DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	1	234

(2) OKLAHOMA STATE LINE - EAST (I-40 & I-540) (SEL. SECS.) (F)

"A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLANS FOR STATE HIGHWAY

OKLAHOMA STATE LINE - EAST (I-40 & I-540) (SEL. SECS.) (S)

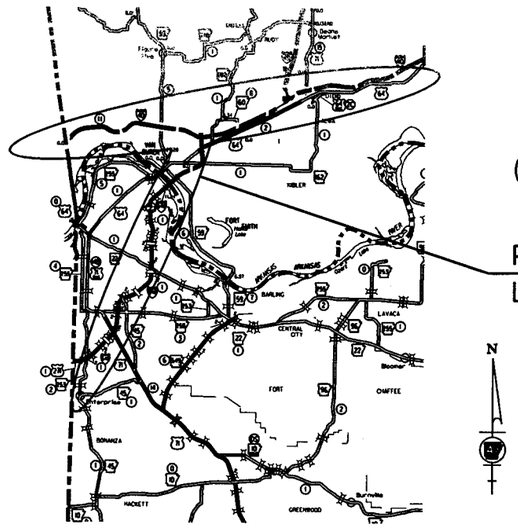
SEBASTIAN AND CRAWFORD COUNTIES

ROUTE 540 SECTIONS 1 & 2
ROUTE 40 SECTION 11

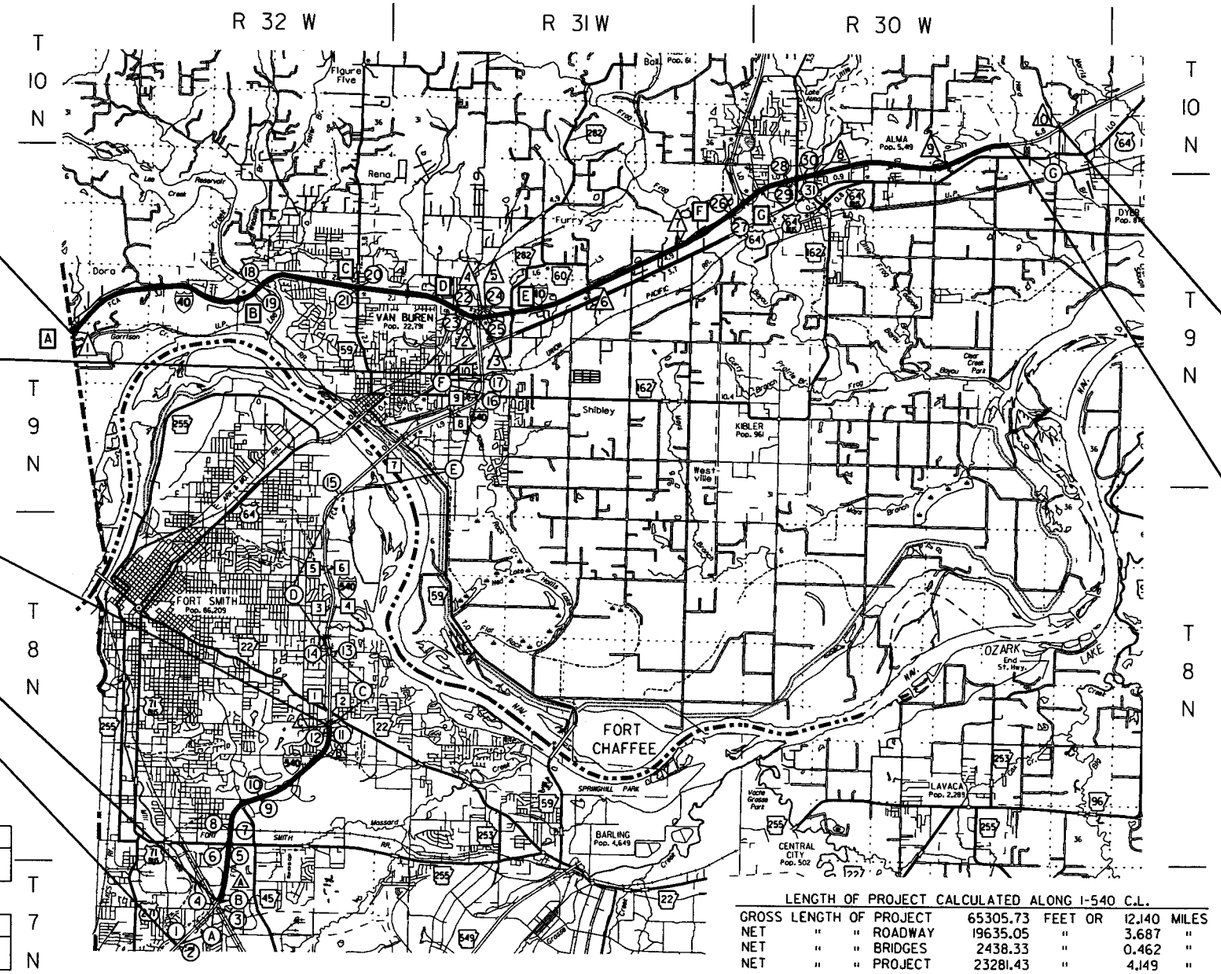
FED. AID PROJ. NHPP-40-1(94)0

JOB BB0401

NOT TO SCALE



VICINITY MAP



STA. 0+00.00
BEGIN I-40 MILL, INLAY, AND OVERLAY
LOG MILE 0.00

STA. 668+87.20
END I-540 WORK
LOG MILE 13.78

STA.386+91.50
END I-540 MILL & INLAY
LOG MILE 6.57

STA. 144+00.00
BEGIN I-540 MILL & INLAY
LOG MILE 2.74

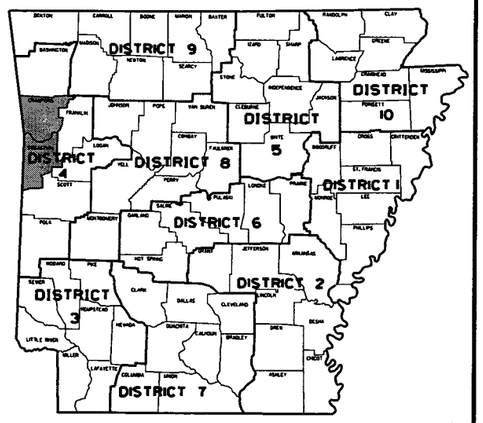
STA. 87+16.82
BEGIN I-540
LOG MILE 1.66

I-40

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 35°27'5" LONGITUDE = W 94°26'29"	LATITUDE = N 35°27'29" LONGITUDE = W 94°18'5"	LATITUDE = N 35°29'50" LONGITUDE = W 94°9'42"

I-540

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 35°18'10" LONGITUDE = W 94°24'38"	LATITUDE = N 35°22'25" LONGITUDE = W 94°21'54"	LATITUDE = N 35°26'29" LONGITUDE = W 94°19'10"



ARK. HWY. DIST. NO. 4

DESIGN TRAFFIC DATA (I-540)

DESIGN YEAR	2038
2018 ADT	42,500
2038 ADT	68,000
2038 DHV	7,480
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	7%
DESIGN SPEED	70 MPH

DESIGN TRAFFIC DATA (I-40)

DESIGN YEAR	2038
2018 ADT	34,000
2038 ADT	44,000
2038 DHV	4,840
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	20%
DESIGN SPEED	70 MPH

STA. 945+12.06
END JOB NO. BB0401
LOG MILE 17.90

STA. 897+35.95
END I-40 MILL, INLAY & OVERLAY
LOG MILE 17.00

N

APPROVED

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7836
M.E. BANKS

9-19-19

DEPUTY DIRECTOR
AND CHIEF ENGINEER

LENGTH OF PROJECT CALCULATED ALONG I-540 C.L.

GROSS LENGTH OF PROJECT	65305.73	FEET OR	12.140	MILES
NET " " ROADWAY	19635.05	"	3.687	"
NET " " BRIDGES	2438.33	"	0.462	"
NET " " PROJECT	23281.43	"	4.149	"

LENGTH OF PROJECT CALCULATED ALONG I-40 C.L.

GROSS LENGTH OF PROJECT	94505.96	FEET OR	17.899	MILES
NET " " ROADWAY	87772.55	"	16.624	"
NET " " BRIDGES	1958.29	"	0.370	"
NET " " PROJECT	89729.85	"	16.994	"

2/7/2018

RBB0406.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	2	234

(2) BRIDGE DATA AND EXCEPTIONS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

BRIDGE DATA

(1) STA. 87+51.32 BR. END A
EXISTING 78'-1 1/8" COMP.
W-BEAM UNIT BRIDGE 5629A
41'-6" CLEAR ROADWAY
STA. 88+29.41 BR. END A
POLYMER OVERLAY/
BACKWALL REPLACEMENT

(2) STA. 87+51.32 BR. END B
EXISTING 78'-1 1/8" COMP.
W-BEAM UNIT BRIDGE 5629B
41'-6" CLEAR ROADWAY
STA. 88+29.41 BR. END B
POLYMER OVERLAY/
BACKWALL REPLACEMENT

(3) STA. 135+39.78 BR. END B
EXISTING 347'-4 9/16" COMP.
I-BEAM UNIT BRIDGE 5102B
41'-6" CLEAR ROADWAY
STA. 138+87.16 BR. END B
POLYMER OVERLAY

(4) STA. 135+61.94 BR. END A
EXISTING 347'-4 9/16" COMP.
I-BEAM UNIT BRIDGE 5102A
41'-6" CLEAR ROADWAY
STA. 139+09.32 BR. END A
POLYMER OVERLAY

(5) STA. 185+68.44 BR. END B
EXISTING 185'-2" COMP.
I-BEAM UNIT BRIDGE 5101B
41'-0" CLEAR ROADWAY
STA. 187+53.60 BR. END B
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

(6) STA. 185+65.26 BR. END A
EXISTING 185'-2" COMP.
I-BEAM UNIT BRIDGE 5101A
41'-0" CLEAR ROADWAY
STA. 187+50.42 BR. END A
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

(7) STA. 198+79.83 BR. END B
EXISTING 155'-1 1/8" COMP.
I-BEAM UNIT BRIDGE 5100B
49'-9" CLEAR ROADWAY
STA. 200+34.92 BR. END B
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

(8) STA. 198+76.65 BR. END A
EXISTING 155'-1 1/8" COMP.
I-BEAM UNIT BRIDGE 5100A
41'-0" CLEAR ROADWAY
STA. 200+31.74 BR. END A
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

(9) STA. 240+32.45 BR. END B
EXISTING 159'-5" COMP.
I-BEAM UNIT BRIDGE 5098BW
41'-0" CLEAR ROADWAY
STA. 241+91.87 BR. END B
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

(10) STA. 240+08.20 BR. END A
EXISTING 159'-5" COMP.
I-BEAM UNIT BRIDGE 5098AW
41'-0" CLEAR ROADWAY
STA. 241+67.62 BR. END A
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

(11) STA. 378+03.36 BR. END B
EXISTING 153'-1" COMP.
I-BEAM UNIT BRIDGE 5096B
34'-6" CLEAR ROADWAY
STA. 379+56.44 BR. END B
POLYMER OVERLAY

(12) STA. 377+97.86 BR. END A
EXISTING 153'-1" COMP.
I-BEAM UNIT BRIDGE 5096A
34'-6" CLEAR ROADWAY
STA. 379+50.94 BR. END A
POLYMER OVERLAY

(13) STA. 349+20.24 BR. END B
EXISTING 134'-2 5/8" COMP.
W-BEAM UNIT BRIDGE 3604B
40'-0" CLEAR ROADWAY
STA. 350+54.46 BR. END B
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

(14) STA. 349+39.26 BR. END A
EXISTING 134'-2 5/8" COMP.
W-BEAM UNIT BRIDGE 3604A
40'-0" CLEAR ROADWAY
STA. 350+73.48 BR. END A
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

(15) STA. 491+06.55 BR. END
EXISTING 573'-10 3/16" COMP.
W-BEAM UNIT BRIDGE 06880
CLEAR ROADWAY = 2 @ 37'-0"
STA. 496+80.46 BR. END
POLYMER OVERLAY

(16) STA. 648+34.03 BR. END
EXISTING 164'-5" COMP.
W-BEAM UNIT BRIDGE B3957
40'-0" CLEAR ROADWAY
STA. 649+98.45 BR. END
POLYMER OVERLAY

(17) STA. 663+99.64 BR. END
EXISTING 487'-6 3/4" COMP.
W-BEAM UNIT BRIDGE B6881
40'-0" CLEAR ROADWAY
STA. 668+87.20 BR. END
POLYMER OVERLAY

(18) STA. 187+05.00 BR. END
462.50' BRIDGE NO. A3272
40'-0" CLEAR ROADWAY
STA. 191+67.50 BR. END
POLYMER OVERLAY

(19) STA. 187+99.89 BR. END
461.61' BRIDGE NO. B3272
40'-0" CLEAR ROADWAY
STA. 192+61.50 BR. END
POLYMER OVERLAY

(20) STA. 277+61.00 BR. END
222.19' BRIDGE NO. A3273
40'-0" CLEAR ROADWAY
STA. 279+83.19 BR. END
POLYMER OVERLAY

(21) STA. 277+84.50 BR. END
222.19' BRIDGE NO. B3273
40'-0" CLEAR ROADWAY
STA. 280+06.69 BR. END
POLYMER OVERLAY

(22) STA. 368+51.73 BR. END
296.20' BRIDGE NO. A3451
40'-0" CLEAR ROADWAY
STA. 371+47.93 BR. END
POLYMER OVERLAY

(23) STA. 368+61.43 BR. END
296.20' BRIDGE NO. B3451
40'-0" CLEAR ROADWAY
STA. 371+57.63 BR. END
POLYMER OVERLAY

(24) STA. 397+54.00 BR. END
137.17' BRIDGE NO. A3454
52'-0" CLEAR ROADWAY
STA. 398+91.17 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

(25) STA. 397+54.00 BR. END
137.17' BRIDGE NO. B3454
52'-0" CLEAR ROADWAY
STA. 398+91.17 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

(26) STA. 631+99.73 BR. END
467.72' BRIDGE NO. A3802
40'-0" CLEAR ROADWAY
STA. 636+67.45 BR. END
POLYMER OVERLAY

(27) STA. 631+36.27 BR. END
466.73' BRIDGE NO. B3802
43'-0" CLEAR ROADWAY
STA. 636+03.00 BR. END
POLYMER OVERLAY

(28) STA. 701+34.43 BR. END
168.26' BRIDGE NO. A3805
38'-6" CLEAR ROADWAY
STA. 703+02.69 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

(29) STA. 701+11.69 BR. END
168.26' BRIDGE B3805
38'-6" CLEAR ROADWAY
STA. 702+79.95 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

(30) STA. 706+50.67 BR. END
205.19' BRIDGE A3806
38'-6" CLEAR ROADWAY
STA. 708+55.86 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

(31) STA. 706+38.31 BR. END
205.19' BRIDGE B3806
38'-6" CLEAR ROADWAY
STA. 708+43.50 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

BRIDGE DATA (OVERPASSES)

△1 STA. 8+56.24 BR. END
307.40' BRIDGE NO. 03270
26'-0" CLEAR ROADWAY
STA. 11+63.64 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

△2 STA. 719+20.97 BR. END
222.22' BRIDGE NO. 03452
28'-0" CLEAR ROADWAY
STA. 721+43.19 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

△3 STA. 719+06.21 BR. END
222.21' BRIDGE NO. 03453
20'-0" CLEAR ROADWAY
STA. 721+28.42 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

△4 STA. 729+22.00 BR. END
161.14' BRIDGE NO. 03455
24'-0" CLEAR ROADWAY
STA. 730+83.14 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

△5 STA. 728+06.29 BR. END
146.14' BRIDGE NO. 03456
26'-0" CLEAR ROADWAY
STA. 729+52.43 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

△6 STA. 11+15.19 BR. END
240.56' BRIDGE NO. 03800
24'-0" CLEAR ROADWAY
STA. 13+55.75 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

△7 STA. 8+75.72 BR. END
244.50' BRIDGE NO. 03801
24'-0" CLEAR ROADWAY
STA. 11+20.22 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

△8 STA. 8+95.60 BR. END
242.30' BRIDGE NO. 03807
26'-0" CLEAR ROADWAY
STA. 11+37.90 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

△9 STA. 7+47.76 BR. END
223.43' BRIDGE NO. 03891
24'-0" CLEAR ROADWAY
STA. 9+71.19 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

△10 STA. 23+29.28 BR. END
217.24' BRIDGE NO. 03892
24'-0" CLEAR ROADWAY
STA. 25+46.52 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

△11 STA. 13+80.84 BR. END
238.32' BRIDGE NO. 05079
24'-0" CLEAR ROADWAY
STA. 16+19.16 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

BRIDGE EXCEPTIONS

[1] STA. 295+85.97 BR. END
EXISTING 190.44' BRIDGE A6877
CLEAR ROADWAY VARIES
STA. 297+76.41 BR. END
RETAIN
(WITHIN LIMITS OF "C" ROADWAY EXCEPTION)

[2] STA. 295+42.86 BR. END
EXISTING 190.43' BRIDGE B6877
48'-0" CLEAR ROADWAY
STA. 297+33.29 BR. END
RETAIN
(WITHIN LIMITS OF "C" ROADWAY EXCEPTION)

[3] STA. 389+23.09 BR. END
EXISTING 174.19' BRIDGE A6878
40'-0" CLEAR ROADWAY
STA. 390+97.28 BR. END
RETAIN
(WITHIN LIMITS OF "D" ROADWAY EXCEPTION)

[4] STA. 389+38.63 BR. END
EXISTING 174.19' BRIDGE B6878
40'-0" CLEAR ROADWAY
STA. 391+12.82 BR. END
RETAIN
(WITHIN LIMITS OF "D" ROADWAY EXCEPTION)

[5] STA. 423+77.47 BR. END
EXISTING 162.05' BRIDGE A6879
40'-0" CLEAR ROADWAY
STA. 425+39.52 BR. END
RETAIN
(WITHIN LIMITS OF "D" ROADWAY EXCEPTION)

[6] STA. 422+79.97 BR. END
EXISTING 162.05' BRIDGE B6879
40'-0" CLEAR ROADWAY
STA. 424+42.02 BR. END
RETAIN
(WITHIN LIMITS OF "D" ROADWAY EXCEPTION)

[7] STA. 533+81.80 BR. END
EXISTING 3396.39' BRIDGE 03609
28'-6" CLEAR ROADWAY
STA. 567+78.19 BR. END
RETAIN
(WITHIN LIMITS OF "E" ROADWAY EXCEPTION)

[8] STA. 621+38.93 BR. END
EXISTING 122.13' BRIDGE A&B3956
39'-0" CLEAR ROADWAY
STA. 622+61.06 BR. END
RETAIN
(WITHIN LIMITS OF "E" ROADWAY EXCEPTION)

[9] STA. 646+58.91 BR. END
EXISTING 164.43' BRIDGE A3957
40'-0" CLEAR ROADWAY
STA. 648+23.34 BR. END
RETAIN

[10] STA. 663+28.42 BR. END
EXISTING 487.56' BRIDGE A6881
40'-0" CLEAR ROADWAY
STA. 668+15.98 BR. END
RETAIN

ROADWAY EXCEPTIONS

(A) STA. 88+63.91 TO STA. 135+50.86
(B) STA. 138+98.24 TO STA. 144+00.00
(C) STA. 286+91.50 TO STA. 349+29.75
(D) STA. 350+63.97 TO STA. 491+06.55
(E) STA. 496+80.46 TO STA. 648+34.03
(F) STA. 649+98.45 TO STA. 663+99.64
(G) STA. 897+35.95 TO STA. 945+12.06

I-540 C.L. MEDIAN EQUATIONS

△A STA. 173+58.80 BK. =
STA. 167+20.30 AHD.

△B STA. 329+51.14 BK. =
STA. 376+62.34 AHD.

△C STA. 386+91.50 BK. =
STA. 286+91.50 AHD.

I-40 C.L. MEDIAN EQUATIONS

[A] 502+92.82 BACK =
0+00.00 AHEAD

[B] 185+00.00 BACK =
185+14.04 AHEAD

[C] 275+00.00 BACK =
275+06.66 AHEAD

[D] 364+00.00 BACK =
363+79.30 AHEAD

[E] 395+43.52 BACK =
395+43.50 AHEAD

[F] 629+00.00 BACK =
629+71.12 AHEAD

[G] 697+00.00 BACK =
696+35.00 AHEAD

1/14/2016

FREEWAY_NL.CEL

BRIDGE DATA AND EXCEPTIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	3	234

(2) INDEX OF SHEETS AND STANDARD DRAWINGS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

INDEX OF SHEETS

SHEET NO.	TITLE	BRIDGE NO.	DRWG.NO.
1	TITLE SHEET		
2	BRIDGE DATA AND EXCEPTIONS		
3 - 4	INDEX OF SHEETS AND STANDARD DRAWINGS		
5	GOVERNING SPECIFICATIONS AND GENERAL NOTES		
6 - 7	TYPICAL SECTIONS OF IMPROVEMENT		
8 - 13	SPECIAL DETAILS		
14 - 51	TEMPORARY EROSION CONTROL DETAILS		
52 - 66	MAINTENANCE OF TRAFFIC DETAILS		
67 - 83	QUANTITIES		
84	SCHEDULE OF BRIDGE QUANTITIES (SHEET 1 OF 2)	A&B5629, A&B5102, A&B5101, A&B5100, A&B5098, A&B5096, A&B3604, 06880, B3957, B6881	56860
85	SCHEDULE OF BRIDGE QUANTITIES (SHEET 2 OF 2)	A&B3272, A&B3273, A&B3451, A&B3454, A&B3802, A&B3805, A&B3806, 03270, 03452, 03453, 03455, 03456, 03800, 03801, 03807, 03891, 03892, 05079	60192
86	SUMMARY OF QUANTITIES AND REVISIONS		
87 - 136	PLAN SHEETS		
137	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY WITH GRADE RAISE (SHEET 1 OF 2)	03270	60193
138	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY WITH GRADE RAISE (SHEET 2 OF 2)	03270	60194
139	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 1 OF 4)	03452,03455	60195
140	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 2 OF 4)	A&B3805, A&B3806	60196
141	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 3 OF 4)	A&B3454	60197
142	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 4 OF 4)	03452, 03455, A&B3454, A&B3805, A&B3806	60198
143	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 1 OF 3)	03453,03456	60199
144	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 2 OF 3)	03800, 03801, 03807, 03891, 03892, 05079	60200
145	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 3 OF 3)	03453, 03456, 03800, 03801, 03807, 03891, 03892, 05079	60201
146	LAYOUT OF DORA INTERCHANGE - FOR INFORMATION ONLY	03270	10601
147	SUPPLEMENTAL DETAILS FOR SPAN NO. 1 60'-0" COMPOSITE I-BEAM SPAN DORA INTERCHANGE OKLAHOMA STATE LINE-JCT. HWY. 59 - FOR INFORMATION ONLY	03270	10606
148	SUPPLEMENTAL DETAILS FOR SPAN NO. 2 & 3 87'-09" COMPOSITE I-BEAM SPANS DORA INTERCHANGE OKLAHOMA STATE LINE-JCT. HWY. 59 - FOR INFORMATION ONLY	03270	10607
149	SUPPLEMENTAL DETAILS FOR SPAN NO. 4 70'-0" COMPOSITE I-BEAM SPAN DORA INTERCHANGE OKLAHOMA STATE LINE-JCT. HWY. 59 - FOR INFORMATION ONLY	03270	10608
150	(RAMP R-1) LAYOUT OF HWY. I-40 OVERPASS JCT. HWY 59 TO SHIBLEY GR. SEPR. - FOR INFORMATION ONLY	03458	11510
151	SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE 41' & 43' COMP. I-BEAM SPANS (RAMP R-1) HWY. I-40 OVERPASS JCT. HWY. 59-SHIBLEY GRADE SEPARATION - FOR INFORMATION ONLY	03452	11514
152	SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE 68' COMP. I-BEAM SPANS (RAMP R-1) HWY. I-40 OVERPASS JCT. HWY. 59-SHIBLEY GRADE SEPARATION - FOR INFORMATION ONLY	03452	11515
153	(RAMP R-2) LAYOUT OF HWY. I-40 OVERPASS JCT. HWY. 59 TO SHIBLEY GR. SEPR. - FOR INFORMATION ONLY	03453	11516
154	DETAILS OF STANDARD 35'-90' COMPOSITE I-BEAM SPANS 20'-0" CLEAR RDWY. 1'-0" & 1'-1 1/2" CURBS - FOR INFORMATION ONLY	03453	11518R
155	SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE 41' & 43' COMP. I-BEAM SPANS (RAMP R-2) HWY. I-40 OVERPASS JCT. HWY. 59-SHIBLEY GRADE SEPARATION - FOR INFORMATION ONLY	03453	11519
156	SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE 68' COMP. I-BEAM SPANS (RAMP R-2) HWY. I-40 OVERPASS JCT. HWY. 59-SHIBLEY GRADE SEPARATION - FOR INFORMATION ONLY	03453	11520
157	LAYOUT OF BRIDGES OVER FLAT ROCK CREEK JCT. HWY. 59-SHIBLEY GR. SEP. - FOR INFORMATION ONLY	3454 A&B	11521
158	SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE (RAMP R-1) BRIDGE OVER FLATROCK CREEK JCT. HWY. 59-SHIBLEY GRADE SEPARATION - FOR INFORMATION ONLY	03455	11527
159	(RAMP R-2) LAYOUT OF BRIDGE OVER FLAT ROCK CREEK JCT. HWY. 59-SHIBLEY GR. SEPR. - FOR INFORMATION ONLY	03456	11528
160	SUPPLEMENTAL DETAILS FOR SUPERSTRUCTURE (RAMP R-2) BRIDGE OVER FLAT ROCK CREEK JCT. HWY. 59-SHIBLEY GRADE SEPARATION - FOR INFORMATION ONLY	03456	11531
161	DETAILS OF STANDARD COMPOSITE I-BEAM SPANS 52' CLEAR ROADWAY 1'-7 1/2" CURBS ROADWAY: 0.0104'/' SLOPE - FOR INFORMATION ONLY	03454 A&B	11583A
162	LAYOUT OF SHIBLEY ROAD UNDERPASS SHIBLEY GRADE SEPARATION - ALMA - FOR INFORMATION ONLY	03800	12652
163	DETAILS COMMON TO STANDARD 35'-90' COMPOSITE I-BEAM SPANS ALL ROADWAY WIDTHS - FOR INFORMATION ONLY	03806 A,B,C,D	12655
164	DETAILS OF STANDARD 35'-90' COMPOSITE I-BEAM SPANS 24'-0" CLEAR RDWY. 1'-0" & 1'-1 1/2" CURBS - FOR INFORMATION ONLY	03800&3801	12656
165	SUPPLEMENTAL DETAILS FOR 46', 50', & 73' COMPOSITE I-BM SPANS 24' CLEAR ROADWAY 1'-1 1/2" CURBS 26° 05'00" SKEW RIGHT FORWARD - FOR INFORMATION ONLY	03800&3801	12657
166	LAYOUT OF WEST RUDY ROAD UNDERPASS SHIBLEY GRADE SEPARATION-ALMA - FOR INFORMATION ONLY	03801	12658
167	DETAILS OF STANDARD 35'-75' COMPOSITE I-BEAM SPANS 38'-6" CLEAR RDWY 9" CURB 2 1/2" PARABOLIC CROWN OR 0.0108'/' SLOPE - FOR INFORMATION ONLY	03806 A&B	12671
168	LAYOUT OF U.S. HIGHWAY 71 INTERCHANGE SHIBLEY GRADE SEPARATION-ALMA - FOR INFORMATION ONLY	03805 A&B	12647
169	SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE U.S. HIGHWAY 71 INTERCHANGE SHIBLEY GRADE SEPARATION-ALMA - FOR INFORMATION ONLY	03805 A&B	12680
170	LAYOUT OF BRIDGES OVER LITTLE FROG BAYOU SHIBLEY GRADE SEPARATION-ALMA SURFACING - FOR INFORMATION ONLY	03806 A&B	12681
171	SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE LITTLE FROG BAYOU SHIBLEY GRADE SEPARATION-ALMA SURFACING - FOR INFORMATION ONLY	03806 A&B	12684
172	LAYOUT OF UNDERPASS MOUNTAIN GROVE ROAD SHIBLEY GRADE SEPARATION-ALMA - FOR INFORMATION ONLY	03807	13693
173	SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE MOUNTAIN GROVE ROAD UNDERPASS SHIBLEY GRADE SEPARATION-ALMA - FOR INFORMATION ONLY	03807	12696
174	LAYOUT OF UNDERPASS COUNTY ROAD AT STA. 838+25 ALMA-DYER - FOR INFORMATION ONLY	03891	12819
175	LAYOUT OF UNDERPASS COUNTY ROAD AT STA. 945+00 ALMA-DYER - FOR INFORMATION ONLY	03892	12820
176	DETAILS OF SPANS COUNTY ROAD AT STA. 838+25 ALMA-DYER - FOR INFORMATION ONLY	03891	12824
177	LAYOUT OF VINE PRAIRIE UNDERPASS DYER-HWY. 215 - FOR INFORMATION ONLY	05079	13585
178	DETAILS OF SPANS FOR VINE PRAIRIE UNDERPASS DYER-HWY. 215 - FOR INFORMATION ONLY	05079	13590
179	DETAILS OF STANDARD 35'-90' COMPOSITE I-BEAM SPANS 24'-0" CLEAR RDWY. 1'-6" OR 1'-7 1/2" CURBS - FOR INFORMATION ONLY	05079	13591
180	DETAILS COMMON TO STANDARD 35'-90' COMPOSITE I-BEAM SPANS ALL ROADWAY WIDTHS - FOR INFORMATION ONLY	03633	14990A
181	DETAILS COMMON TO STANDARD 35'-90' COMPOSITE I-BEAM SPANS 20', 24', 26', 28', 39', 40' ROADWAYS - FOR INFORMATION ONLY	03633	14990C
182	DETAILS OF STANDARD 35'-90' COMPOSITE I-BEAM SPANS 24'-0" CLEAR RDWY. 1'-0" & 1'-1 1/2" CURBS - FOR INFORMATION ONLY	03633	15015
183	LAYOUT OF BRIDGE OVER FLAT ROCK CREEK OKLAHOMA LINE-ALMA WEIGH STATION (I-4R) - FOR INFORMATION ONLY	03454 A&B	27972
184	DETAILS OF BACKWALL REPLACEMENT (SHEET 1 OF 3)	A&B5629	56861
185	DETAILS OF BACKWALL REPLACEMENT (SHEET 2 OF 3)	A&B5629	56862
186	DETAILS OF BACKWALL REPLACEMENT (SHEET 3 OF 3)	A&B5629	56863
187	DETAILS OF REPLUMBING EXISTING ROCKER BEARINGS	A&B5629	56864
188	TYPE SPECIAL APPROACH SLAB	A&B5629	56865
189	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 1 OF 2)	A3604, A&B5098, B5100, B5101	56866
190	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY (SHEET 2 OF 2)	A3604, A&B5098, B5100, B5101	56867
191	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY WITH GRADE RAISE (SHEET 1 OF 2)	A5100, A5101, B3604	56868
192	DETAILS OF LATEX MODIFIED CONCRETE OVERLAY WITH GRADE RAISE (SHEET 2 OF 2)	A5100, A5101, B3604	56869
193	LAYOUT OF BRIDGE OVER JENNY LIND ROAD - INFORMATION ONLY	A&B5629	19330
194	DETAILS OF ABUTMENT NO. 1 (SHEET 1 OF 2) - INFORMATION ONLY	A&B5629	19331
195	DETAILS OF ABUTMENT NO. 1 (SHEET 2 OF 2) - INFORMATION ONLY	A&B5629	19332

RBB0401 REVISED.DGN 9/13/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-01-18				6	ARK.			
				JOB NO.		BB0401	4	234

(2) INDEX OF SHEETS AND STANDARD DRAWINGS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-12-18

INDEX OF SHEETS

SHEET NO.	TITLE	BRIDGE NO.	DRWG.NO.
196	DETAILS OF ABUTMENT NO. 2 (SHEET 1 OF 2) - INFORMATION ONLY	A&B5629	19333
197	DETAILS OF ABUTMENT NO. 2 (SHEET 2 OF 2) - INFORMATION ONLY	A&B5629	19334
198	DETAILS OF 76'-0" COMPOSITE W-BEAM SPAN (SHEET 1 OF 4) - INFORMATION ONLY	A&B5629	19335
199	DETAILS OF 76'-0" COMPOSITE W-BEAM SPAN (SHEET 2 OF 4) - INFORMATION ONLY	A&B5629	19336
200	DETAILS OF 76'-0" COMPOSITE W-BEAM SPAN (SHEET 3 OF 4) - INFORMATION ONLY	A5629	19337
201	DETAILS OF 76'-0" COMPOSITE W-BEAM SPAN (SHEET 4 OF 4) - INFORMATION ONLY	B5629	19338
202	DETAILS OF APPROACH SLABS (SHEET 1 OF 2) - INFORMATION ONLY	A&B5629	19339
203	DETAILS OF APPROACH SLABS (SHEET 2 OF 2) - INFORMATION ONLY	A&B5629	19340
204	DETAILS COMMON TO STANDARD 35'-90' COMPOSITE W-BEAM SPANS - INFORMATION ONLY	A&B5629	14990F
205	DETAILS OF METAL BRIDGE RAILING TYPE A - INFORMATION ONLY	A&B5629	14992A
206	EXHIBIT "A" (LEFT LANES) LAYOUT OF HWY. 71 INTERCHANGE (SHEET 1 OF 2) - INFORMATION ONLY	A5102	16295
207	EXHIBIT "A" (RIGHT LANES) LAYOUT OF HWY. 71 INTERCHANGE (SHEET 1 OF 2) - INFORMATION ONLY	B5102	16296
208	BRIDGE A LAYOUT OF OVERPASS OVER HWY. 255 - INFORMATION ONLY	A5101	28182
209	BRIDGE B LAYOUT OF OVERPASS OVER HWY. 255 - INFORMATION ONLY	B5101	28183
210	REMODELING DETAILS OF MEDIAN PARAPET HWY. 255 OVERPASS - INFORMATION ONLY	A&B5101	28184
211	LAYOUT OF OVERPASS OVER HWY. 22-T - INFORMATION ONLY	A5101	15687
212	LAYOUT OF OVERPASS OVER HWY. 22-T - INFORMATION ONLY	B5101	15688
213	DETAILS OF SUPERSTRUCTURE (SHEET 1 OF 3) - INFORMATION ONLY	A&B5101	15691
214	EXHIBIT A LAYOUT OF OVERPASS OVER MISSOURI PACIFIC RAILROAD - INFORMATION ONLY	A&B5100	28186
215	REMODELING DETAILS OF MEDIAN PARAPET MISSOURI PACIFIC RAILROAD OVERPASS - INFORMATION ONLY	A&B5100	28187
216	LAYOUT OF OVERPASS OVER MISSOURI PACIFIC RAILROAD (SHEET 1 OF 2) - INFORMATION ONLY	A5100	15694
217	LAYOUT OF OVERPASS OVER MISSOURI PACIFIC RAILROAD (SHEET 2 OF 2) - INFORMATION ONLY	B5100	15695
218	DETAILS OF COMPOSITE I BEAM SPANS - INFORMATION ONLY	A5100	15702
219	DETAILS OF COMPOSITE I BEAM SPANS - INFORMATION ONLY	B5100	15703
220	LAYOUT OF PHOENIX ST. OVERPASS - INFORMATION ONLY	A&B5098	28188
221	DETAILS OF WIDENING SPANS PHOENIX ST. OVERPASS - INFORMATION ONLY	A&B5098	28192
221A	LAYOUT OF PHOENIX ST. OVERPASS (LEFT LANES) - INFORMATION ONLY	A5098	13825
221B	LAYOUT OF PHOENIX ST. OVERPASS (RIGHT LANES) - INFORMATION ONLY	B5098	13826
222	BRIDGE A LAYOUT OF BOSTON ST. OVERPASS - INFORMATION ONLY	A5096	28193
223	BRIDGE B LAYOUT OF BOSTON ST. OVERPASS - INFORMATION ONLY	B5096	28194
224	DETAILS OF W-BEAM SPANS (SHEET 1 OF 2) - INFORMATION ONLY	A&B5096	28198
225	LAYOUT OF BOSTON ST. OVERPASS - INFORMATION ONLY	A5096	13814
226	LAYOUT OF BOSTON ST. OVERPASS - INFORMATION ONLY	B5096	13815
227	DETAILS OF COMPOSITE I BEAM SPANS - INFORMATION ONLY	A&B5096, A&B5098	13818
228	DETAILS OF SPECIAL MEDIAN APPROACH GUTTERS CONCRETE PARAPET RAILING	A&B5101, A&B5100, A&B5098, A&5069	28185
229	LAYOUT OF FREE FERRY STREET OVERPASS - INFORMATION ONLY	A3604	48616A
230	LAYOUT OF FREE FERRY STREET OVERPASS - INFORMATION ONLY	B3604	48616B
231	DETAILS OF STANDARD 35'-75' COMPOSITE I-BEAM SPANS - INFORMATION	A&B3604	11968B
232	LAYOUT OF BRIDGE OVER ARKANSAS RIVER RELIEF - INFORMATION ONLY	06880	48552
233	REMODELING DETAILS FOR BRIDGE OVER HWY. 162 - INFORMATION ONLY	A&B3957	48437
234	LAYOUT OF BRIDGE OVER UNION PACIFIC RAILROAD - INFORMATION ONLY	B6881	48594

ROADWAY STANDARD DRAWINGS

DRWG.NO.	TITLE	DATE
CPTJ-6A	TRANSVERSE & LONGITUDINAL JOINTS FOR CONCRETE PAVEMENT (NON-REINFORCED)	05-25-06
FPC-9N	DETAILS OF DROP INLETS AND SPILLWAY OUTLET	07-02-98
FPC-9S	DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)	07-26-12
GR-8	GUARD RAIL DETAILS	11-16-17
GR-8A	GUARD RAIL DETAILS	11-16-17
GR-9	GUARD RAIL DETAILS	04-17-08
GR-9A	GUARD RAIL DETAILS	04-17-08
GR-10	GUARD RAIL DETAILS	11-16-17
GR-11	GUARD RAIL DETAILS	11-16-17
GR-12	GUARD RAIL DETAILS	11-16-17
GR-13	CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)	11-16-17
GRT-1	GUARD RAIL DETAILS	11-16-17
PM-1	PAVEMENT MARKING DETAILS	06-01-17
PM-2	PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS	12-08-16
PU-1	DETAILS OF PIPE UNDERDRAIN	12-08-16
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	04-13-17
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	08-02-16
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	09-02-15
TC-4	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	02-27-14
TC-5	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	10-15-09
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17
TEC-2	TEMPORARY EROSION CONTROL DEVICES	06-02-94
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
TEC-4	TEMPORARY EROSION CONTROL DEVICES	07-26-12
TR-1A	DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMPS (NON-REINFORCED)	08-22-02

RBB0401 REVISED.DGN 10/4/2018

INDEX OF SHEETS AND STANDARD DRAWINGS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-01-18				6	ARK.			
				JOB NO.		BB0401	5	234
				(2) GOVERNING SPECIFICATIONS AND GENERAL NOTES				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-12-18

GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

NUMBER	TITLE
ERRATA_____	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273__	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273__	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273__	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273__	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273__	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273__	SUPPLEMENT - TRAINING PROGRAM - JOB BB0401
FHWA-1273__	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273__	SUPPLEMENT - WAGE RATE DETERMINATION
100-3_____	CONTRACTOR'S LICENSE
100-4_____	DEPARTMENT NAME CHANGE
102-2_____	ISSUANCE OF PROPOSALS
108-1_____	LIQUIDATED DAMAGES
108-2_____	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
110-1_____	PROTECTION OF WATER QUALITY AND WETLANDS
303-1_____	AGGREGATE BASE COURSE
400-1_____	TACK COATS
400-4_____	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
400-5_____	PERCENT AIR VOIDS FOR ACHM MIX DESIGNS
400-6_____	LIQUID ANTI-STRIP ADDITIVE
410-1_____	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
604-1_____	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
617-1_____	GUARDRAIL TERMINAL (TYPE 2)
620-1_____	MULCH COVER
800-1_____	STRUCTURES
JOB BB0401_	AGGREGATE BASE COURSE
JOB BB0401_	ASSESSMENT OF WORKING DAYS - MAINTENANCE OF TRAFFIC
JOB BB0401_	BIDDING REQUIREMENTS AND CONDITIONS
JOB BB0401_	BRIDGE DECK REPAIR
JOB BB0401_	BRIDGE DECK REPAIR FOR POLYMER OVERLAY
JOB BB0401_	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB BB0401_	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB BB0401_	CARGO PREFERENCE ACT REQUIREMENTS
JOB BB0401_	CLASS C FLY ASH IN PORTLAND CEMENT CONCRETE PAVEMENT AND CLASS S(AE) CONCRETE
JOB BB0401_	COLD MILLING ASPHALT PAVEMENT
JOB BB0401_	CONSTRUCTION PROJECT INFORMATION SIGN
JOB BB0401_	COORDINATION OF WORK
JOB BB0401_	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB BB0401_	EMPLOYMENT REPORTING
JOB BB0401_	ENHANCED THERMOPLASTIC PAVEMENT MARKING
JOB BB0401_	FLEXIBLE BEGINNING OF WORK – CALENDAR DAY CONTRACT
JOB BB0401_	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB BB0401_	HYDRODEMOLITION
JOB BB0401_	INSURANCE, CONSTRUCTION, AND FLAGGING REQUIREMENTS ON RAILROAD PROPERTY (A&M)
JOB BB0401_	INSURANCE, CONSTRUCTION, AND FLAGGING REQUIREMENTS ON RAILROAD PROPERTY (FSR)
JOB BB0401_	INSURANCE, CONSTRUCTION, AND FLAGGING REQUIREMENTS ON RAILROAD PROPERTY (UPRR)
JOB BB0401_	LATEX MODIFIED CONCRETE OVERLAY
JOB BB0401_	MAINTENANCE OF TRAFFIC
JOB BB0401_	MANAGEMENT OF HYDRODEMOLITION WASTEWATER
JOB BB0401_	MANDATORY ELECTRONIC CONTRACT
JOB BB0401_	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB BB0401_	PARTNERING REQUIREMENTS
JOB BB0401_	PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS
JOB BB0401_	POLYMER OVERLAY
JOB BB0401_	PORTABLE TRAFFIC SIGNAL SYSTEM
JOB BB0401_	PRICE ADJUSTMENT FOR ASPHALT BINDER
JOB BB0401_	PROSECUTION AND PROGRESS WITH BID SCHEDULE
JOB BB0401_	REPLUMBING EXISTING ROCKER BEARINGS
JOB BB0401_	SITE USE (A+B+C METHOD) - CALENDAR DAY CONTRACT
JOB BB0401_	SETTLEMENT AGREEMENTS
JOB BB0401_	SPECIAL CLEARING
JOB BB0401_	SPECIAL SAFETY REQUIREMENTS
JOB BB0401_	STORM WATER POLLUTION PREVENTION PLAN
JOB BB0401_	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB BB0401_	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB0401_	TRIANGULAR SILT DIKE
JOB BB0401_	UNDERDRAIN FLUSHING AND REHABILITATION
JOB BB0401_	UTILITY ADJUSTMENTS
JOB BB0401_	VALUE ENGINEERING
JOB BB0401_	WARM MIX ASPHALT

GENERAL NOTES

1. ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
2. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
3. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
4. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO INSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
5. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
6. THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

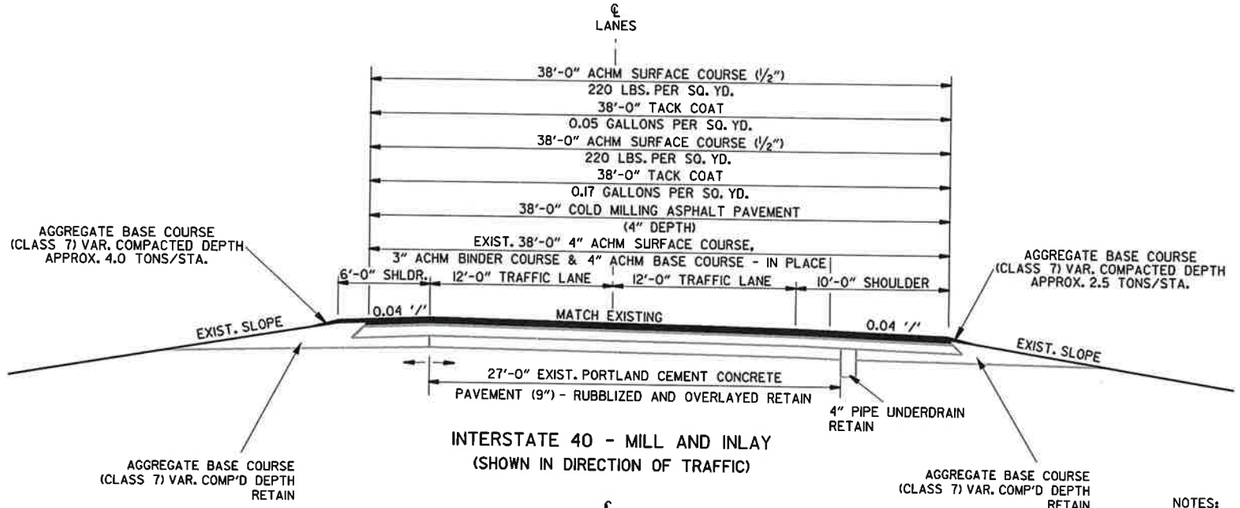
RBB0401 REVISED.DGN 10/4/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
10-01-18			
10-17-18			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	6	234

(2) TYPICAL SECTIONS OF IMPROVEMENT

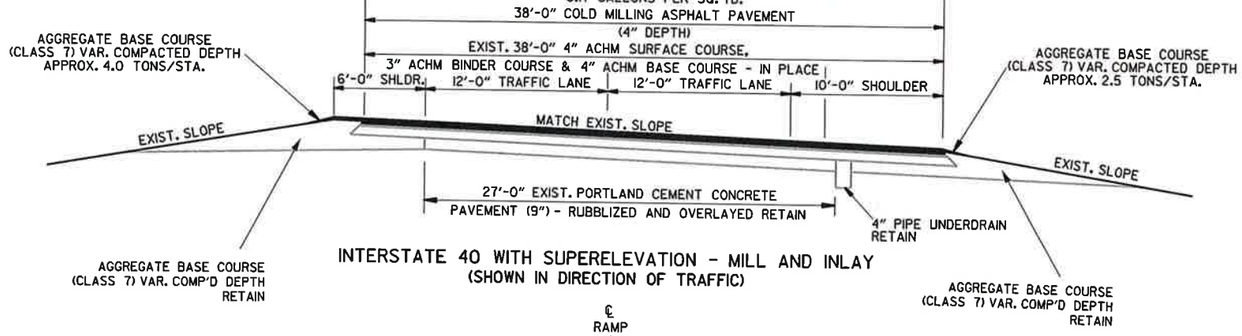
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
10-17-18
HUBERT BURNS



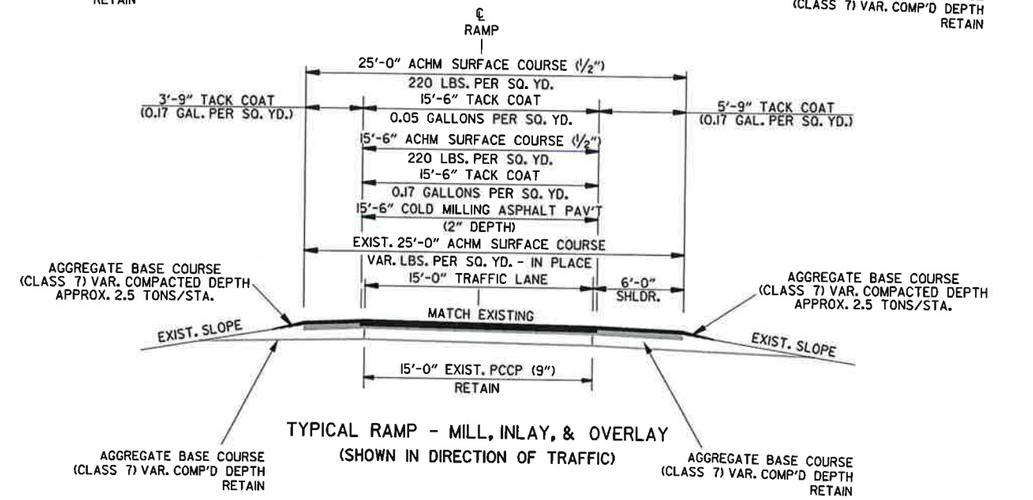
INTERSTATE 40 - MILL AND INLAY
(SHOWN IN DIRECTION OF TRAFFIC)

NOTES:
LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

AGGREGATE BASE COURSE (CLASS 7) SHALL BE UNIFORMLY COMPACTED, STABLE, AND FREE OF SEGREGATED AREAS. THE DENSITY REQUIREMENTS OF SECTION 303 ARE WAIVED.



INTERSTATE 40 WITH SUPERELEVATION - MILL AND INLAY
(SHOWN IN DIRECTION OF TRAFFIC)



TYPICAL RAMP - MILL, INLAY, & OVERLAY
(SHOWN IN DIRECTION OF TRAFFIC)

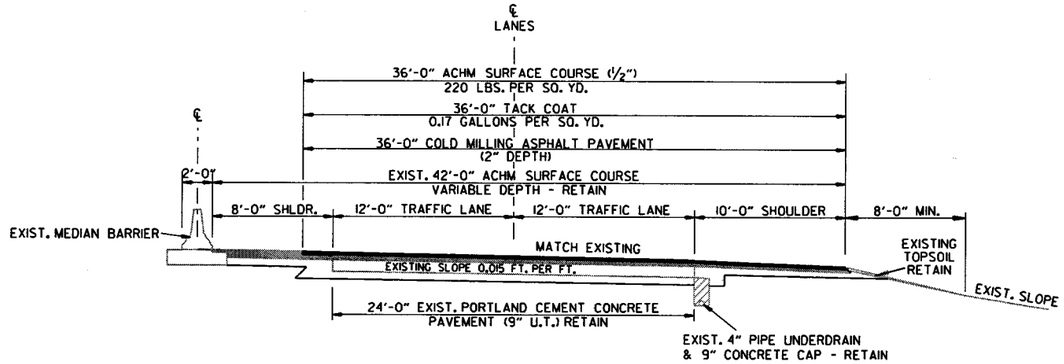
TYPICAL SECTIONS OF IMPROVEMENT

USER: lr594
DESIGN FILE: G:\17112101_BB0401\TRANSP\dgn\typical\rbb0401typ.dgn
PLOTTED: 10/17/2018 15:00
SCALE: NO

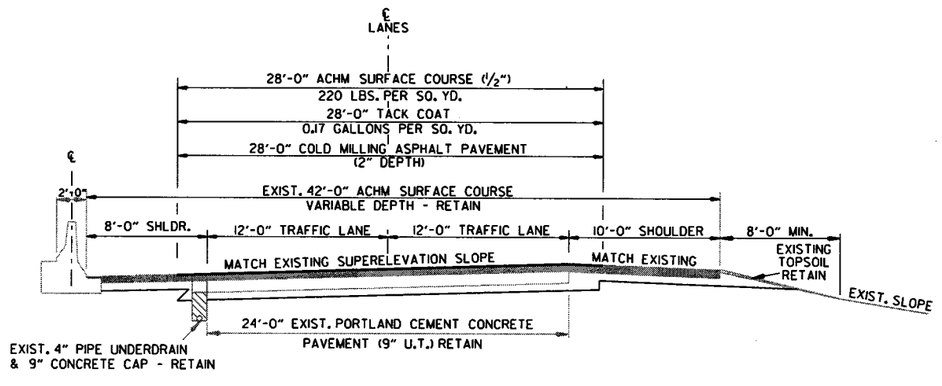
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	7	234

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18



INTERSTATE 540 - MILL & INLAY
(SHOWN IN DIRECTION OF TRAFFIC)



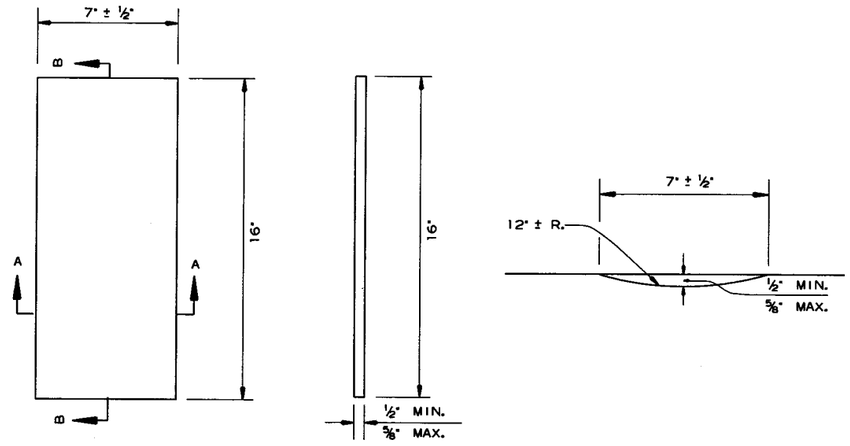
INTERSTATE 540 WITH SUPERELEVATION - MILL & INLAY
(SHOWN IN DIRECTION OF TRAFFIC)

RBB0401 REVISED.DGN 9/13/2018

TYPICAL SECTIONS OF IMPROVEMENT

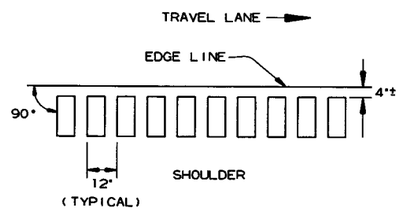
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	8	234

(2) SPECIAL DETAILS



PLAN SECTION B-B SECTION A-A

DETAILS OF RUMBLE STRIPS

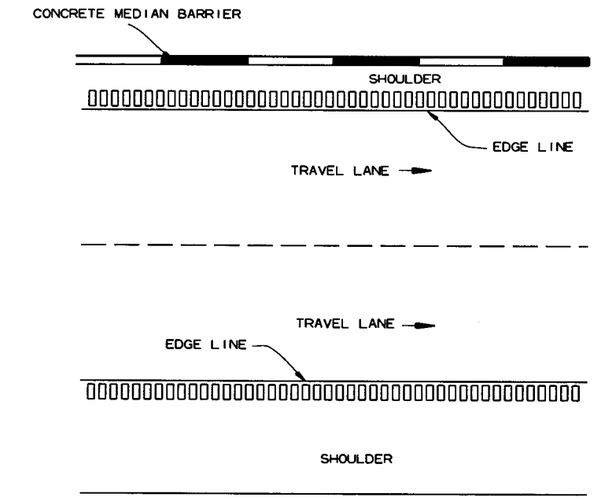


LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER

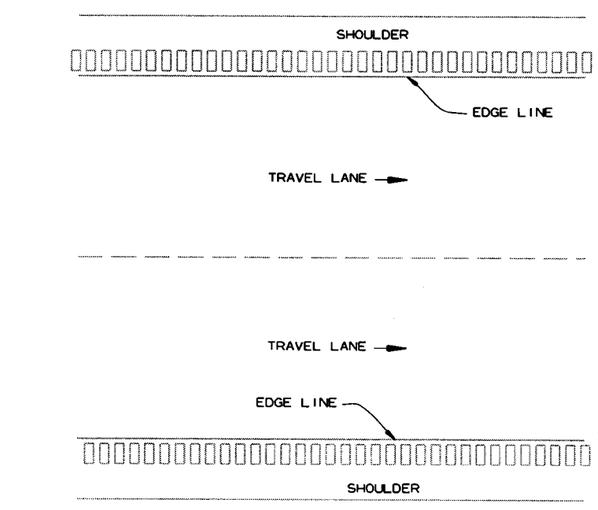
NOTES:

1. ALIGNMENT OF RUMBLE STRIPS SHALL GENERALLY BE STRAIGHT AND OFFSET APPROXIMATELY 4" FROM THE OUTER EDGE OF THE EDGE LINE. THIS OFFSET MAY BE ADJUSTED TO ACCOMMODATE VARIATIONS IN THE EDGE LINE.
2. THE ½" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 16" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.
3. RUMBLE STRIPS SHALL NOT BE INSTALLED ON BRIDGE DECKS, APPROACH SLABS, OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.

DETAILS OF RUMBLE STRIPS



I-540 PLAN VIEW



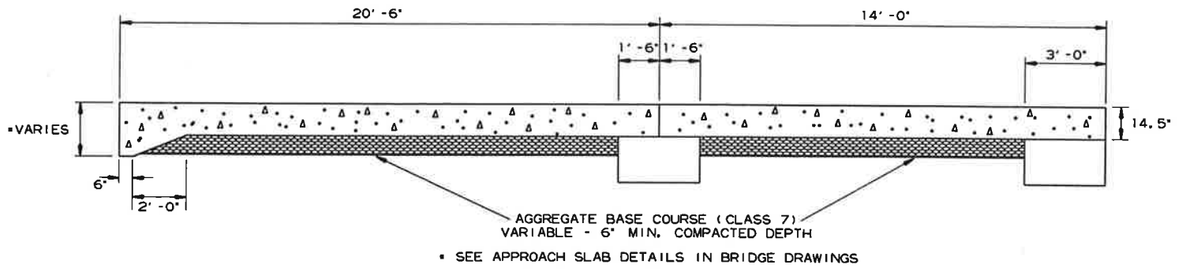
I-40 PLAN VIEW

RBB0401 REVISED.DGN 9/13/2018

SPECIAL DETAILS

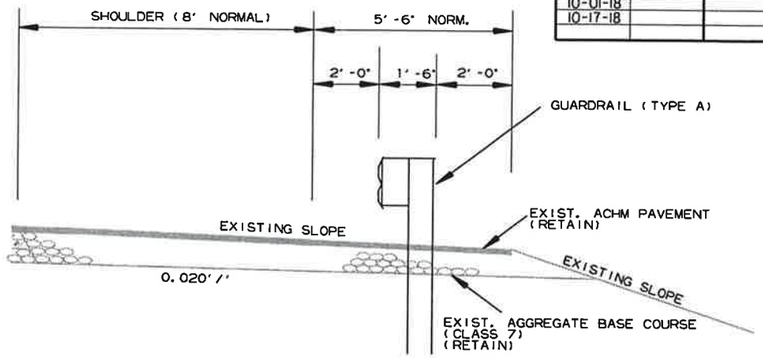
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-01-18				6	ARK.			
10-17-18				JOB NO.		BB0401	9	234

(2) SPECIAL DETAILS

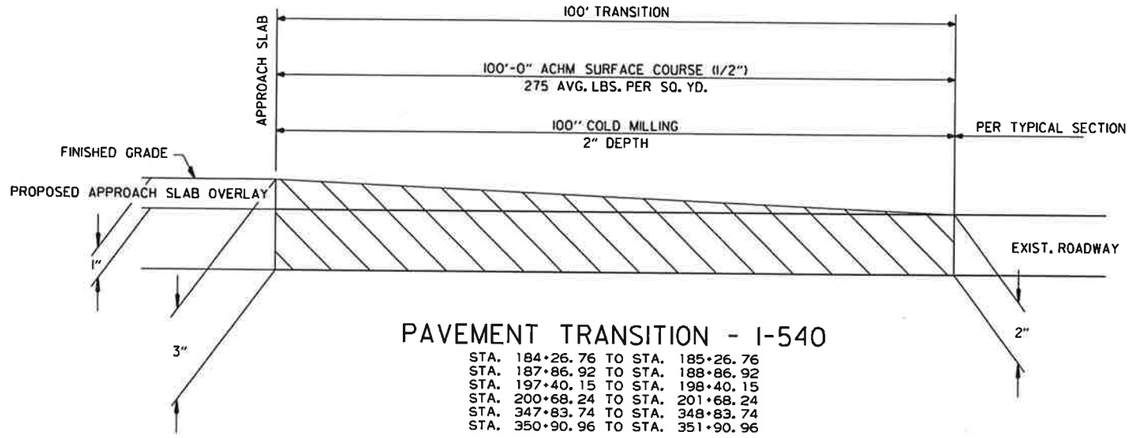


* SEE APPROACH SLAB DETAILS IN BRIDGE DRAWINGS

SECTION OF APPROACH SLAB

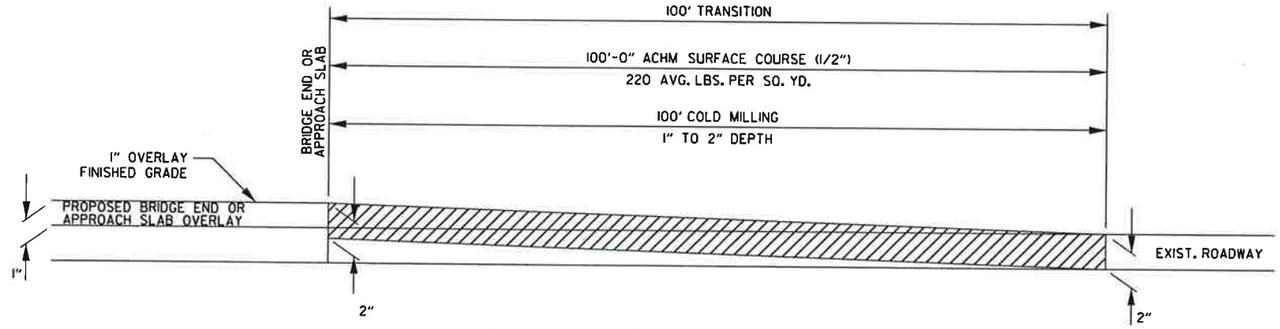


REPLACEMENT OF GUARDRAIL - I-540



PAVEMENT TRANSITION - I-540

STA. 184+26.76 TO STA. 185+26.76
STA. 187+86.92 TO STA. 188+86.92
STA. 197+40.15 TO STA. 198+40.15
STA. 200+68.24 TO STA. 201+68.24
STA. 347+83.74 TO STA. 348+83.74
STA. 350+90.96 TO STA. 351+90.96



DETAIL FOR PAVEMENT TRANSITIONS - OVERPASS BRIDGES

BRIDGE NO. 03270 (DORA RD. OVERPASS)	STA. 7+21.24 TO STA. 8+21.24
BRIDGE NO. 03270 (DORA RD. OVERPASS)	STA. 11+98.64 TO STA. 12+98.64
BRIDGE NO. 03456 (RAMP 2 OVER FLAT ROCK CREEK)	STA. 726+71.29 TO STA. 727+71.29
BRIDGE NO. 03456 (RAMP 2 OVER FLAT ROCK CREEK)	STA. 729+87.43 TO STA. 730+87.43
BRIDGE NO. 03801 (LOST BEACH CROSSING OVERPASS)	STA. 7+75.72 TO STA. 8+75.72
BRIDGE NO. 03801 (LOST BEACH CROSSING OVERPASS)	STA. 11+20.22 TO STA. 12+20.22
BRIDGE NO. 03892 (RIDGE RD. OVERPASS)	STA.22+29.28 TO STA. 23+29.28
BRIDGE NO. 03892 (RIDGE RD. OVERPASS)	STA.25+46.52 TO STA. 26+46.52

6.0" Radius, 1.3" Border, Black on Orange;
"Job XXXXXX" C 2K; "Start Date Mo Year" C 2K;
"Est Completion Mo Year" C 2K; "IDRIVE ARKANSAS.COM" Arial;

CONSTRUCTION PROJECT INFORMATION SIGN

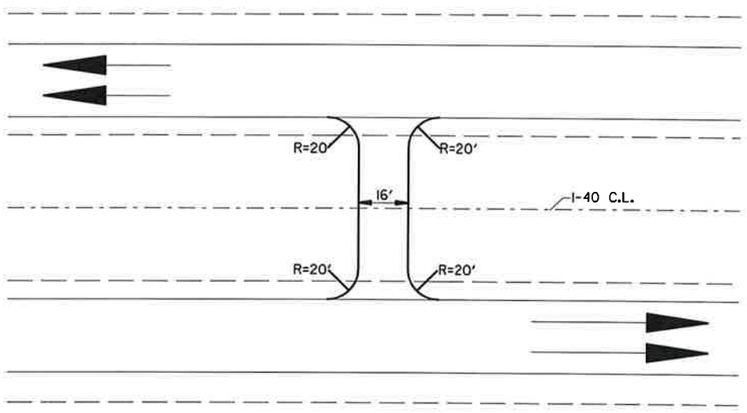
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-18-18

RBB0401 REVISED.DGN 10/17/2018

SPECIAL DETAILS

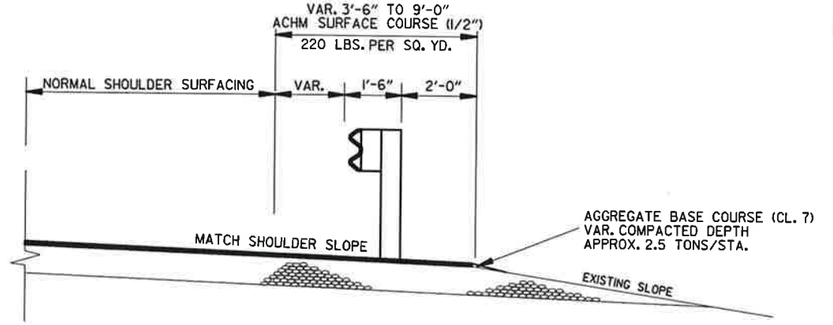
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PRO.JNO.	SHEET NO.	TOTAL SHEETS
10-17-18				6	ARK.			
				JOB NO.		BB0401	10	234
				(2)	SPECIAL DETAILS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
10-17-18
HUBERT BURNS



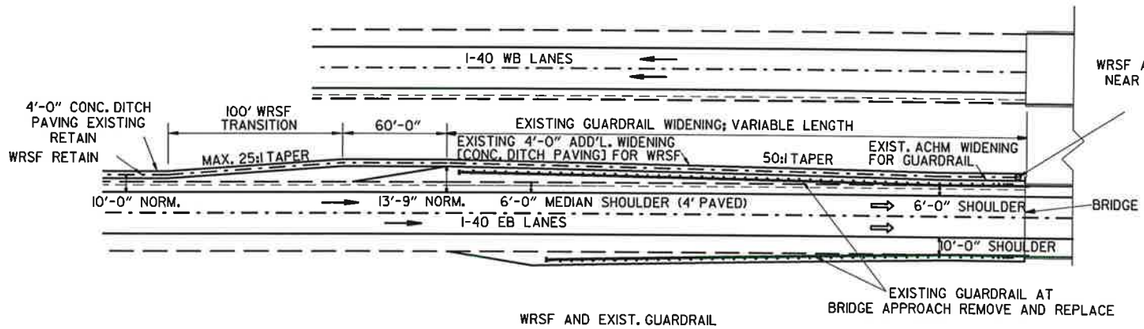
DETAIL OF PAVED MEDIAN CROSSING

NOTE:
EXISTNG MEDIAN CROSSING - OVERLAY WITH
ACHM SURFACE COURSE (1/2")- 220 LBS. PER SQ. YD.

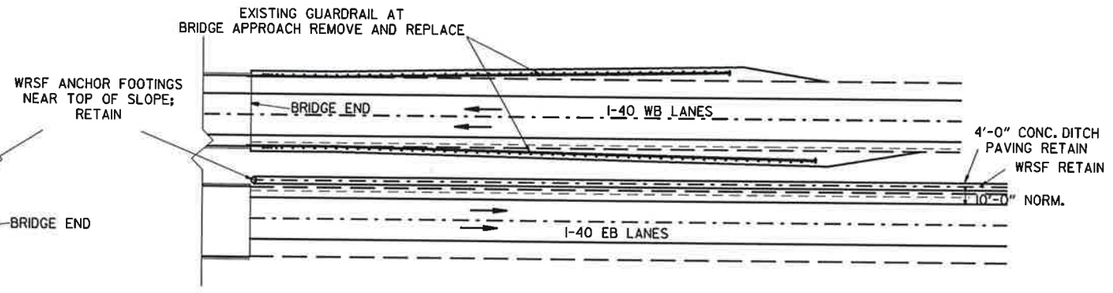


SECTION DETAIL OF WIDENING FOR GUARDRAIL - I-40

NOTE: REFER TO STANDARD DRAWINGS, GR-8, GR-8A, GR-9, GR-9A, GR-10, GR-12 & GRT-1 FOR ADDITIONAL INFORMATION.



WRSF AND EXIST. GUARDRAIL
ON SAME SIDE OF MEDIAN



WRSF AND EXIST. GUARDRAIL
ON OPPOSITE SIDES OF MEDIAN

DETAIL OF EXISTING WIRE ROPE SAFETY FENCE AT EXISTING BRIDGE ENDS

REFER TO PLANS FOR RELATIVE PLACEMENT
OF GUARDRAIL AT EACH BRIDGE END

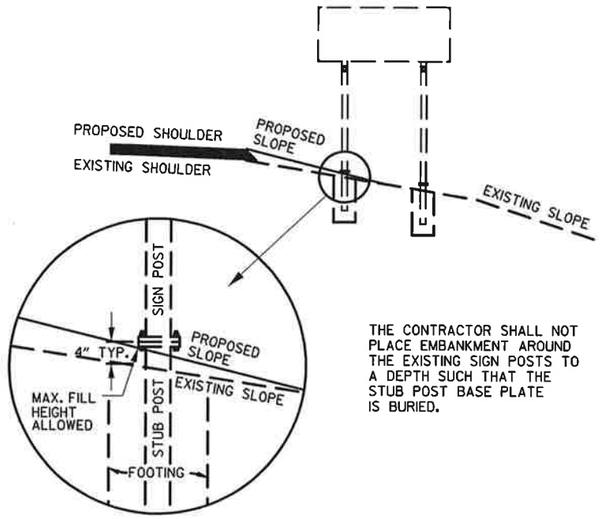
USER: lr594
DESIGN FILE: G:\17il2101_BB0401\TRANSP\dgn\special_details\rbb0401sd.dgn SCALE: b10
PLOTTED: 10/17/2018 15:00

SPECIAL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-01-18				6	ARK.			
				JOB NO.		BB0401	11	234

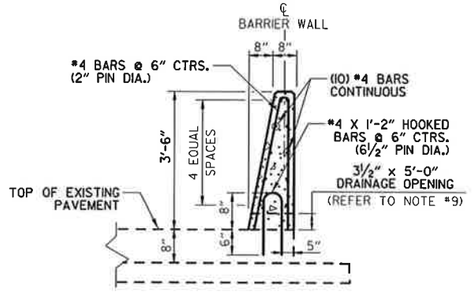
(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
9/28/18
HUBERT BURNS



THE CONTRACTOR SHALL NOT PLACE EMBANKMENT AROUND THE EXISTING SIGN POSTS TO A DEPTH SUCH THAT THE STUB POST BASE PLATE IS BURIED.

DETAIL FOR THE MAINTENANCE OF
EXISTING BREAKAWAY SIGN STRUCTURES
NOT TO SCALE



CONCRETE BARRIER WALL
(PIER PROTECTION TYPE A-I; MASH TL-4)
N.T.S.

GENERAL NOTES FOR CONCRETE BARRIER WALLS

1. ALL BARRIER WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 631 OF THE STANDARD SPECIFICATIONS, 2014 EDITION.
2. CONTRACTION JOINTS REQUIRED @ 15'-0" MAXIMUM SPACING FOR BARRIER TYPES MEDIAN A, SIDE A. A 30'-0" MAXIMUM SPACING IS REQUIRED FOR TYPES MEDIAN C, SIDE C, D & E.
3. ALL CONTRACTION JOINTS TO BE FORMED IN FRESH CONCRETE ON TOP AND IN SIDES OF BARRIER WALL.
4. CONTRACTION JOINTS ARE NOT PERMITTED AT THE DOWEL BAR LOCATIONS.
5. ALL EXPOSED EDGES OF CONCRETE BARRIER WALL SHALL HAVE A ¾" CHAMFER.
6. SPACING BETWEEN EXPANSION JOINTS SHALL NOT EXCEED 400 FT FOR BARRIER TYPES MEDIAN A AND SIDE A OR 120 FT FOR BARRIER TYPES SIDE C, D & E. EXPANSION JOINTS SHALL BE FORMED USING 1" PREFORMED JOINT FILLER. CONTINUOUS REINFORCEMENT SHALL BE CUT 2" CLEAR OF EXPANSION JOINTS.
7. CONSTRUCT DRAINAGE OPENINGS AT EVERY 50' O.C. AND AT SAGS IF SHOWN ON THE PLANS. DOWEL BARS SHALL NOT BE PLACED WITHIN 3" OF DRAINAGE OPENINGS.
8. MAINTAIN 3" CLEARANCE ON ALL FOOTING REINFORCEMENT AND 2" CLEARANCE ON ALL OTHER REINFORCEMENT.
9. REFER TO BARRIER MOUNTED LUMINARE SPECIAL DETAILS FOR INFORMATION REGARDING CONDUIT IN CONCRETE BARRIER WALLS. REFER TO ILLUMINATION LAYOUT FOR LOCATIONS OF CONDUIT RUNS.
10. BARRIER REINFORCING BARS ANCHORED INTO EXISTING CONCRETE PAVEMENT SHALL BE INSTALLED AND SECURED ACCORDING TO 804.06 USING AN APPROVED ANCHORING SYSTEM FROM QPL.

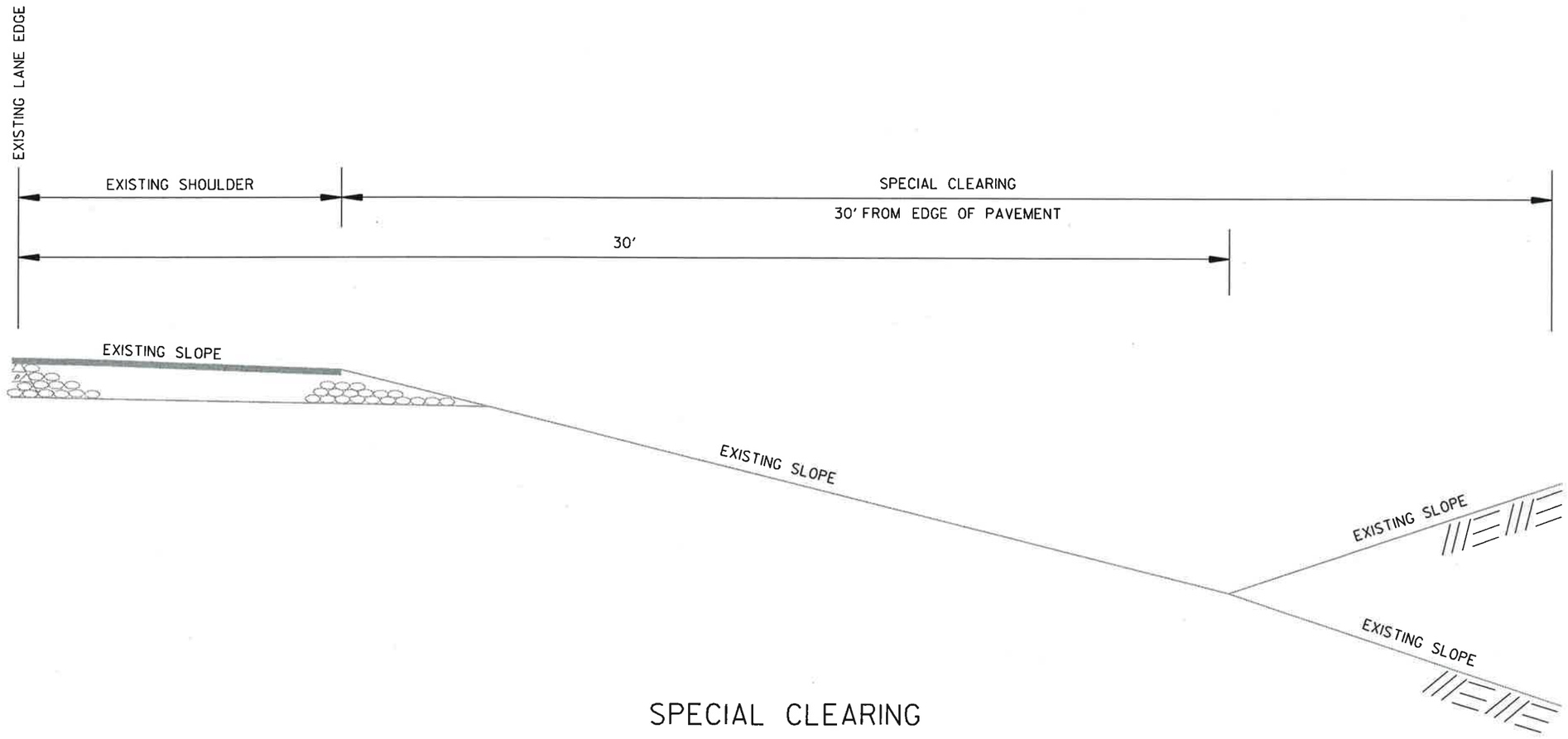
NOTE:
THE COST FOR THE MODIFICATION OF THE BARRIERS AND DROP INLETS ARE TO BE SUBSIDIARY TO CONCRETE BARRIER WALLS AND CURBS.

USER: 1-594
DESIGN FILE: G:\17\12\01_BB0401\TRANSP\dgn\special_details\rbb0401sd.dgn
PLOTTED: 09/28/2018 14:50
SCALE: NTS

SPECIAL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-01-18				6	ARK.			
				JOB NO.		BB0401	12	234
				(2) SPECIAL DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-12-18



SPECIAL CLEARING

RBB0401 REVISED.DGN 10/2/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-01-18				6	ARK.			
				JOB NO.		BB0401	13	234
				(2)	SPECIAL DETAILS			

THIS PAGE IS
INTENTIONALLY LEFT BLANK

RBB0401 REVISED.DGN 10/4/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	14	234
				(2)	TEMPORARY EROSION CONTROL DETAILS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
N. 9620
8-31-18
HUBERT BURNS

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-7) = DROP INLET SILT FENCE
(E-11) = SILT FENCE

50 25 0 25 50 100

495

C.L. I-40
PI = 493+65.42
Δ = 32°46'55" LT.
D = 01°11'30"
T = 1414.26'
L = 2750.93'
PC = 479+51.16
PT = 4+09.27

500 STA. 0+00.00
BEGIN JOB BB0401
LOG MILE 0.00

0

SEQUOYAH COUNTY, OKLAHOMA
CRAWFORD COUNTY, ARKANSAS

STA. 502+92.82 BACK=
STA. 0+00.00 AHD.

N74°51'21"E

N42°10'26"E

P.I. 493+65.42

C.L. I-40

DORA RD.

TEMPORARY EROSION CONTROL DETAILS

USER: tes13
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\erosion\rBB0401ECO1.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17II2101_BB0401\TRANSP\dgn\erosion\rBB0401ECO1.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	15	234
				(2)	TEMPORARY EROSION CONTROL DETAILS			

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
8-31-18

0 5 10 15

SEQUOYAH COUNTY, OKLAHOMA
CRAWFORD COUNTY, ARKANSAS

C.L. I-40
PI = 493+65.42
Δ = 32°46'55" LT.
D = 0°41'30"
T = 1414.26'
L = 2750.93'
PC = 479+51.16
PT = 4+09.27

P.I. 16+37.28
P.I. 13+73.24
P.T. 4+09.27
DORA RD.
15
10

STA. 502+92.82 BACK =
STA. 0+00.00 AHD.

BR. NO. 03270

C. L. I-40

N42°10'26"E

E-7

STA. 0+00.00
BEGIN JOB BB0401
LOG MILE 0.00

REVISIONS

DATE OF REVISION	REVISION

15 20 25 30 30 30

C. L. I-40

P.O.B. 26+02.29
P.C. 26+02.29
P.C. 26+74.56
P.C. 26+77.79

C. L. L. M. L.

N42°10'26"E

P.O.B. 26+02.30

C. L. R. M. L.

LEGEND

(E-7) = DROP INLET SILT FENCE

I-40 LT. LANE
PI = 49+89.60
Δ = 43°46'52" RT.
D = 00°59'40"
T = 2315.04'
L = 4402.57'
PC = 26+74.56
PT = 70+77.13

C.L. I-40
PI = 49+04.47
Δ = 43°46'52" RT.
D = 01°00'00"
T = 2302.18'
L = 4378.11'
PC = 26+02.29
PT = 69+80.40

I-40 RT. LANE
PI = 48+19.35
Δ = 43°46'52" RT.
D = 01°04'30"
T = 2141.56'
L = 4072.66'
PC = 26+77.79
PT = 67+50.45

TEMPORARY EROSION CONTROL DETAILS

USER: fe513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC02.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1"=100'

G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC02.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	16	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
* * *
No. 9620
8-31-18
HUBERT BURNS

N42°10'26"E

C. L. L. M. L.

C. L. I-40

C. L. R. M. L.

(E-7)

I-40 LT. LANE
PI= 49+89.60
Δ = 43°46'52" RT.
D = 00°59'40"
T = 2315.04'
L = 4402.57'
PC = 26+74.56
PT = 70+77.13

C.L. I-40
PI= 49+04.47
Δ = 43°46'52" RT.
D = 01°00'00"
T = 2302.18'
L = 4378.11'
PC = 26+02.29
PT = 69+80.40

I-40 RT. LANE
PI= 48+19.35
Δ = 43°46'52" RT.
D = 01°04'30"
T = 2141.56'
L = 4072.66'
PC = 26+77.79
PT = 67+50.45

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-7) = DROP INLET SILT FENCE

N85°57'18"E

C. L. L. M. L.

C. L. I-40

C. L. R. M. L.

(E-7)

I-40 LT. LANE
PI= 49+89.60
Δ = 43°46'52" RT.
D = 00°59'40"
T = 2315.04'
L = 4402.57'
PC = 26+74.56
PT = 70+77.13

C.L. I-40
PI= 49+04.47
Δ = 43°46'52" RT.
D = 01°00'00"
T = 2302.18'
L = 4378.11'
PC = 26+02.29
PT = 69+80.40

I-40 RT. LANE
PI= 48+19.35
Δ = 43°46'52" RT.
D = 01°04'30"
T = 2141.56'
L = 4072.66'
PC = 26+77.79
PT = 67+50.45

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC03.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1=100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	17	234

(2) TEMPORARY EROSION CONTROL DETAILS

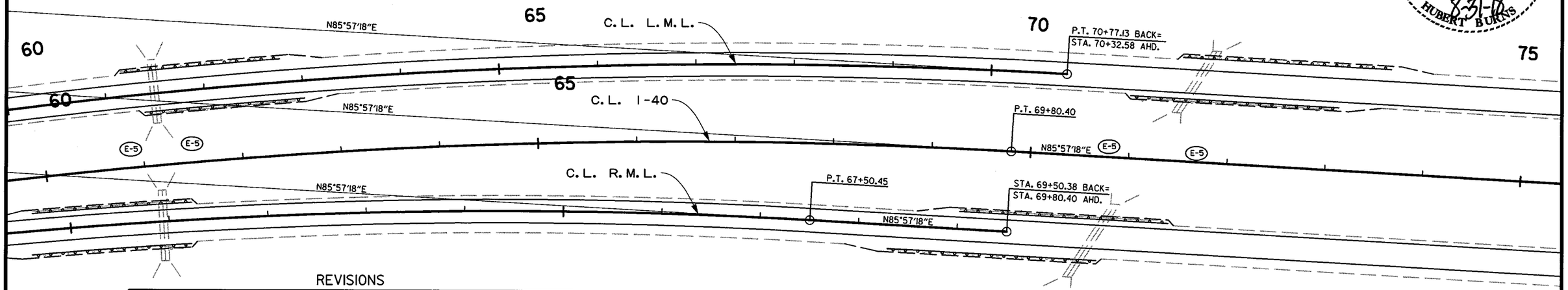
I-40 LT. LANE
PI= 49+89.60
Δ = 43°46'52" RT.
D = 00°59'40"
T = 2315.04'
L = 4402.57'
PC = 26+74.56
PT = 70+77.13

C.L. I-40
PI= 49+04.47
Δ = 43°46'52" RT.
D = 01°00'00"
T = 2302.18'
L = 4378.11'
PC = 26+02.29
PT = 69+80.40

I-40 RT. LANE
PI= 48+19.35
Δ = 43°46'52" RT.
D = 01°04'30"
T = 2141.56'
L = 4072.66'
PC = 26+77.79
PT = 67+50.45

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

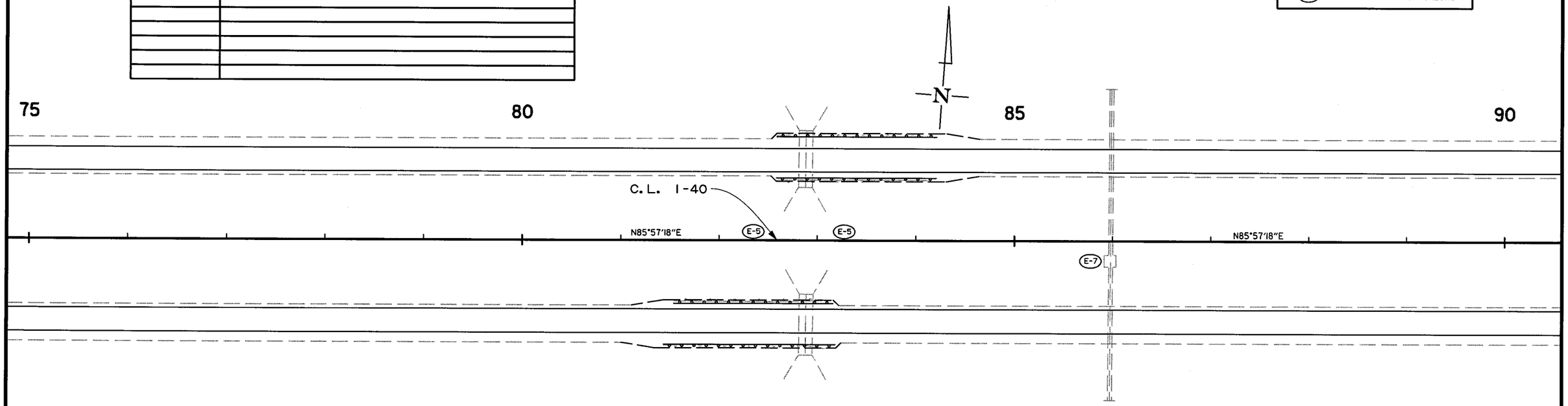


REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE
E-5 = SAND BAG DITCH CHECKS



TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\erosion\rBB0401EC04.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17II2101_BB0401\TRANSP\dgn\erosion\rBB0401EC04.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	18	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

N

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
5-31-18

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-7) = DROP INLET SILT FENCE
(E-5) = SAND BAG DITCH CHECKS

90 95 100 105 110 115 120

C. L. I-40

N85°57'18"E

P.I. 115+09.65

P.I. 114+83.38

P.I. 115+97.93

C. L. L. M. L.

C. L. I-40

C. L. R. M. L.

Δ = 0°00'00"

P.C. 105+92.06

P.C. 105+65.80

P.C. 107+96.84

S58°31'29"E

S55°30'43"E

I-40 LT. LANE	C.L. I-40	I-40 RT. LANE
PI = 115+09.65	PI = 114+83.38	PI = 115+97.93
Δ = 35°31'13" RT.	Δ = 35°31'13" RT.	Δ = 38°31'59" RT.
D = 02°00'00"	D = 02°00'00"	D = 02°30'00"
T = 917.59'	T = 917.59'	T = 801.09'
L = 1776.01'	L = 1776.01'	L = 1541.32'
PC = 105+92.06	PC = 105+65.79	PC = 107+96.84
PT = 123+68.07	PT = 123+41.80	PT = 123+38.16

TEMPORARY EROSION CONTROL DETAILS

USER: fe513
DESIGN FILE: G:\17112101_BB0401\TRANSP\dgn\erosion\rBB0401EC05.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	19	234

(2) TEMPORARY EROSION CONTROL DETAILS

I-40 LT. LANE
PI = 115+09.65
Δ = 35°31'13" RT.
D = 02°00'00"
T = 917.59'
L = 1776.01'
PC = 105+92.06
PT = 123+68.07

C.L. I-40
PI = 114+83.38
Δ = 35°31'13" RT.
D = 02°00'00"
T = 917.59'
L = 1776.01'
PC = 105+65.79
PT = 123+41.80

I-40 RT. LANE
PI = 115+97.93
Δ = 38°31'59" RT.
D = 02°30'00"
T = 801.09'
L = 1541.32'
PC = 107+96.84
PT = 123+38.16

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

P.T. 123+68.07
P.T. 123+41.80
P.T. 123+38.16
P.C. 134+25.10
P.C. 134+31.91
P.C. 129+55.69

C. L. L. M. L.
C. L. I-40
C. L. R. M. L.

S58°31'29"E
S58°31'29"E
S55°30'43"E

120 125 130 135

E-7

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE
E-5 = SAND BAG DITCH CHECKS

I-40 LT. LANE
PI = 161+89.10
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+25.10
PT = 182+10.43

C.L. I-40
PI = 161+95.91
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+31.91
PT = 182+17.24

I-40 RT. LANE
PI = 161+80.25
Δ = 74°47'34" LT.
D = 01°21'30"
T = 3224.56'
L = 5506.22'
PC = 129+55.69
PT = 184+61.91

C. L. L. M. L.
C. L. R. M. L.
C. L. I-40

S58°31'29"E
S58°31'29"E
S55°30'43"E

135 140 145 150

E-5

TEMPORARY EROSION CONTROL DETAILS

USER: fs5l3
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC06.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1i100

G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC06.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.	BB0401		20	234

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
3-31-18
HUBERT BURNS

I-40 LT. LANE
PI = 161+89.10
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+25.10
PT = 182+10.43

C.L. I-40
PI = 161+95.91
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+31.91
PT = 182+17.24

I-40 RT. LANE
PI = 161+80.25
Δ = 74°47'34" LT.
D = 01°21'30"
T = 3224.56'
L = 5506.22'
PC = 129+55.69
PT = 184+61.91

50 25 0 25 50 100

N

150 155 160 165

C. L. L. M. L.

C. L. I-40

C. L. R. M. L.

E-7

BECKAERT RD.

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE
E-5 = SAND BAG DITCH CHECKS

150 155 160 165 170 175 180

N49°41'43"E

E-5

I-40 LT. LANE
PI = 161+89.10
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+25.10
PT = 182+10.43

C.L. I-40
PI = 161+95.91
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+31.91
PT = 182+17.24

I-40 RT. LANE
PI = 161+80.25
Δ = 74°47'34" LT.
D = 01°21'30"
T = 3224.56'
L = 5506.22'
PC = 129+55.69
PT = 184+61.91

TEMPORARY EROSION CONTROL DETAILS

USER: fe513
DESIGN FILE: G:\17II210I_BB0401\TRANSP\dgn\erosion\rBB0401EC07.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17II210I_BB0401\TRANSP\dgn\erosion\rBB0401EC07.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	21	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

I-40 LT. LANE
PI = 161+89.10
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+25.10
PT = 182+10.43

C.L. I-40
PI = 161+95.91
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+31.91
PT = 182+17.24

I-40 RT. LANE
PI = 161+80.25
Δ = 74°47'34" LT.
D = 01°21'30"
T = 3224.56'
L = 5506.22'
PC = 129+55.69
PT = 184+61.91

P.T. 182+10.43 BACK = STA. 182+76.58 AHD.

P.T. 182+17.24

STA. 185+00 BACK = STA. 185+14.04 AHD

P.T. 184+61.91 BACK = STA. 184+47.67 AHD.

BR. END STA. 187+05.00

BR. END 187+99.00

BR. NO. A3272

BR. END STA. 191+67.50

BR. END 192+61.50

BR. NO. B3272

LEE CREEK

C. L. I-40

C. L. L. M. L.

C. L. R. M. L.

C. L. I-40

N49°41'43"E

S79°02'44"E

P.C. 195+61.63

P.C. 195+32.01

P.I. 194+26.69

P.C. 194+26.69

P.I. 205+79.50

180 185 190 195 200 205 210

E-7 = DROP INLET SILT FENCE

E-5 = SAND BAG DITCH CHECKS

REVISIONS

DATE OF REVISION	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

I-40 LT. LANE
PI = 206+61.15
Δ = 51°15'33" RT.
D = 02°30'00"
T = 1099.52'
L = 2050.37'
PC = 195+61.63
PT = 216+12.00

C.L. I-40
PI = 206+21.82
Δ = 51°15'33" RT.
D = 02°18'00"
T = 1195.13'
L = 2228.66'
PC = 194+26.69
PT = 216+55.35

I-40 RT. LANE
PI = 205+82.50
Δ = 51°15'33" RT.
D = 02°37'00"
T = 1050.49'
L = 1958.95'
PC = 195+29.00
PT = 214+87.95

TEMPORARY EROSION CONTROL DETAILS

USER: f6513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC08.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC08.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	22	234

(2) TEMPORARY EROSION CONTROL DETAILS

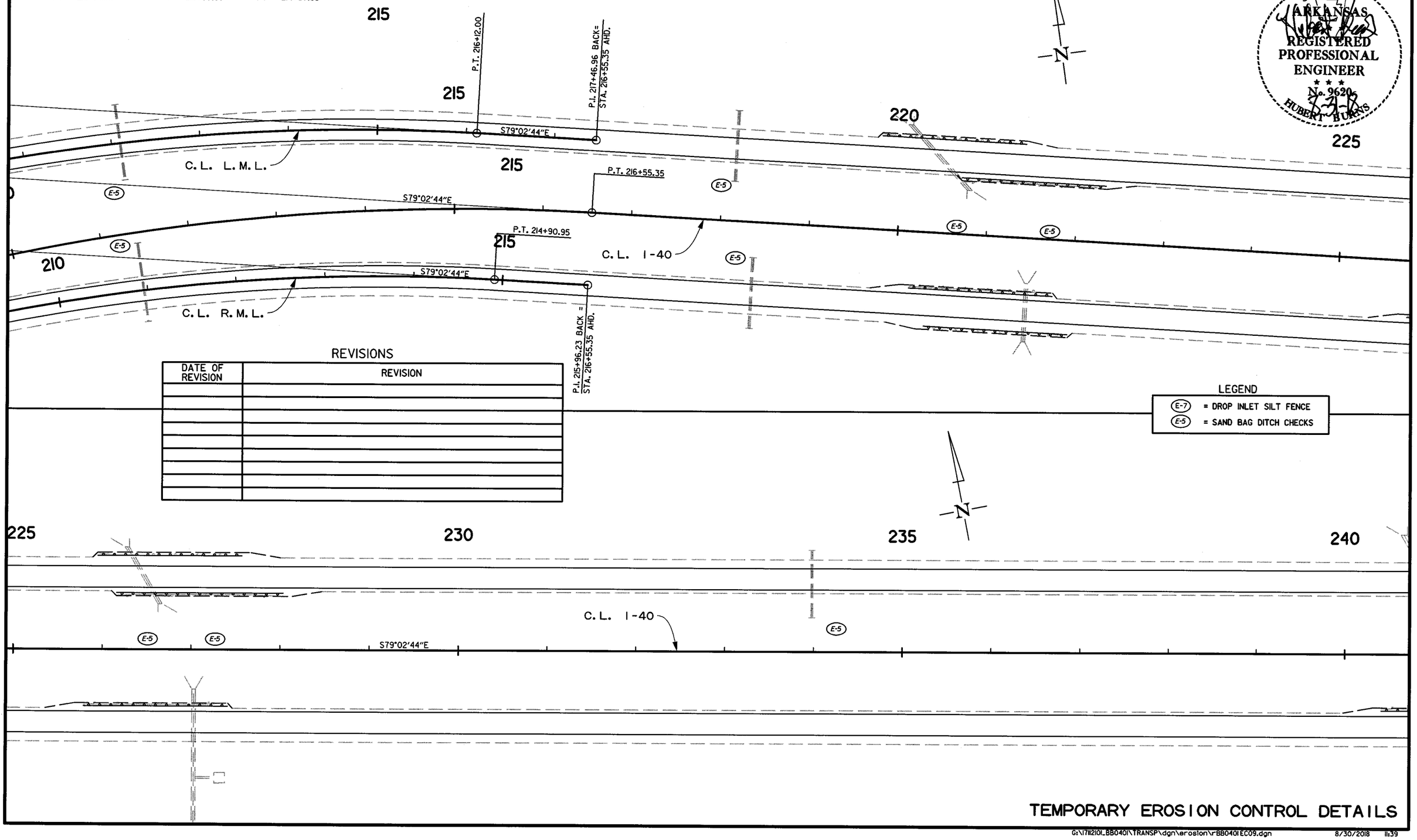
I-40 LT. LANE
PI = 206+61.15
Δ = 51°15'33" RT.
D = 02°30'00"
T = 1099.52'
L = 2050.37'
PC = 195+61.63
PT = 216+12.00

C.L. I-40
PI = 206+21.82
Δ = 51°15'33" RT.
D = 02°18'00"
T = 1195.13'
L = 2228.66'
PC = 194+26.69
PT = 216+55.35

I-40 RT. LANE
PI = 205+82.50
Δ = 51°15'33" RT.
D = 02°37'00"
T = 1050.49'
L = 1958.95'
PC = 195+29.00
PT = 214+87.95

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
8-31-18



REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-7) = DROP INLET SILT FENCE
(E-5) = SAND BAG DITCH CHECKS

TEMPORARY EROSION CONTROL DETAILS

USER: fe513
DESIGN FILE: G:\1711210I_BB040I\TRANSP\dgn\erosion\rBB040IEC09.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\1711210I_BB040I\TRANSP\dgn\erosion\rBB040IEC09.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	23	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

240 245 250 255

C. L. I-40

S79°02'44"E

E-5 E-5 E-5 E-5

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE
E-5 = SAND BAG DITCH CHECKS

255 260 265 270

C. L. I-40

S79°02'44"E

E-5 E-5 E-5 E-5

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC10.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	24	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
7-31-18

N

RAMP 4

270

275

BR. END STA. 277+61.00

HWY. 59

BR. END STA. 279+83.18

280

RAMP 3

285

BR. NO. A3273

C. L. I-40

S79°02'44"E

E-7

E-5

P.C. 282+66.53

STA. 275+00.00 BACK =
STA. 275+06.66 AHD.

BR. NO. B3273

BR. END STA. 277+84.50

BR. END STA. 280+06.69

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE

E-5 = SAND BAG DITCH CHECKS

C.L. I-40
PI = 288+30.59
Δ = 02°49'11" LT.
D = 00°15'00"
T = 564.06'
L = 1127.89'
PC = 282+66.53
PT = 293+94.42

RAMP 1

RAMP 3

285

290

295

300

N

P.T. 293+94.42

C. L. I-40

E-5

E-5

E-5

S79°02'44"E

S81°51'55"E

S81°51'55"E

P.I. 288+30.59

RAMP 2

TEMPORARY EROSION CONTROL DETAILS

USER: fes13
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\erosion\rBB0401EC11.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17II2101_BB0401\TRANSP\dgn\erosion\rBB0401EC11.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	25	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

N

STATE OF ARKANSAS
Hubert Burks
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURKS

300 305 C.L. I-40 310 315

S81°51'55"E

E-5 E-5

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE
E-5 = SAND BAG DITCH CHECKS

315 320 N. 16TH ST. 325 330

N

C.L. I-40

E-7

S81°51'55"E

TEMPORARY EROSION CONTROL DETAILS

USER: fe513
DESIGN FILE: G:\17il2101_BB0401\TRANSP\dgn\erosion\rBB0401EC12.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17il2101_BB0401\TRANSP\dgn\erosion\rBB0401EC12.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	26	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

N

I-40 LT. LANE
PI = 344+43.05
Δ = 21°05'49" RT.
D = 01°00'00"
T = 1066.93'
L = 2109.69'
PC = 333+76.12
PT = 354+85.81

C.L. I-40
PI = 345+38.90
Δ = 21°05'49" RT.
D = 01°00'00"
T = 1066.93'
L = 2109.69'
PC = 334+71.97
PT = 355+81.66

I-40 RT. LANE
PI = 346+34.77
Δ = 21°05'49" RT.
D = 01°00'00"
T = 1066.93'
L = 2109.69'
PC = 335+67.84
PT = 356+77.53

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURKS

335 340 340 340 345 345

P.C. 333+76.12
P.C. 334+71.97
P.C. 335+67.84
S81°51'55"E
S81°51'55"E
S81°51'55"E
C. L. I-40
C. L. L. M. L.
C. L. R. M. L.

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-7) = DROP INLET SILT FENCE

355 355 355 360

P.T. 354+85.83
STA. 356+04.77 BACK =
STA. 355+81.68 AHD.
P.I. 355+81.66
S60°46'06"E
P.T. 356+77.54 BACK =
STA. 357+00.62 AHD.

S60°46'06"E
P.I. 345+38.90
S60°46'06"E
S60°46'06"E
P.I. 346+34.77

350 350 345

C. L. L. M. L.
C. L. R. M. L.
C. L. I-40
(E-7)
(E-7)

I-40 LT. LANE
PI = 344+43.05
Δ = 21°05'49" RT.
D = 01°00'00"
T = 1066.93'
L = 2109.69'
PC = 333+76.12
PT = 354+85.81

C.L. I-40
PI = 345+38.90
Δ = 21°05'49" RT.
D = 01°00'00"
T = 1066.93'
L = 2109.69'
PC = 334+71.97
PT = 355+81.66

I-40 RT. LANE
PI = 346+34.77
Δ = 21°05'49" RT.
D = 01°00'00"
T = 1066.93'
L = 2109.69'
PC = 335+67.84
PT = 356+77.53

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC13.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC13.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	27	234

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
N. 9620
8-31-18
HUBERT BURKS

50 25 0 25 50 100

365

370

375

380

385

N. RUDY RD.

N. 28TH ST.

BR. END STA. 368+51.73

BR. END STA. 371+47.93

C. L. I-40

BR. NO. A3451

BR. NO. B3451

S60°46'06"E

E-7

STA. 364+00.00 BACK =
STA. 363+79.30 AHD.

BR. END STA. 368+61.43

BR. END STA. 371+57.63

P.C. 379+59.03

C.L. I-40
PI = 387+80.81
Δ = 37°29'59" LT.
D = 02°22'00"
T = 821.79'
L = 1584.50'
PC = 379+59.02
PT = 395+43.52

P.I. 720+12.35

P.I. 720+25.58

I-40

P.I. 718+73.73

N81°43'55"E
P.I. 387+80.81

S60°46'06"E

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-7) = DROP INLET SILT FENCE

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC14.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE
E-11 = SILT FENCE

C.L. I-40
PI = 387+80.81
Δ = 37°29'59" LT.
D = 02°22'00"
T = 821.79'
L = 1584.50'
PC = 379+59.02
PT = 395+43.52

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	28	234

TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
8-31-18

730
BR. NO. 03455
BR. END STA. 729+22.00
BR. END STA. 730+83.14
730
BR. END STA. 728+06.29
BR. NO. 03456
BR. END STA. 729+52.43
FLAT ROCK CREEK
N
725
725
L. M. L. I-540
R. M. L. I-540
385
P.I. 722+09.58
390
BR. END STA. 721+43.19
BR. END STA. 721+28.42
STA. 389+83.5 ℄ MEDIAN = STA. 720+24.66 FT. SMITH SPUR
395
400
BR. END STA. 397+54.00
FLAT ROCK CREEK
BR. END STA. 398+91.17
BR. NO. A3454
P.I. 720+25.58
P.I. 720+12.35
720
720
E-7
E-11
N81°43'55"E
BR. NO. B3454
S60°46'06"E
N81°43'55"E
P.I. 387+80.81
BR. END STA. 719+30.97
BR. NO. 03452
BR. NO. 03453
BR. END STA. 719+06.21
P.T. 395+43.52 BACK = STA. 395+43.50 AHD.
C. L. I-40
P.I. 718+73.73
BR. END STA. 397+54.00
BR. END STA. 398+91.17

USER: fs503
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC15.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

TEMPORARY EROSION CONTROL DETAILS
G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC15.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	29	234

(2) TEMPORARY EROSION CONTROL DETAILS

C.L. I-40
PI = 387+80.81
Δ = 37°29'59" LT.
D = 02°22'00"
T = 821.79'
L = 1584.50'
PC = 379+59.02
PT = 395+43.52

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

395 400 405

BR. END STA. 397+54.00
BR. END STA. 398+91.17
FLAT ROCK CREEK
RAMP 2
RAMP 1
C. L. I-40
BR. NO. A3454
BR. NO. B3454
E-7
E-11
N81°43'55"E
P.T. 395+43.52 BACK = STA. 395+43.50 AHD.

REVISIONS

DATE OF REVISION	REVISION

410 415 420

HWY. 282

LEGEND
E-7 = DROP INLET SILT FENCE
E-11 = SILT FENCE

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC16.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC16.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	30	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

N

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
7-31-18

425 430 435

C.L. I-40

E-7

N81°43'55"E

E-7

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE

C.L. I-40
PI = 455+63.62
Δ = 15°11'01" LT.
D = 00°30'00"
T = 1527.31'
L = 3036.72'
PC = 440+36.31
PT = 470+73.03

440 445 450

P.C. 440+36.31

N81°43'55"E

E-7

C.L. I-40

E-7

N81°43'55"E

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\17\12101_BB0401\TRANSP\dgn\erosion\rBB0401EC17.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-7) = DROP INLET SILT FENCE

C.L. I-40
PI = 455+63.62
Δ = 15°11'01" LT.
D = 00°30'00"
T = 1527.31'
L = 3036.72'
PC = 440+36.31
PT = 470+73.03

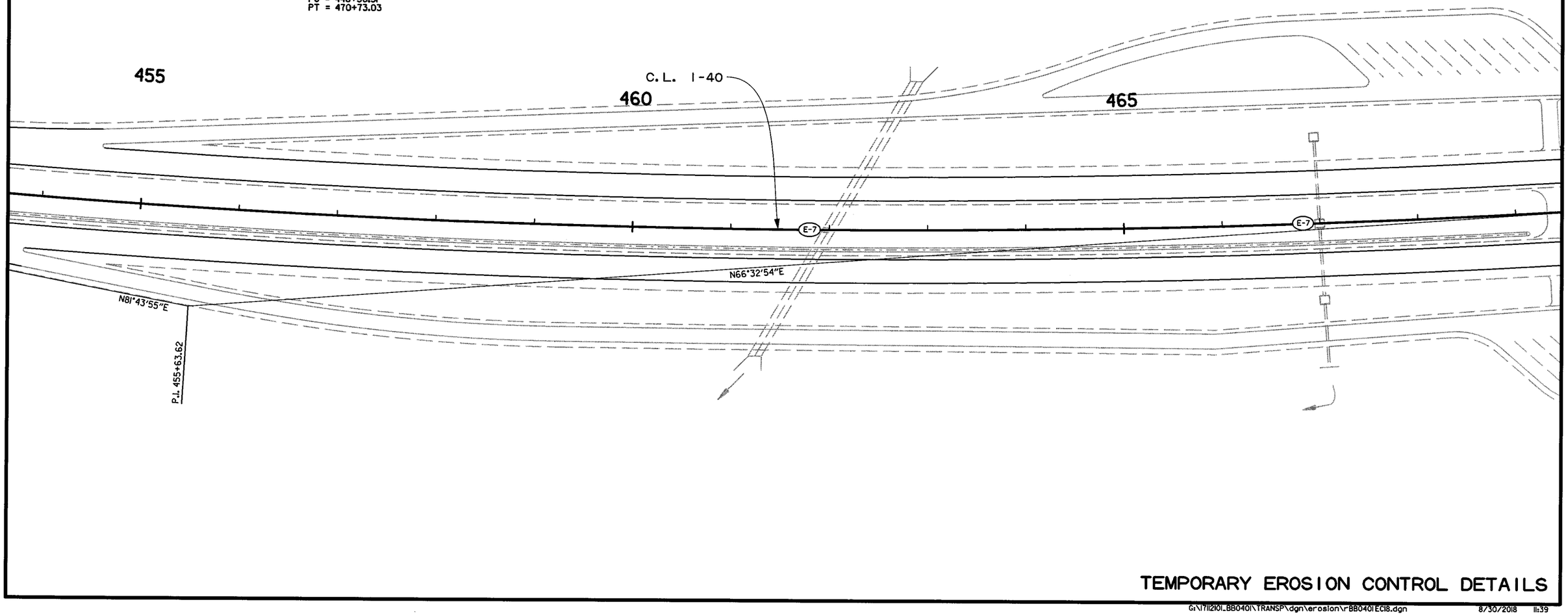
50 25 0 25 50 100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	31	234

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURKS



TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC18.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	32	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

N

STATE OF ARKANSAS
HUBERT BURGS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18

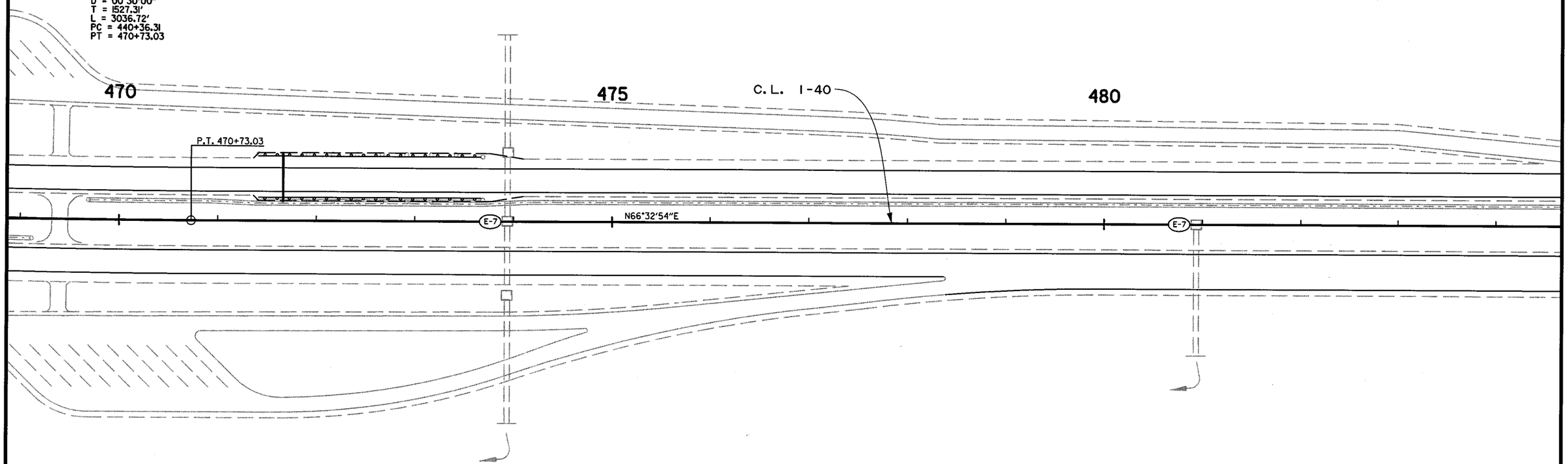
REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-7) = DROP INLET SILT FENCE

C.L. I-40
PI = 455+63.62
Δ = 15°11'01" LT.
D = 00°30'00"
T = 1527.31'
L = 3036.72'
PC = 440+36.31
PT = 470+73.03



TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\erosion\rBB0401EC19.dgn
PLOTTED: 8/30/2018 11:39 SCALE: 1:100

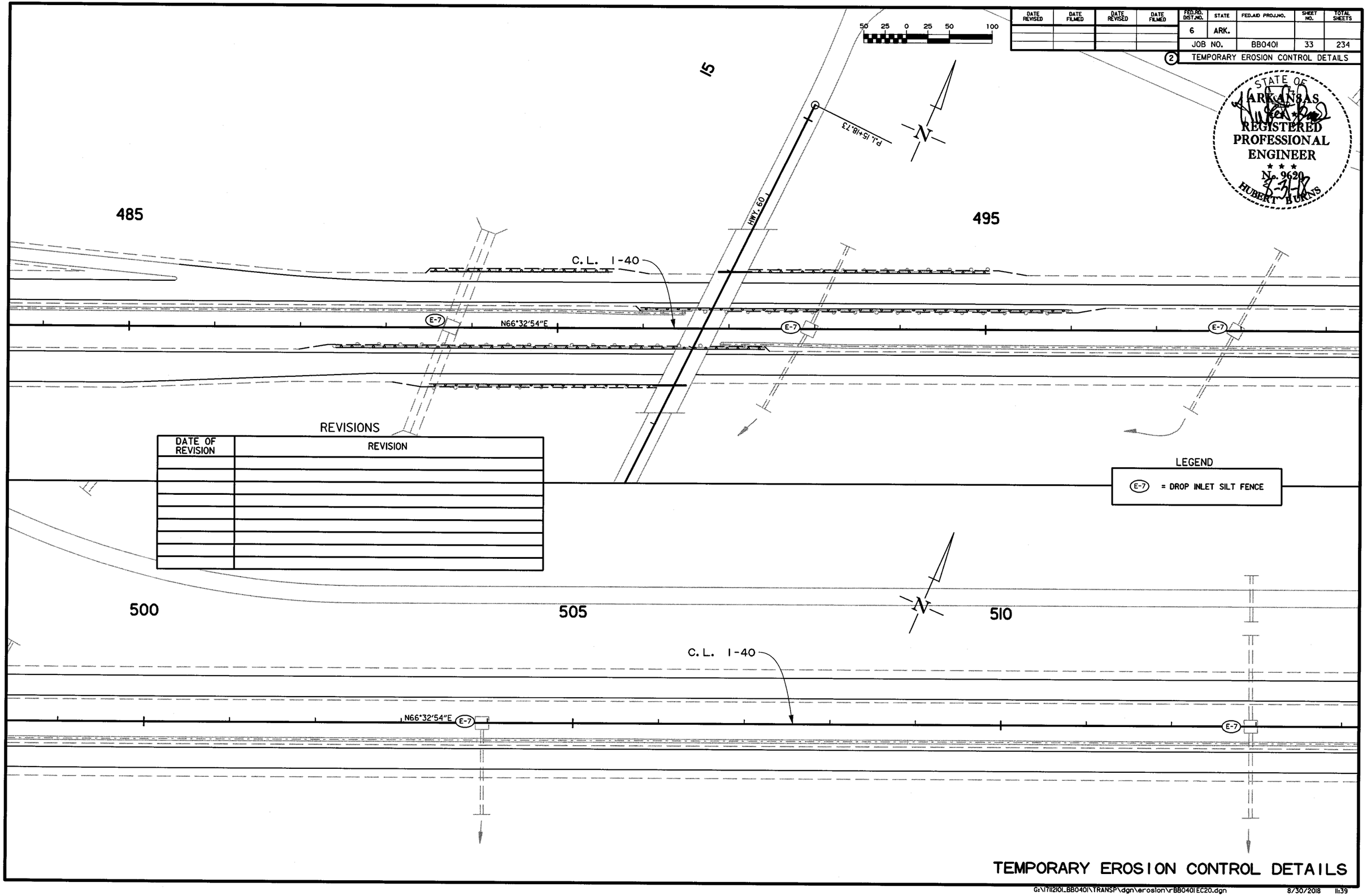
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	33	234

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

50 25 0 25 50 100



REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE

TEMPORARY EROSION CONTROL DETAILS

USER: fe513
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\erosion\rBB0401EC20.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17II2101_BB0401\TRANSP\dgn\erosion\rBB0401EC20.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB040I	34	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

N

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
★ ★ ★
No. 9620
8-31-18
HUBERT BURKS

515 520 525

C. L. I-40

N66°32'54"E

E-7

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE

530 535 540

C. L. I-40

N66°32'54"E

E-7

TEMPORARY EROSION CONTROL DETAILS

USER: fa513
DESIGN FILE: G:\17I210I_BB040I\TRANSP\dgn\erosion\rBB040IEC2I.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1in00

G:\17I210I_BB040I\TRANSP\dgn\erosion\rBB040IEC2I.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB040I	35	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS

545 550 555

C. L. I-40

N66°32'54"E

E-7

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE

560 565 570

C. L. I-40

N66°32'54"E

E-7

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\17II2I0I_BB040I\TRANSP\dgn\erosion\rBB040IEC22.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17II2I0I_BB040I\TRANSP\dgn\erosion\rBB040IEC22.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	36	234

(2) TEMPORARY EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-7) = DROP INLET SILT FENCE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

50 25 0 25 50 100

N

15

LOST BEACH CROSSING

10

575 580 585 585 585

C. L. I-40

C. L. L. M. L.

C. L. R. M. L.

P.I. 581+85.35

P.I. 585+80.34

P.I. 582+93.84

P.T. 584+93.85

P.C. 580+93.79

P.I. 702.23

N66°32'54"E

N51°32'54"E

N68°32'55"E

E-7

I-40 LT. LANE
PI = 585+80.34
Δ = 15°00'00" LT.
D = 01°54'35"
T = 394.99'
L = 785.45
PC = 581+85.35
PT = 589+70.80

I-40 RT. LANE
PI = 582+93.84
Δ = 2°00'01" RT.
D = 00°30'00"
T = 200.05'
L = 400.06'
PC = 580+93.79
PT = 584+93.85

TEMPORARY EROSION CONTROL DETAILS

USER: fe513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC23.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	37	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-5) = SAND BAG DITCH CHECKS

I-40 LT. LANE
PI = 606+61.69
Δ = 16°47'00" RT.
D = 00°45'00"
T = 1126.96'
L = 2237.78'
PC = 595+34.73
PT = 617+72.51

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

I-40 LT. LANE
PI = 585+80.34
Δ = 15°00'00" LT.
D = 01°54'35"
T = 394.99'
L = 785.45
PC = 581+85.35
PT = 589+70.80

48" PIPE CULV'T.
RETAIN

600
595
590
P.C. 595+34.73
C. L. L. M. L.
E-5
P.T. 589+70.80
N51°32'54"E

600
595
590
C.L. I-40
PI = 604+05.77
Δ = 13°13'00" LT.
D = 00°30'00"
T = 1327.56'
L = 2643.33'
PC = 590+78.21
PT = 617+21.54

590
595
600
C. L. I-40
P.C. 590+78.21
N66°32'54"E
N66°32'54"E

C. L. R. M. L.
P.C. 598+40.95
N68°32'55"E
N68°32'55"E

I-40 RT. LANE
PI = 604+19.21
Δ = 17°13'01" LT.
D = 01°30'00"
T = 578.26'
L = 1147.80'
PC = 598+40.95
PT = 609+88.75

TEMPORARY EROSION CONTROL DETAILS

USER: fe513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC24.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC24.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	38	234

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
7-31-18
HUBERT BURNS

I-40 LT. LANE
PI = 606+61.69
Δ = 16°47'00" RT.
D = 00°45'00"
T = 1126.96'
L = 2237.78'
PC = 595+34.73
PT = 617+72.51

50 25 0 25 50 100

N

605 610 615

P.I. 606+61.69

N51°32'54"E

N68°19'54"E

C. L. L. M. L.

P.T. 617+72.51

N68°19'54"E

E-5

615

P.T. 617+21.54

610

605

C.L. I-40
PI = 604+05.77
Δ = 13°13'00" LT.
D = 00°30'00"
T = 1327.56'
L = 2643.33'
PC = 590+78.21
PT = 617+21.54

C. L. I-40

C. L. R. M. L.

N51°19'54"E

610

P.T. 609+88.75

605

E-5

N53°19'54"E

N66°32'54"E

P.I. 604+05.77

I-40 RT. LANE
PI = 604+19.21
Δ = 17°13'01" LT.
D = 01°30'00"
T = 578.26'
L = 1147.80'
PC = 598+40.95
PT = 609+88.75

N53°19'54"E

N68°32'55"E

P.I. 604+19.21

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-5) = SAND BAG DITCH CHECKS

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC25.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1"=100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	39	234

(2) TEMPORARY EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION

50 25 0 25 50 100

LEGEND

(E-7) = DROP INLET SILT FENCE
(E-11) = SILT FENCE
(E-5) = SAND BAG DITCH CHECKS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURKS

620

P.C. 621+36.83

N68°19'54"E

C. L. L. M. L.

620

620

E-5

E-5

625

I-40 LT. LANE
PI = 625+13.98
Δ = 15°00'00" LT.
D = 02°00'00
T = 377.16'
L = 750.00'
PC = 621+36.82
PT = 628+86.82

C. L. I-40

P.T. 628+86.83 BACK = STA. 628+93.83 AHD.

BR. END STA. 631+99.73

635

P.C. 623+26.31

N68°19'54"E

P.I. 625+13.98

N53°19'54"E

BR. NO. A3802

STA. 629+00.00 BACK = STA. 629+71.12 AHD.

E-7

E-11

N53°19'54"E

P.I. 625+26.54

625

N51°19'54"E

N53°19'54"E

625

P.T. 627+26.74 BACK = STA. 626+94.27 AHD.

BR. NO. B3802

E-7

C. L. R. M. L.

BR. END STA. 631+36.27

FROG BAYOU

I-40 RT. LANE
PI = 625+26.54
Δ = 02°00'00" RT.
D = 00°29'58
T = 200.24'
L = 400.44'
PC = 623+26.30
PT = 627+26.74

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\17il2101_BB0401\TRANSP\dgn\erosion\rBB0401EC26.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

REVISIONS

DATE OF REVISION	REVISION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	40	234

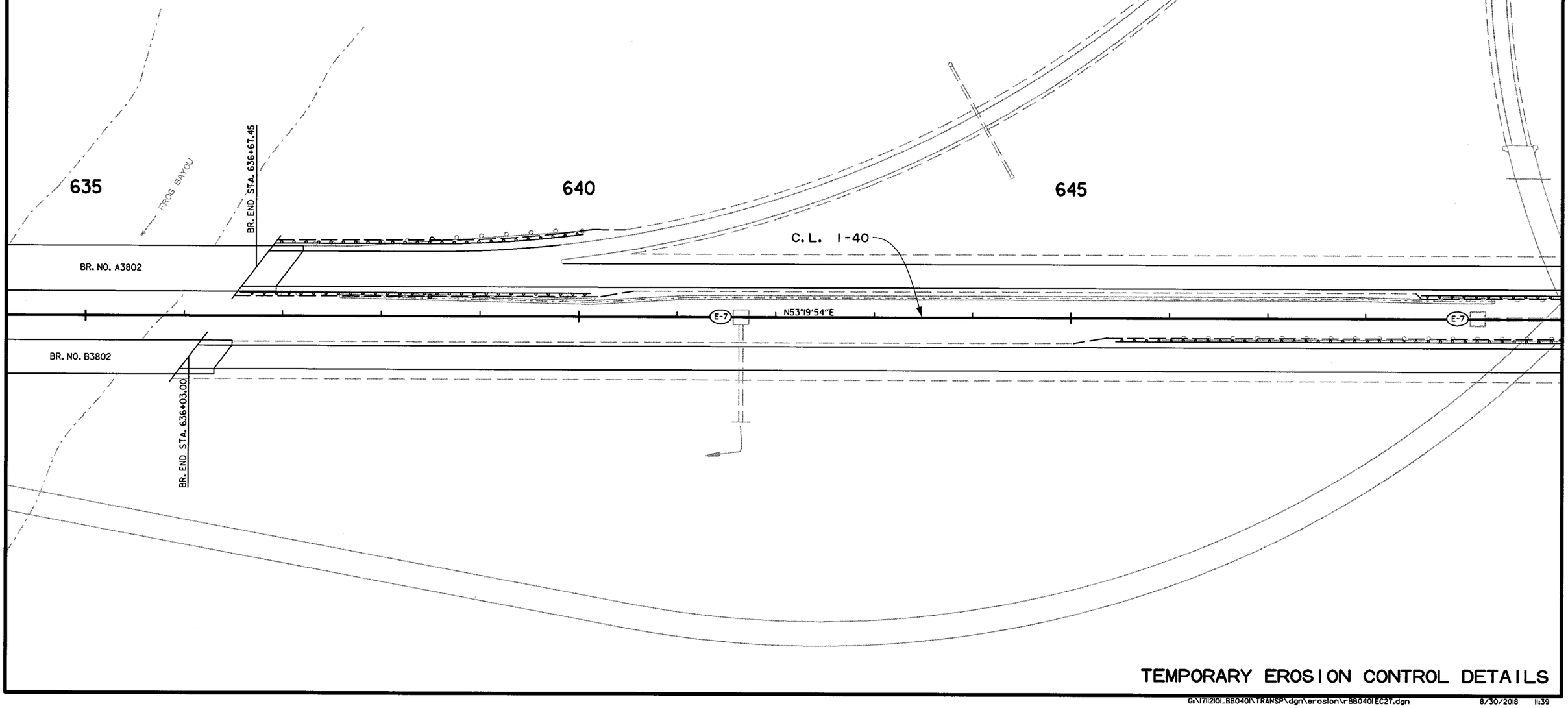
(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

LEGEND

(E-7) = DROP INLET SILT FENCE

50 25 0 25 50 100



TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\17il2101_BB0401\TRANSP\dgn\erosion\rBB0401EC27.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	41	234
				(2)	TEMPORARY EROSION CONTROL DETAILS			

50 25 0 25 50 100

TO I-49

650

655

660

C. L. I-40

N53°19'54"E

E-7

E-7

REVISIONS

DATE OF REVISION	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

LEGEND

(E-7) = DROP INLET SILT FENCE

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\erosion\rBB0401EC28.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17II2101_BB0401\TRANSP\dgn\erosion\rBB0401EC28.dgn 8/30/2018 11:39

REVISIONS

DATE OF REVISION	REVISION

LEGEND

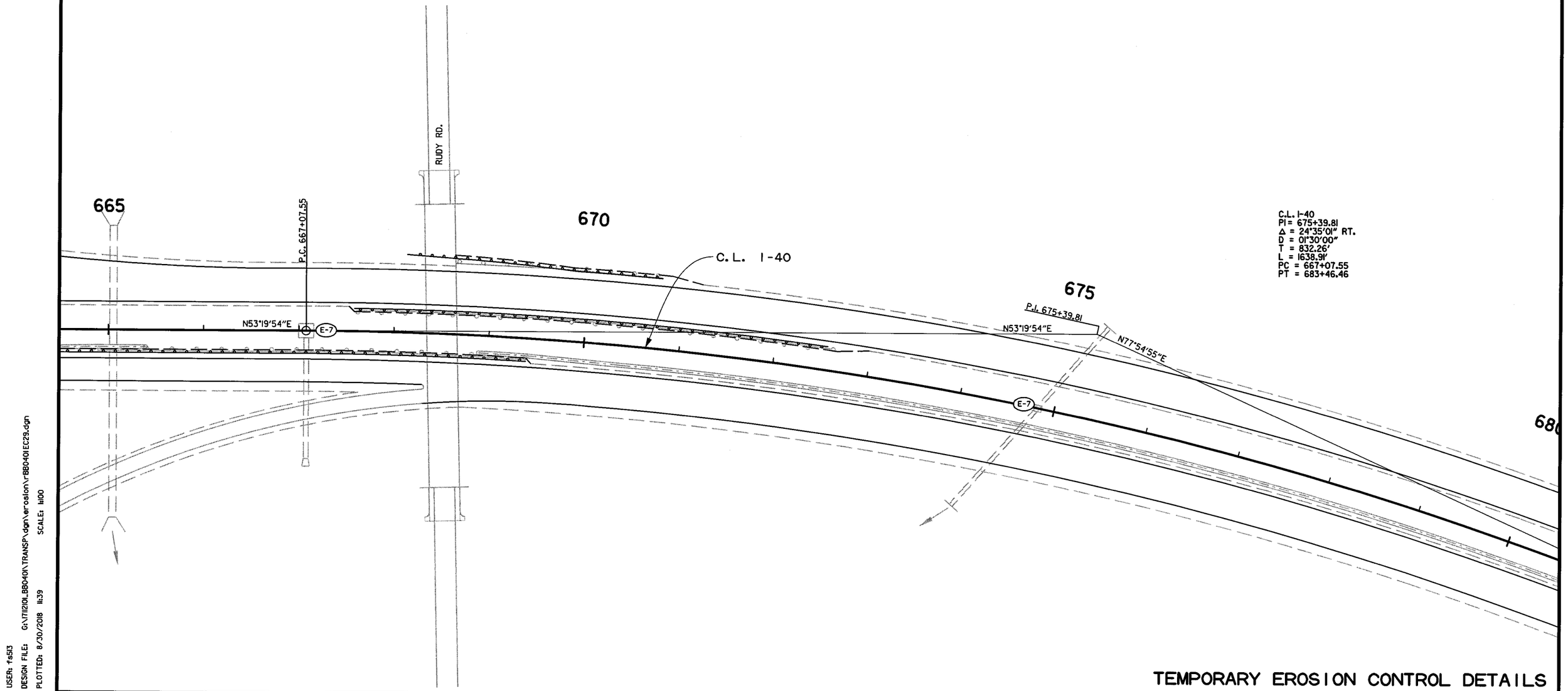
(E-7) = DROP INLET SILT FENCE

50 25 0 25 50 100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	42	234

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9629
8-31-18
HUBERT BURNS



TEMPORARY EROSION CONTROL DETAILS

USER: fe513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC29.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC29.dgn 8/30/2018 11:39

REVISIONS

DATE OF REVISION	REVISION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB040I	43	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

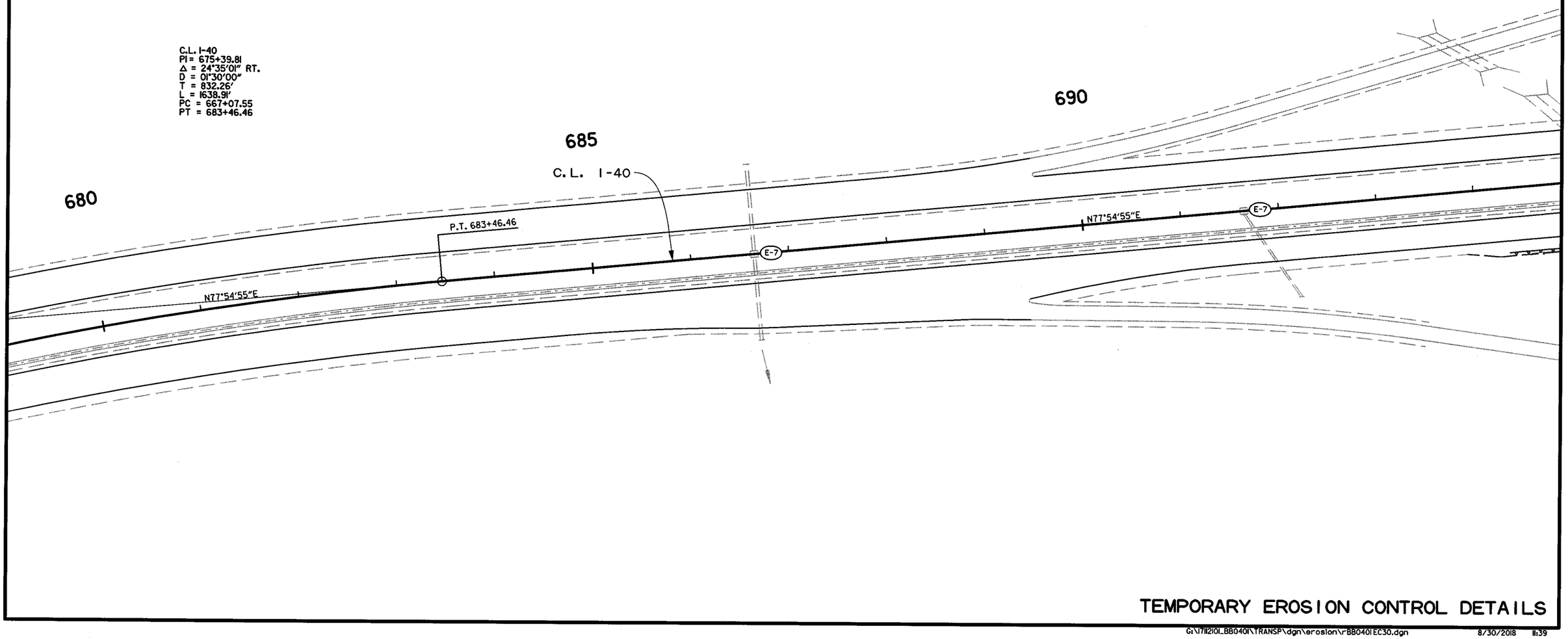
N

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

LEGEND

(E-7) = DROP INLET SILT FENCE

C.L. I-40
PI = 675+39.81
Δ = 24°35'01" RT.
D = 01°30'00"
T = 832.26'
L = 1638.91'
PC = 667+07.55
PT = 683+46.46



TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\17II2I0I_BB040I\TRANSP\dgn\erosion\rBB040IEC30.dgn
PLOTTED: 8/30/2018 II:39
SCALE: II00

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-7) = DROP INLET SILT FENCE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	44	234

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

50 25 0 25 50 100

N

695 700 705

C. L. I-40

HWY. 71

BR. END STA. 701+34.43

BR. END STA. 703+02.69

BR. END STA. 706+50.67

BR. END STA. 708+55.86

BR. NO. A3805

BR. NO. A3806

BR. NO. B3805

BR. NO. B3806

N77°54'55"E

E-7

E-7

STA. 697+00.00 / BACK =
STA. 696+35.00 AHD.

BR. END STA. 701+11.69

BR. END STA. 702+79.95

BR. END STA. 706+38.31

BR. END STA. 708+43.50

LITTLE FROG BAYOU

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\17I2101_BB0401\TRANSP\dgn\erosion\rBB0401EC3I.dgn
PLOTTED: 8/30/2018 11:39 SCALE: 1:100

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE

50 25 0 25 50 100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	45	234

2 TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

710 715 720

MOUNTAIN GROVE RD.

P.I. 13+10.49

P.I. 7+28.87

N77°54'55"E

N77°54'55"E

E-7 E-7 E-7

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\17112101_BB0401\TRANSP\dgn\erosion\rBB0401EC32.dgn
PLOTTED: 8/30/2018 11:39 SCALE: 1:100

G:\17112101_BB0401\TRANSP\dgn\erosion\rBB0401EC32.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

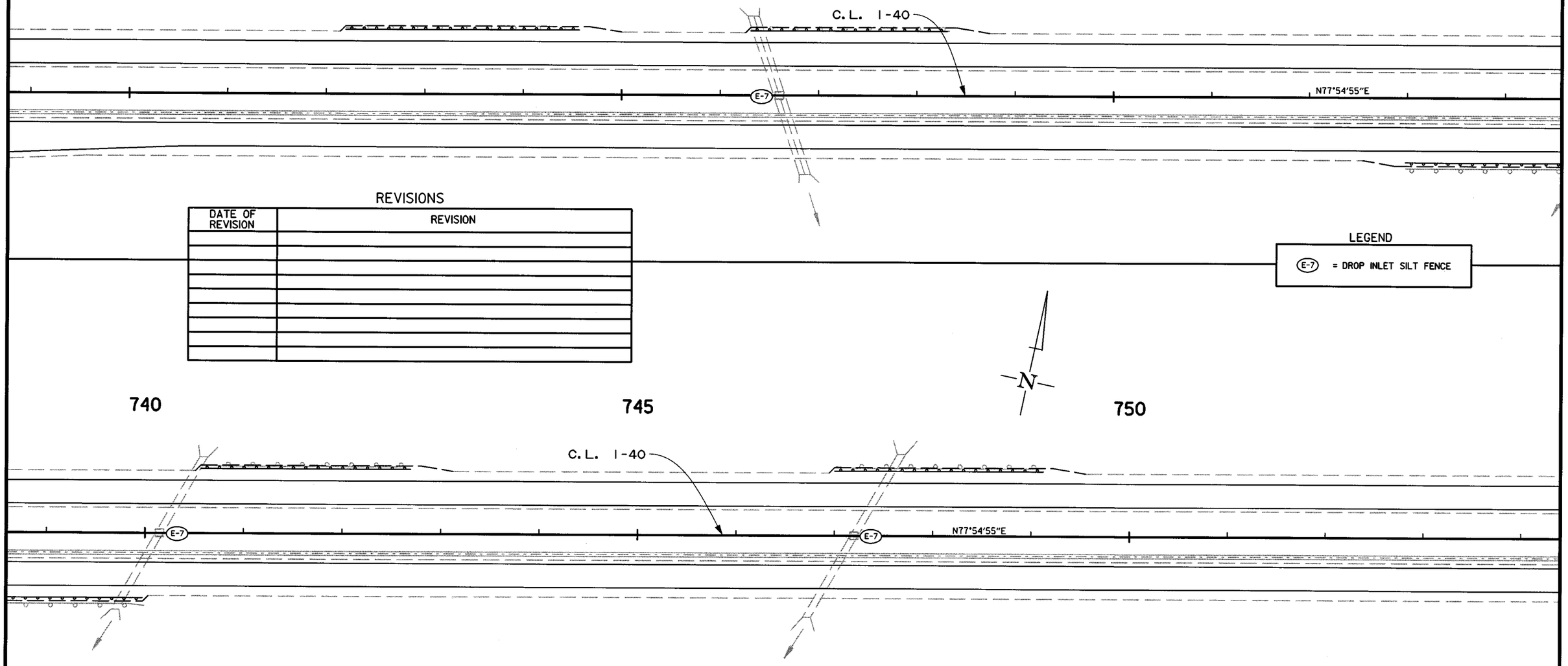
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB040I	46	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

725 730 735



REVISIONS

DATE OF REVISION	REVISION

USER: fs513
DESIGN FILE: G:\7112101_BB040I\TRANSP\dgn\erosion\rBB040IEC33.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	47	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
7-31-17

755 760 765

P.C. 758+17.77

C.L. I-40

N77°54'55"E

E-7

C.L. I-40
PI = 768+90.02
Δ = 21°11'59" RT.
D = 01°00'00"
T = 1072.25'
L = 2119.97'
PC = 758+17.77
PT = 779+37.74

P.I. 768+90.02

N77°54'55"E

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE

C.L. I-40
PI = 768+90.02
Δ = 21°11'59" RT.
D = 01°00'00"
T = 1072.25'
L = 2119.97'
PC = 758+17.77
PT = 779+37.74

770 775 780

S80°53'06"E

C.L. I-40

P.T. 779+37.74

S80°53'06"E

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\1711210I_BB040I\TRANSP\dgn\erosion\rBB040IEC34.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\1711210I_BB040I\TRANSP\dgn\erosion\rBB040IEC34.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	48	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

785 790 795

C. L. I-40

E-7

S80°53'06"E

E-7

REVISIONS

DATE OF REVISION	REVISION

LEGEND

(E-7) = DROP INLET SILT FENCE

800 805 810

C. L. I-40

P.C. 812+91.63

E-7

S80°53'06"E

E-7

TEMPORARY EROSION CONTROL DETAILS

USER: fs913
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC35.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\7112101_BB0401\TRANSP\dgn\erosion\rBB0401EC35.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	49	234
				(2)	TEMPORARY EROSION CONTROL DETAILS			

50 25 0 25 50 100

N

815 820 825

C. L. I-40

E-7

S80°53'06"E

C.L. I-40
PI = 830+73.45
Δ = 34°33'00" LT.
D = 01°00'00"
T = 1781.82'
L = 3455.00'
PC = 812+91.63
PT = 847+46.63

LEGEND

E-7 = DROP INLET SILT FENCE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

REVISIONS

DATE OF REVISION	REVISION

830 835 840

EDWARDS RD.

C. L. I-40

N64°33'54"E

C.L. I-40
PI = 830+73.45
Δ = 34°33'00" LT.
D = 01°00'00"
T = 1781.82'
L = 3455.00'
PC = 812+91.63
PT = 847+46.63

TEMPORARY EROSION CONTROL DETAILS

USER: fs513
DESIGN FILE: G:\171210I_BB0401\TRANSP\dgn\erosion\rBB0401EC36.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1in00

G:\171210I_BB0401\TRANSP\dgn\erosion\rBB0401EC36.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	50	234

(2) TEMPORARY EROSION CONTROL DETAILS

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

845 850 855

P.T. 847+46.63

C.L. I-40

N64°33'54"E

E-7

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE

860 865 870

P.C. 864+48.23

C.L. I-40
PI = 875+03.26
Δ = 20°52'01" RT.
D = 01°00'00"
T = 1055.03'
L = 2086.69'
PC = 864+48.23
PT = 885+34.92

TEMPORARY EROSION CONTROL DETAILS

USER: fe513
DESIGN FILE: G:\TII2101_BB0401\TRANSP\dgn\erosion\rBB0401EC37.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB040101	51	234

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

C.L. I-40
PI = 875+03.26
Δ = 20°52'01" RT.
D = 01°00'00"
T = 1055.03'
L = 2086.69'
PC = 864+48.23
PT = 885+34.92

50 25 0 25 50 100

875
P.I. 875+03.26
N64°33'54"E
N85°25'55"E
880
C.L. I-40
885
P.T. 885+34.92
N85°25'55"E
E-7

REVISIONS

DATE OF REVISION	REVISION

LEGEND

E-7 = DROP INLET SILT FENCE

890
895
900
C.L. I-40
E-7
N85°25'55"E
STA. 897+35.95
END MILL, INLAY, & OVERLAY
LOG MILE 17.00

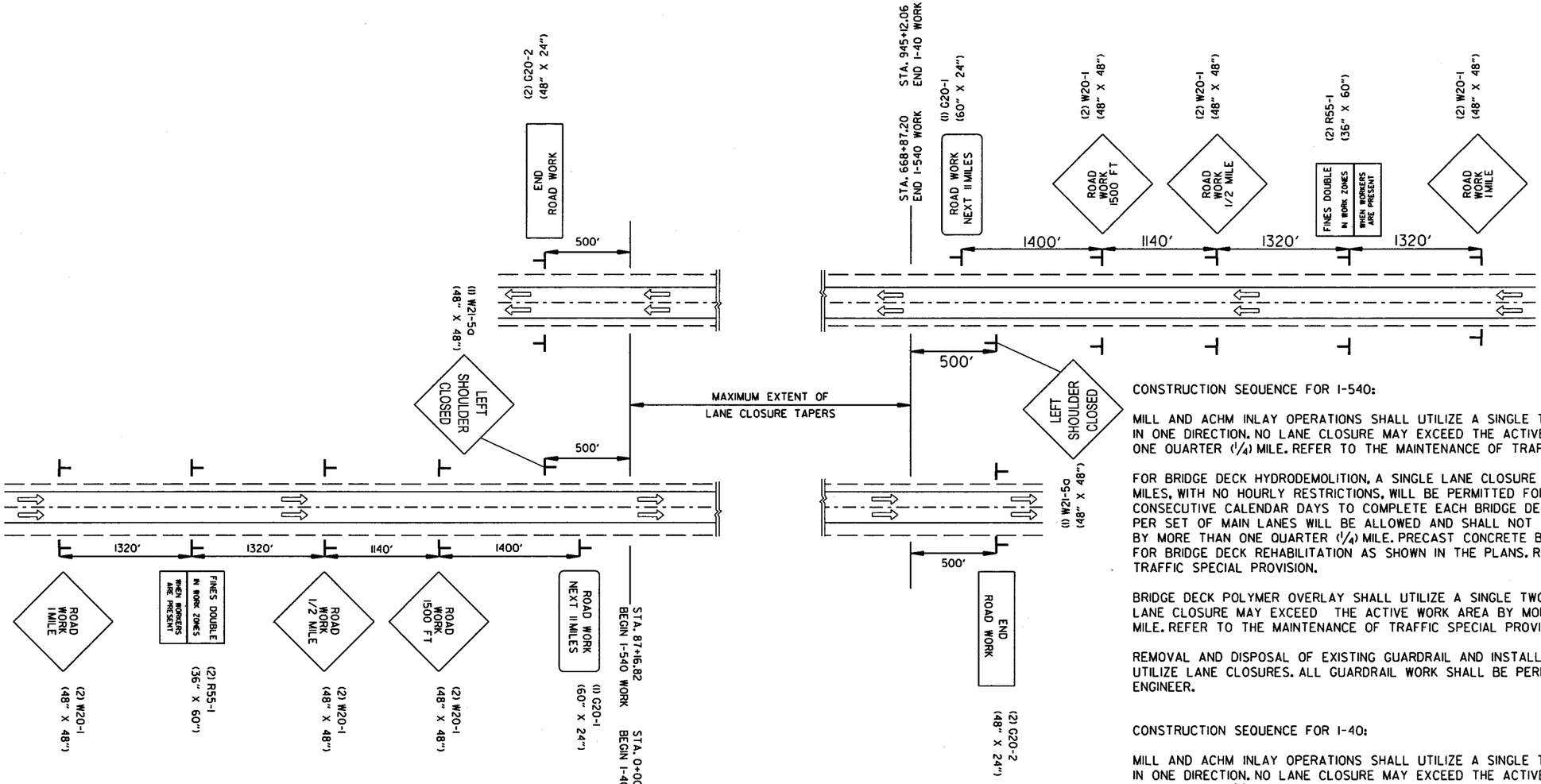
TEMPORARY EROSION CONTROL DETAILS

USER: fe513
DESIGN FILE: G:\17il2101_BB040I\TRANSP\dgn\erosion\rBB040IEC38.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1"=100'

G:\17il2101_BB040I\TRANSP\dgn\erosion\rBB040IEC38.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	52	234

(2) MAINTENANCE OF TRAFFIC DETAILS



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

CONSTRUCTION SEQUENCE FOR I-540:

MILL AND ACHM INLAY OPERATIONS SHALL UTILIZE A SINGLE TWO (2) MILE LANE CLOSURE IN ONE DIRECTION. NO LANE CLOSURE MAY EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

FOR BRIDGE DECK HYDRODEMOLITION, A SINGLE LANE CLOSURE OF NO MORE THAN TWO (2) MILES, WITH NO HOURLY RESTRICTIONS, WILL BE PERMITTED FOR A MAXIMUM OF EIGHTEEN (18) CONSECUTIVE CALENDAR DAYS TO COMPLETE EACH BRIDGE DECK. ONLY ONE LANE CLOSURE PER SET OF MAIN LANES WILL BE ALLOWED AND SHALL NOT EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. PRECAST CONCRETE BARRIER WALL WILL BE PROVIDED FOR BRIDGE DECK REHABILITATION AS SHOWN IN THE PLANS. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

BRIDGE DECK POLYMER OVERLAY SHALL UTILIZE A SINGLE TWO (2) MILE LANE CLOSURE. NO LANE CLOSURE MAY EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

REMOVAL AND DISPOSAL OF EXISTING GUARDRAIL AND INSTALLATION OF NEW GUARDRAIL SHALL UTILIZE LANE CLOSURES. ALL GUARDRAIL WORK SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.

CONSTRUCTION SEQUENCE FOR I-40:

MILL AND ACHM INLAY OPERATIONS SHALL UTILIZE A SINGLE TWO (2) MILE LANE CLOSURE IN ONE DIRECTION. NO LANE CLOSURE MAY EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

FOR BRIDGE DECK HYDRODEMOLITION, A SINGLE LANE CLOSURE OF NO MORE THAN TWO (2) MILES, WITH NO HOURLY RESTRICTIONS, WILL BE PERMITTED FOR A MAXIMUM OF EIGHTEEN (18) CONSECUTIVE CALENDAR DAYS TO COMPLETE EACH BRIDGE DECK. ONLY ONE LANE CLOSURE PER SET OF MAIN LANES WILL BE ALLOWED AND SHALL NOT EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. PRECAST CONCRETE BARRIER WALL WILL BE PROVIDED FOR BRIDGE DECK REHABILITATION AS SHOWN IN THE PLANS. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

BRIDGE DECK POLYMER OVERLAY SHALL UTILIZE A SINGLE TWO (2) MILE LANE CLOSURE. NO LANE CLOSURE MAY EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

REMOVAL AND DISPOSAL OF EXISTING GUARDRAIL AND INSTALLATION OF NEW GUARDRAIL SHALL UTILIZE LANE CLOSURES. ALL GUARDRAIL WORK SHALL BE PERFORMED AS DIRECTED BY THE ENGINEER.

REFER TO DETOUR MAP FOR STAGING OF HYDRODEMOLITION OF BRIDGES 03456 AND 03453.

ADVANCE SIGNS AT JOB ENDS
MAINTENANCE OF TRAFFIC DETAILS

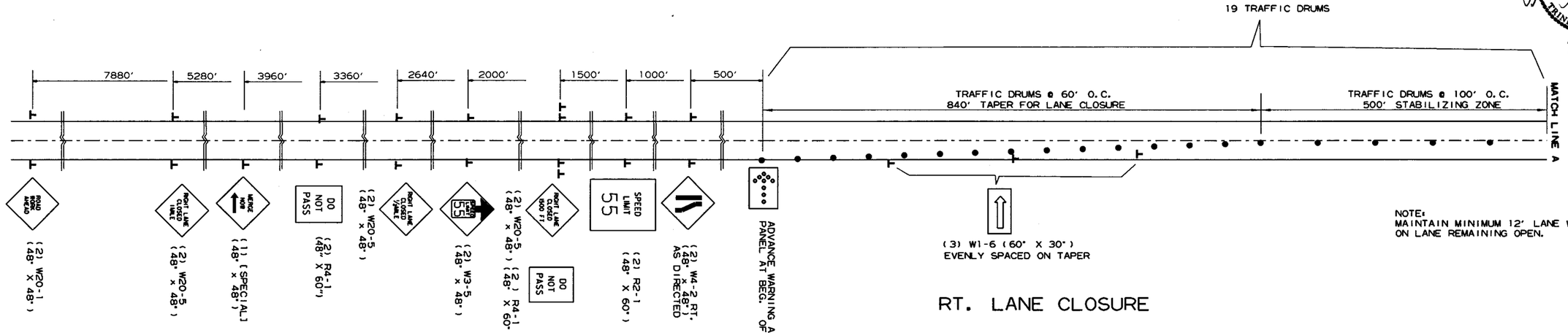
RBB0401 REVISED.DGN 9/13/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	53	234

(2) MAINTENANCE OF TRAFFIC DETAILS

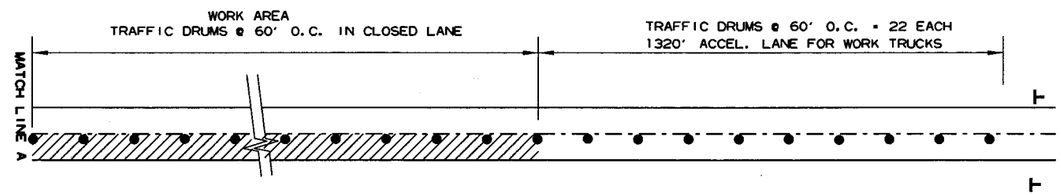
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

PORTABLE CHANGEABLE MESSAGE SIGN TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

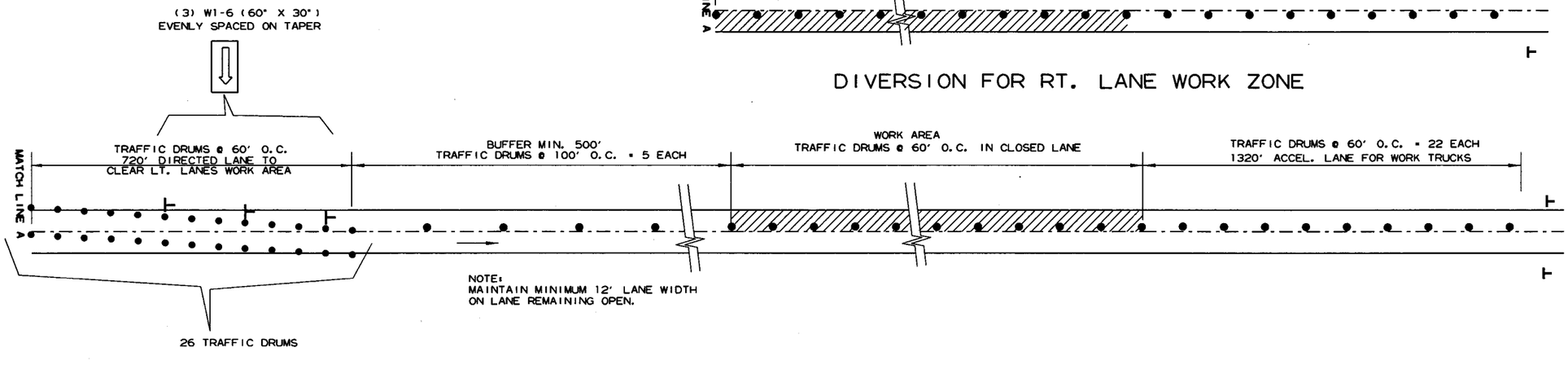


RT. LANE CLOSURE

SPEED LIMIT SIGNS ARE ALSO PROVIDED FOR PLACEMENT PAST ENTRANCE RAMPS WITHIN THE WORK ZONE.



DIVERSION FOR RT. LANE WORK ZONE



DIVERSION FOR LT. LANE WORK ZONE

RBB0401 REVISED.DGN 9/13/2018

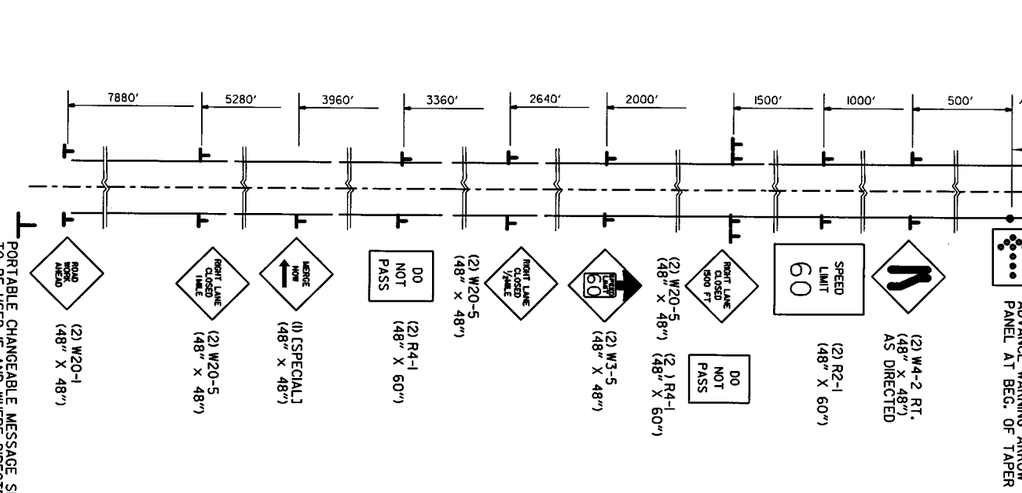
I-540 LANE CLOSURE
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	54	234

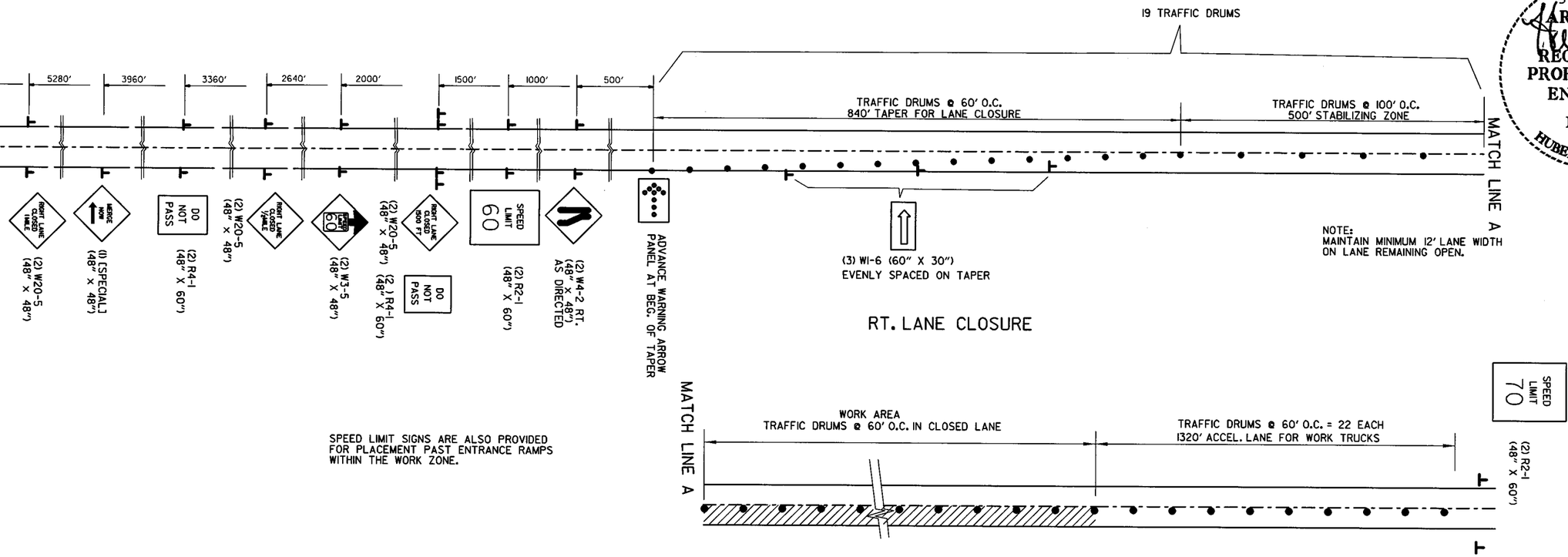
(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

PORTABLE CHANGEABLE MESSAGE SIGN TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

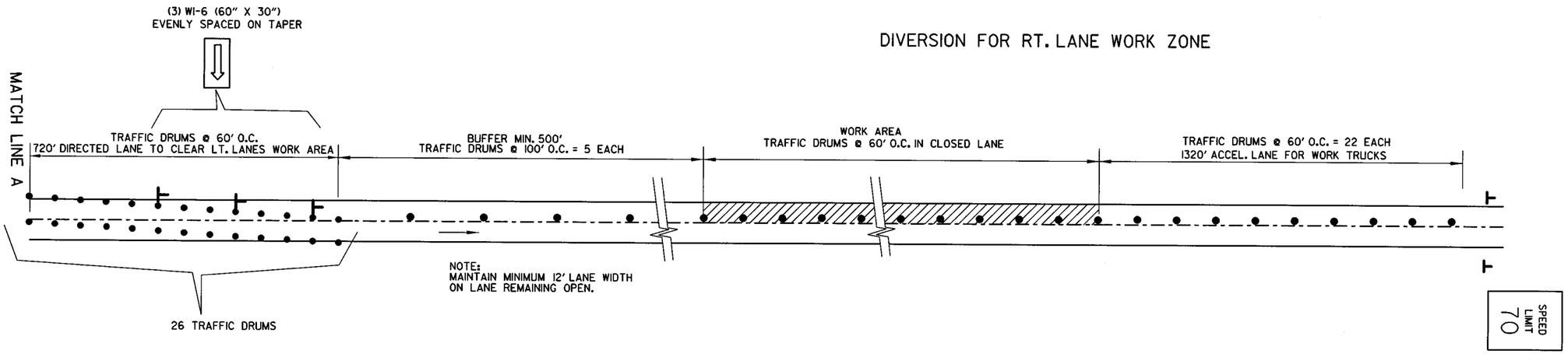


SPEED LIMIT SIGNS ARE ALSO PROVIDED FOR PLACEMENT PAST ENTRANCE RAMPS WITHIN THE WORK ZONE.



RT. LANE CLOSURE

DIVERSION FOR RT. LANE WORK ZONE



DIVERSION FOR LT. LANE WORK ZONE

I-40
WORK ZONE - LANE CLOSURE
MAINTENANCE OF TRAFFIC DETAILS

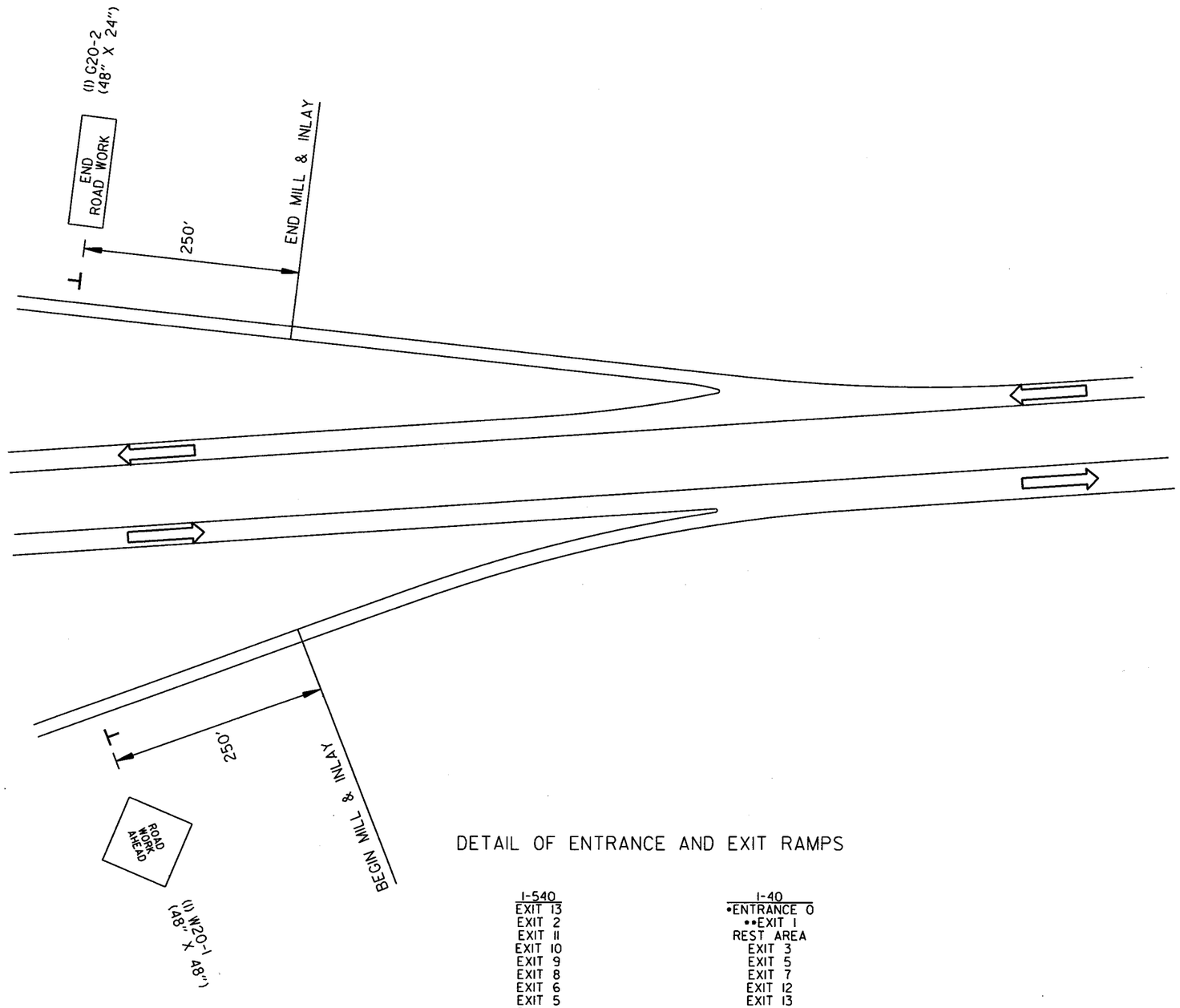
USER: fs513
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\maint_of_traffic\BB0401_MOT.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

ADVANCE WARNING SIGNS FOR ENTRANCE AND EXIT RAMPS
ROAD WORK AHEAD (20) = 320 SQ. FT.
END ROAD WORK (20) = 160 SQ. FT.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	55	234

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18



DETAIL OF ENTRANCE AND EXIT RAMPS

I-540
EXIT 13
EXIT 2
EXIT 11
EXIT 10
EXIT 9
EXIT 8
EXIT 6
EXIT 5
EXIT 3
EXIT 2B

I-40
•ENTRANCE 0
••EXIT 1
REST AREA
EXIT 3
EXIT 5
EXIT 7
EXIT 12
EXIT 13

•NOTE FOR ENTRANCE 0, THERE WILL BE NO END ROAD WORK SIGN.
••NOTE FOR EXIT 1, END ROAD WORK SIGN ONLY.

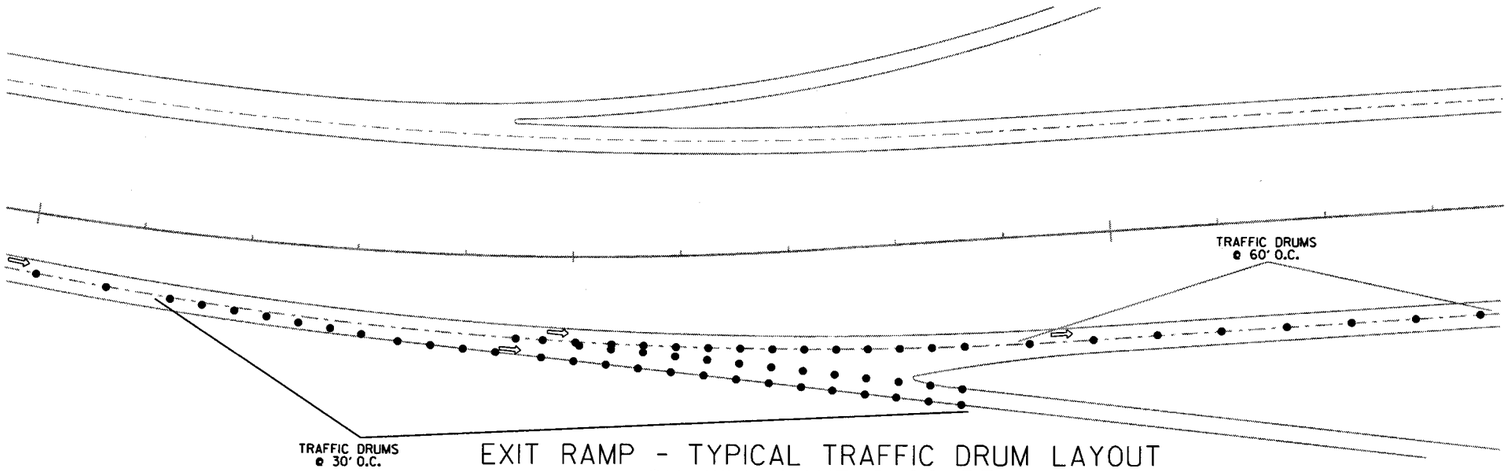
RBB0401 REVISED.DGN 9/13/2018

DETAIL OF RAMPS
MAINTENANCE OF TRAFFIC DETAILS

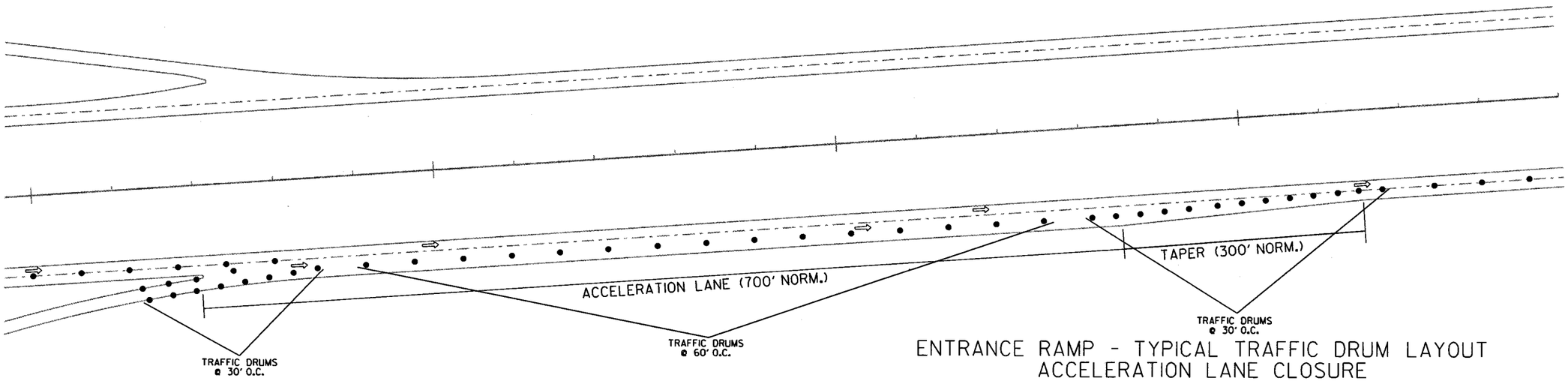
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	56	234

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18



EXIT RAMP - TYPICAL TRAFFIC DRUM LAYOUT
OUTSIDE LANE CLOSURE



ENTRANCE RAMP - TYPICAL TRAFFIC DRUM LAYOUT
ACCELERATION LANE CLOSURE

I-540

EXIT 2:
SOUTHBOUND EXIT = 40 TRAFFIC DRUMS
NORTHBOUND ENTRANCE = 17 TRAFFIC DRUMS

EXIT 10:
EASTBOUND EXIT = 40 TRAFFIC DRUMS
WESTBOUND ENTRANCE = 17 TRAFFIC DRUMS

WESTBOUND EXIT = 40 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 17 TRAFFIC DRUMS

EXIT 11:
EASTBOUND EXIT = 40 TRAFFIC DRUMS
WESTBOUND ENTRANCE = 17 TRAFFIC DRUMS

WESTBOUND EXIT = 40 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 17 TRAFFIC DRUMS

EXIT 9:
EASTBOUND EXIT = 40 TRAFFIC DRUMS
WESTBOUND ENTRANCE = 17 TRAFFIC DRUMS

WESTBOUND EXIT = 40 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 17 TRAFFIC DRUMS

EXIT 8:
EASTBOUND EXIT = 40 TRAFFIC DRUMS
WESTBOUND ENTRANCE = 17 TRAFFIC DRUMS

WESTBOUND EXIT = 40 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 17 TRAFFIC DRUMS

I-40

ENTRANCE 1:
EASTBOUND ENTRANCE = 37 TRAFFIC DRUMS

EXIT 1:
EASTBOUND EXIT = 24 TRAFFIC DRUMS

EXIT 3:
EASTBOUND EXIT = 24 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 37 TRAFFIC DRUMS

EXIT 5:
EASTBOUND EXIT = 24 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 37 TRAFFIC DRUMS

EXIT 7:
EASTBOUND EXIT = 24 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 37 TRAFFIC DRUMS

EXIT 12:
EASTBOUND EXIT = 24 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 37 TRAFFIC DRUMS

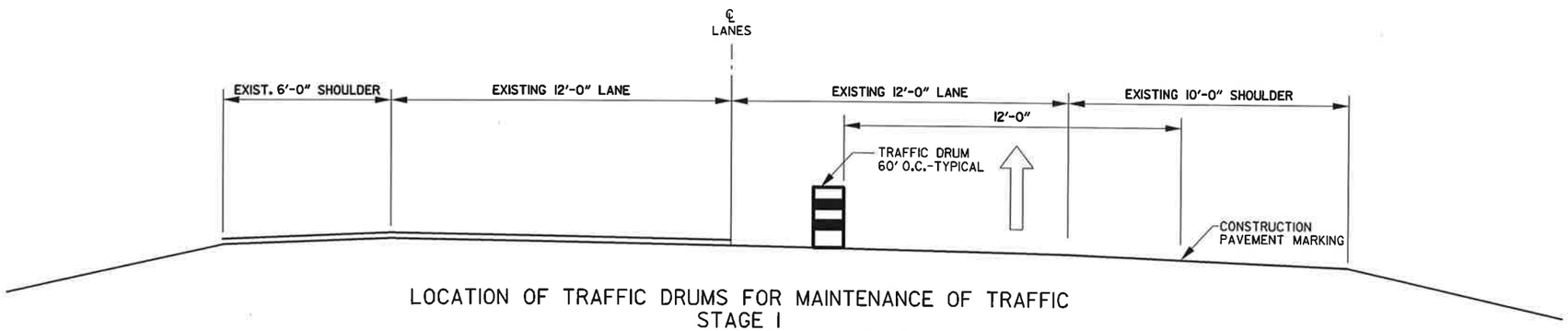
EXIT 13:
EASTBOUND EXIT = 24 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 37 TRAFFIC DRUMS

DETAIL OF RAMPS WITH LANE CLOSURE
MAINTENANCE OF TRAFFIC DETAILS

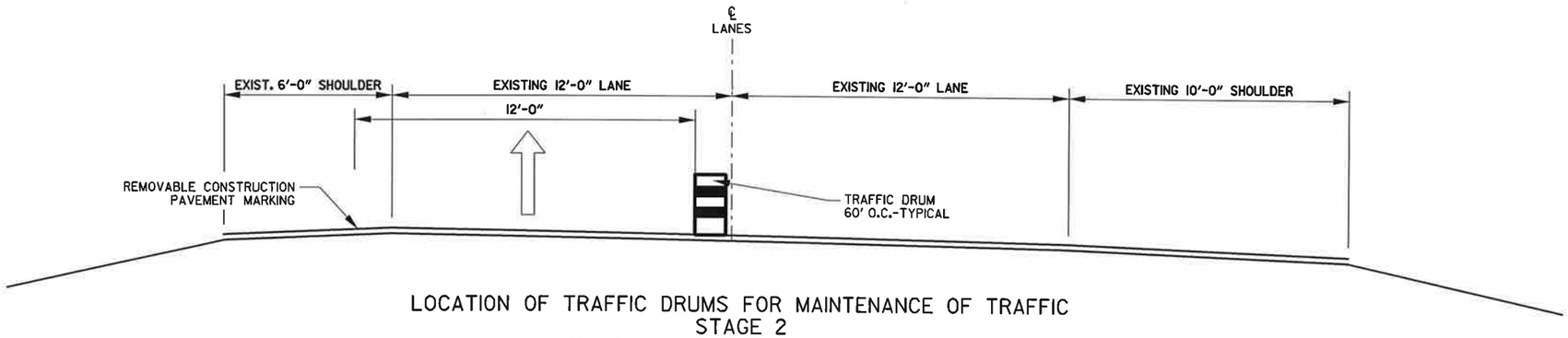
RBB0401 REVISED.DGN 9/13/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PRO.J.NO.	SHEET NO.	TOTAL SHEETS
10-17-18				6	ARK.			
				JOB NO.		BB0401	57	234

(2) MAINTENANCE OF TRAFFIC DETAILS



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
STAGE I
(SHOWN IN DIRECTION OF TRAFFIC)



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
STAGE 2
(SHOWN IN DIRECTION OF TRAFFIC)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
10-17-18
HUBERT BURNS

SEQUENCE OF CONSTRUCTION

STAGE 1- OVERLAY OR MILL & ACHM INLAY INSIDE LANE AND SHOULDER AND INSTALL GUARDRAIL.

STAGE 2 - OVERLAY OR MILL & ACHM INLAY OUTSIDE LANE, SHOULDER, AND RAMPS AND INSTALL GUARDRAIL. INSTALL RUMBLE STRIPS & PERMANENT PAVEMENT MARKINGS.

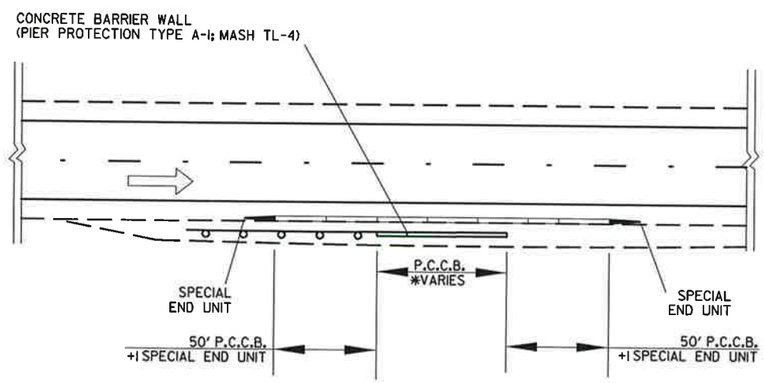
NOTES:

OVERLAY OR MILL & ACHM INLAY OPERATIONS IN ONE DIRECTION SHALL UTILIZE A SINGLE TWO (2) MILE LANE CLOSURE. NO LANE CLOSURE MAY EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

FOR BRIDGE DECK REHABILITATION A SINGLE LANE CLOSURE OF NO MORE THAN TWO (2) MILES WILL BE PERMITTED. ONLY ONE LANE CLOSURE PER SET OF MAIN LANES WILL BE ALLOWED AND SHALL NOT EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

*PRECAST CONCRETE BARRIER WALL LOCATIONS

STATION	STATION	LOCATION	LIN. FT.
1+44	1+87	RML RT.	43
2+85	3+30	LML LT.	45
322+65	322+94	LML LT.	29
322+79	323+08	RML RT.	29
389+23	389+68	RML RT.	45
389+33	389+70	LML LT.	37
390+35	390+62	RML RT.	27
390+37	390+75	LML LT.	38
420+61	420+97	RML RT.	36
420+71	421+07	LML LT.	36
491+11	491+50	RML RT.	39
491+88	492+27	LML LT.	39
577+97	578+36	RML RT.	39
578+72	579+11	LML LT.	39
718+04	718+42	RML RT.	38
718+64	719+02	LML LT.	38
838+07	838+34	LML LT.	27
838+16	838+42	RML RT.	26

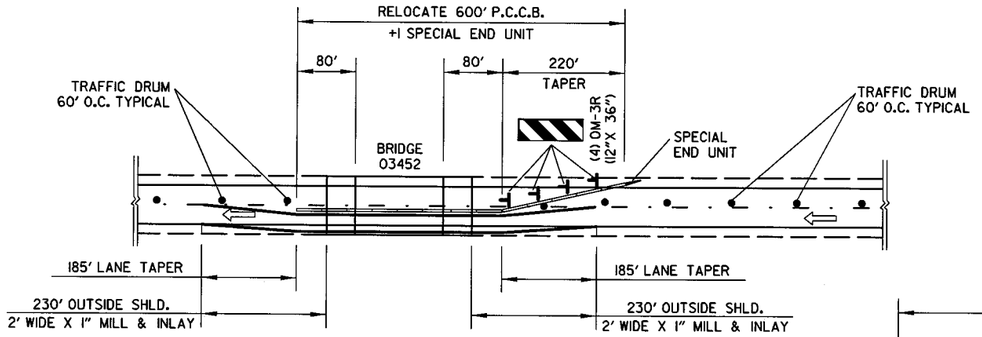


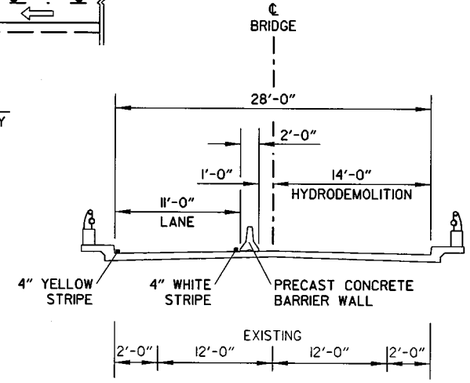
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	58	234
				(2)	MAINTENANCE OF TRAFFIC DETAILS			

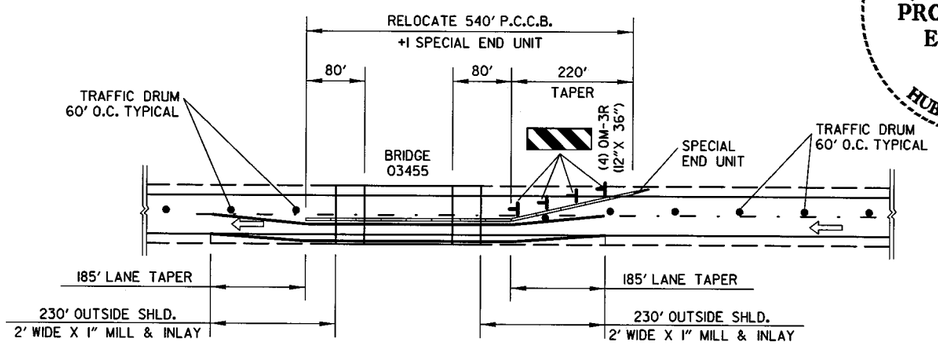
PRECAST CONCRETE BARRIER WALL (11 LOCATIONS)

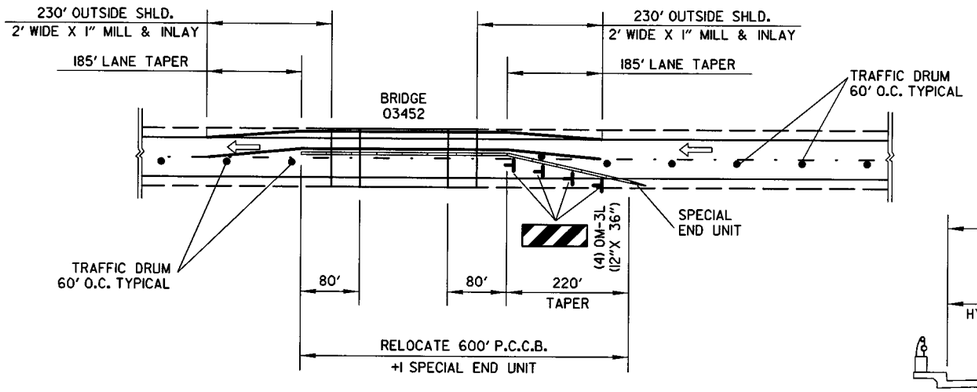
(1) FURNISH & INSTALL = 673 LIN. FT. (INCLUDES SPECIAL END UNIT)
(1) RELOCATE = 673 LIN. FT. (INCLUDES SPECIAL END UNIT)
(2) RELOCATE = 613 LIN. FT. (PER INSTALLATION) (INCLUDES SPECIAL END UNIT)
(2) RELOCATE = 553 LIN. FT. (PER INSTALLATION) (INCLUDES SPECIAL END UNIT)
(2) RELOCATE = 585 LIN. FT. (PER INSTALLATION) (INCLUDES 2 SPECIAL END UNITS)
(4) RELOCATE = 373 LIN. FT. (PER INSTALLATION) (INCLUDES SPECIAL END UNIT)

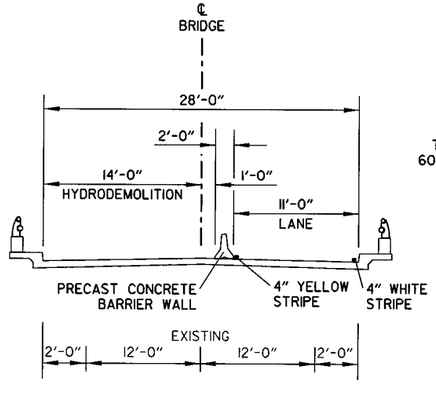




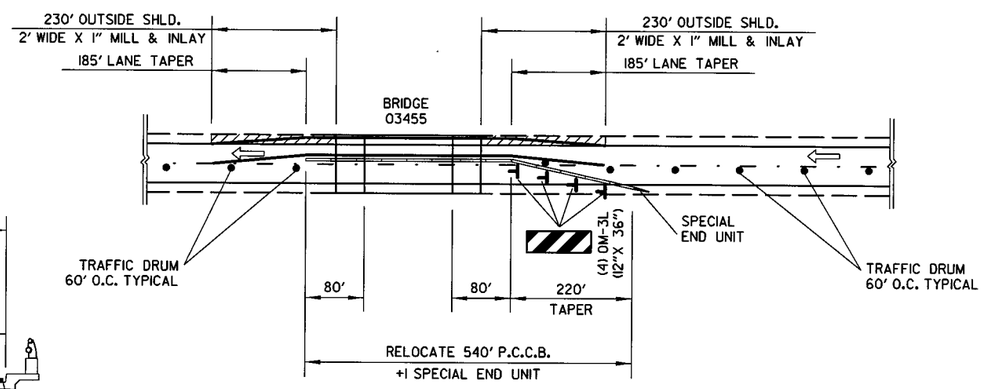
STAGE 1
(LOOKING IN DIRECTION OF TRAFFIC)







STAGE 2
(LOOKING IN DIRECTION OF TRAFFIC)



NOTE: SEE LANE CLOSURE DETAILS
FOR TRAFFIC DRUM SPACING AND TAPERS.

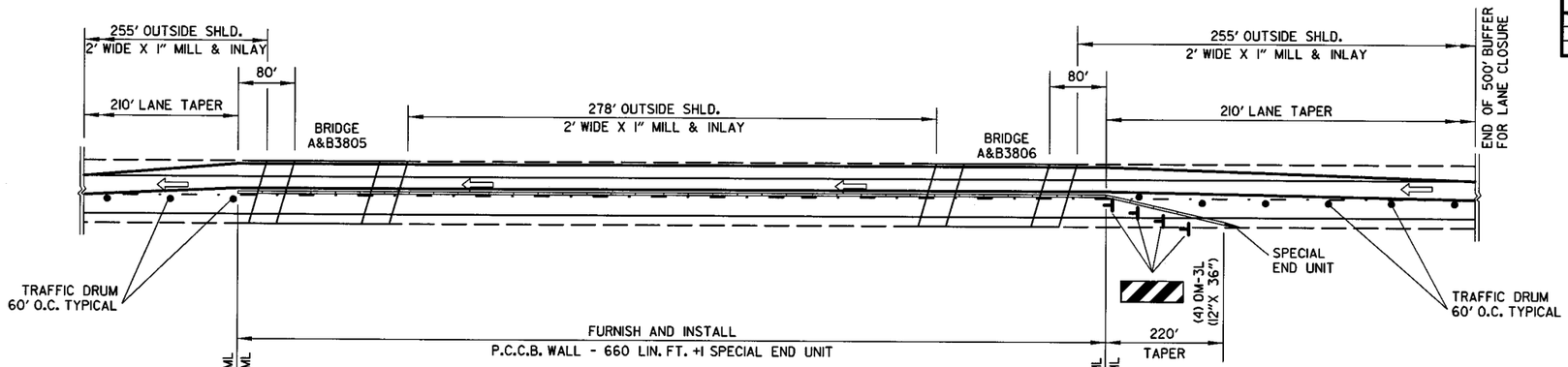
STATE OF ARKANSAS
REGISTERED
PROFESSIONAL
ENGINEER
No. 9620
7-31-18
HUBERT BURNS

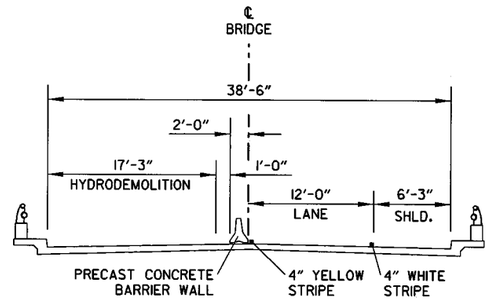
BRIDGES 03452 & 03455
STAGE 1 AND 2
HYDRODEMOLITION I-540
MAINTENANCE OF TRAFFIC DETAILS

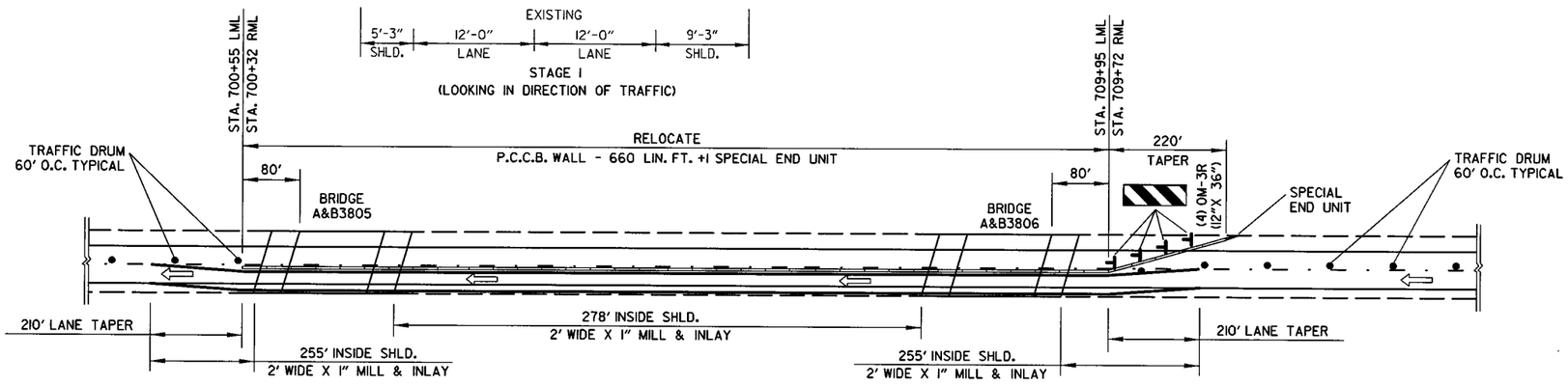
USER: fs513
DESIGN FILE: G:\17II210I_BB040I\TRANSP\dgn\maint_of_traffic\BB040I_MOT.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

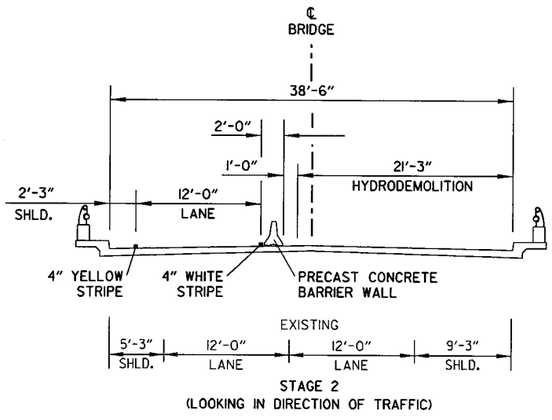
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	59	234
				(2)	MAINTENANCE OF TRAFFIC DETAILS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS









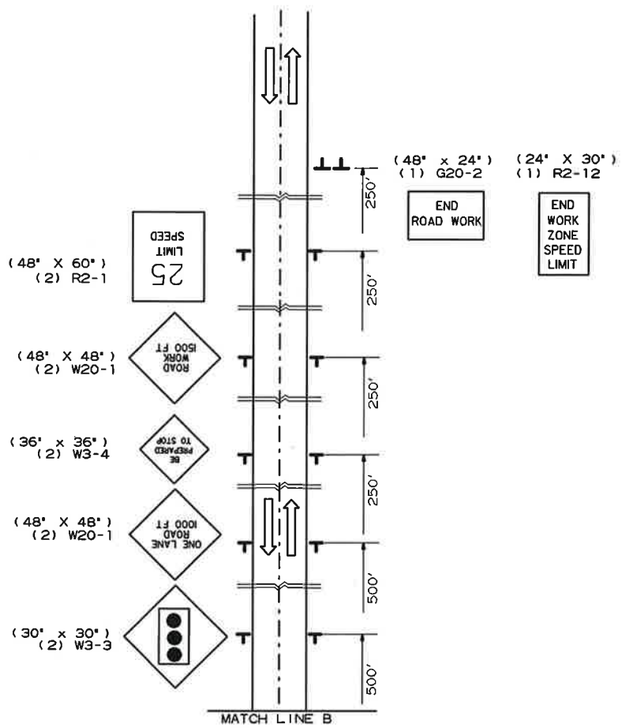
NOTE: SEE LANE CLOSURE DETAILS FOR TRAFFIC DRUM SPACING AND TAPERS.

BRIDGES A&B3805 AND A&B3806
STAGE 1 AND 2
HYDRODEMOLITION I-40 BRIDGES
MAINTENANCE OF TRAFFIC DETAILS

USER: fs513
DESIGN FILE: G:\17il210l_BB040l\TRANSP\dgn\maint_of_traffic\BB040l_M0T.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-17-18				6	ARK.			
				JOB NO.		BB0401	60	234

(2) MAINTENANCE OF TRAFFIC DETAILS



(48" X 24") (1) G20-2 — END ROAD WORK

(24" X 30") (1) R2-12 — END WORK ZONE SPEED LIMIT

STAGE 1

1) INSTALL ADVANCE WARNING SIGNS.

2) RELOCATE P.C.C.B. & PORTABLE TRAFFIC SIGNAL.

3) REPAIR BRIDGE DECK - NORTHBOUND (EAST SIDE).

STAGE 2

1) MAINTAIN ADVANCE WARNING SIGNS.

2) RELOCATE P.C.C.B. TO SHIFT TRAFFIC TO EAST SIDE OF BRIDGE. REMOVE CONFLICTING PAVEMENT MARKINGS AND INSTALL STAGE 2 CONSTRUCTION PAVEMENT MARKINGS.

3) REPAIR BRIDGE DECK - SOUTHBOUND (WEST SIDE).

NOTE:

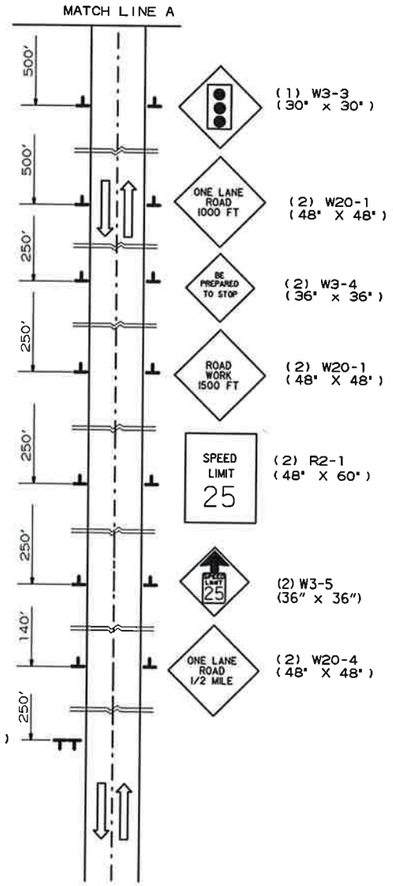
CONTRACTOR SHALL MAINTAIN 1 (ONE) LANE OF TRAFFIC (MINIMUM WIDTH 10') AT ALL TIMES. SHOWN FOR NORTHBOUND (EAST SIDE) REPAIR. MIRROR FOR SOUTHBOUND (WEST SIDE) REPAIR.

STAGE 1 CONSTRUCTION PAVEMENT MARKINGS

REMOVAL OF PERMANENT PAVEMENT MARKINGS = 600 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS = 1700 LIN. FT.

