"THIS IS A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

CONSTRUCTION PLANS FOR STATE HIGHWAY

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.		BB0804	1	156
				(2)	MILL CREEK - HWY. 331(F)			

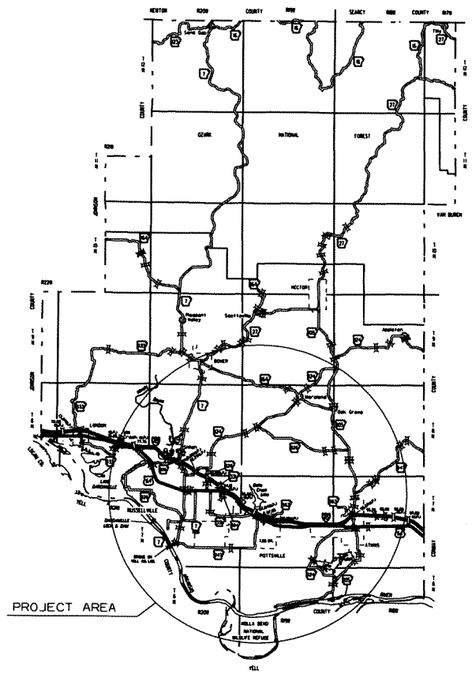
MILL CREEK - HWY. 331 (F)

POPE COUNTY

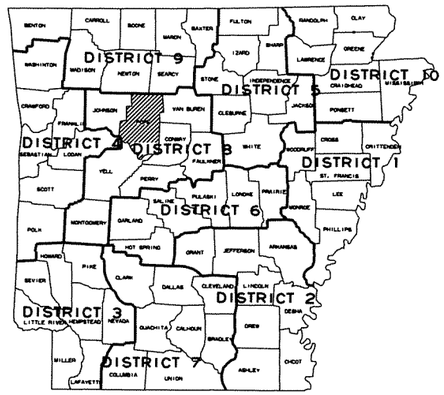
ROUTE 40 SECTION 22

FEDERAL AID PROJ. BIM-B40-0(223) & IM-HSIP-40-2(79)77

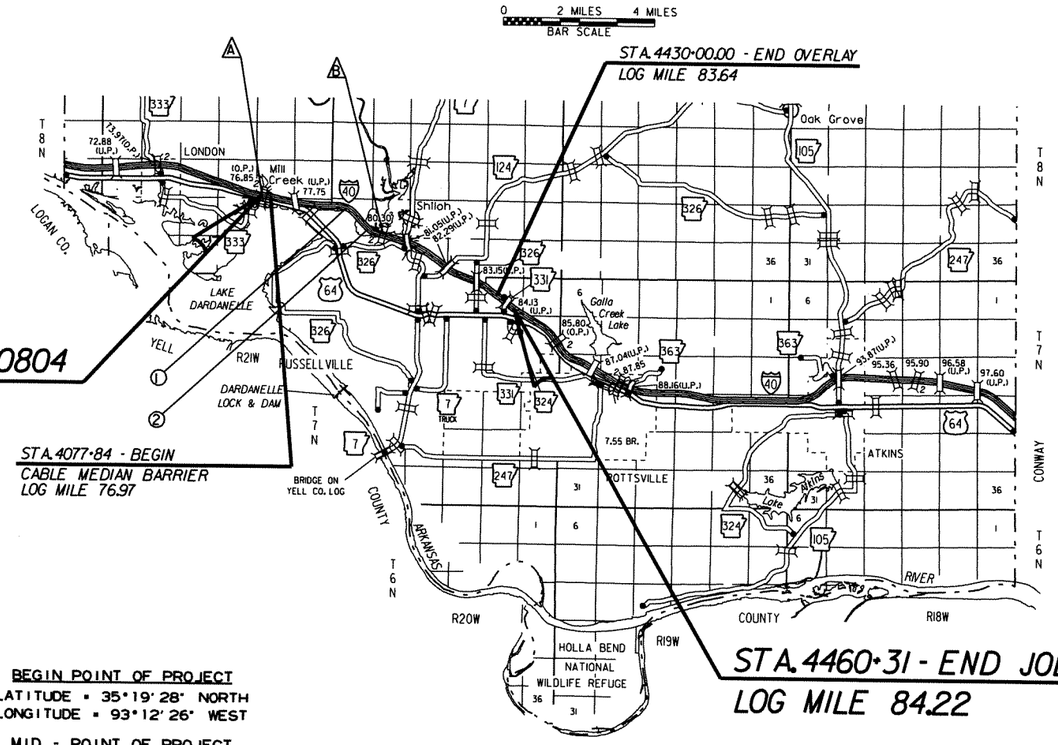
JOB BB0804



VICINITY MAP



ARK. HWY. DIST. NO. 8



STA. 4070+00.00 - BEGIN JOB BB0804
LOG MILE 76.82

STA. 4077+84 - BEGIN
CABLE MEDIAN BARRIER
LOG MILE 76.97

STA. 4460+31 - END JOB BB0804
LOG MILE 84.22

℄ MEDIAN EQUATIONS

① STA. 4206+99.82 BK. =
STA. 4206+56.62 AHD.

② STA. 4248+66.77 BK. =
STA. 4248+95.77 AHD.

BRIDGE DATA

(A) STA. 4071+39.06 - BRIDGE END A&B
374'-0" CONT. COMP. PLATE GIRDER UNIT
(107', 160', 107' SPANS)
376.12' BRIDGE LENGTH
BRIDGE NO. A6916 & B6916
40'0" CLEAR ROADWAY
STA. 4075+15.18 - BRIDGE END A&B

(B) STA. 4254+14.92 - BRIDGE END A
581'-0" CONT. COMP. PLATE GIRDER UNIT
(110', 127', 122' 120', 102' SPANS)
583.16' BRIDGE LENGTH
BRIDGE NO. A6917
40'0" CLEAR ROADWAY
STA. 4259+98.08 - BRIDGE END A
STA. 4253+62.92 - BRIDGE END B
581'-0" CONT. COMP. PLATE GIRDER UNIT
(113', 127', 117', 122', 102' SPANS)
583.16' BRIDGE LENGTH
BRIDGE NO. B6917
40'0" CLEAR ROADWAY
STA. 4259+46.08 - BRIDGE END B

BEGIN POINT OF PROJECT
LATITUDE = 35°19'28" NORTH
LONGITUDE = 93°12'26" WEST

MID - POINT OF PROJECT
LATITUDE = 35°18'29" NORTH
LONGITUDE = 93°08'50" WEST

END POINT OF PROJECT
LATITUDE = 35°16'55" NORTH
LONGITUDE = 93°05'30" WEST

LENGTH COMPUTED ALONG C.L. MEDIAN & IS SHOWN FOR INFORMATION ONLY					
GROSS LENGTH OF PROJECT	39045.20	FEET OR	7.395	MILES
NET . . ROADWAY	38085.92	FEET OR	7.213	MILES
NET . . BRIDGES	959.28	FEET OR	0.182	MILES
NET . . PROJECT	39045.20	FEET OR	7.395	MILES

DESIGN TRAFFIC DATA

DESIGN YEAR	2023
2003 ADT	28000
2023 ADT	46500
2023 DHV	.5115
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	33%
DESIGN SPEED	70 MPH

CERTIFICATE OF AUTHORIZATION
CRAFTON, TULL, SPARKS & ASSOCIATES, INC.
No. 109
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
10-9-12

P.E. JOB BB0804
NON. PART.

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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.		BB0804	2	156

(2) INDEX OF SHEETS

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STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON

9-5-12

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11-09-12				6	ARK.			
				JOB NO.		BB0804	3	156

(2) GOVERNING SPECIFICATIONS & GENERAL NOTES

GENERAL NOTES

1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.

2. ALL PIPE LINES, POWER, TELEPHONE AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.

3. 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.

4. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.

5. 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.

6. THE CONTRACTOR SHALL CONTACT ALL FIBER OPTIC COMPANIES INVOLVED ON THIS PROJECT AT LEAST 5 WORKING DAYS BEFORE CONSTRUCTION, INCLUDING REMOVING AND INSTALLING ANY FENCING, AND TAKE EVERY PRECAUTION NECESSARY TO AVOID CONFLICT WITH THE FIBER OPTIC CABLES. THE CONTRACTOR SHALL TELEPHONE ARKANSAS ONE-CALL SYSTEM AT 800-482-8998 TO DETERMINE THE LOCATION OF THE BURIED FIBER OPTIC CABLES.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.

8. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.

GOVERNING SPECIFICATIONS

ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2003, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

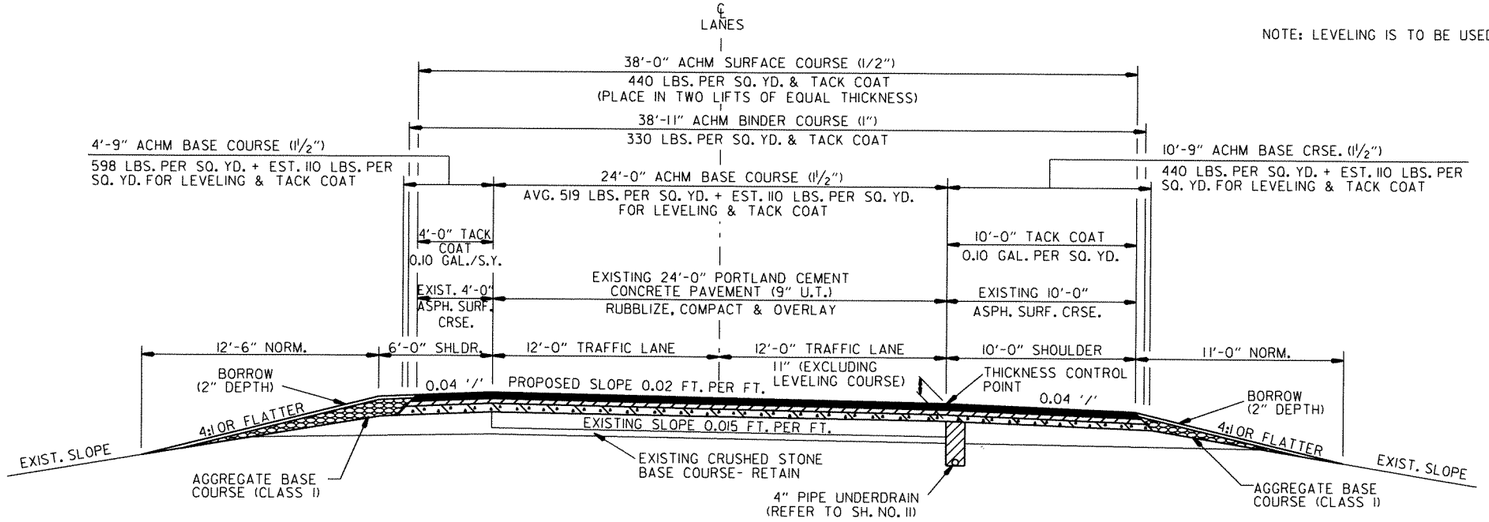
NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - TRAINING PROGRAM - JOB BB0804
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-2	MANUAL FOR ASSESSING SAFETY HARDWARE (MASH)
102-1	BIDDING REQUIREMENTS AND CONDITIONS
103-1	DETERMINATION OF DBE PARTICIPATION
105-1	CONSTRUCTION CONTROL MARKINGS
105-2	EQUIPMENT AND MATERIAL STORAGE ON BRIDGE STRUCTURES
105-3	CONTROL OF WORK
107-1	WORKER VISIBILITY
108-1	LIQUIDATED DAMAGES
110-1	PROTECTION OF WATER QUALITY AND WETLANDS
303-1	AGGREGATE BASE COURSE
404-1	PRODUCTION VERIFICATION OF ASPHALT CONCRETE HOT MIX
404-2	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
409-1	MINERAL AGGREGATES
410-3	DENSITY TESTING FOR ACHM LEVELING COURSES AND BOND BREAKERS
411-1	ASPHALT CONCRETE COLD PLANT MIX
507-1	INSTALLATION OF DOWEL BARS AND TIE BARS
600-1	WATER FOR VEGETATION
603-1	MAINTENANCE OF TRAFFIC
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-2	INSPECTION OF TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
606-2	PIPE CULVERTS
718-2	REFLECTORIZED PAINT PAVEMENT MARKINGS
719-2	THERMOPLASTIC PAVEMENT MARKING MATERIAL
804-1	INSTALLATION OF DOWEL BARS AND TIE BARS
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JOB BB0804	ASPHALT CONCRETE HOT MIX PATCHING OF EXISTING SHOULDERS
JOB BB0804	ASPHALT CONCRETE HOT MIX SURFACE COURSE SURFACE TOLERANCE AND INCENTIVE PAYMENTS
JOB BB0804	BORROW
JOB BB0804	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB BB0804	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB BB0804	CONCRETE DITCH PAVING
JOB BB0804	CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB BB0804	DETAILS FOR SAFETY OF BOAT TRAFFIC
JOB BB0804	DRILLED SHAFT FOUNDATIONS
JOB BB0804	DRILLED SHAFT TEST BORINGS
JOB BB0804	ELASTOMERIC BEARINGS
JOB BB0804	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB BB0804	HIGH PERFORMANCE PAVEMENT MARKING
JOB BB0804	INTERNET BIDDING
JOB BB0804	MAINTENANCE OF TRAFFIC
JOB BB0804	MODULAR GLARE SHIELD
JOB BB0804	NATIVE STONE FOR RIPRAP
JOB BB0804	NESTING SITES OF MIGRATORY BIRDS
JOB BB0804	NON-DESTRUCTIVE TESTING OF DRILLED SHAFTS
JOB BB0804	PARTNERING REQUIREMENTS
JOB BB0804	PROSECUTION AND PROGRESS
JOB BB0804	REMOVAL AND DISPOSAL OF FENCE
JOB BB0804	REMOVAL AND DISPOSAL OF GUARDRAIL
JOB BB0804	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIERS
JOB BB0804	REMOVING EXISTING PORTLAND CEMENT CONCRETE PAVEMENT
JOB BB0804	ROADWAY CONSTRUCTION CONTROL
JOB BB0804	SCARIFYING CONCRETE PAVEMENT
JOB BB0804	SECTION 404 NATIONWIDE 23 PERMIT REQUIREMENTS
JOB BB0804	SEQUENCE OF CONSTRUCTION
JOB BB0804	SHAPING DITCH
JOB BB0804	SITE USE (A+C METHOD)
JOB BB0804	SOIL STABILIZATION
JOB BB0804	SPECIAL SAFETY REQUIREMENTS FOR BRIDGES
JOB BB0804	STORM WATER POLLUTION PREVENTION PLAN
JOB BB0804	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB BB0804	TEMPORARY RELOCATION OF EXISTING SIGNS
JOB BB0804	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB0804	TRAFFIC CONTROL SUPERVISOR
JOB BB0804	TRENCHING EXISTING SHOULDERS
JOB BB0804	UTILITY ADJUSTMENTS
JOB BB0804	VALUE ENGINEERING
JOB BB0804	WARM MIX ASPHALT
JOB BB0804	WIRE FENCE (TYPE A)
JOB BB0804	WIRE ROPE SAFETY FENCE (WRSF) SPECIFICATIONS
JOB BB0804	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS
JOB BB0804	WRSF TRAINING WORKSHOP

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11-9-12

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				6	ARK.			
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(2) TYPICAL SECTIONS OF IMPROVEMENT



NOTE: LEVELING IS TO BE USED ONLY IF AND WHERE DIRECTED BY THE ENGINEER.

NOTES:
AGGREGATE BASE COURSE (CLASS 1) SHALL BE UNIFORMLY COMPACTED, STABLE AND FREE OF SEGREGATED AREAS. THE DENSITY REQUIREMENTS OF SECTION 303 SHALL BE WAIVED.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

RUBBLIZE & OVERLAY- TANGENT SECTION
LEFT & RIGHT MAIN LANES
(SHOWN IN DIRECTION OF TRAFFIC)

STA. 4080+00.00 TO STA. 4177+55.78 (LT. MAIN LANES)
STA. 4208+59.62 TO STA. 4224+33.17 (LT. MAIN LANES)
STA. 4267+50.00 TO STA. 4286+14.16 (LT. MAIN LANES)
STA. 4335+62.11 TO STA. 4359+43.85 (LT. MAIN LANES)
STA. 4382+72.06 TO STA. 4403+22.96 (LT. MAIN LANES)
STA. 4425+33.70 TO STA. 4430+00.00 (LT. MAIN LANES)

STA. 4080+00.00 TO STA. 4116+97.13 (RT. MAIN LANES)
STA. 4157+33.20 TO STA. 4177+75.88 (RT. MAIN LANES)
STA. 4209+78.32 TO STA. 4224+57.57 (RT. MAIN LANES)
STA. 4267+50.00 TO STA. 4359+57.05 (RT. MAIN LANES)
STA. 4382+58.86 TO STA. 4403+10.36 (RT. MAIN LANES)
STA. 4425+46.30 TO STA. 4430+00.00 (RT. MAIN LANES)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAWFORD
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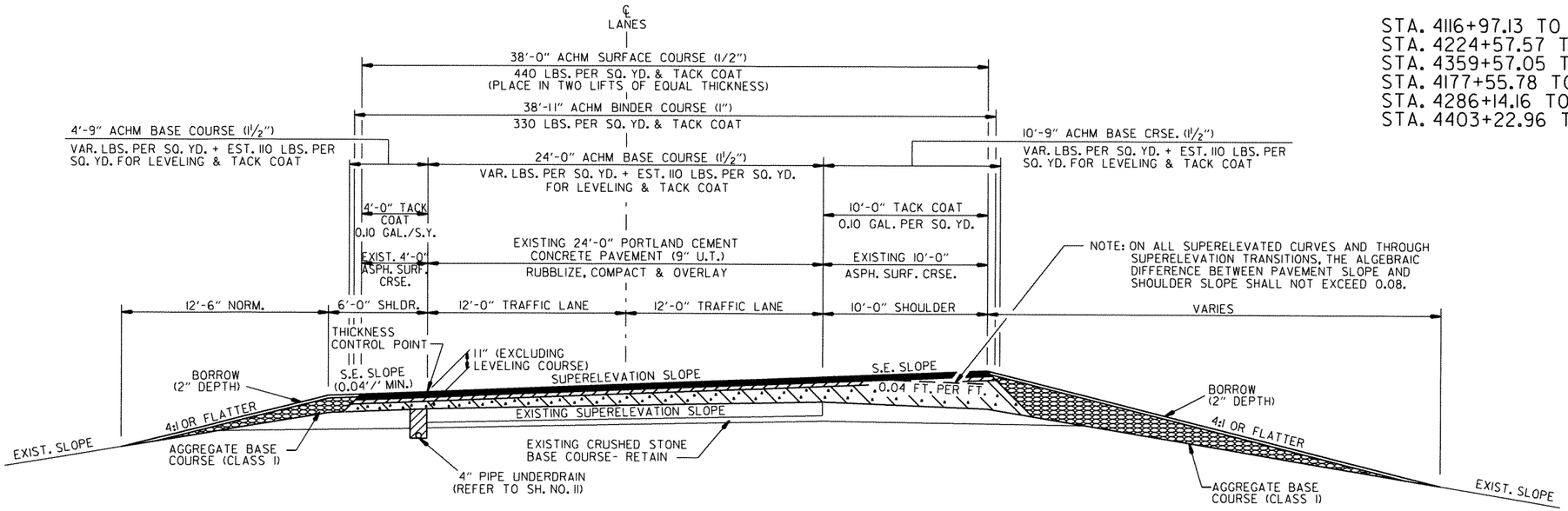
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TYPICAL SECTIONS OF IMPROVEMENT

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.		BB0804	5	156

(2) TYPICAL SECTIONS OF IMPROVEMENT

STA. 4116+97.13 TO STA. 4157+33.20 (RT. MAIN LANES)
STA. 4224+57.57 TO STA. 4246+50.00 (RT. MAIN LANES)
STA. 4359+57.05 TO STA. 4382+58.86 (RT. MAIN LANES)
STA. 4177+55.78 TO STA. 4208+59.62 (LT. MAIN LANES)
STA. 4286+14.16 TO STA. 4335+62.11 (LT. MAIN LANES)
STA. 4403+22.96 TO STA. 4425+33.70 (LT. MAIN LANES)

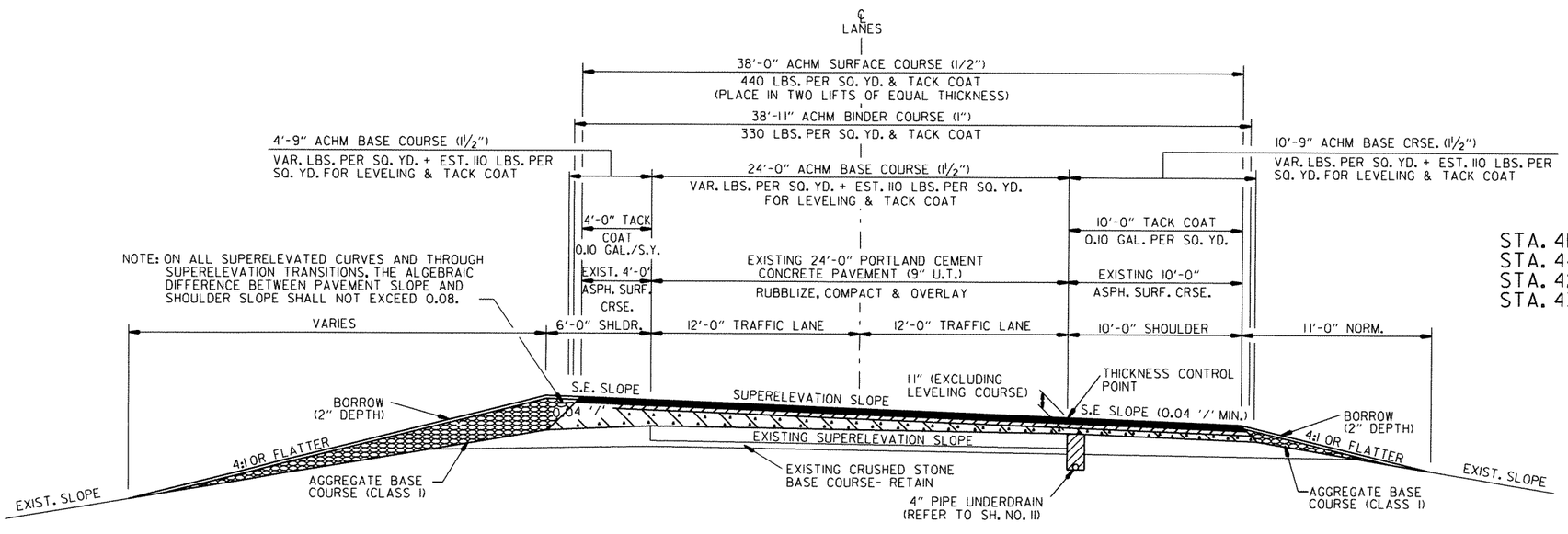


NOTES:
AGGREGATE BASE COURSE (CLASS 1) SHALL BE UNIFORMLY COMPACTED, STABLE AND FREE OF SEGREGATED AREAS. THE DENSITY REQUIREMENTS OF SECTION 303 SHALL BE WAIVED.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

RUBBLIZE & OVERLAY- SUPERELEVATED CURVE TO LEFT
LEFT & RIGHT MAIN LANES
(SHOWN IN DIRECTION OF TRAFFIC)

NOTE: LEVELING IS TO BE USED ONLY IF AND WHERE DIRECTED BY THE ENGINEER.



STA. 4177+75.88 TO STA. 4209+78.32 (RT. MAIN LANES)
STA. 4403+10.36 TO STA. 4425+46.30 (RT. MAIN LANES)
STA. 4224+33.17 TO STA. 4246+50.00 (LT. MAIN LANES)
STA. 4359+43.85 TO STA. 4382+72.06 (LT. MAIN LANES)

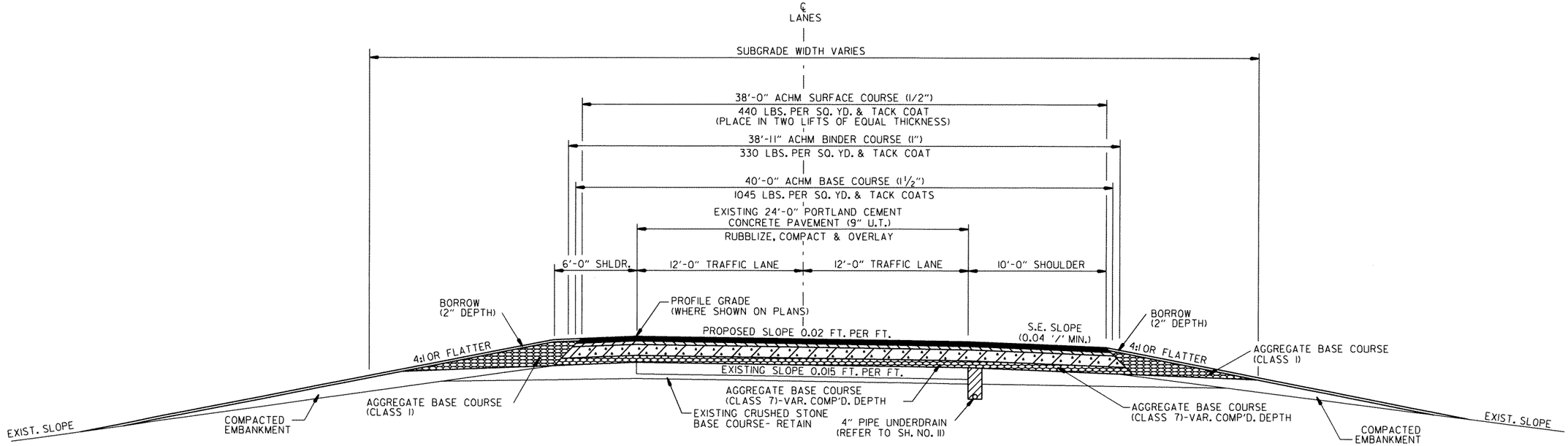
STATE OF ARKANSAS
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No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

RUBBLIZE & OVERLAY- SUPERELEVATED CURVE TO RIGHT
LEFT & RIGHT MAIN LANES
(SHOWN IN DIRECTION OF TRAFFIC)

TYPICAL SECTIONS OF IMPROVEMENT

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				6	ARK.			
				JOB NO.		BB0804	6	156
				(2)	TYPICAL SECTIONS OF IMPROVEMENT			



FULL-DEPTH OVERLAY - TANGENT SECTION
LEFT & RIGHT MAIN LANES
(SHOWN IN DIRECTION OF TRAFFIC)

STA. 4075+51.68 TO STA. 4080+00.00 (LT. MAIN LANES)
STA. 4251+70.57 TO STA. 4253+78.42 (LT. MAIN LANES)
STA. 4260+34.58 TO STA. 4267+50.00 (LT. MAIN LANES)

STA. 4075+51.68 TO STA. 4080+00.00 (RT. MAIN LANES)
STA. 4251+46.17 TO STA. 4253+26.42 (RT. MAIN LANES)
STA. 4259+82.58 TO STA. 4267+50.00 (RT. MAIN LANES)

NOTES:
AGGREGATE BASE COURSE (CLASS 1) SHALL BE UNIFORMLY COMPACTED, STABLE AND FREE OF SEGREGATED AREAS. THE DENSITY REQUIREMENTS OF SECTION 303 SHALL BE WAIVED.

THE THICKNESS OF AGGREGATE BASE COURSE (CLASS 7) SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR SHALL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR THE MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

NOTE:
REFER TO SHEET NO. 14 FOR SPECIAL PAVING DETAILS.

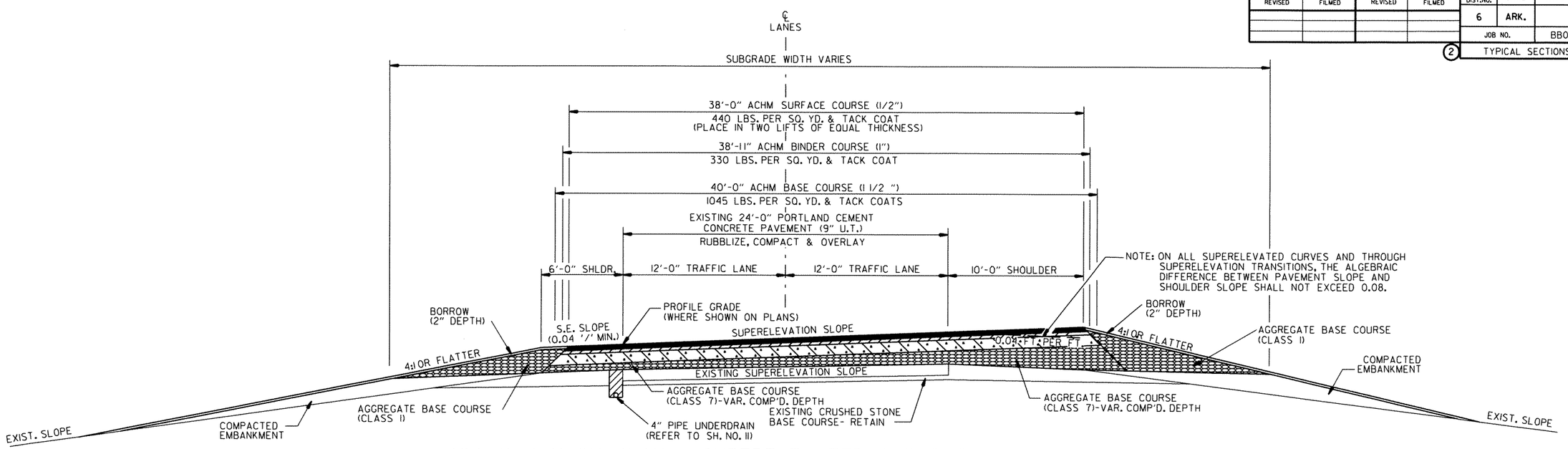
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

TYPICAL SECTIONS OF IMPROVEMENT

Drawn By fs513
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Plotted : 05-SEP-2012 12:30 View=

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.		BB0804	7	156

(2) TYPICAL SECTIONS OF IMPROVEMENT



FULL-DEPTH OVERLAY - SUPERELEVATED CURVE TO LEFT
RIGHT MAIN LANES
(SHOWN IN DIRECTION OF TRAFFIC)

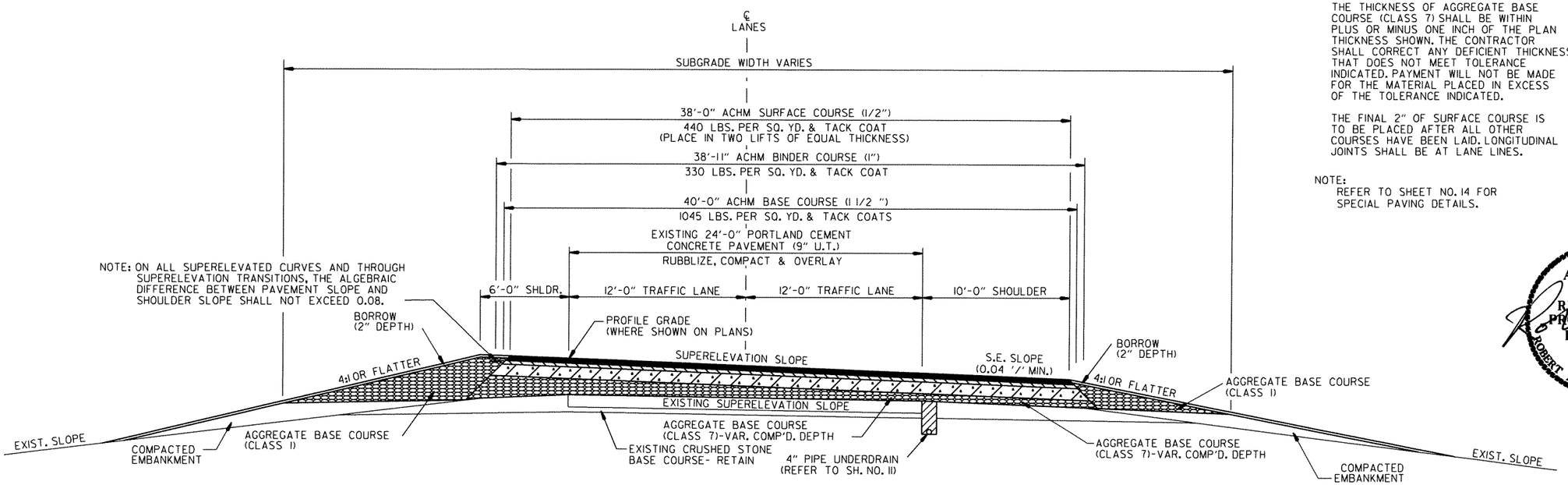
STA. 4246+50.00 TO STA. 4251+46.17

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

THE THICKNESS OF AGGREGATE BASE COURSE (CLASS 7) SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR SHALL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE MADE FOR THE MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

NOTE:
REFER TO SHEET NO. 14 FOR SPECIAL PAVING DETAILS.



FULL-DEPTH OVERLAY - SUPERELEVATED CURVE TO RIGHT
LEFT MAIN LANES
(SHOWN IN DIRECTION OF TRAFFIC)

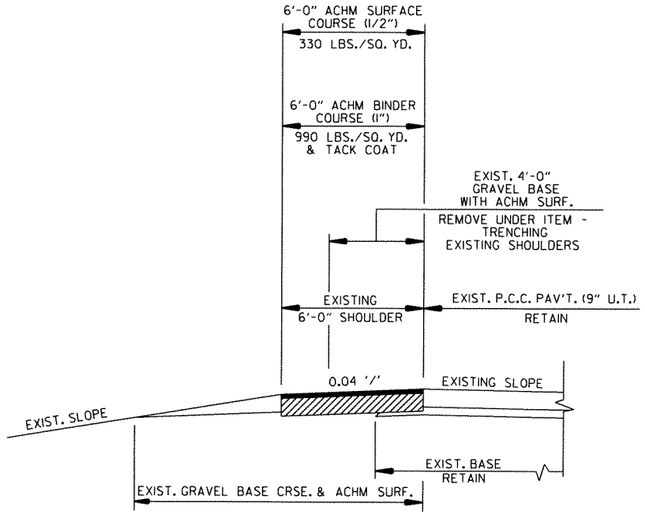
STA. 4246+50.00 TO STA. 4251+70.57

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TYPICAL SECTIONS OF IMPROVEMENT

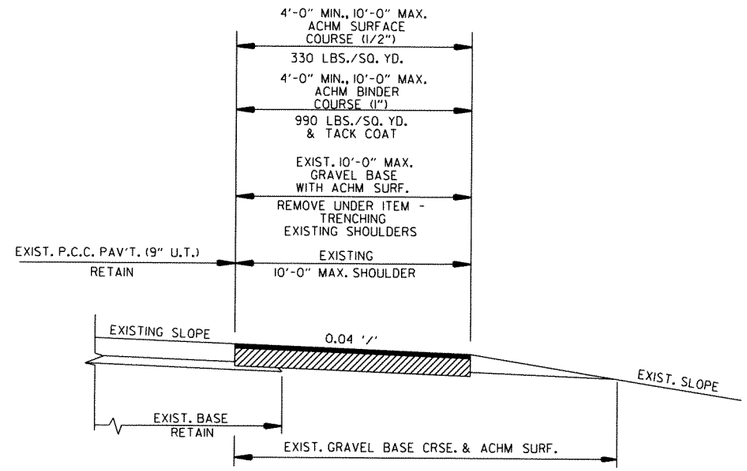
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				6	ARK.			
				JOB NO.		BB0804	8	156
				(2)	TYPICAL SECTIONS OF IMPROVEMENT			



TYPICAL SECTION OF SHOULDER RECONSTRUCTION
FOR MAINTENANCE OF TRAFFIC

STA. 4075+34.27 TO STA. 4253+48.00 (LT. OF RT. MAIN LANES)
STA. 4259+60.50 TO STA. 4424+99.68 (LT. OF RT. MAIN LANES)



TYPICAL SECTION OF SHOULDER RECONSTRUCTION
FOR MAINTENANCE OF TRAFFIC

STA. 4075+34.27 TO STA. 4078+34.27 (RT. OF RT. MAIN LANES)
STA. 4250+48.00 TO STA. 4253+48.00 (RT. OF RT. MAIN LANES)
STA. 4259+60.50 TO STA. 4262+60.50 (RT. OF RT. MAIN LANES)

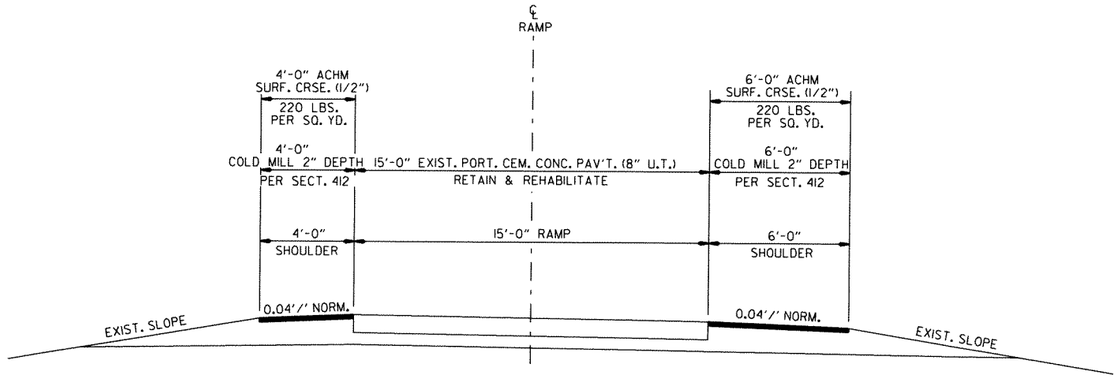
PAVEMENT REHABILITATION - RAMPS

HIGHWAY 64 INTERCHANGE

STA. 4115+68.80 TO STA. 4121+15.90 (RAMP 1)
STA. 4109+15.70 TO STA. 4110+00.00 (RAMP 2)

HIGHWAY 7 INTERCHANGE

STA. 4287+05.70 TO STA. 4291+73.50 (RAMP 1)
STA. 4291+02.90 TO STA. 4296+94.40 (RAMP 2)
STA. 4288+86.00 TO STA. 4296+33.80 (RAMP 3)
STA. 4295+65.10 TO STA. 4300+20.50 (RAMP 4)



PAVEMENT REHABILITATION
RAMPS

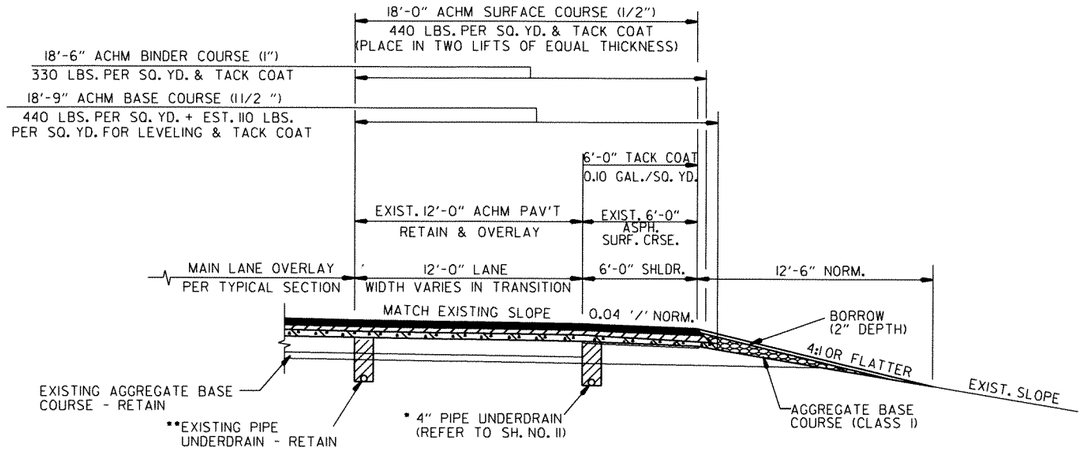
STATE OF ARKANSAS
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No. 9080
ROBERT MATTHEW CRAFTON
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TYPICAL SECTIONS OF IMPROVEMENT

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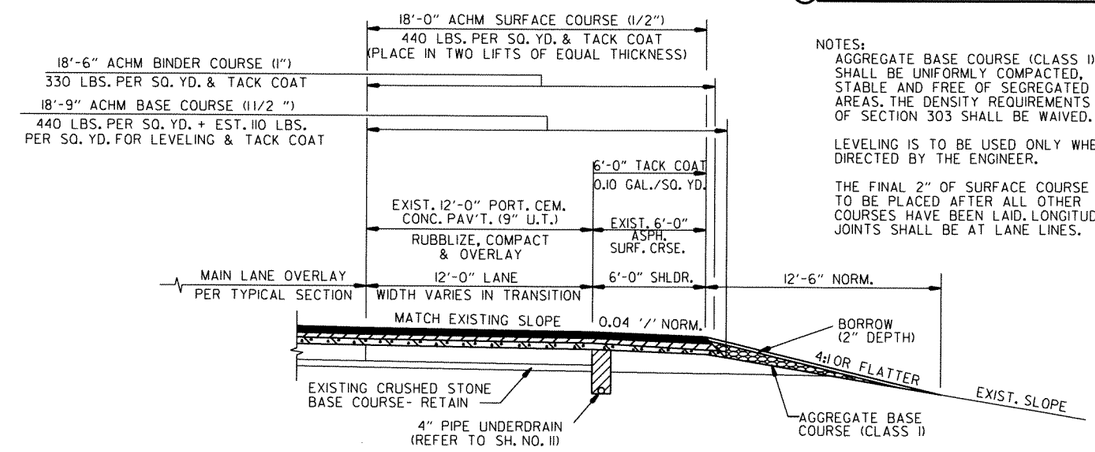
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0804	9	156

(2) TYPICAL SECTIONS OF IMPROVEMENT



OVERLAY- ACCELERATION/DECELERATION LANES
(SHOWN IN DIRECTION OF TRAFFIC)

HWY. 64 INTERCHANGE
*STA. 4129+50.36 TO STA. 4140+61.36 (LT. OF LT. MAIN LANES)
*STA. 4131+90.70 TO STA. 4144+90.70 (RT. OF RT. MAIN LANES)
HWY. 326 INTERCHANGE
**STA. 4378+60.21 TO STA. 4388+73.41 (LT. OF LT. MAIN LANES)
**STA. 4418+94.40 TO STA. 4429+07.00 (RT. OF RT. MAIN LANES)



NOTES:
AGGREGATE BASE COURSE (CLASS 1) SHALL BE UNIFORMLY COMPACTED, STABLE AND FREE OF SEGREGATED AREAS. THE DENSITY REQUIREMENTS OF SECTION 303 SHALL BE WAIVED.

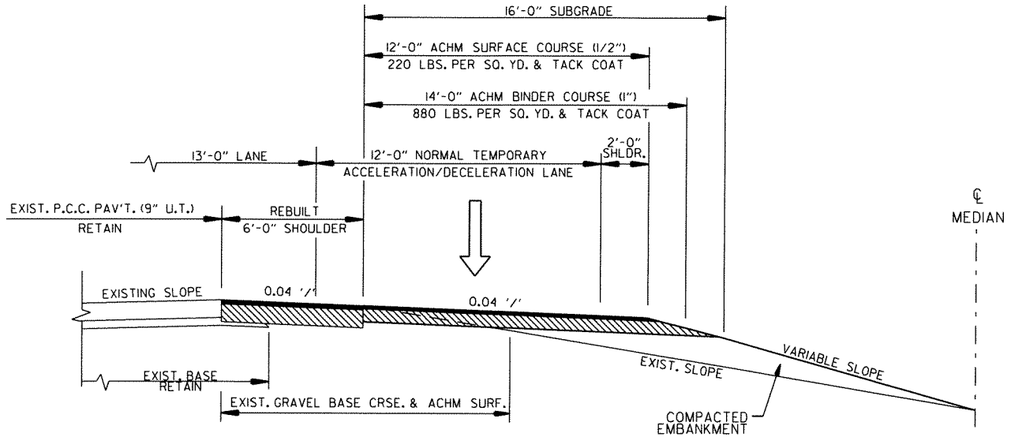
LEVELING IS TO BE USED ONLY WHERE DIRECTED BY THE ENGINEER.

THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

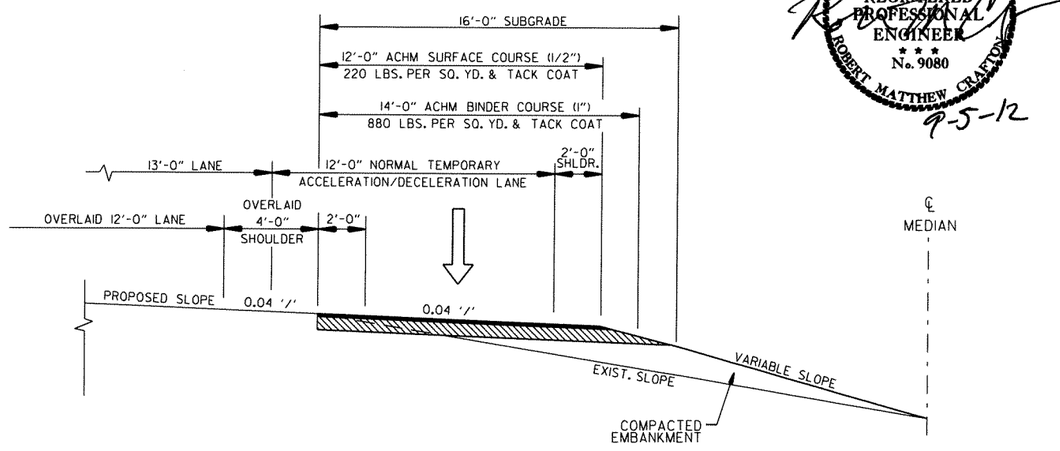
RUBBLIZE & OVERLAY- ACCELERATION LANES
(SHOWN IN DIRECTION OF TRAFFIC)

HWY. 64 INTERCHANGE
STA. 4093+65.70 TO STA. 4103+65.70 (LT. OF LT. MAIN LANES)

HWY. 7 INTERCHANGE
STA. 4271+55.70 TO STA. 4281+55.70 (LT. OF LT. MAIN LANES)
STA. 4305+70.50 TO STA. 4315+70.50 (RT. OF RT. MAIN LANES)



TEMPORARY ACCELERATION LANE
FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES
(SHOWN IN DIRECTION OF TRAFFIC)



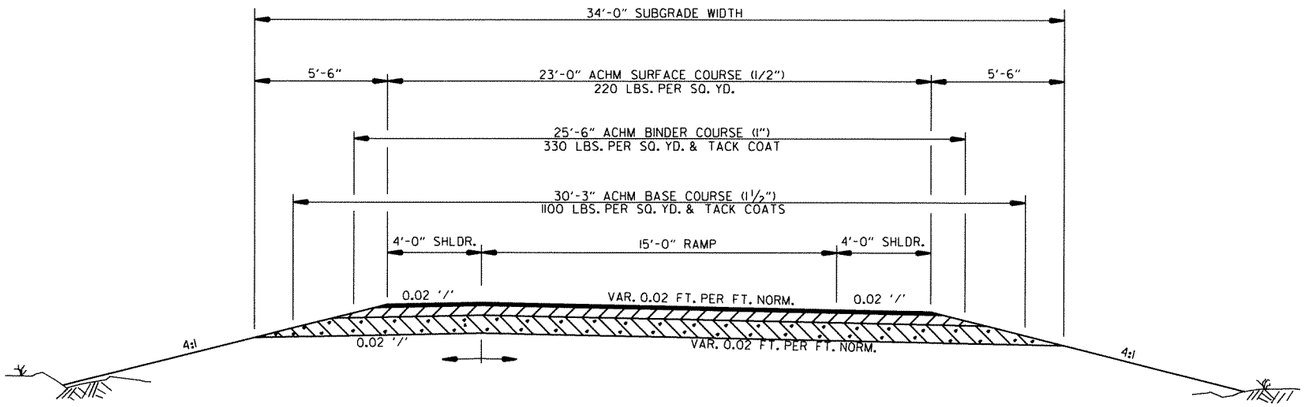
TEMPORARY ACCELERATION LANE
FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES
(SHOWN IN DIRECTION OF TRAFFIC)

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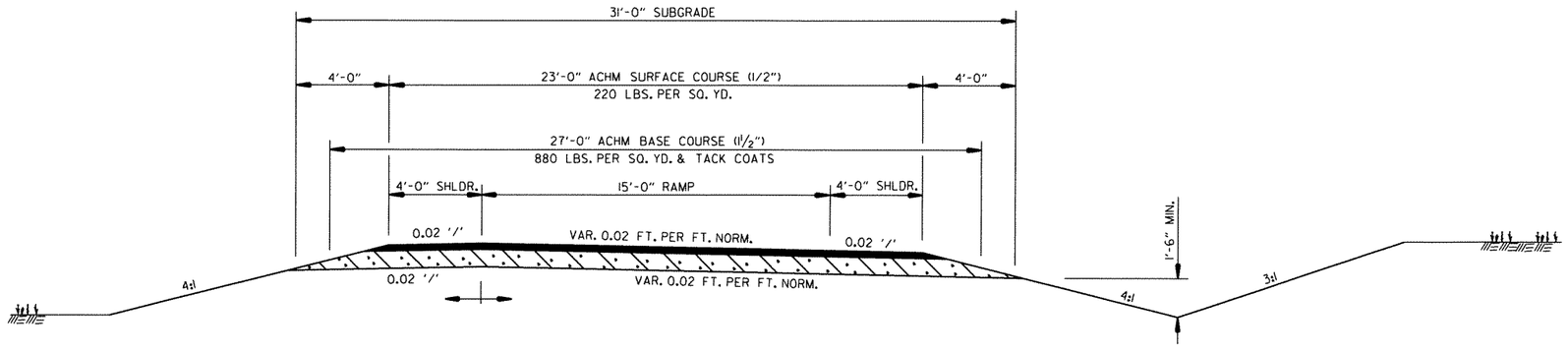
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				6	ARK.			
				JOB NO.		BB0804	10	156
				(2)	TYPICAL SECTIONS OF IMPROVEMENT			



CROSSOVER RAMPS FOR MAINTENANCE OF TRAFFIC



TEMPORARY RAMPS FOR MAINTENANCE OF TRAFFIC

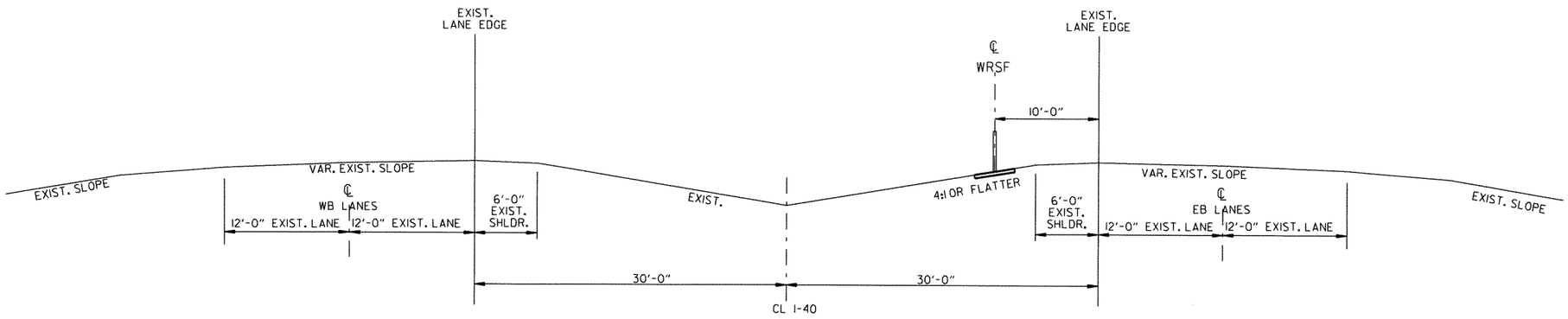
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

TYPICAL SECTIONS OF IMPROVEMENT

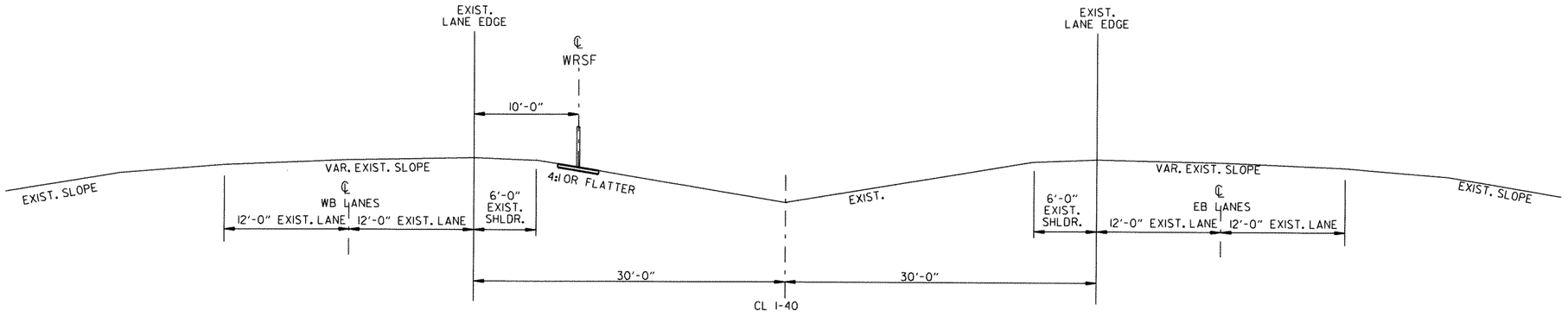
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				6	ARK.			
				JOB NO.		BB0804	10A	156

(2) TYPICAL SECTION



TYPICAL SECTION OF IMPROVEMENT
HWY. 7 - HWY. 124
HWY. 326 - HWY. 331



TYPICAL SECTION OF IMPROVEMENT
MILL CREEK - HWY. 64
STA. 4195+75 - HWY. 7
HWY. 124 - HWY. 326

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CABLE MEDIAN BARRIER
TYPICAL SECTION OF IMPROVEMENT

Drawn By fs513
DGN File G:\013004-01\BB0804\DGN\Cable Median Barrier\BB0804 CMB.dgn
Plotted : 05-SEP-2012 12:30 View=

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.		BB0804	11	156

(2) SPECIAL DETAILS

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.

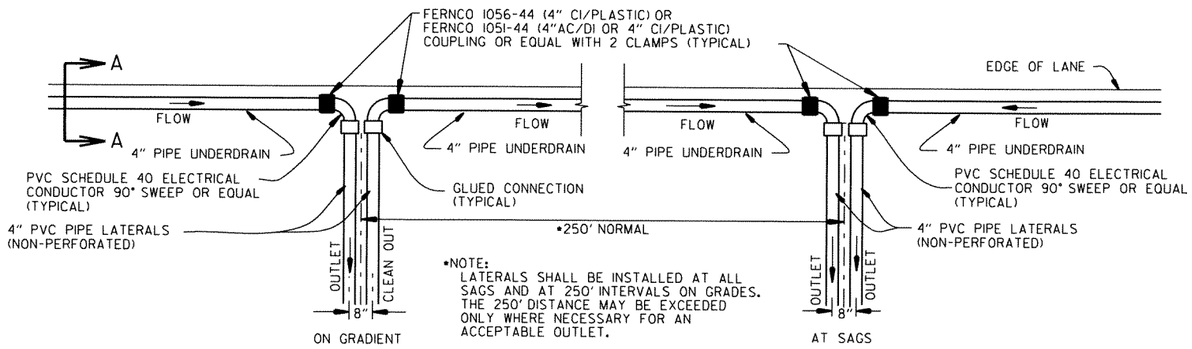
3. 4" PIPE UNDERDRAINS SHALL BE PLACED ON THE LOW SIDE OF SUPERELEVATED ROADWAYS AS SHOWN ON THE TYPICAL SECTIONS. 4" PIPE UNDERDRAINS SHALL BE CONNECTED TO MEDIAN DROP INLETS WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE 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 CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

5. THE RODENT SCREEN SHOWN HEREON SHALL BE USED IN LIEU OF THE WIRE MESH RODENT SCREEN SHOWN IN STANDARD DRAWING PU-1. PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS."

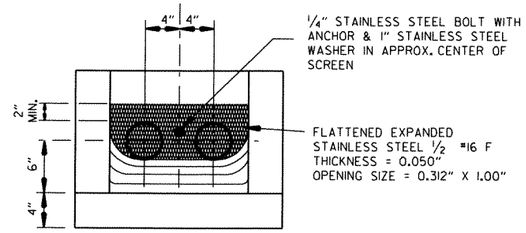
6. ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

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. PAYMENT SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS."



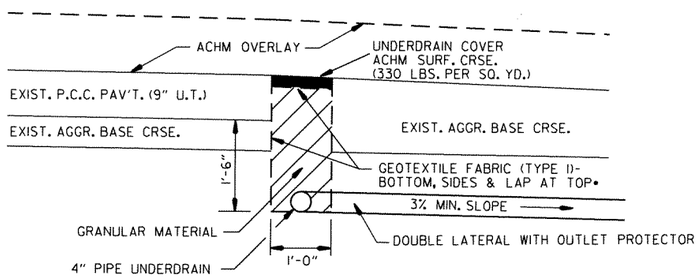
PLAN DETAIL OF PIPE UNDERDRAIN LATERALS

NOTE:
PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE. UNDERDRAIN OUTLET PROTECTORS SHALL BE INSTALLED ON NEW LATERALS. (REFER TO STD. DWG. PU-1. & NOTE #5.)



DETAIL OF RODENT SCREEN

DETAIL FOR PIPE UNDERDRAIN IN AN OVERLAY SECTION TYPE I GEOTEXTILE FABRIC



SECTION A-A

LT. OF RT. MAIN LANES
STA. 4118+62.00 TO STA. 4155+68.00
STA. 4225+42.00 TO STA. 4250+61.00
STA. 4360+70.00 TO STA. 4381+46.00

RT. OF RT. MAIN LANES
STA. 4075+51.68 TO STA. 4110+03.00
STA. 4109+83.00 TO STA. 4118+82.00
STA. 4155+48.00 TO STA. 4225+62.00
STA. 4250+41.00 TO STA. 4253+26.42
STA. 4259+82.58 TO STA. 4283+20.00
STA. 4283+00.00 TO STA. 4305+70.00
STA. 4305+50.00 TO STA. 4360+90.00
STA. 4381+26.00 TO STA. 4430+00.00

LT. OF LT. MAIN LANES
STA. 4075+51.68 TO STA. 4103+85.00
STA. 4103+65.00 TO STA. 4178+51.00
STA. 4207+64.00 TO STA. 4253+78.42
STA. 4260+34.58 TO STA. 4281+76.00
STA 4281+56.00 TO STA. 4288+00.00
STA. 4333+77.00 TO STA. 4404+56.00
STA. 4424+01.00 TO STA. 4430+00.00

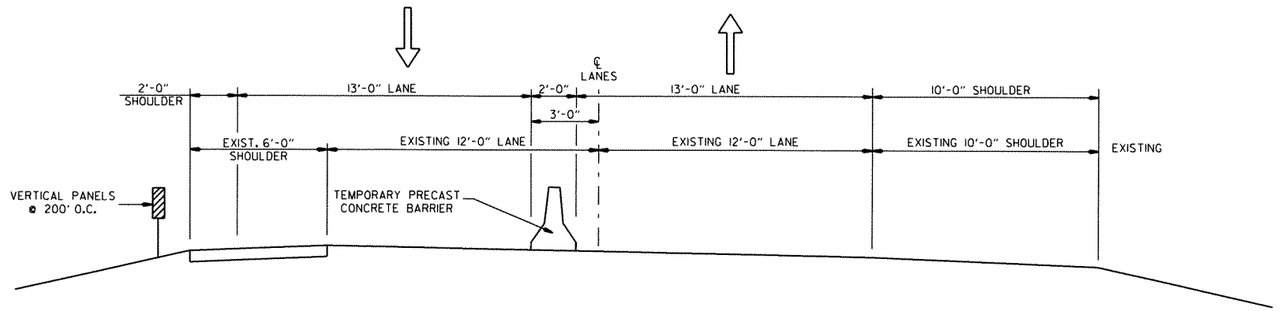
RT. OF LT. MAIN LANES
STA. 4178+31.00 TO STA. 4207+84.00
STA. 4287+80.00 TO STA. 4333+97.00
STA. 4404+36.00 TO STA. 4424+21.00

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ROBERT MATTHEW CRAFTON
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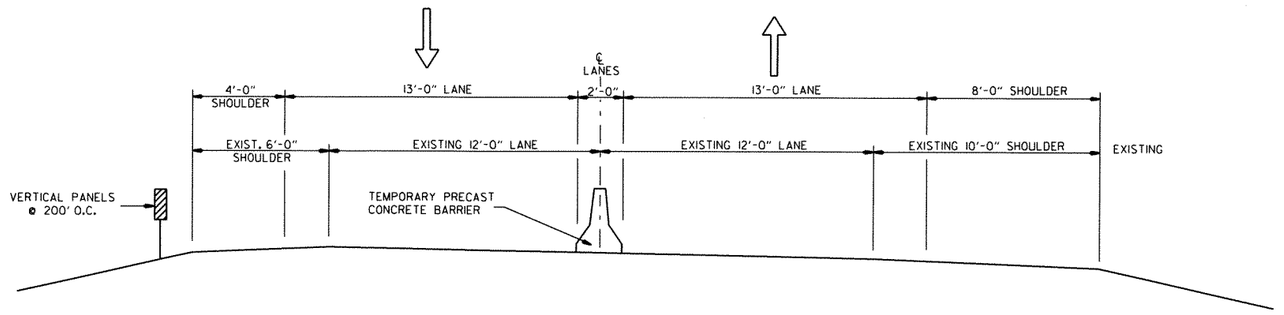
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				6	ARK.			
				JOB NO.		BB0804	12	156

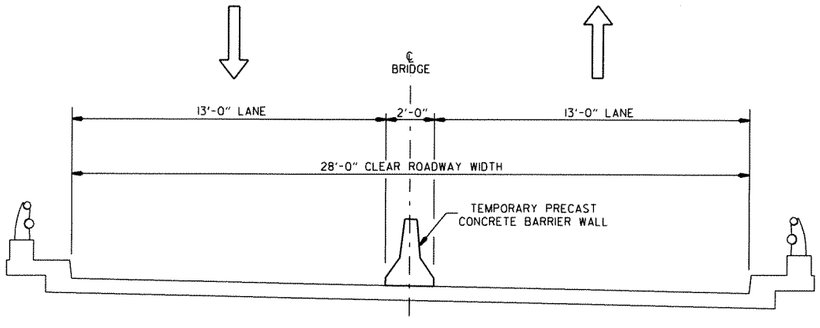
(2) SPECIAL DETAILS



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL FOR MAINTENANCE OF TRAFFIC

BRIDGES 3585B & 3587B

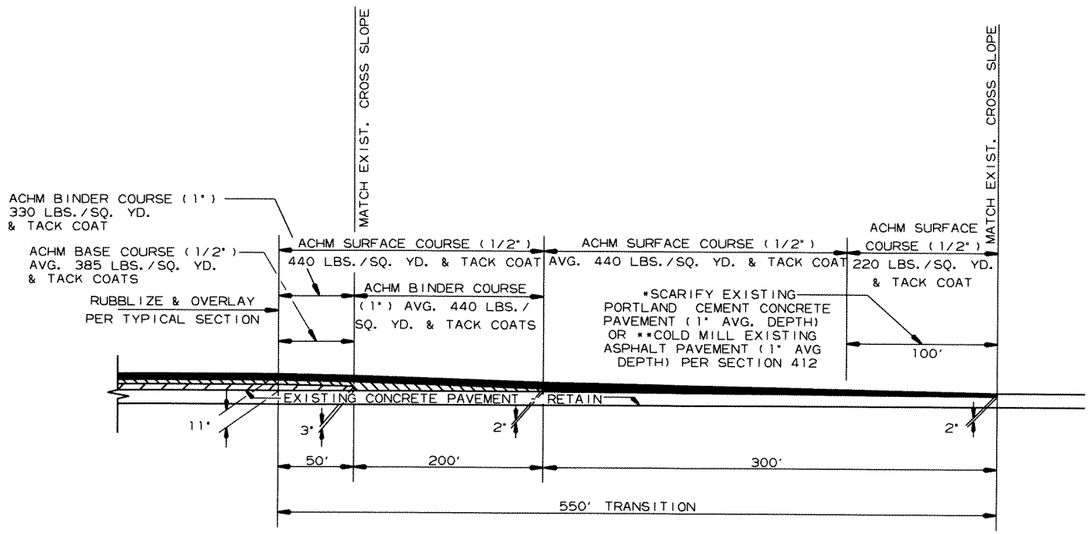
NOTE: USE 300' TRANSITION TO SHIFT TEMPORARY PRECAST CONCRETE BARRIER WALL FROM ℄ BRIDGE TO 2' LT. OF ℄ LANES AS SHOWN ON THESE DETAILS.

NOTE: BARRIER WALL SHALL BE PLACED ON ℄ LANES ON ALL 'A' BRIDGES TO MATCH ROADWAY APPROACHES.

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Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Special Details\sd-02-MOT Crossovers.dgn
Plotted : 05-SEP-2012 12:30 View=

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		BB0804	13	156
				(2)	SPECIAL DETAILS			

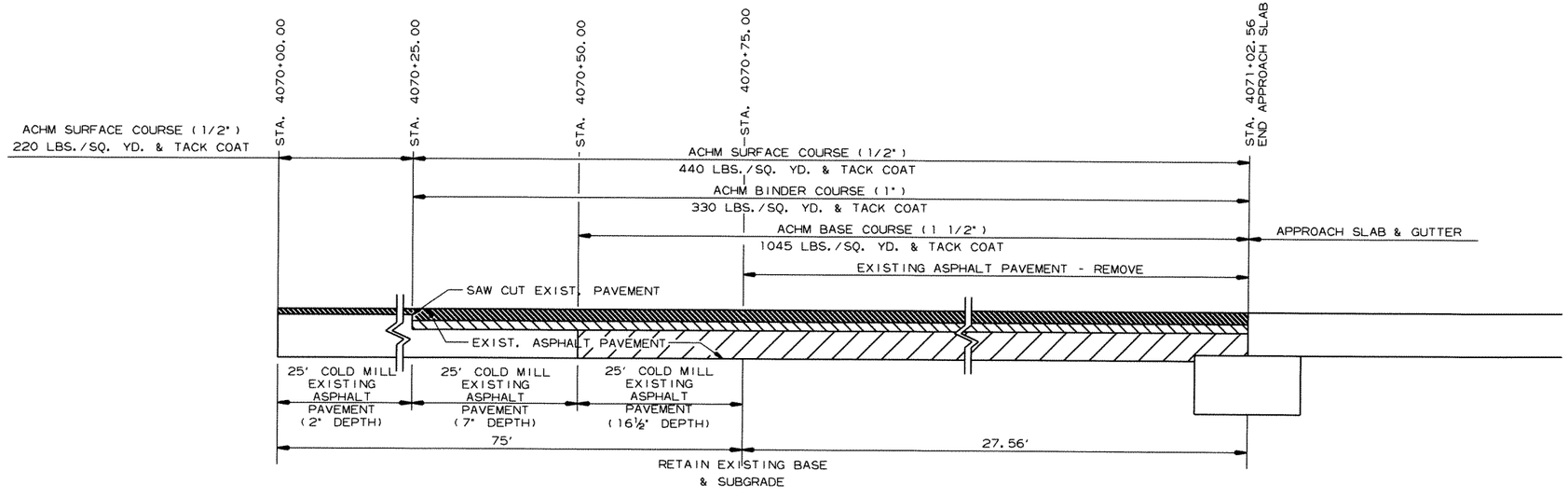


RAMP PAVING TRANSITION

(HWY. 64 INTERCHANGE)
- *STA. 4110+18.80 TO STA. 4115+68.80 (RAMP 1)
- *STA. 4103+65.70 TO STA. 4109+15.70 (RAMP 2)
- **STA. 4124+00.36 TO STA. 4129+50.36 (RAMP 3)
- **STA. 4126+40.70 TO STA. 4131+90.70 (RAMP 4)

(HWY. 7 INTERCHANGE)
- *STA. 4281+55.70 TO STA. 4287+05.70 (RAMP 1)
- *STA. 4296+94.40 TO STA. 4302+44.40 (RAMP 2)
- *STA. 4283+36.00 TO STA. 4288+86.00 (RAMP 3)
- *STA. 4300+20.50 TO STA. 4305+70.50 (RAMP 4)

(HWY. 326 INTERCHANGE)
- **STA. 4392+42.00 TO STA. 4397+92.00 (RAMP 1)
- **STA. 4413+44.40 TO STA. 4418+94.40 (RAMP 2)
- **STA. 4408+39.00 TO STA. 4413+89.00 (RAMP 3)
- **STA. 4388+73.41 TO STA. 4394+23.41 (RAMP 4)



PAVING DETAIL - WEST OF MILL CREEK BRIDGES

STA. 4070+00.00 TO STA. 4071+02.56 (RT. & LT. MAIN LANES)

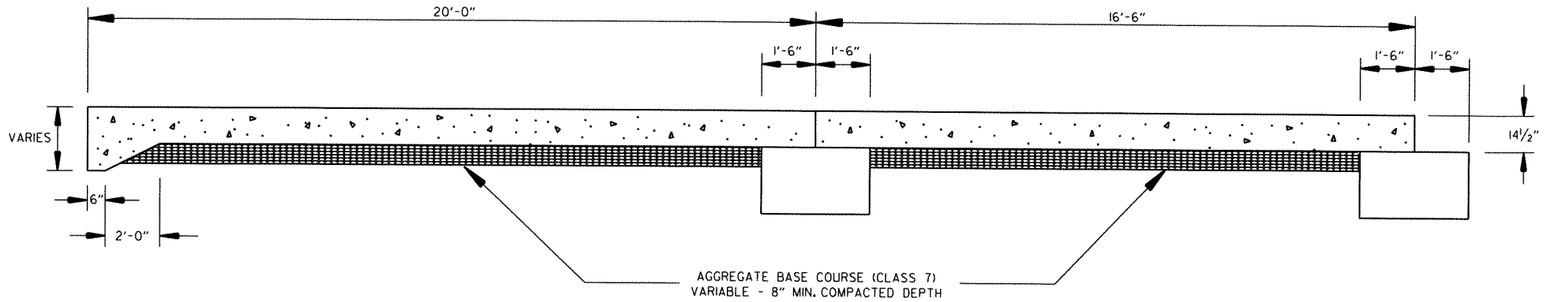
NOTE: REFER TO SHEET NO 74 FOR PROFILE INFORMATION.

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SPECIAL DETAILS

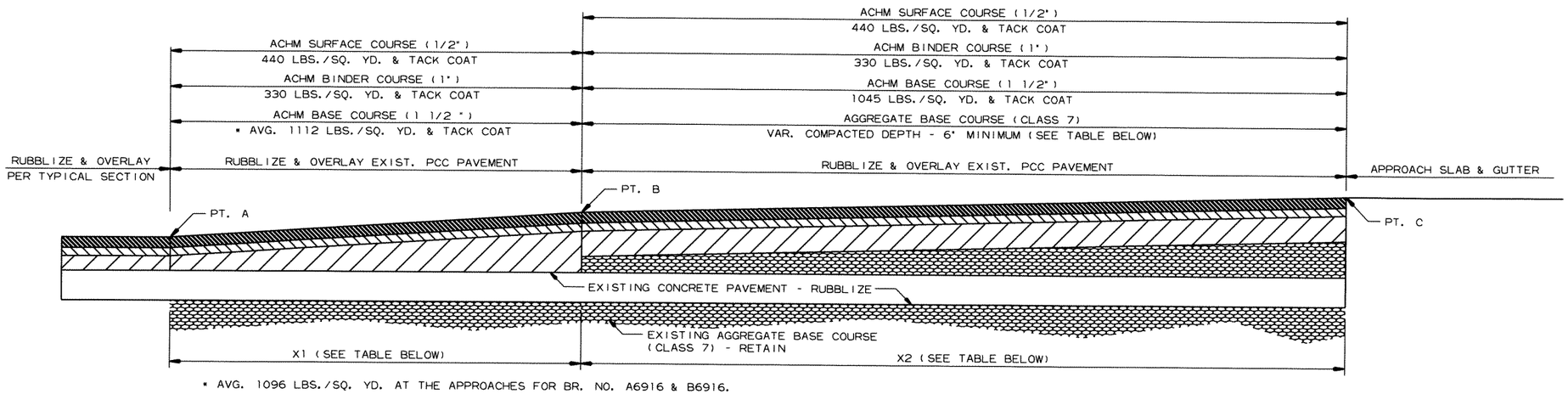
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Plotted : 05-SEP-2012 12:30 View:

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				6	ARK.			
				JOB NO.		BB0804	14	156
				(2)	SPECIAL DETAILS			



DETAIL OF APPROACH SLAB

NOTE: REFER TO STANDARD DRAWINGS 2016C & 2018 FOR ADDITIONAL INFORMATION.



* AVG. 1096 LBS./SQ. YD. AT THE APPROACHES FOR BR. NO. A6916 & B6916.

PAVING DETAIL AT BRIDGE APPROACHES

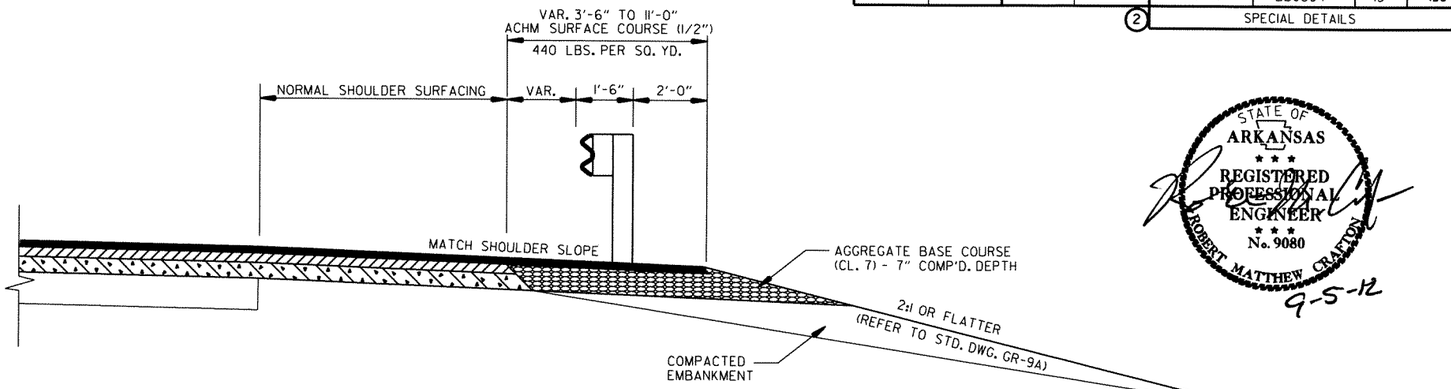
LOCATION	PT. A	PT. B	PT. C	X1	X2	AVG. DEPTH - CLASS 7
* BR. NO. A6916 - EAST APPROACH	STA. 4080+00.00	STA. 4075+51.68	STA. 4075+51.68	448.32'	0.00'	N/A
* BR. NO. B6916 - EAST APPROACH	STA. 4080+00.00	STA. 4075+51.68	STA. 4075+51.68	448.32'	0.00'	N/A
BR. NO. A6917 - WEST APPROACH	STA. 4246+50.00	STA. 4249+98.00	STA. 4253+78.42	348.00'	380.42'	12"
BR. NO. B6917 - WEST APPROACH	STA. 4246+50.00	STA. 4249+44.00	STA. 4253+26.42	294.00'	382.42'	13"
BR. NO. A6917 - EAST APPROACH	STA. 4267+50.00	STA. 4265+33.00	STA. 4260+34.58	217.00'	498.42'	11"
BR. NO. B6917 - EAST APPROACH	STA. 4267+50.00	STA. 4264+93.00	STA. 4259+82.58	257.00'	510.42'	11"

NOTE: REFER TO SHEET NOS. 74 AND 75 FOR PROFILE INFORMATION.

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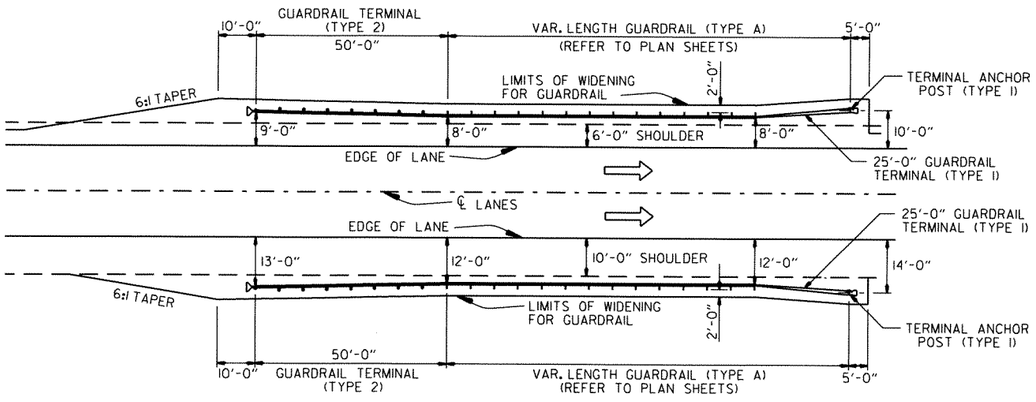
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				JOB NO.		BB0804	15	156
				(2)	SPECIAL DETAILS			



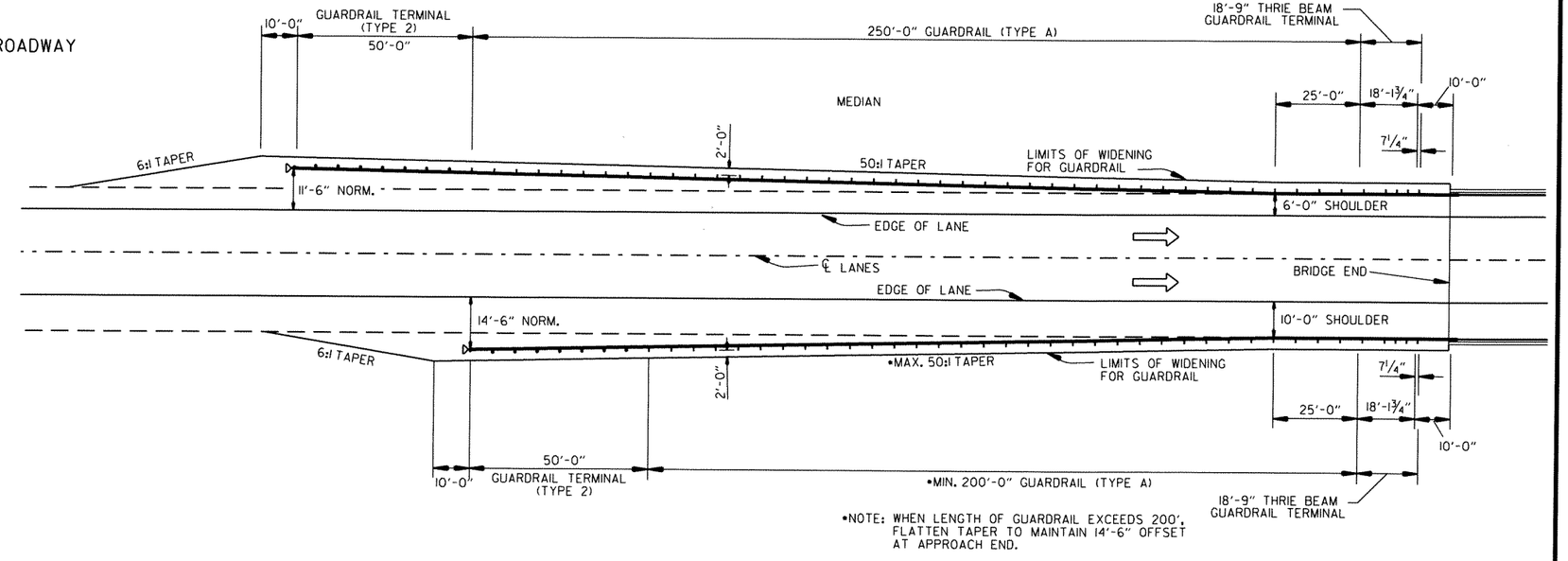
SECTION DETAIL OF WIDENING FOR GUARDRAIL

NOTE: REFER TO STANDARD DRAWINGS GR-8, GR-8A, GR-9, GR-10, GR-10A, GR-11, & GRT-1 FOR ADDITIONAL INFORMATION.



TYPICAL LAYOUT OF GUARDRAIL ALONG ROADWAY

NOTE: LAYOUT OF GUARDRAIL AT CONCRETE PIER PROTECTION LOCATIONS SHALL BE AS SHOWN BELOW FOR RIGHT SIDE OF BRIDGE.



•NOTE: WHEN LENGTH OF GUARDRAIL EXCEEDS 200', FLATTEN TAPER TO MAINTAIN 14'-6" OFFSET AT APPROACH END.

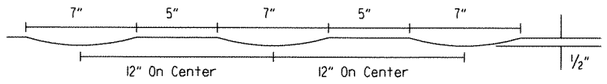
TYPICAL LAYOUT OF GUARDRAIL AT BRIDGE ENDS

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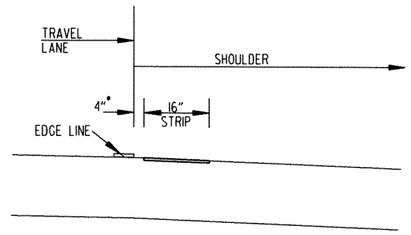
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SPECIAL DETAILS

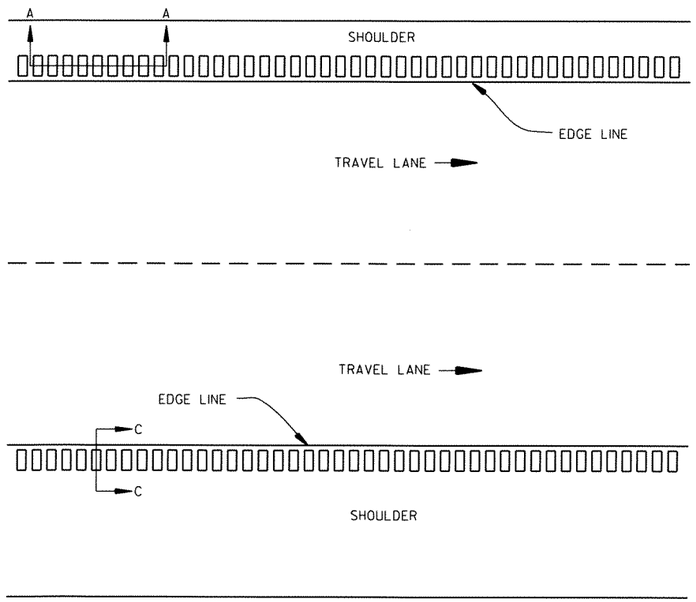
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				6	ARK.			
				JOB NO.		BB0804	16	156
				(2)	SPECIAL DETAILS			



SECTION A - A



SECTION C - C (Type I)



RUMBLE STRIP (TYPE I)
PLAN VIEW

1. RUMBLE STRIPS SHALL NOT BE INSTALLED ON CURB SECTIONS, BRIDGE DECKS, APPROACH SLABS, INTERSECTING STREETS OR ROADWAYS, RESIDENTIAL OR COMMERCIAL DRIVEWAYS OR ACROSS TRANSVERSE JOINTS OF CONCRETE SHOULDERS.
2. RUMBLE STRIPS SHALL NOT BE INSTALLED ON A PAVED SHOULDER THAT IS USED AS A DECELERATION LANE FOR THE LENGTH DEEMED APPROPRIATE BY THE ENGINEER.
3. THE 4" OFFSET FROM THE EDGE LINE MAY BE INCREASED TO AVOID LONGITUDINAL JOINTS. IN ALL CASES, THE LATERAL DEVIATION FROM THE PLANNED OFFSET SHOULD BE KEPT TO A MINIMUM.
4. RUMBLE STRIPS SHALL BE MEASURED BY THE LINEAR FOOT LONGITUDINALLY ALONG THE SHOULDER. PAYMENT SHALL ONLY INCLUDE THAT PORTION OF THE SHOULDER ON WHICH RUMBLE STRIPS HAVE BEEN CONSTRUCTED. NO MEASUREMENT OR PAYMENT WILL BE MADE FOR GAPS, DRIVEWAYS, TURNOUTS, OR OTHER PUBLIC ROAD INTERSECTIONS WHERE RUMBLE STRIPS HAVE NOT BEEN CONSTRUCTED.



SPECIAL DETAILS

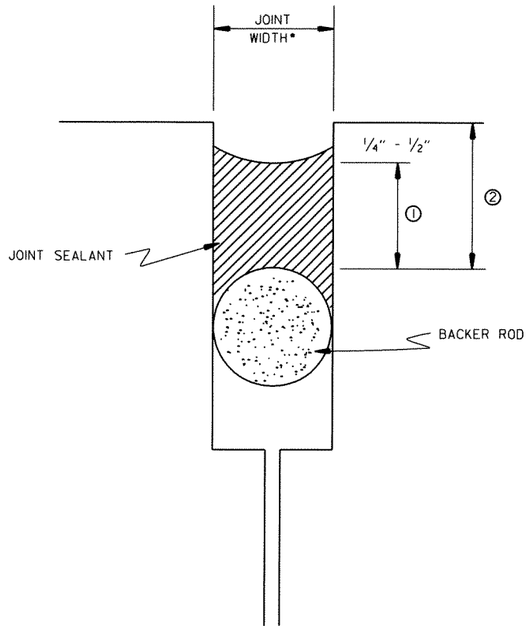
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Plotted : 06-SEP-2012 12:31 View=

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				6	ARK.			
				JOB NO.		BB0804	17	156
				(2)	SPECIAL DETAILS			

JOINT CONFIGURATION FOR TYPE 3 & 4 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
	INCHES		
1/4	1/4	3/8	1/2
3/8	1/4	1/2	1/2
1/2	1/4	5/8	1/2
5/8	5/16	3/4	9/16
3/4	3/8	7/8	7/8
7/8	7/16	1	11/16
1	1/2	1 1/4	3/4
1 TO 1 1/2	1/2	1 1/4 +	3/4

NOTE: JOINTS GREATER THAN 1 1/2" IN WIDTH SHALL BE SEALED WITH TYPE 5 JOINT SEALANT.

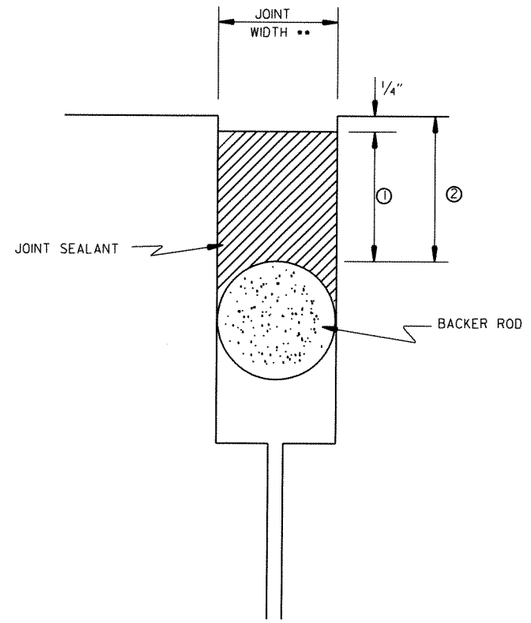


* CONTRACTION JOINTS SHALL BE SAWED TO MIN. WIDTH OF 3/8". WARPING & LONGITUDINAL JOINTS SHALL BE SAWED TO MIN. WIDTH OF EXISTING WIDTH +1/8" (1/16" ON EACH SIDE).

DETAILS OF TYPE A OR TYPE B JOINT REHABILITATION

JOINT CONFIGURATION FOR TYPE 5 JOINT SEALANT

JOINT WIDTH	APPROX. WIDTH TO DEPTH RATIO	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES		INCHES		
1/4	1:2	1/2	3/8	3/4
3/8		3/4	1/2	1
1/2		1	5/8	1 1/4
5/8		1 1/4	3/4	1 1/2
3/4	1:1.75	1 3/8	7/8	1 5/8
7/8		1 1/2	1	1 3/4
1	1:1.6	1 5/8	1 1/4	1 7/8
1 TO 3		1 5/8 +	1 1/4 +	1 7/8 +



** WARPING & LONGITUDINAL JOINTS SHALL BE SAWED TO MIN. WIDTH OF EXISTING WIDTH +1/8" (1/16" ON EACH SIDE).

NOTE: FOR JOINTS WIDER THAN 1 1/2", THE CONTRACTOR SHALL HAVE THE OPTION OF COMPLETELY FILLING THE JOINT IN LIEU OF USING A BACKER ROD.

DETAILS OF TYPE B JOINT REHABILITATION

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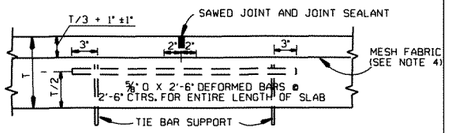
REFER TO SECTION 509 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL INFORMATION.

SPECIAL DETAILS

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DGN File G:\013004-01\B80109\ODN\Special Details\sd-07_joint rehab.dgn
Plotted : 05-SEP-2012 12:31 View:

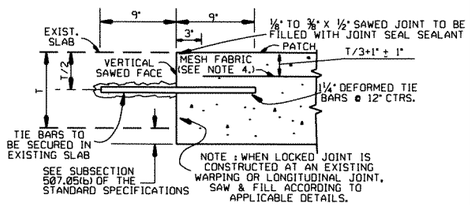
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				6	ARK.			
				JOB NO.		BB0804	18	156

(2) SPECIAL DETAILS



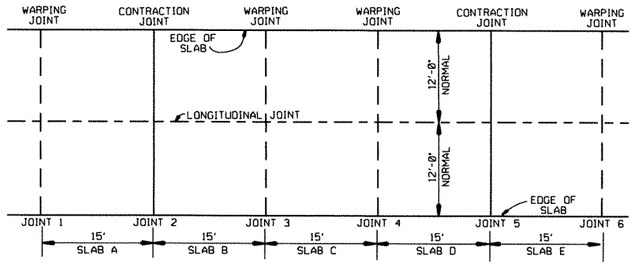
SECTION A-A

TIED LONGITUDINAL JOINT



SECTION D-D

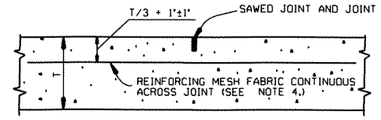
LOCKED JOINT



PLAN OF PAVEMENT REPAIR
(FULL SLABS)

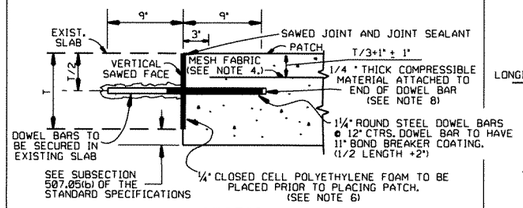
TYPICAL SLAB REPLACEMENT EXAMPLES

SLAB(S) TO BE RECONSTRUCTED	TYPE OF JOINT TO BE CONSTRUCTED					
	JOINT 1	JOINT 2	JOINT 3	JOINT 4	JOINT 5	JOINT 6
A OR D	LOCKED	FREE		LOCKED	FREE	
B OR E		FREE	LOCKED		FREE	LOCKED
A & B OR D & E	LOCKED	CONTRACTION	LOCKED	LOCKED	CONTRACTION	LOCKED
B & C		FREE	WARPING	LOCKED		
B, C & D		FREE	WARPING	WARPING	FREE	
C			LOCKED	LOCKED		



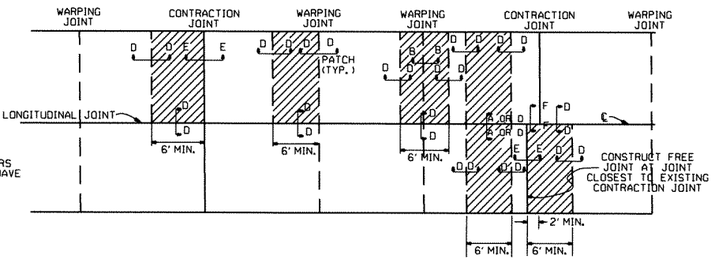
SECTION B-B

WARPING JOINT



SECTION E-E

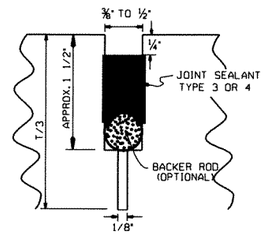
FREE TRANSVERSE JOINT



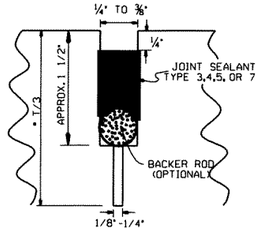
PLAN OF PAVEMENT REPAIR
(PARTIAL SLABS)

NOTES FOR PAVEMENT REPAIR

1. EXACT SIZE AND LOCATION OF AREA TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER. ALL PATCHES SHALL EXTEND ACROSS THE FULL WIDTH OF THE SLAB AS SHOWN IN THESE DETAILS.
2. THE FINAL SURFACE FINISH FOR PATCHES SHALL MATCH THAT OF THE EXISTING PAVEMENT.
3. WHEN AREA TO BE REPAIRED INCLUDES AN EXISTING JOINT, THE JOINT SHALL BE RECONSTRUCTED TO THE CONFIGURATION SHOWN IN THESE DETAILS.
4. ALL REPAIRED AREAS SHALL BE REINFORCED WITH MESH FABRIC AS SHOWN. DEPTH OF MESH PLACEMENT SHALL HAVE A TOLERANCE OF ±1 INCH. MESH FABRIC SHALL BE 12 x 12 - W4 x W4 WELDED WIRE FABRIC (MINIMUM WIRE SIZE). LAPS SHALL BE MINIMUM 6" IN EACH DIRECTION.
5. FORMS FOR PAVEMENT REPAIR SHALL BE METAL UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. CLOSED CELL POLYETHYLENE FOAM SHALL BE SECURED TO SAWED FACE OF EXISTING P.C.C. PAVEMENT WITH ADHESIVE OR ADHESIVE TAPE AS APPROVED BY THE ENGINEER AND TRIMMED FLUSH WITH TOP OF EXISTING SLAB TO PREVENT DISPLACEMENT WHEN THE PATCH IS BEING PLACED.
7. WHEN THE PATCH IS PLACED OVER GRANULAR BASE, REMOVE ANY LOOSE BASE MATERIAL, COMPACT REMAINING BASE AS NECESSARY AND PLACE PATCH. WHEN PATCH IS PLACED OVER TREATED BASE, REMOVE ANY LOOSE BASE MATERIAL AND PLACE PATCH.
8. ½" THICK COMPRESSIBLE MATERIAL SHALL BE ATTACHED TO THE ENDS OF DOWEL BARS AT ALL FREE TRANSVERSE JOINTS (SEE SECTION E-E). THE MATERIAL SHALL BE THE SAME DIAMETER AS THE DOWEL BAR. A PLASTIC CAP OR OTHER TYPE OF DEVICE MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
9. DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS ONE INCH WILL BE ALLOWED FOR VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS ¼" WILL BE ALLOWED FOR THE TILT AND SKEW.

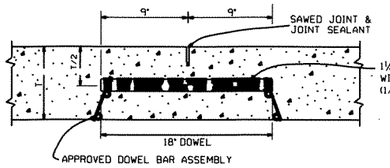


DETAIL OF SAWED CONTRACTION JOINT

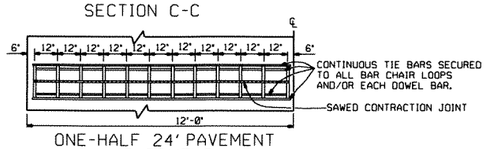


*NOTE: T/3 SAW CUT NOT REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINT.

DETAIL OF SAWED
TIED LONGITUDINAL JOINT
AND WARPING JOINT



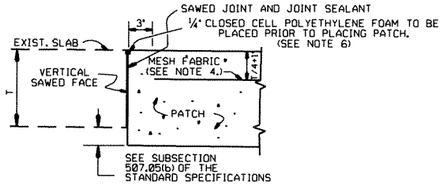
SECTION C-C



ONE-HALF 24' PAVEMENT
12 DOWELS
PLAN - CONTRACTION JOINT

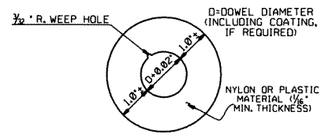
NOTE: FOR 20' PAVEMENT USE 20 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 15' PAVEMENT USE 15 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 26' PAVEMENT USE 26 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST 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



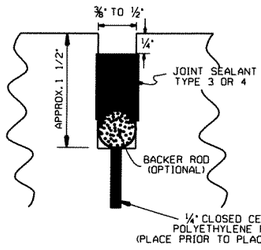
SECTION F-F

FREE LONGITUDINAL JOINT

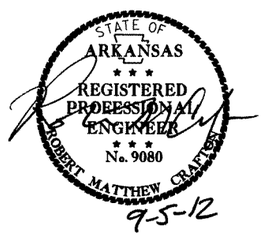


DETAIL OF EPOXY
RETENTION DISK

NOTE: EPOXY RETENTION DISK SHALL BE SLIPPED TIGHTLY OVER TIE BARS AND FIRMLY AGAINST THE SLAB FACE AFTER INSERTING TIE BAR AND EPOXY INTO HOLE



DETAIL OF SAWED FREE TRANSVERSE &
FREE LONGITUDINAL JOINT

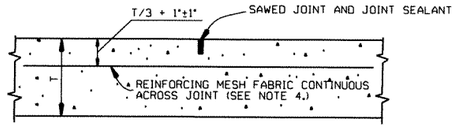


DETAILS OF PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (MAIN LANES)

Drawn By fs513
DGN File G:\013004-01\BB0109\OGN\Special Details\sd-08-PCC patching.dgn
Plotted : 05-SEP-2012 12:31
View=

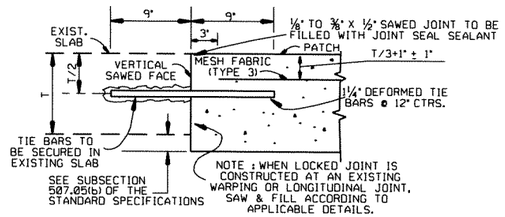
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0804	19	156

2 SPECIAL DETAILS

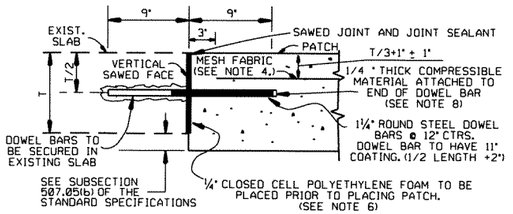


SECTION B-B

WARPING JOINT

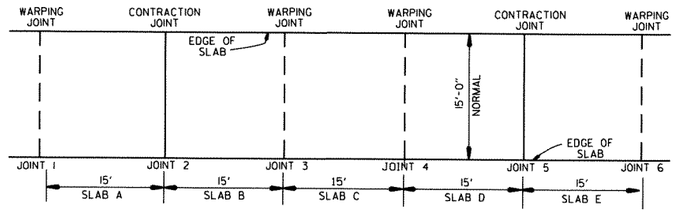


SECTION D-D



SECTION E-E

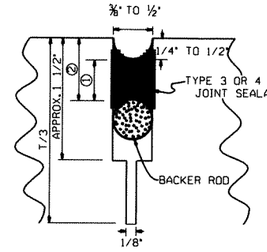
FREE TRANSVERSE JOINT



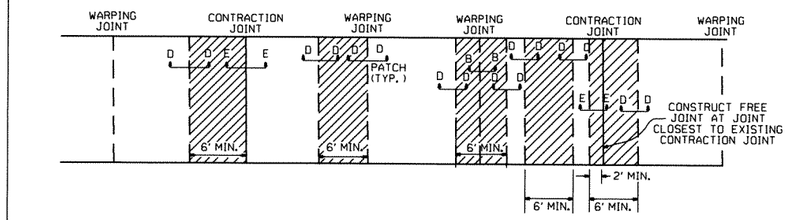
PLAN OF PAVEMENT REPAIR
(FULL SLABS)

TYPICAL SLAB REPLACEMENT EXAMPLES

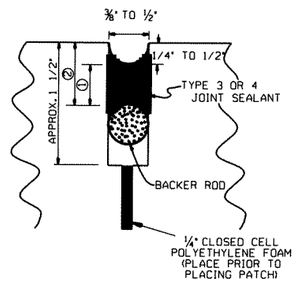
SLAB(S) TO BE RECONSTRUCTED	TYPE OF JOINT TO BE CONSTRUCTED					
	JOINT 1	JOINT 2	JOINT 3	JOINT 4	JOINT 5	JOINT 6
A OR D	LOCKED	FREE		LOCKED	FREE	
B OR E		FREE	LOCKED		FREE	LOCKED
A & B OR D & E	LOCKED	CONTRACTION	LOCKED	LOCKED	CONTRACTION	LOCKED
B & C		FREE	WARPING	LOCKED		
B, C & D		FREE	WARPING	WARPING	FREE	
C			LOCKED	LOCKED		



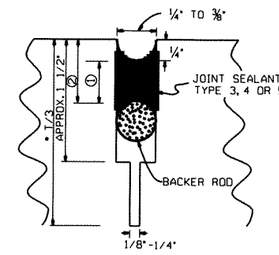
DETAIL OF SAWED CONTRACTION JOINT



PLAN OF PAVEMENT REPAIR
(PARTIAL SLABS)

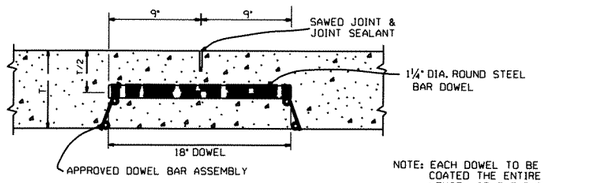


DETAIL OF SAWED FREE TRANSVERSE JOINT



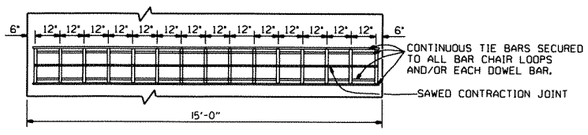
•NOTE: T/3 SAW CUT NOT REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINT.

DETAIL OF SAWED WARPING JOINT



NOTE: EACH DOWEL TO BE COATED THE ENTIRE LENGTH OF THE BAR UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

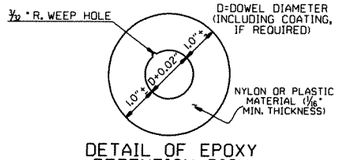
SECTION C-C



15' PAVEMENT
15 DOWELS
PLAN - CONTRACTION JOINT

NOTE: FOR 15' PAVEMENT USE 15 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 EPOXY RETENTION DISK

NOTE: EPOXY RETENTION DISK SHALL BE SLIPPED TIGHTLY OVER TIE BARS AND FIRMLY AGAINST THE SLAB FACE AFTER INSERTING TIE BAR AND EPOXY INTO HOLE

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

JOINT CONFIGURATION FOR TYPE 5 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	½	⅜	¾
⅜	¾	½	1

NOTES FOR PAVEMENT REPAIR

1. EXACT SIZE AND LOCATION OF AREA TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER. ALL PATCHES SHALL EXTEND ACROSS THE FULL WIDTH OF THE SLAB AS SHOWN IN THESE DETAILS.
2. THE FINAL SURFACE FINISH FOR PATCHES SHALL MATCH THAT OF THE EXISTING PAVEMENT.
3. WHEN AREA TO BE REPAIRED INCLUDES AN EXISTING JOINT, THE JOINT SHALL BE RECONSTRUCTED TO THE CONFIGURATION SHOWN IN THESE DETAILS.
4. ALL REPAIRED AREAS SHALL BE REINFORCED WITH MESH FABRIC AS SHOWN. DEPTH OF MESH PLACEMENT SHALL HAVE A TOLERANCE OF ±1 INCH. MESH FABRIC SHALL BE 12 x 12 - W4 x W4 WELDED WIRE FABRIC (MINIMUM WIRE SIZE). LAPS SHALL BE MINIMUM 6" IN EACH DIRECTION. MINIMUM COVER AT EDGES SHALL BE 2".
5. FORMS FOR PAVEMENT REPAIR SHALL BE METAL UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. CLOSED CELL POLYETHYLENE FOAM SHALL BE SECURED TO SAWED FACE OF EXISTING P.C.C. PAVEMENT WITH ADHESIVE OR ADHESIVE TAPE AS APPROVED BY THE ENGINEER AND TRIMMED FLUSH WITH TOP OF EXISTING SLAB TO PREVENT DISPLACEMENT WHEN THE PATCH IS BEING PLACED.
7. WHEN THE PATCH IS PLACED OVER GRANULAR BASE, REMOVE ANY LOOSE BASE MATERIAL. COMPACT REMAINING BASE AS NECESSARY AND PLACE PATCH. WHEN PATCH IS PLACED OVER TREATED BASE, REMOVE ANY LOOSE BASE MATERIAL AND PLACE PATCH.
8. ¼" THICK COMPRESSIBLE MATERIAL SHALL BE ATTACHED TO THE ENDS OF DOWEL BARS AT ALL FREE TRANSVERSE JOINTS (SEE SECTION E-E). THE MATERIAL SHALL BE THE SAME DIAMETER AS THE DOWEL BAR. A PLASTIC CAP OR OTHER TYPE OF DEVICE MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
9. DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS ONE INCH WILL BE ALLOWED FOR VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS ¼" WILL BE ALLOWED FOR THE TILT AND SKEW.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

DETAILS OF PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (RAMPS)

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Special Details\sd-09-PCC patching.dgn
Plotted : 05-SEP-2012 12:31 View=

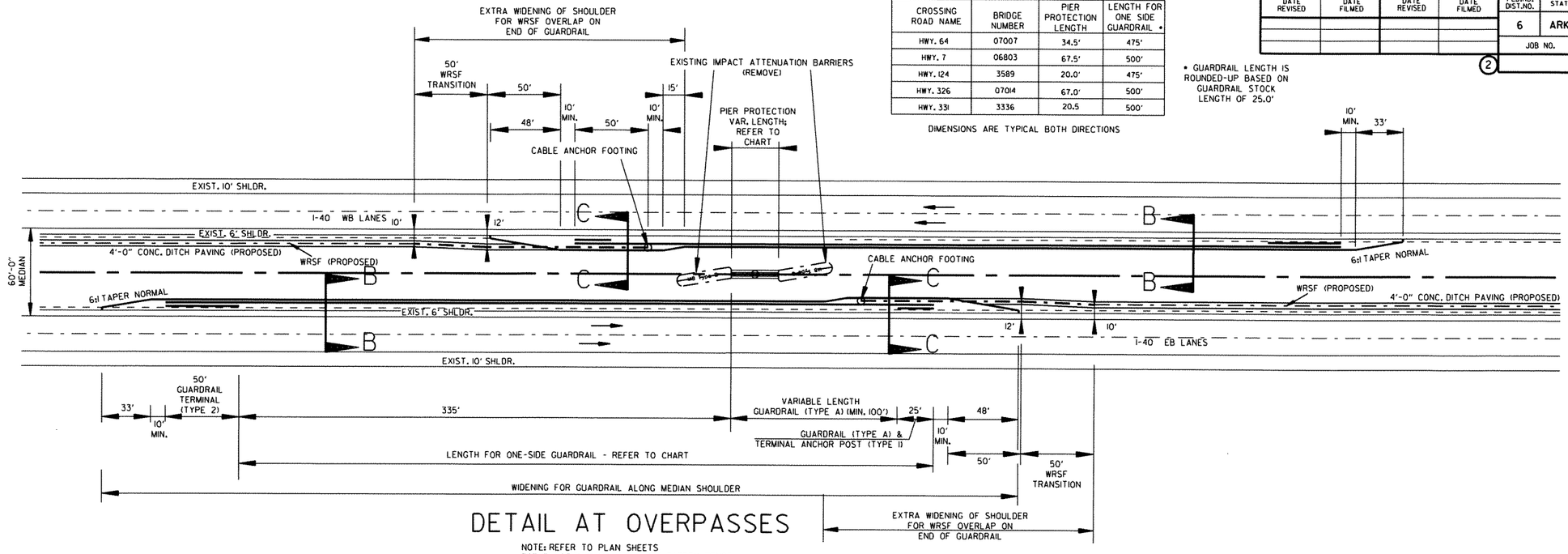
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0804	19A	156

(2) SPECIAL DETAILS

CROSSING ROAD NAME	BRIDGE NUMBER	PIER PROTECTION LENGTH	LENGTH FOR ONE SIDE GUARDRAIL *
HWY. 64	07007	34.5'	475'
HWY. 7	06803	67.5'	500'
HWY. 124	3589	20.0'	475'
HWY. 326	07014	67.0'	500'
HWY. 331	3336	20.5	500'

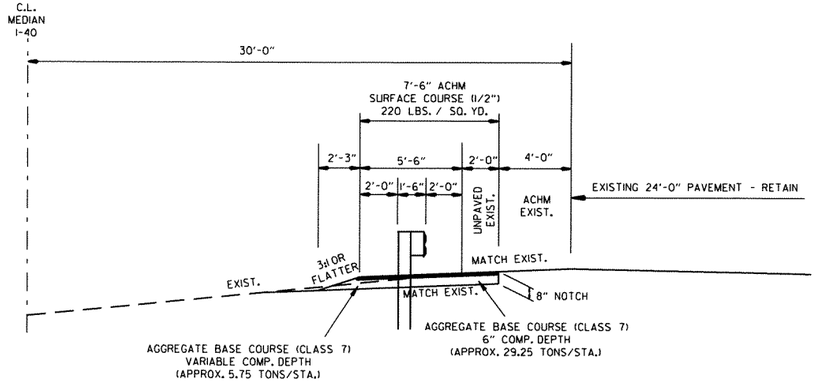
DIMENSIONS ARE TYPICAL BOTH DIRECTIONS

* GUARDRAIL LENGTH IS ROUNDED-UP BASED ON GUARDRAIL STOCK LENGTH OF 25.0'

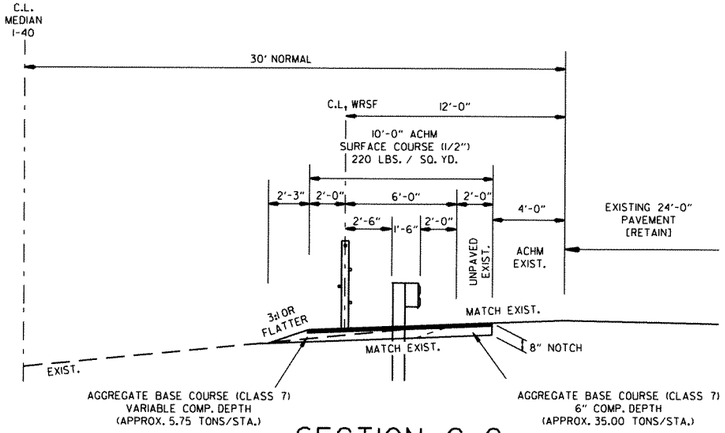


DETAIL AT OVERPASSES

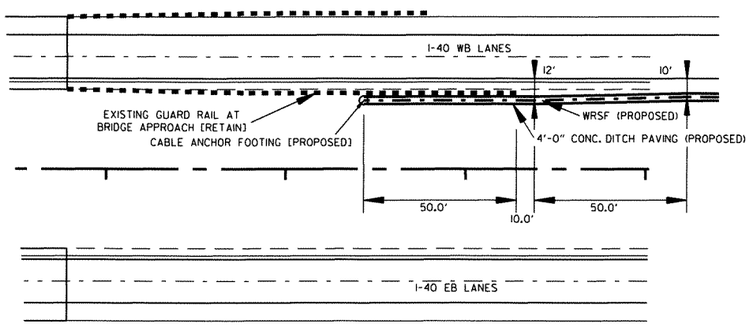
NOTE: REFER TO PLAN SHEETS FOR PLACEMENT OF WIRE ROPE SAFETY FENCE ON EASTBOUND OR WESTBOUND FORESLOPES.



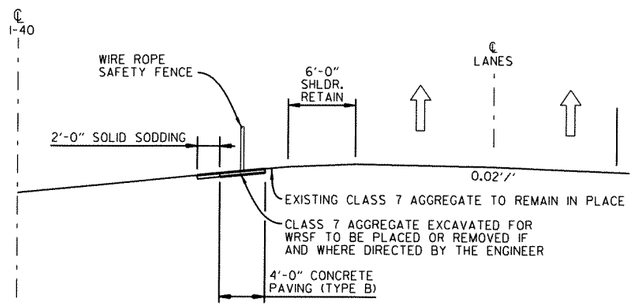
SECTION B-B



SECTION C-C



DETAIL AT BRIDGE ENDS



SOLID SODDING DETAIL

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

SPECIAL DETAILS

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Cable Median Barrier\BB0804 CMB.dgn
Plotted : 05-SEP-2012 14:35 View:

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				6	ARK.			
				JOB NO.		BB0804	19B	156

(2) TEMPORARY EROSION CONTROL DETAILS

Sta. 4076+00 In Place
24" x 188' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 4'-0" x2'-10"
With L Hdwl. On Lt.
RETAIN

Sta. 4083+00 In Place
30" x 192' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 4'-0" x3'-7"
RETAIN

Sta. 4090+00 In Place
Type H Drop Inlet In Median
4' x 4'-8" x 7'-7" Over
Dbl. 36" x 196' R.C. Pipe Culvert
REMOVE HEADWALL ON LT.
EXTEND 4' LT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)
D.A. 33 Ac. C = 1.0

STA.4077+84
BEGIN WRSF
ON WB FORESLOPE
BEHIND GUARDRAIL
(L.M. 76.97)

WIRE ROPE SAFETY FENCE
10' RT. OF I-40 L.M.L. (P.G.)
WITH CONCRETE DITCH PAVING
TYPE B (4'-0" WIDE)

STA. 4071+39.06 LT. BR. END
STA. 4075+15.18 LT. BR. END
LT. FRONTAGE RD.
CREEK
ROAD
4070
4075
4080
4085
4090
4095
4100
STA. 4071+39.06 RT. BR. END
MILL
CREEK
MILL
STA. 4075+15.18 RT. BR. END

REVISIONS

DATE OF REVISION	REVISION

FLOW DIRECTION
SAND BAG DITCH CHECK (E 5)
DROP INLET SILT FENCE (E 7)
LEGEND

Sta. 4125+00 In Place
42" x 334' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 6'-0" x 6-4"
(30° Rt. Fwd. Skew)
D.A. 20 Ac. C = 1.0
RETAIN

STATE OF ARKANSAS
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No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

WIRE ROPE SAFETY FENCE
10' RT. OF I-40 L.M.L. (P.G.)
WITH CONCRETE DITCH PAVING
TYPE B (4'-0" WIDE)

4100
4105
4110
4115
4120
4125
4130
LT. LANES P.C. 4115+60.93
P.C. 4117+60.13
HWY 64
BR. NO. 07007
4118+18
4123+43
42" RCP
VAR.
VAR.
4115+23
4120+48
RT. LANES P.C. 4119+59.63

STA.4118+68
END WRSF
ON WB FORESLOPE
BEHIND GUARDRAIL

Sta. 4100+46 In Place
Dbl. 36" x 216' R.C. Pipe Culvert
REMOVE HEADWALL ON LT.
EXTEND 12' LT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)
D.A. 33 Ac. C = 1.0

Sta. 4047+43 In Place
4' x 4' x 270' R.C. Box Culvert
(30° Rt. Fwd. Skew)
Type K Drop Inlet In Median
4'-0" x 4'-0" x H = 1'-0"
D.A. = 39 Ac., C = 1.0
RETAIN

Sta. 4114+75 In Place
42" x 288' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 5'-6" x 4-4"
(15° Rt. Fwd. Skew)
D.A. 17 Ac. C = 1.0
RETAIN

Sta. 4118+00 In Place
36" x 380' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 4'-8" x 3-10"
With Junction Box On Lt.
3'-0" x 4'-0" x 3'-8"
D.A. = 18 Ac., C = 1.0
RETAIN

Sta. 4130+20 In Place
Dbl. 36" x 212' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 4'-8" x 4'-8"
D.A. 33 Ac. C = 1.0
RETAIN

TEMPORARY EROSION CONTROL DETAILS STA.4070+00 - STA.4130+00

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Cable Median Barrier\BB0804 CMB.dgn
Plotted : $$$$$SYSTIME$$$$$$ View=

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.		BB0804	19C	156

(2) TEMPORARY EROSION CONTROL DETAILS

Sta. 4196+25 In Place
42" x 304' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 5'-3" x 10'-10"
RETAIN

Sta. 4204+85 In Place
48" x 252' R.C. Pipe Culvert
D.A. = 29 Ac., C = 1.0
RETAIN

LT. LANES
P.T. 4206+89.72 BK. =
STA. 4205+97.12 AHD. ℄ MED.

Sta. 4210+08 In Place
48" x 332' R.C. Pipe Culvert
30° Lt. Fwd. Skew
D.A. = 29 Ac., C = 1.0
RETAIN

Sta. 4216+34 In Place
30" x 180' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 4'-0" x 4'-10"
D.A. = 5 Ac., C = 1.0
RETAIN

Sta. 4224+00 In Place
24" x 260' R.C. Pipe Culvert
D.A. = 3 Ac., C = 1.0
RETAIN

STA.4195+75
BEGIN WRSF
ON WB FORESLOPE
(L.M. 79.19)

4195 4200 4205 4210 4215 4220 4225

VAR. VAR.

42' 24"

BK. 4206+99.82
AHD. 4206+56.62

RT. LANES
P.T. 4207+09.82 BK. =
STA. 4207+15.82 ℄ AHD. MED.

WIRE ROPE SAFETY FENCE
10' RT. OF I-40 L.M.L. (P.G.)
WITH CONCRETE DITCH PAVING
TYPE B (4'-0" WIDE)

Sta. 4202+00 In Place
Type H Drop Inlet In Median
4' x 4'-8" x 5'-4" Over
30" x 212' R.C. Pipe Culvert
(30° Rt. Fwd. Skew)
REMOVE HEADWALL ON RT.
EXTEND 8' RT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)
D.A. = 6 Ac., C = 1.0

Sta. 4204+85 In Place
Type H Drop Inlet In Med.
4' x 4' x 2'-10" With
24" x 80' R.C. Pipe Culvert to Rt.
REMOVE HEADWALL ON RT.
EXTEND 4' RT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)

FLOW DIRECTION
SAND BAG DITCH CHECK (E 5)
DROP INLET SILT FENCE (E 7)
LEGEND

REVISIONS

DATE OF REVISION	REVISION

Sta. 4244+00 In Place
24" x 100' R.C. Pipe Outlet
Under Rt. Lane With
Type H Drop Inlet In Med.
4'-0" x 4'-0" x 2'-10"
RETAIN

Sta. 4253+50 In Place
24" x 116' R.C. Pipe Outlet
Under Rt. Lane With
36" x 15' Stack Pipe
Inlet In Med.
RETAIN

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P.C. 4227+07.85

Sta. 4230+50 In Place
24" x 84' R.C. Pipe Outlet
Under Lt. Lane With
Type H Drop Inlet In Med.
4'-0" x 4'-0" x 2'-10"
RETAIN

STA.4253+91
END WRSF
ON WB FORESLOPE

P.I. Bk. 4248+66.74
AHD. 4248+95.77

STA. 4254+14.92
LT. BR. END

4225 4230 4235 4240 4245 4250 4255

WIRE ROPE SAFETY FENCE
10' RT. OF I-40 L.M.L. (P.G.)
WITH CONCRETE DITCH PAVING
TYPE B (4'-0" WIDE)

STA. 4253+62.92
RT. BR. END

ILLINOIS

Sta. 4228+91 In Place
24" x 280' R.C. Pipe Culvert
D.A. = 3 Ac., C = 1.0
RETAIN

Sta. 4238+00 In Place
24" x 100' R.C. Pipe Outlet
Under Rt. Lane With
Type H Drop Inlet In Med.
4'-0" x 4'-0" x 2'-10"
RETAIN

P.I. 4238+16.98

Sta. 4242+25 In Place
24" x 416' R.C. Pipe Culvert
45° Lt. Fwd. Skew
RETAIN

TEMPORARY EROSION CONTROL DETAILS STA.4195+00 - STA.4255+00

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Cable Median Barrier-BB0804 CMB.dgn
Plotted : $$$$$SYTIME$$$$$$ View:

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.		BB0804	19D	156

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STA.4262+57
BEGIN WRSF
ON WB FORESLOPE
BEHIND GUARDRAIL

WIRE ROPE SAFETY FENCE
10' RT. OF I-40 L.M.L. (P.G.)
WITH CONCRETE DITCH PAVING
TYPE B (4'-0" WIDE)

STA. 4259+98.08
LT. BR. END

STA. 4273+50
L.M. 80.67

BAYOU

ILLINOIS

STA. 4259+46.08
RT. BR. END

4255 4260 4265 4270 4275 4280 4285

E 5 E 7 E 5 E 5 E 7 E 5

32'-4"

N

FLOW DIRECTION
SAND BAG DITCH CHECK E 5
DROP INLET SILT FENCE E 7
LEGEND

REVISIONS

DATE OF REVISION	REVISION

STA.4292+58
END WRSF
ON WB FORESLOPE
BEHIND GUARDRAIL

STA.4294+40
BEGIN WRSF
ON EB FORESLOPE
BEHIND GUARDRAIL

WIRE ROPE SAFETY FENCE
10' RT. OF I-40 L.M.L. (P.G.)
WITH CONCRETE DITCH PAVING
TYPE B (4'-0" WIDE)

WIRE ROPE SAFETY FENCE
10' LT. OF I-40 R.M.L. (P.G.)
WITH CONCRETE DITCH PAVING
TYPE B (4'-0" WIDE)

AR - 7

4285 4290 4295 4300 4305 4310 4315

E 5 E 7 E 5 E 7 E 5 E 7 E 5

4289+40
4292+08
4294+90
4297+58
P.C. 4288+68.46
P.I. 4311+13.20

Sta. 4287+00 In Place
Dbl. 30" x 236' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 4'-0" x 3'-4"
D.A. 33Ac., C = 0.7
RETAIN

Sta. 4294+00 In Place
24" x 84' R.C. Pipe Outlet
Under Lt. Lane With
Type H Drop Inlet In Med.
4'-0" x 4'-0" x 2'-10"
RETAIN

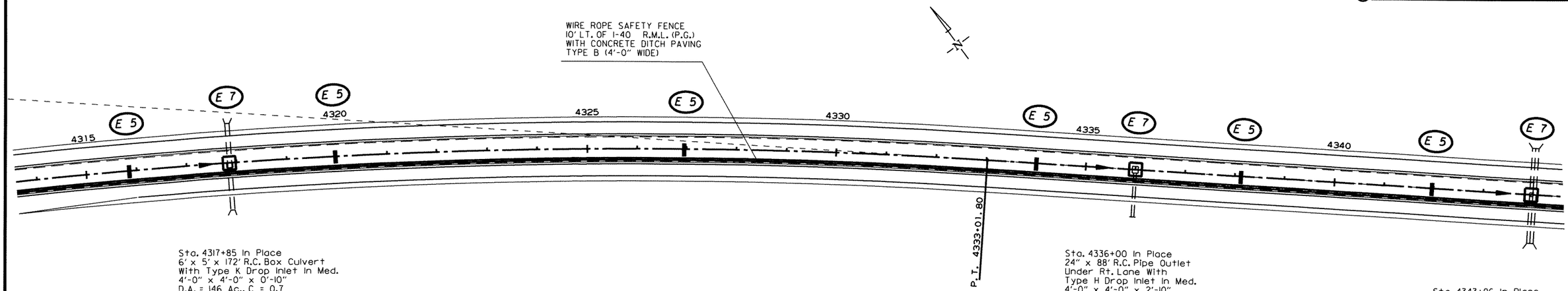
Sta. 4309+80 In Place
Type H Drop Inlet In Median
4' x 4' x 3'-1" Over
24" x 168' R.C. Pipe Culvert
REMOVE HEADWALL ON LT.
EXTEND 8' LT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)

TEMPORARY EROSION CONTROL DETAILS STA.4255+00 - STA.4315+00

Drawn By fs513
DGN File E:\013004-01\BB0109\DGN\Case Reports\BB0109_EROSION_CONTROL.dgn
Plotted : $$$$$SYTIME$$$$$$ View=

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.		BB0804	19E	156

(2) TEMPORARY EROSION CONTROL DETAILS

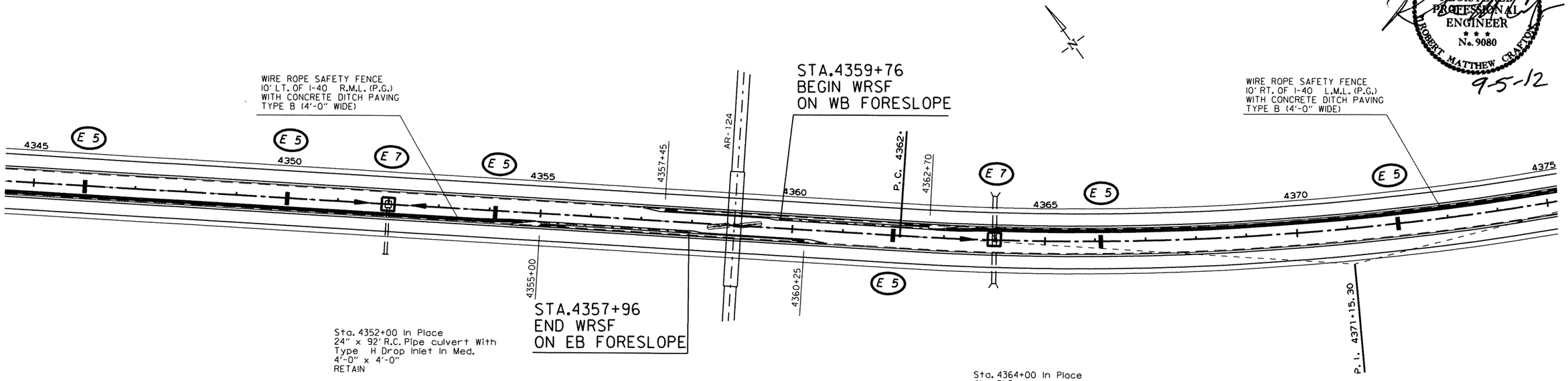


REVISIONS

DATE OF REVISION	REVISION

FLOW DIRECTION
SAND BAG DITCH CHECK E 5
DROP INLET SILT FENCE E 7
LEGEND

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW GRAFTON
9-5-12

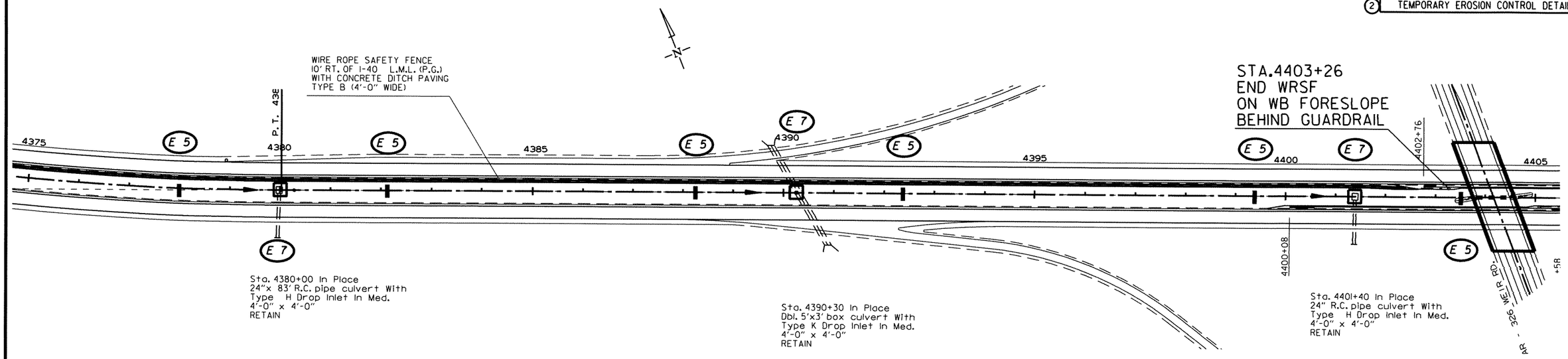


TEMPORARY EROSION CONTROL DETAILS STA.4315+00 - STA.4375+00

Drawn By fa513
DGN File D:\013004-01\BB0109\DGN\Cable Median Barrier\BB0804 CMB.dgn
Plotted : $$$$$SYTIME$$$$$ View=

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.		B80804	19F	156

(2) TEMPORARY EROSION CONTROL DETAILS

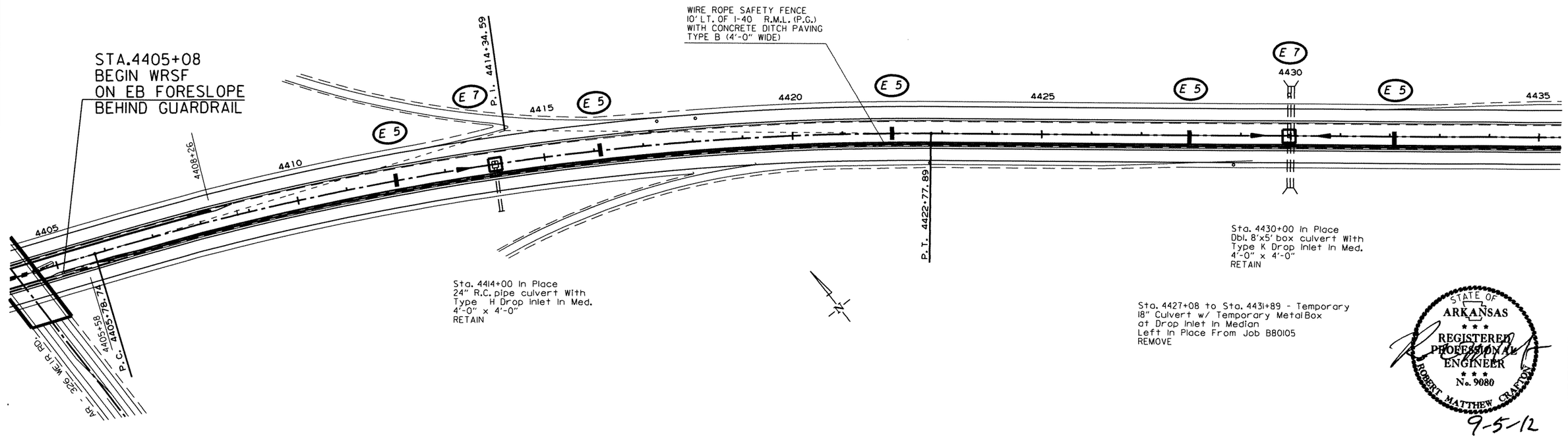


REVISIONS

DATE OF REVISION	REVISION

FLOW DIRECTION — SAND BAG DITCH CHECK (E 5) — DROP INLET SILT FENCE (E 7)

LEGEND



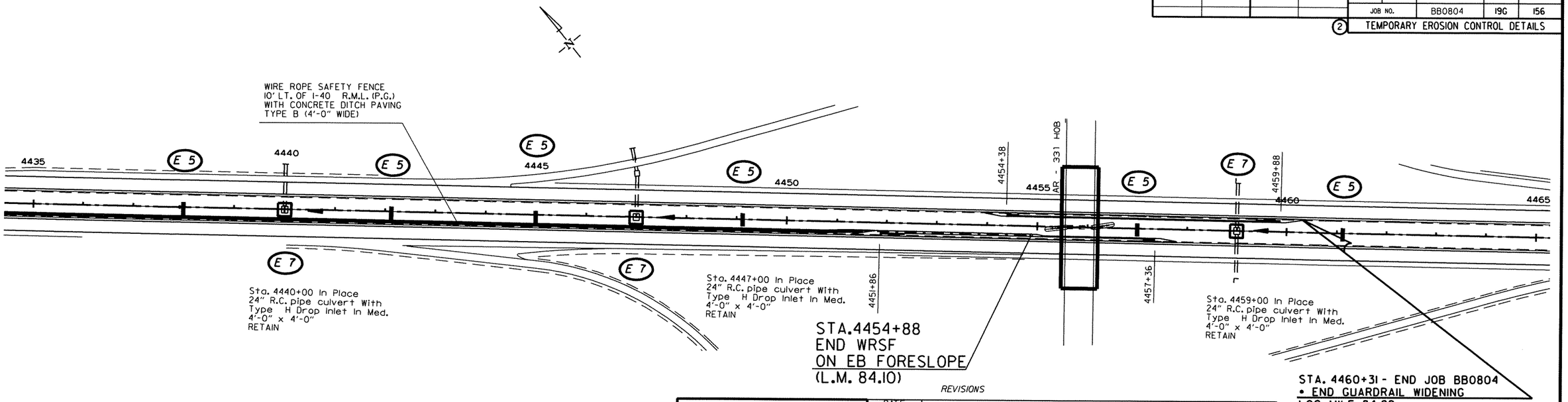
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

TEMPORARY EROSION CONTROL DETAILS STA.4375+00 - STA.4435+00

Drawn By fs513
DGN File G:\013004-01\B80109\DGN\Case Rev\Sheet 2 of 2.dgn
Plotted : $$$$$$SYTIME$$$$$$ View:

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.		BB0804	19G	156

(2) TEMPORARY EROSION CONTROL DETAILS



FLOW DIRECTION — SAND BAG DITCH CHECK E 5 — DROP INLET SILT FENCE E 7

LEGEND

REVISIONS

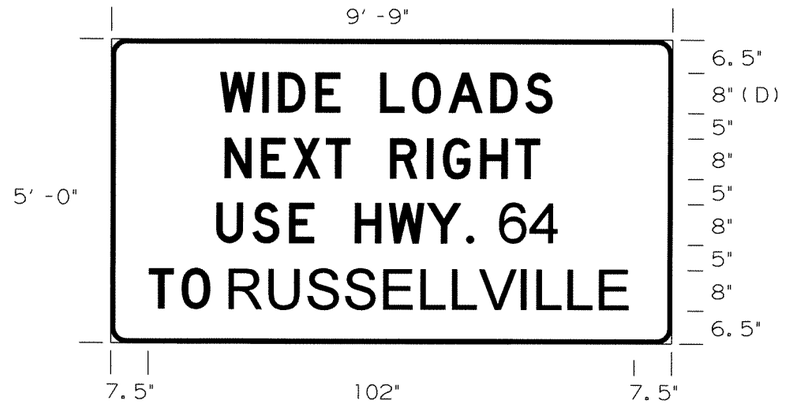
DATE OF REVISION	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
10-9-12

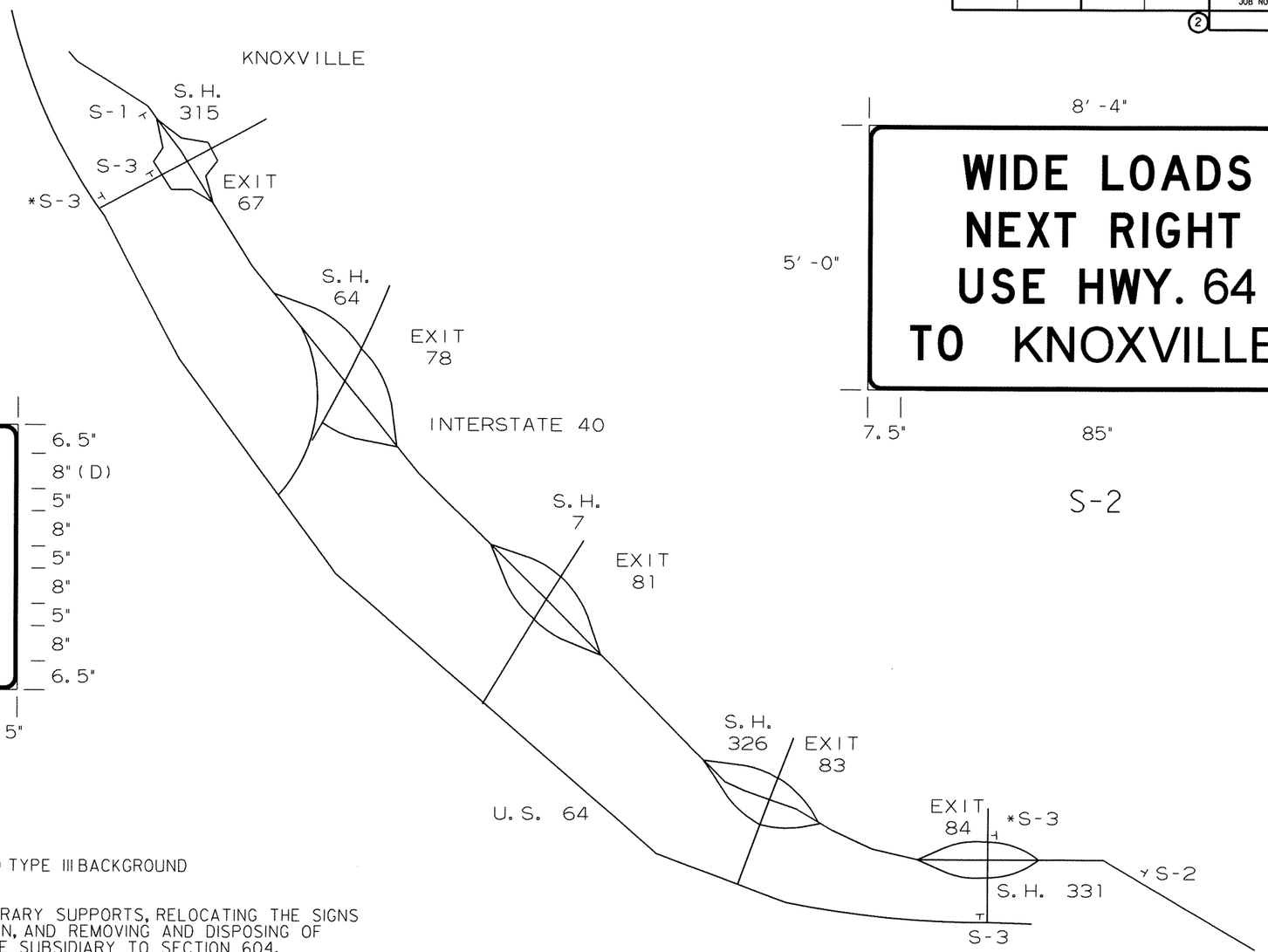
TEMPORARY EROSION CONTROL DETAILS STA.4435+00 - STA.4465+00

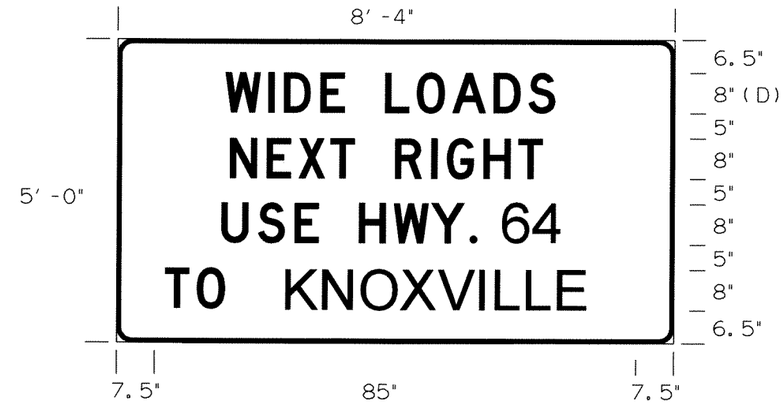
Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Cover Sheet\BB0804 EROSION CONTROL.dgn
Plotted : $$$$$$SYTIME$$$$$$ View:

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.		BB0804	20	156
				(2)	MAINTENANCE OF TRAFFIC			



S-1





S-2

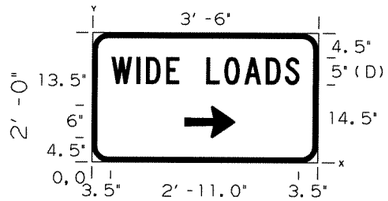
NOTES:

1) SPECIAL SIGNS SHALL BE CONSTRUCTED USING (WHITE) TYPE III BACKGROUND WITH (BLACK) TYPE V LEGEND AND BORDER.

2) PAYMENT FOR MOUNTING THE GUIDE SIGNS ON TEMPORARY SUPPORTS, RELOCATING THE SIGNS AS REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION, AND REMOVING AND DISPOSING OF THE SIGNS WHEN THE PROJECT IS COMPLETED SHALL BE SUBSIDIARY TO SECTION 604, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2003 EDITION.

3) EXACT PLACEMENT OF SIGNS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

SIGN NUMBER	DESCRIPTION	SIGN SIZE	MAXIMUM NUMBER REQUIRED	SS & 604 SIGN AREA SQ. FT.
S-1	WIDE LOADS NEXT RIGHT USE HWY. 64 TO RUSSELLVILLE	(9.75'x5.0')	1	48.75
S-2	WIDE LOADS NEXT RIGHT USE HWY. 64 TO KNOXVILLE	(8.33'x5.0')	1	41.67
S-3	WIDE LOAD DIRECTION ARROW	(3.5'x2.0')	4	28
TOTALS FOR JOB BB0804				118.42



S-3

2 NEEDED AS SHOWN
*2 NEEDED ARROW POINTING LEFT

PLACE SIGNS AS DIRECTED BY THE ENGINEER

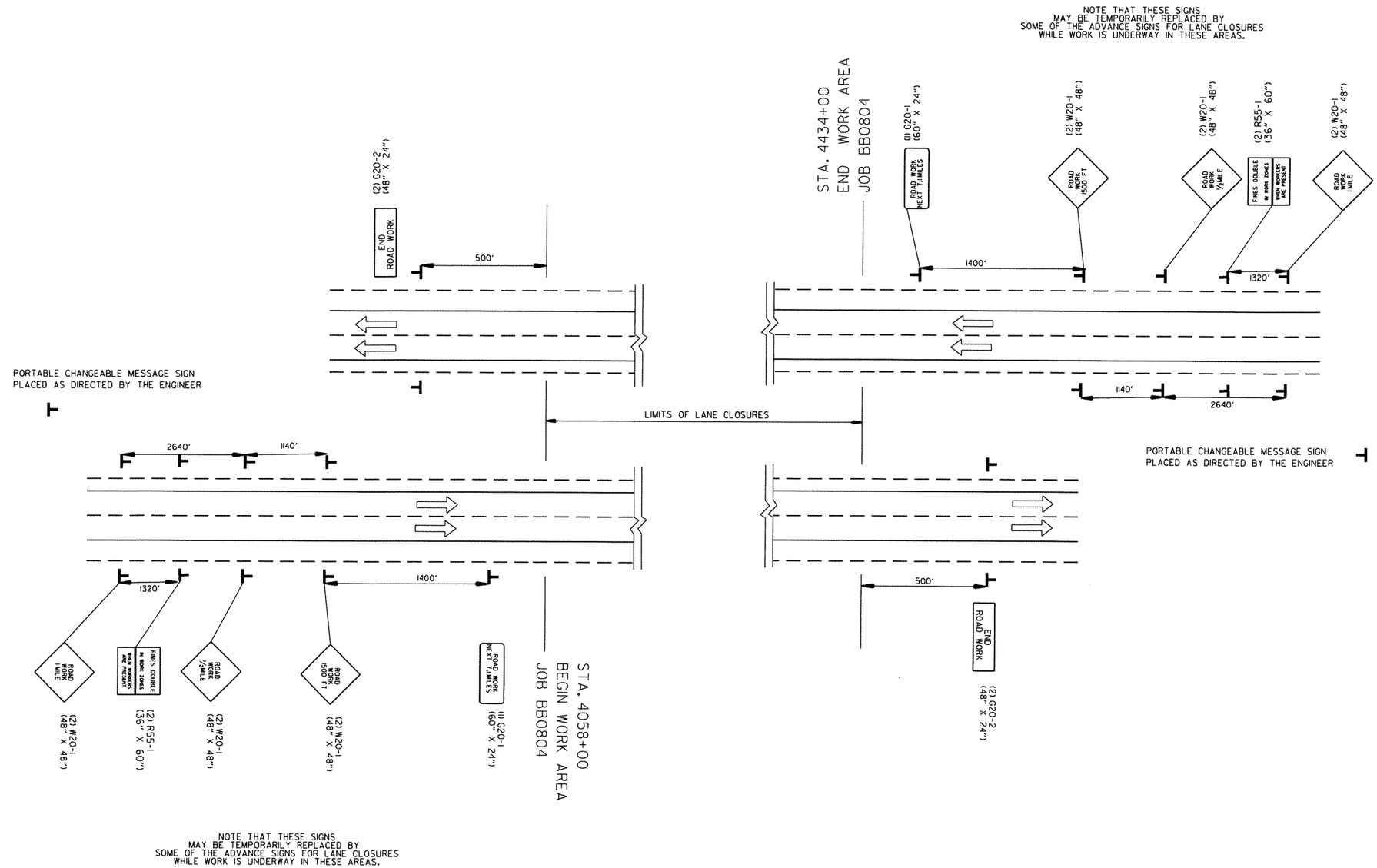
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

MAINTENANCE OF TRAFFIC
WIDE LOAD DETOUR

Drawn By fs513
DGN File G:\01\3004-01\BB0109\OGN\Maintenance of Traffic\mot-01-wide load detour.dgn
Plotted : 05-SEP-2012 12:31 View=

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.		BB0804	21	156

(2) MAINTENANCE OF TRAFFIC

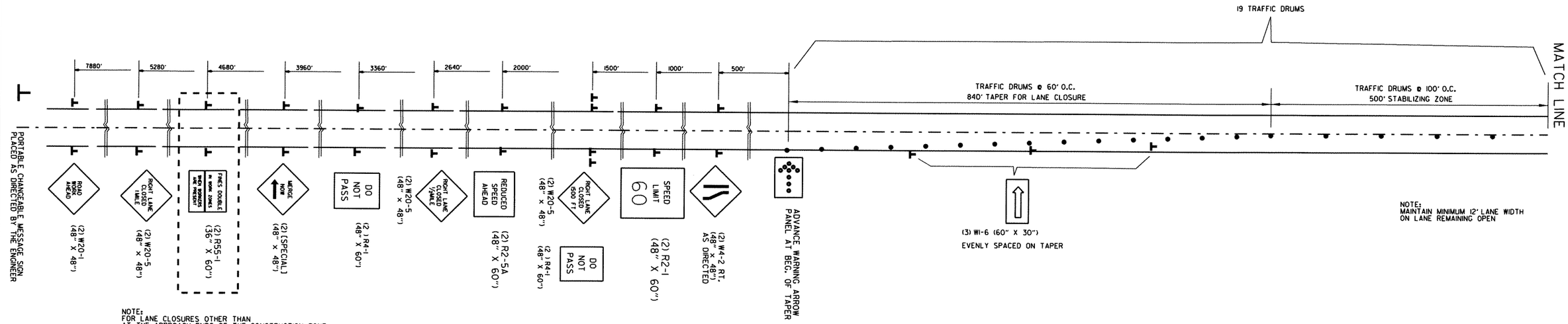


ADVANCE SIGNS AT BEGINNING AND END OF JOB ALL STAGES

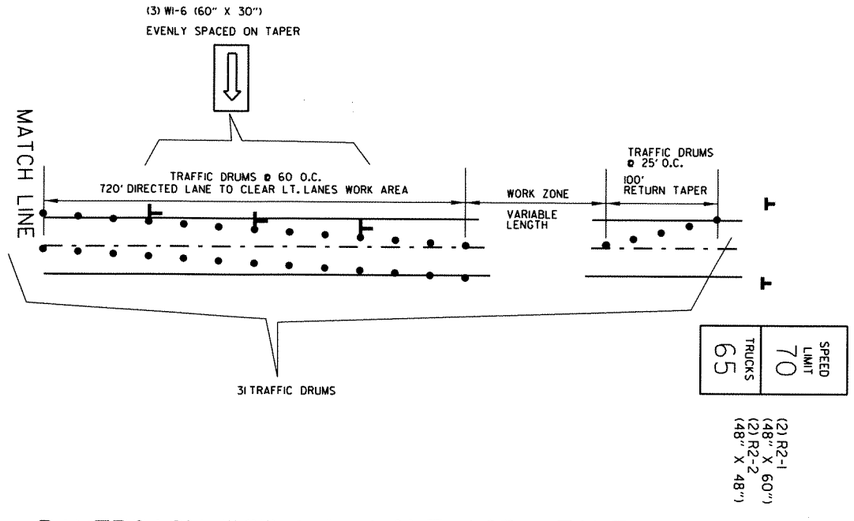
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Maintenance of Traffic\mot-02-advance signs.dgn
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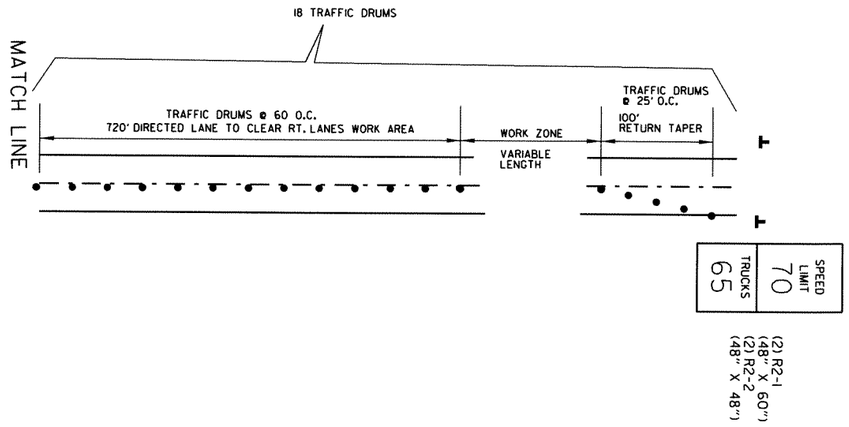
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80804	22	156
				(2)	MAINTENANCE OF TRAFFIC			



RT. LANE CLOSURE



DIVERSION FOR LT. LANE WORK ZONE



DIVERSION FOR RT. LANE WORK ZONE

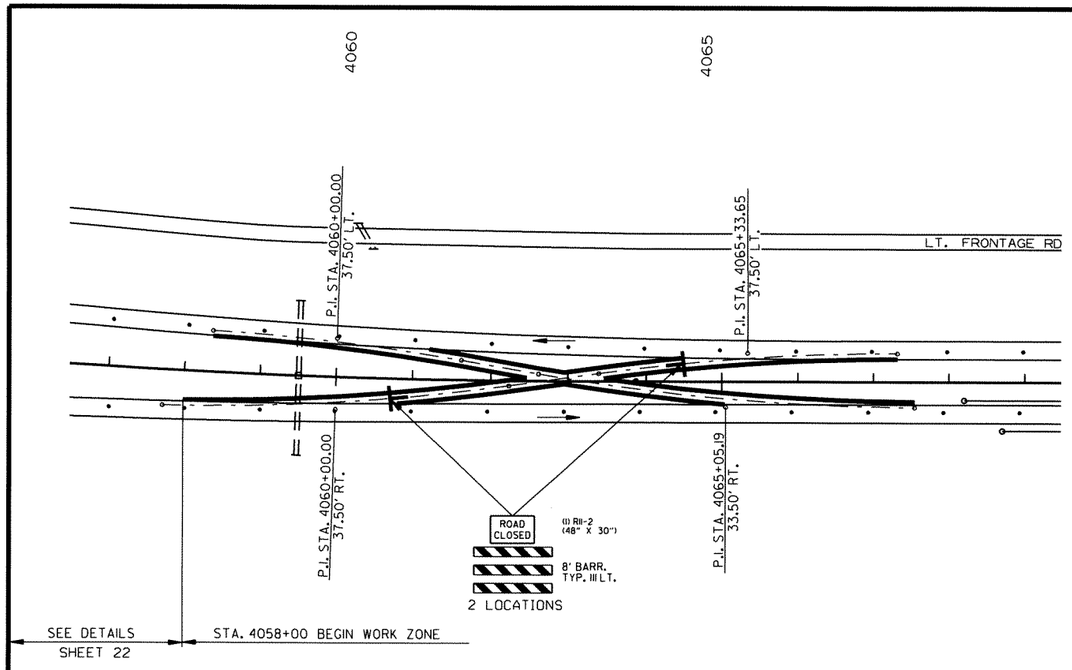
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-12-12

MAINTENANCE OF TRAFFIC
RIGHT LANE CLOSURE

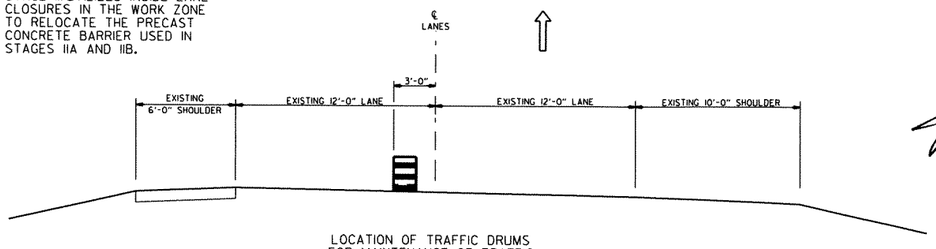
Drawn By fs513
DGN File G:\013004-01\B80109\DGN\Maintenence of Traffic\mot-03-right lane closure.dgn
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				6	ARK.			
				JOB NO.		BB0804	23	156

(2) MAINTENANCE OF TRAFFIC

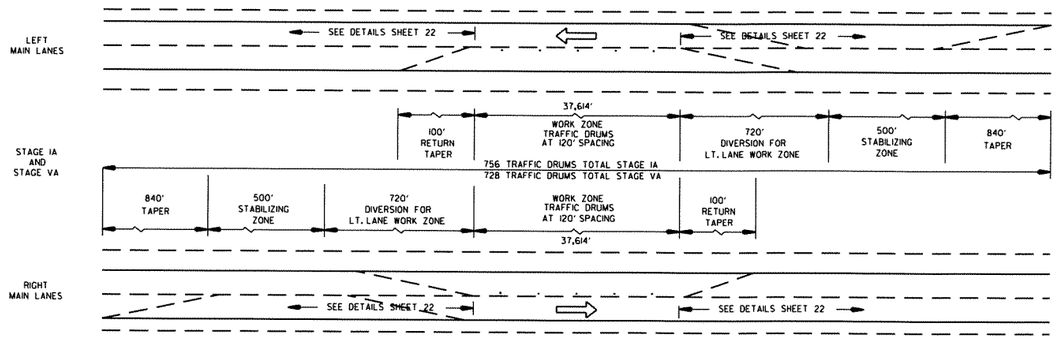


NOTE: STAGE III UTILIZES INSIDE LANE CLOSURES IN THE WORK ZONE TO RELOCATE THE PRECAST CONCRETE BARRIER USED IN STAGES IIA AND IIB.

