverse Web stiffeners shall be placed on the inside face of exterior girders and on either side of interior girders. See plan of Struct. Steel for location of Int. Diaph. Conn. R's.

HALF ELEVATION OF GIRDERS

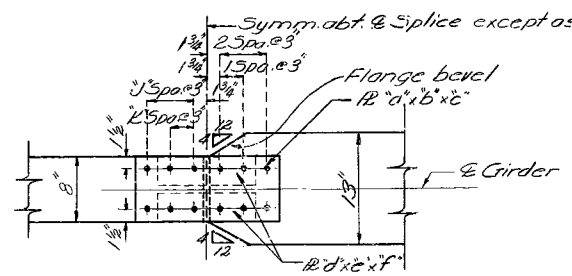
397

MISSOURI STATE HIGHWAY DEPARTMENT

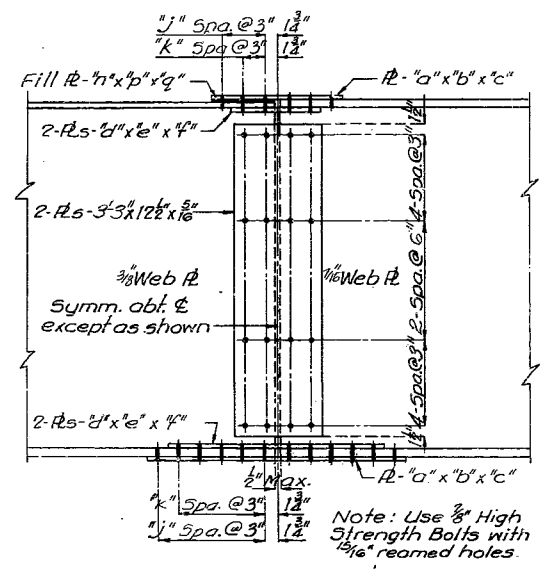
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	90	



PLAN OF BOTTOM FLANGE

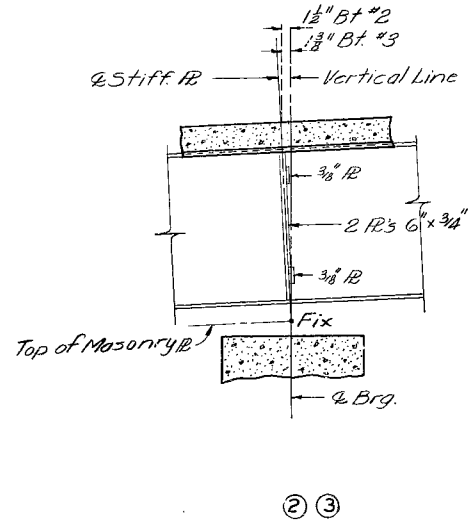
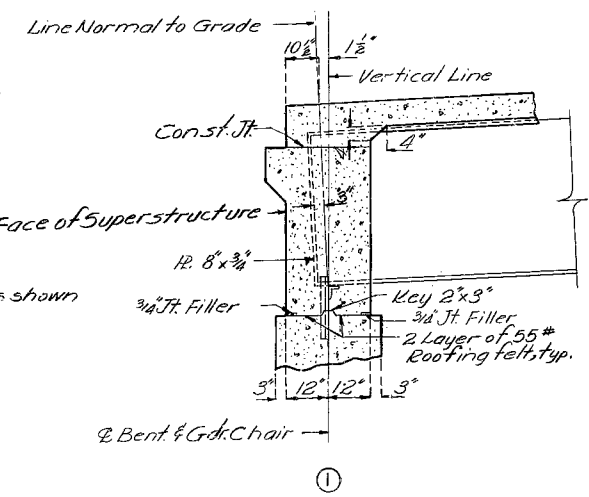


PLAN OF TOP FLANGE

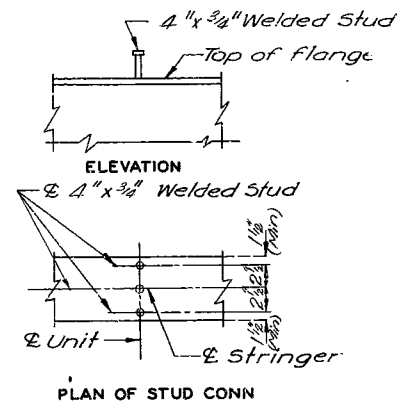
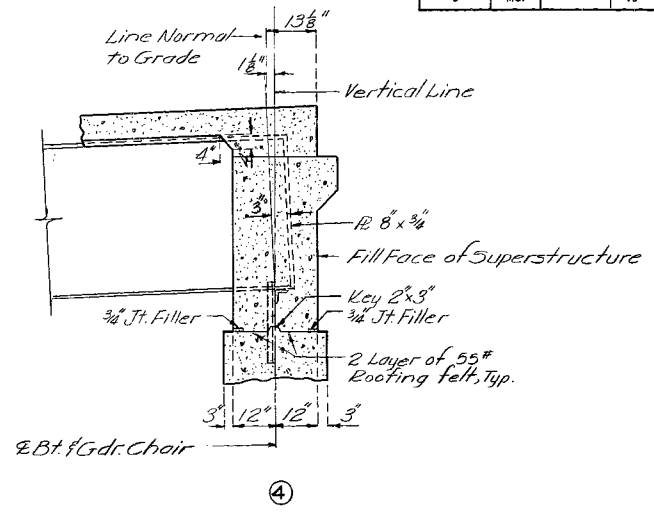


SPLICE LOCATION	TABLE OF DIMENSIONS FIELD SPLICE										
	a	b	c	d	e	f	j	k	r	p	q
Top of Gdr.	8"	3/8"	18 1/2"	3"	3/8"	12 1/2"	2"	1"	8"	3/8"	9"
Bottom of Gdr.	10"	3/8"	3'-0 1/2"	4"	3/8"	2'-6 1/2"	5"	4"	-	-	-

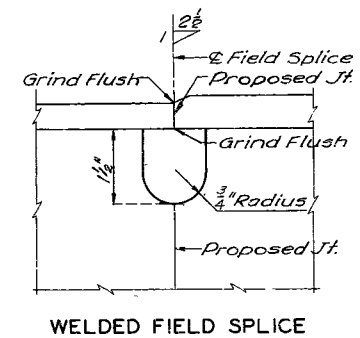
Note: "Field splices may be field welded or field bolted."



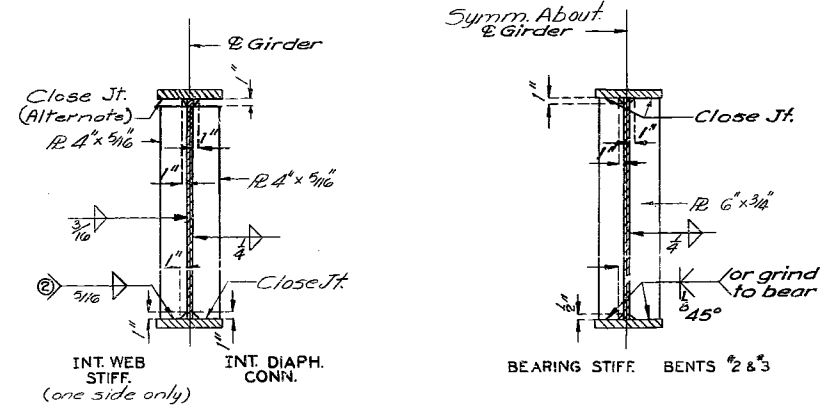
PART LONGITUDINAL SECTION



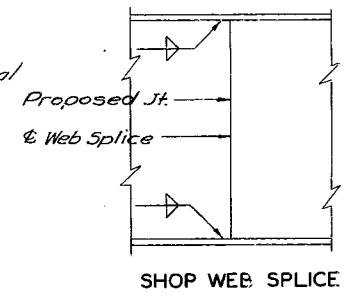
PLAN OF STUD CONN



WELDED FIELD SPLICE



WELDING DETAILS



SHOP WEB SPLICE

Note: "Shop welded web splices may be fabricated by the contractor when detailed on the shop drawings and approved by the engineer. No additional payment will be made for optional shop welded web splices."

DETAILS OF SHEAR CONNECTORS

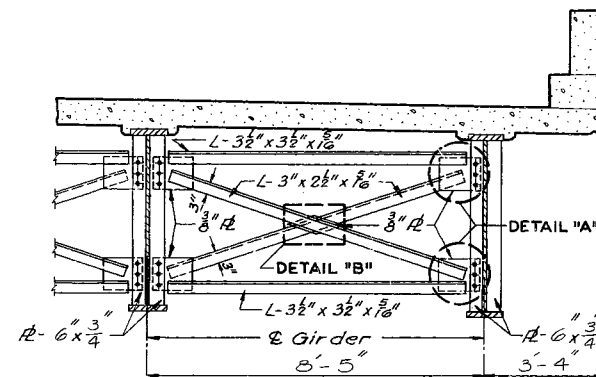
Note: "Weight of 1320 lbs. of shear connectors is included in weight of fabricated structural Carbon Steel."

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

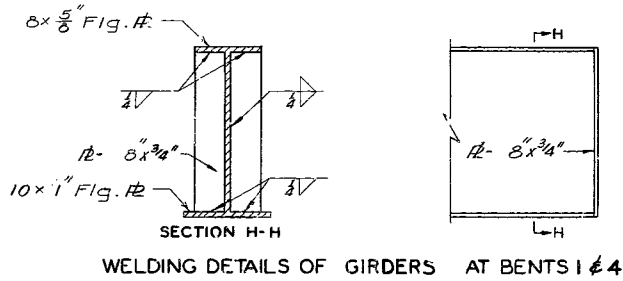
398

MISSOURI STATE HIGHWAY DEPARTMENT

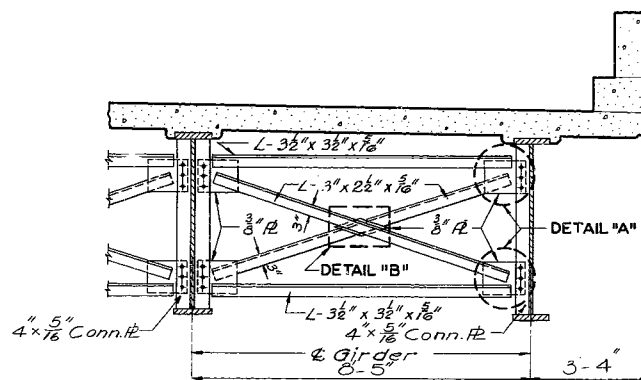
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	91	



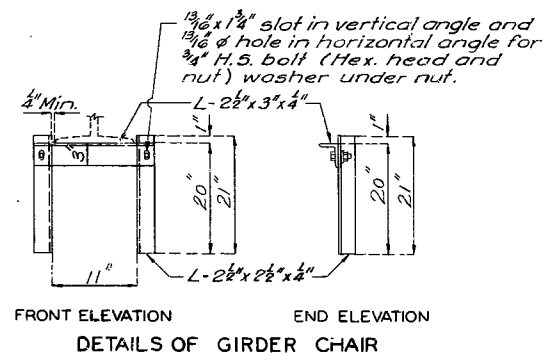
TYP. PART SECTION SHOWING CROSS FRAMES



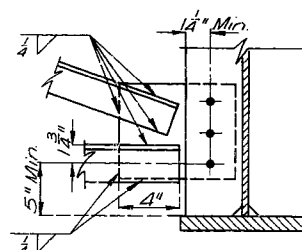
WELDING DETAILS OF GIRDERS AT BENTS I & 4



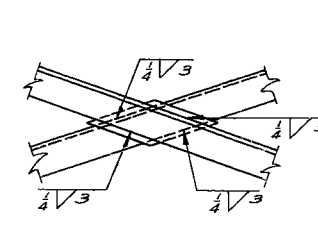
TYP. PART SECTION SHOWING INT. DIAPHRAGMS



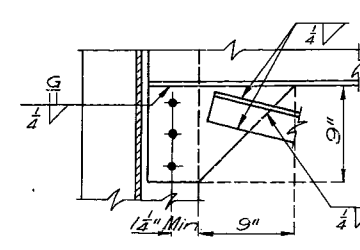
FRONT ELEVATION END ELEVATION
DETAILS OF GIRDER CHAIR



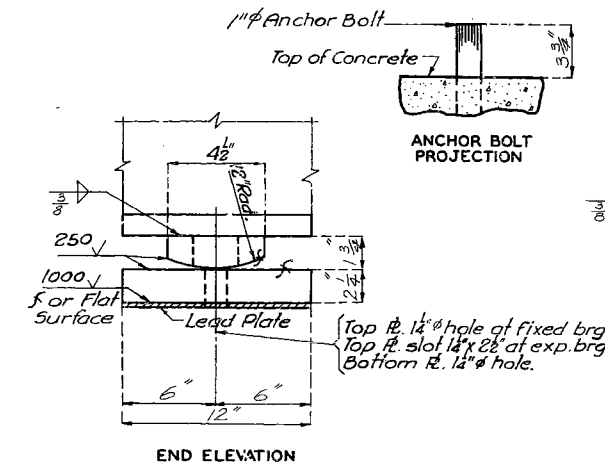
DETAIL "A"



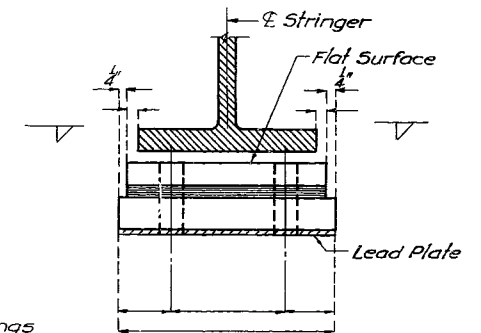
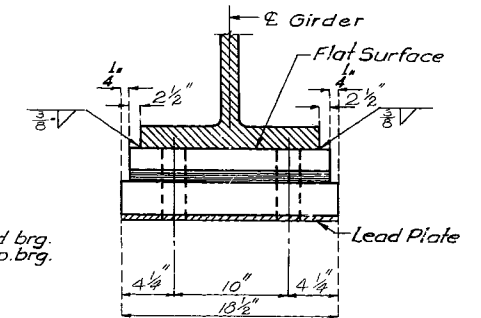
DETAIL "B"



DETAIL "C"



END ELEVATION



Required: 24 - Fixed Bearings
2 - Expansion Bearings

TYPE "C" BEARINGS Bents No. 2 & 3
(Estimated Weight 4227*)

NOTES: TYPE "C" BEARINGS

Lead plates under bearings shall be approximately 5/8" thickness and weigh 8# sq. ft. Cost of lead plates shall be included in price bid for other items. Estimated weight does not include weight of anchor bolts.

Anchor Bolts for Type "C" Bearings shall be 1" diameter swaged bolts with no heads or nuts and shall extend 10" into concrete. Top of Anchor Bolts shall be set approximately 1/4" below top of bearing. * indicates machine finish surface.

399

SPS
REVISED
STD.

DETAILED FEB. 1970 BY MOLA
CHECKED April 1970 BY Aut

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

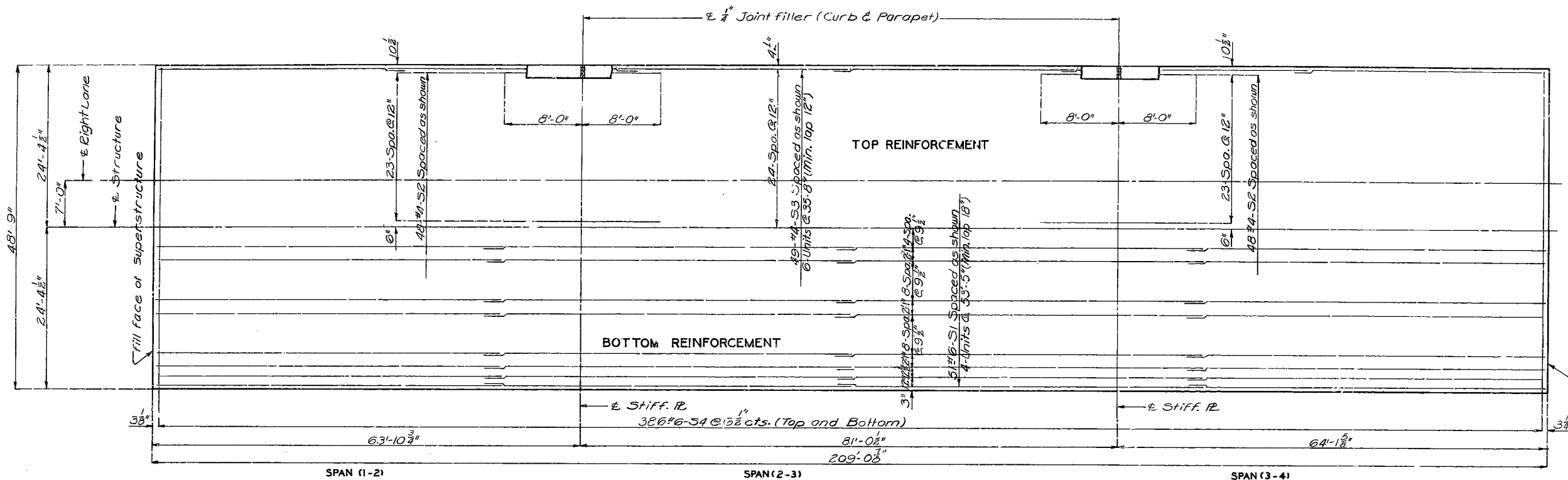
Sheet No. 11 of 13

HOLT COUNTY

A-1767

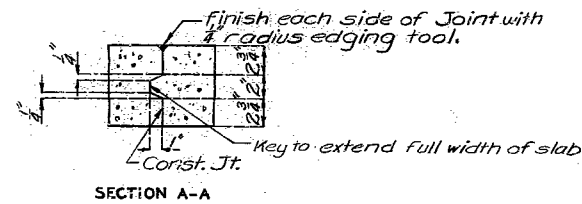
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	22	

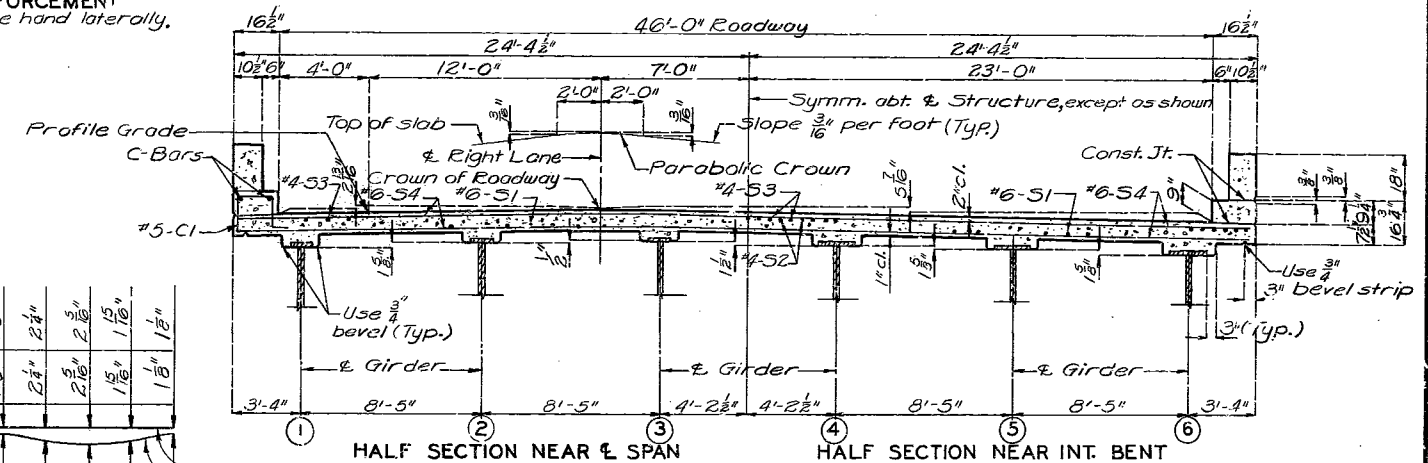


PLAN OF SLAB SHOWING REINFORCEMENT

Note: Right Lane shown; Left Lane opposite hand laterally.
 Note: longitudinal dimension shown are taken parallel to grade at crown of roadway.



SECTION A-A

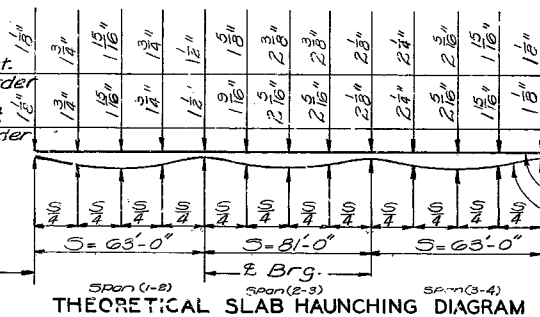


HALF SECTION NEAR & SPAN

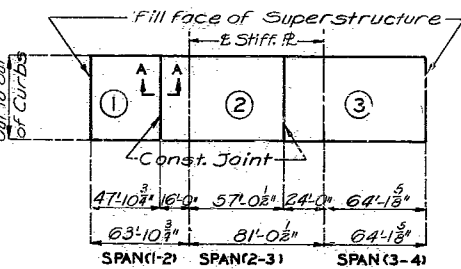
HALF SECTION NEAR INT. BENT

Note: Right Lane shown; Left Lane opposite hand laterally.

Note: The contractor shall pour and satisfactorily finish the slab pours at a rate of not less than 46 cubic yards per hour unless he elects to use an approved retarder to retard the set of the concrete to 2.5 hours in which case he may reduce his pouring and finishing rate to not less than 38 cubic yards per hour.



THEORETICAL SLAB HAUNCHING DIAGRAM



Sequence	Sequence of Pours		
	1	2	3
Basic Sequence	End to 2	1 to 3	2 to End
Alternate "A" Pours	1 + 2		3
	End to 3	2 to End	
Alternate "B" Pours	1 + 2 + 3		
	End to End		

SLAB POURING SEQUENCE

Note: for details and reinforcement of curb and parapet not shown see sheet No 13 of 13.

400

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	23	

GENERAL BRIDGE RAIL NOTES:

All bridge rail posts shall be set normal to grade. Aluminum tube bridge rail shall be bent to conform to vertical and horizontal alignment of parapet.

Aluminum washer shims between top of parapet and post base may be used for adjusting bridge rail alignment. Maximum thickness of shims to be 3". Where more tilting of post is required for proper alignment, concrete bearing areas shall be ground down.

All parts of bridge rail, except anchor bolts, nuts, washers, and set screws are to be of aluminum material.

All fillets except as noted.