STAGE 2 CONSTRUCTION PAVEMENT MARKINGS

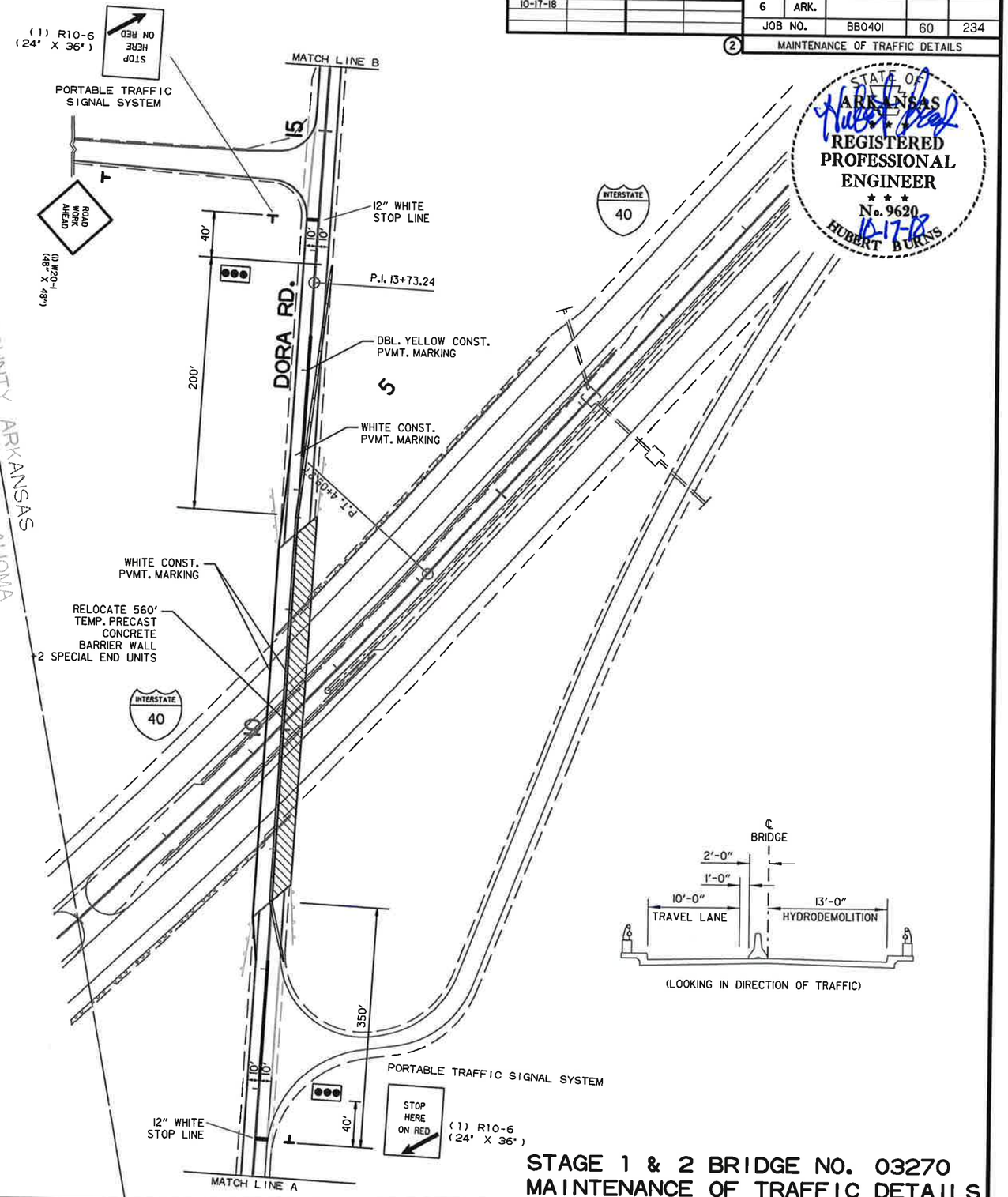
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS = 1700 LIN. FT.



(1) G20-2 (48" X 24") — END ROAD WORK

(1) R2-12 (24" X 30") — END WORK ZONE SPEED LIMIT

CRAWFORD COUNTY ARKANSAS
SEQUOYAH COUNTY OKLAHOMA



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
10-17-18

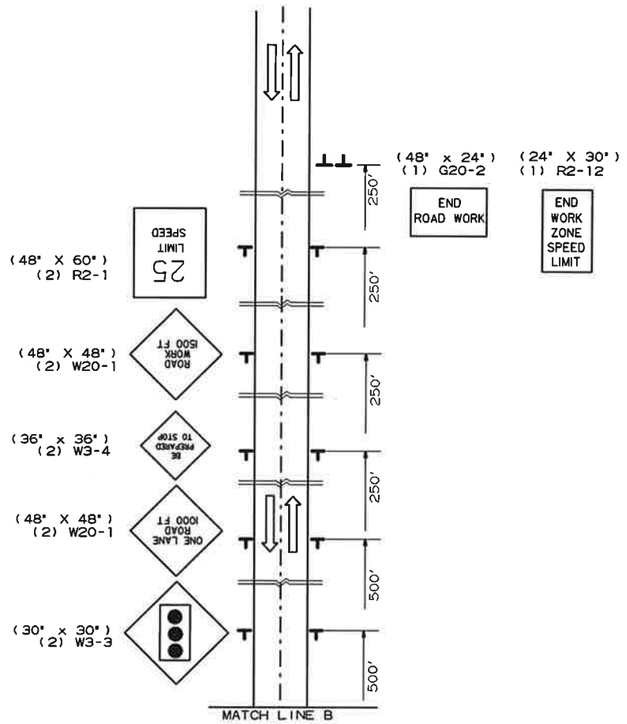
STAGE 1 & 2 BRIDGE NO. 03270 MAINTENANCE OF TRAFFIC DETAILS

USER: am5106
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\maint_of_traffic\BB0401_MOT.dgn
PLOTTED: 10/17/2018 17:40
SCALE: 1:100

G:\17II2101_BB0401\TRANSP\dgn\maint_of_traffic\BB0401_MOT.dgn 10/17/2018 17:40

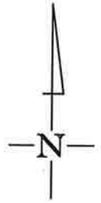
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PRO.JNO.	SHEET NO.	TOTAL SHEETS
10-17-18				6	ARK.			
				JOB NO.		BB0401	60A	234

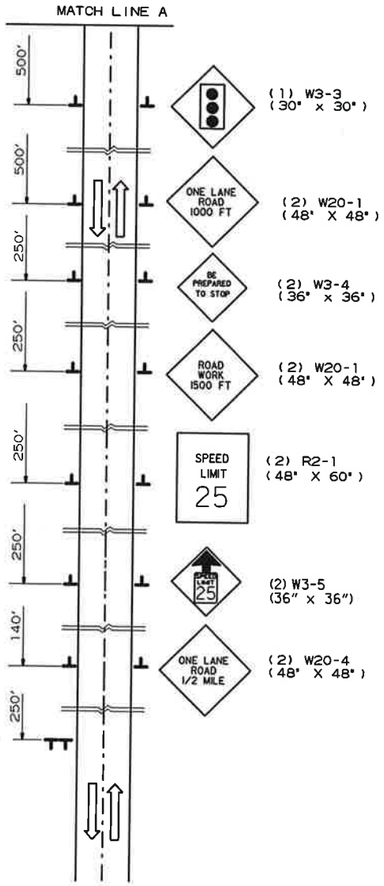
(2) MAINTENANCE OF TRAFFIC DETAILS



(48" x 24") (1) G20-2 — END ROAD WORK

(24" X 30") (1) R2-12 — END WORK ZONE SPEED LIMIT





(1) G20-2 (48" x 24") — END ROAD WORK

(1) R2-12 (24" X 30") — END WORK ZONE SPEED LIMIT

STAGE 1

1) INSTALL ADVANCE WARNING SIGNS.

2) RELOCATE P.C.C.B. & PORTABLE TRAFFIC SIGNAL.

3) REPAIR BRIDGE DECK - NORTHBOUND (EAST SIDE).

STAGE 2

1) MAINTAIN ADVANCE WARNING SIGNS.

2) RELOCATE P.C.C.B. TO SHIFT TRAFFIC TO EAST SIDE OF BRIDGE. REMOVE CONFLICTING PAVEMENT MARKINGS AND INSTALL STAGE 2 CONSTRUCTION PAVEMENT MARKINGS.

3) REPAIR BRIDGE DECK - SOUTHBOUND (WEST SIDE).

NOTE:

CONTRACTOR SHALL MAINTAIN 1 (ONE) LANE OF TRAFFIC (MINIMUM WIDTH 10') AT ALL TIMES. SHOWN FOR NORTHBOUND (EAST SIDE) REPAIR. MIRROR FOR SOUTHBOUND (WEST SIDE) REPAIR.

STAGE 1 CONSTRUCTION PAVEMENT MARKINGS

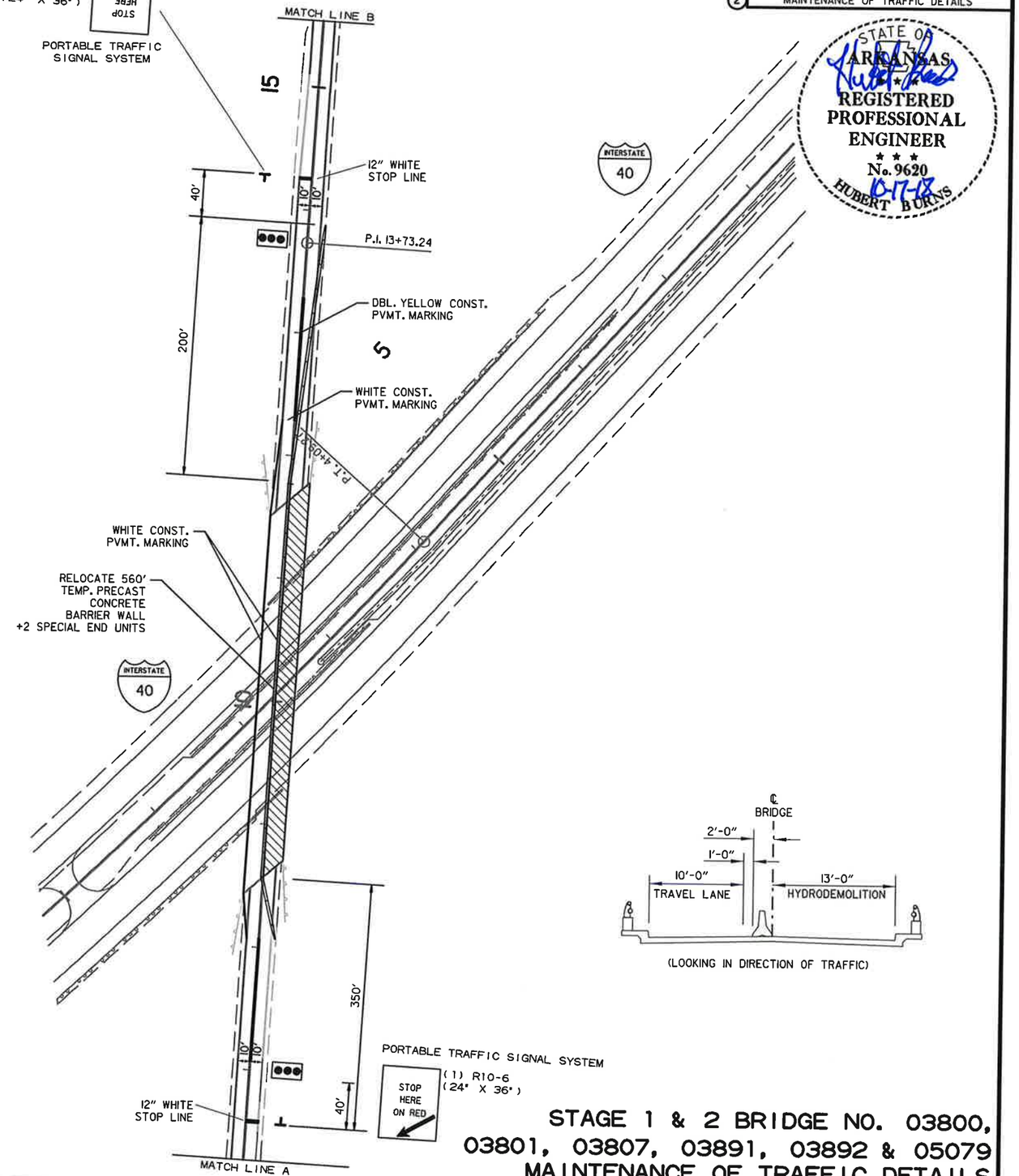
REMOVAL OF PERMANENT PAVEMENT MARKINGS = 600 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS = 1700 LIN. FT.

STAGE 2 CONSTRUCTION PAVEMENT MARKINGS

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS = 1700 LIN. FT.

(1) R10-6 (24" X 36") — STOP HERE ON RED

PORTABLE TRAFFIC SIGNAL SYSTEM



(LOOKING IN DIRECTION OF TRAFFIC)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
10-17-18

STAGE 1 & 2 BRIDGE NO. 03800, 03801, 03807, 03891, 03892 & 05079 MAINTENANCE OF TRAFFIC DETAILS

USER: ans106
DESIGN FILE: G:\17112101_BB0401\TRANSP\dgn\maint_of_traffic\BB0401_MOT.dgn
PLOTTED: 10/17/2018 17:40
SCALE: 1:100

G:\17112101_BB0401\TRANSP\dgn\maint_of_traffic\BB0401_MOT.dgn 10/17/2018 17:40

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	61	234

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
HUBERT BURNS
No. 9620
REGISTERED PROFESSIONAL ENGINEER
8-31-18

BR. NO. 03456

℄ BRIDGE

52'-0"

2'-0"

25'-0" HYDRODEMOLITION

1'-0"

1'-0" | 11'-0" LANE | 11'-0" LANE | 1'-0"

PRECAST CONCRETE BARRIER WALL

4" YELLOW STRIPE

4" WHITE STRIPE

EXISTING

6'-0" SHLD. | 12'-0" LANE | 12'-0" LANE | 12'-0" LANE | 10'-0" SHLD.

STAGE I
(LOOKING IN DIRECTION OF TRAFFIC)

N

50 25 0 25 50 100

735

725

125

RELOCATE
360' P.C.C.B +1 SPECIAL END UNIT

675' OUTSIDE SHLD.
2' WIDE X 1" MILL & INLAY

630' LANE TAPER

675' OUTSIDE SHLD.
2' WIDE X 1" MILL & INLAY

630' LANE TAPER

405

400

395

FLAT ROCK CREEK

TRAFFIC DRUMS
SPACED 60' O.C. (TYP.)

SPECIAL END UNIT

RAMP 2

BR. END STA. 398+91.17

BR. END STA. 397+54.00

BR. NO. A3454

BR. NO. B3454

41' OM-3L
12" X 36"

N81°43'55"E

P.T. 395+43.52 BACK =
STA. 395+43.50 AHD.

TRAFFIC DRUMS
SPACED 60' O.C. (TYP.)

SPECIAL END UNIT

630' LANE TAPER

675' OUTSIDE SHLD.
2' WIDE X 1" MILL & INLAY

RELOCATE
380' P.C.C.B +1 SPECIAL END UNIT

NOTE: SEE LANE CLOSURE DETAILS FOR TRAFFIC DRUM SPACING AND TAPERS.

STAGE 1 BRIDGES A&B3454
HYDRODEMOLITION I-40
MAINTENANCE OF TRAFFIC DETAILS

USER: tsi3
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\maint_of_traffic\BB0401_MOT.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\7112101_BB0401\TRANSP\dgn\maint_of_traffic\BB0401_MOT.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	62	234

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
4-3-18

BR. NO. 03456

℄ BRIDGE
52'-0"
2'-0"
1'-0"
27'-0" HYDRODEMOLITION
11'-0" LANE
11'-0" LANE
4" YELLOW STRIPE
4" WHITE STRIPE
PRECAST CONCRETE BARRIER WALL
EXISTING
6'-0" SHLD.
12'-0" LANE
12'-0" LANE
12'-0" LANE
10'-0" SHLD.

STAGE 2
(LOOKING IN DIRECTION OF TRAFFIC)

N

50 25 0 25 50 100

725

735

RELOCATE
360' P.C.C.B +1 SPECIAL END UNIT
+74
+34
388' INSIDE SHLD.
2' WIDE X 1" MILL & INLAY
+26
420' LANE TAPER
+14
END OF 500' BUFFER FOR LANE CLOSURE
465' INSIDE SHLD.
2' WIDE X 1" MILL & INLAY
+19
420' LANE TAPER
+54
395
BR. END STA. 397+54.00
FLAT ROCK CREEK
BR. END STA. 398+91.17
+94
400
TEMPORARY IMPACT ATTENUATION BARRIER
(4) QM-3R (12"X 36")
RAMP 2
405
TRAFFIC DRUMS SPACED 60' O.C. (TYP.)
BR. NO. A3454
11'
11'
N81°43'55"E
BR. NO. B3454
P.T. 395+43.52 BACK =
STA. 395+43.50 AHD.
TRAFFIC DRUMS SPACED 60' O.C. (TYP.)
TEMPORARY IMPACT ATTENUATION BARRIER
(4) QM-3R (12"X 36")
BR. END STA. 397+54.00
BR. END STA. 398+91.17
+26
468' INSIDE SHLD.
2' WIDE X 1" MILL & INLAY
420' LANE TAPER
+94
END OF 500' BUFFER FOR LANE CLOSURE
+34
420' LANE TAPER
+14
RELOCATE
360' P.C.C.B +1 SPECIAL END UNIT
+74
+19
385' INSIDE SHLD.
2' WIDE X 1" MILL & INLAY

NOTE: SEE LANE CLOSURE DETAILS FOR TRAFFIC DRUM SPACING AND TAPERS.

STAGE 2 BRIDGES A&B3454 HYDRODEMOLITION I-40 MAINTENANCE OF TRAFFIC DETAILS

USER: fs503
DESIGN FILE: G:\17II2I0I_BB040I\TRANSP\dgn\maint_of_traffic\BB040I_MOT.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17II2I0I_BB040I\TRANSP\dgn\maint_of_traffic\BB040I_MOT.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	63	234

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
2-3-17

BRIDGE CLOSED

ROAD CLOSED (2) R11-2 (48" X 30")

(2) 16' BARR. TYP. III RT.

(3) W16 (60" X 30") EVENLY SPACED ON TAPER

COVER EXISTING OVERHEAD EXIT 1A SIGNS

TRAFFIC DRUMS @ 40' O.C. 720' DIRECTED LANE TO CLEAR I-T LANES WORK AREA

DETOUR (1) M4-8 (24" X 12")
WEST (1) M3-4 (24" X 12")
40 (1) M1-1 (24" X 24")
(1) M5-1R (12" X 15")

DETOUR (1) M4-8 (24" X 12")
WEST (1) M3-4 (24" X 12")
40 (1) M1-1 (24" X 24")
(1) M5-1L (12" X 15")

DETOUR (1) M4-8 (24" X 12")
WEST (1) M3-4 (24" X 12")
40 (1) M1-1 (24" X 24")

DETOUR (1) M4-8 (24" X 12")
WEST (1) M3-4 (24" X 12")
40 (1) M1-1 (24" X 24")
DETOUR AHEAD (1) W20-2 (48" X 48")

STAGE 1: INSTALL DETOUR SIGNS. DETOUR TRAFFIC FROM NORTHBOUND I-540 TO THE INTERSECTION OF HWY. 71 AND HWY. 64 FOR ACCESS TO I-40 WEST.

PERFORM HYDRODEMOLITION ON BRIDGES 03456 AND 03453.

STAGE 2: REMOVE TRAFFIC AND RETURN TRAFFIC TO ORIGINAL FLOW.

NOTE: REFER TO MOT SPECIAL PROVISION.

STAGE 1 - DETOUR MAP
FOR HYDRODEMOLITION OF BRIDGES 03456 AND 03453
MAINTENANCE OF TRAFFIC DETAILS

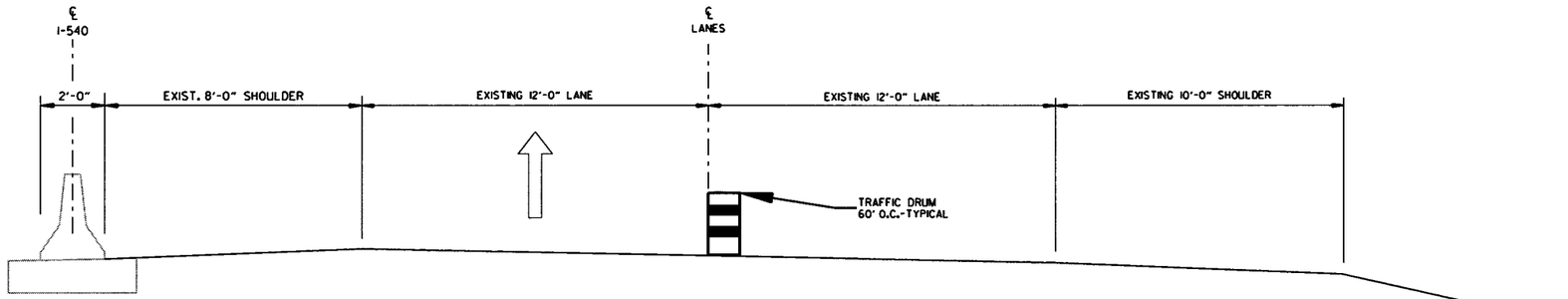
USER: fs513
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\maint_of_traffic\BB0401MOT Detour Map.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:2640

G:\17II2101_BB0401\TRANSP\dgn\maint_of_traffic\BB0401MOT Detour Map.dgn 8/30/2018 11:39

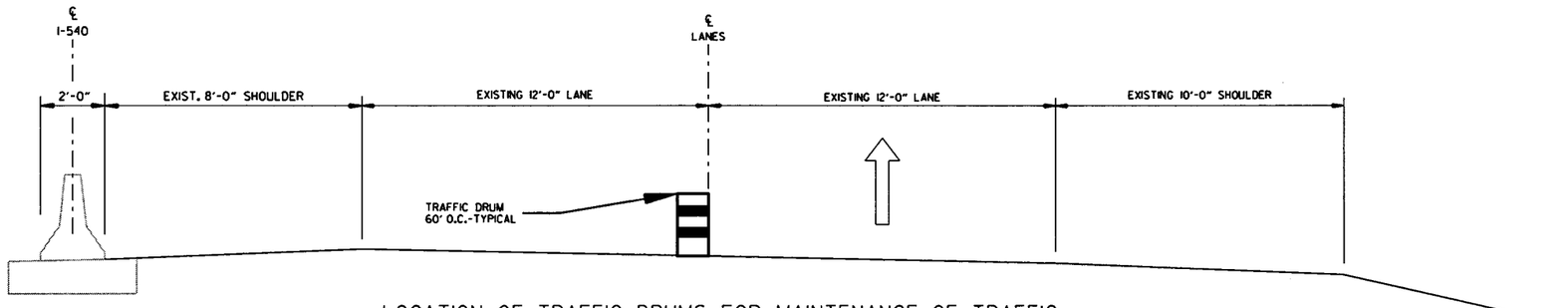
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	64	234

(2) MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
OUTSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
INSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)

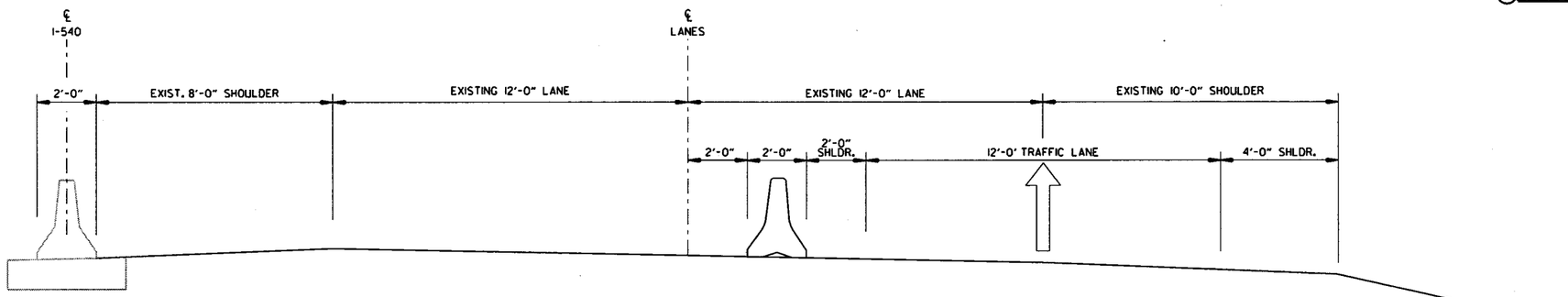
RBB0401 REVISED.DGN 9/13/2018

MAINTENANCE OF TRAFFIC DETAILS

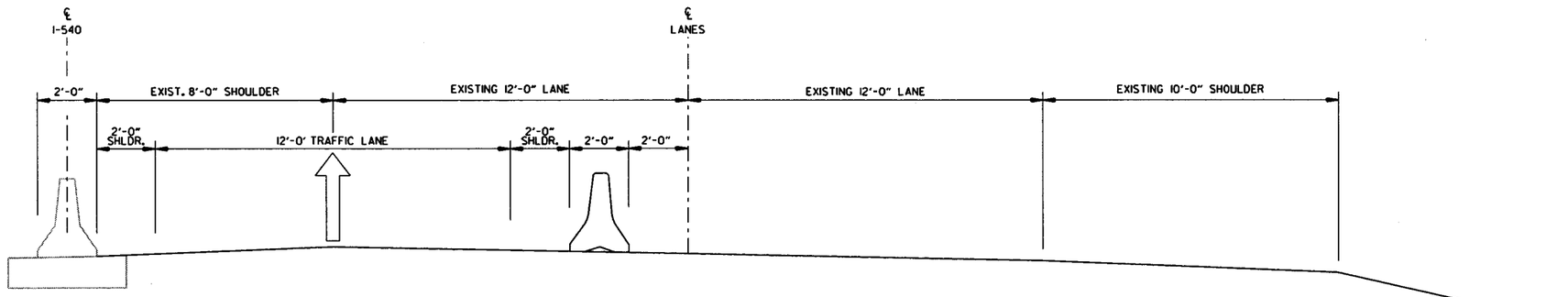
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	65	234

(2) MAINTENANCE OF TRAFFIC DETAILS

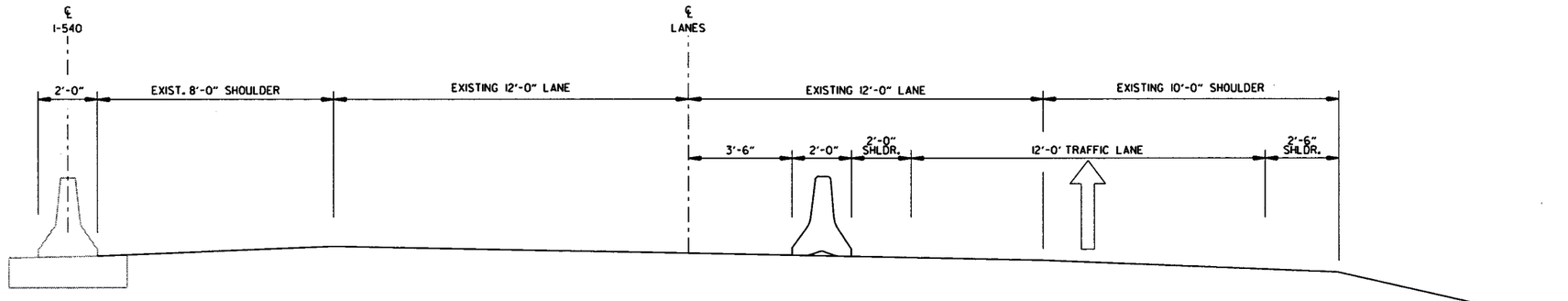
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18



LOCATION OF BARRIER WALL FOR INSIDE LANE HYDRODEMOLITION AND APPROACH SLAB REPLACEMENT
INSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)



LOCATION OF BARRIER WALL FOR OUTSIDE LANE HYDRODEMOLITION, APPROACH SLAB REPLACEMENT, AND BACKWALL REPLACEMENT
OUTSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)



LOCATION OF BARRIER WALL FOR INSIDE LANE BACKWALL REPLACEMENT
INSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)

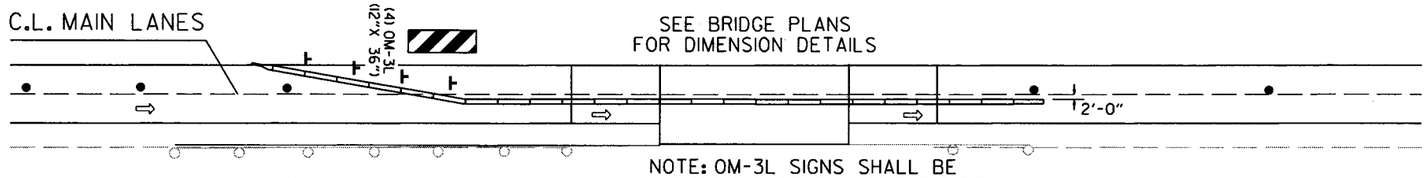
RBB0401 REVISED.DGN 9/13/2018

MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	66	234

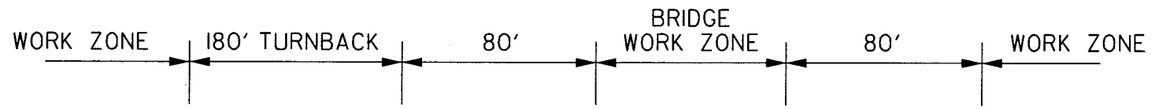
(2) MAINTENANCE OF TRAFFIC DETAILS

PRECAST CONCRETE BARRIER WALL (10 LOCATIONS - 20 INSTALLATIONS)
(2) FURNISH AND INSTALL = 1380 LIN. FT.
720 LIN. FT. FOR BR. A5101
660 LIN. FT. FOR BR. A5100
INCLUDES (2) SPECIAL END UNIT
(18) RELOCATE = 11260 LIN. FT.
1000 LIN. FT. FOR BR. A5629 (2 INSTALLATIONS)
1000 LIN. FT. FOR BR. B5629 (2 INSTALLATIONS)
720 LIN. FT. FOR BR. A5101 (1 INSTALLATION)
1440 LIN. FT. FOR BR. B5101 (2 INSTALLATIONS)
660 LIN. FT. FOR BR. A5100 (1 INSTALLATION)
1320 LIN. FT. FOR BR. B5100 (2 INSTALLATIONS)
1320 LIN. FT. FOR BR. A5098 (2 INSTALLATIONS)
1320 LIN. FT. FOR BR. B5098 (2 INSTALLATIONS)
1240 LIN. FT. FOR BR. A3604 (2 INSTALLATIONS)
2480 LIN. FT. FOR BR. B3604 (2 INSTALLATIONS)
INCLUDES (1) SPECIAL END UNIT FOR EACH INSTALLATION

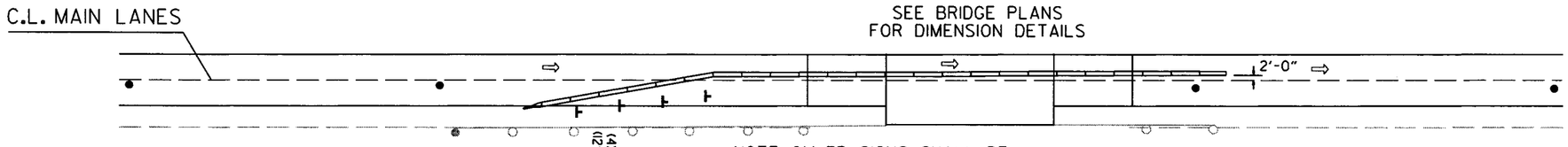


REFER TO STANDARD DRAWING TC-5 FOR DETAILS OF PLACEMENT OF P.C.C.B. TURNBACKS.

NOTE: OM-3L SIGNS SHALL BE EQUALLY SPACED ALONG P.C.C.B. TURNBACK.

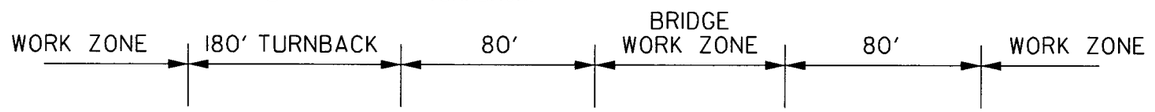


DETAIL OF DIVERSION FOR INSIDE LANE HYDRODEMOLITION AND APPROACH SLAB REPLACEMENT

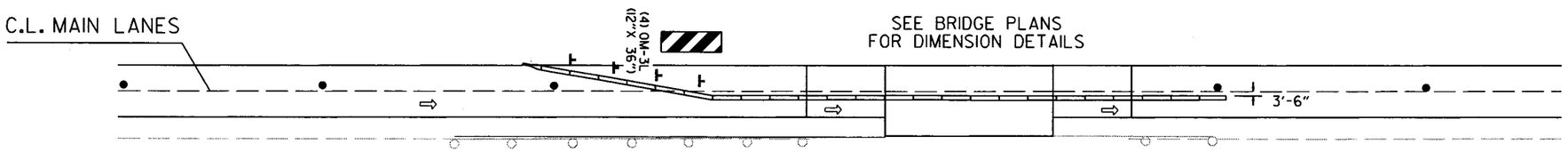


REFER TO STANDARD DRAWING TC-5 FOR DETAILS OF PLACEMENT OF P.C.C.B. TURNBACKS.

NOTE: OM-3R SIGNS SHALL BE EQUALLY SPACED ALONG P.C.C.B. TURNBACK.

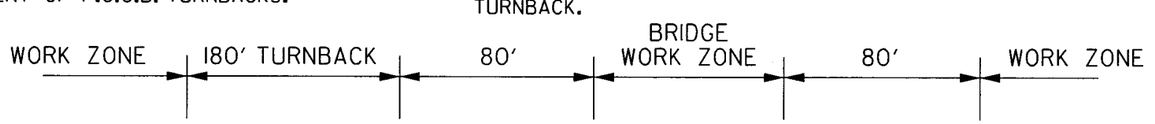


DETAIL OF DIVERSION FOR OUTSIDE LANE HYDRODEMOLITION, APPROACH SLAB REPLACEMENT, AND BACKWALL REPLACEMENT



REFER TO STANDARD DRAWING TC-5 FOR DETAILS OF PLACEMENT OF P.C.C.B. TURNBACKS.

NOTE: OM-3L SIGNS SHALL BE EQUALLY SPACED ALONG P.C.C.B. TURNBACK.



DETAIL OF DIVERSION FOR INSIDE LANE BACKWALL REPLACEMENT

DETAIL OF BRIDGES
MAINTENANCE OF TRAFFIC DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-13-18

RBB0401 REVISED.DGN 9/13/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	67	234

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS (I-40)

DESCRIPTION	STAGE 1	STAGE 2	END OF JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		ENHANCED THERMOPLASTIC PAVEMENT MARKING			THERMOPLASTIC PAVEMENT MARKING	
								TYPE II (WHITE/RED)	TYPE II (YEL/YEL)	6" WHITE	6" YELLOW	8" WHITE	6" WHITE	6" YELLOW
	LIN. FT. - EACH			LIN. FT.		LIN. FT.		EACH		LIN. FT.				
REMOVAL OF PERMANENT PAVEMENT MARKINGS	12956	150		13106										
CONSTRUCTION PAVEMENT MARKINGS	229164	221850			451014									
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		227464				227464								
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	26520	6675					33195							
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)			4656					4656						
RAISED PAVEMENT MARKERS TYPE II (YEL/YEL)			213						213					
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")			230653							230653				
ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")			186697								186697			
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (8")			9170									9170		
THERMOPLASTIC PAVEMENT MARKING WHITE (6")			18984										18984	
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")			17065											17065
TOTALS:				**13106**	**451014**	**227464**	**33195**	**4656**	**213**	**230653**	**186697**	**9170**	**18984**	**17065**

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS (I-540)

DESCRIPTION	END OF JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		ENHANCED THERMOPLASTIC PAVEMENT MARKING			THERMOPLASTIC PAVEMENT MARKING	
					TYPE II (WHITE/RED)	TYPE II (YEL/YEL)	6" WHITE	6" YELLOW	8" WHITE	6" WHITE	6" YELLOW
	LIN. FT. - EACH	LIN. FT.		LIN. FT.	EACH		LIN. FT.				
REMOVAL OF PERMANENT PAVEMENT MARKINGS	18009	18009									
CONSTRUCTION PAVEMENT MARKINGS	161585		161585								
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	32016			32016							
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)	599				599						
RAISED PAVEMENT MARKERS TYPE II (YEL/YEL)	92					92					
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")	66800						66800				
ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	56202							56202			
ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (8")	5906								5906		
THERMOPLASTIC PAVEMENT MARKING WHITE (6")	7334									7334	
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	7334										7334
TOTALS:		**18009**	**161585**	**32016**	**599**	**92**	**66800**	**56202**	**5906**	**7334**	**7334**

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

RBB0401 REVISED.DGN 9/13/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-17-18				6	ARK.			
				JOB NO.		BB0401	68	234

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-18-18

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	BARRICADES (TYPE III)	FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMP. IMPACT ATTEN.BARR. (REPAIR)	* ADVANCE WARNING ARROW PANEL	* PORTABLE CHANGEABLE MESSAGE SIGN	PORTABLE TRAFFIC SIGNAL SYSTEM - ACTUATED	CONSTRUCTION PROJECT INFORMATION SIGN UPDATE
			LIN. FT. - EACH			NO.	SQ. FT.	EACH	RIGHT	LIN. FT.		EACH		DAY	WEEK	LUMP SUM	EACH
G20-2	END ROAD WORK	48"x24"	37	37	37	37	296.0										
G20-1	ROAD WORK NEXT xx MILES	60"x24"	4	4	4	4	40.0										
M1-1	INTERSTATE ROUTE SIGN (I-40)	24"x24"	6	6	6	6	24.0										
M3-4	DIRECTION (WEST)	24"x12"	6	6	6	6	12.0										
M4-8	DETOUR	24"x12"	5	5	5	5	10.0										
M4-8A	END DETOUR	24"x18"	1	1	1	1	3.0										
M5-1L	ARROW (LEFT)	21"x15"	2	2	2	2	4.4										
M5-1R	ARROW (RIGHT)	21"x15"	1	1	1	1	2.2										
OM-3L	OBJECT MARKER	12"x36"	22	22	22	22	66.0										
OM-3R	OBJECT MARKER	12"x36"	14	14	14	14	42.0										
W21-5a	SHOULDER CLOSED	48"x48"	2	2	2	2	32.0										
R2-1	SPEED LIMIT (25 MPH)	48"x60"	6	6	6	6	120.0										
R2-2	SPEED LIMIT (55 MPH)	48"x60"	6	6	6	6	120.0										
R2-1	SPEED LIMIT (60 MPH)	48"x60"	4	15	15	15	300.0										
R2-2	SPEED LIMIT (65 MPH)	48"X60"	2	2	2	2	40.0										
R2-1	SPEED LIMIT (70 MPH)	48"x60"	4	4	4	4	80.0										
R2-12	END WORK ZONE SPEED LIMIT	24"x30"	2	2	2	2	10.0										
R4-1	DO NOT PASS	24"x30"	12	12	12	12	60.0										
R10-6	STOP HERE ON RED	24"x36"	2	2	2	2	12.0										
R11-2	ROAD CLOSED	48"x30"	2	2	2	2	20.0										
R55-1	FINES DOUBLE IN WORK ZONES . . .	60"x36"	8	8	8	8	120.0										
W1-6	LARGE ARROW	48"x24"	12	12	12	12	96.0										
W1-6	LARGE ARROW	60"x30"	3	3	3	3	37.5										
W4-2 RT.	RIGHT LANE ENDS	48"x48"	6	6	6	6	37.5										
W3-3	SIGNAL AHEAD	30"x30"	4	4	4	4	25.0										
W3-4	BE PREPARED TO STOP	36"X36"	4	4	4	4	36.0										
W3-5	REDUCED SPEED AHEAD (25)	36"X36"	2	2	2	2	18.0										
W3-5	REDUCED SPEED AHEAD (55)	48"x48"	2	2	2	2	32.0										
W3-5	REDUCED SPEED AHEAD (60)	48"x48"	4	4	4	4	64.0										
W20-1	ROAD WORK 1 MILE	48"x48"	12	8	12	12	192.0										
W20-1	ROAD WORK 1/2 MILE	48"x48"	8	8	8	8	128.0										
W20-1	ROAD WORK 1500 FT.	48"x48"	12	12	12	12	192.0										
W20-1	ROAD WORK AHEAD	48"x48"	34	30	34	34	544.0										
W20-1	ONE LANE ROAD 1/2 MILE	48"x48"	2	2	2	2	32.0										
W20-1	ONE LANE ROAD 1000 FT.	48"x48"	4	4	4	4	64.0										
W20-2	DETOUR AHEAD	48"x48"	1	1	1	1	16.0										
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	2	2	2	2	32.0										
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"	6	2	6	6	96.0										
W20-5	RIGHT LANE CLOSED 1500 FEET	48"x48"	6	6	6	6	96.0										
SPECIAL	MERGE NOW W/ ARROW	48"x48"	3	1	3	3	48.0										
SPECIAL	CONSTRUCTION PROJECT SIGN	96"X48"	4	4	4	4	128.0										
	TRAFFIC DRUMS		1496	1496	1496			1496									
	TYPE III BARRICADE-RT. (16')		2	2	2				32								
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		2053	1380	3433					3433							
	RELOCATING PRECAST CONCRETE BARRIER		13757	14429	28186						28186						
	TEMPORARY IMPACT ATTENUATION BARRIER		2	2	4							4					
	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)		2	2	4								4				
	ADVANCE WARNING ARROW PANEL		3	3	3									700			
	PORTABLE CHANGEABLE MESSAGE SIGN		4	4	4										100		
	PORTABLE TRAFFIC SIGNAL SYSTEM - ACTUATED															1.00	
	CONSTRUCTION PROJECT INFORMATION SIGN UPDATE																10
TOTALS:							**3327.6**	**1496**	**32**	**3433**	**28186**	**4**	**4**	**700**	**100**	**1.00**	**10**

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

*QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

RBB0401 REVISED.DGN 10/18/2018

QUANTITIES

REMOVAL AND DISPOSAL OF ITEMS (I-40) (BOX 1 OF 2)

STATION	STATION	LOCATION	CONCRETE BARRIER WALL	GUARDRAIL
			LIN. FT.	LIN. FT.
501+75	1+44	I-40 R.M.L.-RT.		262
0+81	3+31	I-40 R.M.L.-LT.		250
1+44	1+87	I-40 R.M.L.-RT.	43	
1+53	6+53	I-40 L.M.L.-RT.		500
2+85	3+30	I-40 L.M.L.-LT.	45	
3+27	6+20	I-40 L.M.L.-LT.		294
10+09	27+34	I-40 R.M.L.-RT.		1725
59+58	61+08	I-40 R.M.L.-RT.		150
59+62	61+12	I-40 R.M.L.-LT.		150
60+17	62+67	I-40 L.M.L.-LT.		150
61+38	62+80	I-40 L.M.L.-RT.		150
68+30	70+60	I-40 R.M.L.-RT.		200
69+02	71+32	I-40 R.M.L.-LT.		200
70+98	72+98	I-40 L.M.L.-RT.		200
71+50	73+50	I-40 L.M.L.-LT.		200
81+44	83+08	I-40 R.M.L.-RT.		164
81+54	83+04	I-40 R.M.L.-LT.		150
82+59	84+09	I-40 L.M.L.-LT.		150
82+59	84+09	I-40 L.M.L.-RT.		150
127+65	129+90	I-40 R.M.L.-RT.		225
135+43	138+43	I-40 R.M.L.-LT.		300
135+58	138+69	I-40 R.M.L.-RT.		325
150+81	153+06	I-40 R.M.L.-LT.		225
150+83	153+08	I-40 R.M.L.-RT.		225
184+57	187+89	I-40 R.M.L.-LT.		331
185+18	188+12	I-40 R.M.L.-RT.		294
191+54	202+48	I-40 L.M.L.-LT.		1094
191+78	195+22	I-40 L.M.L.-RT.		344
219+77	221+27	I-40 L.M.L.-LT.		150
220+69	222+19	I-40 L.M.L.-RT.		150
220+16	221+66	I-40 R.M.L.-LT.		150
220+35	221+85	I-40 R.M.L.-RT.		150
225+79	227+29	I-40 R.M.L.-LT.		150
225+95	227+45	I-40 L.M.L.-LT.		150
226+16	227+91	I-40 L.M.L.-RT.		175
240+41	241+91	I-40 R.M.L.-LT.		150
240+87	242+62	I-40 L.M.L.-RT.		175
258+57	260+07	I-40 R.M.L.-LT.		150
260+00	261+50	I-40 L.M.L.-RT.		150
260+44	262+19	I-40 L.M.L.-LT.		175
274+38	277+82	I-40 R.M.L.-LT.		344
275+19	277+88	I-40 R.M.L.-RT.		269
279+81	282+50	I-40 L.M.L.-LT.		269
279+87	283+31	I-40 L.M.L.-RT.		344
288+31	289+81	I-40 L.M.L.-RT.		150
288+37	289+87	I-40 R.M.L.-LT.		150
316+12	318+37	I-40 R.M.L.-LT.		225
316+12	318+37	I-40 R.M.L.-RT.		225
320+16	322+79	I-40 R.M.L.-RT.		263
322+65	322+94	I-40 L.M.L.-LT.	29	
322+79	323+08	I-40 R.M.L.-RT.	29	
322+94	325+70	I-40 L.M.L.-LT.		276
348+25	350+50	I-40 R.M.L.-LT.		225
348+35	368+45	I-40 R.M.L.-RT.		1994
365+15	360+59	I-40 R.M.L.-LT.		344
371+46	374+65	I-40 L.M.L.-LT.		319
371+49	375+18	I-40 L.M.L.-RT.		369
371+60	384+14	I-40 R.M.L.-RT.		1300
378+75	384+00	I-40 R.M.L.-LT.		525
385+36	391+86	I-40 R.M.L.-LT.		650
386+33	389+23	I-40 R.M.L.-RT.		290
388+11	394+74	I-40 L.M.L.-RT.		663
389+23	389+68	I-40 R.M.L.-RT.	45	
389+33	389+70	I-40 L.M.L.-LT.	37	
389+68	390+35	I-40 R.M.L.-RT.		67
389+70	390+37	I-40 L.M.L.-LT.		67
390+35	390+62	I-40 R.M.L.-RT.	27	
390+37	390+75	I-40 L.M.L.-LT.	38	
390+75	397+54	I-40 L.M.L.-LT.		679
394+22	397+54	I-40 R.M.L.-LT.		332
394+84	397+54	I-40 R.M.L.-RT.		269
398+91	401+58	I-40 L.M.L.-LT.		269
398+91	402+23	I-40 L.M.L.-RT.		332
410+02	417+46	I-40 L.M.L.-LT.		750
SUBTOTALS (BOX 1 OF 2):			**293**	**22242**

NOTE: THE QUANTITY SHOWN ABOVE FOR THE REMOVAL AND DISPOSAL OF GUARDRAIL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL GUARDRAIL TERMINALS AND TERMINAL ANCHOR POSTS.

REMOVAL AND DISPOSAL OF ITEMS (I-40) (BOX 2 OF 2)

STATION	STATION	LOCATION	CONCRETE BARRIER WALL	GUARDRAIL
			LIN. FT.	LIN. FT.
415+40	417+78	I-40 L.M.L.-RT.		238
416+66	421+66	I-40 R.M.L.-LT.		500
417+73	420+67	I-40 R.M.L.-RT.		294
419+99	424+99	I-40 L.M.L.-RT.		500
421+01	423+57	I-40 L.M.L.-LT.		256
434+61	436+86	I-40 R.M.L.-LT.		225
434+61	436+86	I-40 R.M.L.-RT.		225
436+79	439+04	I-40 L.M.L.-LT.		225
436+79	439+04	I-40 L.M.L.-RT.		225
471+46	473+71	I-40 L.M.L.-LT.		225
471+46	473+71	I-40 L.M.L.-RT.		225
487+38	492+42	I-40 R.M.L.-LT.		500
488+51	491+11	I-40 R.M.L.-RT.		260
488+51	490+60	I-40 L.M.L.-LT.		213
490+97	496+01	I-40 L.M.L.-RT.		500
491+11	491+50	I-40 R.M.L.-RT.		39
491+88	492+27	I-40 L.M.L.-LT.		39
492+27	495+00	I-40 L.M.L.-LT.		273
522+90	525+03	I-40 L.M.L.-LT.		213
542+01	547+26	I-40 L.M.L.-LT.		525
560+50	562+50	I-40 R.M.L.-RT.		200
560+69	562+69	I-40 L.M.L.-LT.		200
574+27	579+27	I-40 R.M.L.-LT.		500
575+22	578+36	I-40 R.M.L.-RT.		314
577+83	582+83	I-40 L.M.L.-RT.		500
577+97	578+36	I-40 R.M.L.-RT.	39	
578+72	579+11	I-40 L.M.L.-LT.	39	
579+11	581+64	I-40 L.M.L.-LT.		253
580+34	582+22	I-40 R.M.L.-RT.		188
628+24	631+51	I-40 R.M.L.-LT.		256
628+45	631+06	I-40 R.M.L.-RT.		194
636+54	640+17	I-40 L.M.L.-RT.		356
636+90	636+96	I-40 L.M.L.-LT.		306
645+86	651+42	I-40 R.M.L.-LT.		556
648+78	654+34	I-40 L.M.L.-RT.		556
664+85	669+35	I-40 R.M.L.-LT.		450
667+60	672+60	I-40 L.M.L.-RT.		500
668+62	670+81	I-40 L.M.L.-LT.		219
694+55	701+05	I-40 R.M.L.-RT.		650
698+29	701+17	I-40 R.M.L.-LT.		288
696+46	701+41	I-40 L.M.L.-LT.		495
702+74	706+35	I-40 R.M.L.-RT.		361
702+98	705+78	I-40 L.M.L.-RT.		280
703+62	706+41	I-40 L.M.L.-LT.		279
703+09	706+54	I-40 R.M.L.-LT.		345
708+53	711+34	I-40 L.M.L.-RT.		281
708+59	711+39	I-40 L.M.L.-LT.		281
714+30	719+30	I-40 R.M.L.-LT.		500
715+41	718+04	I-40 R.M.L.-RT.		263
717+81	722+81	I-40 L.M.L.-RT.		500
718+04	718+42	I-40 R.M.L.-RT.	38	
718+64	719+02	I-40 L.M.L.-LT.	38	
719+02	721+77	I-40 L.M.L.-LT.		275
727+20	729+52	I-40 L.M.L.-LT.		232
731+31	733+33	I-40 L.M.L.-LT.		202
737+98	740+00	I-40 R.M.L.-RT.		202
740+57	742+66	I-40 L.M.L.-LT.		209
747+00	749+10	I-40 L.M.L.-LT.		210
771+78	773+78	I-40 L.M.L.-LT.		200
795+90	797+90	I-40 L.M.L.-LT.		200
808+02	810+02	I-40 L.M.L.-LT.		200
816+37	818+50	I-40 L.M.L.-LT.		213
834+17	840+17	I-40 R.M.L.-LT.		600
835+47	838+16	I-40 R.M.L.-RT.		269
837+34	842+34	I-40 L.M.L.-RT.		500
838+07	838+34	I-40 L.M.L.-LT.	27	
838+16	838+42	I-40 R.M.L.-RT.	26	
838+34	841+28	I-40 L.M.L.-LT.		294
874+49	880+37	I-40 L.M.L.-LT.		588
SUBTOTALS (BOX 2 OF 2):			**207**	**20165**
SUBTOTALS (BOX 1 OF 2):			**293**	**22242**
TOTALS:			**500**	**42407**

NOTE: THE QUANTITY SHOWN ABOVE FOR THE REMOVAL AND DISPOSAL OF GUARDRAIL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL GUARDRAIL TERMINALS AND TERMINAL ANCHOR POSTS.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	69	234

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

REMOVAL AND DISPOSAL OF ITEMS (I-540)

STATION	STATION	LOCATION	GUARDRAIL	APPROACH SLABS
			LIN. FT.	EACH
84+41	87+10	I-540 R.M.L.-RT.	269	
86+16	87+10	I-540 L.M.L.-LT.	94	
86+82	87+17	I-540 MAIN LANES		1
88+64	88+98	I-540 MAIN LANES		1
88+57	89+50	I-540 R.M.L.-RT.	94	
88+57	91+25	I-540 L.M.L.-LT.	269	
132+60	135+29	I-540 R.M.L.-RT.	269	
134+79	135+73	I-540 L.M.L.-LT.	94	
138+76	139+70	I-540 R.M.L.-RT.	94	
139+20	141+89	I-540 L.M.L.-LT.	269	
183+02	185+71	I-540 R.M.L.-RT.	269	
187+49	192+43	I-540 L.M.L.-LT.	494	
187+55	192+74	I-540 R.M.L.-RT.	519	
196+12	198+81	I-540 R.M.L.-RT.	269	
197+57	198+76	I-540 L.M.L.-LT.	119	
200+31	203+00	I-540 L.M.L.-LT.	269	
200+36	202+55	I-540 R.M.L.-RT.	219	
205+52	208+52	I-540 L.M.L.-LT.	300	
207+31	209+56	I-540 R.M.L.-RT.	225	
234+52	239+96	I-540 L.M.L.-LT.	544	
235+76	240+45	I-540 R.M.L.-RT.	469	
241+55	246+99	I-540 L.M.L.-LT.	544	
242+04	247+73	I-540 R.M.L.-RT.	569	
259+97	262+22	I-540 R.M.L.-RT.	225	
259+99	262+49	I-540 L.M.L.-LT.	250	
266+92	268+35	I-540 R.M.L.-RT.	144	
267+74	270+42	I-540 L.M.L.-LT.	269	
311+93	314+43	I-540 L.M.L.-LT.	250	
324+01	378+06	I-540 R.M.L.-RT.	694	
324+40	377+95	I-540 L.M.L.-LT.	644	
379+47	386+16	I-540 L.M.L.-LT.	669	
379+60	287+81	I-540 R.M.L.-RT.	822	
345+86	349+05	I-540 R.M.L.-LT.	319	
346+26	348+95	I-540 R.M.L.-RT.	269	
350+69	352+88	I-540 R.M.L.-RT.	219	
350+89	354+08	I-540 L.M.L.-RT.	319	
350+99	355+68	I-540 L.M.L.-LT.	469	
488+38	491+07	I-540 L.M.L.-LT.	269	
488+38	491+07	I-540 R.M.L.-RT.	269	
496+80	503+99	I-540 R.M.L.-RT.	719	
496+80	504+49	I-540 L.M.L.-LT.	769	
644+52	647+71	I-540 R.M.L.-LT.	319	
645+23	647+92	I-540 R.M.L.-RT.	269	
648+73	656+91	I-540 L.M.L.-LT.	819	
648+95	652+14	I-540 L.M.L.-RT.	319	
659+05	663+91	I-540 R.M.L.-LT.	319	
659+73	664+09	I-540 R.M.L.-RT.	269	
668+06	676+75	I-540 L.M.L.-LT.	869	
668+24	671+43	I-540 L.M.L.-RT.	319	
668+96	679+65	I-540 R.M.L.-RT.	1069	
TOTAL:			**18420**	**2**

NOTE: THE QUANTITY SHOWN ABOVE FOR THE REMOVAL AND DISPOSAL OF GUARDRAIL SHALL INCLUDE THE REMOVAL AND DISPOSAL OF ALL GUARDRAIL TERMINALS AND TERMINAL ANCHOR POSTS.

RBB0401 REVISED.DGN 9/13/2018

QUANTITIES

COLD MILLING ASPHALT PAVEMENT (I-40) (BOX 1 OF 6)

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
		RT. MAIN LANES		
0+00.00	02+00.00	I-40 R.M.L.	38.00	844.44
02+00.00	07+91.33	I-40 R.M.L.	38.00	2496.73
07+91.33	09+39.81	I-40 R.M.L.	VAR.	576.89
09+39.81	16+04.06	I-40 R.M.L. - ACCELERATION LANE	46.00	3395.06
16+04.06	19+04.06	I-40 R.M.L. - ACCELERATION LANE TAPER	42.00	1400.00
19+04.06	69+80.40	I-40 R.M.L.	38.00	21306.68
69+80.40	133+30.03	I-40 R.M.L.	38.00	26809.55
133+30.03	135+30.03	I-40 R.M.L. - TURNOUT	VAR.	891.37
135+30.03	137+73.57	I-40 R.M.L. - TURNOUT	46.00	1244.76
137+73.57	138+61.99	I-40 R.M.L. - TURNOUT	VAR.	293.84
138+61.99	149+59.04	I-40 R.M.L.	38.00	4631.99
149+59.04	150+55.54	I-40 R.M.L.	VAR.	338.67
150+55.54	153+71.72	I-40 R.M.L. - AUXILARY LANE	46.00	1616.03
153+71.72	155+61.96	I-40 R.M.L. - TURNOUT	VAR.	734.92
155+61.96	171+02.78	I-40 R.M.L.	38.00	6505.68
171+02.78	172+28.73	I-40 R.M.L.	VAR.	436.82
172+28.73	178+92.16	I-40 R.M.L. - ACCELERATION LANE	46.00	3390.86
178+92.16	181+75.17	I-40 R.M.L. - ACCELERATION LANE TAPER	42.00	1320.71
181+75.17	184+61.91	I-40 R.M.L.	38.00	1210.68
184+47.67	185+00.00	I-40 R.M.L.	38.00	220.95
185+14.04	187+54.89	I-40 R.M.L.	38.00	1059.14
192+96.50	194+96.50	I-40 R.M.L.	38.00	844.44
194+96.50	215+96.23	I-40 R.M.L.	38.00	8865.53
216+55.35	264+35.96	I-40 R.M.L.	38.00	20395.91
264+85.96	268+30.05	I-40 R.M.L. - TURNOUT	VAR.	1614.71
268+80.05	275+00.00	I-40 R.M.L.	38.00	2617.57
275+06.66	275+49.50	I-40 R.M.L.	38.00	180.88
275+49.50	277+49.50	I-40 R.M.L.	38.00	844.44
280+41.69	282+41.69	I-40 R.M.L.	38.00	844.44
282+41.69	288+56.53	I-40 R.M.L.	38.00	2595.99
288+56.53	291+07.15	I-40 R.M.L.	VAR.	1065.88
291+07.15	296+96.46	I-40 R.M.L. - ACCELERATION LANE	46.00	3012.03
296+96.46	299+96.46	I-40 R.M.L. - ACCELERATION LANE TAPER	42.00	1400.00
299+96.46	356+77.54	I-40 R.M.L.	38.00	23986.78
357+00.62	364+00.00	I-40 R.M.L.	38.00	2952.94
363+79.30	366+26.43	I-40 R.M.L.	38.00	1043.44
366+26.43	368+26.43	I-40 R.M.L.	38.00	844.44
371+92.63	373+92.63	I-40 R.M.L.	38.00	844.44
373+92.63	379+72.99	I-40 R.M.L.	38.00	2450.41
379+72.99	384+83.08	I-40 R.M.L. - TURNOUT	VAR.	2685.47
384+83.08	395+19.02	I-40 R.M.L.	38.00	4373.97
395+19.02	395+43.52	I-40 R.M.L.	VAR.	98.63
395+43.50	397+19.00	I-40 R.M.L. - ACCELERATION LANE	VAR.	800.71
399+26.17	401+26.17	I-40 R.M.L. - ACCELERATION LANE	50.00	1111.11
401+26.17	403+77.41	I-40 R.M.L. - ACCELERATION LANE	50.00	1395.78
403+77.41	405+87.40	I-40 R.M.L. - ACCELERATION LANE TAPER	44.00	1026.62
405+87.40	451+27.56	I-40 R.M.L.	38.00	19169.56
451+27.56	454+69.07	I-40 R.M.L. - TURNOUT	VAR.	1513.19
454+69.07	477+40.71	I-40 R.M.L.	38.00	9591.37
477+40.71	479+94.32	I-40 R.M.L.	VAR.	1190.32
479+94.32	484+93.81	I-40 R.M.L. - ACCELERATION LANE	46.00	2552.95
484+93.81	487+86.90	I-40 R.M.L. - ACCELERATION LANE TAPER	42.00	1367.75
487+86.90	489+23.49	I-40 R.M.L.	38.00	576.71
489+23.49	491+23.49	I-40 R.M.L.	38.00	844.44
491+23.49	491+73.49	I-40 R.M.L.	38.00	211.11
491+73.49	493+73.49	I-40 R.M.L.	38.00	844.44
493+73.49	576+08.55	I-40 R.M.L.	38.00	34770.25
576+08.55	578+08.55	I-40 R.M.L.	38.00	844.44
578+08.55	578+58.55	I-40 R.M.L.	38.00	211.11
578+58.55	580+58.55	I-40 R.M.L.	38.00	844.44
580+58.55	621+92.61	I-40 R.M.L.	38.00	17454.92
621+92.61	623+92.61	I-40 R.M.L.	38.00	844.44
623+92.61	627+23.74	I-40 R.M.L.	28.00	1039.52
626+94.27	629+00.00	I-40 R.M.L.	28.00	640.05
636+38.00	638+38.00	I-40 R.M.L.	38.00	844.44
638+38.00	656+27.87	I-40 R.M.L.	38.00	11779.45
666+27.87	667+63.49	I-40 R.M.L.	38.00	572.62
667+63.49	668+27.87	I-40 R.M.L.	VAR.	235.65
668+27.87	668+77.87	I-40 R.M.L.	VAR.	274.10
668+77.87	669+68.47	I-40 R.M.L.	VAR.	496.83
669+68.47	670+77.87	I-40 R.M.L.	50.00	607.78
670+77.87	684+69.76	I-40 R.M.L. - AUXILARY LANE	50.00	7732.72
684+69.76	691+58.44	I-40 R.M.L. - TURNOUT	VAR.	4061.17
691+58.44	697+00.00	I-40 R.M.L.	38.00	2286.59
696+35.00	698+76.69	I-40 R.M.L.	38.00	1020.47
698+76.69	700+76.69	I-40 R.M.L.	38.00	844.44
703+14.95	706+03.31	I-40 R.M.L.	38.00	1217.52
708+78.50	710+78.50	I-40 R.M.L.	38.00	844.44
710+78.50	714+62.16	I-40 R.M.L.	38.00	1619.90
714+62.16	717+16.32	I-40 R.M.L.	VAR.	1198.11
717+16.32	722+55.87	I-40 R.M.L. - ACCELERATION LANE	46.00	2757.70
722+55.87	725+55.89	I-40 R.M.L. - ACCELERATION LANE TAPER	42.00	1400.09
725+55.89	835+05.77	I-40 R.M.L.	38.00	46232.83
835+05.77	837+05.77	I-40 R.M.L.	38.00	844.44
837+05.77	838+05.77	I-40 R.M.L.	38.00	422.22
838+05.77	838+55.77	I-40 R.M.L.	38.00	211.11
838+55.77	839+55.77	I-40 R.M.L.	38.00	422.22
839+55.77	841+55.77	I-40 R.M.L.	38.00	844.44
841+55.77	897+35.95	I-40 R.M.L.	38.00	23560.76
897+35.95	899+35.95	I-40 R.M.L.	38.00	844.44
SUBTOTAL (BOX 1 OF 6):				376309.82

NOTE: AVERAGE MILLING DEPTH IS 4" FOR MILL AND INLAY OPERATIONS.

COLD MILLING ASPHALT PAVEMENT (I-40) (BOX 2 OF 6)

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
		LT. MAIN LANES		
0+00.00	02+00.00	I-40 L.M.L.	38.00	844.44
02+00.00	43+42.08	I-40 L.M.L.	38.00	17488.78
43+42.08	46+25.40	I-40 L.M.L. - TURNOUT	VAR.	1174.81
46+25.40	70+77.13	I-40 L.M.L.	38.00	10351.75
70+32.58	146+55.46	I-40 L.M.L.	38.00	32185.49
146+55.46	149+55.46	I-40 L.M.L. - ACCELERATION LANE TAPER	42.00	1400.00
149+55.46	155+98.09	I-40 L.M.L. - ACCELERATION LANE	46.00	3284.55
155+98.09	157+48.52	I-40 L.M.L.	VAR.	624.65
157+48.52	178+53.02	I-40 L.M.L.	38.00	8885.67
178+53.02	181+27.02	I-40 L.M.L. - TURNOUT	VAR.	1145.54
181+27.02	182+10.43	I-40 L.M.L.	38.00	352.18
182+76.58	184+55.96	I-40 L.M.L.	38.00	757.38
184+55.96	185+00.00	I-40 L.M.L.	38.00	185.95
185+14.04	186+70.00	I-40 L.M.L.	38.00	658.50
192+02.50	194+02.50	I-40 L.M.L.	38.00	844.44
194+02.50	217+46.96	I-40 L.M.L.	38.00	9898.83
216+55.35	256+73.53	I-40 L.M.L.	38.00	16965.65
256+73.53	259+73.53	I-40 L.M.L. - ACCELERATION LANE TAPER	42.00	1400.00
259+73.53	265+66.31	I-40 L.M.L. - ACCELERATION LANE	46.00	3029.76
265+66.31	268+21.34	I-40 L.M.L.	VAR.	1112.54
268+21.34	275+00.00	I-40 L.M.L.	38.00	2865.45
275+06.66	275+26.00	I-40 L.M.L.	38.00	81.66
275+26.00	277+26.00	I-40 L.M.L.	38.00	844.44
280+18.19	282+18.19	I-40 L.M.L.	38.00	844.44
282+18.19	291+61.27	I-40 L.M.L.	38.00	3981.89
291+61.27	295+42.07	I-40 L.M.L. - TURNOUT	VAR.	1571.42
295+42.07	356+04.77	I-40 L.M.L.	38.00	25598.07
355+81.68	364+00.00	I-40 L.M.L.	38.00	3455.13
363+79.30	366+16.73	I-40 L.M.L.	38.00	1002.48
366+16.73	368+16.73	I-40 L.M.L.	38.00	844.44
371+82.93	373+82.93	I-40 L.M.L.	38.00	844.44
373+82.93	391+18.98	I-40 L.M.L.	38.00	7329.99
391+18.98	393+72.33	I-40 L.M.L. - ACCELERATION LANE TAPER	42.00	1182.30
393+72.33	395+19.02	I-40 L.M.L. - ACCELERATION LANE	46.00	749.75
395+19.02	395+43.52	I-40 L.M.L. - ACCELERATION LANE	46.00	125.22
395+43.50	397+19.00	I-40 L.M.L. - ACCELERATION LANE	46.00	897.00
399+26.17	400+47.75	I-40 L.M.L. - ACCELERATION LANE	46.00	621.41
400+47.75	401+26.17	I-40 L.M.L. - ACCELERATION LANE	VAR.	441.22
401+26.17	401+38.39	I-40 L.M.L.	VAR.	66.65
401+38.39	409+22.43	I-40 L.M.L.	38.00	3310.39
409+22.43	415+44.83	I-40 L.M.L. - TURNOUT	VAR.	3238.34
415+44.83	444+61.14	I-40 L.M.L.	38.00	12313.31
444+61.14	447+48.79	I-40 L.M.L. - ACCELERATION LANE TAPER	42.00	1342.37
447+48.79	452+90.78	I-40 L.M.L. - ACCELERATION LANE	46.00	2770.17
452+90.78	455+57.72	I-40 L.M.L.	VAR.	1258.70
455+57.72	484+48.83	I-40 L.M.L.	38.00	12206.91
484+48.83	488+43.84	I-40 L.M.L. - TURNOUT	VAR.	1734.91
488+43.84	489+65.12	I-40 L.M.L.	38.00	512.07
489+65.12	491+65.12	I-40 L.M.L.	38.00	844.44
491+65.12	492+15.12	I-40 L.M.L.	38.00	211.11
492+15.12	494+15.12	I-40 L.M.L.	38.00	844.44
494+15.12	576+49.64	I-40 L.M.L.	38.00	34767.97
576+49.64	578+49.64	I-40 L.M.L.	38.00	844.44
578+49.64	578+99.64	I-40 L.M.L.	38.00	211.11
578+99.64	580+99.64	I-40 L.M.L.	38.00	844.44
580+99.64	624+45.55	I-40 L.M.L.	38.00	18349.40
624+45.55	626+45.55	I-40 L.M.L.	38.00	844.44
626+45.55	628+86.83	I-40 L.M.L.	28.00	750.65
628+93.83	629+00.00	I-40 L.M.L.	28.00	19.20
629+71.12	631+64.73	I-40 L.M.L.	28.00	602.34
637+02.45	639+84.29	I-40 L.M.L.	28.00	876.84
639+84.29	640+52.91	I-40 L.M.L.	VAR.	249.79
640+52.91	642+52.91	I-40 L.M.L.	38.00	844.44
642+52.91	661+28.42	I-40 L.M.L.	38.00	7918.82
661+28.42	666+22.62	I-40 L.M.L. - TURNOUT	VAR.	2692.76
666+22.62	666+47.75	I-40 L.M.L. - TURNOUT	VAR.	129.06
666+47.75	668+22.62	I-40 L.M.L. - AUXILARY LANE	46.00	893.78
668+22.62	668+72.62	I-40 L.M.L. - AUXILARY LANE	46.00	255.56
668+72.62	670+72.62	I-40 L.M.L. - AUXILARY LANE	46.00	1022.22
670+72.62	687+91.80	I-40 L.M.L. - AUXILARY LANE	46.00	8786.92
687+91.80	690+46.80	I-40 L.M.L.	VAR.	1202.41
690+46.80	697+00.00	I-40 L.M.L.	38.00	2757.96
696+35.00	698+99.43	I-40 L.M.L.	38.00	1116.48
698+99.43	700+99.43	I-40 L.M.L.	38.00	844.44
703+37.69	706+15.67	I-40 L.M.L.	38.00	1173.69
708+90.86	710+90.86	I-40 L.M.L.	38.00	844.44
710+90.86	713+20.25	I-40 L.M.L.	38.00	968.54
713+20.25	720+09.63	I-40 L.M.L. - TURNOUT	VAR.	3658.02
720+09.63	834+93.36	I-40 L.M.L.	38.00	48486.86
834+93.96	836+93.96	I-40 L.M.L.	38.00	844.44
836+93.96	837+93.96	I-40 L.M.L.	38.00	422.22
837+93.96	838+43.96	I-40 L.M.L.	38.00	211.11
838+43.96	839+43.96	I-40 L.M.L.	38.00	422.22
839+43.96	841+43.96	I-40 L.M.L.	38.00	844.44
841+43.96	897+35.95	I-40 L.M.L.	38.00	23610.62
897+35.95	899+35.95	I-40 L.M.L.	38.00	844.44
SUBTOTAL (BOX 2 OF 6):				375681.98

NOTE: AVERAGE MILLING DEPTH IS 4" FOR MILL AND INLAY OPERATIONS.

QUANTITIES

(2) QUANTITIES

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-04-18				6	ARK.	BB0401	70	234

STATE OF ARKANSAS * * * REGISTERED PROFESSIONAL ENGINEER * * * No. 11425 TIMOTHY D. SMITH

10-4-18

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-01-18				6	ARK.			
10-17-18				JOB NO.		BB0401	71	234

(2) QUANTITIES

COLD MILLING ASPHALT PAVEMENT (I-40) (BOX 3 OF 6)

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
		RAMPS - EASTBOUND		
		I-40 ENTRANCE RAMP - DORA RD.	25.00	1111.11
		I-40 ENTRANCE RAMP - DORA RD.	25.00	277.78
		I-40 EXIT RAMP - ARKANSAS WELCOME CENTER	25.00	611.11
		I-40 EXIT RAMP - ARKANSAS WELCOME CENTER	25.00	277.78
		I-40 ENTRANCE RAMP - ARKANSAS WELCOME CENTER	25.00	305.56
		I-40 ENTRANCE RAMP - ARKANSAS WELCOME CENTER	25.00	277.78
		I-40 RAMP 1 - BECKAERT ROAD	25.00	1166.67
		I-40 RAMP 1 - BECKAERT ROAD	25.00	277.78
		I-40 RAMP 1 - BECKAERT ROAD INTERSECTION	VAR.	869.56
		I-40 RAMP 2 - BECKAERT ROAD	25.00	1111.11
		I-40 RAMP 2 - BECKAERT ROAD	25.00	277.78
		I-40 RAMP 2 - BECKAERT ROAD INTERSECTION	VAR.	1042.89
		I-40 RAMP 1 - HWY. 59	25.00	1416.67
		I-40 RAMP 1 - HWY. 59	25.00	277.78
		I-40 RAMP 2 - HWY. 59	25.00	1305.56
		I-40 RAMP 2 - HWY. 59	25.00	277.78
		I-40 RAMP 2 - HWY. 59 INTERSECTION	VAR.	744.00
		I-40 RAMP 3 - HWY. 71 S.	25.00	1111.11
		I-40 RAMP 3 - HWY. 71 S.	25.00	277.78
		I-40 RAMP 4 - HWY. 71 N.	25.00	1111.11
		I-40 RAMP 4 - HWY. 71 N.	25.00	277.78
		I-40 RAMP 1 - WEIGH STATION	25.00	694.44
		I-40 RAMP 1 - WEIGH STATION	25.00	277.78
		I-40 RAMP 2 - WEIGH STATION	25.00	416.67
		I-40 RAMP 2 - WEIGH STATION	25.00	277.78
		I-40 RAMP 1 - I-49	25.00	1111.11
		I-40 RAMP 1 - I-49	25.00	277.78
		I-40 RAMP 2 - I-49	25.00	1111.11
		I-40 RAMP 2 - I-49	25.00	277.78
		I-40 RAMP 1 - HWY. 71 S.	25.00	1111.11
		I-40 RAMP 1 - HWY. 71 S.	25.00	277.78
		I-40 RAMP 2 - HWY. 71 N.	25.00	1111.11
		I-40 RAMP 2 - HWY. 71 N.	25.00	277.78
		RAMPS - WESTBOUND		
		I-40 EXIT RAMP - DORA RD.	25.00	1527.78
		I-40 EXIT RAMP - DORA RD.	25.00	277.78
		I-40 RAMP 4 - BECKAERT ROAD	25.00	1111.11
		I-40 RAMP 4 - BECKAERT ROAD	25.00	277.78
		I-40 RAMP 4 - BECKAERT ROAD INTERSECTION	VAR.	1126.67
		I-40 RAMP 3 - BECKAERT ROAD	25.00	1111.11
		I-40 RAMP 3 - BECKAERT ROAD	25.00	277.78
		I-40 RAMP 3 - BECKAERT ROAD INTERSECTION	VAR.	1305.78
		I-40 RAMP 4 - HWY. 59	25.00	1527.78
		I-40 RAMP 4 - HWY. 59	25.00	277.78
		I-40 RAMP 3 - HWY. 59	25.00	1250.00
		I-40 RAMP 3 - HWY. 59	25.00	277.78
		I-40 RAMP 3 - HWY. 59 INTERSECTION	VAR.	354.00
		I-40 RAMP 2 - HWY. 71 N.	25.00	1111.11
		I-40 RAMP 2 - HWY. 71 N.	25.00	277.78
		I-40 RAMP 1 - HWY. 71 S.	25.00	1111.11
		I-40 RAMP 1 - HWY. 71 S.	25.00	277.78
		I-40 RAMP 4 - WEIGH STATION	25.00	694.44
		I-40 RAMP 4 - WEIGH STATION	25.00	277.78
		I-40 RAMP 3 - WEIGH STATION	25.00	555.56
		I-40 RAMP 3 - WEIGH STATION	25.00	277.78
		I-40 RAMP 4 - I-49	25.00	1111.11
		I-40 RAMP 4 - I-49	25.00	277.78
		I-40 RAMP 3 - I-49	25.00	1597.22
		I-40 RAMP 3 - I-49	25.00	277.78
		I-40 RAMP 4 - HWY. 71 S.	25.00	1111.11
		I-40 RAMP 4 - HWY. 71 S.	25.00	277.78
		I-40 RAMP 3 - HWY. 71 N.	25.00	1111.11
		I-40 RAMP 3 - HWY. 71 N.	25.00	277.78
SUBTOTAL (BOX 3 OF 6):				**42956.85**

NOTE: AVERAGE MILLING DEPTH IS 2" FOR MILL AND INLAY OPERATIONS.

COLD MILLING ASPHALT PAVEMENT (I-40) (BOX 4 OF 6)

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
		GUARDRAIL - R.M.L.		
501+30.00	01+49.00	I-40 R.M.L.-RT.	VAR.	180.48
00+39.00	03+32.00	I-40 R.M.L.-LT.	VAR.	168.98
09+66.00	27+34.00	I-40 R.M.L.-RT.	VAR.	1070.36
59+15.00	61+08.00	I-40 R.M.L.-RT.	VAR.	107.86
59+19.00	61+12.00	I-40 R.M.L.-LT.	VAR.	107.86
67+87.00	70+60.02	I-40 R.M.L.-RT.	VAR.	156.77
68+59.00	71+32.02	I-40 R.M.L.-LT.	VAR.	156.77
81+01.00	83+19.00	I-40 R.M.L.-RT.	VAR.	123.14
81+11.00	83+04.00	I-40 R.M.L.-LT.	VAR.	107.86
127+22.00	129+90.00	I-40 R.M.L.-RT.	VAR.	153.70
135+00.00	138+43.00	I-40 R.M.L.-LT.	VAR.	199.53
135+15.00	138+69.00	I-40 R.M.L.-RT.	VAR.	206.25
150+38.00	153+06.00	I-40 R.M.L.-LT.	VAR.	153.70
150+40.00	153+08.00	I-40 R.M.L.-RT.	VAR.	153.70
184+02.00	185+00.00	I-40 R.M.L.-LT.	VAR.	59.50
184+75.00	185+00.00	I-40 R.M.L.-RT.	VAR.	15.16
219+73.00	221+66.00	I-40 R.M.L.-LT.	VAR.	107.86
219+92.00	221+85.00	I-40 R.M.L.-RT.	VAR.	107.86
225+36.00	227+29.00	I-40 R.M.L.-LT.	VAR.	107.86
239+98.00	241+91.00	I-40 R.M.L.-LT.	VAR.	107.86
258+14.00	260+07.00	I-40 R.M.L.-LT.	VAR.	107.86
274+89.00	275+00.00	I-40 R.M.L.-LT.	VAR.	8.84
274+76.00	275+00.00	I-40 R.M.L.-RT.	VAR.	14.19
287+94.00	289+87.00	I-40 R.M.L.-LT.	VAR.	107.86
315+69.00	318+37.00	I-40 R.M.L.-LT.	VAR.	153.70
315+69.00	318+37.00	I-40 R.M.L.-RT.	VAR.	153.70
319+73.00	322+84.75	I-40 R.M.L.-RT.	VAR.	180.43
347+82.00	350+50.00	I-40 R.M.L.-LT.	VAR.	153.70
347+99.87	364+00.00	I-40 R.M.L.-RT.	VAR.	959.30
364+72.00	368+58.75	I-40 R.M.L.-LT.	VAR.	226.27
371+60.00	384+14.00	I-40 R.M.L.-RT.	5.50	766.33
378+32.00	384+00.00	I-40 R.M.L.-LT.	VAR.	337.03
384+93.00	391+86.00	I-40 R.M.L.-LT.	VAR.	413.42
385+90.00	390+33.00	I-40 R.M.L.-RT.	VAR.	260.64
393+67.00	397+53.75	I-40 R.M.L.-LT.	VAR.	226.27
394+41.00	397+54.00	I-40 R.M.L.-RT.	VAR.	181.20
416+23.00	421+66.00	I-40 R.M.L.-LT.	VAR.	321.75
417+30.00	420+66.75	I-40 R.M.L.-RT.	VAR.	195.71
434+18.00	436+86.00	I-40 R.M.L.-LT.	VAR.	153.70
434+18.00	436+86.00	I-40 R.M.L.-RT.	VAR.	153.70
486+99.00	492+42.00	I-40 R.M.L.-LT.	VAR.	321.75
488+06.00	491+17.75	I-40 R.M.L.-RT.	VAR.	180.43
560+06.00	562+49.00	I-40 R.M.L.-RT.	VAR.	138.42
573+84.00	579+27.00	I-40 R.M.L.-LT.	VAR.	321.75
574+66.00	578+02.75	I-40 R.M.L.-RT.	VAR.	195.71
579+91.00	582+34.00	I-40 R.M.L.-RT.	VAR.	138.42
628+00.00	630+43.00	I-40 R.M.L.-RT.	VAR.	138.42
627+68.00	631+50.87	I-40 R.M.L.-LT.	VAR.	223.90
628+02.00	630+43.00	I-40 R.M.L.-RT.	VAR.	137.20
645+03.00	651+46.00	I-40 R.M.L.-LT.	VAR.	382.86
663+96.00	669+39.00	I-40 R.M.L.-LT.	VAR.	321.75
693+84.00	701+05.75	I-40 R.M.L.-RT.	VAR.	470.71
697+80.00	701+16.75	I-40 R.M.L.-LT.	VAR.	195.71
702+73.00	706+35.50	I-40 R.M.L.-RT.	5.50	221.53
703+47.00	706+40.75	I-40 R.M.L.-LT.	5.50	179.51
713+87.00	719+30.00	I-40 R.M.L.-LT.	VAR.	321.75
714+98.00	718+09.75	I-40 R.M.L.-RT.	VAR.	180.43
737+55.00	739+98.00	I-40 R.M.L.-RT.	VAR.	138.42
833+74.00	840+17.00	I-40 R.M.L.-LT.	VAR.	382.86
834+85.00	838+21.75	I-40 R.M.L.-RT.	VAR.	195.71
SUBTOTAL (BOX 4 OF 6):				**13415.90**

NOTE: AVERAGE MILLING DEPTH IS 2" FOR MILL AND INLAY OPERATIONS.

COLD MILLING ASPHALT PAVEMENT (I-40) (BOX 5 OF 6)

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
		GUARDRAIL - L.M.L.		
01+53.00	06+96.00	I-40 L.M.L.-RT.	VAR.	321.75
03+27.00	06+63.75	I-40 L.M.L.-LT.	VAR.	195.71
61+17.00	63+10.00	I-40 L.M.L.-LT.	VAR.	107.86
61+38.00	63+31.00	I-40 L.M.L.-RT.	VAR.	107.86
70+99.00	73+42.00	I-40 L.M.L.-RT.	VAR.	138.42
71+50.00	73+93.00	I-40 L.M.L.-LT.	VAR.	138.42
82+59.00	84+52.00	I-40 L.M.L.-LT.	VAR.	107.86
82+59.00	84+52.00	I-40 L.M.L.-RT.	VAR.	107.86
191+54.00	202+90.75	I-40 L.M.L.-LT.	VAR.	684.60
191+78.00	195+64.75	I-40 L.M.L.-RT.	VAR.	226.27
219+77.00	221+70.00	I-40 L.M.L.-LT.	VAR.	107.86
220+69.00	222+62.00	I-40 L.M.L.-RT.	VAR.	107.86
225+95.00	227+88.00	I-40 L.M.L.-LT.	VAR.	107.86
226+16.00	228+34.00	I-40 L.M.L.-RT.	VAR.	123.14
240+87.00	243+05.00	I-40 L.M.L.-RT.	VAR.	123.14
260+00.00	261+93.00	I-40 L.M.L.-RT.	VAR.	107.86
260+44.00	262+62.00	I-40 L.M.L.-LT.	VAR.	123.14
279+81.00	282+93.00	I-40 L.M.L.-LT.	VAR.	180.59
279+87.00	283+73.75	I-40 L.M.L.-RT.	VAR.	226.27
288+31.00	290+24.00	I-40 L.M.L.-RT.	VAR.	107.86
322+89.00	326+25.75	I-40 L.M.L.-LT.	VAR.	195.71
371+46.00	375+07.75	I-40 L.M.L.-LT.	VAR.	210.99
371+49.00	375+60.75	I-40 L.M.L.-RT.	VAR.	241.55
388+11.00	394+86.00	I-40 L.M.L.-RT.	5.50	412.50
389+35.00	395+43.52	I-40 L.M.L.-LT.	5.50	371.87
398+91.00	401+98.00	I-40 L.M.L.-LT.	VAR.	177.53
398+91.00	402+77.75	I-40 L.M.L.-RT.	VAR.	226.27
410+02.00	418+02.00	I-40 L.M.L.-LT.	VAR.	478.81
415+40.00	418+33.00	I-40 L.M.L.-RT.	VAR.	168.98
419+99.00	425+42.00	I-40 L.M.L.-RT.	VAR.	321.75
421+01.00	424+12.75	I-40 L.M.L.-LT.	VAR.	180.43
436+79.00	439+47.00	I-40 L.M.L.-LT.	VAR.	153.70
436+79.00	439+47.00	I-40 L.M.L.-RT.	VAR.	153.70
471+46.00	474+14.00	I-40 L.M.L.-LT.	VAR.	153.70
471+46.00	474+14.00	I-40 L.M.L.-RT.	VAR.	153.70
488+51.00	491+19.00	I-40 L.M.L.-LT.	VAR.	153.70
490+97.00	496+40.00	I-40 L.M.L.-RT.	VAR.	321.75
492+31.00	495+42.75	I-40 L.M.L.-LT.	VAR.	180.43
522+90.00	525+58.00	I-40 L.M.L.-LT.	VAR.	153.70
542+01.00	547+69.00	I-40 L.M.L.-LT.	VAR.	337.03
560+69.00	563+12.00	I-40 L.M.L.-LT.	VAR.	138.42
577+79.00	583+22.00	I-40 L.M.L.-RT.	VAR.	321.75
579+08.00	582+19.75	I-40 L.M.L.-LT.	VAR.	180.43
636+54.00	640+65.75	I-40 L.M.L.-RT.	VAR.	241.55
636+90.00	640+51.75	I-40 L.M.L.-LT.	VAR.	210.99
648+57.00	654+50.00	I-40 L.M.L.-RT.	VAR.	352.31
667+60.00	673+03.00	I-40 L.M.L.-RT.	VAR.	321.75
668+62.00	671+23.75	I-40 L.M.L.-LT.	VAR.	149.88
696+66.00	697+00.00	I-40 L.M.L.-LT.	5.50	268.21
702+98.00	705+91.75	I-40 L.M.L.-RT.	5.50	179.51
703+08.00	706+70.50	I-40 L.M.L.-LT.	5.50	221.53
708+53.00	711+71.00	I-40 L.M.L.-RT.	VAR.	184.25
708+59.00	711+95.75	I-40 L.M.L.-LT.	VAR.	195.71
717+81.00	723+24.00	I-40 L.M.L.-RT.	VAR.	321.75
718+96.00	722+32.75	I-40 L.M.L.-LT.	VAR.	195.71
727+07.00	730+00.00	I-40 L.M.L.-LT.	VAR.	168.98
731+31.00	733+74.00	I-40 L.M.L.-LT.	VAR.	138.42
740+19.00	743+12.00	I-40 L.M.L.-LT.	VAR.	168.98
747+00.00	749+68.00	I-40 L.M.L.-LT.	VAR.	153.70
771+78.00	774+21.00	I-40 L.M.L.-LT.	VAR.	138.42
795+90.00	798+33.00	I-40 L.M.L.-LT.	VAR.	138.42
808+02.00	810+45.00	I-40 L.M.L.-LT.	VAR.	138.42
816+37.00	819+05.00	I-40 L.M.L.-LT.	VAR.	153.70
837+34.00	842+77.00	I-40 L.M.L.-RT.	VAR.	321.75
838+27.00	841+63.75	I-40 L.M.L.-LT.	VAR.	195.71
874+49.00	880+92.00	I-40 L.M.L.-LT.	VAR.	382.86
SUBTOTAL (BOX 5 OF 6):				**13783.10**

NOTE: AVERAGE MILLING DEPTH IS 2" FOR MILL AND INLAY OPERATIONS.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-18-18

RBB0401 REVISED.DGN 10/8/2018

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-01-18				6	ARK.			
				JOB NO.		BB0401	72	234

(2) QUANTITIES

COLD MILLING ASPHALT PAVEMENT (I-40) (BOX 6 OF 6)

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
		TRANSITIONS AT OVERPASSES		
07+21.24	08+21.24	DORA RD. OVERPASS	28.00	311.11
11+98.64	12+98.64	DORA RD. OVERPASS	28.00	311.11
726+71.29	727+71.29	RAMP 2 OVER FLAT ROCK CREEK	25.00	277.78
729+87.43	730+87.43	RAMP 2 OVER FLAT ROCK CREEK	25.00	277.78
07+75.72	08+75.72	LOST BEACH CROSSING OVERPASS	36.00	400.00
11+20.22	12+20.22	LOST BEACH CROSSING OVERPASS	36.00	400.00
22+29.28	23+29.28	RIDGE RD. OVERPASS	22.00	244.44
25+46.52	26+46.52	RIDGE RD. OVERPASS	22.00	244.44
		CROSSING ROADS		
		DORA RD.	VAR.	2514.22
		BECKAERT RD.	VAR.	2777.78
		HWY. 60	VAR.	1592.89
		LOST BEACH CROSSING	VAR.	2162.22
		RUDY RD.	VAR.	1805.77
		N. MOUNTAIN GROVE RD.	VAR.	2153.33
		EDWARDS RD.	VAR.	1108.89
		RIDGE RD.	VAR.	2405.33
		GEORIA RIDGE RD.	VAR.	7137.66
		OLD GRAPHIC RD.	VAR.	1493.34
SUBTOTAL (BOX 6 OF 6):				**27618.09**
SUBTOTAL (BOX 1 OF 6):				**376309.82**
SUBTOTAL (BOX 2 OF 6):				**375681.98**
SUBTOTAL (BOX 3 OF 6):				**42956.85**
SUBTOTAL (BOX 4 OF 6):				**13415.90**
SUBTOTAL (BOX 5 OF 6):				**13783.10**
TOTAL:				**849765.74**

NOTE: AVERAGE MILLING DEPTH IS 2" FOR MILL AND INLAY OPERATIONS.

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE	250
DIRECTED BY THE ENGINEER	
TOTAL:	**250**

NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT
		GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE	250	500
DIRECTED BY THE ENGINEER		
TOTALS:	**250**	**500**

BASIS OF ESTIMATE:
ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC...25 TON/MILE
TACK COAT FOR MAINTENANCE OF TRAFFIC.....50 GAL./MILE

STRUCTURES

STATION	DESCRIPTION	DROP INLETS ADJUSTED TO GRADE	STD. DWG. NOS.
		EACH	
185+26.76	I-540 TYPE ST DROP INLET	1	FPC-9S
198+40.15	I-540 TYPE ST DROP INLET	1	FPC-9S
200+68.24	I-540 TYPE N-2 DROP INLET	1	FPC-9N
350+90.96	I-540 TYPE N-2 DROP INLET	1	FPC-9N
TOTALS:		**4**	

COLD MILLING ASPHALT PAVEMENT (I-540) (BOX 1 OF 2)

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
		MILL AND INLAY OPERATIONS - MAIN LANES		
144+00.00	148+58.88	I-540 R.M.L.	26.00	1325.65
148+58.88	149+79.24	I-540 R.M.L.	VAR.	551.16
149+79.24	156+13.83	I-540 R.M.L.	38.00	2679.38
156+13.83	159+12.37	I-540 R.M.L.	32.00	1061.48
159+12.37	173+58.80	I-540 R.M.L.	26.00	4178.58
167+20.30	173+04.46	I-540 R.M.L.	26.00	1687.57
173+04.46	179+78.64	I-540 R.M.L.	VAR.	2910.15
179+78.64	185+31.94	I-540 R.M.L.	26.00	1598.42
187+90.10	197+33.49	I-540 R.M.L.	26.00	2725.35
197+33.49	198+43.33	I-540 R.M.L.	VAR.	531.79
200+71.12	204+86.50	I-540 R.M.L.	38.00	1753.83
204+86.50	208+01.61	I-540 R.M.L.	32.00	1120.39
208+01.61	211+01.57	I-540 R.M.L.	26.00	866.55
211+01.57	215+40.69	I-540 R.M.L.	VAR.	1624.75
215+40.69	230+89.33	I-540 R.M.L.	26.00	4473.85
230+89.33	231+63.02	I-540 R.M.L.	VAR.	327.31
231+63.02	236+51.30	I-540 R.M.L.	38.00	2061.63
236+51.30	239+01.30	I-540 R.M.L.	32.00	888.89
239+01.30	239+95.95	I-540 R.M.L.	26.00	273.43
242+28.37	256+00.00	I-540 R.M.L.	26.00	3962.49
256+00.00	257+77.88	I-540 R.M.L.	32.00	632.46
257+77.88	261+74.55	I-540 R.M.L.	38.00	1674.83
261+74.55	265+54.15	I-540 R.M.L.	VAR.	1780.96
265+54.15	284+23.88	I-540 R.M.L.	26.00	5401.44
284+23.88	285+86.81	I-540 R.M.L.	VAR.	746.89
285+86.81	291+76.18	I-540 R.M.L.	38.00	2488.45
291+76.18	294+76.18	I-540 R.M.L.	32.00	1066.67
294+76.18	329+51.14	I-540 R.M.L.	26.00	10038.77
376+62.34	377+66.86	I-540 R.M.L.	26.00	301.95
379+92.94	380+99.48	I-540 R.M.L.	26.00	307.78
380+99.48	386+91.50	I-540 R.M.L.	VAR.	2671.95
144+00.00	151+13.67	I-540 L.M.L.	26.00	2061.71
151+13.67	157+78.16	I-540 L.M.L.	VAR.	2733.27
157+78.16	170+55.16	I-540 L.M.L.	26.00	3689.11
170+55.16	173+55.16	I-540 L.M.L.	32.00	1066.67
173+55.16	173+58.80	I-540 L.M.L.	38.00	15.37
167+20.30	173+04.46	I-540 L.M.L.	38.00	2466.45
173+04.46	174+69.23	I-540 L.M.L.	VAR.	764.54
174+69.23	184+26.76	I-540 L.M.L.	26.00	2766.20
188+86.92	192+99.82	I-540 L.M.L.	26.00	1192.82
192+99.82	197+40.15	I-540 L.M.L.	VAR.	2015.08
201+68.24	204+75.15	I-540 L.M.L.	26.00	886.63
204+75.15	207+74.84	I-540 L.M.L.	32.00	1065.56
207+74.84	213+59.75	I-540 L.M.L.	38.00	2469.62
213+59.75	215+20.22	I-540 L.M.L.	VAR.	754.35
215+20.22	239+71.70	I-540 L.M.L.	26.00	7082.05
242+04.12	250+68.27	I-540 L.M.L.	26.00	2496.43
250+68.27	257+56.28	I-540 L.M.L.	VAR.	2915.14
257+56.28	282+31.52	I-540 L.M.L.	26.00	7150.69
282+31.52	288+95.61	I-540 L.M.L.	VAR.	2870.38
288+95.61	329+51.14	I-540 L.M.L.	26.00	11715.98
376+62.34	377+61.36	I-540 L.M.L.	26.00	286.06
379+86.84	381+37.60	I-540 L.M.L.	26.00	435.53
381+37.60	383+79.44	I-540 L.M.L.	32.00	859.88
383+79.44	386+91.50	I-540 L.M.L.	38.00	1317.59
		ADDITIONAL FOR BRIDGE TRANSITIONS		
184+26.76	185+26.76	I-540 L.M.L. - BR. 5101A TRANSITION	26.00	288.89
187+86.92	188+86.92	I-540 L.M.L. - BR. 5101A TRANSITION	26.00	288.89
197+40.15	198+40.15	I-540 L..M.L. - BR. 5100A TRANSITION	VAR.	366.79
200+68.24	201+68.24	I-540 L..M.L. - BR. 5100A TRANSITION	26.00	288.89
* 347+83.74	348+83.74	I-540 R.M.L. - BR. 3604B TRANSITION	26.00	288.89
* 350+90.96	351+90.96	I-540 R.M.L. - BR. 3604B TRANSITION	26.00	288.89
SUBTOTAL (BOX 1 OF 2):				**126603.15**

NOTE: AVERAGE MILLING DEPTH IS 2" FOR MILL AND INLAY OPERATIONS.
* DENOTES STATIONING LOCATED AFTER "386+91.50 BACK - 286+91.50 AHEAD" STATION EQUATION.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-2-18

10/5/2018
RBB0401 REVISED.DGN

QUANTITIES

COLD MILLING ASPHALT PAVEMENT (I-540) (BOX 2 0F 2)

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
		MILL AND INLAY OPERATIONS - SHOULDERS		
144+00.00	148+09.97	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	455.52
148+61.56	156+13.80	I-540 R.M.L. - ACCELERATION LANE SHOULDER	6.00	501.49
156+13.80	159+12.36	I-540 R.M.L. - ACCELERATION LANE SHOULDER TAPER	8.00	265.39
159+12.36	173+58.80	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	1607.16
167+20.30	173+04.37	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	648.97
173+04.37	174+93.74	I-540 R.M.L. - TURNOUT SHOULDER TAPER	8.00	168.33
174+93.74	177+96.80	I-540 R.M.L. - TURNOUT SHOULDER	6.00	202.04
177+92.75	185+33.42	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	822.97
187+91.02	196+51.12	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	955.67
197+34.89	198+44.51	I-540 R.M.L. - ACCELERATION LANE SHOULDER	6.00	73.08
200+72.17	204+86.50	I-540 R.M.L. - ACCELERATION LANE SHOULDER	6.00	276.22
204+86.50	208+01.61	I-540 R.M.L. - ACCELERATION LANE SHOULDER TAPER	8.00	280.10
208+01.61	211+01.57	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	333.29
211+01.57	212+20.32	I-540 R.M.L. - TURNOUT SHOULDER TAPER	8.00	105.56
212+20.32	213+52.47	I-540 R.M.L. - TURNOUT SHOULDER	6.00	88.10
213+53.28	230+48.62	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	1883.71
230+92.91	236+51.30	I-540 R.M.L. - ACCELERATION LANE SHOULDER	6.00	372.26
236+51.30	239+01.30	I-540 R.M.L. - ACCELERATION LANE SHOULDER TAPER	8.00	222.22
239+01.30	240+02.89	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	112.88
242+35.29	256+00.04	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	1516.39
256+00.04	257+77.88	I-540 R.M.L. - TURNOUT SHOULDER TAPER	8.00	158.08
257+77.88	265+51.20	I-540 R.M.L. - TURNOUT SHOULDER	6.00	515.55
265+81.39	283+20.65	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	1932.51
284+25.13	291+76.18	I-540 R.M.L. - ACCELERATION LANE SHOULDER	6.00	500.70
291+76.18	294+76.18	I-540 R.M.L. - ACCELERATION LANE SHOULDER TAPER	8.00	266.67
294+76.18	329+51.14	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	3861.07
376+62.34	377+68.43	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	117.88
379+94.51	380+99.48	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	116.63
380+99.48	382+88.87	I-540 R.M.L. - TURNOUT SHOULDER TAPER	8.00	168.35
382+88.87	386+04.57	I-540 R.M.L. - TURNOUT SHOULDER	6.00	210.47
386+03.37	386+91.50	I-540 R.M.L. - OUTSIDE SHOULDER	10.00	97.92
144+00.00	152+96.21	I-540 L.M.L. - OUTSIDE SHOULDER	10.00	995.79
152+95.47	154+61.59	I-540 L.M.L. - TURNOUT SHOULDER	6.00	110.75
154+61.59	157+77.75	I-540 L.M.L. - TURNOUT SHOULDER TAPER	8.00	281.03
157+77.75	170+55.16	I-540 L.M.L. - OUTSIDE SHOULDER	10.00	1419.34
170+55.16	173+55.16	I-540 L.M.L. - ACCELERATION LANE SHOULDER TAPER	8.00	266.67
173+55.16	173+58.80	I-540 L.M.L. - ACCELERATION LANE SHOULDER	6.00	2.43
167+20.30	174+68.14	I-540 L.M.L. - ACCELERATION LANE SHOULDER	6.00	498.56
175+70.59	185+25.28	I-540 L.M.L. - OUTSIDE SHOULDER	10.00	1060.77
187+86.00	194+85.02	I-540 L.M.L. - OUTSIDE SHOULDER	10.00	776.69
194+83.69	197+28.38	I-540 L.M.L. - TURNOUT SHOULDER	6.00	163.13
197+28.38	198+39.34	I-540 L.M.L. - TURNOUT SHOULDER TAPER	8.00	98.63
200+67.54	204+75.15	I-540 L.M.L. - OUTSIDE SHOULDER	10.00	452.90
204+75.15	207+74.84	I-540 L.M.L. - ACCELERATION LANE SHOULDER TAPER	8.00	266.39
207+74.84	215+17.92	I-540 L.M.L. - ACCELERATION LANE SHOULDER	6.00	495.39
215+79.83	239+64.78	I-540 L.M.L. - OUTSIDE SHOULDER	10.00	2649.94
241+97.20	252+58.62	I-540 L.M.L. - OUTSIDE SHOULDER	10.00	1179.36
252+23.52	257+56.28	I-540 L.M.L. - TURNOUT SHOULDER TAPER	8.00	473.56
257+56.28	284+04.77	I-540 L.M.L. - OUTSIDE SHOULDER	10.00	2942.77
284+06.04	287+05.93	I-540 L.M.L. - TURNOUT SHOULDER	6.00	199.93
287+05.93	288+95.61	I-540 L.M.L. - TURNOUT SHOULDER TAPER	8.00	168.60
288+95.61	329+51.14	I-540 L.M.L. - OUTSIDE SHOULDER	10.00	4506.14
376+62.34	377+59.79	I-540 L.M.L. - OUTSIDE SHOULDER	10.00	108.28
379+85.36	381+37.60	I-540 L.M.L. - OUTSIDE SHOULDER	10.00	169.16
381+37.60	383+79.44	I-540 L.M.L. - ACCELERATION LANE SHOULDER TAPER	8.00	214.97
383+79.44	386+91.50	I-540 L.M.L. - ACCELERATION LANE SHOULDER	6.00	208.04
		ADDITIONAL FOR GORES		
148+09.97	148+58.88	I-540 RT. MAIN LANES	VAR.	32.76
177+63.25	177+96.80	I-540 RT. MAIN LANES	VAR.	18.25
196+51.12	197+33.49	I-540 RT. MAIN LANES	VAR.	53.91
213+20.37	213+52.47	I-540 RT. MAIN LANES	VAR.	20.27
230+48.62	230+89.33	I-540 RT. MAIN LANES	VAR.	20.80
283+20.65	284+23.88	I-540 RT. MAIN LANES	VAR.	56.92
385+71.66	386+04.57	I-540 RT. MAIN LANES	VAR.	19.31
152+93.51	153+28.77	I-540 LT. MAIN LANES	VAR.	19.51
174+68.14	175+70.59	I-540 LT. MAIN LANES	VAR.	57.23
194+81.27	195+17.40	I-540 LT. MAIN LANES	VAR.	20.17
215+20.24	215+79.83	I-540 LT. MAIN LANES	VAR.	42.20
252+18.71	252+79.10	I-540 LT. MAIN LANES	VAR.	20.51
284+03.96	284+37.93	I-540 LT. MAIN LANES	VAR.	19.91
		ADDITIONAL FOR EASTBOUND RAMPS		
		I-540 ENTRANCE RAMP - HWY. 71	10.00	1022.22
		I-540 ENTRANCE RAMP - HWY. 71	26.00	1444.44
		I-540 RML EB EXIT RAMP - ZERO ST.	10.00	505.56
		I-540 RML EB EXIT RAMP - ZERO ST. TIE TO I-540	26.00	1444.44
		I-540 RML EB ENT. RAMP - ZERO ST.	10.00	763.33
		I-540 RML EB ENT. RAMP - ZERO ST. TIE TO I-540	26.00	1444.44
		I-540 RML EB ENT. RAMP - OLD GREENWOOD RD	10.00	113.33
		I-540 RML EB ENT. RAMP - OLD GREENWOOD RD	26.00	306.22
		I-540 RML EB ENT RAMP-OLD GREENWOOD RD TIE	26.00	1444.44
		I-540 RML EB ENT. RAMP - LEIGH AVE	10.00	963.33
		I-540 RML EB ENT RAMP-LEIGH AVE TIE TO I-540	26.00	1444.44
		I-540 RML EB EXIT RAMP - ROGERS AVE.	30.00	720.00
		I-540 RML EB EXIT RAMP-ROGERS AV. TIE I-540	26.00	1444.44
		I-540 RML EB EXIT RAMP - ROGERS AVE.	43.00	525.56
		ADDITIONAL FOR WESTBOUND RAMPS		
		I-540 LML WB EXIT RAMP - OLD GREENWOOD RD	10.00	816.67
		I-540 LML WB EXIT RAMP-OLD GREENWOOD RD TIE	26.00	1444.44
		I-540 LML WB ENT. RAMP - OLD GREENWOOD RD	10.00	537.78
		I-540 LML WB ENT RAMP-OLD GREENWOOD RD TIE	26.00	1444.44
		I-540 LML WB EXIT RAMP - ZERO ST.	10.00	537.78
		I-540 LML WB EXIT RAMP - ZERO ST. TIE I-540	26.00	1444.44
		I-540 LML WB EXIT RAMP - ZERO ST. (RADII)	54.00	372.00
		I-540 LML WB ENT RAMP - ZERO ST.	10.00	858.89
		I-540 LML WB ENT RAMP - ZERO ST. TIE I-540	26.00	1444.44
		I-540 LML WB EXIT RAMP - HWY. 71	26.00	2022.22
		I-540 LML WB EXIT RAMP - HWY. 71 TIE I-540	26.00	1444.44
		I-540 LML WB EXIT RAMP - HWY. 71 TURNOUT	24.00	392.00
		ADDITIONAL FOR CROSSING ROADS		
		HWY. 71 UNDERPASS	VAR.	15371.00
		ZERO ST.	VAR.	6534.00
		LEIGH AVENUE OVERPASS	VAR.	2260.00
SUBTOTAL (BOX 2 OF 2):				**89458.88**
SUBTOTAL (BOX 1 OF 2):				**126603.15**
TOTAL:				**216062.03**

NOTE: AVERAGE MILLING DEPTH IS 2" FOR MILL AND INLAY OPERATIONS.

QUANTITIES

STATE OF ARKANSAS TIMOTHY D. SMITH REGISTERED PROFESSIONAL ENGINEER No. 11425
9-18-18

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIV.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		73	234

(2) QUANTITIES

JOB NO. RBB0401

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	74	234

(2) QUANTITIES

GUARDRAIL (I-40) (BOX 1 OF 2)

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
			LIN. FT.	EACH		
501+62	1+44	I-40 R.M.L.-RT.	225		1	
0+82	3+32	I-40 R.M.L.-LT.	200		1	
1+53	6+53	I-40 L.M.L.-RT.	450		1	1
3+30	6+24	I-40 L.M.L.-LT.	225	1	1	
10+09	27+34	I-40 R.M.L.-RT.	1675		1	1
59+58	61+08	I-40 R.M.L.-RT.	100		1	1
59+62	61+12	I-40 R.M.L.-LT.	100		1	1
60+17	61+67	I-40 L.M.L.-LT.	100		1	1
61+38	62+88	I-40 L.M.L.-RT.	100		1	1
68+30	70+60	I-40 R.M.L.-RT.	150		1	1
69+02	71+32	I-40 R.M.L.-LT.	150		1	1
70+99	72+99	I-40 L.M.L.-RT.	150		1	1
71+50	73+50	I-40 L.M.L.-LT.	150		1	1
81+44	83+19	I-40 R.M.L.-RT.	125		1	1
81+54	83+04	I-40 R.M.L.-LT.	100		1	1
82+59	84+09	I-40 L.M.L.-LT.	100		1	1
82+59	84+09	I-40 L.M.L.-RT.	100		1	1
127+65	129+90	I-40 R.M.L.-RT.	175		1	1
135+43	138+43	I-40 R.M.L.-LT.	250		1	1
135+58	138+69	I-40 R.M.L.-RT.	275		1	1
150+81	153+06	I-40 R.M.L.-LT.	175		1	1
150+83	153+08	I-40 R.M.L.-RT.	175		1	1
184+45	187+89	I-40 R.M.L.-LT.	275	1	1	
185+18	188+12	I-40 R.M.L.-RT.	225	1	1	
191+54	202+48	I-40 L.M.L.-LT.	1025	1	1	
191+78	195+22	I-40 L.M.L.-RT.	275	1	1	
219+77	221+27	I-40 L.M.L.-LT.	100		1	1
220+69	222+19	I-40 L.M.L.-RT.	100		1	1
220+16	221+66	I-40 R.M.L.-LT.	100		1	1
220+35	221+85	I-40 R.M.L.-RT.	100		1	1
225+79	227+29	I-40 R.M.L.-LT.	100		1	1
225+95	227+45	I-40 L.M.L.-LT.	100		1	1
226+16	227+91	I-40 L.M.L.-RT.	125		1	1
240+41	241+91	I-40 R.M.L.-LT.	100		1	1
240+87	242+62	I-40 L.M.L.-RT.	125		1	1
258+57	260+07	I-40 R.M.L.-LT.	100		1	1
260+00	261+50	I-40 L.M.L.-RT.	100		1	1
260+44	262+19	I-40 L.M.L.-LT.	125		1	1
274+32	277+82	I-40 R.M.L.-LT.	275	1	1	
275+19	277+88	I-40 R.M.L.-RT.	200	1	1	
279+81	282+50	I-40 L.M.L.-LT.	200	1	1	
279+87	283+31	I-40 L.M.L.-RT.	275	1	1	
288+31	289+81	I-40 L.M.L.-RT.	100		1	1
288+37	289+87	I-40 R.M.L.-LT.	100		1	1
316+12	318+37	I-40 R.M.L.-LT.	175		1	1
316+12	318+37	I-40 R.M.L.-RT.	175		1	1
320+10	322+79	I-40 R.M.L.-RT.	200	1	1	
322+94	325+88	I-40 L.M.L.-LT.	225	1	1	
348+25	350+50	I-40 R.M.L.-LT.	175		1	1
348+43	368+64	I-40 R.M.L.-RT.	1950	1	1	
365+15	368+59	I-40 R.M.L.-LT.	275	1	1	
371+46	374+65	I-40 L.M.L.-LT.	250	1	1	
371+49	375+18	I-40 L.M.L.-RT.	300	1	1	
371+60	384+14	I-40 R.M.L.-RT.	1250	1		1
378+75	384+00	I-40 R.M.L.-LT.	475		1	1
385+36	391+86	I-40 R.M.L.-LT.	600		1	1
386+23	389+23	I-40 R.M.L.-RT.	250		1	1
388+11	394+86	I-40 L.M.L.-RT.	625		1	1
389+70	390+70	I-40 L.M.L.-LT.	63	2		
390+68	390+35	I-40 R.M.L.-RT.	5	2		
390+75	397+54	I-40 L.M.L.-LT.	675	1		1
394+10	397+54	I-40 R.M.L.-LT.	275	1	1	
394+84	397+54	I-40 R.M.L.-RT.	200	1	1	
398+91	401+55	I-40 L.M.L.-LT.	200	1	1	
398+91	402+35	I-40 L.M.L.-RT.	275	1	1	
410+02	417+59	I-40 L.M.L.-LT.	725		1	1
415+40	417+90	I-40 L.M.L.-RT.	200		1	1
416+66	421+66	I-40 R.M.L.-LT.	450		1	1
417+73	420+67	I-40 R.M.L.-RT.	225	1	1	
419+99	424+99	I-40 L.M.L.-RT.	450		1	1
421+01	423+70	I-40 L.M.L.-LT.	200	1	1	
SUBTOTALS (BOX 1 OF 2):			20343	27	67	46

APPROACH SLABS (I-540)

STATION	STATION	LOCATION	APPROACH SLABS (TYPE SPECIAL)	REINFORCING STEEL-RDWY. (GR. 60)	AGGREGATE BASE CRS. (CLASS 7)
			CU.YD.	POUND	TON
87+16.82	87+51.32	I-540 MAIN LANES	169.40	19487	89.25
88+29.41	88+63.91	I-540 MAIN LANES	169.40	19487	89.25
TOTALS:			338.80	38974	178.50

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

GUARDRAIL (I-40) (BOX 2 OF 2)

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
			LIN. FT.	EACH		
434+61	436+86	I-40 R.M.L.-LT.	175		1	1
434+61	436+86	I-40 R.M.L.-RT.	175		1	1
436+79	439+04	I-40 L.M.L.-LT.	175		1	1
436+79	439+04	I-40 L.M.L.-RT.	175		1	1
471+46	473+71	I-40 L.M.L.-LT.	175		1	1
471+46	473+71	I-40 L.M.L.-RT.	175		1	1
487+42	492+42	I-40 R.M.L.-LT.	450		1	1
488+42	491+11	I-40 R.M.L.-RT.	200	1	1	
488+51	490+76	I-40 L.M.L.-LT.	175		1	1
490+97	495+97	I-40 L.M.L.-RT.	450		1	1
492+27	494+96	I-40 L.M.L.-LT.	200	1	1	
522+90	525+15	I-40 L.M.L.-LT.	175		1	1
542+01	547+26	I-40 L.M.L.-LT.	475		1	1
560+50	562+50	I-40 R.M.L.-RT.	150		1	1
560+69	562+69	I-40 L.M.L.-LT.	150		1	1
574+27	579+27	I-40 R.M.L.-LT.	450		1	1
575+03	577+97	I-40 R.M.L.-RT.	225	1	1	
577+79	582+79	I-40 L.M.L.-RT.	450		1	1
579+11	581+80	I-40 L.M.L.-LT.	200	1	1	
580+34	582+34	I-40 R.M.L.-RT.	150		1	1
628+43	630+43	I-40 R.M.L.-RT.	150		1	1
628+11	631+51	I-40 R.M.L.-LT.	200	1	1	
628+45	631+06	I-40 R.M.L.-RT.	125	1	1	
636+54	640+23	I-40 L.M.L.-RT.	300	1	1	
636+90	640+09	I-40 L.M.L.-LT.	250	1	1	
645+46	651+46	I-40 R.M.L.-LT.	550		1	1
648+57	654+07	I-40 L.M.L.-RT.	500		1	1
664+39	669+39	I-40 R.M.L.-LT.	450		1	1
667+60	672+60	I-40 L.M.L.-RT.	450		1	1
668+12	670+81	I-40 L.M.L.-LT.	200	1	1	
694+27	701+06	I-40 R.M.L.-RT.	675	1	1	
698+23	701+17	I-40 R.M.L.-LT.	225	1	1	
696+66	701+35	I-40 L.M.L.-LT.	400	1	1	
702+73	706+36	I-40 R.M.L.-RT.	325	2		
702+98	705+92	I-40 L.M.L.-RT.	225	1	1	
703+08	706+71	I-40 L.M.L.-LT.	325	2		
703+47	706+41	I-40 R.M.L.-LT.	225	1	1	
708+53	711+28	I-40 L.M.L.-RT.	225		1	1
708+59	711+53	I-40 L.M.L.-LT.	225	1	1	
714+30	719+30	I-40 R.M.L.-LT.	450		1	1
715+35	718+04	I-40 R.M.L.-RT.	200	1	1	
717+81	722+81	I-40 L.M.L.-RT.	450		1	1
718+64	721+83	I-40 L.M.L.-LT.	250	1	1	
727+07	729+57	I-40 L.M.L.-LT.	200		1	1
731+31	733+31	I-40 L.M.L.-LT.	150		1	1
737+98	739+98	I-40 R.M.L.-RT.	150		1	1
740+19	742+69	I-40 L.M.L.-LT.	200		1	1
747+00	749+25	I-40 L.M.L.-LT.	175		1	1
771+78	773+78	I-40 L.M.L.-LT.	150		1	1
795+90	797+90	I-40 L.M.L.-LT.	150		1	1
808+02	810+02	I-40 L.M.L.-LT.	150		1	1
816+37	818+62	I-40 L.M.L.-LT.	175		1	1
834+17	840+17	I-40 R.M.L.-LT.	550		1	1
835+22	838+16	I-40 R.M.L.-RT.	225	1	1	
837+34	842+34	I-40 L.M.L.-RT.	450		1	1
838+07	841+02	I-40 L.M.L.-LT.	225	1	1	
874+49	880+49	I-40 L.M.L.-LT.	550		1	1
SUBTOTALS (BOX 2 OF 2):			15825	23	55	36
SUBTOTALS (BOX 1 OF 2):			20343	27	67	46
TOTALS:			36168	50	122	82

GUARDRAIL (I-540)

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
			LIN. FT.	EACH		
84+40.89	87+09.64	I-540 R.M.L.-RT.	200	1	1	
86+15.89	87+09.64	I-540 L.M.L.-LT.	75	1		1
88+56.56	89+50.31	I-540 R.M.L.-RT.	75	1		1
88+56.56	91+25.31	I-540 L.M.L.-LT.	200	1	1	
132+60.35	135+29.10	I-540 R.M.L.-RT.	200	1	1	
134+79.03	135+72.78	I-540 L.M.L.-LT.	75	1		1
138+76.42	139+70.17	I-540 R.M.L.-RT.	75	1		1
139+20.33	141+89.08	I-540 L.M.L.-LT.	200	1	1	
183+02.39	185+71.14	I-540 R.M.L.-RT.	200	1	1	
187+48.75	192+42.50	I-540 L.M.L.-LT.	425	1	1	
187+55.27	192+74.02	I-540 R.M.L.-RT.	500	1		1
196+12.27	198+81.02	I-540 R.M.L.-RT.	200	1	1	
197+56.93	198+75.68	I-540 L.M.L.-LT.	100	1		1
200+30.80	202+99.55	I-540 L.M.L.-LT.	200	1	1	
200+36.11	202+54.86	I-540 R.M.L.-RT.	200	1		1
205+51.95	208+51.95	I-540 L.M.L.-LT.	250		1	1
207+30.62	209+55.62	I-540 R.M.L.-RT.	175		1	1
234+52.04	239+95.79	I-540 L.M.L.-LT.	525	1		1
235+76.21	240+44.96	I-540 R.M.L.-RT.	400	1	1	
241+55.22	246+98.97	I-540 L.M.L.-LT.	475	1	1	
242+04.27	247+73.02	I-540 R.M.L.-RT.	550	1		1
259+96.65	262+21.65	I-540 R.M.L.-RT.	175		1	1
259+98.68	262+48.68	I-540 L.M.L.-LT.	200		1	1
266+91.59	268+35.34	I-540 R.M.L.-RT.	75	1	1	
267+73.66	270+42.41	I-540 L.M.L.-LT.	200	1	1	
311+92.70	314+42.70	I-540 L.M.L.-LT.	200		1	1
324+01.29	378+06.24	I-540 R.M.L.-RT.	625	1	1	
324+40.05	377+95.00	I-540 L.M.L.-LT.	575	1	1	
379+47.16	386+15.91	I-540 L.M.L.-LT.	600	1	1	
379+59.64	287+81.15	I-540 R.M.L.-RT.	784	2		
345+85.94	349+04.69	I-540 R.M.L.-LT.	250	1	1	
346+26.14	348+94.89	I-540 R.M.L.-RT.	200	1	1	
350+69.11	352+87.86	I-540 R.M.L.-RT.	200	1		1
350+89.02	354+07.77	I-540 L.M.L.-RT.	250	1	1	
350+98.83	355+67.58	I-540 L.M.L.-LT.	400	1	1	
488+37.80	491+06.55	I-540 L.M.L.-LT.	250	1		1
488+37.80	491+06.55	I-540 R.M.L.-RT.	200	1	1	
496+80.46	503+99.21	I-540 R.M.L.-RT.	700	1		1
496+80.46	504+49.21	I-540 L.M.L.-LT.	700	1	1	
644+52.35	647+71.10	I-540 R.M.L.-LT.	250	1	1	
645+23.37	647+92.12	I-540 R.M.L.-RT.	200	1	1	
648+72.62	656+91.37	I-540 L.M.L.-LT.	750	1	1	
648+94.82	652+13.57	I-540 L.M.L.-RT.	250	1	1	
659+05.20	663+90.60	I-540 R.M.L.-LT.	250	1	1	
659+73.26	664+08.66	I-540 R.M.L.-RT.	200	1	1	
668+06.06	676+74.81	I-540 L.M.L.-LT.	800	1	1	
668+24.10	671+42.85	I-540 L.M.L.-RT.	250	1	1	
668+96.22	679+64.97	I-540 R.M.L.-RT.	1050	1		1
TOTALS:			15884	44	34	18

RBB0401 REVISED.DGN 9/13/2018

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
10-01-18				6	ARK.			
				JOB NO.	BB0401		75	234

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
10-12-18

EROSION CONTROL (I-40)

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL							
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	TEMPORARY SEEDING	MULCH COVER	WATER	SAND BAG DITCH CHECKS (E-5)	DROP INLET SILT FENCE (E-7)	SILT FENCE (E-11)	TRIANGULAR SILT DIKE	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	ACRE	ACRE	M.GAL.	BAG	LIN. FT.	LIN. FT.	LIN. FT.	CU. YD.
ENTIRE	PROJECT	ALL STAGES	34.00	68.00	34.00	3468.0	34.00	34.00	34.00	693.6	946	1692	102		109
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.											88	180	500	250	25
TOTALS:			**34.00**	**68.00**	**34.00**	**3468.0**	**34.00**	**34.00**	**34.00**	**693.6**	**1034**	**1872**	**602**	**250**	**134**

BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING
WATER.....20.4 M.G. / ACRE OF TEMPORARY SEEDING
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
DROP INLET SILT FENCE.....18 LIN. FT./LOCATION
TRIANGULAR SILT DIKE.....25 LIN. FT./LOCATION

NOTE: THE TEMPORARY EROSION CONTROL DEVICES SHOWN ABOVE AND ON THE PLANS SHALL BE INSTALLED IN SUCH A SEQUENCE AS TO DETER EROSION AND SEDIMENTATION ON U.S. WATERWAYS AS EXPLAINED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT.

*QUANTITIES ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A-1; MASH TL-4)

STATION	STATION	LOCATION	LIN. FT.
1+44	1+87	I-40 R.M.L.-RT.	43
2+85	3+30	I-40 L.M.L.-LT.	45
322+65	322+94	I-40 L.M.L.-LT.	29
322+79	323+08	I-40 R.M.L.-RT.	29
389+23	389+68	I-40 R.M.L.-RT.	45
389+33	389+70	I-40 L.M.L.-LT.	37
390+35	390+62	I-40 R.M.L.-RT.	27
390+37	390+75	I-40 L.M.L.-LT.	38
420+61	420+97	I-40 R.M.L.-RT.	36
420+71	421+07	I-40 L.M.L.-LT.	36
491+11	491+50	I-40 R.M.L.-RT.	39
491+88	492+27	I-40 L.M.L.-LT.	39
577+97	578+36	I-40 R.M.L.-RT.	39
578+72	579+11	I-40 L.M.L.-LT.	39
718+04	718+42	I-40 R.M.L.-RT.	38
718+64	719+02	I-40 L.M.L.-LT.	38
838+07	838+34	I-40 L.M.L.-LT.	27
838+16	838+42	I-40 R.M.L.-RT.	26
267+18	267+74	I-540 L.M.L.-LT.	55
268+35	268+90	I-540 R.M.L.-RT.	55
TOTAL:			**760**

FLUSHING UNDERDRAIN

STA.	STA.	LOCATION	LIN. FT.
00+00	25+65	LEFT MAIN LANES	2965
25+65	71+69	LEFT MAIN LANES	5410
71+69	104+24	LEFT MAIN LANES	3775
104+24	125+14	LEFT MAIN LANES	2502
125+14	186+70	LEFT MAIN LANES	6997
192+03	193+30	LEFT MAIN LANES	167
193+30	217+45	LEFT MAIN LANES	2907
217+45	277+26	LEFT MAIN LANES	6941
280+20	332+45	LEFT MAIN LANES	6061
332+45	355+05	LEFT MAIN LANES	2620
355+06	368+17	LEFT MAIN LANES	1534
00+00	06+50	RIGHT MAIN LANES	770
06+50	128+35	RIGHT MAIN LANES	14116
128+35	186+33	RIGHT MAIN LANES	6738
186+33	187+64	RIGHT MAIN LANES	171
192+97	277+50	RIGHT MAIN LANES	9747
280+42	368+26	RIGHT MAIN LANES	10165
TOTAL:			**83586**

SPECIAL CLEARING

STATION	STATION	LOCATION	SPECIAL CLEARING STATION
0+00.00	185+00	OUTSIDE OF MAIN LANES	1
185+00	275+00	OUTSIDE OF MAIN LANES	90
275+00	364+00	OUTSIDE OF MAIN LANES	89
363+00	395+00	OUTSIDE OF MAIN LANES	32
395+00	629+00	OUTSIDE OF MAIN LANES	234
629+00	697+00	OUTSIDE OF MAIN LANES	68
696+00	898+00	OUTSIDE OF MAIN LANES	202
TOTALS:			**716**

RUMBLE STRIPS IN ASPHALT SHOULDERS (I-40)

STATION	STATION	LOCATION	* RUMBLE STRIPS IN ASPHALT SHOULDERS LIN.FT.
0+00	69+50	I-40 R.M.L.-RT.	6950
69+80	184+62	I-40 R.M.L.-RT.	11482
184+48	187+72	I-40 R.M.L.-RT.	324
193+04	215+96	I-40 R.M.L.-RT.	2292
216+55	277+51	I-40 R.M.L.-RT.	6096
280+42	356+78	I-40 R.M.L.-RT.	7636
357+01	368+26	I-40 R.M.L.-RT.	1125
371+99	397+19	I-40 R.M.L.-RT.	2520
399+26	627+27	I-40 R.M.L.-RT.	22801
626+94	631+01	I-40 R.M.L.-RT.	407
636+29	700+73	I-40 R.M.L.-RT.	6444
703+11	706+01	I-40 R.M.L.-RT.	290
708+77	899+36	I-40 R.M.L.-RT.	19059
0+00	69+50	I-40 R.M.L.-LT.	6950
69+80	184+62	I-40 R.M.L.-LT.	11482
184+48	187+56	I-40 R.M.L.-LT.	308
192+89	215+96	I-40 R.M.L.-LT.	2307
216+55	277+48	I-40 R.M.L.-LT.	6093
280+40	356+78	I-40 R.M.L.-LT.	7638
357+01	368+25	I-40 R.M.L.-LT.	1124
371+91	397+19	I-40 R.M.L.-LT.	2528
399+26	627+27	I-40 R.M.L.-LT.	22801
626+94	631+13	I-40 R.M.L.-LT.	419
636+49	700+80	I-40 R.M.L.-LT.	6431
703+18	706+05	I-40 R.M.L.-LT.	287
708+80	899+36	I-40 R.M.L.-LT.	19056
0+00	70+77	I-40 L.M.L.-LT.	7077
70+33	182+10	I-40 L.M.L.-LT.	11177
182+77	186+62	I-40 L.M.L.-LT.	385
191+95	217+47	I-40 L.M.L.-LT.	2552
216+55	277+24	I-40 L.M.L.-LT.	6069
280+17	356+05	I-40 L.M.L.-LT.	7588
355+82	368+15	I-40 L.M.L.-LT.	1233
371+82	397+19	I-40 L.M.L.-LT.	2537
399+26	628+87	I-40 L.M.L.-LT.	22961
628+94	631+84	I-40 L.M.L.-LT.	290
637+22	701+03	I-40 L.M.L.-LT.	6381
703+41	706+18	I-40 L.M.L.-LT.	277
708+93	899+36	I-40 L.M.L.-LT.	19043
0+00	70+77	I-40 L.M.L.-RT.	7077
70+33	182+10	I-40 L.M.L.-RT.	11177
182+77	186+78	I-40 L.M.L.-RT.	401
192+10	217+47	I-40 L.M.L.-RT.	2537
216+55	277+28	I-40 L.M.L.-RT.	6073
280+21	356+05	I-40 L.M.L.-RT.	7584
355+82	368+18	I-40 L.M.L.-RT.	1236
371+84	397+19	I-40 L.M.L.-RT.	2535
399+26	628+87	I-40 L.M.L.-RT.	22961
628+94	631+55	I-40 L.M.L.-RT.	261
636+92	700+96	I-40 L.M.L.-RT.	6404
703+34	706+14	I-40 L.M.L.-RT.	280
708+89	899+36	I-40 L.M.L.-RT.	19047
TOTAL:			**349993**

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

RUMBLE STRIPS IN ASPHALT SHOULDERS (I-540)

STATION	STATION	LOCATION	* RUMBLE STRIPS IN ASPHALT SHOULDERS LIN.FT.
144+00	152+96	I-540 L.M.L.-LT.	896
152+95	173+59	I-540 L.M.L.-LT.	2064
167+20	174+68	I-540 L.M.L.-LT.	748
175+71	185+25	I-540 L.M.L.-LT.	954
187+86	194+85	I-540 L.M.L.-LT.	699
194+84	198+39	I-540 L.M.L.-LT.	355
200+68	215+18	I-540 L.M.L.-LT.	1450
215+80	239+65	I-540 L.M.L.-LT.	2385
241+97	252+59	I-540 L.M.L.-LT.	1062
252+24	284+05	I-540 L.M.L.-LT.	3181
284+06	329+51	I-540 L.M.L.-LT.	4545
376+62	377+60	I-540 L.M.L.-LT.	98
379+85	386+92	I-540 L.M.L.-LT.	707
144+00	173+59	I-540 L.M.L.-RT.	2959
167+20	185+28	I-540 L.M.L.-RT.	1808
187+88	198+41	I-540 L.M.L.-RT.	1053
200+69	239+79	I-540 L.M.L.-RT.	3910
242+11	329+51	I-540 L.M.L.-RT.	8740
376+62	377+63	I-540 L.M.L.-RT.	101
379+89	386+92	I-540 L.M.L.-RT.	703
144+00	148+10	I-540 R.M.L.-RT.	410
148+62	173+59	I-540 R.M.L.-RT.	2497
167+20	177+97	I-540 R.M.L.-RT.	1077
177+93	185+33	I-540 R.M.L.-RT.	740
187+91	196+51	I-540 R.M.L.-RT.	860
197+35	198+45	I-540 R.M.L.-RT.	110
200+72	213+52	I-540 R.M.L.-RT.	1280
213+53	230+49	I-540 R.M.L.-RT.	1696
230+93	240+03	I-540 R.M.L.-RT.	910
242+35	265+51	I-540 R.M.L.-RT.	2316
265+81	283+21	I-540 R.M.L.-RT.	1740
284+25	329+51	I-540 R.M.L.-RT.	4526
376+62	377+68	I-540 R.M.L.-RT.	106
379+95	386+05	I-540 R.M.L.-RT.	610
386+06	386+92	I-540 R.M.L.-RT.	86
144+00	173+59	I-540 R.M.L.-LT.	2959
167+20	185+30	I-540 R.M.L.-LT.	1810
187+89	198+42	I-540 R.M.L.-LT.	1053
200+70	239+89	I-540 R.M.L.-LT.	3919
242+21	329+51	I-540 R.M.L.-LT.	8730
376+62	377+65	I-540 R.M.L.-LT.	103
379+91	386+92	I-540 R.M.L.-LT.	701
TOTAL:			**76657**

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

10/8/2018
RBB0401 REVISED.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	76	234

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

BASE AND SURFACING (I-40) (BOX 1 OF 6)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM SURFACE COURSE (1/2")								
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)			TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	TOTAL PG 76-22
			FEET			TOTAL WID. FEET	SQ.YD.	GALLON	TOTAL WID. FEET	SQ.YD.	GALLON		FEET			TON	FEET			TON	TON
RT. MAIN LANES																					
0+00.00	2+00.00	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
2+00.00	7+91.33	I-40 R.M.L.	591.33	6.50	38.44	38.00	2496.73	124.84	38.00	2496.73	424.44	549.28	38.00	2496.73	220.00	274.64	38.00	2496.73	220.00	274.64	549.28
7+91.33	9+39.81	I-40 R.M.L.	148.48	6.50	9.65	VAR.	576.89	28.84	VAR.	576.89	98.07	126.91	VAR.	576.89	220.00	63.46	VAR.	576.89	220.00	63.46	126.92
9+39.81	16+04.06	I-40 R.M.L. - ACCELERATION LANE	664.25	6.50	43.18	46.00	3395.06	169.75	46.00	3395.06	577.16	746.91	46.00	3395.06	220.00	373.46	46.00	3395.06	220.00	373.46	746.92
16+04.06	19+04.06	I-40 R.M.L. - ACCELERATION LANE TAPER	300.00	6.50	19.50	42.00	1400.00	70.00	42.00	1400.00	238.00	308.00	42.00	1400.00	220.00	154.00	42.00	1400.00	220.00	154.00	308.00
19+04.06	69+50.38	I-40 R.M.L.	5046.32	6.50	328.01	38.00	21306.68	1065.33	38.00	21306.68	3622.14	4687.47	38.00	21306.68	220.00	2343.73	38.00	21306.68	220.00	2343.73	4687.46
69+80.40	133+30.03	I-40 R.M.L.	6349.63	6.50	412.73	38.00	26809.55	1340.48	38.00	26809.55	4557.62	5898.10	38.00	26809.55	220.00	2949.05	38.00	26809.55	220.00	2949.05	5898.10
133+30.03	135+30.03	I-40 R.M.L. - TURNOUT	200.00	6.50	13.00	VAR.	891.37	44.57	VAR.	891.37	151.53	196.10	VAR.	891.37	220.00	98.05	VAR.	891.37	220.00	98.05	196.10
135+30.03	137+73.57	I-40 R.M.L. - TURNOUT	243.54	6.50	15.83	46.00	1244.76	62.24	46.00	1244.76	211.61	273.85	46.00	1244.76	220.00	136.92	46.00	1244.76	220.00	136.92	273.84
137+73.57	138+61.99	I-40 R.M.L. - TURNOUT	88.42	6.50	5.75	VAR.	293.84	14.69	VAR.	293.84	49.95	64.64	VAR.	293.84	220.00	32.32	VAR.	293.84	220.00	32.32	64.64
138+61.99	149+59.04	I-40 R.M.L.	1097.05	6.50	71.31	38.00	4631.99	231.60	38.00	4631.99	787.44	1019.04	38.00	4631.99	220.00	509.52	38.00	4631.99	220.00	509.52	1019.04
149+59.04	150+55.54	I-40 R.M.L.	96.50	6.50	6.27	VAR.	338.67	16.93	VAR.	338.67	57.57	74.50	VAR.	338.67	220.00	37.25	VAR.	338.67	220.00	37.25	74.50
150+55.54	153+71.72	I-40 R.M.L. - AUXILARY LANE	316.18	6.50	20.55	46.00	1616.03	80.80	46.00	1616.03	274.73	355.53	46.00	1616.03	220.00	177.76	46.00	1616.03	220.00	177.76	355.52
153+71.72	155+61.96	I-40 R.M.L. - TURNOUT	190.24	6.50	12.37	VAR.	734.92	36.75	VAR.	734.92	124.94	161.69	VAR.	734.92	220.00	80.84	VAR.	734.92	220.00	80.84	161.68
155+61.96	171+02.78	I-40 R.M.L.	1540.82	6.50	100.15	38.00	6505.68	325.28	38.00	6505.68	1105.97	1431.25	38.00	6505.68	220.00	715.62	38.00	6505.68	220.00	715.62	1431.24
171+02.78	172+28.73	I-40 R.M.L.	125.95	6.50	8.19	VAR.	436.82	21.84	VAR.	436.82	74.26	96.10	VAR.	436.82	220.00	48.05	VAR.	436.82	220.00	48.05	96.10
172+28.73	178+92.16	I-40 R.M.L. - ACCELERATION LANE	663.43	6.50	43.12	46.00	3390.86	169.54	46.00	3390.86	576.45	745.99	46.00	3390.86	220.00	372.99	46.00	3390.86	220.00	372.99	745.98
178+92.16	181+75.17	I-40 R.M.L. - ACCELERATION LANE TAPER	283.01	6.50	18.40	42.00	1320.71	66.04	42.00	1320.71	224.52	290.56	42.00	1320.71	220.00	145.28	42.00	1320.71	220.00	145.28	290.56
181+75.17	184+61.91	I-40 R.M.L.	286.74	6.50	18.64	38.00	1210.68	60.53	38.00	1210.68	205.82	266.35	38.00	1210.68	220.00	133.17	38.00	1210.68	220.00	133.17	266.34
184+47.67	185+00.00	I-40 R.M.L.	52.33	6.50	3.40	38.00	220.95	11.05	38.00	220.95	37.56	48.61	38.00	220.95	220.00	24.30	38.00	220.95	220.00	24.30	48.60
185+14.04	187+64.89	I-40 R.M.L.	250.85	6.50	16.31	38.00	1059.14	52.96	38.00	1059.14	180.05	233.01	38.00	1059.14	110.00	58.25	38.00	1059.14	220.00	116.51	174.76
192+96.50	194+96.50	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
194+96.50	215+96.23	I-40 R.M.L.	2099.73	6.50	136.48	38.00	8865.53	443.28	38.00	8865.53	1507.14	1950.42	38.00	8865.53	220.00	975.21	38.00	8865.53	220.00	975.21	1950.42
216+55.35	264+85.96	I-40 R.M.L.	4830.61	6.50	313.99	38.00	20395.91	1019.80	38.00	20395.91	3467.30	4487.10	38.00	20395.91	220.00	2243.55	38.00	20395.91	220.00	2243.55	4487.10
264+85.96	268+80.05	I-40 R.M.L. - TURNOUT	394.09	6.50	25.62	VAR.	1614.71	80.74	VAR.	1614.71	274.50	355.24	VAR.	1614.71	220.00	177.62	VAR.	1614.71	220.00	177.62	355.24
268+80.05	275+00.00	I-40 R.M.L.	619.95	6.50	40.30	38.00	2617.57	130.88	38.00	2617.57	444.99	575.87	38.00	2617.57	220.00	287.93	38.00	2617.57	220.00	287.93	575.86
275+06.66	275+49.50	I-40 R.M.L.	42.84	6.50	2.78	38.00	180.88	9.04	38.00	180.88	30.75	39.79	38.00	180.88	220.00	19.90	38.00	180.88	220.00	19.90	39.80
275+49.50	277+49.50	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
280+41.69	282+41.69	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
282+41.69	288+56.53	I-40 R.M.L.	614.84	6.50	39.96	38.00	2595.99	129.80	38.00	2595.99	441.32	571.12	38.00	2595.99	220.00	285.56	38.00	2595.99	220.00	285.56	571.12
288+56.53	291+07.15	I-40 R.M.L.	250.62	6.50	16.29	VAR.	1065.88	53.29	VAR.	1065.88	181.20	234.49	VAR.	1065.88	220.00	117.25	VAR.	1065.88	220.00	117.25	234.50
291+07.15	296+96.46	I-40 R.M.L. - ACCELERATION LANE	589.31	6.50	38.31	46.00	3012.03	150.60	46.00	3012.03	512.05	662.65	46.00	3012.03	220.00	331.32	46.00	3012.03	220.00	331.32	662.64
296+96.46	299+96.46	I-40 R.M.L. - ACCELERATION LANE TAPER	300.00	6.50	19.50	42.00	1400.00	70.00	42.00	1400.00	238.00	308.00	42.00	1400.00	220.00	154.00	42.00	1400.00	220.00	154.00	308.00
299+96.46	356+77.54	I-40 R.M.L.	5681.08	6.50	369.27	38.00	23986.78	1199.34	38.00	23986.78	4077.75	5277.09	38.00	23986.78	220.00	2638.55	38.00	23986.78	220.00	2638.55	5277.10
357+00.62	364+00.00	I-40 R.M.L.	699.38	6.50	45.46	38.00	2952.94	147.65	38.00	2952.94	502.00	649.65	38.00	2952.94	220.00	324.82	38.00	2952.94	220.00	324.82	649.64
363+79.30	366+26.43	I-40 R.M.L.	247.13	6.50	16.06	38.00	1043.44	52.17	38.00	1043.44	177.38	229.55	38.00	1043.44	220.00	114.78	38.00	1043.44	220.00	114.78	229.56
366+26.43	368+26.43	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
371+92.63	373+92.63	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
373+92.63	379+72.99	I-40 R.M.L.	580.36	6.50	37.72	38.00	2450.41	122.52	38.00	2450.41	416.57	539.09	38.00	2450.41	220.00	269.55	38.00	2450.41	220.00	269.55	539.10
379+72.99	384+83.08	I-40 R.M.L. - TURNOUT	510.09	6.50	33.16	VAR.	2685.47	134.27	VAR.	2685.47	456.53	590.80	VAR.	2685.47	220.00	295.40	VAR.	2685.47	220.00	295.40	590.80
384+83.08	395+19.02	I-40 R.M.L.	1035.94	6.50	67.34	38.00	4373.97	218.70	38.00	4373.97	743.57	962.27	38.00	4373.97	220.00	481.14	38.00	4373.97	220.00	481.14	962.28
395+19.02	395+43.52	I-40 R.M.L.	24.50	6.50	1.59	VAR.	98.63	4.93	VAR.	98.63	16.77	21.70	VAR.	98.63	VAR.	10.19	VAR.	98.63	220.00	10.85	21.04
395+43.50	397+19.00	I-40 R.M.L. - ACCELERATION LANE	175.50	6.50	11.41	VAR.	800.71	40.04	VAR.	800.71	136.12	176.16	VAR.	800.71	VAR.	38.65	VAR.	800.71	220.00	88.08	126.73
399+26.17	401+26.17	I-40 R.M.L. - ACCELERATION LANE	200.00	6.50	13.00	50.00	1111.11	55.56	50.00	1111.11	188.89	244.45	50.00	1111.11	110.00	61.11	50.00	1111.11	220.00	122.22	183.33
401+26.17	403+77.41	I-40 R.M.L. - ACCELERATION LANE	251.24	6.50	16.33	50.00	1395.78	69.79	50.00	1395.78	237.28	307.07	50.00	1395.78	220.00	153.54	50.00	1395.78	220.00	153.54	307.08
403+77.41	405+87.40	I-40 R.M.L. - ACCELERATION LANE TAPER	209.99	6.50	13.65	44.00	1026.62	51.33	44.00	1026.62	174.53	225.86	44.00	1026.62	220.00	112.93	44.00	1026.62	220.00	112.93	225.86
405+87.40	451+27.56	I-40 R.M.L.	4540.16	6.50	295.11	38.00	19169.56	958.48	38.00	19169.56	3258.83	4217.31	38.00	19169.56	220.00	2108.65	38.00	19169.56	220.00	2108.65	4217.30
451+27.56	454+69.07	I-40 R.M.L. - TURNOUT	341.51	6.50	22.20	VAR.	1513.19	75.66	VAR.	1513.19	257.24	332.90	VAR.	1513.19	220.00	166.45	VAR.	1513.19	220.00	166.45	332.90
454+69.07	477+40.71	I-40 R.M.L.	2271.64	6.50	147.66	38.00	9591.37	479.57	38.00	9591.37	1630.53	2110.10	38.00	9591.37	220.00	1055.05	38.00	9591.37	220.00	1055.05	2110.10
477+40.71	479+94.32	I-40 R.M.L.	253.61	6.50	16.48	VAR.	1190.32	59.52	VAR.	1190.32	202.35	261.87	VAR.	1190.32	220.00	130.94	VAR.	1190.32	220.00	130.94	261.88
479+94.32	484+93.81	I-40 R.M.L. - ACCELERATION LANE	499.49	6.50	32.47	46.00	2552.95	127.65	46.00	2552.95	434.00	561.65	46.00	2552.95	220.00	280.82	46.00	2552.95	220.00	280.82	561.64
484+93.81	487+86.90	I-40 R.M.L. - ACCELERATION LANE TAPER	293.09	6.50	19.05	42.00	1367.75	68.39	42.00	1367.75	232.52	300.91	42.00	1367.75	220.00	150.45	42.00	1367.75	220.00	150.45	300.90
487+86.90	489+23.49	I-40 R.M.L.	136.59	6.50	8.88	38.00	576.71	28.84	38.00	576.71	98.04	126.88	38.00	576.71	220.00	63.44	38.00	576.71	220.00	63.44	126.88
489+23.49	491+23.49	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
491+23.49	491+73.49	I-40 R.M.L.	50.00	6.50	3.25				38.00	211.11	35.89	35.89					38.00	211.11	220.00	23.22	23.22
491+73.49	493+73.49	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
493+73.49	576+08.55	I-40 R.M.L.	8235.06	6.50	535.28	38.00	34770.25	1738.51	38.00	34770.25	5910.94	7649.45	38.00	34770.25	220.00	3824.73	38.00	34770.25	220.00	3824.73	7649.46
576+08.55	578+08.55	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
578+08.55	578+58.55	I-40 R.M.L.	50.00	6.50	3.25				38.00	211.11	35.89	35.89					38.00	211.11	220.00	23.22	23.22
578+58.55	580+58.55	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
580+58.55	621+92.61	I-40 R.M.L.	4134.06	6.50	268.71	38.00	17454.92	872.75	38.00	17454.92	2967.34	3840.09	38.00	17454.92	220.00	1920.04	38.00	17454.92	220.00	1920.04	3840.08
621+92.61	623+92.61	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
623+92.61	627+26.74	I-40 R.M.L.	334.13	6.50	21.72				28.00	1039.52	176.72	176.72					28.00	1039.52	220.00	114.35	114.35
626+94.27	629+00.00	I-40 R.M.L.	205.73	6.50	13.37				28.00	640.05	108.81	108.81					28.00	640.05	220.00	70.41	70.41
629+71.12	631+01.27	I-40 R.M.L.	130.15	6.50	8.46				28.00	404.91	68.83	68.83					28.00	404.91	220.00	44.54	44.54
636+38.00	638+38.00	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
638+38.00	666+27.87	I-40 R.M.L.	2789.87	6.50	181.34	38.00	11779.45	588.97	38.00	11779.45	2002.51	2591.48	38.00	11779.45	220.00	1295.74	38.00	11779.45	220.00	1295.74	2591.48
666+27.87	667+63.49	I-40 R.M.L.	135.62	6.50	8.82	38.00	572.62	28.63	38.00	572.62	97.35	125.98	38.00	572.62	184.59	52.85	38.00	572.62	220.00	62.99	115.84
667+63.49	668+27.87	I-40 R.M.L.	64.38	6.50	4.18	VAR.	235.65	11.78	VAR.	235.65	40.06	51.84	VAR.	235.65	74.59	8.79	VAR.	235.65	220.00	25.92	34.71
668+27.87	668+77.87	I-40 R.M.L.	50.00	6.50	3.25				VAR.	274.10	46.60	46.60					VAR.	274.10	220.00	30.15	30.15
668+77.87	669+68.47	I-40 R.M.L.	90.60	6.50	5.89	VAR.	496.83	24.84	VAR.	496.83	84.46	109.30	VAR.	496.83	49.83	12.38	VAR.	496.83	220.00	54.65	67.03
669+68.47	670+77.87	I-40 R.M.L.	109.40	6.50	7.11	50.00	607.78	30.39	50.00	607.78	103.32	133.71	50.00	607.78	159.83	48.57	50.00	607.78	220.00	66.86	115.43
670+77.87	684+69.76	I-40 R.M.L. - AUXILARY LANE	1391.89	6.50	90.47	50.00	7732.72	386.64	50.00	7732.72	1314.56	1701.20	50.00	7732.72	220.00	850.60	50.00	7732.72	220.00	850.60	1701.20
684+69.76	691+58.44	I-40 R.M.L. - TURNOUT	688.68	6.50	44.76	VAR.	4061.17	203.06	VAR.	4061.17	690.40	893.46	VAR.	4061.17	220.00	446.73	VAR.	4061.17	220.00	446.73	893.46
691+58.44	697+00.00	I-40 R.M.L.	541.56	6.50	35.20	38.00	2286.59	114.33	38.00	2286.59	388.72	503.05	38.00	2286.59	220.00	251.52	38.00	2286.59	220.00	251.52	503.04
696+35.00	698+76.69	I-40 R.M.L.	241.69	6.50	15.71	38.00	1020.47	51.02	38.00	1020.47	173.48	224.50	38.00	1020.47	220.00	112.25	38.00	1020.47	220.00	112.25	224.50
698+76.69	700+76.69	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
703+14.95	706+03.31	I-40 R.M.L.	288.36	6.50	18.74				38.00	1217.52	206.98	206.98					38.00	1217.52	220.00	133.93	133.93
708+78.50	710+78.50	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
710+78.50	714+62.16	I-40 R.M.L.	383.66	6.50	24.94	38.00	1619.90	81.00	38.00	1619.90	275.38	356.38	38.00	1619.90	220.00	178.19	38.00	1619.90	220.00	178.19	356.38
714+62.16	717+16.32	I-40 R.M.L.	254.16	6.50	16.52	VAR.	1198.11	59.91	VAR.	1198.11	203.68	263.59	VAR.	1198.11	220.00	131.79	VAR.	1198.11	220.00	131.79	263.58
717+16.32	722+55.87	I-40 R.M.L. - ACCELERATION LANE	539.55	6.50	35.07	46.00	2757.70	137.89	46.00	2757.70	468.81	606.70	46.00	2757.70	220.00	303.35	46.00	2757.70	220.00	303.35	606.70
722+55.87	725+55.89	I-40 R.M.L. - ACCELERATION LANE TAPER	300.02	6.50	19.50	42.00	1400.09	70.00	42.00	1400.09	238.02	308.02	42.00	1400.09	220.00	154.01	42.00	1400.09	220.00	154.01	308.02
725+55.89	835+05.77	I-40 R.M.L.	10949.88	6.50	711.74	38.00	46232.83	2311.64	38.00	46232.83	7859.58	10171.22	38.00	46232.83	220.00	5085.61	38.00	46232.83	220.00	5085.61	10171.22
835+05.77	837+05.77	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
837+05.77	838+05.77	I-40 R.M.L.	100.00	6.50	6.50	38.00	422.22	21.11	38.00	422.22	71.78	92.89	38.00	422.22	VAR.	11.61	38.00	422.22	220.00	46.44	58.05
838+05.77	838+55.77	I-40 R.M.L.	50.00	6.50	3.25	38.00	211.11	10.56	38.00	211.11	35.89	46.45	38.00	211.11	VAR.	11.61	38.00	211.11	220.00	23.22	34.83
838+55.77	839+55.77	I-40 R.M.L.	100.00	6.50	6.50	38.00	422.22	21.11	38.00	422.22	71.78	92.89	38.00	422.22	VAR.	11.61	38.00	422.22	220.00	46.44	58.05
839+55.77	841+55.77	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
841+55.77	897+35.95	I-40 R.M.L.	5580.18	6.50	362.71	38.00	23560.76	1178.04	38.00	23560.76	4005.33	5183.37	38.00	23560.76	220.00	2591.68	38.00	23560.76	220.00	2591.68	5183.36
897+35.95	899+35.95	I-40 R.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
SUBTOTALS (BOX 1 OF 6):					5682.11		372716.41	18635.82		376714.73	64041.44	82677.26		373121.32		39870.60		376714.73		41438.63	81309.23

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.5% MIN. AGGR.....5.5% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

RBB0401 REVISED.DGN 9/13/2018

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	77	234

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

BASE AND SURFACING (I-40) (BOX 2 OF 6)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM SURFACE COURSE (1/2")								
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)			TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	TOTAL PG 76-22
						TOTAL WID.	SQ.YD.	GALLON	TOTAL WID.	SQ.YD.	GALLON										
			FEET			FEET			FEET				FEET			TON	FEET			TON	TON
LT. MAIN LANES																					
0+00.00	2+00.00	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
2+00.00	43+42.08	I-40 L.M.L.	4142.08	6.50	269.24	38.00	17488.78	874.44	38.00	17488.78	2973.09	3847.53	38.00	17488.78	220.00	1923.77	38.00	17488.78	220.00	1923.77	3847.54
43+42.08	46+25.40	I-40 L.M.L. - TURNOUT	283.32	6.50	18.42	VAR.	1174.81	58.74	VAR.	1174.81	199.72	258.46	VAR.	1174.81	220.00	129.23	VAR.	1174.81	220.00	129.23	258.46
46+25.40	70+77.13	I-40 L.M.L.	2451.73	6.50	159.36	38.00	10351.75	517.59	38.00	10351.75	1759.80	2277.39	38.00	10351.75	220.00	1138.69	38.00	10351.75	220.00	1138.69	2277.38
70+32.58	146+55.46	I-40 L.M.L.	7622.88	6.50	495.49	38.00	32185.49	1609.27	38.00	32185.49	5471.53	7080.80	38.00	32185.49	220.00	3540.40	38.00	32185.49	220.00	3540.40	7080.80
146+55.46	149+55.46	I-40 L.M.L. - ACCELERATION LANE TAPER	300.00	6.50	19.50	42.00	1400.00	70.00	42.00	1400.00	238.00	308.00	42.00	1400.00	220.00	154.00	42.00	1400.00	220.00	154.00	308.00
149+55.46	155+98.09	I-40 L.M.L. - ACCELERATION LANE	642.63	6.50	41.77	46.00	3284.55	164.23	46.00	3284.55	558.37	722.60	46.00	3284.55	220.00	361.30	46.00	3284.55	220.00	361.30	722.60
155+98.09	157+48.52	I-40 L.M.L.	150.43	6.50	9.78	VAR.	624.65	31.23	VAR.	624.65	106.19	137.42	VAR.	624.65	220.00	68.71	VAR.	624.65	220.00	68.71	137.42
157+48.52	178+53.02	I-40 L.M.L.	2104.50	6.50	136.79	38.00	8885.67	444.28	38.00	8885.67	1510.56	1954.84	38.00	8885.67	220.00	977.42	38.00	8885.67	220.00	977.42	1954.84
178+53.02	181+27.02	I-40 L.M.L. - TURNOUT	274.00	6.50	17.81	VAR.	1145.54	57.28	VAR.	1145.54	194.74	252.02	VAR.	1145.54	220.00	126.01	VAR.	1145.54	220.00	126.01	252.02
181+27.02	182+10.43	I-40 L.M.L.	83.41	6.50	5.42	38.00	352.18	17.61	38.00	352.18	59.87	77.48	38.00	352.18	220.00	38.74	38.00	352.18	220.00	38.74	77.48
182+76.58	184+55.96	I-40 L.M.L.	179.38	6.50	11.66	38.00	757.38	37.87	38.00	757.38	128.75	166.62	38.00	757.38	220.00	83.31	38.00	757.38	220.00	83.31	166.62
184+55.96	185+00.00	I-40 L.M.L.	44.04	6.50	2.86	38.00	185.95	9.30	38.00	185.95	31.61	40.91	38.00	185.95	195.78	18.20	38.00	185.95	220.00	20.45	38.65
185+14.04	186+70.00	I-40 L.M.L.	155.96	6.50	10.14	38.00	658.50	32.93	38.00	658.50	111.95	144.88	38.00	658.50	85.78	28.24	38.00	658.50	220.00	72.44	100.68
192+02.50	194+02.50	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
194+02.50	217+46.96	I-40 L.M.L.	2344.46	6.50	152.39	38.00	9898.83	494.94	38.00	9898.83	1682.80	2177.74	38.00	9898.83	220.00	1088.87	38.00	9898.83	220.00	1088.87	2177.74
216+55.35	256+73.53	I-40 L.M.L.	4018.18	6.50	261.18	38.00	16965.65	848.28	38.00	16965.65	2884.16	3732.44	38.00	16965.65	220.00	1866.22	38.00	16965.65	220.00	1866.22	3732.44
256+73.53	259+73.53	I-40 L.M.L. - ACCELERATION LANE TAPER	300.00	6.50	19.50	42.00	1400.00	70.00	42.00	1400.00	238.00	308.00	42.00	1400.00	220.00	154.00	42.00	1400.00	220.00	154.00	308.00
259+73.53	265+66.31	I-40 L.M.L. - ACCELERATION LANE	592.78	6.50	38.53	46.00	3029.76	151.49	46.00	3029.76	515.06	666.55	46.00	3029.76	220.00	333.27	46.00	3029.76	220.00	333.27	666.54
265+66.31	268+21.34	I-40 L.M.L.	255.03	6.50	16.58	VAR.	1112.54	55.63	VAR.	1112.54	189.13	244.76	VAR.	1112.54	220.00	122.38	VAR.	1112.54	220.00	122.38	244.76
268+21.34	275+00.00	I-40 L.M.L.	678.66	6.50	44.11	38.00	2865.45	143.27	38.00	2865.45	487.13	630.40	38.00	2865.45	220.00	315.20	38.00	2865.45	220.00	315.20	630.40
275+06.66	275+26.00	I-40 L.M.L.	19.34	6.50	1.26	38.00	81.66	4.08	38.00	81.66	13.88	17.96	38.00	81.66	220.00	8.98	38.00	81.66	220.00	8.98	17.96
275+26.00	277+26.00	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
280+18.19	282+18.19	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
282+18.19	291+61.27	I-40 L.M.L.	943.08	6.50	61.30	38.00	3981.89	199.09	38.00	3981.89	676.92	876.01	38.00	3981.89	220.00	438.01	38.00	3981.89	220.00	438.01	876.02
291+61.27	295+42.07	I-40 L.M.L. - TURNOUT	380.80	6.50	24.75	VAR.	1571.42	78.57	VAR.	1571.42	267.14	345.71	VAR.	1571.42	220.00	172.86	VAR.	1571.42	220.00	172.86	345.72
295+42.07	356+04.77	I-40 L.M.L.	6062.70	6.50	394.08	38.00	25598.07	1279.90	38.00	25598.07	4351.67	5631.57	38.00	25598.07	220.00	2815.79	38.00	25598.07	220.00	2815.79	5631.58
355+81.68	364+00.00	I-40 L.M.L.	818.32	6.50	53.19	38.00	3455.13	172.76	38.00	3455.13	587.37	760.13	38.00	3455.13	220.00	380.06	38.00	3455.13	220.00	380.06	760.12
363+79.30	366+16.73	I-40 L.M.L.	237.43	6.50	15.43	38.00	1002.48	50.12	38.00	1002.48	170.42	220.54	38.00	1002.48	220.00	110.27	38.00	1002.48	220.00	110.27	220.54
366+16.73	368+16.73	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
371+82.93	373+82.93	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
373+82.93	391+18.98	I-40 L.M.L.	1736.05	6.50	112.84	38.00	7329.99	366.50	38.00	7329.99	1246.10	1612.60	38.00	7329.99	220.00	806.30	38.00	7329.99	220.00	806.30	1612.60
391+18.98	393+72.33	I-40 L.M.L. - ACCELERATION LANE TAPER	253.35	6.50	16.47	42.00	1182.30	59.12	42.00	1182.30	200.99	260.11	42.00	1182.30	220.00	130.05	42.00	1182.30	220.00	130.05	260.10
393+72.33	395+19.02	I-40 L.M.L. - ACCELERATION LANE	146.69	6.50	9.53	46.00	749.75	37.49	46.00	749.75	127.46	164.95	46.00	749.75	220.00	82.47	46.00	749.75	220.00	82.47	164.94
395+19.02	395+43.52	I-40 L.M.L. - ACCELERATION LANE	24.50	6.50	1.59	46.00	125.22	6.26	46.00	125.22	21.29	27.55	46.00	125.22	VAR.	12.93	46.00	125.22	220.00	13.77	26.70
395+43.50	397+19.00	I-40 L.M.L. - ACCELERATION LANE	175.50	6.50	11.41	46.00	897.00	44.85	46.00	897.00	152.49	197.34	46.00	897.00	VAR.	43.29	46.00	897.00	220.00	98.67	141.96
399+26.17	400+47.75	I-40 L.M.L. - ACCELERATION LANE	121.58	6.50	7.90	46.00	621.41	31.07	46.00	621.41	105.64	136.71	46.00	621.41	66.87	20.78	46.00	621.41	220.00	68.36	89.14
400+47.75	401+26.17	I-40 L.M.L. - ACCELERATION LANE	78.42	6.50	5.10	VAR.	441.22	22.06	VAR.	441.22	75.01	97.07	VAR.	441.22	176.87	39.02	VAR.	441.22	220.00	48.53	87.55
401+26.17	401+38.39	I-40 L.M.L.	12.22	6.50	0.79	VAR.	66.65	3.33	VAR.	66.65	11.33	14.66	VAR.	66.65	220.00	7.33	VAR.	66.65	220.00	7.33	14.66
401+38.39	409+22.43	I-40 L.M.L.	784.04	6.50	50.96	38.00	3310.39	165.52	38.00	3310.39	562.77	728.29	38.00	3310.39	220.00	364.14	38.00	3310.39	220.00	364.14	728.28
409+22.43	415+44.83	I-40 L.M.L. - TURNOUT	622.40	6.50	40.46	VAR.	3238.34	161.92	VAR.	3238.34	550.52	712.44	VAR.	3238.34	220.00	356.22	VAR.	3238.34	220.00	356.22	712.44
415+44.83	444+61.14	I-40 L.M.L.	2916.31	6.50	189.56	38.00	12313.31	615.67	38.00	12313.31	2093.26	2708.93	38.00	12313.31	220.00	1354.46	38.00	12313.31	220.00	1354.46	2708.92
444+81.14	447+48.79	I-40 L.M.L. - ACCELERATION LANE TAPER	287.65	6.50	18.70	42.00	1342.37	67.12	42.00	1342.37	228.20	295.32	42.00	1342.37	220.00	147.66	42.00	1342.37	220.00	147.66	295.32
447+48.79	452+90.78	I-40 L.M.L. - ACCELERATION LANE	541.99	6.50	35.23	46.00	2770.17	138.51	46.00	2770.17	470.93	609.44	46.00	2770.17	220.00	304.72	46.00	2770.17	220.00	304.72	609.44
452+90.78	455+57.72	I-40 L.M.L.	266.94	6.50	17.35	VAR.	1258.70	62.94	VAR.	1258.70	213.98	276.92	VAR.	1258.70	220.00	138.46	VAR.	1258.70	220.00	138.46	276.92
455+57.72	484+48.83	I-40 L.M.L.	2891.11	6.50	187.92	38.00	12206.91	610.35	38.00	12206.91	2075.17	2685.52	38.00	12206.91	220.00	1342.76	38.00	12206.91	220.00	1342.76	2685.52
484+48.83	488+43.84	I-40 L.M.L. - TURNOUT	395.01	6.50	25.68	VAR.	1734.91	86.75	VAR.	1734.91	294.93	381.68	VAR.	1734.91	220.00	190.84	VAR.	1734.91	220.00	190.84	381.68
488+43.84	489+65.12	I-40 L.M.L.	121.28	6.50	7.88	38.00	512.07	25.60	38.00	512.07	87.05	112.65	38.00	512.07	220.00	56.33	38.00	512.07	220.00	56.33	112.66
489+65.12	491+65.12	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
491+65.12	492+15.12	I-40 L.M.L.	50.00	6.50	3.25				38.00	211.11	35.89	35.89					38.00	211.11	220.00	23.22	23.22
492+15.12	494+15.12	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
494+15.12	576+49.64	I-40 L.M.L.	8234.52	6.50	535.24	38.00	34767.97	1738.40	38.00	34767.97	5910.55	7648.95	38.00	34767.97	220.00	3824.48	38.00	34767.97	220.00	3824.48	7648.96
576+49.64	578+49.64	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
578+49.64	578+99.64	I-40 L.M.L.	50.00	6.50	3.25				38.00	211.11	35.89	35.89					38.00	211.11	220.00	23.22	23.22
578+99.64	580+99.64	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
580+99.64	624+45.55	I-40 L.M.L.	4345.91	6.50	282.48	38.00	18349.40	917.47	38.00	18349.40	3119.40	4036.87	38.00	18349.40	220.00	2018.43	38.00	18349.40	220.00	2018.43	4036.86
624+45.55	626+45.55	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
626+45.55	628+86.83	I-40 L.M.L.	241.28	6.50	15.68				28.00	750.65	127.61	127.61					28.00	750.65	220.00	82.57	82.57
628+93.83	629+00.00	I-40 L.M.L.	6.17	6.50	0.40				28.00	19.20	3.26	3.26					28.00	19.20	220.00	2.11	2.11
629+71.12	631+64.73	I-40 L.M.L.	193.61	6.50	12.58				28.00	602.34	102.40	102.40					28.00	602.34	220.00	66.26	66.26
637+02.45	639+84.29	I-40 L.M.L.	281.84	6.50	18.32				28.00	876.84	149.06	149.06					28.00	876.84	220.00	96.45	96.45
639+84.29	640+52.91	I-40 L.M.L.	68.62	6.50	4.46				VAR.	249.79	42.46	42.46					VAR.	249.79	220.00	27.48	27.48
640+52.91	642+52.91	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
642+52.91	661+28.42	I-40 L.M.L.	1875.51	6.50	121.91	38.00	7918.82	395.94	38.00	7918.82	1346.20	1742.14	38.00	7918.82	220.00	871.07	38.00	7918.82	220.00	871.07	1742.14
661+28.42	666+22.62	I-40 L.M.L. - TURNOUT	494.20	6.50	32.12	VAR.	2692.76	134.64	VAR.	2692.76	457.77	592.41	VAR.	2692.76	220.00	296.20	VAR.	2692.76	220.00	296.20	592.40
666+22.62	666+47.75	I-40 L.M.L. - TURNOUT	25.13	6.50	1.63	VAR.	129.06	6.45	VAR.	129.06	21.94	28.39	VAR.	129.06	206.18	13.30	VAR.	129.06	220.00	14.20	27.50
666+47.75	668+22.62	I-40 L.M.L. - AUXILARY LANE	174.87	6.50	11.37	46.00	893.78	44.69	46.00	893.78	151.94	196.63	46.00	893.78	96.18	42.98	46.00	893.78	220.00	98.32	141.30
668+22.62	668+72.62	I-40 L.M.L. - AUXILARY LANE	50.00	6.50	3.25				46.00	255.56	43.45	43.45					46.00	255.56	220.00	28.11	28.11
668+72.62	670+72.62	I-40 L.M.L. - AUXILARY LANE	200.00	6.50	13.00	46.00	1022.22	51.11	46.00	1022.22	173.78	224.89	46.00	1022.22	110.00	56.22	46.00	1022.22	220.00	112.44	168.66
670+72.62	687+91.80	I-40 L.M.L. - AUXILARY LANE	1719.18	6.50	111.75	46.00	8786.92	439.35	46.00	8786.92	1493.78	1933.13	46.00	8786.92	220.00	966.56	46.00	8786.92	220.00	966.56	1933.12
687+91.80	690+46.80	I-40 L.M.L.	255.00	6.50	16.58	VAR.	1202.41	60.12	VAR.	1202.41	204.41	264.53	VAR.	1202.41	220.00	132.27	VAR.	1202.41	220.00	132.27	264.54
690+46.80	697+00.00	I-40 L.M.L.	653.20	6.50	42.46	38.00	2757.96	137.90	38.00	2757.96	468.85	606.75	38.00	2757.96	220.00	303.38	38.00	2757.96	220.00	303.38	606.76
696+35.00	698+99.43	I-40 L.M.L.	264.43	6.50	17.19	38.00	1116.48	55.82	38.00	1116.48	189.80	245.62	38.00	1116.48	220.00	122.81	38.00	1116.48	220.00	122.81	245.62
698+99.43	700+99.43	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
703+37.69	706+15.67	I-40 L.M.L.	277.98	6.50	18.07				38.00	1173.69	199.53	199.53					38.00	1173.69	220.00	129.11	129.11
708+90.86	710+90.86	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
710+90.86	713+20.25	I-40 L.M.L.	229.39	6.50	14.91	38.00	968.54	48.43	38.00	968.54	164.65	213.08	38.00	968.54	220.00	106.54	38.00	968.54	220.00	106.54	213.08
713+20.25	720+09.63	I-40 L.M.L. - TURNOUT	689.38	6.50	44.81	VAR.	3658.02	182.90	VAR.	3658.02	621.86	804.76	VAR.	3658.02	220.00	402.38	VAR.	3658.02	220.00	402.38	804.76
720+09.63	834+93.36	I-40 L.M.L.	11483.73	6.50	746.44	38.00	48486.88	2424.34	38.00	48486.86	8242.77	10667.11	38.00	48486.86	220.00	5333.55	38.00	48486.86	220.00	5333.55	10667.10
834+93.96	836+93.96	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
836+93.96	837+93.96	I-40 L.M.L.	100.00	6.50	6.50	38.00	422.22	21.11	38.00	422.22	71.78	92.89	38.00	422.22	VAR.	11.61	38.00	422.22	220.00	46.44	58.05
837+93.96	838+43.96	I-40 L.M.L.	50.00	6.50	3.25	38.00	211.11	10.56	38.00	211.11	35.89	46.45	38.00	211.11	VAR.	11.61	38.00	211.11	220.00	23.22	34.83
838+43.96	839+43.96	I-40 L.M.L.	100.00	6.50	6.50	38.00	422.22	21.11	38.00	422.22	71.78	92.89	38.00	422.22	VAR.	11.61	38.00	422.22	220.00	46.44	58.05
839+43.96	841+43.96	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
841+43.96	897+35.95	I-40 L.M.L.	5591.99	6.50	363.48	38.00	23610.62	1180.53	38.00	23610.62	4013.81	5194.34	38.00	23610.62	220.00	2597.17	38.00	23610.62	220.00	2597.17	5194.34
897+35.95	899+35.95	I-40 L.M.L.	200.00	6.50	13.00	38.00	844.44	42.22	38.00	844.44	143.55	185.77	38.00	844.44	110.00	46.44	38.00	844.44	220.00	92.89	139.33
SUBTOTALS (BOX 2 OF 6):					**5691.79**		**371331.69**	**18566.57**		**375681.98**	**63865.84**	**82432.41**		**371331.69**		**39703.34**		**375681.98**		**41325.01**	**81028.35**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.5% MIN. AGGR.....5.5% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

RBB040I REVISED.DGN 9/13/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED./RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	78	234

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

BASE AND SURFACING (I-40) (BOX 3 OF 6)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM SURFACE COURSE (1/2")								
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)			TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	TOTAL PG 76-22
			FEET			TOTAL WID. FEET	SQ.YD.	GALLON	TOTAL WID. FEET	SQ.YD.	GALLON		FEET			TON	FEET			TON	TON
RAMPS - EASTBOUND																					
		I-40 ENTRANCE RAMP - DORA RD.	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 ENTRANCE RAMP - DORA RD.	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 EXIT RAMP - ARKANSAS WELCOME CENTER	220.00	5.00	11.00	25.00	611.11	30.56	25.00	611.11	103.89	134.45	25.00	611.11	220.00	67.22	25.00	611.11	220.00	67.22	134.44
		I-40 EXIT RAMP - ARKANSAS WELCOME CENTER	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 ENTRANCE RAMP - ARKANSAS WELCOME CENTER	110.00	5.00	5.50	25.00	305.56	15.28	25.00	305.56	51.95	67.23	25.00	305.56	220.00	33.61	25.00	305.56	220.00	33.61	67.22
		I-40 ENTRANCE RAMP - ARKANSAS WELCOME CENTER	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 1 - BECKAERT ROAD	420.00	5.00	21.00	25.00	1166.67	58.33	25.00	1166.67	198.33	256.66	25.00	1166.67	220.00	128.33	25.00	1166.67	220.00	128.33	256.66
		I-40 RAMP 1 - BECKAERT ROAD	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 1 - BECKAERT ROAD INTERSECTION	300.00						VAR.	869.56	147.83	147.83					VAR.	869.56	220.00	95.65	95.65
		I-40 RAMP 2 - BECKAERT ROAD	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 2 - BECKAERT ROAD	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 2 - BECKAERT ROAD INTERSECTION	360.00						VAR.	1042.89	177.29	177.29					VAR.	1042.89	220.00	114.72	114.72
		I-40 RAMP 1 - HWY. 59	510.00	5.00	25.50	25.00	1416.67	70.83	25.00	1416.67	240.83	311.66	25.00	1416.67	220.00	155.83	25.00	1416.67	220.00	155.83	311.66
		I-40 RAMP 1 - HWY. 59	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 2 - HWY. 59	470.00	5.00	23.50	25.00	1305.56	65.28	25.00	1305.56	221.95	287.23	25.00	1305.56	220.00	143.61	25.00	1305.56	220.00	143.61	287.22
		I-40 RAMP 2 - HWY. 59	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 2 - HWY. 59 INTERSECTION	100.00						VAR.	744.00	126.48	126.48					VAR.	744.00	220.00	81.84	81.84
		I-40 RAMP 3 - HWY. 71 S.	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 3 - HWY. 71 S.	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 4 - HWY. 71 N.	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 4 - HWY. 71 N.	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 1 - WEIGH STATION	250.00	5.00	12.50	25.00	694.44	34.72	25.00	694.44	118.05	152.77	25.00	694.44	220.00	76.39	25.00	694.44	220.00	76.39	152.78
		I-40 RAMP 1 - WEIGH STATION	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 2 - WEIGH STATION	150.00	5.00	7.50	25.00	416.67	20.83	25.00	416.67	70.83	91.66	25.00	416.67	220.00	45.83	25.00	416.67	220.00	45.83	91.66
		I-40 RAMP 2 - WEIGH STATION	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 1 - I-49	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 1 - I-49	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 2 - I-49	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 2 - I-49	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 1 - HWY. 71 S.	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 1 - HWY. 71 S.	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 2 - HWY. 71 N.	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 2 - HWY. 71 N.	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
RAMPS -WESTBOUND																					
		I-40 EXIT RAMP - DORA RD.	550.00	5.00	27.50	25.00	1527.78	76.39	25.00	1527.78	259.72	336.11	25.00	1527.78	220.00	168.06	25.00	1527.78	220.00	168.06	336.12
		I-40 EXIT RAMP - DORA RD.	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 4 - BECKAERT ROAD	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 4 - BECKAERT ROAD	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 4 - BECKAERT ROAD INTERSECTION	390.00						VAR.	1126.67	191.53	191.53					VAR.	1126.67	220.00	123.93	123.93
		I-40 RAMP 3 - BECKAERT ROAD	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 3 - BECKAERT ROAD	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 3 - BECKAERT ROAD INTERSECTION	450.00						VAR.	1305.78	221.98	221.98					VAR.	1305.78	220.00	143.64	143.64
		I-40 RAMP 4 - HWY. 59	550.00	5.00	27.50	25.00	1527.78	76.39	25.00	1527.78	259.72	336.11	25.00	1527.78	220.00	168.06	25.00	1527.78	220.00	168.06	336.12
		I-40 RAMP 4 - HWY. 59	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 3 - HWY. 59	450.00	5.00	22.50	25.00	1250.00	62.50	25.00	1250.00	212.50	275.00	25.00	1250.00	220.00	137.50	25.00	1250.00	220.00	137.50	275.00
		I-40 RAMP 3 - HWY. 59	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 3 - HWY. 59 INTERSECTION							VAR.	354.00	60.18	60.18					VAR.	354.00	220.00	38.94	38.94
		I-40 RAMP 2 - HWY. 71 N.	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 2 - HWY. 71 N.	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 1 - HWY. 71 S.	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 1 - HWY. 71 S.	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 4 - WEIGH STATION	250.00	5.00	12.50	25.00	694.44	34.72	25.00	694.44	118.05	152.77	25.00	694.44	220.00	76.39	25.00	694.44	220.00	76.39	152.78
		I-40 RAMP 4 - WEIGH STATION	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 3 - WEIGH STATION	200.00	5.00	10.00	25.00	555.56	27.78	25.00	555.56	94.45	122.23	25.00	555.56	220.00	61.11	25.00	555.56	220.00	61.11	122.22
		I-40 RAMP 3 - WEIGH STATION	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 4 - I-49	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 4 - I-49	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 3 - I-49	575.00	5.00	28.75	25.00	1597.22	79.86	25.00	1597.22	271.53	351.39	25.00	1597.22	220.00	175.69	25.00	1597.22	220.00	175.69	351.38
		I-40 RAMP 3 - I-49	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 4 - HWY. 71 S.	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 4 - HWY. 71 S.	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
		I-40 RAMP 3 - HWY. 71 N.	400.00	5.00	20.00	25.00	1111.11	55.56	25.00	1111.11	188.89	244.45	25.00	1111.11	220.00	122.22	25.00	1111.11	220.00	122.22	244.44
		I-40 RAMP 3 - HWY. 71 N.	100.00	5.00	5.00	25.00	277.78	13.89	25.00	277.78	47.22	61.11	25.00	277.78	110.00	15.28	25.00	277.78	220.00	30.56	45.84
SUBTOTALS (BOX 3 OF 6):					**675.25**		**37513.95**	**1875.79**		**42956.85**	**7302.60**	**9178.39**		**37513.95**		**3698.77**		**42956.85**		**4725.33**	**8424.10**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.5% MIN. AGGR.....5.5% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

RBB0401 REVISED.DGN 9/13/2018

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	79	234

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

BASE AND SURFACING (I-40) (BOX 4 OF 6)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM SURFACE COURSE (1/2")							
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)			TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	TOTAL PG 76-22
			FEET			TOTAL WID. FEET	SQ.YD.	GALLON	TOTAL WID. FEET	SQ.YD.	GALLON		FEET			TON	FEET			TON	TON
ADDITIONAL SURFACING FOR GUARDRAIL - R.M.L.																					
501+30.00	1+49.00	I-40 R.M.L.-RT.	311.82						VAR.	180.48	30.68	30.68					VAR.	180.48	220.00	19.85	19.85
0+39.00	3+32.00	I-40 R.M.L.-LT.	293.00						VAR.	168.98	28.73	28.73					VAR.	168.98	220.00	18.59	18.59
9+66.00	27+34.00	I-40 R.M.L.-RT.	1768.00						VAR.	1070.36	181.96	181.96					VAR.	1070.36	220.00	117.74	117.74
59+15.00	61+08.00	I-40 R.M.L.-RT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86	11.86
59+19.00	61+12.00	I-40 R.M.L.-LT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86	11.86
67+87.00	70+60.02	I-40 R.M.L.-RT.	273.02						VAR.	156.77	26.65	26.65					VAR.	156.77	220.00	17.24	17.24
68+59.00	71+32.02	I-40 R.M.L.-LT.	273.02						VAR.	156.77	26.65	26.65					VAR.	156.77	220.00	17.24	17.24
81+01.00	83+19.00	I-40 R.M.L.-RT.	218.00						VAR.	123.14	20.93	20.93					VAR.	123.14	220.00	13.55	13.55
81+11.00	83+04.00	I-40 R.M.L.-LT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86	11.86
127+22.00	129+90.00	I-40 R.M.L.-RT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91	16.91
135+00.00	138+43.00	I-40 R.M.L.-LT.	343.00						VAR.	199.53	33.92	33.92					VAR.	199.53	220.00	21.95	21.95
135+15.00	138+69.00	I-40 R.M.L.-RT.	354.00						VAR.	206.25	35.06	35.06					VAR.	206.25	220.00	22.69	22.69
150+38.00	153+06.00	I-40 R.M.L.-LT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91	16.91
150+40.00	153+08.00	I-40 R.M.L.-RT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91	16.91
184+02.00	185+00.00	I-40 R.M.L.-LT.	98.00						VAR.	59.50	10.12	10.12					VAR.	59.50	220.00	6.55	6.55
185+14.04	187+88.55	I-40 R.M.L.-LT.	274.51						VAR.	166.65	28.33	28.33					VAR.	166.65	220.00	18.33	18.33
184+75.00	185+00.00	I-40 R.M.L.-RT.	25.00						VAR.	15.16	2.58	2.58					VAR.	15.16	220.00	1.67	1.67
185+14.04	188+11.75	I-40 R.M.L.-RT.	297.71						VAR.	180.55	30.69	30.69					VAR.	180.55	221.00	19.95	19.95
219+73.00	221+66.00	I-40 R.M.L.-LT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86	11.86
219+92.00	221+85.00	I-40 R.M.L.-RT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86	11.86
225+36.00	227+29.00	I-40 R.M.L.-LT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86	11.86
239+98.00	241+91.00	I-40 R.M.L.-LT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86	11.86
258+14.00	260+07.00	I-40 R.M.L.-LT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86	11.86
274+89.00	275+00.00	I-40 R.M.L.-LT.	11.00						VAR.	8.84	1.50	1.50					VAR.	8.84	220.00	0.97	0.97
275+06.66	277+82.00	I-40 R.M.L.-LT.	275.34						VAR.	221.25	37.61	37.61					VAR.	221.25	220.00	24.34	24.34
274+76.00	275+00.00	I-40 R.M.L.-RT.	24.00						VAR.	14.19	2.41	2.41					VAR.	14.19	220.00	1.56	1.56
275+06.66	277+87.75	I-40 R.M.L.-RT.	281.09						VAR.	166.24	28.26	28.26					VAR.	166.24	220.00	18.29	18.29
287+94.00	289+87.00	I-40 R.M.L.-LT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86	11.86
315+69.00	318+37.00	I-40 R.M.L.-LT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91	16.91
315+69.00	318+37.00	I-40 R.M.L.-RT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91	16.91
319+73.00	322+84.75	I-40 R.M.L.-RT.	311.75						VAR.	180.43	30.67	30.67					VAR.	180.43	220.00	19.85	19.85
347+82.00	350+50.00	I-40 R.M.L.-LT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91	16.91
347+99.87	364+00.00	I-40 R.M.L.-RT.	1600.13						VAR.	959.30	163.08	163.08					VAR.	959.30	220.00	105.52	105.52
363+79.30	368+64.00	I-40 R.M.L.-RT.	484.70						VAR.	290.58	49.40	49.40					VAR.	290.58	220.00	31.96	31.96
364+72.00	368+58.75	I-40 R.M.L.-LT.	386.75						VAR.	226.27	38.47	38.47					VAR.	226.27	220.00	24.89	24.89
371+60.00	384+14.00	I-40 R.M.L.-RT.	1254.00						5.50	766.33	130.28	130.28					5.50	766.33	220.00	84.30	84.30
378+32.00	384+00.00	I-40 R.M.L.-LT.	568.00						VAR.	337.03	57.30	57.30					VAR.	337.03	220.00	37.07	37.07
384+93.00	391+86.00	I-40 R.M.L.-LT.	693.00						VAR.	413.42	70.28	70.28					VAR.	413.42	220.00	45.48	45.48
385+90.00	390+33.00	I-40 R.M.L.-RT.	443.00						VAR.	260.64	44.31	44.31					VAR.	260.64	220.00	28.67	28.67
393+67.00	397+53.75	I-40 R.M.L.-LT.	386.75						VAR.	226.27	38.47	38.47					VAR.	226.27	220.00	24.89	24.89
394+41.00	397+54.00	I-40 R.M.L.-RT.	313.00						VAR.	181.20	30.80	30.80					VAR.	181.20	220.00	19.93	19.93
416+23.00	421+66.00	I-40 R.M.L.-LT.	543.00						VAR.	321.75	54.70	54.70					VAR.	321.75	220.00	35.39	35.39
417+30.00	420+66.75	I-40 R.M.L.-RT.	336.75						VAR.	195.71	33.27	33.27					VAR.	195.71	220.00	21.53	21.53
434+18.00	436+86.00	I-40 R.M.L.-LT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91	16.91
434+18.00	436+86.00	I-40 R.M.L.-RT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91	16.91
486+99.00	492+42.00	I-40 R.M.L.-LT.	543.00						VAR.	321.75	54.70	54.70					VAR.	321.75	220.00	35.39	35.39
488+06.00	491+17.75	I-40 R.M.L.-RT.	311.75						VAR.	180.43	30.67	30.67					VAR.	180.43	220.00	19.85	19.85
560+06.00	562+49.00	I-40 R.M.L.-RT.	243.00						VAR.	138.42	23.53	23.53					VAR.	138.42	220.00	15.23	15.23
573+84.00	579+27.00	I-40 R.M.L.-LT.	543.00						VAR.	321.75	54.70	54.70					VAR.	321.75	220.00	35.39	35.39
574+66.00	578+02.75	I-40 R.M.L.-RT.	336.75						VAR.	195.71	33.27	33.27					VAR.	195.71	220.00	21.53	21.53
579+91.00	582+34.00	I-40 R.M.L.-RT.	243.00						VAR.	138.42	23.53	23.53					VAR.	138.42	220.00	15.23	15.23
628+00.00	630+43.00	I-40 R.M.L.-RT.	243.00						VAR.	138.42	23.53	23.53					VAR.	138.42	220.00	15.23	15.23
627+68.00	631+50.87	I-40 R.M.L.-LT.	382.87						VAR.	223.90	38.06	38.06					VAR.	223.90	220.00	24.63	24.63
628+02.00	630+43.00	I-40 R.M.L.-RT.	241.00						VAR.	137.20	23.32	23.32					VAR.	137.20	220.00	15.09	15.09
645+03.00	651+46.00	I-40 R.M.L.-LT.	643.00						VAR.	382.86	65.09	65.09					VAR.	382.86	220.00	42.11	42.11
663+96.00	669+39.00	I-40 R.M.L.-LT.	543.00						VAR.	321.75	54.70	54.70					VAR.	321.75	220.00	35.39	35.39
693+84.00	701+05.75	I-40 R.M.L.-RT.	786.75						VAR.	470.71	80.02	80.02					VAR.	470.71	220.00	51.78	51.78
697+80.00	701+16.75	I-40 R.M.L.-LT.	336.75						VAR.	195.71	33.27	33.27					VAR.	195.71	220.00	21.53	21.53
702+73.00	706+35.50	I-40 R.M.L.-RT.	362.50						5.50	221.53	37.66	37.66					5.50	221.53	220.00	24.37	24.37
703+47.00	706+40.75	I-40 R.M.L.-LT.	293.75						5.50	179.51	30.52	30.52					5.50	179.51	220.00	19.75	19.75
713+87.00	719+30.00	I-40 R.M.L.-LT.	543.00						VAR.	321.75	54.70	54.70					VAR.	321.75	220.00	35.39	35.39
714+98.00	718+09.75	I-40 R.M.L.-RT.	311.75						VAR.	180.43	30.67	30.67					VAR.	180.43	220.00	19.85	19.85
737+55.00	739+98.00	I-40 R.M.L.-RT.	243.00						VAR.	138.42	23.53	23.53					VAR.	138.42	220.00	15.23	15.23
833+74.00	840+17.00	I-40 R.M.L.-LT.	643.00						VAR.	382.86	65.09	65.09					VAR.	382.86	220.00	42.11	42.11
834+85.00	838+21.75	I-40 R.M.L.-RT.	336.75						VAR.	195.71	33.27	33.27					VAR.	195.71	220.00	21.53	21.53
SUBTOTALS (BOX 4 OF 6):										14441.17	2455.04	2455.04						14441.17		1588.62	1588.62

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.5% MIN. AGGR.....5.5% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

RBB040I REVISED.DGN 9/13/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	80	234

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

BASE AND SURFACING (I-40) (BOX 5 OF 6)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM SURFACE COURSE (1/2")							
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)			TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22
						TOTAL WID.	SQ.YD.	GALLON	TOTAL WID.	SQ.YD.	GALLON									TOTAL PG 76-22
			FEET			FEET			FEET				FEET			TON	FEET			TON
ADDITIONAL SURFACING FOR GUARDRAIL - L.M.L.																				
1+53.00	6+96.00	I-40 L.M.L.-RT.	543.00						VAR.	321.75	54.70	54.70					VAR.	321.75	220.00	35.39
3+27.00	6+63.75	I-40 L.M.L.-LT.	336.75						VAR.	195.71	33.27	33.27					VAR.	195.71	220.00	21.53
61+17.00	63+10.00	I-40 L.M.L.-LT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86
61+38.00	63+31.00	I-40 L.M.L.-RT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86
70+99.00	73+42.00	I-40 L.M.L.-RT.	243.00						VAR.	138.42	23.53	23.53					VAR.	138.42	220.00	15.23
71+50.00	73+93.00	I-40 L.M.L.-LT.	243.00						VAR.	138.42	23.53	23.53					VAR.	138.42	220.00	15.23
82+59.00	84+52.00	I-40 L.M.L.-LT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86
82+59.00	84+52.00	I-40 L.M.L.-RT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86
191+54.00	202+90.75	I-40 L.M.L.-LT.	1136.75						VAR.	684.60	116.38	116.38					VAR.	684.60	220.00	75.31
191+78.00	195+64.75	I-40 L.M.L.-RT.	386.75						VAR.	226.27	38.47	38.47					VAR.	226.27	220.00	24.89
219+77.00	221+70.00	I-40 L.M.L.-LT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86
220+69.00	222+62.00	I-40 L.M.L.-RT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86
225+95.00	227+88.00	I-40 L.M.L.-LT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86
226+16.00	228+34.00	I-40 L.M.L.-RT.	218.00						VAR.	123.14	20.93	20.93					VAR.	123.14	220.00	13.55
240+87.00	243+05.00	I-40 L.M.L.-RT.	218.00						VAR.	123.14	20.93	20.93					VAR.	123.14	220.00	13.55
260+00.00	261+93.00	I-40 L.M.L.-RT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86
260+44.00	262+62.00	I-40 L.M.L.-LT.	218.00						VAR.	123.14	20.93	20.93					VAR.	123.14	220.00	13.55
279+81.00	282+93.00	I-40 L.M.L.-LT.	312.00						VAR.	180.59	30.70	30.70					VAR.	180.59	220.00	19.86
279+87.00	283+73.75	I-40 L.M.L.-RT.	386.75						VAR.	226.27	38.47	38.47					VAR.	226.27	220.00	24.89
288+31.00	290+24.00	I-40 L.M.L.-RT.	193.00						VAR.	107.86	18.34	18.34					VAR.	107.86	220.00	11.86
322+89.00	326+25.75	I-40 L.M.L.-LT.	336.75						VAR.	195.71	33.27	33.27					VAR.	195.71	220.00	21.53
371+46.00	375+07.75	I-40 L.M.L.-LT.	361.75						VAR.	210.99	35.87	35.87					VAR.	210.99	220.00	23.21
371+49.00	375+60.75	I-40 L.M.L.-RT.	411.75						VAR.	241.55	41.06	41.06					VAR.	241.55	220.00	26.57
388+11.00	394+86.00	I-40 L.M.L.-RT.	675.00						5.50	412.50	70.13	70.13					5.50	412.50	220.00	45.38
389+35.00	395+43.52	I-40 L.M.L.-LT.	608.52						5.50	371.87	63.22	63.22					5.50	371.87	220.00	40.91
395+43.50	397+53.75	I-40 L.M.L.-LT.	210.25						5.50	128.48	21.84	21.84					5.50	128.48	220.00	14.13
398+91.00	401+98.00	I-40 L.M.L.-LT.	307.00						VAR.	177.53	30.18	30.18					VAR.	177.53	220.00	19.53
398+91.00	402+77.75	I-40 L.M.L.-RT.	386.75						VAR.	226.27	38.47	38.47					VAR.	226.27	220.00	24.89
410+02.00	418+02.00	I-40 L.M.L.-LT.	800.00						VAR.	478.81	81.40	81.40					VAR.	478.81	220.00	52.67
415+40.00	418+33.00	I-40 L.M.L.-RT.	293.00						VAR.	168.98	28.73	28.73					VAR.	168.98	220.00	18.59
419+99.00	425+42.00	I-40 L.M.L.-RT.	543.00						VAR.	321.75	54.70	54.70					VAR.	321.75	220.00	35.39
421+01.00	424+12.75	I-40 L.M.L.-LT.	311.75						VAR.	180.43	30.67	30.67					VAR.	180.43	220.00	19.85
436+79.00	439+47.00	I-40 L.M.L.-LT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91
436+79.00	439+47.00	I-40 L.M.L.-RT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91
471+46.00	474+14.00	I-40 L.M.L.-LT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91
471+46.00	474+14.00	I-40 L.M.L.-RT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91
488+51.00	491+19.00	I-40 L.M.L.-LT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91
490+97.00	496+40.00	I-40 L.M.L.-RT.	543.00						VAR.	321.75	54.70	54.70					VAR.	321.75	220.00	35.39
492+31.00	495+42.75	I-40 L.M.L.-LT.	311.75						VAR.	180.43	30.67	30.67					VAR.	180.43	220.00	19.85
522+90.00	525+58.00	I-40 L.M.L.-LT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91
542+01.00	547+69.00	I-40 L.M.L.-LT.	568.00						VAR.	337.03	57.30	57.30					VAR.	337.03	220.00	37.07
560+69.00	563+12.00	I-40 L.M.L.-LT.	243.00						VAR.	138.42	23.53	23.53					VAR.	138.42	220.00	15.23
577+79.00	583+22.00	I-40 L.M.L.-RT.	543.00						VAR.	321.75	54.70	54.70					VAR.	321.75	220.00	35.39
579+08.00	582+19.75	I-40 L.M.L.-LT.	311.75						VAR.	180.43	30.67	30.67					VAR.	180.43	220.00	19.85
636+54.00	640+65.75	I-40 L.M.L.-RT.	411.75						VAR.	241.55	41.06	41.06					VAR.	241.55	220.00	26.57
636+90.00	640+51.75	I-40 L.M.L.-LT.	361.75						VAR.	210.99	35.87	35.87					VAR.	210.99	220.00	23.21
648+57.00	654+50.00	I-40 L.M.L.-RT.	593.00						VAR.	352.31	59.89	59.89					VAR.	352.31	220.00	38.75
667+60.00	673+03.00	I-40 L.M.L.-RT.	543.00						VAR.	321.75	54.70	54.70					VAR.	321.75	220.00	35.39
668+62.00	671+23.75	I-40 L.M.L.-LT.	261.75						VAR.	149.88	25.48	25.48					VAR.	149.88	220.00	16.49
696+66.00	697+00.00	I-40 L.M.L.-LT.	34.00						5.50	18.25	3.10	3.10					5.50	268.21	220.00	29.50
696+35.00	701+34.75	I-40 L.M.L.-LT.	499.75						5.50	268.21	45.60	45.60					5.50	179.51	220.00	19.75
702+98.00	705+91.75	I-40 L.M.L.-RT.	293.75						5.50	179.51	30.52	30.52					5.50	179.51	220.00	19.75
703+08.00	706+70.50	I-40 L.M.L.-LT.	362.50						5.50	221.53	37.66	37.66					5.50	221.53	220.00	24.37
708+53.00	711+71.00	I-40 L.M.L.-RT.	318.00						VAR.	184.25	31.32	31.32					VAR.	184.25	220.00	20.27
708+59.00	711+95.75	I-40 L.M.L.-LT.	336.75						VAR.	195.71	33.27	33.27					VAR.	195.71	220.00	21.53
717+81.00	723+24.00	I-40 L.M.L.-RT.	543.00						VAR.	321.75	54.70	54.70					VAR.	321.75	220.00	35.39
718+96.00	722+32.75	I-40 L.M.L.-LT.	336.75						VAR.	195.71	33.27	33.27					VAR.	195.71	220.00	21.53
727+07.00	730+00.00	I-40 L.M.L.-LT.	293.00						VAR.	168.98	28.73	28.73					VAR.	168.98	220.00	18.59
731+31.00	733+74.00	I-40 L.M.L.-LT.	243.00						VAR.	138.42	23.53	23.53					VAR.	138.42	220.00	15.23
740+19.00	743+12.00	I-40 L.M.L.-LT.	293.00						VAR.	168.98	28.73	28.73					VAR.	168.98	220.00	18.59
747+00.00	749+68.00	I-40 L.M.L.-LT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91
771+78.00	774+21.00	I-40 L.M.L.-LT.	243.00						VAR.	138.42	23.53	23.53					VAR.	138.42	220.00	15.23
795+90.00	798+33.00	I-40 L.M.L.-LT.	243.00						VAR.	138.42	23.53	23.53					VAR.	138.42	220.00	15.23
808+02.00	810+45.00	I-40 L.M.L.-LT.	243.00						VAR.	138.42	23.53	23.53					VAR.	138.42	220.00	15.23
816+37.00	819+05.00	I-40 L.M.L.-LT.	268.00						VAR.	153.70	26.13	26.13					VAR.	153.70	220.00	16.91
837+34.00	842+77.00	I-40 L.M.L.-RT.	543.00						VAR.	321.75	54.70	54.70					VAR.	321.75	220.00	35.39
838+27.00	841+63.75	I-40 L.M.L.-LT.	336.75						VAR.	195.71	33.27	33.27					VAR.	195.71	220.00	21.53
874+49.00	880+92.00	I-40 L.M.L.-LT.	643.00						VAR.	382.86	65.09	65.09					VAR.	382.86	220.00	42.11
SUBTOTALS (BOX 5 OF 6):										13929.83	2368.13	2368.13						14091.09		1550.06

STATION	STATION	LOCATION	TOTAL PG 76-22
			TON
ADDITIONAL SURFACING FOR GUARDRAIL - L.M.L.			
1+53.00	6+96.00	I-40 L.M.L.-RT.	35.39
3+27.00	6+63.75	I-40 L.M.L.-LT.	21.53
61+17.00	63+10.00	I-40 L.M.L.-LT.	11.86
61+38.00	63+31.00	I-40 L.M.L.-RT.	11.86
70+99.00	73+42.00	I-40 L.M.L.-RT.	15.23
71+50.00	73+93.00	I-40 L.M.L.-LT.	15.23
82+59.00	84+52.00	I-40 L.M.L.-LT.	11.86
82+59.00	84+52.00	I-40 L.M.L.-RT.	11.86
191+54.00	202+90.75	I-40 L.M.L.-LT.	75.31
191+78.00	195+64.75	I-40 L.M.L.-RT.	24.89
219+77.00	221+70.00	I-40 L.M.L.-LT.	11.86
220+69.00	222+62.00	I-40 L.M.L.-RT.	11.86
225+95.00	227+88.00	I-40 L.M.L.-LT.	11.86
226+16.00	228+34.00	I-40 L.M.L.-RT.	13.55
240+87.00	243+05.00	I-40 L.M.L.-RT.	13.55
260+00.00	261+93.00	I-40 L.M.L.-RT.	11.86
260+44.00	262+62.00	I-40 L.M.L.-LT.	13.55
279+81.00	282+93.00	I-40 L.M.L.-LT.	19.86
279+87.00	283+73.75	I-40 L.M.L.-RT.	24.89
288+31.00	290+24.00	I-40 L.M.L.-RT.	11.86
322+89.00	326+25.75	I-40 L.M.L.-LT.	21.53
371+46.00	375+07.75	I-40 L.M.L.-LT.	23.21
371+49.00	375+60.75	I-40 L.M.L.-RT.	26.57
388+11.00	394+86.00	I-40 L.M.L.-RT.	45.38
389+35.00	395+43.52	I-40 L.M.L.-LT.	40.91
395+43.50	397+53.75	I-40 L.M.L.-LT.	14.13
398+91.00	401+98.00	I-40 L.M.L.-LT.	19.53
398+91.00	402+77.75	I-40 L.M.L.-RT.	24.89
410+02.00	418+02.00	I-40 L.M.L.-LT.	52.67
415+40.00	418+33.00	I-40 L.M.L.-RT.	18.59
419+99.00	425+42.00	I-40 L.M.L.-RT.	35.39
421+01.00	424+12.75	I-40 L.M.L.-LT.	19.85
436+79.00	439+47.00	I-40 L.M.L.-LT.	16.91
436+79.00	439+47.00	I-40 L.M.L.-RT.	16.91
471+46.00	474+14.00	I-40 L.M.L.-LT.	16.91
471+46.00	474+14.00	I-40 L.M.L.-RT.	16.91
488+51.00	491+19.00	I-40 L.M.L.-LT.	16.91
490+97.00	496+40.00	I-40 L.M.L.-RT.	35.39
492+31.00	495+42.75	I-40 L.M.L.-LT.	19.85
522+90.00	525+58.00	I-40 L.M.L.-LT.	16.91
542+01.00	547+69.00	I-40 L.M.L.-LT.	37.07
560+69.00	563+12.00	I-40 L.M.L.-LT.	15.23
577+79.00	583+22.00	I-40 L.M.L.-RT.	35.39
579+08.00	582+19.75	I-40 L.M.L.-LT.	19.85
636+54.00	640+65.75	I-40 L.M.L.-RT.	26.57
636+90.00	640+51.75	I-40 L.M.L.-LT.	23.21
648+57.00	654+50.00	I-40 L.M.L.-RT.	38.75
667+60.00	673+03.00	I-40 L.M.L.-RT.	35.39
668+62.00	671+23.75	I-40 L.M.L.-LT.	16.49
696+66.00	697+00.00	I-40 L.M.L.-LT.	29.50
696+35.00	701+34.75	I-40 L.M.L.-LT.	19.75
702+98.00	705+91.75	I-40 L.M.L.-RT.	19.75
703+08.00	706+70.50	I-40 L.M.L.-LT.	24.37
708+53.00	711+71.00	I-40 L.M.L.-RT.	20.27
708+59.00	711+95.75	I-40 L.M.L.-LT.	21.53
717+81.00	723+24.00	I-40 L.M.L.-RT.	35.39
718+96.00	722+32.75	I-40 L.M.L.-LT.	21.53
727+07.00	730+00.00	I-40 L.M.L.-LT.	18.59
731+31.00	733+74.00	I-40 L.M.L.-LT.	15.23
740+19.00	743+12.00	I-40 L.M.L.-LT.	18.59
747+00.00	749+68.00	I-40 L.M.L.-LT.	16.91
771+78.00	774+21.00	I-40 L.M.L.-LT.	15.23
795+90.00	798+33.00	I-40 L.M.L.-LT.	15.23
808+02.00	810+45.00	I-40 L.M.L.-LT.	15.23
816+37.00	819+05.00	I-40 L.M.L.-LT.	16.91
837+34.00	842+77.00	I-40 L.M.L.-RT.	35.39
838+27.00	841+63.75	I-40 L.M.L.-LT.	21.53
874+49.00	880+92.00	I-40 L.M.L.-LT.	42.11
SUBTOTALS (BOX 5 OF 6):			1550.06

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.5% MIN. AGGR.....5.5% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

RBB0401 REVISED.DGN 9/13/2018

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	81	234

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

BASE AND SURFACING (I-40) (BOX 6 OF 6)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT							ACHM SURFACE COURSE (1/2")								
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)			TOTAL GALLONS	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22	TOTAL PG 76-22
			FEET			TOTAL WID. FEET	SQ.YD.	GALLON	TOTAL WID. FEET	SQ.YD.	GALLON		FEET			TON	FEET			TON	TON
ADDITIONAL FOR TRANSITIONS AT OVERPASSES																					
7+21.24	8+21.24	DORA RD. OVERPASS	100.00						28.00	311.11	52.89	52.89					28.00	311.11	220.00	34.22	34.22
11+98.64	12+98.64	DORA RD. OVERPASS	100.00						28.00	311.11	52.89	52.89					28.00	311.11	220.00	34.22	34.22
726+71.29	727+71.29	RAMP 2 OVER FLAT ROCK CREEK	100.00						25.00	277.78	47.22	47.22					25.00	277.78	220.00	30.56	30.56
729+87.43	730+87.43	RAMP 2 OVER FLAT ROCK CREEK	100.00						25.00	277.78	47.22	47.22					25.00	277.78	220.00	30.56	30.56
7+75.72	8+75.72	LOST BEACH CROSSING OVERPASS	100.00						36.00	400.00	68.00	68.00					36.00	400.00	220.00	44.00	44.00
11+20.22	12+20.22	LOST BEACH CROSSING OVERPASS	100.00						36.00	400.00	68.00	68.00					36.00	400.00	220.00	44.00	44.00
22+29.28	23+29.28	RIDGE RD. OVERPASS	100.00						22.00	244.44	41.55	41.55					22.00	244.44	220.00	26.89	26.89
25+46.52	26+46.52	RIDGE RD. OVERPASS	100.00						22.00	244.44	41.55	41.55					22.00	244.44	220.00	26.89	26.89
ADDITIONAL FOR CROSSOVERS																					
		CROSS OVER E/O DORA RD.							VAR.	109.26	18.57	18.57					VAR.	109.26	220.00	12.02	12.02
		CROSS OVER AT WEIGH STATION							VAR.	144.82	24.62	24.62					VAR.	144.82	220.00	15.93	15.93
		CROSS OVER W/O BRIDGE 03801							VAR.	144.82	24.62	24.62					VAR.	144.82	220.00	15.93	15.93
		CROSS OVER W/O BRIDGE 03891							VAR.	144.82	24.62	24.62					VAR.	144.82	220.00	15.93	15.93
ADDITIONAL FOR CROSSING ROADS																					
		DORA RD.	721.00						VAR.	2514.22	427.42	427.42					VAR.	2514.22	220.00	276.56	276.56
		BECKAERT RD.	500.00						VAR.	2777.78	472.22	472.22					VAR.	2777.78	220.00	305.56	305.56
		HWY. 60	512.00						VAR.	1592.89	270.79	270.79					VAR.	1592.89	220.00	175.22	175.22
		LOST BEACH CROSSING	695.00						VAR.	2162.22	367.58	367.58					VAR.	2162.22	220.00	237.84	237.84
		RUDY RD.	478.00						VAR.	1805.77	306.98	306.98					VAR.	1805.77	220.00	198.63	198.63
		N. MOUNTAIN GROVE RD.	570.00						VAR.	2153.33	366.07	366.07					VAR.	2153.33	220.00	236.87	236.87
		EDWARDS RD.	499.00						VAR.	1108.89	188.51	188.51					VAR.	1108.89	220.00	121.98	121.98
		RIDGE RD.	984.00						VAR.	2405.33	408.91	408.91					VAR.	2405.33	220.00	264.59	264.59
		GEORIA RIDGE RD.	1563.00						VAR.	7137.66	1213.40	1213.40					VAR.	7137.66	220.00	785.14	785.14
		OLD GRAPHIC RD.	640.00						VAR.	1493.34	253.87	253.87					VAR.	1493.34	220.00	164.27	164.27
ENTIRE	PROJECT	TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER			500.00							1000.00								950.00	950.00
SUBTOTALS (BOX 6 OF 6):					500.00					28161.81	4787.50	5787.50						28161.81		4047.81	4047.81
SUBTOTALS (BOX 1 OF 6):					5682.11		372716.41	18635.82		376714.73	64041.44	82677.26		373121.32		39870.60		376714.73		41438.63	81309.23
SUBTOTALS (BOX 2 OF 6):					5691.79		371331.69	18566.57		375681.98	63865.84	82432.41		371331.69		39703.34		375681.98		41325.01	81028.35
SUBTOTALS (BOX 3 OF 6):					675.25		37513.95	1875.79		42956.85	7302.60	9178.39		37513.95		3698.77		42956.85		4725.33	8424.10
SUBTOTALS (BOX 4 OF 6):										14441.17	2455.04	2455.04						14441.17		1588.62	1588.62
SUBTOTALS (BOX 5 OF 6):										13929.83	2368.13	2368.13						14091.09		1550.06	1550.06
TOTALS:					12549.15		781562.05	39078.18		851886.37	144820.55	184898.73		781966.96		83272.71		852047.63		94675.46	177948.17

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.5% MIN. AGGR.....5.5% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

R880401 REVISED.DGN 9/13/2018

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	82	234

(2) QUANTITIES

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH
9-18-18

BASE AND SURFACING (I-540) (BOX 1 OF 2)

STATION	STATION	LOCATION	LENGTH	TACK COAT (0.17 GAL. PER SQ. YD.)			ACHM SURFACE COURSE (1/2")			
				TOTAL WID.			AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22
			FEET	FEET	SQ.YD.	GAL.	FEET			TON
MILL AND INLAY OPERATIONS - MAIN LANES										
144+00.00	148+58.88	I-540 R.M.L.	458.88	26.00	1325.65	225.36	26.00	1325.65	220.00	145.82
148+58.88	149+79.24	I-540 R.M.L.	120.36	VAR.	551.16	93.70	VAR.	551.16	220.00	60.63
149+79.24	156+13.83	I-540 R.M.L.	634.59	38.00	2679.38	455.49	38.00	2679.38	220.00	294.73
156+13.83	159+12.37	I-540 R.M.L.	298.54	32.00	1061.48	180.45	32.00	1061.48	220.00	116.76
159+12.37	173+58.80	I-540 R.M.L.	1446.43	26.00	4178.58	710.36	26.00	4178.58	220.00	459.64
167+20.30	173+04.46	I-540 R.M.L.	584.16	26.00	1687.57	286.89	26.00	1687.57	220.00	185.63
173+04.46	179+78.64	I-540 R.M.L.	674.18	VAR.	2910.15	494.73	VAR.	2910.15	220.00	320.12
179+78.64	185+31.94	I-540 R.M.L.	553.30	26.00	1598.42	271.73	26.00	1598.42	220.00	175.83
187+90.10	197+33.49	I-540 R.M.L.	943.39	26.00	2725.35	463.31	26.00	2725.35	220.00	299.79
197+33.49	198+43.33	I-540 R.M.L.	109.84	VAR.	531.79	90.40	VAR.	531.79	220.00	58.50
200+71.12	204+86.50	I-540 R.M.L.	415.38	38.00	1753.83	298.15	38.00	1753.83	220.00	192.92
204+86.50	208+01.61	I-540 R.M.L.	315.11	32.00	1120.39	190.47	32.00	1120.39	220.00	123.24
208+01.61	211+01.57	I-540 R.M.L.	299.96	26.00	866.55	147.31	26.00	866.55	220.00	95.32
211+01.57	215+40.69	I-540 R.M.L.	439.12	VAR.	1624.75	276.21	VAR.	1624.75	220.00	178.72
215+40.69	230+89.33	I-540 R.M.L.	1548.64	26.00	4473.85	760.55	26.00	4473.85	220.00	492.12
230+89.33	231+63.02	I-540 R.M.L.	73.69	VAR.	327.31	55.64	VAR.	327.31	220.00	36.00
231+63.02	236+51.30	I-540 R.M.L.	488.28	38.00	2061.63	350.48	38.00	2061.63	220.00	226.78
236+51.30	239+01.30	I-540 R.M.L.	250.00	32.00	888.89	151.11	32.00	888.89	220.00	97.78
239+01.30	239+95.95	I-540 R.M.L.	94.65	26.00	273.43	46.48	26.00	273.43	220.00	30.08
242+28.37	256+00.00	I-540 R.M.L.	1371.63	26.00	3962.49	673.62	26.00	3962.49	220.00	435.87
256+00.00	257+77.88	I-540 R.M.L.	177.88	32.00	632.46	107.52	32.00	632.46	220.00	69.57
257+77.88	261+74.55	I-540 R.M.L.	396.67	38.00	1674.83	284.72	38.00	1674.83	220.00	184.23
261+74.55	265+54.15	I-540 R.M.L.	379.60	VAR.	1780.96	302.76	VAR.	1780.96	220.00	195.91
265+54.15	284+23.88	I-540 R.M.L.	1869.73	26.00	5401.44	918.24	26.00	5401.44	220.00	594.16
284+23.88	285+86.81	I-540 R.M.L.	162.93	VAR.	746.89	126.97	VAR.	746.89	220.00	82.16
285+86.81	291+76.18	I-540 R.M.L.	589.37	38.00	2488.45	423.04	38.00	2488.45	220.00	273.73
291+76.18	294+76.18	I-540 R.M.L.	300.00	32.00	1066.67	181.33	32.00	1066.67	220.00	117.33
294+76.18	329+51.14	I-540 R.M.L.	3474.96	26.00	10038.77	1706.59	26.00	10038.77	220.00	1104.26
376+62.34	377+66.86	I-540 R.M.L.	104.52	26.00	301.95	51.33	26.00	301.95	220.00	33.21
379+92.94	380+99.48	I-540 R.M.L.	106.54	26.00	307.78	52.32	26.00	307.78	220.00	33.86
380+99.48	386+91.50	I-540 R.M.L.	592.02	VAR.	2671.95	454.23	VAR.	2671.95	220.00	293.91
144+00.00	151+13.67	I-540 L.M.L.	713.67	26.00	2061.71	350.49	26.00	2061.71	220.00	226.79
151+13.67	157+78.16	I-540 L.M.L.	664.49	VAR.	2733.27	464.66	VAR.	2733.27	220.00	300.66
157+78.16	170+55.16	I-540 L.M.L.	1277.00	26.00	3689.11	627.15	26.00	3689.11	220.00	405.80
170+55.16	173+55.16	I-540 L.M.L.	300.00	32.00	1066.67	181.33	32.00	1066.67	220.00	117.33
173+55.16	173+58.80	I-540 L.M.L.	3.64	38.00	15.37	2.61	38.00	15.37	220.00	1.69
167+20.30	173+04.46	I-540 L.M.L.	584.16	38.00	2466.45	419.30	38.00	2466.45	220.00	271.31
173+04.46	174+69.23	I-540 L.M.L.	164.77	VAR.	764.54	129.97	VAR.	764.54	220.00	84.10
174+69.23	184+26.76	I-540 L.M.L.	957.53	26.00	2766.20	470.25	26.00	2766.20	220.00	304.28
188+86.92	192+99.82	I-540 L.M.L.	412.90	26.00	1192.82	202.78	26.00	1192.82	220.00	131.21
192+99.82	197+40.15	I-540 L.M.L.	440.33	VAR.	2015.08	342.56	VAR.	2015.08	220.00	221.66
201+68.24	204+75.15	I-540 L.M.L.	306.91	26.00	886.63	150.73	26.00	886.63	220.00	97.53
204+75.15	207+74.84	I-540 L.M.L.	299.69	32.00	1065.56	181.15	32.00	1065.56	220.00	117.21
207+74.84	213+59.75	I-540 L.M.L.	584.91	38.00	2469.62	419.84	38.00	2469.62	220.00	271.66
213+59.75	215+20.22	I-540 L.M.L.	160.47	VAR.	754.35	128.24	VAR.	754.35	220.00	82.98
215+20.22	239+71.70	I-540 L.M.L.	2451.48	26.00	7082.05	1203.95	26.00	7082.05	220.00	779.03
242+04.12	250+68.27	I-540 L.M.L.	864.15	26.00	2496.43	424.39	26.00	2496.43	220.00	274.61
250+68.27	257+56.28	I-540 L.M.L.	688.01	VAR.	2915.14	495.57	VAR.	2915.14	220.00	320.67
257+56.28	282+31.52	I-540 L.M.L.	2475.24	26.00	7150.69	1215.62	26.00	7150.69	220.00	786.58
282+31.52	288+95.61	I-540 L.M.L.	664.09	VAR.	2870.38	487.96	VAR.	2870.38	220.00	315.74
288+95.61	329+51.14	I-540 L.M.L.	4055.53	26.00	11715.98	1991.72	26.00	11715.98	220.00	1288.76
376+62.34	377+61.36	I-540 L.M.L.	99.02	26.00	286.06	48.63	26.00	286.06	220.00	31.47
379+86.84	381+37.60	I-540 L.M.L.	150.76	26.00	435.53	74.04	26.00	435.53	220.00	47.91
381+37.60	383+79.44	I-540 L.M.L.	241.84	32.00	859.88	146.18	32.00	859.88	220.00	94.59
383+79.44	386+91.50	I-540 L.M.L.	312.06	38.00	1317.59	223.99	38.00	1317.59	220.00	144.93
ADDITIONAL FOR BRIDGE TRANSITIONS										
184+26.76	185+26.76	I-540 L.M.L. - BR. 5101A TRANSITION	100.00	26.00	288.89	49.11	26.00	288.89	275.00	39.72
187+86.92	188+86.92	I-540 L.M.L. - BR. 5101A TRANSITION	100.00	26.00	288.89	49.11	26.00	288.89	275.00	39.72
197+40.15	198+40.15	I-540 L..M.L. - BR. 5100A TRANSITION	100.00	VAR.	366.79	62.35	VAR.	366.79	275.00	50.43
200+68.24	201+68.24	I-540 L..M.L. - BR. 5100A TRANSITION	100.00	26.00	288.89	49.11	26.00	288.89	275.00	39.72
* 347+83.74	348+83.74	I-540 R.M.L. - BR. 3604B TRANSITION	100.00	26.00	288.89	49.11	26.00	288.89	275.00	39.72
* 350+90.96	351+90.96	I-540 R.M.L. - BR. 3604B TRANSITION	100.00	26.00	288.89	49.11	26.00	288.89	275.00	39.72
SUBTOTALS (BOX 1 OF 2):					**126603.15**	**21522.50**		**126603.15**		**13976.14**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.5% MIN. AGGR.....5.5% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

* DENOTES STATIONING LOCATED AFTER "386+91.50 BACK - 286+91.50 AHEAD" STATION EQUATION.