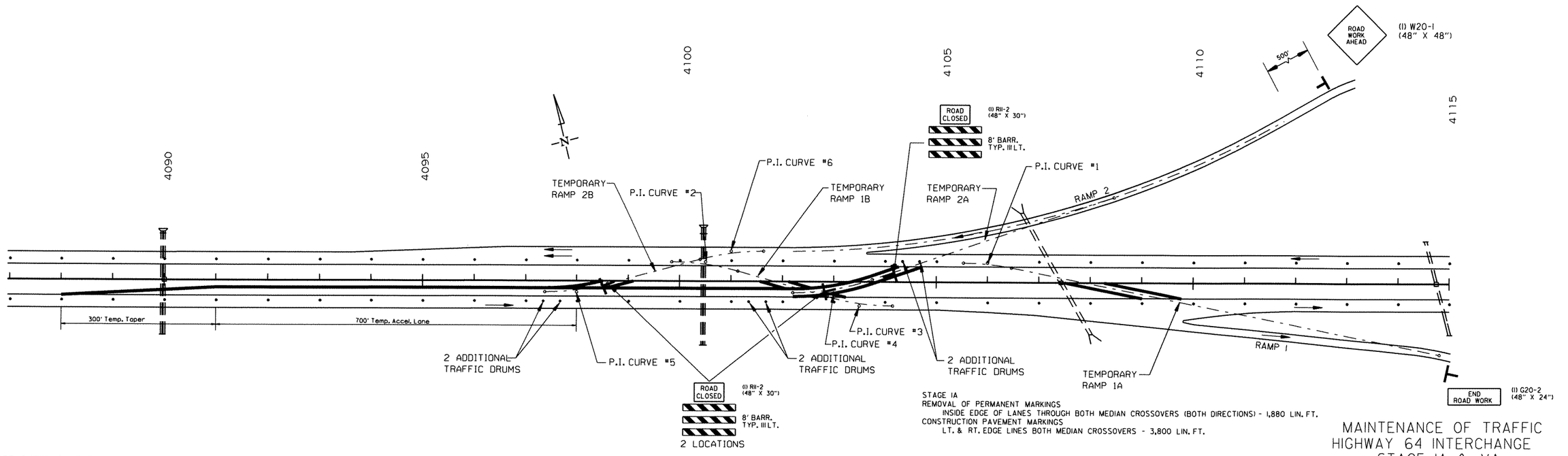


LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC (REVERSE FOR LEFT MAIN LANES)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



STAGE III
RELOCATING PRECAST CONCRETE BARRIER 36,714 LIN. FT.



STAGE IA
REMOVAL OF PERMANENT MARKINGS
INSIDE EDGE OF LANES THROUGH BOTH MEDIAN CROSSOVERS (BOTH DIRECTIONS) - 1,880 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES BOTH MEDIAN CROSSOVERS - 3,800 LIN. FT.

NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

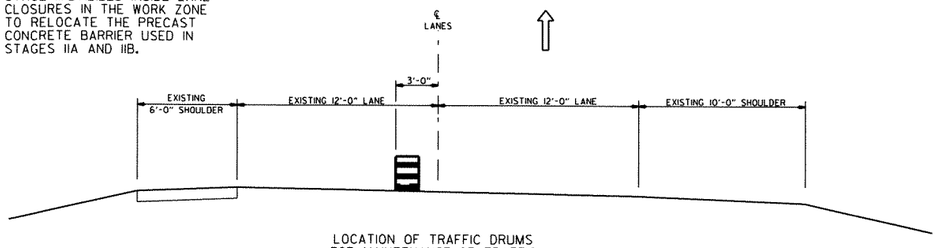
MAINTENANCE OF TRAFFIC HIGHWAY 64 INTERCHANGE STAGE IA & VA

Drawn By fs513
DGN File G:\DI3004-01\BB0109\DGN\Maintenance of Traffic\mot-04.dgn
Plotted : 05-SEP-2012 12:31
View=

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.		BB0804	23A	156

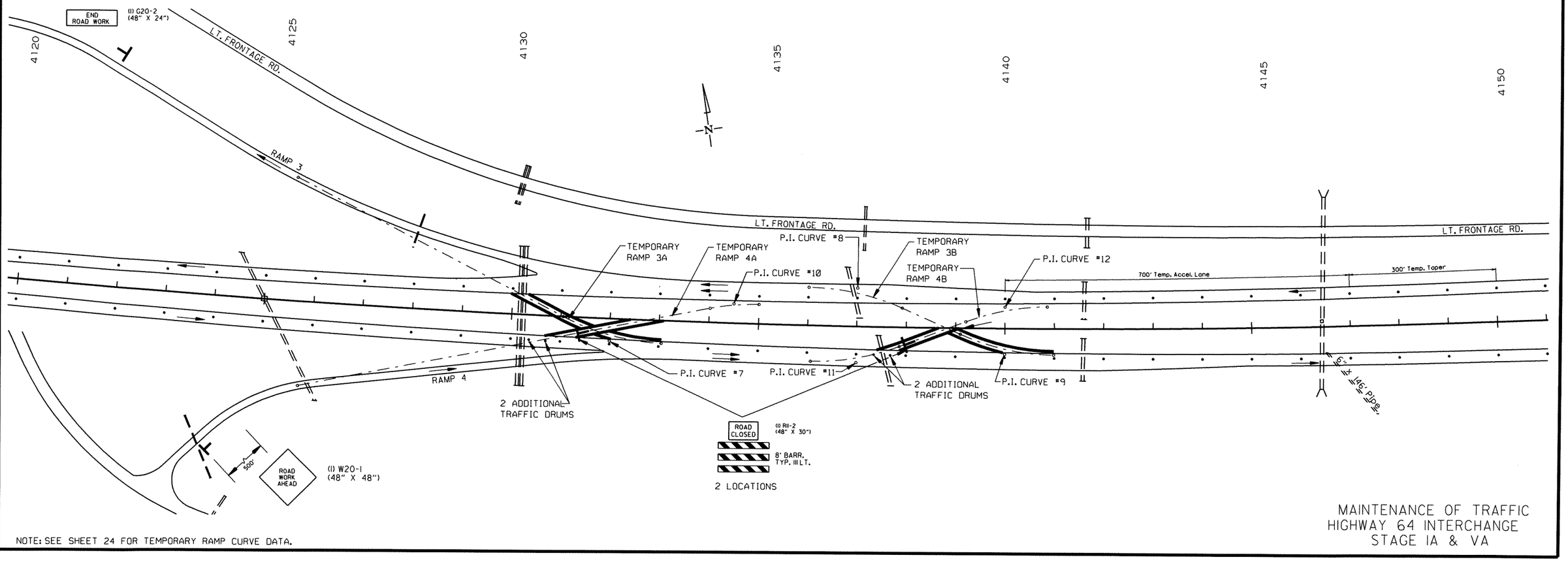
(2) MAINTENANCE OF TRAFFIC

NOTE: STAGE III UTILIZES INSIDE LANE CLOSURES IN THE WORK ZONE TO RELOCATE THE PRECAST CONCRETE BARRIER USED IN STAGES IIA AND IIB.



LOCATION OF TRAFFIC DRUMS
FOR MAINTENANCE OF TRAFFIC
(REVERSE FOR LEFT MAIN LANES)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 64 INTERCHANGE
STAGE IA & VA

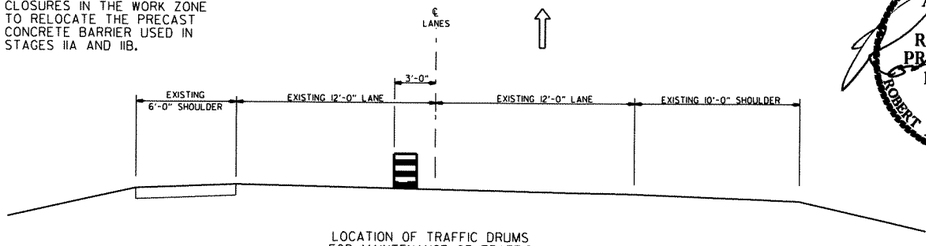
Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Maintenance of Traffic\mot-04a.dgn
Plotted : 05-SEP-2012 12:31
View=

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.		B80804	24	156
				(2)	MAINTENANCE OF TRAFFIC			

TEMPORARY RAMP CURVE DATA

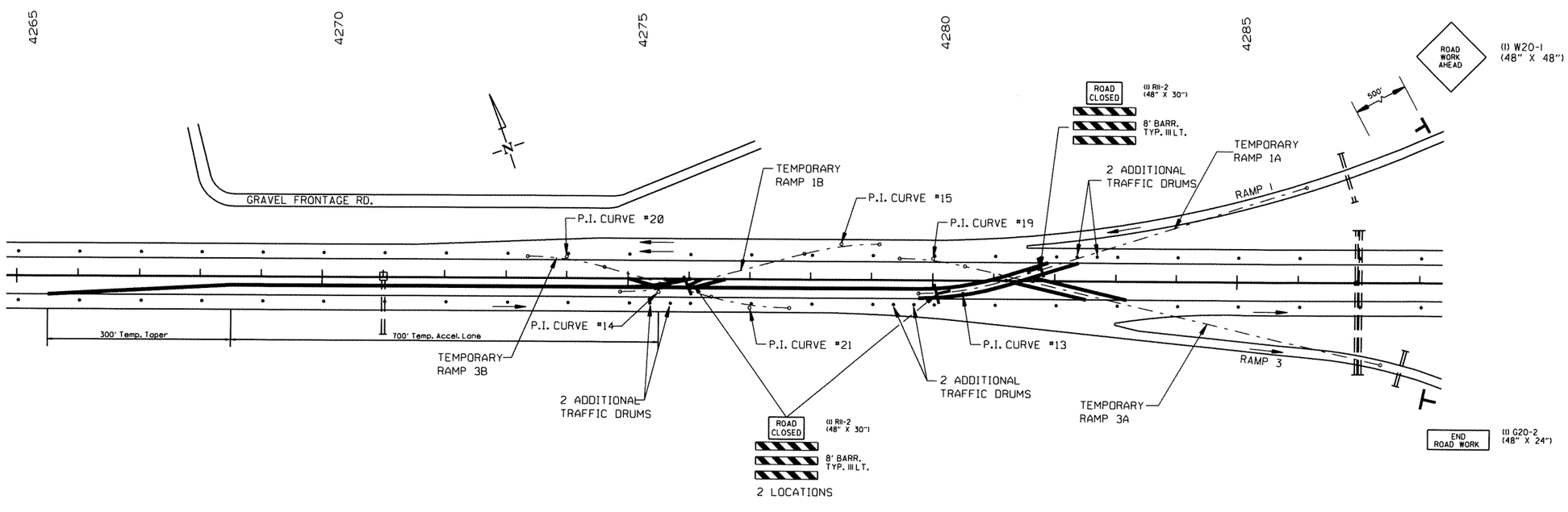
CURVE NO.	LOCATION	P.I. STA (CL MEDIAN)	OFFSET (FROM CL MEDIAN)	DELTA	D	T	L	R
1	HIGHWAY 64 TEMPORARY RAMP 1A	4106+00.00	37.50' LT.	11°15'43"	12°00'00"	47.08'	93.85'	477.47'
2	HIGHWAY 64 TEMPORARY RAMP 1B	4100+50.00	51.50' LT.	15°38'33"	12°00'00"	65.59'	130.35'	477.47'
3	HIGHWAY 64 TEMPORARY RAMP 1B	4103+50.00	46.50' RT.	15°38'33"	12°00'00"	65.59'	130.35'	477.47'
4	HIGHWAY 64 TEMPORARY RAMP 2A	4103+00.00	21.50' RT.	18°57'07"	12°00'00"	79.69'	157.93'	477.47'
5	HIGHWAY 64 TEMPORARY RAMP 2B	4098+00.00	21.50' RT.	14°54'43"	12°00'00"	62.49'	124.27'	477.47'
6	HIGHWAY 64 TEMPORARY RAMP 2B	4101+00.00	58.50' LT.	14°55'46"	12°00'00"	62.56'	124.41'	477.47'
7	HIGHWAY 64 TEMPORARY RAMP 3A	4132+00.00	45.16' RT.	24°56'21"	12°00'00"	105.59'	207.83'	477.47'
8	HIGHWAY 64 TEMPORARY RAMP 3B	4137+00.00	77.81' LT.	23°25'34"	12°00'00"	98.99'	195.22'	477.47'
9	HIGHWAY 64 TEMPORARY RAMP 3B	4140+00.00	52.07' RT.	23°25'34"	12°00'00"	98.99'	195.22'	477.47'
10	HIGHWAY 64 TEMPORARY RAMP 4A	4134+50.00	38.97' LT.	11°53'36"	12°00'00"	49.73'	99.11'	477.47'
11	HIGHWAY 64 TEMPORARY RAMP 4B	4137+00.00	72.97' RT.	22°10'12"	12°00'00"	93.55'	184.75'	477.47'
12	HIGHWAY 64 TEMPORARY RAMP 4B	4140+00.00	43.66' LT.	20°15'43"	12°00'00"	85.32'	168.85'	477.47'
13	HIGHWAY 7 TEMPORARY RAMP 1A	4280+50.00	21.50' RT.	17°28'03"	12°00'00"	73.35'	145.56'	477.47'
14	HIGHWAY 7 TEMPORARY RAMP 1B	4275+50.00	21.50' RT.	14°56'35"	12°00'00"	62.62'	124.53'	477.47'
15	HIGHWAY 7 TEMPORARY RAMP 1B	4278+50.00	58.50' LT.	14°56'35"	12°00'00"	62.62'	124.53'	477.47'
16	HIGHWAY 7 TEMPORARY RAMP 2A	4304+00.00	33.50' RT.	24°06'24"	12°00'00"	101.95'	200.89'	477.47'
17	HIGHWAY 7 TEMPORARY RAMP 2B	4307+00.00	46.50' LT.	15°49'36"	12°00'00"	66.37'	131.89'	477.47'
18	HIGHWAY 7 TEMPORARY RAMP 2B	4310+00.00	33.50' RT.	14°02'37"	12°00'00"	58.81'	117.03'	477.47'
19	HIGHWAY 7 TEMPORARY RAMP 3A	4280+00.00	35.50' LT.	12°57'45"	12°00'00"	54.24'	108.02'	477.47'
20	HIGHWAY 7 TEMPORARY RAMP 3B	4274+00.00	35.50' LT.	15°16'56"	12°00'00"	64.06'	127.35'	477.47'
21	HIGHWAY 7 TEMPORARY RAMP 3B	4277+00.00	46.50' RT.	15°16'55"	12°00'00"	64.06'	127.35'	477.47'
22	HIGHWAY 7 TEMPORARY RAMP 4A	4307+00.00	23.50' LT.	20°01'40"	12°00'00"	84.31'	166.90'	477.47'
23	HIGHWAY 7 TEMPORARY RAMP 4B	4308+00.00	58.50' RT.	14°37'58"	12°00'00"	61.30'	121.94'	477.47'
24	HIGHWAY 7 TEMPORARY RAMP 4B	4311+00.00	23.50' LT.	16°11'57"	12°00'00"	67.95'	134.99'	477.47'
25	HIGHWAY 326 TEMPORARY RAMP 1A	4391+00.00	35.50' LT.	20°34'34"	12°00'00"	86.67'	171.47'	477.47'
26	HIGHWAY 326 TEMPORARY RAMP 1B	4382+50.00	35.50' LT.	15°17'14"	12°00'00"	64.08'	127.39'	477.47'
27	HIGHWAY 326 TEMPORARY RAMP 1B	4385+50.00	46.50' RT.	15°17'14"	12°00'00"	64.08'	127.39'	477.47'
28	HIGHWAY 326 TEMPORARY RAMP 2A	4416+50.00	23.50' LT.	34°04'16"	12°00'00"	146.30'	283.93'	477.47'
29	HIGHWAY 326 TEMPORARY RAMP 3A	4415+50.00	33.50' RT.	24°11'18"	12°00'00"	102.31'	201.57'	477.47'
30	HIGHWAY 326 TEMPORARY RAMP 4A	4388+50.00	21.50' RT.	20°44'41"	12°00'00"	87.39'	172.87'	477.47'
31	HIGHWAY 326 TEMPORARY RAMP 4B	4382+50.00	21.50' RT.	14°56'35"	12°00'00"	62.62'	124.53'	477.47'
32	HIGHWAY 326 TEMPORARY RAMP 4B	4385+50.00	58.50' LT.	14°56'35"	12°00'00"	62.62'	124.53'	477.47'

NOTE: STAGE IIIUTILIZES INSIDE LANE CLOSURES IN THE WORK ZONE TO RELOCATE THE PRECAST CONCRETE BARRIER USED IN STAGES IIA AND IIB.



LOCATION OF TRAFFIC DRUMS
FOR MAINTENANCE OF TRAFFIC
(REVERSE FOR LEFT MAIN LANES)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



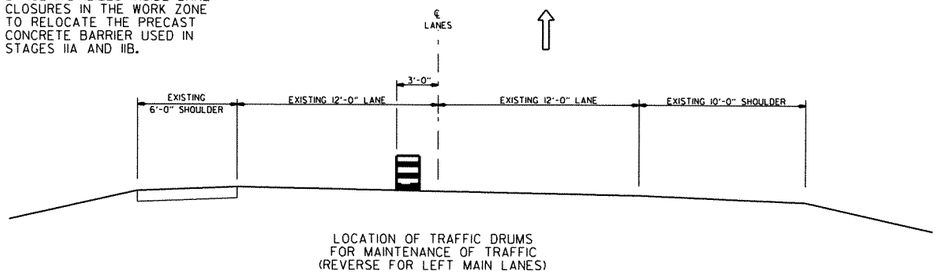
MAINTENANCE OF TRAFFIC
HIGHWAY 7 INTERCHANGE
STAGE IA & VA

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Plotted : 05-SEP-2012 12:31 View=

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				JOB NO.		BB0804	25	156

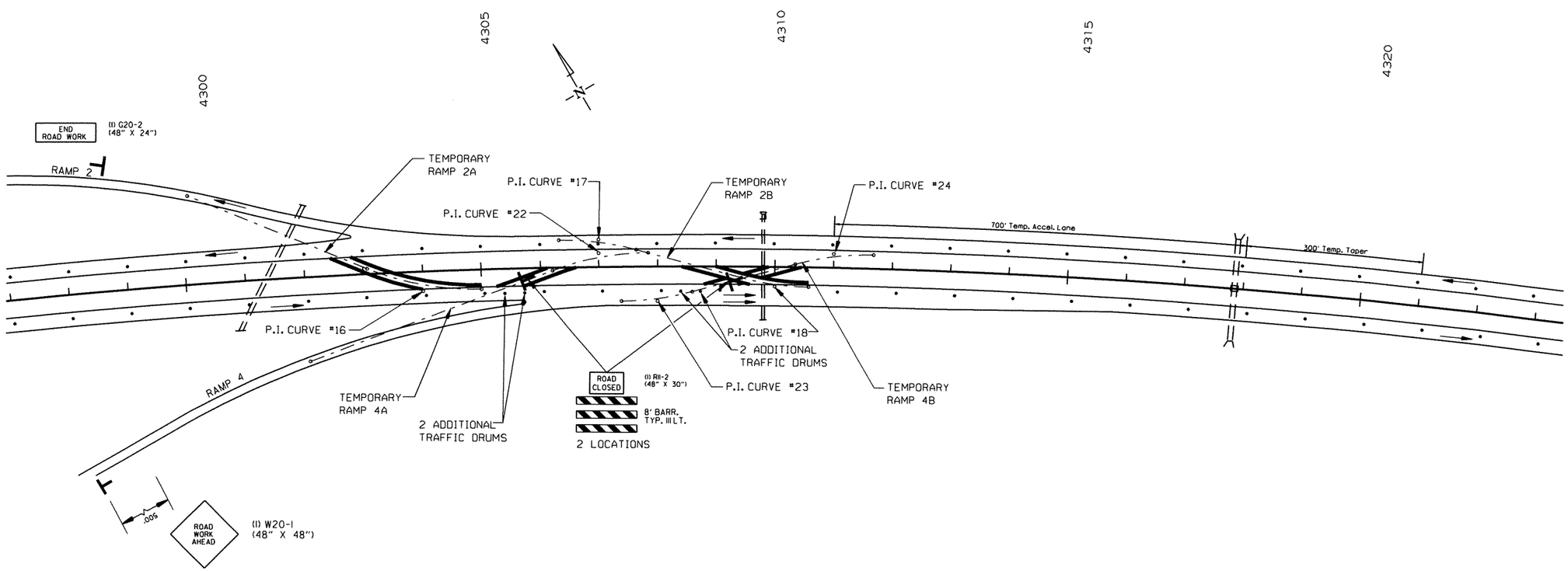
(2) MAINTENANCE OF TRAFFIC

NOTE: STAGE III UTILIZES INSIDE LANE CLOSURES IN THE WORK ZONE TO RELOCATE THE PRECAST CONCRETE BARRIER USED IN STAGES IIA AND IIB.



LOCATION OF TRAFFIC DRUMS
FOR MAINTENANCE OF TRAFFIC
(REVERSE FOR LEFT MAIN LANES)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



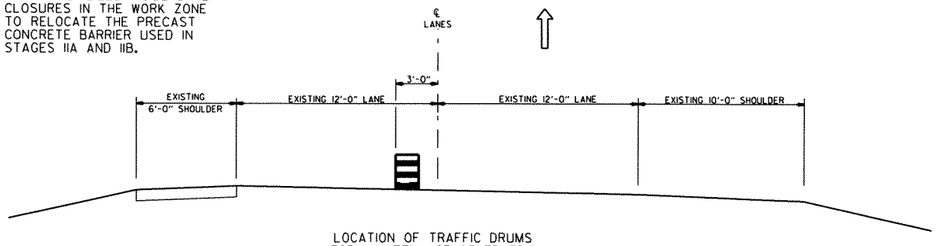
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 7 INTERCHANGE
STAGE IA & VA

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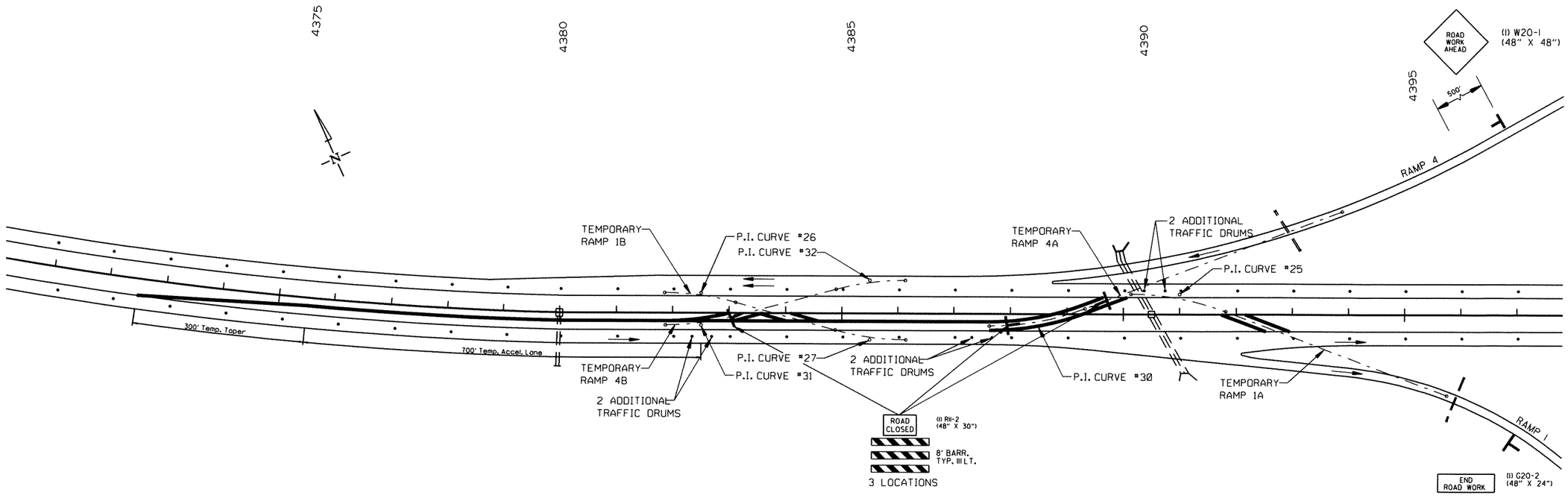
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				(2)	MAINTENANCE OF TRAFFIC			

NOTE: STAGE III UTILIZES INSIDE LANE CLOSURES IN THE WORK ZONE TO RELOCATE THE PRECAST CONCRETE BARRIER USED IN STAGES IIA AND IIB.



LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC (REVERSE FOR LEFT MAIN LANES)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



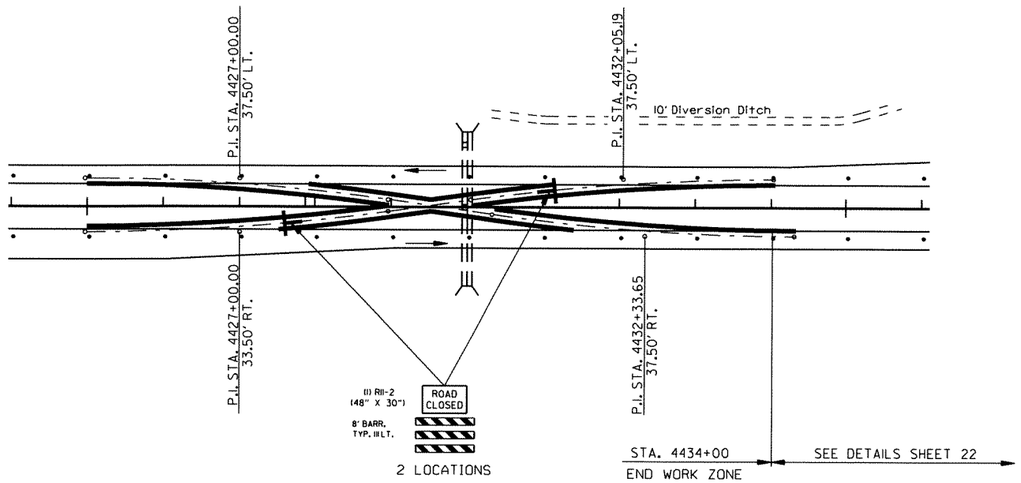
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 326 INTERCHANGE
STAGE IA & VA

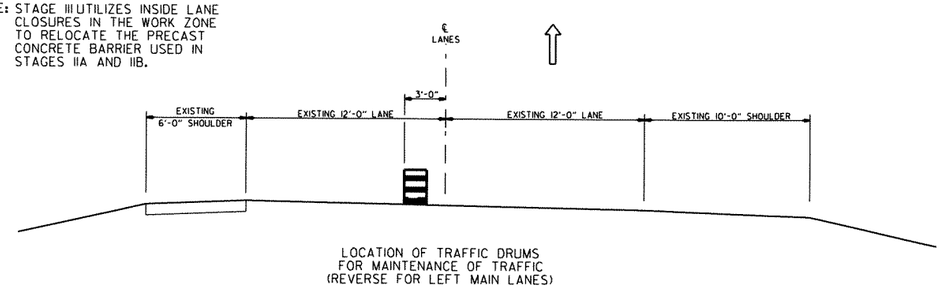
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(2) MAINTENANCE OF TRAFFIC

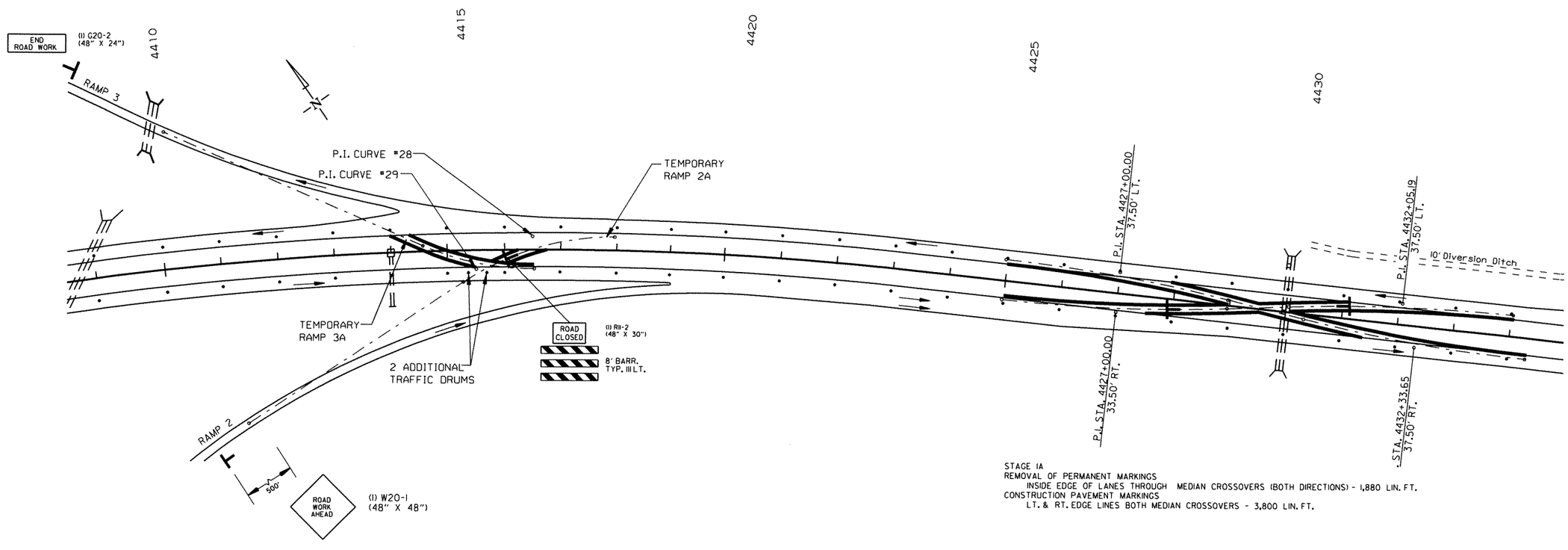


NOTE: STAGE III UTILIZES INSIDE LANE CLOSURES IN THE WORK ZONE TO RELOCATE THE PRECAST CONCRETE BARRIER USED IN STAGES IIA AND IIB.



LOCATION OF TRAFFIC DRUMS
FOR MAINTENANCE OF TRAFFIC
(REVERSE FOR LEFT MAIN LANES)

STATE OF ARKANSAS
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No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



STAGE IA
REMOVAL OF PERMANENT MARKINGS
INSIDE EDGE OF LANES THROUGH MEDIAN CROSSOVERS (BOTH DIRECTIONS) - 1,880 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES BOTH MEDIAN CROSSOVERS - 3,800 LIN. FT.

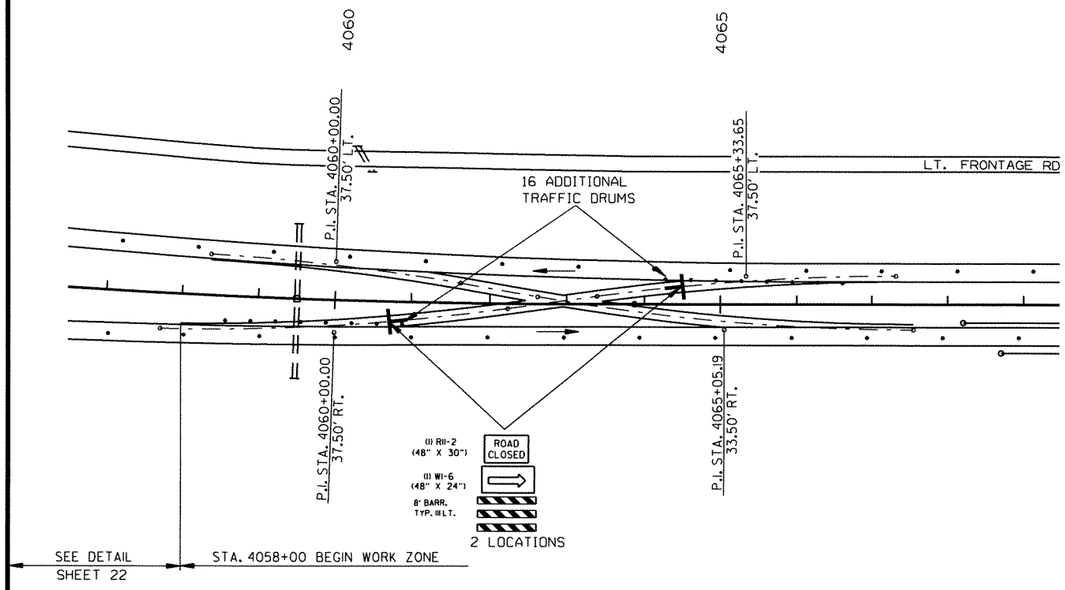
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

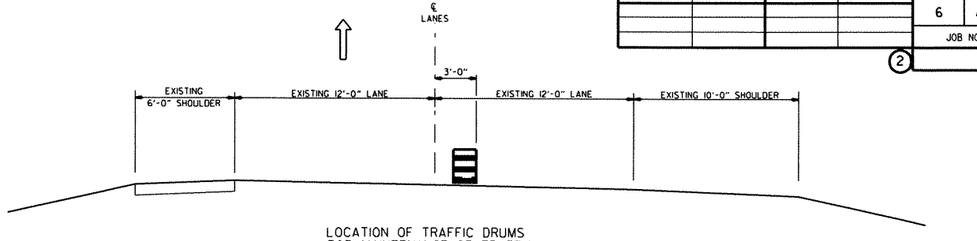
MAINTENANCE OF TRAFFIC
HIGHWAY 326 INTERCHANGE
STAGE IA & VA

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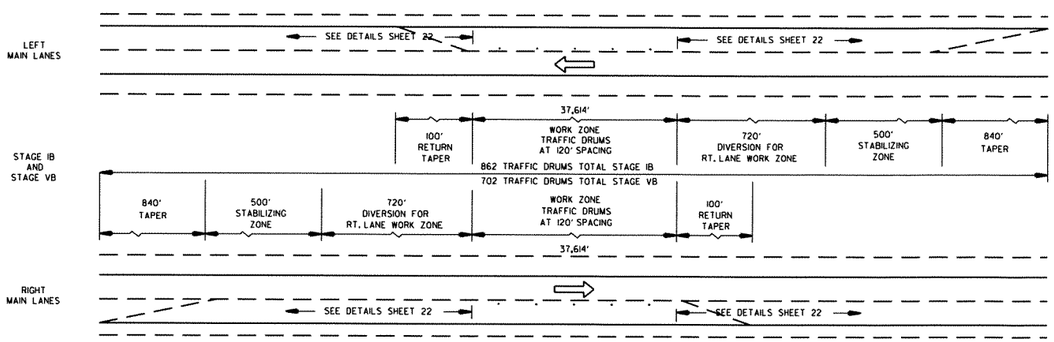
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				JOB NO.		BB0804	26	156

(2) MAINTENANCE OF TRAFFIC





LOCATION OF TRAFFIC DRUMS
FOR MAINTENANCE OF TRAFFIC
(REVERSE FOR LEFT MAIN LANES)

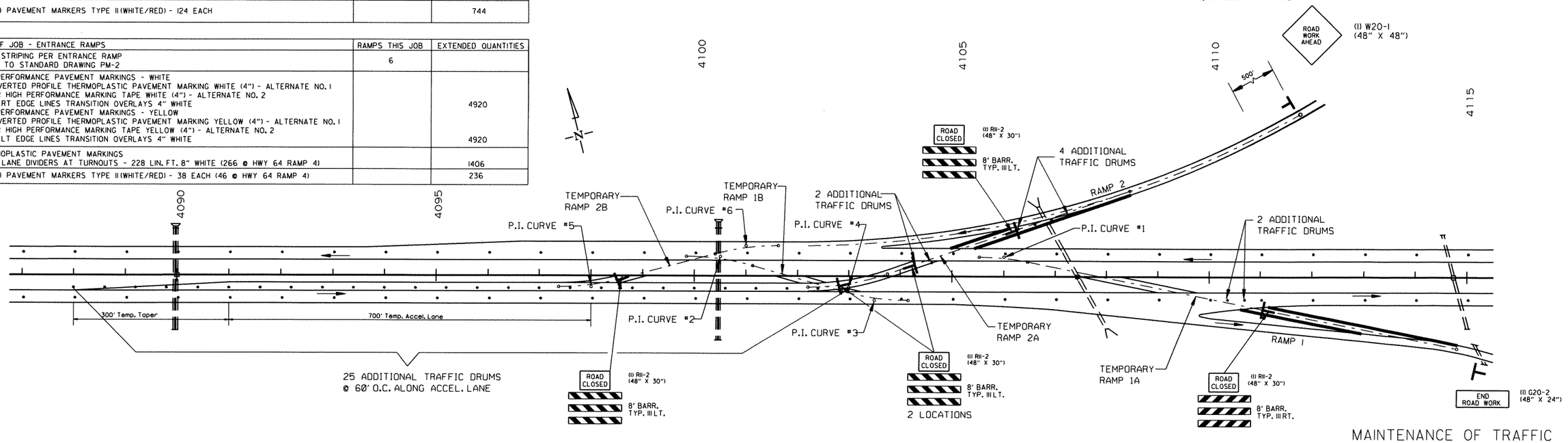


END OF JOB - EXIT RAMPS	RAMPS THIS JOB	EXTENDED QUANTITIES
FINAL STRIPING PER EXIT RAMP REFER TO STANDARD DRAWING PM-2	6	
HIGH PERFORMANCE PAVEMENT MARKINGS - WHITE INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4") - ALTERNATE NO. 1 OR HIGH PERFORMANCE MARKING TAPE WHITE (4") - ALTERNATE NO. 2 TURNOUTS RT. EDGES - 280 LIN. FT. 4" WHITE RT EDGE LINES TRANSITION OVERLAYS 4" WHITE HIGH PERFORMANCE PAVEMENT MARKINGS - YELLOW INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4") - ALTERNATE NO. 1 OR HIGH PERFORMANCE MARKING TAPE YELLOW (4") - ALTERNATE NO. 2 LT EDGE LINES TRANSITION OVERLAYS		1680 4920 4920
THERMOPLASTIC PAVEMENT MARKINGS LANE DIVIDERS AT TURNOUTS - 655 LIN. FT. 8" WHITE		3930
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) - 124 EACH		744

END OF JOB - ENTRANCE RAMPS	RAMPS THIS JOB	EXTENDED QUANTITIES
FINAL STRIPING PER ENTRANCE RAMP REFER TO STANDARD DRAWING PM-2	6	
HIGH PERFORMANCE PAVEMENT MARKINGS - WHITE INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4") - ALTERNATE NO. 1 OR HIGH PERFORMANCE MARKING TAPE WHITE (4") - ALTERNATE NO. 2 RT EDGE LINES TRANSITION OVERLAYS 4" WHITE HIGH PERFORMANCE PAVEMENT MARKINGS - YELLOW INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4") - ALTERNATE NO. 1 OR HIGH PERFORMANCE MARKING TAPE YELLOW (4") - ALTERNATE NO. 2 LT EDGE LINES TRANSITION OVERLAYS 4" WHITE		4920 4920
THERMOPLASTIC PAVEMENT MARKINGS LANE DIVIDERS AT TURNOUTS - 228 LIN. FT. 8" WHITE (266 @ HWY 64 RAMP 4)		1406
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) - 38 EACH (46 @ HWY 64 RAMP 4)		236

END OF JOB
14 DAYS AFTER PLACEMENT OF FINAL ASPHALT SURFACE
FOR PROFILED THERMOPLASTIC PAVEMENT MARKINGS
(REF. ALSO TO STANDARD DRAWING PM-2)
HIGH PERFORMANCE PAVEMENT MARKINGS - WHITE
INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4") - ALTERNATE NO. 1
OR HIGH PERFORMANCE MARKING TAPE WHITE (4") - ALTERNATE NO. 2
OUTSIDE EDGE LINE (BOTH DIRECTIONS) (ENTIRE PROJECT) 69,780 LIN. FT.
HIGH PERFORMANCE PAVEMENT MARKINGS - YELLOW
INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4") - ALTERNATE NO. 1
OR HIGH PERFORMANCE MARKING TAPE YELLOW (4") - ALTERNATE NO. 2
INSIDE EDGE LINE (BOTH DIRECTIONS) (ENTIRE PROJECT) 72,030 LIN. FT.

END OF STAGE VB
FINAL STRIPING THROUGH REBUILT AREAS (MAIN LANES)
(REF. ALSO TO STANDARD DRAWING PM-2)
HIGH PERFORMANCE PAVEMENT MARKINGS - WHITE
INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4") - ALTERNATE NO. 1
OR HIGH PERFORMANCE MARKING TAPE WHITE (4") - ALTERNATE NO. 2
SKIP LANE DIVIDERS (BOTH DIRECTIONS) - 17,470 LIN. FT.
INVERTED PROFILE THERMOPLASTIC CONSTRAST PAVEMENT MARKING WHITE (4") - ALTERNATE NO. 1
OR HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (4") - ALTERNATE NO. 2
SKIP LANE DIVIDERS (BOTH DIRECTIONS) (BRIDGES) WHITE (4") - 565 LIN. FT.
RAISED PAVEMENT MARKERS
TYPE II (WHITE/RED) - 2780 EACH
CONSTRUCTION PAVEMENT MARKINGS
INSIDE EDGE LINE (BOTH DIRECTIONS) (ENTIRE PROJECT) - 72,029 LIN.FT. (4" YELLOW)
OUTSIDE EDGE LINE (BOTH DIRECTIONS) (ENTIRE PROJECT) - 69,780 LIN. FT. (4" WHITE)



MAINTENANCE OF TRAFFIC
HIGHWAY 64 INTERCHANGE
STAGE IB & VB

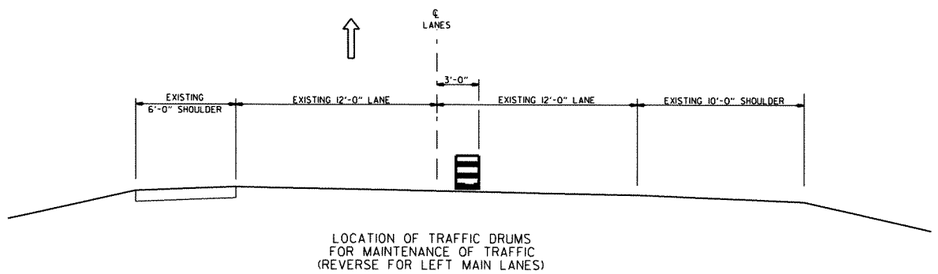
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

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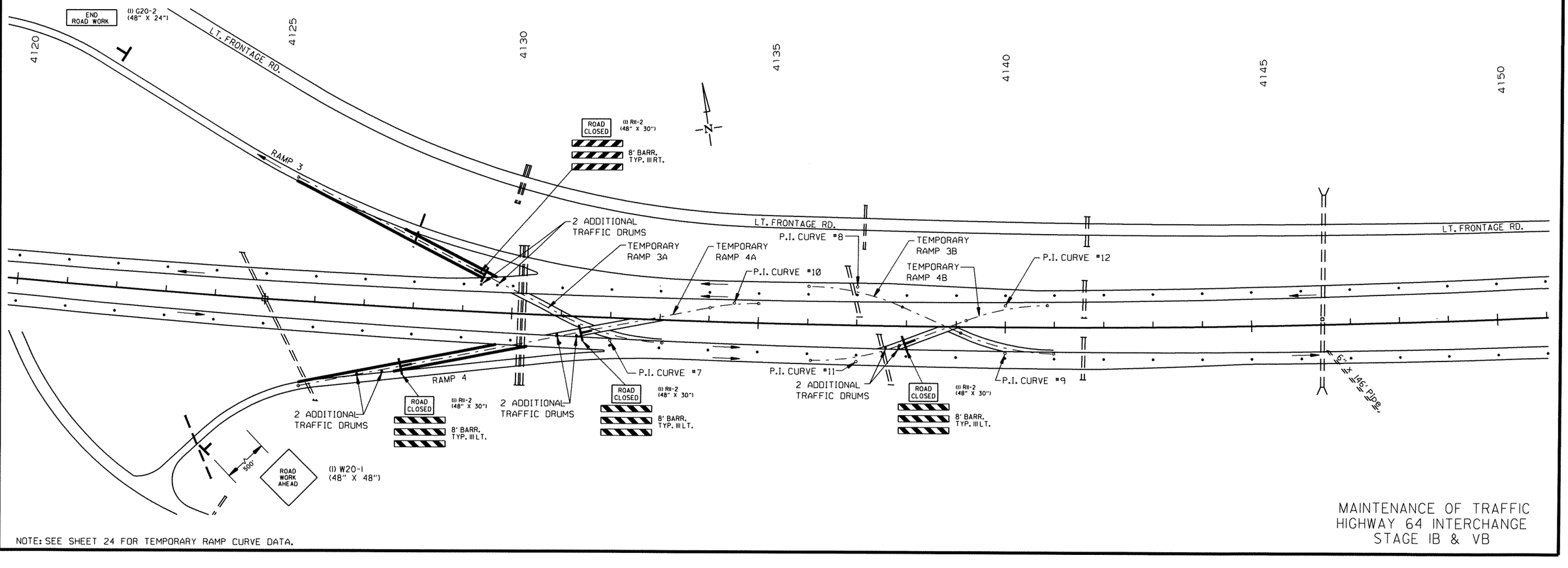
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				6	ARK.			
				JOB NO.		BB0804	26A	156

(2) MAINTENANCE OF TRAFFIC



LOCATION OF TRAFFIC DRUMS
FOR MAINTENANCE OF TRAFFIC
(REVERSE FOR LEFT MAIN LANES)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

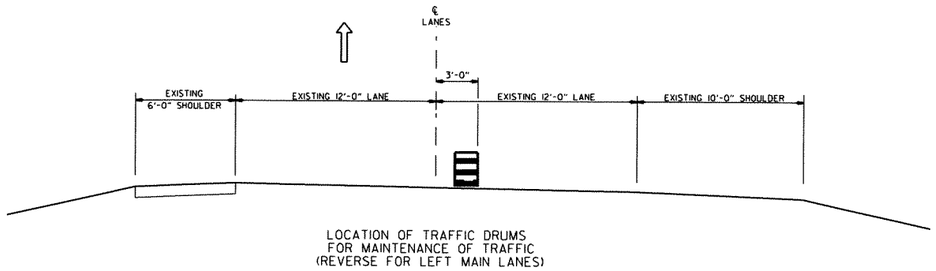


NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 64 INTERCHANGE
STAGE IB & VB

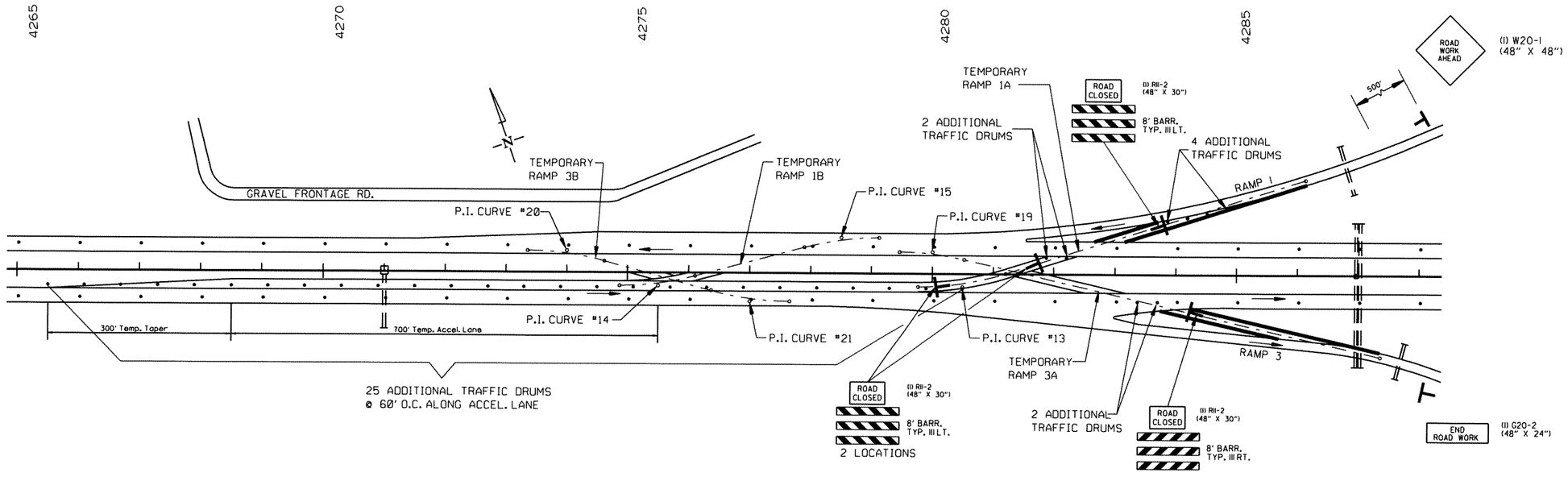
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				JOB NO.		BB0804	27	156
				(2)	MAINTENANCE OF TRAFFIC			



LOCATION OF TRAFFIC DRUMS
FOR MAINTENANCE OF TRAFFIC
(REVERSE FOR LEFT MAIN LANES)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

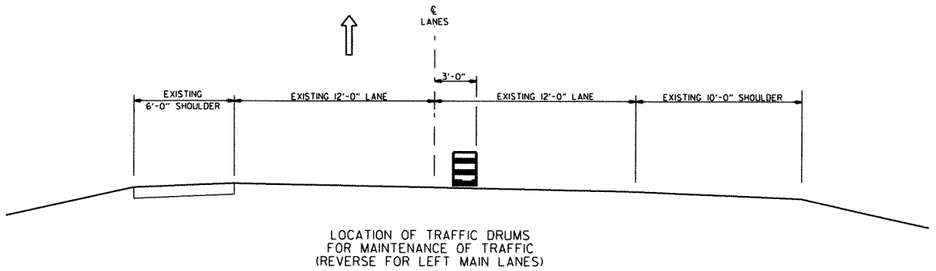


MAINTENANCE OF TRAFFIC
HIGHWAY 7 INTERCHANGE
STAGE IB & VB

NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

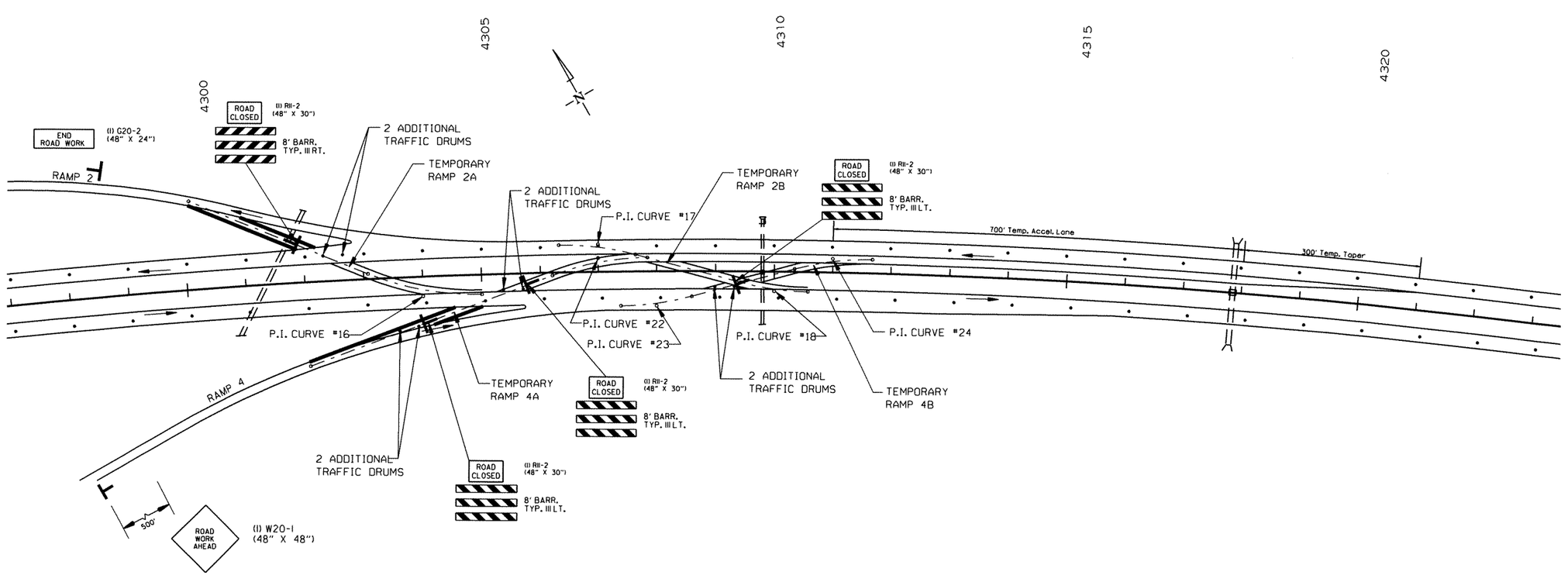
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				(2)	MAINTENANCE OF TRAFFIC			



LOCATION OF TRAFFIC DRUMS
FOR MAINTENANCE OF TRAFFIC
(REVERSE FOR LEFT MAIN LANES)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



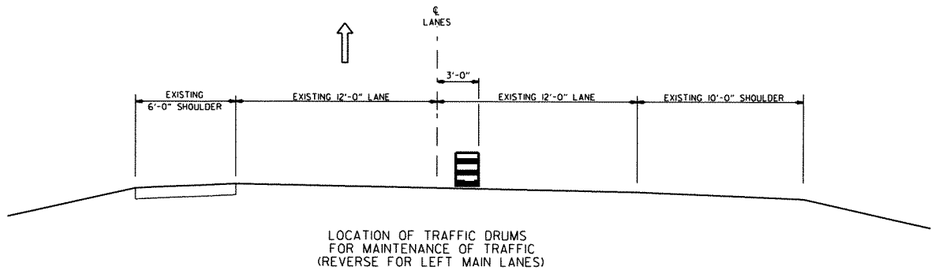
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 7 INTERCHANGE
STAGE IB & VB

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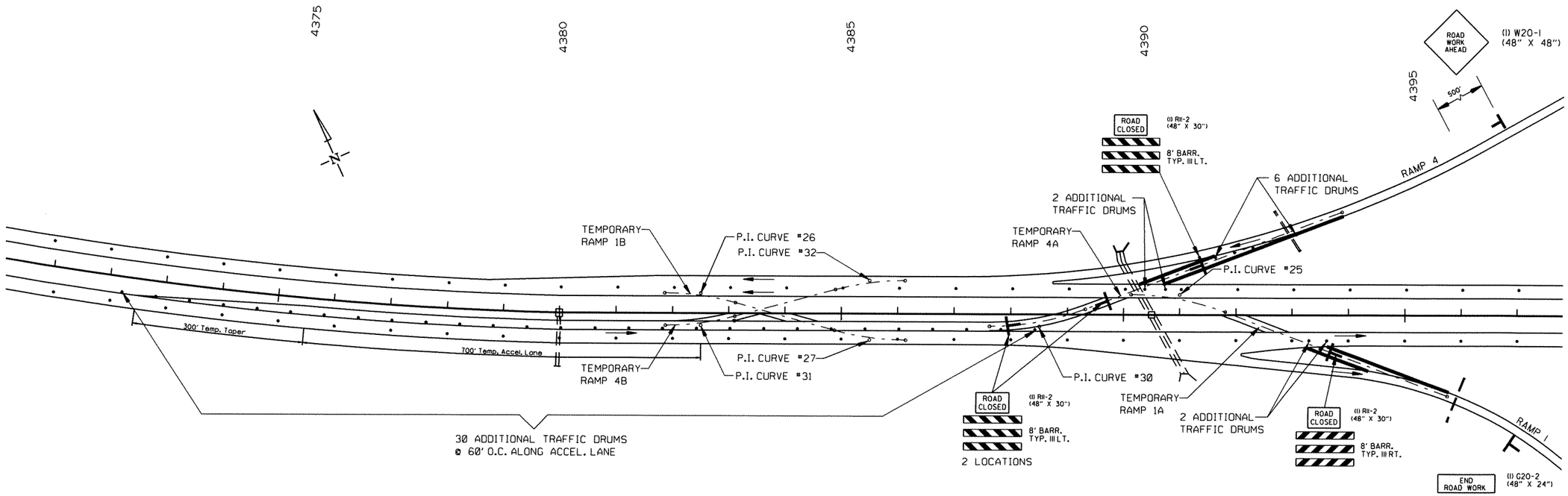
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(2) MAINTENANCE OF TRAFFIC



LOCATION OF TRAFFIC DRUMS
FOR MAINTENANCE OF TRAFFIC
(REVERSE FOR LEFT MAIN LANES)

STATE OF ARKANSAS
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9-5-12

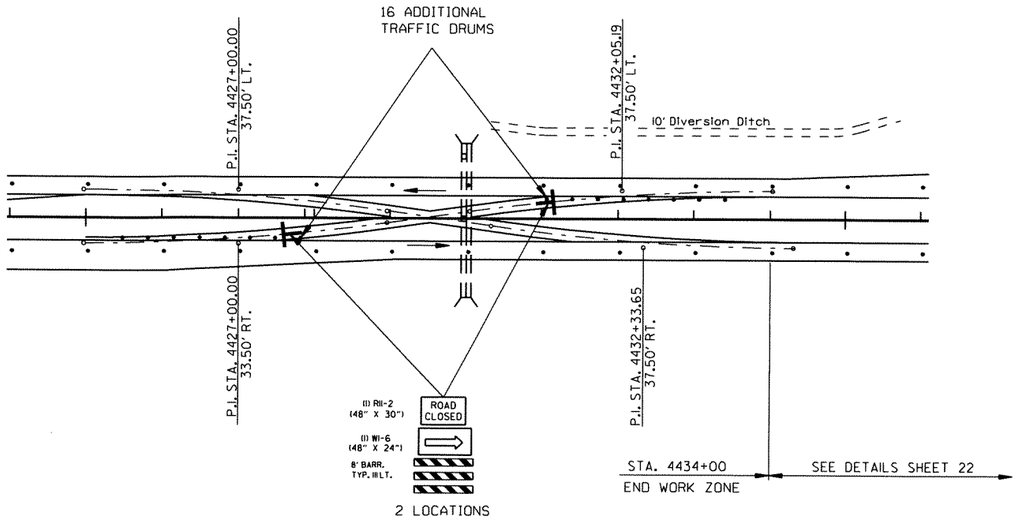


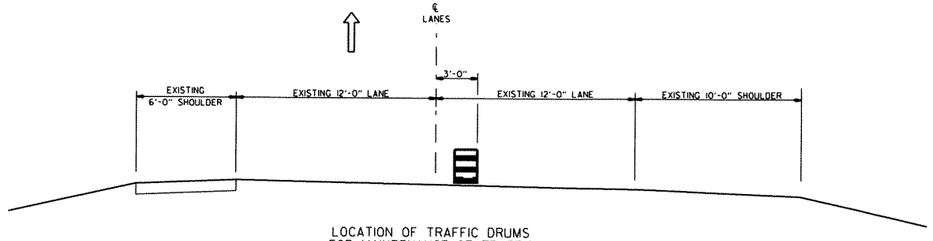
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 326 INTERCHANGE
STAGE IB & VB

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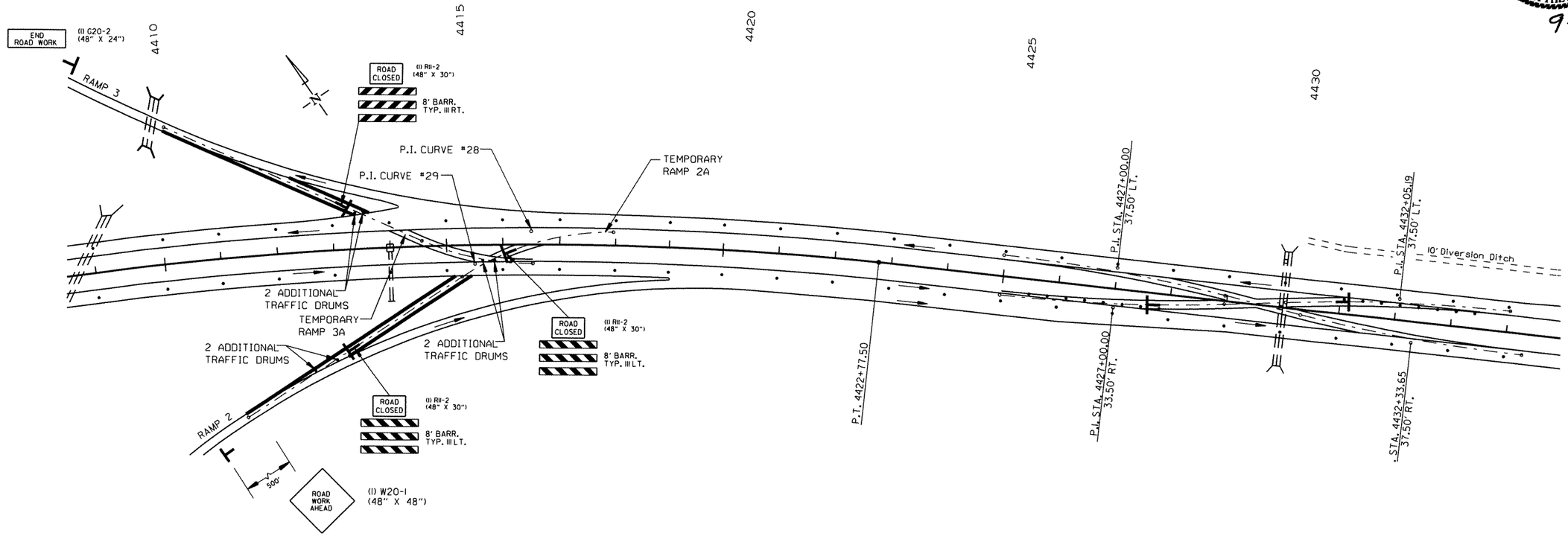
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				(2)	MAINTENANCE OF TRAFFIC			





LOCATION OF TRAFFIC DRUMS
FOR MAINTENANCE OF TRAFFIC
(REVERSE FOR LEFT MAIN LANES)

STATE OF ARKANSAS
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No. 9080
ROBERT MATTHEW CRAFTON
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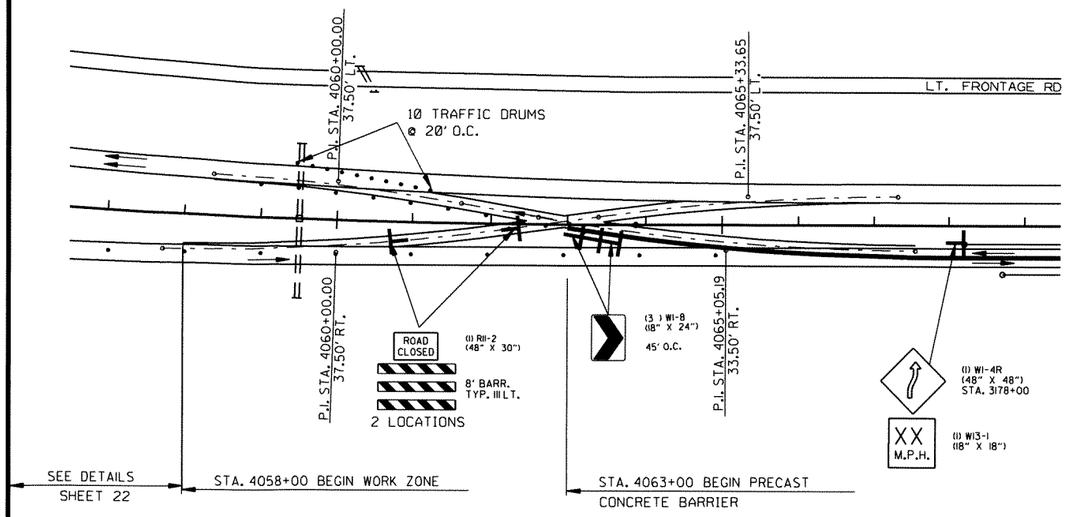
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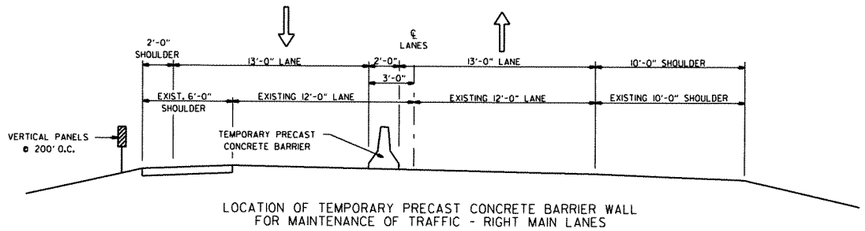
MAINTENANCE OF TRAFFIC
HIGHWAY 326 INTERCHANGE
STAGE IB & VB

Drawn By fs513
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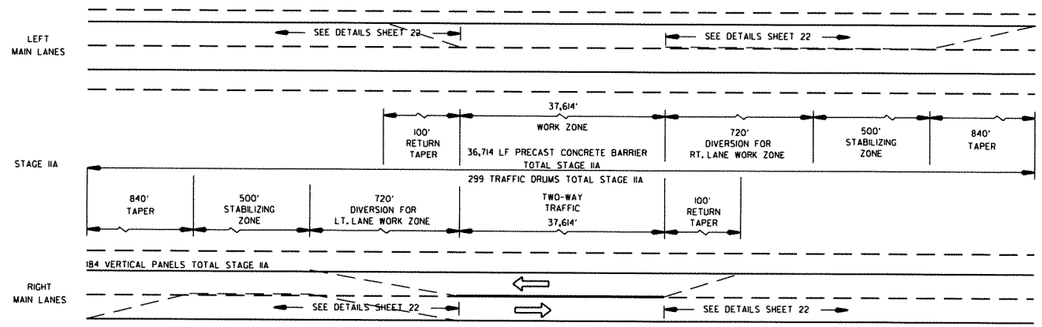
(2) MAINTENANCE OF TRAFFIC



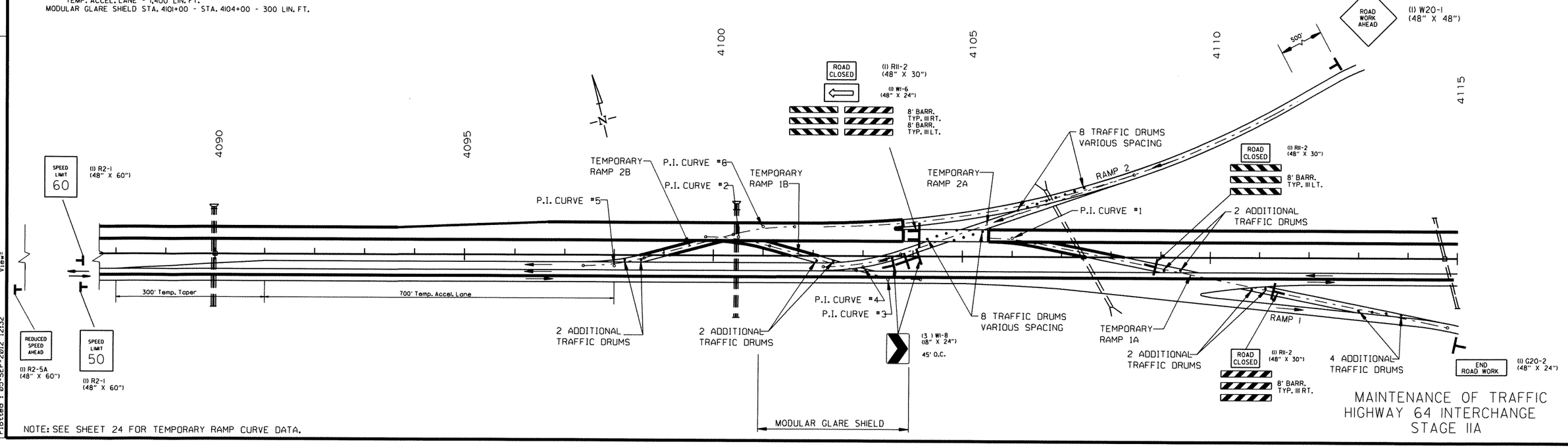


LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



STAGE IIA
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER - 36,714 LIN. FT.
REMOVAL OF PERMANENT MARKINGS
INSIDE EDGE OF RT. MAIN LANES - 34,880 LIN. FT.
ON BRIDGE DECKS - 934 LIN. FT.
LT. EDGE LINE RAMP 2 AT TIE TO TEMPORARY RAMP 2A - 200 LIN. FT.
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS ON BRIDGE DECKS
RT. & LT. EDGE LINES INSIDE RT. MAIN LANE SHIFTED TRAFFIC - 1,868 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
TEMP. LT. & RT. EDGE LINES INSIDE RT. MAIN LANE SHIFTED TRAFFIC (EXCEPT BRIDGE DECKS) - 69,760 LIN. FT.
TEMP. LT. EDGE LINE FOR OUTSIDE RT. MAIN LANE TRAFFIC (EXCEPT BRIDGE DECKS) - 34,880 LIN. FT.
LT. & RT. EDGE LINES TEMPORARY RAMP 2A - 1,000 LIN. FT.
TEMP. ACCEL. LANE - 1,400 LIN. FT.
MODULAR GLARE SHIELD STA. 4101+00 - STA. 4104+00 - 300 LIN. FT.



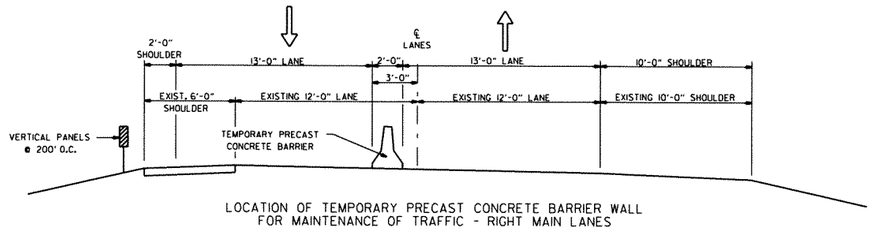
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 64 INTERCHANGE
STAGE IIA

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Maintenance of Traffic\mot-10.dgn
Plotted : 05-SEP-2012 12:32 View=

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				JOB NO.		BB0804	29A	156

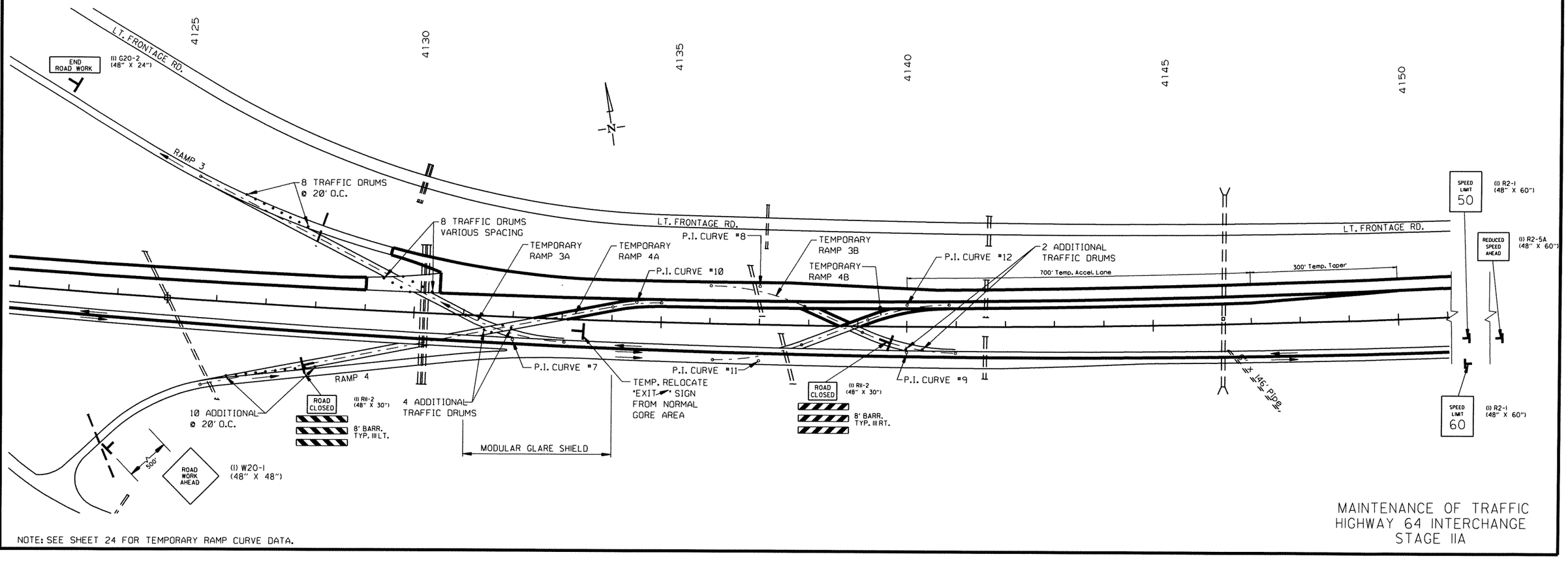
(2) MAINTENANCE OF TRAFFIC



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STAGE IIA
REMOVAL OF PERMANENT MARKINGS
LT. EDGE LINE RAMP 3 AT TIE TO TEMP. RAMP 3A - 200 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMP. RAMP 3A - 200 LIN. FT.
MODULAR GLARE SHIELD STA. 4131+00 - STA. 4134+00 - 300 LIN. FT.

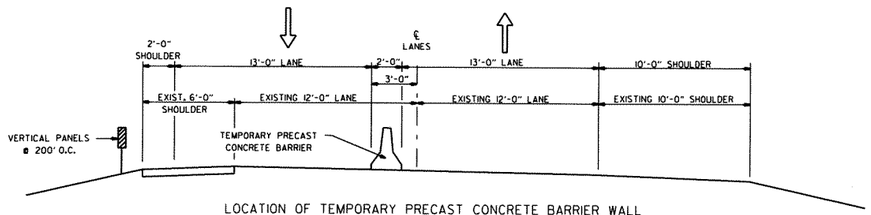


NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 64 INTERCHANGE
STAGE IIA

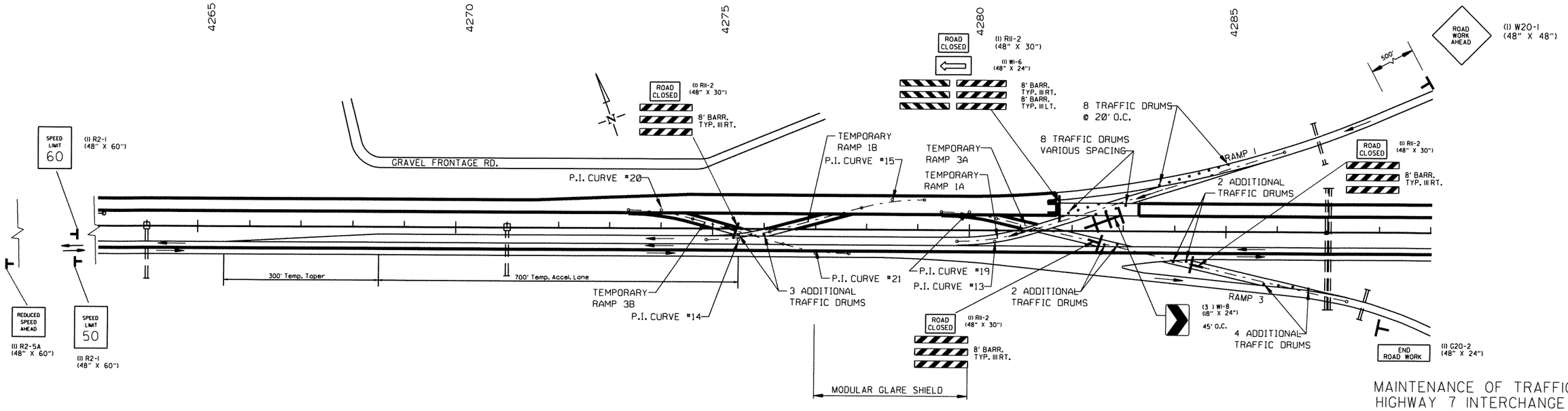
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				JOB NO.		BB0804	30	156
				(2)	MAINTENANCE OF TRAFFIC			



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES

STAGE IIA
REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. EDGE LINE RAMP 1AT TIE TO TEMPORARY RAMP 1A - 200 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMPORARY RAMP 1A - 1,000 LIN. FT.
TEMP. ACCEL. LANE - 1,400 LIN. FT.
MODULAR GLARE SHIELD STA. 4277+00 - STA. 4280+00 - 300 LIN. FT.



NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

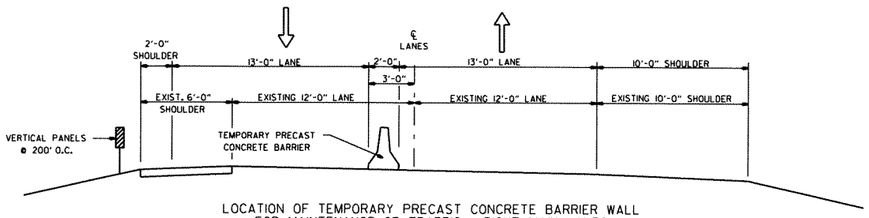
MAINTENANCE OF TRAFFIC
HIGHWAY 7 INTERCHANGE
STAGE IIA

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Maintenance of Traffic\mot-11.dgn
Plotted : 05-SEP-2012 12:32
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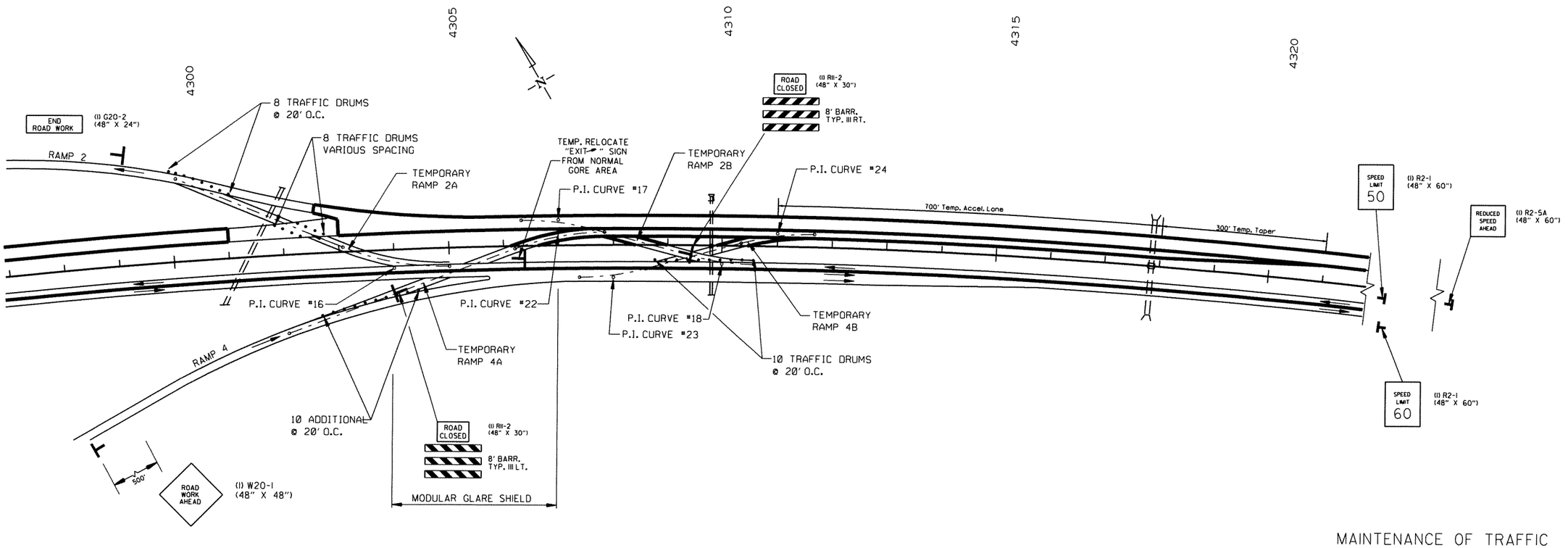
(2) MAINTENANCE OF TRAFFIC



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES

STAGE IIA
REMOVAL OF PERMANENT MARKINGS
LT. EDGE LINE RAMP 2 AT TIE TO TEMP. RAMP 2A - 200 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMP. RAMP 2A - 200 LIN. FT.
MODULAR GLARE SHIELD STA. 4304+00 - STA. 4307+00 - 300 LIN. FT.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



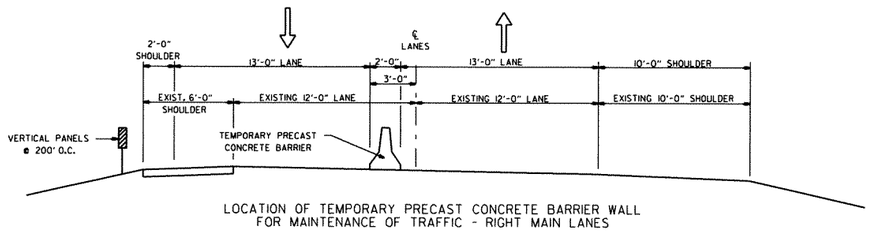
MAINTENANCE OF TRAFFIC
HIGHWAY 7 INTERCHANGE
STAGE IIA

NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

Drawn By fs513
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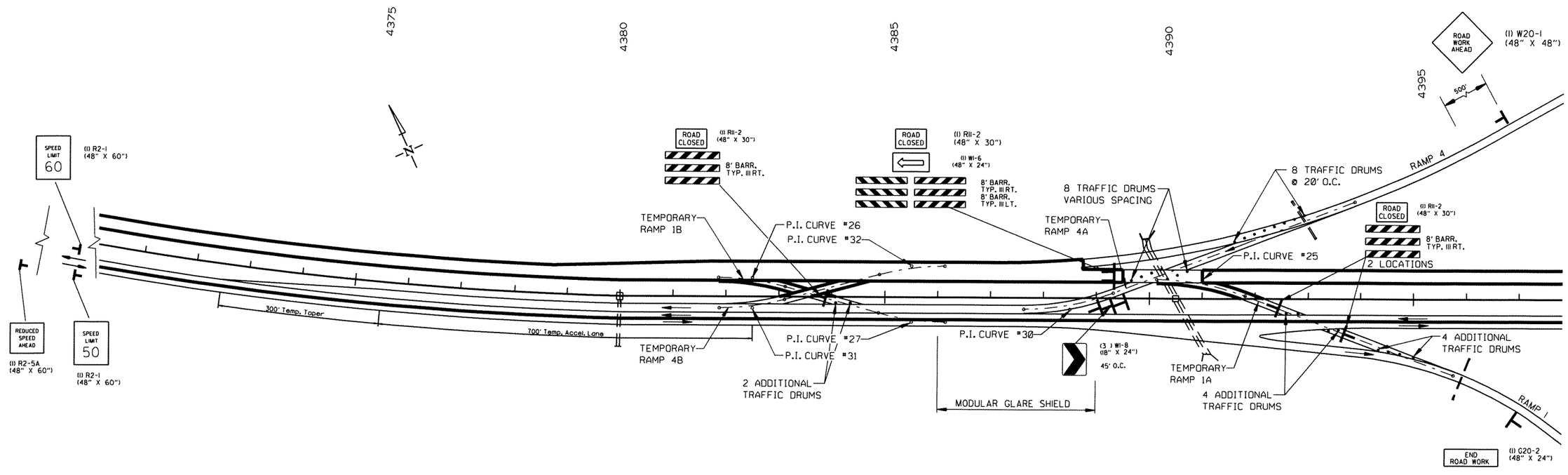
(2) MAINTENANCE OF TRAFFIC



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STAGE IIA
REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. EDGE LINE RAMP 4 AT TIE TO TEMPORARY RAMP 4A - 200 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMPORARY RAMP 4A - 1,000 LIN. FT.
TEMP. ACCEL. LANE - 1,500 LIN. FT.
MODULAR GLARE SHIELD STA. 4386+00 - STA. 4389+00 - 300 LIN. FT.



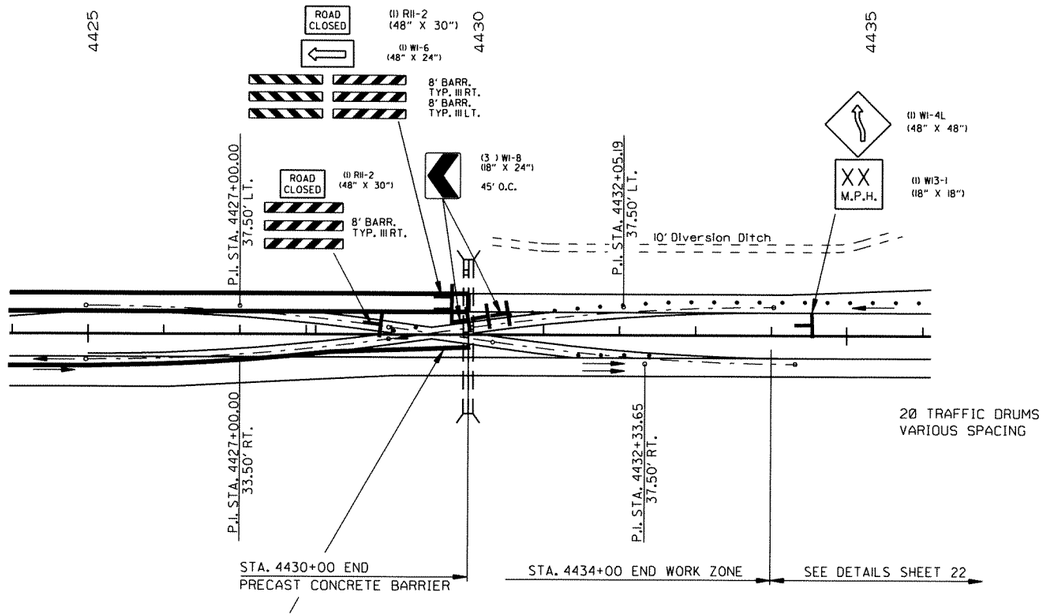
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 326 INTERCHANGE
STAGE IIA

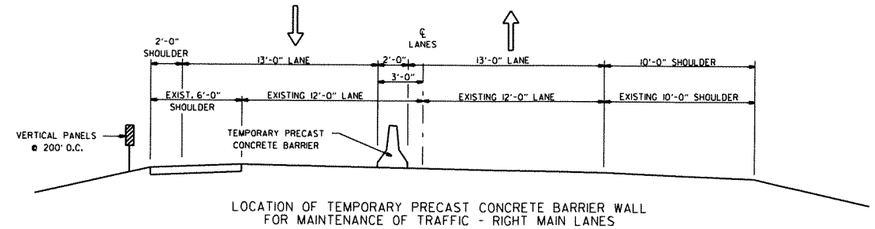
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(2) MAINTENANCE OF TRAFFIC



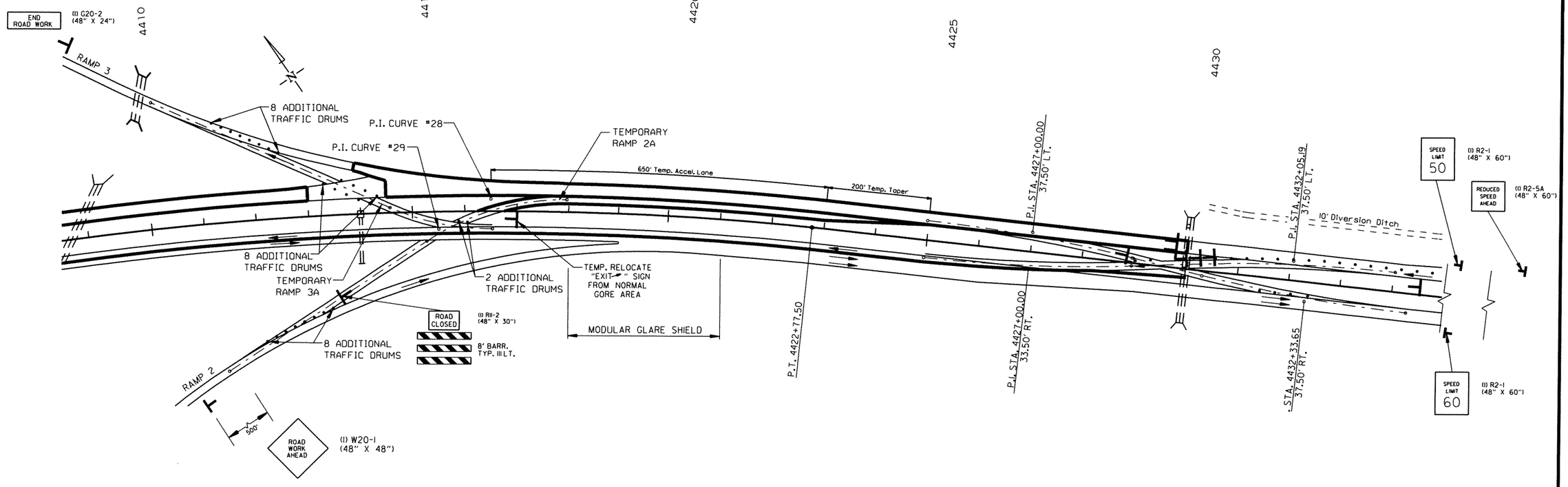
FLARE PRECAST CONCRETE BARRIER WALL WITH SPECIAL END UNIT TO 18' OFFSET FROM THE EDGE OF THE TRAVEL LANE IN ACCORDANCE WITH STANDARD DRAWING TC-5.



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES

STAGE IIA
REMOVAL OF PERMANENT MARKINGS
LT. EDGE LINE RAMP 3 AT TIE TO TEMP. RAMP 3A - 200 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMP. RAMP 3A - 200 LIN. FT.
MODULAR GLARE SHIELD STA. 4418+00 - STA. 4421+00 - 300 LIN. FT.

STATE OF ARKANSAS
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9-5-12



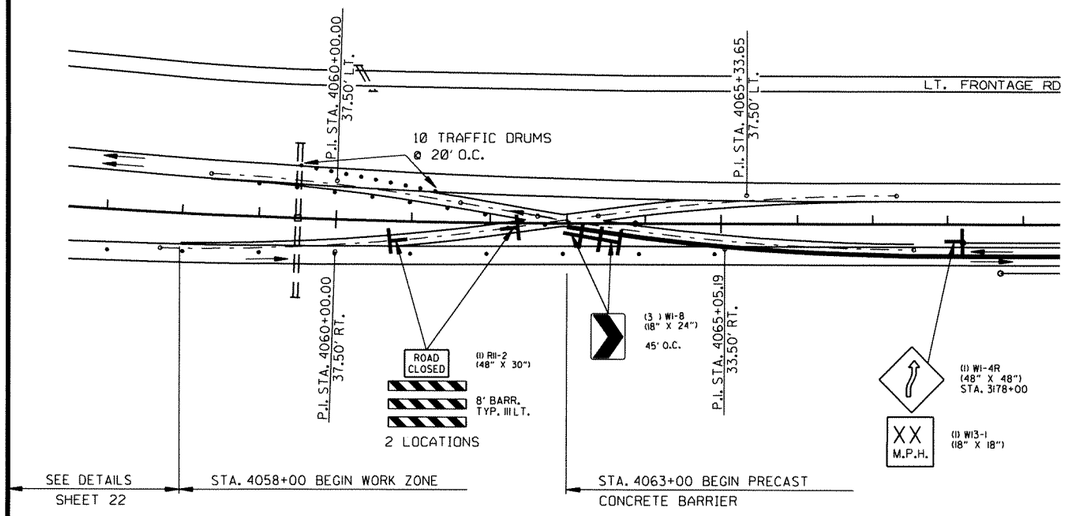
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 326 INTERCHANGE
STAGE IIA

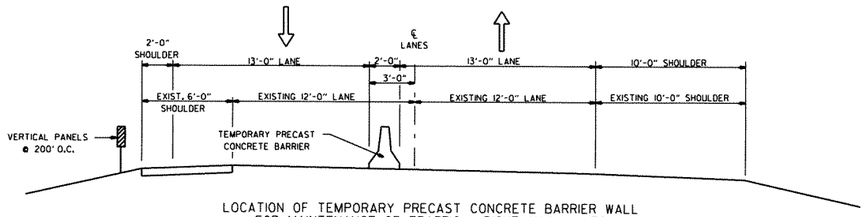
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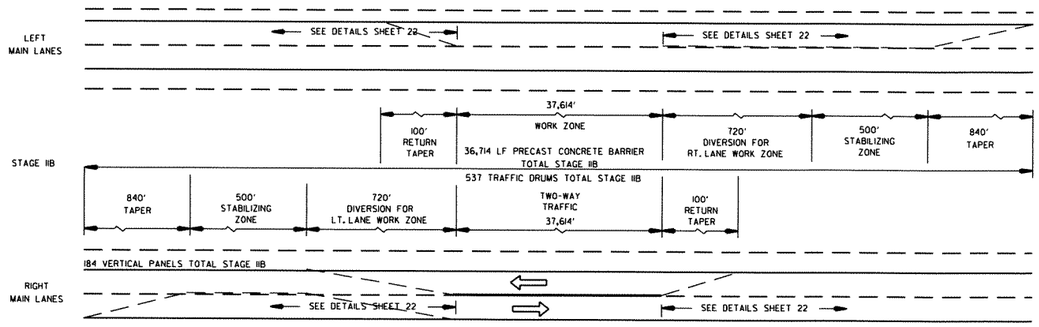
(2) MAINTENANCE OF TRAFFIC



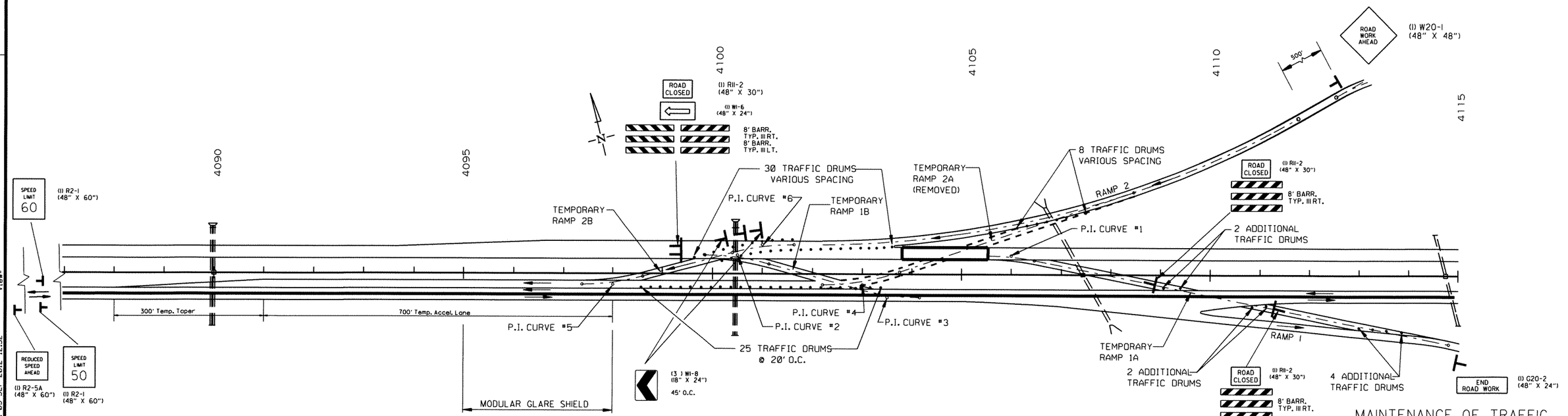
STAGE IIB
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMPORARY RAMP 2B - 600 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
TEMP. ACCEL. LANE EDGE LINE FROM TEMP. RAMP 2A TO TEMP. RAMP 2B - 400 LIN. FT.
MODULAR GLARE SHIELD STA. 4095+00 - STA. 4098+00 - 300 LIN. FT.



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES



STATE OF ARKANSAS
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No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

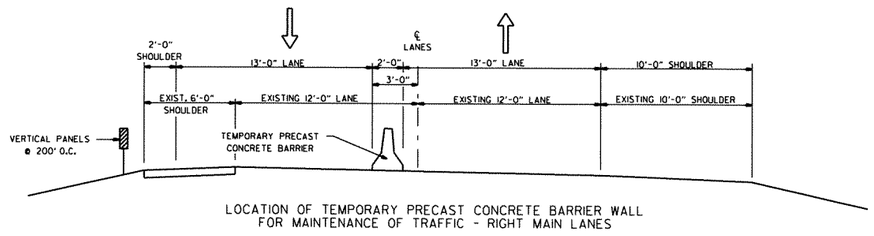


NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 64 INTERCHANGE
STAGE IIB

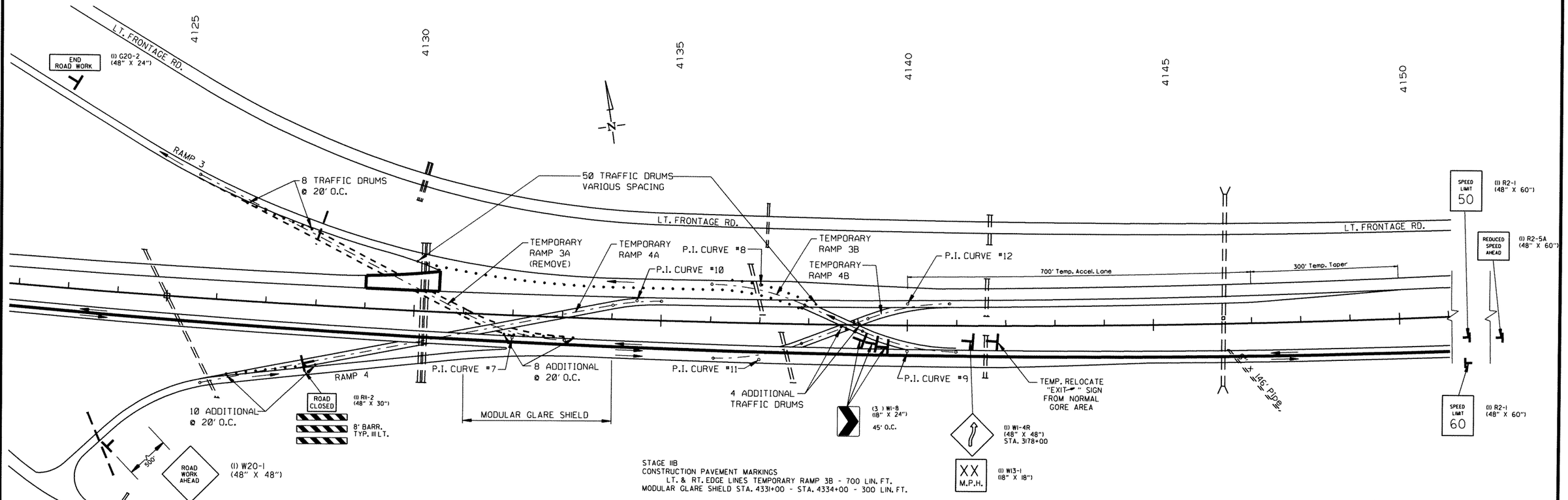
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				JOB NO.		BB0804	32A	156
				(2)	MAINTENANCE OF TRAFFIC			



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



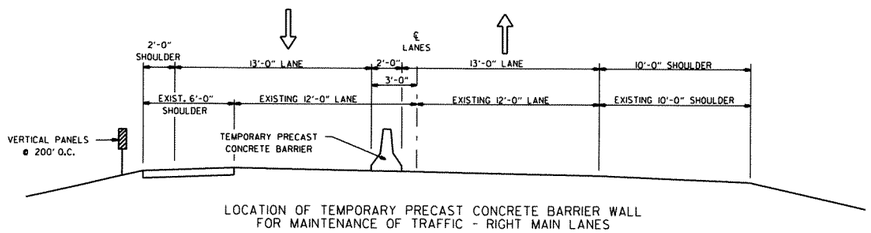
STAGE IIB
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMPORARY RAMP 3B - 700 LIN. FT.
MODULAR GLARE SHIELD STA. 4331+00 - STA. 4334+00 - 300 LIN. FT.

NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 64 INTERCHANGE
STAGE IIB

Drawn By fs513
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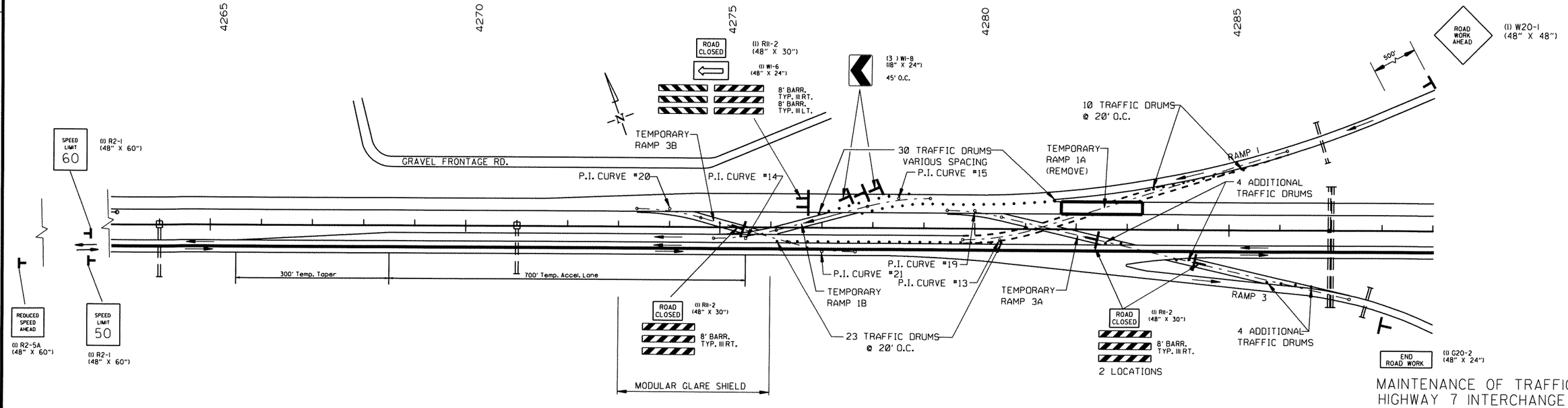
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				(2)	MAINTENANCE OF TRAFFIC			



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STAGE IIB
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMPORARY RAMP IB - 600 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
TEMP. ACCEL. LANE EDGE LINE FROM TEMP. RAMP IA TO TEMP. RAMP IB - 400 LIN. FT.
MODULAR GLARE SHIELD STA. 4273+00 - STA. 4276+00 - 300 LIN.FT.

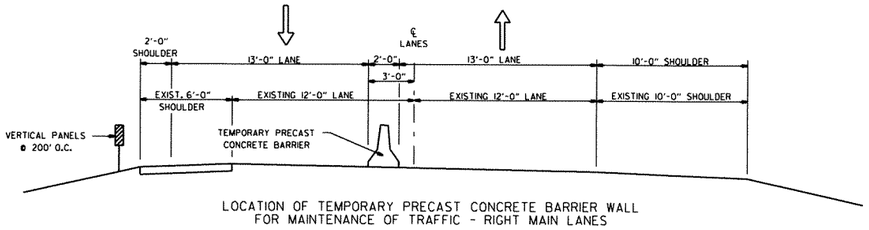


MAINTENANCE OF TRAFFIC
HIGHWAY 7 INTERCHANGE
STAGE IIB

NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

Drawn By fs513
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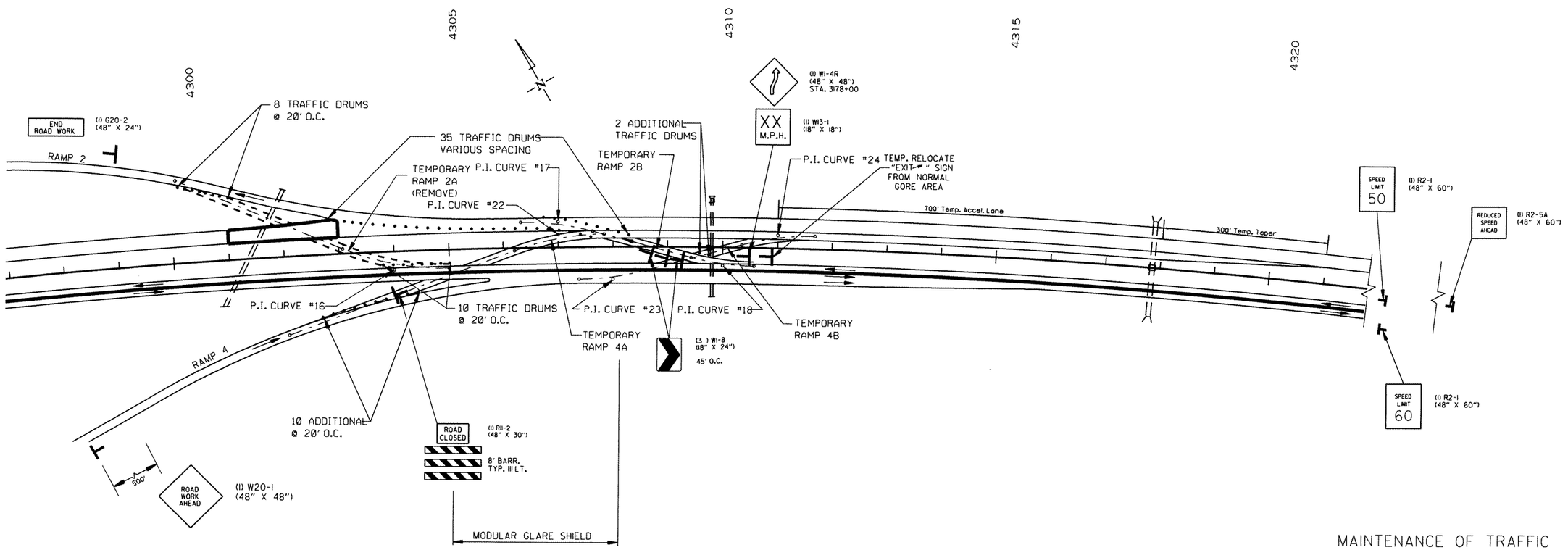
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				(2)	MAINTENANCE OF TRAFFIC			



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STAGE IIB
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMPORARY RAMP 2B - 600 LIN. FT.
MODULAR GLARE SHIELD STA. 4305+00 - STA. 4308+00 - 300 LIN. FT.

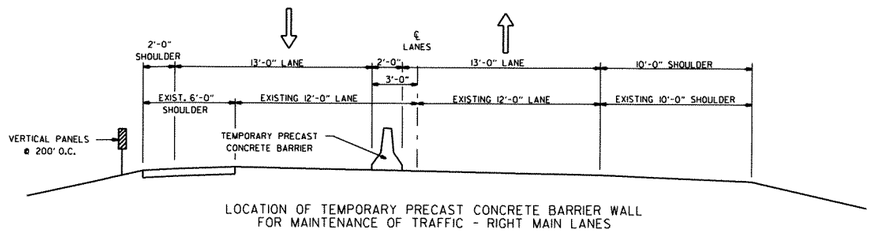


NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 7 INTERCHANGE
STAGE IIB

Drawn By fa513
DGN File G:\013004-01\B00109\DGN\Maintenance of Traffic\mot-15.dgn
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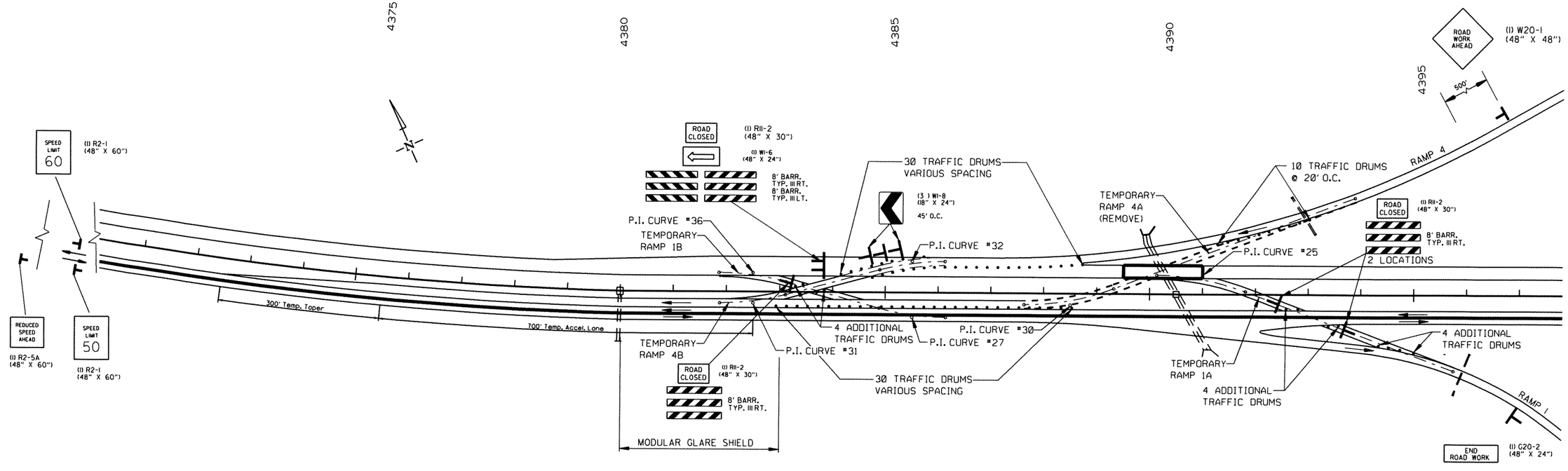
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				(2)	MAINTENANCE OF TRAFFIC			



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STAGE IIB
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMPORARY RAMP 4B - 700 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
TEMP. ACCEL. LANE EDGE LINE FROM TEMP. RAMP 4A TO TEMP. RAMP 4B - 400 LIN. FT.
MODULAR GLARE SHIELD STA. 4380+00 - STA. 4383+00 - 300 LIN.FT.



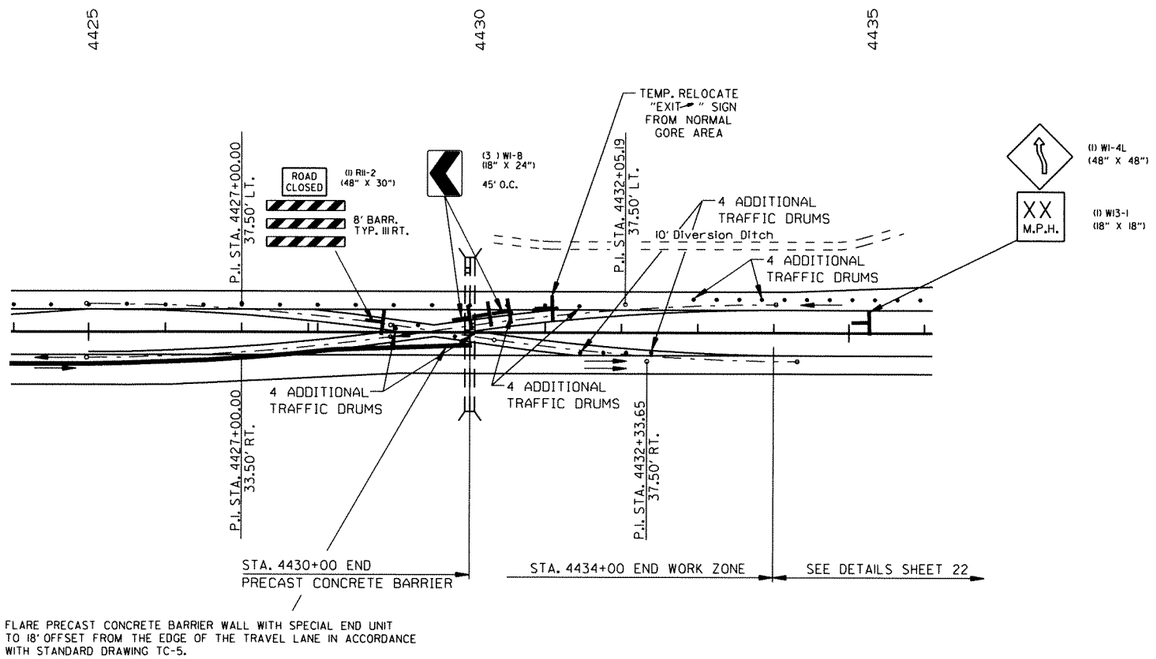
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 326 INTERCHANGE
STAGE IIB

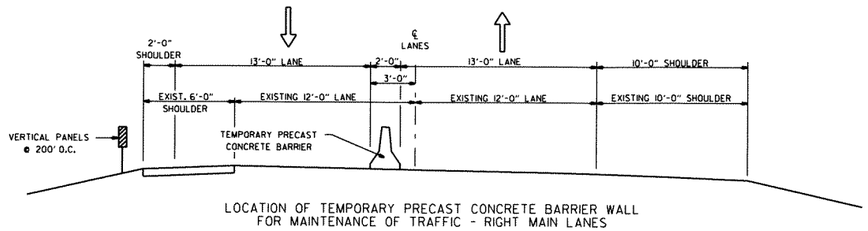
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				6	ARK.			
				JOB NO.		BB0804	34B	156

(2) MAINTENANCE OF TRAFFIC



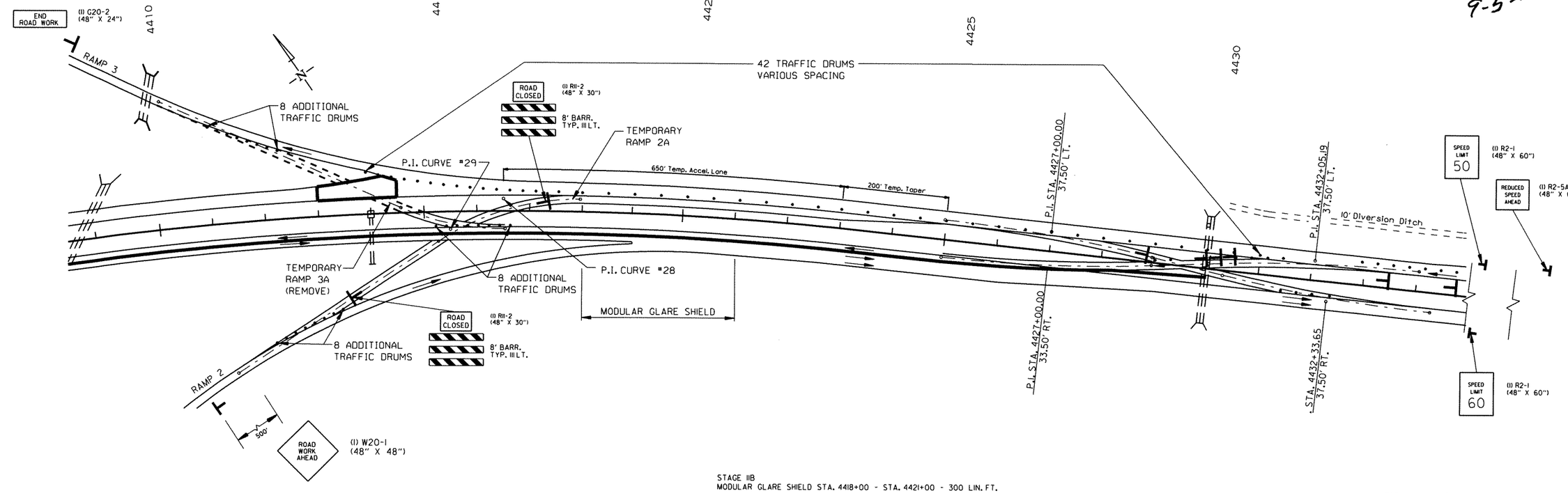
FLARE PRECAST CONCRETE BARRIER WALL WITH SPECIAL END UNIT TO 18' OFFSET FROM THE EDGE OF THE TRAVEL LANE IN ACCORDANCE WITH STANDARD DRAWING TC-5.



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES

END OF STAGE IIB
REMOVAL OF PAVEMENT MARKINGS
EDGE LINES OF TEMPORARY RAMPS MARKED ACROSS LT. MAIN LANES - 2,500 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES INSIDE & OUTSIDE LANES (LT. MAIN LANES) - 139,520 LIN. FT.
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES INSIDE & OUTSIDE LANES (LT. MAIN LANES) - 1,105 LIN. FT.

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9-5-12



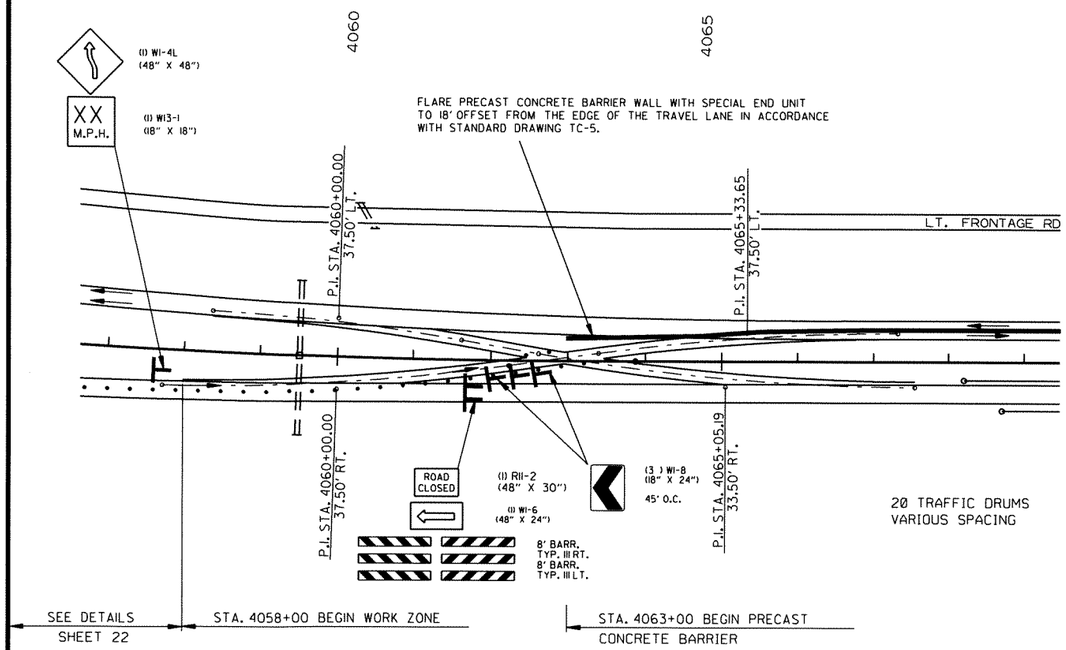
STAGE IIB
MODULAR GLARE SHIELD STA. 4418+00 - STA. 4421+00 - 300 LIN. FT.

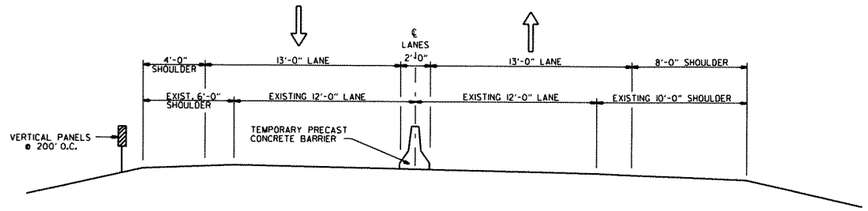
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 326 INTERCHANGE
STAGE IIB

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Maintenance of Traffic\mot-15b.dgn
Plotted : 05-SEP-2012 12:32 View:

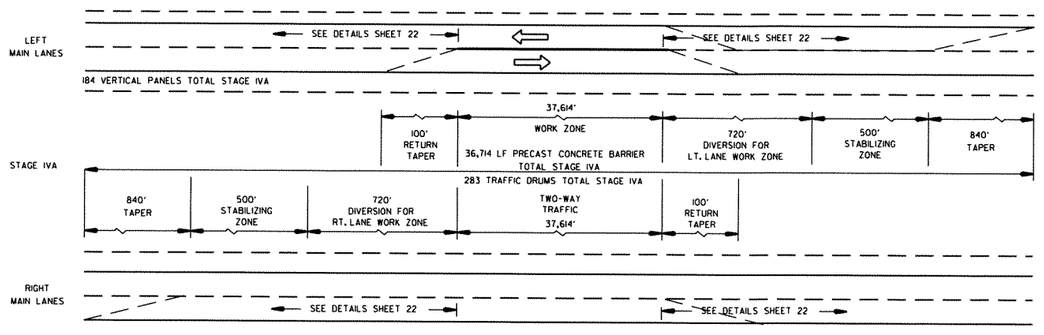
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				6	ARK.			
				JOB NO.		BB0804	35	156
				(2)	MAINTENANCE OF TRAFFIC			



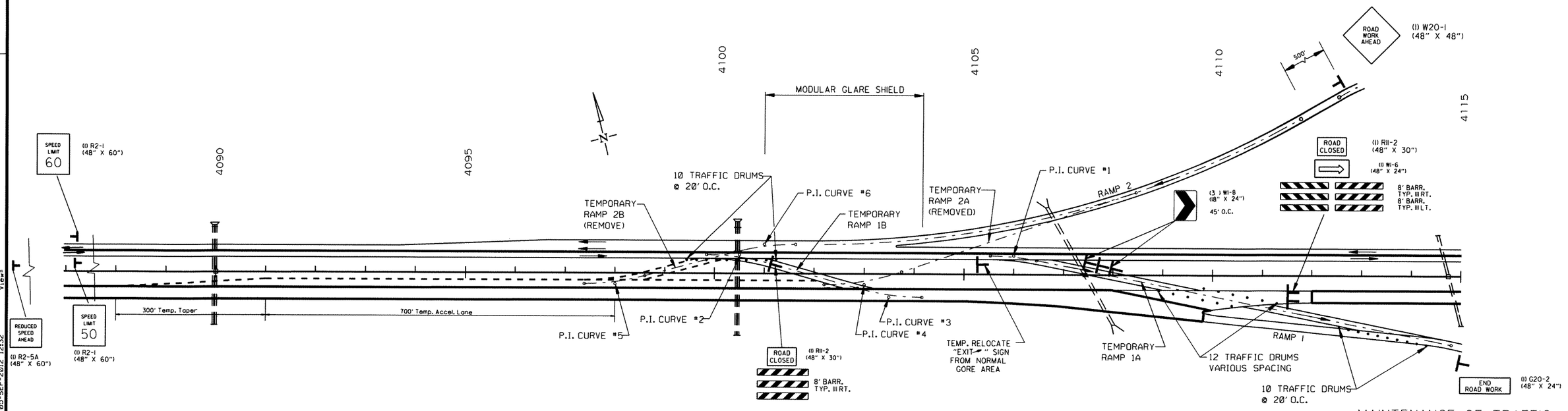


LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



STAGE IVA
REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT EDGE LINE RAMP 1AT TIE TO TEMP. RAMP 1A - 200 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMPORARY RAMP 1A - 1,800 LIN. FT.
MODULAR GLARE SHIELD STA. 4101+00 - STA. 4104+00 - 300 LIN. FT.

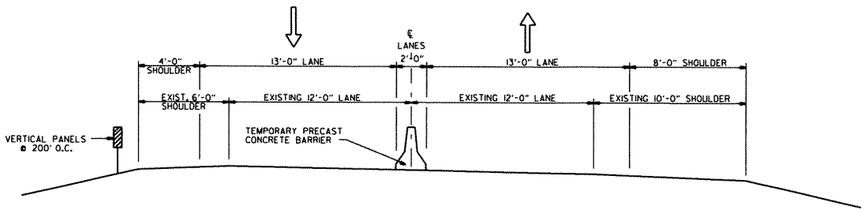


MAINTENANCE OF TRAFFIC
HIGHWAY 64 INTERCHANGE
STAGE IVA

NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

Drawn By fs513
DGN File G:\013004-01\B80109\DGN\Maintenance of Traffic\mot-16.dgn
Plotted : 05-SEP-2012 12:32
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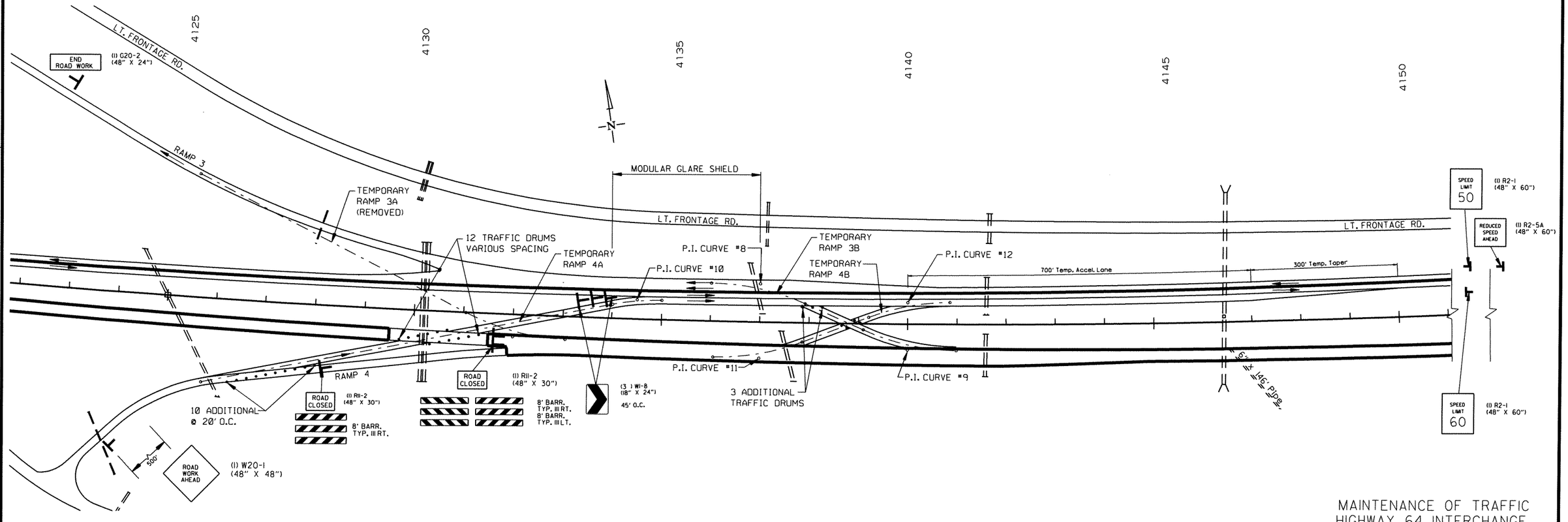
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				6	ARK.			
				JOB NO.		BB0804	35A	156
				(2)	MAINTENANCE OF TRAFFIC			



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES

STATE OF ARKANSAS
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No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STAGE IVA
REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. EDGE LINE RAMP 4 AT TIE TO TEMPORARY 4A - 200 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMP. RAMP 4A - 1,800 LIN. FT.
TEMPORARY ACCEL. LANE - 1,500 LIN. FT.
MODULAR GLARE SHIELD STA. 4134+00 - STA. 4137+00 - 300 LIN. FT.

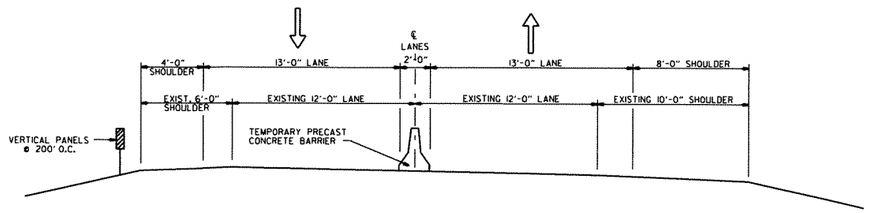


NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 64 INTERCHANGE
STAGE IVA

Drawn By fs513
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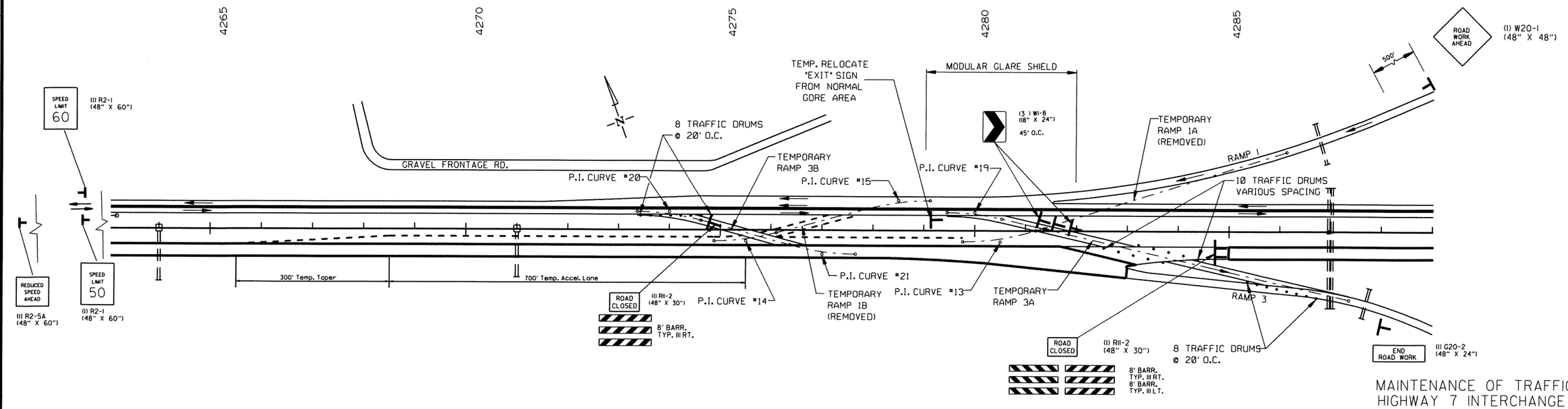
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				JOB NO.		BB0804	36	156
				(2)	MAINTENANCE OF TRAFFIC			



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STAGE IVA
REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. EDGE LINES RAMP 3 AT TIE TO TEMPORARY RAMP 3A - 200 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMPORARY RAMP 3A - 1,400 LIN. FT.
MODULAR GLARE SHIELD STA. 4279+00 - STA. 4282+00 - 300 LIN. FT.



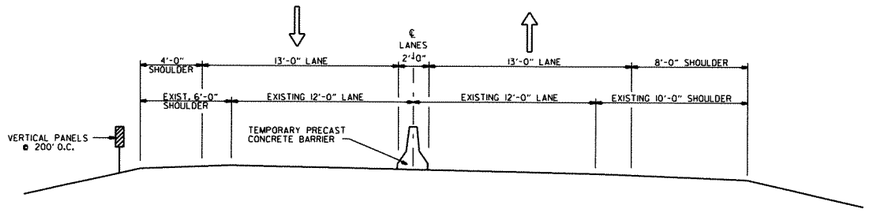
MAINTENANCE OF TRAFFIC
HIGHWAY 7 INTERCHANGE
STAGE IVA

NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Maintenance of Traffic\mot-17.dgn
Plotted : 05-SEP-2012 12:32 View:

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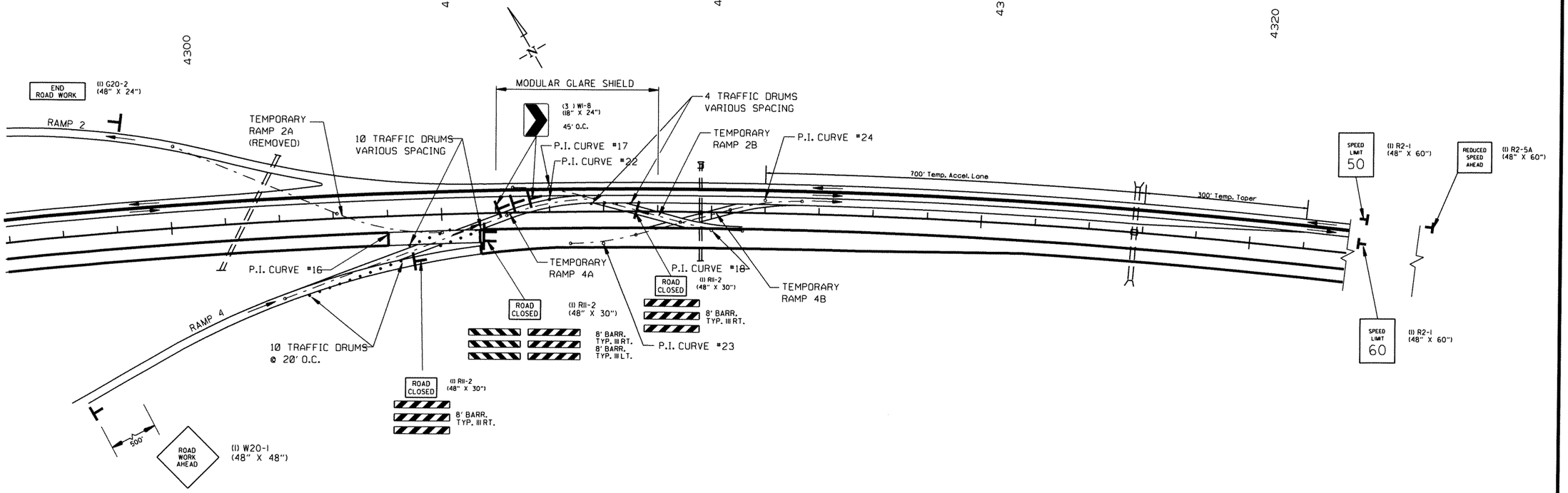
(2) MAINTENANCE OF TRAFFIC



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STAGE IVA
REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. EDGE LINE RAMP 4 AT TIE TO TEMPORARY 4A - 200 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMP. RAMP 4A - 1,100 LIN. FT.
TEMPORARY ACCEL. LANE - 1,400 LIN. FT.
MODULAR GLARE SHIELD STA. 4306+00 - STA. 4309+00 - 300 LIN. FT.



MAINTENANCE OF TRAFFIC
HIGHWAY 7 INTERCHANGE
STAGE IVA

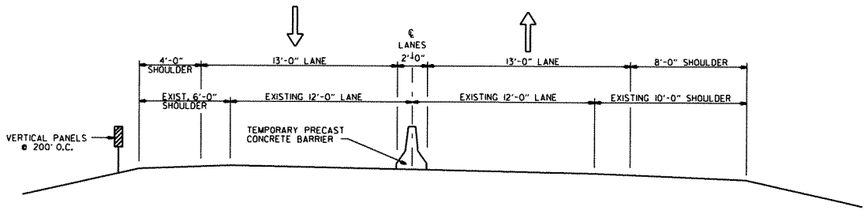
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

Drawn By fz513
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Plotted : 05-SEP-2012 12:32 View=

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6	ARK.			
JOB NO.		BB0804	37A	156

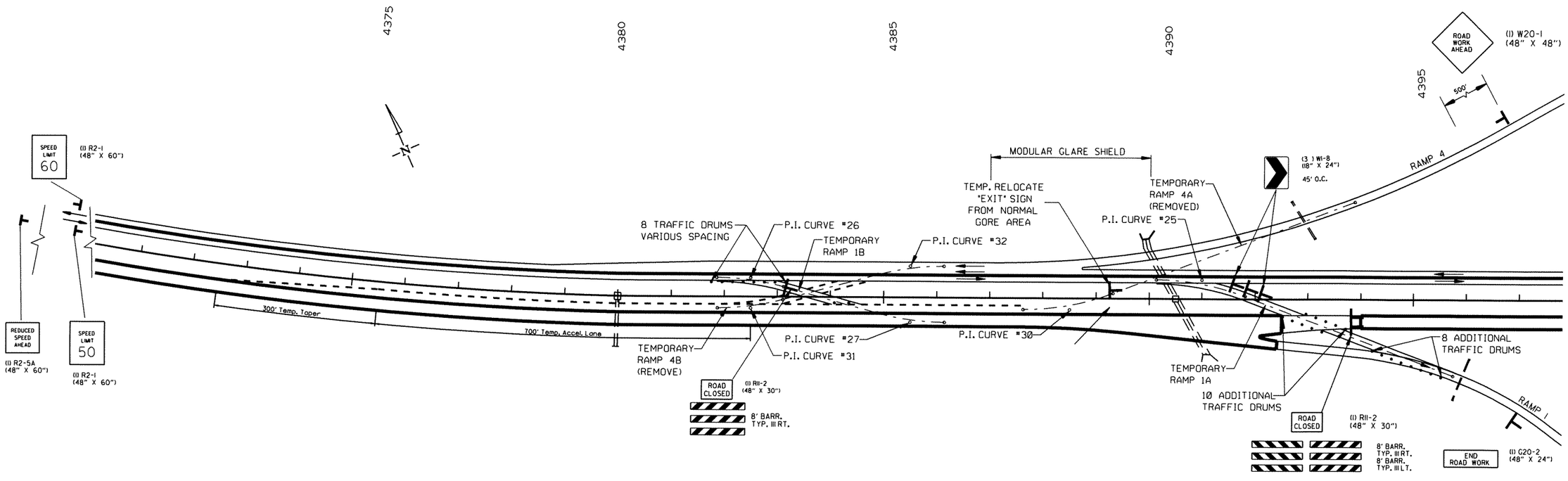
(2) MAINTENANCE OF TRAFFIC



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STAGE IVA
REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. EDGE LINES RAMP 1AT TIE TO TEMPORARY RAMP 1A - 200 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMPORARY RAMP 1A - 1,100 LIN. FT.
MODULAR GLARE SHIELD STA. 4387+00 - STA. 4390+00 - 300 LIN. FT.



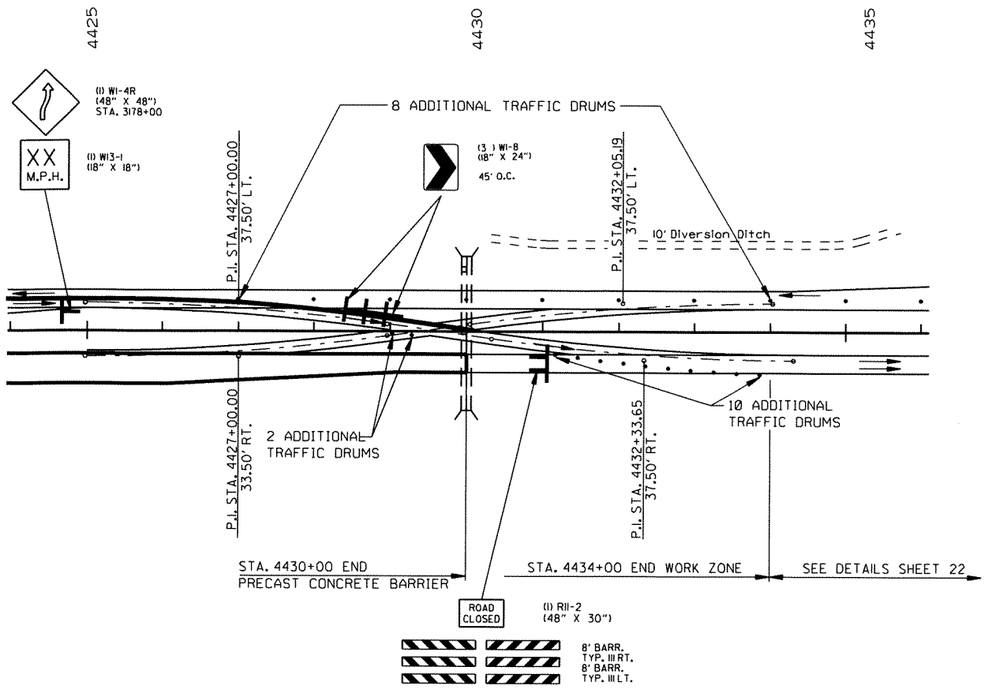
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

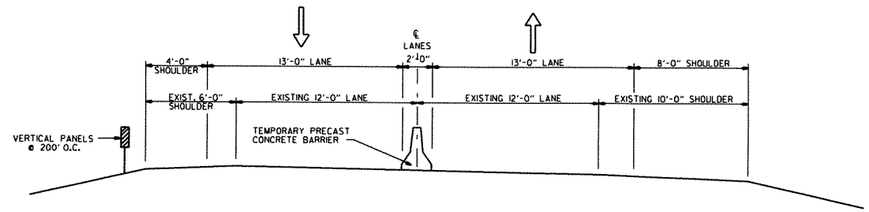
MAINTENANCE OF TRAFFIC
HIGHWAY 326 INTERCHANGE
STAGE IVA

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Maintenance of Traffic\mot-18a.dgn
Plotted : 05-SEP-2012 12:32 View=

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(2) MAINTENANCE OF TRAFFIC

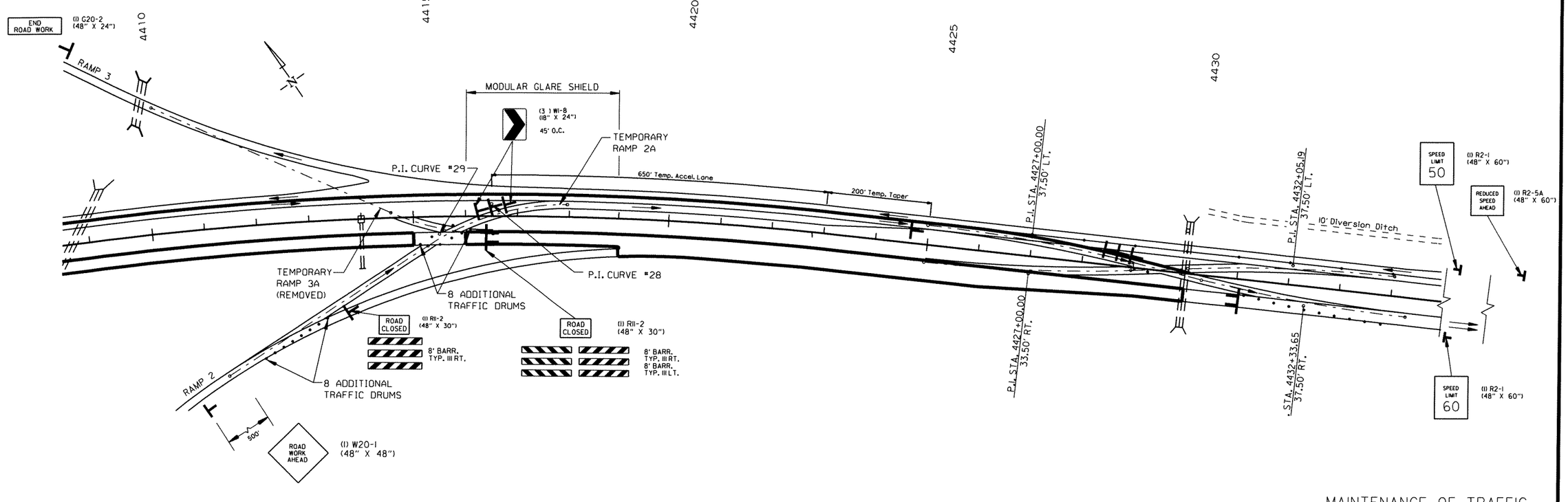




LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES

STAGE IVA
REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. EDGE LINE RAMP 2 AT TIE TO TEMPORARY 2A - 200 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMP. RAMP 2A - 1,200 LIN. FT.
TEMPORARY ACCEL. LANE - 700 LIN. FT.
MODULAR GLARE SHIELD STA. 4416+00 - STA. 4419+00 - 300 LIN. FT.