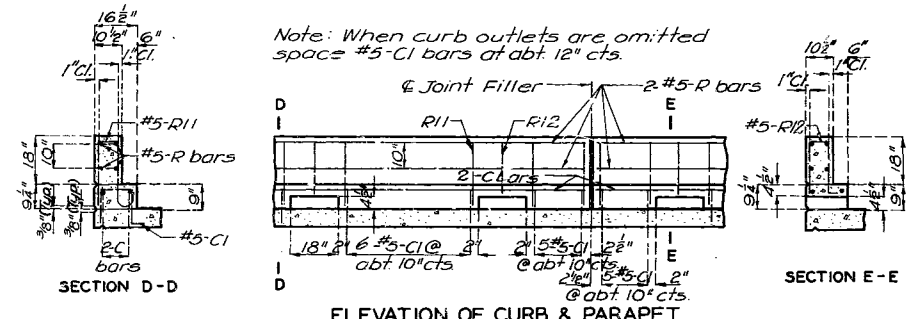
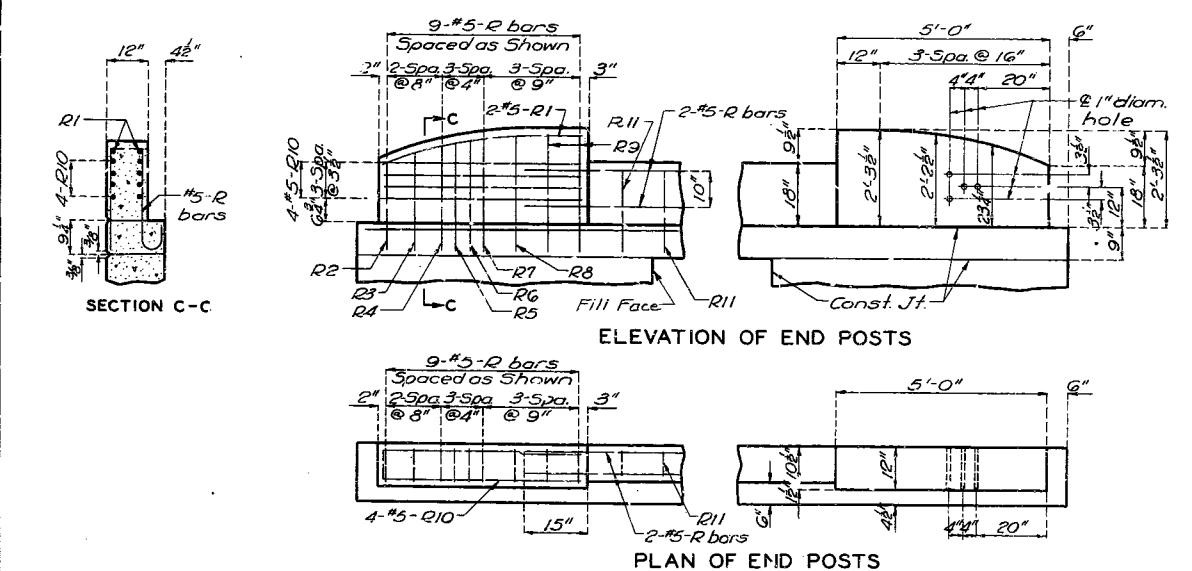
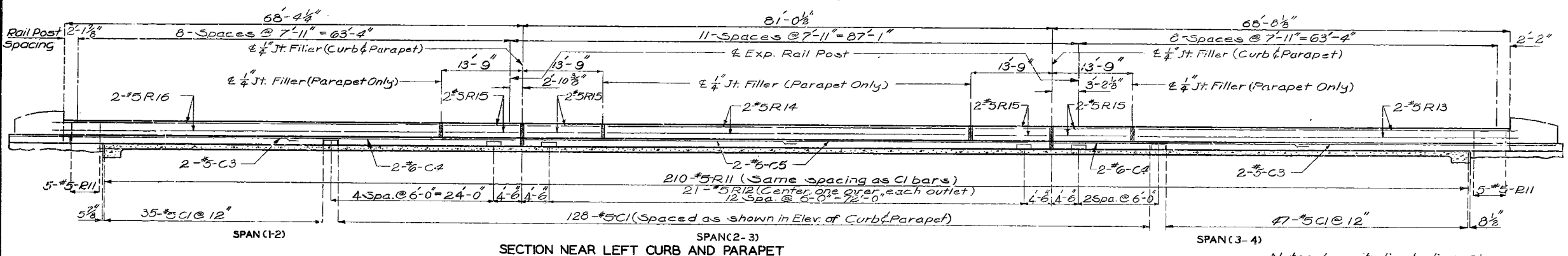
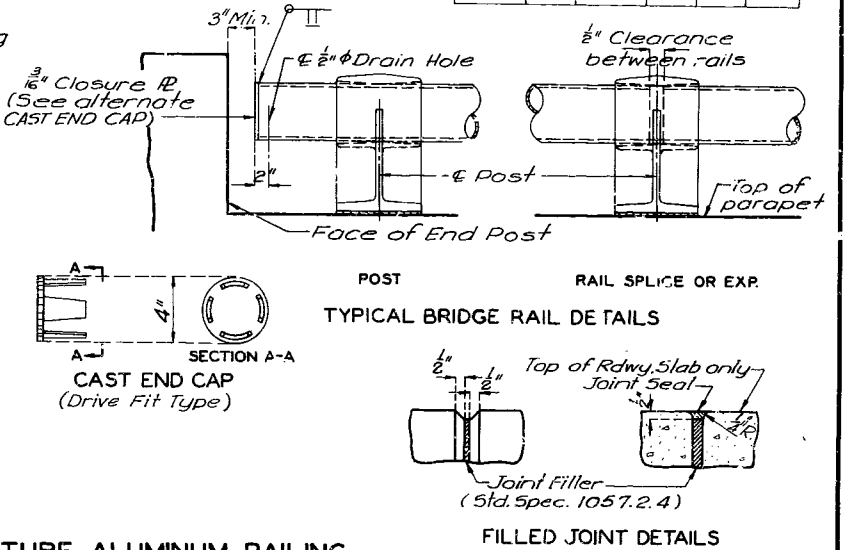
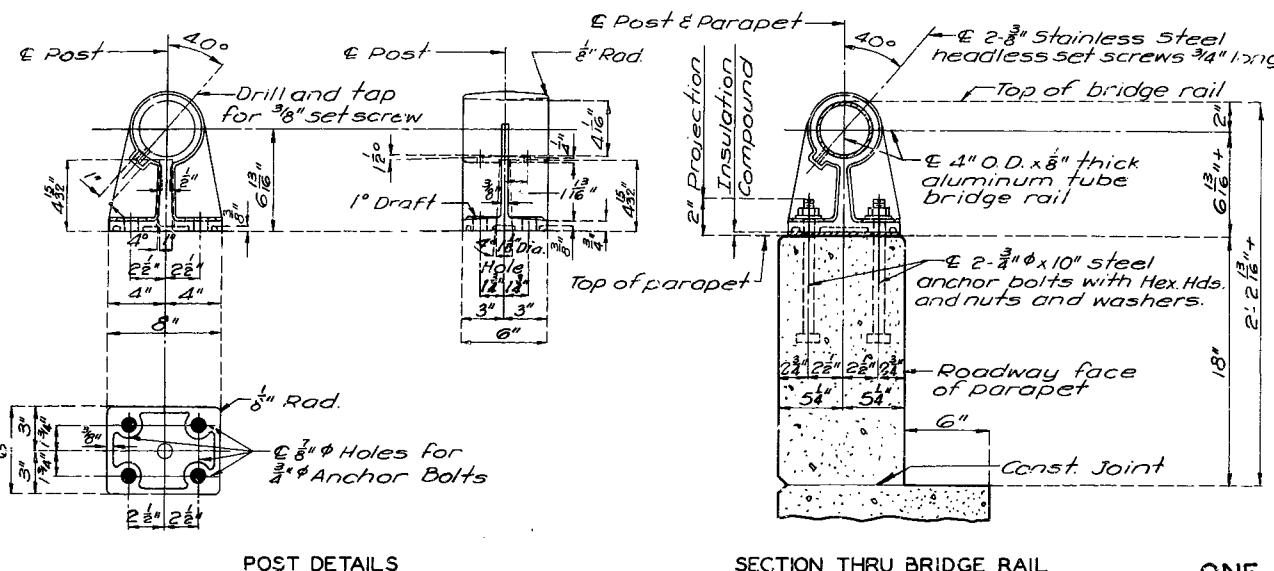
All drafts 3° except as noted.

Omit set screw in side of rail posts adjacent to filled joints in curb and parapet at rail expansion points. Omit set screw in each side of rail post on end bents except where a gap is shown in rail over an expansion device.

Top of curbs and parapet to be built parallel to grade with curb and parapet joints (except at end bents) normal to grade.

Concrete end posts to be vertical.

All exposed edges of end posts shall have 1/2" bevel. All exposed edges of curbs and parapets shall have 1/2" radius or 3/8" bevel unless otherwise noted.



Note: Longitudinal dimensions shown are taken parallel to grade at top of parapet.

Note: When curb outlets are omitted space #5-C1 bars at abt 12" cts.

Note: For horizontal curb and parapet bars use a minimum lap of 15" for #5 and 18" for #6.

401

STD. I.5.2
 MAR. 1964
 REVISED
 OCT. 1968
 DETAILED FEB. 1970 BY MOLAI
 CHECKED April 16 70 BY Avit

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

Sheet No. 13 of 13

HOLT COUNTY

A-1767

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.			37	

GENERAL NOTES:

Design Specifications: A.A.S.H.O. - 1969
 Design Loading: H320-40, 15#/sq. ft. Future Wearing Surface Earth 120# Equivalent Fluid Pressure 30# Modified 24000# Tandem Axle; Fatigue stress-Case I
 Design Unit Stresses:
 Class B Concrete (substructure) $f_c = 1,200$ psi
 Class B1 Concrete (superstructure) $f_c = 1,600$ psi
 Reinforcing Steel $f_s = 20,000$ psi
 Structural Steel $f_s = 20,000$ psi

Fabricated Steel:
 Field connections, High Strength Bolts 3/4" ϕ , nuts 3/16" ϕ except as noted.
 Paint:
 Shop, none; Field by contractor in accordance with Std. Spec. 712.12.
 Reinforcing Steel:
 Minimum clearance to reinforcing steel was 1/2", unless otherwise shown.

FINAL QUANTITIES			
ITEM		SUBSTR.	SUPERSTR. TOTAL
Class 1 Excavation	Cu. Yd.	157	157
Class 2 Excavation	Cu. Yd.	363	363
Cast In Place Concrete Piles	Lin. Ft.	5218	5218
Class B Concrete	Cu. Yd.	237.6	237.6
Class B1 Concrete	Cu. Yd.	6528	6528
Reinforcing Steel	Lbs.	36840	135020
Fabricated Structural Carbon Steel	Lbs.	359870	359870
Painting	Ton	168.6	168.6
Bridge Rail (One Tube)	Lin. Ft.	870	870

Note: All concrete and reinforcement in end bents (except pile cap beams) included with superstructure quantities.
 Note: Payweight for fabricated steel was based on welded field splices, regardless of type used.

PILE DATA LEFT & RIGHT LANES				
Bent No.	1	2	3	4
Type	Found.	Found.	Found.	Found.
Kind	C.I.P.	C.I.P.	C.I.P.	C.I.P.
Number	9	20	20	9
Approximate Length Ft.	61	37	38	66
Design Bearing	Tons	27.0	31.0	27.0
Min. Tip penetration	Elev.	840.0	840.0	840.0
Pile Standard		702.02		
Hammer Energy required \times Lbs.	8000	8,000	8,000	8,000

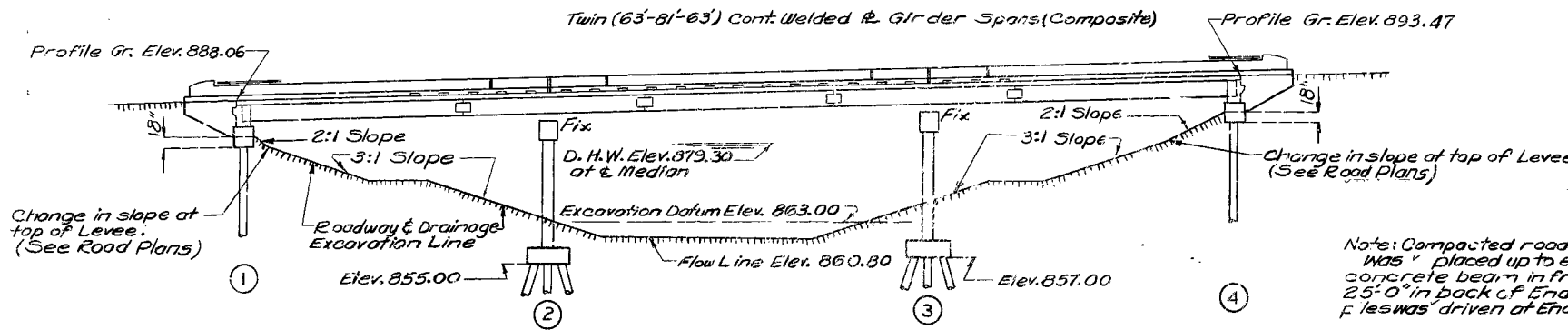
Minimum energy requirement of hammer based on plan length of piles.
 All pile were driven to the minimum penetrations and to not less than the design bearings noted.

B. M. Elev. 894.20, 1" on S.W. Cor. Bridge Curb, 7/16" Pit Sta. 792+21

BRIDGE OVER DAVIS CREEK
 STATE ROAD: INTERSTATE ROUTE 29
 ABOUT 0.3 MILE W. OF MOUND CITY
 PROJECT NO. I-IG-29-2157, RTE. I-29 STA. 790+02.00
 SEC. A
 HOLT COUNTY

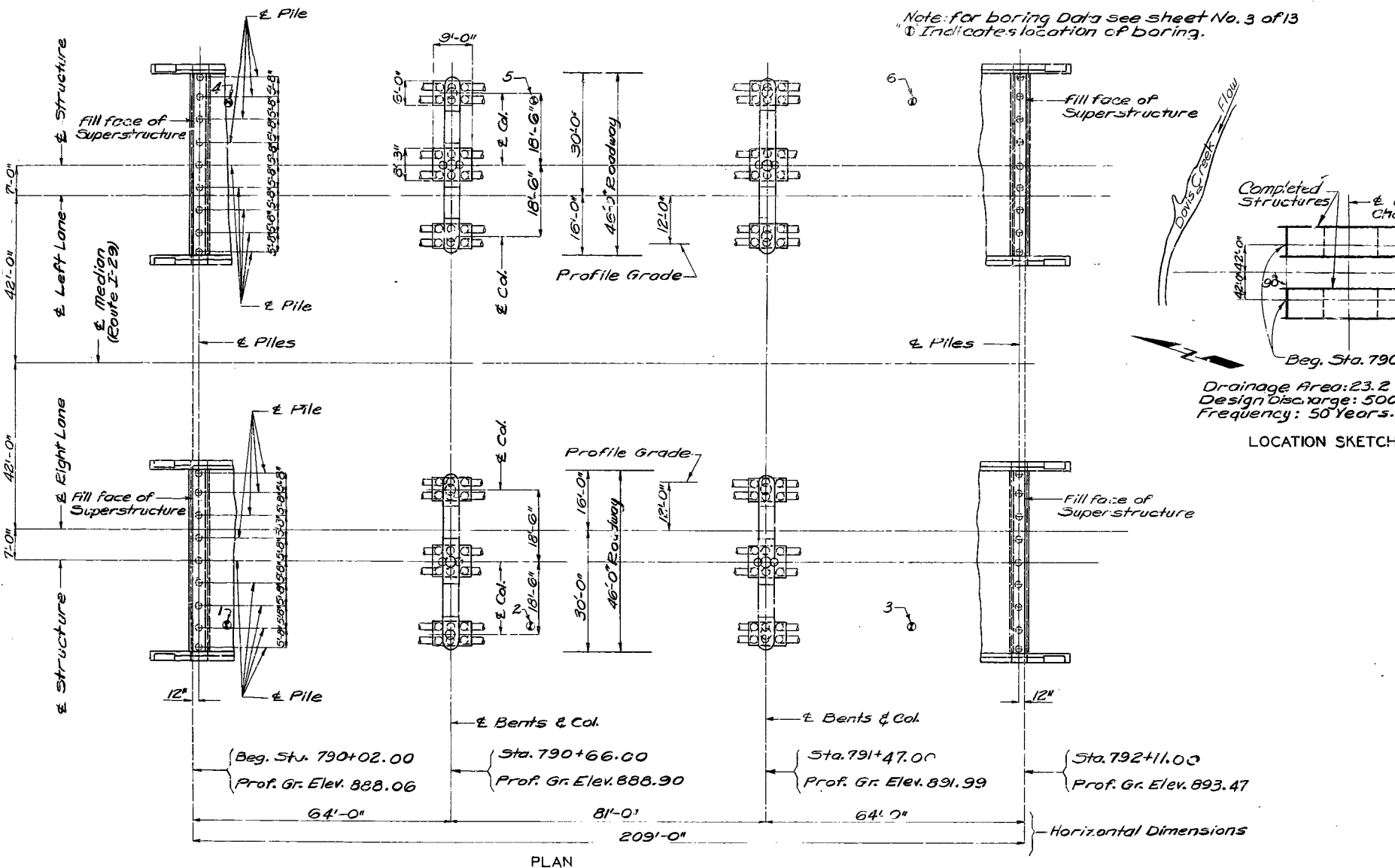
DESIGNED BY: W.A. Casey
 BRIDGE ENGINEER DATE: 4-5-71
 APPROVED BY: Robert D. Neuster
 CHIEF ENGINEER DATE: 4-5-71

STD. 702.02
STD. 706.30A
A-1767



Note: Compacted roadway fill (full roadway width) was placed up to elevation of bottom of concrete beam in front of and not less than 25' 0" in back of End Bents No. 1 & 4 before piles were driven at End Bents No. 1 & 4.

Note: For boring data see sheet No. 3 of 13
 1 indicates location of boring.



Drainage Area: 23.2 Sq. mi (L.Hilly)
 Design Discharge: 5000 c.f.s.
 Frequency: 50 Years.

LOCATION SKETCH

402

DESIGNED FEB. 1970 BY LINDSEY
 DRAFTER MAR 1970 BY JAVAHERIAN
 CHECKED May 1970 BY H. AULT

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

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

FINAL PLANS ✓

STATE	PROJ. NO.	SHEET NO.
MO.	ACIM-ACIMB-29-2(199)	37
SEC./SUR. 6	TWP. 61N RGE. 38W	



I CERTIFY THAT THIS DRAWING ACCURATELY REPRESENTS THE CONFIGURATION AND LOCATION OF THE ROADWAY AND APPURTENANCES AS CONSTRUCTED ON THIS PROJECT.

Michael D. Womack
SIGNATURE

2-22-97

GENERAL NOTES:

DESIGN SPECIFICATIONS: A.A.S.H.T.O.-1996

OLD WORK:

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

TRAFFIC HANDLING:

See roadway plans for traffic control during construction.

ROADWAY SURFACING:

Roadway surfacing adjacent to bridge ends shall match bridge overlay surfacing.

MAINTAIN GRADE:

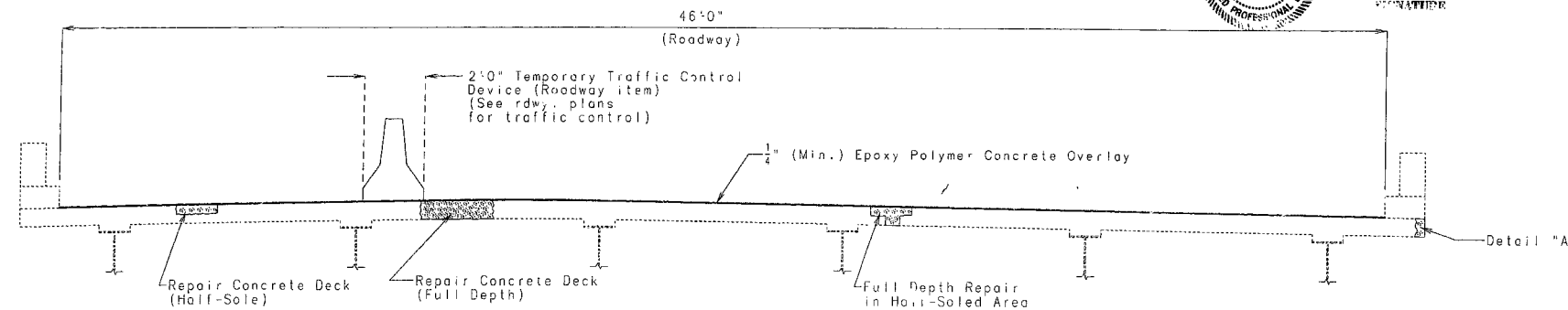
In order to maintain grade and a minimum thickness of overlay as shown on plans it may be necessary to use additional quantities of overlay at various locations throughout the structure. No payment will be allowed for additional labor, materials or equipment for variations in thickness of overlay.

VERIFY DIMENSIONS:

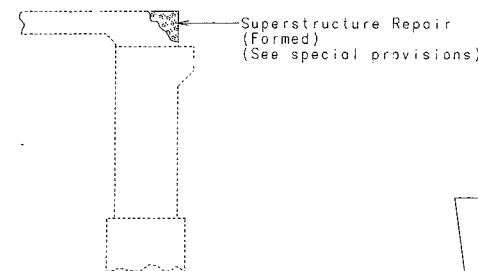
Contractor shall verify all dimensions in field before ordering new materials.

EPOXY POLYMER CONCRETE:

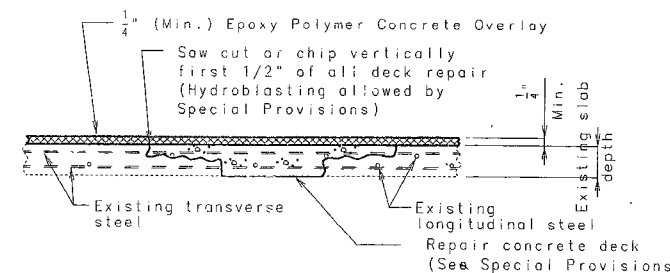
The contractor shall exercise care to ensure spillage over joint edges is prevented and that a neat line is obtained along any terminating edge of the epoxy polymer concrete.



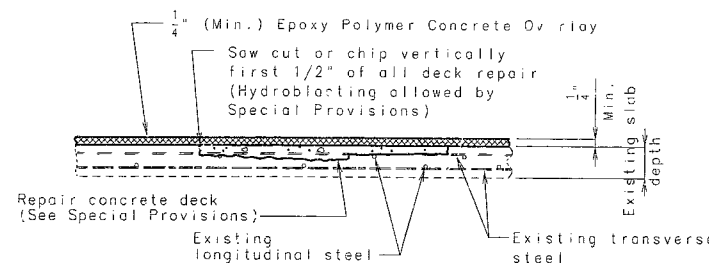
SECTION THRU EXISTING SLAB



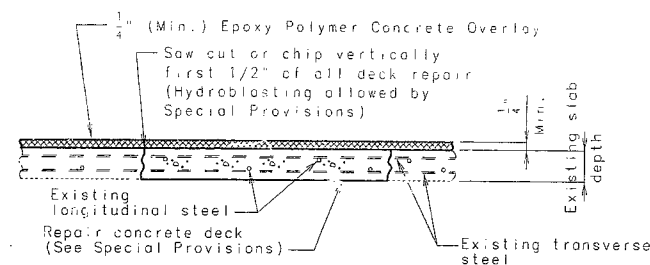
PART SECTION SHOWING SUPERSTRUCTURE REPAIR (Bent 4 Shown, Bent 1 Similar)



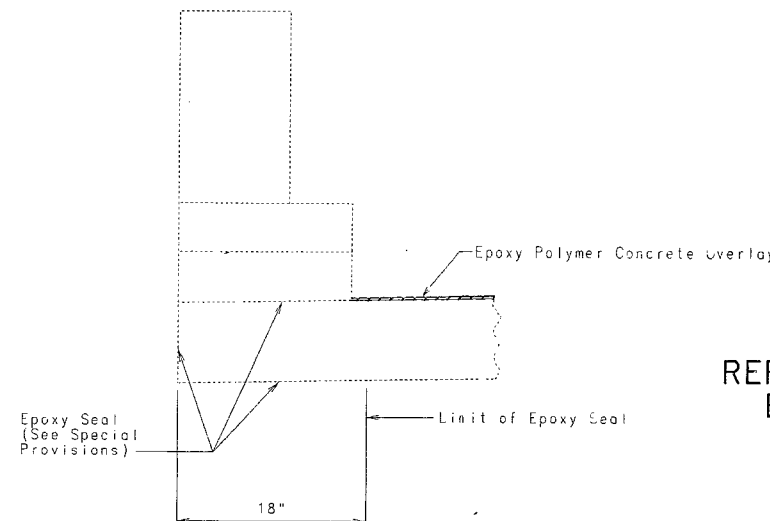
FULL DEPTH REPAIR IN HALF-SOLED AREA



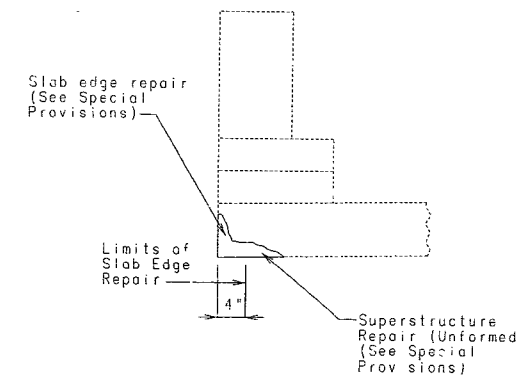
HALF-SOLED AREA



FULL DEPTH REPAIR



TYPICAL SECTION OF EXISTING CURB SHOWING OUTLET



CONCRETE EDGE REPAIR DETAIL "A"

REPAIRS TO BRIDGE OVER DAVIS CREEK

STATE ROAD FROM RTE. 118 TO RTE. 159 ABOUT 0.3 MILE WEST OF MOUND CITY

PROJECT NO.

STA. 790+02.00 (Match Exist.)

JOB NO. J110737 ✓

RTE. 1-29 N.B.

HOLT ✓

COUNTY



DATE 12/12/97

STD.