RBB040I REVISED.DGN 9/13/2018

QUANTITIES

BASE AND SURFACING (I-540) (BOX 2 OF 2)

STATION	STATION	LOCATION	LENGTH	TACK COAT (0.17 GAL. PER SQ. YD.)			ACHM SURFACE COURSE (1/2")			
				TOTAL WID.	SQ.YD.	GAL.	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22
			FEET	FEET			FEET			TON
MILL AND INLAY OPERATIONS - SHOULDERS										
144+00.00	148+09.97	I-540 R.M.L. - OUTSIDE SHOULDER	409.97	10.00	455.52	77.44	10.00	455.52	220.00	50.11
148+61.56	156+13.80	I-540 R.M.L. - ACCELERATION LANE SHOULDER	752.24	6.00	501.49	85.25	6.00	501.49	220.00	55.16
156+13.80	159+12.36	I-540 R.M.L. - ACCELERATION LANE SHOULDER TAPER	298.56	8.00	265.39	45.12	8.00	265.39	220.00	29.19
159+12.36	173+58.80	I-540 R.M.L. - OUTSIDE SHOULDER	1446.44	10.00	1607.16	273.22	10.00	1607.16	220.00	176.79
167+20.30	173+04.37	I-540 R.M.L. - OUTSIDE SHOULDER	584.07	10.00	648.97	110.32	10.00	648.97	220.00	71.39
173+04.37	174+93.74	I-540 R.M.L. - TURNOUT SHOULDER TAPER	189.37	8.00	168.33	28.62	8.00	168.33	220.00	18.52
174+93.74	177+96.80	I-540 R.M.L. - TURNOUT SHOULDER	303.06	6.00	202.04	34.35	6.00	202.04	220.00	22.22
177+92.75	185+33.42	I-540 R.M.L. - OUTSIDE SHOULDER	740.67	10.00	822.97	139.90	10.00	822.97	220.00	90.53
187+91.02	196+51.12	I-540 R.M.L. - OUTSIDE SHOULDER	860.10	10.00	955.67	162.46	10.00	955.67	220.00	105.12
197+34.89	198+44.51	I-540 R.M.L. - ACCELERATION LANE SHOULDER	109.62	6.00	73.08	12.42	6.00	73.08	220.00	8.04
200+72.17	204+86.50	I-540 R.M.L. - ACCELERATION LANE SHOULDER	414.33	6.00	276.22	46.96	6.00	276.22	220.00	30.38
204+86.50	208+01.61	I-540 R.M.L. - ACCELERATION LANE SHOULDER TAPER	315.11	8.00	280.10	47.62	8.00	280.10	220.00	30.81
208+01.61	211+01.57	I-540 R.M.L. - OUTSIDE SHOULDER	299.96	10.00	333.29	56.66	10.00	333.29	220.00	36.66
211+01.57	212+20.32	I-540 R.M.L. - TURNOUT SHOULDER TAPER	118.75	8.00	105.56	17.95	8.00	105.56	220.00	11.61
212+20.32	213+52.47	I-540 R.M.L. - TURNOUT SHOULDER	132.15	6.00	88.10	14.98	6.00	88.10	220.00	9.69
213+53.28	230+48.62	I-540 R.M.L. - OUTSIDE SHOULDER	1695.34	10.00	1883.71	320.23	10.00	1883.71	220.00	207.21
230+92.91	236+51.30	I-540 R.M.L. - ACCELERATION LANE SHOULDER	558.39	6.00	372.26	63.28	6.00	372.26	220.00	40.95
236+51.30	239+01.30	I-540 R.M.L. - ACCELERATION LANE SHOULDER TAPER	250.00	8.00	222.22	37.78	8.00	222.22	220.00	24.44
239+01.30	240+02.89	I-540 R.M.L. - OUTSIDE SHOULDER	101.59	10.00	112.88	19.19	10.00	112.88	220.00	12.42
242+35.29	256+00.04	I-540 R.M.L. - OUTSIDE SHOULDER	1364.75	10.00	1516.39	257.79	10.00	1516.39	220.00	166.80
256+00.04	257+77.88	I-540 R.M.L. - TURNOUT SHOULDER TAPER	177.84	8.00	158.08	26.87	8.00	158.08	220.00	17.39
257+77.88	265+51.20	I-540 R.M.L. - TURNOUT SHOULDER	773.32	6.00	515.55	87.64	6.00	515.55	220.00	56.71
265+81.39	283+20.65	I-540 R.M.L. - OUTSIDE SHOULDER	1739.26	10.00	1932.51	328.53	10.00	1932.51	220.00	212.58
284+25.13	291+76.18	I-540 R.M.L. - ACCELERATION LANE SHOULDER	751.05	6.00	500.70	85.12	6.00	500.70	220.00	55.08
291+76.18	294+76.18	I-540 R.M.L. - ACCELERATION LANE SHOULDER TAPER	300.00	8.00	266.67	45.33	8.00	266.67	220.00	29.33
294+76.18	329+51.14	I-540 R.M.L. - OUTSIDE SHOULDER	3474.96	10.00	3861.07	656.38	10.00	3861.07	220.00	424.72
376+62.34	377+68.43	I-540 R.M.L. - OUTSIDE SHOULDER	106.09	10.00	117.88	20.04	10.00	117.88	220.00	12.97
379+94.51	380+99.48	I-540 R.M.L. - OUTSIDE SHOULDER	104.97	10.00	116.63	19.83	10.00	116.63	220.00	12.83
380+99.48	382+88.87	I-540 R.M.L. - TURNOUT SHOULDER TAPER	189.39	8.00	168.35	28.62	8.00	168.35	220.00	18.52
382+88.87	386+04.57	I-540 R.M.L. - TURNOUT SHOULDER	315.70	6.00	210.47	35.78	6.00	210.47	220.00	23.15
386+03.37	386+91.50	I-540 R.M.L. - OUTSIDE SHOULDER	88.13	10.00	97.92	16.65	10.00	97.92	220.00	10.77
144+00.00	152+96.21	I-540 L.M.L. - OUTSIDE SHOULDER	896.21	10.00	995.79	169.28	10.00	995.79	220.00	109.54
152+95.47	154+61.59	I-540 L.M.L. - TURNOUT SHOULDER	166.12	6.00	110.75	18.83	6.00	110.75	220.00	12.18
154+61.59	157+77.75	I-540 L.M.L. - TURNOUT SHOULDER TAPER	316.16	8.00	281.03	47.78	8.00	281.03	220.00	30.91
157+77.75	170+55.16	I-540 L.M.L. - OUTSIDE SHOULDER	1277.41	10.00	1419.34	241.29	10.00	1419.34	220.00	156.13
170+55.16	173+55.16	I-540 L.M.L. - ACCELERATION LANE SHOULDER TAPER	300.00	8.00	266.67	45.33	8.00	266.67	220.00	29.33
173+55.16	173+58.80	I-540 L.M.L. - ACCELERATION LANE SHOULDER	3.64	6.00	2.43	0.41	6.00	2.43	220.00	0.27
167+20.30	174+68.14	I-540 L.M.L. - ACCELERATION LANE SHOULDER	747.84	6.00	498.56	84.76	6.00	498.56	220.00	54.84
175+70.59	185+25.28	I-540 L.M.L. - OUTSIDE SHOULDER	954.69	10.00	1060.77	180.33	10.00	1060.77	220.00	116.68
187+86.00	194+85.02	I-540 L.M.L. - OUTSIDE SHOULDER	699.02	10.00	776.69	132.04	10.00	776.69	220.00	85.44
194+83.69	197+28.38	I-540 L.M.L. - TURNOUT SHOULDER	244.69	6.00	163.13	27.73	6.00	163.13	220.00	17.94
197+28.38	198+39.34	I-540 L.M.L. - TURNOUT SHOULDER TAPER	110.96	8.00	98.63	16.77	8.00	98.63	220.00	10.85
200+67.54	204+75.15	I-540 L.M.L. - OUTSIDE SHOULDER	407.61	10.00	452.90	76.99	10.00	452.90	220.00	49.82
204+75.15	207+74.84	I-540 L.M.L. - ACCELERATION LANE SHOULDER TAPER	299.69	8.00	266.39	45.29	8.00	266.39	220.00	29.30
207+74.84	215+17.92	I-540 L.M.L. - ACCELERATION LANE SHOULDER	743.08	6.00	495.39	84.22	6.00	495.39	220.00	54.49
215+79.83	239+64.78	I-540 L.M.L. - OUTSIDE SHOULDER	2384.95	10.00	2649.94	450.49	10.00	2649.94	220.00	291.49
241+97.20	252+58.62	I-540 L.M.L. - OUTSIDE SHOULDER	1061.42	10.00	1179.36	200.49	10.00	1179.36	220.00	129.73
252+23.52	257+56.28	I-540 L.M.L. - TURNOUT SHOULDER TAPER	532.76	8.00	473.56	80.51	8.00	473.56	220.00	52.09
257+56.28	284+04.77	I-540 L.M.L. - OUTSIDE SHOULDER	2648.49	10.00	2942.77	500.27	10.00	2942.77	220.00	323.70
284+08.04	287+05.93	I-540 L.M.L. - TURNOUT SHOULDER	299.89	6.00	199.93	33.99	6.00	199.93	220.00	21.99
287+05.93	288+95.61	I-540 L.M.L. - TURNOUT SHOULDER TAPER	189.68	8.00	168.60	28.66	8.00	168.60	220.00	18.55
288+95.61	329+51.14	I-540 L.M.L. - OUTSIDE SHOULDER	4055.53	10.00	4506.14	766.04	10.00	4506.14	220.00	495.68
376+62.34	377+59.79	I-540 L.M.L. - OUTSIDE SHOULDER	97.45	10.00	108.28	18.41	10.00	108.28	220.00	11.91
379+85.36	381+37.60	I-540 L.M.L. - OUTSIDE SHOULDER	152.24	10.00	169.16	28.76	10.00	169.16	220.00	18.61
381+37.60	383+79.44	I-540 L.M.L. - ACCELERATION LANE SHOULDER TAPER	241.84	8.00	214.97	36.54	8.00	214.97	220.00	23.65
383+79.44	386+91.50	I-540 L.M.L. - ACCELERATION LANE SHOULDER	312.06	6.00	208.04	35.37	6.00	208.04	220.00	22.88
MILL AND INLAY OPERATIONS - ADDITIONAL FOR GORES										
148+09.97	148+58.88	I-540 RT. MAIN LANES	48.91	VAR.	32.76	5.57	VAR.	32.76	220.00	3.60
177+63.25	177+96.80	I-540 RT. MAIN LANES	33.55	VAR.	18.25	3.10	VAR.	18.25	220.00	2.01
196+51.12	197+33.49	I-540 RT. MAIN LANES	82.37	VAR.	53.91	9.16	VAR.	53.91	220.00	5.93
213+20.37	213+52.47	I-540 RT. MAIN LANES	32.10	VAR.	20.27	3.45	VAR.	20.27	220.00	2.23
230+48.62	230+89.33	I-540 RT. MAIN LANES	40.71	VAR.	20.80	3.54	VAR.	20.80	220.00	2.29
283+20.65	284+23.88	I-540 RT. MAIN LANES	103.23	VAR.	56.92	9.68	VAR.	56.92	220.00	6.26
385+71.66	386+04.57	I-540 RT. MAIN LANES	32.91	VAR.	19.31	3.28	VAR.	19.31	220.00	2.12
152+93.51	153+28.77	I-540 LT. MAIN LANES	35.26	VAR.	19.51	3.32	VAR.	19.51	220.00	2.15
174+68.14	175+70.59	I-540 LT. MAIN LANES	102.45	VAR.	57.23	9.73	VAR.	57.23	220.00	6.30
194+81.27	195+17.40	I-540 LT. MAIN LANES	36.13	VAR.	20.17	3.43	VAR.	20.17	220.00	2.22
215+20.24	215+79.83	I-540 LT. MAIN LANES	59.59	VAR.	42.20	7.17	VAR.	42.20	220.00	4.64
252+18.71	252+79.10	I-540 LT. MAIN LANES	60.39	VAR.	20.51	3.49	VAR.	20.51	220.00	2.26
284+03.96	284+37.93	I-540 LT. MAIN LANES	33.97	VAR.	19.91	3.38	VAR.	19.91	220.00	2.19
MILL AND INLAY OPERATIONS - ADDITIONAL FOR EASTBOUND RAMPS										
		I-540 ENTRANCE RAMP - HWY. 71	920	10	1022.22	173.78	10.00	1022.22	220.00	112.44
		I-540 ENTRANCE RAMP - HWY. 71	500	26	1444.44	245.55	26.00	1444.44	220.00	158.89
		I-540 RML EB EXIT RAMP - ZERO ST.	455	10	505.56	85.95	10.00	505.56	220.00	55.61
		I-540 RML EB EXIT RAMP - ZERO ST. TIE TO I-540	500	26	1444.44	245.55	26.00	1444.44	220.00	158.89
		I-540 RML EB ENT. RAMP - ZERO ST.	687	10	763.33	129.77	10.00	763.33	220.00	83.97
		I-540 RML EB ENT. RAMP - ZERO ST. TIE TO I-540	500	26	1444.44	245.55	26.00	1444.44	220.00	158.89
		I-540 RML EB ENT. RAMP - OLD GREENWOOD RD	102	10	113.33	19.27	10.00	113.33	220.00	12.47
		I-540 RML EB ENT. RAMP - OLD GREENWOOD RD	106	26	306.22	52.06	26.00	306.22	220.00	33.68
		I-540 RML EB ENT RAMP-OLD GREENWOOD RD TIE	500	26	1444.44	245.55	26.00	1444.44	220.00	158.89
		I-540 RML EB ENT. RAMP - LEIGH AVE	887	10	963.33	163.77	10.00	963.33	220.00	105.97
		I-540 RML EB ENT RAMP-LEIGH AVE TIE TO I-540	500	26	1444.44	245.55	26.00	1444.44	220.00	158.89
		I-540 RML EB EXIT RAMP - ROGERS AVE.	216	30	720.00	122.40	30.00	720.00	220.00	79.20
		I-540 RML EB EXIT RAMP-ROGERS AV. TIE I-540	500	26	1444.44	245.55	26.00	1444.44	220.00	158.89
		I-540 RML EB EXIT RAMP - ROGERS AVE.	110	43	525.56	89.35	43.00	525.56	220.00	57.81
MILL AND INLAY OPERATIONS - ADDITIONAL FOR WESTBOUND RAMPS										
		I-540 LML WB EXIT RAMP - OLD GREENWOOD RD	735	10	816.67	138.83	10.00	816.67	220.00	89.83
		I-540 LML WB EXIT RAMP-OLD GREENWOOD RD TIE	500	26	1444.44	245.55	26.00	1444.44	220.00	158.89
		I-540 LML WB ENT. RAMP - OLD GREENWOOD RD	484	10	537.78	91.42	10.00	537.78	220.00	59.16
		I-540 LML WB ENT RAMP-OLD GREENWOOD RD TIE	500	26	1444.44	245.55	26.00	1444.44	220.00	158.89
		I-540 LML WB EXIT RAMP - ZERO ST.	484	10	537.78	91.42	10.00	537.78	220.00	59.16
		I-540 LML WB EXIT RAMP - ZERO ST. TIE I-540	500	26	1444.44	245.55	26.00	1444.44	220.00	158.89
		I-540 LML WB EXIT RAMP - ZERO ST. (RADII)	62	54	372.00	63.24	54.00	372.00	220.00	40.92
		I-540 LML WB ENT RAMP - ZERO ST.	773	10	858.89	146.01	10.00	858.89	220.00	94.48
		I-540 LML WB ENT RAMP - ZERO ST. TIE I-540	500	26	1444.44	245.55	26.00	1444.44	220.00	158.89
		I-540 LML WB EXIT RAMP - HWY. 71	700	26	2022.22	343.78	26.00	2022.22	220.00	222.44
		I-540 LML WB EXIT RAMP - HWY. 71 TIE I-540	500	26	1444.44	245.55	26.00	1444.44	220.00	158.89
		I-540 LML WB EXIT RAMP - HWY. 71 TURNOUT	147	24	392.00	66.64	24.00	392.00	220.00	43.12
MILL AND INLAY OPERATIONS - ADDITIONAL FOR CROSSING ROADS										
		HWY. 71 UNDERPASS		VAR.	15,371.00	2613.07	VAR.	15371.00	220.00	1690.81
		ZERO ST.		VAR.	6,534.00	1110.78	VAR.	6534.00	220.00	718.74
		LEIGH AVENUE OVERPASS		VAR.	2260.00	384.20	VAR.	2260.00	220.00	248.60
SUBTOTALS (BOX 2 OF 2):					**89458.88**	**15208.00**		**89458.88**		**9840.49**
SUBTOTALS (BOX 1 OF 2):					**126603.15**	**21522.50**		**126603.15**		**13976.14**
TOTALS:					**216062.03**	**36730.50**		**216062.03**		**23816.63**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.5% MIN. AGGR.....5.5% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22
TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11435 KENNETH D. SMITH 9-18-18

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.AID PROJ.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BB0401	83	234

(2) QUANTITIES

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
4	ARK.			
JOB NO.		BB0401	84	234

(1) 03270, 03452, 03453, 03455, 03456, 03800, 03801, 03807, 03891, 03892, 05079, A&B3272, A&B3273, A&B3451, A&B3454, A&B3802, A&B3805, A&B3806 — BRIDGE QUANTITIES — 60192

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. BB0401

I-40 LOG MILE (U.N.O.)	UNIT OF STRUCTURE	ITEM NO. / ITEM / UNIT	SS & 802 GROOVING SQ. YD.	803 CLASS 1 PROTECTIVE SURFACE TREATMENT GAL.	803 CLASS 3 PROTECTIVE SURFACE TREATMENT LIN. FT.	804 REINFORCING STEEL - BRIDGE (GRADE 60) LBS.	SS & 809 SILICONE JOINT SEALANT ⑤ LIN. FT.	821 MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO.) ⑥ LUMP SUM	SP JOB BB0401 HYDRODEMOLITION SQ. YD.	SP JOB BB0401 BRIDGE DECK REPAIR SQ. FT.	SP JOB BB0401 LATEX MODIFIED CONCRETE OVERLAY (1½" THICK) SQ. YD.	SP JOB BB0401 BRIDGE DECK REPAIR FOR POLYMER OVERLAYS SQ. FT.	SP JOB BB0401 POLYMER OVERLAY SQ. YD.
0.05	EXISTING BRIDGE NO. 03270		990.0 ④	22.2 ④	610	500	201.3	1	997 ④	1,194	1,116 ④		
7.38	EXISTING BRIDGE NO. 03452		611.0	13.7	440	500			684	927	686		
7.40	EXISTING BRIDGE NO. 03453		557.0 ③	12.9 ③	438	500			644 ③	657	644 ③		
0.33*	EXISTING BRIDGE NO. 03455		442.0	9.9	318	500			495	670	496		
0.19*	EXISTING BRIDGE NO. 03456		546.0 ③	12.5 ③	288	500	106.0	1	624 ③	562	624 ③		
9.31	EXISTING BRIDGE NO. 03800		555.0	12.7	476	500			635	857	635		
10.96	EXISTING BRIDGE NO. 03801		565.0	12.9	485	500	136.1	1	646	872	646		
13.61	EXISTING BRIDGE NO. 03807		614.0	13.8	480	500			694	936	694		
15.88	EXISTING BRIDGE NO. 03891		516.0	11.8	442	500			590	796	590		
17.90	EXISTING BRIDGE NO. 03892		507.0	11.4	430	500	122.5	1	573	774	573		
21.98	EXISTING BRIDGE NO. 05079		556.0	12.6	472	500	128.3		629	850	629		
3.54	EXISTING BRIDGE NO. A3272					783						921	2,046
5.26	EXISTING BRIDGE NO. A3273					373						439	976
6.98	EXISTING BRIDGE NO. A3451					500						588	1,307
7.53	EXISTING BRIDGE NO. A3454		1,093.5 ④	23.6 ④	270	500	210.0	1	1,184 ④	1,054	1,186 ④		
11.98	EXISTING BRIDGE NO. A3802					950						1,117	2,483
13.28	EXISTING BRIDGE NO. A3805		931.0 ②	17.9 ②	332	500			897 ②	961	899 ②		
13.38	EXISTING BRIDGE NO. A3806		1,075.0 ④	23.3 ④	405	500			1,166 ④	1,173	1,169 ④		
3.56	EXISTING BRIDGE NO. B3272					783						921	2,046
5.26	EXISTING BRIDGE NO. B3273					373						439	975
6.98	EXISTING BRIDGE NO. B3451					500						588	1,306
7.53	EXISTING BRIDGE NO. B3454		1,093.5 ④	23.6 ④	270	500	210.0		1,184 ④	1,054	1,186 ④		
11.96	EXISTING BRIDGE NO. B3802					791						931	2,069
13.28	EXISTING BRIDGE NO. B3805		931.0 ②	17.9 ②	332	500			897 ②	961	899 ②		
13.38	EXISTING BRIDGE NO. B3806		1,075.0 ④	23.3 ④	405	500			1,166 ④	1,173	1,169 ④		
	TOTALS FOR THIS SHEET		12,658.0	276.0	6,893	13,553 ①	1114.2		13,705	15,471 ①	13,841	5,944 ①	13,208

* I-540 LOG MILE USED

① QUANTITY SHOWN IS FOR ESTIMATING AND BIDDING PURPOSES ONLY. ACTUAL QUANTITY, IF ANY, WILL BE DETERMINED IN THE FIELD.
② QUANTITY INCLUDES APPROACH SLABS.
③ QUANTITY INCLUDES SOUTH APPROACH SLAB AND NORTH APPROACH SLAB AND GUTTERS.
④ QUANTITY INCLUDES APPROACH SLABS AND GUTTERS.
⑤ SEE "POURED SILICONE JOINT SEAL DETAILS" DWG. NOS. 60194, 60198, & 60201 FOR DETAILS.
⑥ MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO.) INCLUDES:
BRIDGE NOS. 03270, 03456, 03801, & 03892 - MODIFICATION OF BACKWALL TO MATCH GRADE INCREASE DUE TO LMC OVERLAY. SEE DWG. NOS. 60194 & 60201.
BRIDGE NO. A3454 - REPAIR OF SOUTH BACKWALL. SEE DWG. NO. 60198.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11856
CHARLES A. WIPF
09/13/18

SHEET 1 OF 2
SCHEDULE OF BRIDGE QUANTITIES
OKLAHOMA STATE LINE - EAST (I-40 & I-540)
(SEL. SECS.) (S)
CRAWFORD COUNTY
ROUTE 40 SEC. 11
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: BWC DATE: 01-12-18 FILENAME: bbb0401_qt.dgn
CHECKED BY: CAW DATE: 01-18-18 SCALE: NO SCALE
DESIGNED BY: KRM DATE: 01-04-18

BRIDGE NO. 03270, 03452, 03453, 03455, 03456, 03800, 03801, 03807, 03891, 03892, 05079, A&B3272, A&B3273, A&B3451, A&B3454, A&B3802, A&B3805, A&B3806 — DRAWING NO. 60192

DESIGN FILE: G:\17112101_BB0401\TRANSP\dgn\bridge\bbb0401_qt.dgn PLOTTED: 9/13/2018 14:45 SCALE: 1:1.96059

G:\17112101_BB0401\TRANSP\dgn\bridge\bbb0401_qt.dgn 9/13/2018 14:45

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	55	234
① A&B5629 -		QUANTITIES		- 56860

A&B5101, A&B5102
A&B5100, A&B5098,
A&B5096, A&B3604,
06880, B3957, B6881

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. BB0401

I-540 LOG MILE	UNIT OF STRUCTURE	ITEM NO. / ITEM / UNIT	SS & 802 CLASS S CONCRETE - BRIDGE CU. YD.	SS & 802 GROOVING SQ. YD.	803 CLASS 1 PROTECTIVE SURFACE TREATMENT GAL.	803 CLASS 3 PROTECTIVE SURFACE TREATMENT LIN. FT.	804 REINFORCING STEEL - BRIDGE (GRADE 60) LBS.	804 EPOXY COATED REINFORCING STEEL (GRADE 60) LBS.	SS & 809 SILICONE JOINT SEALANT LIN. FT.	821 MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO.) ③ LUMP SUM	SP JOB BB0401 HYDRODEMOLITION SQ. YD.	SP JOB BB0401 BRIDGE DECK REPAIR SQ. FT.	SP JOB BB0401 LATEX MODIFIED CONCRETE OVERLAY (1½" THICK) SQ. YD.	SP JOB BB0401 BRIDGE DECK REPAIR FOR POLYMER OVERLAYS SQ. FT.	SP JOB BB0401 POLYMER OVERLAY SQ. YD.	SP JOB BB0401 REPLUMBING EXISTING ROCKER BEARINGS EA.
1.66	EXISTING BRIDGE NO. A5629		33.00				130	3,140		1				160	350	7
1.66	EXISTING BRIDGE NO. B5629		33.00				130	3,140		1				160	350	7
2.57	EXISTING BRIDGE NO. A5102						610		④ 293.5					720	1,591	
2.57	EXISTING BRIDGE NO. B5102						610		④ 293.5					720	1,591	
3.65	EXISTING BRIDGE NO. A5101			② 1,079.5	② 23.1	366	640		86.7	1	② 1,164	755	② 1,167			
3.65	EXISTING BRIDGE NO. B5101			777.8	16.6	366	640		86.7	1	839	755	840			
3.89	EXISTING BRIDGE NO. A5100			② 952.0	② 20.3	306	540		173.5	1	② 1,027	630	② 1,029			
3.89	EXISTING BRIDGE NO. B5100			794.8	16.7	306	650		207.6	1	846	760	847			
4.68	EXISTING BRIDGE NO. A5098			662.9	14.2	314	550		197.4		715	645	717			
4.68	EXISTING BRIDGE NO. B5098			662.9	14.2	314	550		197.4		715	645	717			
6.41	EXISTING BRIDGE NO. A5096						270		④ 179.4					320	695	
6.41	EXISTING BRIDGE NO. B5096						270		④ 179.4					320	695	
7.75	EXISTING BRIDGE NO. A3604			542.7	11.6	264	450		171.7		587	530	588			
7.75	EXISTING BRIDGE NO. B3604			② 834.6	② 17.9	264	450		171.7	1	② 902	530	② 904			
10.43	EXISTING BRIDGE NO. 06880							① 1,800						2,120	4,700	
13.41	EXISTING BRIDGE NO. B3957							① 280						320	720	
13.70	EXISTING BRIDGE NO. B6881							① 820						970	2,156	
	TOTALS FOR THIS SHEET		66.00	6,307.2	134.6	2,500	① 6,490	9,180	2,238.5		6,795	① 5,250	6,809	① 5,810	12,848	14
	TOTALS FOR SHEET 1		-	12,658.0	276.0	6,893	① 13,553	-	1,114.2		13,705	① 15,471	13,841	① 5,944	13,208	-
	TOTALS FOR JOB NO. BB0401		66.00	18,965.2	410.6	9,393	① 20,043	9,180	3,352.7		20,500	① 20,721	20,650	① 11,574	26,056	14

① Quantity shown is for estimating and bidding purposes only. Actual quantity, if any, will be determined in the field

② The quantity shown includes approach slabs and gutters.

③ Modification of Existing Bridge Structure (Bridge No.) includes:

Bridge Nos. A&B5629 - Removal and replacement of the backwalls.
See Dwg. Nos. 56861 - 56863.

Bridge Nos. B3604, A5100, & A5101 - Modification of Backwall to match grade increase due to LMC Overlay.
See Dwg. Nos. 56868 - 56869.

Bridge Nos. B5100, & B5101 - Partial repair of backwall for Expansion Joint Rehabilitation.
See Dwg. Nos. 56866 - 56867.

④ See "Detail of Poured Silicone Joint Seal" Dwg. No. 56867 for details.

STEVEN PEYTON
DESIGN SECTION SUPERVISOR

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS
9-18-18
BRIDGE ENGINEER

SHEET 2 OF 2
SCHEDULE OF BRIDGE QUANTITIES
OKLAHOMA STATE LINE - EAST (I-40 & I-540)
(SEL. SECS.) (S)
CRAWFORD AND SEBASTIAN COUNTIES

ROUTE 40 SEC. 11
ROUTE 540 SECS. 1 & 2

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: WAC DATE: 12/14/17 FILENAME: bbb0401_ql.dgn
CHECKED BY: SWP DATE: 9/18/18 SCALE:
DESIGNED BY: — DATE: —
BRIDGE NO. DRAWING NO. 56860

PRINT DATE: 9/18/2018

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP	SPECIAL CLEARING	716	STATION
202	REMOVAL AND DISPOSAL OF BARRIER WALL	500	LIN. FT.
202	REMOVAL AND DISPOSAL OF APPROACH SLABS	2	EACH
202	REMOVAL AND DISPOSAL OF GUARDRAIL	60827	LIN. FT.
SP, SS, & 303	AGGREGATE BASE COURSE (CLASS 7)	12728	TON
SS & 401	TACK COAT	222129	GAL.
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	190668	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")	11097	TON
SP & 412	COLD MILLING ASPHALT PAVEMENT	1065828	SQ. YD.
SP, SS, & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC	250	TON
SP, SS, & 415	ACHM PATCHING OF EXISTING ROADWAY	250	TON
SP & 504	APPROACH SLABS	338.80	CU. YD.
601	MOBILIZATION	1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE	1	EACH
SP & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
SS & 604	SIGNS	3328	SQ. FT.
SP, SS, & 604	CONSTRUCTION PROJECT INFORMATION SIGN UPDATE	10	EACH
SS & 604	BARRICADES	32	LIN. FT.
SS & 604	TRAFFIC DRUMS	1496	EACH
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	3433	LIN. FT.
604	RELOCATING PRECAST CONCRETE BARRIER	28186	LIN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS	612599	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	65211	LIN. FT.
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	227464	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	31115	LIN. FT.
604	ADVANCE WARNING ARROW PANEL	700	DAY
SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN	100	WEEK
610	DROP INLETS ADJUSTED TO GRADE	4	EACH
SP	FLUSHING UNDERDRAIN	83586	LIN. FT.
617	GUARDRAIL (TYPE A)	52052	LIN. FT.
617	TERMINAL ANCHOR POSTS (TYPE 1)	100	EACH
SS & 617	GUARDRAIL TERMINAL (TYPE 2)	156	EACH
617	THRIE BEAM GUARDRAIL TERMINAL	94	EACH
620	LIME	68	TON
620	SEEDING	34.00	ACRE
SS & 620	MULCH COVER	68.00	ACRE
620	WATER	4161.6	M. GAL.
621	TEMPORARY SEEDING	34.00	ACRE
621	SILT FENCE	602	LIN. FT.
621	SAND BAG DITCH CHECKS	1034	BAG
621	DROP INLET SILT FENCE	1872	LIN. FT.
621	SEDIMENT REMOVAL AND DISPOSAL	134	CU. YD.
SP & 621	TRIANGULAR SILT DIKE	250	LIN. FT.
623	SECOND SEEDING APPLICATION	34.00	ACRE
631	CONCRETE BARRIER WALL (PIER PROTECTION TYPE A-1; MASH TL-4)	760	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
642	RUMBLE STRIPS IN ASPHALT SHOULDERS	426650	LIN. FT.
SP	PORTABLE TRAFFIC SIGNAL SYSTEM - ACTUATED	1.00	LUMP SUM
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")	26318	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	24399	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (6")	297453	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING WHITE (8")	15076	LIN. FT.
SP	ENHANCED THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	242899	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)	5560	EACH
731	TEMPORARY IMPACT ATTENUATION BARRIER	4	EACH
731	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)	4	EACH
804	REINFORCING STEEL-ROADWAY (GRADE 60)	38974	POUND
	STRUCTURES OVER 20' SPAN		
636	BRIDGE CONSTRUCTION CONTROL	1.00	LUMP SUM
SS & 802	CLASS S CONCRETE-BRIDGE	66	CU. YD.
SS & 802	GROOVING	18965.2	SQ. YD.
803	CLASS 1 PROTECTIVE SURFACE TREATMENT	410.6	GAL.
803	CLASS 3 PROTECTIVE SURFACE TREATMENT	9393	LIN. FT.
804	REINFORCING STEEL-BRIDGE (GRADE 60)	20043	POUND
804	EPOXY COATED REINFORCING STEEL (GRADE 60)	9180	POUND
SP	REPLUMBING EXISTING ROCKER BEARINGS	14	EACH
SS & 809	SILICONE JOINT SEALANT	3352.7	LIN. FT.
SP	HYDRODEMOLITION	20500	SQ. YD.
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. A5629)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. B5629)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. A5101)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. B5101)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. A5100)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. B5100)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. B3604)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 03270)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 03456)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 03801)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 03892)	1.00	LUMP SUM
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. A3454)	1.00	LUMP SUM
SP	BRIDGE DECK REPAIR	20721	SQ. FT.
SP	BRIDGE DECK REPAIR FOR POLYMER OVERLAYS	11754	SQ. FT.
SP	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)	20650	SQ. YD.
SP	POLYMER OVERLAY	26056	SQ. YD.

REVISIONS

DATE	REVISION	SHEET NUMBER
10/1/2018	REVISED TYPICAL SECTIONS OF IMPROVEMENT, SPECIAL DETAILS, AND QUANTITY NOTES, REVISED "BRIDGE DECK REPAIR", "BRIDGE DECK REPAIR FOR POLYMER OVERLAY", "COLD MILLING ASPHALT PAVEMENT", "COORDINATION OF WORK", "POLYMER OVERLAY", "PORTABLE TRAFFIC SIGNAL SYSTEM", " SITE USE (A+B+C METHOD) - CALENDAR DAY CONTRACT", AND "SPECIAL SAFETY REQUIREMENTS" SPECIAL PROVISIONS, ADDED SPECIAL DETAIL FOR SPECIAL CLEARING, DETAILS OF PIPE UNDERDRAIN STANDARD DRAWING, "UNDERDRAIN FLUSHING AND REHABILITATION" SPECIAL PROVISION, AND QUANTITY FOR FLUSHING UNDERDRAIN. REVISED QUANTITY OF CONCRETE BARRIER WALL (PIER PROTECTION TYPE A-1; MASH TL-4).	4-6, 9, 11-13, 70-72, 75, 86
10/17/2018	REVISED NOTES ON TYPICAL SECTIONS OF IMPROVEMENT, REVISED SPECIAL DETAIL FOR GUARDRAIL WIDENING, REVISED MAINTENANCE OF TRAFFIC DETAILS AND NOTES FOR SEQUENCE OF CONSTRUCTION, REVISED NOTES TO COLD MILLING ASPHALT PAVEMENT QUANTITY BOXES, REVISED "SPECIAL SAFETY REQUIREMENTS" AND "SITE USE (A+B+C METHOD) - CALENDAR DAY CONTRACT" SPECIAL PROVISIONS, REVISED QUANTITY FOR ADVANCE WARNING ARROW PANEL AND PORTABLE CHANGEABLE MESSAGE SIGN.	6, 9, 10, 57, 60, 60A, 68, 71, 86

SUMMARY OF QUANTITIES AND REVISIONS

TIMOTHY D. SMITH
STATE OF ARKANSAS
PROFESSIONAL ENGINEER
No. 11451
10-18-18

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
10-0-18			
10-17-18			

FED.AID PROJ. NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.		86	234

JOB NO. BB0401

(2) SUMMARY OF QUANTITIES AND REVISIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	87	234
(2)	PLAN SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

495

C.L. I-40
PI = 493+65.42
Δ = 32°46'55" LT.
D = 01°11'30"
T = 1414.26'
L = 2750.93'
PC = 479+51.16
PT = 4+09.27

50 25 0 25 50 100

500 STA. 0+00.00
BEGIN JOB BB0401
LOG MILE 0.00

0

SEQUOYAH COUNTY, OKLAHOMA
CRAWFORD COUNTY, ARKANSAS

STA. 502+92.82 BACK=
STA. 0+00.00 AHD.

N74°57'21"E

N42°10'26"E

P.I. 493+65.42

C. L. I-40

DORA RD.

I-40

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
501+73	1+49	R.M.L.-RT.	269
0+81	3+31	R.M.L.-LT.	250

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
501+73	1+49	RML-RT.	200 LIN.FT.	1 EACH	1 EACH	
0+82	3+32	RML-LT.	200 LIN.FT.		1 EACH	1 EACH

USER: tes13
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\p&p\rBB0401PL01.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17II2101_BB0401\TRANSP\dgn\p&p\rBB0401PL01.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	88	234
				(2)	PLAN SHEETS			

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
501+75	1+44	R.M.L.-RT.	262
1+53	6+53	L.M.L.-RT.	500
3+27	6+20	L.M.L.-LT.	294
10+09	27+34	R.M.L.-RT.	1725

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
501+62	1+44	R.M.L.-RT.	225 LIN. FT.		1 EACH	
0+82	3+32	R.M.L.-LT.	200 LIN. FT.		1 EACH	
1+53	6+53	L.M.L.-RT.	450 LIN. FT.		1 EACH	1 EACH
3+30	6+24	L.M.L.-LT.	225 LIN. FT.	1 EACH	1 EACH	
10+09	27+34	R.M.L.-RT.	1675 LIN. FT.		1 EACH	1 EACH

REMOVAL AND DISPOSAL OF CONCRETE BARRIER WALL

STA.	STA.	LOCATION	LIN.FT.
1+44	1+87	R.M.L.-RT.	43
2+85	3+30	L.M.L.-LT.	45

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A-1½ MASH TL-4)

STA.	STA.	LOCATION	LIN.FT.
1+44	1+87	R.M.L.-RT.	43
2+85	3+30	L.M.L.-LT.	45

STA. 6+10 IN PLACE
24" R.C. PIPE CULVERT WITH
TYPE H DROP INLET IN MED.
4'-0" X 4'-0"
D.A = 6 AC. C=0.8
RETAIN

STA. 11+50 IN PLACE
24" R.C. PIPE CULVERT WITH
TYPE H DROP INLET IN MED.
4'-0" X 4'-0"
D.A = 8 AC. C=0.8
RETAIN

STA. 14+75 IN PLACE
36" R.C. PIPE CULVERT WITH
TYPE H DROP INLET IN MED.
4'-0" X 4'-6"
D.A = 18 AC. C=0.8
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

SEQUOYAH COUNTY, OKLAHOMA
CRAWFORD COUNTY, ARKANSAS

C.L. I-40
PI = 493+65.42
Δ = 32°46'55" LT.
D = 01°11'30"
T = 1414.26'
L = 2750.93'
PC = 479+51.16
PT = 494+09.27

DORA RD.

P.I. 16+37.28

P.I. 13+73.24

P.T. 494+09.27

C.L. I-40

STA. 502+92.82 BACK=
STA. 0+00.00 AHD.

N42°10'26"E

BR. NO. 03270

STA. 8+56.24 BR. END
307.40' BRIDGE NO. 03270
26'-0" CLEAR ROADWAY
STA. 11+63.64 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 0+00.00
BEGIN JOB BB0401
LOG MILE 0.00

STA. 22+91 IN PLACE
36" R.C. PIPE CULVERT WITH
TYPE H DROP INLET IN MED.
4'-0" X 4'-6"
D.A. = 15 AC. C=0.8
RETAIN

C.L. I-40

P.O.B. 26+02.29

P.C. 26+02.29

P.C. 26+74.56

P.C. 26+77.79

C.L. L.M.L.

N42°10'26"E

P.O.B. 26+02.30

C.L. R.M.L.

STA. 26+00 IN PLACE
30" R.C. PIPE CULVERT WITH
TYPE H DROP INLET IN MED.
4'-0" X 4'-0"
D.A. = 12 AC. C=0.8
RETAIN

I-40 LT. LANE
PI = 49+89.60
Δ = 43°46'52" RT.
D = 00°59'40"
T = 2315.04'
L = 4402.57'
PC = 26+74.56
PT = 70+77.13

C.L. I-40
PI = 49+04.47
Δ = 43°46'52" RT.
D = 01°00'00"
T = 2302.18'
L = 4378.11'
PC = 26+02.29
PT = 69+80.40

I-40 RT. LANE
PI = 48+19.35
Δ = 43°46'52" RT.
D = 01°04'30"
T = 2141.56'
L = 4072.66'
PC = 26+77.79
PT = 67+50.45

I-40

USER: fs513
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\p&p\rBB0401PL02.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1=100

G:\17II2101_BB0401\TRANSP\dgn\p&p\rBB0401PL02.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	89	234
				(2)	PLAN SHEETS			

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

STA. 30+93 IN PLACE
24" R.C. PIPE CULVERT INLET
WITH TYPE H DROP INLET IN MED.
4'-0" X 3'-6"
RETAIN

STA. 36+97 IN PLACE
42" R.C. PIPE CULVERT INLET
WITH TYPE H DROP INLET IN MED.
4'-0" X 5'-0"
D.A. = 31 AC. C=0.7
RETAIN

N42°10'26"E

C. L. L. M. L.

C. L. I-40

C. L. R. M. L.

I-40 LT. LANE
PI = 49+89.60
Δ = 43°46'52" RT.
D = 00°59'40"
T = 2315.04'
L = 4402.57'
PC = 26+74.56
PT = 70+77.13

C.L. I-40
PI = 49+04.47
Δ = 43°46'52" RT.
D = 01°00'00"
T = 2302.18'
L = 4378.11'
PC = 26+02.29
PT = 69+80.40

I-40 RT. LANE
PI = 48+19.35
Δ = 43°46'52" RT.
D = 01°04'30"
T = 2141.56'
L = 4072.66'
PC = 26+77.79
PT = 67+50.45

STA. 45+42 IN PLACE
24" R.C. PIPE CULVERT WITH
TYPE H DROP INLET IN MED.
4'-0" X 4'-0"
30° LT. FWD. SKEW
RETAIN

STA. 52+56 IN PLACE
48" R.C. PIPE CULVERT INLET
WITH TYPE H DROP INLET IN MED.
4'-0" X 6'-0"
RETAIN

N85°57'18"E

C. L. L. M. L.

C. L. I-40

C. L. R. M. L.

I-40 LT. LANE
PI = 49+89.60
Δ = 43°46'52" RT.
D = 00°59'40"
T = 2315.04'
L = 4402.57'
PC = 26+74.56
PT = 70+77.13

C.L. I-40
PI = 49+04.47
Δ = 43°46'52" RT.
D = 01°00'00"
T = 2302.18'
L = 4378.11'
PC = 26+02.29
PT = 69+80.40

I-40 RT. LANE
PI = 48+19.35
Δ = 43°46'52" RT.
D = 01°04'30"
T = 2141.56'
L = 4072.66'
PC = 26+77.79
PT = 67+50.45

I-40

USER: fs513
DESIGN FILE: G:\7112101_BB040I\TRANSP\dgn\p&p\rBB040IPL03.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1"=100'

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	90	234
				(2)	PLAN SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
* * *
No. 9620
8-31-18
HUBERT BURNS

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
59+58	61+08	R.M.L.-RT.	150
59+62	61+12	R.M.L.-LT.	150
61+17	62+67	L.M.L.-LT.	150
61+38	62+80	L.M.L.-RT.	150
68+30	70+60	R.M.L.-RT.	200
69+02	71+32	R.M.L.-LT.	200
70+98	72+98	L.M.L.-RT.	200
71+50	73+50	L.M.L.-LT.	200
81+44	83+08	R.M.L.-RT.	164
81+54	83+04	R.M.L.-LT.	150
82+59	84+09	L.M.L.-LT.	150
82+59	84+09	L.M.L.-RT.	150

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
59+58	61+08	RML-RT.	100 LIN.FT.		1 EACH	1EACH
59+62	61+12	RML-LT.	100 LIN.FT.		1 EACH	1EACH
60+17	62+67	LML-LT.	100 LIN.FT.		1 EACH	1EACH
61+38	62+88	LML-RT.	100 LIN.FT.		1 EACH	1EACH
69+03	71+32	RML-LT.	150 LIN.FT.		1 EACH	1EACH
68+30	70+60	RML-RT.	150 LIN.FT.		1 EACH	1EACH
71+50	73+50	LML-LT.	150 LIN.FT.		1 EACH	1EACH
70+99	72+99	LML-RT.	150 LIN.FT.		1 EACH	1EACH
81+44	83+19	RML-RT.	125 LIN.FT.		1 EACH	1EACH
81+54	83+04	RML-LT.	100 LIN.FT.		1 EACH	1EACH
82+59	84+09	LML-LT.	100 LIN.FT.		1 EACH	1EACH
82+59	84+09	LML-RT.	100 LIN.FT.		1 EACH	1EACH

50 25 0 25 50 100

STA. 61+50 IN PLACE
8' x 7' x 65' R.C. BOX CULVERT
D.A. = 184 AC. C = 1.0
RETAIN

STA. 71+65 IN PLACE
8' x 7' x 75' R.C. BOX CULVERT
30° LT. FWD. SKEW
D.A. = 156 AC. C = 1.0
RETAIN

60 65 70 75

N85°57'18"E

C. L. L. M. L.

C. L. I-40

C. L. R. M. L.

P.T. 70+77.13 BACK=
STA. 70+32.58 AHD.

P.T. 69+80.40

P.T. 67+50.45

STA. 69+50.38 BACK=
STA. 69+80.40 AHD.

STA. 60+94 IN PLACE
8' x 7' x 72' R.C. BOX CULVERT
RETAIN

I-40 LT. LANE
PI = 49+89.60
Δ = 43°46'52" RT.
D = 00°59'40"
T = 2315.04'
L = 4402.57'
PC = 26+74.56
PT = 70+77.13

C.L. I-40
PI = 49+04.47
Δ = 43°46'52" RT.
D = 01°00'00"
T = 2302.18'
L = 4378.11'
PC = 26+02.29
PT = 69+80.40

I-40 RT. LANE
PI = 48+19.35
Δ = 43°46'52" RT.
D = 01°04'30"
T = 2141.56'
L = 4072.66'
PC = 26+77.79
PT = 67+50.45

STA. 70+69 IN PLACE
8' x 7' x 89' R.C. BOX CULVERT
30° LT. FWD. SKEW
RETAIN

75 80 85 90

STA. 82+88 IN PLACE
14' x 14' x 58' R.C. BOX CULVERT
RETAIN

STA. 85+98 IN PLACE
48" x 168' R.C. PIPE CULVERT INLET
WITH TYPE H DROP INLET IN MED.
4'-0" X 6'-0" H= 5'-6"
AND 48" x 144' R.C. PIPE CULVERT OUTLET
D.A. = 37 AC. C=0.7
RETAIN

C. L. I-40

N85°57'18"E

STA. 82+89 IN PLACE
14' x 14' x 62' R.C. BOX CULVERT
RETAIN

I-40

USER: fe513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\p&p\rBB0401PL04.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	9I	234
				(2)	PLAN SHEETS			

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

STA. 95+94 IN PLACE
4' x 6' x 265' R.C. BOX CULVERT WITH TYPE H DROP INLET IN MED.
4'-0" X 6'-0"
D.A. = 110 AC. C=0.7
RETAIN

STA. 102+29 IN PLACE
30" x 84' R.C. PIPE CULVERT
D.A. = 13 AC. C = 0.7
RETAIN

90 95 100 105

C. L. I-40

N85°57'18"E

STA. 102+14 IN PLACE
30" x 96' R.C. PIPE CULVERT
RETAIN

P.I. 115+09.65

110 115 120

P.I. 114+83.38

STA. 109+75 IN PLACE
24" x 84' R.C. PIPE CULVERT
RETAIN

C. L. L. M. L.

P.I. 115+97.93

Δ = 0°00'00"

P.C. 105+92.06

105 110 115 120

N85°57'18"E

C. L. I-40

S58°31'29"E

P.C. 105+65.80

P.C. 107+96.84

S55°30'43"E

C. L. R. M. L.

I-40 LT. LANE	C.L. I-40	I-40 RT. LANE
PI = 115+09.65	PI = 114+83.38	PI = 115+97.93
Δ = 35°31'13" RT.	Δ = 35°31'13" RT.	Δ = 38°31'59" RT.
D = 02°00'00"	D = 02°00'00"	D = 02°30'00"
T = 917.59'	T = 917.59'	T = 801.09'
L = 1776.01'	L = 1776.01'	L = 1541.32'
PC = 105+92.06	PC = 105+65.79	PC = 107+96.84
PT = 123+68.07	PT = 123+41.80	PT = 123+38.16

I-40

USER: fs513
DESIGN FILE: G:\7112101_BB040I\TRANSP\dgn\p&p\rBB040IPL05.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	92	234
				(2)	PLAN SHEETS			

I-40 LT. LANE
PI = 115+09.65
Δ = 35°31'13" RT.
D = 02°00'00"
T = 917.59'
L = 1776.01'
PC = 105+92.06
PT = 123+68.07

C.L. I-40
PI = 114+83.38
Δ = 35°31'13" RT.
D = 02°00'00"
T = 917.59'
L = 1776.01'
PC = 105+65.79
PT = 123+41.80

I-40 RT. LANE
PI = 115+97.93
Δ = 38°31'59" RT.
D = 02°30'00"
T = 801.09'
L = 1541.32'
PC = 107+96.84
PT = 123+38.16

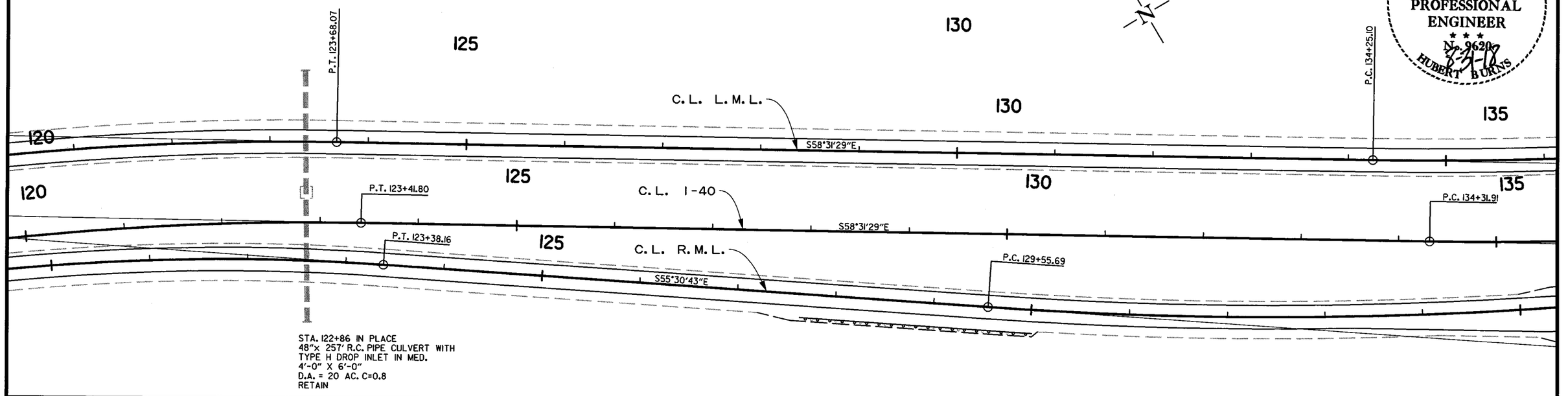
50 25 0 25 50 100

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
127+65	129+90	R.M.L.-RT.	225
135+43	138+43	R.M.L.-LT.	300
135+58	138+69	R.M.L.-RT.	325

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
127+65	129+90	RML-RT.	175 LIN.FT.		1 EACH	1EACH
135+43	138+43	RML-LT.	250 LIN.FT.		1 EACH	1EACH
135+58	138+69	RML-RT.	275 LIN.FT.		1 EACH	1EACH

STATE OF ARKANSAS
HUBERT BURNS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18



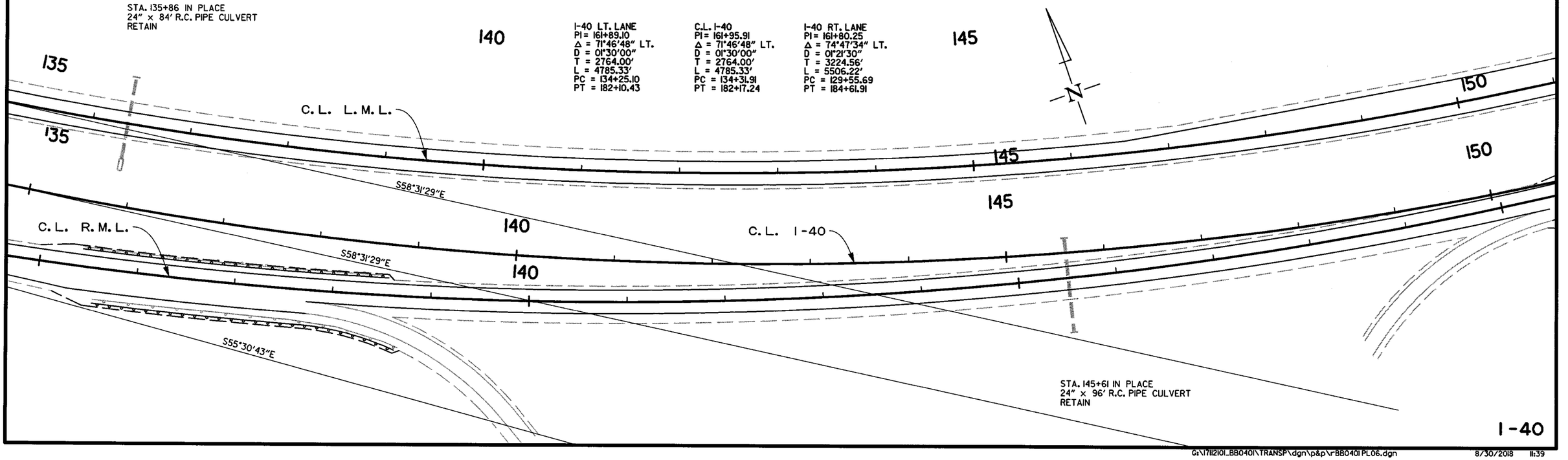
STA. 122+86 IN PLACE
48"x 257' R.C. PIPE CULVERT WITH
TYPE H DROP INLET IN MED.
4'-0" X 6'-0"
D.A. = 20 AC. C=0.8
RETAIN

STA. 135+86 IN PLACE
24" x 84' R.C. PIPE CULVERT
RETAIN

I-40 LT. LANE
PI = 161+89.10
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+25.10
PT = 182+10.43

C.L. I-40
PI = 161+95.91
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+31.91
PT = 182+17.24

I-40 RT. LANE
PI = 161+80.25
Δ = 74°47'34" LT.
D = 01°21'30"
T = 3224.56'
L = 5506.22'
PC = 129+55.69
PT = 184+61.91



STA. 145+61 IN PLACE
24" x 96' R.C. PIPE CULVERT
RETAIN

I-40

USER: fs513
DESIGN FILE: G:\1711210I_BB040I\TRANSP\dgn\p&p\rBB040IPL06.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1in00

G:\1711210I_BB040I\TRANSP\dgn\p&p\rBB040IPL06.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	93	234
				(2)	PLAN SHEETS			

I-40 LT. LANE
PI = 161+89.10
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+25.10
PT = 182+10.43

C.L. I-40
PI = 161+95.91
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+31.91
PT = 182+17.24

I-40 RT. LANE
PI = 161+80.25
Δ = 74°47'34" LT.
D = 01°21'30"
T = 3224.56'
L = 5506.22'
PC = 129+55.69
PT = 184+61.91

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
150+81	153+06	RML-LT.	175 LIN.FT.		1 EACH	1EACH
150+83	153+08	RML-RT.	175 LIN.FT.		1 EACH	1EACH

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
150+81	153+06	R.M.L.-LT.	225
150+83	153+08	R.M.L.-RT.	225

50 25 0 25 50 100

N

STA. 160+45 IN PLACE
DBL. 4' x 6' x 244' R.C. BOX CULVERT WITH
TYPE H DROP INLET IN MED.
30°RT. FWD. SKEW
4'-0" X 6'-0"
D.A. = 306 AC. C=0.6
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
3-31-18

150 155 160 165

C. L. L. M. L.

C. L. I-40

C. L. R. M. L.

BECKAERT RD.

I-40 LT. LANE
PI = 161+89.10
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+25.10
PT = 182+10.43

C.L. I-40
PI = 161+95.91
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+31.91
PT = 182+17.24

I-40 RT. LANE
PI = 161+80.25
Δ = 74°47'34" LT.
D = 01°21'30"
T = 3224.56'
L = 5506.22'
PC = 129+55.69
PT = 184+61.91

STA. 179+00 IN PLACE
4 x 6' x 400' R.C. BOX CULVERT
30° RT. FWD. SKEW
TYPE K DROP INLET IN MED.
4'-0" X 4'-0"
D.A. = 64 AC. C=0.8
RETAIN

165 170 175 180

C. L. L. M. L.

C. L. I-40

C. L. R. M. L.

N49°41'43"E

BECKAERT RD.

I-40

USER: fs513
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\p&p\rBB0401PL07.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17II2101_BB0401\TRANSP\dgn\p&p\rBB0401PL07.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	94	234
				(2)	PLAN SHEETS			

I-40 LT. LANE
PI = 161+89.10
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+25.10
PT = 182+10.43

C.L. I-40
PI = 161+95.91
Δ = 71°46'48" LT.
D = 01°30'00"
T = 2764.00'
L = 4785.33'
PC = 134+31.91
PT = 182+17.24

I-40 RT. LANE
PI = 161+80.25
Δ = 74°47'34" LT.
D = 01°21'30"
T = 3224.56'
L = 5506.22'
PC = 129+55.69
PT = 184+61.91

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
184+45	187+89	RML-LT.	275 LIN.FT.	1 EACH	1 EACH	
185+18	188+12	RML-RT.	225 LIN.FT.	1 EACH	1 EACH	
191+54	202+48	LML-LT.	1025 LIN.FT.	1 EACH	1 EACH	
191+78	195+22	LML-RT.	275 LIN.FT.	1 EACH	1 EACH	

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
184+57	187+89	R.M.L.-LT.	331
185+18	188+12	R.M.L.-RT.	294
191+54	202+48	L.M.L.-LT.	1094
191+78	195+22	L.M.L.-RT.	344

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

180

P.T. 182+10.43 BACK =
STA. 182+76.58 AHD.

STA. 179+00 IN PLACE
48" R.C. PIPE CULVERT
30° RT. FWD. SKEW
TYPE K DROP INLET IN MED.
4'-0" X 4'-0"
D.A. = 64 AC. C=0.8
RETAIN

BR. END STA. 187+05.00

STA. 187+05.00 BR. END
462.50' BRIDGE NO. A3272
40'-0" CLEAR ROADWAY
STA. 191+67.50 BR. END
POLYMER OVERLAY

LEE CREEK

190

STA. 187+99.89 BR. END
462.50' BRIDGE NO. B3272
40'-0" CLEAR ROADWAY
STA. 192+61.50 BR. END
POLYMER OVERLAY

BR. END STA. 191+67.50

STA. 179+00 IN PLACE
48" R.C. PIPE CULVERT
30° RT. FWD. SKEW
TYPE K DROP INLET IN MED.
4'-0" X 4'-0"
D.A. = 64 AC. C=0.8
RETAIN

P.I. 194+26

195

P.C. 195+61.63

N49°41'43"E

BR. NO. A3272

180

P.T. 182+17.24

STA. 185+00 BACK =
STA. 185+14.04 AHD

C. L. I-40

N49°41'43"E

P.C. 194+26.69

80

P.T. 184+61.91 BACK =
STA. 184+47.67 AHD.

P.I. 194+26.69

195

P.C. 195+32.01

N49°41'43"E

BR. NO. B3272

BR. END 187+99.89

BR. END 192+61.50

N

C. L. L. M. L.

N49°41'43"E

P.C. 195+61.63

200

STA. 204+18 IN PLACE
42" x 112' R.C. PIPE CULVERT
45° RT. FWD. SKEW
D.A. 15 AC. C=1.0
RETAIN

205

P.I. 205+79.50

S79°02'44"E

210

N49°41'43"E

200

C. L. I-40

205

S79°02'44"E

210

C. L. R. M. L.

195

P.C. 195+32.01

1'43"E

I-40 LT. LANE
PI = 206+61.15
Δ = 51°15'33" RT.
D = 02°30'00"
T = 1099.52'
L = 2050.37'
PC = 195+61.63
PT = 216+12.00

C.L. I-40
PI = 206+21.82
Δ = 51°15'33" RT.
D = 02°18'00"
T = 1195.13'
L = 2228.66'
PC = 194+26.69
PT = 216+55.35

I-40 RT. LANE
PI = 205+82.50
Δ = 51°15'33" RT.
D = 02°37'00"
T = 1050.49'
L = 1958.95'
PC = 195+32.01
PT = 214+90.95

STA. 205+85 IN PLACE
42" x 100' R.C. PIPE CULVERT
45° RT. FWD. SKEW
D.A. 15 AC. C=1.0
RETAIN

I-40

USER: fe513
DESIGN FILE: G:\17112101_BB0401\TRANSP\dgn\p&p\rBB0401PL08.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17112101_BB0401\TRANSP\dgn\p&p\rBB0401PL08.dgn 8/30/2018 11:39

I-40 LT. LANE	C.L. I-40	I-40 RT. LANE
PI = 206+61.15	PI = 206+21.82	PI = 205+82.50
Δ = 51°15'33" RT.	Δ = 51°15'33" RT.	Δ = 51°15'33" RT.
D = 02°30'00"	D = 02°18'00"	D = 02°37'00"
T = 1099.52'	T = 1195.13'	T = 1050.49'
L = 2050.37'	L = 2228.66'	L = 1958.95'
PC = 195+61.63	PC = 194+26.69	PC = 195+32.01
PT = 216+12.00	PT = 216+55.35	PT = 214+90.95

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
219+77	221+27	LML-LT.	100 LIN.FT.		1 EACH	1 EACH
220+69	222+19	LML-RT.	100 LIN.FT.		1 EACH	1 EACH
220+16	221+66	RML-LT.	100 LIN.FT.		1 EACH	1 EACH
220+35	221+85	RML-RT.	100 LIN.FT.		1 EACH	1 EACH
225+79	227+29	RML-LT.	100 LIN.FT.		1 EACH	1 EACH
225+95	227+45	LML-LT.	100 LIN.FT.		1 EACH	1 EACH
226+16	227+91	LML-RT.	125 LIN.FT.		1 EACH	1 EACH

50 25 0 25 50 100

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
219+77	221+27	L.M.L.-LT.	150
220+69	222+19	L.M.L.-RT.	150
220+16	221+66	R.M.L.-LT.	150
220+35	221+85	R.M.L.-RT.	150
225+79	227+29	R.M.L.-LT.	150
225+95	227+45	L.M.L.-LT.	150
226+16	227+91	L.M.L.-RT.	175

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	95	234
				(2)	PLAN SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURRIS

STA. 211+37 IN PLACE
24" x 80' R.C. PIPE CULVERT
RETAIN

P.T. 216+12.00

P.I. 217+46.96 BACK = STA. 216+55.35 AHD.

STA. 218+14 IN PLACE
30" x 108' R.C. PIPE CULVERT
RETAIN

STA. 220+47 IN PLACE
4' x 6' x 100' R.C. BOX CULVERT
45° RT. FWD SKEW
RETAIN

C. L. L. M. L.

S79°02'44"E

P.T. 216+55.35

P.T. 214+90.95

C. L. I-40

C. L. R. M. L.

P.I. 215+96.23 BACK = STA. 216+55.35 AHD.

STA. 211+41 IN PLACE
24" x 72' R.C. PIPE CULVERT
D.A.= 6 AC. C=0.8
RETAIN

STA. 218+39 IN PLACE
30" x 80' R.C. PIPE CULVERT
D.A.=8 AC. C=0.8
RETAIN

STA. 221+48 IN PLACE
4 x 6' x 66' R.C. BOX CULVERT
D.A.= 50 AC. C=0.8
RETAIN

STA. 226+47 IN PLACE
4' x 6' x 74' R.C. BOX CULVERT
30° RT. FWD SKEW
RETAIN

STA. 233+98 IN PLACE
24" x 76' R.C. PIPE CULVERT
RETAIN

C. L. I-40

S79°02'44"E

STA. 227+03 IN PLACE
4' x 6' x 70' R.C. BOX CULVERT
D.A.= 64 AC. C=0.8
RETAIN

I-40

USER: fe513
DESIGN FILE: G:\17112101_BB0401\TRANSP\dgn\p&p\rBB0401PL09.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17112101_BB0401\TRANSP\dgn\p&p\rBB0401PL09.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	96	234
				(2)	PLAN SHEETS			

STA. 240+97 IN PLACE
6 x 6 x 115' R.C. BOX CULVERT
30° RT. FWD SKEW
RETAIN

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
240+41	241+91	R.M.L.-LT.	150
240+87	242+62	L.M.L.-RT.	175
258+57	260+07	R.M.L.-LT.	150
260+00	261+50	L.M.L.-RT.	175
260+44	262+19	L.M.L.-LT.	150

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
240+41	241+91	RML-LT.	100 LIN.FT.		1 EACH	1EACH
240+87	242+62	LML-RT.	125 LIN.FT.		1 EACH	1EACH
258+57	260+07	RML-LT.	100 LIN.FT.		1 EACH	1EACH
260+00	261+50	LML-RT.	100 LIN.FT.		1 EACH	1EACH
260+44	262+19	LML-LT.	125 LIN.FT.		1 EACH	1EACH

50 25 0 25 50 100

STA. 253+46 IN PLACE
24" x 92' R.C. PIPE CULVERT
30° RT. FWD SKEW
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURKS

240 245 250 255

C. L. I-40

S79°02'44"E

STA. 241+94 IN PLACE
6' x 6' x 126' R.C. BOX CULVERT
30° RT. FWD SKEW
D.A.=152 AC. C=0.7
RETAIN

STA. 253+67 IN PLACE
24" x 92' R.C. PIPE CULVERT
D.A.=6 AC. C=0.8
RETAIN

STA. 260+47 IN PLACE
48" x 84' R.C. BOX CULVERT
30° LT. FWD SKEW
RETAIN

STA. 266+37 IN PLACE
48" x 96' R.C. PIPE CULVERT
30° RT. FWD SKEW
RETAIN

255 260 265 270

C. L. I-40

S79°02'44"E

STA. 259+78 IN PLACE
4' x 6' x 76' R.C. BOX CULVERT
D.A.=55 AC. C=0.7
RETAIN

STA. 266+79 IN PLACE
48" x 96' R.C. PIPE CULVERT
D.A.=37 AC. C=0.7
RETAIN

I-40

USER: fs513
DESIGN FILE: G:\1711210I_BB0401\TRANSP\dgn\p&p\rBB0401PL10.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1"=100'

G:\1711210I_BB0401\TRANSP\dgn\p&p\rBB0401PL10.dgn 8/30/2018 11:39

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
274+38	277+82	R.M.L.-LT.	344
275+19	277+88	R.M.L.-RT.	269
279+81	282+50	L.M.L.-LT.	269
279+87	283+31	L.M.L.-RT.	344
288+31	289+81	L.M.L.-RT.	150
288+37	289+87	R.M.L.-LT.	150

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
274+32	277+82	RML-LT.	275 LIN.FT.	1 EACH	1 EACH	
275+19	277+88	RML-RT.	200 LIN.FT.	1 EACH	1 EACH	
279+81	282+50	LML-LT.	200 LIN.FT.	1 EACH	1 EACH	
279+87	283+31	LML-RT.	275 LIN.FT.	1 EACH	1 EACH	
288+31	289+81	LML-RT.	100 LIN.FT.		1 EACH	1 EACH
288+37	289+87	RML-LT.	100 LIN.FT.		1 EACH	1 EACH

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	97	234
(2)	PLAN SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

50 25 0 25 50 100

N

RAMP 4

270

275

STA. 277+61.00 BR. END
222.19' BRIDGE NO. A3273
40'-0" CLEAR ROADWAY
STA. 279+83.19 BR. END
POLYMER OVERLAY

BR. END STA. 277+61.00

HWY. 59

BR. END STA. 279+83.19

RAMP 3

STA. 277+84.50 BR. END
221.19' BRIDGE NO. B3273
40'-0" CLEAR ROADWAY
STA. 280+06.69 BR. END
POLYMER OVERLAY

280

STA. 280+53 IN PLACE
24" R.C. PIPE
RETAIN

285

BR. NO. A3273

C. L. I-40

S79°02'44"E

P.C. 282+66.53

STA. 275+00.00 BACK =
STA. 275+06.66 AHD.

BR. NO. B3273

BR. END STA. 277+84.50

BR. END STA. 280+06.69

STA. 277+01 IN PLACE
DROP INLET W/ 24" R.C. PIPE
RETAIN

RAMP 1

STA. 288+20 IN PLACE
72" R.C. BOX
45° RT. FWD. SKEW
4' x 4' TYPE K DROP INLET
RETAIN

C.L. I-40
PI = 288+30.59
Δ = 02°49'11" LT.
D = 00°15'00"
T = 564.06'
L = 1127.89'
PC = 282+66.53
PT = 293+94.42

RAMP 3

285

290

295

300

N

P.T. 293+94.42

C. L. I-40

S79°02'44"E

S81°51'55"E

S81°51'55"E

P.I. 288+30.59

STA. 296+02 IN PLACE
24" R.C. PIPE
RETAIN

RAMP 2

STA. 289+87 IN PLACE
72" R.C. BOX
45° RT. FWD. SKEW
D.A.=184 AC. C=0.7
RETAIN

I-40

USER: fs513
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\p&p\rBB0401PLII.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17II2101_BB0401\TRANSP\dgn\p&p\rBB0401PLII.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB040I	98	234
(2)	PLAN SHEETS			

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURGE

N

STA. 303+21 IN PLACE
24" x 88' R.C. PIPE CULVERT
RETAIN

STA. 312+04 IN PLACE
24" x 72' R.C. PIPE CULVERT
RETAIN

300 305 310 315

C. L. I-40

S81°51'55"E

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
316+12	318+37	R.M.L.-LT.	225
316+12	318+37	R.M.L.-RT.	225
320+16	322+79	R.M.L.-RT.	263
322+94	325+70	L.M.L.-LT.	276

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
316+12	318+37	RML-LT.	175 LIN.FT.		1 EACH	1 EACH
316+12	318+37	RML-RT.	175 LIN.FT.		1 EACH	1 EACH
320+10	322+79	RML-RT.	200 LIN.FT.	1 EACH	1 EACH	
322+94	325+88	LML-LT.	225 LIN.FT.	1 EACH	1 EACH	

STA. 322+63 IN PLACE
48" x 343' R.C. PIPE CULVERT
45°RT. FWD. SKEW
D.A. 52 AC. C = 0.8
RETAIN

315 320

REMOVAL AND DISPOSAL OF CONCRETE BARRIER WALL

STA.	STA.	LOCATION	LIN.FT.
322+65	322+94	L.M.L.-LT.	29
322+79	323+08	R.M.L.-RT.	29

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A-I; MASH TL-4)

STA.	STA.	LOCATION	LIN.FT.
322+65	322+94	L.M.L.-LT.	29
322+79	323+08	R.M.L.-RT.	29

N. 16TH ST.

325 330

C. L. I-40

S81°51'55"E

N

I-40

USER: fs513
DESIGN FILE: G:\17II210I_BB040I\TRANSP\dgn\p&p\rBB040IPLI2.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1"=100'

G:\17II210I_BB040I\TRANSP\dgn\p&p\rBB040IPLI2.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	99	234

(2) PLAN SHEETS

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
3-31-18
HUBERT BURNS

STA. 331+22 IN PLACE
24" x 334' R.C. PIPE CULVERT
D.A. 4 AC. C = 0.8
RETAIN

P.C. 333+76.12

P.C. 334+71.97

P.C. 335+67.84

C. L. I-40

C. L. L. M. L.

C. L. R. M. L.

S81°51'55"E

I-40 LT. LANE	C.L. I-40	I-40 RT. LANE
PI = 344+43.05	PI = 345+38.90	PI = 346+34.77
Δ = 21°05'49" RT.	Δ = 21°05'49" RT.	Δ = 21°05'49" RT.
D = 01°00'00"	D = 01°00'00"	D = 01°00'00"
T = 1066.93'	T = 1066.93'	T = 1066.93'
L = 2109.69'	L = 2109.69'	L = 2109.69'
PC = 333+76.12	PC = 334+71.97	PC = 335+67.84
PT = 354+85.81	PT = 355+81.66	PT = 356+77.53

335 340 340 340 345 345

I-40 LT. LANE	C.L. I-40	I-40 RT. LANE
PI = 344+43.05	PI = 345+38.90	PI = 346+34.77
Δ = 21°05'49" RT.	Δ = 21°05'49" RT.	Δ = 21°05'49" RT.
D = 01°00'00"	D = 01°00'00"	D = 01°00'00"
T = 1066.93'	T = 1066.93'	T = 1066.93'
L = 2109.69'	L = 2109.69'	L = 2109.69'
PC = 333+76.12	PC = 334+71.97	PC = 335+67.84
PT = 354+85.81	PT = 355+81.66	PT = 356+77.53

STA. 347+89 IN PLACE
48" x 104' R.C. PIP CULVERT
45°RT. FWD. SKEW
D.A. 35 AC. C = 0.8
RETAIN

P.I. 345+38.90

P.I. 346+34.77

P.I. 355+81.66

P.T. 354+85.83

STA. 356+04.77 BACK =
STA. 355+81.68 AHD.

P.T. 356+77.54 BACK =
STA. 357+00.62 AHD.

S60°46'06"E

350 350 350 355 355 355 360 345

STA. 349+09 IN PLACE
48" x 128' R.C. PIPE CULVERT
45°RT. FWD. SKEW
D.A. 35 AC. C= 0.8
RETAIN

STA. 351+04 IN PLACE
DROP INLET TYPE H IN MEDIAN
H = 3'-6" WITH 24" x 88'
R.C. PIPE CULVERT INLET AND
24" x 116' R.C. PIPE CULVERT OUTLET
RETAIN

STA. 356+00 IN PLACE
STACK PIPE INLET IN MEDIAN
H = 11'-0" TYPE A GRATE WITH
24" x 152' R.C. PIPE CULVERT
RETAIN

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
348+25	350+50	R.M.L.-LT.	225
348+35	368+45	R.M.L.-RT.	1994

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
348+25	350+50	RML-LT.	175 LIN.FT.		1 EACH	1EACH
348+43	368+64	RML-RT.	1950 LIN.FT.	1EACH	1 EACH	

1-40

USER: fe513
DESIGN FILE: G:\17112101_BB0401\TRANSP\dgn\p&p\rBB0401PLI3.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17112101_BB0401\TRANSP\dgn\p&p\rBB0401PLI3.dgn 8/30/2018 11:39

REMOVAL AND DISPOSAL OF GUARDRAIL			
STA.	STA.	SIDE	LIN.FT.
365+15	368+59	R.M.L.-LT.	344
371+46	374+65	L.M.L.-LT.	319
371+49	375+18	L.M.L.-RT.	369
371+60	384+14	R.M.L.-RT.	1300
378+75	384+00	R.M.L.-LT.	525

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
365+15	368+59	RML-LT.	275 LIN.FT.	1 EACH	1 EACH	
371+46	374+65	LML-LT.	250 LIN.FT.	1 EACH	1 EACH	
371+49	375+18	LML-RT.	300 LIN.FT.	1 EACH	1 EACH	
371+60	384+14	RML-RT.	1250 LIN.FT.	1 EACH		1 EACH
378+75	384+00	RML-LT.	475 LIN.FT.		1 EACH	1 EACH

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	100	234
				(2)	PLAN SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
9-13-18
HUBERT BURNS

50 25 0 25 50 100

365

370

ARKANSAS & MISSOURI RAILROAD

STA. 368+51.73 BR. END
296.20' BRIDGE NO. A3451
40'-0" CLEAR ROADWAY
STA. 371+47.93 BR. END
POLYMER OVERLAY

BR. END STA. 368+51.73

BR. END STA. 371+47.93

C. L. I-40

BR. NO. A3451

S60°46'06"E

BR. NO. B3451

STA. 368+61.43 BR. END
296.20' BRIDGE NO. B3451
40'-0" CLEAR ROADWAY
STA. 371+57.63 BR. END
POLYMER OVERLAY

STA. 364+00.00 BACK =
STA. 363+79.30 AHD.

BR. END STA. 368+61.43

BR. END STA. 371+57.63

STA. 371+92.63 IN PLACE
TYPE N-2 D.I. RT.
RETAIN

STA. 362+01 IN PLACE
STACK PIPE INLET IN MEDIAN
H = 17'-6" TYPE A GRATE WITH
24" x 148' R.C. PIPE CULVERT
RETAIN

STA. 367+80 IN PLACE
STACK PIPE INLET IN MEDIAN
H = 22'-6" TYPE A GRATE WITH
24" x 152' R.C. PIPE CULVERT
RETAIN

N. RUDY RD.

N. 28TH ST.

C.L. I-40
PI = 387+80.81
Δ = 37°29'59" LT.
D = 02°22'00"
T = 821.79'
L = 1584.50'
PC = 379+59.02
PT = 395+43.52

385

375

380

P.C. 379+59.03

C. L. I-40

P.I. 720+12.35

P.I. 720+25.58

P.I. 718+73.73

N81°43'55"E

S60°46'06"E

P.I. 387+80.81

STA. 376+00 IN PLACE
STACK PIPE INLET IN MEDIAN
H = 21'-6" TYPE A GRATE WITH
24" x 136' R.C. PIPE OUTLET
RETAIN

STA. 381+50 IN PLACE
6' x 6' x 224' R.C. BOX CULV'T.
TYPE "K" DROP INLET IN MEDIAN
4' x 4' x H = 10'-6"
D.A. = 160 AC., C = 0.8
RETAIN

STA. 385+50 IN PLACE
TYPE H DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 3'-6"
24" x 84' R.C. PIPE OUTLET
RETAIN

I-40

USER: lr594
DESIGN FILE: G:\1712101_BB040I\TRANSP\dgn\p&p\rBB040IPLI4.dgn
PLOTTED: 09/13/2018 13:58
SCALE: 1=100

G:\1712101_BB040I\TRANSP\dgn\p&p\rBB040IPLI4.dgn 09/13/2018 13:58

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	101	234
				PLAN SHEETS				

50 25 0 25 50 100 (2)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
9-13-18
HUBERT BURNS

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
385+36	391+86	R.M.L.-LT.	650
386+33	389+23	R.M.L.-RT.	290
388+11	394+74	L.M.L.-RT.	663
389+70	390+37	L.M.L.-LT.	67
389+68	390+35	R.M.L.-RT.	67
390+75	397+54	L.M.L.-LT.	679
394+22	397+54	R.M.L.-LT.	332
394+84	397+54	R.M.L.-RT.	269
398+91	401+58	L.M.L.-LT.	269
398+91	402+23	L.M.L.-RT.	332

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
385+36	391+86	R.M.L.-LT.	600 LIN. FT.		1 EACH	1 EACH
386+23	389+23	R.M.L.-RT.	250 LIN. FT.		1 EACH	1 EACH
388+11	394+86	L.M.L.-RT.	625 LIN. FT.		1 EACH	1 EACH
389+70	390+70	L.M.L.-LT.	63 LIN. FT.	2 EACH		
390+68	390+35	R.M.L.-RT.	5 LIN. FT.	2 EACH		
390+75	397+54	L.M.L.-LT.	675 LIN. FT.	1 EACH		1 EACH
394+10	397+54	R.M.L.-LT.	275 LIN. FT.	1 EACH	1 EACH	
394+84	397+54	R.M.L.-RT.	200 LIN. FT.	1 EACH	1 EACH	
398+91	401+55	L.M.L.-LT.	200 LIN. FT.	1 EACH	1 EACH	
398+91	402+35	L.M.L.-RT.	275 LIN. FT.	1 EACH	1 EACH	

REMOVAL AND DISPOSAL OF CONCRETE BARRIER WALL

STA.	STA.	LOCATION	LIN.FT.
389+23	389+68	R.M.L.-RT.	45
389+33	389+70	L.M.L.-LT.	37
390+35	390+62	R.M.L.-RT.	27
390+37	390+75	L.M.L.-LT.	38

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A-1; MASH TL-4)

STA.	STA.	LOCATION	LIN.FT.
389+23	389+68	R.M.L.-RT.	45
389+33	389+70	L.M.L.-LT.	37
390+35	390+62	R.M.L.-RT.	27
390+37	390+75	L.M.L.-LT.	38

C.L. I-40
PI = 387+80.81
Δ = 37°29'59" LT.
D = 02°22'00"
T = 821.79'
L = 1584.50'
PC = 379+59.02
PT = 395+43.52

STA. 729+22.00 BR. END
161.14' BRIDGE NO. 03455
24'-0" CLEAR ROADWAY
STA. 730+83.14 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 728+06.29 BR. END
146.14' BRIDGE NO. 03456
26'-0" CLEAR ROADWAY
STA. 729+52.43 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 399+26.71 IN PLACE
TYPE N-2 D.I. RT.
RETAIN

STA. 385+50 IN PLACE
TYPE H DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 3'-6"
24" x 84' R.C. PIPE OUTLET
RETAIN

STA. 719+20.97 BR. END
222.22' BRIDGE NO. 03452
28'-0" CLEAR ROADWAY
STA. 721+43.19 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 719+06.21 BR. END
222.21' BRIDGE NO. 03453
20'-0" CLEAR ROADWAY
STA. 721+28.42 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 395+50 IN PLACE
TYPE H DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 3'-6"
24" x 88' R.C. PIPE OUTLET
RETAIN

STA. 397+54.00 BR. END
137.17' BRIDGE NO. A3454
52'-0" CLEAR ROADWAY
STA. 398+91.17 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 397+54.00 BR. END
137.17' BRIDGE NO. B3454
52'-0" CLEAR ROADWAY
STA. 398+91.17 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

730 BR. NO. 03455 BR. END STA. 729+22.00 BR. END STA. 730+83.14
730 BR. NO. 03456 BR. END STA. 728+06.29 BR. END STA. 729+52.43
725 725
L. M. L. I-540
R. M. L. I-540
385 390 395 400
P.I. 722+09.58
BR. END STA. 721+43.19
BR. END STA. 721+28.42
STA. 389+83.5 ℄ MEDIAN = STA. 720+24.66 FT. SMITH SPUR
P.I. 720+25.58
P.I. 720+12.35
720 720
BR. NO. 03452
BR. NO. 03453
S60°46'06"E
N81°43'55"E
P.I. 387+80.81
BR. END STA. 719+20.97
BR. END STA. 719+06.21
P.I. 718+73.73
C. L. I-40
P.T. 395+43.52 BACK = STA. 395+43.50 AHD.
N81°43'55"E
BR. NO. A3454
BR. NO. B3454
BR. END STA. 397+54.00
BR. END STA. 398+91.17
FLAT ROCK CREEK
FLAT ROCK CREEK
N
I-40

USER: lr594
DESIGN FILE: G:\1711210I_BB040I\TRANSP\dgn\p&p\rBB040I PLI5.dgn
PLOTTED: 09/13/2018 13:58
SCALE: 1in00

G:\1711210I_BB040I\TRANSP\dgn\p&p\rBB040I PLI5.dgn 09/13/2018 13:58

REMOVAL AND DISPOSAL OF GUARDRAIL			
STA.	STA.	SIDE	LIN.FT.
410+02	417+46	L.M.L.-LT.	750
415+40	417+78	L.M.L.-RT.	238
416+66	421+66	R.M.L.-LT.	500
417+73	420+67	R.M.L.-RT.	294
419+99	424+99	L.M.L.-RT.	500
421+01	423+57	L.M.L.-LT.	256

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
410+02	417+59	LML-LT.	725 LIN.FT.		1 EACH	1EACH
415+40	417+90	LML-RT.	200 LIN.FT.		1 EACH	1EACH
416+66	421+66	RML-LT.	450 LIN.FT.		1 EACH	1EACH
417+73	420+67	RML-RT.	225 LIN.FT.	1EACH	1 EACH	
419+99	424+99	LML-RT.	450 LIN.FT.		1 EACH	1EACH
421+01	423+70	LML-LT.	200 LIN.FT.	1EACH	1 EACH	

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	102	234
				(2) PLAN SHEETS				

50 25 0 25 50 100

N

C.L. I-40
PI = 387+80.81
Δ = 37°29'59" LT.
D = 02°22'00"
T = 821.79'
L = 1584.50'
PC = 379+59.02
PT = 395+43.52

395

STA. 397+54.00 BR. END
137.17' BRIDGE A3454
52'-0" CLEAR ROADWAY
STA. 398+91.17 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 395+50 IN PLACE
TYPE H DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 3'-6"
24" x 88' R.C. PIPE OUTLET
RETAIN

BR. END STA. 397+54.00

FLAT ROCK CREEK

BR. END STA. 398+91.17

400

RAMP 2

405

RAMP 1

C. L. I-40

BR. NO. A3454

N81°43'55"E

P.T. 395+43.52 BACK =
STA. 395+43.50 AHD.

BR. NO. B3454

STA. 397+54.00 BR. END
137.17' BRIDGE B3454
52'-0" CLEAR ROADWAY
STA. 398+91.17 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

BR. END STA. 397+54.00

BR. END STA. 398+91.17

STA. 401+00 IN PLACE
TYPE H DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 5'-0"
24" x 96' R.C. PIPE OUTLET
RETAIN

STA. 403+50 IN PLACE
TYPE H DROP INLET IN MEDAIN
4'-0" x 6'-0" x H = 6'-0"
48" x 76' R.C. PIPE INLET &
48" x 88' R.C. PIPE OUTLET
D.A. = 31 AC., C = 0.8
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
5-31-18
HUBERT BURNS

STA. 410+23 IN PLACE
TYPE H DROP INLET IN MEDIAN
4'-0" x 6'-0" x H = 6'-0"
48" x 156' R.C. PIPE INLET &
48" x 112' R.C. PIPE OUTLET
(30° LT. FWD. SKEW)
D.A. = 40 AC., C = 0.8
RETAIN

410

415

420

N

HWY. 282

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A-1; MASH TL-4)			
STA.	STA.	LOCATION	LIN.FT.
420+61	420+97	R.M.L.-RT.	36
420+71	421+07	L.M.L.-LT.	36

C. L. I-40

N81°43'55"E

STA. 415+00 IN PLACE
TYPE H DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 3'-6"
24" x 88' R.C. PIPE OUTLET
RETAIN

STA. 421+19 IN PLACE
6' x 5' x 298' R.C. BOX CULV'T.
TYPE "K" DROP INLET IN MEDIAN
3' x 3' x H = 1'-0"
D.A. = 148 AC., C = 0.7
RETAIN

I-40

USER: fe513
DESIGN FILE: G:\1711210I_BB0401\TRANSP\dgn\p&p\rBB0401PL16.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\1711210I_BB0401\TRANSP\dgn\p&p\rBB0401PL16.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	103	234
				(2)	PLAN SHEETS			

50 25 0 25 50 100

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
434+61	436+86	R.M.L.-LT.	225
434+61	436+86	R.M.L.-RT.	225
436+79	439+04	L.M.L.-LT.	225
436+79	439+04	L.M.L.-RT.	225

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
434+61	436+86	RML-LT.	175 LIN.FT.		1 EACH	1EACH
434+61	436+86	RML-RT.	175 LIN.FT.		1 EACH	1EACH
436+79	439+04	LML-LT.	175 LIN.FT.		1 EACH	1EACH
436+79	439+04	LML-RT.	175 LIN.FT.		1 EACH	1EACH

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

425 430 435

C. L. I-40

N81°43'55"E

STA. 432+00 IN PLACE
TYPE H DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 3'-6"
24" x 80' R.C. PIPE INLET &
24" x 84' R.C. PIPE OUTLET
D.A. = 7 AC., C = 0.7
RETAIN

STA. 439+00 IN PLACE
TYPE H DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 3'-6"
24" x 80' R.C. PIPE INLET &
24" x 84' R.C. PIPE OUTLET
RETAIN

C.L. I-40
PI = 455+63.62
Δ = 15°11'01" LT.
D = 00°30'00"
T = 1527.31'
L = 3036.72'
PC = 440+36.31
PT = 470+73.03

440 445 450

P.C. 440+36.31

N81°43'55"E

C. L. I-40

N81°43'55"E

STA. 439+00 IN PLACE
TYPE H DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 3'-6"
24" x 80' R.C. PIPE INLET &
24" x 84' R.C. PIPE OUTLET
RETAIN

STA. 445+00 IN PLACE
TYPE H DROP INLET IN MEDIAN
4'-0" x 3'-6" x H = 3'-6"
24" x 88' R.C. PIPE OUTLET
RETAIN

STA. 452+00 IN PLACE
DBL. 5' x 4' x 176' R.C. BOX CULV'T.
TYPE "K" DROP INLET IN MEDIAN
4' x 4' x H = 2'-0"
D.A. = 204 AC., C = 0.7
RETAIN

I-40

USER: fe513
DESIGN FILE: G:\17I2I0I_BB040I\TRANSP\dgn\p&p\rBB040I PLI7.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1=100

G:\17I2I0I_BB040I\TRANSP\dgn\p&p\rBB040I PLI7.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	104	234
				(2)	PLAN SHEETS			

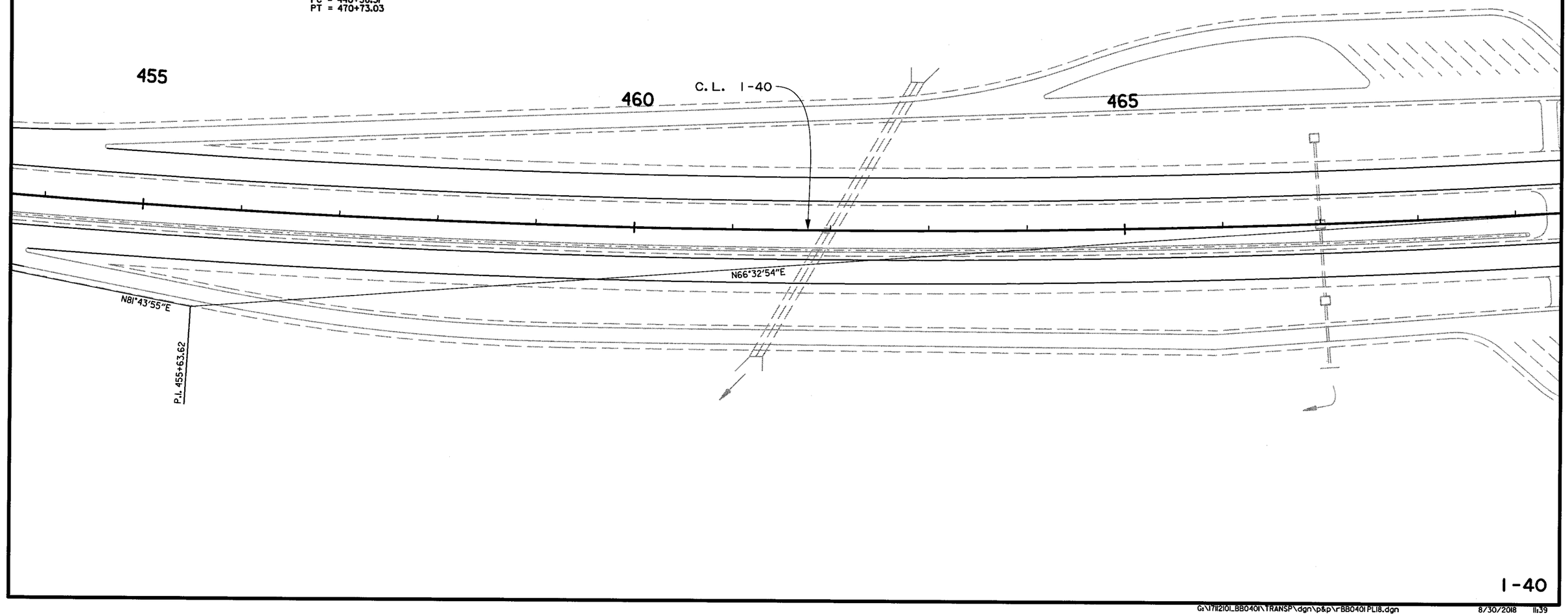
50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
3-31-18

STA. 462+00 IN PLACE
DBL. 5' x 5' x 325' R.C. BOX CULV'T.
(30° LT. FWD. SKEW)
TYPE "K" DROP INLET IN MEDIAN
4' x 3' x H = 2'-3"
D.A. = 294 AC., C = 0.7
RETAIN

STA. 467+00 IN PLACE
TYPE "H" DROP INLET IN MEDIANS
4' x 3'-6" x H = 3'-6" (LT. MEDIAN)
4' x 3'-6" x H = 3'-6" (MEDIAN)
4' x 3'-6" x H = 3'-6" (RT. MEDIAN)
24" x 84' R.C. PIPE (LT. LANE)
24" x 76' R.C. PIPE (RT. LANE)
24" x 68' R.C. PIPE (RT. SCALE RAMP)
RETAIN

C.L. I-40
PI = 455+63.62
Δ = 15°11'01" LT.
D = 00°30'00"
T = 1527.31'
L = 3036.72'
PC = 440+36.31
PT = 470+73.03



I-40

USER: fs513
DESIGN FILE: G:\17II2101_BB0401\TRANSP\dgn\p&p\rBB0401PLI8.dgn
PLOTTED: 8/30/2018 11:39 SCALE: 1:100

G:\17II2101_BB0401\TRANSP\dgn\p&p\rBB0401PLI8.dgn 8/30/2018 11:39

REMOVAL AND DISPOSAL OF GUARDRAIL			
STA.	STA.	SIDE	LIN.FT.
471+46	473+71	L.M.L.-LT.	225
471+46	473+71	L.M.L.-RT.	225

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
471+46	473+71	LML-LT.	175 LIN.FT.		1 EACH	1EACH
471+46	473+71	LML-RT.	175 LIN.FT.		1 EACH	1EACH

STA. 473+94 IN PLACE
TYPE "H" DROP INLET IN MEDIANS
4' x 3'-6" x H = 4'-0" (LT. MEDIAN)
4' x 3'-6" x H = 4'-0" (MEDIAN)
4' x 3'-6" x H = 5'-0" (RT. MEDIAN)
24" x 52' R.C. PIPE (LT. RAMP)
24" x 72' R.C. PIPE (LT. LANE)
24" x 72' R.C. PIPE (RT. LANE)
24" x 100' R.C. PIPE (RT. RAMP)
RETAIN

50 25 0 25 50 100

N

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	105	234
(2)	PLAN SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-17
HUBERT BURNS

C.L. I-40
PI = 455+63.62
Δ = 15°11'01" LT.
D = 00°30'00"
T = 1527.31'
L = 3036.72'
PC = 440+36.31
PT = 470+73.03

470 475 480

C.L. I-40

P.T. 470+73.03

N66°32'54"E

STA. 480+94 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 3'-6" x H = 3'-6" WITH
24" x 88' R.C. PIPE OUTLET
RETAIN

I-40

USER: fs513
DESIGN FILE: G:\1711201_BB0401\TRANSP\dgn\p&p\rBB0401PLI9.dgn
PLOTTED: 8/30/2018 11:39 SCALE: 1:100

G:\1711201_BB0401\TRANSP\dgn\p&p\rBB0401PLI9.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	106	234
				(2)	PLAN SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
8-31-18

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
487+38	492+42	R.M.L.-LT.	500
488+51	491+11	R.M.L.-RT.	260
488+51	490+60	L.M.L.-LT.	213
490+97	496+01	L.M.L.-RT.	500
492+27	495+00	L.M.L.-LT.	273

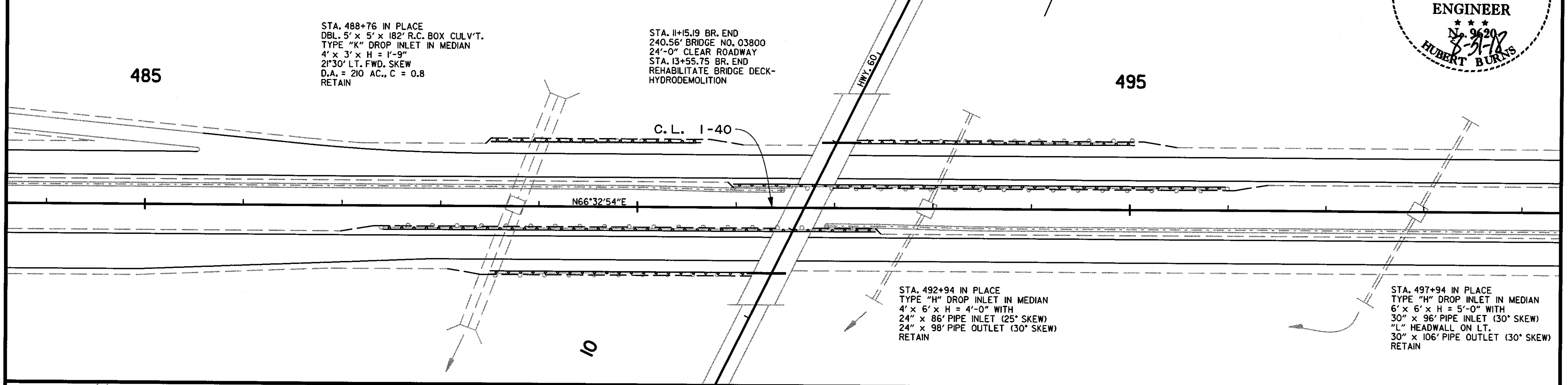
STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
487+42	492+42	RML-LT.	450 LIN.FT.		1 EACH	1 EACH
488+42	491+11	RML-RT.	200 LIN.FT.	1 EACH	1 EACH	
488+51	490+76	LML-LT.	175 LIN.FT.		1 EACH	1 EACH
490+97	495+97	LML-RT.	450 LIN.FT.		1 EACH	1 EACH
492+27	494+96	LML-LT.	200 LIN.FT.	1 EACH	1 EACH	

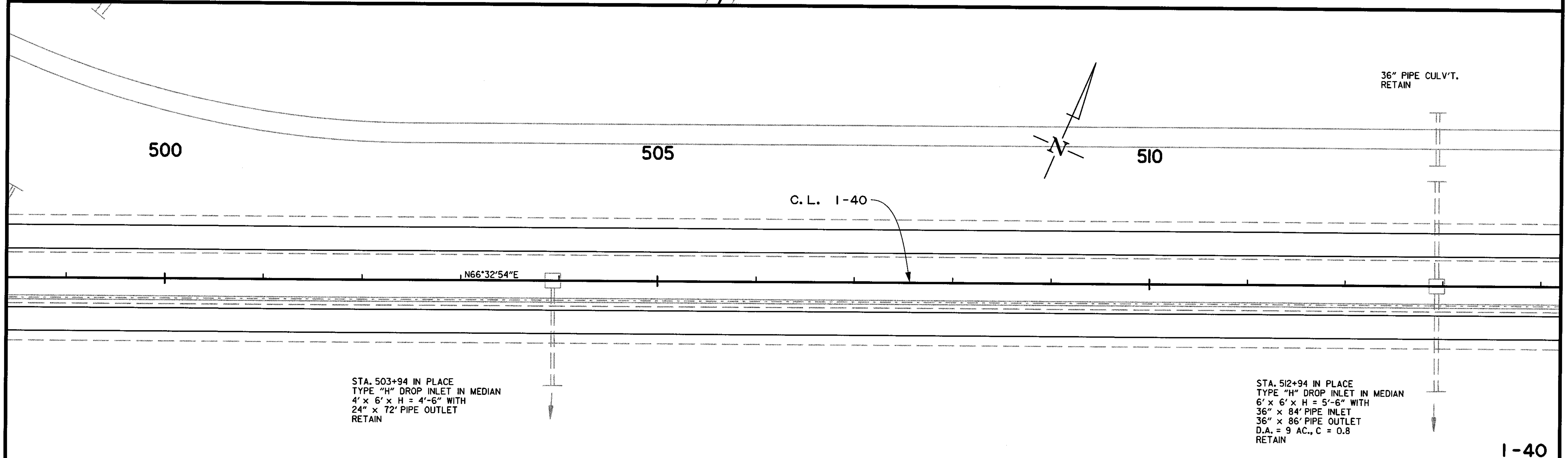
REMOVAL AND DISPOSAL OF CONCRETE BARRIER WALL

STA.	STA.	LOCATION	LIN.FT.
491+11	491+50	R.M.L.-RT.	39
491+88	492+27	L.M.L.-LT.	39

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A-1; MASH TL-4)

STA.	STA.	LOCATION	LIN.FT.
491+11	491+50	R.M.L.-RT.	39
491+88	492+27	L.M.L.-LT.	39





I-40

USER: fs513
DESIGN FILE: G:\711210_BB0401\TRANSP\dgn\p&p\rBB0401PL20.dgn SCALE: 1:100
PLOTTED: 8/30/2018 11:39

G:\711210_BB0401\TRANSP\dgn\p&p\rBB0401PL20.dgn 8/30/2018 11:39

REMOVAL AND DISPOSAL OF GUARDRAIL			
STA.	STA.	SIDE	LIN.FT.
522+90	525+03	L.M.L.-LT.	213
542+01	547+26	L.M.L.-LT.	525

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
522+90	525+15	LML-LT.	175 LIN.FT.		1 EACH	1EACH
542+01	547+26	LML-LT.	475 LIN.FT.		1 EACH	1EACH

50 25 0 25 50 100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	107	234
(2) PLAN SHEETS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURKS

N

R.C. BOX CULV'T.
RETAIN

36" PIPE CULV'T.
RETAIN

515

520

525

C. L. I-40

N66°32'54"E

STA. 516+94 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
6' x 6' x H = 6'-0" WITH
36" x 86' PIPE INLET
36" x 88' PIPE OUTLET
D.A. = 10 AC., C = 0.8
RETAIN

STA. 522+76 IN PLACE
6' x 6' x 262' R.C. BOX CULV'T.
45° LT. FWD. SKEW
TYPE "K" DROP INLET IN MEDIAN
6' x 6' x H = 5'-0"
D.A. = 126 AC., C = 0.8
RETAIN

STA. 526+93 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 86' PIPE OUTLET
RETAIN

N

530

535

540

C. L. I-40

N66°32'54"E

STA. 539+94 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 80' PIPE OUTLET
RETAIN

STA. 543+44 IN PLACE
4' x 6' x 266' R.C. BOX CULV'T.
45° RT. FWD. SKEW
RETAIN

I-40

USER: fa513
DESIGN FILE: G:\17il210l_BB0401\TRANSP\dgn\p&p\rBB0401PL21.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	108	234
				(2)	PLAN SHEETS			

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURKS

STA. 546+18 IN PLACE
4' x 6' x 174' R.C. BOX CULV'T.
TYPE "K" DROP INLET IN MEDIAN
4' x 6' x H = 3'-0"
D.A. = 93 AC., C = 0.8
RETAIN

545 550 555

C. L. I-40

N66°32'54"E

STA. 553+94 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 4' x H = 4'-0" WITH
24" x 74' PIPE INLET
24" x 88' PIPE OUTLET
D.A. = 4 AC., C = 0.8
RETAIN

REMOVAL AND DISPOSAL OF GUARDRAIL			
STA.	STA.	SIDE	LIN.FT.
560+50	562+50	R.M.L.-RT.	200
560+69	562+69	L.M.L.-LT.	200

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
560+50	562+50	RML-RT.	150 LIN.FT.		1 EACH	1EACH
560+69	562+69	LML-LT.	150 LIN.FT.		1 EACH	1EACH

560 565 570

C. L. I-40

N66°32'54"E

STA. 561+93 IN PLACE
5' x 3' x 190' R.C. BOX CULV'T.
30° RT. FWD. SKEW WITH
5' x 6' x H = 1'-6"
D.A. = 47 AC., C = 0.8
RETAIN

STA. 568+94 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 78' PIPE OUTLET
RETAIN

I-40

USER: fe513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\p&p\rBB0401PL22.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\7112101_BB0401\TRANSP\dgn\p&p\rBB0401PL22.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	109	234
				(2)	PLAN SHEETS			

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
574+27	579+27	R.M.L.-LT.	450 LIN.FT.		I EACH	IEACH
575+03	577+97	R.M.L.-RT.	225 LIN.FT.	IEACH	I EACH	
577+79	582+79	L.M.L.-RT.	450 LIN.FT.		I EACH	IEACH
579+II	58I+80	L.M.L.-LT.	200 LIN.FT.	IEACH	I EACH	
580+34	582+34	R.M.L.-RT.	I50 LIN.FT.		I EACH	IEACH

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
574+27	579+27	R.M.L.-LT.	500
575+22	578+36	R.M.L.-RT.	3I4
577+83	582+83	L.M.L.-RT.	500
579+II	58I+64	L.M.L.-LT.	253
580+34	582+22	R.M.L.-RT.	I88

REMOVAL AND DISPOSAL OF CONCRETE BARRIER WALL

STA.	STA.	LOCATION	LIN.FT.
577+97	578+36	R.M.L.-RT.	39
578+72	579+II	L.M.L.-LT.	39

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A-I; MASH TL-4)

STA.	STA.	LOCATION	LIN.FT.
577+97	578+36	R.M.L.-RT.	39
578+72	579+II	L.M.L.-LT.	39

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
8-31-18

15

LOST BEACH CROSSING

STA. 8+75.72 BR. END
244.50' BRIDGE NO. 03801
24'-0" CLEAR ROADWAY
STA. II+20.22 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

575

580

585

585

585

10

C. L. I-40

P.I. 58I+85.35

N66°32'54"E

N66°32'54"E

N66°32'54"E

P.I. 582+93.84

N66°32'54"E

N68°32'55"E

P.C. 580+93.79

P.T. 584+93.85

P.I. 585+80.34

C. L. L. M. L.

N51°32'54"E

C. L. R. M. L.

6' x 6' R.C. BOX CULV'T.
RETAIN

I-40 LT. LANE
PI = 585+80.34
Δ = I5°00'00" LT.
D = 0I°54'35"
T = 394.99'
L = 785.45
PC = 58I+85.35
PT = 589+70.80

STA. 586+I2 IN PLACE
24" x 82' R.C. PIPE CULV'T.
RETAIN

STA. 576+94 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x I90' PIPE CULV'T.
30° LT. FWD. SKEW
RETAIN

I-40 RT. LANE
PI = 582+93.84
Δ = 2°00'0I" RT.
D = 00°30'00"
T = 200.05'
L = 400.06'
PC = 580+93.79
PT = 584+93.85

STA. 582+94 IN PLACE
6' x 6' x 283' R.C. BOX CULV'T.
45° LT. FWD. SKEW
TYPE "K" DROP INLET IN MEDIAN
6' x 6' x H = 4'-0"
D.A. = I32 AC., C = 0.8
RETAIN

P.I. 7+02.23

I-40

USER: fs513
DESIGN FILE: G:\17II2I0I_BB040I\TRANSP\dgn\p&p\rBB040IPL23.dgn
PLOTTED: 8/30/2018 II:39
SCALE: IN00

G:\17II2I0I_BB040I\TRANSP\dgn\p&p\rBB040IPL23.dgn 8/30/2018 II:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	110	234
				(2)	PLAN SHEETS			

50 25 0 25 50 100

N

I-40 LT. LANE
PI = 606+61.69
Δ = 16°47'00" RT.
D = 00°45'00"
T = 1126.96'
L = 2237.78'
PC = 595+34.73
PT = 617+72.51

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
7-31-18
HUBERT BURNS

I-40 LT. LANE
PI = 585+80.34
Δ = 15°00'00" LT.
D = 01°54'35"
T = 394.99'
L = 785.45
PC = 581+85.35
PT = 589+70.80

48" PIPE CULV'T.
RETAIN

STA. 600+03 IN PLACE
48" x 134' R.C. PIPE CULV'T.
30° LT. FWD. SKEW
RETAIN

590 595 600

C. L. L. M. L.

P.C. 595+34.73

P.T. 589+70.80

N51°32'54"E

590 595 600

C.L. I-40
PI = 604+05.77
Δ = 13°13'00" LT.
D = 00°30'00"
T = 1327.56'
L = 2643.33'
PC = 590+78.21
PT = 617+21.54

590 595 600

C. L. I-40

P.C. 590+78.21

N66°32'54"E

C. L. R. M. L.

P.C. 598+40.95

N66°32'54"E

N68°32'55"E

N68°32'55"E

STA. 598+60 IN PLACE
48" x 128' R.C. PIPE CULV'T.
30° LT. FWD. SKEW
D.A. = 26 AC., C = 0.8
RETAIN

I-40 RT. LANE
PI = 604+19.21
Δ = 17°13'01" LT.
D = 01°30'00"
T = 578.26'
L = 1147.80'
PC = 598+40.95
PT = 609+88.75

I-40

USER: *s513
DESIGN FILE: G:\17I2I0I_BB040I\TRANSP\dgn\p&p\rBB040IPL24.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1in00

G:\17I2I0I_BB040I\TRANSP\dgn\p&p\rBB040IPL24.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	III	234
				(2)	PLAN SHEETS			

I-40 LT. LANE
PI = 606+61.69
Δ = 16°47'00" RT.
D = 00°45'00"
T = 1126.96'
L = 2237.78'
PC = 595+34.73
PT = 617+72.51

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
8-31-18

605 610 615

P.I. 606+61.69
N51°32'54"E
N68°19'54"E
C. L. L. M. L.
P.T. 617+72.51
N68°19'54"E

STA. 612+87 IN PLACE
24" x 80' R.C. PIPE CULV'T.
"L" HEADWALL ON RT.
30° LT. FWD. SKEW
RETAIN

605 610 615

P.T. 617+21.54
C. L. I-40
N51°19'54"E
C. L. R. M. L.

C.L. I-40
PI = 604+05.77
Δ = 13°13'00" LT.
D = 00°30'00"
T = 1327.56'
L = 2643.33'
PC = 590+78.21
PT = 617+21.54

605 610

P.T. 609+88.75
N53°19'54"E
N66°32'54"E
P.I. 604+05.77

STA. 608+79 IN PLACE
24" x 80' R.C. PIPE CULV'T.
RETAIN

I-40 RT. LANE
PI = 604+19.21
Δ = 17°13'01" LT.
D = 01°30'00"
T = 578.26'
L = 1147.80'
PC = 598+40.95
PT = 609+88.75

N53°19'54"E
N68°32'55"E
P.I. 604+19.21

USER: fs513
DESIGN FILE: G:\1711210I_BB0401\TRANSP\dgn\p&p\rBB0401PL25.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

I-40

G:\1711210I_BB0401\TRANSP\dgn\p&p\rBB0401PL25.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	112	234
				(2)	PLAN SHEETS			

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURRIS
8-31-18

REMOVAL AND DISPOSAL OF GUARDRAIL			
STA.	STA.	SIDE	LIN.FT.
628+24	631+51	R.M.L.-LT.	256
628+45	631+06	R.M.L.-RT.	194

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
628+11	631+51	RML-LT.	200 LIN.FT.	1 EACH	1 EACH	
628+43	630+43	RML-RT.	150 LIN.FT.	1 EACH	1 EACH	

STA. 620+20 IN PLACE
DBL. 8' x 4' x 172' R.C. BOX CULV'T.
45° RT. FWD. SKEW
D.A. = 336 AC., C = 0.8
SPAN = 25.34'
RETAIN

STA. 630+65 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 5'-0" WITH
24" x 136' PIPE OUTLET
WITH FES
RETAIN

620

N68°19'54"E

P.C. 621+36.83

C. L. L. M. L.

620

625

I-40 LT. LANE
PI = 625+13.98
Δ = 15°00'00" LT.
D = 02°00'00
T = 377.16'
L = 750.00'
PC = 621+36.82
PT = 628+86.82

C. L. I-40

P.T. 628+86.83 BACK = STA. 628+93.83 AHD.

STA. 631+99.73 BR. END

635

STA. 631+99.73 BR. END
467.72' BRIDGE NO. A3802
40'-0" CLEAR ROADWAY
STA. 636+67.45 BR. END
POLYMER OVERLAY

620

P.C. 623+26.31

N68°19'54"E

P.I. 625+13.98

N53°19'54"E

BR. NO. A3802

N53°19'54"E

STA. 629+00.00 BACK = STA. 629+71.12 AHD.

P.I. 625+26.54

625

N51°19'54"E

N53°19'54"E

625

P.T. 627+26.74 BACK = STA. 626+94.27 AHD.

BR. NO. B3802

C. L. R. M. L.

STA. 631+36.27 BR. END
466.73' BRIDGE NO. B3802
43'-0" CLEAR ROADWAY
STA. 636+03.00 BR. END
POLYMER OVERLAY

FROG BAYOU

I-40 RT. LANE
PI = 625+26.54
Δ = 02°00'00" RT.
D = 00°29'58
T = 200.24'
L = 400.44'
PC = 623+26.30
PT = 627+26.74

STA. 622+34 IN PLACE
DBL. 8' x 4' x 222' R.C. BOX CULV'T.
45° RT. FWD. SKEW
D.A. = 336 AC., C = 0.8
SPAN = 25.34'
RETAIN

I-40

USER: fe593
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\p&p\rBB0401PL26.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\7112101_BB0401\TRANSP\dgn\p&p\rBB0401PL26.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	113	234
(2)	PLAN SHEETS			

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
636+54	640+17	L.M.L.-RT.	356
636+90	639+96	L.M.L.-LT.	306
645+86	651+42	R.M.L.-LT.	556
648+78	654+34	L.M.L.-RT.	556

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
636+54	640+23	LML-RT.	300 LIN.FT	1EACH	1 EACH	
636+90	640+09	LML-LT.	250 LIN.FT.	1EACH	1 EACH	
645+46	651+46	RML-LT.	550 LIN.FT.		1 EACH	1EACH
648+57	654+07	LML-RT.	500 LIN.FT.		1 EACH	1EACH

635

640

645

FROG BAYOU

BR. END STA. 636+67.45

BR. NO. A3802

BR. NO. B3802

BR. END STA. 636+03.00

24" R.C.P.
RETAIN

C. L. I-40

N53°19'54"E

STA. 649+15 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 88' PIPE OUTLET
RETAIN

STA. 641+65 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 88' PIPE OUTLET
RETAIN

I-40

USER: fs513
DESIGN FILE: G:\1711210I_BB0401\TRANSP\dgn\p&p\rBB0401PL27.dgn
PLOTTED: 8/30/2018 11:39 SCALE: 1:100

G:\1711210I_BB0401\TRANSP\dgn\p&p\rBB0401PL27.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	114	234
				(2)	PLAN SHEETS			

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

TO I-49

650

655

660

STA. 651+65 IN PLACE
24" PIPE OUTLET
RETAIN

18"R.C.P.
RETAIN

24"R.C.P.
RETAIN

C. L. I-40

N53°19'54"E

24"R.C.P.
RETAIN

STA. 658+65 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 90' PIPE OUTLET
RETAIN

24" R.C.P.
RETAIN

I-40

USER: fe513
DESIGN FILE: G:\1712101_BB0401\TRANSP\dgn\p&p\rBB0401PL28.dgn
PLOTTED: 8/30/2018 11:39 SCALE: 1:100

G:\1712101_BB0401\TRANSP\dgn\p&p\rBB0401PL28.dgn 8/30/2018 11:39

REMOVAL AND DISPOSAL OF GUARDRAIL			
STA.	STA.	SIDE	LIN.FT.
664+85	669+35	R.M.L.-LT.	450
667+60	672+60	L.M.L.-RT.	500
668+62	670+81	L.M.L.-LT.	219

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
664+39	669+39	RML-LT.	450 LIN.FT.		1 EACH	1EACH
667+60	672+60	LML-RT.	450 LIN.FT.		1 EACH	1EACH
668+12	670+81	LML-LT.	200 LIN.FT.	1EACH	1 EACH	

50 25 0 25 50 100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	115	234
				(2)	PLAN SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
7-31-18
HUBERT BURNS

STA. 665+05 IN PLACE
7' x 7' x 308' R.C. BOX CULV'T.
D.A. = 190 AC., 440 c.f.s.
RETAIN

RUDY RD.

665

P.C. 667+07.55

670

C.L. 1-40

675

P.I. 675+39.81

N53°19'54"E

N53°19'54"E

N77°54'55"E

C.L. I-40
PI= 675+39.81
Δ = 24°35'01" RT.
D = 01°30'00"
T = 832.26'
L = 1638.91'
PC = 667+07.55
PT = 683+46.46

STA. 667+08 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 5'-0" WITH
24" x 128' PIPE OUTLET
RETAIN

STA. 674+83 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
5' x 6' x H = 5'-0" WITH
36" x 94' PIPE INLET
30° LT. FWD. SKEW
36" x 100' PIPE OUTLET
30° LT. FWD. SKEW
And 36" x 200' R.C. PIPE CULV'T.
30° LT. FWD. SKEW
D.A. = 30 AC., C = 1.0
RETAIN

I-40

USER: fs513
DESIGN FILE: G:\1712101_BB0401\TRANSP\dgn\p&p\rBB0401PL29.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\1712101_BB0401\TRANSP\dgn\p&p\rBB0401PL29.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	116	234
				(2)	PLAN SHEETS			

50 25 0 25 50 100

N

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS

C.L. I-40
PI = 675+39.81
Δ = 24°35'01" RT.
D = 01°30'00"
T = 832.26'
L = 1638.91'
PC = 667+07.55
PT = 683+46.46

690

685

680

C. L. I-40

P.T. 683+46.46

N77°54'55"E

N77°54'55"E

STA. 686+65 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
5' x 6' x H = 5'-0" WITH
36" x 92' PIPE INLET
36" x 88' PIPE OUTLET
RETAIN

STA. 691+65 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
6' x 6' x H = 4'-0" WITH
24" x 104' PIPE OUTLET
RETAIN

I-40

USER: fs513
DESIGN FILE: G:\17112101_BB0401\TRANSP\dgn\p&p\rBB0401PL30.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\17112101_BB0401\TRANSP\dgn\p&p\rBB0401PL30.dgn 8/30/2018 11:39

REMOVAL AND DISPOSAL OF GUARDRAIL			
STA.	STA.	SIDE	LIN.FT.
694+55	701+05	R.M.L.-RT.	650
698+29	701+17	R.M.L.-LT.	288
696+46	701+41	LM.L.-LT.	495
702+74	706+35	R.M.L.-RT.	361
702+98	705+78	L.M.L.-RT.	280
703+62	706+41	R.M.L.-LT.	279
703+09	706+54	R.M.L.-LT.	345

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
694+27	701+06	RML-RT.	675 LIN.FT.	1 EACH	1 EACH	
698+23	701+17	RML-LT.	225 LIN.FT.	1 EACH	1 EACH	
696+66	701+35	LML-LT.	400 LIN.FT.	1 EACH	1 EACH	1EACH
702+73	706+36	RML-RT.	325 LIN.FT.	2 EACH		
702+98	705+92	LML-RT.	225 LIN.FT.	1 EACH	1 EACH	
703+08	706+71	LML-LT.	325 LIN.FT.	2 EACH		
703+47	706+41	RML-LT.	225 LIN.FT.	1 EACH	1 EACH	

50 25 0 25 50 100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB040I	117	234
(2)	PLAN SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9520
9-13-18
HUBERT BURNS

N

695

STA. 695+65 IN PLACE
DBL. 8' x 8' x 272' R.C. BOX CULV'T.
45° RT. FWD. SKEW
TYPE K DROP INLET IN MED.
8' x 6' x H = 7'-6"
D.A. = 700 AC., C = 0.8
SPAN = 25.69'
RETAIN

STA. 700+99.43 IN PLACE
TYPE N-2 D.I. LT.
RETAIN

700

STA. 701+34.43 BR. END
168.26' BRIDGE NO. A3805
38'-6" CLEAR ROADWAY
STA. 703+02.69 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

C. L. I-40

N77°54'55"E

BR. END STA. 701+34.43

HWY. 71

BR. END STA. 703+02.69

STA. 703+37.69 IN PLACE
TYPE N-2 D.I. LT.
RETAIN

705

STA. 706+50.67 BR. END
205.19' BRIDGE A3806
38'-6" CLEAR ROADWAY
STA. 708+55.86 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

BR. END STA. 706+50.67

STA. 708+90.86 IN PLACE
TYPE N-3 D.I. LT.
RETAIN

BR. END STA. 708+55.86

BR. NO. A3805

BR. NO. A3806

BR. NO. B3805

BR. NO. B3806

STA. 701+11.69 BR. END
168.26' BRIDGE B3805
38'-6" CLEAR ROADWAY
STA. 702+79.95 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

BR. END STA. 701+11.69

STA. 697+00.00 BACK =
STA. 696+35.00 AHD.

STA. 700+76.69 IN PLACE
TYPE N-2 D.I. RT.
RETAIN

BR. END STA. 702+79.95

STA. 703+14.99 IN PLACE
TYPE N-3 D.I. RT.
RETAIN

STA. 706+38.31 BR. END
205.19' BRIDGE B3806
38'-6" CLEAR ROADWAY
STA. 708+43.50 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

BR. END STA. 706+38.31

BR. END STA. 708+43.50

LITTLE FROG BAYOU

STA. 706+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 4' x H = 4'-0" WITH
18" x 114' PIPE OUTLET
RETAIN

STA. 708+78.50 IN PLACE
TYPE N-3 D.I. RT.
RETAIN

I-40

USER: lr594
DESIGN FILE: G:\17II2I0I_BB040I\TRANSP\dgn\p&p\rBB040IPL3I.dgn
PLOTTED: 09/13/2018 13:58
SCALE: 1:100

G:\17II2I0I_BB040I\TRANSP\dgn\p&p\rBB040IPL3I.dgn 09/13/2018 13:58

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	118	234
				(2)	PLAN SHEETS			

50 25 0 25 50 100

N

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
708+53	711+34	L.M.L.-RT.	281
708+59	711+39	L.M.L.-LT.	281
714+30	719+30	R.M.L.-LT.	500
715+41	718+04	R.M.L.-RT.	263
717+81	722+81	L.M.L.-RT.	500
719+02	721+77	L.M.L.-LT.	275

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
708+53	711+28	L.M.L.-RT.	225 LIN.FT.		1 EACH	1EACH
708+59	711+53	L.M.L.-LT.	225 LIN.FT.	1EACH	1 EACH	
714+30	719+30	R.M.L.-LT.	450 LIN.FT.		1 EACH	1EACH
715+35	718+04	R.M.L.-RT.	200 LIN.FT.	1EACH	1 EACH	
717+81	722+81	L.M.L.-RT.	450 LIN.FT.		1 EACH	1EACH
718+64	721+83	L.M.L.-LT.	250 LIN.FT.	1EACH	1 EACH	

REMOVAL AND DISPOSAL OF CONCRETE BARRIER WALL

STA.	STA.	LOCATION	LIN.FT.
718+04	718+42	R.M.L.-RT.	38
718+64	719+02	L.M.L.-LT.	38

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A-1; MASH TL-4)

STA.	STA.	LOCATION	LIN.FT.
718+04	718+42	R.M.L.-RT.	38
718+64	719+02	L.M.L.-LT.	38

STA. 718+75 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
6' x 6' x H = 5'-0" WITH
36" x 98' PIPE INLET &
30° RT. FWD. SKEW
36" x 116' PIPE OUTLET
45° RT. FWD. SKEW
RETAIN

STA. 723+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 80' PIPE OUTLET
RETAIN

710

715

720

MOUNTAIN GROVE RD.

P.I. 13+10.49

N77°54'55"E

10

N77°54'55"E

STA. 712+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 90' PIPE OUTLET
RETAIN

STA. 8+95.60 BR. END
242.30' BRIDGE NO. 03807
26'-0" CLEAR ROADWAY
STA. 11+37.90 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

P.I. 7+28.87

1-40

USER: fe513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\p&p\rBB0401PL32.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\7112101_BB0401\TRANSP\dgn\p&p\rBB0401PL32.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	119	234
				(2)	PLAN SHEETS			

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
727+20	729+52	L.M.L.-LT.	232
731+31	733+33	L.M.L.-LT.	202
737+98	740+00	R.M.L.-RT.	202
740+57	742+69	L.M.L.-LT.	209
747+00	749+10	L.M.L.-LT.	210

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
727+07	729+57	LML-LT.	200 LIN.FT.		1 EACH	1 EACH
731+31	733+31	LML-LT.	150 LIN.FT.		1 EACH	1 EACH
737+98	739+98	RML-RT.	150 LIN.FT.		1 EACH	1 EACH
740+19	742+69	LML-LT.	200 LIN.FT.		1 EACH	1 EACH
747+00	749+25	LML-LT.	175 LIN.FT.		1 EACH	1 EACH

STA. 731+60 IN PLACE
DBL. 4' x 6' x 170' R.C. BOX CULV'T.
18° RT. FWD. SKEW
TYPE K DROP INLET IN MED.
4' x 6' x H = 1'-6"
D.A. = 156 AC., C = 1.0
RETAIN

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURKS

725 730 735

C. L. I-40

N77°54'55"E

STA. 740+15 IN PLACE
DBL. 6' x 6' x 180' R.C. BOX CULV'T.
TYPE K DROP INLET IN MED.
6' x 6' x H =
D.A. = 102 AC., C = 1.0
RETAIN

STA. 747+20 IN PLACE
6' x 6' x 192' R.C. BOX CULV'T.
TYPE K DROP INLET IN MED.
6' x 6' x H = 2'-0"
D.A. = 124 AC., C = 1.0
RETAIN

740 745 750

C. L. I-40

N77°54'55"E

I-40

USER: fe513
DESIGN FILE: G:\1711210I_BB0401\TRANSP\dgn\p&p\rBB0401PL33.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

G:\1711210I_BB0401\TRANSP\dgn\p&p\rBB0401PL33.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	120	234
				(2)	PLAN SHEETS			

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

755

760

765

P.C. 758+17.77

C. L. I-40

N77°54'55"E

P.I. 768+90.02

N77°54'55"E

C.L. I-40
PI = 768+90.02
Δ = 21°11'59" RT.
D = 01°00'00"
T = 1072.25'
L = 2119.97'
PC = 758+17.77
PT = 779+37.74

STA. 759+24 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
6' x 6' x H = 6'-6" WITH
48" x 84' PIPE INLET
48" x 82' PIPE OUTLET
D.A. = 28 AC., C = 1.0
RETAIN

STA. 765+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 90' PIPE OUTLET
RETAIN

C.L. I-40
PI = 768+90.02
Δ = 21°11'59" RT.
D = 01°00'00"
T = 1072.25'
L = 2119.97'
PC = 758+17.77
PT = 779+37.74

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
771+78	773+78	L.M.L.-LT.	200

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
771+78	773+78	LML-LT.	150 LIN.FT.		1 EACH	1EACH

770

775

780

S80°53'06"E

C. L. I-40

P.T. 779+37.74

S80°53'06"E

STA. 772+08 IN PLACE
4' x 6' x 172' R.C. BOX CULV'T.
TYPE "K" DROP INLET IN MEDIAN
6' x 6' x H = 1'-6"
D.A. = 38 AC., C = 1.0
RETAIN

STA. 777+76 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 7'-0" WITH
48" x 80' PIPE INLET
48" x 86' PIPE OUTLET
D.A. = 23 AC., C = 1.0
RETAIN

STA. 782+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
6' x 6' x H = 6'-0" WITH
48" x 76' PIPE INLET
48" x 78' PIPE OUTLET
D.A. = 30 AC., C = 1.0
RETAIN

I-40

USER: fs513
DESIGN FILE: G:\171210I_BB0401\TRANSP\dgn\p&p\rBB0401PL34.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1i00

G:\171210I_BB0401\TRANSP\dgn\p&p\rBB0401PL34.dgn 8/30/2018 11:39

REMOVAL AND DISPOSAL OF GUARDRAIL			
STA.	STA.	SIDE	LIN.FT.
795+90	797+90	L.M.L.-LT.	200
808+02	810+02	L.M.L.-LT.	200

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
795+90	797+90	LML-LT.	150 LIN.FT.		1 EACH	1EACH
808+02	810+02	LML-LT.	150 LIN.FT.		1 EACH	1EACH

50 25 0 25 50 100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	121	234
				(2)	PLAN SHEETS			

STA. 796+26 IN PLACE
DBL. 5' x 3' x 162' R.C. BOX CULV'T.
TYPE "K" DROP INLET IN MEDIAN
5' x 6' x H = 1'-6"
D.A. = 79 AC., C = 1.0
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

STA. 792+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
6' x 6' x H = 6'-0" WITH
48" x 78' PIPE INLET
48" x 74' PIPE OUTLET
D.A. = 30 AC., C = 1.0
RETAIN

785 790 795

C. L. I-40

S80°53'06"E

800 805 810

C. L. I-40

S80°53'06"E

P.C. 812+91.63

C.L. I-40
PI = 830+73.45
Δ = 34°33'00" LT.
D = 01°00'00"
T = 1781.82'
L = 3455.00'
PC = 812+91.63
PT = 847+46.63

STA. 803+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-6" WITH
24" x 78' PIPE OUTLET
RETAIN

STA. 808+33 IN PLACE
6' x 6' x 166' R.C. BOX CULV'T.
TYPE "K" DROP INLET IN MEDIAN
6' x 6' x H = 2'-0"
D.A. = 102 AC., C = 1.0
RETAIN

I-40

USER: fs513
DESIGN FILE: G:\17I2I0I_BB040I\TRANSP\dgn\p&p\rBB040IPL35.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	122	234
(2)	PLAN SHEETS			

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
8-31-18
HUBERT BURNS

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
816+37	818+50	L.M.L.-LT.	213
834+17	840+17	R.M.L.-LT.	600
835+47	838+16	R.M.L.-RT.	269
837+34	842+34	L.M.L.-RT.	500
838+34	841+28	L.M.L.-LT.	294

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
816+37	818+62	L.M.L.-LT.	175 LIN.FT.		1 EACH	1 EACH
834+17	840+17	R.M.L.-LT.	550 LIN.FT.		1 EACH	1 EACH
835+22	838+16	R.M.L.-RT.	225 LIN.FT.	1 EACH	1 EACH	
837+34	842+34	L.M.L.-RT.	450 LIN.FT.		1 EACH	1 EACH
838+07	841+02	L.M.L.-LT.	225 LIN.FT.	1 EACH	1 EACH	

STA. 816+90 IN PLACE
5' x 5' x 166' R.C. BOX CULV'T.
15° RT. FWD. SKEW
TYPE "K" DROP INLET IN MEDIAN
5' x 5' x H = 1'-6"
D.A. = 71 AC., C = 1.0
RETAIN

815

820

STA. 821+29 IN PLACE
DBL. 5' x 5' x 223' R.C. BOX CULV'T.
30° LT. FWD. SKEW
TYPE "K" DROP INLET IN MEDIAN
4' x 6' x H = 5'-9"
D.A. = 156 AC., C = 1.0
RETAIN

825

STA. 827+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 76' PIPE OUTLET
RETAIN

C. L. I-40

S80°53'06"E

C.L. I-40
PI = 830+73.45
Δ = 34°33'00" LT.
D = 01°00'00"
T = 1781.82'
L = 3455.00'
PC = 812+91.63
PT = 847+46.63

STA. 832+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
6' x 6' x H = 5'-6" WITH
36" x 86' PIPE INLET
15° LT. FWD. SKEW
36" x 86' PIPE OUTLET
15° LT. FWD. SKEW
D.A. = 10 AC., C = 1.0
RETAIN

830

STA. 835+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 84' PIPE OUTLET
RETAIN

835

I-40

EDWARDS RD.

REMOVAL AND DISPOSAL OF CONCRETE BARRIER WALL

STA.	STA.	LOCATION	LIN.FT.
838+07	838+34	L.M.L.-LT.	27
838+16	838+42	R.M.L.-RT.	26

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A-1½ MASH TL-4)

STA.	STA.	LOCATION	LIN.FT.
838+07	838+34	L.M.L.-LT.	27
838+16	838+42	R.M.L.-RT.	26

STA. 7+47.76 BR. END
223.43' BRIDGE NO. 03891
24'-0" CLEAR ROADWAY
STA. 9+71.19 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

840

C. L. I-40

N64°33'54"E

C.L. I-40
PI = 830+73.45
Δ = 34°33'00" LT.
D = 01°00'00"
T = 1781.82'
L = 3455.00'
PC = 812+91.63
PT = 847+46.63

STA. 841+15 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
6' x 6' x H = 5'-6" WITH
48" x 90' PIPE INLET
30° RT. FWD. SKEW
48" x 90' PIPE OUTLET
30° RT. FWD. SKEW
D.A. = 22 AC., C = 1.0
RETAIN

I-40

USER: fs513
DESIGN FILE: G:\17I210I_BB040I\TRANSP\dgn\p&p\rBB040IPL36.dgn
PLOTTED: 8/30/2018 11:39
SCALE: in00

G:\17I210I_BB040I\TRANSP\dgn\p&p\rBB040IPL36.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB040I	123	234
				(2)	PLAN SHEETS			

50 25 0 25 50 100

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS
8-31-18

STA. 845+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
6' x 6' x H = 7'-0" WITH
48" x 116' PIPE INLET
45° LT. FWD. SKEW
48" x 130' PIPE OUTLET
45° RT. FWD. SKEW
D.A. = 30 AC., C = 1.0
RETAIN

845

850

855

P.T. 847+46.63

C.L. I-40

N64°33'54"E

STA. 850+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-6" WITH
24" x 88' PIPE OUTLET
RETAIN

STA. 855+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 88' PIPE OUTLET
RETAIN

STA. 859+00 IN PLACE
48" x 254' PIPE OUTLET
RETAIN

860

865

870

P.C. 864+48.23

C.L. I-40

N64°33'54"E

C.L. I-40
PI = 875+03.26
Δ = 20°52'01" RT.
D = 01°00'00"
T = 1055.03'
L = 2086.69'
PC = 864+48.23
PT = 885+34.92

STA. 859+00 IN PLACE
48" x 254' PIPE OUTLET
RETAIN

STA. 861+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
18" x 152' PIPE OUTLET
RETAIN

STA. 864+27 IN PLACE
DBL. 5' x 5' x 373' R.C. BOX CULV'T.
45° LT. FWD. SKEW
D.A. = 177 AC., C = 1.0
RETAIN

STA. 867+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 78' PIPE OUTLET
RETAIN

I-40

USER: fe593
DESIGN FILE: G:\17II2I0I_BB040I\TRANSP\dgn\p&p\rBB040IPL37.dgn
PLOTTED: 8/30/2018 II:39
SCALE: 1:100

G:\17II2I0I_BB040I\TRANSP\dgn\p&p\rBB040IPL37.dgn 8/30/2018 II:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	124	234
				(2)	PLAN SHEETS			

50 25 0 25 50 100

C.L. I-40
PI = 875+03.26
Δ = 20°52'01" RT.
D = 01°00'00"
T = 1055.03'
L = 2086.69'
PC = 864+48.23
PT = 885+34.92

875

P.I. 875+03.26

N64°33'54"E N85°25'55"E

880

C. L. I-40

885

P.T. 885+34.92

N85°25'55"E

N

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURNS

STA. 875+00 IN PLACE
8' x 6' x 180' R.C. BOX CULV'T.
TYPE "K" DROP INLET IN MED.
4' x 6' H = 6'-2"
D.A. = 149 AC., C = 1.0
RETAIN

STA. 878+53 IN PLACE
5' x 5' x 172' R.C. BOX CULV'T.
30° LT. FWD. SKEW
TYPE "K" DROP INLET IN MED.
5' x 5' H = 1'-6"
D.A. = 75 AC., C = 1.0
RETAIN

REMOVAL AND DISPOSAL OF GUARDRAIL

STA.	STA.	SIDE	LIN.FT.
874+49	880+37	L.M.L.-LT.	588

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
874+49	880+49	LML-LT.	550 LIN.FT.		1 EACH	1EACH

STA. 888+60 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
6' x 6' x H = 5'-6" WITH
42" x 106' PIPE INLET
42" x 110' PIPE OUTLET
45° RT. FWD. SKEW
D.A. = 15 AC., C = 1.0
RETAIN

890

895

900

C. L. I-40

N85°25'55"E

N

STA. 894+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 5'-0" WITH
36" x 80' PIPE INLET
36" x 76' PIPE OUTLET
D.A. = 11 AC., C = 1.0
RETAIN

STA. 897+35.95
END MILL, INLAY, & OVERLAY
LOG MILE 17.00

STA. 901+00 IN PLACE
TYPE "H" DROP INLET IN MEDIAN
4' x 6' x H = 4'-0" WITH
24" x 84' PIPE OUTLET
RETAIN

I-40

USER: fs513
DESIGN FILE: G:\171210I_BB0401\TRANSP\dgn\p&p\rBB0401PL38.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1:100

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0401	125	234
(2)	PLAN SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9620
HUBERT BURKS
8-31-18

50 25 0 25 50 100

940

25

945

RIDGE RD.

N

C. L. I-40

P.O.E. 949+71.02

N59°11'54"E

STA. 23+29.28 BR. END
217.24' BRIDGE NO. 03892
24'-0" CLEAR ROADWAY
STA. 25+46.52 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 945+12.06
END JOB NO. BB0401
LOG MILE 17.90

1155

1160

1165

OLD GRAPHIC RD.

STA. 13+80.84 BR. END
238.32' BRIDGE NO. 05079
24'-0" CLEAR ROADWAY
STA. 16+19.16 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

N

C. L. I-40

15

I-40

USER: fe513
DESIGN FILE: G:\1711210I_BB0401\TRANSP\dgn\p&p\rBB0401PL39.dgn
PLOTTED: 8/30/2018 11:39
SCALE: 1in00

G:\1711210I_BB0401\TRANSP\dgn\p&p\rBB0401PL39.dgn 8/30/2018 11:39

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	126	234

(2) PLAN SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

EXIST. R/W & C. OF A.

GATE

80

STA. 87+16.82
BEGIN JOB BB0406
LOG MILE 1.66

85

JENNY LIND

STA. 87+51.32 BR. END A
EXISTING 78'-1 1/8" COMP.
W-BEAM UNIT BRIDGE 5629A
41'-6" CLEAR ROADWAY
STA. 88+29.41 BR. END A
POLYMER OVERLAY/
BACKWALL REPLACEMENT

STA. 87+51.32 BR. END B
EXISTING 78'-1 1/8" COMP.
W-BEAM UNIT BRIDGE 5629B
41'-6" CLEAR ROADWAY
STA. 88+29.41 BR. END B
POLYMER OVERLAY/
BACKWALL REPLACEMENT

90

STA. 88+63.91 IN PLACE
TYPE N-2 D.I. LT
RETAIN

95

EXIST. R/W & C. OF A.

BR. NO. 5629A

BR. NO. 5629B

N 46°36'43" E

STA. 87+16.82
BR. END STA. 87+51.32

STA. 88+63.91
BR. END STA. 88+29.41

STA. 88+63.91 IN PLACE
TYPE N-2 D.I. RT
RETAIN

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
84+40.89	87+09.64	R.M.L. - RT.	200 LIN. FT.	1 EA.	1 EA.	
86+15.89	87+09.64	L.M.L. - LT.	75 LIN. FT.	1 EA.		1 EA.
88+56.56	89+50.31	R.M.L. - RT.	75 LIN. FT.	1 EA.		1 EA.
88+56.56	91+25.31	L.M.L. - LT.	200 LIN. FT.	1 EA.	1 EA.	

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 84+40.89 TO STA. 87+09.64 RT. OF RT. LANES = 268.75 LIN. FT.
STA. 86+15.89 TO STA. 87+09.64 LT. OF LT. LANES = 93.75 LIN. FT.
STA. 88+56.56 TO STA. 89+50.31 RT. OF RT. LANES = 93.75 LIN. FT.
STA. 88+56.56 TO STA. 91+25.31 LT. OF LT. LANES = 268.75 LIN. FT.

GATE

EXIST. R/W & C. OF A.

RBB0401 REVISED.DGN 9/13/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	127	234

(2) PLAN SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-13-18

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 132+60.35 TO STA. 135+29.10 RT. OF RT. LANES = 268.75 LIN. FT.
STA. 134+79.03 TO STA. 135+72.78 LT. OF LT. LANES = 93.75 LIN. FT.
STA. 138+76.42 TO STA. 139+70.17 RT. OF RT. LANES = 93.75 LIN. FT.
STA. 139+20.33 TO STA. 141+89.08 LT. OF LT. LANES = 268.75 LIN. FT.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
132+60.35	135+29.10	R.W.L. - RT.	200 LIN. FT.	1 EA.	1 EA.	
134+79.03	135+72.78	L.W.L. - LT.	75 LIN. FT.	1 EA.		1 EA.
138+76.42	139+70.17	R.W.L. - RT.	75 LIN. FT.	1 EA.		1 EA.
139+20.33	141+89.08	L.W.L. - LT.	200 LIN. FT.	1 EA.	1 EA.	

PI = 144+96.68
Δ = 39°13'58"LT.
D = 1°00'00"
T = 2042.05'
L = 3923.26'
PC = 124+54.63
PT = 163+77.89

STA. 139+44.32 IN PLACE
TYPE N-2 D.I. LT
RETAIN

STA. 139+44.32 IN PLACE
TYPE ST D.I. LT
RETAIN

STA. 145+00.00 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 130+00.00 IN PLACE
TYPE ST D.I. LT
RETAIN

130

135

BR. END STA. 135+61.94

STA. 135+26.94

HWY. 71

BR. NO. 5102A

BR. NO. 5102B

STA. 135+04.78

BR. END STA. 135+39.78

N 46°36'43" E

140

BR. END STA. 139+09.32

STA. 139+44.32

STA. 139+22.16

BR. END STA. 138+87.16

10'
24'
8'
24'
10'

STATION 144+00.00
BEGIN MILL AND INLAY
LOG MILE 2.74

STA. 130+00.00 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 135+00.00 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 135+61.93 BR. END A
EXISTING 347'-4 9/16" COMP.
I-BEAM UNIT BRIDGE 5102A
41'-6" CLEAR ROADWAY
STA. 139+09.32 BR. END A
POLYMER OVERLAY

STA. 135+39.78 BR. END B
EXISTING 347'-4 9/16" COMP.
I-BEAM UNIT BRIDGE 5102B
41'-6" CLEAR ROADWAY
STA. 138+87.16 BR. END B
POLYMER OVERLAY

R/W & C. OF A.

PI = 144+96.68
Δ = 39°13'58"LT.
D = 1°00'00"
T = 2042.05'
L = 3923.26'
PC = 124+54.63
PT = 163+77.89

STA. 160+35.00 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 157+00.00 IN PLACE
TYPE ST D.I. RT
RETAIN

EXIST. R/W

LT. FRONTAGE RD.

EXIST. C. OF A.

155

160

STA. 145+00.00 IN PLACE
TYPE ST D.I. RT
RETAIN

145

150

STA. 151+00.00 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 154+00.00 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 148+00.00 IN PLACE
TYPE ST D.I. RT
RETAIN

10'
24'
8'
36'
6'

N 7°22'45" E

EXIST. R/W & C. OF A.

10'
24'
8'
24'
10'

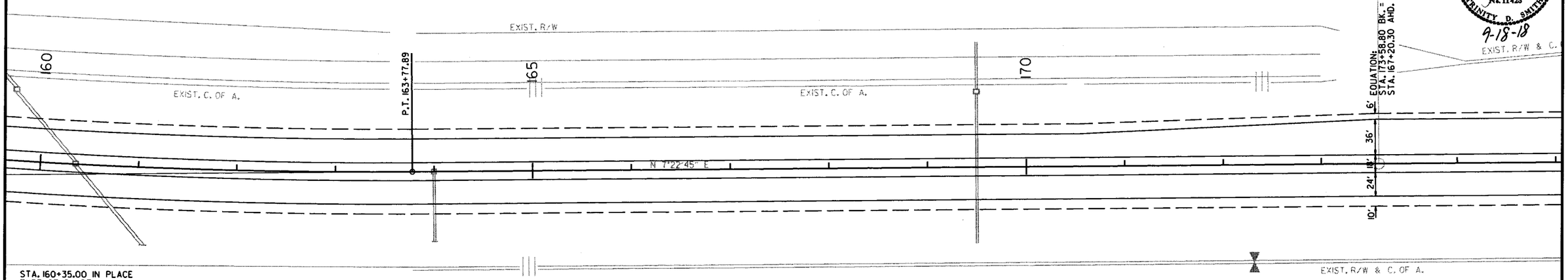
RBB0401 REVISED.DGN 9/13/2018

I-540

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	128	234

(2) PLAN SHEETS

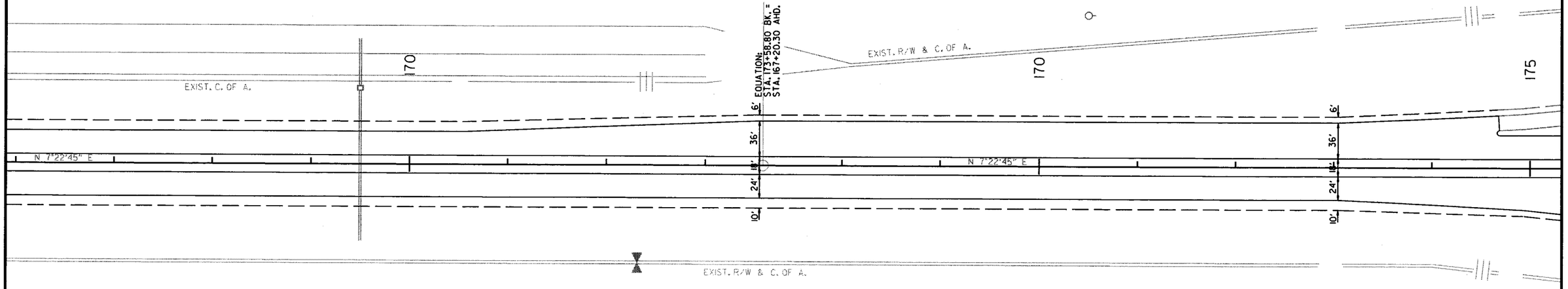
PI = 144+96.68
Δ = 39°13'58"LT.
D = 1°00'00"
T = 2042.05'
L = 3923.26'
PC = 124+54.63
PT = 163+77.89



STA. 160+35.00 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 164+00.00 IN PLACE
TYPE ST D.I. RT
RETAIN

STATE OF ARKANSAS
LICENSED
PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18



RBB0401 REVISED.DGN 9/13/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	129	234

(2) PLAN SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

STA. 185+65.26 BR. END A
EXISTING 185'-2" COMP.
I-BEAM UNIT BRIDGE 5101A
41'-0" CLEAR ROADWAY
STA. 187+50.42 BR. END A
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 185+68.44 BR. END B
EXISTING 185'-2" COMP.
I-BEAM UNIT BRIDGE 5101B
41'-0" CLEAR ROADWAY
STA. 187+53.60 BR. END B
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

EXIST. R/W & C. OF A.

175 180 185 190

STA. 185+26.76 IN PLACE
TYPE ST D.I. LT
ADJUST DROP INLET TO GRADE

BR. END STA. 185+65.26
STA. 185+26.76

BR. END STA. 187+50.42
STA. 187+86.92

10' 24' 18' 24' 10'

N 7°22'45" E

BR. NO. 5101A

BR. NO. 5101B

STA. 185+31.94 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 185+31.94
BR. END STA. 185+68.44

STA. 187+90.10
BR. END STA. 187+53.60

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
183+02.39	185+71.14	R.M.L. - RT.	200 LIN. FT.	1 EA.	1 EA.	
187+48.75	192+42.50	L.M.L. - LT.	425 LIN. FT.	1 EA.	1 EA.	
187+55.27	192+74.02	R.M.L. - RT.	500 LIN. FT.	1 EA.		1 EA.

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 183+02.39 TO STA. 185+71.14 RT. OF RT. LANES = 268.75 LIN. FT.
STA. 187+48.75 TO STA. 192+42.50 LT. OF LT. LANES = 493.75 LIN. FT.
STA. 187+55.27 TO STA. 192+74.02 RT. OF RT. LANES = 518.75 LIN. FT.

EXIST. R/W & C. OF A.

190 195 200 205

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 196+12.27 TO STA. 198+81.02 RT. OF RT. LANES = 268.75 LIN. FT.
STA. 197+56.93 TO STA. 198+75.68 LT. OF LT. LANES = 118.75 LIN. FT.
STA. 200+30.80 TO STA. 202+99.55 LT. OF LT. LANES = 268.75 LIN. FT.
STA. 200+36.11 TO STA. 202+54.86 RT. OF RT. LANES = 218.75 LIN. FT.

STA. 198+40.15 IN PLACE
TYPE ST D.I. LT
ADJUST DROP INLET TO GRADE

BR. END STA. 198+76.65
STA. 198+40.15

STA. 200+68.24 IN PLACE
TYPE N-2 D.I. LT
ADJUST DROP INLET TO GRADE

BR. END STA. 200+31.74
STA. 200+68.24

STA. 198+76.65 BR. END A
EXISTING 155'-1⅛" COMP.
I-BEAM UNIT BRIDGE 5100A
41'-0" CLEAR ROADWAY
STA. 200+31.74 BR. END A
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

10' 24' 18' 36' 10'

N 7°22'45" E

BR. NO. 5100A

BR. NO. 5100B

STA. 198+43.33
BR. END STA. 198+79.83

STA. 200+71.12
BR. END STA. 200+34.92

STA. 198+43.33 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 200+71.12 IN PLACE
TYPE N-2 D.I. RT
RETAIN

STA. 198+79.83 BR. END B
EXISTING 155'-1⅛" COMP.
I-BEAM UNIT BRIDGE 5100B
49'-9" CLEAR ROADWAY
STA. 200+34.92 BR. END B
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
196+12.27	198+81.02	R.M.L. - RT.	200 LIN. FT.	1 EA.	1 EA.	
197+56.93	198+75.68	L.M.L. - LT.	100 LIN. FT.	1 EA.		1 EA.
200+30.80	202+99.55	L.M.L. - LT.	200 LIN. FT.	1 EA.	1 EA.	
200+36.11	202+54.86	R.M.L. - RT.	200 LIN. FT.	1 EA.		1 EA.

EXIST. R/W & C. OF A.

EXIST. R/W & C. OF A.

RBB0401 REVISED.DGN 9/13/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	130	234

(2) PLAN SHEETS

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
205+51.95	208+51.95	L.M.L. - LT.	250 LIN. FT.		1 EA.	1 EA.
207+30.62	209+55.62	R.M.L. - RT.	175 LIN. FT.		1 EA.	1 EA.

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 205+51.95 TO STA. 208+51.95 LT. OF LT. LANES = 300.00 LIN. FT.
STA. 207+30.62 TO STA. 209+55.62 RT. OF RT. LANES = 225.00 LIN. FT.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

EXIST. R/W & C. OF A.

STA. 210+00.00 IN PLACE
TYPE ST D.I. LT
RETAIN

STA. 213+00.00 IN PLACE
TYPE ST D.I. LT
RETAIN

STA. 216+00.00 IN PLACE
TYPE ST D.I. LT
RETAIN

STA. 219+00.00 IN PLACE
TYPE ST D.I. LT
RETAIN

205 210 215

N 7°22'45" E

36' 24' 10' 18' 24' 10'

P.C. 207+61.72

PI = 219+86.65
Δ = 65°20'59"RT.
D = 3°00'00"
T = 1224.93'
L = 2178.33'
PC = 207+61.72
PT = 229+40.05

EXIST. R/W & C. OF A.

EXIST. C. OF A.

STA. 224+50.00 IN PLACE
TYPE ST D.I. LT
RETAIN

STA. 227+00.00 IN PLACE
TYPE ST D.I. LT
RETAIN

STA. 229+50.00 IN PLACE
TYPE ST D.I. LT
RETAIN

STA. 222+00.00 IN PLACE
TYPE ST D.I. LT
RETAIN

220 225 230 235

N 72°43'45" E

10' 24' 18' 36' 6'

P.T. 229+40.05

PI = 219+86.65
Δ = 65°20'59"RT.
D = 3°00'00"
T = 1224.93'
L = 2178.33'
PC = 207+61.72
PT = 229+40.05

EXIST. R/W

RBB0401 REVISED.DGN 9/13/2018

I-540

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	131	234

(2) PLAN SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

STA. 240+08.20 BR. END A
EXISTING 159'-5" COMP.
I-BEAM UNIT BRIDGE 5098AW
41'-0" CLEAR ROADWAY
STA. 241+67.62 BR. END A
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 240+32.45 BR. END B
EXISTING 159'-5" COMP.
I-BEAM UNIT BRIDGE 5098BW
41'-0" CLEAR ROADWAY
STA. 241+91.87 BR. END B
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

EXIST. R/W

EXIST. R/W & C. OF A.

235

Exist. C. of A.

240

245

250

BR. END STA. 240+08.20
STA. 239+71.70

STA. 241+67.62 IN PLACE
TYPE ST D.I. LT
RETAIN

BR. END STA. 241+67.62
STA. 242+04.12

N

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 234+52.04 TO STA. 239+95.79 LT. OF LT. LANES = 543.75 LIN. FT.
STA. 235+76.21 TO STA. 240+44.96 RT. OF RT. LANES = 468.75 LIN. FT.
STA. 241+55.22 TO STA. 246+98.97 LT. OF LT. LANES = 543.75 LIN. FT.
STA. 242+04.27 TO STA. 247+73.02 RT. OF RT. LANES = 568.75 LIN. FT.

P.C. 249+56.04

24'
18'
24'

BR. NO. 5098AW

BR. NO. 5098BW

N 72°43'45" E

STA. 239+95.95
BR. END STA. 240+32.45

STA. 242+28.37
BR. END STA. 241+91.87

STA. 242+28.37 IN PLACE
TYPE ST D.I. LT
RETAIN

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
234+52.04	239+95.79	L.M.L. - LT.	525 LIN. FT.	1EA.		1EA.
235+76.21	240+44.96	R.M.L. - RT.	400 LIN. FT.	1EA.	1EA.	
241+55.22	246+98.97	L.M.L. - LT.	475 LIN. FT.	1EA.	1EA.	
242+04.27	247+73.02	R.M.L. - RT.	550 LIN. FT.	1EA.		1EA.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
259+96.65	262+21.65	R.M.L. - RT.	175 LIN. FT.		1EA.	1EA.
259+98.68	262+48.68	L.M.L. - LT.	200 LIN. FT.		1EA.	1EA.

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 259+96.65 TO STA. 262+21.65 RT. OF RT. LANES = 225.00 LIN. FT.
STA. 259+98.68 TO STA. 262+48.68 LT. OF LT. LANES = 250.00 LIN. FT.

EXIST. R/W & C. OF A.

P.C. 249+56.04

250

255

260

265

PI = 260+78.41
Δ = 22°09'60"LT.
D = 1°00'00"
T = 1122.37'
L = 2216.66'
PC = 249+56.04
PT = 271+72.70

10'
24'
8'
36'
6'

STA. 250+50.00 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 253+85.00 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 257+15.00 IN PLACE
TYPE ST D.I. RT
RETAIN

N 72°43'45" E

N 50°33'45" E

STA. 264+25.00 IN PLACE
TYPE ST D.I. RT
RETAIN

EXIST. R/W & C. OF A.

EXIST. R/W & C. OF A.

78.41

STA. 261+00.00 IN PLACE
TYPE ST D.I. RT
RETAIN

I-540

RBB0401 REVISED.DGN 9/13/2018

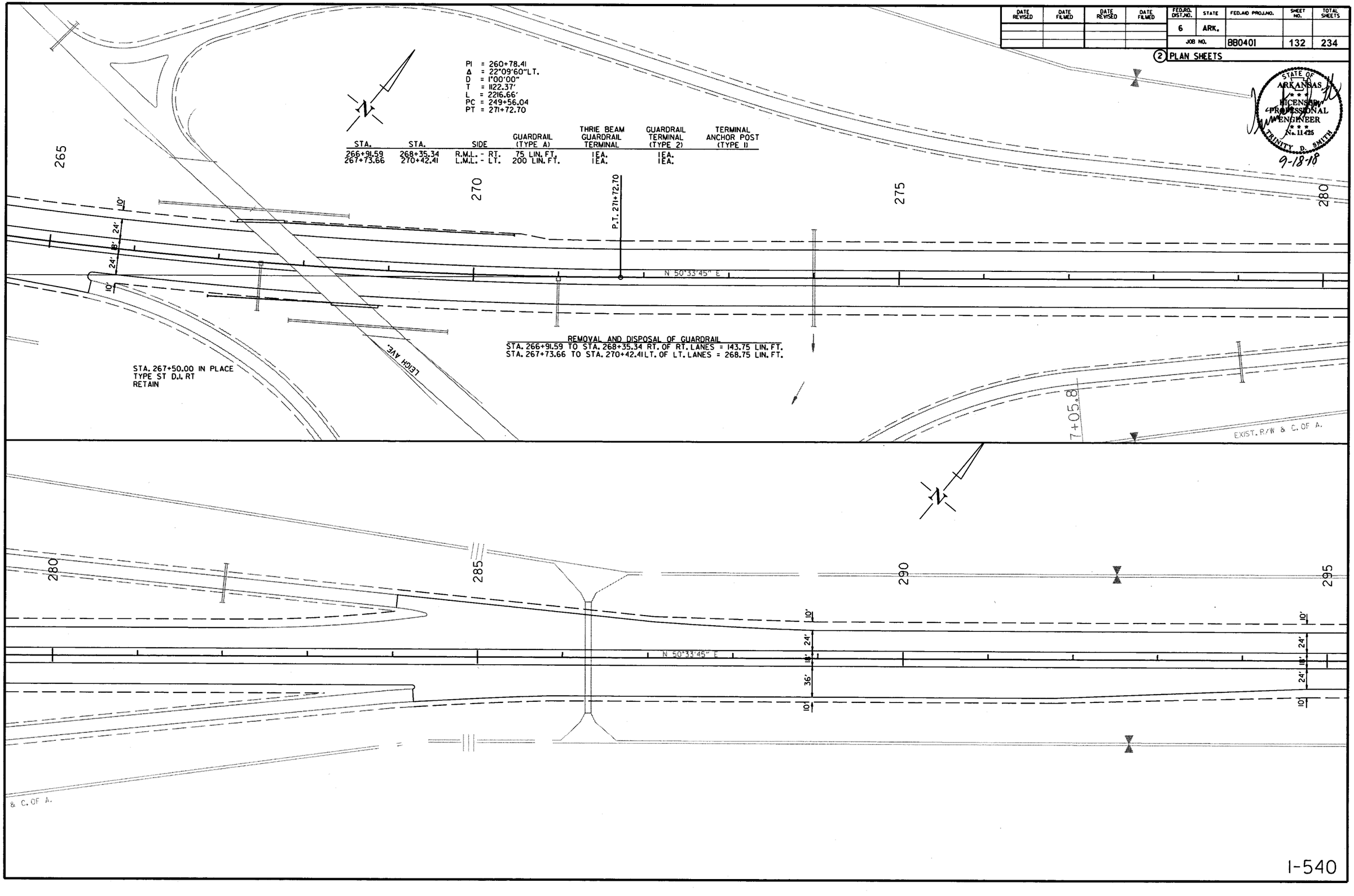
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	132	234

(2) PLAN SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

PI = 260+78.41
Δ = 22°09'60"LT.
D = 1°00'00"
T = 1122.37'
L = 2216.66'
PC = 249+56.04
PT = 271+72.70

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE II)
266+91.59	268+35.34	R.M.L. - RT.	75 LIN. FT.	1 EA.	1 EA.	
267+73.66	270+42.41	L.M.L. - LT.	200 LIN. FT.	1 EA.	1 EA.	



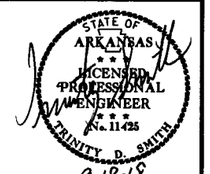
REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 266+91.59 TO STA. 268+35.34 RT. OF RT. LANES = 143.75 LIN. FT.
STA. 267+73.66 TO STA. 270+42.41 LT. OF LT. LANES = 268.75 LIN. FT.

RBB0401 REVISED.DGN 9/13/2018

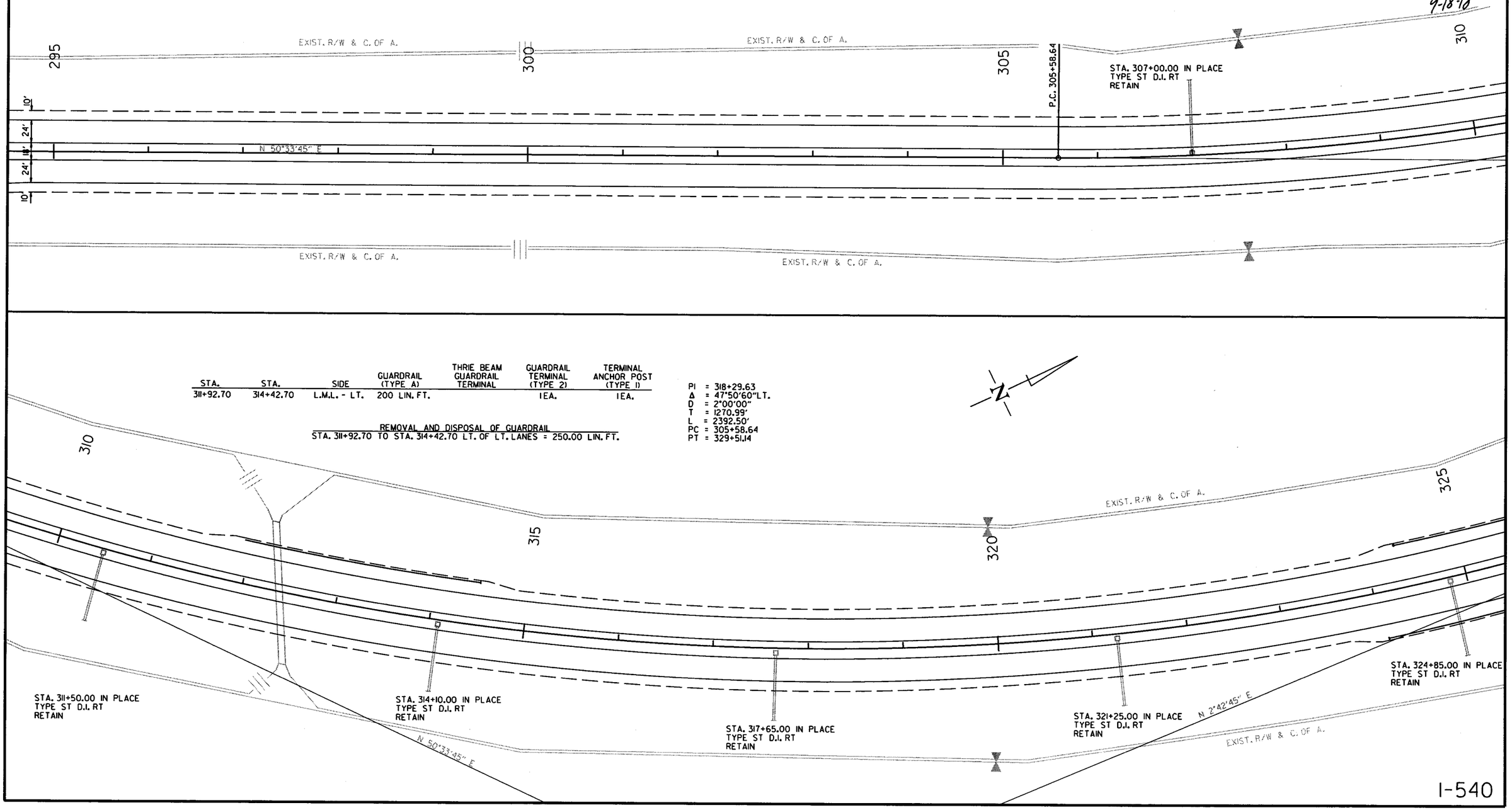
I-540

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	133	234

(2) PLAN SHEETS



PI = 318+29.63
Δ = 47°50'60"LT.
D = 2°00'00"
T = 1270.99'
L = 2392.50'
PC = 305+58.64
PT = 329+51.14



STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
311+92.70	314+42.70	L.M.L. - LT.	200 LIN. FT.		1EA.	1EA.

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 311+92.70 TO STA. 314+42.70 LT. OF LT. LANES = 250.00 LIN. FT.

PI = 318+29.63
Δ = 47°50'60"LT.
D = 2°00'00"
T = 1270.99'
L = 2392.50'
PC = 305+58.64
PT = 329+51.14

RBB0401 REVISED.DGN 9/13/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		880401	134	234

(2) PLAN SHEETS

PI = 318+29.63
Δ = 47°50'60"LT.
D = 2°00'00"
T = 1270.99'
L = 2392.50'
PC = 305+58.64
PT = 329+51.14

STA. 377+97.86 BR. END A
EXISTING 153'-1" COMP.
I-BEAM UNIT BRIDGE 5096A
34'-6" CLEAR ROADWAY
STA. 379+50.34 BR. END A
POLYMER OVERLAY

STA. 378+03.36 BR. END B
EXISTING 153'-1" COMP.
I-BEAM UNIT BRIDGE 5096B
34'-6" CLEAR ROADWAY
STA. 379+56.44 BR. END B
POLYMER OVERLAY

STA. 377+61.36 IN PLACE
TYPE ST D.I. LT
RETAIN

STA. 379+87.44 IN PLACE
TYPE N-2 D.I. LT
RETAIN

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
324+01.29	378+06.24	R.M.L. - RT.	625 LIN. FT.	1 EA.	1 EA.	
324+40.05	377+95.00	L.M.L. - LT.	575 LIN. FT.	1 EA.	1 EA.	
379+47.16	386+15.91	L.M.L. - LT.	600 LIN. FT.	1 EA.	1 EA.	
379+59.64	287+81.15	R.M.L. - RT.	784 LIN. FT.	2 EA.		

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 324+01.29 TO STA. 378+06.24 RT. OF RT. LANES = 693.75 LIN. FT.
STA. 324+40.05 TO STA. 377+95.00 LT. OF LT. LANES = 643.75 LIN. FT.
STA. 379+47.16 TO STA. 386+15.91 LT. OF LT. LANES = 668.75 LIN. FT.
STA. 379+59.64 TO STA. 287+81.15 RT. OF RT. LANES = 821.51 LIN. FT.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

EXIST. R/W & C. OF A.

325

EQUATION:
P.T. 329+51.14 BK. =
STA. 376+62.34 AHD.

BOSTON ST.

380

385

BR. END STA. 377+97.86
STA. 377+61.36

BR. END STA. 379+50.94
STA. 379+87.44

BR. NO. 5096A

36'

N 2°42'45" E

BR. NO. 5096B

STA. 324+85.00 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 328+40.00 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 377+66.86
BR. END STA. 378+03.36

STA. 377+66.86 IN PLACE
TYPE ST D.I. RT
RETAIN

STA. 379+92.94
BR. END STA. 379+56.44

STA. 379+92.94 IN PLACE
TYPE N-2 D.I. RT
RETAIN

EXIST. R/W & C. OF A.

EXIST. C. OF A.

EXIST. C. OF A.

EQUATION:
STA. 386+91.50 BK. =
STA. 286+91.50 AHD.

56050 'ON' 'SB'

62nd ST.

EXIST. R/W & C. OF A.

385

EQUATION:
STA. 386+91.50 BK. =
STA. 286+91.50 AHD.

BR. NO. 05095

290

295

300

STA. 295+85.97 BR. END
EXISTING 190.44' BRIDGE A6877
CLEAR ROADWAY VARIES
STA. 297+76.41 BR. END
RETAIN

STA. 295+42.86 BR. END
EXISTING 190.44' BRIDGE B6877
48'-0" CLEAR ROADWAY
STA. 297+33.29 BR. END
RETAIN

STA. 298+11.41 IN PLACE
TYPE N-3 D.I. LT
RETAIN

BR. END STA. 295+85.97
STA. 295+50.97

BR. END STA. 297+76.41
STA. 298+11.41

BR. NO. A6877

N 2°42'45" E

24'

BR. NO. B6877

STA. 295+07.86
BR. END STA. 295+42.86

STA. 297+68.29
BR. END STA. 297+33.29

STA. 297+68.29 IN PLACE
TYPE N-3 D.I. RT
RETAIN

ST. C. OF A.

STA. 386+91.50
END MILL AND INLAY
LOG MILE 6.57
BEGIN EXCEPTION

CLIFF DR.

EXIST. R/W & C. OF A.

RBB0401 REVISED.DGN 9/13/2018

I-540

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	135	234

(2) PLAN SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

EXIST. R/W & C. OF A.

300 305 310 315

N 2°42'45" E

EXIST. R/W & C. OF A.

345 350 355 360

STA. 349+39.26 BR. END A
EXISTING 134'-2⅝" COMP.
W-BEAM UNIT BRIDGE 3604A
40'-0" CLEAR ROADWAY
STA. 350+73.48 BR. END A
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

STA. 349+20.24 BR. END B
EXISTING 134'-2⅝" COMP.
W-BEAM UNIT BRIDGE 3604B
40'-0" CLEAR ROADWAY
STA. 350+54.46 BR. END B
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

FREE FERRY RD.

STA. 351+09.98 IN PLACE
TYPE N-2 D.I. LT
RETAIN

EXISTING R/W & C OF A

BR. END STA. 349+39.26
END EXCEPTION
STA. 349+02.76

PT. 347+51.56

BR. END STA. 350+73.48
BEGIN EXCEPTION
STA. 351+09.98

BR. NO. 3604A

N 9°17'00" W

BR. NO. 3604B

STA. 348+83.74
END EXCEPTION
BR. END STA. 349+20.24

STA. 350+90.96
BEGIN EXCEPTION
BR. END STA. 350+54.46

STA. 350+90.96 IN PLACE
TYPE N-2 D.I. RT
ADJUST DROP INLET TO GRADE

EXISTING C OF A

FRONTAGE ROAD

EXISTING R/W

EXISTING R/W & C OF A

PC 359+09.17

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
345+85.94	349+04.69	R.M.L. - LT.	250 LIN. FT.	1EA.	1EA.	
346+26.14	348+94.89	R.M.L. - RT.	200 LIN. FT.	1EA.	1EA.	
350+69.11	352+87.86	R.M.L. - RT.	200 LIN. FT.	1EA.		1EA.
350+89.02	354+07.77	L.M.L. - RT.	250 LIN. FT.	1EA.	1EA.	
350+98.83	355+67.58	L.M.L. - LT.	400 LIN. FT.	1EA.	1EA.	

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 345+85.94 TO STA. 349+04.69 RT. OF LT. LANES = 318.75 LIN. FT.
STA. 346+26.14 TO STA. 348+94.89 RT. OF RT. LANES = 268.75 LIN. FT.
STA. 350+69.11 TO STA. 352+87.86 RT. OF RT. LANES = 218.75 LIN. FT.
STA. 350+89.02 TO STA. 354+07.77 RT. OF LT. LANES = 318.75 LIN. FT.
STA. 350+98.83 TO STA. 355+67.58 LT. OF LT. LANES = 468.75 LIN. FT.

RBB0401 REVISED.DGN 9/13/2018

I-540

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	136	234

(2) PLAN SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-18-18

STA. 491+06.55 BR. END
EXISTING 573'-10⅜" COMP.
W-BEAM UNIT BRIDGE 06880
CLEAR ROADWAY = 2 @ 37'-0"
STA. 496+80.46 BR. END
POLYMER OVERLAY

PI = 477+89.46
Δ = 49°24'00" RT.
D = 2°40'00"
T = 988.24'
L = 1852.50'
PC = 468+01.22
PT = 486+53.72

475 480 485 490 495 500

EXISTING R/W & C OF A

PI 477+89.46

N49°55'00"E
988.24'

N0°31'00"E
988.24'

PT 486+53.72
END MED. TRANS.

BR. END STA. 491+06.55
END EXCEPTION
STA. 490+70.05

BR. END STA. 496+80.46
BEGIN EXCEPTION
STA. 497+16.96

BR. NO. 06880

EXISTING C OF A

ARK. RIVER RELIEF

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 488+37.80 TO STA. 491+06.55 LT. OF LT. LANES = 268.75 LIN. FT.
STA. 488+37.80 TO STA. 491+06.55 RT. OF RT. LANES = 268.75 LIN. FT.
STA. 496+80.46 TO STA. 503+99.21 RT. OF RT. LANES = 718.75 LIN. FT.
STA. 496+80.46 TO STA. 504+49.21 LT. OF LT. LANES = 768.75 LIN. FT.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
488+37.80	491+06.55	L.M.L. - LT.	250 LIN. FT.	1 EA.	1 EA.	1 EA.
488+37.80	491+06.55	R.M.L. - RT.	200 LIN. FT.	1 EA.		
496+80.46	503+99.21	R.M.L. - RT.	700 LIN. FT.	1 EA.		
496+80.46	504+49.21	L.M.L. - LT.	700 LIN. FT.	1 EA.		