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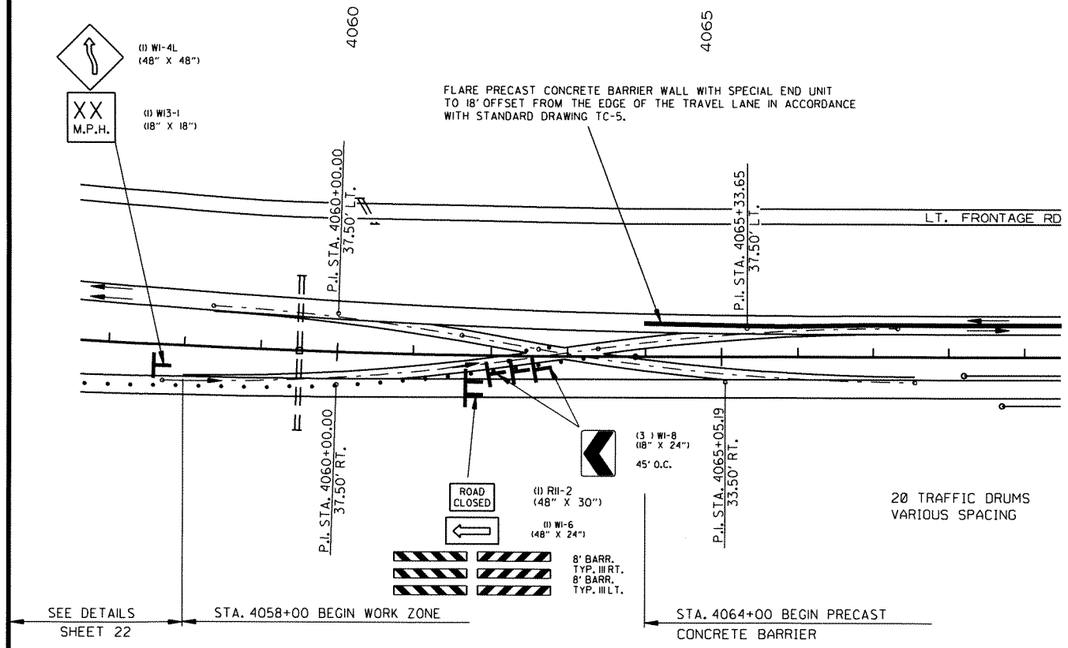
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

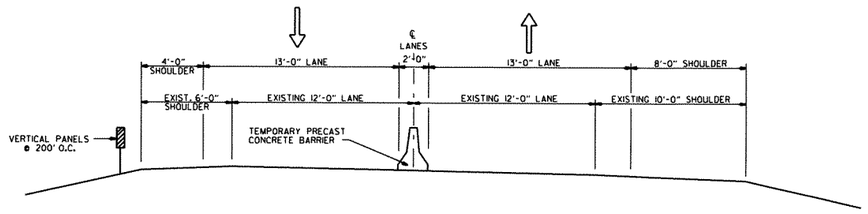
MAINTENANCE OF TRAFFIC
HIGHWAY 326 INTERCHANGE
STAGE IVA

Drawn By fs513
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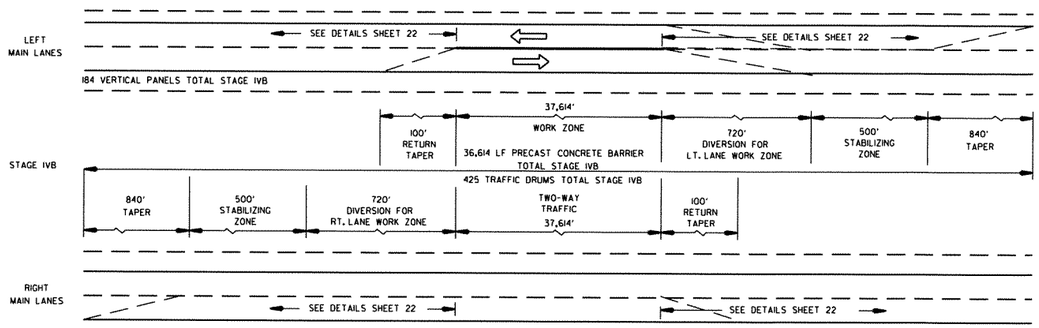
(2) MAINTENANCE OF TRAFFIC



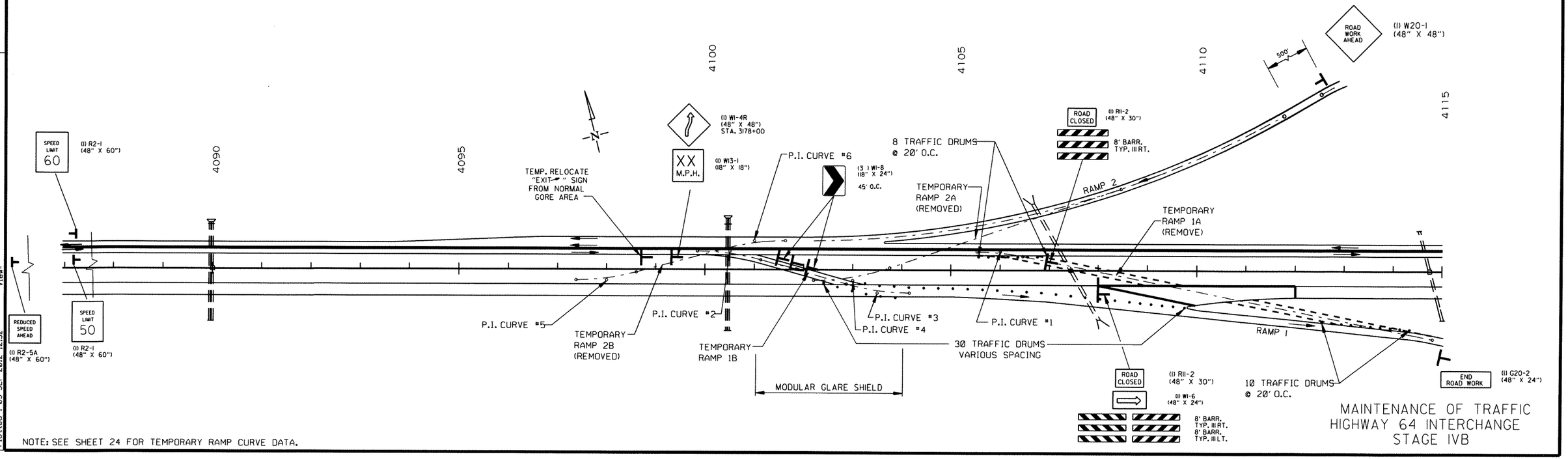


LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



STAGE IVB
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMPORARY RAMP 1B - 600 LIN. FT.
MODULAR GLARE SHIELD STA. 4101+00 - STA. 4104+00 - 300 LIN. FT.



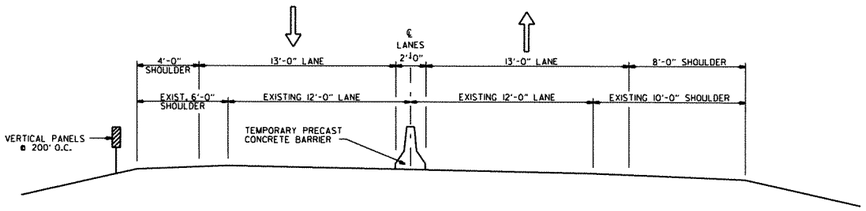
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 64 INTERCHANGE
STAGE IVB

Drawn By fs513
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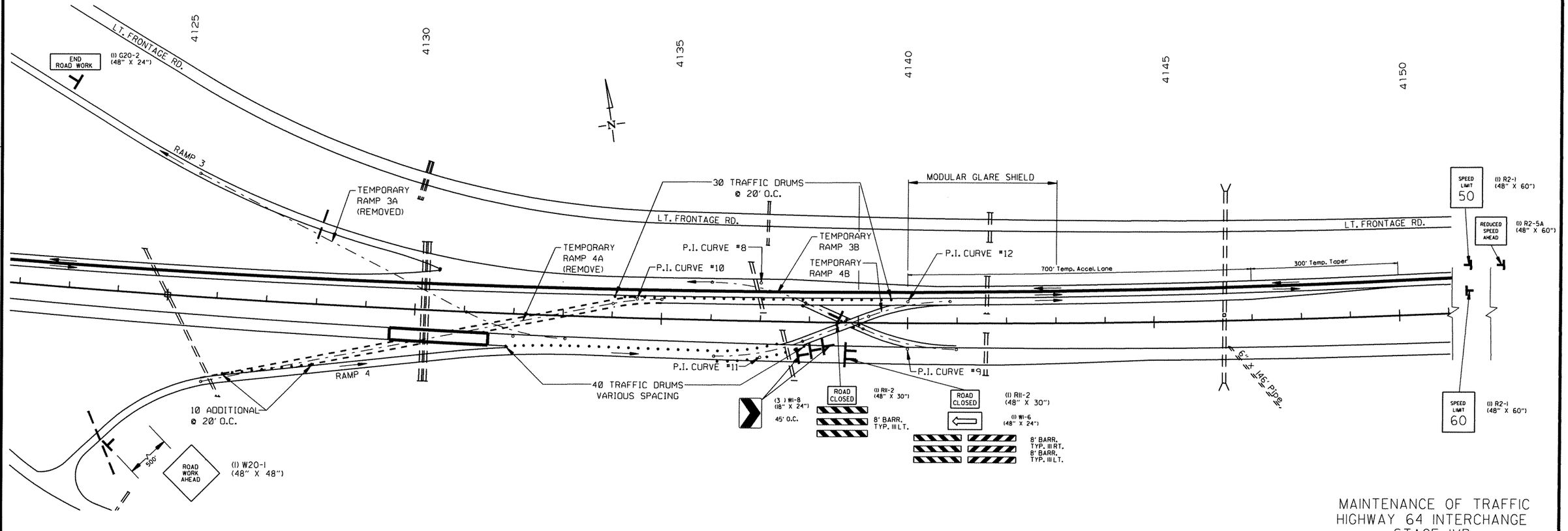
(2) MAINTENANCE OF TRAFFIC



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STAGE IVB
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMP. RAMP 4B - 900 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
TEMP. ACCEL. LANE EDGE LINE FROM TEMP. RAMP 4A THROUGH TIE TO TEMP. RAMP 4B - 500 LIN. FT.
MODULAR GLARE SHIELD STA. 4140+00 - STA. 4143+00 - 300 LIN. FT.

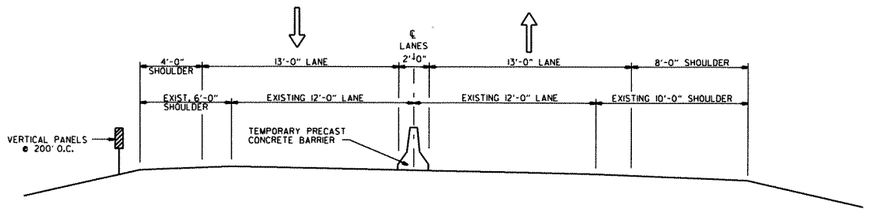


NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 64 INTERCHANGE
STAGE IVB

Drawn By fs513
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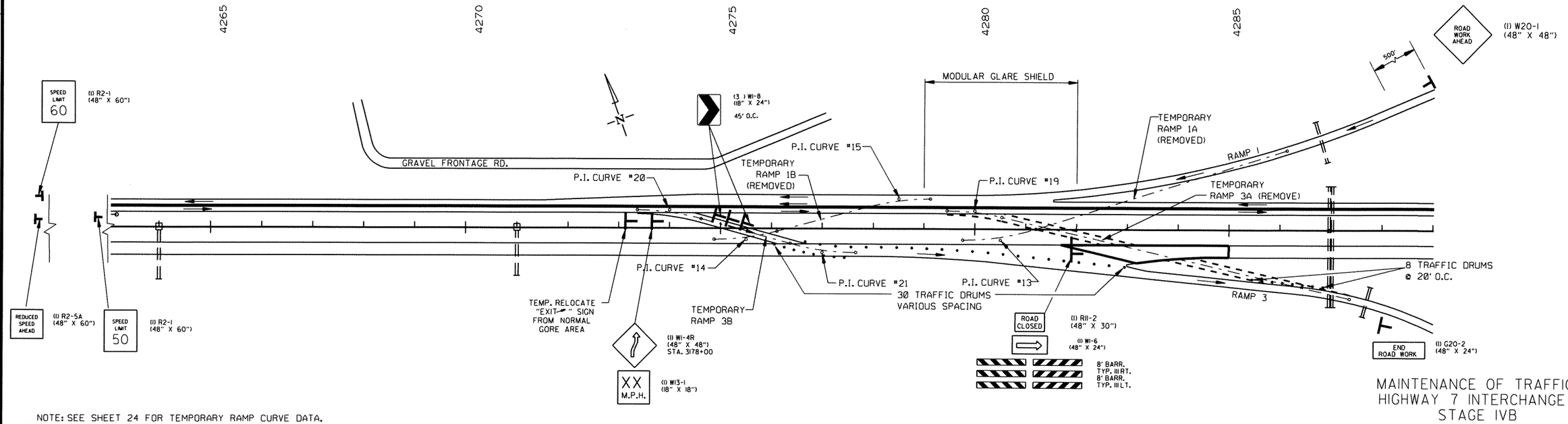
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				6	ARK.			
				JOB NO.		BB0804	39	156
				(2)	MAINTENANCE OF TRAFFIC			



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STAGE IVB
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMP. RAMP 3B - 600 LIN. FT.
MODULAR GLARE SHIELD STA. 4279+00 - STA. 4282+00 - 300 LIN. FT.

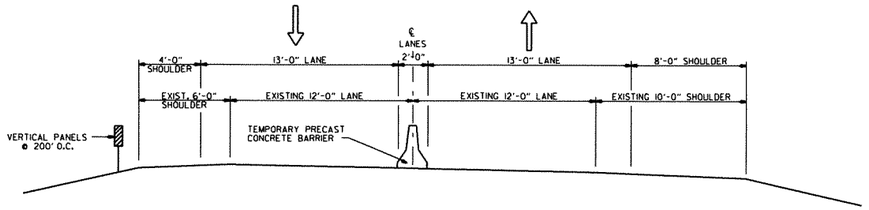


NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 7 INTERCHANGE
STAGE IVB

Drawn By fs513
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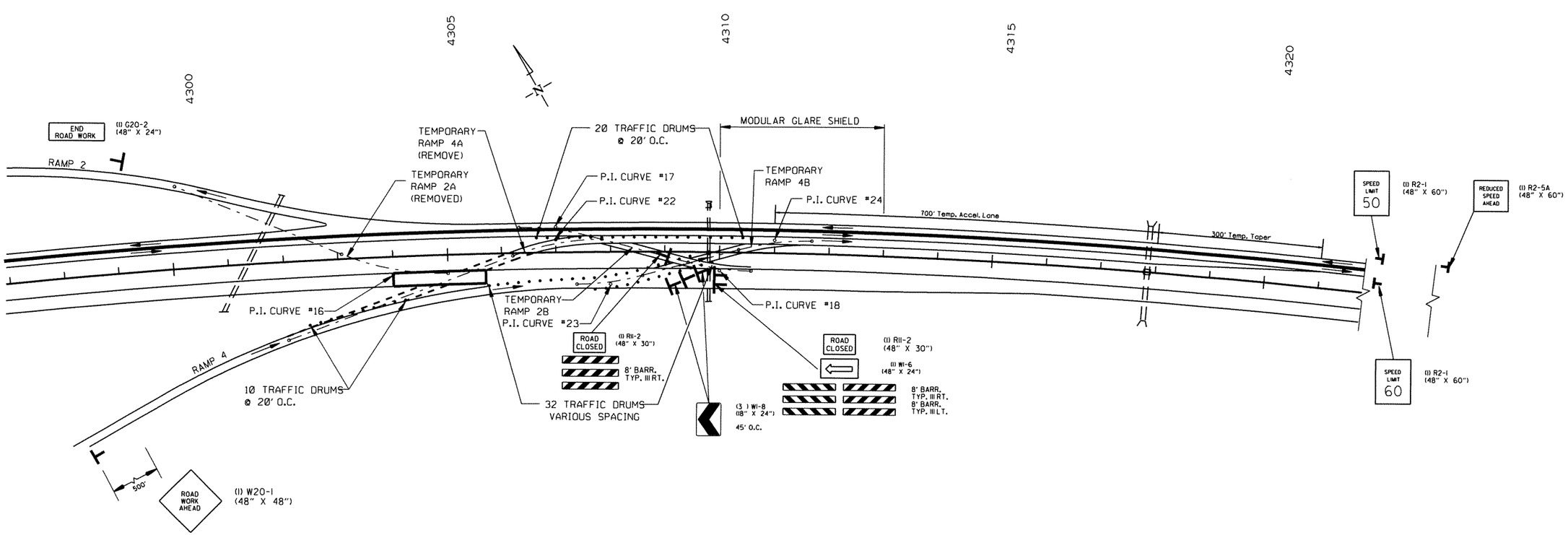
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				(2)	MAINTENANCE OF TRAFFIC			



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STAGE IVB
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMP. RAMP 4B - 600 LIN. FT.
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
TEMP. ACCEL. LANE EDGE LINE FROM TEMP. RAMP 4A THROUGH TIE TO TEMP. RAMP 4B - 400 LIN. FT.
MODULAR GLARE SHIELD STA. 4310+00 - STA. 4313+00 - 300 LIN. FT.



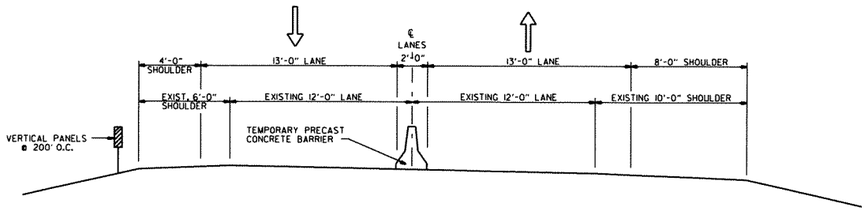
MAINTENANCE OF TRAFFIC
HIGHWAY 7 INTERCHANGE
STAGE IVB

NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

Drawn By fa513
DGN File E:\013004-01\BB0109\DGN\Maintenance of Traffic\mot-21.dgn
Plotted : 05-SEP-2012 12:33 View:

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.		BB0804	40A	156

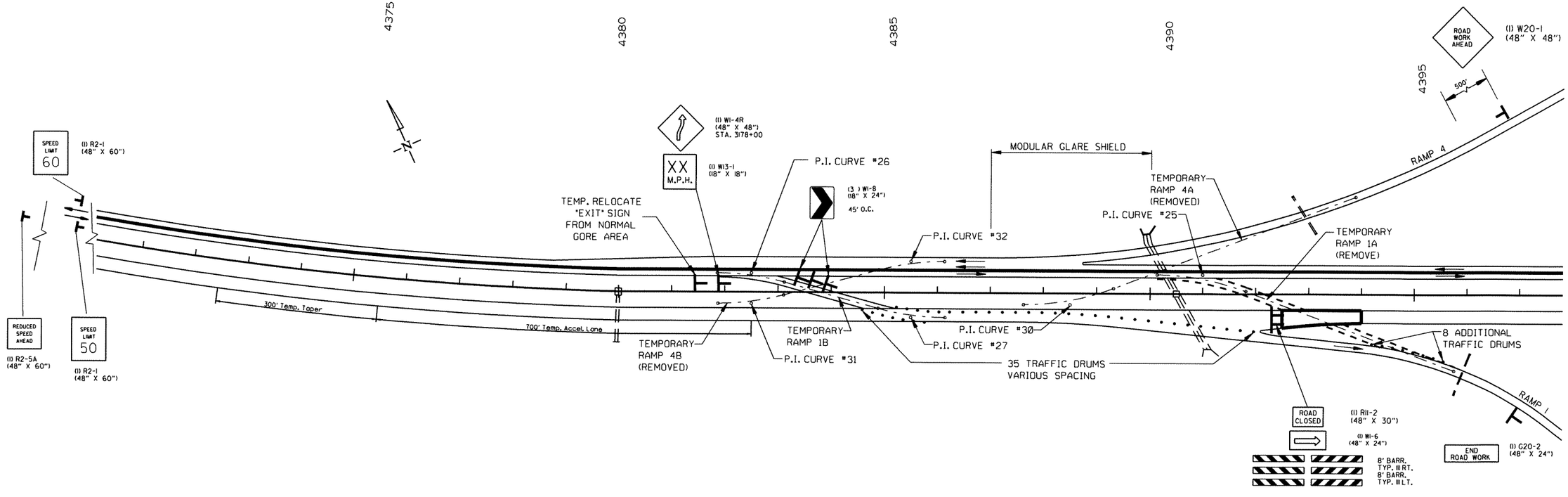
(2) MAINTENANCE OF TRAFFIC



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

STAGE IVB
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES TEMP. RAMP 3B - 700 LIN. FT.
MODULAR GLARE SHIELD STA. 4387+00 - STA. 4390+00 - 300 LIN. FT.



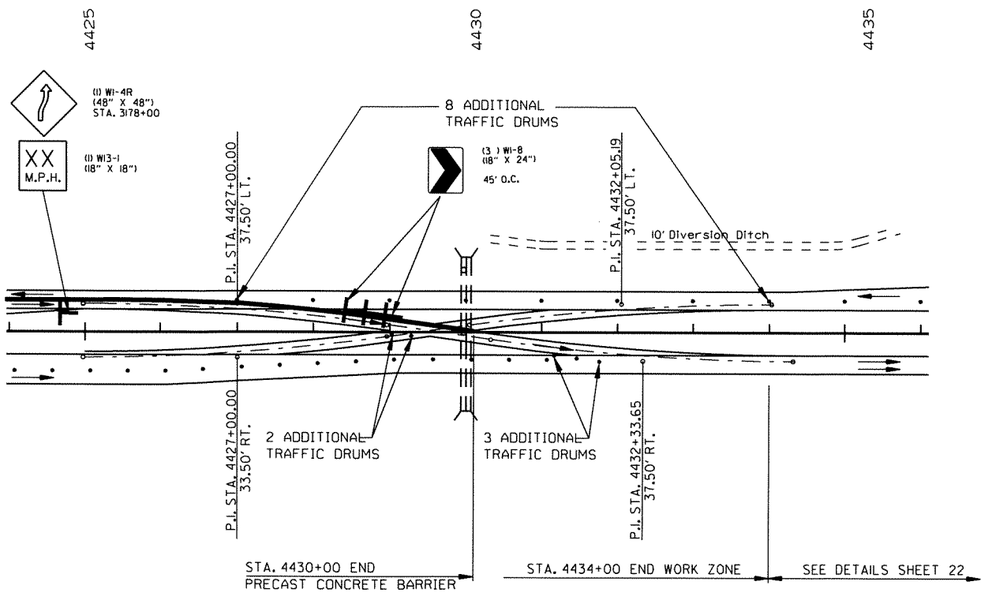
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

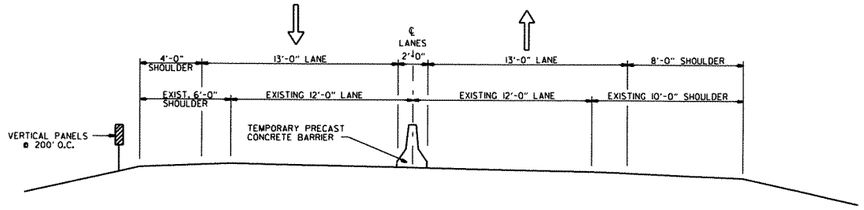
MAINTENANCE OF TRAFFIC
HIGHWAY 326 INTERCHANGE
STAGE IVB

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Maintenance of Traffic\mot-21a.dgn
Plotted : 05-SEP-2012 12:33 View=

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.		BB0804	40B	156

(2) MAINTENANCE OF TRAFFIC

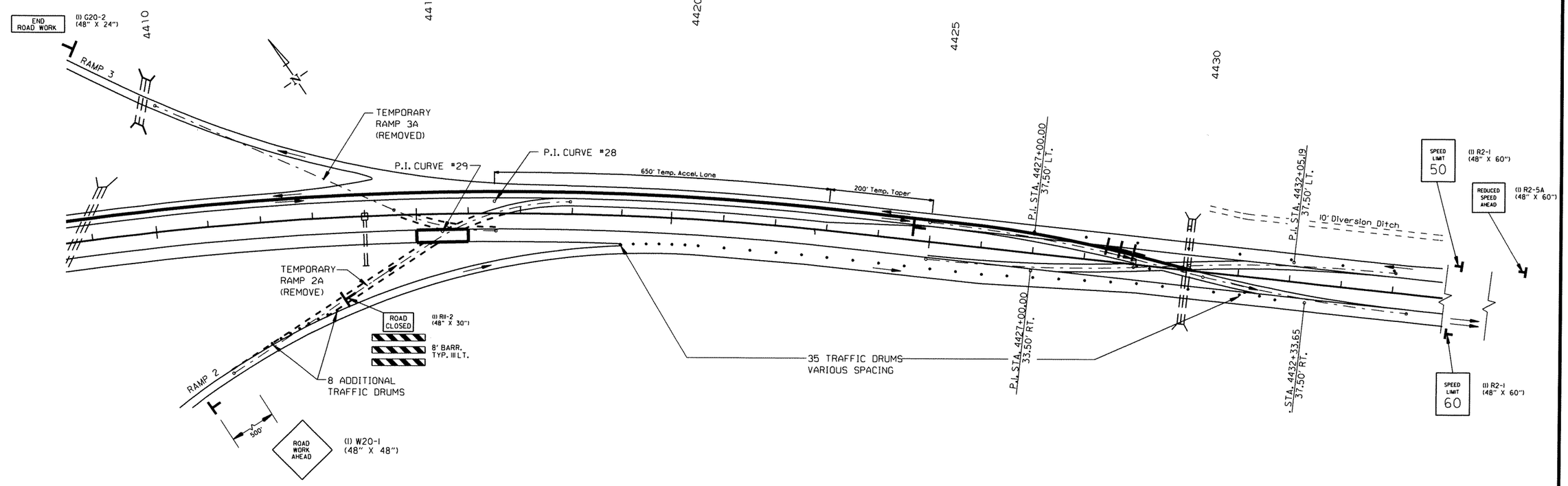




LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER WALL
FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES

END STAGE IVB
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
EDGE LINES OF TEMP. RAMPS MARKED ACROSS THE RT. MAIN LANES - 2,500 LIN. FT.
LT. & RT. EDGE LINES INSIDE & OUTSIDE LANES LT. MAIN LANES - 140,625 LIN. FT.
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES (ENTIRE PROJECT) (BOTH DIRECTIONS) - 140,625 LIN. FT.
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES (BRIDGES BOTH DIRECTIONS) - 1,918 LIN. FT.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



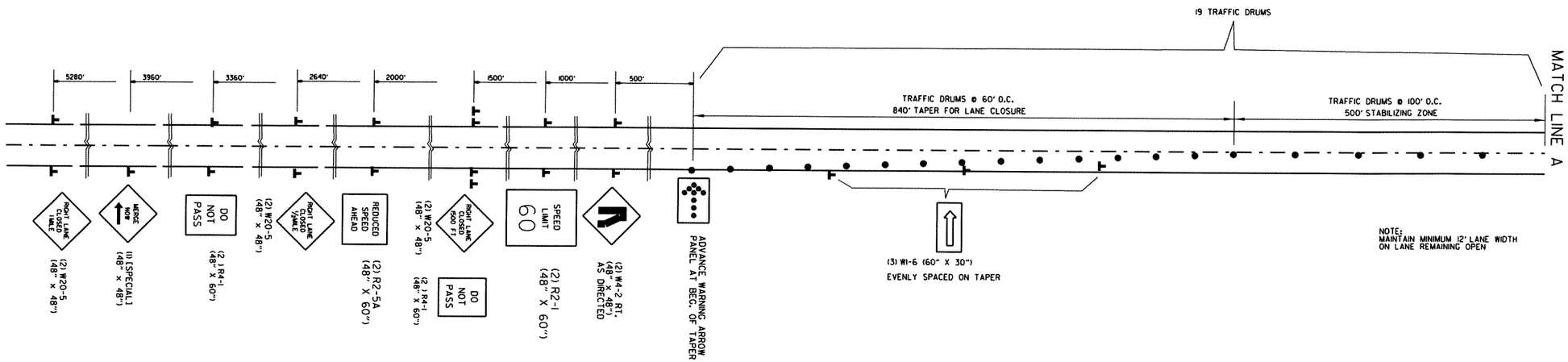
NOTE: SEE SHEET 24 FOR TEMPORARY RAMP CURVE DATA.

MAINTENANCE OF TRAFFIC
HIGHWAY 326 INTERCHANGE
STAGE IVB

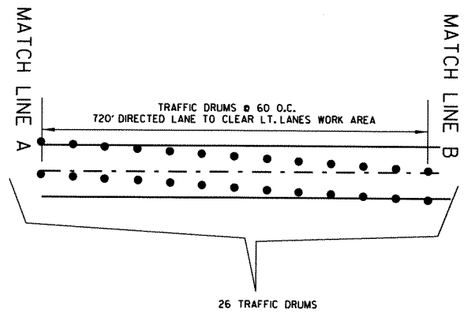
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DGN File D:\013004-01\BB0109\DGN\Maintenance of Traffic\mot-21b.dgn
Plotted : 05-SEP-2012 12:33 View

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.		BB0804	40C	156

(2) MAINTENANCE OF TRAFFIC



RT. LANE CLOSURE



DIVERSION FOR LT. LANE WORK ZONE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-12-12

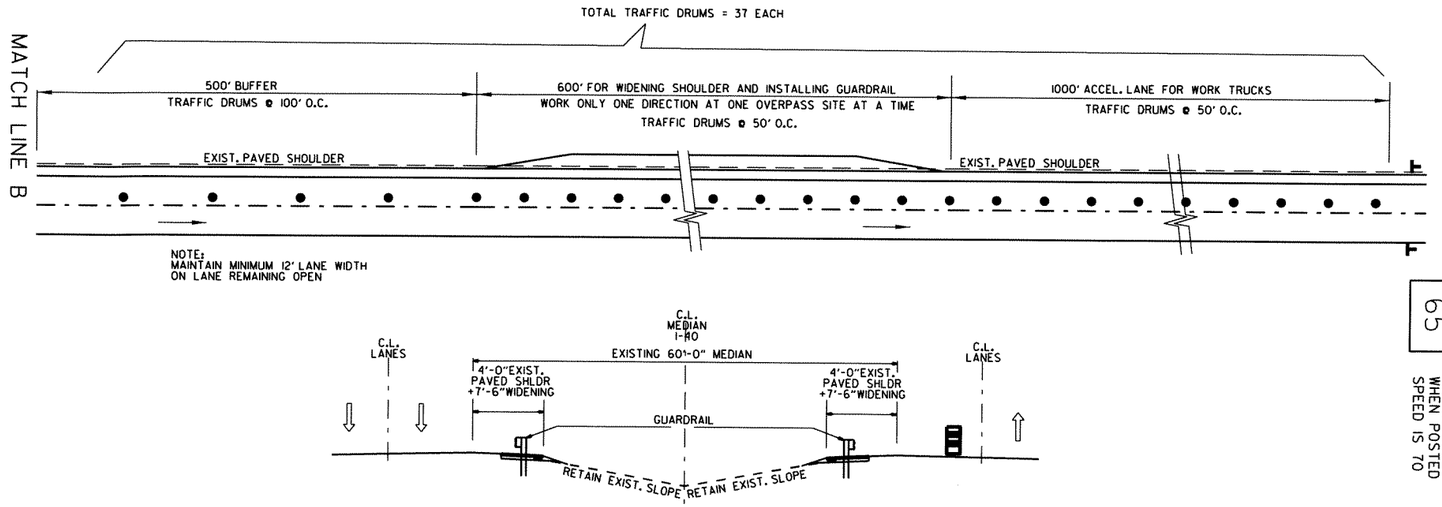
NOTE: REFER TO SP-MAINTENANCE OF TRAFFIC FOR LANE CLOSURE LIMITATIONS AND RESTRICTIONS. QUANTITY OF TRAFFIC DRUMS PROVIDED IN THE CONTRACT IS THE MAXIMUM NUMBER REQUIRED FOR ONE LANE CLOSURE.

CABLE MEDIAN BARRIER MAINTENANCE OF TRAFFIC LANE CLOSURE STAGE VI

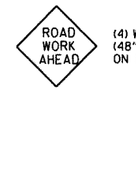
Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Cable Median Barrier\BB0804 CMB.dgn
Plotted : 11-SEP-2012 17:37 View=

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.		BB0804	40D	156

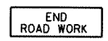
(2) MAINTENANCE OF TRAFFIC



MOVABLE WORK ZONE FOR GUARDRAIL INSTALLATION

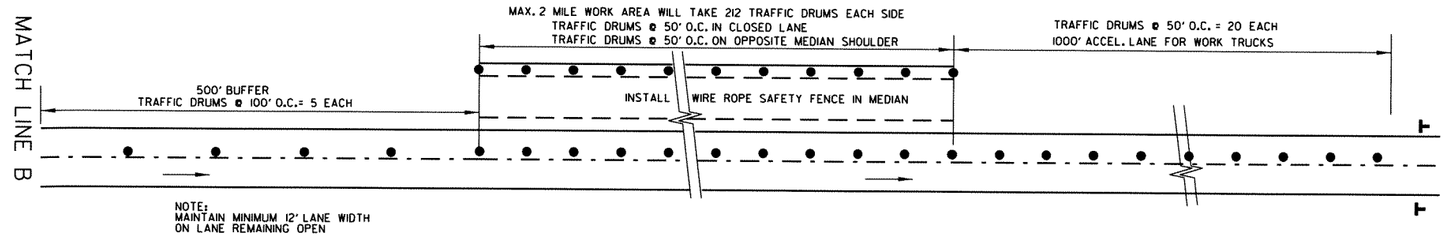


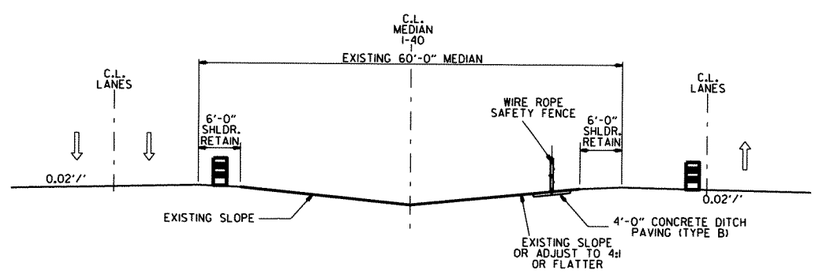
(4) W20-1 (48" X 48") ON ENTRANCE RAMPS



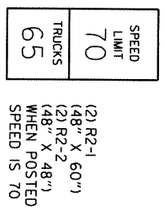
(4) G20-2 (48" X 24") ON EXIT RAMPS

NOTE: REFER TO SP-MAINTENANCE OF TRAFFIC FOR LANE CLOSURE LIMITATIONS AND RESTRICTIONS. QUANTITY OF TRAFFIC DRUMS PROVIDED IN THE CONTRACT IS THE MAXIMUM NUMBER REQUIRED FOR ONE LANE CLOSURE.





MOVABLE WORK ZONE FOR WRSF INSTALLATION





CABLE MEDIAN BARRIER MAINTENANCE OF TRAFFIC WORK AREAS STAGE VI

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Cable Median Barrier\BB0804 CMB.dgn
Plotted : 11-SEP-2012 17:37 View=

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.		BB0804	41	156
				(2)	QUANTITIES			

REMOVAL & DISPOSAL OF GUARDRAIL

STATION	STATION	LOCATION	LIN. FT.
4067+97.00	4068+72.00	LT. OF RT. MAIN LANES	75
4068+47.00	4069+22.00	RT. OF RT. MAIN LANES	75
4075+24.00	4076+99.00	RT. & LT. OF LT. MAIN LANES	350
4192+37.00	4206+62.00	RT. OF RT. MAIN LANES	1425
4250+01.00	4253+51.00	RT. OF RT. MAIN LANES	350
4251+96.00	4253+71.00	LT. OF RT. MAIN LANES	175
4252+45.00	4254+45.00	LT. OF LT. MAIN LANES	200
4259+20.00	4267+45.00	RT. OF LT. MAIN LANES	825
4259+94.00	4261+69.00	RT. OF RT. MAIN LANES	175
4260+09.00	4266+59.00	LT. OF LT. MAIN LANES	650
4343+95.00	4345+95.00	LT. OF LT. MAIN LANES	200
4355+70.00	4358+70.00	RT. OF RT. MAIN LANES	300
4356+80.00	4359+30.00	LT. OF RT. MAIN LANES	250
4358+50.00	4361+00.00	RT. OF LT. MAIN LANES	250
4359+06.00	4362+06.00	LT. OF LT. MAIN LANES	300
4363+95.00	4365+45.00	LT. OF LT. MAIN LANES	150
TOTAL			5750

REMOVAL & DISPOSAL OF GUARDRAIL ANCHOR POST

STATION	LOCATION	EACH
4071+47.15	LT. OF RT. MAIN LANES	1
4071+47.15	RT. OF RT. MAIN LANES	1
4074+99.27	LT. OF LT. MAIN LANES	1
4074+99.27	RT. OF LT. MAIN LANES	1
4253+83.00	LT. OF RT. MAIN LANES	1
4253+83.00	RT. OF RT. MAIN LANES	1
4254+34.00	LT. OF LT. MAIN LANES	1
4259+25.50	RT. OF RT. MAIN LANES	1
4259+76.50	LT. OF LT. MAIN LANES	1
4259+76.50	RT. OF LT. MAIN LANES	1
TOTAL		10

REMOVAL & DISPOSAL OF CONCRETE PARAPET WALL

STATION	STATION	LOCATION	EACH
4071+22	4071+48	RT. & LT. OF RT. MAIN LANES	2
4075+00	4075+26	RT. & LT. OF LT. MAIN LANES	2
4253+49	4253+75	RT. OF RT. MAIN LANES	1
4253+69	4253+95	LT. OF RT. MAIN LANES	1
4259+70	4259+96	RT. OF LT. MAIN LANES	1
4259+85	4260+11	LT. OF LT. MAIN LANES	1
TOTAL			8

REMOVAL & DISPOSAL OF CONCRETE PIER PROTECTION

STATION	STATION	LOCATION	LIN. FT.
4358+68	4358+98	RT. OF RT. MAIN LANES	30
4358+78	4359+08	LT. OF LT. MAIN LANES	30
TOTAL			60

REMOVAL & DISPOSAL OF PRECAST CONCRETE BARRIER

STATION	LOCATION	LIN. FT.
4430+00.00	MEDIAN	225
TOTAL		225

REMOVAL & DISPOSAL OF APPROACH SLABS & GUTTERS

STATION	STATION	LOCATION	EACH
4071+12.15	4071+47.15	RT. MAIN LANES	1
4071+12.15	4071+47.15	LT. MAIN LANES	1
4074+99.27	4075+34.27	RT. MAIN LANES	1
4074+99.27	4075+34.27	LT. MAIN LANES	1
4253+48.00	4253+83.00	RT. MAIN LANES	1
4253+99.00	4254+34.00	LT. MAIN LANES	1
4259+25.50	4259+60.50	RT. MAIN LANES	1
4259+76.50	4260+11.50	LT. MAIN LANES	1
TOTAL			8

REMOVAL OF EXISTING ASPHALT OVERLAY

STATION	STATION	LOCATION	SQ. YD.
4419+00.00	4430+00.00	RT. MAIN LANES	4644.44
4419+00.00	4430+00.00	LT. MAIN LANES	4644.44
TOTAL			9288.88

REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT

STATION	STATION	LOCATION	SQ. YD.
4246+50.00	4253+48.00	RT. MAIN LANES	1861.33
4259+60.50	4267+50.00	RT. MAIN LANES	2105.33
4246+50.00	4253+99.00	LT. MAIN LANES	1997.33
4260+11.50	4267+50.00	LT. MAIN LANES	1969.33
TOTAL			7933.32

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER

STATION	LOCATION	EACH
4119+46	ON CL CONST	1
4293+43	ON CL CONST	2
4359+00	ON CL CONST	2
4403+97	ON CL CONST	2
4455+84	ON CL CONST	2
TOTAL		9

NOTE: IMPACT ATTENUATION BARRIERS ARE TO REMAIN IN PLACE UNTIL THE GUARDRAIL IS INSTALLED.

SHAPING DITCH

LOCATION	STATION
ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER	10
TOTAL	10

NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

ACHM PATCHING OF EXISTING SHOULDERS

LOCATION	TON
ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER	400
TOTAL	400

NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

ACHM PATCHING OF EXISTING ROADWAY

LOCATION	TON
ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER	100
TOTAL	100

NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON
ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER	1000
TOTAL	1000

NOTE: QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

PORTLAND CEMENT CONCRETE PAVEMENT PATCHING

LOCATION	REMOVAL & DISPOSAL OF CONCRETE PAVEMENT FOR PATCHING	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (9" U.T.)
	SQ. YD.	
RT. MAIN LANES	1250	1250
TOTALS	1250	1250

NOTE: QUANTITY ESTIMATED. PORTLAND CEMENT CONCRETE PAVEMENT PATCHING SHALL BE DONE IF AND WHERE DIRECTED BY THE ENGINEER.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

REMOVAL AND DISPOSAL OF PIPE CULVERTS

STATION	LOCATION	EACH
4429+48.00	MEDIAN	1
TOTAL		1

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

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Plotted : 05-SEP-2012 12:33 View=

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.		BB0804	42	156
				(2)	QUANTITIES			

RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT

STATION	STATION	LOCATION	LENGTH	RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT	
				AVG. WIDTH	SQ. YD.
			LIN. FT.	FEET	
4075+34.27	4154+79.64	RT. MAIN LANES	7945.37	24	21187.7
4154+70.70	4207+09.82	RT. MAIN LANES	5239.12	24	13971.0
4207+15.82	4248+78.97	RT. MAIN LANES	4163.15	24	11101.7
4248+83.67	4253+48.00	RT. MAIN LANES	464.33	24	1238.2
4259+60.50	4332+99.61	RT. MAIN LANES	7339.11	24	19571.0
4333+10.01	4380+09.56	RT. MAIN LANES	4699.55	24	12532.1
4379+96.36	4422+71.20	RT. MAIN LANES	4274.84	24	11399.6
4422+83.80	4430+00.00	RT. MAIN LANES	716.20	24	1909.9
4305+70.50	4312+70.50	ACCELERATION LANE - HIGHWAY 7 INTERCHANGE	700.00	12	933.3
4312+70.50	4315+70.50	TAPER FOR ACCELERATION LANE	300.00	6	200.0
4075+34.27	4150+80.94	LT. MAIN LANES	7546.67	24	20124.5
4152+71.20	4206+89.72	LT. MAIN LANES	5418.52	24	14449.4
4205+97.12	4248+54.57	LT. MAIN LANES	4257.45	24	11353.2
4249+08.07	4253+99.00	LT. MAIN LANES	490.93	24	1309.1
4260+11.50	4333+10.01	LT. MAIN LANES	7298.51	24	19462.7
4332+99.61	4379+96.36	LT. MAIN LANES	4696.75	24	12524.7
4380+09.56	4422+83.80	LT. MAIN LANES	4274.24	24	11398.0
4422+71.20	4430+00.00	LT. MAIN LANES	728.80	24	1943.5
4093+65.70	4096+65.70	TAPER FOR ACCELERATION LANE	300.00	6	200.0
4096+65.70	4103+65.70	ACCELERATION LANE - HIGHWAY 64 INTERCHANGE	700.00	12	933.3
4271+55.70	4274+55.70	TAPER FOR ACCELERATION LANE	300.00	6	200.0
4274+55.70	4281+55.70	ACCELERATION LANE - HIGHWAY 7 INTERCHANGE	700.00	12	933.3
TOTAL					188876.2

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)

STATION	STATION	LOCATION	CONCRETE BARRIER WALL PIER PROTECTION (TYPE A)
			LIN. FT.
4358+68	4358+98	RT. OF RT. MAIN LANES	30
4358+78	4359+08	LT. OF LT. MAIN LANES	30
TOTAL			60

RUMBLE STRIPS IN ASPHALT SHOULDERS

STATION	STATION	LOCATION	LIN. FT.
4075+51.68	4154+79.64	RT. LANES - LT. & RT. SHOULDERS	15855.92
4154+70.70	4207+09.82	RT. LANES - LT. & RT. SHOULDERS	10478.24
4207+15.82	4248+78.97	RT. LANES - LT. & RT. SHOULDERS	8326.30
4248+83.67	4253+26.42	RT. LANES - LT. & RT. SHOULDERS	885.50
4259+82.58	4332+99.61	RT. LANES - LT. & RT. SHOULDERS	14634.06
4333+10.01	4380+09.56	RT. LANES - LT. & RT. SHOULDERS	9399.10
4379+96.36	4422+71.20	RT. LANES - LT. & RT. SHOULDERS	8549.68
4422+83.80	4430+00.00	RT. LANES - LT. & RT. SHOULDERS	1432.40
4070+00.00	4071+02.56	RT. LANES - LT. & RT. SHOULDERS	205.12
4075+51.68	4150+80.94	LT. LANES - LT. & RT. SHOULDERS	15058.52
4152+71.20	4206+89.72	LT. LANES - LT. & RT. SHOULDERS	10837.04
4205+97.12	4248+54.57	LT. LANES - LT. & RT. SHOULDERS	8514.90
4249+08.07	4253+78.42	LT. LANES - LT. & RT. SHOULDERS	940.70
4260+34.58	4333+10.01	LT. LANES - LT. & RT. SHOULDERS	14550.86
4332+99.61	4379+96.36	LT. LANES - LT. & RT. SHOULDERS	9393.50
4380+09.56	4422+83.80	LT. LANES - LT. & RT. SHOULDERS	8548.48
4422+71.20	4430+00.00	LT. LANES - LT. & RT. SHOULDERS	1457.60
4070+00.00	4071+02.56	LT. LANES - LT. & RT. SHOULDERS	205.12
TOTAL			139273.04

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	LENGTH	WIDTH	SQ. YD.
			LIN. FT.	FEET	
4070+00.00	4070+75.00	RT. MAIN LANES & SHOULDERS	75.00	38	316.67
4070+00.00	4070+75.00	LT. MAIN LANES & SHOULDERS	75.00	38	316.67
4124+00.36	4125+00.36	HIGHWAY 64 INTERCHANGE - RAMP 3	100.00	25	277.78
4126+40.70	4127+40.70	HIGHWAY 64 INTERCHANGE - RAMP 4	100.00	25	277.78
4396+92.00	4397+92.00	HIGHWAY 326 INTERCHANGE - RAMP 1	100.00	25	277.78
4413+44.40	4414+44.40	HIGHWAY 326 INTERCHANGE - RAMP 2	100.00	25	277.78
4408+39.00	4409+39.00	HIGHWAY 326 INTERCHANGE - RAMP 3	100.00	25	277.78
4393+23.41	4394+23.41	HIGHWAY 326 INTERCHANGE - RAMP 4	100.00	25	277.78
4114+68.80	4121+15.90	HIGHWAY 64 INTERCHANGE - RT. SHOULDER - RAMP 1	647.10	6	431.40
4114+68.80	4121+15.90	HIGHWAY 64 INTERCHANGE - LT. SHOULDER - RAMP 1	647.10	4	287.60
4108+15.70	4110+00.00	HIGHWAY 64 INTERCHANGE - RT. SHOULDER - RAMP 2	184.30	6	122.87
4108+15.70	4110+00.00	HIGHWAY 64 INTERCHANGE - LT. SHOULDER - RAMP 2	184.30	4	81.91
4286+05.70	4291+73.50	HIGHWAY 7 INTERCHANGE - RT. SHOULDER - RAMP 1	567.80	6	378.53
4286+05.70	4291+73.50	HIGHWAY 7 INTERCHANGE - LT. SHOULDER - RAMP 1	567.80	4	252.36
4291+02.90	4297+94.40	HIGHWAY 7 INTERCHANGE - RT. SHOULDER - RAMP 2	691.50	6	461.00
4291+02.90	4297+94.40	HIGHWAY 7 INTERCHANGE - LT. SHOULDER - RAMP 2	691.50	4	307.33
4287+86.00	4296+33.80	HIGHWAY 7 INTERCHANGE - RT. SHOULDER - RAMP 3	847.80	6	565.20
4287+86.00	4296+33.80	HIGHWAY 7 INTERCHANGE - LT. SHOULDER - RAMP 3	847.80	4	376.80
4295+65.10	4301+20.50	HIGHWAY 7 INTERCHANGE - RT. SHOULDER - RAMP 4	555.40	6	370.27
4295+65.10	4301+20.50	HIGHWAY 7 INTERCHANGE - LT. SHOULDER - RAMP 4	555.40	4	246.84
TOTAL					6182.13

SCARIFYING CONCRETE PAVEMENT

STATION	STATION	LOCATION	LENGTH	WIDTH	SQ. YD.
			LIN. FT.	FEET	
4114+68.80	4115+68.80	HIGHWAY 64 INTERCHANGE - RAMP 1	100.00	15	166.67
4108+15.70	4109+15.70	HIGHWAY 64 INTERCHANGE - RAMP 2	100.00	15	166.67
4286+05.70	4287+05.70	HIGHWAY 7 INTERCHANGE - RAMP 1	100.00	15	166.67
4296+94.40	4297+94.40	HIGHWAY 7 INTERCHANGE - RAMP 2	100.00	15	166.67
4287+86.00	4288+86.00	HIGHWAY 7 INTERCHANGE - RAMP 3	100.00	15	166.67
4300+20.50	4301+20.50	HIGHWAY 7 INTERCHANGE - RAMP 4	100.00	15	166.67
TOTAL					1000.02

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	GUARDRAIL MOVED AND RECONSTRUCTED	TERMINAL ANCHOR POSTS (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
			LIN. FT.	LIN. FT.	EACH		
4068+20.31	4071+39.06	LT. OF RT. MAIN LANES		300			1
4068+70.31	4071+39.06	RT. OF RT. MAIN LANES		250			1
4075+15.18	4078+33.93	RT. OF LT. MAIN LANES	250			1	1
4075+15.18	4077+83.93	LT. OF LT. MAIN LANES	200			1	1
4115+23.00	4120+48.00	LT. OF RT. MAIN LANES	475		1	1	
4118+18.00	4123+43.00	RT. OF LT. MAIN LANES	475		1	1	
4192+37.00	4206+62.00	RT. OF RT. MAIN LANES	1375		1	1	
4250+44.17	4253+62.92	LT. OF RT. MAIN LANES	250			1	1
4250+94.17	4253+62.92	RT. OF RT. MAIN LANES	200			1	1
4259+98.08	4263+16.83	RT. OF LT. MAIN LANES	250			1	1
4259+98.08	4262+66.83	LT. OF LT. MAIN LANES	200			1	1
4289+40.00	4294+90.00	LT. OF RT. MAIN LANES	500		1	1	
4292+08.00	4297+58.00	RT. OF LT. MAIN LANES	500		1	1	
4343+80.00	4347+05.00	LT. OF LT. MAIN LANES	275		1	1	
4355+00.00	4360+25.00	LT. OF RT. MAIN LANES	475		1	1	
4355+99.25	4358+68.00	RT. OF RT. MAIN LANES	200			1	1
4357+45.00	4362+70.00	RT. OF LT. MAIN LANES	475		1	1	
4359+08.00	4361+76.75	LT. OF LT. MAIN LANES	200			1	1
4363+80.00	4367+05.00	LT. OF LT. MAIN LANES	275		1	1	
4400+08.00	4405+58.00	LT. OF RT. MAIN LANES	500		1	1	
4402+76.00	4408+26.00	RT. OF LT. MAIN LANES	500		1	1	
4451+86.00	4457+36.00	LT. OF RT. MAIN LANES	500		1	1	
4454+38.00	4459+88.00	RT. OF LT. MAIN LANES	500		1	1	
TOTALS			8575	550	13	21	10

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

QUANTITIES

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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.		BB0804	43	156
				(2)		QUANTITIES		

EARTHWORK

STATION	STATION	LOCATION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	CU. YD.
4070+00.00	4071+39.06	RT. MAIN LANES & SHOULDERS		371
		APPROACH WIDENING WEST OF BRIDGE NO. B6916		1422
		APPROACH WIDENING EAST OF BRIDGE NO. B6916		1422
4075+15.18	4080+00.00	RT. MAIN LANES & SHOULDERS		1294
4070+00.00	4071+39.06	LT. MAIN LANES & SHOULDERS		371
		APPROACH WIDENING WEST OF BRIDGE NO. A6916		1422
		APPROACH WIDENING EAST OF BRIDGE NO. A6916		1422
4075+15.18	4080+00.00	LT. MAIN LANES & SHOULDERS		1294
4246+50.00	4253+62.92	RT. MAIN LANES & SHOULDERS		1903
		APPROACH WIDENING WEST OF BRIDGE NO. B6917		1576
		APPROACH WIDENING EAST OF BRIDGE NO. B6917		1434
4259+46.08	4267+50.00	RT. MAIN LANES & SHOULDERS		2146
4246+50.00	4254+14.92	LT. MAIN LANES & SHOULDERS		2042
		APPROACH WIDENING WEST OF BRIDGE NO. A6917		1576
		APPROACH WIDENING EAST OF BRIDGE NO. A6917		1434
4259+98.08	4267+50.00	LT. MAIN LANES & SHOULDERS		2008
* ENTIRE PROJECT - WIDENING FOR GUARDRAIL			1164	1759
** 4063+00		MEDIAN CROSSOVER	5036	3504
		HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 1A	2902	2414
		HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 1B	916	762
		HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 2A	2009	1671
		HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 2B	875	728
		HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 2A & 2B ACCEL. LANE	952	419
		HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 3A	2426	2018
		HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 3B	1161	966
		HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 4A	3566	2966
		HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 4B	1227	1021
		HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 4A & 4B ACCEL. LANE	1011	445
		HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 1A	1992	1657
		HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 1B	874	727
		HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 1A & 1B ACCEL. LANE	957	421
		HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 2A	1788	1487
		HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 2B	980	815
		HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 3A	2360	1963
		HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 3B	792	659
		HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 4A	1838	1529
		HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 4B	747	621
		HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 4A & 4B ACCEL. LANE	873	384
BRIDGES A&B6916		EXISTING APPROACH EMBANKMENT - MILL CREEK BRIDGES	300	
		HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 1A	1714	1426
		HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 1B	753	626
		HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 2A	2544	2116
		HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 2A ACCEL. LANE	448	197
		HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 3A	2021	1681
		HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 4A	2085	1734
		HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 4B	872	725
		HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 4A & 4B ACCEL. LANE	1011	445
** 4430+00		MEDIAN CROSSOVER	1425	
4070+75.00	4071+12.15	REMOVAL & DISPOSAL OF ASPHALT PAVEMENT	105	
TOTALS			49724	61023

NOTE: EARTHWORK QUANTITIES SHOWN ABOVE SHALL BE PAID FOR AS PLAN QUANTITIES.

** REMOVAL OF MEDIAN CROSSOVER AND TEMPORARY RAMP PAVEMENT TO BE PAID FOR AS "UNCLASSIFIED EXCAVATION."

BENCH MARK CAPS

STATION	LOCATION	EACH
4071+39	BRIDGE NO. 6916 A&B	1
4253+89	BRIDGE NO. 6917 A&B	1
TOTALS		2

NOTE: BENCH MARK CAPS TO BE FURNISHED AND INSTALLED BY STATE FORCES.

SOIL STABILIZATION

LOCATION	TONS
*ENTIRE PROJECT - TO BE USED IF AND WHERE	750
DIRECTED BY THE ENGINEER	
TOTAL	750

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU. YD.
ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER	25
TOTAL	25

NOTE: QUANTITIES ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

STATE OF ARKANSAS
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No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

APPROACH SLABS & GUTTERS

STATION	STATION	LOCATION	APPROACH SLABS	APPROACH GUTTERS (TYPE C)	REINFORCING STEEL-RDWY. (GRADE 60)	AGGREGATE BASE COURSE (CLASS 7)
			CU. YD.		LBS.	TON
4071+02.56	4071+39.06	LT. SIDE - RT. MAIN LANES		11.52	623	
4071+02.56	4071+39.06	RT. SIDE - RT. MAIN LANES		18.06	991	
4071+02.56	4071+39.06	RT. MAIN LANES	49.15		5556	39
4075+15.18	4075+51.68	LT. SIDE - RT. MAIN LANES		11.52	623	
4075+15.18	4075+51.68	RT. SIDE - RT. MAIN LANES		18.06	991	
4075+15.18	4075+51.68	RT. MAIN LANES	49.15		5556	39
4071+02.56	4071+39.06	RT. SIDE - LT. MAIN LANES		11.52	623	
4071+02.56	4071+39.06	LT. SIDE - LT. MAIN LANES		18.06	991	
4071+02.56	4071+39.06	LT. MAIN LANES	49.15		5556	39
4075+15.18	4075+51.68	RT. SIDE - LT. MAIN LANES		11.52	623	
4075+15.18	4075+51.68	LT. SIDE - LT. MAIN LANES		18.06	991	
4075+15.18	4075+51.68	LT. MAIN LANES	49.15		5556	39
4253+26.42	4253+62.92	LT. SIDE - RT. MAIN LANES		11.52	623	
4253+26.42	4253+62.92	RT. SIDE - RT. MAIN LANES		18.06	991	
4253+26.42	4253+62.92	RT. MAIN LANES	49.15		5556	39
4259+46.08	4259+82.58	LT. SIDE - RT. MAIN LANES		11.52	623	
4259+46.08	4259+82.58	RT. SIDE - RT. MAIN LANES		18.06	991	
4259+46.08	4259+82.58	RT. MAIN LANES	49.15		5556	39
4253+78.42	4254+14.92	RT. SIDE - LT. MAIN LANES		11.52	623	
4253+78.42	4254+14.92	LT. SIDE - LT. MAIN LANES		18.06	991	
4253+78.42	4254+14.92	LT. MAIN LANES	49.15		5556	39
4259+98.08	4260+34.58	RT. SIDE - LT. MAIN LANES		11.52	623	
4259+98.08	4260+34.58	LT. SIDE - LT. MAIN LANES		18.06	991	
4259+98.08	4260+34.58	LT. MAIN LANES	49.15		5556	39
TOTALS			393.20	236.64	57360	312

FENCING

STATION	STATION	LOCATION	REMOVAL & DISPOSAL OF FENCE	WIRE FENCE (TYPE A)	16'-0" GATES
			LIN. FT.		EACH
BR. NO. B6916		RT. OF RT. MAIN LANES	201	201	
BR. NO. B6917		RT. OF RT. MAIN LANES	182	182	
* ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER					8
BR. NO. A6916		LT. OF LT. MAIN LANES	214	214	
BR. NO. A6917		LT. OF LT. MAIN LANES	204	204	
TOTALS			801	801	8

* QUANTITY ESTIMATED. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

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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.		BB0804	43A	156
				(2)	QUANTITIES			

SOIL LOG

STATION	LOCATION	DEPTH FEET	AASHTO CLASSIFICATION	LIQUID LIMIT	PLASTICITY INDEX	REMARKS
4262+00	CL	0 - 5	A-6(13)	33	16	BROWN
4276+00	5' RT CL	0 - 5	A-7-6(26)	45	26	BROWN
4314+00	6' RT CL	0 - 5	A-6(13)	33	16	BROWN
4366+00	6' RT CL	0 - 5	A-4(4)	25	7	BROWN
4418+00	6' RT CL	0 - 5	A-6(14)	37	18	BROWN
4470+00	3' RT CL	0 - 5	A-6(19)	40	21	BROWN
4522+00	CL	0 - 5	A-6(8)	30	12	BROWN

SOIL CHARACTERISTICS TABULATED ABOVE ARE REPRESENTATIVE AT THE LOCATION OF THE SAMPLE, AND FROM SURFACE INDICATIONS ARE TYPICAL FOR THE LIMITS SHOWN. THESE DATA ARE SHOWN FOR INFORMATION ONLY. THE STATE WILL NOT BE RESPONSIBLE FOR VARIATIONS IN THE SOIL CHARACTERISTICS AND/OR EXTENT OF SAME DIFFERING FROM THE ABOVE TABULATIONS.

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH LIN. FT.	CONCRETE DITCH PAVING W FT.	B FT.	TYPE A SQ. YD.	TYPE B F.A.P. HSIP-40-2(79)77 SQ. YD.	SOLID SODDING F.A.P. HSIP-40-2(79)77 SQ. YD.	WATER M. GAL
4077+84	4117+96	CL MEDIAN LT	4012	4			1783	892	11.2
4195+75	4253+91	CL MEDIAN LT	5830	4			2591	1296	16.3
4262+57	4291+82	CL MEDIAN LT	2925	4			1300	650	8.2
4295+12	4354+79	CL MEDIAN RT	5967	4			2652	1326	16.7
4362+92	4402+54	CL MEDIAN LT	3962	4			1761	880	11.1
4405+79	4451+64	CL MEDIAN RT	4585	4			2038	1019	12.8
* ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER						100	100		
TOTALS						100	12225	6063	76.3

*QUANTITIES ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.
BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING.

WIRE ROPE SAFETY FENCE

STATION	STATION	LOCATION	WIRE ROPE SAFETY FENCE F.A.P. HSIP-40-2(79)77 LIN. FT.	WRSF ANCHOR* EACH	WRSF MAINTENANCE MATERIALS F.A.P. HSIP-40-2(79)77 LUMP SUM
4077+84.00	4118+68.00	I-40 CL MEDIAN LT	4084	2	
4195+75.00	4253+91.00	I-40 CL MEDIAN LT	5830	2	
4262+57.00	4292+58.00	I-40 CL MEDIAN LT	3001	2	
4294+40.00	4357+96.00	I-40 CL MEDIAN RT	6356	2	
4359+76.00	4403+26.00	I-40 CL MEDIAN LT	4350	2	
4405+08.00	4454+88.00	I-40 CL MEDIAN RT	4980	2	
ENTIRE PROJECT					1.00
TOTALS			28601	12	1.00

* THIS ITEM SHOWN FOR INFORMATION ONLY

EROSION CONTROL

LOCATION	LIME TON	SEEDING ACRE	MULCH COVER ACRE	WATER M. GAL.	SECOND SEEDING APPLICATION ACRE	SOLID SODDING SQ. YD.
ENTIRE PROJECT	138	69.00	69.00	7040.6	69.00	208
TOTALS	138	69.00	69.00	7040.6	69.00	208

"BASIS OF ESTIMATE: LIME = 2 TONS PER ACRE SEEDING
WATER = 102.0 M. GAL. PER ACRE OF SEEDING
AND 12.6 GAL. PER SQ. YD. OF SOLID SODDING"

TEMPORARY EROSION CONTROL

LOCATION	TEMPORARY SEEDING ACRE	MULCH COVER ACRE	WATER M. GAL.	BALED STRAW DITCH CHECKS (E-1) BALE	SAND BAG DITCH CHECKS (E-5) BAG	DROP INLET SILT FENCE (E-7) LIN. FT.	SEDIMENT REMOVAL & DISPOSAL CU. YD.	SILT FENCE (E-11) LIN. FT.
ENTIRE JOB					1380	612	105	
ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER	30.00	30.00	612.0	200	200	990	200	2000
TOTALS	30.00	30.00	612.0	200	1580	1602	305	2000

BASIS OF ESTIMATE: WATER = 20.4 M. GAL. PER ACRE OF TEMPORARY SEEDING
SAND BAG DITCH CHECKS . . . . . 20 BAGS / LOCATION
DROP INLET SILT FENCE . . . . . 18 LIN FT./LOCATION
BALED STRAW . . . . . 4 BALES/LOCATION

NOTE: QUANTITIES ESTIMATED. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.
TEMPORARY EROSION CONTROL DEVICES SHOWN SHALL BE INSTALLED IN SUCH A SEQUENCE AS TO DETER EROSION AND SEDIMENTATION OF U.S. WATERWAYS AS EXPLAINED BY THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-10-12

QUANTITIES

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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.		BB0804	44	156
				(2)	QUANTITIES			

4" PIPE UNDERDRAINS

STATION	STATION	LOCATION	4" PIPE UNDERDRAINS				UNDERDRAIN VIDEO INSPECTION	UNDERDRAIN OUTLET PROTECTORS	UNDERDRAIN COVER
			EDGE DRAINS	DOUBLE LATERALS (NON-PERFORATED)		TOTAL			
			LIN. FT.		LIN. FT.		LIN. FT.	EACH	LIN. FT.
4075+51.68	4110+03.00	RT. SHOULDER - RT. MAIN LANES	3451	14	700	4151	4151	14	3451
4109+83.00	4118+82.00	RT. SHOULDER - RT. MAIN LANES	899	4	200	1099	1099	4	899
4118+62.00	4154+79.64	LT. SHOULDER - RT. MAIN LANES	3618	14	700	4318	4318	14	3618
4154+70.70	4155+68.00	LT. SHOULDER - RT. MAIN LANES	97	2	100	197	197	2	97
4155+48.00	4207+09.82	RT. SHOULDER - RT. MAIN LANES	5162	21	1050	6212	6212	21	5162
4207+15.82	4225+62.00	RT. SHOULDER - RT. MAIN LANES	1846	7	350	2196	2196	7	1846
4225+42.00	4248+78.97	LT. SHOULDER - RT. MAIN LANES	2337	9	450	2787	2787	9	2337
4248+83.67	4250+61.00	LT. SHOULDER - RT. MAIN LANES	177	2	100	277	277	2	177
4250+41.00	4253+26.42	RT. SHOULDER - RT. MAIN LANES	285	2	100	385	385	2	285
4259+82.58	4283+20.00	RT. SHOULDER - RT. MAIN LANES	2337	9	450	2787	2787	9	2337
4283+00.00	4305+70.00	RT. SHOULDER - RT. MAIN LANES	2270	9	450	2720	2720	9	2270
4305+50.00	4332+99.61	RT. SHOULDER - RT. MAIN LANES	2750	11	550	3300	3300	11	2750
4333+10.01	4360+90.00	RT. SHOULDER - RT. MAIN LANES	2780	11	550	3330	3330	11	2780
4360+70.00	4380+09.56	LT. SHOULDER - RT. MAIN LANES	1940	8	400	2340	2340	8	1940
4379+96.36	4381+46.00	LT. SHOULDER - RT. MAIN LANES	150	2	100	250	250	2	150
4381+26.00	4422+71.20	RT. SHOULDER - RT. MAIN LANES	4145	17	850	4995	4995	17	4145
4422+83.80	4430+00.00	RT. SHOULDER - RT. MAIN LANES	716	3	150	866	866	3	716
4075+51.68	4103+85.00	LT. SHOULDER - LT. MAIN LANES	2833	11	550	3383	3383	11	2833
4103+65.00	4150+80.94	LT. SHOULDER - LT. MAIN LANES	4716	19	950	5666	5666	19	4716
4152+71.20	4178+51.00	LT. SHOULDER - LT. MAIN LANES	2580	10	500	3080	3080	10	2580
4178+31.00	4206+89.72	RT. SHOULDER - LT. MAIN LANES	2859	11	550	3409	3409	11	2859
4205+97.12	4207+84.00	RT. SHOULDER - LT. MAIN LANES	187	2	100	287	287	2	187
4207+64.00	4248+54.57	LT. SHOULDER - LT. MAIN LANES	4091	16	800	4891	4891	16	4091
4249+08.07	4253+78.42	LT. SHOULDER - LT. MAIN LANES	470	2	100	570	570	2	470
4260+34.58	4281+76.00	LT. SHOULDER - LT. MAIN LANES	2141	9	450	2591	2591	9	2141
4281+56.00	4288+00.00	LT. SHOULDER - LT. MAIN LANES	644	3	150	794	794	3	644
4287+80.00	4333+10.01	RT. SHOULDER - LT. MAIN LANES	4530	18	900	5430	5430	18	4530
4332+99.61	4333+97.00	RT. SHOULDER - LT. MAIN LANES	97	2	100	197	197	2	97
4333+77.00	4379+96.36	LT. SHOULDER - LT. MAIN LANES	4619	18	900	5519	5519	18	4619
4380+09.56	4404+56.00	LT. SHOULDER - LT. MAIN LANES	2446	10	500	2946	2946	10	2446
4404+36.00	4422+83.80	RT. SHOULDER - LT. MAIN LANES	1848	7	350	2198	2198	7	1848
4422+71.20	4424+21.00	RT. SHOULDER - LT. MAIN LANES	150	2	100	250	250	2	150
4424+01.00	4430+00.00	LT. SHOULDER - LT. MAIN LANES	599	2	100	699	699	2	599
TOTALS						84120	84120	287	69770

TEMPORARY STRUCTURES

STATION	STATION	LOCATION	DESCRIPTION	18" TEMPORARY CULVERT
				LIN. FT.
4098+00.00	4100+00.00	IN MEDIAN	18" TEMPORARY CULVERT	200
4101+00.00	4102+75.00	IN MEDIAN	18" TEMPORARY CULVERT	175
4102+75.00	4104+50.00	IN MEDIAN	18" TEMPORARY CULVERT	175
4106+50.00	4109+00.00	IN MEDIAN	18" TEMPORARY CULVERT	250
4130+25.00	4131+75.00	IN MEDIAN	18" TEMPORARY CULVERT	150
4131+75.00	4134+00.00	IN MEDIAN	18" TEMPORARY CULVERT	225
4138+00.00	4139+75.00	IN MEDIAN	18" TEMPORARY CULVERT	175
4273+98.00	4275+73.00	IN MEDIAN	18" TEMPORARY CULVERT	175
4275+77.00	4277+52.00	IN MEDIAN	18" TEMPORARY CULVERT	175
4280+25.00	4282+50.00	IN MEDIAN	18" TEMPORARY CULVERT	225
4302+25.00	4304+00.00	IN MEDIAN	18" TEMPORARY CULVERT	175
4305+25.00	4307+25.00	IN MEDIAN	18" TEMPORARY CULVERT	200
4307+50.00	4309+25.00	IN MEDIAN	18" TEMPORARY CULVERT	175
4309+50.00	4311+25.00	IN MEDIAN	18" TEMPORARY CULVERT	175
4382+75.00	4384+50.00	IN MEDIAN	18" TEMPORARY CULVERT	175
4388+00.00	4389+75.00	IN MEDIAN	18" TEMPORARY CULVERT	175
4391+00.00	4392+50.00	IN MEDIAN	18" TEMPORARY CULVERT	150
4414+25.00	4415+50.00	IN MEDIAN	18" TEMPORARY CULVERT	125
4415+75.00	4417+50.00	IN MEDIAN	18" TEMPORARY CULVERT	175
TOTAL				3450

STRUCTURES

STATION	LOCATION	DESCRIPTION	DROP INLETS ADJUSTED TO GRADE	REINF. CONC. PIPE CULVERT (CLASS III)				TYPE OF BEDDING	FLARED END SECTIONS FOR R.C. PIPE CULVERTS				SOLID SODDING	WATER
				24"	30"	36"	42"		24"	30"	36"	42"	SQ. YD.	M. GAL
			EACH	LIN. FT.					EACH					
4076+00.00	MEDIAN	ADJUST DROP INLET TO PROPOSED MEDIAN GRADE	1											
4090+00.00	LT. OF LT. MAIN LANES	EXTEND R.C. PIPE CULVERT W/ F.E.S. - LT.				8		3			2		18	0.2
4100+46.00	LT. OF LT. MAIN LANES	EXTEND R.C. PIPE CULVERT W/ F.E.S. - LT.				24		3			2		18	0.2
4152+00.00	LT. OF LT. MAIN LANES	EXTEND R.C. PIPE CULVERT W/ F.E.S. - LT.					4	3				1	23	0.3
4202+00.00	RT. OF RT. MAIN LANES	EXTEND R.C. PIPE CULVERT W/ F.E.S. - RT.			8			3		1			13	0.2
4204+85.00	RT. OF RT. MAIN LANES	EXTEND R.C. PIPE CULVERT W/ F.E.S. - RT.		4				3	1				8	0.1
4253+50.00	MEDIAN	ADJUST DROP INLET TO PROPOSED MEDIAN GRADE	1											
4309+80.00	LT. OF LT. MAIN LANES	EXTEND R.C. PIPE CULVERT W/ F.E.S. - LT.		8				3	1				8	0.1
TOTALS			2	12	8	32	4		2	1	4	1	88	1.1

NOTE: REFER TO STANDARD DRAWINGS PCC-1, FES-1 AND FES-2
FOR R.C. PIPE CULVERT INSTALLATIONS, USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING.

JOINT REHABILITATION

STATION	STATION	LOCATION	TYPE A			TYPE B			TYPE D
			NUMBER OF JOINTS	LENGTH FEET	TOTAL LENGTH LIN. FT.	NUMBER OF JOINTS	LENGTH FEET	TOTAL LENGTH LIN. FT.	LINEAR FEET
4115+68.80	4121+15.90	HIGHWAY 64 INTERCHANGE - RAMP 1	13	15	195	24	15	360	
4109+15.70	4110+00.0	HIGHWAY 64 INTERCHANGE - RAMP 2	2	15	30	4	15	60	
4287+05.70	4291+73.50	HIGHWAY 7 INTERCHANGE - RAMP 1	11	15	165	21	15	315	
4291+02.90	4296+94.40	HIGHWAY 7 INTERCHANGE - RAMP 2	14	15	210	26	15	390	
4288+86.0	4296+33.80	HIGHWAY 7 INTERCHANGE - RAMP 3	17	15	255	33	15	495	
4295+65.10	4300+20.50	HIGHWAY 7 INTERCHANGE - RAMP 4	11	15	165	20	15	300	
* ENTIRE PROJECT - PATCHES									150
TOTALS					1020			1920	150

* NOTE: QUANTITY ESTIMATED - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

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				6	ARK.			
				JOB NO.		BB0804	45	156
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
95-12

SHOULDER RECONSTRUCTION FOR MAINTENANCE OF TRAFFIC

STATION	STATION	LOCATION	LENGTH	AVG. WIDTH	AREA	ACHM SURFACE COURSE (1/2")		ACHM BINDER COURSE (1")		TACK COAT 0.03 GAL. PER SQ. YD.	TRENCHING EXISTING SHOULDERS
						LBS. PER SQ. YD.	TON	LBS. PER SQ. YD.	TON		
			LIN. FT.	FEET	SQ. YD.					GAL.	STATION
4075+34.27	4154+79.64	LT. OF RT. MAIN LANES	7945.37	6	5296.91	330	873.99	990	2621.97	158.91	79.45
4154+70.70	4207+09.82	LT. OF RT. MAIN LANES	5239.12	6	3492.75	330	576.30	990	1728.91	104.78	52.39
4207+15.82	4248+78.97	LT. OF RT. MAIN LANES	4163.15	6	2775.43	330	457.95	990	1373.84	83.26	41.63
4248+83.67	4253+48.00	LT. OF RT. MAIN LANES	464.33	6	309.55	330	51.08	990	153.23	9.29	4.64
4259+60.50	4332+99.61	LT. OF RT. MAIN LANES	7339.11	6	4892.74	330	807.30	990	2421.91	146.78	73.39
4333+10.01	4380+09.56	LT. OF RT. MAIN LANES	4699.55	6	3133.03	330	516.95	990	1550.85	93.99	47.00
4379+96.36	4422+71.20	LT. OF RT. MAIN LANES	4274.84	6	2849.89	330	470.23	990	1410.70	85.50	42.75
4422+83.80	4424+99.68	LT. OF RT. MAIN LANES	215.88	6	143.92	330	23.75	990	71.24	4.32	2.16
4075+34.27	4078+34.27	RT. OF RT. MAIN LANES	300.00	7	233.33	330	38.50	990	115.50	7.00	3.00
4250+48.00	4253+48.00	RT. OF RT. MAIN LANES	300.00	7	233.33	330	38.50	990	115.50	7.00	3.00
4259+60.50	4262+60.50	RT. OF RT. MAIN LANES	300.00	7	233.33	220	25.67	440	51.33	7.00	3.00
TOTALS							3880.22		11614.98	707.83	352.41

BASIS OF ESTIMATE:
ACHM BINDER COURSE (1") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

BASE AND SURFACING - MAINTENANCE OF TRAFFIC

STATION	LOCATION	ACHM SURFACE COURSE (1/2")			ACHM BINDER COURSE (1")			ACHM BASE COURSE (1 1/2")			TACK COAT 0.03 GAL PER SQ. YD.	
		SQ. YD.	LBS. PER SQ. YD.	TON	SQ. YD.	LBS. PER SQ. YD.	TON	SQ. YD.	LBS. PER SQ. YD.	TON	SQ. YD.	GAL.
4063+00	MEDIAN CROSSOVER	2984.59	220	328.30	3309.01	330	545.99	3925.39	1100	2158.96	7234.40	217.03
	HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 1A	1542.58	220	169.68				1810.86	880	796.78	3621.72	108.65
	HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 1B	486.56	220	53.52				571.18	880	251.32	1142.36	34.27
	HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 2A	1067.33	220	117.41				1252.96	880	551.30	2505.92	75.18
	HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 2B	464.81	220	51.13				545.65	880	240.09	1091.30	32.74
	HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 2A & 2B ACCEL. LANE	1693.33	220	186.27	1975.56	880	869.25				3668.89	110.07
	HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 3A	1289.40	220	141.83				1513.64	880	666.00	3027.28	90.82
	HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 3B	616.96	220	67.87				724.26	880	318.67	1448.52	43.46
	HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 4A	1894.65	220	208.41				2224.15	880	978.63	4448.30	133.45
	HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 4B	652.31	220	71.75				765.75	880	336.93	1531.50	45.95
	HIGHWAY 64 INTERCHANGE - TEMPORARY RAMP 4A & 4B ACCEL. LANE	1797.33	220	197.71	2096.89	880	922.63				3894.22	116.83
	HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 1A	1058.45	220	116.43				1242.53	880	546.71	2485.06	74.55
	HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 1B	464.40	220	51.08				545.16	880	239.87	1090.32	32.71
	HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 1A & 1B ACCEL. LANE	1702.67	220	187.29	1986.44	880	874.03				3689.11	110.67
	HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 2A	949.93	220	104.49				1115.14	880	490.66	2230.28	66.91
	HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 2B	520.52	220	57.26				611.05	880	268.86	1222.10	36.66
	HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 3A	1254.14	220	137.96				1472.26	880	647.79	2944.52	88.34
	HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 3B	420.80	220	46.29				493.98	880	217.35	987.96	29.64
	HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 4A	976.84	220	107.45				1146.73	880	504.56	2293.46	68.80
	HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 4B	396.94	220	43.66				465.97	880	205.03	931.94	27.96
	HIGHWAY 7 INTERCHANGE - TEMPORARY RAMP 4A & 4B ACCEL. LANE	1553.33	220	170.87	1812.22	880	797.38				3365.55	100.97
	HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 1A	911.23	220	100.24				1069.70	880	470.67	2139.40	64.18
	HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 1B	400.13	220	44.01				469.71	880	206.67	939.42	28.18
	HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 2A	1351.81	220	148.70				1586.90	880	698.24	3173.80	95.21
	HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 2A ACCEL. LANE	796.00	220	87.56	928.67	880	408.61				1724.67	51.74
	HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 3A	1074.06	220	118.15				1260.86	880	554.78	2521.72	75.65
	HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 4A	1107.69	220	121.85				1300.33	880	572.15	2600.66	78.02
	HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 4B	463.26	220	50.96				543.83	880	239.29	1087.66	32.63
	HIGHWAY 326 INTERCHANGE - TEMPORARY RAMP 4A & 4B ACCEL. LANE	1798.67	220	197.85	2098.44	880	923.31				3897.11	116.91
4430+00	MEDIAN CROSSOVER	2776.85	220	305.45							2776.85	83.31
TOTALS				3791.43			5341.20			12161.31		2271.49

BASIS OF ESTIMATE:
ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

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				JOB NO.		B80804	45A	156
				(2)		QUANTITIES		

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

BASE AND SURFACING - RAMP SHOULDER RECONSTRUCTION

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2")			
				AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON
			LIN. FT.	FEET			
4115+68.80	4121+15.90	HIGHWAY 64 INTERCHANGE - RT. SHOULDER - RAMP 1	547.10	6	364.73	220	40.12
4115+68.80	4121+15.90	HIGHWAY 64 INTERCHANGE - LT. SHOULDER - RAMP 1	547.10	4	243.16	220	26.75
4109+15.70	4110+00.00	HIGHWAY 64 INTERCHANGE - RT. SHOULDER - RAMP 2	84.30	6	56.20	220	6.18
4109+15.70	4110+00.00	HIGHWAY 64 INTERCHANGE - LT. SHOULDER - RAMP 2	84.30	4	37.47	220	4.12
4287+05.70	4291+73.50	HIGHWAY 7 INTERCHANGE - RT. SHOULDER - RAMP 1	467.80	6	311.87	220	34.31
4287+05.70	4291+73.50	HIGHWAY 7 INTERCHANGE - LT. SHOULDER - RAMP 1	467.80	4	207.91	220	22.87
4291+02.90	4296+94.40	HIGHWAY 7 INTERCHANGE - RT. SHOULDER - RAMP 2	591.50	6	394.33	220	43.38
4291+02.90	4296+94.40	HIGHWAY 7 INTERCHANGE - LT. SHOULDER - RAMP 2	591.50	4	262.89	220	28.92
4288+86.00	4296+33.80	HIGHWAY 7 INTERCHANGE - RT. SHOULDER - RAMP 3	747.80	6	498.53	220	54.84
4288+86.00	4296+33.80	HIGHWAY 7 INTERCHANGE - LT. SHOULDER - RAMP 3	747.80	4	332.36	220	36.56
4295+65.10	4300+20.50	HIGHWAY 7 INTERCHANGE - RT. SHOULDER - RAMP 4	455.40	6	303.60	220	33.40
4295+65.10	4300+20.50	HIGHWAY 7 INTERCHANGE - LT. SHOULDER - RAMP 4	455.40	4	202.40	220	22.26
TOTALS					3215.45		353.71

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

Drawn By fs513
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				JOB NO.		BB0804	46	156
				(2)		QUANTITIES		

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

BASE AND SURFACING - RT. MAIN LANES

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2")				TACK COAT 0.03 GAL. PER SQ. YD.			AGGREGATE BASE COURSE (CLASS 7)	
				AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH	SQ. YD.	GAL.	TONS/STA	TON
			LIN FT.	FEET				FEET				
4070+00.00	4070+25.00	RT. MAIN LANE	25.00	24.00	66.67	220	7.33	24.00	66.67	2.00		
4070+25.00	4070+50.00	RT. MAIN LANE	25.00	24.00	66.67	440	14.67	72.00	200.00	6.00		
4070+50.00	4071+02.56	RT. MAIN LANE	52.56	24.00	140.16	440	30.84	96.00	560.64	16.82		
4075+51.68	4080+00.00	RT. MAIN LANE (FULL DEPTH OVERLAY)	448.32	24.00	1195.52	440	263.01	120.00	5977.60	179.33		
4080+00.00	4116+97.13	RT. MAIN LANE (RUBBLIZE & OVERLAY)	3697.13	24.00	9859.01	440	2168.98	96.00	39436.05	1183.08		
4116+97.13	4120+47.13	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	440	205.33	96.00	3733.33	112.00		
4120+47.13	4153+92.14	RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	3345.01	24.00	8920.03	440	1962.41	96.00	35680.11	1070.40		
4153+92.14	4154+79.64	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	440	51.33	96.00	933.33	28.00		
4154+70.70	4157+33.20	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	440	154.00	96.00	2800.00	84.00		
4157+33.20	4177+75.88	RT. MAIN LANE (RUBBLIZE & OVERLAY)	2042.68	24.00	5447.15	440	1198.37	96.00	21788.59	653.66		
4177+75.88	4181+25.88	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	440	205.33	96.00	3733.33	112.00		
4181+25.88	4206+22.32	RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	2496.44	24.00	6657.17	440	1464.58	96.00	26628.69	798.86		
4206+22.32	4207+09.82	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	440	51.33	96.00	933.33	28.00		
4207+15.82	4209+78.32	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	440	154.00	96.00	2800.00	84.00		
4209+78.32	4224+57.57	RT. MAIN LANE (RUBBLIZE & OVERLAY)	1479.25	24.00	3944.67	440	867.83	96.00	15778.67	473.36		
4224+57.57	4228+07.57	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	440	205.33	96.00	3733.33	112.00		
4228+07.57	4246+50.00	RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1842.43	24.00	4913.15	440	1080.89	96.00	19652.59	589.58		
4246+50.00	4247+91.47	RT. MAIN LANE - MAXIMUM SUPERELEVATION (FULL DEPTH OVERLAY)	141.47	24.00	377.25	440	83.00	120.00	1886.27	56.59		
4247+91.47	4248+78.97	RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	87.50	24.00	233.33	440	51.33	120.00	1166.67	35.00		
4248+83.67	4249+44.00	RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	60.33	24.00	160.88	440	35.39	120.00	804.40	24.13		
4249+44.00	4251+46.17	RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	202.17	24.00	539.12	440	118.61	120.00	2695.60	80.87	202.22	408.83
4251+46.17	4253+26.42	RT. MAIN LANE (FULL DEPTH OVERLAY)	180.25	24.00	480.67	440	105.75	120.00	2403.33	72.10	202.22	364.50
4259+82.58	4264+93.00	RT. MAIN LANE (FULL DEPTH OVERLAY)	510.42	24.00	1361.12	440	299.45	120.00	6805.60	204.17	171.11	873.38
4264+93.00	4267+50.00	RT. MAIN LANE (FULL DEPTH OVERLAY)	257.00	24.00	685.33	440	150.77	120.00	3426.67	102.80		
4267+50.00	4332+99.61	RT. MAIN LANE (RUBBLIZE & OVERLAY)	6549.61	24.00	17465.63	440	3842.44	96.00	69862.51	2095.88		
4333+10.01	4359+57.05	RT. MAIN LANE (RUBBLIZE & OVERLAY)	2647.04	24.00	7058.77	440	1552.93	96.00	28235.09	847.05		
4359+57.05	4363+07.05	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	440	205.33	96.00	3733.33	112.00		
4363+07.05	4379+22.06	RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1615.01	24.00	4306.69	440	947.47	96.00	17226.77	516.80		
4379+22.06	4380+09.56	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	440	51.33	96.00	933.33	28.00		
4379+96.36	4382+58.86	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	440	154.00	96.00	2800.00	84.00		
4382+58.86	4403+10.36	RT. MAIN LANE (RUBBLIZE & OVERLAY)	2051.50	24.00	5470.67	440	1203.55	96.00	21882.67	656.48		
4403+10.36	4406+60.36	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	440	205.33	96.00	3733.33	112.00		
4406+60.36	4421+83.70	RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1523.34	24.00	4062.24	440	893.69	96.00	16248.96	487.47		
4421+83.70	4422+71.20	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	440	51.33	96.00	933.33	28.00		
4422+83.80	4425+46.30	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	440	154.00	96.00	2800.00	84.00		
4425+46.30	4430+00.00	RT. MAIN LANE (RUBBLIZE & OVERLAY)	453.70	24.00	1209.87	440	266.17	96.00	4839.47	145.18		
4131+90.70	4141+90.70	RT. R.M.L. - ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	1000.00	12.00	1333.33	440	293.33	48.00	5333.33	160.00		
4141+90.70	4144+90.70	RT. R.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	300.00	6.00	200.00	440	44.00	24.00	800.00	24.00		
4305+70.50	4312+70.50	RT. R.M.L. - ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	700.00	12.00	933.33	440	205.33	48.00	3733.33	112.00		
4312+70.50	4315+70.50	RT. R.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	300.00	6.00	200.00	440	44.00	24.00	800.00	24.00		
4418+94.40	4422+71.20	RT. R.M.L. - ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	376.80	12.00	502.40	440	110.53	48.00	2009.60	60.29		
4422+83.80	4426+07.00	RT. R.M.L. - ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	323.20	12.00	430.93	440	94.80	48.00	1723.73	51.71		
4426+07.00	4429+07.00	RT. R.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	300.00	6.00	200.00	440	44.00	24.00	800.00	24.00		
TOTALS					96821.73		21293.42		392053.58	11761.61		1646.71

BASIS OF ESTIMATE:
ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Quantity Sheets\Quantity06.dgn
Plotted : 05-SEP-2012 12:33 View=

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.		BB0804	47	156

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON

9-12-12

BASE AND SURFACING - RT. MAIN LANES (CONTINUED)

STATION	STATION	LOCATION	LENGTH	ACHM BASE COURSE (1 1/2") * LEVELING- 110 LBS. PER SQ. YD. AVG. WIDTH	SQ. YD.	TON	ACHM BASE COURSE (1 1/2") NORMAL AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON	TOTAL TON	ACHM BINDER COURSE (1") AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON
			LIN FT.	FEET			FEET					FEET			
4070+00.00	4070+25.00	RT. MAIN LANE	25.00									24.00	66.67	330	11.00
4070+25.00	4070+50.00	RT. MAIN LANE	25.00									24.00	140.16	330	23.13
4070+50.00	4071+02.56	RT. MAIN LANE	52.56				24.00	140.16	1045	73.23	73.23	24.00	1195.52	330	197.26
4075+51.68	4080+00.00	RT. MAIN LANE (FULL DEPTH OVERLAY)	448.32				24.00	1195.52	1045	624.66	624.66	24.00	9859.01	330	1626.74
4080+00.00	4116+97.13	RT. MAIN LANE (RUBBLIZE & OVERLAY)	3697.13	24.00	9859.01	542.25	24.00	9859.01	519	2558.41	3100.66	24.00	933.33	330	154.00
4116+97.13	4120+47.13	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	51.33	24.00	933.33	519	242.20	293.53	24.00	8920.03	330	1471.80
4120+47.13	4153+92.14	RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	3345.01	24.00	8920.03	490.60	24.00	8920.03	519	2314.75	2805.35	24.00	233.33	330	38.50
4153+92.14	4154+79.64	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	12.83	24.00	233.33	519	60.55	73.38	24.00	700.00	330	115.50
4154+70.70	4157+33.20	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	38.50	24.00	700.00	519	181.65	220.15	24.00	5447.15	330	898.78
4157+33.20	4177+75.88	RT. MAIN LANE (RUBBLIZE & OVERLAY)	2042.68	24.00	5447.15	299.59	24.00	5447.15	519	1413.54	1713.13	24.00	933.33	330	154.00
4177+75.88	4181+25.88	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	51.33	24.00	933.33	617	287.93	339.26	24.00	6657.17	330	1098.43
4181+25.88	4206+22.32	RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	2496.44	24.00	6657.17	366.14	24.00	6657.17	714	2376.61	2742.75	24.00	233.33	330	38.50
4206+22.32	4207+09.82	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	12.83	24.00	233.33	617	71.98	84.81	24.00	700.00	330	115.50
4207+15.82	4209+78.32	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	38.50	24.00	700.00	617	215.95	254.45	24.00	3944.67	330	650.87
4209+78.32	4224+57.57	RT. MAIN LANE (RUBBLIZE & OVERLAY)	1479.25	24.00	3944.67	216.96	24.00	3944.67	519	1023.64	1240.60	24.00	933.33	330	154.00
4224+57.57	4228+07.57	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	51.33	24.00	933.33	591	275.80	327.13	24.00	4913.15	330	810.67
4228+07.57	4246+50.00	RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1842.43	24.00	4913.15	270.22	24.00	4913.15	662	1626.25	1896.47	24.00	377.25	330	62.25
4246+50.00	4247+91.47	RT. MAIN LANE - MAXIMUM SUPERELEVATION (FULL DEPTH OVERLAY)	141.47				24.00	377.25	1112	209.75	209.75	24.00	233.33	330	38.50
4247+91.47	4248+78.97	RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	87.50				24.00	233.33	1112	129.73	129.73	24.00	160.88	330	26.55
4248+83.67	4249+44.00	RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	60.33				24.00	160.88	1112	89.45	89.45	24.00	539.12	330	88.95
4249+44.00	4251+46.17	RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	202.17				24.00	539.12	1045	281.69	281.69	24.00	480.67	330	79.31
4251+46.17	4253+26.42	RT. MAIN LANE (FULL DEPTH OVERLAY)	180.25				24.00	480.67	1045	251.15	251.15	24.00	1361.12	330	224.58
4259+82.58	4264+93.00	RT. MAIN LANE (FULL DEPTH OVERLAY)	510.42				24.00	1361.12	1045	711.19	711.19	24.00	685.33	330	113.08
4264+93.00	4267+50.00	RT. MAIN LANE (FULL DEPTH OVERLAY)	257.00				24.00	685.33	1112	381.04	381.04	24.00	17465.63	330	2881.83
4267+50.00	4332+99.61	RT. MAIN LANE (RUBBLIZE & OVERLAY)	6549.61	24.00	17465.63	960.61	24.00	17465.63	519	4532.33	5492.94	24.00	7058.77	330	1164.70
4333+10.01	4359+57.05	RT. MAIN LANE (RUBBLIZE & OVERLAY)	2647.04	24.00	7058.77	388.23	24.00	7058.77	519	1831.75	2219.98	24.00	933.33	330	154.00
4359+57.05	4363+07.05	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	51.33	24.00	933.33	551	257.13	308.46	24.00	4306.69	330	710.60
4363+07.05	4379+22.06	RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1615.01	24.00	4306.69	236.87	24.00	4306.69	582	1253.25	1490.12	24.00	233.33	330	38.50
4379+22.06	4380+09.56	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	12.83	24.00	233.33	551	64.28	77.11	24.00	700.00	330	115.50
4379+96.36	4382+58.86	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	38.50	24.00	700.00	551	192.85	231.35	24.00	5470.67	330	902.66
4382+58.86	4403+10.36	RT. MAIN LANE (RUBBLIZE & OVERLAY)	2051.50	24.00	5470.67	300.89	24.00	5470.67	519	1419.64	1720.53	24.00	933.33	330	154.00
4403+10.36	4406+60.36	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	51.33	24.00	933.33	551	257.13	308.46	24.00	4062.24	330	670.27
4406+60.36	4421+83.70	RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1523.34	24.00	4062.24	223.42	24.00	4062.24	582	1182.11	1405.53	24.00	233.33	330	38.50
4421+83.70	4422+71.20	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	12.83	24.00	233.33	551	64.28	77.11	24.00	700.00	330	115.50
4422+83.80	4425+46.30	RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	38.50	24.00	700.00	551	192.85	231.35	24.00	1209.87	330	199.63
4425+46.30	4430+00.00	RT. MAIN LANE (RUBBLIZE & OVERLAY)	453.70	24.00	1209.87	66.54	24.00	1209.87	519	313.96	380.50	24.00	1333.33	330	220.00
4131+90.70	4141+90.70	RT. R.M.L. - ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	1000.00	12.00	1333.33	73.33	12.00	1333.33	598	398.67	472.00	12.00	1333.33	330	220.00
4141+90.70	4144+90.70	RT. R.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	300.00	6.00	200.00	11.00	6.00	200.00	598	59.80	70.80	6.00	200.00	330	33.00
4305+70.50	4312+70.50	RT. R.M.L. - ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	700.00	12.00	933.33	51.33	12.00	933.33	440	205.33	256.66	12.00	933.33	330	154.00
4312+70.50	4315+70.50	RT. R.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	300.00	6.00	200.00	11.00	6.00	200.00	440	44.00	55.00	6.00	200.00	330	33.00
4418+94.40	4422+71.20	RT. R.M.L. - ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	376.80	12.00	502.40	27.63	12.00	502.40	440	110.53	138.16	12.00	502.40	330	82.90
4422+83.80	4426+07.00	RT. R.M.L. - ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	323.20	12.00	430.93	23.70	12.00	430.93	440	94.80	118.50	12.00	430.93	330	71.10
4426+07.00	4429+07.00	RT. R.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	300.00	6.00	200.00	11.00	6.00	200.00	440	44.00	55.00	6.00	200.00	330	33.00
TOTALS					91515.01	5033.28		96688.39		27919.84	32953.12		96755.06		15964.59

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

* NOTE: LEVELING QUANTITY IS ESTIMATED. LEVELING IS TO BE USED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

Drawn By fs513
DGN File G:\013004-01\BB0804\DGN\Quantity Sheets\Quantity07.dgn
Plotted : 11-SEP-2012 17:37 View:

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.		BB0804	48	156
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-12-12

BASE AND SURFACING - RT. SHOULDER - RT. MAIN LANES

STATION	STATION	LOCATION	LENGTH	ACHM BASE COURSE (1 1/2")								ACHM BINDER COURSE (1")				AGGREGATE BASE COURSE (CLASS 1)	
				* LEVELING- 110 LBS. PER SQ. YD.				NORMAL				TOTAL TON						
				AVG. WIDTH	SQ. YD.	TON		AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON		AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON		
			LIN FT.	FEET				FEET					FEET				TONS/STA.	TON
4070+00.00	4070+25.00	RT. SHOULDER - RT. MAIN LANE	25.00															
4070+25.00	4070+50.00	RT. SHOULDER - RT. MAIN LANE	25.00										10.50	29.17	330	4.81		
4070+50.00	4071+02.56	RT. SHOULDER - RT. MAIN LANE	52.56					10.75	62.78	1045	32.80	32.80	10.50	61.32	330	10.12		
4075+51.68	4080+00.00	RT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	448.32					10.75	535.49	1045	279.79	279.79	10.50	523.04	330	86.30	20.74	92.98
4080+00.00	4116+97.13	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	3697.13	10.75	4416.02	242.88		10.75	4416.02	440	971.52	1214.40	10.50	4313.32	330	711.70	20.74	766.78
4116+97.13	4120+47.13	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.75	418.06	22.99		10.75	418.06	519	108.49	131.48	10.50	408.33	330	67.37	22.10	77.35
4120+47.13	4131+90.70	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1143.57	10.75	1365.93	75.13		10.75	1365.93	598	408.41	483.54	10.50	1334.17	330	220.14	23.46	268.28
4141+90.70	4153+92.14	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1201.44	10.75	1435.05	78.93		10.75	1435.05	598	429.08	508.01	10.50	1401.68	330	231.28	23.46	281.86
4153+92.14	4154+79.64	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	10.75	104.51	5.75		10.75	104.51	519	27.12	32.87	10.50	102.08	330	16.84	22.10	19.34
4154+70.70	4157+33.20	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	10.75	313.54	17.24		10.75	313.54	519	81.36	98.60	10.50	306.25	330	50.53	22.10	58.01
4157+33.20	4177+75.88	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	2042.68	10.75	2439.87	134.19		10.75	2439.87	440	536.77	670.96	10.50	2383.13	330	393.22	20.74	423.65
4177+75.88	4181+25.88	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.75	418.06	22.99		10.75	418.06	384	80.27	103.26	10.50	408.33	330	67.37	18.82	65.87
4181+25.88	4206+22.32	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	2496.44	10.75	2981.86	164.00		10.75	2981.86	328	489.03	653.03	10.50	2912.51	330	480.56	16.89	421.65
4206+22.32	4207+09.82	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	10.75	104.51	5.75		10.75	104.51	384	20.07	25.82	10.50	102.08	330	16.84	18.82	16.47
4207+15.82	4209+78.32	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	10.75	313.54	17.24		10.75	313.54	384	60.20	77.44	10.50	306.25	330	50.53	18.82	49.40
4209+78.32	4224+57.57	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	1479.25	10.75	1766.88	97.18		10.75	1766.88	440	388.71	485.89	10.50	1725.79	330	284.76	20.74	306.80
4224+57.57	4228+07.57	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.75	418.06	22.99		10.75	418.06	708	147.99	170.98	10.50	408.33	330	67.37	26.13	91.46
4228+07.57	4246+50.00	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1842.43	10.75	2200.68	121.04		10.75	2200.68	976	1073.93	1194.97	10.50	2149.50	330	354.67	31.51	580.55
4246+50.00	4247+91.47	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (FULL DEPTH OVERLAY)	141.47					10.75	168.98	1112	93.95	93.95	10.50	165.05	330	27.23	31.51	44.58
4247+91.47	4248+78.97	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	87.50					10.75	104.51	1112	58.11	58.11	10.50	102.08	330	16.84	26.13	22.86
4248+83.67	4249+44.00	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	60.33					10.75	72.06	1112	40.07	40.07	10.50	70.39	330	11.61	26.13	15.76
4249+44.00	4251+46.17	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	202.17					10.75	241.48	1045	126.17	126.17	10.50	235.86	330	38.92	26.13	52.83
4251+46.17	4253+26.42	RT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	180.25					10.75	215.30	1045	112.49	112.49	10.50	210.29	330	34.70	20.74	37.38
4259+82.58	4265+98.00	RT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	615.42					10.75	735.08	1045	384.08	384.08	10.50	717.99	330	118.47	20.74	127.64
4265+98.00	4267+50.00	RT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	152.00					10.75	181.56	1112	100.95	100.95	10.50	177.33	330	29.26	20.74	31.52
4267+50.00	4305+70.50	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	3820.50	10.75	4563.38	250.99		10.75	4563.38	440	1003.94	1254.93	10.50	4457.25	330	735.45	20.74	792.37
4315+70.50	4332+99.61	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	1729.11	10.75	2065.33	113.59		10.75	2065.33	440	454.37	567.96	10.50	2017.29	330	332.85	20.74	358.62
4333+10.01	4359+57.05	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	2647.04	10.75	3161.74	173.90		10.75	3161.74	440	695.58	869.48	10.50	3088.21	330	509.55	20.74	549.00
4359+57.05	4363+07.05	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.75	418.06	22.99		10.75	418.06	583	121.86	144.85	10.50	408.33	330	67.37	23.18	81.13
4363+07.05	4379+22.06	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1615.01	10.75	1929.04	106.10		10.75	1929.04	725	699.28	805.38	10.50	1884.18	330	310.89	25.62	413.77
4379+22.06	4380+09.56	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	10.75	104.51	5.75		10.75	104.51	583	30.46	36.21	10.50	102.08	330	16.84	23.18	20.28
4379+96.36	4382+58.86	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	10.75	313.54	17.24		10.75	313.54	583	91.40	108.64	10.50	306.25	330	50.53	23.18	60.85
4382+58.86	4403+10.36	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	2051.50	10.75	2450.40	134.77		10.75	2450.40	440	539.09	673.86	10.50	2393.42	330	394.91	20.74	425.48
4403+10.36	4406+60.36	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.75	418.06	22.99		10.75	418.06	440	91.97	114.96	10.50	408.33	330	67.37	20.74	72.59
4406+60.36	4418+94.40	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1234.04	10.75	1473.99	81.07		10.75	1473.99	440	324.28	405.35	10.50	1439.71	330	237.55	20.74	255.94
4429+07.00	4430+00.00	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	93.00	10.75	111.08	6.11		10.75	111.08	440	24.44	30.55	10.50	108.50	330	17.90	20.74	19.29
4131+90.70	4141+90.70	RT. SHOULDER - RT. R.M.L. - ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	1000.00	6.75	750.00	41.25		6.75	750.00	598	224.25	265.50	6.50	722.22	330	119.17	23.46	234.60
4141+90.70	4144+90.70	RT. SHOULDER - RT. R.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	300.00	3.38	112.67	6.20		3.38	112.67	598	33.69	39.89	3.25	108.33	330	17.87	23.46	70.38
4305+70.50	4312+70.50	RT. SHOULDER - RT. R.M.L. - ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	700.00	6.75	525.00	28.88		6.75	525.00	440	115.50	144.38	6.50	505.56	330	83.42	20.74	145.18
4312+70.50	4315+70.50	RT. SHOULDER - RT. R.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	300.00	3.38	112.67	6.20		3.38	112.67	440	24.79	30.99	3.25	108.33	330	17.87	20.74	62.22
4418+94.40	4422+71.20	RT. SHOULDER - RT. R.M.L. - ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	376.80	6.75	282.60	15.54		6.75	282.60	440	62.17	77.71	6.50	272.13	330	44.90	20.74	78.15
4422+83.80	4426+07.00	RT. SHOULDER - RT. R.M.L. - ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	323.20	6.75	242.40	13.33		6.75	242.40	440	53.33	66.66	6.50	233.42	330	38.51	20.74	67.03
4426+07.00	4429+07.00	RT. SHOULDER - RT. R.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	300.00	3.38	112.67	6.20		3.38	112.67	440	24.79	30.99	3.25	108.33	330	17.87	20.74	62.22
		* ENTIRE PROJECT - WIDENING FOR GUARDRAIL																
TOTALS					37843.71	2081.40			40160.95		10666.55	12747.95		39226.14		6472.26		7622.12

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

* NOTE: LEVELING QUANTITY IS ESTIMATED. LEVELING IS TO BE USED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Quantity Sheets\Quantity08.dgn
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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.		BB0804	49	156
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-12-12

BASE AND SURFACING - RT. SHOULDER - RT. MAIN LANES (CONTINUED)

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2")				TACK COAT							BORROW	AGGREGATE BASE COURSE (CLASS 7)	
				AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON	0.10 GAL. PER SQ. YD.			0.03 GAL. PER SQ. YD.			TOTAL GAL.			
			LIN FT.	FEET				AVG. WIDTH FEET	SQ. YD.	GAL.	AVG. WIDTH FEET	SQ. YD.	GAL.		CU. YD.	TONS/STA	TON
4070+00.00	4070+25.00	RT. SHOULDER - RT. MAIN LANE	25.00	10.00	27.78	220	3.06				10.00	27.78	0.83	0.83			
4070+25.00	4070+50.00	RT. SHOULDER - RT. MAIN LANE	25.00	10.00	27.78	440	6.11				30.00	83.33	2.50	2.50			
4070+50.00	4071+02.56	RT. SHOULDER - RT. MAIN LANE	52.56	10.00	58.40	440	12.85				52.00	303.68	9.11	9.11			
4075+51.68	4080+00.00	RT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	448.32	10.00	498.13	440	109.59				28.42	1415.69	42.47	42.47	30.44		
4080+00.00	4116+97.13	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	3697.13	10.00	4107.92	440	903.74	10.00	4107.92	410.79	20.50	8421.24	252.64	663.43	251.04		
4116+97.13	4120+47.13	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.00	388.89	440	85.56	10.00	388.89	38.89	20.50	797.22	23.92	62.81	25.34		
4120+47.13	4131+90.70	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1143.57	10.00	1270.63	440	279.54	10.00	1270.63	127.06	20.50	2604.80	78.14	205.20	87.83		
4141+90.70	4153+92.14	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1201.44	10.00	1334.93	440	293.68	10.00	1334.93	133.49	20.50	2736.61	82.10	215.59	92.27		
4153+92.14	4154+79.64	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	10.00	97.22	440	21.39	10.00	97.22	9.72	20.50	199.31	5.98	15.70	6.34		
4154+70.70	4157+33.20	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	10.00	291.67	440	64.17	10.00	291.67	29.17	20.50	597.92	17.94	47.11	19.01		
4157+33.20	4177+75.88	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	2042.68	10.00	2269.64	440	499.32	10.00	2269.64	226.96	20.50	4652.77	139.58	366.54	138.70		
4177+75.88	4181+25.88	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.00	388.89	440	85.56	10.00	388.89	38.89	20.50	797.22	23.92	62.81	21.56		
4181+25.88	4206+22.32	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	2496.44	10.00	2773.82	440	610.24	10.00	2773.82	277.38	20.50	5686.34	170.59	447.97	133.06		
4206+22.32	4207+09.82	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	10.00	97.22	440	21.39	10.00	97.22	9.72	20.50	199.31	5.98	15.70	5.39		
4207+15.82	4209+78.32	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	10.00	291.67	440	64.17	10.00	291.67	29.17	20.50	597.92	17.94	47.11	16.17		
4209+78.32	4224+57.57	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	1479.25	10.00	1643.61	440	361.59	10.00	1643.61	164.36	20.50	3369.40	101.08	265.44	100.44		
4224+57.57	4228+07.57	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.00	388.89	440	85.56	10.00	388.89	38.89	20.50	797.22	23.92	62.81	29.93		
4228+07.57	4246+50.00	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1842.43	10.00	2047.14	440	450.37	10.00	2047.14	204.71	20.50	4196.65	125.90	330.61	189.95		
4246+50.00	4247+91.47	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (FULL DEPTH OVERLAY)	141.47	10.00	157.19	440	34.58				28.42	446.73	13.40	13.40	9.61		
4247+91.47	4248+78.97	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	87.50	10.00	97.22	440	21.39				28.42	276.31	8.29	8.29	5.94		
4248+83.67	4249+44.00	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	60.33	10.00	67.03	440	14.75				28.42	190.51	5.72	5.72	4.10		
4249+44.00	4251+46.17	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	202.17	10.00	224.63	440	49.42				28.42	638.41	19.15	19.15	13.73	84.26	170.35
4251+46.17	4253+26.42	RT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	180.25	10.00	200.28	440	44.06				28.42	569.19	17.08	17.08	12.24	84.26	151.88
4259+82.58	4265+98.00	RT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	615.42	10.00	683.80	440	150.44				28.42	1943.36	58.30	58.30	41.79	71.29	438.73
4265+98.00	4267+50.00	RT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	152.00	10.00	168.89	440	37.16				28.42	479.98	14.40	14.40	10.32		
4267+50.00	4305+70.50	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	3820.50	10.00	4245.00	440	933.90	10.00	4245.00	424.50	20.50	8702.25	261.07	685.57	259.41		
4315+70.50	4332+99.61	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	1729.11	10.00	1921.23	440	422.67	10.00	1921.23	192.12	20.50	3938.53	118.16	310.28	117.41		
4333+10.01	4359+57.05	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	2647.04	10.00	2941.16	440	647.06	10.00	2941.16	294.12	20.50	6029.37	180.88	475.00	179.73		
4359+57.05	4363+07.05	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.00	388.89	440	85.56	10.00	388.89	38.89	20.50	797.22	23.92	62.81	26.57		
4363+07.05	4379+22.06	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1615.01	10.00	1794.46	440	394.78	10.00	1794.46	179.45	20.50	3678.63	110.36	289.81	135.50		
4379+22.06	4380+09.56	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	10.00	97.22	440	21.39	10.00	97.22	9.72	20.50	199.31	5.98	15.70	6.64		
4379+96.36	4382+58.86	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	10.00	291.67	440	64.17	10.00	291.67	29.17	20.50	597.92	17.94	47.11	19.92		
4382+58.86	4403+10.36	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	2051.50	10.00	2279.44	440	501.48	10.00	2279.44	227.94	20.50	4672.86	140.19	368.13	139.30		
4403+10.36	4406+60.36	RT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.00	388.89	440	85.56	10.00	388.89	38.89	20.50	797.22	23.92	62.81	23.77		
4406+60.36	4418+94.40	RT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1234.04	10.00	1371.16	440	301.66	10.00	1371.16	137.12	20.50	2810.87	84.33	221.45	83.79		
4429+07.00	4430+00.00	RT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	93.00	10.00	103.33	440	22.73	10.00	103.33	10.33	20.50	211.83	6.35	16.68	6.31		
4131+90.70	4141+90.70	RT. SHOULDER - RT. R.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	1000.00	6.00	666.67	440	146.67	6.00	666.67	66.67	24.00	2666.67	80.00	146.67	76.80		
4141+90.70	4144+90.70	RT. SHOULDER - RT. R.M.L. - ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	300.00	3.00	100.00	440	22.00	3.00	100.00	10.00	12.00	400.00	12.00	22.00	23.04		
4305+70.50	4312+70.50	RT. SHOULDER - RT. R.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	700.00	6.00	466.67	440	102.67	6.00	466.67	46.67	24.00	1866.67	56.00	102.67	47.53		
4312+70.50	4315+70.50	RT. SHOULDER - RT. R.M.L. - ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	300.00	3.00	100.00	440	22.00	3.00	100.00	10.00	12.00	400.00	12.00	22.00	20.37		
4418+94.40	4422+71.20	RT. SHOULDER - RT. R.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	376.80	6.00	251.20	440	55.26	3.00	125.60	12.56	24.00	1004.80	30.14	42.70	25.58		
4422+83.80	4426+07.00	RT. SHOULDER - RT. R.M.L. - ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	323.20	6.00	215.47	440	47.40	3.00	107.73	10.77	24.00	861.87	25.86	36.63	21.95		
4426+07.00	4429+07.00	RT. SHOULDER - RT. R.M.L. - ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	300.00	3.00	100.00	440	22.00	3.00	100.00	10.00	12.00	400.00	12.00	22.00	20.37		
		* ENTIRE PROJECT - WIDENING FOR GUARDRAIL			1813.85	440	399.05										740.66
TOTALS					39139.58		8607.70		34881.26	3488.12		82064.92	2461.98	5950.10	2479.19		1501.62

BASIS OF ESTIMATE:

ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

Drawn By fs513
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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.		BB0804	50	156
				(2)		QUANTITIES		

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-12-12

BASE AND SURFACING - LT. SHOULDER - RT. MAIN LANES

STATION	STATION	LOCATION	LENGTH	ACHM BASE COURSE (1 1/2")							TOTAL TON	ACHM BINDER COURSE (1")				AGGREGATE BASE COURSE (CLASS 1)	
				* LEVELING - 110 LBS. PER SQ. YD.			NORMAL										
				AVG. WIDTH	SQ. YD.	TON	AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON		AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON		
			LIN. FT.	FEET			FEET					FEET				TONS/STA.	TON
4070+00.00	4070+25.00	LT. SHOULDER - RT. MAIN LANE	25.00														
4070+25.00	4070+50.00	LT. SHOULDER - RT. MAIN LANE	25.00														
4070+50.00	4071+02.56	LT. SHOULDER - RT. MAIN LANE	52.56									4.42	12.28	330	2.03		
4075+51.68	4080+00.00	LT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	448.32				4.75	27.74	1045	14.49	14.49	4.42	25.81	330	4.26		
4080+00.00	4116+97.13	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	3697.13	4.75	1951.26	107.32	5.00	249.07	1045	130.14	130.14	4.42	220.17	330	36.33	48.71	218.38
4116+97.13	4120+47.13	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.75	184.72	10.16	4.75	1951.26	598	583.43	690.75	4.42	1815.70	330	299.59	42.95	1587.92
4120+47.13	4153+92.14	LT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	3345.01	4.75	1765.42	97.10	4.75	1765.42	440	388.39	485.49	4.42	1642.77	330	271.06	37.98	1270.43
4153+92.14	4154+79.64	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.75	46.18	2.54	4.75	46.18	519	11.98	14.52	4.42	42.97	330	7.09	40.47	35.41
4154+70.70	4157+33.20	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.75	138.54	7.62	4.75	138.54	519	35.95	43.57	4.42	128.92	330	21.27	40.47	106.23
4157+33.20	4177+75.88	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	2042.68	4.75	1078.08	59.29	4.75	1078.08	598	322.35	381.64	4.42	1003.18	330	165.52	42.95	877.33
4177+75.88	4181+25.88	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.75	184.72	10.16	4.75	184.72	816	75.37	85.53	4.42	171.89	330	28.36	50.50	176.75
4181+25.88	4206+22.32	LT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	2496.44	4.75	1317.57	72.47	4.75	1317.57	1034	681.18	753.65	4.42	1226.03	330	202.29	58.04	1448.93
4206+22.32	4207+09.82	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.75	46.18	2.54	4.75	46.18	816	18.84	21.38	4.42	42.97	330	7.09	50.50	44.19
4207+15.82	4209+78.32	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.75	138.54	7.62	4.75	138.54	816	56.52	64.14	4.42	128.92	330	21.27	50.50	132.56
4209+78.32	4224+57.57	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	1479.25	4.75	780.72	42.94	4.75	780.72	598	233.44	276.38	4.42	726.48	330	119.87	42.95	635.34
4224+57.57	4228+07.57	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.75	184.72	10.16	4.75	184.72	501	46.27	56.43	4.42	171.89	330	28.36	39.31	137.59
4228+07.57	4246+50.00	LT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1842.43	4.75	972.39	53.48	4.75	972.39	403	195.94	249.42	4.42	904.84	330	149.30	35.67	657.19
4246+50.00	4247+91.47	LT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (FULL DEPTH OVERLAY)	141.47				5.00	78.59	1112	43.70	43.70	4.50	70.73	330	11.67	42.95	60.76
4247+91.47	4248+78.97	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	87.50				5.00	48.61	1112	27.03	27.03	4.50	43.75	330	7.22	42.95	37.58
4248+83.67	4249+44.00	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	60.33				5.00	33.52	1112	18.64	18.64	4.50	30.17	330	4.98	57.26	34.54
4249+44.00	4251+46.17	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	202.17				5.00	112.32	1045	58.69	58.69	4.50	101.08	330	16.68	57.26	115.76
4251+46.17	4253+26.42	LT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	180.25				5.00	100.14	1045	52.32	52.32	4.50	90.13	330	14.87	57.26	103.21
4259+82.58	4265+98.00	LT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	615.42				5.00	341.90	1045	178.64	178.64	4.50	307.71	330	50.77	57.26	352.39
4265+98.00	4267+50.00	LT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	152.00				5.00	84.44	1112	46.95	46.95	4.50	76.00	330	12.54	42.95	65.28
4267+50.00	4332+99.61	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	6549.61	4.75	3456.74	190.12	4.75	3456.74	598	1033.57	1223.69	4.42	3216.59	330	530.74	42.95	2813.06
4333+10.01	4359+57.05	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	2647.04	4.75	1397.05	76.84	4.75	1397.05	598	417.72	494.56	4.42	1299.99	330	214.50	42.95	1136.90
4359+57.05	4363+07.05	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.75	184.72	10.16	4.75	184.72	519	47.93	58.09	4.42	171.89	330	28.36	40.47	141.65
4363+07.05	4379+22.06	LT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1615.01	4.75	852.37	46.88	4.75	852.37	440	187.52	234.40	4.42	793.15	330	130.87	37.98	613.38
4379+22.06	4380+09.56	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.75	46.18	2.54	4.75	46.18	519	11.98	14.52	4.42	42.97	330	7.09	40.47	35.41
4379+96.36	4382+58.86	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.75	138.54	7.62	4.75	138.54	519	35.95	43.57	4.42	128.92	330	21.27	40.47	106.23
4382+58.86	4403+10.36	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	2051.50	4.75	1082.74	59.55	4.75	1082.74	598	323.74	383.29	4.42	1007.51	330	166.24	42.95	881.12
4403+10.36	4406+60.36	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.75	184.72	10.16	4.75	184.72	662	61.14	71.30	4.42	171.89	330	28.36	44.94	157.29
4406+60.36	4421+83.70	LT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1523.34	4.75	803.99	44.22	4.75	803.99	725	291.45	335.67	4.42	748.13	330	123.44	46.92	714.75
4421+83.70	4422+71.20	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.75	46.18	2.54	4.75	46.18	662	15.29	17.83	4.42	42.97	330	7.09	44.94	39.32
4422+83.80	4425+46.30	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.75	138.54	7.62	4.75	138.54	662	45.86	53.48	4.42	128.92	330	21.27	44.94	117.97
4425+46.30	4430+00.00	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	453.70	4.75	239.45	13.17	4.75	239.45	598	71.60	84.77	4.42	222.82	330	36.77	42.95	194.86
		* ENTIRE PROJECT - WIDENING FOR GUARDRAIL															
TOTALS					17360.26	954.82		18436.59		5811.94	6766.76		17132.03		2826.78		15191.36

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

* NOTE: LEVELING QUANTITY IS ESTIMATED. LEVELING IS TO BE USED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

Drawn By fs513
DGN File G:\013004-01\BB0804\DGN\Quantity Sheets\Quantity10.dgn
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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.		BB0804	51	156
				(2)	QUANTITIES			



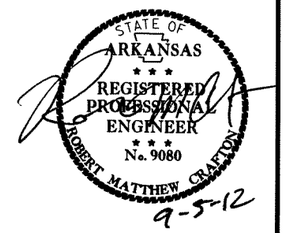
BASE AND SURFACING - LT. SHOULDER - RT. MAIN LANES (CONTINUED)

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2")				TACK COAT 0.10 GAL. PER SQ. YD.			TACK COAT 0.03 GAL. PER SQ. YD.			TOTAL GAL.	BORROW	AGGREGATE BASE COURSE (CLASS 7)	
				AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH	SQ. YD.	GAL.	AVG. WIDTH	SQ. YD.	GAL.				
			LIN. FT.	FEET				FEET			FEET				CU. YD.	TONS/STA	TON
4070+00.00	4070+25.00	LT. SHOULDER - RT. MAIN LANE	25.00	4.00	11.11	220	1.22				4.00	11.11	0.33	0.33			
4070+25.00	4070+50.00	LT. SHOULDER - RT. MAIN LANE	25.00	4.00	11.11	440	2.44				12.00	33.33	1.00	1.00			
4070+50.00	4071+02.56	LT. SHOULDER - RT. MAIN LANE	52.56	4.00	23.36	440	5.14				21.92	128.01	3.84	3.84			
4075+51.68	4080+00.00	LT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	448.32	4.00	199.25	440	43.84				22.50	1120.80	33.62	33.62	34.61		
4080+00.00	4116+97.13	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	3697.13	4.00	1643.17	440	361.50	4.00	1643.17	164.32	8.42	3458.87	103.77	268.09	285.42		
4116+97.13	4120+47.13	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.00	155.56	440	34.22	4.00	155.56	15.56	8.42	327.44	9.82	25.38	25.48		
4120+47.13	4153+92.14	LT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	3345.01	4.00	1486.67	440	327.07	4.00	1486.67	148.67	8.42	3129.44	93.88	242.55	228.46		
4153+92.14	4154+79.64	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.00	38.89	440	8.56	4.00	38.89	3.89	8.42	81.86	2.46	6.35	6.37		
4154+70.70	4157+33.20	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.00	116.67	440	25.67	4.00	116.67	11.67	8.42	245.58	7.37	19.04	19.11		
4157+33.20	4177+75.88	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	2042.68	4.00	907.86	440	199.73	4.00	907.86	90.79	8.42	1911.04	57.33	148.12	157.69		
4177+75.88	4181+25.88	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.00	155.56	440	34.22	4.00	155.56	15.56	8.42	327.44	9.82	25.38	31.78		
4181+25.88	4206+22.32	LT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	2496.44	4.00	1109.53	440	244.10	4.00	1109.53	110.95	8.42	2335.56	70.07	181.02	260.38		
4206+22.32	4207+09.82	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.00	38.89	440	8.56	4.00	38.89	3.89	8.42	81.86	2.46	6.35	7.95		
4207+15.82	4209+78.32	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.00	116.67	440	25.67	4.00	116.67	11.67	8.42	245.58	7.37	19.04	23.84		
4209+78.32	4224+57.57	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	1479.25	4.00	657.44	440	144.64	4.00	657.44	65.74	8.42	1383.92	41.52	107.26	114.20		
4224+57.57	4228+07.57	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.00	155.56	440	34.22	4.00	155.56	15.56	8.42	327.44	9.82	25.38	24.75		
4228+07.57	4246+50.00	LT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1842.43	4.00	818.86	440	180.15	4.00	818.86	81.89	8.42	1723.70	51.71	133.60	118.10		
4246+50.00	4247+91.47	LT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (FULL DEPTH OVERLAY)	141.47	4.00	62.88	440	13.83				22.50	353.67	10.61	10.61	10.92		
4247+91.47	4248+78.97	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	87.50	4.00	38.89	440	8.56				22.50	218.75	6.56	6.56	6.76		
4248+83.67	4249+44.00	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	60.33	4.00	26.81	440	5.90				22.50	150.83	4.52	4.52	4.66		
4249+44.00	4251+46.17	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	202.17	4.00	89.85	440	19.77				22.50	505.42	15.16	15.16	15.61	50.56	102.22
4251+46.17	4253+26.42	LT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	180.25	4.00	80.11	440	17.62				22.50	450.63	13.52	13.52	13.92	50.56	91.13
4259+82.58	4265+98.00	LT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	615.42	4.00	273.52	440	60.17				22.50	1538.55	46.16	46.16	47.51	42.78	263.28
4265+98.00	4267+50.00	LT. SHOULDER - RT. MAIN LANE (FULL DEPTH OVERLAY)	152.00	4.00	67.56	440	14.86				22.50	380.00	11.40	11.40	11.73		
4267+50.00	4332+99.61	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	6549.61	4.00	2910.94	440	640.41	4.00	2910.94	291.09	8.42	6127.52	183.83	474.92	505.63		
4333+10.01	4359+57.05	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	2647.04	4.00	1176.46	440	258.82	4.00	1176.46	117.65	8.42	2476.45	74.29	191.94	204.35		
4359+57.05	4363+07.05	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.00	155.56	440	34.22	4.00	155.56	15.56	8.42	327.44	9.82	25.38	25.48		
4363+07.05	4379+22.06	LT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1615.01	4.00	717.78	440	157.91	4.00	717.78	71.78	8.42	1510.93	45.33	117.11	110.31		
4379+22.06	4380+09.56	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.00	38.89	440	8.56	4.00	38.89	3.89	8.42	81.86	2.46	6.35	6.37		
4379+96.36	4382+58.86	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.00	116.67	440	25.67	4.00	116.67	11.67	8.42	245.58	7.37	19.04	19.11		
4382+58.86	4403+10.36	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	2051.50	4.00	911.78	440	200.59	4.00	911.78	91.18	8.42	1919.29	57.58	148.76	158.38		
4403+10.36	4406+60.36	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.00	155.56	440	34.22	4.00	155.56	15.56	8.42	327.44	9.82	25.38	28.28		
4406+60.36	4421+83.70	LT. SHOULDER - RT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1523.34	4.00	677.04	440	148.95	4.00	677.04	67.70	8.42	1425.17	42.76	110.46	128.42		
4421+83.70	4422+71.20	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.00	38.89	440	8.56	4.00	38.89	3.89	8.42	81.86	2.46	6.35	7.07		
4422+83.80	4425+46.30	LT. SHOULDER - RT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.00	116.67	440	25.67	4.00	116.67	11.67	8.42	245.58	7.37	19.04	21.21		
4425+46.30	4430+00.00	LT. SHOULDER - RT. MAIN LANE (RUBBLIZE & OVERLAY)	453.70	4.00	201.64	440	44.36	4.00	201.64	20.16	8.42	424.46	12.73	32.89	35.03		
		* ENTIRE PROJECT - WIDENING FOR GUARDRAIL			475.25	440	104.56										194.06
		* ENTIRE PROJECT - WIDENING FOR GUARDRAIL & CABLE MEDIAN BARRIER			2806.67	220	308.73										1127.05
TOTALS					18785.58		3822.89		14619.21	1461.96		35664.41	1069.94	2531.90	2698.89		1777.74

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

Drawn By fs513
DGN File G:\01\3004-01\BB0804\DGN\Quantity Sheets\Quantsgll.dgn
Plotted : 11-SEP-2012 17:37 View=

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.		BB0804	52	156
				(2)		QUANTITIES		



BASE AND SURFACING - LT. MAIN LANES

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2")				TACK COAT 0.03 GAL. PER SQ. YD.			AGGREGATE BASE COURSE (CLASS 7)	
				AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH	SQ. YD.	GAL.	TONS/STA	TON
			LIN FT.	FEET				FEET				
4070+00.00	4070+25.00	LT. MAIN LANE	25.00	24.00	66.67	220	7.33	24.00	66.67	2.00		
4070+25.00	4070+50.00	LT. MAIN LANE	25.00	24.00	66.67	440	14.67	72.00	200.00	6.00		
4070+50.00	4071+02.56	LT. MAIN LANE	52.56	24.00	140.16	440	30.84	96.00	560.64	16.82		
4075+51.68	4080+00.00	LT. MAIN LANE (FULL DEPTH OVERLAY)	448.32	24.00	1195.52	440	263.01	120.00	5977.60	179.33		
4080+00.00	4150+80.94	LT. MAIN LANE (RUBBLIZE & OVERLAY)	7080.94	24.00	18882.51	440	4154.15	96.00	75530.03	2265.90		
4152+71.20	4177+55.78	LT. MAIN LANE (RUBBLIZE & OVERLAY)	2484.58	24.00	6625.55	440	1457.62	96.00	26502.19	795.07		
4177+55.78	4181+05.78	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	440	205.33	96.00	3733.33	112.00		
4181+05.78	4206+02.22	LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	2496.44	24.00	6657.17	440	1464.58	96.00	26628.69	798.86		
4206+02.22	4206+89.72	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	440	51.33	96.00	933.33	28.00		
4205+97.12	4208+59.62	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	440	154.00	96.00	2800.00	84.00		
4208+59.62	4224+33.17	LT. MAIN LANE (RUBBLIZE & OVERLAY)	1573.55	24.00	4196.13	440	923.15	96.00	16784.53	503.54		
4224+33.17	4227+83.17	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	440	205.33	96.00	3733.33	112.00		
4227+83.17	4246+50.00	LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1866.83	24.00	4978.21	440	1095.21	96.00	19912.85	597.39		
4246+50.00	4247+67.07	LT. MAIN LANE - MAXIMUM SUPERELEVATION (FULL DEPTH OVERLAY)	117.07	24.00	312.19	440	68.68	120.00	1560.93	46.83		
4247+67.07	4248+54.57	LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	87.50	24.00	233.33	440	51.33	120.00	1166.67	35.00		
4249+08.07	4249+98.00	LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	89.93	24.00	239.81	440	52.76	120.00	1199.07	35.97		
4249+98.00	4251+70.57	LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	172.57	24.00	460.19	440	101.24	120.00	2300.93	69.03	186.67	322.14
4251+70.57	4253+78.42	LT. MAIN LANE (FULL DEPTH OVERLAY)	207.85	24.00	554.27	440	121.94	120.00	2771.33	83.14	186.67	387.99
4260+34.58	4266+00.00	LT. MAIN LANE (FULL DEPTH OVERLAY)	565.42	24.00	1507.79	440	331.71	120.00	7538.93	226.17	171.11	967.49
4266+00.00	4267+50.00	LT. MAIN LANE (FULL DEPTH OVERLAY)	150.00	24.00	400.00	440	88.00	120.00	2000.00	60.00		
4267+50.00	4286+14.16	LT. MAIN LANE (RUBBLIZE & OVERLAY)	1864.16	24.00	4971.09	440	1093.64	96.00	19884.37	596.53		
4286+14.16	4289+64.16	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	440	205.33	96.00	3733.33	112.00		
4289+64.16	4332+22.51	LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	4258.35	24.00	11355.60	440	2498.23	96.00	45422.40	1362.67		
4332+22.51	4333+10.01	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	440	51.33	96.00	933.33	28.00		
4332+99.61	4335+62.11	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	440	154.00	96.00	2800.00	84.00		
4335+62.11	4359+43.85	LT. MAIN LANE (RUBBLIZE & OVERLAY)	2381.74	24.00	6351.31	440	1397.29	96.00	25405.23	762.16		
4359+43.85	4362+93.85	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	440	205.33	96.00	3733.33	112.00		
4362+93.85	4379+08.86	LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1615.01	24.00	4306.69	440	947.47	96.00	17226.77	516.80		
4379+08.86	4379+96.36	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	440	51.33	96.00	933.33	28.00		
4380+09.56	4382+72.06	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	440	154.00	96.00	2800.00	84.00		
4382+72.06	4403+22.96	LT. MAIN LANE (RUBBLIZE & OVERLAY)	2050.90	24.00	5469.07	440	1203.20	96.00	21876.27	656.29		
4403+22.96	4406+72.96	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	440	205.33	96.00	3733.33	112.00		
4406+72.96	4421+96.30	LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1523.34	24.00	4062.24	440	893.69	96.00	16248.96	487.47		
4421+96.30	4422+83.80	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	440	51.33	96.00	933.33	28.00		
4422+71.20	4425+33.70	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	440	154.00	96.00	2800.00	84.00		
4425+33.70	4430+00.00	LT. MAIN LANE (RUBBLIZE & OVERLAY)	466.30	24.00	1243.47	440	273.56	96.00	4973.87	149.22		
4093+65.70	4096+65.70	LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - RUBBLIZE & OVERLAY)	300.00	6.00	200.00	440	44.00	24.00	800.00	24.00		
4096+65.70	4103+65.70	LT. L.M.L. - ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - RUBBLIZE & OVERLAY)	700.00	12.00	933.33	440	205.33	48.00	3733.33	112.00		
4129+50.36	4137+61.36	LT. L.M.L. - DECELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	811.00	12.00	1081.33	440	237.89	48.00	4325.33	129.76		
4137+61.36	4140+61.36	LT. L.M.L. - TAPER FOR DECELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	300.00	6.00	200.00	440	44.00	24.00	800.00	24.00		
4271+55.70	4274+55.70	LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	300.00	6.00	200.00	440	44.00	24.00	800.00	24.00		
4274+55.70	4281+55.70	LT. L.M.L. - ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	700.00	12.00	933.33	440	205.33	48.00	3733.33	112.00		
4378+60.21	4379+96.36	LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	136.15	6.00	90.77	440	19.97	24.00	363.07	10.89		
4380+09.56	4381+73.41	LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	163.85	6.00	109.23	440	24.03	24.00	436.93	13.11		
4381+73.41	4388+73.41	LT. L.M.L. - ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	700.00	12.00	933.33	440	205.33	48.00	3733.33	112.00		
TOTALS					97356.93		21411.15		394064.22	11821.95		1677.62

BASIS OF ESTIMATE:

ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

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DGN File G:\013004-01\BB0109\DGN\Quantity Sheets\Quantity12.dgn
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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.		BB0804	53	156
				(2)		QUANTITIES		

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-12-12

BASE AND SURFACING - LT. MAIN LANES (CONTINUED)

STATION	STATION	LOCATION	LENGTH	ACHM BASE COURSE (1 1/2") * LEVELING- 110 LBS. PER SQ. YD. AVG. WIDTH	SQ. YD.	TON	NORMAL AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON	TOTAL TON	ACHM BINDER COURSE (1") AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON
			LIN FT.	FEET			FEET					FEET			
4070+00.00	4070+25.00	LT. MAIN LANE	25.00												
4070+25.00	4070+50.00	LT. MAIN LANE	25.00									24.00	66.67	330	11.00
4070+50.00	4071+02.56	LT. MAIN LANE	52.56				24.00	140.16	1045	73.23	73.23	24.00	140.16	330	23.13
4075+51.68	4080+00.00	LT. MAIN LANE (FULL DEPTH OVERLAY)	448.32				24.00	1195.52	1045	624.66	624.66	24.00	1195.52	330	197.26
4080+00.00	4150+80.94	LT. MAIN LANE (RUBBLIZE & OVERLAY)	7080.94	24.00	18882.51	1038.54	24.00	18882.51	519	4900.01	5938.55	24.00	18882.51	330	3115.61
4152+71.20	4177+55.78	LT. MAIN LANE (RUBBLIZE & OVERLAY)	2484.58	24.00	6625.55	364.41	24.00	6625.55	519	1719.33	2083.74	24.00	6625.55	330	1093.22
4177+55.78	4181+05.78	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	51.33	24.00	933.33	617	287.93	339.26	24.00	933.33	330	154.00
4181+05.78	4206+02.22	LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	2496.44	24.00	6657.17	366.14	24.00	6657.17	714	2376.61	2742.75	24.00	6657.17	330	1098.43
4206+02.22	4206+89.72	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	12.83	24.00	233.33	617	71.98	84.81	24.00	233.33	330	38.50
4205+97.12	4208+59.62	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	38.50	24.00	700.00	617	215.95	254.45	24.00	700.00	330	115.50
4208+59.62	4224+33.17	LT. MAIN LANE (RUBBLIZE & OVERLAY)	1573.55	24.00	4196.13	230.79	24.00	4196.13	519	1088.90	1319.69	24.00	4196.13	330	692.36
4224+33.17	4227+83.17	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	51.33	24.00	933.33	591	275.80	327.13	24.00	933.33	330	154.00
4227+83.17	4246+50.00	LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1866.83	24.00	4978.21	273.80	24.00	4978.21	662	1647.79	1921.59	24.00	4978.21	330	821.40
4246+50.00	4247+67.07	LT. MAIN LANE - MAXIMUM SUPERELEVATION (FULL DEPTH OVERLAY)	117.07				24.00	312.19	1112	173.58	173.58	24.00	312.19	330	51.51
4247+67.07	4248+54.57	LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	87.50				24.00	233.33	1112	129.73	129.73	24.00	233.33	330	38.50
4249+08.07	4249+98.00	LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	89.93				24.00	239.81	1112	133.33	133.33	24.00	239.81	330	39.57
4249+98.00	4251+70.57	LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	172.57				24.00	460.19	1045	240.45	240.45	24.00	460.19	330	75.93
4251+70.57	4253+78.42	LT. MAIN LANE (FULL DEPTH OVERLAY)	207.85				24.00	554.27	1045	289.61	289.61	24.00	554.27	330	91.45
4260+34.58	4266+00.00	LT. MAIN LANE (FULL DEPTH OVERLAY)	565.42				24.00	1507.79	1045	787.82	787.82	24.00	1507.79	330	248.79
4266+00.00	4267+50.00	LT. MAIN LANE (FULL DEPTH OVERLAY)	150.00				24.00	400.00	1112	222.40	222.40	24.00	400.00	330	66.00
4267+50.00	4286+14.16	LT. MAIN LANE (RUBBLIZE & OVERLAY)	1864.16	24.00	4971.09	273.41	24.00	4971.09	519	1290.00	1563.41	24.00	4971.09	330	820.23
4286+14.16	4289+64.16	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	51.33	24.00	933.33	519	242.20	293.53	24.00	933.33	330	154.00
4289+64.16	4332+22.51	LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	4258.35	24.00	11355.60	624.56	24.00	11355.60	519	2946.78	3571.34	24.00	11355.60	330	1873.67
4332+22.51	4333+10.01	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	12.83	24.00	233.33	519	60.55	73.38	24.00	233.33	330	38.50
4332+99.61	4335+62.11	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	38.50	24.00	700.00	519	181.65	220.15	24.00	700.00	330	115.50
4335+62.11	4359+43.85	LT. MAIN LANE (RUBBLIZE & OVERLAY)	2381.74	24.00	6351.31	349.32	24.00	6351.31	519	1648.16	1997.48	24.00	6351.31	330	1047.97
4359+43.85	4362+93.85	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	51.33	24.00	933.33	551	257.13	308.46	24.00	933.33	330	154.00
4362+93.85	4379+08.86	LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1615.01	24.00	4306.69	236.87	24.00	4306.69	582	1253.25	1490.12	24.00	4306.69	330	710.60
4379+08.86	4379+96.36	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	12.83	24.00	233.33	551	64.28	77.11	24.00	233.33	330	38.50
4380+09.56	4382+72.06	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	38.50	24.00	700.00	551	192.85	231.35	24.00	700.00	330	115.50
4382+72.06	4403+22.96	LT. MAIN LANE (RUBBLIZE & OVERLAY)	2050.90	24.00	5469.07	300.80	24.00	5469.07	519	1419.22	1720.02	24.00	5469.07	330	902.40
4403+22.96	4406+72.96	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	24.00	933.33	51.33	24.00	933.33	551	257.13	308.46	24.00	933.33	330	154.00
4406+72.96	4421+96.30	LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1523.34	24.00	4062.24	223.42	24.00	4062.24	582	1182.11	1405.53	24.00	4062.24	330	670.27
4421+96.30	4422+83.80	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	12.83	24.00	233.33	551	64.28	77.11	24.00	233.33	330	38.50
4422+71.20	4425+33.70	LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	38.50	24.00	700.00	551	192.85	231.35	24.00	700.00	330	115.50
4425+33.70	4430+00.00	LT. MAIN LANE (RUBBLIZE & OVERLAY)	466.30	24.00	1243.47	68.39	24.00	1243.47	519	322.68	391.07	24.00	1243.47	330	205.17
4093+65.70	4096+65.70	LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - RUBBLIZE & OVERLAY)	300.00	6.00	200.00	11.00	6.00	200.00	440	44.00	55.00	6.00	200.00	330	33.00
4096+65.70	4103+65.70	LT. L.M.L. - ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - RUBBLIZE & OVERLAY)	700.00	12.00	933.33	51.33	12.00	933.33	440	205.33	256.66	12.00	933.33	330	154.00
4129+50.36	4137+61.36	LT. L.M.L. - DECELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	811.00	12.00	1081.33	59.47	12.00	1081.33	440	237.89	297.36	12.00	1081.33	330	178.42
4137+61.36	4140+61.36	LT. L.M.L. - TAPER FOR DECELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	300.00	6.00	200.00	11.00	6.00	200.00	440	44.00	55.00	6.00	200.00	330	33.00
4271+55.70	4274+55.70	LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	300.00	6.00	200.00	11.00	6.00	200.00	440	44.00	55.00	6.00	200.00	330	33.00
4274+55.70	4281+55.70	LT. L.M.L. - ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	700.00	12.00	933.33	51.33	12.00	933.33	440	205.33	256.66	12.00	933.33	330	154.00
4378+60.21	4379+96.36	LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	136.15	6.00	90.77	4.99	6.00	90.77	440	19.97	24.96	6.00	90.77	330	14.98
4380+09.56	4381+73.41	LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	163.85	6.00	109.23	6.01	6.00	109.23	440	24.03	30.04	6.00	109.23	330	18.02
4381+73.41	4388+73.41	LT. L.M.L. - ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	700.00	12.00	933.33	51.33	12.00	933.33	440	205.33	256.66	12.00	933.33	330	154.00
TOTALS					92180.33	5069.88		97223.59		27864.11	32933.99		97290.26		16052.89

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

* NOTE: LEVELING QUANTITY IS ESTIMATED. LEVELING IS TO BE USED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

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DGN File G:\013004-01\BB0804\DGN\Quantity Sheets\Quantity13.dgn
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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.		BB0804	54	156
				(2)		QUANTITIES		

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON

9-12-12

BASE AND SURFACING - LT. SHOULDER - LT. MAIN LANES

STATION	STATION	LOCATION	LENGTH	ACHM BASE COURSE (1 1/2")							TOTAL TON	ACHM BINDER COURSE (1")				AGGREGATE BASE COURSE (CLASS 1)	
				* LEVELING- 110 LBS. PER SQ. YD.				NORMAL									
				AVG. WIDTH	SQ. YD.	TON		AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON		AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON		
			LIN FT.	FEET				FEET					FEET				TONS/STA.	TON
4070+00.00	4070+25.00	LT. SHOULDER - LT. MAIN LANE	25.00															
4070+25.00	4070+50.00	LT. SHOULDER - LT. MAIN LANE	25.00										10.50	29.17	330	4.81		
4070+50.00	4071+02.56	LT. SHOULDER - LT. MAIN LANE	52.56				10.75	62.78	1045	32.80	32.80		10.50	61.32	330	10.12		
4075+51.68	4080+00.00	LT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	448.32				10.75	535.49	1045	279.79	279.79		10.50	523.04	330	86.30	20.74	92.98
4080+00.00	4093+65.70	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	1365.70	10.75	1631.25	89.72	10.75	1631.25	440	358.88	448.60		10.50	1593.32	330	262.90	20.74	283.25
4103+65.70	4129+50.36	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	2584.66	10.75	3087.23	169.80	10.75	3087.23	440	679.19	848.99		10.50	3015.44	330	497.55	20.74	536.06
4140+61.36	4150+80.94	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	1019.58	10.75	1217.83	66.98	10.75	1217.83	440	267.92	334.90		10.50	1189.51	330	196.27	20.74	211.46
4152+71.20	4177+55.78	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	2484.58	10.75	2967.69	163.22	10.75	2967.69	440	652.89	816.11		10.50	2898.68	330	478.28	20.74	515.30
4177+55.78	4181+05.78	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.75	418.06	22.99	10.75	418.06	771	161.16	184.15		10.50	408.33	330	67.37	27.37	95.80
4181+05.78	4206+02.22	LT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	2496.44	10.75	2981.86	164.00	10.75	2981.86	1101	1641.51	1805.51		10.50	2912.51	330	480.56	33.99	848.54
4206+02.22	4206+89.72	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	10.75	104.51	5.75	10.75	104.51	771	40.29	46.04		10.50	102.08	330	16.84	27.37	23.95
4205+97.12	4208+59.62	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	10.75	313.54	17.24	10.75	313.54	771	120.87	138.11		10.50	306.25	330	50.53	27.37	71.85
4208+59.62	4224+33.17	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	1573.55	10.75	1879.52	103.37	10.75	1879.52	440	413.49	516.86		10.50	1835.81	330	302.91	20.74	326.35
4224+33.17	4227+83.17	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.75	418.06	22.99	10.75	418.06	394	82.36	105.35		10.50	408.33	330	67.37	19.16	67.06
4227+83.17	4246+50.00	LT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1866.83	10.75	2229.82	122.64	10.75	2229.82	348	387.99	510.63		10.50	2177.97	330	359.37	17.57	328.00
4246+50.00	4247+67.07	LT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (FULL DEPTH OVERLAY)	117.07				10.75	139.83	1112	77.75	77.75		10.50	136.58	330	22.54	20.74	24.28
4247+67.07	4248+54.57	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	87.50				10.75	104.51	1112	58.11	58.11		10.50	102.08	330	16.84	20.74	18.15
4249+08.07	4249+98.00	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	89.93				10.75	107.42	1112	59.73	59.73		10.50	104.92	330	17.31	27.65	24.87
4249+98.00	4251+70.57	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	172.57				10.75	206.13	1045	107.70	107.70		10.50	201.33	330	33.22	27.65	47.72
4251+70.57	4253+78.42	LT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	207.85				10.75	248.27	1045	129.72	129.72		10.50	242.49	330	40.01	27.65	57.47
4260+34.58	4266+00.00	LT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	565.42				10.75	675.36	1045	352.88	352.88		10.50	659.66	330	108.84	27.65	156.34
4266+00.00	4267+50.00	LT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	150.00				10.75	179.17	1112	99.62	99.62		10.50	175.00	330	28.88	20.74	31.11
4267+50.00	4271+55.70	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	405.70	10.75	484.59	26.65	10.75	484.59	440	106.61	133.26		10.50	473.32	330	78.10	20.74	84.14
4281+55.70	4286+14.16	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	458.46	10.75	547.60	30.12	10.75	547.60	440	120.47	150.59		10.50	534.87	330	88.25	20.74	95.08
4286+14.16	4289+64.16	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.75	418.06	22.99	10.75	418.06	519	108.49	131.48		10.50	408.33	330	67.37	22.10	77.35
4289+64.16	4332+22.51	LT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	4258.35	10.75	5086.36	279.75	10.75	5086.36	598	1520.82	1800.57		10.50	4968.08	330	819.73	23.46	999.01
4332+22.51	4333+10.01	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	10.75	104.51	5.75	10.75	104.51	519	27.12	32.87		10.50	102.08	330	16.84	22.10	19.34
4332+99.61	4335+62.11	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	10.75	313.54	17.24	10.75	313.54	519	81.36	98.60		10.50	306.25	330	50.53	22.10	58.01
4335+62.11	4359+43.85	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	2381.74	10.75	2844.86	156.47	10.75	2844.86	440	625.87	782.34		10.50	2778.70	330	458.49	20.74	493.97
4359+43.85	4362+93.85	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.75	418.06	22.99	10.75	418.06	440	91.97	114.96		10.50	408.33	330	67.37	19.54	68.39
4362+93.85	4378+60.21	LT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1566.36	10.75	1870.93	102.90	10.75	1870.93	440	411.60	514.50		10.50	1827.42	330	301.52	18.34	287.27
4388+73.41	4403+22.96	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	1449.55	10.75	1731.41	95.23	10.75	1731.41	440	380.91	476.14		10.50	1691.14	330	279.04	20.74	300.64
4403+22.96	4406+72.96	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.75	418.06	22.99	10.75	418.06	583	121.86	144.85		10.50	408.33	330	67.37	23.18	81.13
4406+72.96	4421+96.30	LT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1523.34	10.75	1819.54	100.07	10.75	1819.54	725	659.58	759.65		10.50	1777.23	330	293.24	25.62	390.28
4421+96.30	4422+83.80	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	10.75	104.51	5.75	10.75	104.51	583	30.46	36.21		10.50	102.08	330	16.84	23.18	20.28
4422+71.20	4425+33.70	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	10.75	313.54	17.24	10.75	313.54	583	91.40	108.64		10.50	306.25	330	50.53	23.18	60.85
4425+33.70	4430+00.00	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	466.30	10.75	556.97	30.63	10.75	556.97	440	122.53	153.16		10.50	544.02	330	89.76	20.74	96.71
4093+65.70	4096+65.70	LT. SHOULDER - LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - RUBBLIZE & OVERLAY)	300.00	3.38	112.67	6.20	3.38	112.67	440	24.79	30.99		3.25	108.33	330	17.87	20.74	62.22
4096+65.70	4103+65.70	LT. SHOULDER - LT. L.M.L. - ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - RUBBLIZE & OVERLAY)	700.00	6.75	525.00	28.88	6.75	525.00	440	115.50	144.38		6.50	505.56	330	83.42	20.74	145.18
4129+50.36	4137+61.36	LT. SHOULDER - LT. L.M.L. - DECELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	811.00	3.38	304.58	16.75	6.75	608.25	440	133.82	150.57		6.50	585.72	330	96.64	20.74	168.20
4137+61.36	4140+61.36	LT. SHOULDER - LT. L.M.L. - TAPER FOR DECELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	300.00	6.75	225.00	12.38	3.38	112.50	440	24.75	37.13		3.25	108.33	330	17.87	20.74	62.22
4271+55.70	4274+55.70	LT. SHOULDER - LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	300.00	3.38	112.67	6.20	3.38	112.67	440	24.79	30.99		3.25	108.33	330	17.87	20.74	62.22
4274+55.70	4281+55.70	LT. SHOULDER - LT. L.M.L. - ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	700.00	6.75	525.00	28.88	6.75	525.00	440	115.50	144.38		6.50	505.56	330	83.42	20.74	145.18
4378+60.21	4379+96.36	LT. SHOULDER - LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	136.15	3.38	51.13	2.81	3.38	51.13	440	11.25	14.06		3.25	49.17	330	8.11	20.74	28.24
4380+09.56	4381+73.41	LT. SHOULDER - LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	163.85	3.38	61.53	3.38	3.38	61.53	440	13.54	16.92		3.25	59.17	330	9.76	20.74	33.98
4381+73.41	4388+73.41	LT. SHOULDER - LT. L.M.L. - ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	700.00	6.75	525.00	28.88	6.75	525.00	440	115.50	144.38		6.50	505.56	330	83.42	20.74	145.18
		* ENTIRE PROJECT - WIDENING FOR GUARDRAIL																
TOTALS						36724.49	2019.83		39174.62		11085.14	13104.97		38255.98		6312.18		7745.61

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

* NOTE: LEVELING QUANTITY IS ESTIMATED. LEVELING IS TO BE USED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

Drawn By fs513
DGN File G:\013004-01\BB0804\DGN\Quantity Sheets\Quantity4.dgn
Plotted : 11-SEP-2012 17:37 View=

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.		BB0804	55	156
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-12-12

BASE AND SURFACING - LT. SHOULDER - LT. MAIN LANES (CONTINUED)