A17671 ✓

519

DESIGNED NOV 1996
DETAILED NOV 1996
CHECKED NOV 1996

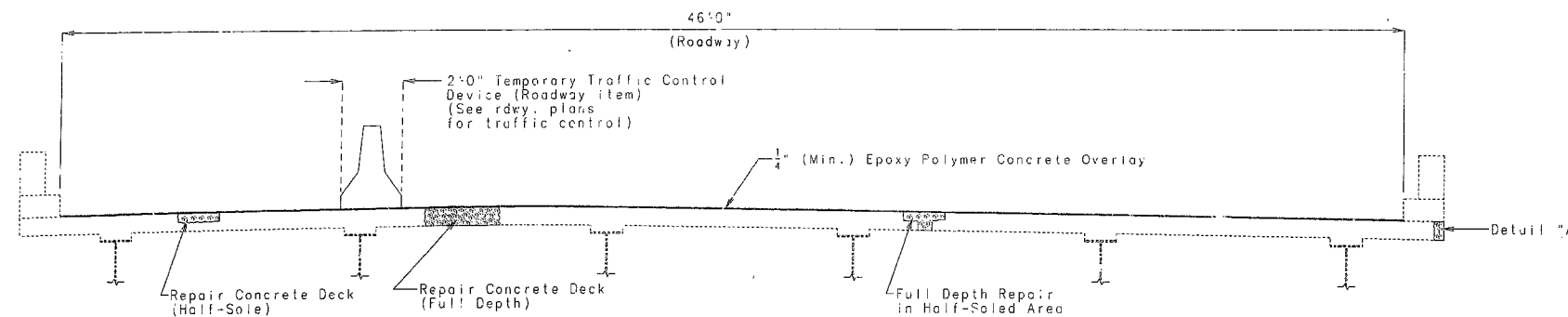
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 1 OF 1

DATE 12/12/97

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

STATE	PROJ. NO.	SHEET NO.
MO.	ACIH-ACIMG-29-2(39)	38
SEC./SUR. 6	TWP. 61N	RGE. 38W



SECTION THRU EXISTING SLAB

GENERAL NOTES:

DESIGN SPECIFICATIONS: A.A.S.H.T.O.-1996

OLD WORK:

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

TRAFFIC HANDLING:

See roadway plans for traffic control during construction.

ROADWAY SURFACING:

Roadway surfacing adjacent to bridge ends shall match bridge overlay surfacing.

MAINTAIN GRADE:

In order to maintain grade and a minimum thickness of overlay as shown on plans it may be necessary to use additional quantities of overlay at various locations throughout the structure. No payment will be allowed for additional labor, materials or equipment for variations in thickness of overlay.

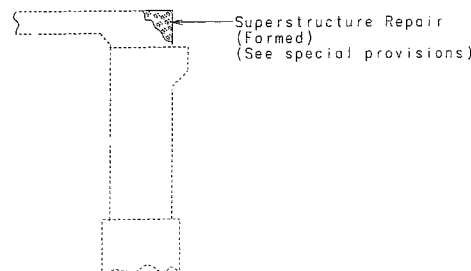
VERIFY DIMENSIONS:

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

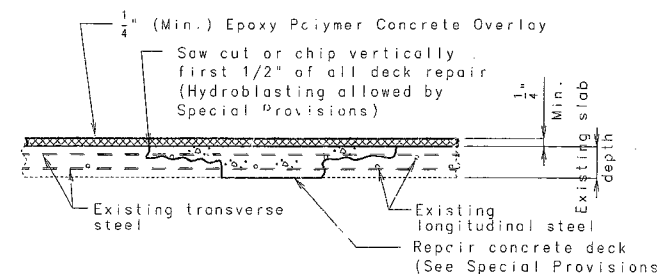
EPOXY POLYMER CONCRETE:

The contractor shall exercise care to ensure spillage over joint edges is prevented and that a neat line is obtained along any terminating edge of the epoxy polymer concrete.

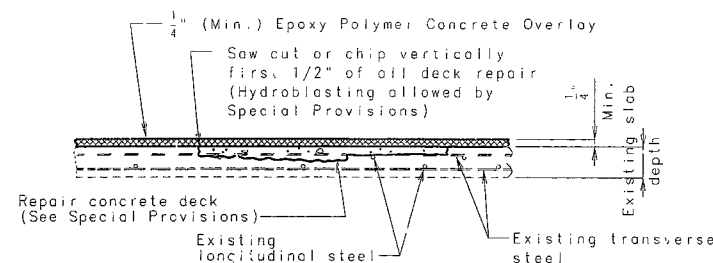
FINAL QUANTITIES		
ITEM		TOTAL
Superstructure Repair (Unformed)	Sq. Ft.	431 ✓
Repairing Concrete Deck (Half-Soled)	Sq. Ft.	29 ✓
Full Depth Repair	Sq. Ft.	0 ✓
Slab Edge Repair (Bridges)	Lin. Ft.	270 ✓
Epoxy Polymer Concrete Overlay	Sq. Yd.	1069 ✓
Superstructure Repair (Formed)	Sq. Ft.	0 ✓



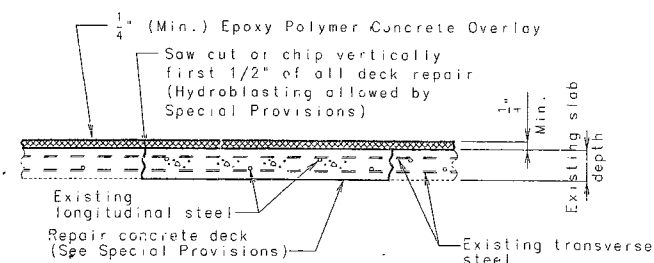
PART SECTION SHOWING SUPERSTRUCTURE REPAIR (Bent 4 Shown, Bent 1 Similar)



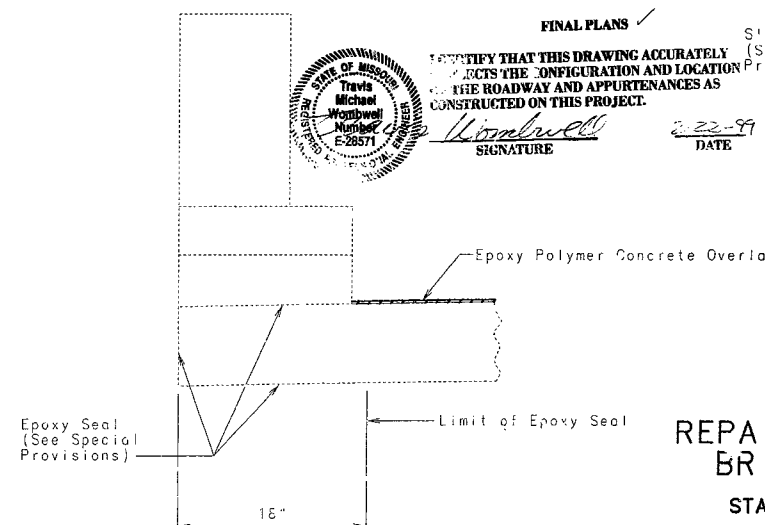
FULL DEPTH REPAIR IN HALF-SOLED AREA



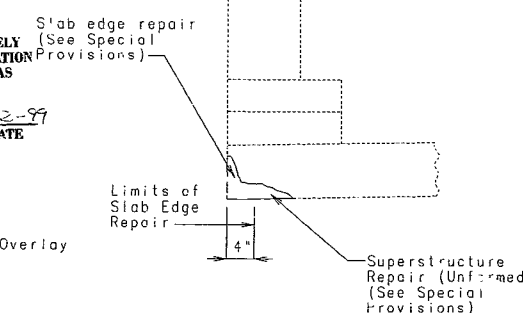
HALF-SOLED AREA



FULL DEPTH REPAIR



TYPICAL SECTION OF EXISTING CURB SHOWING OUTLET



CONCRETE EDGE REPAIR DETAIL "A"



FINAL PLANS ✓
 I CERTIFY THAT THIS DRAWING ACCURATELY REPRESENTS THE CONFIGURATION AND LOCATION OF THE ROADWAY AND APPURTENANCES AS CONSTRUCTED ON THIS PROJECT.
 SIGNATURE: *Michael D. Harms*
 DATE: 12-22-97

REPAIRS TO BRIDGE OVER DAVIS CREEK

STATE ROAD FROM RTE. 118 TO RTE. 159

ABOUT 0.3 MILE WEST OF MOUND CITY

PROJECT NO.

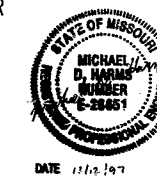
JOB NO. J110737 ✓

HOLT ✓

STA. 790+02.00 (Match Existing)

RTE. 1-29 S.B.

COUNTY



STD.
STD.
A17672 ✓

DESIGNED NOV 1996
 DETAILED NOV 1996
 CHECKED NOV 1996

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

SHEET NO. 1 OF 1

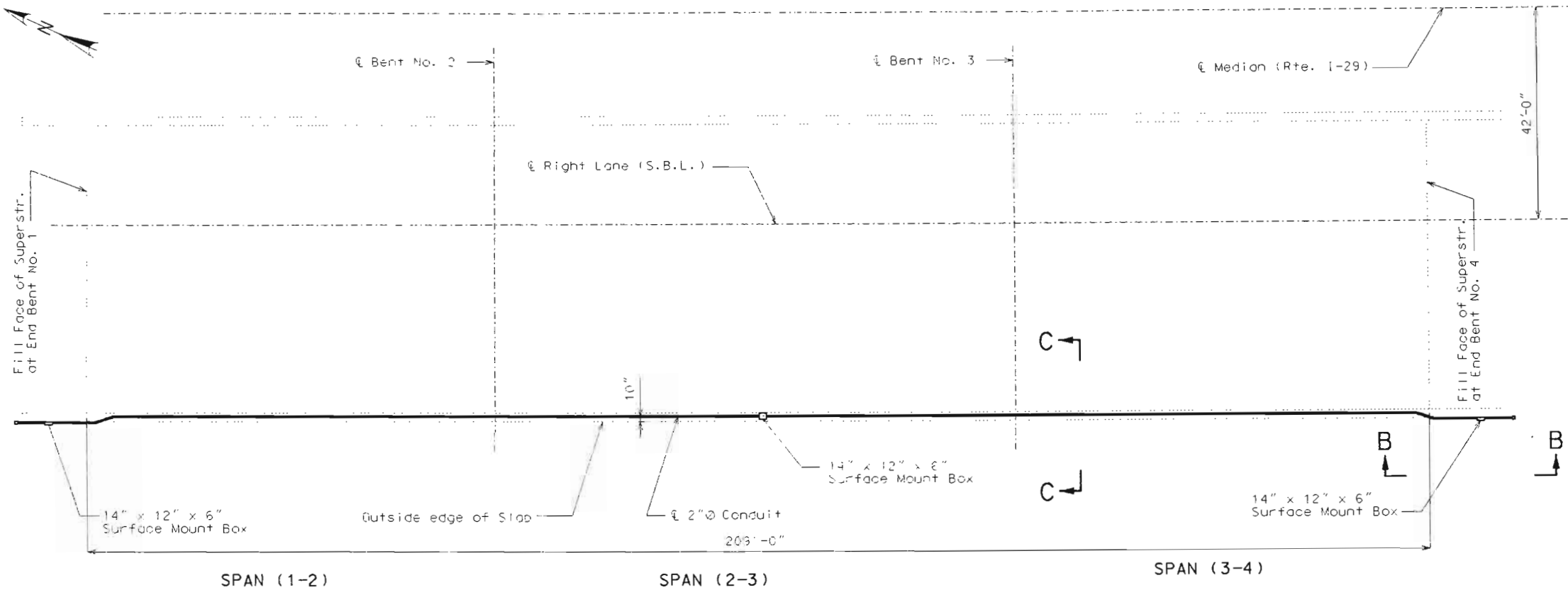
DATE 12/12/97

580

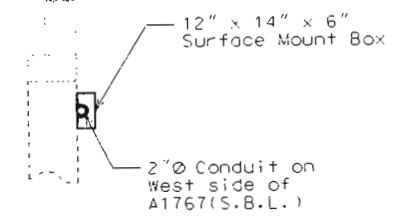
24 to 1

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

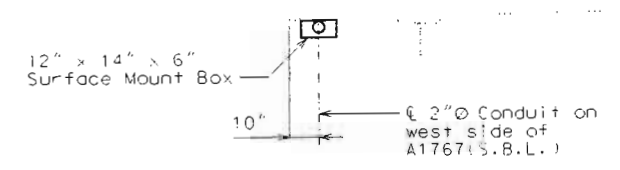
State	Proj. No.	Sheet No.
MO		647
SEC. SUR 6	TWP 61N	RGE 38W



PLAN OF SLAB SHOWING LOCATION OF CONDUIT



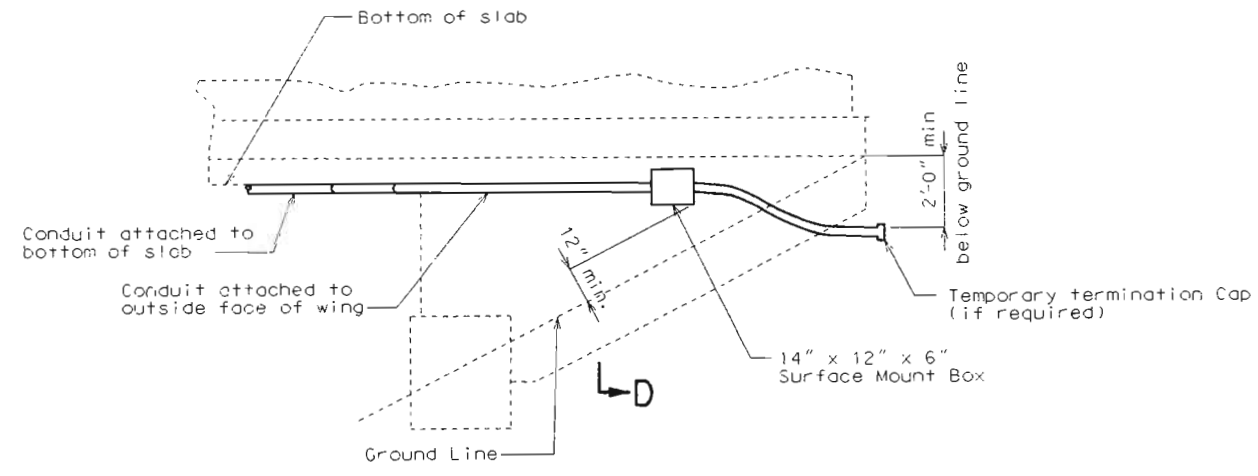
PART SECTION D-D



SECTION C-C

NOTES FOR CONDUIT

- All conduit shall be rigid non-metallic schedule 40 heavy wall PVC (polyvinyl chloride plastic). Each section of conduit shall bear the Underwriters Laboratories, Inc., (UL) label.
- Conduit shall be secured to concrete with clamps at about 5'-0" cts. Concrete anchors for clamps shall be in accordance with Federal Specification FF-S-325, Group II, Type 4, Class 1 and shall be galvanized in accordance with ASTM -153, B695-91 Class 50 or stainless steel. Minimum embedment in concrete shall be 1-3/4". The supplier shall furnish a manufacturer's certification that the concrete anchors meet the required material and galvanizing specifications.
- The location and direction of conduit may be shifted to meet field conditions as directed by the engineer.
- The terminations shall be permanent or seperable. The terminations and covers shall be of watertight construction.
- The temporary termination Caps (if required) at End Bents shall be 2'-0" (min.) below ground line.
- Weepholes shall be provided at appropriate locations to drain any moisture in the conduit lines.
- The contractor shall make provisions for the conduit to accommodate thermal expansion and contraction as approved by the engineer.
- Outline of old work is indicated by light dashed lines, heavy lines indicate new work.
- The conduit system, complete in place, shall be paid for as conduit system on structure (Lump Sum).
- All bridge junction boxes shall be PVC molded surface mounted and equal to Carlton Electrical Construction Products or Cantex, Inc. The conduit terminations shall be permanent or seperable. The terminations and covers shall be of watertight construction and shall meet requirements for NEMA 4 enclosure.



PARTIAL ELEVATION B-B SHOWING CONDUIT

Note: Details at Bent No.4 shown, Bent No. 1 similar.



ESTIMATED QUANTITIES		
ITEM		TOTAL
Conduit System on Structure	Lump Sum	1

DETAILS OF CONDUIT

REPAIRS TO BRIDGE OVER DAVIS CREEK

ABOUT 0.3 MILE W. OF MOUND CITY
 PROJECT NO. STA. 790+02.00
 JOB NO. J110736 RTE. 1-29

HOLT

COUNTY A17673
 Date: 7/9/02

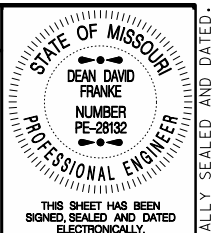
Designed June 2002
 Detailed June 2002
 Checked June 2002

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

Sheet No. 1 of 1

U.I.P. & REHAB. EXISTING (63'-81'-63') CONTINUOUS COMPOSITE PLATE GIRDER SPANS (SKEW: SQUARE)

SEC/SUR 6 TWP 61N RGE 38W

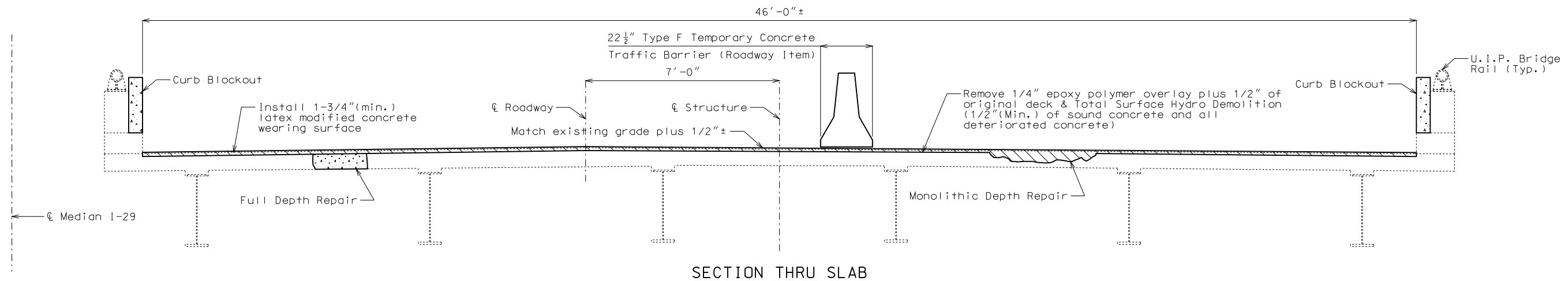


DATE PREPARED
6/30/2016
ROUTE I-29 STATE MO
DISTRICT BR SHEET NO. 1
COUNTY HOLT
JOB NO. J1P3023C
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A17675

DATE	DESCRIPTION

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

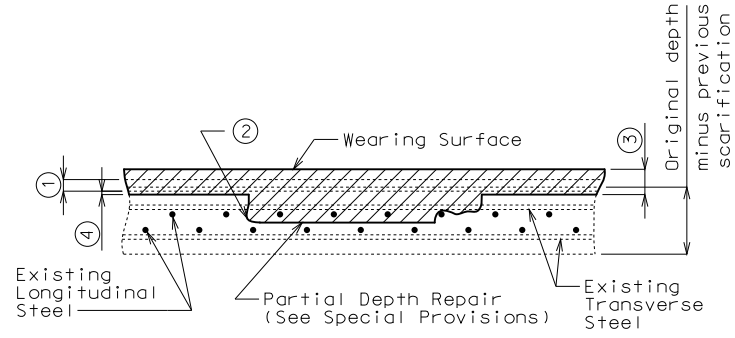
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



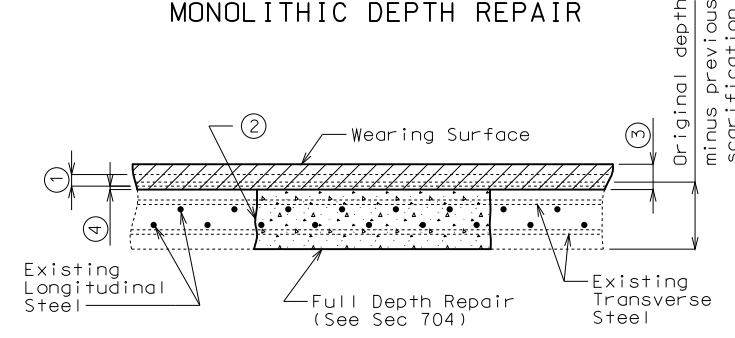
SECTION THRU SLAB

GENERAL NOTES:

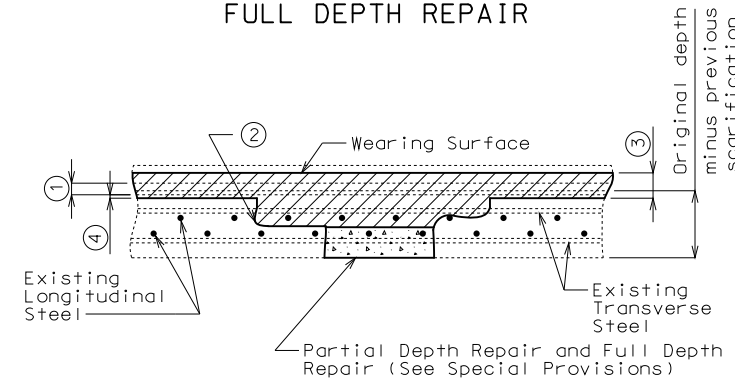
- Design Specifications:**
2002 - AASHTO LFD (17th Ed.) Standard Specifications
Bridge Deck Rating = 6
- Design Unit Stresses:**
Class B-1 Concrete $f'_c = 4,000$ psi
Reinforcing Steel (Grade 60) $f_y = 60,000$ psi
- Reinforcing Steel:**
Minimum clearance to reinforcing steel shall be 1-1/2", unless otherwise shown.
- Miscellaneous:**
Maintain traffic during construction. See Roadway plans for traffic control.
All exposed edges of curb blockout shall have either a 1/2" radius or a 3/8" bevel unless otherwise shown.
Outline of old work is indicated by light dashed lines. Heavy line indicate new work.
Contractor shall verify all dimensions in field before ordering new material.
Bars bonded in old concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, old bars shall extend into new concrete at least 40 diameters for plain bars and 30 diameters for deformed bars, unless otherwise noted.



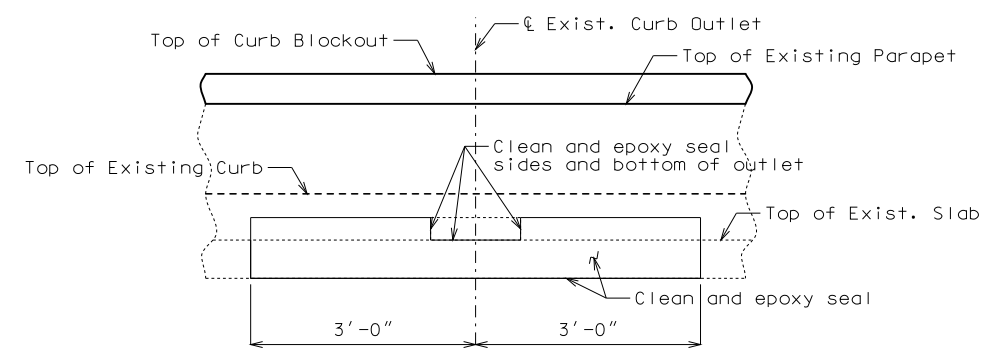
MONOLITHIC DEPTH REPAIR



FULL DEPTH REPAIR

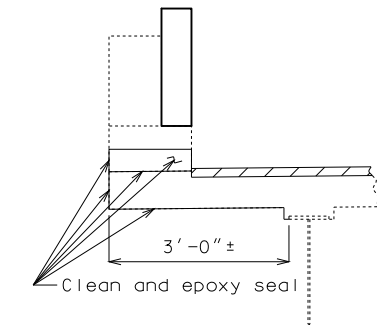


FULL DEPTH REPAIR WITH MONOLITHIC DEPTH REPAIR



TYPICAL SECTION AT CURB OUTLET

(Wearing surface not shown for clarity)



TYPICAL SECTION OF EXISTING CURB OUTLET SHOWING LIMITS OF EPOXY SEAL

- Remove existing wearing surface plus 1/2" of existing deck.
- One inch vertical side shall be established outside the deteriorated area. See Sec 704.
- 1 3/4" (min.) for Latex Modified Concrete Wearing Surface
- Total surface hydro demolition of existing deck 1/2" min. of sound concrete and all deteriorated concrete.

Estimated Quantities		
Item		Total
Removal of Epoxy Polymer Overlay	sq. foot	9614
Removal of Existing Deck Repairs	sq. foot	500
Latex Modified Concrete Wearing Surface	sq. yard	1068
Curb Blockout	linear foot	458
Full Depth Repair	sq. foot	100
Total Surface Hydro Demolition	sq. yard	1068
Clean and Epoxy Seal	sq. foot	1210
* Monolithic Deck Repairs	cu. yard	9

* Monolithic Deck Repairs will be made at a fixed unit price (See Job Special Provisions).