645 650 655 660 665 670 675

EXISTING R/W & C OF A

STA. 646+22.41 IN PLACE
TYPE N-1D.I. LT
RETAIN
STA. 646+22.41

BR. END STA. 646+58.91

STA. 646+58.91 BR. END
EXISTING 164.43' BRIDGE A3957
40'-0" CLEAR ROADWAY
STA. 648+23.34 BR. END
RETAIN

STA. 648+23.34 IN PLACE
TYPE N-1D.I. LT
RETAIN

BR. NO. 3957A

BR. END STA. 648+23.34
STA. 648+59.84

PI = 649+73.29
Δ = 70°46'00" LT.
D = 3°00'00"
T = 1356.43'
L = 2358.89'
PC = 636+16.86
PT = 659+75.75

STA. 650+34.95 IN PLACE
TYPE N-1D.I. RT
RETAIN

N67°59'00"E
1356.43'

STA. 647+97.53

BR. END STA. 648+34.03
END EXCEPTION

STA. 647+97.53 IN PLACE
TYPE N-1D.I. RT
RETAIN

PI 649+73.29

BR. NO. 3957B

HWY. 162

EXISTING C OF A

STA. 650+34.95

BR. END STA. 649+98.45
BEGIN EXCEPTION

N2°47'00"W
1356.43'

EXISTING R/W

STA. 648+34.03 BR. END
EXISTING 164'-5" COMP.
W-BEAM UNIT BRIDGE B3957
40'-0" CLEAR ROADWAY
STA. 649+98.45 BR. END
POLYMER OVERLAY

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 644+52.35 TO STA. 647+71.10 LT. OF RT. LANES = 318.75 LIN. FT.
STA. 645+23.37 TO STA. 647+92.12 RT. OF RT. LANES = 268.75 LIN. FT.
STA. 648+72.62 TO STA. 656+91.37 LT. OF LT. LANES = 818.75 LIN. FT.
STA. 648+94.82 TO STA. 652+13.57 RT. OF LT. LANES = 318.75 LIN. FT.
STA. 659+05.20 TO STA. 663+90.60 LT. OF RT. LANES = 318.75 LIN. FT.
STA. 659+73.26 TO STA. 664+08.66 RT. OF RT. LANES = 268.75 LIN. FT.
STA. 668+06.06 TO STA. 676+74.81 LT. OF LT. LANES = 868.75 LIN. FT.
STA. 668+24.10 TO STA. 671+42.85 RT. OF LT. LANES = 318.75 LIN. FT.
STA. 668+96.22 TO STA. 679+64.97 RT. OF RT. LANES = 1068.75 LIN. FT.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE I)
644+52.35	647+71.10	R.M.L. - LT.	250 LIN. FT.	1 EA.	1 EA.	
645+23.37	647+92.12	R.M.L. - RT.	200 LIN. FT.	1 EA.		
648+72.62	656+91.37	L.M.L. - LT.	750 LIN. FT.	1 EA.		
648+94.82	652+13.57	L.M.L. - RT.	250 LIN. FT.	1 EA.		
659+05.20	663+90.60	R.M.L. - LT.	250 LIN. FT.	1 EA.		
659+73.26	664+08.66	R.M.L. - RT.	200 LIN. FT.	1 EA.		
668+06.06	676+74.81	L.M.L. - LT.	800 LIN. FT.	1 EA.		
668+24.10	671+42.85	L.M.L. - RT.	250 LIN. FT.	1 EA.		
668+96.22	679+64.97	R.M.L. - RT.	1050 LIN. FT.	1 EA.		1 EA.

EXISTING R/W & C OF A

STA. 662+91.92 IN PLACE
TYPE N-3 D.I. LT
RETAIN

BR. END STA. 663+28.42
STA. 662+91.92

FLAT ROCK CREEK

EXISTING C OF A
UNION PAC. R.R.
EXISTING C OF A

PT 659+75.75

STA. 663+28.42 BR. END
EXISTING 487.56' BRIDGE A6881
40'-0" CLEAR ROADWAY
STA. 668+15.98 BR. END
RETAIN

STA. 668+87.20
END JOB BB0406

STA. 668+51.58 IN PLACE
TYPE N-3 D.I. LT
RETAIN

BR. END STA. 668+15.98
STA. 668+51.58

BR. NO. A6881

BR. NO. B6881

EQUATION:
BK 659+75.75
AHD 661+42.40

STA. 663+63.14

BR. END STA. 663+99.64
END EXCEPTION

STA. 663+63.14 IN PLACE
TYPE N-3 D.I. RT
RETAIN

STA. 663+99.64 BR. END
EXISTING 487'-6¾" COMP.
W-BEAM UNIT BRIDGE B6881
40'-0" CLEAR ROADWAY
STA. 668+87.20 BR. END
POLYMER OVERLAY

STA. 669+23.70

BR. END STA. 668+87.20

STA. 669+23.70 IN PLACE
TYPE N-3 D.I. RT
RETAIN

EXISTING R/W & C OF A

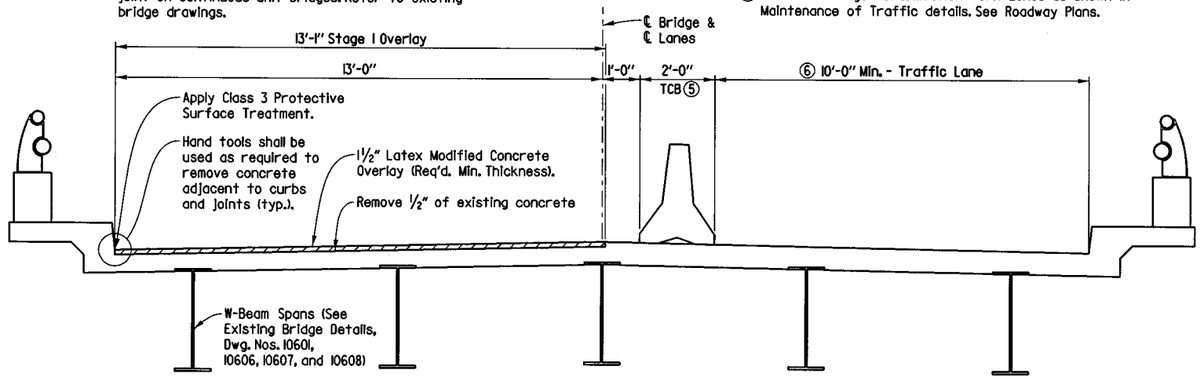
I-540

RBB0401 REVISED.DGN 9/13/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				4	ARK.			
				JOB NO.		BB0401	137	234
				(1) 03270		LMC OVERLAY		60193

NOTE:
The minimum overlay placement length shall be a full span on simple span bridges and to an existing slab joint on continuous unit bridges. Refer to existing bridge drawings.

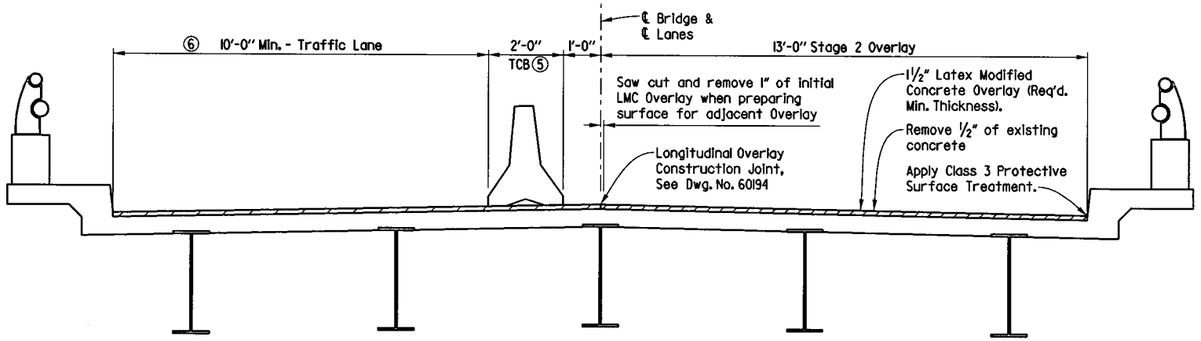
⑥ Refer to Bridge Rehabilitation work zones as shown in Maintenance of Traffic details. See Roadway Plans.



⑤ Temporary Construction Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.

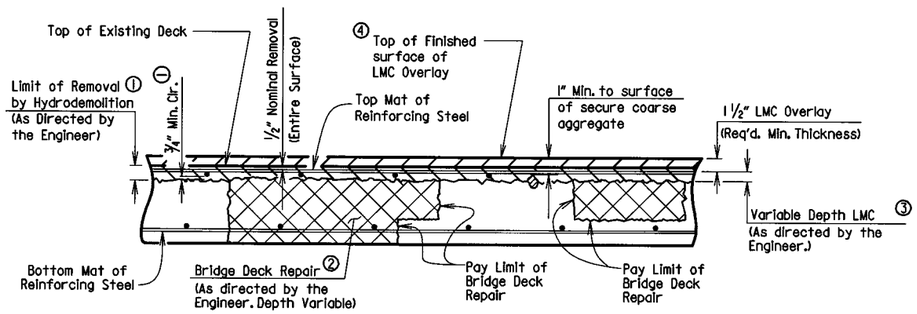
STAGE 1 LATEX MODIFIED CONCRETE OVERLAY

(Looking South)
Scale: ½" = 1'-0"



STAGE 2 LATEX MODIFIED CONCRETE OVERLAY

(Looking South)
Scale: ½" = 1'-0"



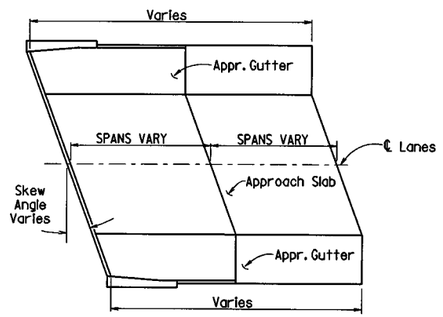
DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

① Removal of unsound concrete beyond ½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

② Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the SP Job BB0401 "Bridge Deck Repair".

③ Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

④ Finished Surface of LMC Overlay shall be increased as required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.



LATEX MODIFIED OVERLAY ON BRIDGE APPROACHES

The Contractor shall remove ½" of existing concrete using hydrodemolition and construct a 1½" min. thickness LMC Overlay on the surface of the approach slabs and approach gutters to match increased LMC overlay grade on the bridge decks. All materials and methods shall conform to appropriate Job Special Provisions and the surface finish shall match that specified for the bridge deck. Joint treatments shall conform to the details on Drawing 60194.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structure based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structures.

The operation or placement of vehicles, equipment and, or materials on the subject bridge necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

Construction activities shall be in accordance with SP Job BB0401 "Special Safety Requirements".

HYDRODEMOLITION: The entire area of the existing bridge deck, approach slabs, and approach gutters shall receive hydrodemolition in accordance with the SP Job BB0401 "Hydrodemolition" to a planned depth of ½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0401 "Hydrodemolition".

BRIDGE DECK REPAIR: After hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shallbe removed at the direction of the Engineer and in accordance with SP Job BB0401 "Bridge Deck Repair".

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the existing bridge deck and the approach slabs and approach gutters shall receive a Latex Modified Concrete (LMC) Overlay with a required minimum thickness of 1½", in accordance with SP Job BB0401 "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0401 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than ½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with SP Job BB0401 "Latex Modified Concrete Overlay".

SURFACE FINISH: The LMC Overlay surface of the bridge deck, approach slabs, and approach gutters shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with SP Job BB0401 "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with SP Job BB0401 "Latex Modified Concrete Overlay". Longitudinal and transverse construction joints separating adjacent overlay placements shall be prepared and sealed as shown on Dwg. No. 60194.

The roadway surface of the LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

EXPANSION JOINT REHABILITATION: After the placement of the LMC Overlay, the existing expansion joints shall be given a poured silicone joint sealant as specified in Section 809 and as shown in "Poured Silicone Joint Seal Details" on Dwg. No. 60194. Backwall modification shall be completed prior to installation of silicone joint sealant. See Dwg. No. 60194 for additional details.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
KENNETH RANDALL MILLER
No. 16720
8/30/18

SHEET 1 OF 2

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY WITH GRADE RAISE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

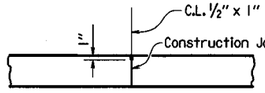
DRAWN BY:	BWC	DATE:	01-12-18	FILENAME:	bbb0401_a_lmcl.dgn
CHECKED BY:	CAW	DATE:	01-16-18	SCALE:	SEE DETAILS
DESIGNED BY:	KRM	DATE:	01-08-18		

BRIDGE NO. 03270 DRAWING NO. 60193

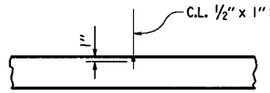
USER: tf513
DESIGN FILE: G:\17I210I_BB0401\TRANSP\dgn\bridge\bbb0401_a_lmcl.dgn
PLOTTED: 8/30/2018 08:19 SCALE: 1:3.9268

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				4	ARK.			
				JOB NO.		BB0401	138	234

(1) 03270 LMC OVERLAY 60194



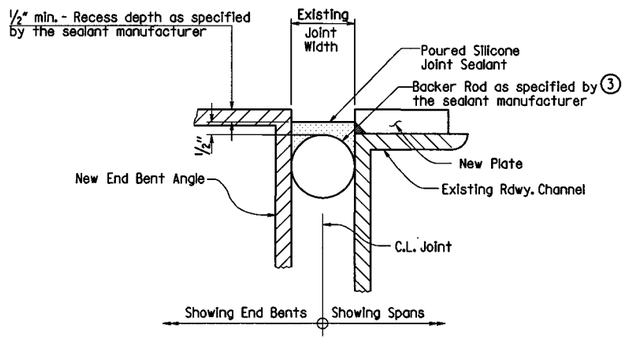
Use ½" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Sealant must be gray or other color similar to concrete.



Use ½" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Slab joints shall extend to the outside edge of the deck slab. Slab joints shall be placed at all pouring sequence construction joints and are required at existing slab joint locations.

Slab joints and longitudinal construction joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the Overlay.

LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL

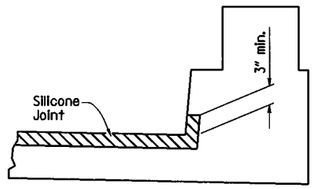


Existing Joint Seal shall be completely removed, backer rods placed, and Silicone Joint Sealant installed across the entire width of the bridge deck in accordance with these details and Manufacturer's instructions. Removal of existing Joint Seal will not be paid for directly, but shall be considered incidental to the item "Silicone Joint Sealant".

Notes: Backer rods shall be extended beyond the length of the poured joint in the initial joint rehabilitation area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint rehabilitaton. Manufacturer's recommendations shall be followed to prevent sealant leakage during rehabilitation work.

POURED SILICONE JOINT SEAL DETAILS

TRANSVERSE OVERLAY JOINT DETAIL

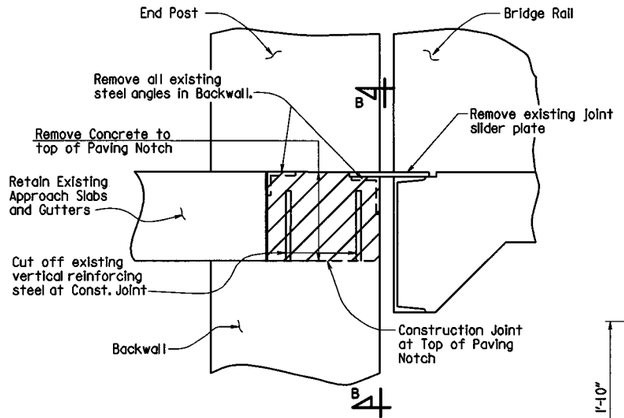


Note: Vertical joints may require forming. The clearance from deck surface to joint material shall be maintained.

JOINT SEAL PLACEMENT AT CURB

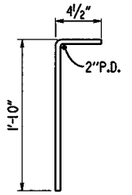
③ Backer rods shall be appropriately sized and set to the depth shown in the manufacturer's literature based on the joint width at the time of sealing. Except as noted, do not install more backer rod than can be sealed in the same day. The Contractor shall verify separation of the backer rod from the joint material after joint material has set.

Backer rod shall be notched or otherwise fit around any existing seal supports or bumper plates to maintain its proper depth as defined above.

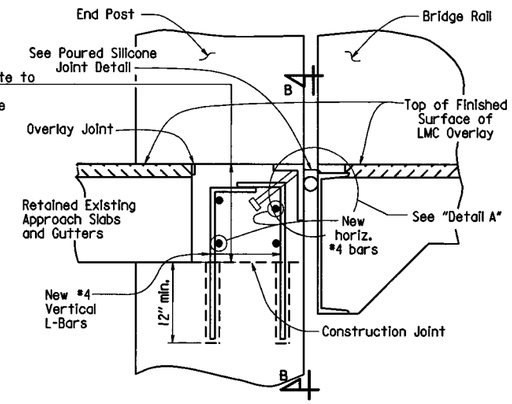


REMOVAL DETAILS AT END BENTS

Removal shall be in accordance with Section 821 and all removed portions of the existing backwall and joint materials shall become the property of the Contractor and shall be disposed of in accordance with Section 205.

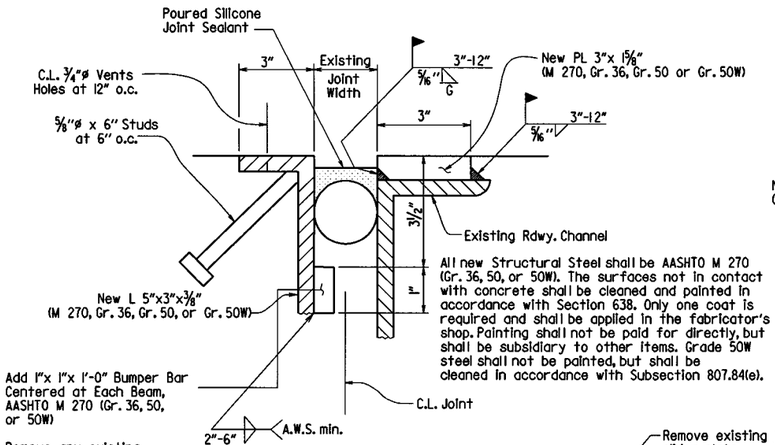


#4 L-BAR

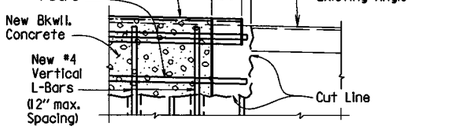


DETAILS OF BACKWALL MODIFICATION

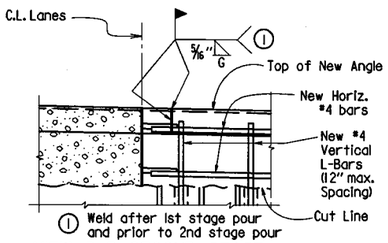
Grout new #4 L-bars into drilled holes spaced to avoid existing reinforcing steel (12" o.c. max.). Grout shall be an approved non-shrink or epoxy grout listed on the QPL. Hole diameter and installation procedure shall be as required by the grout manufacturer.



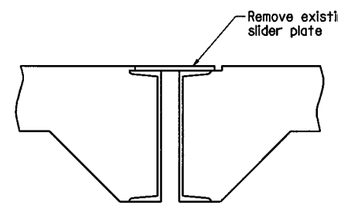
DETAIL A



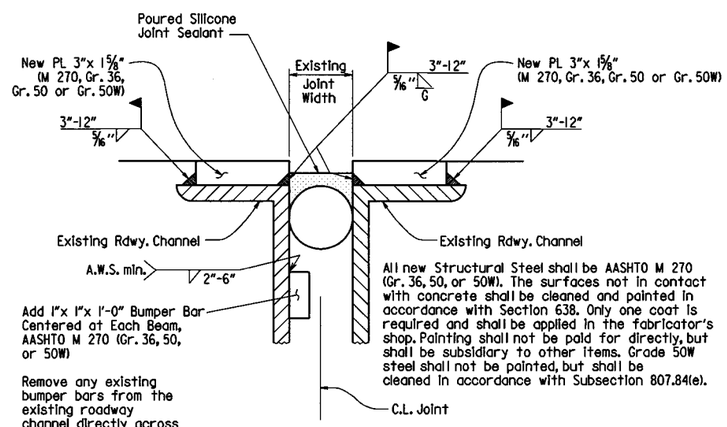
VIEW B-B FIRST STAGE



VIEW B-B SECOND STAGE



REMOVAL DETAILS AT INTERIOR BENTS



DETAILS OF INTERMEDIATE JOINT MODIFICATION

Approximately 33 lb. of Structural Steel per foot of intermediate joint modification (for information only).

Structural Steel (lb.)	Reinforcing Steel (lb.)	Concrete (cu. yd.)
28	6	0.04

APPROXIMATE QUANTITIES FOR BACKWALL MODIFICATION ②

Quantities shown are per foot of backwall and are for information only.

② The Contractor shall make measurements for the backwall at each end of the bridge affected prior to beginning work on the bridge. The top surface of the raised backwall shall match the top surface of the finished LMC Overlay on the adjacent bridge deck and the adjacent approach slabs and approach gutters.

Replacement concrete shall be high early strength Portland Cement Concrete Pavement per Subsection 501.08 or LMC (f'c = 4,000 psi). Reinforcing Steel shall conform to Section 804. Structural Steel and welding shall conform to Section 807. All Materials, Labor, Tools and Equipment shall not be paid for directly but shall be considered subsidiary to the item "Modification of Existing Bridge Structure (Bridge No.)".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16720
KENNETH RANDALL MILLER
8/30/18

SHEET 2 OF 2

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY WITH GRADE RAISE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

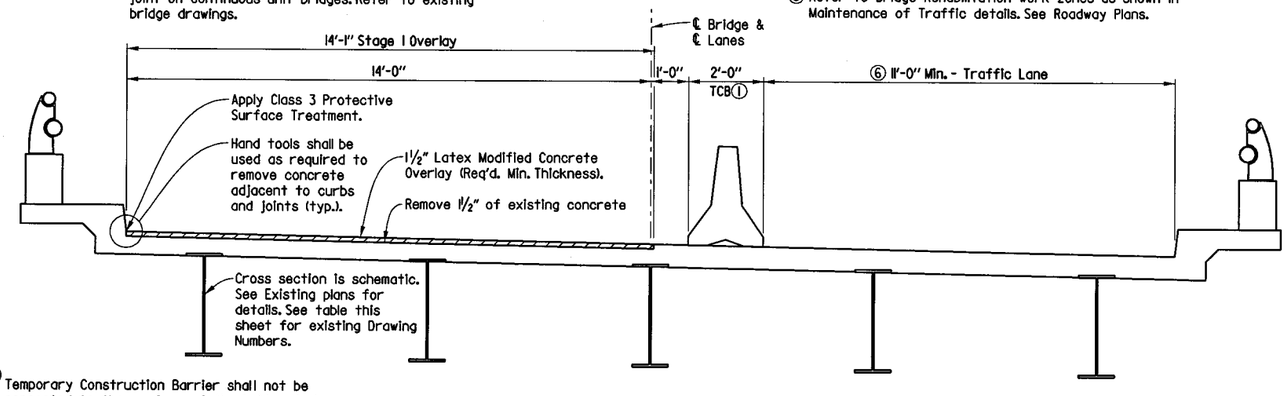
DRAWN BY: BWC DATE: 04-12-18 FILENAME: bbb0401_a_lmc2.dgn
CHECKED BY: CAW DATE: 04-16-18 SCALE: NO SCALE
DESIGNED BY: KRM DATE: 04-08-18

BRIDGE NO. 03270 DRAWING NO. 60194

USER: fe513
DESIGN FILE: G:\171210I_BB040I\TRANSP\dgn\bridge\bbb040I_a_lmc2.dgn
PLOTTED: 8/30/2018 08:19 SCALE: 1:3.92118

NOTE:
The minimum overlay placement length shall be a full span on simple span bridges and to an existing slab joint on continuous unit bridges. Refer to existing bridge drawings.

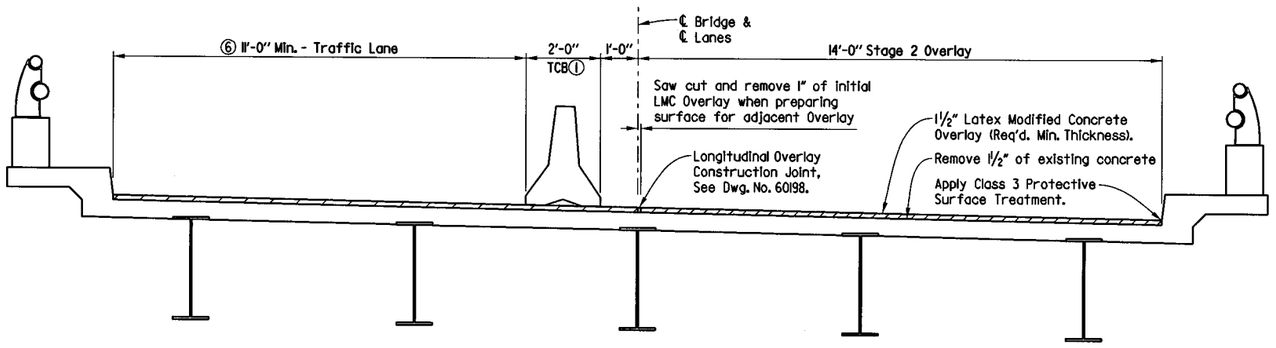
⑥ Refer to Bridge Rehabilitation work zones as shown in Maintenance of Traffic details. See Roadway Plans.



① Temporary Construction Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.

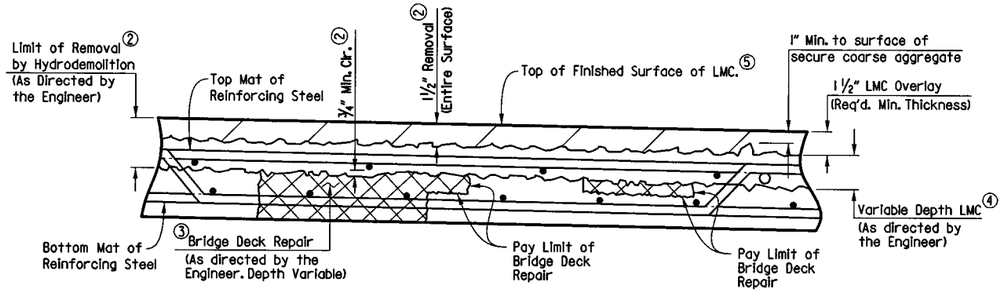
STAGE 1 LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction opposite of traffic)
Scale: ½" = 1'-0"



STAGE 2 LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction opposite of traffic)
Scale: ½" = 1'-0"



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

No Scale

② Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

③ Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the SP Job BB0401 "Bridge Deck Repair".

④ Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

⑤ Finished Surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				4	ARK.			
				JOB NO.		BB0401	139	234
				①	03452, 03455	LMC OVERLAY		60195

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structures based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structures.

The operation or placement of vehicles, equipment and, or materials on the subject bridges necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

Construction activities shall be in accordance with SP Job BB0401 "Special Safety Requirements" for Bridge No. 03452.

HYDRODEMOLITION: The entire area of the existing bridge deck shall receive hydrodemolition in accordance with the SP Job BB0401 "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0401 "Hydrodemolition". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with the existing reinforcing.

BRIDGE DECK REPAIR: After hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shall be removed at the direction of the Engineer and in accordance with SP Job BB0401 "Bridge Deck Repair".

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the existing bridge deck shall receive a Latex Modified Concrete (LMC) Overlay to a planned depth of 1½" below the existing bridge deck surface, in accordance with the SP Job BB0401 "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0401 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with SP Job BB0401 "Latex Modified Concrete Overlay".

SURFACE FINISH: The LMC Overlay surface of the bridge deck shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with SP Job BB0401 "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with SP Job BB0401 "Latex Modified Concrete Overlay". Longitudinal and transverse construction joints separating adjacent overlay placements shall be prepared and sealed as shown on Dwg. No. 60198.

The roadway surface of the LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

REFERENCE TABLE

BR. NO.	EXISTING DRAWING NUMBERS
03452	11510, 11514, 11515
03455	11524, 11527

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16720
8/30/18
KENNETH RANDALL MILLER

SHEET 1 OF 4

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: BWC DATE: 01-12-18 FILENAME: bbb0401_b_lmcl.dgn
CHECKED BY: CAW DATE: 01-16-18 SCALE: SEE DETAILS
DESIGNED BY: KRM DATE: 01-08-18

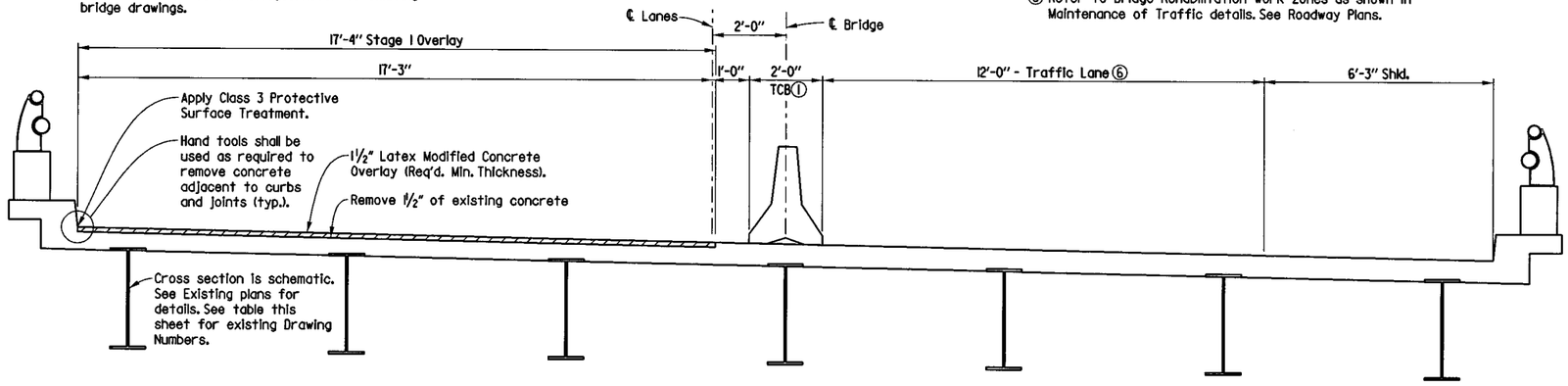
BRIDGE NOS. 03452, 03455 DRAWING NO. 60195

USER: fe513
DESIGN FILE: G:\1711210I_BB0401\TRANSP\dgn\bridge\bbb0401_b_lmcl.dgn
PLOTTED: 8/30/2018 08:19 SCALE: 1:3.92118

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				4	ARK.			
				JOB NO.		BB0401	140	234
				①	A&B3805, A&B3806	LMC OVERLAY		60196

NOTE:
The minimum overlay placement length shall be a full span on simple span bridges and to an existing slab joint on continuous unit bridges. Refer to existing bridge drawings.

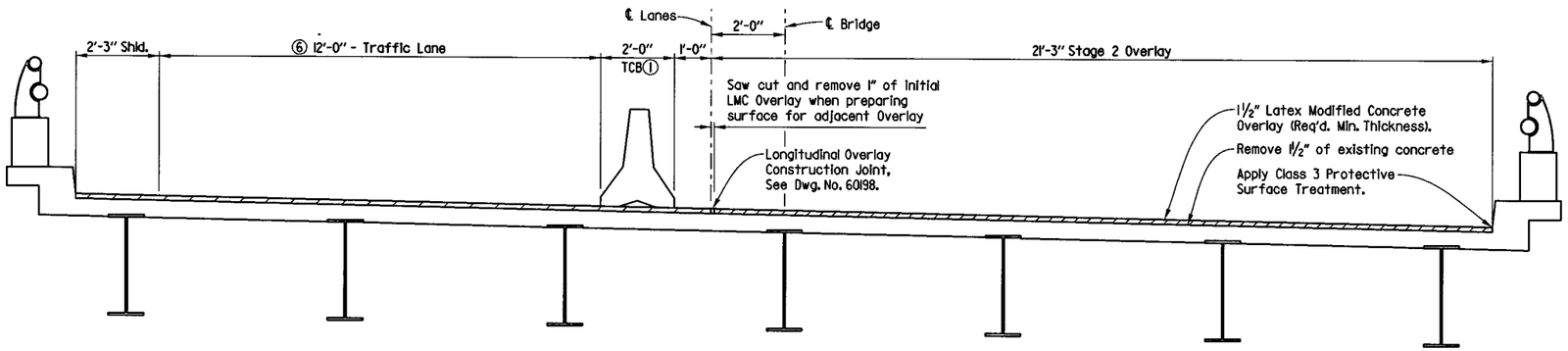
⑥ Refer to Bridge Rehabilitation work zones as shown in Maintenance of Traffic details. See Roadway Plans.



① Temporary Construction Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.

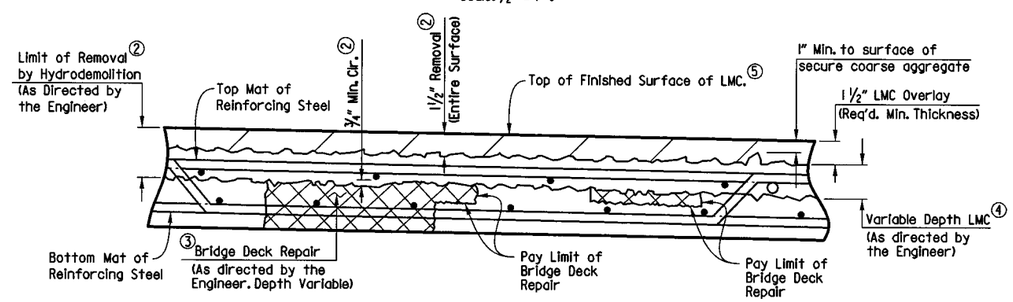
STAGE 1 LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic, A3805 shown, others similar)
Scale: ½" = 1'-0"



STAGE 2 LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic, A3805 shown, others similar)
Scale: ½" = 1'-0"



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

No Scale

② Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

③ Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the SP Job BB0401 "Bridge Deck Repair".

④ Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

⑤ Finished Surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structures based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structures.

The operation or placement of vehicles, equipment and, or materials on the subject bridges necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

Construction activities shall be in accordance with SP Job BB0401 "Special Safety Requirements" for Bridge Nos. A&B3805.

HYDRODEMOLITION: The entire area of the existing bridge deck and approach slabs for Br. Nos. A&B3805 and the existing bridge deck, approach slabs, and approach gutters for Br. Nos. A&B3806 shall receive hydrodemolition in accordance with the SP Job BB0401 "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0401 "Hydrodemolition". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with the existing reinforcing.

BRIDGE DECK REPAIR: After hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shall be removed at the direction of the Engineer and in accordance with SP Job BB0401 "Bridge Deck Repair".

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the existing bridge deck and approach slabs for Br. Nos. A&B3805 and the existing bridge deck, approach slabs, and approach gutters for Br. Nos. A&B3806 shall receive a Latex Modified Concrete (LMC) Overlay to a planned depth of 1½" below the existing bridge deck surface, in accordance with the SP Job BB0401 "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0401 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with SP Job BB0401 "Latex Modified Concrete Overlay".

SURFACE FINISH: The LMC Overlay surface of the bridge deck, and as appropriate, approach slabs, and approach gutters shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with SP Job BB0401 "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with SP Job BB0401 "Latex Modified Concrete Overlay". Longitudinal and transverse construction joints separating adjacent overlay placements shall be prepared and sealed as shown on Dwg. No. 60198.

The roadway surface of the LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

REFERENCE TABLE

BR. NO.	EXISTING DRAWING NUMBERS
A3805	12671, 12677, 12680
B3805	12671, 12677, 12680
A3806	12655, 12671, 12681, 12684
B3806	12655, 12671, 12681, 12684

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16720
6/30/18
KENNETH RANDALL MILLER

SHEET 2 OF 4

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

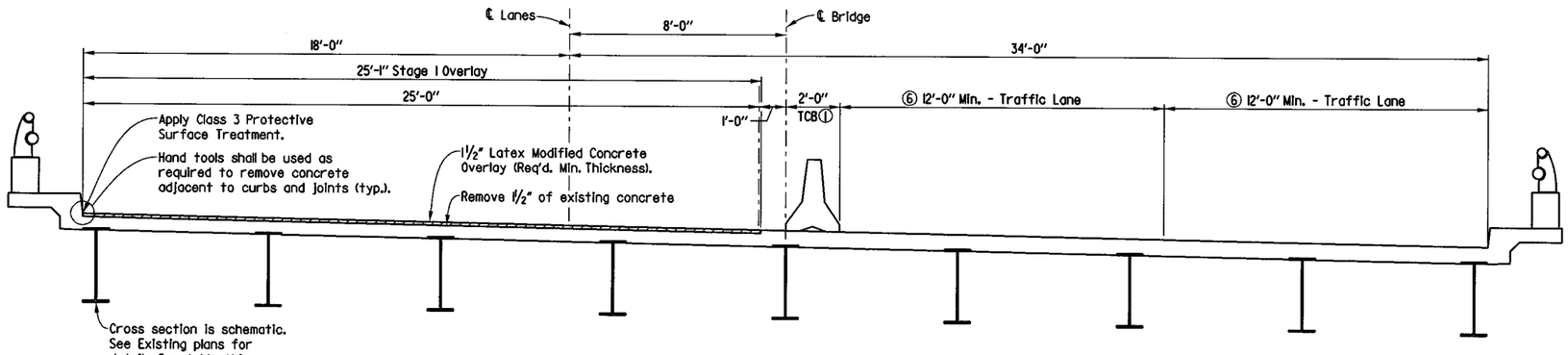
DRAWN BY: BWC DATE: 01-12-18
CHECKED BY: CAW DATE: 01-16-18
DESIGNED BY: KRM DATE: 01-08-18
FILENAME: bbb0401_b_lmc2.dgn
SCALE: SEE DETAILS

BRIDGE NOS. A&B3805, A&B3806 DRAWING NO. 60196

USER: fe513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\bridge\bbb0401_b_lmc2.dgn
PLOTTED: 8/30/2018 08:19
SCALE: li3.92118

NOTE:
The minimum overlay placement length shall be a full span on simple span bridges and to an existing slab joint on continuous unit bridges. Refer to existing bridge drawings.

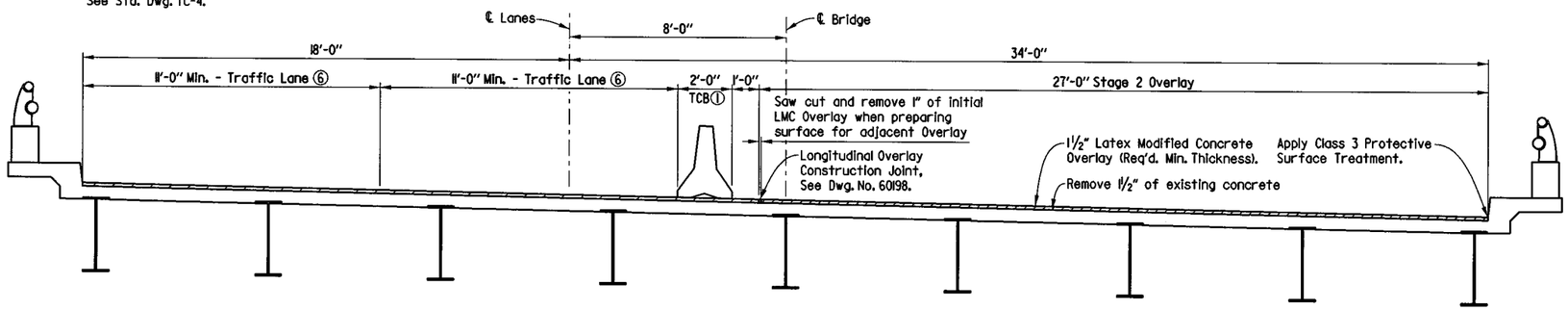
⑥ Refer to Bridge Rehabilitation work zones as shown in Maintenance of Traffic details. See Roadway Plans.



STAGE 1 LATEX MODIFIED CONCRETE OVERLAY

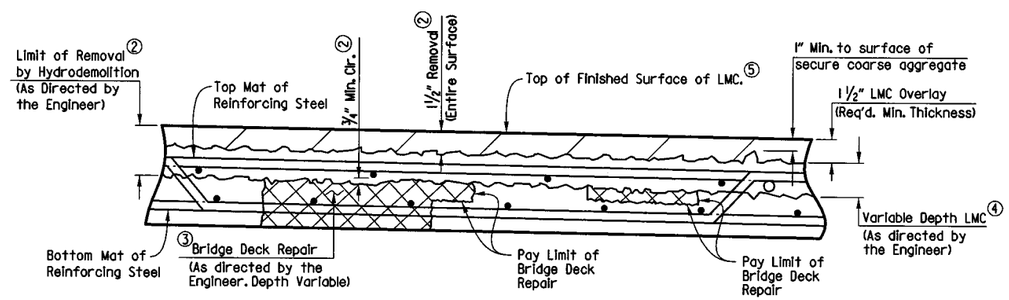
(Looking in direction of traffic, A3454 shown, others similar)
Scale: ⅜" = 1'-0"

① Temporary Construction Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.



STAGE 2 LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic, A3454 shown, others similar)
Scale: ⅜" = 1'-0"



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

No Scale

② Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

③ Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the SP Job BB0401 "Bridge Deck Repair".

④ Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

⑤ Finished Surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				4	ARK.			
				JOB NO.		BB0401	141	234
				①	A&B3454	LMC OVERLAY		60197

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structures based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structures.

The operation or placement of vehicles, equipment and, or materials on the subject bridges necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

HYDRODEMOLITION: The entire area of the existing bridge deck, approach slabs, and approach gutters shall receive hydrodemolition in accordance with the SP Job BB0401 "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0401 "Hydrodemolition". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with the existing reinforcing.

BRIDGE DECK REPAIR: After hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shall be removed at the direction of the Engineer and in accordance with SP Job BB0401 "Bridge Deck Repair".

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the existing bridge deck, approach slabs and approach gutters shall receive a Latex Modified Concrete (LMC) Overlay to a planned depth of 1½" below the existing bridge deck surface, in accordance with the SP Job BB0401 "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0401 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with SP Job BB0401 "Latex Modified Concrete Overlay".

SURFACE FINISH: The LMC Overlay surface of the bridge deck, approach slabs, and approach guters shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with SP Job BB0401 "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with SP Job BB0401 "Latex Modified Concrete Overlay". Longitudinal and transverse construction joints separating adjacent overlay placements shall be prepared and sealed as shown on Dwg. No. 60198.

The roadway surface of the LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

EXPANSION JOINT REHABILITATION: After the placement of the LMC Overlay, the existing expansion joints shallbe given a poured silicone joint sealant as specified in Section 809 and as shown for Br. No. A3454 in "Poured Silicone Joint Seal Details" on Dwg. No. 60198. Backwall repair, as directed by the Engineer, shall be completed prior to installation of silicone joint sealant. See Dwg. No. 60198 for additional details.

REFERENCE TABLE

BR. NO.	EXISTING DRAWING NUMBERS
A3454	11521, 11583A, 27972
B3454	11521, 11583A, 27972

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16720
5/30/18
KENNETH RANDALL MILLER

SHEET 3 OF 4

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

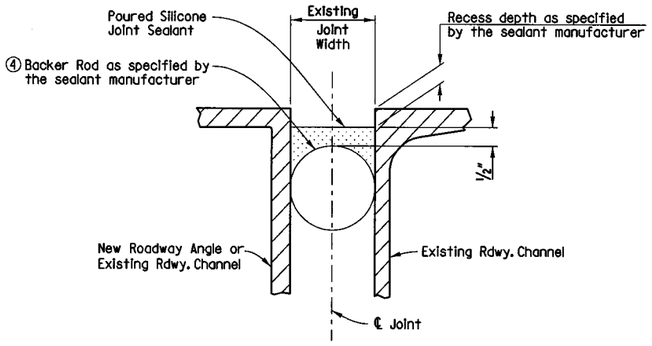
DRAWN BY: BWC DATE: 01-12-18 FILENAME: bbb0401_b_lmc3.dgn
CHECKED BY: CAW DATE: 01-16-18 SCALE: SEE DETAILS
DESIGNED BY: KRM DATE: 01-08-18

BRIDGE NOS. A&B3454 DRAWING NO. 60197

USER: fe513
DESIGN FILE: G:\17\12101_BB0401\TRANSP\dgn\bridge\bbb0401_b_lmc3.dgn
PLOTTED: 8/30/2018 08:19 SCALE: as.22825

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				4	ARK.			
				JOB NO.		BB0401	142	234

(1) 03452, 03455, LMC OVERLAY 60198
A&B3454, A&B3805, A&B3806



NOTES:
Backer rods shall be extended beyond the length of the poured joint in the initial joint rehabilitation area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint rehabilitaton. Manufacturer's recommendations shall be followed to prevent sealant leakage during rehabilitation work.

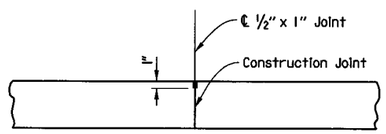
Existing Joint Seal shall be completely removed, backer rods placed, and Silicone Joint Sealant installed across the entire width of the bridge deck in accordance with these details and Manufacturer's instructions. Removal of existing Joint Seal will not be paid for directly, but shall be considered incidental to the item "Silicone Joint Sealant".

POURED SILICONE JOINT SEAL DETAILS

(Br. No. A3454 & B3454 only)
No Scale

④ Backer rod shall be appropriately sized and set to the depth shown in the manufacturer's literature based on the joint width at the time of sealing. Except as noted, do not install more backer rod than can be sealed in the same day. The Contractor shall verify separation of the backer rod from the joint material after joint material has set.

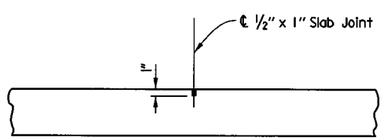
Backer rod shall be notched or otherwise fit around any existing seal supports or bumper plates to maintain its proper depth as defined above.



Use ½" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Sealant must be gray or other color similar to concrete.

LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL

No Scale

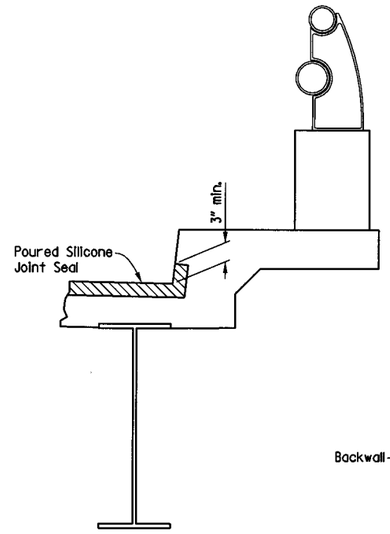


Use ½" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Slab joints shall extend to the outside edge of the deck slab. Slab joints shall be placed at all pouring sequence construction joints and are required at existing slab joint locations.

TRANSVERSE OVERLAY JOINT DETAIL

No Scale

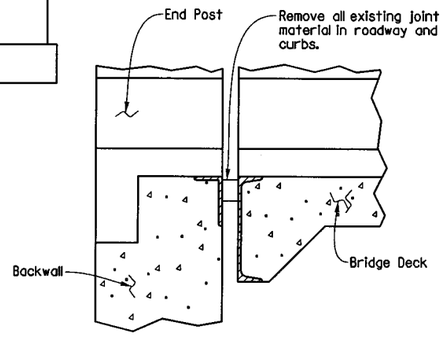
Slab joints and longitudinal construction joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the Overlay.



NOTE: Vertical joints may require forming. The clearance from deck surface to joint material shall be maintained.

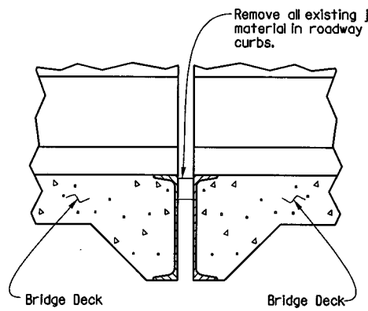
JOINT SEAL PLACEMENT AT CURB

(Br. No. A3454 & B3454 only)
No Scale



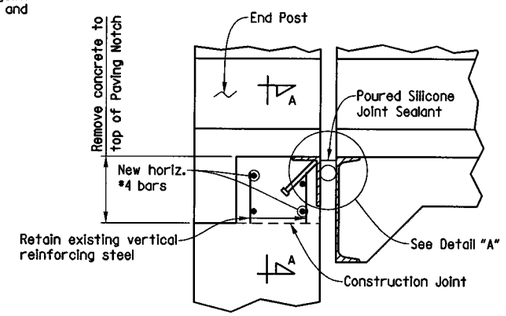
JOINT REMOVAL DETAILS AT END BENTS

(Br. No. A3454 & B3454 only)
No Scale



JOINT REMOVAL DETAILS AT INTERMEDIATE BENTS

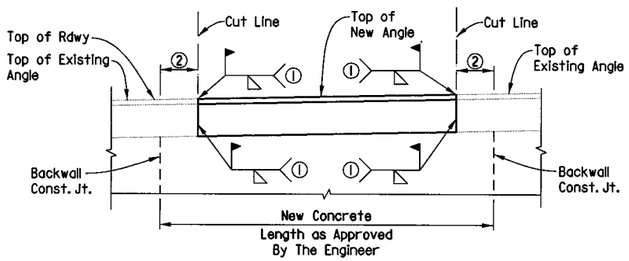
(Br. No. A3454 & B3454 only)
No Scale



DETAILS OF BACKWALL REPAIR

(Br. No. A3454 only)
No Scale

Note: Designated reinforcing steel to be retained shall be cleaned of all concrete and laitance. Care shall be exercised to prevent damage to the reinforcing during removal of existing concrete. Replacement of any damaged reinforcing steel shall be the responsibility of the Contractor.



VIEW A-A

(Br. No. A3454 only)
No Scale

① Grind flush

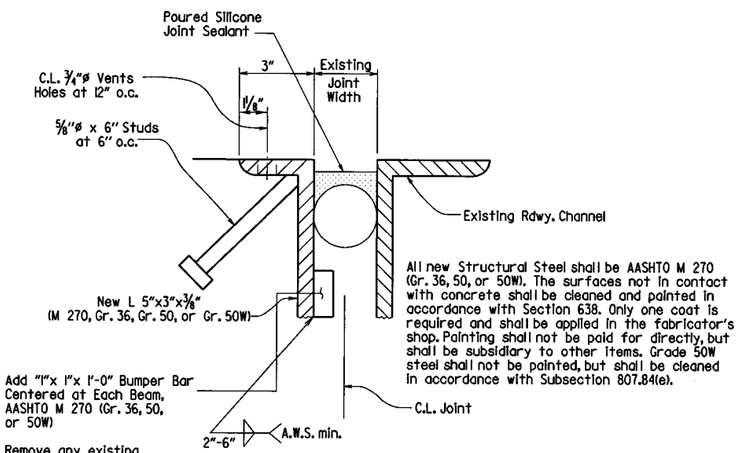
② Chip concrete away from existing angle to provide clearance to weld new angle

Br. No.	Structural Steel (lb.)	Reinforcing Steel (lb.)	Class S(AE) Concrete (cu. yd.)
A3454	10	3	0.03

Quantities shown are per foot of repair and are for information only.

APPROXIMATE QUANTITIES FOR BACKWALL REPAIR ③

③ The Contractor shall make measurements at the locations designated by the Engineer for Backwall Repair prior to beginning work on the Bridge. Replacement concrete shall be high early strength Portland Cement Concrete Pavement per Subsection 501.08 or LMC (f'c = 4,000 psi). Reinforcing Steel shall conform to Section 804. Structural Steel and welding shall conform to Section 807. All Materials, Labor, Tools and Equipment shall not be paid for directly but shall be considered subsidiary to the item "Modification of Existing Bridge Structure (Bridge No.)".



Remove any existing bumper bars from the existing roadway channel directly across from these locations.

DETAIL A

(Applies to Br. No. A3454 only)

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16720
KENNETH RANDALL MILLER
8/30/18

SHEET 4 OF 4

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: BWC DATE: 01-12-18 FILENAME: bbb0401_b_lmc4.dgn
CHECKED BY: CAW DATE: 01-18-18 SCALE: SEE DETAILS
DESIGNED BY: KRM DATE: 01-08-18

BRIDGE NOS. 03452, 03455, A&B3454, A&B3805, A&B3806

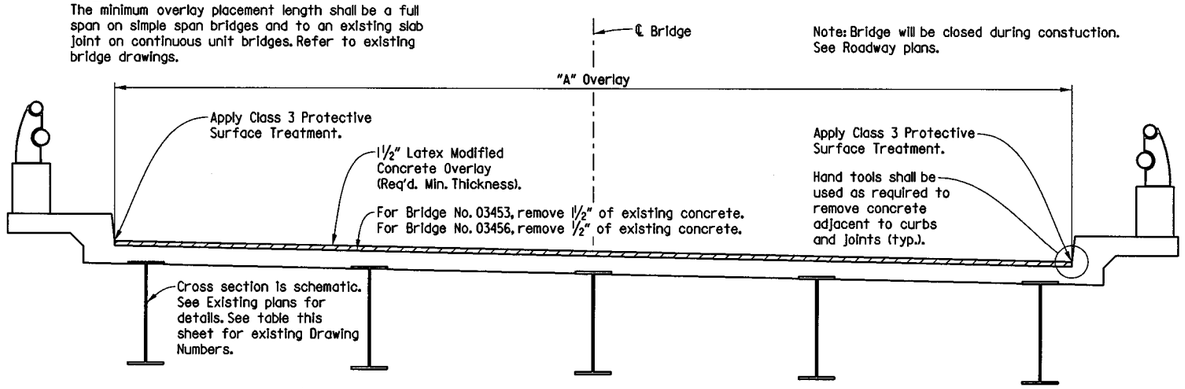
DRAWING NO. 60198

USER: tes13
DESIGN FILE: G:\1712101_BB0401\TRANSP\dgn\bridge\bbb0401_b_lmc4.dgn
PLOTTED: 8/30/2018 08:19
SCALE: 14.96059

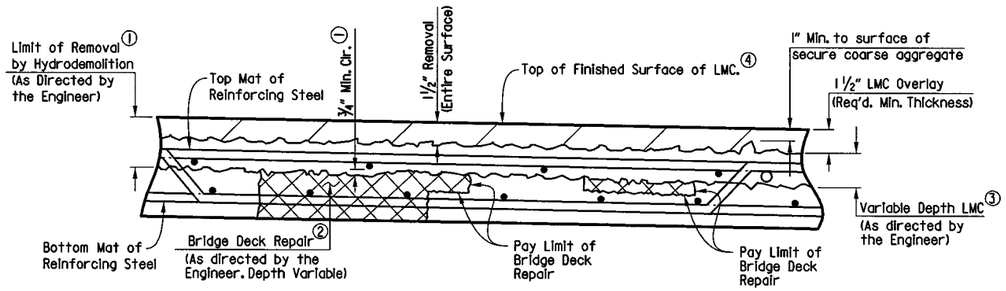
G:\1712101_BB0401\TRANSP\dgn\bridge\bbb0401_b_lmc4.dgn 8/30/2018 08:19

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				4	ARK.			
				JOB NO.		BB0401	143	234
				①	03453, 03456	LMC OVERLAY		60199

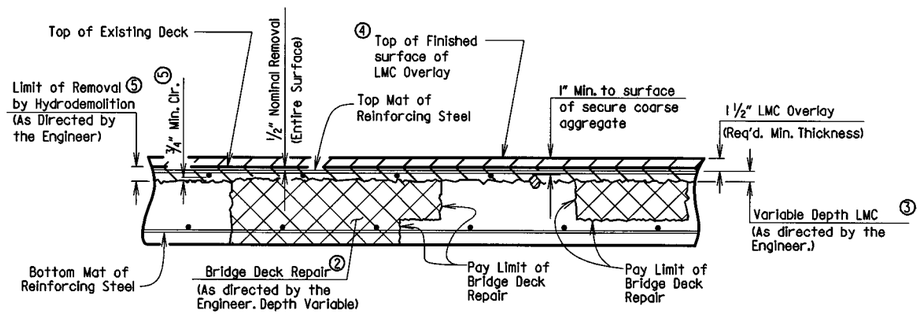
NOTE:
The minimum overlay placement length shall be a full span on simple span bridges and to an existing slab joint on continuous unit bridges. Refer to existing bridge drawings.



LATEX MODIFIED CONCRETE OVERLAY
(Looking in direction of traffic)
Scale: ½" = 1'-0"



DETAILS OF 1½" DEPTH HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY
(Applies to Bridge No. 03453)
No Scale



DETAILS OF ½" DEPTH HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY
(Applies to Bridge No. 03456)
No Scale

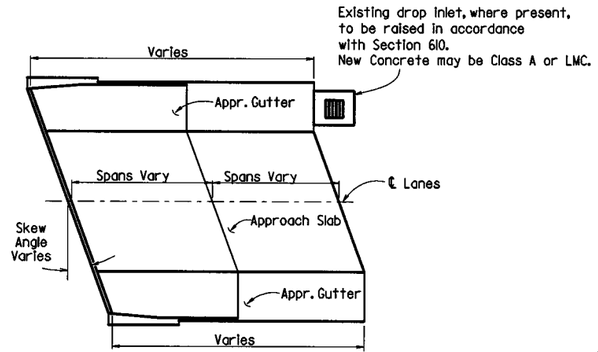
① Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

② Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the SP Job BB0401 "Bridge Deck Repair".

③ Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

④ Finished Surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.

⑤ Removal of unsound concrete beyond ½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.



LATEX MODIFIED OVERLAY ON BRIDGE APPROACHES
(Applies to Bridge No. 03456)

The Contractor shall remove ½" of existing concrete using hydrodemolition and construct a 1½" min. thickness LMC Overlay on the surface of the approach slabs and approach gutters to match increased LMC overlay grade on the bridge decks. All materials and methods shall conform to appropriate Job Special Provisions and the surface finish shall match that specified for the bridge deck. Joint treatments shall conform to the details on Drawing 60201.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structures based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structures.

The operation or placement of vehicles, equipment and, or materials on the subject bridges necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

Construction activities shall be in accordance with SP Job BB0401 "Special Safety Requirements" for Bridge No. 03453.

HYDRODEMOLITION: The entire area of the existing bridge deck, the south approach slab, and the north approach slab and approach gutters shall receive hydrodemolition in accordance with the SP Job BB0401 "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface for Br. No. 03453 and a planned depth of ½" below the existing bridge deck surface for Br. No. 03456. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0401 "Hydrodemolition". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" for Br. No. 03453 and a maximum depth of ½" for Br. No. 03456 will be allowed unless there will be a conflict with the existing reinforcing.

BRIDGE DECK REPAIR: After hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shall be removed at the direction of the Engineer and in accordance with SP Job BB0401 "Bridge Deck Repair".

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the existing bridge deck, the south approach slab, and the north approach slab and approach gutters shall receive a Latex Modified Concrete (LMC) Overlay to a planned depth of 1½" below the existing bridge deck surface for Br. No. 03453 and a 1½" minimum thickness for Br. No. 03456, in accordance with the SP Job BB0401 "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0401 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface for Br. No. 03453 and ½" below the existing bridge deck surface for Br. No. 03456 shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with SP Job BB0401 "Latex Modified Concrete Overlay".

SURFACE FINISH: The LMC Overlay surface of the bridge deck, the south approach slab, and the north approach slab and approach gutters shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with SP Job BB0401 "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with SP Job BB0401 "Latex Modified Concrete Overlay". Longitudinal and transverse construction joints separating adjacent overlay placements shall be prepared and sealed as shown on Dwg. No. 60201.

The roadway surface of the LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

EXPANSION JOINT REHABILITATION: After the placement of the LMC Overlay, the existing expansion joints shall be given a poured silicone joint sealant as specified in Section 809 and as shown for Br. No. 03456 in "Poured Silicone Joint Seal Details" on Dwg. No. 60201. Backwall repair, as directed by the Engineer, shall be completed prior to installation of silicone joint sealant. See Dwg. No. 60201 for additional details.

REFERENCE TABLE

BR. NO.	"A"	EXISTING DRAWING NUMBERS
03453	20'-0"	11516, 11518A, 11519, 11520
03456	26'-0"	11528, 11531

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16720
8/30/18
KENNETH RANDALL MILLER

SHEET 1 OF 3

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: BWC DATE: 01-12-18 FILENAME: bbb0401_c_lmcl.dgn
CHECKED BY: CAW DATE: 01-16-18 SCALE: SEE DETAILS
DESIGNED BY: KRM DATE: 01-08-18

BRIDGE NOS. 03453, 03456 DRAWING NO. 60199

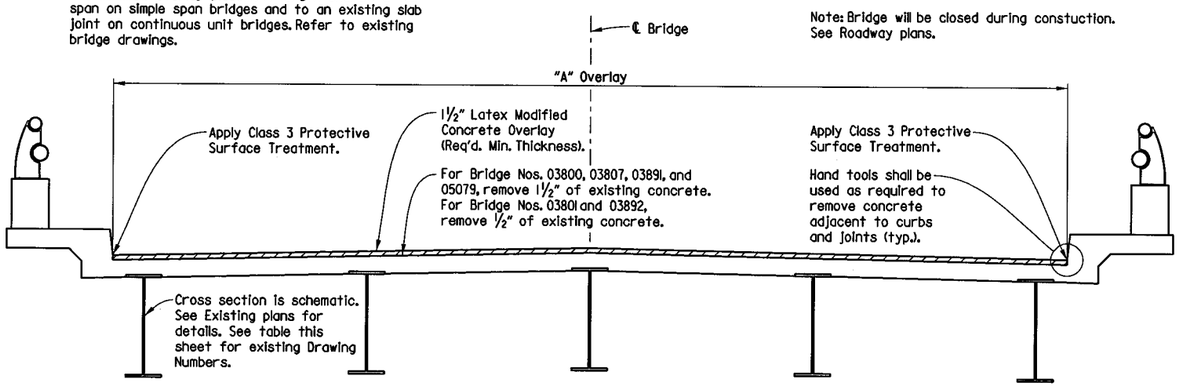
USER: fe513
DESIGN FILE: G:\7112101_BB0401\TRANSP\dgn\bridge\bbb0401_c_lmcl.dgn
PLOTTED: 8/30/2018 08:19 SCALE: 43.92118

G:\7112101_BB0401\TRANSP\dgn\bridge\bbb0401_c_lmcl.dgn 8/30/2018 08:19

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				4	ARK.			
				JOB NO.		BB0401	144	234

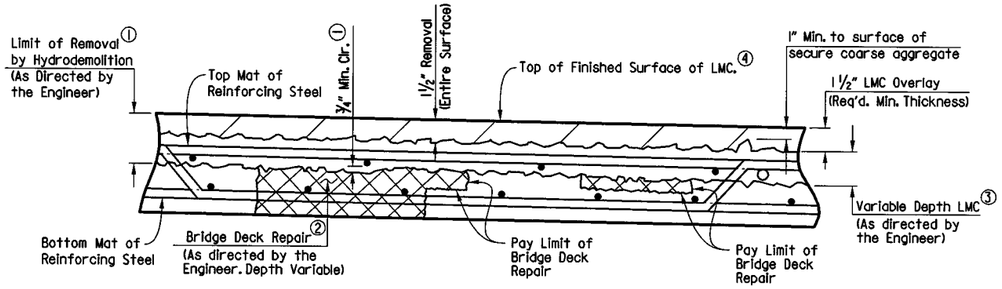
(1) 03800, 03801, 03807, LMC OVERLAY 60200
03891, 03892, 05079

NOTE:
The minimum overlay placement length shall be a full span on simple span bridges and to an existing slab joint on continuous unit bridges. Refer to existing bridge drawings.



LATEX MODIFIED CONCRETE OVERLAY

(Looking North)
Scale: ½" = 1'-0"



DETAILS OF 1½" DEPTH HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

(Applies to Bridge Nos. 03800, 03807, 03891, and 05079)
No Scale

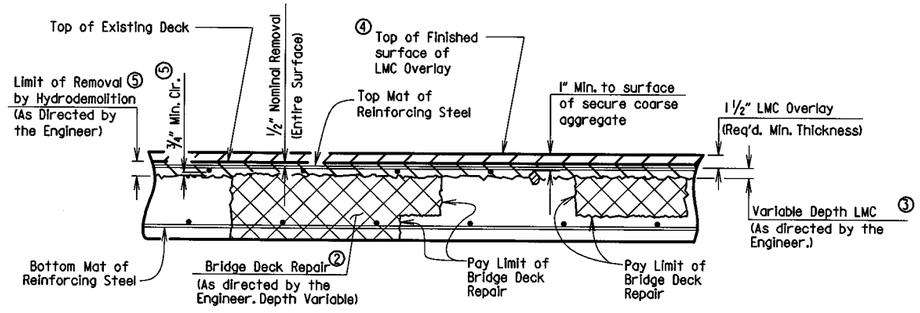
① Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

② Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the Job Special Provision "Bridge Deck Repair".

③ Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

④ Finished Surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.

⑤ Removal of unsound concrete beyond ½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.



DETAILS OF ½" DEPTH HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

(Applies to Bridge Nos. 03801 and 03892)
No Scale

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications. Unless otherwise noted in the plans, Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structures based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structures.

The operation or placement of vehicles, equipment and, or materials on the subject bridges necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

Construction activities shall be in accordance with SP Job BB0401 "Special Safety Requirements".

HYDRODEMOLITION: The entire area of the existing bridge deck shall receive hydrodemolition in accordance with the SP Job BB0401 "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface for Br. Nos. 03800, 03807, 03891, and 05079 and a planned depth of ½" below the existing bridge deck surface for Br. Nos. 03801 and 03892. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0401 "Hydrodemolition". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" for Br. Nos. 03800, 03807, 03891, and 05079 will be allowed unless there will be a conflict with the existing reinforcing.

BRIDGE DECK REPAIR: After hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shall be removed at the direction of the Engineer and in accordance with SP Job BB0401 "Bridge Deck Repair".

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the existing bridge deck shall receive a Latex Modified Concrete (LMC) Overlay to a planned depth of 1½" below the existing bridge deck surface for Br. Nos. 03800, 03807, 03891, and 05079 and a 1½" minimum thickness for Br. Nos. 03801 and 03892, in accordance with the SP Job BB0401 "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0401 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface for Br. Nos. 03800, 03807, 03891, and 05079 and a depth greater than ½" below the existing bridge deck surface for Br. Nos. 03801 and 03892 shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with SP Job BB0401 "Latex Modified Concrete Overlay".

SURFACE FINISH: The LMC Overlay surface of the bridge deck shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with SP Job BB0401 "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with SP Job BB0401 "Latex Modified Concrete Overlay". Longitudinal and transverse construction joints separating adjacent overlay placements shall be prepared and sealed as shown on Dwg. No. 60201.

The roadway surface of the LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

EXPANSION JOINT REHABILITATION: After the placement of the LMC Overlay, the existing expansion joints on Br. Nos. 03801 and 03892 shall be given a poured silicone joint sealant as specified in Section 809 and as shown in "Poured Silicone Joint Seal Details" on Dwg. No. 60201.

REFERENCE TABLE

BR. NO.	"A"	EXISTING DRAWING NUMBERS
03800	24'-0"	12652, 12655, 12656, 12657
03801	24'-0"	12655, 12656, 12657, 12658
03807	26'-0"	12655, 12693, 12696
03891	24'-0"	12819, 12824, 15015
03892	24'-0"	12820, 14990A, 15015
05079	24'-0"	13585, 13590, 13591, 14990C

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16720
KENNETH RANDALL MILLER
8/30/18

SHEET 2 OF 3

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: BWC DATE: XX-XX-XX
CHECKED BY: CAW DATE: XX-XX-XX
DESIGNED BY: KRM DATE: XX-XX-XX
FILENAME: bbb0401_d_lmcl.dgn
SCALE: SEE DETAILS

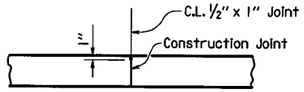
BRIDGE NOS. 03800, 03801, 03807, 03891, 03892, 05079

DRAWING NO. 60200

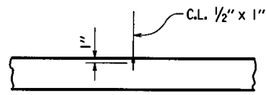
USER: fe5l3
DESIGN FILE: G:\1711201_BB0401\TRANSP\dgn\bridge\bbb0401_d_lmcl.dgn
PLOTTED: 8/30/2018 08:19
SCALE: 1:3.92118

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				4	ARK.			
				JOB NO.		BB0401	145	234

(1) 03453, 03456, 03800, 03801, 03807, 03891 03892, 05079 — LMC OVERLAY — 60201



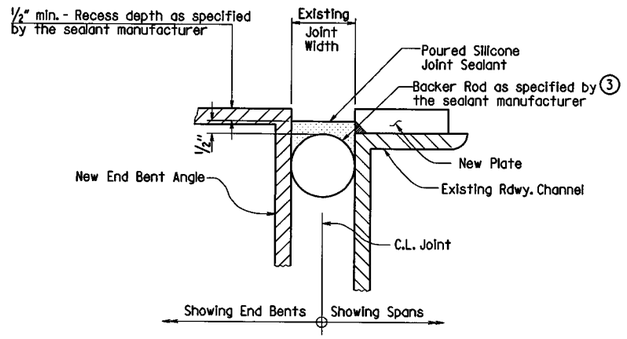
Use ½" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Sealant must be gray or other color similar to concrete.



Use ½" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Slab joints shall extend to the outside edge of the deck slab. Slab joints shall be placed at all pouring sequence construction joints and are required at existing slab joint locations.

Slab joints and longitudinal construction joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the Overlay.

LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL



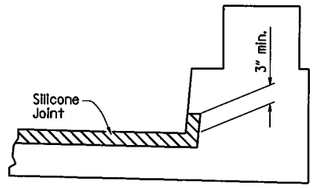
Existing Joint Seal shall be completely removed, backer rods placed, and Silicone Joint Sealant installed across the entire width of the bridge deck in accordance with these details and Manufacturer's Instructions. Removal of existing Joint Seal will not be paid for directly, but shall be considered incidental to the item "Silicone Joint Sealant".

Notes: Backer rods shall be extended beyond the length of the poured joint in the initial joint rehabilitation area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint rehabilitaton. Manufacturer's recommendations shall be followed to prevent sealant leakage during rehabilitation work.

POURED SILICONE JOINT SEAL DETAILS

(Applies to Br. No. 03456, 03801 & 03892 only)

TRANSVERSE OVERLAY JOINT DETAIL

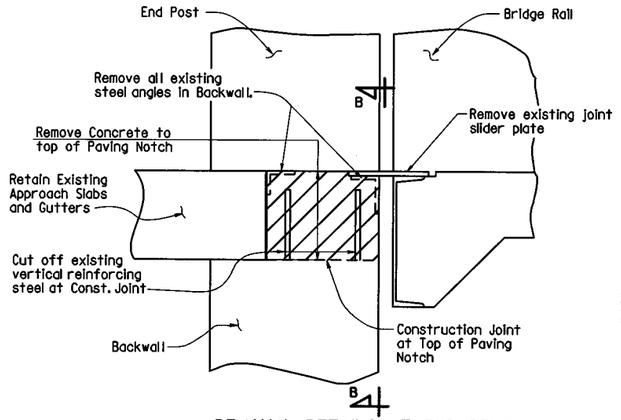


Note: Vertical joints may require forming. The clearance from deck surface to joint material shall be maintained.

JOINT SEAL PLACEMENT AT CURB

③ Backer rods shall be appropriately sized and set to the depth shown in the manufacturer's literature based on the joint width at the time of sealing. Except as noted, do not install more backer rod than can be sealed in the same day. The Contractor shall verify separation of the backer rod from the joint material after joint material has set.

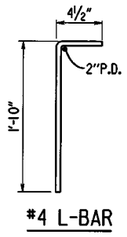
Backer rod shall be notched or otherwise fit around any existing seal supports or bumper plates to maintain its proper depth as defined above.



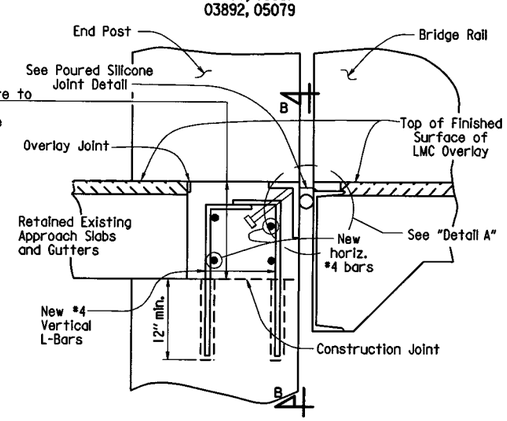
REMOVAL DETAILS AT END BENTS

(Applies to Br. Nos. 03456, 03801 & 03892 only)

Removal shall be in accordance with Section 821 and all removed portions of the existing backwall and joint materials shall become the property of the Contractor and shall be disposed of in accordance with Section 205.



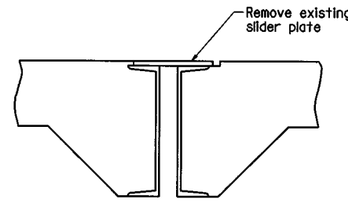
#4 L-BAR



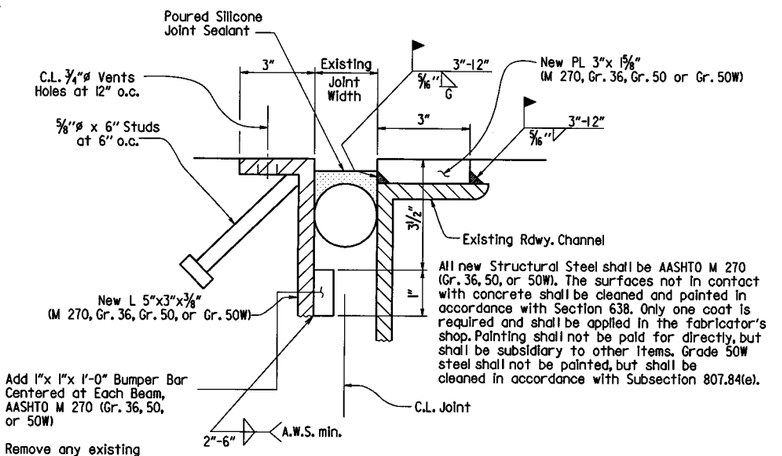
DETAILS OF BACKWALL MODIFICATION

(Applies to Br. Nos. 03456, 03801 & 03892 only)

Grout new #4 L-bars into drilled holes spaced to avoid existing reinforcing steel (12" o.c. max.). Grout shall be an approved non-shrink or epoxy grout listed on the QPL. Hole diameter and installation procedure shall be as required by the grout manufacturer.



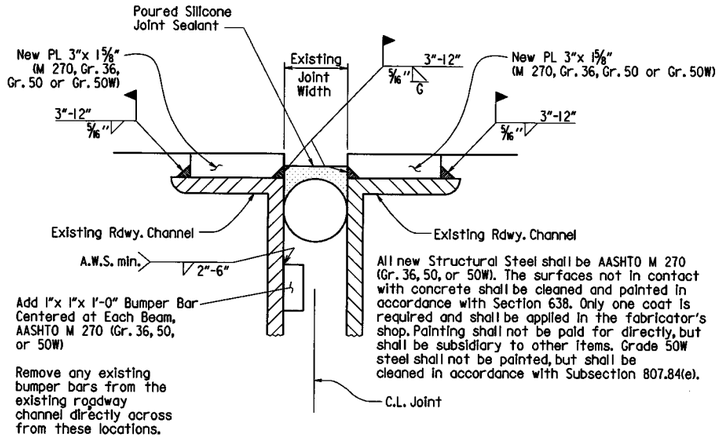
REMOVAL DETAILS AT INTERIOR BENTS



All new Structural Steel shall be AASHTO M 270 (Gr. 36, 50, or 50W). The surfaces not in contact with concrete shall be cleaned and painted in accordance with Section 638. Only one coat is required and shall be applied in the fabricator's shop. Painting shall not be paid for directly, but shall be subsidiary to other items. Grade 50W steel shall not be painted, but shall be cleaned in accordance with Subsection 807.84(e).

DETAIL A

(Applies to Br. Nos. 03456, 03801 & 03892 only)



All new Structural Steel shall be AASHTO M 270 (Gr. 36, 50, or 50W). The surfaces not in contact with concrete shall be cleaned and painted in accordance with Section 638. Only one coat is required and shall be applied in the fabricator's shop. Painting shall not be paid for directly, but shall be subsidiary to other items. Grade 50W steel shall not be painted, but shall be cleaned in accordance with Subsection 807.84(e).

DETAILS OF INTERMEDIATE JOINT MODIFICATION

(Applies to Br. Nos. 03456, 03801 & 03892 only)
Approximately 33 lb. of Structural Steel per foot of intermediate joint modification (for information only).

Structural Steel (lb.)	Reinforcing Steel (lb.)	Concrete (cu. yd.)
28	6	0.04

APPROXIMATE QUANTITIES FOR BACKWALL MODIFICATION ②

(Applies to Br. No. 03456, 03801 & 03892 only)

Quantities shown are per foot of backwall and are for information only.

② The Contractor shall make measurements for the backwall at each end of the bridge affected prior to beginning work on the bridge. The top surface of the raised backwall shall match the top surface of the finished LMC Overlay on the adjacent bridge deck and the adjacent approach slabs and approach gutters.

Replacement concrete shall be high early strength Portland Cement Concrete Pavement per Subsection 501.08 or LMC (f'c = 4,000 psi). Reinforcing Steel shall conform to Section 804. Structural Steel and welding shall conform to Section 807. All Materials, Labor, Tools and Equipment shall not be paid for directly but shall be considered subsidiary to the item "Modification of Existing Bridge Structure (Bridge No.)".

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 16720
KENNETH RANDALL MILLER
8/30/18

SHEET 3 OF 3

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

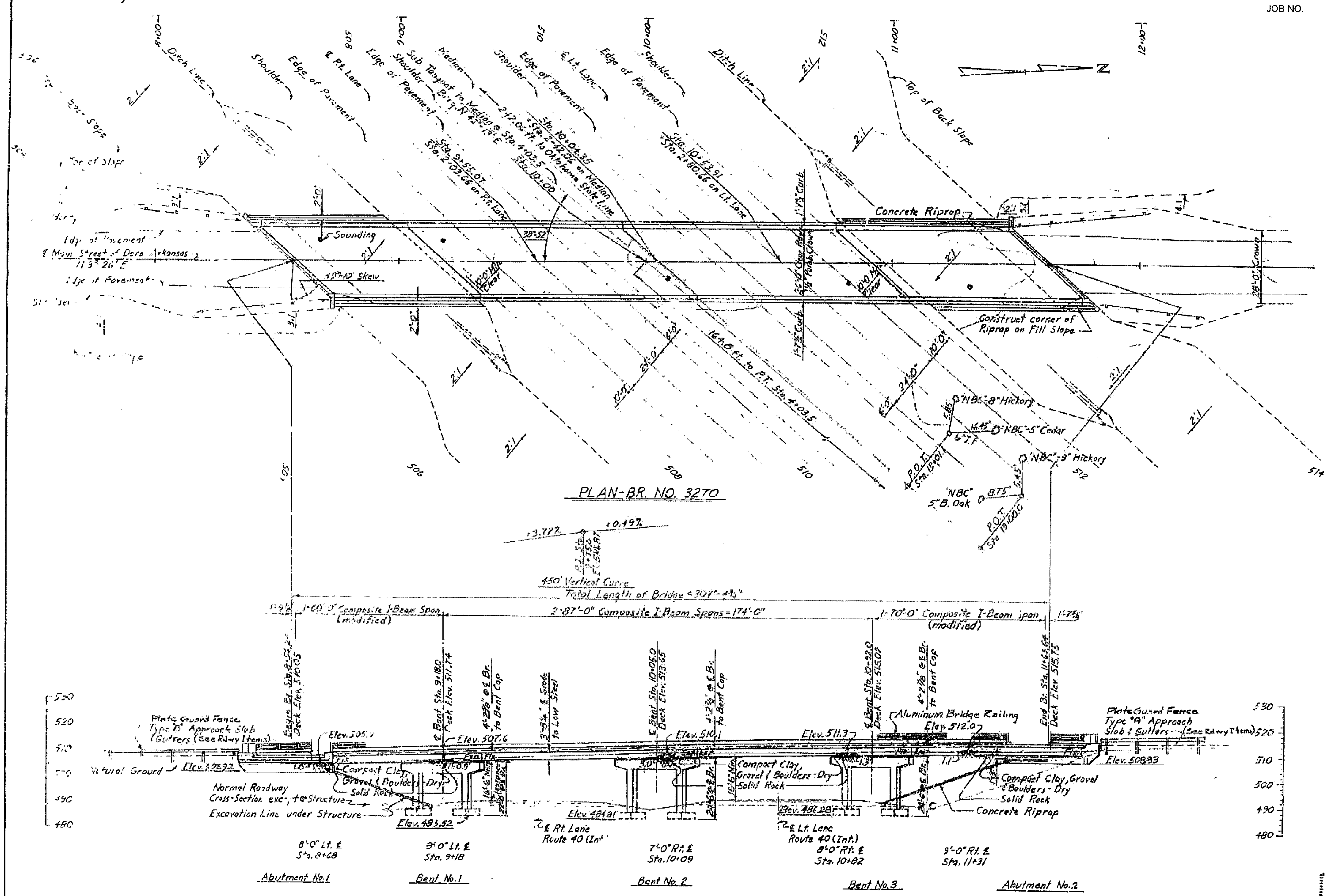
DRAWN BY: BWC DATE: 01-12-18
CHECKED BY: CAW DATE: 01-16-18
DESIGNED BY: KRM DATE: 01-08-18

FILENAME: bbb0401_d_lmc2.dgn
SCALE: NO SCALE

BRIDGE NOS. 03453, 03456, 03800, 03801, 03807, 03891, 03892, 05079 — DRAWING NO. 60201

USER: fe513
DESIGN FILE: G:\TI\21201_BB0401\TRANSP\dgn\bridge\bbb0401_d_lmc2.dgn
PLOTTED: 8/30/2018 08:19
SCALE: 1:3.9218

RIGHT OF WAY DATA
See Roadway Plans



ELEVATION - BR. NO. 3270

CURVE DATA (Median)
P.I. Sta. 493+89.32 - Oklahoma
Δ = 32°-15' Lt.
D = 1°-12'
T = 780.39
L = 2687.50'
P.T. Sta. 4+03.50 - Arkansas
State Line - Oklahoma Sta. 502+92.92
= Arkansas Sta. 0+00.00

GENERAL NOTES

All concrete to be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

In general all construction joints in abutments and bents shall be horizontal and shall be provided with keys not less than 1½" high and covering the middle third of both dimensions.

Rock excavation shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock.

For Details of Abutments see Drwg. No. 10602 & 10605
For Details of Bents see Drwg. No. 10603 & 10604
For Details of Superstructure see Drwgs. No. 5456 B and supplementary Drwgs No. 10606, 10607 & 10608

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction Edition of 1959; and designated Special Provisions. For Details of Concrete Riprap see Drwg. No. 10600

DESIGN SPECIFICATIONS - A.A.S.H.O. 1957

Live Loading:	H-20
Unit Stresses:	
Class A Concrete (n=15)	840 psi
Class S Concrete (n=10)	1200 psi
Reinforcing Steel	20,000 psi
Structural Steel	18,000 psi

BENCH MARKS:
Greenwood No. 2 Δ Ref. Point 200 ft. rt. of Median Oklahoma Sta. 501+70 - Elev. 506.02
Nail in side of Power Pole - 35 ft. Lt. of ℄ Main St. Sta. 8+73 - Elev. 508.26

Note:
Foundation Pressure (Calculated) under Bent #2 = 5.0 Tons/sq ft (Group III Loading)

Revised to provide 16'-0" Vertical Clearance; Specification reference; approach slabs & guard fence.
Revisions checked - J.M.H. 5-18-60

FOR INFORMATION ONLY

LAYOUT OF DORA INTERCHANGE
OKLAHOMA STATE LINE - JCT. HWY. 59
CRAWFORD COUNTY
ROUTE 40(INT) SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

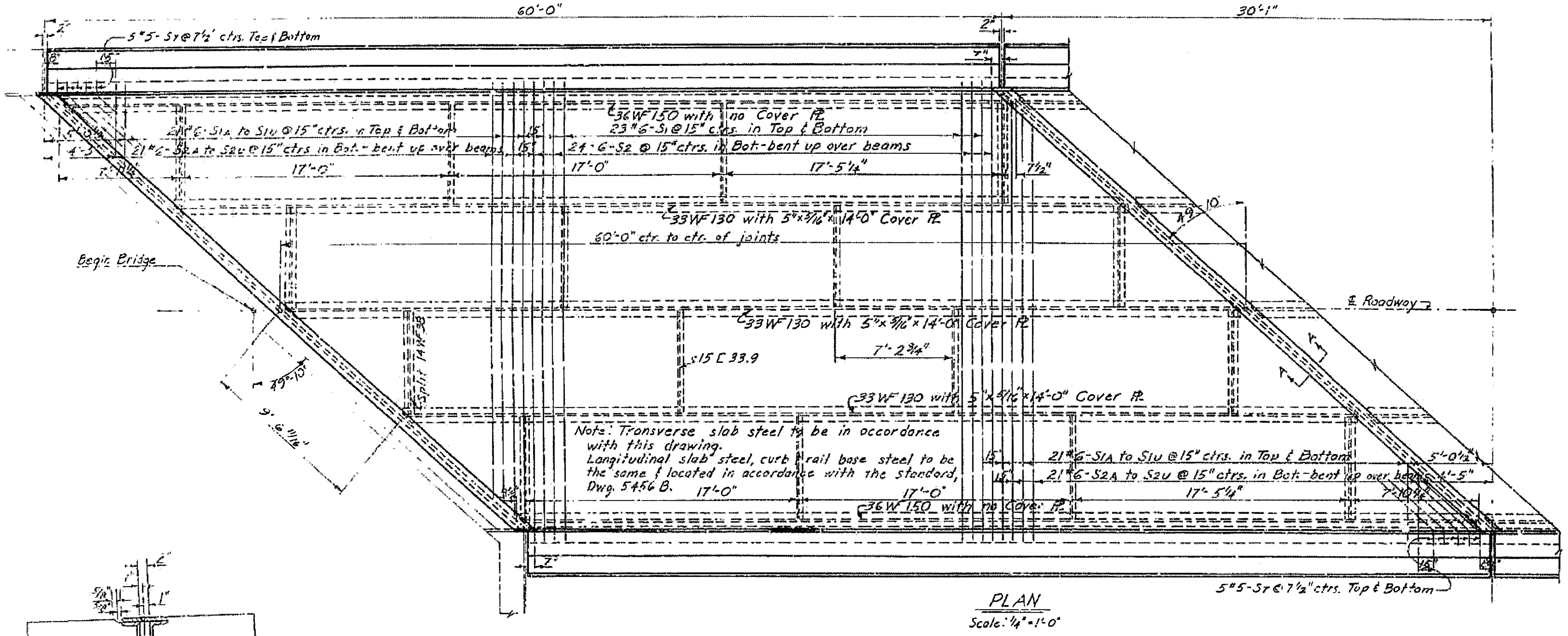
DRAWN BY: RHO DATE: 3-10-59
TRACED BY: DATE:
CHECKED BY: JMH DATE: 8-13-59
SCALE: 1" = 20'-0"

L.P. Carlson
BRIDGE ENGINEER

BRIDGE NO. 3270
DRAWING NO. 10601

		SHEET NO.	TOTAL SHEETS
JOB NO.	BB0401	147	234

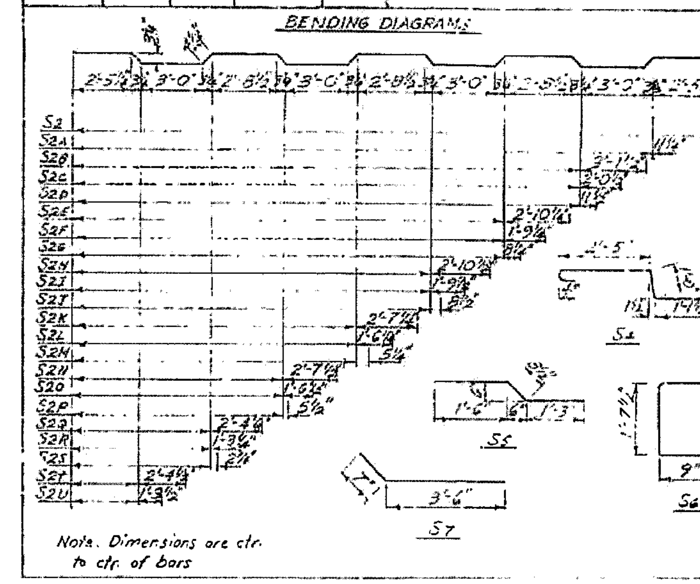
ARK. I-40-1( )10 4462



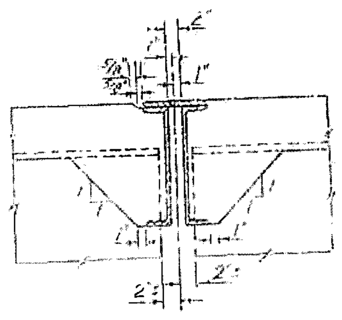
PLAN
Scale: ¼" = 1'-0"

REINFORCING STEEL				
MARK	SIZE	NO.	LENGTH	PIN D.
S1	#6	46	27'-2"	Str.
S1A to S1U	#6	4 each	4'-7" to 26'-3"	Str.
S2	#6	24	27'-10"	3¾"
S2A to S2U	#6	2 each	22'-4" to 4'-1"	3¾"
S3	#4	183	20'-11"	Str.
S3A	#4	12	19'-5"	3"
S4	#4	98	4'-11"	3"
S5	#4	94	3'-6"	3"
S6	#4	98	5'-4"	1½"
S7	#5	20	4'-1"	1¾"

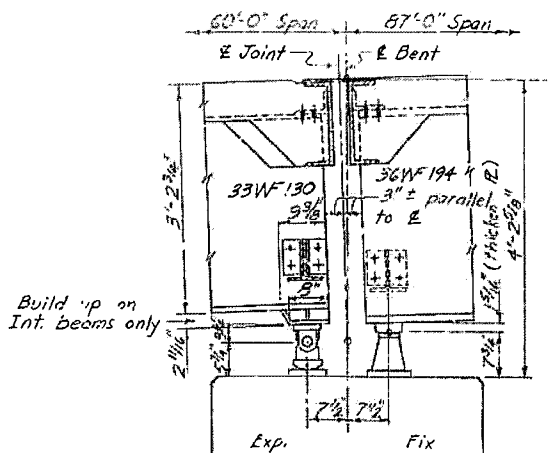
BENDING DIAGRAMS



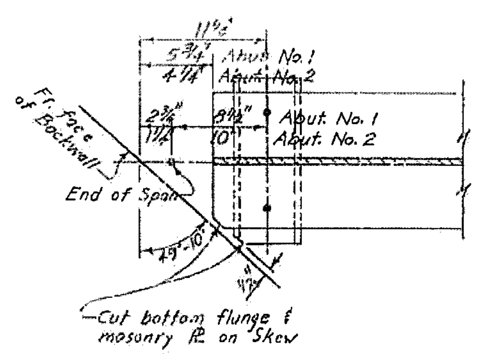
Note. Dimensions are ctr. to ctr. of bars

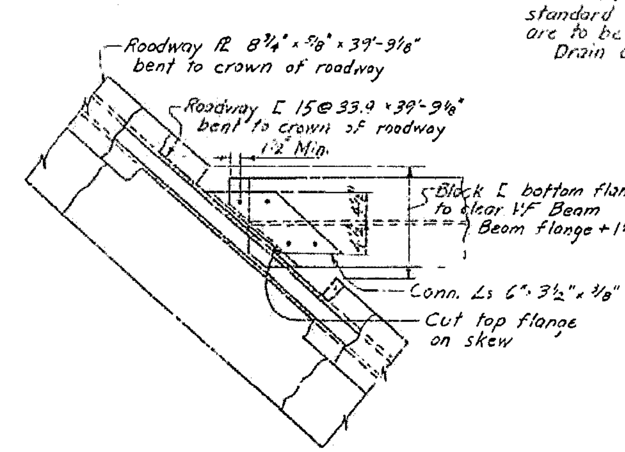


SECTION A-A
Scale: 1" = 1'-0"



SECTION AT BENT No. I
Scale: ¾" = 1'-0"



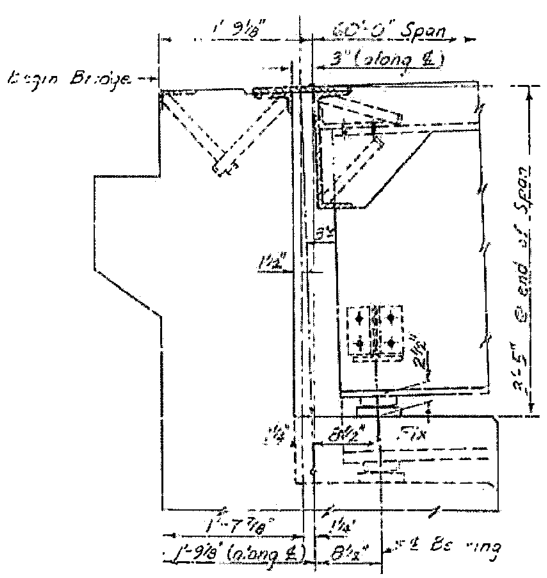


TYPICAL DETAILS OF EXPANSION DEVICE
Scale: 1" = 1'-0"

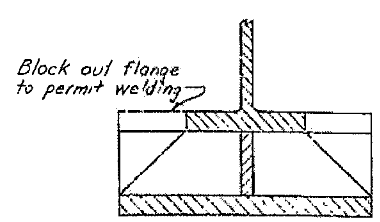
GENERAL NOTES

For General Notes see Dwg. 5456 B (10601)
Details shown are for the modification of the standard to compensate for skew. All details not shown are to be in accordance with standard, Dwg. 5456 B.
Drain openings are to be omitted

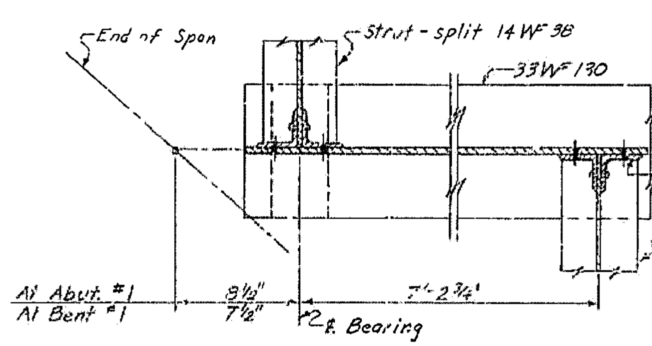
PRECAMBER DATA		
BEAM	INT.	EXT.
D.L. Deflection	7/8"	1⅛"
V.C. Correction	⅜"	⅜"
Total Precamber	1¼"	1½"



SECTION AT ABUT. No. 1
Parallel to ℄ Roadway
Scale: 1" = 1'-0"



SECTION THRU BEAM BUILD UP
Scale: 3" = 1'-0"



DETAILS AT ENDS OF BEAMS
Scale: 1½" = 1'-0"

Revised size of bars S1, S2, S1A-S1U, S2A-S2U
Increased No. of S3 bars

FOR INFORMATION ONLY

SUPPLEMENTAL DETAILS FOR SPAN No. I
60'-0" COMPOSITE I-BEAM SPAN
DORA INTERCHANGE
OKLAHOMA STATE LINE - JCT. HWY. 59
CRAWFORD COUNTY
ROUTE 40 (Int.) SEC. I

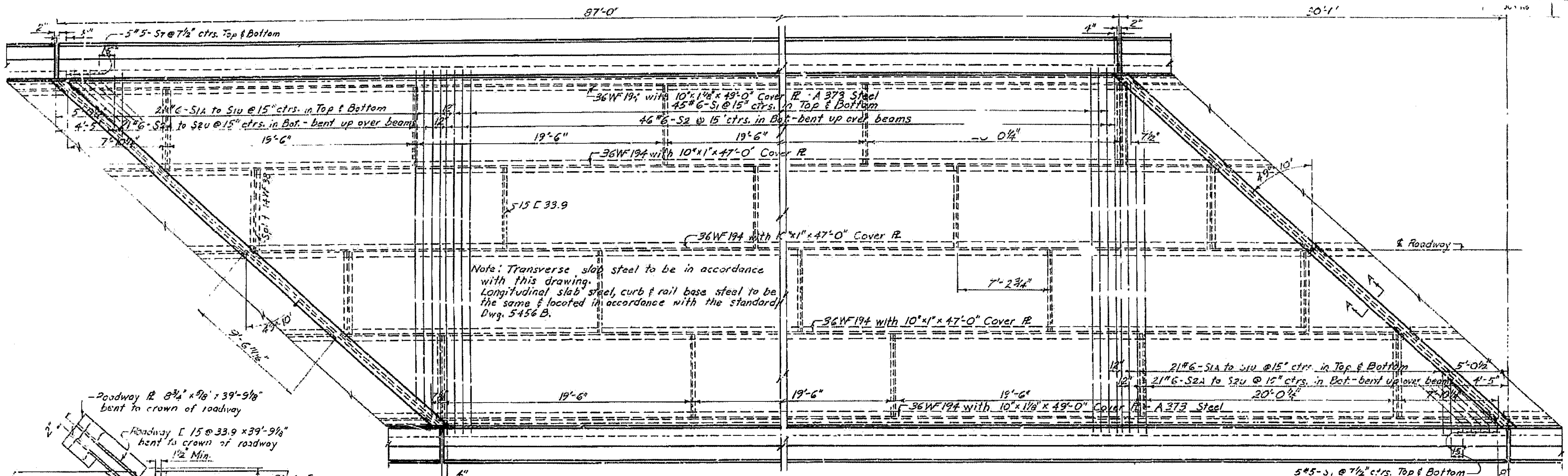
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: RHO DATE: 5-26-59
TRACED BY: DATE:
CHECKED BY: JMH DATE: 8-13-59
SCALE: As Shown

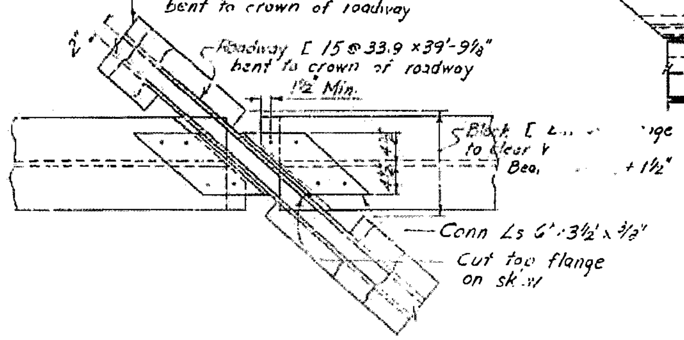
BRIDGE ENGINEER

BRIDGE NO. 3270 DRAWING NO. 10606

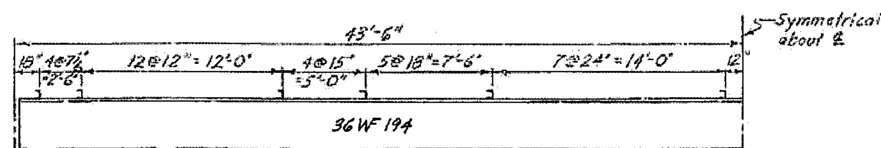
JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	148	234



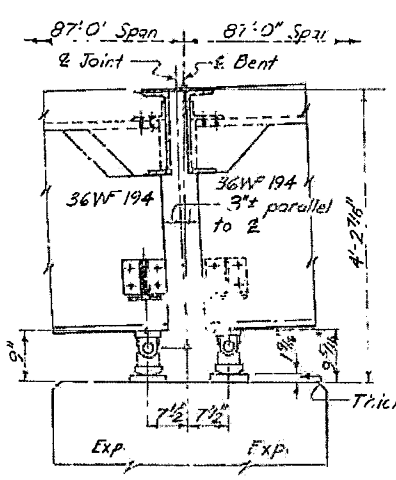
PLAN
Scale: ¼"=1'-0"



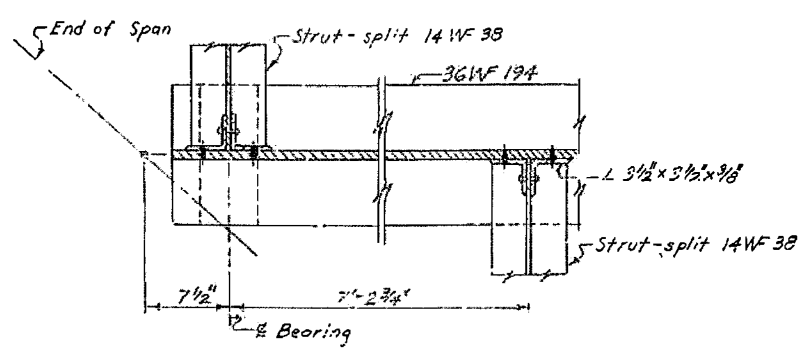
TYPICAL DETAILS OF EXPANSION DEVICE
Scale: 1"=1'-0"



SPACING OF SHEAR CONNECTORS



SECTION AT BENT No. 2
Scale: ¾"=1'-0"



DETAILS AT ENDS OF BEAMS
Scale: 1½"=1'-0"

REINFORCING STEEL				
MARK	SIZE	NO.	LENGTH	PIN D.
S1	#6	90	27'-2"	Str.
S1A to S1U	#6	4 each	4'-7" to 26'-9"	Str.
S2	#6	46	27'-10"	3¾"
S2A to S2U	#6	2 each	26'-4" to 4'-1"	3¾"
S3	#4	183	29'-11"	Str.
S3A	#4	12	28'-5"	Str.
S4	#4	140	4'-11"	3"
S5	#4	136	3'-6"	3"
S6	#4	140	5'-4"	1½"
S7	#5	20	4'-1"	1⅞"

Note: Dimensions are ctr. to ctr.
For Bending Diagrams see Dwg. No. 10606

DATA FOR SPANS 2 & 3						
Span "S"	Cover Plate		Post Spacing			e
	Interior	Exterior	A	B	C	
87'-0"	10"x1"x47'-0"	10"x1⅛"x49'-0"	7'-3½	7'-9"	9	3'-5⅜"

Steel for exterior beams & cover plates shall conform to the specifications for Structural Steel for Welding, ASTM Designation A 373.

GENERAL NOTES

For General Notes and details not shown on this drawing, see Dwg. 5456 B & 10601
For Section A-A, see Dwg. No. 10606
Drain openings are to be omitted.

Revised size of S1, S2, S1A-S1U, S2A-S2U
Increased No. of S3 bars 10 May 60 GHL

PRECAMBER DATA		
BEAM	INT.	EXT.
D.L. Deflection	2½"	3"
V.C. Correction	⅞"	⅞"
Total Precamber	3⅜"	3⅞"

FOR INFORMATION ONLY

SUPPLEMENTAL DETAILS FOR SPANS No. 2 & 3
87'-0" COMPOSITE I-BEAM SPANS
DORA INTERCHANGE
OKLAHOMA STATE LINE - JCT. HWY. 59
CRAWFORD COUNTY
ROUTE 40 (Int.) SEC. I

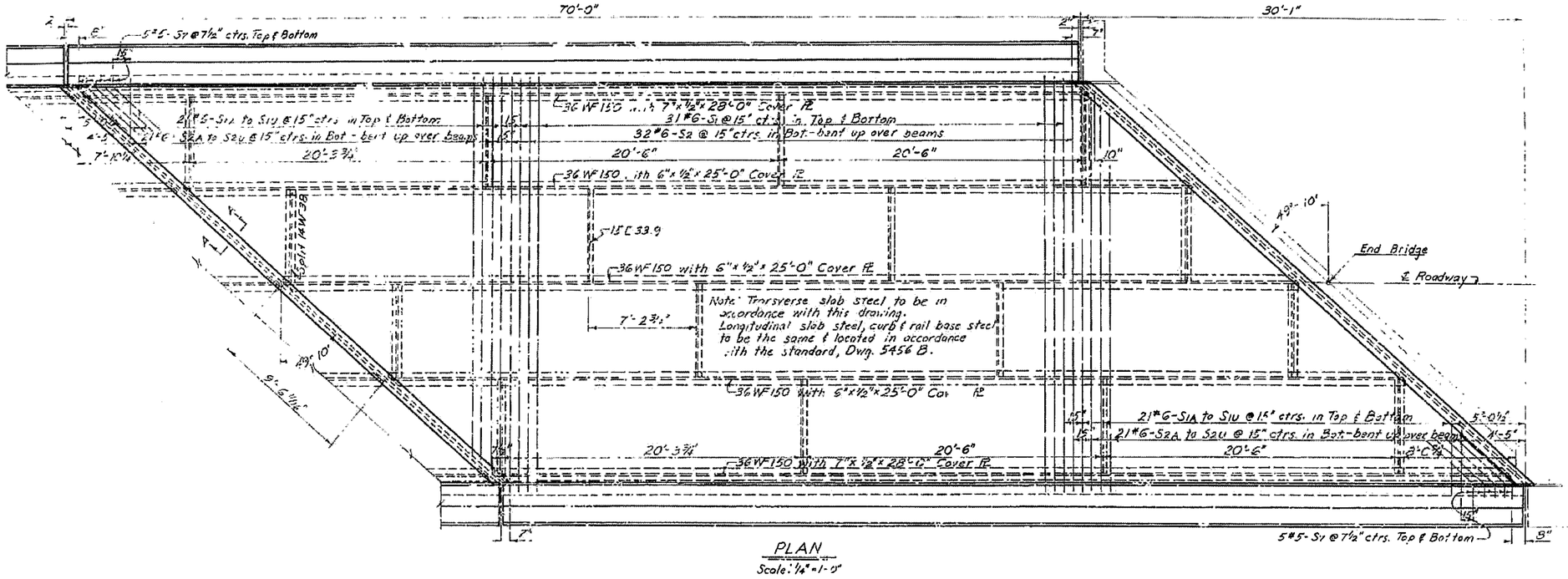
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: RHO DATE: 5-29-59
TRACED BY: DATE:
CHECKED BY: JMH DATE: 8-13-59
SCALE: As Shown

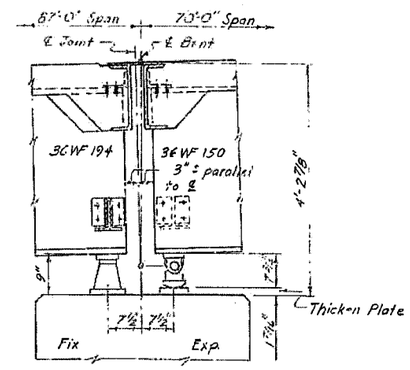
BRIDGE ENGINEER

BRIDGE NO. 3270 DRAWING NO. 10607

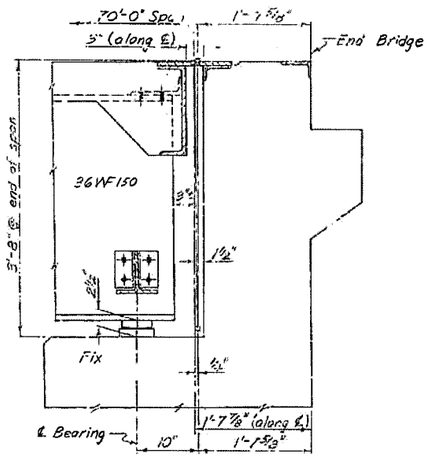
JOB NO.	SHEET NO.	TOTAL SHEETS	FED. ROAD No.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
BB0401	149	234	6	ARK. I-40-1(5)		4	54	
			JOB No	4432				



PLAN
Scale: ¼"=1'-0"



SECTION AT BENT No. 3
Scale: ¾"=1'-0"



SECTION AT ABUT. No. 2
Parallel to ℄ Roadway
Scale: 1"=1'-0"

REINFORCING STEEL

MARK	SIZE	NO.	LENGTH	PIN D.
S1	#6	62	27'-2"	Str.
S1A to S1U	#6	4 each	4'-7" to 26'-3"	Str.
S2	#6	32	27'-10"	3½"
S2A to S2U	#6	2 each	26'-4" to 4'-1"	3½"
S3	#4	188	24'-3"	Str.
S3A	#4	12	22'-9"	Str.
S4	#4	114	4'-11"	3"
S5	#4	110	3'-6"	3"
S6	#4	114	5'-4"	1½"
S7	#5	20	4'-1"	1¾"

Note: Dimensions are ctr to ctr. of bars
For Bending Diagrams see Dwg.

PRECAMBER DATA

BEAM	INT.	EXT.
D.L. Deflection	1¼"	1 1/16"
V.C. Correction	½"	½"
Total Precamber	1¾"	1 5/16"

GENERAL NOTES

For General Notes and details not shown on this drawing, see Dwg. 5456 B & 10601
For Sect. A-A; Details of expansion device & Details at ends of beams see Dwgs. No. 10606 & 10607
Drain openings are to be omitted.

Revised Size of S1, S2, S1A-S1U, S2A-S2U, Increased No of S6 bars 10 MAY 1960 E.M.

FOR INFORMATION ONLY

SUPPLEMENTAL DETAILS FOR SPAN No. 1
70'-0" COMPOSITE I-BEAM SPAN
OF E.A. INTERCHANGE
OKLAHOMA STATE LINE - JCT. HWY. 59
CRAWFORD COUNTY
ROUTE 40 (Int.) SEC. 1

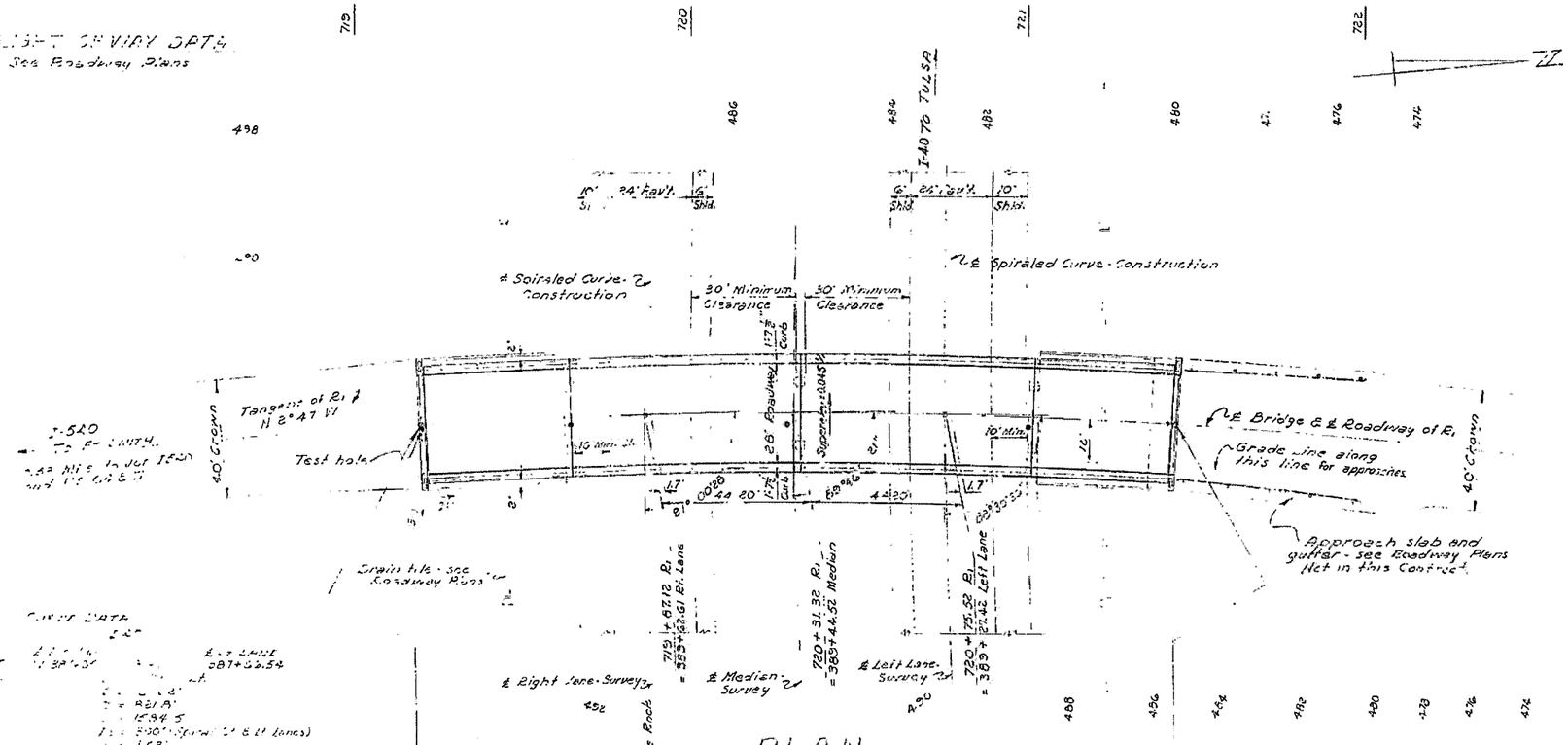
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

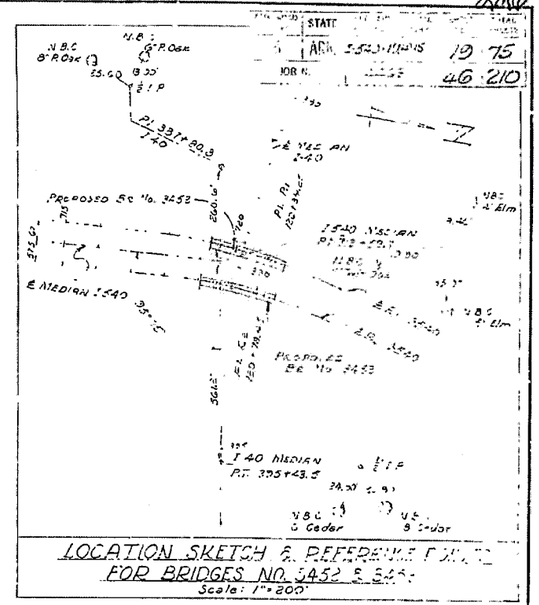
DRAWN BY: BHO DATE: 6-2-59
TRACED BY: DATE: SCALE: As Shown
CHECKED BY: DATE:

K. V. Carlson
BRIDGE DESIGN ENGINEER

BRIDGE NO. 3270 DRAWING NO. 10608

LIGHT SERVICE OPT.
See Roadway Plans





GENERAL NOTES

All concrete to be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

Rock excavation shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock.

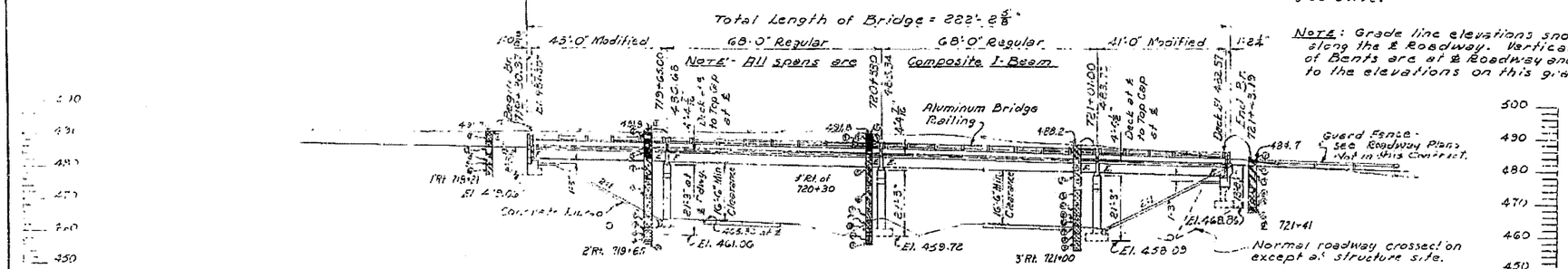
In general, all construction joints in abutments and bents shall be horizontal and shall be provided with keys not less than 1½" high covering the middle third of both dimensions.

For Details of Abutments No. 1 and 2 see Drawing No. 11511 & 11513.

For Details of Bents 1, 2, and 3 see Drawing No. 11512.

For Details of Standard Composite I-Beam Spans see Drawing Nos. 5467 and 5477.

For Supplemental Details of 43', 41', and 68' Composite I-Beam Spans see Drawing Nos. 11514 & 11515.



NOTE: Bents to be constructed with their transverse center lines on the radial lines of a 3°00 curve. Curb and railing to be constructed on an arc parallel to a 3°00 curve.

NOTE: Grade line elevations shown are along the ℄ Roadway. Vertical dimensions of Bents are at ℄ Roadway and in reference to the elevations on this grade line.

ABUTMENT No. 1
- 1.0 Soft Silty Clay
- 1.9 Loosely Consolidated Sandstone
- 4.1 Hard Brown Sandstone
- 9.2' Firm Silty Clay - Stone Frag.
- 6.6' Hard Brown Sandstone
- 2.7' Firm Sandy Clay - Stone Frag.

BENT No. 1
- 0.6 Soft Silty
- 1.2 Loosely [illegible]stone
- 5.8' Hard Brown Sandstone
- 6.4' Firm Silty [illegible] - Frag.
- 14.5' Soft Br. Shale & S.S. Frag
- 3.3' Soft to Med. Hard Shale
- 1.0' Soft Dark Gray Shale
- 2.9' Cored Hard Gray Shale
- 0.4' Cored Soft Gray Shale
- 0.1' Cored Hard Gray Shale and Sand Stone

BENT No. 2
- 1.0' Soft Black Silty Clay
- 1.5' Med. Hard Br. Sandstone
- 0.3' Soft Silty Clay
- 2.5' Hard Brown Sandstone
- 10.5' Firm [illegible]y Clay Sandstone Frag.
- 7.8' Soft [illegible] Shale - Clay - S.S. Frag.
- 2.8' Soft to Med Hard Shale
- 2.6' Med. Hard to Hard Gray Shale
- 3.2' Hard Gray Shale & Sandstone
- 0.1' Cored Soft Gray Shale
- 0.6' Cored Hard Gr. Shale & Sandstone

BENT No. 3
- 4.0' Firm Br. Sandy Silty Clay - S.S. Frag
- 9.3' Firm Br. Silty Clay - S.S. Frag.
- 4.6' Soft Br. Shale & Clay - S.S. Frag.
- 3.3' Soft Gray Shale - Sandstone Seams
- 1.1' Med. Hard Gray Shale
- 1.3 Med. Hard Dark Gray Shale
- 2.5' Med. Hard to Hard Gray Shale
- 2.3' Cored Med. Hard Gray Shale
- 3.1' Cored Soft to Med. Hard Gray Shale

ABUTMENT No. 2
- 0.7 S[illegible] Sandy Silty Clay
- 0.8 [illegible]ely Consolidated Sandstone
- 8.0' Firm Br. Silty Clay - Sandstone Frag.
- [illegible] Soft Br. Shale & Clay - Sandstone Frag.
- [illegible] Firm Sandy Clay - Sandstone Fragments
- 1.5' Soft Gray Shale

ELEVATION

B.M. - Bent No. 1 in base 12" 2 prong Post Oak, 30 Rt. Sta. 389+60 ℄ Median I-40 Elev. 433.72

Revisions:
Vert. Curve & Boring Data 5-12-61 L.K.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959 and designated Special Provisions.

DESIGN SPECIFICATIONS	AASHO	1957
Live Loading :	H20-S16 and Special Interstate Loading of 2 24,000# axles spaced 4'0" on centers.	
Unit Stresses:	Class A Concrete (n=15)	840 psi
	Class S Concrete (n=10)	1,200 psi
	Structural Steel	18,000 psi
	Reinforcing Steel	20,000 psi
	Foundation Pressure	5,500 psf

FOR INFORMATION ONLY

(RAMP R-1)
LAYOUT OF HWY. I-40 OVERPASS
JCT. HWY. 59 TO SHIBLEY GR. SEPR.
CRAWFORD COUNTY
INTERSTATE ROUTE 540 SEC. 1

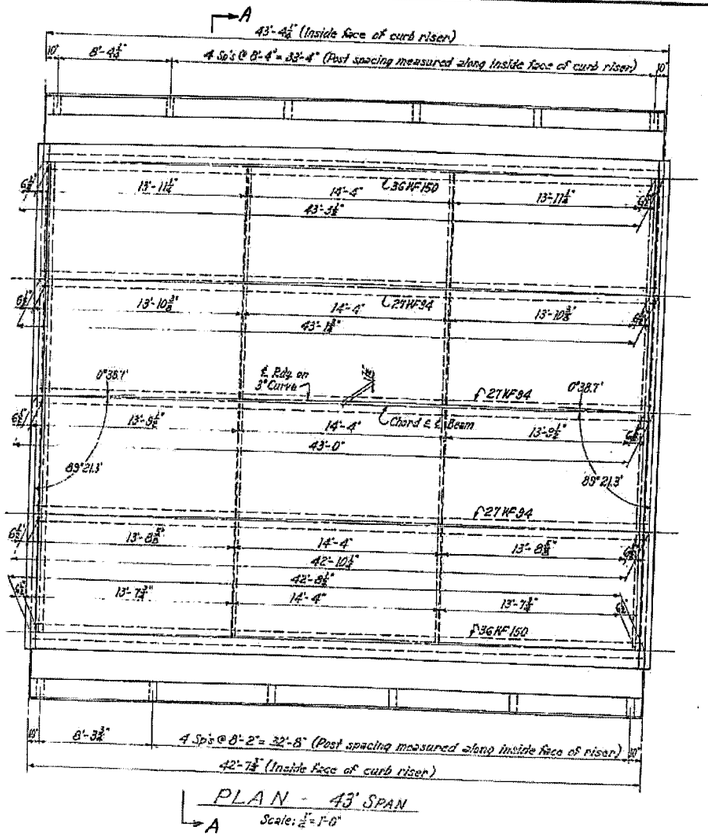
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: J.E.H. DATE: 1-26-61
TRACED BY: DATE:
CHECKED BY: J.V. DATE: 2-1-61
SCALE: 1" = 20'

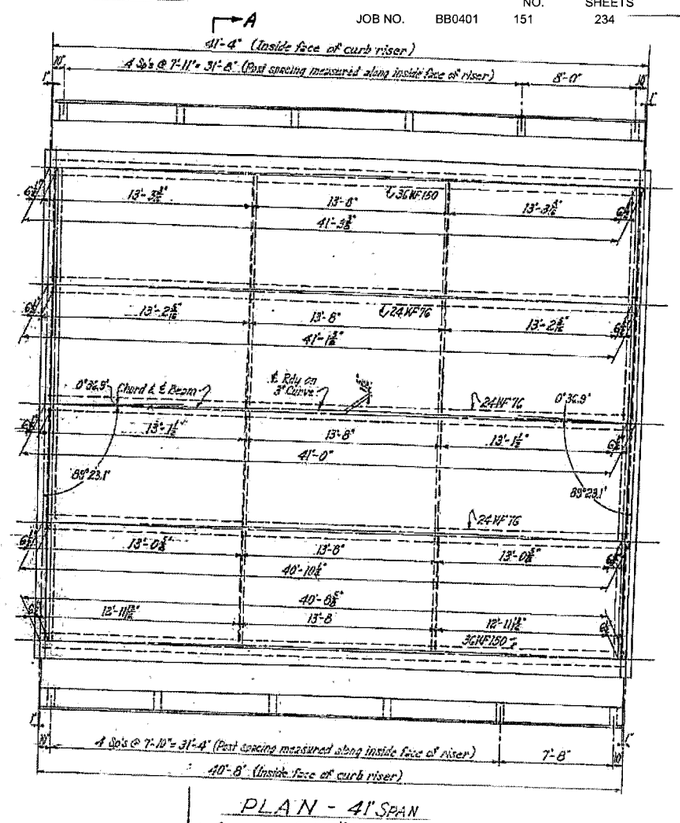
BRIDGE ENGINEER

BRIDGE NO. 3452 **DRAWING NO. 11510**

FED. ROAD PROJ. NO.	STATE	SEC. AID PROJ. NO.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.	F-540-1(14)15		23	75
JOB No.		4463		50	210



PLAN - 43' SPAN
Scale: ¼" = 1'-0"

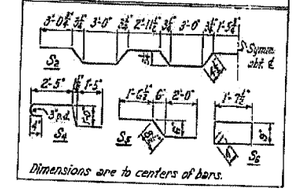


PLAN - 41' SPAN
Scale: ¼" = 1'-0"

BAR LIST - ONE SPAN

MARK	SIZE #	LENGTH	PIN DIA.	NO. REQ'D 41'	NO. REQ'D 43'
S_1	6	29'-2"	Str.	66	70
S_2	6	29'-10"	2½"	32	34
S_3	4	21'-1"	Str.	106	
S_3	4	22'-1"	Str.		106
S_4	4	5'-3"	1½"	66	70
S_5	4	4'-3"	1½"	64	68
S_6	4	5'-4"	1½"	66	70
S_{3A}	4	13'-3"	Str.	6	
S_{3B}	4	13'-0"	Str.	6	
S_{3A}	4	13'-11"	Str.		6
S_{3B}	4	13'-8"	Str.		6

BENDING DIAGRAM

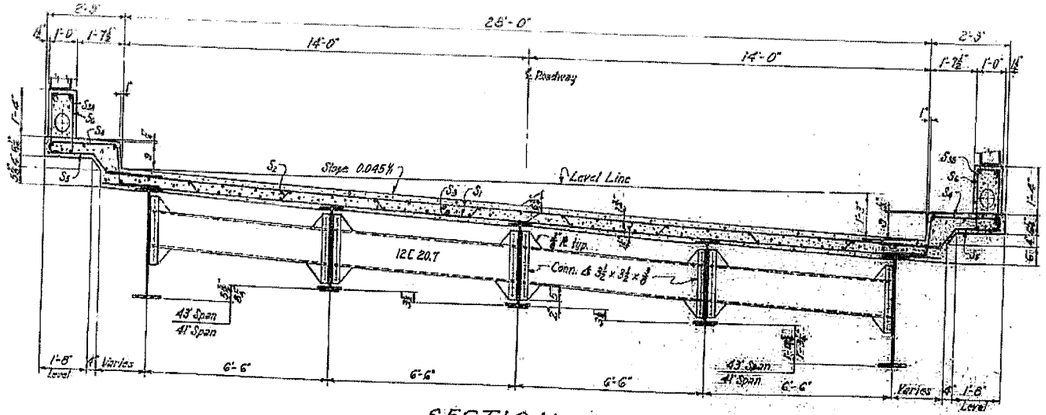


Dimensions are to centers of bars.

NOTES

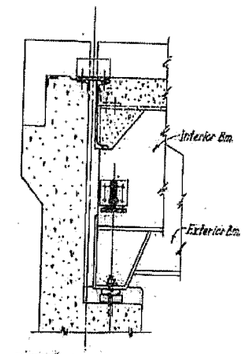
This drawing to be used with Dwg. No. 5477. For details not shown see Dwgs. No. 5477 and 5462.

W beams are placed parallel to ℄ abut. @ 6'-6" centers and roadway is constructed on 3° curve with ℄ of joints on radial lines.



SECTION A-A
Scale: ½" = 1'-0"

Note: Use Type 'A' Shoes at intermediate bents instead of Type 'B' Shoes called for on Std. Dwg. No. 5462.



JOINT AT END BENT
Scale: ½" = 1'-0"

Note: Use this section instead of section shown on Std. Dwg. No. 5462 for Modified Span. For Details of Beam Build-ups see Dwg. No. 5462.

FOR INFORMATION ONLY

SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE
41' & 43' COMP. I-BEAM SPANS
(RAMP R-1) HWY. I-40 OVERPASS
JCT. HWY. 59 - SHIBLEY GRADE SEPARATION
CRAWFORD COUNTY
INTERSTATE ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

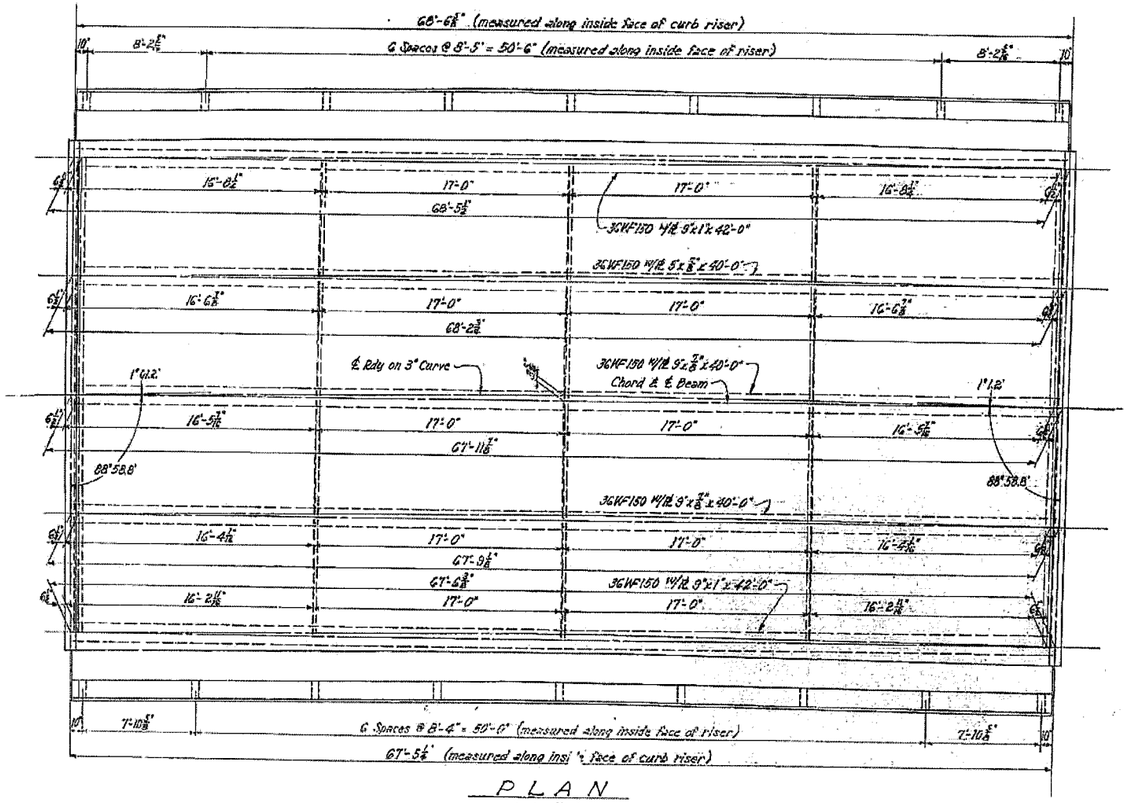
DRAWN BY: A.T. DATE: 6-6-61
TRACED BY: DATE:
CHECKED BY: J.H.K. DATE: 6-12-61
SCALE: As Shown

L. G. Edson
BRIDGE ENGINEER

BRIDGE NO. 3452 DRAWING NO. 11514

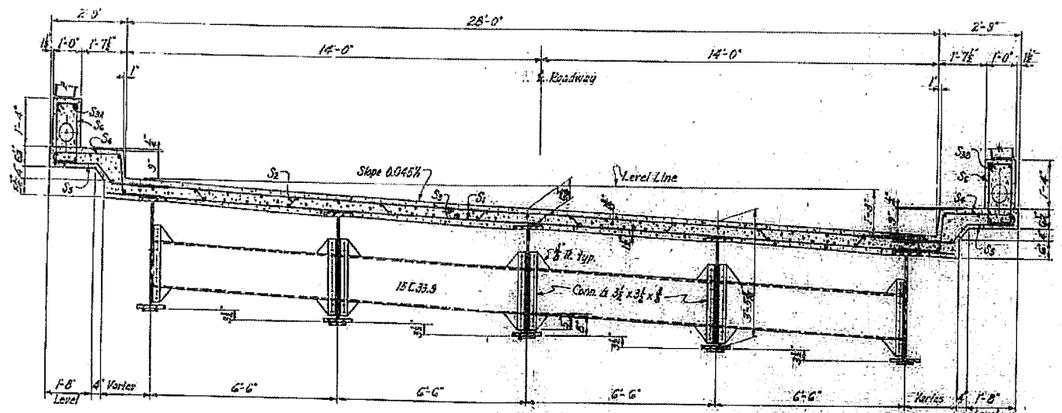
		SHEET NO.	TOTAL SHEETS
JOB NO.	BB0401	152	234

FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.	I-540-1(14)15		24	75
JOB No.		4463		51	210



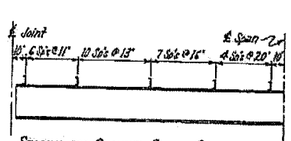
PLAN

Scale: 1/4" = 1'-0"

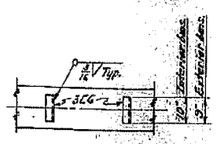


SECTION A-A

Scale: 1/2" = 1'-0"



SPACING FOR CHANNEL SHEAR CONNECTORS



DETAILS OF SHEAR CONNECTORS

Note: See Dwg. No. 5477 for note on Steel Shear Connectors below "Variable ℄ Shear Conn. Spacing."

DEAD LOAD DEFLECTION

Interior Beams	1"
Exterior Beams	½"

BAR LIST - ONE SPAN

MARK	SIZE #	NO. REQ'D	LENGTH	PIN DIA.	BENDING DIAGRAM
S_1	6	110	29'-2"	Str.	
S_2	6	54	29'-10"	2½"	
S_3	4	158	23'-10"	Str.	
S_4	4	110	5'-3"	1½"	
S_5	4	108	4'-3"	1½"	
S_6	4	110	5'-4"	1½"	
S_{3A}	4	6	22'-3"	Str.	
S_{3B}	4	6	21'-11"	Str.	

Dimensions are to center of bars.

NOTES

This drawing to be used with Dwg. No. 5477. For details not shown see Dwgs. No. 5477 and 5462.

WF beams are placed parallel to ℄ chord @ 6'-6" centers and roadway is constructed on 3° curve with ℄ of joints on radial lines.

FOR INFORMATION ONLY

SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE
68' COMP. I-BEAM SPANS
(RAMP R-1) HWY I- 40 OVERPASS
JCT. HWY. 59 - SHIBLEY GRADE SEPARATION
CRAWFORD COUNTY
INTERSTATE ROUTE 540 SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: A.J. DATE: 6-12-61
TRACED BY: DATE: SCALE: As Shown
CHECKED BY: DATE: 6-15-61

L. P. Carlson
BRIDGE ENGINEER

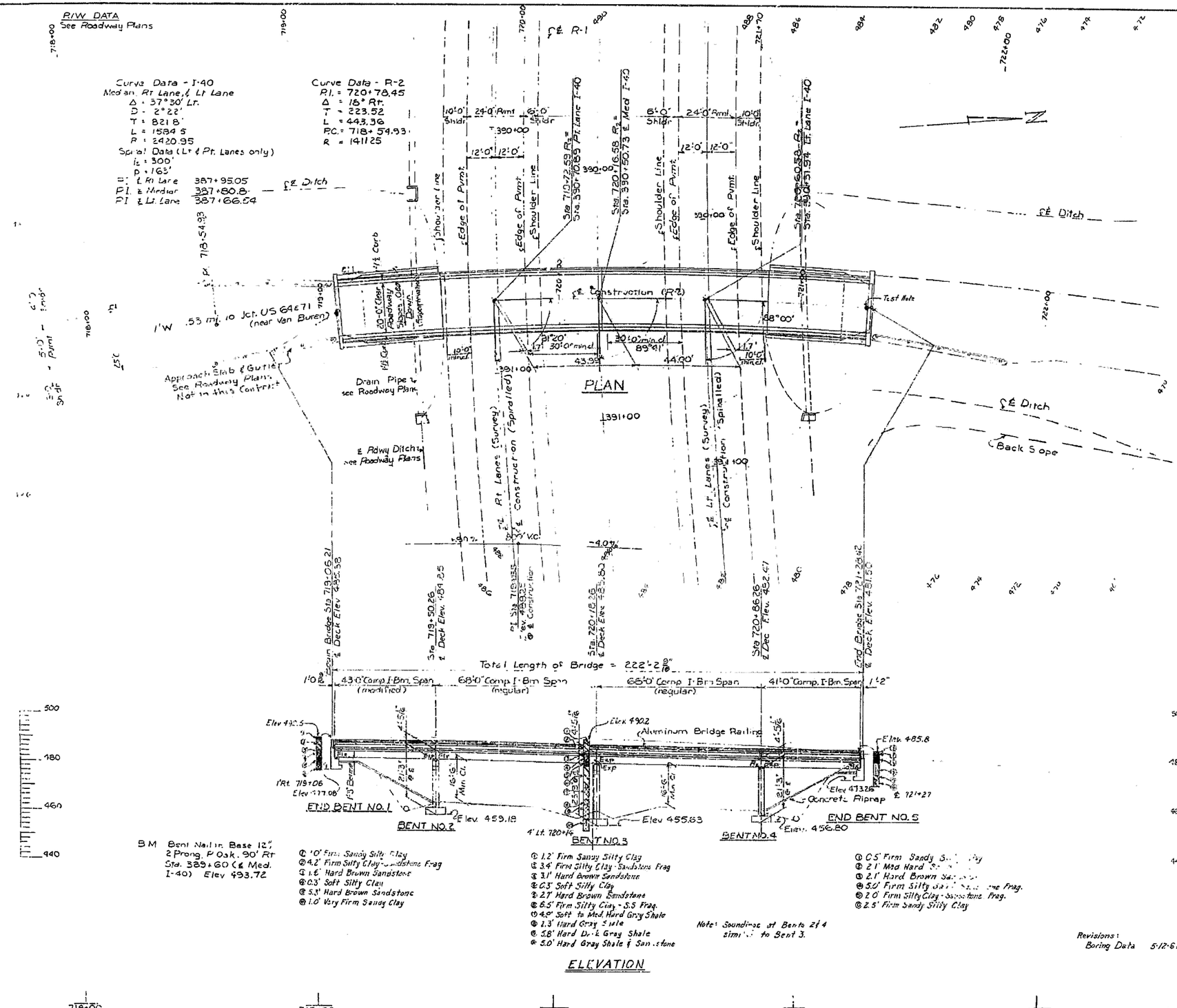
BRIDGE NO. 3452 DRAWING NO. 11515

		SHEET NO.	TOTAL SHEETS			
JOB NO.	BB0401	153	234	6	25	75
				4463	52	210

R/W DATA
See Roadway Plans

Curve Data - I-40
Median, Rt Lane, & Lt Lane
Δ = 37°30' Lt.
D = 2°22'
T = 821.8'
L = 1584.5
R = 2420.95
Spiral Data (Lt & Rt Lanes only)
l_s = 300'
p = 1.65'
PI & Rt Lane 387+95.05
PI & Median 387+80.8
PI & Lt Lane 387+66.54

Curve Data - R-2
PI = 720+78.45
Δ = 18° Rt.
T = 223.52
L = 443.36
P.C. = 718+54.93
R = 1411.25



BM Bent Nail in Base 12" 2 Prong, P Oak, 90' Rt Sta. 389+60 ℄ Med. I-40) Elev 493.72

℄ '0" Firm Sandy Silty Clay
② 4.2' Firm Silty Clay - Sandstone Frag
③ 1.6' Hard Brown Sandstone
④ 0.3' Soft Silty Clay
⑤ 5.3' Hard Brown Sandstone
⑥ 1.0' Very Firm Sandy Clay

℄ 1.2' Firm Sandy Silty Clay
② 3.4' Firm Silty Clay - Sandstone Frag
③ 3.1' Hard Brown Sandstone
④ 0.3' Soft Silty Clay
⑤ 2.7' Hard Brown Sandstone
⑥ 6.5' Firm Silty Clay - S.S. Frag.
⑦ 4.9' Soft to Med. Hard Gray Shale
⑧ 2.3' Hard Gray Shale
⑨ 5.8' Hard Dk. Gray Shale
⑩ 3.0' Hard Gray Shale & Sandstone

Note: Soundings at Bents 2 & 4 similar to Bent 3.

① 0.5' Firm Sandy Silty Clay
② 2.1' Med Hard Silty Clay
③ 2.1' Hard Brown Sandstone
④ 5.0' Firm Silty Clay - Sandstone Frag.
⑤ 2.0' Firm Silty Clay - Sandstone Frag.
⑥ 2.5' Firm Sandy Silty Clay

ELEVATION

718+00 719+00 720+00 721+00 722+00

GENERAL NOTES

All concrete to be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

Rock excavation shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock.

In general, all construction joints in ... ...ns and bents shall be horizontal and shall be provided with keys not less than 1½" high covering the middle third of both dimensions.

For Details of End Bents 1 and 5 see Drawing No. 11517.

For Details of Bents 2, 3, and 4 see Drawing No. 11518.

For Details of Superstructure see Drawings No. 5462, 5430, 11519 & 11520.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959 and designated Special Provisions.

DESIGN SPECIFICATIONS: AASHO 1957

Live Loading:	H20-S16 and Special Interstate Loading of 2 24,000# axles spaced 4'0" on centers.	
Unit Stresses:	Class A Concrete (n=15)	810 psi
	Class S Concrete (n=10)	1,200 psi
	Structural Steel	18,000 psi
	Reinforcing Steel	20,000 psi

FOUNDATION PRESSURE: 7000 psf.

FOR INFORMATION ONLY

(RAMP R-2)
LAYOUT OF ... NY I-40 OVERPASS
JCT HWY. 59 TO SHIBLEY GR. SEPR.
CRAWFORD COUNTY
INTERSTATE ROUTE 540 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: ... DATE: 6-7-61
TRACED BY: ... DATE:
CHECKED BY: DV DATE: 6-27-61
SCALE: 1" = 20'

Revisions:
Boring Data 5-12-61 L.K.

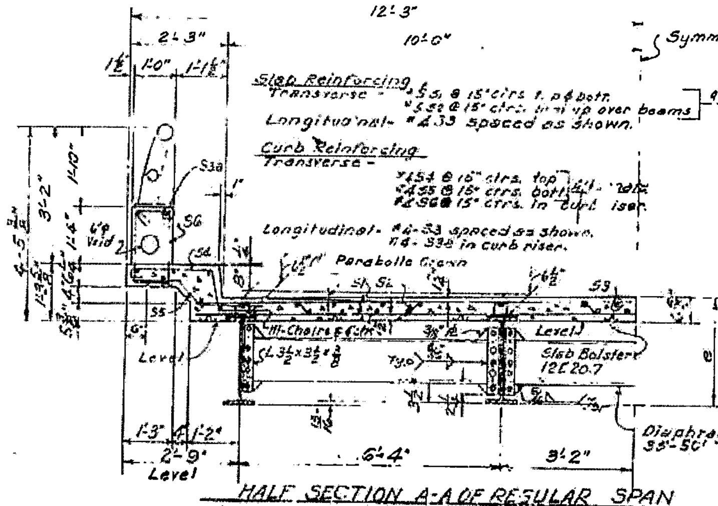
BRIDGE ENGINEER

BRIDGE NO. 3453 DRAWING NO. 11516

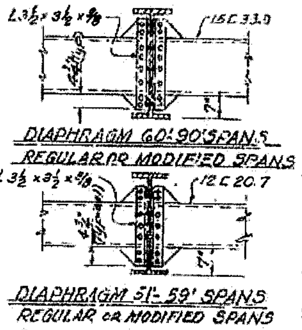
235

FED. ROAD No.	STATE	FED. AID PROJECT	SHEET No.	TOTAL SHEETS
6	ARK.	F-540-1(9)15	28	75
JOB No.		4463	55	210

JOB NO. BB0401 SHEET NO. 154 TOTAL SHEETS 234



HALF SECTION A-A OF REGULAR SPAN
(Regular Spans have all beams of equal depth.)



DIAPHRAGM 60'-90' SPANS
REGULAR OR MODIFIED SPANS

DIAPHRAGM 51'-59' SPANS
REGULAR OR MODIFIED SPANS

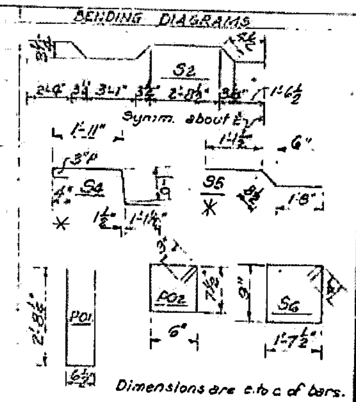
Aluminum Bridge Railing

Plate Guard Br. Railing (Non par item)

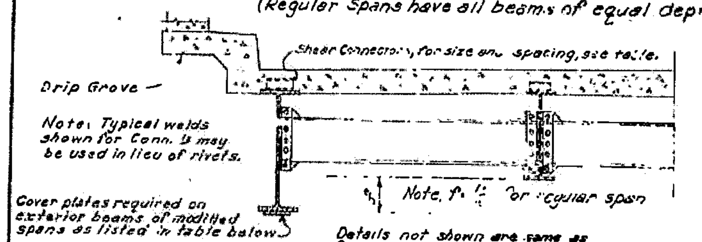
BAR LIST- ONE SPAN

MARK	SIZE	LENGTH	PIN DIA.	35'	36'	37'	38'	39'	40'	41'	42'	43'	44'	45'	46'	47'	48'	49'	50'	51'	52'	53'	54'	55'	56'	57'	58'	59'	60'	65'	70'	75'	80'	85'	90'
				NUMBER REQUIRED EACH SPAN																															
S1	5	21'-0"	Str.	58	58	60	62	64	66	66	68	70	72	74	74	76	78	80	82	82	84	86	88	90	90	92	94	96	98	106	114	122	130	138	146
S2	5	21'-6"	1 3/4	28	28	29	30	31	32	32	33	34	35	36	36	37	38	39	40	40	41	42	43	44	44	45	46	47	48	52	56	60	64	68	72
S3	4	3'-6"	Str.				40																												
S3	4	S/2+7"	Str.													80																			
S3	4	S/3+1'-0"	Str.																													120			
S4*	4	4'-6"	1 1/2"	58	58	60	62	64	66	66	68	70	72	74	74	76	78	80	82	82	84	86	88	90	90	92	94	96	98	106	114	122	130	138	146
S5*	4	3'-6"	1 1/2	56	56	58	60	62	64	64	66	68	70	72	72	74	76	78	80	80	82	84	86	88	88	90	92	94	96	10[illegible]	[illegible]	[illegible]0	128	136	144
S6	4	5'-4"	1 1/2	58	58	60	62	64	66	66	68	70	72	74	74	76	78	80	82	82	84	86	88	90	90	92	94	96	98	106	[illegible]	[illegible]	130	138	146
S3a	4	(S-(1'-1'))/3	Str.															12																	
P01	5	5'-10"	1 3/4			28				32						36							40					44		48	52		56	60	64
P02	3	2'-8"	1 1/4			56				64						72							80					88		96	104		112	120	128

Post Reinforcement #5 P01 - 2 per post.
#3 P02 - 4 per post.



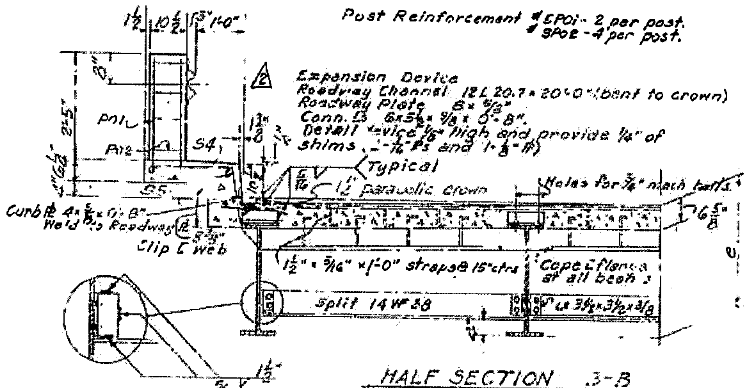
Dimensions are c. to c. of bars.



HALF SECTION A-A MODIFIED SPANS

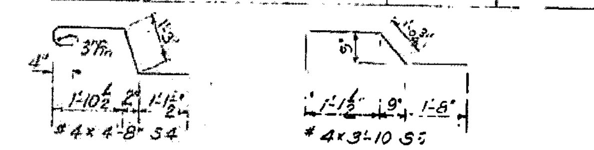
Interior beams are same as Regular Spans. Exterior beams are of same nominal depth as beams for longest span shown on bridge layout.

Note- See Drwg No. 5462 for location of Sections A-A and B-B and variables a, b, c & d.

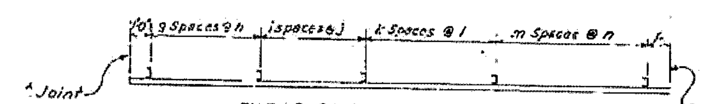


OPTIONAL WELDS

HALF SECTION B-B
FOR MODIFIED OR REGULAR SPANS



△2 * S4 & S5 FOR PLATE GUARD BRIDGE RAILING



SHEAR CONNECTOR SPACING

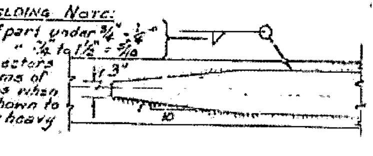
SPAN	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	65	70	75	80	85	90
g	6	7	7	7	8	8	8	8	7	7	7	7	7	8	8	8	7	7	7	8	8	6	8	8	8	9	9	8	9	8	9	10
h	7"	7"	7"	7"	7"	7"	7"	7"	9"	9"	9"	9"	9"	9"	9"	9"	10"	10"	10"	10"	10"	10"	10"	10"	10"	10"	10"	12"	12"	14"	14"	14"
i	6	6	6	6	6	6	7	7	6	6	6	6	6	6	6	6	6	6	6	5	6	7	7	7	8	7	8	7	7	7	7	7
j	9"	9"	9"	9"	9"	9"	9"	9"	11"	11"	11"	11"	11"	11"	11"	11"	13"	13"	13"	13"	13"	12"	12"	12"	12"	13"	13"	15"	15"	17"	17"	17"
k	5	5	5	5	5	6	5	5	4	4	5	6	5	5	5	6	5	5	5	5	5	5	5	6	5	5	6	6	6	6	6	6
l	11"	11"	11"	11"	11"	11"	11"	11"	14"	14"	14"	14"	14"	14"	14"	13"	16"	16"	16"	16"	16"	16"	15"	16"	16"	16"	16"	18"	20"	22"	22"	21
m	3	3	4	4	4	4	4	4	3	4	3	3	4	4	4	4	3	3	3	3	4	4	4	4	4	4	4	4	5	4	5	6
n	13"	13"	13"	13"	13"	13"	13"	4"	17"	15"	17"	17"	16"	17"	16"	18"	22"	21"	22"	21"	20"	20"	19"	19"	19"	19"	22"	22"	21"	24"	22"	22
p	5"	7"	—	6"	5"	—	8"	10"	10"	7"	8	—	7	—	10"	—	—	9	12"	11"	—	—	10"	—	10"	11"	—	11"	—	9	11"	11"

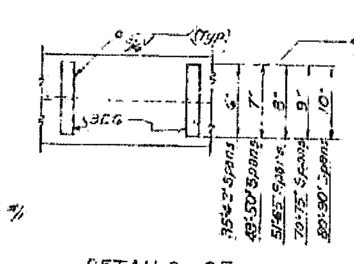
Note: Stud shear connectors, granular flux filled, solid fluxed, or equal may be used in place of the channels shown at the following ratios: ¾" diameter stud in place of 1.82 inches of channel, ⅞" diameter stud in place of 2.52 inches of channel. The studs shall be 4" long and automatically end welded to the beam flanges in accordance with recomendations of the manufacturer. Channel sections will be used as basis for measurement of structural steel in shear connectors.

SPAN	REGULAR SPAN: BEAM	COVER PLATES: INTERIOR	COVER PLATES: EXTERIOR	POST SPACING FOR ALUM. RAILING: a	b	c	MODIFIED SPAN EXTERIOR BEAMS REQUIRING COVER ℙ: BEAM	COVER PLATE	POST SPACING FOR ℙ GUARD RAILING: a	b	c	e	DEAD LOAD DEFLECTION: INT.	EXT.	STRUT SPACING No. @ 8'	24WF76: f	Δ	27WF94: f	Δ	30WF108: f	Δ	33WF130: f	Δ	36WF150: f	Δ
																VALUES OF "f" & DEAD LOAD DEFL'S "Δ" FOR EXTERIOR BEAMS OF MODIFIED SPANS									
35'	21WF62	3x½x14'-0"	—	8'-4"	8'-4"	2			5'-7"	5'-8"	4	2'-3"	[illegible]	9/16"	2@17'-6"	3 5/8	1/4	5 5/8	1/4	9 7/8	3/8	10 5/8	1/8	13 3/8	1/16
36'		△ 4x½x16'-0"	4x3/8x9'-0" △	6'-8"	7'-0"	3			5'-7"	[illegible]			7/16"	9/16"	2@18'-0"		3/8		1/4		3/16		1/8		1/8
37'		4x½x18'-0"	4x3/8x13'-0" △	7'-2"	7'-0"	3			6'-1"	5'-11"	4		1/2"	5/8"	2@18'-6"		7/16		5/16		3/16		1/8		1/8
38'		5x½x20'-0"	4x3/8x15'-0" △	7'-2"	7'-4"	3			6'-1"	6'-2"	4		5/16"	[illegible]	2@19'-0"		1/2		5/16		1/4		3/16		1/8
39'		6x½x22'-0"	5x3/8x18'-0"	7'-8"	7'-4"	3			5'-7"	5'-4"	5		9/16"	5/8"	2@19'-6"		9/16		3/8		1/4		3/16		1/8
40'		6x9/16x24'-0"	6x3/8x20'-0"	7'-8"	7'-8"	3			5'-8"	5'-6"	5		5/8"	13/16"	2@20'-0"		5/8		3/8		5/16		3/16		1/8
41'		7x9/16x25'-0"	6x½x22'-0"	7'-8"	8'-0"	3			5'-9"	5'-8"	5		11/16"	7/8"	3@13'-8"		11/16		7/16		5/16		1/4		3/16
42'	21WF62	7x5/8x27'-0"	6x9/16x24'-0"	8'-2"	8'-0"	3	24WF76 △	4x3/8x11'-0"	5'-10"	5'-10"	5	2'-3"	3/4"	15/16"	3@14'-0"	3 5/8	11/16	6 7/8	1/2	9 7/8	3/8	10 5/8	1/4	13 3/8	3/16
43'	24WF76	5x5/16x18'-0"	4x3/8x13'-0" △	8'-2"	8'-4"	3			5'-11"	6'-0"	5	2'-5 13/16"	5/8"	3/4"	3@14'-4"			3 3/4	9/16	6 3/4	3/8	9 7/8	1/4	10 5/8	3/16
44'		6x3/8x20'-0"	4x3/8x16'-0" △	8'-5"	8'-6"	3			6'-2½"	6'-1"	5		11/16"	13/16"	3@14'-8"				9/16		7/16		5/16		1/4"
45'		7x3/8x22'-0"	5x3/8x19'-0"	7'-6"	7'-1"	4			5'-5"	5'-6"	6		11/16"	7/8"	3@15'-0"				5/8		1/2		5/16		1/4"
46'		7x7/16x24'-0"	6x3/8x21'-0"	7'-6"	7'-4"	4			5'-8"	5'-7"	6		3/4"	15/16"	3@15'-4"				11/16		1/2		3/8		1/4
47'		7x½x26'-0"	6x½x23'-0"	7'-6"	7'-7"	4			5'-8"	5'-9"	6		13/16"	1"	3@15'-8"				3/4		9/16		3/8		5/16
48'		8x½x28'-0"	7x½x25'-0"	7'-8"	7'-9"	4			5'-11"	5'-10"	6		7/8"	1 1/16"	3@16'-0"				13/16		5/8		7/16		5/16
49'		8x9/16x29'-0"	8x½x27'-0"	7'-8"	8'-0"	4			5'-11"	6'-0"	6		15/16"	1 1/8"	3@16'-4"				15/16		11/16		7/16		3/8
50'	24WF76	8x5/8x30'-0"	7x5/8x28'-0"	7'-10"	8'-2"	4	27WF94 △	4x3/8x15'-0"	5'-11"	6'-2"	6	2'-5 3/16"	1"	1 3/16"	3@16'-9"			3 3/4	15/16	6 3/4	3/4	9 7/8	1/2	10 5/8	3/8
51'	27WF94 △	5x½x20'-0"	4x3/8x16'-0" △	8'-0"	8'-4"	4			6'-2"	6'-3"	6	2'-8 3/4"	13/16"	1"	3@17'-0"					3 13/16	13/16	6 5/8	9/16	9 7/8	7/16
52'		6x3/8x22'-0"	5x3/8x19'-0" △	8'-2"	8'-6"	4			5'-7"	5'-8"	7		7/8"	1 1/16"	3@17'-4"						7/8		5/8		7/16
53'		7x3/8x24'-0"	6x3/8x23'-0"	7'-4"	7'-4"	5			5'-9½"	5'-9"	7		15/16"	1 1/8"	3@17'-8"						15/16		[illegible]		1/2
54'		7x7/16x26'-0"	6x½x24'-0"	7'-5"	7'-6"	5			6'-0"	5'-10"	7		1"	1 3/16"	3@18'-0"						1"		11/16		1/2
55'		6x5/8x28'-0"	7x½x27'-0"	7'-6"	7'-8"	5	30WF108 △	4x½x16'-0"	5'-11"	6'-0"	7		1 1/16"	1 1/4"	3@18'-4"						1 1/16		3/4		9/16
56'		7x5/8x30'-0"	8x½x29'-0"	7'-7"	7'-10"	5	30WF108 △	4x3/8x17'-5"	5'-10"	6'-2"	7		1 1/8"	1 5/16"	3@18'-8"						1 1/8		13/16		5/8
57'		9x½x32'-0"	7x5/8x30'-0"	7'-8"	8'-0"	5	30WF108	4x5/8x20'-0"	6'-0½"	6'-3"	7		1 3/16"	1 3/8"	3@19'-0"						1 3/16		7/8		11/16
58'		9x5/8x34'-0"	8x5/8x32'-0"	7'-9"	8'-2"	5	30WF108	5x7/8x23'-0"	5'-9"	5'-8"	8		1 1/4"	1 1/2"	3@19'-4"						1 1/4		15/16		11/16
59'	27WF94	9x5/8x35'-0"	9x5/8x34'-0"	7'-10"	8'-4"	5	30WF108	5x½x26'-0"	5'-11"	5'-9"	8	2'-8 3/4"	1 3/8"	1 9/16"	3@19'-8"					3 13/16	1 3/16	6 3/8	1"	9 5/8	3/4
60'	30WF108	7x½x27'-0"	6x½x26'-0"	7'-11"	8'-6"	5			5'-11"	5'-10½"	8	2'-11 3/8"	1 3/16"	1 3/8"	3@20'-0"							3 3/4	1 1/8	6 3/8	13/16
65'	30WF108	8x3/4x37'-0"	8x3/4x36'-0"	7'-8"	8'-0"	6	33WF130	5x3/4x22'-0"	5'-8"	5'-10"	9	2'-11 3/4"	1 1/2"	1 3/4"	4@16'-3"							3 1/2	1 3/8	6 5/8	1 1/8
70'	33WF130	8x3/4x38'-0"	7x5/8x33'-0"	7'-11"	8'-9"	6	36WF150 △	4x3/4x15'-0"	5'-8"	5'-9"	10	3'-2 3/8"	1 1/2"	1 3/4"	4@17'-6"									3 1/2	1 1/2
75'	33WF130	10x3/4x42'-0"	10x3/4x43'-0"	7'-9½"	8'-3"	7	36WF150	7x½x32'-0"	6'-1"	6'-2"	10	3'-2 3/8"	1 7/8"	2 3/8"	4@18'-9"									3 1/2	1 11/16
80'	36WF150	9x3/4x41'-0"	9x3/4x42'-0"	8'-3"	8'-10"	7			5'-11½"	6'-1"	11	3'-5 3/8"	1 7/8"	2 1/4"	4@20'-0"										
85'	36WF160	11x3/4x50'-0"	11x15/16x51'-0"	8'-0"	8'-5"	8			5'-11"	6'-0"	12	3'-5 3/8"	2 5/16"	2 3/8"	5@17'-0"										
90'	36WF170	11x1"x52'-0"	11x1"x54'-0"	8'-6"	8'-11"	8			5'-11½"	5'-11"	13	3'-5 5/8"	2 3/8"	3"	5@18'-0"										

△1 Cover Plate Welding Note:
Max. thickness of part under ¾" - ¼" fillet weld
Max. thickness of part over ¾" - 5/16" fillet weld

Omit shear connectors on exterior beams of modified spans when using beams shown to the right of the heavy line.


DETAILS OF COVER PLATE
Scale: ½" = 1'-0"



Note- Dimensions shown are for interior beams. For exterior beams in Regular and Modified Spans these dimensions shall be shortened by one inch.

DETAILS OF SHEAR CONNECTORS
Scale: 1" = 1'-0"

LOADING H15 AASHO 1957

	Interior Beam	Exterior Beam
Dead Load		
To WF Beam	513+105 (WF+Pl) #/'	62[illegible]+1[illegible]5 (WF+Pl) #/'
To Comp. [illegible]		
(1) Plate Guard Rail	87 #/'	87 #/'
(2) Alum. Railing	153 #/'	155 #/'
Live Load		
To Comp. Beam	1.15 Wheels + Impact; .575 Lanes + Impact	1.13 Wheels + Impact; .565 Lanes + Impact

Unit Stresses
Class S Conc (n=10) 1200 psi.
Structural Steel 18,000 psi.
Reinforcing Steel 20,000 psi.

Note- This drawing to be used with Drwg. No. 5462

△1 Revised Cv. Pl Welding Note & Cv. Pl sizes 9-7-60 F.P.B.
△2 Changed curb for Plate Guard Bridge Railing W.E.W. 5-29-61 Rec'd C&V 5-29-61

FOR INFORMATION ONLY

DETAILS OF STANDARD
35'-90' COMPOSITE I-BEAM SPANS
20'-0" CLEAR RDWY. 1'-0" & 1'-1½" CURBS
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY L.E.W. DATE 7-14-59
TRACED BY DATE
CHECKED BY L.H.T. DATE 9-24-59
SCALE ½" or as shown

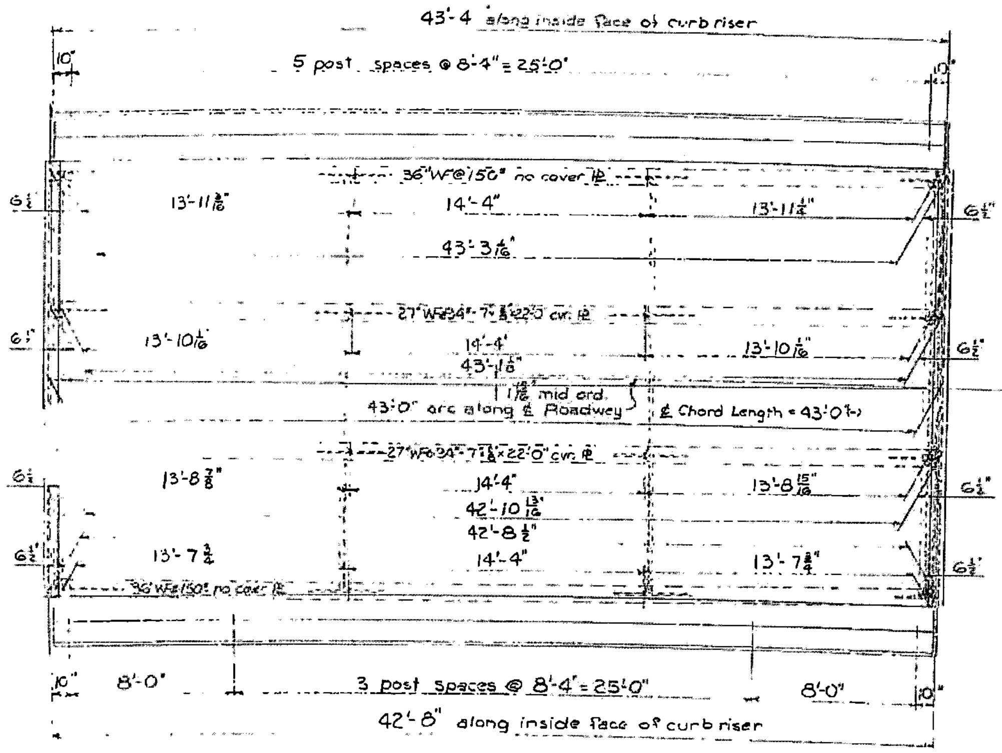
BRIDGE DESIGN ENGINEER

BRIDGE NO. DRAWING NO. ~~5490~~
File as Dwg. No. 11518 B

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	155	234

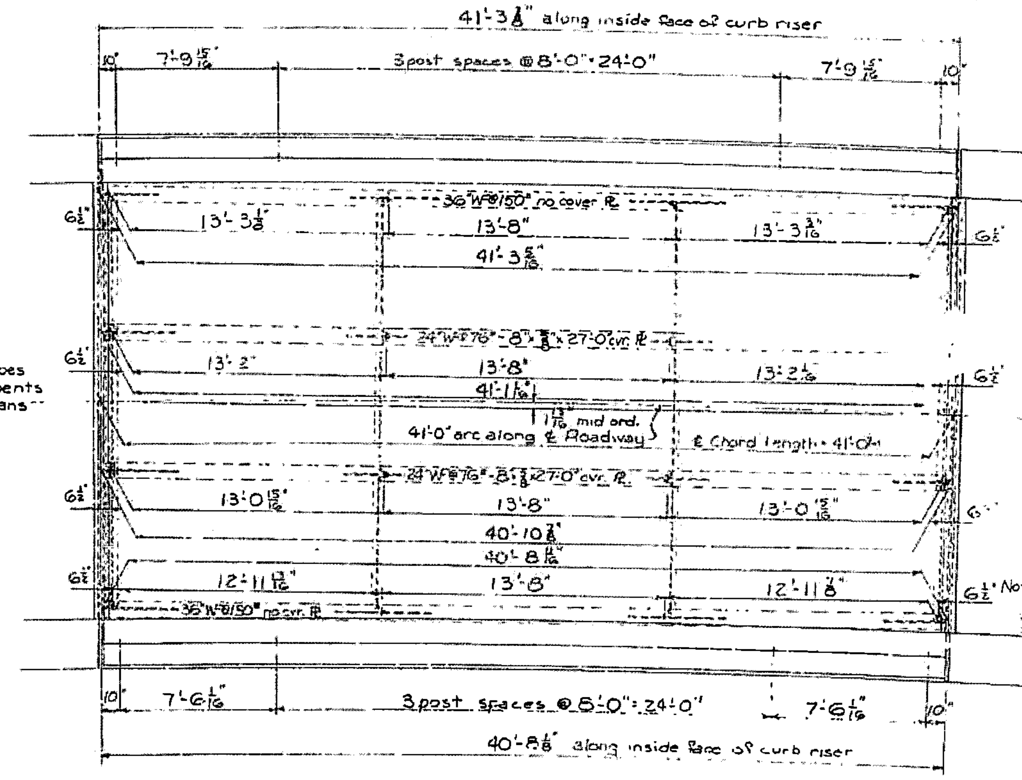
236

FED. ROAD DIV. NO.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	I-540-1(4)15		29	75
	JOB No.	4463		56	210

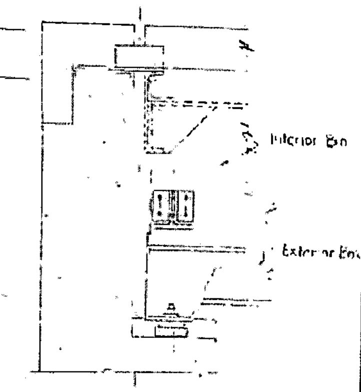


PLAN - 43'-0" SPAN
Scale: 1/4" = 1'-0"

Note: Use Type 'A' Shoes @ intermediate bents on both 41' & 43' spans

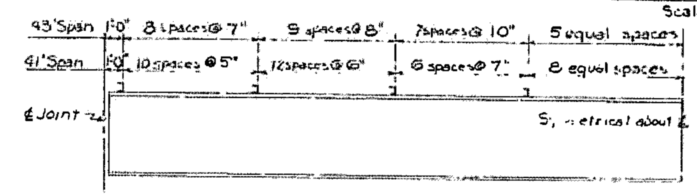


PLAN - 41'-0" SPAN
Scale: 1/4" = 1'-0"



JOINT AT END BENT
Scale 3/4" = 1'-0"

Note: Use this section instead of section shown on Std Dwg No 5462 for Modified Span. For Details of beam build ups see Dwg. No 5462

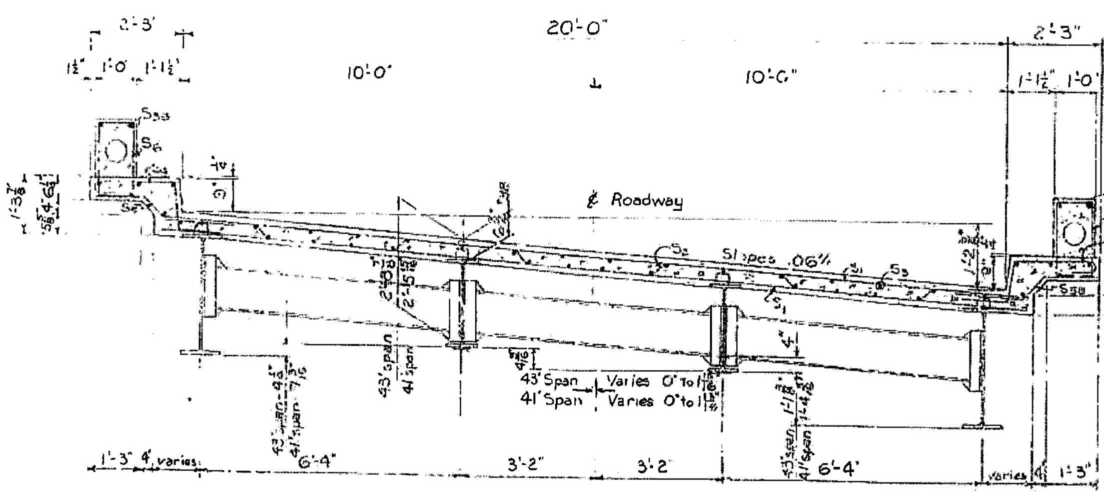


SHEAR CONN. SPACING
No Scale

GENERAL NOTES

See Dwg. No. 5490 and 5462 for all details and General Notes not shown on this drawing.

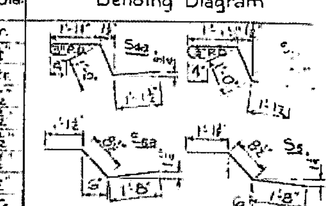
LOADING: H20-S16 (AASHO 1957) and Special Interstate Loading of 2 24,000# axles spaced 4'-0" on centers.



ROADWAY SECTION
Scale: 1/2" = 1'-0"

BAR LIST - EACH SPAN

Mark	Size	Number 43' Span	Number 41' Span	Length 43' Span	Length 41' Span	Pin Dia.	Bending Diagram
S_1	#6	70	66	21'-0"	21'-0"	str.	
S_2	#6	[illegible]	32	21'-6"	21'-6"	2 1/4"	
S_3	#4	80	80	22'-3"	21'-3"	str.	
S_4	#4	35	33	4'-6"	4'-6"	1 1/2"	
S_{4a}	#4	35	33	4'-6"	4'-6"	1 1/2"	
S_5	#4	34	32	3'-6"	3'-6"	1 1/2"	
S_{5a}	#4	34	32	3'-6"	3'-6"	1 1/2"	
S_6	#4	70	66	5'-4"	5'-4"	1 1/2"	
S_{3a}	#4	12	12	13'-9"	13'-1"	str.	

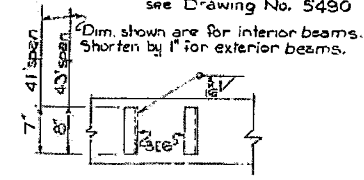


All dimensions are c. to c. of bars

For Bending Diagrams not shown see Drawing No. 5490

DEAD LOAD DEFLECTIONS

41' Span	24" WF	Δ = 7/16"
	36" WF	Δ = 1/16"
43' Span	27" WF	Δ = 1/2"
	36" WF	Δ = 1/4"



DETAILS OF SHEAR CONNECTORS
No scale

FOR INFORMATION ONLY

SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE
41' & 43' COMP. I-BEAM SPANS
(RAMP R-2) HWY. I - 40 OVERPASS
JCT. HWY 59 - SHIBLEY GRADE SEPARATION
CRAWFORD COUNTY
INT. ROUTE 540 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JEH DATE: 6-9-61
TRACED BY: DATE:
CHECKED BY: DV DATE: 6-22-61
SCALE: as shown

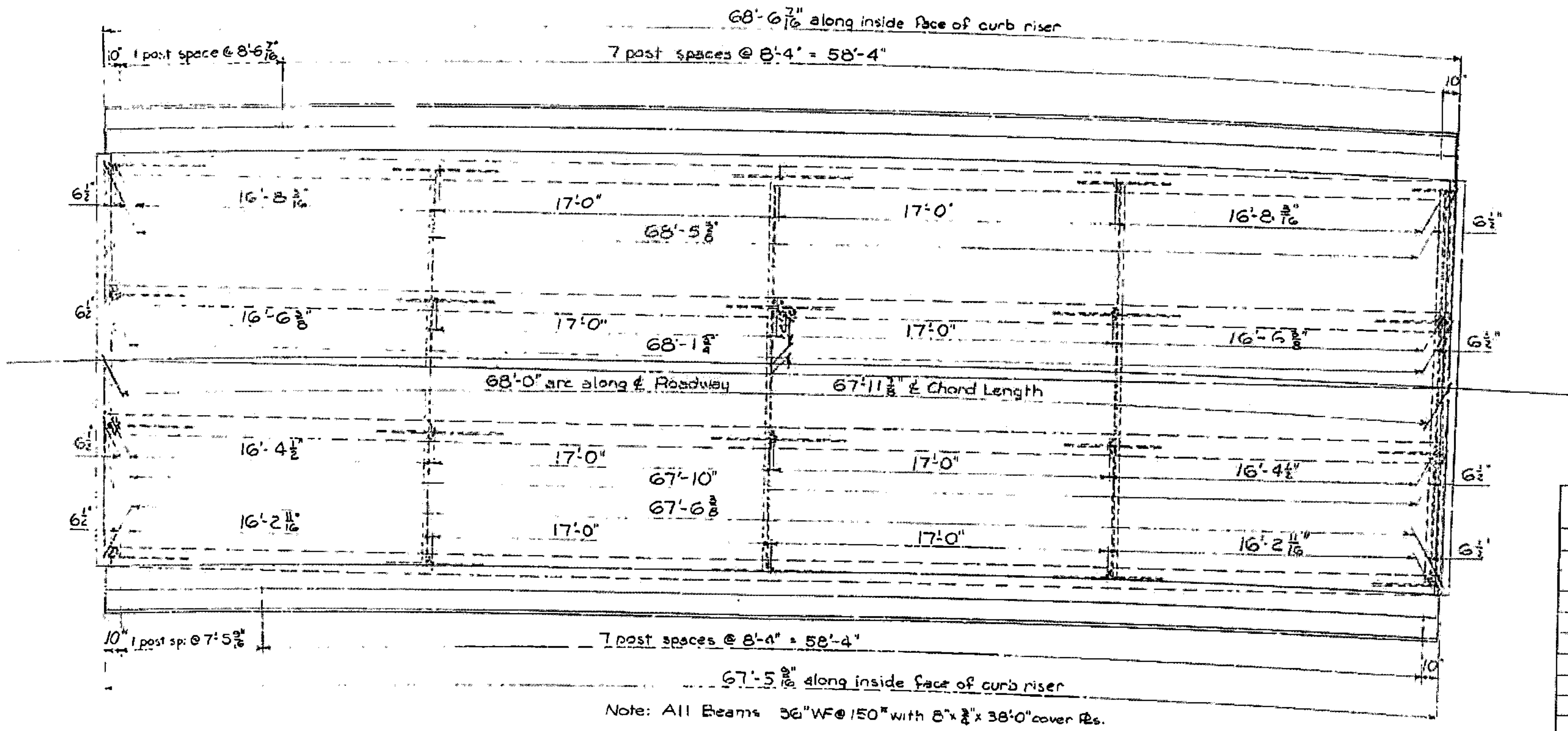
BRIDGE ENGINEER

BRIDGE NO. 3453 DRAWING NO. 11519

237

JOB NO.	BB0401	SHEET NO.	TOTAL SHEETS
		156	234

5 ARK I-540-1(14)15 30 75
446-3 57 210



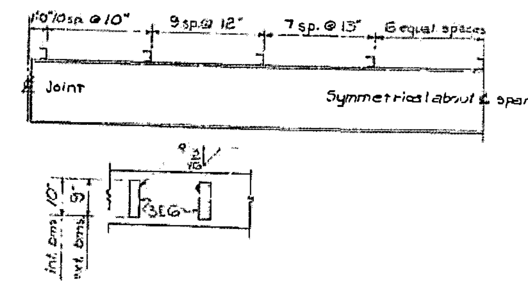
Note: All Beams 36"WF@150" with 8"x 3/4"x 38'-0" cover Pls.

PLAN

Scale: 1/4"=1'-0"

Dead Load Deflection

Int. Beam Δ = 1"
Ext. Beam Δ = 1 1/8"



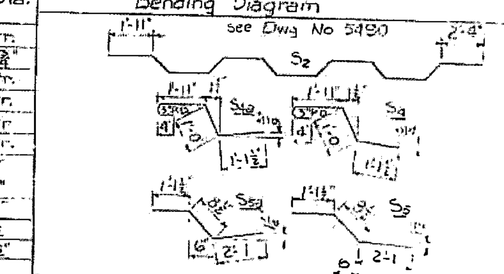
SHEAR CONNECTOR DETAILS AND SPACING

No Scale

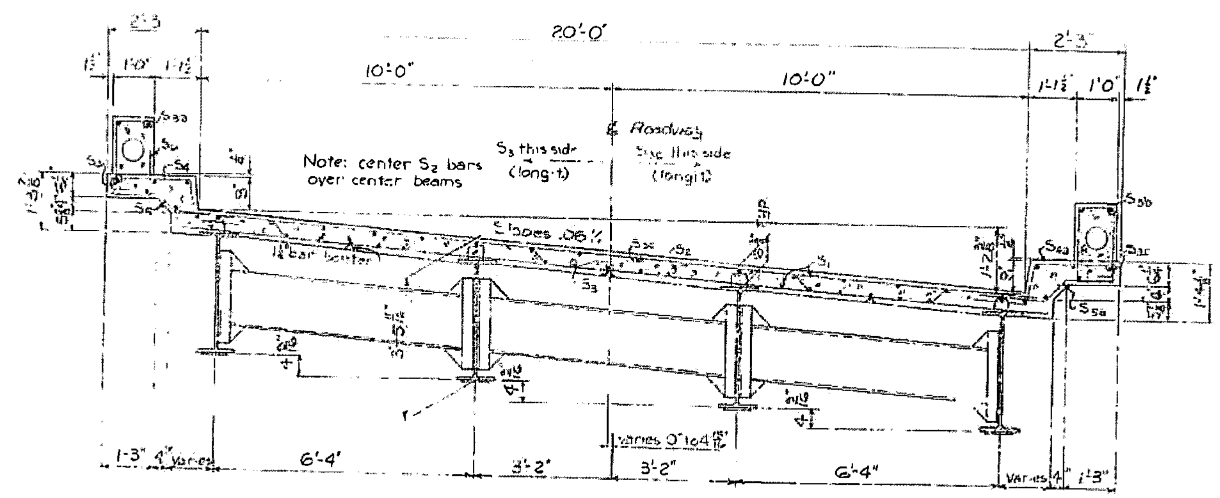
Mark	Size	Number	Length	Pin.Dia.
S1	#6	110	21'-0"	str.
S2	#6	54	21'-1"	1 3/4"
S3	#4	66	23'-9"	str.
S3a	#4	6	22'-3"	str.
S3b	#4	6	23'-3"	str.
S3c	#4	63	21'-11"	str.
S4	#4	55	4'-6"	1 1/2"
S5	#4	54	3'-11"	1 1/2"
S6	#4	110	5'-4	1 1/2"
S4a	#4	55	4'-6"	1 1/2
S5a	#4	54	3'-11"	1 1/2"

All dimensions are c/c. of bars

Bending Diagram



For Bending Diagrams not shown see Drawing No. 5490



ROADWAY SECTION

Scale 1/2"=1'-0"

GENERAL NOTE

See Dwgs No 5490 and 5492 for all details and General Notes not shown on this drawing.
WF Beams to be placed parallel to ℄ chord @ 6'-4" on centers. Roadway to be built on 1411.25' radius curve. ℄ joints to be on radial lines.

LOADING: H20-S16 (AASHO 1957) and Special Interstate Loading of 2 24,000# axles spaced 4'-0" on centers.

FOR INFORMATION ONLY

SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE
68' CMP. I-BEAM SPANS
(RAMP R2) HWY I-40 OVERPASS
JCT HWY 59- SHIBLEY GRADE SEPARATION
CRAWFORD COUNTY
INT. ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY LAN DATE 6-19-61
TRACED BY DATE SCALE AS SHOWN
CHECKED BY DV DATE 6-22-61

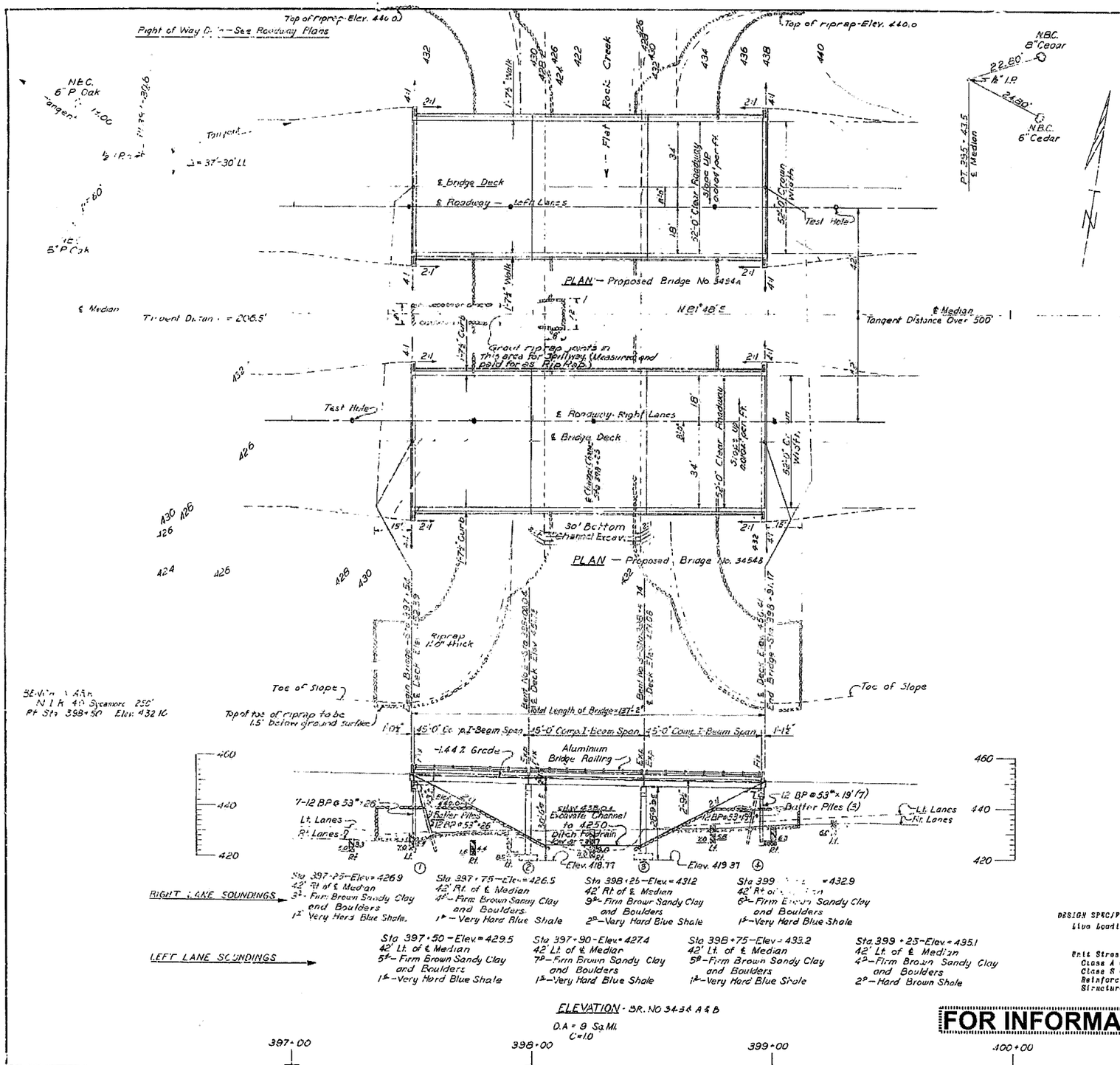
BRIDGE ENGINEER

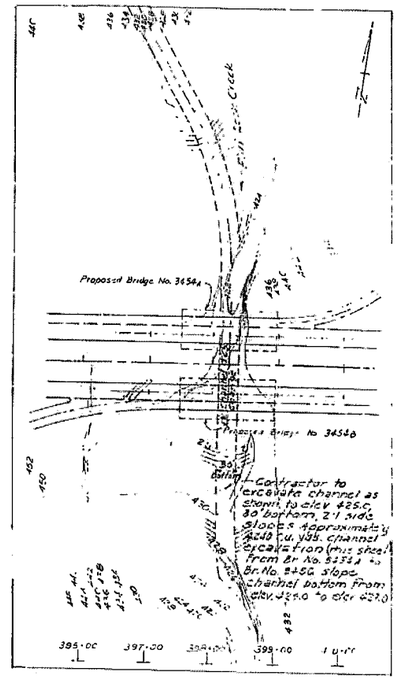
BRIDGE NO. 3455 DRAWING NO. 11520

238

JOB NO.	BB0401	SHEET NO. 157	TOTAL SHEETS 234

FED. AID PROJ. NO.	STATE JOB NO.
I-40-1(7)15	38 170
4463	58 210





LOCATION MAP
Scale: 1" = 100'

GENERAL NOTES

All concrete to be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

Rock excavation shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock. Excavate a minimum of 1.5 feet into hard shale for Intermediate Bent footings.

In general, all construction joints in bents shall be horizontal and shall be provided with keys not less than 12" high covering the middle third of both dimensions.

All piling shall be 12" BP @ 53# and shall be driven with a steam hammer to a minimum capacity of 50 tons per pile and into the material designated as shale on the boring logs. Lengths of piling shown are for estimating quantities only. Order lengths shown; cut off or build-up, if necessary, to be paid for in accordance with the Standard Specifications.

Piles in End Bents No. 1 and 4 shall be driven after the embankment is in place.

For details of End Bents see Drawing No. 11.522

For details of Intermediate Bents see Drawing No. 11.523

For details of 45'0" I-beam Spans see Drawing No. 5.465

Specifications: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, and designated Special Provisions.

DESIGN SPECIFICATIONS — AASHO 1957
Live Loading — H20-S16 and Special Interstate Loading of 2 24,000# axles spaced @ 4'0" ctrs.

Unit Stresses:

Class A Concrete (n=15)	840 psi
Class S Concrete (n=10)	1,200 psi
Reinforcing Steel	20,000 psi
Structural Steel	18,000 psi

FOR INFORMATION ONLY

BRIDGE ENGINEER

LAYOUT OF
BRIDGES OVER FLAT ROCK CREEK
JCT HWY 59—SHIBLEY GR SEP
CRAWFORD COUNTY
ROUTE 40(INT)SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK

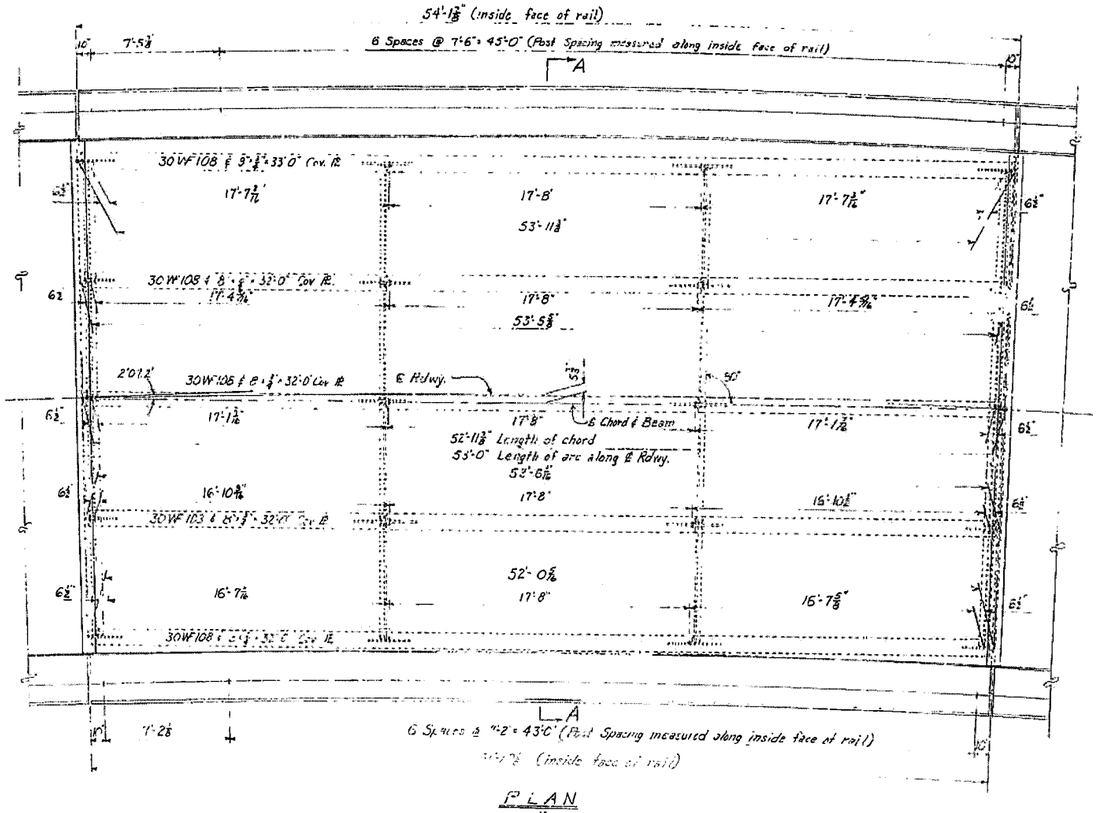
DRAWN BY: WRC DATE: 12-20-60
TRACED BY: DATE:
CHECKED BY: GEH DATE: 5-25-61
SCALE: 1" = 20'

BRIDGE NO. 3454 A & B **DRAWING NO. 11.521**

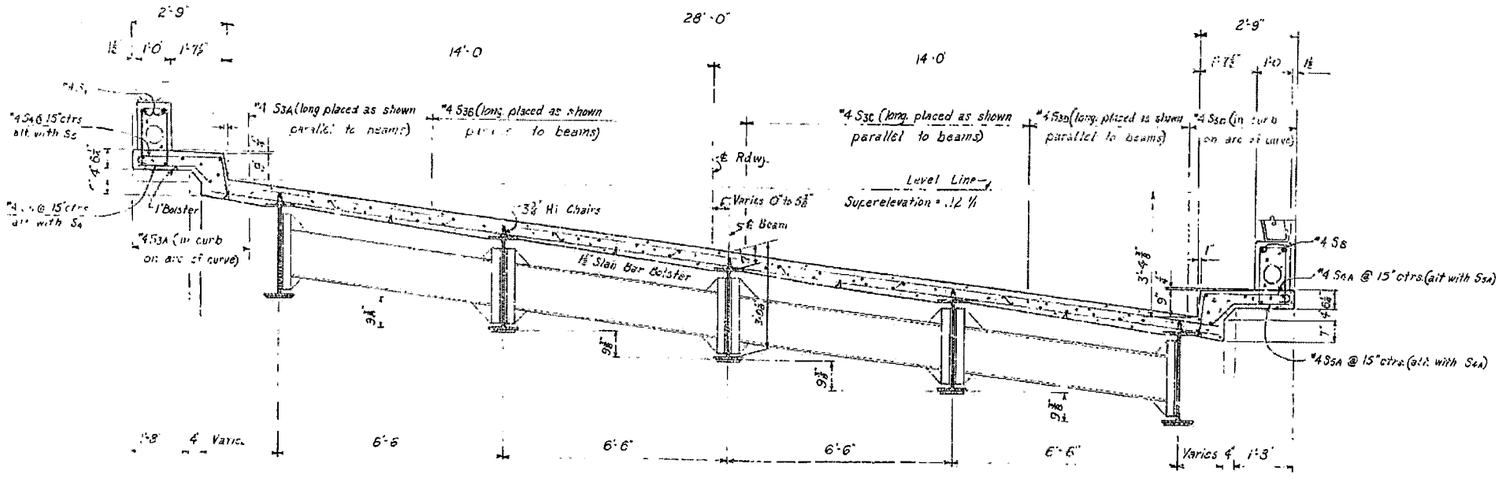
245

SHEET NO.	TOTAL SHEETS	I-540-(H)15	
JOB NO. BB0401	158	234	4463

34 75
65 210



PLAN
Scale: ¼" = 1'-0"



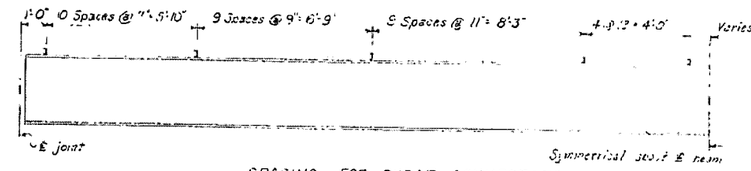
SECTION A-A
Scale: ½" = 1'-0"

BAR LIST

Mark	Size	No.	Length	P. Dia.	Bending Diagram
S1	#6	86	29'-4"	Str.	
S2*	#6	42	29'-7"	2½"	
S3A	#4	28	27'-8"	Str.	
S3B	#4	26	27'-4"	Str.	
S3C	#4	24	27'-0"	Str.	
S3D	#4	28	26'-8"	Str.	
S3	#4	44	5'-5"	1½"	
S3A	#4	42	5'-6"	1½"	
S5	#4	43	4'-4"	1½"	
S5A	#4	41	4'-6"	1½"	
S6	#4	66	5'-4"	1½"	
S7	#4	6	17'-6"	Str.	
S8	#4	6	16'-9"	Str.	

Dimensions are to centers of bars

* Center of bent-up portion to be centered over beams



SPACING FOR SHEAR CONNECTORS
Scale ⅜" = 1'-0"

NOTES

This drawing to be used with Dwg. No. 5471. For details not shown see Dwgs. No. 5462 and 5477.

WF beams are placed parallel to ℄ shown @ 6'-0" ctrs. and roadway is constructed on 8° curve with ℄ joints on radial lines.