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2")				TACK COAT							BORROW	AGGREGATE BASE COURSE (CLASS 7)	
								0.10 GAL. PER SQ. YD.			0.03 GAL. PER SQ. YD.			TOTAL GAL.			
				AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH	SQ. YD.	GAL.	AVG. WIDTH	SQ. YD.	GAL.				
			LIN FT.	FEET				FEET			FEET				CU. YD.	TONS/STA	TON
4070+00.00	4070+25.00	LT. SHOULDER - LT. MAIN LANE	25.00	10.00	27.78	220	3.06				10.00	27.78	0.83	0.83			
4070+25.00	4070+50.00	LT. SHOULDER - LT. MAIN LANE	25.00	10.00	27.78	440	6.11				30.00	83.33	2.50	2.50			
4070+50.00	4071+02.56	LT. SHOULDER - LT. MAIN LANE	52.56	10.00	58.40	440	12.85				52.00	303.68	9.11	9.11			
4075+51.68	4080+00.00	LT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	448.32	10.00	498.13	440	109.59				28.42	1415.69	42.47	42.47	30.44		
4080+00.00	4093+65.70	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	1365.70	10.00	1517.44	440	333.84	10.00	1517.44	151.74	20.50	3110.76	93.32	245.06	92.73		
4103+65.70	4129+50.36	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	2584.66	10.00	2871.84	440	631.80	10.00	2871.84	287.18	20.50	5887.28	176.62	463.80	175.50		
4140+61.36	4150+80.94	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	1019.58	10.00	1132.87	440	249.23	10.00	1132.87	113.29	20.50	2322.38	69.67	182.96	69.23		
4152+71.20	4177+55.78	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	2484.58	10.00	2760.64	440	607.34	10.00	2760.64	276.06	20.50	5659.32	169.78	445.84	168.70		
4177+55.78	4181+05.78	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.00	388.89	440	85.56	10.00	388.89	38.89	20.50	797.22	23.92	62.81	31.36		
4181+05.78	4206+02.22	LT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	2496.44	10.00	2773.82	440	610.24	10.00	2773.82	277.38	20.50	5686.34	170.59	447.97	277.85		
4206+02.22	4206+89.72	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	10.00	97.22	440	21.39	10.00	97.22	9.72	20.50	199.31	5.98	15.70	7.84		
4205+97.12	4208+59.62	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	10.00	291.67	440	64.17	10.00	291.67	29.17	20.50	597.92	17.94	47.11	23.52		
4208+59.62	4224+33.17	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	1573.55	10.00	1748.39	440	384.65	10.00	1748.39	174.84	20.50	3584.20	107.53	282.37	106.84		
4224+33.17	4227+83.17	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.00	388.89	440	85.56	10.00	388.89	38.89	20.50	797.22	23.92	62.81	21.95		
4227+83.17	4246+50.00	LT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1866.83	10.00	2074.26	440	456.34	10.00	2074.26	207.43	20.50	4252.22	127.57	335.00	107.34		
4246+50.00	4247+67.07	LT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (FULL DEPTH OVERLAY)	117.07	10.00	130.08	440	28.62				28.42	369.68	11.09	11.09	7.95		
4247+67.07	4248+54.57	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	87.50	10.00	97.22	440	21.39				28.42	276.31	8.29	8.29	5.94		
4249+08.07	4249+98.00	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	89.93	10.00	99.92	440	21.98				28.42	283.98	8.52	8.52	6.11		
4249+98.00	4251+70.57	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	172.57	10.00	191.74	440	42.18				28.42	544.94	16.35	16.35	11.72	77.78	134.22
4251+70.57	4253+78.42	LT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	207.85	10.00	230.94	440	50.81				28.42	656.34	19.69	19.69	14.11	77.78	161.67
4260+34.58	4266+00.00	LT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	565.42	10.00	628.24	440	138.21				28.42	1785.47	53.56	53.56	38.39	71.29	403.09
4266+00.00	4267+50.00	LT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	150.00	10.00	166.67	440	36.67				28.42	473.67	14.21	14.21	10.19		
4267+50.00	4271+55.70	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	405.70	10.00	450.78	440	99.17	10.00	450.78	45.08	20.50	924.09	27.72	72.80	27.55		
4281+55.70	4286+14.16	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	458.46	10.00	509.40	440	112.07	10.00	509.40	50.94	20.50	1044.27	31.33	82.27	31.13		
4286+14.16	4289+64.16	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.00	388.89	440	85.56	10.00	388.89	38.89	20.50	797.22	23.92	62.81	25.34		
4289+64.16	4332+22.51	LT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	4258.35	10.00	4731.50	440	1040.93	10.00	4731.50	473.15	20.50	9699.58	290.99	764.14	327.04		
4332+22.51	4333+10.01	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	10.00	97.22	440	21.39	10.00	97.22	9.72	20.50	199.31	5.98	15.70	6.34		
4332+99.61	4335+62.11	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	10.00	291.67	440	64.17	10.00	291.67	29.17	20.50	597.92	17.94	47.11	19.01		
4335+62.11	4359+43.85	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	2381.74	10.00	2646.38	440	582.20	10.00	2646.38	264.64	20.50	5425.07	162.75	427.39	161.72		
4359+43.85	4362+93.85	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.00	388.89	440	85.56	10.00	388.89	38.89	20.50	797.22	23.92	62.81	23.77		
4362+93.85	4378+60.21	LT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1566.36	10.00	1740.40	440	382.89	10.00	1740.40	174.04	20.50	3567.82	107.03	281.07	106.36		
4388+73.41	4403+22.96	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	1449.55	10.00	1610.61	440	354.33	10.00	1610.61	161.06	20.50	3301.75	99.05	260.11	98.42		
4403+22.96	4406+72.96	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	10.00	388.89	440	85.56	10.00	388.89	38.89	20.50	797.22	23.92	62.81	26.57		
4406+72.96	4421+96.30	LT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1523.34	10.00	1692.60	440	372.37	10.00	1692.60	169.26	20.50	3469.83	104.09	273.35	127.81		
4421+96.30	4422+83.80	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	10.00	97.22	440	21.39	10.00	97.22	9.72	20.50	199.31	5.98	15.70	6.64		
4422+71.20	4425+33.70	LT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	10.00	291.67	440	64.17	10.00	291.67	29.17	20.50	597.92	17.94	47.11	19.92		
4425+33.70	4430+00.00	LT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	466.30	10.00	518.11	440	113.98	10.00	518.11	51.81	20.50	1062.13	31.86	83.67	31.66		
4093+65.70	4096+65.70	LT. SHOULDER - LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - RUBBLIZE & OVERLAY)	300.00	3.00	100.00	440	22.00	3.00	100.00	10.00	12.00	400.00	12.00	22.00	20.37		
4096+65.70	4103+65.70	LT. SHOULDER - LT. L.M.L. - ACCELERATION LANE (HIGHWAY 64 INTERCHANGE - RUBBLIZE & OVERLAY)	700.00	6.00	466.67	440	102.67	6.00	466.67	46.67	24.00	1866.67	56.00	102.67	47.53		
4129+50.36	4137+61.36	LT. SHOULDER - LT. L.M.L. - DECELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	811.00	6.00	540.67	440	118.95	6.00	540.67	54.07	24.00	2162.67	64.88	118.95	55.07		
4137+61.36	4140+61.36	LT. SHOULDER - LT. L.M.L. - TAPER FOR DECELERATION LANE (HIGHWAY 64 INTERCHANGE - OVERLAY)	300.00	3.00	100.00	440	22.00	3.00	100.00	10.00	12.00	400.00	12.00	22.00	20.37		
4271+55.70	4274+55.70	LT. SHOULDER - LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	300.00	3.00	100.00	440	22.00	3.00	100.00	10.00	12.00	400.00	12.00	22.00	20.37		
4274+55.70	4281+55.70	LT. SHOULDER - LT. L.M.L. - ACCELERATION LANE (HIGHWAY 7 INTERCHANGE - RUBBLIZE & OVERLAY)	700.00	6.00	466.67	440	102.67	6.00	466.67	46.67	24.00	1866.67	56.00	102.67	47.53		
4378+60.21	4379+96.36	LT. SHOULDER - LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	136.15	3.00	45.38	440	9.98	3.00	45.38	4.54	12.00	181.53	5.45	9.99	9.24		
4380+09.56	4381+73.41	LT. SHOULDER - LT. L.M.L. - TAPER FOR ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	163.85	3.00	54.62	440	12.02	3.00	54.62	5.46	12.00	218.47	6.55	12.01	11.13		
4381+73.41	4388+73.41	LT. SHOULDER - LT. L.M.L. - ACCELERATION LANE (HIGHWAY 326 INTERCHANGE - OVERLAY)	700.00	6.00	466.67	440	102.67	6.00	466.67	46.67	24.00	1866.67	56.00	102.67	47.53		
		* ENTIRE PROJECT - WIDENING FOR GUARDRAIL			1651.44	440	363.32										674.34
TOTALS					38039.18		8365.61		34230.84	3423.10		80958.38	2428.76	5851.86	2526.13		1373.32

BASIS OF ESTIMATE:
ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

Drawn By fs513
DGN File G:\013004-01\B08109\DGN\Quantity Sheets\Quantity15.dgn
Plotted : 11-SEP-2012 17:37 View=

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.		BB0804	56	156
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON

9-12-12

BASE AND SURFACING - RT. SHOULDER - LT. MAIN LANES

STATION	STATION	LOCATION	LENGTH	ACHM BASE COURSE (1 1/2")								ACHM BINDER COURSE (1")				AGGREGATE BASE COURSE (CLASS 1)	
				* LEVELING - 110 LBS. PER SQ. YD.			NORMAL				TOTAL TON						
				AVG. WIDTH	SQ. YD.	TON	AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON		AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON		
			LIN. FT.	FEET			FEET					FEET				TONS/STA.	TON
4070+00.00	4070+25.00	RT. SHOULDER - LT. MAIN LANE	25.00														
4070+25.00	4070+50.00	RT. SHOULDER - LT. MAIN LANE	25.00														
4070+50.00	4071+02.56	RT. SHOULDER - LT. MAIN LANE	52.56									4.42	12.28	330	2.03		
4075+51.68	4080+00.00	RT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	448.32				4.75	27.74	1045	14.49	14.49	4.42	25.81	330	4.26		
4080+00.00	4150+80.94	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	7080.94	4.75	3737.16	205.54	5.00	249.07	1045	130.14	130.14	4.50	224.16	330	36.99	48.71	218.38
4152+71.20	4177+55.78	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	2484.58	4.75	1311.31	72.12	4.75	3737.16	598	1117.41	1322.95	4.42	3477.53	330	573.79	42.95	3041.26
4177+55.78	4181+05.78	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.75	184.72	10.16	4.75	1311.31	598	392.08	464.20	4.42	1220.20	330	201.33	42.95	1067.13
4181+05.78	4206+02.22	RT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	2496.44	4.75	1317.57	72.47	4.75	184.72	497	45.90	56.06	4.42	171.89	330	28.36	39.05	136.68
4206+02.22	4206+89.72	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.75	46.18	2.54	4.75	1317.57	395	260.22	332.69	4.42	1226.03	330	202.29	35.15	877.50
4205+97.12	4208+59.62	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.75	138.54	7.62	4.75	46.18	497	11.48	14.02	4.42	42.97	330	7.09	39.05	34.17
4208+59.62	4224+33.17	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	1573.55	4.75	830.48	45.68	4.75	138.54	497	34.43	42.05	4.42	128.92	330	21.27	39.05	102.51
4224+33.17	4227+83.17	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.75	184.72	10.16	4.75	830.48	598	248.31	293.99	4.42	772.79	330	127.51	42.95	675.84
4227+83.17	4246+50.00	RT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1866.83	4.75	985.27	54.19	4.75	184.72	759	70.10	80.26	4.42	171.89	330	28.36	48.58	170.03
4246+50.00	4247+67.07	RT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (FULL DEPTH OVERLAY)	117.07				4.75	985.27	920	453.22	507.41	4.42	916.82	330	151.28	54.21	1012.01
4247+67.07	4248+54.57	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	87.50				5.00	65.04	1112	36.16	36.16	4.50	58.54	330	9.66	42.95	50.28
4249+08.07	4249+98.00	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	89.93				5.00	48.61	1112	27.03	27.03	4.50	43.75	330	7.22	42.95	37.58
4249+98.00	4251+70.57	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	172.57				5.00	49.96	1112	27.78	27.78	4.50	44.96	330	7.42	42.95	38.62
4251+70.57	4253+78.42	RT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	207.85				5.00	95.87	1045	50.09	50.09	4.50	86.29	330	14.24	42.95	74.12
4260+34.58	4266+00.00	RT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	565.42				5.00	115.47	1045	60.33	60.33	4.50	103.92	330	17.15	42.95	89.27
4266+00.00	4267+50.00	RT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	150.00				5.00	314.12	1045	164.13	164.13	4.50	282.71	330	46.65	42.95	242.85
4267+50.00	4286+14.16	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	1864.16	4.75	983.86	54.11	5.00	83.33	1112	46.33	46.33	4.50	75.00	330	12.38	42.95	64.43
4286+14.16	4289+64.16	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.75	184.72	10.16	4.75	983.86	598	294.17	348.28	4.42	915.51	330	151.06	42.95	800.66
4289+64.16	4332+22.51	RT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	4258.35	4.75	2247.46	123.61	4.75	184.72	519	47.93	58.09	4.42	171.89	330	28.36	40.47	141.65
4332+22.51	4333+10.01	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.75	46.18	2.54	4.75	2247.46	440	494.44	618.05	4.42	2091.32	330	345.07	37.98	1617.32
4332+99.61	4335+62.11	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.75	138.54	7.62	4.75	46.18	519	11.98	14.52	4.42	42.97	330	7.09	40.47	35.41
4335+62.11	4359+43.85	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	2381.74	4.75	1257.03	69.14	4.75	138.54	519	35.95	43.57	4.42	128.92	330	21.27	40.47	106.23
4359+43.85	4362+93.85	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.75	184.72	10.16	4.75	1257.03	598	375.85	444.99	4.42	1169.70	330	193.00	42.95	1022.96
4362+93.85	4379+08.86	RT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1615.01	4.75	852.37	46.88	4.75	184.72	662	61.14	71.30	4.42	171.89	330	28.36	44.94	157.29
4379+08.86	4379+96.36	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.75	46.18	2.54	4.75	852.37	725	308.98	355.86	4.42	793.15	330	130.87	46.92	757.76
4380+09.56	4382+72.06	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.75	138.54	7.62	4.75	46.18	662	15.29	17.83	4.42	42.97	330	7.09	44.94	39.32
4382+72.06	4403+22.96	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	2050.90	4.75	1082.42	59.53	4.75	138.54	662	45.86	53.48	4.42	128.92	330	21.27	44.94	117.97
4403+22.96	4406+72.96	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.75	184.72	10.16	4.75	1082.42	598	323.64	383.17	4.42	1007.22	330	166.19	42.95	880.86
4406+72.96	4421+96.30	RT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1523.34	4.75	803.98	44.22	4.75	184.72	519	47.93	58.09	4.42	171.89	330	28.36	40.47	141.65
4421+96.30	4422+83.80	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.75	46.18	2.54	4.75	803.98	440	176.88	221.10	4.42	748.13	330	123.44	37.98	578.56
4422+71.20	4425+33.70	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.75	138.54	7.62	4.75	46.18	519	11.98	14.52	4.42	42.97	330	7.09	40.47	35.41
4425+33.70	4430+00.00	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	466.30	4.75	246.10	13.54	4.75	138.54	519	35.95	43.57	4.42	128.92	330	21.27	40.47	106.23
								246.10	598	73.58	87.12	4.42	229.01	330	37.79	42.95	200.28
		* ENTIRE PROJECT - WIDENING FOR GUARDRAIL															
TOTALS					17317.49	952.47		18366.70		5551.18	6503.65		17071.84		2816.86		14672.22

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

* NOTE: LEVELING QUANTITY IS ESTIMATED. LEVELING IS TO BE USED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

Drawn By fs513
DGN File G:\013004-01\B80109\DGN\Quantity Sheets\Quantity16.dgn
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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.		BB0804	57	156
				(2)		QUANTITIES		

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
D. ROBERT MATTHEW CRAFTON

9-12-12

BASE AND SURFACING - RT. SHOULDER - LT. MAIN LANES (CONTINUED)

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2")				TACK COAT							BORROW	AGGREGATE BASE COURSE (CLASS 7)	
				AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON	0.10 GAL. PER SQ. YD.			0.03 GAL. PER SQ. YD.			TOTAL GAL.			
			LIN. FT.	FEET				AVG. WIDTH FEET	SQ. YD.	GAL.	AVG. WIDTH FEET	SQ. YD.	GAL.		CU. YD.	TONS/STA.	TON
4070+00.00	4070+25.00	RT. SHOULDER - LT. MAIN LANE	25.00	4.00	11.11	220	1.22				4.00	11.11	0.33	0.33			
4070+25.00	4070+50.00	RT. SHOULDER - LT. MAIN LANE	25.00	4.00	11.11	440	2.44				12.00	33.33	1.00	1.00			
4070+50.00	4071+02.56	RT. SHOULDER - LT. MAIN LANE	52.56	4.00	23.36	440	5.14				21.92	128.01	3.84	3.84			
4075+51.68	4080+00.00	RT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	448.32	4.00	199.25	440	43.84				22.50	1120.80	33.62	33.62	34.61		
4080+00.00	4150+80.94	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	7080.94	4.00	3147.08	440	692.36	4.00	3147.08	314.71	8.42	6624.61	198.74	513.45	546.65		
4152+71.20	4177+55.78	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	2484.58	4.00	1104.26	440	242.94	4.00	1104.26	110.43	8.42	2324.46	69.73	180.16	191.81		
4177+55.78	4181+05.78	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.00	155.56	440	34.22	4.00	155.56	15.56	8.42	327.44	9.82	25.38	24.57		
4181+05.78	4206+02.22	RT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	2496.44	4.00	1109.53	440	244.10	4.00	1109.53	110.95	8.42	2335.56	70.07	181.02	157.78		
4206+02.22	4206+89.72	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.00	38.89	440	8.56	4.00	38.89	3.89	8.42	81.86	2.46	6.35	6.14		
4205+97.12	4208+59.62	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.00	116.67	440	25.67	4.00	116.67	11.67	8.42	245.58	7.37	19.04	18.43		
4208+59.62	4224+33.17	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	1573.55	4.00	699.36	440	153.86	4.00	699.36	69.94	8.42	1472.14	44.16	114.10	121.48		
4224+33.17	4227+83.17	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.00	155.56	440	34.22	4.00	155.56	15.56	8.42	327.44	9.82	25.38	30.56		
4227+83.17	4246+50.00	RT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1866.83	4.00	829.70	440	182.53	4.00	829.70	82.97	8.42	1746.52	52.40	135.37	181.83		
4246+50.00	4247+67.07	RT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (FULL DEPTH OVERLAY)	117.07	4.00	52.03	440	11.45				22.50	292.68	8.78	8.78	9.04		
4247+67.07	4248+54.57	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	87.50	4.00	38.89	440	8.56				22.50	218.75	6.56	6.56	6.76		
4249+08.07	4249+98.00	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	89.93	4.00	39.97	440	8.79				22.50	224.82	6.74	6.74	6.94		
4249+98.00	4251+70.57	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (FULL DEPTH OVERLAY)	172.57	4.00	76.70	440	16.87				22.50	431.43	12.94	12.94	13.32	46.67	80.54
4251+70.57	4253+78.42	RT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	207.85	4.00	92.38	440	20.32				22.50	519.62	15.59	15.59	16.05	46.67	97.00
4260+34.58	4266+00.00	RT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	565.42	4.00	251.30	440	55.29				22.50	1413.55	42.41	42.41	43.65	42.78	241.89
4266+00.00	4267+50.00	RT. SHOULDER - LT. MAIN LANE (FULL DEPTH OVERLAY)	150.00	4.00	66.67	440	14.67				22.50	375.00	11.25	11.25	11.58		
4267+50.00	4286+14.16	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	1864.16	4.00	828.52	440	182.27	4.00	828.52	82.85	8.42	1744.03	52.32	135.17	143.91		
4286+14.16	4289+64.16	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.00	155.56	440	34.22	4.00	155.56	15.56	8.42	327.44	9.82	25.38	25.48		
4289+64.16	4332+22.51	RT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	4258.35	4.00	1892.60	440	416.37	4.00	1892.60	189.26	8.42	3983.92	119.52	308.78	290.85		
4332+22.51	4333+10.01	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.00	38.89	440	8.56	4.00	38.89	3.89	8.42	81.86	2.46	6.35	6.37		
4332+99.61	4335+62.11	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.00	116.67	440	25.67	4.00	116.67	11.67	8.42	245.58	7.37	19.04	19.11		
4335+62.11	4359+43.85	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	2381.74	4.00	1058.55	440	232.88	4.00	1058.55	105.86	8.42	2228.25	66.85	172.71	183.87		
4359+43.85	4362+93.85	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.00	155.56	440	34.22	4.00	155.56	15.56	8.42	327.44	9.82	25.38	30.21		
4362+93.85	4379+08.86	RT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1615.01	4.00	717.78	440	157.91	4.00	717.78	71.78	8.42	1510.93	45.33	117.11	154.07		
4379+08.86	4379+96.36	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.00	38.89	440	8.56	4.00	38.89	3.89	8.42	81.86	2.46	6.35	7.55		
4380+09.56	4382+72.06	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.00	116.67	440	25.67	4.00	116.67	11.67	8.42	245.58	7.37	19.04	22.65		
4382+72.06	4403+22.96	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	2050.90	4.00	911.51	440	200.53	4.00	911.51	91.15	8.42	1918.73	57.56	148.71	158.33		
4403+22.96	4406+72.96	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	350.00	4.00	155.56	440	34.22	4.00	155.56	15.56	8.42	327.44	9.82	25.38	25.48		
4406+72.96	4421+96.30	RT. SHOULDER - LT. MAIN LANE - MAXIMUM SUPERELEVATION (RUBBLIZE & OVERLAY)	1523.34	4.00	677.04	440	148.95	4.00	677.04	67.70	8.42	1425.17	42.76	110.46	104.04		
4421+96.30	4422+83.80	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	87.50	4.00	38.89	440	8.56	4.00	38.89	3.89	8.42	81.86	2.46	6.35	6.37		
4422+71.20	4425+33.70	RT. SHOULDER - LT. MAIN LANE - SUPERELEVATION TRANSITION (RUBBLIZE & OVERLAY)	262.50	4.00	116.67	440	25.67	4.00	116.67	11.67	8.42	245.58	7.37	19.04	19.11		
4425+33.70	4430+00.00	RT. SHOULDER - LT. MAIN LANE (RUBBLIZE & OVERLAY)	466.30	4.00	207.24	440	45.59	4.00	207.24	20.72	8.42	436.25	13.09	33.81	36.00		
		* ENTIRE PROJECT - WIDENING FOR GUARDRAIL			475.25	440	104.56										194.06
		* ENTIRE PROJECT - WIDENING FOR GUARDRAIL & CABLE MEDIAN BARRIER			2721.18	220	299.33										1112.31
TOTALS					18642.41		3800.79		14583.21	1458.36		35466.63	1064.01	2522.37	2654.60		1725.80

BASIS OF ESTIMATE:
ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

Drawn By fs513
DGN File G:\013004-01\BB0804\DGN\Quantity Sheets\Quantity17.dgn
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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.		BB0804	58	156
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-12-12

BASE AND SURFACING - RAMP AND SHOULDER PAVING TRANSITIONS

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2")				TACK COAT						TOTAL GAL.
				AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON	0.10 GAL. PER SQ. YD.			0.03 GAL. PER SQ. YD.			
			LIN FT.	FEET				AVG. WIDTH FEET	SQ. YD.	GAL.	AVG. WIDTH FEET	SQ. YD.	GAL.	
4110+18.80	4110+68.80	HIGHWAY 64 INTERCHANGE - RAMP 1	50.00	25.00	138.89	440	30.56	10.00	55.56	5.56	45.00	250.00	7.50	13.06
4110+68.80	4112+68.80	HIGHWAY 64 INTERCHANGE - RAMP 1	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	30.00	666.67	20.00	42.22
4112+68.80	4114+68.80	HIGHWAY 64 INTERCHANGE - RAMP 1	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	15.00	333.33	10.00	32.22
4114+68.80	4115+68.80	HIGHWAY 64 INTERCHANGE - RAMP 1	100.00	25.00	277.78	220	30.56	10.00	111.11	11.11	15.00	166.67	5.00	16.11
4103+65.70	4104+15.70	HIGHWAY 64 INTERCHANGE - RAMP 2	50.00	25.00	138.89	440	30.56	10.00	55.56	5.56	45.00	250.00	7.50	13.06
4104+15.70	4106+15.70	HIGHWAY 64 INTERCHANGE - RAMP 2	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	30.00	666.67	20.00	42.22
4106+15.70	4108+15.70	HIGHWAY 64 INTERCHANGE - RAMP 2	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	15.00	333.33	10.00	32.22
4108+15.70	4109+15.70	HIGHWAY 64 INTERCHANGE - RAMP 2	100.00	25.00	277.78	220	30.56	10.00	111.11	11.11	15.00	166.67	5.00	16.11
4124+00.36	4125+00.36	HIGHWAY 64 INTERCHANGE - RAMP 3	100.00	25.00	277.78	220	30.56	10.00	111.11	11.11	15.00	166.67	5.00	16.11
4125+00.36	4127+00.36	HIGHWAY 64 INTERCHANGE - RAMP 3	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	15.00	333.33	10.00	32.22
4127+00.36	4129+00.36	HIGHWAY 64 INTERCHANGE - RAMP 3	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	30.00	666.67	20.00	42.22
4129+00.36	4129+50.36	HIGHWAY 64 INTERCHANGE - RAMP 3	50.00	25.00	138.89	440	30.56	10.00	55.56	5.56	45.00	250.00	7.50	13.06
4126+40.70	4127+40.70	HIGHWAY 64 INTERCHANGE - RAMP 4	100.00	25.00	277.78	220	30.56	10.00	111.11	11.11	15.00	166.67	5.00	16.11
4127+40.70	4129+40.70	HIGHWAY 64 INTERCHANGE - RAMP 4	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	15.00	333.33	10.00	32.22
4129+40.70	4131+40.70	HIGHWAY 64 INTERCHANGE - RAMP 4	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	30.00	666.67	20.00	42.22
4131+40.70	4131+90.70	HIGHWAY 64 INTERCHANGE - RAMP 4	50.00	25.00	138.89	440	30.56	10.00	55.56	5.56	45.00	250.00	7.50	13.06
4281+55.70	4282+05.70	HIGHWAY 7 INTERCHANGE - RAMP 1	50.00	25.00	138.89	440	30.56	10.00	55.56	5.56	45.00	250.00	7.50	13.06
4282+05.70	4284+05.70	HIGHWAY 7 INTERCHANGE - RAMP 1	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	30.00	666.67	20.00	42.22
4284+05.70	4286+05.70	HIGHWAY 7 INTERCHANGE - RAMP 1	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	15.00	333.33	10.00	32.22
4286+05.70	4287+05.70	HIGHWAY 7 INTERCHANGE - RAMP 1	100.00	25.00	277.78	220	30.56	10.00	111.11	11.11	15.00	166.67	5.00	16.11
4296+94.40	4297+94.40	HIGHWAY 7 INTERCHANGE - RAMP 2	100.00	25.00	277.78	220	30.56	10.00	111.11	11.11	15.00	166.67	5.00	16.11
4297+94.40	4299+94.40	HIGHWAY 7 INTERCHANGE - RAMP 2	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	15.00	333.33	10.00	32.22
4299+94.40	4301+94.40	HIGHWAY 7 INTERCHANGE - RAMP 2	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	30.00	666.67	20.00	42.22
4301+94.40	4302+44.40	HIGHWAY 7 INTERCHANGE - RAMP 2	50.00	25.00	138.89	440	30.56	10.00	55.56	5.56	45.00	250.00	7.50	13.06
4283+36.00	4283+86.00	HIGHWAY 7 INTERCHANGE - RAMP 3	50.00	25.00	138.89	440	30.56	10.00	55.56	5.56	45.00	250.00	7.50	13.06
4283+86.00	4285+86.00	HIGHWAY 7 INTERCHANGE - RAMP 3	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	30.00	666.67	20.00	42.22
4285+86.00	4287+86.00	HIGHWAY 7 INTERCHANGE - RAMP 3	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	15.00	333.33	10.00	32.22
4287+86.00	4288+86.00	HIGHWAY 7 INTERCHANGE - RAMP 3	100.00	25.00	277.78	220	30.56	10.00	111.11	11.11	15.00	166.67	5.00	16.11
4300+20.50	4301+20.50	HIGHWAY 7 INTERCHANGE - RAMP 4	100.00	25.00	277.78	220	30.56	10.00	111.11	11.11	15.00	166.67	5.00	16.11
4301+20.50	4303+20.50	HIGHWAY 7 INTERCHANGE - RAMP 4	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	15.00	333.33	10.00	32.22
4303+20.50	4305+20.50	HIGHWAY 7 INTERCHANGE - RAMP 4	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	30.00	666.67	20.00	42.22
4305+20.50	4305+70.50	HIGHWAY 7 INTERCHANGE - RAMP 4	50.00	25.00	138.89	440	30.56	10.00	55.56	5.56	45.00	250.00	7.50	13.06
4392+42.00	4392+92.00	HIGHWAY 326 INTERCHANGE - RAMP 1	50.00	25.00	138.89	440	30.56	10.00	55.56	5.56	45.00	250.00	7.50	13.06
4392+92.00	4394+92.00	HIGHWAY 326 INTERCHANGE - RAMP 1	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	30.00	666.67	20.00	42.22
4394+92.00	4396+92.00	HIGHWAY 326 INTERCHANGE - RAMP 1	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	15.00	333.33	10.00	32.22
4396+92.00	4397+92.00	HIGHWAY 326 INTERCHANGE - RAMP 1	100.00	25.00	277.78	220	30.56	10.00	111.11	11.11	15.00	166.67	5.00	16.11
4413+44.40	4414+44.40	HIGHWAY 326 INTERCHANGE - RAMP 2	100.00	25.00	277.78	220	30.56	10.00	111.11	11.11	15.00	166.67	5.00	16.11
4414+44.40	4416+44.40	HIGHWAY 326 INTERCHANGE - RAMP 2	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	15.00	333.33	10.00	32.22
4416+44.40	4418+44.40	HIGHWAY 326 INTERCHANGE - RAMP 2	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	30.00	666.67	20.00	42.22
4418+44.40	4418+94.40	HIGHWAY 326 INTERCHANGE - RAMP 2	50.00	25.00	138.89	440	30.56	10.00	55.56	5.56	45.00	250.00	7.50	13.06
4408+39.00	4409+39.00	HIGHWAY 326 INTERCHANGE - RAMP 3	100.00	25.00	277.78	220	30.56	10.00	111.11	11.11	15.00	166.67	5.00	16.11
4409+39.00	4411+39.00	HIGHWAY 326 INTERCHANGE - RAMP 3	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	15.00	333.33	10.00	32.22
4411+39.00	4413+39.00	HIGHWAY 326 INTERCHANGE - RAMP 3	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	30.00	666.67	20.00	42.22
4413+39.00	4413+89.00	HIGHWAY 326 INTERCHANGE - RAMP 3	50.00	25.00	138.89	440	30.56	10.00	55.56	5.56	45.00	250.00	7.50	13.06
4388+73.41	4389+23.41	HIGHWAY 326 INTERCHANGE - RAMP 4	50.00	25.00	138.89	440	30.56	10.00	55.56	5.56	45.00	250.00	7.50	13.06
4389+23.41	4391+23.41	HIGHWAY 326 INTERCHANGE - RAMP 4	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	30.00	666.67	20.00	42.22
4391+23.41	4393+23.41	HIGHWAY 326 INTERCHANGE - RAMP 4	200.00	25.00	555.56	440	122.22	10.00	222.22	22.22	15.00	333.33	10.00	32.22
4393+23.41	4394+23.41	HIGHWAY 326 INTERCHANGE - RAMP 4	100.00	25.00	277.78	220	30.56	10.00	111.11	11.11	15.00	166.67	5.00	16.11
TOTALS					18333.48		3666.72		7333.32	733.32		17000.04	510.00	1243.32

BASIS OF ESTIMATE:
ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

Drawn By fs513
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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.		BB0804	58A	156
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

BASE AND SURFACING - RAMP AND SHOULDER PAVING TRANSITIONS (CONTINUED)

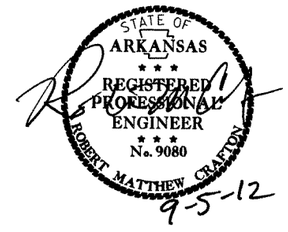
STATION	STATION	LOCATION	LENGTH	ACHM BASE COURSE (1 1/2")				ACHM BINDER COURSE (1")				BORROW	AGGREGATE BASE COURSE (CLASS 1)	
				AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD.	TON			
			LIN FT.	FEET				FEET				CU. YD.	TONS/STA.	TON
4110+18.80	4110+68.80	HIGHWAY 64 INTERCHANGE - RAMP 1	50.00	25.00	138.89	385	26.74	25.00	138.89	330	22.92			
4110+68.80	4112+68.80	HIGHWAY 64 INTERCHANGE - RAMP 1	200.00					25.00	555.56	440	122.22	18.67	10.37	57.04
4112+68.80	4114+68.80	HIGHWAY 64 INTERCHANGE - RAMP 1	200.00											
4114+68.80	4115+68.80	HIGHWAY 64 INTERCHANGE - RAMP 1	100.00											
4103+65.70	4104+15.70	HIGHWAY 64 INTERCHANGE - RAMP 2	50.00	25.00	138.89	385	26.74	25.00	138.89	330	22.92			
4104+15.70	4106+15.70	HIGHWAY 64 INTERCHANGE - RAMP 2	200.00					25.00	555.56	440	122.22	18.67	10.37	57.04
4106+15.70	4108+15.70	HIGHWAY 64 INTERCHANGE - RAMP 2	200.00											
4108+15.70	4109+15.70	HIGHWAY 64 INTERCHANGE - RAMP 2	100.00											
4124+00.36	4125+00.36	HIGHWAY 64 INTERCHANGE - RAMP 3	100.00											
4125+00.36	4127+00.36	HIGHWAY 64 INTERCHANGE - RAMP 3	200.00									18.67	10.37	57.04
4127+00.36	4129+00.36	HIGHWAY 64 INTERCHANGE - RAMP 3	200.00					25.00	555.56	440	122.22			
4129+00.36	4129+50.36	HIGHWAY 64 INTERCHANGE - RAMP 3	50.00	25.00	138.89	385	26.74	25.00	138.89	330	22.92			
4126+40.70	4127+40.70	HIGHWAY 64 INTERCHANGE - RAMP 4	100.00											
4127+40.70	4129+40.70	HIGHWAY 64 INTERCHANGE - RAMP 4	200.00									21.12	11.73	64.52
4129+40.70	4131+40.70	HIGHWAY 64 INTERCHANGE - RAMP 4	200.00					25.00	555.56	440	122.22			
4131+40.70	4131+90.70	HIGHWAY 64 INTERCHANGE - RAMP 4	50.00	25.00	138.89	385	26.74	25.00	138.89	330	22.92			
4281+55.70	4282+05.70	HIGHWAY 7 INTERCHANGE - RAMP 1	50.00	25.00	138.89	385	26.74	25.00	138.89	330	22.92			
4282+05.70	4284+05.70	HIGHWAY 7 INTERCHANGE - RAMP 1	200.00					25.00	555.56	440	122.22	18.67	10.37	57.04
4284+05.70	4286+05.70	HIGHWAY 7 INTERCHANGE - RAMP 1	200.00											
4286+05.70	4287+05.70	HIGHWAY 7 INTERCHANGE - RAMP 1	100.00											
4296+94.40	4297+94.40	HIGHWAY 7 INTERCHANGE - RAMP 2	100.00											
4297+94.40	4299+94.40	HIGHWAY 7 INTERCHANGE - RAMP 2	200.00									21.12	11.73	64.52
4299+94.40	4301+94.40	HIGHWAY 7 INTERCHANGE - RAMP 2	200.00					25.00	555.56	440	122.22			
4301+94.40	4302+44.40	HIGHWAY 7 INTERCHANGE - RAMP 2	50.00	25.00	138.89	385	26.74	25.00	138.89	330	22.92			
4283+36.00	4283+86.00	HIGHWAY 7 INTERCHANGE - RAMP 3	50.00	25.00	138.89	385	26.74	25.00	138.89	330	22.92			
4283+86.00	4285+86.00	HIGHWAY 7 INTERCHANGE - RAMP 3	200.00					25.00	555.56	440	122.22	18.67	10.37	57.04
4285+86.00	4287+86.00	HIGHWAY 7 INTERCHANGE - RAMP 3	200.00											
4287+86.00	4288+86.00	HIGHWAY 7 INTERCHANGE - RAMP 3	100.00											
4300+20.50	4301+20.50	HIGHWAY 7 INTERCHANGE - RAMP 4	100.00											
4301+20.50	4303+20.50	HIGHWAY 7 INTERCHANGE - RAMP 4	200.00									18.67	10.37	57.04
4303+20.50	4305+20.50	HIGHWAY 7 INTERCHANGE - RAMP 4	200.00					25.00	555.56	440	122.22			
4305+20.50	4305+70.50	HIGHWAY 7 INTERCHANGE - RAMP 4	50.00	25.00	138.89	385	26.74	25.00	138.89	330	22.92			
4392+42.00	4392+92.00	HIGHWAY 326 INTERCHANGE - RAMP 1	50.00	25.00	138.89	385	26.74	25.00	138.89	330	22.92			
4392+92.00	4394+92.00	HIGHWAY 326 INTERCHANGE - RAMP 1	200.00					25.00	555.56	440	122.22	18.67	10.37	57.04
4394+92.00	4396+92.00	HIGHWAY 326 INTERCHANGE - RAMP 1	200.00											
4396+92.00	4397+92.00	HIGHWAY 326 INTERCHANGE - RAMP 1	100.00											
4413+44.40	4414+44.40	HIGHWAY 326 INTERCHANGE - RAMP 2	100.00											
4414+44.40	4416+44.40	HIGHWAY 326 INTERCHANGE - RAMP 2	200.00									18.67	10.37	57.04
4416+44.40	4418+44.40	HIGHWAY 326 INTERCHANGE - RAMP 2	200.00					25.00	555.56	440	122.22			
4418+44.40	4418+94.40	HIGHWAY 326 INTERCHANGE - RAMP 2	50.00	25.00	138.89	385	26.74	25.00	138.89	330	22.92			
4408+39.00	4409+39.00	HIGHWAY 326 INTERCHANGE - RAMP 3	100.00											
4409+39.00	4411+39.00	HIGHWAY 326 INTERCHANGE - RAMP 3	200.00									23.07	12.81	70.46
4411+39.00	4413+39.00	HIGHWAY 326 INTERCHANGE - RAMP 3	200.00					25.00	555.56	440	122.22			
4413+39.00	4413+89.00	HIGHWAY 326 INTERCHANGE - RAMP 3	50.00	25.00	138.89	385	26.74	25.00	138.89	330	22.92			
4388+73.41	4389+23.41	HIGHWAY 326 INTERCHANGE - RAMP 4	50.00	25.00	138.89	385	26.74	25.00	138.89	330	22.92			
4389+23.41	4391+23.41	HIGHWAY 326 INTERCHANGE - RAMP 4	200.00					25.00	555.56	440	122.22	18.67	10.37	57.04
4391+23.41	4393+23.41	HIGHWAY 326 INTERCHANGE - RAMP 4	200.00											
4393+23.41	4394+23.41	HIGHWAY 326 INTERCHANGE - RAMP 4	100.00											
TOTALS					1666.68		320.88		8333.40		1741.68	233.34		712.86

BASIS OF ESTIMATE:

ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

Drawn By fs513
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Plotted : 05-SEP-2012 12:34 View=

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.		BB0804	59	156
				(2)	QUANTITIES			



SUMMARY OF BASE AND SURFACING

LOCATION	BORROW	AGGREGATE BASE COURSE (CLASS 7)	AGGREGATE BASE COURSE (CLASS 1)	TACK COAT	ACHM BASE COURSE (1 1/2")	ACHM BINDER COURSE (1")	ACHM SURFACE COURSE (1/2")
	CU. YD.	TON	TON	GAL.	TON	TON	TON
MAINTENANCE OF TRAFFIC				2271.49	12161.31	5341.20	3791.43
SHOULDER RECONSTRUCTION FOR MAINTENANCE OF TRAFFIC				707.83		11614.98	3880.22
RIGHT MAIN LANES		1646.71		11761.61	32953.12	15964.59	21293.42
LEFT MAIN LANES		1677.62		11821.95	32933.99	16052.89	21411.15
RIGHT MAIN LANE SHOULDERS	5178.08	3279.36	22813.48	8482.00	19514.71	9299.04	12430.59
LEFT MAIN LANE SHOULDERS	5180.73	3099.12	22417.83	8374.23	19608.62	9129.04	12166.40
RAMP SHOULDER RECONSTRUCTION							353.71
RAMP AND SHOULDER PAVING TRANSITIONS	233.34		712.86	1243.32	320.88	1741.68	3666.72
APPROACH SLABS		312.00					
TOTALS	10592.15	10014.81	45944.17	44662.43	117492.63	69143.42	78993.64

BASIS OF ESTIMATE:
ACHM BASE COURSE (1 1/2") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.5%, ASPH. BINDER (PG76-22) = 4.5%
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 94.4%, ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205

CONSTRUCTION PAVEMENT MARKINGS

DESCRIPTION	STAGE IA	STAGE IB	STAGE IIA	STAGE IIB	STAGE III	STAGE IVA	STAGE IVB	STAGE VA	STAGE VB	END OF JOB	MAXIMUM NUMBER REQUIRED	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
	LIN. FT.											LIN. FT.			
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS			1868	1105			1918				4891	4891			
REMOVAL OF PERMANENT PAVEMENT MARKINGS	3760		37014			1200					41974		41974		
CONSTRUCTION PAVEMENT MARKINGS	7600		112540	142720		12000	144025		141809		560694			560694	
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS				3700			144025				147725				147725
TOTALS												4891	41974	560694	147725

PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE VB	END OF JOB	MAXIMUM NUMBER REQUIRED	RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)	THERMOPLASTIC PAVEMENT MARKING 8" WHITE	HIGH PERFORMANCE PAVEMENT MARKING WHITE (4")	HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4")	HIGH PERFORMANCE CONTRAST PAVEMENT MARKING WHITE (4")
	LIN. FT. - EACH			EACH	LIN. FT.			
RAISED PAVEMENT MARKERS (TYPE II) (WHITE/RED)	1800	980	2780	2780				
THERMOPLASTIC PAVEMENT MARKING - WHITE (8")		5340	5340		5340			
HIGH PERFORMANCE PAVEMENT MARKING - WHITE (4")	17470	81300	98770			98770		
HIGH PERFORMANCE PAVEMENT MARKING - YELLOW (4")		81870	81870				81870	
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING - WHITE (4")	565		565					565
TOTALS				2780	5340	98770	81870	565

THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03,
STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2003 EDITION.

THERMOPLASTIC PAVEMENT MARKINGS MAY BE SUBSTITUTED FOR
HIGH PERFORMANCE PAVEMENT MARKINGS AT INTERSECTIONS, ISLANDS,
TURNOUTS, AND OTHER SIMILAR LOCATIONS IF AND WHERE DIRECTED BY THE ENGINEER.

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DGN File G:\013004-01\BB0109\DGN\Quantity Sheets\Quantity19.dgn
Plotted : 05-SEP-2012 12:34 View:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
11-09-12				6	ARK.			
				JOB NO.		BB0804	60	156
				(2)		QUANTITIES		

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
11-9-12

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE IA	STAGE IB	STAGE IIA	STAGE IIB	STAGE III	STAGE IVA	STAGE IVB	STAGE VA	STAGE VB	STAGE VI	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	ADVANCE WARNING ARROW PANEL	PORTABLE CHANGEABLE MESSAGE SIGN	TEMPORARY RELOCATION OF EXISTING SIGNS	TYPE III BARRICADE		PRECAST CONC. BARRIER		MODULAR GLARE SHIELD	VERTICAL PANELS
																				RT.	LT.	FURNISHING & INSTALLING	RELOCATING		
			SQ. FT. - LIN. FT. - EACH											NO.	SQ. FT.	EACH	DAY	WEEK	EACH	LIN. FT.		LIN. FT.		LIN. FT.	EACH
W20-1	ROAD WORK 1 MILE	(48" X 48")	4	4	4	4	4	4	4	4	4	4		4	64.00										
W20-1	ROAD WORK 1/2 MILE	(48" X 48")	4	4	4	4	4	4	4	4	4	4		4	64.00										
W20-1	ROAD WORK 1500 FEET	(48" X 48")	4	4	4	4	4	4	4	4	4	4		4	64.00										
W20-1	ROAD WORK AHEAD	(48" X 48")	10	10	10	10	10	10	10	10	10	4		10	160.00										
R11-2	ROAD CLOSED	(48" X 30")	18	28	20	18	28	15	10					28	280.00										
SPECIAL	MERGE NOW + ARROW	(48" X 48")	4	4	4	4	4	4	4	4	4	1		4	64.00										
R4-1	DO NOT PASS	(48" X 60")	8	8	8	8	8	8	8	8	8	4		8	160.00										
W1-8	CHEVRONS	(18" X 24")			15	21		24	21					24	72.00										
W20-5	RIGHT LANE CLOSED 1 MILE	(48" X 48")	4	4	4	4	4	4	4	4	4	2		4	64.00										
W20-5	RIGHT LANE CLOSED 1/2 MILE	(48" X 48")	4	4	4	4	4	4	4	4	4	2		4	64.00										
W20-5	RIGHT LANE CLOSED 1500 FEET	(48" X 48")	4	4	4	4	4	4	4	4	4	2		4	64.00										
W4-2R	RIGHT LANE CLOSING GRAPHIC	(48" X 48")	4	4	4	4	4	4	4	4	4	2		4	64.00										
W1-6	LARGE ARROW	(48" X 24")		4	4	3		2	6					6	48.00										
W1-6	LARGER ARROW	(60" X 30")	12	6	9	9	12	9	9	12	6	3		12	150.00										
W1-4L	REVERSE CURVE LT.	(48" X 48")			1	1		1	1					1	16.00										
W1-4R	REVERSE CURVE RT.	(48" X 48")			1	3		1	4					4	64.00										
W13-1	SPEED LIMIT	(18" X 18")			2	4		2	5					5	11.25										
G20-1	ROAD WORK NEXT 7.1 MILES	(60" X 24")	2	2	2	2	2	2	2	2	2	2		2	20.00										
R55-1	FINES DOUBLE IN WORK ZONES. . .	(36" X 60")	4	4	4	4	4	4	4	4	4	4		4	60.00										
R2-5A	REDUCED SPEED AHEAD	(48" X 60")	4	4	10	10	4	10	10	4	4	2		10	200.00										
R2-1	SPEED LIMIT 60 MPH	(48" X 60")	4	4	10	10	4	10	10	4	4	2		10	200.00										
R2-1	SPEED LIMIT 50 MPH	(48" X 60")			6	6		6	6					6	120.00										
G20-2	END ROAD WORK	(48" X 24")	10	10	10	10	10	10	10	10	10	6		10	80.00										
R2-1	SPEED LIMIT 70 MPH	(48" X 60")	4	4	4	4	4	4	4	4	4	2		4	80.00										
R2-2	TRUCK SPEED LIMIT 65 MPH	(48" X 48")	4	4	4	4	4	4	4	4	4	2		4	64.00										
RSP-1	SHOULDER CLOSED	(48" X 30")	2	2	2	2	2	2	2	2	2	2		2	20.00										
S-1	WIDE LOADS NEXT RIGHT... TO RUSSELLVILLE	(9.75' X 5.0')	1	1	1	1	1	1	1	1	1			1	48.75										
S-2	WIDE LOADS NEXT RIGHT... TO KNOXVILLE	(8.33' X 5.0')	1	1	1	1	1	1	1	1	1			1	41.67										
S-3	WIDE LOAD DIRECTION ARROW	(3.5' X 2.0')	4	4	4	4	4	4	4	4	4			4	28.00										
	* DETAIL A	(60" X 36")	4	4	4	4	4	4	4	4	4	4		4	60.00										
	* DETAIL B	(60" X 36")	16	16	16	16	16	16	16	16	16	16		16	240.00										
	TRAFFIC DRUMS		756	862	299	537	756	283	425	728	702	494	862			862									
	ADVANCE WARNING ARROW PANEL		2	2	2	2	2	2	2	2	2	1	2				1400								
	PORTABLE CHANGEABLE MESSAGE SIGN		6	6	6	6	6	6	6	6	6	6	6					600							
	TEMPORARY RELOCATION OF EXISTING SIGNS				3	3		3	3				12						12						
	TYPE III BARRICADE - RT. (8')			6	13	11	6	15	8				15							360					
	TYPE III BARRICADE - LT. (8')		18	22	11	9	22	8	8				22								528				
	FURNISHING & INSTALLING PRECAST CONC. BARRIER				36714	36714		36714	36714				36714									36714			
	RELOCATING PRECAST CONC. BARRIER						36714						36714										36714		
	MODULAR GLARE SHIELD				1800	1800		1800	1800				1800											1800	
	VERTICAL PANELS				184	184		184	184				184												184
TOTALS														2735.67		862	1400	600	12	360	528	36714	36714	1800	184

THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2003 EDITION.
* REFER TO "DETAILS FOR SAFETY OF BOAT TRAFFIC" SPECIAL PROVISION.

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rb 09-05-12

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.		BB0804	61	156
				(1) A6916, B6916, A6917, B6917,		QUANTITIES		45205

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. BB0804

BRIDGE NUMBER	CODE NUMBER	NAME PLATE TITLE	ITEM NUMBER	SP & 205	801	802	802	803	SS & 804	SS & 804	805	SP Job BB0804	SP Job BB0804	SP Job BB0804	SP Job BB0804	807	SP & 808	812	SP Job BB0804	SP Job BB0804
			ITEM / UNIT OF STRUCTURE	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO. ____)	UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	CLASS S CONCRETE - BRIDGE	CLASS S(AE) CONCRETE - BRIDGE	CLASS 1 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	STEEL PILING (HP 12x53)	DRILLED SHAFT (72" DIA.)	PERMANENT STEEL CASING (72" DIA.)	CROSSHOLE SONIC LOGGING (72" DIA.)	CORING DRILLED SHAFT	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270, GR 50W)	ELASTOMERIC BEARINGS	BRIDGE NAME PLATE (TYPE D)	ARMORED JOINT WITH NEOPRENE STRIP SEAL	DRILLED SHAFT TEST BORING
			UNIT	LUMP SUM	CU. YD.	CU. YD.	CU. YD.	GAL.	POUND	POUND	LIN. FT.	LIN. FT.	LIN. FT.	EA	LIN. FT.	POUND	CU. IN.	EA	LIN. FT.	LIN. FT.
A6916	X071	MILL CREEK	END BENT A1		118	67.40		0.6	5410								3480.0		42	
			INTERIOR BENT A2			74.20			17000			64	26	2	32		8670.0			41
			INTERIOR BENT A3			74.20			17000			62	24	2			8670.0			36
			END BENT A4		176	67.40		0.6	5410								3480.0		42	
			374'-0" CONTINUOUS PLATE GIRDER UNIT				472.60	78.6		104000						565730		1		
			EXISTING BRIDGE No. A3585 (SITE No. 1)	1																
			TOTALS FOR BRIDGE NO. A6916		294	283.20	472.60	79.8	44820	104000	0	126	50	4	32	565730	24300.0	1	84	77
B6916	X071	MILL CREEK	END BENT B1		109	67.40		0.6	5410								3480.0		42	
			INTERIOR BENT B2			74.20			17000			50	12	2	25		8670.0			29
			INTERIOR BENT B3			74.20			17000			50	12	2			8670.0			29
			END BENT B4		184	67.40		0.6	5410								3480.0		42	
			374'-0" CONTINUOUS PLATE GIRDER UNIT				472.60	78.6		104000						565730		1		
			EXISTING BRIDGE No. B3585 (SITE No. 2)	1																
			TOTALS FOR BRIDGE NO. B6916		293	283.20	472.60	79.8	44820	104000	0	100	24	4	25	565730	24300.0	1	84	58
A6917	X071	ILLINOIS BAYOU	END BENT A1			41.20		0.5	5030		540						6240.0		42	
			INTERIOR BENT A2			52.80			13240			106	68	2	53		7650.0			43
			INTERIOR BENT A3			50.90			12910			104	66	2			7225.0			26
			INTERIOR BENT A4			49.10			12680			94	56	2			7225.0			39
			INTERIOR BENT A5			47.40			12370			102	64	2			7650.0			44
			END BENT A6			41.20		0.5	5030		450						6240.0		42	
			581'-0" CONTINUOUS PLATE GIRDER UNIT				734.50	122.0		161300						741030		1		
			EXISTING BRIDGE No. A3587 (SITE No. 3)	1																
			TOTALS FOR BRIDGE NO. A6917		0	282.60	734.50	123.0	61260	161300	990	406	254	8	53	741030	42230.0	1	84	152
B6917	X071	ILLINOIS BAYOU	END BENT B1			41.20		0.5	5030		495						6240.0		42	
			INTERIOR BENT B2			53.40			13350			102	64	2	51		7650.0			43
			INTERIOR BENT B3			51.50			13010			108	70	2			7225.0			25
			INTERIOR BENT B4			49.80			12730			110	72	2			7225.0			44
			INTERIOR BENT B5			48.10			12430			92	54	2			7650.0			38
			END BENT B6			41.20		0.5	5030		495						6240.0		42	
			581'-0" CONTINUOUS PLATE GIRDER UNIT				734.50	122.0		162100						740910		1		
			EXISTING BRIDGE No. B3587 (SITE No. 4)	1																
			TOTALS FOR BRIDGE NO. B6917		0	285.20	734.50	123.0	61580	162100	990	412	260	8	51	740910	42230.0	1	84	150
			TOTALS FOR PROJECT NO. BB0804		587	1134.20	2414.20	405.6	212480	531400	1980	1044	588	24	161	2613400	133060.0	4	336	437

ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANNY L. RIAD
09/05/2012

SCHEDULE OF BRIDGE QUANTITIES
MILL CREEK - HWY. 331 (F)
POPE COUNTY
ROUTE I-40 SEC. 22
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: May 16, 2008 FILENAME: 109B001
CHECKED BY: S.L.B. DATE: May 16, 2008 SCALE: NONE
DESIGNED BY: G.P.B. DATE: May 16, 2008
BRIDGE NO. A6916, B6916, A6917, B6917 DRAWING NO. 45205

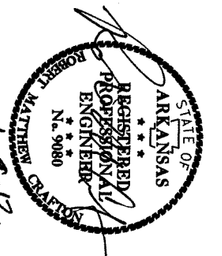
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SUMMARY OF QUANTITIES (SHEET 1 OF 2)

ITEM NUMBER	ITEM		F.A.P. BIM-B40-0(223) & IM-40-2(79)77	F.A.P. HSIP-40-2(79)77	JOB BB0804 TOTALS	
			QUANTITY	QUANTITY	QUANTITY	UNIT
202	REMOVAL AND DISPOSAL OF GUARDRAIL ANCHOR POST		10		10	EACH
202	REMOVAL AND DISPOSAL OF CONCRETE PIER PROTECTION		60		60	LIN. FT.
202	REMOVAL AND DISPOSAL OF APPROACH SLABS AND GUTTERS		8		8	EACH
202	REMOVAL AND DISPOSAL OF CONCRETE PARAPET WALL		8		8	EACH
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS		1		1	EACH
202	REMOVAL AND DISPOSAL OF PRECAST CONCRETE BARRIER		225		225	LIN. FT.
SP	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER		9		9	EACH
SP & 202	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT		7933		7933	SQ. YD.
SP & 202	REMOVAL AND DISPOSAL OF FENCE		801		801	LIN. FT.
SP & 202	REMOVAL AND DISPOSAL OF GUARDRAIL		5750		5750	LIN. FT.
SP & 210	BORROW		10592		10592	CU. YD.
210	UNCLASSIFIED EXCAVATION		49724		49724	CU. YD.
210	COMPACTED EMBANKMENT		61023		61023	CU. YD.
SP & 210	SOIL STABILIZATION		750		750	TON
SS & 303	AGGREGATE BASE COURSE (CLASS 1)		45944		45944	TON
SS & 303	AGGREGATE BASE COURSE (CLASS 7)		10015		10015	TON
401	TACK COAT		44662		44662	GALLON
SP,SS,& 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")		112206		112206	TON
SP,SS,& 405	ASPHALT BINDER (PG76-22) IN ACHM BASE COURSE (1 1/2")		5287		5287	TON
SP,SS,& 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")		66032		66032	TON
SP,SS,& 406	ASPHALT BINDER (PG76-22) IN ACHM BINDER COURSE (1")		3111		3111	TON
SP,SS,& 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")		74570		74570	TON
SP,SS,& 407	ASPHALT BINDER (PG76-22) IN ACHM SURFACE COURSE (1/2")		4424		4424	TON
412	COLD MILLING ASPHALT PAVEMENT		6182		6182	SQ. YD.
SP,SS,& 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC		1000		1000	TON
SP,SS,& 415	ACHM PATCHING OF EXISTING ROADWAY		100		100	TON
504	APPROACH SLABS		393.20		393.20	CU. YD.
504	APPROACH GUTTERS (TYPE C)		236.64		236.64	CU. YD.
SS & 507	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (9" UNIFORM THICKNESS)		1250		1250	SQ.YD.
507	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT FOR PATCHING		1250		1250	SQ.YD.
509	JOINT REHABILITATION (TYPE A)		1020		1020	LIN. FT.
509	JOINT REHABILITATION (TYPE B)		1920		1920	LIN. FT.
509	JOINT REHABILITATION (TYPE D)		150		150	LIN. FT.
513	REMOVAL OF EXISTING ASPHALT OVERLAY		9289		9289	SQ. YD.
513	RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT		188876		188876	SQ. YD.
601	MOBILIZATION		1.00		1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE		1		1	EACH
SP & 603	TRAFFIC CONTROL SUPERVISOR		1.00		1.00	LUMP SUM
603	18" TEMPORARY CULVERT		3450		3450	LIN. FT.
SP,SS,& 603	MAINTENANCE OF TRAFFIC		1.00		1.00	LUMP SUM
SS & 604	SIGNS		2736		2736	SQ. FT.
SS & 604	TRAFFIC DRUMS		862		862	EACH
SS & 604	BARRICADES		888		888	LIN. FT.
SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		36714		36714	LIN. FT.
SS & 604	RELOCATING PRECAST CONCRETE BARRIER		36714		36714	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS		41974		41974	LIN. FT.
SS & 604	CONSTRUCTION PAVEMENT MARKINGS		560694		560694	LIN. FT.
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS		147725		147725	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS		4891		4891	LIN. FT.
SS & 604	VERTICAL PANELS		184		184	EACH
SS & 604	ADVANCE WARNING ARROW PANEL		1400		1400	DAY
SP,SS,& 604	PORTABLE CHANGEABLE MESSAGE SIGN		600		600	WEEK
SP & 605	CONCRETE DITCH PAVING (TYPE A)		100		100	SQ. YD.
SP & 605	CONCRETE DITCH PAVING (TYPE B)			12225	12225	SQ. YD.
SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		12		12	LIN. FT.
SS & 606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		8		8	LIN. FT.
SS & 606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		32		32	LIN. FT.
SS & 606	42" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		4		4	LIN. FT.
606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		2		2	EACH
606	30" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		1		1	EACH
606	36" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		4		4	EACH
606	42" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		1		1	EACH
606	SELECTED PIPE BEDDING		25		25	CU. YD.
610	DROP INLETS ADJUSTED TO GRADE		2		2	EACH
611	UNDERDRAIN OUTLET PROTECTORS		287		287	EACH
611	4" PIPE UNDERDRAINS		84120		84120	LIN. FT.
611	UNDERDRAIN VIDEO INSPECTION		84120		84120	LIN. FT.
611	UNDERDRAIN COVER		69770		69770	LIN. FT.
SS & 617	GUARDRAIL (TYPE A)		8575		8575	LIN. FT.
SS & 617	GUARDRAIL TERMINAL (TYPE 2)		21		21	EACH
SS & 617	THRIE BEAM GUARDRAIL TERMINAL		10		10	EACH
SS & 617	TERMINAL ANCHOR POSTS (TYPE 1)		13		13	EACH
SP & 619	WIRE FENCE (TYPE A)		801		801	LIN. FT.
* 619	16' STEEL GATES	(ALTERNATE NO. 1)	8		8	EACH
* 619	16' ALUMINUM GATES	(ALTERNATE NO. 2)	8		8	EACH
620	LIME		138		138	TON
620	SEEDING		69.00		69.00	ACRE
620	MULCH COVER		99.00		99.00	ACRE
SS & 620	WATER		7730.0		7730.0	M. GAL.
621	TEMPORARY SEEDING		30.00		30.00	ACRE
621	BALED STRAW DITCH CHECKS		200		200	BALE
621	SEDIMENT REMOVAL AND DISPOSAL		305		305	CU. YD.
621	DROP INLET SILT FENCE		1602		1602	LIN. FT.
621	SILT FENCE		2000		2000	LIN. FT.
621	SAND BAG DITCH CHECKS		1580		1580	BAG
623	SECOND SEEDING APPLICATION		69.00		69.00	ACRE
624	SOLID SODDING		296	6063	6359	SQ. YD.
631	CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)		60		60	LIN. FT.
SP & 635	ROADWAY CONSTRUCTION CONTROL		1.00		1.00	LUMP SUM
639	GUARDRAIL MOVED AND RECONSTRUCTED		550		550	LIN. FT.
642	RUMBLE STRIPS IN ASPHALT SHOULDERS		139273		139273	LIN. FT.
SS & 719	THERMOPLASTIC PAVEMENT MARKING WHITE (8")		5340		5340	LIN. FT.
SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)	98770		98770	LIN. FT.
* * * * * * * SP	HIGH PERFORMANCE MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)	98770		98770	LIN. FT.
SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	(ALTERNATE NO. 1)	81870		81870	LIN. FT.
SP	HIGH PERFORMANCE MARKING TAPE YELLOW (4")	(ALTERNATE NO. 2)	81870		81870	LIN. FT.
SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)	565		565	LIN. FT.
SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)	565		565	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)		2780		2780	EACH
SS & 804	REINFORCING STEEL - ROADWAY (GRADE 60)		57360		57360	POUND
SP	ACHM PATCHING OF EXISTING SHOULDERS		400		400	TON
SP	MODULAR GLARE SHIELD		1800		1800	LIN. FT.
SP	SCARIFYING CONCRETE PAVEMENT		1000		1000	SQ. YD.
SP	TEMPORARY RELOCATION OF EXISTING SIGNS		12		12	EACH
SP	TRENCHING EXISTING SHOULDERS		352		352	STATION
SP	SHAPING DITCH		10		10	STATION
SP	WIRE ROPE SAFETY FENCE			28601	28601	LIN. FT.
SP	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS			1.00	1.00	LUMP SUM

* DENOTES ALTERNATE BID ITEMS

SUMMARY OF QUANTITIES



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
11-09-12			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.		62	156

JOB NO. BB0804

SUMMARY OF QUANTITIES

2

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
11-09-12				6	ARK.			
				JOB NO.		BB0804	63	156
				(2)	SUMMARY OF QUANTITIES AND REVISIONS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
11-9-12

SUMMARY OF QUANTITIES (SHEET 2 OF 2)

ITEM NUMBER	ITEM	QUANTITY	UNIT
	STRUCTURES OVER 20'-0" SPAN		
SP&205	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO. 1)	1.00	LUMP SUM
SP&205	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO. 2)	1.00	LUMP SUM
SP&205	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO. 3)	1.00	LUMP SUM
SP&205	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO. 4)	1.00	LUMP SUM
636	BRIDGE CONSTRUCTION CONTROL	1.00	LUMP SUM
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	587	CU. YD.
802	CLASS S CONCRETE - BRIDGE	1134.20	CU. YD.
802	CLASS S(AE) CONCRETE - BRIDGE	2414.20	CU. YD.
803	CLASS I PROTECTIVE SURFACE TREATMENT	405.6	GALLON
SS & 804	REINFORCING STEEL - BRIDGE (GRADE 60)	212480	POUND
SS & 804	EPOXY COATED REINFORCING STEEL (GRADE 60)	531400	POUND
805	STEEL PILING (HP 12X53)	1980	LIN. FT.
807	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GR50W)	2613400	POUND
SP&808	ELASTOMERIC BEARINGS	133060.0	CU. IN.
812	BRIDGE NAME PLATE (TYPE D)	4	EACH
SP	ARMORED JOINT WITH NEOPRENE STRIP SEAL	336	LIN. FT.
SP	DRILLED SHAFT (72" DIAMETER)	1044	LIN. FT.
SP	PERMANENT STEEL CASING (72" DIAMETER)	588	LIN. FT.
SP	CROSSHOLE SONIC LOGGING (72" DIAMETER)	24	EACH
SP	CORING DRILLED SHAFT	161	LIN. FT.
SP	DRILLED SHAFT TEST BORINGS	437	LIN. FT.

REVISIONS

DATE	REVISION	SHEET NO.
11-09-12	ADDED PROSECUTION AND PROGRESS SPECIAL PROVISION & CHANGED QUANTITY ON PORTABLE CHANGEABLE MESSAGE SIGNS	3, 60, 62 & 63

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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.		BB0804	64	156

(2) SUPERELEVATION RATES AND TRANSITION LIMITS



SUPERELEVATION RATES AND TRANSITION LIMITS

STATION	STATION	EQUATION	LOCATION	PAVEMENT TRANSITION SLOPE (FT. PER FT.)			TRANSITION LENGTH
				FROM	MAX.	TO	(FT.)
CURVE 1 (LT.)							
4116+97.13	4120+47.13		RT. MAIN LANES	-0.020		+0.020	350
4120+47.13	4153+92.14		RT. MAIN LANES		+0.020		
4153+92.14	4157+33.20	+8.94	RT. MAIN LANES	+0.020		-0.020	350
CURVE 2 (RT.)							
4177+75.88	4181+25.88		RT. MAIN LANES	-0.020		-0.062	350
4181+25.88	4206+22.32		RT. MAIN LANES		-0.062		
4206+22.32	4209+78.32	-6.00	RT. MAIN LANES	-0.062		-0.020	350

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SUPERELEVATION RATES
AND TRANSITION LIMITS

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.		BB0804	65	156

PLANS STA. 4053+00 - STA. 4113+00

REMOVAL AND DISPOSAL OF APPROACH SLABS AND GUTTERS

Sta. 4071+12.15 - Sta. 4071+47.15 (Rt. Lanes) = 1 Each
Sta. 4071+12.15 - Sta. 4071+47.15 (Lt. Lanes) = 1 Each
Sta. 4074+99.27 - Sta. 4075+34.27 (Rt. Lanes) = 1 Each
Sta. 4074+99.27 - Sta. 4075+34.27 (Lt. Lanes) = 1 Each

REMOVAL AND DISPOSAL OF GUARDRAIL

Sta. 4067+97 - Sta. 4068+72 (Lt. of Rt. Lanes) = 75 L.F.
Sta. 4068+47 - Sta. 4069+22 (Rt. of Rt. Lanes) = 75 L.F.
Sta. 4075+24 - Sta. 4076+99 (Rt. & Lt. of Lt. Lanes) = 350 L.F.

Sta. 4076+00 In Place
Type H Drop Inlet In Median
4' x 4' x 2'-10" Over
24" x 188' R.C. Pipe Culvert
RETAIN R.C. PIPE CULVERT &
ADJUST DROP INLET TO
PROPOSED MEDIAN GRADE

GUARDRAIL (TYPE A)

Sta. 4075+15.18 - Sta. 4078+33.93 (Rt. of Lt. Lanes) = 250 L.F.
Sta. 4075+15.18 - Sta. 4077+83.93 (Lt. of Lt. Lanes) = 200 L.F.

GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
=1 Each	=1 Each
=1 Each	=1 Each

GUARDRAIL MOVED AND RECONSTRUCTED

	THRIE BEAM GUARDRAIL TERMINAL
• Sta. 4068+20.31 - Sta. 4071+39.06 (Lt. of Rt. Lanes) = 300 L.F.	=1 Each
• Sta. 4068+70.31 - Sta. 4071+39.06 (Rt. of Rt. Lanes) = 250 L.F.	=1 Each

• INCLUDES 50 L.F. FOR EXISTING END TERMINAL (TYPE 2).

MEDIAN CROSSOVER CURVE ① DATA
Δ= 6°35'42"
D = 2°00'
T = 165.06'
L = 329.75'

MEDIAN CROSSOVER CURVE ② DATA
Δ= 9°57'41"
D = 2°00'
T = 249.66'
L = 498.07'

MEDIAN CROSSOVER CURVE ③ DATA
Δ= 9°10'24"
D = 2°00'
T = 229.83'
L = 458.67'

MEDIAN CROSSOVER CURVE ④ DATA
Δ= 7°54'22"
D = 2°00'
T = 197.98'
L = 395.33'

STA. 4071+47.15
END JOB B80104

STA. 4071+39.06 BR. END (PROP.)
STA. 4071+47.15 BR. END (EXIST.)

STA. 4060+00.00
37.50' LT.
P.I. STA. 4060+00.00
37.50' RT.
P.T. 4060+94.8
RT. LANES
P.T. 4063+86.9
P.I. STA. 4065+33.65
37.50' LT.
P.I. STA. 4065+05.19
33.50' RT.
LT. LANES
P.T. 4066+78.9 BK. =
STA. 4066+90.2 AHD. ℄ MED.
79°34'
48.5
456.0'
RT. LANES
STA. 4063+98.2 BK. =
STA. 4063+86.9 AHD. ℄ MED.

Exist. R/W
Exist. C. of A.
Exist. R/W & C. of A.
LT. FRONTAGE RD.
℄ OF E •
MILL CREEK ROAD
MILL CREEK
BR. NO. 3585A (EXIST.)
BR. NO. A6916 (PROP.)
BR. NO. 3585B (EXIST.)
BR. NO. B6916 (PROP.)
STA. 4075+15.18 BR. END (PROP.)
STA. 4074+99.27 BR. END (EXIST.)
STA. 4071+39.06 BR. END (PROP.)
STA. 4071+47.15 BR. END (EXIST.)

STA. 4070+00 - STA. 4071+02.58
CONSTRUCT PAVING TRANSITION AS SHOWN ON
SHEET NO. 13 (SEE PROFILE SHEETS FOR GRADES)

STA. 4070+00.00 - BEGIN JOB BB0804
LOG MILE 76.82

STA. 4080+00 - END FULL DEPTH OVERLAY SECTION
• BEGIN OVERLAY SECTION

SPECIAL PRECAUTIONS SHALL BE EXERCISED TO MAINTAIN THE EXISTING ROCK OUTCROPPINGS AS MUCH AS POSSIBLE.

THE CONTRACTOR SHALL REMOVE THE EXISTING GUARDRAIL ADJACENT TO THE FRONTAGE ROAD AND MILL CREEK ROAD ONLY AS NECESSARY TO ACCOMPLISH THE BRIDGE REMOVAL AND CONSTRUCTION. THE GUARDRAIL SHALL BE REPLACED AS SOON AS IT NO LONGER INTERFERES WITH THIS WORK. PAYMENT FOR REMOVING AND REPLACING THE GUARDRAIL SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "REMOVAL OF EXISTING BRIDGE STRUCTURE". GUARDRAIL DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT NO COST TO THE DEPARTMENT. AT LOCATIONS WHERE EXISTING GUARDRAIL IS REMOVED, PRECAST CONCRETE BARRIER WALL SHALL BE PLACED IN ACCORDANCE WITH STD. DWGS. TC-4 AND TC-5. PAYMENT FOR PRECAST CONCRETE BARRIER SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "REMOVAL OF EXISTING BRIDGE STRUCTURE".

Sta. 4071+47.15 - Sta. 4074+99.27 (Rt. Lanes) In Place
352.12' x 28' Clear Roadway Bridge Consisting of a
6 Span Concrete Deck with Spread Footings.
REMOVE AS EXISTING BRIDGE STRUCTURE = 1.00 LUMP SUM

Sta. 4071+47.15 - Sta. 4074+99.27 (Lt. Lanes) In Place
352.12' x 28' Clear Roadway Bridge Consisting of a
6 Span Concrete Deck with Spread Footings.
REMOVE AS EXISTING BRIDGE STRUCTURE = 1.00 LUMP SUM

Sta. 4071+39.06 - Sta. 4075+15.18 (Rt. Lanes) Construct
376.12' x 40' Clear Roadway Bridge No. B6916.
376.12' Cont. Comp. Plate Girder Unit.

Sta. 4071+39.06 - Sta. 4075+15.18 (Lt. Lanes) Construct
376.12' x 40' Clear Roadway Bridge No. A6916.
376.12' Cont. Comp. Plate Girder Unit.

Sta. 4071+00 In Place
Type H Drop Inlet In Median
4' x 4' x 3'-6" Over
24" x 120' R.C. Pipe Culvert to Rt.
RETAIN

REMOVAL AND DISPOSAL OF CONCRETE PARAPET WALL

Sta. 4071+22 - Sta. 4071+48 (Rt. & Lt. of Rt. Lanes) = 2 Each
Sta. 4075+00 - Sta. 4075+26 (Rt. & Lt. of Lt. Lanes) = 2 Each

Sta. 4083+00 In Place
Type H Drop Inlet In Median
4' x 4' x 3'-7" Over
30" x 192' R.C. Pipe Culvert
RETAIN

Sta. 4090+00 In Place
Type H Drop Inlet In Median
4' x 4'-8" x 7'-7" Over
Dbl. 36" x 196' R.C. Pipe Culvert
REMOVE HEADWALL ON LT.
EXTEND 4' LT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)

FOR THE CONSTRUCTION OF DETOURS, TEMPORARY WORK RAMPS OR HAUL ROADS, MILL CREEK IS CLASSIFIED AS A 5 CFS STREAM. THE STREAM BANK ELEVATIONS ARE 341.0 FEET MSL. SEE SECTION 110.06(C) OF THE STANDARD SPECIFICATIONS.

Sta. 4103+65.7 To Sta. 4109+15.7 (℄ Sta. Ramp 2)
550' Overlay Paving Transition on Ramp 2

STA. 4093+65.7
END TAPER
STA. 4096+65.7
END ACCEL. LANE
STA. 4103+65.7
BEGIN ACCEL. LANE
300' Taper
700' Accel. Lane
RAMP 2
RAMP 1
300' Temp. Taper
700' Temp. Accel. Lane
Exist. R/W
Exist. C. of A.
Exist. R/W & C. of A.

Sta. 4098+00 to Sta. 4100+00 - Install
18" Temporary Culvert in Median

Sta. 4101+00 to Sta. 4102+75 - Install
18" Temporary Culvert in Median

Sta. 4102+75 to Sta. 4104+50 - Install
18" Temporary Culvert in Median

Sta. 4106+50 to Sta. 4109+00 - Install
18" Temporary Culvert in Median

Sta. 4110+18.8 To Sta. 4115+68.8 (℄ Sta. Ramp 1)
550' Overlay Paving Transition on Ramp 1

Sta. 4100+46 In Place
Dbl. 36" x 216' R.C. Pipe Culvert
REMOVE HEADWALL ON LT.
EXTEND 12' LT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)

Sta. 4047+43 In Place
Type K Drop Inlet In Median
4' x 4' x 270' R.C. Box Culvert
(30° Rt. Fwd. Skew)
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
10-9-12

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				6	ARK.			
				JOB NO.		BB0804	66	156

(2) PLANS STA. 4111+00 - STA. 4173+00

Sta. 4114+75 In Place
Type H Drop Inlet In Median
4' x 5'-6" x 4'-4" Over
42" x 288' R.C. Pipe Culvert
(15° Rt. Fwd. Skew)
RETAIN

REMOVAL & DISPOSAL OF
IMPACT ATTENUATION BARRIER (TYPE A)
Sta. 4119+46 (Med.) = 1 Each

REFER TO SHEET 75A
FOR GUARDRAIL & SHOULDER
WIDENING REQUIRED FOR
CABLE MEDIAN BARRIER.

LT. FRONTAGE RD.

Exist. C. of A.

RAMP 3

Sta. 4124+00.36 To Sta. 4129.50.36 (℄ Sta. Ramp 3)
550' Overlay Paving Transition on Ramp 3

STA. 4129+50.36
END DECEL. LANE

Sta. 4137+10 In Place
48" x 84' R.C. Pipe Culvert
Under Lt. Lanes
(15° Rt. Fwd. Skew)
RETAIN

STA. 4137+61.36
BEGIN DECEL. LANE

Sta. 4140+60 In Place
48" x 76' R.C. Pipe
Culvert Under Lt. Lanes
RETAIN

STA. 4140+61.36
BEGIN TAPER

Exist. R/W

LT. LANES
P.C. 4115+60.93

P.C. 4117+60.13

STA. 4119+45.54 ℄ MED. (SUBTAN.) =
STA. 18+95.11 MILL CREEK RD.

Sta. 4126+40.70 To Sta. 4131+90.70 (℄ Sta. Ramp 4)
550' Overlay Paving Transition on Ramp 4

811' Decel. Lane

300' Taper

BR. NO. 07007

RAMP 1

RT. LANES
P.C. 4119+59.63

Exist. C. of A.

RAMP 4

1000' Accel. Lane

Exist. R/W & C. of A.

NOTE: EXISTING VERTICAL CLEARANCE UNDER
BRIDGE NO. 07007 IS 17'-9" EB AND 20'-11" WB.
A MINIMUM 16'-0" VERTICAL CLEARANCE
IS REQUIRED FOR FINISHED ROADWAY.

Sta. 4130+25 to Sta. 4131+75 - Install
18" Temporary Culvert In Median

Sta. 4131+75 to Sta. 4134+00 - Install
18" Temporary Culvert In Median

Sta. 4138+00 to Sta. 4139+75 - Install
18" Temporary Culvert In Median

STA. 4141+90.70
END ACCEL. LANE

Sta. 4118+00 In Place
Type H Drop Inlet In Median
4' x 4'-8" x 3'-10" Over
36" x 380' R.C. Pipe Culvert
With Junction Box On Lt.
RETAIN

Sta. 4125+00 In Place
Type H Drop Inlet In Median
4' x 6' x 6'-4" Over
42" x 240' R.C. Pipe Culvert
(30° Rt. Fwd. Skew)
RETAIN

Exist. R/W

STA. 4131+90.70
BEGIN ACCEL. LANE

Sta. 4130+20 In Place
Type H Drop Inlet In Median
4' x 4'-8" x 4'-8" Over
Dbl. 36" x 212' R.C. Pipe Culvert
RETAIN

CURVE #1
P.I. STA. 4135+23.60
Δ = 8°48'00" LT.
D = 0°15'0"
T = 1763.47'
L = 3520.01'
e = 0.020 '/'
Ls = 350'

Sta. 4137+40 In Place
48" x 104' R.C. Pipe Culvert
Under Rt. Lanes
(15° Rt. Fwd. Skew)
RETAIN

Sta. 4140+60 In Place
48" x 96' R.C. Pipe Culvert
Under Rt. Lanes
RETAIN

Sta. 4152+00 In Place
42" x 76' R.C. Pipe Culvert
Under Lt. Lanes
REMOVE HEADWALL ON LT.
EXTEND 4' LT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)

Sta. 4157+79 In Place
48" x 104' R.C. Pipe Culvert
Under Lt. Lanes
RETAIN

Sta. 4164+91 In Place
48" x 92' R.C. Pipe Culvert
Under Lt. Lanes
RETAIN

857.7'

LT. LANES
P.T. 4150+80.94 BK. =
STA. 4152+71.2 AHD. ℄ MED.

P.T. 4152+80.14

RT. LANES
P.T. 4154+79.64 BK. =
STA. 4154+70.7 AHD. ℄ MED.

Exist. R/W

LT. FRONTAGE RD.

Exist. C. of A.

Exist. C. of A.

LT. FRONTAGE RD.

Exist. C. of A.

Exist. R/W

700' Temp. Accel. Lane

300' Temp. Taper

72'

72'

93° 46'

300' Taper

STA. 4144+90.70
END TAPER

Exist. R/W & C. of A.

Exist. R/W & C. of A.

1769.3'

1/4 Cor. Iron Pin
Sec. 19

370'

Sta. 4146+40 In Place
Type K Drop Inlet In Median
4' x 4' x 1'-10" Over
4' x 4' x 388' R.C. Box Culvert
RETAIN

Sta. 4152+00 In Place
42" x 104' R.C. Pipe Culvert
Under Rt. Lanes
RETAIN

Sta. 4157+79 In Place
42" x 132' R.C. Pipe Culvert
Under Rt. Lanes
RETAIN

Sta. 4164+91 In Place
48" x 96' R.C. Pipe Culvert
Under Rt. Lanes
RETAIN

STATE OF
ARKANSAS
REGISTERED
PROFESSIONAL
ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
7-5-12

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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.		BB0804	67	156

PLANS STA. 4171+00 - STA. 4229+00

4175 4180 4185 4190 4195 4200

Sta. 4184+50 In Place
42" x 80' R.C. Pipe Culvert
Under Lt. Lanes
(30° Lt. Fwd. Skew)
RETAIN

REMOVAL AND DISPOSAL OF GUARDRAIL
Sta. 4192+37 - Sta. 4206+62 (Rt. of Rt. Lanes) = 1425 L.F.

Sta. 4196+25 In Place
Type H Drop Inlet In Median
4' x 5'-3" x 10'-10" Over
42" x 304' R.C. Pipe Culvert
RETAIN

GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POSTS (TYPE I)
Sta. 4192+37 - Sta. 4206+62 (Rt. of Rt. Lanes) = 1375 L.F.	=1 Each	=1 Each

Exist. R/W
LT. FRONTAGE RD.
Exist. C. of A.
72'
72'
Exist. R/W & C. of A.
LT. LANES P.C. 4180+18.28
P.C. 4180+28.38
RT. LANES P.C. 4180+38.38

CURVE #2
P.I. STA. 4194+43.50
Δ = 46°45'00" RT.
D = 1°45'00"
T = 1415.12'
L = 2671.44'
e = 0.062 '/'
Ls = 350'

Sta. 4177+50 In Place
Type K Drop Inlet In Median
4' x 4' x 1'-10" Over
4' x 4' x 398' R.C. Box Culvert
Type K Drop Inlet on Lt.
RETAIN

Sta. 4183+80 In Place
42" x 156' R.C. Pipe Culvert
Under Rt. Lanes
(30° Lt. Fwd. Skew)
RETAIN

Sta. 4194+00 In Place
5' x 4' x 336' R.C. Box Culvert
RETAIN

4200 4205 4210 4215 4220 4225

Sta. 4204+85 In Place
48" x 252' R.C. Pipe Culvert
RETAIN

Sta. 4210+08 In Place
48" x 332' R.C. Pipe Culvert
(30° Lt. Fwd. Skew)
RETAIN

Sta. 4216+34 In Place
Type H Drop Inlet In Median
4' x 4' x 4'-10" Over
30" x 180' R.C. Pipe Culvert
RETAIN

Sta. 4224+00 In Place
24" x 260' R.C. Pipe Culvert
RETAIN

LT. LANES P.T. 4206+89.72 BK.= STA. 4205+97.12 AHD. ℄ MED.

Exist. R/W & C. of A.

42'
42'

EQUATION: P.T. 4206+99.82 BK = STA. 4206+56.62 AHD.

RT. LANES P.T. 4207+09.82 BK. = STA. 4207+15.82 AHD. ℄ MED.

Exist. R/W & C. of A.

Sta. 4202+00 In Place
Type H Drop Inlet In Median
4' x 4'-8" x 5'-4" Over
30" x 212' R.C. Pipe Culvert
(30° Rt. Fwd. Skew)
REMOVE HEADWALL ON RT.
EXTEND 8' RT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)

Sta. 4204+85 In Place
Type H Drop Inlet In Med.
4' x 4' x 2'-10" With
24" x 80' R.C. Pipe Culvert to Rt.
REMOVE HEADWALL ON RT.
EXTEND 4' RT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)

Exist. R/W & C. of A.

℄ OF E • H

LT. LANES P.C. 4226+95.67

P.C. 4227+07.87

42'
42'

Exist. R/W & C. of A.

RT. LANES P.C. 4227+20.07

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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.		BB0804	68	156

(2) PLANS STA. 4227+00 - STA. 4288+00

4230 4235 4240 4245 4250 4255

Sta. 4230+50 In Place
Type H Drop Inlet In Median
4' x 4' x 2'-10" With
24" x 84' R.C. Pipe Culvert to Lt.
RETAIN

REMOVAL AND DISPOSAL OF CONCRETE PARAPET WALL
Sta. 4253+49 - Sta. 4253+75 (Rt. of Rt. Lanes) = 1Each
Sta. 4253+69 - Sta. 4253+95 (Lt. of Rt. Lanes) = 1Each

CURVE #3
P.I. STA. 4238+17.00
Δ = 32°23'00" LT.
D = 1°30'00"
T = 1109.13'
L = 2158.90'
e = 0.054 '/'
Ls = 350'

REMOVAL AND DISPOSAL OF GUARDRAIL
Sta. 4250+01 - Sta. 4253+51 (Rt. of Rt. Lanes) = 350 L.F.
Sta. 4251+96 - Sta. 4253+71 (Lt. of Rt. Lanes) = 175 L.F.
Sta. 4252+45 - Sta. 4254+45 (Lt. of Lt. Lanes) = 200 L.F.

C OF E •
Exist. R/W
Exist. C. of A.
Exist. R/W & C. of A.

STA. 4246+50 - END OVERLAY SECTION
• BEGIN FULL DEPTH OVERLAY SECTION
(SEE PROFILE SHEETS FOR GRADES)

ENVIRONMENTALLY SENSITIVE AREA
LOCATED BETWEEN EXISTING DITCH
AND R/W FENCE.

RT. LANES
P.T. 4248+78.97 BK.=
STA. 4248+83.67 AHD. ℄MED.
EQUATION
P.T. 4248+66.77 BK.=
STA. 4248+95.77 AHD.
LT. LANES
P.T. 4248+54.57 BK.=
STA. 4249+08.07 AHD. ℄MED.

REMOVAL AND DISPOSAL OF APPROACH SLAB AND GUTTERS
Sta. 4253+48.00 - Sta. 4253+83.00 (Rt. Lanes) = 1Each
Sta. 4253+99.00 - Sta. 4254+34.00 (Lt. Lanes) = 1Each

STA. 4254+14.92 BR. END (PROP.)
STA. 4254+34.00 BR. END (EXIST.)
BR. NO. 3587A (EXIST.)
BR. NO. A6917 (PROP.)
BR. NO. 3587B (EXIST.)
BR. NO. B6917 (PROP.)
42'

Sta. 4254+34.00 - Sta. 4259+76.50 (Lt. Lanes) In Place
542.50' x 28' Clear Roadway Bridge Consisting of a
8 Span Concrete Deck with Steel Pilings.
REMOVE AS EXISTING BRIDGE STRUCTURE = 1.00 LUMP SUM

Sta. 4254+14.94 - Sta. 4259+98.06 (Lt. Lanes) Construct
583.12' x 40' Clear Roadway Bridge No. A6917.
583.12' Cont. Comp. Plate Girder Unit.

GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
Sta. 4250+44.17 - Sta. 4253+62.92 (Lt. of Rt. Lanes) = 250 L.F.	**=1Each**	**=1Each**
Sta. 4250+94.17 - Sta. 4253+62.92 (Rt. of Rt. Lanes) = 200 L.F.	**=1Each**	**=1Each**

Sta. 4228+91 In Place
24" x 280' R.C. Pipe Culvert
RETAIN

Sta. 4238+00 In Place
Type H Drop Inlet In Median
4' x 4' x 2'-10" With
24" x 100' R.C. Pipe Culvert to Rt.
RETAIN

Sta. 4242+25 In Place
24" x 416' R.C. Pipe Culvert
(45° Lt. Fwd. Skew)
RETAIN

Sta. 4244+00 In Place
Type H Drop Inlet In Median
4' x 4' x 2'-10" With
24" x 100' R.C. Pipe Culvert to Rt.
RETAIN

Sta. 4253+50 In Place
36" x 15' Stack Pipe Inlet In Median
24" x 116' R.C. Pipe Culvert to Rt.
RETAIN R.C. PIPE CULVERT &
ADJUST DROP INLET TO
PROPOSED MEDIAN GRADE

"FOR THE CONSTRUCTION OF DETOURS, TEMPORARY WORK RAMPS OR HAUL ROADS, ILLINOIS BAYOU IS CLASSIFIED AS A 5 CFS STREAM. THE STREAM BANK ELEVATIONS ARE 341.0 FEET MSL. SEE SECTION 110.06(C) OF THE STANDARD SPECIFICATIONS.

4260 4265 4270 4275 4280 4285

REMOVAL AND DISPOSAL OF GUARDRAIL
Sta. 4259+20 - Sta. 4267+45 (Rt. of Lt. Lanes) = 825 L.F.
Sta. 4259+94 - Sta. 4261+69 (Rt. of Rt. Lanes) = 175 L.F.
Sta. 4260+09 - Sta. 4266+59 (Lt. of Lt. Lanes) = 650 L.F.

GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
Sta. 4259+98.08 - Sta. 4263+16.83 (Rt. of Lt. Lanes) = 250 L.F.	**=1Each**	**=1Each**
Sta. 4259+98.08 - Sta. 4262+66.83 (Lt. of Lt. Lanes) = 200 L.F.	**=1Each**	**=1Each**

C OF E •
Exist. R/W & C. of A.
Exist. C. of A.
STA. 4259+98.08 BR. END (PROP.)
STA. 4259+76.50 BR. END (EXIST.)
GRAVEL FRONTAGE RD.
Exist. R/W
Exist. C of A.
STA. 4271+55.7 END TAPER
300' Taper
STA. 4274+55.7 END ACCEL. LANE
700' Accel. Lane
STA. 4281+55.7 BEGIN ACCEL. LANE
RAMP 1
42'
STA. 4259+46.08 BR. END (PROP.)
STA. 4259+25.50 BR. END (EXIST.)
300' Temp. Taper
700' Temp. Accel. Lane
RAMP 3
W

Sta. 4281+55.7 To Sta. 4287+05.7 (℄ Sta. Ramp 1)
550' Overlay Paving Transition on Ramp 1

ENVIRONMENTALLY SENSITIVE AREA
LOCATED BETWEEN EXISTING DITCH
AND R/W FENCE.

STA. 4267+50 - END FULL DEPTH OVERLAY SECTION
• BEGIN OVERLAY SECTION

Sta. 4253+83.00 - Sta. 4259+25.50 (Rt. Lanes) In Place
542.50' x 28' Clear Roadway Bridge Consisting of a
8 Span Concrete Deck with Steel Pilings.
REMOVE AS EXISTING BRIDGE STRUCTURE = 1.00 LUMP SUM

Sta. 4253+62.92 - Sta. 4259+46.08 (Rt. Lanes) Construct
583.16' x 40' Clear Roadway Bridge No. B6917.
583.15' Cont. Comp. Plate Girder Unit.

REMOVAL AND DISPOSAL OF APPROACH SLAB AND GUTTERS
Sta. 4259+25.50 - Sta. 4259+60.50 (Rt. Lanes) = 1Each
Sta. 4259+76.50 - Sta. 4260+11.50 (Lt. Lanes) = 1Each

REMOVAL AND DISPOSAL OF CONCRETE PARAPET WALL
Sta. 4259+70 - Sta. 4259+96 (Rt. of Lt. Lanes) = 1Each
Sta. 4259+85 - Sta. 4260+11 (Lt. of Lt. Lanes) = 1Each

Sta. 4264+00 In Place
Type H Drop Inlet In Median
4' x 4' x5'-2" With
24" x 96' R.C. Pipe Culvert to Rt.
RETAIN

Sta. 4271+00 In Place
Type H Drop Inlet In Median
4' x 4' x 2'-10" With
24" x 88' R.C. Pipe Culvert to Rt.
RETAIN

Sta. 4273+98 to Sta. 4275+73 - Install
18" Temporary Culvert in Median

Sta. 4275+77 to Sta. 4277+52 - Install
18" Temporary Culvert in Median

Sta. 4280+25 to Sta. 4282+50 - Install
18" Temporary Culvert in Median

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Sta. 4283+36.0 To Sta. 4288+86.0 (℄ Sta. Ramp 3)
550' Overlay Paving Transition on Ramp 3

Sta. 4287+00 In Place
Type H Drop Inlet In Median
4' x 4' x 3'-4" Over
Dbl. 30" x 236' R.C. Pipe Culvert
RETAIN

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				6	ARK.			
				JOB NO.		BB0804	69	156
				2	PLANS STA. 4286+00 - STA. 4346+00			

4290 4295 4300 4305 4310 4315

Exist. R/W & C. of A.

REFER TO SHEET 75C FOR GUARDRAIL & SHOULDER WIDENING REQUIRED FOR CABLE MEDIAN BARRIER.

STA. 4293+43.2 ℄ MED. = STA. 12+00 HWY. 7

LT. LANES P.C. 4288+76.66

RT. LANES P.C. 4288+66.26

BR. NO. 06803

RAMP 2

Sta. 4296+94.4 To Sta. 4302+44.4 (℄ Sta. Ramp 2)
550' Overlay Paving Transition on Ramp 2

Sta. 4300+20.5 To Sta. 4305+70.5 (℄ Sta. Ramp 4)
550' Overlay Paving Transition on Ramp 4

RAMP 4

NOTE: EXISTING VERTICAL CLEARANCE UNDER BRIDGE NO. 06803 IS 17'-10" EB AND 17'-9" WB. A MINIMUM 16'-0" VERTICAL CLEARANCE IS REQUIRED FOR FINISHED ROADWAY.

Sta. 4301+35 In Place
24" x 236' R.C. Pipe Culvert
(30° Lt. Fwd. Skew)
RETAIN

Sta. 4307+50 to Sta. 4309+25 - Install
18" Temporary Culvert in Median

Sta. 4309+50 to Sta. 4311+25 - Install
18" Temporary Culvert in Median

Sta. 4309+80 In Place
Type H Drop Inlet In Median
4' x 4' x 3'-1" Over
24" x 168' R.C. Pipe Culvert
REMOVE HEADWALL ON LT.
EXTEND 8' LT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)

Exist. R/W & C. of A.

700' Temp. Accel. Lane

700' Accel. lane

300' Taper

Exist. C. of A.

Exist. R/W

STA. 4305+70.5 BEGIN ACCEL. LANE

STA. 4312+70.5 END ACCEL. LANE

STA. 4315+70.5 END TAPER

REMOVAL & DISPOSAL OF IMPACT ATTENUATION BARRIERS
Sta. 4293+43.2 (Med.) = 2 Each

EXISTING CONCRETE PIER PROTECTION
Sta. 4293+43.2 (Med. Piers) = 116 L.F. - RETAIN

CURVE #4
P.I. STA. 4311+13.20
Δ = 22°10'00" RT.
D = 0°30'00"
T = 2244.74'
L = 4433.35'
e = 0.020 '/'
Ls = 350'

Sta. 4294+00 In Place
Type H Drop Inlet In Median
4' x 4' x 2'-10" With
24" x 84' R.C. Pipe Culvert to Lt.
RETAIN

Sta. 4302+25 to Sta. 4304+00 - Install
18" Temporary Culvert in Median

Sta. 4305+25 to Sta. 4307+25 - Install
18" Temporary Culvert in Median

4320 4325 4330 4335 4340 4345

Sta. 4339+50 In Place
48" X 200' R.C. Pipe Culvert
(30° Rt. Fwd. Skew)
RETAIN

LT. LANES P.T. 4333+10.01 BK. = STA. 4332+99.61 AHD. ℄ MED.

RT. LANES P.T. 4332+99.61 BK. = STA. 4333+10.01 AHD. ℄ MED.

P.T. 4333+01.81

42' 42'

300' Temp. Taper

STA. 4315+70.5 END TAPER

Sta. 4317+85 In Place
Type K Drop Inlet In Median
4' x 4' x 0'-10" Over
6' x 5' x 172' R.C. Box Culvert
RETAIN

Sta. 4336+00 In Place
Type H Drop Inlet In Median
4' x 4' x 2'-10" With
24" x 88' R.C. Pipe Culvert to Rt.
RETAIN

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Sta. 4344+00 In Place
Type K Drop Inlet In Median
4' x 4' x 1'-2" Over
Dbl. 6' x 6' x 190'' R.C. Box Culvert
RETAIN

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				6	ARK.			
				JOB NO.		BB0804	70	156
				(2) PLANS STA. 4344+00 - STA. 4406+00				

4345 4350 4355 4360 4365 4370 4375

REMOVAL AND DISPOSAL OF GUARDRAIL

Sta. 4343+95 - Sta. 4345+95 (Lt. of Lt. Lanes) = 200 L.F.
Sta. 4355+70 - Sta. 4358+70 (Rt. of Rt. Lanes) = 300 L.F.
Sta. 4356+80 - Sta. 4359+30 (Lt. of Rt. Lanes) = 250 L.F.
Sta. 4358+50 - Sta. 4361+00 (Rt. of Lt. Lanes) = 250 L.F.
Sta. 4359+06 - Sta. 4362+06 (Lt. of Lt. Lanes) = 300 L.F.
Sta. 4363+95 - Sta. 4365+45 (Lt. of Lt. Lanes) = 150 L.F.

REMOVAL AND DISPOSAL OF CONCRETE PIER PROTECTION

Sta. 4358+68 - Sta. 4358+98 (Rt. of Rt. Lanes) = 30 L.F.
Sta. 4358+78 - Sta. 4359+08 (Lt. of Lt. Lanes) = 30 L.F.

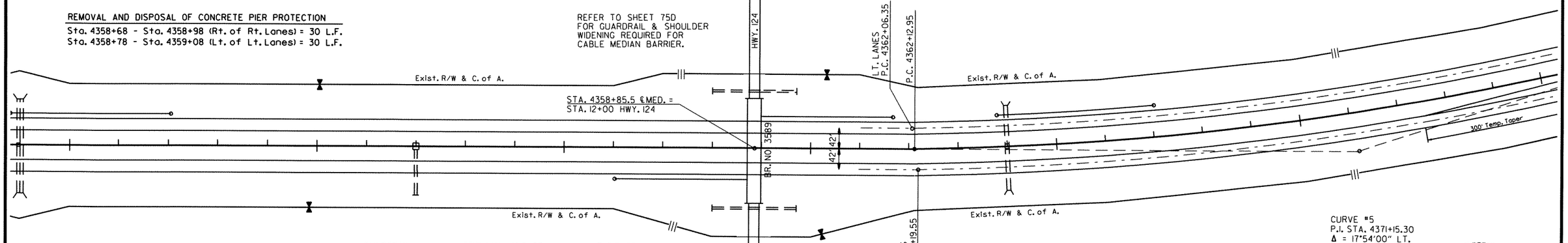
CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)

Sta. 4358+68 - Sta. 4358+98 (Rt. of Rt. Lanes) = 30 L.F.
Sta. 4358+78 - Sta. 4359+08 (Lt. of Lt. Lanes) = 30 L.F.

REFER TO SHEET 75D FOR GUARDRAIL & SHOULDER WIDENING REQUIRED FOR CABLE MEDIAN BARRIER.

REMOVAL & DISPOSAL OF IMPACT ATTENUATION BARRIER (TYPE A)

Sta. 4359+00 (Med.) = 2 Each



GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POSTS (TYPE I)	THRIE BEAM GUARDRAIL TERMINAL
Sta. 4343+80.00 - Sta. 4347+05.00 (Lt. of Lt. Lanes) = 275 L.F.	=1 Each	=1 Each	
Sta. 4355+99.25 - Sta. 4358+68.00 (Rt. of Rt. Lanes) = 200 L.F.	=1 Each		=1 Each
Sta. 4359+08.00 - Sta. 4361+76.75 (Lt. of Lt. Lanes) = 200 L.F.	=1 Each		=1 Each
Sta. 4363+80.00 - Sta. 4367+05.00 (Lt. of Lt. Lanes) = 275 L.F.	=1 Each	=1 Each	

Sta. 4352+00 In Place
Type H Drop Inlet in Median
4' x 4' x 3'-0" With
24" x 92' R.C. Pipe Culvert to Rt.
RETAIN

NOTE: EXISTING VERTICAL CLEARANCE UNDER BRIDGE NO. 3589 IS 19'-0" EB AND 17'-7" WB. A MINIMUM 16'-0" VERTICAL CLEARANCE IS REQUIRED FOR FINISHED ROADWAY.

Sta. 4364+00 In Place
Type H Drop Inlet in Median
4' x 4' x 0'-10" Over
4' x 3' x 172' R.C. Box Culvert
RETAIN

CURVE #5
P.I. STA. 4371+15.30
Δ = 17°54'00" LT.
D = 1°00'00"
T = 902.35'
L = 1790.01'
e = 0.037 '/'
Ls = 350'

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4375 4380 4385 4390 4395 4400 4405

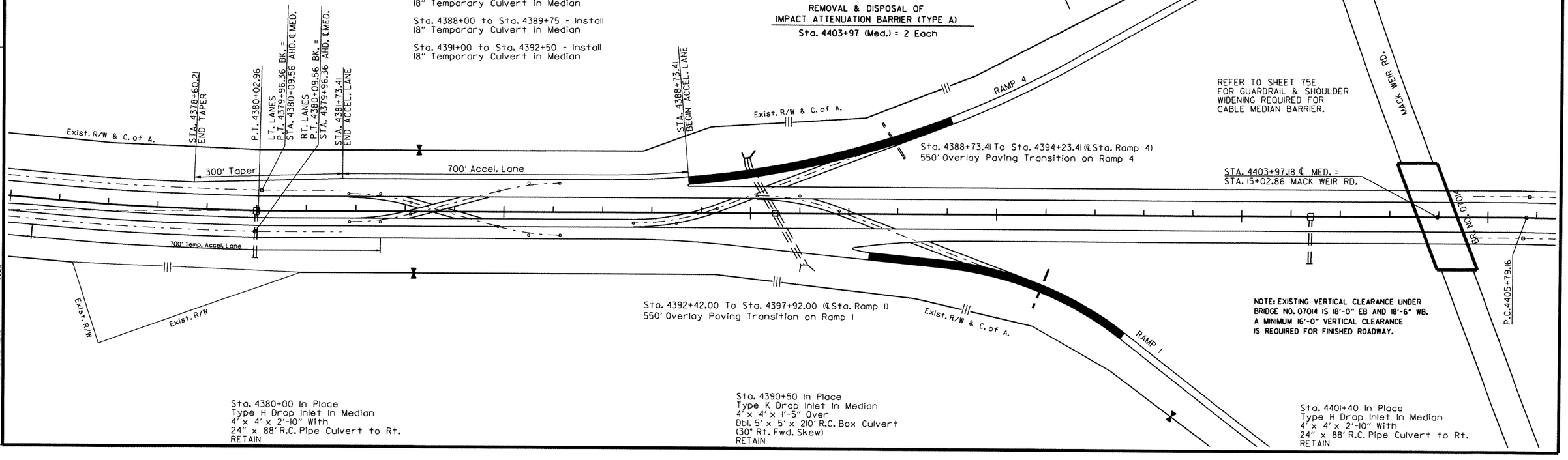
Sta. 4382+75 to Sta. 4384+50 - Install 18" Temporary Culvert in Median

Sta. 4388+00 to Sta. 4389+75 - Install 18" Temporary Culvert in Median

Sta. 4391+00 to Sta. 4392+50 - Install 18" Temporary Culvert in Median

REMOVAL & DISPOSAL OF IMPACT ATTENUATION BARRIER (TYPE A)

Sta. 4403+97 (Med.) = 2 Each



REFER TO SHEET 75E FOR GUARDRAIL & SHOULDER WIDENING REQUIRED FOR CABLE MEDIAN BARRIER.

Sta. 4388+73.41 To Sta. 4394+23.41 (℄ Sta. Ramp 4)
550' Overlay Paving Transition on Ramp 4

Sta. 4392+42.00 To Sta. 4397+92.00 (℄ Sta. Ramp 1)
550' Overlay Paving Transition on Ramp 1

NOTE: EXISTING VERTICAL CLEARANCE UNDER BRIDGE NO. 07014 IS 18'-0" EB AND 18'-6" WB. A MINIMUM 16'-0" VERTICAL CLEARANCE IS REQUIRED FOR FINISHED ROADWAY.

Sta. 4380+00 In Place
Type H Drop Inlet in Median
4' x 4' x 2'-10" With
24" x 88' R.C. Pipe Culvert to Rt.
RETAIN

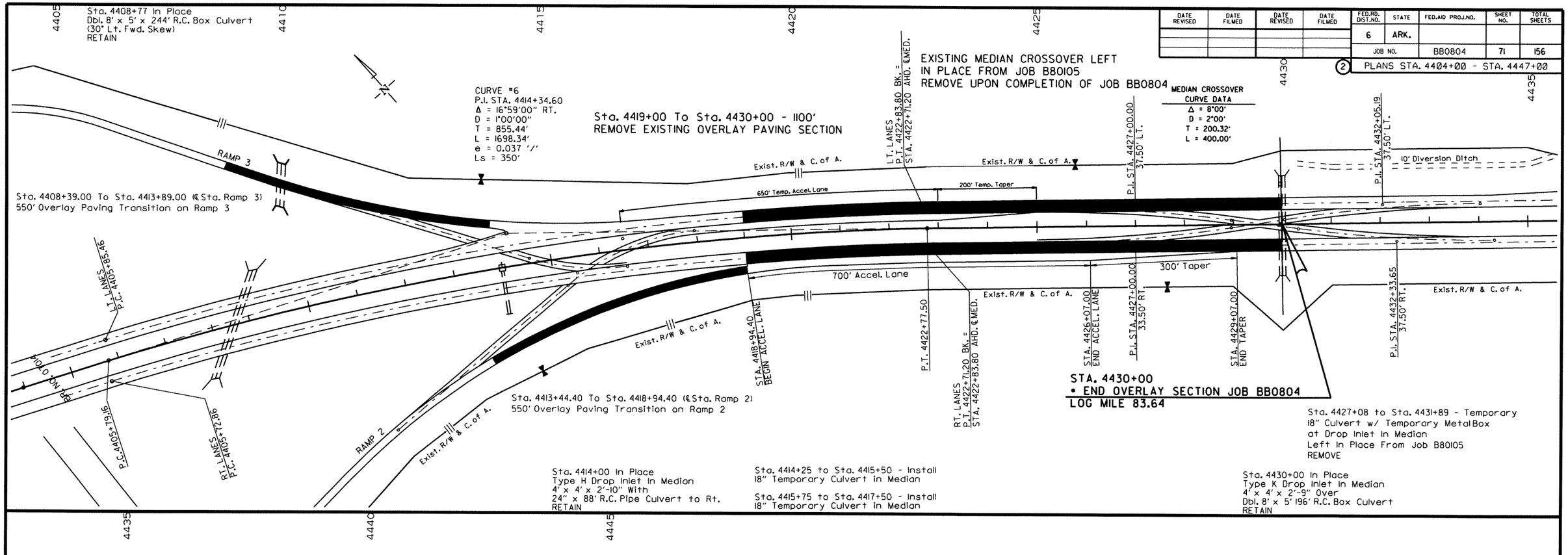
Sta. 4390+50 In Place
Type K Drop Inlet in Median
4' x 4' x 1'-5" Over
Dbl. 5' x 5' x 210' R.C. Box Culvert
(30° Rt. Fwd. Skew)
RETAIN

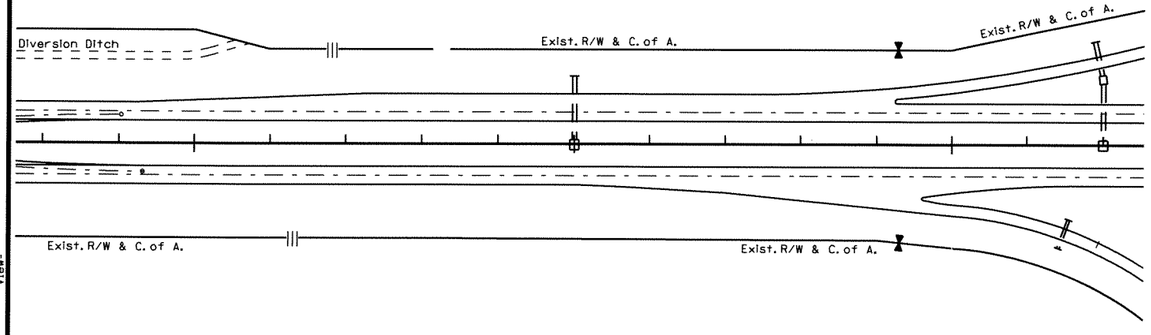
Sta. 4401+40 In Place
Type H Drop Inlet in Median
4' x 4' x 2'-10" With
24" x 88' R.C. Pipe Culvert to Rt.
RETAIN

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				6	ARK.			
				JOB NO.		BB0804	71	156

(2) PLANS STA. 4404+00 - STA. 4447+00





REMOVAL & DISPOSAL OF
PRECAST CONCRETE BARRIER

Sta. 4430+00 (Med.) = 225 LIN. FT.

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				6	ARK.			
				JOB NO.		BB0804	72	156

2 LAYOUT OF U.S. HIGHWAY 64 INTERCHANGE

4105 4110 4115 4120 4125 4130

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N

P.C. 4102+19.63

Exist. R/W

Exist. C. of A.

P.I. 4107+31.38
Δ = 30°00' LT.
D = 3°00'
T = 511.75'
L = 1000.00'

STA. 4103+65.7
BEGIN ACCEL. LANE

RAMP 2

P.T. 4112+19.63

P.C. 4113+71.96

P.T. 4114+07.57

36" R.C.P.
RETAIN

P.I. 4113+57.96
Δ = 14°58' RT.
D = 15°00'
T = 50.19'
L = 99.81'

Sta. 4114+75 In Place
42" x 288' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 5'-6" x 4-4"
(15° Rt. Fwd. Skew)
D.A. 17 Ac. C = 1.0
RETAIN

LT. LANES
P.C. 4115+60.93

P.C. 4117+60.13

P.I. 4119+25.95
Δ = 41°00'49" RT.
D = 10° 00'
T = 214.3'
L = 410.14'

P.C. 4117+11.65

LT. FRONTAGE RD.

P.T. 4121+21.78

STA. 4119+45.54 ℄ MED. (SUBTAN.) =
STA. 18+95.11 MILL CREEK RD.

BR. NO. 01100

P.C. 4124+37.47

RAMP 3

Sta. 4125+00 In Place
42" x 334' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 6'-0" x 6-4"
(30° Rt. Fwd. Skew)
D.A. 20 Ac. C = 1.0
RETAIN

STA. 4129+50.36
END. DECEL. LANE

P.I. 4129+68.74
Δ = 31° 5'24" LT.
D = 3° 00'
T = 531.27'
L = 1036.33'

DBL. 36"
R.C.P.
RETAIN

811' D

46.5'

P.C. 4105+04.8

P.T. 4106+95.1

Sta. 4047+43 In Place
4' x 4' x 270' R.C. Box Culvert
(30° Rt. Fwd. Skew)
Type K Drop Inlet In Median
4'-0" x 4'-0" x H = 1'-0"
D.A. = 39 Ac., C = 1.0
RETAIN

P.I. 4106+00.0
Δ = 5°42'30"RT.
D = 3°00'
T = 95.2'
L = 190.3'

Exist. R/W & C. of A.

RAMP 1

P.C. 4114+24.4

42" R.C.P.
RETAIN

P.I. 4117+13.4
Δ = 43°56'30"RT.
D = 8°00'
T = 289.00'
L = 549.60'

Sta. 4118+00 In Place
36" x 380' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 4'-8" x 3-10"
With Junction Box On Lt.
3'-0" x 4'-0" x 3'-8"
D.A. = 18 Ac., C = 1.0
RETAIN

P.T. 4119+74.0

P.C. 4121+15.9

P.I. 4122+78.3
Δ = 130°41'30"RT.
R = 75' R
T = 163.4'
L = 171.1'

P.T. 4123+59.6

36" R.C.P.
RETAIN

RT. LANES
P.C. 4119+59.63

P.C. 20+61.20

Exist. C. of A.

P.I. 24+26.03
Δ = 59°38'54" LT.
D = 9°00'
T = 364.83'
L = 662.57'

24" R.C.P.
RETAIN

P.C. 4124+24.2

P.T. 4126+68.3

RAMP 4

P.I. 4125+50.58
Δ = 36°36'55" RT.
D = 15° 00'
T = 126.38'
L = 244.10'

P.C. 4131+36.2

STA. 4131+90.70
BEGIN ACCEL. LANE

Exist. R/W

Sta. 4130+20 In Place
Dbl. 36" x 212' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 4'-8" x 4'-8"
D.A. 33 Ac. C = 1.0
RETAIN

P.T. 27+23.77

P.C. 28+36.20

48" R.C.P.
RETAIN

P.I. 29+35.98
Δ = 89°52'30" RT.
D = 57° 17'
T = 99.78'
L = 156.86'

P.T. 29+93.06

US-64

24" R.C.P.
RETAIN

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Interchanges\hwy64_interchange.dgn
Plotted : 05-SEP-2012 12:35 View=

LAYOUT OF U.S. HIGHWAY 64 INTERCHANGE

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.		BB0804	73	156

(2) LAYOUT OF STATE HIGHWAY 7 INTERCHANGE

4280 4285 4290 4295 4300 4305 4310

STATE OF ARKANSAS
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No. 9080
ROBERT MATTHEW CRAFTON
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P.I. 4284+10.9
Δ= 23°08' LT.
D = 3° 00'
T = 390.9'
L = 771.1'

Exist. R/W & C. of A.

R.C.P. RETAIN

RAMP 1

Exist. R/W

Exist. R/W

Co. Road

3+81.19 Co. Road
1+50.60 Off Ramp

Prop. Co. Rd. - Constr. C/L
P.I. 14+72.26
Δ = 11°40' 00" RT.
D = 6° 00'00"
T = 97.60'
L = 194.50'

24" R.C.P. RETAIN

STA. 4293+43.2 ℄ MED. =
STA. 12+00 HWY. 7

LT. LANES
P.C. 4288+76.66

58.5'

P.I.

P.C. 4288+68.48

RT. LANES
P.C. 4288+66.26

R.C.P. RETAIN

RAMP 3

Exist. R/W & C. of A.

P.I. 4273+25.0
Δ= 5°42'30" RT.
D = 3° 00'
T = 95.2'
L = 130.3'

P.I. 4288+31.2
Δ= 26°52' RT.
D = 8° 00'
T = 171.1'
L = 771.1'

Exist. R/W & C. of A.

STA. 4296+45.8 RAMP 3
STA. 4295+53.1 RAMP 4 =
STA. 7+28.9 HWY. 7

P.I. 4293+54.8
Δ= 32°34'30" LT.
D = 10° 00'
T = 167.4'
L = 325.8'

24" R.C.P. RETAIN

BR. NO. 06803

P.I. 4+27.60
Δ= 70°40'00" RT.
R = 230.00'
T = 163.07'
L = 283.70'

Exist. R/W & C. of A.

P.I. 8+05.60
Δ= 15°54'00" RT.
D = 4° 00'00"
T = 200.10'
L = 397.50'

RAMP 2

P.I. 4301+87.7
Δ= 25°58' LT.
D = 3° 15'
T = 405.1'
L = 794.9'

Exist. R/W & C. of A.

P.I. 4431+13.2
Δ= 22°10' RT.
D = 0° 30'
T = 2244.8'
L = 4433.3'

RAMP 4

Exist. C. of A.

Exist. R/W

P.I. 4303+58.3
Δ= 29°12' RT.
D = 4° 00'
T = 373.2'
L = 730.0'

Exist. R/W & C. of A.

P.I. 4309+00.1
Δ= 1°51' RT.
D = 0° 30'
T = 185.1'
L = 370.0'

Exist. C. of A.

Exist. R/W

Exist. R/W

Exist. R/W

N

LAYOUT OF STATE HIGHWAY 7 INTERCHANGE

SCALE 1" = 100'

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\interchanges\hwy7_interchange.dgn
Plotted : 05-SEP-2012 12:35 View=

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.		BB0804	73A	156

(2) LAYOUT OF STATE HIGHWAY 326 INTERCHANGE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

4390 4395 4400 4405 4410 4415

N

STA 4290+50 IN PLACE
TYPE K DROP INLET IN MEDIAN
4' x 4' x 1'-5" OVER
DBL. 5' x 5' x 215' R.C.
BOX CULVERT RETAIN

P.I. 4392+11.04
Δ = 29°18'28"LT.
D = 3°00'00"
T = 499.40'
L = 976.92'
P.C. 4387+11.64
P.T. 4396+88.56

Exist. R/W & C. of A.

RAMP 4

36" R.C.P.
RETAIN

P.I. 4400+38.12
Δ = 9°36'36"RT.
D = 6°00'00"
T = 80.27'
L = 160.17'
P.C. 4399+57.85
P.T. 4401+18.02

MACK WEIR RD.

Exist. R/W & C. of A.

P.I. 4403+73.37
Δ = 41°13'14"RT.
D = 10°00'00"
T = 215.48'
L = 412.20'
P.C. 4401+57.89
P.T. 4405+70.09

RAMP 3

DBL. 8' x 5'
R.C.B. RETAIN

STA. 4403+97.18 ℄ MED. =
STA. 15+02.86 MACK WEIR RD.

LT. LANES
P.C. 4405+85.46

STA. 4408+77 IN PLACE
DBL. 8' x 5' x 244' R.C.
BOX CULVERT RETAIN

P.I. 4113+13.87
Δ = 24°13'39"LT.
D = 3°00'00"
T = 409.92'
L = 807.58'
P.C. 4409+03.95
P.T. 4417+11.53

BR. NO. 01014

24" R.C.P.
RETAIN

P.I. 4396+01.61
Δ = 31°46'02"RT.
D = 8°00'00"
T = 203.79'
L = 397.09'
P.C. 4393+97.82
P.T. 4397+94.91

STA. 4401+40 IN PLACE
TYPE H DROP INLET IN MEDIAN
4' x 4' x 2'-10" WITH
24" x 88' R.C.P. TO RT.
RETAIN

P.C. 4405+79.16

RT. LANES
P.C. 4405+72.86

P.I. 4414+34.6
Δ = 16°59' RT.
D = 1° 00'
T = 855.44
L = 1698.34'

P.I. 4388+50.47
Δ = 5°42'30"RT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 4387+55.25
P.T. 4389+45.53

Exist. R/W & C. of A.

RAMP 1

P.I. 4404+06.46
Δ = 45°51'11"LT.
D = 9°00'00"
T = 269.27'
L = 509.48'
P.C. 4401+37.19
P.T. 4406+46.67

24" R.C.P.
RETAIN

DBL. 8' x 5'
R.C.B. RETAIN

RAMP 2

Exist. R/W & C. of A.

P.I. 4415+45.90
Δ = 44°02'36"RT.
D = 4°00'00"
T = 579.36'
L = 1101.08'
P.C. 4409+66.54
P.T. 4420+67.63

Exist. R/W & C. of A.

DBL. 8' x 5'
R.C.B. RETAIN

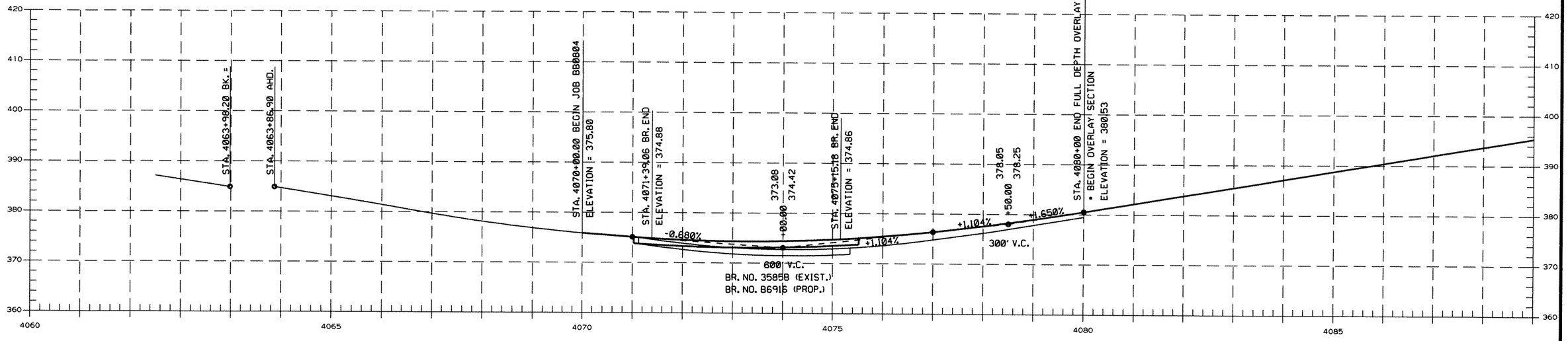
LAYOUT OF STATE HIGHWAY 326 INTERCHANGE

SCALE 1" = 100'

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Interchanges\hwy326_interchange.dgn
Plotted : 05-SEP-2012 12:35
View=

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.		BB0804	74	156

(2) PROFILE GRADES - FULL DEPTH SECTIONS



RIGHT MAIN LANES

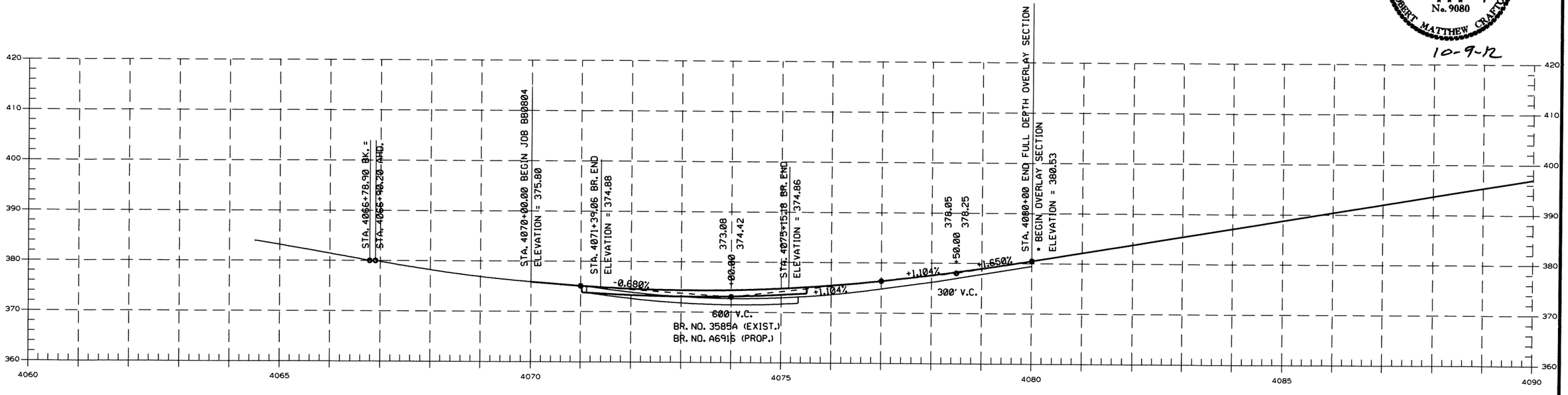
STA. 4071+00 TO STA. 4080+00

MILL CREEK - LOG MILE 76.85

NOTE: REFER TO SHEET NO. 13 AND SHEET NO. 14 FOR SPECIAL PAVING DETAILS.

STATE OF ARKANSAS
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No. 9080
ROBERT MATTHEW CRAFTON

10-9-12



LEFT MAIN LANES

STA. 4071+00 TO STA. 4080+00

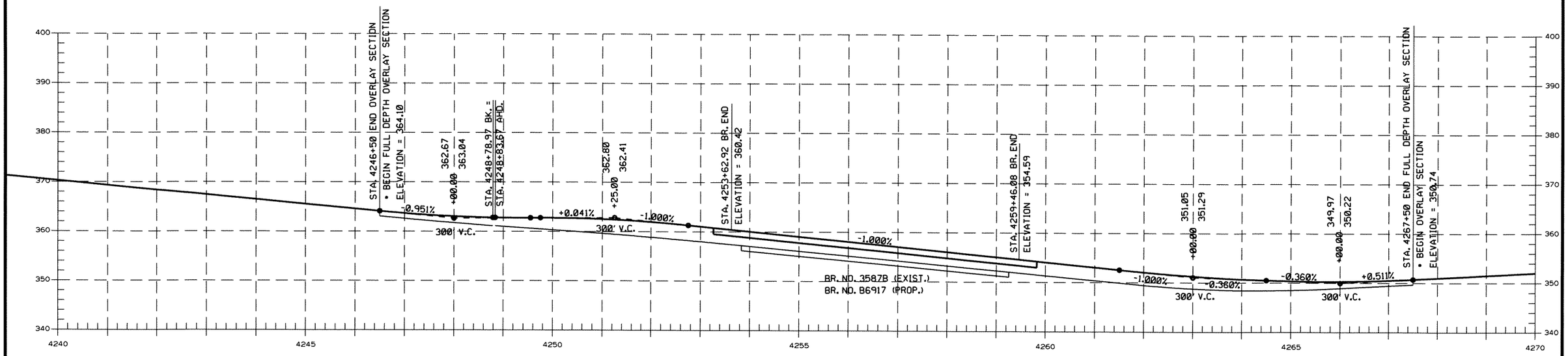
MILL CREEK - LOG MILE 76.85

NOTE: REFER TO SHEET NO. 13 AND SHEET NO. 14 FOR SPECIAL PAVING DETAILS.

Drawn By fs513
DGN File D:\013004-01\BB0109\DGN\Profile Sheets\Profile01.dgn
Plotted : 09-OCT-2012 15:17 View=

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.		BB0804	75	156

(2) PROFILE GRADES - FULL DEPTH SECTIONS



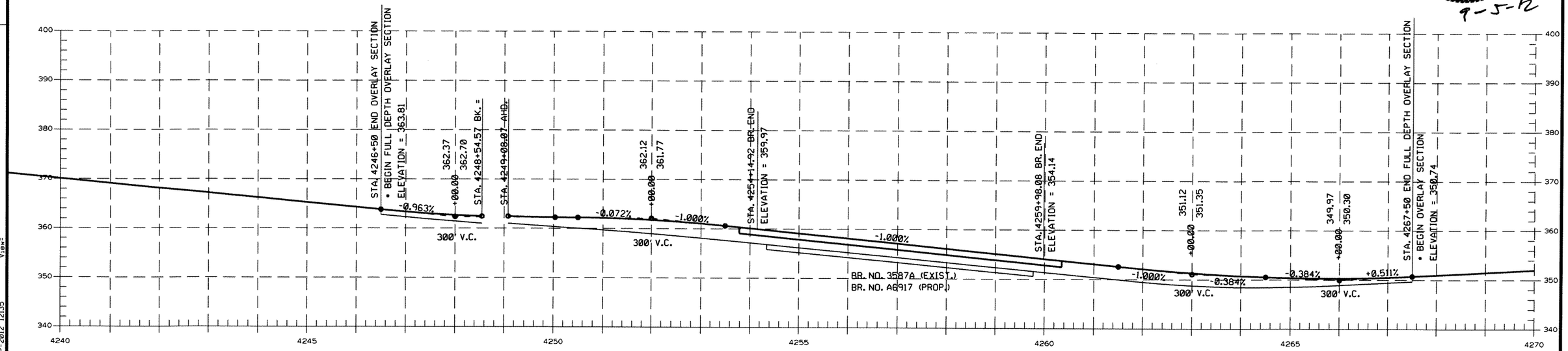
RIGHT MAIN LANES

STA. 4246+50 TO STA. 4267+50

ILLINOIS BAYOU - LOG MILE 80.30

NOTE: REFER TO SHEET NO. 14 FOR SPECIAL PAVING DETAILS.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



LEFT MAIN LANES

STA. 4246+50 TO STA. 4267+50

ILLINOIS BAYOU - LOG MILE 80.30

NOTE: REFER TO SHEET NO. 14 FOR SPECIAL PAVING DETAILS.

Drawn By fs513
DGN File G:\013004-01\B80109\ODN\Profile Sheets\Profile02.dgn
Plotted : 05-SEP-2012 12:35 View=

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.		BB0804	75A	156
				(2)	PLAN SHEET			

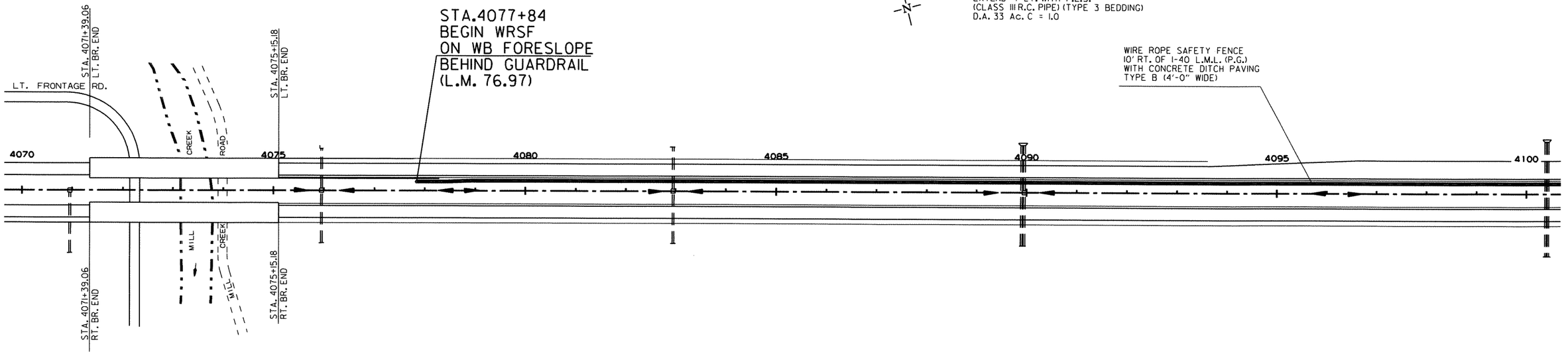
Sta. 4076+00 In Place
24" x 188' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 4'-0" x2'-10"
With L Hdwl. On Lt.
RETAIN

Sta. 4083+00 In Place
30" x 192' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 4'-0" x3'-7"
RETAIN

Sta. 4090+00 In Place
Type H Drop Inlet In Median
4' x 4'-8" x 7'-7" Over
Dbl. 36" x 196' R.C. Pipe Culvert
REMOVE HEADWALL ON LT.
EXTEND 4' LT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)
D.A. 33 Ac. C = 1.0

STA.4077+84
BEGIN WRSF
ON WB FORESLOPE
BEHIND GUARDRAIL
(L.M. 76.97)

WIRE ROPE SAFETY FENCE
10' RT. OF I-40 L.M.L. (P.G.)
WITH CONCRETE DITCH PAVING
TYPE B (4'-0" WIDE)



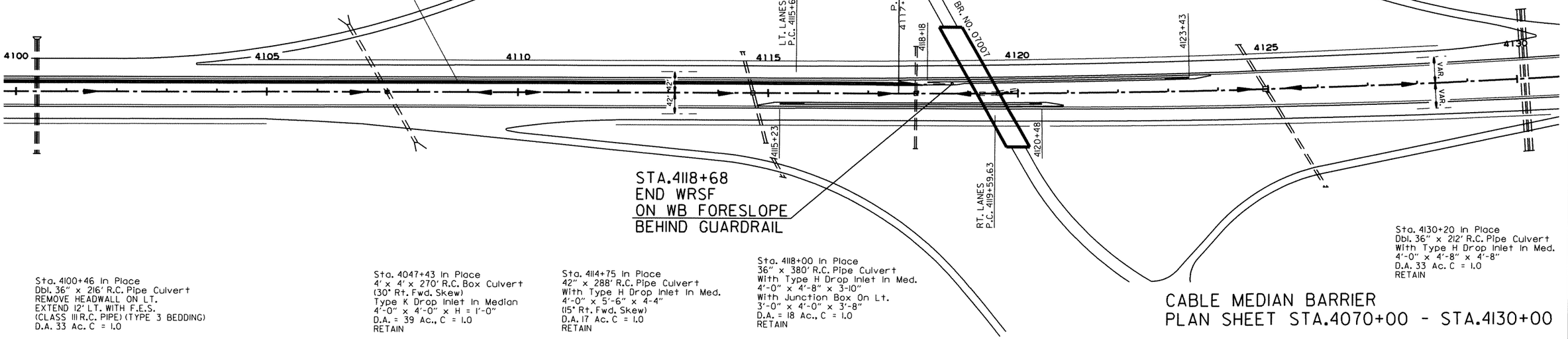
GUARDRAIL (TYPE A)				TERMINAL ANCHOR POST (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
Sta. 4115+23	-	Sta. 4120+48	(Lt. of Rt. Lanes) = 475 L.F.	=1 Each	=1 Each
Sta. 4118+18	-	Sta. 4123+43	(Rt. of Lt. Lanes) = 475 L.F.	=1 Each	=1 Each

REMOVAL & DISPOSAL OF
IMPACT ATTENUATION BARRIER (TYPE A)
Sta. 4119+46 (Med.) = 1 Each

Sta. 4125+00 In Place
42" x 334' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 6'-0" x 6-4"
(30° Rt. Fwd. Skew)
D.A. 20 Ac. C = 1.0
RETAIN

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WIRE ROPE SAFETY FENCE
10' RT. OF I-40 L.M.L. (P.G.)
WITH CONCRETE DITCH PAVING
TYPE B (4'-0" WIDE)



STA.4118+68
END WRSF
ON WB FORESLOPE
BEHIND GUARDRAIL

Sta. 4100+46 In Place
Dbl. 36" x 216' R.C. Pipe Culvert
REMOVE HEADWALL ON LT.
EXTEND 12' LT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)
D.A. 33 Ac. C = 1.0

Sta. 4047+43 In Place
4' x 4' x 270' R.C. Box Culvert
(30° Rt. Fwd. Skew)
Type K Drop Inlet In Median
4'-0" x 4'-0" x H = 1'-0"
D.A. = 39 Ac., C = 1.0
RETAIN

Sta. 4114+75 In Place
42" x 288' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 5'-6" x 4-4"
(15° Rt. Fwd. Skew)
D.A. 17 Ac. C = 1.0
RETAIN

Sta. 4118+00 In Place
36" x 380' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 4'-8" x 3-10"
With Junction Box On Lt.
3'-0" x 4'-0" x 3'-8"
D.A. = 18 Ac., C = 1.0
RETAIN

Sta. 4130+20 In Place
Dbl. 36" x 212' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 4'-8" x 4'-8"
D.A. 33 Ac. C = 1.0
RETAIN

CABLE MEDIAN BARRIER
PLAN SHEET STA.4070+00 - STA.4130+00

Drawn By fs513
DGN File D:\013004-01\BB0109\DGN\Cable Median Barrier\BB0804 CMB.dgn
Plotted : $$$$$SYSTIME$$$$$ View=

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.		BB0804	75B	156
				(2)	PLAN SHEET			

Sta. 4196+25 In Place
42" x 304' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 5'-3" x 10'-10"
RETAIN

STA.4195+75
BEGIN WRSF
ON WB FORESLOPE
(L.M. 79.19)

Sta. 4204+85 In Place
48" x 252' R.C. Pipe Culvert
D.A. = 29 Ac., C = 1.0
RETAIN

LT. LANES
P.T. 4206+89.72 BK. =
STA. 4205+97.12 AHD. ℄ MED.

Sta. 4210+08 In Place
48" x 332' R.C. Pipe Culvert
30° Lt. Fwd. Skew
D.A. = 29 Ac., C = 1.0
RETAIN

Sta. 4216+34 In Place
30" x 180' R.C. Pipe Culvert
With Type H Drop Inlet In Med.
4'-0" x 4'-0" x 4'-10"
D.A. = 5 Ac., C = 1.0
RETAIN

Sta. 4224+00 In Place
24" x 260' R.C. Pipe Culvert
D.A. = 3 Ac., C = 1.0
RETAIN

4195 4200 4205 4210 4215 4220 4225

VAR. VAR.

42'-1.42

Sta. 4202+00 In Place
Type H Drop Inlet In Median
4' x 4'-8" x 5'-4" Over
30" x 212' R.C. Pipe Culvert
(30° Rt. Fwd. Skew)
REMOVE HEADWALL ON RT.
EXTEND 8' RT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)
D.A. = 6 Ac., C = 1.0

BK. 4206+99.82
AHD. 4206+56.62

RT. LANES
P.T. 4207+09.82 BK. =
STA. 4207+15.82 ℄ AHD. MED.

Sta. 4204+85 In Place
Type H Drop Inlet In Med.
4' x 4' x 2'-10" With
24" x 80' R.C. Pipe Culvert to Rt.
REMOVE HEADWALL ON RT.
EXTEND 4' RT. WITH F.E.S.
(CLASS III R.C. PIPE) (TYPE 3 BEDDING)

WIRE ROPE SAFETY FENCE
10' RT. OF I-40 L.M.L. (P.G.)
WITH CONCRETE DITCH PAVING
TYPE B (4'-0" WIDE)

Sta. 4244+00 In Place
24" x 100' R.C. Pipe Outlet
Under Rt. Lane With
Type H Drop Inlet In Med.
4'-0" x 4'-0" x 2'-10"
RETAIN

Sta. 4253+50 In Place
24" x 116' R.C. Pipe Outlet
Under Rt. Lane With
36" x 15' Stack Pipe
Inlet In Med.
RETAIN

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Place
ipe Culvert
.0

P.C. 4227+07.85

Sta. 4230+50 In Place
24" x 84' R.C. Pipe Outlet
Under Lt. Lane With
Type H Drop Inlet In Med.
4'-0" x 4'-0" x 2'-10"
RETAIN

STA.4253+91
END WRSF
ON WB FORESLOPE

P.T. BK. 4248+66.74 =
AHD. 4248+95.77

STA. 4254+14.92
LT. BR. END

4225 4230 4235 4240 4245 4250 4255

WIRE ROPE SAFETY FENCE
10' RT. OF I-40 L.M.L. (P.G.)
WITH CONCRETE DITCH PAVING
TYPE B (4'-0" WIDE)

Sta. 4228+91 In Place
24" x 280' R.C. Pipe Culvert
D.A. = 3 Ac., C = 1.0
RETAIN

Sta. 4238+00 In Place
24" x 100' R.C. Pipe Outlet
Under Rt. Lane With
Type H Drop Inlet In Med.
4'-0" x 4'-0" x 2'-10"
RETAIN

P.I. 4238+16.98

Sta. 4242+25 In Place
24" x 416' R.C. Pipe Culvert
45° Lt. Fwd. Skew
RETAIN

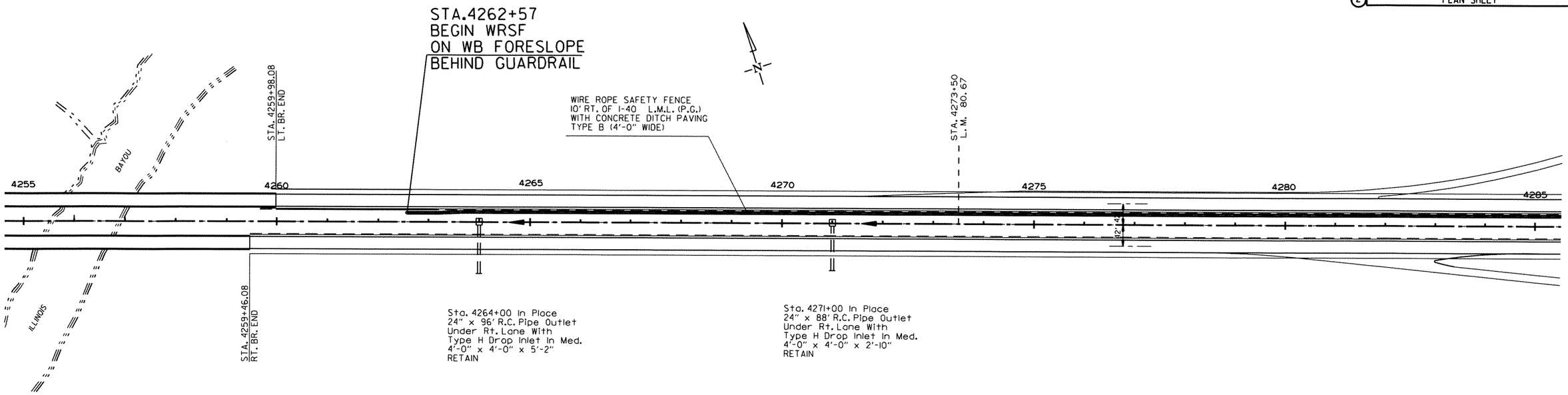
STA. 4253+62.32
RT. BR. END

ILLINOIS

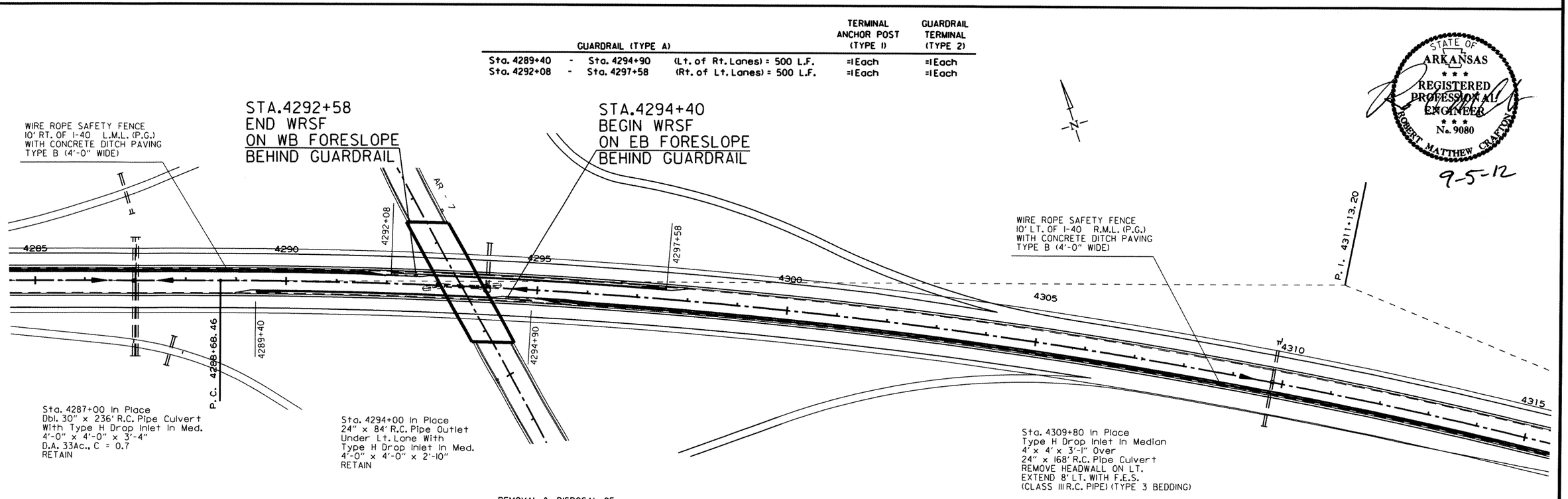
CABLE MEDIAN BARRIER
PLAN SHEET STA.4195+00 - STA.4255+00

Drawn By fs513
DGN File G:\013084-01\BB0804\DGN\Cable Median Barrier\BB0804 CMB.dgn
Plotted : $$$$$$SYSTIME$$$$$$ View=

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.		BB0804	75C	156
				(2)	PLAN SHEET			



GUARDRAIL (TYPE A)				TERMINAL ANCHOR POST (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
Sta. 4289+40	-	Sta. 4294+90	(Lt. of Rt. Lanes) = 500 L.F.	=1 Each	=1 Each
Sta. 4292+08	-	Sta. 4297+58	(Rt. of Lt. Lanes) = 500 L.F.	=1 Each	=1 Each



REMOVAL & DISPOSAL OF IMPACT ATTENUATION BARRIERS

Sta. 4293+43.2 (Med.) = 2 Each

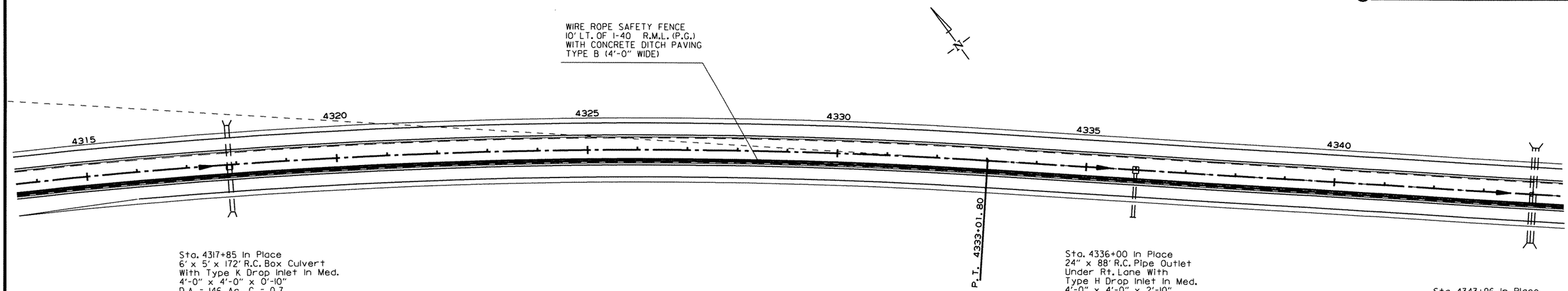
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12

CABLE MEDIAN BARRIER
PLAN SHEET STA.4255+00 - STA.4315+00

Drawn By fs513
DGN File E:\013004-01\BB0109\DGN\Cable Median Barrier\BB0804 CMB.dgn
Plotted : $$$$$SYSTIME$$$$$ View=

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.		BB0804	75D	156

(2) PLAN SHEET



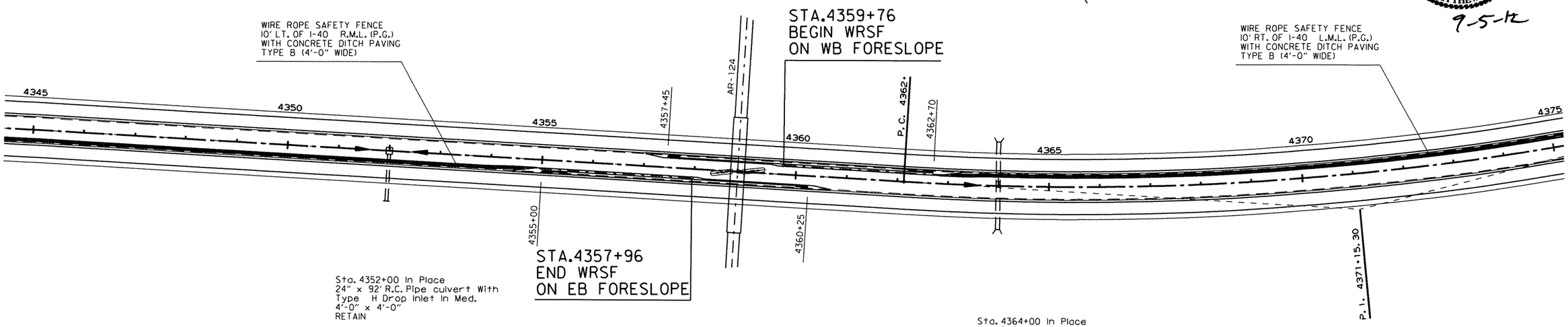
Sta. 4317+85 In Place
6' x 5' x 172' R.C. Box Culvert
With Type K Drop Inlet In Med.
4'-0" x 4'-0" x 0'-10"
D.A. = 146 Ac., C = 0.7
RETAIN

Sta. 4336+00 In Place
24" x 88' R.C. Pipe Outlet
Under Rt. Lane With
Type H Drop Inlet In Med.
4'-0" x 4'-0" x 2'-10"
RETAIN

Sta. 4343+96 In Place
Dbl. 6'x6' box culvert With
Type K Drop Inlet In Med.
4'-0" x 4'-0"
RETAIN

GUARDRAIL (TYPE A)				TERMINAL ANCHOR POST (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
Sta. 4355+00	-	Sta. 4360+25	(Lt. of Rt. Lanes) = 475 L.F.	=1 Each	=1 Each
Sta. 4357+45	-	Sta. 4362+70	(Rt. of Lt. Lanes) = 475 L.F.	=1 Each	=1 Each

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON
9-5-12



Sta. 4352+00 In Place
24" x 92' R.C. Pipe culvert With
Type H Drop Inlet In Med.
4'-0" x 4'-0"
RETAIN

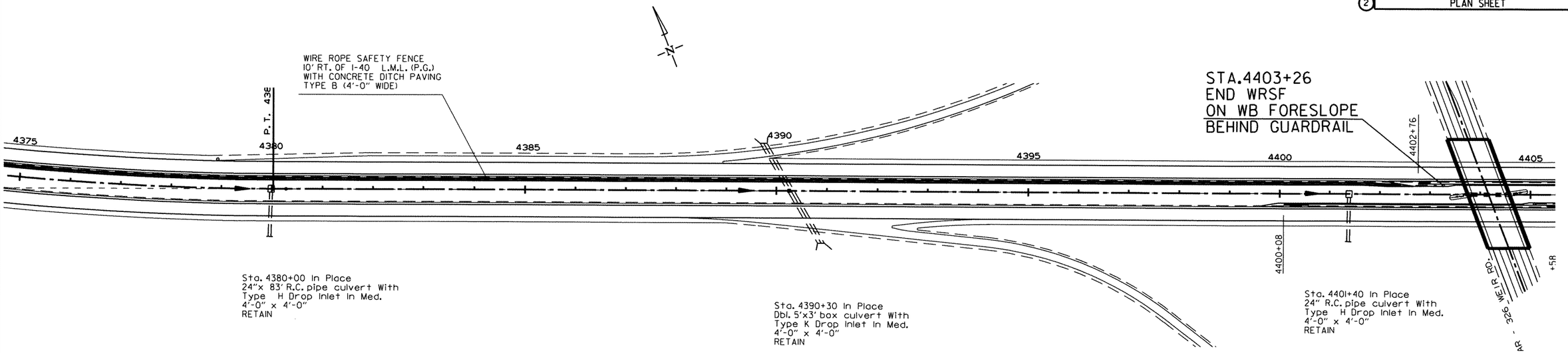
REMOVAL & DISPOSAL OF
IMPACT ATTENUATION BARRIER (TYPE A)
Sta. 4359+00 (Med.) = 2 Each

Sta. 4364+00 In Place
4' x 3' Box culvert With
Type H Drop Inlet In Med.
4'-0" x 4'-0"
RETAIN

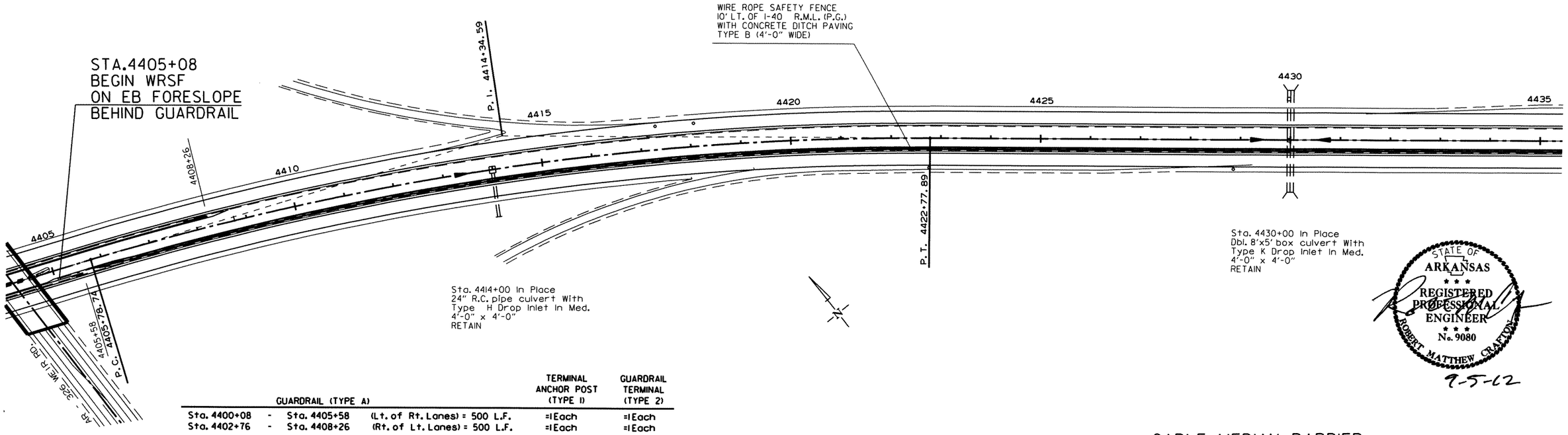
CABLE MEDIAN BARRIER
PLAN SHEET STA.4315+00 - STA.4375+00

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Cable Median Barrier\BB0804 CMB.dgn
Plotted : $$$$$SYTIME$$$$$$ View=

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.		BB0804	75E	156
				(2)	PLAN SHEET			



REMOVAL & DISPOSAL OF
IMPACT ATTENUATION BARRIER (TYPE A)
Sta. 4403+97 (Med.) = 2 Each



GUARDRAIL (TYPE A)				TERMINAL ANCHOR POST (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
Sta. 4400+08	-	Sta. 4405+58	(Lt. of Rt. Lanes) = 500 L.F.	=1 Each	=1 Each
Sta. 4402+76	-	Sta. 4408+26	(Rt. of Lt. Lanes) = 500 L.F.	=1 Each	=1 Each

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ROBERT MATTHEW CRAFTON
9-5-12

CABLE MEDIAN BARRIER
PLAN SHEET STA.4375+00 - STA.4435+00

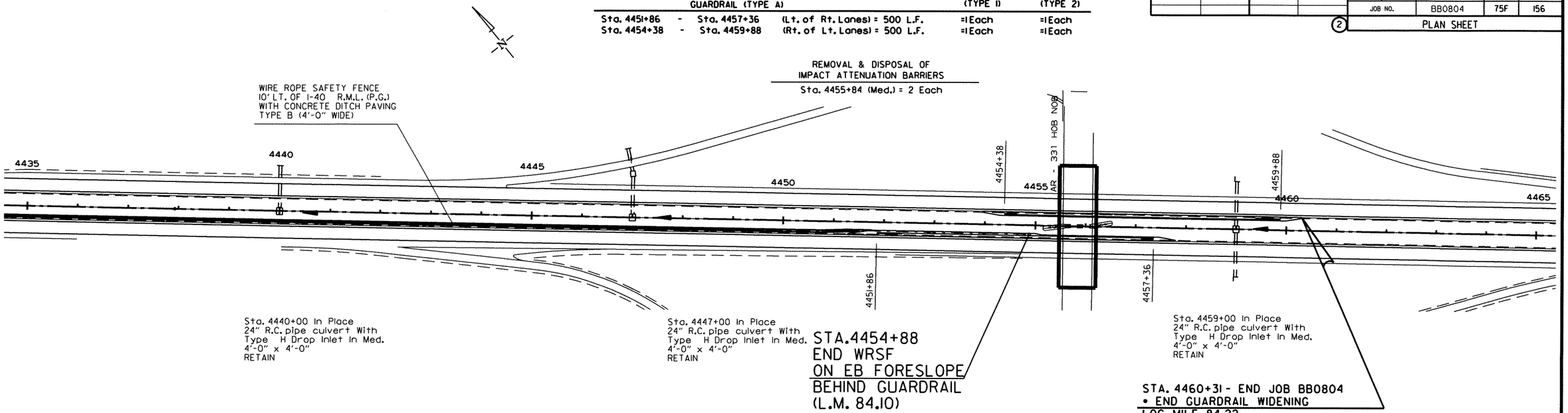
Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Cable Median Barrier\BB0804 CMB.dgn
Plotted : $$$$$SYSTIME$$$$$$ View:

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.		BB0804	75F	156
				(2)	PLAN SHEET			

GUARDRAIL (TYPE A)			TERMINAL ANCHOR POST (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
Sta. 4451+86	- Sta. 4457+36	(Lt. of Rt. Lanes) = 500 L.F.	=1 Each	=1 Each
Sta. 4454+38	- Sta. 4459+88	(Rt. of Lt. Lanes) = 500 L.F.	=1 Each	=1 Each

REMOVAL & DISPOSAL OF IMPACT ATTENUATION BARRIERS

Sta. 4455+84 (Med.) = 2 Each



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9080
ROBERT MATTHEW CRAFTON

10-9-12

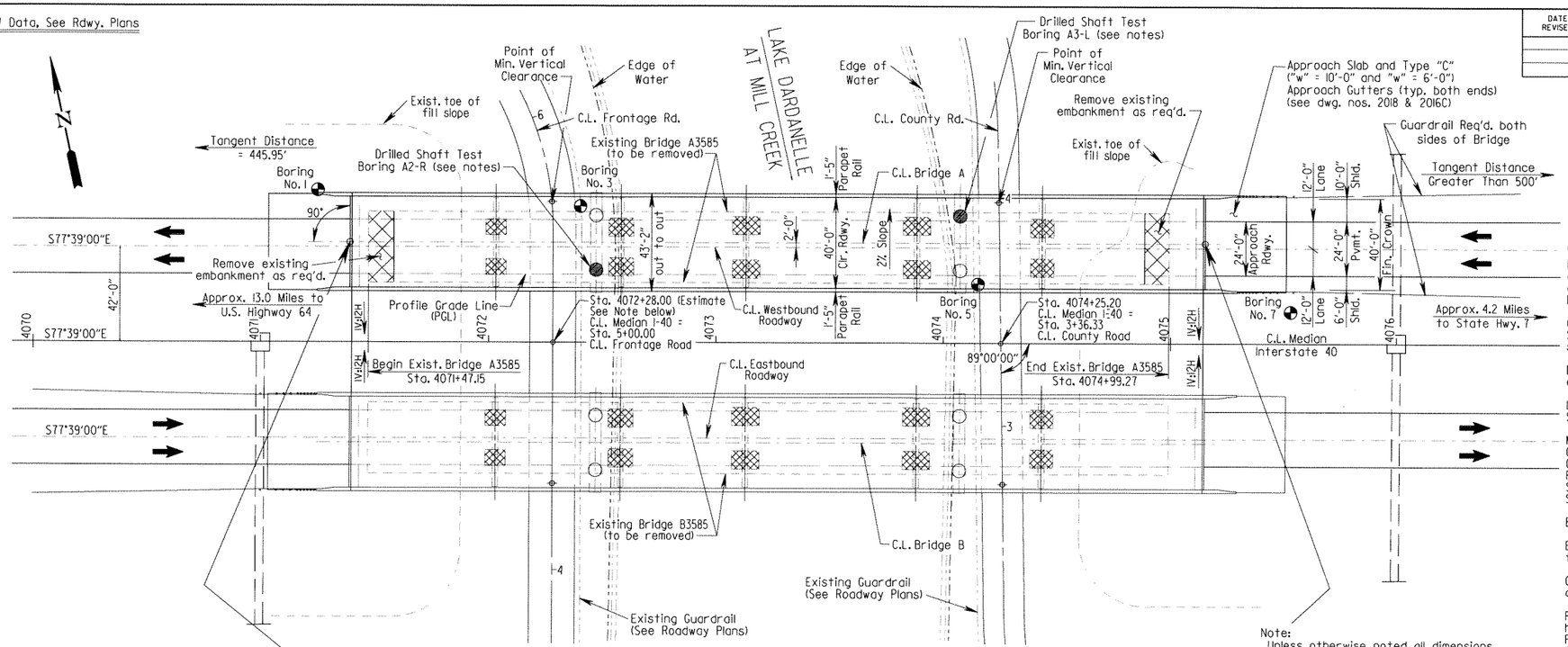
CABLE MEDIAN BARRIER
PLAN SHEET STA.4435+00 - STA.4465+00

Drawn By fs513
DGN File G:\013004-01\BB0109\DGN\Cable Median Barrier\BB0804 CMB.dgn
Plotted : $$$$$SYTIME$$$$$$ View:

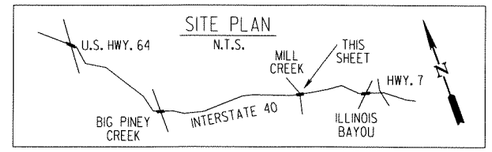
RLB 09-05-12

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.		BB0804	76	156
				(1) A6916		LAYOUT		45206

For R/W Data, See Rdwy. Plans



SITE PLAN
N.T.S.