DECK REPAIR DETAILS

REPAIRS TO BRIDGE: ROUTE I-29 S.B. OVER DAVIS CREEK

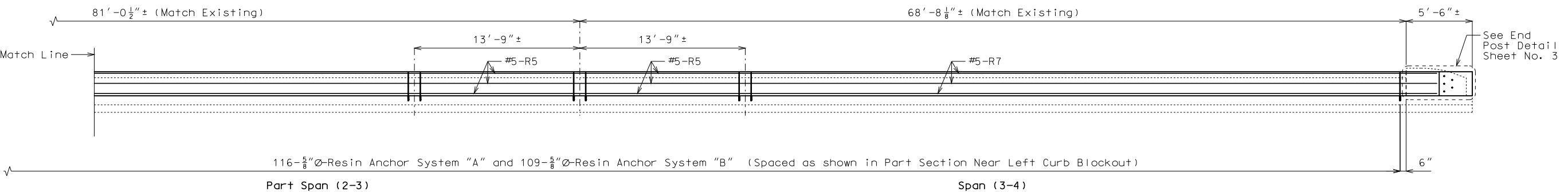
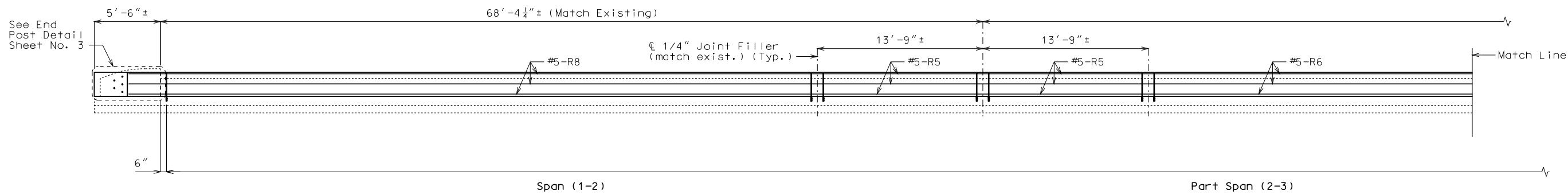
ROUTE I-29 SB FROM RTE. 118 TO RTE. 159
ABOUT 0.2 MILE SOUTH OF RTE. 118
STA. 790+02.00± (Match Existing)

STD. 617.10
STD. 706.35

Detailed April 2015
Checked June 2015

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

Sheet No. 1 of 4



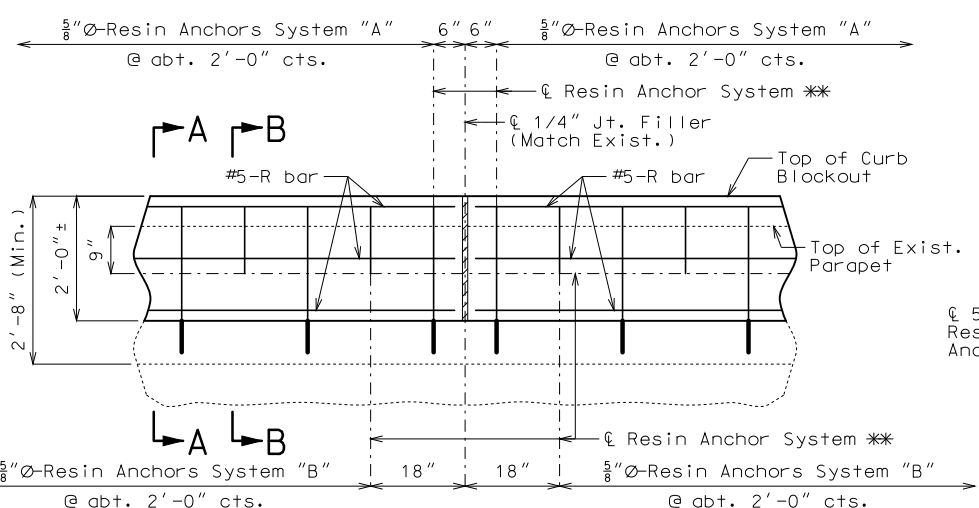
System "A" (148 required) (Install in curb)
 System "B" (109 required) (Install in parapet)

* Use manufacturer's embedment length. (5" minimum embedment)

DETAILS OF RESIN ANCHORS

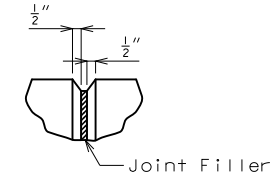
SECTION NEAR LEFT CURB BLOCKOUT
 (Right curb blockout similar)

Note: Longitudinal dimensions shown are along grade and are taken at top outside edge of parapet.
 Bridge rail not shown for clarity.



** Shift resin anchors where necessary to clear existing anchor bolts for bridge rail, miss curb outlets (if present) and clear existing reinforcement.

PART SECTION NEAR LEFT CURB BLOCKOUT



FILLED JOINT DETAIL

Notes:
 Concrete in curb blockout shall be Class B-1 with f'c = 4000 psi.

Measurement of curb blockout is to the nearest linear foot, measured at the top outside edge of parapet from end of wing to end of wing.

All exposed edges of curb blockout shall have 1/2" radius or 3/8" bevel unless otherwise shown.

Payment for concrete, reinforcing steel, resin anchor systems, and any other work incidental to the curb blockout, complete in place, will be included in the contract unit price for Curb Blockout per linear foot.

Cost of any concrete curb or parapet repair will be included in the contract unit price for Curb Blockout.

All reinforcement shall be epoxy coated.

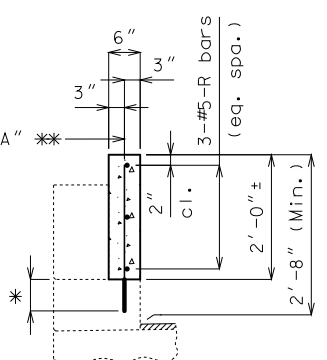
Use a minimum lap of 2'-11" for #5 horizontal curb blockout bars.

Concrete traffic barrier delineators shall be placed on top of the curb blockout similarly as shown on Missouri Standard Plans 617.10 and in accordance with Sec 617. Delineators shall have retroreflective sheeting on side facing oncoming traffic only. Concrete traffic barrier delineators will be considered completely covered by the contract unit price for "Curb Blockout".

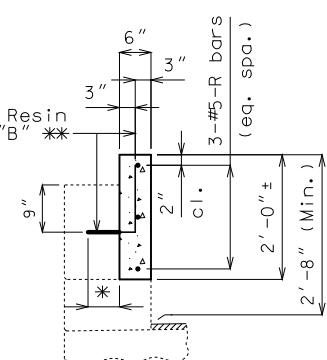
The contractor shall use one of the qualified resin anchor systems in accordance with Sec 1039.

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

An epoxy coated #5 Grade 60 reinforcing bar shall be substituted for the 5/8"Ø threaded rod.

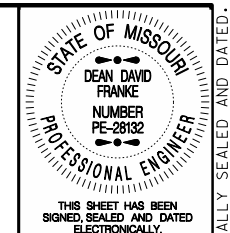


SECTION A-A



SECTION B-B

DETAILS OF LEFT CURB BLOCKOUT



THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 2/11/2016

ROUTE	STATE
I-29	MO
DISTRICT	SHEET NO.
BR	2

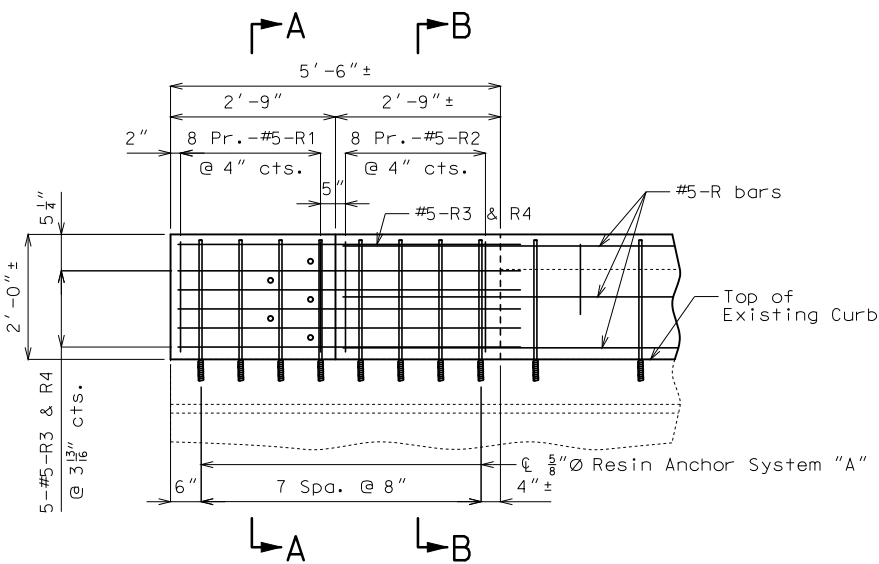
COUNTY: HOLT
 JOB NO.: J1P3023C
 CONTRACT ID.:
 PROJECT NO.:
 BRIDGE NO.: A17675

DATE	DESCRIPTION

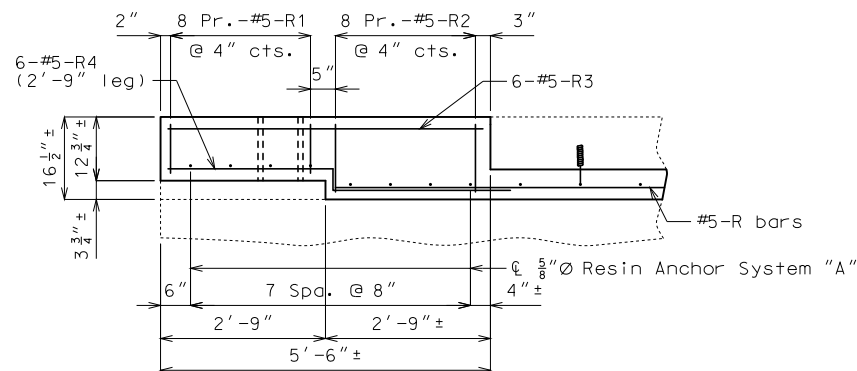
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

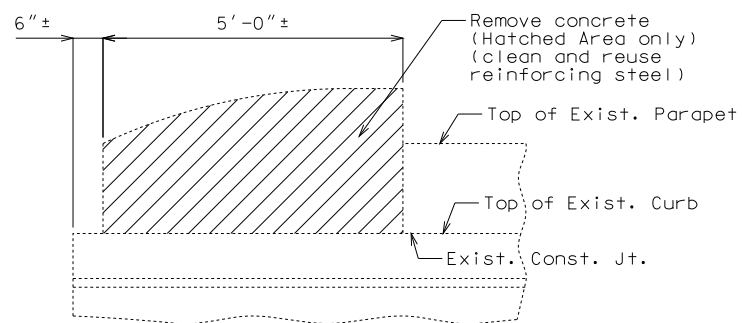
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



ELEVATION SHOWING END POST REINFORCEMENT



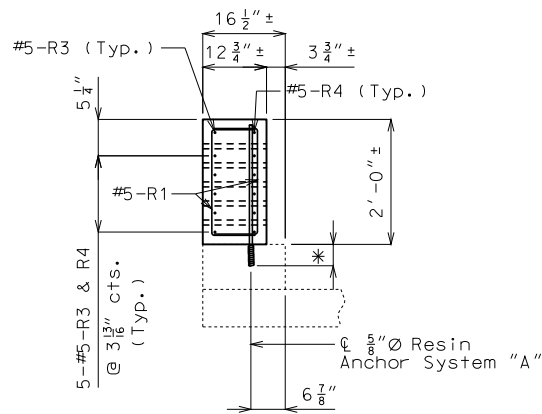
PLAN SHOWING END POST REINFORCEMENT



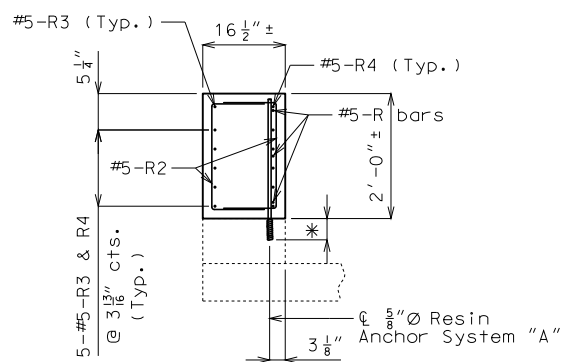
PART ELEVATION SHOWING END POST CONCRETE REMOVAL

Note:

Cost of removing existing end posts will be considered completely covered by the contract unit price for Curb Blockout.

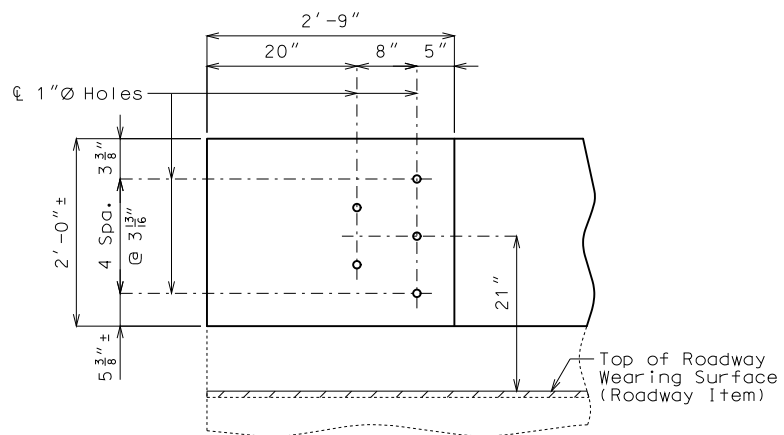


SECTION A-A



SECTION B-B

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



DETAILS OF GUARD RAIL ATTACHMENT

DETAILS OF END POST AT END BENTS

Notes:

All exposed edges of curb blockout shall have 1/2" radius or 3/8" bevel unless otherwise shown.

Use a minimum lap of 2'-11" for #5 horizontal curb blockout bars.

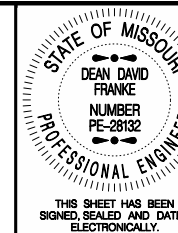
Payment for concrete, reinforcing steel, resin anchor systems, and any other work incidental to the curb blockout, complete in place, will be included in the contract unit price for Curb Blockout per linear foot.

Cost of any concrete curb or parapet repair will be included in the contract unit price for Curb Blockout.

Aluminum railing is not shown for clarity.

All reinforcement shall be epoxy coated.

For Details of Resin Anchors, see Sheet No. 2.



DATE PREPARED
2/11/2016

ROUTE 1-29 STATE MO
DISTRICT BR SHEET NO. 3

COUNTY HOLT
JOB NO. J1P3023C
CONTRACT ID.

PROJECT NO.

BRIDGE NO. A17675

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

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

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO.	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS								NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT
									B	C	D	E	F	H	K				
									FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.				
64	5 R1	BLOCKOUT	E	10	S														
64	5 R2	BLOCKOUT	E	10	S														
24	5 R3	BLOCKOUT	E	20															
24	5 R4	BLOCKOUT	E	28	S														
24	5 R5	BLOCKOUT	E	20															
6	5 R6	BLOCKOUT	E	20															
6	5 R7	BLOCKOUT	E	20															
6	5 R8	BLOCKOUT	E	20															
TOTALS																			
5			E																
	TOTAL																	2131	
	TOTAL		E															0	
	TOTAL																	2131	
		Slab on Girder																	
5			E																
	TOTAL																	2131	

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO.	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS								NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT
									B	C	D	E	F	H	K				
									FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.				

STATE OF MISSOURI
 DEAN DAVID FRANKE
 NUMBER PE-28132
 PROFESSIONAL ENGINEER
 THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
 2/11/2016
 ROUTE
 I-29 STATE MO
 DISTRICT SHEET NO.
 BR 4
 COUNTY
 HOLT
 JOB NO.
 J1P3023C
 CONTRACT ID.
 PROJECT NO.
 BRIDGE NO.
 A17675

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

BENDING DIAGRAMS

SHAPE 6 SHAPE 7 SHAPE 8
 SHAPE 9 SHAPE 10 SHAPE 11
 SHAPE 12 SHAPE 13
 SHAPE 14 SHAPE 15
 SHAPE 16 SHAPE 17 SHAPE 18
 SHAPE 19
 SHAPE 20 SHAPE 21
 SHAPE 22
 SHAPE 23 SHAPE 24
 SHAPE 25
 SHAPE 26 SHAPE 27
 SHAPE 28 SHAPE 29
 SHAPE 30
 SHAPE 31 SHAPE 32
 SHAPE 33 SHAPE 34
 SHAPE 35
 SHAPE 36

6d FOR #4 AND #5,
12d FOR #6.

90° STIRRUP 135° STIRRUP

STIRRUP HOOK DIMENSIONS				
GRADES 40 - 50 - 60 KSI				
BAR SIZE	D (IN.)	90° HOOK		135° HOOK
		HOOK A OR G	HOOK A OR G	APPROX. H
#4	2"	4 1/2"	4 1/2"	3"
#5	2 1/2"	6"	5 1/2"	3 3/4"
#6	4 1/2"	12"	8"	4 1/2"

NOTE: UNLESS OTHERWISE NOTED, DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.

BAR SIZE	D (IN.)	ALL GRADES			
		180° HOOKS		90° HOOKS	
		A OR G	J	A OR G	J
#3	2 1/4"	5"	3"	6"	6"
#4	3"	6"	4"	8"	8"
#5	3 3/4"	7"	5"	10"	10"
#6	4 1/2"	8"	6"	12"	12"
#7	5 1/4"	10"	7"	14"	14"
#8	6"	11"	8"	16"	16"
#9	9 1/2"	15"	11 3/4"	19"	19"
#10	10 3/4"	17"	13 1/4"	22"	22"
#11	12"	19"	14 3/4"	2'-0"	2'-0"
#14	18 1/4"	2'-3"	21 3/4"	2'-7"	2'-7"

NOTE:
 ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEGREE ARE TO BE BENT WITH SAME PROCEDURE AS FOR 90 DEGREE STANDARD HOOKS.
 HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
 E = EPOXY COATED REINFORCEMENT.
 S = STIRRUP.
 X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
 Y = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
 NO. EA. = NUMBER OF BARS OF EACH LENGTH.
 NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATORS USE. (NEAREST INCH)
 ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
 PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
 FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.
 REINFORCING STEEL (GRADE 60) FY = 60,000 PSI.

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	54	

GENERAL NOTES:

Design Specifications: A.A.S.H.O. - 1969

Design Loading:

H3-20-44 15 #/sq. ft. Future Wearing Surface
Earth 120# Equivalent Fluid Pressure 30#
Fatigue Stress Case I

Design Unit Stresses:

Class B Concrete (substructure) $f_c = 1,200$ psi
Class B Concrete (superstructure) $f_c = 1,600$ psi
Reinforcing steel $f_s = 20,000$ psi
Structural Steel $f_s = 20,000$ psi

Fabricated Steel:

Field connections, High Strength Bolts $\frac{3}{4}$ " ϕ , holes $\frac{1}{16}$ " except as noted.

Paint: Shop: one coat red lead, in accordance with Std. Spec. 712.12 and 1045.4 or 1045.5; Surfaces of shear connectors and beam flanges in contact with concrete shall not be painted.

Field, two coats by contractor, first coat brown, second coat aluminum in accordance with Std. Spec. 712.12 Reinforcing Steel:

Minimum clearance to reinforcing steel shall be $\frac{1}{2}$ " unless otherwise shown.

ESTIMATED QUANTITIES

ITEM	SUBSTR.	SUPERSTR.	TOTAL
Cast-In-Place Concrete Piles	Lin. Ft.	4956	4956
Class B Concrete	Cu. Yd.	175.6	175.6
Class B Concrete	Cu. Yd.	386.9	386.9
Reinforcing Steel	Lbs.	26,290	105,910
Fabricated Structural Carbon Steel	Lbs.	173,250	173,250
Painting	Ton	83.5	83.5
Bridge Rail (One Tube)	Lin. Ft.	580	580
Class I Excavation	Cu. Yd.	200	200

Note: All concrete and reinforcing above substructure beam in End Bents No. 1 and 4 is included in superstructure quantities.

PILE DATA

P. INT. NO.	1	2	3	4
Type	Found	Found	Found	Found
Kind	C.I.P.	C.I.P.	C.I.P.	C.I.P.
Number (Each Lane)	6	12	12	6
Approximate Length	Ft. 73	59	63	90
Design Bearing	Tons 28	28	28	28
Min. Tip Penetration	Elev. 859.0	859.0	859.0	859.0
Pile Standard	70202			
Hammer Energy required	Ft. Lbs. 8000	8000	8000	8000

Minimum energy requirement of hammer based on plan length of piles.
All pile shall be driven to the minimum penetrations and to not less than the design bearings noted.

B.M. Elev. 875.45 - T.M. - Br. Spike in 24" Pine - 261' RT
Sta. 787+02.46 (U.S.G.S. Datum)

BRIDGE OVER BURLINGTON NORTHERN, INC.

STATE ROAD: INTERSTATE ROUTE 29

ABOUT 0.3 MILE W. OF MOUND CITY

PROJECT NO. I-IG-29-2(57) RTE. I-29 STA. 796+99.89 (LEFT LANE)
797+14.70 (RIGHT LANE)

HOLT

COUNTY

SUBMITTED BY: W.D. Carney DATE 4-5-71

APPROVED BY: Robert N. Hunter DATE 4-5-71

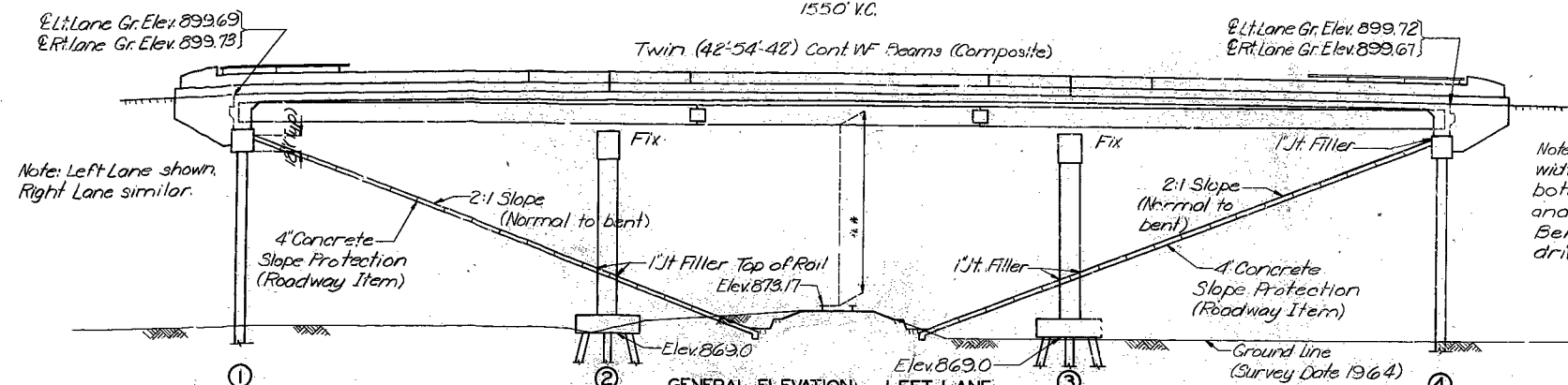
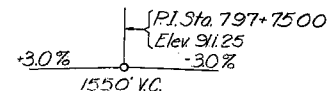
CHIEF ENGINEER

STD. 611.60

STD. 702.02

STD. 706.30A

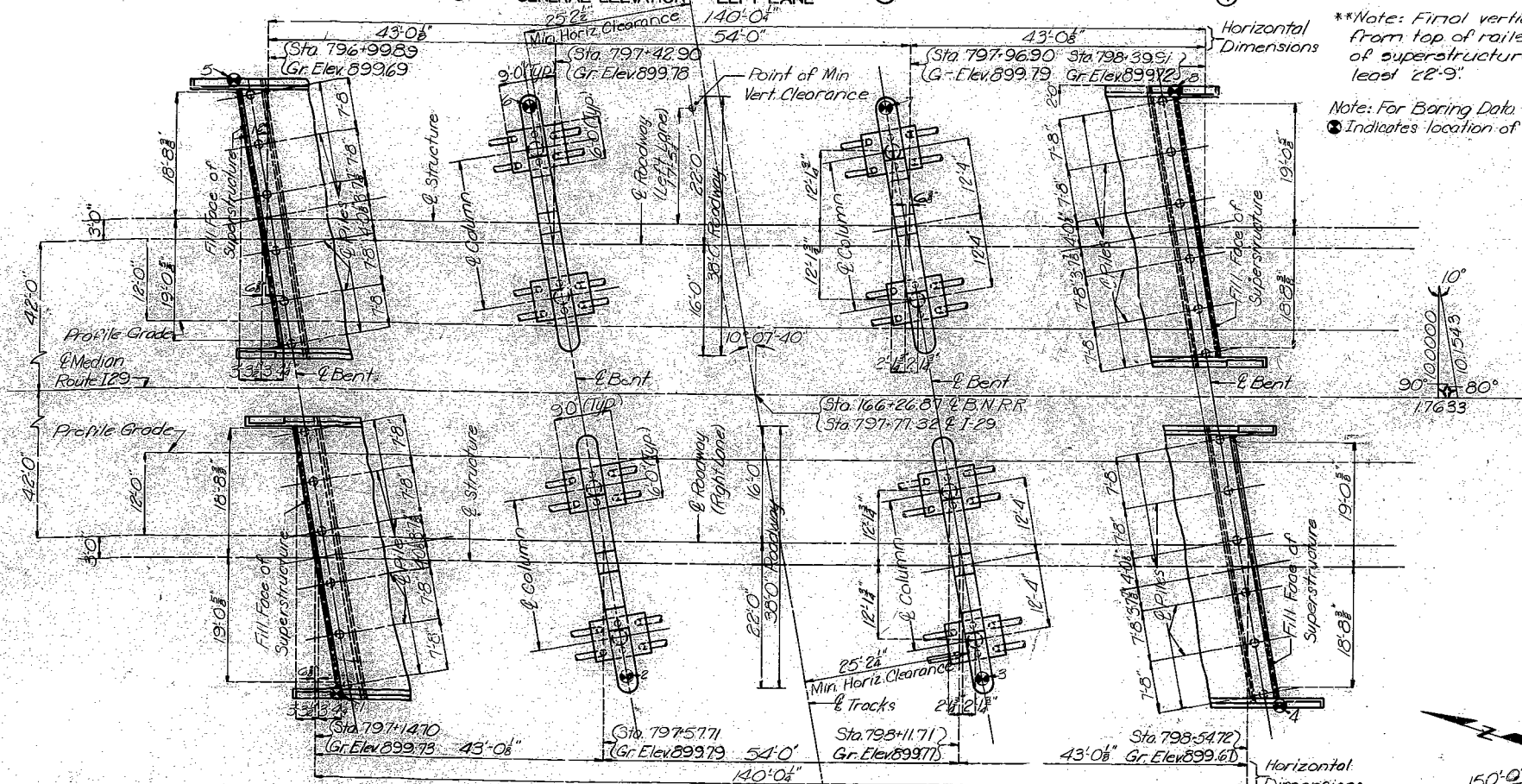
A-1768



Note: Compacted roadway fill (full roadway width) shall be placed up to elevation of bottom of concrete beam in front of and not less than 25'-0" in back of End Bents No. 1 and 4 before piles are driven at End Bents No. 1 and 4.