FOR INFORMATION ONLY

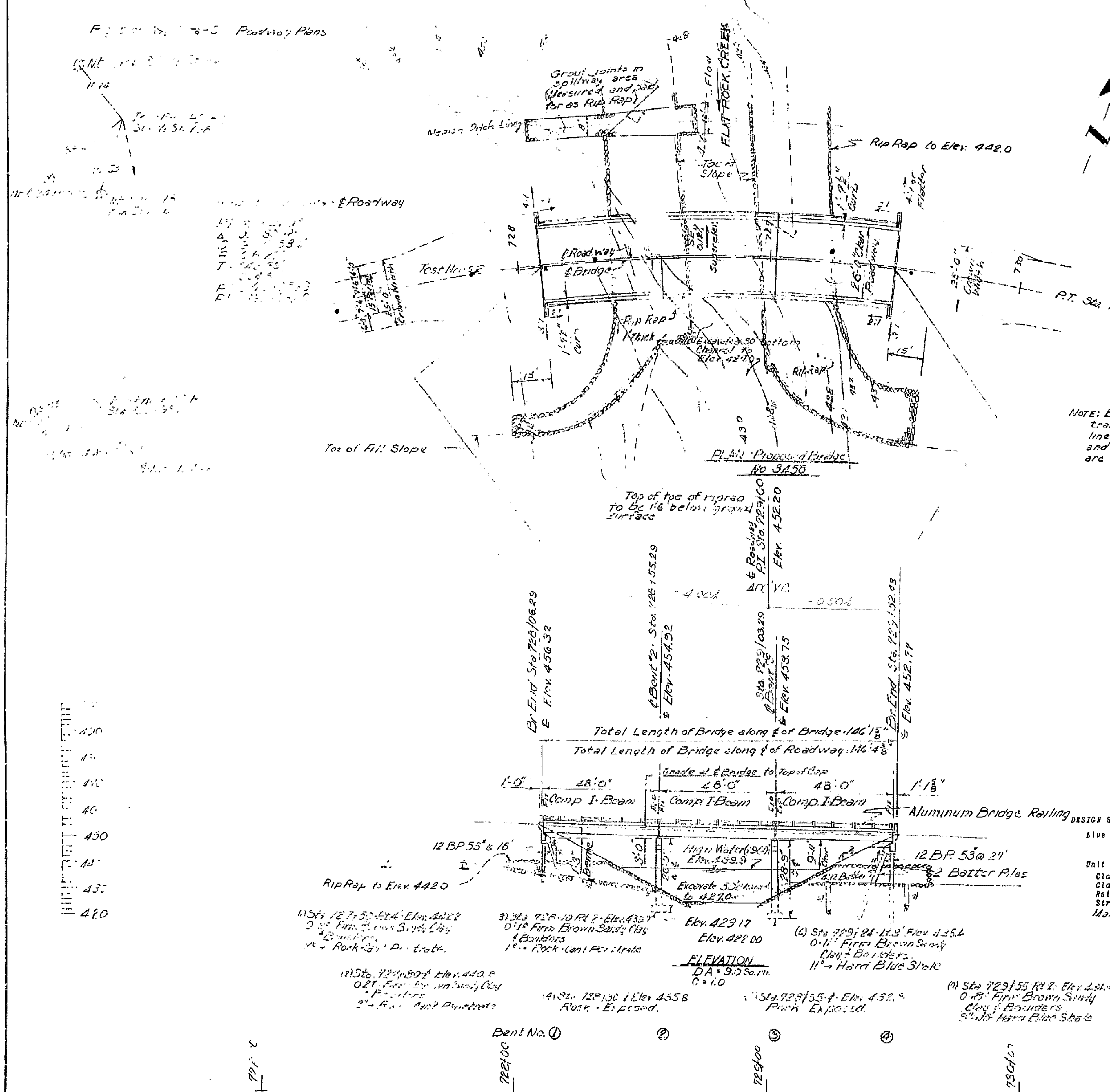
SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE
(RAMP R-1) BRIDGE OVER FLATROCK CREEK
JCT. HWY. 59 — SHIBLEY GRADE SEPARATION
CRAWFORD COUNTY
INT. ROUTE 540 SEC. 1

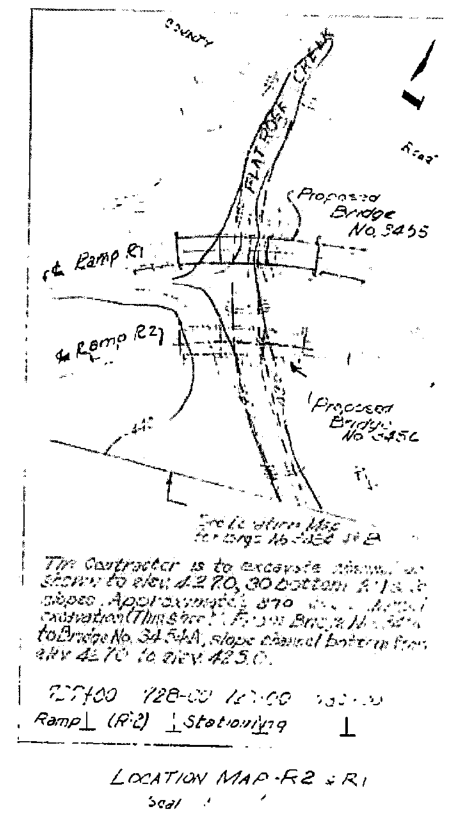
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: L.K. D TE 2-7-61
TRACED BY: DATE:
CHECKED BY: DATE: 6-13-61
SCALE: As Noted

BRIDGE ENGINEER

BRIDGE NO. 3455 DRAWING NO. 11527





GENERAL NOTES

All concrete to be poured in the dry. All exposed c... be chamfered ... unless otherwise noted.

Rock excavation shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock. Excavate a minimum of 1.5 feet into hard shale for Intermediate Bent Footings.

In general, all construction joints in bents shall be horizontal and shall be provided with keys not less than 1½" high covering the middle third of both dimensions.

All piling shall be 12"BP @ 53# and shall be driven with a steam hammer to a minimum capacity of 36 tons per pile and into the material designated as shale on the boring logs. Lengths of piling shown are for estimating quantities only. Order lengths shown; cut off or build-up, if necessary, to be paid for in accordance with the Standard Specifications.

Piles in End Bents No. 1 and 4 shall be driven after the embankment is in place.

For details of End Bents see Drawing No. 11529.

For details of Intermediate Bents see Drawing No. 11530.

For details of 48'0" I-beam Spans see Drawing No. 5465, 5462, 11531.

...ifications: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, and designated Special Provisions.

DESIGN SPECIFICATIONS — AASHO 1957

Live Loading	H20-S16 and Special Interstate Loading of 2 24,000# axles spaced @ 4'0" ctrs.
Unit Stresses:	
Class A Concrete (n=15)	840 psi
Class S Concrete (n=10)	1,200 psi
Reinforcing Steel	20,000 psi
Structural Steel	18,000 psi
Max. Foundation Pressure	3.5 Tons/ft²

B.M.: Bent Nail in Base 12" 2 Pronged R.Oak 90' Rt. Sta. 389+60 ... Elev. 4...

Revision: Revised Length & Rdwy. Width 2-28-61, M.G

BRIDGE ENGINEER

FOR INFORMATION ONLY

(RAMP R-2) LAYOUT OF BRIDGE OVER FLAT ROCK CREEK JCT. HWY. 59 - SHIBLEY GR. SEPR. CRAWFORD COUNTY

INT. ROUTE 540 SEC.1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

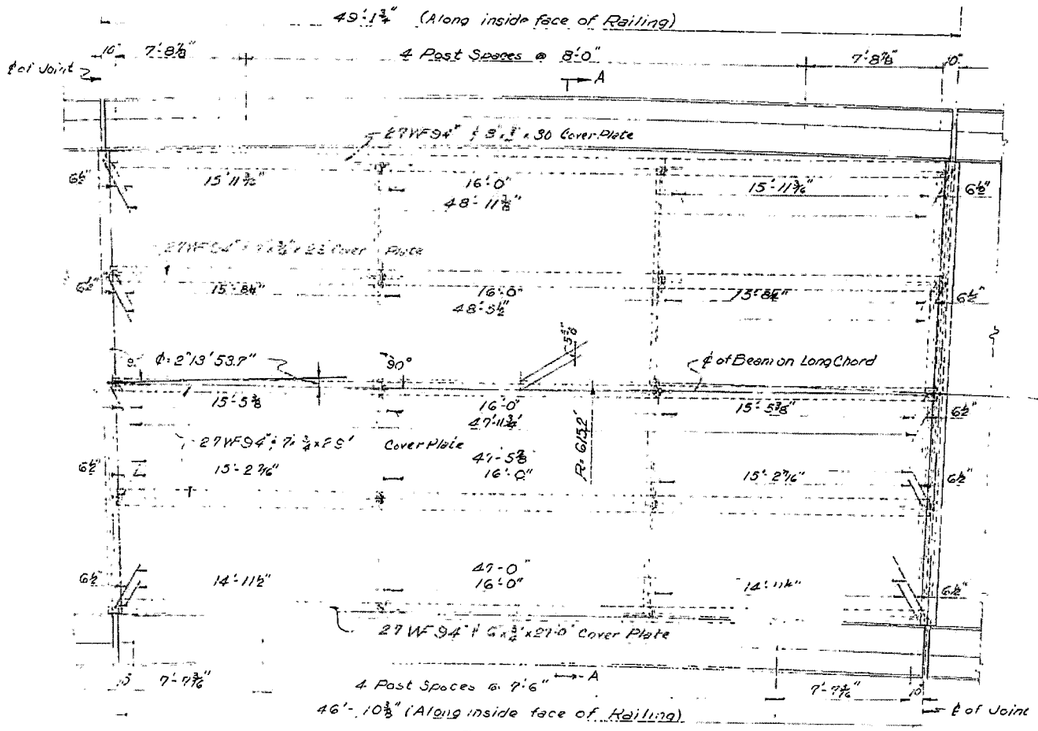
DRAWN BY: ... DATE: ...
TRACED BY: ... DATE: ...
CHECKED BY: D.V. DATE: 6-27-61

SCALE 1" = 20'

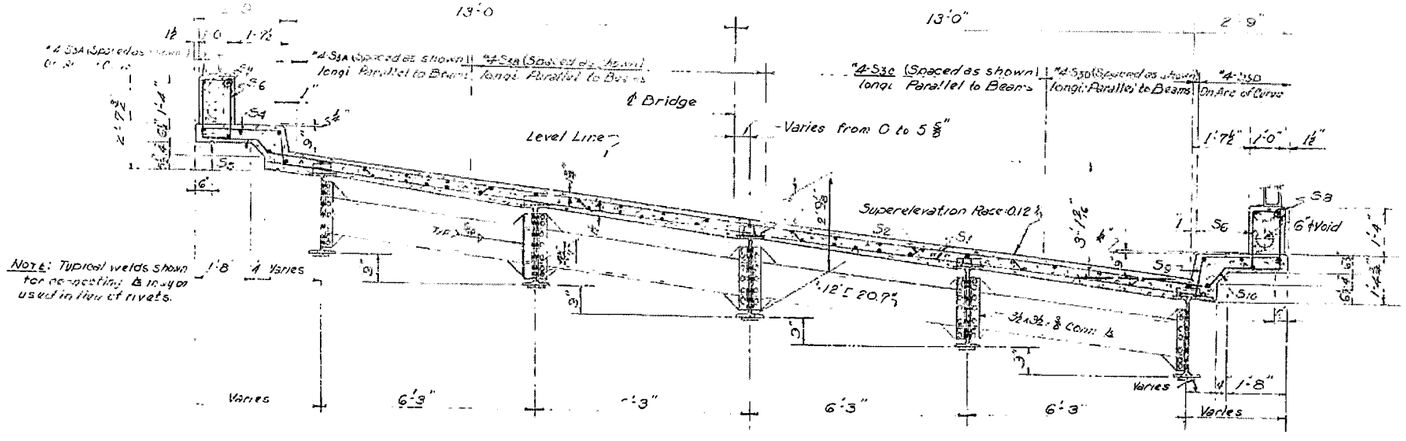
BRIDGE NO. 3456 DRAWING NO. 11528

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	160	234

FED ROAD No.	STATE	I.D. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.	1540(11)4/6		39	75
JOB No.	4463			70	210



PLAN
Scale: 3/8" = 1'-0"



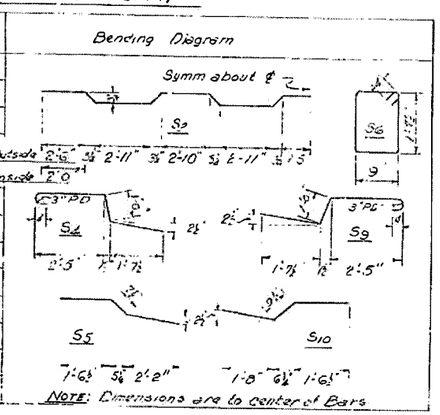
SECTION A-A
Scale: ½" = 1'-0"

For Additional Details See Dwg. No. 5465 & 5462

BAR LIST - ONE SPAN

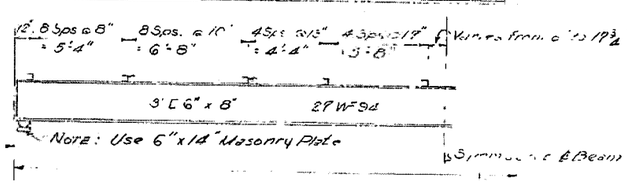
Mark	Size	No.	Length	Pin Dia.
S1	#6	78	27'-4"	Str.
S2	#6	38	27'-6"	2½"
S3A	#4	28	25'-2"	Str.
S3B	#4	26	24'-10"	
S3D	#4	24	24'-6"	
S4	#4	28	24'-2"	Str.
S5	#4	40	5'-5"	1½"
S6	#4	39	4'-3"	1½"
S7	#4	78	3'-4"	1½"
S8	#4	6	15'-10"	Str.
S9	#4	6	15'-1"	Str.
S10	#4	38	5'-5"	1½"
S11	#4	37	3'-11"	1½"

Bending Diagram



NOTE: Dimensions are to center of Bars

SPACING FOR SHEAR CONNECTORS



Slab Reinforcing
Transverse: #6-S1 @ 15" ctrs. Top & Bottom
#6-S2 @ 15" ctrs. Dent over Beams
Longitudinal: #4-S3: - S3D Placed as Shown Parallel to Beams
Curb Reinforcing
Transverse: #4-S4 & S9 @ 15" ctrs. in Top
#4-S5 & S10 @ 15" ctrs in Bottom
Longitudinal: #4 S3A, S3D Placed as Shown on Arc of Curve
Curb Riser Reinforcing
#6-S6 @ 15" ctrs.
#4-S7 & S8 Placed as Shown

FOR INFORMATION ONLY

SUPPLEMENTAL DETAILS FOR SUPERSTRUCTURE
(RAMP R-2) BRIDGE OVER FLAT ROCK CREEK
JCT. HWY. 59 - SHIBLEY GRADE SEPARATION
CRAWFORD COUNTY

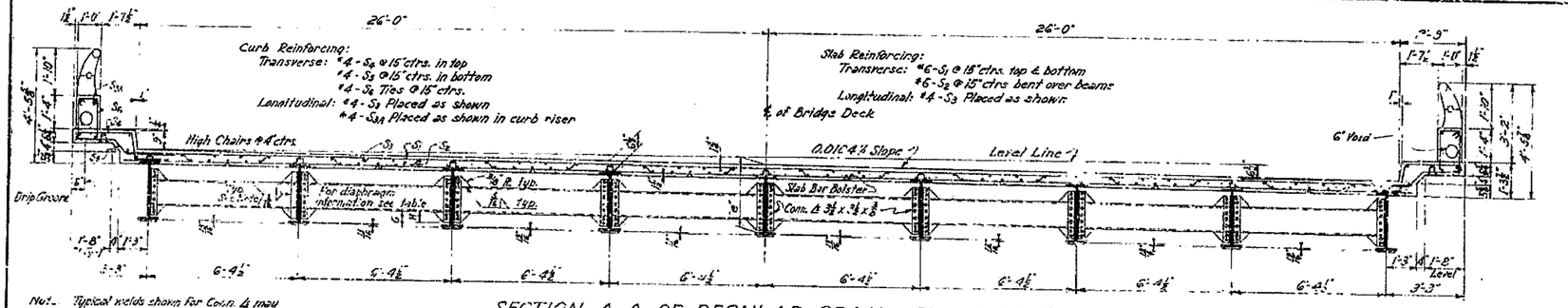
INT. ROUTE 540 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MB DATE: 6-1-61
TRACED BY: DATE:
CHECKED BY: DATE: 7-16-61
SCALE: As Shown

BRIDGE ENGINEER

BRIDGE NO. 3456 DRAWING NO. 11531

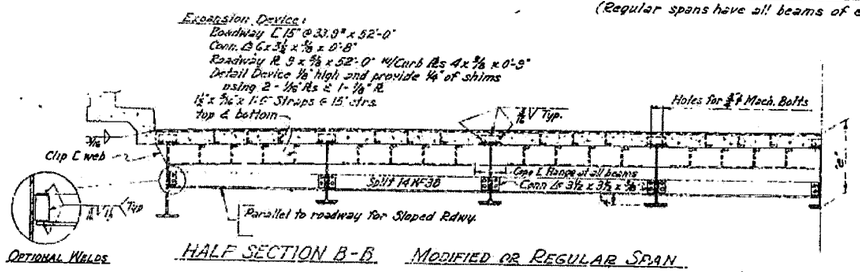
JOB NO.	SHEET NO.	TOTAL SHEETS		TOTAL
BB0401	161	234	I-40-R(7)5	41 170
			4463	61 210



Note: Typical welds shown for Conn. ∠ may be used in lieu of rivets.

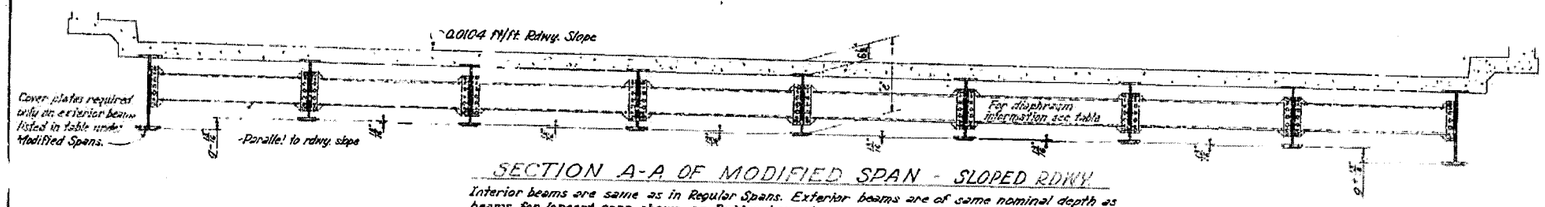
SECTION A-A OF REGULAR SPAN - SLOPED RDWY.

(Regular spans have all beams of equal depth.)



OPTIONAL WELDS

HALF SECTION B-B MODIFIED OR REGULAR SPAN



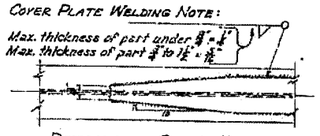
SECTION A-A OF MODIFIED SPAN - SLOPED RDWY.

Interior beams are same as in Regular Spans. Exterior beams are of same nominal depth as beams for longest span shown on Bridge Layout.

DIAPHRAGM TABLE

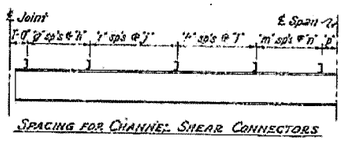
SPAN LENGTHS	CHANNEL SIZE	REGULAR SPAN Ext Beam No. Rivets	REGULAR SPAN Int Beam No. Rivets	MODIFIED SPAN Ext Beam No. Rivets	MODIFIED SPAN Int Beam No. Rivets	G	H
43'-49'	12 C 20.7	7	7	7	7	7"	5"

COVER PLATE WELDING NOTE:

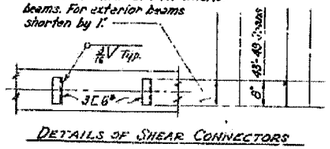


DETAILS OF COVER PLATES

Not to Scale



SPACING FOR CHANNEL SHEAR CONNECTORS



DETAILS OF SHEAR CONNECTORS

VARIABLES OF SHEAR CONNECTOR SPACING

SPAN	45'
"a"	8
"b"	7"
"c"	9
"d"	8"
"e"	7
"f"	10"
"m"	5
"n"	12"
"p"	0

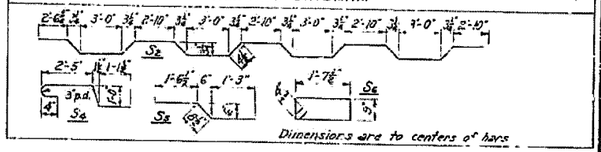
Note: Stud shear connectors, granular flux filled, solid fluxed, or equal, may be used in place of the channels shown at the following ratios: ¾" diameter stud in place of 1.82 inches of channel, ⅞ diameter stud in place of 2.62 inches of channel. The studs shall be 4" long and automatically end welded to the beam flanges in accordance with recommendations of the manufacturer.

Channel sections will be used as basis for measurement of structural steel in shear connectors.

BAR LIST - ONE SPAN

MARK	SIZE	LENGTH	PIN DIA.	No. REQUIRED EACH SPAN 45'
S_1	6	27'-10"	Str.	148
S_2	6	28'-10"	2½"	12
S_3	4	5'-6"	Str.	–
S_4	4	5'-6" + 7"	Str.	186
S_{4A}	4	4'-11"	1½"	74
S_5	4	3'-6"	1½"	72
S_6	4	5'-4"	1½"	74
S_{5A}	4	3'-(1'-8")	Str.	12

BENDING DIAGRAM



Dimensions are to centers of bars.

DESIGN SPECIFICATIONS - A.A.S.H.O. 1957

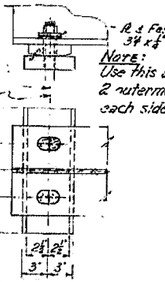
Live Loading: H20 - S16 and Special Interstate Loading of 2 - 24,000 # axles spaced @ 4'-0" ctrs.

	Interior Beam	Exterior Beam
1. Dead Load:		
a. To N.C. Beam	528 # + 1.1 (wt/ft of N.C.)	688 # + 1.1 (wt/ft of N.C.)
b. To Composite Beam	125 #/	125 #/
2. Live Load:		
a. To each Composite Beam	1.159 Wheels + Impact	1.140 Wheels + Impact
Unit Stresses:		
Class S Concrete (n = 10)	1350 psi	
Structural Steel	18000 psi	
Reinforcing Steel	20,000 psi	

GENERAL NOTES

This drawing to be used with Drawing No. 5462 for complete details. Dr. Drawing No. 5462 th: Elevation Showing Plate Guard Railing and the detail of Joint at End Bent Showing Modified Span does not apply.

For Type 'B' Fixed or Expansion Shoe and Type 'A' Fixed Shoe use the shoe plates given for 28' roadway spans for the 5 interior beams about ℄. See Detail below for plates for the 2 outermost beams each side of ℄.



JOINT AT END BENT MODIFIED SPAN

Scale: ¾" = 1'-0"

Note: Use this section instead of section shown on Dwg. No. 5462. For Details of beam build-ups see Dwg. No. 5462.

Note: Use this detail for 2 outermost beams each side of ℄.

DETAIL - MODIFIED TYPE 'B' SHOE

Scale: ½" = 1'-0"

SPAN	REGULAR SPAN BEAM	REGULAR SPAN COVER PLATE INTERIOR	REGULAR SPAN COVER PLATE EXTERIOR	POST SPACING FOR ALUM. RAILING a	b	c	MODIFIED SPANS EXTERIOR BEAMS REQUIRING COVER PLATE BEAM	MODIFIED SPANS EXTERIOR BEAMS REQUIRING COVER PLATE COVER PLATE	"e"	DEAD LOAD DEFLECTION (Regular Spans) INT.	DEAD LOAD DEFLECTION (Regular Spans) EXT.	STRUT SPACING No. @ "d"
45	27 WF 94	6" x ⅞" x 25'-0"	6" x ⅞" x 23'-0"	7'-6"	7'-1"	4	30 KF 108	4" x ⅝" x 12'-0"	2'-9⅜"	7/16	5/16	3 @ 15'-0"

VALUES OF "g" AND DEAD LOAD DEFL. FOR OUTSIDE BEAMS ON MODIFIED SPANS

27 WF 94 g	Δ	30 KF 108 g	Δ	33 WF 130 g	Δ	36 KF 150 g	Δ
3"	5/16"	6⅜"	3/16"	9⅜"	5/16"		

DETAILS OF STANDARD COMPOSITE T-BEAM SPANS

52' CLEAR ROADWAY T-7½ CURBS

ROADWAY: 0.01C4% SLOPE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: A.K. DATE: 8-5-61

TRACED BY: DATE:

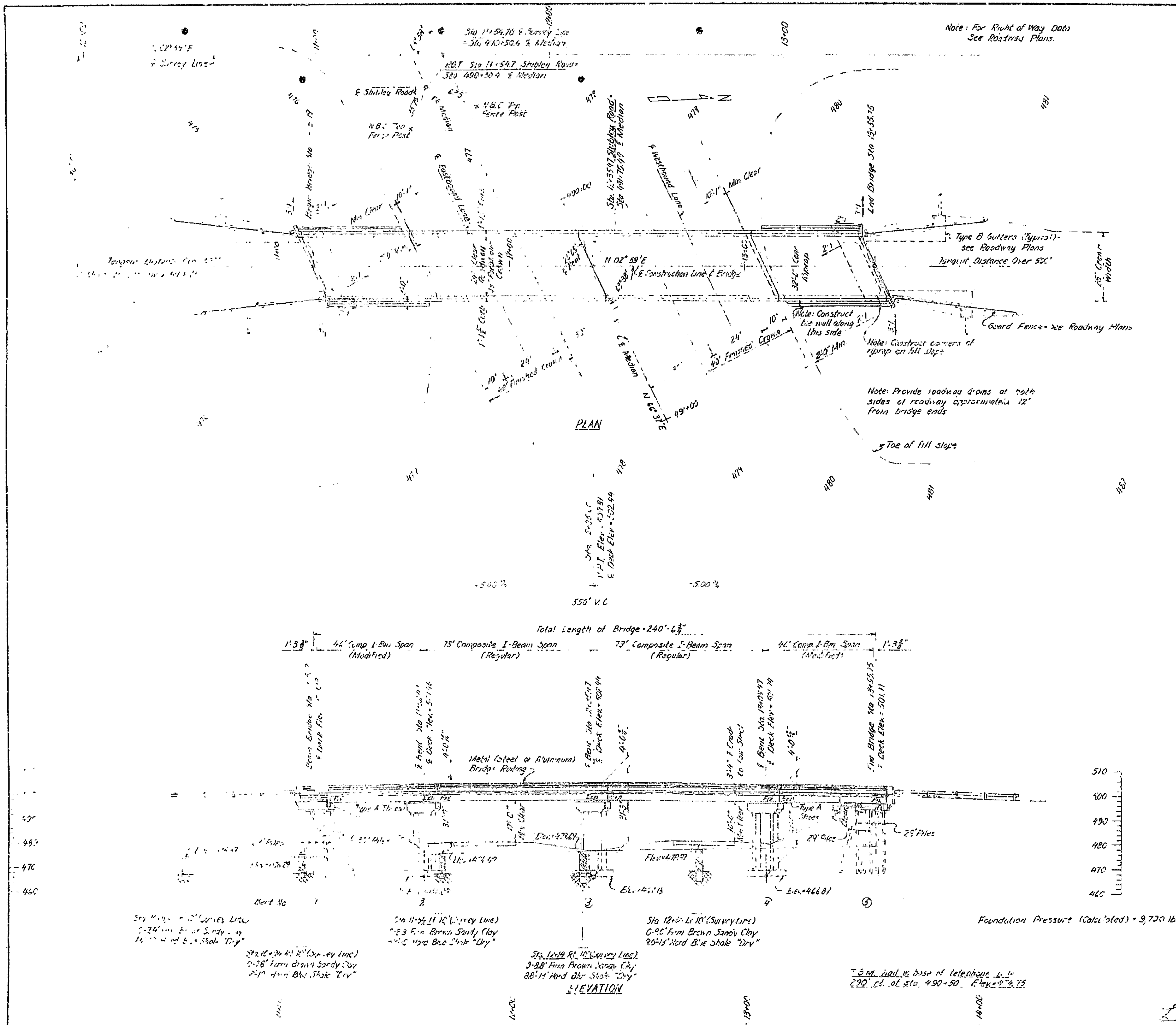
CHECKED BY: DK DATE: 8-5-61

SCALE: ½" = 1'-0" & As Noted

BRIDGE NO. 3454 A & B DRAWING NO. ~~5463~~ FILE AS DWG. No. 5463 A

FOR INFORMATION ONLY

BRIDGE ENGINEER



GENERAL NOTES

All concrete to be poured in the dry. Exposed corners to be chamfered 3/4" unless otherwise noted.

Rock excavations shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock. Min Excav. 1'.

In general, all construction joints in bents or piers shall be horizontal and shall be provided with keys not less than 1½" high covering the middle third of both dimensions.

All piling shall be 12-BP-53 and shall be driven with an approved air, steam or diesel hammer to a minimum capacity of 36 tons per pile and to the material designated as shale on the boring logs. Lengths of pile shown are for estimating quantities only. Order lengths shown; cut-off or build-up, if necessary, to be paid for in accordance with the Standard Specifications.

Piles in End Bents shall be driven after embankment is in place.

For Details of End Bents see Dwg. No. 12653.
For Details of Intermediate Bents see Dwg. No. 12654.
For Details of Composite I-Beam Spans see Dwg. No. 12655, 12656, 12657.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, and designated Special Provisions.

DESIGN SPECIFICATIONS:		AASHO 1961
Live Loading:	H-15	
Unit Stresses:	Class A Concrete (n=15)	840 psi
	Class S Concrete (n=10)	1,200 psi
	Reinforcing Steel	20,000 psi
	Structural Steel (A-36)	20,000 psi

Revised Layout 3-29-65 T.I.L.
Checked 4-1-65 A.J

LAYOUT OF
SHIBLEY ROAD UNDERPASS
SHIBLEY GRADE SEPARATION - ALMA
CRAWFORD COUNTY
INT ROUTE 40 SEC. 1

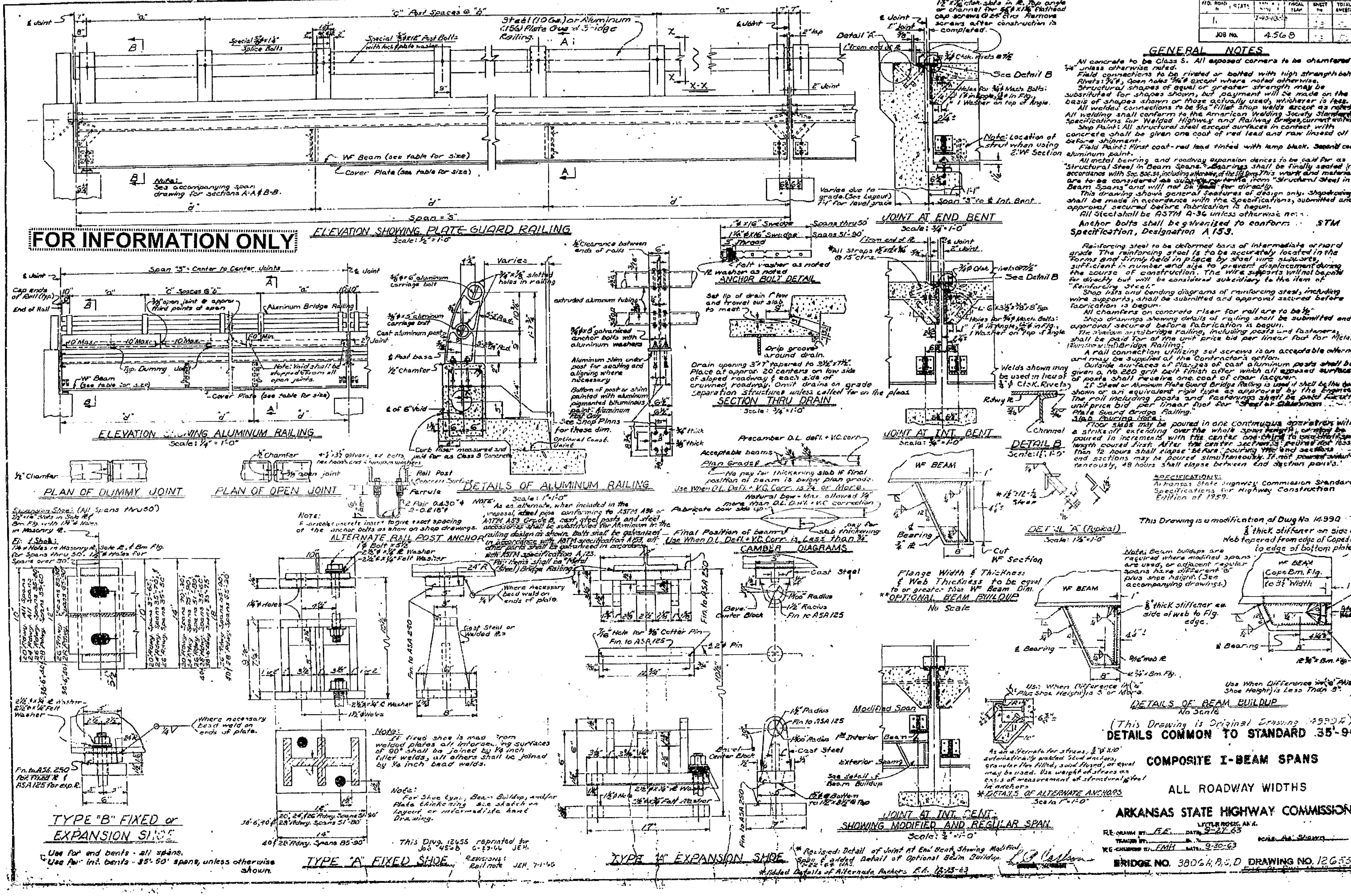
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: T.I.L. DATE: 5-17-62
TRACED BY: DATE:
CHECKED BY: D.V. DATE: 5-23-63
SCALE: 1" = 20'

BRIDGE ENGINEER

BRIDGE NO. 3800 DRAWING NO. 12652

FOR INFORMATION ONLY



FED. ROAD	STATE		FISCAL YEAR	SHEET No.	TOTAL SHEETS
JOB No.	4568				

GENERAL NOTES

All concrete to be Class S. All exposed corners to be chamfered ¾" unless otherwise noted.

Field connections to be riveted or bolted with high strength bolts. Rivets: ⅞"⌀, Open holes 15/16"⌀ except where noted otherwise.

Structural shapes of equal or greater strength may be substituted for shapes shown, but payment will be made on the basis of shapes shown or those actually used, whichever is less.

All welded connections to be 5/16" Fillet shop welds except as noted. All welding shall conform to the American Welding Society Standard Specifications for Welded Highway and Railway Bridges, current edition.

Shop Paint: All structural steel except surfaces in contact with concrete shall be given one coat of red lead and raw linseed oil before shipment.

Field Paint: First coat - red lead tinted with lamp black. Second coat aluminum paint.

All metal bearing and roadway expansion devices to be paid for as "Structural Steel in Beam Spans." Bearings shall be finally sealed in accordance with Sec. 806.54, including alternate, of the Std. Specs. This work and material are to be considered as subsidiary to item "Structural Steel in Beam Spans" and will not be paid for directly.

This drawing shows general features of design only. Shop drawings shall be made in accordance with the Specifications, submitted and approval secured before fabrication is begun.

All Steel shall be ASTM A-36 unless otherwise noted.

Anchor bolts shall be galvanized to conform ASTM Specification, Designation A 153.

Reinforcing steel to be deformed bars of intermediate or hard grade. The reinforcing steel is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly but will be considered subsidiary to the item of "Reinforcing Steel."

Shop lists and bending diagrams of reinforcing steel, including wire supports, shall be submitted and approval secured before fabrication is begun.

All chamfers on concrete riser for rail are to be ½".

Shop drawings showing details of railing shall be submitted and approval secured before fabrication is begun.

The aluminum bridge railing, including posts and fasteners, shall be paid for at the unit price bid per linear foot for Metal (Aluminum) Bridge Railing.

A rail connection utilizing set screws is an acceptable alternate and may be supplied at the Contractor's option.

Outside surfaces of flanges of cast aluminum posts shall be given a No. 220 grit belt finish after which all exposed surfaces of posts shall receive one coat of clear lacquer.

If Steel or Aluminum Plate Guard Bridge Railing is used it shall be the type shown or an equivalent rigid type as approved by the Engineer. The rail including posts and fastenings shall be paid for at the unit price bid per linear foot for "Steel or Aluminum Plate Guard Bridge Railing."

Slab Pouring Note:

Floor slabs may be poured in one continuous operation with a strikeoff extending over the whole span length, or may be poured in increments with the center one-third to one-half span length poured first. After the center section is poured not less than 12 hours shall elapse before pouring the end sections. The end sections may be poured simultaneously. If not poured simultaneously, 48 hours shall elapse between end section pours.

SPECIFICATIONS:

Arkansas State Highway Commission Standard Specifications for Highway Construction Edition of 1959.

This Drawing is a modification of Dwg No. 14990

(This Drawing is Original Drawing 12998)

DETAILS COMMON TO STANDARD 35'-90' COMPOSITE I-BEAM SPANS

ALL ROADWAY WIDTHS

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

RE-DRAWN BY: F.E. DATE: 9-27-63

SCALE: As Shown

RE-CHECKED BY: FMH DATE: 9-30-63

BRIDGE NO. 3806A,B,C,D DRAWING NO. 12655

HALF SECTION A-A OF REGULAR SPAN

(Regular spans have all beams of equal depth)

DIAPHRAGM 58'-67' SPANS

DIAPHRAGM 35'-90' SPANS

Parapet Type Railing

Plate Guard Br. Railing
Non pay items

HALF SECTION B-B OF MODIFIED SPANS

Interior beams are same as in Regular Spans. Exterior beams are the lightest section of the same nominal depth as beams for longest span shown on Bridge Layout.

For location of joints ~ 41'-8" & variable: see Dwg. No. 12655

BAR LIST - ONE SPAN

MK	SIZE	LENGTH	PIN DIA	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	65	70	73	80	85	90
				Number Required Each Span																															
S₁	5	25'-8	Str.	[illegible]	62	64	66	68	70	72	74	74	76	78	80	82	84	86	86	88	90	92	94	96	98	98	100	102	104	112	120	126	138	146	154
S₂	5	26'-4	1¾	30	30	31	32	33	34	35	36	36	37	38	39	40	41	42	42	43	44	45	46	47	48	48	49	50	51	55	59	62	68	72	76
S₃	4	5-6"	Str.	60																															
S₅	4	5½+7"	Str.								120																								
S₇	4	5½+1'-0	Str.																										160						
* S4	4	4'-6	1½	62	62	64	66	68	70	72	74	74	76	78	80	82	84	86	86	88	90	92	94	96	98	98	100	102	104	112	120	126	138	146	154
* S5	4	3'-0	1½	60	60	62	64	66	68	70	72	72	74	76	78	80	82	84	84	86	88	90	92	94	96	96	98	100	102	110	116	124	136	144	152
S₆	4	5'-4	1½	62	62	64	66	68	70	72	74	74	76	78	80	82	84	86	86	88	90	92	94	96	98	98	100	102	104	112	120	126	138	146	154
S3A	4	5-(1'-8")/3	Str.											12																					
PO₁	5	5'-10	1¾	28				32					36						40						44				48	52		56	60	64	
PO₂	3	2'-8	1¼	56				64					72						80						88				96	104		112	120	128	

BENDING DIAGRAM

Post Reinforcing: #5 PO₁ - 2 per post
#3 PO₂ - 4 per post

Expansion Device:
Roadway C-12 ⊏ 20.7 × 24'-0 (Bent to crown)
Rdwy ℘. 8× ⅜ ×24'-0 Conn. Ls 6×3" ... 0-C
Denail device ⅜" high and provide ¼" of shims (2-⅛"pls and one ⅛"pl.)
1½"×⅜"×1'-0 Anchors weld to ⊏ (see Dwg. 12655)

Note. 4:1" for Regular Span.

HALF SECTION B-B FOR MODIFIED OR REG. SPANS

*S4 & S5 FOR PLATE GUARD BRIDGE RAILING

SHEAR CONNECTOR SPACING

DETAILS OF SHEAR CONN.

No Scale

SPAN	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	65	70	73	80	85	90
9"	6	5	7	7	7	7	7	8	[illegible]	8	8	8	8	8	6	8	8	[illegible]	9	9	9	9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10	11	12	12
[illegible]	8"	8"	8"	8"	8"	8"	8"	8"	8"	10"	8"	8"	8"	8"	9"	9"	9"	9"	9"	9"	9"	9"	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9"	[illegible]	12"	[illegible]	12"
[illegible]	5	5	5	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	[illegible]	8	8	9	9	9
[illegible]	10"	10"	10"	10"	10"	10"	10"	10"	[illegible]	12"	12"	[illegible]	12"	10"	11"	11"	11"	[illegible]	11"	[illegible]	11"	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	14"	14"	14"	12"
[illegible]	4	[illegible]	4	4	5	[illegible]	5	[illegible]	5	5	5	5	5	[illegible]	5	[illegible]	6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7
[illegible]	[illegible]	12	12"	12"	12"	[illegible]	12"	12"	[illegible]	12"	12"	12"	12"	12"	12"	12"	12"	[illegible]	13"	13"	[illegible]	[illegible]	[illegible]	11"	13"	[illegible]	[illegible]	[illegible]	17"	[illegible]	17"	15"
[illegible]	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	[illegible]	3	[illegible]	4	4	[illegible]	4	4	4	5	5	5
[illegible]	15"	16"	15"	17"	15"	15"	16"	15"	17"	16"	18"	20"	18"	20"	19"	21"	19"	[illegible]	20"	21"	20"	22"	20"	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21"	[illegible]	22"	22"
[illegible]	7"	10"	[illegible]	[illegible]	11"	7"	12"	11"	11"	10"	10"	16"	13"	10"	11"	11"	10"	10"	16	10"	11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11"	11"	[illegible]	13"

Note. Stud shear connectors, granular flux filled, solid flux, or equal may be used in place of the channels shown at the following ratios: 3/4" diameter stud in place of 1.82 inches of channel, 7/8" diameter stud in place of 2.52 inches of channel. The studs shall be 4" long and automatically end welded to the beam flanges in accordance with recommendations of the manufacturer.
Channel sections will be used as basis for measurement of structural steel in shear connectors.

Deflection of exterior beam is for Regular Spans only.

Span	Beam	Cover Pl.	Cover Pl.	[illegible]	[illegible]	[illegible]	Exterior Beams (Modified Spans) Beam	Cover Pl.	[illegible]	[illegible]	[illegible]	e	Dead Load Deflection Int.	Dead Load Deflection Ext.	Diaph. Spacing No. @ d
35	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	5'-8	4	2'-2⅝	⅜"	9/16"	2@17'-3"
36	[illegible]	[illegible]	[illegible]	6'-8	[illegible]	[illegible]			5'-7	5'-1	4		7/16	⅝	3@18'-0
37	[illegible]	[illegible]	[illegible]×10'-0	7'-2	[illegible]	[illegible]			6'-1	5'-1	4		½"	⅝	2@18'-6
38	[illegible]	[illegible]	[illegible]×10'-0	7'-2	7'-4	3			[illegible]	5'-2	4		9/16	¾"	2@19'-0
39	[illegible]	[illegible]	[illegible]×12'-0	7'-6	7'-0	[illegible]			5'-7	5'-4	5		⅝	13/16	2@19'-6
40	[illegible]	[illegible]	[illegible]×15'-0	7'-8	7'-8	3			5'-8	5'-6	5		⅝	⅞"	2@20'-0
41	[illegible]	[illegible]	[illegible]×19'-0	7'-8	8'-0	3			5'-9	5'-8	5		11/16"	15/16	3@13'-8"
42	[illegible]	[illegible]	[illegible]×21'-0	8'-2	9'-0	3			[illegible]	5'-10	[illegible]		¾	1	3@14'-0"
43	[illegible]	[illegible]	[illegible]×24'-0	5'-11	8'-5	3	24 WF 68	4×⅝×17'-0	5'-11	6'-0	5		13/16	1 1/16	3@14'-4"
44	27 WF 55	[illegible]	[illegible]	5'-5	8'-6	3		4×⅝×19'-0	6'-2½	6'-1	5	2'-2⅝	⅞	1 3/16	3@14'-8"
45	27 WF 62	[illegible]	[illegible]	7'-6	7'-1	4		4×⅝×18'-0	5'-5	5'-6	6	2'-2⅝	⅞	1 3/16	3@15'-0"
46		[illegible]	[illegible]×25'-0	7'-2	7'-4	4		4×⅝×[illegible]	5'-8	5'-7	6		15/16	1¼	3@15'-4"
47		[illegible]×29'-0	[illegible]	7'-6	7'-7	4		5×⅝×[illegible]	5'-8	5'-9	6		1"	1⅜	3@15'-8"
48	24 WF 62	7"×[illegible]	[illegible]×25'-0	7'-3	7'-9	4	24 WF 60	6×⅝×23'-0	5'-11	5'-10	6	2'-2⅝	1 1/16	1 7/16	3@16'-0"
49	24 WF 65	5"×[illegible]	[illegible]×27'-0	7'-8	8'-0	4			5'-11	6'-0	6	2'-5⅝	1 1/16	1½	3@16'-4"
50		7"×[illegible]	[illegible]×25'-0	7'-10	8'-2	4			5'-11	6'-2	6		1	1 9/16	3@16'-8"
51		7"×⅝×[illegible]	7"×[illegible]×20'-0	8'-0	8'-4	4	27 WF 84	4×⅜×19'-6	6'-2	6'-3	6		1⅛	1⅝	3@17'-0
52		7"×⅝×[illegible]	7"×[illegible]	8'-2	8'-6	4		4×⅜×19'-6	5'-7	5'-8	7		1 3/16	1⅞	3@17'-4
53	24 WF 68	[illegible]	[illegible]	7'-4	7'-4	5		4×⅜×[illegible]	5'-8½	5'-9	7		1¼	1 13/16	3@17'-8
54	24 WF 76	6"×⅝×[illegible]	[illegible]×27'-0	7'-5	7'-6	5		[illegible]×22'-0	6'-0	5'-10	7		1½	1 15/16	3@18'-0
55		6"×⅜×35'-0	7"×[illegible]	7'-6	7'-9	5		5"×⅜×23'-0	5'-11	6'-0	7		1 5/16	1⅝"	3@18'-4
56		7"×⅜×37'-0	7"×⅜×33'-0	7'-7	7'-10	5		5"×⅜×25'-0	5'-10	6'-2	7		[illegible]	[illegible]	3@18'-8
57	24 WF 76	8"×⅜×35'-0	8"×[illegible]	7'-8	8'-0	5	27 WF 84	5"×½×27'-0	6'-0½	6'-3	7	2'-5⅝	1 7/16	1 [illegible]	3@19'-0
58	27 WF 84	7"×⅜×[illegible]	[illegible]	7'-9	9'-2	5	30 WF 99	4"×⅜×30'-0	5'-9	5'-8	8	2'-8⅝	1 7/16	1 13/16	3@19'-4
59		[illegible]	[illegible]	[illegible]	8'-4	5		4"×⅜×31'-0	5'-11	5'-9	8		1 5/16	1 11/16	3@19'-8
60	27 WF 84	7"×⅜×33'-0	7"×[illegible]	[illegible]	8'-6	6		7"×⅜×32'-0	5'-11	5'-10½	8		1 ⅜	1 ¾	3@20'-0
65	27 WF 94	9"×⅜×33'-0	9"×⅜×37'-0	[illegible]	8'-0	6	30 WF 99	6"×7/16×33'-0	5'-8	5'-10	9	2'-8⅝	1 7/16	2⅛"	4@[illegible]'3"
70	30 WF 99	8"×⅜×41'-0	9"×⅜×42'-0	7'-11	8'-9	6	33 WF 118	6"×7/16×28'-0	5'-8	5'-9	10	2'-10⅝	1⅞	2⅜	4@[illegible]'6"
73	33 WF 118	6"×⅜×34'-0	6"×⅜×35'-0	7'-8"	8'-0"	7						3'-2⅞	1¾"	2⅞"	
80	33 WF 130	8"×¾×41'-0	8"×⅞×43'-0	8'-3	8'-10	7	36 WF 135	8×9/16×35'-0	5'-11½	6'-1	11	3'-2¾	2 3/16	2 9/16"	4@20'-0
85	36 WF 150	10"×¾×50'-0	10"×⅞×51'-0	[illegible]	8'-8	8	36 WF 135	9×9/16×48'-0	5'-11	6'-0	12	3'-2¾	2⅜	3 1/16	5@17'-0"
90	36 WF 150	10"×⅞×47'-0	10"×⅞×50'-0	[illegible]	8'-11	8			5'-11½	5'-11	13	3'-4⅝	2 11/16	3 7/16	5@18'-0

VALUES OF f and DEAD LOAD DEFLECTION FOR OUTSIDE BEAMS of MODIFIED SPANS: 24WF68, 27WF84, 30WF99, 33WF118, 36WF135 (f, Δ)

Omit shear connectors on outside beams of modified spans when using beams shown to right of heavy line.

Max. thickness of part under ¾" = ¼"
" " ¾" to 1½" = 5/16"

DETAILS OF COVER PLATE

Scale: 3/4"=1'-0

LOADING H-15 A.A.S.H.O. 1961

Dead Load	Interior Bm.	Exterior Bm.
to WF Beam	432#/' + 1.1(Wt of WF)	577#/' + 1.1(Wt of WF)
to Comp. Beam		
(1) Steel Rail -	80#/'	80#/'
(2) Alum. Rail -	132#/'	132#/'

Live Load
to each composite beam 1.045 wheels + impact or 0.522 lanes + impact

Unit Stresses		
	Class S Conc. (n=10)	1200 psi
	Structural Steel (A-36)	20,000 psi
	Reinforcing Steel	20,000 psi

Note: This drawing to be used with Dwg. No 12655

Note: Adapted from Drawing 5460.

Revised: Added Optional Const. Joint in Curb (10-10-63) JAS

Revision: Added 73' Span for Job No. 4483 10-28-63 T.L.

FOR INFORMATION ONLY

(This Dwg. is original Dwg. No. 5215)

DETAILS OF STANDARD
35'-90' COMPOSITE I-BEAM SPANS
24'-0" CLEAR RDWY. 1'-0" & 1'-1½" CURBS
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK ARK.

DRAWN BY JAS DATE 4-16-63
TRACED BY DATE
CHECKED BY FMH DATE 4-19-63
SCALE ½"=1'-0

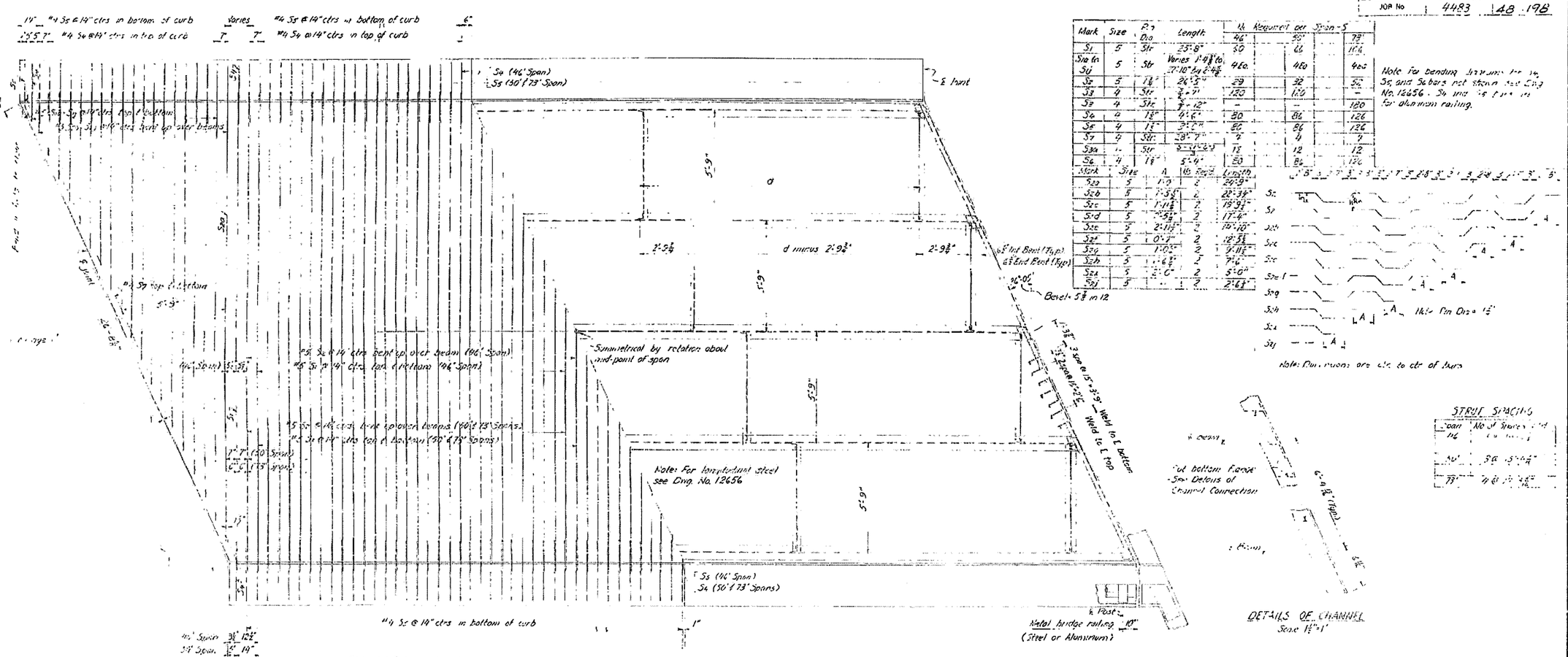
DESIGN ENGINEER

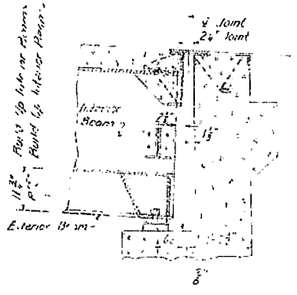
BRIDGE NO. 3800 / 3801
DRAWING NO. 12656

SHEET NO.	TOTAL SHEETS	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
165	234	STATE B ARK. (39)		

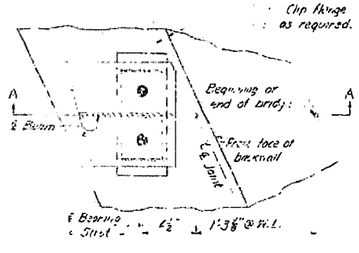
JOB NO. BB0401

JOB No 4483 48 198

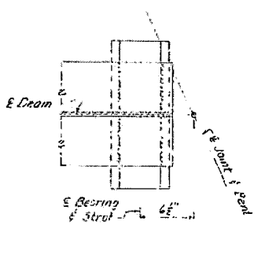




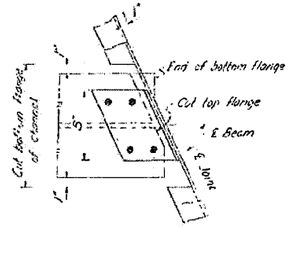
SECTION A-A
Scale 3" = 1'



PLAN OF BEARINGS AT ENDS OF BRIDGE
Scale 1 1/2"=1'



PLAN OF BEARINGS AT INTERMEDIATE SUPPORTS
Scale 1"=1'



DETAILS OF CHANNEL CONNECTION
Scale 1 1/2"=1'

NOTE
For details not shown and general notes see Dwgs. No. 12655 & 12656.

FOR INFORMATION ONLY

SUPPLEMENTAL DETAILS
FOR 46', 50' & 73'
COMPOSITE I-BM SPANS
24' CLEAR ROADWAY 1'-1½" CURBS
26° 05' 00" SKEW RIGHT FORWARD
INT ROUTE 40 SEC 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

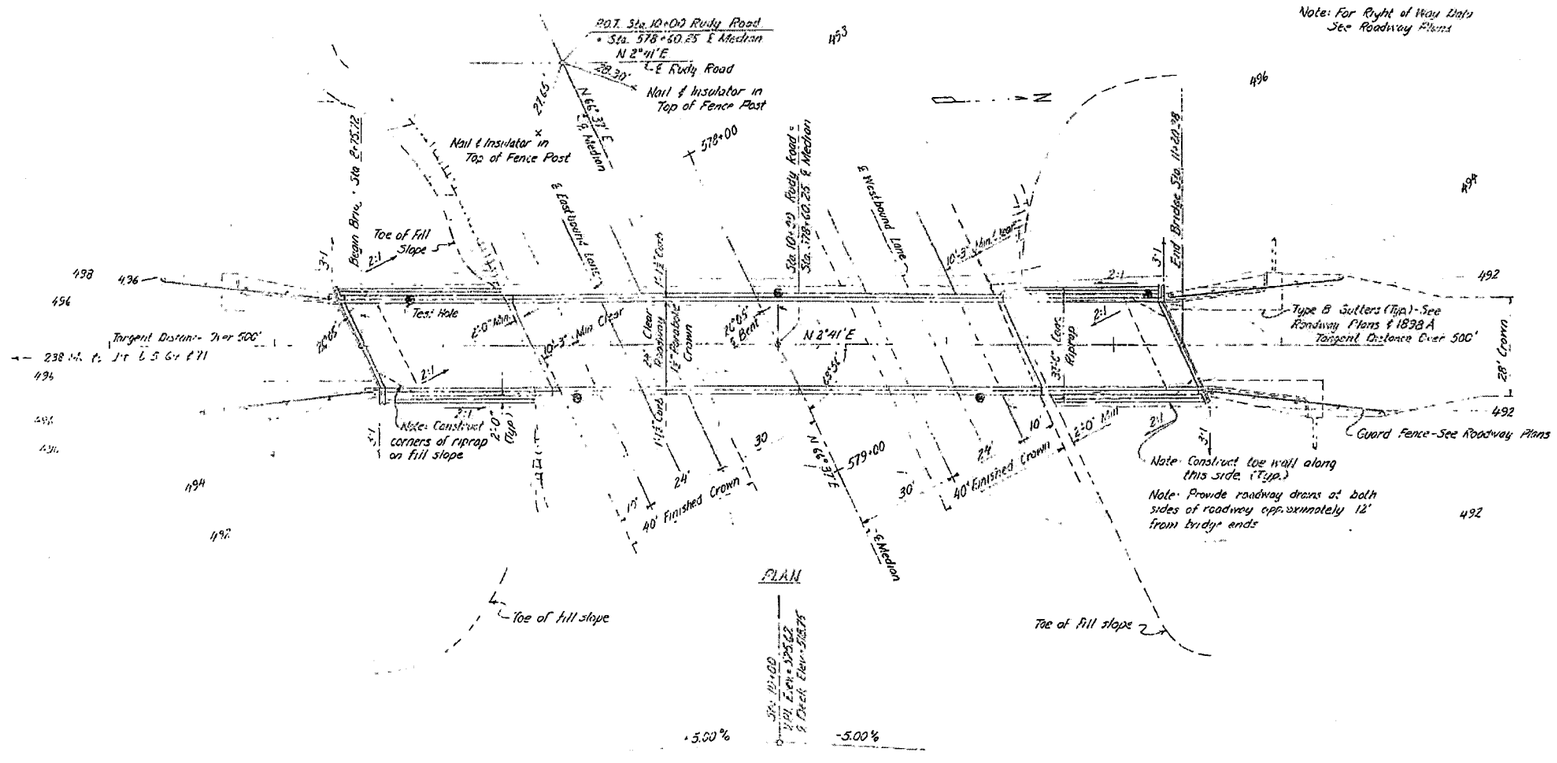
DRAWN BY: TIL DATE: 7-10-63
TRACED BY: DATE:
CHECKED BY: DATE:
SCALE: Noted

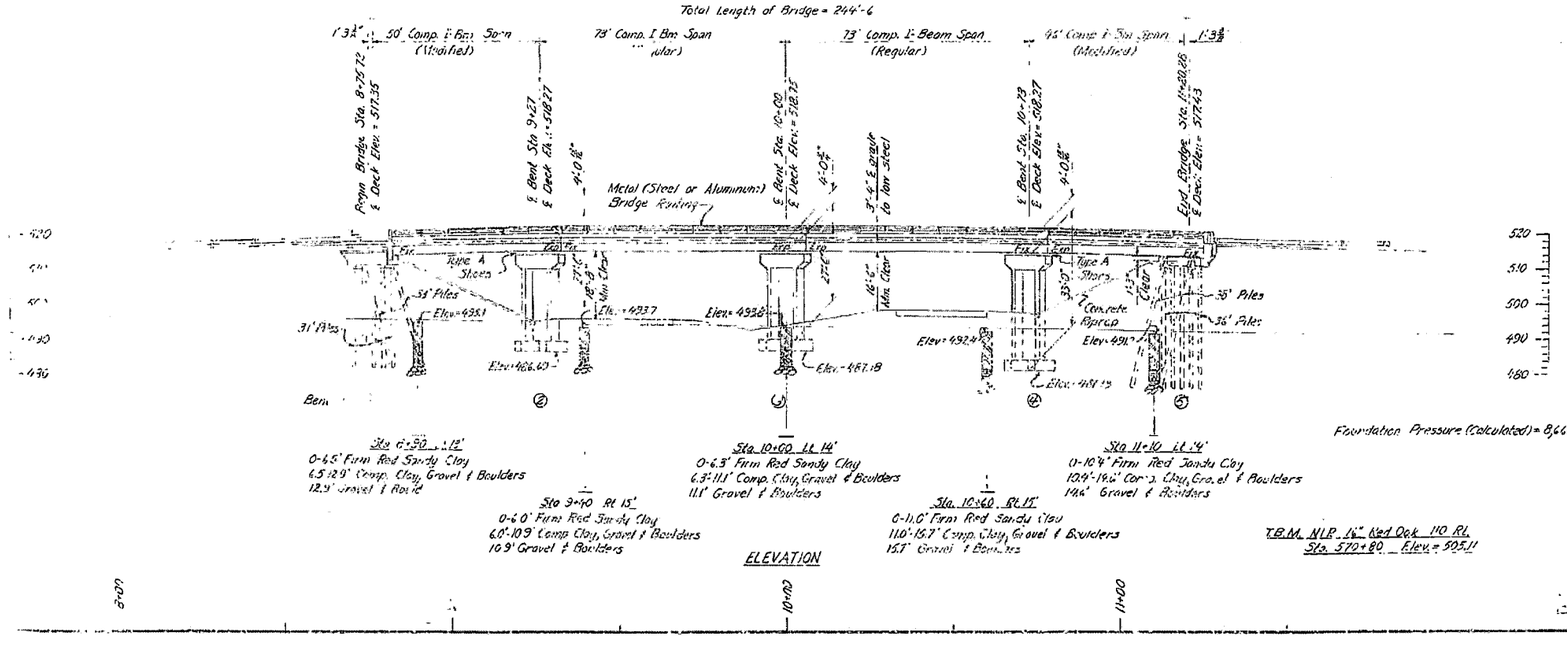
BRIDGE ENGINEER

BRIDGE NO. 3800 & 3801 DRAWING NO. 12657

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	166	234

FED ROAD No.	STATE	FED AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.	I-40-1 (9)9			
JOB No	4483			49	198





GENERAL NOTES

All concrete to be poured in the dry. Exposed corners to be chamfered 3/4" unless otherwise noted.

In order not to disturb the founding material, the final one foot of footing excavation shall be done carefully by hand methods to neat lines of footings. All pits shall be kept dry.

In general, all construction joints in bents or piers shall be horizontal and shall be provided with keys not less than 12" high covering the middle third of work dimensions.

All piling shall be 12-BP-83 and shall be driven with an approved air, steam, or diesel hammer to a minimum capacity of 36 tons per pile and into the material designated as compact clay, gravel and boulders on the boring logs. Lengths of pile shown are for estimating quantities only. Order lengths shown; cut-off or build-up, if necessary, to be paid for in accordance with the Standard Specifications.

Piles in End Bents shall be driven after embankment is in place.

For Details of End Bents see Dwg. No. 12659.
For Details of Intermediate Bents see Dwg. No. 12660, 12661.
For Details of Composite I-Beam Spans see Dwg. No. 12655, 12656, 12657.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, and designated Special Provisions.

DESIGN SPECIFICATIONS: AASHO 1961

Live Loading:	H-15	
Unit Stresses:	Class A Concrete (n=15)	840 psi
	Class S Concrete (n=10)	1,200 psi
	Reinforcing Steel	20,000 psi
	Structural Steel (A-36)	20,000 psi

FOR INFORMATION ONLY

LAYOUT OF WEST
RUDY ROAD UNDERPASS
SHIBLEY GRADE SEPARATION - ALMA
CRAWFORD COUNTY
INT. ROUTE 40 SEC. 1

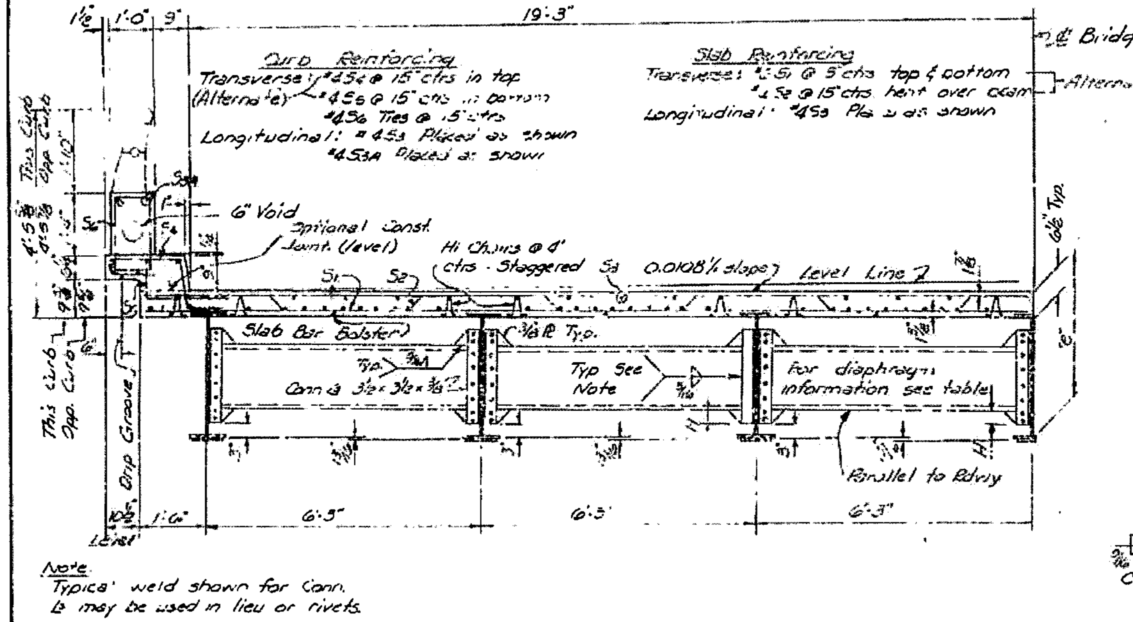
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TJL DATE: 5-22-63
TRACED BY: H.T. DATE: 7-2-63 SCALE: 1"=20'
CHECKED BY: DATE:

BRIDGE ENGINEER

BRIDGE NO. 3801 DRAWING NO. 12658

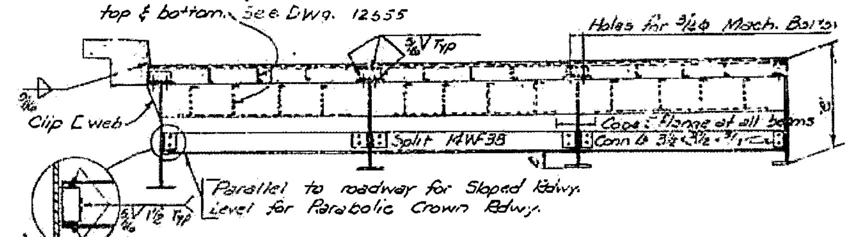
JOB NO. BB0401 | SHEET NO. 167 | TOTAL SHEETS 234



Note
Typical weld shown for Conn.
∠s may be used in lieu of rivets.

HALF SECTION A-A OF REGULAR SPAN - SLOPED RDWY
(Regular Spans have all beams of equal depth)

Expansion Device
Roadway 35'@33.9 - 38'-6"
Conn. ∠ 6x3½x3/8 x 0'-8"
Roadway ∠ 9x4x3/8 - 38'-6" ½ Curb ℞ 4x3/8 - 3'-5"
Detail device 1/8 high and provide 1/4 shims using 2-1/16 ℞s & 1-1/8 ℞
* 1/2 x 3/8 x 1'-6" Straps @ 15" ctrs top & bottom. See Dwg. 12655

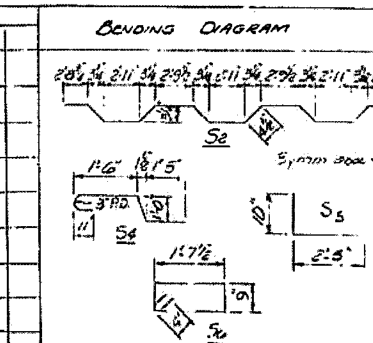


* See Dwg. 12655 for Alternate Anchor Details

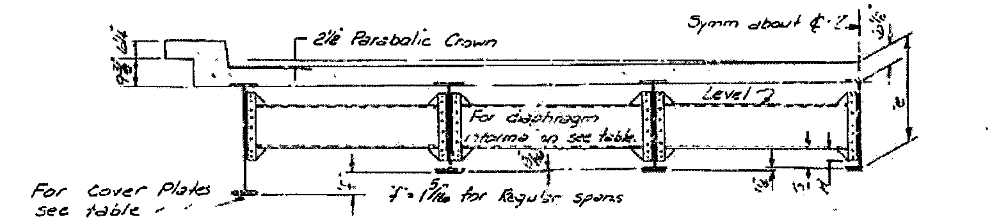
HALF SECTION B-B MODIFIED OR REGULAR SPAN

BAR LIST - ONE SPAN

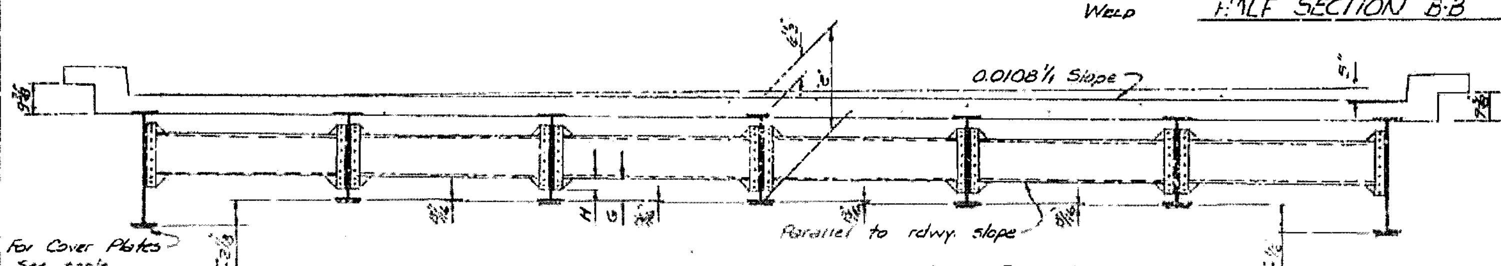
Mark	Size	Length	Bv Dia	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	55	60	65	70	75	51
S1	6	40'-2"	Str.	58	58	60	62	64	66	66	68	70	72	74	74	76	78	80	83	90	98	106	114	122	[illegible]
S2	6	[illegible]	2½	28	28	29	30	31	32	32	33	34	35	36	36	37	38	39	40	44	48	52	56	60	[illegible]
S3	4	5-6'	Str.	104																					
S3	4	5/2+7"	Str.							208															208
S3	4	5/3+1'-0"	Str.																			212			
S4	4	4'-11"	1½	58	58	60	62	64	66	66	68	70	72	74	74	76	78	80	82	90	98	106	114	122	
S5	4	3'-3"	1½	56	56	58	60	62	64	64	66	68	70	72	72	74	76	78	80	86	96	104	112		
S6	4	5'-4"	1½	58	58	60	62	64	66	66	68	70	72	74	74	76	78	80	82	90	98	106	114	122	82
S3A	4	5-(1'-6")/3	Str.	12																					12



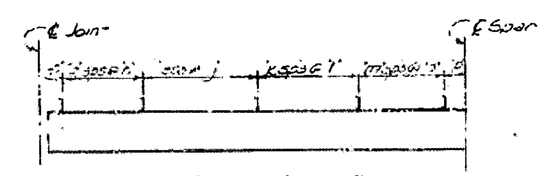
Dimensions are to centers of bars.



HALF SECTION A-A MODIFIED OR REGULAR SPAN
PARABOLIC CROWN



SECTION A-A OF MODIFIED SPAN - SLOPED RDWY
Interior beams are same as in regular spans. Exterior beams are the lightest section of the same nominal depth as beams for longest span shown on Bridge Layout.



SPACING FOR CHANNEL SHEAR CONNECTORS

VARIABLES OF SHEAR CONNECTOR SPACING

Span	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	55	60	65	70	75	51
"g"	12	12	12	12	11	12	13	10	11	10	11	11	11	12	12	12	12	11	10	8	12	[illegible]
"h"	4"	4"	4"	4"	4"	4"	4"	6"	6"	6"	6"	6"	6"	6"	7"	7"	7"	9"	9"	10"	10"	7"
"i"	12	10	11	12	12	14	13	10	10	12	12	12	12	12	8	8	9	8	9	10	11	3
"j"	5"	6"	6"	6"	6"	6"	6"	7"	7"	7"	7"	7"	7"	7"	9"	9"	9"	11"	11"	12"	12"	7"
"k"	10	9	9	9	9	9	10	6	5	6	6	7	7	8	6	7	7	7	8	6	6	
"l"	7"	7"	7"	8"	8"	8"	8"	10"	10"	10"	10"	10"	10"	10"	12"	12"	12"	13"	13"	15"	16"	
"m"	2	3	3	2	2	2	2	3	4	3	3	3	3	3	3	3	4	4	5	6	5	
"n"	10"	11"	11"	12"	12"	12"	12"	14"	13"	14"	14"	13"	14"	14"	16"	16"	16"	16"	17"	18"	18"	
"r"	0	0	0	0	6	0	0	8"	7	6"	6"	5"	8"	8"	6"	0"	5"	6"	0	10"	0	6"

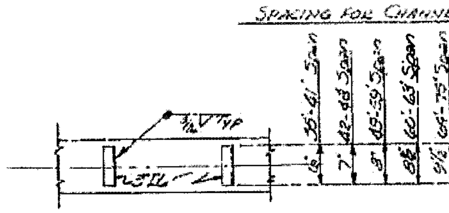
NOTE: Stud shear connectors, granular flux filled, solid fluxed, or equal may be used in place of the channels shown at the following ratios: 3/4" diameter stud in place of 1.82 inches of channel, 7/8" diameter stud in place of 2.52 inches of channel. The studs shall be 4" long and automatically end welded to the beam flanges in accordance with recommendations of the manufacturer.

Channel sections will be used as basis for measurement of structural steel in shear connectors

This drawing to be used with drawing 12655

DESIGN SPECIFICATIONS: AASHO 1961
Live Loading: H20-S16 and Special Interstate Loading of 2 - 24,000# axles spaced @ 4'0" ctrs.

			Interior Beam	Exterior Beam
1. DEAD LOAD:	a.	To WF Beam	508#/' + 1.1 (wt./ft. of WF)	608#/' + 1.1 (wt./ft. of WF)
	b.	To Composite Beam	171#/'	120#/'
2. LIVE LOAD:	a.	To ea. Composite Beam	1.136 Wheels + Impact	1.123 Wheels + Impact
UNIT STRESSES:		Class S Concrete (n=10)	1,200 psi	
		Structural Steel (A-33)	20,000 psi	
		Reinforcing Steel	20,000 psi	



DETAILS OF SHEAR CONNECTORS

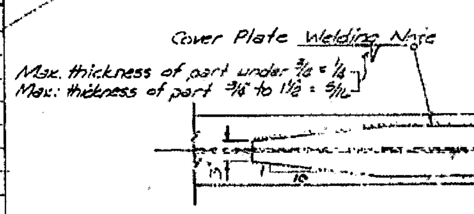
⊗ Interior beams, including Cover Plates, for Modified Spans shall be the same as for Regular Spans as shown in table.

No Cover Plate is required for an exterior beam of a greater depth than the beam listed for a particular span except as shown.

Defl. for Ext. Beams is for Regular Spans only

Omit shear connectors on outside beams of Modified Spans when using beams shown to right of heavy line.

Span	Regular Span Beam	Cover Plate Interior	Cover Plate Exterior	Post Spacing for Alum Railing a	b	c	⊗ Exterior Beams for Modified Spans Beam	Cover Plate	"e"	Dead Load Deflection Int.	Ext.	Strut Spacing No. @ "d"	24WF68 f	Δ	27WF84 f	Δ	30WF99 f	Δ	33WF118 f	Δ	f	Δ
35	21WF55	5x3/4x22'-0"	4x1/2x17'-0"	8'-4"	8'-4"	2	——	——	2'-2¾	5/16	1/2"	2@17'-6"	4½	3/8	7¾	1/8	10"	1/16	13¾	1/8		
36	21WF55	7x5/8x24'-0"	5x1/2x19'-0"	6'-8"	7'-0"	3	——	——	2'-2¾	7/16	9/16	2@18'-0"	4½	7/16	7¾	3/16	10"	1/16	13¾	1/8		
37	21WF55	7x3/4x26'-0"	7x7/16x21'-0"	7'-2"	7'-0"	3	24WF68	4x3/8x16'-0"	2'-2¾	7/16	5/8	2@18'-6"	4½	7/16	7¾	3/16	10"	1/8	13¾	3/16		
38	21WF62	6x3/4x25'-0"	5x9/16x20'-0"	7'-2"	7'-4"	3	24WF68	4x3/8x16'-0"	2'-2⅝	1/2"	5/8	2@19'-0"	4⅝	1/2	7½	3/8	9⅝	1/4	13⅝	3/16		
39	21WF62	7x3/4x26'-[illegible]	6x7/16x22'-0"	7'-8"	7'-4"	3	24WF68	4x7/16x17'-0"		1/2"	11/16	2@19'-6"	4⅝	9/16	7½	3/8	9⅝	5/16	13 11/16	3/16		
40	21WF62	7x7/8x28'-[illegible]	7x9/16x24'-0"	7'-8"	7'-8"	3	24WF68	5x7/16x19'-0"		9/16	11/16	2@20'-0"	4⅝	9/16	7½	7/16	9⅝	5/16	13 11/16	1/4		
41	21WF62	7x13/16x30'-0"	7x11/16x26'-0"	7'-8"	8'-0"	3	24WF68	6x7/16x21'-0"	2'-2⅞	5/8	3/4	3@13'-8"	4⅝	5/8	7½	1/2	9⅝	3/8	13¾	1/4		
42	24WF68	8x5/8x27'-0"	6x9/16x23'-0"	8'-2"	8'-0"	3	27WF84	4x3/8x16'-0"	2'-5 5/16	1/2"	11/16	3@14'-0"			4½	1/8	7¼	3/8	10¼	1/4		
43	24WF68	7x11/16x29'-0"	6x5/8x24'-0"	8'-2"	8'-4"	3	27WF84	4x3/8x17'-0"		9/16	3/4	3@14'-4"			4½	5/16	7¼	7/16	10¼	5/16		
44	24WF68	8x3/4x30'-0"	7x5/8x26'-0"	8'-5"	8'-6"	3	27WF84	4x3/8x17'-0"		5/8	3/4	3@14'-8"			4½	5/8	7¼	1/2	10¼	5/16		
45	24WF76	7x3/4x30'-0"	7x9/16x25'-0"	7'-6"	7'-1"	4	27WF84	5x3/8x19'-0"		5/8	3/4	3@15'-0"			4½	5/8	7¼	1/2	10¼	5/8		
46	24WF76	7x15/16x31'-0"	7x5/8x26'-0"	7'-8"	7'-3"	4	27WF84	6x3/8x21'-0"		5/8	13/16	3@15'-4"			4⅝	11/16	7¼	9/16	10¼	3/8		
47	24WF76	8x7/8x32'-0"	8x5/8x28'-0"	7'-10"	7'-5"	4	27WF84	6x1/2x23'-0"		11/16	7/8	3@15'-8"			4⅝	3/4	7¼	5/8	10¼	7/16		
48	24WF76	8x15/16x34'-0"	7x13/16x30'-0"	8'-0	7'-7"	4	27WF84 / 30WF99	[illegible] / 4x3/8x17'-0"	2'-5 [illegible]	3/4	13/16	3@16'-0"			4⅝	13/16	7¼	5/8	10¼	1/2		
49	27WF84	8x11/16x31'-0"	7x9/16x31'-0"	7'-8"	8'-0"	4	30WF99	4x3/8x18'-0"	2'-8 5/16	11/16	13/16	3@16'-4"					4⅛	11/16	7⅝	1/2		
50	27WF84	8x3/4x32'-0"	8x9/16x28'-0"	7'-10"	8'-2"	4	30WF99	4x7/16x19'-0"	2'-8 5/16	3/4	7/8	3@16'-8"					4⅛	3/4	7⅝	9/16		
55	27WF94	9x7/8x37'-0"	8x3/4x32'-0"	7'-6"	7'-8"	5	30WF99 / 33WF118	[illegible]	2'-8 [illegible]	7/8	1⅛	3@18'-4"					4⅛	1"	7⅝	3/4		
60	30WF99	9x1"x41'-0"	9x13/16x37'-0"	7'-11"	8'-6"	5	33WF118	6x9/16x27'-0"	2'-11 [illegible]	1 1/16	1¼	3@20'-0"							4⅛	1"		
65	33WF118	9x15/16x39'-0"	8x3/4x36'-0"	7'-8"	8'-0"	6	——	——	3'-2⅝	1⅛	1 5/16	4@16'-3"										
70	33WF118	10x1"x47'-0"	10x7/8x43'-0"	7'-11"	8'-9"	6	——	——	3'-2⅝	1⅜	1⅜	4@17'-6"										
75	33WF130	10x1 1/16x50'-0"	10x1 1/16x48'-0"	7'-3½	8'-3"	7	——	——	3'-2⅝	1⅝	1 5/16	4@18'-9"										
51	27WF84	8x7/8x34'-0"	8x5/8x30'-0"	8'-4"	8'-2"	4	30WF99	5x7/16x21'-0"	2'-[illegible]⅝	3/4	15/16	3@17'-0"					4⅛	13/16	7⅞	5/8		



DETAILS OF COVER PLATES
(No Scale)

Rev. Added 51' span 1-6-63 A.J.
Checked J. [illegible] 1-6-63
[illegible] 5-1-66

DIAPHRAGM TABLE

Span Length	Channel Size	Regular Span Ext. Beam No. Rivets	Regular Span Int. Beam No. Rivets	Modified Span Ext. Beam No. Rivets	Modified Span Int. Beam No. Rivets	G●	H
35'-48'	12[20.7	5	5	5	5	3½"	2¼
49'-59'	12[20.7	7	7	7	7	7"	5"
60'-75'	15[33.9	8	8	8	8	7"	5

● For Modified Spans with sloped Rdwy or parabolic crown, and for Regular Spans with parabolic crown.

* Revised 12-23-63 F. S.

FOR INFORMATION ONLY

(This Dwg. is original Dwg. 15052)

DETAILS OF STANDARD 35'-75' COMPOSITE I-BEAM SPANS

38'-6" CLEAR RDWY 9" CURB
2½" PARABOLIC CROWN OR 0.0108'/' SLOPE

ROUTE SEC.

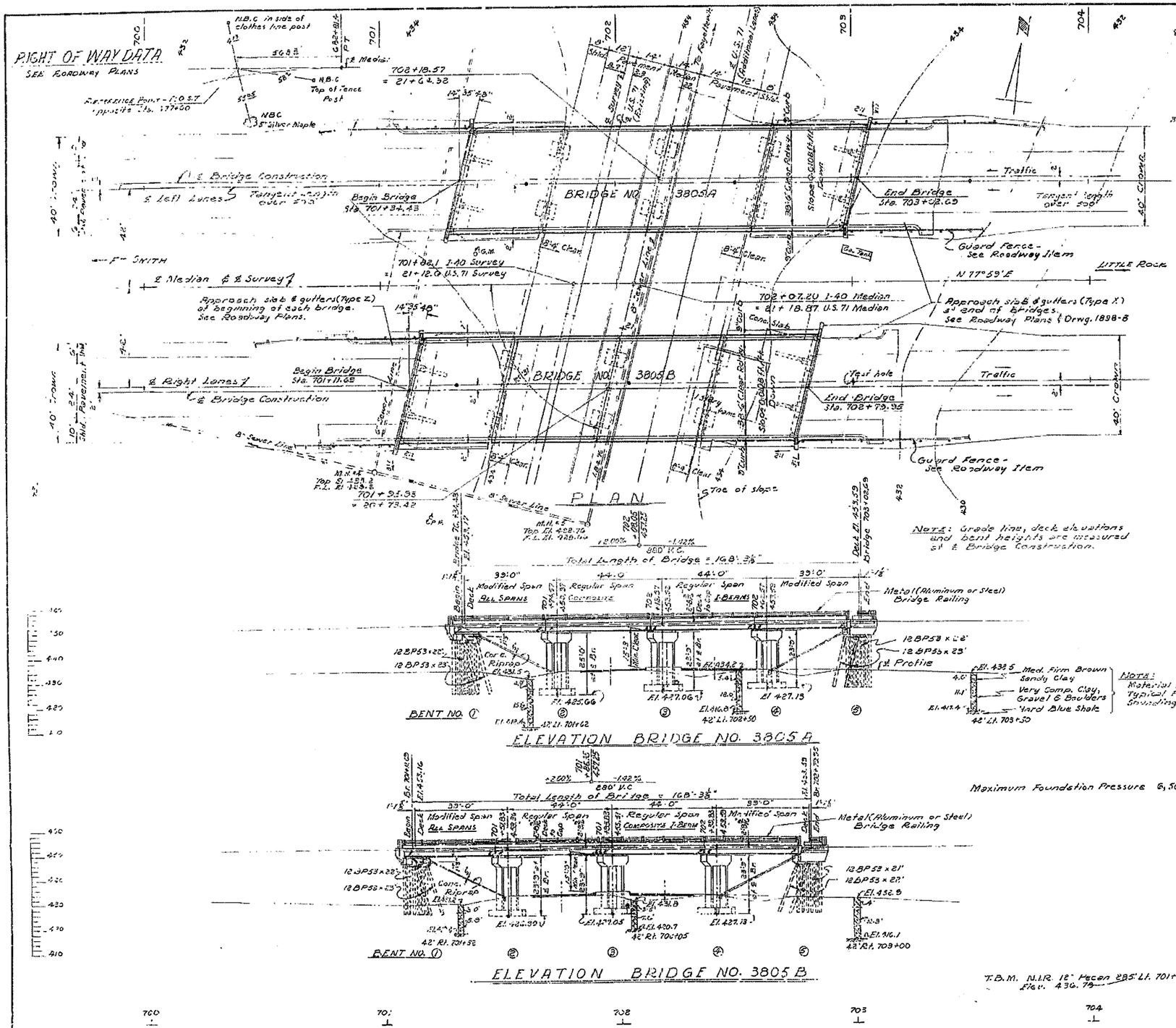
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: DSL DATE: 8-21-63
TRACED BY: DATE:
CHECKED BY: FMH DATE: 9-27-63
SCALE: 3/8"=1'-0" or as shown

[signature] BRIDGE ENGINEER

BRIDGE NO. 3806 A&B DRAWING NO. 12671

FED. ROAD NO.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	I-40-1(19)			
JOB No.		4485		68	198



GENERAL NOTES

All concrete to be poured in the dry. Exposed corners to be chamfered 3/4" unless otherwise noted.

In general, all construction joints in bents shall be horizontal and shall be provided with key not less than 1½" high covering the middle third of both dimensions.

All piling shall be 12" BP @ 53# and to be driven with an approved air, steam, or diesel hammer to a minimum bearing capacity of 36 tons per pile and into material designated as clay, gravel and boulders on the boring logs. Lengths of pile shown are for estimating quantities only. Order lengths shown; cut-off or build-up, if necessary, to be paid for in accordance with the standard specifications.

Piles in End Bents No. 1 and 5 shall be driven after embankment is in place.

For Details of Pile End Bents see Dwg. No. 12678.

For Details of Intermediate Bents see Dwg. No. 12679.

For Details of Composite I-Beam Spans see Dwg. No. 12685, 12671, and 12680.

Adjustments of public utilities, where necessary, shall not be at the Contractor's expense. Where adjustments are necessary, the Contractor and the Utility Companies concerned shall coordinate their work to avoid unnecessary delay or expense to service during the construction period

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1958 and designated Special Provisions.

DESIGN SPECIFICATIONS: AASHO 1961

Live Loading: H20-S16 and Special Interstate Loading of 2 - 24 000# axles spaced 4'0" on centers.

Unit Stresses:

Class A Concrete (n=15)	940 psi
Class S Concrete (n=10)	1,200 psi
Reinforcing Steel	20,000 psi
Structural Steel (A-36)	20,000 psi

FOR INFORMATION ONLY

LAYOUT OF
U.S. HIGHWAY 71 INTERCHANGE
SHIBLEY GRADE SEPARATION - ALMA
CRAWFORD COUNTY
INTERSTATE ROUTE 40 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

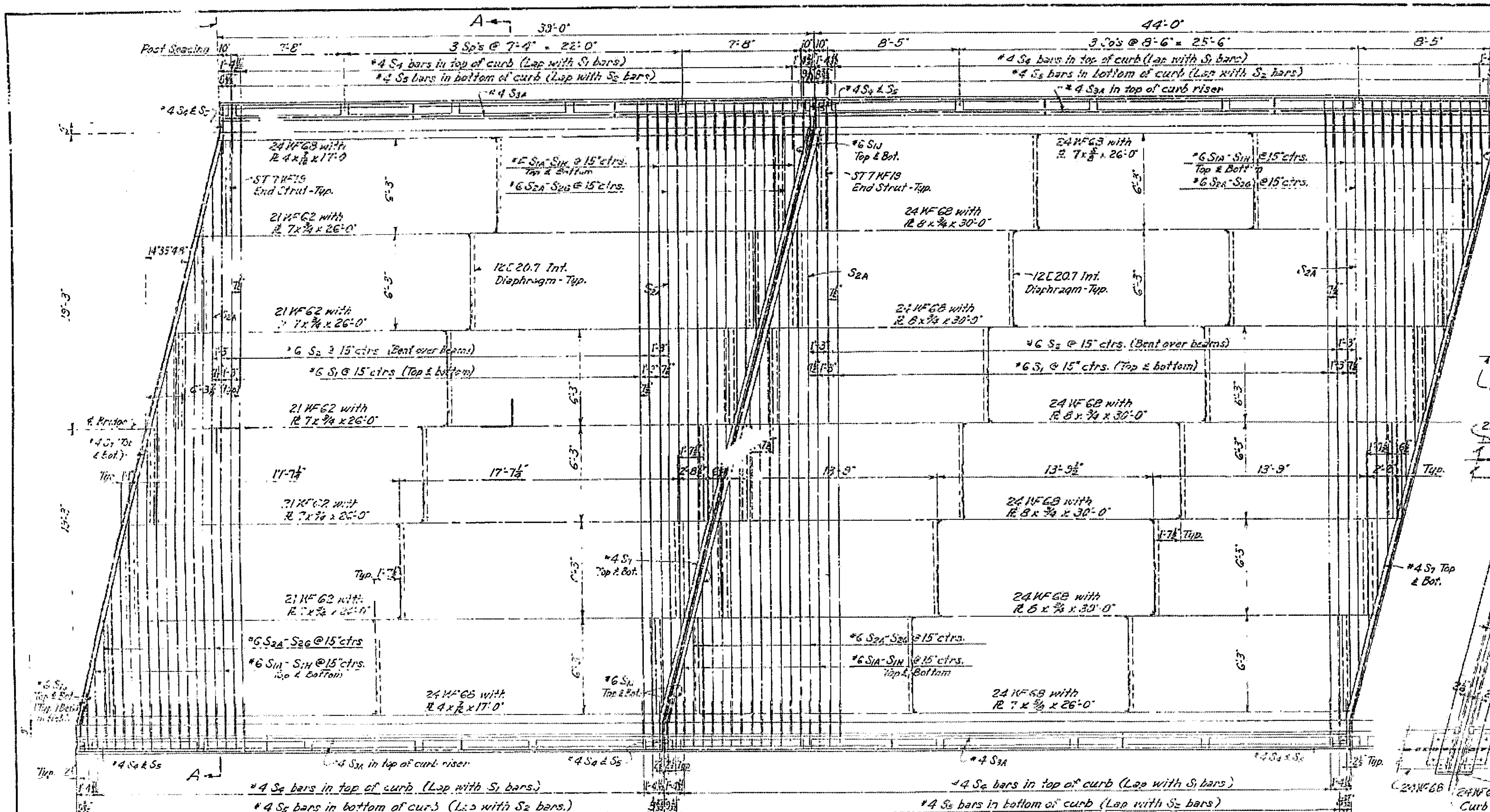
DRAWN BY: J.E.H. DATE: 6-11-63
TRACED BY: DATE:
CHECKED BY: DV DATE: 10-7-63
SCALE: 1" = 20'

BRIDGE ENGINEER

BRIDGE NO. 3805A&B DRAWING NO. 12617

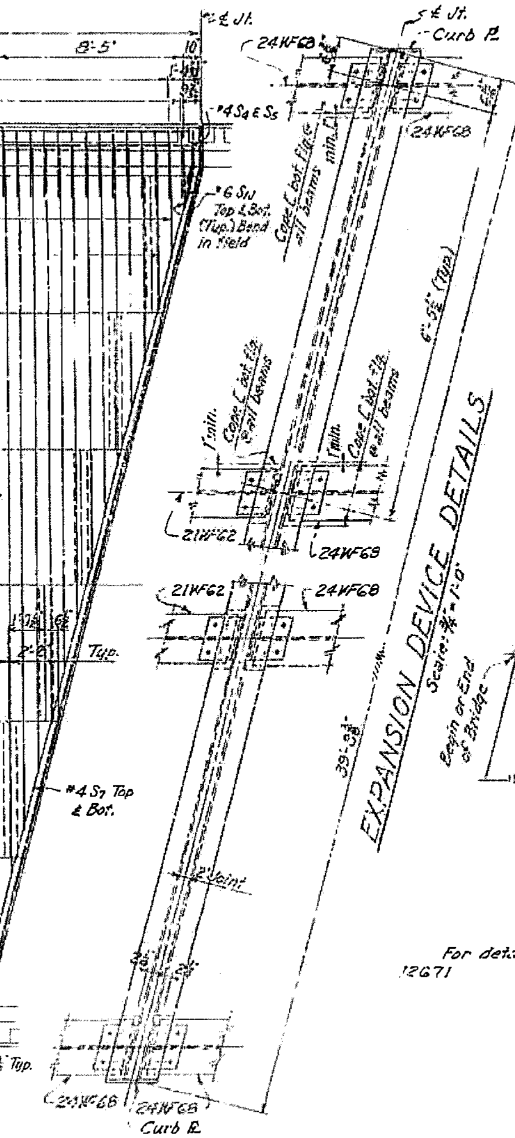
FED. ROAD DIV. NO.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	I-40-1(9)3			
JOB NO. 4483				71	198

JOB NO.		SHEET NO.	TOTAL SHEETS
JOB NO.	BB0401	169	234

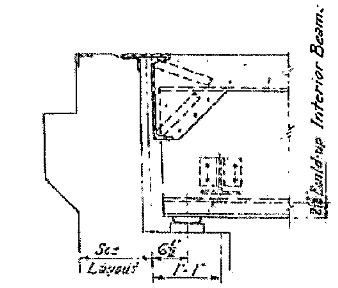


39' SPAN
Scale: 1/8" = 1'-0"

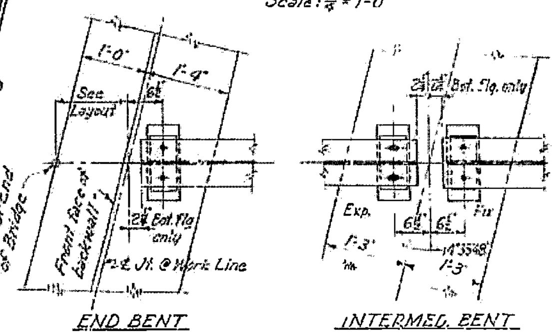
44' SPAN
Scale: 1/8" = 1'-0"



EXPANSION DEVICE DETAILS
Scale: 3/4" = 1'-0"



END BENT DETAIL
Scale: 3/4" = 1'-0"

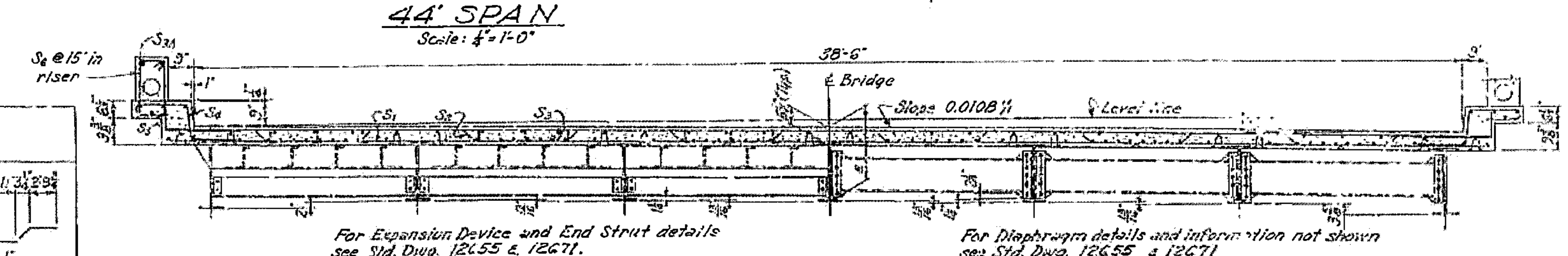


END BENT — INTERMED. BENT

PLAN OF BEARINGS
Scale: 3/4" = 1'-0"

NOTES

For details not shown and general notes see Dwg. No. 12655 & 12671



For Expansion Device and End Strut details see Std. Dwg. 12655 & 12671.

For Diaphragm details and information not shown see Std. Dwg. 12655 & 12671

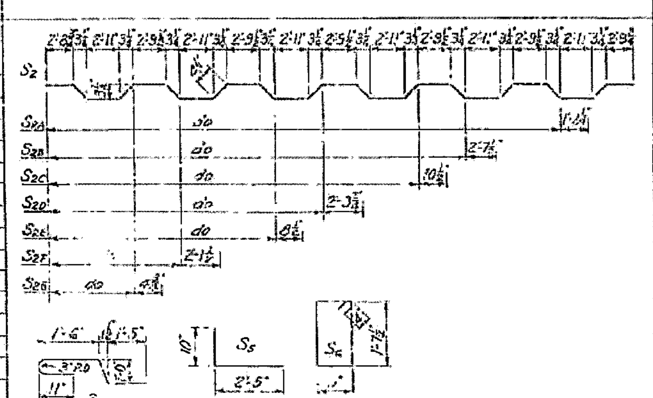
SECTION A-A
Scale: 3/8" = 1'-0"

For Br. 3805A (Reverse hwy. slope for Br. 3805B.)

BAR LIST

MARK	SIZE (#)	LENGTH	NUMBER 39' Span	NUMBER 44' Span	PIN DIA.
S_1	6	40'-2"	44	52	Str.
S_{1A}-S_{1H}	6	Varies 4'-3" to 37'-10"	4 Each	4 Each	Str.
S_{1J}	6	2'-11½"	8	8	Str.
S_3	4	32'-6"	104	—	Str.
		22'-7"	—	208	Str.
S_4	4	4'-11"	64	72	1½"
S_5	4	3'-3"	66	74	1½"
S_6	4	5'-4"	64	72	1½"
S_7	4	21'-3"	8	8	Str.
S_{3A}	4	12'-6"	12	—	Str.
		14'-2"	—	12	Str.
S_2	6	41'-2"	23	27	2¼"
S_{2A}	6	36'-4½"	2	2	2¼"
S_{2B}	6	31'-4½"	2	2	
S_{2C}	6	26'-6"	2	2	
S_{2D}	6	21'-6"	2	2	
S_{2E}	6	16'-7"	2	2	
S_{2F}	6	11'-7½"	2	2	
S_{2G}	6	6'-9"	2	2	2¼"

BENDING DIAGRAM



Dimensions are to centers of bars.

FOR INFORMATION ONLY

SUPPLEMENTAL DETAILS
OF SUPERSTRUCTURE
U.S. HIGHWAY 71 INTERCHANGE
SHIBLEY GRADE SEPARATION - ALMA
CRAWFORD COUNTY
INT. ROUTE 40 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: A.J. DATE:
TRACED BY: DATE:
CHECKED BY: JMH DATE: 10-25-63
SCALE: As Noted

BRIDGE ENGINEER

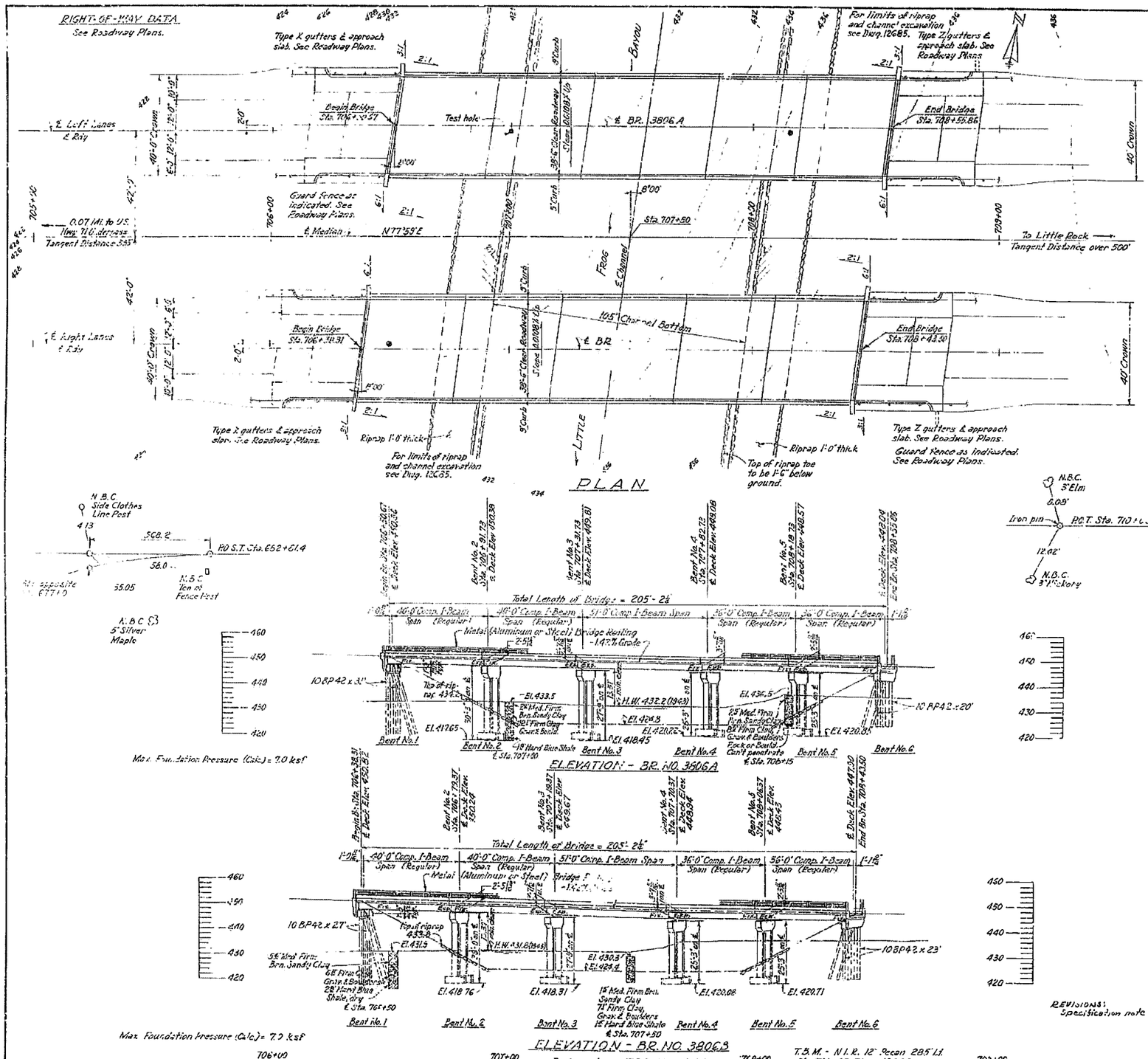
BRIDGE NO. 3805A & B DRAWING NO. 12680

460

JOB NO.	BB0401	SHEET NO. 170	TOTAL SHEETS 234

FED. ROAD No	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.	I-40-(38)9		20	50
JOB No.		4568		22	50

RIGHT-OF-WAY DATA
See Roadway Plans.



GENERAL NOTES

All concrete to be poured in the dry. Exposed corners to be chamfered 3/4" unless otherwise noted.

Rock excavations shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock. Excavate rock 1'-6" minimum.

In general, all construction joints in bents shall be horizontal and shall be provided with keys not less than 1½" covering the middle third of both dimensions.

All piling shall be 10-BP-42 and shall be driven with an approved air, steam or diesel hammer to a minimum capacity of 36 tons per pile and to the material shown as shale on the boring logs. Lengths of pile shown are for estimating quantities only. Order lengths shown; cut-off or build-up, if necessary, to be paid for in accordance with the Standard Specifications. The Contractor at his own expense shall excavate material in pile area below original ground line, if necessary to obtain a minimum pile length of 12' in place, before placing embankment.

Piles in end bents to be driven after embankment is in place.

For Details of End Bents see Dwg. No. 12682.
For Details of Intermediate Bents see Dwg. No. 12663.
For Details of Composite I-Beam Spans see Dwg. Nos. 12655, 12671 and 12684.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, the 1966 Supplemental Specifications thereto and applicable Special Provisions.

DESIGN SPECIFICATIONS: AASHO 1961

Live Loading: H20-S16 and Special Interstate Loading of two 24,000# axles spaced 4'0" on center.

Unit Stresses:

Class A Concrete (n=15)	840 psi
Class S Concrete (n=10)	1,200 psi
Reinforcing Steel	20,000 psi
Structural Steel (A-36)	20,000 psi

FOR INFORMATION ONLY

LAYOUT OF BRIDGES
OVER LITTLE ... BAYOU
SHIBLEY GRADE SEPARATION-ALMA S...ING
CRAWFORD COUNTY
INT. ROUTE 40 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: A.S. DATE: 7-11-68
TRACED BY: DATE:
CHECKED BY: DATE:
SCALE: 1" = 20'

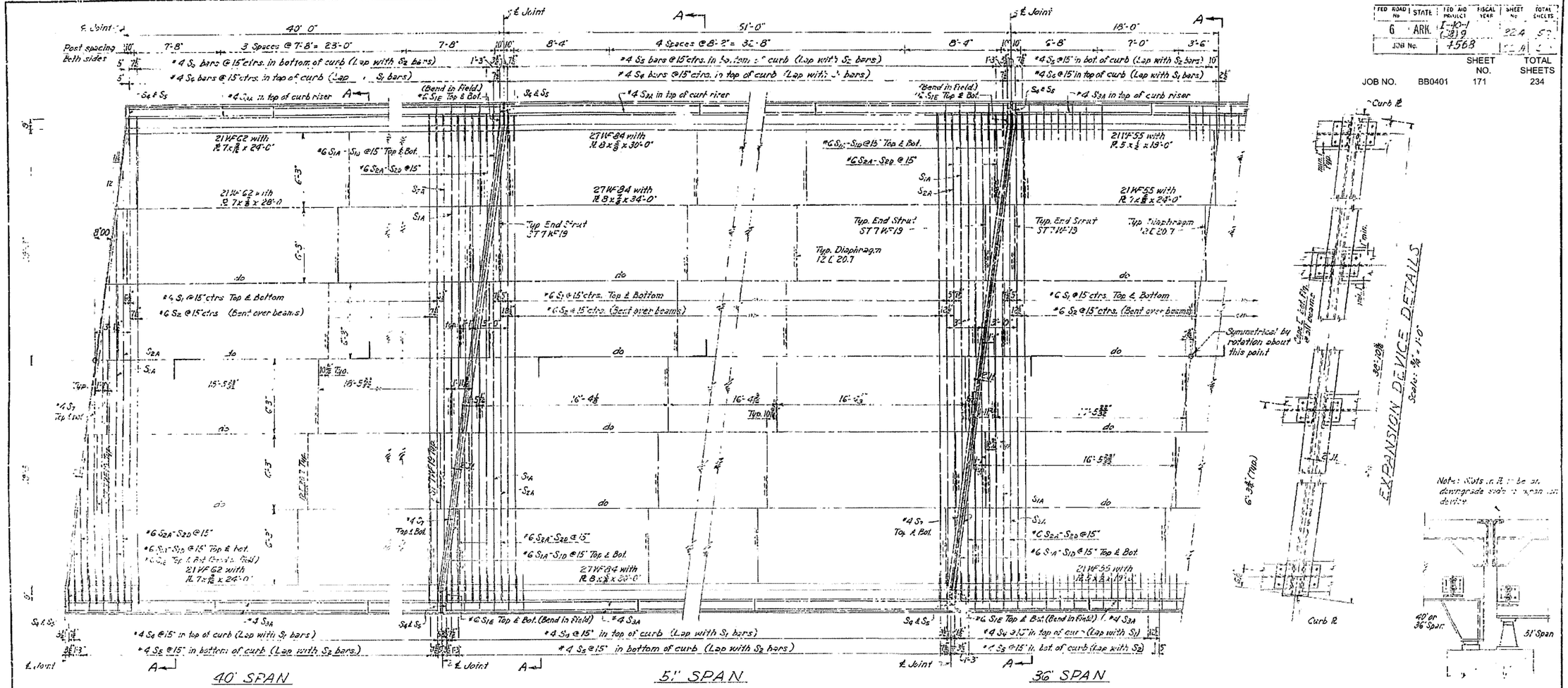
BRIDGE NO. 3806A & B DRAWING NO. 12631

REVISIONS: Specification note & file size JEH 7-1-46

BRIDGE ENGINEER

FED. ROAD NO.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	I-40-1 (29)		224	234
JOB No.		4568			

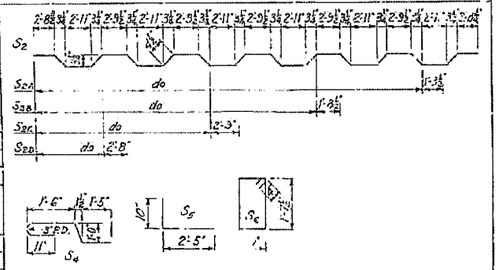
JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	171	234



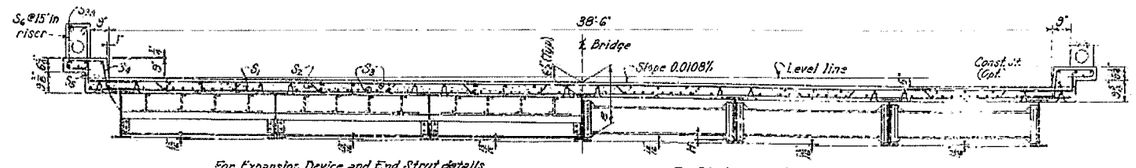
BAR LIST

MARK	SIZE (e)	LENGTH	NUMBER 36' Span	40' Span	51' Span	No. Dia.
S1	4	40'-2"	50	56	74	Str.
S1A S1D	6	Varies 4'-5" to 31'-1"	4 Each	4 Each	4 Each	Str.
S1E	6	2'-0"	4	4	4	Str.
S2	4	35'-6"	10	--	-	Str.
		40'-7"	-	208	-	
		26'-1"	-	-	308	
S4	4	4'-11"	60	66	84	15"
S5	4	3'-3"	60	66	84	15"
S6	4	5'-4"	58	66	82	15"
S7	4	20'-4	8	8	8	Str.
S2A	4	11'-6"	12	--	--	Str.
		12'-10"	-	12	--	
		16'-6"	-	-	12	
S2	6	41'-2"	24	27	36	25"
S2A	6	36'-5"	2	2	2	
S2B	6	27'-4"	2	2	2	
S2C	6	18'-2"	2	2	2	
S2D	6	9'-0"	2	2	2	24"

BENDING DIAGRAM



Dimensions are to centers of bars.

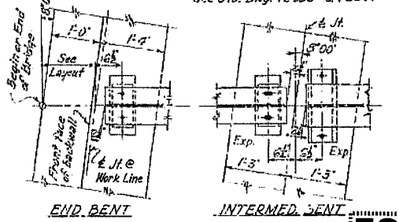


For Expansion Device and End Strut details see Std. Dwg. 12655 & 12671

For Diaphragm details and information not shown see Std. Dwg. 12655 & 12671.

SECTION A-A
Scale: 3/8" = 1'-0"

FOR Br. No. 3806A
Reverse Roy. Slope for Br. No. 3806 A & B

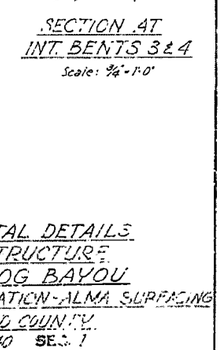


PLAN OF BEARINGS
Scale: 3/8" = 1'-0"

NOTES

For details not shown and general notes see Dwgs. No. 12655 & 12671.

SECTION AT INT. BENTS 3 & 4
Scale: 3/4" = 1'-0"



SUPPLEMENTAL DETAILS OF SUPERSTRUCTURE
LITTLE FROG BAYOU
WESLEY GRADE SEPARATION - ALMA SURFACING
CRAWFORD COUNTY
INT. ROUTE 40 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: A.J. DATE: 12-14-62
TRACED BY: DATE:
CHECKED BY: DATE: 12-26-62

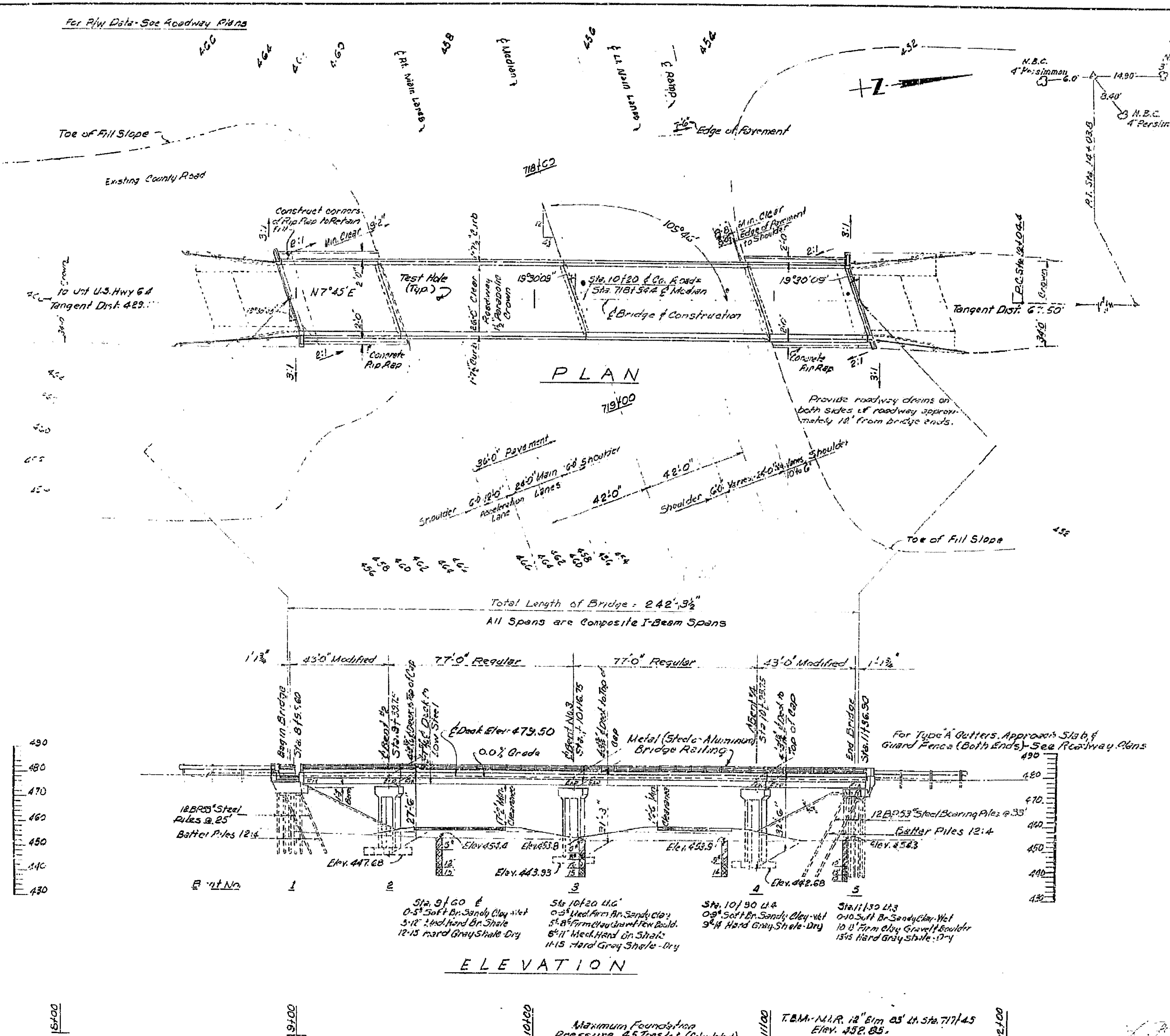
FOR INFORMATION ONLY

BRIDGE ENGINEER

BRIDGE NO. 3806A & B DRAWING NO. 12654

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	172	234

FED. ROAD DIV.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	I-40-1(9)9			
	JOB NO.	4483		72	198



GENERAL NOTES

All concrete to be poured in the dry. Exposed corners to be chamfered 3/4" unless otherwise noted

Rock excavation shall be made to neat lines of concrete footings and to a minimum depth of 1.0'. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock.

In general, all construction joints in bents shall be horizontal and shall be provided with keys not less than 1½" high covering the middle third of both dimensions.

All piling shall be 12" BP 53 and shall be driven with an approved air, steam or diesel hammer to a minimum bearing capacity of 36 tons per pile and to a minimum penetration of 20 feet below the ground line and into material designated as shale on the boring logs. Lengths of pile shown are for estimating quantities only. Order lengths shown. Cut-off or build-up, if necessary, to be paid for in accordance with the Standard Specifications.

Piles in End Bents No. 1 and 5 shall be driven after embankment is in place.

For Details of Pile End Bents see Dwg. No. 12694.
For Details of Intermediate Bents see Dwg. No. 12695.
For Details of Composite I-Beam Spans see Dwg. No. 12655 & 12675.
For Supplemental Details of Composite I-Beam Spans see Dwg. No. 12696.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specification for Highway Construction, Edition of 1959, and designated Special Provisions.

DESIGN SPECIFICATIONS — AASHO 1961

Live Loading:	H-20	
Unit Stresses:	Class A Concrete (n=15)	840 psi
	Class S Concrete (n=10)	1,200 psi
	Reinforcing Steel	20,000 psi
	Structural Steel (A-36)	20,000 psi

FOR INFORMATION ONLY

LAYOUT OF UNDERPASS
MOUNTAIN GROVE ROAD
SHIBLEY GRADE SEPARATION - ALMA
CRAWFORD COUNTY

INT. ROUTE 40 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

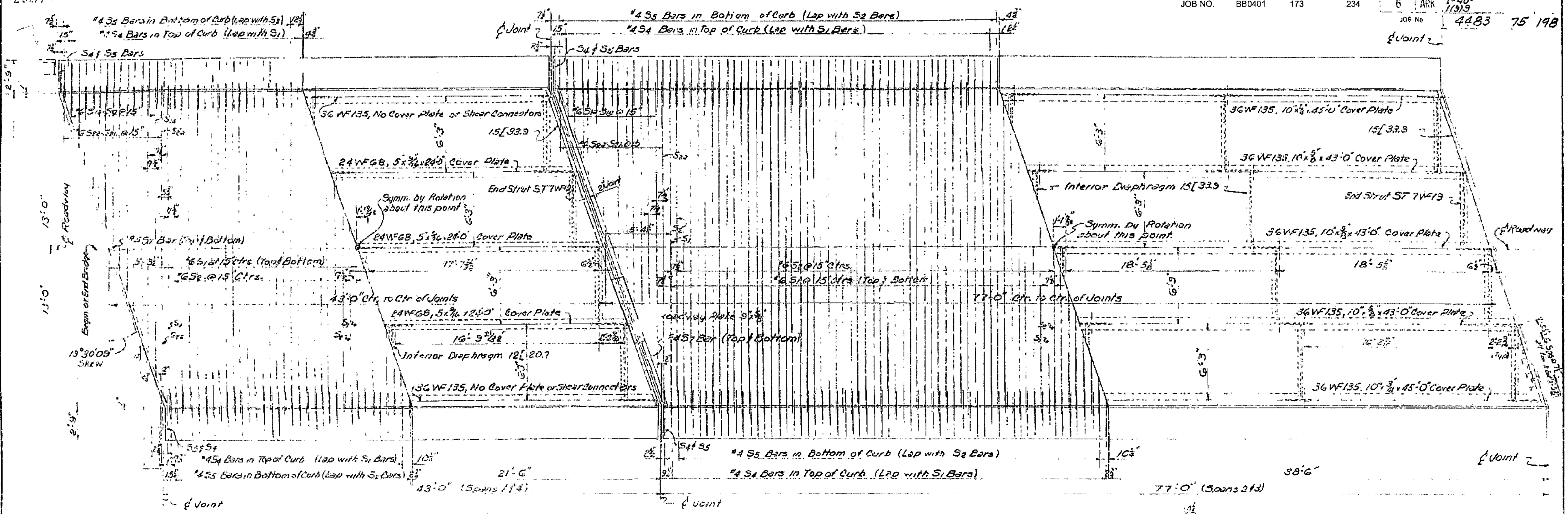
DRAWN BY: M.G. DATE: 6-21-63
TRACED BY: DATE:
CHECKED BY: DV DATE: 9-9-63
SCALE: 1" = 20'

BRIDGE ENGINEER

BRIDGE NO. 3807 . DRAWING NO. 12693

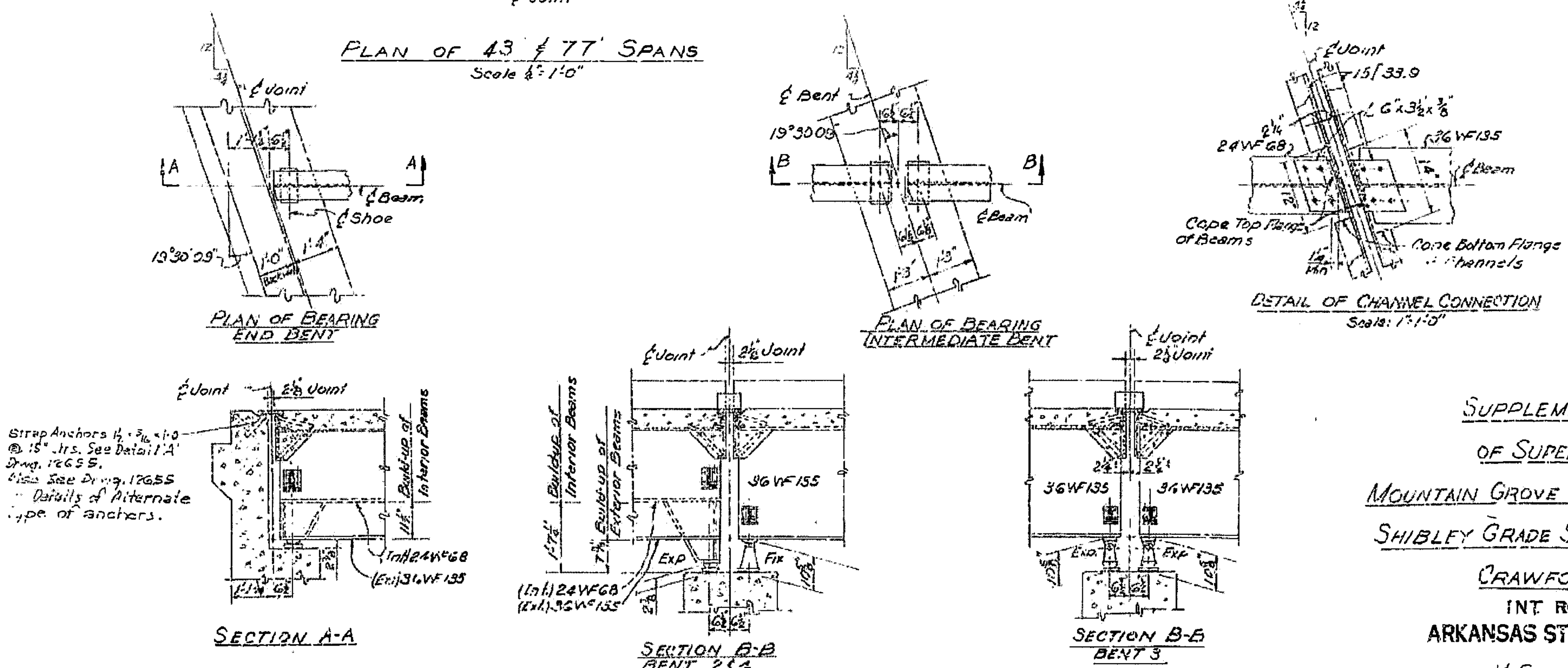
JOB NO.		SHEET NO.	TOTAL SHEETS			
BB0401		173	234	6	ARK	I-40-1(9)9

JOB No 4483 75 198



PLAN OF 43' & 77' SPANS

Scale 1/8" = 1'-0"



PLAN OF BEARING END BENT

PLAN OF BEARING INTERMEDIATE BENT

DETAIL OF CHANNEL CONNECTION

Scale: 1" = 1'-0"

SECTION A-A

SECTION B-B BENT 2 & 4

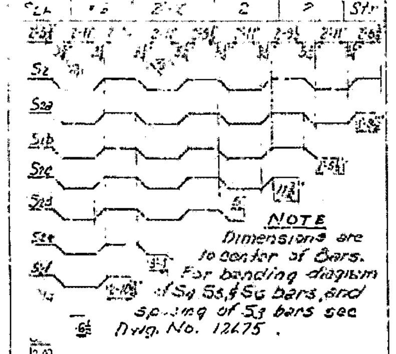
SECTION B-B BENT 3

NOTE

For details not shown and general notes see Dwg. No 12655 & 12675.

Parapet and Aluminum Bridge Railing not shown. See Dwg. No 12675.

MARK	SIZE	LENGTH	NUMBER 43' Span	NUMBER 77' Span	PIN DIA.
S1	#6	27'-2"	54	108	Str.
S1a-S1g	#6	Varies 3'-9 1/4" to 26'-11 1/2"	2 ea (14)	2 ea (14)	
S3	#4	22'-1"	144		
S3		26'-8"		216	
S3a		13'-10"	12		
S3a		25'-2"		12	Str.
S4		4'-11"	72	126	1 1/2"
S5		3'-11"	72	126	1 1/2"
S6		5'-4"	70	128	1 1/2"
S7	#4	27'-6"	4	8	Str.
S2	#6	26'-4"	26	53	2 1/4"
S2a		[illegible]	2	2	
S2b		[illegible]			
S2c		20'-2"			
S2d		[illegible]			
S2e		[illegible]			
S2f		[illegible]			
S2g	#6	[illegible]	2	2	2 1/4
[illegible]	#6	[illegible]	2	2	Str.



NOTE

Dimensions are to center of Bars. For bending diagram of S4, S5 & S6 bars, and spacing of S3 bars see Dwg. No. 12675.

FOR INFORMATION ONLY

SUPPLEMENTAL DETAILS

OF SUPERSTRUCTURE

MOUNTAIN GROVE ROAD UNDERPASS

SHIBLEY GRADE SEPARATION - ALMA

CRAWFORD COUNTY

INT. ROUTE 40 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: M.G. DATE: 7-8-63

TRACED BY: DATE:

CHECKED BY: OV DATE: 9-9-63

SCALE: 1/2" = 1'-0" or as noted

BRIDGE ENGINEER

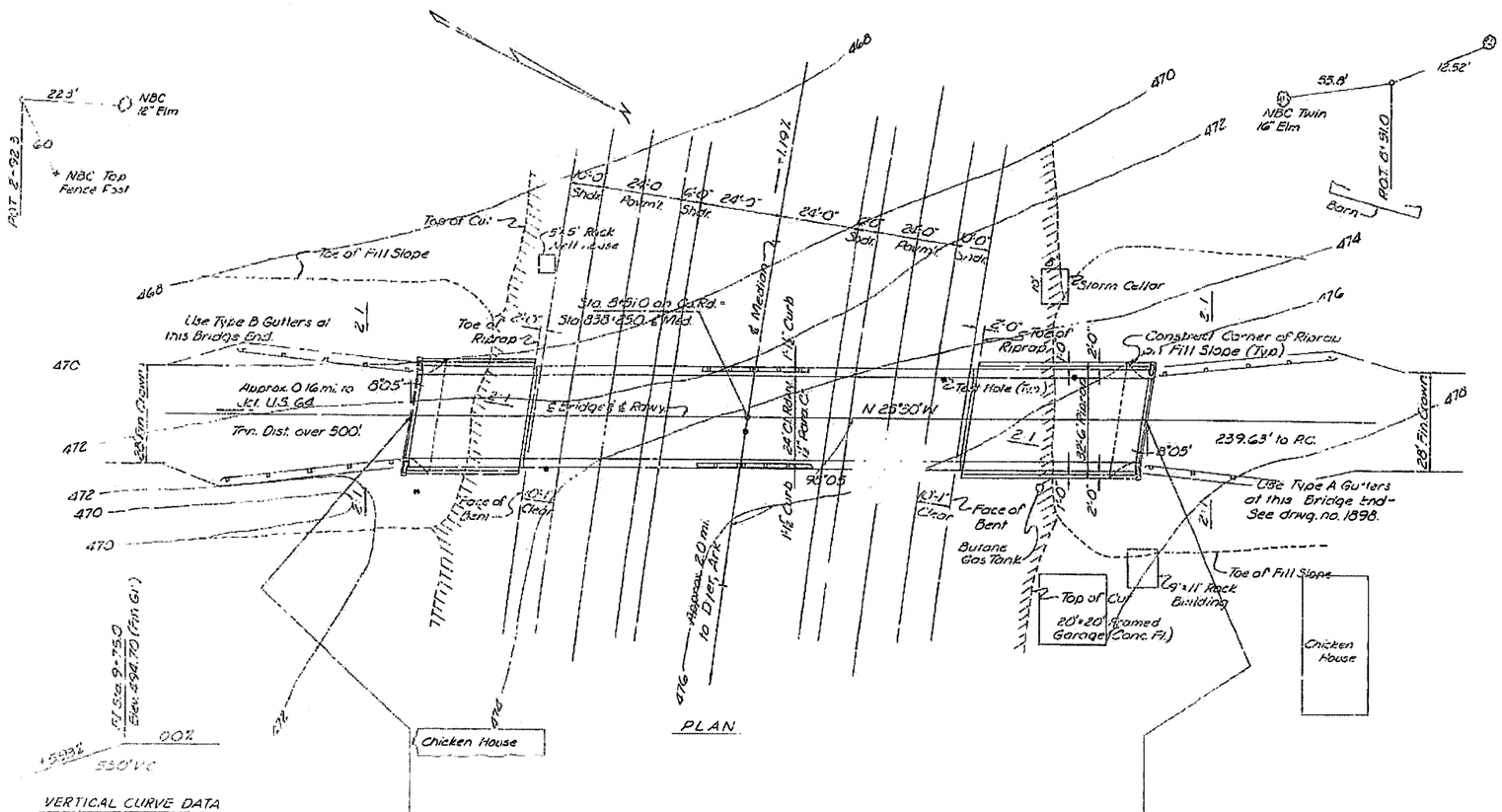
BRIDGE NO. 3807 DRAWING NO. 12696

For R/W Data - See Rdwy. Plans

	SHEET NO.	TOTAL SHEETS
JOB NO. BB0401	174	234

F40-1(23)13

4484 32 146



GENERAL NOTES

Bench Mark - Nail in side of telephone pole 1' Rt. Sta. 0+44; Elevation 452.09.

All concrete to be poured in the dry directly against excavated surfaces of rock. All footings shall be a minimum of 2'0" into shale.

Rock excavation shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting.

All piling shall be 12-BP-53 and shall be driven with an approved steam or diesel hammer to a minimum capacity of 36 tons per pile, and into the material designated as hard shale on the boring logs for the lengths shown; cut-off or build-up, if necessary, to be paid for in accordance with the Standard Specifications.

Piles in End Bents shall be driven after embankment is in place.

For Details of Superstructure see Dwgs. 12824, 14990A, 15015

For Details of Substructure see Dwgs. 12822, 12823.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959 and designated Special Provisions.

LOADING:	H-15	AASHO 1961
STRESSES:	Class A Concrete (n=15)	840 psi
	Class S Concrete (n=10)	1,200 psi
	Reinforcing Steel	20,000 psi
	Structural Steel (A-36)	20,000 psi
	Foundation Pressure - 8490 p.s.f. (Group III)	

FOR INFORMATION ONLY

LAYOUT OF UNDERPASS
COUNTY ROAD AT STA. 838+[illegible]
ALMA - DYER
CRAWFORD COUNTY
INT. ROUTE 40 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

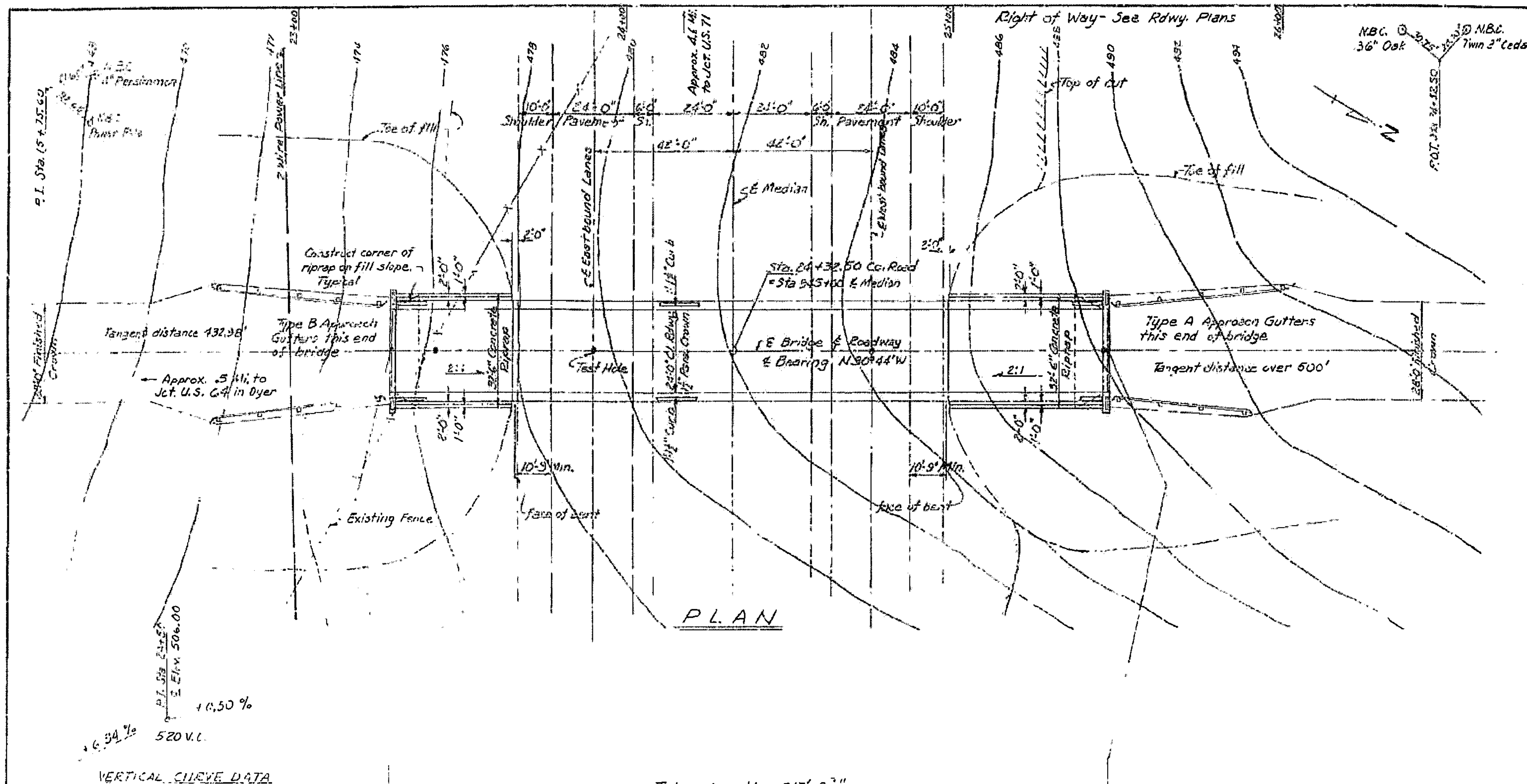
DRAWN BY: RWM DATE: 12-19-63
TRACED BY: DATE:
CHECKED BY: JAS DATE: 1-3-64
SCALE: 1" = 20'

BRIDGE ENGINEER

BRIDGE NO. 3891 DRAWING NO. 12819

JOB NO. BB0401 | SHEET NO. 175 | TOTAL SHEETS 234

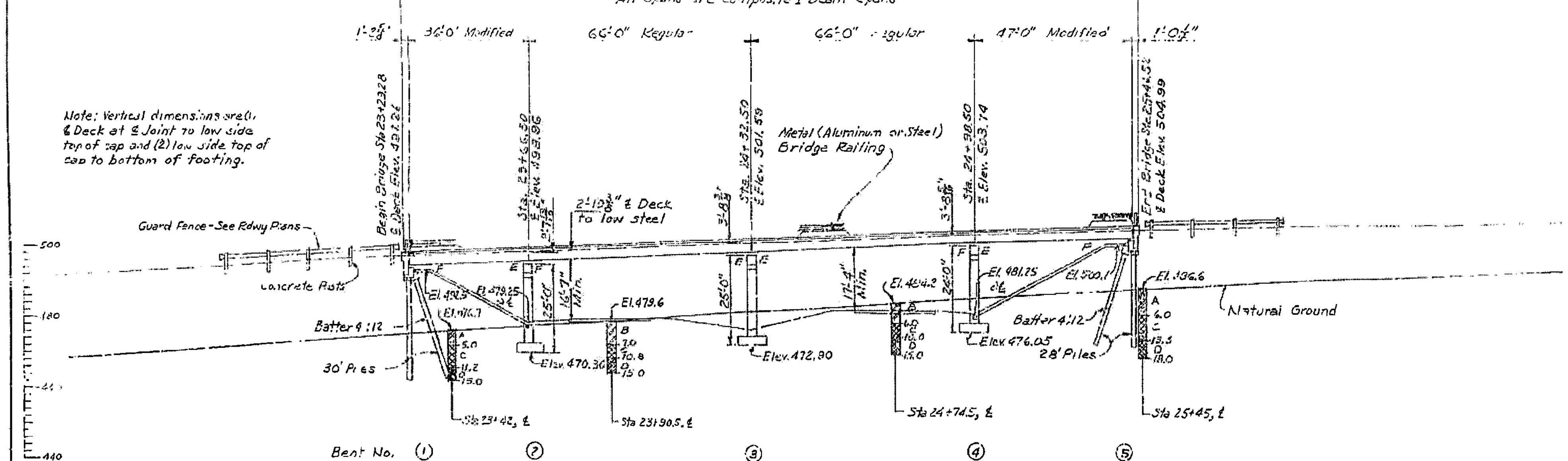
JOB NO. 4484 | 33 | 146



PLAN

Total Length = 217'-2 3/8"

All Spans are Composite I Beam Spans



ELEVATION

SOIL LEGEND

A Firm Brown Sandy Clay & Gravel
B Very Firm Red Clay & Small Boulders
C Very Firm Brown Shale
D Hard Gray Shale

GENERAL NOTES

Bench Mark - X Southwest corner Left Headwall Station 14+35, Elevation 442.78.

All concrete to be poured in the dry directly against excavated surfaces of rock. All footings shall be a minimum of 2'0" into shale.

Rock excavation shall be made to neat lines of concrete footings! Care shall be exercised to avoid shattering of rock faces by excessive blasting.

Provide roadway drains at both sides of roadway approximately 12' from bridge ends.

All piling shall be 12-BP-53 Steel Bearing Piles and shall be driven with an approved air, steam or diesel hammer to a minimum bearing capacity of 30 tons per pile and into the material designated as hard gray shale on the boring logs or to refusal. Order lengths shown; cut-off or build-up, if necessary, shall be paid for in accordance with the Standard Specifications. Piles shall be driven after embankment is in place.

For Details of End Bents see Drawing 15015A.

For Details of Intermediate Bents see Drawing 12825.

For Details of Superstructure see Drawing 15015.

For Details of Beam Build-up and Shoe Thickening see Drawing 12825, 14??A

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959.

DESIGN SPECIFICATIONS: AASHO 1961

Loading: H-15

Stresses: Class A Concrete (n=15) 840 psi

Class S Concrete (n=10) 1,200 psi

Reinforcing Steel 20,000 psi

Structural Steel (A-36) 20,000 psi

Foundation Pressure - 9380 psf (Group III)

FOR INFORMATION ONLY

LAYOUT OF UNDERPASS

COUNTY ROAD AT STA 945+00

ALMA - DYER

CRAWFORD COUNTY

INT. ROUTE 40 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: E.H. DATE: 1-16-68

TRACED BY: DATE:

CHECKED BY: E.E. DATE: 1-21-69

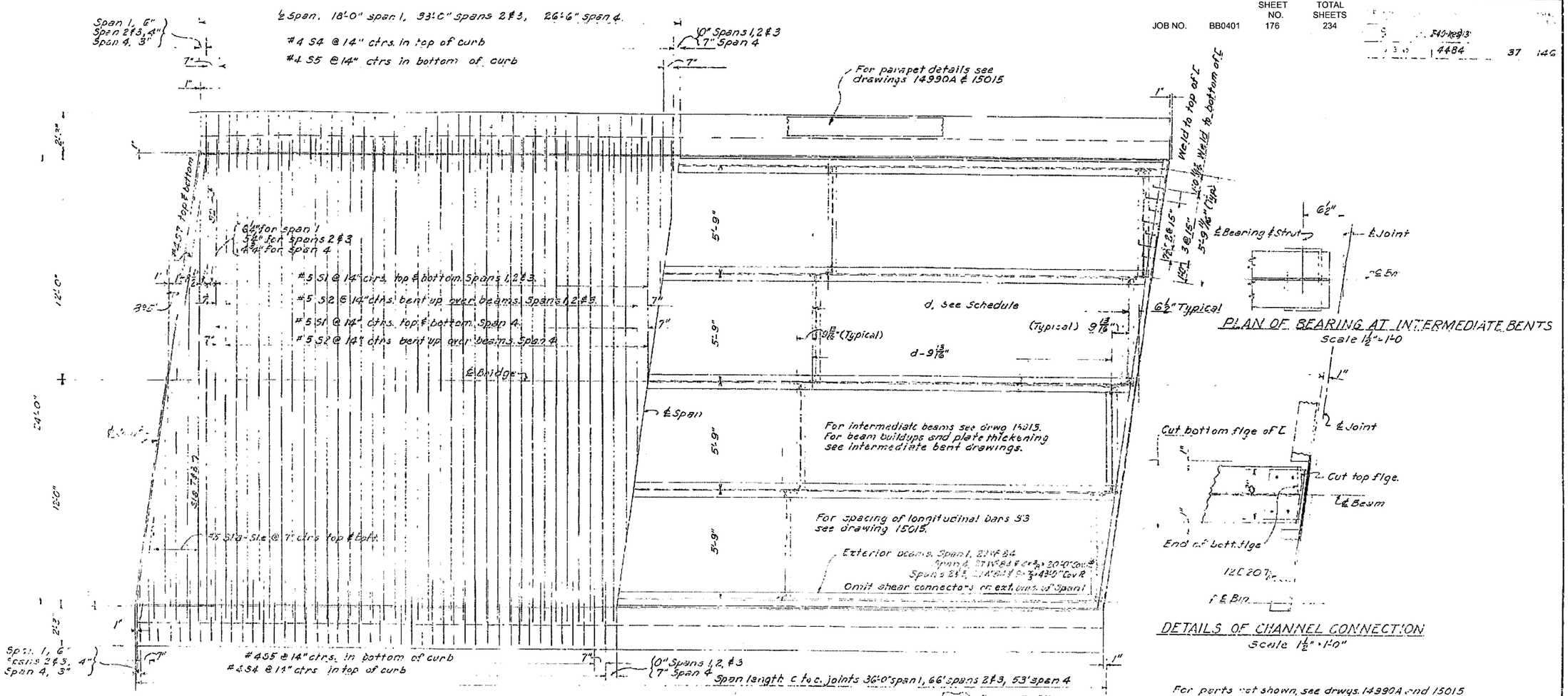
SCALE: 1" = 20'

BRIDGE ENGINEER

BRIDGE NO. 3892 DRAWING NO. 12820

JOB NO. BB0401 | SHEET NO. 176 | TOTAL SHEETS 234

4484 37 146



BAR LIST

MARK	SIZE	NUMBER PER SPAN SPAN 1	SPAN 2 & 3	SPAN 4	LENGTH	TYPE
S1	#5	54	106	84	25'-8	Str.
S2	#5	28	54	43	26'-4	Bent
S3	#4	60			35'-6	Str.
S3			120		23'-0	Str.
S3				120	27'-1	Str.
S4		62	114	92	4'-6	Bent
S5		60	112	90	3'-0	Bent
S6		62	114	92	5'-4	Bent
S7	#4	4	4	4	2'-[illegible]	
S1a	#5				21'-10	
S1b					17'-3	
S1c					13'-8	
S2a					9'-7	
S2b	#5	4	4	4	5'-6	
S3	#4	12			11'-5	
S3a	#4		12		21'-5	
S3b	#4			12	17'-1	Str.

For bending diagrams, see drwg 15015

STRUT SPACING

SPAN	NUMBER @ d
1	2 @ 17'-0 5/16" =
2	4 @ 16'-0 9/16" =
3	4 @ 16'-0 3/16" =
4	3 @ 17'-0 3/8" =

For parts not shown, see drwgs. 14990A and 15015

NOTES

All concrete is to be Class S. All exposed corners are to be chamfered ¾" unless otherwise shown. All reinforcing steel shall be deformed bars of intermediate or hard grade.

FOR INFORMATION ONLY

DETAILS OF SPANS
COUNTY ROAD AT STA. 838+25
ALMA – DYER
CRAWFORD COUNTY
INT. ROUTE 40 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

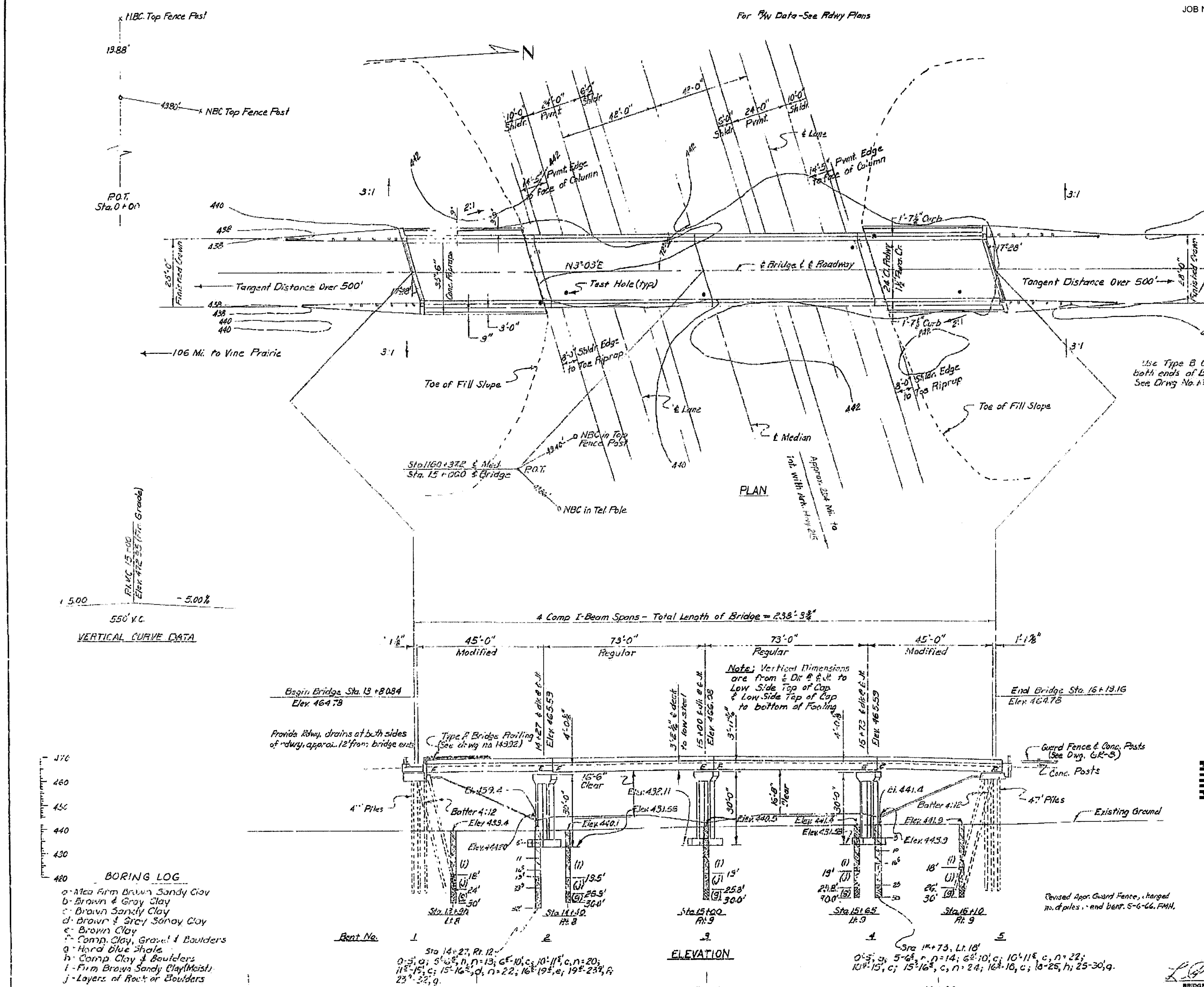
DRAWN BY: W.E.W. DATE: 3-6-64
TRACED BY: DATE:
CHECKED BY: F.E. DATE: 3-12-64
SCALE 3/16" = 1'-0" or shown

BRIDGE ENGINEER

BRIDGE NO. 3891 DRAWING NO. 12824

JOB NO. BB0401 SHEET NO. 177 TOTAL SHEETS 234

FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	I-40-1(5)29		[illegible]	132
JOB NO.		4465		52	132



GENERAL NOTES

Bench Mark - N.I.P. 18" Maple 190' Rt. Station 1156+42 (Centerline Median) Elev. 443.52.

In order not to disturb the founding material, the final one foot of footing excavation shall be done carefully by hand methods to neat lines of footing. All pits shall be poured in the dry.

All piling shall be 12"BP53# and shall be driven with an approved air, steam or diesel hammer to a minimum bearing capacity of 36 tons per pile and into the material designated as shale on the boring logs. Lengths of pile shown are for estimating quantities only. Order lengths shown; cut-off or build-up, if necessary, to be paid for in accordance with the Standard Specifications. Piles in End Bents shall be driven after embankment is in place.

For Details of End Bents, see Dwg. No. 13588.
For Details of Intermediate Bents, see Dwg. No. 13578.
For Details of Composite I-Beam Spans see Dwg. No. 14990C, 13590 & 13531.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, The 1968 Supplemental Specifications thereto, and designated Special Provisions.

DESIGN SPECIFICATIONS: AASHO 1961

Live Loading:	H-15	
Unit Stresses:	Class A Concrete (n-15)	840 psi
	Class S Concrete (n-10)	1,200 psi
	Structural Steel (A-36)	20 000 psi
	Reinforcing Steel	20,000 psi
	Foundation Pressure	7380 psf Gp. II

FOR INFORMATION ONLY

LAYOUT OF
VINE PRAIRIE UNDERPASS
DYER - HWY. 215
CRAWFORD COUNTY

ROUTE 40 SEC. I

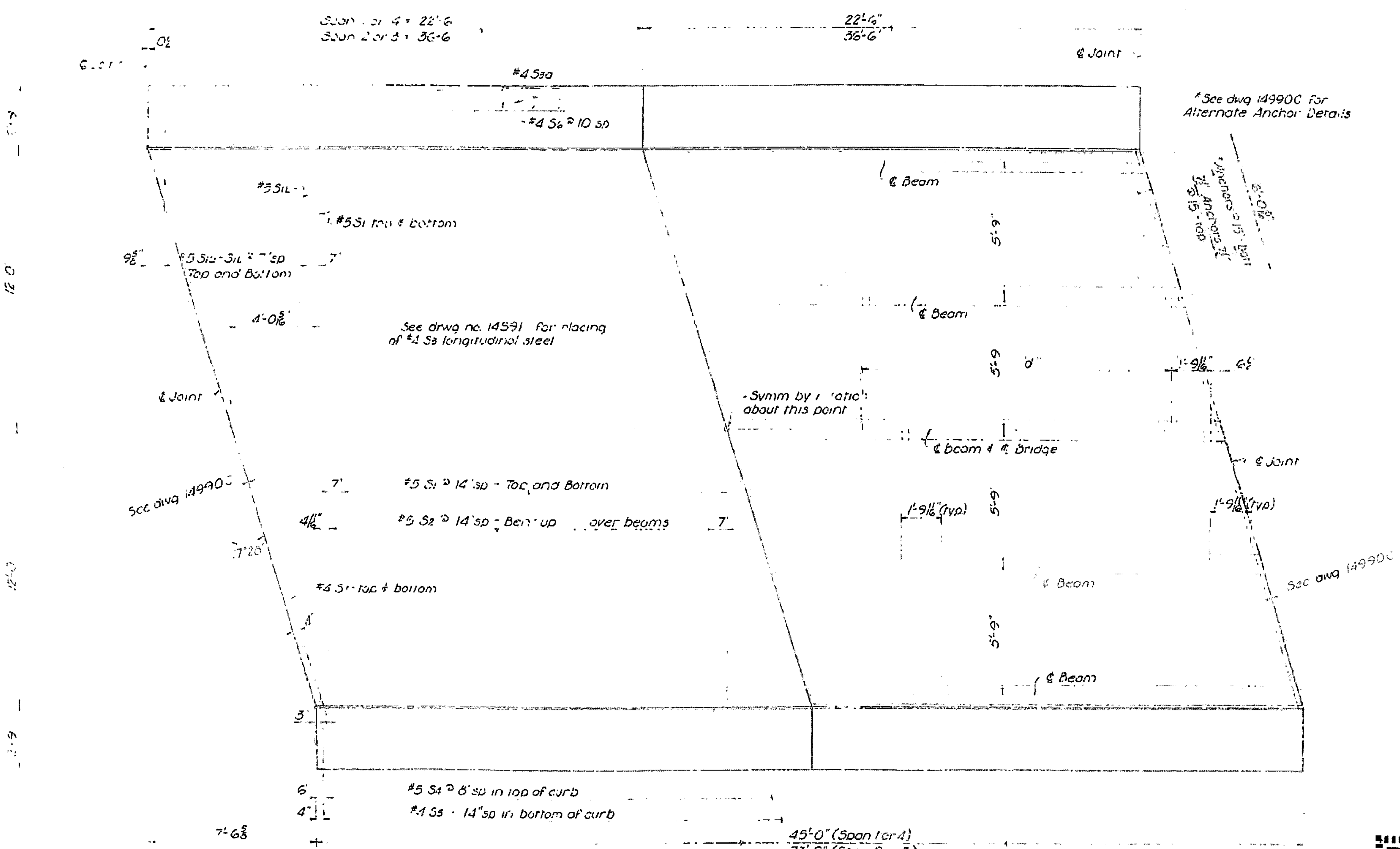
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: FCH DATE: 10/13/65
TRACED BY: DATE:
CHECKED BY: DFL DATE: 10/26/65
SCALE: 1 in. = 20 ft.

BRIDGE ENGINEER

BRIDGE NO. 5079 DRAWING NO. 13585

JOB NO.	BB0401	SHEET NO. 178	TOTAL SHEETS 234	FED. ROAD NO. 6	STATE ARK.	FED. AID PROJ. I-40 I(26)(3)	SHEET NO. 37	TOTAL SHEETS 132
				JOB NO.		4435	37	132



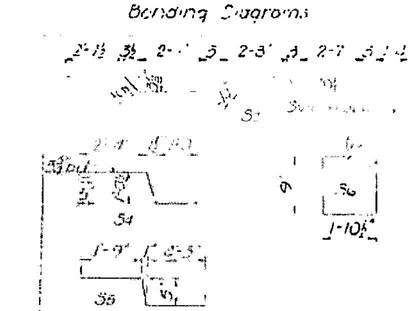
SPACING OF DIAPHAGMS

Span Length	No of Spaces @
45'-0	3 sp. @ 14'-0⅝
73'-0"	4 sp @ 17'-6⅝±

BAR LIST

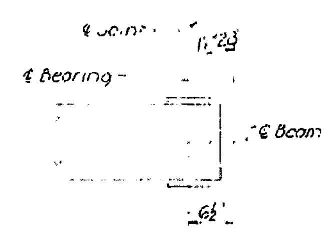
MK	# Size	No Req'd/Span 45'-0	No Req'd/Span 73'-0	Length	Pin D.a
S1	–	63	114	25'-8	Str
S1a - S1L	5	4 ea	4 ea	2'-3" to 23'-3"	Str
S2	5	32	56	26'-5	1⅞
S3	4	120	–	25'-1"	Str
S3	4	–	180	25'-4"	Str
S4	5	[illegible]	218	5'-0	1⅞
S5	4	75	[illegible]	6'-5"	1½
S6	4	103	174	5'-10"	1½
S7	4	4	4	2[illegible]'-11"	Str
S3a	4	12	–	14'-5"	Str
S3b	4		12	2[illegible]'-9	Str

Bending Diagrams

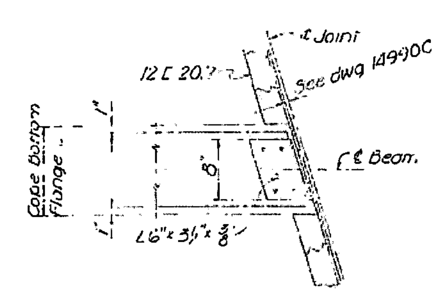


Dimensions are to ctrs of bars.

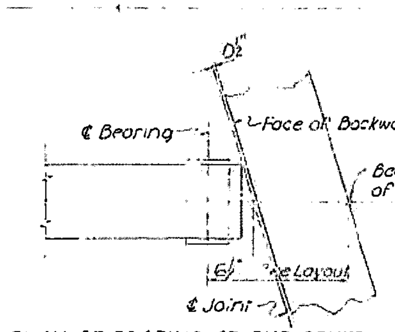
Note: For general notes and additional details see drwg. nos 14990C and 14591



PLAN OF BEARING AT INT BENTS
Scale 1" = 1'-0"



DETAILS OF CHANNEL CONNECTION
Scale 1" = 1'-0"



PLAN OF BEARING AT END BENTS
Scale 1" = 1'-0"

FOR INFORMATION ONLY

DETAILS OF SPANS FOR
VINE PRAIRIE UNDERPASS
DYER – HWY. 215
CRAWFORD COUNTY
INT. ROUTE 40 SEC. I
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: RWM DATE: 4-27-66
TRACED BY: DATE:
CHECKED BY: [illegible] DATE: 2-[illegible]-66
SCALE: ⅜" = 1'-0" or as shown

L. P. Carlson
BRIDGE ENGINEER

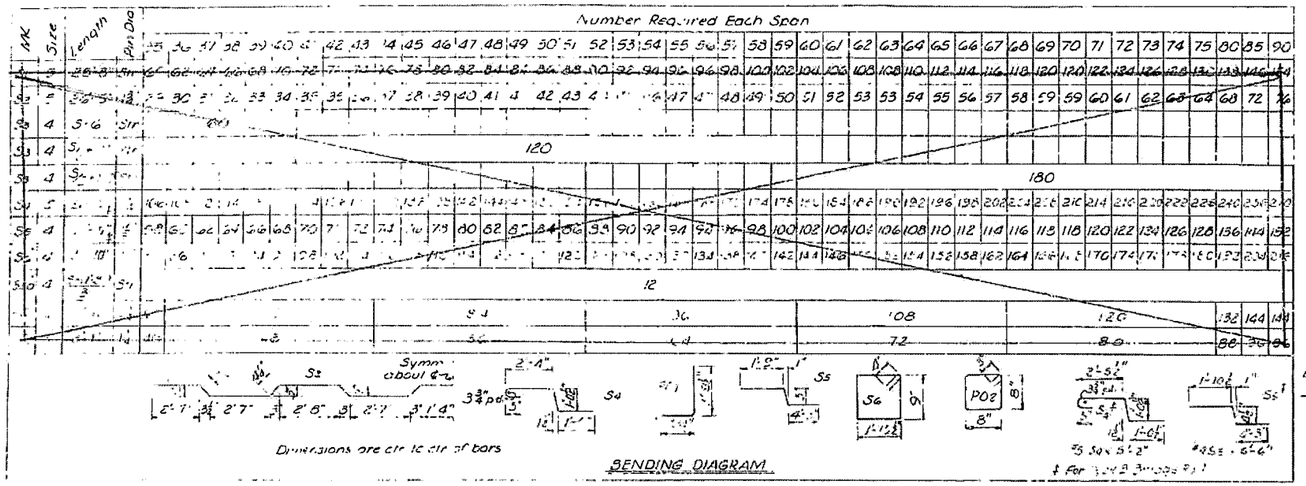
BRIDGE NO. 5079 DRAWING NO. 13590

FOR INFORMATION ONLY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK				

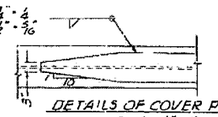
JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	179	234

BAR LIST - ONE SPAN

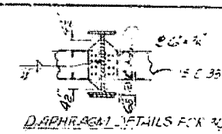


BENDING DIAGRAM

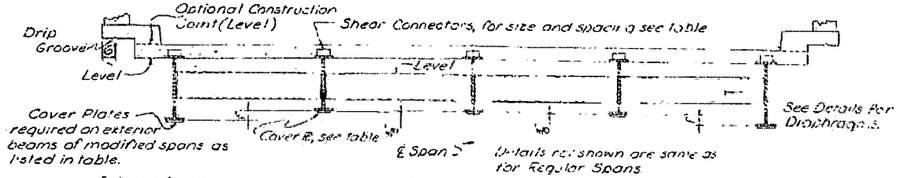
Maximum thickness of part under ¾" - ⅝" to 1½" - 1⅜"



DETAILS OF COVER PLATE
Scale - ½" = 1'-0"

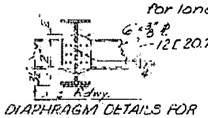


DIAPHRAGM DETAILS FOR 30"-36" WF BMS.



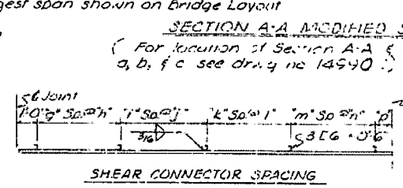
Details not shown are same as for Regular Spans

Interior beams are same as in ___ for Spans Exterior Beams are the lightest section ___ the nominal depth as beams for longest span shown on Bridge Layout

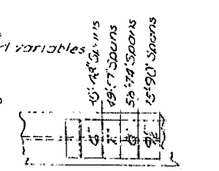


DIAPHRAGM DETAILS FOR 21"-27" WF BMS.

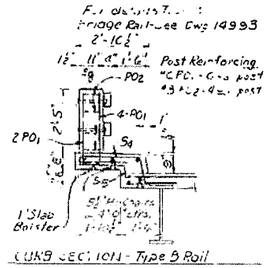
SECTION A-A MODIFIED SPANS
(For location of Section A-A & B-B and variables a, b, & c see drawing no 14990)



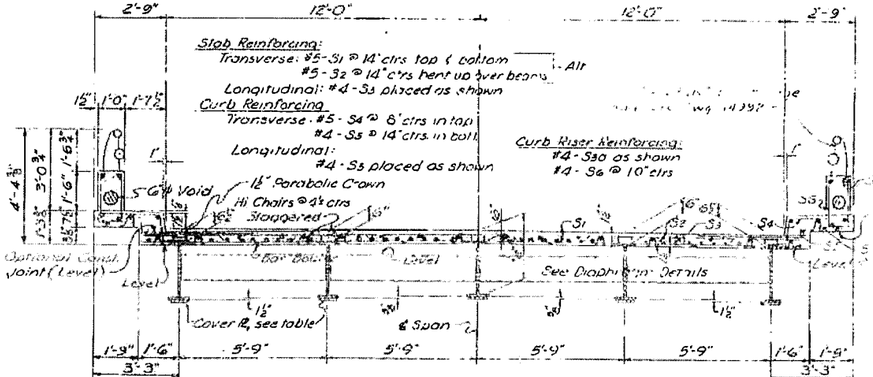
SHEAR CONNECTOR SPACING
No Scale



DETAILS OF SHEAR CONN.
No Scale



CURB SECTION - Type 3 Rail



SECTION A-A OF REGULAR SPAN
(Regular spans have all beams of equal depth)

Span	Beam	a	b	c	d	e	f	g	h	i	j	k	l	m	n	p
24'-7"	Ext.	7'-6"	7'-0"	4	10½"	8	7"	7	10	5	12"	4	16	8"
	Int.	7'-1"	7'-0"	7	1½"	9	11"	7	14"	6	18"	5	22	11"

No shear connectors on exterior beams

Table data by FMH. 4-18-1.6 CKD. FJM 28 Apr 66

Revised 2-2-63 Added Note 3 Brace Rail FMH

NOTE: Stud shear connectors, granular flux filled, solid fluxed, or equal may be used in place of the channels shown at the following ratios: 3/4" diameter stud in place of 1.82 inches of channel, 7/8" diameter stud in place of 2.52 inches of channel. The studs shall be 4" long and automatically end welded to the beam flanges in accordance with recommendations of the manufacturer.

Channel sections will be used as basis for measurement of structural steel in shear connectors.

This drawing to be used with Drawing 14990 C

All steel shall be A-36 steel unless otherwise noted.

DESIGN SPECIFICATIONS: AASHO 1961 Live Loading H-15

1. Dead Loads (Type 3 Rail) Interior Beam / Exterior Beam
a. WF Beam (without const. jt) 145/8"=21.18(lbs/ft of WF) / 21.18(lbs/ft of WF)
(with const. jt) 1437 #/ + 1.15(lbs/ft of WF) / 363 #/ + 1.15(lbs/ft of WF)
b. As Composite Beam (with const. jt) 253 #/ / 253 #/
(without const. jt) 194 #/ / 194 #/

2. Live Load a. As Composite Beam 1.045 wheels & impact / 1.045 wheels & impact

Unit Stresses: Class 'S' Concrete (n=30) 1,200 psi
Structural Steel (n=30) 20,000 psi
Reinforcing Steel 20,000 psi

M Dead Load: Type 3 (Rail) Interior Beam / Exterior Beam
a. As WF Beam (without const. jt) 431 #/ + 1.15(wt/ft of WF) / 758 #/ + 1.15(wt/ft of WF)
(with const. jt) 493 #/ + 1.15(wt/ft of WF) / 363 #/ + 1.15(wt/ft of WF)
b. As Comp. Beam (without const. jt) 831 #/ / 51 #/
(with const. jt) 200 #/ / 200 #/

Expansion Device: Preformed ___ Joint (See Spec. for Provisions)
Roadway 2 - 12' @ 20.7 = 24'-0" (Skew to crown)
Conn @ 6" x 3½" x ⅜" @ 0'-8"
Detail device 6" high and provide ¼" of shims
(2 - ¾" Ø bolts and one ½" Ø)
5 - 11 Shirs @ 2'-0" ctrs
Holes for ¾" Ø Machine Bolts (Typ)
¾" x ¾" x 1'-0" Anchors (See Drg. 14990C)
Weld to C
S4
S5
Split W14 x 38
Web C
1'-6"
1'-9"
Bolster
Weld
OPTIONAL WELD
Edge C flange to clear beam flange at all beams
Note: For 1½" Ø bar Regular Spans

HALF-SECTION B-B FOR MODIFIED OR REGULAR SPANS
See Dwg. 14990C for Alternate Anchor Details

DETAILS OF STANDARD
35'-90' COMPOSITE I-BEAM SPANS
24'-0" CLEAR RDWY. 1'-6" OR 1'-7½" CURBS

ROUTE SEC.

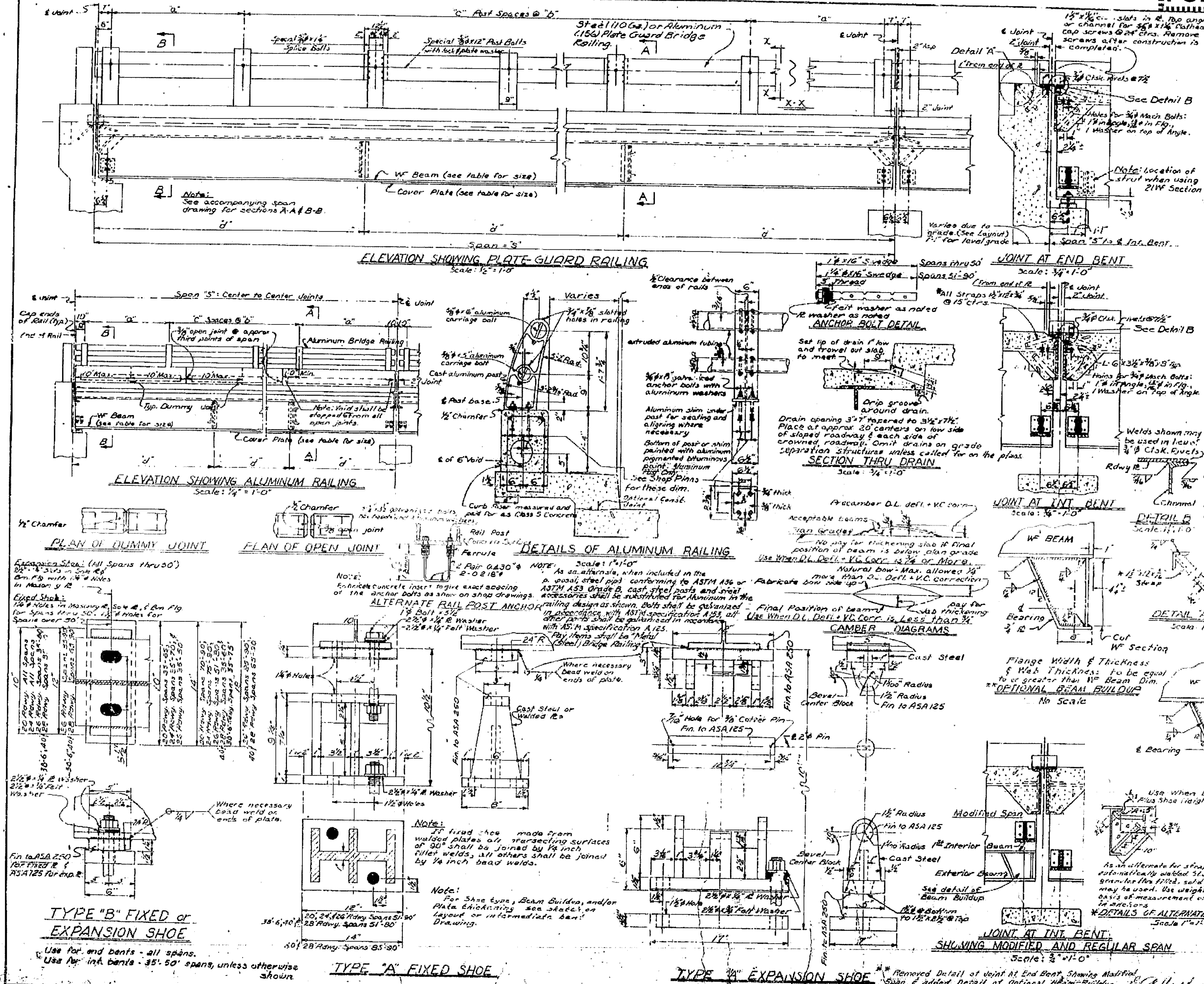
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

RE DRAWN BY JAC DATE 11-[illegible]-64
TRACED BY DATE
CHECKED BY DATE 10-[illegible]-64
SCALE: ⅜" = 1'-0" or as shown

BRIDGE ENGINEER

BRIDGE NO. 5079 DRAWING NO. 13591

81



FED. ROAD	STATE		FISCAL YEAR	SHEET NO.	TOTAL SHEETS
JOB NO.					

GENERAL NOTES

All concrete to be Class S. All exposed corners to be chamfered 3/4" unless otherwise noted.

Field connections to be riveted or bolted with high strength bolts. Rivets: 3/4"⌀, Open holes 13/16"⌀ except where noted otherwise.

Structural shapes of equal or greater strength may be substituted for shapes shown, but payment will be made on the basis of shapes shown or those actually used, whichever is less.

All welded connections to be 5/16" fillet shop welds except as noted. All welding shall conform to the American Welding Society Standard Specifications for Welded Highway and Railway Bridges, current edition.

Shop Paint: All structural steel except surfaces in contact with concrete shall be given one coat of red lead and raw linseed oil before shipment.

Field Paint: First coat-red lead tinted with lamp black. Second coat-aluminum paint.

All metal bearing and roadway expansion devices to be paid for as "Structural Steel in Beam Spans." Bearings shall be finally seated in accordance with Sec. 806.5c, including alternate, of the Specs. This work and material are to be considered as subsidiary to the item "Structural Steel in Beam Spans" and will not be paid for directly.

This drawing shows general features of design only. Shop drawings shall be made in accordance with the Specifications, submitted and approval secured before fabrication is begun.

All Steel shall be ASTM A-36 unless otherwise noted.

Anchor bolts shall be galvanized to conform to ASTM Specification, Designation A153.

Reinforcing steel to be deformed bars of intermediate or hard grade. The reinforcing steel is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly but will be considered subsidiary to the item of "Reinforcing Steel."

Shop lists and bending diagrams of reinforcing steel, including wire supports, shall be submitted and approval secured before fabrication is begun.

All chamfers on concrete riser for rail are to be 1/2".

Shop drawings showing details of railing shall be submitted and approval secured before fabrication is begun.

The aluminum bridge railing, including posts and fasteners, shall be paid for at the unit price bid per linear foot for Metal (Aluminum) Bridge Railing.

A rail connection utilizing set screws is an acceptable alternate and may be supplied at the Contractor's option.

Outside surfaces of flanges of cast aluminum posts shall be given a No. 220 grit belt finish after which all exposed surfaces of posts shall receive one coat of clear lacquer.

If Steel or Aluminum Plate Guard Bridge Railing is used it shall be the type shown or an equivalent rigid type as approved by the Engineer. The rail including posts and fastenings shall be paid for at the unit price bid per linear foot for "Steel or Aluminum Plate Guard Bridge Railing."

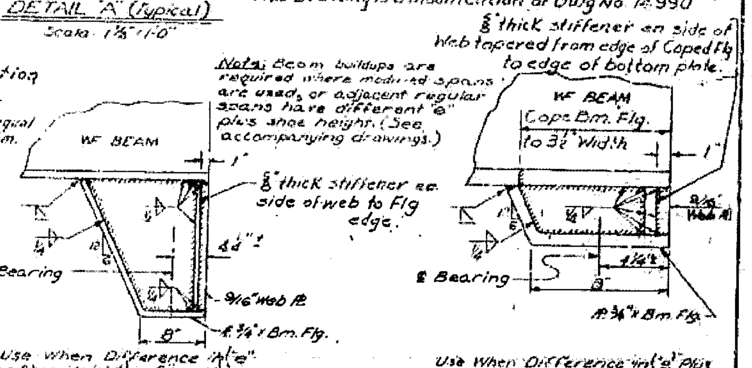
Slab Pouring Note:

Floor slabs may be poured in one continuous operation with a strikeoff extending over the whole span length, or may be poured in increments with the center one-third to one-half span length poured first. After the center section is poured not less than 72 hours shall elapse before pouring the end sections. End sections may be poured simultaneously. If not poured simultaneously, 48 hours shall elapse between end section pours.

SPECIFICATIONS:

Arkansas State Highway Commission Standard Specifications for Highway Construction Edition of 1959.

This Drawing is a modification of Dwg No. 14990



DETAILS OF BEAM BUILDUP
No Scale

DETAILS COMMON TO STANDARD 35'-90' COMPOSITE I-BEAM SPANS

ALL ROADWAY WIDTHS

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

RE-DRAWN BY: E.E. DATE: 9-27-63

TRACED BY: DATE:

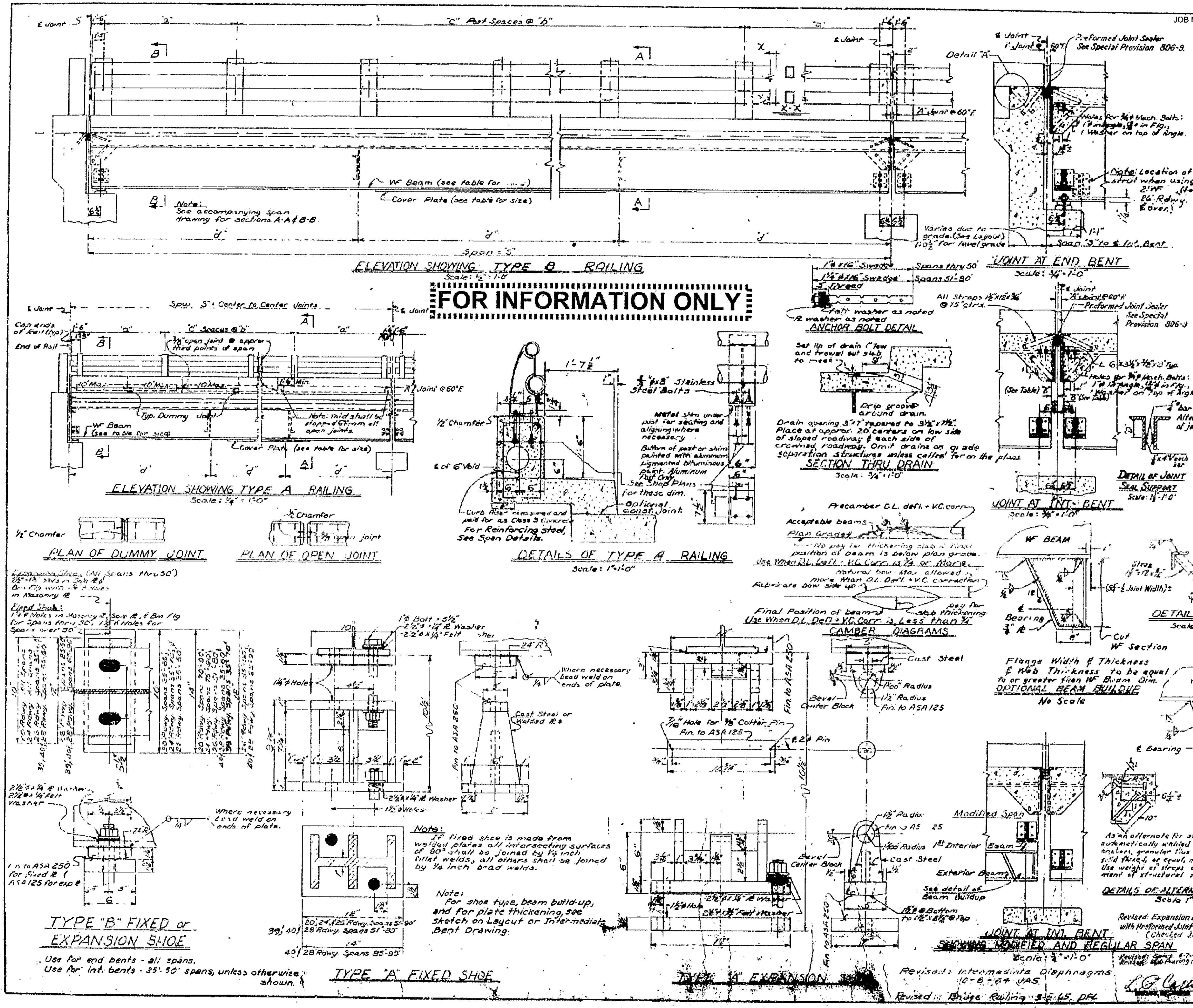
RE-CHECKED BY: FMH DATE: 9-30-63

SCALE: As Shown

BRIDGE NO.

DRAWING NO. 14990A

FED. ROAD DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK				
JOB No.					



GENERAL NOTES

All concrete to be Class S. All exposed corners to be chamfered ¾" unless otherwise noted.

Field connections to be riveted or bolted with high strength bolts. Rivets: ¾"⌀, Open holes 13/16"⌀ except where noted otherwise.

Structural shapes of equal or greater strength may be substituted for shapes shown, but payment will be made on the basis of shapes shown or those actually used, whichever is less.

All welded connections to be 5/16" Fillet shop welds except as noted. All welding shall conform to the American Welding Society Standard Specifications for Welded Highway and Railway Bridges, current edition.

Shop Paint: All structural steel except surfaces in contact with concrete shall be given one coat of red lead and raw linseed oil before shipment.

Field Paint: First coat-red lead tinted with lamp black. Second coat aluminum paint.

All metal bearing and roadway expansion devices to be paid for as "Structural Steel in Beam Spans." Bearings shall be finally seated in accordance with Sec. 806.34, including alternate, of the 1959 Spec. This work and material are to be considered as subsidiary to the item "Structural Steel in Beam Spans" and will not be paid for directly.

This drawing shows general features of design only. Shop drawings shall be made in accordance with the Specifications, submitted and approval secured before fabrication is begun.

All Steel shall be ASTM A-36 unless otherwise noted.

Anchor bolts shall be galvanised to conform to ASTM Specification, Designation A 153.

Reinforcing steel to be deformed bars of intermediate or hard grade. The reinforcing steel is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly but will be considered subsidiary to the item of "Reinforcing Steel."

Shop lists and bending diagrams of reinforcing steel, including wire supports, shall be submitted and approval secured before fabrication is begun.

All chamfers on concrete riser for rail are to be ½".

Shop drawings showing details of railing shall be submitted and approval secured before fabrication is begun.

Slab Pouring Note:

Floor slabs may be poured in one continuous operation with a strikeoff extending over the whole span length, or may be poured in increments with the center one-third to one-half span length poured first. After the center section is poured, not less than 72 hours shall elapse before pouring the end sections. End sections may be poured simultaneously. If not poured simultaneously, 48 hours shall elapse between end section pours. A minimum of 72 hours shall elapse between completion of the slab and the pouring of the curb section if poured separately.

For details of Bridge Railing see Dwg. No. 14392 or 14393 as shown on Bridge Layout.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction Edition of 1959, the 1966 Supplemental Specifications thereto and applicable Special Provisions.

EXPANSION JOINT DATA

SPAN LENGTH (AGGREGATE FOR MOVEMENT AT JOINT)	"A" (Joint Width)	"D"	SEAL SIZE	B
To 80' and All Spans Fixed @ Abut.	1"	2½"	1¼" x 2"	1¼"
Over 80' to 100'	1¼"	2¾"	2" x 2½"	1¾"
Over 100' to 140'	1½"	3¼"	2½" x 2¾"	2"
Over 140' to 180'	2"	4¼"	3" x 3½"	2½"

This Drawing is a modification of Dwg. No. 14910

Note: Beam buildups are required where modified spans are used, or adjacent regular spans have different "e" plus shoe height. (See accompanying drawings.)

Revised: Expansion Device for use with Preformed Joint Sealer. A.J.M. 8-65 (Checked J.E.N. 10-13-65)

Revised: Intermediate Diaphragms 10-6-64 VAS.

Revised: Bridge Railing 3-5-65 DFL

DETAILS COMMON TO STANDARD 35'-90' COMPOSITE I-BEAM SPANS

20', 24', 26', 28', 39', 40' ROADWAYS

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: E.M. DATE: 8-1-62
CHECKED BY: L.K. DATE: 3-9-61
SCALE: As Shown

BRIDGE NO.

DRAWING NO. 14990C

71

FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.				

JOB No.

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	182	234

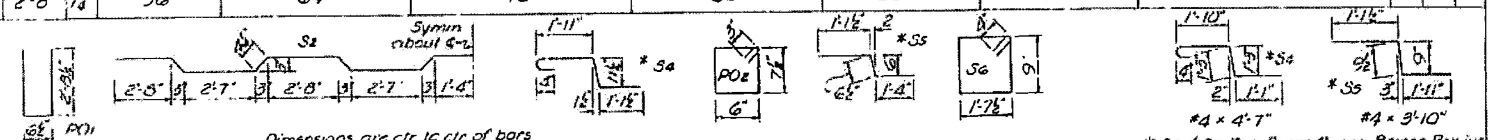
Maximum thickness of part under 3/4" - 1/4"
" " " " 3/4" to 1 1/2" - 3/8"

BAR LIST - ONE SPAN

MK	Size	Length	Pin Dia	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	80	85	90
				Number Required Each Span																																											
S1	5	25'-8"	Str.	60	62	64	66	68	70	72	72	74	76	78	80	82	84	84	86	[illegible]	90	92	94	96	96	98	100	102	104	106	108	108	110	112	114	116	118	120	120	122	124	126	128	130	138	146	154
S2	5	26'-4"	1 3/4"	29	30	31	32	33	34	35	35	36	37	38	39	40	41	41	42	43	44	45	46	47	47	48	49	50	51	52	53	53	54	55	56	57	58	59	59	60	61	62	63	64	68	72	76
S3	4	5'-6"	Str.	60																																											
S3	4	S/2 + 7"	Str.							30																																					
S3	4	S/3 + 1'-0"	Str.																										180																		
* S4	4	4'-6"	1 1/2"	60	62	64	66	68	70	72	72	74	76	78	80	82	84	86	84	88	90	92	94	96	96	98	100	102	104	106	108	108	110	112	114	116	118	120	120	122	124	126	128	130	138	146	154
* S5	4	3'-0"	1 1/2"	58	60	62	64	66	68	70	70	72	74	76	78	80	82	84	82	86	88	90	92	94	94	96	98	100	102	104	106	106	108	110	112	114	116	118	118	120	122	124	126	128	136	144	152
S6	4	5'-4"	1 1/2"	60	62	64	66	68	70	72	72	74	76	78	80	82	84	86	84	88	90	92	94	96	96	98	100	102	104	106	108	108	110	112	114	116	118	120	120	122	124	126	128	130	138	146	154
S30	4	(S-(1'-8"))/3	Str.	12																																											
PO1	5	5'-10"	1 3/4"	28				32						36							40						44					48					52								56	60	64
PO2	3	2'-8"	1 1/4"	56				64						72							80						88					96					104								112	120	128

Parapet Type Railing (S3, S30)

Plate Guard Bridge Railing (Non-Pav...) (S4, S5, S6, PO1, PO2)



Dimensions are ctr to ctr of bars

BENDING DIAGRAM

* S4 & S5 For Plate Guard Bridge Railing

Deflection of exterior beam is for regular spans only.