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 374.65 at Sta. 4071+47.15 (Beg. of Existing Bridge A3585).

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2003 edition), with applicable supplemental specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges (2002 edition), with current interim specifications.

LIVE LOAD: HS20 + Military Loading METHOD OF DESIGN: Load Factor
SEISMIC PERFORMANCE CATAGORY: 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 to the face and top of the conc. parapet rail.

FOOTINGS: Footings shall be set a minimum of 2'-0" into material designated as hard, gray and brown fractured sandstone with clay seams on the boring legend. Foundations for 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.

DRILLED SHAFTS: Conduct drilled shaft test borings at the indicated locations in the plans and other locations as directed by the Engineer. See SP Job BB0804 "Drilled Shaft Test Borings" for additional information. The drilled shaft tip shall be founded a minimum of 19 feet below top of rock as defined in the special provision. No adjustment in Plan Tip Elevation shall be made without prior approval from the Engineer. Methods of construction of the drilled shaft shall be in accordance with SP Job BB0804 "Drilled Shaft Foundations".

DETAIL DRAWINGS:

	DRAWING NO.
End Bents	45211 thru 45213
Intermediate Bents	45214 and 45215
374'-0" Cont. Comp. Plate Girder Unit	45216 thru 45222
Elastomeric Bearings	45223
Approach Slab and Type C Approach Gutters	2018 and 2016C

REMOVAL AND SALVAGE: The existing bridges (Nos. A & B 3585) shall be removed in accordance with Section 205 of the Standard Specifications. Abutment capbeams and wings for End Bents 1 and 4 shall be completely removed. All material from existing bridges shall become the property of the contractor.

EXISTING BRIDGE: Existing Bridge A3585 is 28' wide and 352'-1½" long and consists of 6 composite I-beam simple span supported by substructures consisting of 2 dual column piers with concrete-web-walls on spread footings, 3 dual column piers on spread footings and 2 end bent abutments. Plans for existing bridge will be made available to the Contractor upon request to Programs and Contracts Division. Existing Dwg. Nos. 11875, 11876, 11877, 11878, 11879, 11880, 14990 and 15030.

For additional GENERAL NOTES, see Dwg. No. 45207.

SHEET 1 OF 3

BRIDGE A LAYOUT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
MILL CREEK - HWY. 331 (F)
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

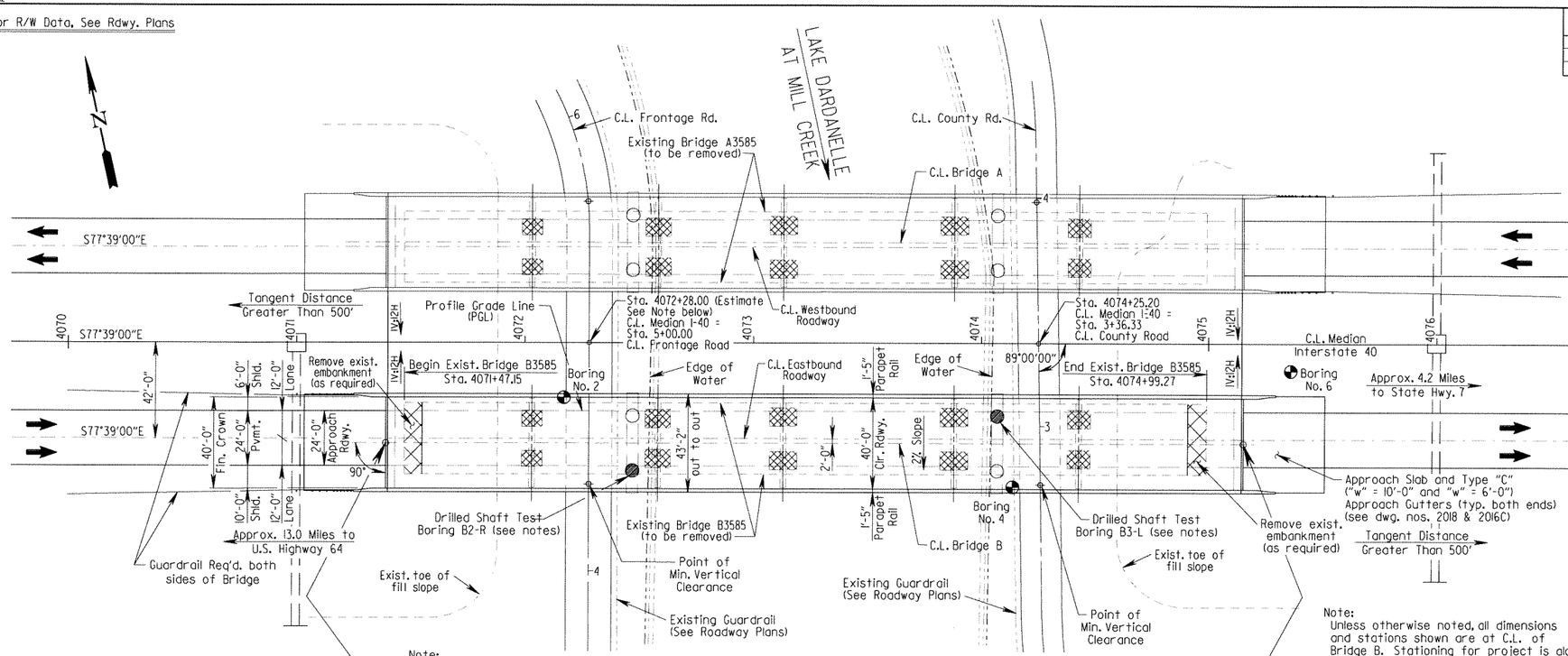
DRAWN BY: R.L.B. DATE: Jun 27, 2003 FILENAME: MILLPE01
CHECKED BY: M.P. DATE: Jun 27, 2003 SCALE: 1" = 30'
DESIGNED BY: K.M.M. DATE: Jun 27, 2003

BRIDGE NO. A6916 DRAWING NO. 45206

RLB 09-05-12

For R/W Data, See Rdwy. Plans

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.		BB0804	77	156
				(1) B6916		LAYOUT		45207



PLAN

Begin Bridge Sta. 4071+39.06
Elev. 374.88

Total Length of Bridge = 376'-1½"

374'-0" Continuous Composite Plate Girder Unit
(Spans: 107'-0" - 160'-0" - 107'-0")

End Bridge Sta. 4075+15.18
Elev. 374.86

1'-0¾"

1'-0¾"

P.V.I. Sta. 4074+00.00
Elev. 373.08

-0.680%

+1.104%

600' V.C.

Vertical Curve Data Along PGL
14' Left of C.L. Bridge

C.L. 2" Strip Seal Jt. (Movement Rating = 4")

C.L. 2" Strip Seal Jt. (Movement Rating = 4")

** Top of deck at Profile Grade Line to low side top of cap along C.L. bent.

15'-0" Wingwall (typ.)

* Excavate existing embankment material at bridge ends to match roadway slope and to an approx. min. elev. 366.5 (approx. 75 cu. yds.)

C.L. Bent Sta. 4072+47.12 Elev. 374.44 7'-8⅛" **

6'-11⅞" Profile Grade Line to Low Steel

29'-5⅛" Low Steel to Water Surface

C.L. Bent Sta. 4074+07.12 Elev. 374.43 7'-8⅛" **

Profile Grade Line (PGL) 14'-0" left of C.L. Bridge B

* Excavate existing embankment material at bridge ends to match roadway slope and to an approx. min. elev. 366.5 (approx. 75 cu. yds.)

36'-6" Conc. Approach Slab (typ.)

Slope Intersection Sta. 4071+26.56 (PGL = 374.95)

Existing embankment to remain

Concrete Parapet Rail

Slope Intersection Sta. 4075+27.68 (PGL = 374.94)

380.00
370.00
360.00
350.00
340.00
330.00
320.00
310.00
300.00

Guardrail Req'd. (see roadway plans) (typ.)

E1 2.3 4.3
E2 9.3
E3 14.3
E4

18'-10"(±)

Existing Guard Rail

Elev. 315.00

Existing Guard Rail

F1 5.5 10.0
F2 15.0
F3

25'-7"(±)

Pool Elev. 338.00

Existing embankment to remain

Existing Ground Line @ C.L. Eastbound Rdwy.
Note: Special precautions shall be exercised to maintain the existing rock outcroppings.

G1 7.0
G2 17.0

C.L. Frontage Rd. Sta. 4072+28.00 (Estimate - See Note above)

6'-1" (±)

Edge of Pavement

5'-9" (±)

Edge of Pavement

C.L. County Rd.

* To be paid for as Item 801 "Unclassified Excavation for Structures - Bridge"

Note: Existing lowest steel elevation estimated to be Elev. 369.98 at Sta. 4073+75.15
New lowest steel elevation to be Elev. 367.42 at Sta. 4072+84.29

Note: Water level controlled by Lake Dardanelle structure

Bent Nos. B1 B2 B3 B4 Bent Nos.

Boring No. 2
Sta. 4072+17.00
24' Rt. of C.L.
Median Interstate 40
Surface Elev. 349.00'(±)

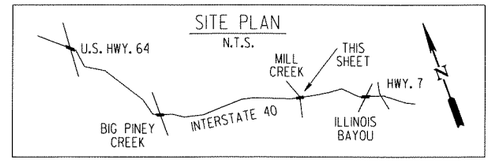
Boring No. 4
Sta. 4074+14.00
63' Rt. of C.L.
Median Interstate 40
Surface Elev. 342.30'(±)

Boring No. 6
Sta. 4075+36.00
12' Rt. of C.L.
Median Interstate 40
Surface Elev. 371.90'(±)

ELEVATION

4071 4072 4073 4074 4075 4076

SITE PLAN
N.T.S.



GENERAL NOTES: (CONTINUED)

DETAIL DRAWINGS:

	DRAWING NO.
End Bents	45211 thru 45213
Intermediate Bents	45214 and 45215
374'-0" Cont. Comp. Plate Girder Unit	45216 thru 45222
Elastomeric Bearings	45223
Approach Slab and Type C Approach Gutters	2018 and 2016C

EXISTING BRIDGE: Existing Bridge B3585 is 28' wide and 352'-1½" long and consists of 6 composite I-beam simple span supported by substructures consisting of 2 dual column piers with concrete-web-walls on spread footings, 3 dual column piers on spread footings and 2 end bent abutments. Plans for existing bridge will be made available to the Contractor upon request to Programs and Contracts Division. Existing Dwg. Nos. 11875, 11876, 11877, 11878, 11879, 11880, 14990 and 15030.

MAINTENANCE OF TRAFFIC: The westbound roadway will be closed during the construction of bridge A6916 and the eastbound roadway will be closed during the construction of bridge B6916. (See roadway plans for M.O.T. details)

For Soil Boring Legend and "N" values, see Dwg. No. 45208.

For additional GENERAL NOTES, see Dwg. No. 45206.

SHEET 2 OF 3

BRIDGE B LAYOUT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
MILL CREEK - HWY. 331 (F)
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: Jun 27,2003 FILENAME: MILLPE02
CHECKED BY: M.P. DATE: Jun 27,2003 SCALE: 1" = 30'
DESIGNED BY: K.M.M. DATE: Jun 27,2003

BRIDGE NO. B6916 DRAWING NO. 45207

ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

RLB 09-05-2

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.		BB0804	78	156
				(1)	A6916 & B6916	LAYOUT		45208

Boring No. 1

Sta. 4071+25 - 67' Lt. of C.L. Median Interstate 40

BORING LEGEND	BORING "N" VALUES
A1 - Moist, dense, brown silty sand with sandstone fragments	4.00 - 5.00, N=47
A2 - Hard, gray and brown fractured sandstone with clay seams	
A3 - Hard, gray and brown fractured sandstone with clay and some thin dark gray shale seams	
A4 - Alternating layers of hard, gray sandstone and hard, dark gray shale	
A5 - Hard, dark gray shale with thin gray sandstone seams	

Boring No. 2

Sta. 4072+17 - 24' Rt. of C.L. Median Interstate 40

BORING LEGEND
E1 - Moist, stiff, brown silty clay with sandstone fragments
E2 - Hard, gray and brown fractured sandstone with clay seams
E3 - Hard, gray and brown sandstone with clay and some thin dark gray shale seams
E4 - Hard, gray sandstone with some thin dark gray shale seams

Boring No. 3

Sta. 4072+40 - 60' Lt. of C.L. Median Interstate 40

BORING LEGEND	BORING "N" VALUES
B1 - Moist, medium stiff to stiff, brown sandy, silty clay with sandstone fragments	3.80 - 4.80, N=8 8.80 - 9.80, N=8 13.80 - 14.80, N=11
B2 - Hard, gray and brown sandstone with some thin dark gray shale and fractured seams	
B3 - Hard, dark gray shale with thin gray sandstone seams	

Boring No. 4

Sta. 4074+14 - 63' Rt. of C.L. Median Interstate 40

BORING LEGEND	BORING "N" VALUES
F1 - Moist, very stiff, brown sandy, silty clay with sandstone fragments	4.25 - 5.25, N=18
F2 - Hard, gray fractured sandstone with thin dark gray shale seams	
F3 - Hard, gray sandstone with thin dark gray shale seams	

Bring No. 5

Sta. 4074+15 - 26' Lt. of C.L. Median Interstate 40

BORING LEGEND	BORING "N" VALUES
C1 - Moist, mediam stiff, brown sandy, silty clay with sandstone fragments	5.30 - 6.30, N=5
C2 - Hard, gray sandstone with some fractured seams	
C3 - Hard, dark gray shale with thin gray sandstone seams	

Bring No. 6

Sta. 4075+36 - 12' Rt. of C.L. Median Interstate 40

BORING LEGEND	BORING "N" VALUES
G1 - Moist, medium dense, brown silty sand with sandstone fragments	4.25 - 5.25, N=14
G2 - Hard, brown and gray fractured sandstone with clay seams	

Boring No. 7

Sta. 4075+48 - 14' Lt. of C.L. Median Interstate 40

BORING LEGEND	BORING "N" VALUES
D1 - Moist, dense, brown sandstone fragments and cobbles	5.10 - 5.20, N=17 (0.1')
D2 - Moist, dense, brown silty sand with gravel	
D3 - Hard, gray and brown sandstone with clay seams	
D4 - Hard, gray and brown sandstone with clay seams and some weathered shale	
D5 - Hard, gray sandstone	
D6 - Hard, dark gray shale interbedded with hard, gray sandstone	
D7 - Hard, gray sandstone	

Note:
- For General Notes, see Dwg. Nos. 45206 and 45207.

SHEET 3 OF 3

BRIDGE A & B LAYOUT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
MILL CREEK - HWY. 331 (F)
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: Jun 27,2003 FILENAME: MILLPE01
CHECKED BY: M.P. DATE: Jun 27,2003 SCALE: N.T.S.
DESIGNED BY: K.M.M. DATE: Jun 27,2003

BRIDGE NO. A6916 & B6916 DRAWING NO. 45208

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.	BB0804		79	156
(1)	A3585 - LAYOUT - 45209			

RIGHT-OF-WAY DATA
See Roadway Plans

PLAN

ELEVATION
D. A. = 10 Sq. Miles C=60
BRIDGE NO. 3585A

Toe of fill
Test hole
CREEK
Toe of slope
Tang. distance over 500'
To Ft. Smith
℄ Bridge 1
S 77° 35' E
Slope down 4%
28'-0" Clear Roadway
1'-6" Curb
One Way Traffic
Tangent distance over 500'
40' Crown
℄ Left Lane
42'
℄ Survey & Median
42'
℄ Right Lane
BRIDGE NO. 3585A
BRIDGE NO. 3585B
Type 'R' Approach Slabs and Gutters. See Roadway Plans. Guard fence not included in Job 8476.
4074+25.2 = 5T 36.33 County Rd.
88°0'
℄ Proposed Relocation of County Road
MILL
Reference Points - see Dwg. No. 11876

Sta. 4071+47.15
Begin Bridge
Sta. 4074+93.27
End Bridge
Total Length of Bridge = 358'-1½"
55'-0" | 55'-0" | 55'-0" | 75'-0" | 55'-0" | 55'-0"
All Spans To Be Regular Composite I-Beam Spans
Aluminum Bridge Railing
Deck El. 394.65
Deck El. 378.93
Berm
El. 328.45
El. 345.04
El. 322.57
El. 303.37
El. 317.80
El. 362.58
Pool El. 338.0
H.W. El. 338.9 (1943)
Rock
Gravel Shale
Sandy Clay, Firm & Stiff
Comp. Clay, Gravel & Sand
Comp. Clay & Sand
Shale
Abutment No. 1A
Bent No. 1A
Bent No. 2A
Pier No. 1A
Abutment No. 2A
Bent No. 3A
Pier No. 2A

SOUNDING NOTE:
All soundings - Comp. Clay, Gravel & Boulders - except where otherwise noted.
Location - Referenced to ℄ Survey

DESIGN SPECIFICATIONS AASHO 1961
Live Loading: H20-S16 and Special Interstate Loading of 3 - 24,000# axles spaced 4'0" on center.
Unit Stresses:

Class A Concrete (n=15)	840 psi
Class H Concrete (n=10)	1,200 psi
Reinforcing Steel	20,000 psi
Structural Steel (A-36)	20,000 psi

Maximum Foundation Pressures Group I

Abutments	4800 #/s.
Bents	5500 #/s.
Piers	5500 #/s.

B. M. Nor[illegible] corner Rod Abut. Mill Creek Bridge 321' Rt. 4076+61 Elev. [illegible]

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 or piers shall be horizontal and shall be provided with keys not less than 12" high covering the middle third of both dimensions.

For Details of Abutments see Dwg. Nos. 11877 and 11878.
For Details of Bents see Dwg. No. 11879.
For Details of Piers see Dwg. No. 11880.
For Details of Composite I-Beam Spans see Dwg. No. 14990 and 15080.

Reinforcing steel to be deformed bars of intermediate or hard grade.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1958, and designated Special Provisions.

FOR INFORMATION ONLY

(LEFT LANES)

LAYOUT OF BRIDGE
OVER MILL CREEK
LONDON - EAST END RUSSELLVILLE BYPASS
POPE COUNTY
INTERSTATE ROUTE 40 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DESIGN BY J.E.H. DATE 10-20-61
TRACED BY DATE
CHECKED BY C.W.V. DATE 4-11-62
SCALE 1" = 20'

L. P. Carlson
BRIDGE ENGINEER

BRIDGE NO. A3585 DRAWING NO. 45209

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0804	80	156
B3585 - LAYOUT - 45210				

RIGHT OF WAY DATA
SEE ROADWAY PLANS

BRIDGE NO. 3585A

CREEK

BRIDGE NO. 3585B

4074+25.2
= 3+36.33 County Rd.

℄ Left Lanes

℄ Survey & Median

℄ Right Lanes

42'

40' Crown

Tang. distance over 500'

One Way Traffic

S 77°39' E
℄ Bridge

Tangent distance over 500'

To Little Rock

Slope 0.04 ft. Down

28'0" clear Roadway

1½" Curb

Fic. Curb

Power Line

MILL

Test hole

Type 'A' Approach Slab and Gutters. See Roadway Plans Guard Fence not included in Job 847G.

Toe of slope

℄ Proposed Relocation of County Road

Type 'A' Approach Slab and Gutters. See Roadway Plans Guard Fence not included in Job 847G.

N.B.C. 12" Gum
33.5'
Iron Pin
℄ Median ℄
21.7'
N.B.C. 6" Persimmon
32.55
N.B.C. 12" Gum
POT. 4070+69.9

N.B.C. 6" Persimmon
N.B.C. 12" Elm Stump
POT. 4075+90.1

REFERENCE POINTS

PLAN

Sta. 4071+47.15

Sta. 4074+93.27

Total Length of Bridge = 352'-1½"

-1.45% +1.65%
800' V.C.

4074+00
376.36
376.65

55'-0" | 55'-0" | 55'-0" | 75'-0" | 55'-0" | 55'-0"

All Spans | To Be Regular | Composite I-Beam | Spans

Begin Bridge Deck El. 374.65

3½" ℄ Deck to Cap at ℄ Abut.

4072+03.20
374.21

3½" Deck to Cap at ℄ Abut.

4072+58.20
375.50

4073+13.20
375.71

4073+88.20
375.64

4074+43.20
373.75

3½" Deck to Cap at ℄ Abut.

End Bridge Deck El. 375.93

Aluminum Bridge Railing

Berm

El. 352.70

Rock

16'BA 4071+52

16'BA 4071+78

14'BA 4071+96

16'BA 4072+08

18'BA 4072+37

18'BA 4072+57

18'BA 4072+76

18'BA 4072+96

El. 343.04

El. 323.89

Rock

18'BA 4073+15

4.8' Sandy Clay
2.1' Clay & Gravel

18'BA 4073+35

4.8' Rich Brown Sandy Clay

4.2' Comp. Clay & Boulders

El. 303.37

Rock

18'BA 4073+55

18'BA 4073+75

18'BA 4073+95

Pool Elev. 338.0 ±

H.W. Elev. 350.3 (1945) ±

W.S. (1-2-61) ±

El. 328.80

Rock

18'BA 4074+15

18'BA 4074+34

18'BA 4074+54

18'BA 4074+74

18'BA 4074+93

El. 335.39

Rock

16'BA 4075+14

16'BA 4075+34

16'BA 4075+54

16'BA 4075+74

16'BA 4075+93

El. 355.73

Rock

Berm

Proposed County Rd.

16" Min. Overlay

Elev. at ℄ 341.2

Rock

SOUNDING NOTES:
All soundings - Comp. Clay, Gravel & Boulders - except where otherwise noted.
Location - Referenced to ℄ Survey

ABUTMENT NO. 1B

BENT NO. 1B

BENT NO. 2B

PIER NO. 1B

PIER NO. 2B

BENT NO. 3B

ABUTMENT NO. 2B

ELEVATION
D. A. = 10 Sq. Miles C=1.0

BRIDGE NO. 3585 B

Maximum Foundation Pressures see Dwg. No. 11875

B. M. Northeast corner East Abut. Mill Creek Bridge 388' RA 4074+21
Elev. 389.81

4071 | 4072 | 4073 | 4074 | 4075

For General Notes see Dwg. No. 11875.

FOR INFORMATION ONLY

(RIGHT LANES)
LAYOUT OF BRIDGE
OVER MILL CREEK
LONDON - EAST END RUSSELLVILLE BYPASS
POPE COUNTY
INTERSTATE ROUTE 40 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

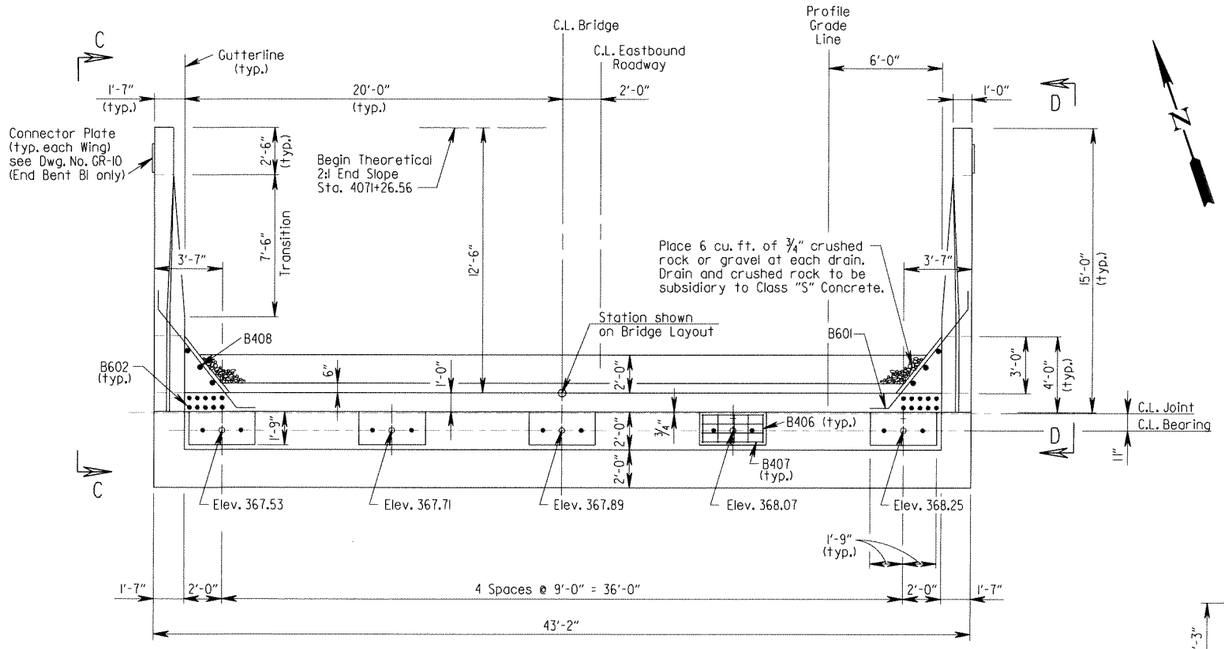
DRAWN BY J.E.H. DATE 10-19-61
TRACED BY DATE
CHECKED BY J.W.H. DATE 6-11-62
SCALE 1" = 20'

L. P. Carlson
BRIDGE ENGINEER

BRIDGE NO. B3585 DRAWING NO. 45210

rlb 09-05-12

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.		BB0804	81	156
				(1) A6916 & B6916		END BENT A1 & B1		45211

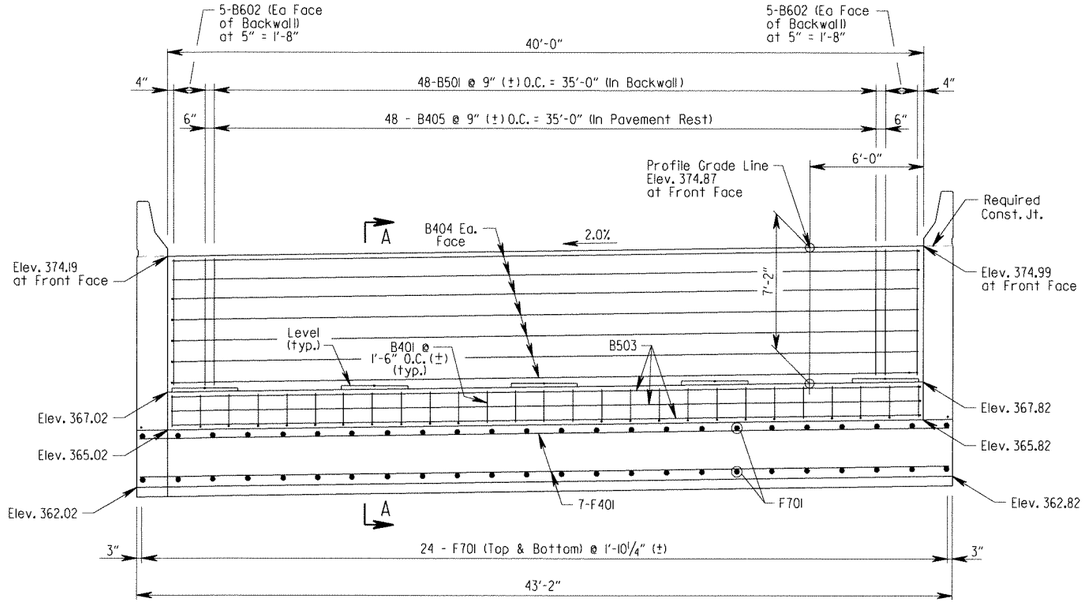


PLAN

Scale: 1/4" = 1'-0"

(Bridge B shown - Bridge A opposite hand)

Note:
For additional Anchor Bolt and Bearing Details, see Dwg. No. 45223.



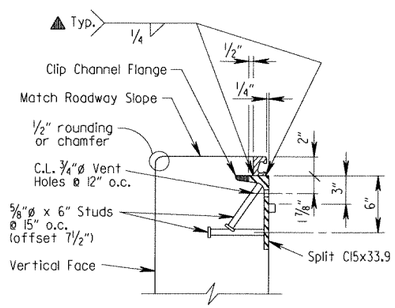
ELEVATION

Looking Back

Scale: 1/4" = 1'-0"

(Bridge B shown - Bridge A opposite hand)

▲ Shop Weld - See SP Job BB0804 "Armored Joint With Neoprene Strip Seal

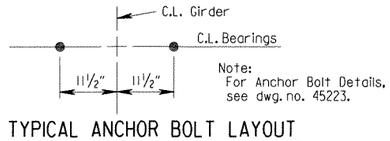


Note: Concrete shall be hand packed under the joint armor in the backwall.

For additional details, See Dwg. No. 45217.

DETAIL "A"

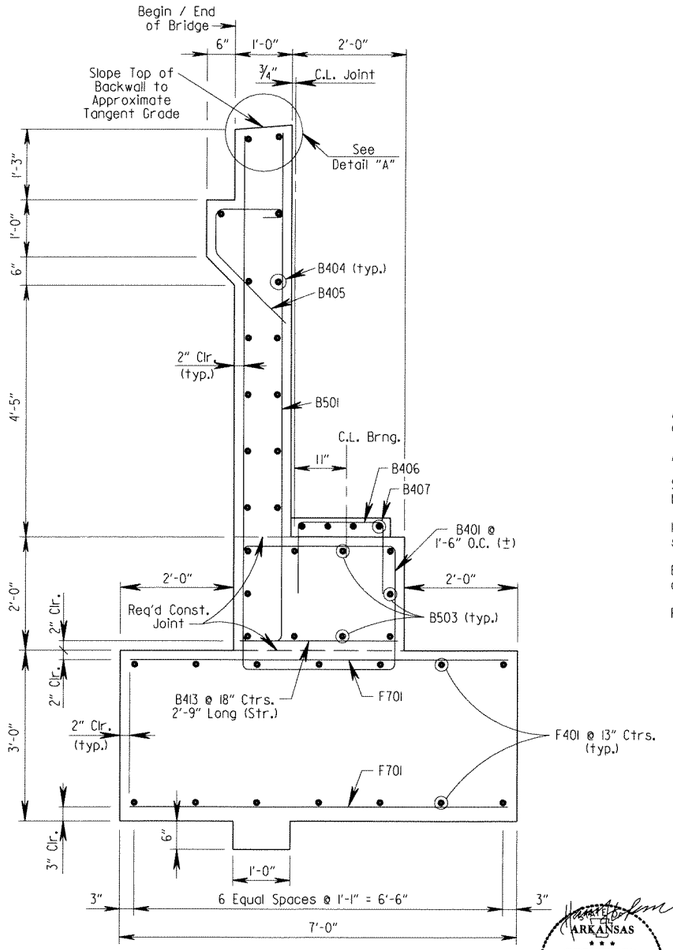
Scale: 1 1/2" = 1'-0"



Note:
For Anchor Bolt Details, see dwg. no. 45223.

TYPICAL ANCHOR BOLT LAYOUT

Scale: 3/4" = 1'-0"



SECTION A-A

Scale: 3/4" = 1'-0"

All concrete shall be Class "S" and be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

Structural Steel in End Bents shall be AASHTO M270, Gr. 50W and shall be paid for as "Structural Steel in Plate Girder Spans (M270, Gr. 50W)".

If anchor bolts are to be drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

Backwall shall not be poured before beams are in place and concrete deck pours have been made.

For additional information, see Layout.

ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
MARY L. RIAD
09/05/2012

SHEET 1 OF 3

DETAILS OF END BENTS A1 & B1
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
POPE COUNTY

ROUTE I-40 SEC. 22

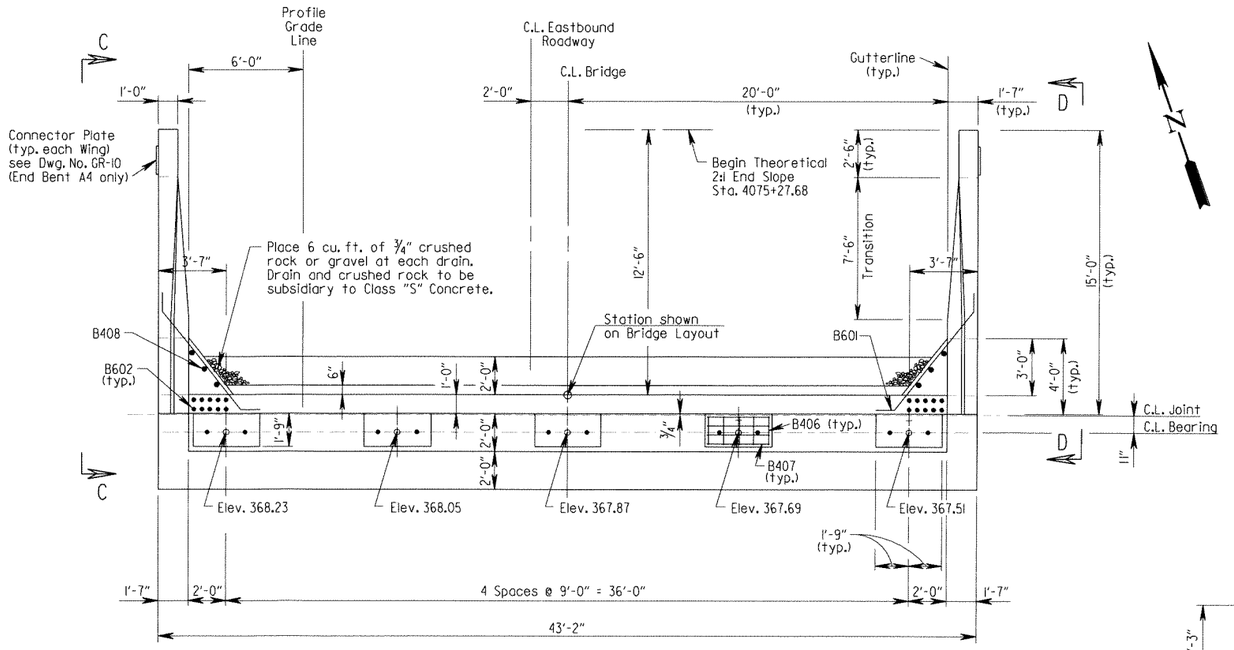
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: May 16, 2008 FILENAME: MILLEB01
CHECKED BY: S.L.B. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. A6916 & B6916 DRAWING NO. 45211

rlb 09-05-12

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.		BB0804	82	156
				(1)	A6916 & B6916	END BENT A4 & B4		45212

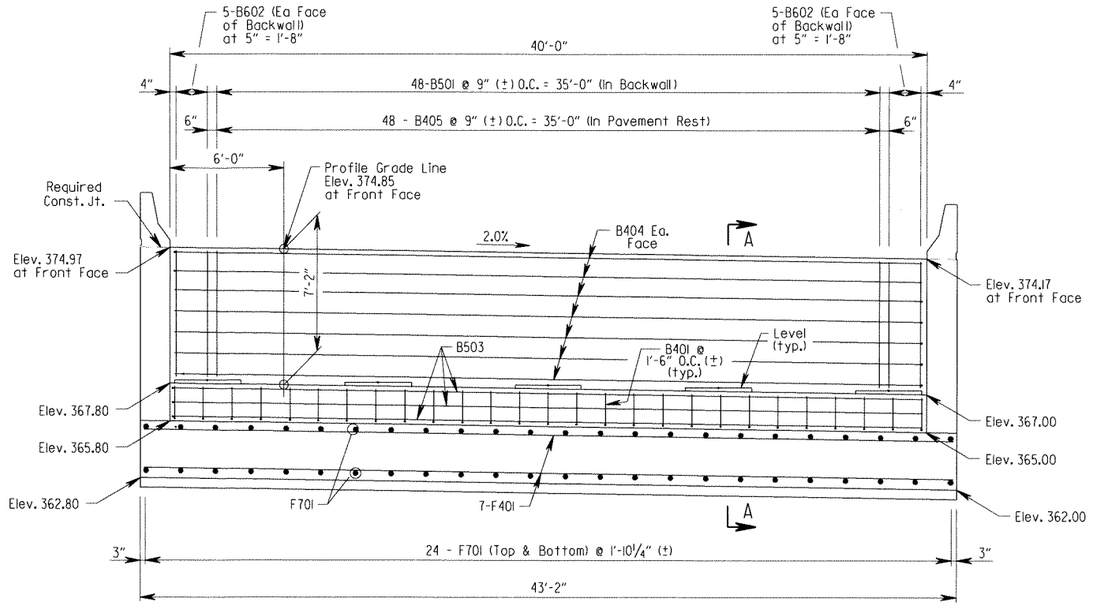


PLAN

Scale: ¼" = 1'-0"

(Bridge B shown - Bridge A opposite hand)

Note:
For additional Anchor Bolt and Bearing Details, see Dwg. No. 45223.



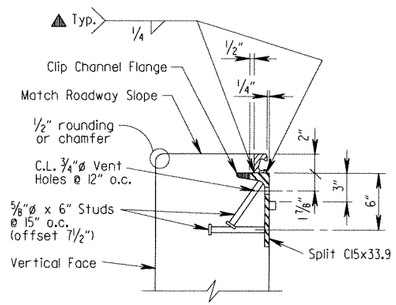
ELEVATION

Looking Ahead

Scale: ¼" = 1'-0"

(Bridge B shown - Bridge A opposite hand)

⚠ Shop Weld - See SP Job BB0804 "Armored Joint With Neoprene Strip Seal

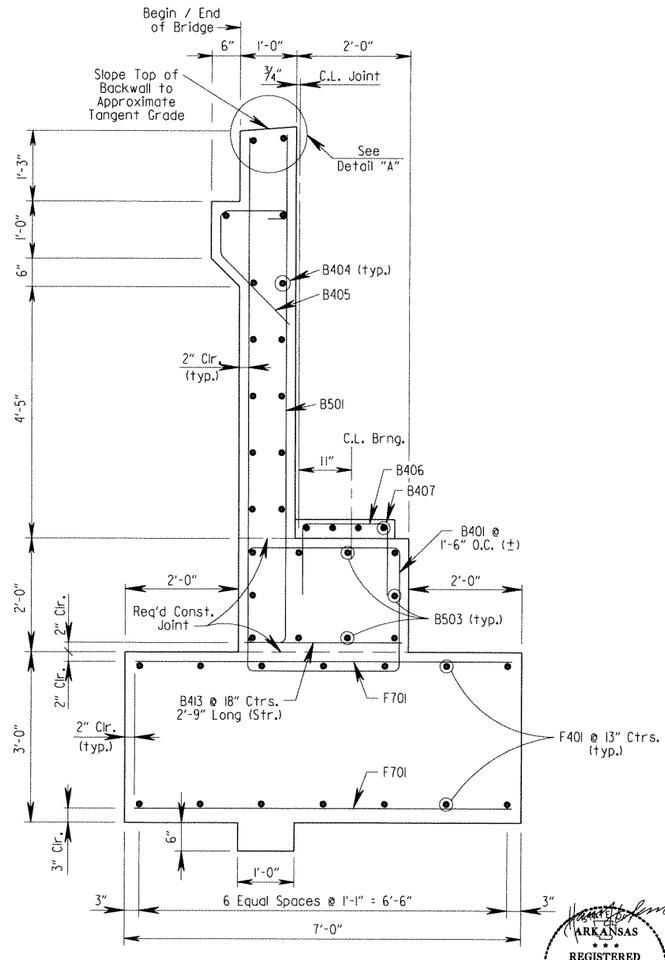


Note: Concrete shall be hand packed under the joint armor in the backwall.

For additional details, See Dwg. No. 45217.

DETAIL "A"

Scale: 1½" = 1'-0"

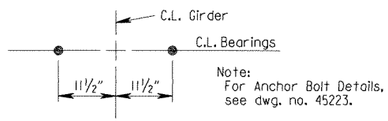


SECTION A-A

Scale: ¾" = 1'-0"



09/05/2012



Note:
For Anchor Bolt Details, see dwg. no. 45223.

TYPICAL ANCHOR BOLT LAYOUT

Scale: ¾" = 1'-0"

All concrete shall be Class "S" and be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

Structural Steel in End Bents shall be AASHTO M270, Gr. 50W and shall be paid for as "Structural Steel in Plate Girder Spans (M270, Gr. 50W)".

If anchor bolts are to be drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

Backwall shall not be poured before beams are in place and concrete deck pours have been made.

For additional information, see Layout.

SHEET 2 OF 3

DETAILS OF END BENTS A4 & B4

INTERSTATE 40 BRIDGE OVER

LAKE DARDANELLE AT MILL CREEK

POPE COUNTY

ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: May 16, 2008 FILENAME: MILLEB02

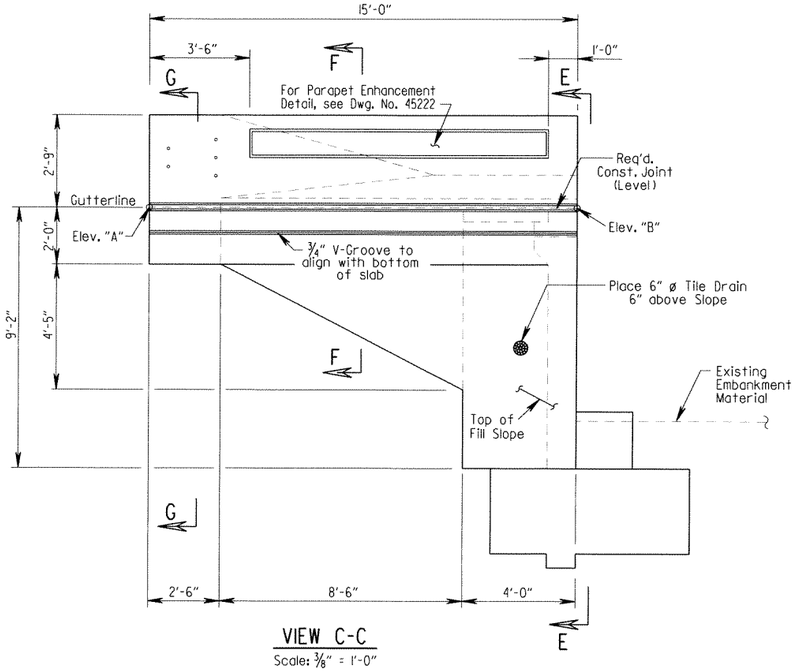
CHECKED BY: S.L.B. DATE: May 16, 2008 SCALE: AS SHOWN

DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. A6916 & B6916 DRAWING NO. 45212

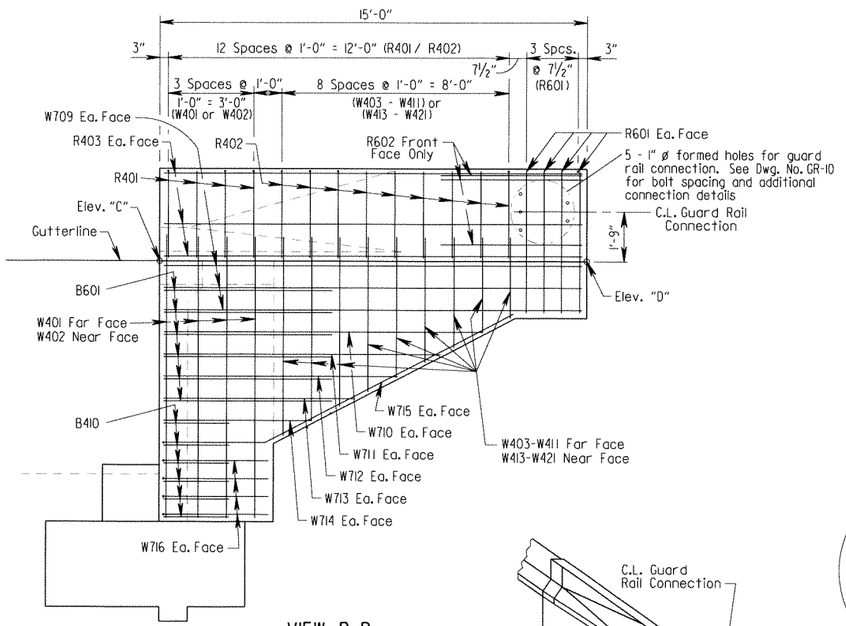
rib 09-05-12

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.		BB0804	83	156
				(1)	A6916 & B6916	END BENT		45213



VIEW C-C

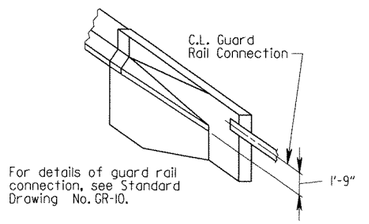
Scale: 3/8" = 1'-0"



VIEW D-D

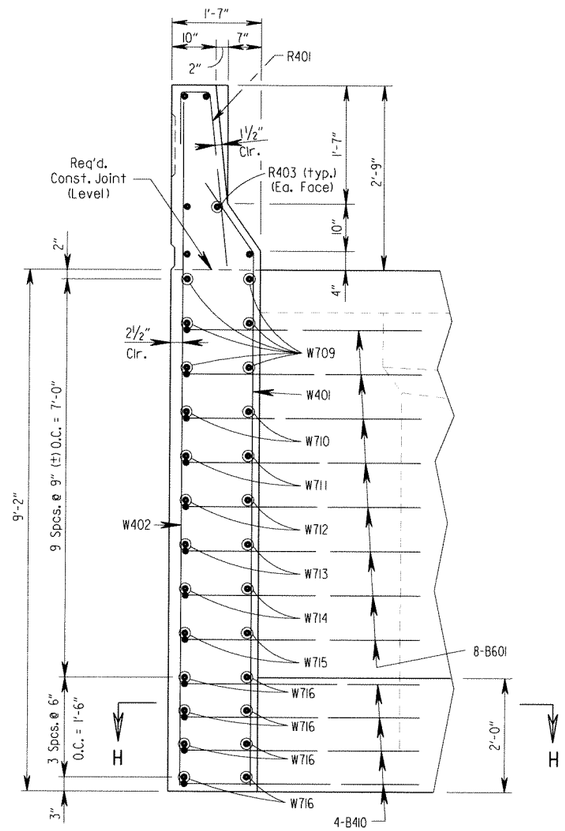
Scale: 3/8" = 1'-0"

ELEV.	BENTS			
	A1	A4	B1	B4
A	375.08	374.26	374.28	375.06
B	374.99	374.17	374.19	374.97
C	374.19	374.97	374.99	374.17
D	374.28	375.06	375.08	374.26



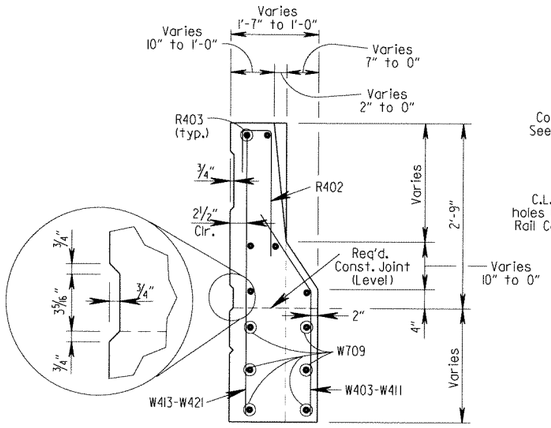
THREE DIMENSIONAL VIEW OF RAIL

N.T.S.



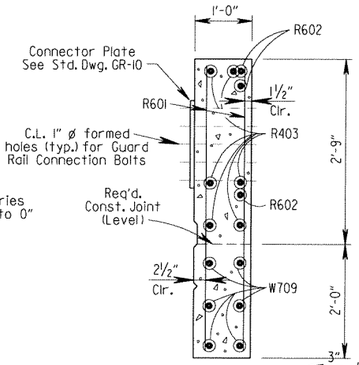
VIEW E-E

Scale: 3/4" = 1'-0"



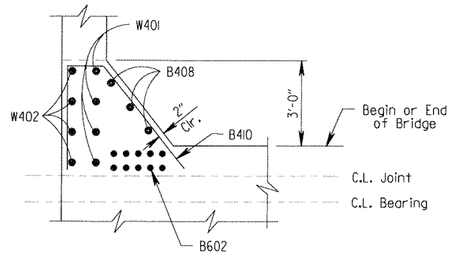
SECTION F-F

Scale: 3/4" = 1'-0"



SECTION G-G

Scale: 3/4" = 1'-0"



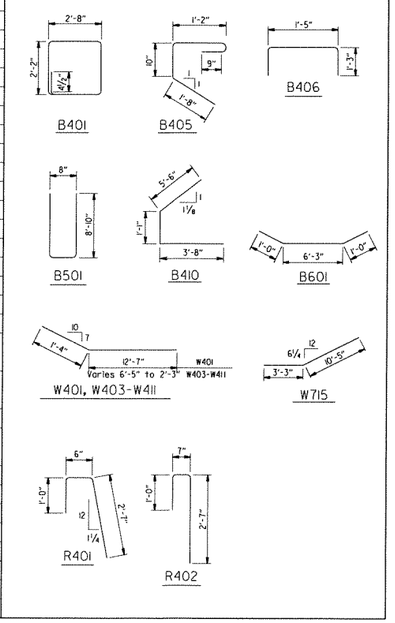
SECTION H-H

Scale: 3/8" = 1'-0"

BAR LIST - PER END BENT

MK	No. Req'd.	Length	Dia. Pin
F701	48	6'-8"	Str.
F401	14	42'-8"	Str.
B601	12	8'-3"	4 1/2"
B602	20	10'-10"	Str.
B501	48	18'-4"	2 1/2"
B503	10	39'-8"	Str.
B401	27	10'-0"	2"
B404	14	39'-8"	Str.
B405	48	4'-3"	2"
B406	25	3'-9"	2"
B407	20	3'-2"	Str.
B408	6	8'-2"	Str.
B410	12	10'-3"	3"
B413	27	2'-9"	Str.
W401	8	13'-11"	2"
W402	8	11'-9"	Str.
W403 to W411	2 Each	7'-9" TO 3'-7"	2"
W413 to W421	2 Each	8'-8" TO 4'-6"	Str.
W709	12	14'-8"	Str.
W710 to W714	4 Each	11'-0" TO 5'-0"	Str.
W715	4	13'-8"	5 1/4"
W716	16	3'-8"	Str.
R601	16	4'-5"	Str.
R602	6	5'-0"	Str.
R401	8	3'-11"	2"
R402	18	4'-0"	2"
R403	12	14'-8"	Str.

Bending Diagrams (Dimensions are out to out of bars.)





SHEET 3 OF 3

DETAILS OF END BENTS A1, B1, A4 & B4
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
POPE COUNTY

ROUTE I-40 SEC. 22

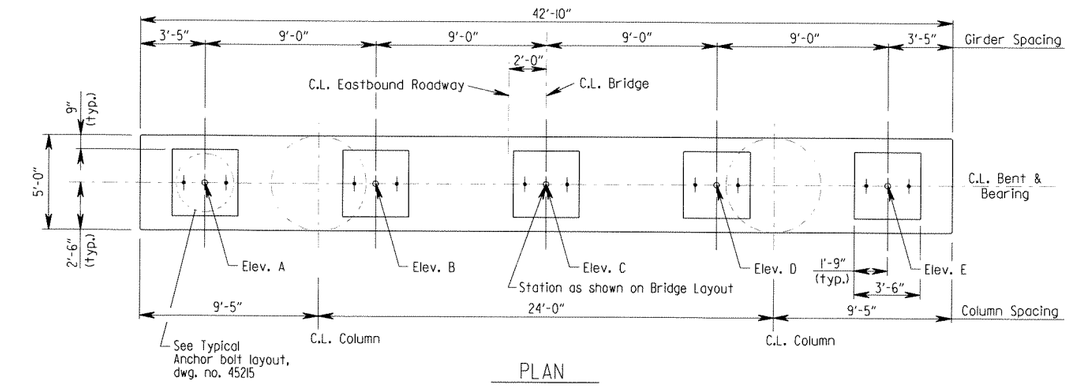
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: May 16, 2008 FILENAME: MILLEB03
CHECKED BY: S.L.B. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. A6916 & B6916 DRAWING NO. 45213

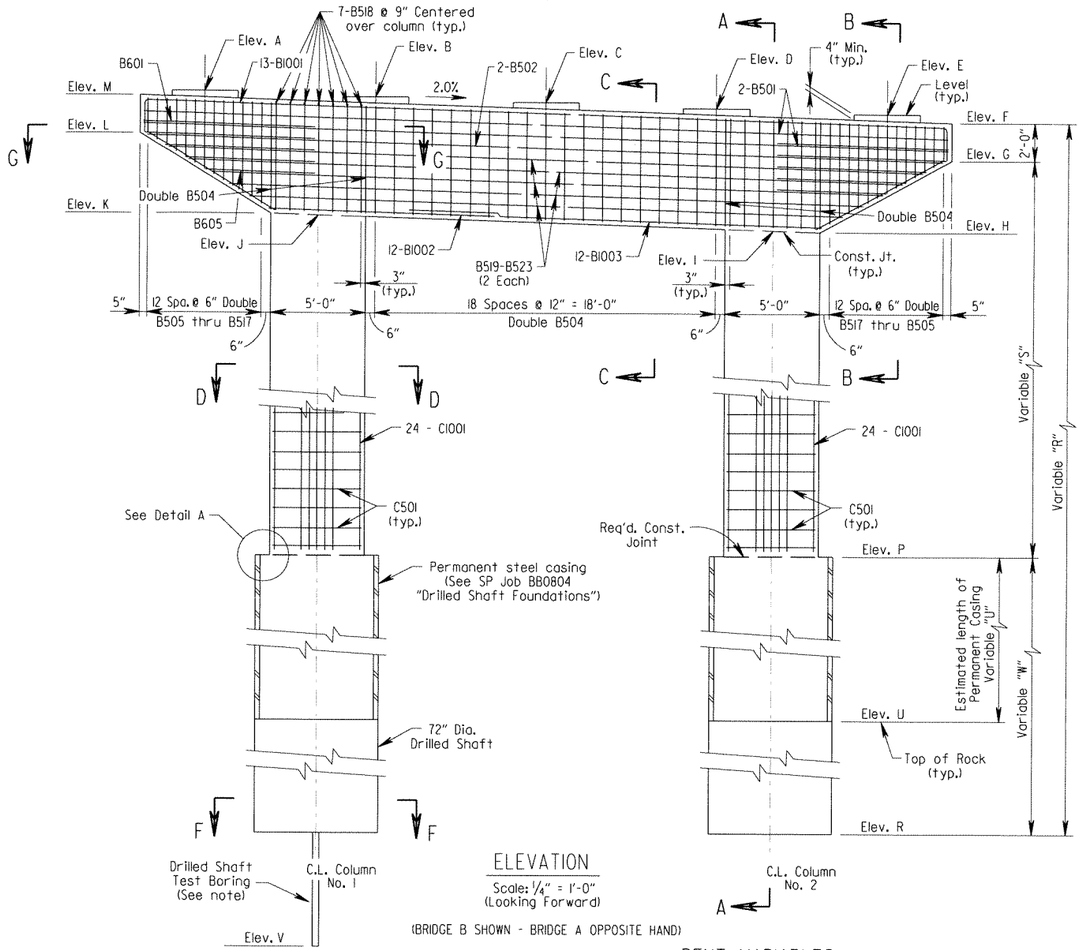
rlb 09-05-120

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.		BB0804	84	156
				(1) A6916 & B6916		INT. BENT		45214



PLAN

SCALE: 1/4" = 1'-0"

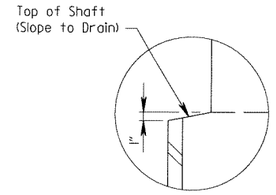


ELEVATION

Scale: 1/4" = 1'-0"

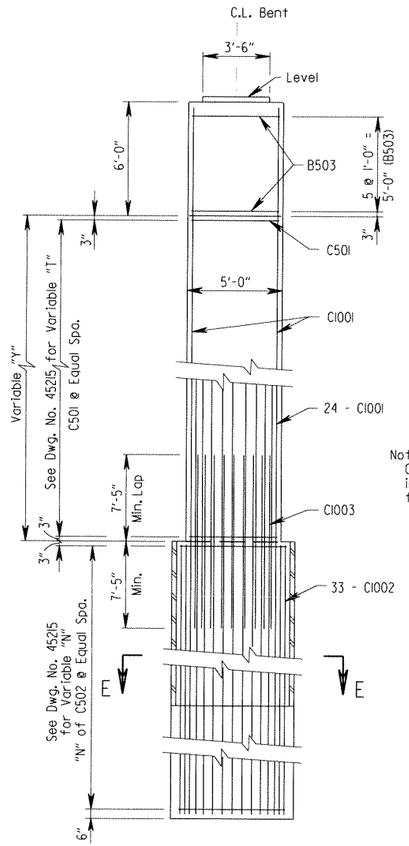
(Looking Forward)

(BRIDGE B SHOWN - BRIDGE A OPPOSITE HAND)



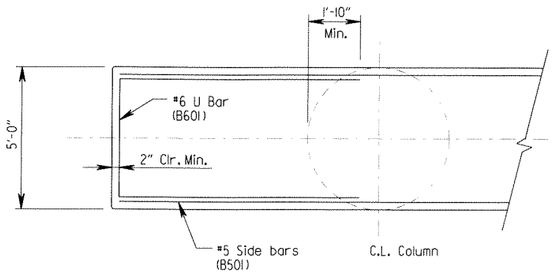
DETAIL A

N.T.S.



SECTION A-A

Scale: 1/4" = 1'-0"



SECTION G-G

N.T.S.

Note:
Cl003 dowels shall be secured in place before concrete at the top of shaft is placed.

NOTE:
Prior to commencement of field work the contractor shall submit a Drilled Shaft Work Plan (see SP Job BB0804 "Drilled Shaft Foundations" for details). The Drilled Shaft Work Plan shall include but not be limited to consideration of all arrangements, materials, tools, and operations necessary to adequately seal and rigidly support casing, even at drilled shaft locations where the soil layers that overlie rock are thin or absent.

Conduct drilled shaft test borings at locations indicated on Dwg. Nos. 45206 and 45207, plus other drilled shaft locations as directed by the Engineer. See Special Provision Job No. BB0804.

* Estimated. Actual top of rock will be determined by the test borings conducted in accordance with SP Job BB0804 "Drilled Shaft Test Borings".

BENT VARIABLES

BENT	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E	ELEV. F	ELEV. G	ELEV. H	ELEV. I	ELEV. J	ELEV. K	ELEV. L	ELEV. M	ELEV. P	ELEV. R	ELEV. U*	ELEV. V	"R"	"S"	"U"	"W"	"Y" Col. No. 1	"Y" Col. No. 2
A2	367.69	367.51	367.33	367.15	366.97	366.70	364.70	360.84	360.89	361.37	361.42	365.56	367.56	340.00	308.00	327.00	302.00	58'-8 3/8"	24'-8 3/8"	13'-0"	32'-0"	21'-4 7/16"	20'-10 11/16"
A3	367.68	367.50	367.32	367.14	366.96	366.69	364.69	360.83	360.88	361.36	361.41	365.55	367.55	340.00	309.00	328.00	303.00	57'-8 1/4"	24'-8 1/4"	12'-0"	31'-0"	21'-4 5/16"	20'-10 9/16"
B2	367.69	367.51	367.33	367.15	366.97	366.70	364.70	360.84	360.89	361.37	361.42	365.56	367.56	340.00	315.00	334.00	309.00	51'-8 3/8"	24'-8 3/8"	6'-0"	25'-0"	21'-4 7/16"	20'-10 11/16"
B3	367.68	367.50	367.32	367.14	366.96	366.69	364.69	360.83	360.88	361.36	361.41	365.55	367.55	340.00	315.00	334.00	309.00	51'-8 1/4"	24'-8 1/4"	6'-0"	25'-0"	21'-4 5/16"	20'-10 9/16"



SHEET 1 OF 2

DETAILS OF INT. BENTS A2, A3, B2 & B3

INTERSTATE 40 BRIDGE OVER

LAKE DARDANELLE AT MILL CREEK

POPE COUNTY

ROUTE I-40 SEC.22

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

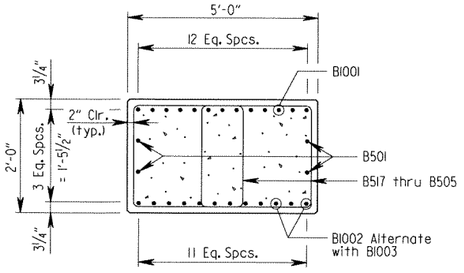
DRAWN BY: R.J.B. DATE: May 16, 2008 FILENAME: MILLBD01

CHECKED BY: R.J.B. DATE: May 16, 2008 SCALE: AS SHOWN

DESIGNED BY: G.P.B. DATE: May 16, 2008

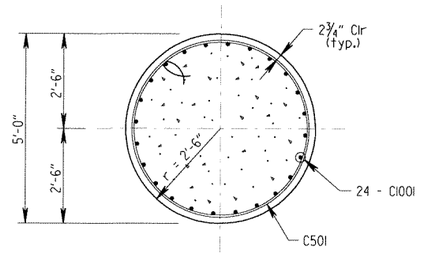
BRIDGE NO. A6916 & B6916 DRAWING NO. 45214

rib 09-05-12



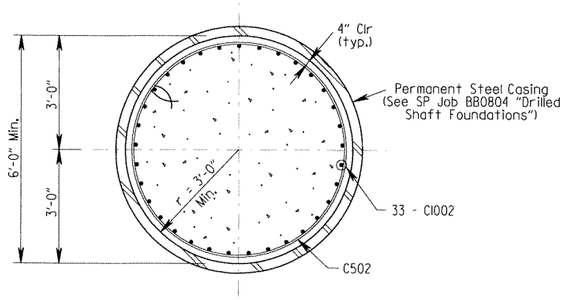
SECTION B-B

SCALE: ½" = 1'-0"



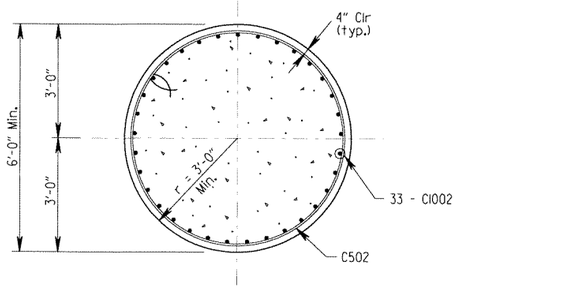
SECTION D-D

SCALE: ½" = 1'-0"



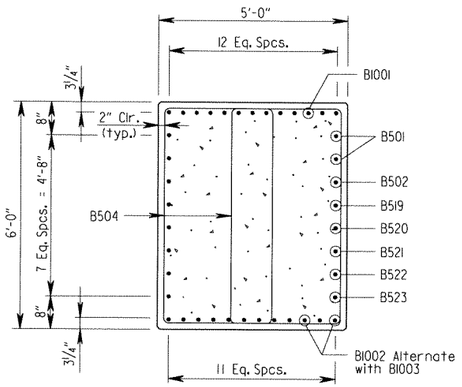
SECTION E-E

SCALE: ½" = 1'-0"



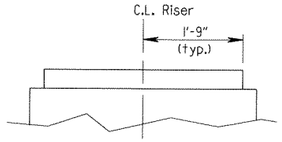
SECTION F-F

SCALE: ½" = 1'-0"



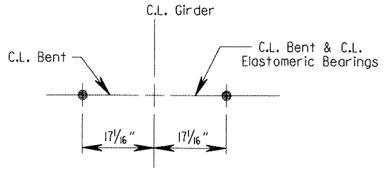
SECTION C-C

SCALE: ½" = 1'-0"



TYPICAL SECTION THRU RISER

Scale: ¾" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT

Scale: ¾" = 1'-0"

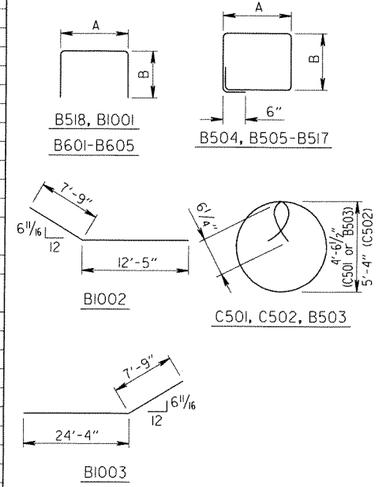
Note: For Anchor Bolt Details, see dwg. no. 45223

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.		BB0804	85	156
				(1) A6916 & B6916		INT. BENT		45215

BAR LIST - PER BENT

		MK	No. Req'd.	Length	A	B	Dia. Pin
BENT	A2	B1001	13	45'-7"	42'-6"	1'-9"	10"
		B1002	12	20'-2"	———	———	10"
		B1003	12	32'-1"	———	———	10"
		B601	2	21'-4"	4'-2"	8'-7"	4½"
	A3	B602	2	21'-4"	4'-2"	8'-7"	4½"
		B603	2	19'-2"	4'-2"	7'-6"	4½"
		B604	2	16'-11"	4'-2"	6'-4½"	4½"
	B2	B605	2	14'-8"	4'-2"	5'-3"	4½"
		B501	4	42'-6"	———	———	Str.
	B3	B502	2	42'-2"	———	———	Str.
		B503	12	15'-9"	———	———	3¾"
		B504	46	18'-0"	3'-1"	5'-8"	2½"
		B505 thru B517	4 Ea.	10'-6" to 17'-4"	3'-1"	1'-11" to 5'-4"	2½"
		B518	14	15'-9"	4'-8"	5'-8"	2½"
		B519 thru B523	2 Ea.	40'-2" to 31'-0"	———	———	Str.
	A2 COL1	C1001	24	26'-8"	———	———	Str.
		✳ C1002	33	31'-8"	———	———	Str.
		C1003	24	15'-10"	———	———	Str.
		C501	T = 22	15'-7"	———	———	3¾"
		✳ C502	N = 33	18'-2"	———	———	3¾"
	A2 COL2	C1001	24	26'-2"	———	———	Str.
		✳ C1002	33	31'-8"	———	———	Str.
		C1003	24	15'-10"	———	———	Str.
		C501	T = 22	15'-7"	———	———	3¾"
		✳ C502	N = 33	18'-2"	———	———	3¾"
	A3 COL1	C1001	24	26'-8"	———	———	Str.
		✳ C1002	33	30'-8"	———	———	Str.
		C1003	24	15'-10"	———	———	Str.
		C501	T = 22	15'-7"	———	———	3¾"
		✳ C502	N = 32	18'-2"	———	———	3¾"
	A3 COL2	C1001	24	26'-2"	———	———	Str.
		✳ C1002	33	30'-8"	———	———	Str.
		C1003	24	15'-10"	———	———	Str.
		C501	T = 22	15'-7"	———	———	3¾"
		✳ C502	N = 32	18'-2"	———	———	3¾"
	B2 COL1	C1001	24	26'-8"	———	———	Str.
		✳ C1002	33	24'-8"	———	———	Str.
		C1003	24	15'-10"	———	———	Str.
		C501	T = 22	15'-7"	———	———	3¾"
		✳ C502	N = 26	18'-2"	———	———	3¾"
	B2 COL2	C1001	24	26'-2"	———	———	Str.
		✳ C1002	33	24'-8"	———	———	Str.
		C1003	24	15'-10"	———	———	Str.
		C501	T = 22	15'-7"	———	———	3¾"
		✳ C502	N = 26	18'-2"	———	———	3¾"
	B3 COL1	C1001	24	26'-8"	———	———	Str.
		✳ C1002	33	24'-8"	———	———	Str.
		C1003	24	15'-10"	———	———	Str.
		C501	T = 22	15'-7"	———	———	3¾"
		✳ C502	N = 26	18'-2"	———	———	3¾"
	B3 COL2	C1001	24	26'-2"	———	———	Str.
		✳ C1002	33	24'-8"	———	———	Str.
		C1003	24	15'-10"	———	———	Str.
		C501	T = 22	15'-7"	———	———	3¾"
		✳ C502	N = 26	18'-2"	———	———	3¾"

Bending Diagrams (Dimensions are out to out of bars.)



✳ Non-Pay Item, Subsidiary to SP Job BB0804 "Drilled Shaft Foundations (72" Dia.)

GENERAL NOTES:

All concrete shall be Class "S" with a minimum compressive strength of f'c = 3500 psi. Concrete shall be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi).

Top reinforcing bars in cap shall be properly placed to avoid interference with anchor bolts or sheet metal sleeves.

For elastomeric bearing details, see drawing no. 45223.

For additional information, see Layout.

ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

SHEET 2 OF 2

DETAILS OF INT. BENT NOS. A2, A3, B2 & B3
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
POPE COUNTY
ROUTE I-40 SEC. 22

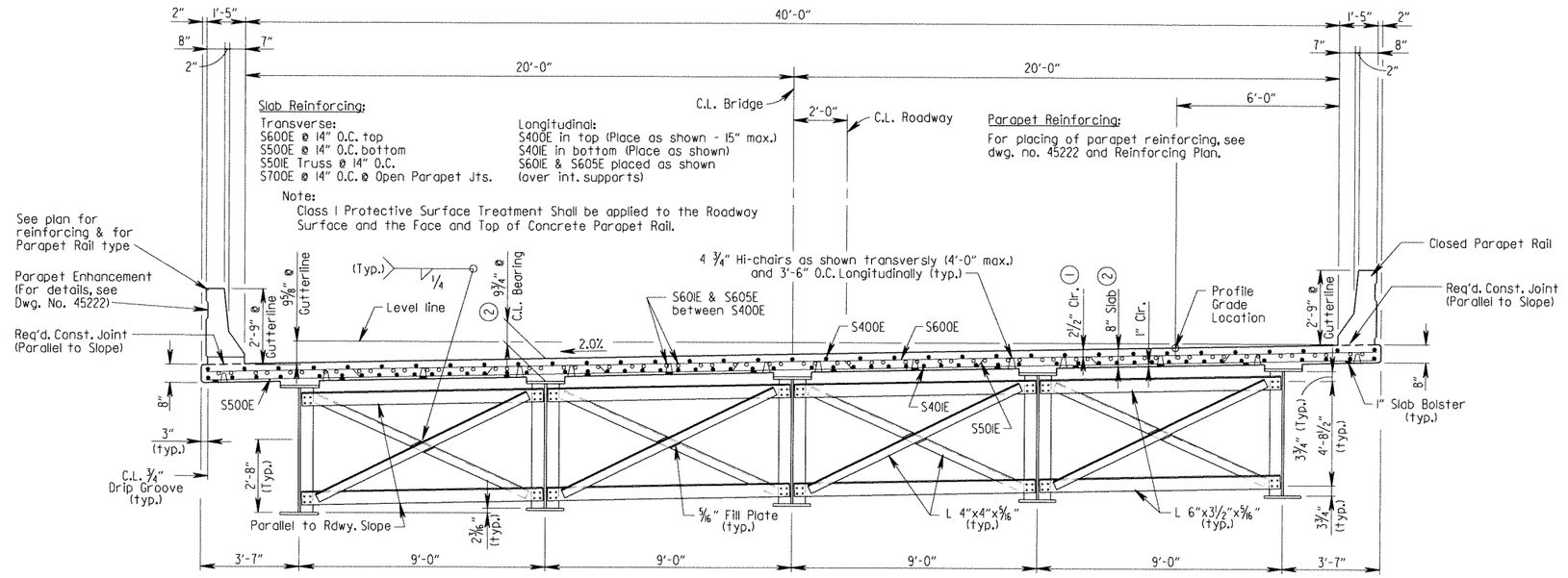
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.J.B. DATE: May 16, 2008 FILENAME: MILLBD02
CHECKED BY: R.J.B. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. A6916 & B6916 DRAWING NO. 45215

rb 09-05-12

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.		BB0804	86	156
				(1) A6916 & B6916		CONT. UNIT		45216

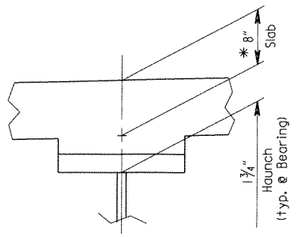


Note:
At Contractor's Option, in lieu of providing bar S501E, one straight epoxy coated #5 bar top and bottom may be substituted. Payment for Reinforcing willbe based on the weight of bar S501E.

ROADWAY SECTION NEAR INT. BENT

Scale: 3/8" = 1'-0"
(Looking Upstation, Bridge A6916)
(Looking Backstation, Bridge B6916)

(1) - Tolerance: Minus = 1/4". Plus equal to amount of Slab Thickening used to meet Slab Thickness Tolerance - see Typ. Haunch Detail.
(2) - Refer to Typ. Haunch Detail



Haunch is required. Slab may be thickened and/or the haunch thickened to maintain slab thickness tolerance.

Haunch dimension may vary within the following limits to maintain the grade and slab thickness tolerance: Minimum occurs when top flange contacts bottom reinforcing steel. Maximum: 1".

Tolerances shown are applicable for removable forming. See Std. Dwg. 14991 for tolerances when permanent steel deck forms are used. Payment for concrete will be based on removable deck forming.

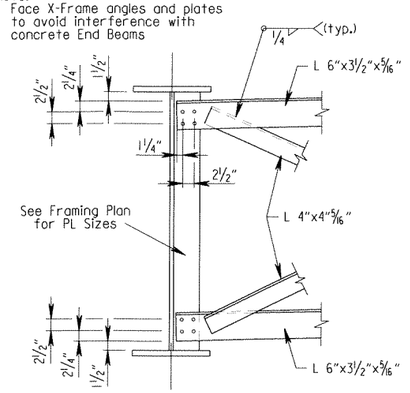
* Thickness as detailed on Roadway Section. Tolerance is minus 1/4" and plus 1/2".

Note:
No increase in concrete and structural steel quantities will be made to meet slab tolerances.

TYPICAL HAUNCH DETAIL

N.T.S.

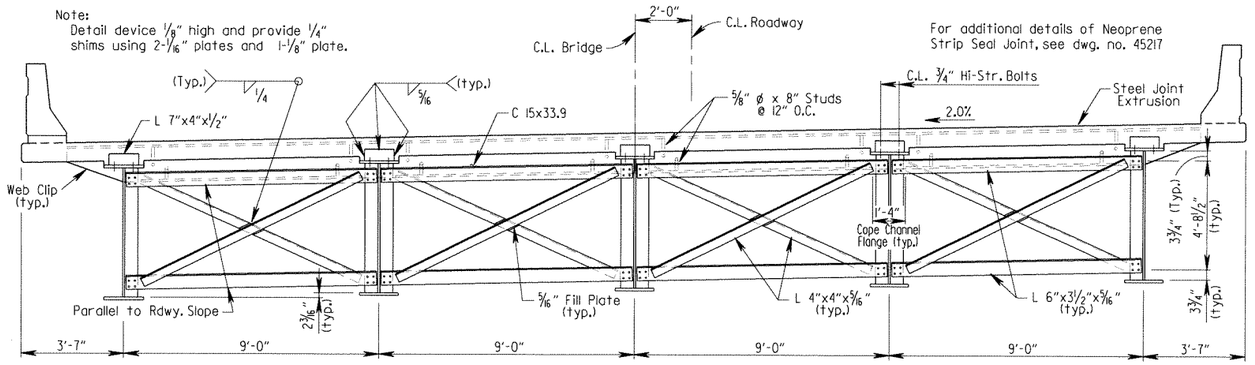
Note:
Face X-Frame angles and plates to avoid interference with concrete End Beams



TYPICAL CROSS FRAME CONNECTION

N.T.S.

Note:
Detail device 1/8" high and provide 1/4" shims using 2-1/16" plates and 1-1/8" plate.



EXPANSION DEVICE SECTION AT NEOPRENE STRIP SEAL JOINT

Scale: 3/8" = 1'-0"
Looking Back @ Bent 1, Bridge B (Bent 1, Bridge A is opposite hand)
Looking Ahead @ Bent 4, Bridge A (Bent 4, Bridge B is opposite hand)

SHEET 1 OF 7

DETAILS OF 374'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: May 16, 2008 FILENAME: MILLPG01
CHECKED BY: M.P. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: May 16, 2008

BRIDGE NO. A6916 & B6916 DRAWING NO. 45216

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

rb 09-05-12

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.		BB0804	87	156
				(1) A6916 & B6916		CONT. UNIT		45217

GENERAL NOTES

All concrete shall be Class S(AE) with a minimum 28 day compressive strength f'c = 4,000 psi. Concrete shall be poured in the dry and all exposed corners to be chamfered ¾" unless otherwise noted.

Concrete in bridge superstructure shall be placed and consolidated for the entire pour and screeded off before any concrete has taken its initial set. This may require the use of a retarding agent.

The concrete deck shall be given a tine finish in accordance with Section 802.19 of the Standard Specifications for Class S, Bridge Roadway Surface Finish. Movement of the finishing machine across new concrete shall be on planks placed on the surface and shall be prohibited for 72 hours after finishing the pour. Sufficient concrete must be placed ahead of the strike-off to fully load the beam. If a longitudinal strike-off is used, a vertical camber adjustment must be made in the strike-off to account for the future dead-load deflection of the railing. A minimum of 72 hours shall elapse between completion of the slab and the pouring of the parapet railing.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 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 Bridge (Grade 60)".

All structural steel shall be AASHTO M270, Gr. 50W unless otherwise noted and shall be paid for at the unit price per pound bid for "Structural Steel in Plate Girder Spans (M270, Gr. 50W)" unless otherwise noted. AASHTO M270, Gr. 50W steel shall not be painted. All exposed surfaces to be cleaned in accordance with section 807.84(e) unless otherwise noted. Structural steel completely embedded in concrete may be AASHTO M270, Gr. 36.

Girder webs, girder flanges, and web and flange splice plates are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test specified in section 807.05 of the Standard Specifications. This work and material will not be paid for directly but is to be considered as subsidiary to the item "Structural Steel in Plate Girder Spans (M270, Gr. 50W)".

Requests for substitution of structural steel shapes shown with shapes of greater size must be submitted by the Contractor to the Engineer for approval. Steels of equal or greater strengths will be accepted only when shown on the approved shop drawings. Shapes and materials shown in the plans will be the basis of payment and no additional compensation will be made for any adjustments due to substitutions.

Cross frames shall be installed as girders are erected. All bolts in cross-frames and field splices shall be installed and tightened in accordance with Subsection 807.71 of the Standard Specifications prior to pouring of the slabs.

Drawings show general features of design only. Shop drawings shall be made in accordance with Section 807.04, submitted and approval secured before fabrication is begun. Girder webs may be made by shop splicing with minimum lengths of 25'-0" for sections. Flange plates longer than 50'-0" may be made by shop splicing with minimum lengths of 25'-0" for sections. Material specifications and location of shop-welded splices, if any, shall be shown on the shop drawings. No additional payment for welds for these splices will be made.

All girders shall be blocked in their true position with webs horizontally in the shop, in groups of a minimum of 3 sections as specified in Section 807.54(b)(2). The camber, length of sections, distance between bearings and opening of joints shall be measured with the beams in this position and this information shall become part of the permanent record of this job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All girder dimensions are based on a temperature of 60 degrees F. A tolerance of ¼" (plus or minus) is allowed for camber.

Girder webs, girder flanges, and flange splice plates for main members shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If additional welds are required, whether temporary or permanent, a formal request with detailed drawings shall be submitted to the Engineer for approval; however, additional welds used for attaching falsework support devices or screed rail supports to the structural steel that do not exceed the limitations of subsection 802.13 will not require approval prior to construction. All welding shall conform to subsection 807.26.

Field connections to be bolted with high-strength bolts. Bolts shall be ¾" dia. except as noted and open holes 15/16" dia. except as noted. Bolt spacing shall be 2½" for ¾" dia. bolts unless otherwise noted. Minimum edge distance shall be 1¼" unless otherwise noted. Bolts shall be placed with heads on the outside face of the exterior girder and on the bottom of the girder flanges. Holes for ¾" dia. high-strength bolts may be 15/16" dia. if a washer is supplied for use under both the nut and head of bolt.

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.

Groove welds in main members shall be Quality Control (Q.C.) tested by nondestructive testing, as required by the Standard Specifications. Fillet welds at flange to web plate connections shall be Q.C. tested by the magnetic particle method. All Quality Control (Q.C.) testing is at the Contractor's expense.

Live Loading: HS20, Military Loading — Method of Design: Load Factor

Materials and Strengths:

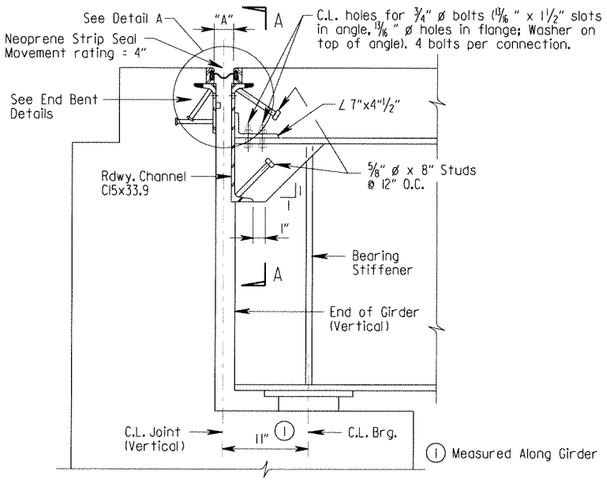
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)	fy = 60,000 psi
Class S(AE) Concrete	f'c = 4,000 psi
Structural Steel (AASHTO M270, Gr. 50W)	Fy = 50,000 psi
Structural Steel (AASHTO M270, Gr. 36)	Fy = 36,000 psi

Load Distribution:

	Interior Girder	Exterior Girder
Dead Load: To Girder:	947 plf + 1.3 (Wt. of Gir.)	855 plf + 1.3 (Wt. of Gir.)
To Composite Girder:	☒ 312 plf	☒ 312 plf

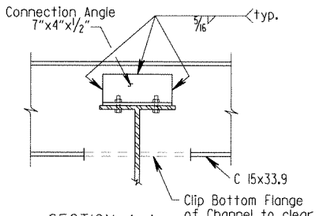
☒ Includes 160 plf future wearing surface.

Live Load: To Composite Girder:	1.636 Wheels + Impact	1.440 Wheels + Impact



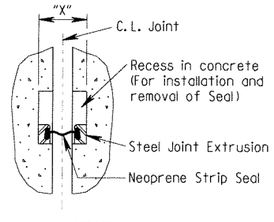
SECTION THRU JOINT AT END BENTS

N.T.S.



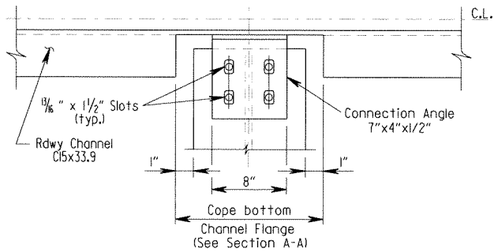
SECTION A-A

N.T.S.



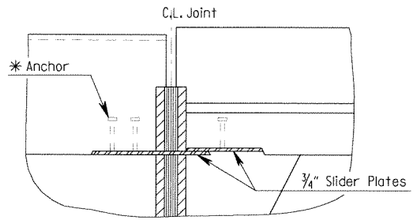
SECTION D-D

N.T.S.



TYPICAL CHANNEL CONNECTION

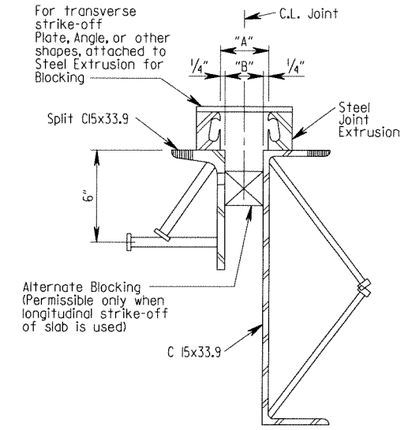
N.T.S.



Notes:
Details of Joint Turn-Up in Curb and Parapet are general and show basic Design Controls only. See Special Provisions.
✳ The Method of Attachment of the Slider Plate Assembly or similar device must be such that it may be removed in order to provide for future replacement of the Neoprene Seal.
Slider Plates shall be AASHTO M270, Grade 50W.
Channels, Angles, Studs and Slider Plates shall be paid for as "Structural Steel in Plate Girder Spans" (M270, Grade 50W).
Steel Joints Extrusion and Slider Plates anchor system are to be considered Subsidiary to the item "Armored Joint with Neoprene Strip Seal).

SECTION C-C AT END BENT

N.T.S.



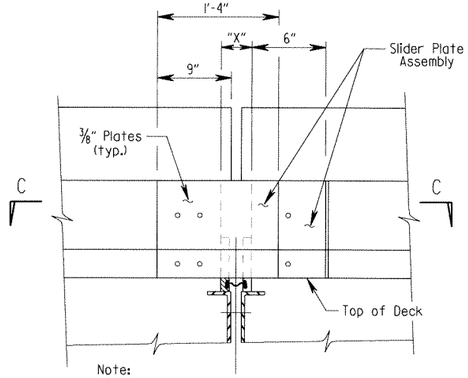
DETAILS FOR BLOCKING EXPANSION JOINT DEVICE

N.T.S.

Note:
Each Expansion Joint device shall be blocked in the shop by the Fabricator to the dimension shown for 60° F and the blocking details shall be shown on the Shop Drawings. The blocking shall not be removed until the slab on one side is complete. Blocking shall be placed within 2'-0" of each end of the device and with a maximum spacing of 8'-0".

EXPANSION DEVICE INSTALLATION AT END BENTS:
After the end bent backwall forms are in place and all the girders are erected, the blocked expansion device shall be installed and adjusted for grade. The end bent angle shall be firmly secured to the backwall forms and connection bolts on the girders loosely installed.

Immediately prior to pouring the concrete deck, the blocking shall be removed and the joint width adjusted for temperature. Joint openings shown are for when concrete is poured at an air temperature of 60 degrees F. If concrete is poured at other temperatures, set the joint width by interpolating from the Strip Seal Joint Data Table. After the joint width has been set, the connection bolts on the girders shall be tightened and the concrete deck can then be poured. The concrete deck in the end span shall be poured before the backwall concrete is poured. A joint opening adjustment is not required for end rotation of the girders caused by the weight of the slab and parapets.



Note:
Dimension "X" equals the width of opening in parapet at curb to allow for removal or repair of joint.

SECTION B-B

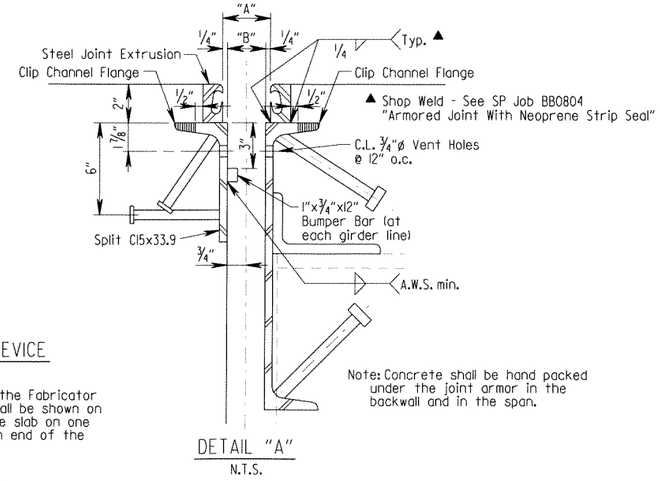
N.T.S.

GENERAL NOTES:
EXPANSION NEOPRENE STRIP SEAL: The expansion device shall provide a movement rating as shown in the "STRIP SEAL JOINT DATA" table. The expansion joint shall be capable of sealing the deck surface and parapet area to prevent moisture and other contaminants from descending through the joint.

Details of proposed slider plate assembly shall be submitted to and approved by the Engineer prior to the fabrication of any structural steel at the expansion joint.

All structural shall be AASHTO M270, Grade 50W unless otherwise noted. All exposed surfaces are to be cleaned in accordance with subsection 807.84(e).

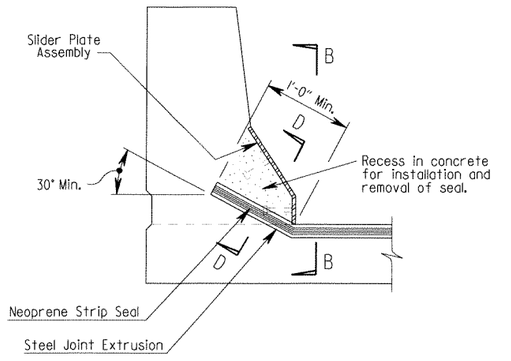
All structural steel, except for the steel extrusion and slider plate anchor system for the strip seal, shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270, Grade 50W). The steel extrusion slider plate anchor system and neoprene strip seal shall be paid for in accordance with Special Provision Job BB0804 "ARMORED JOINT WITH NEOPRENE STRIP SEAL.



Note: Concrete shall be hand packed under the joint armor in the backwall and in the span.

DETAIL "A"

N.T.S.



DETAIL OF NEOPRENE SEAL AT CURB

N.T.S.

STRIP SEAL JOINT DATA

Bent Nos.	Movement Rating (inch)	"A" Width Perpendicular to Joint at 24 Hour Average Temperature			"B" Width Perpendicular to Joint at 24 Hour Average Temperature		
		40°F	60°F	80°F	40°F	60°F	80°F
End Bent A1, A4, B1 & B4	4	2 5/16"	2"	1 11/16"	1 13/16"	1½"	1 3/16"

The temperature used to set the joint opening shall be the approximate average air temperature during the 24 hours period immediately before the bolts are tightened. The Engineer shall establish the temperature.



SHEET 2 OF 7

DETAILS OF 374'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
POPE COUNTY

ROUTE I-40 SEC. 22

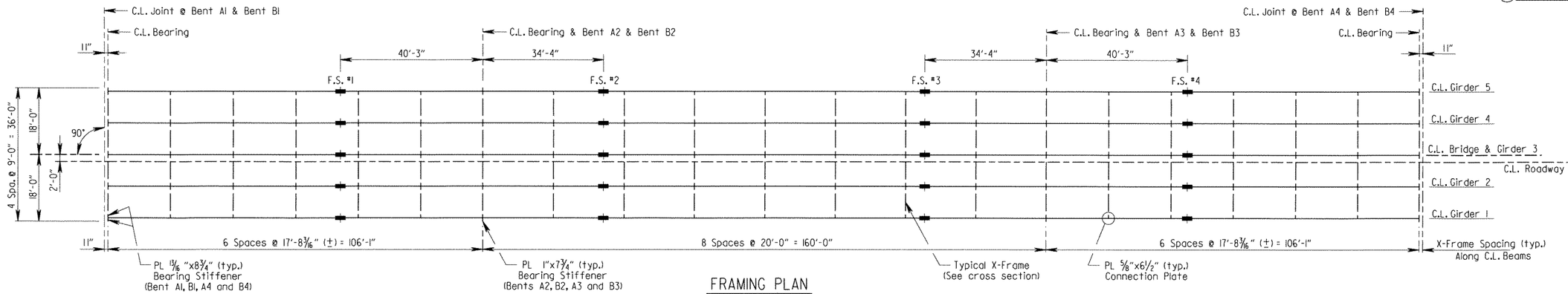
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: Jun 27,2003 FILENAME: MILLPG02
CHECKED BY: M.P. DATE: Jun 27,2003 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: Jun 27,2003

BRIDGE NO. A6916 & B6916 DRAWING NO. 45217

rlb 09-05-12

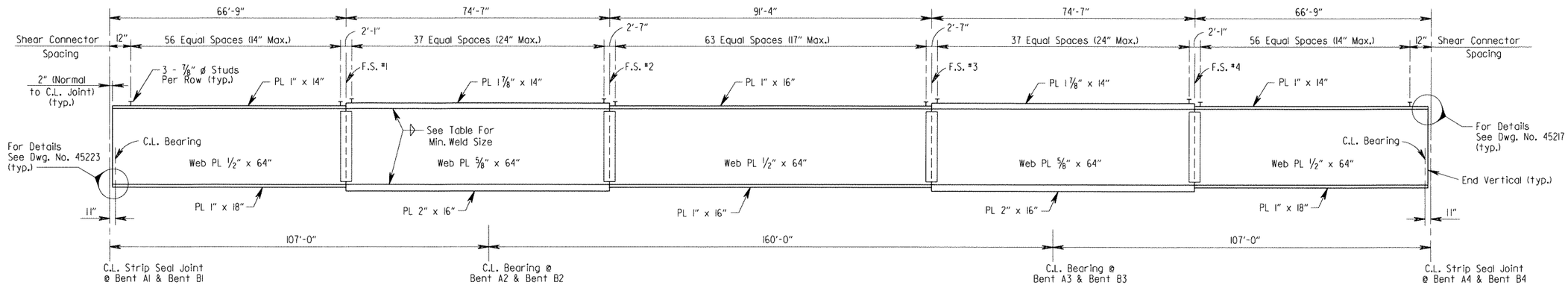
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		B80804	88	156
				(1) A6916 & B6916		CONT. UNIT		45218



FRAMING PLAN

N.T.S.

(Bridge A Shown - Bridge B Opposite Hand)



Note:
Bolted field splices shown may be eliminated or shop welded splices may be substituted with approval of the Bridge Engineer. Payment will be made on the basis of Plan quantities.

GIRDER ELEVATION (TYP.)

N.T.S.

SHEET 3 OF 7

DETAILS OF 374'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

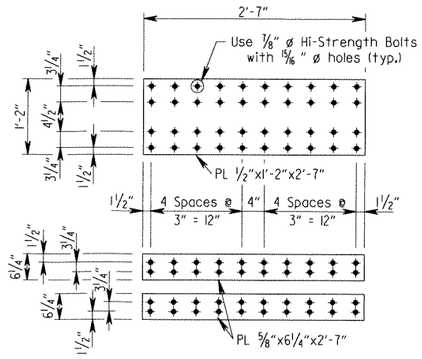
ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: May 16, 2008 FILENAME: MILLPG03
CHECKED BY: M.P. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: May 16, 2008

BRIDGE NO. A6916 & B6916 DRAWING NO. 45218

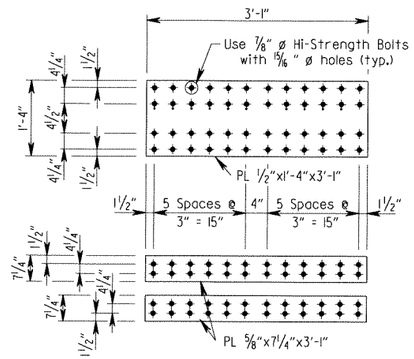
rib 09-05-12

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		BB0804	89	156
				(1) A6916 & B6916		CONT. UNIT		45219



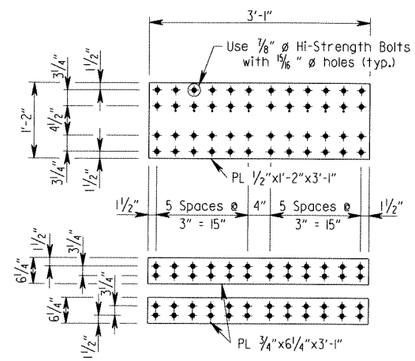
TOP FLANGE SPLICE PLATES

N.T.S.
(F.S. #1 and #4)



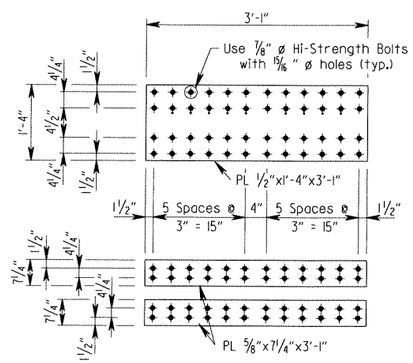
BOTTOM FLANGE SPLICE PLATES

N.T.S.
(F.S. #1 and #4)



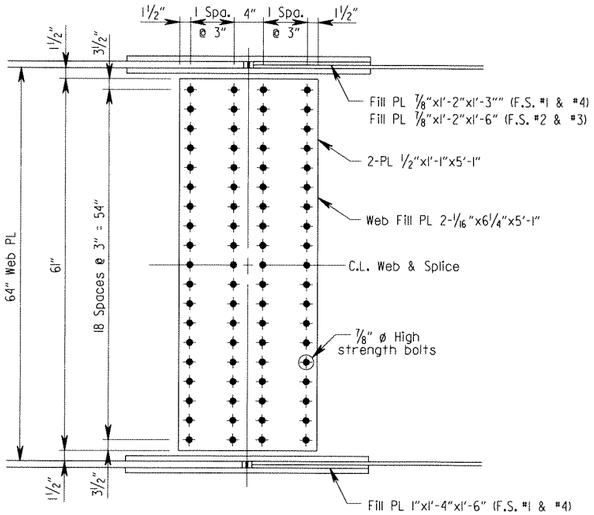
TOP FLANGE SPLICE PLATES

N.T.S.
(F.S. #2 and #3)



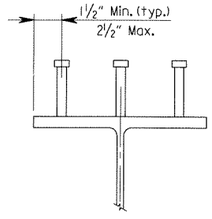
BOTTOM FLANGE SPLICE PLATES

N.T.S.
(F.S. #2 and #3)



WEB SPLICE (TYP)

F.S. #1- #4
N.T.S.



SHEAR CONNECTOR DETAIL

N.T.S.

Stud Shear Connectors shown shall be 7/8" ø x 4" long, granular flux filled, solid fluxed or equal, and automatically end welded to the beam flange in accordance with the recommendations of the manufacturer. 3/4" ø studs may be used in place of 7/8" ø studs shown, at the ratio of 1.361 - 3/4" ø studs in place of one 7/8" ø stud. 7/8" ø studs will be used as basis for measurement of Structural Steel in Shear Connectors.

SHEET 4 OF 7

DETAILS OF 374'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

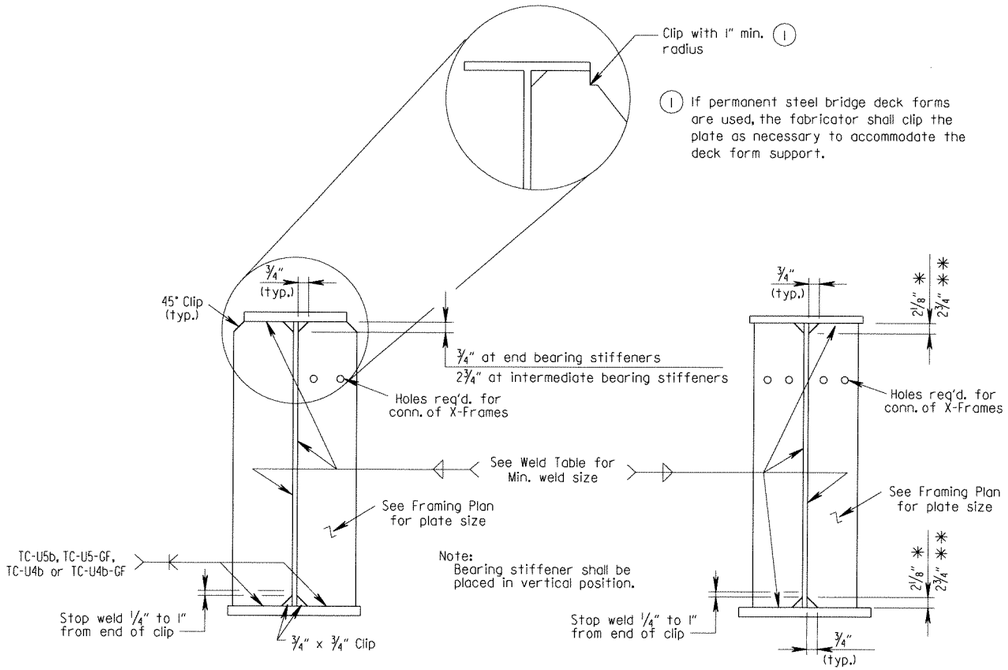
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.J.B. DATE: May 16, 2008 FILENAME: MILLPC04
CHECKED BY: R.J.B. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. A6916 & B6916 DRAWING NO. 45219

rb 09-05-12

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		BB0804	90	156
				(1) A6916 & B6916		CONT. UNIT		45220



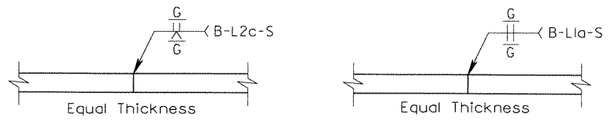
BEARING STIFFENER DETAIL

CROSS FRAME CONNECTION DETAIL

TABLE FOR WELD

Material Thickness of Thicker Part Joined (Inches)	Minimum Size of Fillet Weld (Inches)	Single Pass Weld Must Be Used
Inclusive to 3/4"	1/4"	
Over 3/4"	5/16"	

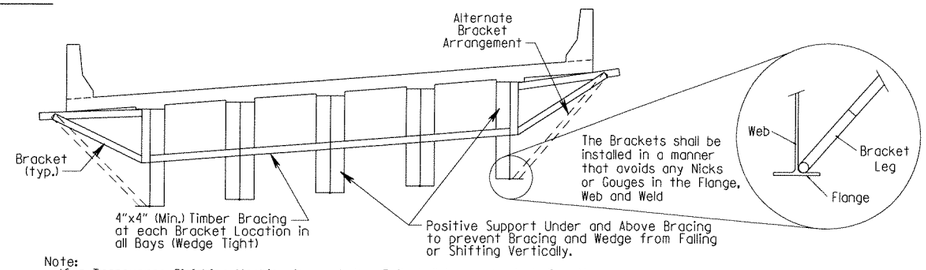
Note:
When a fillet weld size, as shown on the plans, is larger than the minimum, the first pass shall be that specified for minimum size of fillet weld.



FLANGE SPLICE

WEB SPLICE

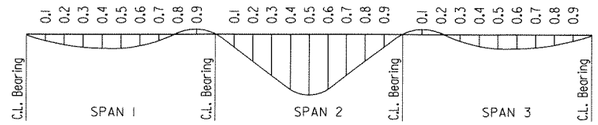
DETAILS OF WELDED SPLICES



Note:
If a Transverse Finishing Machine is used, the Rail shall be supported directly over the Exterior Girders, or as an alternate, the rail may be supported by the Overhang Brackets if the above Strutting System is used. The Strutting System may be omitted if 5/8" x 7" Web Stiffners are Welded to the Insides of the Exterior Girders at the location of each Bracket or if the Alternate Bracket Arrangement shown above is used. The Alternate Bracket Arrangement shall extend down to the Junction of the Web and Bottom Flange. The Stiffner shall conform to the Details for Intermediate Connection Plates shown above. No direct payment will be made for Brackets, Timber Bracing, Supports or Welded Stiffners. Payment shall be Subsidiary to "Structural Steel in Plate Girder Spans (M270, Grade 50W)".

SCREED RAIL SUPPORT

N.T.S.



DEAD LOAD DEFLECTION DIAGRAM

Camber for Dead Load Deflection plus Vertical Curve ±1/4" tolerance. Deflections shown are from a chord from Centerline Bearing to Centerline Bearing. Vertical Curve Corrections not included. Negative Sign (-) indicated point above chord.

TABLE OF DEAD LOAD DEFLECTIONS, INCHES

SPAN POINT		1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0
Interior	Structural Steel	0.000	0.054	0.096	0.118	0.115	0.092	0.054	0.013	-0.018	-0.028	0.000	0.130	0.320	0.515	0.657	0.709	0.657	0.515	0.320	0.130	0.000	-0.028	-0.018	0.013	0.054	0.092	0.115	0.118	0.096	0.054	0.000
	Structural Steel & Slab	0.000	0.280	0.498	0.612	0.606	0.492	0.303	0.097	-0.066	-0.125	0.000	0.620	1.534	2.472	3.159	3.409	3.159	2.472	1.534	0.620	0.000	-0.125	-0.066	0.097	0.303	0.492	0.606	0.612	0.498	0.280	0.000
	Structural Steel, Slab & Parapet	0.000	0.319	0.568	0.699	0.693	0.565	0.349	0.112	-0.077	-0.146	0.000	0.725	1.791	2.877	3.668	3.956	3.668	2.877	1.791	0.725	0.000	-0.146	-0.077	0.112	0.349	0.565	0.693	0.699	0.568	0.319	0.000
Exterior	Structural Steel	0.000	0.054	0.096	0.118	0.115	0.092	0.054	0.013	-0.018	-0.028	0.000	0.130	0.320	0.515	0.657	0.709	0.657	0.515	0.320	0.130	0.000	-0.028	-0.018	0.013	0.054	0.092	0.115	0.118	0.096	0.054	0.000
	Structural Steel & Slab	0.000	0.255	0.453	0.557	0.551	0.448	0.276	0.088	-0.061	-0.115	0.000	0.566	1.400	2.256	2.883	3.111	2.883	2.256	1.400	0.566	0.000	-0.115	-0.061	0.088	0.276	0.448	0.551	0.557	0.453	0.255	0.000
	Structural Steel, Slab & Parapet	0.000	0.295	0.524	0.645	0.639	0.521	0.323	0.103	-0.072	-0.136	0.000	0.672	1.659	2.664	3.398	3.664	3.398	2.664	1.659	0.672	0.000	-0.136	-0.072	0.103	0.323	0.521	0.639	0.645	0.524	0.295	0.000

Note:
Dead Load deflections are based on Pouring Sequence shown on dwg. no. 45221.

SHEET 5 OF 7

DETAILS OF 374'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

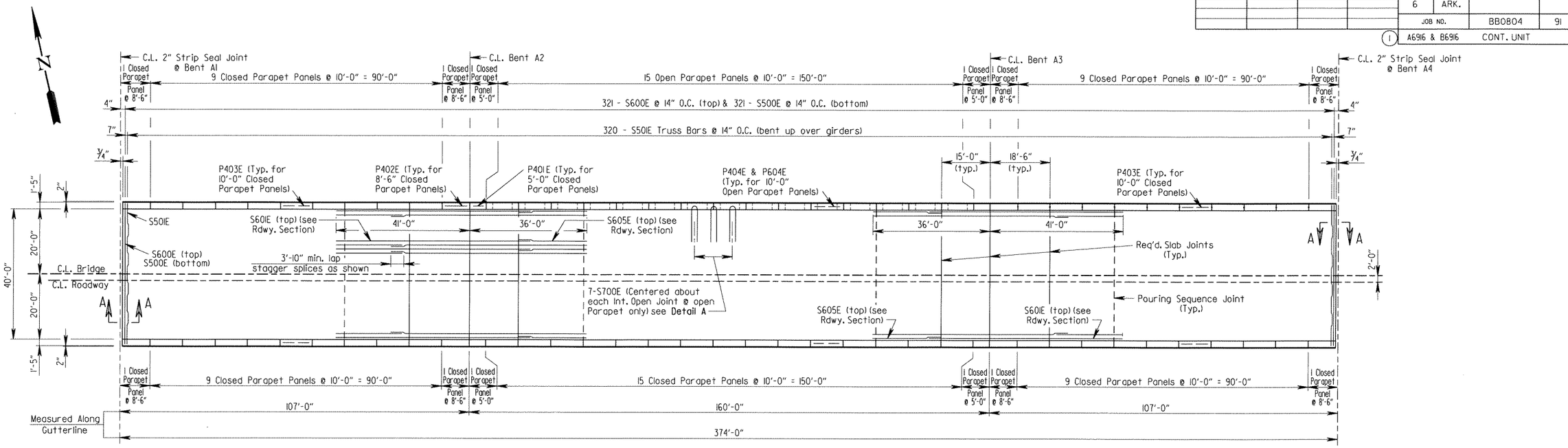
ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
RANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: May 16, 2008
CHECKED BY: R.J.B. DATE: May 16, 2008
DESIGNED BY: G.P.B. DATE: May 16, 2008
FILENAME: MILLPG05
SCALE: AS SHOWN

BRIDGE NO. A6916 & B6916 DRAWING NO. 45220

rlb 09-05-12

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		BB0804	91	156
				(1) A6916 & B6916		CONT. UNIT		45221

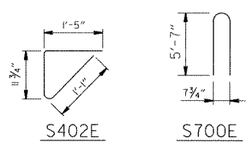


BAR LIST FOR UNIT

	MK	No. Req'd.	Length	Dia. Pin
	S700E	106	12'-0"	6"
	S600E	321	42'-6"	Str.
≠	S601E	138	60'-0"	Str.
	S602E	4	3'-3"	Str.
	S603E	8	8'-8"	Str.
	S604E	2	42'-10"	Str.
≠	S605E	138	20'-10"	Str.
	S500E	321	42'-6"	Str.
	S501E	320	43'-4"	3"
	S400E	350	39'-6"	Str.
	S401E	560	39'-6"	Str.
	S402E	88	3'-4"	3"
	P604E	75	9'-8"	Str.
	P401E	32	4'-8"	Str.
	P402E	64	8'-2"	Str.
	P403E	408	9'-8"	Str.
	P404E	60	9'-8"	Str.
	P406E	752	6'-4"	2"
	P407E	752	5'-7"	2"
	P408E	75	5'-10"	2"
	P409E	75	3'-4"	2"

Bending Diagrams (Dimensions are out to out of bars.)

Note: All Bars are to be Epoxy Coated.

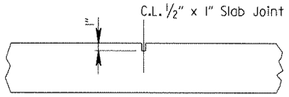


≠ Includes Minimum Lap of 3'-10"

REINFORCING PLAN

Scale: 1/16" = 1'-0"

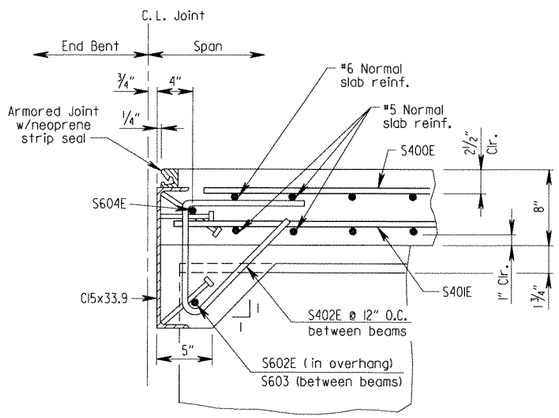
(Bridge A shown - Bridge B opposite hand)



Use Type 6 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Joint Sealer shall be measured and paid for as Class S(AE) Concrete-Bridge. Slab joints shall shall extend to the outside edge of the deck slab. Slab joints shall be installed before the parapet railing is poured. If slab joints are to be sawed, they shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the slab. Slab joints shall be placed at all pouring sequence construction joints and required slab joint locations.

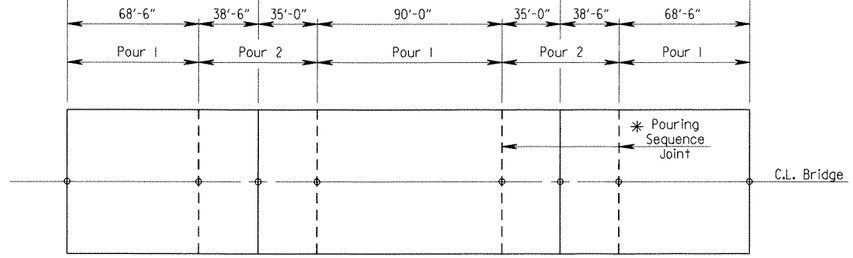
SLAB JOINT DETAIL

N.T.S.



SECTION A-A

SCALE: 1 1/2" = 1'-0"



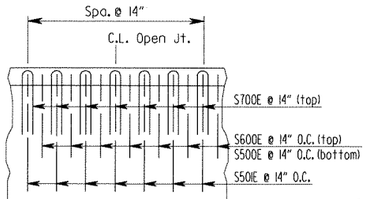
SLAB POURING SEQUENCE

N.T.S.

* Align with parapet joints.

Note:

Pours with the same number may be placed simultaneously or separately. All pours (1) must be placed before pours (2) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. 72 hours shall elapse between the end of a pour and the start of an adjacent pour. Any railing pours made before entire slab unit has been placed must be approved by the Engineer.



DETAIL A

N.T.S.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD

09/05/2012

SHEET 6 OF 7

DETAILS OF 374'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
POPE COUNTY

ROUTE I-40 SEC. 22

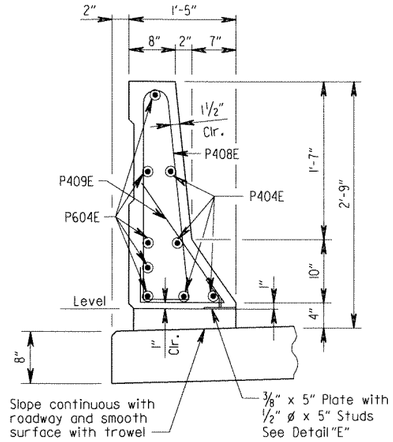
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: Jun 27,2003
CHECKED BY: M.P. DATE: Jun 27,2003
DESIGNED BY: K.M.M. DATE: Jun 27,2003
FILENAME: MILLPG06
SCALE: AS SHOWN

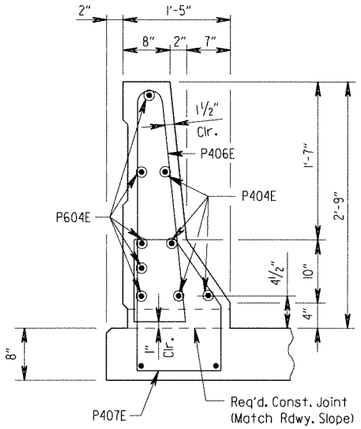
BRIDGE NO. A6916 & B6916 DRAWING NO. 45221

rib 09-05-12

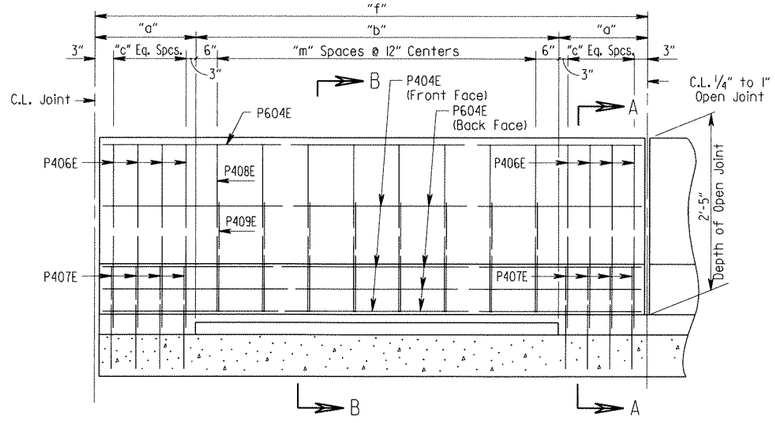
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0804	92	156
				(1) A6916 & B6916		CONT. UNIT		45222



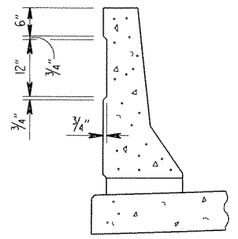
SECTION B-B



SECTION A-A

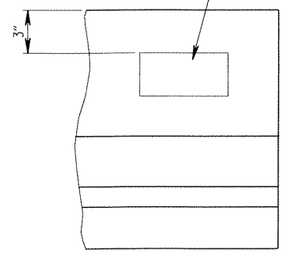


SECTION AT CURB FOR OPEN PARAPET RAIL



SECTION D-D

Place Type D Bridge Name Plate on right parapet rail approximately 1'-3" from front face of backwall @ Bent A4 Bridge No. A6916 and @ Bent B1 Bridge No. B6916



NAME PLATE DETAIL

N.T.S.

SECTION C-C

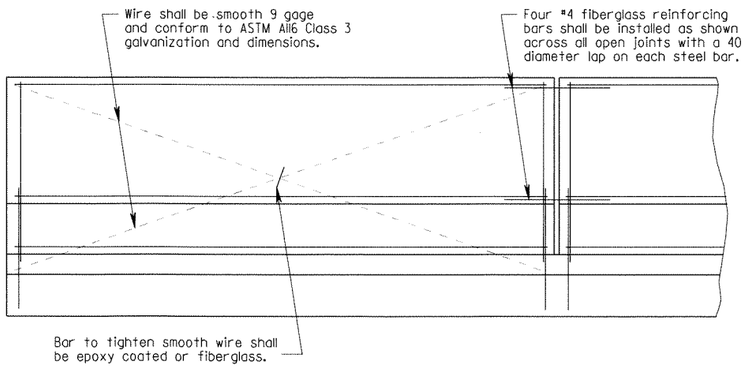
DETAIL A

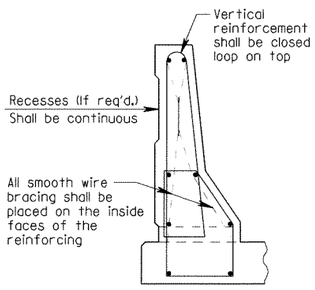
1 3" on high side of parapet rail
3 5/16" on low side of parapet rail

TYP. SECTION AT CURB FOR CLOSED PARAPET RAIL

ELEVATION SHOWING TREATMENT FOR PARAPET RAIL

** Panel inset may be made continuous if slip forms are used.

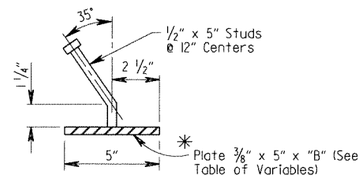




All panels shall be braced as shown to prevent racking. All open joints shall be sawed as soon as practical to a minimum width of ¼". To control cracking before sawing, all joints must be grooved before the concrete is set. Sawing of the joints must be controlled so it will follow the grooved joint.

The extruded parapet shall conform to the horizontal and vertical lines shown on the plans or as directed by the Engineer and shall present a smooth, uniform appearance and texture. Exposed surfaces may be given a light brush finish or a class 3, textured coating finish in place of class 2 rubbed finish.

DETAILS OF OPTIONAL SLIPFORMING OF CONCRETE PARAPET RAIL



DETAIL "E"

Note:
Studs shall be 5" long, Granular Flux Filled, Solid Fluxed, or Equal, and automatically welded to plate. Studs and plate to be AASHTO M270, Grade 36 and paid for as "Structural Steel in Plate Girder Spans (M270, Grade 50W)".

* The surfaces of the ⅜" plates which will not be in contact with concrete shall be painted in accordance with section 638 or as approved by the engineer. Only one coat is required, and it shall be applied in the shop. Painting will not be paid directly but shall be considered subsidiary to "Structural Steel in Plate Girder Spans (M270, Grade 50W).

TABLE OF VARIABLES

Parapet Joint Variables	Closed Rail		Open Rail			
'f'	'g'	'n'	'a'	'b'	'c'	'm'
5'-0"	6"	4	———	———	———	———
8'-6"	3"	8	———	———	———	———
10'-0"	6"	9	2'-6"	5'-0"	4	4

SHEET 7 OF 7

DETAILS OF 374'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

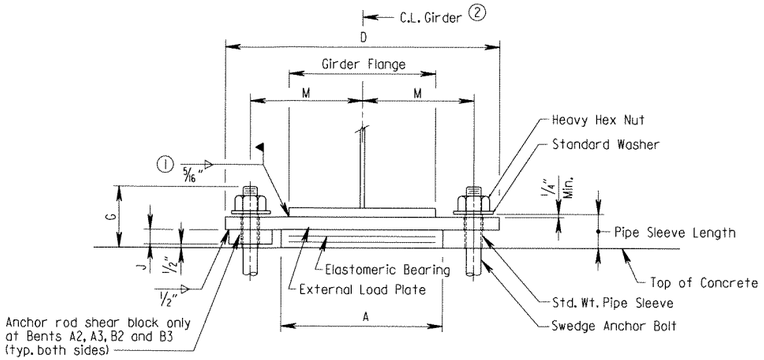
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CHECKED BY: M.P. DATE: Jun 27, 2003 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: Jun 27, 2003

BRIDGE NO. A6916 & B6916 DRAWING NO. 45222

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

rib 09-05-12

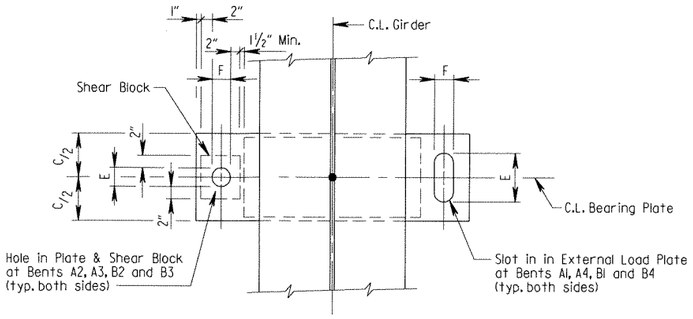
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				6	ARK.			
				JOB NO.		BB0804	93	156
				(1) A6916 & B6916		ELASTO. BRGS.		45223



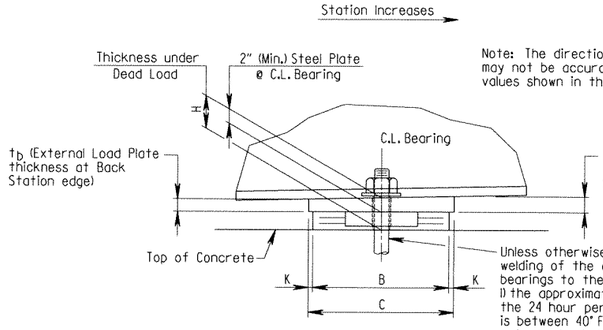
FRONT VIEW

(1) Care shall be taken to ensure that the external load plate is in full and complete contact with the girder flange before welding begins.

(2) C.L. Bearing shall align with C.L. Girder



PLAN VIEW



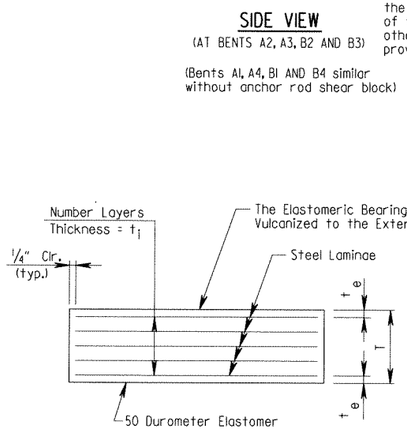
SIDE VIEW

(AT BENTS A2, A3, B2 AND B3)

(Bents A1, A4, B1 AND B4 similar without anchor rod shear block)

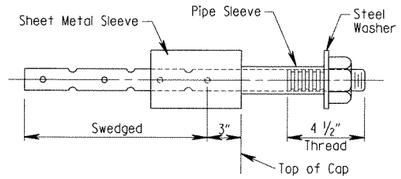
Note: The direction of bevelof the external load plate may not be accurately depicted with respect to the t_a and t_b values shown in the table of fabricator values.

Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40° F and 80° F; and 2) the slots in the external load plate are positioned to center on the anchor bolts; and 3) no horizontal deformation of the elastomeric pad is evident. If welding at other temperatures is required, the Engineer will provide adjustment data.



ELASTOMERIC PAD

t_e = Thickness of Elastomer cover on top and bottom of pad.
t_i = Thickness of Elastomer between steel laminae.
N = Number of Elastomer layers of thickness t_i.



ANCHOR BOLT DETAIL

Note:
Anchor Bolts may be cast in place or drilled and grouted into place. If Anchor Bolts are to be cast in place, the Galvanized Sheet Metal Sleeves will not be required.

If Anchor Bolts are to be drilled and grouted in place, the Galvanized Sheet Metal Sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of Structural Steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the masonry. Bolts placed in drilled holes shall be accurately set and fixed using a QPL approved epoxy or non-shrink grout that completely fills the holes. Galvanized Sheet Metal Sleeves will not be paid for directly, but willbe considered subsidiary to the item "Structural Steel in Plate Girder Spans (M270, Gr. 50W)".

TABLE OF FABRICATOR VARIABLES

Bridge No.	Location: Bent No.	Location: Girder No.	Bearing Type	Number of Bearings Each Bent	Maximum Design Load (Kip) ✳	G	H	ELASTOMERIC PAD: A	B	N	t_i	t_e	Number and Thickness of Steel Laminae	T	EXTERNAL LOAD PLATE: C	D	E	F	J	K	M	t_b	t_a	ANCHOR BOLT: Anchor Bolt (ø x L)	Grade	Pipe Sleeve Size (ø x L)	Sheet Metal Sleeve Size (ø x L)	Steel Washer Size (O.D.)
A6916	A1	1 - 5	Exp.	5	128	8 3/8"	5 9/16"	16"	12"	5	1/2"	1/4"	6 - 12 Gage	3 5/8"	13"	28 1/2"	4 5/16"	2 1/4"	--	1/2"	11 1/2"	2.036"	1.964"	1 1/2" x 27"	55	1 1/2" x 5 7/8"	3" x 12"	3"
	A2	1 - 5	Fix	5	392	9"	6 1/8"	24"	17"	5	5/8"	1/4"	6 - 12 Gage	4 1/4"	18"	41 1/2"	2 1/4"	2 1/4"	3 5/8"	1/2"	16 5/8"	2.022"	1.978"	1 1/2" x 27"	55	1 1/2" x 6 1/2"	3" x 12"	3"
	A3	1 - 5	Fix	5	392	9"	6 1/8"	24"	17"	5	5/8"	1/4"	6 - 12 Gage	4 1/4"	18"	41 1/2"	2 1/4"	2 1/4"	3 5/8"	1/2"	16 5/8"	1.978"	2.022"	1 1/2" x 27"	55	1 1/2" x 6 1/2"	3" x 12"	3"
	A4	1 - 5	Exp.	5	128	8 3/8"	5 9/16"	16"	12"	5	1/2"	1/4"	6 - 12 Gage	3 5/8"	13"	28 1/2"	4 5/16"	2 1/4"	--	1/2"	11 1/2"	1.964"	2.036"	1 1/2" x 27"	55	1 1/2" x 5 7/8"	3" x 12"	3"
B6916	B1	1 - 5	Exp.	5	128	8 3/8"	5 9/16"	16"	12"	5	1/2"	1/4"	6 - 12 Gage	3 5/8"	13"	28 1/2"	4 5/16"	2 1/4"	--	1/2"	11 1/2"	2.036"	1.964"	1 1/2" x 27"	55	1 1/2" x 5 7/8"	3" x 12"	3"
	B2	1 - 5	Fix	5	392	9"	6 1/8"	24"	17"	5	5/8"	1/4"	6 - 12 Gage	4 1/4"	18"	41 1/2"	2 1/4"	2 1/4"	3 5/8"	1/2"	16 5/8"	2.022"	1.978"	1 1/2" x 27"	55	1 1/2" x 6 1/2"	3" x 12"	3"
	B3	1 - 5	Fix	5	392	9"	6 1/8"	24"	17"	5	5/8"	1/4"	6 - 12 Gage	4 1/4"	18"	41 1/2"	2 1/4"	2 1/4"	3 5/8"	1/2"	16 5/8"	1.978"	2.022"	1 1/2" x 27"	55	1 1/2" x 6 1/2"	3" x 12"	3"
	B4	1 - 5	Exp.	5	128	8 3/8"	5 9/16"	16"	12"	5	1/2"	1/4"	6 - 12 Gage	3 5/8"	13"	28 1/2"	4 5/16"	2 1/4"	--	1/2"	11 1/2"	1.964"	2.036"	1 1/2" x 27"	55	1 1/2" x 5 7/8"	3" x 12"	3"

✳ Maximum Design Load = Service Load

Notes:
- Elastomeric Bearings shall conform to Section 808 of the Standard Specifications and shall be paid for at the unit price bid for "Elastomeric Bearings". Long-duration testing of random lot samples specified in subsection 808.05 is not required. See SP Job BB0804 "Elastomeric Bearings".
- External load plates and shear blocks shall conform to AASHTO M270, Grade 50W and will not be paid for separately, but will be included in the unit price bid for "Elastomeric Bearings". Pipe sleeves shall be ASTM A53, Grade B, and shall be galvanized to conform to AASHTO M232, Class C or AASHTO M298, Class 50.
- External load plates with shear blocks shall be completely fabricated (including bevel, bolt holes and all shop welding) and shall be cleaned before vulcanizing to the elastomeric bearing. The surface in contact with the elastomeric bearing shall be cleaned in accordance with Section 808. Other surfaces shall be blast cleaned in accordance with Subsection 807.84(b) for painted steel and 807.84(e) for unpainted Grade 50W steel.
- Anchor Bolts, Washers and Nuts shall conform to Subsection 807.07 of the Standard Specifications. The anchor bolt grade of steel shallbe as specified in the "Table of Fabricator Variables". Indentations shall be circular with rounded bottoms and staggered as shown in the details.
- Pipe Sleeves, Anchor Bolts, Washers and Nuts shall be paid for at the unit price bid for "Structural Steel in Plate Girder Spans (M270, Grade 50W)"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DETAILS OF ELASTOMERIC BEARINGS
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT MILL CREEK
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

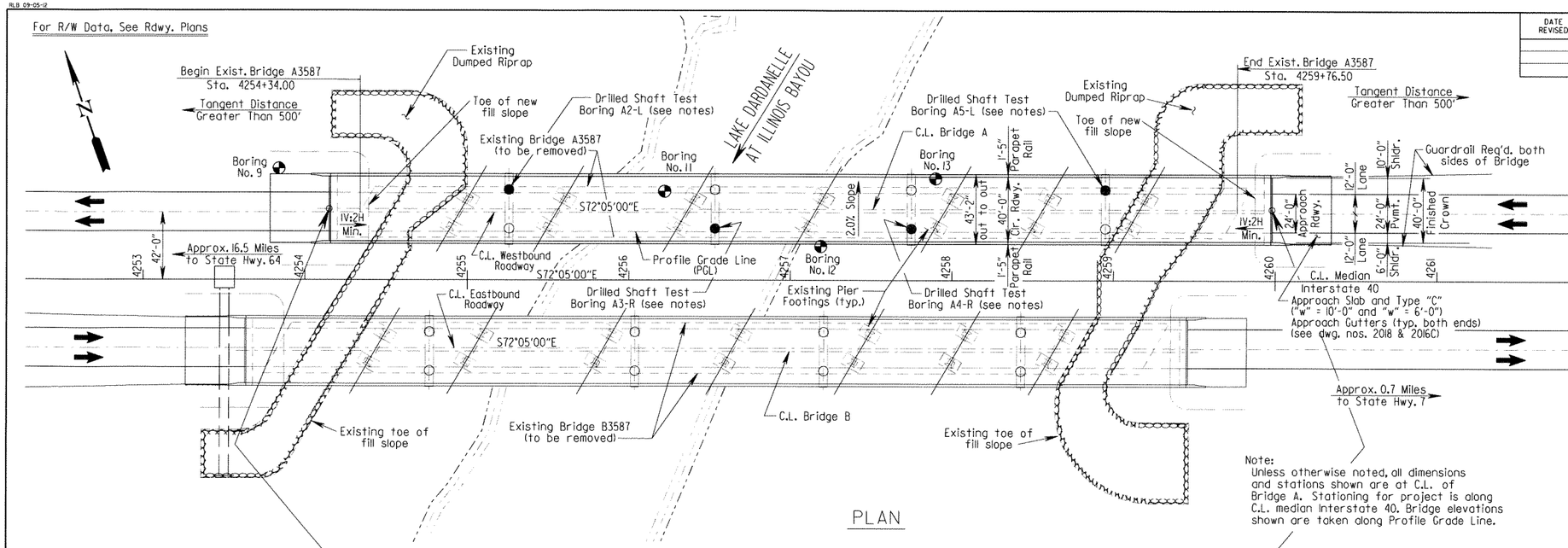
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DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. A6916 & B6916 DRAWING NO. 45223

RLB 09-05-12

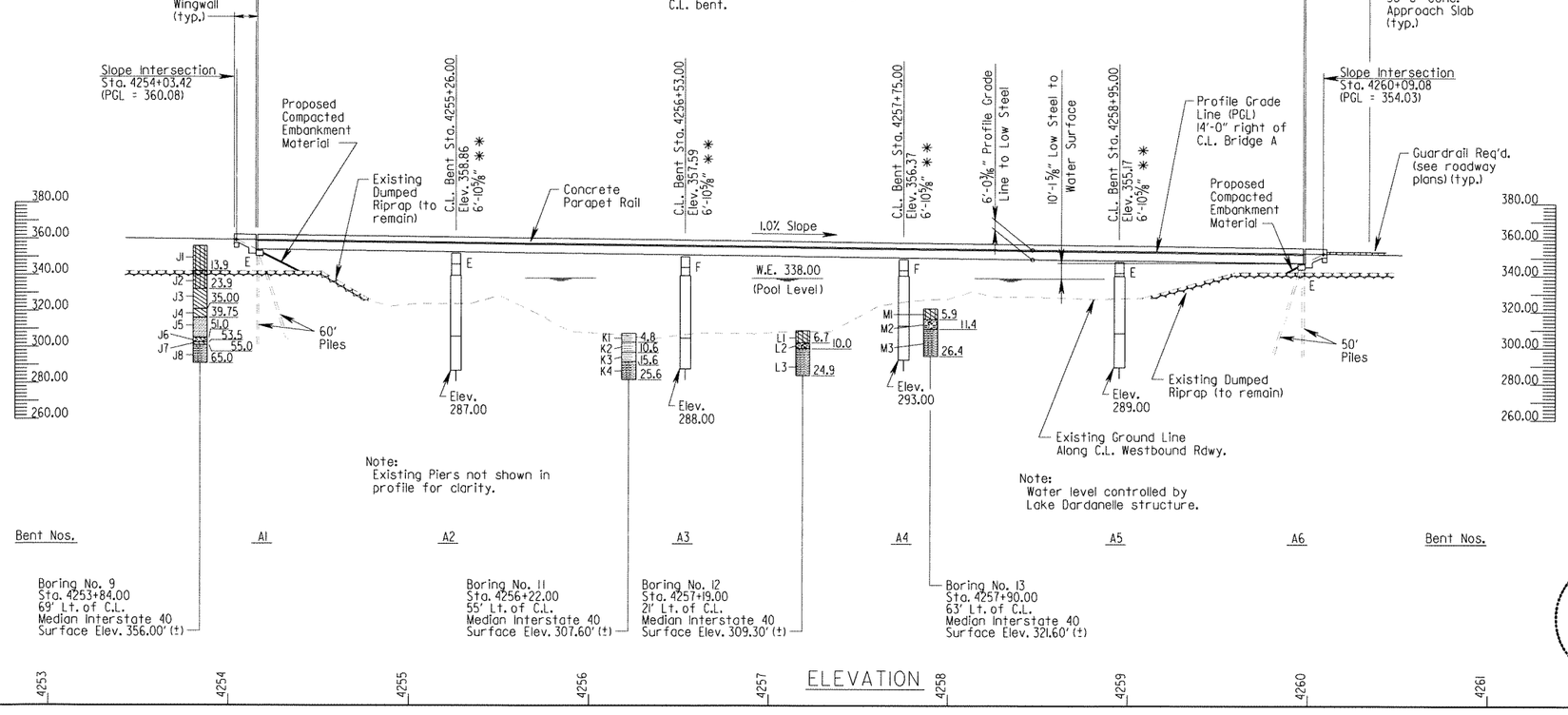
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				6	ARK.			
				JOB NO.		BB0804	94	156
				(1) A6917		LAYOUT		45224

For R/W Data, See Rdwy. Plans



PLAN

Note:
Unless otherwise noted, all dimensions and stations shown are at C.L. of Bridge A. Stationing for project is along C.L. median Interstate 40. Bridge elevations shown are taken along Profile Grade Line.



Note:
Existing Piers not shown in profile for clarity.

Note:
Water level controlled by Lake Dardanelle structure.

Bent Nos.	A1	A2	A3	A4	A5	A6	Bent Nos.

Boring No. 9
Sta. 4253+84.00
69' Lt. of C.L.
Median Interstate 40
Surface Elev. 356.00' (±)

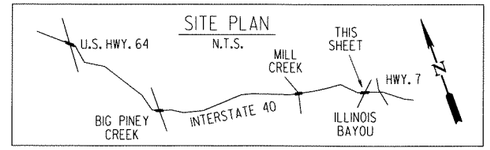
Boring No. 11
Sta. 4256+22.00
55' Lt. of C.L.
Median Interstate 40
Surface Elev. 307.60' (±)

Boring No. 12
Sta. 4257+19.00
21' Lt. of C.L.
Median Interstate 40
Surface Elev. 309.30' (±)

Boring No. 13
Sta. 4257+90.00
63' Lt. of C.L.
Median Interstate 40
Surface Elev. 321.60' (±)

4253 4254 4255 4256 4257 4258 4259 4260 4261

ELEVATION



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 356.72 at Sta. 4254+34.00 (Beg. of Br. A3587).

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2003 edition), with applicable supplemental specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges (2002 edition), with current interim specifications.

LIVE LOAD: HS20 + Military Loading — METHOD OF DESIGN: Load Factor
SEISMIC PERFORMANCE CATAGORY: 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 conc. parapet rail.

STEEL PILING: Piling in End Bents shall be HP12x53 and shall be driven with an approved air, steam, or deisel hammer to a minimum safe bearing capacity of 70 tons per pile and into the material designated as hard shale or hard sandstone on the boring legend. Lengths of piling shown are for estimating quantities and for use in determining payment for cut-off and built-up in accordance with the Standard Specifications. Piles in end bents to be driven after embankment to bottom of cap is in place. Piles in the end bents to be furnished with approved steel H-Pile tips.

DRILLED SHAFTS: Conduct drilled shaft test borings at the indicated locations in the plans and other locations as directed by the Engineer. See SP Job BB0804 "Drilled Shaft Test Borings" for additional information. The drilled shaft tip shall be founded a minimum of 19 feet below top of rock as defined in the special provision. No adjustment in Plan Tip Elevation shall be made without prior approval from the Engineer. Methods of construction of the drilled shaft shall be in accordance with SP Job BB0804 "Drilled Shaft Foundations".

DETAIL DRAWINGS:

	DRAWING NO.
End Bents	45229 thru 45231
Intermediate Bents	45232 and 45233
581'-0" Cont. Comp. Plate Girder Unit	45234 thru 45241
Elastomeric Bearings	45255
Steel Piling	14995A
Approach Slab and Type C Approach Gutters	2018 and 2016C

REMOVAL AND SALVAGE: The existing bridges (Nos. A & B 3587) shall be removed in accordance with Section 205 of the Standard Specifications. Pile caps for End Bents 1 and 2 shall be completely removed. Removal of existing piles below bottom of cap is not required. All material from existing bridges shall become the property of the contractor.

EXISTING BRIDGE: Existing Bridge A3587 is 28' wide and 542'-6" long and consists of 8 composite I-beam simple span supported by substructures consisting of 5 dual column piers with concrete-web-walls, 2 dual column piers with concrete-web-walls with tied spread footings and 2 end bents on 12-BP-53 steel bearing piles. Plans for existing bridge will be made available to the Contractor upon request to Programs and Contracts Division. Existing Dwg. Nos. 11886, 11887, 11888, 11889, 11890, 14990, 15030 and 15031.

For additional GENERAL NOTES, see Dwg. No. 45225.

SHEET 1 OF 3

BRIDGE A LAYOUT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
MILL CREEK - HWY. 331 (F)
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: May 16, 2008 FILENAME: ILLIPE01
CHECKED BY: S.L.B. DATE: May 16, 2008 SCALE: 1" = 40'
DESIGNED BY: G.P.B. DATE: May 16, 2008

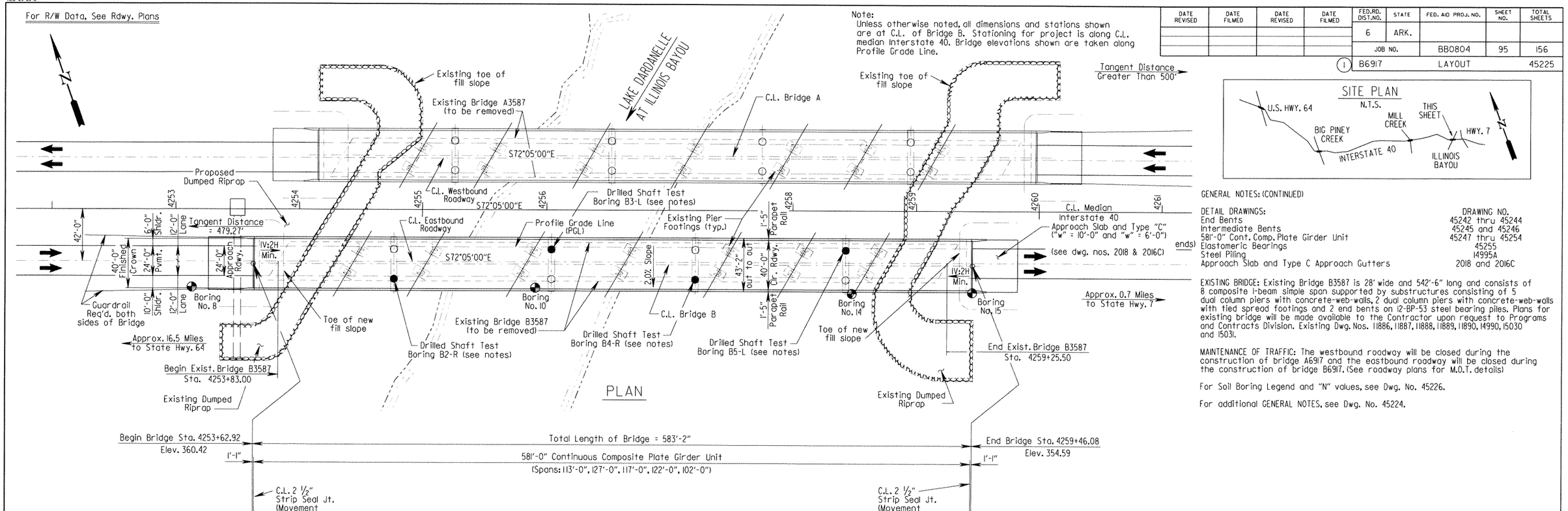
BRIDGE NO. A6917 DRAWING NO. 45224

RLB 09-05-12

For R/W Data, See Rdwy. Plans

Note:
Unless otherwise noted, all dimensions and stations shown are at C.L. of Bridge B. Stationing for project is along C.L. median Interstate 40. Bridge elevations shown are taken along Profile Grade Line.