**Note: Final vertical clearance from top of rails to bottom of superstructure to be at least 22'-9".

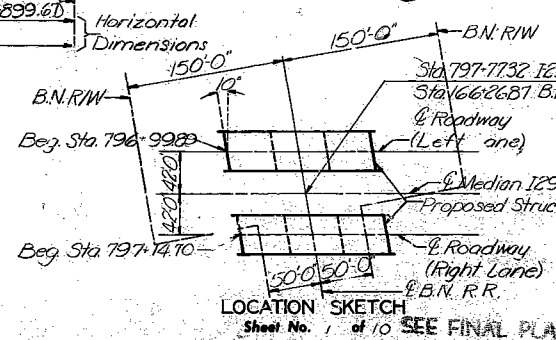
Note: For Boring Data, see sheet 3 of 10. \odot Indicates location of boring.



PLAN OF LEFT & RIGHT LANES

Construction Clearance: A minimum vertical clearance of 21'-0" from top of rails and a minimum lateral clearance of 12'-6" from the centerline of track to nearest temporary construction falsework shall be maintained during construction.

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



LOCATION SKETCH
Sheet No. 1 of 10 SEE FINAL PLANS

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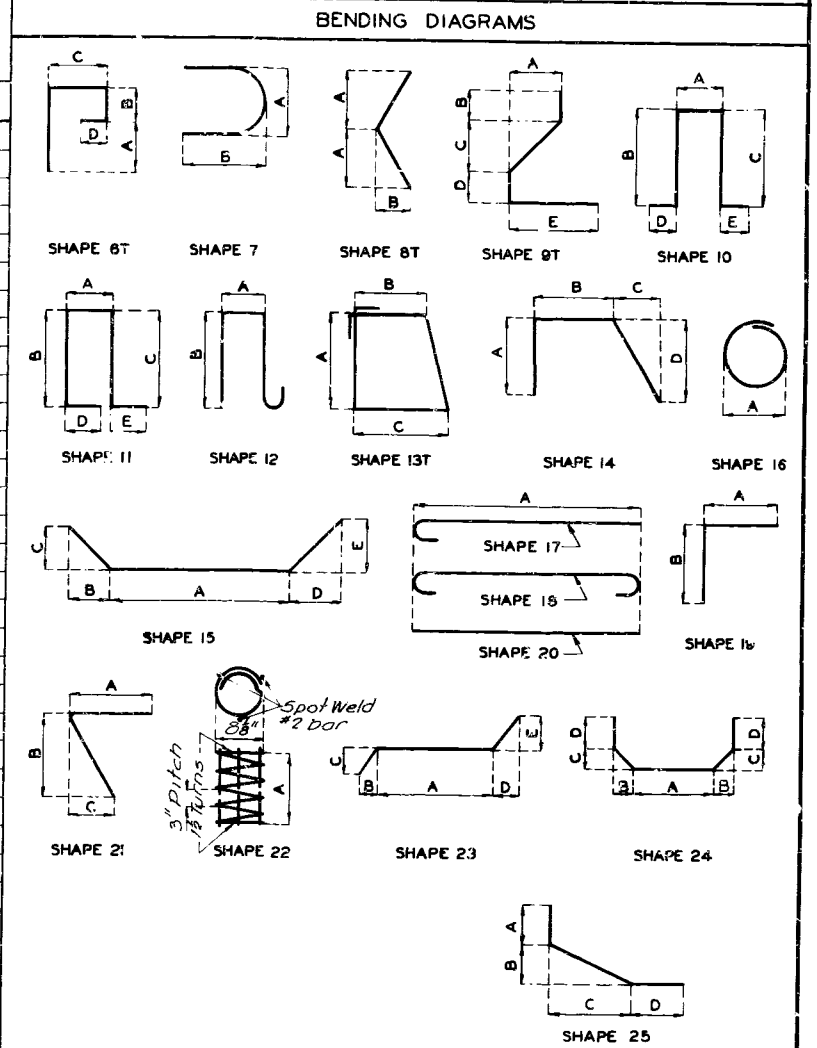
DESIGNED FEB. 1970 BY P. JOHNSON
DETAILED FEB. 1970 BY SADLER
CHECKED March 19 70 BY STAFF

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		19	25	

NO. REQD.	MARK NO.	LOCATION	SHAPE NO.	TIE OR STIRRUP SUBSTR. VARIES. NO. EA.	DIMENSIONS					LENGTH	WEIGHT		
					A	B	C	D	E				
	SIZE MARK				FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	LBS		
SUBSTRUCTURE													
END BENTS NO 1 AND 4													
RIGHT AND LEFT LANES													
8	6H6	BEAM	20	S	41	1.500	0	0.0	0	0.0	41	2	495
32	6H7	BEAM	18	S	41	1.500	0	0.0	0	0.0	42	6	2043
148	404	BEAM	13	T	2	9.000	2	3.000	2	3.000	10	6	1038
INT BENTS NO 2 AND 3													
RIGHT AND LEFT LANES													
48	501	FOOTING	20	S	5	9.000	0	0.0	0	0.0	5	9	298
40	9D2	FOOTING	20	S	8	9.000	0	0.0	0	0.0	8	9	1190
16	6D3	FOOTING	10	T	8	0.0	3	3.000	3	3.000	14	3	342
72	804	COLUMN	20	S	4	0.0	0	0.0	0	0.0	4	0	769
20	7H1	BEAM	18	S	35	2.000	0	0.0	0	0.0	36	8	1499
36	11H2	BEAM	20	S	35	2.000	0	0.0	0	0.0	35	2	6726
32	11H3	BEAM	17	S	14	8.250	0	0.0	0	0.0	15	10	2192
32	7H4	BEAM	7	S	2	5.750	3	9.500	0	0.0	8	11	583
8	6H5	BEAM	20	S	35	2.000	0	0.0	0	0.0	35	2	423
8	8H13	BEAM	20	S	35	2.000	0	0.0	0	0.0	35	2	751
168	3P1	COLUMN	16	S	2	3.000	0	0.0	0	0.0	7	9	490
8	5U1	BEAM	13	T	3	6.000	2	4.000	2	4.000	12	4	103
176	5U2	BEAM	13	T	3	6.000	2	7.000	2	7.000	12	10	2356
20	4U3	BEAM	10	T	2	7.000	0	6.000	0	6.000	3	5	46
72	8V1	COLUMN	20	S	22	8.000	0	0.0	0	0.0	22	8	4357
40	2W1	BEAM	22	S	0	9.000	0	0.0	0	0.0	15	1	101
SUPERSTRUCTURE													
572	5C1	CURB	10	T	1	1.500	1	0.750	1	0.750	3	5	2038
16	5C2	CURB	20		50	9.000	0	0.0	0	0.0	50	9	847
8	5C3	CURB	20		53	9.000	0	0.0	0	0.0	53	9	448
64	5C4	CURB & WING	10	T	1	1.500	2	0.0	2	0.0	4	11	328
24	6H8	WING	0		9	6.000	0	0.0	0	0.0	9	6	342
8	6H9	WING	20		3	0.000	0	0.0	0	0.0	3	5	41
24	6H10	WING	20		9	6.000	0	0.0	0	0.0	9	6	342
8	6H11	WING	20		2	8.000	0	0.0	0	0.0	2	8	32
40	6H12	WEB	20		41	1.500	0	0.0	0	0.0	41	2	2473
16	5R1	END POST	20		4	9.000	0	0.0	0	0.0	4	9	79
8	5R2	END POST	12		0	9.000	2	1.375	0	0.0	5	4	45
8	5R3	END POST	12		0	9.000	2	4.125	0	0.0	5	10	49
8	5R4	END POST	12		0	9.000	2	6.250	0	0.0	6	2	51
8	5R5	END POST	12		0	9.000	2	7.250	0	0.0	6	4	53

NO. REQD.	MARK NO.	LOCATION	SHAPE NO.	TIE OR STIRRUP SUBSTR. VARIES. NO. EA.	DIMENSIONS					LENGTH	WEIGHT			
					A	B	C	D	E					
	SIZE MARK				FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	LBS			
8	5R6	END POST	12		0	9.000	2	8.000	0	0.0	6	5	54	
8	5R7	END POST	12		0	9.000	2	8.625	0	0.0	6	7	55	
8	5R8	END POST	12		0	9.000	2	7.625	0	0.0	6	9	56	
16	5R9	END POST	12		0	9.000	2	9.875	0	0.0	6	9	113	
32	5R10	END POST	10		0	7.750	4	9.000	0	0.0	9	11	331	
588	5R11	PARAPET	12		0	8.500	2	0.375	0	0.0	5	2	3169	
32	5R12	PARAPET	20		36	0.0	0	0.0	0	0.0	36	0	1202	
64	5R13	PARAPET	20		10	6.000	0	0.0	0	0.0	10	6	701	
16	5R14	PARAPET	20		32	3.000	0	0.0	0	0.0	32	3	538	
96	6S1	SLAB	20	V	8	37	2.125	0	0.0	0	0.0	37	2	
					INCREMENT = 36.875 INCHES									
984	6S2	SLAB	20		3	4.875	0	0.0	0	0.0	3	5	2926	
232	6S3	SLAB	20		40	6.000	0	0.0	0	0.0	40	6	59858	
328	4S4	SLAB	20		47	7.000	0	0.0	0	0.0	47	7	18010	
160	4S5	SLAB	20		35	8.000	0	0.0	0	0.0	35	8	7815	
4	4S6	SLAB	20		41	0.0	0	0.0	0	0.0	41	0	110	
8	6T1	WING	25		2	0.0	3	0.500	2	1.000	7	8.000	11	143
8	6T2	WING	25		2	0.0	1	0.750	2	1.625	7	1.000	11	137
8	6T3	WING	20		6	9.000	0	0.0	0	0.0	6	9	61	
8	6T4	WING	20		6	6.000	0	0.0	0	0.0	6	6	78	
152	4U5	WEB	19		2	9.500	3	3.500	0	0.0	6	0	609	
152	4U6	WEB	19		1	8.000	3	3.000	0	0.0	4	10	490	
16	6U7	WEB	21		2	9.000	1	9.000	0	3.750	0	0.0	4	104
16	6U8	WEB	23		2	9.000	0	3.750	1	9.000	0	0.0	4	106
24	4V2	WING	20	V	8	5	5.000	0	0.0	0	0.0	5	5	
					INCREMENT = 6.000 INCHES									
8	4V3	WING	20		2	5.000	0	0.0	0	0.0	2	5	147	
56	4V4	WING	20	V	8	5	4.000	0	0.0	0	0.0	5	4	
					INCREMENT = 6.000 INCHES									
8	4V5	WING	20		2	4.000	0	0.0	0	0.0	2	4	143	
8	4V6	WING	20		5	6.000	0	0.0	0	0.0	5	6	29	
END OF BAR LIST														



Note: All bending dimensions are out to out. Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for detailing reinforced concrete structures.

T-tie or stirrup 5-bar is included in substructure quantities Length- Total lengths are measured along centerline bar to the nearest inch. V-bar dimensions vary in equal increments between dimensions shown on this line and the following line. No. Ea- Number of bars of each length.

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REVISED
JULY 1969
MAR. 6 1970

Drawn APR 1970 by SADLER
Checked March 1970 by Stutte

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

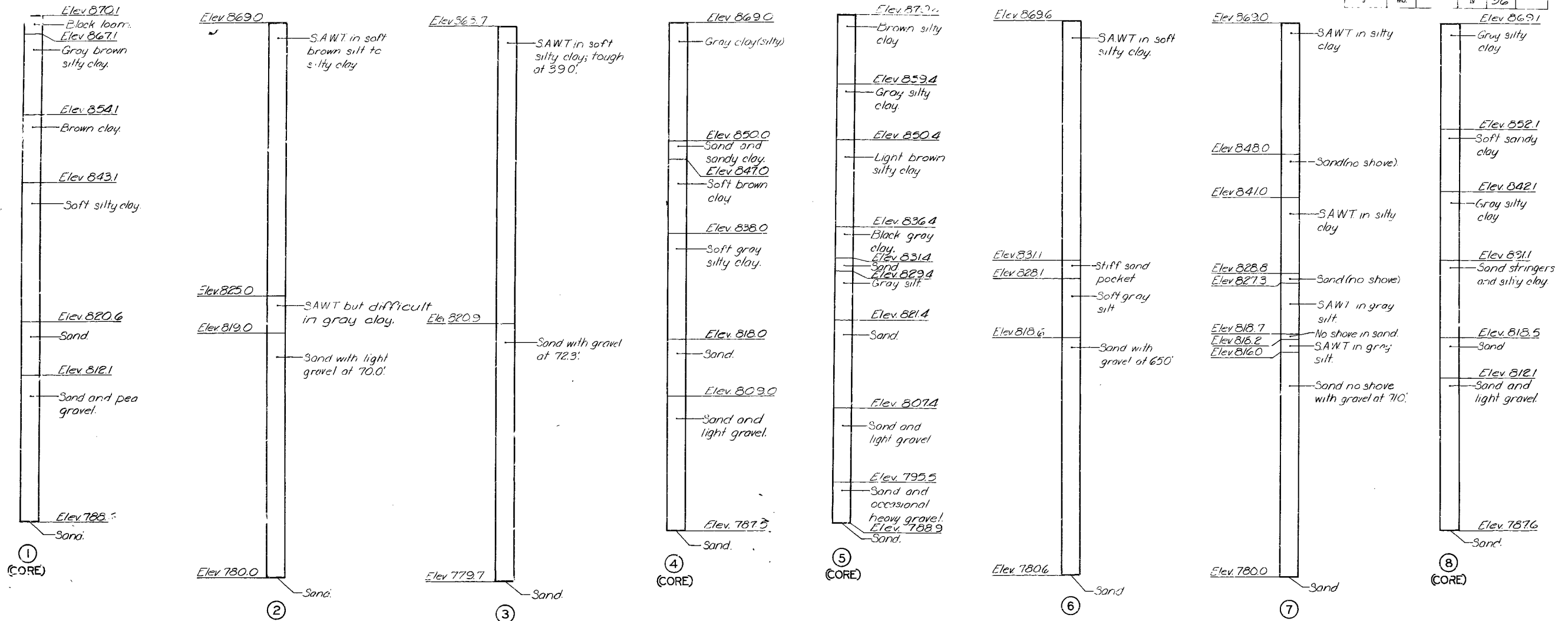
Sheet No. 2 of 10

HOLT COUNTY

A-1768

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19 96		



Standard Penetration Test ①

Depth	Blows/6"
10'	21314
20'	11111
30'	11211
40'	21314
50'	917116
55'	18116119
60'	17118116
65'	19123124
80'	1512214

Standard Penetration Test ④

Depth	Blows/6"
10'	11313
20'	115110
30'	21213
40'	11314
50'	414110
55'	1011113
60'	23122119
65'	13115114
70'	30140155
80'	21120128

Standard Penetration Test ⑤

Depth	Blows/6"
10'	11111
20'	01212
30'	21313
40'	121714
45'	11213
50'	1017121
55'	16134145
60'	12126128
65'	15125115
70'	1118118
80'	19130127

Standard Penetration Test ⑧

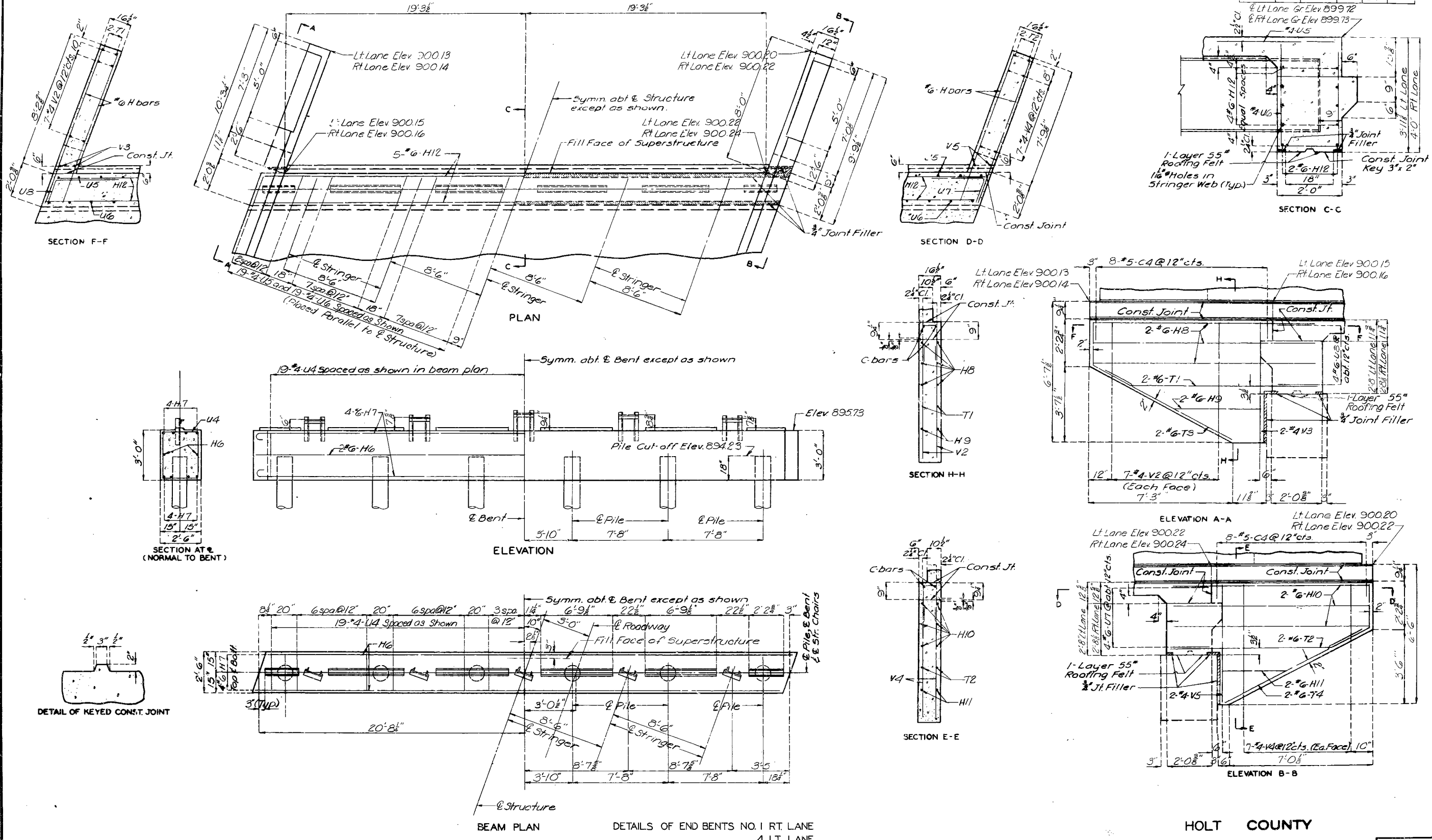
Depth	Blows/6"
10'	11212
20'	11010
30'	21213
40'	61315
50'	6110114
55'	14119127
60'	1111116
65'	23124123
70'	16116117
80'	16121123

BORING DATA
 Note: For location of borings see sheet 1 of 10.

