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.		BB0305	1	153
				②	HWY. 67 - SHEPPARD (F)			

"A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

CONSTRUCTION PLANS

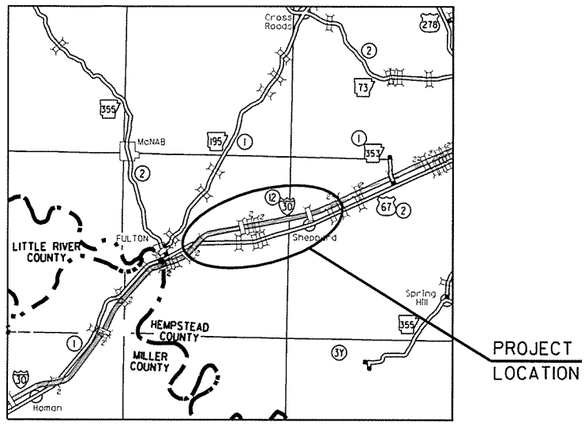
HWY. 67 - SHEPPARD (F)

HEMPSTEAD COUNTY

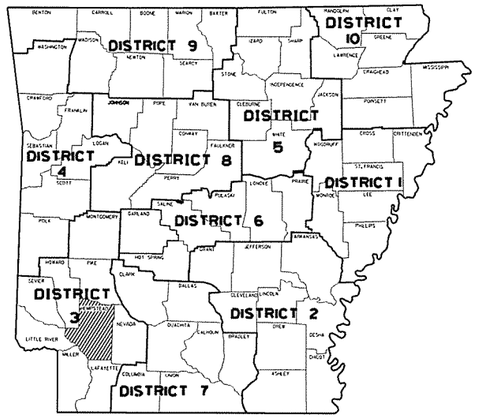
ROUTE 30 SECTION 12

F.A.P. NHPP-PEN-HRRR-30-1(152)18

JOB BB0305



VICINITY MAP



ARK. HWY. DIST. NO. 3

STA. 743+07.69

BEGIN JOB BB0305

LOG MILE 18.28

BRIDGE DATA - DECK REHABILITATION

① STA. 743+65.21 - BRIDGE END
76'-0" CONT. COMP. W-BEAM UNIT
66'-0" SIMPLE COMP. W-BEAM UNIT
244'-0" CONT. COMP. W-BEAM UNIT
90'-0" CONT. COMP. W-BEAM UNIT
(38',38',66',61',61',61',61',45',45' SPANS)
478.99' BRIDGE LENGTH
EXISTING BRIDGE NO. A3864 (L.M.L. AT US 67)
40'0" CLEAR ROADWAY
STA. 748+44.20 - BRIDGE END
HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

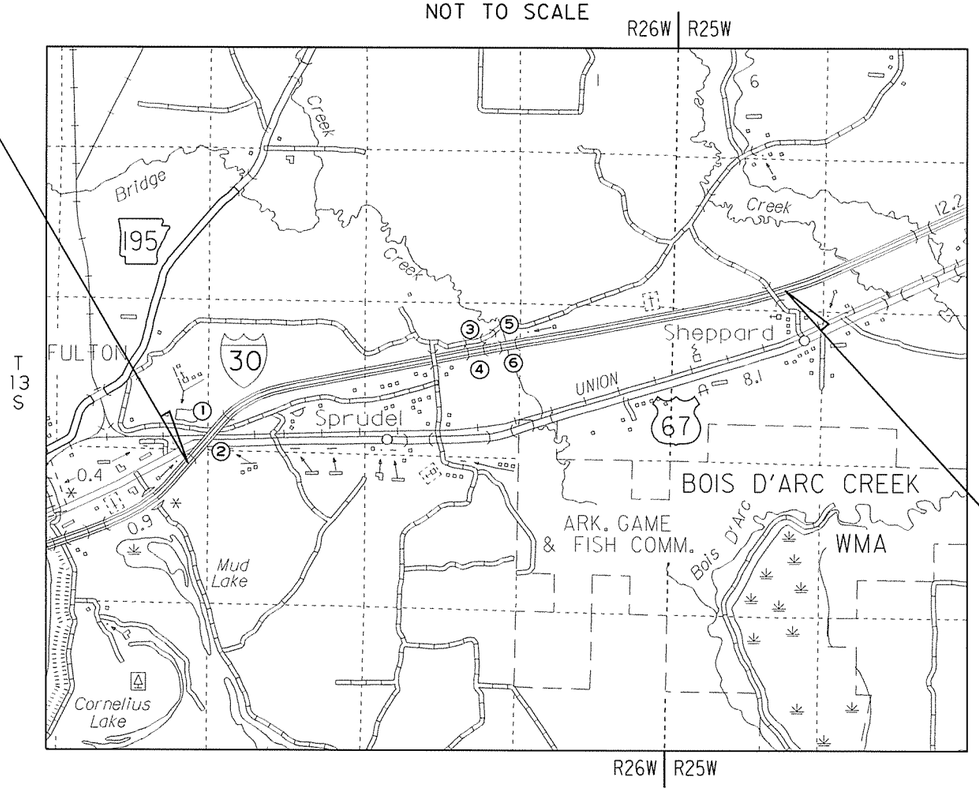
② STA. 744+41.43 - BRIDGE END
76'-0" CONT. COMP. W-BEAM UNIT
66'-0" SIMPLE COMP. W-BEAM UNIT
244'-0" CONT. COMP. W-BEAM UNIT
90'-0" CONT. COMP. W-BEAM UNIT
(38',38',66',61',61',61',61',41',41' SPANS)
470.99' BRIDGE LENGTH
EXISTING BRIDGE NO. B3864 (R.M.L. AT US 67)
40'0" CLEAR ROADWAY
STA. 749+12.42 - BRIDGE END
HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

③ ④ STA. 847+96.00 - BRIDGE END 3866
(3)-28'-0" SIMPLE SPAN SLAB SPAN UNITS
(28',28',28' SPANS)
84.00' BRIDGE LENGTH
EXISTING BRIDGE NOS. A3866 & B3866
40'0" CLEAR ROADWAY
STA. 848+80.00 - BRIDGE END
POLYMER OVERLAY

⑤ ⑥ STA. 856+65.00 - BRIDGE END 3867
(3)-28'-0" SIMPLE SPAN SLAB SPAN UNITS
(28',28',28' SPANS)
84.00' BRIDGE LENGTH
EXISTING BRIDGE NOS. A3867 & B3867
40'0" CLEAR ROADWAY
STA. 857+49.00 - BRIDGE END
POLYMER OVERLAY

	BEGIN PROJECT	MID-POINT OF PROJECT	END PROJECT
LATITUDE	N 33°36'57"	N 33°37'28"	N 33°37'49"
LONGITUDE	W 93°47'36"	W 93°45'38"	W 93°43'33"

NOT TO SCALE



STA. 959+00.00

END JOB BB0305

LOG MILE 22.37

DESIGN TRAFFIC DATA

DESIGN YEAR	2035
2015 ADT	27,000
2035 ADT	37,500
2035 DHV	4,125
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	46%
DESIGN SPEED	70 MPH

LENGTH COMPUTED ALONG ℄ MEDIAN I-30

GROSS LENGTH OF PROJECT	21592.31	FEET OR 4.089	MILES
NET LENGTH OF ROADWAY	20949.32	FEET OR 3.967	MILES
NET LENGTH OF BRIDGES	642.99	FEET OR 0.122	MILES
NET LENGTH OF PROJECT	21592.31	FEET OR 4.089	MILES

100% SUBMITTAL

CERTIFICATE OF AUTHORIZATION ATKINS NORTH AMERICA, INC. No. 502 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 15845 ROSA PLESNER

8/20/2015

P.E. JOB BB0305

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11-27	SPECIAL DETAILS			
28-61	TEMPORARY EROSION CONTROL DETAILS			
62-80	MAINTENANCE OF TRAFFIC			
81-85	PERMANENT PAVEMENT MARKING DETAILS			
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(2) INDEX OF SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

10/1/2015

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(2) GOV. SPECS. AND GENERAL NOTES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESENER

11/19/2015

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT-EQUAL EMPLOYMENT OPPORTUNITY-NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT-SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT-EQUAL EMPLOYMENT OPPORTUNITY-GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT-EQUAL EMPLOYMENT OPPORTUNITY-FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT-TRAINING PROGRAM-JOB BB0305
FHWA-1273	SUPPLEMENT-POSTERS AND NOTICES REQUIRED FOR FEDERAL AID PROJECTS
FHWA-1273	SUPPLEMENT-WAGE RATE DETERMINATION
108-1	LIQUIDATED DAMAGES
400-1	TACK COATS
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
606-1	PIPE CULVERTS FOR SIDE DRAINS
620-1	MULCH COVER
JOB BB0305	AUTOMATED WORK ZONE INFORMATION SYSTEM
JOB BB0305	BIDDING REQUIREMENTS AND CONDITIONS
JOB BB0305	BORROW
JOB BB0305	BRIDGE DECK REPAIR
JOB BB0305	BRIDGE DECK REPAIR FOR POLYMER OVERLAYS
JOB BB0305	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB BB0305	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB BB0305	CONCRETE DITCH PAVING
JOB BB0305	COORDINATION OF WORK
JOB BB0305	CULVERT CLEAN OUT
JOB BB0305	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB BB0305	EMPLOYMENT REPORTING
JOB BB0305	FILTER SOCKS
JOB BB0305	FURNISH AND OPERATION OF MOBILE SPEED NOTIFICATION SYSTEM
JOB BB0305	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB BB0305	HIGH PERFORMANCE PAVEMENT MARKING
JOB BB0305	HYDRODEMOLITION
JOB BB0305	INSURANCE, FLAGGING, AND CONSTRUCTION REQUIREMENTS ON RAILROAD PROPERTY (UPRR)
JOB BB0305	LATEX MODIFIED CONCRETE OVERLAY
JOB BB0305	MAINTENANCE OF TRAFFIC
JOB BB0305	MANAGEMENT OF HYDRODEMOLITION WASTEWATER
JOB BB0305	MANDATORY ELECTRONIC CONTRACT
JOB BB0305	MOTORIST ASSISTANCE PATROL
JOB BB0305	PARTNERING REQUIREMENTS
JOB BB0305	PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS
JOB BB0305	POLYMER OVERLAY
JOB BB0305	PROSECUTION AND PROGRESS
JOB BB0305	REMOVAL AND DISPOSAL OF GUARDRAIL
JOB BB0305	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIERS
JOB BB0305	REMOVAL OF EXISTING ASPHALT OVERLAY
JOB BB0305	ROADWAY CONSTRUCTION CONTROL
JOB BB0305	SEQUENCE OF CONSTRUCTION
JOB BB0305	SHAPING DITCH
JOB BB0305	SITE USE (A+C METHOD)
JOB BB0305	SOIL STABILIZATION
JOB BB0305	SPECIAL SAFETY REQUIREMENTS FOR BRIDGES
JOB BB0305	STORM WATER POLLUTION PREVENTION PLAN
JOB BB0305	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB BB0305	TEMPORARY RELOCATION OF EXISTING SIGNS
JOB BB0305	THERMOPLASTIC RUMBLE BAR
JOB BB0305	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB0305	TRAFFIC CONTROL SUPERVISOR
JOB BB0305	TRENCHING AND SHOULDER PREPARATION
JOB BB0305	UTILITY ADJUSTMENTS
JOB BB0305	VALUE ENGINEERING
JOB BB0305	WARM MIX ASPHALT
JOB BB0305	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS
JOB BB0305	WIRE ROPE SAFETY FENCE (WRSF) SPECIFICATIONS
JOB BB0305	WIRE ROPE SAFETY FENCE (POST REPAIR)

GENERAL NOTES

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

2. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.

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

4. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO INSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.

5. 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.

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

7. THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

8. ANY REQUIRED EROSION CONTROL MEASURES FROM WASTING MATERIAL SHALL BE AT THE CONTRACTOR'S EXPENSE.

9. THIS PROJECT IS COVERED UNDER A NATIONWIDE 14 SECTION 404 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2014, FOR PERMIT REQUIREMENTS.

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

GOVERNING SPECIFICATIONS AND GENERAL NOTES

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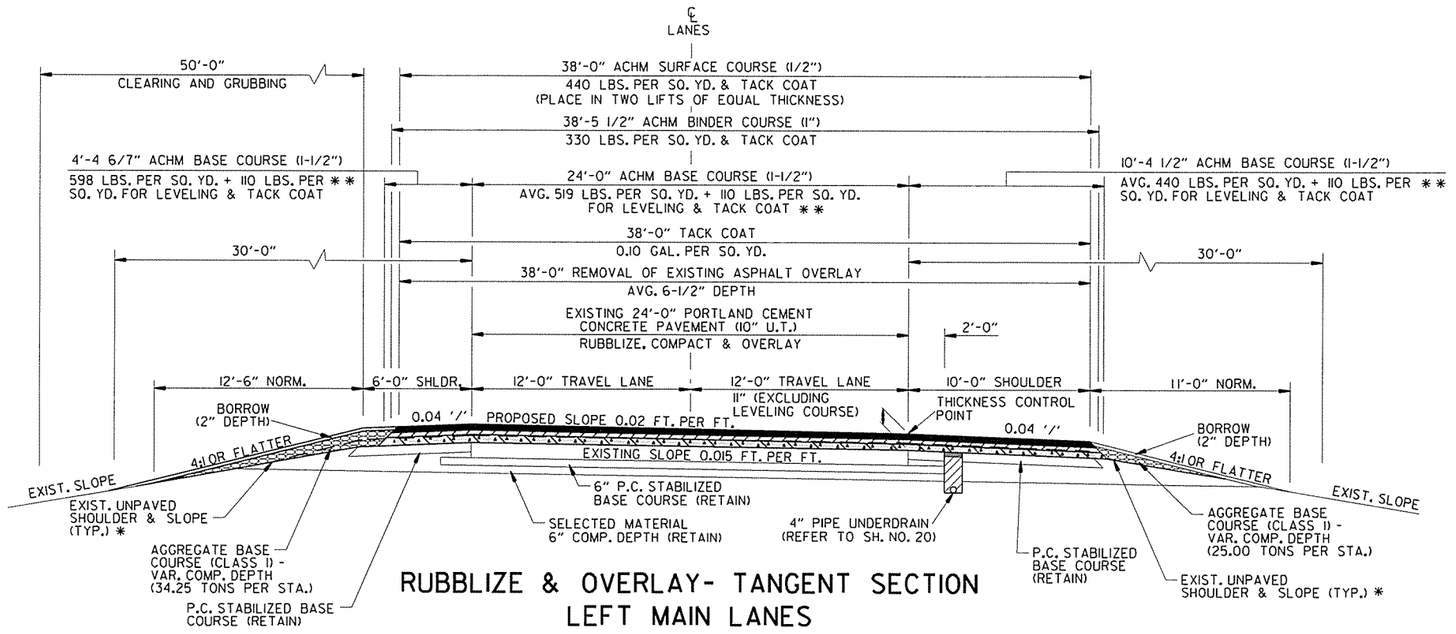
				6	ARK.			
				JOB NO.		BB0305	4	153

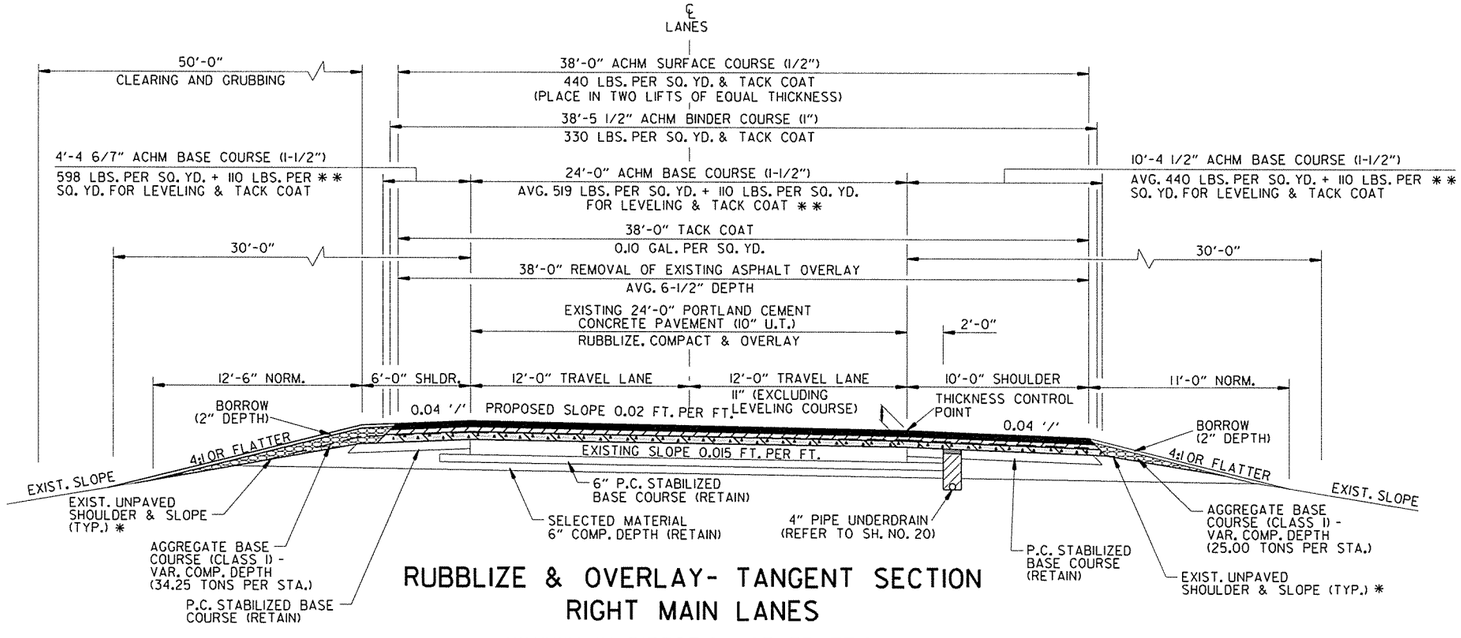
② TYPICAL SECTIONS OF IMPROVEMENT



RUBBLIZE & OVERLAY- TANGENT SECTION LEFT MAIN LANES

(SHOWN IN DIRECTION OF TRAFFIC)

STA. 780+58.08 TO STA. 819+88.00
STA. 868+85.50 TO L.M.L. STA. 958+91.20 (BK.)



RUBBLIZE & OVERLAY- TANGENT SECTION RIGHT MAIN LANES

(SHOWN IN DIRECTION OF TRAFFIC)

STA. 780+11.80 TO STA. 819+88.00
STA. 868+85.50 TO R.M.L. STA. 959+08.23 (BK.)

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.

BRANCHES OF TREES EXTENDING OVER CLEARED AREA SHALL BE TRIMMED TO GIVE A CLEAR HEIGHT OF 20' OVER THE SLOPES.

ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.

* CONTRACTOR TO PROVIDE POSITIVE DRAINAGE OF MAIN LANES AFTER EXISTING ASPHALT HAS BEEN REMOVED. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.

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

LEGEND

EXISTING ASPHALT OVERLAY

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

TYPICAL SECTIONS OF IMPROVEMENT

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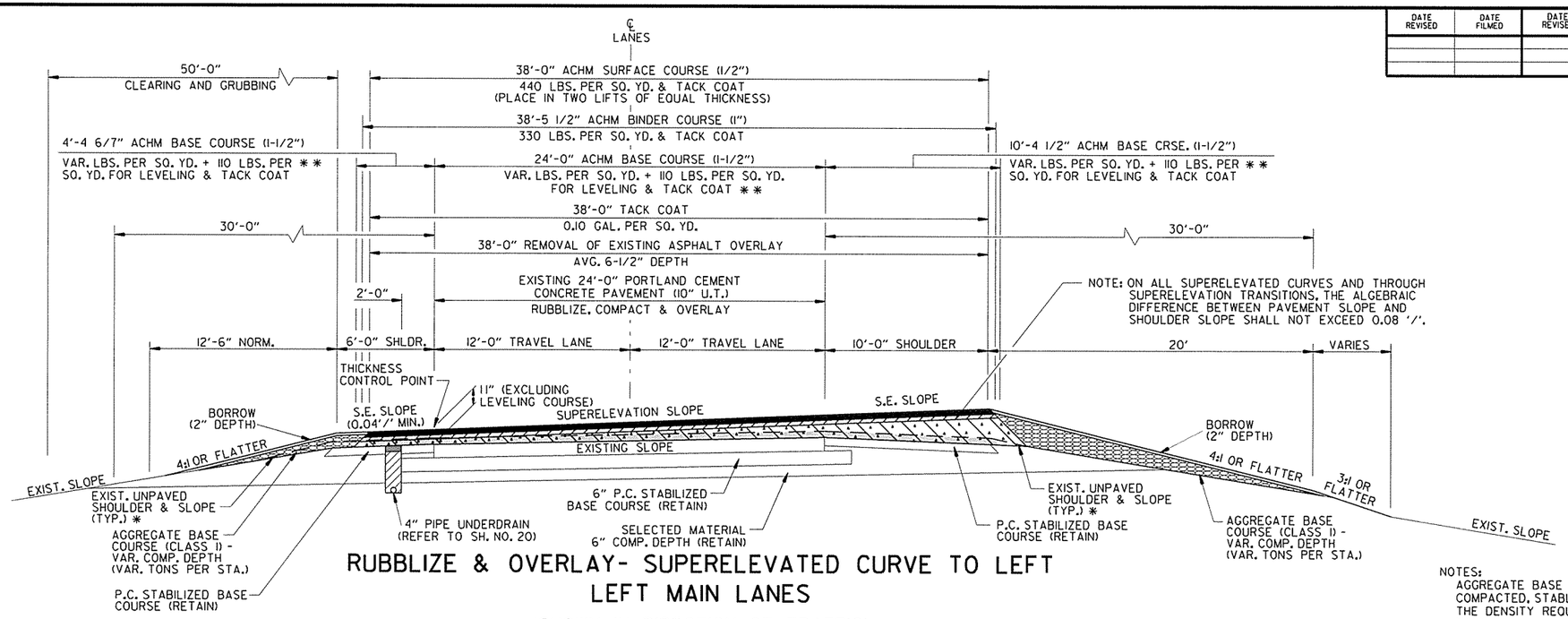
				JOB NO.		BB0305	5	153

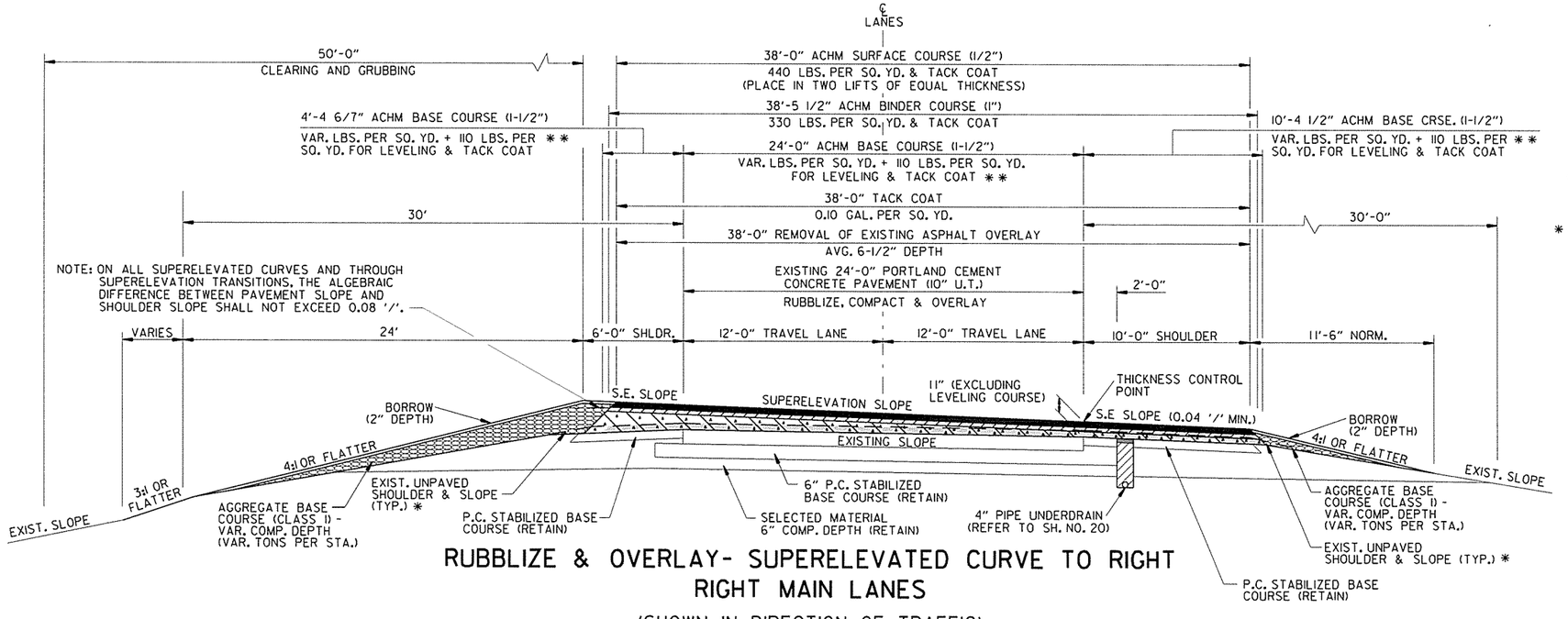
② TYPICAL SECTIONS OF IMPROVEMENT



RUBBLIZE & OVERLAY- SUPERELEVATED CURVE TO LEFT
LEFT MAIN LANES

(SHOWN IN DIRECTION OF TRAFFIC)

L.M.L. STA. 760+90.59 TO L.M.L. STA. 777+46.92
L.M.L. STA. 777+46.92 TO STA. L.M.L. 778+34.42 (BK.) (TRANS.)
STA. 777+95.58 (AHD.) TO STA. 780+58.08 (TRANS.)



RUBBLIZE & OVERLAY- SUPERELEVATED CURVE TO RIGHT
RIGHT MAIN LANES

(SHOWN IN DIRECTION OF TRAFFIC)

R.M.L. STA. 760+70.04 TO R.M.L. STA. 776+22.58
R.M.L. STA. 776+22.58 TO R.M.L. STA. 777+32.61 (BK.) (TRANS.)
STA. 777+72.27 (AHD.) TO STA. 780+11.80 (TRANS.)

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.

BRANCHES OF TREES EXTENDING OVER CLEARED AREA SHALL BE TRIMMED TO GIVE A CLEAR HEIGHT OF 20' OVER THE SLOPES.

ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.

* CONTRACTOR TO PROVIDE POSITIVE DRAINAGE OF MAIN LANES AFTER EXISTING ASPHALT HAS BEEN REMOVED. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.

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

LEGEND

▨ EXISTING ASPHALT OVERLAY

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

TYPICAL SECTIONS OF IMPROVEMENT

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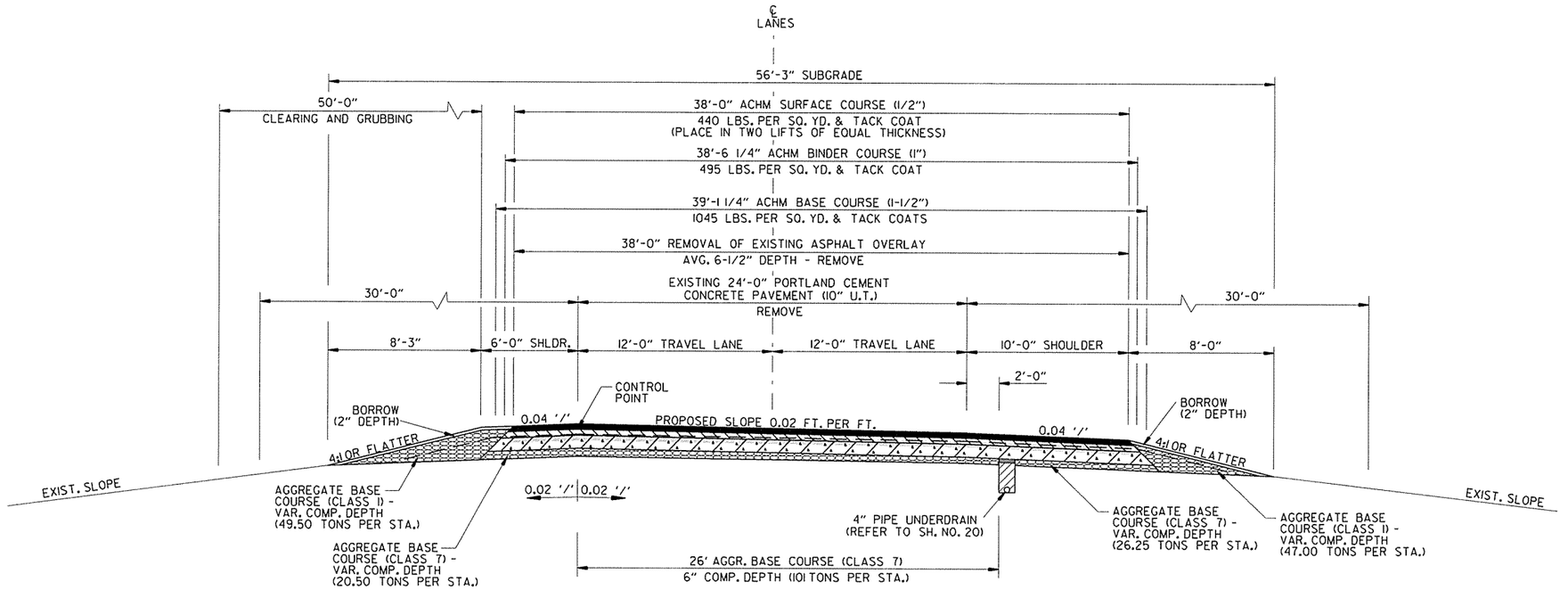
6	ARK.			
JOB NO.		BB0305	6	153

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESSNER
7/9/2015



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

LEFT LANES
STA. 748+98.22 TO STA. 751+91.06
STA. 819+88.00 TO STA. 847+59.50
STA. 849+16.50 TO STA. 856+28.50
STA. 857+85.50 TO STA. 868+85.50

RIGHT LANES
STA. 749+70.04 TO STA. 750+65.14
STA. 819+88.00 TO STA. 847+59.50
STA. 849+16.50 TO STA. 856+28.50
STA. 857+85.50 TO STA. 868+85.50

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.

BRANCHES OF TREES EXTENDING OVER CLEARED AREA SHALL BE TRIMMED TO GIVE A CLEAR HEIGHT OF 20' OVER THE SLOPES.

ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.

NOTE:
REFER TO SHEET NO. 15 AND NO. 16 FOR SPECIAL PAVING DETAILS.

TYPICAL SECTIONS OF IMPROVEMENT

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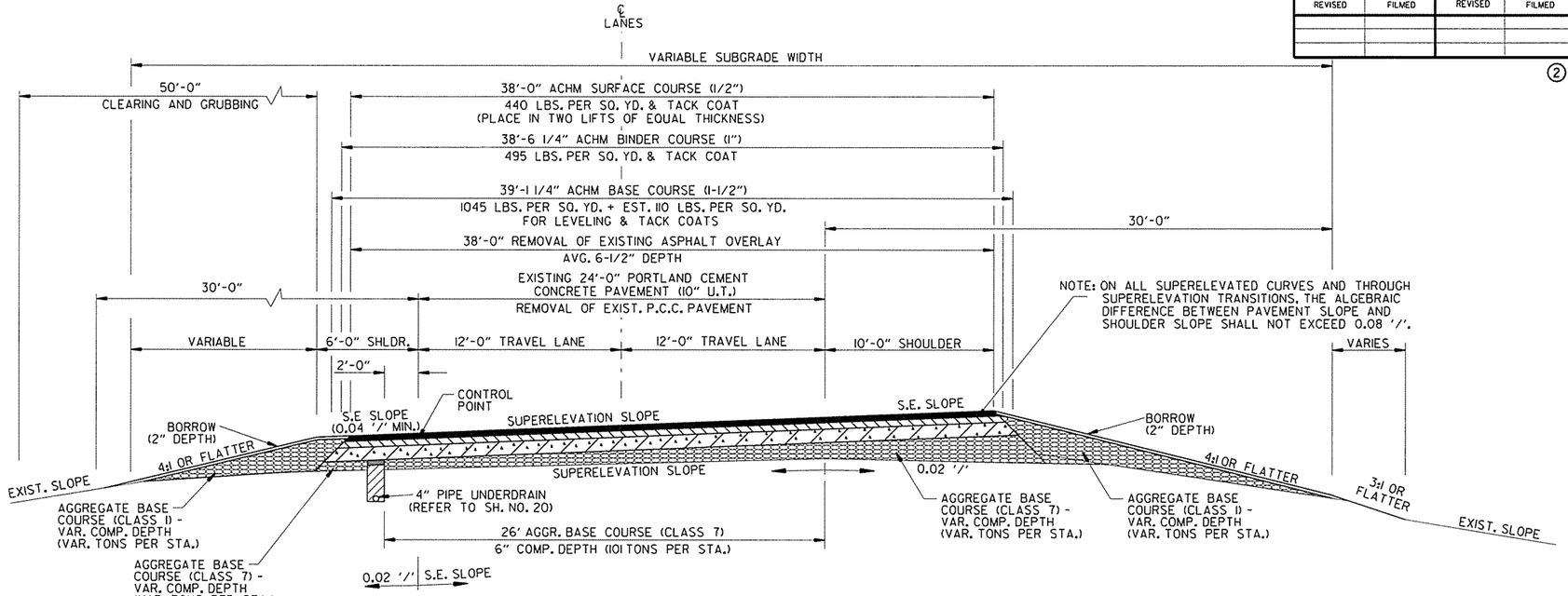
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	7	153

② TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA A. PLESSNER
7/9/2015



FULL DEPTH PAVEMENT- SUPERELEVATED CURVE TO LEFT
LEFT MAIN LANES

(SHOWN IN DIRECTION OF TRAFFIC)

STA. 751+91.06 TO STA. 755+38.76 (BK.)(TRANS.)
L.M.L. STA. 755+41.06 (AHD.) TO L.M.L. STA. 760+90.59

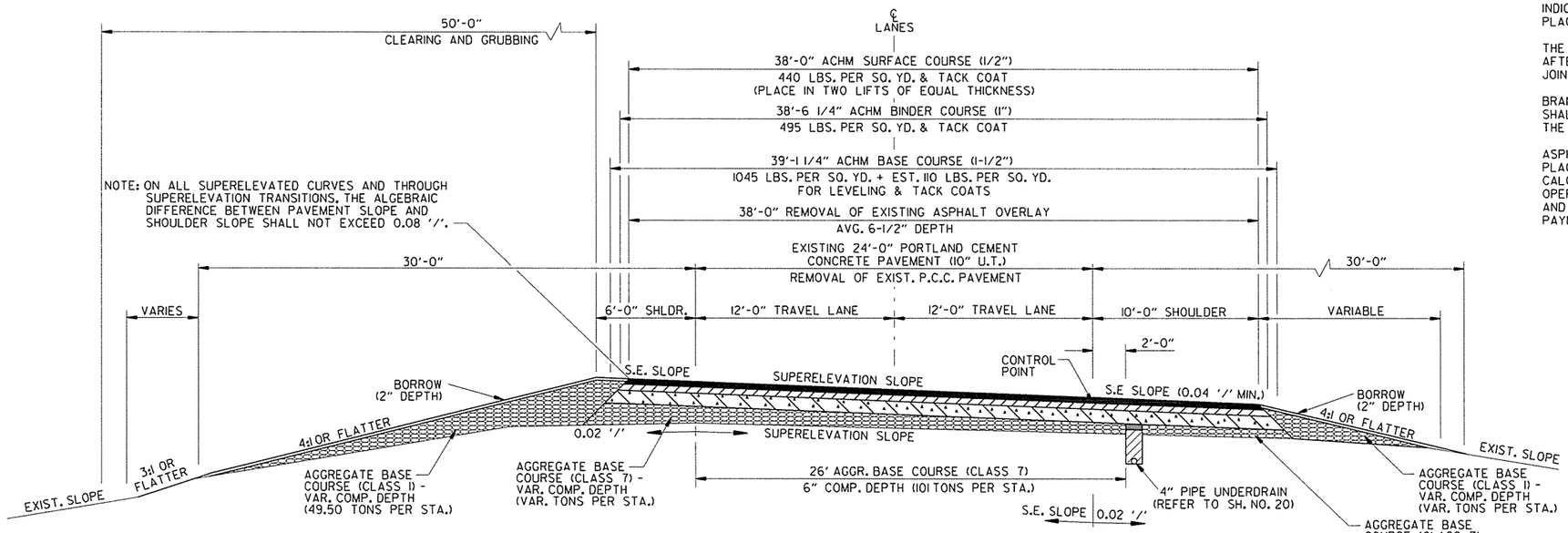
NOTES:
AGGREGATE BASE COURSE (CLASS I) SHALL BE UNIFORMLY COMPACTED, STABLE, AND FREE OF SEGREGATED AREAS. THE DENSITY REQUIREMENTS OF SECTION 303 SHALL BE WAIVED.

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.

BRANCHES OF TREES EXTENDING OVER CLEARED AREA SHALL BE TRIMMED TO GIVE A CLEAR HEIGHT OF 20' OVER THE SLOPES.

ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.



FULL DEPTH PAVEMENT- SUPERELEVATED CURVE TO RIGHT
RIGHT MAIN LANES

(SHOWN IN DIRECTION OF TRAFFIC)

STA. 750+65.14 TO STA. 754+16.29 (BK.) (TRANS.)
R.M.L. STA. 754+15.14 (AHD.) TO R.M.L. STA. 760+70.04

TYPICAL SECTIONS OF IMPROVEMENT

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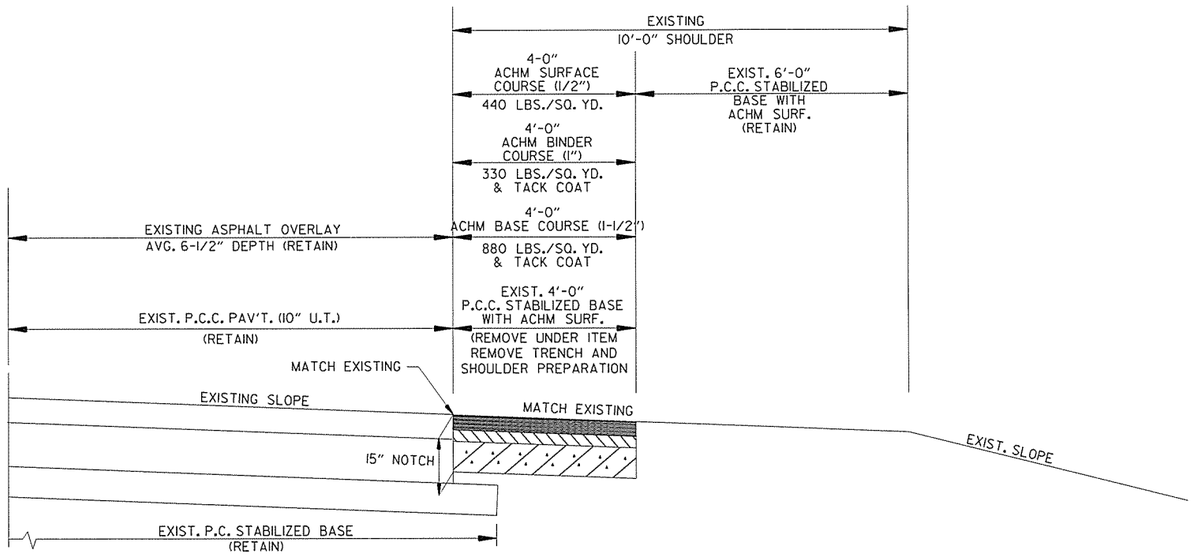
11/23/15				6	ARK.			
11/25/15				JOB NO.		BB0305	8	153

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

11/25/2015



STAGE I
TEMPORARY 4' OUTSIDE SHOULDER REPLACEMENT ON EXISTING MAIN LANE PAVEMENT SECTION LEFT MAIN LANES

STA. 748+96.87 TO STA. 847+59.50
STA. 849+16.50 TO STA. 856+28.50
STA. 857+85.50 TO STA. 967+03.52

TYPICAL SECTIONS OF IMPROVEMENT

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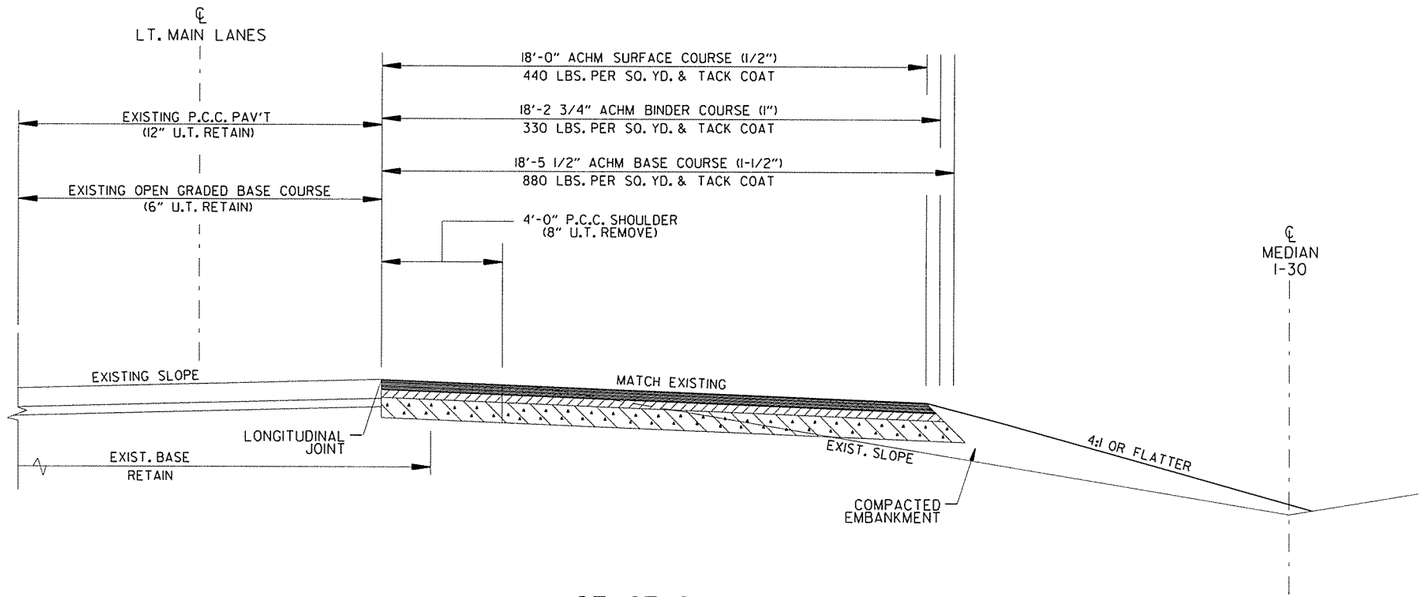
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	9	153

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

Rosa Plesner

7/9/2015



STAGE 2
TEMPORARY WIDENING FOR ACCELERATION LANE
MAINTENANCE OF TRAFFIC - LEFT MAIN LANES

STA. 732+23.76 TO STA. 740+55.82

NOTE:
EXISTING PAVEMENT SHOWN BASED ON JOB NO. BB0303.

TYPICAL SECTIONS OF IMPROVEMENT

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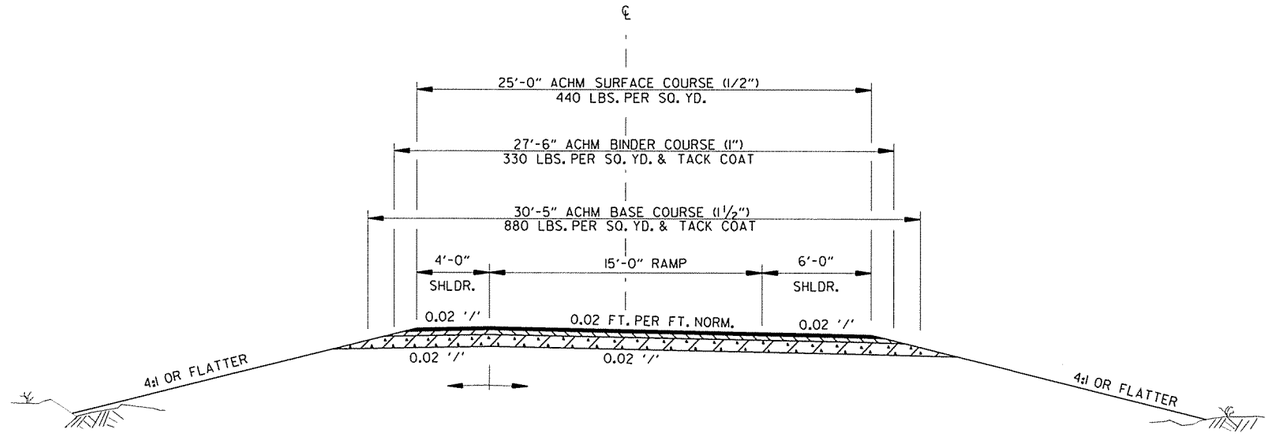
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	10	153

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

7/9/2015



TEMPORARY CROSSOVER RAMP FOR MAINTENANCE OF TRAFFIC

STA. 721+27.23 TO STA. 729+25.92 - TRMLI
STA. 727+21.08 TO STA. 732+23.76 - TRRAMPI
STA. 734+14.59 TO STA. 740+95.04 - TLMLI
STA. 964+76.57 TO STA. 974+55.90 - TRML2 & TLML2

TYPICAL SECTIONS OF IMPROVEMENT

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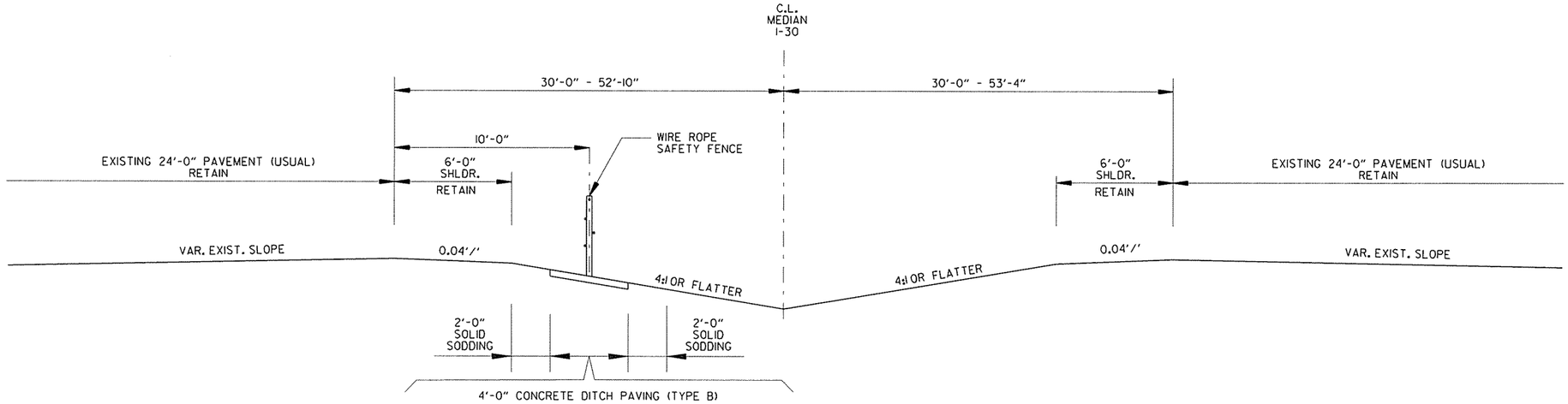
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	II	153

(2) SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



WIRE ROPE SAFETY FENCE ON LEFT LANES FORESLOPE

STA. 752+80 TO STA. 769+25

SPECIAL DETAILS

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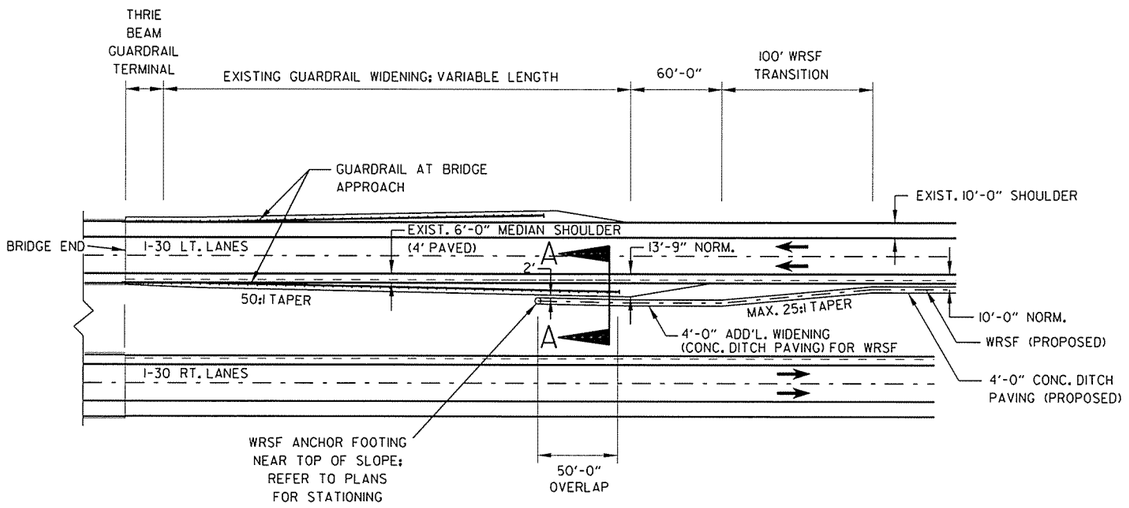
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

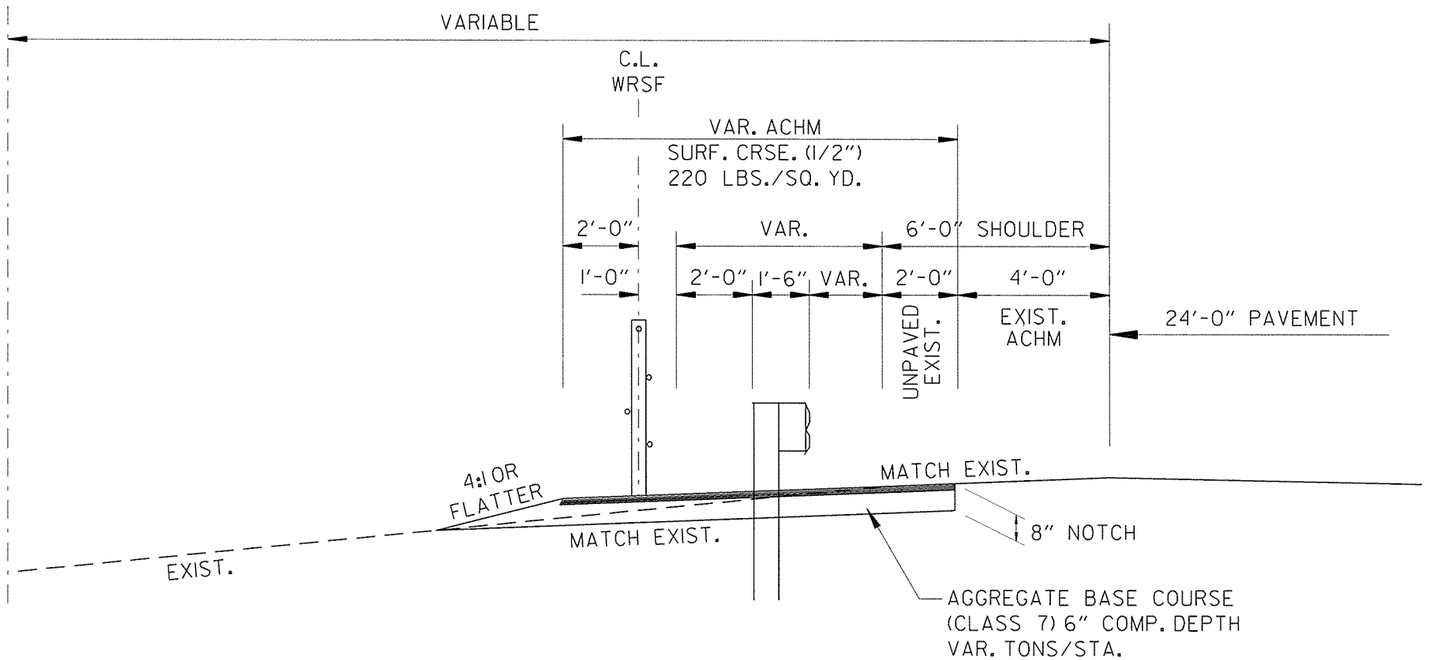
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	12	153

② SPECIAL DETAILS



DETAIL OF WIRE ROPE SAFETY FENCE AT EXISTING BRIDGE ENDS

NOTE: REFER TO CABLE MEDIAN BARRIER PLAN SHEET FOR PLACEMENT OF WIRE ROPE SAFETY FENCE ON LT. FORESLOPE.



SECTION A-A

SPECIAL DETAILS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 15845 ROSA PLESNER
7/9/2015

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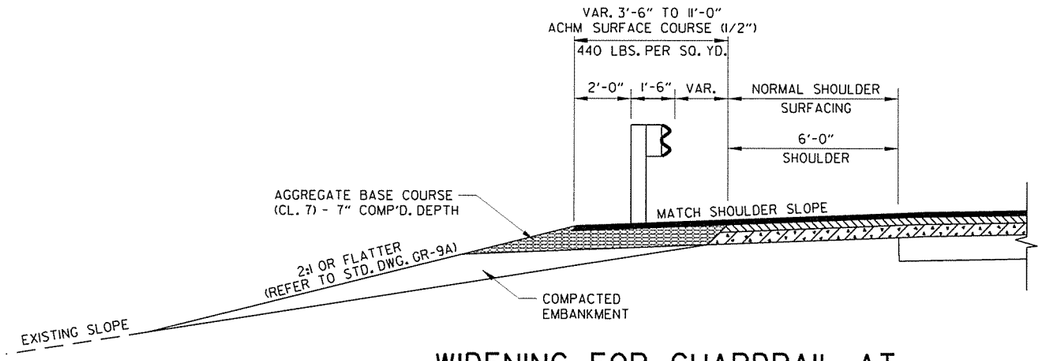
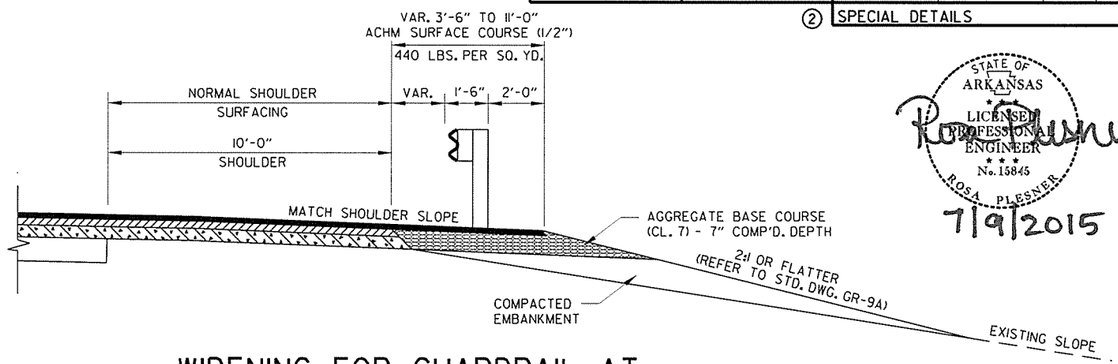
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	13	153

(2) SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

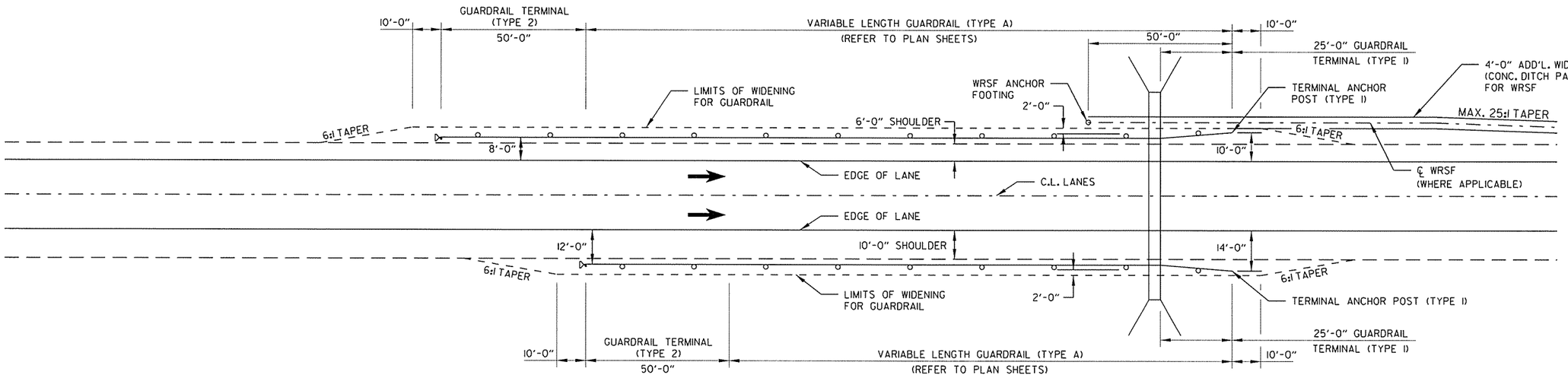


WIDENING FOR GUARDRAIL AT INSIDE SHOULDER



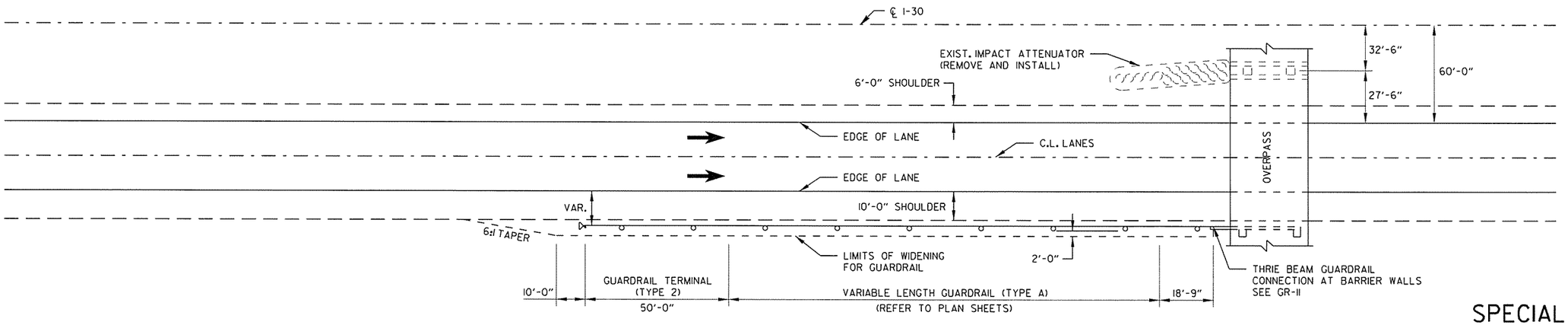
WIDENING FOR GUARDRAIL AT OUTSIDE SHOULDER

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



NOTE:
SEE STD. DWG. GR-9 FOR GUARDRAIL INSTALLATIONS AT MAIN LANE BRIDGE LOCATIONS.

TYPICAL LAYOUT OF GUARDRAIL FOR BOX CULVERTS



TYPICAL LAYOUT OF GUARDRAIL FOR PIER PROTECTION

SPECIAL DETAILS

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				6	ARK.			
				JOB NO.		BB0305	14	153

② SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
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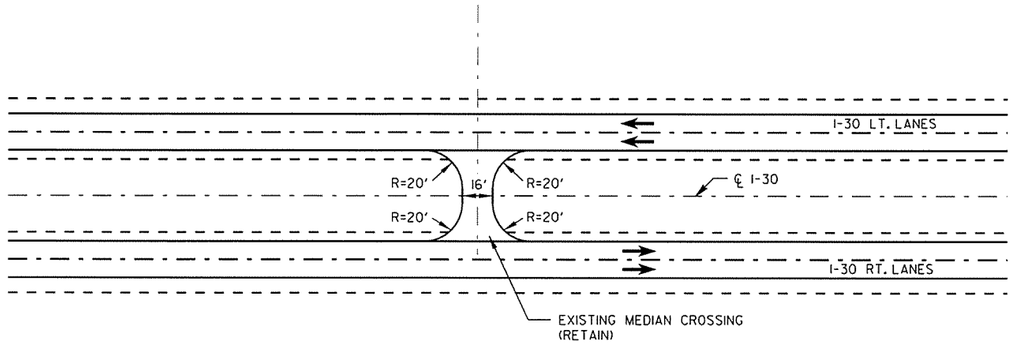
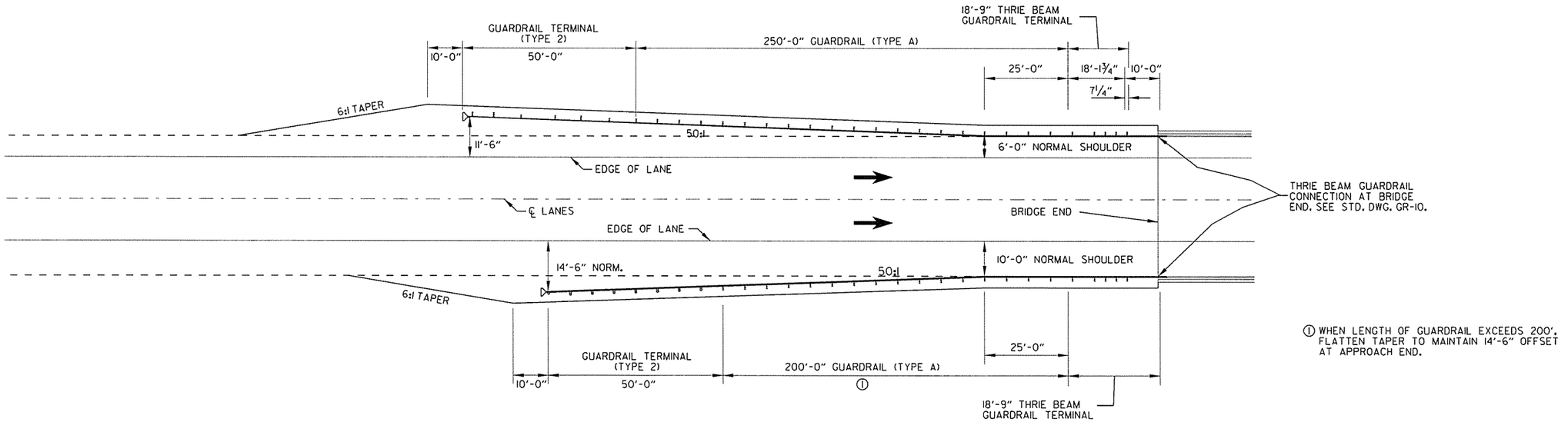
ROSA PLESNER
7/9/2015



DETAIL AT EXISTING MEDIAN CROSSING

STA. 862+68
STA. 957+00



TYPICAL LAYOUT OF GUARDRAIL AT BRIDGE ENDS

① WHEN LENGTH OF GUARDRAIL EXCEEDS 200', FLATTEN TAPER TO MAINTAIN 14'-6" OFFSET AT APPROACH END.