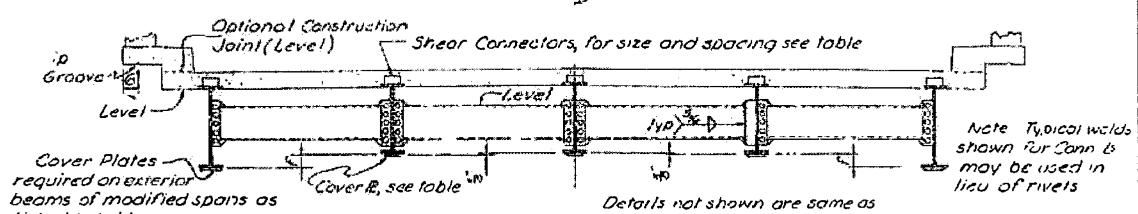
Span	Regular Spans: Beam	Cover Plate: Interior	Cover Plate: Exterior	"g"	"h"	"i"	"j"	"k"	"l"	"m"	"n"	"p"	Modified Span Exterior Beams Requiring Cover PL: Beam	Cover PL	Strut Spacing No.@"d"	"e"	Dead Load Deflection: Int.	Ext.	Post Spacing for Aluminum Railing: a	b	c	Post Spacing for PL Guard Railing: a	b	c	24WF68 F	24WF68 Δ	27WF84 F	27WF84 Δ	30WF99 F	30WF99 Δ	33WF118 F	33WF118 Δ
35	21WF59	4×3/8×17'-0"	—	5	8"	5	10"	5	12"	3	16"	0	—	—	2@17'-6"	2'-2 1/4"	3/8"	3/8"	8'-4"	8'-4"	2	5'-7"	5'-8"	4	3 5/16	3/8"	6 3/8	1/4"	9 1/2	3/16"	12 7/8	1/8"
36		4×3/8×17'-0"	—	5	8"	6	10"	4	12"	3	16"	8"	—	—	2@18'-0"		7/16"	1/2"	6'-8"	7'-0"	3	5'-7"	5'-11"	4		7/16"		5/16"		5/16"		1/8"
37		4×3/8×18'-0"	4×3/8×16'-0"	6	8"	6	10"	4	12"	3	16"	6	—	—	2@18'-6"		1/2"	11/16"	7'-2"	7'-0"	3	6'-1"	5'-11"	4		1/2"		5/16"		1/4"		5/16"
38		4×5/8×19'-0"	4×3/8×17'-0"	6	8"	6	10"	4	12"	3	17"	9"	—	—	2@19'-0"		9/16"	3/4"	7'-2"	7'-4"	3	6'-1"	6'-2"	4		9/16"		3/8"		1/4"		5/16"
39		5 1/2×1/2×21'-0"	4×3/8×17'-0"	6	8"	6	10"	5	12"	3	15"	9"	—	—	2@19'-6"		9/16"	13/16"	7'-8"	7'-4"	3	5'-7"	5'-4"	5		5/8"		3/8"		3/16"		3/16"
40		6×1/2×23'-0"	4×1/2×18'-0"	6	8"	6	10"	5	12"	4	15"	0	—	—	2@20'-0"		5/8"	7/8"	7'-8"	7'-8"	3	5'-8"	5'-[illegible]	5		11/16"		7/16"		5/16"		1/4"
41		6×1/2×25'-0"	5×1/2×20'-0"	6	8"	7	10"	5	12"	3	16"	8"	—	—	3@13'-8"		11/16"	13/16"	7'-8"	8'-0"	3	5'-9"	5'-8"	5		3/4"		1/2"		3/8"		1/4"
42		6×9/16×26'-0"	5×1/2×22'-0"	7	8"	6	10"	5	12"	4	16"	0	—	—	3@14'-0"		3/4"	1 1/16"	8'-2"	8'-0"	3	5'-10"	5'-10"	5		13/16"		9/16"		3/8"		1/4"
43		6×3/4×27'-0"	6×5/8×24'-0"	7	8"	6	10"	6	12"	3	16"	10"	24WF68	4×3/8×15'-0"	3@14'-4"		13/16"	1 1/8"	8'-2"	8'-4"	3	5'-11"	6'-0"	5		13/16"		5/8"		7/16"		5/16"
44		6×11/16×29'-0"	6×1/2×26'-0"	7	8"	6	10"	6	12"	4	16"	0	24WF68	4×1/2×18'-0"	3@14'-8"		7/8"	1 3/16"	8'-5"	8'-6"	3	6'-2 1/2"	6'-1"	5		7/8"		5/8"		1/2"		7/16"
45		7×11/16×31'-0"	7×1/2×27'-0"	7	8"	7	10"	6	12"	3	17"	9"	24WF68	4×3/8×18'-0"	3@15'-0"		15/16"	1 1/4"	7'-6"	7'-1"	4	5'-5"	5'-6"	6		1"		11/16"		1/2"		3/8"
46	21WF55	7×1/2×32'-0"	7×1/2×28'-0"	7	8"	8	10"	6	12"	3	16"	8"	24WF68	6×1/2×20'-0"	3@15'-4"	2'-2 1/4"	1"	1 3/8"	7'-6"	7'-4"	4	5'-8"	5'-7"	6	3 5/8	1 1/16"	6 3/8	11/16"	9 1/2	9/16"	12 1/2	3/8"
47	21WF62	5×3/4×30'-0"	6×5/8×27'-0"	7	8"	8	10"	6	12"	3	17"	11"	24WF68	5×1/2×22'-0"	3@15'-8"	2'-2 3/8"	1"	1 3/8"	7'-6"	7'-7"	4	5'-8"	5'-9"	6	3 1/2	1 1/8"	6 3/8	3/4"	9 3/4	5/8"	12 1/2	7/16"
48		7×5/8×32'-0"	7×3/8×29'-0"	7	8"	8	10"	6	12"	4	17"	0	24WF68	5×1/2×23'-0"	3@16'-0"		1 1/16"	1 1/16"	7'-8"	7'-9"	4	5'-11"	5'-10"	6		1 1/4"		13/16"		11/16"		1/2"
49		6×1/2×35'-0"	7×1/2×30'-0"	7	8"	8	10"	6	12"	4	17"	6"	24WF68	6×1/2×25'-0"	3@16'-4"		1 1/8"	1 5/16"	7'-8"	8'-0"	4	5'-11"	6'-0"	6		1 1/4"		1"		3/4"		1/2"
50	21WF62	7×3/8×35'-0"	7×3/8×31'-0"	7	8"	8	10"	7	12"	4	17"	0	[illegible]	[illegible]	3@16'-8"	2'-2 3/8"	1 3/16"	1 3/8"	7'-10"	8'-2"	4	5'-11"	6'-2"	6	3 13/16	1 3/8"	6 3/8	1"	9 3/8	13/16"	12 3/8	9/16"
51	24WF68	7×3/8×32'-0"	6×3/8×26'-0"	7	9"	6	12"	6	14"	3	21"	12"	27WF84	4×3/8×19'-0"	3@17'-0"	2'-5 1/4"	1 1/16"	1 7/16"	8'-0"	8'-4"	4	6'-2"	6'-3"	6			9 3/8	1 1/16"	6 3/8	7/8"	9 1/2	5/8"
52		7×11/16×33'-0"	7×3/8×31'-0"	7	9"	7	12"	6	14"	3	20"	9"	27WF84	4×3/8×19'-0"	3@17'-4"		1 1/8"	1 1/2"	8'-2"	8'-6"	4	5'-7"	5'-5"	7				1 3/16"		15/16"		5/8"
53		8×3/8×34'-0"	8×1/2×31'-0"	7	9"	7	12"	6	14"	3	21"	12"	27WF84	4×1/2×20'-0"	3@17'-8"		1 3/16"	1 3/8"	7'-4"	7'-4"	5	5'-9 1/2"	5'-9"	7				1 1/4"		1"		11/16"
54		8×11/16×36'-0"	8×3/8×35'-0"	8	9"	7	12"	6	14"	3	20"	12"	27WF84	5×1/2×22'-0"	3@18'-0"		1 1/4"	1 3/4"	7'-5"	7'-6"	5	6'-0"	5'-10"	7				1 3/8"		1 1/16"		3/4"
55		8×1/2×37'-0"	8×1/2×35'-0"	8	9"	7	12"	6	14"	3	22"	12"	27WF84	6×3/8×28'-0"	3@18'-4"		1 3/8"	[illegible]	7'-6"	7'-8"	5	5'-11"	6'-0"	7				1 1/16"		1 3/16"		13/16"
56	24WF68	8×11/16×39'-0"	8×1/2×36'-0"	8	9"	7	12"	6	14"	4	21"	0	27WF84	7×3/8×26'-0"	3@18'-8"		1 1/2"	[illegible]	[illegible]	7'-10"	5	5'-10"	6'-2"	7				1 1/2"		1 3/8"		7/8"
57	24WF76	8×3/4×37'-0"	8×11/16×35'-0"	8	9"	8	12"	6	14"	3	22"	12"	[illegible]	[illegible]	3@19'-0"		1 5/16"	1 7/8"	7'-8"	8'-0"	5	6'-0 1/2"	6'-3"	7				1 7/16"		1 1/4"		15/16"
58		8×11/16×39'-0"	8×3/8×36'-0"	8	9"	8	12"	6	14"	4	21"	0	[illegible]	[illegible]	3@19'-4"		1 1/2"	2"	7'-9"	8'-2"	5	5'-9"	5'-8"	8				1 9/16"		1 3/8"		1"
59		8×5/8×40'-0"	8×11/16×38'-0"	8	9"	8	12"	6	14"	4	20"	10"	[illegible]	[illegible]	3@19'-8"		1 9/16"	2 1/8"	7'-10"	8'-4"	5	5'-11"	5'-9"	8				1 5/8"		1 7/16"		1 1/8"
60		8×1/2×42'-0"	8×5/8×39'-0"	9	9"	7	12"	7	14"	4	19"	9"	[illegible]	[illegible]	3@20'-0"		1 5/8"	2 1/4"	7'-11"	8'-6"	5	5'-11"	5'-10 1/2"	8				1 5/8"		1 1/2"		1 3/16"
61	24WF76	8×1×43'-0"	[illegible]×41'-0"	9	9"	8	12"	6	14"	4	21"	9"	[illegible]	[illegible]	4@15'-3"	2'-5 3/16"	1 5/8"	2 5/16"	8'-0"	8'-8"	5	5'-11"	6'-0"	8			3 5/8	1 3/16"	6 3/8	1 1/8"	9 1/2	1 1/4"
62	27WF84	9×3/8×39'-0"	9×3/4×37'-0"	7	11"	7	14"	5	18"	4	21"	11"	30WF99	8×1/2×28'-0"	4@15'-6"	2'-5 3/8"	1 5/16"	2"	8'-1"	8'-10"	5	6'-1"	6'-1"	8					3 5/16	1 11/16"	7"	1 3/8"
63		9×11/16×40'-0"	9×11/16×39'-0"	7	11"	7	14"	5	18"	4	23"	9"	30WF99	6×1/2×30'-0"	4@15'-9"		1 3/8"	2 1/8"	7'-8"	7'-8"	6	6'-3"	6'-2"	8						1 1/4"		1 3/16"
64		9×3/8×42'-0"	9×3/8×40'-0"	8	11"	7	14"	5	15"	4	24"	0	30WF99	6×3/8×32'-0"	4@16'-0"		1 1/16"	2 1/4"	7'-8"	7'-10"	6	5'-11"	5'-8"	9						1 13/16"		1 1/4"
65		9×11/16×44'-0"	9×11/16×41'-0"	8	11"	7	14"	5	18"	4	23"	10"	[illegible]	[illegible]	4@16'-3"		1 3/8"	2 5/16"	7'-8"	8'-0"	6	5'-8"	5'-10"	9						1 15/16"		1 1/2"
66		9×3/8×45'-0"	9×1/2×45'-0"	8	11"	7	14"	5	18"	4	24"	12"	[illegible]	[illegible]	4@16'-6"		1 1/2"	2 1/4"	7'-8"	8'-2"	6	5'-9 1/2"	5'-11"	9						2"		1 5/8"
67	27WF84	9×5/8×47'-0"	9×11/16×45'-0"	8	11"	7	14"	6	18"	4	24"	0	[illegible]	[illegible]	4@16'-9"		1 13/16"	2 7/16"	8'-2"	8'-2"	6	5'-11"	6'-0"	9						2 1/8"		1 11/16"
68	27WF94	9×3/8×45'-0"	9×3/8×45'-0"	8	11"	7	14"	6	18"	4	23"	10"	[illegible]	[illegible]	4@17'-0"		1 7/8"	2 1/2"	8'-2"	8'-4"	6	5'-6"	5'-7"	10						2 3/16"		1 3/4"
69		9×5/8×46'-0"	9×7/8×45'-0"	8	11"	7	14"	6	18"	4	24"	12"	[illegible]	[illegible]	4@17'-3"		2"	2 7/16"	8'-5"	8'-[illegible]	6	5'-7"	5'-8"	10						2 5/16"		1 7/8"
70		9×1×48'-0"	9×1×46'-0"	8	11"	7	14"	6	18"	5	21"	9"	[illegible]	[illegible]	4@17'-6"		2 1/16"	2 11/16"	7'-11"	8'-9"	6	5'-8"	5'-9"	10						2 3/8"		1 15/16"
71		9×1 1/16×49'-0"	9×1 1/16×48'-0"	8	11"	7	14"	6	18"	5	22"	10"	[illegible]	[illegible]	4@17'-9"		2 1/4"	2 13/16"	8'-5"	8'-9"	6	5'-9"	5'-10"	10						2 1/2"		2"
72	27WF94	9×1 1/8×51'-0"	9×1 1/8×49'-0"	8	11"	7	14"	6	18"	5	23"	11"	[illegible]	[illegible]	4@18'-0"	2'-8 5/8"	2 1/4"	2 15/16"	8'-5"	8'-11"	6	5'-10"	5'-11"	10					3 5/16	2 3/4"		2 1/8"
73	30WF99	9×15/16×49'-0"	9×13/16×47'-0"	8	12"	8	15"	5	19"	5	23"	0"	33WF118	8×1/2×36'-0"	4@18'-3"	2'-10 5/8"	2 5/8"	2 1/2"	7'-8"	8'-0"	7	5'-11"	6'-0"	10								2 1/4"
74	30WF99	9×1×50'-0"	9×1×48'-0"	8	12"	8	15"	5	19"	6	22"	8"	33WF118	8×3/8×38'-0"	4@18'-6"	2'-10 9/16"	2 5/8"	2 1/2"	7'-7"	8'-2"	7	6'-0"	6'-1"	10								2 3/8"
75	30WF108	9×7/8×49'-0"	9×7/8×47'-0"	8	12"	8	15"	5	19"	5	23"	12"	33WF118	8×11/16×40'-0"	4@18'-9"	2'-11 1/8"	2 1/2"	2 5/8"	7'-9 1/2"	8'-4"	7	6'-1"	6'-2"	10							7"	2 3/8"
80	33WF118	9×3/8×49'-0"	10×7/8×48'-0"	8	15"	5	20"	10	24"	0	0	8"	—	—	4@20'-0"	3'-2 1/8"	2 1/4"	2 7/8"	8'-3"	8'-10"	7	5'-11 1/2"	6'-1"	11								
85	33WF118	10×11/16×57'-0"	10×11/16×56'-0"	8	15"	6	20"	2	21"	9	29"	0	—	—	5@17'-0"	3'-2 1/8"	2 11/16"	3 3/8"	8'-0"	8'-5"	8	5'-11"	6'-0"	12								
90	33WF130	10×1 1/4×61'-0"	10×1 1/4×60'-0"	6	15"	6	20"	12	24"	0	0	0	—	—	5@18'-0"	3'-2 1/4"	3"	3 13/16"	8'-6"	8'-11"	8	5'-11 1/2"	5'-11"	13								

Values of "F" and Dead Load Deflection for Outside Beams of Modified Spans.

Omit shear connectors on outside beams of modified spans when using beams shown to right of heavy line.

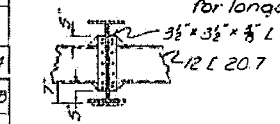
DETAILS OF COVER PLATE
Scale 1/2" = 1'-0"

DIAPHRAGM 72'-90' SPANS

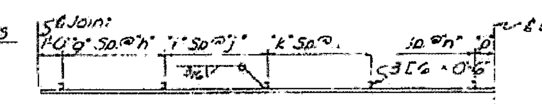


Interior beams are same as in Regular Spans. Exterior beams are the lightest section of same nominal depth as beams for longest span shown on Bridge Layout.

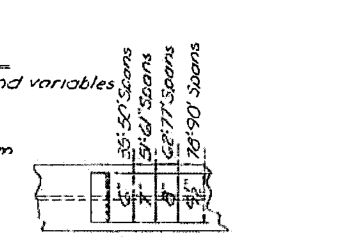
SECTION A-A MODIFIED SPANS
(For location of Section A-A & B-B and variables a, b, & c see drawing 14990A.)



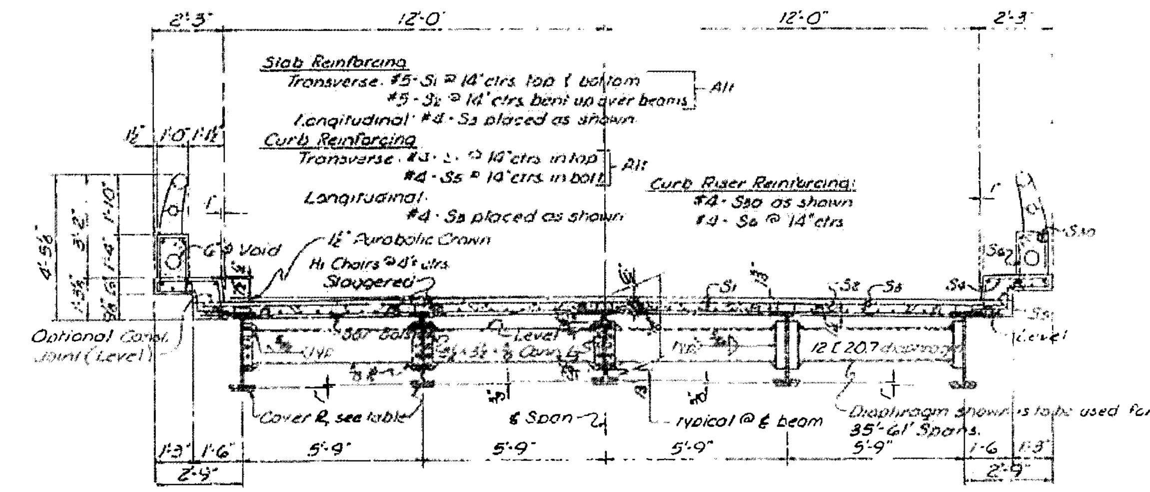
DIAPHRAGM 62'-72' SPANS



SHEAR CONNECTOR SPACING
No Scale



DETAILS OF SHEAR CONN.
No Scale



SECTION A-A OF REGULAR SPAN
(Regular spans have all beams of equal depth)

NOTE: Stud shear connectors, granular flux filled, solid fluxed, or equal may be used in place of the channels shown at the following ratios: 3/4" diameter stud in place of 1.82 inches of channel, 7/8" diameter stud in place of 2.52 inches of channel. The studs shall be 4" long and automatically end welded to the beam flanges in accordance with recommendations of the manufacturer.

Channel sections will be used as basis for measurement of structural steel in shear connectors.

This drawing to be used with Drawing 14990A.
All steel shall be A-36 steel unless otherwise noted.

DESIGN SPECIFICATIONS: AASHO 1961

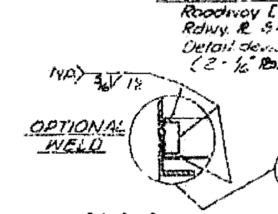
		Interior Beam	Exterior Beam
Live Loading: H-15			
1. Dead Load	a. To WF Beam	432#/' + 1.15 (wt/ft of WF)	588#/' + 1.15 (wt/ft of WF)
	b. To Composite Beam		
	(1) Aluminum Rail	212#/'	132#/'
	(2) Plate Guard Rail	160#/'	80#/'
2. Live Load	a. To Composite Beam	1.045 wheels + Impact	1.045 wheels + Impact

Unit Stresses:
Class S Concrete (n=10) 1,200 psi
Structural Steel (A-36) 20,000 psi
Reinforcing Steel 20,000 psi

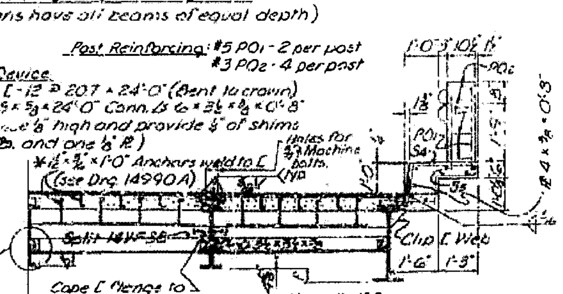
* Rev 12-23-65 F.E.

Post Reinforcing: #5 PO1 - 2 per post
#3 PO2 - 4 per post

Expansion Device
Roadway [- 12 @ 20.7 × 24'-0" (Bent to crown)
Rdwy. PL 5 × 5/8 × 24'-0" Conn. PL 6 × 3/4 × 0'-8"
Detail device 1/8" high and provide 1/8" of shims (2 - 1/16" PL and one 1/8" PL)



OPTIONAL WELD



HALF-SECTION B-B FOR MODIFIED OR REGULAR SPANS
* See Dwg. 14990A for Alternate Anchor Details

FOR INFORMATION ONLY

[signature] BRIDGE ENGINEER

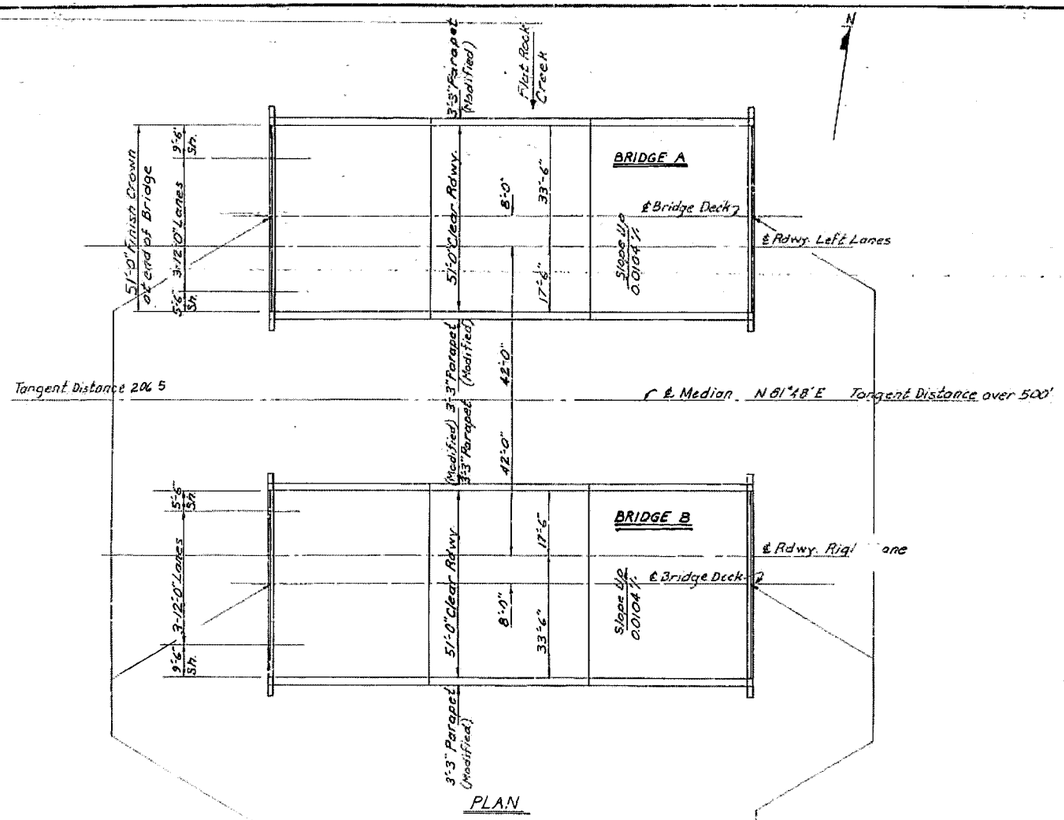
DETAILS OF STANDARD
35'-90' COMPOSITE I-BEAM SPANS
24'-0" CLEAR RDWY. 1'-0" & 1'-1 1/2" CURBS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: RWM DATE: 12-5-63
TRACED BY: DATE:
CHECKED BY: FMH DATE: 12-9-63
SCALE: 3/8" = 1'-0" or as shown

BRIDGE NO. DRAWING NO. 15015



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		---	
				JOB NO.		R40011	62	81

60

1 3454 A&B Layout - 27972

JOB NO.		SHEET NO.	TOTAL SHEETS
	BB0401	183	234

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 EDITION WITH INTERIMS

LIVE LOADING: HS 20 AND SPECIAL INTERSTATE

PROPOSED WORK CONSISTS OF: (1) REMOVING THE EXISTING "TYPE A" BRIDGE RAILING, (2) INSTALLING "NEW JERSEY" CONCRETE PARAPET, (3) REPLACING THE EXISTING "SLIDER PLATE" JOINTS WITH "CLOSED CELL FOAM JOINT FILLER" (4) REPAINT THE EXISTING STRUCTURAL,

THE CONTRACTOR SHALL MAKE CHECK MEASUREMENTS OF THE EXISTING BRIDGE AND MAKE ADJUSTMENTS NECESSARY TO FIT THE NEW WORK TO THE EXISTING STRUCTURE.

DETAIL DRAWINGS:	DRAWING NO.
SUPERSTRUCTURE	27973

HALF-SIZE DETAIL SHEETS OF THE EXISTING BRIDGE MAY BE OBTAINED UPON REQUEST TO THE PROGRAMS AND CONTRACTS DIVISION OF THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT. DRAWINGS 11521, 11522, 11523, and 5469.

MAINTENANCE OF TRAFFIC: SEE JOB SPECIAL PROVISION AND ROADWAY PLANS.

FOR INFORMATION ONLY

LAYOUT OF BRIDGE OVER
FLAT ROCK CREEK
OKLAHOMA LINE - ALMA WEIGH
STATION (I-4R)
CRAWFORD COUNTY
ROUTE I-40 **SEC.** 11

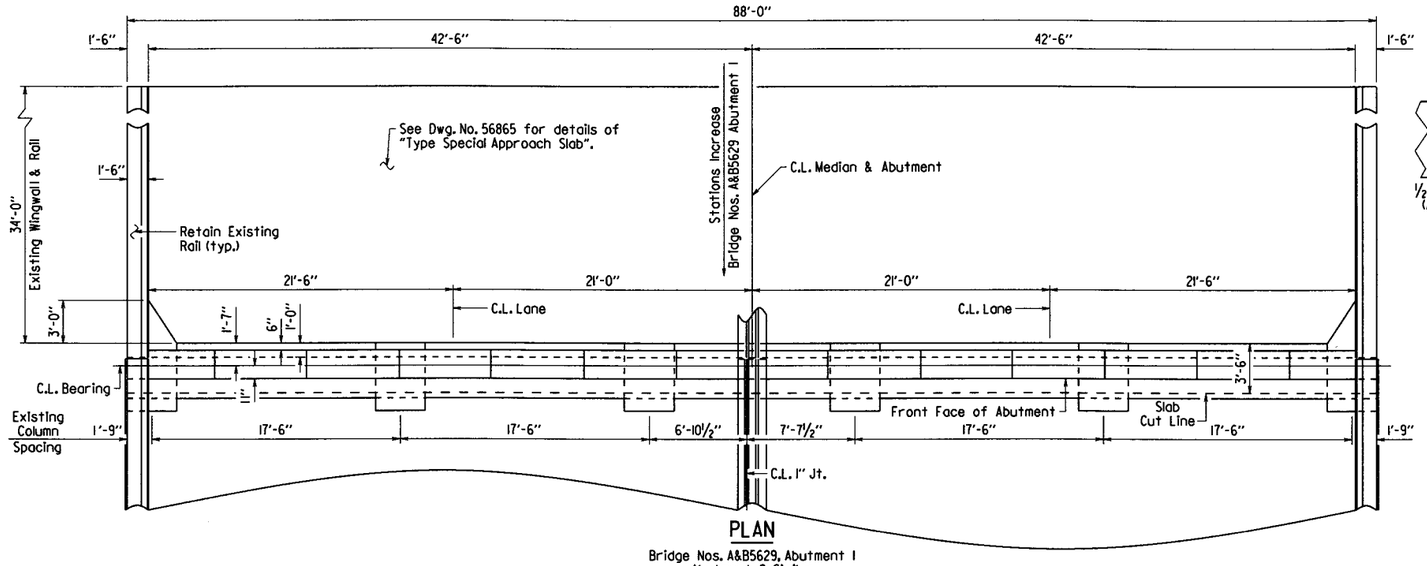
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: RTL DATE: 5-29-85
CHECKED BY: DV DATE: 6-7-85
DESIGNED BY: RTL DATE: 5-85
SCALE: 1" = 20'

Neal Pinkerton
BRIDGE ENGINEER

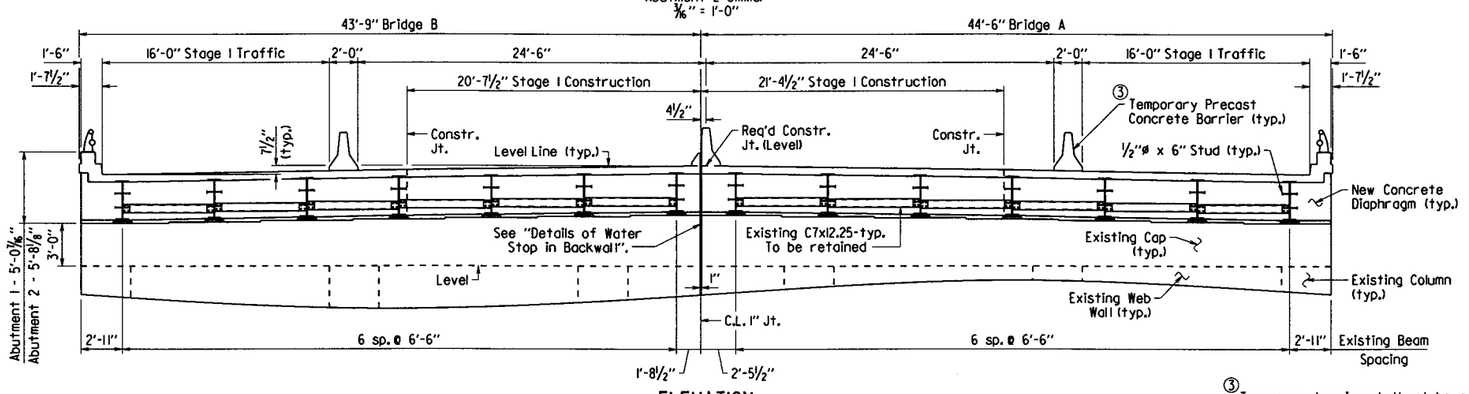
BRIDGE NO. 3454 A&B DRAWING NO. 27972

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	184	234
				①		A&B5629 - BCKWLL. REPL. - 56861		



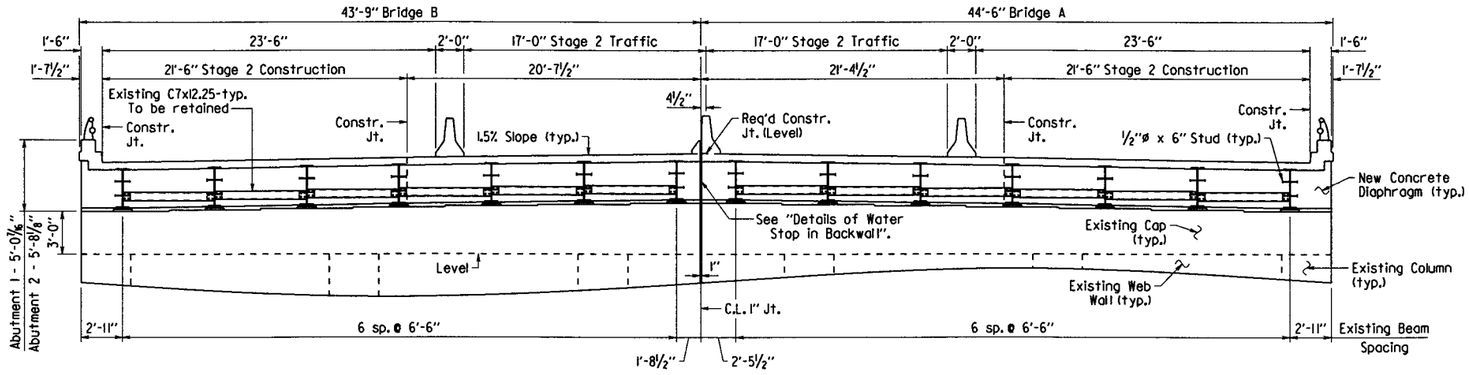
PLAN

Bridge Nos. A&B5629, Abutment 1
Abutment 2 Similar
3/16" = 1'-0"



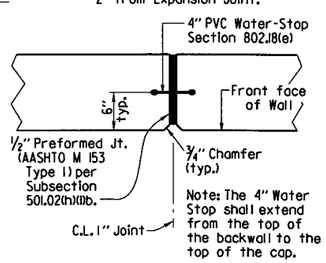
ELEVATION

Looking Back
Bridge Nos. A&B5629, Abutment 1
Abutment 2 Similar
3/16" = 1'-0"



ELEVATION

Looking Back
Bridge Nos. A&B5629, Abutment 1
Abutment 2 Similar
3/16" = 1'-0"



DETAILS OF WATER STOP IN BACKWALL

No Scale

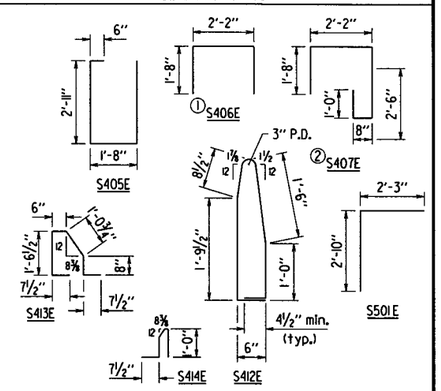
Payment for water stop & joint material to be considered subsidiary to "Class S Concrete-Bridge".

BAR LIST (PER ABUTMENT)

MARK	NO. REQ'D.	LENGTH	P.D.
S401E	6	20'-3"	Str.
S402E	36	6'-2"	Str.
S403E	6	2'-7"	Str.
S404E	3	1'-4"	Str.
S405E	87	7'-9"	2"
① S406E	87	5'-4"	2"
② S407E	87	7'-8"	2"
S408E	6	21'-0"	Str.
S409E	3	2'-1"	Str.
S410E	12	22'-8"	Str.
S411E	7	2'-8"	Str.
S412E	3	7'-0"	2"
S413E	3	4'-8"	2"
S414E	3	2'-9"	2"
S501E	41	5'-0"	3¾"

① S406E bars exclusive to Abutment No 1.
② S407E bars exclusive to Abutment No. 2.

BENDING DIAGRAMS



Dimensions are out to out of bars.

Note: Bars with and "E" suffix are to be epoxy coated.

GENERAL NOTES

The proposed work is to be done in stages and consists of removal of the existing abutment backwalls, approach slabs, and gutters; replumbing of existing rocker bearings; and construction of new concrete diaphragms and Type Special Approach Slabs. Refer to Dwg. No. 56862 for details of abutment backwall removal and Dwg. No. 56864 for details of replumbing of existing rocker bearings. Unless otherwise noted, all existing material removed and not to be incorporated in the finished structure shall become the property of the Contractor.

Dimensions are based on original bridge plans. The Contractor shall make check measurements of the existing bridge and make adjustments necessary to fit the new work to the existing structure.

All concrete shall be Class S with a minimum 28 day compressive strength f'c = 3,500 psi. Concrete shall be poured in the dry and all exposed corners to be chamfered ¾" unless otherwise noted. This work and material shall be paid for as "Class S Concrete - Bridge."

All reinforcing steel shall be Grade 60 conforming to AASHTO M 31 or M 322, Type A, with mill test reports. The reinforcing steel is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly, but will be considered subsidiary to "Epoxy Coated Reinforcing Steel (Grade 60)."

All stud shear connectors shall be granular flux filled, solid fluxed, or equal and shall be automatically end welded in accordance with recommendations of the manufacturer. This work and material will not be paid for directly, but shall be considered subsidiary to "Modification of Existing Bridge Structure (Bridge No.)."

Prior to pouring concrete diaphragm, remove mill scale from surfaces to be in contact with concrete with a wire brush at beam ends (1'-4" minimum length).

Unreinforced neoprene bearing strip shall conform to Section 808 and shall be considered subsidiary to "Class S Concrete - Bridge."

The joint between the superstructure and substructure shall be waterproofed by the use of polystyrene foam boards, filter fabric meeting the requirements of Subsection 625.02, Type 2, and an approved granular material meeting the requirements of Subsection 403.01, Class 5 or Subsection 802.02(c), Alternate Gradation AASHTO M43 #57.

Refer to the following drawings for the existing details:

See Dwg. No. 19330 for layout of bridge.

See Dwg. Nos. 19331 - 19334 for details of Abutment Nos. 1 and 2.

See Dwg. Nos. 19335 - 19338 for details of the superstructure.

See Dwg. Nos. 19339 - 19340 for details of the approach slabs.

See Dwg. No. 14990F for details of Type B3 and Type D1 Shoes.

③ Temporary barrier shall not be attached to the existing bridge deck, new backwall or approach slab, but may be attached to the existing backwall or approach slab. For details of temporary barrier, see Std. Dwg. TC-4.

STATE OF ARKANSAS
CHARLES R. ELLIS
LICENSED PROFESSIONAL ENGINEER
No. 9235
9-5-18
BRIDGE ENGINEER

SHEET 1 OF 3
DETAILS OF BACKWALL REPLACEMENT

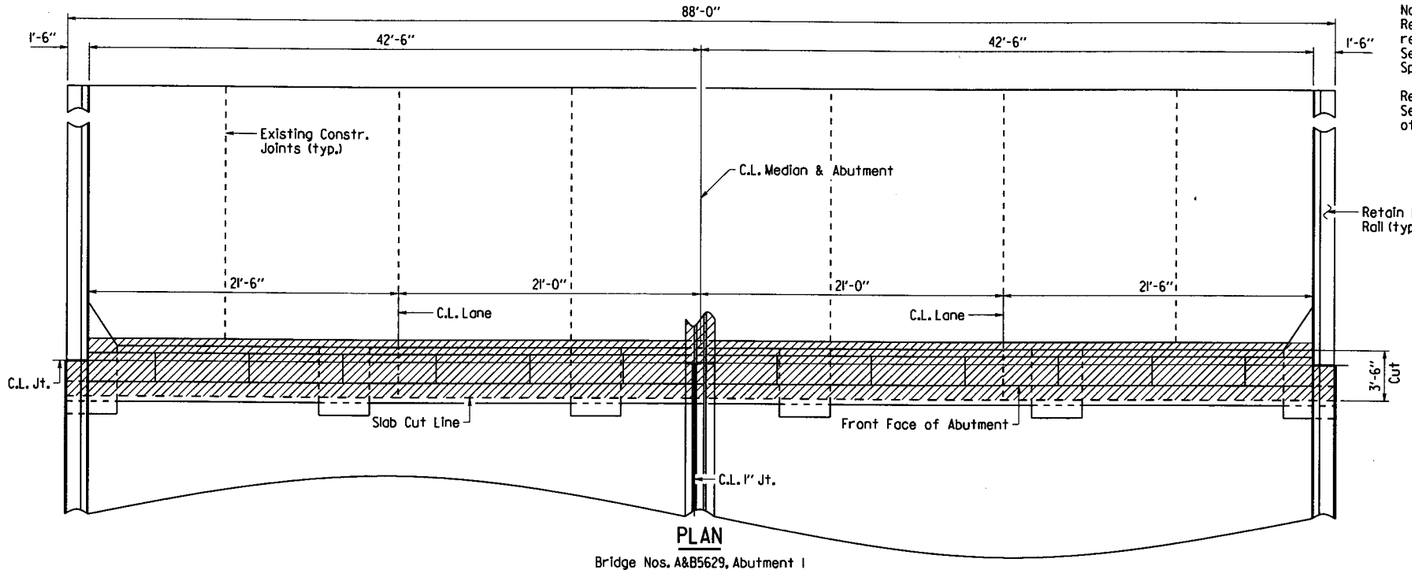
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: EOR DATE: 11/29/2017 FILENAME: bbb0401_bl.dgn
CHECKED BY: JWP DATE: 8/31/18 SCALE: As Noted
DESIGNED BY: EOR DATE: 12/17

BRIDGE NO. A&B5629 DRAWING NO. 56861

PRINT DATE: 8/31/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	185	234
				① A&B5629 - BCKWLL. REPL. - 56862				

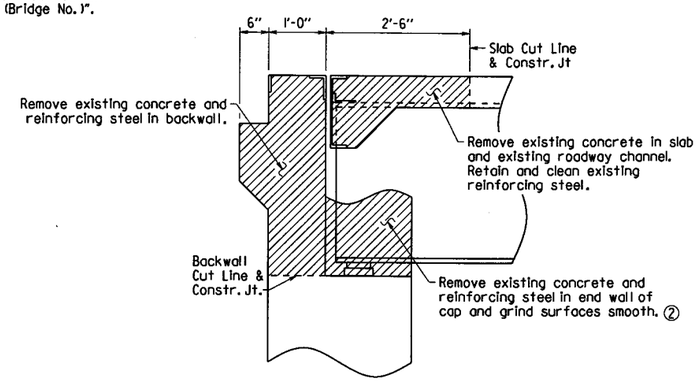


PLAN

Bridge Nos. A&B5629, Abutment 1
Abutment 2 Similar
3/16" = 1'-0"

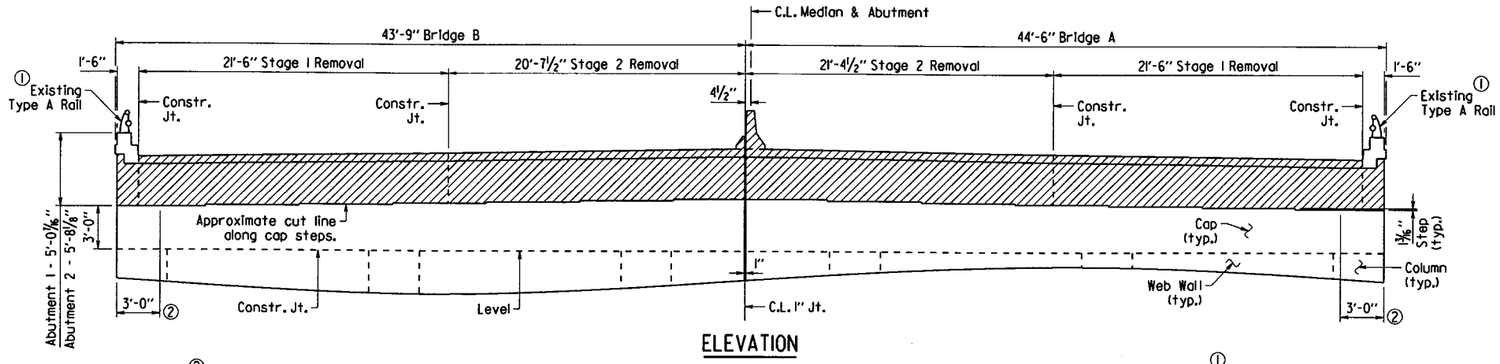
Notes:
Remove existing approach slabs and replace with Type Special Approach Slabs. See Dwg. No. 56865 for details of Type Special Approach Slab.

Removal of abutment backwalls shall conform to Section 821 and be paid for as "Modification of Existing Bridge Structure (Bridge No.)".



DETAILS OF BACKWALL REMOVAL

Abutment 1
3/4" = 1'-0"

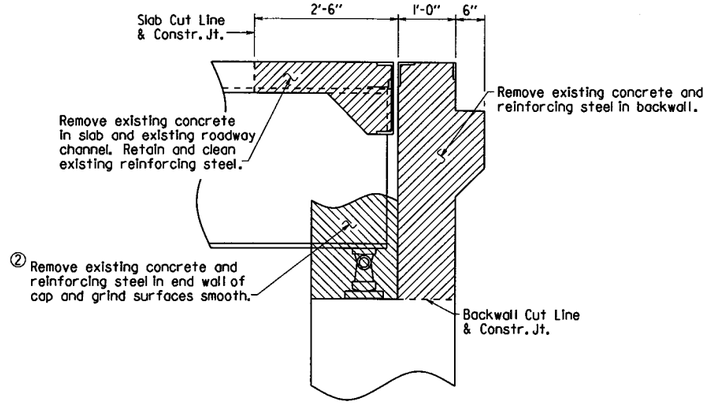


ELEVATION

Looking Back
Bridge Nos. A&B5629, Abutment 1
Abutment 2 Similar
3/16" = 1'-0"

② Rebar cut off in end wall and outer 3'-0" of of backwall shall be drilled down 2" below the top of concrete surface and filled with a DPL-approved non-shrink grout. This work shall be considered subsidiary to "Modification of Existing Bridge Structure (Bridge No.)".

① Existing Type A Rail Shall be retained. If removal of any portion is required for proposed work, it shall be removed carefully and reinstalled in the same location, with new anchors. This work shall not be paid for directly, but shall be considered subsidiary to "Modification of Existing Bridge Structure (Bridge No.)".



DETAILS OF BACKWALL REMOVAL

Abutment 2
3/4" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS
BRIDGE ENGINEER

SHEET 2 OF 3
DETAILS OF BACKWALL REPLACEMENT

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

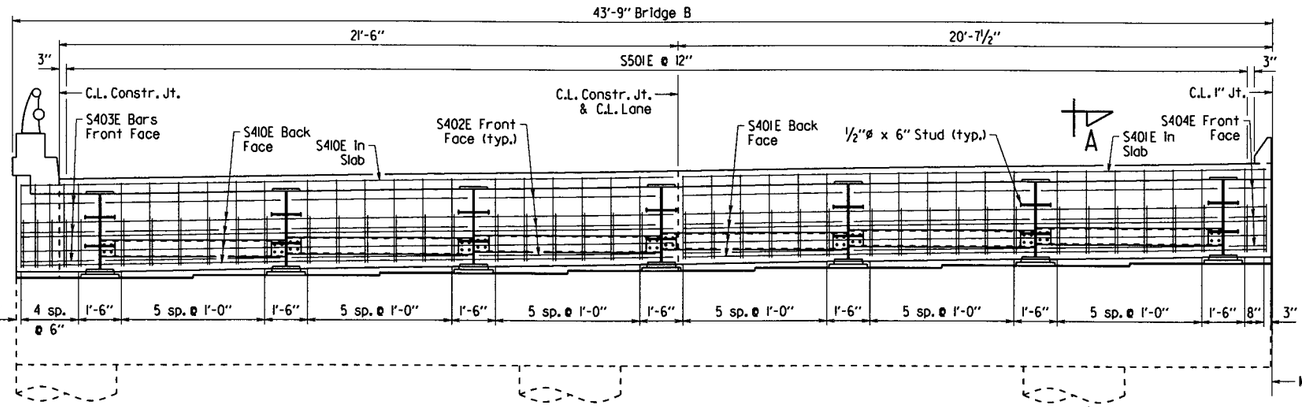
DRAWN BY: EOR DATE: 11/29/2017 FILENAME: bbb0401_bl.dgn
CHECKED BY: SWP DATE: 12/19 SCALE: As Noted
DESIGNED BY: EOR DATE: 12/17

BRIDGE NO. A&B5629 DRAWING NO. 56862

PRINT DATE: 9/4/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	186	234
				①		A&B5629 - BCKWLL. REPL. - 56863		

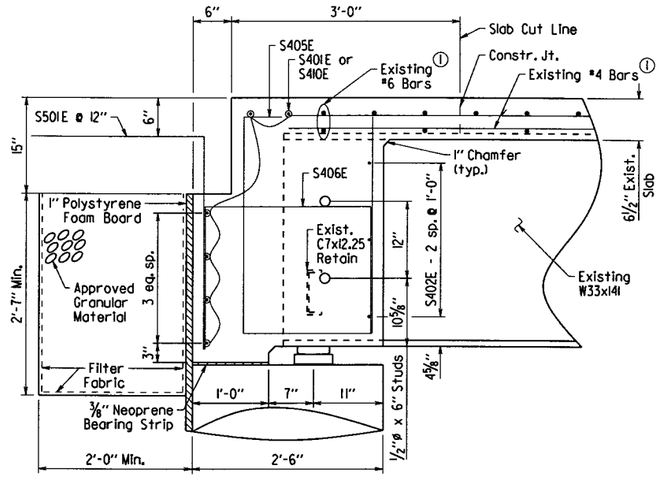
43'-9" Bridge B



TYPICAL ROADWAY SECTION NEAR END OF SPAN

Looking Back - Abutment 1
Abutment 2 Similar
⅜" = 1'-0"

① Existing reinforcing steel to be retained shall be cleaned of all concrete and laitance. Care shall be exercised to prevent damage to the reinforcing during removal of existing concrete. Replacement of any damaged reinforcing steel shall be the responsibility of the Contractor.

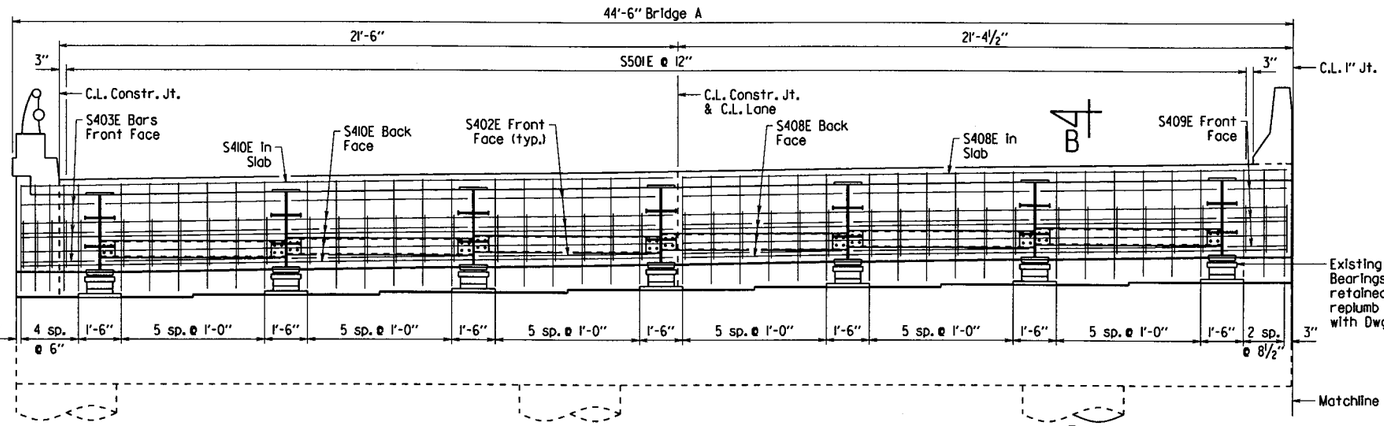


SECTION A-A

Abutment 1
Type B3 Fixed Shoe
1" = 1'-0"

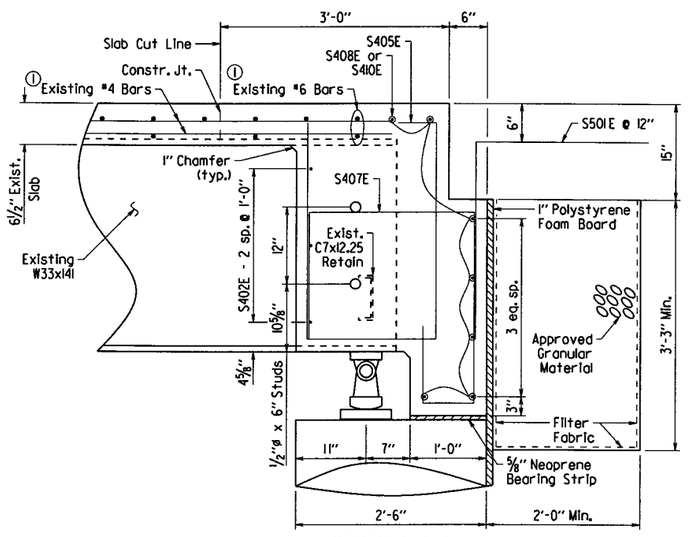
Note: Polystyrene Foam Board, Filter Fabric and Approved Granular Material shall not be paid for directly, but shall be considered subsidiary to "Class S Concrete - Bridge".

44'-6" Bridge A



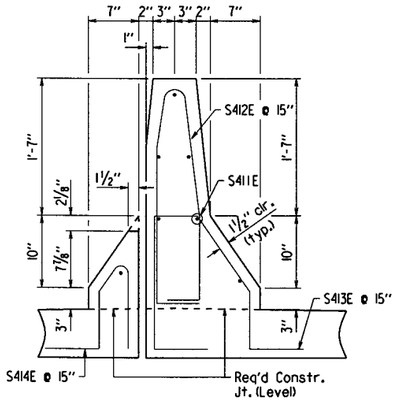
TYPICAL ROADWAY SECTION NEAR END OF SPAN

Looking Ahead - Abutment 2
Abutment 1 Similar
⅜" = 1'-0"



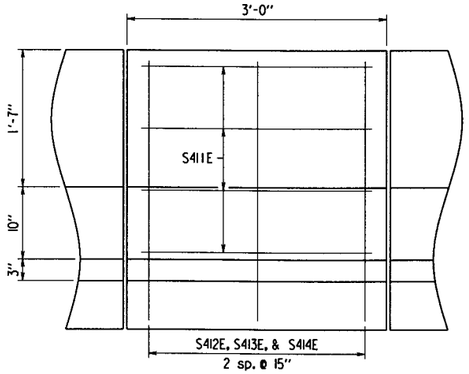
SECTION B-B

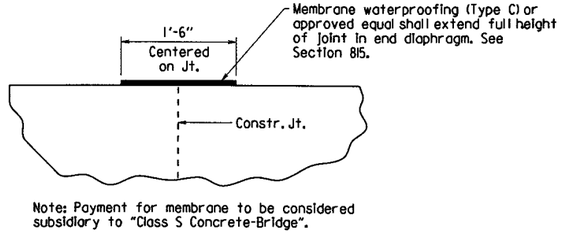
Abutment 2
Type DI Expansion Shoe
1" = 1'-0"



MEDIAN BARRIER DETAILS

1⅛" = 1'-0"





Note: Payment for membrane to be considered subsidiary to "Class S Concrete-Bridge".

CONSTRUCTION JOINT DETAIL

No Scale

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9538
CHARLES R. ELLIS
BRIDGE ENGINEER

SHEET 3 OF 3
DETAILS OF BACKWALL REPLACEMENT

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

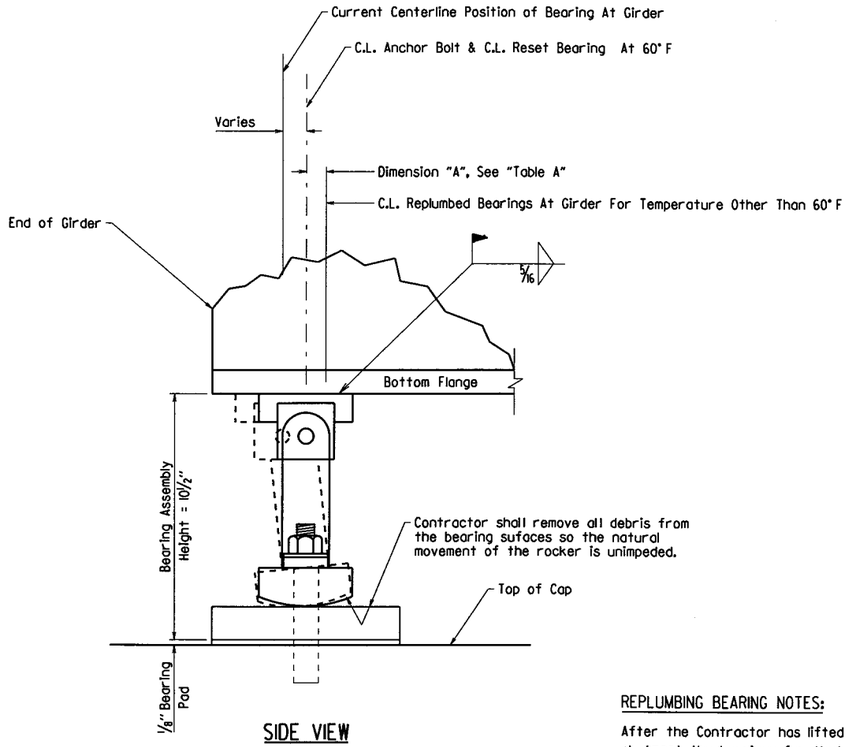
DRAWN BY: EOR DATE: 11/29/2017 FILENAME: bbb0401_b1.dgn
CHECKED BY: SWP DATE: 4/4/18 SCALE: As Noted
DESIGNED BY: EOR DATE: 12/17

BRIDGE NO. A&B5629 DRAWING NO. 56863

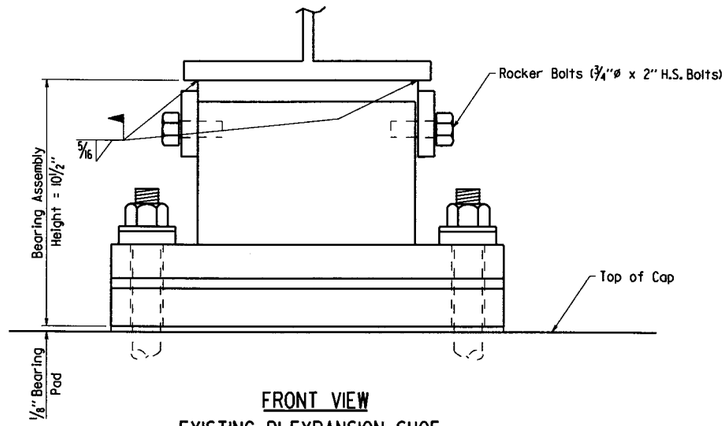
PRINT DATE: 9/4/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	187	234

① A&B5629 - REPLUMB BEARINGS - 56864



SIDE VIEW
EXISTING DI EXPANSION SHOE



FRONT VIEW
EXISTING DI EXPANSION SHOE

TABLE A

① Temperature	Bearing Position From Vertical (Measured Horizontally)
	② Dimension "A"
40°F	3/16"
60°F	Vertical
80°F	-3/16"

① Replumbing temperature is limited to 40°F min. and 80°F max. and shall be the 24 Hour Average Temperature.

② Minus sign (-) indicates the top of bearing is repositioned towards the backwall. Positive sign (+) indicates the top of bearing is repositioned towards pier in median.

REPLUMBING BEARING NOTES:

After the Contractor has lifted (jacked) the beams for a particular abutment, the bearings for that abutment may be replumbed.

Replumbing of bearings shall be done according to Special Provision Job No. BB0401 "Replumbing Existing Rocker Bearings" and these plans.

Temporary supports shall be capable of supporting full loads. Each beam may be lifted (jacked) simultaneously or separately, however beams shall not be lifted more than ¼". Beams shall be blocked after jacking to hold structure in place during replumbing of bearing. The Contractor shall use extreme care during jacking operations. If any damage occurs to the existing structure during construction, it shall be the responsibility of the Contractor to repair the damaged structure to the satisfaction of the Engineer.

CONSTRUCTION NOTES:

1) Temporarily support Existing Steel Beams at each Abutment.

2) Remove existing 5/16" weld between the bottom beam flange and the top rocker bearing plate. The bearing surfaces of the bottom flange and the top rocker plate shall be smooth and shall be in complete contact with each other before welding is allowed.

3) Replumb rocker bearing to vertical (at 60°F). See Table A for position of bearing at other temperatures. Any missing Rocker Bolts shall be replaced. Rocker Bolts will not paid for separately, but will be considered subsidiary to the item "Replumbing Existing Rocker Bearings."

4) Re-weld top rocker bearing plate to bottom flange of beam as shown.

5) Any unpainted steel surfaces exposed or any existing paint that is damaged during this construction shall be cleaned according to Subection 820.05(b) and painted according to Section 807. Cleaning and painting will not be paid for separately, but will be considered subsidiary to the item "Replumbing Existing Rocker Bearings". The color of the paint shall be red and shall match existing, as near as practical, and shall be approved by the Engineer.

TABLE OF BEARING LOADS

Abutment	Beam	③ Dead Load (Kips)	④ Live Load (Kips)	⑤ Total Load (Kips)
⑥ 1	Int.	41.35	46.56	87.91
	Ext.	42.80	45.53	88.33
2	Int.	41.78	46.56	88.34
	Ext.	43.18	45.53	88.71

③ Dead Loads are Service I Limit State and are approximated.

④ Live Loads are Service I Limit State, approximated, and include impact. Live Loads are not concurrent, but the maximum reaction anticipated for any given traffic configuration.

⑤ Total Load = Dead Load + Live Load

⑥ The bearing loads for Abutment 1 are shown for information only. Abutment 1 has Type B3 Fixed Shoes.

Notes:
The jacks used shall have a capacity at least two times the Total Load.

The maximum bearing stress on concrete shall not exceed 1,050 psi at any time.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS
1-5-18

BRIDGE ENGINEER

DETAILS OF REPLUMBING EXISTING ROCKER BEARINGS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

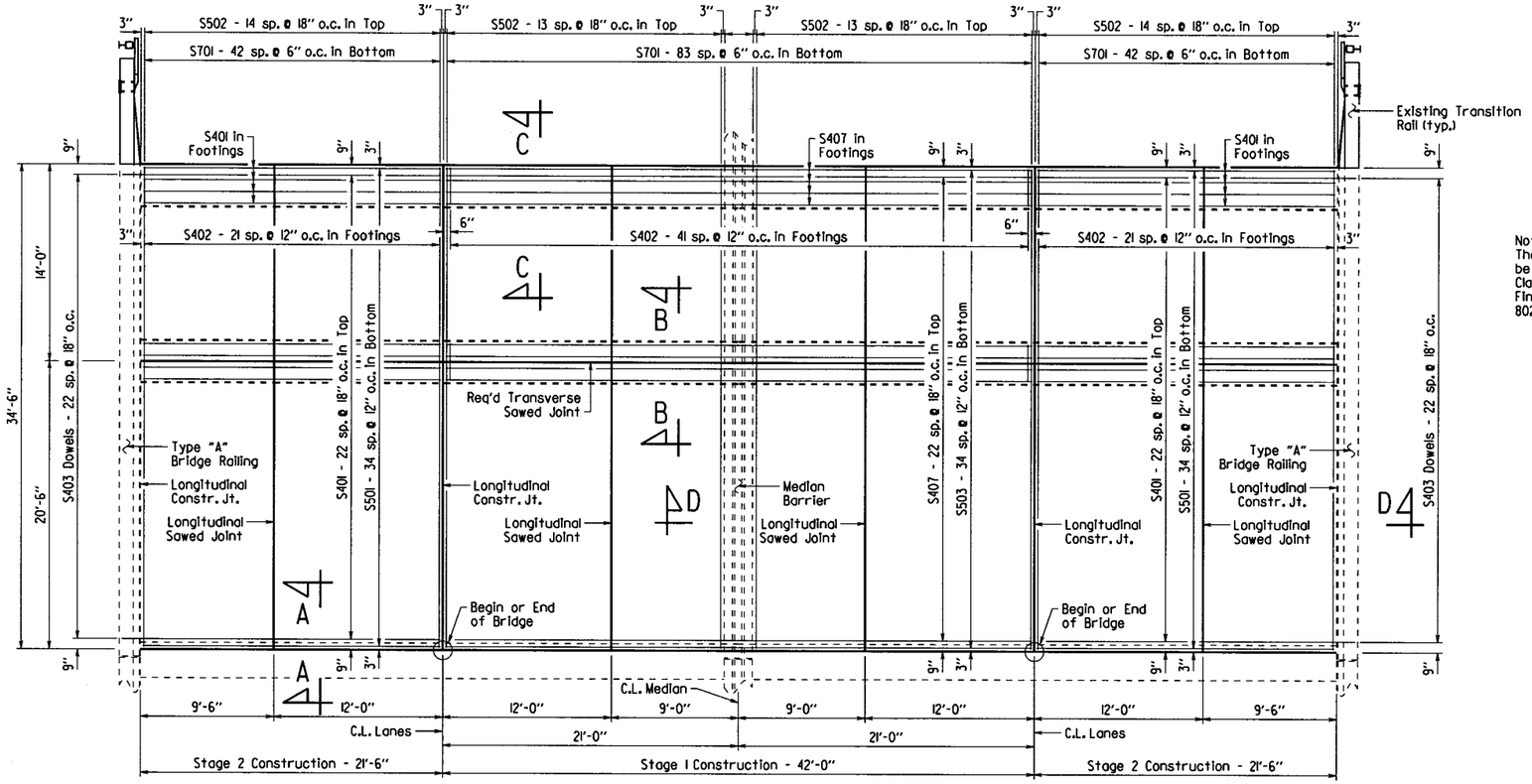
LITTLE ROCK, ARK.

DRAWN BY: EOR DATE: 11/29/2017 FILENAME: bbb0401_rerock.dgn
CHECKED BY: SWP DATE: 01/30/18 SCALE: None
DESIGNED BY: - DATE: -

BRIDGE NO. A&B5629 DRAWING NO. 56864

PRINT DATE: 8/30/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	188	234
				①		A&B5629 - APPROACH SLAB - 56865		



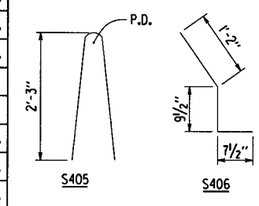
PLAN OF TYPE SPECIAL APPROACH SLAB

3/16" = 1'-0"

Note:
The surface of the Approach Slabs shall be given a tine finish as specified for Class 5 "Tined Bridge Roadway Surface Finish", in accordance with Subsection 802.19.

BAR LIST FOR ONE TYPE SPECIAL APPROACH SLAB

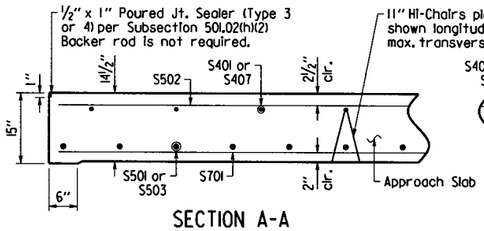
Mark	No. Req'd.	Length	P.D.	BENDING DIAGRAMS
S401	62	21'-2"	Str.	
S402	172	2'-8"	Str.	
S403	46	3'-0"	Str.	
S404	7	34'-2"	Str.	
S405	23	4'-7"	3"	
S406	46	2'-6"	3"	
S407	31	41'-8"	Str.	
S501	70	21'-2"	Str.	
S502	59	34'-2"	Str.	
S503	35	41'-8"	Str.	
S701	170	34'-2"	Str.	



Dimensions are out to out of bars.

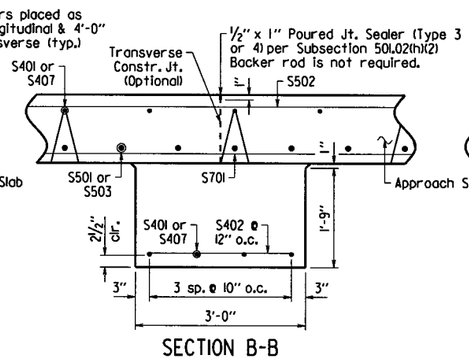
TABLE OF QUANTITIES FOR ONE TYPE SPECIAL APPROACH SLAB

Reinforcing Steel (Lbs.)	Concrete (Cu. Yds.)
19,487	169.40



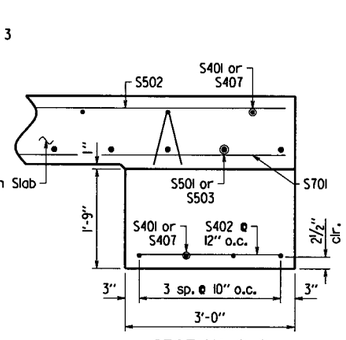
SECTION A-A

¾" = 1'-0"



SECTION B-B

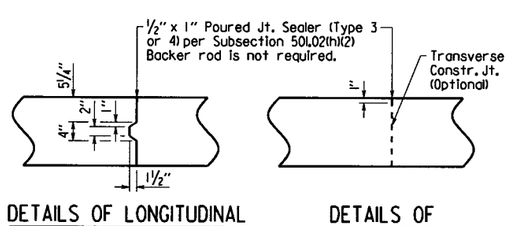
¾" = 1'-0"



SECTION C-C

At Asphalt Approach pavement

¾" = 1'-0"



DETAILS OF LONGITUDINAL CONSTRUCTION JOINT

¾" = 1'-0"

DETAILS OF SAWED JOINT

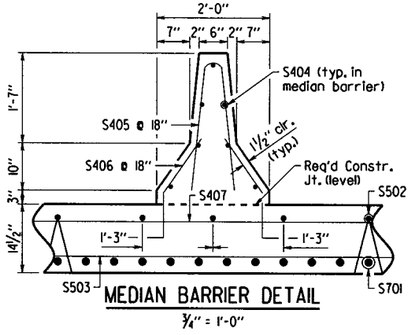
¾" = 1'-0"

GENERAL NOTES

All concrete shall be Class S(AE) with a minimum 28 day compressive strength f'c = 4,000 psi. and shall be poured in the dry.

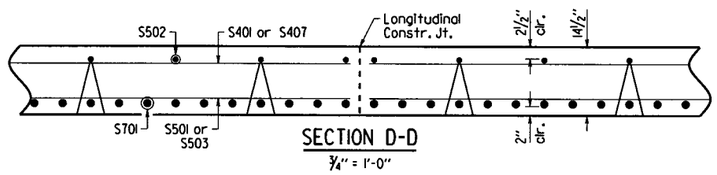
All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports. Fabricate bar lengths to provide 2" minimum cover at each end.

Approach slabs will be measured and paid for in accordance with Section 504.



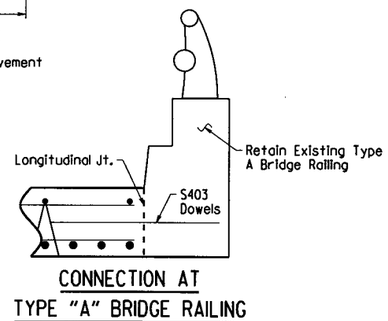
MEDIAN BARRIER DETAIL

¾" = 1'-0"



SECTION D-D

¾" = 1'-0"



CONNECTION AT TYPE "A" BRIDGE RAILING

¾" = 1'-0"

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
9-5-18
CHARLES R. ELLIS

BRIDGE ENGINEER

TYPE SPECIAL APPROACH SLAB

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

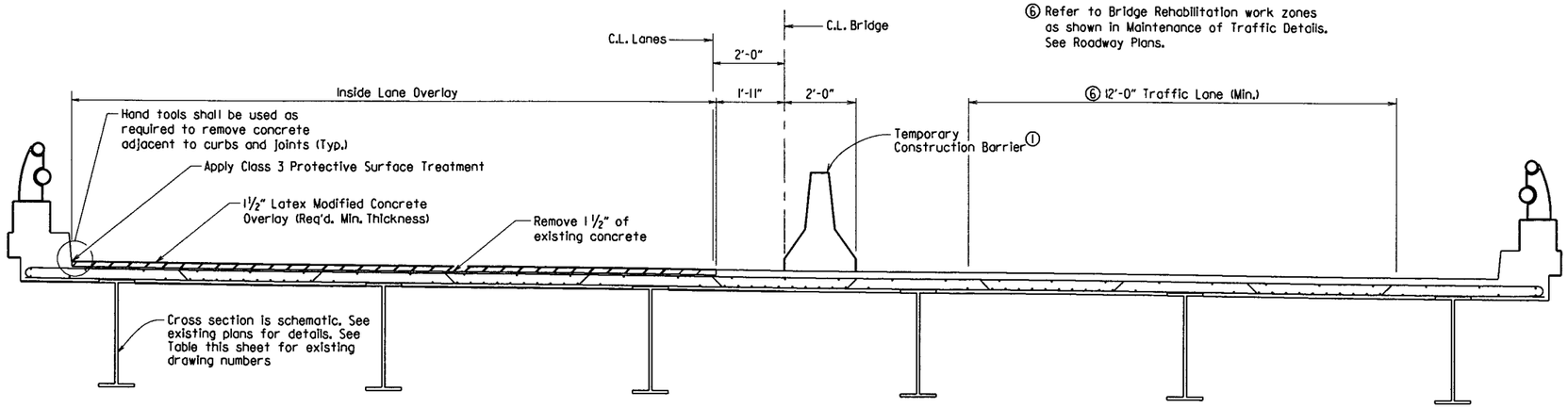
DRAWN BY: EOR DATE: 12/7/2017 FILENAME: bbb0401_as.dgn
CHECKED BY: SWP DATE: 12/27/17 SCALE: As Noted
DESIGNED BY: - DATE: -

BRIDGE NO. A&B5629 DRAWING NO. 56865

PRINT DATE: 7/27/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	189	234

① A3604, A&B5098, B5100, B5101 - LMC OVERLAY - 56866



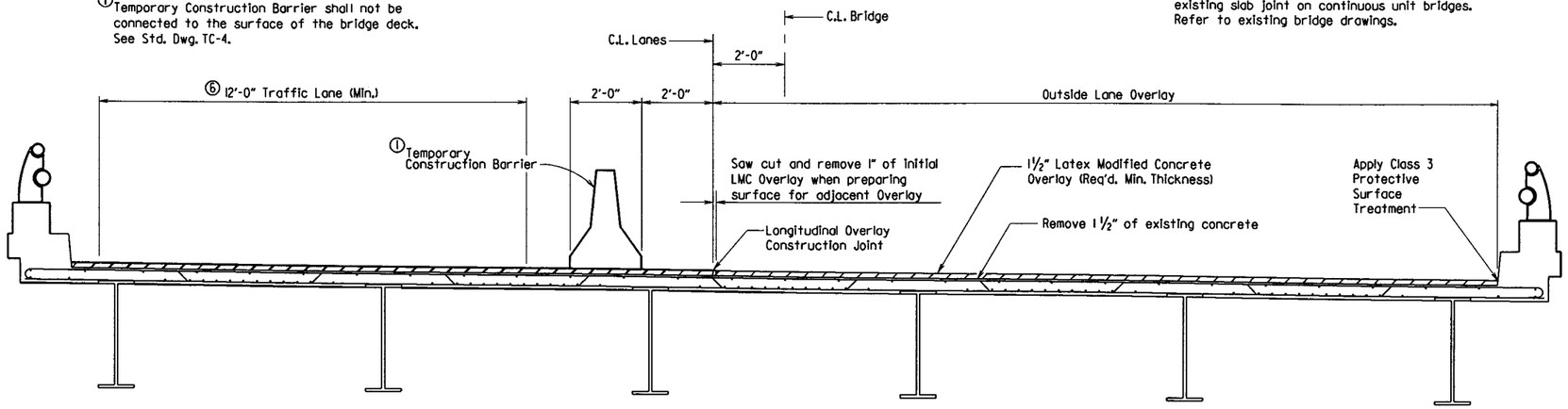
⑥ Refer to Bridge Rehabilitation work zones as shown in Maintenance of Traffic Details. See Roadway Plans.

INSIDE LANE LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic; A3604 shown, others similar)

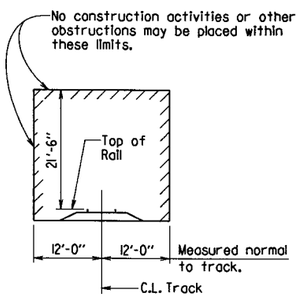
NOTE:
The minimum overlay placement length shall be a full span on simple span bridges and to an existing slab joint on continuous unit bridges. Refer to existing bridge drawings.

① Temporary Construction Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.



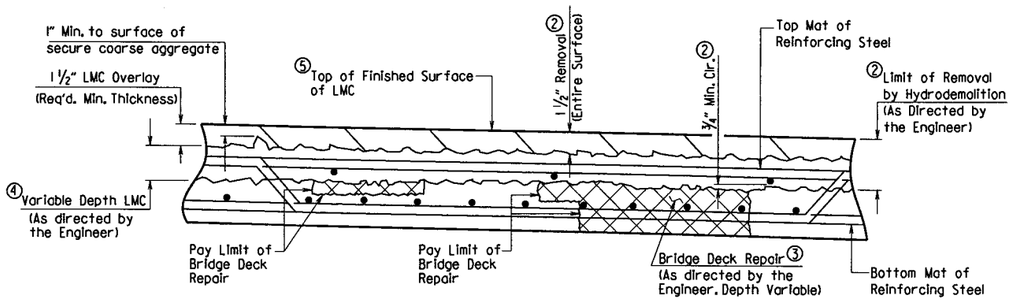
OUTSIDE LANE LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic; A3604 shown, others similar)



MINIMUM CONSTRUCTION CLEARANCES

Railroad requirements do not allow work within 50 feet of track centerline when a train passes the work site and all personnel must clear the area within 25 feet of the track centerline and secure all equipment.



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

② Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

③ Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the Job Special Provision "Bridge Deck Repair".

④ Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

⑤ Finished Surface of LMC Overlay shall match existing concrete deck surfaces unless increase is required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications. Unless otherwise noted in the plans Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structures based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structure.

The operation or placement of vehicles, equipment and, or materials on the subject bridges necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

Construction activities on Bridge No. B5100 shall be in accordance with Special Provision Job No. BB0401 "Special Safety Requirements" and "Minimum Construction Clearances" detail.

HYDRODEMOLITION: The entire area of the existing bridge deck shall receive hydrodemolition in accordance with the Special Provision Job No. BB0401 "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer and up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item "Hydrodemolition." Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with the existing reinforcing.

BRIDGE DECK REPAIR: After hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shall be removed at the direction of the Engineer and in accordance with Special Provision Job No. BB0401 "Bridge Deck Repair."

LATEX MODIFIED CONCRETE OVERLAY: The entire area of the existing bridge deck shall receive a Latex Modified Concrete (LMC) Overlay to a planned depth of 1½" below the existing bridge deck surface, in accordance with Special Provision Job No. BB0401 "Latex Modified Concrete Overlay." These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item "Latex Modified Concrete Overlay (1½" Thick)." Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with Special Provision Job No. BB0401 "Latex Modified Concrete Overlay."

BRIDGE DECK: The LMC Overlay surface of the bridge deck shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with Special Provision Job No. BB0401 "Latex Modified Concrete Overlay."

PROTECTIVE SURFACE TREATMENT : The longitudinal joint between the LMC overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with Special Provision Job No. BB0401 "Latex Modified Concrete Overlay." Longitudinal or transverse construction joints separating adjacent overlay placements shall be prepared and sealed as shown.

The roadway surface of the LMC overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

EXPANSION JOINT REHABILITATION: After the placement of the LMC Overlay, the existing expansion joints shall be given a poured silicone joint sealant as specified in Section 809 and as shown in "Detail of Poured Silicone Joint Seal" on Dwg. No. 56867. Backwall repair, as directed by the Engineer, shall be completed prior to installation of silicone joint sealant. See Dwg. No. 56867 for additional details.

REFERENCE TABLE

BRIDGE NO.	EXISTING DRAWING NUMBERS
A3604	48616A, 11968B
A&B5098	28188, 28192, 13825, 13826
B5100	28186, 28187, 15695, 15703
B5101	28183, 28184, 15688, 15691

STATE OF ARKANSAS
Charles R. Ellis
LICENSED PROFESSIONAL ENGINEER
No. 9235
9-5-18
CHARLES R. ELLIS
BRIDGE ENGINEER

SHEET 1 OF 2
DETAILS OF
LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

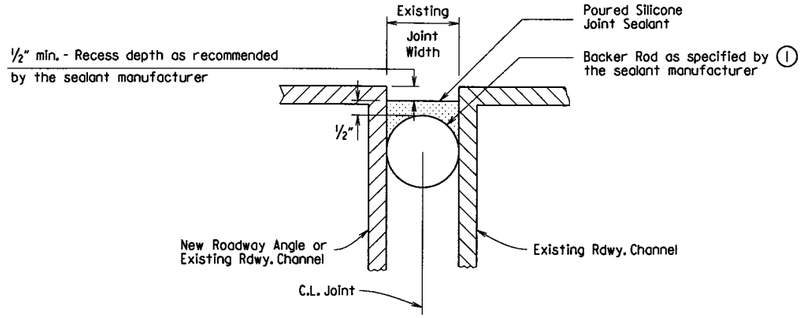
DRAWN BY: WAC DATE: 11/05/17 FILENAME: bbb0401_lmc.dgn
CHECKED BY: SWP DATE: 9/4/18 SCALE: No Scale
DESIGNED BY: SWP DATE: 11/17

BRIDGE NO. A3604, A&B5098, B5100, B5101 DRAWING NO. 56866

PRINT DATE: 9/4/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	190	234

① A3604, B5100, B5101, A&B5098 - LMC OVERLAY - 56867



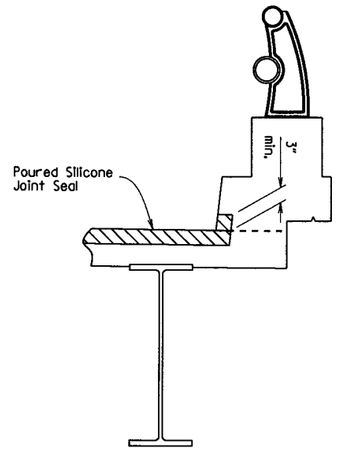
NOTES: Backer rods shall be extended beyond the length of the poured joint in the initial joint rehabilitation area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint rehabilitation. Manufacturer's recommendations shall be followed to prevent sealant leakage during rehabilitation work.

Existing Joint Seal shall be completely removed, backer rods placed, and Silicone Joint Sealant installed across the entire width of the bridge deck in accordance with these details and Manufacturer's instructions. Removal of existing Joint Seal will not be paid for directly, but shall be considered incidental to the item "Silicone Joint Sealant".

DETAIL OF POURED SILICONE JOINT SEAL

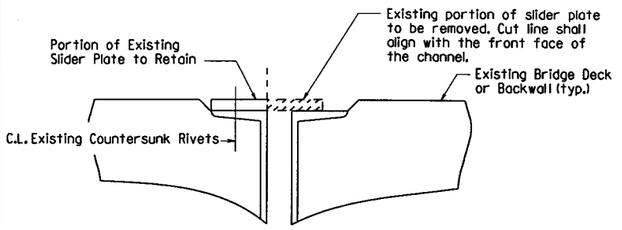
① Backer rod shall be appropriately sized and set to the depth shown in the manufacturer's literature based on the joint width at the time of sealing. Except as noted, do not install more backer rod than can be sealed in the same day. The Contractor shall verify separation of the backer rod from the joint material after joint material has been set.

Backer rod shall be notched or otherwise fit around any existing seal supports or bumper plates to maintain its proper depth as defined above.



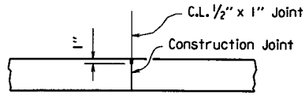
Note: Vertical joints may require forming. The clearance from deck surface to joint material shall be maintained.

JOINT SEAL PLACEMENT AT CURB



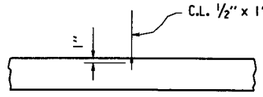
REMOVAL DETAILS AT BRIDGE No. A3604

Portion of Existing slider plate shall be removed as shown in accordance with Section 821. The cut face shall be ground square and flush with the face of channel. At the direction of the Engineer, the exisiting slider plate shall be removed and replaced with a new plate as shown in "JOINT DETAILS AT BRIDGE No. A3604". Removal of existing slider plate will not be paid for directly, but shall be considered subsidiary to the item "Silicone Joint Sealant".



Use ½" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Sealant must be gray or other color similar to concrete.

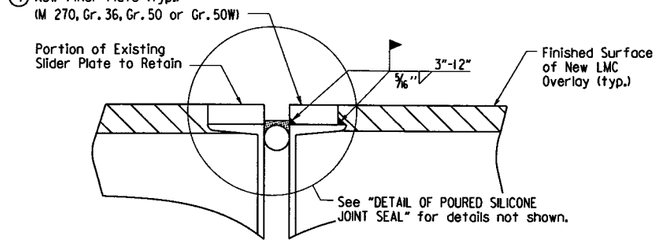
LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL



Use ½" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Slab joints shall extend to the outside edge of the deck slab. Slab joints shall be placed at all pouring sequence construction joints and are required at existing slab joint locations.

TRANSVERSE OVERLAY JOINT DETAIL

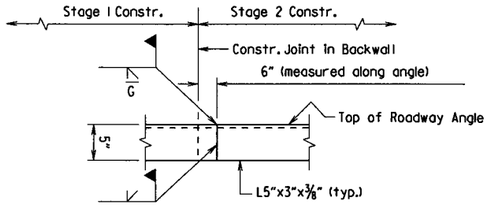
Slab joints and longitudinal construction joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the Overlay.



JOINT DETAILS AT BRIDGE No. A3604

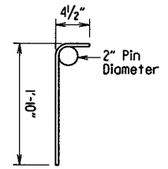
④ New field attached plates atop exisitng roadway channels or angles are required. The plate thickness shall be adjusted as necessary to match surface of finished surface of LMC Overlay and the width shall be ⅞" less than the existing channel flange or angle width.

All new Structural Steel shall be AASHTO M 270 (Gr. 36, 50, or 50W). The surfaces not in contact with concrete shall be cleaned and painted in accordance with Section 638. Only one coat is required and shall be applied in the fabricator's shop. Grade 50W steel shall not be painted, but shall be cleaned in accordance with Subsection 807.84(e). Structural Steel and Painting shall not be paid for directly, but shall be subsidiary to other items.

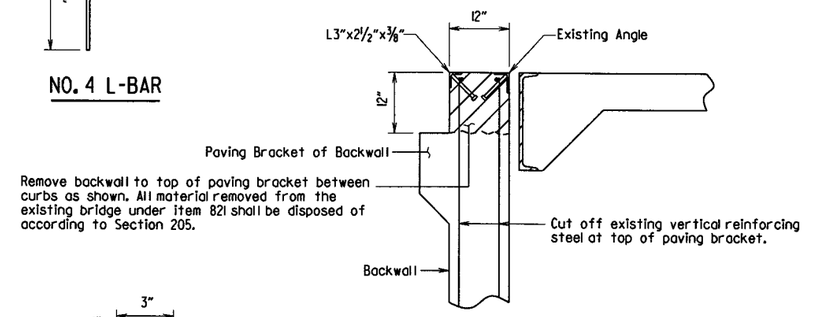


NOTE: All welding shall be done after the Stage I pour and prior to the Stage 2 pour.

DETAIL OF WELD FOR BACKWALL REPAIR

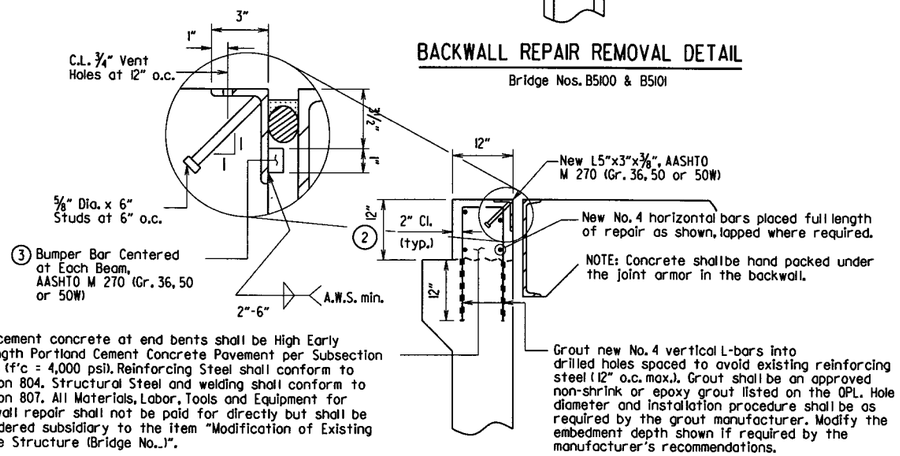


NO. 4 L-BAR



BACKWALL REPAIR REMOVAL DETAIL

Bridge Nos. B5100 & B5101



Replacement concrete at end bents shall be High Early Strength Portland Cement Concrete Pavement per Subsection 501.08 (f'c = 4,000 psi). Reinforcing Steel shall conform to Section 804. Structural Steel and welding shall conform to Section 807. All Materials, Labor, Tools and Equipment for Backwall repair shall not be paid for directly but shall be considered subsidiary to the item "Modification of Existing Bridge Structure (Bridge No..)".

BACKWALL REPAIR INSTALLATION DETAIL

Bridge Nos. B5100 & B5101

② Minor adjustments may be required to match the top surface of the finished LMC Overlay on the adjacent bridge deck and the adjacent roadway surface.

③ For bridges with joints less than 2", a ½"x 1"x 1'-0" Bumper Bar shall be used. For bridges with joints greater than 2", a 1"x 1"x 1'-0" Bumper Bar shall be used.

Str. Steel (lb.)	Reinf. Steel (lb.)	Conc. (cu. yd.)
11.05	5.57	0.04

APPROXIMATE QUANTITIES FOR BACKWALL REPAIR

Quantities shown are per foot of backwall and are for information only.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9233
9-5-18
CHARLES R. ELLIS
BRIDGE ENGINEER

SHEET 2 OF 2
DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

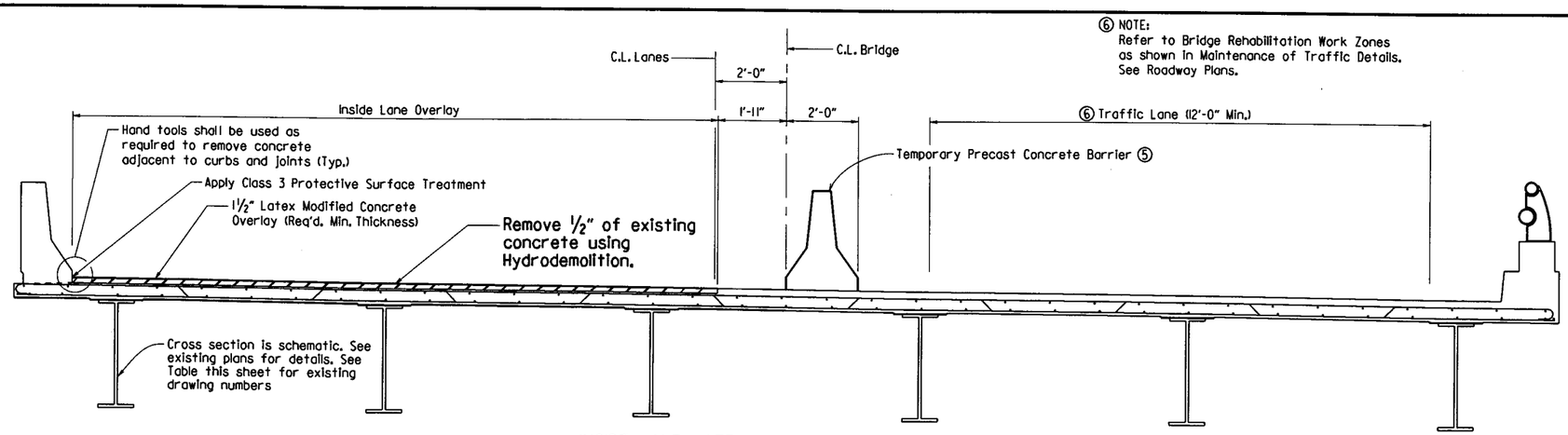
DRAWN BY: WAC DATE: 11/05/17
CHECKED BY: SWP DATE: 9/30/18
DESIGNED BY: SWP DATE: 12/17
FILENAME: bbb0401_lmc.dgn
SCALE: No Scale

BRIDGE NO. A3604, A&B5098, B5100, B5101 DRAWING NO. 56867

PRINT DATE: 30-AUG-2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	191	234

(1) B3604, A5100, A5101 - LMC OVERLAY -56868



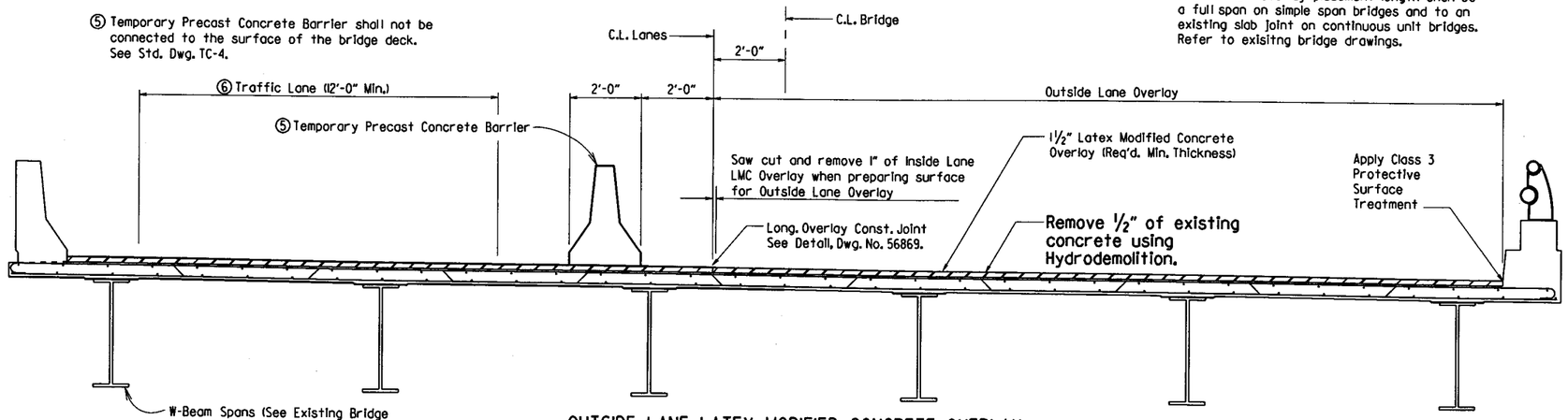
⑥ NOTE:
Refer to Bridge Rehabilitation Work Zones as shown in Maintenance of Traffic Details. See Roadway Plans.

INSIDE LANE LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic; A5100 & A5101 shown, B3604 similar)

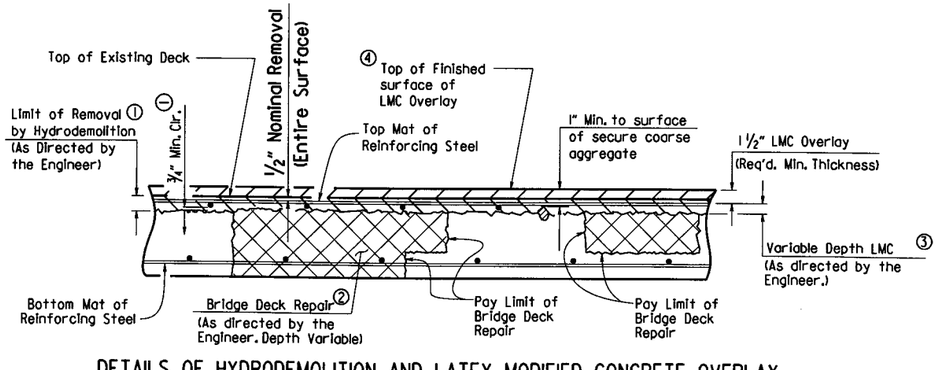
NOTE:
The minimum overlay placement length shall be a full span on simple span bridges and to an existing slab joint on continuous unit bridges. Refer to exisitng bridge drawings.

⑤ Temporary Precast Concrete Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.



OUTSIDE LANE LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic; A5100 & A5101 shown, B3604 similar)



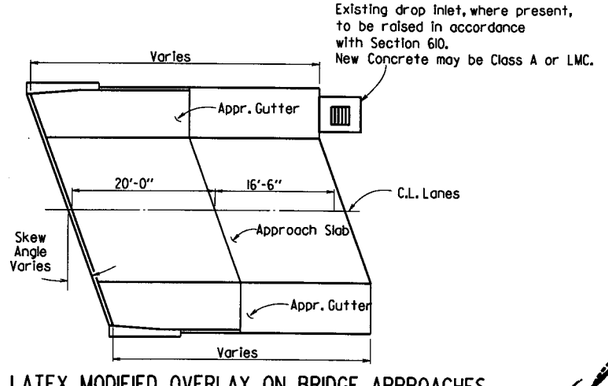
DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

① Removal of unsound concrete beyond ½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance below the bar.

② Areas requiring additional repair, as determined by the Engineer, shall be repaired in accordance with the Job Special Provision "Bridge Deck Repair".

③ Depth Varies to achieve minimum clearance below top mat of reinforcing steel, where required.

④ Finished Surface of LMC Overlay shall be increased as required to maintain minimum required LMC Overlay thickness and a minimum of 1½" cover to reinforcing steel.



LATEX MODIFIED OVERLAY ON BRIDGE APPROACHES

The Contractor shall remove ½" of existing concrete using hydrodemolition and construct a 1½" min. thickness LMC Overlay on the surface of the approach slabs and approach gutters to match increased LMC overlay grade on the bridge decks. All materials and methods shall conform to appropriate Job Special Provisions and the surface finish shall match that specified for the bridge deck. Joint treatments shall conform to the details on Drawing 56869.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2014, with applicable Special Provisions and Supplemental Specifications. Unless otherwise noted in the plans Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structures based on the original bridge plans. The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structure.

The operation or placement of vehicles, equipment and, or materials on the subject bridges necessary for the completion of this work shall be evaluated in accordance with Subsection 105.14. Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

Construction activities on Bridge No. A5100 shall be in accordance with Special Provision Job No. BB0401 "Special Safety Requirements" and "Minimum Construction Clearances" detail, Dwg. No. 56866.

HYDRODEMOLITION: The designated area of the existing bridge deck and the approach slabs and approach gutters shall receive hydrodemolition in accordance with the Special Provision Job No. BB0401 "Hydrodemolition" to a planned depth of ½" below the existing bridge deck surface. Deteriorated concrete in the bridge deck below this depth shall be removed at the direction of the Engineer and up to the limits detailed. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item "Hydrodemolition."

BRIDGE DECK REPAIR: After hydrodemolition, the deck surface shall be sounded and any areas of unsound, delaminated or otherwise deteriorated concrete shall be removed at the direction of the Engineer and in accordance with Special Provision Job No. BB0401 "Bridge Deck Repair."

LATEX MODIFIED CONCRETE OVERLAY: The designated area of the existing bridge deck and the approach slabs and approach gutters shall receive a Latex Modified Concrete (LMC) Overlay with a required minimum thickness of 1½", in accordance with Special Provision Job No. BB0401 "Latex Modified Concrete Overlay."

These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item Special Provision Job BB0401 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than ½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with Special Provision Job No. BB0401 "Latex Modified Concrete Overlay."

SURFACE FINISH: The LMC Overlay surface of the bridge deck, the approach slabs, and the approach gutters shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with Special Provision Job No. BB0401 "Latex Modified Concrete Overlay."

PROTECTIVE SURFACE TREATMENT : The longitudinal joint between the LMC overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with Special Provision Job No. BB0401 "Latex Modified Concrete Overlay."

Transverse and longitudinal construction joints separating adjacent overlay placements shall be prepared and sealed in accordance with the joint details on Dwg. No. 56869.

The roadway surface of the LMC overlay and top of backwall shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

EXPANSION JOINT REHABILITATION: After the placement of the LMC Overlay, the existing expansion joints shall be given a poured silicone joint sealant as specified in Section 809 and as shown in "Poured Silicone Joint Seal Detail" on Dwg. No. 56869. Backwall modification shall be completed prior to installation of silicone joint sealant. See Dwg. No. 56869 for additional details.

REFERENCE TABLE

BRIDGE NO.	EXISTING DRAWING NUMBERS
A5100	28186, 28187, 15694, 15702
A5101	28182, 28184, 15687, 15691
B3604	48616B, 11968B

See Dwg. No. 56869 for details of backwall modification.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 9235
9-5-18
CHARLES R. ELLIS

BRIDGE ENGINEER

SHEET 1 OF 2
DETAILS OF
LATEX MODIFIED CONCRETE OVERLAY
WITH GRADE RAISE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

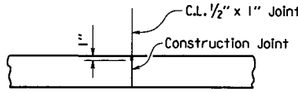
DRAWN BY: WAC DATE: 11/05/17
CHECKED BY: SWP DATE: 9/6/17
DESIGNED BY: SWP DATE: 11/17
FILENAME: bbb0401lmcgr.dgn
SCALE: NO SCALE

BRIDGE NO. B3604, A5100, A5101 DRAWING NO. 56868

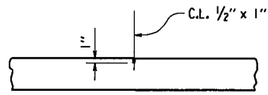
PRINT DATE: 9/5/2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	192	234

① B3604, A5100, A5101 - LMC OVERLAY - 56869



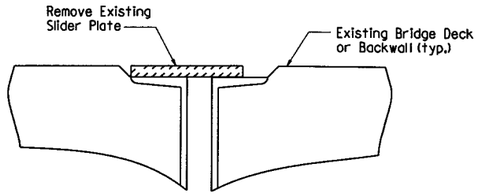
Use ½" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer Rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Sealant must be gray or other color similar to concrete.



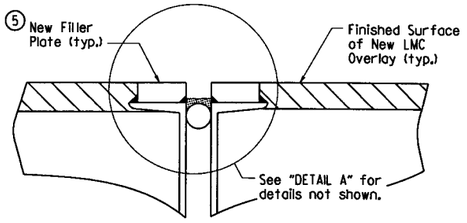
Use ½" X 1" Type 3 or 4 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Backer rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Slab joints shall extend to the outside edge of the deck slab. Slab joints shall be placed at all pouring sequence construction joints and are required at existing slab joint locations.

Slab joints and longitudinal construction joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the Overlay.

LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL



TRANSVERSE OVERLAY JOINT DETAIL



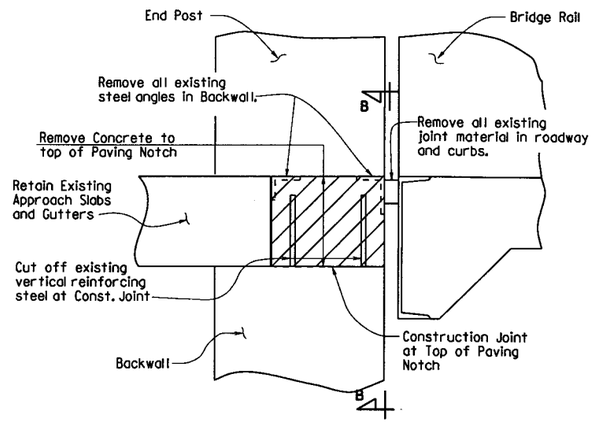
REMOVAL DETAILS AT BRIDGE No. B3604

Existing slider plate shall be completely removed in accordance with Section 821. Removal of existing slider plate will not be paid for directly, but shall be considered subsidiary to the item "Silicone Joint Sealant".

JOINT DETAILS AT BRIDGE No. B3604

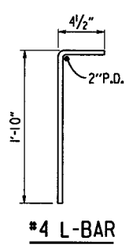
⑤ New field attached plates atop exisitng roadway channels or angles are required. The plate thickness shall be adjusted as necessary to match surface of finished surface of LMC Overlay and the width shall be ⅜" less than the existing channel flange or angle width.

All new Structural Steel shall be AASHTO M 270 (Gr. 36, 50, or 50W). The surfaces not in contact with concrete shall be cleaned and painted in accordance with Section 638. Only one coat is required and shall be applied in the fabricator's shop. Grade 50W steel shall not be painted, but shall be cleaned in accordance with Subsection 807.84(e). Structural Steel and Painting shall not be paid for directly, but shall be subsidiary to other items.

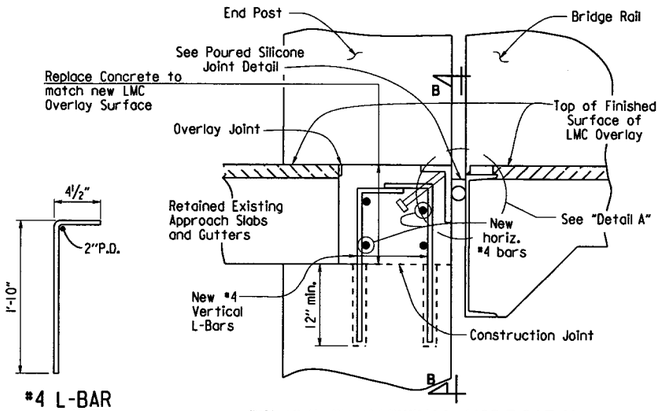


REMOVAL DETAILS AT END BENTS

Removal shall be in accordance with Section 821 and all removed portions of the existing backwall and joint materials shall become the property of the Contractor and shall be disposed of in accordance with Section 205.

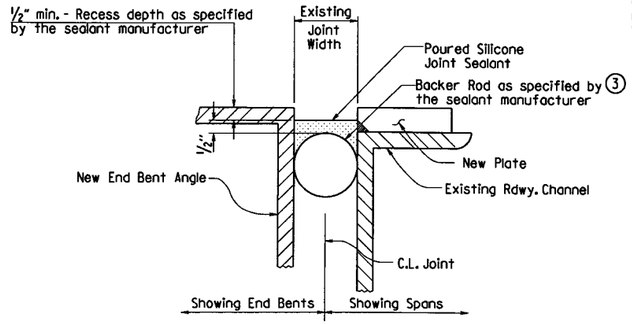


#4 L-BAR



DETAILS OF BACKWALL MODIFICATION

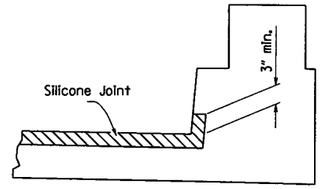
Grout new #4 L-bars into drilled holes spaced to avoid existing reinforcing steel (12" o.c. max.). Grout shall be an approved non-shrink or epoxy grout listed on the OPL. Hole diameter and installation procedure shall be as required by the grout manufacturer.



Existing Joint Seal shall be completely removed, backer rods placed, and Silicone Joint Sealant installed across the entire width of the bridge deck in accordance with these details and Manufacturer's instructions. Removal of existing Joint Seal will not be paid for directly, but shall be considered incidental to the item "Silicone Joint Sealant".

Notes: Backer rods shall be extended beyond the length of the poured joint in the initial joint rehabilitation area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint rehabilitaton. Manufacturer's recommendations shall be followed to prevent sealant leakage during rehabilitation work.

POURED SILICONE JOINT SEAL DETAILS

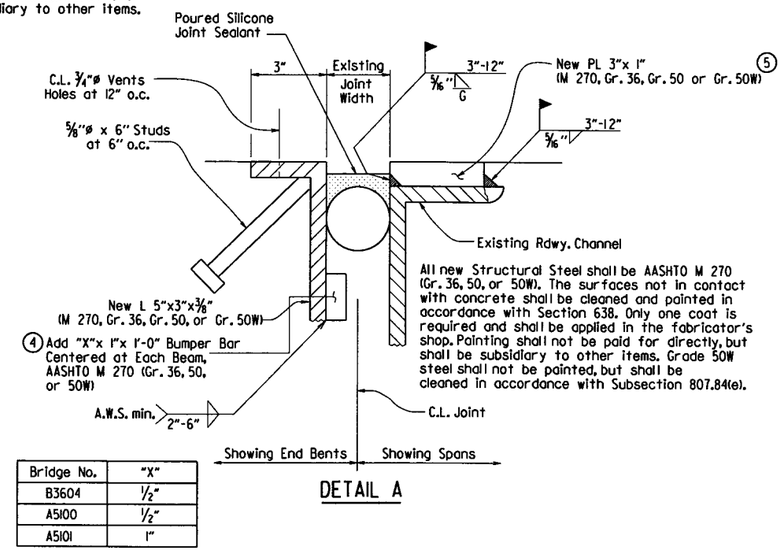


Note: Vertical joints may require forming. The clearance from deck surface to joint material shall be maintained.

JOINT SEAL PLACEMENT AT CURB

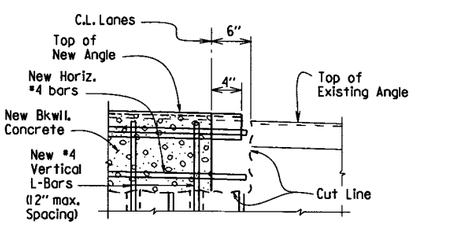
③ Backer rods shall be appropriately sized and set to the depth shown in the manufacturer's literature based on the joint width at the time of sealing. Except as noted, do not install more backer rod than can be sealed in the same day. The Contractor shall verify separation of the backer rod from the joint material after joint material has set.

Backer rod shall be notched or otherwise fit around any existing seal supports or bumper plates to maintain its proper depth as defined above.

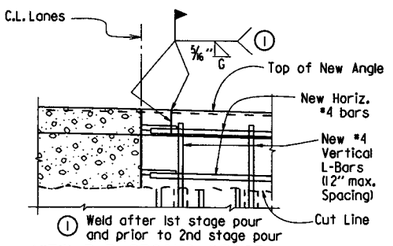


DETAIL A

Bridge No.	"X"
B3604	½"
A5100	½"
A5101	1"



VIEW B-B FIRST STAGE



VIEW B-B SECOND STAGE

Structural Steel (lb.)	Reinforcing Steel (lb.)	Concrete (cu. yd.)
21	6.96	0.04

APPROXIMATE QUANTITES FOR BACKWALL MODIFICATION ②

Quantities shown are per foot of backwall and are for information only.

② The Contractor shall make measurements for the backwall at each end of the bridge affected prior to beginning work on the bridge. The top surface of the raised backwall shall match the top surface of the finished LMC Overlay on the adjacent bridge deck and the adjacent approach slabs and approach gutters.

Replacement concrete shall be high early strength Portland Cement Concrete Pavement, or LMC. Reinforcing Steel shall conform to Section 804. Structural Steel and welding shall conform to Section 807. All Materials, Labor, Tools and Equipment shall not be paid for directly but shall be considered subsidiary to the item "Modification of Existing Bridge Structure (Bridge No.)".

④ Remove any existing bumper bars from the existing roadway channel directly across from these locations.

INTERMEDIATE JOINT MODIFICATION

At intermediate joints, existing rdwy. channels shall each recieve a new plate welded to the top as shown. Structural Steel and welding shall conform to Section 807. All Materials, Labor, Tools and Equipment shall not be paid for directly but shall be considered subsidiary to the item "Modification of Existing Bridge Structure (Bridge No.)".

STATE OF ARKANSAS
Charles R. Ellis
LICENSED PROFESSIONAL ENGINEER
No. 9235
9-5-18
CHARLES R. ELLIS
BRIDGE ENGINEER

SHEET 2 OF 2
DETAILS OF LATEX MODIFIED CONCRETE OVERLAY WITH GRADE RAISE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

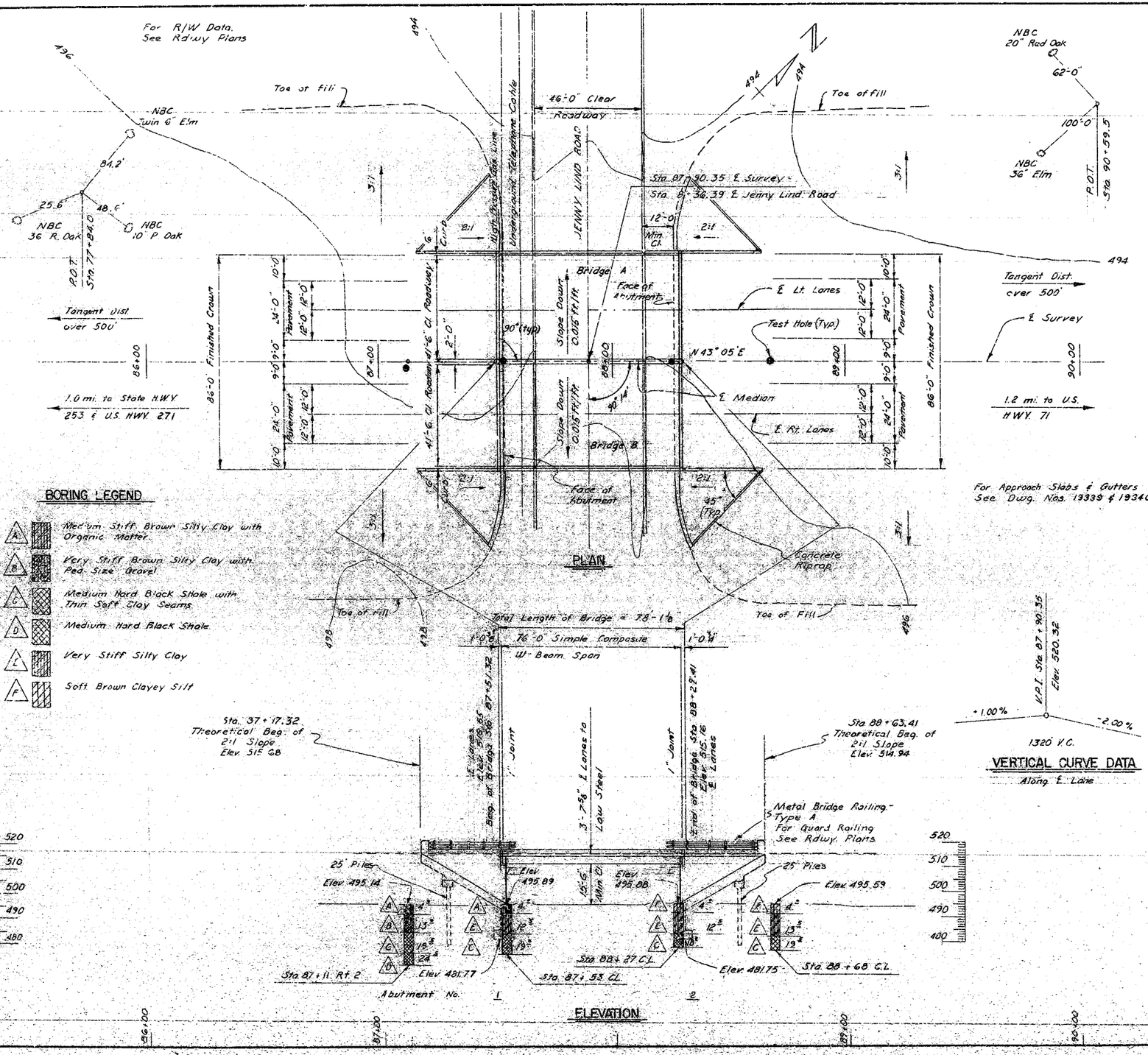
DRAWN BY: WAC DATE: 11/05/17
CHECKED BY: SNP DATE: 8/30/18
DESIGNED BY: SWP DATE: 11/17
FILENAME: bbb0401lmcgr.dgn
SCALE: NO SCALE

BRIDGE NO. B3604, A5100, A5101 DRAWING NO. 56869

PRINT DATE: 30-AUG-2018

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	193	334
				5629 A&B		LAYOUT	19330	

For R/W Data.
See Rdwy Plans



BORING LEGEND

- A — Medium Stiff Brown Silty Clay with Organic Matter
- B — Very Stiff Brown Silty Clay with Ped. Size Gravel
- C — Medium Hard Black Shale with Thin Soft Clay Seams
- D — Medium Hard Black Shale
- E — Very Stiff Silty Clay
- F — Soft Brown Clayey Silt

GENERAL NOTES

BENCH MARK - N.I.S.16" OAK 45' RT.STA.89+36, ELEV.496.70

FOOTINGS SHALL BESET A MINIMUM OF 1'-6" INTO SOLID ROCK. ROCK EXCAVATIONS SHALL BE MADE TO NEAT LINES OF CONCRETE FOOTINGS. CARE SHALL BE EXERCISED TO AVOID SHATTERING OF ROCK FACES BY EXCESSIVE BLASTING. CONCRETE IN FOOTINGS SHALL BE POURED DIRECTLY AGAINST EXCAVATED SURFACES OF ROCK.

ALL CONCRETE SHALL BE POURED IN THE DRY.

ALL PILING SHALL BE HP10X42 AND SHALL BE DRIVEN WITH AN APPROVED AIR,STEAM, OR DIESEL HAMMER WITH A MINIMUM ENERGY OF 10,000 FOOT POUNDS PER BLOW TO A MINIMUM CAPACITY OF 55 TONS PER PILE AND INTO THE MATERIAL DESIGNATED AS SHALE ON THE BORING LOGS. LENGTHS OF PILING SHOWN ARE FOR ESTIMATING QUANTITIES ONLY. ORDER LENGTHS SHOWN; CUT-OFF OR BUILD-UP, IF NECESSARY, TO BE PAID FOR IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

FOR CONSTRUCTION PROCEDURE, SEE JOB SPECIAL PROVISIONS.

FOR DETAILS OF ABUTMENTS, SEE DWG.NO.19331-19334
FOR DETAILS OF SUPERSTRUCTURE, SEE DWG.NOS.19335-19338, 14990F

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO 1973 AND 1974 INTERIM

LIVE LOADING: HS20 AND SPECIAL INTERSTATE LOADING OF TWO 24,000 LBS. AXLES SPACED 4'-6" ON CENTERS.

DESIGN METHOD - LOAD FACTOR

UNIT STRESSES:

f c = COMPRESSIVE STRENGTH OF CONCRETE = 3500 PSI

fy = YIELD STRENGTH OF REINFORCING STEEL = 60,000 PSI

fy = YIELD STRENGTH OF STRUCTURAL STEEL (A36) = 36,000 PSI

FOUNDATION PRESSURE:

GROUP I 9.45 KSF

INFORMATION ONLY

LAYOUT OF BRIDGE OVER JENNY LIND ROAD

JENNY LIND RD. - HWY. 71 (GR. & STRS.)
SEBASTAIN COUNTY
INT. ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

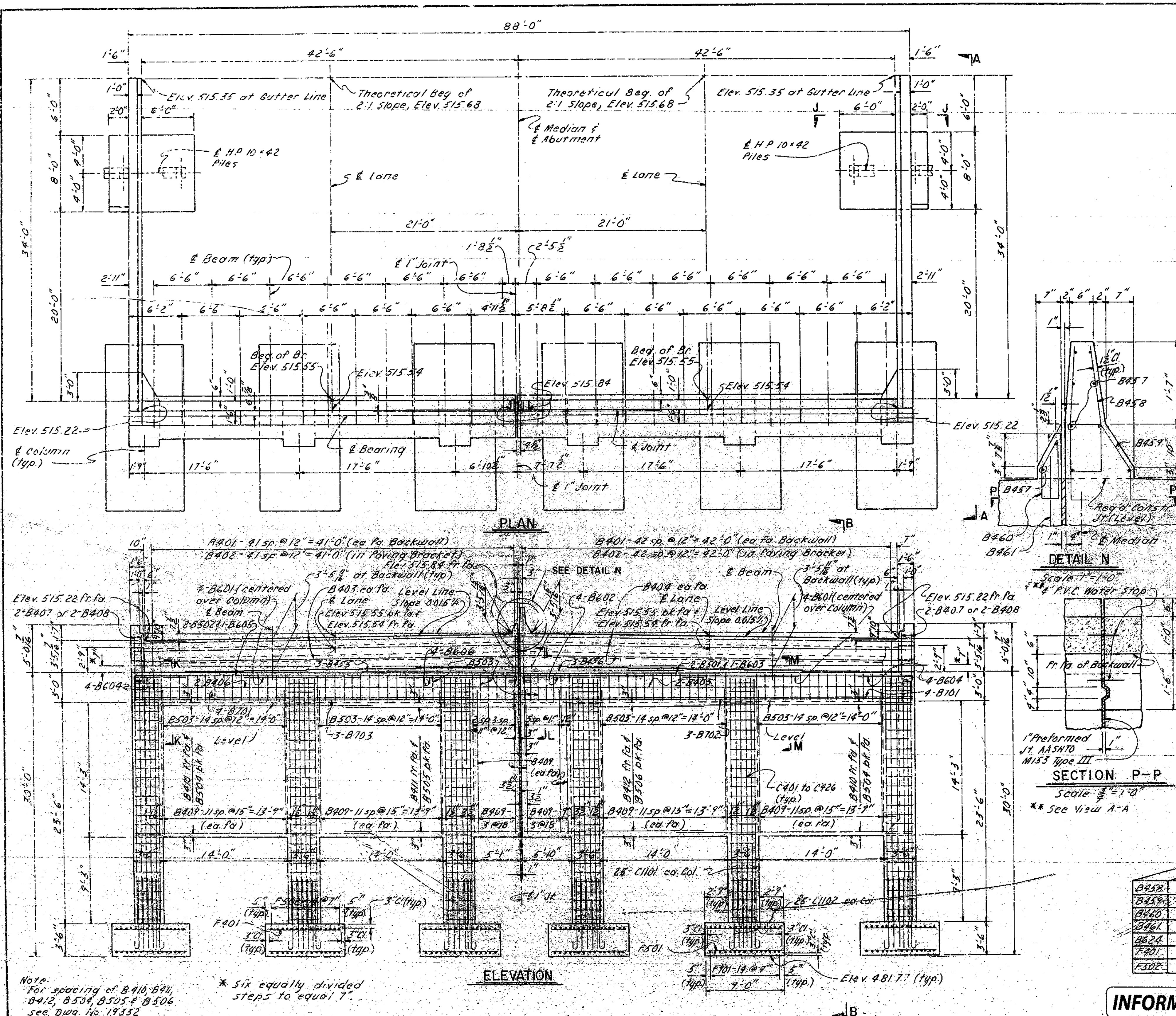
DRAWN BY: TEB DATE: 11-19-74
DESIGNED BY: DV DATE: 11-74 SCALE: 1" = 20'-0"
CHECKED BY: K.R.W. DATE: 12-12-74

Brad Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5629 A & B DRAWING NO. 19330

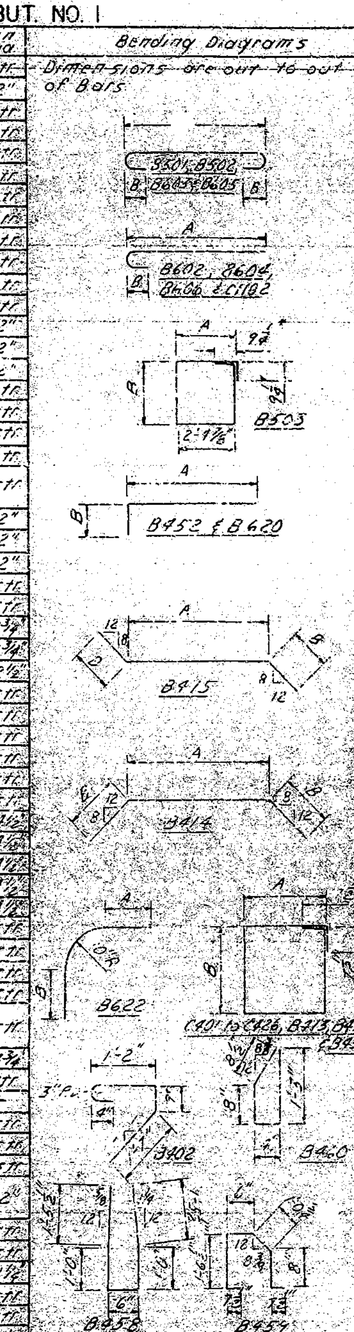
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	194	234

① 5629A&B ABUT. DTL'S. 19331



BAR LIST - ABUT. NO. 1

MK.	No. Req'd	Length	A	B	Pin Dia.
B401	170	5'-0"			str.
B402	85	3'-11"	see Diagram		2"
B403	12	22'-6"			str.
B404	12	22'-10"			str.
B405	4	22'-10"			str.
B406	4	22'-6"			str.
B407	8	6'-10"			str.
B408	8	4'-3"			str.
B409	114	15'-4"			str.
B410	28	25'-2"			str.
B411	14	19'-9"			str.
B412	14	20'-6"			str.
B413	10	4'-8"	9"	1'-2"	2"
B414	6	9'-6"	6'-3"	1'-8"	2"
B415	24	8'-8"	5'-5"	1'-8"	2"
B416	4	34'-8"			str.
B417	4	19'-1/6"			str.
B418	4	19'-2"			str.
B419	4	18'-9"			str.
B420 to B451	4 ea.	18'-3" to 2'-9"			str.
B452	16	4'-11"	4'-4"	7½"	2"
B453	4	3'-10"	1'-0½"	5½"	2"
B454	4	5'-10"	1'-4"	9"	2"
B455	3	17'-7"			str.
B456	3	18'-4"			str.
B501	2	45'-2"	44'-0"	5"	3¾"
B502	2	44'-5"	43'-3"	5"	3¾"
B503	73	11'-0"	2'-2⅛"	2'-8"	2½"
B504	32	25'-5"			str.
B505	16	20'-0"			str.
B506	16	20'-9"			str.
B507	38	7'-6"			str.
B508	30	9'-0"			str.
B601	8	13'-0"			str.
B602	4	14'-7"	13'-11"	6"	4½"
B603	1	45'-4"	44'-0"	6"	4½"
B604	8	6'-9"	6'-1"	6"	4½"
B605	1	44'-7"	43'-3"	6"	4½"
B606	4	13'-10"	13'-2"	6"	4½"
B607	12	34'-8"			str.
B608	4	34'-0"			str.
B609	4	32'-0"			str.
B610	20	30'-0"			str.
B611 to B619	4 ea.	20'-0" to 4'-0"			str.
B620	16	5'-8"	4'-10"	11¾"	3¾"
B621	8	39'-4"			str.
B622	4	7'-4"	1'-10"	4'-2"	-
B623	22	5'-0"			str.
B701	8	38'-4"			str.
B702	3	44'-0"			str.
C401 to C426	6 ea.	11'-4" to 15'-7"	3'-1"	2'-2" to 4'-3½"	2"
B703	3	43'-3"			str.
C1101	150	26'-0"			str.
C1102	150	9'-5"	7'-10"	12½"	11¼"
F501	204	8'-6"			str.
F901	90	17'-0"			str.
B457	10	9"			str.
B458	2	5'-3"	see Diagram		2"
B459	12	4'-8"	see Diagram		2"
B460	2	2'-9"	see Diagram		2"
B461	2	2'-5"			str.
B624	8	36'-2"			str.
F401	72	8'-6"			str.
F502	90	17'-0"			str.



SHEET 1 OF 2

DETAILS OF ABUTMENT NO. 1
JENNY LIND ROAD
JENNY LIND RD. - HWY. 71
(GR. & STRS.)
SEBASTIAN COUNTY
INT. ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

INFORMATION ONLY

DRAWN BY: J.P.S. DATE: 4-28-75
CHECKED BY: C.E.S. DATE: 5-5-75
DESIGNED BY: ARW DATE: 4-75
SCALE: 3/16" = 1'-0" or as noted

BRIDGE ENGINEER

BRIDGE NO. 5629 A & B DRAWING NO. 19331

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO	TOTAL SHEETS
				6	ARK.			
				JOB NO		BB0401	195	234

(1) 5629 A&B ABUT. DTLS. 19332

Note: Apply Boiled Linseed Oil to portion of Wing's above Gutter Line.

Note: All Reinforcing Steel and dimensions are the same for opposite Wing.

VIEW A-A
Scale: 3/16"=1'-0"

Note: All Rustication Joints are 3/4" V Grooves.

Note: 6" ϕ Tile Drain approx. 6" above Top of End Slope. Place 6 cubic ft. of sacked crushed rock or gravel at each Weep Hole. Pay shall be subsidiary to class "S" concrete.

VIEW A-A
Scale: 3/16"=1'-0"

SEE DETAIL F

SECTION B-B
Scale: 1/4"=1'-0"

SEE DETAIL G

DETAIL G
Scale: 1/2"=1'-0"

Note: Top of Backwall slopes down 1/8" from back face to front face.

SECTION C-C
Scale: 1/4"=1'-0"

DETAIL F
Scale: 3/4"=1'-0"

Note: See Dwg. No. 14990F For Dimen. "D"

SECTION H-H
Scale: 3/8"=1'-0"

SECTION D-D
Scale: 3/8"=1'-0"

SECTION E-E
Scale: 3/8"=1'-0"

VIEW J-J
Scale: 1/2"=1'-0"

PLAN OF POST
Scale: 1 1/2"=1'-0"

ELEVATION OF POST
Scale: 1"=1'-0"

ANCHOR BOLT LAYOUT
Scale: 1 1/2"=1'-0"

SECTION K-K
Scale: 1/2"=1'-0"

SECTION L-L
Scale: 1/2"=1'-0"

SECTION M-M
Scale: 1/2"=1'-0"

NOTES: ALL CONCRETE SHALL BE CLASS S. ALL EXPOSED CORNERS TO BE CHAMFERED THREE-FOURTH INCH; REINFORCING STEEL TO BE ASTM A615, GRADE 60. SHOP LISTS AND BENDING DIAGRAMS MUST BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

ALL STRUCTURAL STEEL TO BE ASTM A36. ALL STRUCTURAL STEEL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN W-BEAM SPANS (A36)".

PILING SHALL BE HP10X42 STEEL BEARING PILES. PILING SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 55 TONS PER PILE.

FOR MISC. DETAILS OF EXCAVATION AND PILE SPLICE, SEE DWG. NO. 19341
FOR ABUTMENT CONSTRUCTION PROCEDURE, SEE JOB SPECIAL PROVISION.

USE 3500 PSI (28 DAY) COMPRESSIVE STRENGTH CONCRETE.

INFORMATION ONLY

SHEET 2 OF 2
DETAILS OF ABUTMENT NO. 1
JENNY LIND ROAD
JENNY LIND RD. — HWY. 71 (GR. 8 STRS.)
SEBASTIAN COUNTY
INT. ROUTE 540 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

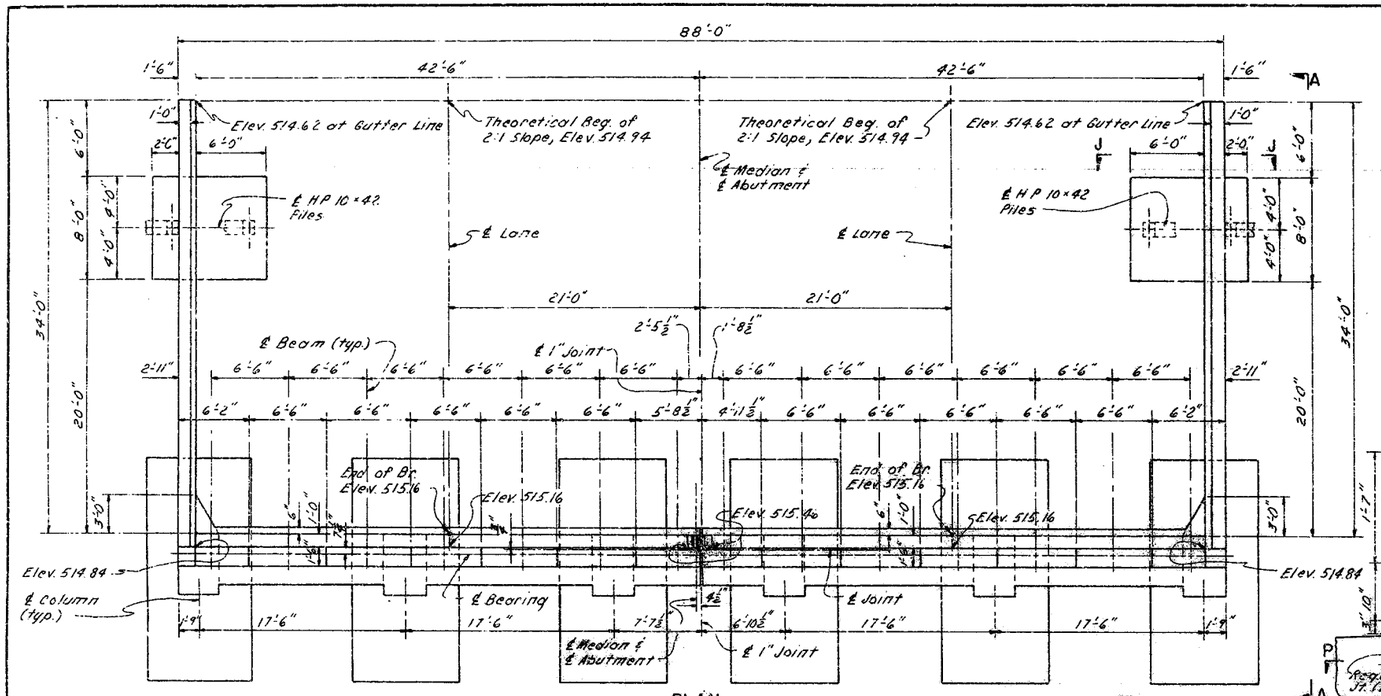
DRAWN BY: J.P.S. DATE: 4-25-75
CHECKED BY: E.S. DATE: 5-5-75 SCALE: as noted
DESIGNED BY: A.R.W. DATE: 4-75

Vasal Pinkerton
BRIDGE ENGINEER

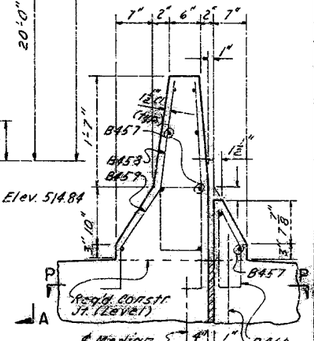
BRIDGE NO. 5629 A&B DRAWING NO. 19332

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	196	234

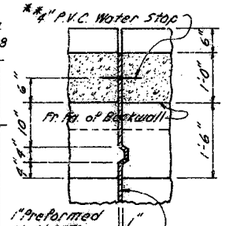
① 5629 A&B ABUT DTL'S 19333



PLAN



DETAIL N
Scale 1"=1'-0"



SECTION P-P
Scale ½"=1'-0"
** See View A-A

ELEVATION

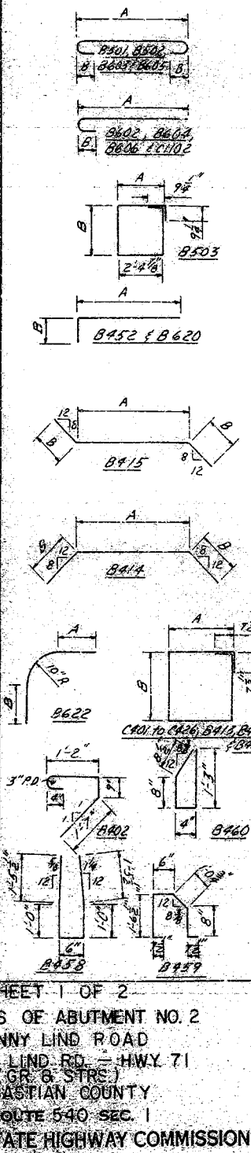
Note:
For spacing of B410, B411, B412, B504, B505 & B506 see Dwg. No. 19334

* Six equally divided steps equal 7".

BAR LIST - ABUT. NO. 2

MK.	No. Reqd.	Length	A	B	Bar Dia.
B401	170	5'-8"			5 str.
B402	85	5'-11"	see Diagram		5
B403	16	22'-6"			5 str.
B404	16	22'-10"			5 str.
B405	4	22'-10"			5 str.
B406	2	22'-6"			5 str.
B407	8	7'-6"			5 str.
B408	8	9'-11"			5 str.
B409	114	15'-9"			5 str.
B410	28	28'-2"			5 str.
B411	14	19'-7"			5 str.
B412	14	20'-6"			5 str.
B413	10	4'-8"	3"	1'-2"	3
B414	6	9'-6"	6'-3"	1'-8"	2
B415	24	8'-8"	5'-5"	1'-8"	2
B416	4	34'-8"			5 str.
B417	4	19'-6"			5 str.
B418	4	19'-2"			5 str.
B419	4	18'-9"			5 str.
B420	4 ea.	18'-3" to 2'-9"			5 str.
B451					
B452	16	4'-11"	4'-9"	7½"	2
B453	4	3'-10"	1'-0½"	5½"	2
B454	4	5'-10"	1'-9"	9"	2
B455	3	17'-7"			5 str.
B456	3	18'-9"			5 str.
B501	2	43'-2"	42'-0"	5"	3½
B502	2	44'-5"	43'-3"	5"	3½
B503	73	11'-0"	2'-2½"	2'-8"	5 str.
B504	32	28'-5"			5 str.
B505	16	20'-0"			5 str.
B506	16	20'-9"			5 str.
B507	38	7'-6"			5 str.
B508	30	9'-0"			5 str.
B601	8	13'-8"			4 str.
B602	4	14'-7"	13'-11"	6"	4½
B603	1	45'-8"	44'-0"	6"	4½
B604	8	6'-9"	6'-3"	6"	4½
B605	1	44'-7"	43'-5"	6"	4½
B606	4	13'-8"	13'-2"	6"	4½
B607	12	34'-9"			5 str.
B608	4	34'-0"			5 str.
B609	4	32'-0"			5 str.
B610	20	30'-0"			5 str.
B611	4 ea.	28'-6" to 4'-0"			5 str.
B619					
B620	16	5'-8"	4'-10"	11¾"	3½
B621	8	3'-4"			5 str.
B622	4	7'-8"	1'-10"	4'-2"	–
B623	22	5'-0"			5 str.
B701	8	38'-4"			5 str.
B702	3	44'-0"			5 str.
C401 to C426	6.80	111'-4" to 15'-6"	3'-1"	2'-2" to 4'-5"	2
B703	3	43'-3"			5 str.
C1101	189	2'-5"			5 str.
C1102	150	4'-5"	3'-10"	12½"	11
F501	204	8'-6"			5 str.
F401	98	17'-0"			5 str.
B457	19	9"			5 str.
B458	2	5'-3"	see Diagram		5
B459	2	4'-8"	see Diagram		5
B460	6	2'-7"	see Diagram		5
B461	2	2'-5"			5 str.
B624	8	36'-2"			5 str.
F301	72	8'-6"			5 str.
F302	90	17'-0"			5 str.

Bending Diagrams
Dimensions are out to out of Bars



SHEET 1 OF 2

DETAILS OF ABUTMENT NO. 2
JENNY LIND ROAD
JENNY LIND RD. – H.W.Y. 71
(GR. & STRS.)
SEBASTIAN COUNTY
INT. ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

INFORMATION ONLY

DRAWN BY: J.P.S. DATE: 5-9-75
CHECKED BY: C.E.S. DATE: 5-12-75
DESIGNED BY: A.R.W. DATE: 4-75
SCALE: 3/16" = 1'-0" or as noted

Derek P. Painter
BRIDGE ENGINEER

BRIDGE NO. 5629 A & B DRAWING NO. 19333

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	197	234

(1) 5629 A&B ABUT DTL'S. 19334

VIEW A-A
Scale 3/16"=1'-0"

Note: All Reinforcing Steel and dimensions are the same for opposite Wing.

Note: Apply Boiled Linseed Oil to portion of Wings above Gutter Line

Place Type C Bridge Name Plate on Turnout Post at End of Br. A.

Type A Br. Railing-see dwg. no. 19992A

Dummy Joint @ 1/3 points in Parapet

Top of Curb
Gutter Line

Rustication Constr. Jt.

Weep Hole

Top of End Slope

Elev. 514.62

Elev. 514.84

Elev. 509.87

Elev. 481.75

4 H.P. 10x42 Piles

Note: All Rustication Joints are 3/4" V Grooves.

Note: 6" ϕ Tile Drain approx. 6" above Top of End Slope. Place 6 cubic ft. of sacked 3/4" crushed rock or gravel at each Weep Hole. Pay shall be subsidiary to Class S Concrete.

VIEW A-A
Scale: 3/16"=1'-0"

SEE DETAIL F

SEE DETAIL G

DETAIL G
Scale: 1 1/2"=1'-0"

Note: Top of Backwall slopes down 1/8" from front face to back face.

SECTION C-C
Scale: 1/2"=1'-0"

DETAIL F
Scale: 3/4"=1'-0"

Note: See Dwg No. 14990F for Dimen. "D".

SECTION B-B
Scale 1/4"=1'-0"

SECTION H-H
Scale: 3/8"=1'-0"

SECTION D-D
Scale: 3/8"=1'-0"

SECTION E-E
Scale: 3/8"=1'-0"

VIEW J-J
Scale: 1/2"=1'-0"

3/4" ϕ x 8" A325 Galvanized Bolts with 1 1/2" Threaded (Non-Pay Item - Subsidiary)

PLAN OF POST
Scale: 1"=1'-0"

For Connection Details see Dwg. No. GR-8A

ELEVATION OF POST
Scale: 1"=1'-0"

ANCHOR BOLT LAYOUT
No. Scale

SECTION K-K
Scale: 1/2"=1'-0"

SECTION L-L
Scale: 1/2"=1'-0"

SECTION M-M
Scale: 1/2"=1'-0"

NOTES: ALL CONCRETE SHALL BE CLASS S. ALL EXPOSED CORNERS TO BE CHAMFERED THREE-FOURTH INCH. REINFORCING STEEL TO BE ASTM A615, GRADE 60. SHOP LISTS AND BENDING DIAGRAMS MUST BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

ALL STRUCTURAL STEEL TO BE ASTM A36. ALL STRUCTURAL STEEL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN W-BEAM SPANS (A36)".

PILING SHALL BE HP10X42 STEEL BEARING PILES. PILING SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 55 TONS PER PILE.

FOR MISC. DETAILS OF EXCAVATION AND PILES SPLICE, SEE DWG. NO 19341
FOR ABUTMENT CONSTRUCTION PROCEDURE, SEE JOB SPECIAL PROVISION.

USE 3500 PSI (28 DAY) COMPRESSIVE STRENGTH CONCRETE.

INFORMATION ONLY

SHEET 2 OF 2
DETAILS OF ABUTMENT NO. 2
JENNY LIND ROAD
JENNY LIND RD. — HWY. 71 (GR. & STRS.)
SEBASTIAN COUNTY
INT. ROUTE 540 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

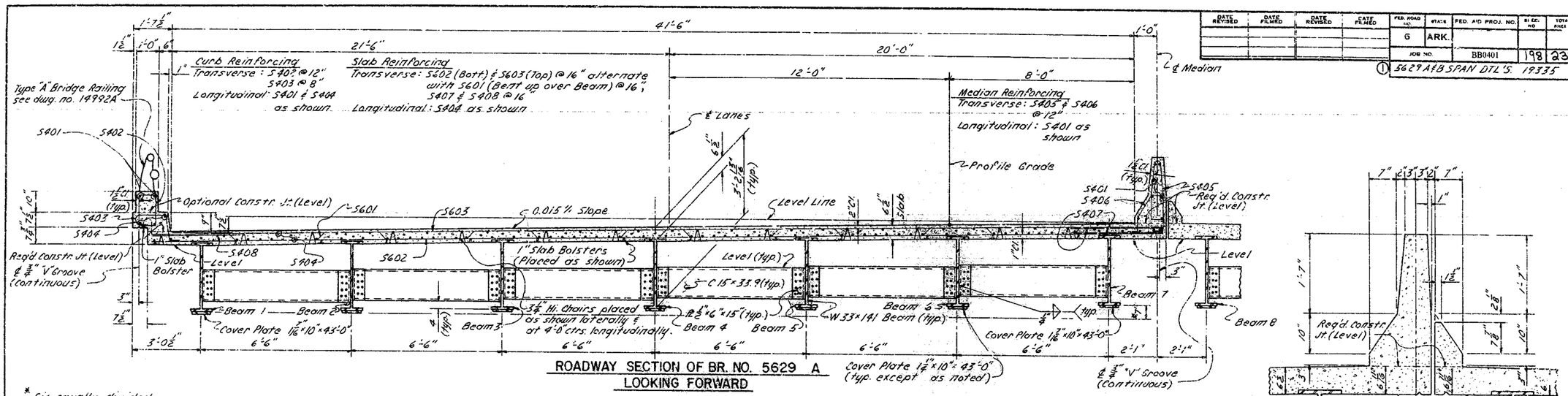
DRAWN BY: J.P.S. DATE: 5-7-75
CHECKED BY: C.F.S. DATE: 5-8-75 SCALE: as noted
DESIGNED BY: A.R.W. DATE: 4-75

Virgil Thalheimer
BRIDGE ENGINEER

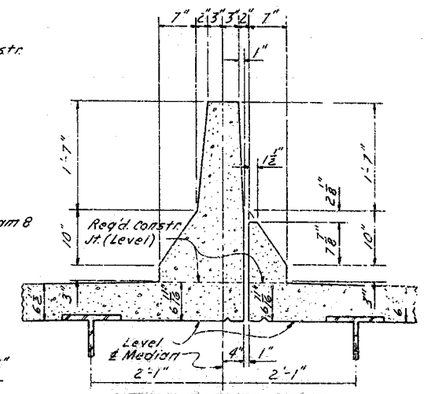
BRIDGE NO. 5629 A & B DRAWING NO. 19334

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SH. NO.	TOTAL SHEETS
				G	ARK.			
				JOB NO.		BB0401	198	234

① 5629 A&B SPAN DTL'S. 19335

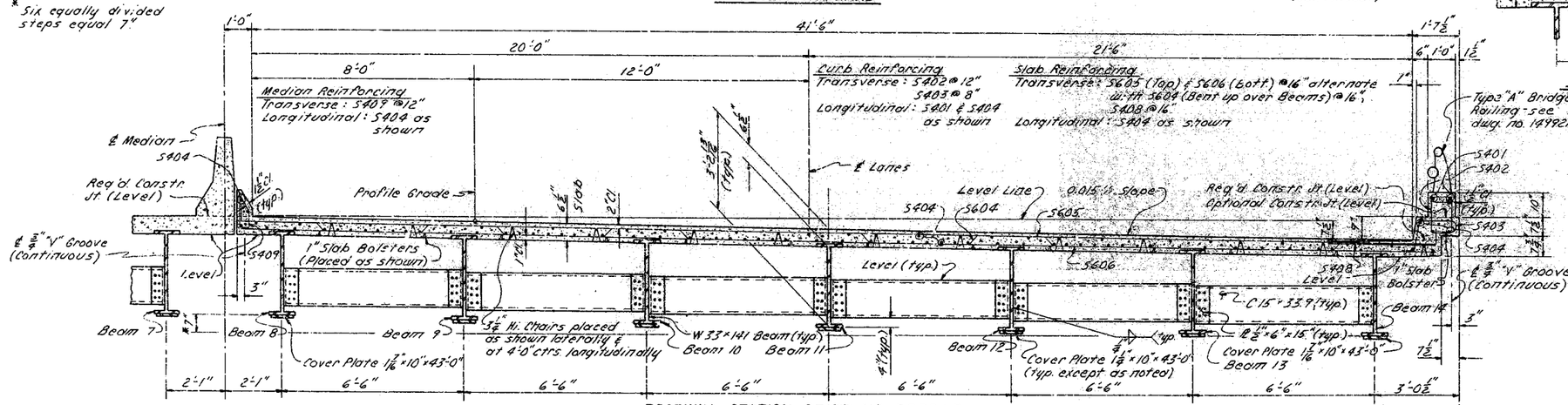


ROADWAY SECTION OF BR. NO. 5629 A
LOOKING FORWARD

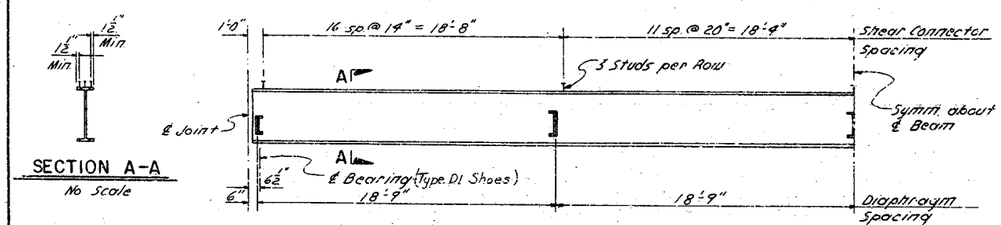


MEDIAN BARRIER DETAIL
Scale: 1" = 1'-0"

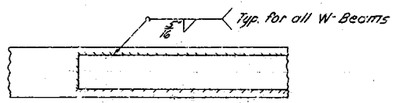
* Six equally divided steps equal 7"



ROADWAY SECTION OF BR. NO. 5629 B
LOOKING FORWARD



HALF BEAM ELEVATION
No Scale



COVER PLATE DETAIL
No Scale

STUD SHEAR CONNECTORS SHOWN SHALL BE 3" LONG, GRANULAR FLUX FILLED, SOLID FLUXED OR EQUAL, AND AUTOMATICALLY END WELDED TO GIRDER FLANGES IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER. 7/8" DIAMETER STUDS MAY BE SUBSTITUTED FOR 3/4" DIAMETER STUDS SHOWN AT THE RATIO OF 0.73 - 7/8" STUDS IN PLACE OF 1-3/4" STUDS. THE 3/4" STUDS SHALL BE USED AS THE BASIS OF PAYMENT OF 74.0 LBS. PER ONE HUNDRED STUDS.

ALL W-BEAMS AND COVER PLATES ARE CONSIDERED MAIN LOAD CARRYING MEMBERS AND SHALL MEET THE CHARPY V-NOTCH TEST REQUIREMENTS OF SPECIAL PROVISION NO. 807-4.

INFORMATION ONLY

Neal Pinkerton
BRIDGE ENGINEER

SHEET 1 OF 4
DETAILS OF 76'-0" COMPOSITE
W-BEAM SPAN
JENNY LIND ROAD
JENNY LIND RD. - HWY. 71 (GR. & STRS.)
SEBASTIAN COUNTY
INT. ROUTE 540 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

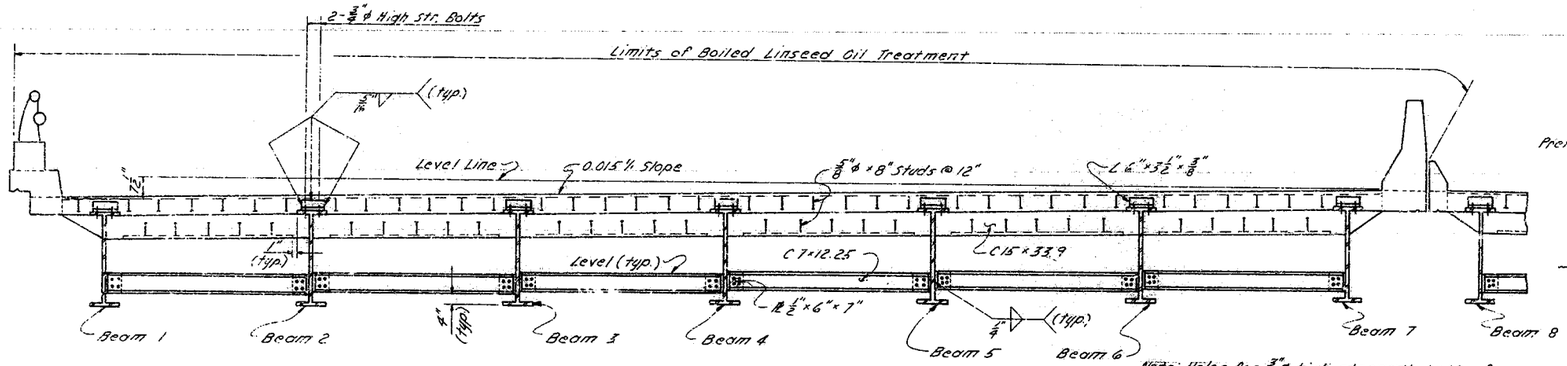
DRAWN BY: J.P.S. DATE: 3-6-75
CHECKED BY: ARW DATE: 3-18-75
DESIGNED BY: JCK DATE: Feb 75
SCALE: 1" = 1'-0" or as noted

BRIDGE NO. 5629 A & B DRAWING NO. 19335

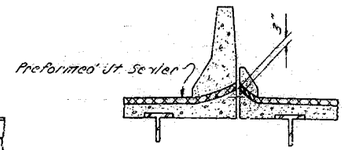
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	199	334

(1) 5629AEB SPAN DTL'S. 19336

Expansion Device: C15×33.9×4'-6" Preformed Joint Sealer supported by $\frac{3}{4}$"ø Bars, $\frac{5}{8}$"ø×8" Studs @ 12", L's 6"×3½"×$\frac{3}{8}$"×0'-8" Connection Angles, Detail Device $\frac{3}{8}$" high & provide $\frac{1}{4}$" Shims using 1-$\frac{1}{8}$" PL & 2-$\frac{1}{16}$" PL's.

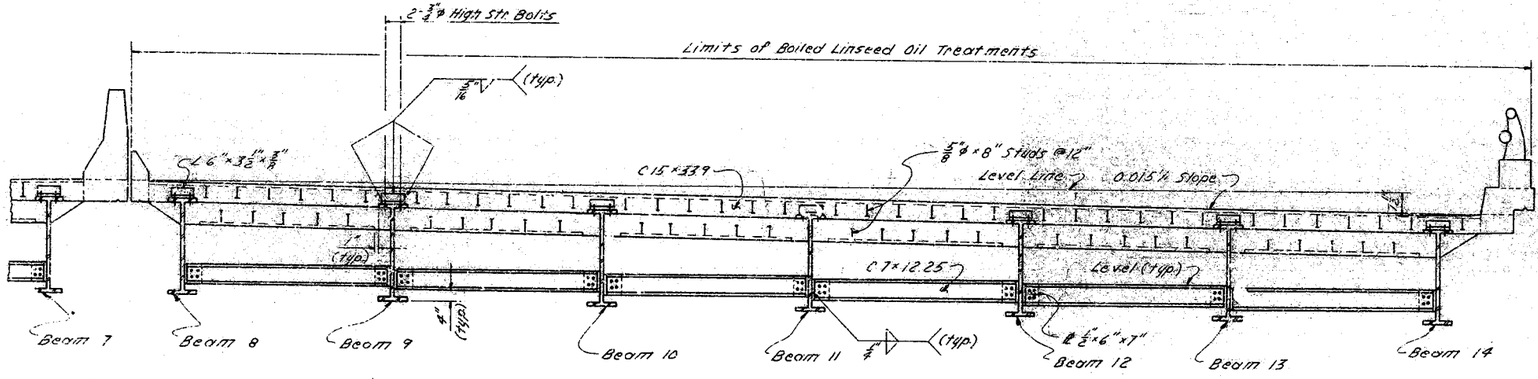


END SPAN SECTION OF BR. NO. 5629 A
LOOKING FORWARD

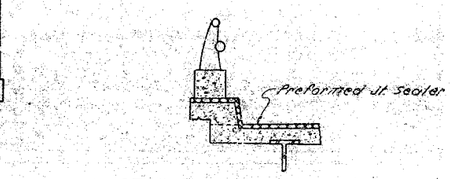


SEAL PLACEMENT IN MEDIAN BARRIER

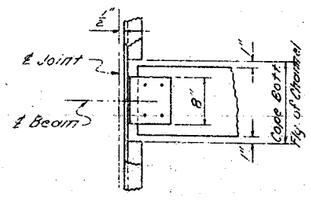
Note: Holes for ¾"ø high strength bolts for Expansion Device, Diaphragms and End Struts may be $\frac{15}{16}$" ø holes if a washer is supplied for use under both the nut & the head of the bolt.



END SPAN SECTION OF BR. NO. 5629 B
LOOKING FORWARD



SEAL PLACEMENT IN CURB



CHANNEL CONNECTION
Scale: 1"=1'-0"

GENERAL NOTES:

FOR ADDITIONAL DETAILS AND NOTES, SEE DWG. NO. 14990F.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO 1973 AND 1974 INTERIM
LIVE LOADING: HS20 AND SPECIAL INTERSTATE LOADING OF TWO 24,000 LBS. AXLES SPACED 4'-0" ON CENTERS.
DESIGN METHOD: LOAD FACTOR

LOAD DISTRIBUTION:

BEAM NO:	1 & 14	2 THRU 6	7	8	9 THRU 13
a. DEAD LOAD TO BEAM*	628#/'	701#/'	638#/'	575#/'	701#/'
b. TO COMPOSITE BEAM #	275#/'	227#/'	275#/'	137#/'	200#/'
LIVE LOAD: TO EACH COMPOSITE BEAM	1.1556 WHEELS + IMPACT	1.1818 WHEELS + IMPACT	1.1556 WHEELS + IMPACT	1.1556 WHEELS + IMPACT	1.1818 WHEELS + IMPACT

UNIT STRESSES:
f'_c = COMPRESSIVE STRENGTH OF CLASS S(AE) CONCRETE = 3,500 PSI
f_s = YIELD STRENGTH OF REINFORCING STEEL = 60,000 PSI
f_y = YIELD STRENGTH OF STRUCTURAL STEEL (A36) = 36,000 PSI

ALL STRUCTURAL STEEL SHALL BE A36. ALL REINFORCING STEEL SHALL BE A615, GRADE 60.

*INCLUDES 1.3 (WT./FT. OF WF)
INCLUDES 25 PSF WEARING SURFACE.

ALL STRUCTURAL STEEL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN W-BEAM SPANS (A36)".

DEAD LOAD DEFLECTION TABLE

Beam	Deflection
1 and 14	1¾"
2 thru 6	1⅞"
7	1 13/16"
8	1 7/16"
9 thru 13	1 13/16"

INFORMATION ONLY

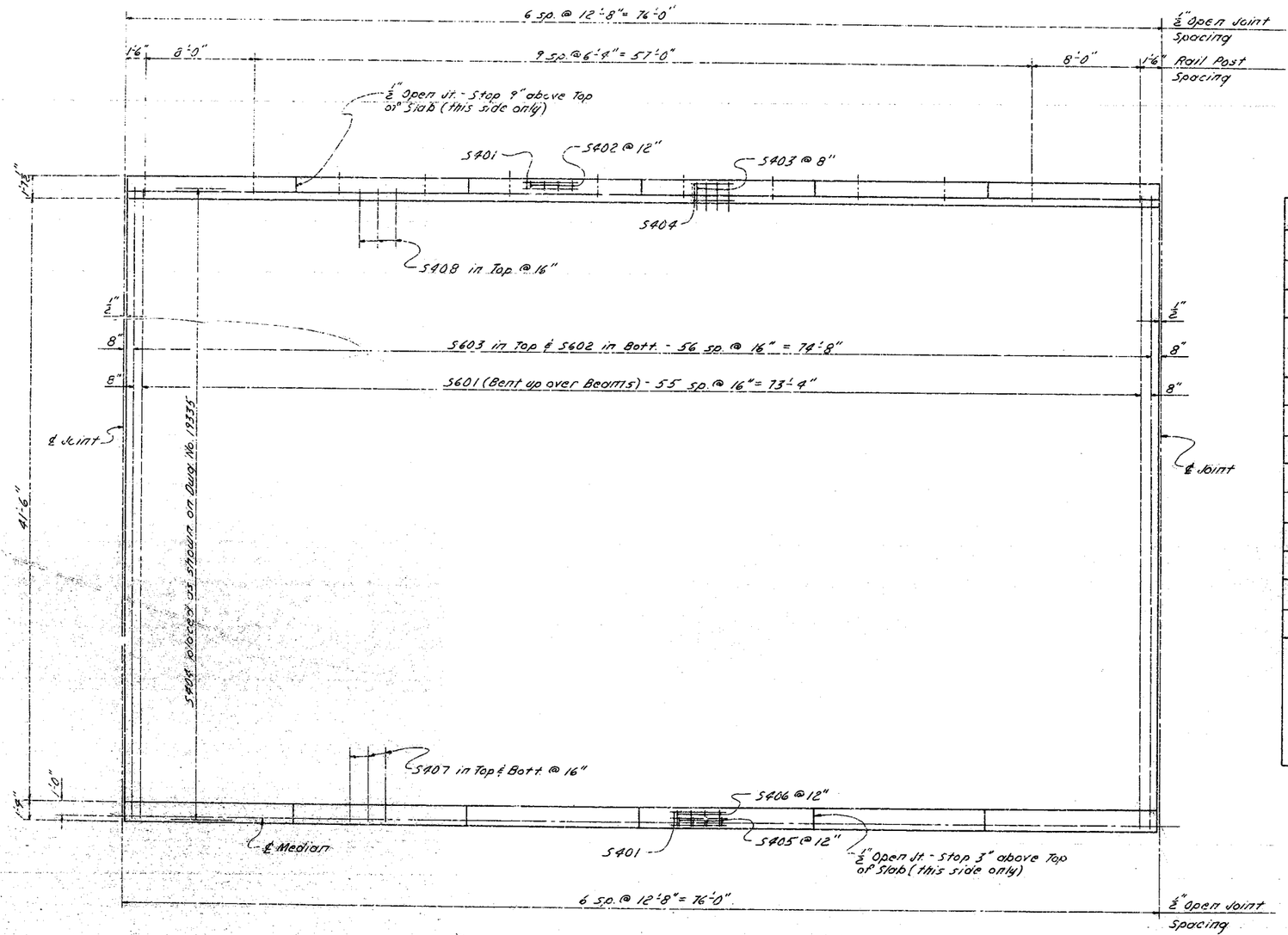
SHEET 2 OF 4
DETAILS OF 76'-0" COMPOSITE
W-BEAM SPAN
JENNY LIND ROAD
JENNY LIND RD.– HWY. 71 (GR. & STRS.)
SEBASTIAN COUNTY
INT. ROUTE 540 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: J.P.S. DATE: 3-7-75
CHECKED BY: D.P.W. DATE: 3-12-75
DESIGNED BY: J.L.K. DATE: Feb. 73
SCALE: 1"=1'-0" or as noted

Rural Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5629 A&B DRAWING NO. 19336

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	200	234
				① 5629A		SPAN DTL'S. 19337		

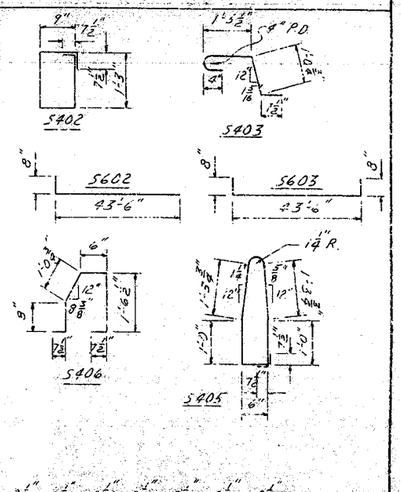


REINFORCING PLAN OF BR. NO. 5629A

BAR LIST FOR 76'-0" SPAN OF BR. NO. 5629A

MK.	No. Req'd	Length	Rm. Dia.
S401	60	12'-3"	Str.
S402	78	4'-10"	2"
S403	115	3'-5"	2"
S404	204	38'-8"	Str.
S405	78	6'-6"	2"
S406	78	4'-8"	2"
S407	114	3'-11"	Str.
S408	57	3'-11"	Str.
S601	56	45'-7"	3 3/4"
S602	57	44'-0"	3 3/4"
S603	57	44'-7"	3 3/4"

Bending Diagrams



INFORMATION ONLY

SHEET 3 OF 4
DETAILS OF 76'-0" COMPOSITE
W-BEAM SPAN
JENNY LIND ROAD
JENNY LIND RD. - HWY. 71 (GR. & STRS.)
SEBASTAIN COUNTY
INT. ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

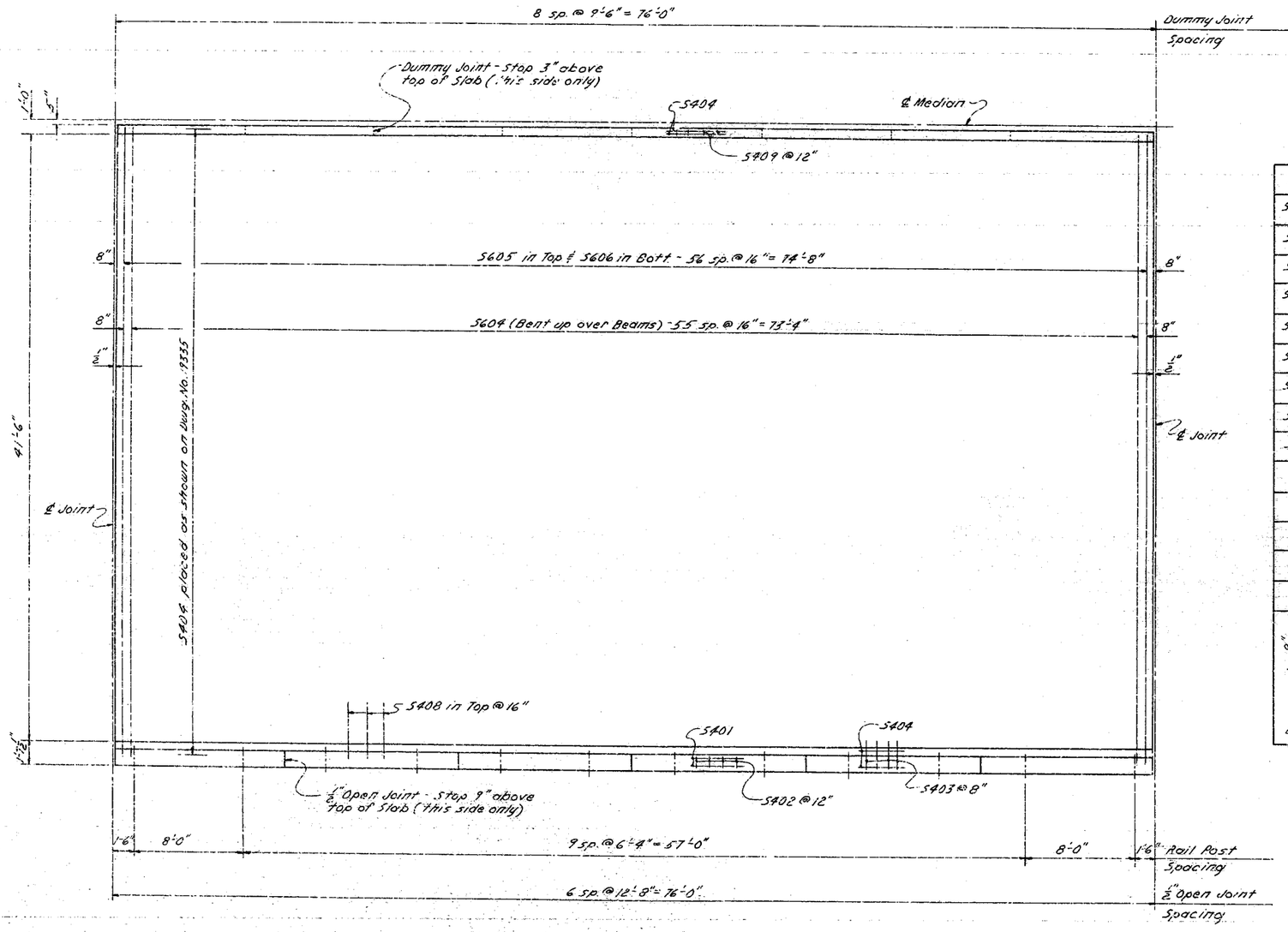
DRAWN BY: J.P.S. DATE: 3-10-75
CHECKED BY: J.K.W. DATE: 3-19-75 SCALE: 1/2" = 1'-0"
DESIGNED BY: JGK DATE: Feb. 75

Wesley Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5629A DRAWING NO. 19337

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	201	234

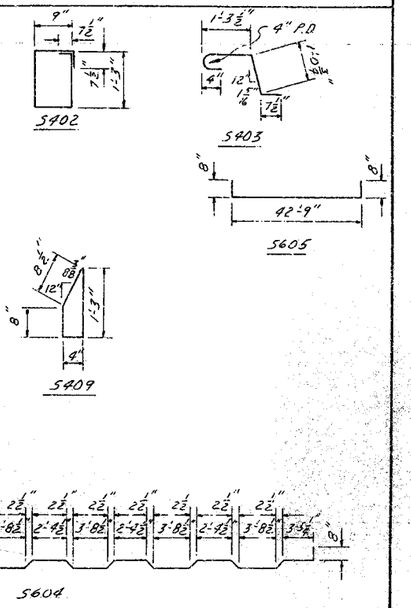
(1) 5629B SPAN DTL'S. 19338



REINFORCING PLAN OF BR. NO. 5629 B

BAR LIST FOR 76'-0" SPAN OF BR. NO. 5629B

MK.	No. Req'd.	Length	Pin Dia.	Bending Diagrams
5401	12	12'-3"	str.	
5402	78	4'-10"	2"	
5403	115	3'-5"	2"	
5404	204	38'-8"	str.	
5408	57	3'-11"	str.	
5409	80	2'-9"	2"	
5604	56	44'-10"	3 3/4"	
5605	57	43'-10"	3 3/4"	
5606	57	42'-9"	str.	



Dimensions are out to out of Bars.

INFORMATION ONLY

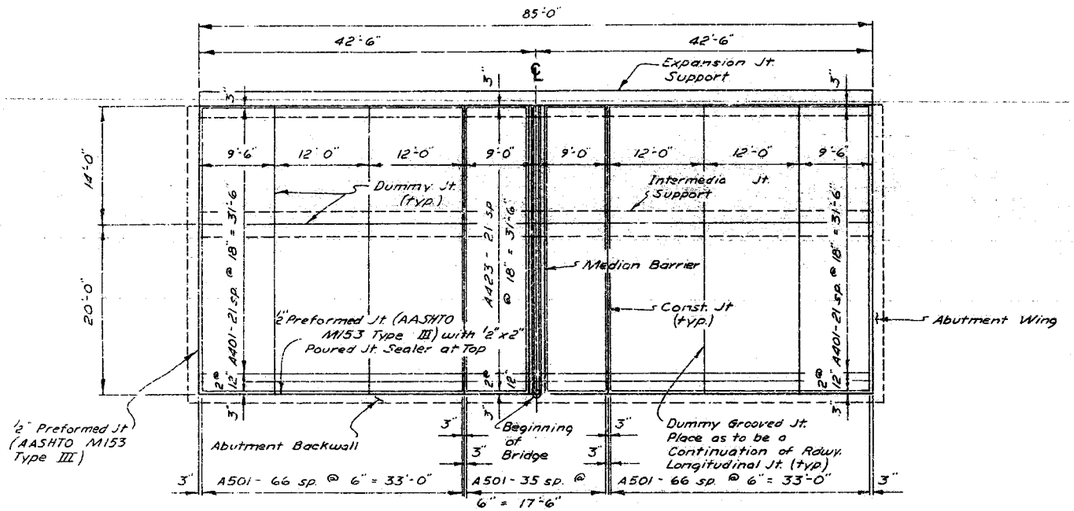
SHEET 4 OF 4
DETAILS OF 76'-0" COMPOSITE W-BEAM SPAN.
JENNY LIND ROAD
JENNY LIND RD. - HWY. 71 (GR. & STRS.)
SEBASTAIN COUNTY
INT ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: J.P.S. DATE: 3-11-75
CHECKED BY: L.F.W. DATE: 5-12-75
DESIGNED BY: [illegible] DATE: [illegible]
SCALE: 1"=1'-0"

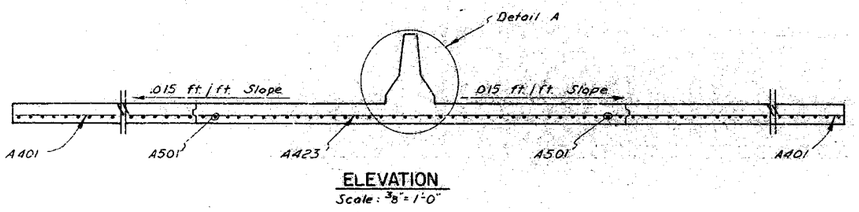
Forest Parkerton
BRIDGE ENGINEER

BRIDGE NO. 5629 B DRAWING NO. 19338



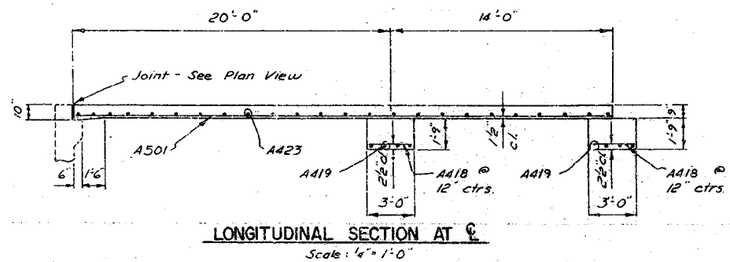
PLAN OF APPROACH SLAB AT ABUTMENT NO. 1

Scale: 1/8" = 1'-0"



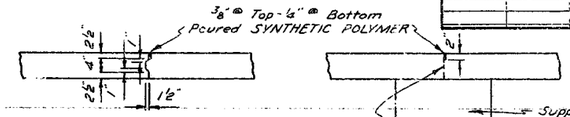
ELEVATION

Scale: 3/8" = 1'-0"



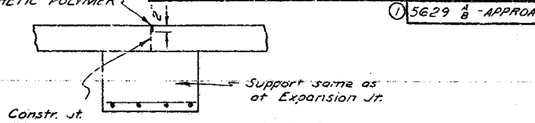
LONGITUDINAL SECTION AT ℄

Scale: 1/4" = 1'-0"



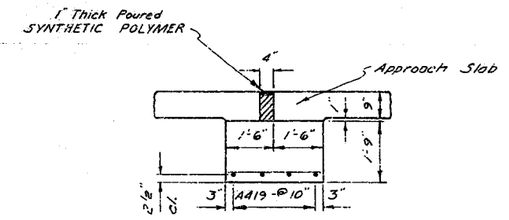
DETAILS OF LONGITUDINAL CONSTRUCTION JOINT

Scale: 1½" = 1'-0"



DETAILS OF DUMMY GROOVED JOINT

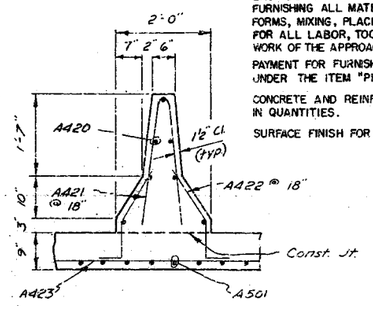
Scale: 1½" = 1'-0"



DETAILS OF SUPPORT AT EXPANSION JOINT

Scale: 1½" = 1'-0"

Note: Joint Material: Completey Fill Joint to within 1" of Pavement Surface with Hardwood Sawdust Saturated with an M.C. - 800 Asphalt, A.A.S.H.T.O. M-82-70. Ratio: 1 Part Asphalt to 3 Parts Sawdust.



DETAIL A

Scale: 3/4" = 1'-0"

APPROACH SLAB QUANTITIES

LOCATION	CLASS S CONCRETE	REINFORCING
BEG. OF BRIDGE A & B	117.72 Yds³	8393.89 Lbs.
End OF BRIDGE A & B	135.06 Yds³	10131.07 Lbs.

GENERAL NOTES

ALL CONCRETE TO BE CLASS A OR S OR PAVEMENT MIXTURE. EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE SHOWN.

REINFORCING STEEL TO BE DEFORMED BARS OF ASTM A615, GRADE 40.

APPROACH SLABS FOR STRUCTURES SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH BID FOR "APPROACH SLABS" WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, INCLUDING REINFORCING STEEL AND JOINT MATERIALS, FOR FORMS, MIXING, PLACING AND FINISHING CONCRETE, FOR EXCAVATION AND BACKFILL AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK OF THE APPROACH SLABS, DROP INLETS, AND SPILLWAY OUTLETS.

PAYMENT FOR FURNISHING AND INSTALLING CORRUGATED METAL PIPE SHALL BE MADE UNDER THE ITEM "PIPE CULVERTS AND STORM DRAINS", SECTION 606.

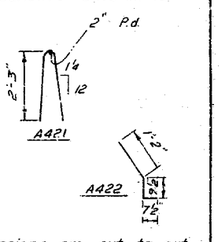
CONCRETE AND REINFORCING BARS FOR DROP INLET AND SPILLWAY OUTLET INCLUDED IN QUANTITIES.

SURFACE FINISH FOR APPROACH SLABS SHALL MATCH THAT USED ON THE BRIDGE DECK.

BAR LIST FOR APPROACH SLAB AT BEGINNING OF BRIDGE

MARK	NO. REQ'D	LENGTH	PIN. DIA.
A401	48	33'-2"	Str.
A418	170	2'-8"	Str.
A419	24	29'-4"	Str.
A420	7	33'-8"	Str.
A421	23	4'-7"	2"
A422	46	2'-6"	2"
A423	24	17'-8"	Str.
A501	170	33'-8"	Str.

BENDING DIAGRAMS



Dimensions are out to out of Bars.

INFORMATION ONLY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	202	234

(1) 5629 A & B - APPROACH SLABS - 19339

SHEET NO. 1 OF 2
DETAILS OF
APPROACH SLABS
JENNY LIND ROAD
JENNY LIND RD. - HWY. 71 (GR. 8 STRS.)
SEBASTIAN COUNTY

ROUTE I-540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

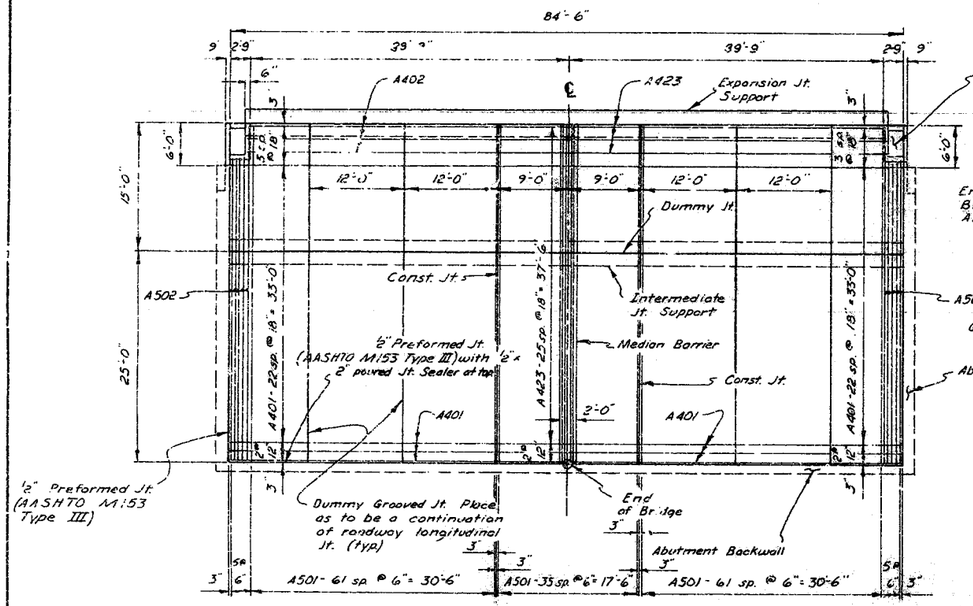
DRAWN BY: TEB DATE: 3-31-75
CHECKED BY: CES DATE: 4-28-75 SCALE: As Noted
DESIGNED BY: ARW DATE: 4-75

Neal Anderson
BRIDGE ENGINEER

BRIDGE NO. 5629 A B DRAWING NO. 19339

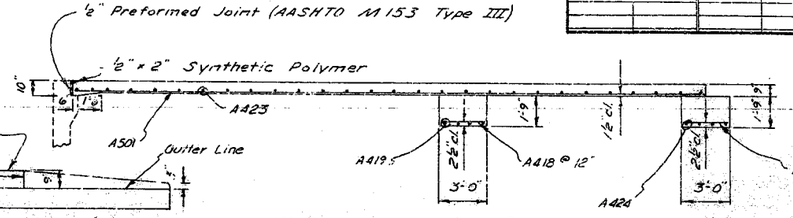
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0401	203	234

1 5629 A B - APP. SLABS - 19340



PLAN OF APPROACH SLAB AT ABUTMENT NO. 2

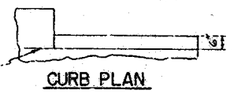
Scale: 1/8" = 1'-0"



CURB ELEVATION

LONGITUDINAL SECTION AT ℄

Scale: 1/4" = 1'-0"

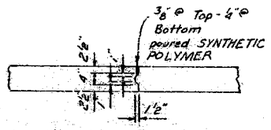


CURB PLAN

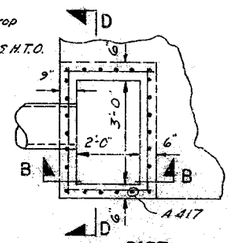
Use type IV grate and frame. Refer to Std. DWG. No. F.P.C-9. Payment will be subsidiary to "Bridge Approach Slab".

Note: Drop Inlet and Spillway outlet to be considered Subsidiary to "Bridge Approach Slab".

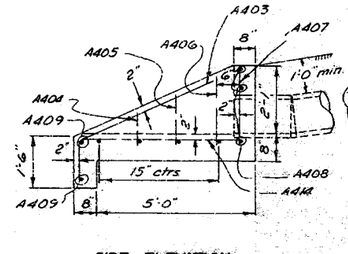
Note: Joint filler around drop inlet to be nonextruding preformed jt. filler A.A.S.H.T.O. designation, M-153 type III.



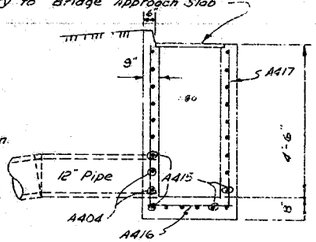
DETAILS OF LONGITUDINAL CONSTRUCTION JOINT



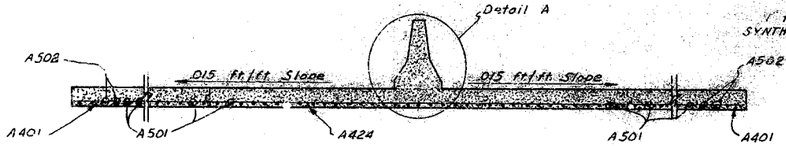
PART DROP INLET



SIDE ELEVATION SPILLWAY OUTLET

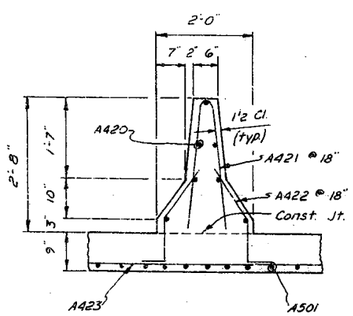


SECTION B-B



ELEVATION

Scale: 1/8" = 1'-0"



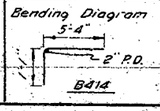
DETAIL A

Scale: 3/4" = 1'-0"

BAR LIST FOR ONE DROP INLET & SPILLWAY OUTLET

MARK	NO. REQ'D	LENGTH
A403	2	5'-9"
A404	6	7'-2"
A405	2	1'-8"
A406	2	2'-2"
A407	2	2'-5"
A408	3	2'-2"
A409	2	3'-8"
A410	1	3'-5"
A411	1	3'-1"
A412	1	2'-9"
A413	1	2'-5"
A414	3	6'-5"
A415	22	5'-8"
A416	26	2'-8"
A417	24	4'-10"

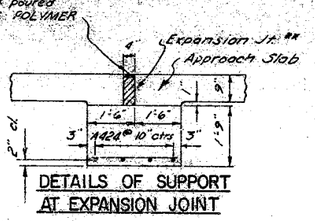
Bending Diagram



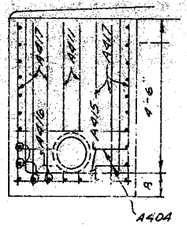
BAR LIST FOR APPROACH SLAB

MARK	NO. REQ'D	LENGTH
A401	58	33'-2"
A402	6	30'-11"
A501	160	39'-8"
A502	10	36'-2"
A418	166	2'-8"
A419	12	29'-4"
A420	7	39'-8"
* A421	27	4'-7"
* A422	54	2'-6"
A423	28	17'-8"
A424	12	28'-0"

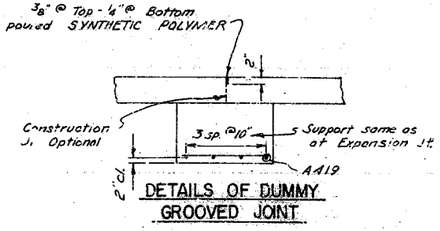
* For Bending Diagrams, See Dwg. No. 19329



DETAILS OF SUPPORT AT EXPANSION JOINT



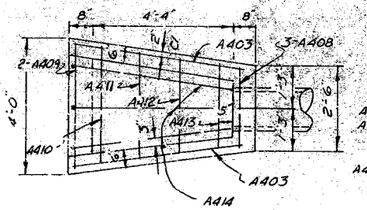
SECTION D-D



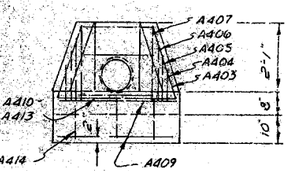
DETAILS OF DUMMY GROOVED JOINT

Omit support at Longitudinal dummy grooved joint.

** Note: Joint Material: Completely fill joint to within 1" of pavement surface with hardwood sawdust saturated with an M.C-800 asphalt, A.A.S.H.T.O. M-82-70. Ratio: 1 Part Asphalt to 3 Parts Sawdust.



PLAN SPILLWAY OUTLET



FRONT ELEVATION SPILLWAY OUTLET

INFORMATION ONLY

SHEET NO. 2 OF 2
DETAILS OF
APPROACH SLABS
JENNY LIND ROAD
JENNY LIND RD. - HWY. 71 (GR. & STRS.)
SEBASTIAN COUNTY

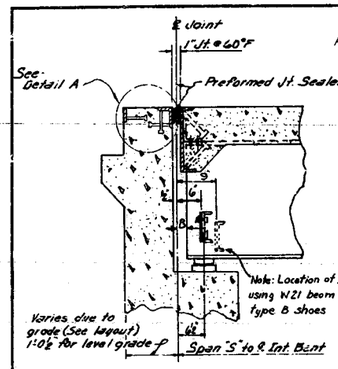
ROUTE I-540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

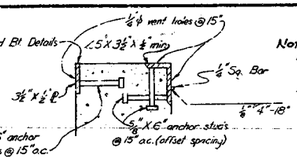
DRAWN BY: TEB DATE: 3-17-75
CHECKED BY: CES DATE: 4-28-75
DESIGNED BY: RFW DATE: 4-75
SCALE: 1/2" = 1'-0" or as Noted

Neal Pinkerton
BRIDGE ENGINEER

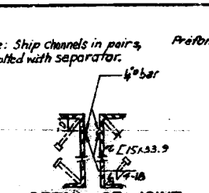
BRIDGE NO. 5629 A B - DRAWING NO. 19340



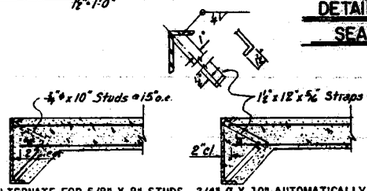
JOINT AT END BENT
3/4"=1'-0"



DETAIL "A" (TYPICAL)
1½"=1'-0"

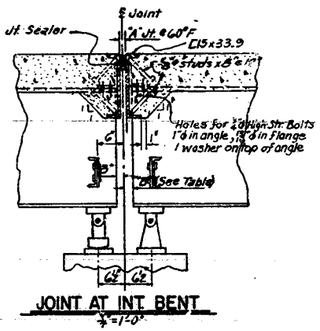


DETAIL OF JOINT SEAL SUPPORT
1½"=1'-0"

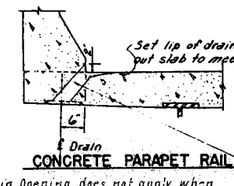


AS AN ALTERNATE FOR 5/8" X 8" STUDS, 3/4" Ø X 10" AUTOMATICALLY WELDED STUD ANCHORS, GRANULAR FLUX FILLED, SOLID FLUXED, OR EQUAL AT 15" CENTERS, MAY BE USED OR 1 1/2" X 12" X 5/16" STRAPS AT 15" CENTERS MAY BE USED. USE WEIGHT OF 5/8" STUDS AS BASIS OF MEASUREMENT OF STRUCTURAL STEEL IN ANCHORS.

DETAILS OF ALTERNATE ANCHORS
¾"=1'-0"



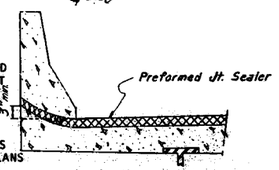
JOINT AT INT BENT
¾"=1'-0"



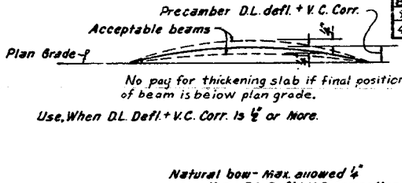
CONCRETE PARAPET RAIL

Note: Drain Opening does not apply when using open slots for Concrete Parapet Rail.

DRAIN OPENING 3" X 7" TAPERED TO 3 1/2" X 7 1/2". PLACE AT APPROXIMATE 10' CENTERS ON LOW SIDE OF SLOPED ROADWAY & EACH SIDE OF CROWNED ROADWAY. OMIT DRAINS ON GRADE SEPARATION STRUCTURES UNLESS CALLED FOR ON THE PLANS AND ON END SPANS OF STREAM CROSSINGS.

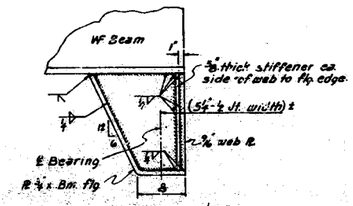


CONCRETE PARAPET RAIL SEAL PLACEMENT

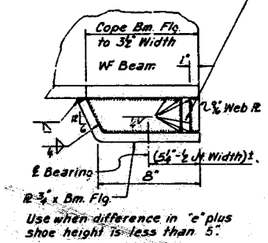


CAMBER DIAGRAMS
no scale

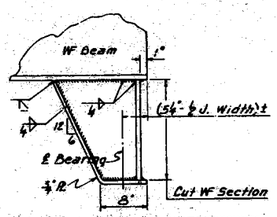
NOTE: BEAM BUILDUPS ARE REQUIRED WHERE MODIFIED SPANS ARE USED, OR ADJACENT REGULAR SPANS HAVE DIFFERENT "e" PLUS SHOE HEIGHT. (SEE ACCOMPANYING DRAWINGS.)



5/8" THICK STIFFENER EACH SIDE OF WEB TAPERED FROM EDGE OF COPED FLG. TO EDGE OF BOTTOM PLATE.

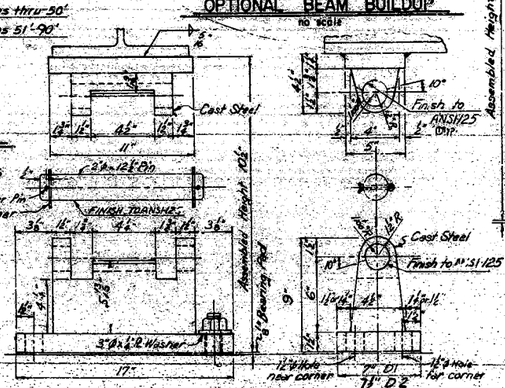


DETAILS OF BEAM BUILDUP
no scale

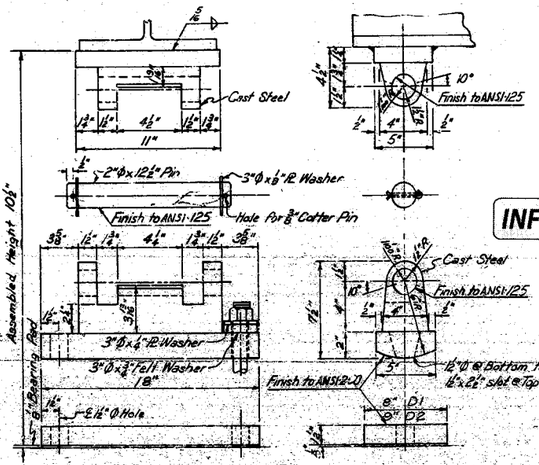


FLANGE WIDTH & THICKNESS & WEB THICKNESS TO BE EQUAL TO OR GREATER THAN WF BEAM DIMENSION.

OPTIONAL BEAM BUILDUP
no scale



TYPE "D" FIXED SHOE

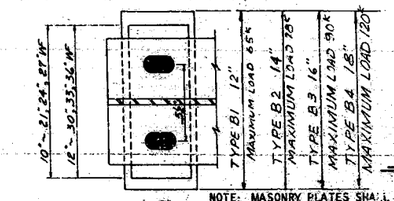


TYPE "D" EXPANSION SHOE

FIXED SHOE:
1 1/4" Ø HOLES IN MASONRY PLATE, SOLE PLATE, & BEAM FLANGE FOR SPANS THRU 50'
1 1/2" Ø HOLES FOR SPANS OVER 50'.

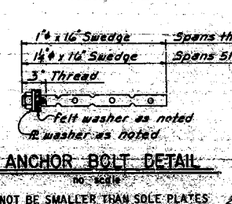
EXPANSION SHOE: (ALL SPANS THRU 50').
2 1/2" X 1 1/4" SLOTS IN SOLE PLATE & BEAM FLANGE WITH 1 1/4" Ø HOLES IN MASONRY PLATE.

① EXPANSION SHOE: (ALL SPANS OVER 50')
3"x1 1/2" SLOTS IN SOLE PLATE AND IN BEAM FLANGE WITH 1 1/2" Ø HOLES IN MASONRY PLATE.



TYPE "B" FIXED OR EXPANSION SHOE
3/4"=1'-0"

USE FOR END BENTS - ALL SPANS UNLESS OTHERWISE NOTED.
USE FOR INT. BENTS 35'-60' SPANS UNLESS OTHERWISE NOTED.



ANCHOR BOLT DETAIL
no scale

NOTE: MASONRY PLATES SHALL NOT BE SMALLER THAN SOLE PLATES

DATE REVISED	DATE PLANS	DATE REVISED	DATE PLANS	FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6-9-76	7-14-6-19-76	9-15-78	979-9-15-78	6	ARK.				
6-9-76	743-9-16-76	2-8-79	519-2-20-79						
9-24-76	880-12-17-76	2-15-80	500-2-20-80	JOB NO.		BB0401		204	294
4-15-77	569-4-15-77	12-9-80	979-12-17-80	①		SPAN STD. DETAILS			

GENERAL NOTES

ALL CONCRETE TO BE CLASS S OR S(AE) AS SHOWN ON THE LAYOUT. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

FIELD CONNECTIONS TO BE BOLTED WITH HIGH STRENGTH BOLTS.

BOLTS ¾" Ø, OPEN HOLES 13/16" Ø EXCEPT WHERE NOTED OTHERWISE.

STRUCTURAL SHAPES OF EQUAL OR GREATER STRENGTH MAY BE SUBSTITUTED FOR SHAPES SHOWN, BUT PAYMENT WILL BE MADE ON THE BASIS OF SHAPES SHOWN.

ALL WELDED CONNECTIONS TO BE 5/16" FILLET SHOP WELDS EXCEPT AS NOTED. ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, CURRENT EDITION. UNLESS OTHERWISE NOTED ON SPAN DETAIL DRAWINGS, ⑥ ALL STRUCTURAL STEEL EXCEPT SURFACES IN CONTACT WITH CONCRETE SHALL BE GIVEN ONE SHOP COAT AND TWO FIELD COATS IN ACCORDANCE WITH SECTION 807.59 OF THE SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

ALL METAL BEARING AND ROADWAY EXPANSION DEVICES TO BE PAID FOR AS "STRUCTURAL STEEL IN BEAM SPANS." BEARINGS SHALL BE FINALLY SEATED IN ACCORDANCE WITH SECTION 807.51 OF THE STANDARD SPECIFICATIONS. THIS WORK AND MATERIAL ARE TO BE CONSIDERED AS SUBSIDIARY TO THE ITEM "STRUCTURAL STEEL IN BEAM SPANS" AND WILL NOT BE PAID FOR DIRECTLY. ⑦

THIS DRAWING SHOWS GENERAL FEATURES OF DESIGN ONLY. SHOP DRAWINGS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS, SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

ALL STEEL SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED.

ANCHOR BOLTS SHALL BE GALVANIZED TO CONFORM TO ASTM SPECIFICATION, DESIGNATION A153.

REINFORCING STEEL TO BE ASTM A615 OR A617, GR. 60. THE REINFORCING STEEL IS TO BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE BY STEEL WIRE SUPPORTS, SUFFICIENT IN NUMBER AND SIZE TO PREVENT DISPLACEMENT DURING THE COURSE OF CONSTRUCTION. THE WIRE SUPPORTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM OF "REINFORCING STEEL."

SHOP LISTS AND BENDING DIAGRAMS OF REINFORCING STEEL, INCLUDING WIRE ① SUPPORTS, MAY BE SUBMITTED FOR APPROVAL BEFORE FABRICATION IS BEGUN.

CONCRETE SLABS FOR SPANS THROUGH 50 FEET IN LENGTH SHALL BE ⑪ POURED IN ONE CONTINUOUS OPERATION WITH A STRIKEOFF EXTENDING OVER THE WHOLE SPAN LENGTH. SPANS OVER 50 FEET IN LENGTH MAY BE POURED IN INCREMENTS WITH THE CENTER ONE-THIRD TO ONE-HALF SPAN LENGTH POURED FIRST. AFTER THE CENTER SECTION IS POURED, NOT LESS THAN 72 HOURS SHALL ELAPSE BEFORE POURING THE END SECTIONS. END SECTIONS MAY BE POURED SIMULTANEOUSLY. IF NOT POURED SIMULTANEOUSLY, 48 HOURS SHALL ELAPSE BETWEEN END SECTION POURS. A MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN COMPLETION OF THE SLAB AND THE POURING OF THE CURB SECTION OR PARAPET.

ON BRIDGE LAYOUT.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

ALL CASTINGS FOR SHOES SHALL BE ASTM A27 GRADE 70-40 OR 70-36

③ WELDED SHOES MAY BE USED IN PLACE OF THE TYPE "D" SHOES SHOWN. APPROVED DETAILS WILL BE FURNISHED ON REQUEST.

① HOLES FOR 3/4" BOLTS FOR CONNECTION OF EXPANSION DEVICES, DIAPHRAGMS AND END STRUTS MAY BE 15/16" IF A WASHER IS SUPPLIED FOR USE UNDER BOTH THE NUT AND THE HEAD OF THE BOLT.

EXPANSION JOINT DATA

② "A" (Joint Width Perpendicular to Jt. @ 60°F) ⑤	Seal Width	"B"	Jt. Seal "A" @ 60°
1"	1⅜" ④	1¼"	
1⅛"	1⅜"	1⅛" ±	
1⅜"	2½"	2⅛" ±	
1⅞"	3"	2¼" ±	
2¼"	3½"	2⅞" ±	
2⅝"	4"	2⅝" ±	
2⅞"	4½" ⑤	2¾" ±	
3½"	5"	2⅞" ±	
3¾"	6"	3⅛" ±	

④ 1¾" May be used ⑤ 5" May be used; ⑥ Installation limited to 40° min. & 80° Max.

THE DIMENSION "D" SHALL CONFORM TO THE RECOMMENDATIONS OF THE SEAL MANUFACTURER AS APPROVED BY THE BRIDGE ENGINEER. THE DEPTH OF THE SEAL SHALL BE APPROXIMATELY EQUAL TO THE UNCOMPRESSED WIDTH OF THE SEAL SEAL DOES NOT TOUCH 1/4" BAR AT NORMAL TEMPERATURE, FOR SIZE OF JOINT TO BE USED, SEE BRIDGE LAYOUT.

INFORMATION ONLY

Ⓐ Revised painting note 2-15-80 MC
Ⓑ Revised Detail "A", General Notes, and Type A&B Railing, deleted 12-9-80 JDE
TYPE D1 EXPANSION OR FIXED SHOE MAXIMUM LOAD 100K
TYPE D2 EXPANSION OR FIXED SHOE MAXIMUM LOAD 120K

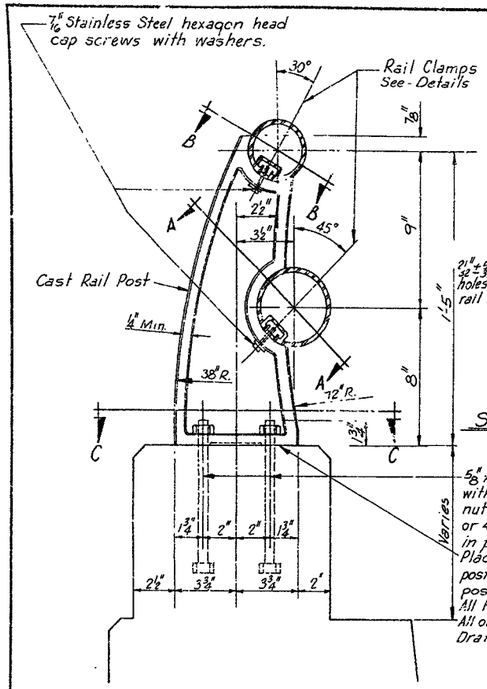
① 6-9-76 Revised general notes, shoe finish callout, added shoe note, and misc.
② Revised Exp. Jt. Data Table by J.P.S. 9-24-76
⑤ Revised Exp. Jt. Data Table by LM 4-15-77
⑥ Revised for 1978 Specs. 9-15-78 KDH
7. Added 4 bar note 2-8-79 K.D.H.