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MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		19	27	



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

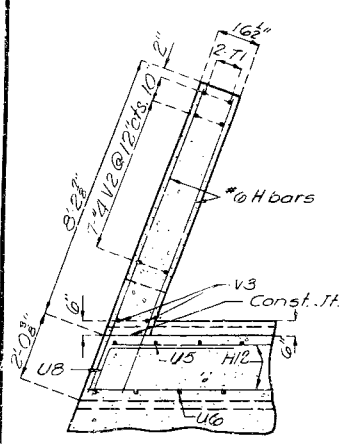
REVISIONS
 1. REVISED
 2. CHECKED
 3. DETAILED MAR. 1970 BY SADLER
 4. CHECKED March 1970 BY Stutte

Sheet No. 4 of 10

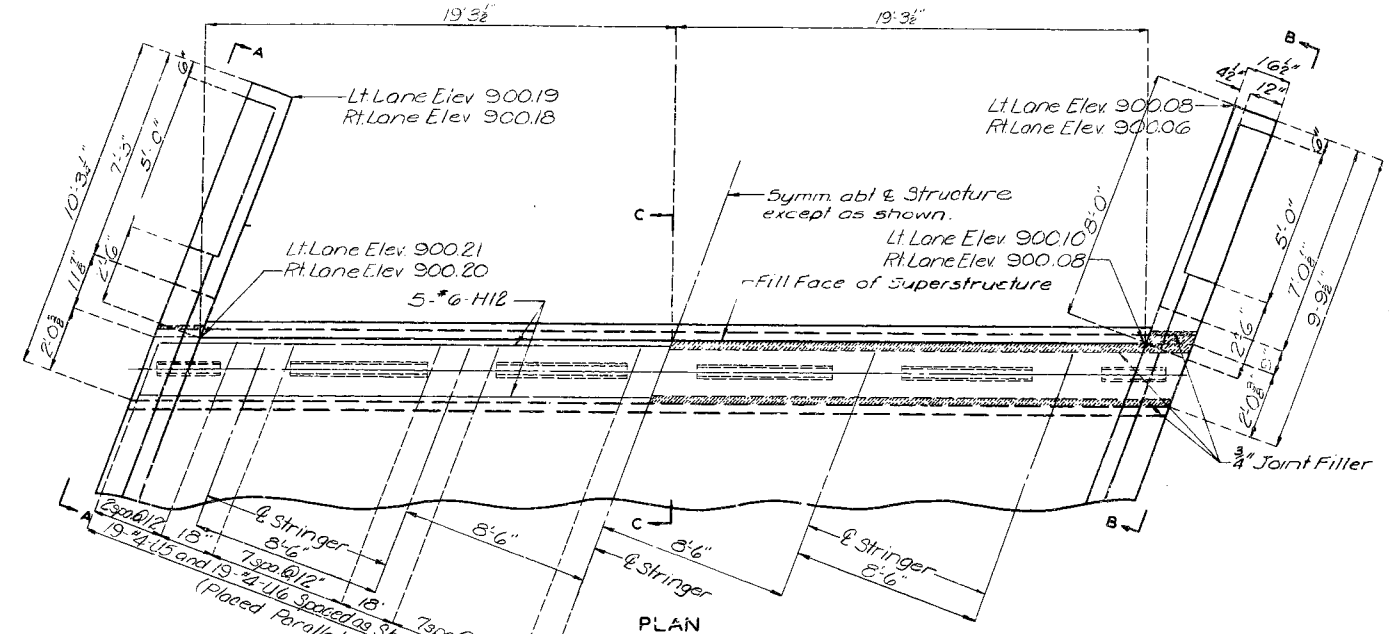
A-1768

MISSOURI STATE HIGHWAY DEPARTMENT

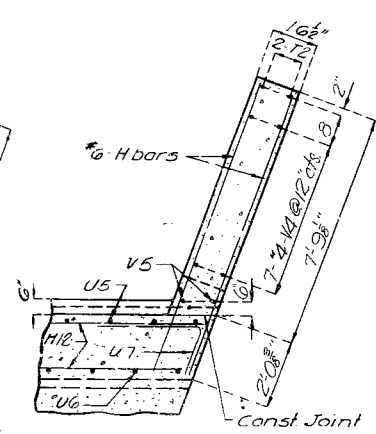
FED ROAD DIST NO	STATE	FED AID PROJ NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	MO		68	28	



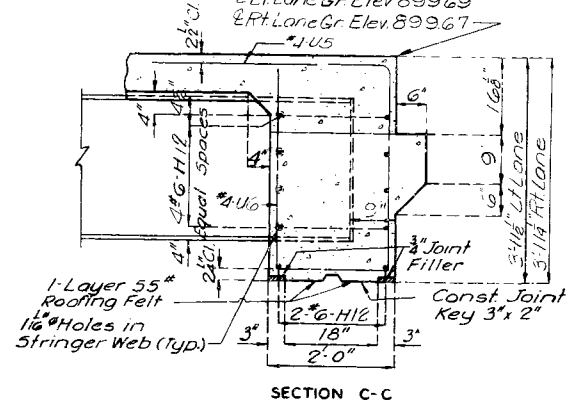
SECTION F-F



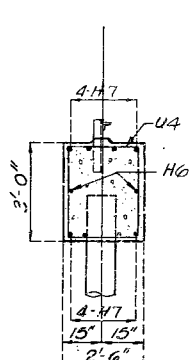
PLAN



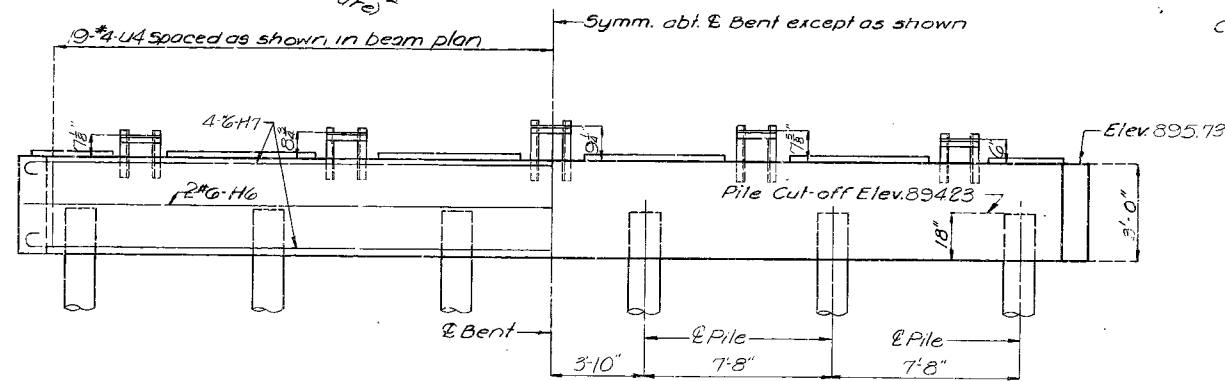
SECTION D-D



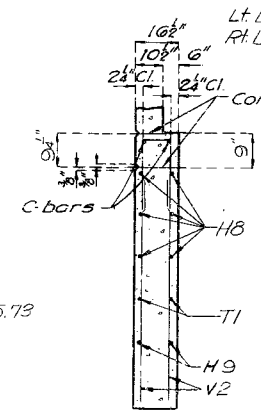
SECTION C-C



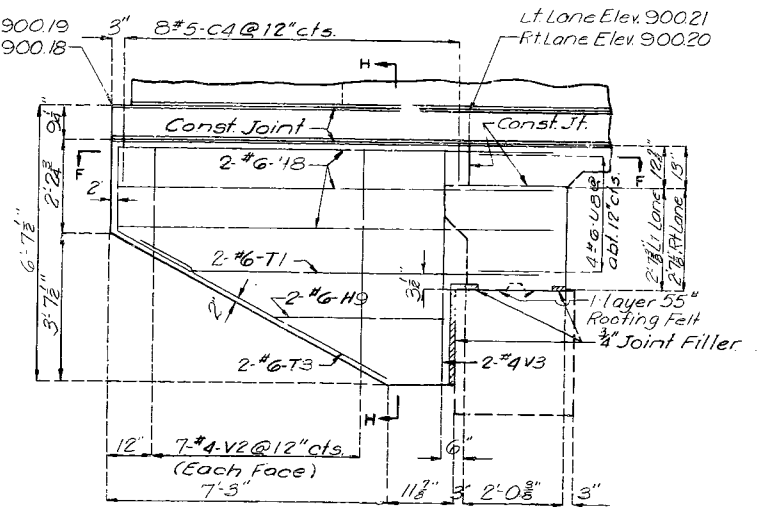
SECTION AT (NORMAL TO BENT)



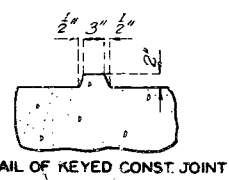
ELEVATION



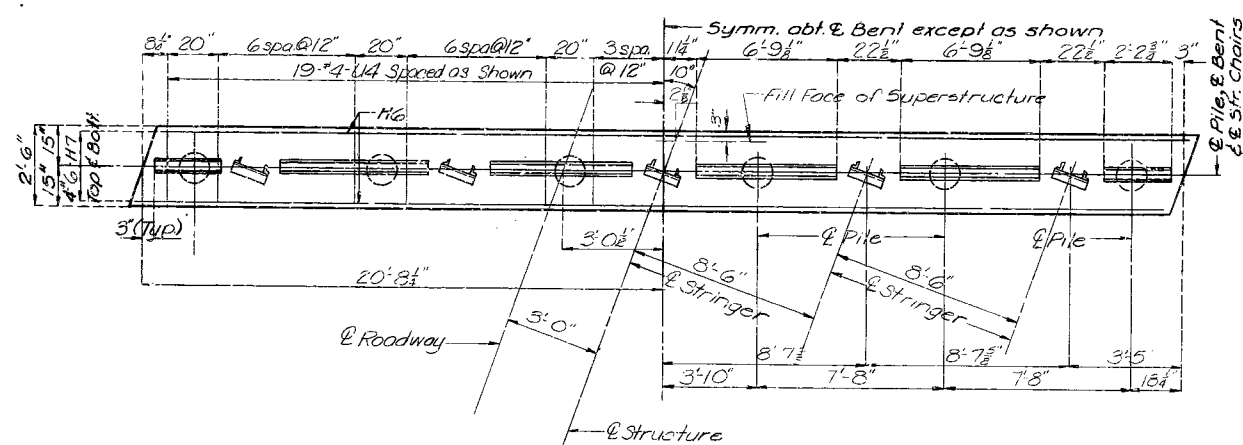
SECTION H-H



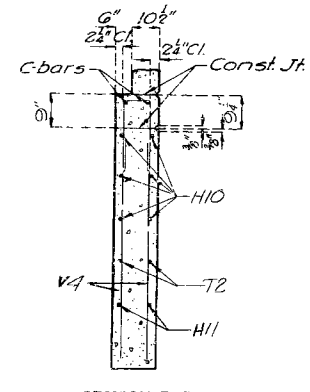
ELEVATION A-A



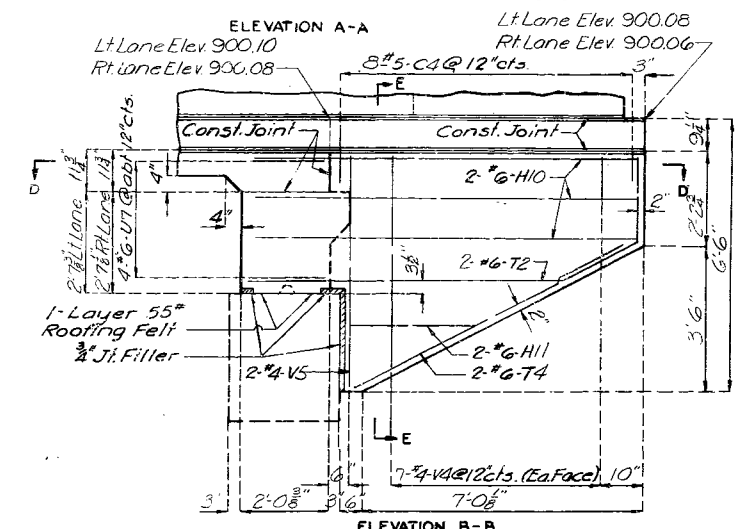
DETAIL OF KEYED CONST. JOINT



BEAM PLAN



SECTION E-E



ELEVATION B-B

DETAILS OF END BENTS NO. 1 LEFT LANE 4 RIGHT LANE

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

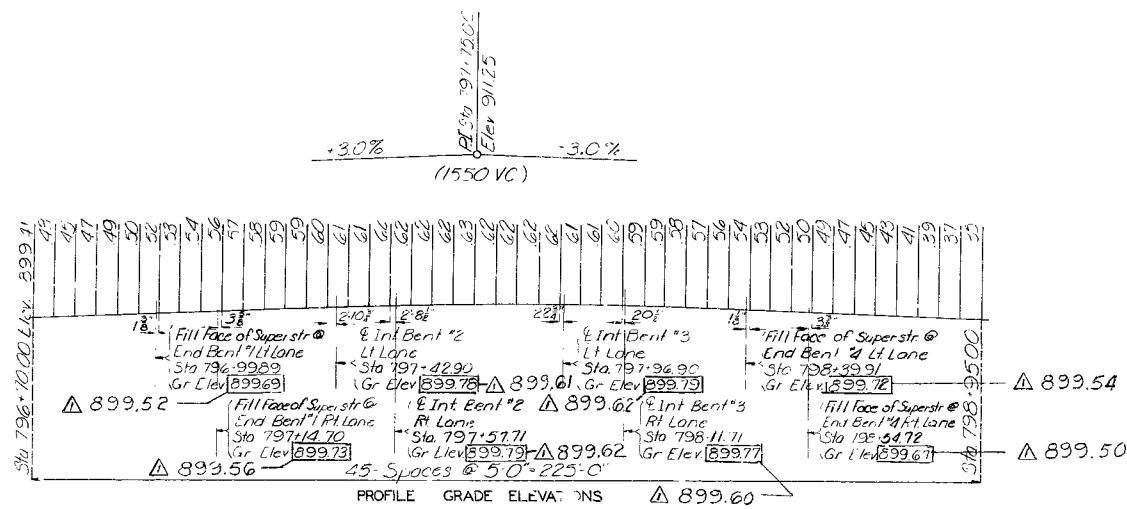
407

REVISED
STD

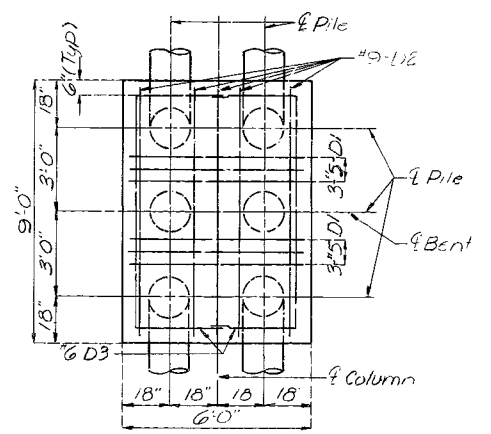
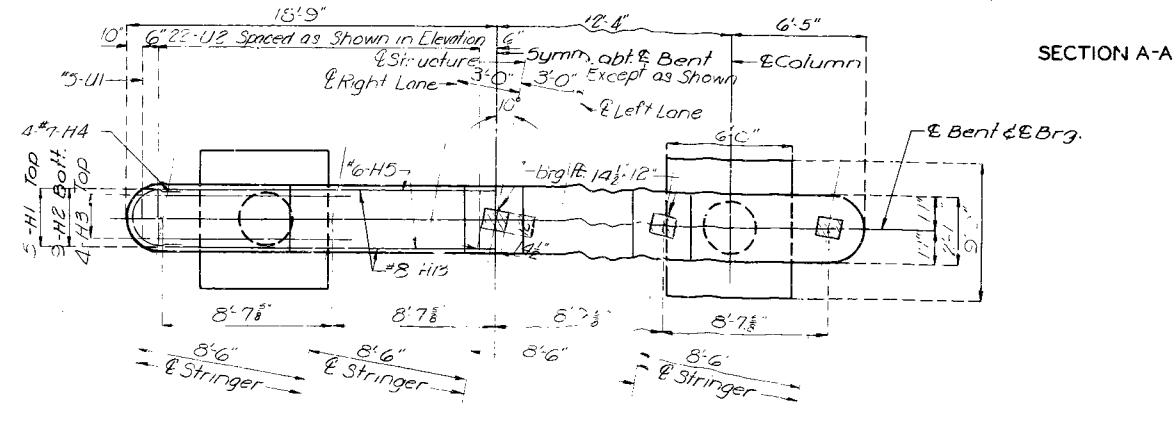
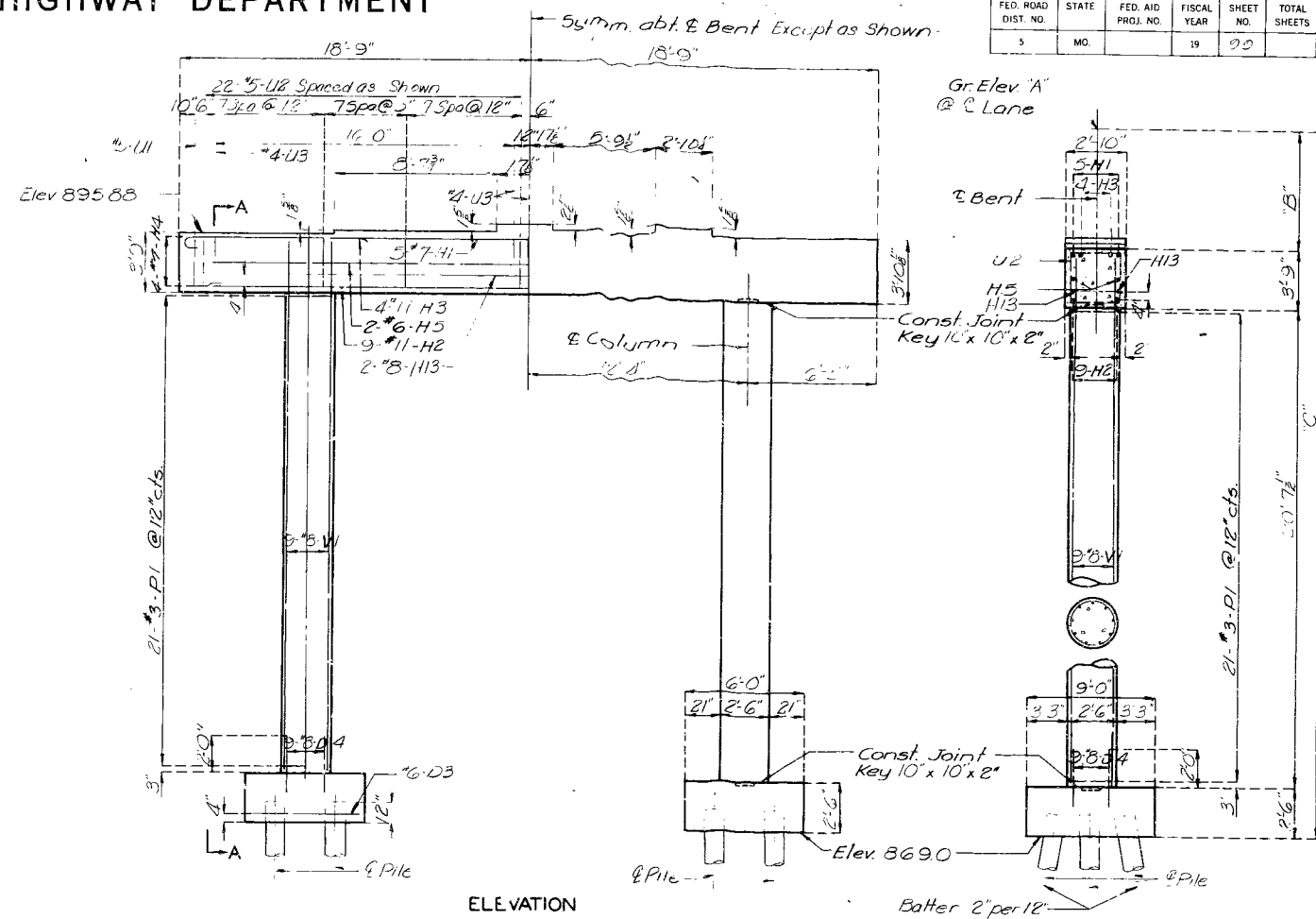
DETAILED MAR. 1970 BY SADLER
CHECKED March 1970 BY STUTZ

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	22	



	A	B	C
BT 2 RT LANE	899.79	3:11	30:9 $\frac{1}{2}$
BT 3 RT LANE	899.77	3:10 $\frac{1}{2}$	30:9 $\frac{1}{2}$
BT 2 LT LANE	899.78	3:10 $\frac{1}{2}$	30:9 $\frac{1}{2}$
BT 3 LT LANE	899.79	3:11	30:9 $\frac{1}{2}$



DETAILS OF INTERMEDIATE BENTS NO. 2 & 3

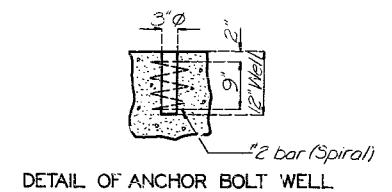
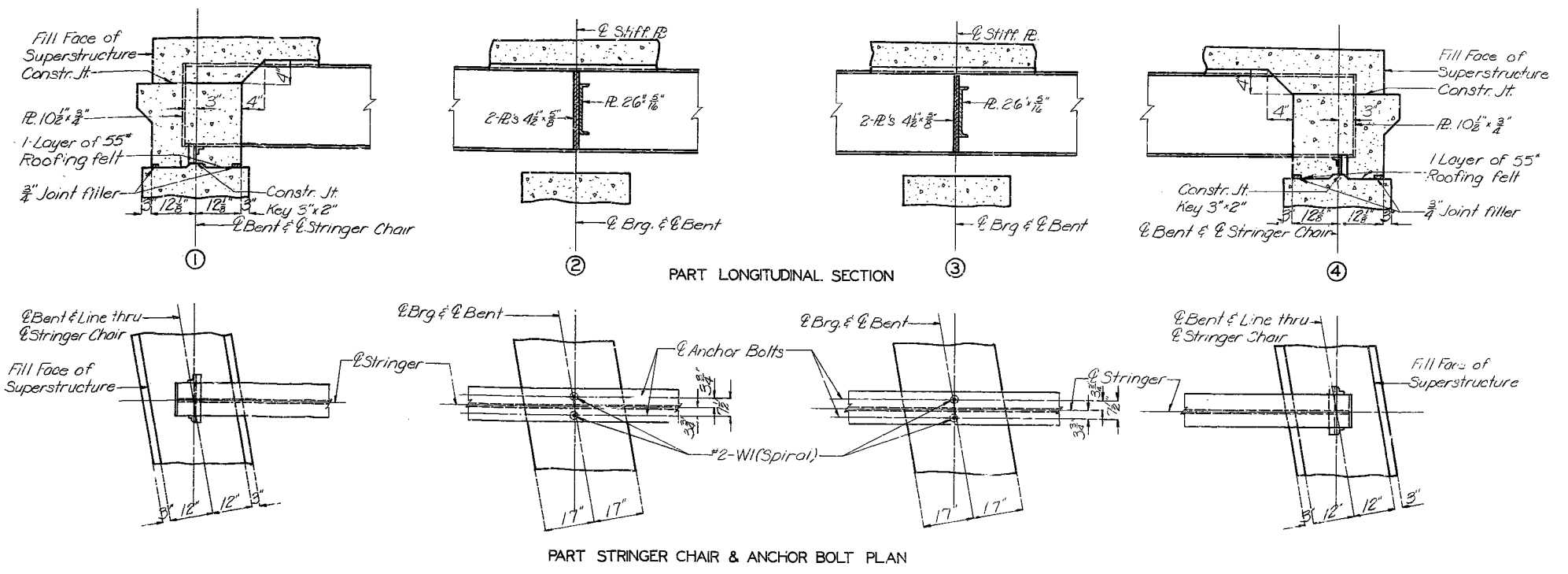
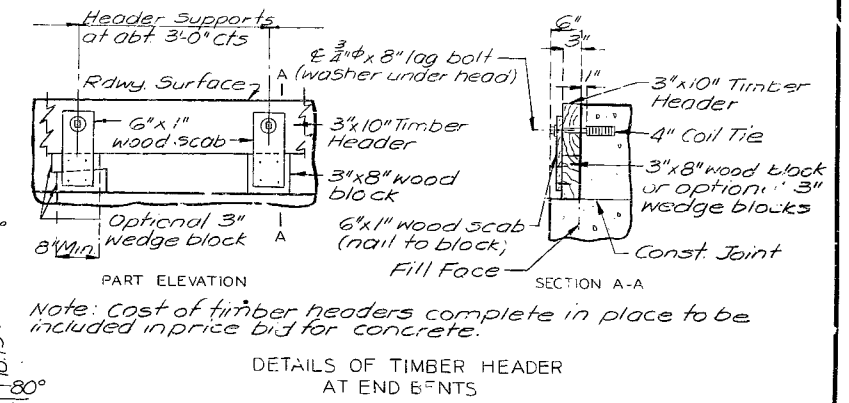
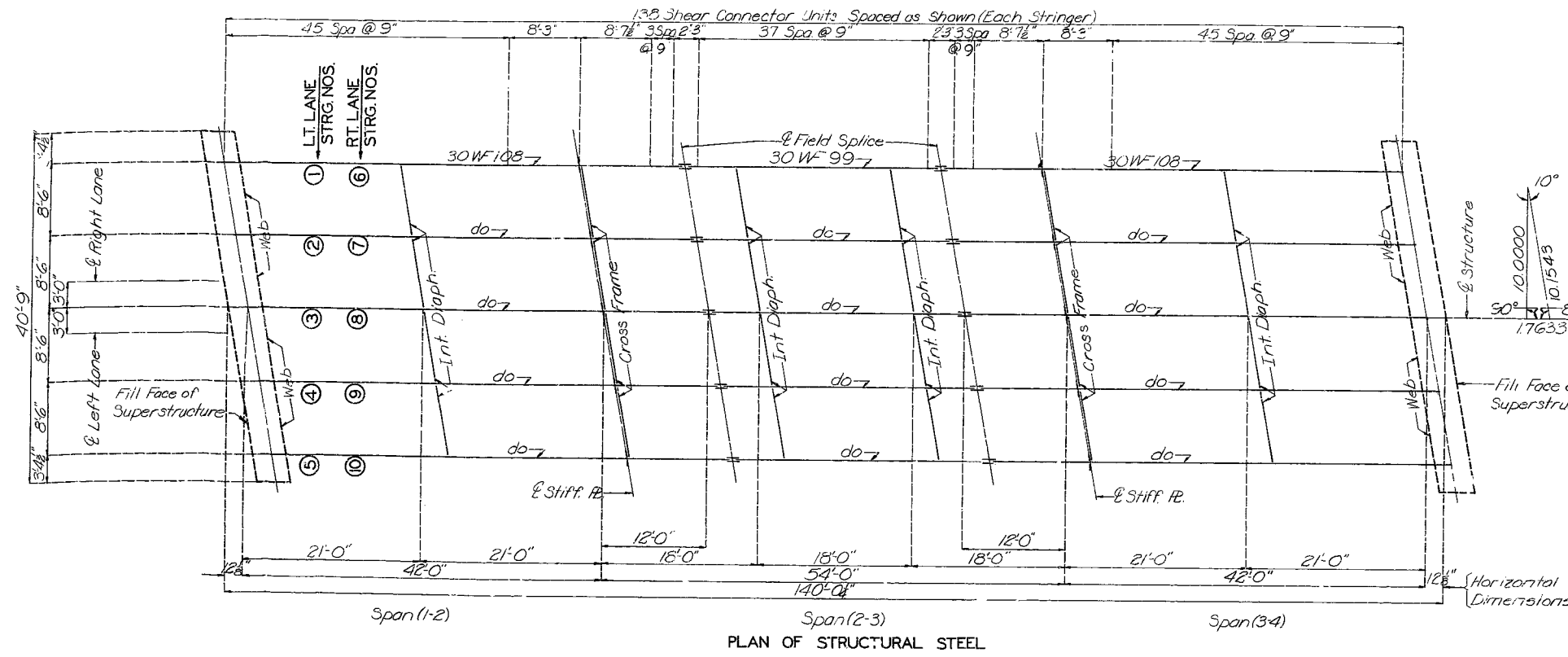
Note: Left Lane shown
Right Lane opposite hand laterally