SPECIAL DETAILS

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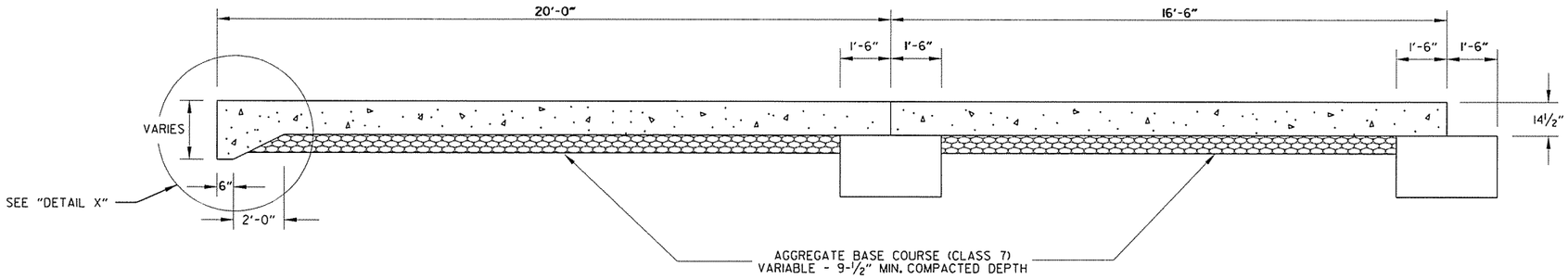
				6	ARK.			
				JOB NO.		BB0305	15	153

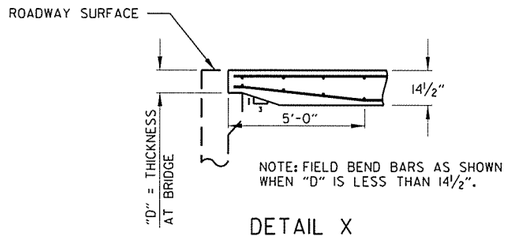
② SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/16/2015



DETAIL OF APPROACH SLAB

NOTE: REFER TO STANDARD DRAWING 55040C1 FOR ADDITIONAL INFORMATION.



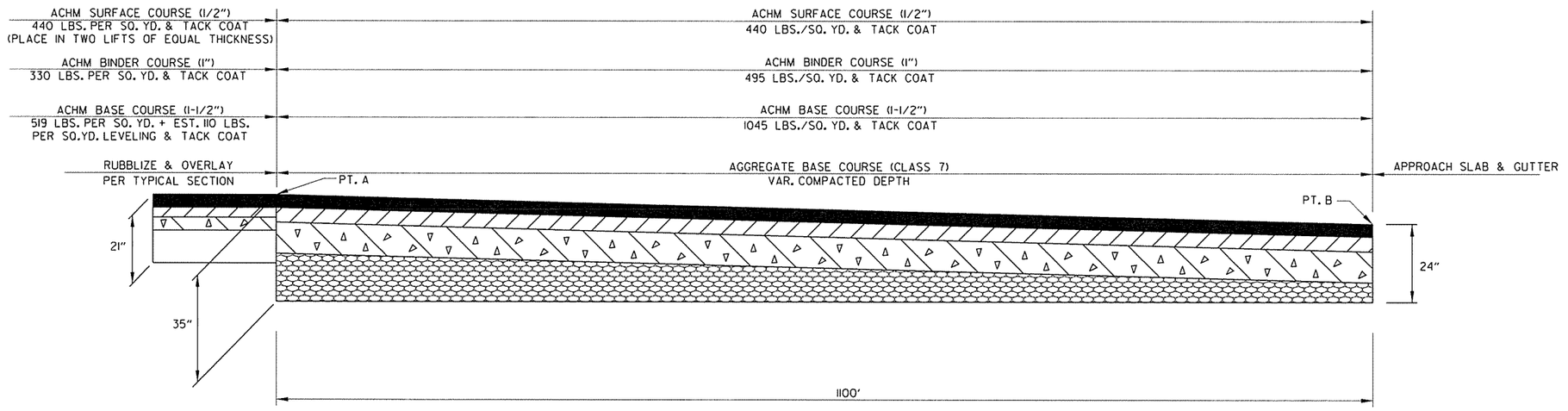
NOTE: FIELD BEND BARS AS SHOWN WHEN "D" IS LESS THAN 14½".

DETAIL X

(AS PER STANDARD DRAWING 55045)

NOTES:
CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AFTER EXISTING MATERIAL HAS BEEN REMOVED. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.

BRIDGE APPROACHES AT STA. 847+59.50, STA. 849+16.50, AND STA. 856+28.50 DO NOT REQUIRE A VARIABLE AGGREGATE BASE COURSE (CLASS 7).



TRANSITION PAVING DETAIL AT BRIDGE APPROACHES

LOCATION	PT. A	PT. B
L.M.L. EAST OF BRIDGE A3864	STA. 759+98.22	STA. 748+98.22
R.M.L. EAST OF BRIDGE B3864	STA. 760+70.04	STA. 749+70.04
L.M.L. AND R.M.L. EAST OF BRIDGES (A&B) 3867	STA. 868+85.50	STA. 857+85.50

NOTE: BRIDGE APPROACHES AT STA. 847+59.50, STA. 849+16.50, AND STA. 856+28.50 DO NOT REQUIRE A VARIABLE COMPACTED DEPTH OF AGGREGATE BASE COURSE (CLASS 7).

SPECIAL DETAILS

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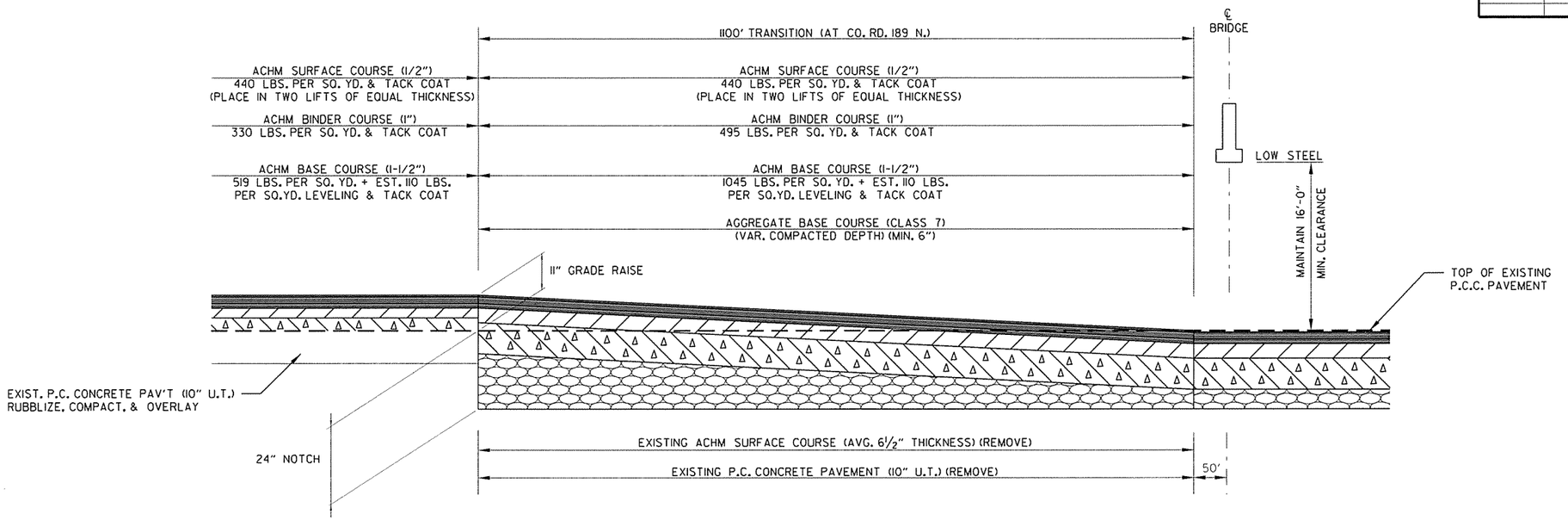
				6	ARK.			
				JOB NO.		BB0305	16	153

② SPECIAL DETAILS



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

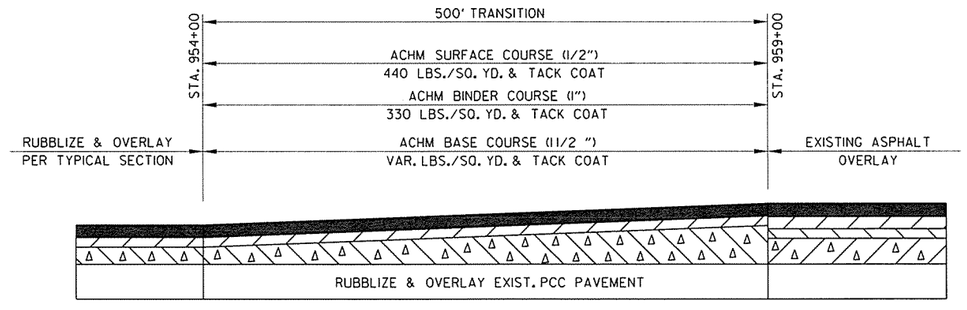
NOTES:
MAINTAIN 4:1 SLOPE OR FLATTER WHEN GRADING DITCH.

CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AFTER EXISTING MATERIAL HAS BEEN REMOVED. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.

16'-0" MIN. VERTICAL CLEARANCE IS REQUIRED FOR FINISHED ROADWAY.

DETAIL OF TRANSITION & FULL-DEPTH PAVEMENT REPLACEMENT UNDER HEMPSTEAD CO. RD. 189 N. BRIDGE

STA. 819+88.00 TO STA. 830+88.00



DETAIL FOR MAIN LANE TRANSITIONS

STA. 954+00.00 TO STA. 959+00.00

SPECIAL DETAILS

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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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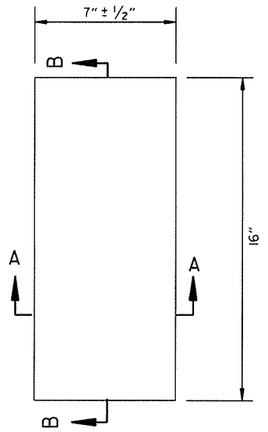
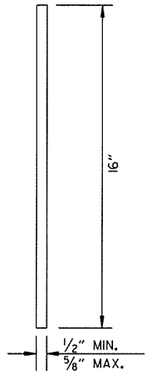
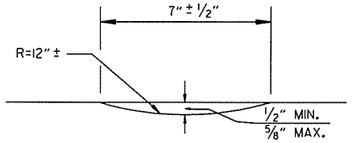
② SPECIAL DETAILS



PLAN

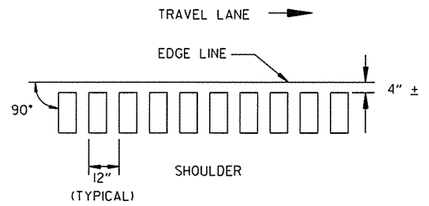


SECTION B-B



SECTION A-A

DETAILS OF RUMBLE STRIPS

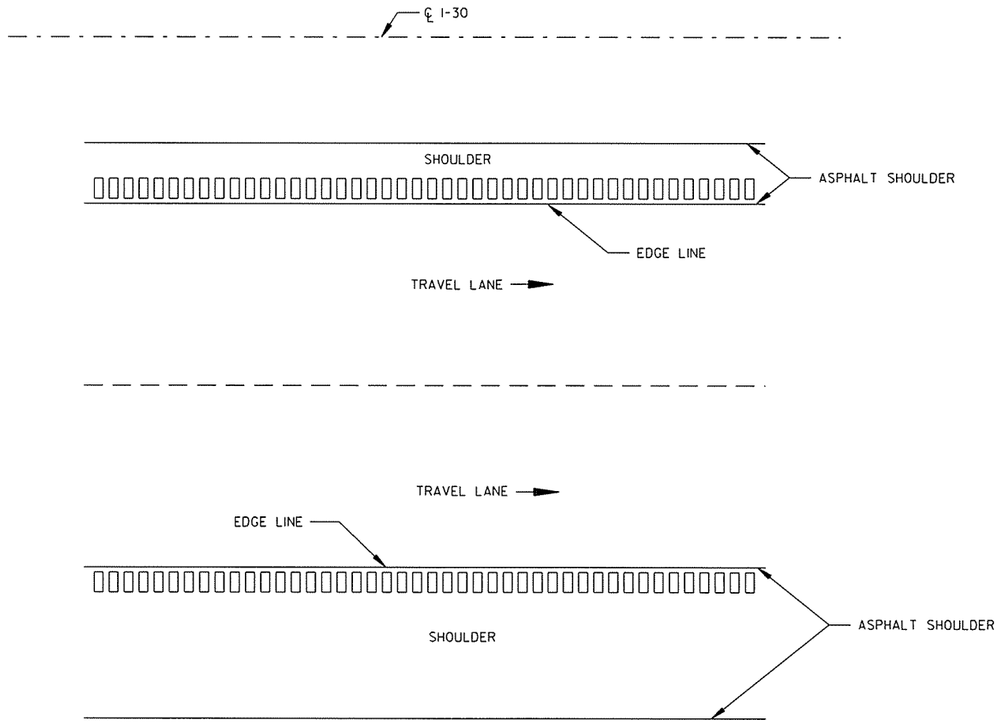


LOCATION PLAN OF RUMBLE STRIPS LEFT OR RIGHT SHOULDER

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

NOTES:

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



PLAN VIEW

I-30
SPECIAL DETAILS

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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.		BB0305	18	153

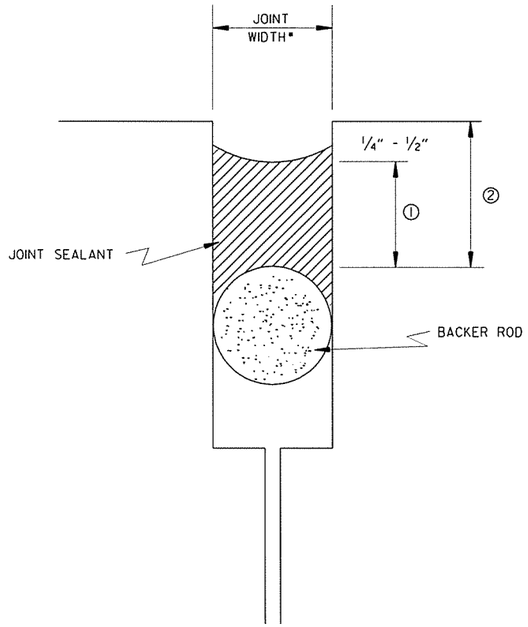
② SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

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.

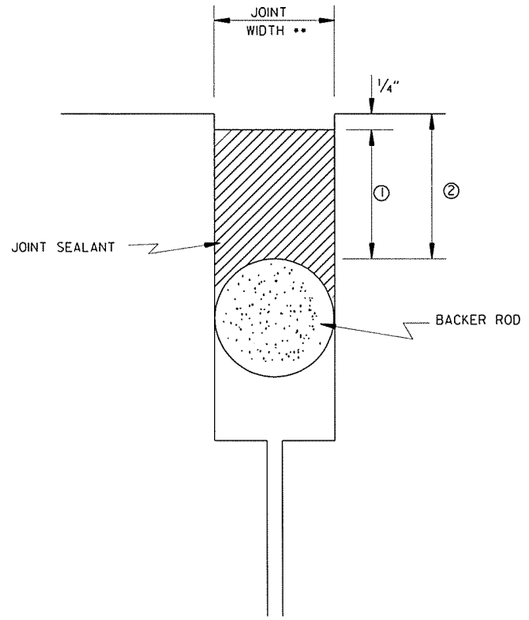


* CONTRACTION JOINTS SHALL BE SAWED TO MIN. WIDTH OF 3/8". WARPING & LONGITUDINAL JOINTS SHALL BE SAWED TO MIN. WIDTH OF EXISTING WIDTH +1/8" (1/16" ON EACH SIDE).

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

SPECIAL DETAILS

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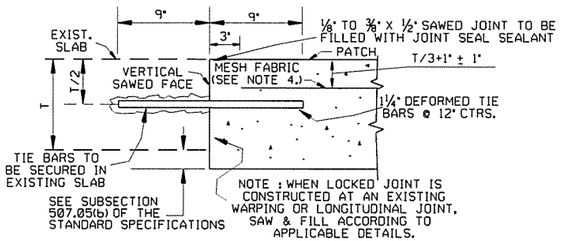
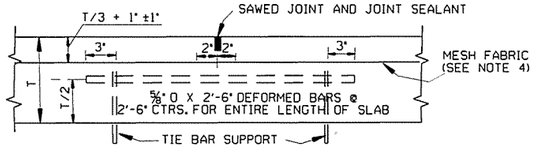
				JOB NO.		BB0305	19	153

(2) SPECIAL DETAILS



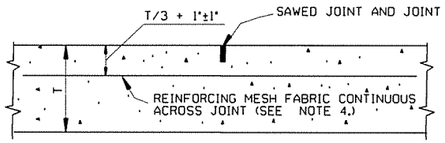
SECTION D-D

LOCKED JOINT



SECTION A-A

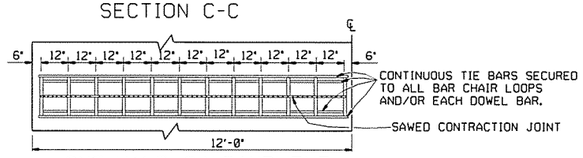
TIED LONGITUDINAL JOINT



SECTION B-B

WARPING JOINT

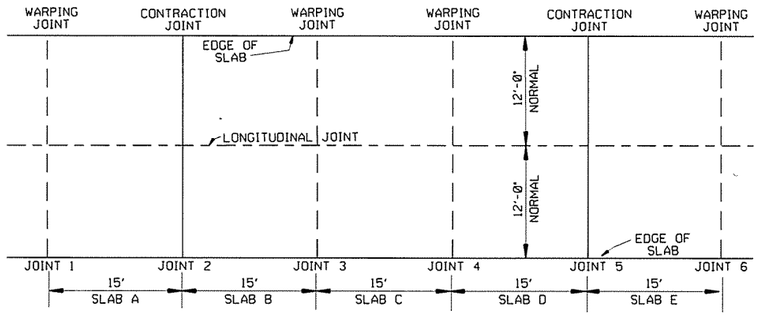
SECTION C-C



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

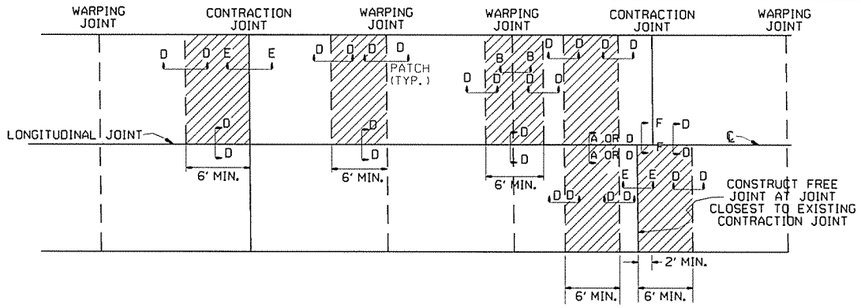
CONTRACTION JOINT DETAILS



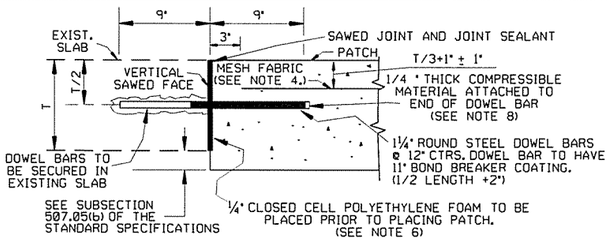
PLAN OF PAVEMENT REPAIR
(FULL SLABS)

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		

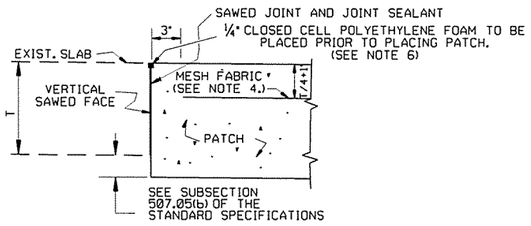


PLAN OF PAVEMENT REPAIR
(PARTIAL SLABS)



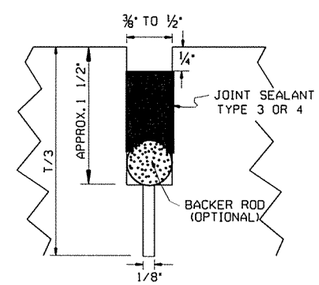
SECTION E-E

FREE TRANSVERSE JOINT

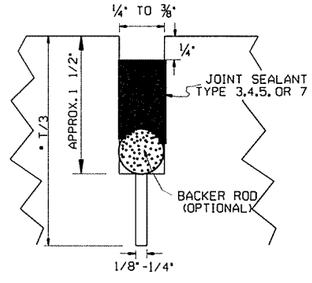


SECTION F-F

FREE LONGITUDINAL JOINT

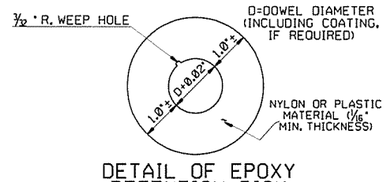


DETAIL OF SAWED
CONTRACTION JOINT



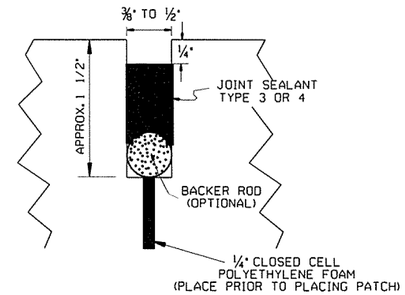
*NOTE: T/3 SAW CUT NOT REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINT.

DETAIL OF SAWED
TIED LONGITUDINAL JOINT
AND WARPING JOINT



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

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. 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
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

DETAILS OF PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (MAIN LANES)

SPECIAL DETAILS

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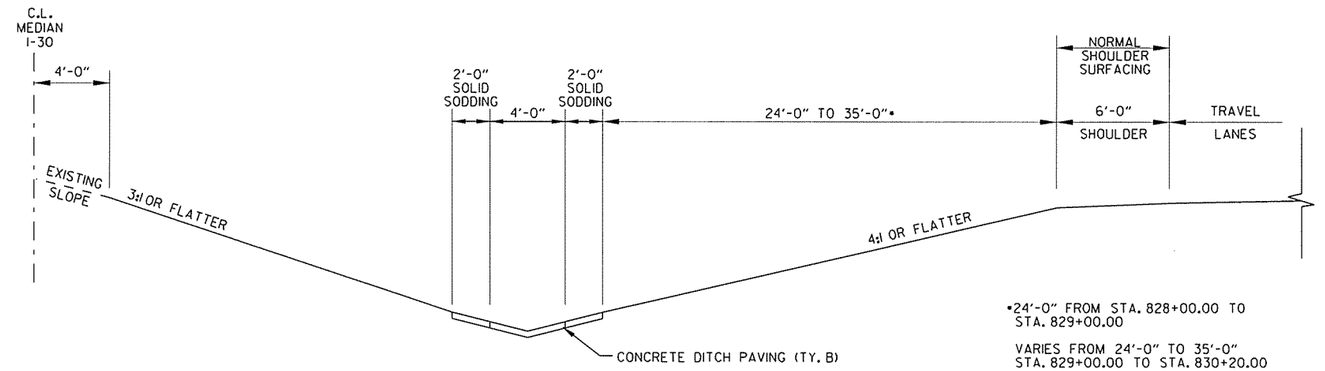
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

7/9/2015



•24'-0" FROM STA. 828+00.00 TO STA. 829+00.00

VARIES FROM 24'-0" TO 35'-0" STA. 829+00.00 TO STA. 830+20.00

GRADING FOR CONCRETE DITCH PAVING

STA. 828+00.00 TO STA. 830+20.00

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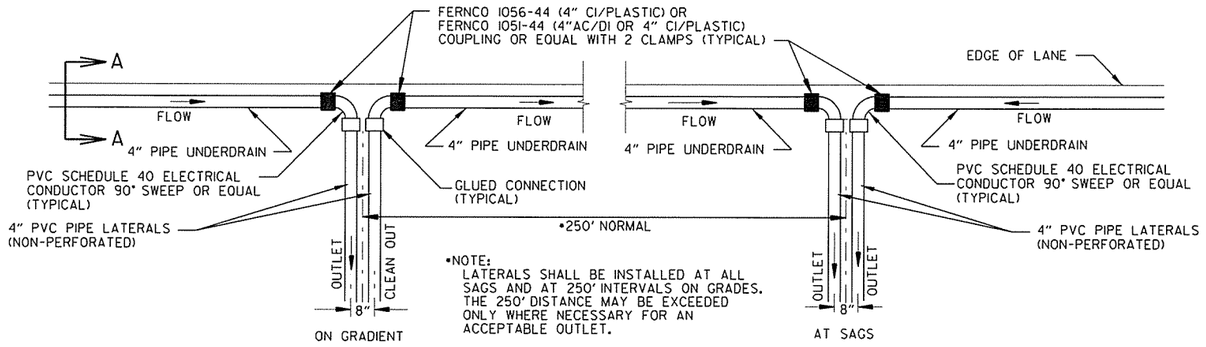
② SPECIAL DETAILS

NOTES FOR PIPE UNDERDRAINS

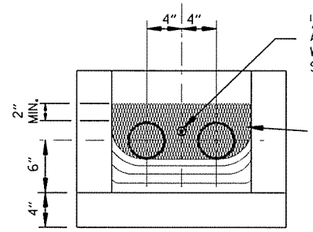
1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE I. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.
2. 4" NON-PERFORATED SCHEDULE 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."



•NOTE:
LATERALS SHALL BE INSTALLED AT ALL SAGS AND AT 250' INTERVALS ON GRADES. THE 250' DISTANCE MAY BE EXCEEDED ONLY WHERE NECESSARY FOR AN ACCEPTABLE OUTLET.

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 #7.)

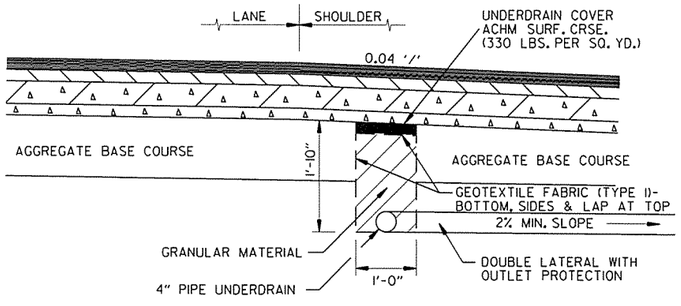


1/4" STAINLESS STEEL BOLT WITH ANCHOR & 1" STAINLESS STEEL WASHER IN APPROX. CENTER OF SCREEN

FLATTENED EXPANDED STAINLESS STEEL 1/2 #16 F
THICKNESS = 0.050"
OPENING SIZE = 0.312" X 1.00"

DETAIL OF RODENT SCREEN

DETAIL FOR PIPE UNDERDRAIN IN A FULL DEPTH SECTION TYPE I GEOTEXTILE FABRIC



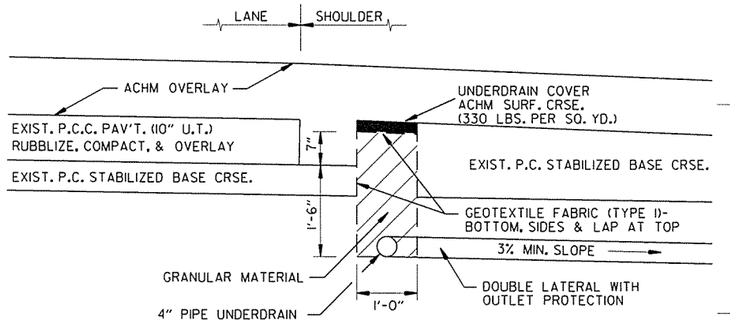
SECTION A-A

LT. OF LT. MAIN LANES
STA. 748+98.22 TO STA. 752+95.00
STA. 819+88.00 TO STA. 847+59.50
STA. 849+16.50 TO STA. 856+28.50
STA. 857+85.50 TO STA. 868+85.50

RT. OF LT. MAIN LANES
STA. 752+75.00 TO STA. 760+80.33

RT. OF RT. MAIN LANES
STA. 819+88.00 TO STA. 847+59.50
STA. 849+16.50 TO STA. 856+28.50
STA. 857+85.50 TO STA. 868+85.50

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



FOR WIDTH OF EXISTING SHOULDER, TRENCH FOR LATERALS SHALL BE BACKFILLED WITH GRANULAR MATERIAL OR AGGREGATE BASE COURSE (CLASS 7). PAYMENT SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

SECTION A-A

LT. OF LT. MAIN LANES
STA. 779+53.00 TO STA. 819+88.00
STA. 868+85.50 TO STA. 959+00.00

RT. OF LT. MAIN LANES
STA. 760+80.33 TO STA. 779+73.00

RT. OF RT. MAIN LANES
STA. 749+70.04 TO STA. 819+88.00
STA. 868+85.50 TO STA. 959+00.00

NOTES:
IN LIEU OF LAPPING GEOTEXTILE FABRIC, THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, UTILIZE AN ALTERNATE METHOD FOR PROVIDING A POSITIVE CLOSURE.

STATIONS BASED ON CENTERLINE.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

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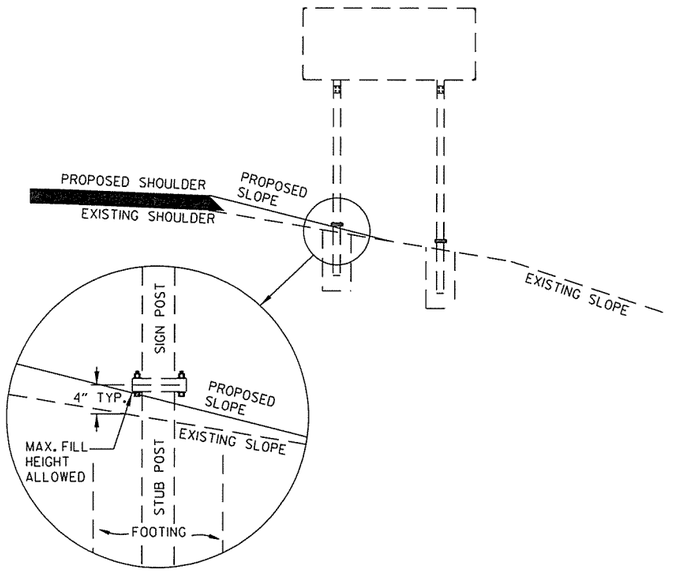
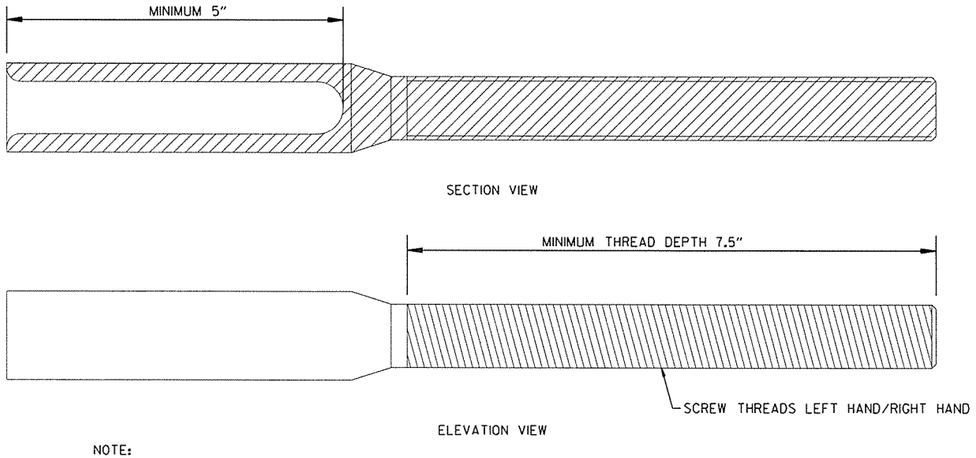


DETAIL FOR THE MAINTENANCE OF EXISTING BREAKAWAY SIGN STRUCTURES



NOTE:

REFER TO "WIRE ROPE SAFETY FENCE (WRSF) SPECIFICATIONS" SPECIAL PROVISION FOR ADDITIONAL REQUIREMENTS.

THREADED TERMINAL DETAIL

SPECIAL DETAILS

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(2) SPECIAL DETAILS

STATE OF ARKANSAS
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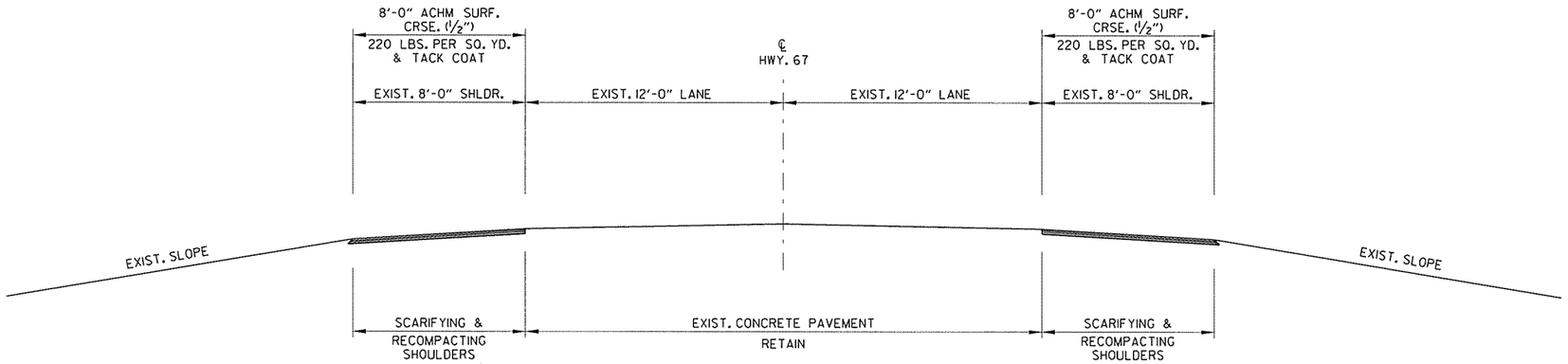
7/16/2015



RECONSTRUCTING EXISTING SHOULDERS
HWY. 67 SECTION 1 - MILLER CO.

L.M. 3.86 TO L.M. 16.10

HWY. 67
SPECIAL DETAILS

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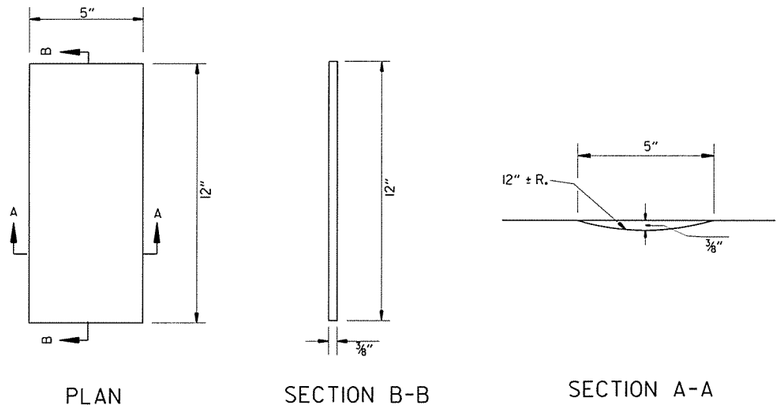
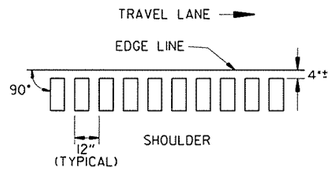
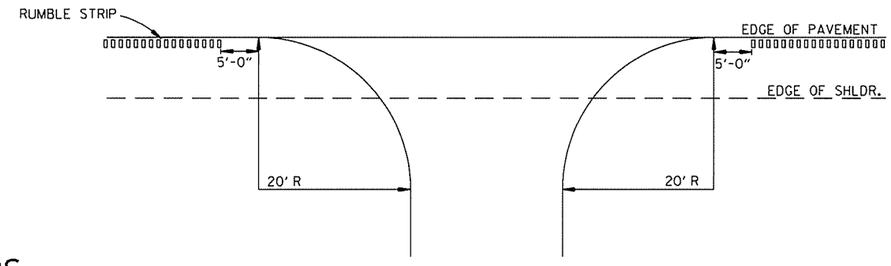


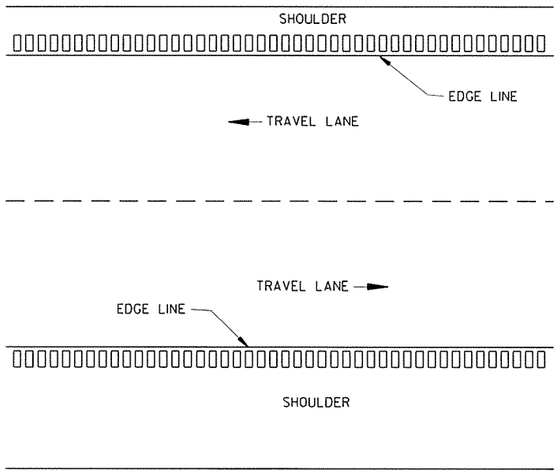
DETAILS OF RUMBLE STRIPS



LOCATION PLAN OF RUMBLE STRIPS LEFT OR RIGHT SHOULDER



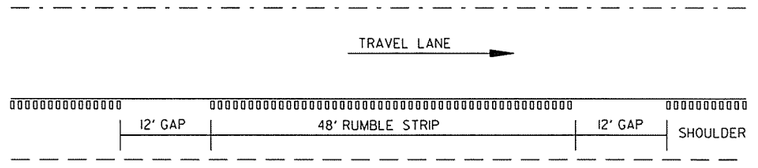
DETAIL FOR RUMBLE STRIP GAP AT DRIVEWAY TURNOUTS



PLAN VIEW

GENERAL NOTES

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.
5. THE 3/8" DEPTH SHALL GENERALLY APPLY FOR THE ENTIRE 12" LENGTH. SOME VARIATION TO SUIT SHOULDER SLOPE BREAKS MAY BE NECESSARY.



NOTE: GAP PATTERN SHALL BE ADJUSTED BY THE ENGINEER IN THE FIELD ALLOWING FOR DRIVEWAYS TO SERVE AS THE GAP.

DETAIL FOR GAP PATTERN RUMBLE STRIP

HWY. 67
SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

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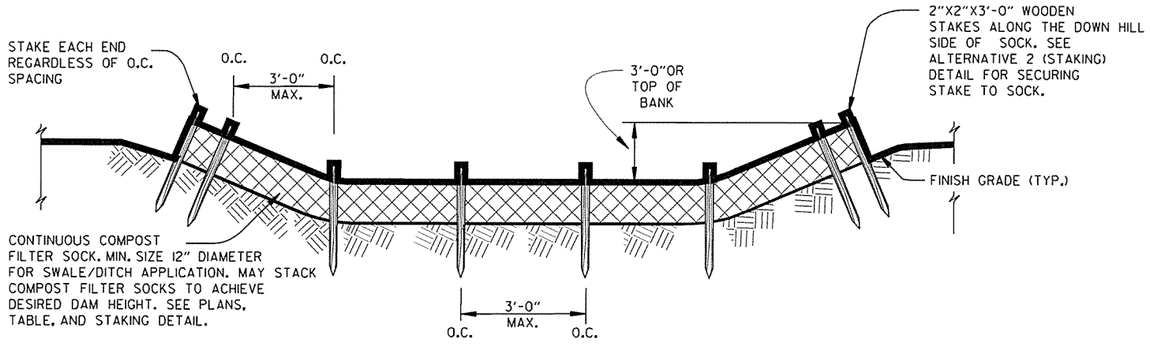
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	25	153

(2) SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESNER
7/9/2015

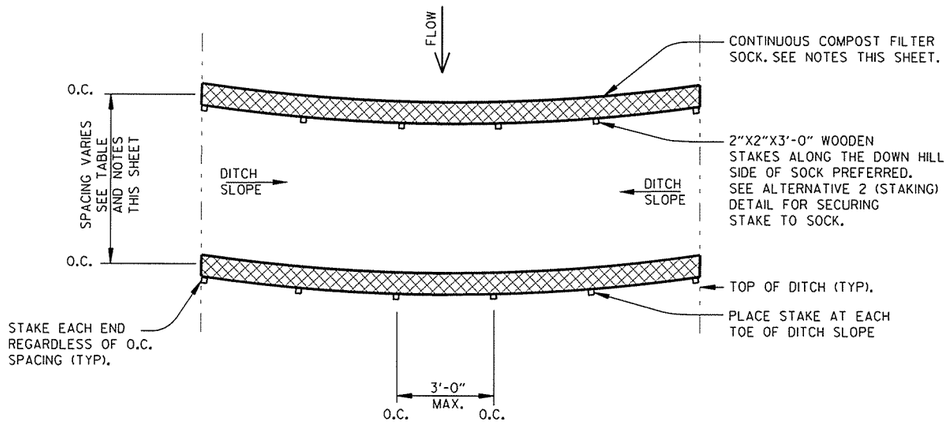
NOTE:
WHEN APPROPRIATE, USE ROCK DITCH CHECKS UPSTREAM AS A BMP TREATMENT "TRAIN", FINISHING WITH COMPOST FILTER SOCKS TO "POLISH" WATER AT THE END OF THE SEDIMENT TREATMENT SYSTEM.



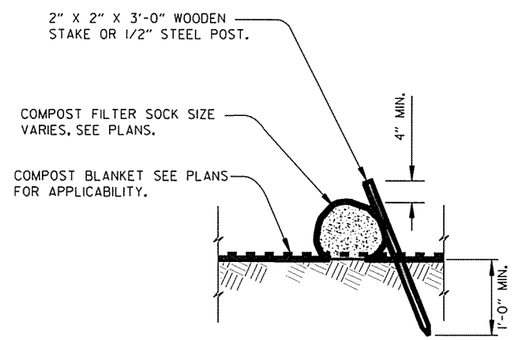
ELEVATION VIEW
N.T.S.

APPROXIMATE FILTER SOCK SPACING FOR DITCH APPLICATION	
DITCH SLOPE	MAXIMUM FILTER SOCK SPACING
LESS THAN 2%	100'
2%	80'
3%	50'
4%	40'
5%	30'
6%	25'
GREATER THAN 6%	20'
BASED ON INSTALLED HEIGHT OF 18 INCHES	

NOTE: ADVERSE CONDITIONS REQUIRE LESS SPACING OR ADDITIONAL ALTERNATE MEASURES.



PLAN VIEW
N.T.S.



ALTERNATIVE 2 (STAKING)
N.T.S.

COMPOST FILTER SOCK DITCH CHECK (E-6S)

SPECIAL DETAILS

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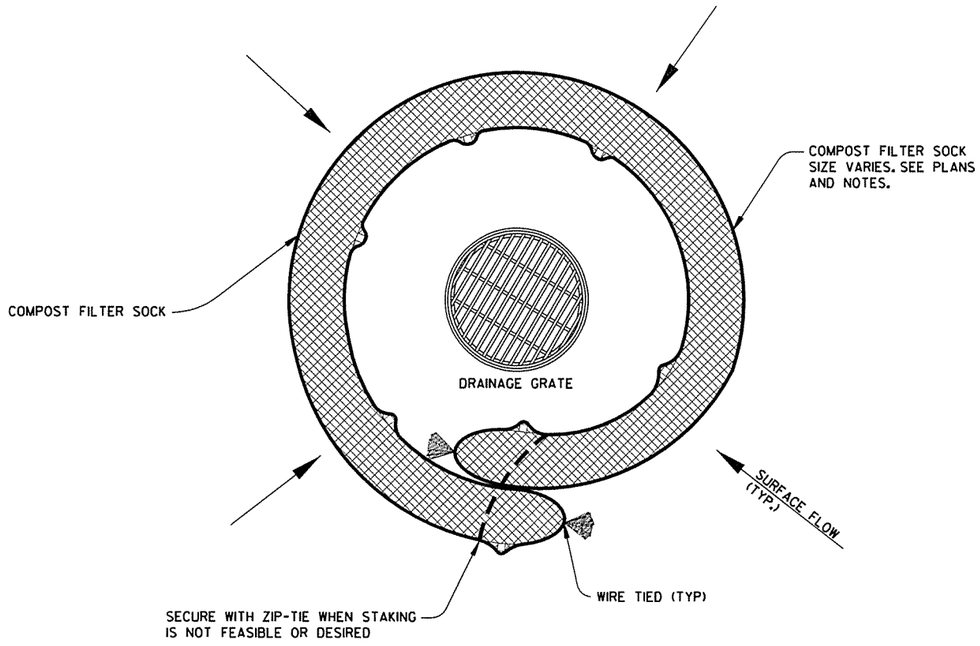
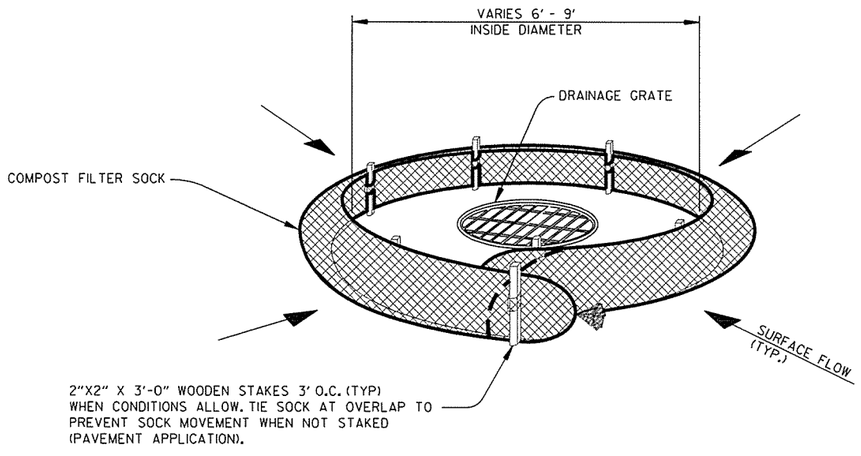
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	26	153

② SPECIAL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



DROP INLET PLAN VIEW
N.T.S.



DROP INLET PERSPECTIVE VIEW
N.T.S.

NOTES:

1. ANCHORING STAKES SHALL BE SIZED, SPACED, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE FILTER SOCK. STAKE SPACING SHALL BE A MAXIMUM OF THREE FEET.
2. OVERLAP ENDS OF SOCK PER MANUFACTURER'S RECOMMENDATIONS. (1' MIN. 3' MAX.)
3. USE 12" - 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

COMPOST FILTER SOCK DROP INLET PROTECTION (E-7S)

SPECIAL DETAILS

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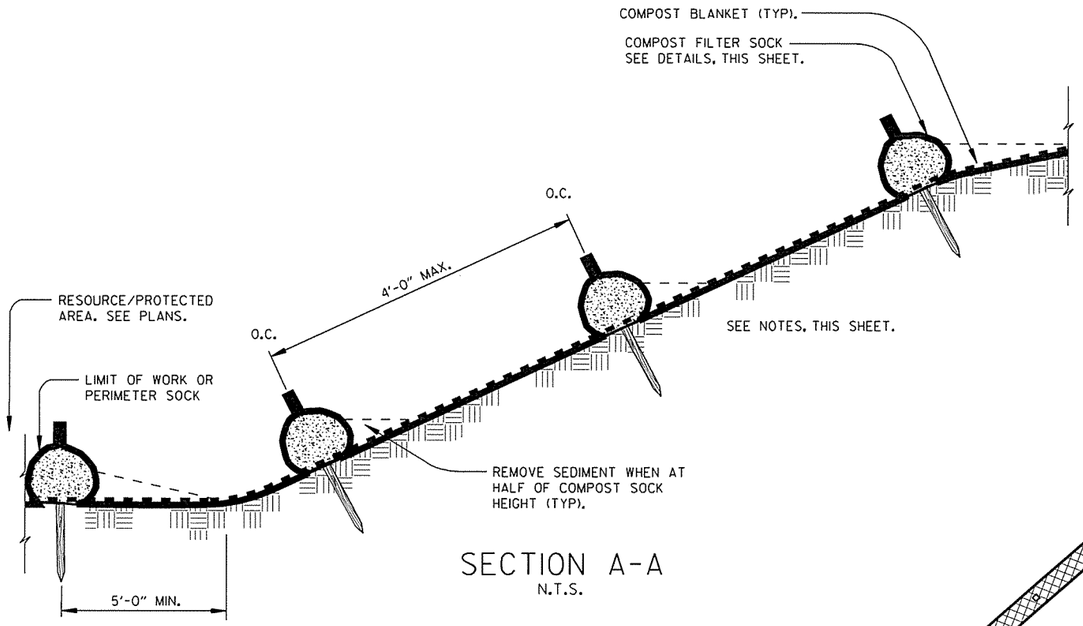
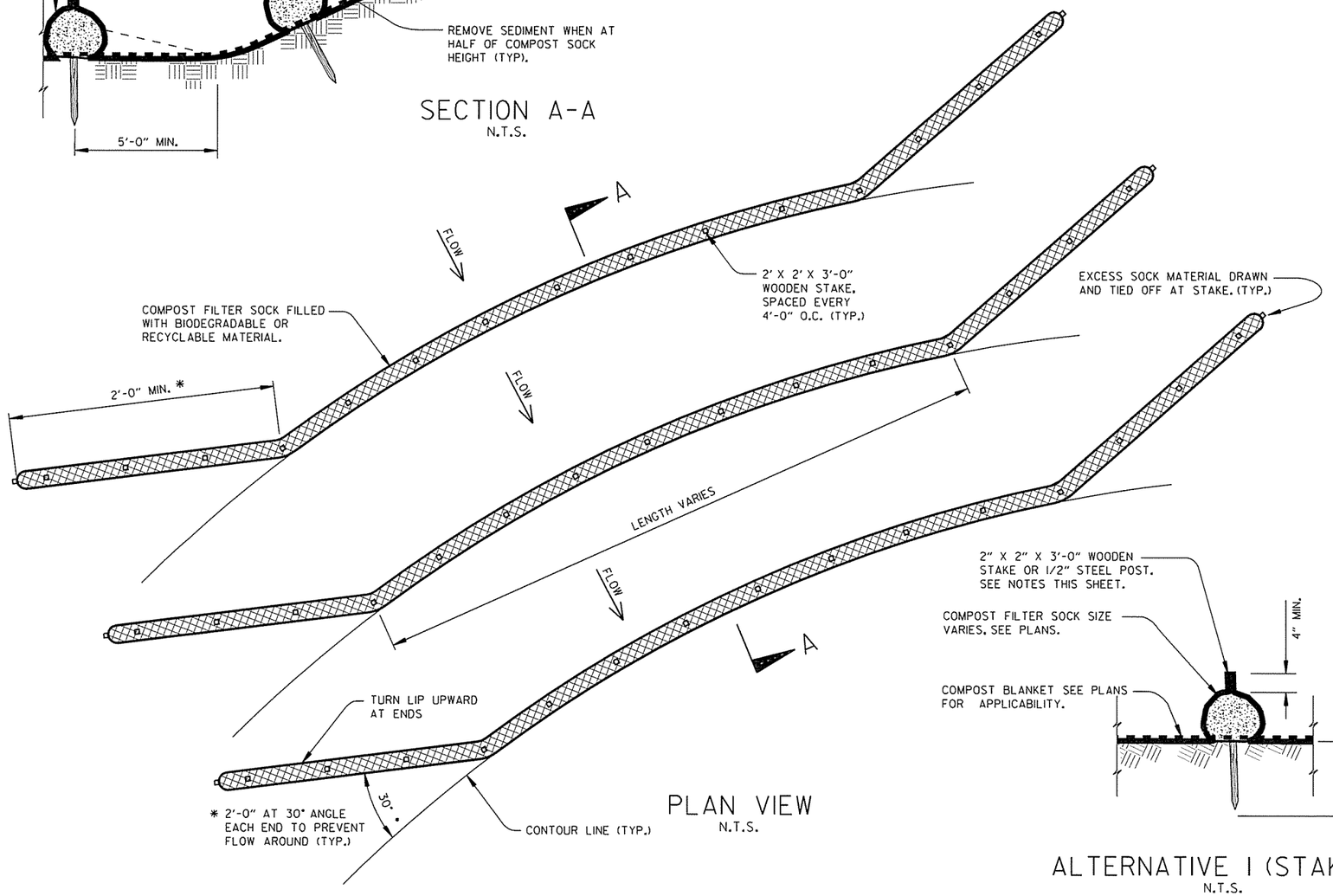
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	27	153
				(2)	SPECIAL DETAILS			

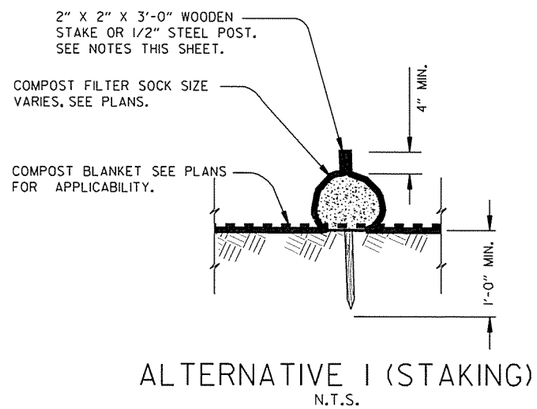
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESNER
7/9/2015



SECTION A-A
N.T.S.



PLAN VIEW
N.T.S.



ALTERNATIVE I (STAKING)
N.T.S.

COMPOST FILTER SOCK PLAN AND STAKING

COMPOST FILTER SOCK GENERAL NOTES

1. FILTER SOCKS CAN BE PLACED AT THE TOP, ON THE FACE, AND AT THE TOE OF SLOPES AS SEDIMENT-TRAPPING DEVICES FOR SHEET FLOW RUNOFF AND SEDIMENT PER THESE NOTES AND COMPOST FILTER SOCK DETAILS, PLANS, AND SPECIFICATIONS. SEE SPECIAL PROVISION JOB BB0305 FILTER SOCKS FOR MORE INFORMATION.

2. PLACE FILTER SOCKS ON SLOPES ALONG OR ON THE GROUND CONTOUR. FILTER SOCKS APPLIED AT TOE OF A SLOPE SHOULD BE PLACED AT MINIMUM, 5 FEET FROM TOE TO PROVIDE SEDIMENT STORAGE. THE MAXIMUM DRAINAGE AREA IS 1/4 ACRE PER 100 LF OF 12 INCH DIAMETER FILTER SOCK.

3. FOR DITCH APPLICATIONS, MAXIMUM DRAINAGE AREA SHALL BE 15 ACRES. AT SITES WHICH OUTFALL TO HIGH-QUALITY OR SEDIMENT-IMPAIRED STREAMS, MAXIMUM DRAINAGE AREA SHALL BE LIMITED TO 10 ACRES. COMPOST FILTER SOCKS SHALL NOT BE USED IN STREAMS, WETLANDS, OR OTHER NATURAL WATER RESOURCES UNLESS DIRECTED BY AGENCY. COMPOST FILTER SOCKS SHALL NOT BE USED IN DITCHES WITH CONTINUOUS FLOWS.

4. FOR DITCH APPLICATIONS, MINIMUM INSTALLED HEIGHT OF SINGLE SOCK NOMINALLY. SOCKS ARE PLACED PERPENDICULAR TO FLOW OF WATER. FILTER SOCKS SHALL CONTINUE UP SIDE SLOPES TO TOP OF BANK OR MAXIMUM 3 FEET ABOVE INSTALLED HEIGHT. FILTER SOCKS SHALL REMAIN IN PLACE UNTIL ALL UPSTREAM AREAS ARE PERMANENTLY STABILIZED AND REMAIN AT AGENCY'S DISCRETION.

5. FILTER SOCKS ARE TYPICALLY SUPPLIED AND INSTALLED IN 8, 12 AND 18 INCH DIAMETERS. DIAMETER TOLERANCE IS 2 INCHES, AS FILTER SOCKS TEND TO FLATTEN OUT WHEN PLACED.

6. STEEL POSTS MAY BE USED AND SHALL BE ROLLED FROM HIGH CARBON STEEL AND HAVE A MINIMUM OF 1.25 LB./FT. POSTS SHALL BE HOT-DIPPED GALVANIZED OR PAINTED WITH HIGH-GRADE WEATHER RESISTANT BROWN OR BLACK STEEL PAINT. STEEL POSTS SHALL BE EQUIPPED WITH ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. POSTS SHALL BE STUDDED, EMBOSSED, OR PUNCHED. POSTS AND ANCHOR PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702.

7. LIVE STAKES CAN BE USED IN ADDITION TO WOODEN STAKES AND SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND PLANS. SEE PLANS FOR APPLICABILITY AND SPECIES SELECTION AND SPACING.

8. FILTER SOCKS MAY BE UP TO 250 FEET LONG. WHEN USED ON LONG SLOPES, FILTER SOCKS MAY BE JOINTED OR STAGGERED AS SHOWN IN DETAILS.

9. REMOVE SEDIMENT FROM BEHIND THE FILTER SOCK ONCE IT ACCUMULATES TO ONE-HALF OF THE ORIGINAL HEIGHT OF THE FILTER SOCK.

10. INSPECT FILTER SOCKS AFTER EACH RUNOFF EVENT. REMOVE AND REPLACE IF SIGNS OF UNDERCUTTING OR DOWNSTREAM RILLS ARE OBSERVED.

11. FILTER SOCKS SHOULD BE REMOVED FROM SLOPES AFTER STABILIZATION IS COMPLETE, UNLESS DIRECTED TO LEAVE IN PLACE BY THE ENGINEER.

12. REMOVAL SHALL BE ACCOMPLISHED BY CUTTING SOCK OPEN AND SPREADING THE FILL MATERIAL ON THE SITE. ALL NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED.