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.		BB0804	95	156
				(1) B6917		LAYOUT		45225



GENERAL NOTES: (CONTINUED)

DETAIL DRAWINGS:

	DRAWING NO.
End Bents	45242 thru 45244
Intermediate Bents	45245 and 45246
581'-0" Cont. Comp. Plate Girder Unit	45247 thru 45254
Elastomeric Bearings	45255
Steel Piling	14995A
Approach Slab and Type C Approach Gutters	2018 and 2016C

EXISTING BRIDGE: Existing Bridge B3587 is 28' wide and 542'-6" long and consists of 8 composite I-beam simple span supported by substructures consisting of 5 dual column piers with concrete-web-walls, 2 dual column piers with concrete-web-walls with tied spread footings and 2 end bents on 12-BP-53 steel bearing piles. Plans for existing bridge will be made available to the Contractor upon request to Programs and Contracts Division. Existing Dwg. Nos. 11886, 11887, 11888, 11889, 11890, 14990, 15030 and 15031.

MAINTENANCE OF TRAFFIC: The westbound roadway will be closed during the construction of bridge A6917 and the eastbound roadway will be closed during the construction of bridge B6917. (See roadway plans for M.O.T. details)

For Soil Boring Legend and "N" values, see Dwg. No. 45226.

For additional GENERAL NOTES, see Dwg. No. 45224.

SHEET 2 OF 3

BRIDGE B LAYOUT

INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
MILL CREEK - HWY. 331 (F)
POPE COUNTY

ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: Jun 27,2003 FILENAME: ILLIPE02
CHECKED BY: M.P. DATE: Jun 27,2003 SCALE: 1" = 40'
DESIGNED BY: K.M.M. DATE: Jun 27,2003

BRIDGE NO. B6917 DRAWING NO. 45225

HANY L. RIAD
ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
09/05/2012

RLB 09-05-12

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.		BB0804	96	156
				(1) A6917 & B6917		LAYOUT		45226

Boring No. 8
Sta. 4253+13 - 63' Rt. of C.L. Median Interstate 40

BORING LEGEND

E1 - Wet, soft, gray sandy clay with snadstone fragments

E2 - Hard, brown and gray fractured sandstone

E3 - Hard, dark gray shale with some thin gray sandstone seams

E4 - Hard, dark gray shale with thin gray sandstone seams

Boring No. 9
Sta. 4253+84 - 69' Lt. of C.L. Median Interstate 40

BORING LEGEND	BORING "N" VALUES	
J1 - Moist, stiff, brown sandy, silty clay with sandstone fragments	4-9	N=11
	9-15	N=9
J2 - Moist, stiff, gray and brown sandy, silty clay	15-20	N=13
	20-25	N=14
J3 - Wet, soft to medium stiff, brown and gray to brown clay with sand seams	25-30	N=3
	30-36	N=5
J4 - Wet, soft, brown sandy clay	36-40	N=4
	40-45	N=40
J5 - Wet, dense to medium dense, brown sandstone fragments and stone	45-51	N=30
	51-53.5	N=22 (0.10')

J6 - Wet, very dense, brown sandstone fragments and gravel

J7 - Hard, gray fractured sandstone

J8 - Hard, dark gray shale with thin gray sandstone seams

Boring No. 10
Sta. 4255+91 - 63' Rt. of C.L. Median Interstate 40

BORING LEGEND

F1 - Wet, soft, gray sandy clay with snadstone fragments and cobbles

F2 - Hard, gray sandstone

F3 - Hard, dark gray shale with some thin gray sandstone seams

Boring No. 11
Sta. 4256+22 - 55' Lt. of C.L. Median Interstate 40

BORING LEGEND

K1 - Medium hard, gray weathered shale

K2 - Hard, dark gray fractured shale

K3 - Hard, dark gray shale with some thin gray sandstone and fractured seams

K4 - Hard, dark gray shale with thin gray sandstone seam

Boring No. 12
Sta. 4257+19 - 21' Lt. of C.L. Median Interstate 40

BORING LEGEND

L1 - Wet, soft, gray sandy, silty clay

L2 - Hard, dark gray shale with some thin gray sandstone seams

L3 - Hard, dark gray shale with thin gray sandstone seams

Boring No. 13
Sta. 4257+90 - 63' Lt. of C.L. Median Interstate 40

BORING LEGEND

M1 - Wet, soft, gray sandy, silty clay

M2 - Hard, brown and gray fractured sandstone

M3 - Hard, dark gray shale with thin gray sandstone seams

Boring No. 14
Sta. 4258+48 - 67' Rt. of C.L. Median Interstate 40

BORING LEGEND	BORING "N" VALUES	
G1 - Wet, very loose, brown clayey sand	0-4	N=1
	4-9	N=5
G2 - Wet, loose, brown sand	9-13.5	N=60 (0.10')

G3 - Hard, gray and brown fractured sandstone

G4 - Hard, dark gray shale with some thin gray sandstone seams

Boring No. 15
Sta. 4269+46 - 66' Rt. of C.L. Median Interstate 40

BORING LEGEND	BORING "N" VALUES	
H1 - Moist, stiff, brown sandy, silty clay	0-4	N=16
	4-9	N=10
H2 - Moist, very stiff, brown and gray sandy, silty clay	9-14	N=11
	14-20	N=7
H3 - Moist, stiff, brown sandy, silty clay	20-25	N=28
	25-30	N=1
H4 - Moist, medium stiff, brown and gray sandy clay	30-35	N=2
	35-40	N=0
H5 - Moist, medium dense, brown and gray sand with clay seams and sandstone fragments	40-46	N=22
	46-	N=60 (0.20')

H6 - Wet, very loose, brown sand with clay seams

H7 - Wet, very loose, brown sand

H8 - Wet, medium dense, brown sand and snadstone fragments

H9 - Wet, very dense, brown and gray sand and sandstone and shale fragments

H10 - Medium hard, dark gray weathered shale

H11 - Hard, dark gray shale

Note:
- For General Notes see Dwg. Nos. 45224 and 45225.

SHEET 3 OF 3

BRIDGE A & B LAYOUT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
MILL CREEK - HWY. 331 (F)
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: Jun 27,2003 FILENAME: ILLIPE01
CHECKED BY: M.P. DATE: Jun 27,2003 SCALE: 1" = 40'
DESIGNED BY: K.M.M. DATE: Jun 27,2003

BRIDGE NO. A6917 & B6917 DRAWING NO. 45226

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	ARK.			
JOB NO.	BB0804		97	156
A3587 - LAYOUT - 45227				

For R/W Data See Roadway Plans

Toe of Fill Slope

Top of Toe to be Min. of 15'-0" below Ground elevation

Type A Approach Slab & Gutters. See Roadway Plans Guard Fence not included in Job 8476

Type C Approach Slab & Gutters. See Roadway Plans Guard Fence not included in Job 8476

TEST HOLE

BAYOU

Woods

Field

ROAD

Tangent distance over Seat

To London Interchange 6.84 Mi.

To Hwy. #7 Interchange Near Russellville 0.05 Mi.

Tangent Distance over Seat

40' Normal Crown Width

60' Normal Crown

28'-0" Clear Roadway

S 72° 05' E

2:1

4:1

℄ LEFT LANES

One Way Traffic

Slope Paving

Fence Posts

Concrete Posts

Clear

47'

NBC & Hackberry

NBC 12" Elmstump

Iron Pin

℄ MEDIAN = ℄ OF SURVEY

NBC 18" Hackberry Stump

NBC B" Elm

NBC Tr Stump

NBC 24" Elm

P L A N

ILLINOIS

Woods

Right Hand LANES See Dwg. No. 11587

One Way Traffic

B.O.T. 4253+27.9

B.O.T. 4255+37.4

B.O.T. 4257+68.1

B.O.T. 4272+71.5

Sta. 4254+34.00

Sta. 4259+76.50

Total Length of Bridge = 542'-6"

Beginning of Bridge Sta. 4254+15

Deck El. 356.72

2 Spans @ 60'-0" = 120'-0"

3 Spans @ 80'-0" = 240'-0"

All spans are composite I-Bm. Span

Handrail is Aluminum Bridge Railing

- 0.963 % Deck Els. are at ℄ of Rdy.

3 Spans @ 60'-0" = 180'-0"

End of Bridge Sta. 4259+85.50

Deck El. 351.48

℄ PIER No 1 4254+95.22 Deck El. 356.13

℄ PIER No 2 4255+55.22 Deck El. 355.55

℄ PIER No 3 4256+35.22 Deck El. 354.78

℄ PIER No 4 4257+15.22 Deck El. 354.01

℄ PIER No 5 4257+95.22 Deck El. 353.24

℄ PIER No 6 4258+55.22 Deck El. 352.66

℄ PIER No 7 4259+15.22 Deck El. 352.07

End. H.W. (1965) El. 340.00

Pool Level El. 338.0 (Dardanelle Dam)

W.L. El. 314.2 (4-14-39)

El. 342.0

El. 342.00

El. 328.00

7-12 BP 53 # 42'

SOME BEARING PILES

11.2' FIRM BROWN SANDY CLAY MOIST

LT. TO COMP. BROWN SANDY CLAY MOIST

LAYERS OF SILT

HARD BLUE SHALE

4254+29 72' LT. END BENT No 1

4254+89 74' LT. PIER No 1

4255+63 72' LT. PIER No 2

4255+30 72' LT.

4256+08 72' LT.

4257+06 72' LT.

PIER No 3

PIER No 4

4257+91 72' LT.

4258+77 72' LT.

4259+63 72' LT.

PIER No 5

PIER No 6

PIER No 7

END BENT No 2

4260+00

Test Hole Locations are referred to ℄ Survey.

BM Nail in side 6" Sweet Gum 6' Lt. Sta. 4256+31 El. 343.04

BM Nail in side Telephone Pole 93' Lt. Sta. 4271+40 El. 344.75

4259+00

FOR GENERAL NOTES SEE LAYOUT FOR RIGHT LANES BRIDGE Dwg. No. 11587

E L E V A T I O N

D.A. = 371 Sq. Mi. C = 0.70

DESIGN SPECIFICATIONS: AASHO 1961

LIVE LOADING: H20-S16 and Special Interstate Loading of 2-50 kip Axles spaced 4'-0" on centers.

UNIT STRESSES: Class A Concrete (f'c = 3) = 3000 p.s.i.

Class S Concrete (f'c = 4) = 4000 p.s.i.

Reinforcing Steel = 20,000 p.s.i.

Structural Steel (ASTM) = 22000 p.s.i.

FOR INFORMATION ONLY

L. P. Carlson

BRIDGE ENGINEER

LAYOUT OF

BRIDGE OVER ILLINOIS BAYOU (LEFT LANES)

LONDON - EAST END RUSSELLVILLE BYPASS

POPE COUNTY

ROUTE INT. 40 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: Edw DATE: 10-19-61

TRACED BY: DATE:

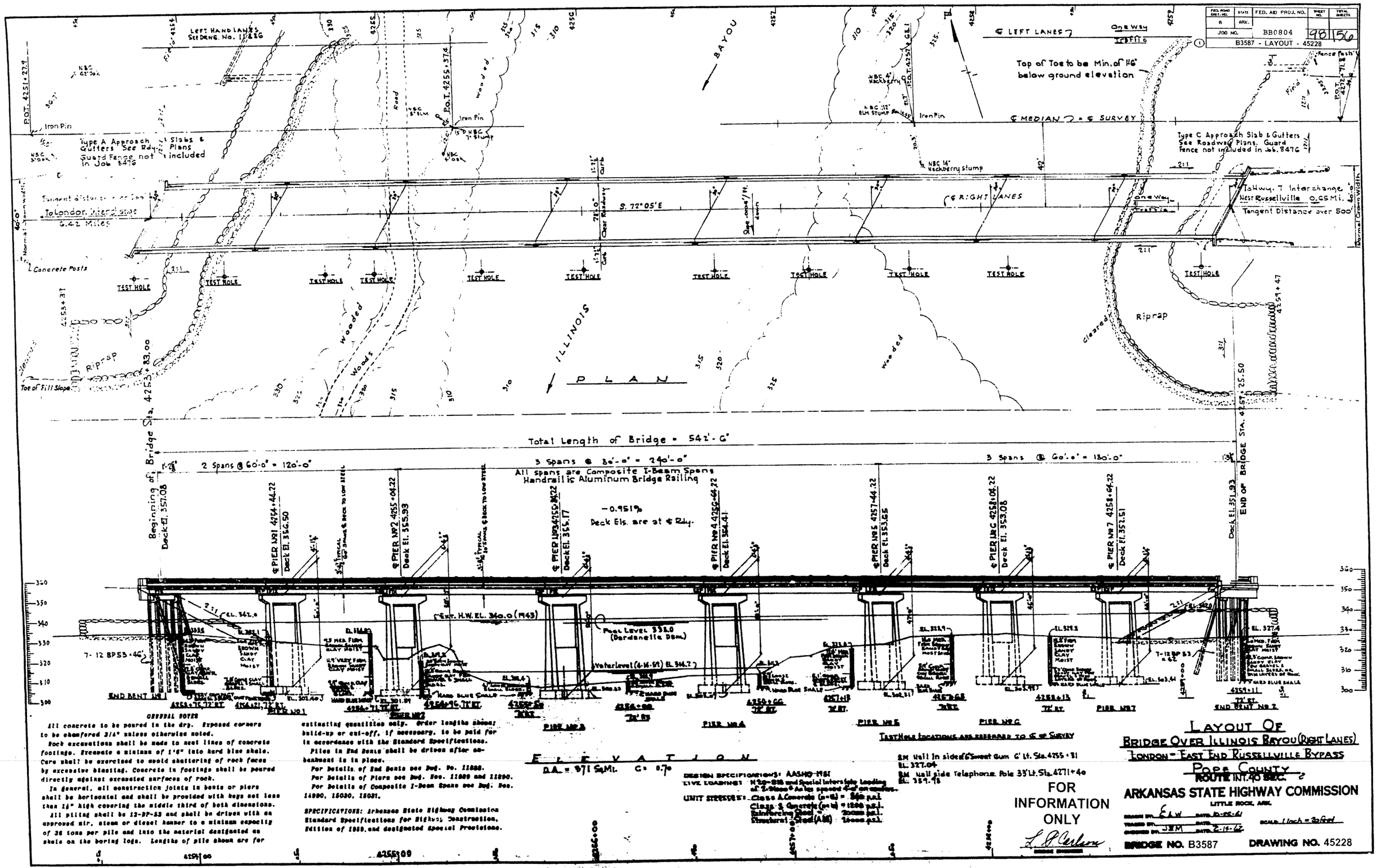
CHECKED BY: JSM DATE: 2-13-62

SCALE: 1 inch = 30 feet

BRIDGE NO. A3587 DRAWING NO. 45227

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0804	98	156

B3587 - LAYOUT - 45228



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. Excavate a minimum of 1'-6" into hard blue shale. 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 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 an approved air, steam or diesel hammer to a minimum capacity of 36 tons per pile and into the material designated on shale on the boring logs. Lengths of pile shown are for estimating quantities only. Order lengths shown; build-up or cut-off, 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. 11888.
For Details of Piers see Dwg. Nos. 11889 and 11890.
For Details of Composite I-Beam Spans see Dwg. Nos. 14990, 15030, 15031.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, and designated Special Provisions.

DESIGN SPECIFICATIONS: AASHO-1961
LIVE LOADING: H 20-S16 and Special Interstate Loading of 2-Axles @ 46 kips spaced 4'-0" on centers.
UNIT STRESSES: Class A Concrete (f'c) = 3500 p.s.i.
Class S Concrete (f'c) = 4500 p.s.i.
Reinforcing Steel = 20000 p.s.i.
Structural Steel (AM) = 18000 p.s.i.

FOR INFORMATION ONLY

L. D. Carlson
BRIDGE ENGINEER

LAYOUT OF BRIDGE OVER ILLINOIS BAYOU (RIGHT LANES)

LONDON - EAST END RUSSELLVILLE BYPASS

POPE COUNTY

ROUTE INT. 40 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

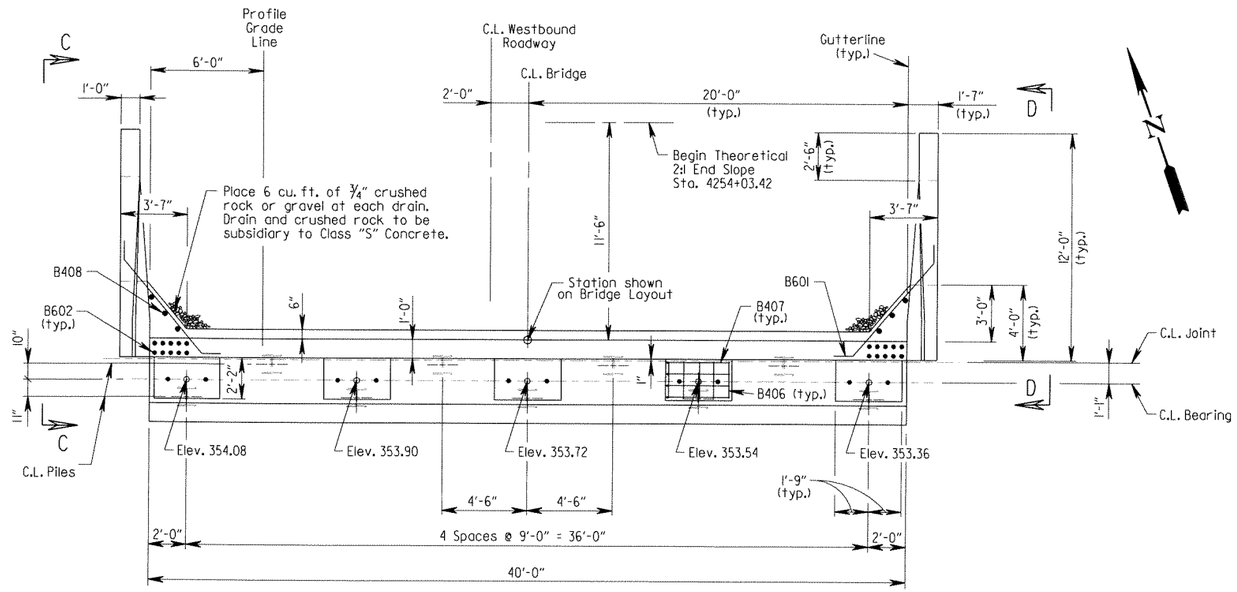
LITTLE ROCK, ARK.

DRAWN BY E.A.W. DATE 10-26-61
TRACED BY ____ DATE ____
CHECKED BY J.B.M. DATE 2-14-62
SCALE 1 Inch = 30 Feet

BRIDGE NO. B3587 DRAWING NO. 45228

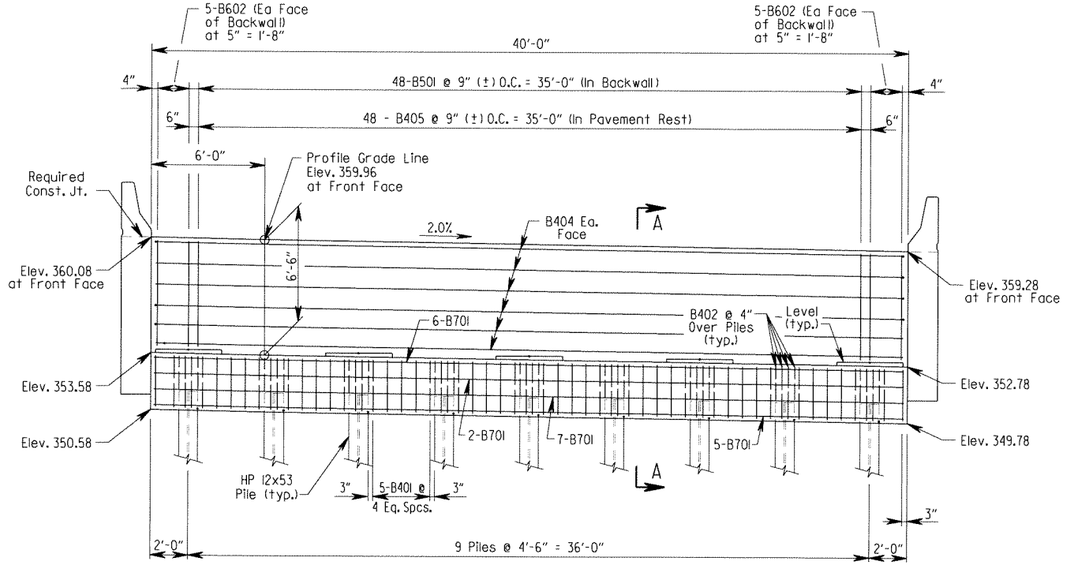
rlb 09-05-12

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.		BB0804	99	156
				(1) A6917		END BENT A1 & A6		45229



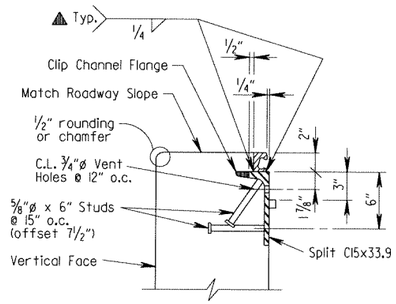
PLAN
Scale: ¼" = 1'-0"
(Bent No. A1)

Note:
For additional Anchor Bolt and Bearing Details, see Dwg. No. 45255.



ELEVATION
Scale: ¼" = 1'-0"
(Bent No. A1 Looking Back)

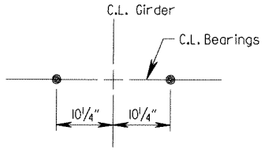
⚠ Shop Weld - See SP Job BB0804 "Armored Joint With Neoprene Strip Seal



Note: Concrete shall be hand packed under the joint armor in the backwall.

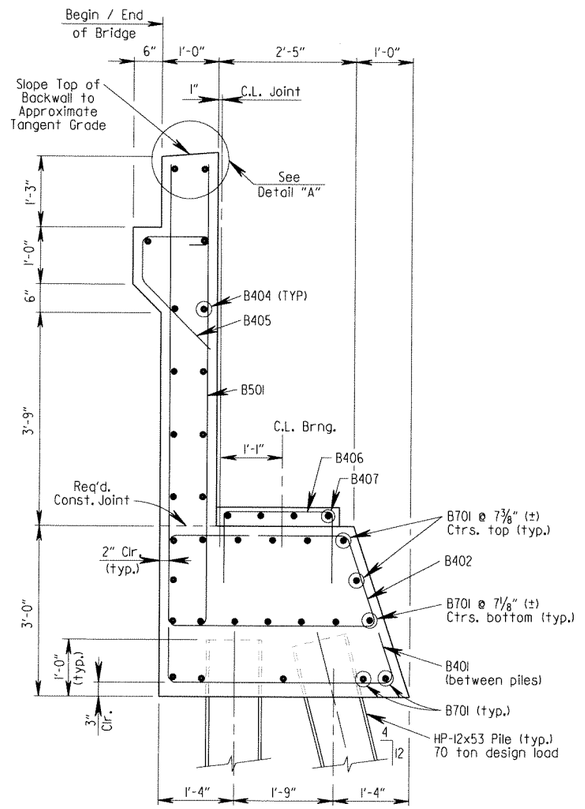
For additional details, See Dwg. No. 45235.

DETAIL "A"
Scale: 1½" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT
Scale: ¾" = 1'-0"

Note:
For Anchor Bolt Details, see dwg. no. 45255



SECTION A-A
Scale: ¾" = 1'-0"

All concrete shall be Class "S" and be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

Structural Steel in End Bents shall be AASHTO M270, Gr. 50W and shall be paid for as "Structural Steel in Plate Girder Spans (M270, Gr. 50W)".

If anchor bolts are to be drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

Backwall shall not be poured before beams are in place and concrete deck pours have been made.

For additional information, see Layout.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

SHEET 1 OF 3

DETAILS OF END BENT A1 & A6
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

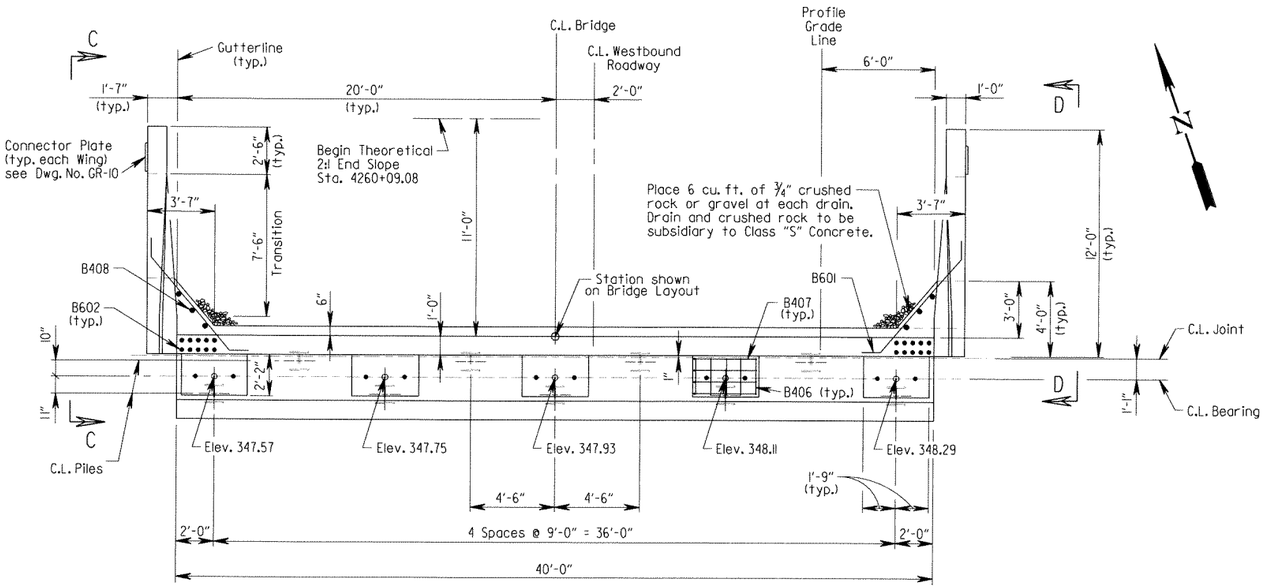
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: May 16, 2008
CHECKED BY: S.L.B. DATE: May 16, 2008
DESIGNED BY: G.P.B. DATE: May 16, 2008
FILENAME: ILLIEB01
SCALE: AS SHOWN

BRIDGE NO. A6917 DRAWING NO. 45229

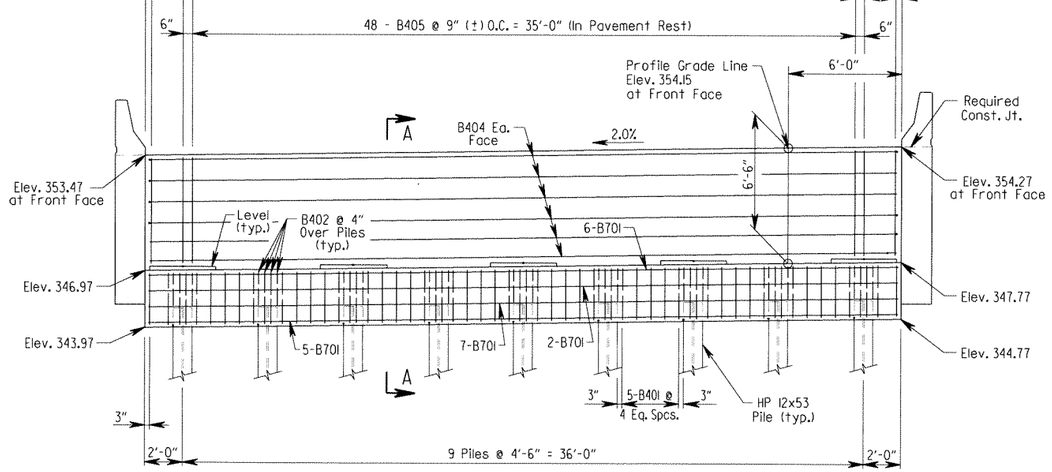
rib 09-05-12

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.		BB0804	100	156
				(1) A6917		END BENT A1 & A6		45230



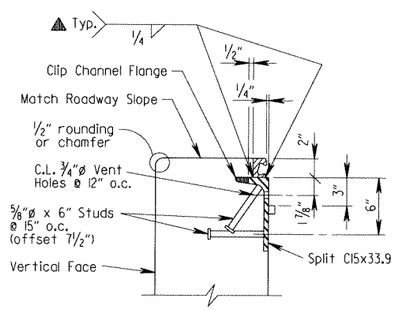
PLAN
Scale: 1/4" = 1'-0"
(Bent No. A6)

Note:
For additional Anchor Bolt and Bearing Details, see Dwg. No. 45255.



ELEVATION
Scale: 1/4" = 1'-0"
(Bent No. A6 Looking Ahead)

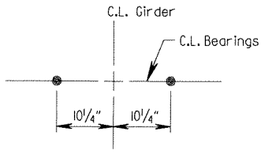
⚠ Shop Weld - See SP Job BB0804 "Armored Joint With Neoprene Strip Seal



Note: Concrete shall be hand packed under the joint armor in the backwall.

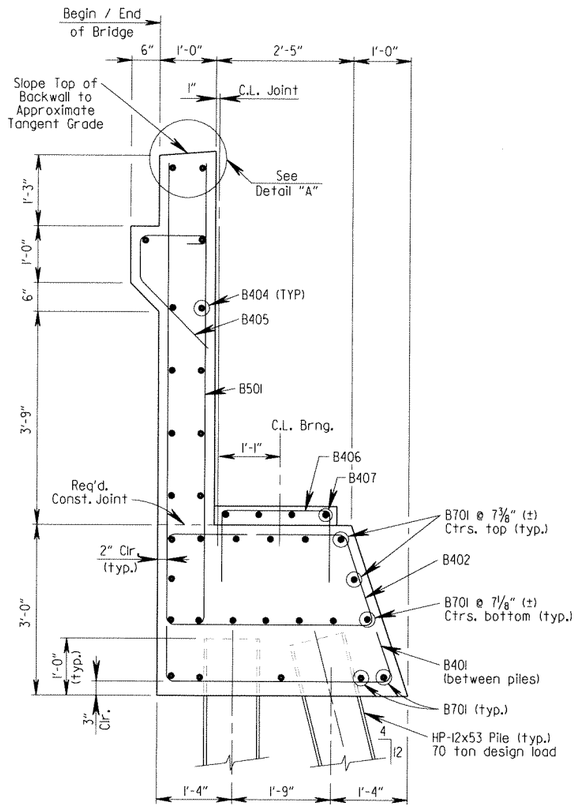
For additional details, See Dwg. No. 45235.

DETAIL "A"
Scale: 1 1/2" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT
Scale: 3/4" = 1'-0"

Note:
For Anchor Bolt Details, see dwg. no. 45255



SECTION A-A
Scale: 3/4" = 1'-0"

All concrete shall be Class "S" and be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

Structural Steel in End Bents shall be AASHTO M270, Gr. 50W and shall be paid for as "Structural Steel in Plate Girder Spans (M270, Gr. 50W)".

If anchor bolts are to be drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

Backwall shall not be poured before beams are in place and concrete deck pours have been made.

For additional information, see Layout.



SHEET 2 OF 3

DETAILS OF END BENT A1 & A6
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

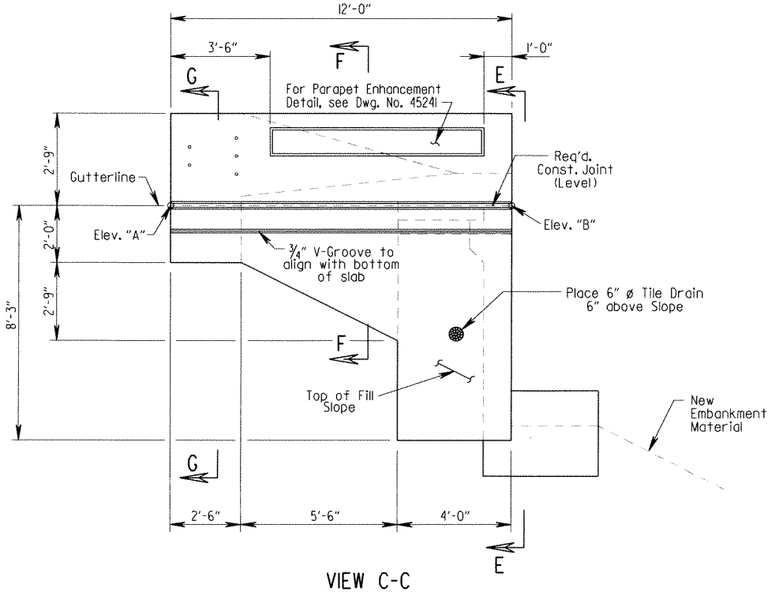
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: May 16, 2008 FILENAME: ILLIEB02
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DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. A6917 DRAWING NO. 45230

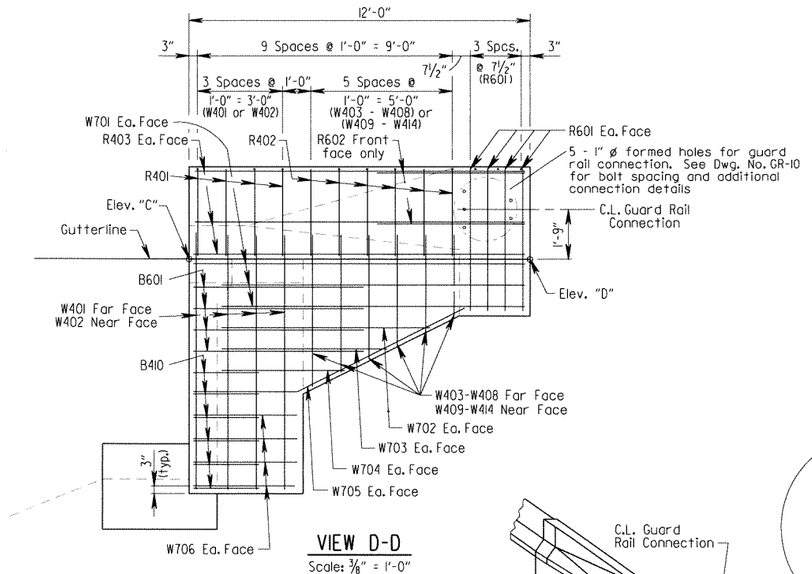
rlb: 09-05-12

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.		BB0804	101	156
				(1) A6917		WING DETAILS		45231



VIEW C-C

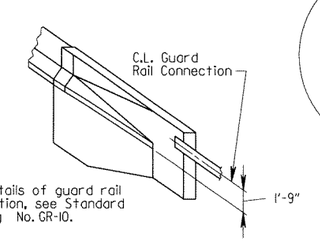
Scale: 3/8" = 1'-0"



VIEW D-D

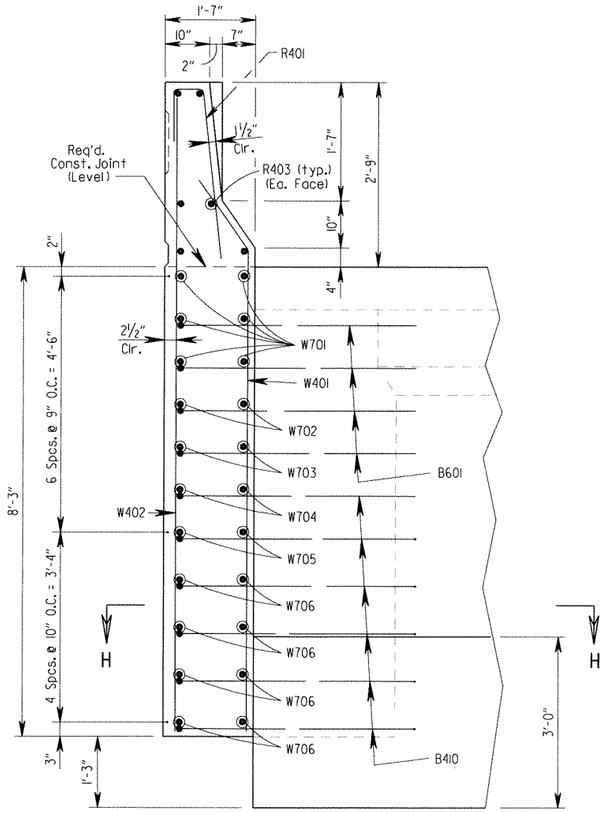
Scale: 3/8" = 1'-0"

ELEV.	END BENT A1	END BENT A6
A	360.20	353.35
B	360.08	353.47
C	359.28	354.27
D	359.40	354.03



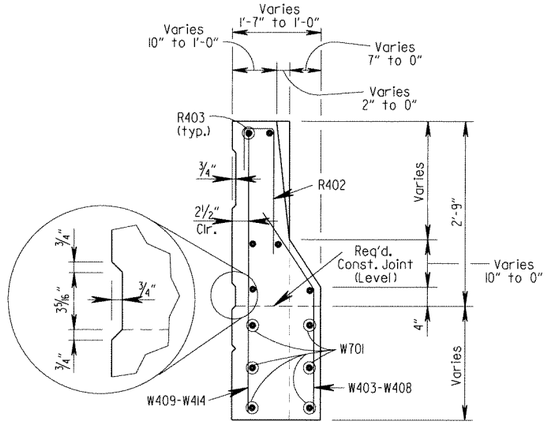
THREE DIMENSIONAL VIEW OF RAIL

N.T.S.



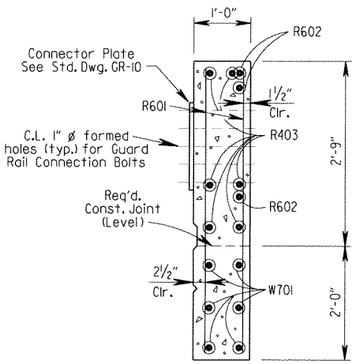
VIEW E-E

Scale: 3/4" = 1'-0"



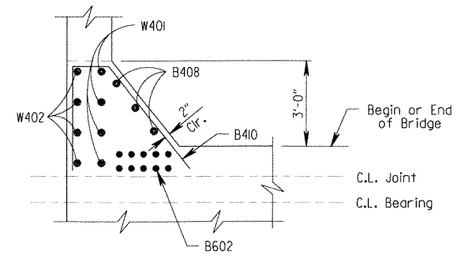
SECTION F-F

Scale: 3/4" = 1'-0"



SECTION G-G

Scale: 3/4" = 1'-0"

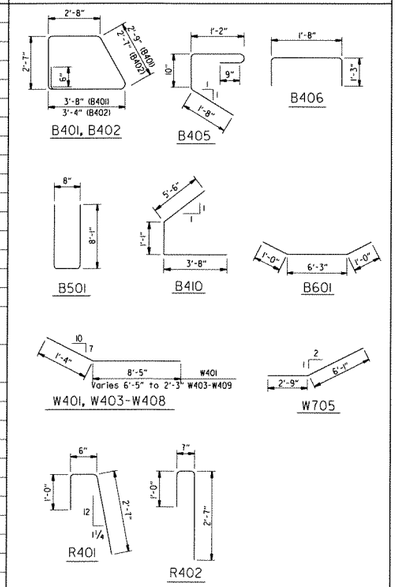


SECTION H-H

Scale: 3/8" = 1'-0"

BAR LIST - PER END BENT

MK	No. Req'd.	Length	Dia. Pin	Bending Diagrams (Dimensions are out to out of bars.)
F701	20	39'-8"	Str.	
B601	8	8'-3"	4 1/2"	
B602	20	7'-1"	Str.	
B501	48	16'-8"	2 1/2"	
B401	27	12'-10"	2"	
B402	36	11'-4"	2"	
B404	12	39'-8"	Str.	
B405	48	4'-3"	2"	
B406	25	4'-0"	2"	
B407	20	3'-2"	Str.	
B408	6	7'-2"	Str.	
B410	12	10'-3"	2"	
W401	8	9'-9"	2"	
W402	8	10'-6"	Str.	
W403 to W408	2 Each	5'-11" TO 3'-11"	2"	
W409 to W414	2 Each	6'-11" TO 4'-11"	Str.	
W701	12	10'-8"	Str.	
W702	4	7'-8"	Str.	
W703	4	6'-4"	Str.	
W704	4	5'-0"	Str.	
W705	4	8'-10"	5 1/4"	
W706	16	2'-8"	Str.	
R601	16	4'-5"	Str.	
R602	6	5'-0"	Str.	
R401	8	3'-11"	2"	
R402	12	4'-0"	2"	
R403	12	9'-8"	Str.	



SHEET 3 OF 3

DETAILS OF END BENT A1 & A6
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY

ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

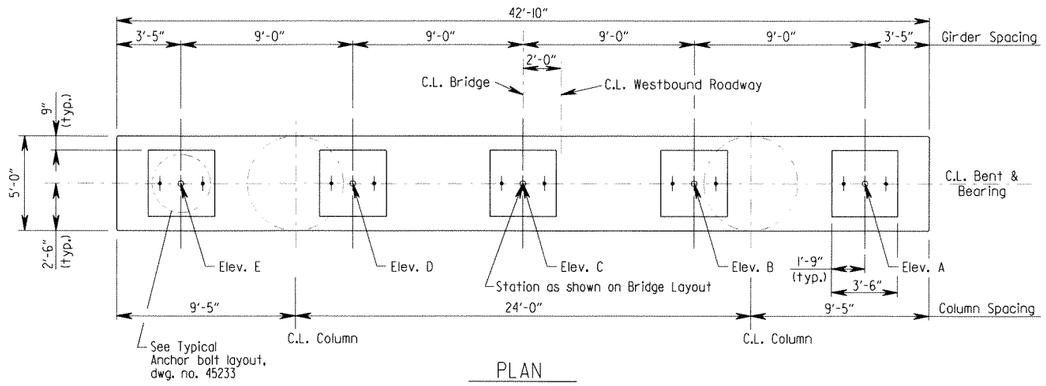
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CHECKED BY: S.L.B. DATE: May 16, 2008
DESIGNED BY: G.P.B. DATE: May 16, 2008
FILENAME: ILLIEB03
SCALE: AS SHOWN

BRIDGE NO. A6917 DRAWING NO. 45231

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

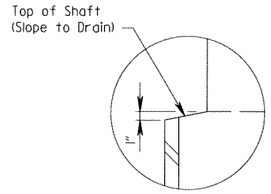
rlb: 09-05-12

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
7-2-2003				6	ARK.			
				JOB NO.		BB0804	102	156
				(1) A6917		INT. BENT		45232



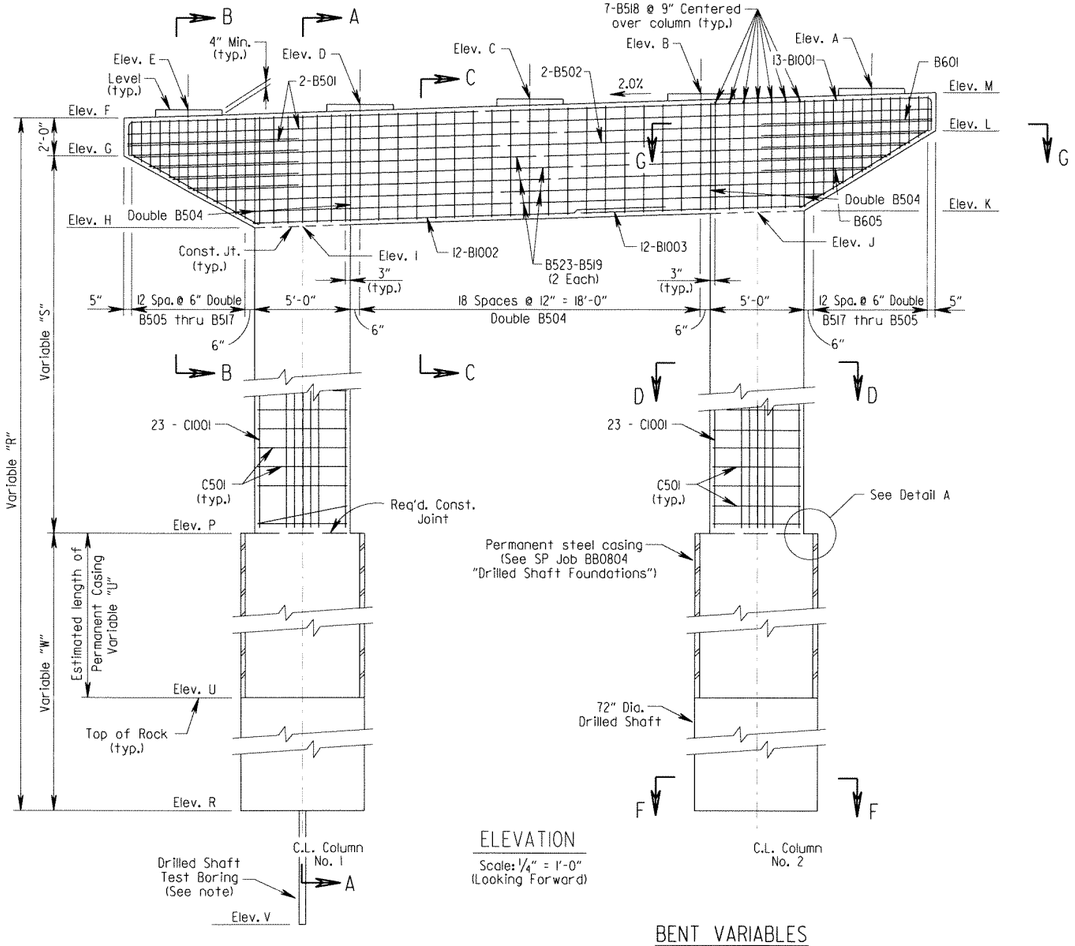
PLAN

SCALE: 1/4" = 1'-0"



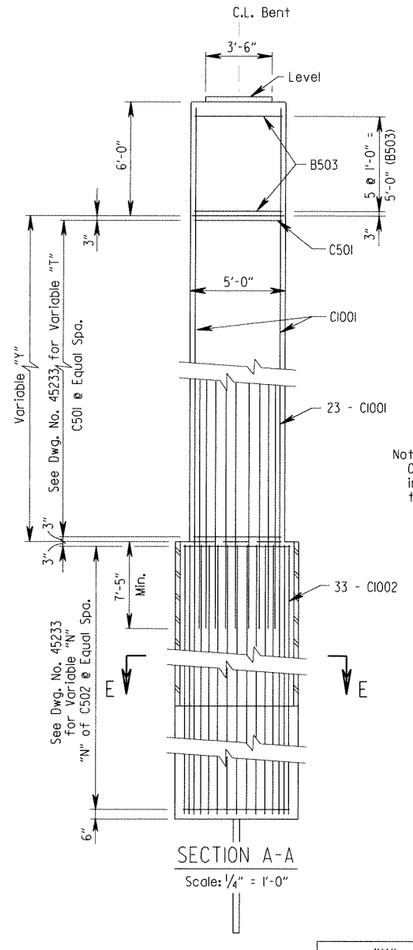
DETAIL A

N.T.S.



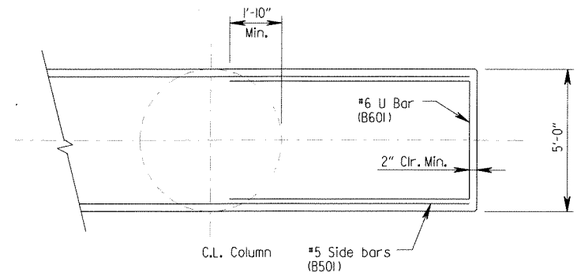
ELEVATION

Scale: 1/4" = 1'-0"
(Looking Forward)



SECTION A-A

Scale: 1/4" = 1'-0"



SECTION G-G

N.T.S.

Note:
C1001 bars shall be secured in place before concrete at the top of shaft is placed.

NOTE:
Prior to commencement of field work the contractor shall submit a Drilled Shaft Work Plan (see SP Job BB0804 "Drilled Shaft Foundations" for details). The Drilled Shaft Work Plan shall include but not be limited to consideration of all arrangements, materials, tools, and operations necessary to adequately seal and rigidly support casing, even at drilled shaft locations where the soil layers that overlie rock are thin or absent.

Conduct drilled shaft test borings at locations indicated on Dwg. No. 45224, plus other drilled shaft locations as directed by the Engineer. See Special Provision Job No. BB0804.

✳ Estimated. Actual top of rock will be determined by the test borings conducted in accordance with SP Job BB0804 "Drilled Shaft Test Borings".

BENT VARIABLES

BENT	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E	ELEV. F	ELEV. G	ELEV. H	ELEV. I	ELEV. J	ELEV. K	ELEV. L	ELEV. M	ELEV. P	ELEV. R	ELEV. U✳	ELEV. V	"R"	"S"	"U"	"W"	"Y"	
																						Col. No. 1	Col. No. 2
A2	353.05	352.87	352.69	352.51	352.33	351.97	349.97	346.11	346.16	346.64	346.69	350.83	352.83	340.00	287.00	306.00	281.00	64'-11 5/8"	9'-11 5/8"	34'-0"	58'-0"	6'-11 15/16"	6'-7 11/16"
A3	351.78	351.60	351.42	351.24	351.06	350.70	348.70	344.84	344.89	345.37	345.42	349.56	351.56	340.00	288.00	307.00	282.00	68'-8 3/8"	8'-8 3/8"	33'-0"	58'-0"	4'-10 11/16"	5'-4 7/16"
A4	350.56	350.38	350.20	350.02	349.84	349.48	347.48	343.62	343.67	344.15	344.20	348.34	350.34	340.00	293.00	312.00	287.00	56'-6"	7'-5 3/4"	28'-0"	47'-0"	3'-8"	4'-1 13/16"
A5	349.36	349.18	349.00	348.82	348.64	348.28	346.28	342.42	342.47	342.95	343.00	347.14	349.14	340.00	289.00	308.00	283.00	59'-3 3/8"	6'-3 3/8"	32'-0"	51'-0"	2'-5 7/8"	2'-11 3/4"



SHEET 1 OF 2

DETAILS OF INT. BENTS A2, A3, A4 & A5
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY

ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION

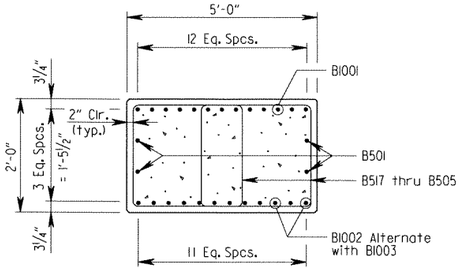
LITTLE ROCK, ARK.

DRAWN BY: R.J.B. DATE: May 16, 2008 FILENAME: ILLIBD01
CHECKED BY: R.J.B. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. A6917 DRAWING NO. 45232

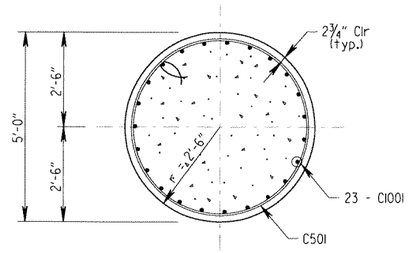
rb 09-05-12

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
7-2-2003				6	ARK.			
				JOB NO.		BB0804	103	156
				(1) A6917		INT. BENT		45233



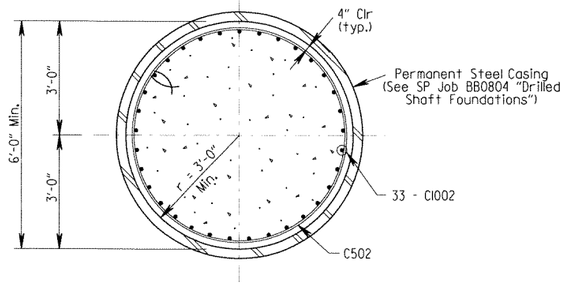
SECTION B-B

SCALE: 1/2" = 1'-0"



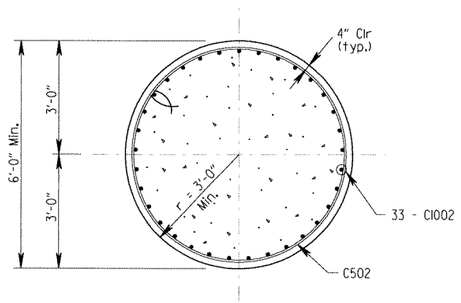
SECTION D-D

SCALE: 1/2" = 1'-0"



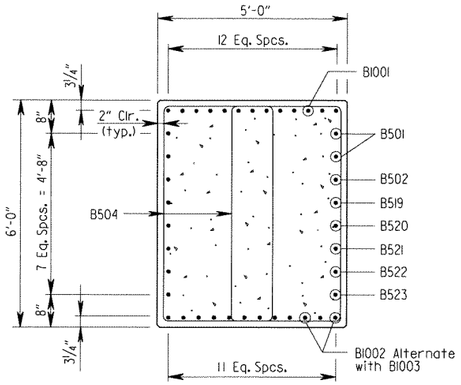
SECTION E-E

SCALE: 1/2" = 1'-0"



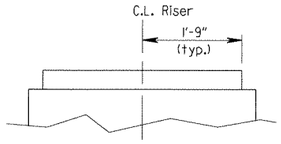
SECTION F-F

SCALE: 1/2" = 1'-0"



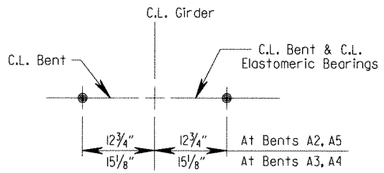
SECTION C-C

SCALE: 1/2" = 1'-0"



TYPICAL SECTION THRU RISER

Scale: 3/4" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT

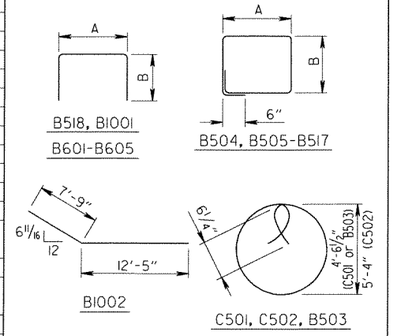
Scale: 3/4" = 1'-0"

Note: For Anchor Bolt Details, see dwg. no. 45255

BAR LIST - PER BENT

		MK	No. Req'd.	Length	A	B	Dia. Pin
BENT	A2	B1001	13	45'-7"	42'-6"	1'-9"	10"
		B1002	12	20'-2"	———	———	10"
		B1003	12	32'-1"	———	———	10"
	A3	B601	2	21'-4"	4'-2"	8'-7"	4 1/2"
		B602	2	21'-4"	4'-2"	8'-7"	4 1/2"
		B603	2	19'-2"	4'-2"	7'-6"	4 1/2"
		B604	2	16'-11"	4'-2"	6'-4 1/2"	4 1/2"
	A4	B605	2	14'-8"	4'-2"	5'-3"	4 1/2"
		B501	4	42'-6"	———	———	Str.
		B502	2	42'-2"	———	———	Str.
	A5	B503	12	15'-9"	———	———	3 3/4"
		B504	46	18'-0"	3'-1"	5'-8"	2 1/2"
		B505 thru B517	4 Ea.	10'-6" to 17'-4"	3'-1"	1'-11" to 5'-4"	2 1/2"
		B518	14	15'-9"	4'-8"	5'-8"	2 1/2"
		B519 thru B523	2 Ea.	40'-2" to 31'-0"	———	———	Str.
BENT	A2 COL 1	C1001	23	19'-0"	———	———	Str.
		* C1002	33	52'-6"	———	———	Str.
		C501	T = 7	15'-7"	———	———	3 3/4"
		* C502	N = 54	18'-2"	———	———	3 3/4"
	A2 COL 2	C1001	23	19'-6"	———	———	Str.
		* C1002	33	52'-6"	———	———	Str.
		C501	T = 8	15'-7"	———	———	3 3/4"
		* C502	N = 54	18'-2"	———	———	3 3/4"
	A3 COL 1	C1001	23	17'-7"	———	———	Str.
		* C1002	33	51'-6"	———	———	Str.
		C501	T = 6	15'-7"	———	———	3 3/4"
		* C502	N = 53	18'-2"	———	———	3 3/4"
	A3 COL 2	C1001	23	18'-1"	———	———	Str.
		* C1002	33	51'-6"	———	———	Str.
		C501	T = 6	15'-7"	———	———	3 3/4"
		* C502	N = 53	18'-2"	———	———	3 3/4"
	A4 COL 1	C1001	23	16'-7"	———	———	Str.
		* C1002	33	46'-8"	———	———	Str.
		C501	T = 5	15'-7"	———	———	3 3/4"
		* C502	N = 48	18'-2"	———	———	3 3/4"
	A4 COL 2	C1001	23	17'-1"	———	———	Str.
		* C1002	33	46'-8"	———	———	Str.
		C501	T = 5	15'-7"	———	———	3 3/4"
		* C502	N = 48	18'-2"	———	———	3 3/4"
	A5 COL 1	C1001	23	15'-2"	———	———	Str.
		* C1002	33	50'-8"	———	———	Str.
		C501	T = 4	15'-7"	———	———	3 3/4"
		* C502	N = 52	18'-2"	———	———	3 3/4"
	A5 COL 2	C1001	23	15'-8"	———	———	Str.
		* C1002	33	50'-8"	———	———	Str.
		C501	T = 4	15'-7"	———	———	3 3/4"
		* C502	N = 52	18'-2"	———	———	3 3/4"

Bending Diagrams (Dimensions are out to out of bars.)



* Non-Pay Item, Subsidiary to SP Job BB0804 "Drilled Shaft Foundations (72" Dia.)

GENERAL NOTES:

All concrete shall be Class "S" with a minimum compressive strength of f'c = 3500 psi. Concrete shall be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi).

Top reinforcing bars in cap shall be properly placed to avoid interference with anchor bolts or sheet metal sleeves.

For elastomeric bearing details, see drawing no. 45255.

For additional information, see Layout.

ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 13259 HANY L. RIAD

09/05/2012

SHEET 2 OF 2

DETAILS OF INT. BENT NOS. A2, A3, A4 & A5

INTERSTATE 40 BRIDGE OVER

LAKE DARDANELLE AT ILLINOIS BAYOU

POPE COUNTY

ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: R.J.B. DATE: May 16, 2008 FILENAME: ILLIBD02

CHECKED BY: R.J.B. DATE: May 16, 2008 SCALE: AS SHOWN

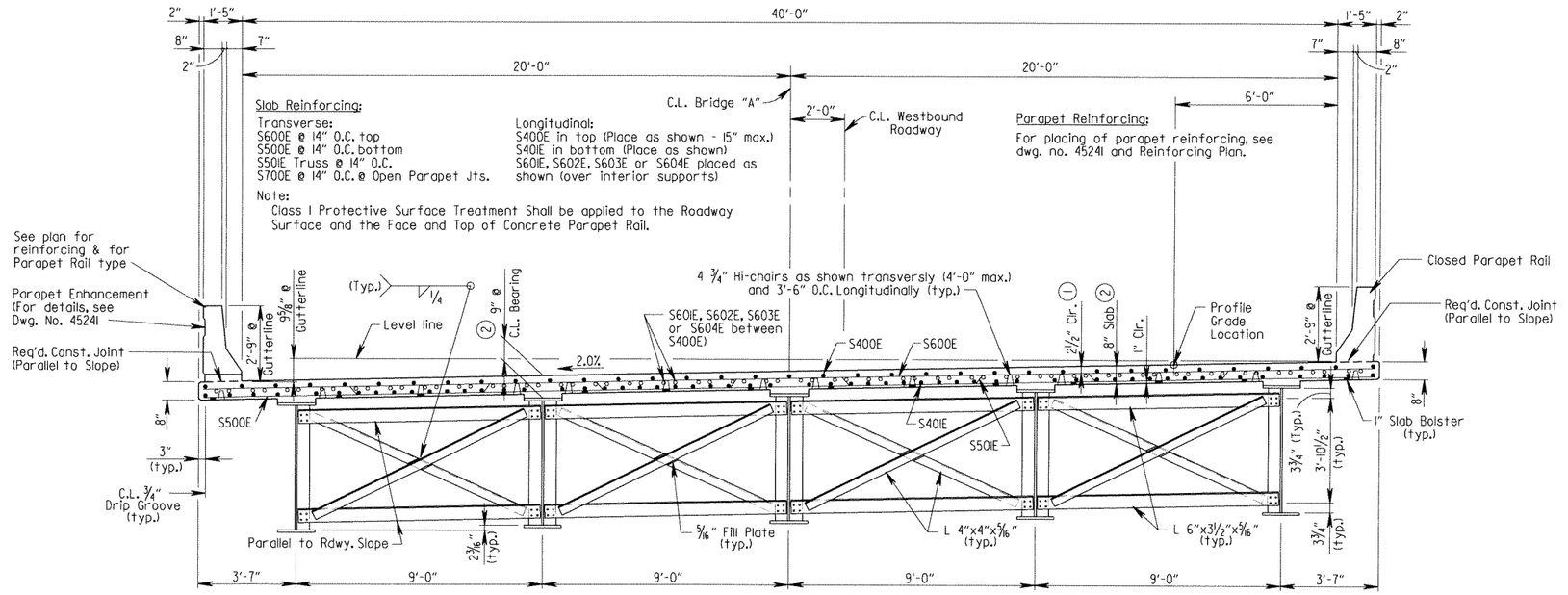
DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. A6917 DRAWING NO. 45233

45233.dgn 9/5/2012 12:50:21 PM

rlb 09-05-12

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.		BB0804	104	156
				(1) A6917		CONT. UNIT		45234

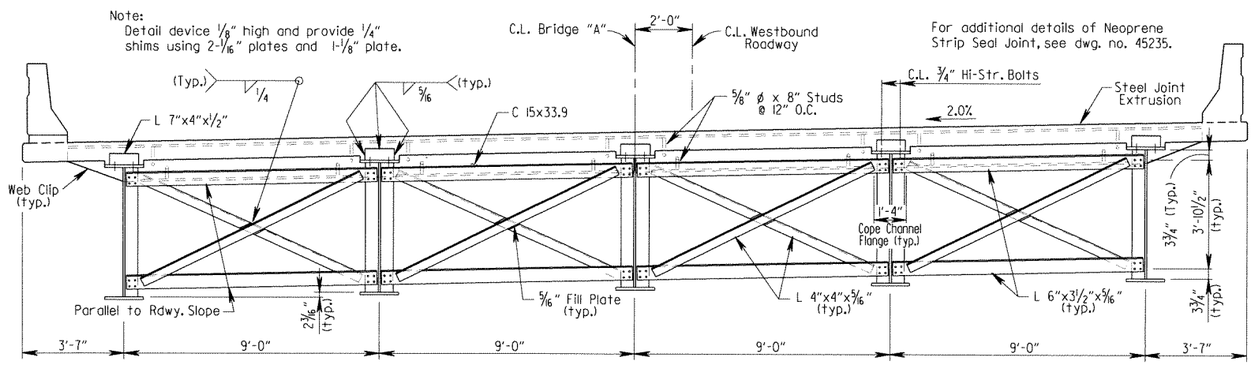


Note:
At Contractor's Option, in lieu of providing bar S501E, one straight epoxy coated #5 bar top and bottom may be substituted. Payment for Reinforcing will be based on the weight of bar S501E.

ROADWAY SECTION NEAR INT. BENT

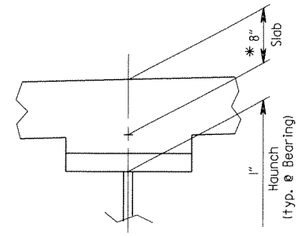
Scale: 3/8" = 1'-0"
(Looking Forward)

(1) - Tolerance: Minus = 1/4". Plus equal to amount of Slab Thickening used to meet Slab Thickness Tolerance - see Typ. Haunch Detail.
(2) - Refer to Typ. Haunch Detail



EXPANSION DEVICE SECTION AT NEOPRENE STRIP SEAL JOINT

Scale: 3/8" = 1'-0"
(Looking Forward)



Haunch is required. Slab may be thickened and/or the haunch thickened to maintain slab thickness tolerance.

Haunch dimension may vary within the following limits to maintain the grade and slab thickness tolerance: Minimum occurs when top flange contacts bottom reinforcing steel. Maximum: 1½"

Tolerances shown are applicable for removable forming. See Std. Dwg. 14991 for tolerances when permanent steel deck forms are used. Payment for concrete will be based on removable deck forming.

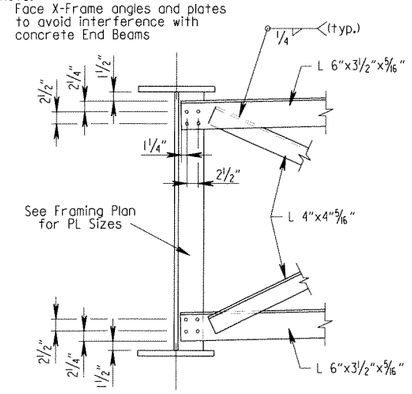
* Thickness as detailed on Roadway Section. Tolerance is minus 1/4" and plus 1/2".

Note:
No increase in concrete and structural steel quantities will be made to meet slab tolerances.

TYPICAL HAUNCH DETAIL

N.T.S.

Note:
Face X-Frame angles and plates to avoid interference with concrete End Beams



TYPICAL CROSS FRAME CONNECTION

N.T.S.

SHEET 1 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: Jun 27, 2003 FILENAME: ILLIPG01
CHECKED BY: M.P. DATE: Jun 27, 2003 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: Jun 27, 2003

BRIDGE NO. A6917 DRAWING NO. 45234

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

rlb 09-05-12

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.		BB0804	105	156
				(1) A6917		CONT. UNIT		45235

GENERAL NOTES

All concrete shall be Class S(AE) with a minimum 28 day compressive strength f'c = 4,000 psi. Concrete shall be poured in the dry and all exposed corners to be chamfered ¾" unless otherwise noted.

Concrete in bridge superstructure shall be placed and consolidated for the entire pour and screeded off before any concrete has taken its initial set. This may require the use of a retarding agent.

The concrete deck shall be given a tine finish in accordance with Section 802.19 of the Standard Specifications for Class 5, Bridge Roadway Surface Finish. Movement of the finishing machine across new concrete shall be on planks placed on the surface and shall be prohibited for 72 hours after finishing the pour. Sufficient concrete must be placed ahead of the strike-off to fully load the beam. If a longitudinal strike-off is used, a vertical camber adjustment must be made in the strike-off to account for the future dead-load deflection of the railing. A minimum of 72 hours shall elapse between completion of the slab and the pouring of the parapet railing.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 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 Bridge (Grade 60)".

All structural steel shall be AASHTO M270, Gr. 50W unless otherwise noted and shall be paid for at the unit price per pound bid for "Structural Steel in Plate Girder Spans (M270, Gr. 50W)" unless otherwise noted. AASHTO M270, Gr. 50W steel shall not be painted. All exposed surfaces to be cleaned in accordance with section 807.84(e) unless otherwise noted. Structural steel completely embedded in concrete may be AASHTO M270, Gr. 36.

Girder webs, girder flanges, and web and flange splice plates are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test specified in section 807.05 of the Standard Specifications. This work and material will not be paid for directly but is to be considered as subsidiary to the item "Structural Steel in Plate Girder Spans (M270, Gr. 50W)".

Requests for substitution of structural steel shapes shown with shapes of greater size must be submitted by the Contractor to the Engineer for approval. Steels of equal or greater strengths will be accepted only when shown on the approved shop drawings. Shapes and materials shown in the plans will be the basis of payment and no additional compensation will be made for any adjustments due to substitutions.

Cross frames shall be installed as girders are erected. All bolts in cross-frames and field splices shall be installed and tightened in accordance with Subsection 807.7.1 of the Standard Specifications prior to pouring of the slabs.

Drawings show general features of design only. Shop drawings shall be made in accordance with Section 807.04, submitted and approval secured before fabrication is begun. Girder webs may be made by shop splicing with minimum lengths of 25'-0" for sections. Flange plates longer than 50'-0" may be made by shop splicing with minimum lengths of 25'-0" for sections. Material specifications and location of shop-welded splices, if any, shall be shown on the shop drawings. No additional payment for welds for these splices will be made.

All girders shall be blocked in their true position with webs horizontally in the shop, in groups of a minimum of 3 sections as specified in Section 807.54(b)(2). The camber, length of sections, distance between bearings and opening of joints shall be measured with the beams in this position and this information shall become part of the permanent record of this job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All girder dimensions are based on a temperature of 60 degrees F. A tolerance of ¼" (plus or minus) is allowed for camber.

Girder webs, girder flanges, and flange splice plates for main members shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If additional welds are required, whether temporary or permanent, a formal request with detailed drawings shall be submitted to the Engineer for approval; however, additional welds used for attaching falsework support devices or screed rail supports to the structural steel that do not exceed the limitations of subsection 802.13 will not require approval prior to construction. All welding shall conform to subsection 807.26.

Field connections to be bolted with high-strength bolts. Bolts shall be ⅞" dia. except as noted and open holes 15/16" dia. except as noted. Bolt spacing shall be 2½" for ¾" dia. bolts unless otherwise noted. Minimum edge distance shall be 1¼" unless otherwise noted. Bolts shall be placed with heads on the outside face of the exterior girder and on the bottom of the girder flanges. Holes for ¾" dia. high-strength bolts may be 15/16" dia. if a washer is supplied for use under both the nut and head of bolt.

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.

Groove welds in main members shall be Quality Control (Q.C.) tested by nondestructive testing, as required by the Standard Specifications. Fillet welds at flange to web plate connections shall be Q.C. tested by the magnetic particle method. All Quality Control (Q.C.) testing is at the Contractor's expense.

Live Loading: HS20, Military Loading — Method of Design: Load Factor

Materials and Strengths:

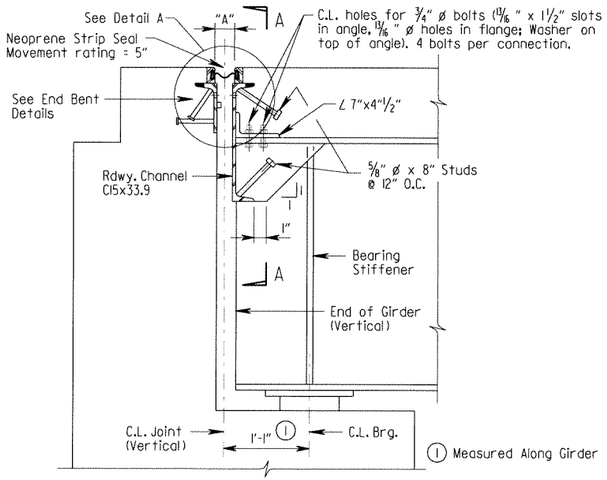
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)	fy = 60,000 psi
Class S(AE) Concrete	f'c = 4,000 psi
Structural Steel (AASHTO M270, Gr. 50W)	Fy = 50,000 psi
Structural Steel (AASHTO M270, Gr. 36)	Fy = 36,000 psi

Load Distribution:

	Interior Girder	Exterior Girder
Dead Load: To Girder:	933 plf + 1.3 (Wt. of Gir.)	841 plf + 1.3 (Wt. of Gir.)
To Composite Girder:	▨ 312 plf	▨ 312 plf

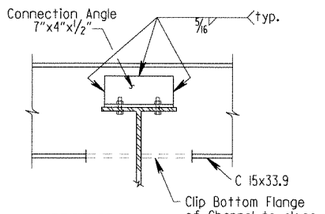
▨ Includes 160 plf future wearing surface.

Live Load: To Composite Girder:	1.636 Wheels + Impact	1.440 Wheels + Impact



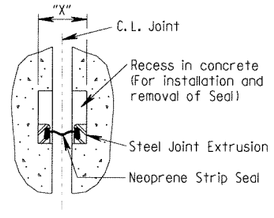
SECTION THRU JOINT AT END BENTS

N.T.S.



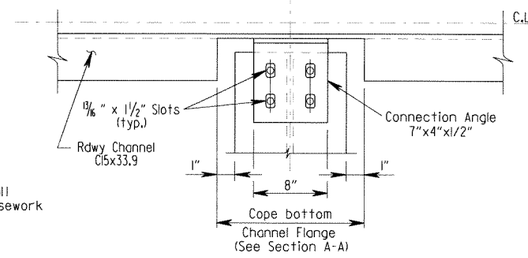
SECTION A-A

N.T.S.



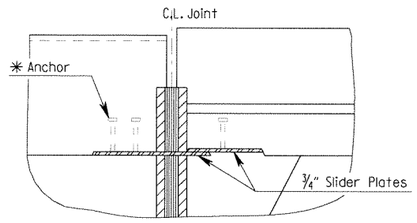
SECTION D-D

N.T.S.



TYPICAL CHANNEL CONNECTION

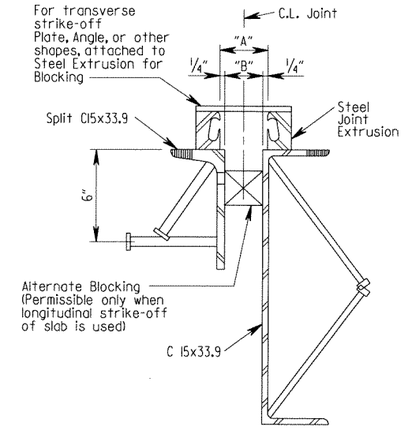
N.T.S.



Notes:
Details of Joint Turn-Up in Curb and Parapet are general and show basic Design Controls only. See Special Provisions.
✳ The Method of Attachment of the Slider Plate Assembly or similar device must be such that it may be removed in order to provide for future replacement of the Neoprene Seal.
Slider Plates shall be AASHTO M270, Grade 50W.
Channels, Angles, Studs and Slider Plates shall be paid for as "Structural Steel in Plate Girder Spans" (M270, Grade 50W).
Steel Joints Extrusion and Slider Plates anchor system are to be considered Subsidiary to the item "Armored Joint with Neoprene Strip Seal).

SECTION C-C AT END BENT

N.T.S.



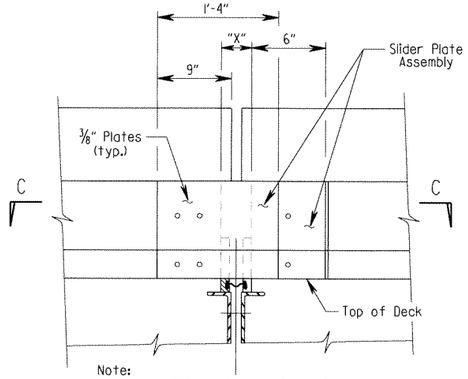
DETAILS FOR BLOCKING EXPANSION JOINT DEVICE

N.T.S.

Note:
Each Expansion Joint device shall be blocked in the shop by the Fabricator to the dimension shown for 60° F and the blocking details shall be shown on the Shop Drawings. The blocking shall not be removed until the slab on one side is complete. Blocking shall be placed within 2'-0" of each end of the device and with a maximum spacing of 8'-0".

EXPANSION DEVICE INSTALLATION AT END BENTS:
After the end bent backwall forms are in place and all the girders are erected, the blocked expansion device shall be installed and adjusted for grade. The end bent angle shall be firmly secured to the backwall forms and connection bolts on the girders loosely installed.

Immediately prior to pouring the concrete deck, the blocking shall be removed and the joint width adjusted for temperature. Joint openings shown are for when concrete is poured at an air temperature of 60 degrees F. If concrete is poured at other temperatures, set the joint width by interpolating from the Strip Seal Joint Data Table. After the joint width has been set, the connection bolts on the girders shall be tightened and the concrete deck can then be poured. The concrete deck in the end span shall be poured before the backwall concrete is poured. A joint opening adjustment is not required for end rotation of the girders caused by the weight of the slab and parapets.



Note:
Dimension "X" equals the width of opening in parapet at curb to allow for removal or repair of joint.

SECTION B-B

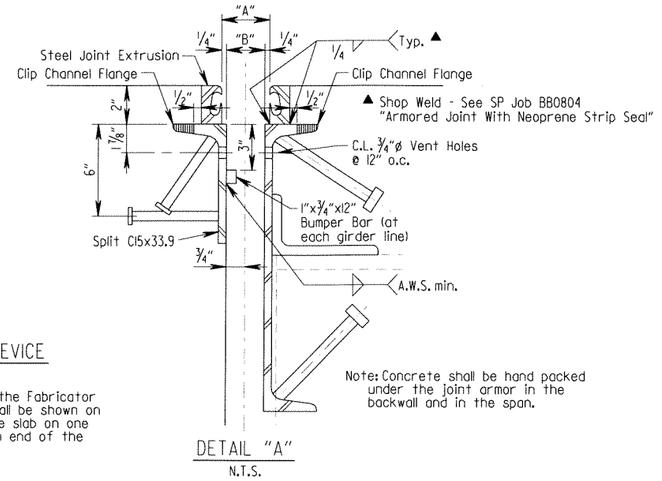
N.T.S.

GENERAL NOTES:
EXPANSION NEOPRENE STRIP SEAL: The expansion device shall provide a movement rating as shown in the "STRIP SEAL JOINT DATA" table. The expansion joint shall be capable of sealing the deck surface and parapet area to prevent moisture and other contaminants from descending through the joint.

Details of proposed slider plate assembly shall be submitted to and approved by the Engineer prior to the fabrication of any structural steel at the expansion joint.

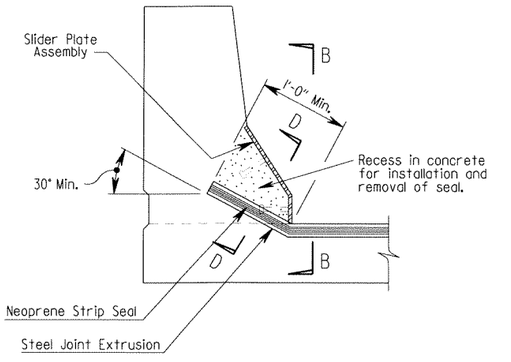
All structural shall be AASHTO M270, Grade 50W unless otherwise noted. All exposed surfaces are to be cleaned in accordance with subsection 807.84(e).

All structural steel, except for the steel extrusion and slider plate anchor system for the strip seal, shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270, Grade 50W). The steel extrusion slider plate anchor system and neoprene strip seal shall be paid for in accordance with Special Provision Job BB0804 "ARMORED JOINT WITH NEOPRENE STRIP SEAL.



DETAIL "A"

N.T.S.



DETAIL OF NEOPRENE SEAL AT CURB

N.T.S.

STRIP SEAL JOINT DATA

Bent Nos.	Movement Rating (inch)	"A" Width Perpendicular to Joint at 24 Hour Average Temperature			"B" Width Perpendicular to Joint at 24 Hour Average Temperature		
		40°F	60°F	80°F	40°F	60°F	80°F
End Bent A1 & A6	5	2 5/16"	2½"	2 11/16"	2 11/16"	2"	1 5/16"

The temperature used to set the joint opening shall be the approximate average air temperature during the 24 hours period immediately before the bolts are tightened. The Engineer shall establish the temperature.

ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY I. RIAD
09/05/2012

SHEET 2 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

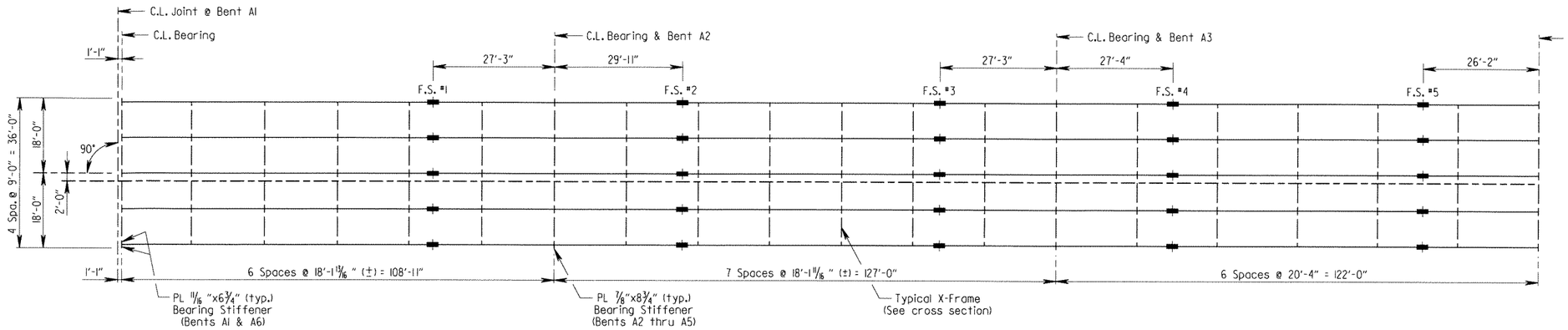
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LITTLE ROCK, ARK.

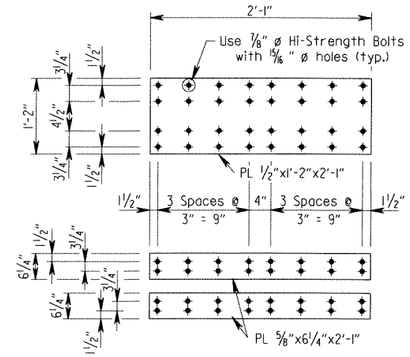
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CHECKED BY: M.P. DATE: Jun 27,2003 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: Jun 27,2003

BRIDGE NO. A6917 DRAWING NO. 45235

rib 09-05-12

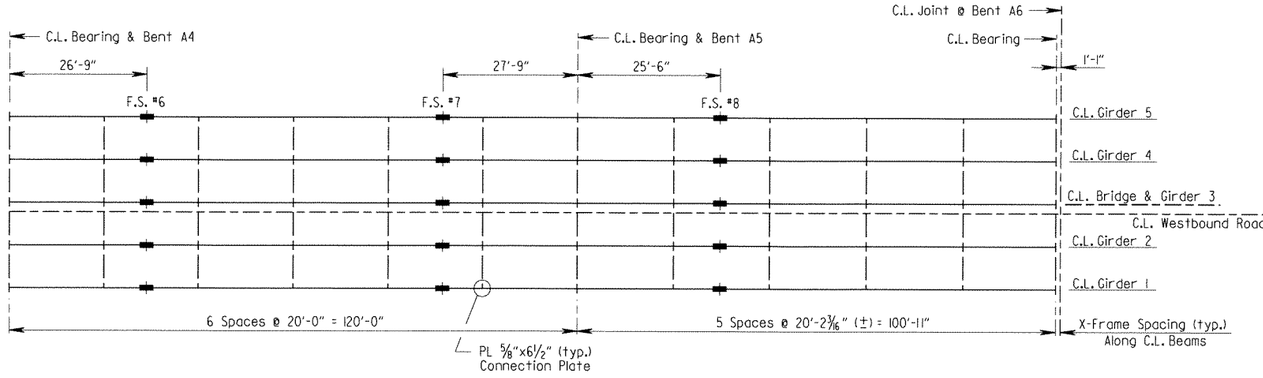
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		BB0804	106	156
				(1) A6917		CONT. UNIT		45236





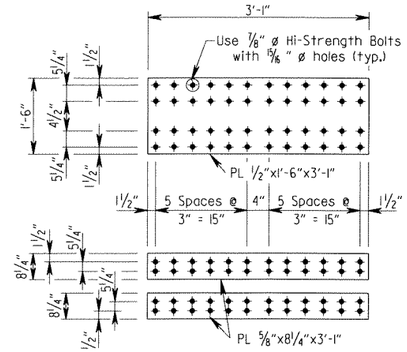
TOP FLANGE SPLICE PLATES

N.T.S.
(F.S. Nos. 1 and 8)



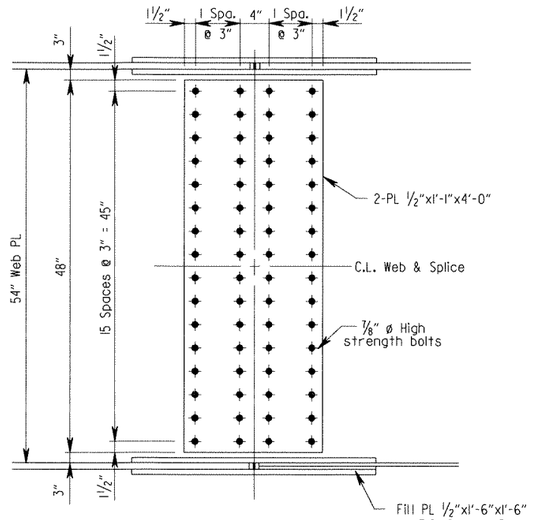
FRAMING PLAN

N.T.S.



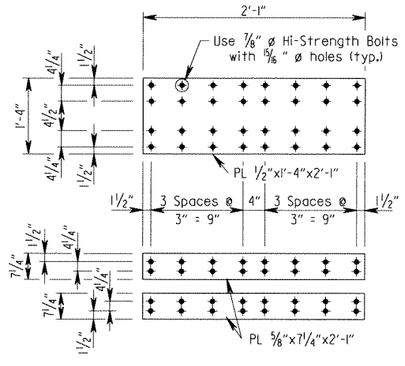
BOTTOM FLANGE SPLICE PLATES

N.T.S.
(F.S. Nos. 2 thru 7)



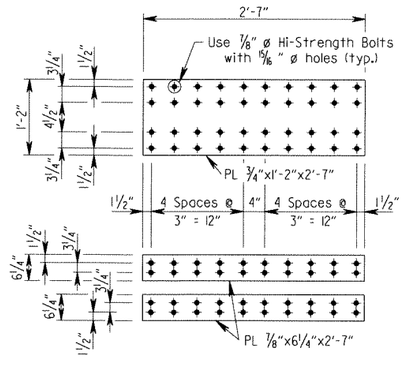
WEB SPLICE (TYP)

N.T.S.
(F.S. Nos. 1 thru 8)



TOP FLANGE SPLICE PLATES

N.T.S.
(F.S. Nos. 2 thru 7)



BOTTOM FLANGE SPLICE PLATES

N.T.S.
(F.S. Nos. 1 and 8)

SHEET 3 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY

ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

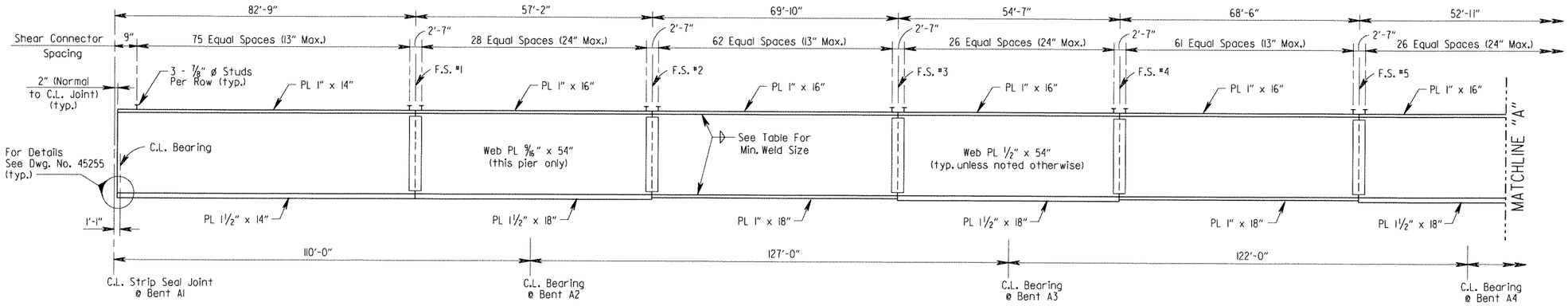
ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: May 16, 2008 FILENAME: ILLIPG03
CHECKED BY: R.J.B. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. A6917 DRAWING NO. 45236

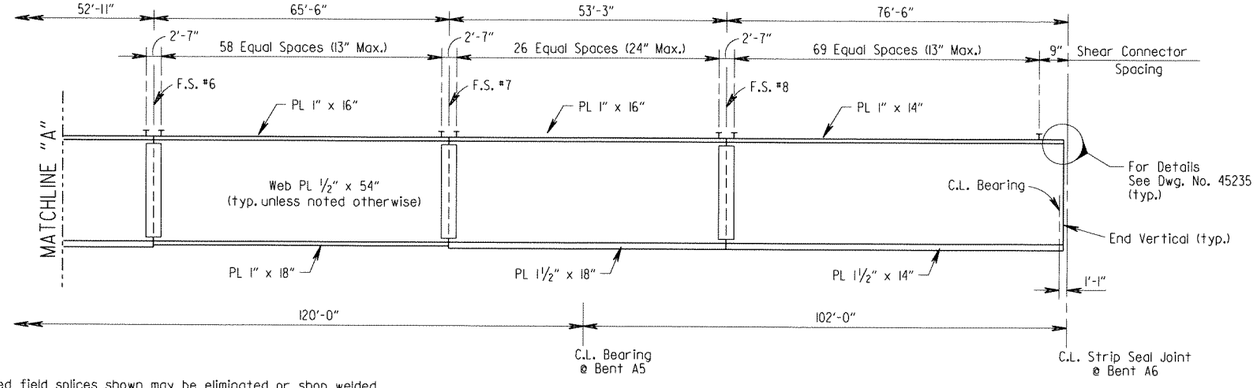
rlb 09-05-12

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.		BB0804	107	156
				(1) A6917		CONT. UNIT		45237



GIRDER ELEVATION (TYP.)

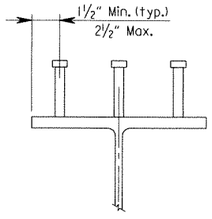
N.T.S.



Note:
Bolted field splices shown may be eliminated or shop welded splices may be substituted with approval of the Bridge Engineer. Payment will be made on the basis of Plan quantities.

GIRDER ELEVATION (TYP.)

N.T.S.



SHEAR CONNECTOR DETAIL

N.T.S.

Stud Shear Connectors shown shall be 7/8" ø x 4" long, granular flux filled, solid fluxed or equal, and automatically end welded to the beam flange in accordance with the recommendations of the manufacturer. 3/4" ø studs may be used in place of 7/8" ø studs shown, at the ratio of 1.361 - 3/4" ø studs in place of one 7/8" ø stud. 7/8" ø studs will be used as basis for measurement of Structural Steel in Shear Connectors.

SHEET 4 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

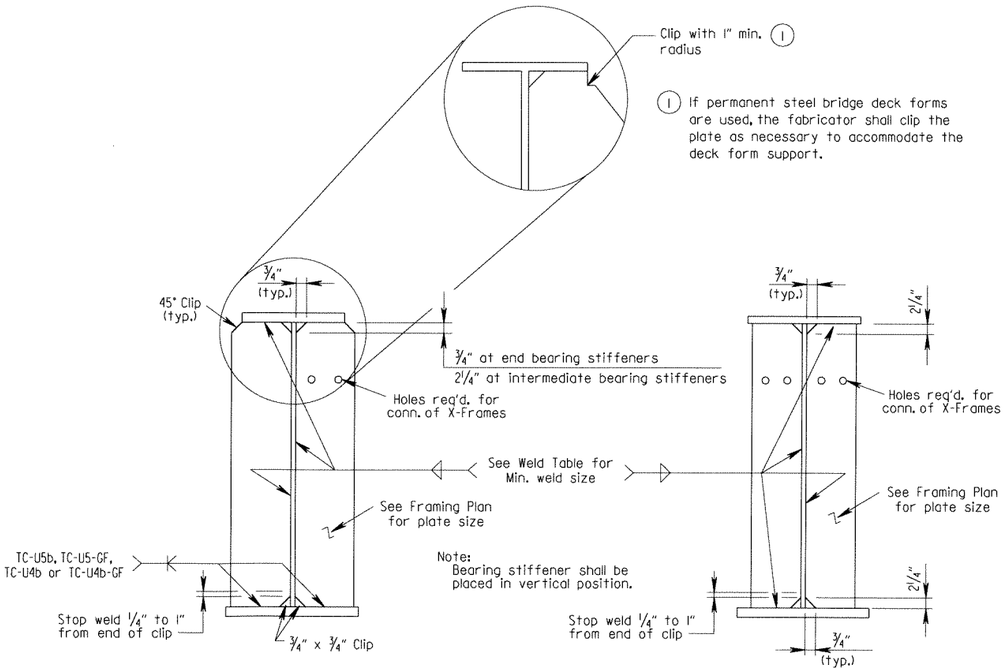
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: May 16, 2008 FILENAME: ILLIPG04
CHECKED BY: M.P. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: May 16, 2008

BRIDGE NO. A6917 DRAWING NO. 45237

rib 09-05-12

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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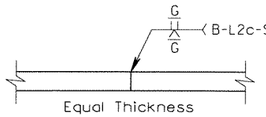
BEARING STIFFENER DETAIL

CROSS FRAME CONNECTION DETAIL

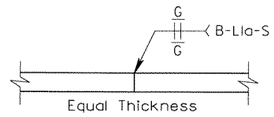
TABLE FOR WELD

Material Thickness of Thicker Part Joined (Inches)	Minimum Size of Fillet Weld (Inches)	Single Pass Weld Must Be Used
Inclusive to 3/4"	1/4"	
Over 3/4"	5/16"	

Note:
When a fillet weld size, as shown on the plans, is larger than the minimum, the first pass shall be that specified for minimum size of fillet weld.

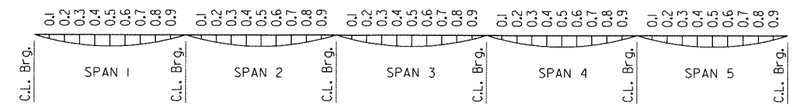


FLANGE SPLICE



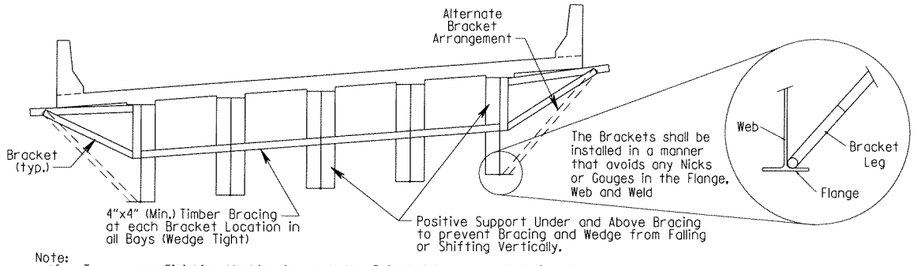
WEB SPLICE

DETAILS OF WELDED SPLICES



DEAD LOAD DEFLECTION DIAGRAM

Camber for Dead Load Deflection plus Vertical Curve ±1/4" tolerance. Deflections shown are from a chord from Centerline Bearing to Centerline Bearing. Vertical Curve Corrections not included. Negative Sign (-) indicated point above chord.



Note:
If a Transverse Finishing Machine is used, the Rail shall be supported directly over the Exterior Girders, or as an alternate, the rail may be supported by the Overhang Brackets if the above Strutting System is used. The Strutting System may be omitted if 5/8" x 7" Web Stiffners are Welded to the insides of the Exterior Girders at the location of each Bracket or if the Alternate Bracket Arrangement shown above is used. The Alternate Bracket Arrangement shall extend down to the Junction of the Web and Bottom Flange. The Stiffner shall conform to the Details for Intermediate Connection Plates shown above. No direct payment will be made for Brackets, Timber Bracing, Supports or Welded Stiffners. Payment shall be Subsidiary to "Structural Steel in Plate Girder Spans (M270, Grade 50W)".

SCREED RAIL SUPPORT

N.T.S.

TABLE OF DEAD LOAD DEFLECTIONS, INCHES

	SPAN POINT	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0
Interior	Structural Steel	0.000	0.131	0.242	0.318	0.351	0.340	0.288	0.209	0.119	0.041	0.000	0.024	0.094	0.176	0.239	0.267	0.250	0.193	0.114	0.038	0.000	0.026	0.090	0.160	0.214	0.235	0.218	0.168	0.098	0.032	0.000
	Structural Steel & Slab	0.000	0.745	1.375	1.807	1.996	1.934	1.646	1.197	0.686	0.239	0.000	0.120	0.501	0.947	1.297	1.448	1.356	1.047	0.612	0.200	0.000	0.155	0.518	0.916	1.218	1.337	1.241	0.956	0.561	0.187	0.000
	Structural Steel, Slab & Parapet	0.000	0.846	1.562	2.054	2.271	2.202	1.877	1.367	0.784	0.272	0.000	0.148	0.596	1.115	1.519	1.692	1.584	1.225	0.719	0.236	0.000	0.180	0.601	1.061	1.409	1.545	1.435	1.107	0.651	0.217	0.000
Exterior	Structural Steel	0.000	0.131	0.242	0.318	0.351	0.340	0.288	0.209	0.119	0.041	0.000	0.024	0.094	0.176	0.239	0.267	0.250	0.193	0.114	0.038	0.000	0.026	0.090	0.160	0.214	0.235	0.218	0.168	0.098	0.032	0.000
	Structural Steel & Slab	0.000	0.678	1.251	1.644	1.816	1.759	1.497	1.089	0.624	0.217	0.000	0.109	0.457	0.863	1.181	1.318	1.235	0.953	0.557	0.181	0.000	0.142	0.473	0.836	1.112	1.220	1.132	0.872	0.512	0.171	0.000
	Structural Steel, Slab & Parapet	0.000	0.781	1.441	1.895	2.095	2.031	1.731	1.261	0.723	0.250	0.000	0.137	0.553	1.033	1.406	1.565	1.466	1.133	0.665	0.218	0.000	0.167	0.557	0.983	1.305	1.431	1.328	1.025	0.603	0.201	0.000

	SPAN POINT	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0
Interior	Structural Steel	0.000	0.024	0.080	0.142	0.188	0.204	0.185	0.138	0.075	0.020	0.000	0.029	0.086	0.152	0.210	0.248	0.256	0.232	0.177	0.096	0.000
	Structural Steel & Slab	0.000	0.126	0.437	0.780	1.032	1.119	1.015	0.751	0.405	0.102	0.000	0.173	0.502	0.879	1.211	1.424	1.470	1.331	1.013	0.549	0.000
	Structural Steel, Slab & Parapet	0.000	0.150	0.515	0.915	1.207	1.309	1.190	0.884	0.482	0.125	0.000	0.196	0.573	1.004	1.381	1.621	1.672	1.513	1.151	0.624	0.000
Exterior	Structural Steel	0.000	0.024	0.080	0.142	0.188	0.204	0.185	0.138	0.075	0.020	0.000	0.029	0.086	0.152	0.210	0.248	0.256	0.232	0.177	0.096	0.000
	Structural Steel & Slab	0.000	0.115	0.398	0.710	0.940	1.020	0.925	0.685	0.369	0.093	0.000	0.157	0.457	0.800	1.102	1.296	1.338	1.211	0.922	0.500	0.000
	Structural Steel, Slab & Parapet	0.000	0.139	0.477	0.846	1.117	1.212	1.101	0.820	0.446	0.116	0.000	0.181	0.529	0.926	1.274	1.496	1.543	1.396	1.062	0.576	0.000

Note:
Dead Load deflections are based on Pouring Sequence shown on dwg. no. 45240.

SHEET 5 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

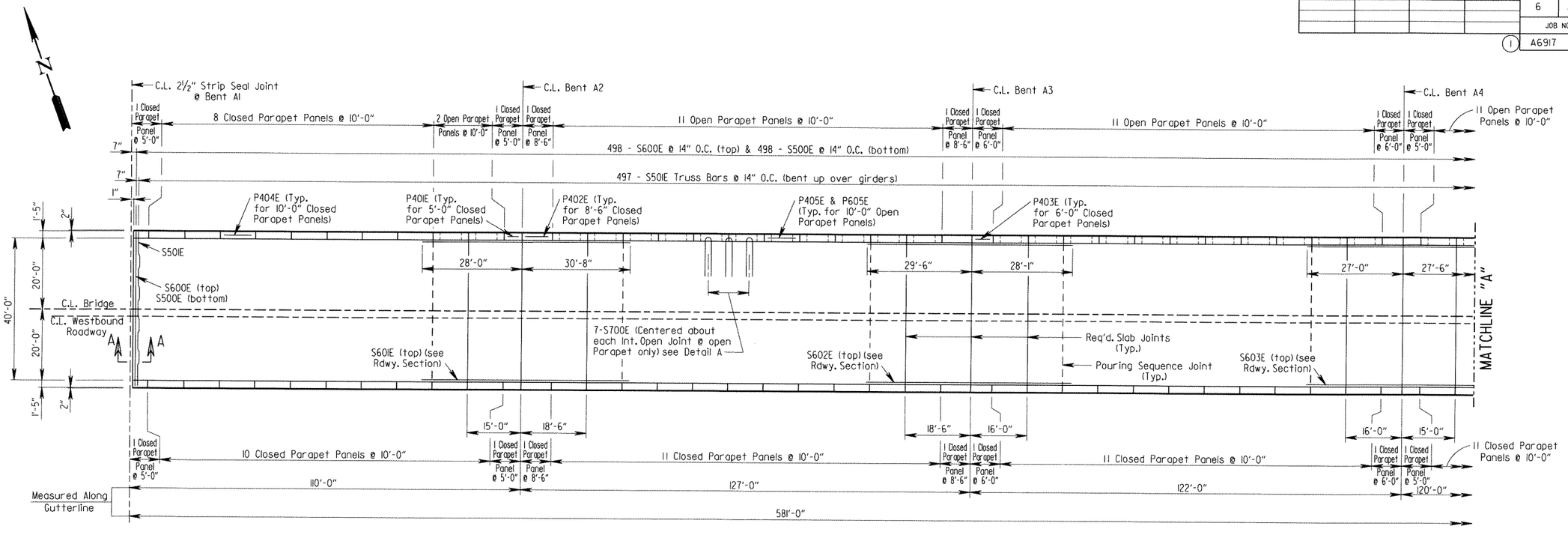
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.J.B. DATE: May 16, 2008 FILENAME: ILLIPG05
CHECKED BY: R.J.B. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. A6917 DRAWING NO. 45238

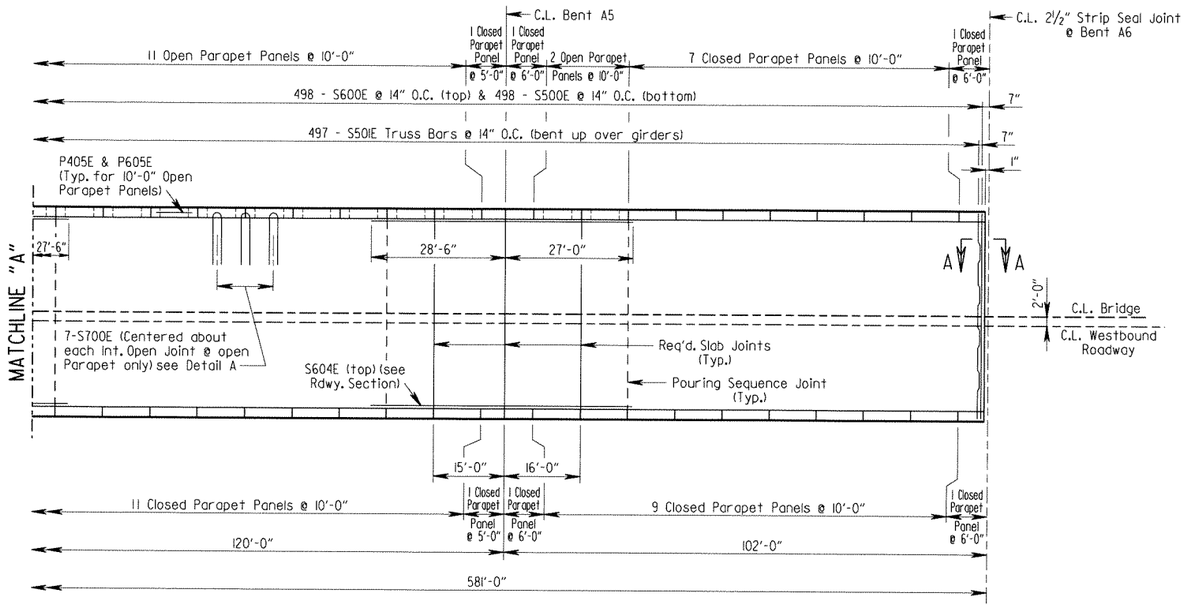
rlb 09-05-12

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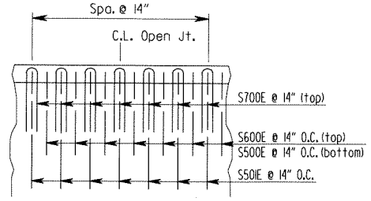
REINFORCING PLAN

Scale: 1/16" = 1'-0"



REINFORCING PLAN

Scale: 1/16" = 1'-0"



DETAIL A

N.T.S.

SHEET 6 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY

ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

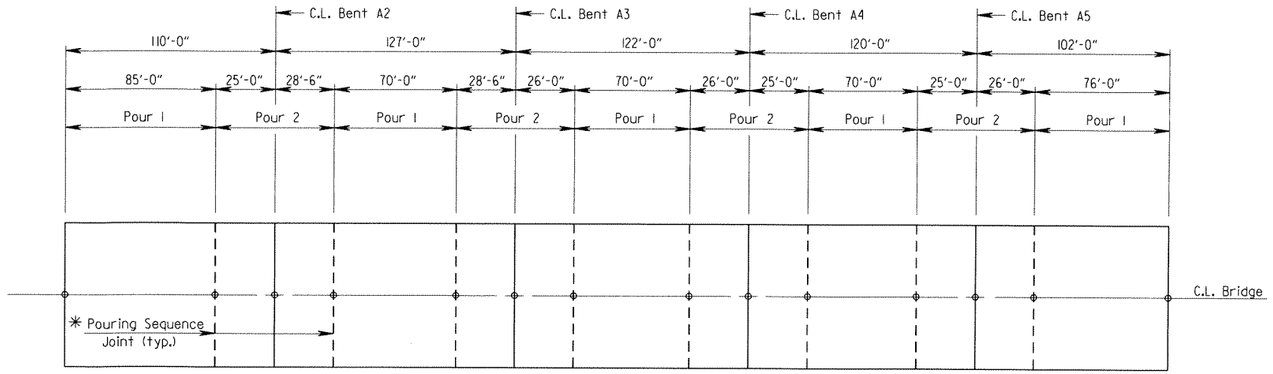
DRAWN BY: R.L.B. DATE: Jun 27,2003 FILENAME: ILLIPG06
CHECKED BY: M.P. DATE: Jun 27,2003 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: Jun 27,2003

BRIDGE NO. A6917 DRAWING NO. 45239

ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 12259
HANT L. RIAD
09/05/2012

rlb 09-05-12

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.		BB0804	110	156
				(1) A6917		CONT. UNIT		45240



* Align with parapet joints.

SLAB POURING SEQUENCE

N.T.S.

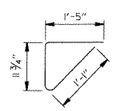
Note:
Pours with the same number may be placed simultaneously or separately. All pours (1) must be placed before pours (2) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. 72 hours shall elapse between the end of a pour and the start of an adjacent pour. Any railing pours made before entire slab unit has been placed must be approved by the Engineer.

BAR LIST FOR UNIT

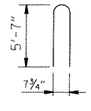
MK	No. Req'd.	Length	Dia. Pin
S700E	264	12'-0"	6"
S600E	498	42'-6"	Str.
S601E	69	58'-8"	Str.
S602E	69	57'-7"	Str.
S603E	69	54'-6"	Str.
S604E	69	55'-6"	Str.
S605E	4	3'-3"	Str.
S606E	8	8'-8"	Str.
S607E	2	42'-10"	Str.
S500E	498	42'-6"	Str.
S501E	497	43'-4"	3"
S400E	525	40'-0"	Str.
S401E	840	40'-0"	Str.
S402E	88	3'-4"	3"
P605E	185	9'-8"	Str.
P401E	64	4'-8"	Str.
P402E	32	8'-2"	Str.
P403E	64	5'-8"	Str.
P404E	536	9'-8"	Str.
P405E	148	9'-8"	Str.
P406E	1164	6'-4"	2"
P407E	1164	5'-7"	2"
P408E	185	5'-10"	2"
P409E	185	3'-4"	2"

Bending Diagrams
(Dimensions are out to out of bars.)

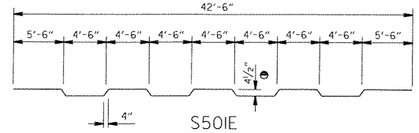
Note: All Bars are to be Epoxy Coated.



S402E

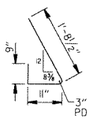


S700E

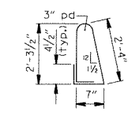


S501E

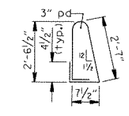
½" OVER TOLERANCE
NO UNDER TOLERANCE



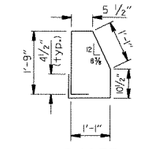
P409E



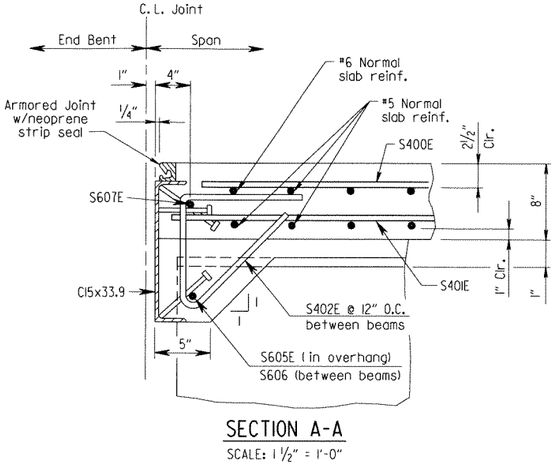
P408E



P406E

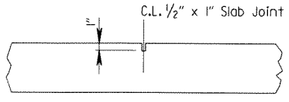


P407E



SECTION A-A

SCALE: 1 ½" = 1'-0"



Use Type 6 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Joint Sealer shall be measured and paid for as Class S(AE) Concrete-Bridge. Slab joints shall shall extend to the outside edge of the deck slab. Slab joints shall be installed before the parapet railing is poured. If slab joints are to be sawed, they shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the slab. Slab joints shall be placed at all pouring sequence construction joints and required slab joint locations.

SLAB JOINT DETAIL

N.T.S.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

SHEET 7 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

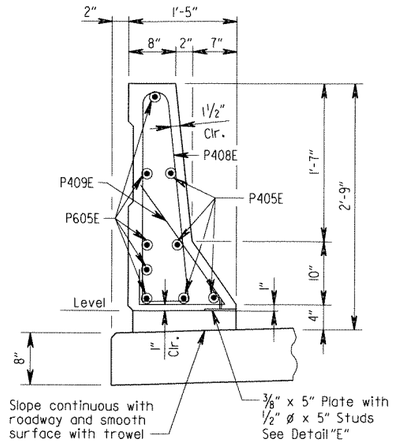
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: Jun 27,2003 FILENAME: ILLIPG07
CHECKED BY: M.P. DATE: Jun 27,2003 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: Jun 27,2003

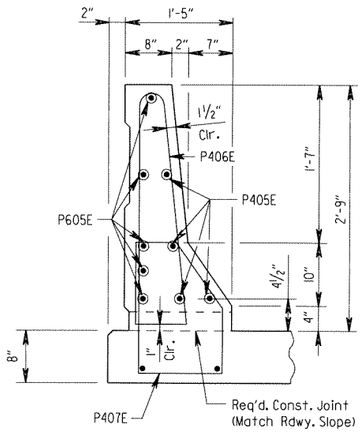
BRIDGE NO. A6917 DRAWING NO. 45240

rlb 09-05-12

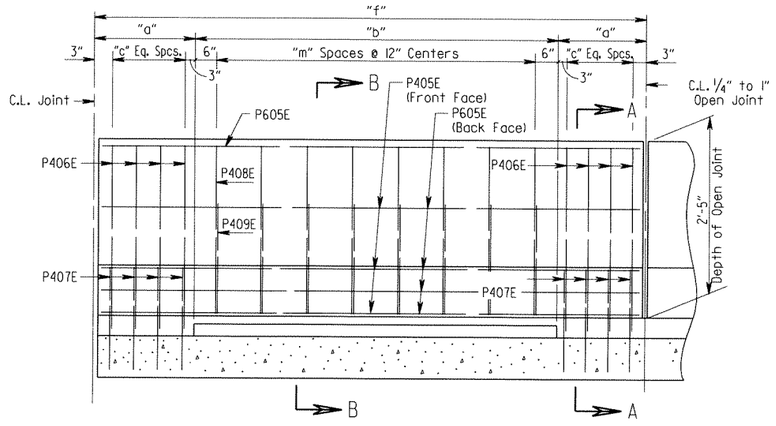
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0804	111	156
				(1) A6917		CONT. UNIT		45241



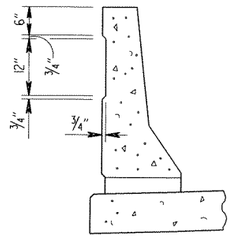
SECTION B-B



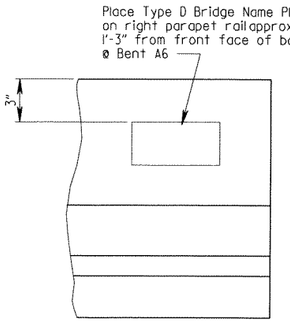
SECTION A-A



SECTION AT CURB FOR OPEN PARAPET RAIL

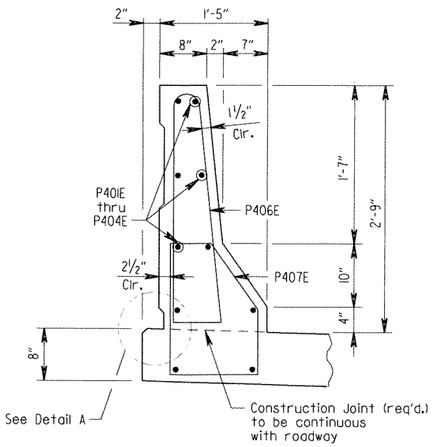


SECTION D-D

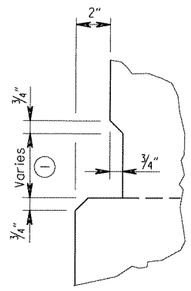


NAME PLATE DETAIL

N.T.S.

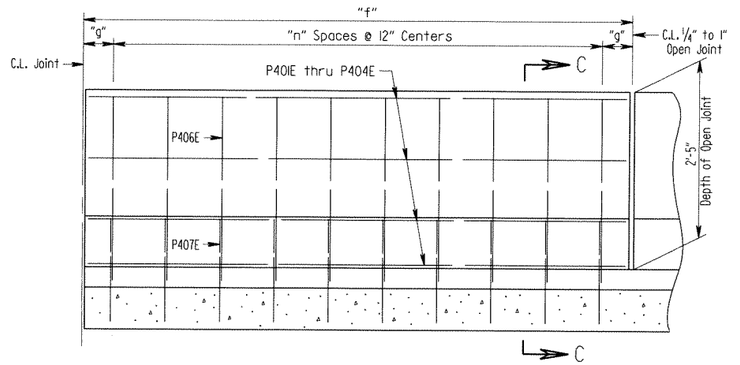


SECTION C-C

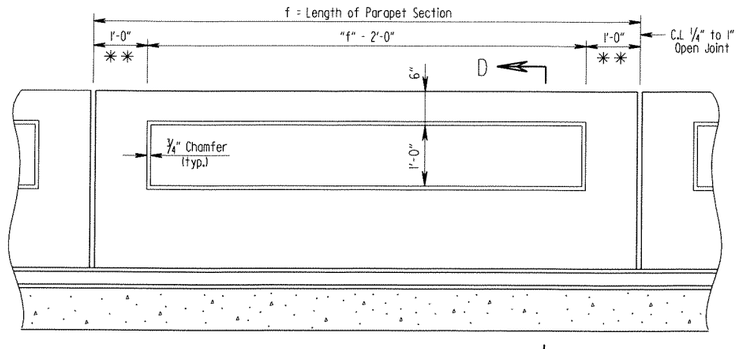


DETAIL A

(1) 3" on high side of parapet rail
3⅝" on low side of parapet rail

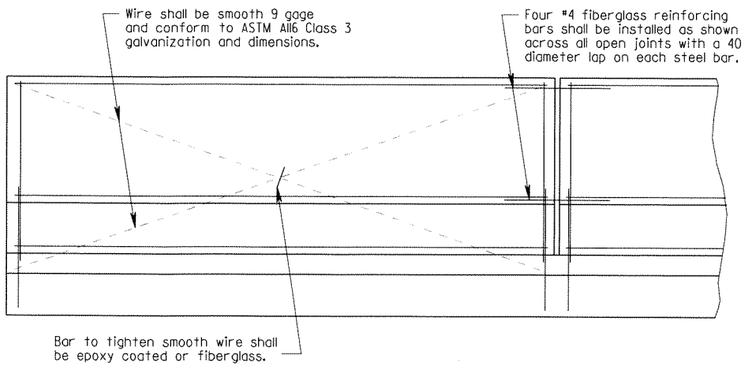


TYP. SECTION AT CURB FOR CLOSED PARAPET RAIL

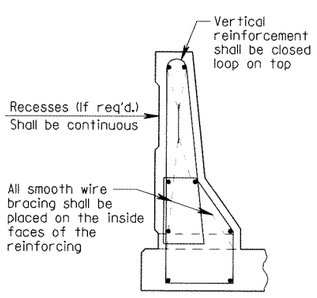


ELEVATION SHOWING TREATMENT FOR PARAPET RAIL

** Panel inset may be made continuous if slip forms are used.

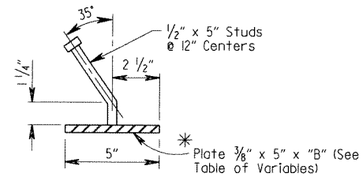


All panels shall be braced as shown to prevent racking. All open joints shall be sawed as soon as practical to a minimum width of ¼". To control cracking before sawing, all joints must be grooved before the concrete is set. Saving of the joints must be controlled so it will follow the grooved joint.



The extruded parapet shall conform to the horizontal and vertical lines shown on the plans or as directed by the Engineer and shall present a smooth, uniform appearance and texture. Exposed surfaces may be given a light brush finish or a class 3, textured coating finish in place of class 2 rubbed finish.

DETAILS OF OPTIONAL SLIPFORMING OF CONCRETE PARAPET RAIL



DETAIL "E"

Note:
Studs shall be 5" long, Granular Flux Filled, Solid Fluxed, or Equal, and automatically welded to plate. Studs and plate to be AASHTO M270, Grade 36 and paid for as "Structural Steel in Plate Girder Spans (M270, Grade 50W)"

* The surfaces of the ⅜" plates which will not be in contact with concrete shall be painted in accordance with section 638 or as approved by the engineer. Only one coat is required, and it shall be applied in the shop. Painting will not be paid directly but shall be considered subsidiary to "Structural Steel in Plate Girder Spans (M270, Grade 50W).

TABLE OF VARIABLES

Parapet Joint Variables	Closed Rail		Open Rail			
'f'	'g'	'n'	'a'	'b'	'c'	'm'
5'-0"	6"	4	———	———	———	———
6'-0"	6"	5	———	———	———	———
8'-6"	3"	8	———	———	———	———
10'-0"	6"	9	2'-6"	5'-0"	4	4

SHEET 8 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

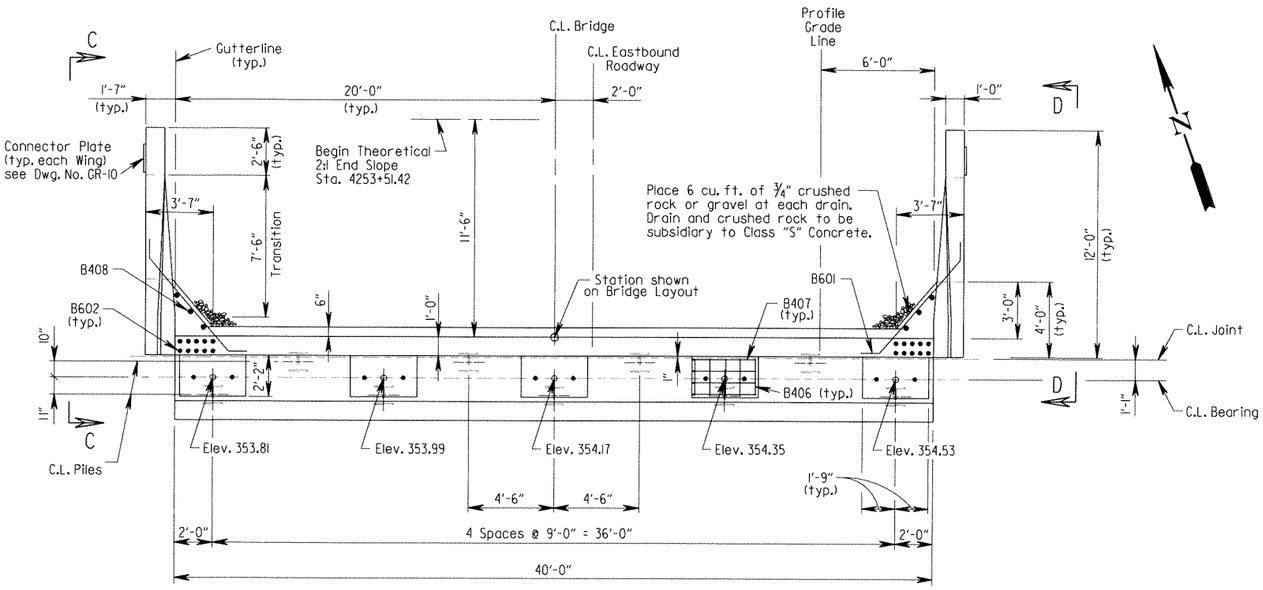
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: Jun 27,2003 FILENAME: ILLIPG08
CHECKED BY: M.P. DATE: Jun 27,2003 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: Jun 27,2003

BRIDGE NO. A6917 DRAWING NO. 45241

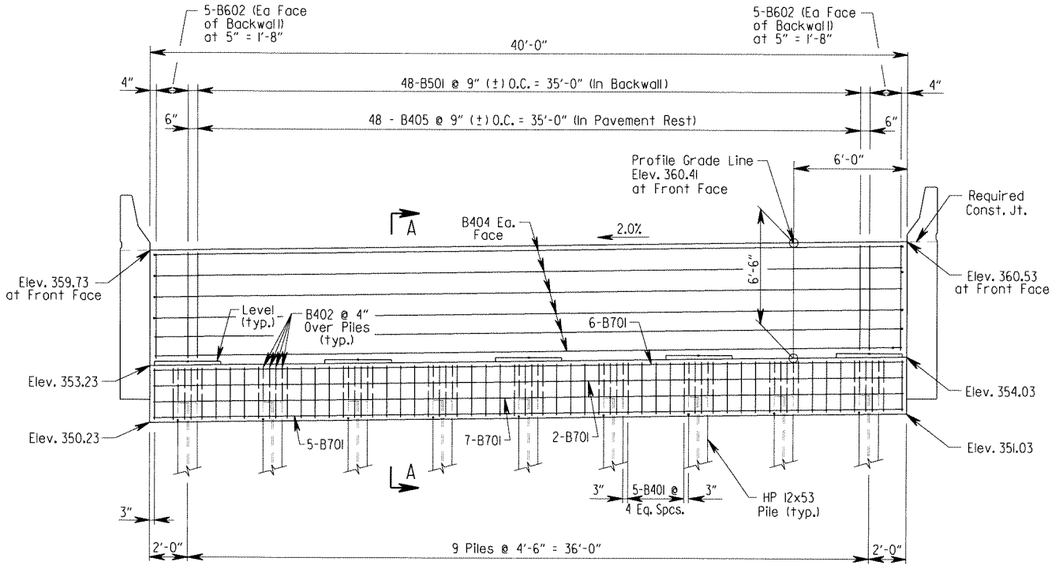
rlb 09-05-12

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.		BB0804	112	156
				(1) B6917		END BENT B1 & B6		45242



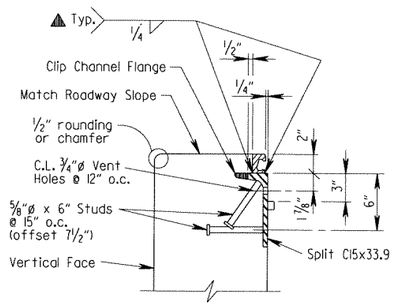
PLAN
Scale: 1/4" = 1'-0"
(Bent No. B1)

Note:
For additional Anchor Bolt and Bearing Details, see Dwg. No. 45255.



ELEVATION
Scale: 1/4" = 1'-0"
(Bent No. B1 Looking Back)

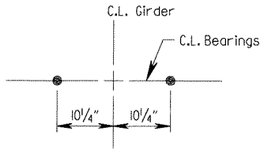
⚠ Shop Weld - See SP Job BB0804 "Armored Joint With Neoprene Strip Seal



Note: Concrete shall be hand packed under the joint armor in the backwall.

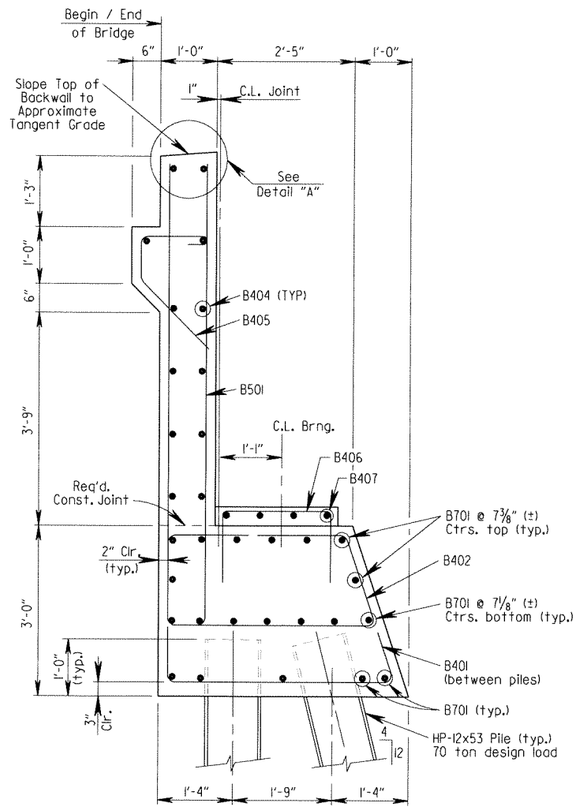
For additional details, See Dwg. No. 45235.

DETAIL "A"
Scale: 1 1/2" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT
Scale: 3/4" = 1'-0"

Note:
For Anchor Bolt Details, see dwg. no. 45255



SECTION A-A
Scale: 3/4" = 1'-0"

All concrete shall be Class "S" and be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

Structural Steel in End Bents shall be AASHTO M270, Gr. 50W and shall be paid for as "Structural Steel in Plate Girder Spans (M270, Gr. 50W)".

If anchor bolts are to be drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

Backwall shall not be poured before beams are in place and concrete deck pours have been made.

For additional information, see Layout.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

SHEET 1 OF 3

DETAILS OF END BENT B1 & B6
INTERSTATE 40 BRIDGE OVER LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

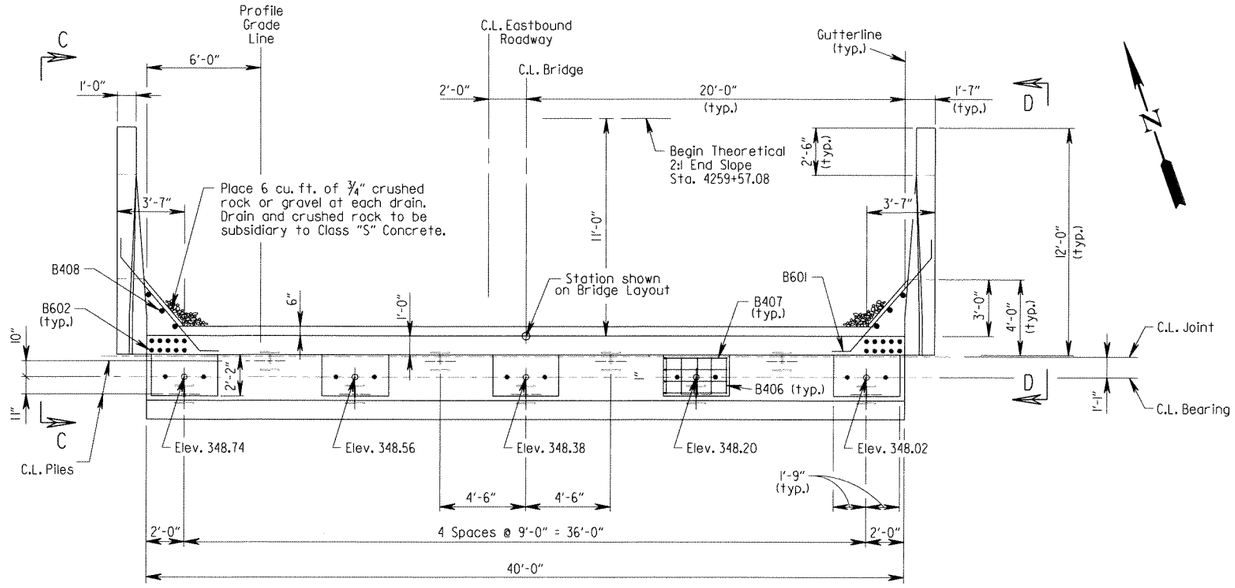
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: May 16, 2008 FILENAME: ILLIEB04
CHECKED BY: S.L.B. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. B6917 DRAWING NO. 45242

FD 09-05-12

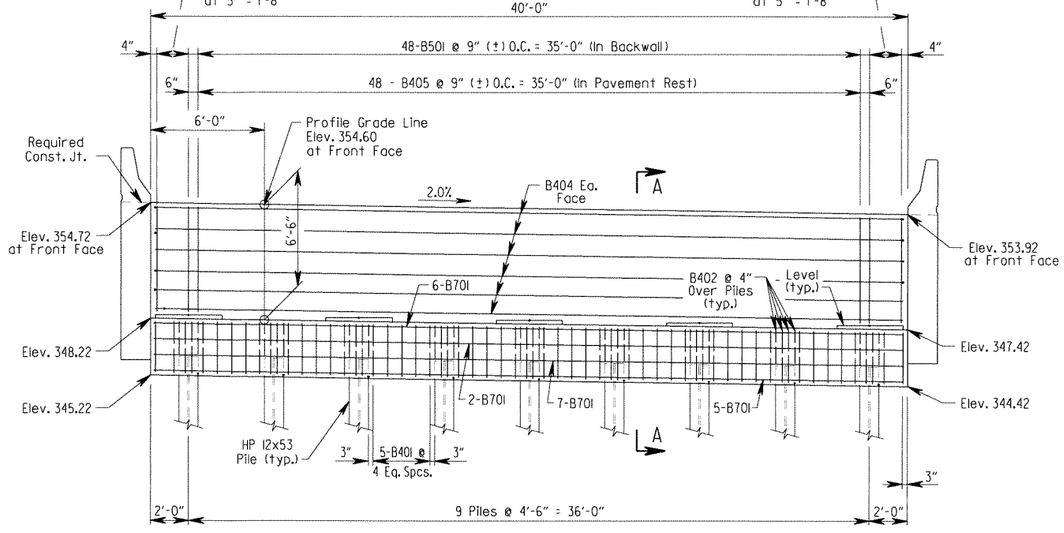
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0804	113	156
				(1)	B6917	END BENT BI & B6		45243



PLAN

Scale: ¼" = 1'-0"
(Bent No. B6)

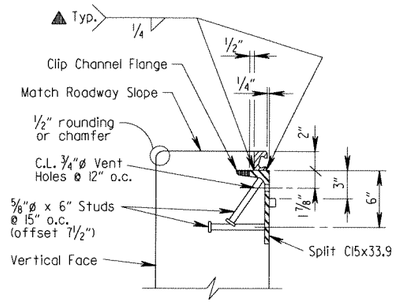
Note:
For additional Anchor Bolt and Bearing Details, see Dwg. No. 45255.



ELEVATION

Scale: ¼" = 1'-0"
(Bent No. B6 Looking Ahead)

▲ Shop Weld - See SP Job BB0804 "Armored Joint With Neoprene Strip Seal"

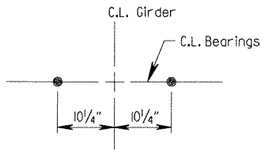


Note: Concrete shall be hand packed under the joint armor in the backwall.

For additional details, See Dwg. No. 45235.

DETAIL "A"

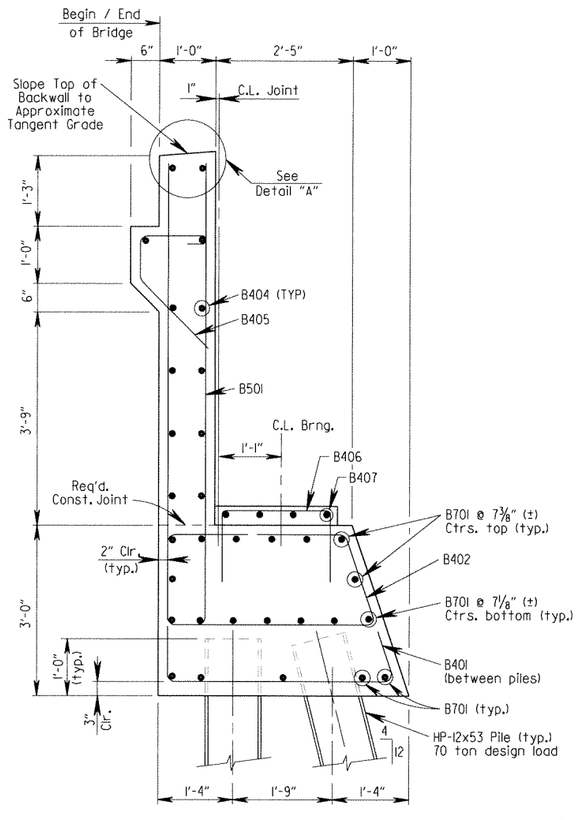
Scale: 1½" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT

Scale: ¾" = 1'-0"

Note:
For Anchor Bolt Details, see dwg. no. 45255



SECTION A-A

Scale: ¾" = 1'-0"

All concrete shall be Class "S" and be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

Structural Steel in End Bents shall be AASHTO M270, Gr. 50W and shall be paid for as "Structural Steel in Plate Girder Spans (M270, Gr. 50W)".

If anchor bolts are to be drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

Backwall shall not be poured before beams are in place and concrete deck pours have been made.

For additional information, see Layout.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

SHEET 2 OF 3

DETAILS OF END BENT BI & B6
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

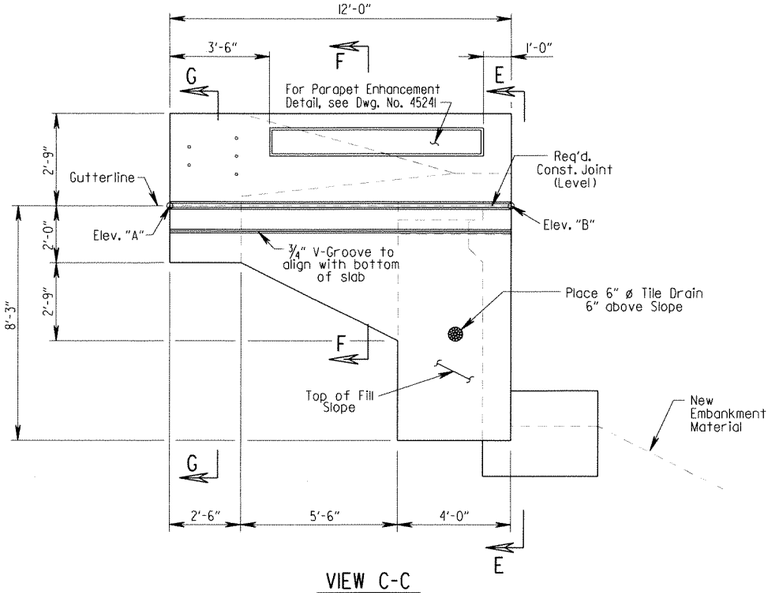
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: May 16, 2008 FILENAME: ILLIEB05
CHECKED BY: S.L.B. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. B6917 DRAWING NO. 45243

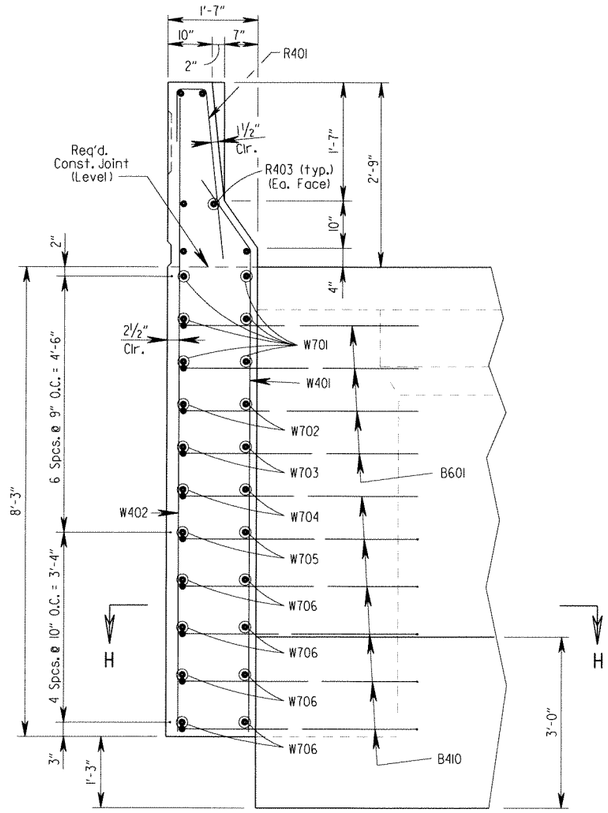
rib. 09-05-12

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.		BB0804	114	156
				(1) B6917		WING DETAILS		45244



VIEW C-C

Scale: ⅜" = 1'-0"



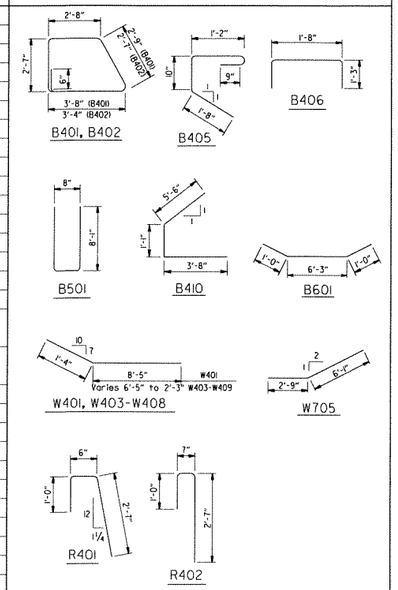
VIEW E-E

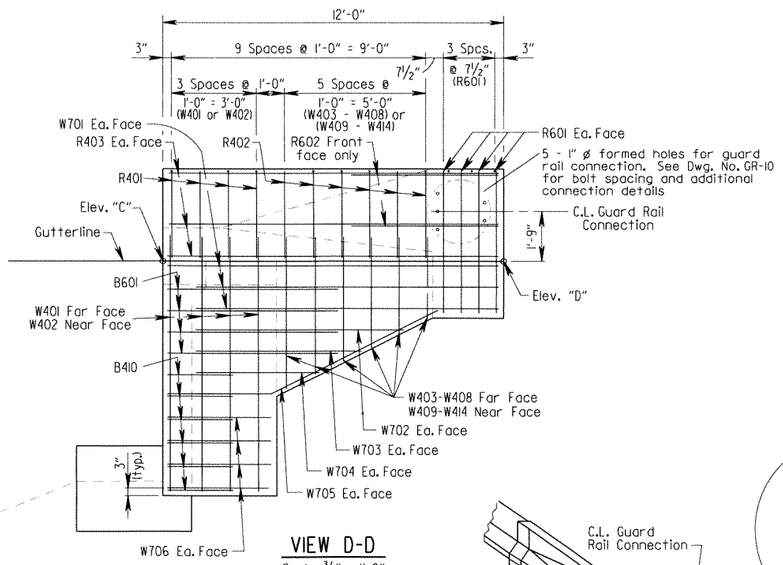
Scale: ¾" = 1'-0"

BAR LIST - PER END BENT

MK	No. Req'd.	Length	Dia. Pin
F701	20	39'-8"	Str.
B601	8	8'-3"	4½"
B602	20	7'-1"	Str.
B501	48	16'-8"	2½"
B401	27	12'-10"	2"
B402	36	11'-4"	2"
B404	12	39'-8"	Str.
B405	48	4'-3"	2"
B406	25	4'-0"	2"
B407	20	3'-2"	Str.
B408	6	7'-2"	Str.
B410	12	10'-3"	2"
W401	8	9'-9"	2"
W402	8	10'-6"	Str.
W403 to W408	2 Each	5'-11" TO 3'-11"	2"
W409 to W414	2 Each	6'-11" TO 4'-11"	Str.
W701	12	10'-8"	Str.
W702	4	7'-8"	Str.
W703	4	6'-4"	Str.
W704	4	5'-0"	Str.
W705	4	8'-10"	5¼"
W706	16	2'-8"	Str.
R601	16	4'-5"	Str.
R602	6	5'-0"	Str.
R401	8	3'-11"	2"
R402	12	4'-0"	2"
R403	12	9'-8"	Str.

Bending Diagrams (Dimensions are out to out of bars.)

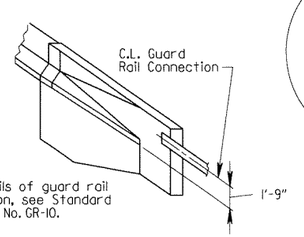




VIEW D-D

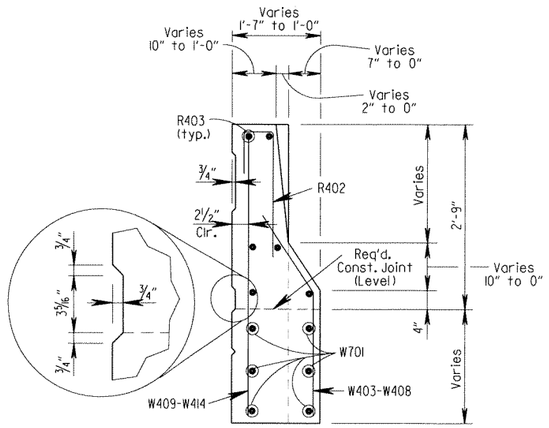
Scale: ⅜" = 1'-0"

ELEV.	END BENT B1	END BENT B6
A	359.85	354.60
B	359.73	354.72
C	360.53	353.92
D	360.65	353.80



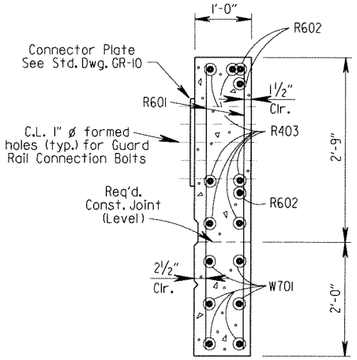
THREE DIMENSIONAL VIEW OF RAIL

N.T.S.



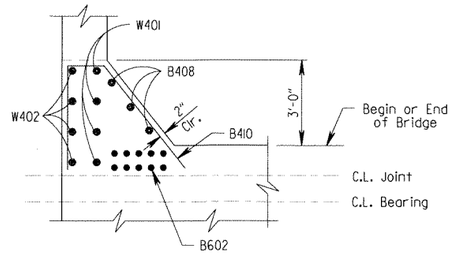
SECTION F-F

Scale: ¾" = 1'-0"



SECTION G-G

Scale: ¾" = 1'-0"



SECTION H-H

Scale: ⅜" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 12259
HANY L. RIAD
09/05/2012

SHEET 3 OF 3

DETAILS OF END BENT B1 & B6
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

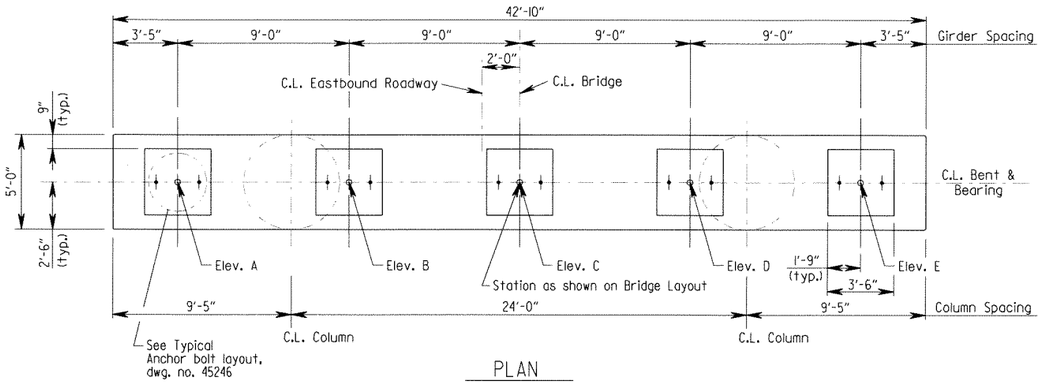
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.B. DATE: May 16, 2008 FILENAME: ILLIEB06
CHECKED BY: S.L.B. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. B6917 DRAWING NO. 45244

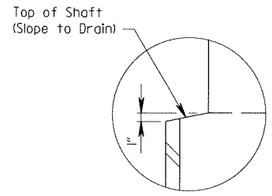
rb 09-05-12

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.		BB0804	115	156
				(1) B6917		INT. BENT		45245



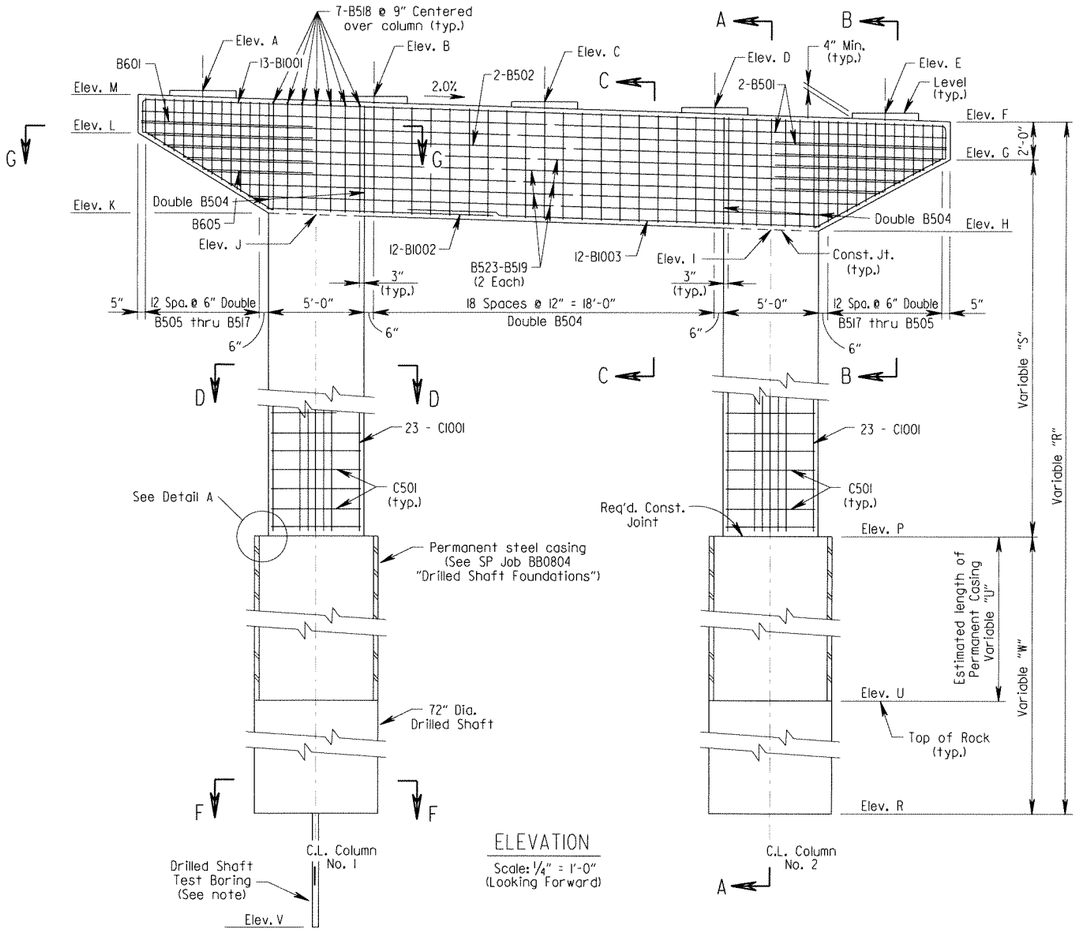
PLAN

SCALE: 1/4" = 1'-0"



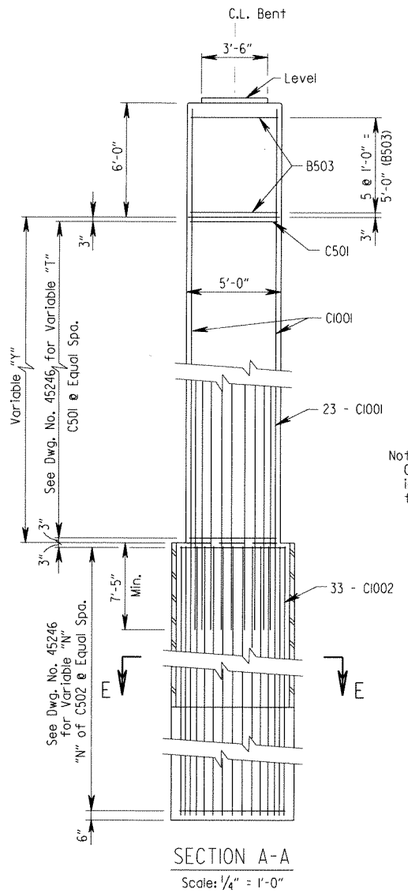
DETAIL A

N.T.S.