Revised March 27, 1972

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MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		13	100	



409

DETAILED FEB. 1970 BY SADLER
 CHECKED March 1970 BY Stutte

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

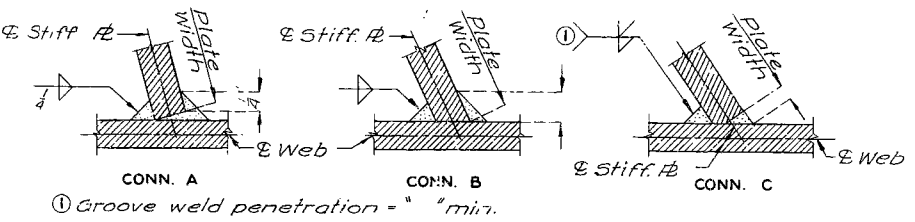
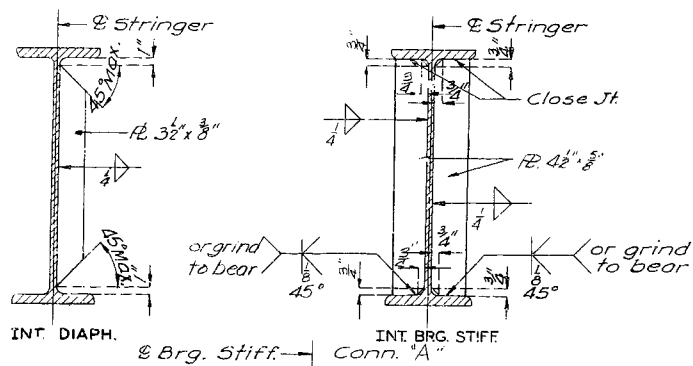
Sheet No. 7 of 10

HOLT COUNTY

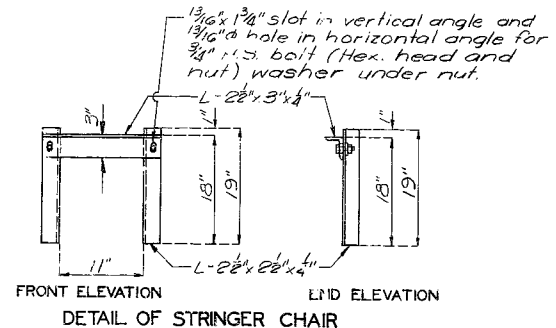
A-1768

MISSOURI STATE HIGHWAY DEPARTMENT

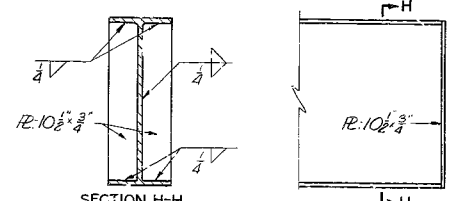
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	101	



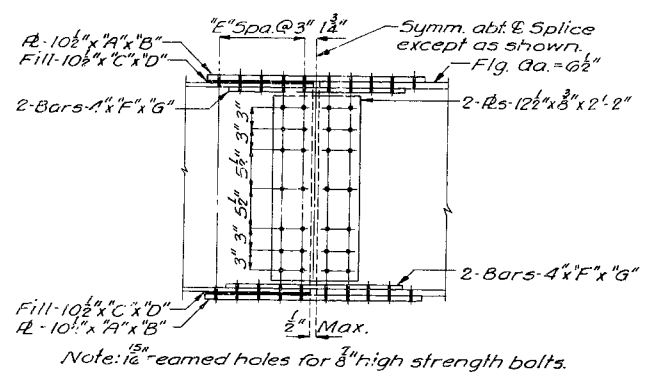
WELDING DETAILS



DETAIL OF STRINGER CHAIR

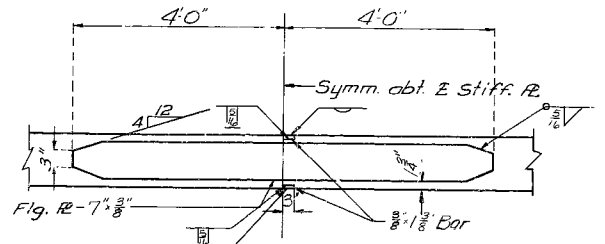


WELDING DETAILS OF STRINGERS AT END BENTS NO. 1 & 4

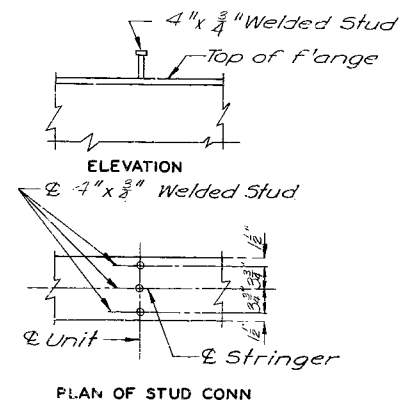


SIZE OF BEAM	"A"	"B"	"C"	"D"	"E"	"F"	"G"
30W-99 to 108	1/2"	2'-0"	13G0	12"	3	1/2"	13 1/2"

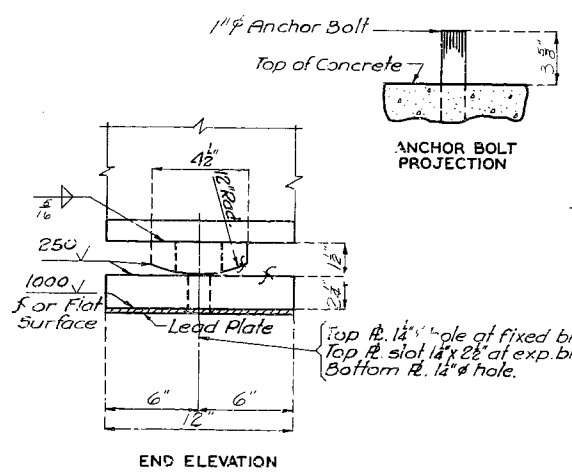
DETAIL OF 30" WF BEAM SPLICE



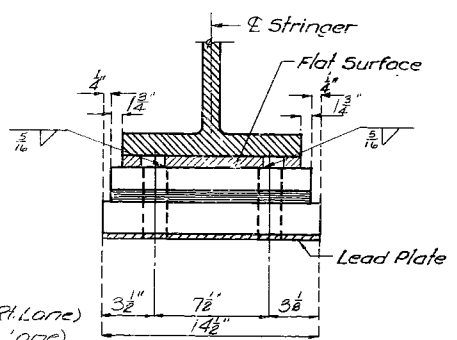
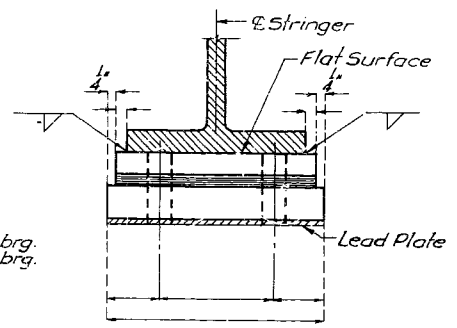
DETAILS OF FLANGE PLATES



DETAILS OF SHEAR CONNECTORS
Weight of 2546 lbs. of shear connectors is included in weight of fabricated Structural Carbon Steel.



END ELEVATION



Required: 10-Fixed Bearings (Rt. Lane)
10-Fixed Bearings (Lt. Lane)
TYPE "C" BEARINGS
(Estimated Weight 2,656 #)

NOTES: TYPE "C" BEARINGS
Lead plates under bearings shall be approximately 3/8" thickness and weigh 8# per sq. ft. Cost of lead plates shall be included in price bid for other items.
"Estimated weight" does not include weight of anchor bolts.
Anchor bolts for Type "C" Bearings shall be 1" diameter swaged bolts with no heads or nuts and shall extend 10" into concrete. Top of Anchor Bolts shall be set approximately 1/4" below top of bearing.
"f" indicates machine finish surface.

410

SPS
REVISED
STD

DETAILED MAR. 1970 BY SADLER
CHECKED March 1970 BY Stutte

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

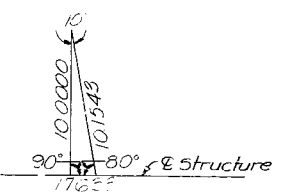
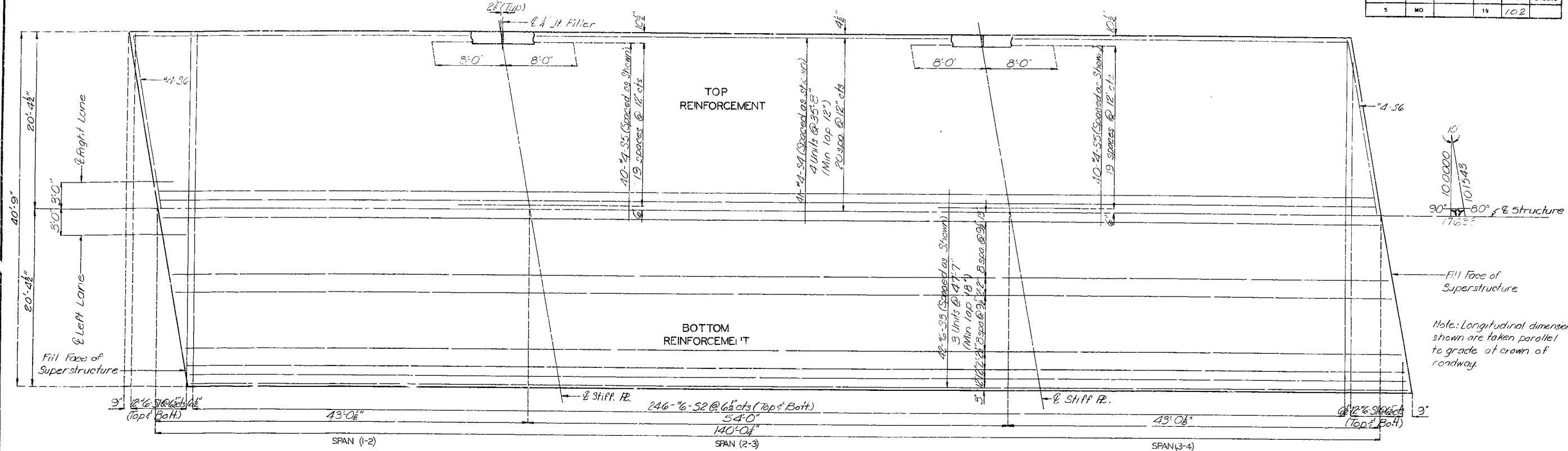
Sheet No. 8 of 10.

HOLT COUNTY

A-1768

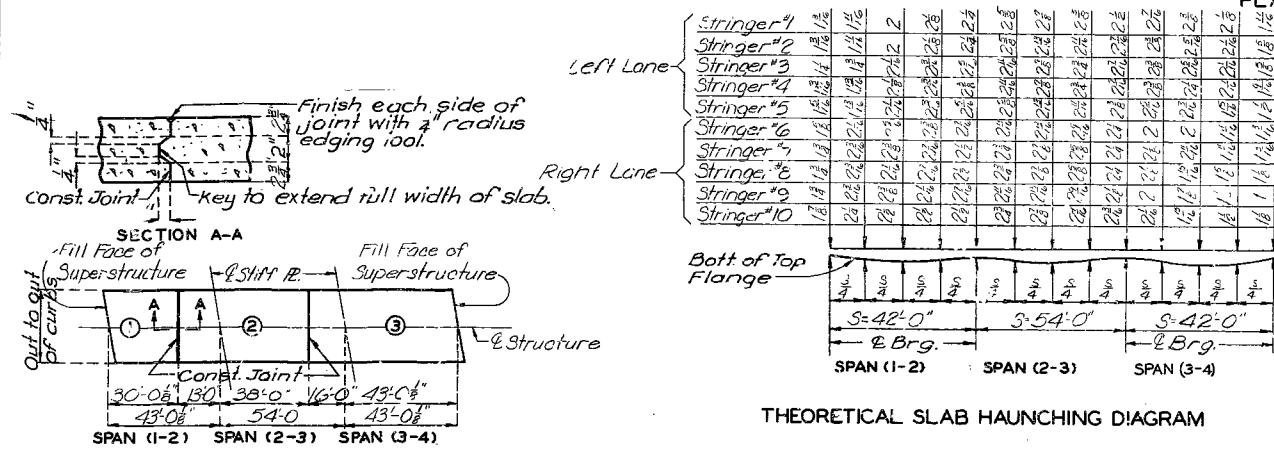
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		19	102	

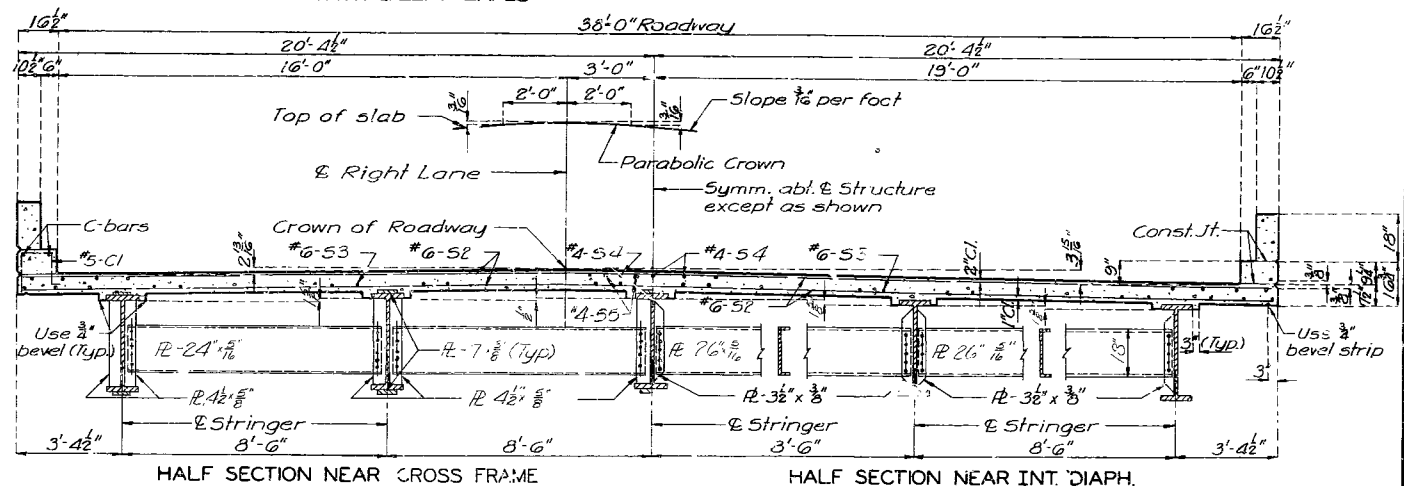


Fill Face of Superstructure
 Note: Longitudinal dimensions shown are taken parallel to grade at crown of roadway.

PLAN OF SLAB SHOWING REINFORCEMENT RIGHT & LEFT LANES



THEORETICAL SLAB HAUNCHING DIAGRAM



HALF SECTION NEAR CROSS FRAME

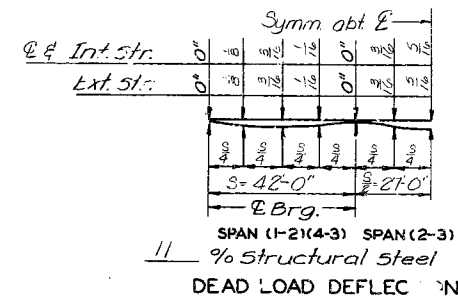
HALF SECTION NEAR INT. DIAPH.

Note: Right Lane shown. Left Lane opposite hand.

Note: For details and reinforcement of curb and parapet not shown see sheet No. 10 of 10.

	Sequence of Pours		
	Direction		
Basic Sequence	1	2	3
Alternate "A" Pours	End to 2	1 to 3	2 to End
Alternate "B" Pours	End to 3	1+2	2 to End
	End to 3	1+2+3	-

Note: The contractor shall pour and satisfactorily finish the slab pours at a rate of not less than 30 cubic yards per hour.



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

411
 REVISED FEB. 1969
 DEC. 1964
 STD. 4138.5 RL
 DETAILED FEB. 1970 BY SADLER
 CHECKED March 1970 BY Stiff

SLAB POURING SEQUENCE

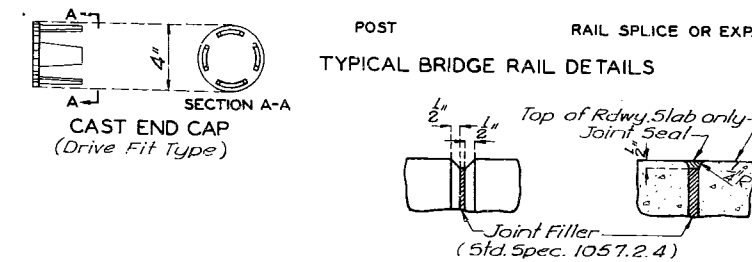
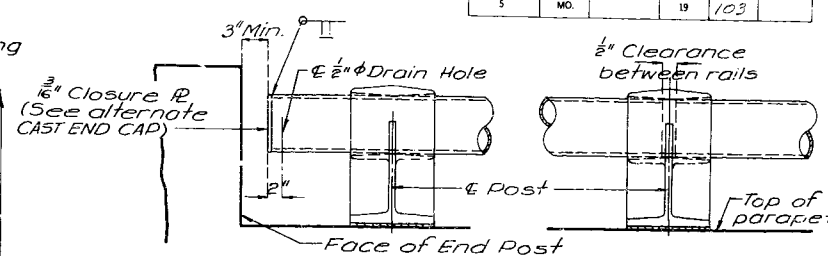
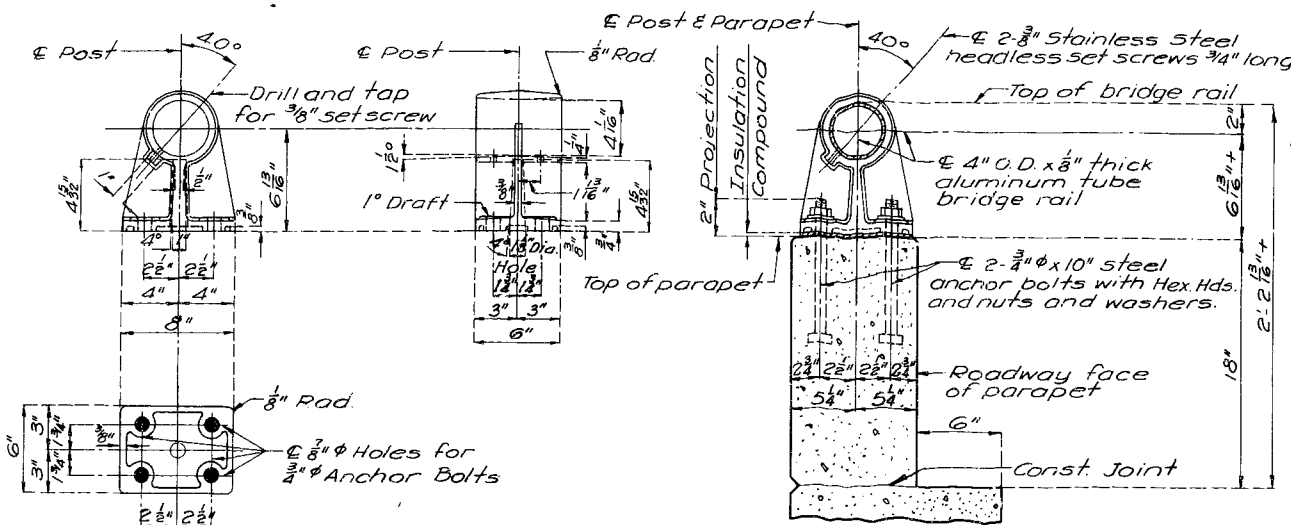
DETAILED FEB. 1970 BY SADLER
 CHECKED March 1970 BY Stiff

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	103	

GENERAL BRIDGE RAIL NOTES:

All bridge rail posts shall be set normal to grade. Aluminum tube bridge rail shall be bent to conform to vertical and horizontal alignment of parapet.
 Aluminum washer shims between top of parapet and post base may be used for adjusting bridge rail alignment. Maximum thickness of shims to be 3/8". Where more tilting of post is required for proper alignment, concrete bearing areas shall be ground down.
 All parts of bridge rail, except anchor bolts, nuts, washers, and set screws are to be of aluminum material.
 All fillets 1/4" except as noted.
 All drafts 3° except as noted.
 Omit set screw in side of rail posts adjacent to filled joints in curb and parapet at rail expansion points. Omit set screw in each side of rail post on end bents except where a gap is shown in rail over an expansion device.
 Top of curbs and parapet to be built parallel to grade with curb and parapet joints (except at end bents) normal to grade.
 Concrete end posts to be vertical.
 All exposed edges of end posts shall have 1/4" bevel. All exposed edges of curbs and parapets shall have 1/8" radius or 3/8" bevel unless otherwise noted.



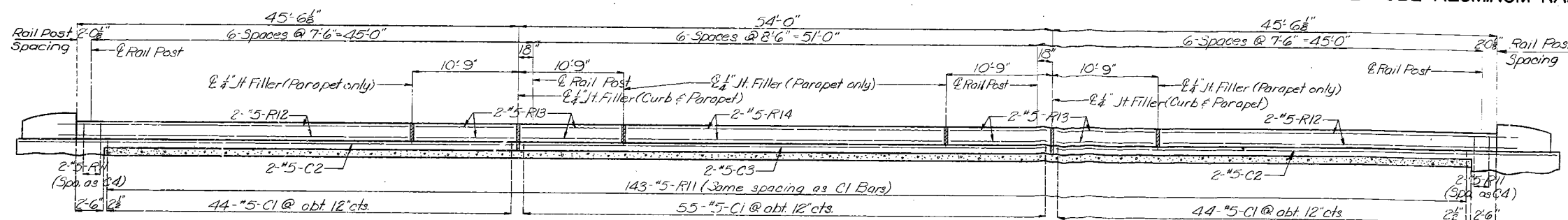
POST DETAILS

SECTION THRU BRIDGE RAIL

ONE TUBE ALUMINUM RAILING

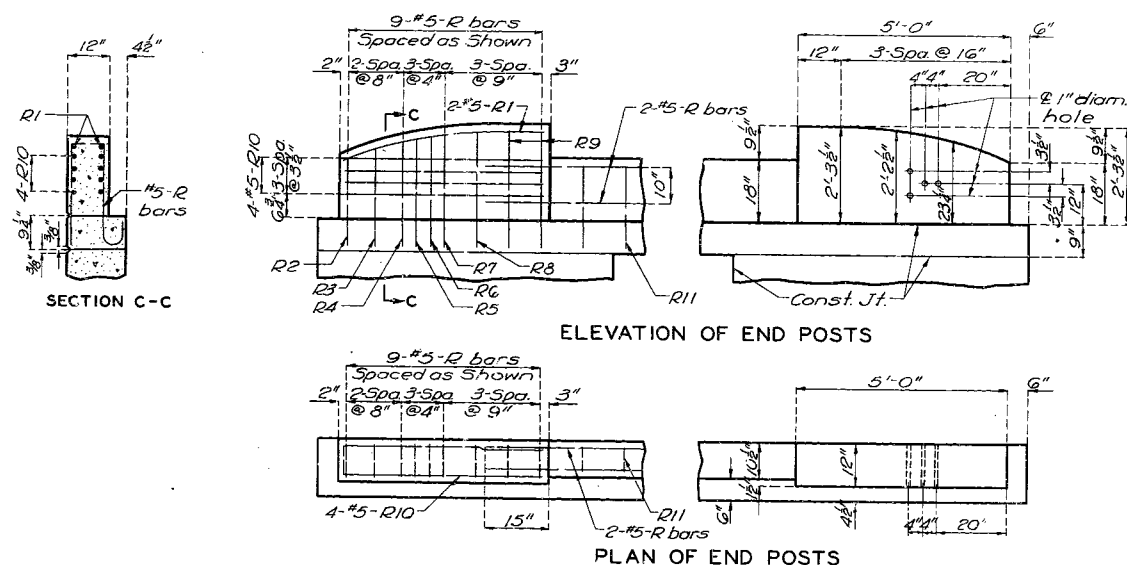
TYPICAL BRIDGE RAIL DETAILS

FILLED JOINT DETAILS



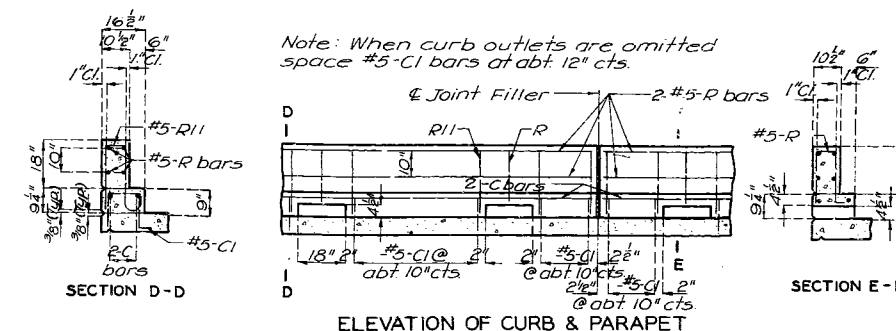
SECTION NEAR LEFT CURB AND PARAPET (RIGHT & LEFT LANES)

Note: Longitudinal dimensions shown are taken parallel to grade at top of parapet.