SPECIAL DETAILS

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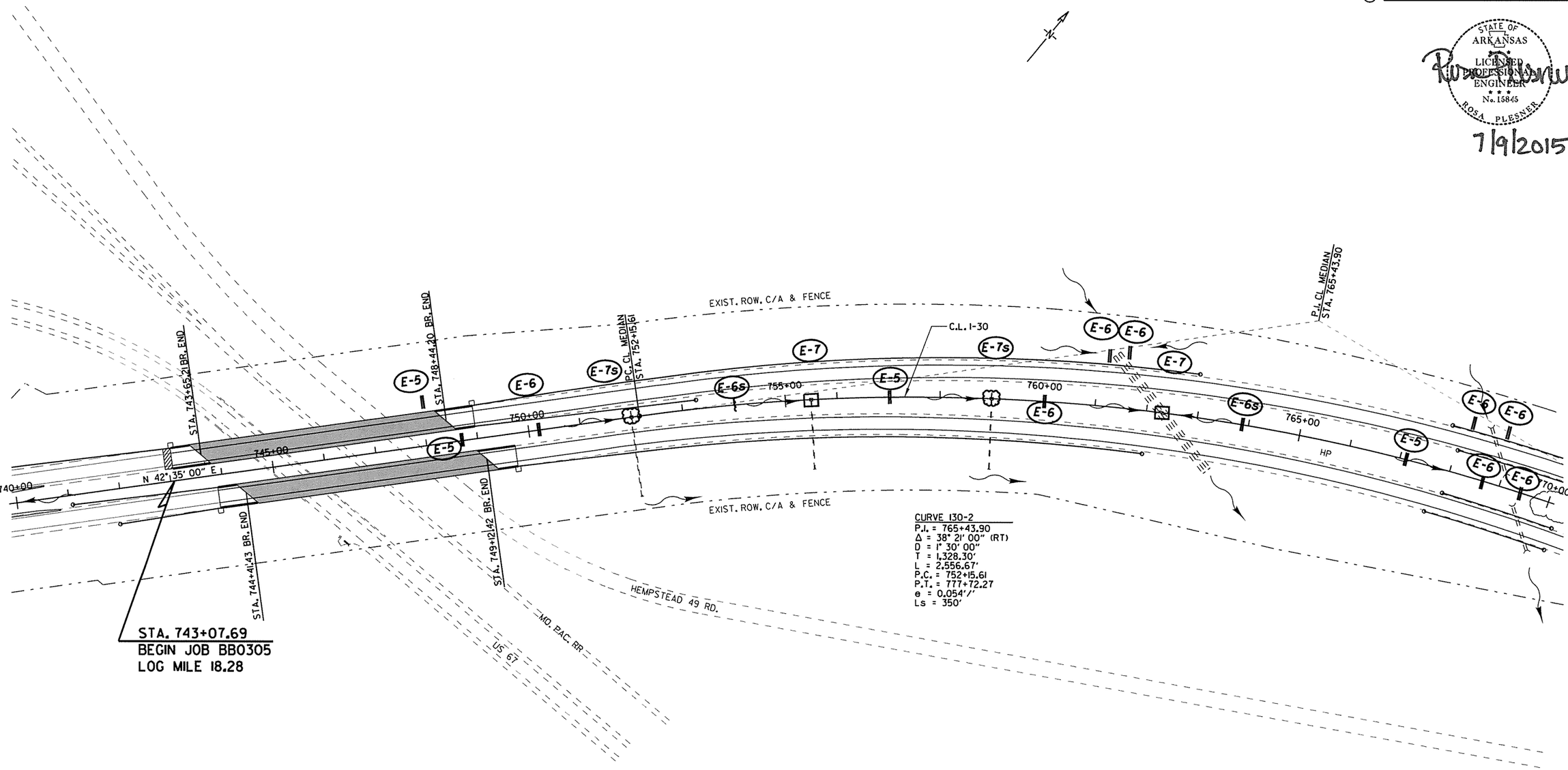
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	28	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE I
STA. 740+00 - STA. 770+00

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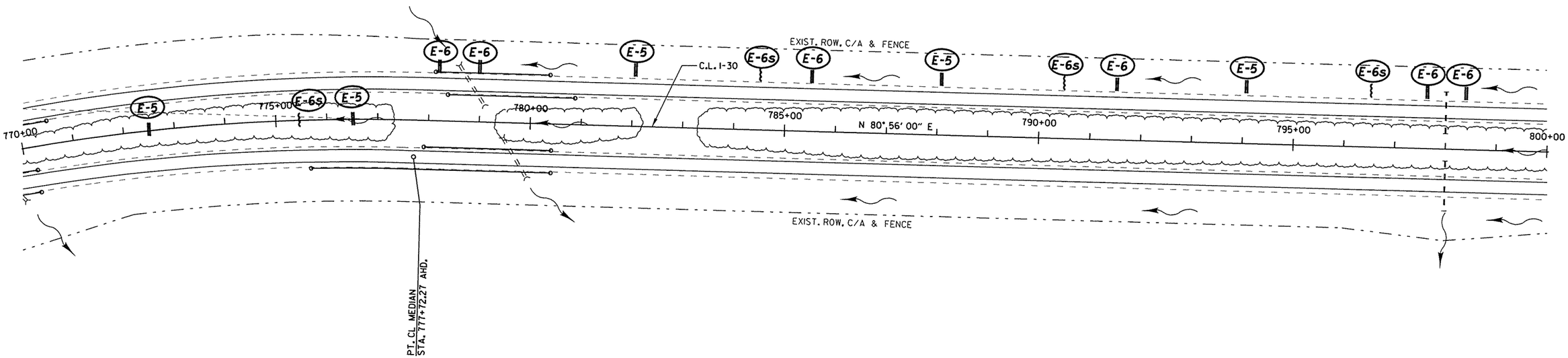
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	29	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

Rosa Plesner
7/9/2015



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FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGE I
STA. 770+00 - STA. 800+00

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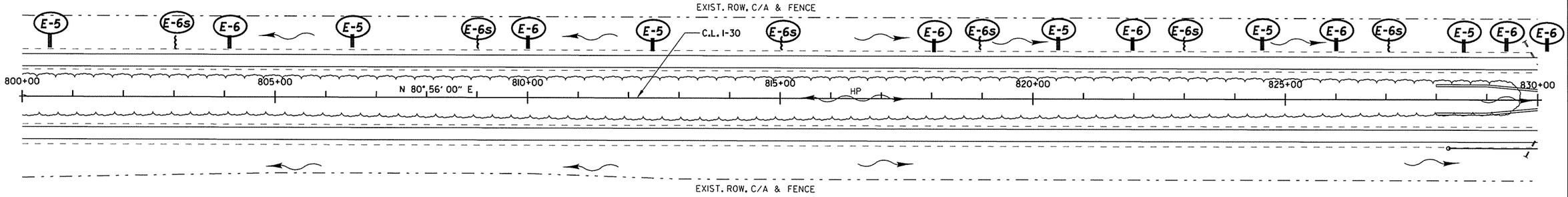
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	30	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE I
STA. 800+00 - STA. 830+00

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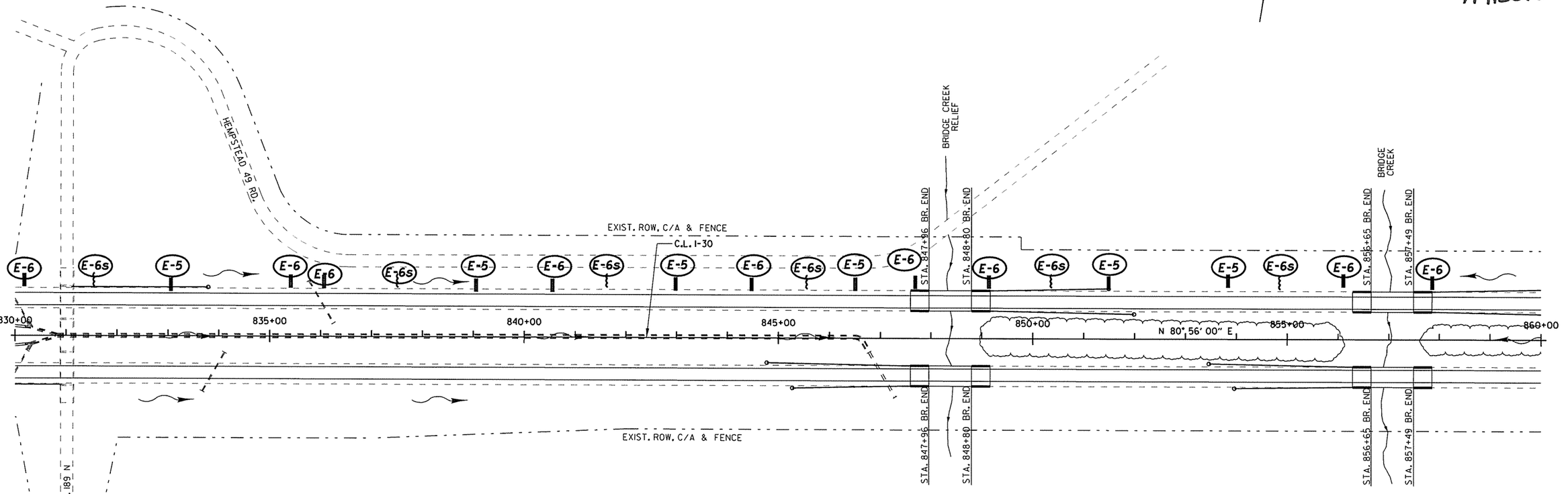
6	ARK.			
JOB NO.		BB0305	31	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



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FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE I
STA. 830+00 - STA. 860+00

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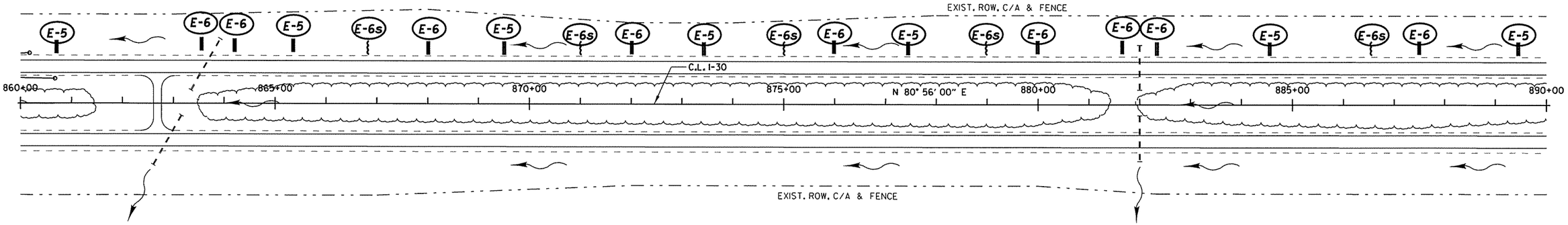
6	ARK.			
JOB NO.		BB0305	32	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGE I
STA. 860+00 - STA. 890+00

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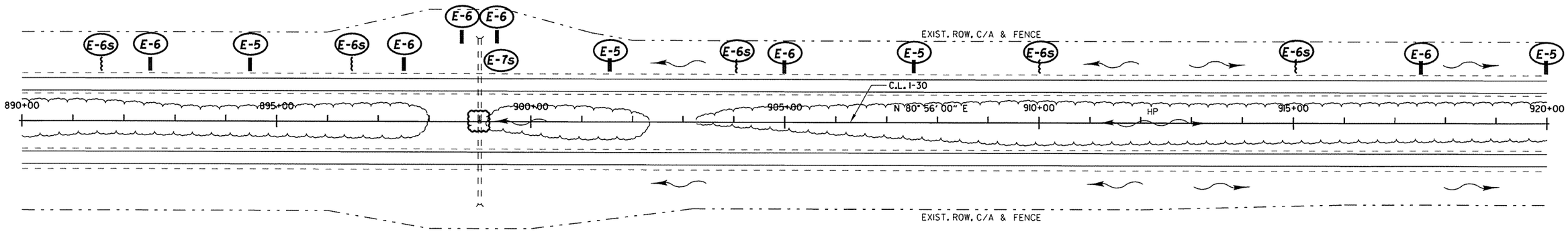
6	ARK.			
JOB NO.		BB0305	33	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



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FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE I
STA. 890+00 - STA. 920+00

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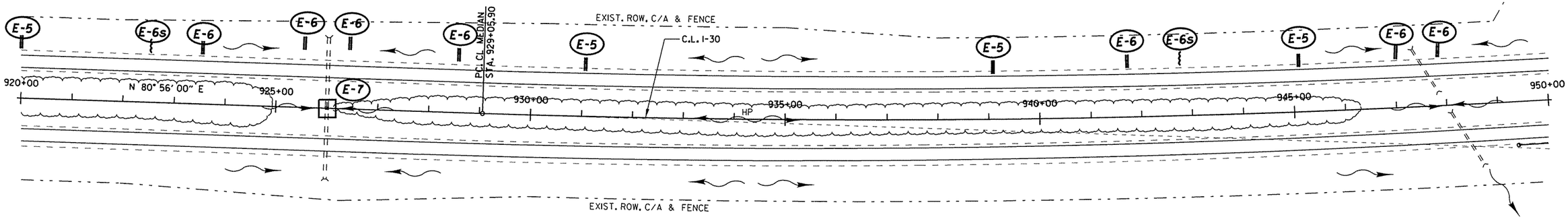
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	34	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



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Δ = 13° 42' 00" (LT)
D = 0° 15' 00"
T = 2,753.13'
L = 5,480.00'
P.C. = 929+05.90
P.T. = 983+85.90
e = NO SUPER

NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE I
STA. 920+00 - STA. 950+00

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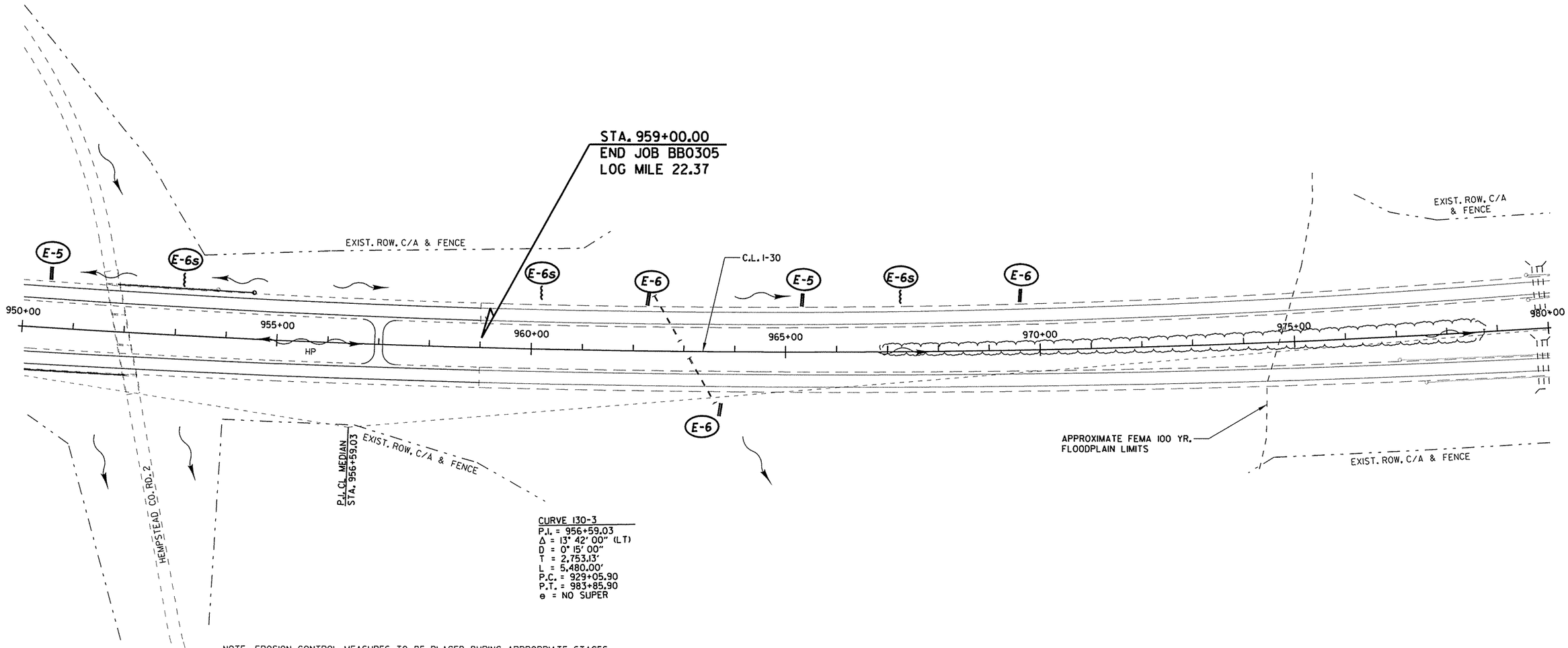
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	35	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA BLESNER
7/9/2015



CURVE 130-3
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FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS STAGE I
STA. 950+00 - STA. 959+00

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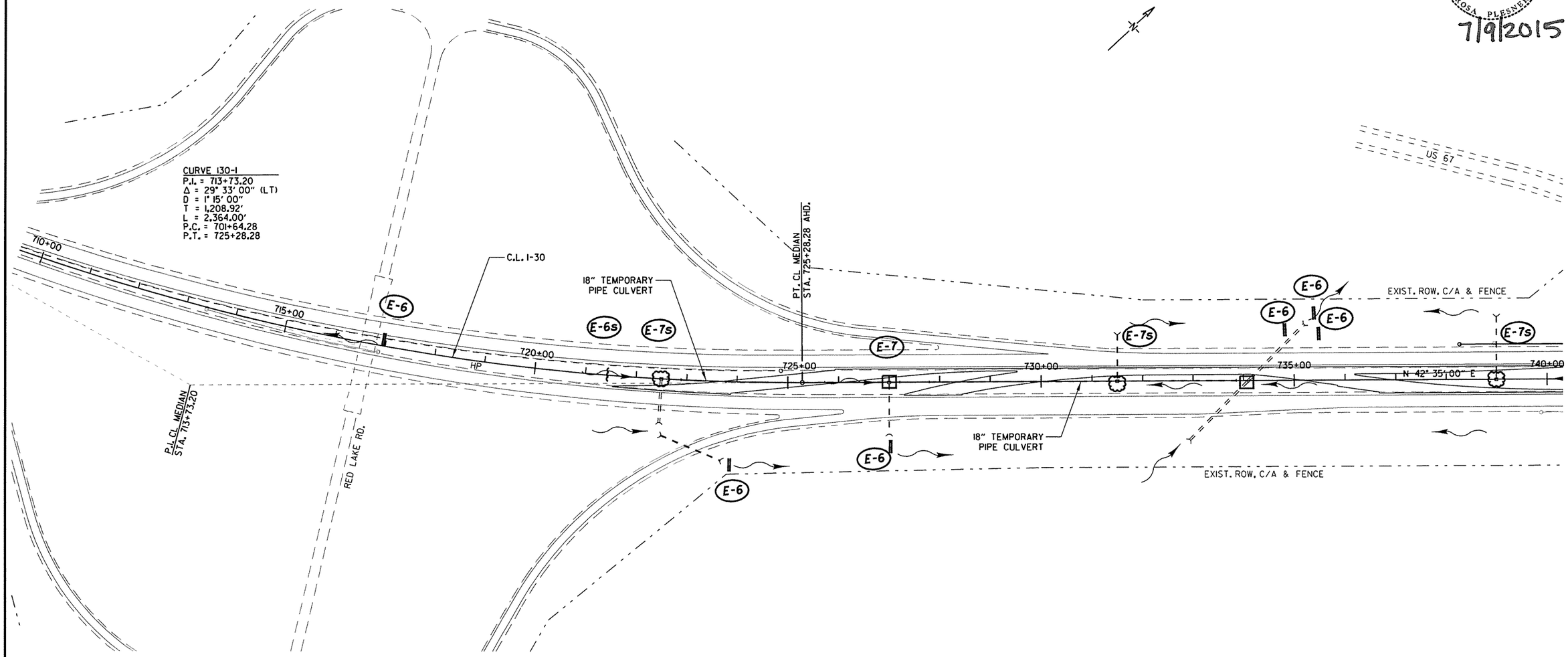
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	36	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESSNER
Rosa Plessner
7/9/2015



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FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s
	LEGEND				

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGE 2
STA. 717+02 - STA. 740+00

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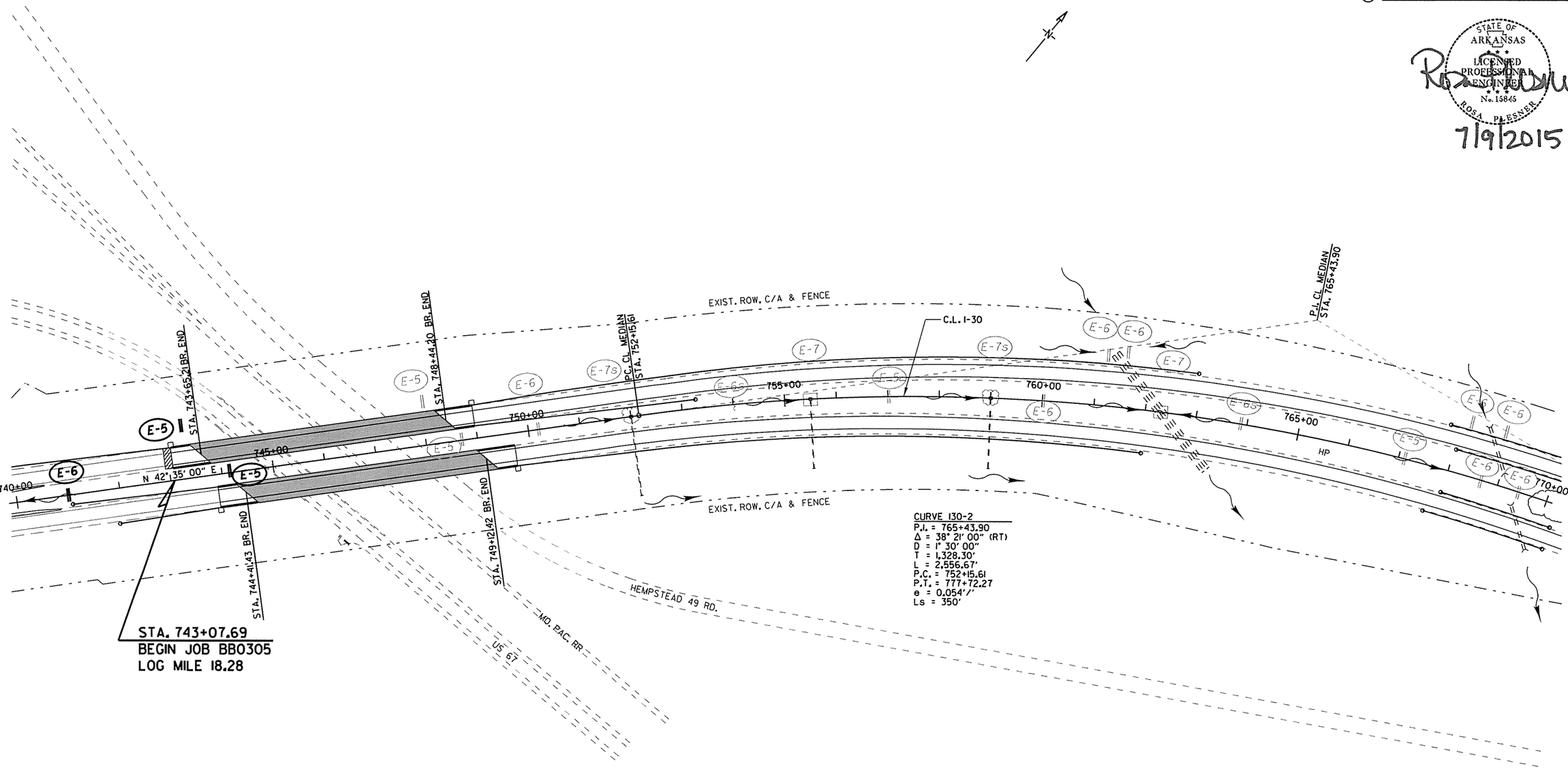
6	ARK.			
JOB NO.		BB0305	37	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGE 2
STA. 740+00 - STA. 770+00

7/8/2015 1:47:01 PM

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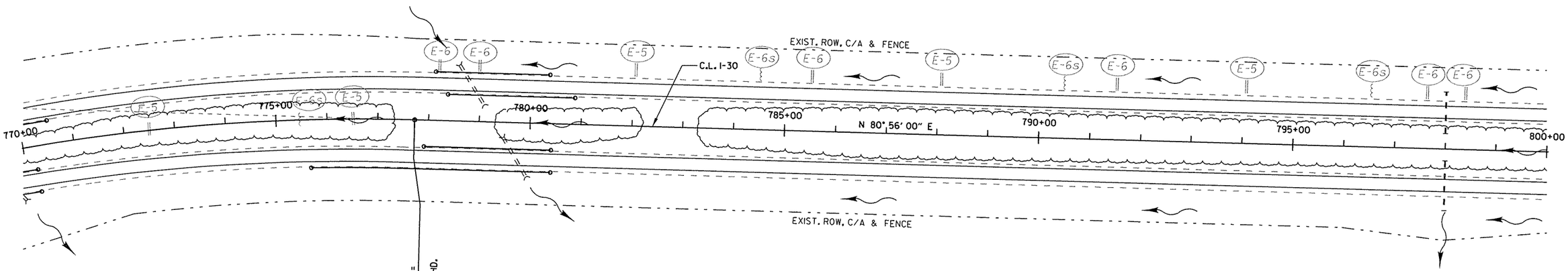
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	38	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s
	LEGEND				

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGE 2
STA. 770+00 - STA. 800+00

7/7/2015 11:08:52 AM
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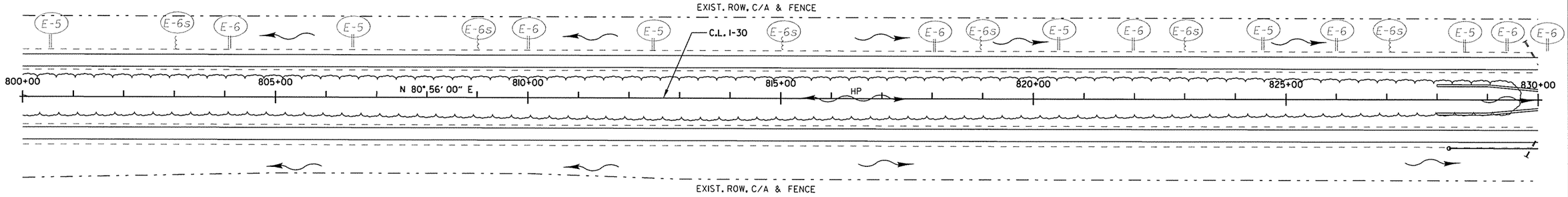
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	39	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE 2
STA. 800+00 - STA. 830+00

7/7/2015 11:08:52 AM
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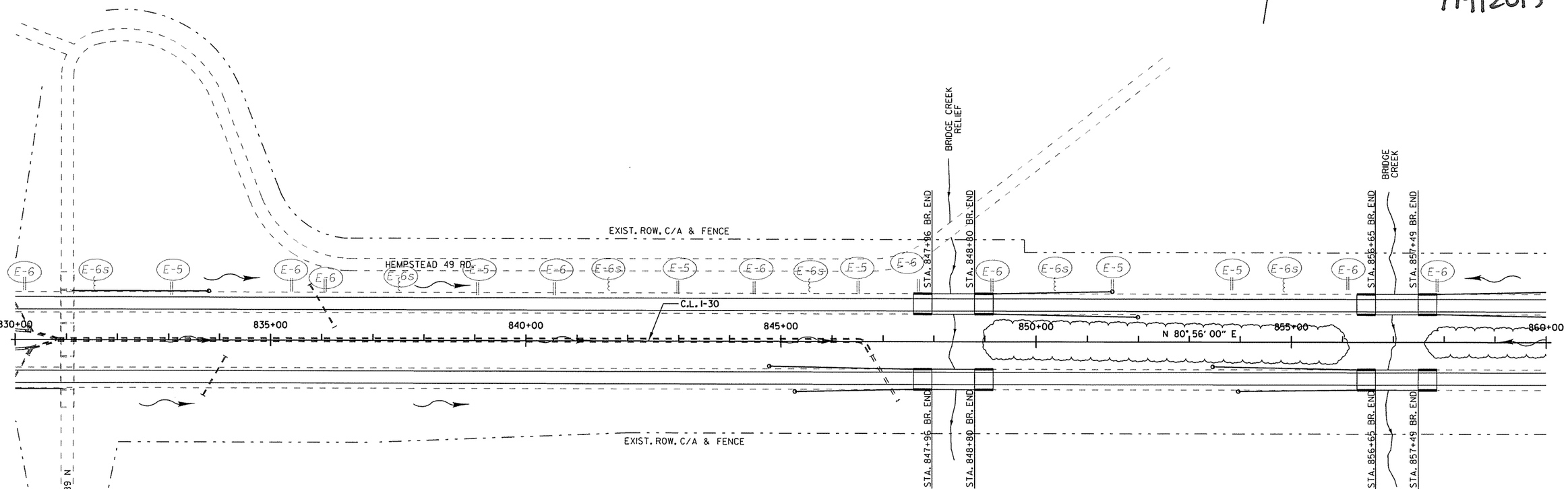
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	40	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
←	E-5	E-6	E-6s	E-7	E-7s
	I	I	≀	□	⬡

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGE 2
STA. 830+00 - STA. 860+00

7/1/2015 11:08:52 AM

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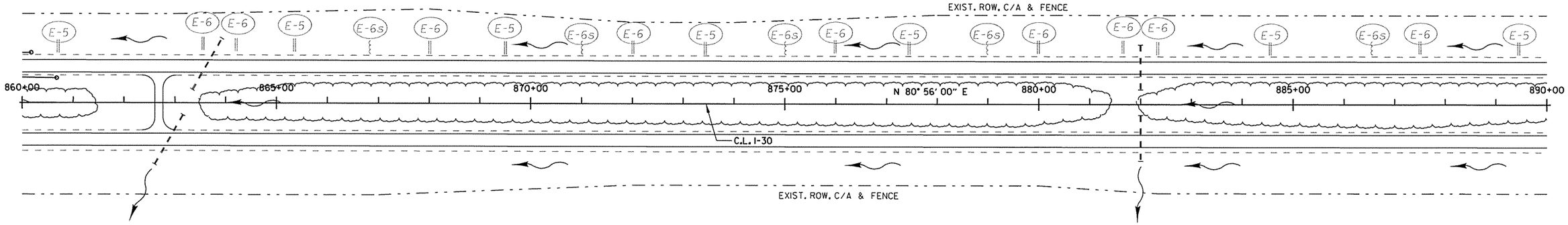
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	41	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE 2
STA. 860+00 - STA. 890+00

7/7/2015 11:08:53 AM

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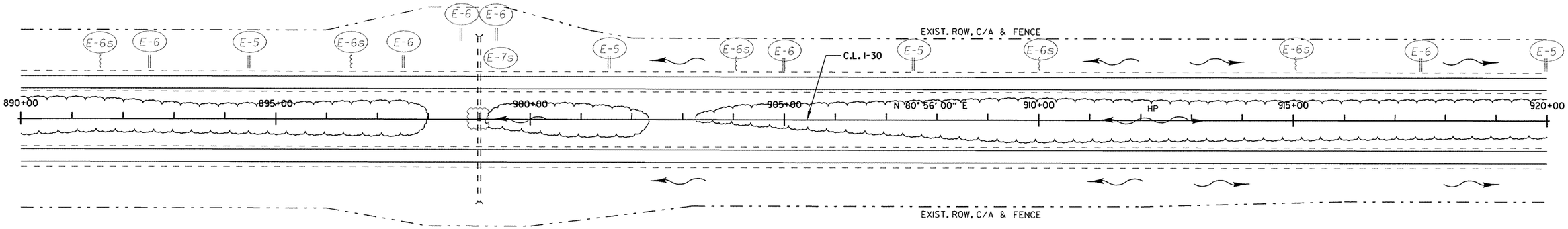
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	42	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGE 2
STA. 890+00 - STA. 920+00

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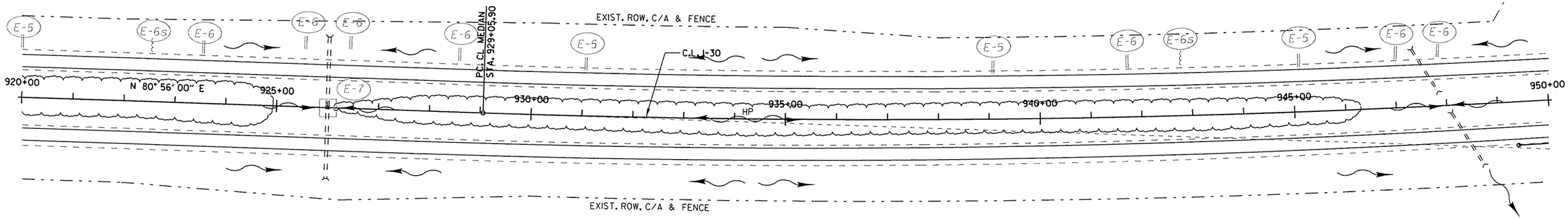
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	43	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESNER
7/9/2015



CURVE I30-3
P.I. = 956+59.03
Δ = 13° 42' 00" (LT)
D = 0° 15' 00"
T = 2,753.13'
L = 5,480.00'
P.C. = 929+05.90
P.T. = 983+85.90
e = NO SUPER

NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s
	I	I	≀	□	⌇
	LEGEND				

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE 2
STA. 920+00 - STA. 950+00

7/7/2015
11:08:53 AM
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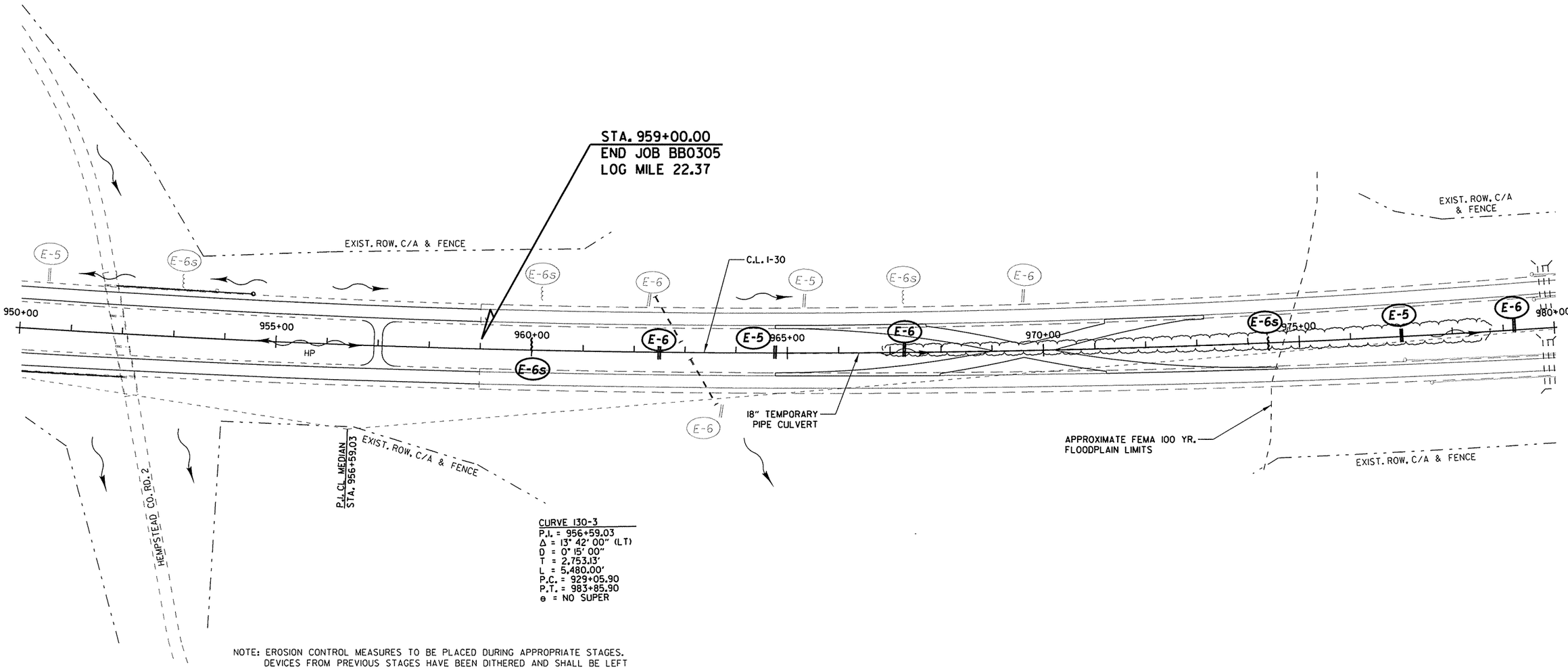
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	44	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESSNER
7/9/2015



CURVE 130-3
P.I. = 956+59.03
Δ = 13° 42' 00" (LT)
D = 0° 15' 00"
T = 2,753.13'
L = 5,480.00'
P.C. = 929+05.90
P.T. = 983+85.90
e = NO SUPER

NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGE 2
STA. 950+00 - STA. 959+00

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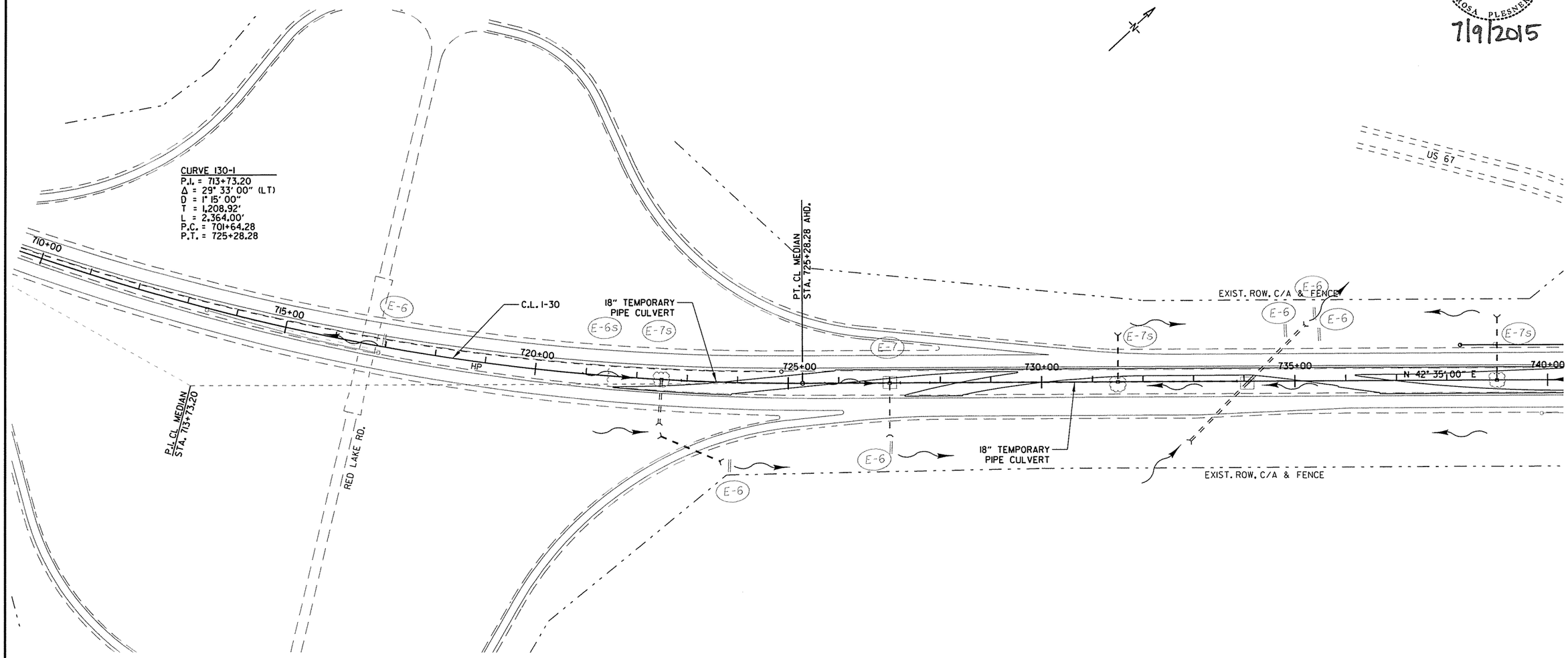
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	45	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

CURVE 130-1
P.I. = 713+73.20
Δ = 29° 33' 00" (LT)
D = 1° 15' 00"
T = 1,208.92'
L = 2,364.00'
P.C. = 701+64.28
P.T. = 725+28.28



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGE 3
STA. 717+02 - STA. 740+00

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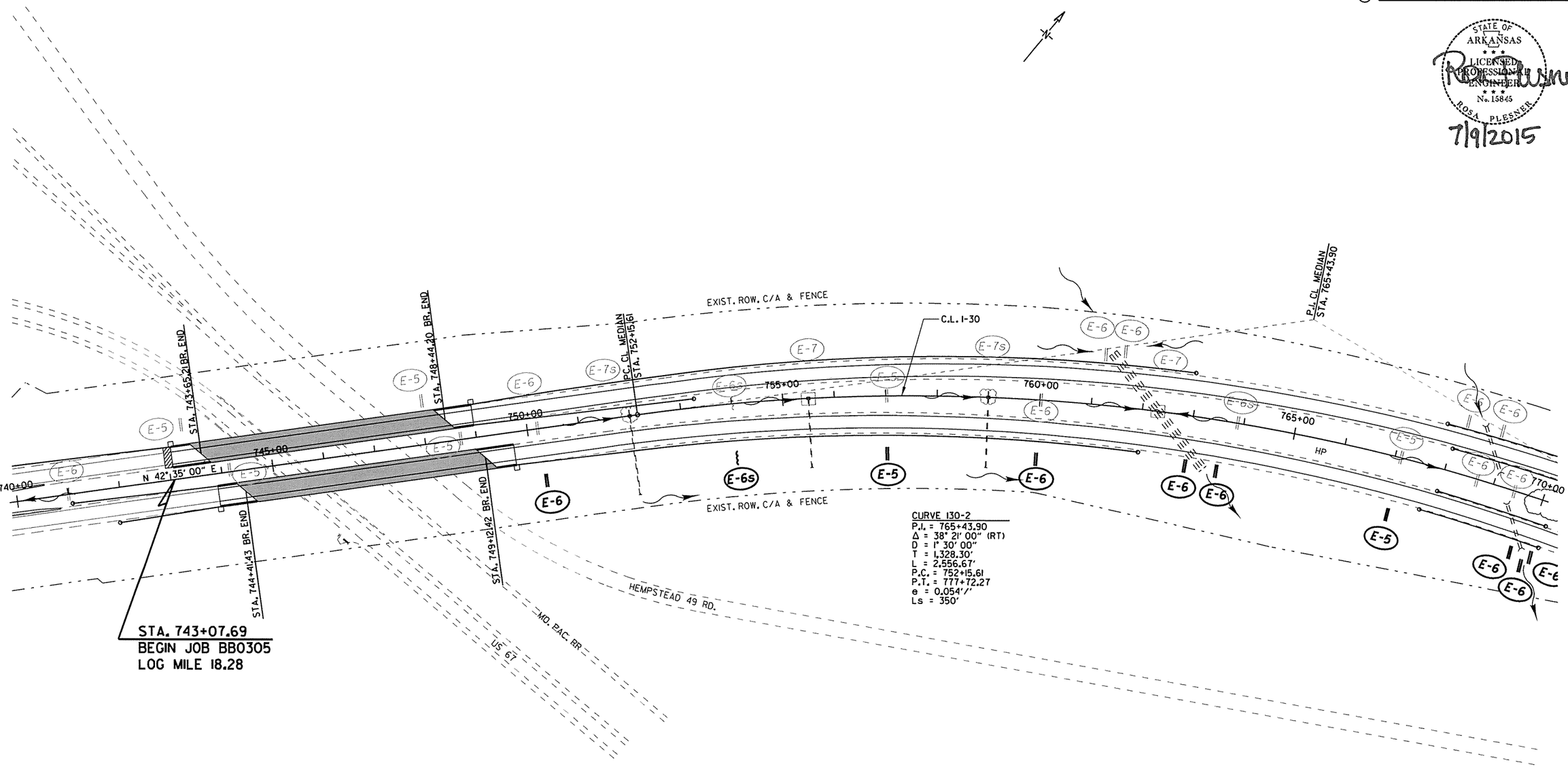
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	46	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESSNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGE 3
STA. 740+00 - STA. 770+00

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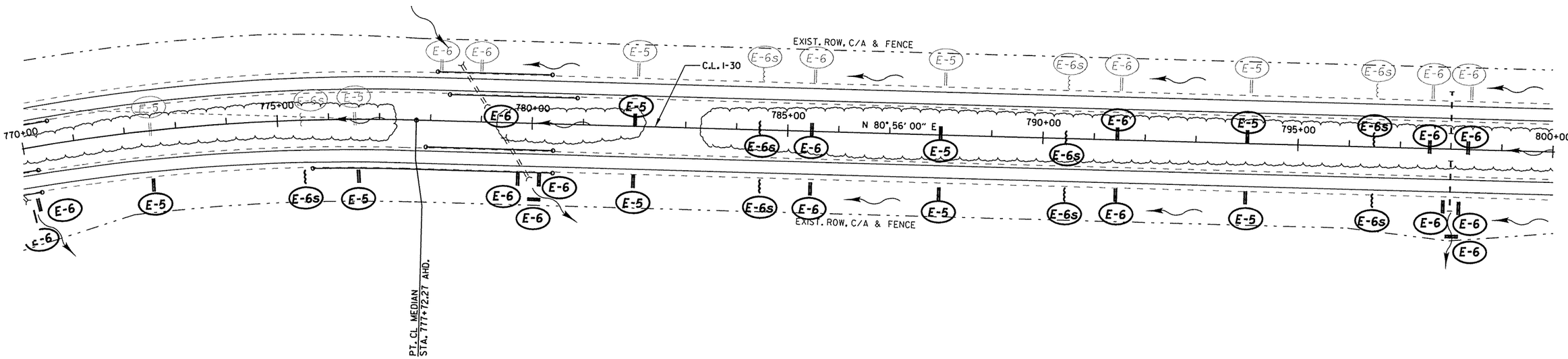
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	47	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



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FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE 3
STA. 770+00 - STA. 800+00

7/7/2015 11:08:55 AM
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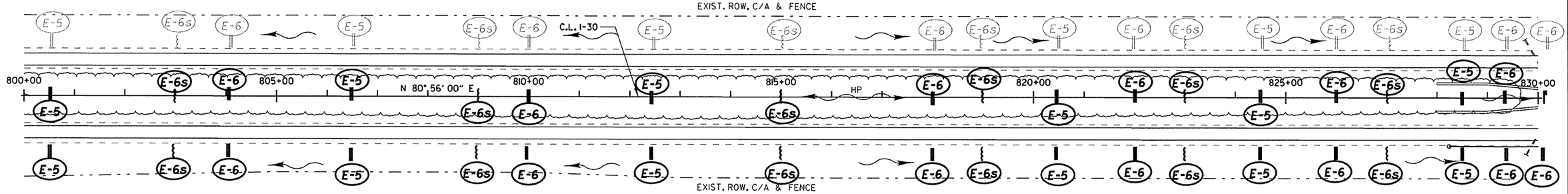
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	48	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
~	E-5	E-6	E-6s	E-7	E-7s
	LEGEND				

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE 3
STA. 800+00 - STA. 830+00

7/7/2015 11:08:55 AM
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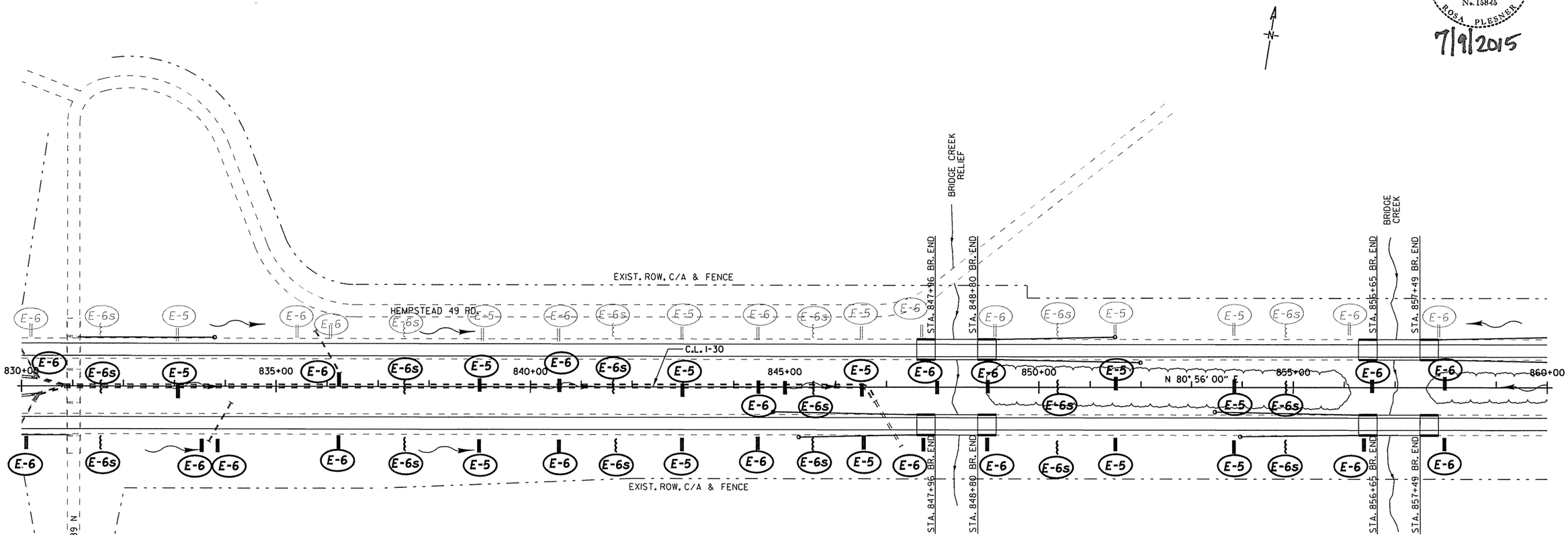
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	49	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE 3
STA. 830+00 - STA. 860+00

7/7/2015 11:08:56 AM
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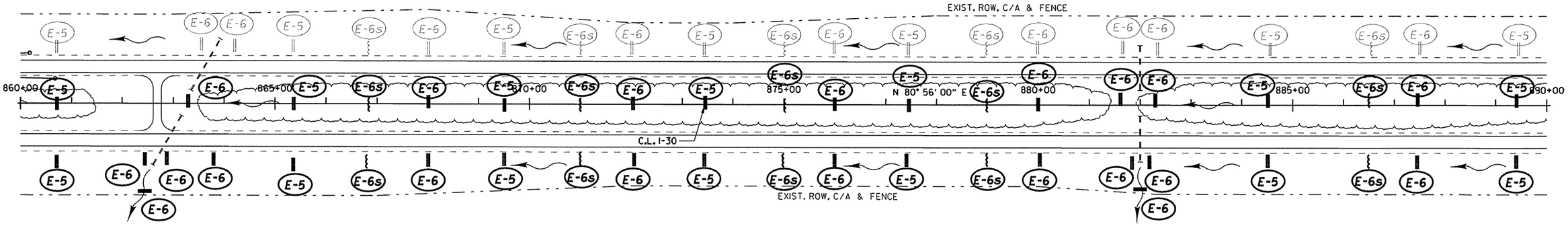
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	50	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE 3
STA. 860+00 - STA. 890+00

7/7/2015 11:08:56 AM

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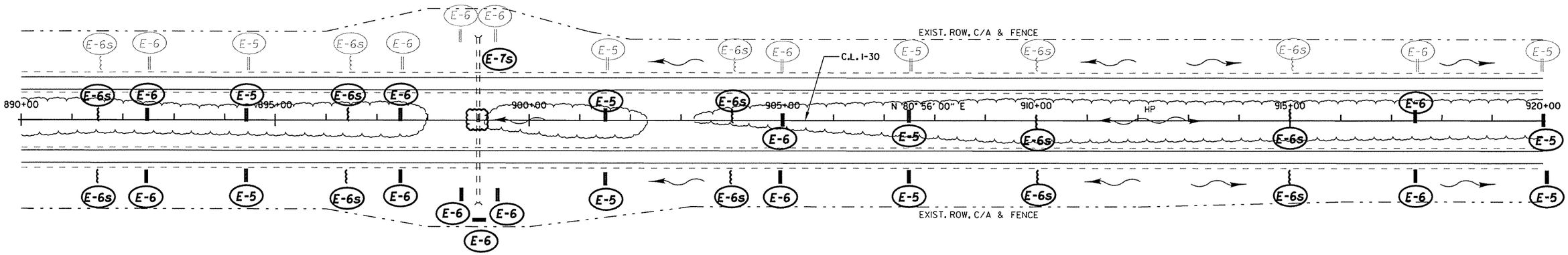
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	51	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGE 3
STA. 890+00 - STA. 920+00

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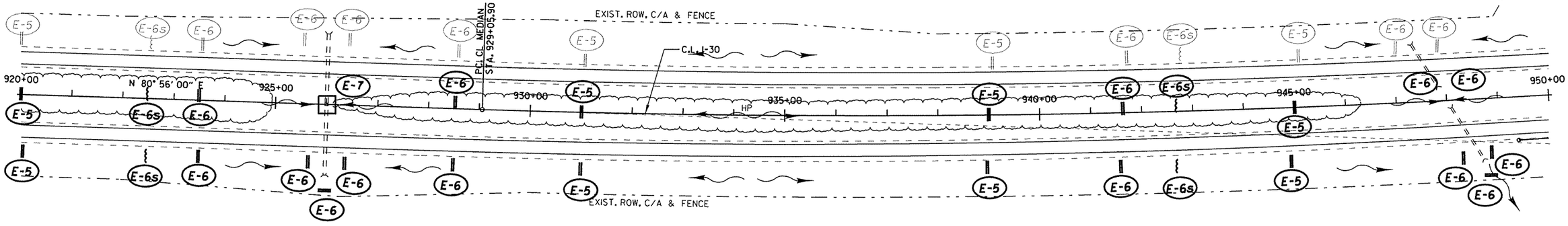
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	52	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESSNER
7/9/2015



CURVE 130-3
P.I. = 956+59.03
Δ = 13° 42' 00" (LT)
D = 0° 15' 00"
T = 2,753.13'
L = 5,480.00'
P.C. = 929+05.90
P.T. = 983+85.90
e = NO SUPER

NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE 3
STA. 920+00 - STA. 950+00

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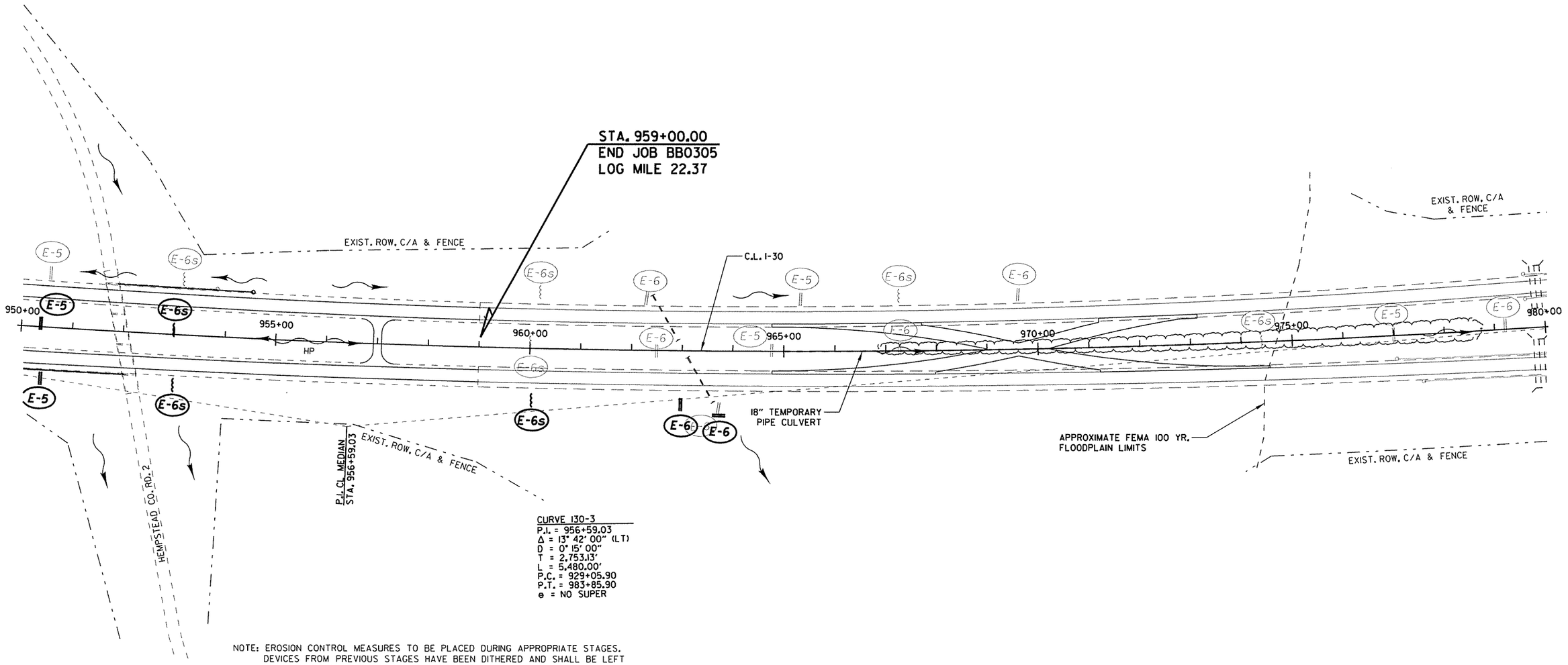
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	53	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESSNER

7/9/2015



CURVE 130-3
P.I. = 956+59.03
Δ = 13° 42' 00" (LT)
D = 0° 15' 00"
T = 2,753.13'
L = 5,480.00'
P.C. = 929+05.90
P.T. = 983+85.90
e = NO SUPER

NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGE 3
STA. 950+00 - STA. 959+00

7/7/2015 11:08:57 AM
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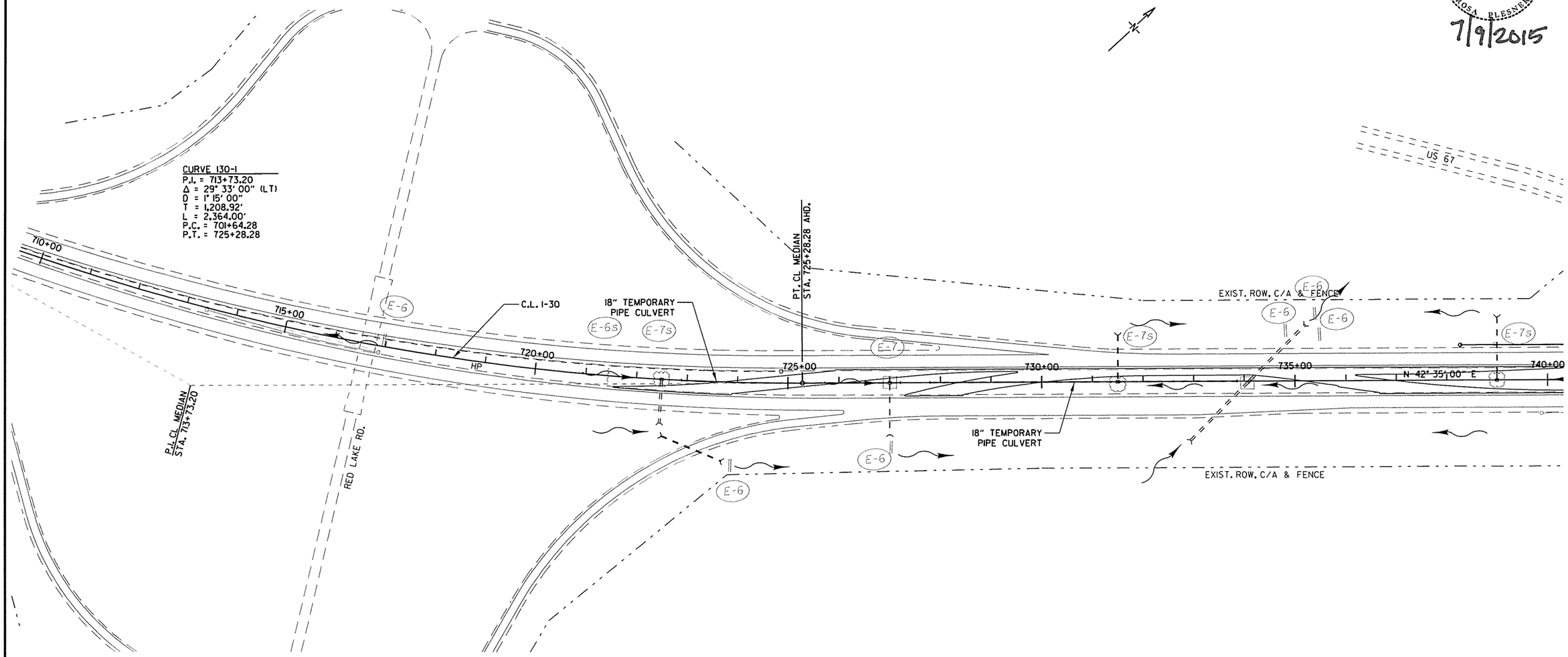
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	54	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESSNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGES 4 AND 5
STA. 717+02 - STA. 740+00

7/7/2015 11:08:58 AM
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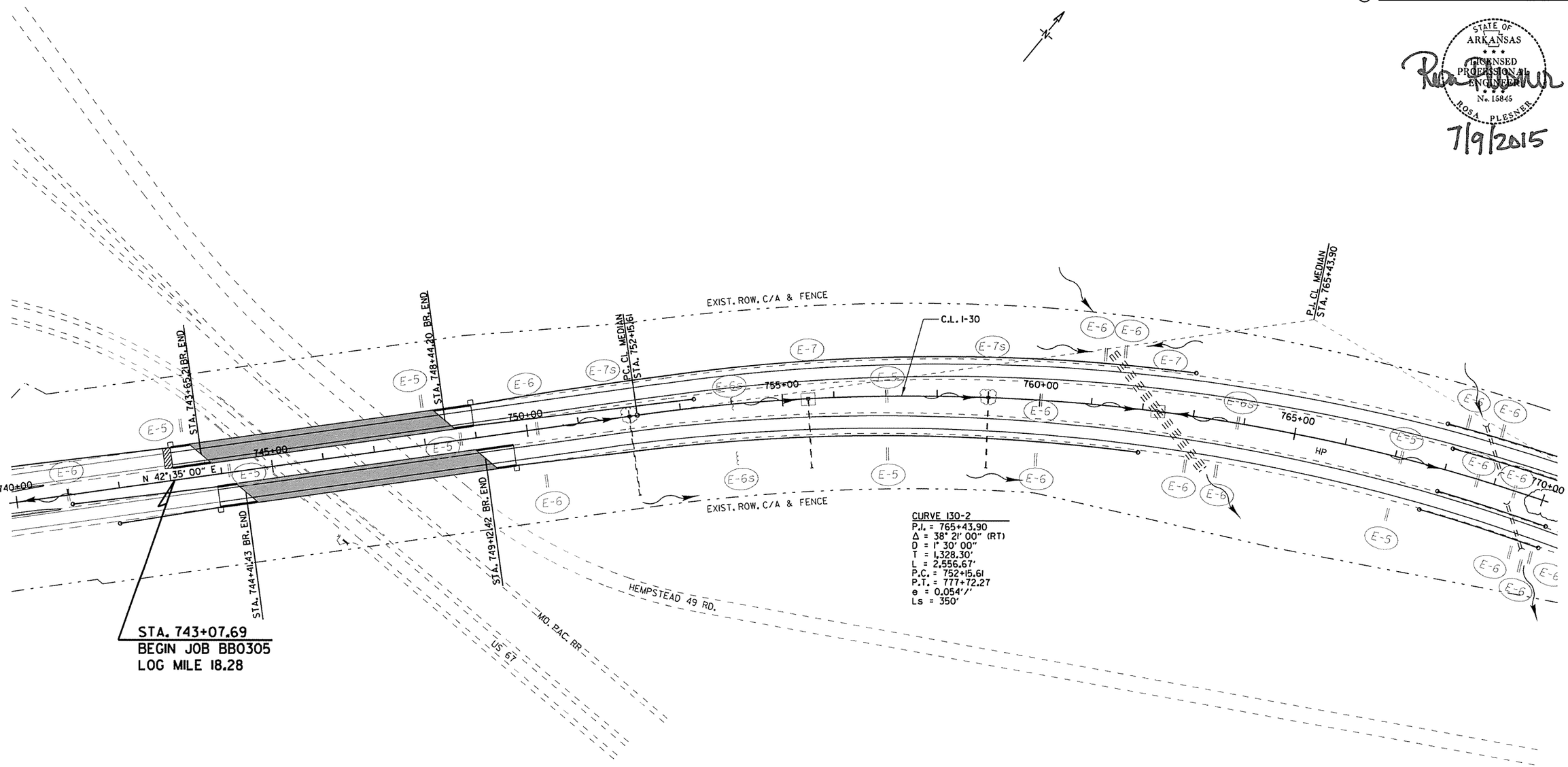
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	55	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGES 4 AND 5
STA. 740+00 - STA. 770+00

7/8/2015 11:48:43 PM

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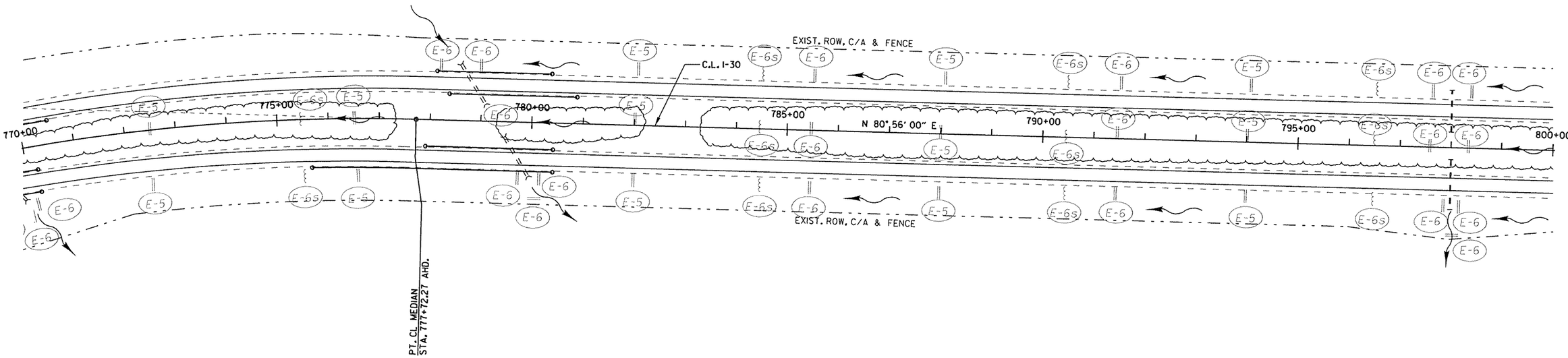
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	56	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGES 4 AND 5
STA. 770+00 - STA. 800+00

7/7/2015 11:08:58 AM

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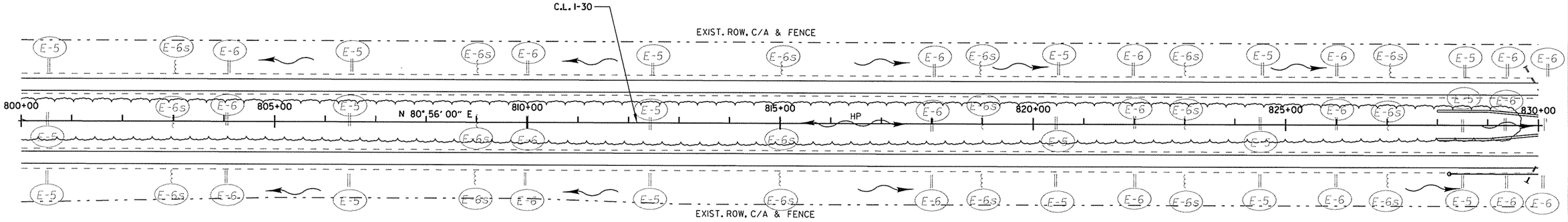
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	57	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGES 4 AND 5
STA. 800+00 - STA. 830+00