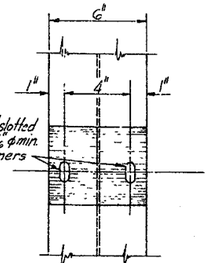
DETAILS COMMON TO STANDARD 35'-90'
COMPOSITE W-BEAM SPANS
ALL ROADWAYS
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

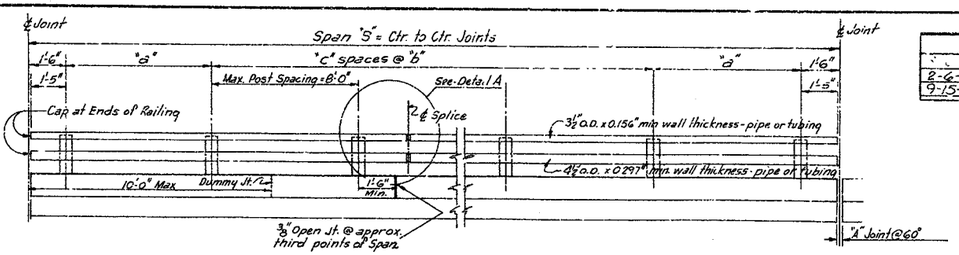
DRAWN BY: R.W.M. DATE: 10-2-70
REVISED BY: F.M.H. DATE: 5-9-72
CHECKED BY: F.M.H. DATE: 10-2-70
SCALE: as noted

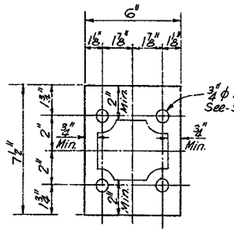
BRIDGE NO.
DRAWING NO. 14990F

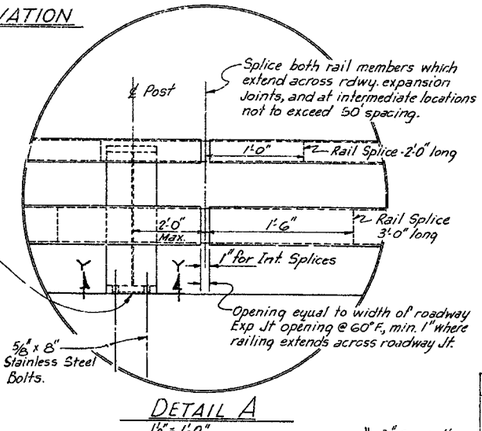
ORIGINAL LINE

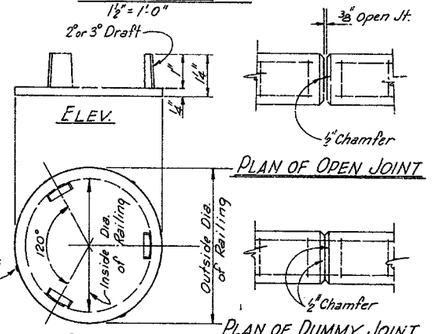


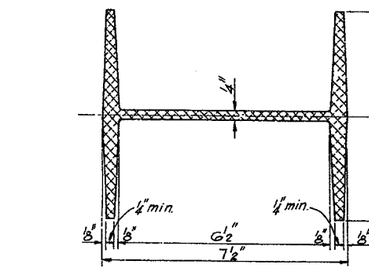












~~734~~

300

		DATE	DATE
[illegible]	[illegible]	7-15-88	—
2-6-70	597-2-6-70	1-16-89	502-1-16-89
9-15-78	324-1-10-84	11-2-90	11-5-90

FED. ROAD NO.	STATE	FED AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			205	234
JOB NO.		BB0401			

① STD. RAIL TY. A 14932A

SIDE ELEVATION OF POST

3" = 1'-0"

SECTION A-A THRU RAIL POST
SECTION B-B SIMILAR

3" = 1'-0"

5/8" x 0'-8" stainless steel anchor bolts with stainless steel heavy hexagonal nut and washer with hot formed head or 4" additional bend anchor. Cast in place only.

Place shims between bearing pad and post where necessary to align railing posts.

All Fillets to have ¼" R. unless otherwise shown.

All outside corners to be ⅛" Radius

Draft 3° unless otherwise shown

SIDE ELEVATION

⅜" = 1'-0"

SECTION Y-Y

3" = 1'-0"

Preformed fabric or reinforced neoprene bearing pads shall be placed under each post. Bearing Pads to be 5" x 7½" x ⅛" thick with 4-1" ϕ holes. Preformed fabric pads shall conform to Section 807.05(h)(1) of the Standard Specifications.

Reinforced Neoprene Pads shall conform to Section 807.05(h)(2) of the Standard Specifications.

DETAIL A

1½" = 1'-0"

NOTE:

Boiled Linseed Oil shall be applied to the roadway surface, the face & top of Curbs & the face & top of Curb Risers before placing metal rail. See-Section 803 of the Standard Specifications.

SECTION C-C OF RAIL POST

HALF SIZE

CROSS SECTION OF LOWER RAIL

HALF SIZE

CROSS SECTION OF UPPER RAIL

HALF SIZE

PLAN OF OPEN JOINT

PLAN OF DUMMY JOINT

RAIL END CAP DETAILS

HALF SIZE

Note:
Set cap screw snug only to permit thermal expansion and contraction.

CROSS SECTION OF LOWER RAIL
SPLICE MEMBER & CLAMP BAR

HALF SIZE

Note:
For details not shown, see details for Lower Rail Splice.

CROSS SECTION OF UPPER RAIL
SPLICE MEMBER & CLAMP BAR

HALF SIZE

RAIL POST CLAMP BAR

FULL SIZE

SPLICE CLAMP BAR

FULL SIZE

ALTERNATE SPLICE INSTALLATION

1½" = 1'-0"

REVISIONS

1. Revised 9-15-78 for 1978 Specs. K.D.H.
2. Revised 7-15-88 for 1988 Specs.
3. Revised Pay Item & Specs. Notes. 1-16-89 MEC
④ Rev. General Notes. 11-2-90 H.May.

GENERAL NOTES

Metal railing including posts and fasteners shall be paid for at the unit price bid for Metal Bridge Railing (Type A). This railing system is for installation on parapet walls only. For details of parapet walls, see span drawings. Parapet walls will be paid for at unit prices bid for concrete and reinforcing steel.

Railing components may be either aluminum or steel. Stainless steel fasteners may be used on either aluminum or steel systems. Other than the exceptions noted herein and in the Material Data, no mixing of aluminum and steel parts is permitted. For lists of material designations & specifications of various parts, see Material Data.

Uniform section steel or aluminum tubing or pipe of equivalent strength and wall thickness with approved fasteners may be submitted for approval. Toggle bolt fasteners 7/16" dia. with 5/16" toggle pin may be used to attach uniform sections to posts.

Rail tubes, pipes or extrusions must be fabricated to attach to at least three posts. Shop drawings of railing shall be submitted and approval secured before fabrication is begun.

Steel rail members shall be galvanized in accordance with ASTM A123 after fabrication. Steel fasterners other than stainless steel shall be galvanized according to ASTM 153, or B695 Class 40 or 50.
SPECIFICATIONS: Arkansas State Highway And Transportation Department Standard Specifications for Highway Construction, Edition ④ of 1991, with applicable Special Provisions and Supplemental Specifications.

MATERIAL DATA

PART	ALUMINUM		STEEL	
	Alloy	Specification	Grade	Specification
TUBING	6061-T6	ASTM B221		ASTM A36 ASTM A501
PIPE	6061-T6	ASTM B241		ASTM A36 A501
			B	ASTM A53 & A500
EXTRUSIONS	6061-T6	ASTM B221	—	—
RAILING END CAPS	356-F	ASTM B26	70-40	ASTM A27
	356-F	ASTM B108	—	ASTM A36
CAST RAIL POSTS	A444-T4	ASTM B108	70-40	ASTM A27
ANCHOR BOLTS & RAIL CLAMP SCREWS	Same as for Steel Railing		B8 ‡	ASTM A193
			—	
			B8 ‡	ASTM A320
WASHERS	Same as for Steel Railing			ASTM A276(302)
				ASTM A167(302)
* NUTS	Same as for Steel Railing		8	ASTM A194
			—	
TOGGLE BOLT ASSEMBLY	The entire assembly shall be capable of withstanding a tensile load of 9000 pounds applied through a 1" hole. The materials for components will be specified by recognized ASTM designations on shop drawings submitted for approval, and will be accepted by manufacturer's certification on approval by the engineer.			

* Threads on bolts, screws and nuts shall conform to American Standard coarse Series, Class 2A for screws, Class 2B for nuts, Fit ASA B1.1.

‡ Minimum yield strength - 80,000 psi

INFORMATION ONLY

DETAILS OF METAL BRIDGE RAILING
TYPE A

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: J.S. DATE: 2-3-68
TRACED BY: DATE:
CHECKED BY: J.E.M. DATE: 3-3-68
SCALE: As Noted

L. J. Carlson
BRIDGE ENGINEER

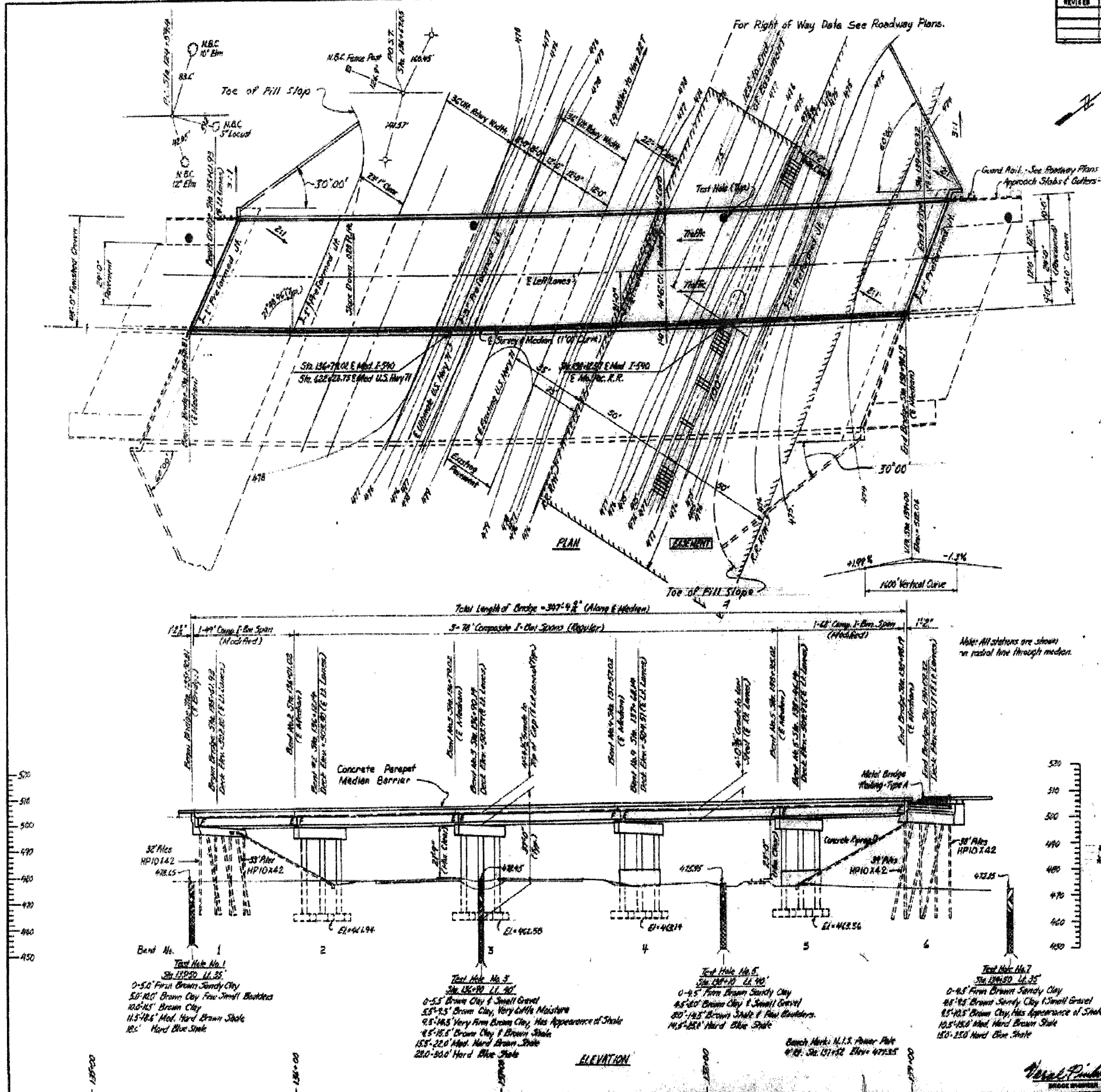
BRIDGE NO.
DRAWING NO. 14992A

131

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIV. NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	I-495-1(6)		206	234
				JOB NO.		4595		~~25~~	~~125~~

① 5102A Layout (Left Lanes) 16295

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401		
Layout		



CURVE DATA

P.I. Sta. 144+96.7
Δ = 39°14' Lt.
D = 1°00'
T = 2042.3
L = 3412.5'

GENERAL NOTES

ALL CONCRETE TO BE POURED IN THE DRY. EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

ROCK EXCAVATIONS SHALL BE MADE TO NEAT LINES OF CONCRETE FOOTINGS. CARE SHALL BE EXERCISED TO AVOID SHATTERING OF ROCK FACES BY EXCESSIVE BLASTING. CONCRETE IN FOOTINGS SHALL BE POURED DIRECTLY AGAINST EXCAVATED SURFACES OF ROCK.

IN GENERAL, ALL CONSTRUCTION JOINTS IN BENTS SHALL BE HORIZONTAL AND SHALL BE PROVIDED WITH KEYS NOT LESS THAN 1 1/2" HIGH COVERING THE MIDDLE THIRD OF BOTH DIMENSIONS.

ALL PILING SHALL BE HP10x42 AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM CAPACITY OF 55 TONS PER PILE AND INTO THE MATERIAL DESIGNATED AS SHALE ON THE BORINGS. ORDER LENGTHS SHOWN; CUT-OFF OR BUILD-UP, IF NECESSARY, TO BE PAID FOR IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PILES IN END BENTS TO BE DRIVEN AFTER EMBANKMENT IS IN PLACE.

FOR DETAILS OF END BENTS SEE DWG. NO. 16297 and 16298
FOR DETAILS OF INTERMEDIATE BENTS SEE DWG. NO. 16299 Thru 16302
FOR DETAILS OF SUPERSTRUCTURE SEE DWG. NO. 14990F, 16303 Thru 16310
FOR DETAILS OF CONCRETE RIPRAP SEE DWG. NO. 19341
FOR DETAILS OF BRIDGE RAILING SEE DWG. NO. 14992A
FOR DETAILS OF APPROACH SLABS AND GUTTERS SEE DWG. NO. 19329 & 19328A

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972, AND DESIGNATED SPECIAL PROVISIONS

DESIGN SPECIFICATIONS: AASHO. 1969
DESIGN LIVE LOAD: HS20 AND SPECIAL INTERSTATE LOADING OF TWO 24,000 LB. AXLES SPACED 4'-0" ON CENTERS.

UNIT STRESSES:	SUBSTR.	SUPERSTR.
* CLASS S OR S(AE) CONC. (N=10)	1,200 PSI	1400 PSI
** REINFORCING STEEL	20,000 PSI	24,000 PSI
STRUCTURAL STEEL (A36)	20,000 PSI	20,000 PSI

FOUNDATION PRESSURE - (CALCULATED) = 12.8 k.s.f. (GROUP III)

Note: For Location Sketch see Exhibit "A" (Sheet 2)

Revised - Clear Roadway & Conc. Riprap by J.P.S., Date: 1-27-75

* Use 3000 psi min. compressive strength conc. in Substructure
* Use 3500 psi min. compressive strength conc. in Superstructure
** Use ASTM A615 Grade 40 in Substructure
** Use ASTM A615 Grade 60 in Superstructure

INFORMATION ONLY

EXHIBIT "A" (Sheet 1 of 2)
(LEFT LANES)
LAYOUT OF HWY 71 INTERCHANGE
JENNY LIND RD. - HWY. 71 (GR. & STRS.)
SEBASTIAN COUNTY

INT. ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY T.I.L. DATE 7-23-69
TRACED BY ______ DATE ______
CHECKED BY D.V. DATE 2-24-70
SCALE 1" = 20'

BRIDGE ENGINEER

BRIDGE NO. 5102A   DRAWING NO. 16295

DATE RECEIVED	DATE FILMED	DATE REVISED	DATE FILMED

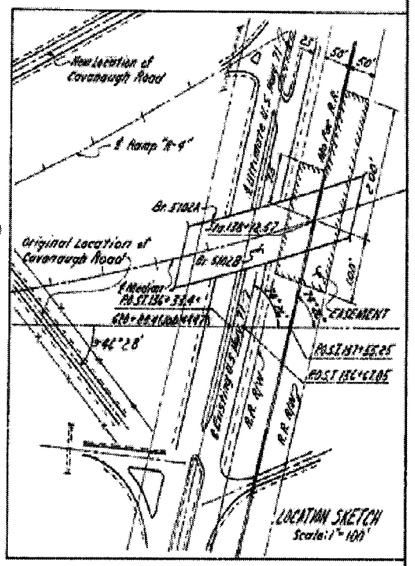
FED. ROAD NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	0-999 -1(6)		207	234
JOB NO.		4595		208	126

Ⓓ 5102 B Layout (Right Lane) 16296

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401		
Layout		

For Right of Way Data See Roadway Plans.

CURVE DATA
P.I. Sta 199+96.7
Δ = 39°19' Lt.
D = 1°00'
T = 2043.3
L = 3928.5'



Note: All Stations are on radial lines through ℄ Median.

For General Notes & Specifications - See Dwg No. 16295

Foundation Pressure (Calculated) 12.8 kg.s.f. (GROUP III)

Revised - Clear Roadway & Conc. Riprap ; by U.P.S. Date 1-27-75

INFORMATION ONLY

EXHIBIT "A" (Sheet 2 of 2)
(RIGHT LANES)
LAYOUT OF HWY. 71 INTERCHANGE
JENNY LIND RD. - HWY. 71 (GR. & STRS.)
SEBASTIAN COUNTY

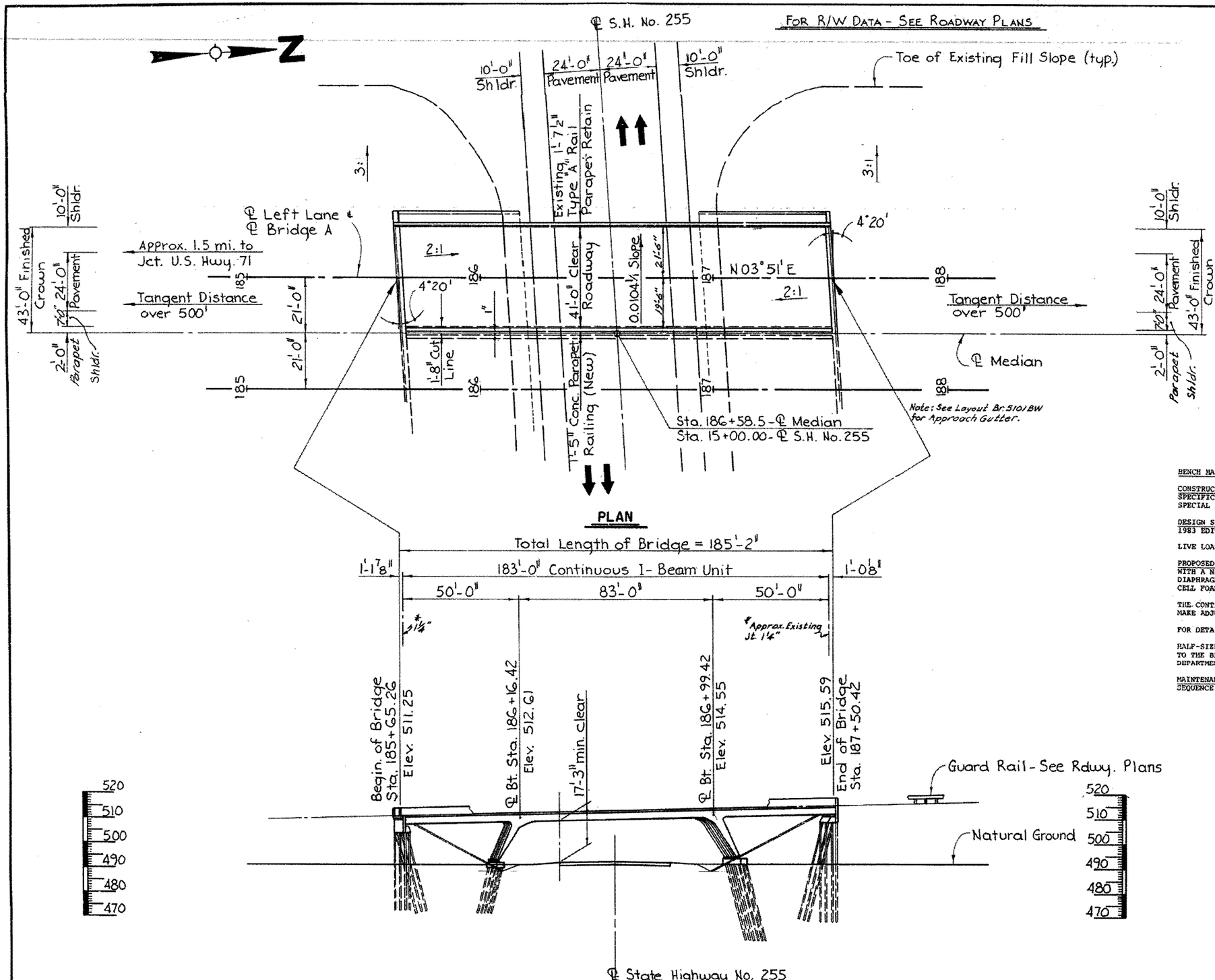
INT. ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DESIGNED BY T.H.L. DATE 7-25-74
TRACED BY DATE SCALE 1"=20'
CHECKED BY D.V. DATE 8-26-74

BRIDGE NO. 5102 B DRAWING NO. 16296

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	208	234



GENERAL NOTES

BENCH MARK: USE EXISTING BRIDGE ELEVATIONS.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 EDITION.

LIVE LOADING: HS 20 AND SPECIAL INTERSTATE.

PROPOSED WORK CONSISTS OF: REPLACING THE EXISTING MEDIAN RAIL AND PARAPET WITH A NEW JERSEY PARAPET. RETAINING AND PAINTING THE EXISTING BEAMS AND DIAPHRAGMS, AND MODIFYING THE EXISTING PREFORMED JOINTS FOR "CLOSED CELL FOAM JOINT."

THE CONTRACTOR SHALL MAKE CHECK MEASUREMENTS OF THE EXISTING BRIDGE AND MAKE ADJUSTMENTS NECESSARY TO FIT THE NEW WORK TO THE EXISTING STRUCTURE.

FOR DETAILS OF SUPERSTRUCTURE, SEE DWG. NO. 28184

HALF-SIZE DETAIL SHEETS OF THE EXISTING BRIDGE MAY BE OBTAINED UPON REQUEST TO THE BRIDGE DIVISION OF THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT. DRAWINGS NO. 15600 - 15693

MAINTENANCE OF TRAFFIC: SEE JOB SPECIAL PROVISION AND STAGE CONSTRUCTION SEQUENCE IN ROADWAY PLANS.

INFORMATION ONLY

BRIDGE A

LAYOUT OF OVERPASS
OVER HWY. 255
(PAVEMENT RESTORATION AND SAFETY IMPROVEMENTS)
(FORT SMITH)
SEBASTIAN COUNTY
ROUTE 540 SEC. 1

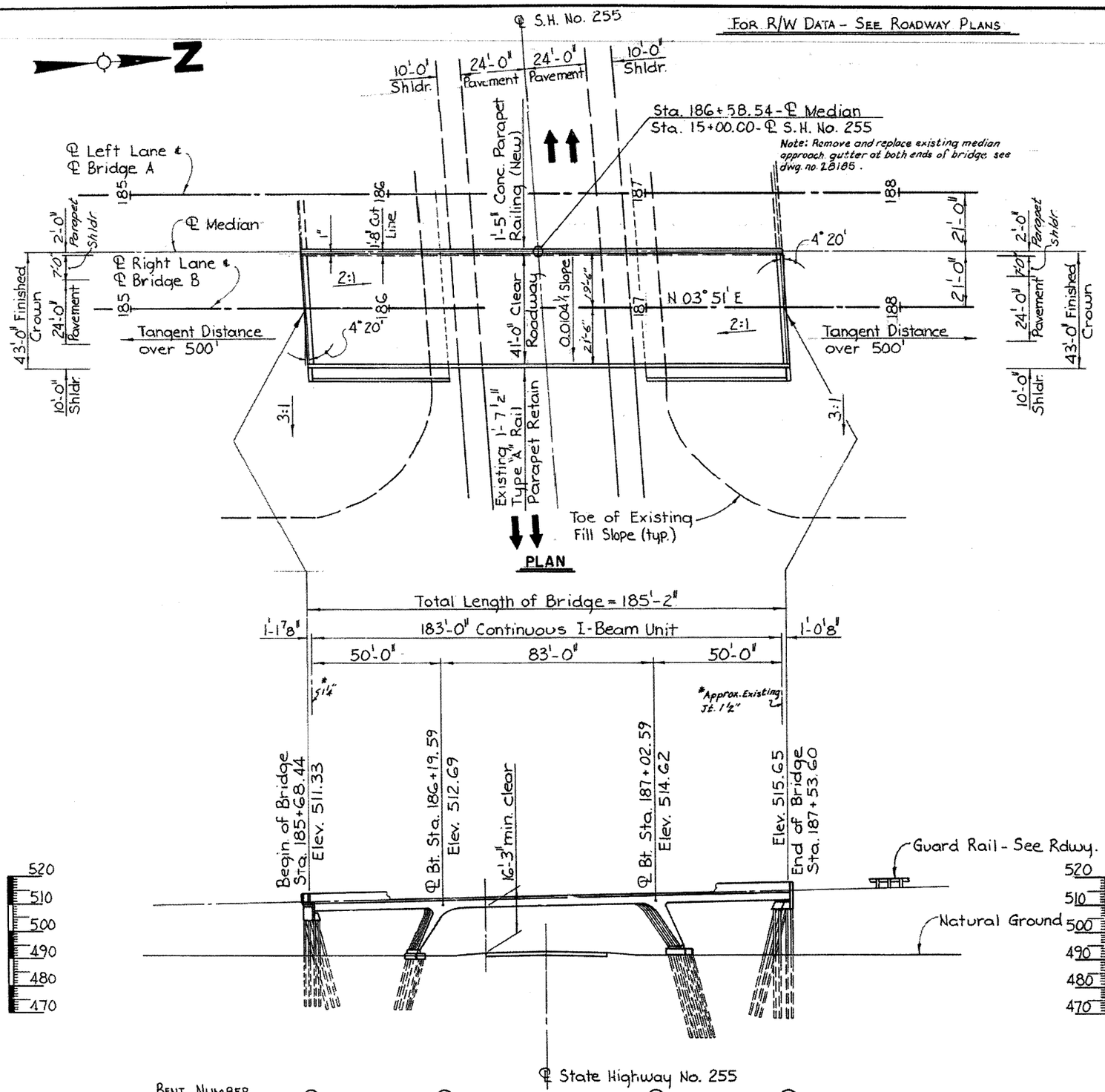
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TEB DATE: 11 JUN. 85
CHECKED BY: DV DATE: 6-25-85 SCALE: 1" = 20'-0"
DESIGNED BY: DVL DATE: 6-85

Fred Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5101AW DRAWING NO. 28182

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	209	234



GENERAL NOTES

BENCH MARK: USE EXISTING BRIDGE ELEVATIONS.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 EDITION.

LIVE LOADING: HS 20 AND SPECIAL INTERSTATE.

PROPOSED WORK CONSISTS OF: REPLACING THE EXISTING MEDIAN RAIL AND PARAPET WITH A NEW JERSEY PARAPET. RETAINING AND PAINTING THE EXISTING BEAMS AND DIAPHRAGMS, AND MODIFYING THE EXISTING PREFORMED JOINTS FOR "CLOSED CELL FOAM JOINT."

THE CONTRACTOR SHALL MAKE CHECK MEASUREMENTS OF THE EXISTING BRIDGE AND MAKE ADJUSTMENTS NECESSARY TO FIT THE NEW WORK TO THE EXISTING STRUCTURE.

FOR DETAILS OF SUPERSTRUCTURE, SEE DWG. NO. 28184

HALF-SIZE DETAIL SHEETS OF THE EXISTING BRIDGE MAY BE OBTAINED UPON REQUEST TO THE BRIDGE DIVISION OF THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT. DRAWINGS NO. 15689 - 15693.

MAINTENANCE OF TRAFFIC: SEE JOB SPECIAL PROVISION AND STAGE CONSTRUCTION SEQUENCE IN ROADWAY PLANS.

INFORMATION ONLY

BRIDGE B

LAYOUT OF OVERPASS OVER HWY. 255 (PAVEMENT RESTORATION AND SAFETY IMPROVEMENTS) (FORT SMITH) SEBASTIAN COUNTY

ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

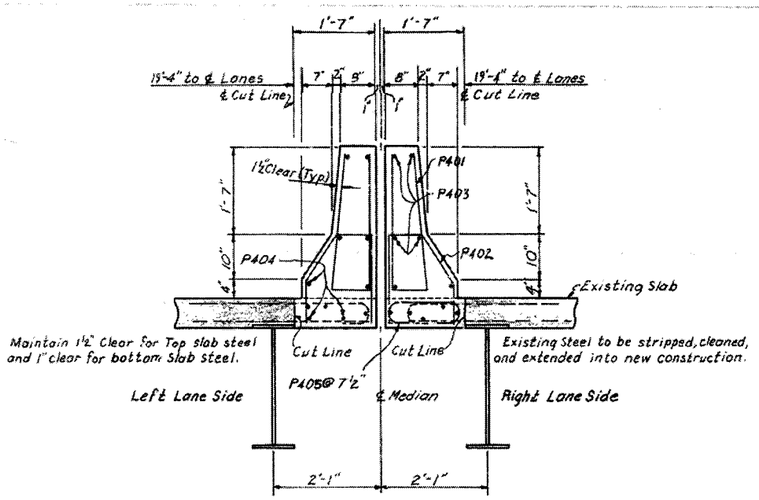
LITTLE ROCK, ARK.

DRAWN BY: TEB DATE: 11 JUN 85
CHECKED BY: DV DATE: 6-25-85 SCALE: 1" = 20'-0"
DESIGNED BY: DATE:

Fred Pinkerton
BRIDGE ENGINEER

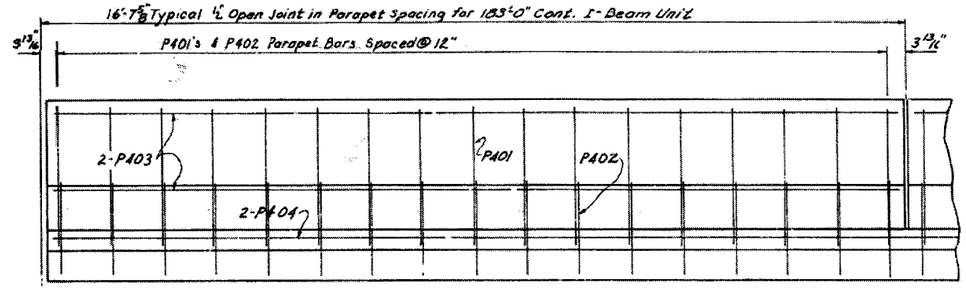
BRIDGE NO. 5101BW DRAWING NO. 28183

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	210	234



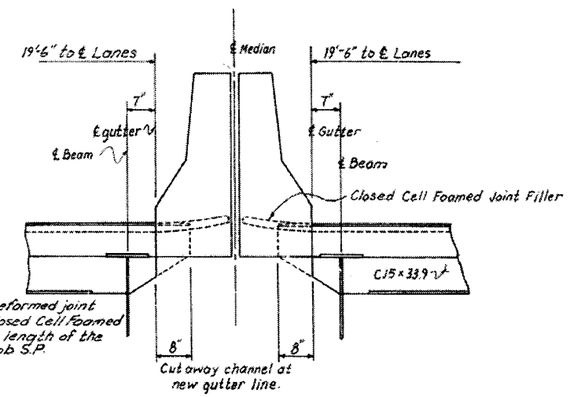
TYPICAL PARAPET SECTION

¾" = 1'-0"



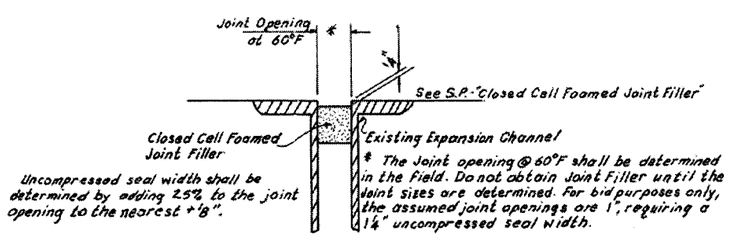
LONGITUDINAL SECTION OF PARAPET FOR 183' CONT I-BEAM UNIT

¾" = 1'-0"



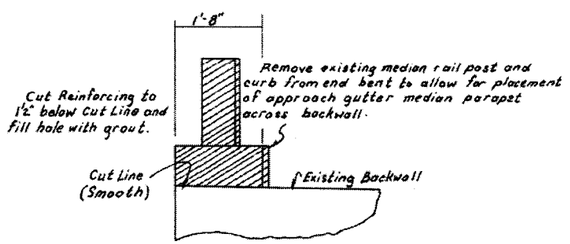
PARAPET SECTION AT EXPANSION DEVICE

¾" = 1'-0"



CLOSED CELL FOAMED JOINT FILLER PLACEMENT

3" = 1'-0"



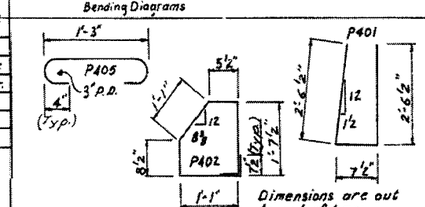
END BENT MEDIAN POST REMOVAL

BAR LIST - ONE SIDE

Bridge 5101 AW

Mark	No. Req'd	Length	Pin Dia.
P401	187	5'-6"	2"
P402	187	5'-10"	2"
P403	44	16'-3"	Str.
P404	35	37'-3"	Str.

Bending Diagrams



Dimensions are out to out of bars.

Bridge 5101 BW

Mark	No. Req'd	Length	Pin Dia.
P401	187	5'-6"	2"
P402	187	5'-10"	2"
P403	44	16'-3"	Str.
P404	35	37'-3"	Str.
P405	293	2'-3"	3"

General Notes:
All concrete shall be Class S(AE), f'c = 3500 p.s.i..
Reinforcing Steel Shall conform to ASTM A615 or A617 (Grade 60).
Boiled linseed oil shall be applied to the roadway face and top of parapet and top of new slab.

INFORMATION ONLY

REMODELING
DETAILS OF MEDIAN PARAPET
HWY. 255 OVERPASS
SEBASTIAN COUNTY
ROUTE I-540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

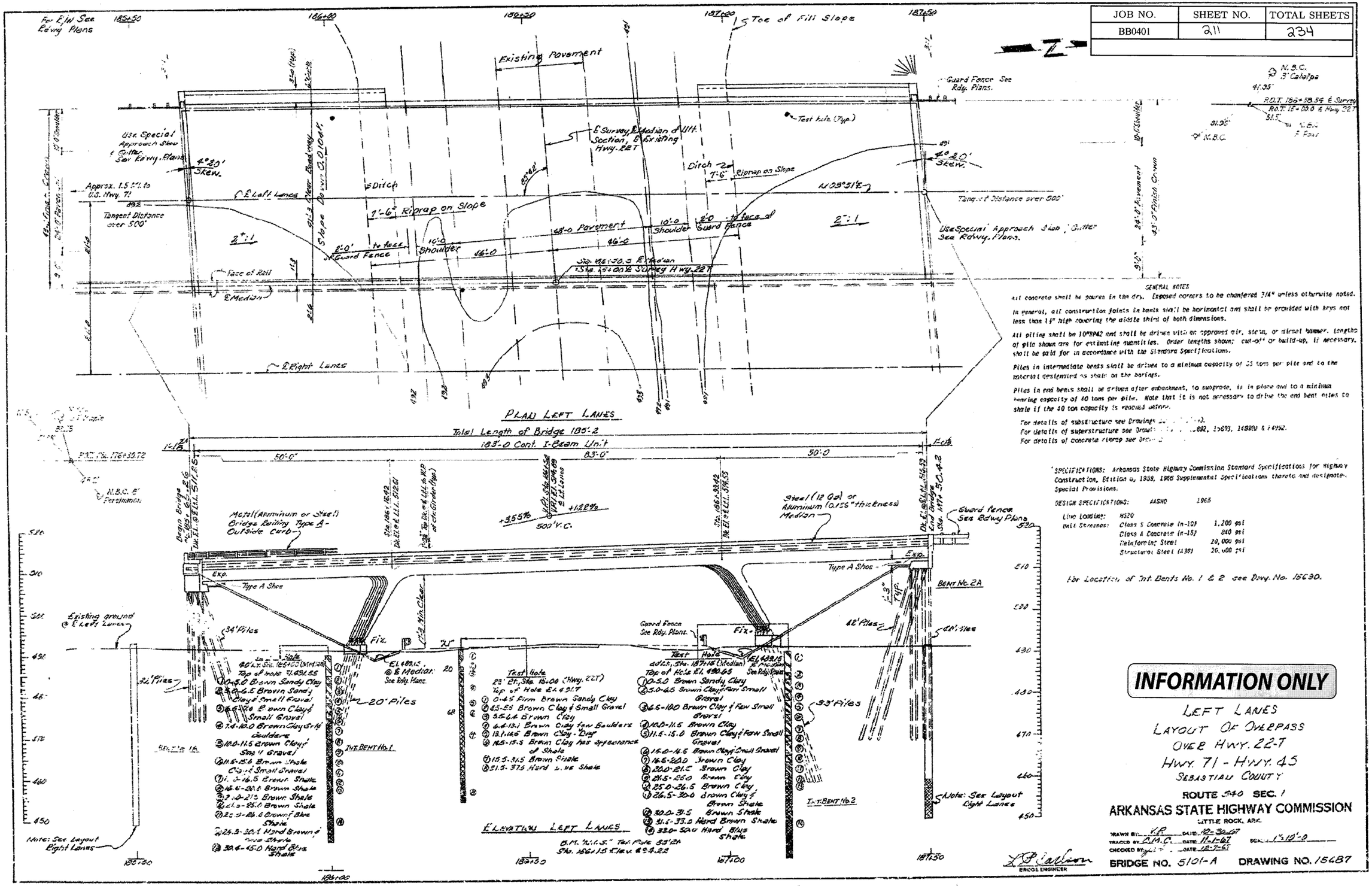
DRAWN BY: BVL DATE: 11-13-85
CHECKED BY: CN DATE: 12-17-85
DESIGNED BY: BVL DATE: 11-13-85
SCALE: As Shown

Truel Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5101 AW
5101 BW

DRAWING NO. 28184

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	211	234



GENERAL NOTES

All concrete shall be poured in the dry. Exposed corners to be chamfered 3/4" unless otherwise noted.

In general, all construction joints in bents shall be horizontal and shall be provided with keys not less than 1½" high covering the middle third of both dimensions.

All piling shall be 10"BP42 and shall be driven with an approved air, steam, or diesel hammer. Lengths of pile shown are for estimating quantities. Order lengths shown; cut-off or build-up, if necessary, shall be paid for in accordance with the Standard Specifications.

Piles in intermediate bents shall be driven to a minimum capacity of 25 tons per pile and to the material designated as shale on the borings.

Piles in end bents shall be driven after embankment, to subgrade, is in place and to a minimum bearing capacity of 40 tons per pile. Note that it is not necessary to drive the end bent piles to shale if the 40 ton capacity is reached before.

For details of substructure see Drawings [illegible].
For details of superstructure see Drawi[illegible]692, 15693, 145900 & 14992.
For details of concrete riprap see Dra[illegible]

*SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, 1966 Supplemental Specifications thereto and designated Special Provisions.

DESIGN SPECIFICATIONS: AASHO 1965

Live Loading: H520

Unit Stresses:

Class S Concrete (n=10)	1,200 psi	
Class A Concrete (n=15)	840 psi	
Reinforcing Steel	20,000 psi	
Structural Steel (A36)	20,000 psi	

For Location of Int. Bents No. 1 & 2 see Dwy. No. 15690.

INFORMATION ONLY

LEFT LANES
LAYOUT OF OVERPASS
OVER HWY. 22-T
HWY. 71 - HWY. 45
SEBASTIAN COUNTY

ROUTE 540 SEC. 1

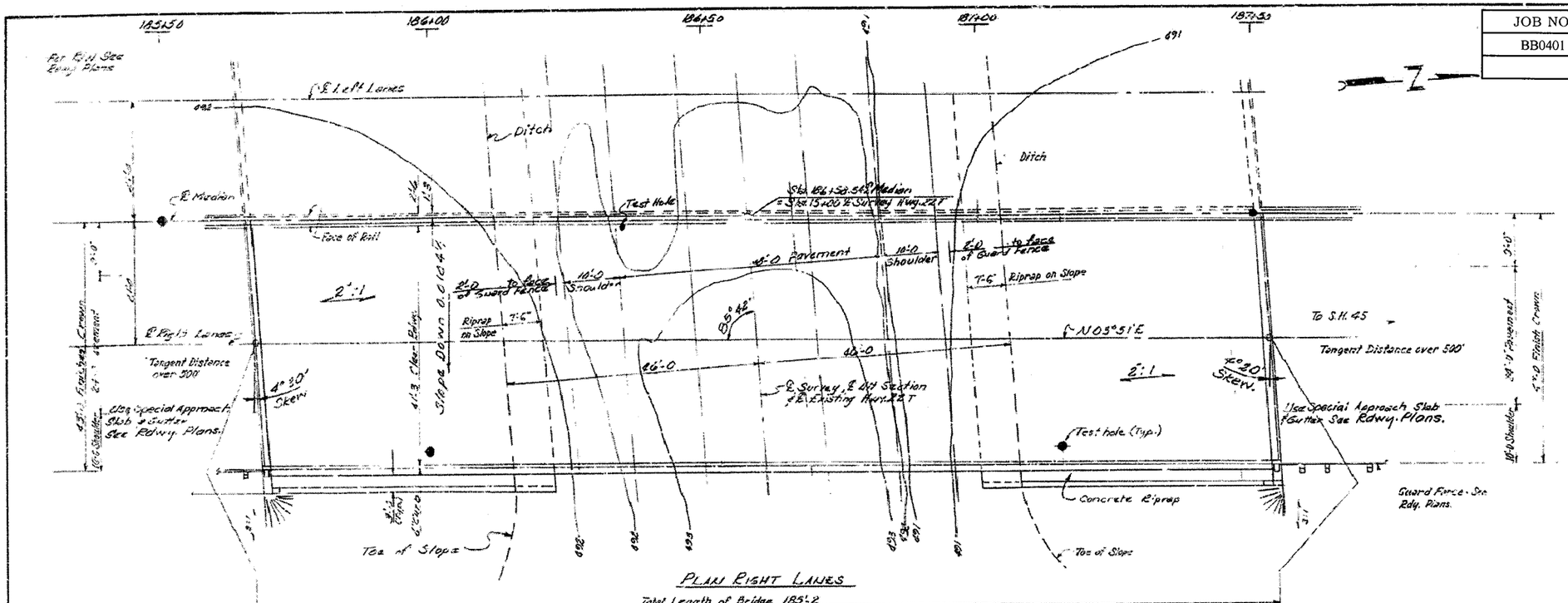
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: V.R. DATE: 12-30-67
TRACED BY: A.M.C. DATE: 11-1-67
CHECKED BY: [illegible] DATE: 12-7-67
SCALE: 1"=10'-0

L.B. Carlson
BRIDGE ENGINEER

BRIDGE NO. 5101-A DRAWING NO. 15687

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	212	234



See Drawing 15687 for General Notes.

INFORMATION ONLY

RIGHT LANES
LAYOUT OF OVERPASS
OVER HWY. 22-T
HWY. 71 - HWY. 45
SEBASTIAN COUNTY

ROUTE 540 SEC. 1

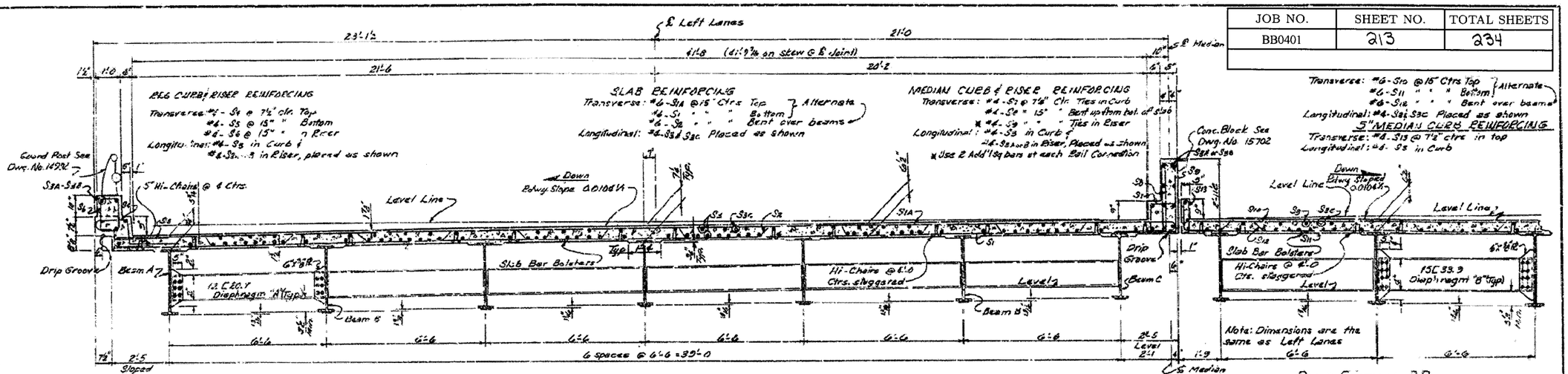
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: V.R. DATE: 10-30-67
TRACED BY: C.H.C. DATE: 10-30-67
CHECKED BY: [illegible] DATE: 12-7-67
SCALE: 1"=10'-0"

L. B. Erickson
BRIDGE ENGINEER

BRIDGE NO. 5181-B DRAWING NO. 15688

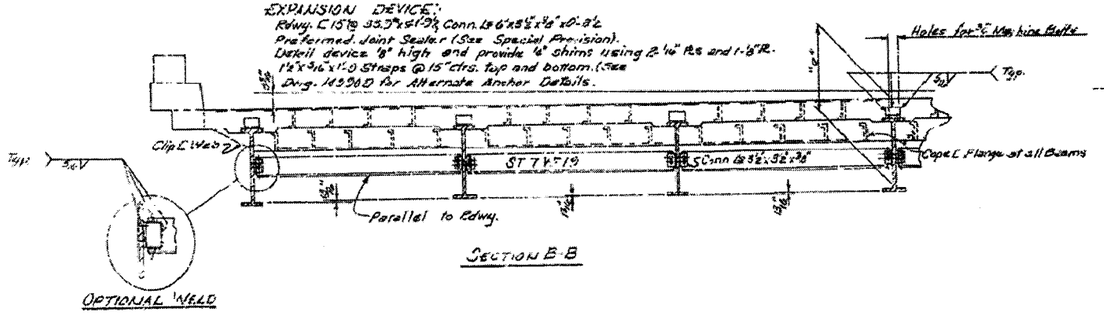
JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	213	234



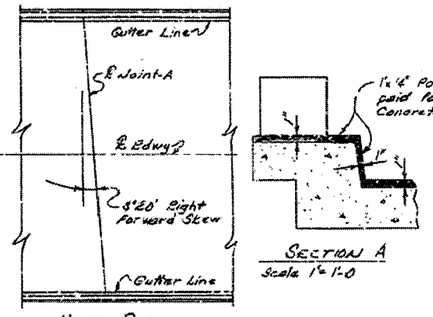
SECTION A-A

PART SECTION 3B

Note: Transverse Reinforcing Steel in Slab to be placed parallel to Skew



SECTION B-B



PART PLAN
Scale 3/32" = 1'-0

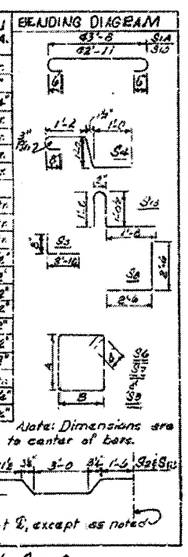
SECTION A
Scale 1" = 1'-0

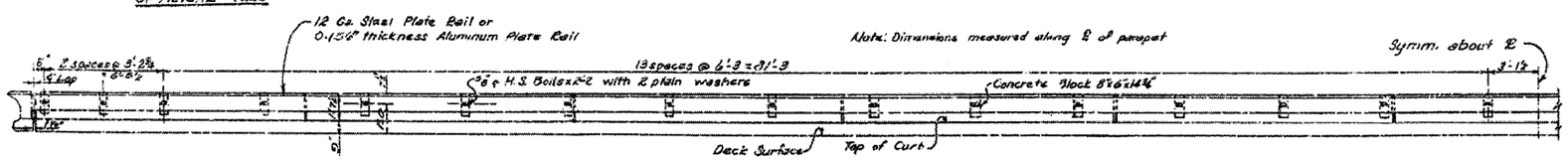
DETAILS JOINT A

BAR LIST

MARK	SIZE	NO EACH PER SPAN Rt Ln	NO EACH PER SPAN Lft Ln	LENGTH	A	B	PIN DIA.
S1	#6	-	147	43'-7	Straight		Str.
S1A	#6	-	147	44'-11	"	"	3"
S2	#6	-	140	44'-1	"	"	2'-6"
S3	#4	-	626	31'-11	Straight		Str.
		606	-	31'-11	"	"	Str.
S3A	#4	-	56	16'-2	"	"	Str.
		18	-	16'-2	"	"	Str.
S3B	#4	-	12	16'-0	"	"	Str.
		4	-	16'-6	"	"	Str.
S3C	#4	44	44	20'-3	"	"	Str.
S4	#6	293	293	4'-0	-	-	1'-2"
S5	#6	147	147	4'-6	"	"	1'-8"
S6	#6	147	147	4'-5	1'-2	0'-9	1'-2"
S7	#4	-	293	6'-3	1'-0	0'-10	1'-2"
S8	#4	-	146	4'-5	-	-	1'-0"
S9	#4	-	147	6'-7	2'-7½	2'-4½	1'-2"
S10	#6	147	-	44'-2	-	-	3"
S11	#6	147	-	42'-10	Straight		Str.
S12	#6	146	-	43'-4	"	"	2'-6"
S13	#4	293	-	5'-3	-	-	1'-2"

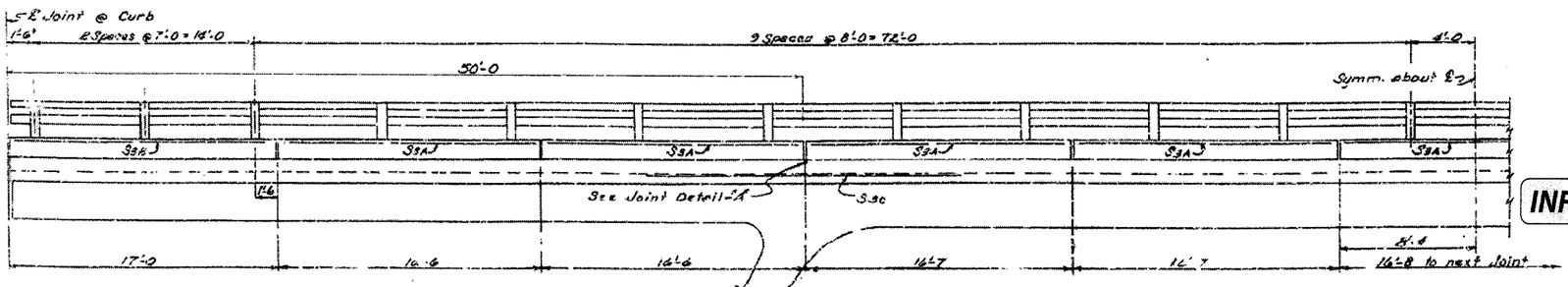
BENDING DIAGRAM





PART ELEVATION OF MEDIAN PLATE RAIL
Scale ½" = 1'-0

Note: Details of Steel or Aluminum plate Guard Rail and Bolt and Splice Details see Drawing 6E-8



HALF ELEVATION - SHOWING RAILING AND RISER OUTSIDE CURB
Scale ½" = 1'-0

SHEET 1 OF 3

DETAILS OF SUPERSTRUCTURE

STATE HWY. 22T

HWY. 71 - HWY. 45

SEBASTIAN COUNTY

ROUTE 540 SEC. 1

INFORMATION ONLY

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: CMC DATE: 11-15-67

TRACED BY: DATE:

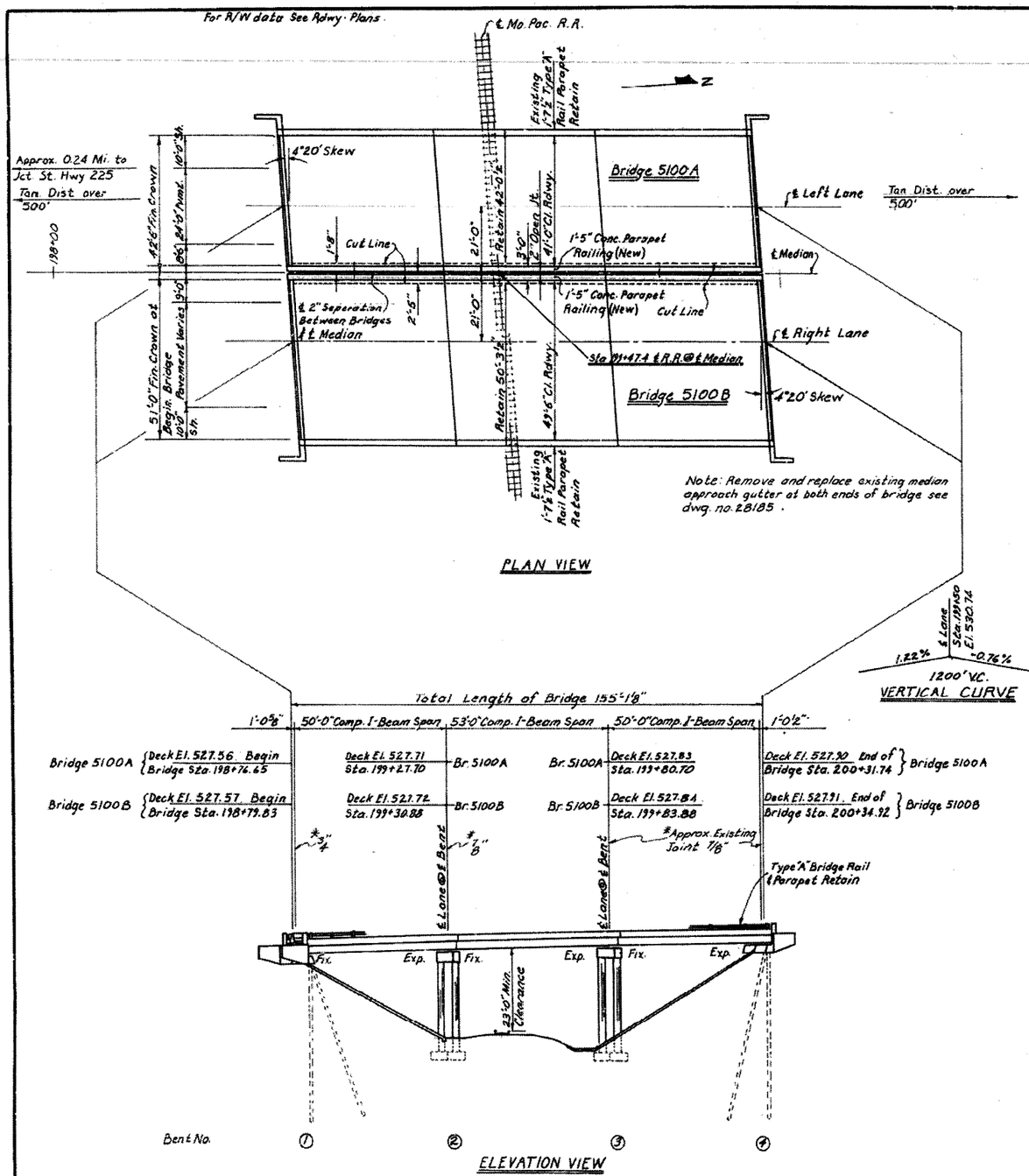
CHECKED BY: DJ DATE: 12-11-67

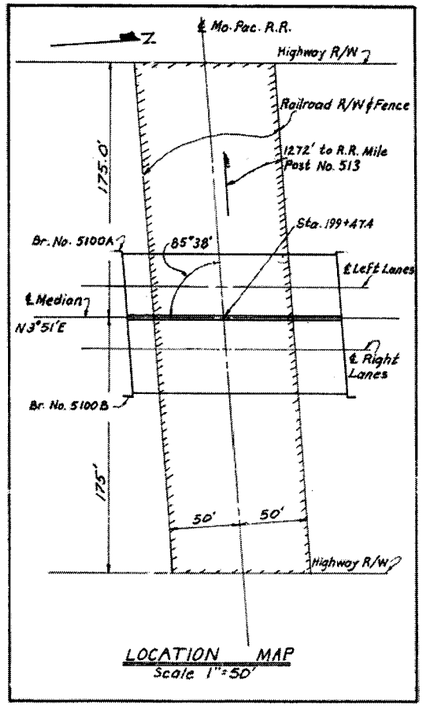
SCALE: As noted otherwise

L B Carlson
BRIDGE ENGINEER

BRIDGE NO. 5101A&B DRAWING NO. 15691

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	214	234





LOCATION MAP
Scale 1"=50'

GENERAL NOTES

BENCH MARK: USE EXISTING BRIDGE ELEVATIONS.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 EDITION.

LIVE LOADING: HS 20 AND SPECIAL INTERSTATE

PROPOSED WORK CONSISTS OF: REPLACING THE EXISTING MEDIAN RAIL AND PARAPET WITH A NEW JERSEY PARAPET. RETAINING AND PAINTING THE EXISTING BEAMS AND DIAPHRAGMS, AND MODIFYING THE EXISTING PREFORMED JOINTS FOR "CLOSED CELL FOAM JOINT FILLER."

THE CONTRACTOR SHALL MAKE CHECK MEASUREMENTS OF THE EXISTING BRIDGE AND MAKE ADJUSTMENTS NECESSARY TO FIT THE NEW WORK TO THE EXISTING STRUCTURE.

FOR DETAILS OF SUPERSTRUCTURE, SEE DWG. NO. 28187.

HALF-SIZE DETAIL SHEETS OF THE EXISTING BRIDGE MAY BE OBTAINED UPON REQUEST TO THE BRIDGE DIVISION OF THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT. DRAWINGS NO. 15695 - 15704, 11508.

MAINTENANCE OF TRAFFIC: SEE JOB SPECIAL PROVISION AND STAGE CONSTRUCTION SEQUENCE IN ROADWAY PLANS.

INFORMATION ONLY

EXHIBIT A

LAYOUT OF OVERPASS OVER MISSOURI PACIFIC RAILROAD HWY. 71 - HWY. 22 (PAVEMENT RESTORATION AND SAFETY IMPROVEMENTS) (FT. SMITH) SEBASTIAN COUNTY

ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

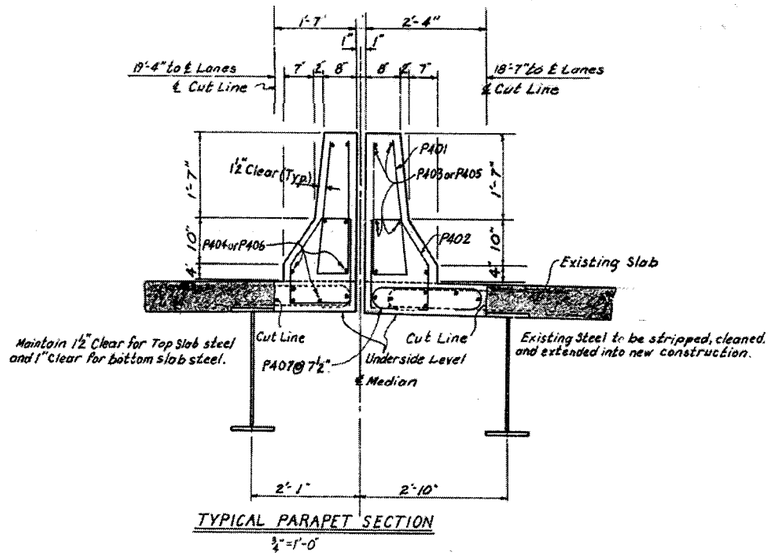
LITTLE ROCK, ARK.

DRAWN BY: DTR DATE: 6-6-85
CHECKED BY: DV DATE: 6-25-85
DESIGNED BY: DTR DATE: 6-85
SCALE: 1"=20' or as Noted

Fred Pinkerton
BRIDGE ENGINEER

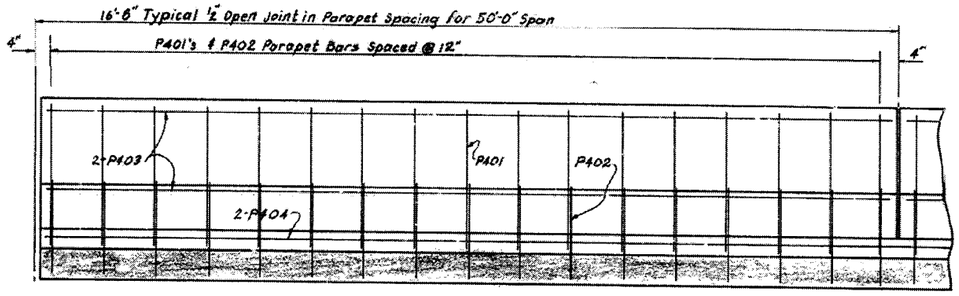
BRIDGE NO. 5100 AW & BW DRAWING NO. 28186

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	215	234



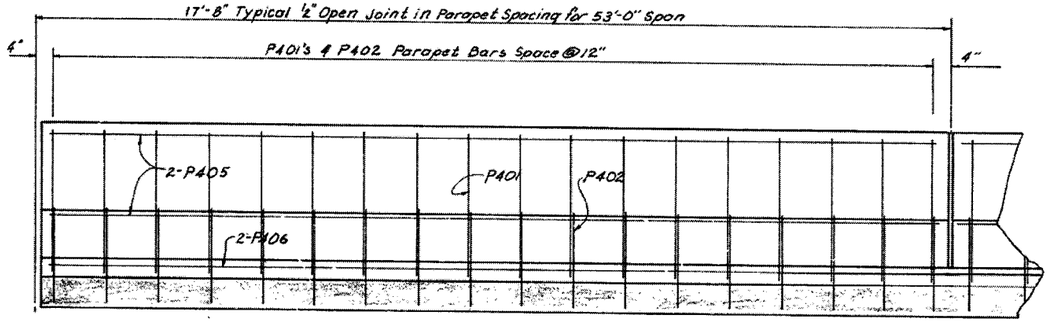
TYPICAL PARAPET SECTION

¾" = 1'-0"



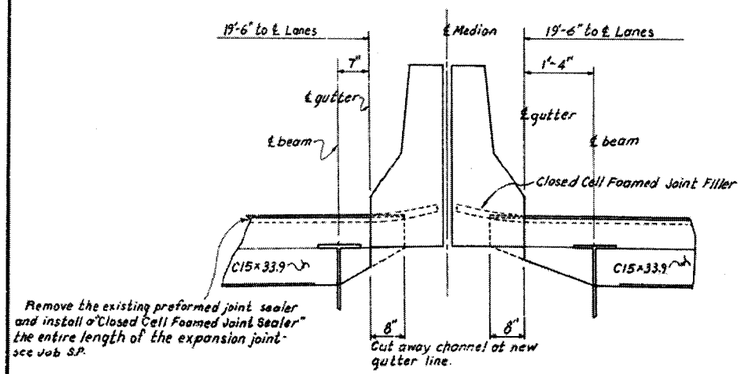
LONGITUDINAL SECTION OF PARAPET FOR 50' SPAN

¾" = 1'-0"



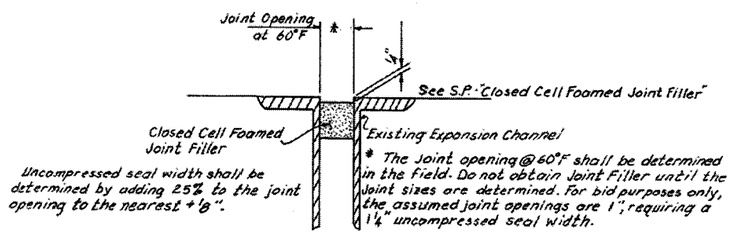
LONGITUDINAL SECTION OF PARAPET FOR 53' SPAN

¾" = 1'-0"



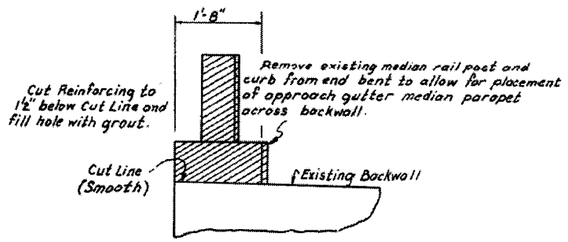
PARAPET SECTION AT EXPANSION DEVICE

¾" = 1'-0"



CLOSED CELL FOAMED JOINT FILLER PLACEMENT

3" = 1'-0"

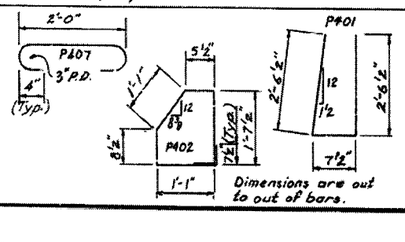


END BENT MEDIAN POST REMOVAL

BAR LIST - ONE SIDE

50'-0" Span			
Mark	No. Req'd	Length	Pin Dia.
P401	51	5'-6"	2"
P402	51	5'-10"	2"
P403	12	16'-4"	Str.
P404	#	25'-8"	Str.
P407 ‡	80	3'-0"	3"

Bending Diagrams



53'-0" Span			
Mark	No. Req'd	Length	Pin. Dia.
P401	54	5'-6"	2"
P402	54	5'-10"	2"
P405	12	17'-4"	Str.
P406	#	27'-2"	Str.
P407 ‡	85	3'-0"	3"

\# { 12 Req'd for Bridge 5100AW
16 Req'd for Bridge 5100BW
‡ Not Req'd for Bridge 5100AW

General Notes:
All concrete shall be Class S(AE), f'c = 3500 p.s.i..
Reinforcing Steel Shall conform to ASTM A615 or A617 (Grade 60).
Boiled linseed oil shall be applied to the roadway face and top of parapet and top of new slab.

INFORMATION ONLY

REMODELING
DETAILS OF MEDIAN PARAPET
MISSOURI PACIFIC RAILROAD OVERPASS
SEBASTIAN COUNTY
ROUTE I-540 SEC. 1

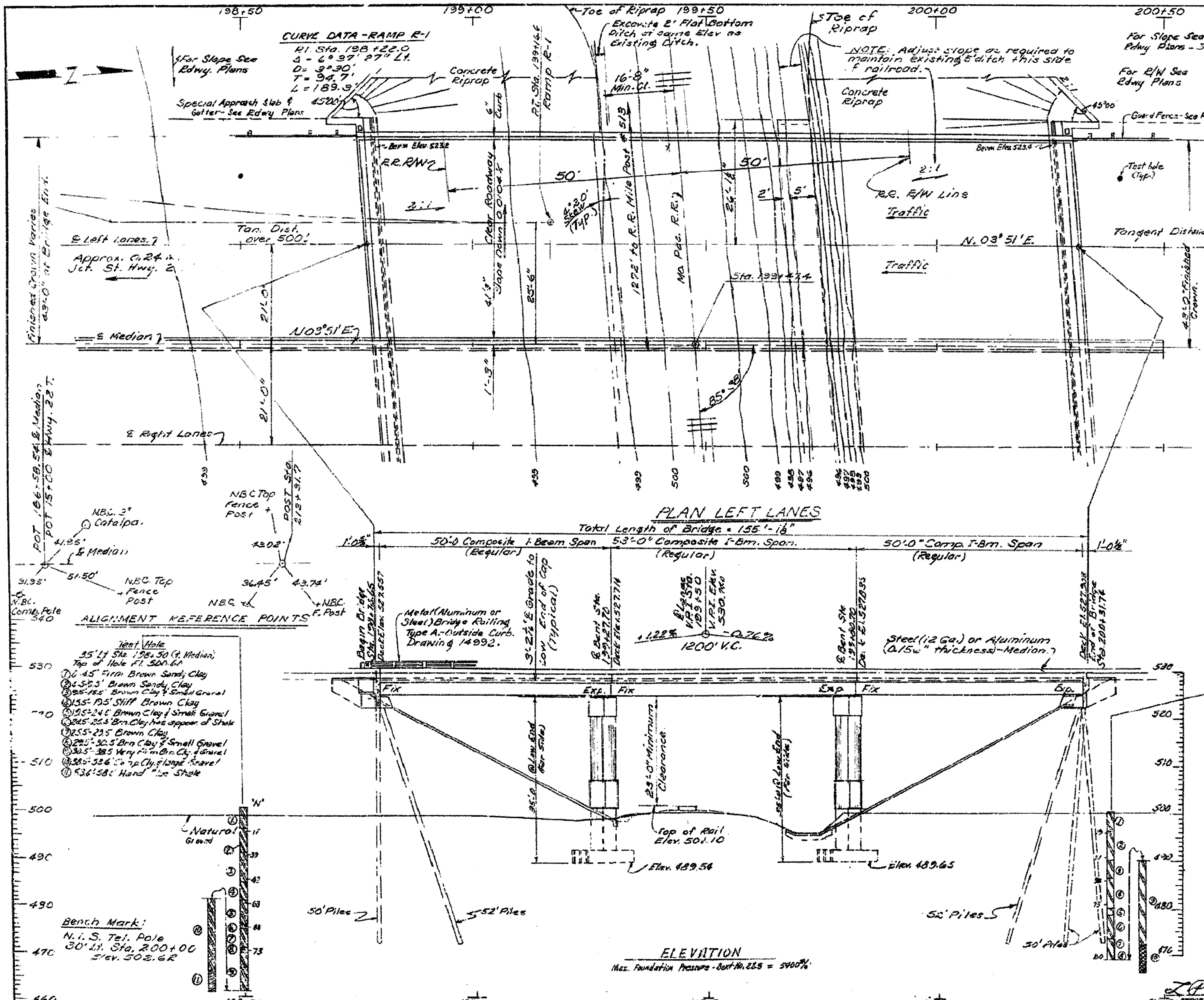
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: B.T.K. DATE: 11-8-85
CHECKED BY: C.H. DATE: 12-17-85
DESIGNED BY: B.T.K. DATE: 11-8-85
SCALE: As Shown

Vesal Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5100AW & BW DRAWING NO. 28187

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	216	234



GENERAL NOTES

All concrete to be poured in the dry. Exposed corners to be chamfered 3/4".

In general all construction joints in ... shall be horizontal and shall be provided with keys not less than 1½" high covering the middle third of both dimensions.

In order not to disturb the founding material the final one foot, at least, of excavation shall carefully be done by hand methods to neat lines, and the concrete shall be poured against the excavated surfaces. Foundation pits shall be kept dry.

All piling shall be 10"BP42# and shall be driven with an approved air, steam, or diesel hammer to a minimum bearing capacity of 40 tons per pile. Note that it is not necessary to drive the piles to snuff if the 40 ton capacity is reached before. Order lengths shown; cut-off or build-up, if necessary, shall be paid for in accordance with the Standard Specifications.

Piles to be driven after embankment to subgrade is in place.

For Details of Substructure see Dwgs. 15698 - 15701.
For Details of Superstructure see Dwgs. 15702, 15703, 14990 & 14992.
For Details of Concrete Riprap see Dwg. 15704.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, 1966 Supplemental Specifications thereto, and designated Special Provisions.

DESIGN SPECIFICATIONS: AASHO 1965
Live Loading: HS20
Unit Stresses:

Class S Concrete (n=10)	1,200 psi
Class A Concrete (n=15)	800 psi
Reinforcing Steel	20,000 psi
Structural Steel (A36)	20,000 psi

INFORMATION ONLY

Test Hole
Sta. 200+40 (℄ Median)
Top of Hole Elev. 500.2

1. 0-4.5 Firm Brown Sandy Clay
2. 4.5-10.5 Brown Sandy Clay
3. 10.5-14.5 Brown Clay
4. 14.5-20.5 Brown Clay & Small Gravel
5. 20.5-22 Very Firm Brown Clay
6. 22-27 Very Firm Brown Clay & Gravel
7. 27-30 Very Firm Brown Clay
8. 30-31.5 Brown Clay Has Appearance of Shale
9. 31.5-49.2 Brown Clay or Brown Shale - Refusal on Soil Sample
10. 49.2-55 Hard Blue Shale

[EXHIBIT A SHEET 1 OF 2]

(LEFT LANES)

LAYOUT OF OVERPASS OVER MISSOURI PACIFIC RAILROAD
HWY. 71 - HWY. 45
SEBASTIAN COUNTY
ROUTE 540 SEC. 1

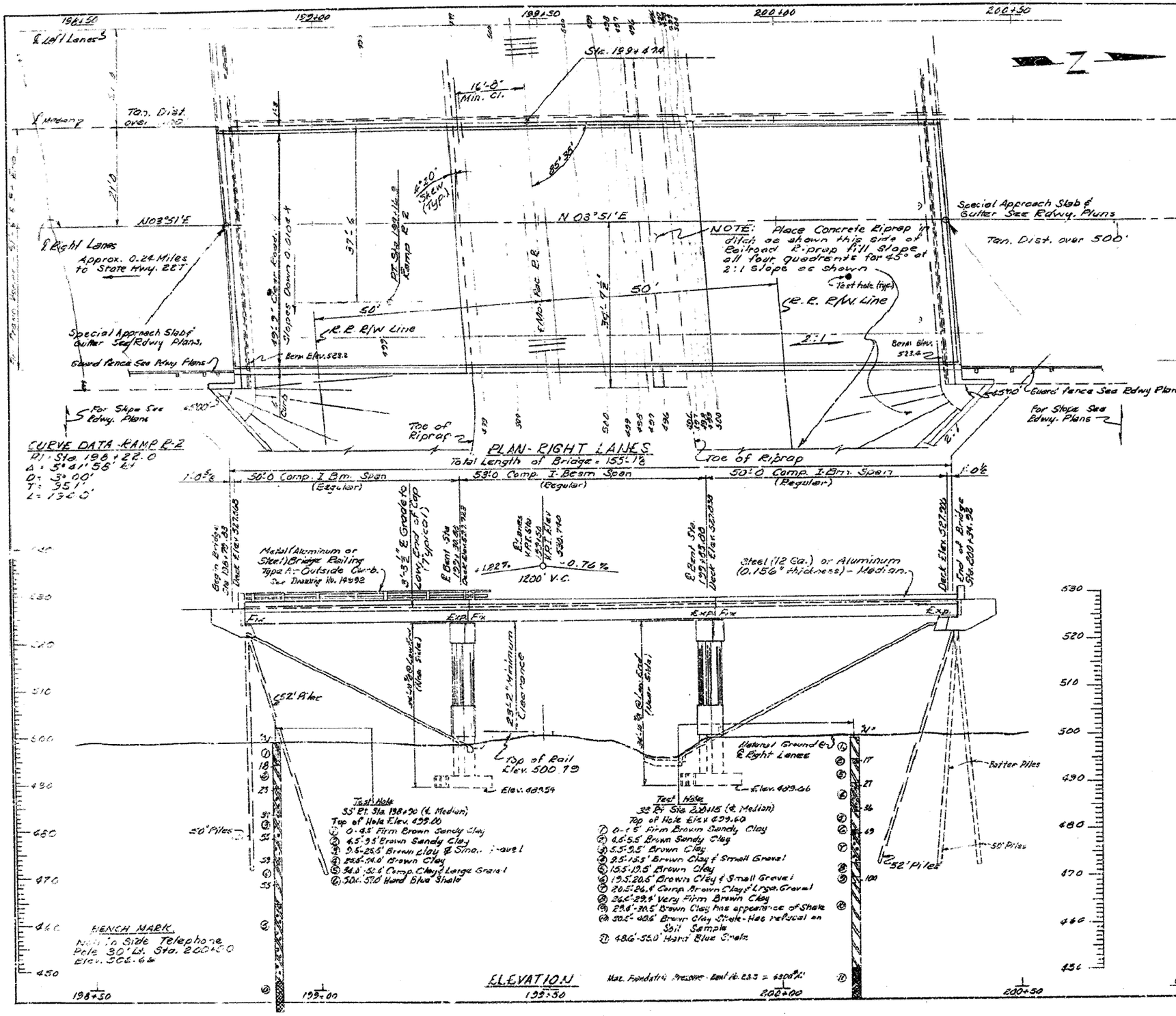
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK

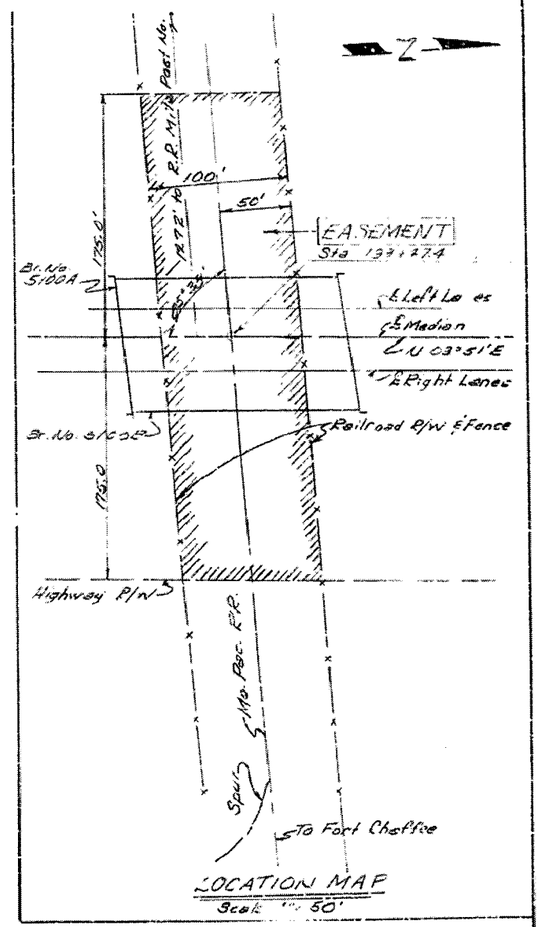
Drawn by: ZD Date: 8-9-67
Traced by: Date:
Checked by: DV Date: 10-31-67
Scale: 1" = 10'-0"

L P Carlson, Bridge Engineer

BRIDGE NO. 5100A DRAWING NO. 15694

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	217	234





INFORMATION ONLY

EXHIBIT A SHEET 2 OF 2

(RIGHT LANES)

LAYOUT OF OVERPASS OVER MISSOURI PACIFIC RAILROAD

HWY 71 - HWY 45

SEBASTIAN COUNTY

ROUTE 560 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK

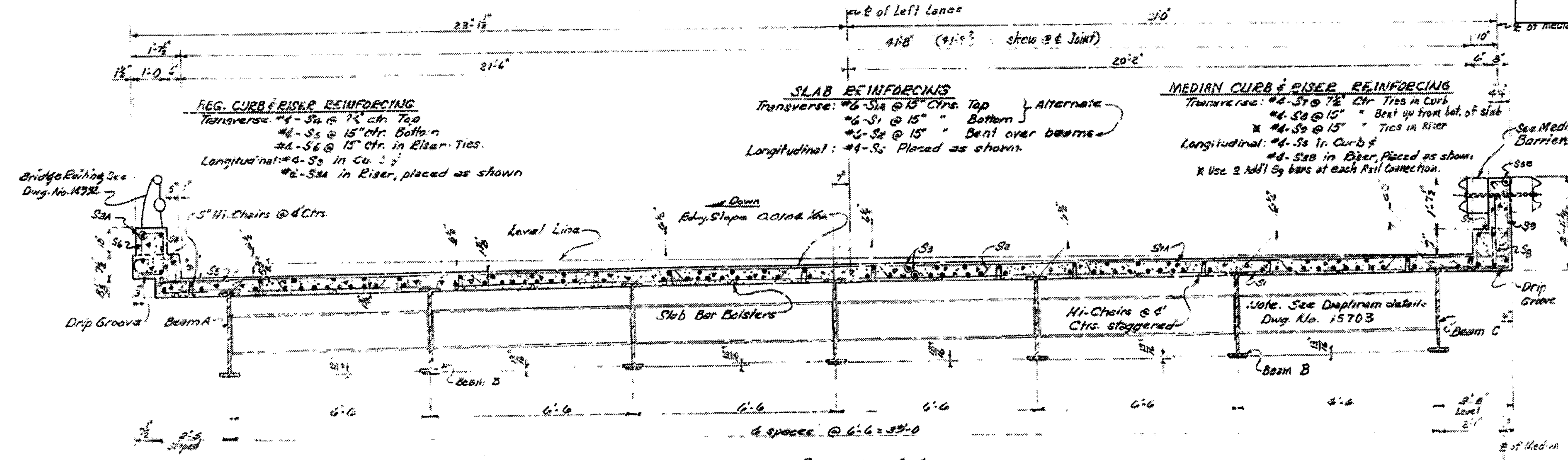
DESIGNED BY: VLP DATE: 8-4-67 SCALE: 1" = 10'-0" & As Noted

TRACED BY: CLC DATE: 8-4-67

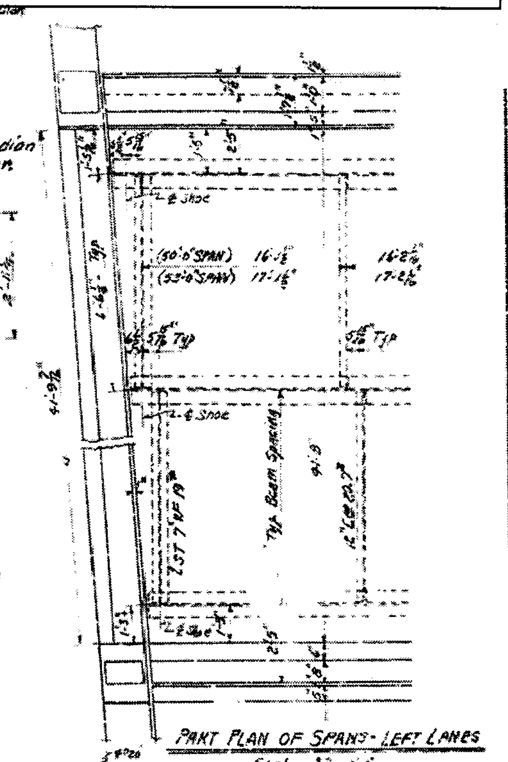
CHECKED BY: EC DATE: 8-11-67

L. P. Carlson
BRIDGE ENGINEER

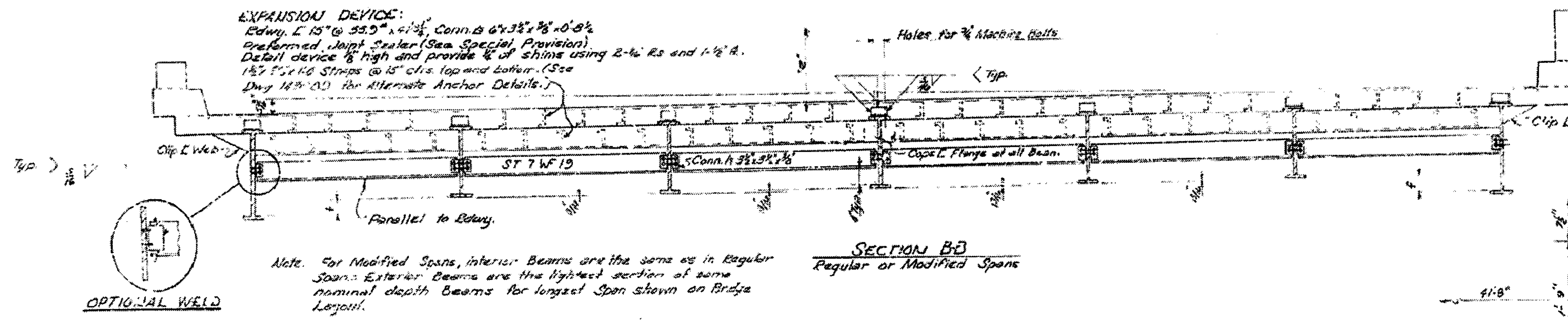
BRIDGE NO. 5100B DRAWING NO. 15623



SECTION A-A
Regular Span



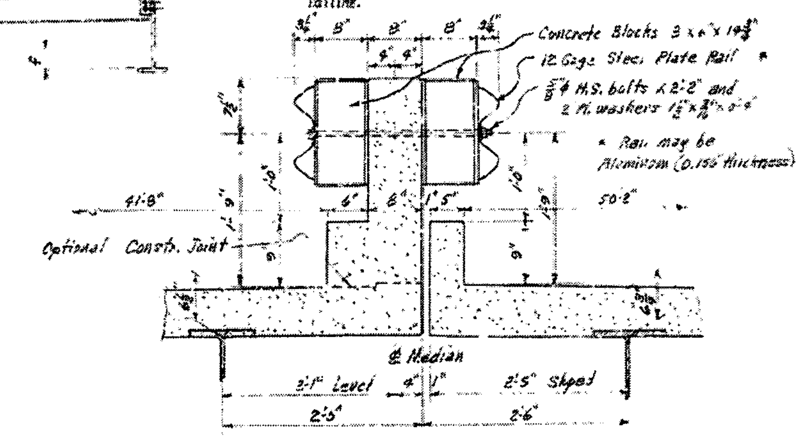
PART PLAN OF SPANS - LEFT LANES
Scale - ⅜" = 1'-0"



SECTION B-B
Regular or Modified Spans

Note. For Modified Spans, interior Beams are the same as in Regular Spans. Exterior Beams are the lightest section of same nominal depth Beams for longest Span shown on Bridge Layout.

Steel or Aluminum Plate Guard Bridge Railing shall be of the type shown or an equivalent rigid type as approved by the Engineer. The rail including all concrete blocks and fastenings shall be paid for at the unit price bid per linear foot for Steel or Aluminum Plate Guard Bridge Railing.



SECTION THRU MEDIAN BARRIER
Scale:- 1" = 1'-0"

BEAM DATA FOR LEFT LANES ~ 41'-8" DECK WIDTH

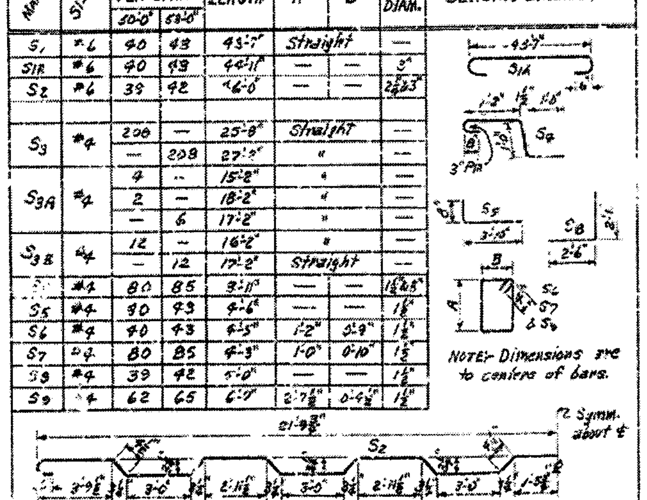
BRIDGE NO.	SPAN NUMBER	SPAN LENGTH	SPAN TYPE	BEAM NO.	BEAM SIZE	COVER PLATE	e	D.L. DEFLECTION WITHOUT JOINT	D.L. DEFLECTION WITH * JOINT	DIAPHRAGM SPACING d	EXTERIOR RAIL POST SPACING a	b	c	MEDIAN RAIL BLOCK SPACING a'	b'	c'		✦ VARIABLES OF SHEAR CONNECTOR SPACING g	h	i	j	k	l	m	n	p
5100-A	1	50'-0"	REG	A	27"WF@84	8"x⅞"x35'-0"	2'-8⅝"	1"	1⅜"	3@16'-1⅜"	7'-10"	7'-10"	4					6	7"	6	8"	10	10"	7	14"	0
				B	27"WF@84	8"x⅞"x35'-0"	"	⅞"	1¼"	"								"	"	"	"	"	"	"	"	"
				C	27"WF@84	8"x⅞"x35'-0"	"	1"	1⅜"	"				3'-0"	5'-4"	8		"	"	"	"	"	"	"	"	"
	2	53'-0"	REG	A	27"WF@94	8"x⅞"x36'-0"	2'-8⅝"	1½"	1⅝"	3@17'-⅝"	7'-1"	7'-2"	5					6	7"	7	8"	11	10"	7	14"	0
				B	27"WF@94	8"x⅞"x36'-0"	"	⅞"	1⅜"	"								"	"	"	"	"	"	"	"	"
				C	27"WF@94	8"x⅞"x36'-0"	"	1½"	1½"	"				3'-0"	5'-8½"	8		"	"	"	"	"	"	"	"	"
	3	50'-0"	REG.	A	27"WF@84	8"x⅞"x35'-0"	2'-0⅝"	1"	1⅜"	3@16'-1⅜"	7'-10"	7'-10"	4					6	7"	6	8"	10	10"	7	14"	0
				B	27"WF@84	8"x⅞"x35'-0"	"	⅞"	1¼"	"								"	"	"	"	"	"	"	"	"
				C	27"WF@84	8"x⅞"x35'-0"	"	1"	1⅜"	"				3'-0"	5'-4"	8		"	"	"	"	"	"	"	"	"

* With construction joint in curb.

✦ Shear Connectors to be 3"⊏x7⅝"; 4-¾"ϕx4" studs; or 3-⅞"ϕx4" studs. See Drawing No 15703 for Shear Connector details.

BAR LIST FOR 50'-0" & 53'-0" SPANS - LEFT LANES

MARK	SIZE	NO. REQD PER SPAN 50'-0"	NO. REQD PER SPAN 53'-0"	LENGTH	A	B	PIN DIAM.
S1	#6	40	43	43'-7"	Straight		—
S1A	#6	40	43	44'-11"	—	—	3"
S2	#6	39	42	46'-0"	—	—	2⅝ & 3"
S3	#4	206	—	25'-8"	Straight		—
		—	208	27'-2"	"		—
S3A	#4	4	—	15'-2"	"		—
		2	—	18'-2"	"		—
		—	6	17'-2"	"		—
S3B	#4	12	—	16'-2"	"		—
		—	12	17'-2"	Straight		—
S4	#4	80	85	3'-11"	—	—	1½ & 3"
S5	#4	80	43	4'-6"	—	—	1½"
S6	#4	40	43	4'-5"	1'-2"	0'-9"	1½"
S7	#4	80	85	4'-3"	1'-0"	0'-10"	1½"
S8	#4	39	42	5'-0"	—	—	1½"
S9	#4	62	65	6'-0"	2'-7⅛"	0'-4½"	1½"



NOTE:- Transverse bars S1, S1A & S2 are to be placed parallel to the roadway expansion joint.

DESIGN SPECIFICATIONS: AASHO 1965
Design Live Loading: HS20

	To Ext. Beam "A"	To Int. Beam "B"	To Ext. Beam "C"
Load Distribution (50'-0" Span)			
Dead Load to Beam	910#/Lin.Ft. (Without Const. Jt.)	650#/Lin.Ft. (Without Const. Jt.)	785#/Lin.Ft. (Without Const. Jt.)
	620#/Lin.Ft. (With Const. Jt.)	650#/Lin.Ft. (With Const. Jt.)	820#/Lin.Ft. (With Const. Jt.)
Dead Load to Composite Beam	140#/Lin.Ft. (Without Const. Jt.)	140#/Lin.Ft. (Without Const. Jt.)	2[illegible]/Lin.Ft. (Without Const. Jt.)
	255#/Lin.Ft. (With Const. Jt.)	180#/Lin.Ft. (With Const. Jt.)	375#/Lin.Ft. (With Const. Jt.)
Live Load to Composite Beam	1.156 Wheels + Impact	1.182 Wheels + Impact	1.156 Wheels + Impact

NOTE: For 53'-0" Spans add 10#/Lin. Ft. to values of Dead Load to Beam.

Unit Stresses: Class S Concrete (f'c) 1,200 psi
Structural Steel (A-36) 20,000 psi
Reinforcing Steel 20,000 psi

NOTE:- For details not shown see Drawing No. 14990 D, 14992 and 15703

INFORMATION ONLY

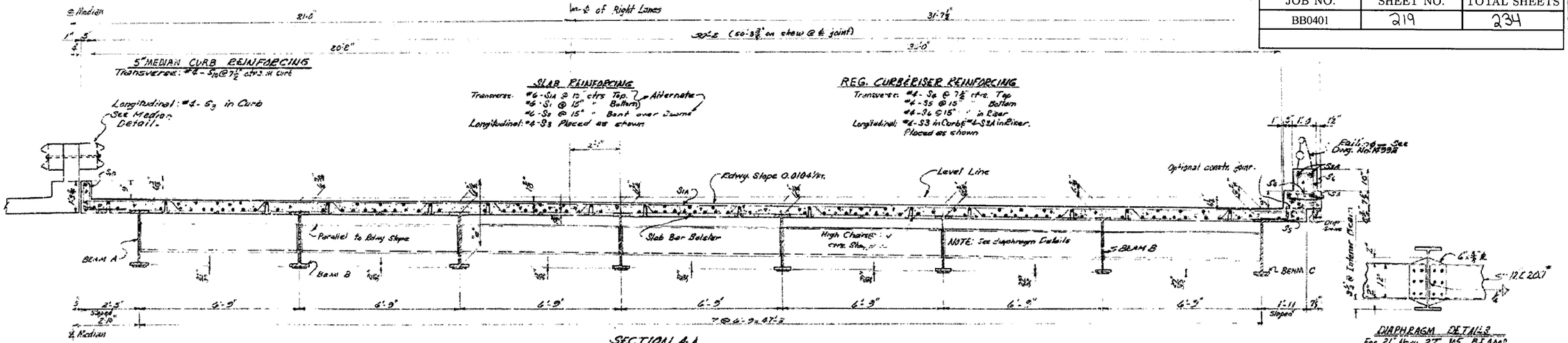
(LEFT LANES)
DETAILS OF
COMPOSITE BEAM SPANS
41'-5 CLEAR RDWY. SURFACE
HWY. 71 - HWY 45
SEBASTIAN COUNTY
INT. ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY C.M.C. & W.C.H. DATE 11-8-67
TRACED BY C.M.C.&" DATE 11-22-67
CHECKED BY T.L. DATE 12-11-67
SCALE ⅜"=1' & As Noted

L. P. Carlson
BRIDGE ENGINEER

BRIDGE NO. 5100-A DRAWING NO. 15702



JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	219	234

5" MEDIAN CURB REINFORCING
Transverse: #4 - S10 @ 7½" ctrs. in Curb
Longitudinal: #4 - S3 in Curb

SLAB REINFORCING
Transverse: #6 - S1A @ 15" ctrs. Top } Alternate
#6 - S1 @ 15" " Bottom
#6 - S2 @ 15" " Bent over Beams
Longitudinal: #4 - S3 Placed as shown

REG. CURB & RISER REINFORCING
Transverse: #4 - S4 @ 7½" ctrs. Top
#4 - S5 @ 15" " Bottom
#4 - S6 @ 15" " in Riser
Longitudinal: #4 - S3 in Curb & #4 - S3A in Riser. Placed as shown

SECTION A-A

NOTE: Section B-B similar to Section B-B on Dwg. No. 15702 except for difference in Rdwy. width and beam spacing. Channel to be 50'-3¾" in length.

Note: For Details of Steel or Aluminum plate Guard Rail and Bolt and Splice Details see Drawing GR-B

DIAPHRAGM DETAILS
For 21" thru 27" WF BEAMS
Scale ¾" = 1'-0"

SPACING FOR CHANNEL SHEAR CONNECTORS AND DIAPHRAGMS

DETAILS OF SHEAR CONNECTORS

DETAILS OF STUD SHEAR CONNECTORS

DETAILS OF COVER PLATE
Scale: - ¾" = 1'-0"

PART ELEVATION OF MEDIAN PLATE RAIL

Open joints in Median Parapet at third points of span, dummy joints midway between open joints.

PART PLAN OF SPANS - RIGHT LANES
Scale: - ⅛" = 1'-0"

BEAM DATA FOR RIGHT LANES - 50'-2" DECK WIDTH

BRIDGE NO.	SPAN NUMBER	SPAN LENGTH	SPAN TYPE	BEAM NO.	BEAM SIZE	COVER PLATE	e	D.L. DEFLECTION WITHOUT JOINT	D.L. DEFLECTION WITH * JOINT	DIAPHRAGM SPACING d	EXTERIOR RAIL POST SPACING a	b	c	f	◆ VARIABLES OF SHEAR CONNECTOR SPACING g	h	i	j	k	l	m	n	f
5100-B	1	50'-0"	REG.	A	27"WF@84	8"x⅞"x35'-0"	2'-8⅝"	⅞"	—	3@16'-1⅝"					6	7"	6	8"	10	10"	7	14"	0
				B	27"WF@84	8½"x15/16"x36'-0"	"	13/16"	⅞"-	"					"	"	"	"	"	"	"	"	"
				C	27"WF@84	8"x⅞"x35'-0"	"	15/16"	15/16"	"	7'-10"	7'-10"	4		"	"	"	"	"	"	"	"	"
	2	53'-0	REG.	A	27"WF@94	8"x15/16"x36'-0"	"	13/16"	—	3@17'-1⅝"					6	7"	7	8"	11	10"	7	14"	0
				B	27"WF@94	8½"x1"x38'-0"	"	15/16"	1"-	"					"	"	"	"	"	"	"	"	"
				C	27"WF@94	8"x15/16"x36'-0"	"	1 1/16"	15/16"	"	7'-1"	7'-2"	5"		"	"	"	"	"	"	"	"	"
	3	50'-0	REG.	A	27"WF@84	8"x⅞"x35'-0"	"	⅞"	—	3@16'-1⅝"					6	7"	6	8"	10	10"	7	14"	0
				B	27"WF@84	8½"x15/16"x36'-0"	"	13/16"	⅞"-	"					"	"	"	"	"	"	"	"	"
				C	27"WF@84	8"x⅞"x35'-0"	2'-8⅝"	15/16"	15/16"	"	7'-10"	7'-10"	4		"	"	"	"	"	"	"	"	"

* With construction joint in right curb.

◆ Shear Connector to be 3"[@6.0#x7½"; 4-¾"φx4" studs; or 3-⅞"φx4" Studs

DESIGN SPECIFICATIONS: AASHO 1965
Design Live Loading: HS20

Load Distribution (50'-0" Span)	To Ext. Beam "A"	To Int. Beam "B"	To Ext. Beam "C"
Dead Load to Beam	710#/Lin.Ft.(Without Constr.Jt.)	690#/Lin.Ft.(Without Constr.Jt.) 630#/Lin.Ft.(With Constr.Jt.)	780#/Lin.Ft.(Without Constr.Jt.) 590#/Lin.Ft.(With Constr.Jt.)
Dead Load to Composite Beam	103#/Lin.Ft.(Without Constr.Jt.)	140#/Lin.Ft.(Without Constr.Jt.) 180#/Lin.Ft.(With Constr.Jt.)	140#/Lin.Ft.(Without Constr.Jt.) 253#/Lin.Ft.(With Constr.Jt.)
Live Load to Composite Beam	1.187 Wheels + Impact	1.227 Wheels + Impact	1.187 Wheels + Impact

NOTE: For 53'-0" Spans add 10#/Lin.Ft. to values of Dead Load to Beam.

Unit Stresses: Class S Concrete (n=10) 1,200 psi
Structural Steel (A-36) 20,000 psi
Reinforcing Steel 20,000 psi

BAR LIST FOR 50'-0" & 53'-0" SPANS-RIGHT LANES

MARK	SIZE	NO. REQ'D PER SPAN 50'-0"	NO. REQ'D PER SPAN 53'-0"	LENGTH	A	B	PIN DIAM.
S1	#6	40	43	51'-4"	Straight		—
S1A	#6	40	43	52'-8"	—	—	3"
S2	#6	39	42	59'-2"	—	—	2"&3"
S3	#4	232	—	25'-8"	Straight		—
		—	232	27'-2"	"		—
S3A	#4	4	—	15'-2"	"		—
		2	—	18'-2"	"		—
		—	6	17'-2"	Straight		—
S4	#4	80	85	3'-11"	—	—	1½"
S5	#4	40	43	4'-0"	—	—	1½"
S6	#4	40	43	4'-5"	1'-2"	3'-9"	1½"
S10	#4	80	85	3'-9"	—	—	1½"

BENDING DIAGRAM

Note: - Dimensions are to centers of bars.

NOTE: - Transverse bars S1, S1A, & S2 are to be placed parallel to the roadway expansion joint.

END STRUT CONNECTION
Scale: - 1½" = 1'-0"

INFORMATION ONLY

(RIGHT LANES)
DETAILS OF
COMPOSITE I-BEAM SPANS
49'-9 CLEAR RDWY. SURFACE
HWY. 71 - HWY. 45
SEBASTIAN COUNTY
TAIR ROUTE 540 SEC. 1

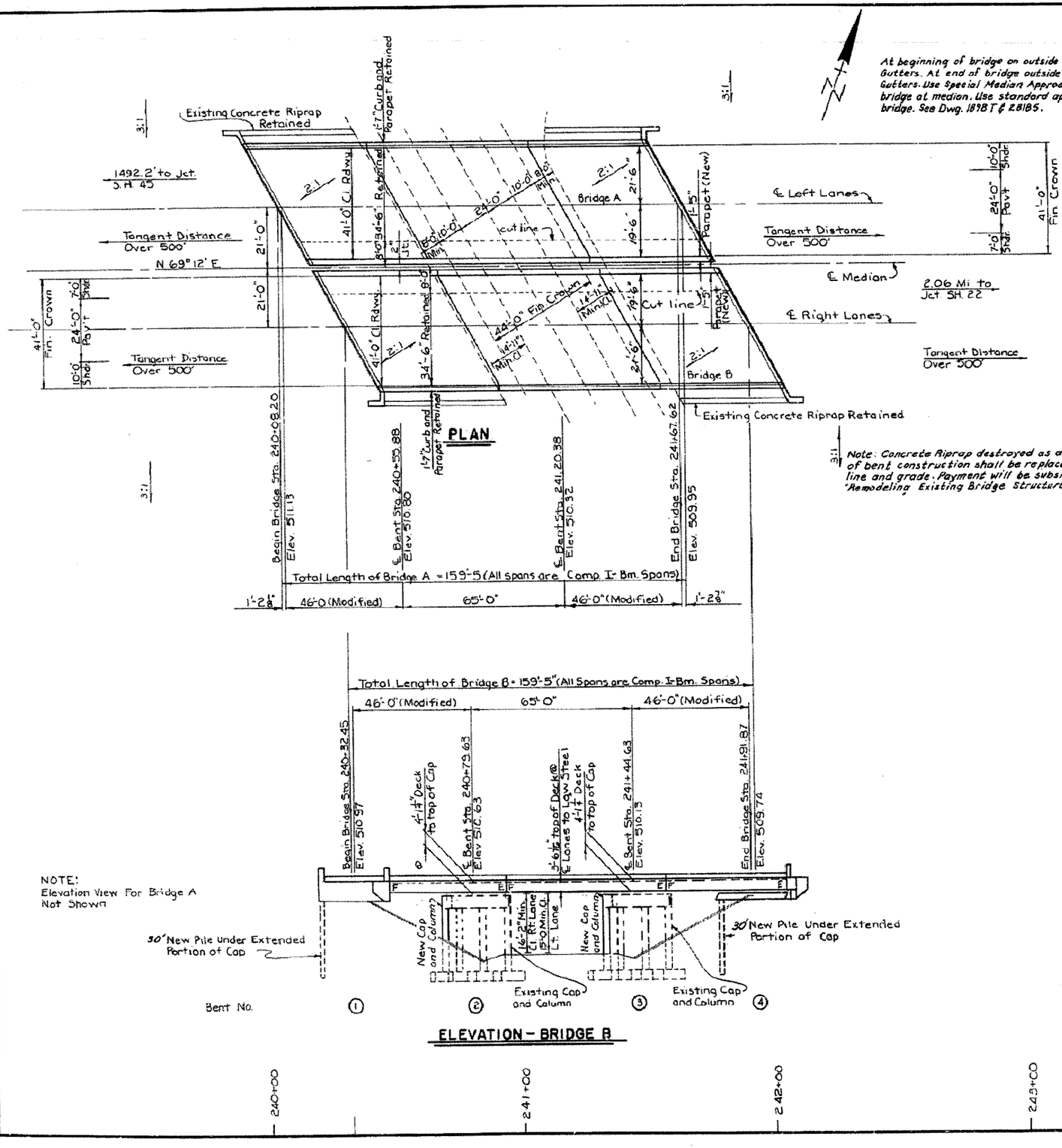
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY C.M.C.EUCH DATE 11-9-67
TRACED BY C.M.C.EUCH DATE 6-22-67
CHECKED BY T.L.L. DATE 12-11-67
SCALE As Noted

L. P. Oelson
BRIDGE ENGINEER

BRIDGE NO. 5100-B
DRAWING NO. 15703

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	220	234



GENERAL NOTES

BENCH MARK: USE EXISTING BRIDGE ELEVATIONS.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIALPROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 EDITION.

LIVE LOADING: HS 20 AND SPECIAL INTERSTATE

STEEL PILING: ALL PILING SHALL BE HP10X42 AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 55 TONS PER PILE AND INTO THE MATERIAL DESIGNATED AS SHALE ON THE ORIGINAL LAYOUT. LENGTHS SHOWN ARE FOR ESTIMATING QUANTITIES AND FOR USE IN DETERMINING PAYMENT FOR CUT-OFF AND BUILD-UP IN ACCORDANCE WITH SPECIFICATIONS.

NEW INTERMEDIATE BENT FOOTINGS SHALL BE SET AT THE SAME ELEVATION AS THE EXISTING FOOTINGS.

PROPOSED WORK CONSISTS OF: WIDENING THE EXISTING BENTS TO ACCOMODATE AN ADDITIONAL W-BEAM, WIDENING THE ROADWAY TOWARD THE MEDIAN, REPLACING THE EXISTING MEDIAN RAIL AND PARAPET WITH A NEW JERSEY PARAPET, RETAINING AND PAINTING THE EXISTING STRUCTURAL STEEL AND MODIFYING THE EXISTING PREFORMED JOINTS FOR "CLOSED CELL FOAM JOINT FILLER."

THE CONTRACTOR SHALL MAKE CHECK MEASUREMENTS OF THE EXISTING BRIDGE AND MAKE ADJUSTMENTS NECESSARY TO FIT THE NEW WORK TO THE EXISTING STRUCTURE.

DETAIL DRAWINGS:	DRAWING NO.
END BENTS	28189 & 28190
INTERMEDIATE BENTS	28191
SUPERSTRUCTURE	28192

HALF-SIZE DETAIL SHEETS OF THE EXISTING BRIDGE MAY BE OBTAINED UPON REQUEST OF THE BRIDGE DIVISION OF THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT. DRAWINGS NO. 13825 THRU 13828, 13838, 14990C AND 14992.

MAINTENANCE OF TRAFFIC: SEE JOB SPECIAL PROVISION AND STAGE CONSTRUCTION SEQUENCE IN ROADWAY PLANS.

INFORMATION ONLY

LAYOUT OF PHOENIX ST. OVERPASS

HWY. 71 - HWY. 22 (PAVEMENT RESTORATION AND SAFETY IMPROVEMENTS) (FT. SMITH)

SEBASTIAN COUNTY
ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

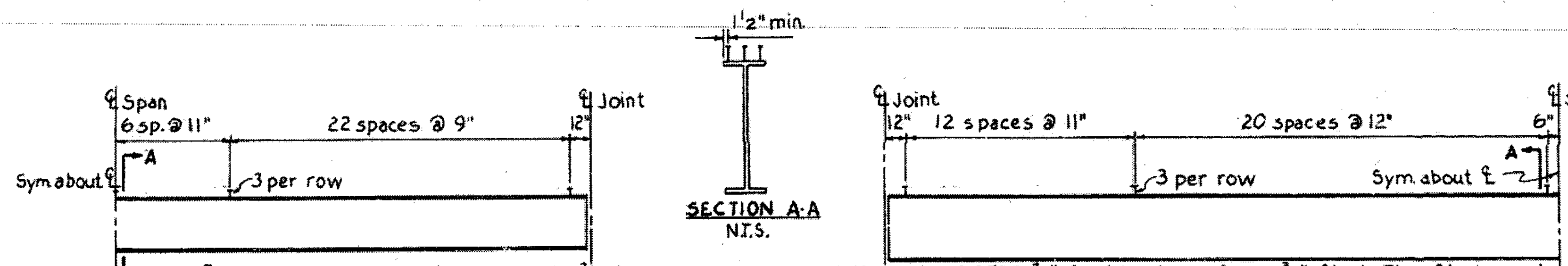
DRAWN BY: P.A.F. DATE: 6-3-85
CHECKED BY: DV DATE: 6-25-85
DESIGNED BY: DATE:
SCALE: 1"-20'-0"

Kenneth Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5098 AW
5098 BW

DRAWING NO. 28188

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	221	234



SECTION A-A
N.T.S.

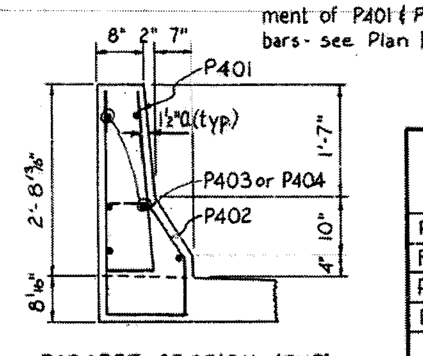
Note: ⅞" Studs may be used in place of the ¾" Studs that are shown, at the ratio of 0.735-⅞" Stud in place of one ¾" Stud. The Stud Connectors shall be 4" Long and may be granular flux filled, solid fluxed, or equal, and automatically end welded to the Beam flanges in accordance with recommendations of the manufacturer. ¾" Studs will be used as basis for measurement of Struct. Steel in Connectors.

SPANS 1 & 3
Scale: ¼" = 1'-0"

SPAN 2
Scale: ¼" = 1'-0"

SPACING FOR ¾" STUD SHEAR CONNECTORS
Scale As Noted

Note: For Placement of P401 & P402 bars - see Plan Detls.

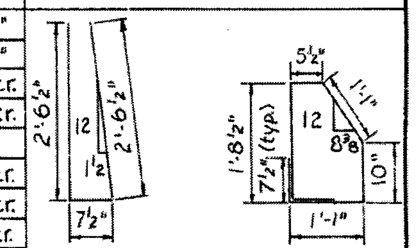


PARAPET SECTION (TYP)
Scale: ¾" = 1'-0"

BAR LIST (PER SPAN)

MARK	NO. REQ. SPAN 1 or 3	NO. REQ. SPAN 2	LENGTH	PIN DIA.
P401	48	65	5'-6"	2"
P402	48	65	6'-0"	2"
P403	24	—	11'-2"	Str.
P404	—	30	12'-8"	Str.
*S401	12	—	23'-8"	Str.
S402	22	—	23'-8"	Str.
*S403	—	12	33'-2"	Str.
S404	—	22	33'-2"	Str.
S632	4	4	8'-9"	Str.
*S601	68	98	7'-9"	Str.
S602	68	98	7'-9"	Str.
*S603 to S609	1 Each	1 Each	1'-10" to 7'-0"	Str.
S610 to S616	1 Each	1 Each		Str.
*S617 to S623	1 Each	1 Each	6'-3" to 1'-1"	Str.
S624 to S630	1 Each	1 Each		Str.

BENDING DIAGRAMS



P401 P402

Dimensions are out to out of bars.

* This bar to be Epoxy coated. See Sp. Job R40012 Epoxy Coated Reinforcing Steel.

GENERAL NOTES

ALL STRUCTURAL STEEL SHALL BE PAID FOR AT THE PRICE BID PER POUND FOR "STRUCTURAL STEEL IN BEAM SPANS (A36)."

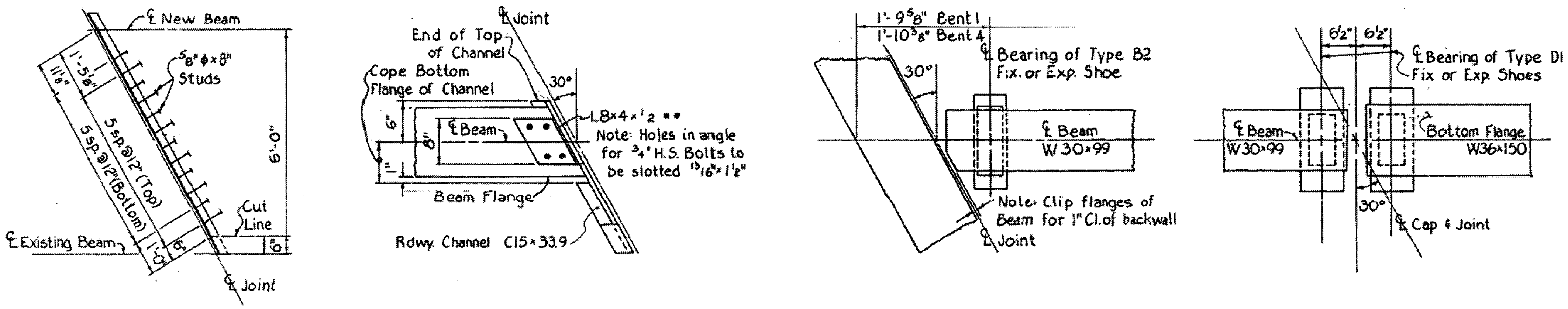
THIS DRAWING TO BE USED WITH DRAWING NO. 14990G, EXCEPT AS NOTED.

DESIGN SPECIFICATIONS: AASHTO 1983 EDITION WITH CURRENT INTERIMS.

METHOD OF DESIGN: LOAD FACTOR

CLASS S(AE) CONCRETE f'c = 3500 PSI
STRUCTURAL STEEL fy = 36,000 PSI
REINFORCING STEEL (A615 OR A617, GRADE 60) fy = 60,000 PSI
ALL STRUCTURAL STEEL SHALL BE A36.

ALL W-BEAM ARE CONSIDERED MAIN LOAD CARRYING MEMBERS AND SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST SPECIFIED IN SECTION 807.05 OF THE STANDARD SPECIFICATIONS.



ANCHOR SPACING DETAILS
Scale: ½" = 1'-0"

CHANNEL CONNECTION
Scale: 1" = 1'-0"

PLAN OF BEARING AT END BENTS
Scale: 1" = 1'-0"

PLAN OF BEARING AT INTERMEDIATE BENTS
Scale: 1" = 1'-0"

Note: Boiled Linseed Oil Treatment shall be applied to the new Slab Surface and the face and top of the Concrete Parapet Rail.

Note: Remove all existing Joint material. Install Closed Cell Foamed Joint Filler as shown on Dwg. 78184 & SP Job R40012 Closed Cell Foamed Joint Filler.

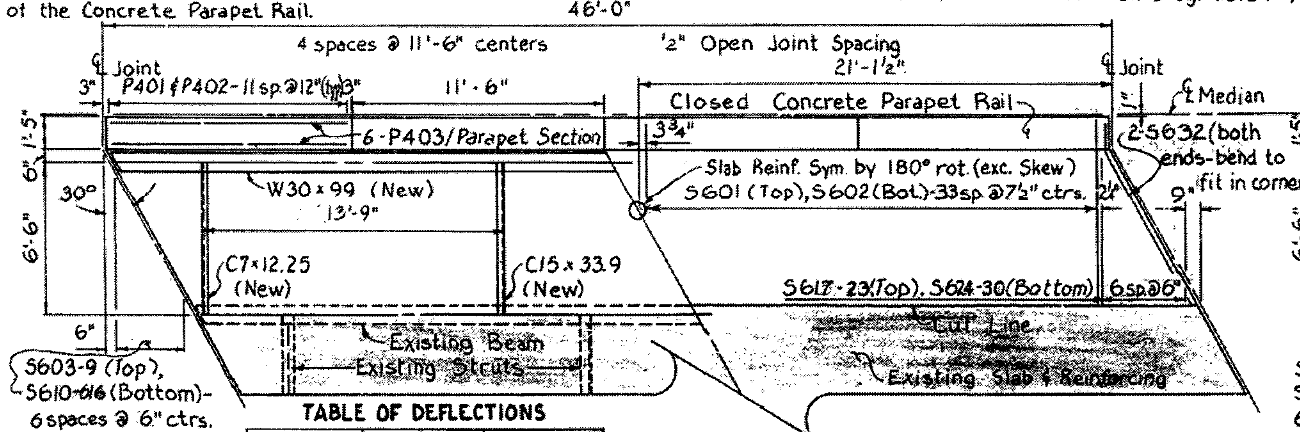
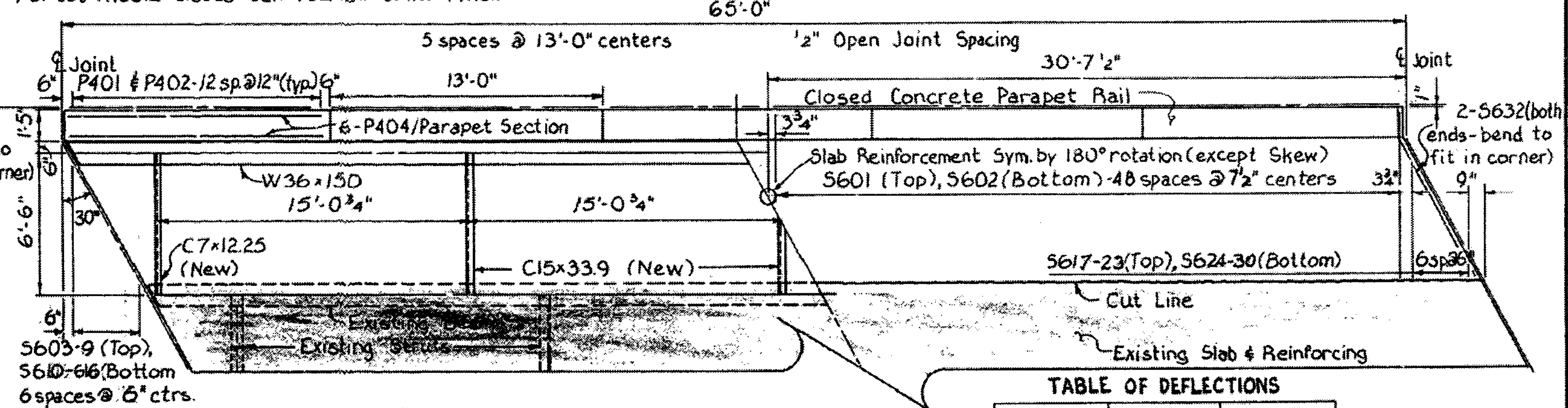


TABLE OF DEFLECTIONS

BEAM		BEAM+SLAB		BM+SLB+PARA.	
¼ Pt.	½ Pt.	¼ Pt.	½ Pt.	¼ Pt.	½ Pt.
1/16"	1/16"	⅜"	½"	7/16"	½"

PLAN - SPANS 1 & 3
Scale: ¼" = 1'-0"

NOTE: Both Span Plans for Bridge B Looking Fwd. & Bridge A Looking Back



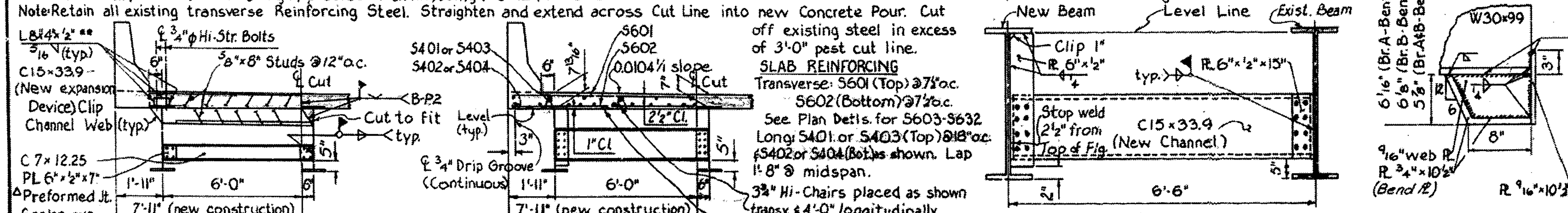
PLAN - SPAN 2
Scale: ¼" = 1'-0"

TABLE OF DEFLECTIONS

BEAM		BEAM+SLAB		BM+SLB+PARA	
¼ Pt.	½ Pt.	¼ Pt.	½ Pt.	¼ Pt.	½ Pt.
3/16"	¼"	11/16"	15/16"	¾"	1 1/16"

** Supersedes 149906
Note: Detail Expansion Device ⅛" high & provide ¼" shims; using 1'-8" PL & 2-1/16" PL
Note: Retain all existing transverse Reinforcing Steel. Straighten and extend across Cut Line into new Concrete Pour. Cut off existing steel in excess of 3'-0" past cut line.

SLAB REINFORCING
Transverse: S601 (Top) @ 7½" o.c.
S602 (Bottom) @ 7½" o.c.
See Plan Detls. for S603-S632
Long: S401 or S403 (Top) @ 18" o.c. & S402 or S404 (Bot.) as shown. Lap 1'-8" @ midspan.
3¾" Hi-Chairs placed as shown transv. & 4'-0" longitudinally
1" Slab Bolsters @ 4'-0" o.c. (typ)



NEAR EXPANSION DEVICE

RDWY. SECTIONS
Scale: ⅜" = 1'-0"

NEAR MID-SPAN

DETAILS OF INT. DIAPRAGM CONNECTIONS
Scale: ¾" = 1'-0"

BEAM BUILDUP DETAIL
Scale: 1½" = 1'-0"

[signature] BRIDGE ENGINEER

INFORMATION ONLY

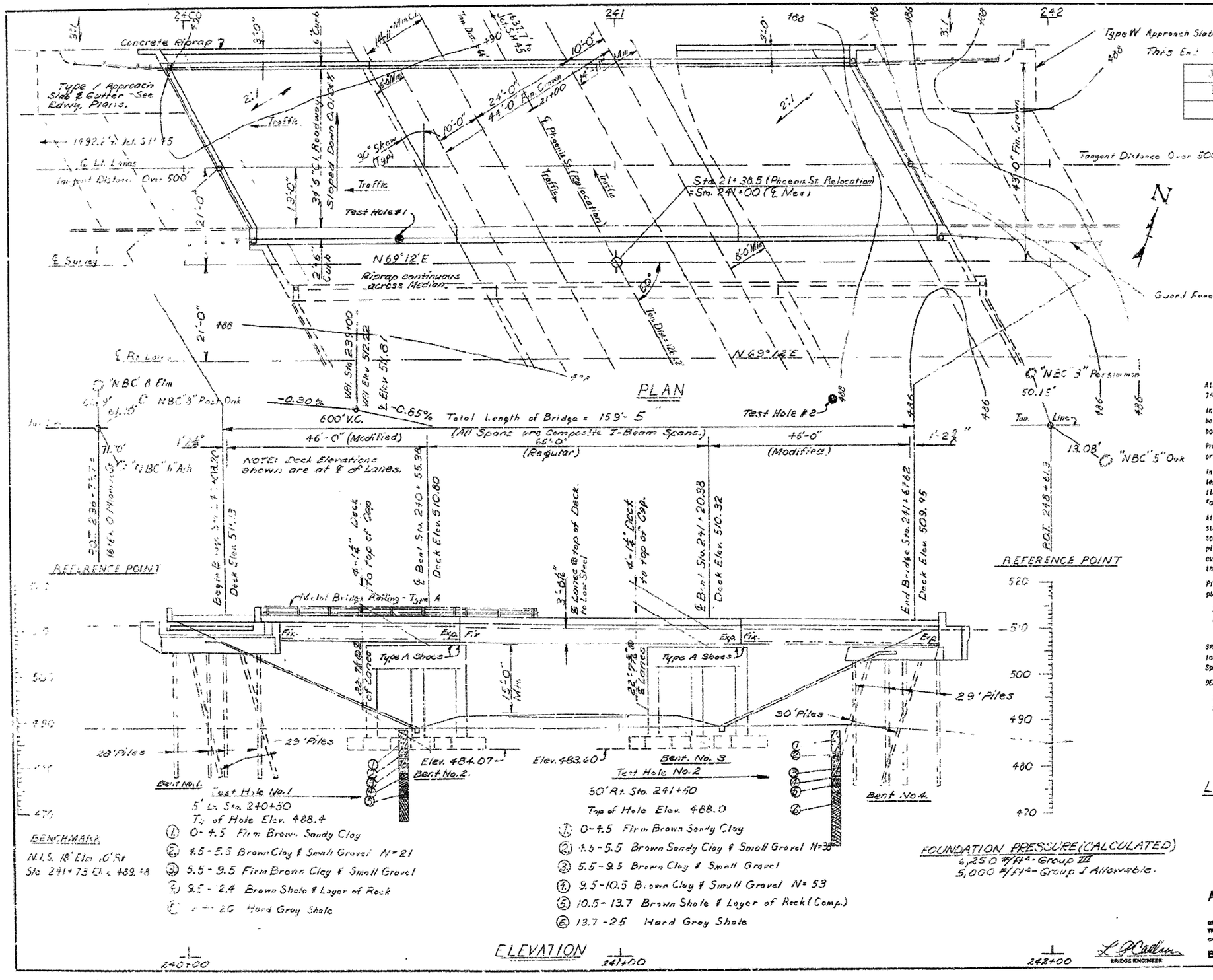
DETAILS OF WIDENING SPANS
PHOENIX ST. OVERPASS
SEBASTIAN COUNTY
ROUTE I-540 SEC. I
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: WK DATE: 12-4-85
CHECKED BY: BTH DATE: 12-11-85
DESIGNED BY: JRH DATE: 10-85
SCALE: As Noted

BRIDGE NO. 5098AW & BW DRAWING NO. 28192

FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	C-045-1(4)			
JOB NO.		4597		79	186

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	221A	234
Layout		



FOUNDATION PRESSURE (CALCULATED)
6,250 #/ft² - Group III
5,000 #/ft² - Group I Allowable.

GENERAL NOTES

All concrete to be poured in the dry. Exposed corners to be chamfered 3/4".

In general all construction joints in bents shall be horizontal and shall be provided with keys not less than 18" high covering the middle third of both dimensions.

Provide roadway drains at both sides of roadway approximately 12' from bridge ends.

In order not to disturb the founding material, the final one foot, at least, of excavation shall carefully be done by hand methods to neat lines, and the concrete shall be poured against the excavated surfaces. Foundation pits shall be kept dry.

All piling shall be 10"RP42 and shall be driven with an approved air, steam, or diesel hammer to a minimum capacity of 35 tons per pile and to the material designated as shale, on the boring logs. Lengths of piling shown are for estimating quantities only. Order lengths shown; cut-off or build-up, if necessary, to be paid for in accordance with the Standard Specifications.

Piles in end bents shall be driven after embankment, to subgrade, is in place.

For Details of Substructure see Dwgs. 13827 & 13828
For Details of Superstructure see Dwgs. 14990C, 14990C, 13818 & 13829

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1953, the 1966 Supplemental Specifications thereto, and the Designated Special Provisions.

DESIGN SPECIFICATIONS: AASHO 1961

Live Loading: H520
Unit Stresses: Class A Concrete (n=15) 820 psi
Class S Concrete (n=10) 1,200 psi
Reinforcing Steel 20,000 psi
Structural Steel (A 36) 20,000 psi

(LEFT LANES)

LAYOUT OF PHOENIX ST. OVERPASS
HWY. 45 - HWY. 22
SEBASTIAN COUNTY

INFORMATION ONLY

ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

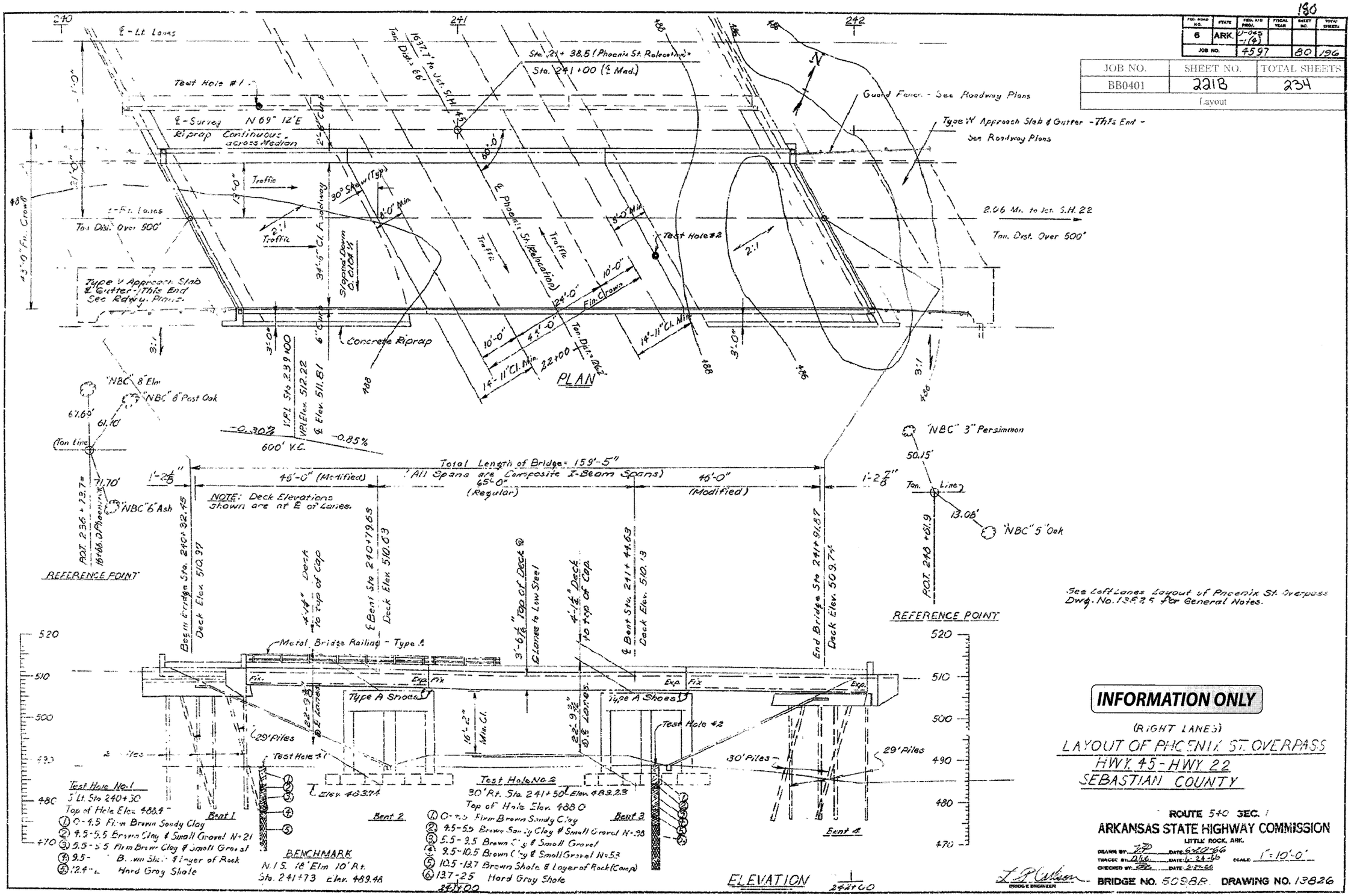
DRAWN BY: RP. DATE 6-20-66
TRACED BY: DRG DATE 6-20-66
CHECKED BY: PHS DATE 8-27-66
SCALE 1" = 10'-0"

BRIDGE NO. F098A DRAWING NO. 13825

L. P. Cullum
BRIDGE ENGINEER

FED. ROAD NO.	STATE	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	U-045 -1(6)			
JOB NO.		4597		80	196

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	221B	234
Layout		



INFORMATION ONLY

(RIGHT LANES)

LAYOUT OF PHOENIX ST. OVERPASS
HWY. 45 - HWY. 22
SEBASTIAN COUNTY

ROUTE 540 SEC. 1

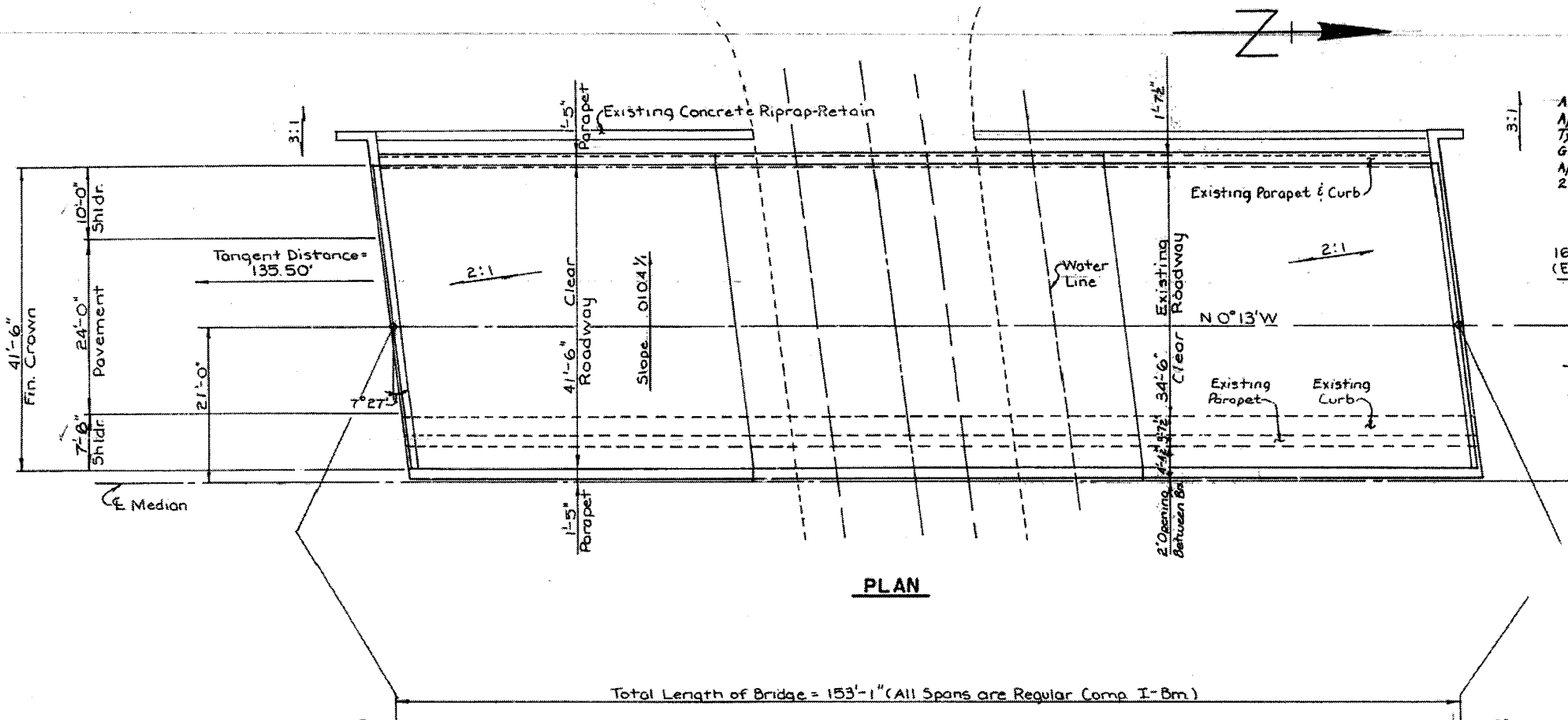
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JP DATE: 6-20-66
TRACED BY: DLG DATE: 6-24-66 SCALE: 1"=10'-0"
CHECKED BY: DLG DATE: 6-27-66

L. P. Gibson
BRIDGE ENGINEER

BRIDGE NO. 5098R DRAWING NO. 13826

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	222	234



At Beginning of bridge on outside shoulders use Type II Approach Gutters. At End of bridge outside shoulder use Type I Approach Gutters. Use Special Median Approach Gutters at both ends of bridge at median. Use standard Approach Slab at both ends of bridge. See Dwg. 1838T and 28185.

1686.20' to Jct. S.H. 22 (Existing Hwy 22 Interchange)

GENERAL NOTES

BENCH MARK: USE EXISTING BRIDGE ELEVATIONS.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 EDITION.

LIVE LOADING: HS 20 AND SPECIAL INTERSTATE

STEEL PILING: ALL PILING SHALL BE HP10X42 AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 55 TONS PER PILE AND INTO THE MATERIAL DESIGNATED AS SHALE ON THE ORIGINAL LAYOUT. LENGTHS SHOWN ARE FOR ESTIMATING QUANTITIES AND FOR USE IN DETERMINING PAYMENT FOR CUT-OFF AND BUILD-UP IN ACCORDANCE WITH THE SPECIFICATIONS.

FOOTINGS SHALL BE SET A MINIMUM OF 1'-6" INTO HARD GRAY SHALE. ROCK EXCAVATIONS SHALL BE MADE TO NEAT LINES OF THE CONCRETE FOOTINGS. CARE SHALL BE EXERCISED TO AVOID SHATTERING OF ROCK FACES. CONCRETE IN FOOTINGS SHALL BE POURED DIRECTLY AGAINST EXCAVATED SURFACES OF ROCK. NO BLASTING WILL BE ALLOWED.

PROPOSED WORK CONSISTS OF: REMOVING THE EXISTING CONCRETE DECK. RETAINING THE EXISTING BEAMS AND DIAPHRAGMS, REBUILDING BACKWALLS AT END BENTS, WIDENING THE DECK AND BENTS TO A 41.5 FOOT CLEAR ROADWAY BRIDGE.

THE CONTRACTOR SHALL MAKE CHECK MEASUREMENTS OF THE EXISTING BRIDGE AND MAKE ADJUSTMENTS NECESSARY TO FIT THE NEW WORK TO THE EXISTING STRUCTURE.

DETAIL DRAWINGS:	DRAWING NO.
END BENTS	28195, 28196
INTERMEDIATE BENTS	28197
SUPERSTRUCTURE 28198 - 28201	

HALF-SIZE DETAIL SHEETS OF THE EXISTING BRIDGE MAY BE OBTAINED UPON REQUEST TO THE BRIDGE DIVISION OF THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT. DRAWING NOS. 13814 - 13819, 13812, 14990C, & 14992.

MAINTENANCE OF TRAFFIC: SEE JOB SPECIAL PROVISION AND STAGE CONSTRUCTION SEQUENCE IN ROADWAY PLANS.

INFORMATION ONLY

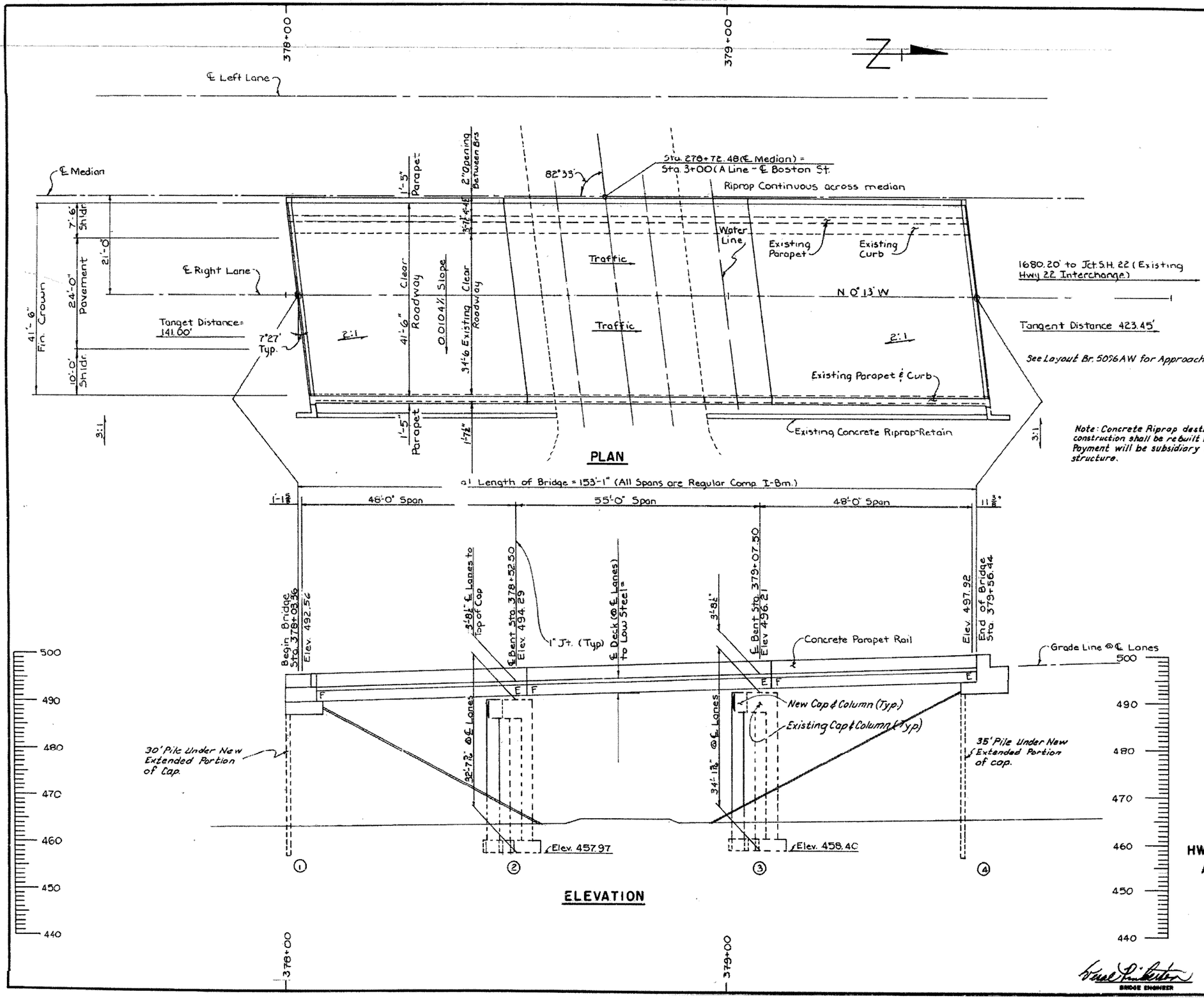
BRIDGE A
LAYOUT OF BOSTON ST. OVERPASS
HWY. 71 - HWY. 22 (PAVEMENT RESTORATION AND SAFETY IMPROVEMENTS)(FT. SMITH)
SEBASTIAN COUNTY
ROUTE 540 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: PAE DATE: 5-24-85
CHECKED BY: DV DATE: 6-17-85
DESIGNED BY: DVR DATE: 5-85
SCALE: 1"=10'-0"

Fred O. Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5096 AW DRAWING NO. 28193

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	223	234



For General Notes See Drwg No. 28193

INFORMATION ONLY

BRIDGE B

LAYOUT OF BOSTON ST. OVERPASS

HWY. 71 - HWY. 22 (PAVEMENT RESTORATION AND SAFETY IMPROVEMENTS) (FT. SMITH)

SEBASTIAN COUNTY

ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: P.A.E. DATE: 5-22-85

CHECKED BY: DV DATE: 6-17-85

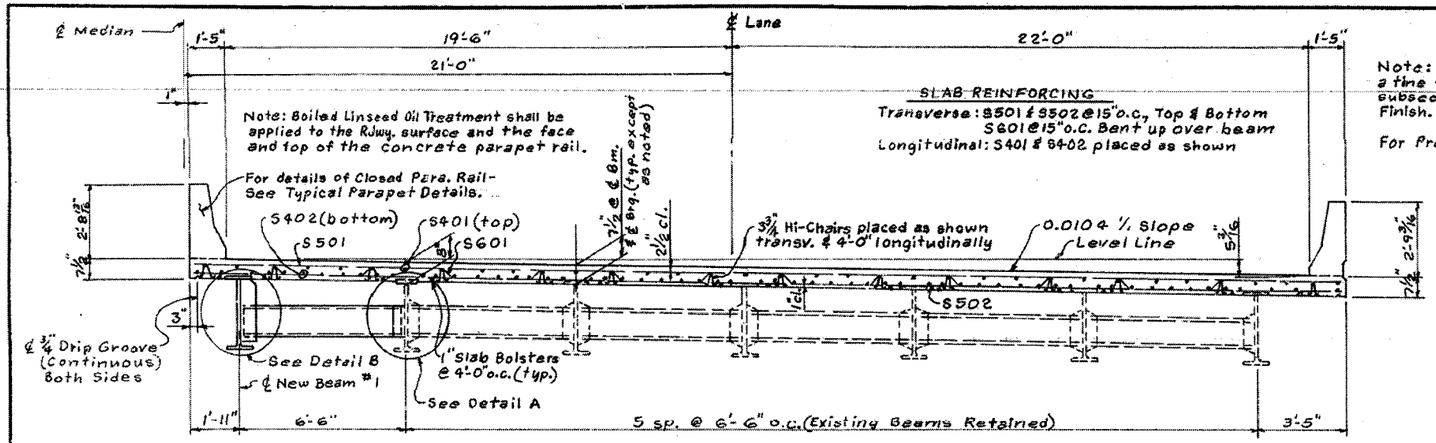
DESIGNED BY: DVS DATE: 5-85

SCALE: 1" = 10'-0"

BRIDGE ENGINEER

BRIDGE NO. 5096 BW DRAWING NO. 28194

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	224	234



RDWY. SECTION NEAR MID-SPAN

SLAB REINFORCING

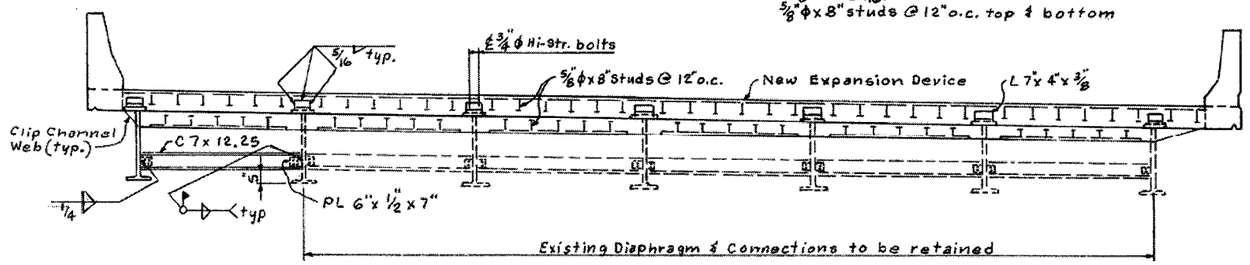
Transverse: S501 & S502 @ 15" o.c., Top & Bottom
S601 @ 15" o.c. Bent up over beam
Longitudinal: S401 & S402 placed as shown

Note: The Concrete Bridge Deck shall be given a tine finish as specified for final finishing in subsection 802.23 for Class C, Roadway Surface Finish.

For Preformed Jt. Sealer - See Dwg. No. 14990G.

EXPANSION DEVICE

Roadway Channel C15x33.9
Connection Angle 8"x4"x½"
Preformed Jt. Sealer Supported by ¼"ø bars
Detail Device ⅛" high & provide ¼" shims; using
1-⅛" PL & 2-1/16" PL
⅝"ø x 8" studs @ 12" o.c. top & bottom

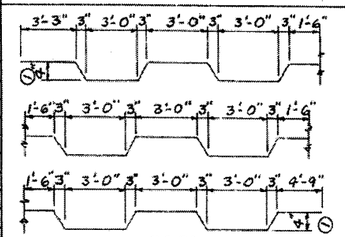


RDWY. SECTION NEAR EXPANSION DEVICE

BAR LIST - ONE SPAN

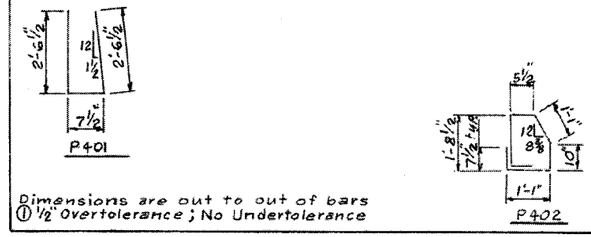
MARK	NO. REQ'D.	LENGTH	PIN DIA.
* S601	△	45'-3"	3¾"
* S501	△	44'-0"	Str.
S502	△	44'-0"	Str.
* S401	△	△	Str.
S402	△	△	Str.
P401	△	5'-6"	2"
P402	△	6'-0"	2"

BENDING DIAGRAMS



S601

△ See Details of Widening for each Span for complete Bar Lists.

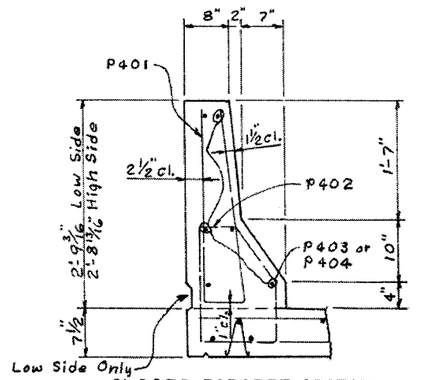


Dimensions are out to out of bars
① ½" Overtolerance; No Undertolerance

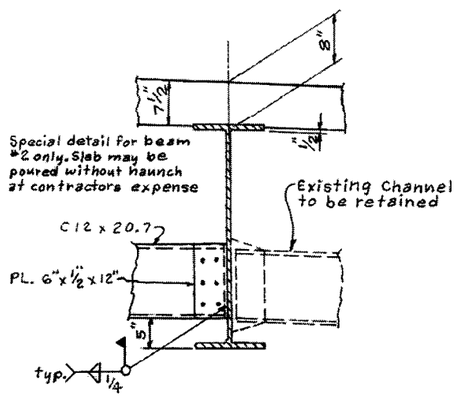
* This bar to be Epoxy Coated - See SP Job R40012 Epoxy Coated Reinforcing Steel

Note: At the Contractors option, in lieu of providing Bar 3601, two straight #6 bars may be substituted with the bar in the top mat epoxy coated. Payment for reinforcing will be based on the weight of Bar S601.

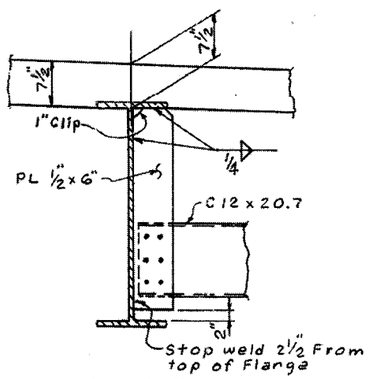
The Contractor shall be responsible for checking all elevations and grades and determining the haunch dimension. All existing beams found to not have enough camber shall be formed with a haunch to maintain proper slab depth. If the contractor elects to not use a haunch all additional concrete shall be at his expense.
The Contractor shall maintain the existing paint. Any damage done to the paint shall be spot painted to match the existing paint at the contractor expense. Any damage done to the paint due to plan details shall be repaired subsidiary to bid item "Structural steel in beam spans A36".



CLOSED PARAPET SECTION
Scale: 1" = 1'-0"



DETAIL A
Scale: 1" = 1'-0"



DETAIL B
Scale: 1" = 1'-0"

MASONRY PLATE THICKENING

5096 BW BM. NO. 1

BENT NO.	②	③
	¼ x ⅜ EXP.	¼ x ⅜ FIX

INFORMATION ONLY

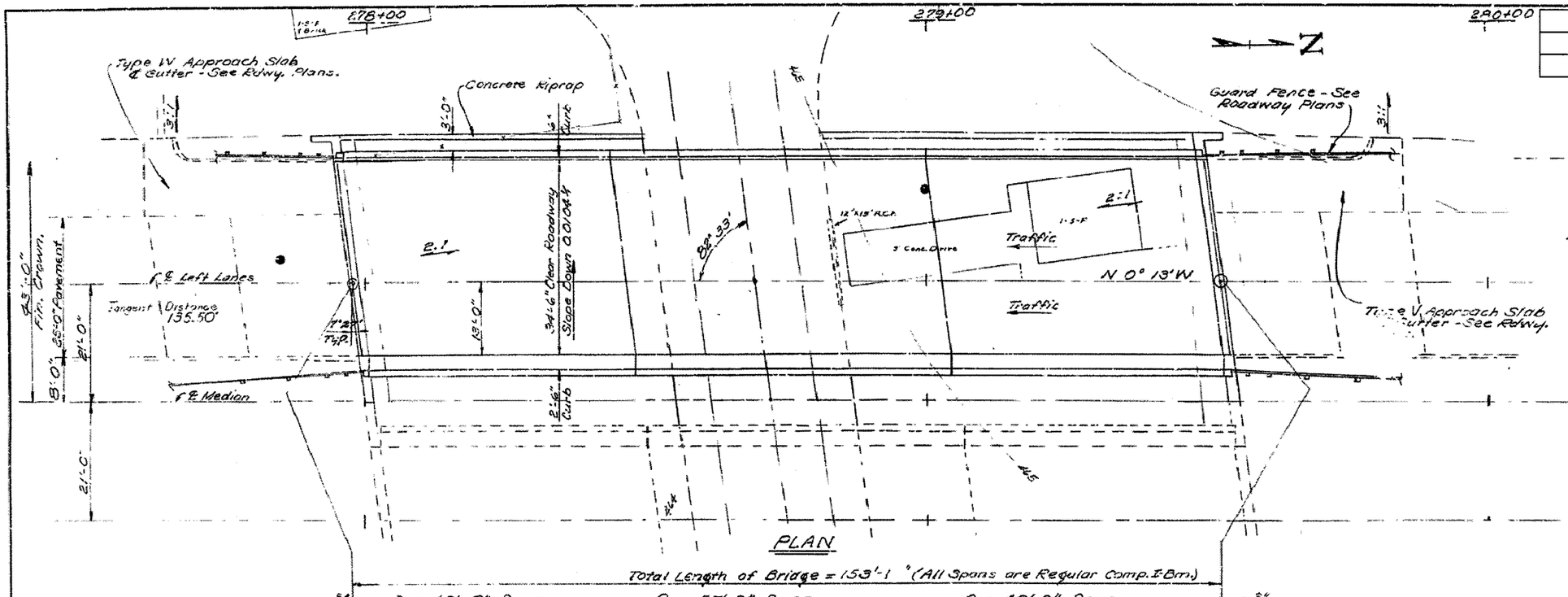
SHEET 1 OF 2
DETAILS OF W-BEAM SPANS
BOSTON ST. OVERPASS
SEBASTIAN COUNTY
ROUTE 540 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: LDF DATE: 11-13-85
CHECKED BY: DJX DATE: 12-31-85
DESIGNED BY: DATE:
SCALE: ⅜" = 1'-0" or as noted

Bruce Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 5096 AW 5096 BW DRAWING NO. 28198

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	225	234



Foundation Pressure: 11,000 #/ft² (Group III - Calculated.)

#46
1686.20' to Jct. S.H. 22 (Existing Hwy 22 Interchange)
Tangent Distance 428.75'

GENERAL NOTES

All concrete to be poured in the dry. Exposed corners to be chamfered 3/4".

In general, all construction joints in beats shall be horizontal and shall be provided with keys not less than 14" high covering the middle third of both dimensions.

Provide roadway drains at low side of roadway approximately 12' from bridge ends.

Rock excavations shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock, in hard grey shale.

All piling shall be 10"BP42# and shall be driven with an approved air, steam, or diesel hammer to a minimum capacity of 55 tons per pile and to the material designated as shale on the boring logs. Lengths of piling shown are for estimating quantities only. Order lengths shown cut-off or build-up, if necessary, to be paid for in accordance with the Standard Specifications.

Piles in end bents shall be driven after embankment, to subgrade, is in place.

For Details of Substructure see Dwgs. 13816 & 13817
For Details of Superstructure see Dwgs 13818, 13819, 14990C & 14992, 13812.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, the 1966 Supplemental Specifications thereto, and the Designated Special Provisions.

DESIGN SPECIFICATIONS: AASHO 1961

Live Loading: HS20

Unit Stresses:

Class A Concrete (n=15)	840 psi	
Class S Concrete (n=10)	1,200 psi	
Reinforcing Steel	20,000 psi	
Structural Steel (A36)	20,000 psi	

(LEFT LANES)

LAYOUT OF BOSTON ST. OVERPASS

HWY. 45 - HWY. 22

SEBASTIAN COUNTY

ROUTE 540 SEC. 1

INFORMATION ONLY

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

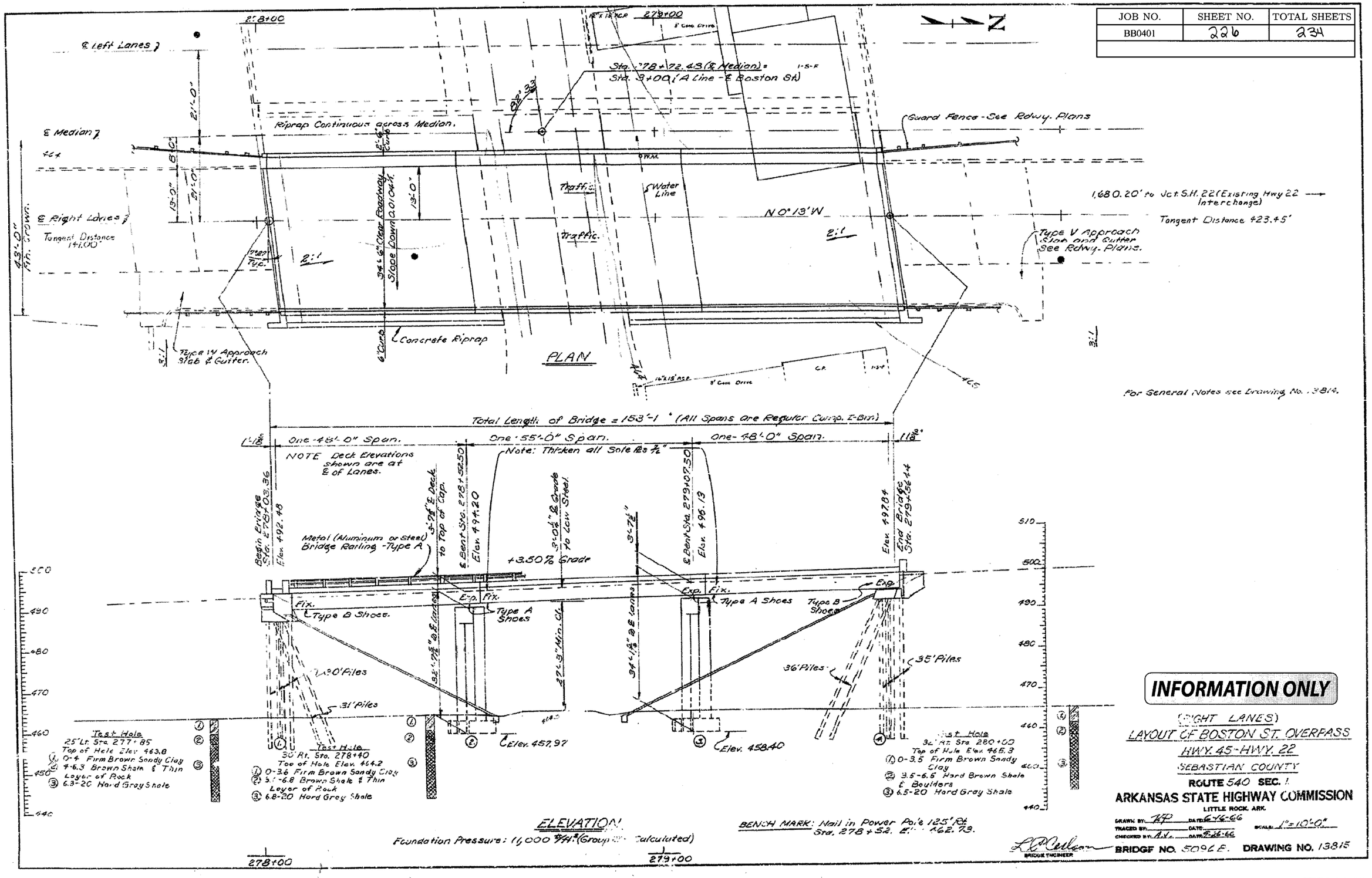
DRAWN BY: TJP DATE: 6-16-66
TRACED BY: DATE:
CHECKED BY: A.H. DATE: 9-26-66
SCALED: 1" = 10'-0"

L O Callison
BRIDGE ENGINEER

BRIDGE NO. 5096A **DRAWING NO. 13814**

BENCH MARK: Nail in Power Pole 125' Rt. Sta. 278+52 Elev. 462.73

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	226	234



INFORMATION ONLY

(RIGHT LANES)

LAYOUT OF BOSTON ST. OVERPASS

HWY. 45 - HWY. 22

SEBASTIAN COUNTY

ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: MP DATE: 6-16-66

TRACED BY: DATE:

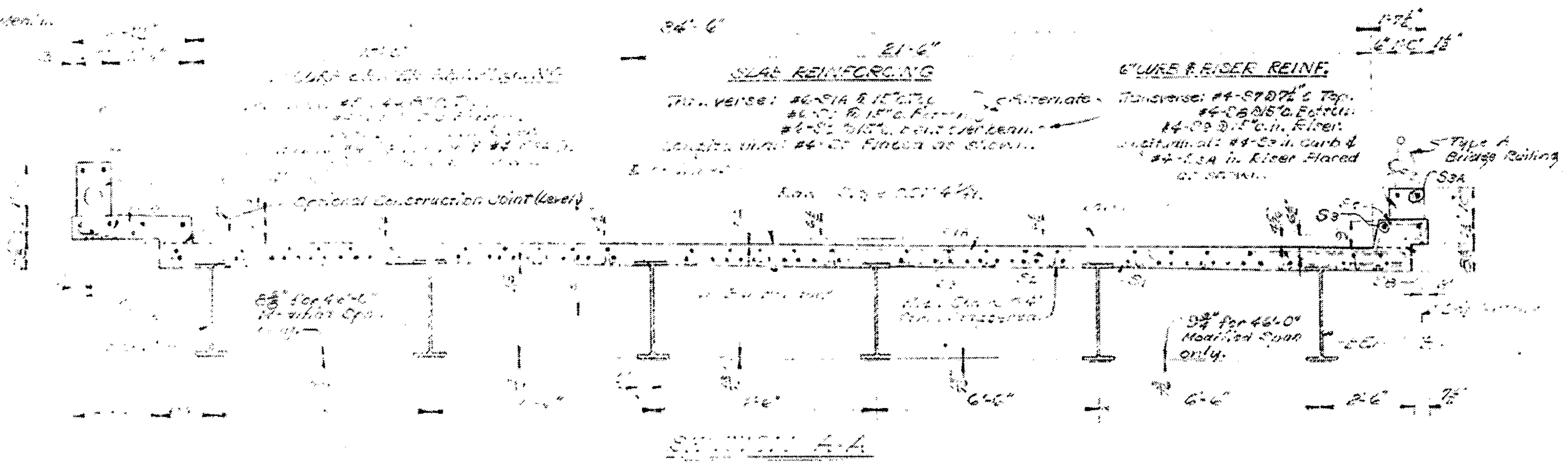
CHECKED BY: A.V. DATE: 7-26-66

SCALE: 1" = 10'-0"

L. C. Nelson
BRIDGE ENGINEER

BRIDGE NO. 5092 E. DRAWING NO. 13815

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	227	234



DESIGN SPECIFICATIONS AASHO 1961

LOADING: H20

	Interior Beam	Exterior Beams (Beam 1)	(Beam 5)
1. Dead Load:			
(a) To WF Beam	528 #/' + 1.15 (wt/ft of WF)	900# + 1.15 (wt/ft of WF)	735# + 1.15 (wt/ft of WF)
(b) To Composite Beam	263 #/'	130 #/'	112 #/'
2. Live Load:			
(a) To Each Composite Beam	1.182 Wheels + Impact	1.150 Wheels + Impact	

GENERAL NOTES

This Drawing to be used with Dra[illegible] No. 14990C. For General Notes see Drawing No. 14990C.

For Bar List see supplemental details of the individual spans.

For details of Type A Bridge Railing see Drawing 14992.

For Details of Expansion Device, Struts, Diaphragms, Shear Connectors, and Cover Plates see Drawing No. 13812.

The roadway surface, vertical curb section, and curbs to the vertical face of rail riser shall receive a linseed oil treatment according to S.P. [illegible].

TABLE OF VARIABLES

Bridge Number	Span Number	Span Length	Interior Beam Type	Interior Beam Size	Cover Pl.	Dead Load Deflection	Exterior Beam Size	Cover Pl.	Dead Load Deflection	e.	Rail Post Spacing a.	b.	c.	Shear Connector Spacing g	h	i	j	k	l	m	n	p	Dead Load Deflection Ext. Bm. without Const. Jt. in Curb: Beam A	Beam B
9096A & 9096B	1 & 3	46'-0"	Regular	27WF84	[illegible]	[illegible]	27WF94	8½x¾x31'-0"	11/16"	2'-8 5/8"	7'-6"	7'-6"	4	9	7"	10	8"	7	10"	4	14"	7"	1⅛"	15/16"
	2	[illegible]	Regular	27WF84	[illegible]	[illegible]	27WF94	8½x1⅛"x39'-0"	1⅛"	2'-8⅝"	7'-3"	7'-6"	5	9	7"	12	8"	9	10"	4	15"	9"	1½"	1¼"
9098A & 9098B	1 & 3	46'-0"	Modified	36WF	[illegible]	[illegible]	33WF118	No Pl.	⅜"	2'-5 11/16"	7'-2"	7'-2"	4	8	5"	14	6"	10	8"	5	12"	0"	⅝"	½"
	2	65'-0"	Regular	33WF118	[illegible]	1⅝"	33WF118	10½x15/16"x43'-0"	1⅛"	3'-2⅝"	7'-9"	7'-9"	6	10	10	10	12"	7	14"	3	17"	9"	1¾"	1½"

With or Without Construction Joint in Curb

With Construction Jt. in Curb

INFORMATION ONLY

DETAILS OF COMPOSITE BEAM SPANS

34'-0" CLEAR RDWY.

HWY. 45 – HWY. 22

SEBASTIAN COUNTY

ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY VH DATE 8-2-66. SCALE [illegible]

TRACED BY ______ DATE ______

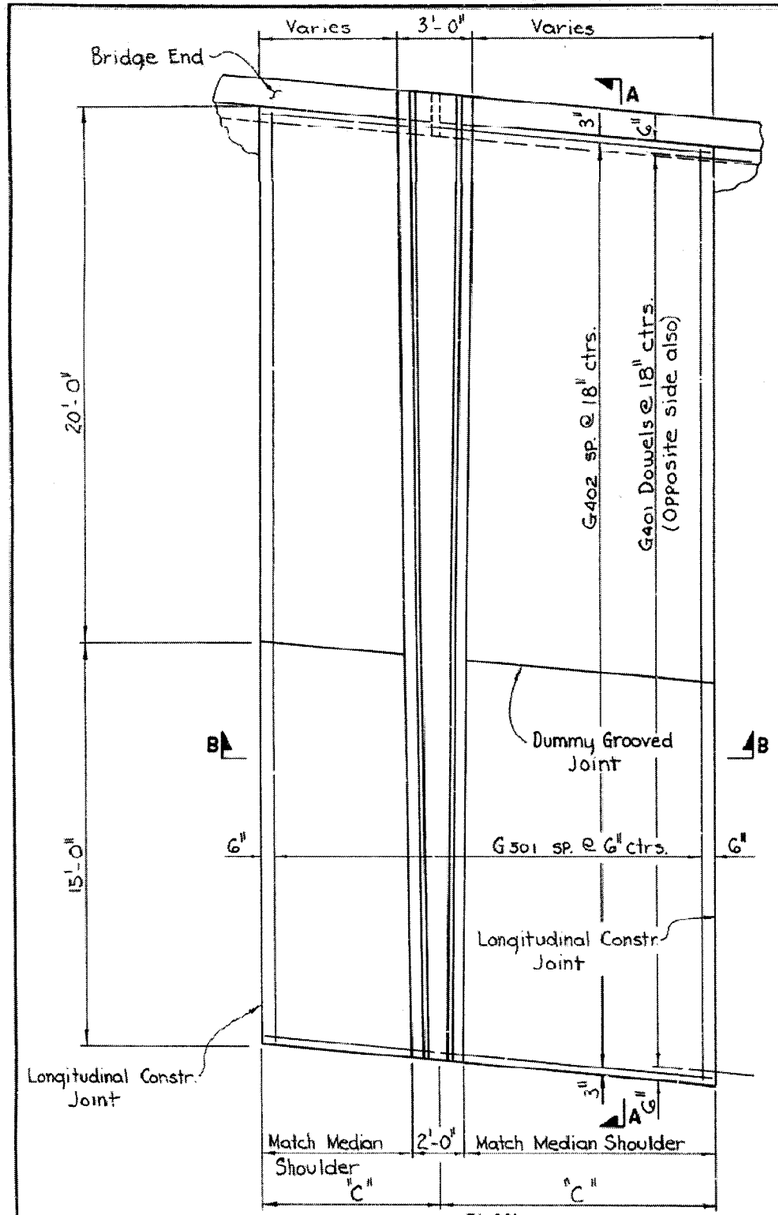
CHECKED BY [illegible] DATE 9-27-66

L. Pierson
BRIDGE ENGINEER

BRIDGE NO. 9096 A&B, 9098 A&B

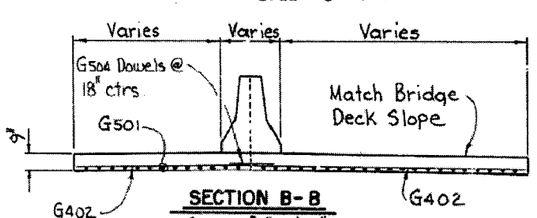
DRAWING NO. 13615

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	228	234



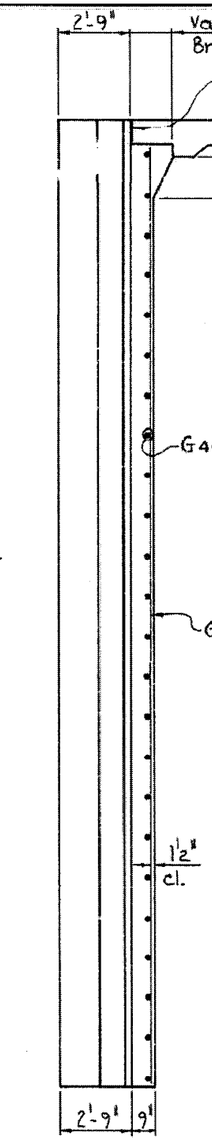
PLAN

SCALE: $\frac{3}{8}$" = 1'-0"



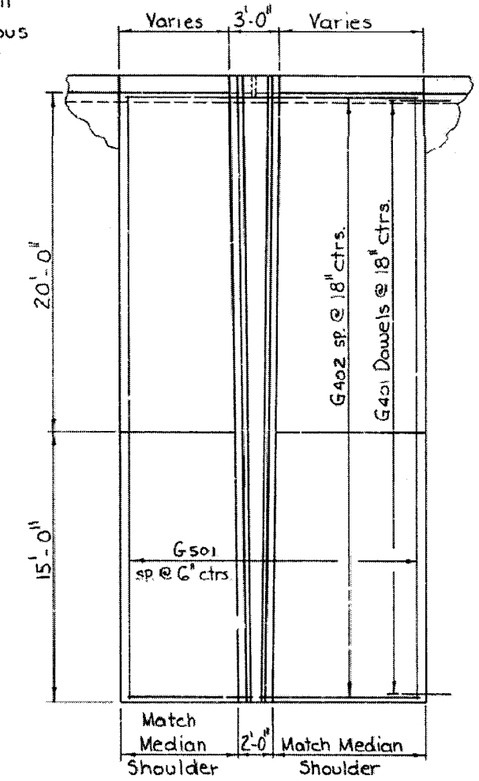
SECTION B-B

SCALE: $\frac{3}{8}$" = 1'-0"



SECTION A-A

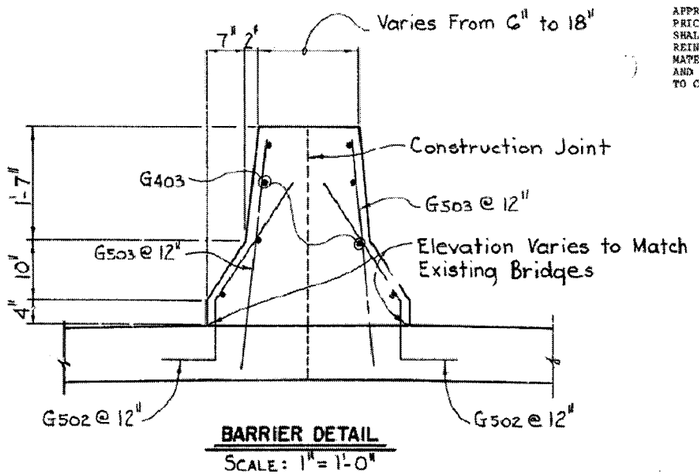
SCALE: $\frac{3}{8}$" = 1'-0"



Note: Bars not shown are the same as for skewed Bridge.

SKETCH SHOWING APPROACH FOR SQUARE BRIDGE

SCALE: 1/4" = 1'-0"

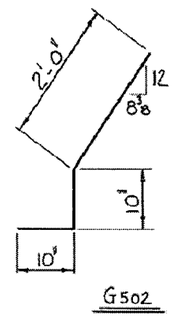


BARRIER DETAIL

SCALE: 1" = 1'-0"

BAR LIST

MARK	NUMBER REQUIRED	LENGTH	BENDING DIAGRAM
G401	48	3'-0"	
G402	48	(C-4") (Secant Skew)	
G403	8	35'-8"	
G501	45	34'-8"	
G502	72	3'-6"	
G503	72	3'-2"	
G504	24	3'-0"	



G502

10'-0" SHOULDER SQUARE BRIDGE GUTTER QUANTITIES

CONCRETE	REINFORCING
28.00 cu.yd.	2,778 lbs.

GENERAL NOTES

CONCRETE SHALL BE CLASS S OR CLASS S(AE) OR MIXTURE USED FOR PORTLAND CEMENT CONCRETE PAVEMENT.

REINFORCEMENT STEEL SHALL CONFORM TO ASTM A615 OR A617.

APPROACH GUTTERS FOR STRUCTURES SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH BID FOR "APPROACH GUTTERS" OF THE TYPE DESIGNATED, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING MATERIALS, INCLUDING CONCRETE, REINFORCING STEEL AND JOINT FILLER; PLACEMENT AND COMPACTION OF BASE MATERIAL; FOR FORMS, MIXING, PLACING, CURING AND FINISHING; FOR EXCAVATION AND BACKFILL; AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

INFORMATION ONLY

DETAILS OF SPECIAL MEDIAN
APPROACH GUTTERS
CONCRETE PARAPET RAILING
SEBASTAIN COUNTY
ROUTE I-540 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

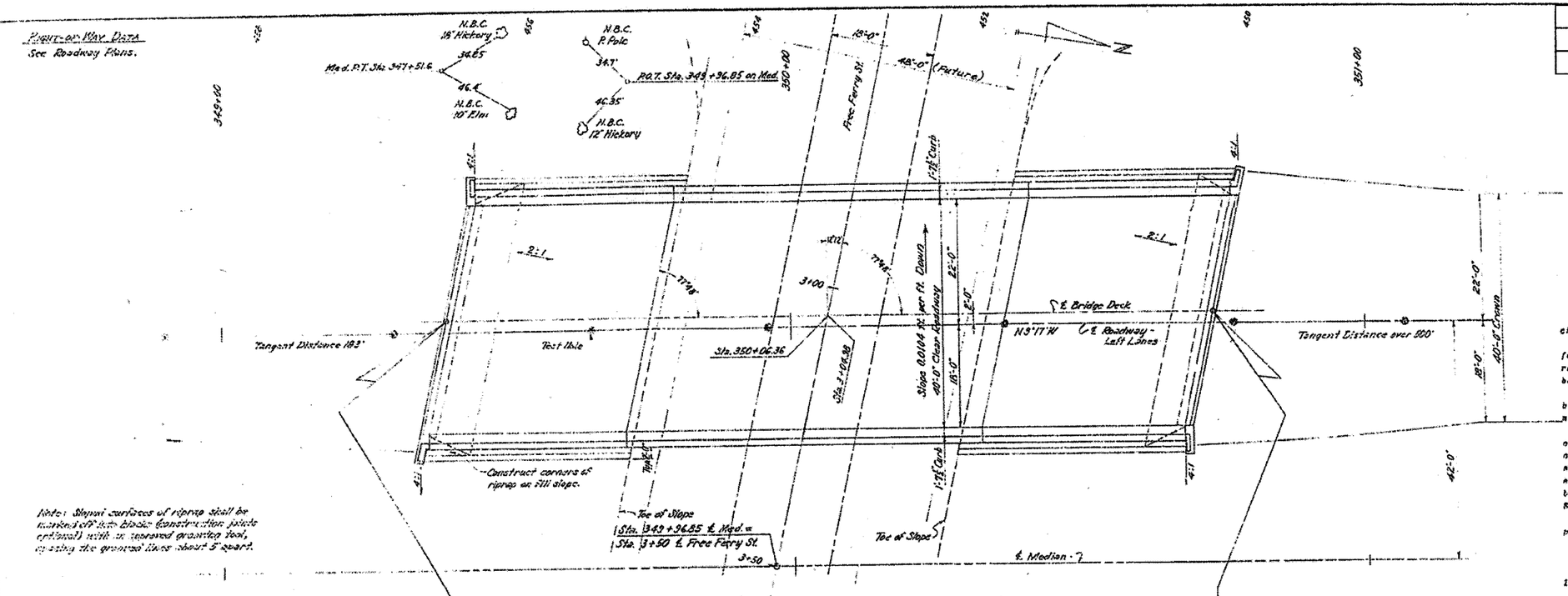
DRAWN BY: TEB DATE: 5 Nov. 85
CHECKED BY: DATE: 11-5-85 SCALE: As Noted
DESIGNED BY: DATE: 11-85

Hiral Pinkerton
BRIDGE ENGINEER

BR. NO. 5101AW&BW, 5100AW&BW, 5098AW&BW, 5096AW&BW DWG. NO. 28185

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	229	234

Right-of-Way Data
See Roadway Plans.



PLAN

ELEVATION

Foundation Pressure (Calc.) = 5.0 Tons/Sq. Ft.

B.M. Nail in Power Pole 240' Lt. Sta. 349+00, Elev. 457.56.
B.M. N.L.S. Power Pole 22' Rt. Sta. 3+23 (Free Ferry Line), Elev. 454.17
B.M. Nail in Power Pole 250' Rt. Sta. 363+00, Elev. 483.89

349+00 350+00 351+00

GENERAL NOTES

All concrete to be poured in the dry. Exposed corners to be chamfered 3/4" unless otherwise noted.

Rock excavation shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock.

In general, all construction joints in bents or piers shall be provided with keys not less than 12" high covering the middle third of both dimensions.

All piling shall be 12-BP-53 and shall be driven with an approved air, steam, or diesel hammer to a minimum capacity of 36 tons per pile and into the material designated as sandstone on the boring logs. Lengths of pile shown are for estimating quantities only. Order lengths shown: cut-off or build-up, if necessary, to be paid for in accordance with the Standard Specifications.

Piles in End Bents shall be driven after embankment is in place.

For Details of End Bents see Dwg. No. 11967.

For Details of Intermediate Bents, see Dwg. No. 11968.

For Details of Composite I-Beam Spans-see Dwg. No. 14050, 15040, and 11969.

For Location Sketch see Dwg. No. 11946.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, and designated Special Provisions.

INFORMATION ONLY

DESIGN SPECIFICATIONS A.A.S.H.O. 1961

LIVE LOADING: H20-S16 and Special Interstate Loading of 2-24,000# axles spaced 4'-0" on centers.

UNIT STRESSES:

Class A Concrete (n=15)	840 p.s.i.
Class S Concrete (n=10)	1200 p.s.i.
Reinforcing Steel	20,000 p.s.i.
Structural Steel (A36)	20,000 p.s.i.

(LEFT LANES)
LAYOUT OF
FREE FERRY STREET OVERPASS
HWY. 22 - ARK. RIVER BRIDGE
SEBASTIAN COUNTY
INT. ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

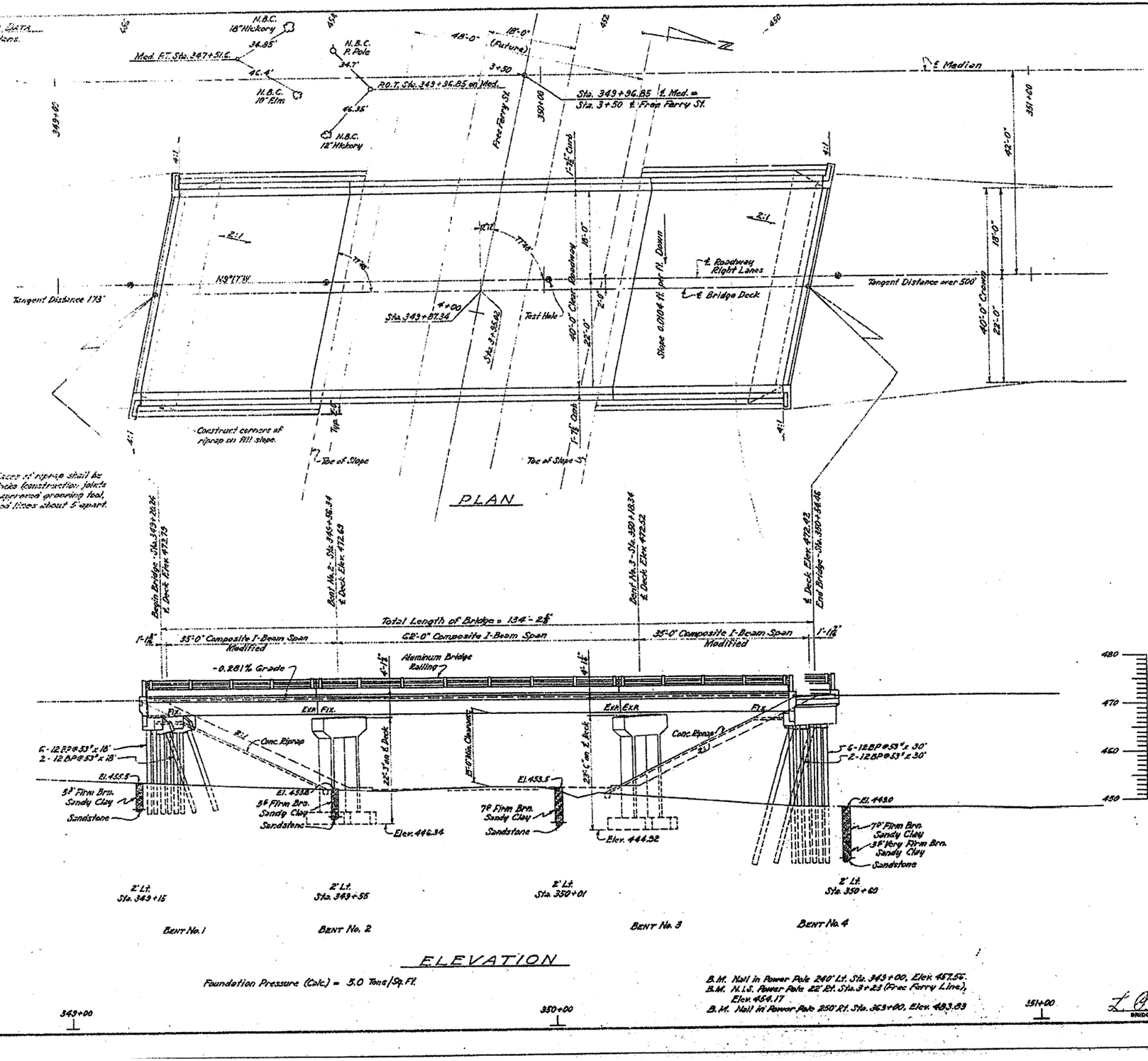
DRAWN BY: A.S. DATE: 1-20-61
TRACED BY: DATE:
CHECKED BY: DV DATE: 2-15-62
SCALE: 1" = 10'

BRIDGE NO. A3604 DRAWING NO. 48616A

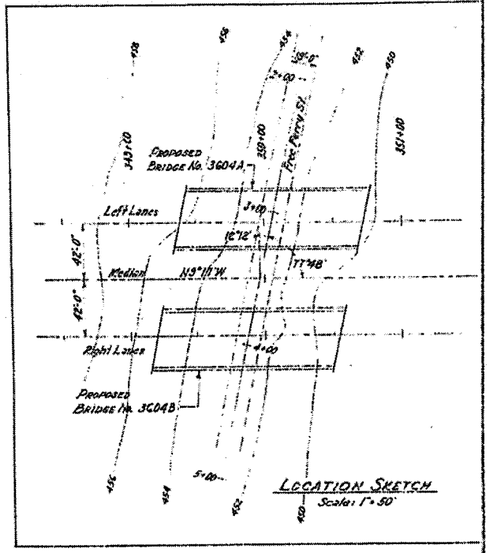
BRIDGE ENGINEER

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	230	234

Right of Way Data
See Roadway Plans.



Note: Stone surfaces of riprap shall be matched off into blocks (construction joints optional) with an approved grooving tool, leveling the grooved lines about 6' apart.



For General Notes and list of detail drawings see Dwg. No. 11965

B.M. Nail in Power Pole 240' Lt. Sta. 349+00, Elev. 457.55.
B.M. N.L.S. Power Pole 22' Rt. Sta. 3+23 (Free Ferry Line), Elev. 454.17
B.M. Nail in Power Pole 250' Rt. Sta. 363+00, Elev. 493.33

INFORMATION ONLY

DESIGN SPECIFICATIONS A.A.S.H.O. 1961
LIVE LOADING: H20-S16 and Special Interstate Loading of 2 - 24,000# axles spaced 4'-0" on centers.

UNIT STRESSES:

Class A Concrete (n=15)	840 p.s.i.
Class S Concrete (n=10)	1200 p.s.i.
Reinforcing Steel	20,000 p.s.i.
Structural Steel (A36)	20,000 p.s.i.

FOR INFORMATION ONLY

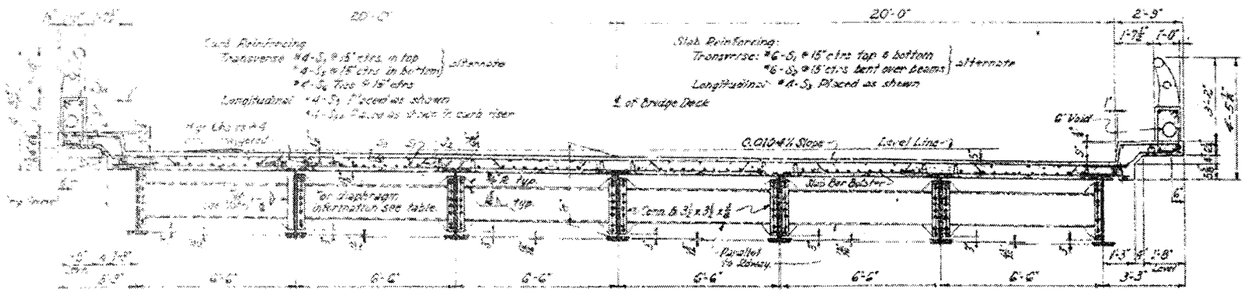
(RIGHT LANES)
LAYOUT OF
FREE FERRY STREET OVERPASS
HWY. 22 - ARK. RIVER BRIDGE
SEBASTIAN COUNTY
INT. ROUTE 540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: A.T DATE: 1-30-63
TRACED BY: DATE:
CHECKED BY: DV DATE: 2-15-63
SCALE: 1" = 10'

L. P. Carlson
BRIDGE ENGINEER

BRIDGE NO. B3604 DRAWING NO. 48616B



JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	231	234

SECTION A-A OF REGULAR SPAN - SLOPED RDWY.

(Regular spans have all beams of equal depth.)

BAR LIST - ONE

MARK	SIZE #	LENGTH	PIN DIA.	35	36	37	38	39	40	41	42	43	44	45	48	50	54	55	60	65	70	75
				NUMBER REQUIRED EACH SPAN																		
S₁	6	41'-2"	Str	58	58	60	62	64	66	66	68	70	72	74	80	82	88	90	98	106	114	122
S₂	6	42'-2"	2¼"	28	28	29	30	31	32	32	33	34	35	36	39	40	43	44	48	52	56	60
S₃	4	3'-6"	Str	102																		
S₃	4	[illegible]	[illegible]	204																		
S₃	4	[illegible]+1'-0	Str	30[illegible]																		
S₄	4	5'-3"	1½"	58	58	60	62	64	66	66	68	70	72	74	80	82	88	90	98	106	114	122
S₅	4	4'-3"	1½"	56	56	58	60	62	64	64	66	68	70	72	78	80	86	88	96	104	112	120
S₆	4	5'-4"	1½"	58	58	60	62	64	66	66	68	70	72	74	80	82	88	90	98	106	114	122
S₂₄	4	5'-(1'6")/3	Str	12																		

BENDING DIAGRAM

HALF SECTION A-A MODIFIED OR REGULAR SPAN PARABOLIC CROWN

Expansion Device:
Roadway ⅃15 @33.9# x 40'-0"
Conn. ⅃s 6 x 3½ x ⅜ x 0'-8"
Roadway ℞ 3"x ⅝" x 40'-0 w/Curb ℞s 4"x ⅝"x 0'-5"
Detail device ⅝" high and provide ⅛" of shims
using 2-½" ℞s & 1-⅛" ℞
1½" x ⅜" x 1'-0" Straps @15" ctrs. top & bottom

HALF SECTION B-B MODIFIED OR REGULAR SPAN

SPACING FOR CHANNEL SHEAR CONNECTORS

DETAILS OF SHEAR CONNECTORS

VARIABLES OF SHEAR CONNECTOR SPACING

Span	35	36	37	38	39	40	41	42	43	44	45	48	50	54	55	60	65	70	75
"g"	12	14	9	10	8	9	10	10	12	8	8	8	15	10	14	9	12	10	12
"h"	4"	4"	5"	5"	5"	5"	5"	5"	5"	7"	7"	6"	7"	7"	7"	9"	9"	10"	10"
"i"	12	8	9	11	13	13	12	13	10	7	9	8	8	9	10	7	9	9	[illegible]
"j"	5"	7"	6"	6"	6"	6"	6"	6"	6"	8"	8"	7"	9"	9"	8"	11"	11"	12"	12"
"k"	10	10	7	7	8	5	6	6	9	8	7	10	6	7	8	9	8	7	6
"l"	7"	6"	8"	6"	6"	7"	7"	7"	7"	10"	10"	9"	12"	11"	10"	14"	13"	15"	15"
"m"	2	6	5	4	4	7	7	7	7	5	5	8	3	6	5	4	5	5	6
"n"	10"	8"	11"	11"	10"	10"	10"	10"	9"	12"	12"	11"	13"	14"	12"	16"	17"	19"	16"
"p"	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: Stud shear connectors, granular flux filled, solid fluxed, or equal may be used in lieu of the channels shown at the following ratios: ¾" diameter stud in place of 1.82 inches of channel. ⅞" diameter stud in place of 2.52 inches of channel. The studs shall be 4" long and automatically end welded to the beam flanges in accordance with recommendations of the manufacturer.

Channel sections will be used as basis for measurement of structural steel in shear connectors.

SECTION A-A OF MODIFIED SPAN - SLOPED RDWY.

Interior beams are same as in Regular Spans. Exterior beams are the lightest section of the same nominal depth as beams for longest span shown on Bridge Layout.