ELEVATION

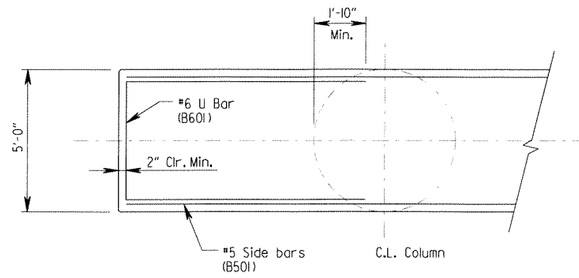
Scale: 1/4" = 1'-0"
(Looking Forward)



SECTION A-A

Scale: 1/4" = 1'-0"

Note:
C1001 bars shall be secured in place before concrete at the top of shaft is placed.



SECTION G-G

N.T.S.

NOTE:
Prior to commencement of field work the contractor shall submit a Drilled Shaft Work Plan (see SP Job BB0804 "Drilled Shaft Foundations" for details). The Drilled Shaft Work Plan shall include but not be limited to consideration of all arrangements, materials, tools, and operations necessary to adequately seal and rigidly support casing, even at drilled shaft locations where the soil layers that overlie rock are thin or absent.

Conduct drilled shaft test borings at locations indicated on Dwg. No. 45225, plus other drilled shaft locations as directed by the Engineer. See Special Provision Job No. BB0804.

✱ Estimated. Actual top of rock will be determined by the test borings conducted in accordance with SP Job BB0804 "Drilled Shaft Test Borings".

BENT VARIABLES

BENT	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E	ELEV. F	ELEV. G	ELEV. H	ELEV. I	ELEV. J	ELEV. K	ELEV. L	ELEV. M	ELEV. P	ELEV. R	ELEV. U✱	ELEV. V	"R"	"S"	"U"	"W"	"Y" Col. No. 1	"Y" Col. No. 2
B2	353.47	353.29	353.11	352.93	352.75	352.39	350.39	346.53	346.58	347.06	347.11	351.25	353.25	340.00	289.00	308.00	283.00	63'-4 5/8"	10'-4 11/16"	32'-0"	58'-0"	7'-0 3/4"	6'-7"
B3	352.20	352.02	351.84	351.66	351.48	351.12	349.12	345.26	345.31	345.79	345.84	349.98	351.98	340.00	286.00	305.00	280.00	75'-1 7/16"	9'-1 7/16"	35'-0"	64'-0"	5'-9 1/2"	5'-3 3/4"
B4	351.03	350.85	350.67	350.49	350.31	349.95	347.95	344.09	344.14	344.62	344.67	348.81	350.81	340.00	285.00	304.00	279.00	64'-11 3/8"	7'-11 3/8"	36'-0"	51'-0"	4'-7 7/16"	4'-1 11/16"
B5	349.81	349.63	349.45	349.27	349.09	348.73	346.73	342.87	342.92	343.40	343.45	347.59	349.59	340.00	294.00	313.00	288.00	52'-8 3/4"	6'-8 3/4"	27'-0"	46'-0"	3'-4 11/16"	2'-11 1/16"



09/05/2012

SHEET 1 OF 2

DETAILS OF INT. BENTS B2, B3, B4 & B5

INTERSTATE 40 BRIDGE OVER

LAKE DARDANELLE AT ILLINOIS BAYOU

POPE COUNTY

ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: R.J.B. DATE: May 16, 2008 FILENAME: ILLIBD03

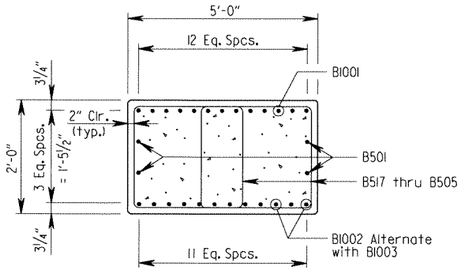
CHECKED BY: R.J.B. DATE: May 16, 2008 SCALE: AS SHOWN

DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. B6917 DRAWING NO. 45245

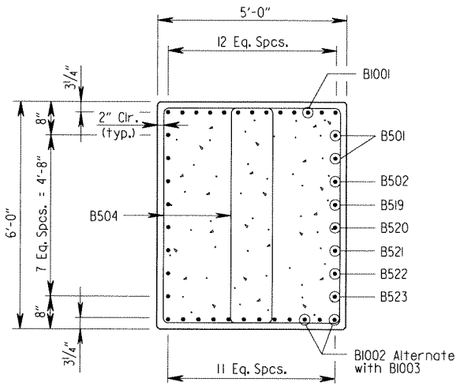
rb 09-05-12

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.		BB0804	116	156
				(1) B6917		INT. BENT		45246



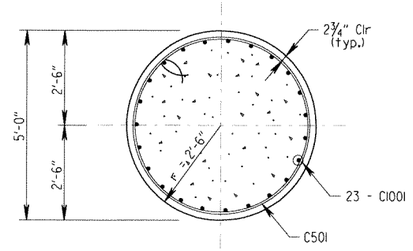
SECTION B-B

SCALE: 1/2" = 1'-0"



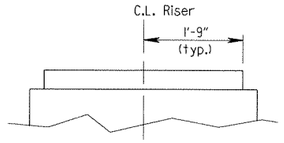
SECTION C-C

SCALE: 1/2" = 1'-0"



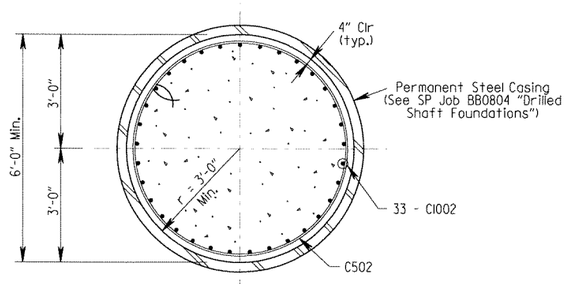
SECTION D-D

SCALE: 1/2" = 1'-0"



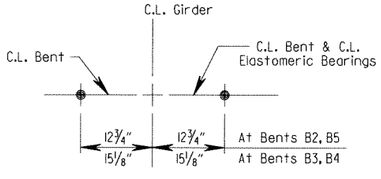
TYPICAL SECTION THRU RISER

Scale: 3/4" = 1'-0"



SECTION E-E

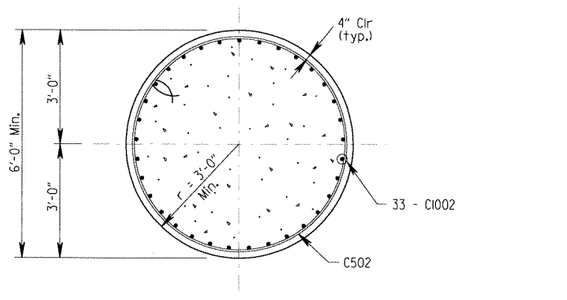
SCALE: 1/2" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT

Scale: 3/4" = 1'-0"

Note: For Anchor Bolt Details, see dwg. no. 45255



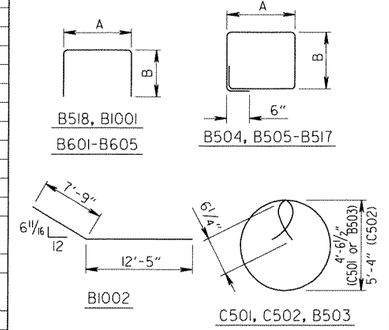
SECTION F-F

SCALE: 1/2" = 1'-0"

BAR LIST - PER BENT

		MK	No. Req'd.	Length	A	B	Dia. Pin
BENT	B2	B1001	13	45'-7"	42'-6"	1'-9"	10"
		B1002	12	20'-2"	———	———	10"
		B1003	12	32'-1"	———	———	10"
	B3	B601	2	21'-4"	4'-2"	8'-7"	4 1/2"
		B602	2	21'-4"	4'-2"	8'-7"	4 1/2"
		B603	2	19'-2"	4'-2"	7'-6"	4 1/2"
		B604	2	16'-11"	4'-2"	6'-4 1/2"	4 1/2"
		B605	2	14'-8"	4'-2"	5'-3"	4 1/2"
	B4	B501	4	42'-6"	———	———	Str.
		B502	2	42'-2"	———	———	Str.
		B503	12	15'-9"	———	———	3 3/4"
		B504	46	18'-0"	3'-1"	5'-8"	2 1/2"
		B505 thru B517	4 Ea.	10'-6" to 17'-4"	3'-1"	1'-11" to 5'-4"	2 1/2"
		B518	14	15'-9"	4'-8"	5'-8"	2 1/2"
	B5	B519 thru B523	2 Ea.	40'-2" to 31'-0"	———	———	Str.
BENT	B2 COL1	C1001	23	20'-0"	———	———	Str.
		* C1002	33	50'-6"	———	———	Str.
		C501	T = 8	15'-7"	———	———	3 3/4"
		* C502	N = 52	18'-2"	———	———	3 3/4"
	B2 COL2	C1001	23	19'-6"	———	———	Str.
		* C1002	33	50'-6"	———	———	Str.
		C501	T = 8	15'-7"	———	———	3 3/4"
		* C502	N = 52	18'-2"	———	———	3 3/4"
	B3 COL1	C1001	23	18'-6"	———	———	Str.
		* C1002	33	53'-6"	———	———	Str.
		C501	T = 7	15'-7"	———	———	3 3/4"
		* C502	N = 55	18'-2"	———	———	3 3/4"
	B3 COL2	C1001	23	18'-0"	———	———	Str.
		* C1002	33	53'-6"	———	———	Str.
		C501	T = 6	15'-7"	———	———	3 3/4"
		* C502	N = 55	18'-2"	———	———	3 3/4"
	B4 COL1	C1001	23	17'-3"	———	———	Str.
		* C1002	33	54'-6"	———	———	Str.
		C501	T = 6	15'-7"	———	———	3 3/4"
		* C502	N = 56	18'-2"	———	———	3 3/4"
	B4 COL2	C1001	23	16'-9"	———	———	Str.
		* C1002	33	54'-6"	———	———	Str.
		C501	T = 5	15'-7"	———	———	3 3/4"
		* C502	N = 56	18'-2"	———	———	3 3/4"
	B5 COL1	C1001	23	16'-0"	———	———	Str.
		* C1002	33	45'-6"	———	———	Str.
		C501	T = 4	15'-7"	———	———	3 3/4"
		* C502	N = 47	18'-2"	———	———	3 3/4"
	B5 COL2	C1001	23	15'-6"	———	———	Str.
		* C1002	33	45'-6"	———	———	Str.
		C501	T = 4	15'-7"	———	———	3 3/4"
		* C502	N = 47	18'-2"	———	———	3 3/4"

Bending Diagrams (Dimensions are out to out of bars.)



* Non-Pay Item, Subsidiary to SP Job BB0804 "Drilled Shaft Foundations (72" Dia.)"

GENERAL NOTES:

All concrete shall be Class "S" with a minimum compressive strength of f'c = 3500 psi. Concrete shall be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi).

Top reinforcing bars in cap shall be properly placed to avoid interference with anchor bolts or sheet metal sleeves.

For elastomeric bearing details, see drawing no. 45255.

For additional information, see Layout.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
RANY L. RIAD
09/05/2012

SHEET 2 OF 2

DETAILS OF INT. BENT NOS. B2, B3, B4 & B5
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

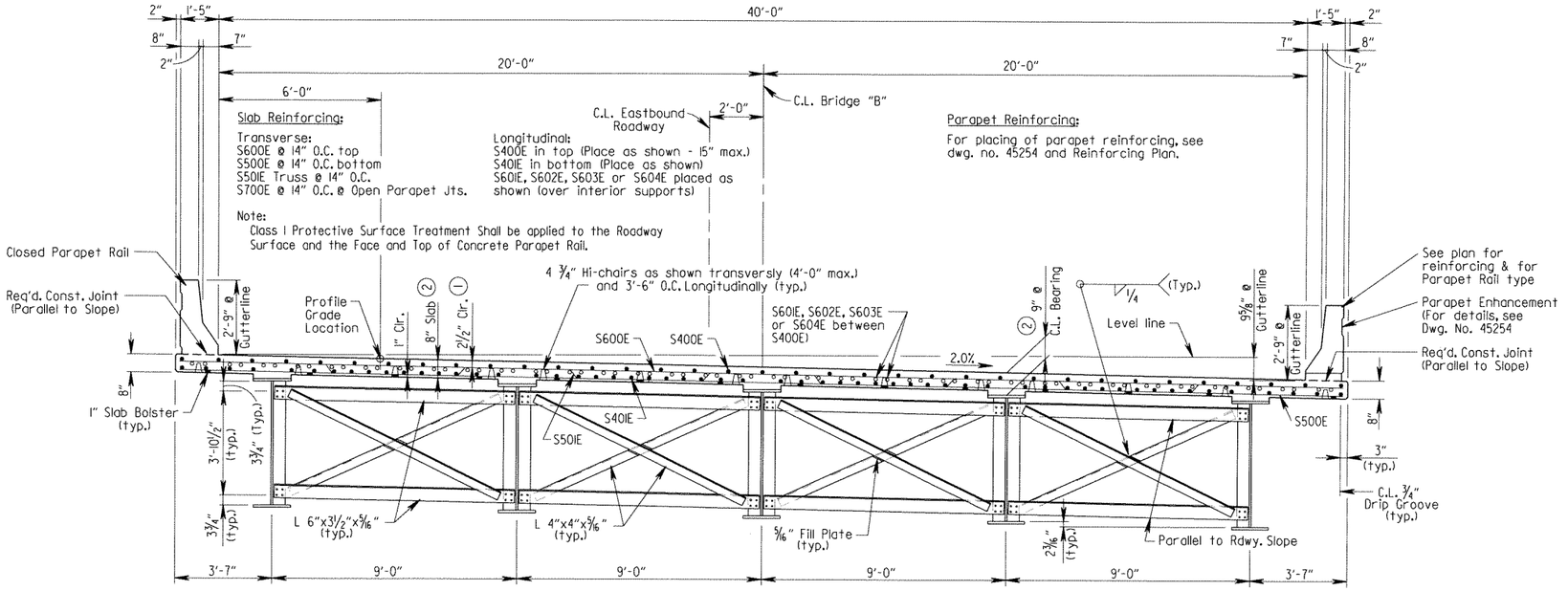
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.J.B. DATE: May 16, 2008 FILENAME: ILLIB004
CHECKED BY: R.J.B. DATE: May 16, 2008 SCALE: AS SHOWN
DESIGNED BY: G.P.B. DATE: May 16, 2008

BRIDGE NO. B6917 DRAWING NO. 45246

rlb 09-05-12

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.		BB0804	117	156
				(1) B6917		CONT. UNIT		45247

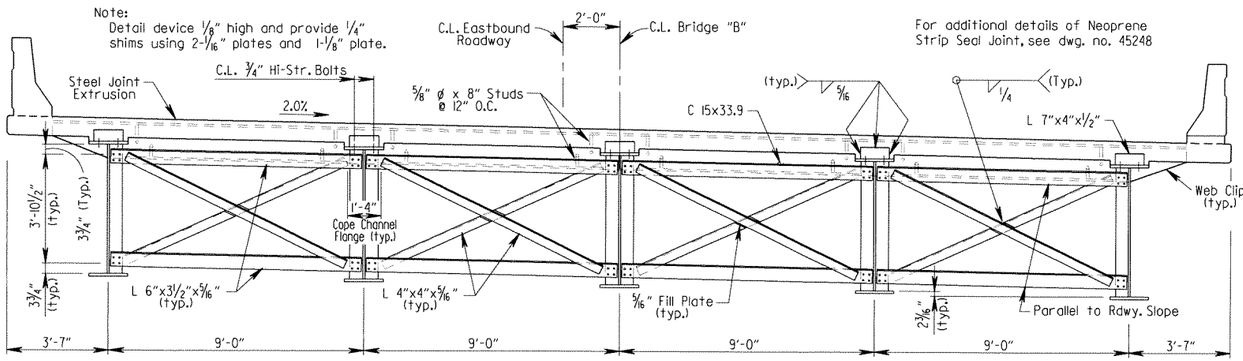


Note:
At Contractor's Option, in lieu of providing bar S501E, one straight epoxy coated #5 bar top and bottom may be substituted. Payment for Reinforcing willbe based on the weight of bar S501E.

ROADWAY SECTION NEAR INT. BENT

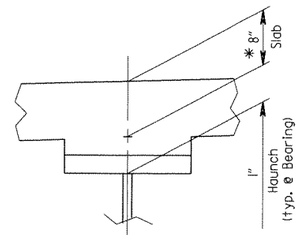
Scale: ⅜" = 1'-0"
(Looking Forward)

(1) - Tolerance: Minus = ¼". Plus equal to amount of Slab Thickening used to meet Slab Thickness Tolerance - see Typ. Haunch Detail.
(2) - Refer to Typ. Haunch Detail



EXPANSION DEVICE SECTION AT NEOPRENE STRIP SEAL JOINT

Scale: ⅜" = 1'-0"
(Looking Forward)



Haunch is required. Slab may be thickened and/or the haunch thickened to maintain slab thickness tolerance.

Haunch dimension may vary within the following limits to maintain the grade and slab thickness tolerance: Minimum occurs when top flange contacts bottom reinforcing steel. Maximum: 1½"

Tolerances shown are applicable for removable forming. See Std. Dwg. 14991 for tolerances when permanent steel deck forms are used. Payment for concrete will be based on removable deck forming.

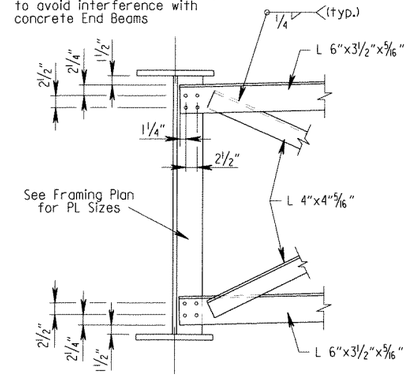
* Thickness as detailed on Roadway Section. Tolerance is minus ¼" and plus ½".

Note:
No increase in concrete and structural steel quantities will be made to meet slab tolerances.

TYPICAL HAUNCH DETAIL

N.T.S.

Note:
Face X-Frame angles and plates to avoid interference with concrete End Beams



TYPICAL CROSS FRAME CONNECTION

N.T.S.

SHEET 1 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 12259
HANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: Jun 27,2003 FILENAME: ILLIPG09
CHECKED BY: M.P. DATE: Jun 27,2003 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: Jun 27,2003

BRIDGE NO. B6917 DRAWING NO. 45247

rb 09-05-12

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.		BB0804	118	156
				(1) B6917		CONT. UNIT		45248

GENERAL NOTES

All concrete shall be Class S(AE) with a minimum 28 day compressive strength f'c = 4,000 psi. Concrete shall be poured in the dry and all exposed corners to be chamfered ¾" unless otherwise noted.

Concrete in bridge superstructure shall be placed and consolidated for the entire pour and screeded off before any concrete has taken its initial set. This may require the use of a retarding agent.

The concrete deck shall be given a tine finish in accordance with Section 802.19 of the Standard Specifications for Class 5, Bridge Roadway Surface Finish. Movement of the finishing machine across new concrete shall be on planks placed on the surface and shall be prohibited for 72 hours after finishing the pour. Sufficient concrete must be placed ahead of the strike-off to fully load the beam. If a longitudinal strike-off is used, a vertical camber adjustment must be made in the strike-off to account for the future dead-load deflection of the railing. A minimum of 72 hours shall elapse between completion of the slab and the pouring of the parapet railing.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 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 Bridge (Grade 60)".

All structural steel shall be AASHTO M270, Gr. 50W unless otherwise noted and shall be paid for at the unit price per pound bid for "Structural Steel in Plate Girder Spans (M270, Gr. 50W)" unless otherwise noted. AASHTO M270, Gr. 50W steel shall not be painted. All exposed surfaces to be cleaned in accordance with section 807.84(e) unless otherwise noted. Structural steel completely embedded in concrete may be AASHTO M270, Gr. 36.

Girder webs, girder flanges, and web and flange splice plates are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test specified in section 807.05 of the Standard Specifications. This work and material will not be paid for directly but is to be considered as subsidiary to the item "Structural Steel in Plate Girder Spans (M270, Gr. 50W)".

Requests for substitution of structural steel shapes shown with shapes of greater size must be submitted by the Contractor to the Engineer for approval. Steels of equal or greater strengths will be accepted only when shown on the approved shop drawings. Shapes and materials shown in the plans will be the basis of payment and no additional compensation will be made for any adjustments due to substitutions.

Cross frames shall be installed as girders are erected. All bolts in cross-frames and field splices shall be installed and tightened in accordance with Subsection 807.71 of the Standard Specifications prior to pouring of the slabs.

Drawings show general features of design only. Shop drawings shall be made in accordance with Section 807.04, submitted and approval secured before fabrication is begun. Girder webs may be made by shop splicing with minimum lengths of 25'-0" for sections. Flange plates longer than 50'-0" may be made by shop splicing with minimum lengths of 25'-0" for sections. Material specifications and location of shop-welded splices, if any, shall be shown on the shop drawings. No additional payment for welds for these splices will be made.

All girders shall be blocked in their true position with webs horizontally in the shop, in groups of a minimum of 3 sections as specified in Section 807.54(b)(2). The camber, length of sections, distance between bearings and opening of joints shall be measured with the beams in this position and this information shall become part of the permanent record of this job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All girder dimensions are based on a temperature of 60 degrees F. A tolerance of ¼" (plus or minus) is allowed for camber.

Girder webs, girder flanges, and flange splice plates for main members shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If additional welds are required, whether temporary or permanent, a formal request with detailed drawings shall be submitted to the Engineer for approval; however, additional welds used for attaching falsework support devices or screed rail supports to the structural steel that do not exceed the limitations of subsection 802.13 will not require approval prior to construction. All welding shall conform to subsection 807.26.

Field connections to be bolted with high-strength bolts. Bolts shall be ¾" dia. except as noted and open holes ⅞" dia. except as noted. Bolt spacing shall be 2½" for ¾" dia. bolts unless otherwise noted. Minimum edge distance shall be 1¼" unless otherwise noted. Bolts shall be placed with heads on the outside face of the exterior girder and on the bottom of the girder flanges. Holes for ¾" dia. high-strength bolts may be ⅝" dia. if a washer is supplied for use under both the nut and head of bolt.

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.

Groove welds in main members shall be Quality Control (Q.C.) tested by nondestructive testing, as required by the Standard Specifications. Fillet welds at flange to web plate connections shall be Q.C. tested by the magnetic particle method. All Quality Control (Q.C.) testing is at the Contractor's expense.

Live Loading: HS20, Military Loading — Method of Design: Load Factor

Materials and Strengths:

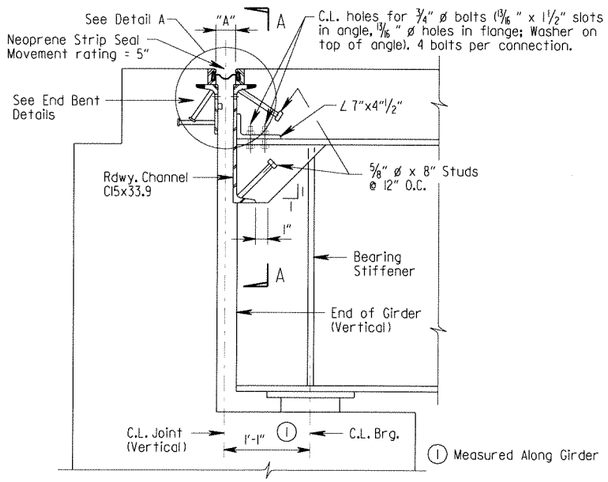
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)	fy = 60,000 psi
Class S(AE) Concrete	f'c = 4,000 psi
Structural Steel (AASHTO M270, Gr. 50W)	Fy = 50,000 psi
Structural Steel (AASHTO M270, Gr. 36)	Fy = 36,000 psi

Load Distribution:

	Interior Girder	Exterior Girder
Dead Load: To Girder:	933 plf + 1.3 (Wt. of Gir.)	841 plf + 1.3 (Wt. of Gir.)
To Composite Girder:	▨ 312 plf	▨ 312 plf

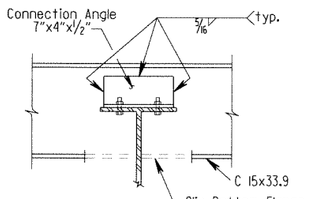
▨ Includes 160 plf future wearing surface.

Live Load: To Composite Girder:	1.636 Wheels + Impact	1.440 Wheels + Impact



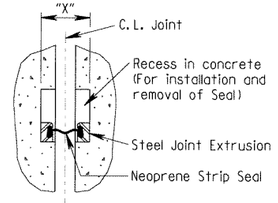
SECTION THRU JOINT AT END BENTS

N.T.S.



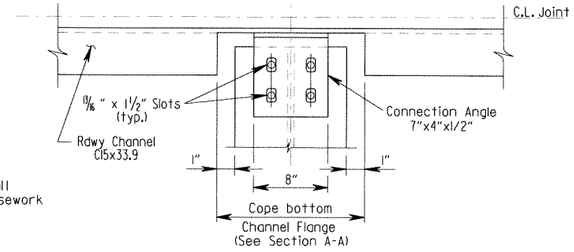
SECTION A-A

N.T.S.



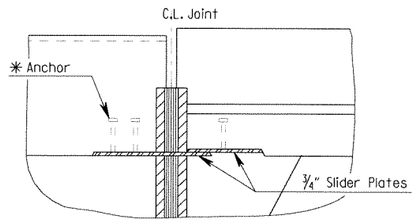
SECTION D-D

N.T.S.



TYPICAL CHANNEL CONNECTION

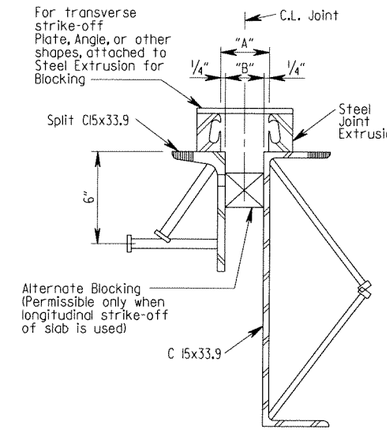
N.T.S.



Notes:
Details of Joint Turn-Up in Curb and Parapet are general and show basic Design Controls only. See Special Provisions.
✳ The Method of Attachment of the Slider Plate Assembly or similar device must be such that it may be removed in order to provide for future replacement of the Neoprene Seal.
Slider Plates shall be AASHTO M270, Grade 50W.
Channels, Angles, Studs and Slider Plates shall be paid for as "Structural Steel in Plate Girder Spans" (M270, Grade 50W).
Steel Joints Extrusion and Slider Plates anchor system are to be considered Subsidiary to the Item "Armored Joint with Neoprene Strip Seal).

SECTION C-C AT END BENT

N.T.S.



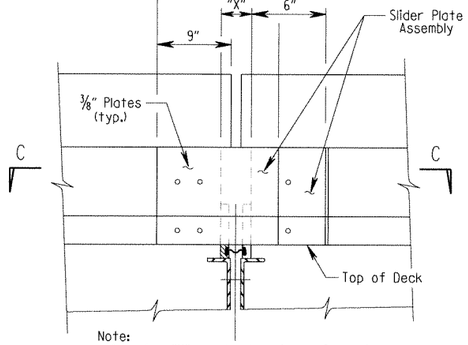
DETAILS FOR BLOCKING EXPANSION JOINT DEVICE

N.T.S.

Note:
Each Expansion Joint device shall be blocked in the shop by the Fabricator to the dimension shown for 60° F and the blocking details shall be shown on the Shop Drawings. The blocking shall not be removed until the slab on one side is complete. Blocking shall be placed within 2'-0" of each end of the device and with a maximum spacing of 8'-0".

EXPANSION DEVICE INSTALLATION AT END BENTS:
After the end bent backwall forms are in place and all the girders are erected, the blocked expansion device shall be installed and adjusted for grade. The end bent angle shall be firmly secured to the backwall forms and connection bolts on the girders loosely installed.

Immediately prior to pouring the concrete deck, the blocking shall be removed and the joint width adjusted for temperature. Joint openings shown are for when concrete is poured at an air temperature of 60 degrees F. If concrete is poured at other temperatures, set the joint width by interpolating from the Strip Seal Joint Data Table. After the joint width has been set, the connection bolts on the girders shall be tightened and the concrete deck can then be poured. The concrete deck in the end span shall be poured before the backwall concrete is poured. A joint opening adjustment is not required for end rotation of the girders caused by the weight of the slab and parapets.



Note:
Dimension "X" equals the width of opening in parapet at curb to allow for removal or repair of joint.

SECTION B-B

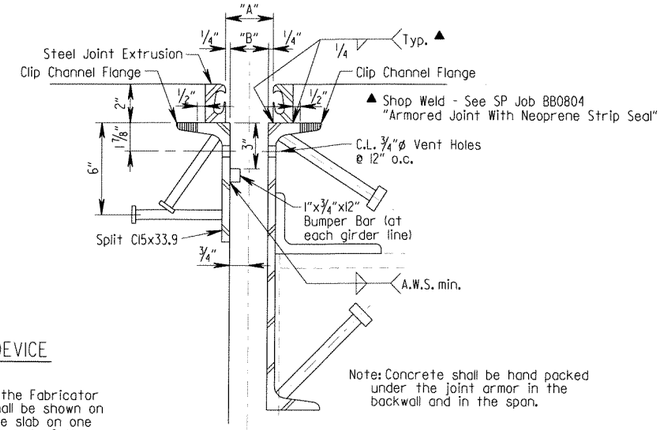
N.T.S.

GENERAL NOTES:
EXPANSION NEOPRENE STRIP SEAL: The expansion device shall provide a movement rating as shown in the "STRIP SEAL JOINT DATA" table. The expansion joint shall be capable of sealing the deck surface and parapet area to prevent moisture and other contaminants from descending through the joint.

Details of proposed slider plate assembly shall be submitted to and approved by the Engineer prior to the fabrication of any structural steel at the expansion joint.

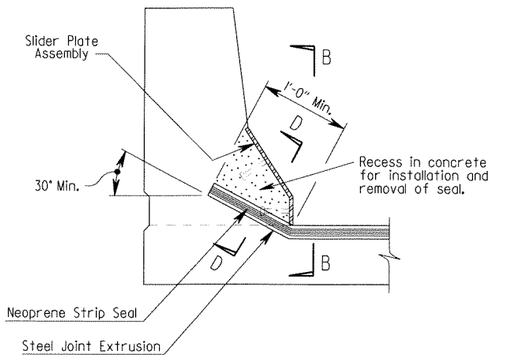
All structural shall be AASHTO M270, Grade 50W unless otherwise noted. All exposed surfaces are to be cleaned in accordance with subsection 807.84(e).

All structural steel, except for the steel extrusion and slider plate anchor system for the strip seal, shall be paid for as "STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270, Grade 50W). The steel extrusion slider plate anchor system and neoprene strip seal shall be paid for in accordance with Special Provision Job BB0804 "ARMORED JOINT WITH NEOPRENE STRIP SEAL.



DETAIL "A"

N.T.S.



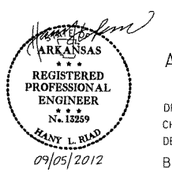
DETAIL OF NEOPRENE SEAL AT CURB

N.T.S.

STRIP SEAL JOINT DATA

Bent Nos.	Movement Rating (inch)	"A" Width Perpendicular to Joint at 24 Hour Average Temperature			"B" Width Perpendicular to Joint at 24 Hour Average Temperature		
		40°F	60°F	80°F	40°F	60°F	80°F
End Bent A1 & A6	5	2⅝"	2½"	2⅛"	2⅛"	2"	1⅞"

The temperature used to set the joint opening shall be the approximate average air temperature during the 24 hours period immediately before the bolts are tightened. The Engineer shall establish the temperature.



SHEET 2 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

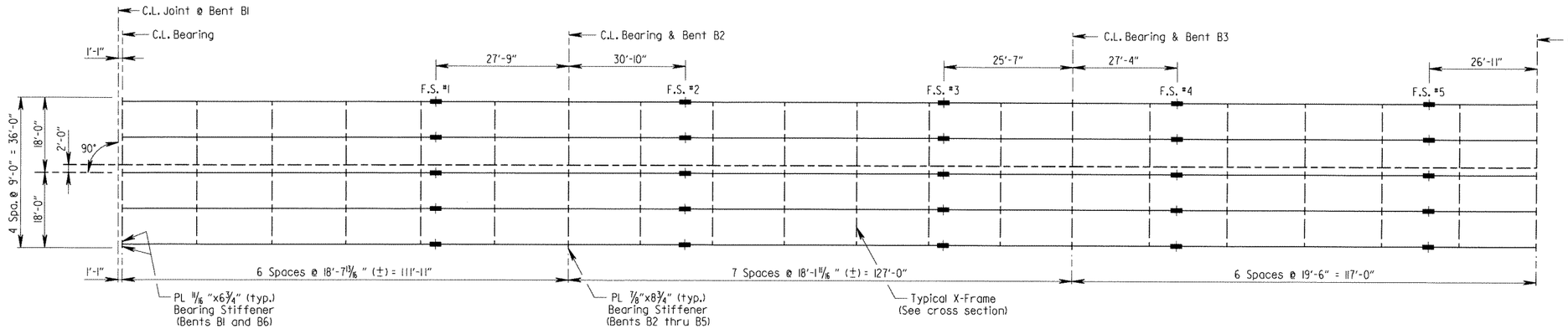
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

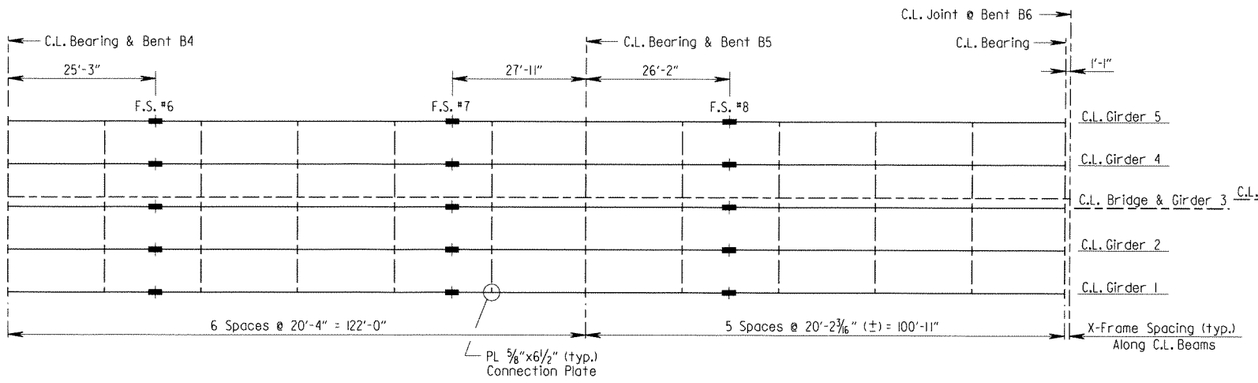
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DESIGNED BY: K.M.M. DATE: Jun 27,2003

BRIDGE NO. B6917 DRAWING NO. 45248

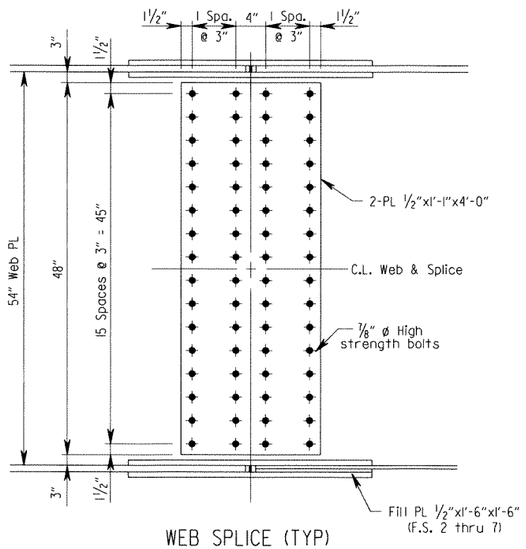
rlb 09-05-12

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.		BB0804	119	156
				(1) B6917		CONT. UNIT		45249

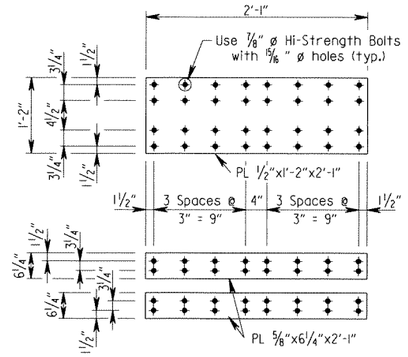




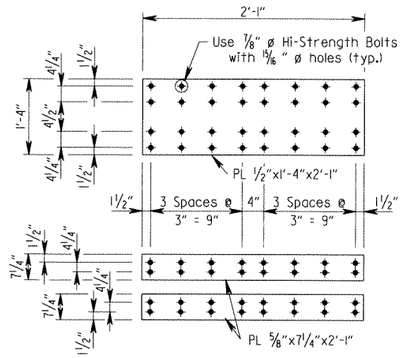
FRAMING PLAN
N.T.S.



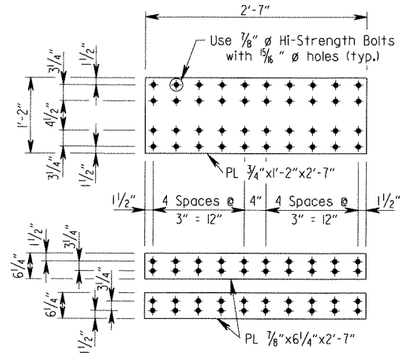
WEB SPLICE (TYP)
N.T.S.
F.S. #1 thru #8



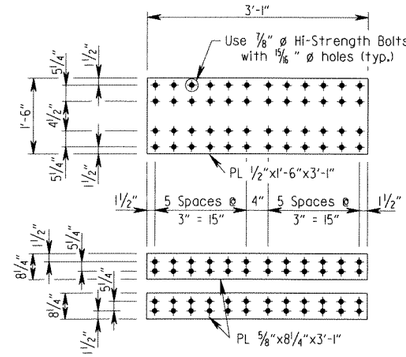
TOP FLANGE SPLICE PLATES
N.T.S.
F.S. #1 and #8



TOP FLANGE SPLICE PLATES
N.T.S.
F.S. #2 thru #7



BOTTOM FLANGE SPLICE PLATES
N.T.S.
(F.S. Nos. 1 and 8)



BOTTOM FLANGE SPLICE PLATES
N.T.S.
(F.S. Nos. 2 thru 7)

SHEET 3 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

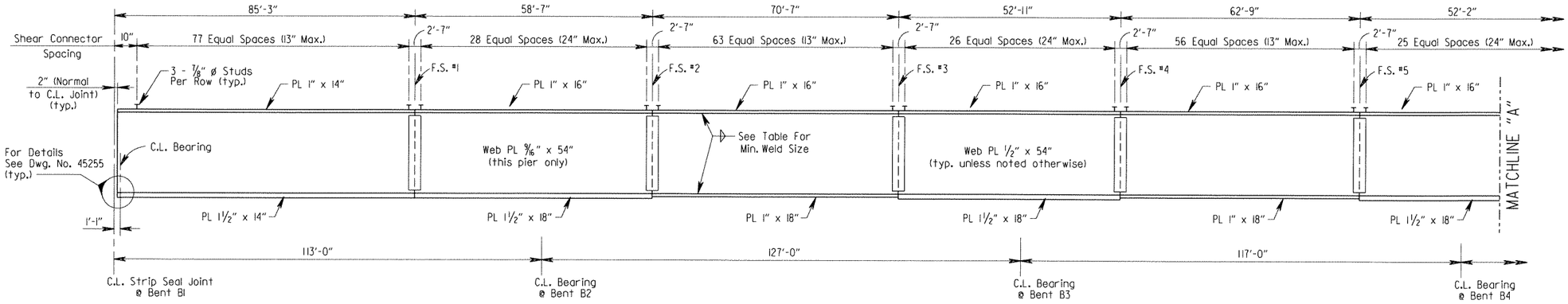
ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

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CHECKED BY: R.J.B. DATE: May 16, 2008
DESIGNED BY: G.P.B. DATE: May 16, 2008
FILENAME: ILLIPG11
SCALE: AS SHOWN

BRIDGE NO. B6917 DRAWING NO. 45249

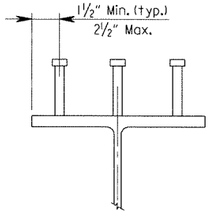
rib 09-05-12

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.		BB0804	120	156
				(1) B6917		CONT. UNIT		45250



GIRDER ELEVATION (TYP.)

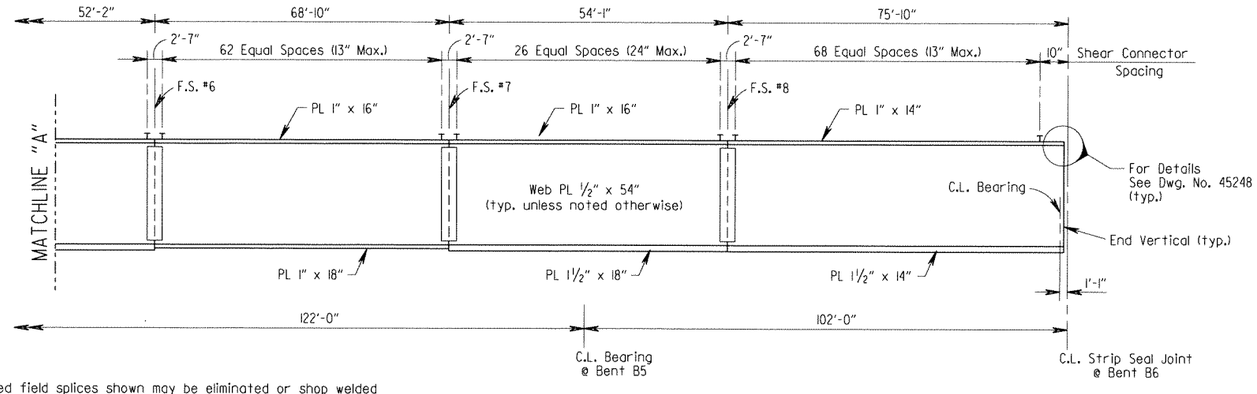
N.T.S.



SHEAR CONNECTOR DETAIL

N.T.S.

Stud Shear Connectors shown shall be 7/8" ø x 4" long, granular flux filled, solid fluxed or equal, and automatically end welded to the beam flange in accordance with the recommendations of the manufacturer. 3/4" ø studs may be used in place of 7/8" ø studs shown, at the ratio of 1.361 - 3/4" ø studs in place of one 7/8" ø stud. 1/8" ø studs will be used as basis for measurement of Structural Steel in Shear Connectors.



GIRDER ELEVATION (TYP.)

N.T.S.

Note:
Bolted field splices shown may be eliminated or shop welded splices may be substituted with approval of the Bridge Engineer. Payment will be made on the basis of Plan quantities.

SHEET 4 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

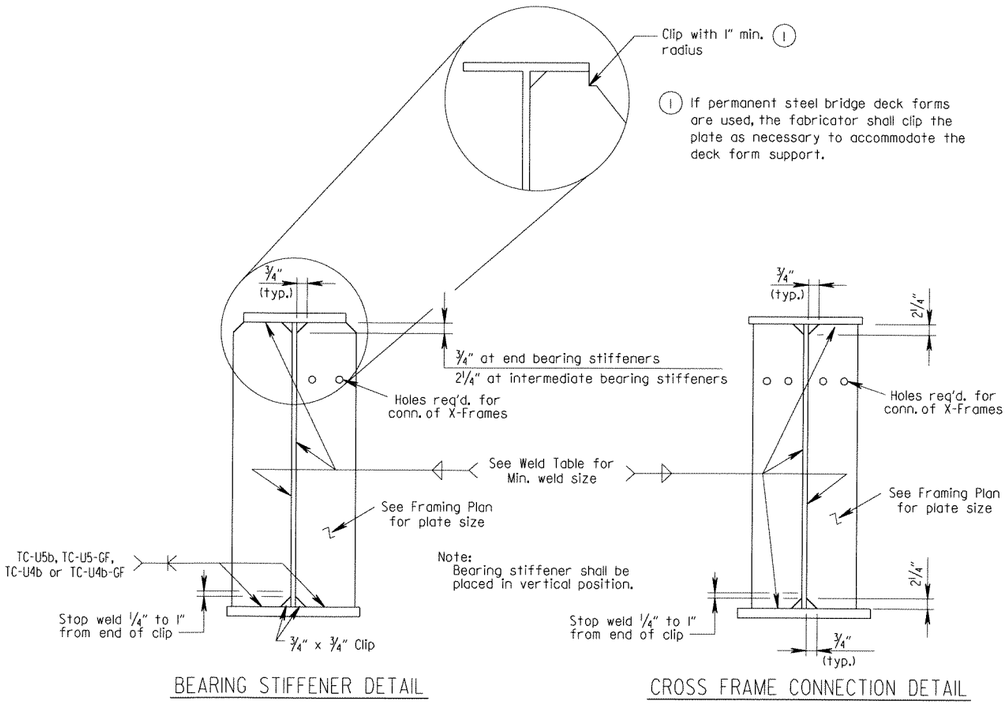
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: May 16, 2008
CHECKED BY: M.P. DATE: May 16, 2008
DESIGNED BY: K.M.M. DATE: May 16, 2008
FILENAME: ILLIPG12
SCALE: AS SHOWN

BRIDGE NO. B6917 DRAWING NO. 45250

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		BB0804	121	156
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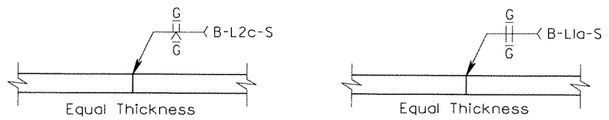
BEARING STIFFENER DETAIL

CROSS FRAME CONNECTION DETAIL

TABLE FOR WELD

Material Thickness of Thicker Part Joined (Inches)	Minimum Size of Fillet Weld (Inches)	Single Pass Weld Must Be Used
Inclusive to 3/4"	1/4"	
Over 3/4"	5/16"	

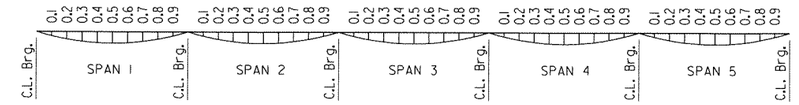
Note:
When a fillet weld size, as shown on the plans, is larger than the minimum, the first pass shall be that specified for minimum size of fillet weld.



FLANGE SPLICE

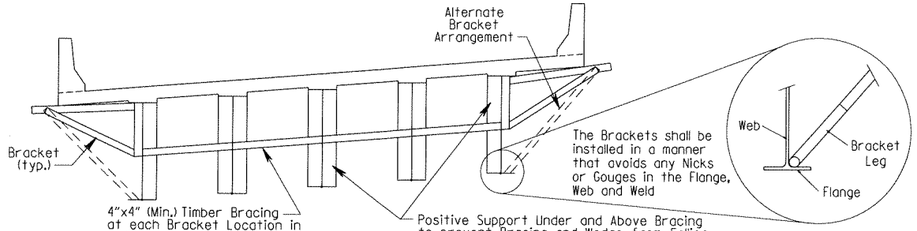
WEB SPLICE

DETAILS OF WELDED SPLICES



DEAD LOAD DEFLECTION DIAGRAM

Camber for Dead Load Deflection plus Vertical Curve ±1/4" tolerance. Deflections shown are from a chord from Centerline Bearing to Centerline Bearing. Vertical Curve Corrections not included. Negative Sign (-) indicated point above chord.



Note:
If a Transverse Finishing Machine is used, the Rail shall be supported directly over the Exterior Girders, or as an alternate, the rail may be supported by the Overhang Brackets if the above Strutting System is used. The Strutting System may be omitted if 5/8" x 7" Web Stiffners are Welded to the insides of the Exterior Girders at the location of each Bracket or if the Alternate Bracket Arrangement shown above is used. The Alternate Bracket Arrangement shall extend down to the Junction of the Web and Bottom Flange. The Stiffner shall conform to the Details for Intermediate Connection Plates shown above. No direct payment will be made for Brackets, Timber Bracing, Supports or Welded Stiffners. Payment shall be Subsidiary to "Structural Steel in Plate Girder Spans (M270, Grade 50W)".

SCREED RAIL SUPPORT
N.T.S.

TABLE OF DEAD LOAD DEFLECTIONS, INCHES

	SPAN POINT	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0
Interior	Structural Steel	0.000	0.148	0.273	0.359	0.397	0.385	0.328	0.239	0.137	0.048	0.000	0.021	0.091	0.175	0.242	0.273	0.260	0.206	0.126	0.046	0.000	0.013	0.059	0.112	0.153	0.169	0.155	0.115	0.062	0.016	0.000
	Structural Steel & Slab	0.000	0.838	1.547	2.035	2.252	2.185	1.865	1.363	0.788	0.280	0.000	0.104	0.486	0.945	1.317	1.491	1.420	1.123	0.684	0.247	0.000	0.077	0.337	0.636	0.866	0.954	0.874	0.650	0.352	0.089	0.000
	Structural Steel, Slab & Parapet	0.000	0.952	1.758	2.314	2.562	2.489	2.127	1.557	0.901	0.319	0.000	0.129	0.579	1.113	1.542	1.741	1.657	1.312	0.801	0.290	0.000	0.089	0.392	0.738	1.003	1.105	1.013	0.755	0.410	0.104	0.000
Exterior	Structural Steel	0.000	0.148	0.273	0.359	0.397	0.385	0.328	0.239	0.137	0.048	0.000	0.021	0.091	0.175	0.242	0.273	0.260	0.206	0.126	0.046	0.000	0.013	0.059	0.112	0.153	0.169	0.155	0.115	0.062	0.016	0.000
	Structural Steel & Slab	0.000	0.763	1.409	1.853	2.050	1.990	1.699	1.241	0.718	0.255	0.000	0.095	0.442	0.860	1.199	1.357	1.292	1.022	0.622	0.224	0.000	0.071	0.308	0.582	0.791	0.871	0.799	0.595	0.322	0.082	0.000
	Structural Steel, Slab & Parapet	0.000	0.879	1.623	2.136	2.365	2.298	1.965	1.438	0.833	0.294	0.000	0.120	0.536	1.030	1.427	1.610	1.532	1.213	0.741	0.268	0.000	0.084	0.364	0.686	0.930	1.024	0.940	0.701	.0381	0.097	0.000

	SPAN POINT	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0
Interior	Structural Steel	0.000	0.038	0.107	0.179	0.230	0.246	0.223	0.168	0.095	0.029	0.000	0.024	0.078	0.142	0.199	0.237	0.246	0.224	0.171	0.093	0.000
	Structural Steel & Slab	0.000	0.211	0.598	0.999	1.283	1.372	1.243	0.932	0.524	0.156	0.000	0.141	0.448	0.810	1.135	1.349	1.402	1.275	0.973	0.529	0.000
	Structural Steel, Slab & Parapet	0.000	0.248	0.700	1.165	1.494	1.598	1.450	1.091	0.618	0.187	0.000	0.160	0.512	0.926	1.296	1.538	1.597	1.451	1.106	0.601	0.000
Exterior	Structural Steel	0.000	0.038	0.107	0.179	0.230	0.246	0.223	0.168	0.095	0.029	0.000	0.024	0.078	0.142	0.199	0.237	0.246	0.224	0.171	0.093	0.000
	Structural Steel & Slab	0.000	0.191	0.542	0.906	1.163	1.244	1.127	0.844	0.474	0.140	0.000	0.130	0.411	0.742	1.039	1.234	1.282	1.166	0.890	0.483	0.000
	Structural Steel, Slab & Parapet	0.000	0.228	0.645	1.074	1.376	1.472	1.337	1.005	0.569	0.171	0.000	0.149	0.476	0.860	1.202	1.426	1.479	1.344	1.025	0.556	0.000

Note:
Dead Load deflections are based on Pouring Sequence shown on dwg. no. 45253.

SHEET 5 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

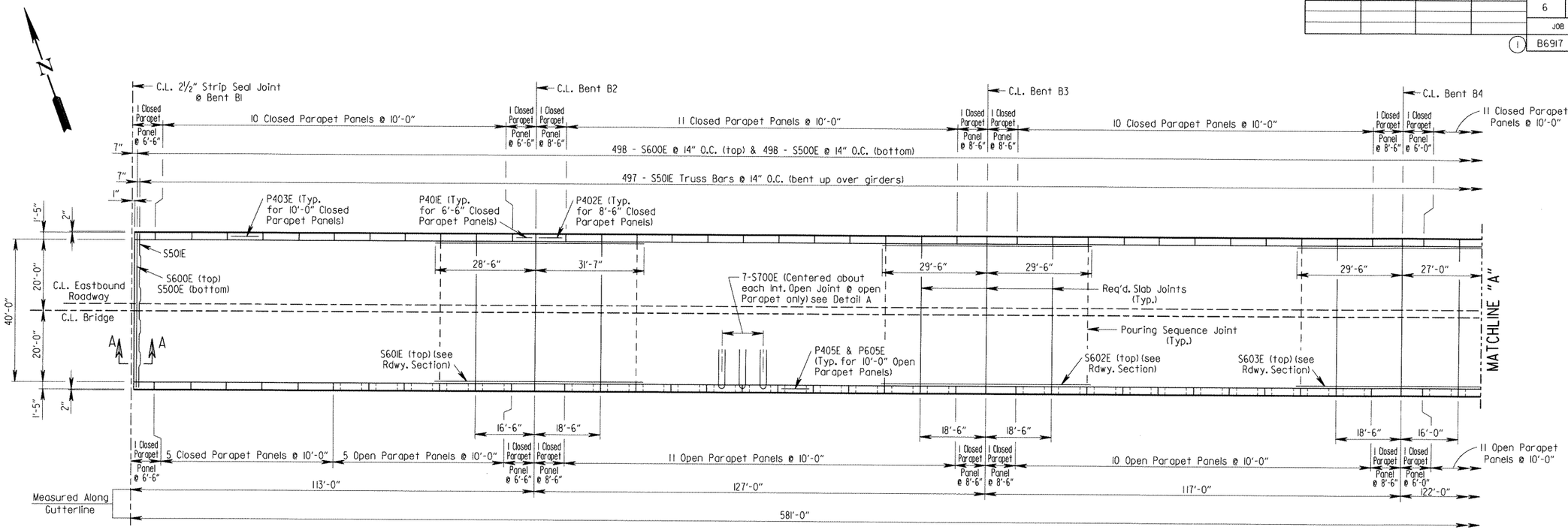
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: May 16,2008 FILENAME: ILLIPG13
CHECKED BY: M.P. DATE: May 16,2008 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: May 16,2008

BRIDGE NO. B6917 DRAWING NO. 45251

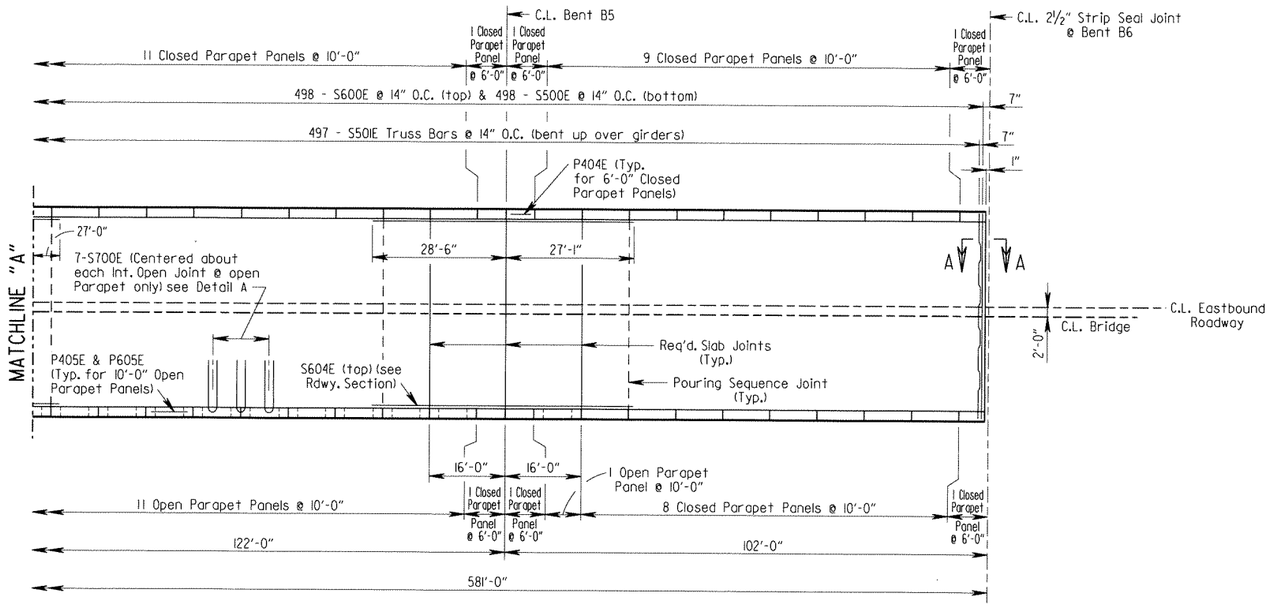
rib 09-05-12

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.		BB0804	122	156
				(1) B6917		CONT. UNIT		45252



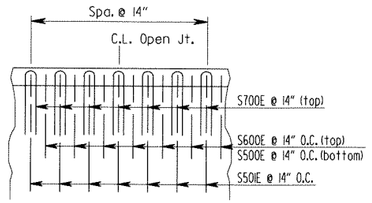
REINFORCING PLAN

Scale: 1/16" = 1'-0"



REINFORCING PLAN

Scale: 1/16" = 1'-0"



DETAIL A

N.T.S.

SHEET 6 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

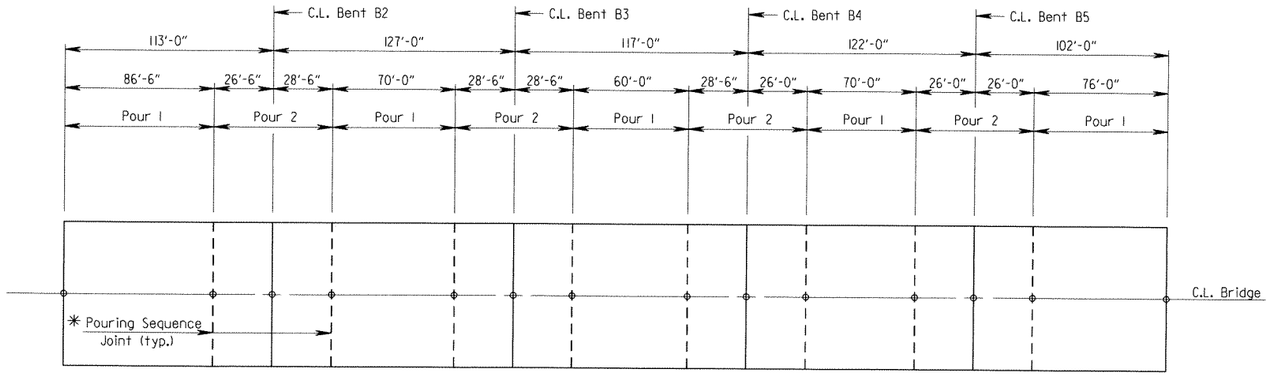
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: Jun 27, 2003
CHECKED BY: M.P. DATE: Jun 27, 2003
DESIGNED BY: K.M.M. DATE: Jun 27, 2003
FILENAME: ILLIPG14
SCALE: AS SHOWN

BRIDGE NO. B6917 DRAWING NO. 45252

rb 09-05-12

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.		BB0804	123	156
				(1) B6917		CONT. UNIT		45253



* Align with parapet joints.

SLAB POURING SEQUENCE

N.T.S.

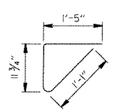
Note:
Pours with the same number may be placed simultaneously or separately. All pours (1) must be placed before pours (2) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. 72 hours shall elapse between the end of a pour and the start of an adjacent pour. Any railing pours made before entire slab unit has been placed must be approved by the Engineer.

BAR LIST FOR UNIT

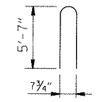
MK	No. Req'd.	Length	Dia. Pin
S700E	271	12'-0"	6"
S600E	498	42'-6"	Str.
S601E	69	60'-1"	Str.
S602E	69	59'-0"	Str.
S603E	69	56'-6"	Str.
S604E	69	55'-7"	Str.
S605E	4	3'-3"	Str.
S606E	8	8'-8"	Str.
S607E	2	42'-10"	Str.
S500E	498	42'-6"	Str.
S501E	497	43'-4"	3"
S400E	525	40'-0"	Str.
S401E	840	40'-0"	Str.
S402E	88	3'-4"	3"
P605E	190	9'-8"	Str.
P401E	32	6'-2"	Str.
P402E	64	8'-2"	Str.
P403E	512	9'-8"	Str.
P404E	64	5'-8"	Str.
P405E	152	9'-8"	Str.
P406E	1168	6'-4"	2"
P407E	1168	5'-7"	2"
P408E	190	5'-10"	2"
P409E	190	3'-4"	2"

Bending Diagrams
(Dimensions are out to out of bars.)

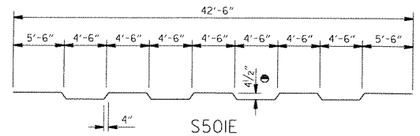
Note: All Bars are to be Epoxy Coated.



S402E

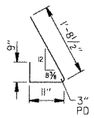


S700E

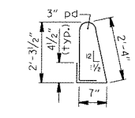


S501E

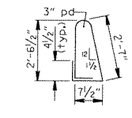
½" OVER TOLERANCE
NO UNDER TOLERANCE



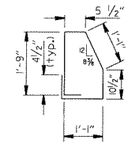
P409E



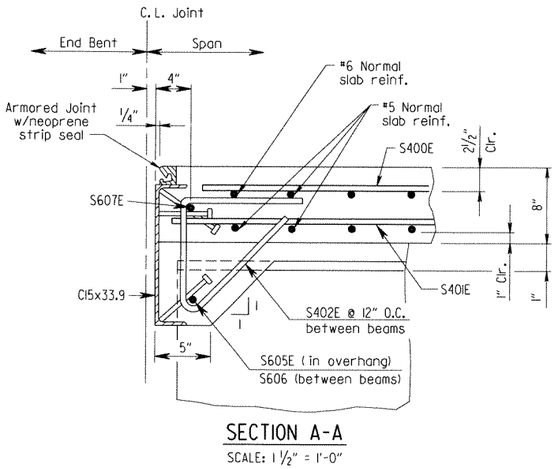
P408E



P406E

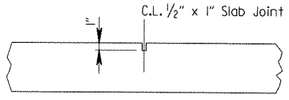


P407E



SECTION A-A

SCALE: 1 ½" = 1'-0"



Use Type 6 Joint Sealer. See Subsections 501.02(h) and 501.05(j). Joint Sealer shall be measured and paid for as Class S(AE) Concrete-Bridge. Slab joints shall shall extend to the outside edge of the deck slab. Slab joints shall be installed before the parapet railing is poured. If slab joints are to be sawed, they shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the slab. Slab joints shall be placed at all pouring sequence construction joints and required slab joint locations.

SLAB JOINT DETAIL

N.T.S.

SHEET 7 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

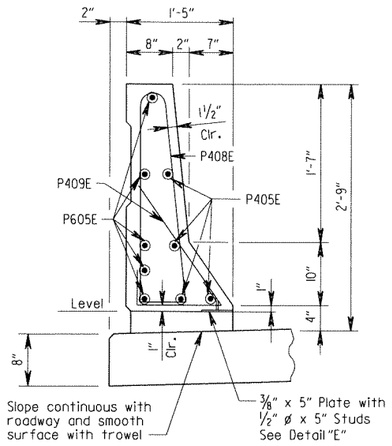
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: Jun 27,2003 FILENAME: ILLIPG15
CHECKED BY: M.P. DATE: Jun 27,2003 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: Jun 27,2003

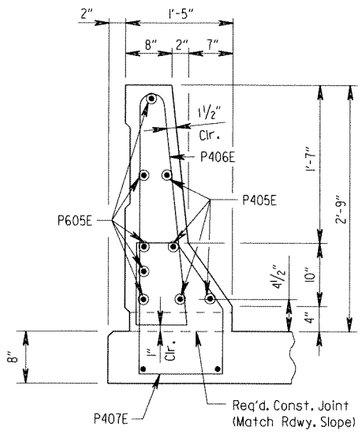
BRIDGE NO. B6917 DRAWING NO. 45253

FB 09-05-12

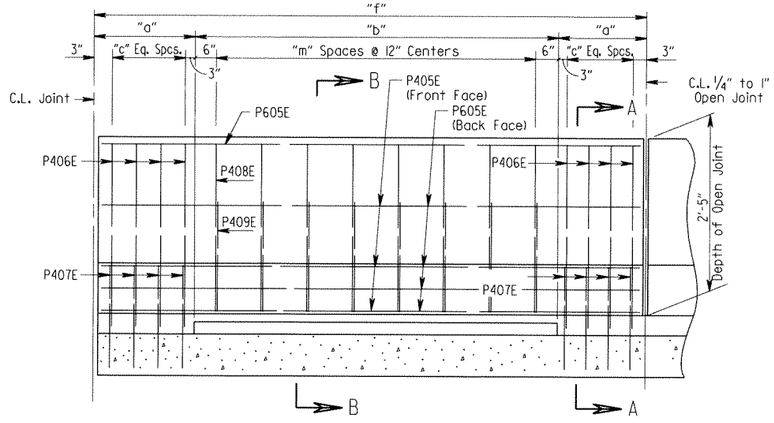
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0804	124	156
				(1) B6917		CONT. UNIT		45254



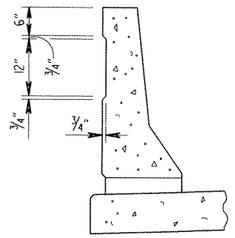
SECTION B-B



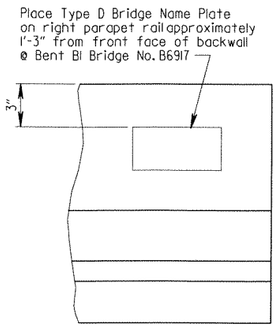
SECTION A-A



SECTION AT CURB FOR OPEN PARAPET RAIL

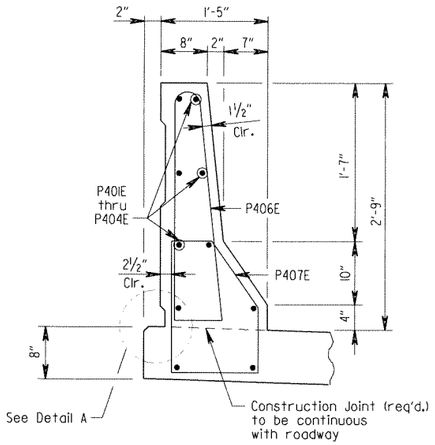


SECTION D-D

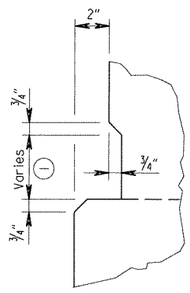


NAME PLATE DETAIL

N.T.S.

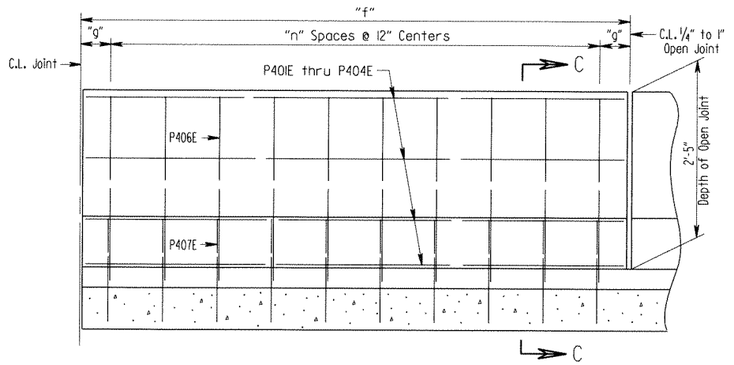


SECTION C-C

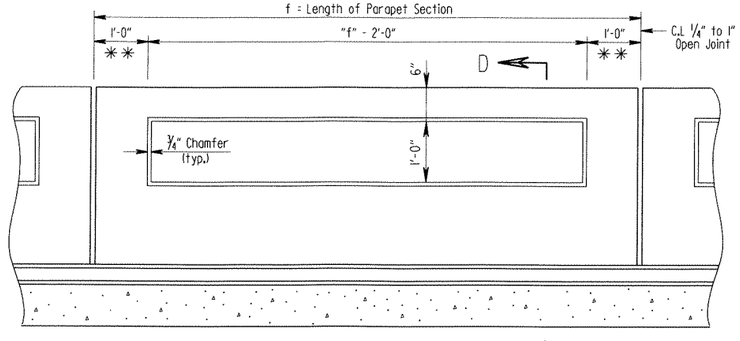


DETAIL A

(1) 3" on high side of parapet rail
3 5/16" on low side of parapet rail

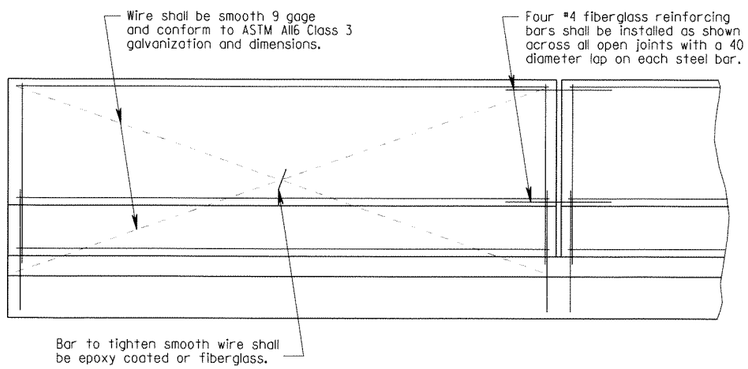


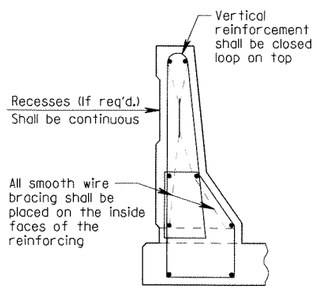
TYP. SECTION AT CURB FOR CLOSED PARAPET RAIL

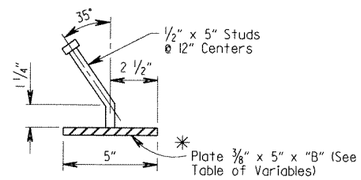


ELEVATION SHOWING TREATMENT FOR PARAPET RAIL

** Panel inset may be made continuous if slip forms are used.







DETAIL "E"

Note:
Studs shall be 5" long, Granular Flux Filled, Solid Fluxed, or Equal, and automatically welded to plate. Studs and plate to be AASHTO M270, Grade 36 and paid for as "Structural Steel in Plate Girder Spans (M270, Grade 50W)"

* The surfaces of the ⅜" plates which will not be in contact with concrete shall be painted in accordance with section 638 or as approved by the engineer. Only one coat is required, and it shall be applied in the shop. Painting will not be paid directly but shall be considered subsidiary to "Structural Steel in Plate Girder Spans (M270, Grade 50W).

All panels shall be braced as shown to prevent racking. All open joints shall be sawed as soon as practical to a minimum width of ¼". To control cracking before sawing, all joints must be grooved before the concrete is set. Sawing of the joints must be controlled so it will follow the grooved joint.

The extruded parapet shall conform to the horizontal and vertical lines shown on the plans or as directed by the Engineer and shall present a smooth, uniform appearance and texture. Exposed surfaces may be given a light brush finish or a class 3, textured coating finish in place of class 2 rubbed finish.

DETAILS OF OPTIONAL SLIPFORMING OF CONCRETE PARAPET RAIL

TABLE OF VARIABLES

Parapet Joint Variables	Closed Rail		Open Rail			
'f'	'g'	'n'	'a'	'b'	'c'	'm'
6'-0"	6"	5	——	——	——	——
6'-6"	3"	6	——	——	——	——
8'-6"	3"	8	——	——	——	——
10'-0"	6"	9	2'-6"	5'-0"	4	4

SHEET 8 OF 8

DETAILS OF 581'-0" CONT. COMP. PLATE GIRDER UNIT
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

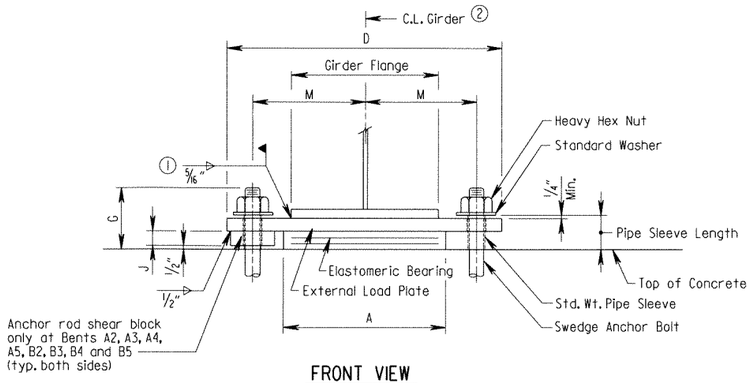
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

DRAWN BY: R.L.B. DATE: Jun 27, 2003 FILENAME: ILLIPG16
CHECKED BY: M.P. DATE: Jun 27, 2003 SCALE: AS SHOWN
DESIGNED BY: K.M.M. DATE: Jun 27, 2003

BRIDGE NO. B6917 DRAWING NO. 45254

rib 09-05-12

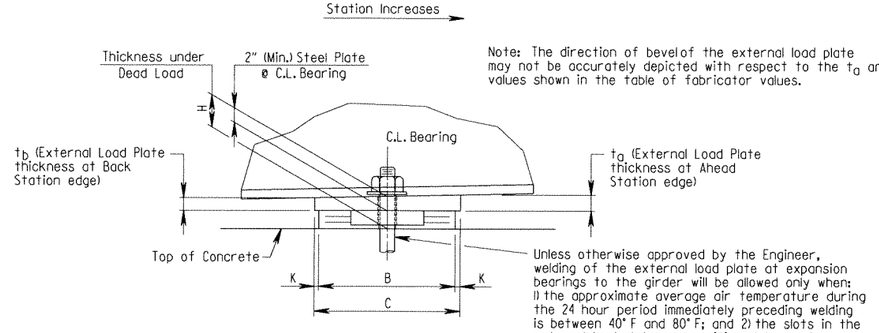
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0804	125	156
				(1)	A6917 & B6917	ELASTO. BRGS.		45255



FRONT VIEW

(1) Care shall be taken to ensure that the external load plate is in full and complete contact with the girder flange before welding begins.

(2) C.L. Bearing shall align with C.L. Girder



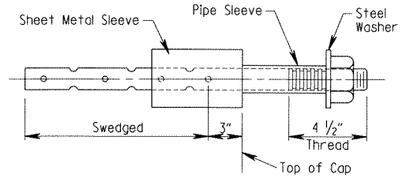
SIDE VIEW

(AT BENTS A2, A3, A4, A5, B2, B3, B4 and B5)

(Bents A1, A6, B1 and B6 similar without anchor rod shear block)

Note: The direction of bevel of the external load plate may not be accurately depicted with respect to the t_a and t_b values shown in the table of fabricator values.

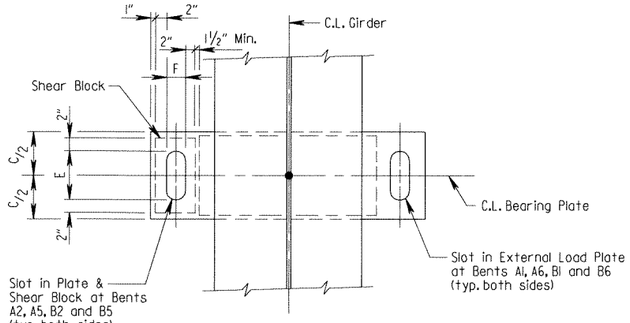
Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40° F and 80° F; and 2) the slots in the external load plate are positioned to center on the anchor bolts; and 3) no horizontal deformation of the elastomeric pad is evident. If welding at other temperatures is required, the Engineer will provide adjustment data.



ANCHOR BOLT DETAIL

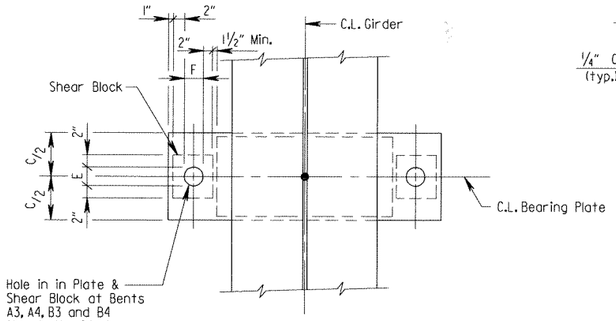
Note:
Anchor Bolts may be cast in place or drilled and grouted into place. If Anchor Bolts are to be cast in place, the Galvanized Sheet Metal Sleeves will not be required.

If Anchor Bolts are to be drilled and grouted in place, the Galvanized Sheet Metal Sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of Structural Steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the masonry. Bolts placed in drilled holes shall be accurately set and fixed using a OPL approved epoxy or non-shrink grout that completely fills the holes. Galvanized Sheet Metal Sleeves will not be paid for directly, but will be considered subsidiary to the item "Structural Steel in Plate Girder Spans (M270, Gr. 50W)".



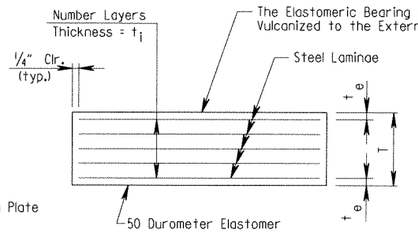
PLAN VIEW

(At Bents A1, A2, A5, A6, B1, B2, B5 and B6)



PLAN VIEW

(At Bents A3, A4, B3 and B4)



ELASTOMERIC PAD

t_e = Thickness of Elastomer cover on top and bottom of pad.
t_i = Thickness of Elastomer between steel laminae.
N = Number of Elastomer layers of thickness t_i.

TABLE OF FABRICATOR VARIABLES

Bridge No.	Location: Bent No.	Location: Girder No.	Bearing Type	Number of Bearings Each Bent	Maximum Design Load (Kip) ✳	G	H	ELASTOMERIC PAD: A	B	N	t_i	t_e	Number and Thickness of Steel Laminae	T	EXTERNAL LOAD PLATE: C	D	E	F	J	K	M	t_b	t_a	ANCHOR BOLT: Anchor Bolt (ø x L)	Grade	Pipe Sleeve Size (ø x L)	Sheet Metal Sleeve Size (ø x L)	Steel Washer Size (O.D.)
A6917	A1	1 - 5	Exp.	5	139	9 7/8"	6 3/4"	16	16	5	3/4"	1/4"	6 - 12 Gage	4 7/8"	17	27"	6 7/8"	2 5/8"	--	1/2"	10 1/2"	2.085"	1.915"	1 3/4" x 31"	55	2" x 7 1/8"	4" x 12"	3 3/8"
	A2	1 - 5	Exp.	5	338	9 1/4"	6 1/8"	20	18	5	5/8"	1/4"	6 - 12 Gage	4 1/4"	19	38 1/4"	5 3/8"	2 5/8"	3 5/8"	1/2"	14 13/16"	2.095"	1.905"	1 3/4" x 31"	55	2" x 6 1/2"	4" x 12"	3 3/8"
	A3	1 - 5	Fix	5	322	9 1/4"	6 1/8"	20	17	5	5/8"	1/4"	6 - 12 Gage	4 1/4"	18	38 1/4"	2 5/8"	2 5/8"	3 5/8"	1/2"	14 13/16"	2.090"	1.910"	1 3/4" x 31"	55	2" x 6 1/2"	4" x 12"	3 3/8"
	A4	1 - 5	Fix	5	322	9 1/4"	6 1/8"	20	17	5	5/8"	1/4"	6 - 12 Gage	4 1/4"	18	38 1/4"	2 5/8"	2 5/8"	3 5/8"	1/2"	14 13/16"	2.090"	1.910"	1 3/4" x 31"	55	2" x 6 1/2"	4" x 12"	3 3/8"
	A5	1 - 5	Exp.	5	338	9 1/4"	6 1/8"	20	18	5	5/8"	1/4"	6 - 12 Gage	4 1/4"	19	38 1/4"	5 3/8"	2 5/8"	3 5/8"	1/2"	14 13/16"	2.095"	1.905"	1 3/4" x 31"	55	2" x 6 1/2"	4" x 12"	3 3/8"
	A6	1 - 5	Exp.	5	139	9 7/8"	6 3/4"	16	16	5	3/4"	1/4"	6 - 12 Gage	4 7/8"	17	27"	6 1/2"	2 5/8"	--	1/2"	10 1/2"	2.085"	1.915"	1 3/4" x 31"	55	2" x 7 1/8"	4" x 12"	3 3/8"
B6917	B1	1 - 5	Exp.	5	141	9 7/8"	6 3/4"	16	16	5	3/4"	1/4"	6 - 12 Gage	4 7/8"	17	27"	6 1/2"	2 5/8"	--	1/2"	10 1/2"	2.085"	1.915"	1 3/4" x 31"	55	2" x 7 1/8"	4" x 12"	3 3/8"
	B2	1 - 5	Exp.	5	344	9 1/4"	6 1/8"	20	18	5	5/8"	1/4"	6 - 12 Gage	4 1/4"	19	38 1/4"	5 3/8"	2 5/8"	3 5/8"	1/2"	14 13/16"	2.095"	1.905"	1 3/4" x 31"	55	2" x 6 1/2"	4" x 12"	3 3/8"
	B3	1 - 5	Fix	5	314	9 1/4"	6 1/8"	20	17	5	5/8"	1/4"	6 - 12 Gage	4 1/4"	18	38 1/4"	2 5/8"	2 5/8"	3 5/8"	1/2"	14 13/16"	2.090"	1.910"	1 3/4" x 31"	55	2" x 6 1/2"	4" x 12"	3 3/8"
	B4	1 - 5	Fix	5	314	9 1/4"	6 1/8"	20	17	5	5/8"	1/4"	6 - 12 Gage	4 1/4"	18	38 1/4"	2 5/8"	2 5/8"	3 5/8"	1/2"	14 13/16"	2.090"	1.910"	1 3/4" x 31"	55	2" x 6 1/2"	4" x 12"	3 3/8"
	B5	1 - 5	Exp.	5	344	9 1/4"	6 1/8"	20	18	5	5/8"	1/4"	6 - 12 Gage	4 1/4"	19	38 1/4"	5 3/8"	2 5/8"	3 5/8"	1/2"	14 13/16"	2.095"	1.905"	1 3/4" x 31"	55	2" x 6 1/2"	4" x 12"	3 3/8"
	B6	1 - 5	Exp.	5	141	9 7/8"	6 3/4"	16	16	5	3/4"	1/4"	6 - 12 Gage	4 7/8"	17	27"	6 7/8"	2 5/8"	--	1/2"	10 1/2"	2.085"	1.915"	1 3/4" x 31"	55	2" x 7 1/8"	4" x 12"	3 3/8"

✳ Maximum Design Load = Service Load

Notes:
- Elastomeric Bearings shall conform to Section 808 of the Standard Specifications and shall be paid for at the unit price bid for "Elastomeric Bearings". Long-duration testing of random lot samples specified in subsection 808.05 is not required. See SP Job BB0804 "Elastomeric Bearings".
- External load plates and shear blocks shall conform to AASHTO M270, Grade 50W and will not be paid for separately, but will be included in the unit price bid for "Elastomeric Bearings". Pipe sleeves shall be ASTM A53, Grade B, and shall be galvanized to conform to AASHTO M232, Class C or AASHTO M298, Class 50.
- External load plates with shear blocks shall be completely fabricated (including bevel, bolt holes and all shop welding) and shall be cleaned before vulcanizing to the elastomeric bearing. The surface in contact with the elastomeric bearing shall be cleaned in accordance with Section 808. Other surfaces shall be blast cleaned in accordance with Subsection 807.84(b) for painted steel and 807.84(e) for unpainted Grade 50W steel.
- Anchor Bolts, Washers and Nuts shall conform to Subsection 807.07 of the Standard Specifications. The anchor bolt grade of steel shall be as specified in the "Table of Fabricator Variables". Indentations shall be circular with rounded bottoms and staggered as shown in the details.
- Pipe Sleeves, Anchor Bolts, Washers and Nuts shall be paid for at the unit price bid for "Structural Steel in Plate Girder Spans (M270, Grade 50W)"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13259
HANY L. RIAD
09/05/2012

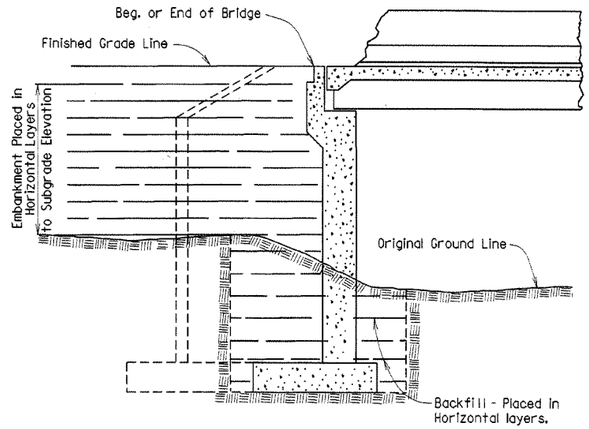
DETAILS OF ELASTOMERIC BEARINGS
INTERSTATE 40 BRIDGE OVER
LAKE DARDANELLE AT ILLINOIS BAYOU
POPE COUNTY
ROUTE I-40 SEC. 22
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.J.B. DATE: May 16, 2008
CHECKED BY: R.J.B. DATE: May 16, 2008
DESIGNED BY: G.P.B. DATE: May 16, 2008
FILENAME: ILLIEX01
SCALE: AS SHOWN

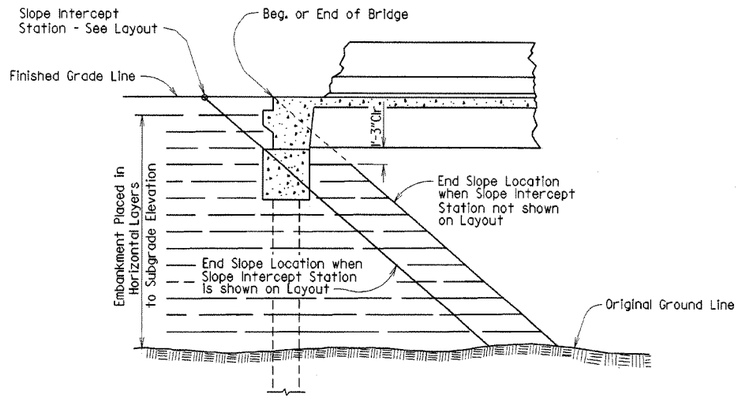
BRIDGE NO. A6917 & B6917 DRAWING NO. 45255

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				JOB NO.				

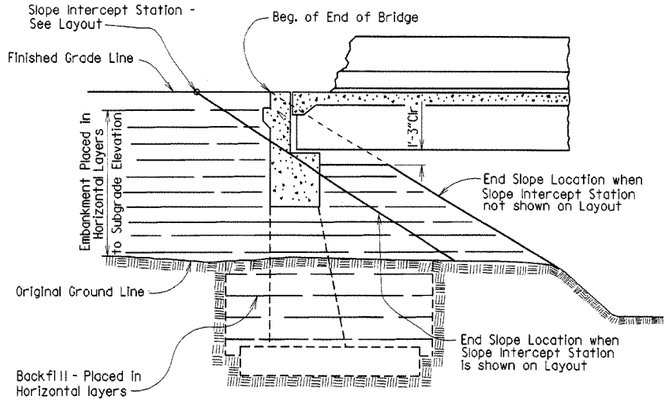
1 EMBANKMENT & BACKFILL 1888A



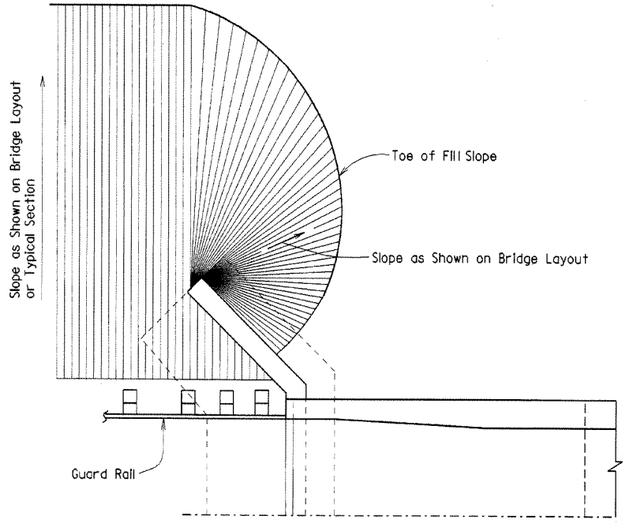
EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL AT VERTICAL WALL ABUTMENTS



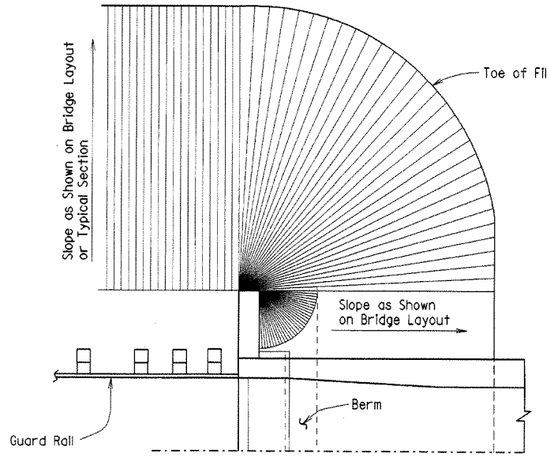
EMBANKMENT CONSTRUCTION AT SPILL-THROUGH PILE END BENTS



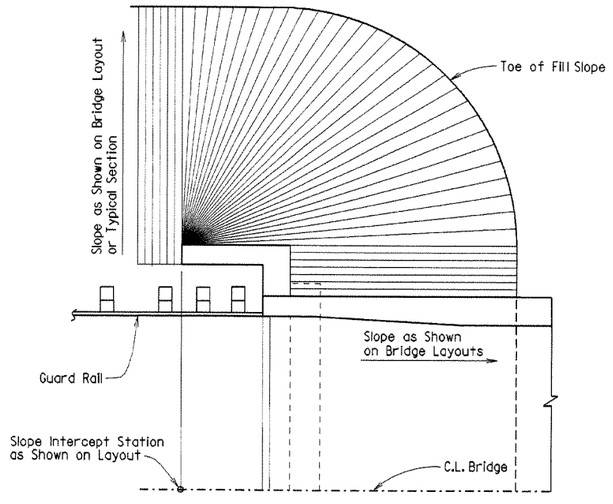
EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL AT SPILL-THROUGH END BENTS



VERTICAL WALL ABUTMENTS



SPILL-THROUGH END BENTS WITH STUB WING



SPILL-THROUGH END BENTS WITH TURNBACK WING

SPILL-THROUGH END BENTS WITH TRANSITION WING

METHOD OF DETERMINING FILL SLOPE LOCATION AT BRIDGE ENDS

GENERAL NOTES

The Bridge End Embankment shall be defined as a section of embankment, not less than 20 feet long adjacent to the bridge end, together with the side slopes and slopes under the bridge end including around the end of wingwalls. Embankment adjacent to structures shall be constructed in 4 inch horizontal layers (loose measure) and compacted by the use of mechanical equipment to the satisfaction of the Engineer. Refer to subsections 210.09, 210.10 and 801.08 of the Specifications for construction requirements.

⚠ Revised and redrawn MJT 04-10-2003
Chk'd. By: CJF 04-10-2003

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4537
CHARLES P. BRAND

BRIDGE ENGINEER

EMBANKMENT CONSTRUCTION AND BACKFILL AT BRIDGE ENDS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

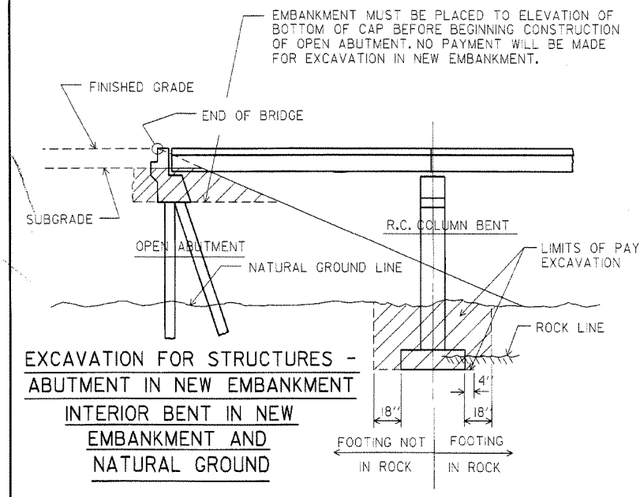
DRAWN BY: MJT DATE: 04-10-2003 FILENAME: BI888A.STD
CHECKED BY: CJF DATE: 04-10-2003 SCALE: NO SCALE
DESIGNED BY: STD. DATE: —

BRIDGE NO. DRAWING NO. 1888A

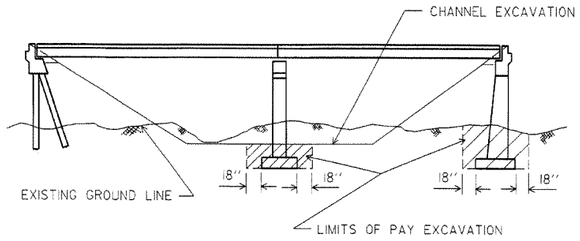
BI888A.STD

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
04-10-2003				6	ARK.		127	
				JOB NO.				

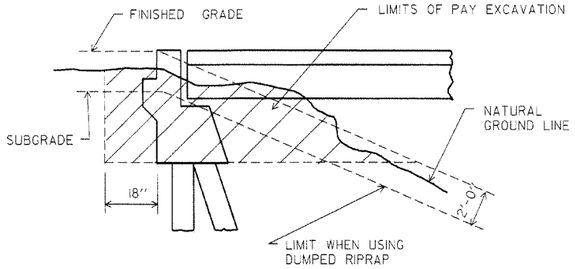
① RIP. & EXCAV. 1891F



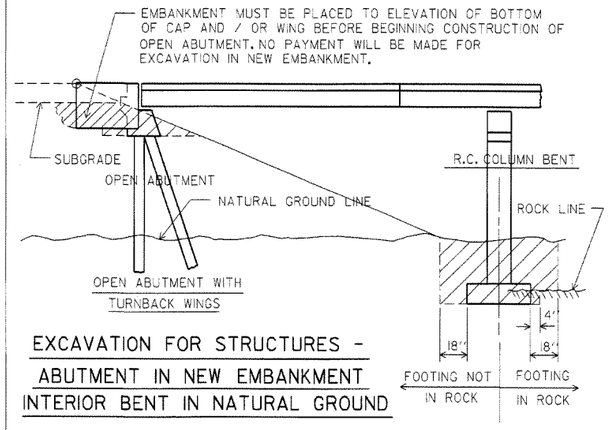
EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NEW EMBANKMENT AND NATURAL GROUND



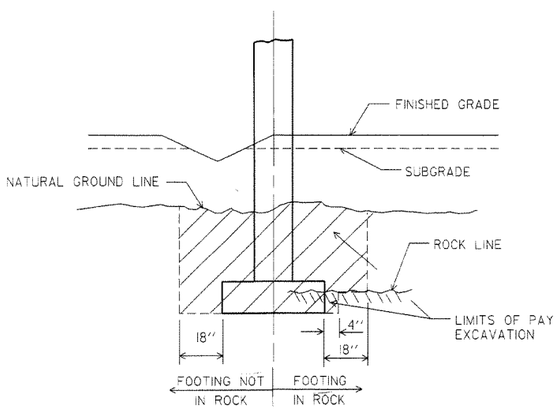
EXCAVATION FOR STRUCTURES - BRIDGE LOCATION WITH DESIGNATED CHANNEL CHANGE



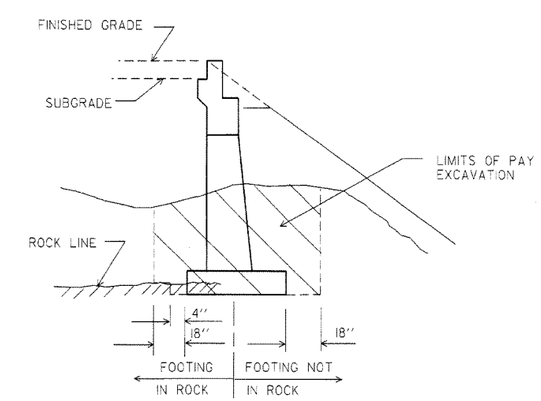
EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND



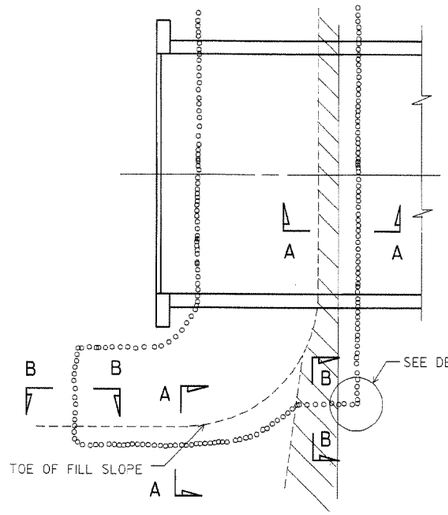
EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NATURAL GROUND



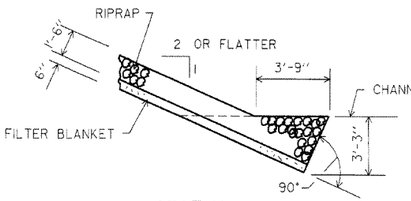
EXCAVATION FOR STRUCTURES - BENT IN ROADWAY FILL SECTION AND NATURAL GROUND



EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND AND NEW EMBANKMENT



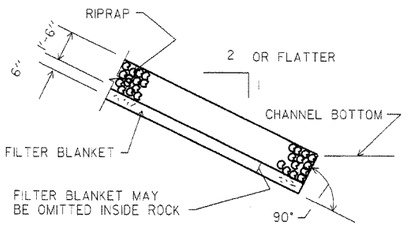
PLAN OF DUMPED RIPRAP



SECTION A-A

(TOE EXCAVATION IN SOIL)

EXCAVATION FOR TOES IS NOT A PAY ITEM



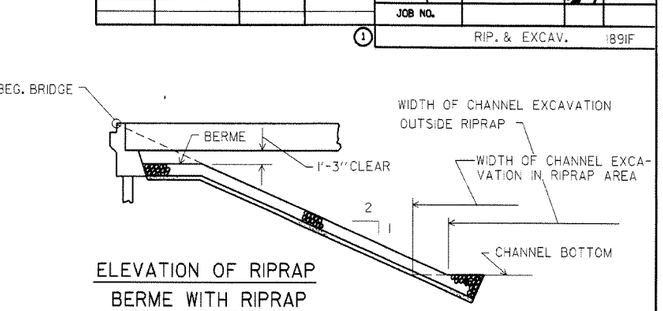
SECTION A-A

(TOE EXCAVATION IN ROCK)

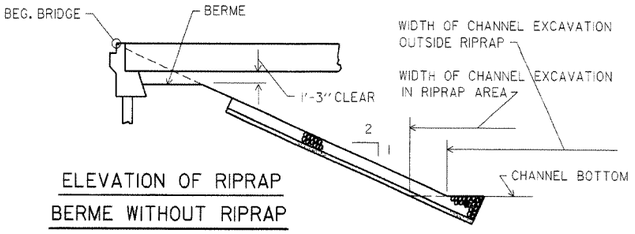
NOTE : USE THIS TYPE OF TOE WHEN ROCK IS ENCOUNTERED WHICH IS IN A STABLE CONDITION.

NOTE : IN LIEU OF AN AGGREGATE FILTER BLANKET, A SYNTHETIC FIBER GEOTEXTILE FABRIC COMPLYING WITH THE REQUIREMENTS OF SUBSECTION 816.02(e) MAY BE USED.

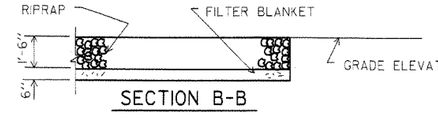
NOTE : DETAILS FOR COMPUTING EXCAVATION FOR STRUCTURES ARE INCLUDED FOR INFORMATION AS TO HOW PLAN QUANTITIES WERE CALCULATED AND FOR USE WHEN ADJUSTING QUANTITIES WHEN CHANGING FOOTING ELEVATION.



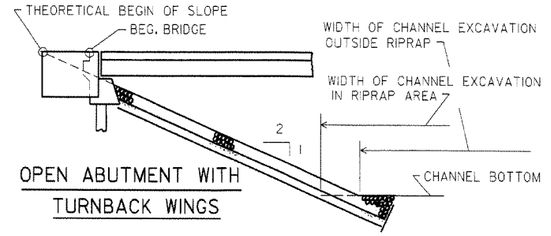
ELEVATION OF RIPRAP BERME WITH RIPRAP



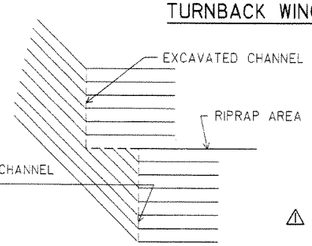
ELEVATION OF RIPRAP BERME WITHOUT RIPRAP



SECTION B-B



OPEN ABUTMENT WITH TURNBACK WINGS



DETAIL C

⚠ Revised and redrawn MJT 04-10-2003
Chk'd. By: CJF 04-10-2003

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND
BRIDGE ENGINEER

DETAILS FOR DUMPED RIPRAP AND FILTER BLANKET AND DETAILS FOR COMPUTING EXCAVATION FOR STRUCTURES

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

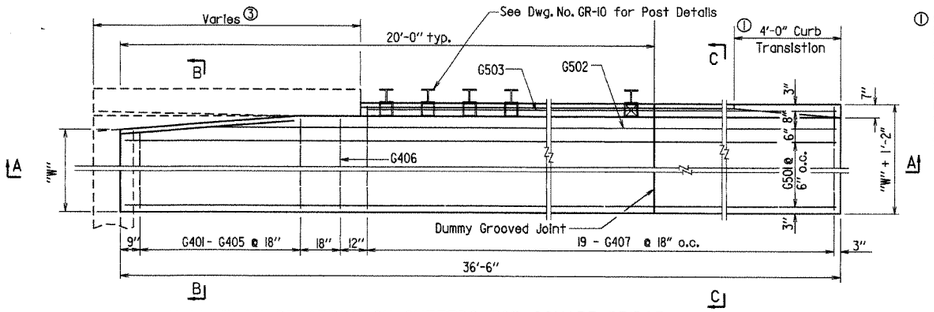
LITTLE ROCK, ARK.

DRAWN BY: MJT DATE: 04-10-2003 FILENAME: B1891F.STD
CHECKED BY: CJF DATE: 04-10-2003 SCALE: NO SCALE
DESIGNED BY: STD. DATE: ——

BRIDGE NO. DRAWING NO. 1891F

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4-10-2003				6	ARK.		128	
07-14-2010				JOB NO.				

① TYPE C GUTTERS - 2016C

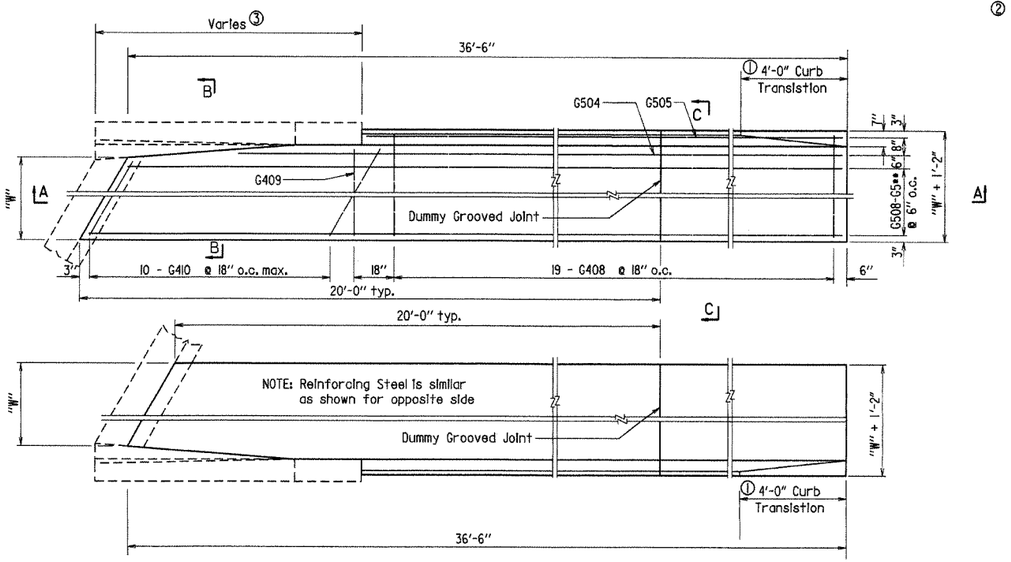


HALF PLAN OF APPROACH GUTTERS FOR SQUARE BRIDGE

① Construct gutter curb with height-transition as shown if drop inlet is not placed at end of gutter.

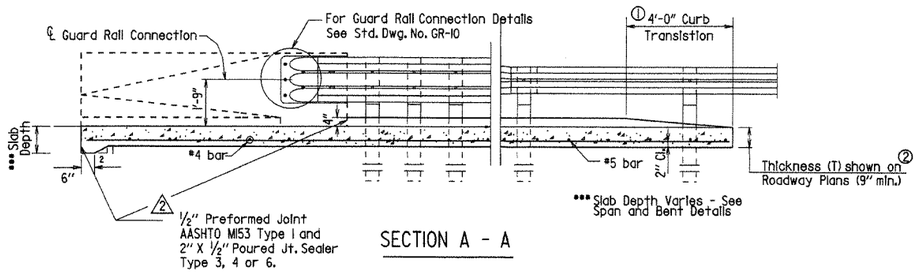
Construct gutter curb full height (no height-transition) if drop inlet is placed at end of gutter. Curb height transition placed on drop inlet. See drop inlet details.

③ Length Varies See End Bt. Details for Actual Length. Quantities Shown are for 10'-0" Transition Rail.

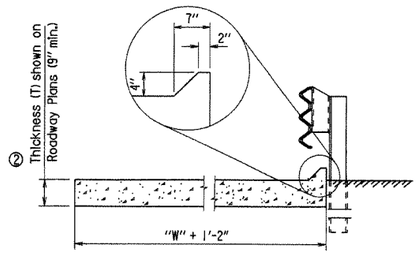


PLAN OF APPROACH GUTTERS FOR SKEWED BRIDGE

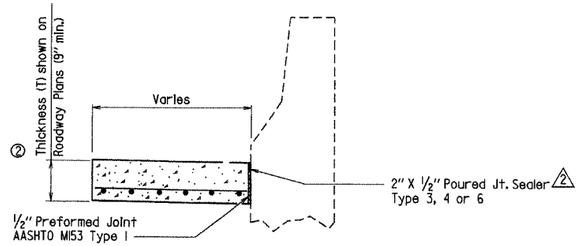
② Thickness shall match Approach Slab Thickness. Thickness shall be 9" If Approach Slab is not used.



SECTION A - A



SECTION C - C
N.T.S.



SECTION B - B
N.T.S.

***BAR LIST FOR ONE TYPE C GUTTER

Mark	No. Req'd. for Width "W" 4'-0"	6'-0"	8'-0"	10'-0"	Length	Square or Skewed
G401 - G405	1 each	1 each	1 each	1 each	"W"-3" to "W"+3"	Square
G406	1	1	1	1	"W"+3"	Square
G407	19	19	19	19	"W"+ 10"	Square
G408	19	19	19	19	"W"+ 10"	Skewed
G409	1	1	1	1	"W"+3"	Skewed
G410	10	10	10	10	*	Skewed
G501	8	12	16	20	36'-2"	Square
G502	1	1	1	1	31'-8"	Square
G503	1	1	1	1	27'-2"	Square
G504	1	1	1	1	*	Skewed
G505	1	1	1	1	*	Skewed
G508 - G5__ **	1 each	1 each	1 each	1 each	*	Skewed

*** Special bar list required when skew angle exceeds 35° for W = 10'; 40° for W = 8'; 50° for W = 6'; or 60° for W = 4'.

* Bar Lengths vary with Skew.

** G515 for W = 4'
G519 for W = 6'
G523 for W = 8'
G527 for W = 10'

QUANTITIES FOR ONE SQUARE APPROACH GUTTER ③

"W" Width (ft.)	Reinforcing Steel (lbs.)	Concrete (cubic yards) T=9"	T=10"	T=11"	T=12"	T=1 1/2"
4	439	5.19	5.75	6.31	6.88	8.25
6	623	7.24	8.02	8.80	9.59	11.52
8	807	9.28	10.29	11.30	12.32	14.79
10	991	11.33	12.56	13.79	15.03	18.06

GENERAL NOTES

Concrete shall be Class S or Class S(AE) or mixture used for Portland Cement Concrete Pavement.

Reinforcement Steel shall conform to AASHTO M31 or M53, Grade 60 (fy = 60,000 psi).

Approach Gutters will be measured and paid for in accordance with Section 504 of the Standard Specifications.

⚠1 Revised and redrawn 4-10-2003. By KDH Ck. By: CJF 4-10-2003

⚠2 Added joint sealer type 07-14-2010 by MJT Checked by: CJF 7-14-2010

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF STANDARD TYPE C APPROACH GUTTERS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

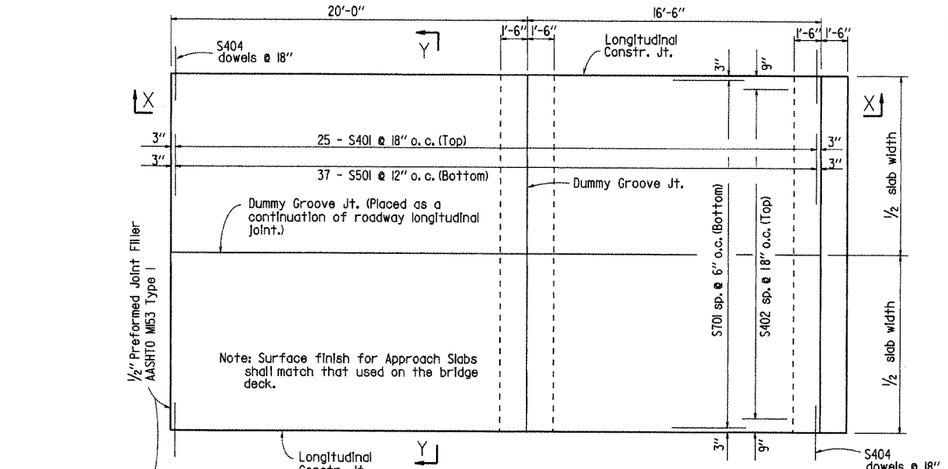
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 4-10-2003 FILENAME: B2016C.STD
CHECKED BY: CJF DATE: 4-10-2003 SCALE: 3/8" = 1'-0"
DESIGNED BY: STD. DATE:

BRIDGE NO. DRAWING NO. 2016C

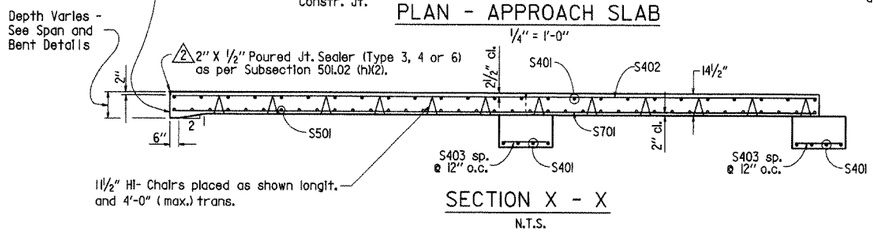
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4-10-2003				6	ARK.		129	
07-14-2010				JOB NO.				

1 APPROACH SLAB - 2018



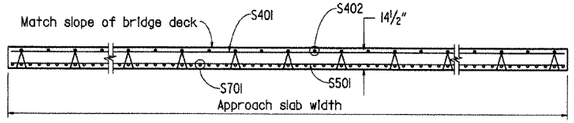
PLAN - APPROACH SLAB

1/4" = 1'-0"



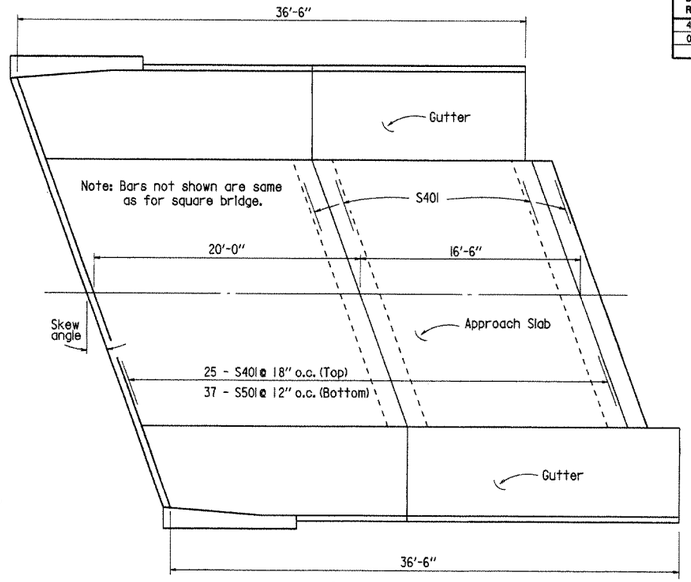
SECTION X - X

N.T.S.



SECTION Y - Y

N.T.S.



PLAN VIEW SHOWING APPROACH FOR SKEWED BRIDGE

3/16" = 1'-0"

BAR LISTS

(Square & Skewed Slabs)

	Mark	No. Req'd.	Length	
			Square	Skewed
15'-0" slab width	S401	33	14'-8"	14'-8" (secant skew angle)
	S402	10	36'-2"	
	S403	* 30	2'-8"	
	S404	* 50	3'-0"	
	S501	37	14'-8"	14'-8" (secant skew angle)
	S701	30	36'-2"	
24'-0" slab width	S401	33	23'-8"	23'-8" (secant skew angle)
	S402	16	36'-2"	
	S403	* 48	2'-8"	
	S404	* 50	3'-0"	
	S501	37	23'-8"	23'-8" (secant skew angle)
	S701	48	36'-2"	
36'-0" slab width	S401	33	35'-8"	35'-8" (secant skew angle)
	S402	24	36'-2"	
	S403	* 72	2'-8"	
	S404	* 50	3'-0"	
	S501	37	35'-8"	35'-8" (secant skew angle)
	S701	72	36'-2"	

* Varies with skew angle. The number shown is for square bridges.

GENERAL NOTES

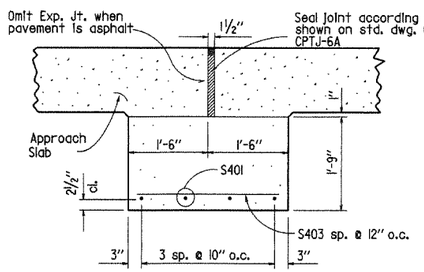
Concrete shall be Class S (AE) (f'c = 4,000 psi).

Reinforcement Steel shall conform to AASHTO M31 or M53, Grade 60 (fy = 60,000 psi).

Approach Slabs will be measured and paid for in accordance with Section 504 of the Standard Specifications.

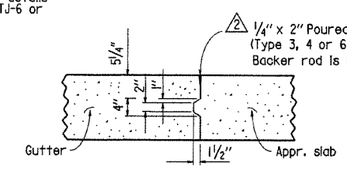
1 Revised and redrawn 4-10-2003. By KDH Ck. By: CJF 4-10-2003

2 Added joint sealer type 07-14-2010 By MJT Ck. By: 07-14-2010



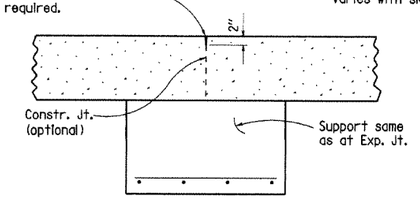
DETAILS OF SUPPORT AT EXPANSION JOINT

3/4" = 1'-0"



DETAILS OF LONGITUDINAL CONSTRUCTION JOINT

3/4" = 1'-0"



DETAILS OF DUMMY GROOVED JOINT

3/4" = 1'-0"

TABLE OF QUANTITIES FOR ONE SQUARE APPROACH SLAB

Slab Width	Reinforcing Steel	Concrete (Cu. Yds.)
15'-0"	3502 lb.	30.72
24'-0"	5556 lb.	49.15
36'-0"	8294 lb.	73.73

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF APPROACH SLAB

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 4-10-2003 FILENAME: B2018.STD

CHECKED BY: CJF DATE: 4-10-2003 SCALE: AS SHOWN

DESIGNED BY: Std. DATE:

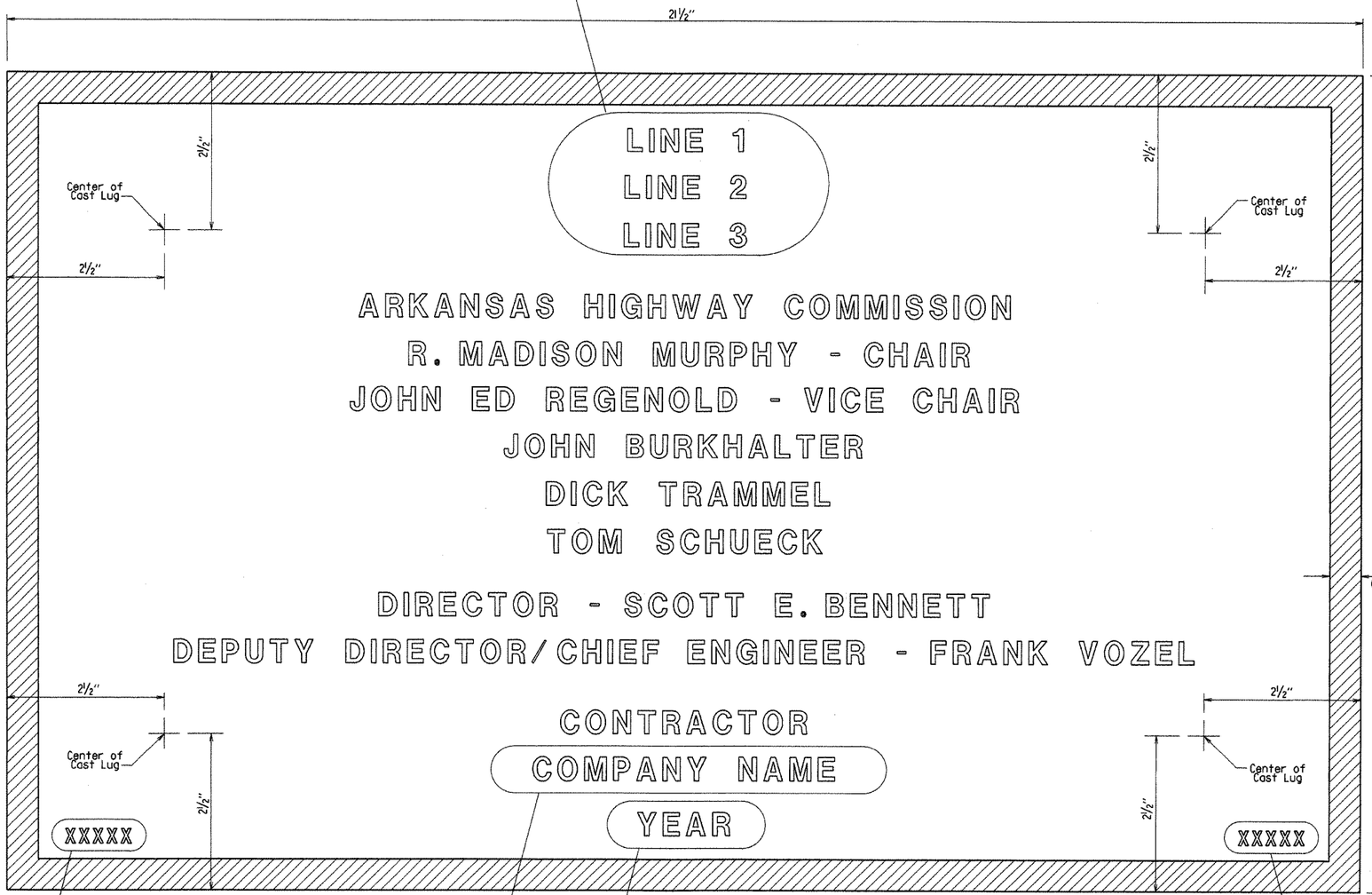
BRIDGE NO. DRAWING NO. 2018

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9-8-11				6	ARK.		130	
				JOB NO.				

(1) NAME PLATE 2387

The name of the bridge as shown on the plans shall be placed on Lines 1 - 3 using 1/8" raised letters and numerals 3/8" high.

	Example 1	Example 2	Example 3	Example 4
Line 1	Red River	Southern	Saline	
Line 2	Relief	Railroad	River	Highway 5
Line 3		Overpass	Relief	



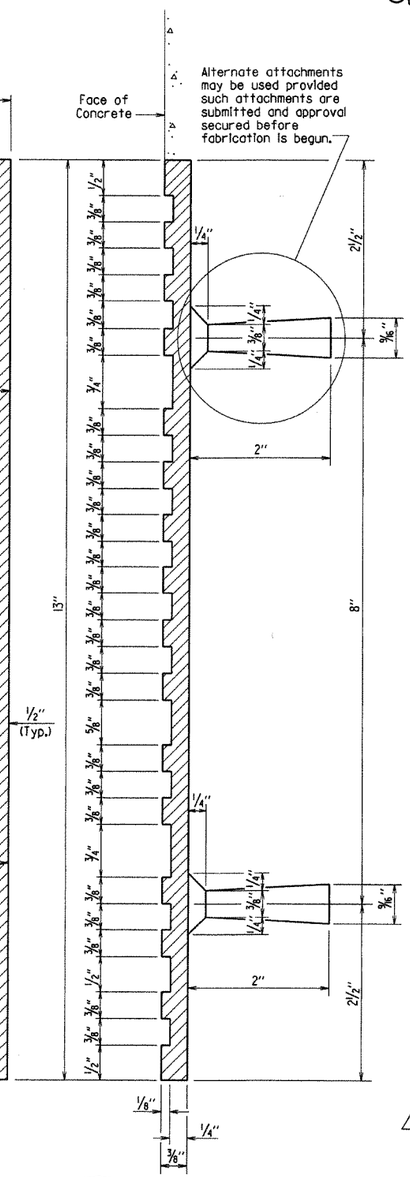
Place the design live loading here using 1/8" raised letters and numerals 1/4" high. Examples : HS 20
HL-93

Place the name of the company awarded the construction contract here using 1/8" raised letters and numerals 3/8" high. Example : ABCD CONSTRUCTION, INC.

Place the Year in which Contract was awarded here using 1/8" raised numerals 3/8" high. Example : 2001

Place the Bridge number here using 1/8" raised letters and numerals 1/4" high. Examples : A1234
05432

TYPICAL BRIDGE NAME PLATE



GENERAL NOTES

Specifications: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, (2003 Edition) with applicable Supplemental Specifications and Special Provisions.

Name plates shall be cast bronze and shall meet the material requirements as specified in Section 812 of the Standard Specifications.

Body of plate shall be 1/4" thick and shall include four tapering cone lugs 3/8" to 9/16" x 2" long. The border and all lettering shall be raised 1/8" above the face of plate and shall be polished.

All lettering shall be plain gothic, square cut and not tapered. The number of plates required and the location and name on the plate for each bridge shall be as designated on the plans.

(1) Revised and Redrawn 9-8-11 KDH Checked By: CRE

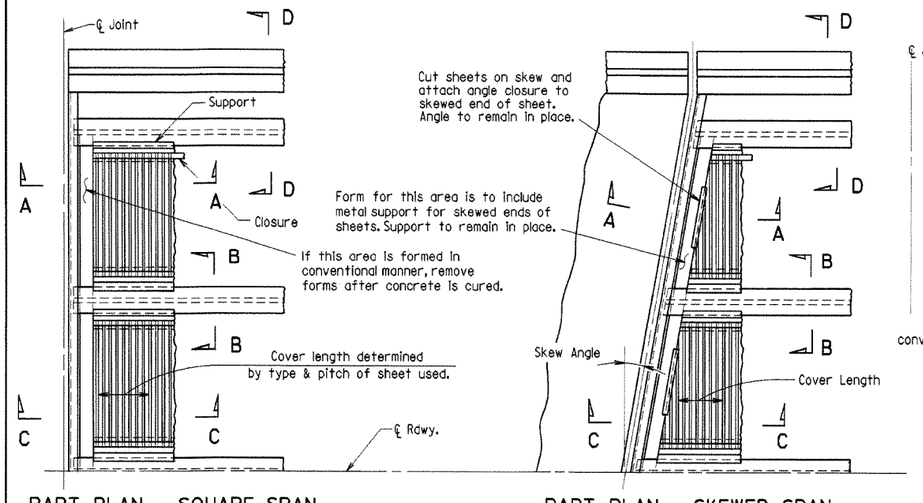
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7510
CARL J. PUSELLER
BRIDGE ENGINEER

DETAILS OF STANDARD TYPE D
BRIDGE NAME PLATE
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 9-8-11 FILENAME: B2387.STD
CHECKED BY: CRE DATE: 9-8-11 SCALE: 1'-0" = 1'-0" OR AS NOTED
DESIGNED BY: STD. DATE: —
BRIDGE NO. DRAWING NO. 2387

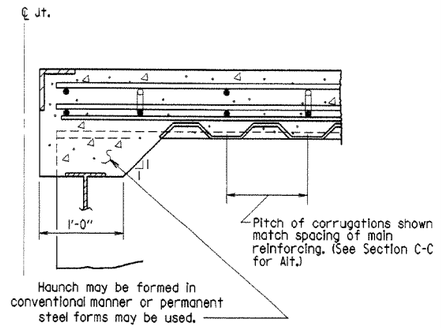
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
11-27-96						6	ARK.		131	
04-10-2003						JOB NO.				

① BR. DECK FORMS 14991

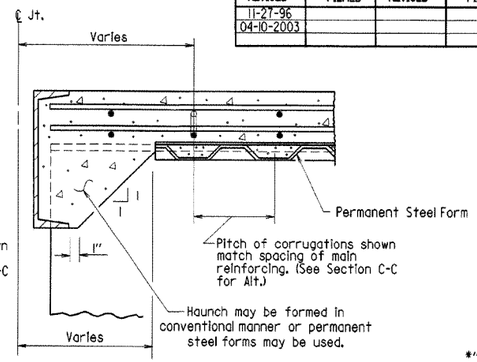


PART PLAN - SQUARE SPAN
3/8" = 1'-0"

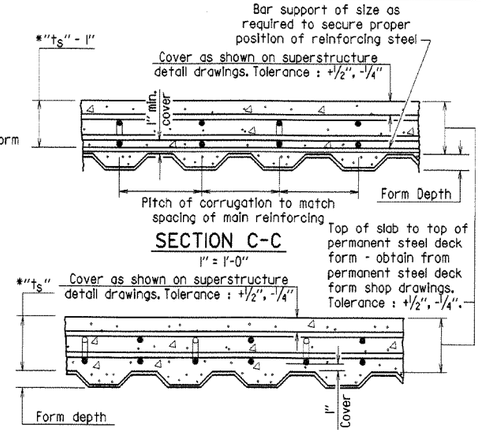
PART PLAN - SKEWED SPAN
3/8" = 1'-0"



SECTION A-A
N.T.S.
(Angle at end of span)

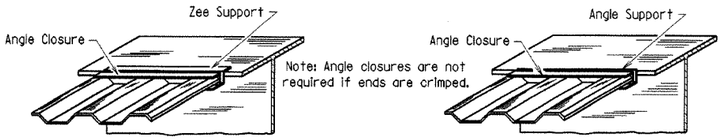


SECTION A-A
N.T.S.
(Channel at end of span)

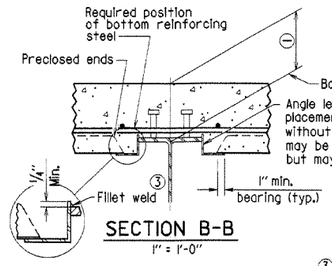


SECTION C-C
1" = 1'-0"

SECTION C-C - ALTERNATE
1" = 1'-0"
(Applicable when corrugations do not match spacing of main reinforcement)

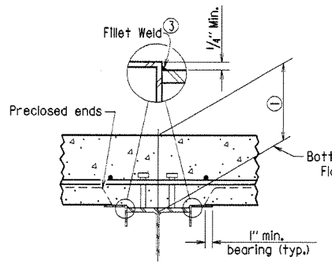


SKETCH OF PERMISSIBLE SUPPORTS
N.T.S.

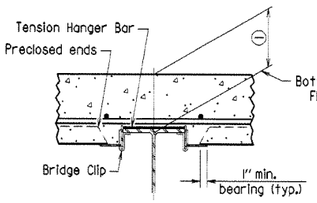


SECTION B-B
1" = 1'-0"
(Showing permissible support for tension flange where shear connectors are used, and for all compression flanges)

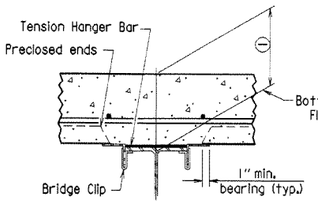
③ Minimum weld: 1/8" x 1" @ 18". More weld may be required; maximum length per weld = 1 1/2" (typ.)



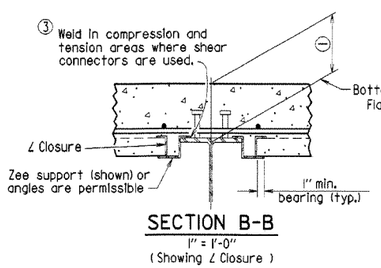
SECTION B-B
1" = 1'-0"
(Showing permissible support for tension flange where shear connectors are used and for all compression flanges)



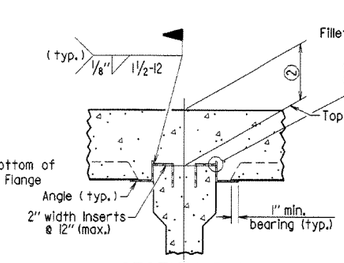
SECTION B-B
1" = 1'-0"
(Showing permissible support for tension flange where shear connectors are not used)



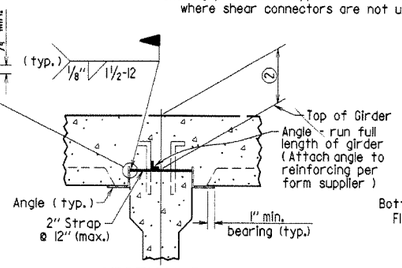
SECTION B-B
1" = 1'-0"
(Showing permissible support for tension flange where shear connectors are not used)



SECTION B-B
1" = 1'-0"
(Showing ∠ Closure)



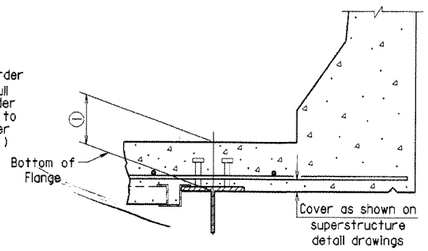
SECTION B-B (FOR CONCRETE GIRDERS)
1" = 1'-0"
(Showing support by Insert cast in girder)



SECTION B-B (FOR CONCRETE GIRDERS)
1" = 1'-0"
(Showing support by Strap)

① Distance from top of slab to bottom of top flange as measured at centerline girder and as shown on superstructure detail drawings. This dimension may vary within the following limits to maintain the grade and slab thickness tolerances : Minimum - occurs when either the top flange or the support angle leg contacts the bottom reinforcing steel; Maximum = t_S + 1 3/4" + flange thickness. See Section C-C for slab thickness tolerance between adjacent girder flanges.

② Distance from top of slab to top of girder as measured at centerline girder and as shown on superstructure detail drawings. This dimension may vary within the following limits to maintain the grade and slab thickness tolerances : Minimum - occurs when either the top of girder or the support angle leg contacts the bottom reinforcing steel; Maximum - value shown on the superstructure detail drawings when removable forms are used. See Section C-C for slab thickness tolerance between adjacent girder flanges.



SECTION D-D
1" = 1'-0"
Note: Only Bottom Reinforcing is shown.

⚠ Redrawn and revised 11/27/96; MJT

⚠ Revised for 2003 AHTD Construction Specifications and CPB Seal. MJT 04-10-2003
Chk'd. By: CJF 04-10-2003

*t_S = slab thickness as shown on superstructure detail drawings.

GENERAL NOTES

Permanent steel deck forms may be used at the Contractor's option and shall be at no additional cost to the Department. Such use may result in changes to the dead load deflection of the girder. Any cost for adjustments due to a change in the dead load deflection will be borne by the Contractor. Payment for deck concrete and structural steel will not be increased due to use of permanent steel deck forms.

Permanent steel deck forms shall conform to subsection 802.14(b) of the Standard Specifications. Detailed plans, including detailed calculations and manufacturer's technical brochure, shall be submitted to and approved by the Bridge Engineer before work of forming the bridge deck is started.

Welding of form supports to the tension flange of steel girders will be permitted only in areas where shear connectors are used. When welding is not allowed, the method of fastening Z or ∠ supports to the flange must be approved by the Bridge Engineer.

Form sheets shall be fastened to supporting members and to each other with galvanized metal screws sufficient in size and number to provide a secure attachment. Alternate methods of attachment must be approved by the Bridge Engineer.

When the pitch of form corrugations match the reinforcing spacing, transversely align form sheets across the bridge to maintain the correct orientation of continuous reinforcing bars in the corrugations.

Bar support rods, when used, shall be sized and spaced to adequately support the bottom reinforcing mat at the required position.

High chairs shall be sized to support the top mat of reinforcing at the proper position. High chairs shall be placed at locations shown on the detail drawings.

⚠ Specifications: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2003 Edition), with applicable supplemental specifications and special provisions.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND
BRIDGE ENGINEER

DETAILS OF PERMISSIBLE TYPE PERMANENT STEEL BRIDGE DECK FORMS FOR STEEL & CONCRETE GIRDER SPANS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

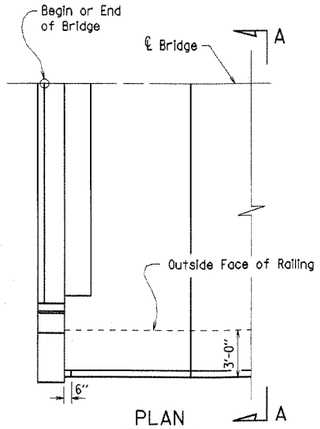
DRAWN BY: MJT DATE: 10-17-96
CHECKED BY: CPB DATE: 10-17-96
DESIGNED BY: STD. DATE: —
SCALE: as noted

BRIDGE NO. DRAWING NO. 14991

BI4991.STD

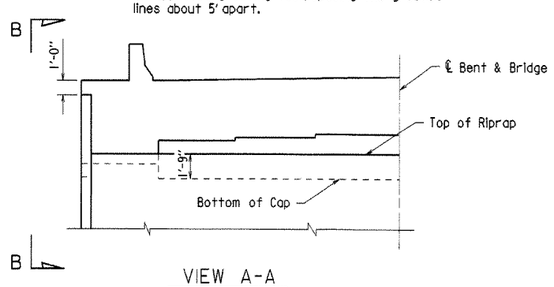
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
04-10-2003				6	ARK.		132	
				JOB NO.				

1 RIPRAP & PILE - 14995A

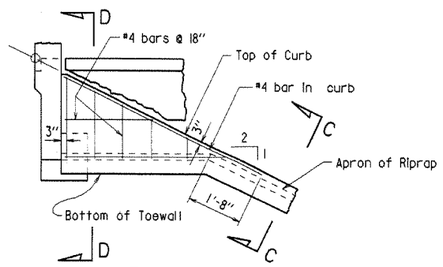


PLAN

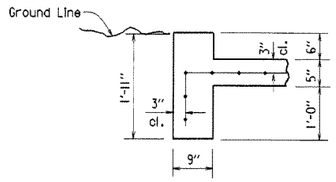
Note:
Sloped surfaces of concrete riprap to be marked off into blocks (construction joints optional) with an approved grooving tool, spacing the grooved lines about 5' apart.



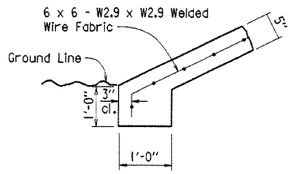
VIEW A-A



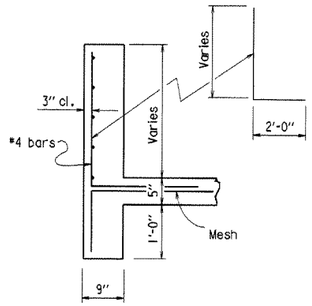
VIEW B-B



SECTION C-C

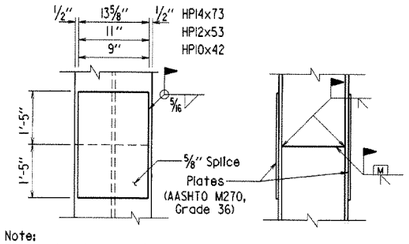


TOE WALL



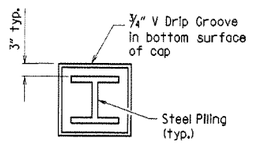
SECTION D-D

DETAILS OF CONCRETE RIPRAP

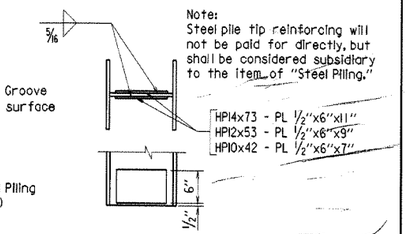


Note:
The contractor may for his own convenience and at this own expense provide as many as three splices per pile for steel bearing piling. Minimum spacing between splices shall be 5 ft.

PILE SPLICE DETAIL
Scale : 1" = 1'-0"

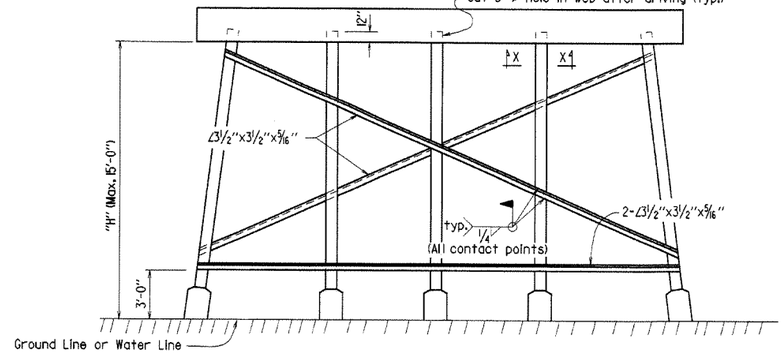


VIEW X-X



Note:
Steel pile tip reinforcing will not be paid for directly, but shall be considered subsidiary to the item of "Steel Piling."

REINFORCING DETAIL FOR STEEL PILE TIP
Scale : 1" = 1'-0"



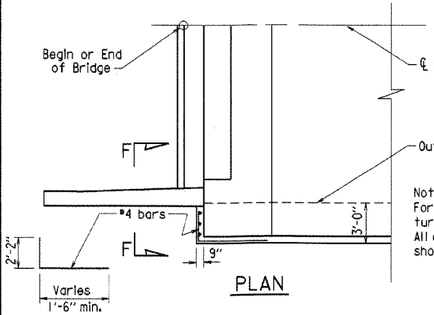
Note:
All bracing shall be cut and welded in the field. Each brace shall be furnished in one piece. Payment shall be made under Item 807.

Omit bottom bracing where "H" is less than 10 ft. Omit all bracing where "H" is less than 5 ft.

Note:
Where required by the bridge layout sheet, pile encasements shall be constructed.

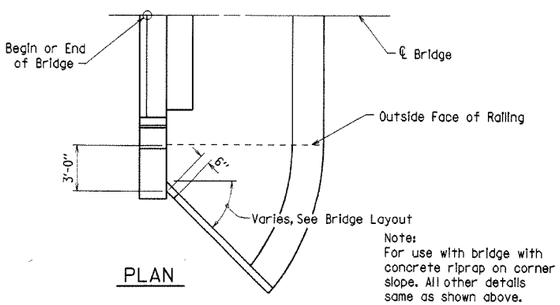
Omit bracing (and V-groove in cap) where pile encasement is extended to bottom of bent cap.

TYPICAL BRACING FOR INT. STEEL PILE BENTS



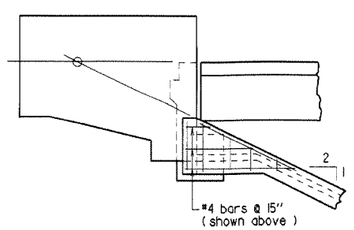
PLAN

Note:
For use on bridges with turned back wings. All other details same as shown above.

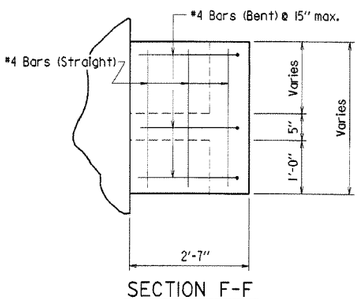


PLAN

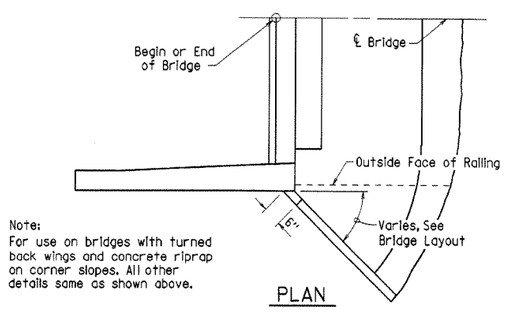
Note:
For use with bridge with concrete riprap on corner slope. All other details same as shown above.



ELEVATION

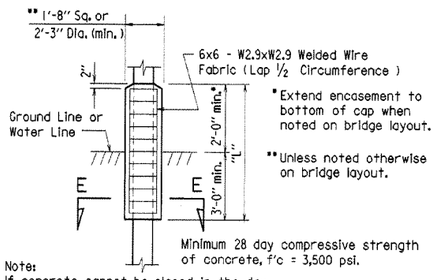


SECTION F-F



PLAN

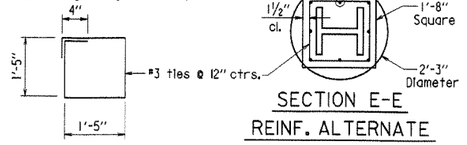
Note:
For use on bridges with turned back wings and concrete riprap on corner slopes. All other details same as shown above.



Note:
If concrete cannot be placed in the dry, seal concrete may be deposited under water. Concrete & welded wire fabric or reinforcing in encasements shall be paid for at the contract unit price per linear foot bid for "Pile Encasement."

PILE ENCASEMENT DETAIL

Reinforcing Alternate
#3 Vertical - 8 per encasement
#3 ties @ 12" ctrs.
Yield Strength , fy = 60,000 psi.



SECTION E-E
REINF. ALTERNATE

⚠ Revised and redrawn MJT 04-10-2003
Chk'd. By: CJF 04-10-2003

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF CONCRETE RIPRAP
AND MISC. DETAILS OF STEEL PILING

ROUTE SEC.

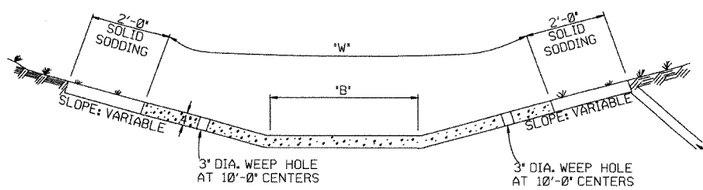
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: MJT DATE: 04-10-2003 FILENAME: BI4995A.STD
CHECKED BY: CJF DATE: 04-10-2003 SCALE: No Scale or As Noted
DESIGNED BY: STD. DATE: —

BRIDGE NO. DRAWING NO. 14995A

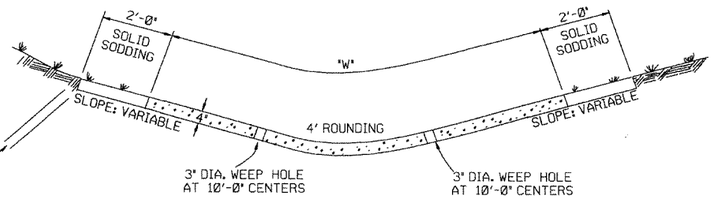
REFER TO TABULATION OF QUANTITIES
FOR "W" & "B" DIMENSIONS



EXCAVATE TO NEAT LINES TO CONSTRUCT DITCH PAVING AND SOLID SODDING.

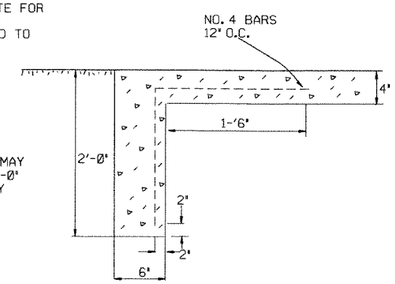
TYPE A

REFER TO TABULATION OF QUANTITIES
FOR "W" DIMENSIONS



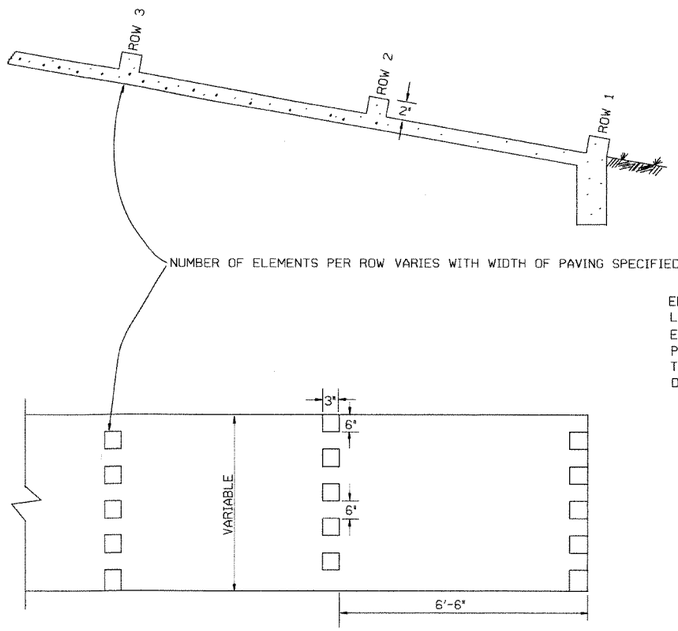
TYPE B

THE STEEL AND ADDITIONAL CONCRETE FOR THE WALLS SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR "CONCRETE DITCH PAVING."



TOE WALL DEPTH MAY BE ALTERED TO 1'-0" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION

TOE WALL DETAIL FOR
CONCRETE DITCH PAVING



ENERGY DISSIPATORS
(NO SCALE)

ENERGY DISSIPATORS TO BE USED FOR THE ENTIRE LENGTH OF DITCH WHEN SLOPE OF DITCH PAVING EXCEEDS 7%. THE DISSIPATORS WILL NOT BE PAID FOR DIRECTLY. BUT SHALL BE CONSIDERED TO BE UNCLUDED IN THE PRICE BID FOR CONCRETE DITCH PAVING.

GENERAL NOTES:

THE FULL WIDTH OF EACH SECTION SHALL BE POURED MONOLITHICALLY.

TOE WALLS TO BE CONSTRUCTED FULL WIDTH AT EACH END OF DITCH PAVING, AND POURED MONOLITHICALLY.

SOLID SOD ALONG DITCH PAVING TO BE PLACED WITHIN 14 DAYS OF DITCH PAVING CONSTRUCTION.