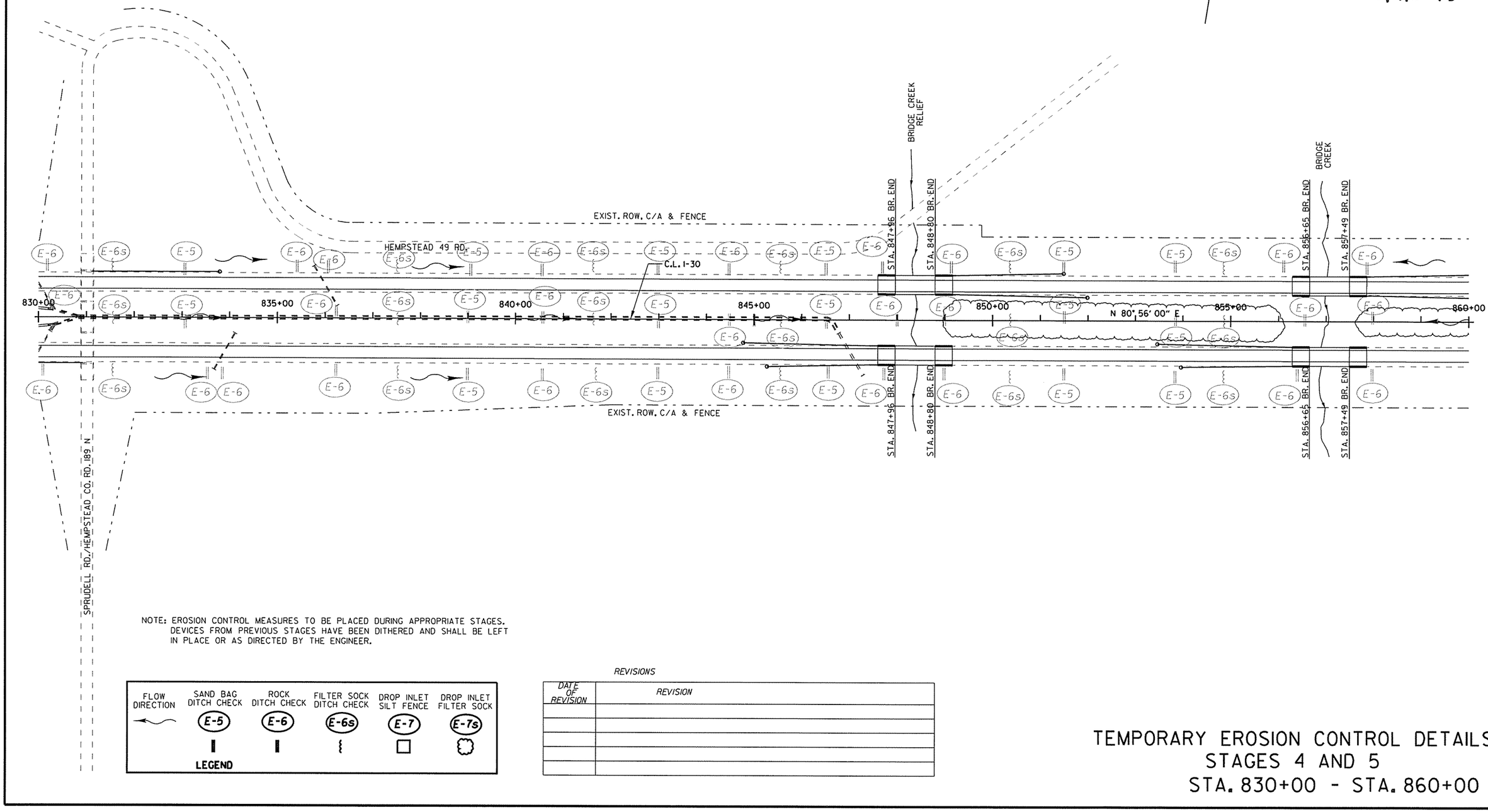
7/1/2015 11:08:59 AM P:\100037942\CADD\EC\30EC_4-4.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	58	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSS P. LESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGES 4 AND 5
STA. 830+00 - STA. 860+00

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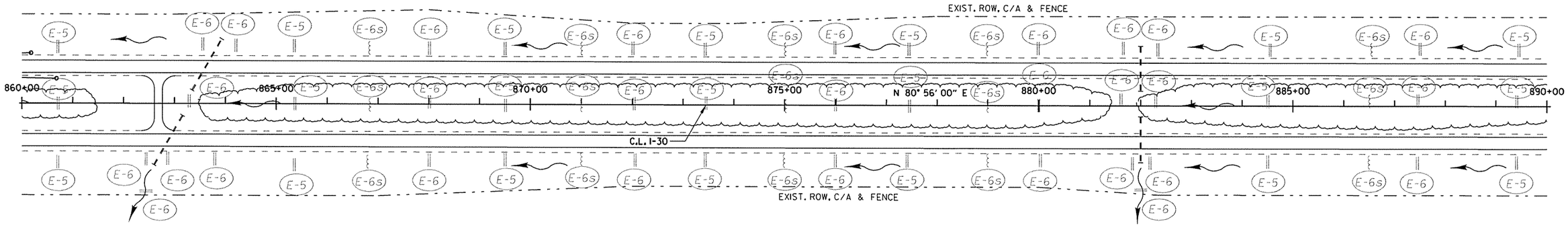
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	59	153

② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
~	E-5	E-6	E-6s	E-7	E-7s
	I	I	≀	□	⬡

LEGEND

REVISIONS

DATE OF REVISION	*REVISION*

TEMPORARY EROSION CONTROL DETAILS
STAGES 4 AND 5
STA. 860+00 - STA. 890+00

7-7-2015
11:59:00 AM
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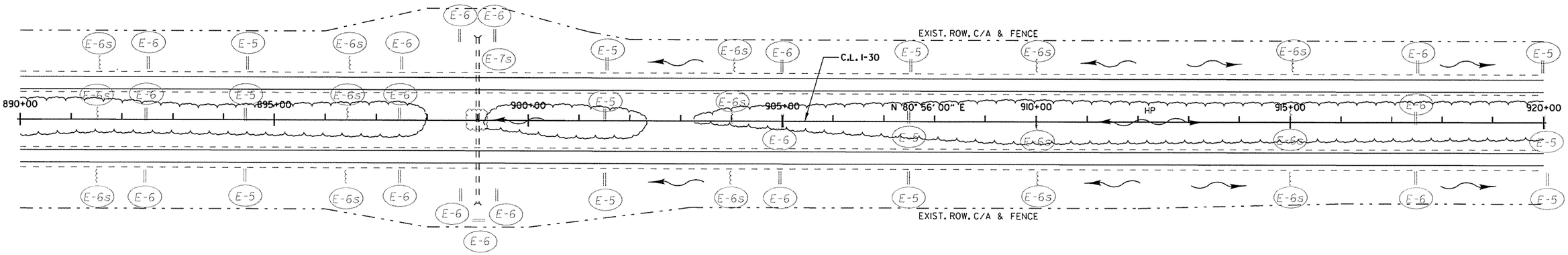
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	60	153

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESNER
7/9/2015



NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

TEMPORARY EROSION CONTROL DETAILS
STAGES 4 AND 5
STA. 890+00 - STA. 920+00

7-7-2015 11:09:00 AM
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NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

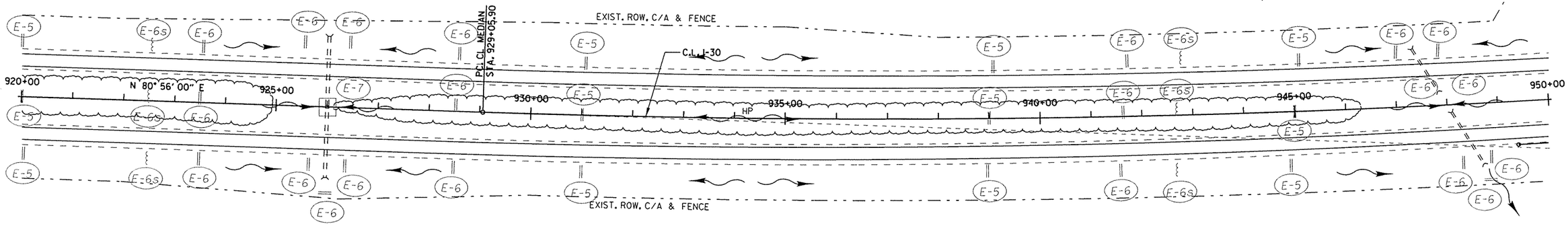
DATE OF REVISION	REVISION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	61	153

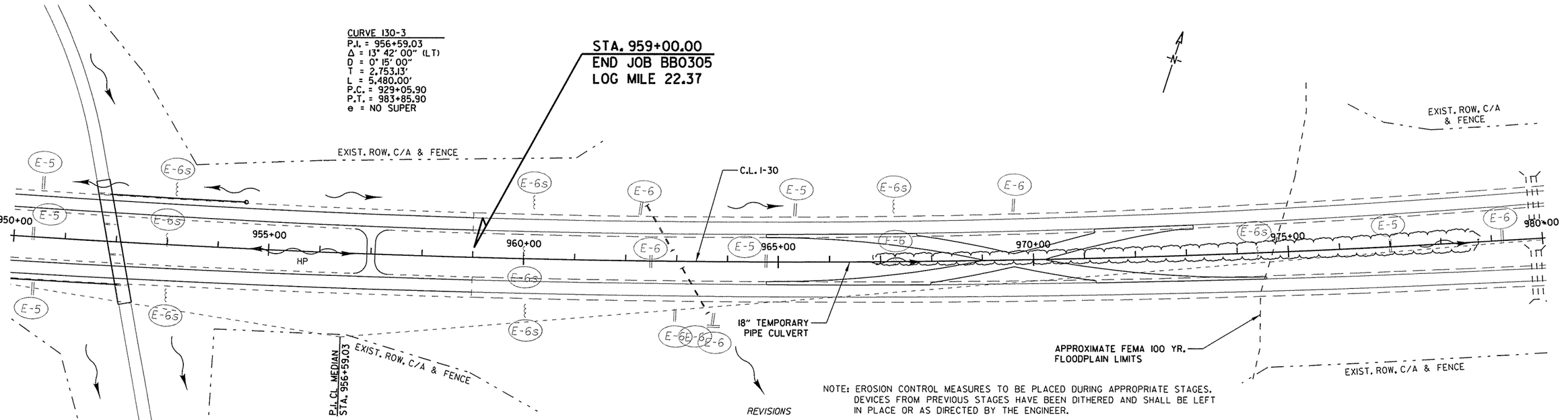
② TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/16/2015



CURVE 130-3
P.I. = 956+59.03
Δ = 13° 42' 00" (LT)
D = 0° 15' 00"
T = 2,753.13'
L = 5,480.00'
P.C. = 929+05.90
P.T. = 983+85.90
e = NO SUPER

STA. 959+00.00
END JOB BB0305
LOG MILE 22.37



FLOW DIRECTION	SAND BAG DITCH CHECK	ROCK DITCH CHECK	FILTER SOCK DITCH CHECK	DROP INLET SILT FENCE	DROP INLET FILTER SOCK
	E-5	E-6	E-6s	E-7	E-7s

LEGEND

REVISIONS

DATE OF REVISION	REVISION

NOTE: EROSION CONTROL MEASURES TO BE PLACED DURING APPROPRIATE STAGES. DEVICES FROM PREVIOUS STAGES HAVE BEEN DITHERED AND SHALL BE LEFT IN PLACE OR AS DIRECTED BY THE ENGINEER.

TEMPORARY EROSION CONTROL DETAILS STAGES 4 AND 5 STA. 920+00 - STA. 950+00

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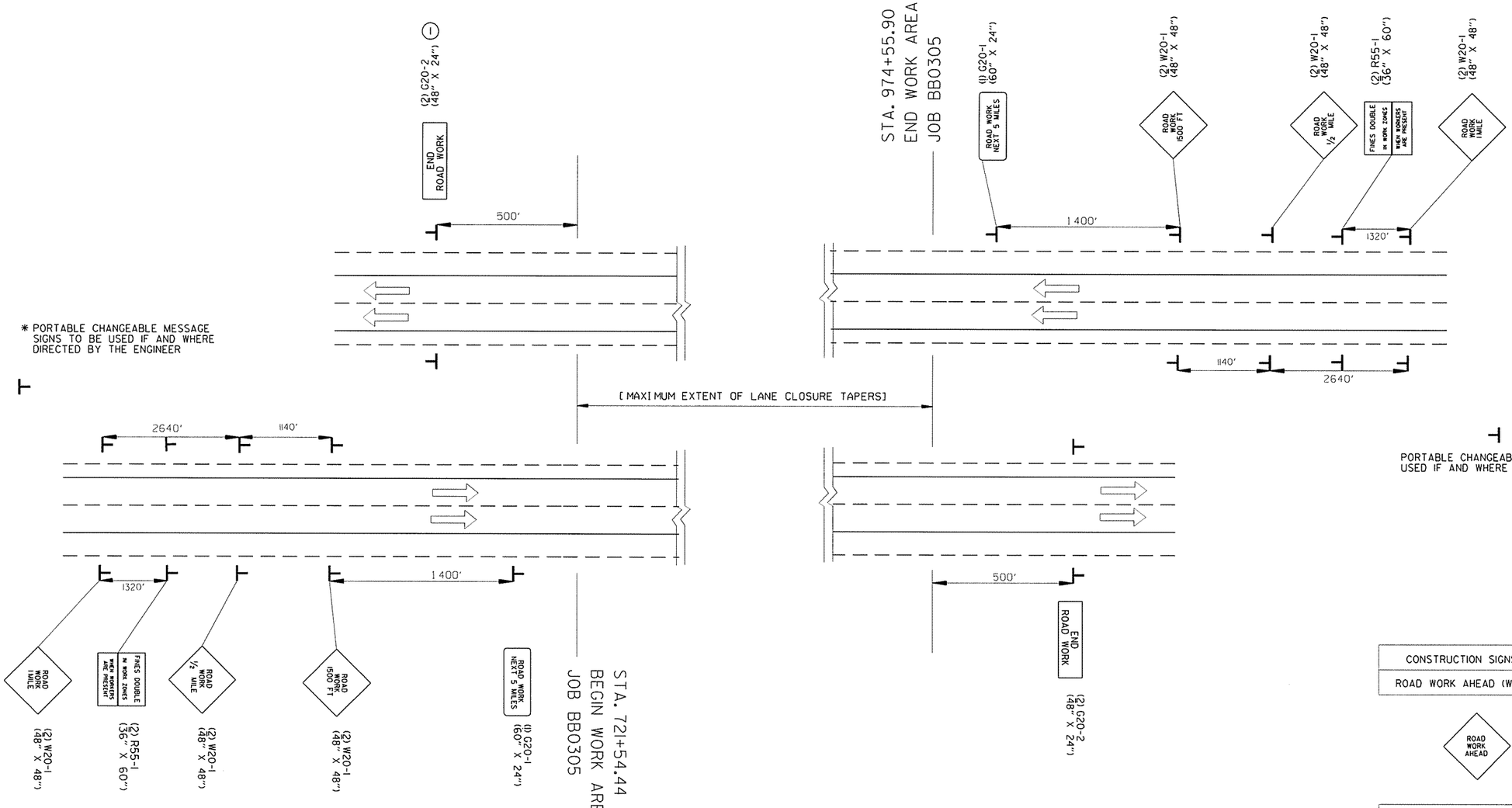
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	62	153

② MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15825
ROSA PLESNER
8/20/2015

NOTE :
THESE SIGNS MAY BE TEMPORARILY REPLACED BY SOME OF THE ADVANCE SIGNS FOR LANE CLOSURE, AS NEEDED, WHILE WORK IS UNDERWAY IN THESE AREAS.



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

NOTE :
THESE SIGNS MAY BE TEMPORARILY REPLACED BY SOME OF THE ADVANCE SIGNS FOR LANE CLOSURE, AS NEEDED, WHILE WORK IS UNDERWAY IN THESE AREAS.

* A MINIMUM OF TWO IN EACH DIRECTION IS TO BE PROVIDED WHEN A LANE IS CLOSED. PORTABLE CHANGEABLE MESSAGE SIGN TO BE POSITIONED ON THE SHOULDER IN ADVANCE OF TRAFFIC QUEUES AT A DISTANCE NOT TO EXCEED 1/2 MILE.

ADVANCE SIGNS AT BEGINNING AND END OF JOB
ALL STAGES

(1) COORDINATION OF WORK WITH JOB BB0303 IS REQUIRED TO DETERMINE LOCATION OR NEED OF SIGN PLACEMENT.

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

CONSTRUCTION SIGNS FOR ENTRANCE RAMP	
ROAD WORK AHEAD (W20-1)	2

ROAD WORK AHEAD — (2) W20-1 (48" X 48") ON ENTRANCE RAMPS

CONSTRUCTION SIGNS FOR EXIT RAMP	
END ROAD WORK (G20-2)	2

END ROAD WORK — (2) G20-2 (48" X 24") ON EXIT RAMPS

I-30
MAINTENANCE OF TRAFFIC
ADVANCE SIGNS AT JOB ENDS

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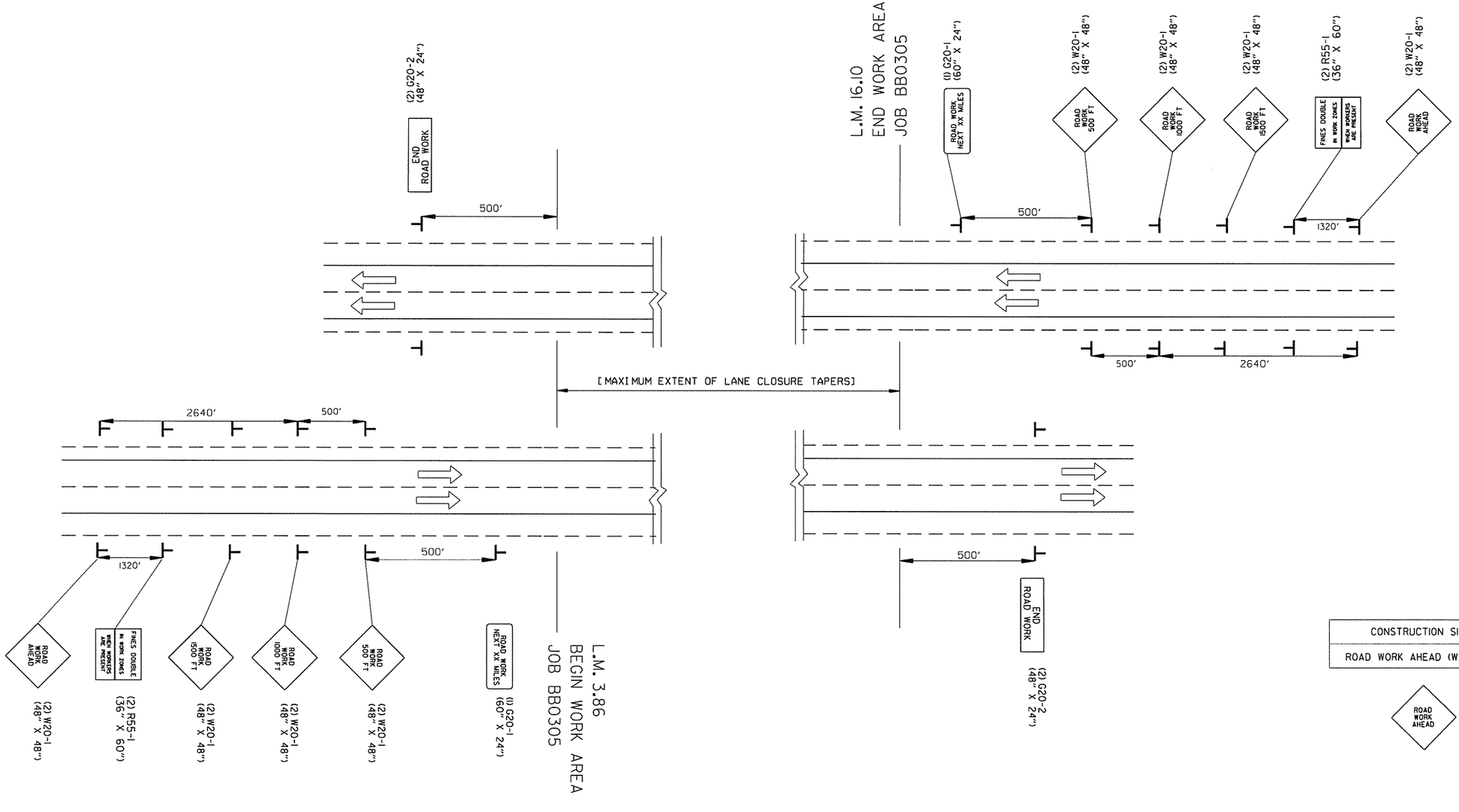
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	63	153

② MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/16/2015



CONSTRUCTION SIGNS FOR SIDE ROADS	
ROAD WORK AHEAD (W20-1)	24

ROAD WORK AHEAD — (2) W20-1 (48" X 48") ON SIDE ROADS

ADVANCE SIGNS AT BEGINNING AND END OF JOB
ALL STAGES

HWY. 67
MAINTENANCE OF TRAFFIC
ADVANCE SIGNS AT JOB ENDS

7/16/2015
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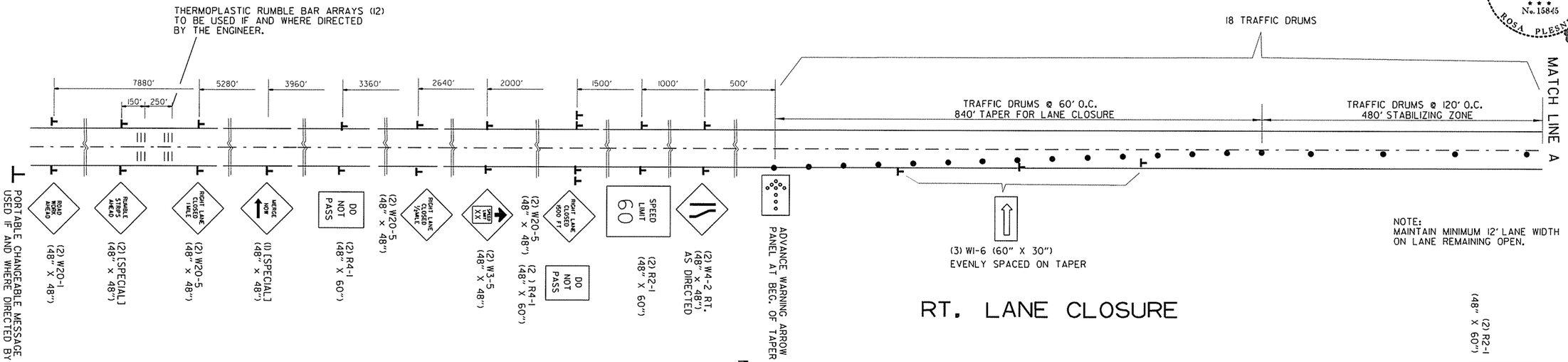
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	64	153

② MAINTENANCE OF TRAFFIC

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.

NOTE:
THE SPACING OF THERMOPLASTIC RUMBLE BARS IN EACH ARRAY SHALL BE ON 10' CENTERS.

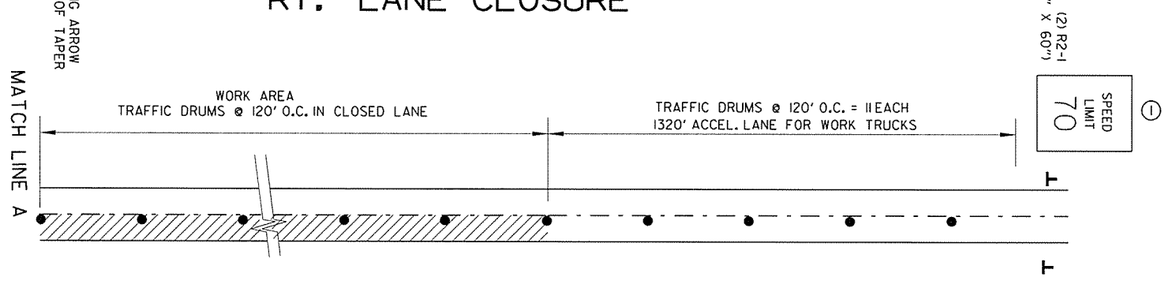
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESNER
8/20/2015



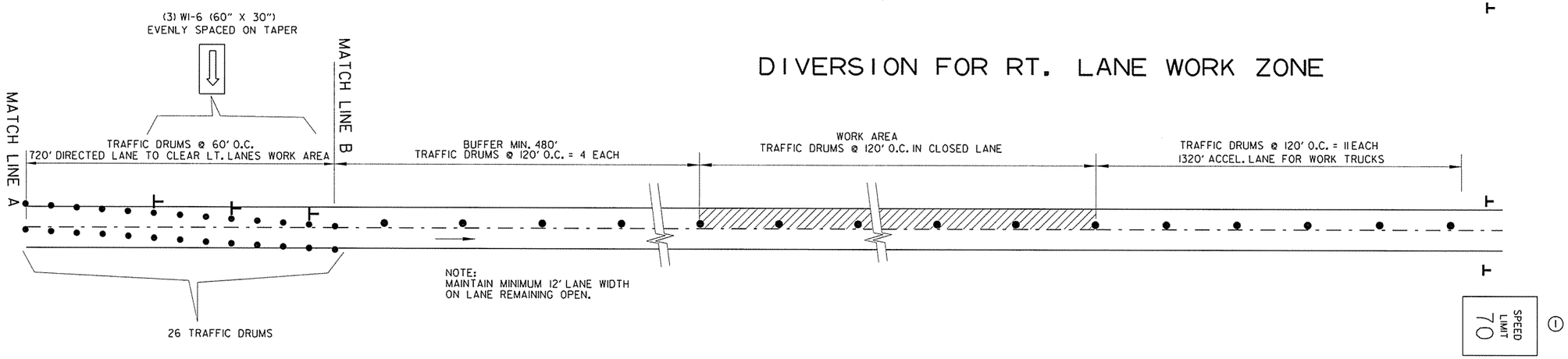
RT. LANE CLOSURE

* A MINIMUM OF TWO IN EACH DIRECTION IS TO BE PROVIDED WHEN A LANE IS CLOSED. PORTABLE CHANGEABLE MESSAGE SIGN TO BE POSITIONED ON THE SHOULDER IN ADVANCE OF TRAFFIC QUEUES AT A DISTANCE NOT TO EXCEED ½ MILE.

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



DIVERSION FOR RT. LANE WORK ZONE



DIVERSION FOR LT. LANE WORK ZONE

① COORDINATION OF WORK WITH JOB BB0303 IS REQUIRED TO DETERMINE LOCATION OR NEED OF SIGN PLACEMENT.

MAINTENANCE OF TRAFFIC LANE CLOSURE

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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.		BB0305	65	153

② MAINTENANCE OF TRAFFIC

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

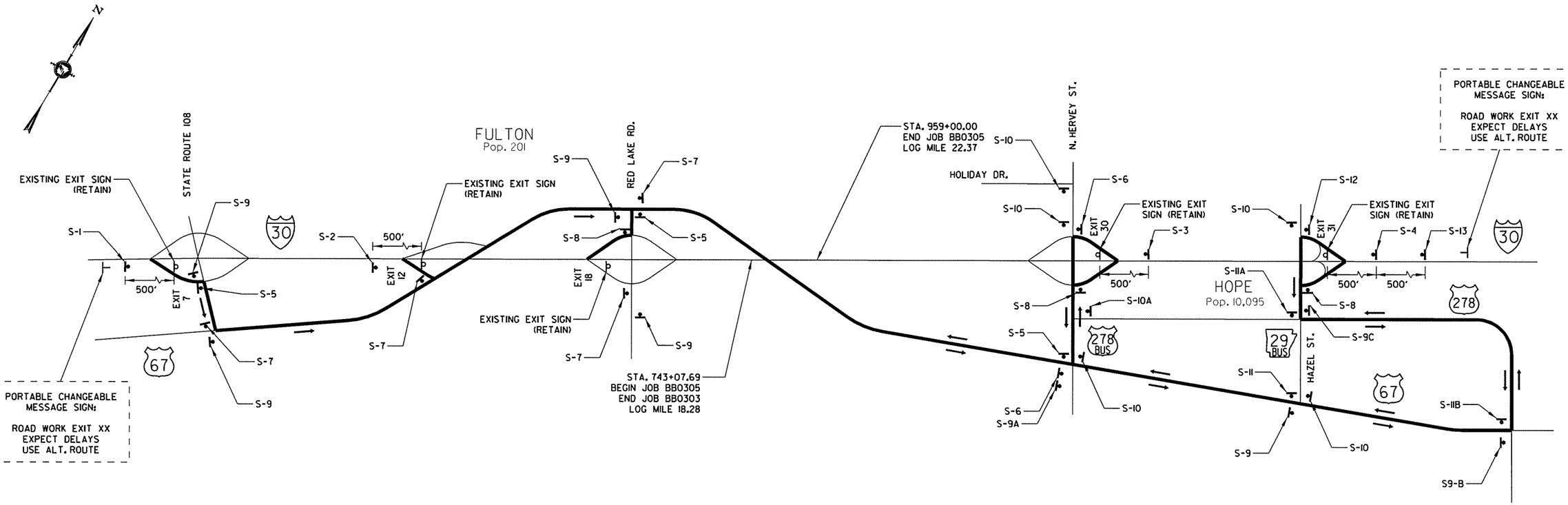
2. PAYMENT FOR MOUNTING THE GUIDE SIGNS ON TEMPORARY SUPPORTS, RELOCATING THE SIGNS AS REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION, AND REMOVING AND DISPOSING OF THE SIGNS WHEN THE PROJECT IS COMPLETED SHALL BE SUBSIDIARY TO SECTION 604, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.

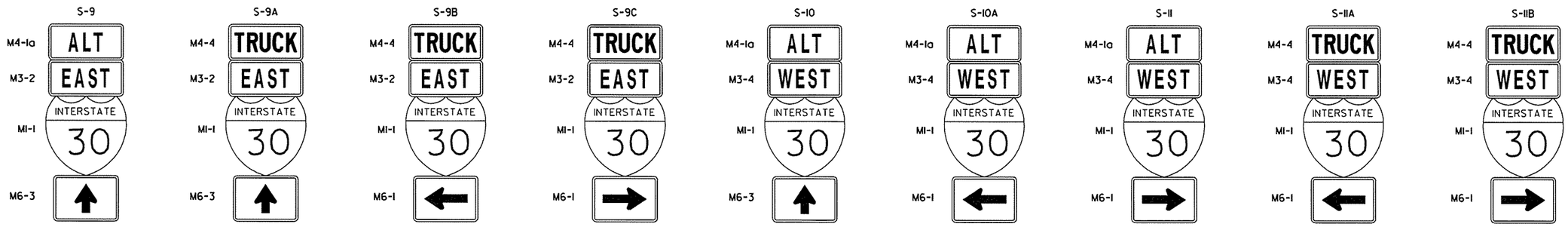
3. EXACT PLACEMENT OF SIGNS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

4. COVER ALL SIGNS DIRECTING TRAFFIC TO I-30 THROUGH THE ALTERNATE ROUTES. PAYMENT SHALL BE CONSIDERED INCLUDED WITH THE VARIOUS MAINTENANCE OF TRAFFIC ITEMS.

LEGEND
- ALTERNATE ROUTE
- APPROXIMATE SIGN LOCATION

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESNER
8/10/2015





ALTERNATE ROUTE AND TEMPORARY SIGNS
NOT TO SCALE

MAINTENANCE OF TRAFFIC

8/10/2015 10:23:08 AM

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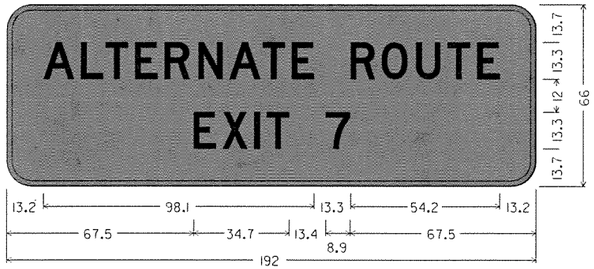
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	66	153

② MAINTENANCE OF TRAFFIC

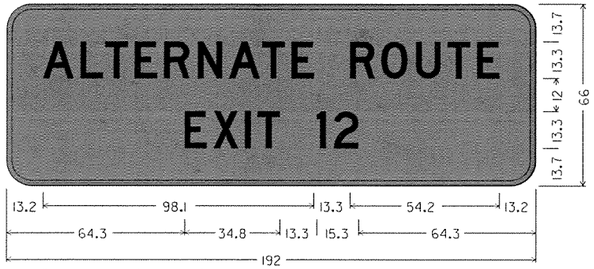
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/31/2015

S-1



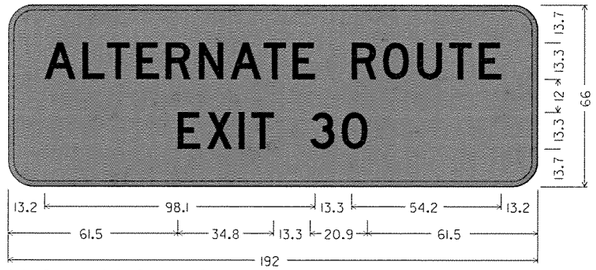
9.0" Radius, 2.0" Border, Black on Orange;
[ALTERNATE ROUTE] D; [EXIT 7] D;

S-2



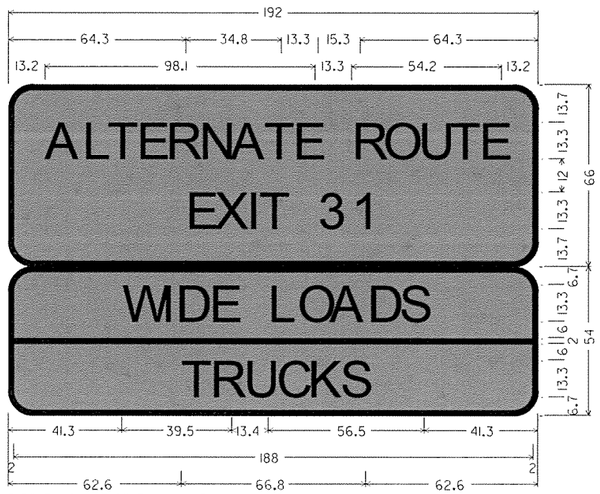
9.0" Radius, 2.0" Border, Black on Orange;
[ALTERNATE ROUTE] D; [EXIT 12] D;

S-3



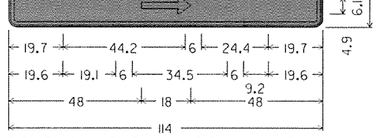
9.0" Radius, 2.0" Border, Black on Orange;
[ALTERNATE ROUTE] D; [EXIT 30] D;

S-4



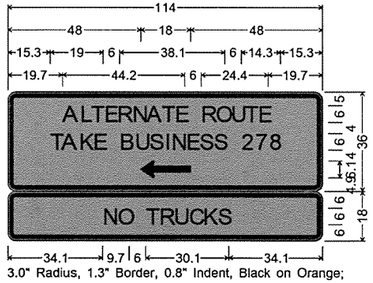
9.0" Radius, 2.0" Border, Black on Orange;
[ALTERNATE ROUTE] D; [EXIT 31] D;
9.0" Radius, 2.0" Border, Black on Orange;
[WIDE LOADS] D; [TRUCKS] D;

S-5



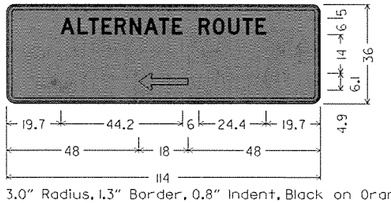
3.0" Radius, 1.3" Border, 0.8" Indent, Black on Orange;
[ALTERNATE ROUTE] D;
[TAKE HIGHWAY 67] D;
Standard Arrow Custom 18.0" X 6.1" 0 Degrees;

S-6



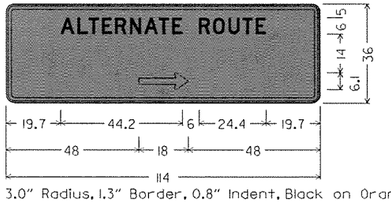
3.0" Radius, 1.3" Border, 0.8" Indent, Black on Orange;
"ALTERNATE ROUTE" D;
"TAKE BUSINESS 278" D;
Standard Arrow Custom 18.0" X 6.1" 180°;
3.0" Radius, 1.3" Border, 0.8" Indent, Black on Orange;
"NO TRUCKS" D;

S-7



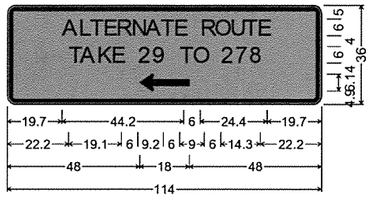
3.0" Radius, 1.3" Border, 0.8" Indent, Black on Orange;
[ALTERNATE ROUTE] D;
Standard Arrow Custom 18.0" X 6.1" 180 Degrees;

S-8



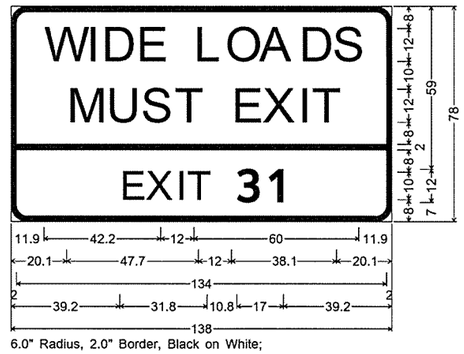
3.0" Radius, 1.3" Border, 0.8" Indent, Black on Orange;
[ALTERNATE ROUTE] D;
Standard Arrow Custom 18.0" X 6.1" 0 Degrees;

S-12



3.0" Radius, 1.3" Border, 0.8" Indent, Black on Orange;
[ALTERNATE ROUTE] D;
[TAKE BUSINESS 29] D;
Standard Arrow Custom 18.0" X 6.1" 180 Degrees;

S-13



6.0" Radius, 2.0" Border, Black on White;
"WIDE LOADS" E Mod; "MUST EXIT" E Mod;
"EXIT" E Mod " 31" ClearviewHwy-5-W;

TEMPORARY SIGNS

MAINTENANCE OF TRAFFIC

7/31/2015 5:24:22 PM

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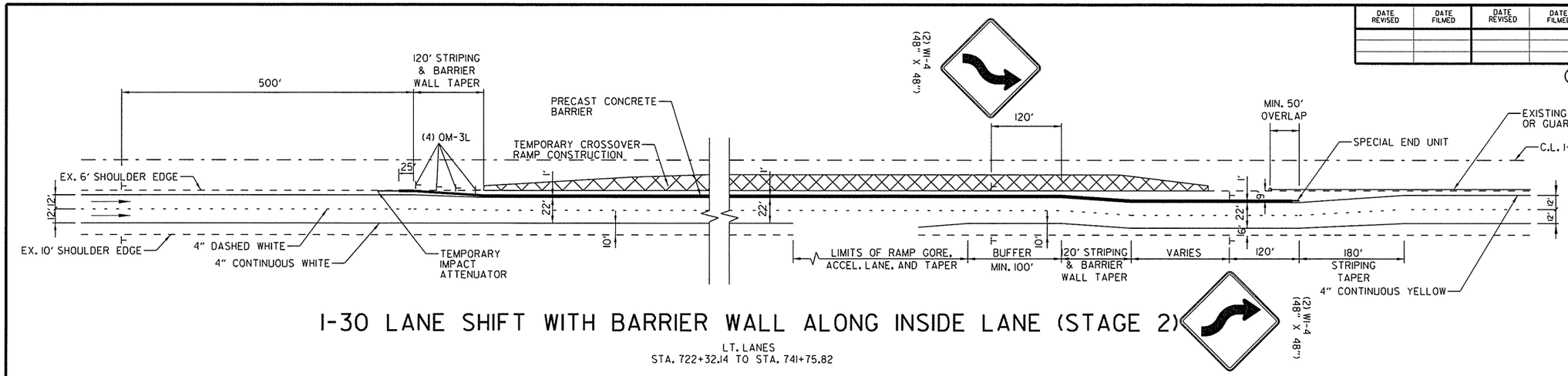
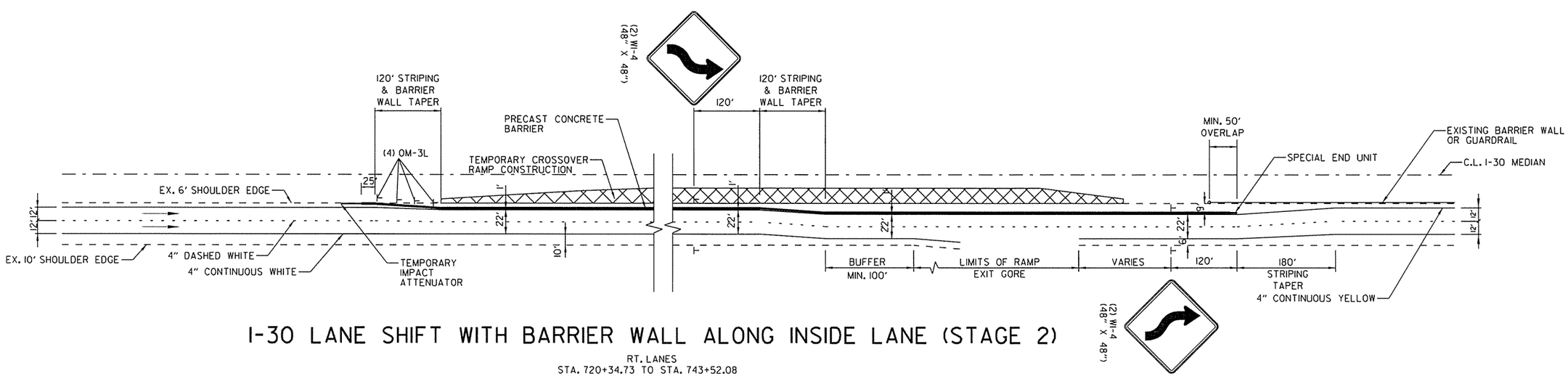
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	67	153

② MAINTENANCE OF TRAFFIC



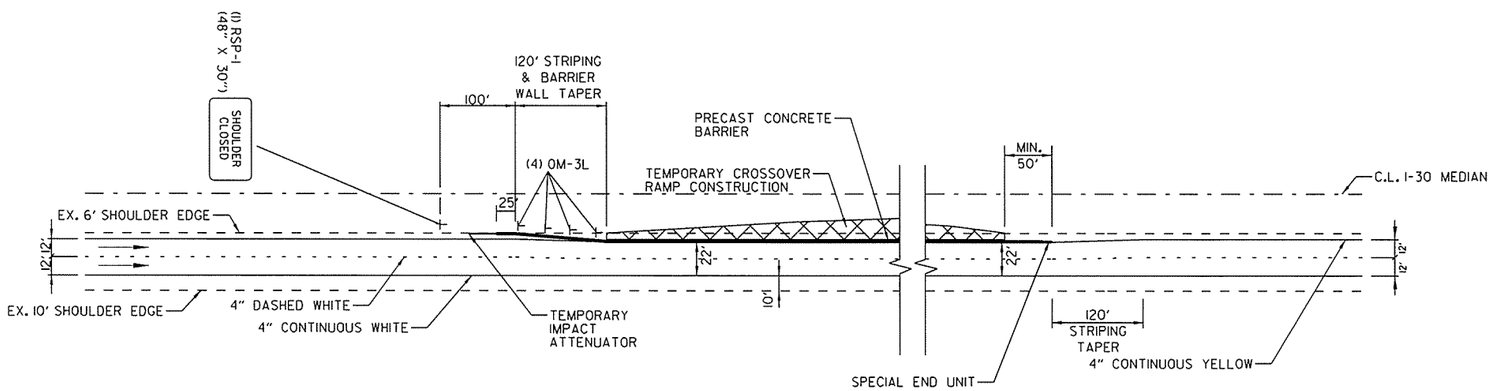
I-30 LANE SHIFT WITH BARRIER WALL ALONG INSIDE LANE (STAGE 2)

LT. LANES
STA. 722+32.14 TO STA. 741+75.82



I-30 LANE SHIFT WITH BARRIER WALL ALONG INSIDE LANE (STAGE 2)

RT. LANES
STA. 720+34.73 TO STA. 743+52.08



I-30 LANE SHIFT WITH BARRIER WALL ALONG INSIDE LANE (STAGE 2)

LT. AND RT. LANES
STA. 962+51.94 TO STA. 976+39.43

NOTE :
SEE MAINTENANCE OF TRAFFIC PLANS AND ADVANCE WARNING SIGN DETAILS FOR ADDITIONAL SIGNS IN WORK ZONE.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

MAINTENANCE OF TRAFFIC WORK AREAS

7/7/2015 11:09:35 AM
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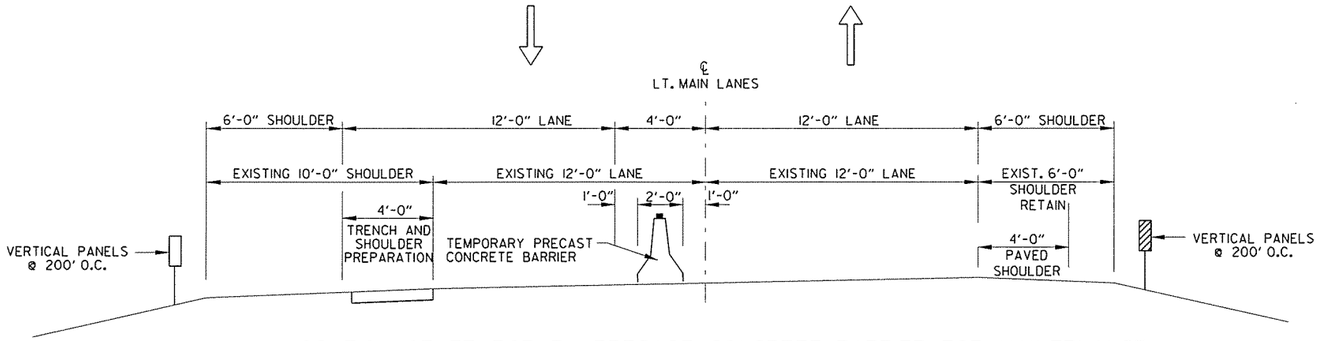
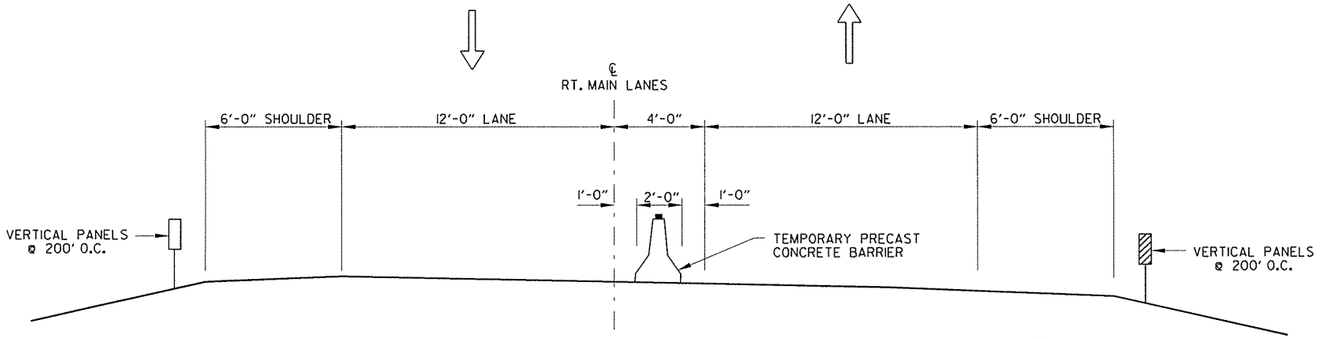
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	68	153

(2) MAINTENANCE OF TRAFFIC

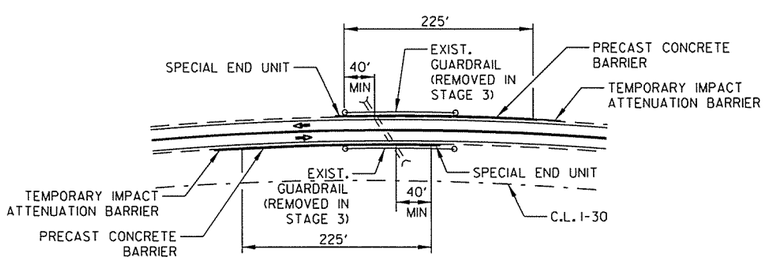
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



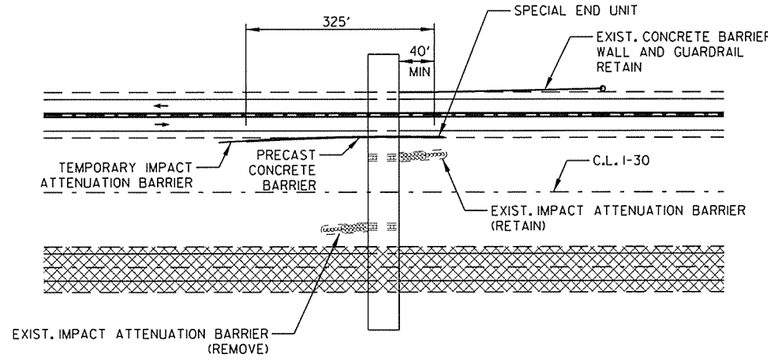
LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES (STAGE 3) (SHOWN IN DIRECTION OF STATIONING)



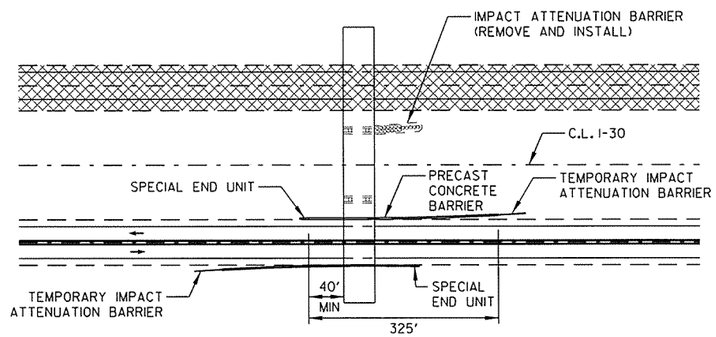
LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES (STAGE 4) (SHOWN IN DIRECTION OF STATIONING)



DETAIL OF TEMPORARY PRECAST CONCRETE BARRIER AT CULVERTS (STAGE 4)



DETAIL OF PIER PROTECTION AT OVERPASSES FOR MAINTENANCE OF TRAFFIC - LEFT MAIN LANES (STAGE 3)



DETAIL OF PIER PROTECTION AT OVERPASSES FOR MAINTENANCE OF TRAFFIC - RIGHT MAIN LANES (STAGE 4)

MAINTENANCE OF TRAFFIC WORK AREAS

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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.		BB0305	69	153

(2) MAINTENANCE OF TRAFFIC

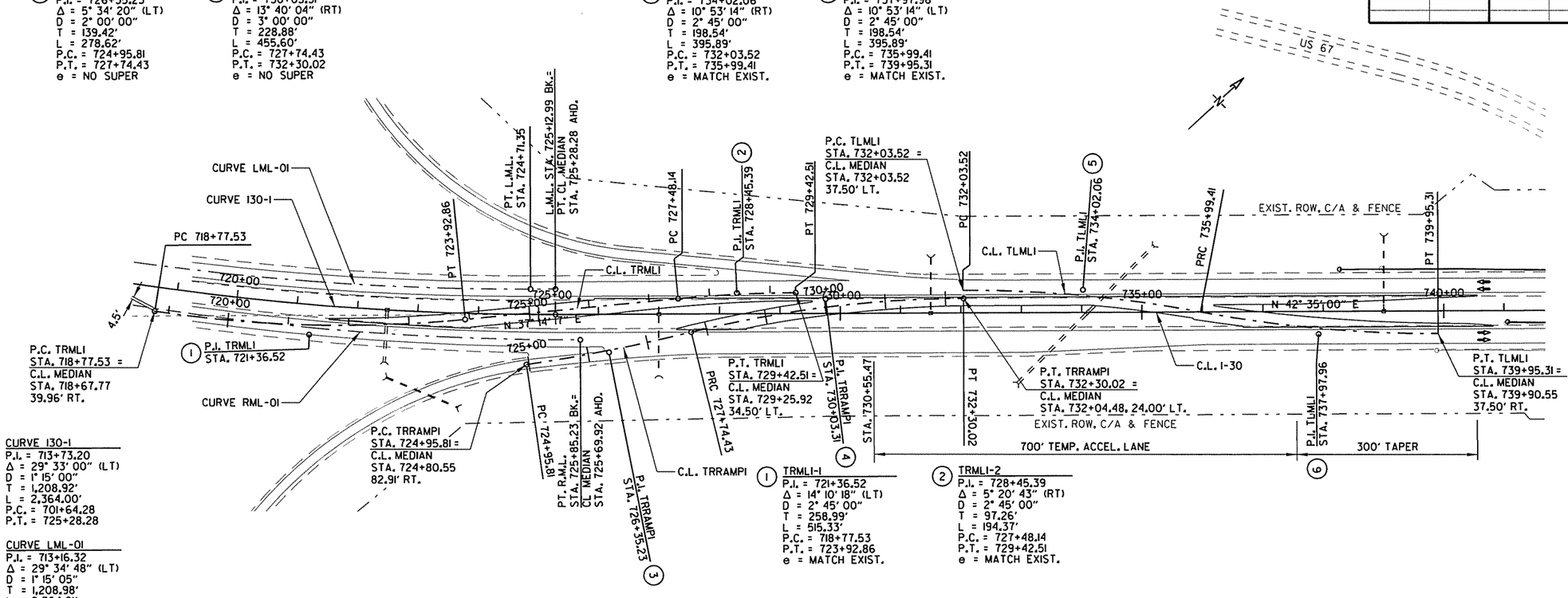
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESSNER
7/9/2015

(3) TRRAMPI-1
P.I. = 726+35.23
Δ = 5° 34' 20" (LT)
D = 2° 00' 00"
T = 139.42'
L = 278.62'
P.C. = 724+95.81
P.T. = 727+74.43
e = NO SUPER

(4) TRRAMPI-2
P.I. = 730+03.31
Δ = 13° 40' 04" (RT)
D = 3° 00' 00"
T = 228.88'
L = 455.60'
P.C. = 727+74.43
P.T. = 732+30.02
e = NO SUPER

(5) TLMLI-1
P.I. = 734+02.06
Δ = 10° 53' 14" (RT)
D = 2° 45' 00"
T = 198.54'
L = 395.89'
P.C. = 732+03.52
P.T. = 735+99.41
e = MATCH EXIST.

(6) TLMLI-2
P.I. = 737+97.96
Δ = 10° 53' 14" (LT)
D = 2° 45' 00"
T = 198.54'
L = 395.89'
P.C. = 735+99.41
P.T. = 739+95.31
e = MATCH EXIST.



(1) TRMLI-1
P.I. = 721+36.52
Δ = 14° 10' 18" (LT)
D = 2° 45' 00"
T = 258.99'
L = 515.33'
P.C. = 718+77.53
P.T. = 723+92.86
e = MATCH EXIST.

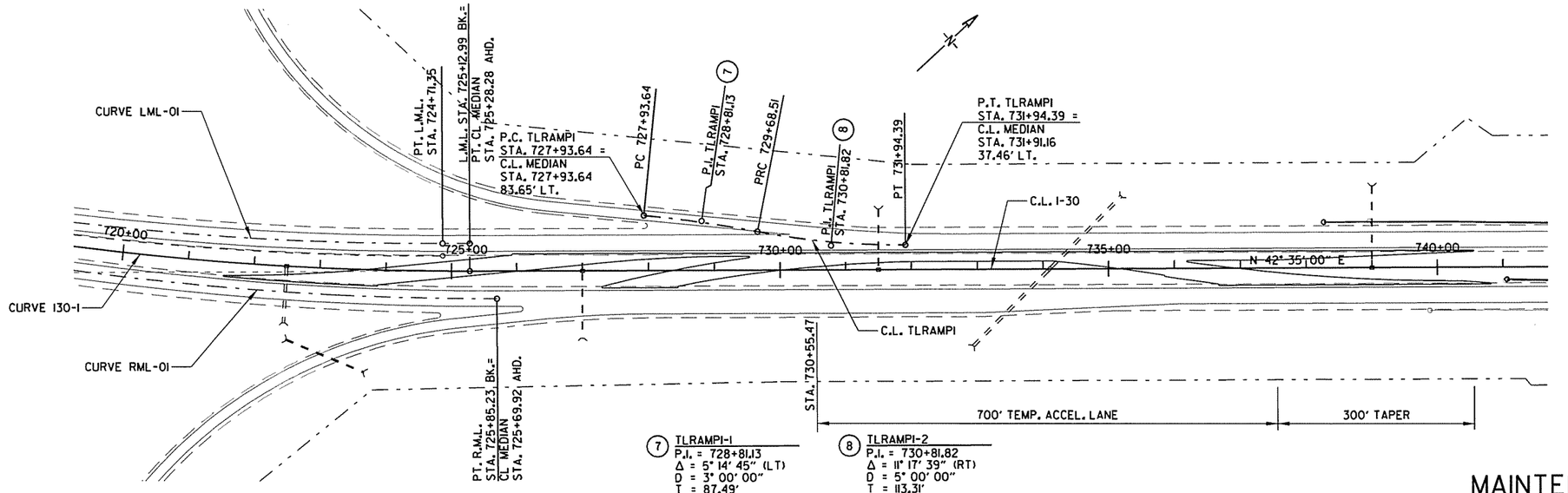
(2) TRMLI-2
P.I. = 728+45.39
Δ = 5° 20' 43" (RT)
D = 2° 45' 00"
T = 97.26'
L = 194.37'
P.C. = 727+48.14
P.T. = 729+42.51
e = MATCH EXIST.

CURVE 130-1
P.I. = 713+73.20
Δ = 29° 33' 00" (LT)
D = 1° 15' 00"
T = 1,208.92'
L = 2,364.00'
P.C. = 701+64.28
P.T. = 725+28.28

CURVE LML-01
P.I. = 713+16.32
Δ = 29° 34' 48" (LT)
D = 1° 15' 05"
T = 1,208.98'
L = 2,364.01'
P.C. = 701+07.34
P.T. = 724+71.35

CURVE RML-01
P.I. = 714+30.02
Δ = 29° 29' 01" (RT)
D = 1° 14' 50"
T = 1,208.80'
L = 2,364.01'
P.C. = 702+21.22
P.T. = 725+85.23

STAGE 2: TEMPORARY CROSSOVER RAMP CONSTRUCTION



(7) TLRAMPI-1
P.I. = 728+81.13
Δ = 5° 14' 45" (LT)
D = 3° 00' 00"
T = 87.49'
L = 174.87'
P.C. = 727+93.64
P.T. = 729+68.51
e = NO SUPER

(8) TLRAMPI-2
P.I. = 730+81.82
Δ = 11° 17' 39" (RT)
D = 5° 00' 00"
T = 113.31'
L = 225.89'
P.C. = 729+68.51
P.T. = 731+94.39
e = NO SUPER

STAGE 4: TEMPORARY EXIT RAMP SHIFT

MAINTENANCE OF TRAFFIC TEMPORARY CROSSOVER RAMP AND RAMP SHIFT DETAILS STA. 720+00 - STA. 741+00

7/7/2015 11:09:36 AM
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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.		BB0305	70	153

(2) MAINTENANCE OF TRAFFIC

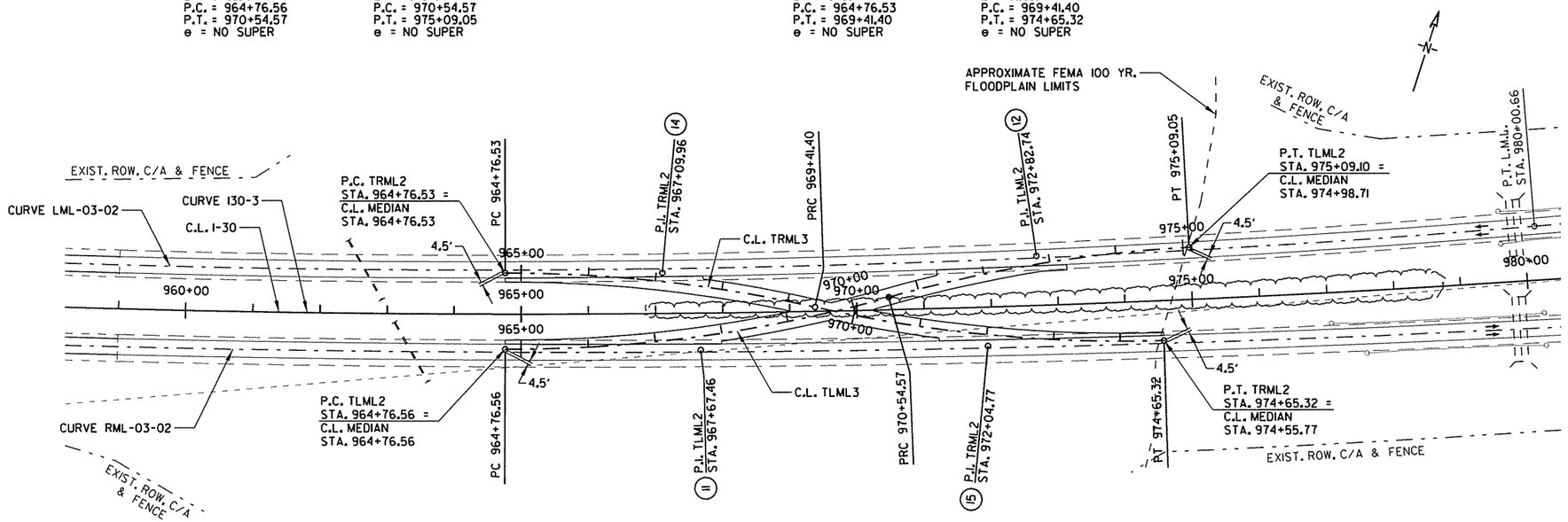
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

(11) TLML2-1
P.I. = 967+67.46
Δ = 15° 53' 48" (LT)
D = 2° 45' 00"
T = 290.90'
L = 578.06'
P.C. = 964+76.56
P.T. = 970+54.57
e = NO SUPER

(12) TLML2-2
P.I. = 972+82.74
Δ = 12° 29' 58" (RT)
D = 2° 45' 00"
T = 228.17'
L = 454.48'
P.C. = 970+54.57
P.T. = 975+09.05
e = NO SUPER

(14) TRML2-1
P.I. = 967+09.96
Δ = 12° 47' 07" (RT)
D = 2° 45' 00"
T = 233.43'
L = 464.87'
P.C. = 964+76.53
P.T. = 969+41.40
e = NO SUPER

(15) TRML2-2
P.I. = 972+04.71
Δ = 14° 24' 33" (LT)
D = 2° 45' 00"
T = 263.37'
L = 523.91'
P.C. = 969+41.40
P.T. = 974+65.32
e = NO SUPER



STAGE 2: TEMPORARY CROSSOVER RAMP CONSTRUCTION

CURVE 130-3
P.I. = 956+59.03
Δ = 13° 42' 00" (LT)
D = 0° 15' 00"
T = 2,753.13'
L = 5,480.00'
P.C. = 929+05.90
P.T. = 983+85.90
e = NO SUPER

CURVE LML-03-02
P.I. = 967+47.79
Δ = 7° 31' 41" (LT)
D = 0° 18' 00"
T = 1,256.48'
L = 2,509.35'
P.C. = 954+91.31
P.T. = 980+00.66

CURVE RML-03-02
P.I. = 972+34.83
Δ = 6° 54' 05" (LT)
D = 0° 12' 00"
T = 1,727.43'
L = 3,450.69'
P.C. = 955+07.40
P.T. = 989+58.09

NOTE: REFER TO MAINTENANCE OF TRAFFIC FOR MORE INFORMATION ON TEMPORARY ALIGNMENTS.