COVER PLATE WELDING NOTE:
Max. thickness of part under ⅝" - ¼"
Max. thickness of part ⅝" to 1½" - 5/16"

DETAILS OF COVER PLATES
Not to Scale

DIAPHRAGM TABLE

SPAN LENGTHS	CHANNEL SIZE	REGULAR SPAN		MODIFIED SPAN		G	H
		Ext. Beam No. Rivets	Int. Beam No. Rivets	Ext. Beam No. Rivets	Int. Beam No. Rivets		
35'-43'	12⃞20.7	5	5	5	5	3½"	2¼"
44'-51'	12⃞20.7	7	7	7	7	7"	5"
52'-75'	15⃞33.9	8	8	8	8	7"	5"

No Cover Plate is required for an exterior beam of a greater depth than the beam listed for a particular Span

Defl. for Ext. Beams is for Regular Spans only

Omit shear connectors on outside beams of Modified Spans when using beams shown to right of heavy line

SPAN	REGULAR SPAN			POST SPACING FOR ALUM. RAILING			EXTERIOR BEAMS FOR MODIFIED SPANS		"e"	DEAD LOAD DEFLECTION		STRUT SPACING	VALUES OF "F" AND DEAD LOAD DEFL. FOR OUTSIDE BEAMS OF MODIFIED SPANS									
	BEAM	COVER PLATE											24WF68		27WF84		30WF99		33WF118		36WF135	
		INTERIOR	EXTERIOR	a	b	c	BEAM	COVER PLATE		INT.	EXT.	No. @ "d"	F	Δ	F	Δ	F	Δ	F	Δ	F	Δ
35	21WF62	6"x⅝"x12'-0"	4"x½"x17'-0"	8'-4"	8'-4"	2	24WF68	4"x⅝"x16'-0"	2'-2⅛"	3/8"	½"	2 @ 17'-6"	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
36	21WF62	7"x⅝"x23'-0"	5"x½"x19'-0"	5'-8"	7'-0"	3	24WF68	4"x⅝"x16'-0"	2'-2⅛"	7/16"	9/16"	2 @ 18'-0"	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
37	24WF68	5"x[illegible]x21'-0"	4"x⅜"x16'-0"	7'-2"	7'-0"	3	27WF84	No Plate	2'-5⅜"	9/16"	½"	2 @ 18'-6"			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
38	24WF68	6"x[illegible]x22'-0"	5"x⅜"x18'-0"	7'-2"	7'-6"	3	27WF84	No Plate		5/16"	9/16"	2 @ 19'-0"				[illegible]		[illegible]		[illegible]		[illegible]
39	24WF68	7"x[illegible]x[illegible]'-0"	5"x⅜"x20'-0"	7'-4"	7'-4"	3	27WF84	No Plate		7/16"	9/16"	2 @ 19'-[illegible]"				[illegible]		[illegible]		[illegible]		[illegible]
40	24WF76	6"x[illegible]x23'-0"	4"x[illegible]x15'-0"	7'-8"	7'-8"	3	27WF84	No Plate		7/16"	9/16"	2 @ 20'-0"				[illegible]		[illegible]		[illegible]		[illegible]
41	24WF76	6"x[illegible]x25'-0"	5"x[illegible]x20'-0"	7'-8"	6'-0"	3	27WF84	4"x[illegible]x16'-6"		½"	[illegible]	3 @ 13'-9"				[illegible]		[illegible]		[illegible]		[illegible]
42	24WF76	7"x[illegible]x26'-0"	5"x[illegible]x22'-0"	8'-2"	8'-0"	3	27WF84	4"x[illegible]x17'-0"		½"	11/16"	3 @ [illegible]'-0"				[illegible]		[illegible]		[illegible]		[illegible]
43	24WF76	9"x[illegible]x22'-0"	6"x[illegible]x24'-0"	8'-2"	8'-4"	3	27WF84	4"x[illegible]x15'-0"	2'-5⅜"	9/16"	[illegible]	3 @ 14'-4"			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
44	27WF84	7"x[illegible]x24'-0"	5"x[illegible]x23'-0"	8'-3"	8'-6"	3	30WF99	No Plate	3'-[illegible]"	½"	⅝"	3 @ 14'-8"					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
45	27WF84	7"x[illegible]x26'-0"	5"x[illegible]x21'-0"	7'-6"	7'-7"	4	30WF99	No Plate	2'-6⅝"	½"	11/16"	3 @ 15'-0"						[illegible]		[illegible]		[illegible]
48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	30WF99	5"x[illegible]x21'-0"	2'-6⅝"	⅝"	11/16"	3 @ 16'-4"						[illegible]		[illegible]		[illegible]
50	[illegible]	[illegible]	[illegible]	7'-10"		[illegible]	30WF99	5"x[illegible]x25'-0"	2'-8⅝"	11/16"	⅞"	3 @ 16'-8"					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
54	[illegible]	[illegible]	[illegible]	[illegible]		5	33WF118	[illegible]	2'-11⅝"	13/16"	1"	3 @ 18'-0"							[illegible]	[illegible]	[illegible]	[illegible]
55	[illegible]	[illegible]x35'-0"	[illegible]	[illegible]	[illegible]	5	33WF118	5"x[illegible]x2[illegible]'-0"	2'-11⅝"	11/16"	1 1/16"	3 @ 18'-4"							[illegible]	[illegible]	[illegible]	[illegible]
60	[illegible]	[illegible]	[illegible]	[illegible]	8'-6"	5	36WF135	5"x[illegible]x2[illegible]'-0"	3'-2⅞"	7/8"	1 3/16"	3 @ 20'-0"									[illegible]	[illegible]
65	[illegible]	[illegible]	[illegible]	[illegible]	8'-0"	6	36WF135	7"x[illegible]x31'-0"	3'-2⅞"	1 1/16"	1 5/16"	4 @ 15'-3"									[illegible]	[illegible]
70	[illegible]	[illegible]	[illegible]	[illegible]	8'-9"	6			3'-2⅝"	1 1/16"	1 ½"	4 @ [illegible]										
75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7			3'-5⅜"	1 1/16"	1 ¾"	4 @ 18'-9"										

JOINT AT END BENT MODIFIED SPAN

Scale ⅜"=1'-0"

Note: Use this section instead of section shown on Dwg. No. 14990 for details of beam build-up see Dwg. No. 14990

GENERAL NOTES

This drawing to be used with Drawing No. 14990 for complete details. On Drawing No. 14990 the Elevation Showing Plate Guard Railing and the detail of Joint at End Bent Showing Modified Span does not apply.

For Type "B" Fixed or Expansion Shoe and Type "A" Fixed Shoe use the size plates given for 28' roadway spans.

All Steel in Composite I-Beam Spans shall be ASTM A-36 unless otherwise noted.

Design Specifications: A.A.S.H.O. 1961
Live Loading: H20-S16 and Special Interstate Loading of 2-24,000# axles spaced @ 4'-0" ctrs.

	Interior Beam	Exterior Beam
1. Dead Load:		
a. To WF Beam	528#/' + 1.1 (wt/lft. of WF)	690#/' + 1.1 (wt/lft. of WF)
b. To Composite Beam	120#/'	130#/'
2. Live Load:		
a. To each Composite Beam	1.182 Wheels + Impact	1.136 Wheels + Impact

Unit Stresses:
Class S Concrete (f'c=3000) 1200 psi
Structural Steel (A-36) 20,000 psi
Reinforcing Steel 20,000 psi

This Drawing is a modification of Drawing 5467

INFORMATION ONLY

[illegible]

DETAILS OF STANDARD
35'-75' COMPOSITE I-BEAM SPANS
40' CLEAR ROADWAY 1'-9" CURBS

Roadway: [illegible] or 0.0104'/' Slope

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Bridge No. A&B3604 Drawing No. 11968B

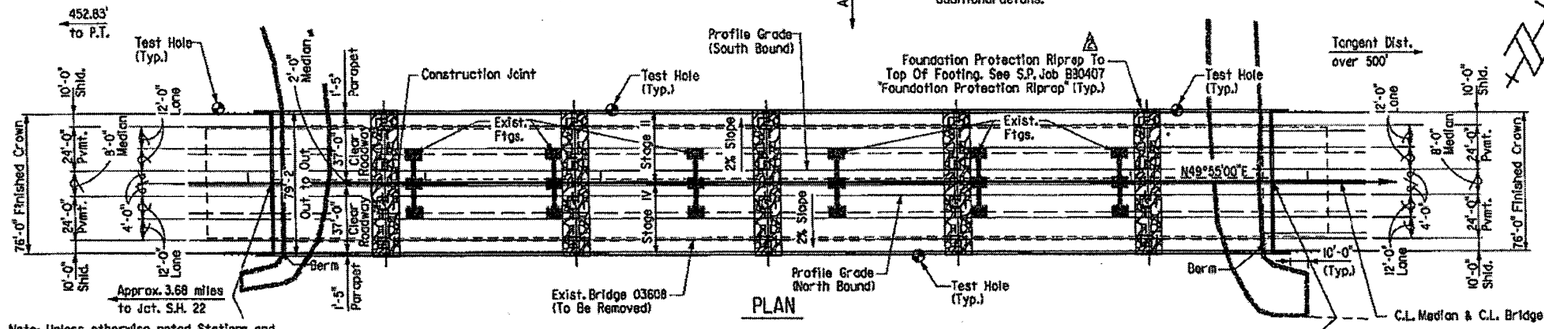
JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	232	234

For R/W Data, see Rdwy. Plans

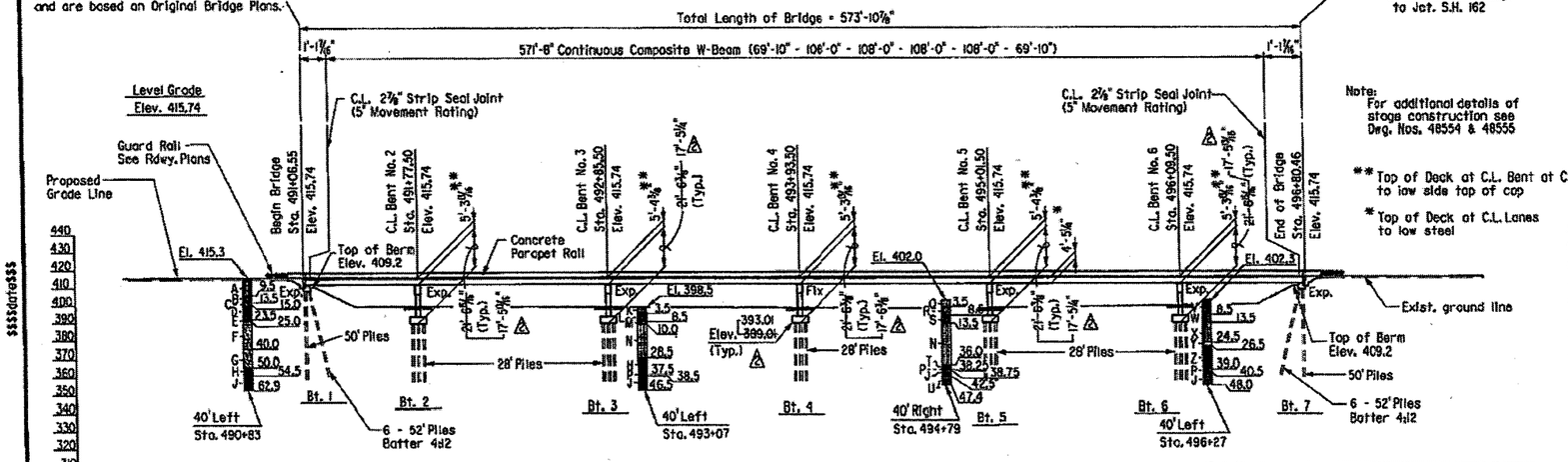
Note: Existing approach slabs and gutters to be removed and replaced with new Approach Slabs, Type Special 2 Approach Gutters at edge of roadway (T=4½") and Type Special 3 Approach Gutters at Median of roadway. See Dwg. Nos. 2018, 48573 and 48574.

Note: The existing berms shall be extended to the face of the new end bent caps and shall provide a 1'-3" minimum clearance to the new beams. Approximately 400 cubic yards of excavation required.

The existing dumped riprap in the immediate vicinity of the bridge shall be removed to the extent directed by the Engineer and properly disposed. Payment for the removal and disposal of the existing riprap shall be subsidiary to "Removal of Existing Bridge Structure (Site No. 7). New dumped riprap 1'-6" thick with filter blanket is to be placed as shown or as directed by the Engineer and joined with any existing riprap on the spur dikes. The top of riprap shall extend to face of end bent cap. See Dwg. 1891F for additional details.



Note: Unless otherwise noted Stations and Elevations are shown at C.L. Median and are based on Original Bridge Plans.



Note: For additional details of stage construction see Dwg. Nos. 48554 & 48555

** Top of Deck at C.L. Bent at C.L. Median to low side top of cap

* Top of Deck at C.L. Lanes to low steel

The Contractor shall exercise care such that his operations result in minimal disturbance of the existing spur dikes. The spur dikes shall be restored to its existing condition to the satisfaction of the Engineer and at the Contractor's expense.

The propose bridge provides an equal or greater waterway opening than the existing bridge.

ELEVATION
(Along C.L. Lanes)

Boring Legend

- A - Moist, Medium Dense, Brown to Reddish Brown Silty Sand
- B - Moist, Medium Dense, Brown Silty Sand with some Clay Seams
- C - Moist, Medium Dense, Brown Sand with Clay Seams and Sandstone and Shale Fragments
- D - Moist, Medium Stiff, Brown Silty Clay
- E - Wet, Loose, Brown Silty Sand
- F - Wet, Medium Dense to Dense, Brown Sand
- G - Wet, Medium Dense, Brown Sand
- H - Wet, Medium Dense, Brown Sand and Gravel
- J - Hard, Dark Gray Shale
- K - Moist, Soft, Brown Sandy Clay
- L - Wet, Very Soft, Brown Silty Clay
- M - Wet, Very Loose, Brown Clayey Silt
- N - Wet, Very Loose, Brown Sand
- P - Medium Hard, Dark Gray Weathered Shale
- Q - Moist, Medium Dense, Brown and Gray Sand
- R - Moist, Loose, Brown Silty Sand
- S - Wet, Soft, Brown Sandy, Silty Clay
- T - Wet, Loose, Brown Sand and Gravel
- U - Hard, Dark Gray Shale with some Fractured Seams
- V - Wet, Very Soft, Brown Sandy, Silty Clay
- W - Wet, Very Loose, Brown Clayey, Silty Sand
- X - Wet, Very Loose to Loose, Brown Silty Sand
- Y - Wet, Medium Dense, Gray Sand with some Gravel
- Z - Wet, Medium Dense, Gray Sand and Gravel

SAMPLE DATA

Sta. 490+83 - 40' Left of Centerline of Median I-540

4.0 - 5.0, N = 16	29.0 - 30.0, N = 14	55.0 - 58.0, SCR% = 99, RQD% = 24
9.0 - 10.0, N = 11	35.5 - 36.5, N = 45	58.0 - 62.9, SCR% = 99, RQD% = 58
14.0 - 15.0, N = 16	40.5 - 41.5, N = 15	
19.0 - 20.0, N = 8	45.5 - 46.5, N = 29	
24.0 - 25.0, N = 5	50.5 - 51.5, N = 11	

Sta. 493+07 - 40' Left of Centerline of Median I-540

3.5 - 5.0, N = 0	30.5 - 31.5, N = 25	38.5 - 41.5, SCR% = 99, RQD% = 22
9.0 - 10.0, N = 1	35.5 - 36.5, N = 18	41.5 - 46.5, SCR% = 99, RQD% = 40
14.0 - 15.0, N = 4		

Sta. 494+79 - 40' Right of Centerline of Median I-540

4.0 - 5.0, N = 6	39.0 - 42.5, SCR% = 99, RQD% = 22	
9.0 - 10.0, N = 3	42.5 - 47.4, SCR% = 99, RQD% = 9	
14.0 - 15.0, N = 2		

Sta. 496+27 - 40' Left of Centerline of Median I-540

4.0 - 5.0, N = 1	25.5 - 26.5, N = 13	40.0 - 43.0, SCR% = 99, RQD% = 6
9.5 - 10.0, N = 0	30.5 - 31.5, N = 14	43.0 - 48.0, SCR% = 94, RQD% = 78
14.0 - 15.0, N = 4		

⚠ Revised piling note. KDH 11-21-12

⚠ Raised footings per Change Order No. 7 at the Contractor's request. LWM 4-18-13

GENERAL NOTES

BENCH MARK: Elevations and stations are assumed to be the same as shown on the original plans. The original layout shows the elevation at the top of the deck and centerline of existing bridge to be at 414.68 at Sta. 491+12.42 (Beg. of Br. 3608).

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2003 edition), with applicable supplemental specifications and special provisions. Unless otherwise noted on the plans, section and subsection refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges (1996 edition), with current interim specifications.

LIVE LOAD: HS20 + Military Loading METHOD OF DESIGN: Load Factor
SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)	f'c = 4,000 psi
Class S Concrete (substructure)	f'c = 3,500 psi
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)	fy = 60,000 psi
Structural Steel (AASHTO M270, Gr. 50W)	Fy = 50,000 psi
Structural Steel (AASHTO M270, Gr. 36)	Fy = 36,000 psi

BORING LOGS: Boring Logs may be obtained from the Programs and Contracts Division.

BRIDGE DECK: The concrete bridge deck shall be given a tine finish as specified for final finishing in Subsection 802.19 for Class S Tined Bridge Roadway Surface Finish.

CLASS I PROTECTIVE SURFACE TREATMENT: Class I Protective Surface Treatment shall be applied to the roadway surface and to the face and top of the concrete parapet rail.

FOOTINGS: The top of all footings shall have a minimum cover of 2'-0". Foundations for all footings shall be prepared in accordance with Section 801.04.

STEEL PILING: Piling in Bents 1 thru 7 shall be HP12x53 and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 70 tons per pile and into the material designated as medium hard, dark gray weathered shale on the boring legend. Lengths of piling shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with the Standard Specifications. Piles in end bents to be driven after embankment to bottom of cap is in place. On all piles the contractor shall use approved steel H-pile driving points.

DETAIL DRAWINGS:	DRAWING NO.
End Bents	48556-48448, 48561-48563
Intermediate Bents	48559, 48560
571'-8" Cont. Comp. W-Beam Unit	48564-48569
Steel Piling	14995A
Approach Slab	2018
Type Special 1 Approach Gutter	48573
Type Special 3 Median Approach Gutters	48574

REMOVAL AND SALVAGE: The existing bridge, shall be removed in accordance with Section 205. All material from existing bridge shall become the property of the contractor.

EXISTING BRIDGE: Existing Bridge No. 03608 is 67'-0" wide and 562'-2" long and consists of 7 composite 80'-0" simple spans supported by substructures consisting of 6-4 column interior bents and 2 pile end bents. Plans for existing bridge will be made available to the Contractor upon request to Programs and Contracts Division. Existing Dwg. Nos. 12834 thru 12837, 12839, 14992, 14998.

MAINTENANCE OF TRAFFIC: See Roadway Plans.

TEMPORARY SHORING: Temporary shoring may be required. See Special Provision Job No. BB0407 "Shoring".

INFORMATION ONLY

NOTE: The contractor shall check measurements of the existing bridge. Any adjustments necessary to fit the new work to the existing bridge location shall be submitted for the Engineer's approval.

LAYOUT OF BRIDGE OVER ARKANSAS RIVER RELIEF (BR. 06880)

HWY. 22 - I-40 (F)

CRAWFORD & SEBASTIAN COUNTIES

ROUTE I-540 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 10539 LARRY W. MILLER
8-11-12
BRIDGE ENGINEER

DRAWN BY: TAR DATE: March 02 FILENAME: bBB0407m4 III.dgn
CHECKED BY: JLH DATE: March 02 SCALE: 1" = 40'
DESIGNED BY: BCG DATE: March 02

BRIDGE NO. 06880 DRAWING NO. 48552

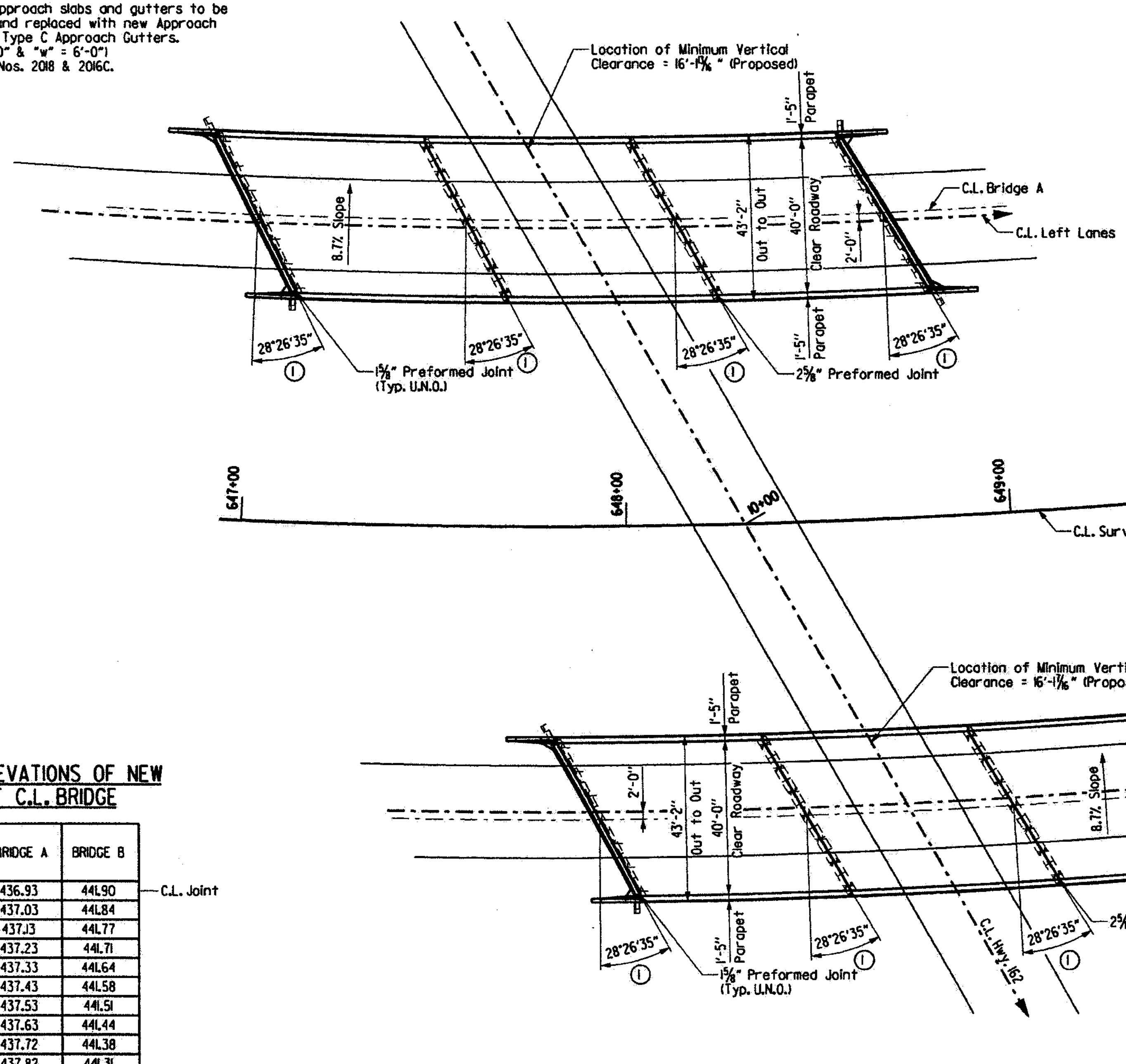
$$$$date$$$$

$$$$projspec$$$$$

b040468m4_L11.dgn 4/19/2013 10:30:05 AM

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	233	234

Note:
Existing approach slabs and gutters to be removed and replaced with new Approach Slabs and Type C Approach Gutters.
("w" = 10'-0" & "w" = 6'-0")
See Dwg. Nos. 2018 & 2016C.



LAYOUT PLAN

HORIZONTAL CURVE DATA C.L. MEDIAN I-540

PI = 649+73.29
Delta = 63°16'00"
Dc = 3°00'00"
T = 1356.43'
L = 2108.89'
R = 1909.86'

HORIZONTAL CURVE DATA C.L. NORTHBOUND LANES I-540

PI = 649+61.43
Delta = 63°16'01" LT.
Theta = 3°44'59" LT.
DC = 3°00'00"
RC = 1909.97'
LC = 2109.03'
LS = 250'

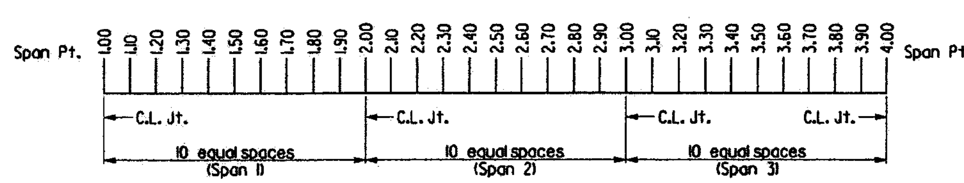
HORIZONTAL CURVE DATA C.L. SOUTHBOUND LANES I-540

PI = 649+61.43
Delta = 63°16'01" LT.
Theta = 3°44'59" LT.
DC = 3°00'00"
RC = 1909.97'
LC = 2109.03'
LS = 250'

(1) Skew angles are measured from radial lines and are based on existing bridge plans. Contractor shall verify these angles and make any adjustments necessary to fit new work to the existing structure.

TABLE OF ELEVATIONS OF NEW DECK AT C.L. BRIDGE

SPAN NO.	POINT OF ELEVATION	BRIDGE A	BRIDGE B	
1	1.00	436.93	441.90	C.L. Joint
	1.10	437.03	441.84	
	1.20	437.13	441.77	
	1.30	437.23	441.71	
	1.40	437.33	441.64	
	1.50	437.43	441.58	
	1.60	437.53	441.51	
	1.70	437.63	441.44	
	1.80	437.72	441.38	
	1.90	437.82	441.31	
2	2.00	437.91	441.24	C.L. Joint
	2.10	438.01	441.32	
	2.20	438.10	441.40	
	2.30	438.20	441.48	
	2.40	438.29	441.56	
	2.50	438.38	441.63	
	2.60	438.47	441.71	
	2.70	438.56	441.79	
	2.80	438.65	441.86	
	2.90	438.74	441.94	
3	3.00	438.82	442.01	C.L. Joint
	3.10	438.91	442.09	
	3.20	439.00	442.16	
	3.30	439.08	442.24	
	3.40	439.17	442.31	
	3.50	439.25	442.38	
	3.60	439.33	442.45	
	3.70	439.42	442.52	
	3.80	439.50	442.60	
	3.90	439.58	442.67	
	4.00	439.66	442.74	C.L. Joint



TOP OF DECK ELEVATION POINTS @ C.L. BRIDGE

GENERAL NOTES

BENCH MARK: Elevations and stations are assumed to be the same as shown on the original bridge plans. The contractor shall verify the elevation shown on the original layout at the top of the deck and centerline of existing bridge to be at Sta. 435.00 at Sta. 646+58.91 (Beg. of Br. A3957).

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2003 edition), with applicable supplemental specifications and special provisions. Unless otherwise noted on the plans, section and subsection refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges (2002 edition), with current interim specifications. (New End Bent Backwall, & Deck)

LIVE LOAD: HS20 + Alt. Military LOADING   METHOD OF DESIGN: Load Factor

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (Superstructure)	f'c = 4,000 psi
Class S Concrete (Substructure)	f'c = 3,500 psi
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)	fy = 60,000 psi
Structural Steel (AASHTO M270, Gr. 50)	Fy = 50,000 psi
Structural Steel (AASHTO M270, Gr. 36)	Fy = 36,000 psi

All welding to be performed by a certified welder approved by the Engineer. All welding shall conform to the current AASHTO/AWS D1.5 Welding Code.

Anchor bolt extension shall be ASTM A36 and galvanized. Repair damaged galvanized surfaces in accordance with Subsection 807.88.

Structural steel bearings shall be seated in accordance with subsection 807.66 of the Standard Construction Specifications.

Felt and steel washers on all existing anchor bolts shall be removed and discarded. New steel washers shall be used on all anchor bolts and new rubber washers shall be used where specified on the plans. Payment for new washers will not be paid for directly but will be considered subsidiary to the item "Modification of Existing Bridge Structure (Br. No. A&B3957).

All dimensions are taken from existing bridge plans. See Dwg. Nos. 48446, 48446A-G. of the existing bridge plans. The Contractor shall verify measurements of the existing bridge and make adjustments necessary to fit the new work to the existing structure. This work shall be included in the price bid for "Modification of Existing Bridge Structures (Br. No. A&B3957)".

CLASS 1 PROTECTIVE SURFACE TREATMENT: Class 1 Protective Surface Treatment shall be applied to the roadway surface and to the roadway face and top of the concrete parapet rail.

BRIDGE DECK: The concrete bridge deck shall be given a tine finish as specified for final finishing in subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

REMOVAL AND SALVAGE: All material removed from the existing bridges and not used in the finished structure shall become the property of the Contractor.

PROPOSED WORK: The proposed work is to provide a minimum 16'-0" vertical clearance and an 8.7% superelevation. The work generally consists of removing the end bent backwall and wings, removing the concrete deck, curb and railing, constructing new end bent backwall and wings, constructing concrete beam pedestals on all bents, modifying beam diaphragm connections, cleaning and painting existing beams and diaphragms, installing new end struts, re-furbishing existing bearings as necessary, constructing new concrete deck with parapet rail, and install new preformed joint seal.

METHOD OF WORK: After removal of the bridge deck, the contractor shall disassemble, remove, modify, and clean and apply the prime coat to the structural steel that will be used in the final structure. After the substructure has been modified as detailed in the plans, the contractor shall re-erect, re-assemble, and apply the topcoating of the paint system to the structural steel. Cleaning and painting structural steel will be paid in accordance with Section 807 "Painting Structural Steel". All applicable provisions of Section 807, as determined by the Engineer, shall be followed including Sections 807.56 and 807.61. See SP Job BB0407 "Special Safety Requirements for Bridges" for additional provisions. All work, materials, and labor required for the disassembly, removal, transport, modification, re-erection, and re-assembly of the structural steel will not be paid for directly but will be considered subsidiary to the pay item "Modification of Existing Bridge Structure (Br. No. A&B3957)".

The contractor may submit an alternate Method of Work. The plan shall be submitted to the Engineer for informational and record purposes at least 3 weeks prior to any work being performed. The submittal shall be prepared and/or approved by a Professional Engineer registered in the state of Arkansas and shall include sufficient details and information to the Engineer's satisfaction. The Contractor will be responsible for the results obtained by the use of the alternate Method of Work. All work, materials, and labor required for the Contractor to develop and execute the plan will not be paid for directly but will be considered subsidiary to the pay item "Modification of Existing Bridge Structure (Br. No. A&B3957)".

INFORMATION ONLY

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 6124 STEPHEN S. PUTMAN 8/11/12

BRIDGE ENGINEER

REMODELING DETAILS FOR BRIDGE OVER HWY. 162
HWY. 22 - I-40
CRAWFORD & SEBASTIAN COUNTIES

ROUTE 540   SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JE	DATE: 10-06	FILENAME: bBB0407m7_11.dgn
CHECKED BY: SP	DATE: 09-30-09	SCALE: 1" = 20'-0"
DESIGNED BY: CB, DM	DATE: 10-06	

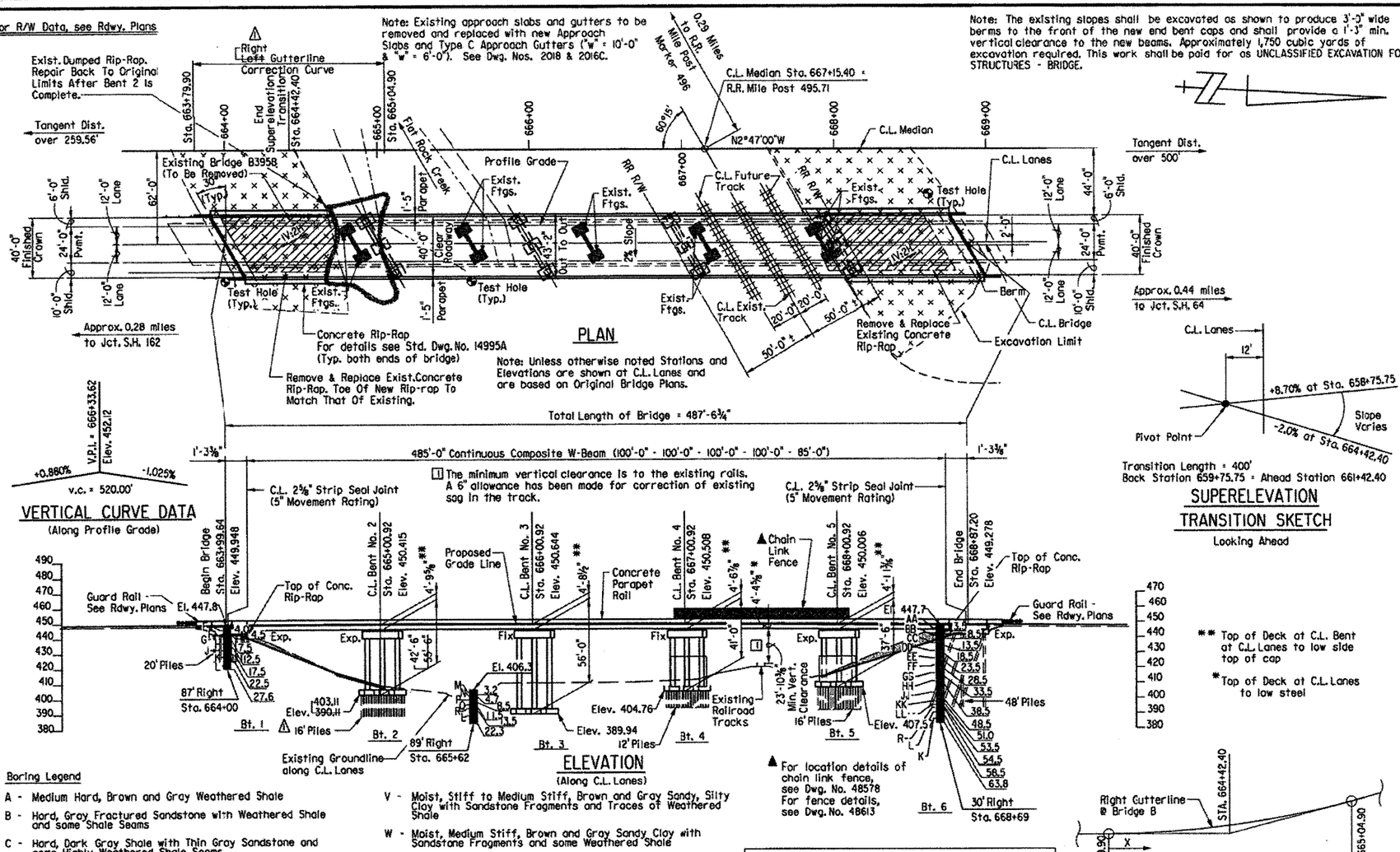
BRIDGE NO. A&B3957   DRAWING NO. 48437

$$$$datе$$$$ $$$$dgnspec$$$$

...\01006-7B\dgn\BB40107M7_L11.dgn 8/13/2012 1:25:39 PM

JOB NO.	SHEET NO.	TOTAL SHEETS
BB0401	234	234

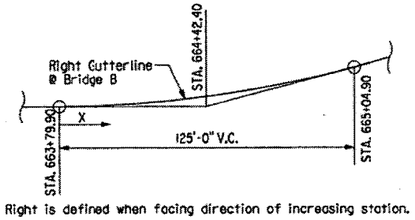
For R/W Data, see Rdwy. Plans



Note: The existing slopes shall be excavated as shown to produce 3'-0" wide berms to the front of the new end bent caps and shall provide a 1'-3" min. vertical clearance to the new beams. Approximately 1,750 cubic yards of excavation required. This work shall be paid for as UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE.

Transition Length = 400'
Back Station 659+75.75 = Ahead Station 661+42.40

SUPERELEVATION TRANSITION SKETCH
Looking Ahead



Right is defined when facing direction of increasing station.

The right gutterline of Bridge 'B' has been smoothed with a correction equation between the stations shown. The roadway cross slope at any station is a straight line between the left and right gutterlines.

Elev. = 449.77 - 0.0005(X) + 0.0000183(X^2)

X is the distance in feet along centerline lane from beginning station shown. Elevation is at gutterline.

RIGHT GUTTER CORRECTION CURVE
No Scale

GENERAL NOTES

BENCH MARK: Elevations and stations are assumed to be the same as shown on the original plans. The original layout shows the elevation at the top of the deck and centerline of existing bridge to be at 448.14 at Sta. 664+06.91 (Beg. of Br. B3958).

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2003 edition), with applicable supplemental specifications and special provisions. Unless otherwise noted on the plans, section and subsection refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges (1996 edition), with current interim specifications.

LIVE LOAD: HS20 + Military Loading METHOD OF DESIGN: Load Factor
SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:
Class S(AE) Concrete (superstructure) f'c = 4,000 psi
Class S Concrete (substructure) f'c = 3,500 psi
Reinforcing Steel (AASHTO M31 or M53, Gr. 60) fy = 60,000 psi
Structural Steel (AASHTO M270, Gr. 50W) Fy = 50,000 psi
Structural Steel (AASHTO M270, Gr. 36) Fy = 36,000 psi

BORING LOGS: Boring Logs may be obtained from the Programs and Contracts Division.

BRIDGE DECK: The concrete bridge deck shall be given a tine finish as specified for final finishing in Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

CLASS I PROTECTIVE SURFACE TREATMENT: Class I Protective Surface Treatment shall be applied to the roadway surface and the face and top of the concrete parapet rail.

STEEL PILING: Piling in Bents 1, 4, 5 and 6 shall be HP12x53 and shall be driven with an approved air, steam or diesel hammer to a minimum safe bearing capacity of 70 tons per pile and into the material designated as medium hard shale on the boring legend. Lengths of piling shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with the Standard Specifications. Piles in end bents to be driven after embankment to bottom of cap is in place. On all piles the contractor shall use approved steel H-Pile driving points.

PREBORING: Preboring will be required at all piles in Bent 1 to obtain minimum penetration requirement. Quantities of preboring shown are for bidding purposes only. Actual size and depths to be determined in the field by the Engineer. The Contractor shall be responsible for keeping prebored holes free from debris prior to backfilling which may require the use of temporary casings or other methods. Temporary casing, if necessary, will not be paid for directly but will be considered subsidiary to the pay item "PREBORING".

FOOTINGS: Footings for ~~Bents 2 and~~ Bent 3 shall be set a minimum of 1'-6" in top of hard sandstone or hard dark shale. Footings shall not be at a higher elevation than the existing footing and shall have a minimum cover above top of footings of 2'-0". Foundations for all footings shall be prepared in accordance with Section 801.04 of the Standard Specifications. Rock excavations shall be made to neat lines of the concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock.

DETAIL DRAWINGS:	DRAWING NO.
End Bents	48596, 48597, 48603, 48604
Intermediate Bents	48598-48602A
485'-0" Cont. Comp. W-Beam Unit	48605-48609
Steel Piling	14995A
Approach Slab	2018
Type C Approach Gutter	2016C

REMOVAL AND SALVAGE: The existing bridge shall be removed in accordance with Section 205 All material from existing bridge shall become the property of the contractor.

EXISTING BRIDGE: Existing Bridge No. B3958 is 33'-6" wide and 462'-6" long and consists of 6 composite I-beam 76'-8" simple spans supported by substructures consisting of 5 dual column bents and 2 pile end bents. Plans for existing bridge will be made available to the Contractor upon request to Programs and Contracts Division. Existing Dwg. Nos. 13338 thru 13344.

MAINTENANCE OF TRAFFIC: See Roadway Plans.

NOTE: The contractor shall check measurements of the existing bridge. Any adjustments necessary to fit the new work to the existing bridge location shall be submitted for the Engineer's approval.

Boring Legend

A - Medium Hard, Brown and Gray Weathered Shale
B - Hard, Gray Fractured Sandstone with Weathered Shale and some Shale Seams
C - Hard, Dark Gray Shale with Thin Gray Sandstone and some Highly Weathered Shale Seams
D - Hard, Dark Gray Shale with Thin Gray Sandstone Seams
E - Moist, Very Dense, Brown and Gray Sand and Sandstone Fragments
F - Medium Hard, Brown and Gray Weathered Shale with some Sandstone Fragments
G - Hard, Gray Fractured Sandstone with Shale and Weathered Shale Seams
H - Hard, Fractured Dark Gray Shale with Thin Gray Sandstone Seams
J - Medium Hard, Gray Weathered Shale with Gray Sandstone Seams
K - Hard, Dark Gray Fractured Shale
L - Hard, Dark Gray Shale
M - Moist, Medium Dense, Brown Gravel
N - Wet, Very Loose, Brown Sand and Gravel
P - Wet, Loose, Brown Sand and Gravel with Traces of Clay Seams
Q - Wet, Medium Stiff, Brown and Gray Sandy Clay with Gravel
R - Medium Hard, Gray Weathered Shale
S - Moist, Medium Stiff, Brown Sandy Clay with Gravel
T - Moist, Medium Stiff, Brown and Gray Sandy, Silty Clay
U - Moist, Medium Stiff, Brown and Gray Sandy, Silty Clay with Sandstone Fragments
V - Moist, Stiff to Medium Stiff, Brown and Gray Sandy, Silty Clay with Sandstone Fragments and Traces of Weathered Shale
W - Moist, Medium Stiff, Brown and Gray Sandy Clay with Sandstone Fragments and some Weathered Shale
X - Moist, Stiff, Brown and Gray Sandy Clay with Sandstone Fragments and some Weathered Shale
Y - Wet, Stiff, Brown and Gray Silty Clay
Z - Wet, Medium Stiff to Stiff, Brown Silty Clay with some Organic Matter
AA - Moist, Loose, Brown Sand and Gravel (Fill Material)
BB - Moist, Medium Stiff, Brown Silty Clay with Sandstone and Shale Fragments
CC - Moist, Medium Stiff, Reddish Brown Silty Clay with Shale Fragments
DD - Moist, Medium Stiff, Reddish Brown Silty Clay with some Highly Weathered Shale
EE - Moist, Stiff, Reddish Brown Silty Clay with Sandstone and Shale Fragments
FF - Moist, Stiff, Reddish Brown Silty Clay with some Highly Weathered Shale
GG - Moist, Stiff, Reddish Brown Silty Clay with Sandstone Fragments
HH - Moist, Stiff, Reddish Brown Silty Clay with some Weathered Shale
JJ - Wet, Medium Stiff, Brown and Gray Silty Clay with some Organic Matter
KK - Moist, Stiff, Reddish Brown and Gray Silty Clay
LL - Soft, Gray Highly Weathered Shale

SAMPLE DATA

Sta. 664+00 - 87' Right of Centerline of Median I-540

4.0 - 4.5, N = 60	4.5 - 7.5, SCR% = 30, RQD% = 0
	7.5 - 12.5, SCR% = 48, RQD% = 0
	12.5 - 17.5, SCR% = 5, RQD% = 0
	17.5 - 22.5, SCR% = 66, RQD% = 28
	22.5 - 27.5, SCR% = 99, RQD% = 78

Sta. 665+62 - 89' Right of Centerline of Median I-540

3.7 - 4.7, N = 4	13.5 - 17.5, SCR% = 99, RQD% = 48
9.0 - 10.0, N = 5	17.5 - 22.5, SCR% = 99, RQD% = 30

Sta. 668+69 - 30' Right of Centerline of Median I-540

4.0 - 5.0, N = 6	34.0 - 35.0, N = 14	54.5 - 58.5, SCR% = 88, RQD% = 44
9.0 - 10.0, N = 7	39.0 - 40.0, N = 8	58.5 - 63.5, SCR = 99, RQD% = 0
14.0 - 15.0, N = 8	44.0 - 45.0, N = 7	
19.0 - 20.0, N = 10	49.0 - 50.0, N = 11	
24.0 - 25.0, N = 11	53.5 - 54.0, N = 60	
29.0 - 30.0, N = 14		

NOTE: For Exhibit A See Dwg. Nos. 48577, 48578 and 48579.

⚠ Changed Bent 2 from spread footings to pile foundation per Change Order #15, LWM 8-6-13

INFORMATION ONLY

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER Larry W. Miller No. 13539
8-11-12
BRIDGE ENGINEER

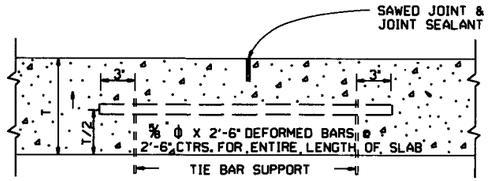
LAYOUT OF
BRIDGE OVER UNION PACIFIC RAILROAD
(BR. B6881)
HWY. 22 - I-40 (F)
CRAWFORD & SEBASTIAN COUNTIES
ROUTE I-540 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TAR DATE: March 02 FILENAME: bBB0407b5 11.dgn
CHECKED BY: JLH DATE: March 02 SCALE: 1" = 40'
DESIGNED BY: BCG DATE: March 02
BRIDGE NO. B6881 DRAWING NO. 48594

$$$$datet$$$

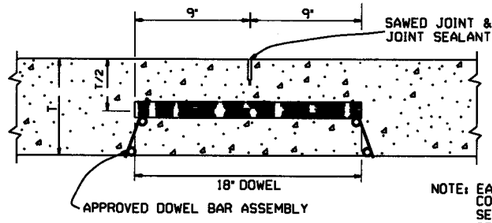
$$$$dgnspec$$$$$

B040468B5_L11.dgn 8/9/2013 10:48:51 AM



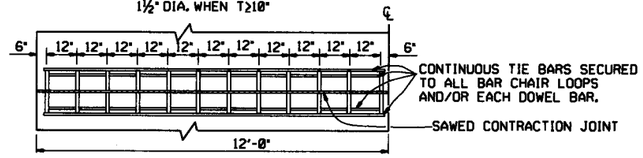
LONGITUDINAL JOINT

NOTE: THE TIE BAR SUPPORT SHOWN ABOVE MAY BE ELIMINATED IF OTHER APPROVED METHODS FOR PLACING AND SUPPORTING THE TIE BARS ARE PROVIDED.
TIE BARS SHALL BE 15" FROM TRANSVERSE JOINTS.



NOTE: EACH DOWEL TO BE COATED ACCORDING TO SECTION 502 OF THE STANDARD SPECIFICATIONS.

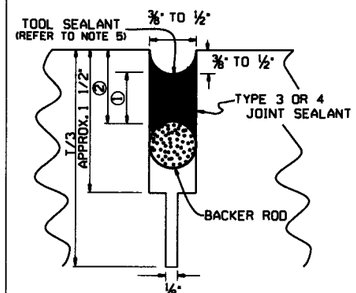
ROUND STEEL BAR DOWEL
1¼" DIA. WHEN T<10"
1½" DIA. WHEN T≥10"



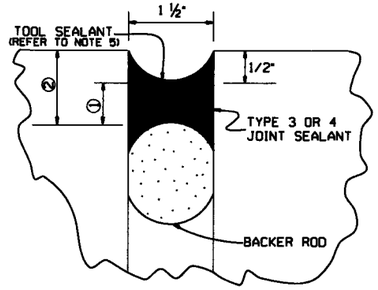
ONE-HALF 24' PAVEMENT
12 DOWELS
PLAN

NOTE: FOR 20' PAVEMENT USE 20 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR.
FOR 15' PAVEMENT USE 15 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR.
FOR 26' PAVEMENT USE 26 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR.
FOR PAVEMENT WIDTHS OTHER THAN THOSE SHOWN ABOVE, USE DOWELS AT 12" CTRS. WITH 6" MAX. SPACING FROM C.L. TO FIRST BAR. DISTANCE FROM EDGE OF SLAB TO FIRST BAR SHALL BE ADJUSTED TO MAINTAIN 12" DOWEL BAR SPACING

CONTRACTION JOINT DETAILS



DETAIL OF SAWED CONTRACTION JOINT



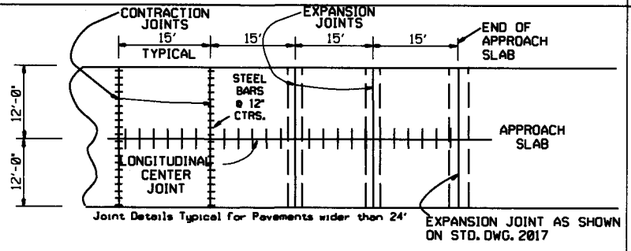
DETAIL OF EXPANSION JOINT

JOINT CONFIGURATION FOR TYPE 3 OR 4 JOINT SEALANT

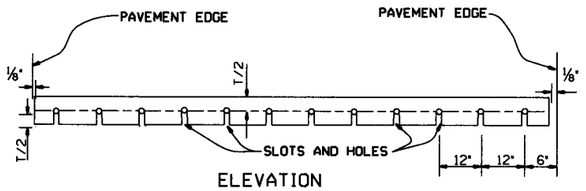
JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	¼	⅜	½
⅜	¼	½	½
½	¼	⅝	½
⅝	⅜	¾	⅝
¾	⅜	⅞	⅝
1	½	1	¾
1 ½	¾	2	1 ¼

JOINT CONFIGURATION FOR TYPE 5 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	½	⅝	⅜
⅜	¾	½	1

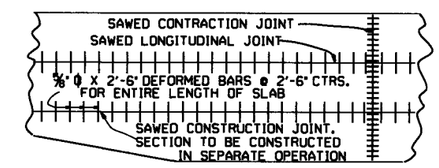


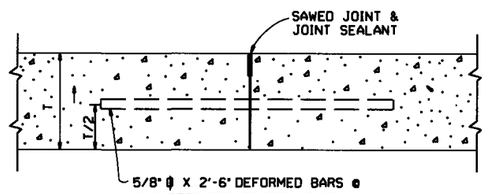
PLAN SHOWING EXPANSION JOINTS AT BRIDGE APPROACH SLABS



ELEVATION

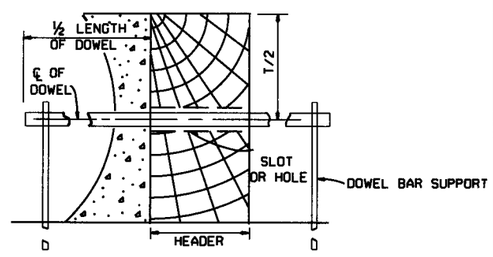
NOTE: ALL DOWEL BARS SHALL CONFORM TO THE DETAILS FOR CONTRACTION JOINTS.





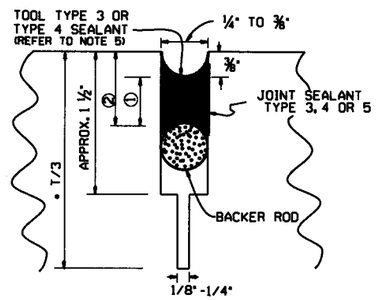
NOTE: TIE BARS SHALL BE 15" FROM TRANSVERSE JOINTS.

LONGITUDINAL CONSTRUCTION JOINT



SECTION

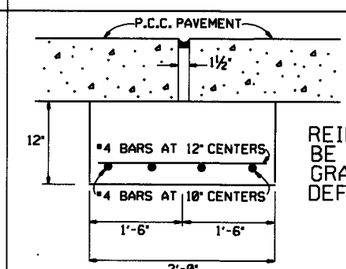
TRANSVERSE CONSTRUCTION JOINT



*NOTE: T/3 SAW CUT NOT REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINT.

DETAIL OF SAWED LONGITUDINAL JOINT AND LONGITUDINAL CONSTRUCTION JOINT

DATE	REVISION	DATE FILMED
5-25-06	ADDED GENERAL NOTE 7	
10-9-03	REMOVED TIE BAR COATING & REVISED GENERAL NOTES	
11-16-01	ADDED TOOL SEALANT AND NOTE 5; REVISED NOTE 3	
4-26-96	REVISED CONTRACTION JOINT NOTE	
11- 3-94	ADDED NOTE RE: REINF. BARS	
4- 1-93	REVISED DOWEL BARS & GEN. NOTES	4- 1-93
10- 1-92	REVISED DOWEL SPACING	10- 1-92
8- 15-91	ADDED SPAC FOR CONTR JTS & DEL KEYWAY	
05-24-90	REVISED TIE BAR, DOWEL & JOINT SIZE	
01-25-90	ADDED EXPANSION JOINT	01-25-90
11-30-89	CHANGED T/4+1 TO T/3+1	11-30-89
03-23-89	ALTERED SAWED JOINT & ADDED NOTE	512-03-23-89
07-15-88	REVISED AND REDRAWN	632-07-15-88



REINFORCING SHALL BE GRADE 40 OR GRADE 60 DEFORMED BARS.

DETAIL OF JOINT SUPPORT FOR EXPANSION JOINTS

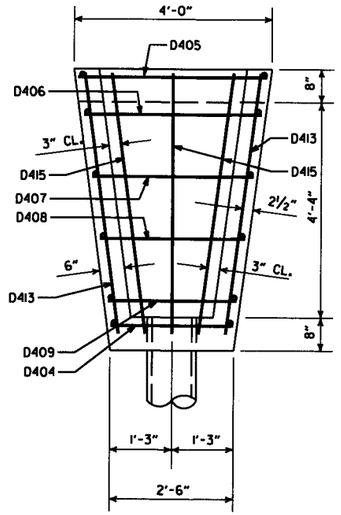
GENERAL NOTES

1. "T" DENOTES THICKNESS OF SLAB.
2. DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS ONE INCH WILL BE ALLOWED FOR THE VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS ¼" WILL BE ALLOWED FOR THE TILT AND SKEW. DOWEL BARS SHALL BE FIELD COATED FOR A MINIMUM DISTANCE OF 2" GREATER THAN HALF THE LENGTH OF THE BAR WITH AN APPROVED GREASE AS A BOND BREAKER JUST PRIOR TO PLACEMENT OF CONCRETE.
3. THE EXPANSION JOINT SUPPORT MAY BE CONSTRUCTED WITH CLASS "A", "S" OR PAVING CONCRETE. PAYMENT FOR THE JOINT SUPPORT SHALL BE FOR THE CONTRACT UNIT PRICE BID FOR THE CLASS OF CONCRETE SPECIFIED IN THE PLANS. PAYMENT FOR ALL OTHER WORK AND MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE JOINT SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE ABOVE ITEMS.
4. CONTRACTION JOINTS SHALL BE CONSTRUCTED ON 15' CENTERS.
5. TOOLING NOT REQUIRED FOR SELF-LEVELING SILICONE.
6. UNLESS OTHERWISE SPECIFIED IN THE PLANS, CONCRETE SHOULDERS SHALL BE CONSTRUCTED ACCORDING TO THE DETAILS SHOWN HEREON. CONTRACTION JOINTS SHALL MATCH CONTRACTION JOINTS IN THE LANES.
7. TIE WIRES IN DOWEL BAR ASSEMBLIES SHALL NOT BE CUT PRIOR TO PLACEMENT OF PAVING CONCRETE.

ARKANSAS STATE HIGHWAY COMMISSION

TRANSVERSE & LONGITUDINAL JOINTS FOR CONCRETE PAVEMENT (NON-REINFORCED)

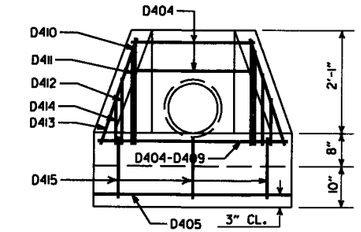
STANDARD DRAWING CPTJ - 6A



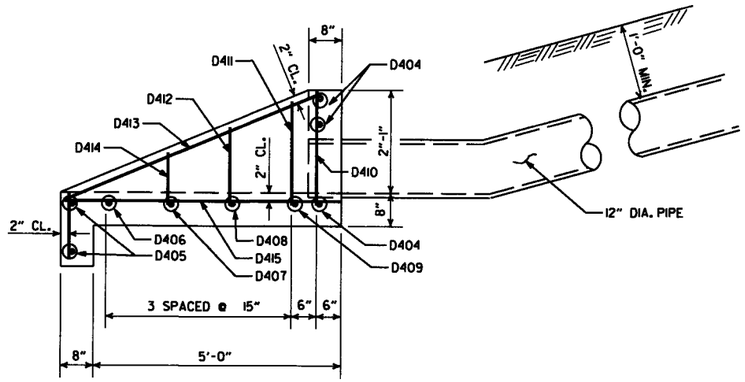
PLAN

BAR LIST (CONCRETE SPILLWAY)

MARK	NO. REQ'D.	LENGTH	BENDING DIAGRAM
D404	3	2'-2"	5'-4"
D405	2	3'-8"	
D406	1	3'-5"	
D407	1	3'-1"	
D408	1	2'-9"	
D409	1	2'-5"	
D410	2	2'-5"	
D411	2	2'-2"	
D412	2	1'-9"	
D413	2	5'-6"	
D414	2	1'-2"	
D415	3	6'-5"	2" P.D. D415

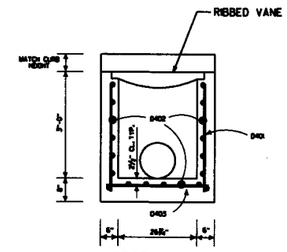


FRONT ELEVATION



SIDE ELEVATION
CONCRETE SPILLWAY

DETAILS OF CONCRETE SPILLWAY (TYPE A)

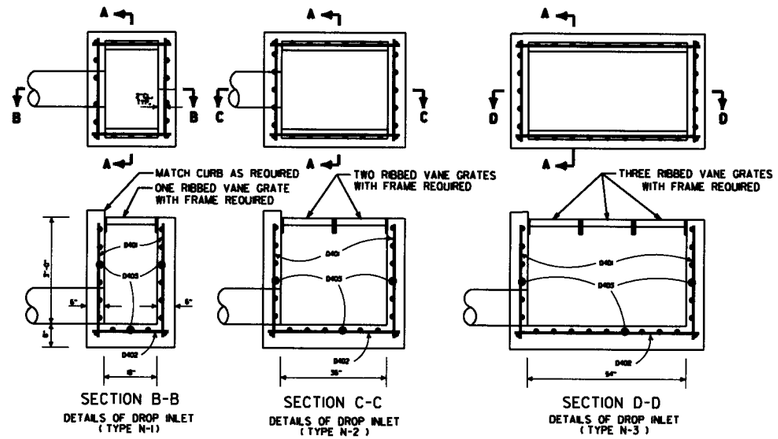


SECTION A-A

BAR LIST (DROP INLET)

MARK	TYPE N-1		TYPE N-2		TYPE N-3	
	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH
D401	20	3'-0"	26	3'-0"	32	3'-0"
D402	19	2'-2"	19	3'-8"	19	5'-2"
D403	17	2'-11"	20	2'-11"	23	2'-11"

ALL BARS #4 @ 6" SPACING



SECTION B-B
DETAILS OF DROP INLET
(TYPE N-1)

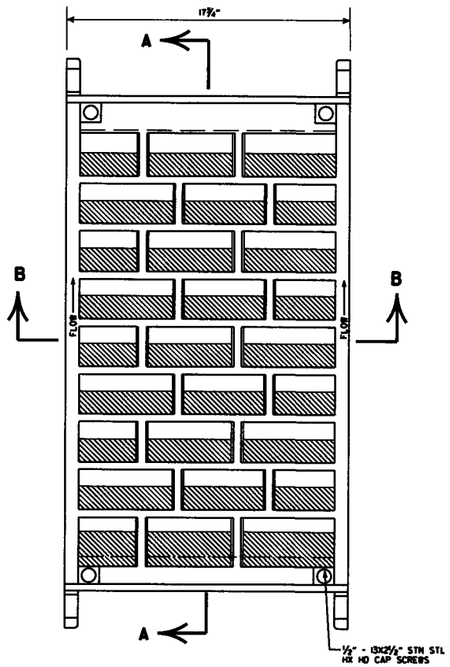
SECTION C-C
DETAILS OF DROP INLET
(TYPE N-2)

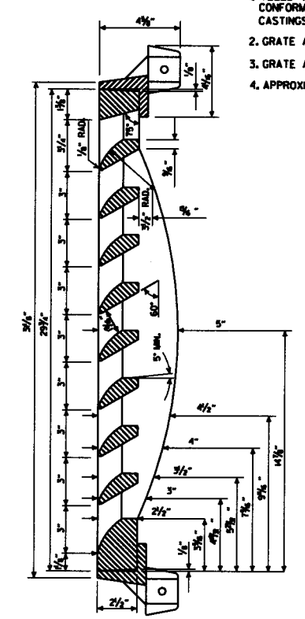
SECTION D-D
DETAILS OF DROP INLET
(TYPE N-3)

DETAILS OF DROP INLET

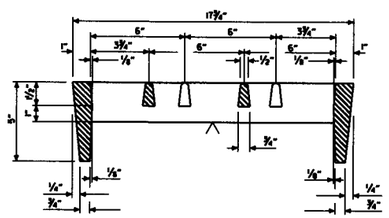
GENERAL NOTES (GRATE & FRAME)

1. RIBBED VANE GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B & AASHTO M 306.
2. GRATE AND FRAME SHALL NOT BE PAINTED.
3. GRATE AND FRAME SHALL BE INSTALLED IN DROP INLET IN ASSEMBLED POSITION.
4. APPROXIMATE WEIGHT OF GRATE SHALL BE 170 LBS.

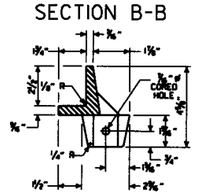




SECTION A-A



SECTION B-B



SECTION THRU FRAME

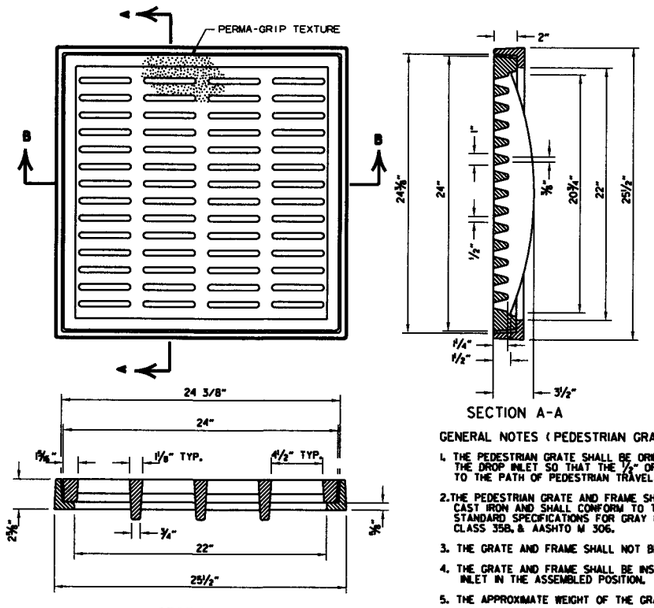
DETAILS OF RIBBED VANE GRATE AND FRAME

DATE REVISED	DATE FILMED	DESCRIPTION
7-02-98		REVISED SECT. A-A DETAIL OF DROP INLET & ADDED AASHTO REF. TO NOTE 1. REVISED GRATE
10-18-96		REVISED ASTM REF. TO AASHTO
8-15-91		ISSUED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS AND SPILLWAY OUTLET

STANDARD DRAWING FPC-9N



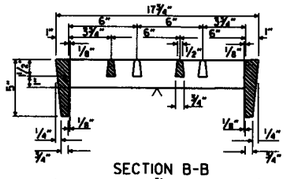
SECTION B-B

SECTION A-A

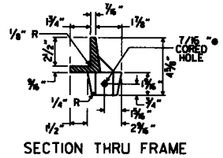
GENERAL NOTES (PEDESTRIAN GRATE & FRAME)

1. THE PEDESTRIAN GRATE SHALL BE ORIENTED IN THE TOP OF THE DROP INLET SO THAT THE 1/2" OPENINGS ARE PERPENDICULAR TO THE PATH OF PEDESTRIAN TRAVEL.
2. THE PEDESTRIAN GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B & AASHTO M 306.
3. THE GRATE AND FRAME SHALL NOT BE PAINTED.
4. THE GRATE AND FRAME SHALL BE INSTALLED IN THE DROP INLET IN THE ASSEMBLED POSITION.
5. THE APPROXIMATE WEIGHT OF THE GRATE AND FRAME SHALL BE 218 LBS.
6. THE MINIMUM WATERWAY OPENING SHALL BE 122 SQ. IN.

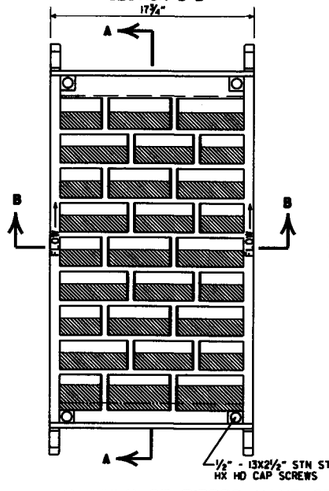
DETAILS OF PEDESTRIAN GRATE AND FRAME

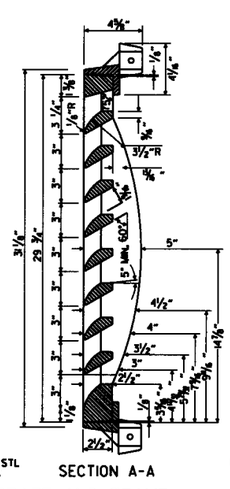


SECTION B-B



SECTION THRU FRAME



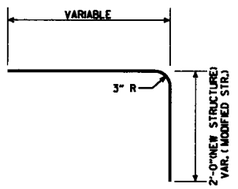


SECTION A-A

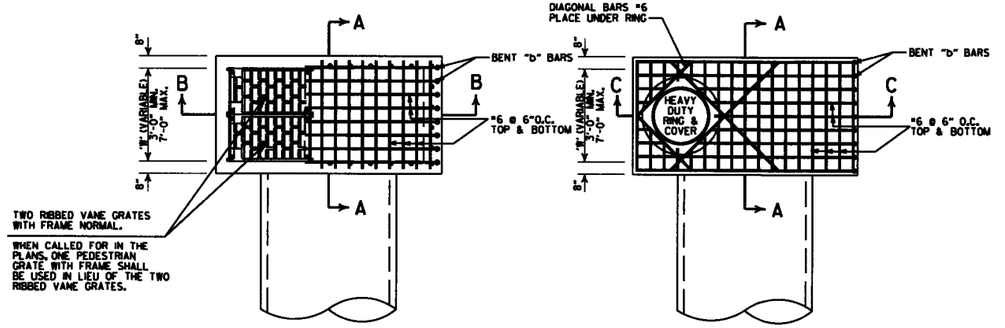
DETAILS OF RIBBED VANE GRATE AND FRAME

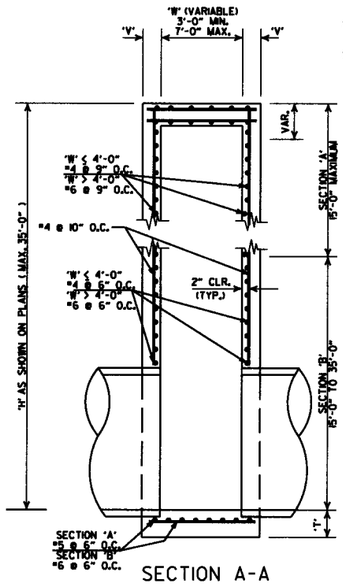
GENERAL NOTES (RIBBED VANE GRATE & FRAME)

1. RIBBED VANE GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. GRATE AND FRAME SHALL NOT BE PAINTED.
3. GRATE AND FRAME SHALL BE INSTALLED IN DROP INLET IN ASSEMBLED POSITION.
4. APPROXIMATE WEIGHT OF GRATE SHALL BE 170 LBS.



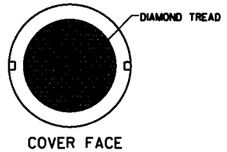
DETAIL OF BENT "b" BAR



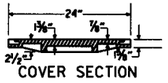


SECTION A-A

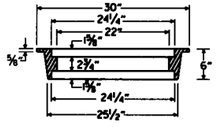
DETAILS OF DROP INLET (TYPE ST)



COVER FACE



COVER SECTION

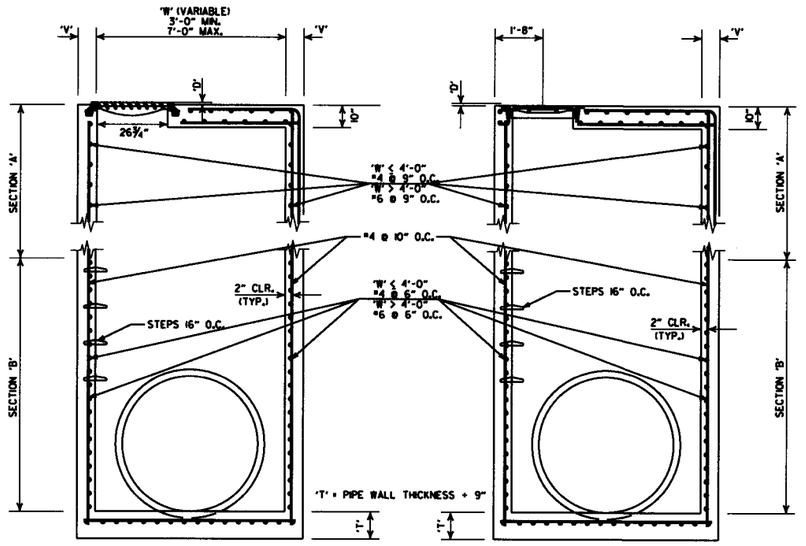


RING SECTION

HEAVY DUTY RING & COVER

APPROXIMATE TOTAL WEIGHT = 333 LBS.

SECTION SECTION



SECTION B-B SECTION C-C

DETAILS OF JUNCTION BOX (TYPE ST)

GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)

1. THE 'D' DIMENSION SHALL MATCH THE FINAL LIFT OF ACHM SURFACE COURSE SHOWN IN THE PLANS WHEN ASPHALT PAVING SURROUNDS THE GRATE OR RING COVER, AND SHALL BE 0" AT OTHER INSTALLATIONS.
2. THE STEPS SHALL BE OMITTED WHERE 'H' IS LESS THAN 4'-0".
3. ALL EXPOSED CORNERS ARE TO HAVE A 3/4" CHAMFER.

GENERAL NOTES (HEAVY DUTY RING & COVER):

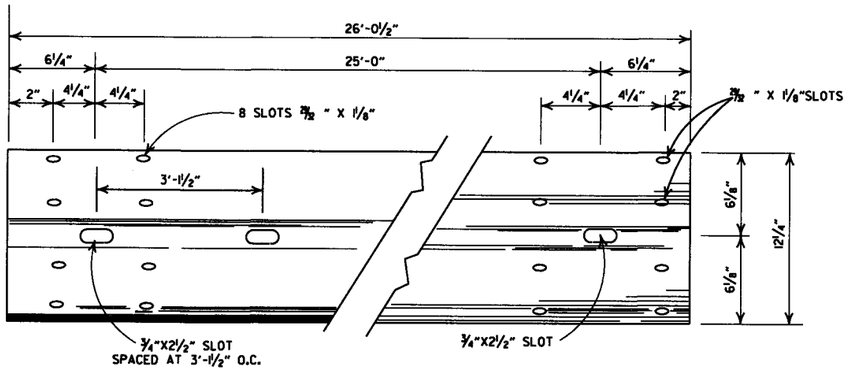
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
4. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

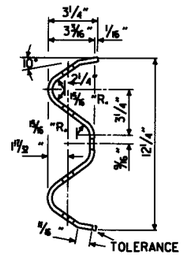
DATE REVISED	DATE FILMED	DESCRIPTION
7-26-12		REMOVED NOTE 4, REVISED 'T', REVISED BOTTOM SLAB REBAR FOR SECTION 'A', SHOWED REBAR CLEARANCE IN SECTIONS
11-16-01		ADDED NOTE 4
1-12-00		REVISED HEAVY DUTY RING & COVER
5-13-99		ADDED PEDESTRIAN FRAME & GRATE
7-02-98		REMOVED NOTE 5, REV. DIMENSIONS, ADDED HEAVY DUTY RING & COVER ADDED AASHTO REF. REVISED GRATE
10-18-96		REVISED ASTM REF. TO AASHTO
10-1-92		REVISED & REISSUED
8-15-91	8-15-91	REVISED & REISSUED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)

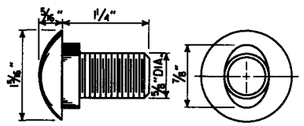
STANDARD DRAWING FPC-9S



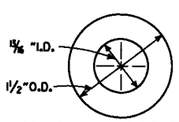


DETAILS OF W-BEAM GUARD RAIL

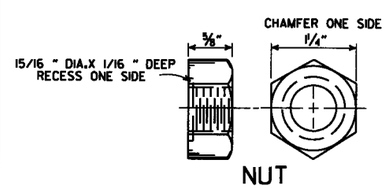
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



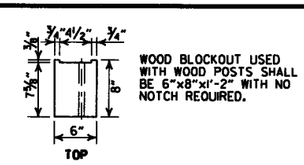
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

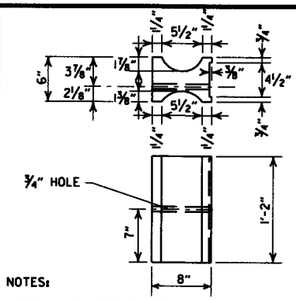


NUT



WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.

WOOD BLOCKOUT (W-BEAM)

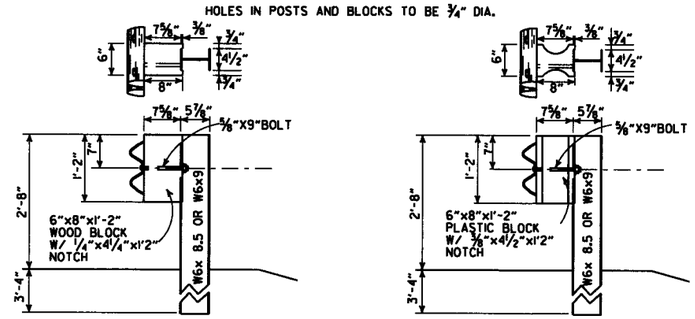


NOTES:

1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

PLASTIC BLOCKOUT (W-BEAM)

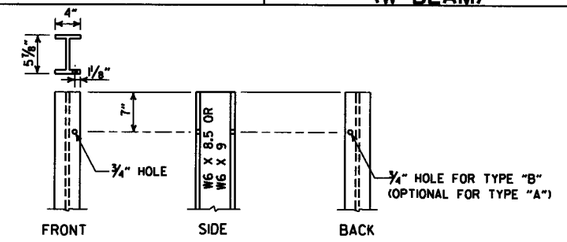
HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.



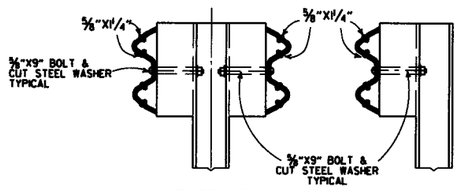
WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)



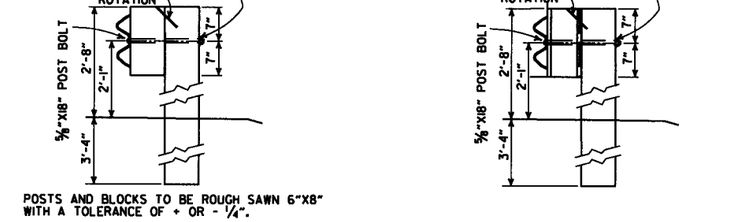
STEEL POST



TYPE "B" TYPE "A"

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.



POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - ¼".

WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF WOOD LINE POST CONNECTIONS (W-BEAM)

-GENERAL NOTES-

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN ¾" BEYOND IT.

WHERE W-BEAM GUARD RAIL CONTINUES, THE INTERMEDIATE SECTIONS SHALL HAVE A POST SPACING OF 6'-3" UNLESS OTHERWISE NOTED.

W-BEAM GUARD RAIL REPRESENTING INTERMEDIATE SECTIONS WILL BE MEASURED ALONG THE ROADWAY FACE FROM CENTERLINE OF POST TO CENTERLINE OF POST.

USE W-BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB. FOR EXTENSIONS OR MODIFICATION OF EXISTING GUARD RAIL, W-BEAM GUARD RAIL COMPONENTS OF THE SAME TYPE AS THOSE EXISTING SHALL BE USED.

ANY BACKFILLING UNDER OR AROUND POST SHALL BE DAMP SAND THOROUGHLY TAMPED IN PLACE.

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7# (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

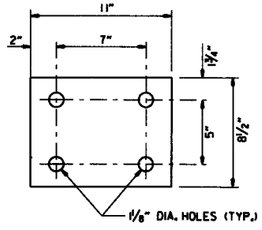
CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARD RAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARD RAIL.

DATE	REVISION	FILMED
11-16-17	REVISED GENERAL NOTES AND RAISED GUARD RAIL HEIGHT 3"	
07-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
10-15-09	ADDED REFERENCE TO MASH	
04-10-03	REVISED GENERAL NOTES	
08-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
03-30-00	REMOVED GUARD RAIL AT BRIDGE ENDS	
01-12-00	ADDED PLASTIC BLOCKOUT	
08-12-98	REV. BLOCKOUTS TO WOOD, DELETED CONC. POST & REV. GENERAL NOTE, DELETED DET. OF GUARD RAIL REPLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK, & ADDED DETAILS OF STEEL LINE POST CONN. REMOVED BACK-UP PLATE, REVISED HOLES IN STEEL POLES	
04-03-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
06-02-94	ADDED ALT. STEEL POST SIZE	
08-05-93	REVISED STEEL POST SIZE	8-5-93
10-01-92	REDRAWN & REVISED	10-1-92
08-15-91	REVISED WASHER NOTE	8-15-91
08-02-90	REV. GEN. NOTE & DEPTH OF ANC. POST IN ROCK	8-2-90
07-15-88	REVISED SECTION 3 & GENERAL NOTES	
03-04-88	REV. ANCHOR POST ,ELEV. NOTES & POST IN ROCK	780-3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-09-87	REDRAWN & REVISED	802-10-9-87

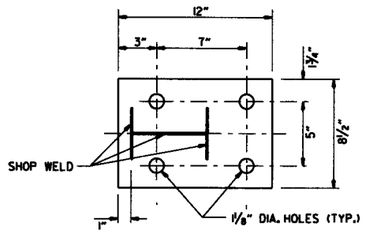
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-8

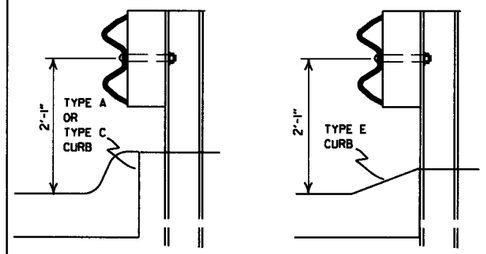


WASHER PLATE



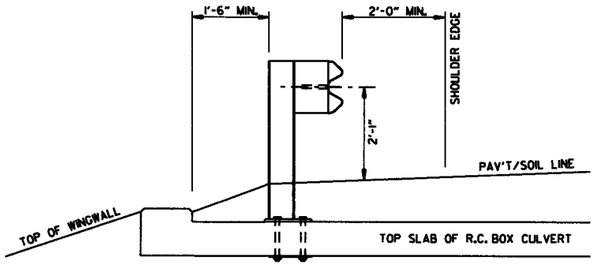
BASE PLATE

Note: Bolts, nuts, washers and plates shall be galvanized in accordance with Section 807 of the Standard Specifications.

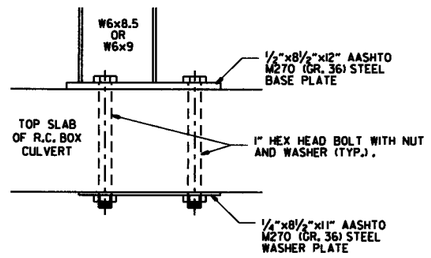


DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB (W-BEAM)

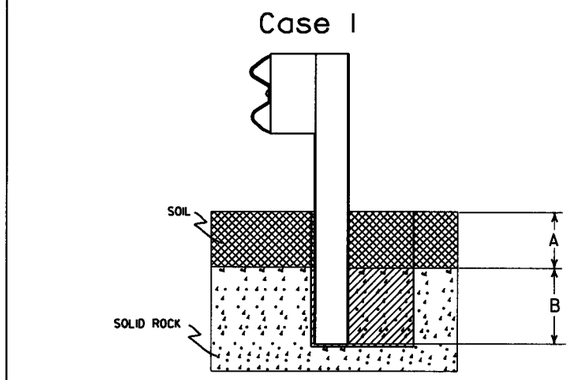
FOR DESIGN SPEEDS OF 50 MPH OR LESS ALL CURB FACES, AS SHOWN ON STD. DRWG. CG-1, MAY BE USED. FOR DESIGN SPEEDS OF 55 MPH OR MORE TYPE "E" CURB FACE SHALL BE USED.

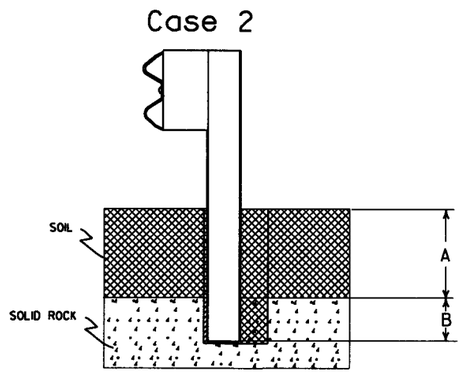


SECTION A-A



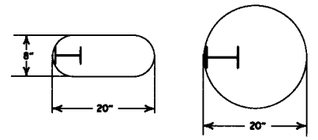
DETAIL OF CONNECTION

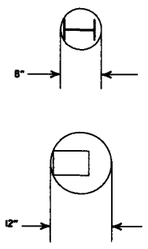




Plan View Steel Posts

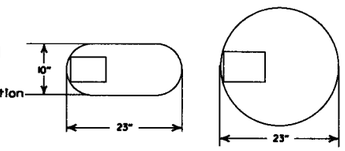
Either hole configuration acceptable





Plan View Wood Posts

Either hole configuration acceptable



Notes: For overlying soil depths (A) ranging from 0 to 18", the depth of required drilling (B) is equal to 24".

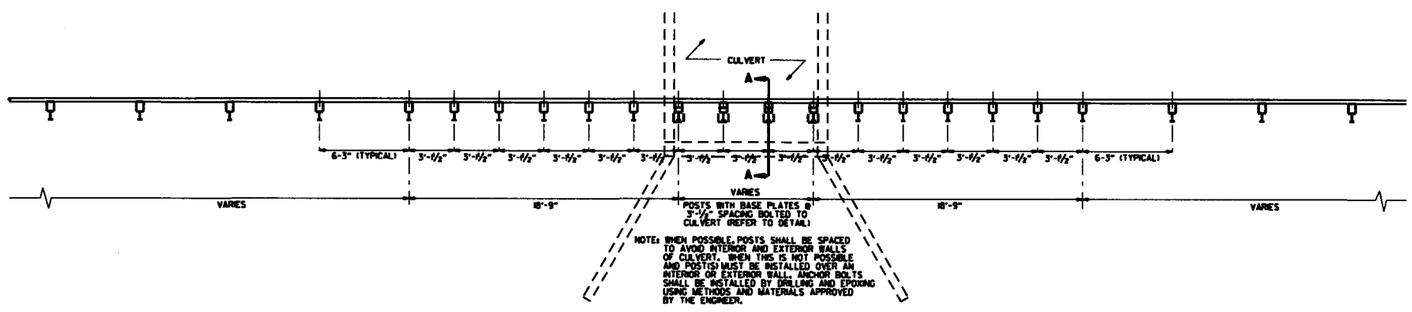
Zone A:
Backfill according to Section 617.03(a).

Zone B:
Backfill hole in 6" lifts with material meeting the requirements of Section 802.02(c) - Alternate gradation. Compact to 95% maximum dry density per ASTM D-698.

Notes: For overlying soil depths (A) ranging from 18" to 44", the depth of required drilling (B) is equal to either 12" or 44" minus the depth of soil whichever is less.

Zone A & B:
Backfill according to Section 617.03(a).

DETAIL OF POST PLACEMENT IN SOLID ROCK (W-BEAM)



PLAN LAYOUT OF TYPE A GUARD RAIL AT LOW-FILL CULVERTS

NOTE: THIS DETAIL IS TO BE USED ONLY WHEN THE COVER OVER THE CULVERT DOES NOT PERMIT FULL EMBEDMENT OF GUARD RAIL POSTS AS SHOWN ON STD. DWG. GR-8.

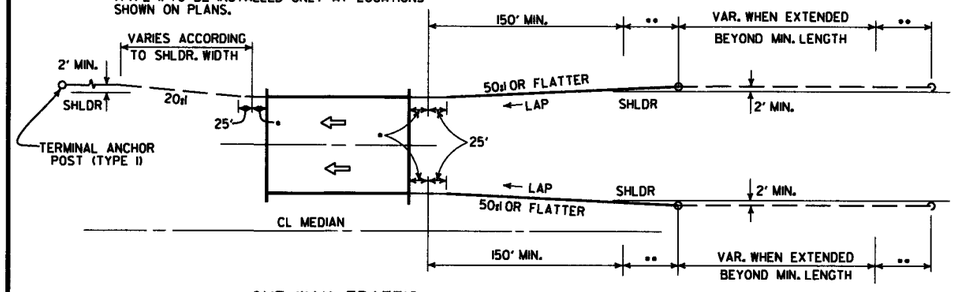
DATE	REVISION	FILMED
11-16-17	REVISED GUARD RAIL HEIGHT	
07-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
04-12-07	REVISED DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB	
11-10-05	ADDED GUARD RAIL PLACEMENT BEHIND CURB; REVISED DETAIL OF CONNECTION	
11-18-04	REVISED POST PLACEMENT IN ROCK & CULVERT CONNECTION DETAILS. ADDED DETAIL FOR GUARD RAIL PLACEMENT AT LOW-FILL CULVERTS	
03-30-00	REMOVED CONCRETE INSERT ANCHOR	
08-12-98	CHANGED STEEL SPACER BLOCK TO WOOD BLOCKOUT, ADDED DET. OF GUARD RAIL CONNECTION TO R.C. BOX CULV'T., DELETED DET. OF STEEL LINE POST CONN. & ADDED DET. OF GUARD RAIL PLACE. BEHIND CURB & DET. OF POSTPLACE. IN SOLID ROCK	
04-03-96	PLACED ARROWS AT CUT STEEL WASHERS	4-3-96
10-18-96	REV. ASTM REF. TO AASHTO	
11-22-95	ADDED OPTIONAL HOLES	
06-02-94	REVISED ALTERNATE POST SIZE	
08-05-93	REVISED STEEL POST SIZE	
10-01-92	REDRAWN & REVISED	10-1-92
08-02-90	DEL. WASHER ON ANCHOR ASSEMBLY	8-2-90
07-15-88	CONFORMED TO 1988 SPECS	
03-04-88	REVISED ANCHOR NOTE	
10-30-87	REVISED ANCHOR ASSEMBLY	712-10-30-87
10-30-87	REVISED PLACEMENT BEHIND CURB	547-10-30-87
10-09-87	REDRAWN & REVISED	803-10-9-87

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

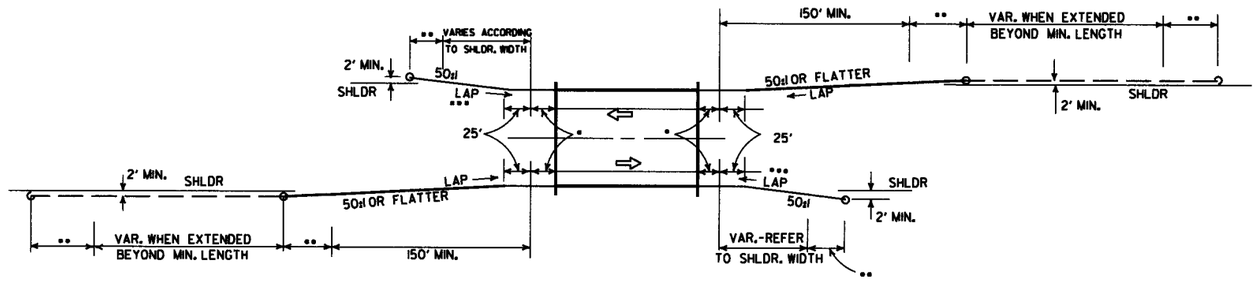
STANDARD DRAWING GR-8A

NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

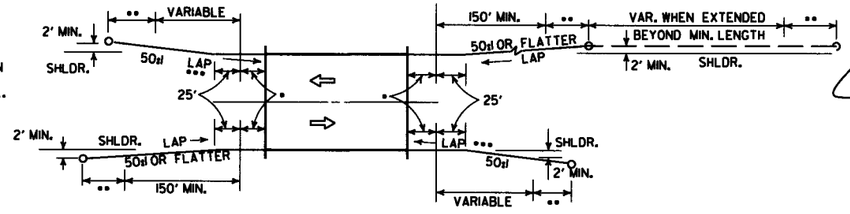
••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

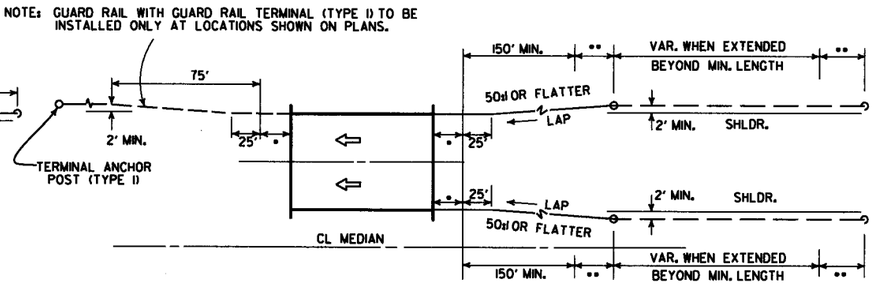
METHODS OF INSTALLATION OF GUARD RAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

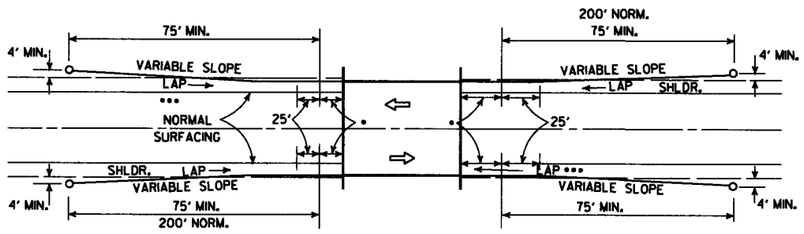
NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

METHOD OF INSTALLATION OF GUARD RAIL AT FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERMINAL (TYPE I) (FULL SHOULDER WIDTH OR LESS BRIDGES)

LEGEND

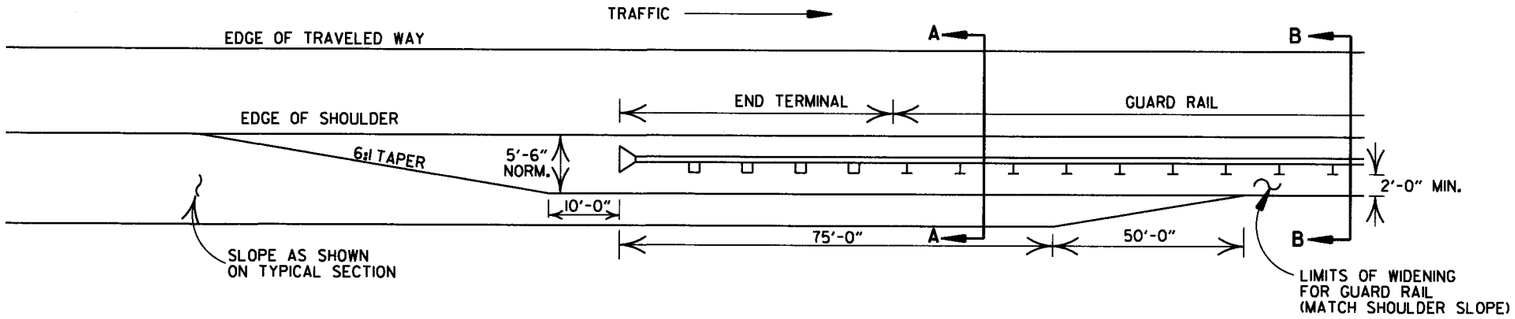
- • THRIE BEAM GUARD RAIL TERMINAL
- •• GUARD RAIL TERMINAL (TYPE 2)

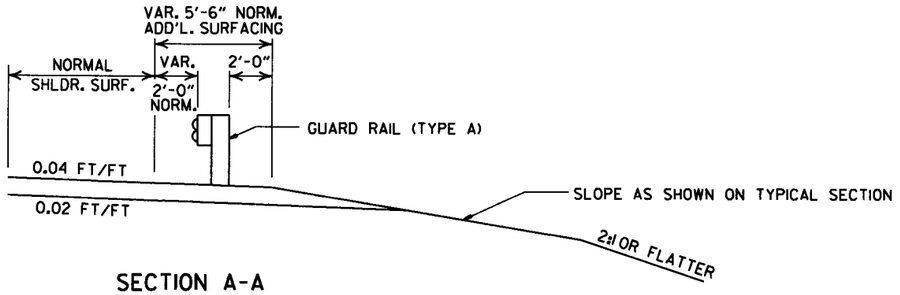
DATE	REVISION	DATE FILM
4-17-08	REVISED LAYOUTS	
11-10-05	REMOVED GUARD RAIL NOTES AND DETAILS	
11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERM. (TY. I)	
1-12-00	ADDED CONSTRUCTION NOTE	1-12-00
6-26-97	REVISED LAYOUT	
10-1-92	REDRAWN & REVISED	10-1-92
	ADDED NOTE	
10-9-87	REDRAWN & REVISED	

ARKANSAS STATE HIGHWAY COMMISSION

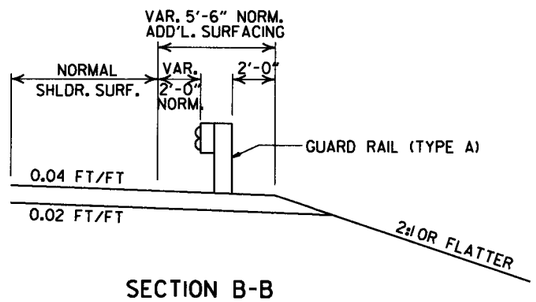
GUARD RAIL DETAILS

STANDARD DRAWING GR-9





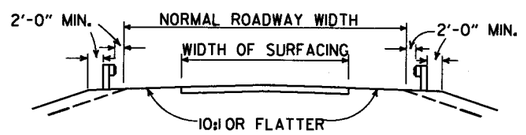
SECTION A-A



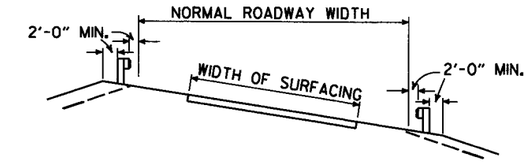
SECTION B-B

DETAILS OF WIDENING FOR GUARD RAIL

NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARD RAIL.

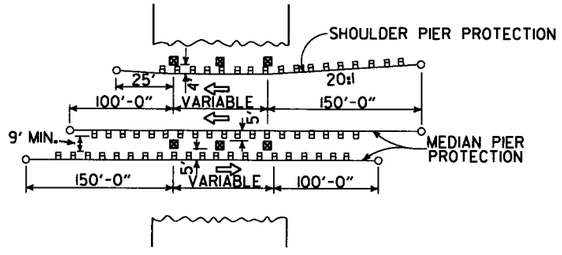


SECTION ON TANGENT



SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY



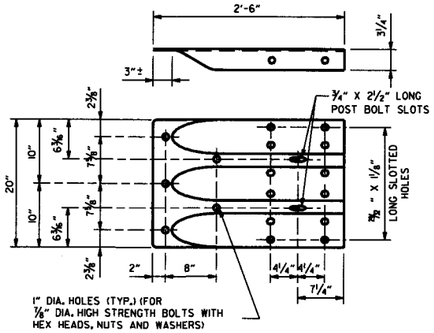
METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

DATE	REVISION	DATE FILM
4-17-08	MINOR REVISION	
11-10-05	DRAWN	

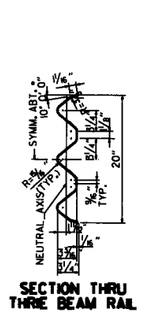
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

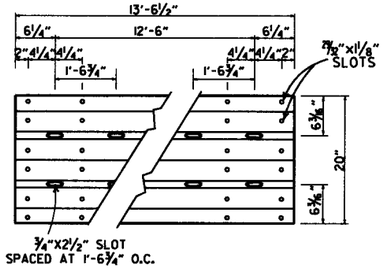
STANDARD DRAWING GR-9A



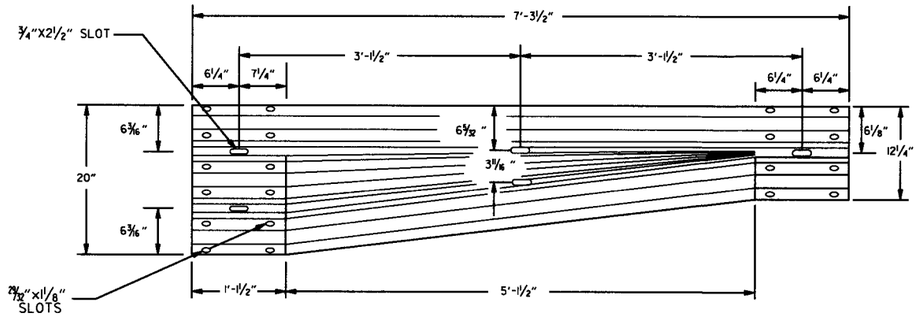
SPECIAL END SHOE



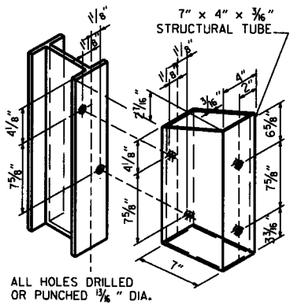
SECTION THRU THRIE BEAM RAIL



THRIE BEAM RAIL



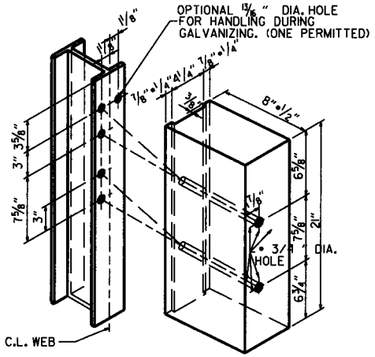
TRANSITION SECTION



ATTACH BLOCKOUT TO POST USING ⅝" DIA. HEX HEAD BOLTS WITH 1½" O.D. CUT STEEL WASHERS AND NUT.

ALL HOLES DRILLED OR PUNCHED 13/16" DIA.

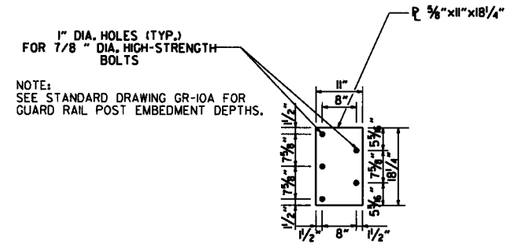
STRUCTURAL STEEL TUBING BLOCKOUT DETAIL



ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED

HOLE PUNCHING DETAIL FOR STEEL POST & WOOD OR PLASTIC BLOCKOUTS

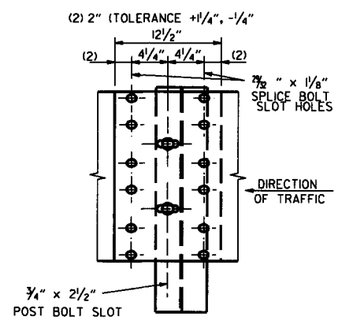
NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.



NOTE:
SEE STANDARD DRAWING GR-10A FOR GUARD RAIL POST EMBEDMENT DEPTHS.

CONNECTOR PLATE

CONNECTOR PLATE SHALL BE AASHTO M270, GR. 36 AND SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO SUBSECTION 807.19 OF THE STANDARD SPECIFICATIONS. CONNECTOR PLATE TO BE BOLTED TO SPECIAL END SHOE USING ⅞" DIA. HIGH STRENGTH BOLTS, WITH THE HEADS PLACED ON THE TRAFFIC FACE. WASHERS SHALL BE USED UNDER THE HEAD AND NUT. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AND SHALL CONFORM TO SUBSECTION 807.06.



THRIE BEAM RAIL SPLICE AT POST

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE I.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3*4" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-9 & GR-13.

REFER TO STD. DRWG. GR-11FOR POST DETAILS.

USE THRIE BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

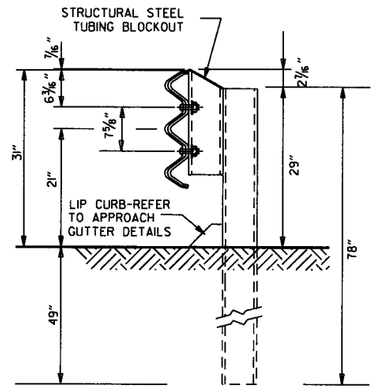
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1STRUCTURAL OR BETTER 9.7f (1400 f) OR NO.1 1350 f SOUTHERN PINE.

DATE	REVISION	FILMED
11-16-17	REVISED TRANSITION SECTION, GUARD RAIL HEIGHT, AND GENERAL NOTES; MOVED THRIE BEAM GUARD RAIL CONNECTIONS AT BRIDGES ENDS TO STD. DRWG. GR-12	
07-14-10	RAISED HEIGHT OF W-BEAM 1"	
11-29-07	ADDED PLASTIC BLOCKOUTS	
11-10-05	ADDED NOTE FOR ATTACHING STEEL BLOCKOUT	
11-18-04	REVISED GENERAL NOTES	
10-9-03	REVISED GENERAL NOTES	
04-10-03	REVISED GENERAL NOTES	
08-22-02	REVISED NOTE (2)	
06-29-00	MOVED DIMENSION LINES	
05-18-00	ADDED NOTE	
03-30-00	DRAWN & ISSUED	

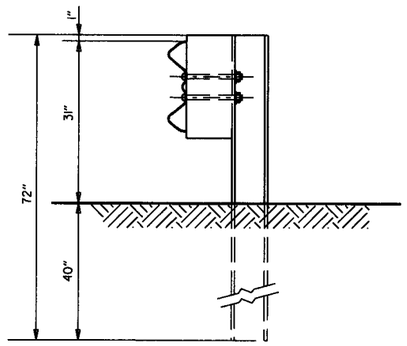
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

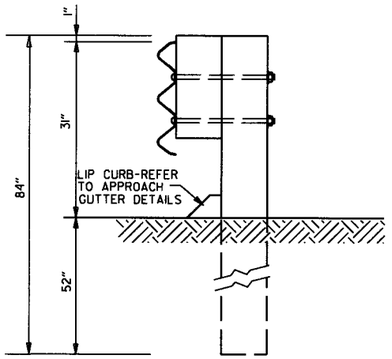
STANDARD DRAWING GR-10



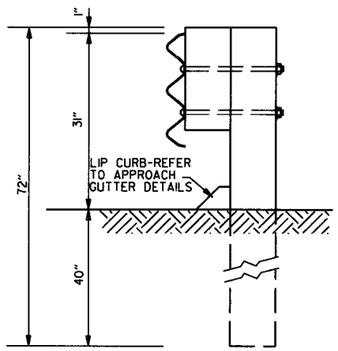
THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7



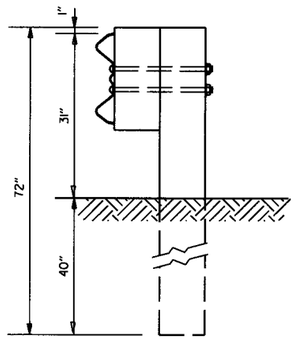
W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8



THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUTS & WOOD POSTS
POSTS 1-6



THRIE BEAM RAIL
WITH WOOD OR PLASTIC
BLOCKOUT & WOOD POST
POST 7



W-BEAM TO THRIE BEAM
TRANSITION RAIL WITH WOOD OR
PLASTIC BLOCKOUT & WOOD POST
POST 8

GENERAL NOTES:

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

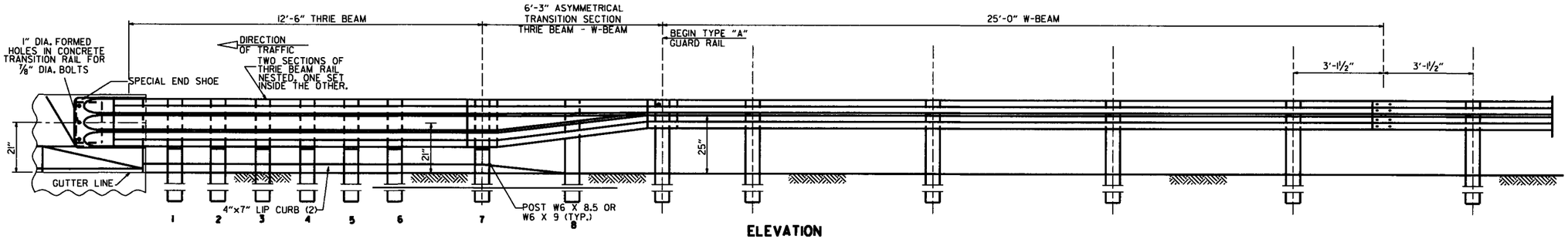
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	FILMED
11-16-17	REVISED GUARD RAIL HEIGHT, CHANGED STD. DWG. NUMBER FROM GR-10A TO GR-11	
07-14-10	REVISED POST 8 DIMENSIONS	
11-29-07	ADDED PLASTIC BLOCKOUTS	
08-22-02	REVISED LIP CURB NOTE	
03-30-00	DRAWN & ISSUED	

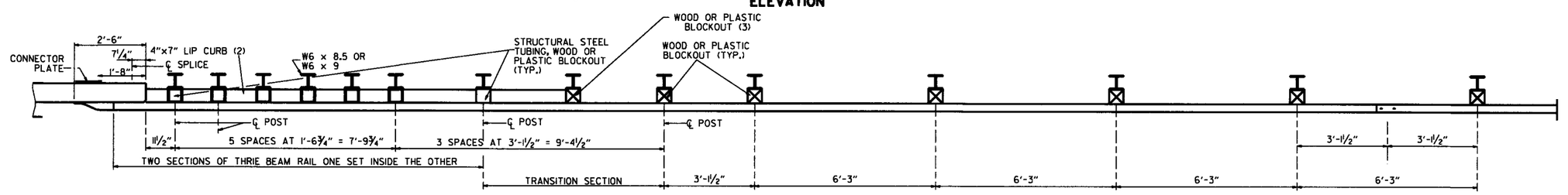
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

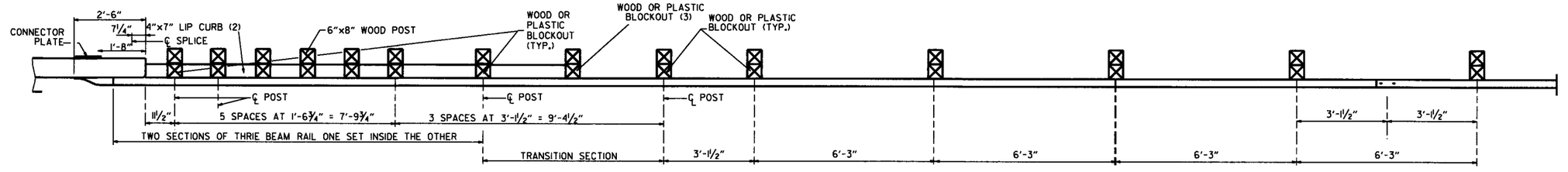
STANDARD DRAWING GR-11



ELEVATION



PLAN



PLAN

(1) VERIFY BOLT SPACING FROM RAIL TRANSITION PRODUCER.
(2) REFER TO APPROACH GUTTER DETAILS.
(3) LENGTH OF BLOCKOUT ON POST 8 TO BE MODIFIED TO FIT RAIL WIDTH.

THRIE BEAM GUARD RAIL CONNECTION AT BRIDGE ENDS

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE 1.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3"4" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-9 & GR-13.

REFER TO STD. DRWG. GR-11 FOR POST DETAILS.

USE THRIE BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

POSTS SHALL BE PLACED AT THE MID-SPAN OF THE W-BEAM.

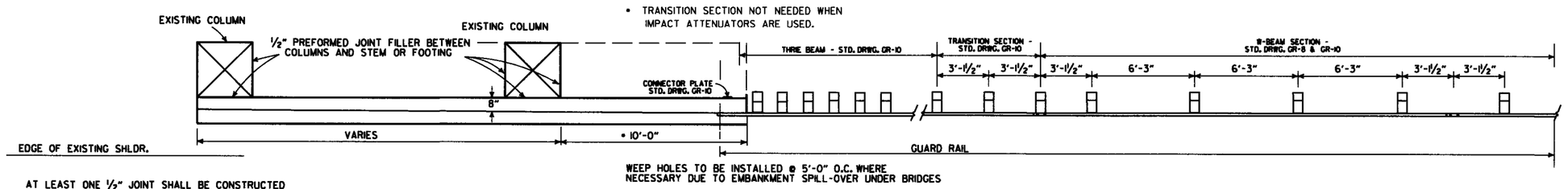
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	FILMED
11-16-17	RE-DRAWN FROM STD. DWG. GR-10 & ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

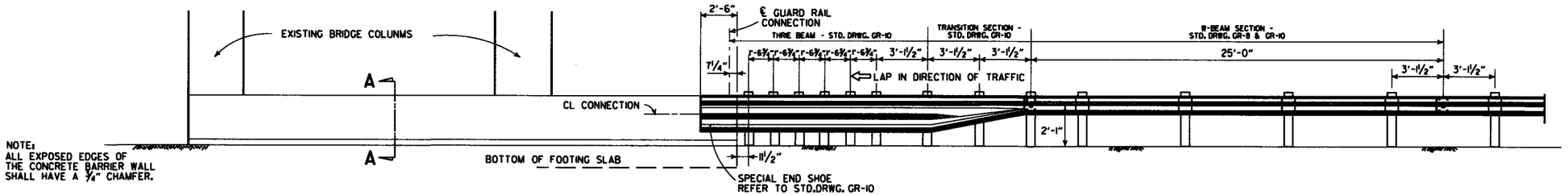
GUARD RAIL DETAILS

STANDARD DRAWING GR-12



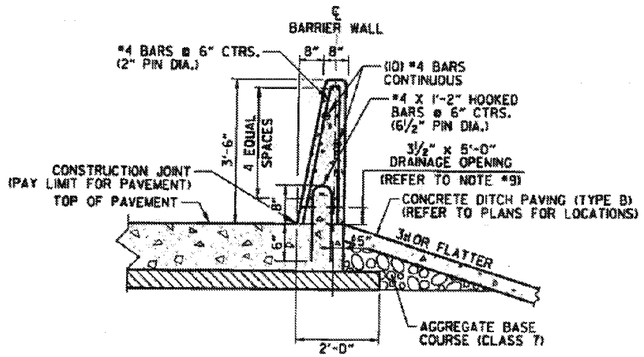
AT LEAST ONE 1/2" JOINT SHALL BE CONSTRUCTED IN THE CONCRETE BARRIER WALL. JOINTS SHALL BE EQUALLY SPACED AT A MAXIMUM OF 25'-0" O.C. FILL JOINT WITH PREFORMED JOINT FILLER.

PLAN OF CONCRETE BARRIER WALL



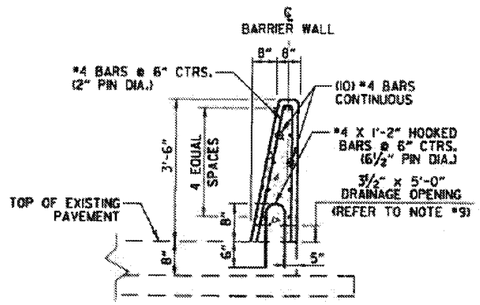
NOTE:
ALL EXPOSED EDGES OF THE CONCRETE BARRIER WALL SHALL HAVE A 3/4" CHAMFER.

ELEVATION OF CONCRETE BARRIER WALL



SECTION A-A CONCRETE BARRIER WALL (SIDE TYPE A)

NOTE: SIDE TYPE A IS FOR USE WITH PROPOSED PAVEMENT.



SECTION A-A CONCRETE BARRIER WALL (SIDE TYPE A-1)

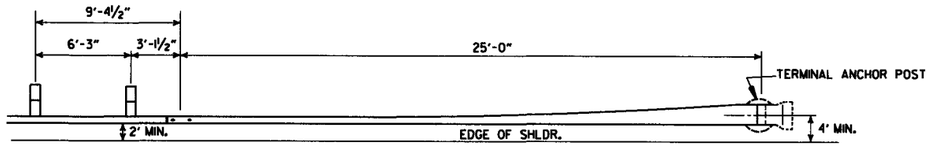
NOTE: SIDE TYPE A-1 IS FOR USE WITH EXISTING PAVEMENT.

DATE	REVISION	FILMED
11-16-17	REVISED CONCRETE BARRIER WALL, RAISED GUARDRAIL HEIGHT 3" AND REVISED POST SPACING, CHANGED STD. DWG. NUMBER FROM GR-11 TO GR-13	
07-14-10	RAISED HEIGHT OF W-BEAM 1"	
08-22-02	REV. SECTION A-A OF DETAILS OF CONCRETE BARRIER WALL	
06-29-00	MOVED DIMENSION LINE	
05-18-00	ADDED NOTE	
03-30-00	REVISED TO INCLUDE THRIE BEAM	
06-02-94	ADDED TRANSITION SECTION NOTE	
10-01-92	REDRAWN & REVISED	10-1-92
08-15-91	REVISED DRAWING PLAN CONC. BARR.	8-15-91
02-16-89	ADDED SKEWED DETAILS	594-2-16-89
07-14-88	CHANGED TITLE	
10-09-87	REDRAWN & REVISED	

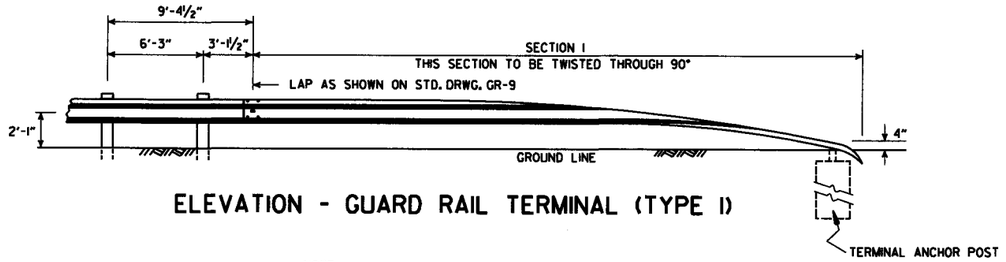
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)

STANDARD DRAWING GR-13

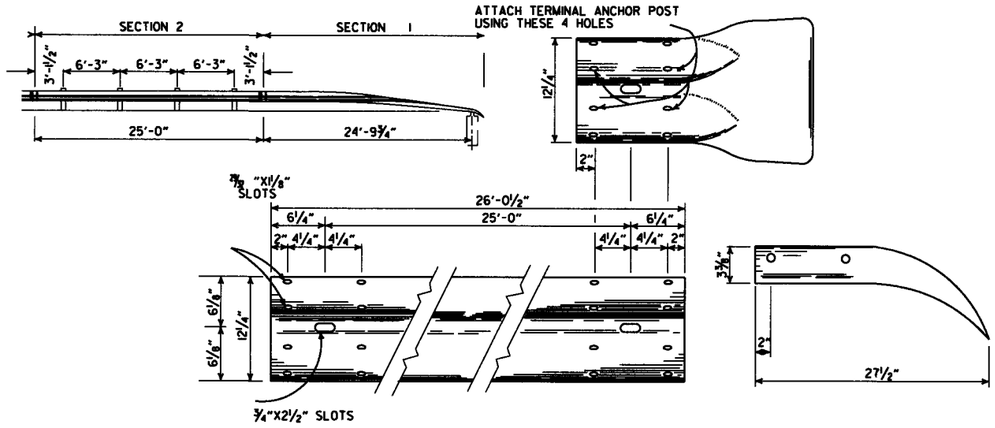


PLAN - GUARD RAIL TERMINAL (TYPE I)



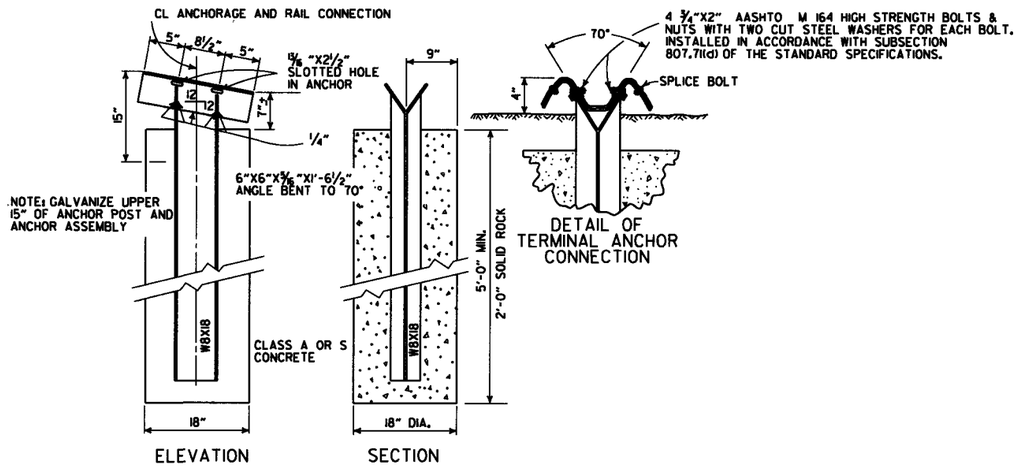
ELEVATION - GUARD RAIL TERMINAL (TYPE I)

NOTE:
SECTIONS 1 AND 2 OF GUARD RAIL TERMINAL SHALL BE PAID FOR AT THE PRICE BID PER LINEAR FOOT OF THE TYPE OF GUARD RAIL SPECIFIED.



SECTION 1

TERMINAL SECTION



ELEVATION SECTION

NOTE: RAIL MEMBERS MAY BE BOLTED TO ANGLE AT TERMINAL ANCHOR AND THE TWO ASSEMBLIES POSITIONED TO PROPER ALIGNMENT PRIOR TO PLACING CONCRETE AROUND 8 WF 17 POST IF CONTRACTOR SO DESIRES.

DETAIL OF TERMINAL ANCHOR POST (TYPE I)

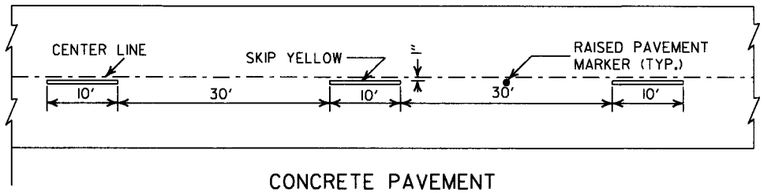
DATE	REVISION	FILMED
11-16-17	REVISED GUARD RAIL HEIGHT AND LOCATION OF POSTS	
07-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
06-26-97	REVISED LAP NOTE	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-03-94	DIMENSION TERMINAL DETAIL	
11-11-92	ADDED NOTE FOR PAYMENT	11-11-92
10-01-92	DRAWN & ISSUED	10-1-92

ARKANSAS STATE HIGHWAY COMMISSION

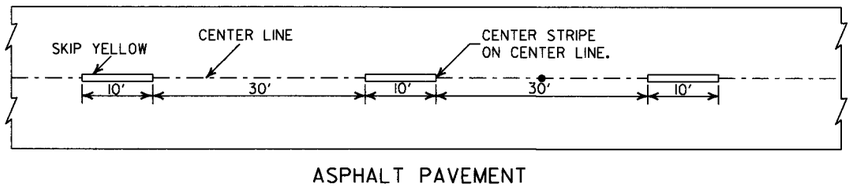
GUARD RAIL DETAILS

STANDARD DRAWING GRT-1

NOTES:
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.

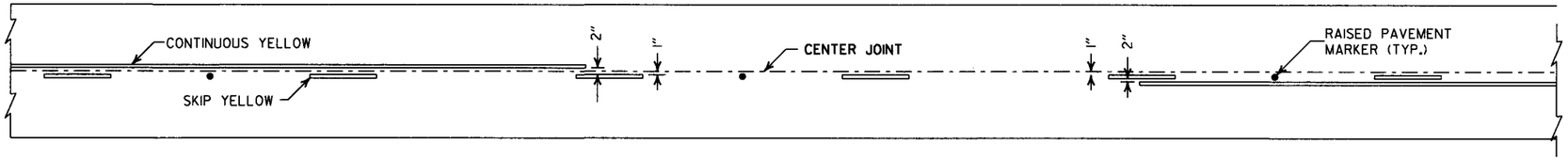


CONCRETE PAVEMENT

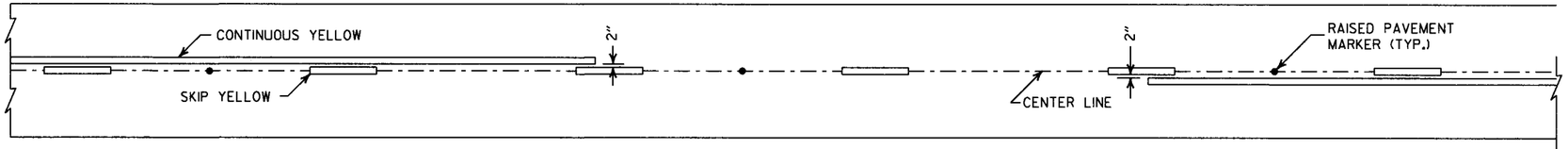


ASPHALT PAVEMENT

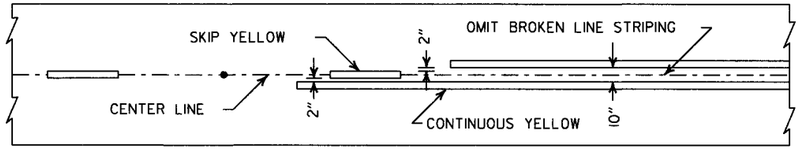
BROKEN LINE STRIPING



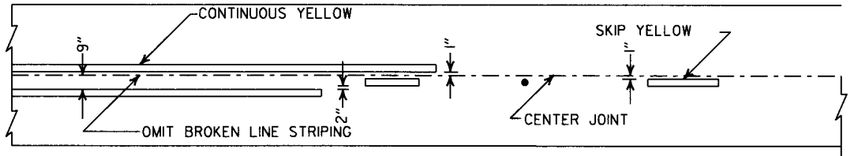
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

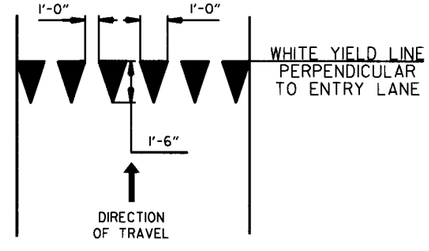


ASPHALT PAVEMENT

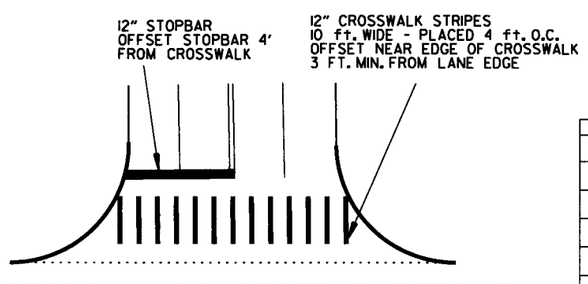


CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES

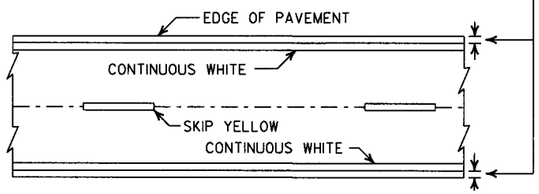


YIELD LINE DETAIL



CROSSWALK AND STOPBAR DETAILS

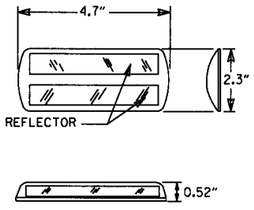
2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT



PAVEMENT EDGE LINE MARKING

NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.

TYPE II
RED/CLEAR OR
YELLOW/YELLOW



NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

DATE	REVISION	
6-1-17	ADDED YIELD LINE DETAIL	
5-12-16	REVISED LINE WIDTHS, SPACING, & NOTES	
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
11-17-10	REVISED GENERAL NOTES & REMOVED PLOWABLE PVMT MRKRS	
11-18-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	ADDED CROSSWALK & STOPBAR DTLS.	
7-02-98	ADDED DETAILS OF STD. RAISED PAV'T. MARKERS	
4-26-96	REV. NOTES 3&4; ADDED R.P.M.	
9-30-80	DRAWN	1-9-30-80
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

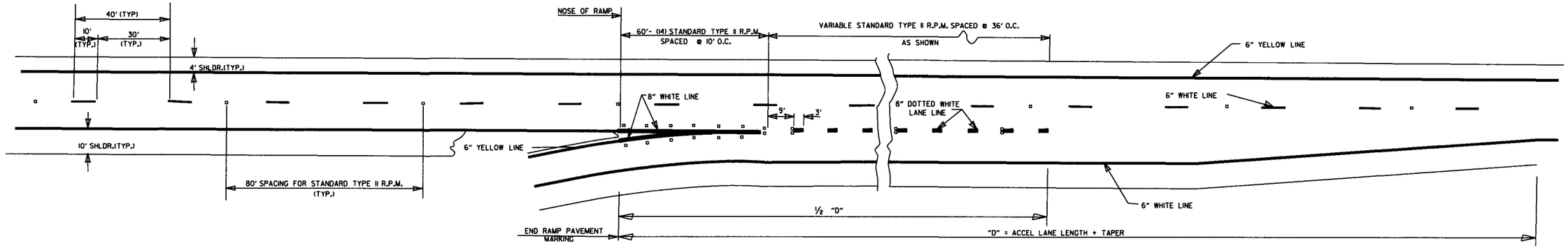
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP

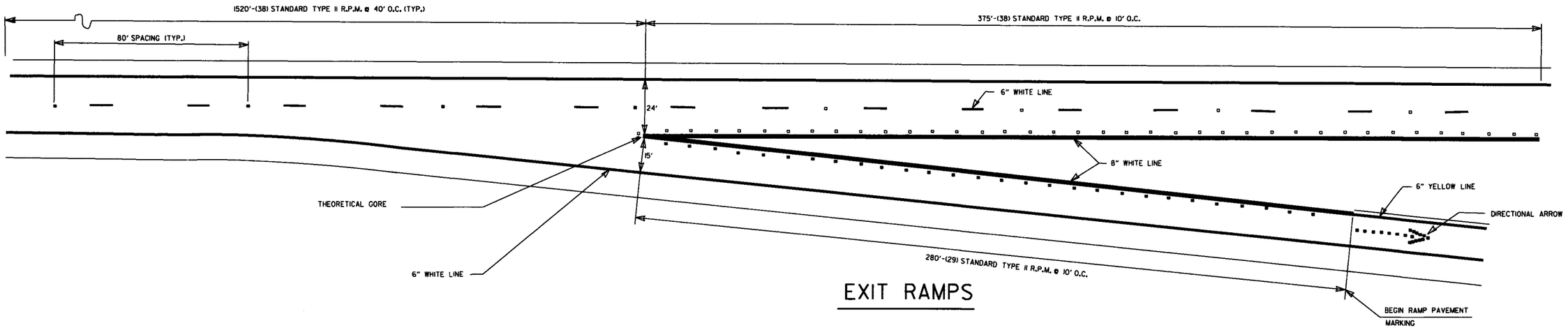
8" WHITE = 228 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP

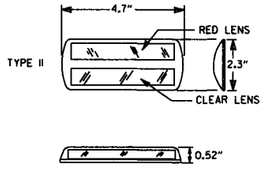
6" WHITE = 280 LIN. FT.
8" WHITE = 655 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH



ENTRANCE RAMPS

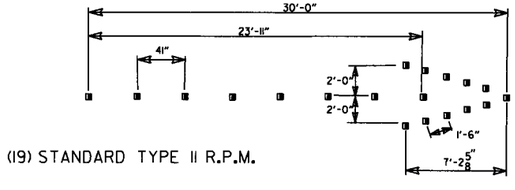


EXIT RAMPS



DETAIL OF
STANDARD
RAISED PAVEMENT MARKERS

NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.



(19) STANDARD TYPE II R.P.M.

DIRECTIONAL ARROWS

GENERAL NOTES:

THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

DATE	REVISION	FILMED
12-8-16	REVISED RAISED PAV'T MARKERS FOR 80' SPACING; REVISED WIDTH OF STRIPING	
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
7-26-12	REVISED RPM NOTATION	
12-15-11	REVISED RPMs ACCORDING TO LATEST POLICY	
11-17-10	REMOVED PLOWABLE PAVEMENT MARKERS	
6-3-10	REVISED PER 2009 MUTCD	
11-18-04	REVISED NOTES	
8-22-02	ADDED & REVISED NOTES; REV. ENTRANCE & EXIT RAMPS	
5-18-00	REMOVED HASHMARKS	
7-02-98	CHANGED TYPES TO ROMAN NUMERALS	
4-26-96	ADDED DIMENSIONS & QUANTITIES; REVISED LANE WIDTH ON EXIT RAMP	
2-2-95	PLACED IN USE	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

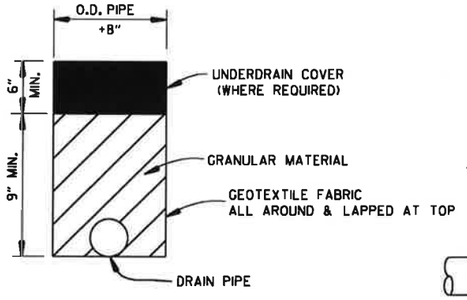
PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS

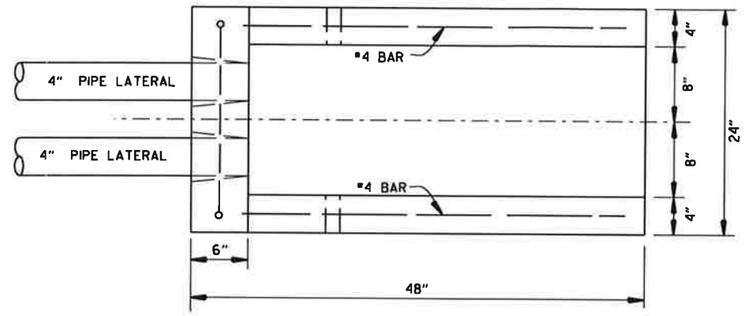
STANDARD DRAWING PM-2

NOTE:

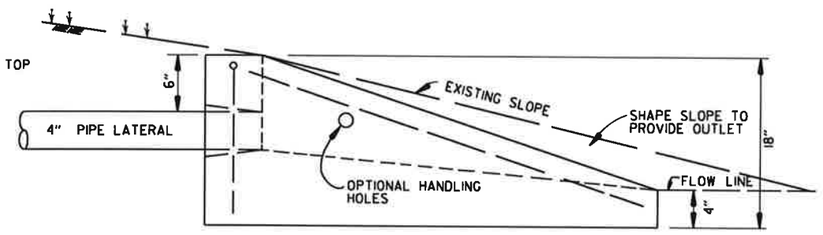
1. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.

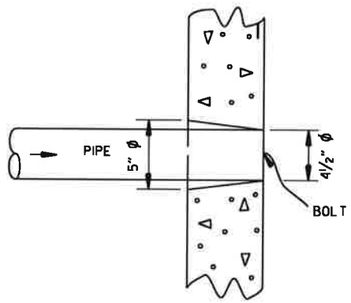




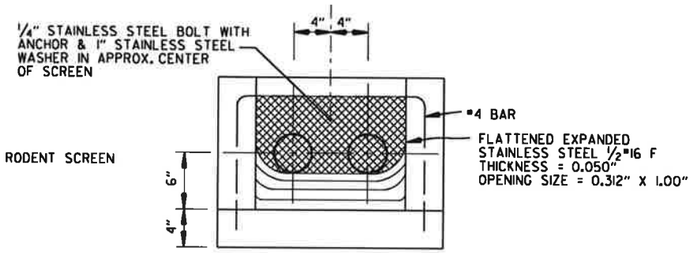
PLAN VIEW



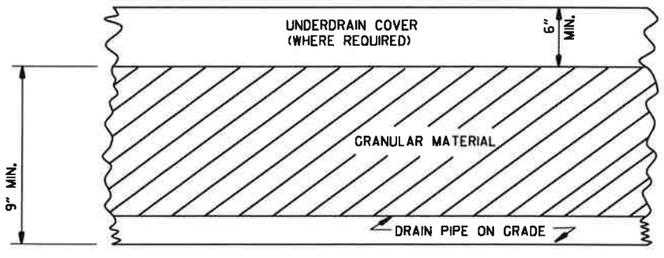
SIDE VIEW



DETAIL OF HOLE FOR 4" PIPE



FRONT VIEW
(DETAIL OF RODENT SCREEN)



DETAILS OF PIPE UNDERDRAIN

NOTES FOR PIPE UNDERDRAINS

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE I. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

2. 4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HEREON. LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.

3. EXISTING 4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP INLETS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."

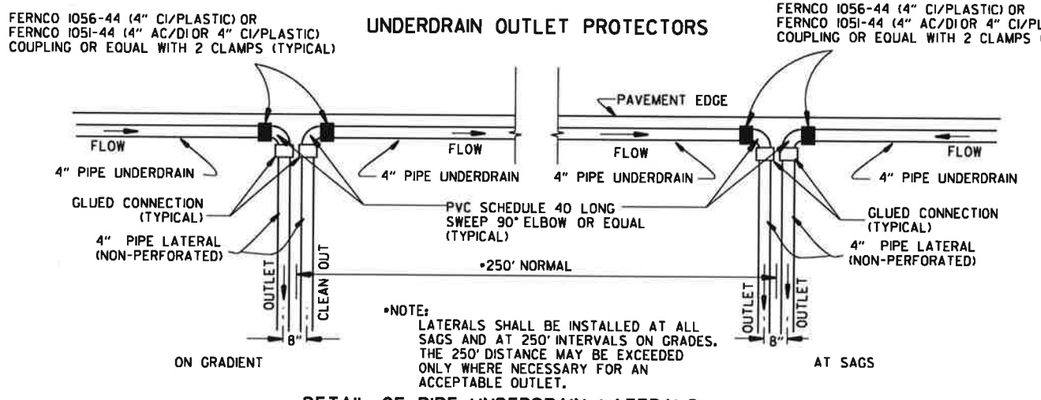
4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE III WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

5. PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS."

6. ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS. EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED UNDER THE ITEM "REMOVAL AND DISPOSAL OF UNDERDRAIN OUTLET PROTECTORS."

7. AT LOCATIONS WHERE A SINGLE LATERAL IS USED THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1. INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-1 AND GROUT THE UNUSED HOLE OR 2. INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE.

UNDERDRAIN OUTLET PROTECTORS



DETAIL OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE

NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

DATE	REVISION	DATE FILMED
12-8-16	ADDED NOTES FOR PIPE UNDERDRAINS, REVISED RODENT SCREEN DETAIL AND NOTES, REMOVED NOTE 1 FOR GRANULAR MATERIAL, ADDED NOTE FOR GEOTEXTILE FABRIC	
4-10-03	REVISED NOTE 3	
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS	
11-18-98	REVISED NOTE	
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC	
4-26-96	ADDED LATERAL NOTE: 5½" TO 5"	
11-22-95	REVISED LATERALS	
7-20-95	REVISED LATERALS & ADDED NOTE	
11- 3-94	REVISED FOR DUAL LATERALS	11- 3-94
10- 1-92	SUBSTITUTED GEOTEXTILE	10- 1-92
8-15-91	ADDED POLYEDTHYLENE PIPE	8-15-91
11- 8-90	DELETED ALTERNATE NOTE	11- 8-90
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	11-30-89
7-15-88	ISSUED P.L.M.	647-7-15-88

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1

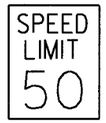
R1-1

STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2

STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

W3-5

STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

W3-5a

STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

R4-1

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

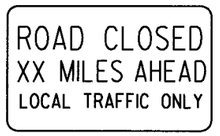
R5-1

STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2

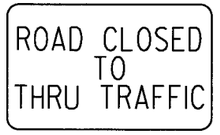
48"X30"

R11-3A



60"X30"

R11-4



60"X30"

W21-5a

STD. 36"X36"
FWY. 48"X48"

W1-1

STD. 36"X36"
FWY. 48"X48"

W1-2

STD. 36"X36"
FWY. 48"X48"

W1-3

STD. 48"X48"

W1-4

STD. 48"X48"

W1-6

STD. 48"X24"
SPECIAL 60"X30"

W1-8

STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

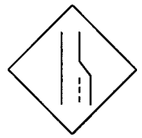
W3-1

STD. 36"X36"
SPECIAL 48"X48"

W3-2

STD. 36"X36"
SPECIAL 48"X48"

W4-2



STD. 36"X36"
FWY. 48"X48"

W5-1

STD. 36"X36"
SPECIAL 48"X48"

W6-3

EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7

EXPWY. 36"X36"
FWY. 48"X48"

W9-2

STD. 36"X36"
FWY. 48"X48"

W13-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

STD. 36"X36"
FWY. 48"X48"

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1

STD. 36"X36"

W1-4b

STD. 48"X48"

R56-1

STD. 18"X18"

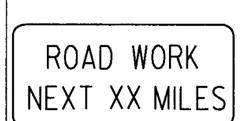
W8-11

STD. 36"X36"
FWY. 48"X48"

W8-9

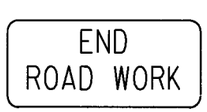
STD. 36"X36"
FWY. 48"X48"

G20-1



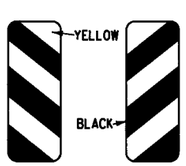
60"X24"

G20-2



48"X24"

OM-3L OM-3R



12"X36"

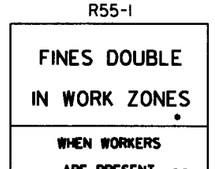
M4-9

STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10

48"X18"

R55-1



36"X60"

• USE 6" C LETTERS
•• USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	½ MILE
1000 FT	¾ MILE
1500 FT	1 MILE
	AHEAD

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.
2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.
3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.
- 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.
- 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.
6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.
7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.
8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

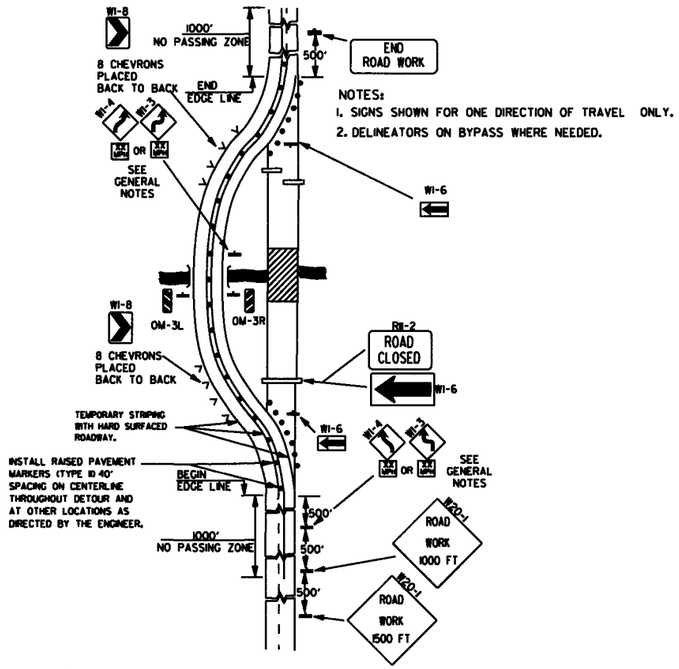
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

DATE	REVISION	FILMED
4-13-17	DELETED RSP-1 & ADDED W21-5a	
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-11	REVISED W24-1	
8-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
8-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION

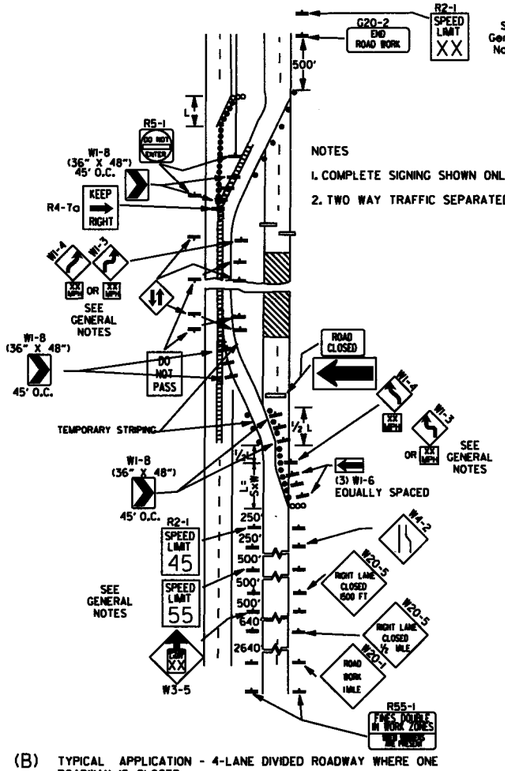
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



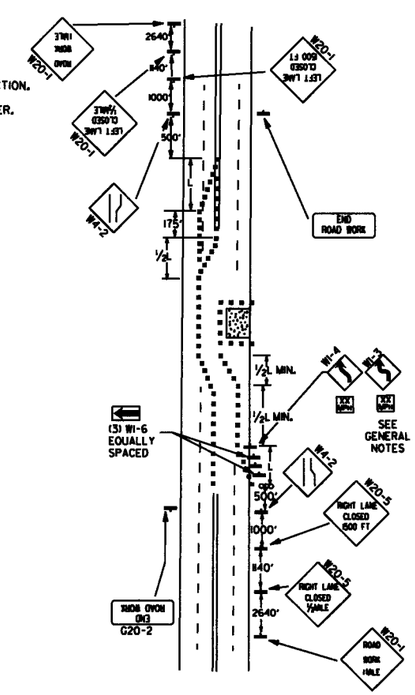
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.

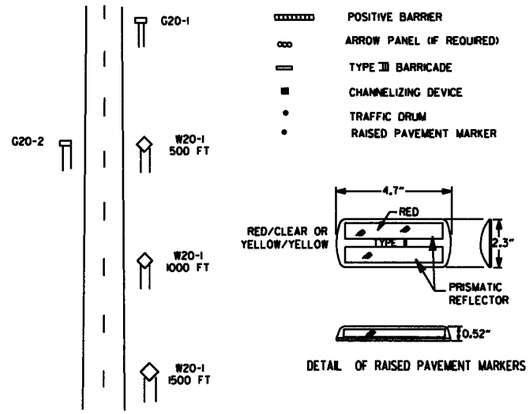


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



TYPICAL ADVANCE WARNING SIGN PLACEMENT

KEY:
- FLAGGER
- POSITIVE BARRIER
- ARROW PANEL (IF REQUIRED)
- TYPE III BARRICADE
- CHANNELIZING DEVICE
- TRAFFIC DRUM
- RAISED PAVEMENT MARKER

DETAIL OF RAISED PAVEMENT MARKERS

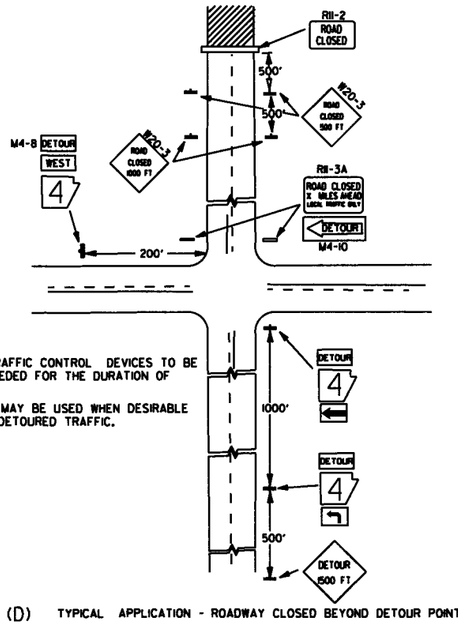
TAPER FORMULAE:

L=SXW FOR SPEEDS OF 45MPH OR MORE.

$L = \frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.

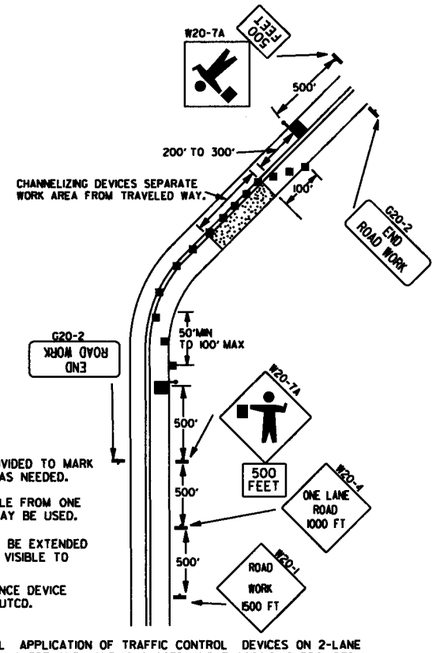
WHERE:
L= MINIMUM LENGTH OF TAPER.
S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
W= WIDTH OF OFFSET.

GENERAL NOTES:
1. ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-1 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.
8. DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.



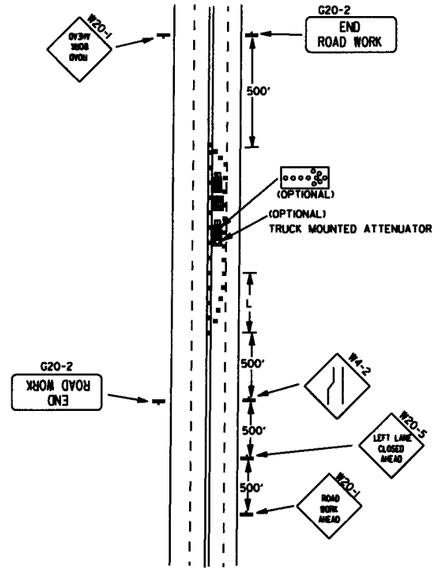
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



NOTES:
1. FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
2. IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
3. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
4. AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) OPTIONAL. REFER TO MUTCD.

(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



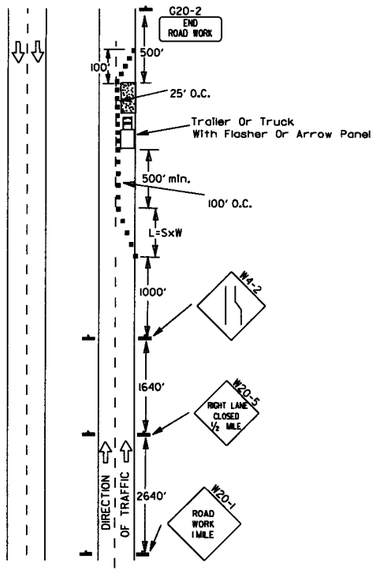
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

DATE	REVISION	FILMED
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-8-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (α) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

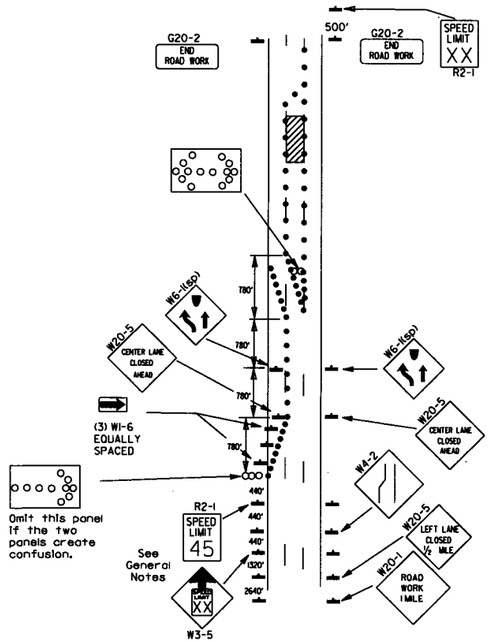
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

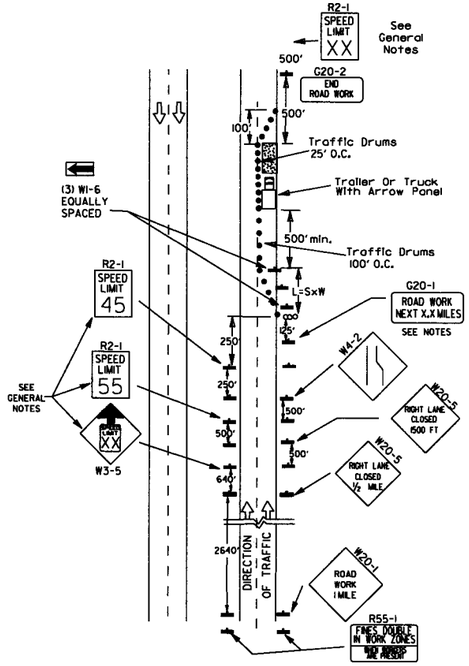
STANDARD DRAWING TC-2



(A) Typical application - daytime maintenance operations of short duration on a 4-lane divided roadway where half of the roadway is closed.



(B) Typical application - 3-lane oneway roadway where center lane is closed.



(C) Typical application - construction operations of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.

KEY:

ooo Arrow Panel (If Required)

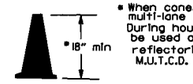
■ Channelizing Device

● Traffic drum

GENERAL NOTES:

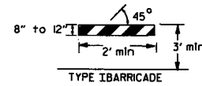
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the W3-5 shall be installed at that location. Additional R2-1 45mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(45) shall be omitted. Additional R2-1 55mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1 (1 MILE) signs are not required in advance of lane closures that begin inside the project limits.
8. Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
9. All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual For Assessing Safety Hardware (MASH).
10. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.

Channelizing devices



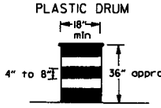
* When cones are used on freeways and multi-lane highways, they shall be 28" min. During hours of darkness, 28" cones shall be used on all roadways, and shall be reflectorized in accordance with the M.U.T.C.D.

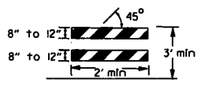
CONES



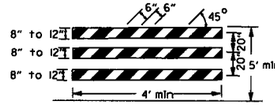
TYPE I BARRICADE

PLASTIC DRUM



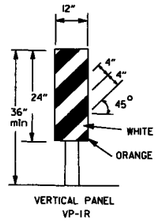


TYPE II BARRICADE



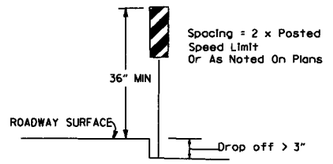
TYPE III BARRICADE

NOTE: For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.



VERTICAL PANEL
VP-1R

VERTICAL PANEL PLACEMENT



TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

VERTICAL DIFFERENTIAL	LOCATIONS	TRAFFIC CONTROL
1" to 3"	Centerline, lane lines	W8-11
1" to 3"	Edge of shoulder	W8-9
Greater than 3"	Lane lines	Standard lane closure required
Greater than 3"	Edge of traveled lane	*RSP-1 and vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical panels, drums or concrete barrier

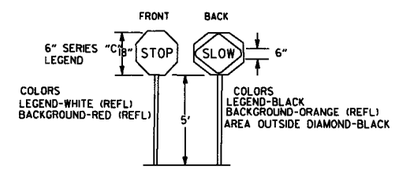
* When shown on the plans concrete barrier will be used.

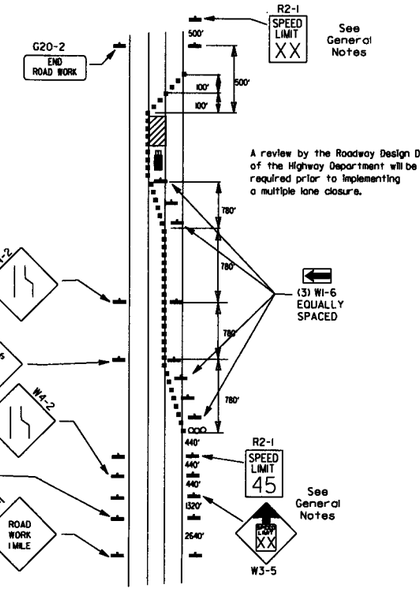
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

FLAG

Flag shall be of good grade red material

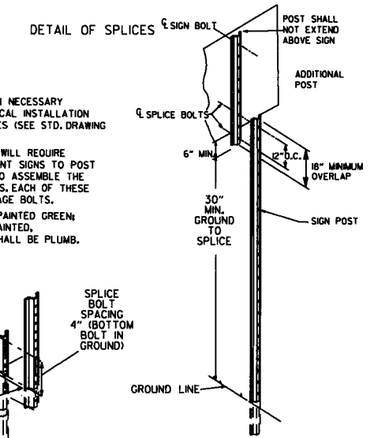
STOP SLOW PADDLE





(D) Typical application - closing multiple lanes of a multilane highway.

DETAIL OF SPLICES



NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.

DATE	REVISION	FILMED
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

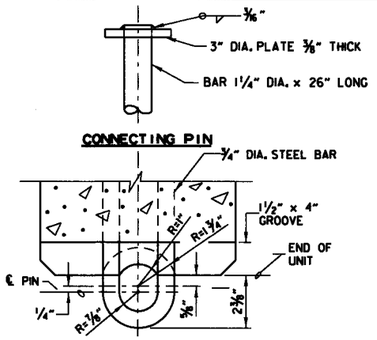
ARKANSAS STATE HIGHWAY COMMISSION

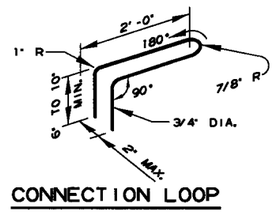
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

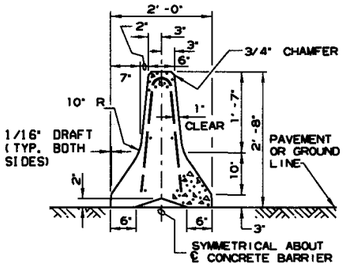
STANDARD DRAWING TC-3

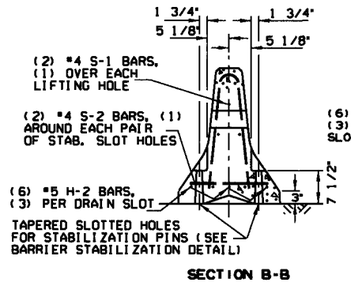
REINFORCING BAR TABLE PER BARRIER UNIT

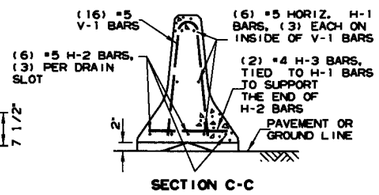
MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-3" LIFTING HOLE 90° 3 3/8" R
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S @ DRAIN SLOTS	#4	(2)	1 1/2" R SLOTS 7" 1'-6" 1" MIN. CLEAR TO BAR 5'-1" BAR W/(4) 1 1/2" R BENDS & MIN. 1'-0" OVERLAP
V-1	VERTICAL IN BARRIER(3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)	TOTAL LENGTH 4'-9" 2 3/16" R 12° 1 1/2" 4 3/8" 2'-1 3/8" 9"

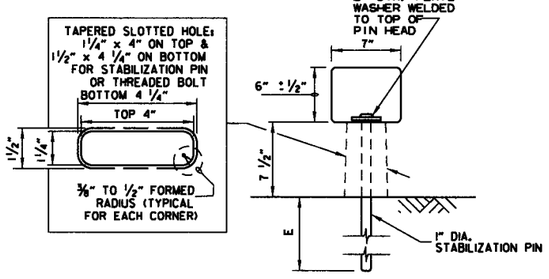






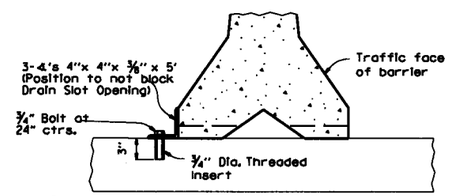






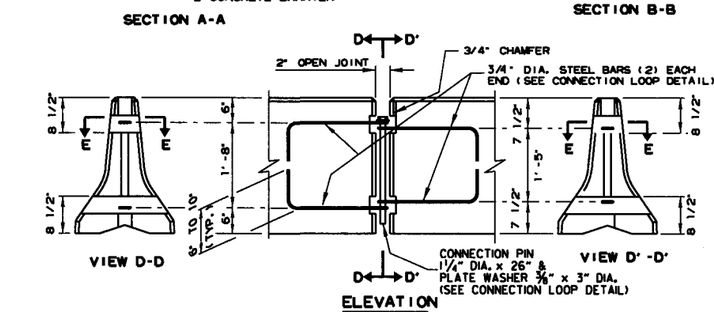
BARRIER STABILIZATION DETAIL
ROADWAY SECTION

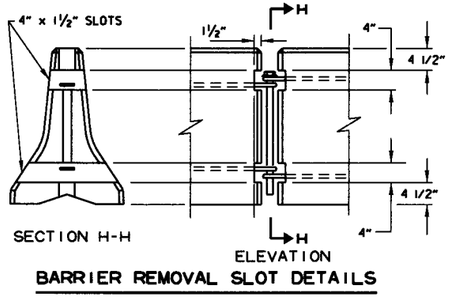
(E) 4" - Concrete Pavement
8" - Asphalt Pavement
12" - Shoulder Areas

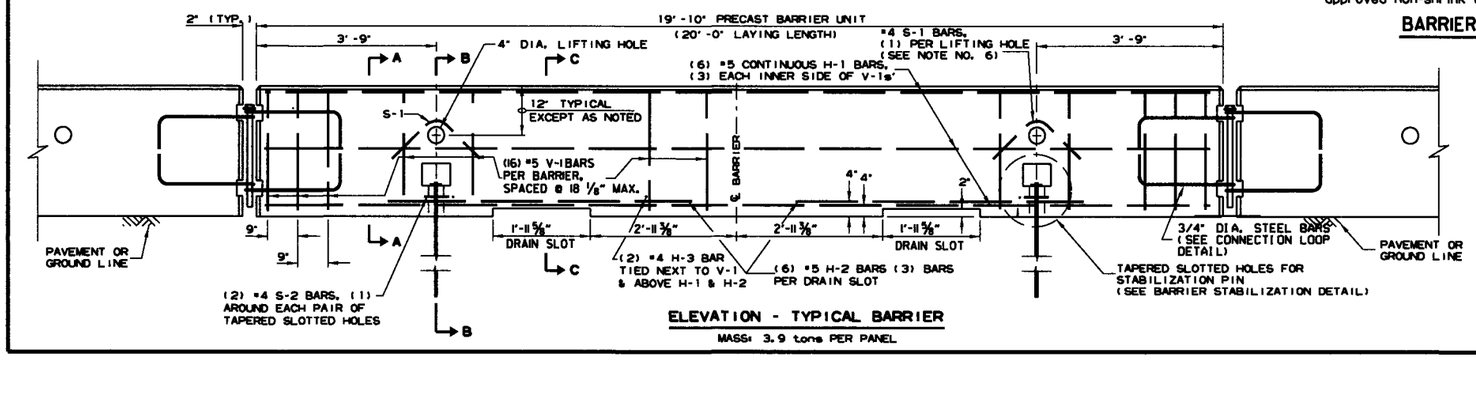


NOTE: 3/4" Threaded Inserts shall be cast in place for all new bridge decks and drilled and grouted for existing bridge decks. Inserts shall have a minimum ultimate load capacity of 8000 lbs. in tension. After removal of barrier, bolts, and angles, the inserts shall be filled with approved non-shrink epoxy.

BARRIER STABILIZATION DETAIL
BRIDGE DECKS







ELEVATION - TYPICAL BARRIER

MASS: 3.9 tons PER PANEL

General Notes

1. The contractor shall furnish the Precast Concrete Barrier Units and shall be responsible for the manufacture, shipment, storage, placement and removal. At the completion of the project, the precast units will remain the property of the contractor.

2. Materials shall meet the following minimum requirements:
   Concrete: 2500 psi compressive strength at 28 days.
   Reinforcing Steel: AASHTO M 31 or M 53, Grade 60
   Structural Steel: AASHTO-M270 Grade 36 shall be used for the Connection Pin, Connection Loops, and Stabilization Pins. A One Piece Pin with a 3" rounded top may be used in place of the detailed Connection Pin.
   Delineators: Delineators shall be mounted at 10' spacing on top of precast barrier.

   In applications where barrier wall is within 6 feet of a traffic lane, additional delineators shall be placed on the barrier at 10' spacing approximately one (1) foot from the top of the barrier. Delineators shall be on the AHTD Qualified Products List for Construction Concrete Barrier Markers.
   Delineator color shall be in accordance with the Manual on Uniform Traffic Control Devices.
   Payment for delineators shall be considered included in the price bid per Lin. Ft. for "Furnishing and Installing Precast Concrete Barrier". The contractor shall certify to the Engineer that the material and the design used in the precast barrier units meets the requirements as shown on this standard drawing.

3. Other Precast Concrete Barriers that have been crash tested and approved by the Federal Highway Administration to meet the requirements of NCHRP-350 test level 3 or Manual For Assessing Safety Hardware (MASH) will be accepted in lieu of the barrier shown. Drain slots shall be provided as needed or as directed by the Engineer. The Contractor shall furnish a certification of NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) compliance for any other types of precast barrier to be used. The certification shall state that the precast concrete barrier meets the requirements of NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) and include a copy of the Federal Highway Administration's (FHWA) approval letter with all attachments. Precast concrete barrier units shall be fabricated and installed in accordance with crash testing and documentation provided in the FHWA approval letter. Mixing of shapes will not be allowed in a continuous line of units.

4. Dowel holes in pavement or bridge slabs that are to remain in place shall be filled. Holes in concrete pavement and bridge slabs shall be filled with an approved non-shrink epoxy grout. Holes in asphalt pavement shall be filled with an approved asphalt joint filler. Payment for drilling and filling holes to be included in the price for various barrier items.

5. Attach Units To Roadway Surface with Stabilization Pins and to Deck Slabs using bolts when required.

6. A 4" White PVC Sleeve may be used to form the Lifting Hole and if used the Sleeve is to be left in place.

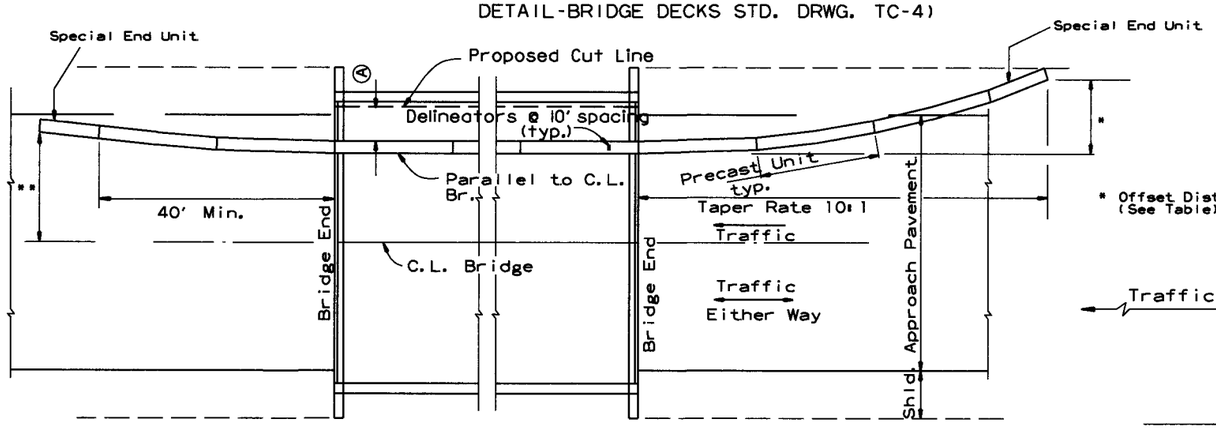
DATE	REVISION	FILMED
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
8-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
8-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

Ⓐ 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)

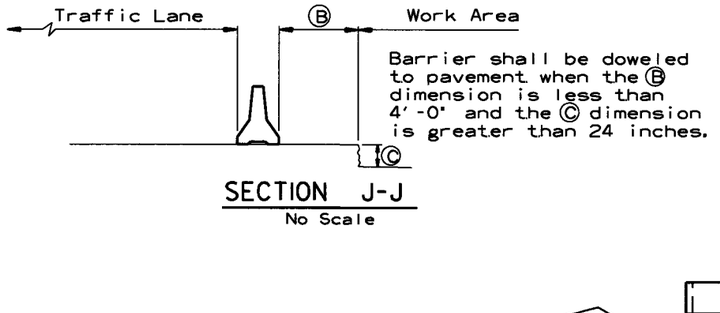


BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

* Offset Distance (See Table)

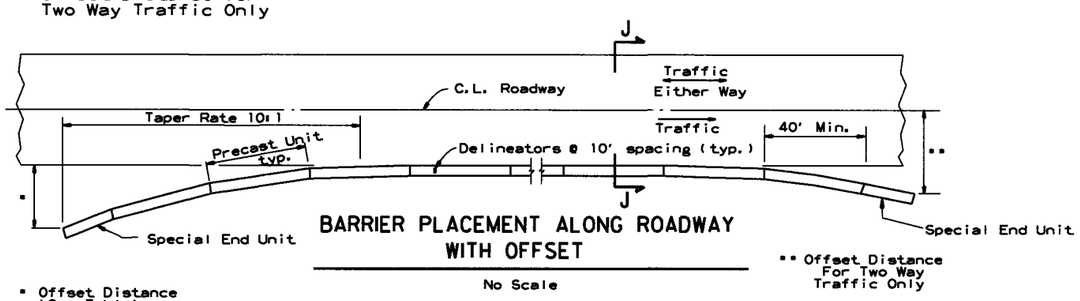
** Offset Distance for Two Way Traffic Only



Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

SECTION J-J

No Scale



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

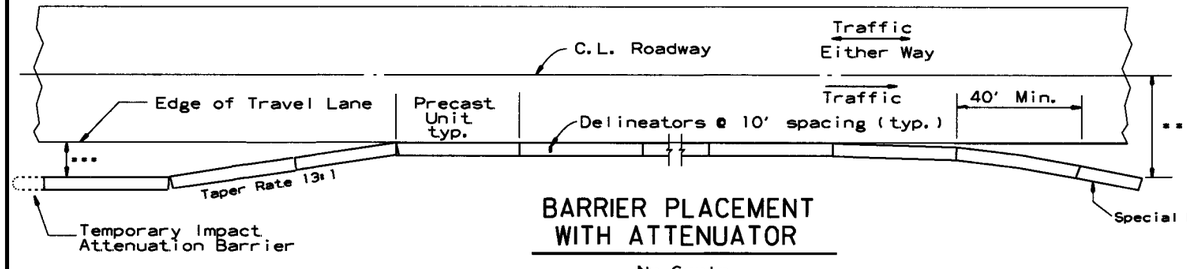
* Offset Distance (See Table)

** Offset Distance For Two Way Traffic Only

Offset Distance Table

Speed (MPH)	Offset Distance (FT.)
≤ 45	12
> 45	18

If offset distance is not attainable, then see "Barrier Placement With Attenuator" Detail shown below.

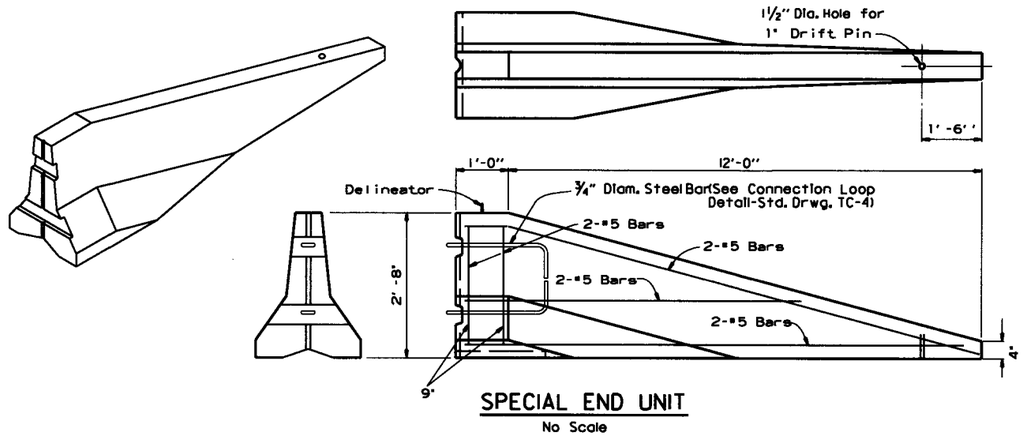


BARRIER PLACEMENT WITH ATTENUATOR

No Scale

*** Min. 3'-0" From Edge of Travel Lane to Nearest Edge of Attenuator

** Offset Distance For Two Way Traffic Only



SPECIAL END UNIT

No Scale

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with an NCHRP-350 or Manual For Assessing Safety Hardware (MASH) approved Crash Cushion. Payment for Crash Cushions shall be made under the item of "Temporary Impact Attenuation Barrier."

DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

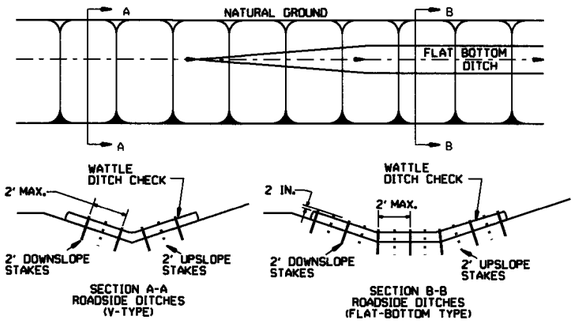
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

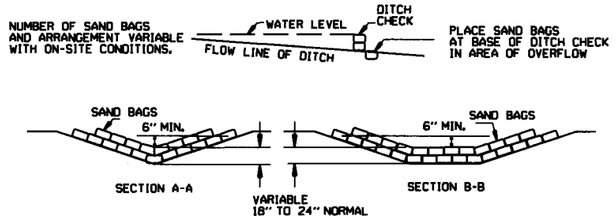
STANDARD DRAWING TC-5

GENERAL NOTES

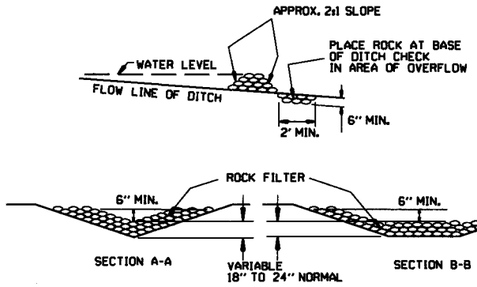
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 1 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



SAND BAG DITCH CHECK (E-5)

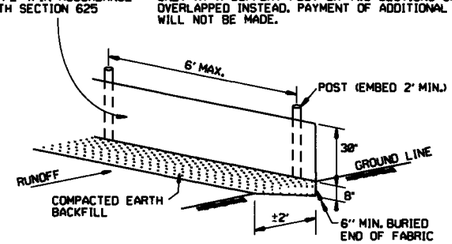


ROCK DITCH CHECK (E-6)

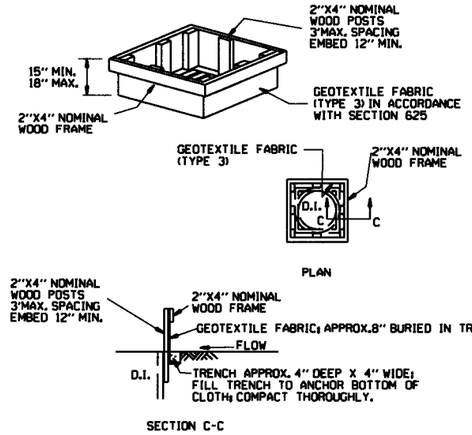
GENERAL NOTES

GEOTEXTILE FABRIC (TYPE 4) IN ACCORDANCE WITH SECTION 625

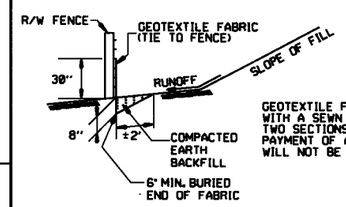
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



SILT FENCE (E-11)

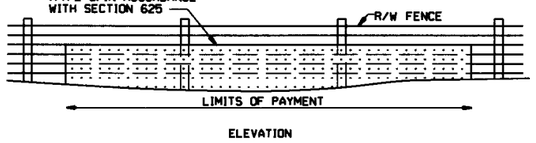


DROP INLET SILT FENCE (E-7)



GENERAL NOTES

GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST. OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.



ELEVATION

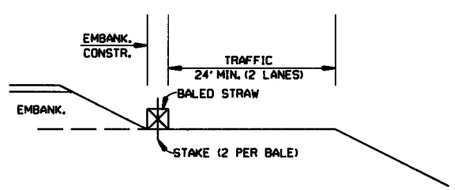
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

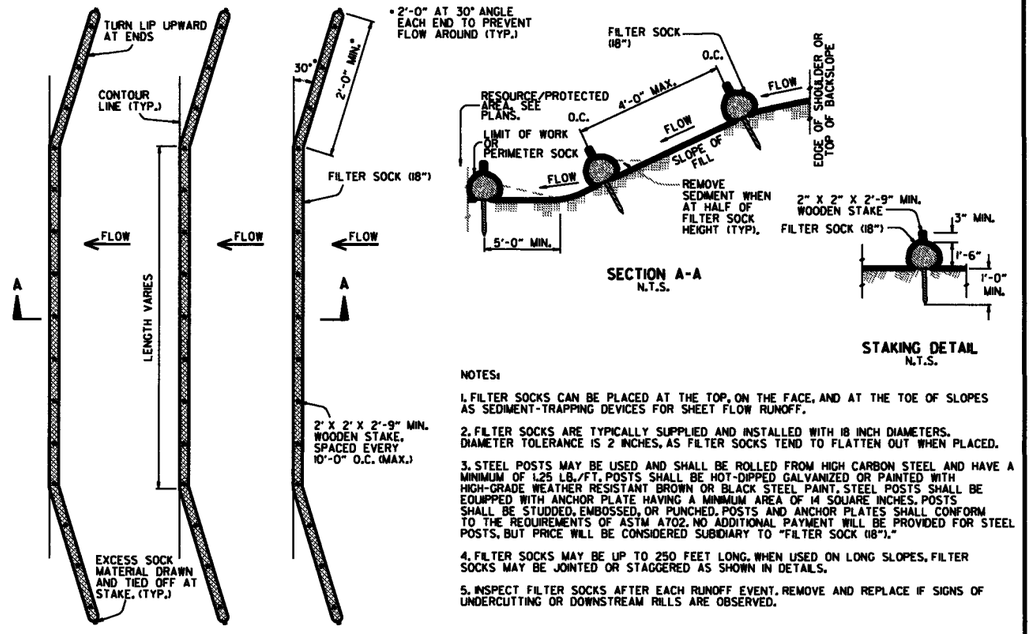
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



BALED STRAW FILTER BARRIER (E-2)



NOTES:

1. FILTER SOCKS CAN BE PLACED AT THE TOP, ON THE FACE, AND AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES FOR SHEET FLOW RUNOFF.

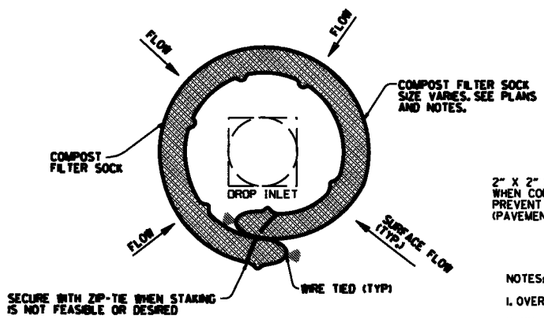
2. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED WITH 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.

3. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR STEEL POSTS, BUT PRICE WILL BE CONSIDERED SUBSIDIARY TO "FILTER SOCK (18")."

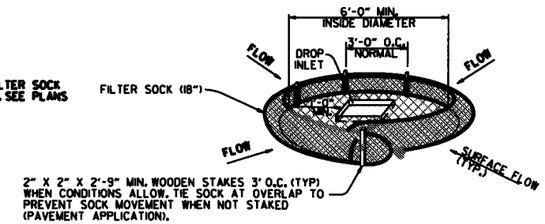
4. FILTER SOCKS MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED OR STAGGERED AS SHOWN IN DETAILS.

5. INSPECT FILTER SOCKS AFTER EACH RUNOFF EVENT. REMOVE AND REPLACE IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.

FILTER SOCK ALONG SLOPE (E-3)



DROP INLET PLAN VIEW
N.T.S.



DROP INLET PERSPECTIVE VIEW
N.T.S.

NOTES:

1. OVERLAP ENDS OF SOCK (1' MIN. 3' MAX.).

2. USE 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

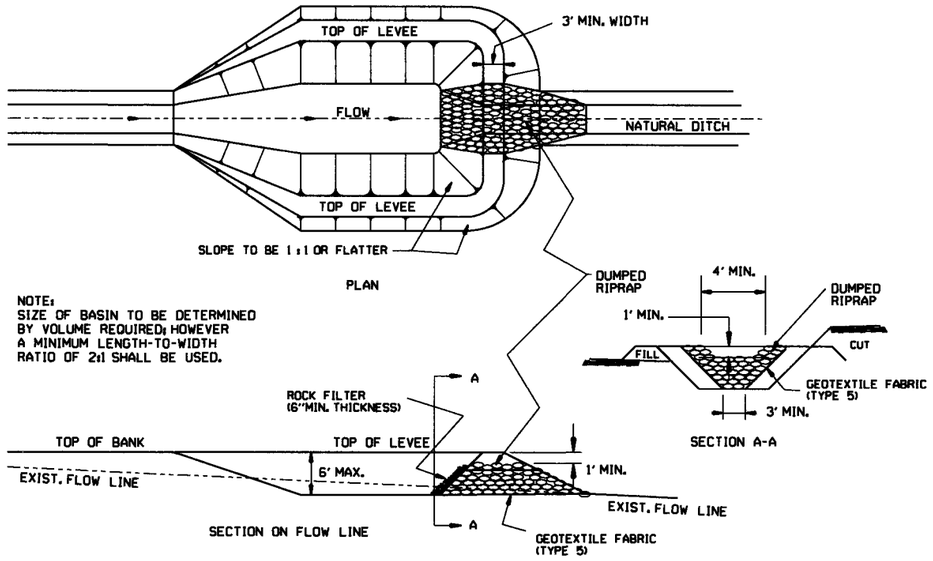
COMPOST FILTER SOCK DROP INLET PROTECTION (E-13)

DATE	REVISION	FILMED
11-16-17	ADDED FILTER SOCK E-3 AND E-13	
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
07-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
07-15-94	REV. E-4 & E-11 MIN. 15" BURIED END OF FABRIC	
06-02-94	REVISED E-1,4,7 & 11; DELETED E-2 & 3	6-2-94
04-01-93	REDRAWN	
10-01-92	REDRAWN	
08-02-76	ISSUED R.D.M.	298-7-28-76

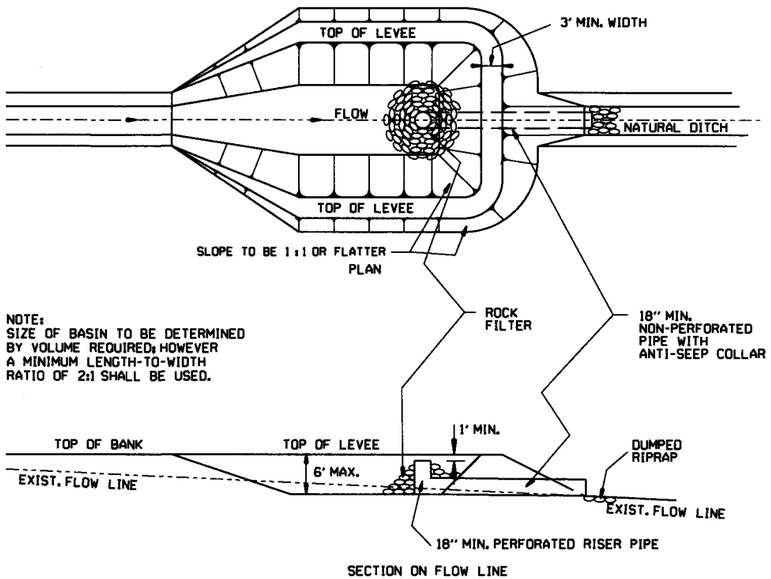
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

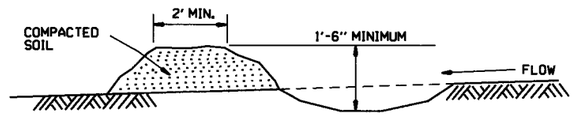
STANDARD DRAWING TEC-1



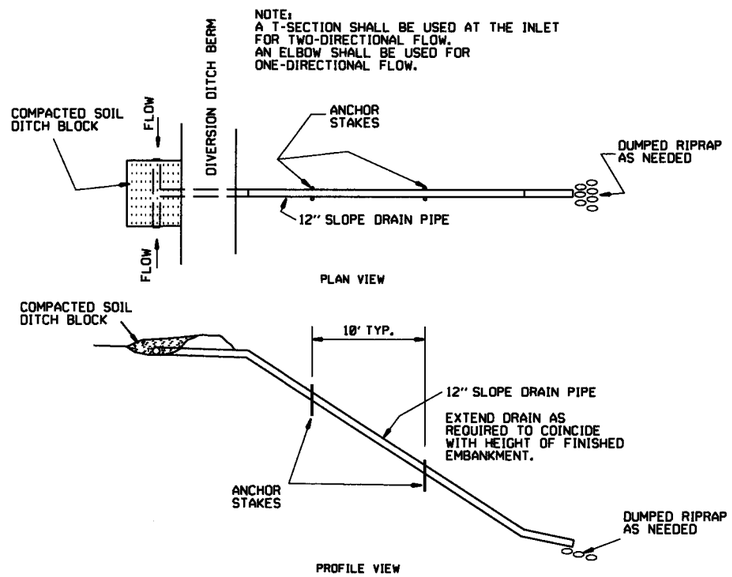
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



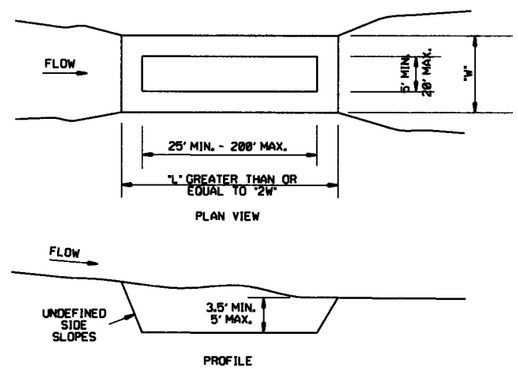
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



DIVERSION DITCH (E-8)



SLOPE DRAIN (E-12)



SEDIMENT BASIN (E-14)

DATE	REVISION	FILMED
6-2-94	Revised E-8 & E-12; Added E-14 & Deleted E-13	
4-1-93	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

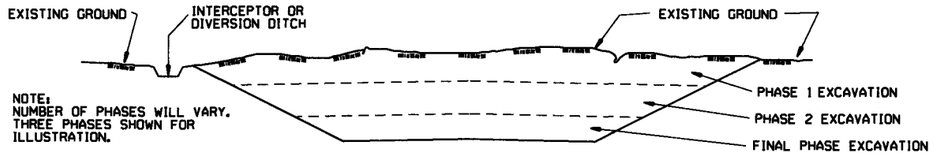
STANDARD DRAWING TEC-2

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES , DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION



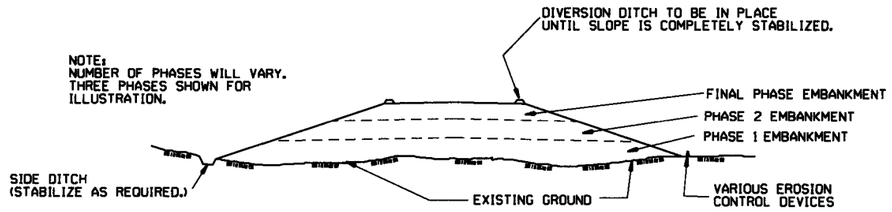
GENERAL NOTE

ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES. CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

EMBANKMENT



GENERAL NOTE

ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

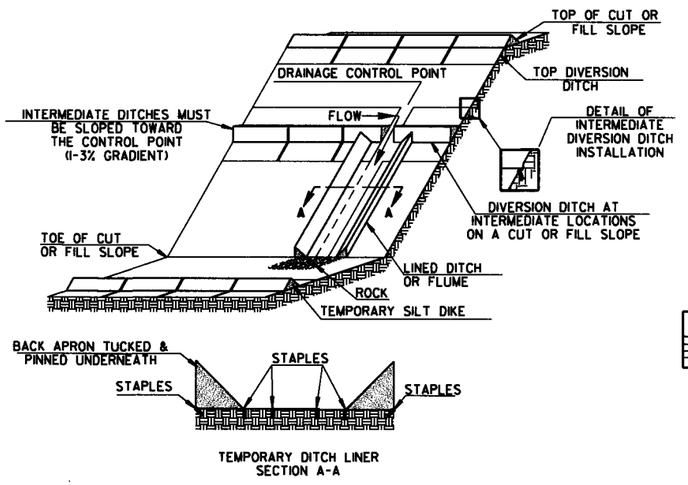
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

DATE	REVISION	FILMED
11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94

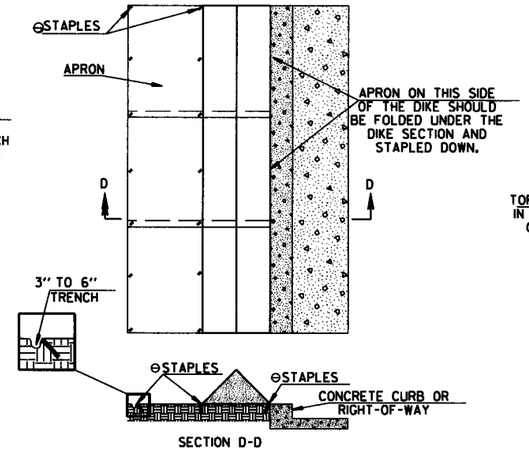
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

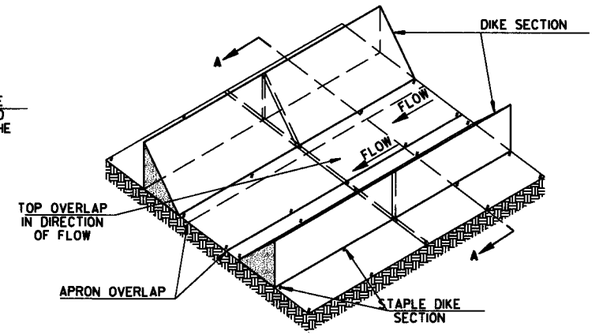
STANDARD DRAWING TEC-3



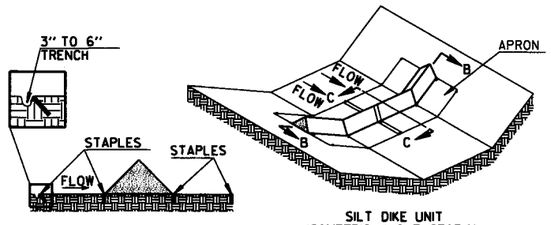
TRIANGULAR SILT DIKE INSTALLATION FOR DIVERSION DITCH AND/OR DITCH LINER



TRIANGULAR SILT DIKE INSTALLATION FOR CONTINUOUS BARRIER



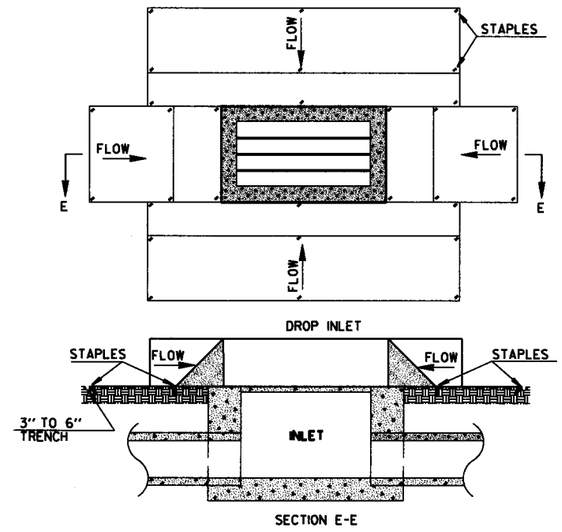
TRIANGULAR SILT DIKE INSTALLATION FOR TEMPORARY DITCH LINER



TRIANGULAR SILT DIKE INSTALLATION FOR ROADWAY DITCH OR DRAINAGE DITCH

O POINT "1" MUST BE HIGHER THAN POINT "2" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

⊖ STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE UNIT AS SHOWN ON THE DIAGRAM.



TRIANGULAR SILT DIKE INSTALLATION FOR DROP INLETS

SYMBOLOGY

SYMBOL TO BE USED TO DENOTE DEVICE ON PLANS

NOTE: SILT DIKE SHOULD ONLY BE USED FOR DROP INLETS IN SUMP LOCATIONS.

GENERAL NOTES

1. THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, AND MAINTAINING THE TRIANGULAR SILT DIKE. THE DIKES SHALL BE USED AS A CONTINUOUS LINE BARRIER AT THE TOE OF SLOPE OR ACROSS THE ROADWAY DITCH TO CONTAIN SEDIMENT AND MINIMIZE EROSION, OR AS DIRECTED BY THE ENGINEER. THESE DIKES SHALL BE INSTALLED AND LOCATED AS SOON AS CONSTRUCTION WILL ALLOW OR AS DIRECTED BY THE ENGINEER.

2. TRIANGULAR SILT DIKE SHALL BE TRIANGULAR SHAPED HAVING A HEIGHT OF AT LEAST 8" TO 10" IN THE CENTER WITH EQUAL SIDES AND A 16" TO 20" BASE. THE TRIANGULAR SHAPED INNER MATERIAL SHALL BE URETHANE FOAM. THE OUTER COVER SHALL BE A WOVEN GEOTEXTILE FABRIC PLACED AROUND THE INNER MATERIAL & ALLOWED TO EXTEND BEYOND BOTH SIDES OF THE TRIANGLE 24" TO 36". THIS FABRIC SHOULD BE MILDEW RESISTANT, ROT-PROOF AND RESISTANT TO HEAT AND ULTRAVIOLET RADIATION MEETING REQUIREMENTS FOR SEDIMENT CONTROL IN AASHTO M288. THE DIKES SHALL BE ATTACHED TO THE GROUND WITH WIRE STAPLES. THE STAPLES SHALL BE NO. 11 GAUGE WIRE AND BE AT LEAST 6" TO 8" LONG. STAPLES SHALL BE PLACED AS SHOWN ON THESE DETAILS.

   THE CONTRACTOR SHALL INSPECT ALL DIKES AFTER EACH RAINFALL EVENT OF AT LEAST 0.5" OR GREATER. ANY DEFICIENCIES OR DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR. ACCUMULATED SILT OR DEBRIS SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER. IF THE DIKES ARE DAMAGED OR INADVERTENTLY MOVED DURING THE SILT REMOVAL PROCESS, THE CONTRACTOR SHALL IMMEDIATELY REPLACE AFTER DAMAGE OCCURS.

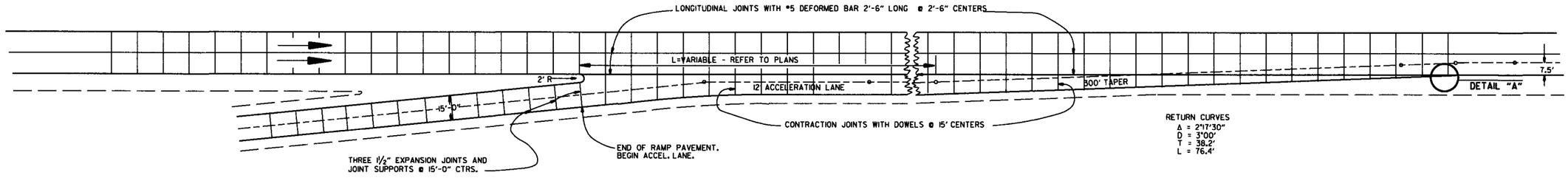
3. ACCEPTED TRIANGULAR SILT DIKE, MEASURED AS PROVIDED ABOVE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR TRIANGULAR SILT DIKE. PRICE BID WILL INCLUDE THE COST OF FURNISHING THE DIKES, INSTALLING, MAINTAINING AND REMOVAL WHEN DIRECTED BY THE ENGINEER.

DATE	REVISION	FILMED
7-26-12	REVISED GENERAL NOTE 2.	
12-15-11	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

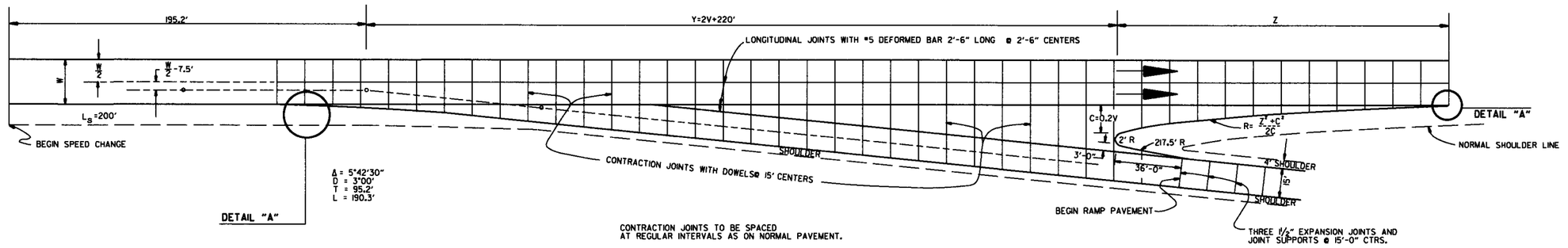
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-4



ENTRANCE RAMP

NOTE: JOINT SPACING ON THE MAIN LANES SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO THESE JOINT LAYOUTS. THE MAIN LANE JOINT SPACING MAY BE REDUCED TO A 12' MINIMUM.

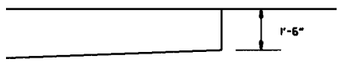


CONTRACTION JOINTS TO BE SPACED AT REGULAR INTERVALS AS ON NORMAL PAVEMENT.

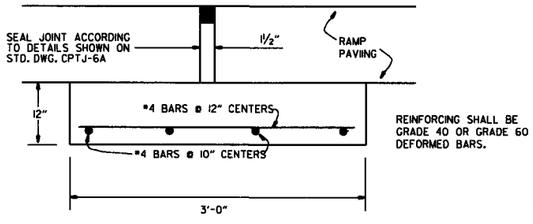
EXIT RAMP

EXIT RAMP

DESIGN SPEED V	X Y	NOSE OFFSET C	LENGTH NOSE TAPER Z	RETURN RADIUS R	ADDITIONAL SURFACING SQ. YDS.
40	300.0	8.0	96.0	580.0	602.43
50	320.0	10.0	120.0	725.0	687.25
60	340.0	12.0	168.0	1162.0	790.95
70	360.0	14.0	210.0	1582.0	902.27



DETAIL "A"



DETAIL OF EXPANSION JOINT & JOINT SUPPORT

NOTE: THE EXPANSION JOINTS SHALL BE MEASURED AND PAID FOR AS P.C.C. PAVEMENT (RAMP THICKNESS). WHEN RAMP PAVING IS ASPHALT, EXPANSION JOINT IS NOT REQUIRED.
THE JOINT SUPPORT MAY BE CONSTRUCTED WITH CLASS "A", "S", OR PAVING CONCRETE. PAYMENT FOR THE JOINT SUPPORT SHALL BE FOR THE CONTRACT UNIT PRICE BID FOR THE CLASS OF CONCRETE USED. ALL OTHER WORK AND MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE JOINT SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE ABOVE ITEMS.

DATE	REVISION	DATE FILM'D
8-22-02	DELETED NOTE	
11-16-01	CORRECTED SPELLING ON ENTRANCE RAMP NOTE	
5-13-99	ADDED, EDITED AND DELETED NOTES	
11-03-94	ADDED NOTE RE: REINF. BARS	
10-1-92	ADDED DETAIL A & OTHER MINOR CHANGES	10-1-92
1-25-90	REVISED EXPANSION JOINT	1-25-90
7-15-88	CONFORMED TO 1988 SPECIFICATIONS	SSC-7-15-88
3-2-81	ISSUED	SIII-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMPS (NON-REINFORCED)

STANDARD DRAWING TR-1A