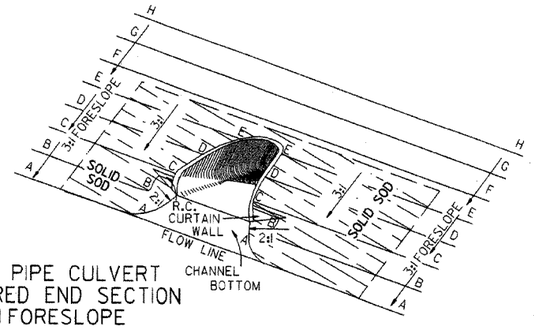
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

DATE	REVISION	DATE FILM'D
11-17-10	ADDED GENERAL NOTE	
6-2-94	ADDED GENERAL NOTE ABOUT SOLID SODDING	
11-30-8	ELIMINATED MIN. ROWS OF ELEMENTS	111-30-89
7-15-88	REVISED DISSIPATOR NOTE	653-7-15-88
4-3-87	REVISED ENERGY DISSIPATOR	671-4-3-87
1-9-87	MODIFIED NOTE ON ENERGY DISS.	532-1-9-87
11-3-86	ADDED NOTE TO ENERGY DISS.	599-12-1-86
11-1-84	ENERGY DISSIPATOR DETAILS ADDED	508-11-1-84
11-1-84	EXCAVATION DETAILS ADDED TYPED A & B	
10-2-72	REVISED AND REDRAWN	508-10-2-72

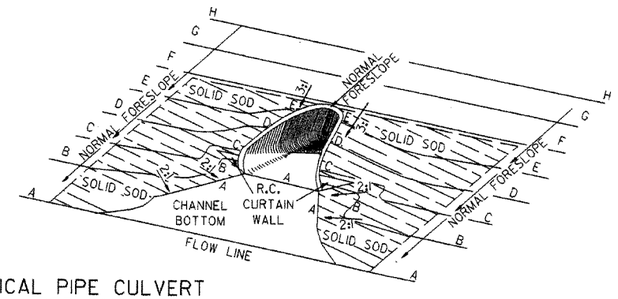
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE DITCH PAVING

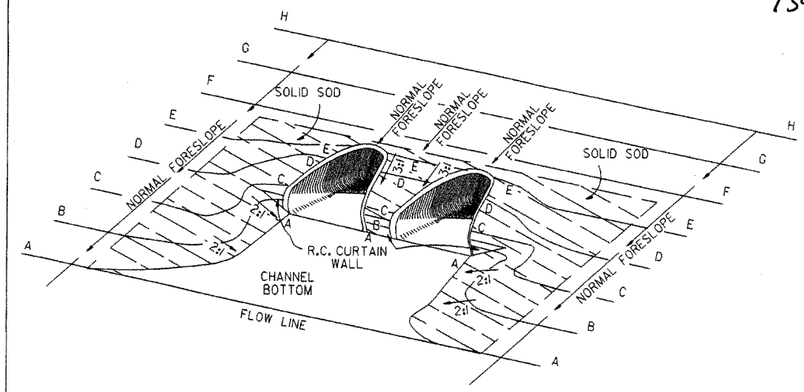
STANDARD DRAWING CDP-1



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& FLATTENED ADJACENT SLOPES



TYPICAL MULTIPLE PIPE CULVERT
WITH FLARED END SECTIONS
& FLATTENED ADJACENT SLOPES

R.C. CURTAIN WALL
DIMENSIONS & QUANTITIES

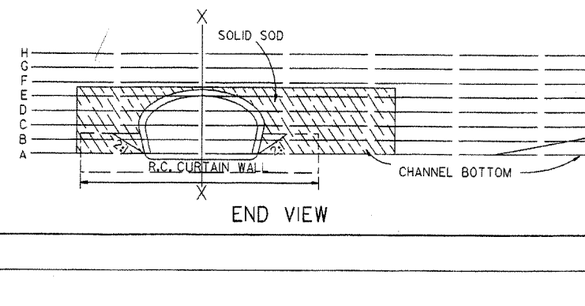
PIPE DIA.	H_1	L_1	L	L (DBL.)/2	SINGLE R.C.P.C. CONC.	SINGLE R.C.P.C. REINF. STEEL	DOUBLE R.C.P.C. CONC.	DOUBLE R.C.P.C. REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	13'-0"	10'-6"	0.58	52.6	0.83	73.9
42"	2'-1½"	7'-3"	15'-6"	12'-0"	0.82	77.1	1.10	100.7
48"	2'-5"	7'-10"	17'-0"	13'-0"	0.98	94.9	1.27	120.4
54"	2'-9½"	8'-5"	18'-6"	14'-0"	1.16	115.8	1.47	143.7
60"	3'-4"	9'-0"	20'-6"	15'-6"	1.47	149.7	1.84	180.3
72"	4'-5"	10'-2"	25'-6"	18'-6"	2.31	232.6	2.73	271.0

NOTE: QUANTITIES SHOWN ARE FOR ONE (1) CURTAIN WALL.

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	V401 L	V401 NO.	V402 L	V402 NO.	DOUBLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	H403 L	H403 NO.	V401 L	V401 NO.	V402 L	V402 NO.
18"	7'-8"	2	1'-11½"	4	1'-7½"	8	8"	8	12'-2"	2	1'-11½"	4	8"	2	1'-7½"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8½"	10	8"	9	14'-8"	2	2'-2"	4	8"	2	1'-8½"	12	8"	18
30"	10'-8"	2	2'-4½"	4	1'-11½"	10	8"	12	17'-8"	2	2'-4½"	4	8"	2	1'-11½"	14	8"	22
36"	12'-8"	2	2'-10"	6	2'-3"	12	8"	14	20'-8"	2	2'-10"	6	8"	3	2'-3"	14	8"	28
42"	15'-2"	2	3'-9½"	8	2'-9½"	16	8"	15	23'-8"	2	3'-9½"	8	8"	4	2'-9½"	18	8"	30
48"	16'-8"	2	4'-3"	10	3'-1"	18	8"	16	25'-8"	2	4'-3"	10	8"	5	3'-1"	20	8"	32
54"	18'-2"	2	4'-8½"	12	3'-5½"	20	8"	17	27'-8"	2	4'-9"	12	8"	6	3'-5½"	22	8"	34
60"	20'-2"	2	5'-5"	14	4'-0"	24	8"	18	30'-8"	2	5'-5"	14	8"	7	4'-0"	26	8"	36
72"	25'-2"	2	7'-4"	18	5'-1"	30	8"	20	36'-8"	2	7'-4"	18	8"	9	5'-1"	33	8"	40

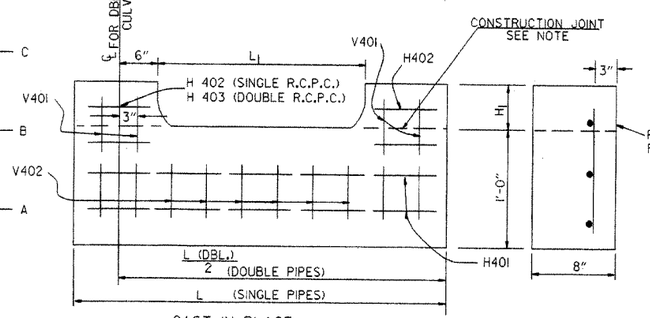
ALL REINFORCING STEEL #4 BARS @ 6" O.C.



PLAN VIEW
3:1 FORESLOPES

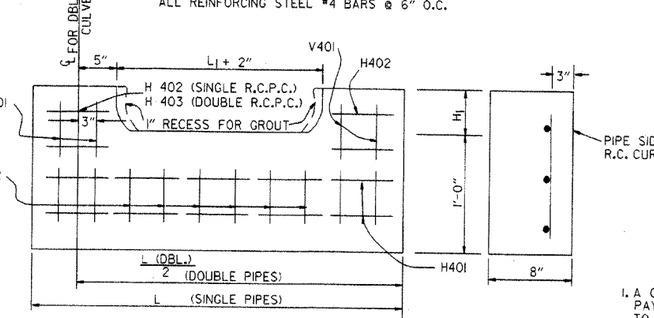
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES



CAST-IN-PLACE

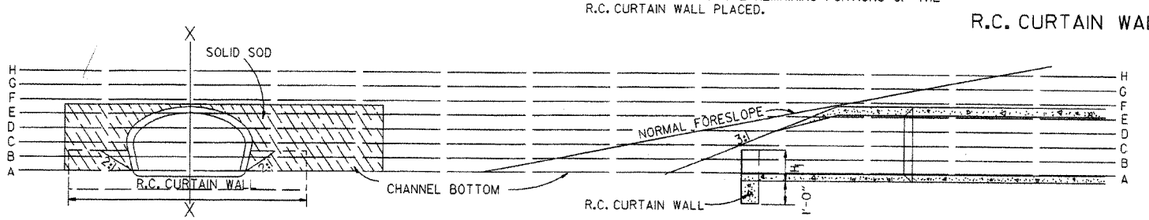
NOTE: THE PORTION OF THE R.C. CURTAIN WALL BENEATH THE FLARED END SECTION (LOWER 1'-0") SHALL BE PLACED MONOLITHICALLY. THE FLARED END SECTION SHALL THEN BE SET IN PLACE & THE REMAINING PORTIONS OF THE R.C. CURTAIN WALL PLACED.



PRECAST

NOTE: THE PRECAST CURTAIN WALL WILL BE SET AND BACKFILLED WITH COMPACTED MATERIAL. THE FLARED END SECTION SHALL THEN BE SET IN PLACE AND THE 1" RECESS FILLED WITH GROUT. WHERE "L" EXCEEDS 11' THE CURTAIN WALL MAY BE CAST IN TWO (2) OR MORE SECTIONS. THE METHOD OF JOINING THE SECTIONS FOR INSTALLATION SHALL BE APPROVED BY THE ENGINEER.

R.C. CURTAIN WALL DETAILS



END VIEW

SECTIONAL VIEW "X-X"

SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C. 3:1	4:1	6:1	DOUBLE R.C.P.C. 3:1	4:1	6:1
	SQ. YDS.			SQ. YDS.		
18"	5	7	12	6	8	13
24"	8	12	19	9	13	20
30"	13	18	29	14	19	30
36"	17	26	41	18	28	43
42"	23	35	55	25	37	57
48"	29	46	68	31	48	70
54"	36	57	85	37	59	87
60"	45	62	104	48	65	107
72"	64	92	156	67	95	159

NOTE: QUANTITIES SHOWN ABOVE ARE FOR ONE (1) END OF F.E.S.

GENERAL NOTES

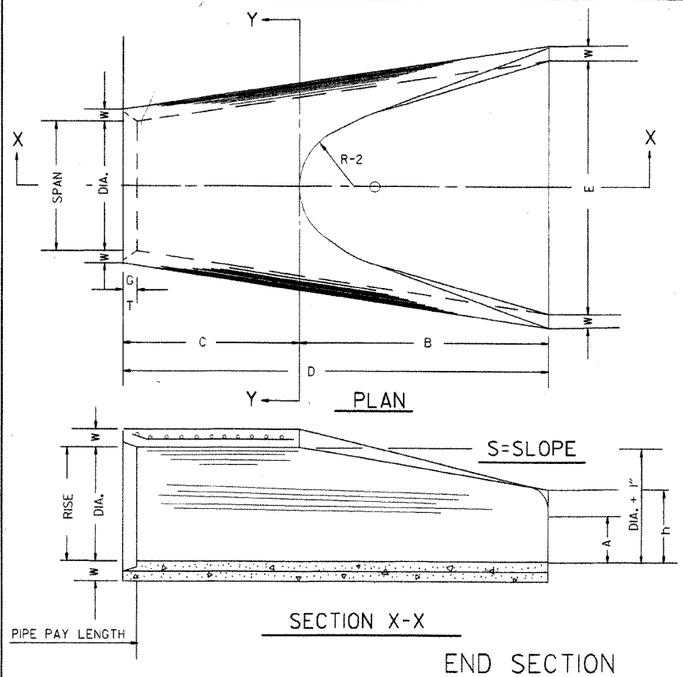
1. A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE: FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL, AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾".
3. CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAVING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
4. WELDED WIRE MESH 3 x 3 W10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.

DATE	REVISION	FILMED
10-18-96	ADDED NOTE TO SOLID SODDING	10-18-96
10-12-95	CORRECTED SPELLING	
11- 3-94	ADDED GENERAL NOTE NO. 4	
8-15-91	REV. CURTAIN WALL QUANT. STEEL SCH. & SOLID SOD QUANT.	
3-2-81	ALLOW PRECAST IN 2 OR MORE PIECES CHAMFER EDGES	
5-15-80	ADDED PRECAST WALL & GENERAL NOTES	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

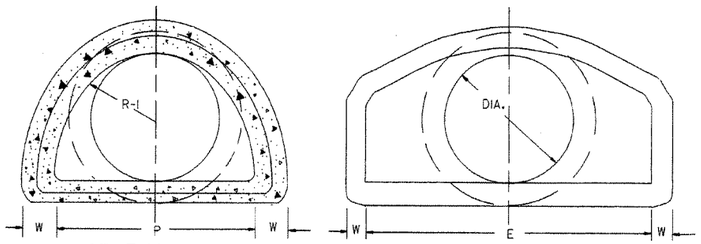
STANDARD DRAWING FES-1



END SECTION
FOR REINFORCED CONCRETE PIPE CULVERTS

TABLE OF DIMENSIONS

DIA.	WALL	A	B	C	D	E	S	DIA. + 1"	P	R-1	R-2	G-T	WT.	h
18"	2½"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15½"	12"	2"	1000	1'-0½"
24"	3"	9½"	3'-7½"	2'-6"	6'-11½"	4'-0"	3:1	25"	33 3/16"	16 13/16"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7¾"	6'-1¾"	5'-0"	3:1	31"	37"	18½"	15"	3¼"	1940	1'-4⅝"
36"	4"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	6'-0"	3:1	37"	47 1/16"	24 5/16"	20"	3½"	4100	1'-8"
42"	4½"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53⅞"	27½"	22"	3½"	5380	2'-2½"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56½"	28½"	22"	3½"	6550	2'-6"
54"	5½"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65½"	33⅛"	24"	4"	8750	2'-10½"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72½"	36 11/16"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77 1/16"	38 5/16"	24"	5"	13250	4'-6"

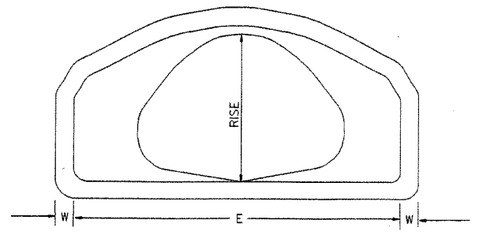


NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

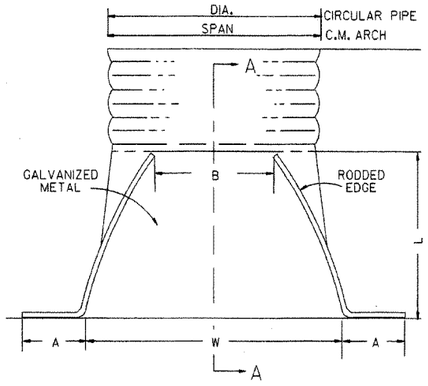
ARCH PIPE

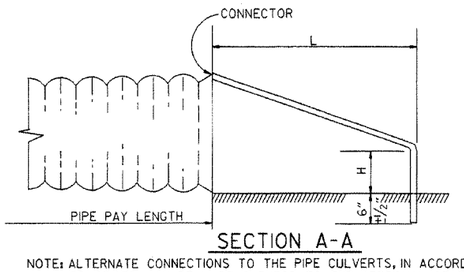
EQUIV. DIA.	• SPAN AASHTO M 206	• SPAN AHD NOMINAL	• RISE AASHTO M 206	• RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
INCHES														
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1½"	2½:1
18	22	22	13½	14	2½"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32⅛"	13"	2½"	2½:1
21	26	26	15½	16	2¾"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34⅛"	14"	2½"	2½:1
24	28½	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36 13/16"	15"	2½"	2½:1
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47 1/16"	20"	3"	2½:1
36	43¾	44	26⅝	27	4"	10½"	4'-0"	2'-1½"	6'-1½"	6'-6"	54 5/16"	22"	3½"	2½:1
42	51⅛	51	31 5/16	31	4½"	11½"	4'-7"	1-10¼"	6'-5¼"	7'-2"	59½"	23"	3¾"	2½:1
48	58½	59	36	36	5"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	7'-10"	70 5/16"	24"	4¼"	2½:1
54	65	65	40	40	5½"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72 1/16"	24"	4¾"	2¼:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 1/16"	24"	5"	2¼:1

• THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.

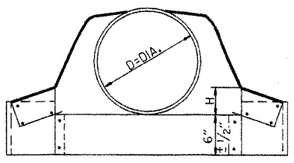


END VIEW
CONCRETE ARCH PIPE





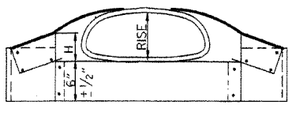
NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.



CIRCULAR PIPE

CIRCULAR PIPE

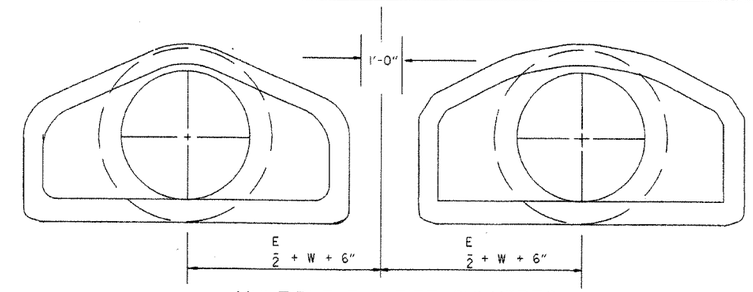
D. DIA.	GAUGE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S
INCHES							
12	16	6	6	6	21	24	2½:1
15	16	7	8	6	26	30	2½:1
18	16	8	10	6	31	36	2½:1
21	16	9	12	6	36	42	2½:1
24	16	10	13	6	41	48	2½:1
30	14	12	16	8	51	60	2½:1
36	14	14	19	9	60	72	2½:1
42	12	16	22	11	69	84	2½:1
48	12	18	27	12	78	90	2½:1
54	12	18	30	12	84	102	2:1
60	12	18	33	12	87	114	1¾:1
66	12	18	36	12	87	120	1½:1
72	12	18	39	12	87	126	1 1/3:1



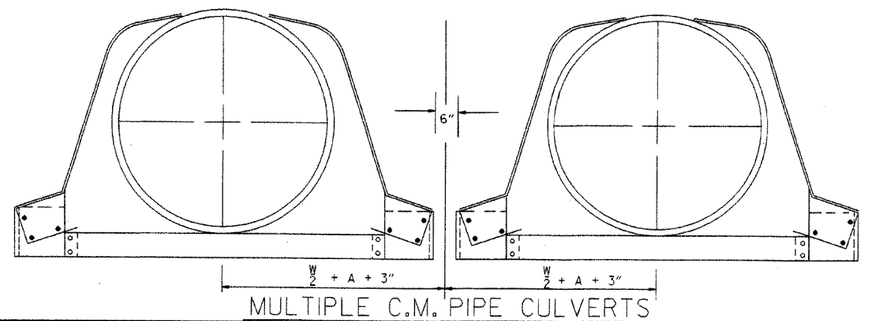
C.M. ARCH PIPE

C.M. ARCH PIPE

EQUIV. DIA.	SPAN	RISE	A 1" ±	B MAX.	H 1" ±	L 1½" ±	W 2" ±	S	GAUGE
INCHES									
15"	17	13	7	9	6	19	30	2½:1	16
18"	21	15	7	10	6	23	36	2½:1	16
21"	24	18	8	12	6	28	42	2½:1	16
24"	28	20	9	14	6	32	48	2½:1	16
30"	35	24	10	16	6	39	60	2½:1	14
36"	42	29	12	18	8	46	75	2½:1	14
42"	49	33	13	21	9	53	85	2½:1	12
48"	57	38	18	26	12	63	90	2½:1	12
54"	64	43	18	30	12	70	102	2¼:1	12
60"	71	47	18	33	12	77	114	2¼:1	12



MULTIPLE R.C. PIPE CULVERTS



MULTIPLE C.M. PIPE CULVERTS

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS

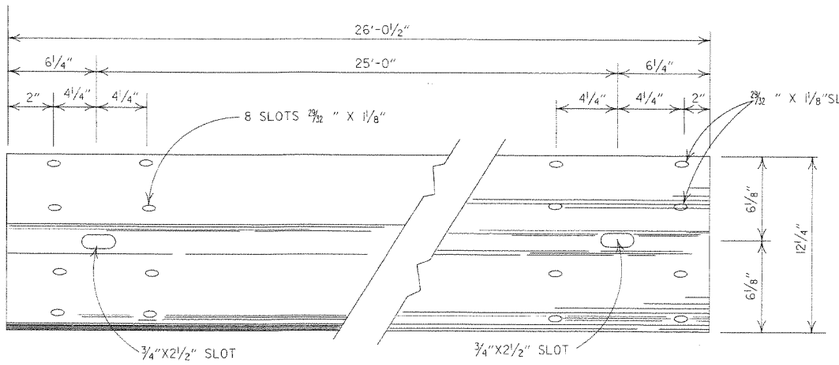
DATE	REVISION	FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	10-18-96
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75
12-5-74	REMOVED NOTE RE REINF. FOR R.C. F.E.S.	500-12-5-74
5-24-73	CMP END SECTION, SHOW PIPE PAY LENGTH	627-5-24-73
10-2-72	REVISED AND REDRAWN	760-10-2-72

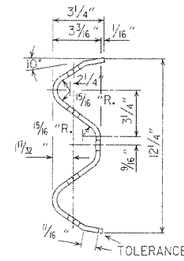
ARKANSAS STATE HIGHWAY COMMISION

FLARED END SECTION

STANDARD DRAWING FES-2

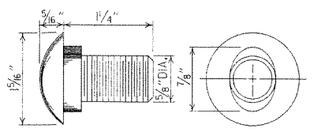
stdfes2.dgn



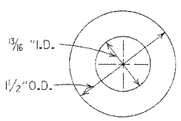


DETAILS OF W-BEAM GUARD RAIL

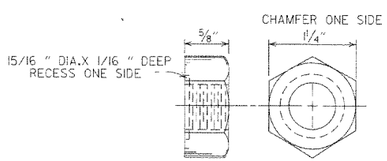
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



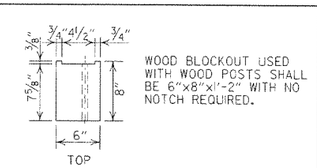
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

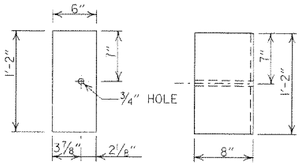


NUT

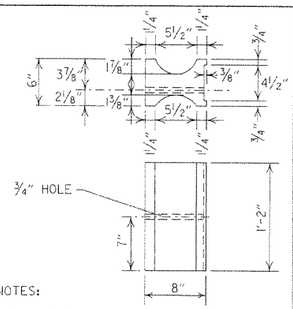


WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.

TOP



WOOD BLOCKOUT (W-BEAM)

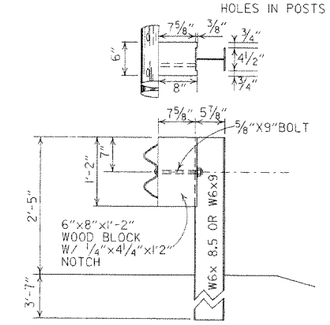


NOTES:

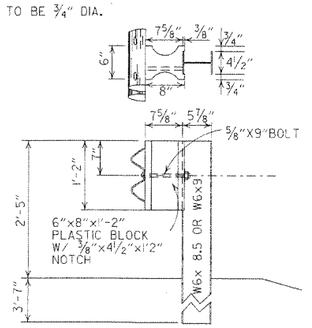
1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

PLASTIC BLOCKOUT (W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE 3/4" DIA.

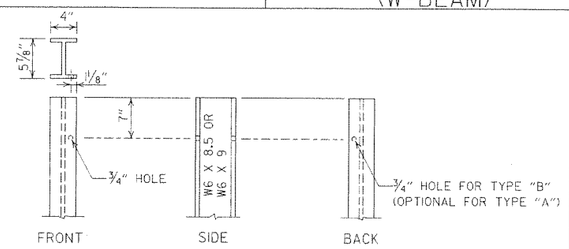


WOOD BLOCKOUT CONNECTIONS

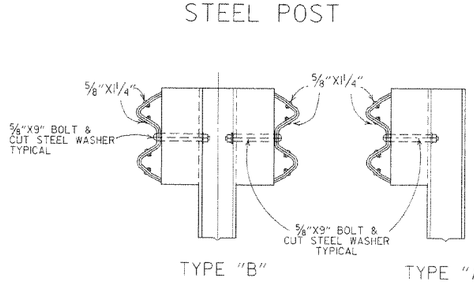


PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)



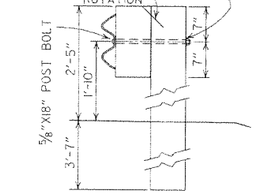
STEEL POST



TYPE "B" TYPE "A"

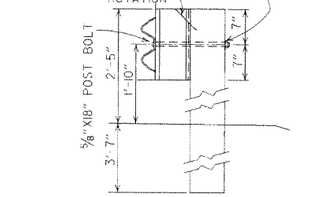
DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE 3/4" DIA.



POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - 1/4".

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 3/4" 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.

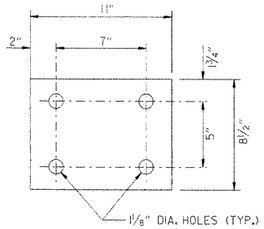
CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARD RAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARD RAIL.

DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
10-15-09	ADDED REFERENCE TO MASH	
4-10-03	REVISED GENERAL NOTES	
8-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & ON STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
3-30-00	REMOVED GUARD RAIL AT BRIDGE ENDS	
1-12-00	ADDED PLASTIC BLOCKOUT	
8-12-98	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	
4-3-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
6-2-94	ADDED ALT. STEEL POST SIZE	
8-5-93	REVISED STEEL POST SIZE	8-5-93
10-1-92	REDRAWN & REVISED	10-1-92
8-15-91	REVISED WASHER NOTE	8-15-91
8-2-90	REV. GEN. NOTE & DEPHT OF ANC. POST IN ROCK	8-2-90
7-15-88	REVISED SECTION 3 & GENERAL NOTES	
3-4-88	REV. ANCHOR POST, ELEV. NOTES & POST IN ROCK	780-3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-9-87	REDRAWN & REVISED	802-10-9-87

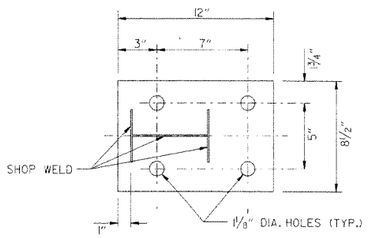
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-8

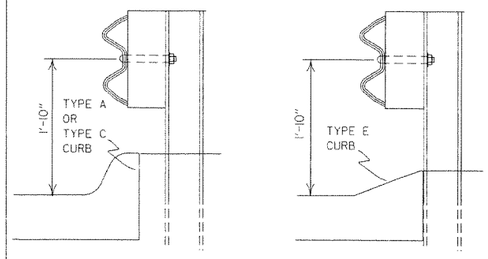


WASHER PLATE



BASE PLATE

Note: Bolts, nuts, washers and plates shall be galvanized in accordance with Section 807 of the Standard Specifications.



FOR DESIGN SPEEDS OF 50 MPH OR LESS

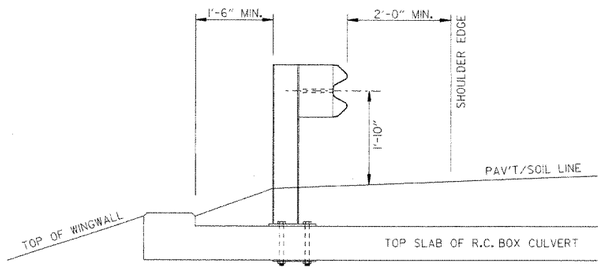
ALIGN FACE OF GUARD RAIL WITH FACE OF CURB.

FOR DESIGN SPEEDS OF 55 MPH OR MORE

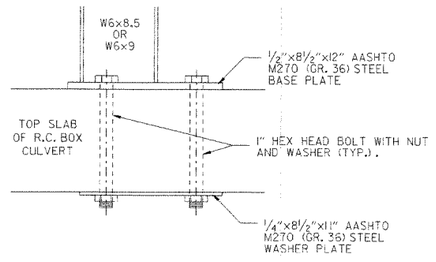
PLACE GUARD RAIL POSTS AGAINST BACK OF CURB.

DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB (W-BEAM)

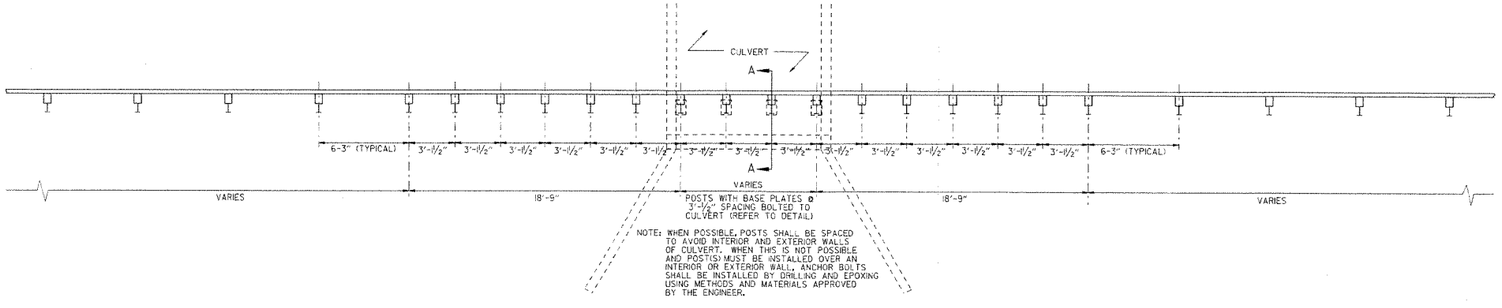
FOR DESIGN SPEEDS OF 50 MPH OR LESS ALL CURB FACES, AS SHOWN ON STD. DRWG. CC-1, MAY BE USED. FOR DESIGN SPEEDS OF 55 MPH OR MORE TYPE "E" CURB FACE SHALL BE USED.



SECTION A-A



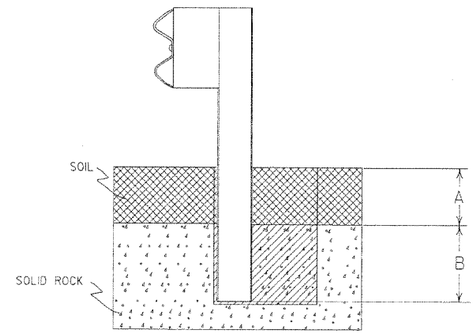
DETAIL OF CONNECTION



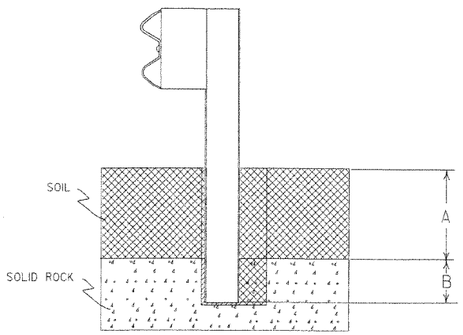
PLAN LAYOUT OF TYPE A GUARD RAIL AT LOW-FILL CULVERTS

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.

Case 1

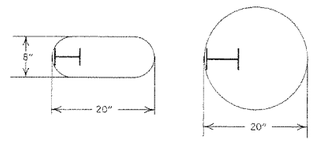


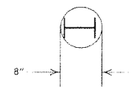
Case 2



Plan View Steel Posts

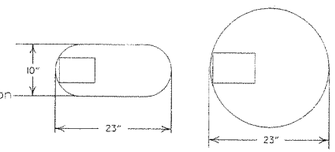
Either hole configuration acceptable

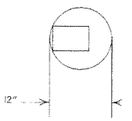




Plan View Wood Posts

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 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)

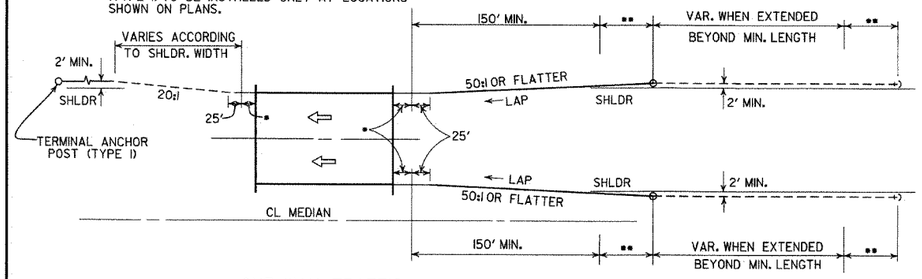
DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
4-12-07	REVISED DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB	
11-10-05	ADDED GUARD RAIL PLACEMENT BEHIND CURB; REVISED DETAIL OF CONNECTION	
11-18-04	REVISED POST PLACEMENT IN ROCK & CULVERT CONNECTION DETAILS. ADDED DETAIL FOR GUARD RAIL PLACEMENT AT LOW-FILL CULVERTS	
3-30-00	REMOVED CONCRETE INSERT ANCHOR	
6-12-98	CHANGED STEEL SPACER BLOCK TO WOOD BLOCKOUT, ADD. 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 POST PLACE. IN SOLID ROCK	
4-3-96	PLACED ARROWS AT CUT STEEL WASHERS	4-3-96
10-18-96	REV. ASTM REF. TO AASHTO	
11-22-95	ADDED OPTIONAL HOLES	
6-2-94	REVISED ALTERNATE POST SIZE	
8-5-93	REVISED STEEL POST SIZE	
10-1-92	REDRAWN & REVISED	10-1-92
8-2-90	DEL. WASHER ON ANCHOR ASSEMBLY	8-2-90
7-15-88	CONFORMED TO 1988 SPECS	
3-4-88	REVISED ANCHOR NOTE	
10-30-87	REVISED ANCHOR ASSEMBLY	712-10-30-87
10-30-87	REVISED PLACEMENT BEHIND CURB	547-10-30-87
10-9-87	REDRAWN & REVISED	803-10-9-87

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

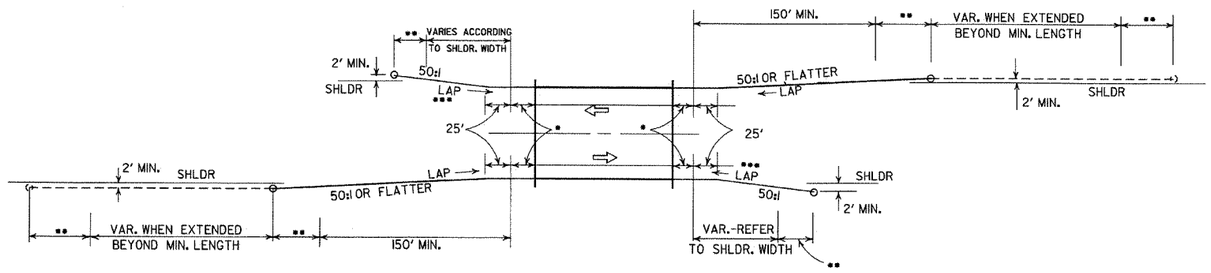
STANDARD DRAWING GR-8A

NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

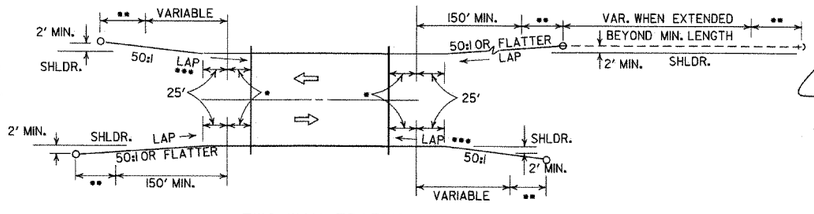
••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

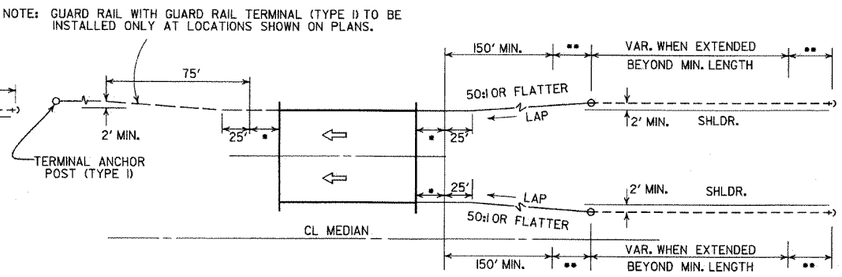
METHODS OF INSTALLATION OF GUARD RAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

••• 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

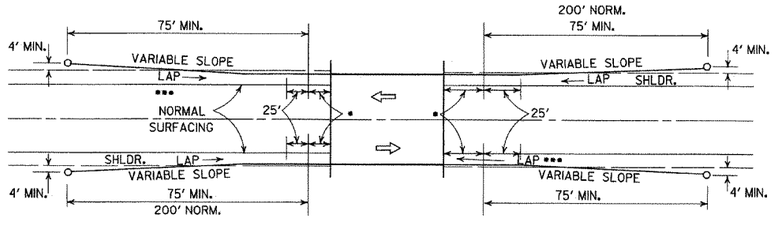
NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



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.



LEGEND

- • THRIE BEAM GUARD RAIL TERMINAL
- •• GUARD RAIL TERMINAL (TYPE 2)

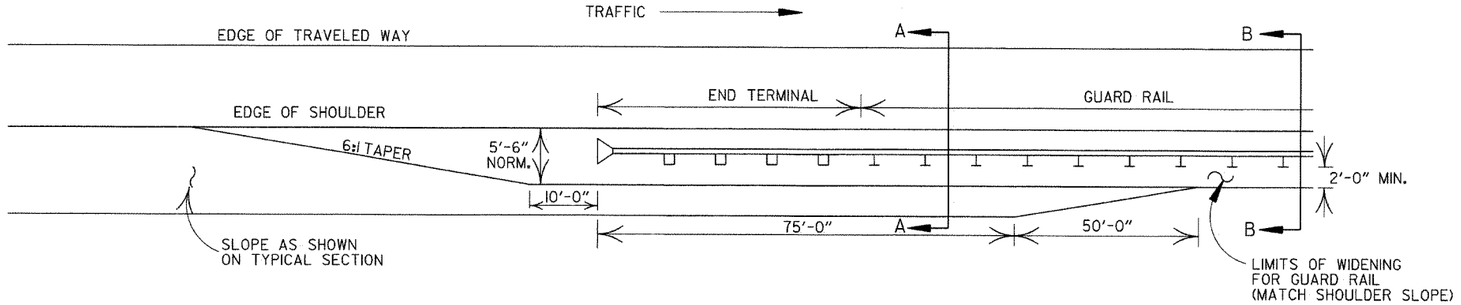
METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERMINAL (TYPE I) (FULL SHOULDER WIDTH OR LESS BRIDGES)

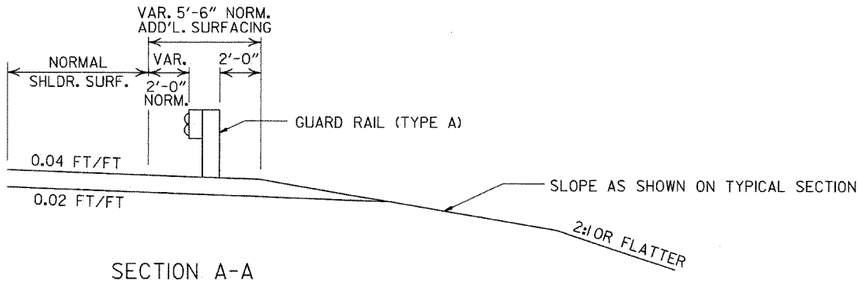
DATE	REVISION	DATE FILM
4-17-08	REVISED LAYOUTS	
11-10-05	REMOVED GUARD RAIL NOTES AND DETAILS	
11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERM. (TY. I)	
1-12-00	ADDED CONSTRUCTION NOTE	1-12-00
6-26-97	REVISED LAYOUT	
10-1-92	REDRAWN & REVISED	10-1-92
	ADDED NOTE	
10-9-87	REDRAWN & REVISED	

ARKANSAS STATE HIGHWAY COMMISSION

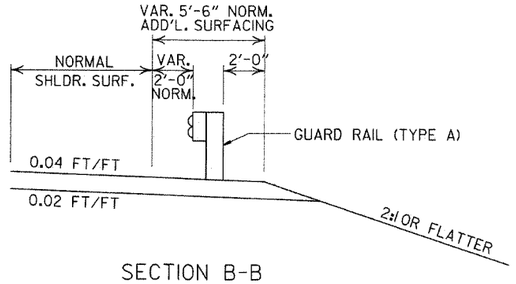
GUARD RAIL DETAILS

STANDARD DRAWING GR-9





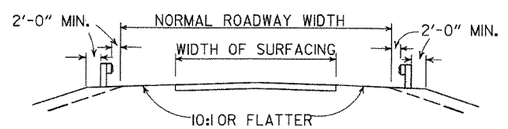
SECTION A-A



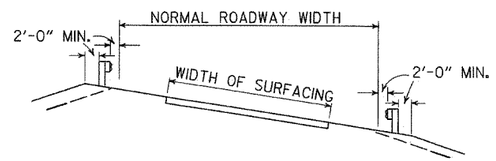
SECTION B-B

DETAILS OF WIDENING FOR GUARD RAIL

NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARD RAIL.

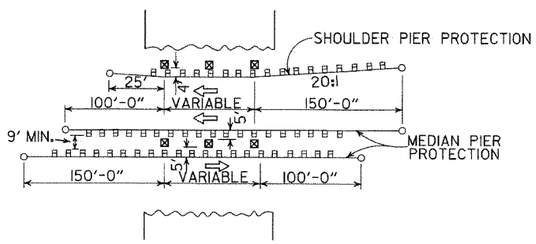


SECTION ON TANGENT



SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY



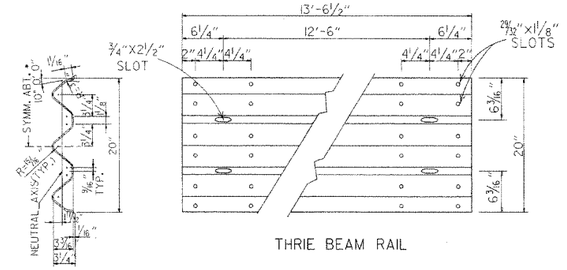
METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

DATE	REVISION	DATE FILM
4-17-08	MINOR REVISION	
11-10-05	DRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

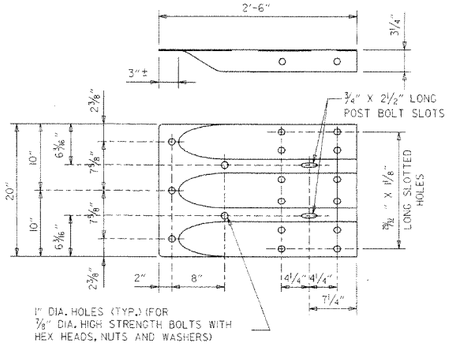
GUARD RAIL DETAILS

STANDARD DRAWING GR-9A



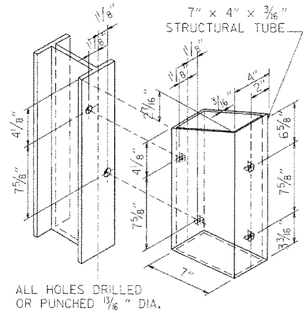
THRIE BEAM RAIL

SECTION THRU THRIE BEAM RAIL



1" DIA. HOLES (TYP.) (FOR ⅜" DIA. HIGH STRENGTH BOLTS WITH HEX HEADS, NUTS AND WASHERS)

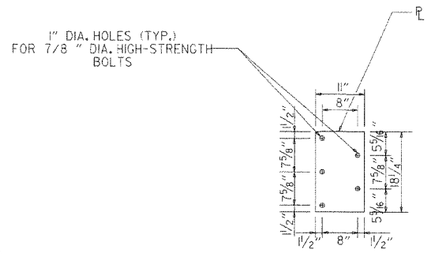
SPECIAL END SHOE



ALL HOLES DRILLED OR PUNCHED ⅞" DIA.

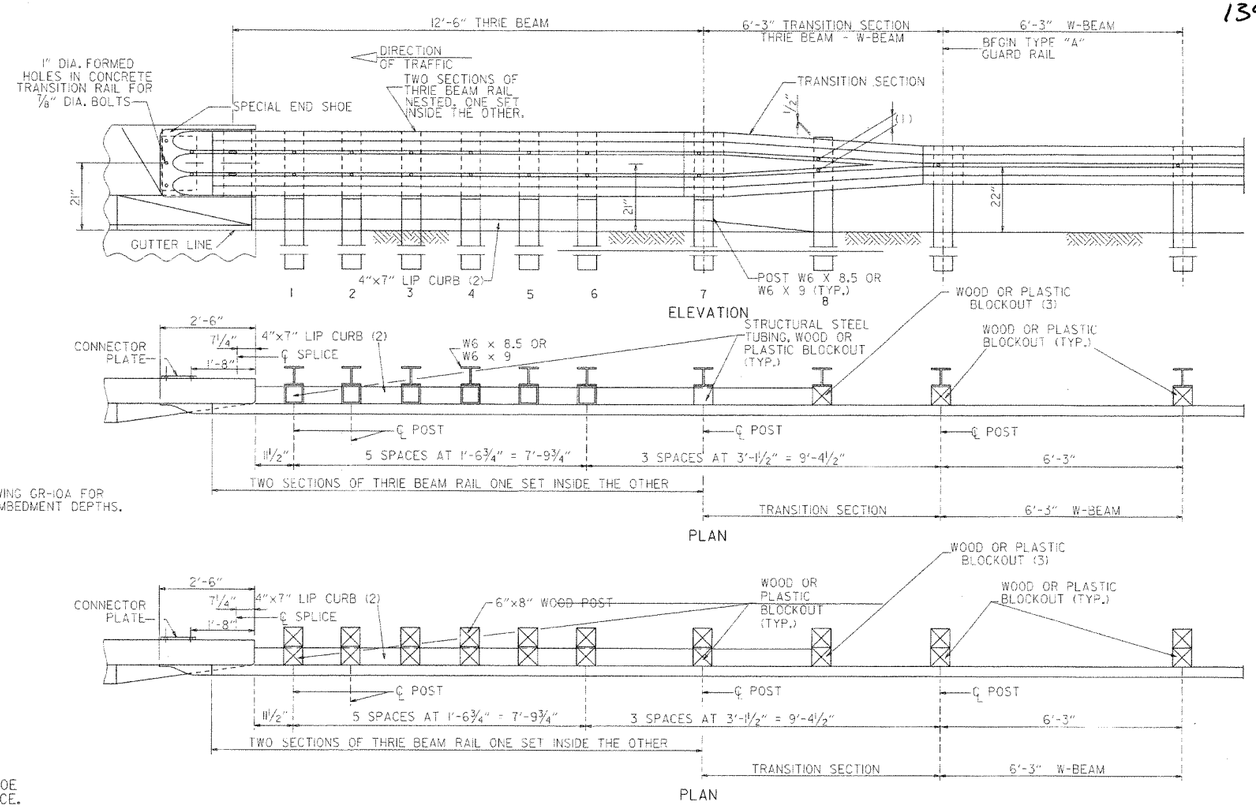
ATTACH BLOCKOUT TO POST USING ⅝" DIA. HEX HEAD BOLTS WITH 1½" O.D. CUT STEEL WASHERS AND NUT.

STRUCTURAL STEEL TUBING BLOCKOUT DETAIL



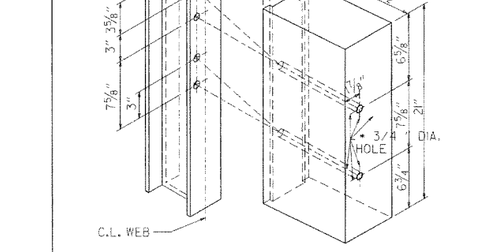
CONNECTOR PLATE

NOTE:
SEE STANDARD DRAWING GR-10A FOR GUARD RAIL POST EMBEDMENT DEPTHS.



(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



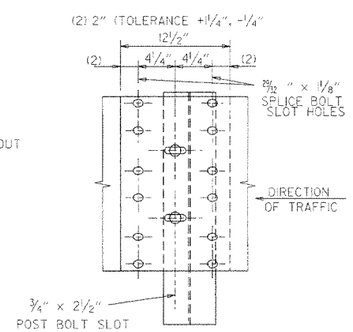
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED

HOLE PUNCHING DETAIL
FOR STEEL POST & WOOD
OR PLASTIC BLOCKOUTS

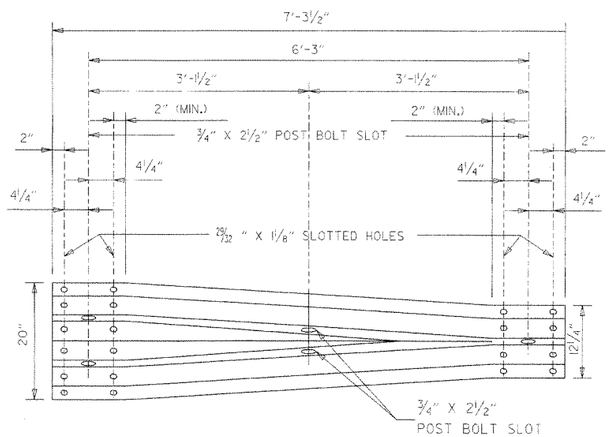
NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.

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



TRANSITION SECTION

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 II.

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 ¾" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-9 & GR-11.

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7# (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

REFER TO STD. DRWG. GR-10A FOR POST DETAILS.

USE THRIE BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

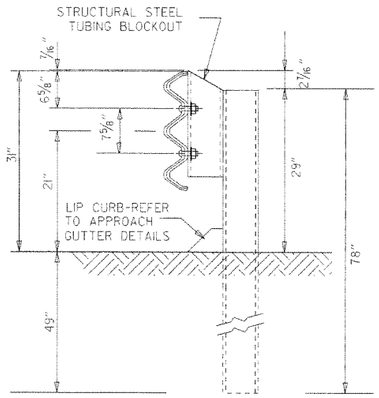
THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

DATE	REVISION	DATE FILM
7-14-10	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	
4-10-03	REVISED GENERAL NOTES	
8-22-02	REVISED NOTE (2)	
6-29-00	MOVED DIMENSION LINES	
5-18-00	ADDED NOTE	
3-30-00	DRAWN & ISSUED	

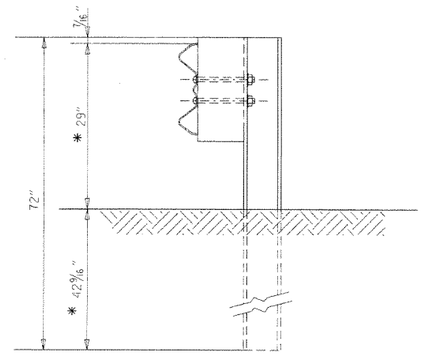
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-10

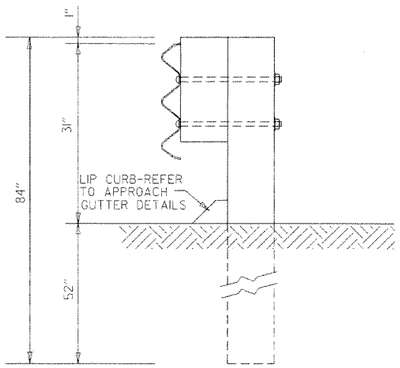


THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7

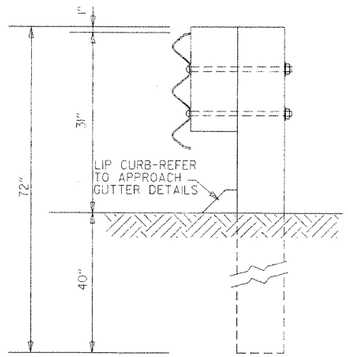


W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8

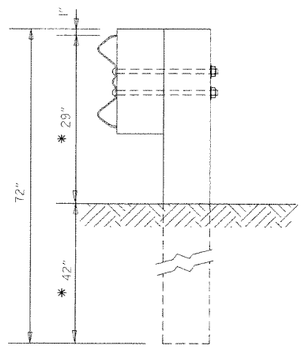
* NOTE:
THESE DIMENSIONS WILL NEED TO BE ADJUSTED IN THE FIELD TO MAKE THE TRANSITION FROM 21" MID POINT OF THRIE BEAM TO 22" MID POINT OF W-BEAM.



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.

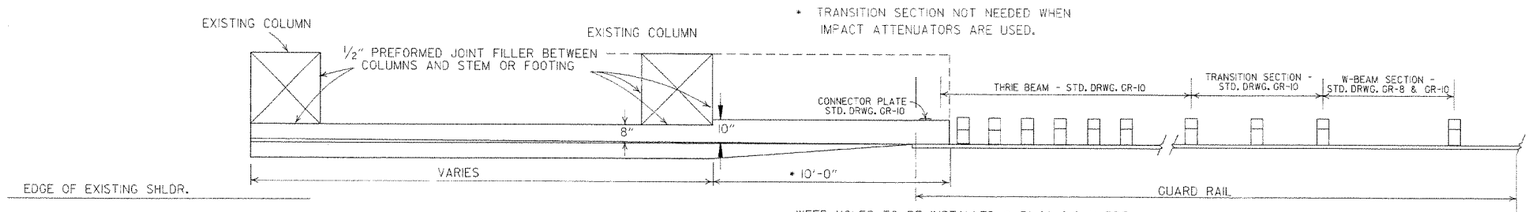
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7 f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	DATE FILM
7-14-10	REVISED POST 8 DIMENSIONS	
11-29-07	ADDED PLASTIC BLOCKOUTS	
8-22-02	REVISED LIP CURB NOTE	
3-30-00	DRAWN & ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

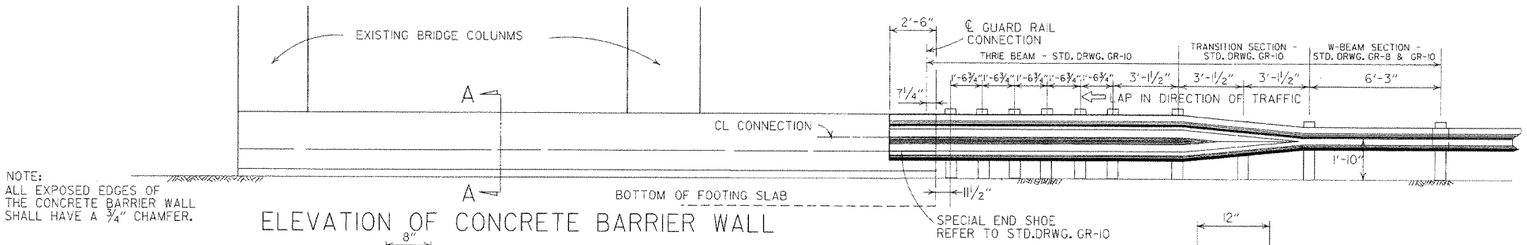
STANDARD DRAWING GR-10A



* TRANSITION SECTION NOT NEEDED WHEN IMPACT ATTENUATORS ARE USED.

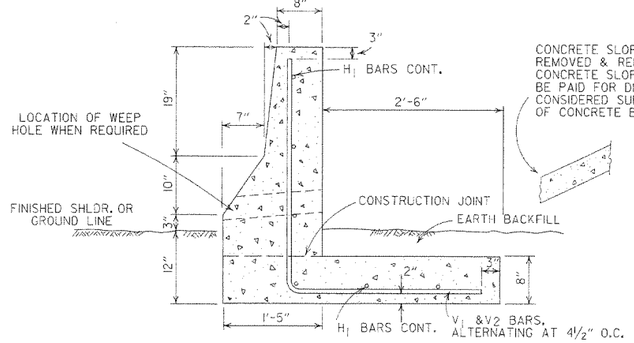
AT LEAST ONE ½" JOINT SHALL BE CONSTRUCTED IN THE CONCRETE BARRIER WALL. JOINTS SHALL BE EQUALLY SPACED AT A MAXIMUM OF 25'-0" O.C. FILL JOINT WITH PREFORMED JOINT FILLER.

PLAN OF CONCRETE BARRIER WALL



NOTE:
ALL EXPOSED EDGES OF THE CONCRETE BARRIER WALL SHALL HAVE A ¾" CHAMFER.

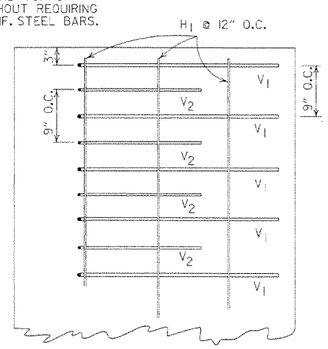
ELEVATION OF CONCRETE BARRIER WALL



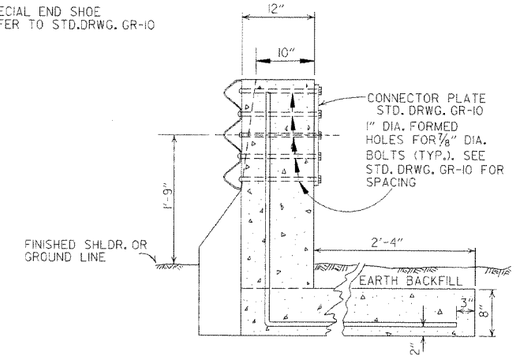
CONCRETE SLOPE PAVING TO BE REMOVED & REPLACED WHERE REQ'D. CONCRETE SLOPE PAVING WILL NOT BE PAID FOR DIRECTLY,BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM OF CONCRETE BARRIER WALL.

SECTION A-A

IF FOR ANY REASON IT IS NECESSARY TO CONSTRUCT THE FOOTING AT A LOWER ELEVATION THAN IS SHOWN, THE STEM MAY BE LENGTHENED 1'-0" BETWEEN FIN. SHLDR. AND TOP OF FOOTING WITHOUT REQUIRING HEAVIER REINF. STEEL BARS.



PLAN OF REINFORCING STEEL IN FOOTING

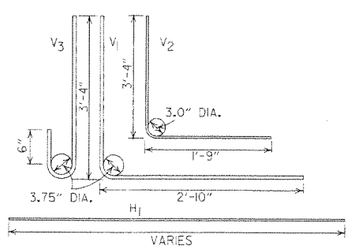


SECTION THRU CONNECTION

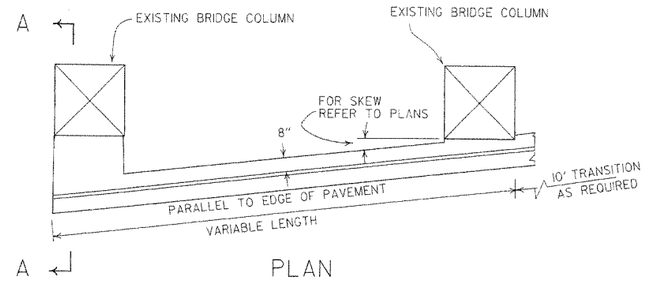
BAR LIST

MARK	NO.	SIZE	LENGTH
V1		#5	6'-2¼"
V2		#4	5'-1"
V3		#5	4'-1⅛"
H1	6	4	VAR.

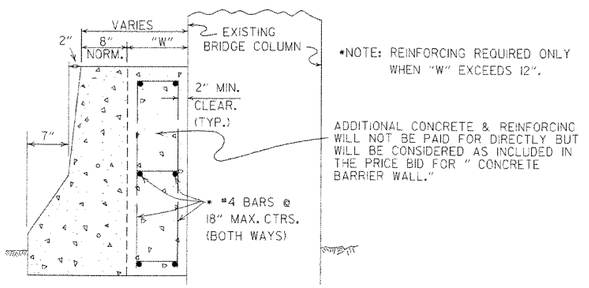
THE V3 BARS SHALL BE USED IN PLACE OF THE V1 & V2 BARS IN FRONT OF PIERS.



BEND DIAGRAMS



PLAN



*NOTE: REINFORCING REQUIRED ONLY WHEN "W" EXCEEDS 12".

ADDITIONAL CONCRETE & REINFORCING WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED AS INCLUDED IN THE PRICE BID FOR " CONCRETE BARRIER WALL."

SECTION A-A

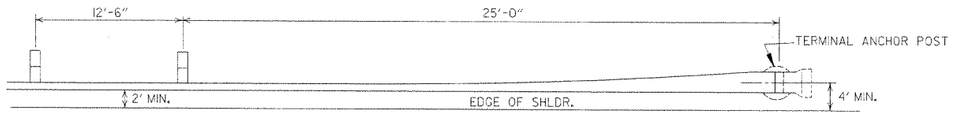
DETAILS OF CONCRETE BARRIER WALL WHEN PIERS ARE SKEWED TO ROADWAY

DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF W-BEAM 1"	
8-22-02	REV. SECTION A-A OF DETAILS OF CONCRETE BARRIER WALL	
6-29-00	MOVED DIMENSION LINE	
5-18-00	ADDED NOTE	
3-30-00	REVISED TO INCLUDE THRIE BEAM	
6-2-94	ADDED TRANSITION SECTION NOTE	
10-1-92	REDRAWN & REVISED	10-1-92
8-15-91	REVISED DRAWING PLAN CONC. BARR.	8-15-91
2-16-89	ADDED SKEWED DETAILS	594-2-16-89
7-14-88	CHANGED TITLE	
10-9-87	REDRAWN & REVISED	

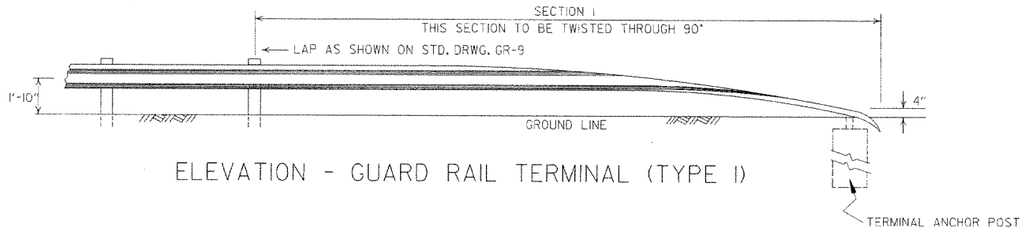
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE BARRIER WALL
(PIER PROTECTION TYPE A)

STANDARD DRAWING GR-11

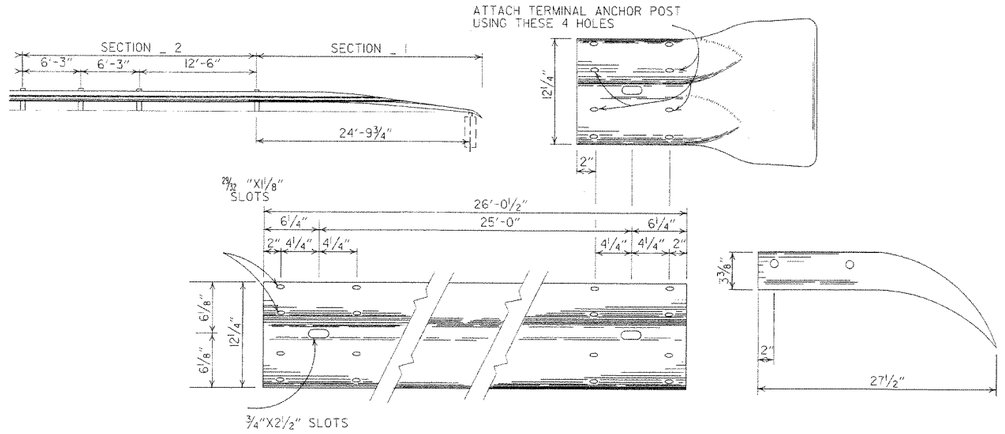


PLAN - GUARD RAIL TERMINAL (TYPE I)



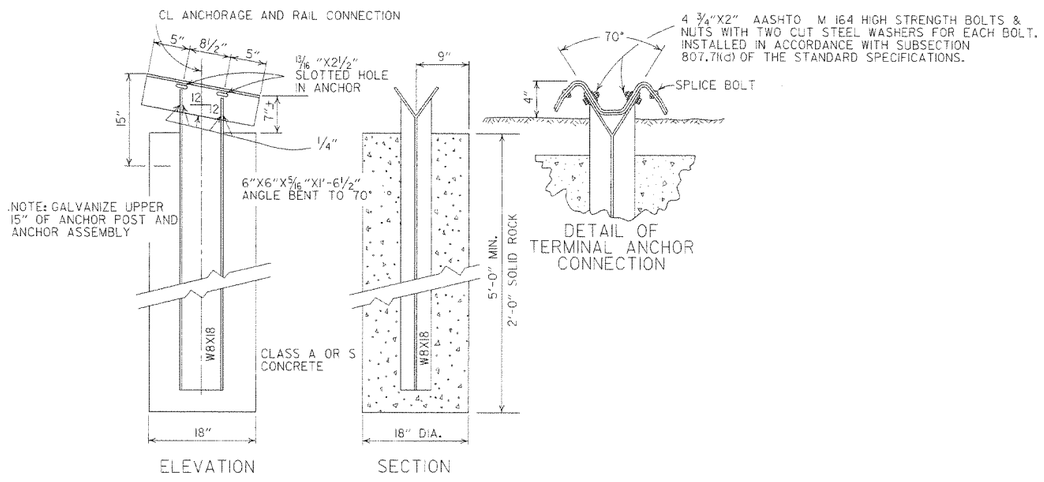
ELEVATION - GUARD RAIL TERMINAL (TYPE I)

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



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	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
6-26-97	REVISED LAP NOTE	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-3-94	DIMENSION TERMINAL DETAIL	
11-11-92	ADDED NOTE FOR PAYMENT	11-11-92
10-1-92	DRAWN & ISSUED	10-1-92

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GRT-1

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	AHTD NOMINAL	AASHTO M 206	AHTD NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13½	14
21	26	26	15½	16
24	28½	29	18	18
30	36¼	36	22½	23
36	43⅜	44	26⅝	27
42	51⅛	51	31⅝	31
48	58½	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	77½	77
108	138	138	87⅛	87
120	154	154	96⅞	97
132	168¾	169	106½	107

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M206.

REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS

EQUIV. DIA.	AASHTO M 207	
	SPAN	RISE
INCHES	INCHES	
18	23	14
24	30	19
27	34	22
30	38	24
33	42	27
36	45	29
39	49	32
42	53	34
48	60	38
54	68	43
60	76	48
66	83	53
72	91	58
78	98	63
84	106	68

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M207.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SUBSECTION 606.03.(f)(1).

NOTE: HAUNCH AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF CONCRETE PIPE.

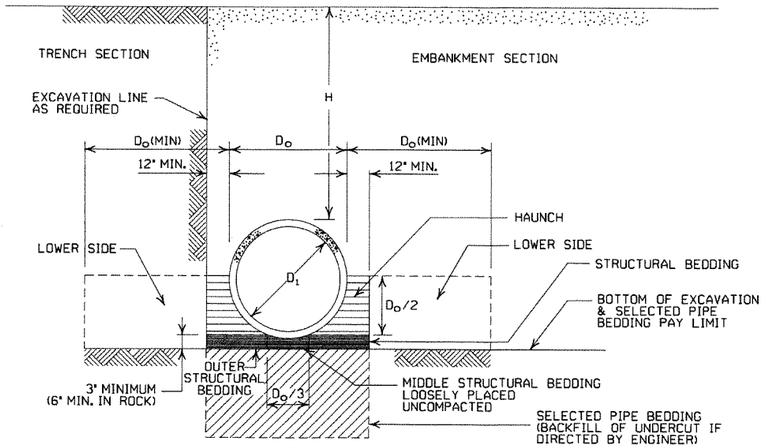
- LEGEND -

D_i = NORMAL INSIDE DIAMETER OF PIPE
D_o = OUTSIDE DIAMETER OF PIPE
H = FILL COVER HEIGHT OVER PIPE (FEET)
MIN. = MINIMUM
▨ = UNDISTURBED SOIL

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR HAUNCH AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 5 OR CLASS 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL*
TYPE 3**	AASHTO CLASSIFICATION A-1 THRU A-6 SOIL OR TYPE 1 OR 2 INSTALLATION MATERIAL

* SM-3 WILL NOT BE ALLOWED.

** MATERIALS SHALL NOT INCLUDE ORGANIC MATERIALS OR STONES LARGER THAN 3 INCHES.



EMBANKMENT AND TRENCH INSTALLATIONS

1. MATERIAL IN THE HAUNCH AND OUTER STRUCTURAL BEDDING SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. FOR TRENCHES WITH WALLS OF NATURAL SOIL, THE DENSITY OF THE SOIL IN THE LOWER SIDE ZONE SHALL BE AS FIRM AS THE 95% DENSITY REQUIRED FOR THE HAUNCH. IF THE EXISTING SOIL DOES NOT MEET THIS CRITERIA, IT SHALL BE REMOVED AND RECOMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OF MATERIAL USED.
3. FOR EMBANKMENTS, THE MATERIAL IN THE LOWER SIDE ZONE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

GENERAL NOTES

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2003 EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. CONCRETE PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. ALL PIPE SHALL CONFORM TO SECTION 606. CIRCULAR R.C. PIPE CULVERTS SHALL CONFORM TO AASHTO M170, R.C. ARCH PIPE CULVERTS SHALL CONFORM TO AASHTO M206 AND HORIZONTAL ELLIPTICAL PIPE CULVERTS SHALL CONFORM TO AASHTO M207.
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. NOT MORE THAN ONE LIFTING HOLE MAY BE PROVIDED IN CONCRETE PIPE TO FACILITATE HANDLING. HOLE MAY BE CAST IN PLACE, CUT INTO THE FRESH CONCRETE AFTER FORMS ARE REMOVED, OR DRILLED. THE HOLE SHALL NOT BE MORE THAN TWO INCHES IN DIAMETER OR TWO INCHES SQUARE. CUTTING OR DISPLACEMENT OF REINFORCEMENT WILL NOT BE PERMITTED. SPALLED AREAS AROUND THE HOLE SHALL BE REPAIRED IN A WORKMANLIKE MANNER. LIFTING HOLE SHALL BE FILLED WITH MORTAR, CONCRETE, OR OTHER METHOD AS APPROVED BY THE ENGINEER.
9. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
10. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS THE HAUNCH), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

MINIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
INSTALLATION TYPE	TYPE 1 OR 2	TYPE 3	ALL	ALL
PIPE ID (IN.)	FEET			
12-15	2	2.5	2	1
18-24	2.5	3	2	1
27-33	3	4	2	1
36-42	3.5	5	2	1
48	4.5	5.5	2	1
54-60	5	7	2	1
66-78	6	8	2	1
84-108	7.5	8	2	1

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE		
	CLASS III	CLASS IV	CLASS V
	FEET		
TYPE 1	21	32	50
TYPE 2	16	25	39
TYPE 3	12	20	30

NOTE: IF FILL HEIGHT EXCEEDS 50 FEET, A SPECIAL DESIGN CONCRETE PIPE WILL BE REQUIRED USING TYPE 1 INSTALLATION.

MINIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2 OR TYPE 3	2.5	1.5

NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2	13	21
TYPE 3	10	16

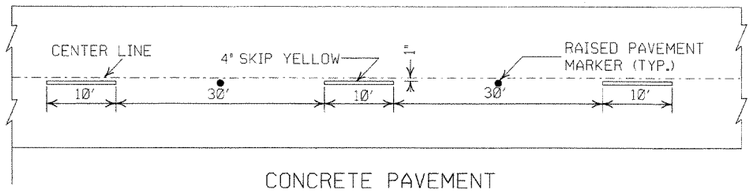
NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

DATE	REVISION	DATE FILMED
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS	
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

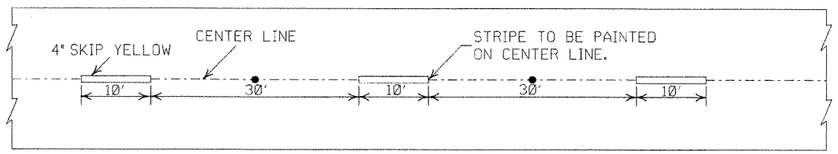
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CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

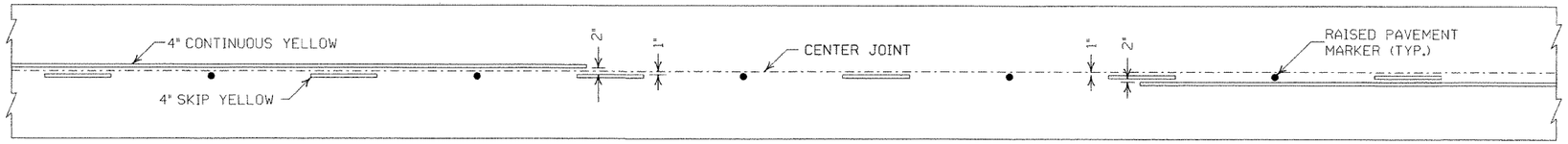


CONCRETE PAVEMENT

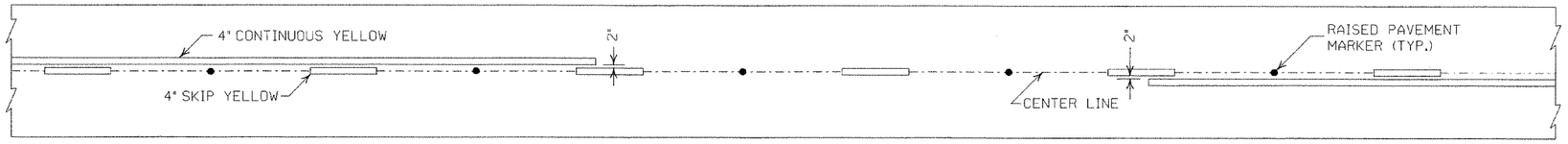


ASPHALT PAVEMENT

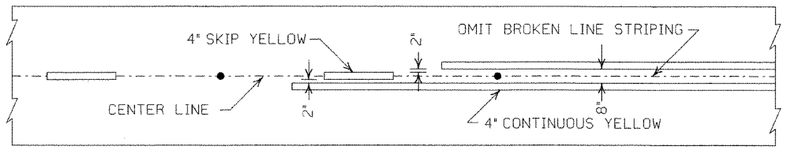
BROKEN LINE STRIPING



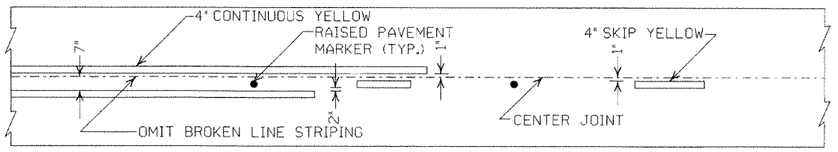
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

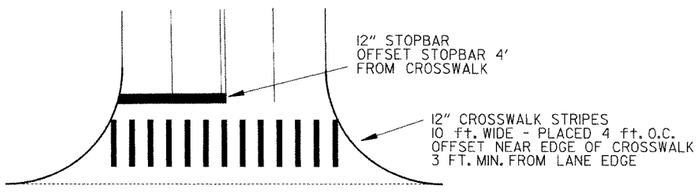


ASPHALT PAVEMENT



CONCRETE PAVEMENT

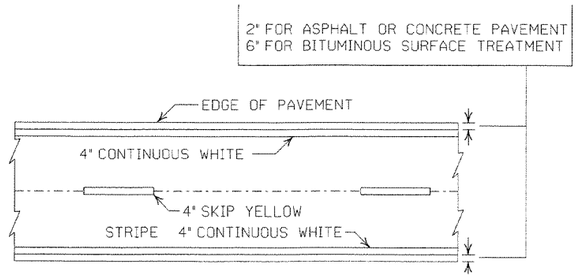
STRIPING AT ADJACENT NO PASSING LANES



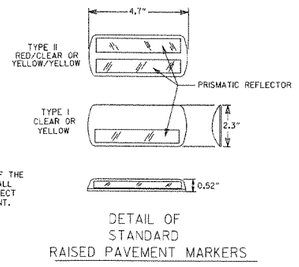
CROSSWALK AND STOPBAR DETAILS

NOTES:

1. ALL LINES SHALL HAVE A WIDTH OF 4 INCHES.
2. THE THICKNESS AND RATE OF PAINT APPLICATION SHALL BE AS SPECIFIED IN SECTION 718 OF THE STANDARD SPECIFICATIONS.
3. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE 'MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.'
4. RAISED PAVEMENT MARKERS SHALL BE CENTERED BETWEEN SKIP LINES ON 40 FEET SPACING UNLESS OTHERWISE SHOWN ON THE PLANS.



PAVEMENT EDGE LINE MARKING



NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

GENERAL NOTES:

THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND RAISED 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
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

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

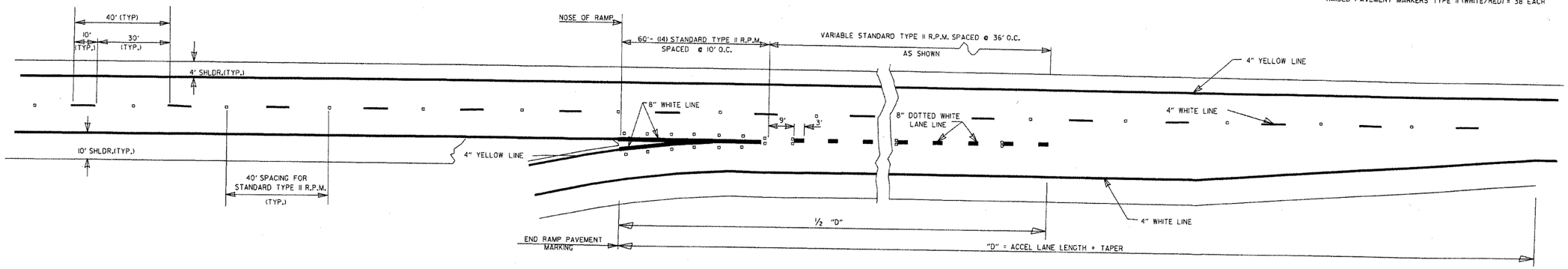
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP

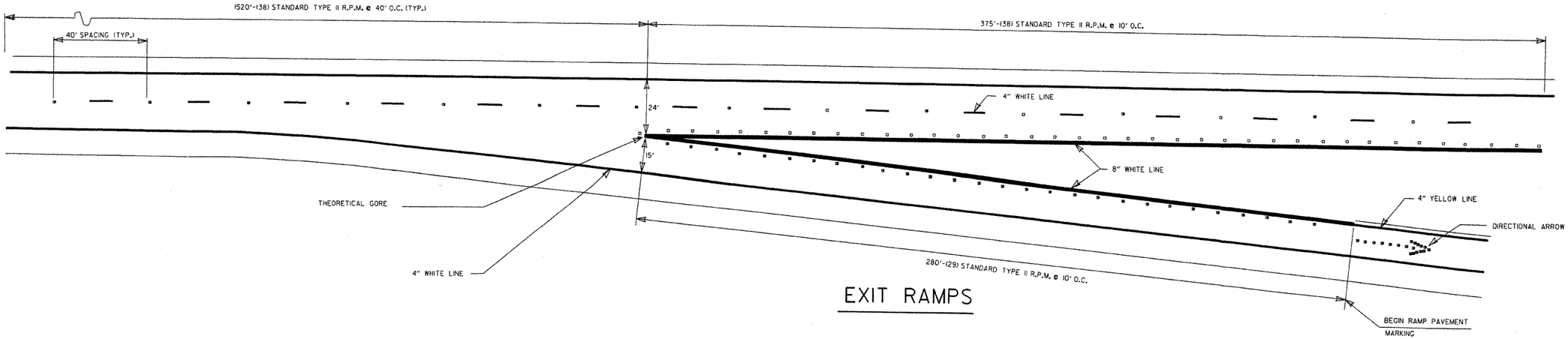
8" WHITE = 228 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP

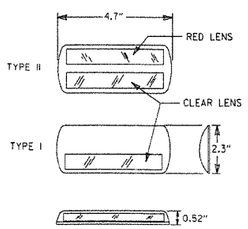
4" WHITE = 280 LIN. FT.
8" WHITE = 655 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH



ENTRANCE RAMPS

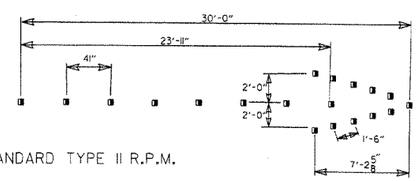


EXIT RAMPS



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
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

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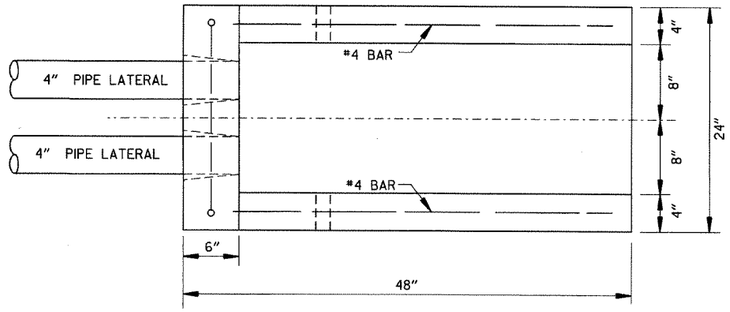
PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS

STANDARD DRAWING PM-2

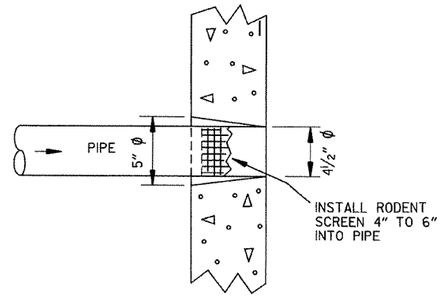
NOTE:
1. GRANULAR BACKFILL TO BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

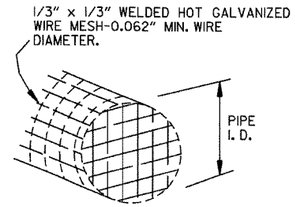
3. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



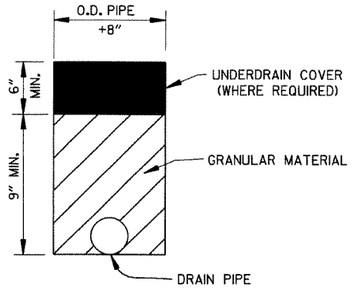
PLAN VIEW

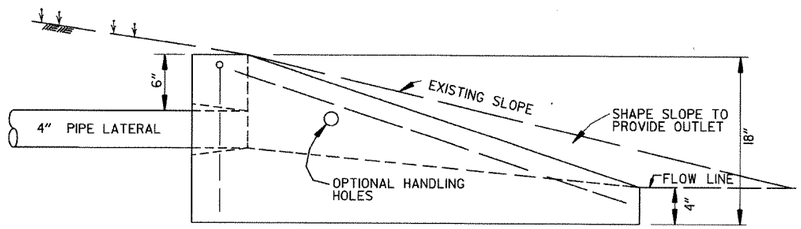


DETAIL OF HOLE FOR 4" PIPE

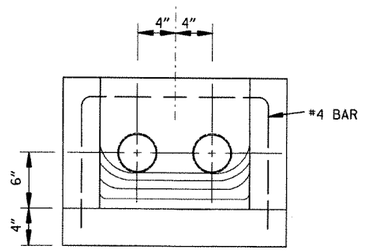


DETAIL OF RODENT SCREEN

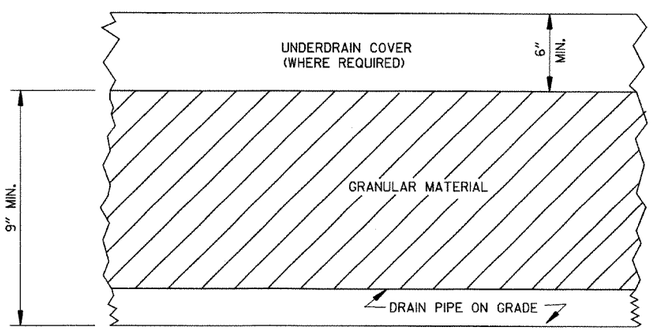




SIDE VIEW

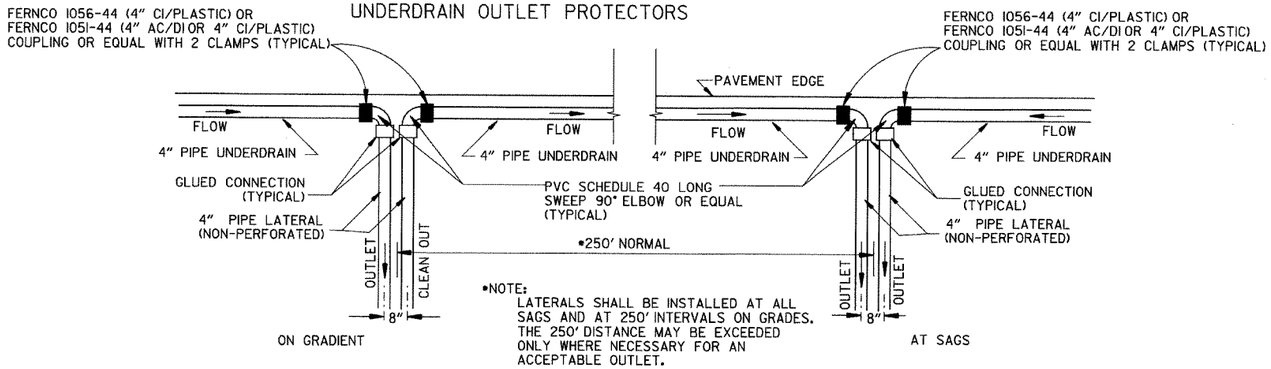


FRONT VIEW



DETAILS OF PIPE UNDERDRAIN

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
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

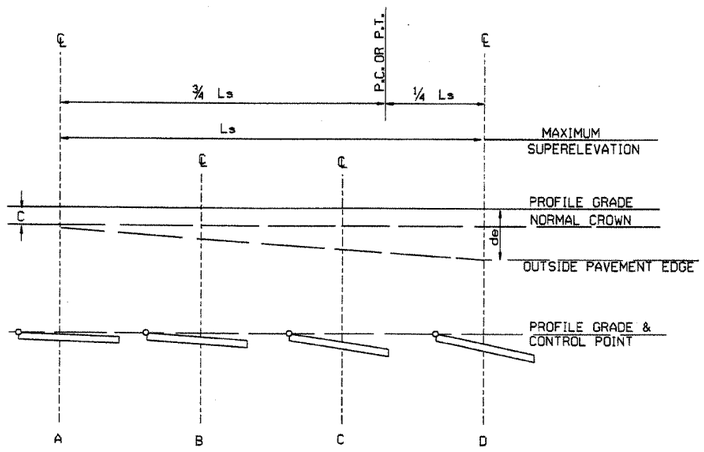
STANDARD DRAWING PU-1

7-20-95 INSTD.PUI

SUPERELEVATION TABLE FOR ONE - WAY TRAFFIC

DEGREE OF CURVE	30 MPH e	30 MPH Ls (FT) MINIMUM	30 MPH Ls (FT) DESIRABLE	40 MPH e	40 MPH Ls (FT) MINIMUM	40 MPH Ls (FT) DESIRABLE	50 MPH e	50 MPH Ls (FT) MINIMUM	50 MPH Ls (FT) DESIRABLE	55 MPH e	55 MPH Ls (FT) MINIMUM	55 MPH Ls (FT) DESIRABLE	60 MPH e	60 MPH Ls (FT) MINIMUM	60 MPH Ls (FT) DESIRABLE	65 MPH e	65 MPH Ls (FT) MINIMUM	65 MPH Ls (FT) DESIRABLE	70 MPH e	70 MPH Ls (FT) MINIMUM	70 MPH Ls (FT) DESIRABLE
0° 15′	N.C.			N.C.			N.C.			N.C.			N.C.			N.C.			N.C.		
0° 30′	N.C.			N.C.			N.C.			N.C.			0.023			N.C.			N.C.		
0° 45′	N.C.			N.C.			R.C.			0.022			0.030			0.025			0.028		
1° 00′	N.C.			N.C.			0.021			0.026			0.037			0.033			0.037		
1° 15′	N.C.			R.C.			0.026			0.032			0.043			0.041			0.046		
1° 30′	N.C.			0.021			0.031			0.037			0.049			0.048			0.054		
1° 45′	N.C.			0.025			0.036			0.043			0.055			0.055			0.062		
2° 00′	R.C.			0.028			0.040			0.048			0.061			0.062			0.070		
2° 15′	R.C.			0.031			0.045			0.053			0.067			0.069	265		0.078	300	
2° 30′	0.021			0.034			0.049			0.058			0.072			0.075	280		0.085	315	400
2° 45′	0.023			0.037			0.053			0.063			0.077	260		0.081	300		0.091	335	
3° 00′	0.025			0.040			0.057			0.067	230		0.082	275		0.087	315		0.096	350	
3° 15′	0.027	150		0.043	175		0.061			0.072	245		0.086	285		0.090	325	400	0.098	360	450
3° 30′	0.029			0.046			0.065	205		0.076	255		0.090	295		0.095	340		0.100	360	
3° 45′	0.031			0.049			0.069	215		0.080	265		0.093	305	400	0.097	345				
4° 00′	0.033			0.051			0.072	225		0.083	270		0.096	315		0.099	350				
4° 30′	0.037			0.056			0.078	240		0.087	280		0.098	320							
5° 00′	0.040			0.061			0.083	250		0.091	295										
5° 30′	0.043			0.066	185		0.088	260		0.094	300										
6° 00′	0.046			0.070	190		0.092	270		0.096	305										
6° 30′	0.050			0.074	200		0.095	280		0.100	315										
7° 00′	0.053			0.078	210		0.098	285													
7° 30′	0.056			0.081	215		0.099	290													
8° 00′	0.058			0.084	220		0.100	290													
8° 30′	0.061			0.087	225	300															
9° 00′	0.063			0.089	230																
10° 00′	0.068	160		0.094	235																
11° 00′	0.072	170		0.097	250																
12° 00′	0.076	175		0.099	250																
13° 00′	0.080	180		0.100	250																
14° 00′	0.083	190																			
15° 00′	0.086	195																			
16° 00′	0.089	200																			
17° 00′	0.091	200																			
18° 00′	0.093	205																			
19° 00′	0.095	210																			
20° 00′	0.097	215	300																		
21° 00′	0.098	215																			
22° 00′	0.099	215																			
23° 00′	0.099	215																			
24° 00′	0.100	220																			

D MAX = 24° 45′ | D MAX = 13° 15′ | D MAX = 8° 15′ | D MAX = 6° 30′ | D MAX = 5° 15′ | D MAX = 4° 15′ | D MAX = 3° 30′



ONE-WAY TRAFFIC
INSIDE LANE

SUPERELEVATION FORMULA = $S = -\frac{L(de-C)}{Ls} - C$

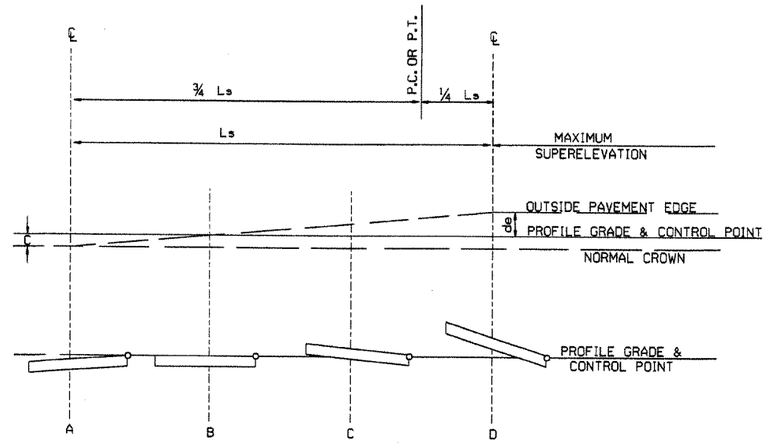
ABBREVIATIONS

NC - NORMAL CROWN
RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
S - SUPERELEVATION
L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
d - WIDTH OF PAVEMENT
e - MAXIMUM RATE OF SUPERELEVATION (FT. PER FT.)
Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
C - NORMAL CROWN (FT.)

GENERAL NOTES

1. ON PAVEMENT WITH ONE-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE PROFILE GRADE POINT.
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR Ls MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. MINIMUM Ls VALUES MAY BE USED FOR RAMPS; DESIRABLE VALUES SHALL APPLY TO MAIN LANES.
5. DIVIDED PAVEMENTS WIDER THAN 4 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLOWS:

6 LANE DIVIDED---------+20%
8 LANE DIVIDED---------+50%



ONE-WAY TRAFFIC
OUTSIDE LANE

SUPERELEVATION FORMULA = $S = +\frac{L(de+C)}{Ls} - C$

01-09-87	ISSUED	578-1-15-87
DATE	REVISION	DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC

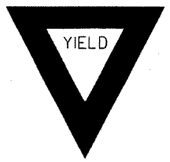
STANDARD DRAWING SE-1

R1-1



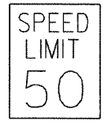
STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

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"

R2-5A



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R2-5C



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-1



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R5-1



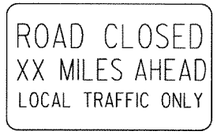
STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2



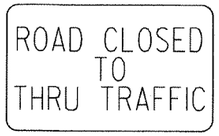
48"X30"

R11-3A



60"X30"

R11-4



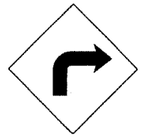
60"X30"

RSP-1



48"X30"

W1-1



STD. 36"X36"
FWY. 48"X48"

W1-2



STD. 36"X36"
FWY. 48"X48"

W1-3



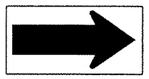
STD. 48"X48"

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



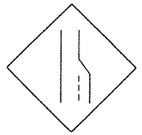
STD. 36"X36"
SPECIAL 48"X48"

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



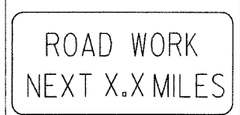
STD. 36"X36"
FWY. 48"X48"

W8-9



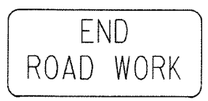
STD. 36"X36"
FWY. 48"X48"

G20-1



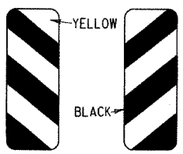
60"X24"

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

FINES DOUBLE
IN WORK ZONES *

WHEN WORKERS
ARE PRESENT **

36"X60"

* USE 6" C LETTERS
** USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	1/2 MILE
1000 FT	3/4 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.

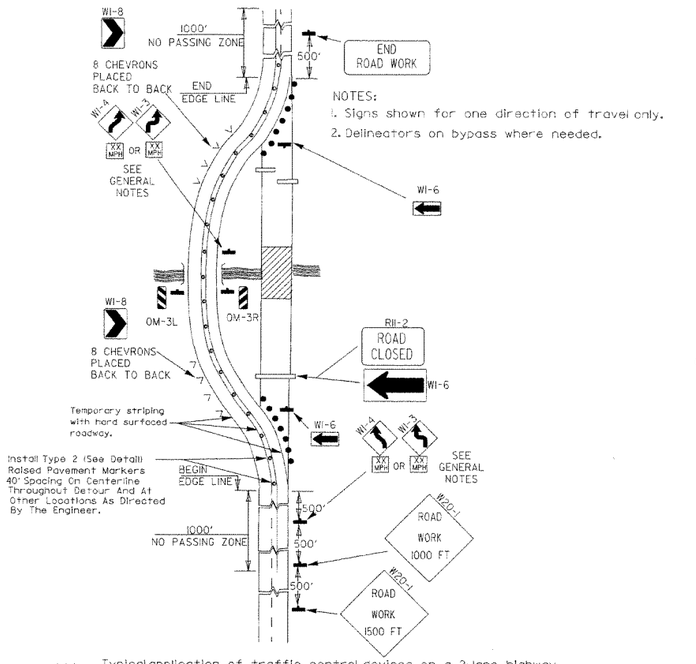
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

DATE	REVISION	FILMED
12-15-11	REVISED W24-1	
11-17-10	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	
11-18-98	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

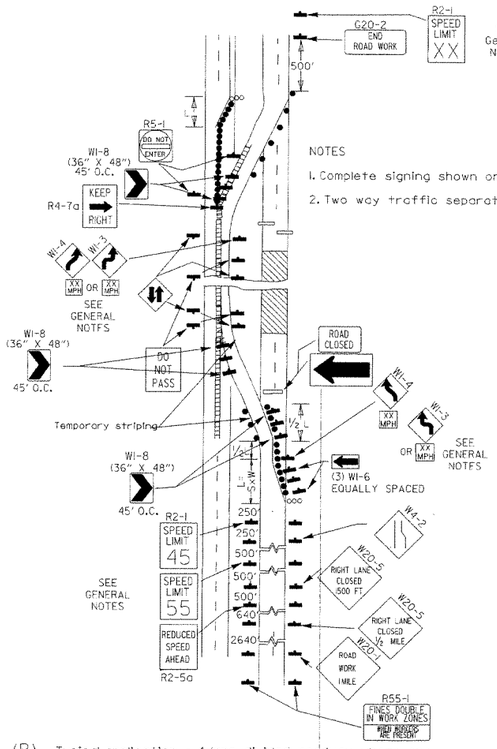
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



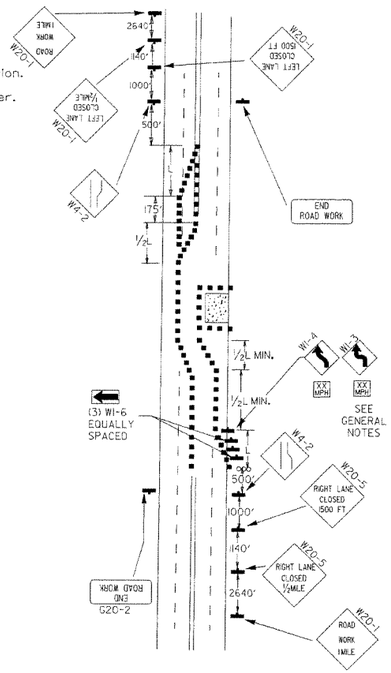
NOTES:
1. Signs shown for one direction of travel only.
2. Delineators on bypass where needed.

(A) Typical application of traffic control devices on a 2-lane highway where the entire roadway is closed and a bypass detour is provided.

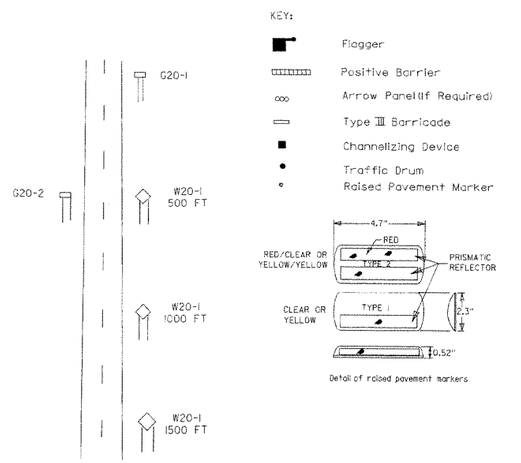


NOTES
1. Complete signing shown only in crossover direction.
2. Two way traffic separated with positive barrier.

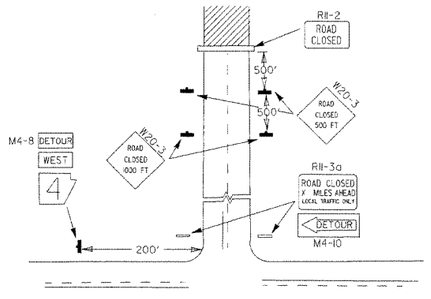
(B) Typical application - 4-lane divided roadway where one roadway is closed.



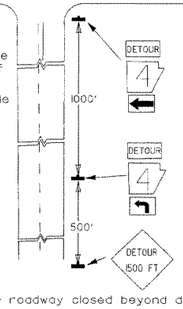
(C) Typical application - 4-lane undivided roadway where half of the roadway is closed.



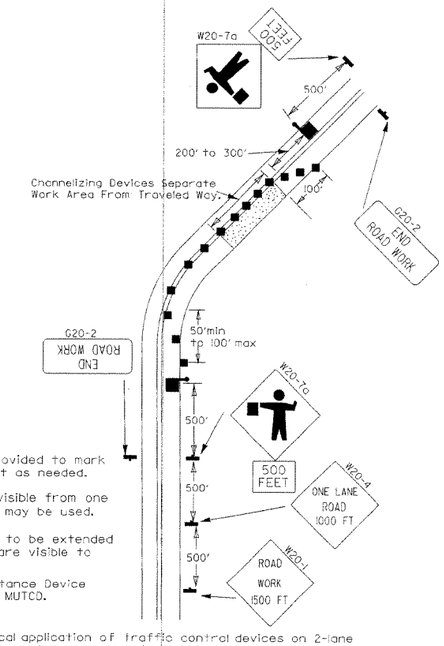
Typical advance warning sign placement



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.

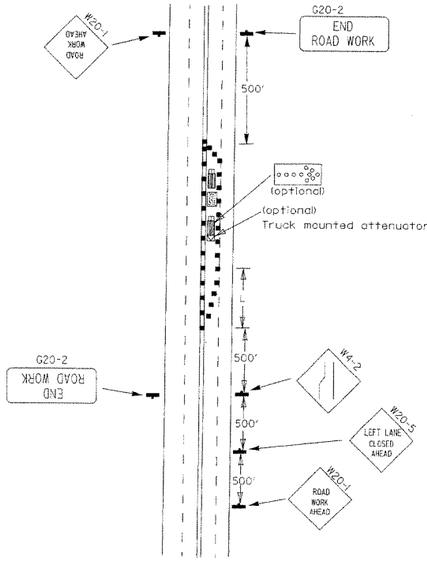


(D) Typical application - roadway closed beyond detour point.



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.

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:

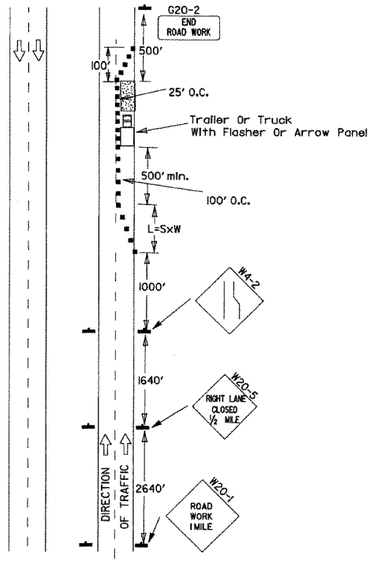
1. Advisory speed posted on WI-3 or WI-4 curve warning signs to be determined at site. Use WI-4 when speed is greater than 30mph and WI-3 when 30mph or less.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed 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.

DATE	REVISION	FILMED
3-11-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-8-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON WI-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

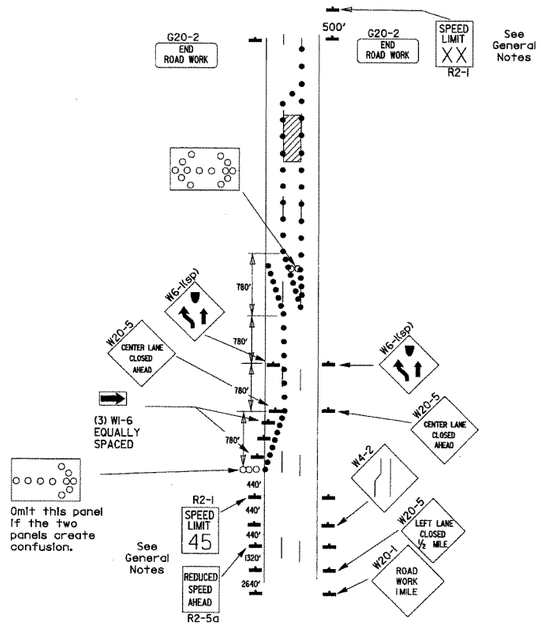
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

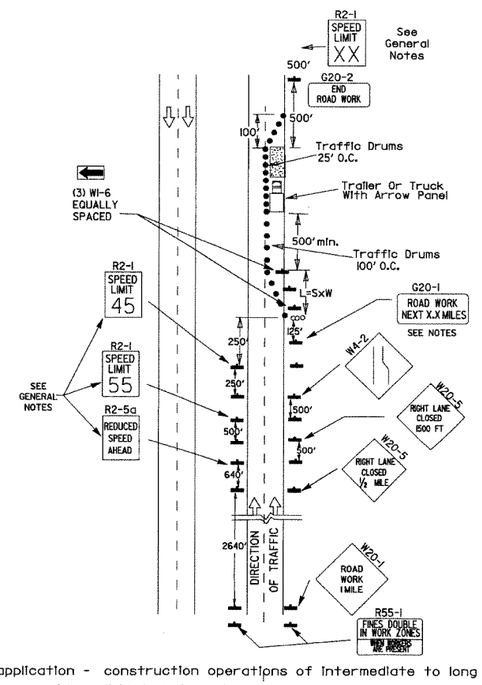
STANDARD DRAWING TC-2



(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)

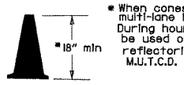
■ Channelizing Device

● Traffic drum

GENERAL NOTES:

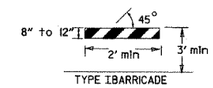
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional 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



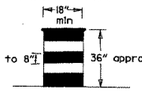
* When cones are used on freeways and multi-lane highways, they shall be 28" min. During hours of darkness, 28" cones shall be used on all roadways, and shall be reflectorized in accordance with the M.U.T.C.D.

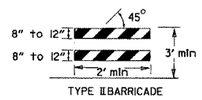
CONES



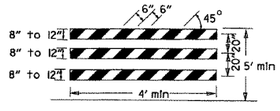
TYPE I BARRICADE

PLASTIC DRUM



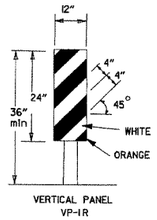


TYPE II BARRICADE



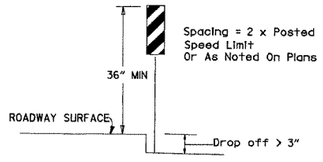
TYPE III BARRICADE

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



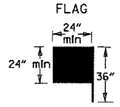
TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

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.

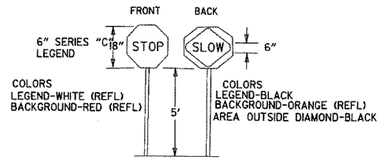
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

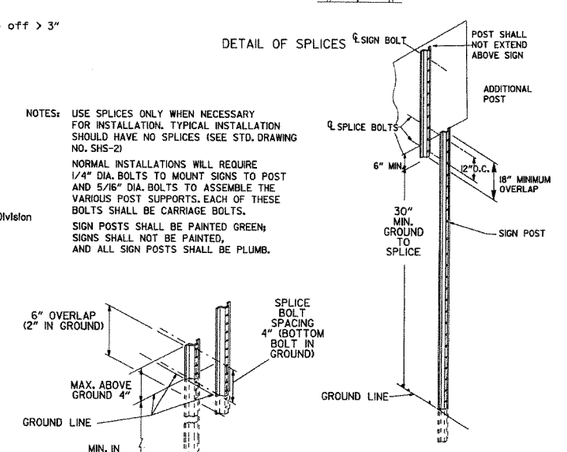
FLAG



Flag shall be of good grade red material

STOP SLOW PADDLE

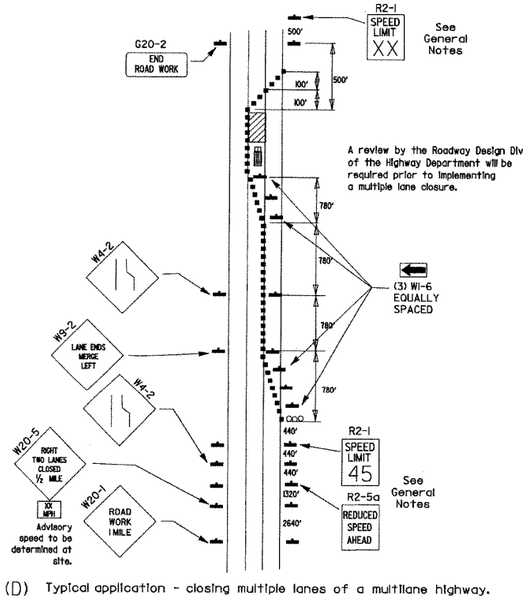




NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

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.



(D) Typical application - closing multiple lanes of a multilane highway.

DATE	REVISION	FILMED
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	

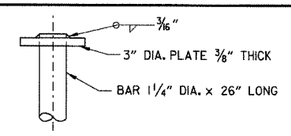
ARKANSAS STATE HIGHWAY COMMISSION

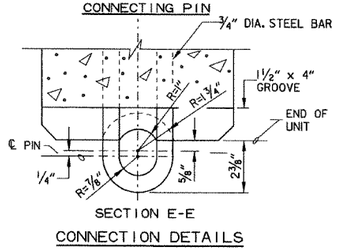
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-3

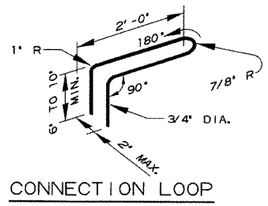
REINFORCING BAR TABLE PER BARRIER UNIT

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'-5", 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" MIN. CLEAR TO BAR, 1'-6", 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°, ±9 1/2", 2'-1 3/8", 4 3/8"

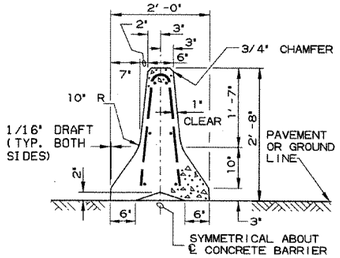




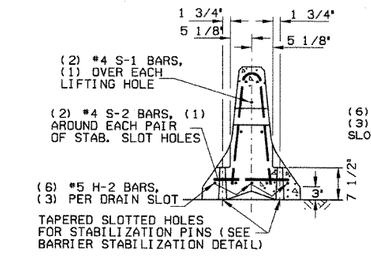
CONNECTION DETAILS



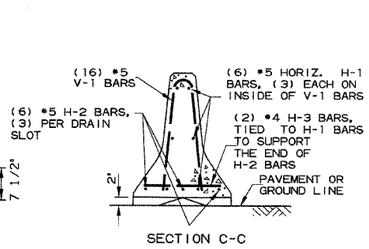
CONNECTION LOOP



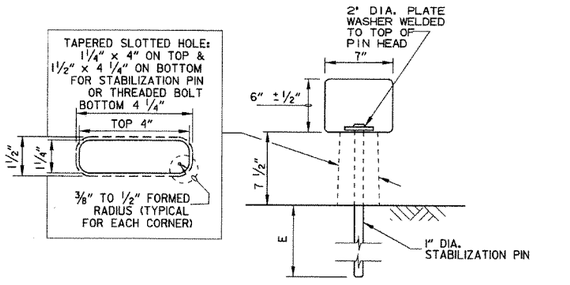
SECTION A-A



SECTION B-B



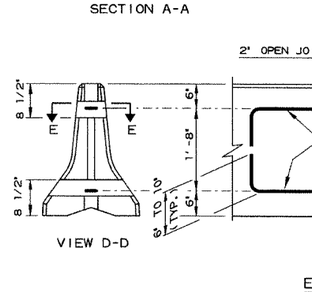
SECTION C-C

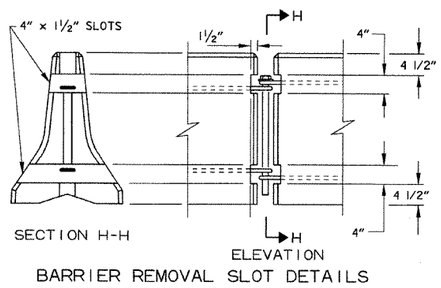


BARRIER STABILIZATION DETAIL

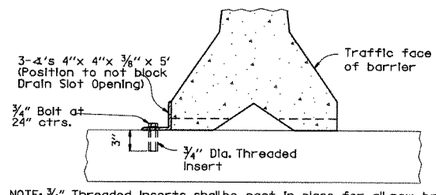
ROADWAY SECTION

(E) 4" - Concrete Pavement
8" - Asphalt Pavement
12" - Shoulder Areas





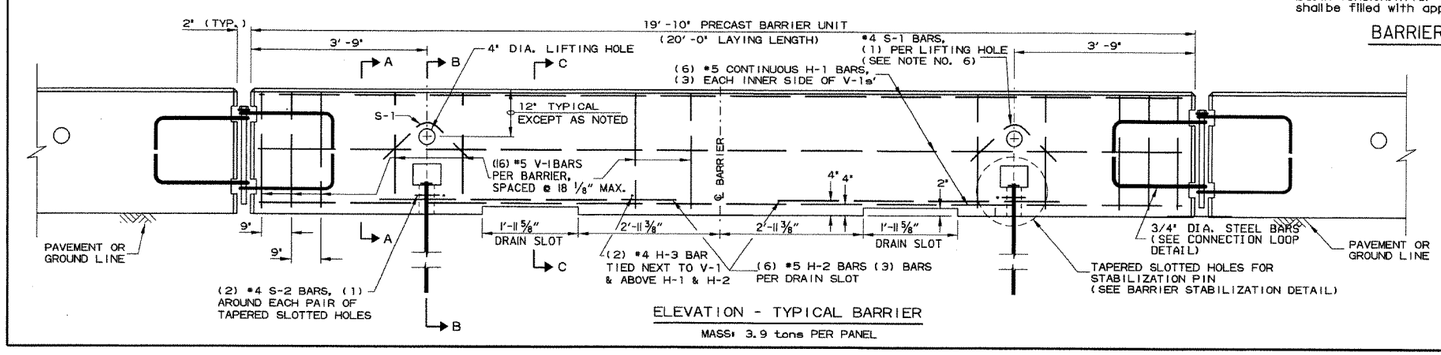
BARRIER REMOVAL SLOT DETAILS



NOTE: 3/4" Threaded Inserts shall be cast in place for all new bridge decks and drilled and grouted for existing bridge decks to be retained. 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.

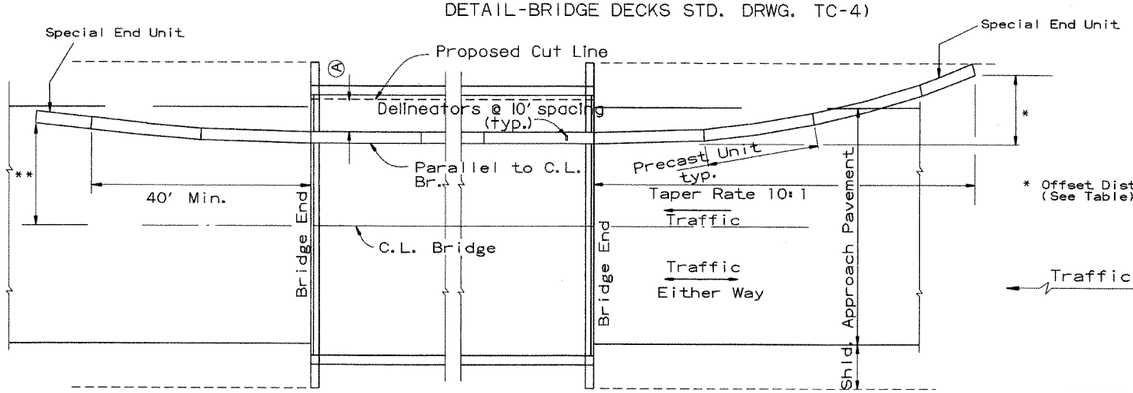
DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

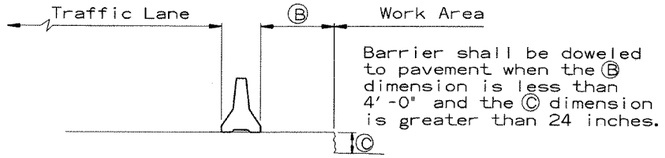
Ⓐ 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



* Offset Distance (See Table)

BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

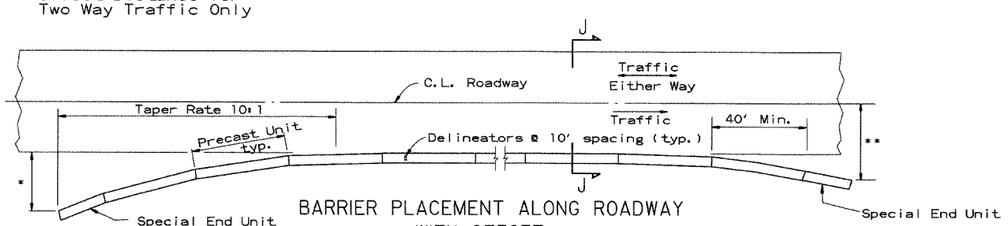


Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

SECTION J-J

No Scale

** Offset Distance for Two Way Traffic Only



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

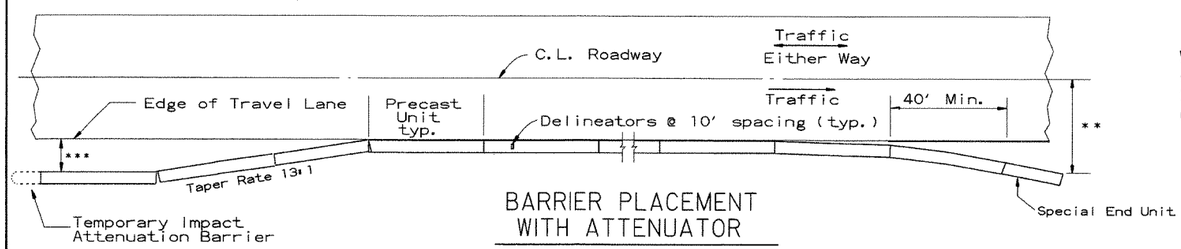
* Offset Distance (See Table)

** 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.

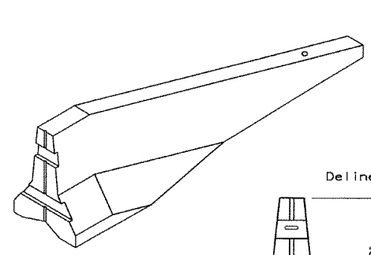


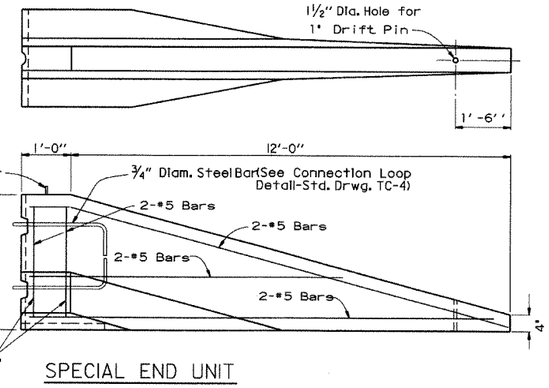
BARRIER PLACEMENT WITH ATTENUATOR

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	

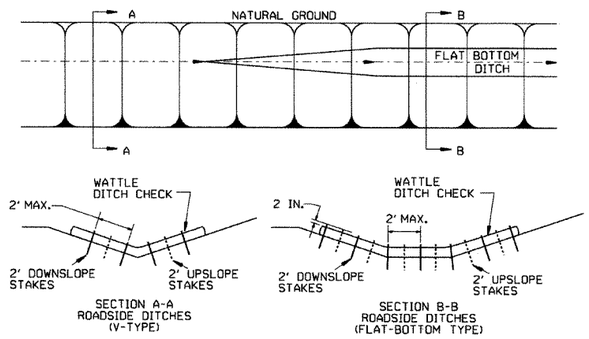
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

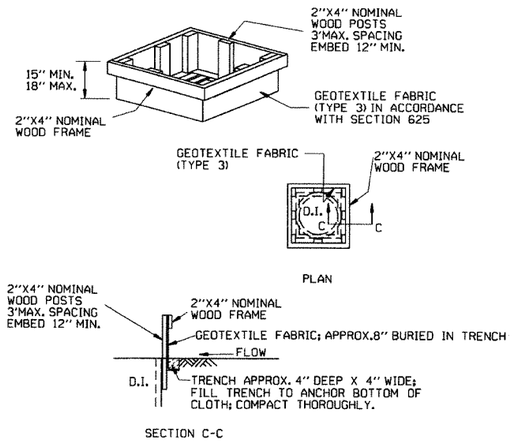
STANDARD DRAWING TC-5

GENERAL NOTES

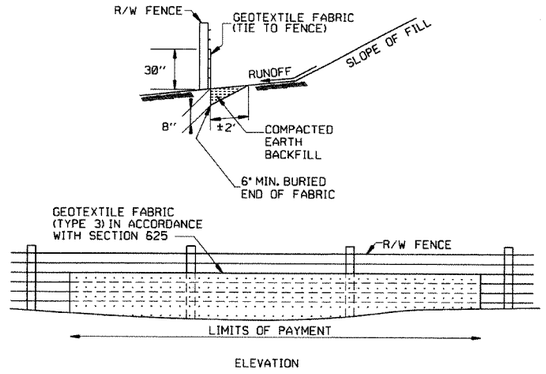
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

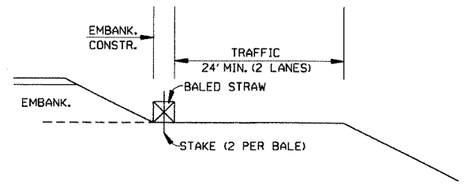
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

GENERAL NOTES

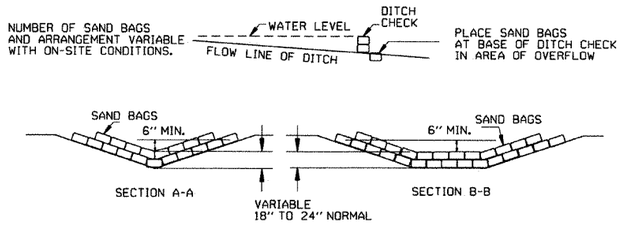
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

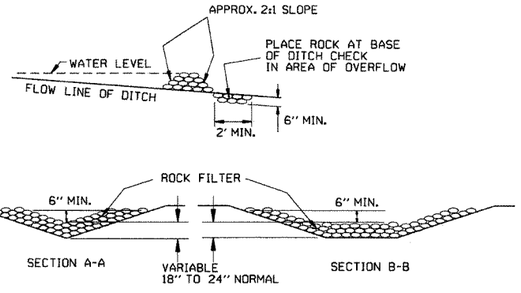
3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



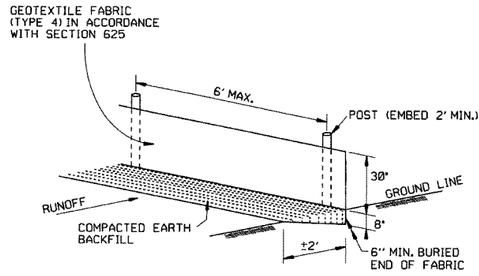
BALED STRAW FILTER BARRIER (E-2)



SAND BAG DITCH CHECK (E-5)



ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

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.

DATE	REVISION	FILMED
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
7-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
7-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
7-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC	
6-2-94	REVISED E-1,4,7 & 11; DELETED E-2 & 3	6-2-94
4-1-93	REDRAWN	
10-1-92	REDRAWN	
8-2-76	ISSUED R.D.M.	298-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

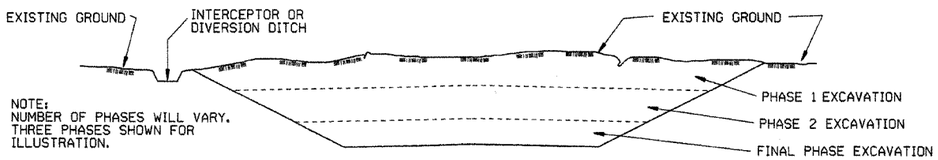
STANDARD DRAWING TEC-1

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



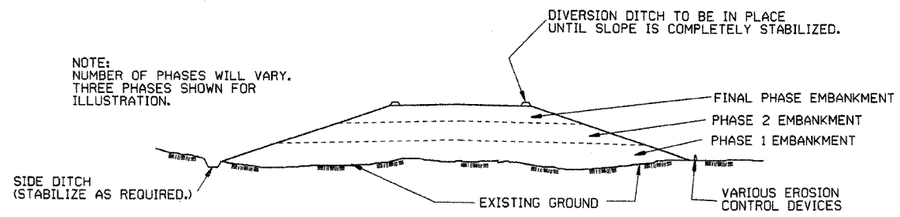
GENERAL NOTE

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.

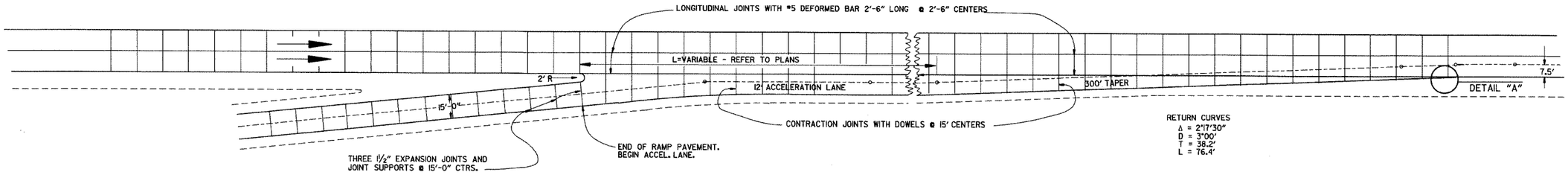
DATE	REVISION	FILMED
11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

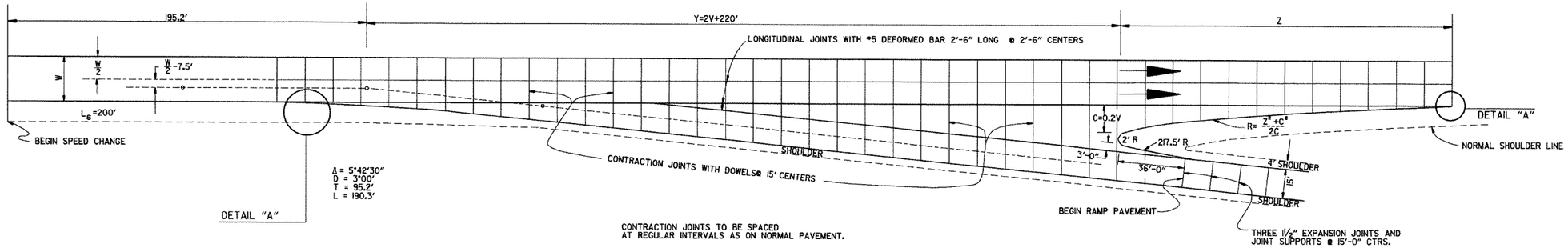
STANDARD DRAWING TEC-3

154A



ENTRANCE RAMP

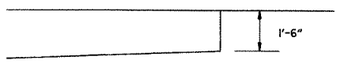
NOTE: JOINT SPACING ON THE MAIN LANES SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO THESE JOINT LAYOUTS. THE MAIN LANE JOINT SPACING MAY BE REDUCED TO A 12' MINIMUM.



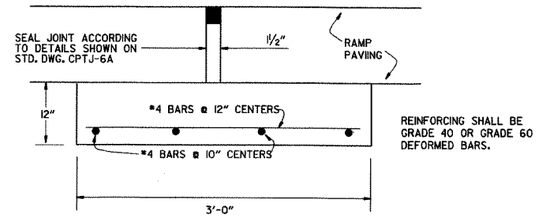
EXIT RAMP

EXIT RAMP

DESIGN SPEED V	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	687.29
60	340.0	12.0	168.0	1182.0	790.55
70	360.0	14.0	210.0	1582.0	902.27



DETAIL "A"



DETAIL OF EXPANSION JOINT & JOINT SUPPORT

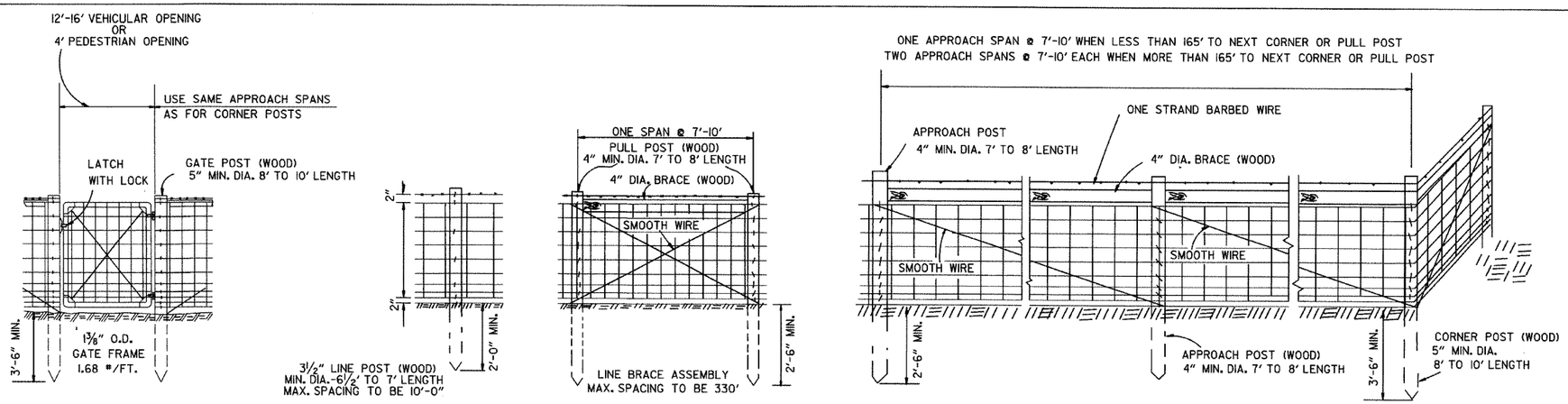
NOTE: THE EXPANSION JOINTS SHALL BE MEASURED AND PAID FOR AS P.C.C. PAVEMENT (RAMP THICKNESS). WHEN RAMP PAVING IS ASPHALT, EXPANSION JOINT IS NOT REQUIRED.
THE JOINT SUPPORT MAY BE CONSTRUCTED WITH CLASS "A", "S", OR PAVING CONCRETE. PAYMENT FOR THE JOINT SUPPORT SHALL BE FOR THE CONTRACT UNIT PRICE 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
1-28-90	REVISED EXPANSION JOINT	1-25-90
7-15-88	CONFORM'D TO 1988 SPECIFICATIONS	65C-7-15-88
3-2-81	ISSUED	511-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

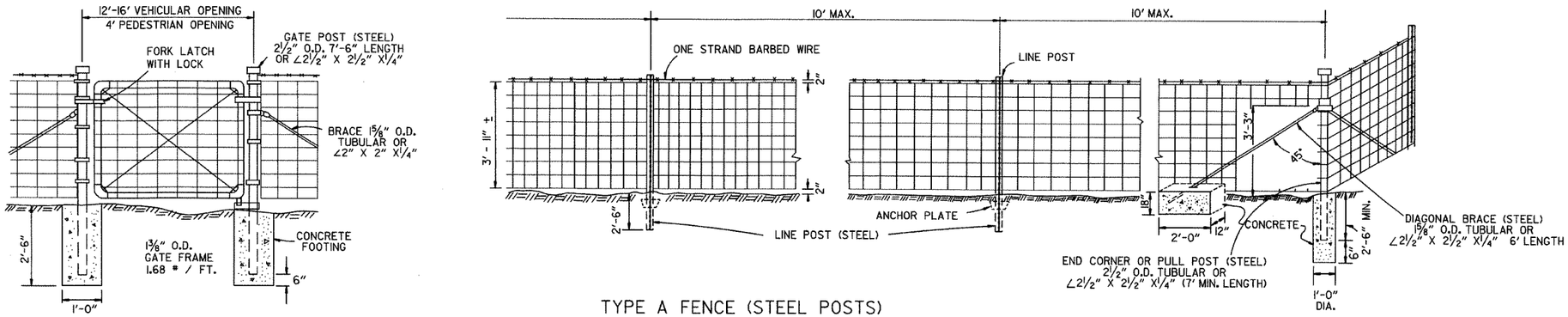
DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMPS (NON-REINFORCED)

STANDARD DRAWING TR-1A



NOTE: STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.

TYPE A FENCE (WOOD POSTS)



TYPE A FENCE (STEEL POSTS)

GENERAL NOTES:

STEEL LINE POSTS SHALL BE GALVANIZED, 7 FT. IN LENGTH.

TUBULAR END, CORNER, PULL, OR DIAGONAL BRACES MUST CONFORM TO THE DIMENSIONS AND WEIGHTS SPECIFIED ON STANDARD DRAWING WF-3 (CHAIN LINK).

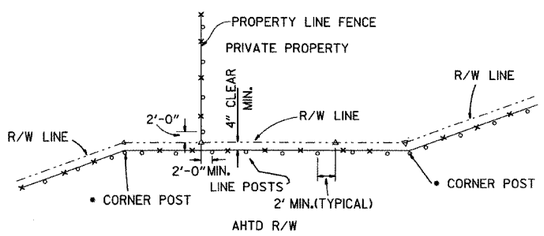
THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF WOOD LINE POSTS OF 7' LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.

GATE HINGES AND LATCHES WITH LOCKS TO BE OF A TYPE APPROVED BY THE ENGINEER. DRIVEWAY GATES, EITHER SINGLE 12' OR 16' OR DOUBLE 6' TO 8' OPENINGS OF THE SAME TYPE AS THE PEDESTRIAN GATE, SHALL BE INSTALLED ON THE RIGHT SIDE OF EACH THROUGH LANE ROAD AT LARGE CULVERTS OR BRIDGE CROSS FENCE FOR USE BY MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER.

AT STREAM CROSSINGS THE FENCE SHALL NOT BE CONSTRUCTED ACROSS LARGE STREAMS. WHERE CLEARANCE IS SUFFICIENT FROM THE TOP OF BANK TO THE BRIDGE STRUCTURE, A CROSS CONNECTION SHALL BE CONSTRUCTED BETWEEN THE FENCE ON EACH SIDE OF THE ROAD. WHERE THE CLEARANCE IS NOT SUFFIEICNT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO THE BRIDGE ABUTMENTS OR CULVERT WINGWALLS.

SPLICE FOR WOVEN WIRE BETWEEN PULL POST SHALL BE BY THE "WESTERN UNION METHOD" AS DESCRIBED AS FOLLOWS: THE VERTICAL WIRES FOR EACH END OF THE FENCE FABRIC SHALL BE PLACED SIDE BY SIDE AND THE PROJECTING HORIZONTAL WIRES SHALL BE WRAPPED A MINIMUM OF 4 TIMES AROUND THE HORIZONTAL WIRES OF THE FIRST WEB.

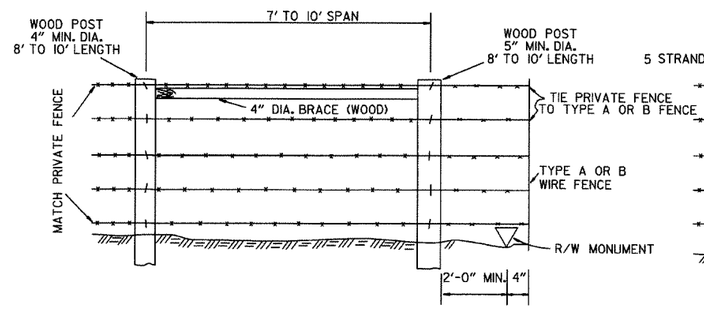
SPLICE FOR BARBED WIRE BETWEEN PULL POST ASSEMBLY SHALL BE BY THE "EYE METHOD": AS DESCRIBED AS FOLLOWS: THE ENDS OF THE BARBED WIRE SHALL BE BENT TO FORM A LOOP. THE LOOPS SHALL BE CONNECTED. AFTER THE LOOPS ARE CONNECTED THE ENDS OF THE WIRE SHALL BE WRAPPED AROUND THE PROJECTING WIRE A MINIMUM OF 4 TIMES FOR EACH WIRE LOOP.



•NOTE: RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY FENCE CONSTRUCTION. CORNER POSTS SHALL BE CONSTRUCTED 2' FROM THE RIGHT-OF-WAY MONUMENT OR AS DIRECTED BY THE ENGINEER.

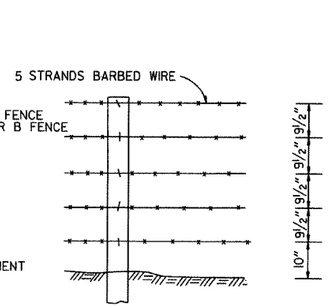
△ - R/W MONUMENTS
○ - FENCE POSTS

RIGHT-OF-WAY FENCE LOCATION



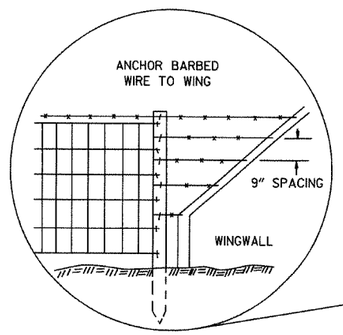
WHERE EXISTING PRIVATE FENCE CONSISTS OF STEEL POSTS, USE END POST ASSEMBLY AS SHOWN WITH TYPE A FENCE OR OTHER END POST ASSEMBLY AS APPROVED BY THE ENGINEER.

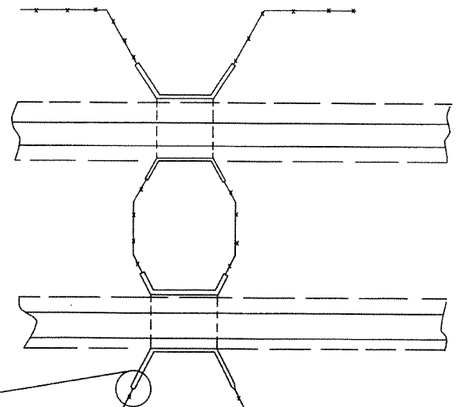
PRIVATE FENCE TERMINAL INSTALLATION



SPACING AND SIZE OF POSTS FOR TYPE B FENCE SHALL BE THE SAME AS TYPE A FENCE.

TYPE B FENCE





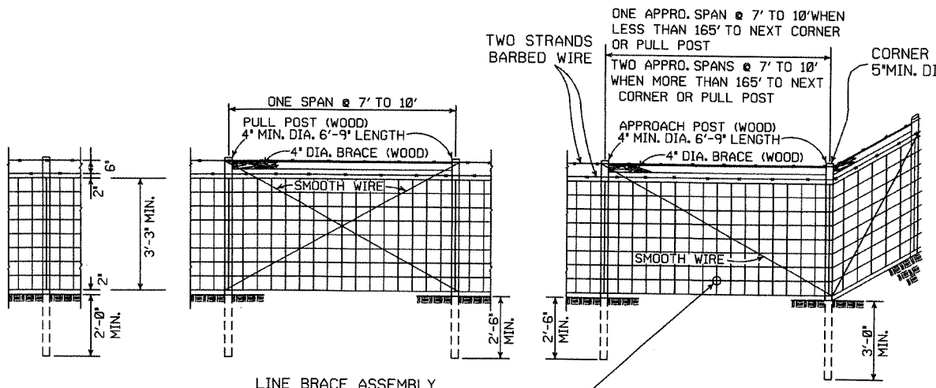
DETAIL OF FENCE CONSTRUCTION AT LARGE CULVERTS (5' IN HEIGHT AND OVER)

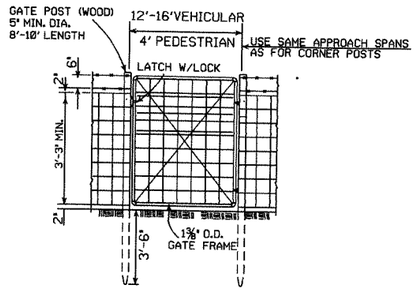
DATE	REVISION	DATE FILMED
8-22-02	REVISED GENERAL NOTES	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-22-95	REVISED R-O-W LOCATION DETAIL	
6-2-94	ADDED CORNER POST NOTE	6-2-94
8-5-93	REVISED R-O-W LOCATION DETAIL	8-5-93
10-1-92	ADDED STAPLE NOTE	
8-2-90	REV'D PULL POST LENGTH	
11-30-89	DELETED CLASS CONC.	
7-15-88	ADDED SPLICE NOTES	
7-15-88	ADDED HEIGHT DIMENSION	
4-3-87	REVISED VARIOUS NOTES	
	AND GENERAL NOTES	
11-1-84	MAX. POST SPACING	
1-4-83	MIN. DIA. LINE POST	
10-2-72	REVISED & REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

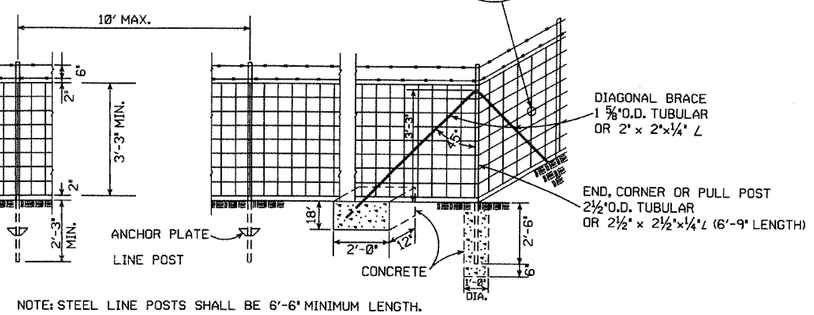
WIRE FENCE
TYPE A AND B

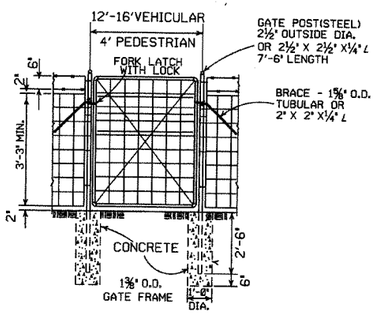
STANDARD DRAWING WF-1

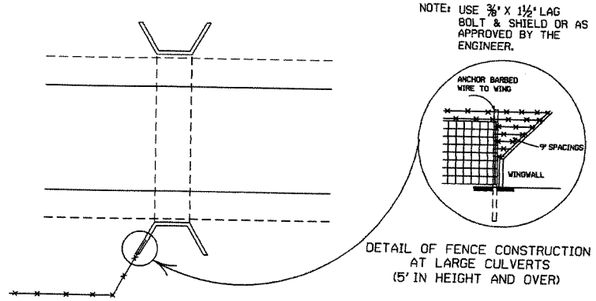




TYPE C FENCE (WOOD POSTS)





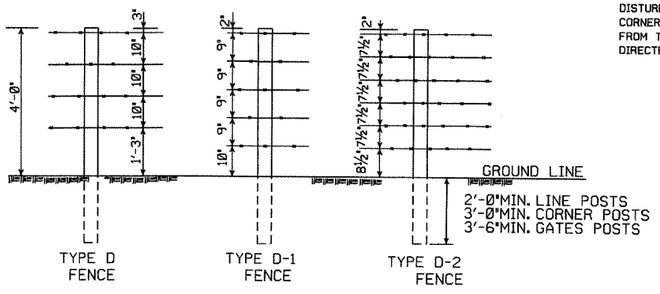


DETAIL OF FENCE CONSTRUCTION AT LARGE CULVERTS (5' IN HEIGHT AND OVER)

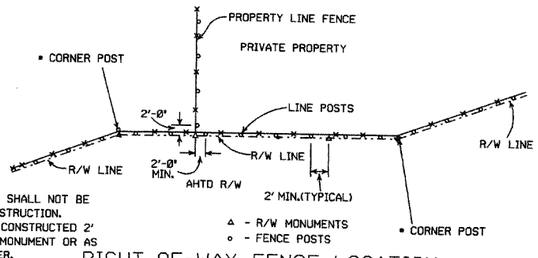
NOTE: STEEL LINE POSTS SHALL BE 6'-6" MINIMUM LENGTH.

TYPE C FENCE (STEEL POSTS)

4 STRANDS BARBED WIRE (D)
5 STRANDS BARBED WIRE (D-1)
6 STRANDS BARBED WIRE (D-2)

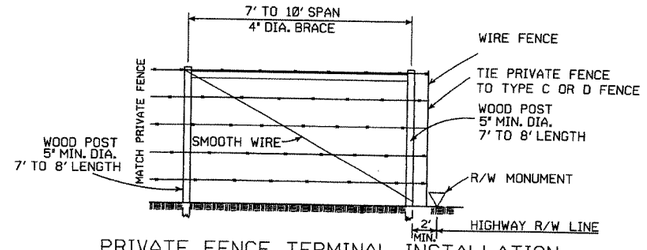


NOTE: SPACING AND SIZE (EXCEPT LENGTH) OF POSTS, APPROACH SPANS, PULL POST ASSEMBLIES, AND CORNER BRACING FOR TYPE D FENCE SHALL CONFORM TO TYPE C FENCE. USE GALVANIZED STAPLES ON WOOD POSTS AND APPROVED FASTENERS ON STEEL POSTS.



• NOTE: RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY FENCE CONSTRUCTION. CORNER POSTS SHALL BE CONSTRUCTED 2' FROM THE RIGHT-OF-WAY MONUMENT OR AS DIRECTED BY THE ENGINEER.

RIGHT-OF-WAY FENCE LOCATION



PRIVATE FENCE TERMINAL INSTALLATION

WHERE EXISTING FENCE CONSISTS OF STEEL POSTS, USE END POST ASSEMBLY AS SHOWN IN TYPE C FENCE OR OTHER END POST ASSEMBLY AS APPROVED BY THE ENGINEER.

GENERAL NOTES:

STEEL LINE POSTS SHALL BE PAINTED OR GALVANIZED.
TUBULAR END, CORNER, PULL, OR DIAGONAL BRACES MUST CONFORM TO THE DIMENSIONS AND WEIGHTS SPECIFIED ON STANDARD DRAWING WF-3 (CHAIN LINK). APPROVED ALTERNATES ARE ACCEPTABLE.
AN ACCEPTABLE TOLERANCE IN LENGTH OF TUBULAR OR WOODEN POSTS SHALL BE - 1" TO +2".
TUBULAR POSTS MUST BE PAINTED OR GALVANIZED.

THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF TIMBER LINE POSTS OF 7 FOOT LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.

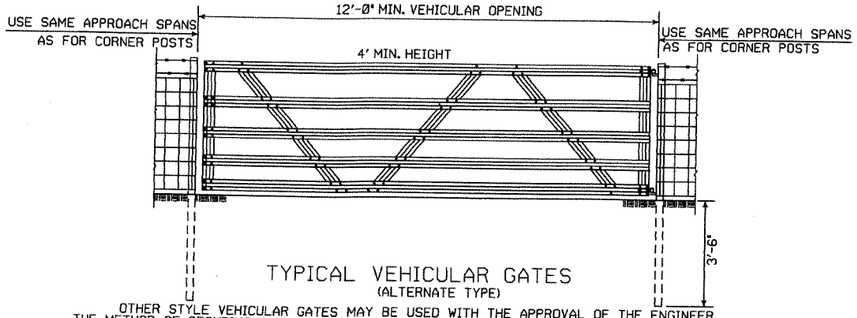
DRIVEWAY GATES, EITHER SINGLE 12' TO 16' OR DOUBLE 6' TO 8' OPENING OF THE SAME TYPE AS THE PEDESTRIAN GATE, SHALL BE INSTALLED ON THE RIGHT SIDE OF EACH THROUGH LANE ROAD AT LARGE CULVERTS OR BRIDGE CROSS FENCE, FOR USE OF MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON PLANS OR AS DESIGNATED BY THE ENGINEER.

AT STREAM CROSSINGS, THE FENCE SHALL NOT BE CONSTRUCTED ACROSS LARGE STREAMS. WHERE CLEARANCE IS SUFFICIENT FROM THE TOP OF THE BANK TO THE BRIDGE STRUCTURE A CROSS CONNECTION SHALL BE CONSTRUCTED BETWEEN THE FENCE ON EACH SIDE OF THE ROAD. WHERE THE CLEARANCE IS NOT SUFFICIENT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO BRIDGE ABUTMENTS OR CULVERT WINGWALLS.

SPLICE FOR BARBED WIRE BETWEEN PULL POST ASSEMBLY SHALL BE BY THE "EYE METHOD" AS DESCRIBED AS FOLLOWS: THE ENDS OF THE BARBED WIRE SHALL BE BENT TO FORM A LOOP. THE LOOPS SHALL BE CONNECTED. AFTER THE LOOPS ARE CONNECTED THE ENDS OF THE WIRE SHALL BE WRAPPED AROUND THE PROJECTING WIRES A MINIMUM OF 4 TIMES FOR EACH WIRE LOOP.

SPLICE FOR WOVEN WIRE BETWEEN PULL POST SHALL BE BY THE "WESTERN UNION METHOD" AS DESCRIBED AS FOLLOWS: THE VERTICAL WIRES FOR EACH END OF THE FENCE FABRIC SHALL BE PLACED SIDE BY SIDE AND THE PROJECTING HORIZONTAL WIRES SHALL BE WRAPPED A MINIMUM OF 4 TIMES AROUND THE HORIZONTAL WIRES OF THE FIRST WEB.

STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.



TYPICAL VEHICULAR GATES
(ALTERNATE TYPE)

OTHER STYLE VEHICULAR GATES MAY BE USED WITH THE APPROVAL OF THE ENGINEER. THE METHOD OF SECURING GATE (LATCH AND/OR LOCK) SHALL MEET THE APPROVAL OF THE ENGINEER.

DATE	REVISION	FILMED
8-22-02	REVISED GENERAL NOTES	
10-18-96	REVISED AASHTO	
11-22-95	REVISED R-O-W LOCATION DETAIL	
6-2-94	REVISED BARB WIRE AND ADDED CORNER POST NOTES	6-2-94
8-5-93	REVISED R/W INSTALLATION FENCE	8-5-93
10-1-92	ADDED STAPLE NOTE	10-1-92
8-15-91	ADDED TYPE D-2 FENCE	8-15-91
11-30-89	DELETED CLASS CONCRETE	11-30-89
7-15-88	ADDED SPLICE NOTE	700-7-15-88
10-30-87	GENERAL REVISIONS	549-10-30-87
11-1-84	MAX. POST SPACING MIN. WIRE GAUGE	507-11-1-84
1-4-83	MIN. DIA. LINE POST	648-1-4-83
3-2-81	TOLERANCE FOR POST LENGTH	722-3-2-81
12-1-72	ADDED D-1 & FENCE INSTALLATION	564-12-1-72
10-2-72	REVISED AND REDRAWN	540-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

WIRE FENCE TYPE C AND D

STANDARD DRAWING WF-4