MAINTENANCE OF TRAFFIC TEMPORARY CROSSOVER RAMP DETAILS STA. 959+00 - STA. 980+00

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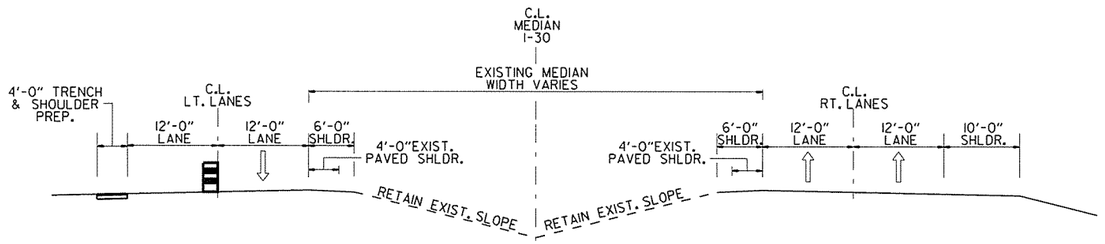
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	71	153

② MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

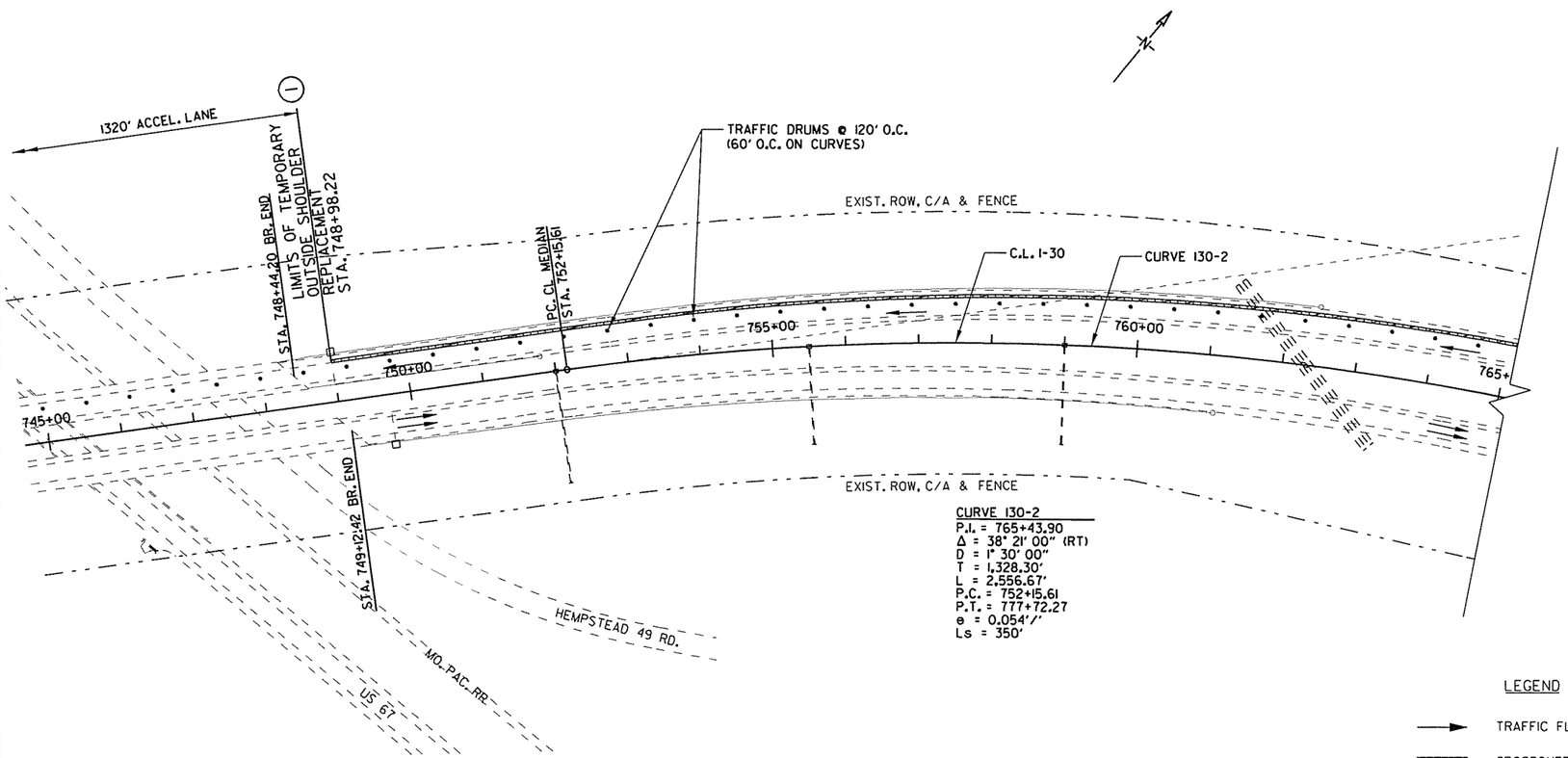


STAGE 1: WORK ZONE FOR TEMPORARY 4' OUTSIDE SHOULDER REPLACEMENT

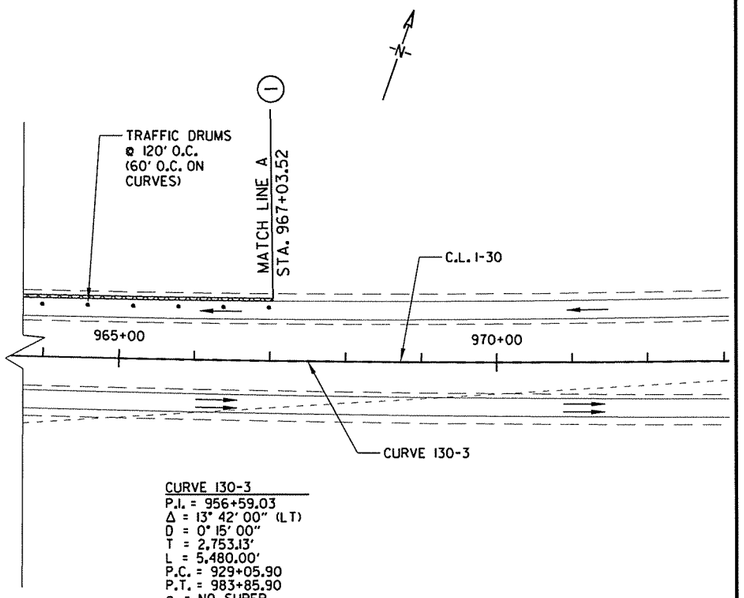
STA. 748+98.22 TO STA. 967+03.52

STAGE I CONSTRUCTION SEQUENCE NOTES

1. SCARIFY, RECOMPACTING, AND OVERLAY SHOULDERS OF HWY. 67, UTILIZING STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION, SHEET TC-2.
2. MOVE WESTBOUND TRAFFIC TO INSIDE LANE.
3. PLACE DRUMS ON WESTBOUND RIGHT LANE AT 120' (60' ON CURVES) INTERVALS.
4. TRENCH AND SHOULDER PREPARATION ON 4 FEET OF WESTBOUND OUTSIDE SHOULDER.



CURVE 130-2
P.I. = 765+43.90
Δ = 38° 21' 00" (RT)
D = 1° 30' 00"
T = 1,328.30'
L = 2,556.67'
P.C. = 752+15.61
P.T. = 777+72.27
e = 0.054'/'
Ls = 350'



CURVE 130-3
P.I. = 956+59.03
Δ = 13° 42' 00" (LT)
D = 0° 15' 00"
T = 2,753.13'
L = 5,480.00'
P.C. = 929+05.90
P.T. = 983+85.90
e = NO SUPER

LEGEND

TRAFFIC FLOW DIRECTION

CROSSOVER RAMP/ SHOULDER RECONSTRUCTION

① SEE MAINTENANCE OF TRAFFIC LANE CLOSURE SHEET FOR SIGNS AND TRAFFIC CONTROL DEVICES.

MAINTENANCE OF TRAFFIC STAGE I

STA. 745+00 - STA. 973+00

7/8/2015 2:16:10 PM

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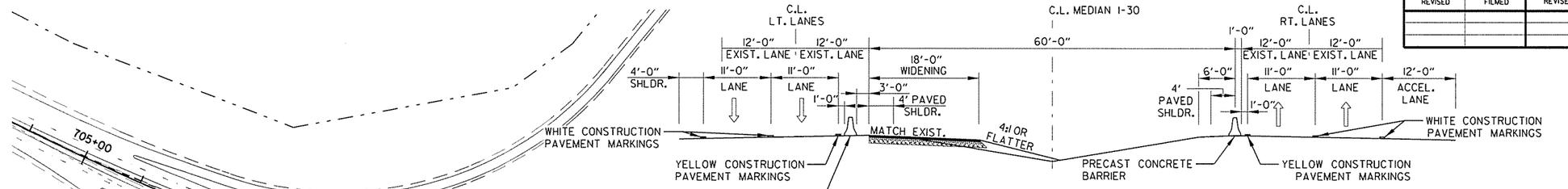
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	72	153

② MAINTENANCE OF TRAFFIC



STAGE 2: WORK ZONE FOR WIDENING CROSSOVER RAMPS

STA. 721+27.23 TO STA. 740+45.04

STATE OF ARKANSAS
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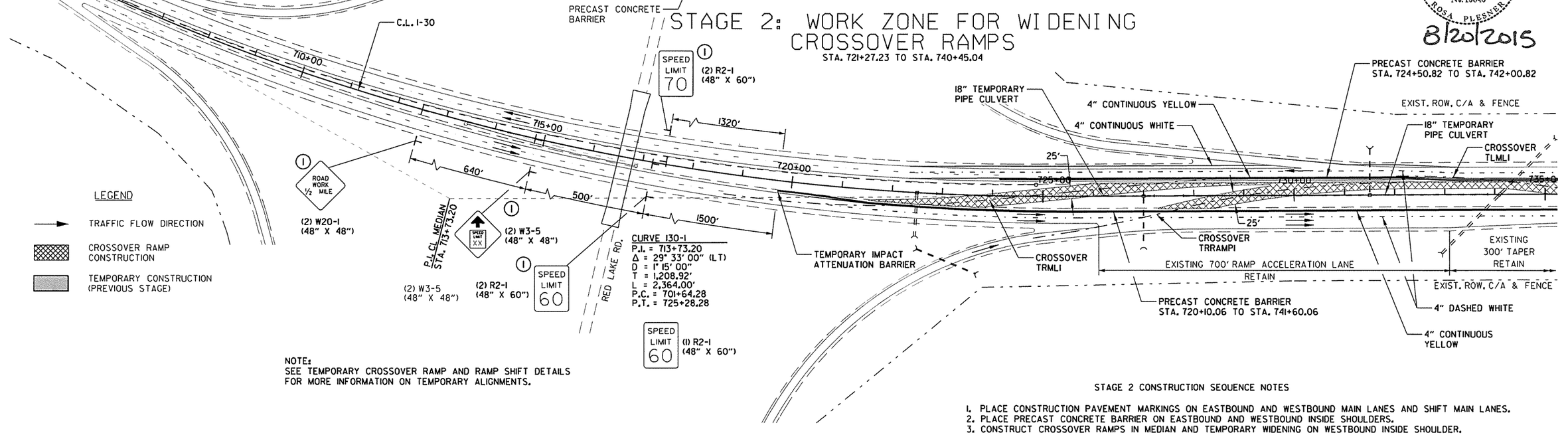
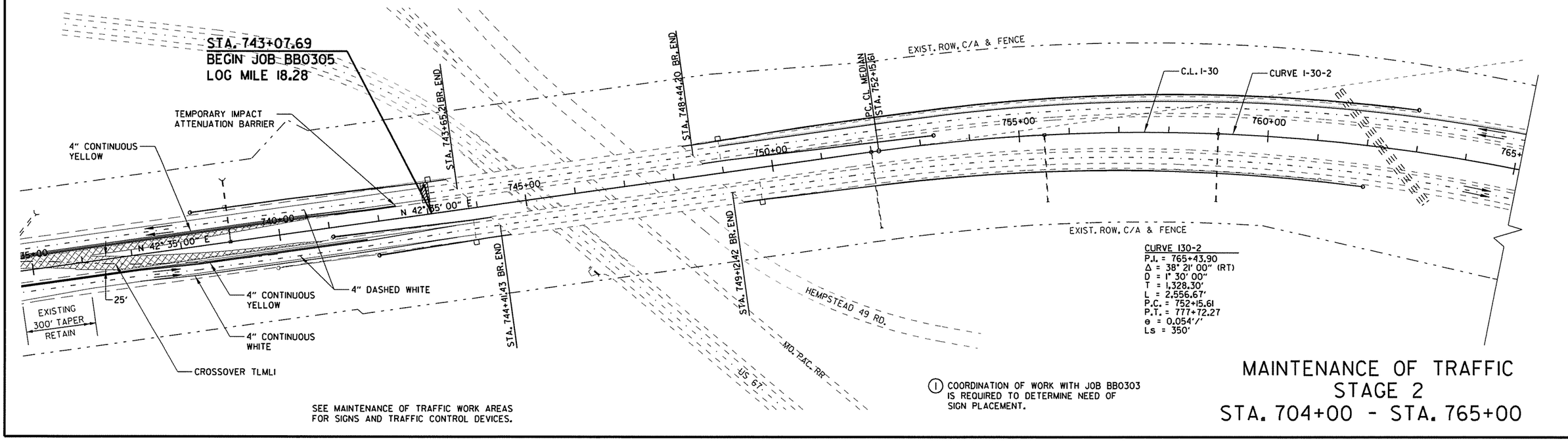
ROSA PLESNER
8/20/2015



NOTE:
SEE TEMPORARY CROSSOVER RAMP AND RAMP SHIFT DETAILS FOR MORE INFORMATION ON TEMPORARY ALIGNMENTS.

STAGE 2 CONSTRUCTION SEQUENCE NOTES

1. PLACE CONSTRUCTION PAVEMENT MARKINGS ON EASTBOUND AND WESTBOUND MAIN LANES AND SHIFT MAIN LANES.
2. PLACE PRECAST CONCRETE BARRIER ON EASTBOUND AND WESTBOUND INSIDE SHOULDERS.
3. CONSTRUCT CROSSOVER RAMPS IN MEDIAN AND TEMPORARY WIDENING ON WESTBOUND INSIDE SHOULDER.



SEE MAINTENANCE OF TRAFFIC WORK AREAS FOR SIGNS AND TRAFFIC CONTROL DEVICES.

(1) COORDINATION OF WORK WITH JOB BB0303 IS REQUIRED TO DETERMINE NEED OF SIGN PLACEMENT.

MAINTENANCE OF TRAFFIC STAGE 2 STA. 704+00 - STA. 765+00

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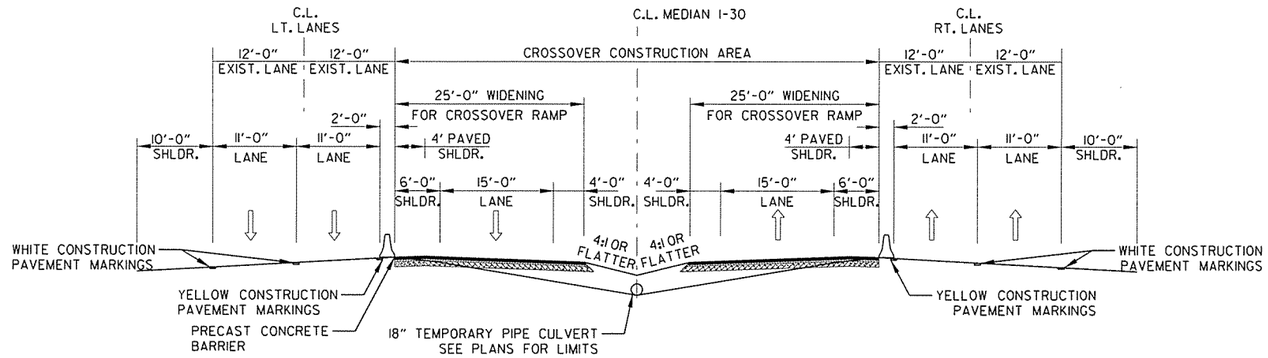
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	73	153

(2) MAINTENANCE OF TRAFFIC



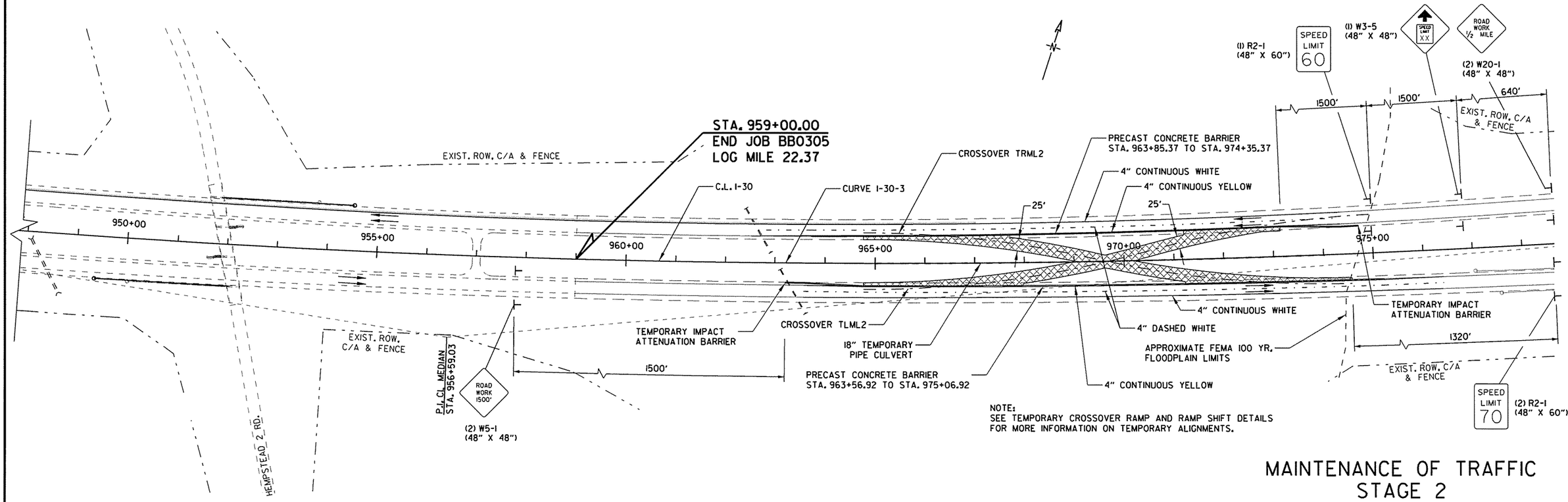
LEGEND

- TRAFFIC FLOW DIRECTION
- CROSSOVER CONSTRUCTION
- TEMPORARY CONSTRUCTION (PREVIOUS STAGE)

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
8/20/2015

STAGE 2: WORK ZONE FOR CROSSOVER RAMPS

STA. 964+76.57 TO STA. 974+55.90



NOTE:
SEE TEMPORARY CROSSOVER RAMP AND RAMP SHIFT DETAILS FOR MORE INFORMATION ON TEMPORARY ALIGNMENTS.

SEE MAINTENANCE OF TRAFFIC WORK AREAS FOR SIGNS AND TRAFFIC CONTROL DEVICES.

MAINTENANCE OF TRAFFIC STAGE 2

STA. 948+00 - STA. 978+00

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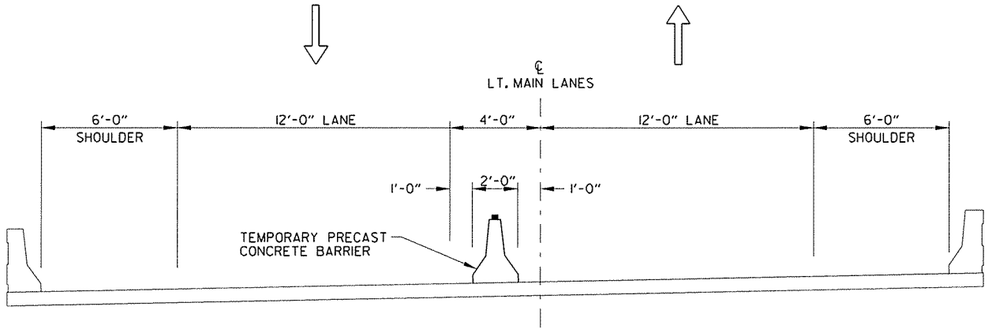
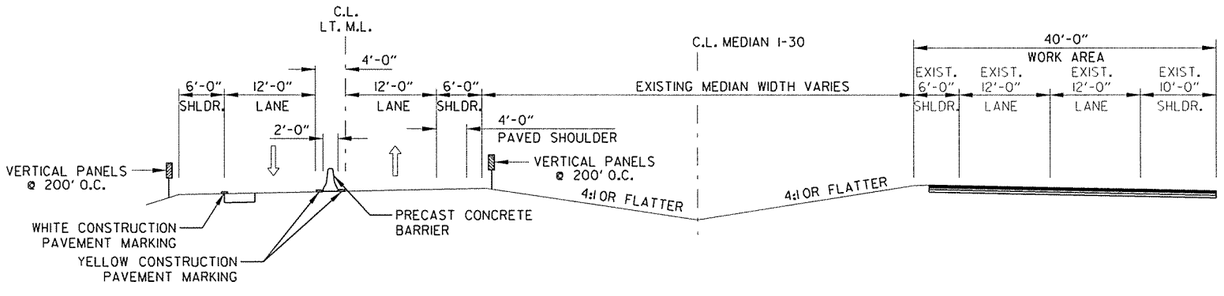
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	74	153

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER FOR
MAINTENANCE OF TRAFFIC - (STAGE 3)
BRIDGES 3864 (A&B), 3866 (A&B), 3867 (A&B)
(SHOWN IN DIRECTION OF STATIONING)



STAGE 3: WORK ZONE FOR RT. LANE WORK

STA. 724+36.25 TO STA. 967+81.25

STAGE 3 CONSTRUCTION SEQUENCE NOTES

1. MOVE WESTBOUND MAIN LANE TRAFFIC ONTO OUTSIDE LANE.
2. PLACE PRECAST CONCRETE BARRIER ON WESTBOUND LANES.
3. INSTALL TEMPORARY PRECAST CONCRETE BARRIER ON SHOULDERS AT BRIDGES.
4. UTILIZE CROSSOVER RAMP TO SHIFT EASTBOUND MAIN LANE TRAFFIC TO WESTBOUND INSIDE LANE.
5. MOVE ENTRANCE RAMP TRAFFIC ONTO TEMPORARY RAMP AND SHIFT EASTBOUND TRAFFIC ONTO CROSSOVER RAMP.
6. COMPLETE HYDRODEMOLITION WORK AND BRIDGE LATEX OVERLAY ON EASTBOUND BRIDGE NO. 3864B, COMPLETE POLYMER OVERLAY ON BRIDGE NOS. 3866B AND 3867B, RECONSTRUCT APPROACH SLABS, RUBBLIZATION OF PORTLAND CEMENT CONCRETE PAVEMENT, PAVE LANES AND SHOULDERS WITH BASE COURSE, BINDER COURSE AND FIRST LIFT OF SURFACE COURSE.
7. PLACE CONSTRUCTION PAVEMENT MARKINGS ON EASTBOUND LANES.

MAINTENANCE OF TRAFFIC
STAGE 3
TYPICAL SECTIONS

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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.		BB0305	75	153

② MAINTENANCE OF TRAFFIC

NOTE:
SEE TEMPORARY CROSSOVER RAMP AND RAMP SHIFT DETAILS FOR MORE INFORMATION ON TEMPORARY ALIGNMENTS.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

MATCH LINE B (1)

710+00 715+00 720+00 725+00 730+00 735+00 739+00

TRAFFIC DRUMS @ 60' O.C.

P.I. CL MEDIAN STA. 713+73.20

(1) WI-4 (48" X 48")

RED LAKE RD.

CURVE 130-1
P.I. = 713+73.20
Δ = 29° 33' 00" (LT)
D = 1° 15' 00"
T = 1,208.92'
L = 2,364.00'
P.C. = 701+64.28
P.T. = 725+28.28

EXISTING CONCRETE BARRIER WALL (RETAIN)

CL. MEDIAN STA. 724+36.25 BEGIN TEMP. PRECAST BARRIER ON WB SHLDR.

(1) RSP-1 (48" X 30")

SHOULDER CLOSED

50' MIN. OVERLAP

END OF EXISTING PRECAST BARRIER RETAIN

(3) WI-8 (36" X 48") @ 60' O.C.

(3) WI-8 (36" X 48") @ 60' O.C.

(1) W6-3 (48" X 48")

(2) W6-3 (48" X 48")

EXIST. ROW. C/A & FENCE

500'

C.L. I-30

TLMLI

N 42° 35' 00" E

TRRAMPI

TRMLI

TRAFFIC DRUMS @ 60' O.C.

ROAD CLOSED

(1) RII-2 (48" X 30")

WI-6 (48" X 24")

8 TRAFFIC DRUMS @ 20' O.C.

700' TEMP. ACCEL. LANE

300' TAPER

EXIST. ROW. C/A & FENCE

TRAFFIC DRUMS @ 40' O.C.

ROAD CLOSED

(1) RII-2 (48" X 30")

WI-6 (48" X 24")

8' BARR. TYP. III RT.

8' BARR. TYP. III RT.

(1) RII-2 (48" X 30")

ROAD CLOSED

8' BARR. TYP. III LT.

8' BARR. TYP. III RT.

DO NOT PASS

(2) R4-1 (48" X 60")

LEGEND

- TRAFFIC FLOW DIRECTION
- PERMANENT CONSTRUCTION
- TEMPORARY RAMPS (PREVIOUS STAGE)
- BRIDGE HYDRODEMOLITION/LATEX OVERLAY

STA. 743+07.69
BEGIN JOB BB0305
LOG MILE 18.28

STA. 743+65.28 BR. END

STA. 744+41.43 BR. END

STA. 748+44.20 BR. END

STA. 749+12.42 BR. END

STA. 748+21.08
INSTALL 250' PRECAST CONCRETE BARRIER

TEMPORARY IMPACT ATTENUATION BARRIER

PC. CL MEDIAN STA. 752+15.61

P.I. CL MEDIAN STA. 765+43.90

740+00 745+00 750+00 755+00 760+00 765+00

N 42° 35' 00" E

C.L. I-30

EXIST. ROW. C/A & FENCE

TLMLI

300' TAPER

STA. 741+34.73
INSTALL 250' PRECAST CONCRETE BARRIER

TEMPORARY IMPACT ATTENUATION BARRIER

HEMPSTEAD 49 RD.

MO. PAC. RR

US 67

CURVE 130-2
P.I. = 765+43.90
Δ = 38° 21' 00" (RT)
D = 1° 30' 00"
T = 1,328.30'
L = 2,556.67'
P.C. = 752+15.61
P.T. = 777+72.27
e = 0.054'/'
Ls = 350'

EXIST. ROW. C/A & FENCE

NOTE:
SEE STANDARD DRAWING TC-2 FOR SIGNS AND PLACEMENT ON TWO WAY TRAFFIC SEPARATED BY POSITIVE BARRIER.

(1) SEE MAINTENANCE OF TRAFFIC LANE CLOSURE SHEET FOR SIGNS AND TRAFFIC CONTROL DEVICES.

MAINTENANCE OF TRAFFIC
STAGE 3
STA. 708+00 - STA. 769+00

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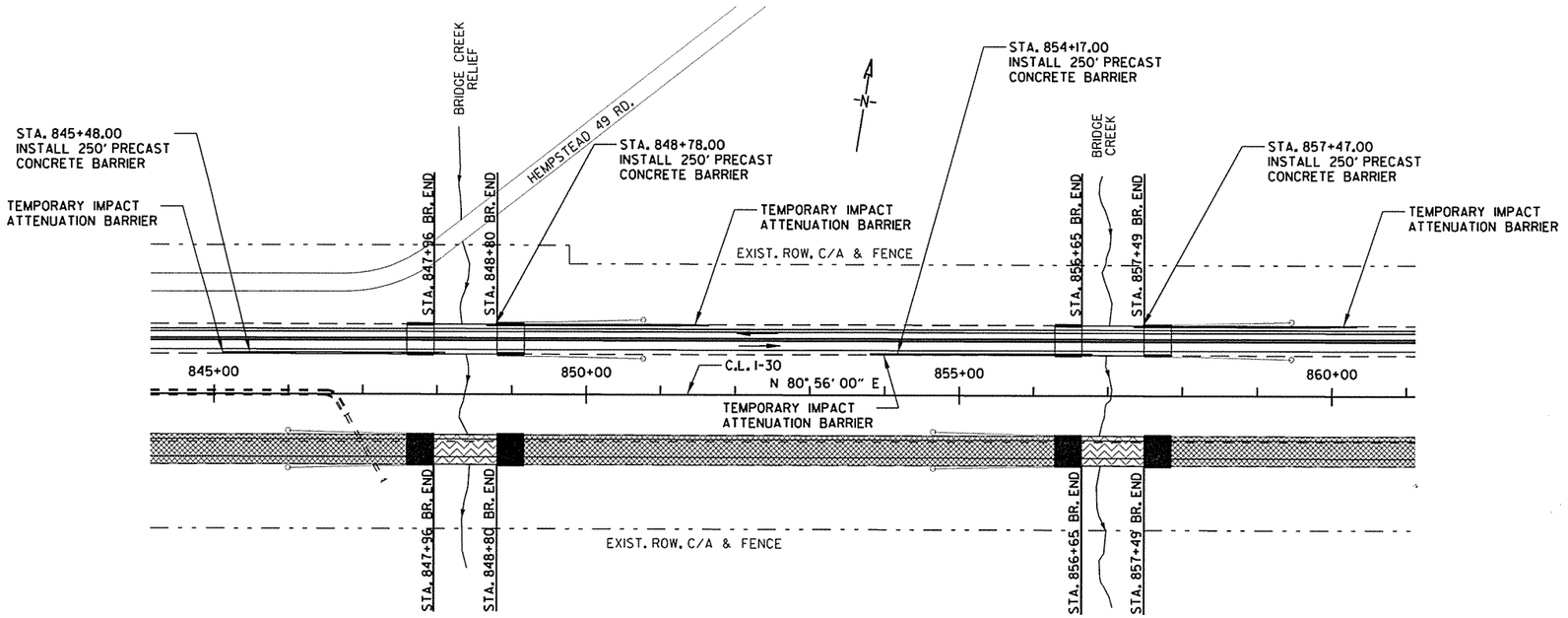
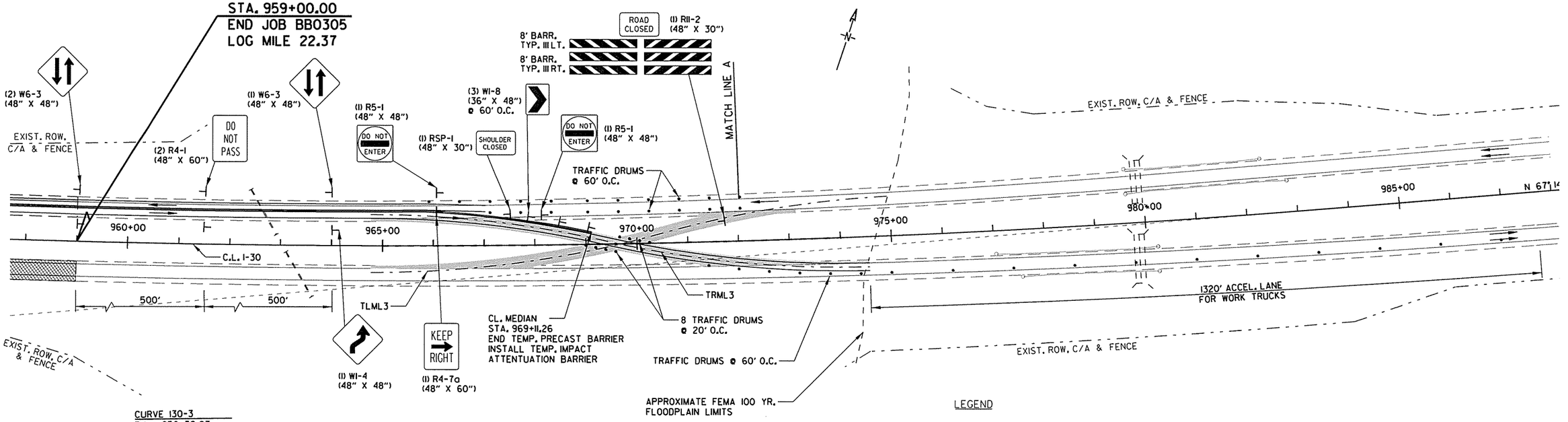
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	76	153

② MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESSNER
7/9/2015



STA. 959+00.00
END JOB BB0305
LOG MILE 22.37



CURVE 130-3
P.I. = 956+59.03
Δ = 13° 42' 00" (LT)
D = 0° 15' 00"
T = 2,753.13'
L = 5,480.00'
P.C. = 929+05.90
P.T. = 983+85.90
e = NO SUPER

LEGEND

- TRAFFIC FLOW DIRECTION
- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION (PREVIOUS STAGE)
- BRIDGE POLYMER OVERLAY

NOTE:
SEE STANDARD DRAWING TC-2 FOR SIGNS AND PLACEMENT ON TWO WAY TRAFFIC SEPARATED BY POSITIVE BARRIER.

MAINTENANCE OF TRAFFIC STAGE 3

STA. 958+00 - STA. 988+00

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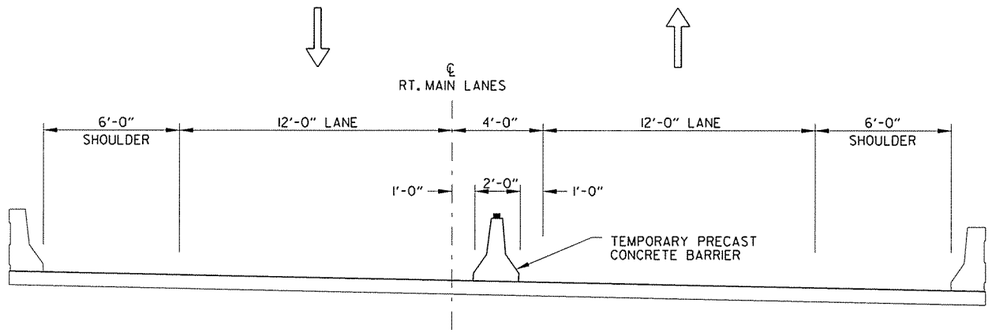
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

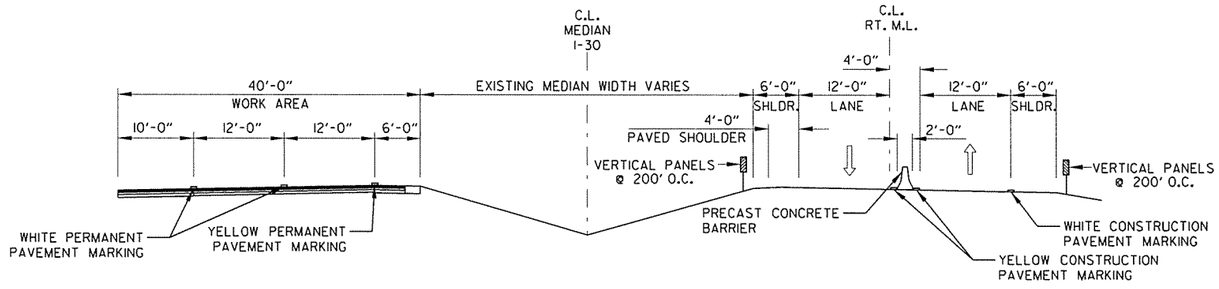
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	77	153

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015



LOCATION OF TEMPORARY PRECAST CONCRETE BARRIER FOR
MAINTENANCE OF TRAFFIC - (STAGE 4)
BRIDGES 3864 (A&B), 3866 (A&B), 3867 (A&B)
(SHOWN IN DIRECTION OF STATIONING)



STAGE 4: WORK ZONE FOR LT. LANE WORK

STA. 736+72.97 TO STA. 968+17.97

STAGE 4 CONSTRUCTION SEQUENCE NOTES

1. SHIFT EASTBOUND TRAFFIC ONTO EASTBOUND OUTSIDE LANE.
2. RELOCATE PRECAST CONCRETE BARRIER ON EASTBOUND LANES.
3. INSTALL TEMPORARY PRECAST CONCRETE BARRIER ON SHOULDERS AT BRIDGES AND CULVERTS.
4. MOVE WESTBOUND TRAFFIC TO INSIDE LANE OF EASTBOUND LANES AND CROSSOVERS.
5. COMPLETE HYDRODEMOLITION WORK AND BRIDGE LATEX OVERLAY ON WESTBOUND BRIDGE NO. 3864A, COMPLETE POLYMER OVERLAY ON BRIDGE NOS. 3866A AND 3867A, RECONSTRUCT APPROACH SLABS, RUBBLIZATION OF PORTLAND CEMENT CONCRETE PAVEMENT, FULLY PAVE LANES, APPLY FINAL SURFACE LIFT.
6. INSTALL IMPACT ATTENTUATION BARRIER, PIER PROTECTION, GUARDRAIL, AND WIRE ROPE SAFETY FENCE.
7. PLACE PERMANENT PAVEMENT MARKINGS ON WESTBOUND LANES.

MAINTENANCE OF TRAFFIC
STAGE 4
TYPICAL SECTIONS

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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.		BB0305	78	153

② MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESSNER
7/9/2015

STA. 743+07.69
BEGIN JOB BB0305
LOG MILE 18.28

EXISTING CONCRETE BARRIER WALL (RETAIN)

(2) RII-2 (48" X 30") ROAD CLOSED
8' BARR. TYP. III LT.
8' BARR. TYP. III RT.

5 ADDITIONAL DRUMS @ 20' O.C.
TRAFFIC DRUMS @ 60' O.C.
TRAFFIC DRUMS @ 40' O.C.
TRAFFIC DRUMS @ 60' O.C.
TRAFFIC DRUMS @ 120' O.C.

EXIST. ROW, C/A & FENCE

C.L. I-30
CURVE I-30-1
TRMLI
TLRAMPI
TLMLI
TRRAMPI

710+00 715+00 720+00 725+00 730+00 735+0

MATCH LINE B (1)
P.I. CL MEDIAN STA. 713+73.20
RED LAKE RD.

CURVE 130-1
P.I. = 713+73.20
Δ = 29° 33' 00" (LT)
D = 1° 15' 00"
T = 1,208.92'
L = 2,364.00'
P.C. = 701+64.28
P.T. = 725+28.28

700' RAMP ACCELERATION LANE
300' TAPER

(1) RII-2 (48" X 30") ROAD CLOSED
8' BARR. TYP. III LT.
8' BARR. TYP. III RT.

SHOULDER CLOSED (1) RSP-1 (48" X 30")

ROAD CLOSED (1) RII-2 (48" X 30")
8' BARR. TYP. III LT.
8' BARR. TYP. III RT.

CL. MEDIAN
STA. 735+50.15
BEGIN TEMP. PRECAST BARRIER
INSTALL TEMP. ATTENTUATION
IMPACT BARRIER

(3) WI-8 (36" X 48") @ 60' O.C.
KEEP RIGHT (1) R4-7a (48" X 60")
(1) WI-4 (48" X 48")

TRAFFIC DRUMS @ 60' O.C.

740+00 745+00 750+00 755+00 760+00 765+0

N 42° 35' 00" E

STA. 743+65.21 BR. END
US 67
MO. PAC. RR.
HEMPSTEAD 49 RD.
STA. 748+44.20 BR. END
STA. 748+92.90
INSTALL 250' PRECAST
CONCRETE BARRIER
P.C. CL MEDIAN STA. 752+15.61
P.I. CL MEDIAN STA. 765+43.90

EXISTING 300' TAPER

(1) R5-1 (48" X 48") DO NOT ENTER
END 10' OUTSIDE SHOULDER +59.35
BEGIN 6' OUTSIDE SHOULDER +79.35
(1) R5-1 (48" X 48") DO NOT ENTER

(1) W6-3 (48" X 48")
STA. 739+89.55
INSTALL 2200' PRECAST
CONCRETE BARRIER
TEMPORARY IMPACT ATTENUATION BARRIER
TLMLI

STA. 744+41.43 BR. END
DO NOT PASS (2) R4-1 (48" X 60")
STA. 749+12.42 BR. END

(1) W6-3 (48" X 48")
TEMPORARY IMPACT ATTENUATION BARRIER

CURVE 130-2
P.I. = 765+43.90
Δ = 38° 21' 00" (RT)
D = 1° 30' 00"
T = 1,328.30'
L = 2,556.67'
P.C. = 752+15.61
P.T. = 777+72.27
e = 0.054'/'
Ls = 350'

(1) SEE MAINTENANCE OF TRAFFIC LANE CLOSURE SHEET FOR SIGNS AND TRAFFIC CONTROL DEVICES.

LEGEND
- TRAFFIC FLOW DIRECTION
- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION (PREVIOUS STAGE)
- BRIDGE HYDRODEMOLITION/LATEX OVERLAY

NOTE:
SEE STANDARD DRAWING TC-2 FOR SIGNS AND PLACEMENT ON TWO WAY TRAFFIC SEPARATED BY POSITIVE BARRIER.

MAINTENANCE OF TRAFFIC STAGE 4
STA. 704+00 - STA. 765+00

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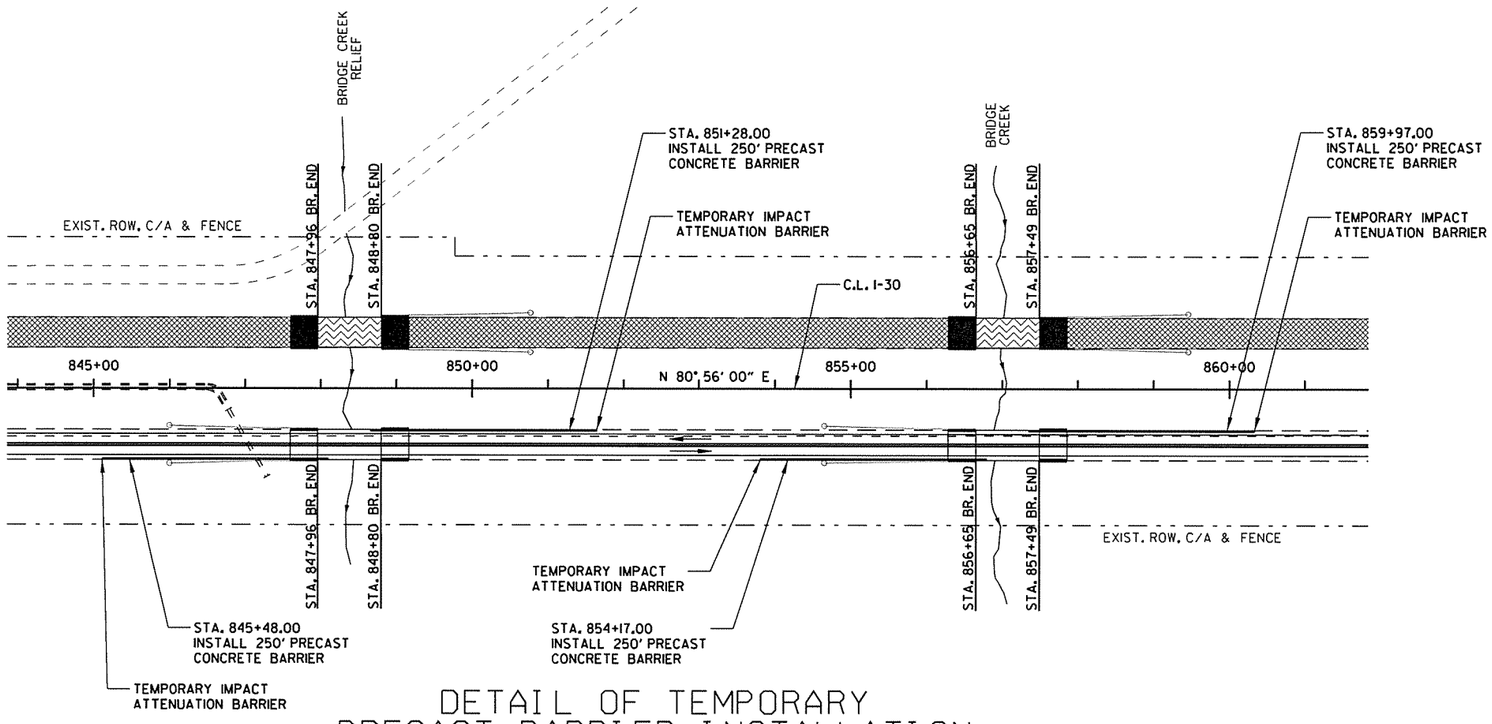
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	79	153

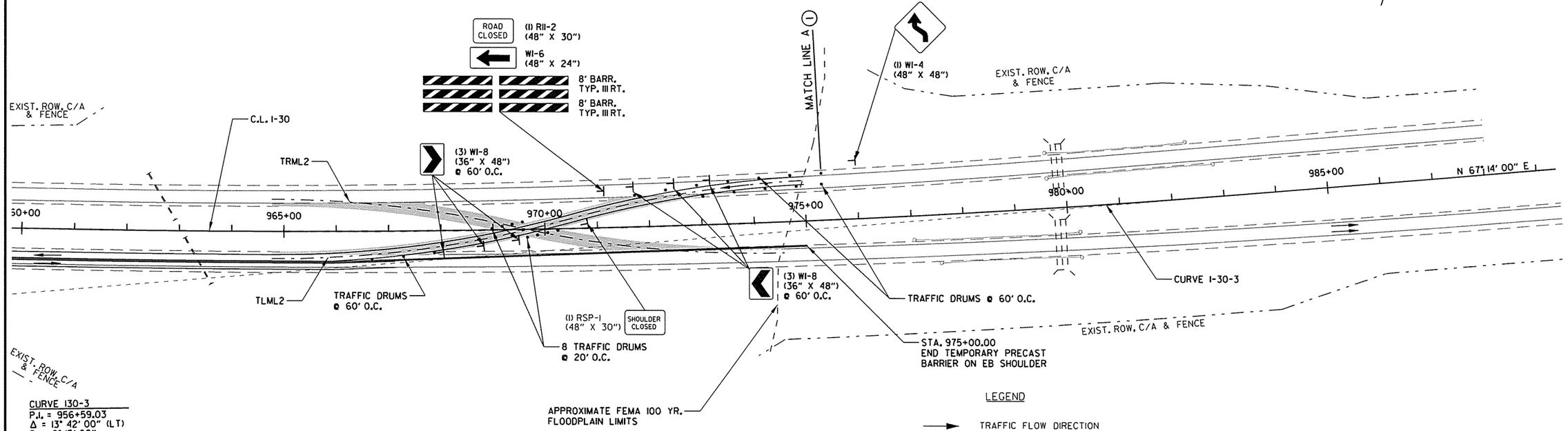
② MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

7/9/2015



DETAIL OF TEMPORARY PRECAST BARRIER INSTALLATION AT EXISTING BRIDGES



CURVE 130-3
P.I. = 956+59.03
Δ = 13° 42' 00" (LT)
D = 0° 15' 00"
T = 2,753.13'
L = 5,480.00'
P.C. = 929+05.90
P.T. = 983+85.90
e = NO SUPER

① NOTE: SEE MAINTENANCE OF TRAFFIC LANE CLOSURE SHEET FOR SIGNS AND TRAFFIC CONTROL DEVICES.

NOTE:
SEE STANDARD DRAWING TC-2 FOR SIGNS AND PLACEMENT ON TWO WAY TRAFFIC SEPARATED BY POSITIVE BARRIER.

LEGEND

- TRAFFIC FLOW DIRECTION
- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION (PREVIOUS STAGE)
- BRIDGE POLYMER OVERLAY

MAINTENANCE OF TRAFFIC STAGE 4

STA. 844+00 - STA. 991+00

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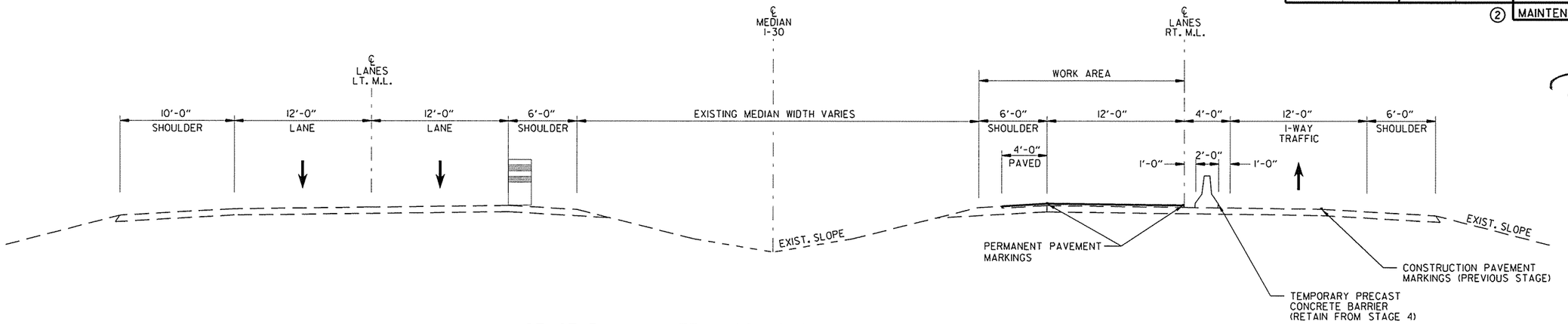
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	80	153

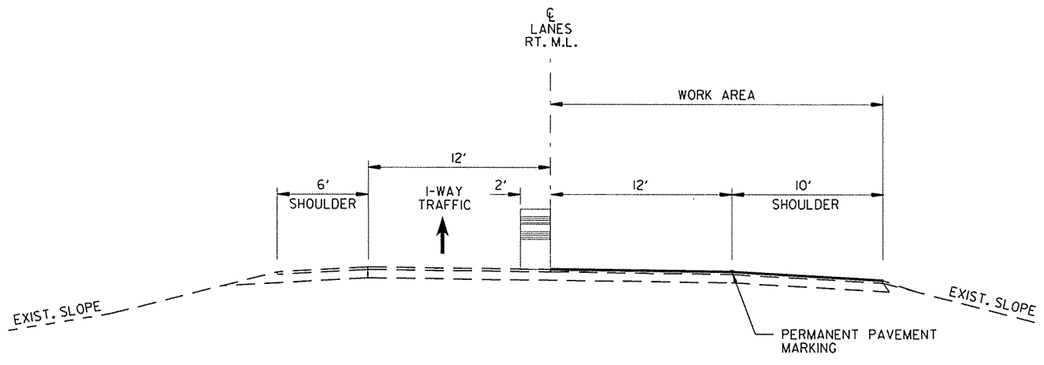
② MAINTENANCE OF TRAFFIC



STAGE 5A - MAINTENANCE OF TRAFFIC TYPICAL SECTION

STAGE 5A CONSTRUCTION SEQUENCE NOTES

1. MOVE WESTBOUND TRAFFIC TO WESTBOUND MAIN LANES.
2. PLACE DRUMS ON WESTBOUND MAIN LANE SHOULDER AT 120' (60' ON CURVES) INTERVALS.
3. KEEP EASTBOUND TRAFFIC ON OUTSIDE LANE. RETAIN PRECAST CONCRETE BARRIER.
4. OBLITERATE MEDIAN CROSSOVERS.
5. PAVE EASTBOUND INSIDE LANE AND SHOULDER WITH FINAL LIFT SURFACE COURSE.
6. INSTALL GUARDRAIL AND IMPACT ATTENUATION BARRIER.
7. PLACE PERMANENT PAVEMENT MARKINGS ALONG CENTERLINE AND EDGE LINE BEFORE OPENING INSIDE LANE TO TRAFFIC.



STAGE 5B - MAINTENANCE OF TRAFFIC TYPICAL SECTION

RIGHT LANE SHOWN

STAGE 5B CONSTRUCTION SEQUENCE NOTES

1. MOVE EASTBOUND TRAFFIC TO INSIDE LANE.
2. REMOVE PRECAST CONCRETE BARRIER AND PLACE DRUMS ALONG CENTERLINE OF LANES AT 120' (60' ON CURVES) INTERVALS.
3. PAVE OUTSIDE LANE AND SHOULDER WITH FINAL LIFT SURFACE COURSE.
4. INSTALL PIER PROTECTION AND GUARDRAIL.
5. PLACE PERMANENT PAVEMENT MARKINGS ALONG EDGE LINE BEFORE OPENING OUTSIDE LANE TO TRAFFIC.

MAINTENANCE OF TRAFFIC STAGE 5

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 15845 ROSA PLESNER

7/9/2015

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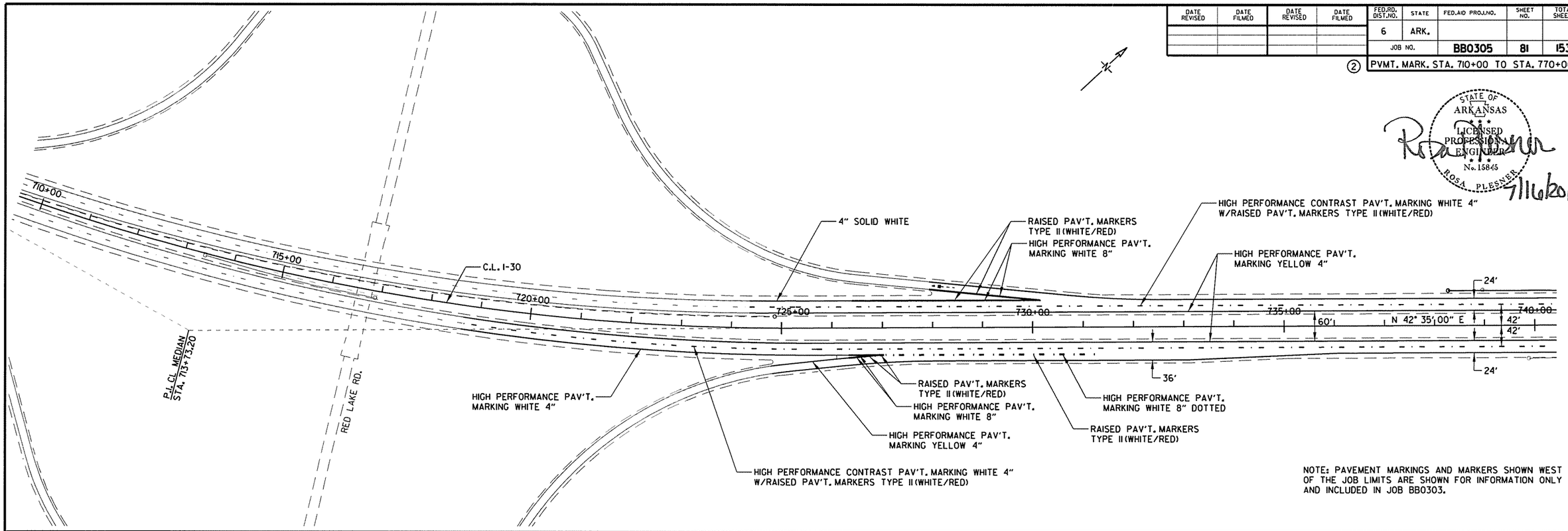
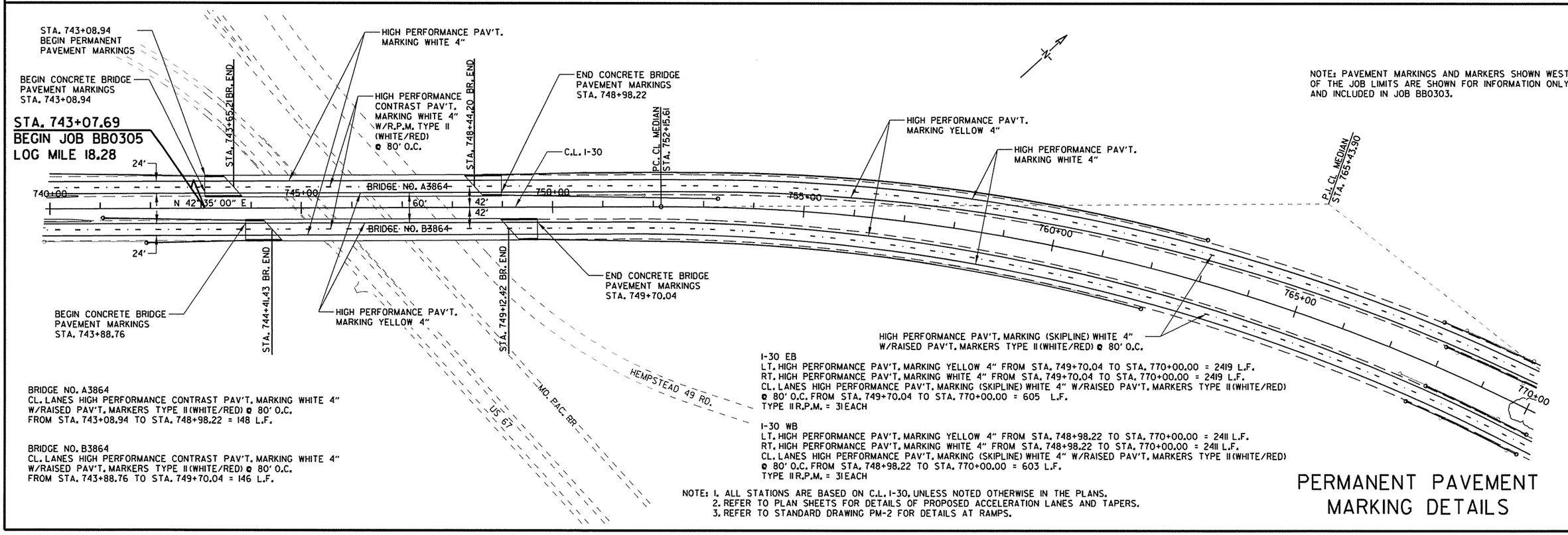
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	81	153

(2) PVMT. MARK. STA. 710+00 TO STA. 770+00

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESSNER
7/16/2015



NOTE: PAVEMENT MARKINGS AND MARKERS SHOWN WEST OF THE JOB LIMITS ARE SHOWN FOR INFORMATION ONLY AND INCLUDED IN JOB BB0303.



NOTE: PAVEMENT MARKINGS AND MARKERS SHOWN WEST OF THE JOB LIMITS ARE SHOWN FOR INFORMATION ONLY AND INCLUDED IN JOB BB0303.

BRIDGE NO. A3864
CL. LANES HIGH PERFORMANCE CONTRAST PAV'T. MARKING WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C.
FROM STA. 743+08.94 TO STA. 748+98.22 = 148 L.F.

BRIDGE NO. B3864
CL. LANES HIGH PERFORMANCE CONTRAST PAV'T. MARKING WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C.
FROM STA. 743+88.76 TO STA. 749+70.04 = 146 L.F.

HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C.

I-30 EB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 749+70.04 TO STA. 770+00.00 = 2419 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 749+70.04 TO STA. 770+00.00 = 2419 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 749+70.04 TO STA. 770+00.00 = 605 L.F.
TYPE II R.P.M. = 31 EACH

I-30 WB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 748+98.22 TO STA. 770+00.00 = 2411 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 748+98.22 TO STA. 770+00.00 = 2411 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 748+98.22 TO STA. 770+00.00 = 603 L.F.
TYPE II R.P.M. = 31 EACH

NOTE: 1. ALL STATIONS ARE BASED ON C.L. I-30, UNLESS NOTED OTHERWISE IN THE PLANS.
2. REFER TO PLAN SHEETS FOR DETAILS OF PROPOSED ACCELERATION LANES AND TAPERS.
3. REFER TO STANDARD DRAWING PM-2 FOR DETAILS AT RAMPS.

PERMANENT PAVEMENT MARKING DETAILS

7/10/2015 3:18:31 PM
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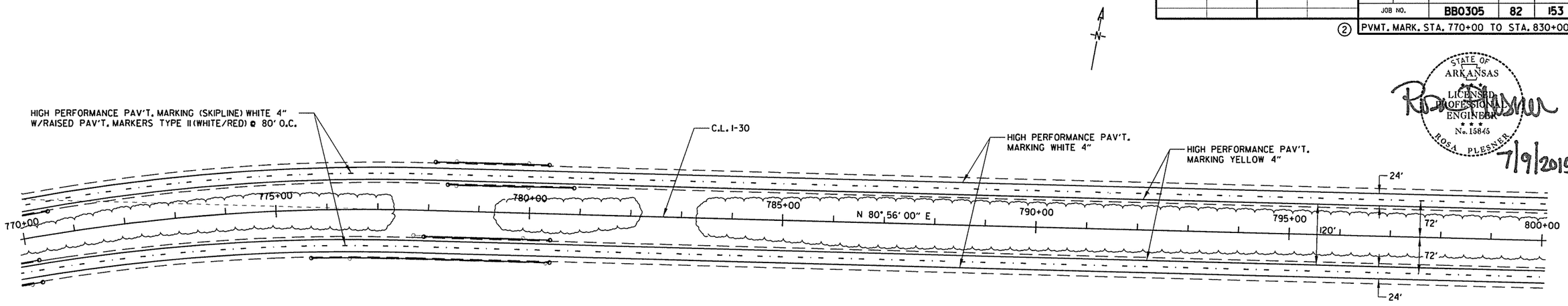
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

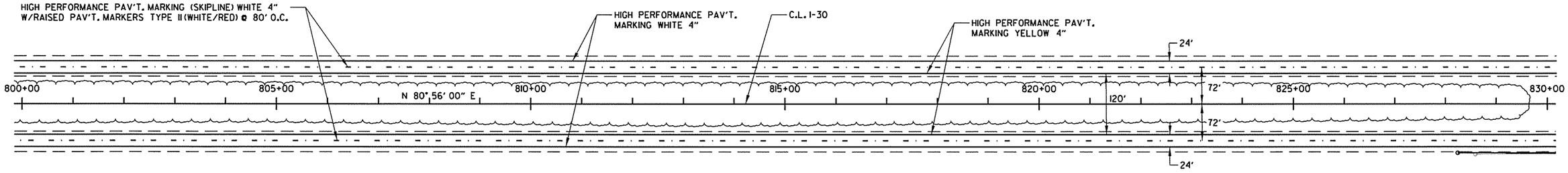
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	82	153

(2) PVMT. MARK. STA. 770+00 TO STA. 830+00



I-30 EB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 770+00.00 TO STA. 800+00.00 = 3000 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 770+00.00 TO STA. 800+00.00 = 3000 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C.
FROM STA. 770+00.00 TO STA. 800+00.00 = 750 L.F.
TYPE II R.P.M. = 38 EACH

I-30 WB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 770+00.00 TO STA. 800+00.00 = 3000 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 770+00.00 TO STA. 800+00.00 = 3000 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C.
FROM STA. 770+00.00 TO STA. 800+00.00 = 750 L.F.
TYPE II R.P.M. = 38 EACH



I-30 EB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 800+00.00 TO STA. 830+00.00 = 3000 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 800+00.00 TO STA. 830+00.00 = 3000 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C.
FROM STA. 800+00.00 TO STA. 830+00.00 = 750 L.F.
TYPE II R.P.M. = 38 EACH

I-30 WB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 800+00.00 TO STA. 830+00.00 = 3000 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 800+00.00 TO STA. 830+00.00 = 3000 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C.
FROM STA. 800+00.00 TO STA. 830+00.00 = 750 L.F.
TYPE II R.P.M. = 38 EACH

NOTE: 1. ALL STATIONS ARE BASED ON C.L. I-30, UNLESS NOTED OTHERWISE IN THE PLANS.
2. REFER TO PLAN SHEETS FOR DETAILS OF PROPOSED ACCELERATION LANES AND TAPERS.
3. REFER TO STANDARD DRAWING PM-2 FOR DETAILS AT RAMPS.

PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

7-7-2015 11:08:15 AM
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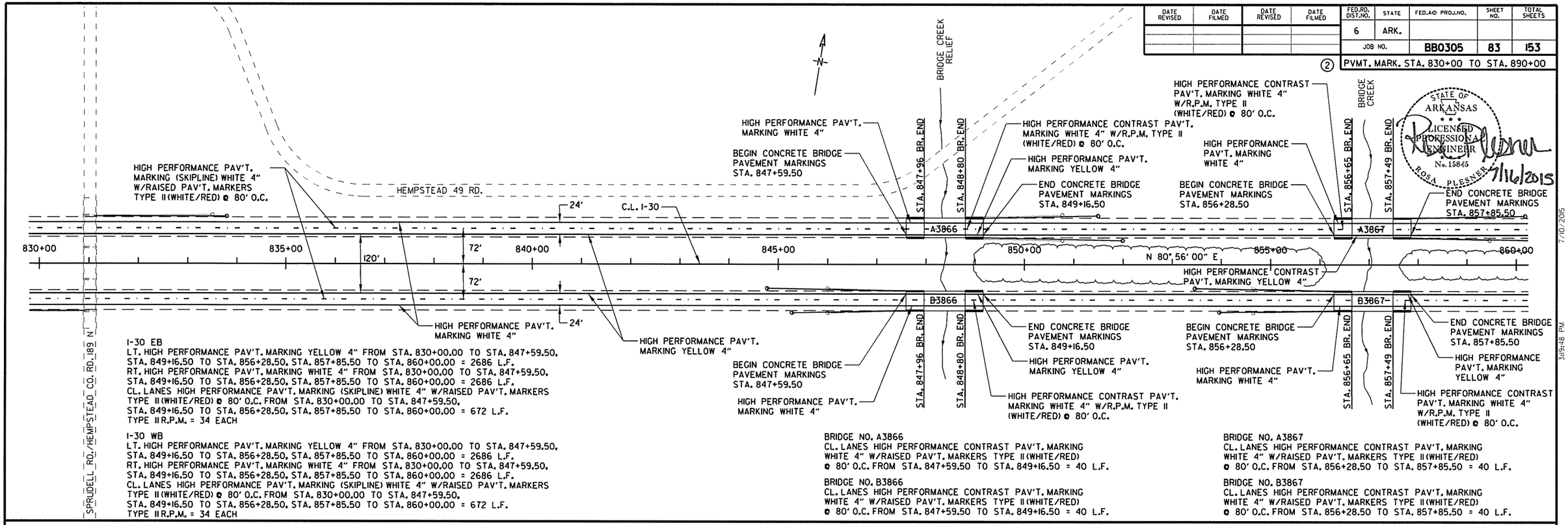
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	83	153

(2) PVMT. MARK. STA. 830+00 TO STA. 890+00



I-30 EB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 830+00.00 TO STA. 847+59.50, STA. 849+16.50 TO STA. 856+28.50, STA. 857+85.50 TO STA. 860+00.00 = 2686 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 830+00.00 TO STA. 847+59.50, STA. 849+16.50 TO STA. 856+28.50, STA. 857+85.50 TO STA. 860+00.00 = 2686 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 830+00.00 TO STA. 847+59.50, STA. 849+16.50 TO STA. 856+28.50, STA. 857+85.50 TO STA. 860+00.00 = 672 L.F.
TYPE II R.P.M. = 34 EACH

I-30 WB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 830+00.00 TO STA. 847+59.50, STA. 849+16.50 TO STA. 856+28.50, STA. 857+85.50 TO STA. 860+00.00 = 2686 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 830+00.00 TO STA. 847+59.50, STA. 849+16.50 TO STA. 856+28.50, STA. 857+85.50 TO STA. 860+00.00 = 2686 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 830+00.00 TO STA. 847+59.50, STA. 849+16.50 TO STA. 856+28.50, STA. 857+85.50 TO STA. 860+00.00 = 672 L.F.
TYPE II R.P.M. = 34 EACH

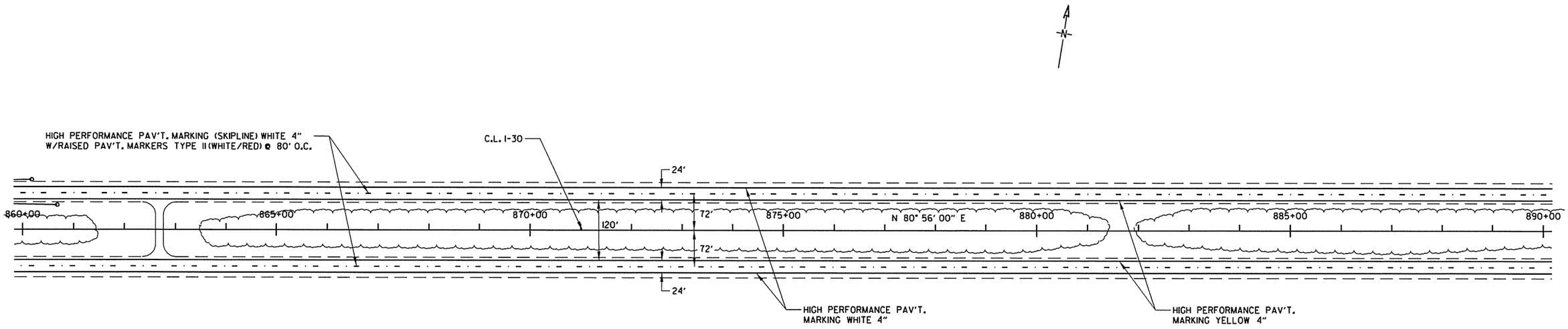
BRIDGE NO. A3866
CL. LANES HIGH PERFORMANCE CONTRAST PAV'T. MARKING WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 847+59.50 TO STA. 849+16.50 = 40 L.F.

BRIDGE NO. B3866
CL. LANES HIGH PERFORMANCE CONTRAST PAV'T. MARKING WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 847+59.50 TO STA. 849+16.50 = 40 L.F.

BRIDGE NO. A3867
CL. LANES HIGH PERFORMANCE CONTRAST PAV'T. MARKING WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 856+28.50 TO STA. 857+85.50 = 40 L.F.

BRIDGE NO. B3867
CL. LANES HIGH PERFORMANCE CONTRAST PAV'T. MARKING WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 856+28.50 TO STA. 857+85.50 = 40 L.F.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/16/2015



I-30 EB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 860+00.00 TO STA. 890+00.00 = 3000 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 860+00.00 TO STA. 890+00.00 = 3000 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 860+00.00 TO STA. 890+00.00 = 750 L.F.
TYPE II R.P.M. = 38 EACH

I-30 WB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 860+00.00 TO STA. 890+00.00 = 3000 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 860+00.00 TO STA. 890+00.00 = 3000 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 860+00.00 TO STA. 890+00.00 = 750 L.F.
TYPE II R.P.M. = 38 EACH

NOTE: 1. ALL STATIONS ARE BASED ON C.L. I-30, UNLESS NOTED OTHERWISE IN THE PLANS.
2. REFER TO PLAN SHEETS FOR DETAILS OF PROPOSED ACCELERATION LANES AND TAPERS.
3. REFER TO STANDARD DRAWING PM-2 FOR DETAILS AT RAMPS.

PERMANENT PAVEMENT MARKING DETAILS

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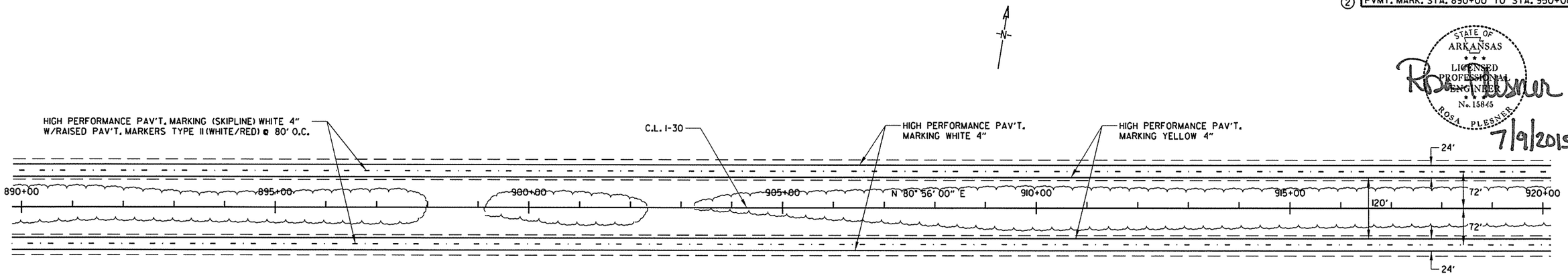
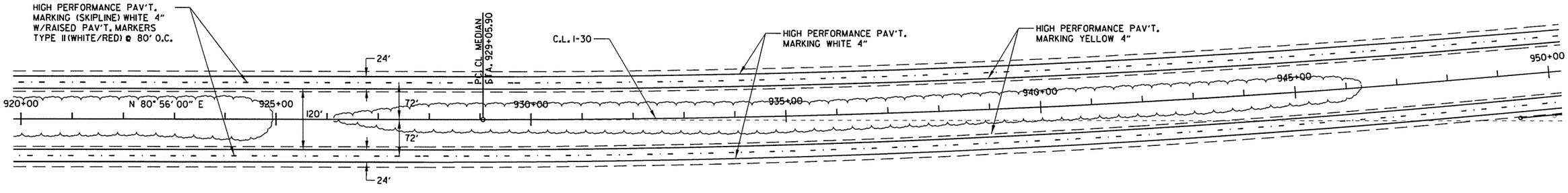
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	84	153

(2) PVMT. MARK. STA. 890+00 TO STA. 950+00



I-30 EB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 890+00.00 TO STA. 920+00.00 = 3000 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 890+00.00 TO STA. 920+00.00 = 3000 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 890+00.00 TO STA. 920+00.00 = 750 L.F.
TYPE II R.P.M. = 38 EACH

I-30 WB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 890+00.00 TO STA. 920+00.00 = 3000 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 890+00.00 TO STA. 920+00.00 = 3000 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 890+00.00 TO STA. 920+00.00 = 750 L.F.
TYPE II R.P.M. = 38 EACH



I-30 EB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 920+00.00 TO STA. 950+00.00 = 3000 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 920+00.00 TO STA. 950+00.00 = 3000 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 920+00.00 TO STA. 950+00.00 = 750 L.F.
TYPE II R.P.M. = 38 EACH

I-30 WB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 920+00.00 TO STA. 950+00.00 = 3000 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 920+00.00 TO STA. 950+00.00 = 3000 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 920+00.00 TO STA. 950+00.00 = 3000 L.F.
TYPE II R.P.M. = 38 EACH

NOTE: 1. ALL STATIONS ARE BASED ON C.L. I-30, UNLESS NOTED OTHERWISE IN THE PLANS.
2. REFER TO PLAN SHEETS FOR DETAILS OF PROPOSED ACCELERATION LANES AND TAPERS.
3. REFER TO STANDARD DRAWING PM-2 FOR DETAILS AT RAMPS.

PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

7/7/2015 11:08:16 AM
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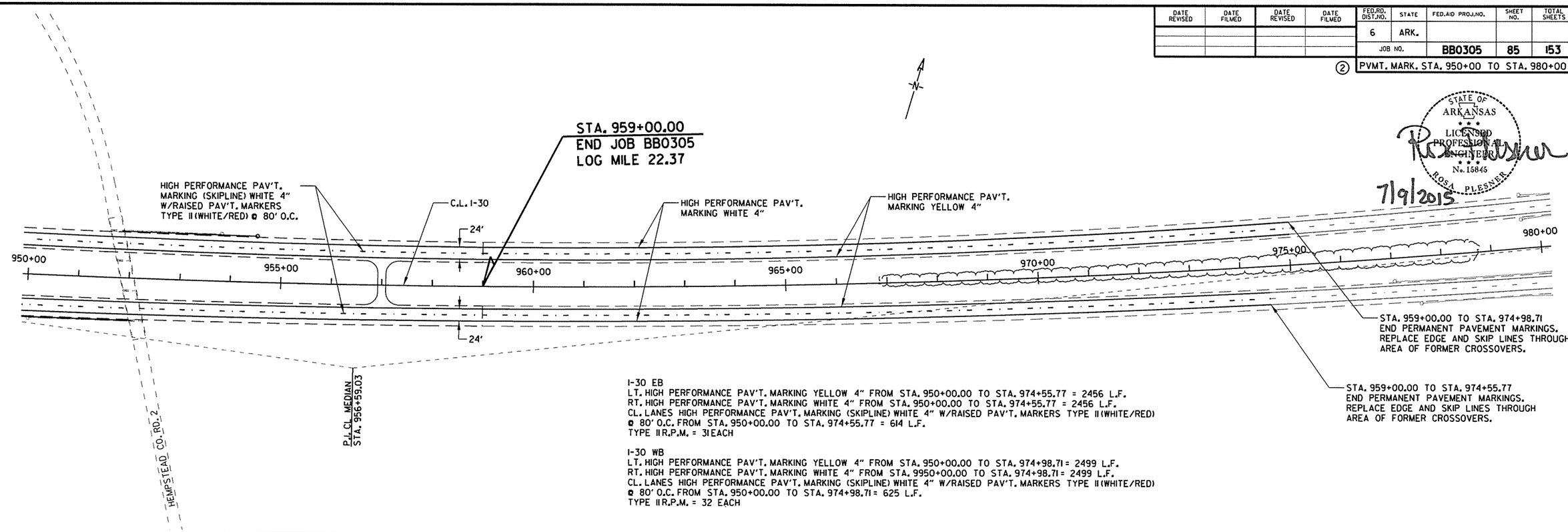
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	85	153

(2) PVMT. MARK. STA. 950+00 TO STA. 980+00



STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESNER
7/9/2015

I-30 EB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 950+00.00 TO STA. 974+55.77 = 2456 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 950+00.00 TO STA. 974+55.77 = 2456 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 950+00.00 TO STA. 974+55.77 = 614 L.F.
TYPE II R.P.M. = 31 EACH

I-30 WB
LT. HIGH PERFORMANCE PAV'T. MARKING YELLOW 4" FROM STA. 950+00.00 TO STA. 974+98.71 = 2499 L.F.
RT. HIGH PERFORMANCE PAV'T. MARKING WHITE 4" FROM STA. 9950+00.00 TO STA. 974+98.71 = 2499 L.F.
CL. LANES HIGH PERFORMANCE PAV'T. MARKING (SKIPLINE) WHITE 4" W/RAISED PAV'T. MARKERS TYPE II (WHITE/RED) @ 80' O.C. FROM STA. 950+00.00 TO STA. 974+98.71 = 625 L.F.
TYPE II R.P.M. = 32 EACH

NOTE: 1. ALL STATIONS ARE BASED ON C.L. I-30, UNLESS NOTED OTHERWISE IN THE PLANS.
2. REFER TO PLAN SHEETS FOR DETAILS OF PROPOSED ACCELERATION LANES AND TAPERS.
3. REFER TO STANDARD DRAWING PM-2 FOR DETAILS AT RAMPS.

PERMANENT PAVEMENT MARKING DETAILS

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ADVANCE WARNING SIGNS AND DEVICES (BOX 1 OF 2)

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5A	STAGE 5B	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	VERTICAL PANELS	ADVANCE WARNING ARROW PANEL	MOBILE SPEED NOTIFICATION SYSTEM	PORTABLE CHANGEABLE MESSAGE SIGN
			LIN.FT.-EA							NO.	SQ. FT.	EACH	EACH	DAY	EACH	WEEK
W20-1	ROAD WORK 1 MILE	48"X48"	4	4	4	4	4	2		4	64.0					
W20-1	ROAD WORK 1/2 MILE	48"X48"	4	4	4	4	4	2		4	64.0					
W20-1	ROAD WORK 1500 FT.	48"X48"	4	8	4	4	4	2		8	128.0					
W20-1	ROAD WORK AHEAD	48"X48"	4		6	6	6	4		6	96.0					
G20-1	ROAD WORK NEXT 4.8 MILES	60"X24"	2	2	2	2	2	1		2	20.0					
G20-2	END ROAD WORK	48"X24"	6	6	6	6	6	2		6	48.0					
SPECIAL	MERGE NOW + ARROW	48"X48"	1		2	2	1	1		2	32.0					
W20-5	RIGHT LANE CLOSED 1 MILE	48"X48"	2		4	4	2	2		4	64.0					
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"X48"	2		4	4	2	2		4	64.0					
W20-5	RIGHT LANE CLOSED 1500 FT.	48"X48"	2		4	2	2	2		4	64.0					
W4-2	RIGHT LANE CLOSING GRAPHIC	48"X48"	2		4	4	2	2		4	64.0					
W1-6	LARGER ARROW	60"X30"	3		15	8	6	6		15	187.5					
R4-1	DO NOT PASS	48"X60"	4		8	8	4	4		8	160.0					
R55-1	FINES DOUBLE IN WORK ZONES	36"X60"	4	4	4	4	4	2		4	60.0					
W3-5	STRAIGHT ARROW SPEED LIMIT XX	48"X48"	2	4	4	4	2	2		4	64.0					
R2-1	SPEED LIMIT 60 MPH	48"X60"	2	4	4	4	2	2		4	80.0					
R2-1	SPEED LIMIT 70 MPH	48"X60"	2	4	4	4	2	2		4	80.0					
RSP-1	SHOULDER CLOSED	48"X30"	2	2	2	2				2	20.0					
W1-4R	REVERSE CURVE LT.	48"X48"		4	1	1				4	64.0					
W1-4L	REVERSE CURVE RT.	48"X48"		4	5	1				5	80.0					
W1-8	CHEVRONS	36"X48"			9	9				9	108.0					
R11-2	ROAD CLOSED	48"X30"			5	5				5	50.0					
M4-1a	ALT	36"X18"								12	54.0					
M3-2	EAST	36"X18"								8	36.0					
M3-4	WEST	36"X18"								9	40.5					
M4-4	TRUCK	36"X18"								5	22.5					
M1-1	INTERSTATE 30	36"X36"								17	153.0					
M6-1	HORIZONTAL ARROW	30"X24"								6	36.0					
M6-3	VERTICAL ARROW	30"X24"								11	66.0					
SPECIAL	RUMBLE STRIPS AHEAD	48"X48"			4	4		2		4	64.0					
SPECIAL**	ALTERNATE ROUTE EXIT X	192"X66"								4	352.0					
SPECIAL	WIDE LOADS TRUCKS	192"X54"								1	72.0					
SPECIAL	ALTERNATE ROUTE TAKE HIGHWAY 67 RIGHT ARROW	114"X36"								4	114.0					
SPECIAL	ALTERNATE ROUTE TAKE BUSINESS 278 LEFT ARROW	114"X36"								2	57.0					
SPECIAL	NO TRUCKS	114"X18"								1	14.3					
SPECIAL	ALTERNATE ROUTE LEFT ARROW	114"X36"								4	114.0					
SPECIAL	ALTERNATE ROUTE RIGHT ARROW	114"X36"								3	85.5					
SPECIAL	ALTERNATE ROUTE TAKE BUSINESS 29 LEFT ARROW	114"X36"								1	28.5					
SPECIAL	WIDE LOADS MUST EXIT EXIT 31	138"X78"								1	74.8					
	TRAFFIC DRUMS		269		224	210	57	306	306			306				
	VERTICAL PANELS			16	236	239	120		239				239			
	ADVANCE WARNING ARROW PANEL		1		2	2	1	1	2					530		
	MOBILE SPEED NOTIFICATION SYSTEM		2	2	2	2	2	2	2						2	
*	PORTABLE CHANGEABLE MESSAGE SIGN		2	2	4	4	2	2	4							145
TOTALS:										3045.6		306	239	530	2	145

ADVANCE WARNING SIGNS AND DEVICES (BOX 2 OF 2)

DESCRIPTION	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5A	STAGE 5B	MAXIMUM NUMBER REQUIRED	TYP. III BARRICADE LT. (8')	TYP. III BARRICADE RT. (8')	TEMPORARY IMPACT ATTENUATION BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER (RELOCATION)	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)	THERMOPLASTIC RUMBLE BARS	PRECAST CONC. BARRIER		MOTORIST ASSISTANCE PATROL	TEMPORARY RELOCATION OF EXISTING SIGNS	REMOVAL OF THERMOPLASTIC RUMBLE BARS
	LIN.FT.-EA							LIN. FT.	LIN. FT.	EACH			LIN. FT.	FURNISHING & INSTALLING	RELOCATING	LUMP SUM	EACH	LIN. FT.
TYP. III BARRICADE - LT. (8')			2	4			4	32										
TYP. III BARRICADE - RT. (8')			4	6			6		48									
TEMPORARY IMPACT ATTENUATION BARRIER		4	9	2			15			15								
TEMPORARY IMPACT ATTENUATION BARRIER (RELOCATION)			4	13	1		18				18							
TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)		4	13	15	1		33					33						
THERMOPLASTIC RUMBLE BARS	240	240	240	240	120		1080						1080					
REMOVAL OF THERMOPLASTIC RUMBLE BARS	240	240	240	240		120	1080											1080
FURNISHING & INSTALLING PRECAST CONC. BARRIER		6100	22925	8175			37200							37200				
RELOCATING PRECAST CONC. BARRIER			6100	22925			29025								29025			
MOTORIST ASSISTANCE PATROL	1	1	1	1	1	1	1									1.00		
TEMPORARY RELOCATION OF EXISTING SIGNS			1	3			4										4	
TOTALS:								32	48	15	18	33	1080	37200	29025	1.00	4	1080

NOTE: THIS IS A HIGH VOLUME ROAD AS DEFINED IN SECTION 604.03 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014.

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.		BB0305	86	153

② QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
9/28/2015

NOTE: THIS IS A HIGH VOLUME ROAD AS DEFINED IN SECTION 604.03 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014.

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

** SEE TEMPORARY SIGN DETAILS FOR EXIT NUMBERS.

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
11-17-15				6	ARK.			
				JOB NO.		BB0305	87	153

(2) QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

11/18/2015

CONSTRUCTION AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	ENTIRE JOB	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS (TYPE II) (WHITE/RED)	HIGH PERFORMANCE PAVEMENT MARKING			HIGH PERFORMANCE CONTRAST PAVEMENT MARKING
							WHITE 4"	(SKIP LINE) WHITE 4"	YELLOW 4"	WHITE 4"
	LIN. FT.-EACH	LIN. FT.				EACH	LIN. FT.			LIN. FT.
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	89324	89324								
REMOVAL OF PERMANENT PAVEMENT MARKINGS	65504		65504							
CONSTRUCTION PAVEMENT MARKINGS	146398			146398						
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	60034				60034					
RAISED PAVEMENT MARKERS (TYPE II) (WHITE/RED)	579					579				
HIGH PERFORMANCE PAVEMENT MARKING WHITE (4")	46258						46258			
HIGH PERFORMANCE PAVEMENT MARKING (SKIP LINE) WHITE (4")	11520							11520		
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4")	46258								46258	
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING WHITE (4")	1564									1564
TOTALS:		89324	65504	146398	60034	579	46258	11520	46258	1564

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.

NOTE: NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED UNTIL A MINIMUM OF 3 DAYS AFTER ALL MAIN LANE PAVING HAS BEEN COMPLETED. IN ADDITION, NO PERMANENT PAVEMENT MARKINGS SHALL BE PLACED DURING THE TIME PERIOD FROM DECEMBER 21 TO MARCH 15, INCLUSIVE.

AUTOMATED WORK ZONE INFORMATION SYSTEM

LOCATION	* AWIS MOBILIZATION	* AWIS OPERATION	* DEVICE RELOCATION	FURNISH AND INSTALL			
				* CLOSED CIRCUIT TELEVISION SYSTEM	* PUBLIC NOTIFICATION SYSTEM	* VARIABLE MESSAGE SIGN	* VEHICLE DETECTION SYSTEM
	LUMP SUM	MONTH	EACH				
ENTIRE PROJECT	1.00	12	10	2	2	4	36
TOTALS:	1.00	12	10	2	2	4	36

* QUANTITIES ESTIMATED. REFER TO SECTION 104.03 OF THE STANDARD SPECIFICATIONS.
REFER TO "AUTOMATED WORK ZONE INFORMATION SYSTEM" SPECIAL PROVISION.

THE DEVICES NEEDED FOR THE AWIS SYSTEM ARE ESTIMATED BASED ON THE FOLLOWING CRITERIA:
VDS - 1/2 MILE SPACING FOR 6 MILES WEST OF BB0303 AND 6 MILES EAST OF BB0305. 1 MILE SPACING WITHIN THE WORK ZONE.
VMS - ONE IN ADVANCE OF EACH OF THE FOLLOWING:
EASTBOUND - MANDEVILLE (EXIT 7), FULTON (EXIT 12)
WESTBOUND - HOPE (EXIT 30), HOPE (EXIT 31)
PNS - ONE AT THE MANDEVILLE EXIT AND ONE AT THE HOPE EXIT.
CCTV - ONE EACH AT THE BEGINNING OF BB0303 AND ONE AT THE END OF BB0305.

NOTE: THE CONTRACTOR SHALL COORDINATE WITH BB0303 FOR PLACEMENT AND OPERATION OF AUTOMATED WORK ZONE INFORMATION SYSTEM.

SOIL STABILIZATION

LOCATION	TON
ENTIRE PROJECT*	300

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

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.		BB0305	88	153

② QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/16/2015

STRUCTURES

STATION	LOCATION	DESCRIPTION	DROP INLETS (TYPE N3)	12" SIDE DRAIN	CONCRETE SPILLWAY (TYPE A)	CULVERT CLEAN OUT	18" TEMPORARY CULVERT
			EACH	LIN. FT.	EACH	EACH	LIN. FT.
722+90.00	MEDIAN	TEMPORARY MEDIAN CULVERT					430
727+80.00	MEDIAN	TEMPORARY MEDIAN CULVERT					615
743+06.69	LEFT MAIN LANES	CONSTRUCT TYPE N-3 DROP INLET	1				
743+06.69	LEFT MAIN LANES	CONSTRUCT C.M. PIPE OUTLET WITH CONCRETE SPILLWAY		12	1		
746+75.00	RIGHT MAIN LANES	CONSTRUCT TYPE N-3 DROP INLET	1				
746+75.00	RIGHT MAIN LANES	CONSTRUCT C.M. PIPE OUTLET WITH CONCRETE SPILLWAY		12	1		
748+98.22	LEFT MAIN LANES	CONSTRUCT TYPE N-3 DROP INLET	1				
748+98.22	LEFT MAIN LANES	CONSTRUCT C.M. PIPE OUTLET WITH CONCRETE SPILLWAY		12	1		
749+70.07	RIGHT MAIN LANES	CONSTRUCT TYPE N-3 DROP INLET	1				
749+70.07	RIGHT MAIN LANES	CONSTRUCT C.M. PIPE OUTLET WITH CONCRETE SPILLWAY		12	1		
ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER						29	
TOTALS:			4	48	4	29	1045

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

FOR R.C. PIPE CULVERT INSTALLATIONS, USE TYPE 3 BEDDING, UNLESS OTHERWISE SPECIFIED.
FOR C.M. PIPE CULVERT INSTALLATIONS, USE TYPE 2 BEDDING, UNLESS OTHERWISE SPECIFIED.

APPROACH SLABS AND GUTTERS

STATION	STATION	LOCATION	APPROACH GUTTERS (TYPE PT)	APPROACH SLABS (TYPE C1)
			CU.YD.	
743+65.21	748+44.20	EXISTING BRIDGE NO. A3864	72.34	121.69
744+41.43	749+12.42	EXISTING BRIDGE NO. B3864	72.34	121.69
847+96.00	848+80.00	EXISTING BRIDGE NO. A3866	66.82	98.30
847+96.00	848+80.00	EXISTING BRIDGE NO. B3866	66.82	98.30
856+65.00	857+49.00	EXISTING BRIDGE NO. A3867	66.82	98.30
856+65.00	857+49.00	EXISTING BRIDGE NO. B3867	66.82	98.30
TOTALS:			411.96	636.58

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH	CONCRETE DITCH PAVING			SOLID SODDING	SOLID SODDING F.A.P. PEN-30-1(152)18	WATER	WATER F.A.P. PEN-30-1(152)18
				WIDTH	TYPE B	TYPE B F.A.P. PEN-30-1(152)18				
			LIN. FT.	FT.	SQ.YD.		SQ.YD.	SQ.YD.	M. GAL.	M. GAL.
752+80.00	769+25.00	WRSF WB FORESLOPE	1645	4		732		732		9.22
828+00.00	830+20.00	REPLACE EXISTING CONCRETE DITCH PAVING IN MEDIAN	440	4	196		196		2.47	
TOTALS:					196	732	196	732	2.47	9.22

BASIS OF ESTIMATE:
WATER.....12.6 GALLONS PER SQ.YD. SOLID SODDING

EROSION CONTROL

LOCATION	TEMPORARY EROSION CONTROL									PERMANENT EROSION CONTROL				
	TEMPORARY SEEDING	MULCH COVER	WATER	SAND BAG DITCH CHECKS (E-5)	ROCK DITCH CHECK (E-6)	FILTER SOCK (18") (E-6s)	DROP INLET SILT FENCE (E-7)	FILTER SOCK (18") (E-7s)	SEDIMENT REMOVAL AND DISPOSAL	SEEDING	LIME	MULCH COVER	SECOND SEEDING APPLICATION	WATER
	ACRE	ACRE	M.GAL.	BAG	CU. YD.	LIN. FT.	LIN.FT.	LIN. FT.	CU. YD.	ACRE	TON	ACRE	ACRE	M.GAL.
ENTIRE PROJECT				2260	453	4340	150	300	120	64.64	129.28	64.64	64.64	13186.6
MAINTENANCE OF TRAFFIC	29.85	29.85	608.9											
ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER				1480		806			70					
TOTALS:	29.85	29.85	608.9	3740	453	5146	150	300	190	64.64	129.28	64.64	64.64	13186.6

BASIS OF ESTIMATE:
LIME.....2 TONS/ACRE OF SEEDING
WATER.....102.0 M.G./ACRE OF SEEDING
WATER.....20.4 M.G./ACRE OF TEMPORARY SEEDING
DROP INLET SILT FENCES.....30 LIN.FT./LOCATION
DROP INLET FILTER SOCK.....30 LIN.FT./LOCATION
SAND BAG DITCH CHECKS.....20 BAGS/LOCATION
ROCK DITCH CHECKS.....3 CU. YD./LOCATION

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

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

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.		BB0305	89	153

(2) QUANTITIES

REMOVAL AND DISPOSAL

STATION	STATION	LOCATION	REMOVAL AND DISPOSAL OF APPROACH SLAB AND GUTTERS	REMOVAL OF EXISTING ASPHALT OVERLAY		REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT		REMOVAL AND DISPOSAL OF GUARDRAIL	*REMOVAL AND DISPOSAL OF GUARDRAIL ANCHOR POST	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER	REMOVAL AND DISPOSAL OF CONCRETE DITCH PAVING	REMOVAL AND DISPOSAL OF CONCRETE PIER PROTECTION
				WIDTH	SQ. YD.	WIDTH	SQ. YD.					
			EACH	FEET		FEET		LIN. FT.	EACH	EACH	SQ. YD.	LIN. FT.
732+23.76	740+55.82	RT. OF LT. MAIN LANES				4	2218.83					
748+98.22	847+59.50	LT. MAIN LANES		38	41636.52							
749+70.04	847+59.50	RT. MAIN LANES		38	41333.28							
849+16.50	856+28.50	LT. MAIN LANES		38	3006.22							
849+16.50	856+28.50	RT. MAIN LANES		38	3006.22							
857+85.50	959+00.00	LT. MAIN LANES		38	42705.67							
857+85.50	959+00.00	RT. MAIN LANES		38	42705.67							
959+00.00	967+03.52	LT. MAIN LANES		38	357.12							
748+98.22	760+81.06	LT. MAIN LANES				24	3154.24					
749+70.04	760+81.06	RT. MAIN LANES				24	2962.72					
819+88.00	847+59.50	LT. MAIN LANES				24	7390.67					
819+88.00	847+59.50	RT. MAIN LANES				24	7390.67					
849+16.50	856+28.50	LT. MAIN LANES				24	1898.67					
849+16.50	856+28.50	RT. MAIN LANES				24	1898.67					
857+85.50	868+85.50	LT. MAIN LANES				24	2933.33					
857+85.50	868+85.50	RT. MAIN LANES				24	2933.33					
739+84.85	744+59.55	RT. OF RT. MAIN LANES						475				
741+43.25	744+43.25	LT. OF RT. MAIN LANES						300				
738+92.54	743+42.54	LT. OF LT. MAIN LANES						450	1			
749+14.23	761+14.23	RT. OF RT. MAIN LANES						1200	1			
748+42.38	751+42.38	RT. OF LT. MAIN LANES						300				
748+42.38	762+42.38	LT. OF LT. MAIN LANES						1400				
768+50.00	770+00.00	RT. OF RT. MAIN LANES						150	1			
767+36.00	769+61.00	LT. OF RT. MAIN LANES						225	1			
768+25.00	769+75.00	LT. OF LT. MAIN LANES						150	1			
768+25.00	769+75.00	RT. OF LT. MAIN LANES						150	1			
778+50.00	780+00.00	LT. OF LT. MAIN LANES						150	1			
778+50.00	780+00.00	RT. OF LT. MAIN LANES						150	1			
777+05.00	779+30.00	LT. OF RT. MAIN LANES						225	1			
776+00.00	779+75.00	RT. OF RT. MAIN LANES						375	1			
828+55.00	830+80.00	RT. OF RT. MAIN LANES						225				
831+28.00	833+53.00	LT. OF LT. MAIN LANES						225				
845+96.00	847+96.00	RT. OF RT. MAIN LANES						200				
845+96.00	847+96.00	LT. OF RT. MAIN LANES						200				
848+80.00	850+80.00	RT. OF LT. MAIN LANES						200				
848+80.00	850+80.00	LT. OF LT. MAIN LANES						200				
854+65.00	856+65.00	RT. OF RT. MAIN LANES						200				
854+65.00	856+65.00	LT. OF RT. MAIN LANES						200				
857+49.00	859+49.00	RT. OF LT. MAIN LANES						200				
857+49.00	859+49.00	LT. OF LT. MAIN LANES						200				
950+00.00	952+00.00	RT. OF RT. MAIN LANES						200				
951+80.00	953+80.00	LT. OF LT. MAIN LANES						200				
743+65.21	748+44.20	EXISTING BRIDGE NO. A3864	2									
744+41.43	749+12.42	EXISTING BRIDGE NO. B3864	2									
847+96.00	848+80.00	EXISTING BRIDGE NO. A3866	2									
847+96.00	848+80.00	EXISTING BRIDGE NO. B3866	2									
856+65.00	857+49.00	EXISTING BRIDGE NO. A3867	2									
856+65.00	857+49.00	EXISTING BRIDGE NO. B3867	2									
	830+77.00	LT. OF RT. MAIN LANES								1		
	831+32.00	RT. OF LT. MAIN LANES								1		
	951+73.00	LT. OF RT. MAIN LANES								1		
	952+10.00	RT. OF LT. MAIN LANES								1		
828+00.00	830+20.00	LT. OF RT. MAIN LANES									98	
828+00.00	830+20.00	RT. OF LT. MAIN LANES									98	
830+92.55	831+20.55	LT. OF LT. MAIN LANES										28
830+82.79	831+10.79	RT. OF RT. MAIN LANES										28
951+64.95	951+93.02	LT. OF LT. MAIN LANES										28
951+96.45	952+24.45	RT. OF RT. MAIN LANES										28
TOTALS:			12		174750.70		32781.13	8150	10	4	196	112

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

7/9/2015

* INCLUDED WITH ITEM FOR THE REMOVAL AND DISPOSAL OF GUARDRAIL AND IS PROVIDED FOR CONTRACTOR'S INFORMATION ONLY.

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.		BB0305	90	153

② QUANTITIES

SHAPING DITCH

LOCATION	SHAPING DITCH
	STATION
ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER	40
TOTAL:	40

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

CLEARING AND GRUBBING

STATION	STATION	CLEARING	GRUBBING
		STA	
769+00	778+00	9	9
779+00	782+00	3	3
783+00	830+00	47	47
849+00	857+00	8	8
857+00	862+00	5	5
863+50	947+00	84	84
956+00	959+00	3	3
TOTALS:		159	159

NOTE:
CLEARING AND GRUBBING WILL BE PERFORMED TO A MINIMUM OF 50 FEET FROM INSIDE AND OUTSIDE SHOULDER EDGES IF AND WHERE DIRECTED BY THE ENGINEER. SEE SECTION 201 OF THE STANDARD SPECIFICATIONS.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/16/2015

RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT

STATION	STATION	LOCATION	LENGTH	RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT	
				AVG. WIDTH	SQ. YD.
			LIN. FT.	FEET	
760+81.06	819+88.00	LT. MAIN LANES	5906.94	24	15751.84
760+81.06	819+88.00	RT. MAIN LANES	5906.94	24	15751.84
868+85.50	958+91.20 BK.	LT. MAIN LANES	9014.50	24	24038.67
868+85.50	959+08.23 BK.	RT. MAIN LANES	9014.50	24	24038.67
TOTAL:					79581.02

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

ASPHALT CONCRETE PATCHING FOR MOT	PATCHING	TACK COAT
	TON	GALLON
ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER	100	200
TOTALS:	100	200

QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.
BASIS OF ESTIMATE: ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC
TRAFFIC . . . . . 25 TONS PER MILE
TACK COAT . . . . . 50 GAL. PER MILE

PORTLAND CEMENT CONCRETE PAVEMENT PATCHING

LOCATION	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT FOR PATCHING	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (10" U.T.)
	SQ. YD.	SQ.YD.
LT. & RT. MAIN LANES	100	100
TOTAL	100	100

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

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.		BB0305	91	153

② QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

7/9/2015

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	TERMINAL ANCHOR POST (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
			LIN.FT.	EACH		
738+27.00	743+45.75	LT. OF LT. MAIN LANES	500	1		1
741+06.00	744+24.75	LT. OF RT. MAIN LANES	250		1	1
741+92.00	744+60.75	RT. OF RT. MAIN LANES	200		1	1
748+25.00	762+93.75	LT. OF LT. MAIN LANES	1400		1	1
748+60.00	753+28.75	RT. OF LT. MAIN LANES	400		1	1
749+32.00	762+00.75	RT. OF RT. MAIN LANES	1250	1		1
767+72.00	770+22.00	RT. OF RT. MAIN LANES	200	1	1	
767+82.00	770+07.00	LT. OF LT. MAIN LANES	175	1	1	
767+97.00	770+22.00	LT. OF RT. MAIN LANES	175	1	1	
768+04.00	770+54.00	RT. OF LT. MAIN LANES	200	1	1	
777+92.00	780+42.00	LT. OF RT. MAIN LANES	200	1	1	
778+12.00	780+37.00	LT. OF LT. MAIN LANES	175	1	1	
778+17.00	780+42.00	RT. OF RT. MAIN LANES	175	1	1	
778+37.00	780+87.00	RT. OF LT. MAIN LANES	200	1	1	
828+24.00	830+92.75	RT. OF RT. MAIN LANES	200		1	1
831+10.25	833+79.00	LT. OF LT. MAIN LANES	200		1	1
844+77.25	847+96.00	LT. OF RT. MAIN LANES	250		1	1
845+27.25	847+96.00	RT. OF RT. MAIN LANES	200		1	1
848+80.00	851+48.75	LT. OF LT. MAIN LANES	200		1	1
848+80.00	851+98.75	RT. OF LT. MAIN LANES	250		1	1
853+46.25	856+65.00	LT. OF RT. MAIN LANES	250		1	1
853+96.25	856+65.00	RT. OF RT. MAIN LANES	200		1	1
857+49.00	860+17.75	LT. OF LT. MAIN LANES	200		1	1
857+49.00	860+67.75	RT. OF LT. MAIN LANES	250		1	1
949+37.25	952+06.00	RT. OF RT. MAIN LANES	200		1	1
951+83.00	954+51.75	LT. OF LT. MAIN LANES	200		1	1
TOTALS:			8100	10	24	18

IMPACT ATTENUATOR BARRIER (TYPE A)

STATION	LOCATION	IMPACT ATTUENATOR BARRIER (TYPE A)
		EACH
830+77	LT. OF RT. MAIN LANES	1
831+32	RT. OF LT. MAIN LANES	1
951+73	LT. OF RT. MAIN LANES	1
952+10	RT. OF LT. MAIN LANES	1
TOTAL:		4

WIRE ROPE SAFETY FENCE

STATION	STATION	LOCATION	WIRE ROPE SAFETY FENCE F.A.P. PEN-30-1(152)18	**WIRE ROPE SAFETY FENCE POST REPAIR	*WRSF ANCHOR	WRSF MAINTENANCE MATERIALS F.A.P. PEN-30-1(152)18
			LIN. FT.	EACH	EACH	LUMP SUM
752+80.00	769+25.00	WB FORESLOPE	1645	50	2	
ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER						1.00
TOTALS:			1645	50	2	1.00

* THIS ITEM SHOWN FOR INFORMATION ONLY

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

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.		BB0305	92	153

(2) QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

7/9/2015

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU.YD.
ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER	100
TOTAL:	100

NOTE: QUANTITY ESTIMATED.

SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS.

4" PIPE UNDERDRAIN

STATION	STATION	EQUATION		LOCATION	4" PIPE UNDERDRAINS				UNDERDRAIN VIDEO INSPECTION	UNDERDRAIN OUTLET PROTECTORS	UNDERDRAIN COVER
					EDGE DRAINS	DOUBLE LATERALS (NON-PERFORATED)		TOTAL			
		LIN. FT.			LIN. FT.	EACH	LIN. FT.		LIN. FT.	EACH	LIN. FT.
749+70.04	847+59.50			OUTSIDE SHOULDER OF RT. LANES	9789	43	2236	12025	12025	43	9789
849+16.50	856+28.50			OUTSIDE SHOULDER OF RT. LANES	712	3	156	868	868	3	712
857+85.50	959+00.00			OUTSIDE SHOULDER OF RT. LANES	10115	45	2340	12455	12455	45	10115
748+98.22	752+95.00			OUTSIDE SHOULDER OF LT. LANES	397	2	104	501	501	2	397
752+75.00	778+34.42	38.84	AHD.	INSIDE SHOULDER OF LT. LANES	2521	13	676	3197	3197	13	2521
777+95.58	779+73.00			INSIDE SHOULDER OF LT. LANES	177	1	52	229	229	1	177
779+53.00	847+59.50			OUTSIDE SHOULDER OF LT. LANES	6807	29	1508	8315	8315	29	6807
849+16.50	856+28.50			OUTSIDE SHOULDER OF LT. LANES	712	3	156	868	868	3	712
857+85.50	959+00.00			OUTSIDE SHOULDER OF LT. LANES	10115	45	2340	12455	12455	45	10115
TOTALS:								50913	50913	184	41345

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.		BB0305	93	153

(2) QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)

STATION	STATION	LOCATION	CONCRETE BARRIER WALL PIER PROTECTION (TYPE A)
			LIN. FT.
830+92.55	831+20.55	LT. OF LT. MAIN LANES	28
830+82.79	831+10.79	RT. OF RT. MAIN LANES	28
951+64.95	951+93.02	LT. OF LT. MAIN LANES	28
951+96.45	952+24.45	RT. OF RT. MAIN LANES	28
TOTAL:			112

RUMBLE STRIPS IN ASPHALT SHOULDERS

STATION	STATION	LOCATION	LIN. FT.
748+98.22	847+59.50	LT. MAIN LANES	19722.56
749+70.04	847+59.50	RT. MAIN LANES	19578.92
849+16.50	856+28.50	LT. MAIN LANES	1424.00
849+16.50	856+28.50	RT. MAIN LANES	1424.00
857+85.50	959+00.00	LT. MAIN LANES	20229.00
857+85.50	959+00.00	RT. MAIN LANES	20229.00
959+00.00	967+03.52	LT. MAIN LANES - LT. SHOULDER	803.52
TOTAL:			83411.00

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.		BB0305	94	153

② QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESNER

7/9/2015

SHOULDER WIDENING FOR GUARDRAIL

STATION	STATION	LOCATION	LENGTH	AVG. WIDTH	AREA	ACHM SURFACE COURSE (1/2") (PG76-22)		AGGREGATE BASE COURSE (CLASS 7)		TACK COAT 0.10 GAL. PER SQ. YD.
						LBS. PER SQ. YD.	TON	TONS/STA	TON	
			LIN. FT.	FEET	SQ. YD.					GAL.
738+17.00	743+56.00	LT. SHOULDER OF L.M.L.	539.00	8.54	511.45	440	112.52	38.59	208.00	51.15
748+15.00	763+04.00	LT. SHOULDER OF L.M.L.	1489.00	9.66	1598.19	440	351.60	87.64	1304.96	159.82
767+72.00	770+17.00	LT. SHOULDER OF L.M.L.	245.00	7.21	196.27	440	43.18	32.69	80.09	19.63
778+02.00	780+47.00	LT. SHOULDER OF L.M.L.	245.00	10.58	288.01	440	63.36	47.98	117.55	28.80
831+00.00	833+89.00	LT. SHOULDER OF L.M.L.	289.00	5.79	185.92	440	40.90	26.28	75.95	18.59
848+70.00	851+59.00	LT. SHOULDER OF L.M.L.	289.00	8.61	276.48	440	60.83	39.07	112.91	27.65
857+39.00	860+28.00	LT. SHOULDER OF L.M.L.	289.00	6.20	199.09	440	43.80	28.14	81.32	19.91
951+73.00	954+62.00	LT. SHOULDER OF L.M.L.	289.00	5.76	184.96	440	40.69	26.13	75.52	18.50
748+50.00	753+39.00	RT. SHOULDER OF L.M.L.	489.00	6.25	339.58	440	74.71	28.35	138.63	33.96
767+94.00	770+64.00	RT. SHOULDER OF L.M.L.	270.00	6.59	197.70	440	43.49	29.90	80.73	19.77
778+27.00	780+97.00	RT. SHOULDER OF L.M.L.	270.00	8.95	268.50	440	59.07	40.59	109.59	26.85
848+70.00	852+09.00	RT. SHOULDER OF L.M.L.	339.00	9.03	340.13	440	74.83	40.96	138.85	34.01
857+39.00	860+78.00	RT. SHOULDER OF L.M.L.	339.00	6.73	253.50	440	55.77	30.54	103.53	25.35
740+96.00	744+35.00	LT. SHOULDER OF R.M.L.	339.00	9.10	342.77	440	75.41	41.31	140.04	34.28
767+87.00	770+32.00	LT. SHOULDER OF R.M.L.	245.00	7.78	211.79	440	46.59	35.31	86.51	21.18
777+82.00	780+52.00	LT. SHOULDER OF R.M.L.	270.00	9.97	299.10	440	65.80	45.24	122.15	29.91
844+67.00	848+06.00	LT. SHOULDER OF R.M.L.	339.00	7.27	273.84	440	60.24	32.97	111.77	27.38
853+36.00	856+75.00	LT. SHOULDER OF R.M.L.	339.00	6.73	253.50	440	55.77	30.52	103.46	25.35
741+82.00	744+71.00	RT. SHOULDER OF R.M.L.	289.00	8.65	277.76	440	61.11	39.26	113.46	27.78
749+22.00	762+11.00	RT. SHOULDER OF R.M.L.	1289.00	9.57	1370.64	440	301.54	43.40	559.43	137.06
767+62.00	770+32.00	RT. SHOULDER OF R.M.L.	270.00	7.06	211.80	440	46.60	32.02	86.45	21.18
778+07.00	780+52.00	RT. SHOULDER OF R.M.L.	245.00	9.74	265.14	440	58.33	44.19	108.27	26.51
828+14.00	831+03.00	RT. SHOULDER OF R.M.L.	289.00	5.79	185.92	440	40.90	26.25	75.86	18.59
845+17.00	848+06.00	RT. SHOULDER OF R.M.L.	289.00	6.86	220.28	440	48.46	31.13	89.97	22.03
853+86.00	856+75.00	RT. SHOULDER OF R.M.L.	289.00	6.07	194.91	440	42.88	27.56	79.65	19.49
949+27.00	952+16.00	RT. SHOULDER OF R.M.L.	289.00	5.74	184.32	440	40.55	26.03	75.23	18.43
TOTALS:					9131.55		2008.93	952.05	4379.88	913.16

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 94.4% , ASPH. BINDER (PG76-22) = 5.6%
Nmax = 205 FOR PG 76-22

EARTHWORK

STATION	STATION	LOCATION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
748+98.22	751+91.06	LT. MAIN LANE FULL DEPTH TRANSITION	877	
751+91.06	755+41.06	LT. MAIN LANE FULL DEPTH TRANSITION	326	
755+41.06	760+90.59	LT. MAIN LANE FULL DEPTH TRANSITION	104	
760+90.59	777+46.92	LT. MAIN LANE FORESLOPES ON LT. AND RT.	115	
777+46.92 BK.	780+19.24 AHD.	LT. MAIN LANE FORESLOPES ON LT. AND RT.	21	
780+19.24	819+88.00	LT. MAIN LANE FORESLOPES ON LT. AND RT.	49	
819+88.00	830+88.00	LT. MAIN LANE FULL DEPTH TRANSITION	2554	
830+88.00	847+59.50	LT. MAIN LANE FULL DEPTH RECONSTRUCTION	5721	
849+16.50	856+28.50	LT. MAIN LANE FULL DEPTH RECONSTRUCTION	2437	
857+85.50	868+85.50	LT. MAIN LANE FULL DEPTH TRANSITION	2554	
868+85.50	953+92.64 BK.	LT. MAIN LANE FORESLOPES ON LT. AND RT.	105	
954+00.00 AHD.	959+00.00	LT. MAIN LANE TRANSITION	69	
749+70.04	750+65.14	RT. MAIN LANE FULL DEPTH TRANSITION	286	
750+65.14	754+15.14	RT. MAIN LANE FULL DEPTH TRANSITION	447	
754+15.14	760+70.04	RT. MAIN LANE FULL DEPTH TRANSITION	202	
760+70.04	776+22.58	RT. MAIN LANE FORESLOPES ON LT. AND RT.	77	
776+22.58 BK.	780+51.02 AHD.	RT. MAIN LANE FORESLOPES ON LT. AND RT.	15	
780+51.02	819+88.00	RT. MAIN LANE FORESLOPES ON LT. AND RT.	49	
819+88.00	830+88.00	RT. MAIN LANE FULL DEPTH TRANSITION	2554	
830+88.00	847+59.50	RT. MAIN LANE FULL DEPTH RECONSTRUCTION	5721	
849+16.50	856+28.50	RT. MAIN LANE FULL DEPTH RECONSTRUCTION	2437	
857+85.50	868+85.50	RT. MAIN LANE FULL DEPTH TRANSITION	2554	
857+85.50	954+07.12 BK.	RT. MAIN LANE FORESLOPES ON LT. AND RT.	119	
954+00.00 AHD.	959+00.00	RT. MAIN LANE TRANSITION	69	
721+27.23	740+95.04	CROSSOVER RAMPS TRML1, TRRAMP1, TLML1	3644	1975
964+76.57	974+55.90	CROSSOVER RAMPS - TRML2 AND TLML2	6566	4902
TOTALS:			39672	6877

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

OBLITERATION OF TEMPORARY CROSSOVER RAMP PAVEMENT TO BE PAID FOR AS "UNCLASSIFIED EXCAVATION".

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.		BB0305	95	153

② QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

7/9/2015

BASE AND SURFACING - MAIN LANES & SHOULDERS (BOX 1 OF 4)

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2) (PG76-22)				ACHM BINDER COURSE (1") (PG76-22)				ACHM BASE COURSE (1 1/2") (PG76-22)							
												*LEVELING - 110 LBS. PER SQ. YD.				TYPICAL PLACEMENT			
			LIN. FT.	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD	TON	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD	TON	AVG. WIDTH FEET	SQ. YD.	TON		AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD	TON
748+98.22	751+91.06	LT. MAIN LANES - FULL-DEPTH PAVEMENT TRANS.	292.84	24.00	780.91	440	171.80	24.00	780.91	495	193.28					24.00	780.91	1045	408.03
751+91.06	755+41.06	LT. MAIN LANES - SUPERELEVATION TRANS. (FULL-DEPTH TRANS.)	350.00	24.00	933.33	440	205.33	24.00	933.33	495	231.00					24.00	933.33	1045	487.66
755+41.06	760+90.59	LT. MAIN LANES - SUPERELEVATION FULL-DEPTH TRANS.	549.53	24.00	1465.41	440	322.39	24.00	1465.41	495	362.69					24.00	1465.41	1045	765.68
760+90.59	777+46.92	LT. MAIN LANES - SUPERELEVATION (RUBBLIZE & OVERLAY)	1656.33	24.00	4416.88	440	971.71	24.00	4416.88	330	728.79	24.00	4416.88	242.93		24.00	4416.88	1532	3383.33
777+46.92	778+34.42 BK.	LT. MAIN LANES - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	440	51.33	24.00	233.33	330	38.50	24.00	233.33	12.83		24.00	233.33	1026	119.70
777+95.58 AHD.	780+58.08	LT. MAIN LANES - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	440	154.00	24.00	700.00	330	115.50	24.00	700.00	38.50		24.00	700.00	1026	359.10
780+58.08	819+88.00	LT. MAIN LANES - RUBBLIZE & OVERLAY	3929.92	24.00	10479.79	440	2305.55	24.00	10479.79	330	1729.17	24.00	10479.79	576.39		24.00	10479.79	519	2719.51
819+88.00	830+88.00	LT. MAIN LANES - FULL DEPTH PAVEMENT TRANS.	1100.00	24.00	2933.33	440	645.33	24.00	2933.33	330	484.00					24.00	2933.33	1045	1532.66
830+88.00	847+59.50	LT. MAIN LANES - FULL DEPTH PAVEMENT	1671.50	24.00	4457.33	440	980.61	24.00	4457.33	495	1103.19					24.00	4457.33	1045	2328.95
849+16.50	856+28.50	LT. MAIN LANES - FULL DEPTH PAVEMENT	712.00	24.00	1898.67	440	417.71	24.00	1898.67	495	469.92					24.00	1898.67	1045	992.06
857+85.50	868+85.50	LT. MAIN LANES - FULL DEPTH PAVEMENT TRANS.	1100.00	24.00	2933.33	440	645.33	24.00	2933.33	495	726.00					24.00	2933.33	1045	1532.66
868+85.50	953+92.64 BK.	LT. MAIN LANES - RUBBLIZE & OVERLAY	8507.14	24.00	22685.71	440	4990.86	24.00	22685.71	330	3743.14	24.00	22685.71	1247.71		24.00	22685.71	519	5886.94
954+00.00 AHD.	959+00.00	LT. MAIN LANES - RUBBLIZE & OVERLAY TRANS.	500.00	24.00	1333.33	440	293.33	24.00	1333.33	330	220.00	24.00	1333.33	73.33		24.00	1333.33	581	387.33
748+98.22	751+91.06	LT. SHOULDER OF L.M.L. - FULL-DEPTH PAVEMENT TRANS.	292.84	10.00	325.38	440	71.58	10.26	333.84	495	82.63					10.55	343.27	1045	179.36
751+91.06	755+41.06	LT. SHOULDER OF L.M.L. - SUPERELEVATION TRANS. (FULL-DEPTH TRANS.)	350.00	10.00	388.89	440	85.56	10.26	399.00	495	98.75					10.55	410.28	1045	214.37
755+41.06	760+90.59	LT. SHOULDER OF L.M.L. - SUPERELEVATION FULL-DEPTH TRANS.	549.53	10.00	610.59	440	134.33	10.26	626.46	495	155.05					10.55	644.17	1045	336.58
760+90.59	777+46.92	LT. SHOULDER OF L.M.L. - SUPERELEVATION (RUBBLIZE & OVERLAY)	1656.33	10.00	1840.37	220	202.44	10.23	1882.70	276	259.81	10.38	1910.30	105.07		10.38	1910.30	3509	3351.62
777+46.92	778+34.42 BK.	LT. SHOULDER OF L.M.L. - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	87.50	10.00	97.22	220	10.69	10.23	99.46	275	13.68	10.38	100.92	5.55		10.38	100.92	1975	99.66
777+95.58 AHD.	780+58.08	LT. SHOULDER OF L.M.L. - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	262.50	10.00	291.67	220	32.08	10.23	298.38	275	41.03	10.38	302.75	16.65		10.38	302.75	1975	298.97
780+58.08	819+88.00	LT. SHOULDER OF L.M.L. - RUBBLIZE & OVERLAY	3929.92	10.00	4366.58	440	960.65	10.23	4467.01	273	609.75	10.38	4532.51	249.29		10.38	4532.51	440	997.15
819+88.00	830+88.00	LT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT TRANS.	1100.00	10.00	1222.22	660	403.33	10.23	1250.33	271	169.42					10.38	1268.67	1045	662.88
830+88.00	847+59.50	LT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT	1671.50	10.00	1857.22	440	408.59	10.26	1905.51	495	471.61					10.55	1959.37	1045	1023.77
849+16.50	856+28.50	LT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT	712.00	10.00	791.11	440	174.04	10.26	811.68	495	200.89					10.55	834.62	1045	436.09
857+85.50	868+85.50	LT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT TRANS.	1100.00	10.00	1222.22	440	268.89	10.26	1254.00	495	310.37					10.55	1289.44	1045	673.73
868+85.50	953+92.64 BK.	LT. SHOULDER OF L.M.L. - RUBBLIZE & OVERLAY	8507.14	10.00	9452.38	440	2079.52	10.23	9669.78	273	1319.92	10.38	9811.57	539.64		10.38	9811.57	440	2158.55
954+00.00 AHD.	959+00.00	LT. SHOULDER OF L.M.L. - RUBBLIZE & OVERLAY TRANS.	500.00	10.00	555.56	440	122.22	10.23	568.33	273	77.58	10.38	576.67	31.72		10.38	576.67	515	148.49
748+98.22	751+91.06	RT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT TRANS.	292.84	4.00	130.15	440	28.63	4.26	138.61	495	34.31					4.55	148.05	1045	77.36
751+91.06	755+41.06	RT. SHOULDER OF L.M.L. - SUPERELEVATION TRANS. (FULL-DEPTH TRANS.)	350.00	4.00	155.56	440	34.22	4.26	165.67	495	41.00					4.55	176.94	1045	92.45
755+41.06	760+90.59	RT. SHOULDER OF L.M.L. - SUPERELEVATION FULL-DEPTH TRANS.	549.53	4.00	244.24	440	53.73	4.26	260.11	495	64.38					4.55	277.82	1045	145.16
760+90.59	777+46.92	RT. SHOULDER OF L.M.L. - SUPERELEVATION (RUBBLIZE & OVERLAY)	1656.33	4.00	736.15	440	161.95	4.23	778.48	330	128.45	4.38	806.08	44.33		4.38	806.08	598	241.02
777+46.92	778+34.42 BK.	RT. SHOULDER OF L.M.L. - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	87.50	4.00	38.89	440	8.56	4.23	41.13	330	6.79	4.38	42.58	2.34		4.38	42.58	598	12.73
777+95.58 AHD.	780+58.08	RT. SHOULDER OF L.M.L. - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	262.50	4.00	116.67	440	25.67	4.23	123.38	330	20.36	4.38	127.75	7.03		4.38	127.75	598	38.20
780+58.08	819+88.00	RT. SHOULDER OF L.M.L. - RUBBLIZE & OVERLAY	3929.92	4.00	1746.63	440	384.26	4.23	1847.06	330	304.76	4.38	1912.56	105.19		4.38	1912.56	598	571.86
819+88.00	830+88.00	RT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT TRANS.	1100.00	4.00	488.89	440	107.56	4.23	517.00	330	85.31					4.38	535.33	1045	279.71
830+88.00	847+59.50	RT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT	1671.50	4.00	742.89	440	163.44	4.26	791.18	495	195.82					4.55	845.04	1045	441.53
849+16.50	856+28.50	RT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT	712.00	4.00	316.44	440	69.62	4.26	337.01	495	83.41					4.55	359.96	1045	188.08
857+85.50	868+85.50	RT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT TRANS.	1100.00	4.00	488.89	440	107.56	4.26	520.67	495	128.87					4.55	556.11	1045	290.57
868+85.50	953+92.64 BK.	RT. SHOULDER OF L.M.L. - RUBBLIZE & OVERLAY	8507.14	4.00	3780.95	440	831.81	4.23	3998.36	330	659.73	4.38	4140.14	227.71		4.38	4140.14	598	1237.90
954+00.00 AHD.	959+00.00	RT. SHOULDER OF L.M.L. - RUBBLIZE & OVERLAY TRANS.	500.00	4.00	222.22	440	48.89	4.23	235.00	330	38.78	4.38	243.33	13.38		4.38	243.33	727	88.45
SUBTOTALS:					87481.33		19135.10		88571.49		15747.64		64356.20	3539.59			89407.58		35189.85

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 for PG76-22

*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.