ELEVATION OF END POSTS

PLAN OF END POSTS



SECTION D-D

SECTION E-E

Note: When curb outlets are omitted space #5-C1 bars at obt. 12° cts.

ELEVATION OF CURB & PARAPET

Note: For horizontal curb and parapet bars use a minimum lap of 15" for #5 and 18" for #6

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

Sheet No. 10 of 10.

412

REVISED OCT. 1988
MAR. 1984
STD. I.5.2

DETAILED FEB. 1970 BY SADLER
CHECKED March 1970 BY Stutte

HOLT COUNTY

A-1768

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		68	24	

GENERAL NOTES:

Design Specifications: A.A.S.H.O. - 1969
 Design Loading:

HS-17-44 15 #1/sq. ft. Future Wearing Surface
 Earth 120# Equivalent Fluid Pressure 30#
 Fatigue Stress Case I

Design Unit Stresses:

Class B Concrete (substructure) $f_c = 1,200$ psi
 Class B1 Concrete (superstructure) $f_c = 1,600$ psi
 Reinforcing Steel $f_s = 20,000$ psi
 Structural Steel $f_s = 20,000$ psi

Fabricated Steel:

Field connections, High Strength Bolts $\frac{3}{4}$ " ϕ , holes $\frac{1}{16}$ " except as noted.
 Paint: Shop: one coat red lead, in accordance with Std. Spec. 712.12 and 1045.4 or 1045.5; Surfaces of shear connectors and beam flanges in contact with concrete were not painted.

Field, two coats by contractor, first coat brown, second coat aluminum in accordance with Std. Spec. 712.12 Reinforcing Steel:

Minimum clearance to reinforcing steel was $\frac{1}{2}$ " unless otherwise shown.

Note: Compacted roadway fill (fill roadway width) was placed up to elevation of bottom of concrete beam in front of and not less than 25'-0" in back of End Bents No. 1 and 4 before piles were driven at End Bents No. 1 and 4.

**Note: Final vertical clearance from top of rails to bottom of superstructure was at least 22'-9".

Note: For Boring Data see sheet 3 of 10
 ③ Indicates location of boring.

FINAL QUANTITIES				
ITEM		SUBSTR.	SUPERSTR.	TOTAL
Cast-In-Place Concrete Piles	Lin. Ft.	4320		4320
Class B Concrete	Cu. Yd.	1756		1756
Class B1 Concrete	Cu. Yd.		386.9	386.9
Reinforcing Steel	Lbs.	26290	105910	132200
Fabricated Structural Carbon Steel	Lbs.		174330	174330
Painting	Ton		859	859
Bridge Rail (One Tube)	Lin. Ft.		580	580
Class I Excavation	Cu. Yd.	166		166

Note: All concrete and reinforcing above substructure beam in End Bents No. 1 and 4 was included in superstructure quantities.

PILE DATA				
BENT NO.	1	2	3	4
Type	Found	Found	Found	Found
Kind	C.I.P.	C.I.P.	C.I.P.	C.I.P.
Number (Each Lane)	6	12	12	6
Approximate Length Ft.	74	52	53	76
Design Bearing Tons	28	28	28	28
Min. Tip Penetration Elev.	859.0	859.0	859.0	859.0
Pile Standard			70202	
Hammer Energy required Ft. Lbs.	8,000	8,000	8,000	8,000

Minimum energy requirement of hammer based on plan length of piles.
 All pile were driven to the minimum penetrations and to not less than the design bearings noted.

B.M. Elev. 900.15 on N.W. Cor. Bridge Curb, 62' Rt. Sta. 797+10

BRIDGE OVER BJURLINGTON NORTHERN, INC.

STATE ROAD: INTERSTATE ROUTE 29

ABOUT 0.3 MILE W. OF MOUND CITY

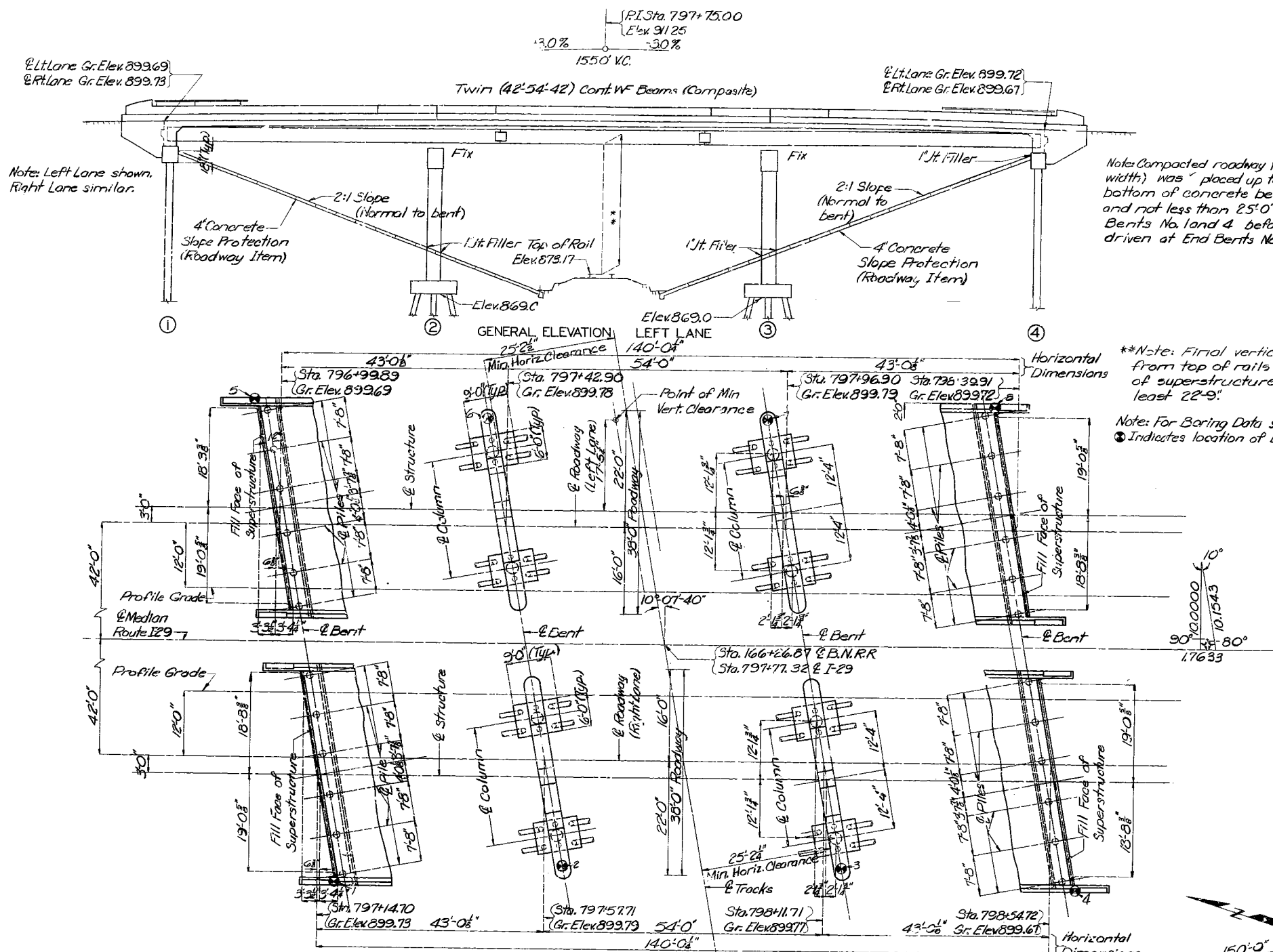
PROJECT NO. I-IG-29-2(57) RTE I-29 STA. 796+99.89 (LEFT LANE) 797+14.70 (RIGHT LANE)

HOLT COUNTY

SUBMITTED BY: W. R. Laney

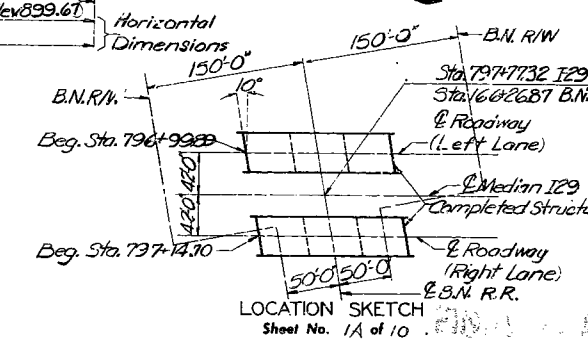
APPROVED BY: Robert J. Hunter

STD. 611.60
STD. 702.02
STD. 706.30A
A-1768



Construction Clearance: A minimum vertical clearance of 21'-0" from top of rails and a minimum lateral clearance of 12'-6" from the centerline of track to nearest temporary construction falsework was maintained during construction.

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



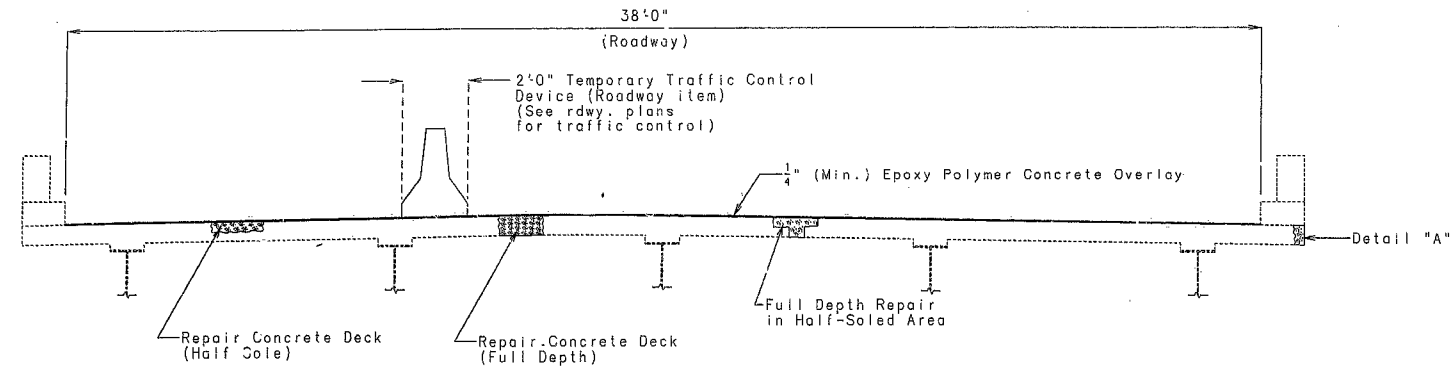
413

DESIGNED FEB. 1970 BY P. JOHNSON
 DETAILED FEB. 1970 BY SADLER
 CHECKED March 1970 BY Stutte

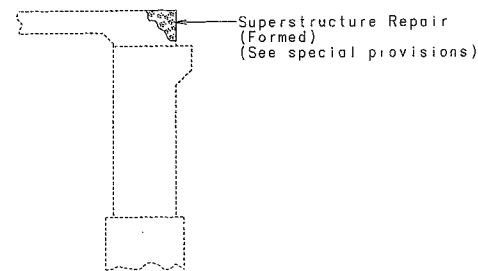
Sheet No. 1A of 10

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

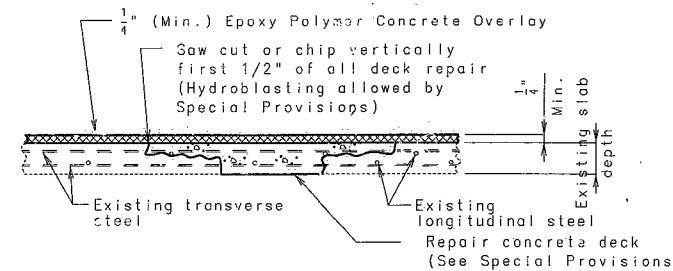
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MO.	ACIM-ACIMG-29-2(139)-39	139
SEC./SUR.	6. TWP. 61N RGE. 38W	



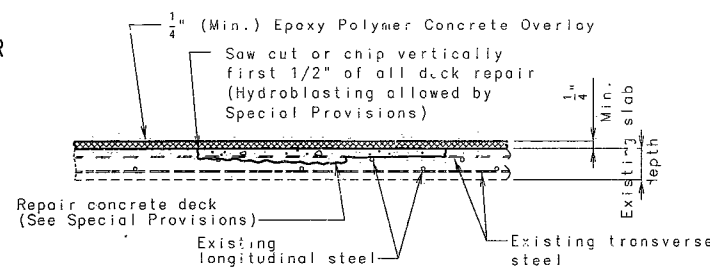
SECTION THRU EXISTING SLAB



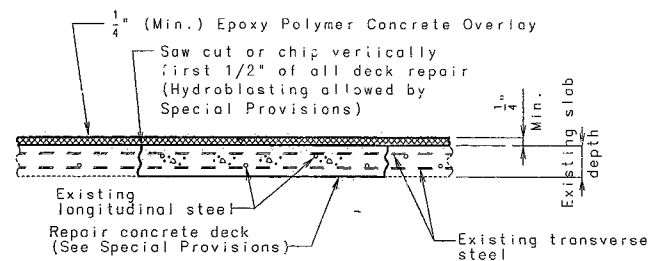
PART SECTION SHOWING SUPERSTRUCTURE REPAIR (Bent 4 Shown, Bent 1 Similar)



FULL DEPTH REPAIR IN HALF-SOLED AREA



HALF-SOLED AREA



FULL DEPTH REPAIR

GENERAL NOTES:

DESIGN SPECIFICATIONS: A.A.S.H.T.O. -1996

OLD WORK:

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

TRAFFIC HANDLING:

See roadway plans for traffic control during construction.

ROADWAY SURFACING:

Roadway surfacing adjacent to bridge ends shall match bridge overlay surfacing.

MAINTAIN GRADE:

In order to maintain grade and a minimum thickness of overlay as shown on plans it may be necessary to use additional quantities of overlay at various locations throughout the structure. No payment will be allowed for additional labor, materials or equipment for variations in thickness of overlay.

VERIFY DIMENSIONS:

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

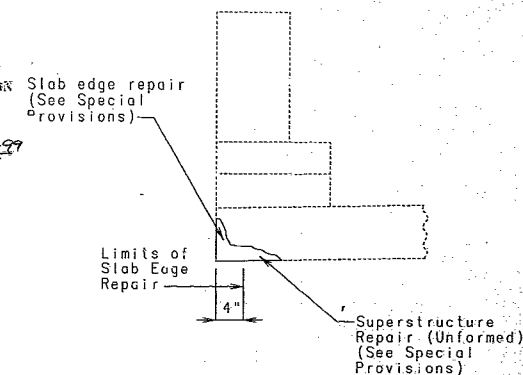
EPOXY POLYMER CONCRETE:

The contractor shall exercise care to ensure spillage over joint edges is prevented and that a neat line is obtained along any terminating edge of the epoxy polymer concrete.

FINAL QUANTITIES		
ITEM		TOTAL
Superstructure Repair (Unformed)	Sq. Ft.	0
Repairing Concrete Deck (Half-Soling)	Sq. Ft.	344
Full Depth Repair	Sq. Ft.	0
Slab Edge Repair (Bridges)	L'n. Ft.	0
Epoxy Polymer Concrete Overlay	Sq. Yd.	591
Superstructure Repair (Formed)	Sq. Ft.	0



I CERTIFY THAT THIS DRAWING ACCURATELY REFLECTS THE CONFIGURATION AND LOCATION OF THE ROADWAY AND APPURTENANCES AS CONSTRUCTED ON THIS PROJECT.
 SIGNATURE: *Michael D. Wampler* DATE: 2-22-97



CONCRETE EDGE REPAIR DETAIL "A"

REPAIRS TO BRIDGE OVER ABANDONED BURLINGTON NORTHERN RR
 STATE ROAD FROM RTE. 118 TO RTE. 159
 ABOUT 0.3 MILE WEST OF MOUND CITY
 PROJECT NO. STA. & N.B.L. 796+99.89 (Match Existing)
 JOB NO. J110737 RTE. 1-29 N.B.
 HOLT COUNTY



DATE 12/12/97

STD.	A17681
STC.	

DESIGNED NOV 1996
 DETAILED NOV 1996
 CHECKED NOV 1996

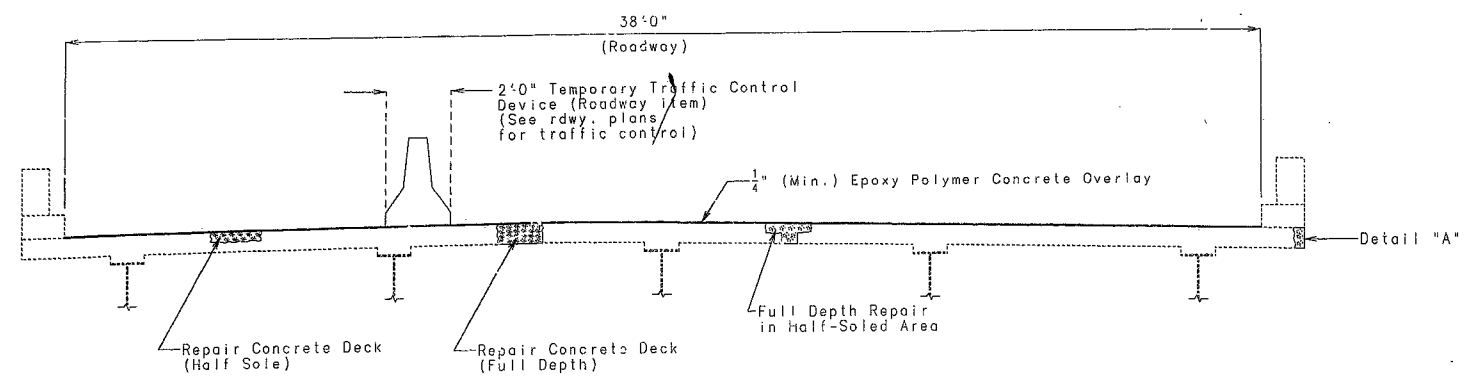
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 1 OF 1

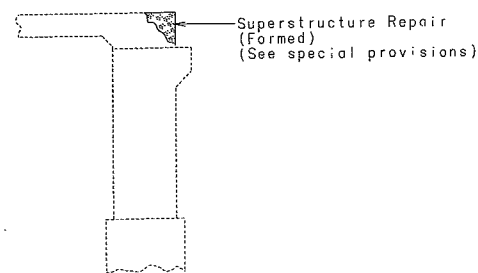
DATE 12/12/97

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

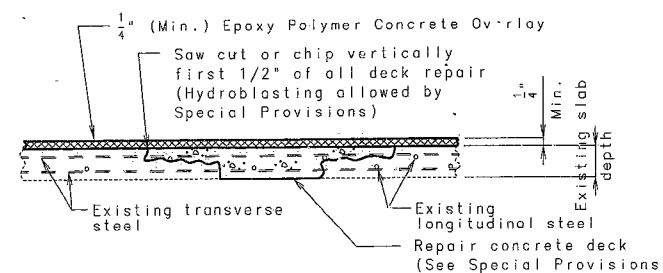
STATE	PROJ. NO.	SHEET NO.
MO.	ACIM-ACTMG-29-2(139)40	17
SEC./SUR.	6' TWP. 61N. RGE. 38W	



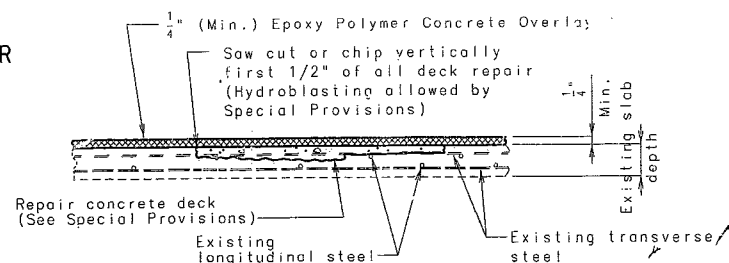
SECTION THRU EXISTING SLAB



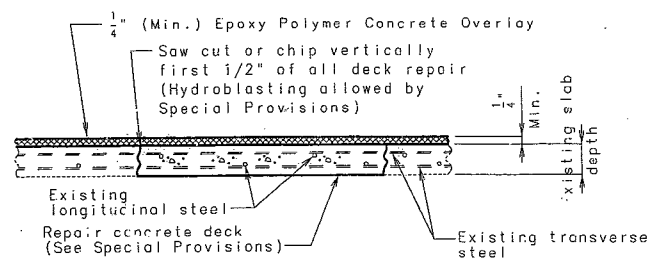
PART SECTION SHOWING SUPERSTRUCTURE REPAIR (Bent 4 Shown, Bent 1 Similar)



FULL DEPTH REPAIR IN HALF-SOLED AREA



HALF-SOLED AREA



FULL DEPTH REPAIR

GENERAL NOTES:

DESIGN SPECIFICATIONS: A.A.S.H.T.O. 1996

OLD WORK:

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

TRAFFIC HANDLING:

See roadway plans for traffic control during construction.

ROADWAY SURFACING:

Roadway surfacing adjacent to bridge ends shall match bridge overlay surfacing.

MAINTAIN GRADE:

In order to maintain grade and a minimum thickness of overlay as shown on plans it may be necessary to use additional quantities of overlay at various locations throughout the structure. No payment will be allowed for additional labor, materials or equipment for variations in thickness of overlay.

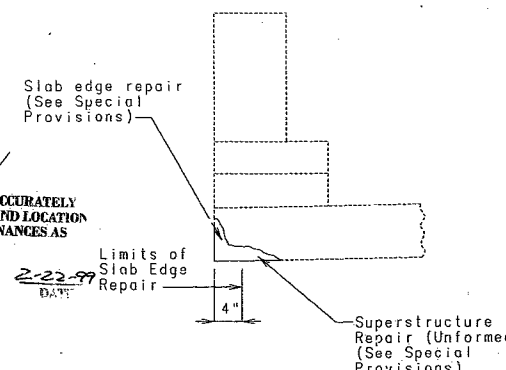
VERIFY DIMENSIONS:

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

EPOXY POLYMER CONCRETE:

The contractor shall exercise care to ensure spillage over joint edges is prevented and that a neat line is obtained along any terminating edge of the epoxy polymer concrete.

FINAL QUANTITIES		
ITEM		TOTAL
Superstructure Repair (Unformed)	Sq. Ft.	24
Repairing Concrete Deck (Half-Soling)	Sq. Ft.	1137
Full Depth Repair	Sq. Ft.	0
Slab Edge Repair (Bridges)	Lin. Ft.	37
Epoxy Polymer Concrete Overlay	Sq. Yd.	591
Superstructure Repair (Formed)	Sq. Ft.	0



CONCRETE EDGE REPAIR DETAIL "A"

FINAL PLANS
 VERIFY THAT THIS DRAWING ACCURATELY REFLECTS THE CONFIGURATION AND LOCATION OF THE ROADWAY AND APPURTENANCES AS CONSTRUCTED ON THIS PROJECT.
 Signature: *Michael Wombwell*
 DATE: 2-22-97



REPAIRS TO BRIDGE OVER ABANDONED BURLINGTON NORTHERN RR

STATE ROAD FROM RTE. 118 TO RTE. 159
 ABOUT 0.3 MILE WEST OF MOUND CITY
 PROJECT NO. STA. @ S.B.L. 797+14.70 (Match Existing)
 JOB NO. J110737 RTE. 1-29 S.B.
 HOLT COUNTY

ees

DESIGNED NOV 1996
 DETAILED NOV 1996
 CHECKED NOV 1996

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

SHEET NO. 1 OF 1

DATE 12/12/97

STD.
STD.
A17682