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.		BB0305	96	153
				②	QUANTITIES			

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

7/9/2015

BASE AND SURFACING - MAIN LANES & SHOULDERS (BOX 2 OF 4)

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2) (PG76-22)				ACHM BINDER COURSE (1") (PG76-22)				ACHM BASE COURSE (1 1/2") (PG76-22)							
												*LEVELING - 110 LBS. PER SQ. YD.			TYPICAL PLACEMENT				
				AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD	TON	AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD	TON	AVG. WIDTH	SQ. YD.	TON	AVG. WIDTH	SQ. YD.	LBS. PER SQ. YD	TON
			LIN. FT.	FEET				FEET				FEET			FEET			
749+70.04	750+65.14	RT. MAIN LANES - FULL DEPTH PAVEMENT TRANS.	95.10	24.00	253.60	440	55.79	24.00	253.60	495	62.77				24.00	253.60	1045	132.51
750+65.14	754+15.14	RT. MAIN LANES - SUPERELEVATION TRANS. (FULL-DEPTH TRANS.)	350.00	24.00	933.33	440	205.33	24.00	933.33	495	231.00				24.00	933.33	1045	487.66
754+15.14	760+70.04	RT. MAIN LANES - SUPERELEVATION (FULL-DEPTH TRANS.)	654.90	24.00	1746.40	440	384.21	24.00	1746.40	495	432.23				24.00	1746.40	1045	912.49
760+70.04	776+22.58	RT. MAIN LANES - SUPERELEVATION (RUBBLIZE & OVERLAY)	1552.54	24.00	4140.11	440	910.82	24.00	4140.11	330	683.12	24.00	4140.11	227.71	24.00	4140.11	1056	2185.98
776+22.58	777+32.61BK.	RT. MAIN LANES - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	110.03	24.00	293.41	440	64.55	24.00	293.41	330	48.41	24.00	293.41	16.14	24.00	293.41	788	115.60
777+72.27 AHD.	780+11.80	RT. MAIN LANES - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	239.53	24.00	638.75	440	140.53	24.00	638.75	330	105.39	24.00	638.75	35.13	24.00	638.75	788	251.67
780+11.80	819+88.00	RT. MAIN LANES - RUBBLIZE & OVERLAY	3976.20	24.00	10603.20	440	2332.70	24.00	10603.20	330	1749.53	24.00	10603.20	583.18	24.00	10603.20	519	2751.53
819+88.00	830+88.00	RT. MAIN LANES - FULL DEPTH PAVEMENT TRANS.	1100.00	24.00	2933.33	440	645.33	24.00	2933.33	495	726.00				24.00	2933.33	1045	1532.66
830+88.00	847+59.50	RT. MAIN LANES - FULL DEPTH PAVEMENT	1671.50	24.00	4457.33	440	980.61	24.00	4457.33	495	1103.19				24.00	4457.33	1045	2328.95
849+16.50	856+28.50	RT. MAIN LANES - FULL DEPTH PAVEMENT	712.00	24.00	1898.67	440	417.71	24.00	1898.67	495	469.92				24.00	1898.67	1045	992.06
857+85.50	868+85.50	RT. MAIN LANES - FULL DEPTH PAVEMENT TRANS.	1100.00	24.00	2933.33	440	645.33	24.00	2933.33	495	726.00				24.00	2933.33	1045	1532.66
868+85.50	954+07.12 BK.	RT. MAIN LANES - RUBBLIZE & OVERLAY	8521.62	24.00	22724.32	440	4999.35	24.00	22724.32	330	3749.51	24.00	22724.32	1249.84	24.00	22724.32	519	5896.96
954+00.00 AHD.	959+00.00	RT. MAIN LANES - RUBBLIZE & OVERLAY TRANS.	500.00	24.00	1333.33	440	293.33	24.00	1333.33	330	220.00	24.00	1333.33	73.33	24.00	1333.33	581	387.33
749+70.04	750+65.14	RT. SHOULDER OF R.M.L. - FULL DEPTH PAVEMENT TRANS.	95.10	10.00	105.67	440	23.25	10.26	108.41	495	26.83				10.55	111.48	1045	58.25
750+65.14	754+15.14	RT. SHOULDER OF R.M.L. - SUPERELEVATION TRANS. (FULL-DEPTH TRANS.)	350.00	10.00	388.89	440	85.56	10.26	399.00	495	98.75				10.55	410.28	1045	214.37
754+15.14	760+70.04	RT. SHOULDER OF R.M.L. - SUPERELEVATION (FULL-DEPTH TRANS.)	654.90	10.00	727.67	440	160.09	10.26	746.59	495	184.78				10.55	767.69	1045	401.12
760+70.04	776+22.58	RT. SHOULDER OF R.M.L. - SUPERELEVATION (RUBBLIZE & OVERLAY)	1552.54	10.00	1725.04	440	379.51	10.23	1764.72	330	291.18	10.38	1790.60	98.48	10.38	1790.60	476	426.16
776+22.58	777+32.61BK.	RT. SHOULDER OF R.M.L. - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	110.03	10.00	122.26	440	26.90	10.23	125.07	302	18.89	10.38	126.90	6.98	10.38	126.90	458	29.06
777+72.27 AHD.	780+11.80	RT. SHOULDER OF R.M.L. - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	239.53	10.00	266.14	440	58.55	10.23	272.27	302	41.11	10.38	276.26	15.19	10.38	276.26	458	63.26
780+11.80	819+88.00	RT. SHOULDER OF R.M.L. - RUBBLIZE & OVERLAY	3976.20	10.00	4418.00	440	971.96	10.23	4519.61	273	616.93	10.38	4585.88	252.22	10.38	4585.88	440	1008.89
819+88.00	830+88.00	RT. SHOULDER OF R.M.L. - FULL DEPTH PAVEMENT TRANS.	1100.00	10.00	1222.22	440	268.89	10.26	1254.00	495	310.37				10.55	1289.44	1045	673.73
830+88.00	847+59.50	RT. SHOULDER OF R.M.L. - FULL DEPTH PAVEMENT	1671.50	10.00	1857.22	440	408.59	10.26	1905.51	495	471.61				10.55	1959.37	1045	1023.77
849+16.50	856+28.50	RT. SHOULDER OF R.M.L. - FULL DEPTH PAVEMENT	712.00	10.00	791.11	440	174.04	10.26	811.68	495	200.89				10.55	834.62	1045	436.09
857+85.50	868+85.50	RT. SHOULDER OF R.M.L. - FULL DEPTH PAVEMENT TRANS.	1100.00	10.00	1222.22	440	268.89	10.26	1254.00	495	310.37				10.55	1289.44	1045	673.73
868+85.50	954+07.12 BK.	RT. SHOULDER OF R.M.L. - RUBBLIZE & OVERLAY	8521.62	10.00	9468.47	440	2083.06	10.23	9686.24	273	1322.17	10.38	9828.27	540.55	10.38	9828.27	440	2162.22
954+00.00 AHD.	959+00.00	RT. SHOULDER OF R.M.L. - RUBBLIZE & OVERLAY TRANS.	500.00	10.00	555.56	440	122.22	10.23	568.33	273	77.58	10.38	576.67	31.72	10.38	576.67	515	148.49
749+70.04	750+65.14	LT. SHOULDER OF R.M.L - FULL DEPTH PAVEMENT TRANS.	95.10	4.00	42.27	440	9.30	4.26	45.01	495	11.14				4.55	48.08	1045	25.12
750+65.14	754+15.14	LT. SHOULDER OF R.M.L. - SUPERELEVATION TRANS. (FULL-DEPTH TRANS.)	350.00	4.00	155.56	440	34.22	4.26	165.67	495	41.00				4.55	176.94	1045	92.45
754+15.14	760+70.04	LT. SHOULDER OF R.M.L. - SUPERELEVATION (FULL-DEPTH TRANS.)	654.90	4.00	291.07	440	64.04	4.26	309.99	495	76.72				4.55	331.09	1045	172.99
760+70.04	776+22.58	LT. SHOULDER OF R.M.L - SUPERELEVATION (RUBBLIZE & OVERLAY)	1552.54	4.00	690.02	440	151.80	4.23	729.69	330	120.40	4.38	755.57	41.56	4.38	755.57	3828	1446.16
776+22.58	777+32.61BK.	LT. SHOULDER OF R.M.L - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	110.03	4.00	48.90	440	10.76	4.23	51.71	330	8.53	4.38	53.55	2.95	4.38	53.55	2213	59.25
777+72.27 AHD.	780+11.80	LT. SHOULDER OF R.M.L - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	239.53	4.00	106.46	440	23.42	4.23	112.58	330	18.58	4.38	116.57	6.41	4.38	116.57	2213	128.98
780+11.80	819+88.00	LT. SHOULDER OF R.M.L - RUBBLIZE & OVERLAY	3976.20	4.00	1767.20	440	388.78	4.23	1868.81	330	308.35	4.38	1935.08	106.43	4.38	1935.08	598	578.59
819+88.00	830+88.00	LT. SHOULDER OF R.M.L - FULL DEPTH PAVEMENT TRANS.	1100.00	4.00	488.89	440	107.56	4.26	520.67	495	128.87				4.55	556.11	1045	290.57
830+88.00	847+59.50	LT. SHOULDER OF R.M.L - FULL DEPTH PAVEMENT	1671.50	4.00	742.89	440	163.44	4.26	791.18	495	195.82				4.55	845.04	1045	441.53
849+16.50	856+28.50	LT. SHOULDER OF R.M.L - FULL DEPTH PAVEMENT	712.00	4.00	316.44	440	69.62	4.26	337.01	495	83.41				4.55	359.96	1045	188.08
857+85.50	868+85.50	LT. SHOULDER OF R.M.L - FULL DEPTH PAVEMENT TRANS.	1100.00	4.00	488.89	440	107.56	4.26	520.67	495	128.87				4.55	556.11	1045	290.57
868+85.50	954+07.12 BK.	LT. SHOULDER OF R.M.L - RUBBLIZE & OVERLAY	8521.62	4.00	3787.39	440	833.23	4.23	4005.16	330	660.85	4.38	4147.19	228.10	4.38	4147.19	598	1240.01
954+00.00 AHD.	959+00.00	LT. SHOULDER OF R.M.L - RUBBLIZE & OVERLAY TRANS.	500.00	4.00	222.22	440	48.89	4.23	235.00	330	38.78	4.38	243.33	13.38	4.38	243.33	727	88.45
SUBTOTALS:					86907.78		19119.72		87997.69		16099.85		64168.99	3529.30		88860.63		31869.95
TOTALS:					174389.11		38254.82		176569.18		31847.49		128525.19	7068.89		178268.21		67059.80

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 for PG76-22

*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.

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.		BB0305	97	153

(2) QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESNER
7/9/2015

BASE AND SURFACING - MAIN LANES & SHOULDERS (BOX 3 OF 4)

STATION	STATION	LOCATION	LENGTH	TACK COAT							BORROW	AGGREGATE BASE COURSE (CLASS 1)		AGGREGATE BASE COURSE (CLASS 7)	
				0.10 GAL PER SQ.YD.				0.03 GAL PER SQ.YD.							
			LIN. FT.	AVG. WIDTH FEET	SQ. YD.	GAL.		AVG. WIDTH FEET	SQ. YD.	GAL.	TOTAL GAL.	CU. YD.	TONS/STA	TON	TONS/STA	TON
748+98.22	751+91.06	LT. MAIN LANES - FULL-DEPTH PAVEMENT TRANS.	292.84					72.00	2342.72	70.28	70.28				93.33	273.31
751+91.06	755+41.06	LT. MAIN LANES - SUPERELEVATION TRANS. (FULL-DEPTH TRANS.)	350.00					72.00	2800.00	84.00	84.00				93.33	326.66
755+41.06	760+90.59	LT. MAIN LANES - SUPERELEVATION FULL-DEPTH TRANS.	549.53					72.00	4396.24	131.89	131.89				93.33	512.88
760+90.59	777+46.92	LT. MAIN LANES - SUPERELEVATION (RUBBLIZE & OVERLAY)	1656.33	24.00	4416.88	441.69		72.00	13250.64	397.52	839.21					
777+46.92	778+34.42 BK.	LT. MAIN LANES - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	87.50	24.00	233.33	23.33		72.00	700.00	21.00	44.33					
777+95.58 AHD.	780+58.08	LT. MAIN LANES - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	262.50	24.00	700.00	70.00		72.00	2100.00	63.00	133.00					
780+58.08	819+88.00	LT. MAIN LANES - RUBBLIZE & OVERLAY	3929.92	24.00	10479.79	1047.98		72.00	31439.36	943.18	1991.16					
819+88.00	830+88.00	LT. MAIN LANES - FULL DEPTH PAVEMENT TRANS.	1100.00					72.00	8800.00	264.00	264.00				93.33	1026.63
830+88.00	847+59.50	LT. MAIN LANES - FULL DEPTH PAVEMENT	1671.50					72.00	13372.00	401.16	401.16				93.33	1560.01
849+16.50	856+28.50	LT. MAIN LANES - FULL DEPTH PAVEMENT	712.00					72.00	5696.00	170.88	170.88				93.33	664.51
857+85.50	868+85.50	LT. MAIN LANES - FULL DEPTH PAVEMENT TRANS.	1100.00					72.00	8800.00	264.00	264.00				93.33	1026.63
868+85.50	953+92.64 BK.	LT. MAIN LANES - RUBBLIZE & OVERLAY	8507.14	24.00	22685.71	2268.57		72.00	68057.12	2041.71	4310.28					
954+00.00 AHD.	959+00.00	LT. MAIN LANES - RUBBLIZE & OVERLAY TRANS.	500.00	24.00	1333.33	133.33		72.00	4000.00	120.00	253.33					
748+98.22	751+91.06	LT. SHOULDER OF L.M.L. - FULL-DEPTH PAVEMENT TRANS.	292.84					30.26	984.59	29.54	29.54	16.00	67.36	197.26	40.99	120.04
751+91.06	755+41.06	LT. SHOULDER OF L.M.L. - SUPERELEVATION TRANS. (FULL-DEPTH TRANS.)	350.00					30.26	1176.78	35.30	35.30	67.41	425.44	1489.04	40.99	143.47
755+41.06	760+90.59	LT. SHOULDER OF L.M.L. - SUPERELEVATION FULL-DEPTH TRANS.	549.53					30.26	1847.64	55.43	55.43	109.91	468.07	2572.19	40.99	225.25
760+90.59	777+46.92	LT. SHOULDER OF L.M.L. - SUPERELEVATION (RUBBLIZE & OVERLAY)	1656.33	10.38	1910.30	191.03		30.23	5563.43	166.90	357.93	312.86	400.01	6625.49		
777+46.92	778+34.42 BK.	LT. SHOULDER OF L.M.L. - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	87.50	10.38	100.92	10.09		30.23	293.90	8.82	18.91	12.64	180.44	157.89		
777+95.58 AHD.	780+58.08	LT. SHOULDER OF L.M.L. - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	262.50	10.38	302.75	30.28		30.23	881.71	26.45	56.73	37.92	180.44	473.66		
780+58.08	819+88.00	LT. SHOULDER OF L.M.L. - RUBBLIZE & OVERLAY	3929.92	10.38	4532.51	453.25		30.23	13200.16	396.00	849.25	465.77	25.00	982.48		
819+88.00	830+88.00	LT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT TRANS.	1100.00					30.23	3694.78	110.84	110.84	56.96	36.00	396.00	40.99	450.89
830+88.00	847+59.50	LT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT	1671.50					30.26	5619.95	168.60	168.60		47.00	785.61	40.99	685.15
849+16.50	856+28.50	LT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT	712.00					30.26	2393.90	71.82	71.82		47.00	334.64	40.99	291.85
857+85.50	868+85.50	LT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT TRANS.	1100.00					30.26	3698.44	110.95	110.95	56.96	36.00	396.00	40.99	450.89
868+85.50	953+92.64 BK.	LT. SHOULDER OF L.M.L. - RUBBLIZE & OVERLAY	8507.14	10.38	9811.57	981.16		30.23	28574.54	857.24	1838.40	1008.25	25.00	2126.79		
954+00.00 AHD.	959+00.00	LT. SHOULDER OF L.M.L. - RUBBLIZE & OVERLAY TRANS.	500.00	10.38	576.67	57.67		30.23	1679.44	50.38	108.05	34.98	15.94	79.70		
748+98.22	751+91.06	RT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT TRANS.	292.84					26.46	860.95	25.83	25.83	16.00	90.84	266.02	25.43	74.47
751+91.06	755+41.06	RT. SHOULDER OF L.M.L. - SUPERELEVATION TRANS. (FULL-DEPTH TRANS.)	350.00					26.46	1029.00	30.87	30.87	6.61	38.89	136.12	25.43	89.01
755+41.06	760+90.59	RT. SHOULDER OF L.M.L. - SUPERELEVATION FULL-DEPTH TRANS.	549.53					26.46	1615.62	48.47	48.47		36.32	199.59	25.43	139.75
760+90.59	777+46.92	RT. SHOULDER OF L.M.L. - SUPERELEVATION (RUBBLIZE & OVERLAY)	1656.33	4.38	806.08	80.61		12.23	2250.77	67.52	148.13	109.20	10.11	167.45		
777+46.92	778+34.42 BK.	RT. SHOULDER OF L.M.L. - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	87.50	4.38	42.58	4.26		12.23	118.90	3.57	7.83	6.42	16.41	14.36		
777+95.58 AHD.	780+58.08	RT. SHOULDER OF L.M.L. - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	262.50	4.38	127.75	12.78		12.23	356.71	10.70	23.48	19.25	16.41	43.08		
780+58.08	819+88.00	RT. SHOULDER OF L.M.L. - RUBBLIZE & OVERLAY	3929.92	4.38	1912.56	191.26		12.23	5340.32	160.21	351.47	807.82	34.25	1346.00		
819+88.00	830+88.00	RT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT TRANS.	1100.00					26.46	3234.00	97.02	97.02	56.96	41.88	460.68	25.43	279.73
830+88.00	847+59.50	RT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT	1671.50					26.46	4914.21	147.43	147.43	30.95	49.50	827.39	25.43	425.06
849+16.50	856+28.50	RT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT	712.00					26.46	2093.28	62.80	62.80	13.19	49.50	352.44	25.43	181.06
857+85.50	868+85.50	RT. SHOULDER OF L.M.L. - FULL DEPTH PAVEMENT TRANS.	1100.00					26.46	3234.00	97.02	97.02	56.96	41.88	460.68	25.43	279.73
868+85.50	953+92.64 BK.	RT. SHOULDER OF L.M.L. - RUBBLIZE & OVERLAY	8507.14	4.38	4140.14	414.01		12.23	11560.26	346.81	760.82	1748.69	34.25	2913.70		
954+00.00 AHD.	959+00.00	RT. SHOULDER OF L.M.L. - RUBBLIZE & OVERLAY TRANS.	500.00	4.38	243.33	24.33		12.23	679.44	20.38	44.71	30.56	33.83	169.15		
SUBTOTALS:					64356.20	6435.63			272650.80	8179.52	14615.15	5082.27		23973.41		9226.98

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.		BB0305	98	153

(2) QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

7/16/2015

BASE AND SURFACING - MAIN LANES & SHOULDERS (BOX 4 OF 4)

STATION	STATION	LOCATION	LENGTH	TACK COAT						BORROW	AGGREGATE BASE COURSE (CLASS 1)		AGGREGATE BASE COURSE (CLASS 7)	
				0.10 GAL PER SQ.YD.			0.03 GAL PER SQ.YD.							
				AVG. WIDTH	SQ. YD.	GAL.	AVG. WIDTH	SQ. YD.	GAL.	TOTAL GAL.				
			LIN. FT.	FEET			FEET				CU. YD.	TONS/STA	TON	TONS/STA	TON
749+70.04	750+65.14	RT. MAIN LANES - FULL DEPTH PAVEMENT TRANS.	95.10				72.00	760.80	22.82	22.82				93.33	88.76
750+65.14	754+15.14	RT. MAIN LANES - SUPERELEVATION TRANS. (FULL-DEPTH TRANS.)	350.00				72.00	2800.00	84.00	84.00				93.33	326.66
754+15.14	760+70.04	RT. MAIN LANES - SUPERELEVATION (FULL-DEPTH TRANS.)	654.90				72.00	5239.20	157.18	157.18				93.33	611.22
760+70.04	776+22.58	RT. MAIN LANES - SUPERELEVATION (RUBBLIZE & OVERLAY)	1552.54	24.00	4140.11	414.01	72.00	12420.32	372.61	786.62					
776+22.58	777+32.61 BK.	RT. MAIN LANES - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	110.03	24.00	293.41	29.34	72.00	880.24	26.41	55.75					
777+72.27 AHD.	780+11.80	RT. MAIN LANES - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	239.53	24.00	638.75	63.88	72.00	1916.24	57.49	121.37					
780+11.80	819+88.00	RT. MAIN LANES - RUBBLIZE & OVERLAY	3976.20	24.00	10603.20	1060.32	72.00	31809.60	954.29	2014.61					
819+88.00	830+88.00	RT. MAIN LANES - FULL DEPTH PAVEMENT TRANS.	1100.00				72.00	8800.00	264.00	264.00				93.33	1026.63
830+88.00	847+59.50	RT. MAIN LANES - FULL DEPTH PAVEMENT	1671.50				72.00	13372.00	401.16	401.16				93.33	1560.01
849+16.50	856+28.50	RT. MAIN LANES - FULL DEPTH PAVEMENT	712.00				72.00	5696.00	170.88	170.88				93.33	664.51
857+85.50	868+85.50	RT. MAIN LANES - FULL DEPTH PAVEMENT TRANS.	1100.00				72.00	8800.00	264.00	264.00				93.33	1026.63
868+85.50	954+07.12 BK.	RT. MAIN LANES - RUBBLIZE & OVERLAY	8521.62	24.00	22724.32	2272.43	72.00	68172.96	2045.19	4317.62					
954+00.00 AHD.	959+00.00	RT. MAIN LANES - RUBBLIZE & OVERLAY TRANS.	500.00	24.00	1333.33	133.33	72.00	4000.00	120.00	253.33					
749+70.04	750+65.14	RT. SHOULDER OF R.M.L. - FULL DEPTH PAVEMENT TRANS.	95.10				30.26	319.75	9.59	9.59	16.00	67.36	64.06	40.99	38.98
750+65.14	754+15.14	RT. SHOULDER OF R.M.L. - SUPERELEVATION TRANS. (FULL-DEPTH TRANS.)	350.00				30.26	1176.78	35.30	35.30	3.89	20.46	71.61	40.99	143.47
754+15.14	760+70.04	RT. SHOULDER OF R.M.L. - SUPERELEVATION (FULL-DEPTH TRANS.)	654.90				30.26	2201.92	66.06	66.06	15.04	14.78	96.79	40.99	268.44
760+70.04	776+22.58	RT. SHOULDER OF R.M.L. - SUPERELEVATION (RUBBLIZE & OVERLAY)	1552.54	10.38	1790.60	179.06	30.23	5214.81	156.44	335.50	95.45	13.61	211.30		
776+22.58	777+32.61 BK.	RT. SHOULDER OF R.M.L. - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	110.03	10.38	126.90	12.69	30.23	369.58	11.09	23.78	8.07	20.77	22.85		
777+72.27 AHD.	780+11.80	RT. SHOULDER OF R.M.L. - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	239.53	10.38	276.26	27.63	30.23	804.55	24.14	51.77	17.57	20.77	49.75		
780+11.80	819+88.00	RT. SHOULDER OF R.M.L. - RUBBLIZE & OVERLAY	3976.20	10.38	4585.88	458.59	30.23	13355.61	400.67	859.26	471.25	25.00	994.05		
819+88.00	830+88.00	RT. SHOULDER OF R.M.L. - FULL DEPTH PAVEMENT TRANS.	1100.00				30.26	3698.44	110.95	110.95	56.96	36.00	396.00	40.99	450.89
830+88.00	847+59.50	RT. SHOULDER OF R.M.L. - FULL DEPTH PAVEMENT	1671.50				30.26	5619.95	168.60	168.60		47.00	785.61	40.99	685.15
849+16.50	856+28.50	RT. SHOULDER OF R.M.L. - FULL DEPTH PAVEMENT	712.00				30.26	2393.90	71.82	71.82		47.00	334.64	40.99	291.85
857+85.50	868+85.50	RT. SHOULDER OF R.M.L. - FULL DEPTH PAVEMENT TRANS.	1100.00				30.26	3698.44	110.95	110.95	56.96	36.00	396.00	40.99	450.89
868+85.50	954+07.12 BK.	RT. SHOULDER OF R.M.L. - RUBBLIZE & OVERLAY	8521.62	10.38	9828.27	982.83	30.23	28623.17	858.70	1841.53	1009.97	25.00	2130.41		
954+00.00 AHD.	959+00.00	RT. SHOULDER OF R.M.L. - RUBBLIZE & OVERLAY TRANS.	500.00	10.38	576.67	57.67	30.23	1679.44	50.38	108.05	34.98	15.94	79.70		
749+70.04	750+65.14	LT. SHOULDER OF R.M.L - FULL DEPTH PAVEMENT TRANS.	95.10				26.46	279.59	8.39	8.39	16.00	90.84	86.39	25.43	24.18
750+65.14	754+15.14	LT. SHOULDER OF R.M.L. - SUPERELEVATION TRANS. (FULL-DEPTH TRANS.)	350.00				26.46	1029.00	30.87	30.87	56.65	257.44	901.04	25.43	89.01
754+15.14	760+70.04	LT. SHOULDER OF R.M.L. - SUPERELEVATION (FULL-DEPTH TRANS.)	654.90				26.46	1925.41	57.76	57.76	110.85	290.89	1905.04	25.43	166.54
760+70.04	776+22.58	LT. SHOULDER OF R.M.L - SUPERELEVATION (RUBBLIZE & OVERLAY)	1552.54	4.38	755.57	75.56	12.23	2109.73	63.29	138.85	364.56	290.89	4516.18		
776+22.58	777+32.61 BK.	LT. SHOULDER OF R.M.L - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	110.03	4.38	53.55	5.36	12.23	149.52	4.49	9.85	17.16	82.83	91.14		
777+72.27 AHD.	780+11.80	LT. SHOULDER OF R.M.L - SUPERELEVATION TRANS. (RUBBLIZE & OVERLAY)	239.53	4.38	116.57	11.66	12.23	325.49	9.76	21.42	37.35	82.83	198.40		
780+11.80	819+88.00	LT. SHOULDER OF R.M.L - RUBBLIZE & OVERLAY	3976.20	4.38	1935.08	193.51	12.23	5403.21	162.10	355.61	817.33	34.25	1361.85		
819+88.00	830+88.00	LT. SHOULDER OF R.M.L - FULL DEPTH PAVEMENT TRANS.	1100.00				26.46	3234.00	97.02	97.02	56.96	41.88	460.68	25.43	279.73
830+88.00	847+59.50	LT. SHOULDER OF R.M.L - FULL DEPTH PAVEMENT	1671.50				26.46	4914.21	147.43	147.43	30.95	49.50	827.39	25.43	425.06
849+16.50	856+28.50	LT. SHOULDER OF R.M.L - FULL DEPTH PAVEMENT	712.00				26.46	2093.28	62.80	62.80	13.19	49.50	352.44	25.43	181.06
857+85.50	868+85.50	LT. SHOULDER OF R.M.L - FULL DEPTH PAVEMENT TRANS.	1100.00				26.46	3234.00	97.02	97.02	56.96	41.88	460.68	25.43	279.73
868+85.50	954+07.12 BK.	LT. SHOULDER OF R.M.L - RUBBLIZE & OVERLAY	8521.62	4.38	4147.19	414.72	12.23	11579.93	347.40	762.12	1751.67	34.25	2918.65		
954+00.00 AHD.	959+00.00	LT. SHOULDER OF R.M.L - RUBBLIZE & OVERLAY TRANS.	500.00	4.38	243.33	24.33	12.23	679.44	20.38	44.71	30.56	33.83	169.15		
SUBTOTALS:					64168.99	6416.92		270780.51	8123.43	14540.35	5146.33		19881.80		9079.40
TOTALS:					128525.19	12852.55		543431.31	16302.95	29155.50	10228.60		43855.21		18306.38

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
11-23-2015				6	ARK.			
11-25-2015				JOB NO.		BB0305	99	153

(2) QUANTITIES

SHOULDER PREPARATION AND WIDENING FOR MAINTENANCE OF TRAFFIC

STATION	STATION	LOCATION	LENGTH	AVG. WIDTH	AREA	ACHM SURFACE COURSE (1/2") (PG76-22)		ACHM BINDER COURSE (1") (PG76-22)		ACHM BASE COURSE (1-1/2") (PG76-22)		TACK COAT	TRENCHING AND SHOULDER PREPARATION
						LBS. PER SQ. YD.	TON	LBS. PER SQ. YD.	TON	LBS. PER SQ. YD.	TON	0.03 GAL. PER SQ. YD.	STA
			LIN. FT.	FEET	SQ. YD.							GAL.	
723+23.76	740+55.82	RT. SHOULDER WIDENING OF L.M.L.	1732.06	15.40	2963.75	440	652.03	330	489.02	880	1304.05	88.91	
748+98.22	847+59.50	LT. SHOULDER PREP. OF L.M.L.	9861.28	4.00	4382.79	440	964.21	330	723.16	880	1928.43	131.48	98.62
849+16.50	856+28.50	LT. SHOULDER PREP. OF L.M.L.	712.00	4.00	316.44	440	69.62	330	52.21	880	139.23	9.49	7.12
857+85.50	967+03.52	LT. SHOULDER PREP. OF L.M.L.	10918.02	4.00	4852.45	440	1067.54	330	800.65	880	2135.08	145.57	109.19
TOTALS:					12515.43		2753.40		2065.04		5506.79	375.45	214.93

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 FOR PG76-22

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
11-25-2015

CROSSOVER RAMPS - MAINTENANCE OF TRAFFIC

STATION	STATION	LOCATION	LENGTH	AVG. WIDTH	ACHM SURFACE COURSE (1/2) (PG76-22)			AVG. WIDTH	ACHM BINDER COURSE (1") (PG76-22)			AVG. WIDTH	ACHM BASE COURSE (1 1/2") (PG76-22)			AVG. WIDTH	TACK COAT						
			LIN. FT.	FEET	SQ. YD.	LBS. PER SQ. YD	TON	FEET	SQ. YD.	LBS. PER SQ. YD	TON	FEET	SQ. YD.	LBS. PER SQ. YD	TON	FEET	SQ. YD.	GAL. PER SQ. YD.	GAL.	SQ. YD.	GAL. PER SQ. YD.	GAL.	TOTAL GALS.
721+27.23	729+25.92	CROSSOVER RAMP TRML1	798.69	13.84	1228.21	440	270.21	14.30	1269.03	330	209.39	14.76	1309.85	880	576.33	28.14	2497.24	0.03	74.92	2497.24	0.10	249.72	324.64
727+21.08	732+23.76	CROSSOVER RAMP TRRAMP1	502.68	8.98	501.56	440	110.34	9.44	527.26	330	87.00	9.90	552.95	880	243.30	18.42	1028.82	0.03	30.86	1028.82	0.10	102.88	133.74
734+14.59	740+95.04	CROSSOVER RAMP TLML1	680.45	9.28	701.62	440	154.36	9.74	736.40	330	121.51	10.20	771.18	880	339.32	19.02	1438.02	0.03	43.14	1438.02	0.10	143.80	186.94
964+76.57	974+55.90	CROSSOVER RAMPS TRML2 AND TLML2	979.33	32.39	3524.50	440	775.39	32.85	3574.55	330	589.80	33.31	3624.61	880	1594.83	65.24	7099.05	0.03	212.97	7099.05	0.10	709.91	922.88
TOTALS:					5955.89		1310.30		6107.24		1007.70		6258.59		2753.78		12063.13		361.89	12063.13		1206.31	1568.20

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 FOR PG76-22

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") (PG76-22)	ACHM BINDER COURSE (1") (PG76-22)	ACHM SURFACE COURSE (1/2") (PG76-22)	TRENCHING AND SHOULDER PREPARATION
	CU. YD.	TON	TON	GAL.	TON	TON	TON	STATION
CROSSOVERS FOR MAINTENANCE OF TRAFFIC				1568.20	2753.78	1007.70	1310.30	
SHOULDER PREPARATION AND WIDENING FOR MAINTENANCE OF TRAFFIC				375.45	5506.79	2065.04	2753.40	214.93
MAIN LANES AND SHOULDERS	10228.60	18306.38	43855.21	29155.50	74128.69	31847.49	38254.82	
SHOULDER WIDENING FOR GUARDRAIL		4379.88		913.16			2008.93	
TOTALS:	10228.60	22686.26	43855.21	32012.31	82389.26	34920.23	44327.45	214.93

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 FOR PG76-22

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.		BB0305	100	153

② QUANTITIES

BASE AND SURFACING

FROM LOG MILE	TO LOG MILE	LOCATION	LENGTH/NO.	TACK COAT F.A.P. HRRR-30-1(152)18 AVG. WIDTH FEET	TACK COAT SQ. YD.	TACK COAT GALLONS/ SQ. YD.	TACK COAT GALLON	ACHM SURFACE COURSE (1/2") (PG64-22) F.A.P. HRRR-30-1(152)18 AVG. WIDTH FEET	ACHM SURFACE COURSE SQ. YD.	ACHM SURFACE COURSE POUND/ SQ. YD.	ACHM SURFACE COURSE TONS
8.20	16.10	RT. SHOULDER	41712.00	8.00	37077.33	0.10	3707.73	8.00	37077.33	220	4078.51
8.20	16.10	LT. SHOULDER	41712.00	8.00	37077.33	0.10	3707.73	8.00	37077.33	220	4078.51
F.A.P. HRRR-30-1(152)18		PRIVATE DRIVES	21		102.90	0.10	10.29		102.90	220	11.32
F.A.P. HRRR-30-1(152)18		COUNTY ROADS	13		1424.80	0.10	142.48		1424.80	220	156.73
TOTALS:					75682.36		7568.23		75682.36		8325.07

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 94.4% , ASPH. BINDER (PG64-22) = 5.6%
Nmax = 115 FOR PG64-22

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/21/2015

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	FROM L.M.	TO L.M.	F.A.P. HRRR-30-1(152)18 RAISED PAVEMENT MARKERS TYPE II (WHITE)	RAISED PAVEMENT MARKERS TYPE II (YEL./YEL.)	THERMOPLASTIC PAVEMENT MARKINGS 4" WHITE	4" YELLOW	ARROWS
			EACH		LIN. FT.		EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE)	12.16	12.34	110				
RAISED PAVEMENT MARKERS TYPE II (YEL./YEL.)	8.20	18.50		1360			
THERMOPLASTIC PAVEMENT MARKING WHITE (4")	8.20	18.50			110563		
THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	8.20	18.50				44621	
THERMOPLASTIC PAVEMENT MARKING ARROWS	12.20	12.30					4
TOTALS:			110	1360	110563	44621	4

NOTES: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.

THE 4" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT.
THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING.
CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF THE PROJECT.

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	LOCATION	SIGN SIZE	F.A.P. HRRR-30-1(152)18 MAXIMUM NUMBER	TOTAL SIGNS REQUIRED	TRAFFIC DRUMS
				NO.	SQ. FT.	EACH
W20-1	ROAD WORK AHEAD	BEGIN SEC. 1-HWY. 67	48"x48"	1	16.00	
R55-1	FINES DOUBLE IN WORK ZONES	BEGIN SEC. 1-HWY. 67	48"x48"	1	16.00	
W20-1	ROAD WORK 1500 FT.	BEGIN SEC. 1-HWY. 67	48"x48"	1	16.00	
W20-1	ROAD WORK 1000 FT.	BEGIN SEC. 1-HWY. 67	48"x48"	1	16.00	
W20-1	ROAD WORK 500 FT.	BEGIN SEC. 1-HWY. 67	48"x48"	1	16.00	
G20-2	END ROAD WORK	END SEC. 1-HWY. 67	48"x24"	1	8.00	
G20-1	ROAD WORK NEXT XX MILES	BEGIN SEC. 1-HWY. 67	60"x24"	1	10.00	
W20-1	ROAD WORK AHEAD	MC. 389	48"x48"	1	16.00	
W20-1	ROAD WORK AHEAD	MC. 63	48"x48"	1	16.00	
W20-1	ROAD WORK AHEAD	MC. 390	48"x48"	1	16.00	
W20-1	ROAD WORK AHEAD	MC. 53	48"x48"	1	16.00	
W20-1	ROAD WORK AHEAD	MC. 64	48"x48"	1	16.00	
W20-1	ROAD WORK AHEAD	I-30 RAMP 1 HOMAN	48"x48"	1	16.00	
W20-1	ROAD WORK AHEAD	I-30 RAMP 4 HOMAN	48"x48"	1	16.00	
W20-1	ROAD WORK AHEAD	MC. 54	48"x48"	2	32.00	
W20-1	ROAD WORK AHEAD	MC. 105	48"x48"	1	16.00	
W20-1	ROAD WORK AHEAD	MC. 112	48"x48"	1	16.00	
W20-1	ROAD WORK AHEAD	MANDEVILLE RD.	48"x48"	1	16.00	
W20-1	ROAD WORK AHEAD	OLD 67 HWY.	48"x48"	1	16.00	
W20-1	ROAD WORK AHEAD	OLD POST RD.	48"x48"	1	16.00	
	TRAFFIC DRUMS			53		53
TOTALS:					322.0	53

NOTES:

1. THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.
2. THE COST OF ANY ADDITIONAL SIGNS, BARRICADES, OR DEVICES OF A TEMPORARY NATURE THAT MAY BE NECESSITATED BY THE CONTRACTOR'S SEQUENCE OF OPERATIONS OR STANDARD DRAWINGS TC-1, TC-2 AND TC-3 SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS CONTRACT ITEMS. ANY ADDITIONAL PERMANENT SIGNS, BARRICADES, OR DEVICES PLACED BY THE CONTRACTOR SHALL NOT BE PAID FOR.

SCARIFYING AND RECOMPACTING SHOULDERS

ROUTE	SECT.	LOCATION	FROM L.M.	TO L.M.	LENGTH	AVG. WIDTH	AREA F.A.P. HRRR-30-1(152)18
					FEET	FEET	SQ. YD.
67	1	RT. SHOULDER	8.20	16.10	41712.00	8.00	37077.33
67	1	LT. SHOULDER	8.20	16.10	41712.00	8.00	37077.33
TOTALS:							74154.66

NOTE:
EXISTING PCCP PATCHES EXTEND INTO THE LIMITS OF THE SHOULDERS. THE PORTION OF THESE CONCRETE PATCHES WITHIN THE SHOULDER LIMITS SHALL BE REMOVED TO A DEPTH OF 2" TO RESTORE THE ORIGINAL NEAT LINE EDGE OF THE PCCP EITHER BY COLD MILLING OR OTHER APPROVED METHOD. PAYMENT WILL NOT BE MADE FOR THIS REQUIREMENT, BUT WILL BE CONSIDERED SUBSIDIARY TO SCARIFYING AND RECOMPACTING SHOULDERS.

RUMBLE STRIPS IN ASPHALT SHOULDERS

ROUTE	SECT.	LOCATION	FROM L.M.	TO L.M.	LENGTH	*RUMBLE STRIPS IN ASPHALT SHOULDERS F.A.P. HRRR-30-1(152)18
					MILES	LIN. FT.
67	1	RT. SHOULDER	8.200	15.295	7.095	29969
67	1	RT. SHOULDER	15.230	16.610	1.380	5829
67	1	RT. SHOULDER	16.930	18.500	1.570	6632
67	1	LT. SHOULDER	8.200	15.295	7.095	29969
67	1	LT. SHOULDER	15.230	16.610	1.380	5829
67	1	LT. SHOULDER	16.930	18.500	1.570	6632
TOTALS:						84860

*QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS, 2014 EDITION.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

HWY. 67
F.A.P. HRRR-30-1(152)18
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.		BB0305	101	153

② QUANTITIES

BASE AND SURFACING

FROM LOG MILE	TO LOG MILE	LOCATION	LENGTH /NO.	TACK COAT F.A.P. PEN-30-1(152)18				ACHM SURFACE COURSE (1/2") (PG64-22) F.A.P. PEN-30-1(152)18			
				AVG. WIDTH FEET	SQ. YD.	GALLONS/ SQ. YD.	GALLON	AVG. WIDTH FEET	SQ. YD.	POUND/ SQ. YD.	TONS
3.86	8.20	RT. SHOULDER	22915.20	8.00	20369.07	0.10	2036.91	8.00	20369.07	220	2240.60
3.86	8.20	LT. SHOULDER	22915.20	8.00	20369.07	0.10	2036.91	8.00	20369.07	220	2240.60
F.A.P. 9050		PRIVATE DRIVES	47		230.30	0.10	23.03		230.30	220	25.33
F.A.P. 9050		COUNTY ROADS	12		1315.20	0.10	131.52		1315.20	220	144.67
TOTALS:					42283.64		4228.37		42283.64		4651.20

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 94.4% , ASPH. BINDER (PG64-22) = 5.6%
Nmax = 115 FOR PG64-22

SCARIFYING AND RECOMPACTING SHOULDERS

ROUTE	SECT.	LOCATION	FROM L.M.	TO L.M.	LENGTH	AVG. WIDTH	AREA F.A.P. PEN-30-1(152)18
					FEET	FEET	SQ. YD.
67	1	RT. SHOULDER	3.86	8.20	22915.20	8.00	20369.07
67	1	LT. SHOULDER	3.86	8.20	22915.20	8.00	20369.07
TOTALS:							40738.14

NOTE:
EXISTING PCCP PATCHES EXTEND INTO THE LIMITS OF THE SHOULDERS. THE PORTION OF THESE CONCRETE PATCHES WITHIN THE SHOULDER LIMITS SHALL BE REMOVED TO A DEPTH OF 2" TO RESTORE THE ORIGINAL NEAT LINE EDGE OF THE PCCP EITHER BY COLD MILLING OR OTHER APPROVED METHOD. PAYMENT WILL NOT BE MADE FOR THIS REQUIREMENT, BUT WILL BE CONSIDERED SUBSIDIARY TO SCARIFYING AND RECOMPACTING SHOULDERS.

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	LOCATION	SIGN SIZE	F.A.P. PEN-30-1(152)18 MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED	TRAFFIC DRUMS
				NO.	SQ. FT.	EACH
W20-1	ROAD WORK AHEAD	BEGIN SEC. 1-HWY. 67	48"x48"	1	16.0	
R55-1	FINES DOUBLE IN WORK ZONES	BEGIN SEC. 1-HWY. 67	48"x48"	1	16.0	
W20-1	ROAD WORK 1500 FT.	BEGIN SEC. 1-HWY. 67	48"x48"	1	16.0	
W20-1	ROAD WORK 1000 FT.	BEGIN SEC. 1-HWY. 67	48"x48"	1	16.0	
W20-1	ROAD WORK 500 FT.	BEGIN SEC. 1-HWY. 67	48"x48"	1	16.0	
G20-2	END ROAD WORK	END SEC. 1-HWY. 67	48"x24"	1	8.0	
G20-1	ROAD WORK NEXT XX MILES	BEGIN SEC. 1-HWY. 67	60"x24"	1	10.0	
W20-1	ROAD WORK AHEAD	CLAY PIT RD.	48"x48"	1	16.0	
W20-1	ROAD WORK AHEAD	HWY. 237	48"x48"	1	16.0	
W20-1	ROAD WORK AHEAD	FOX MEADOW RD.	48"x48"	1	16.0	
W20-1	ROAD WORK AHEAD	MC. 372	48"x48"	1	16.0	
W20-1	ROAD WORK AHEAD	HARRIS LN.	48"x48"	2	32.0	
W20-1	ROAD WORK AHEAD	HWY. 296	48"x48"	1	16.0	
W20-1	ROAD WORK AHEAD	SUGARHILL RD. (MC. 140)	48"x48"	1	16.0	
W20-1	ROAD WORK AHEAD	MC. 367	48"x48"	1	16.0	
W20-1	ROAD WORK AHEAD	HWY. 108	48"x48"	1	16.0	
	TRAFFIC DRUMS			53		53
TOTALS:					258.0	53

NOTES:

1. THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.
2. THE COST OF ANY ADDITIONAL SIGNS, BARRICADES, OR DEVICES OF A TEMPORARY NATURE THAT MAY BE NECESSITATED BY THE CONTRACTOR'S SEQUENCE OF OPERATIONS OR STANDARD DRAWINGS TC-1, TC-2 AND TC-3 SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS CONTRACT ITEMS. ANY ADDITIONAL PERMANENT SIGNS, BARRICADES, OR DEVICES PLACED BY THE CONTRACTOR SHALL NOT BE PAID FOR.

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	FROM L.M.	TO L.M.	F.A.P. PEN-30-1(152)18 RAISED PAVEMENT MARKERS TYPE II (YEL./YEL.)	THERMOPLASTIC PAVEMENT MARKINGS 4" WHITE	4" YELLOW
				LIN. FT.	
RAISED PAVEMENT MARKERS TYPE II (YEL./YEL.)	3.86	8.20	573		
THERMOPLASTIC PAVEMENT MARKING WHITE (4")	3.86	8.20		45936	
THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	3.86	8.20			34697
TOTALS:			573	45936	34697

NOTE: THIS IS A HIGH TRAFFIC VOLUME ROAD AS DEFINED IN SECTION 604.03, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.

NOTE: THE 4" YELLOW STRIPING QUANTITY HAS BEEN ESTIMATED ON A DOUBLE YELLOW CENTERLINE STRIPE FOR THE ENTIRE PROJECT.
THE PROJECT MUST BE MARKED FOR PASSING/NO PASSING ZONES PRIOR TO THE PLACEMENT OF ANY FINAL STRIPING.
CONTACT THE MAINTENANCE DIVISION AFTER THE FINAL LIFT OF SURFACE COURSE HAS BEEN PLACED TO SCHEDULE THE ZONING OF THE PROJECT.

RUMBLE STRIPS IN ASPHALT SHOULDERS

ROUTE	SECT.	LOCATION	FROM L.M.	TO L.M.	LENGTH	*RUMBLE STRIPS IN ASPHALT SHOULDERS F.A.P. PEN-30-1(152)18
					MILES	LIN. FT.
67	1	RT. SHOULDER	3.860	7.170	3.310	13981
67	1	RT. SHOULDER	7.185	7.830	0.645	2724
67	1	RT. SHOULDER	7.845	8.200	0.355	1500
67	1	LT. SHOULDER	3.860	7.170	3.310	13981
67	1	LT. SHOULDER	7.185	7.830	0.645	2724
67	1	LT. SHOULDER	7.845	8.200	0.355	1500
TOTALS:						36410

*QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STANDARD SPECIFICATIONS, 2014 EDITION.
TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 15845 ROSA PLESNER
Rosa Plesner
8/20/2015

HWY. 67
F.A.P. PEN-30-1(152)18
QUANTITIES

8/19/2015 2:25:48 PM
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DATE REVISED	DATE PLMED	DATE REVISED	DATE PLMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	102	153

(1) (A&B 3864) (A&B 3866) (A&B 3867) - BRIDGE QUANTITIES - 57490

7/15/2015 4:43:38 PM

SCHEDULE OF BRIDGE QUANTITIES

LOG MILE	STATION BEG	STATION END	UNIT OF STRUCTURE	ITEM NO.	802	803	804	SP JOB BB0305	SP JOB BB0305	SP JOB BB0305	809
				ITEM	GROOVING	CLASS 3 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL - BRIDGE (GRADE 60)	HYDRODEMOLITION	BRIDGE DECK REPAIR	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)	SILICONE JOINT SEALANT
				UNIT	SQ. YD.	LIN. FT.	POUNDS	SQ. YD.	SQ. FT.	SQ. YD.	LIN. FT.
18.30	743+65.21	748+44.20	EXISTING BRIDGE NO. A3864		2116	952	500	2115.6	1904	2115.6	570
18.30	744+41.43	749+12.42	EXISTING BRIDGE NO. B3864		2080	936	500	2080.0	1872	2080.0	570
TOTALS FOR JOB NO. BB0305					4196	1888	1000 (1)	4195.6	(1) 3776	4195.6	1140

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

LOG MILE	STATION BEG	STATION END	UNIT OF STRUCTURE	ITEM NO.	SP JOB BB0305	SP JOB BB0305	509
				ITEM	BRIDGE DECK REPAIR FOR POLYMER OVERLAY	POLYMER OVERLAY	JOINT REHABILITATION (TYPE A)
				UNIT	SQ. FT.	SQ. YD.	LIN. FT.
20.27	847+96.00	848+80.00	EXISTING BRIDGE NO. A3866		336	373.3	161
20.27	847+96.00	848+80.00	EXISTING BRIDGE NO. B3866		336	373.3	161
20.44	856+65.00	857+49.00	EXISTING BRIDGE NO. A3867		336	373.3	161
20.44	856+65.00	857+49.00	EXISTING BRIDGE NO. B3867		336	373.3	161
TOTALS FOR JOB NO. BB0305					1344 (1)	1493.2	644

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

STATE OF ARKANSAS REGISTERED LICENSED ENGINEER 7-16-15 No. 15762 JOHN W. TULEY

Bridge Engineer

SCHEDULE OF BRIDGE QUANTITIES

ROUTE I-30

ARKANSAS STATE HIGHWAY COMMISSION

HEMPSTEAD COUNTY

DRAWN BY: MGG DATE: 2-19-14 FILE NAME: IH-30Bridge 3864_EQ

CHECKED BY: JWT DATE: 3-28-14 SCALE:

DESIGNED BY: JHK DATE: 2-14-14

BRIDGE NO. (A&B) 3864, (A&B) 3866 & (A&B) 3867 DRAWING NO. 57490

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SUMMARY OF QUANTITIES (BOX 1 OF 2)

ITEM NUMBER	ITEM	F.A.P. NHPP-30-1(152)18	F.A.P. PEN-30-1(152)18	F.A.P. HRRR-30-1(152)18	QUANTITY	UNIT
201	CLEARING	159			159	STATION
201	GRUBBING	159			159	STATION
202	REMOVAL AND DISPOSAL OF APPROACH SLAB AND GUTTERS	12			12	EACH
202	REMOVAL AND DISPOSAL OF CONCRETE PIER PROTECTION	112			112	LIN. FT.
202	REMOVAL AND DISPOSAL OF CONCRETE DITCH PAVING	196			196	SQ. YD.
SP	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER	4			4	EACH
202	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT	32781			32781	SQ. YD.
SP & 202	REMOVAL AND DISPOSAL OF GUARDRAIL	8150			8150	LIN. FT.
SP & 210	BORROW	10229			10229	CU. YD.
210	UNCLASSIFIED EXCAVATION	39672			39672	CU. YD.
210	COMPACTED EMBANKMENT	6877			6877	CU. YD.
SP & 210	SOIL STABILIZATION	300			300	TON
SP	SHAPING DITCH	40			40	STATION
SP & 215	TRENCHING AND SHOULDER PREPARATION	215			215	STATION
216	SCARIFYING AND RECOMPACTING SHOULDERS		40738	74155	114893	SQ. YD.
303	AGGREGATE BASE COURSE (CLASS 1)	43855			43855	TON
303	AGGREGATE BASE COURSE (CLASS 7)	22686			22686	TON
SS & 401	TACK COAT	32212	4228	7568	44008	GALLON
SP & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")	78681			78681	TON
SP & 405	ASPHALT BINDER (PG76-22) IN ACHM BASE COURSE (1 1/2")	3708			3708	TON
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")	33349			33349	TON
SP, SS, & 406	ASPHALT BINDER (PG76-22) IN ACHM BINDER COURSE (1")	1571			1571	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	41845	4391	7859	54095	TON
SP, SS, & 407	ASPHALT BINDER (PG64-22) IN ACHM SURFACE COURSE (1/2")		260	466	726	TON
SP, SS, & 407	ASPHALT BINDER (PG76-22) IN ACHM SURFACE COURSE (1/2")	2482			2482	TON
SP & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC	100			100	TON
504	APPROACH SLABS	636.58			636.58	CU. YD.
504	APPROACH GUTTERS	411.96			411.96	CU. YD.
507	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT FOR PATCHING	100			100	SQ. YD.
507	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (10" UNIFORM THICKNESS)	100			100	SQ. YD.
SP & 513	REMOVAL OF EXISTING ASPHALT OVERLAY	174751			174751	SQ. YD.
513	RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT	79581			79581	SQ. YD.
601	MOBILIZATION	1.00			1.00	LUMP SUM
602	FURNISHING FIELD LABORATORY	1			1	EACH
SP & 602	FURNISHING FIELD OFFICE	1			1	EACH
603	18" TEMPORARY CULVERT	1045			1045	LIN. FT.
SP & 603	TRAFFIC CONTROL SUPERVISOR	1.00			1.00	LUMP SUM
SP & 603	MAINTENANCE OF TRAFFIC	1.00			1.00	LUMP SUM
SP	AWIS MOBILIZATION	1.00			1.00	LUMP SUM
SP	AWIS OPERATION	12			12	MONTH
SP	DEVICE RELOCATION	10			10	EACH
SP	FURNISH AND INSTALL CLOSED CIRCUIT TELEVISION SYSTEM	2			2	EACH
SP	FURNISH AND INSTALL PUBLIC NOTIFICATION SYSTEM	2			2	EACH
SP	FURNISH AND INSTALL VARIABLE MESSAGE SIGN	4			4	EACH
SP	FURNISH AND INSTALL VEHICLE DETECTION SYSTEM	36			36	EACH
SS & 604	SIGNS	3046	258	322	3626	SQ. FT.
SS & 604	TRAFFIC DRUMS	306	53	53	412	EACH
SS & 604	BARRICADES	80			80	LIN. FT.
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	37200			37200	LIN. FT.
604	RELOCATING PRECAST CONCRETE BARRIER	29025			29025	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	65504			65504	LIN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS	146398			146398	LIN. FT.
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	60034			60034	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	89324			89324	LIN. FT.
SS & 604	VERTICAL PANELS	239			239	EACH
604	ADVANCE WARNING ARROW PANEL	530			530	DAY
SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN	145			145	WEEK
SP	MOBILE SPEED NOTIFICATION SYSTEM	2			2	EACH
SP	MOTORIST ASSISTANCE PATROL	1.00			1.00	LUMP SUM
SP & 605	CONCRETE DITCH PAVING (TYPE B)	196	732		928	SQ. YD.
SS & 606	12" SIDE DRAIN	48			48	LIN. FT.
SP	CULVERT CLEAN OUT	29			29	EACH
606	SELECTED PIPE BEDDING	100			100	CU. YD.
609	DROP INLETS (TYPE N3)	4			4	EACH

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
11-17-15				6	ARK.			
11-23-15				JOB NO.		BB0305	103	153
11-25-15								

② SUMMARY OF QUANTITIES

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

11-25-2015

SUMMARY OF QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
11-17-15				6	ARK.			
11-23-15				JOB NO.		BB0305	104	153
11-25-15								

(2) SUMMARY OF QUANTITIES AND REVISIONS

SUMMARY OF QUANTITIES (BOX 2 OF 2)

ITEM NUMBER	ITEM		F.A.P. NHPP-30-1(152)18	F.A.P. PEN-30-1(152)18	F.A.P. HRRR-30-1(152)18	QUANTITY	UNIT
611	UNDERDRAIN OUTLET PROTECTORS		184			184	EACH
611	4" PIPE UNDERDRAINS		50913			50913	LIN. FT.
611	UNDERDRAIN VIDEO INSPECTION		50913			50913	LIN. FT.
611	UNDERDRAIN COVER		41345			41345	LIN. FT.
614	CONCRETE SPILLWAY (TYPE A)		4			4	EACH
617	GUARDRAIL (TYPE A)		8100			8100	LIN. FT.
617	GUARDRAIL TERMINAL (TYPE 2)		24			24	EACH
617	THRIE BEAM GUARDRAIL TERMINAL		18			18	EACH
617	TERMINAL ANCHOR POSTS (TYPE 1)		10			10	EACH
SP	WIRE ROPE SAFETY FENCE			1645		1645	LIN. FT.
SP	WIRE ROPE SAFETY FENCE (POST REPAIR)			50		50	EACH
SP	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS			1.00		1.00	LUMP SUM
620	LIME		129			129	TON
620	SEEDING		64.64			64.64	ACRE
SS & 620	MULCH COVER		94.49			94.49	ACRE
620	WATER		13798.0	9.2		13807.2	M. GAL.
621	TEMPORARY SEEDING		29.85			29.85	ACRE
621	SEDIMENT REMOVAL AND DISPOSAL		190			190	CU. YD.
621	DROP INLET SILT FENCE		150			150	LIN. FT.
621	SAND BAG DITCH CHECKS		3740			3740	BAG
621	ROCK DITCH CHECKS		453			453	CU. YD.
623	SECOND SEEDING APPLICATION		64.64			64.64	ACRE
624	SOLID SODDING		196	732		928	SQ. YD.
SP	FILTER SOCK (18")		5446			5446	LIN. FT.
631	CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)		112			112	LIN. FT.
SP & 635	ROADWAY CONSTRUCTION CONTROL		1.00			1.00	LUMP SUM
642	RUMBLE STRIPS IN ASPHALT SHOULDERS		83411	36410	84860	204681	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (4")			34697	44621	79318	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (4")			45936	110563	156499	LIN. FT.
719	THERMOPLASTIC PAVEMENT MARKINGS (ARROWS)				4	4	EACH
*SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)	46258			46258	LIN. FT.
*SP	HIGH PERFORMANCE MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)	46258			46258	LIN. FT.
*SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING (SKIP LINE) WHITE (4")	(ALTERNATE NO. 1)	11520			11520	LIN. FT.
*SP	HIGH PERFORMANCE MARKING TAPE (SKIP LINE) WHITE (4")	(ALTERNATE NO. 2)	11520			11520	LIN. FT.
*SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	(ALTERNATE NO. 1)	46258			46258	LIN. FT.
*SP	HIGH PERFORMANCE MARKING TAPE YELLOW (4")	(ALTERNATE NO. 2)	46258			46258	LIN. FT.
*SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)	1564			1564	LIN. FT.
*SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)	1564			1564	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)		579	573	1470	2622	EACH
731	IMPACT ATTENUATION BARRIER (TYPE A)		4			4	EACH
731	TEMPORARY IMPACT ATTENUATION BARRIER		15			15	EACH
731	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)		33			33	EACH
731	TEMPORARY IMPACT ATTENUATION BARRIER (RELOCATION)		18			18	EACH
SP	THERMOPLASTIC RUMBLE BAR		1080			1080	LIN. FT.
SP	TEMPORARY RELOCATION OF EXISTING SIGNS		4			4	EACH
SP	REMOVAL OF THERMOPLASTIC RUMBLE BAR		1080			1080	LIN. FT.
	STRUCTURES OVER 20' SPAN						
509	JOINT REHABILITATION (TYPE A)		644			644	LIN. FT.
636	BRIDGE CONSTRUCTION CONTROL		1.00			1.00	LUMP SUM
802	GROOVING		4196			4196	SQ. YD.
803	CLASS 3 PROTECTIVE SURFACE TREATMENT		1888			1888	LIN. FT.
804	REINFORCING STEEL - BRIDGE (GRADE 60)		1000			1000	POUNDS
809	SILICONE JOINT SEALANT		1140			1140	LIN. FT.
SP	HYDRODEMOLITION		4195.6			4195.6	SQ. YD.
SP	BRIDGE DECK REPAIR		3776			3776	SQ. FT.
SP	BRIDGE DECK REPAIR FOR POLYMER OVERLAYS		1344			1344	SQ. FT.
SP	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)		4195.6			4195.6	SQ. YD.
SP	POLYMER OVERLAY		1493.2			1493.2	SQ. YD.

*DENOTES ALTERNATE BID ITEMS.

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

11-25-2015

REVISIONS

DATE	REVISION	SHEET NUMBER
11-17-2015	ADDED SOIL STABILIZATION SP & QUANTITY	3, 87, 103, AND 104
11-23-2015	PAVEMENT SECTION FOR STAGE 1 CHANGED FROM ACHM SURFACE, BINDER, AND BASE TO PORTLAND CEMENT CONCRETE PAVEMENT. REVISED MAINTENANCE OF TRAFFIC SP.	8, 99, 103, AND 104
11-25-2015	PAVEMENT SECTION FOR STAGE 1 CHANGED FROM PORTLAND CEMENT CONCRETE PAVEMENT TO ACHM SURFACE, BINDER, AND BASE.	8, 99, 103, AND 104

SUMMARY OF QUANTITIES AND REVISIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	105	153

(2) PLAN SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

PROPOSED CULVERT CLEANOUT
STA. 722+50.00 (RT. MAIN LANES) = 1 EACH
STA. 723+00.00 (RT. MAIN LANES) = 1 EACH
STA. 727+00.00 (RT. MAIN LANES) = 1 EACH
STA. 731+50.00 (LT. MAIN LANES) = 1 EACH
STA. 739+50.00 (LT. MAIN LANES) = 1 EACH

CURVE LML-01
P.I. = 713+16.32
Δ = 29° 34' 48" (LT)
D = 1° 15' 05"
T = 1,208.98'
L = 2,364.01'
P.C. = 701+07.34
P.T. = 724+71.35

CURVE RML-01
P.I. = 714+30.02
Δ = 29° 29' 01" (RT)
D = 1° 14' 50"
T = 1,208.80'
L = 2,364.01'
P.C. = 702+21.22
P.T. = 725+85.23

CURVE 130-1
P.I. = 713+73.20
Δ = 29° 33' 00" (LT)
D = 1° 15' 00"
T = 1,208.92'
L = 2,364.00'
P.C. = 701+64.28
P.T. = 725+28.28

P.I. CL MEDIAN STA. 713+73.20
RED LAKE RD.
US 67
EXIST. ROW, C/A & FENCE
C.L. I-30
N 42° 35' 00" E

STA. 727+98.39
NOSE LOCATION
MATCH EXISTING

STA. 724+83.64
NOSE LOCATION
MATCH EXISTING

PT. L.M.L. STA. 724+71.35
L.M.L. STA. 725+12.99 BK.=
PT. CL MEDIAN STA. 725+28.28 AHD.

PT. R.M.L. STA. 725+85.23 BK.=
CL MEDIAN STA. 725+69.92 AHD.
STA. 726+09.19

STA. 733+09.19
STA. 736+09.19

EXISTING 700' ACCEL. LANE
RETAIN
300' TAPER

CROSSOVER "TLRAMPI"
CROSSOVER "TRMLI"
CROSSOVER "TLMLI"
CROSSOVER "TRRAMPI"

18" TEMPORARY PIPE CULVERT

PERFORM CULVERT CLEANOUT

710+00 715+00 720+00 725+00 730+00 735+00 740+00
40' 42' 60'
15' 4' 6'

STA. 722+90.00 - STA. 727+20.00 AND
STA. 727+80.00 - STA. 733+95.00 INSTALL
18" TEMPORARY CULVERT IN MEDIAN. REMOVE
CULVERT WHEN THE TEMPORARY CROSSOVER
IS REMOVED. PAYMENT FOR THIS WORK SHALL
BE INCLUDED IN THE PRICE BID FOR VARIOUS
CONTRACT ITEMS.

STA. 734+10 - R.M.L. IN PLACE
TYPE "H" DROP INLET IN MEDIAN
48" X 162' PIPE OUTLET
COVER DROP INLET

STA. 722+50 - R.M.L. IN PLACE
TYPE "H" DROP INLET IN MEDIAN
24" X 84' PIPE OUTLET
RETAIN

STA. 727+00 - R.M.L. IN PLACE
TYPE "H" DROP INLET IN MEDIAN
24" X 100' PIPE OUTLET
COVER DROP INLET

STA. 731+50 - L.M.L. IN PLACE
TYPE "H" DROP INLET IN MEDIAN
24" X 90' PIPE OUTLET
COVER DROP INLET

STA. 734+10 - L.M.L. IN PLACE
48" X 152' PIPE OUTLET
45° SKEW
RETAIN

STA. 739+00 - L.M.L. IN PLACE
TYPE "H" DROP INLET IN MEDIAN
18" X 122' PIPE OUTLET
RETAIN

STA. 723+00 - RAMP IN PLACE
24" X 128' PIPE CULVERT
45° SKEW
RETAIN

NOTES:
1. REFER TO MAINTENANCE OF TRAFFIC FOR MORE INFORMATION ON TEMPORARY CROSSOVER ALIGNMENTS.
2. RAMP GORE LOCATIONS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION AND SHALL MATCH EXISTING LOCATIONS.

LEGEND
APPROX. LOCATION OF WOODED AREA IN MEDIAN
FULL DEPTH RECONSTRUCTION

PLAN SHEETS
STA. 710+00 - STA. 740+00

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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.		BB0305	106	153

② PLAN SHEETS

STA. 743+06.69 - CONSTRUCT
TYPE N-3 DROP INLET LT.
H=3'-0"
WITH 12"x12' C.M. PIPE OUTLET
WITH CONCRETE SPILLWAY (TYPE A)

GUARDRAIL	GUARDRAIL (TYPE A)	TERMINAL ANCHOR POST (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
	LF	EA	EA	EA
STA. 738+27 - STA. 743+45.75 (LT. OF LT. MAIN LANES)	500	1		1
STA. 741+06 - STA. 744+24.75 (LT. OF RT. MAIN LANES)	250		1	1
STA. 741+92 - STA. 744+60.75 (RT. OF RT. MAIN LANES)	200		1	1
STA. 748+25 - STA. 762+93.75 (LT. OF LT. MAIN LANES)	1400		1	1
STA. 748+60 - STA. 753+28.75 (RT. OF LT. MAIN LANES)	400		1	1
STA. 749+32 - STA. 762+00.75 (RT. OF RT. MAIN LANES)	1200	1		1
STA. 767+72 - STA. 770+22 (RT. OF RT. MAIN LANES)	200	1	1	
STA. 767+82 - STA. 770+07 (LT. OF LT. MAIN LANES)	175	1	1	
STA. 767+97 - STA. 770+22 (LT. OF RT. MAIN LANES)	175	1	1	
STA. 768+04 - STA. 770+54 (RT. OF LT. MAIN LANES)	200	1	1	

REMOVAL AND DISPOSAL OF GUARDRAIL	LIN. FT.	REM. & DISP. OF ANCHOR POST EA.
STA. 739+84.55 - STA. 744+59.55 (RT. OF RT. MAIN LANES)	475	
STA. 741+43.25 - STA. 744+43.25 (LT. OF RT. MAIN LANES)	300	
STA. 738+92.54 - STA. 743+42.54 (LT. OF LT. MAIN LANES)	450	1
STA. 749+14.23 - STA. 761+14.23 (RT. OF RT. MAIN LANES)	1200	1
STA. 748+42.38 - STA. 751+42.38 (RT. OF LT. MAIN LANES)	300	
STA. 748+42.38 - STA. 762+42.38 (LT. OF LT. MAIN LANES)	1400	
STA. 768+50 - STA. 770+00 (RT. OF RT. MAIN LANES)	150	1
STA. 767+36 - STA. 769+61 (LT. OF RT. MAIN LANES)	225	1
STA. 768+25 - STA. 769+75 (LT. OF LT. MAIN LANES)	150	1
STA. 768+25 - STA. 769+75 (RT. OF LT. MAIN LANES)	150	1

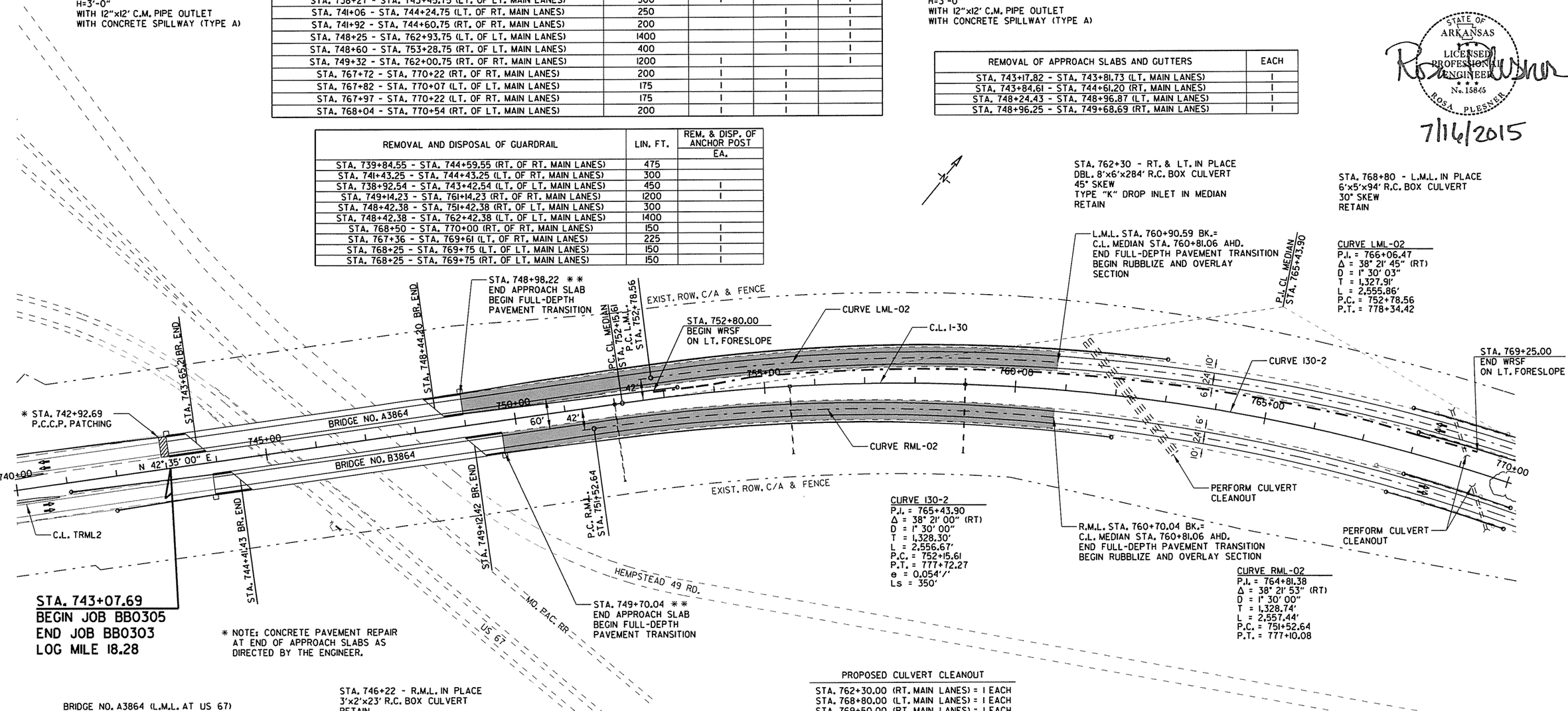
STA. 748+98.22 - CONSTRUCT
TYPE N-3 DROP INLET LT.
H=3'-0"
WITH 12"x12' C.M. PIPE OUTLET
WITH CONCRETE SPILLWAY (TYPE A)

REMOVAL OF APPROACH SLABS AND GUTTERS	EACH
STA. 743+17.82 - STA. 743+81.73 (LT. MAIN LANES)	1
STA. 743+84.61 - STA. 744+61.20 (RT. MAIN LANES)	1
STA. 748+24.43 - STA. 748+96.87 (LT. MAIN LANES)	1
STA. 748+96.25 - STA. 749+68.69 (RT. MAIN LANES)	1

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/16/2015

STA. 762+30 - RT. & LT. IN PLACE
DBL. 8'x6'x284' R.C. BOX CULVERT
45° SKEW
TYPE "K" DROP INLET IN MEDIAN
RETAIN

STA. 768+80 - L.M.L. IN PLACE
6'x5'x94' R.C. BOX CULVERT
30° SKEW
RETAIN



STA. 743+07.69
BEGIN JOB BB0305
END JOB BB0303
LOG MILE 18.28

* NOTE: CONCRETE PAVEMENT REPAIR AT END OF APPROACH SLABS AS DIRECTED BY THE ENGINEER.

BRIDGE NO. A3864 (L.M.L. AT US 67)
STA. 743+65.21 - STA. 748+44.20
478.99' X 40.00' CLEAR ROADWAY BRIDGE
CONSISTING OF A 9 SPAN CONCRETE DECK AND
76'-0" CONT. COMP. W-BEAM UNIT
66'-0" SIMPLE COMP. W-BEAM UNIT
244'-0" CONT. COMP. W-BEAM UNIT
90'-0" CONT. COMP. W-BEAM UNIT
HYDRODEMOLITION AND LATEX MODIFIED
CONCRETE OVERLAY

BRIDGE NO. B3864 (R.M.L. AT US 67)
STA. 744+41.43 - STA. 749+12.42
470.99' X 40.00' CLEAR ROADWAY BRIDGE
CONSISTING OF A 9 SPAN CONCRETE DECK AND
76'-0" CONT. COMP. W-BEAM UNIT
66'-0" SIMPLE COMP. W-BEAM UNIT
244'-0" CONT. COMP. W-BEAM UNIT
90'-0" CONT. COMP. W-BEAM UNIT
HYDRODEMOLITION AND LATEX MODIFIED
CONCRETE OVERLAY

STA. 746+22 - R.M.L. IN PLACE
3'x2'x23' R.C. BOX CULVERT
RETAIN

STA. 743+88.76 - CONSTRUCT
TYPE N-3 DROP INLET RT.
H=3'-0"
WITH 12"x12' C.M. PIPE OUTLET
WITH CONCRETE SPILLWAY (TYPE A)

STA. 749+70.04 - CONSTRUCT
TYPE N-3 DROP INLET RT.
H=3'-0"
WITH 12"x12' C.M. PIPE OUTLET
WITH CONCRETE SPILLWAY (TYPE A)

STA. 752+00 - R.M.L. IN PLACE
TYPE "H" DROP INLET IN MEDIAN
18"x152' PIPE OUTLET
RETAIN

STA. 755+50 - R.M.L. IN PLACE
TYPE "H" DROP INLET IN MEDIAN
18"x132' PIPE OUTLET
RETAIN

STA. 759+00 - R.M.L. IN PLACE
TYPE "H" DROP INLET IN MEDIAN
18"x134' PIPE OUTLET
RETAIN

PROPOSED CULVERT CLEANOUT

STA. 762+30.00 (RT. MAIN LANES) = 1 EACH
STA. 768+80.00 (LT. MAIN LANES) = 1 EACH
STA. 769+50.00 (RT. MAIN LANES) = 1 EACH

PROPOSED CONCRETE DITCH PAVING

STA. 752+80.00 - STA. 769+25.00 (RT. OF LT. MAIN LANES) = 1645 L.F.

STA. 769+50 - R.M.L. IN PLACE
6'x5'x90' R.C. BOX CULVERT
30° SKEW
RETAIN

** REFER TO SPECIAL DETAILS FOR ADDITIONAL TRANSITION INFORMATION.

NOTE: RUMBLE STRIPS SHALL BE CONSTRUCTED ON I-30 SHOULDERS PER THE DETAILS PROVIDED ON THE SPECIAL DETAIL SHEETS.

SUPERELEVATION RATES AND TRANSITION LIMITS

LOCATION	MEDIAN STATION	LT. OR RT. LANE PC. STATION	LT. OR RT. LANE PT. STATION	EQUATION	PAVEMENT TRANSITION SLOPE (FT. PER FT)			TRANSITION LENGTH
					FROM	e	TO	(FT.)
LT. LANES	752+78.56	752+78.56			751+91.06	0.054	755+41.06	350
RT. LANES	751+52.64	751+52.64			750+65.14	0.054	754+15.14	350
LT. LANES	777+95.58		778+34.42	-38.84	777+46.92	0.054	780+58.08	350
RT. LANES	777+49.30		777+10.08	39.22	776+22.58	0.054	780+11.80	350

LEGEND

APPROX. LOCATION OF WOODED AREA IN MEDIAN
FULL DEPTH RECONSTRUCTION
P.C.C.P. PATCHING

PLAN SHEETS
STA. 740+00 - STA. 770+00

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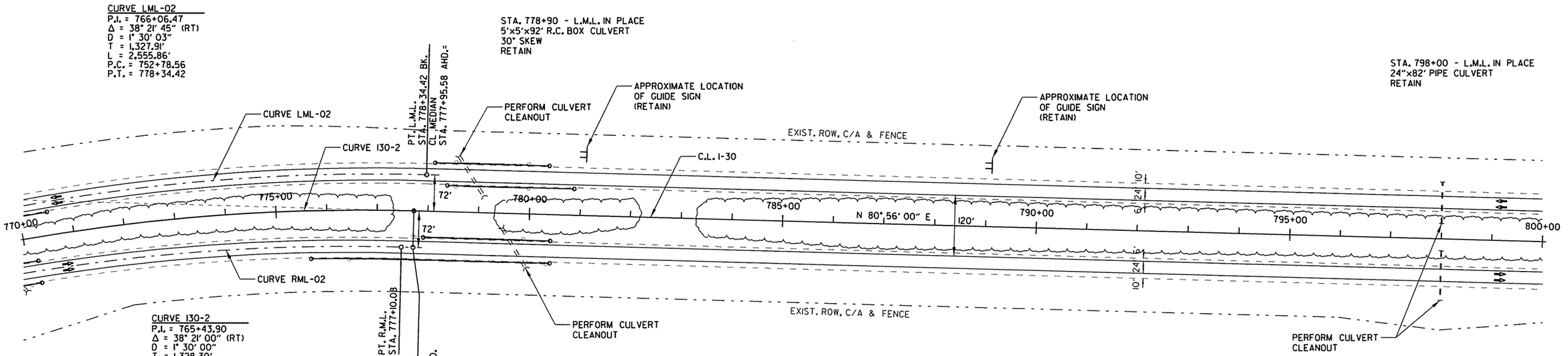
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	107	153

(2) PLAN SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESNER
7/9/2015

GUARDRAIL	GUARDRAIL (TYPE A)	TERMINAL ANCHOR POST (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
	LF	EA	EA	EA
STA. 777+92 - STA. 780+42 (LT. OF RT. MAIN LANES)	200	I	I	
STA. 778+12 - STA. 780+37 (LT. OF LT. MAIN LANES)	175	I	I	
STA. 775+67 - STA. 780+42 (RT. OF RT. MAIN LANES)	425	I	I	
STA. 778+37 - STA. 780+87 (RT. OF LT. MAIN LANES)	200	I	I	

REMOVAL AND DISPOSAL OF GUARDRAIL	LIN. FT.	REM. & DISP. OF ANCHOR POST
		EA.
STA. 778+50 - STA. 780+00 (LT. OF LT. MAIN LANES)	150	I
STA. 778+50 - STA. 780+00 (RT. OF LT. MAIN LANES)	150	I
STA. 777+05 - STA. 779+30 (LT. OF RT. MAIN LANES)	225	I
STA. 776+00 - STA. 779+75 (RT. OF RT. MAIN LANES)	375	I



SUPERELEVATION RATES AND TRANSITION LIMITS								
LOCATION	MEDIAN STATION	LT. OR RT. LANE PC. STATION	LT. OR RT. LANE PT. STATION	EQUATION	PAVEMENT TRANSITION SLOPE (FT. PER FT)			TRANSITION LENGTH
					FROM	e	TO	(FT.)
LT. LANES	752+78.56	752+78.56			751+91.06	0.054	755+41.06	350
RT. LANES	751+52.64	751+52.64			750+65.14	0.054	754+15.14	350
LT. LANES	777+95.58		778+34.42	-38.84	777+46.92	0.054	780+58.08	350
RT. LANES	777+49.30		777+10.08	39.22	776+22.58	0.054	780+11.80	350

LEGEND

APPROX. LOCATION OF WOODED AREA IN MEDIAN

FULL DEPTH RECONSTRUCTION

NOTE: RUMBLE STRIPS SHALL BE CONSTRUCTED ON I-30 SHOULDERS PER THE DETAILS PROVIDED ON THE SPECIAL DETAIL SHEETS.

PLAN SHEETS
STA. 770+00 - STA. 800+00

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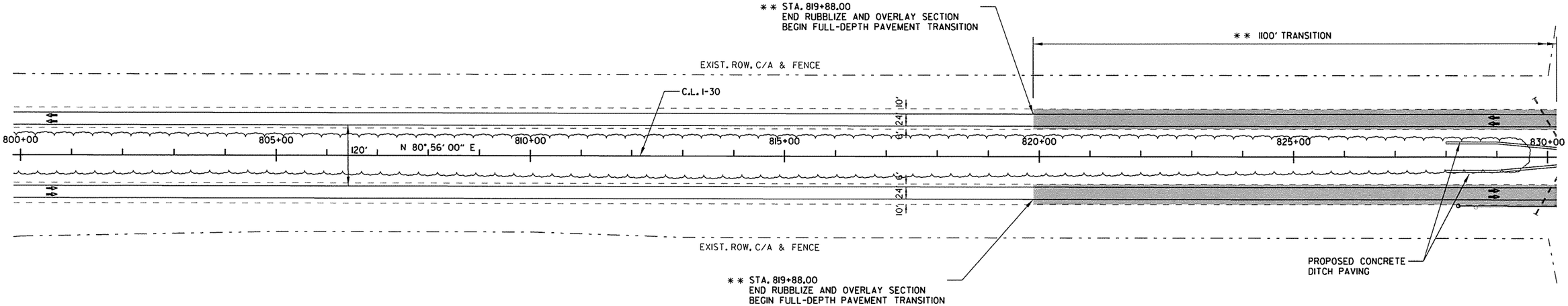
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0305	108	153
②	PLAN SHEETS			

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

STA. 830+00 - L.M.L. IN PLACE
24"x100' PIPE CULVERT
30° SKEW
RETAIN



REMOVAL AND DISPOSAL OF CONCRETE DITCH PAVING

STA. 828+00.00 - STA. 830+20.00 (LT. OF RT. MAIN LANES) = 220 L.F.
STA. 828+00.00 - STA. 830+20.00 (RT. OF LT. MAIN LANES) = 220 L.F.

PROPOSED CONCRETE DITCH PAVING

STA. 828+00.00 - STA. 830+20.00 (LT. OF RT. MAIN LANES) = 220 L.F.
STA. 828+00.00 - STA. 830+20.00 (RT. OF LT. MAIN LANES) = 220 L.F.

STA. 830+00 - R.M.L. IN PLACE
24"x96' PIPE CULVERT
30° SKEW
RETAIN

** REFER TO SPECIAL DETAILS FOR ADDITIONAL TRANSITION INFORMATION.

LEGEND

APPROX. LOCATION OF WOODED AREA IN MEDIAN

FULL DEPTH RECONSTRUCTION

PLAN SHEETS
STA. 800+00 - STA. 830+00

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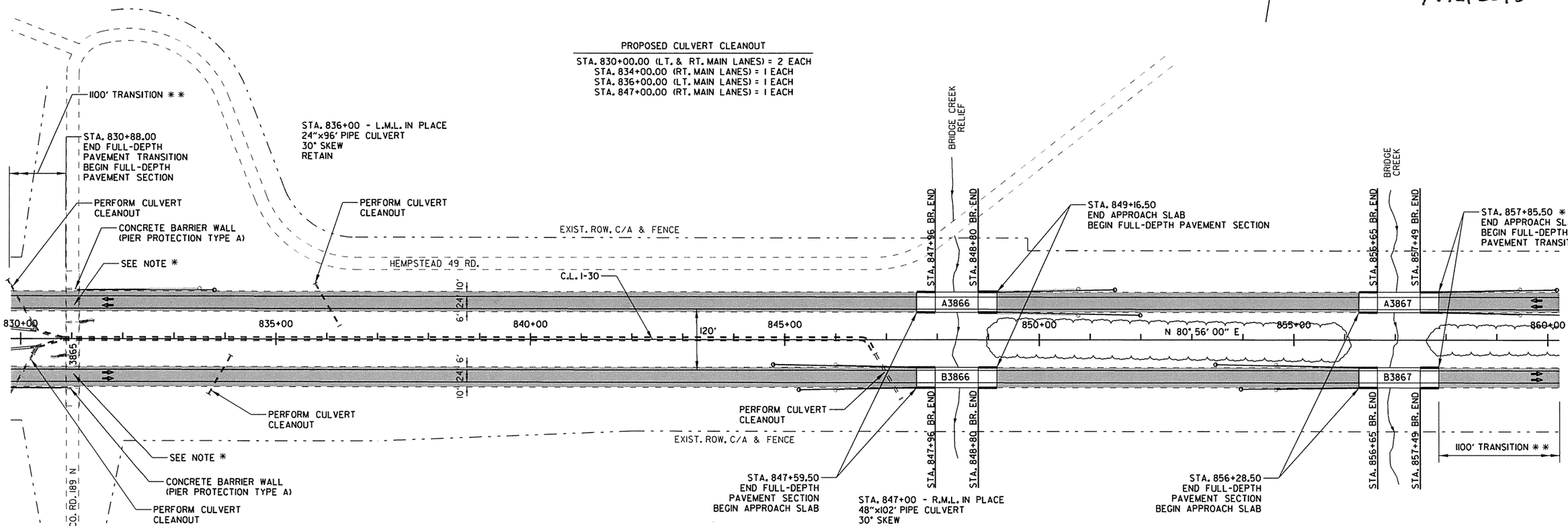
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	109	153
				②	PLAN SHEETS			

GUARDRAIL	GUARDRAIL (TYPE A)	TERMINAL ANCHOR POST (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
	LF	EA	EA	EA
STA. 828+24 - STA. 830+92.75 (RT. OF RT. MAIN LANES)	200		1	1
STA. 831+10.25 - STA. 833+79 (LT. OF LT. MAIN LANES)	200		1	1
STA. 844+77.25 - STA. 847+96 (LT. OF RT. MAIN LANES)	250		1	1
STA. 845+27.25 - STA. 847+96 (RT. OF RT. MAIN LANES)	200		1	1
STA. 848+80 - STA. 851+48.75 (LT. OF LT. MAIN LANES)	200		1	1
STA. 848+80 - STA. 851+98.75 (RT. OF LT. MAIN LANES)	250		1	1
STA. 853+46.25 - STA. 856+65 (LT. OF RT. MAIN LANES)	250		1	1
STA. 853+96.25 - STA. 856+65 (RT. OF RT. MAIN LANES)	200		1	1
STA. 857+49 - STA. 860+17.75 (LT. OF LT. MAIN LANES)	200		1	1
STA. 857+49 - STA. 860+67.75 (RT. OF LT. MAIN LANES)	250		1	1

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/16/2015

PROPOSED CULVERT CLEANOUT

STA. 830+00.00 (LT. & RT. MAIN LANES) = 2 EACH
STA. 834+00.00 (RT. MAIN LANES) = 1 EACH
STA. 836+00.00 (LT. MAIN LANES) = 1 EACH
STA. 847+00.00 (RT. MAIN LANES) = 1 EACH



* EXISTING VERTICAL CLEARANCE UNDER BRIDGE NO. 3865 IS 15'-11 2/5" WESTBOUND AND 16'-1" EASTBOUND. 16'-0" MIN. VERTICAL CLEARANCE IS REQUIRED FOR FINISHED ROADWAY.

* THE LISTED EXISTING MINIMUM VERTICAL CLEARANCES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

REMOVAL AND DISPOSAL OF CONCRETE PIER PROTECTION

STA. 830+92.75 - STA. 831+10.25 (LT. OF LT. MAIN LANES) = 18 L.F.
STA. 830+92.75 - STA. 831+10.25 (RT. OF RT. MAIN LANES) = 18 L.F.

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER

STA. 830+77 (LT. OF RT. MAIN LANES) = 1EA.
STA. 831+32 (RT. OF LT. MAIN LANES) = 1EA.

PROPOSED CONC. BARRIER WALL (PIER PROTECTION TYPE A)

STA. 830+92.71 - STA. 831+10.71 (LT. OF LT. MAIN LANES) = 18 L.F.
STA. 830+92.71 - STA. 831+10.71 (RT. OF RT. MAIN LANES) = 18 L.F.

PROPOSED IMPACT ATTENUATION BARRIER (TYPE A)

STA. 830+77 (LT. OF RT. MAIN LANES) = 1EA.
STA. 831+32 (RT. OF LT. MAIN LANES) = 1EA.

REMOVAL AND DISPOSAL OF GUARDRAIL	LIN. FT.
STA. 828+55 - STA. 830+80 (RT. OF RT. MAIN LANES)	225
STA. 831+28 - STA. 833+53 (LT. OF LT. MAIN LANES)	225
STA. 845+96 - STA. 847+96 (RT. OF RT. MAIN LANES)	200
STA. 845+96 - STA. 847+96 (LT. OF RT. MAIN LANES)	200
STA. 848+80 - STA. 850+80 (RT. OF LT. MAIN LANES)	200
STA. 848+80 - STA. 850+80 (LT. OF LT. MAIN LANES)	200
STA. 854+65 - STA. 856+65 (RT. OF RT. MAIN LANES)	200
STA. 854+65 - STA. 856+65 (LT. OF RT. MAIN LANES)	200
STA. 857+49 - STA. 859+49 (RT. OF LT. MAIN LANES)	200
STA. 857+49 - STA. 859+49 (LT. OF LT. MAIN LANES)	200

BRIDGE NO. (A&B) 3866 (AT BRIDGE CREEK RELIEF)
STA. 847+96.00 - STA. 848+80.00
84.00' X 40.00' CLEAR ROADWAY BRIDGE CONSISTING OF
3-28'-0" SIMPLE SPAN SLAB SPAN UNITS
POLYMER OVERLAY

BRIDGE NO. (A&B) 3867 (AT BRIDGE CREEK)
STA. 856+65.00 - STA. 857+49.00
84.00' X 40.00' CLEAR ROADWAY BRIDGE CONSISTING OF
3-28'-0" SIMPLE SPAN SLAB SPAN UNITS
POLYMER OVERLAY

* * REFER TO SPECIAL DETAILS FOR ADDITIONAL TRANSITION INFORMATION.

LEGEND

APPROX. LOCATION OF WOODED AREA IN MEDIAN

FULL DEPTH RECONSTRUCTION

PLAN SHEETS
STA. 830+00 - STA. 860+00

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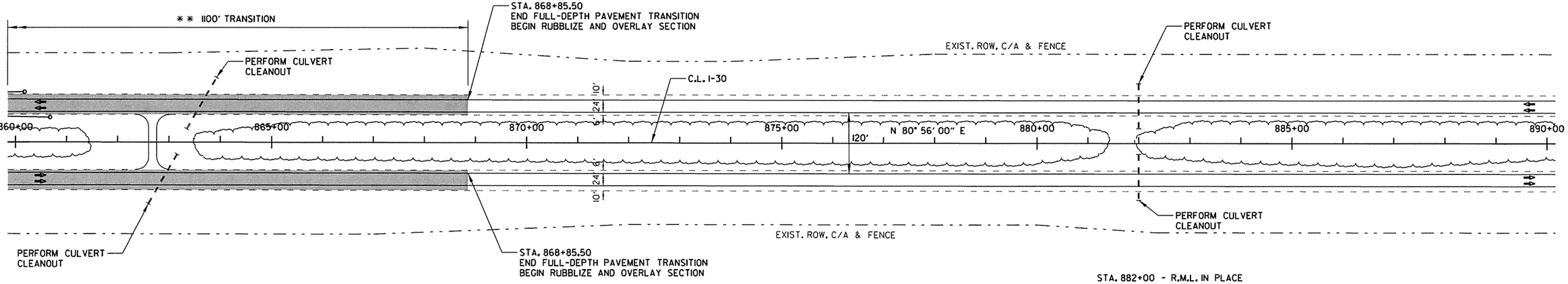
				6	ARK.			
				JOB NO.		BB0305	110	153
				②	PLAN SHEETS			

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER

7/9/2015

STA. 863+65 - L.M.L. IN PLACE
4'x4'x116' R.C. BOX CULVERT
30° SKEW
RETAIN

STA. 882+00 - L.M.L. IN PLACE
24"x88' R.C. PIPE CULVERT
RETAIN



STA. 862+88 - R.M.L. IN PLACE
4'x4'x112' R.C. BOX CULVERT
30° SKEW
RETAIN

STA. 882+00 - R.M.L. IN PLACE
24"x90' R.C. PIPE CULVERT
RETAIN

PROPOSED CULVERT CLEANOUT

STA. 862+88.00 (RT. MAIN LANES) = 1 EACH
STA. 863+65.00 (LT. MAIN LANES) = 1 EACH
STA. 882+00.00 (LT. & RT. MAIN LANES) = 2 EACH

** REFER TO SPECIAL DETAILS FOR ADDITIONAL TRANSITION INFORMATION.

LEGEND

APPROX. LOCATION OF WOODED AREA IN MEDIAN

FULL DEPTH RECONSTRUCTION

PLAN SHEETS
STA. 860+00 - STA. 890+00

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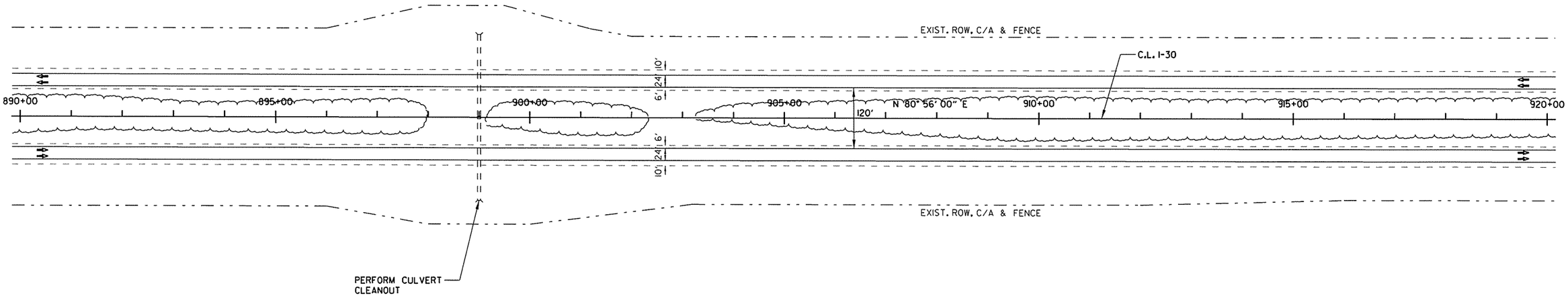
				6	ARK.			
				JOB NO.		BB0305	III	153

(2) PLAN SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

STA. 899+00 IN PLACE
6'x6'x326' R.C. BOX CULVERT
RETAIN



PROPOSED CULVERT CLEANOUT
STA. 889+00.00 (LT. & RT. MAIN LANES) = 1 EACH

LEGEND

APPROX. LOCATION OF WOODED AREA IN MEDIAN

FULL DEPTH RECONSTRUCTION

PLAN SHEETS
STA. 890+00 - STA. 920+00

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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.		BB0305	112	153

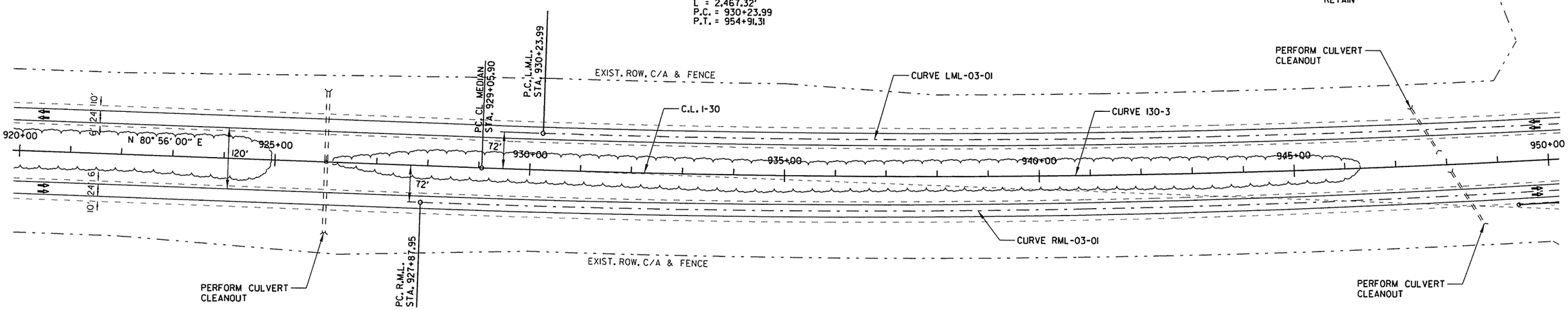
(2) PLAN SHEETS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 15845
ROSA PLESNER
7/9/2015

STA. 926+00 IN PLACE
5'x5'x277' R.C. BOX CULVERT
RETAIN

CURVE LML-03-01
P.I. = 942+58.70
Δ = 5° 47' 43" (LT)
D = 0° 14' 06"
T = 1,234.71'
L = 2,467.32'
P.C. = 930+23.99
P.T. = 954+91.31

STA. 948+00 - L.M.L. IN PLACE
42"x98' R.C. PIPE CULVERT
30° SKEW
RETAIN



CURVE RML-03-01
P.I. = 941+49.27
Δ = 6° 47' 59" (LT)
D = 0° 15' 00"
T = 1,361.32'
L = 2,719.45'
P.C. = 927+87.95
P.T. = 955+07.40

CURVE 130-3
P.I. = 956+59.03
Δ = 13° 42' 00" (LT)
D = 0° 15' 00"
T = 2,753.13'
L = 5,480.00'
P.C. = 929+05.90
P.T. = 983+85.90
e = NO SUPER

STA. 948+00 - R.M.L. IN PLACE
42"x120' R.C. PIPE CULVERT
30° SKEW
RETAIN

PROPOSED CULVERT CLEANOUT

STA. 926+00.00 (LT. & RT. MAIN LANES) = 1 EACH
STA. 948+00.00 (LT. & RT. MAIN LANES) = 2 EACH

LEGEND

APPROX. LOCATION OF WOODED AREA IN MEDIAN

FULL DEPTH RECONSTRUCTION

PLAN SHEETS
STA. 920+00 - STA. 950+00

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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.		BB0305	113	153

② PLAN SHEETS

GUARDRAIL	GUARDRAIL (TYPE A)	TERMINAL ANCHOR POST (TYPE II)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
	LF	EA	EA	EA
STA. 949+37.25 - STA. 952+06 (RT. OF RT. MAIN LANES)	200		1	1
STA. 951+83 - STA. 954+51.75 (LT. OF LT. MAIN LANES)	200		1	1

REMOVAL AND DISPOSAL OF GUARDRAIL	LIN. FT.
STA. 950+00 - STA. 952+00 (RT. OF RT. MAIN LANES)	200
STA. 951+80 - STA. 953+80 (LT. OF LT. MAIN LANES)	200

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 13845
ROSA PLESNER
7/9/2015

STA. 962+70 IN PLACE
24"x88' R.C. PIPE CULVERT
30° SKEW
RETAIN

L.M.L. STA. 953+92.99 (BK.) =
C.L. MEDIAN STA. 954+00.00 (AHD.)
END RUBBLIZE AND OVERLAY SECTION
BEGIN RUBBLIZE AND OVERLAY TRANSITION

CURVE LML-03-02
P.I. = 967+47.79
Δ = 7° 31' 41" (LT)
D = 0° 18' 00"
T = 1,256.48'
L = 2,509.35'
P.C. = 954+91.31
P.T. = 980+00.66

C.L. MEDIAN STA. 959+00.00
END RUBBLIZE AND OVERLAY TRANSITION

STA. 959+00.00
END JOB BB0305
LOG MILE 22.37

CURVE LML-03-02
PERFORM CULVERT CLEANOUT
CURVE I30-3
C.L. TRML2
C.L. TLML4

CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)
SEE NOTE *
PCC. L.M.L. STA. 954+91.31
EXIST. ROW. C/A & FENCE
C.L. I-30
3869
950+00
955+00
960+00
965+00
970+00
975+00
980+00
SEE NOTE *
CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)
PCC. R.M.L. STA. 955+07.40
P.I. CL MEDIAN STA. 956+59.03
EXIST. ROW. C/A & FENCE
HEMPSTEAD CO. RD. 2
C.L. MEDIAN STA. 959+00.00
END RUBBLIZE AND OVERLAY TRANSITION
CURVE RML-03-02
PERFORM CULVERT CLEANOUT
18" TEMPORARY PIPE CULVERT
C.L. TLML2
APPROXIMATE FEMA 100 YR. FLOODPLAIN LIMITS
P.T. L.M.L. STA. 980+00.66
EXIST. ROW. C/A & FENCE
PERFORM CULVERT CLEANOUT
EXIST. ROW. C/A & FENCE

R.M.L. STA. 954+07.44 (BK.) =
C.L. MEDIAN STA. 954+00.00 (AHD.)
END RUBBLIZE AND OVERLAY SECTION
BEGIN RUBBLIZE AND OVERLAY TRANSITION

CURVE RML-03-02
P.I. = 972+34.83
Δ = 6° 54' 05" (LT)
D = 0° 12' 00"
T = 1,727.43'
L = 3,450.69'
P.C. = 955+07.40
P.T. = 989+58.09

CURVE I30-3
P.I. = 956+59.03
Δ = 13° 42' 00" (LT)
D = 0° 15' 00"
T = 2,753.13'
L = 5,480.00'
P.C. = 929+05.90
P.T. = 983+85.90
e = NO SUPER

STA. 979+71 IN PLACE
DBL. 8'x10'x84' R.C. BOX CULVERT
RETAIN

PROPOSED CULVERT CLEANOUT
STA. 962+70.00 (LT. MAIN LANES) = 1 EACH
STA. 963+00.00 (RT. MAIN LANES) = 1 EACH
STA. 979+71.00 (LT. MAIN LANES) = 1 EACH
STA. 979+99.00 (RT. MAIN LANES) = 1 EACH

REMOVAL AND DISPOSAL OF CONCRETE PIER PROTECTION
STA. 951+64.95 - STA. 951+82.95 (LT. OF LT. MAIN LANES) = 18 L.F.
STA. 952+06.45 - STA. 952+24.45 (RT. OF RT. MAIN LANES) = 18 L.F.

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 951+73 (LT. OF RT. MAIN LANES) = 1 EA.
STA. 952+10 (RT. OF LT. MAIN LANES) = 1 EA.

PROPOSED CONC. BARRIER WALL (PIER PROTECTION TYPE A)
STA. 951+64.95 - STA. 951+82.95 (LT. OF LT. MAIN LANES) = 18 L.F.
STA. 952+06.45 - STA. 952+24.45 (RT. OF RT. MAIN LANES) = 18 L.F.

PROPOSED IMPACT ATTENUATION BARRIER (TYPE A)
STA. 951+73 (LT. OF RT. MAIN LANES) = 1 EA.
STA. 952+10 (RT. OF LT. MAIN LANES) = 1 EA.

STA. 963+00 IN PLACE
24"x88' R.C. PIPE CULVERT
30° SKEW
RETAIN

STA. 965+00.00 - STA. 974+00.00 INSTALL 18" TEMPORARY CULVERT IN MEDIAN. REMOVE CULVERT WHEN THE TEMPORARY CROSSOVER IS REMOVED. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR VARIOUS CONTRACT ITEMS.

NOTE: REFER TO MAINTENANCE OF TRAFFIC FOR MORE INFORMATION ON TEMPORARY ALIGNMENTS.

STA. 979+99 IN PLACE
DBL. 8'x10'x96' R.C. BOX CULVERT
RETAIN

** REFER TO SPECIAL DETAILS FOR ADDITIONAL TRANSITION INFORMATION.

* EXISTING VERTICAL CLEARANCE UNDER BRIDGE NO. 3869 IS 16'-4 4/5" WESTBOUND AND 16'-7 1/8" EASTBOUND. 16'-0" MIN. VERTICAL CLEARANCE IS REQUIRED FOR FINISHED ROADWAY.

* THE LISTED EXISTING MINIMUM VERTICAL CLEARANCES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

LEGEND

APPROX. LOCATION OF WOODED AREA IN MEDIAN

FULL DEPTH RECONSTRUCTION

PLAN SHEETS
STA. 950+00 - STA. 959+00

7/7/2015 11:08:21 AM

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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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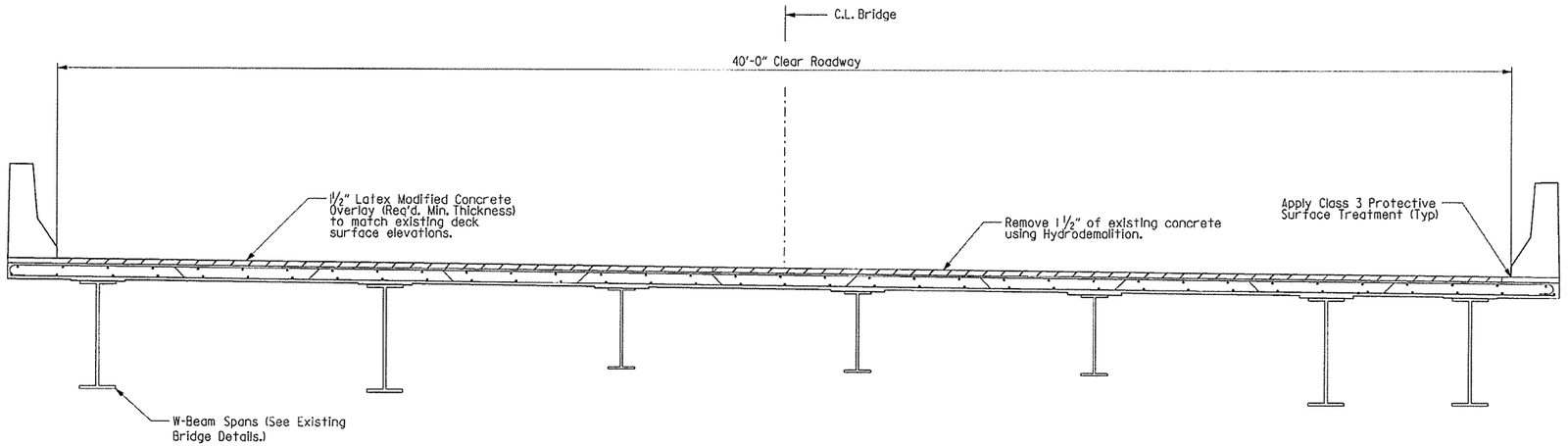
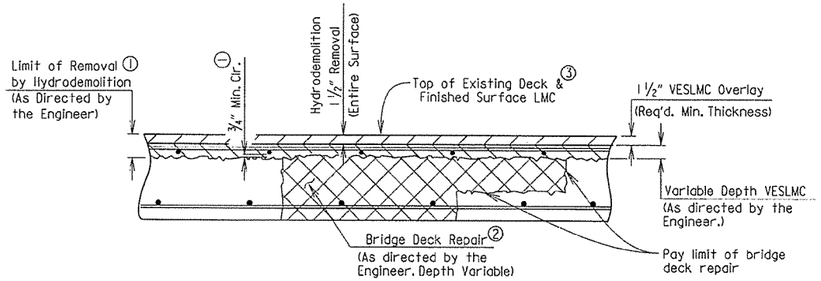
				JOB NO.		BB0305	114	153
				(A&B) 3864 - CONCRETE OVERLAY - 57491				

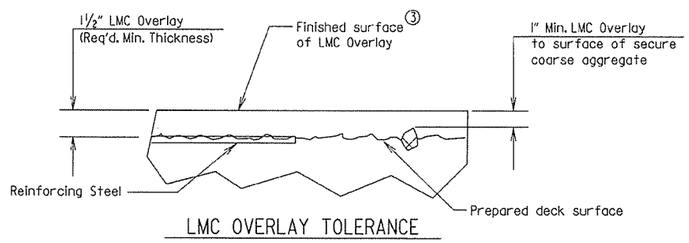


LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic)
Bridge (A&B) 3864



DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY



LMC OVERLAY TOLERANCE

① Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance around the bar. This removal shall be subsidiary to the item SP Job BB0305 "Hydrodemolition."

② Areas requiring additional repair prior to the subsequent overlay, as determined by the Engineer, shall be repaired in accordance with the SP Job BB0305 "Bridge Deck Repair". If the bottom mat of reinforcing steel is exposed, then the repair shall be made full depth.

③ Finished surface of LMC overlay shall match existing concrete deck surface unless increase is required to maintain minimum required LMC Overlay thickness.

STATE OF ARKANSAS REGISTERED LICENSED ENGINEER 7-15-15 No. 15762 JOHN W. TULEY

Bridge Engineer

GENERAL NOTES:
CONSTRUCTION SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, 2014 Edition, with applicable special provisions and Supplemental Specifications. Unless otherwise noted in the plans Section and Subsection refer to the Standard Specifications.

Drawing shows details and dimensions of existing structures based on the original bridge plans. The Contractor shall check measurements in the field and make any adjustments necessary to meet the required clearances and fit the new work to the existing structure.

The operation or placement of equipment and, or materials on the subject bridges necessary for the completion of this work shall be subject to the provisions of Subsection 105.14 "Equipment and Material Storage on Bridge Structures". Certifications of the adequacy of all components for the anticipated loads shall address the capacity of the existing structure at all phases of this work.

HYDRODEMOLITION: The designated area of the existing bridge deck shall receive hydrodemolition in accordance with the Job Special Provision "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete below this depth shall be removed up to the limits detailed and at the direction of the Engineer. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0305 "Hydrodemolition."

Prior to hydrodemolition, cold milling of any existing asphalt for its full depth and the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with existing reinforcing steel.

BRIDGE DECK REPAIR:
LATEX MODIFIED CONCRETE OVERLAY: The designated area of the existing bridge deck shall receive a Latex Modified Concrete (LMC) Overlay to a planned depth of 1½" below the existing bridge deck surface, in accordance with the Job Special Provision "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0305 "Latex Modified Concrete Overlay". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This area shall be measured and paid for in accordance with SP Job BB0305 "Latex Modified Concrete Overlay".

BRIDGE DECK: The LMC Overlay surface shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish and in accordance with Job Special Provision "Latex Modified Concrete Overlay".

PROTECTIVE SURFACE TREATMENT : The longitudinal joint between the LMC overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with Job Special Provision "Latex Modified Concrete Overlay".

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE I-30

ARKANSAS STATE HIGHWAY COMMISSION

HEMPSTEAD COUNTY

DRAWN BY: MGG DATE: 2/18/14 FILE NAME: IH-30ConcOverlay
CHECKED BY: JWT DATE: 3-28-14 SCALE: NO SCALE
DESIGNED BY: JHK DATE: 2-14-14
BRIDGE: A&B 3864

BRIDGE NO. (A&B) 3864 DRAWING NO. 57491

7/10/2015 3:25:22 PM

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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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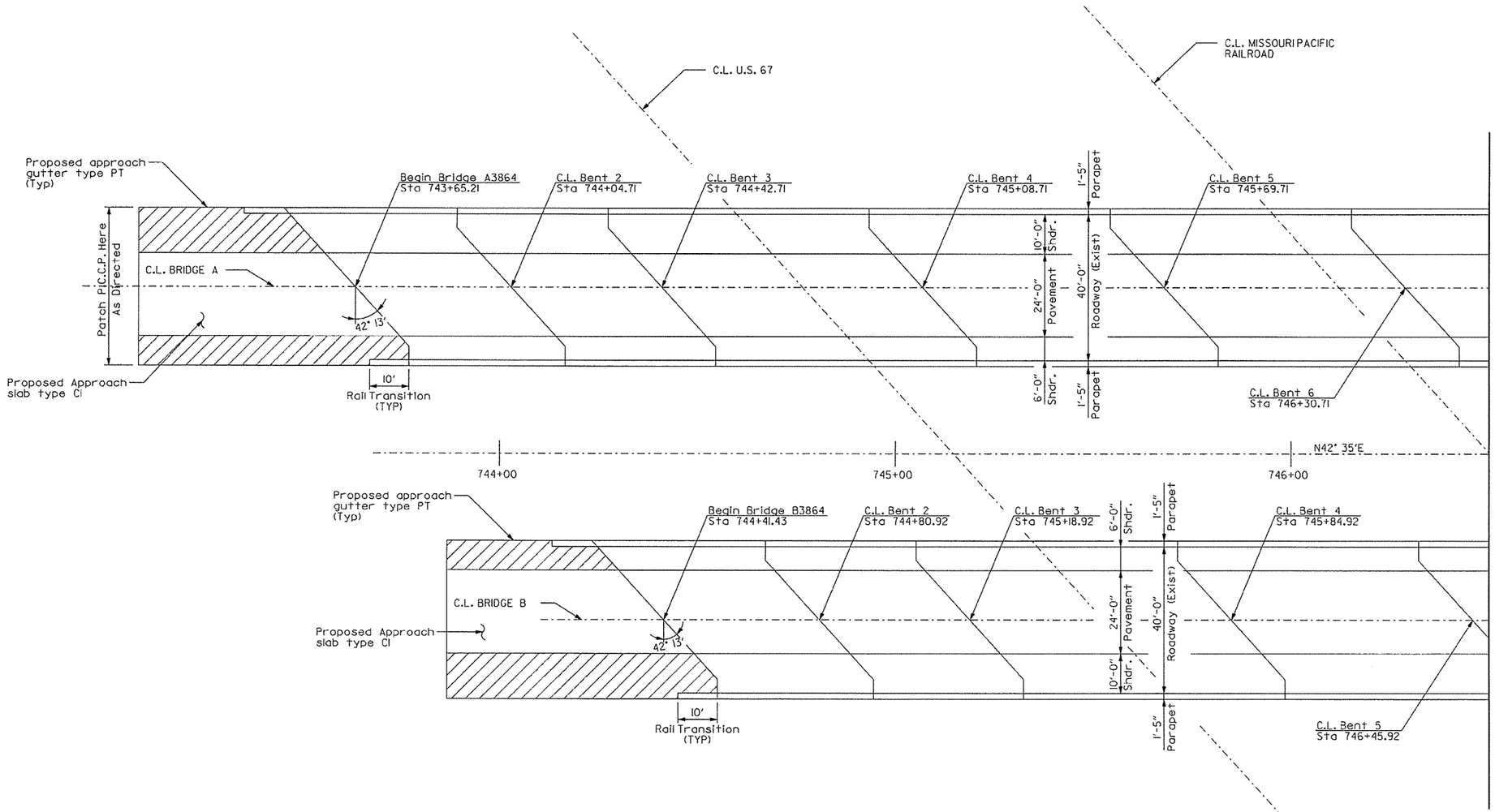
				JOB NO.		BB0305	115	153
				(1) (A&B) 3864 - EXISTING BRIDGES - 57492				



BRIDGES (A & B) 3864
PLAN VIEW OF EXISTING BRIDGES

(SHEET 1 OF 2)

ROUTE I-30

ARKANSAS STATE HIGHWAY COMMISSION

HEMPSTEAD COUNTY

STATE OF ARKANSAS REGISTERED LICENSED ENGINEER 7-15-15 No. 13762 JOHN W. TULEY

Bridge Engineer

DRAWN BY: MGG DATE: 2-18-14 FILE NAME: IH-30ConcOverlay_Plan01

CHECKED BY: JWT DATE: 3-28-14 SCALE: NO SCALE

DESIGNED BY: JHK DATE: 2-14-14

BRIDGE NO. (A&B) 3864 DRAWING NO. 57492

7/10/2015 3:3h:27 PM

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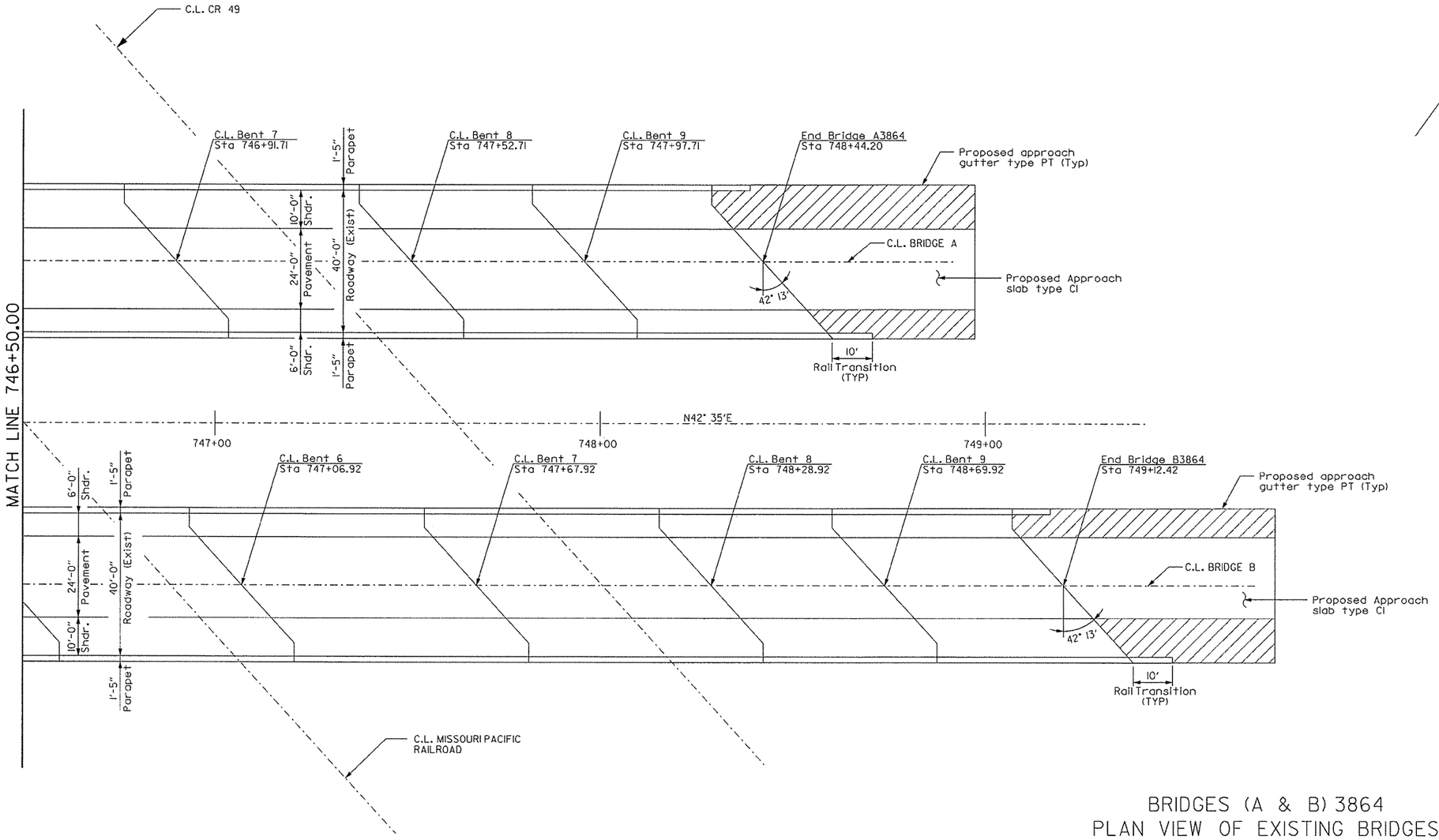
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	116	153
				(1) (A&B) 3864 - EXISTING BRIDGES - 57493				



STATE OF ARKANSAS
REGISTERED LICENSED ENGINEER
7-15-15
No. 15762
JOHN W. TULEY
Bridge Engineer

BRIDGES (A & B) 3864
PLAN VIEW OF EXISTING BRIDGES

(SHEET 2 OF 2)

ROUTE I-30

ARKANSAS STATE HIGHWAY COMMISSION

HEMPSTEAD COUNTY

DRAWN BY: MGG DATE: 2-18-14 FILE NAME: IH-30ConcOverlay_Plan02
CHECKED BY: JWT DATE: 3-28-14 SCALE: NO SCALE
DESIGNED BY: JHK DATE: 2-14-14

BRIDGE NO. (A&B) 3864 DRAWING NO. 57493

7/10/2015
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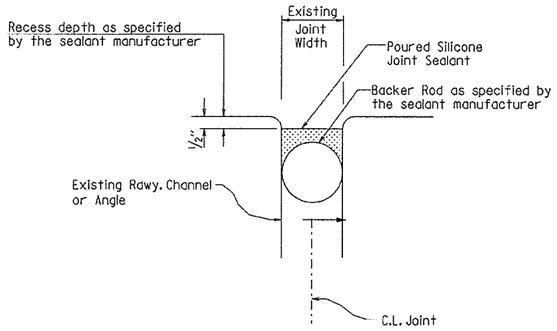
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	117	153

(1) (A&B) 3864 - JOINT SEAL - 57494

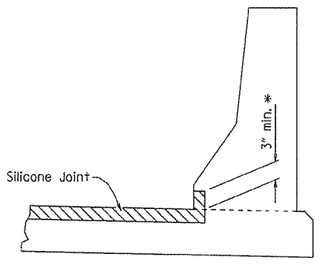


Notes: Backer rods shall be extended beyond the length of the poured joint in the initial joint rehabilitation area so that the two pieces can be properly spliced together prior to installing sealant for the adjacent joint rehabilitaton. Manufacturer's recommendations shall be followed to prevent sealant from "running out of the joint" during rehabilitation work.

Existing Joint Seal shall be completely removed, backer rods placed, and Silicone Joint Sealant installed across the entire width of the bridge deck in accordance with these details and Manufacturer's instructions. Removal of existing Joint Seal will not be paid for directly, but shall be considered incidental to the item "Silcone Joint Sealant".

POURED SILICONE JOINT SEAL DETAILS

No Scale

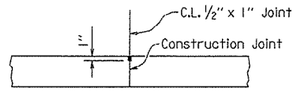


Note: Vertical joints may require forming. The clearance from deck surface to joint material shall be maintained.

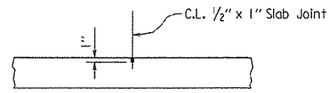
JOINT SEAL PLACEMENT AT CURB AT INTERIOR BENTS

No Scale

* Not required at abutments



Use ½" X 1" Type 3, 4 or 6 Joint Sealer. See subsections 501.02 (h) and 501.05 (j). Backer Rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Sealant must be gray or other color similar to concrete.



Use ½" X 1" Type 3, 4 or 6 Joint Sealer. See subsections 501.02 (h) and 501.05 (j). Backer rod shall not be installed. Joint Sealer shall be measured and paid for as LMC Overlay. Slab joints shall extend to the outside edge of the deck slab. Slab joints shall be placed at all pouring sequence construction joints and are required at existing slab joint locations.

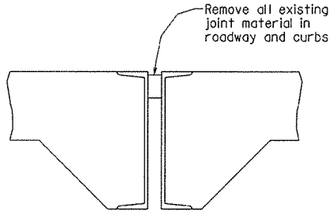
Slab joints and longitudinal construction joints shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the Overlay.

LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL

No Scale

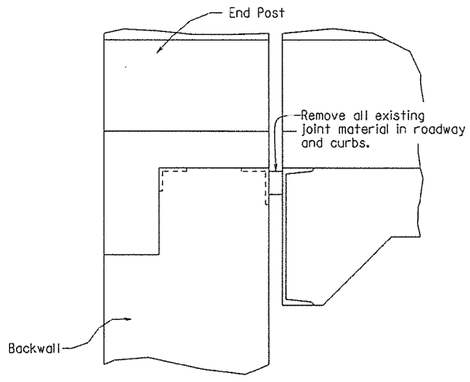
OVERLAY JOINT DETAIL

No Scale



REMOVAL DETAILS AT INT. BENTS TYPE B JOINT REHABILITATION

Scale: 1½" = 1'-0"



REMOVAL DETAILS AT END BENTS TYPE B JOINT REHABILITATION

No Scale

STATE OF ARKANSAS
REGISTERED LICENSED ENGINEER
7-15-15
No. 15762
JOHN W. TULEY

Bridge Engineer

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

BRIDGES (A & B) 3864 JOINT SEAL DETAILS

ROUTE I-30

ARKANSAS STATE HIGHWAY COMMISSION

HEMPSTEAD COUNTY

DRAWN BY: MGG DATE: 7/22/14 FILE NAME: IH-30ConcOverlay_Joint
CHECKED BY: JWT DATE: 3-28-14 SCALE: NO SCALE
DESIGNED BY: JHK DATE: 3-6-14

BRIDGE NO. (A&B) 3864 DRAWING NO. 57494

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BB0305	118	153
				JOB NO.		3971	39	94
				①	3971 - LAYOUT - 57495			

For R/W Data, See Rdw. Plans

10'-0" Shdr. 24'-0" Pavement 10'-0" Shdr.

* New Concrete Riprap

℄ U.S. Hwy 67

** 2:1 End Slopes are shown on the existing bridge plans. End Slopes for New Construction shall match the existing end slopes.

℄ Spur Track

Missouri-Pacific Railroad

Toe of Fill Slope

* New Concrete Riprap. For Details see Std. Dwg No. 14995A & Dwg. No. 28473.

30" ± Water Line

6" A.C. Water Line

Underground Cable

3:1

75°

35'±

1'-5" Para.

8'-0" (New)

30°

Approach Slabs & Gutters

Use Approach Slabs & Gutters (Type III - Special) at both ends of bridge. Retain existing support beams under approach slab & see Dwg. No. 1898T for details of new approach slab & gutter.

40'-0" Finished Crown

10'-0" Shdr.

24'-0" Pave. nent

12'-0"

42°13'

℄ Roadway & Existing ℄ Bridge

New ℄ Bridge No. 3864 AR

Existing Conc. Riprap (To Be Retained)

40'-0" Clear Roadway

14'

0.104 ft/ft X-Slope

Existing 28'-0" Rdwy. (Retain)

N42°35'E

14'±

UG

Existing Conc. Riprap (To Be Retained)

Supports to be retained.

6'-0" Shdr.

42'-0"

Profile Grade Line

Point of Switch

14.65'

4'-0" (New)

* New Concrete Riprap

434'± to P.C. Lt. Lane

744+00 2:1** 745+00 47°47' 1'-5" Para. 746+00 747+00 N42°35'E 748+00 2:1** 749+00

Tangent Distance over 500'

* New Concrete Riprap

1.42 mi. to Miller Co. Line

Intersection ℄ U.S. Hwy 67 & ℄ Median = Sta. 645+14.68

℄ Median

Intersection ℄ Railroad & ℄ Median = Sta. 746+50.30

47°47'

For Layout of Bridge No. 3864 BR, See Dwg. No. 28471.

UG

Intersection ℄ Gravel Road & ℄ Median = Sta. 747+62.48

11.16 mi. to West City Limits of Hope

PLAN

8 Open Wire Communication Lines (R.R.)

Total Length of Bridge = 478'-11 11/16"

1'-5 7/8" | Two-38'-0" Comp. W-Beam Spans | 66'-0" Comp. W-Beam Span | Four-61'-0" Comp. W-Beam Spans | Two-45'-0" Comp. W-Beam Spans | 1'-5 13/16"

℄ 2" Jt. (typ.)

Beg. Br. Sta. 743+63.40 Elev. 310.002

℄ Bt. Sta. 744+02.90 Elev. 310.425

℄ Bt. Sta. 744+40.90 Elev. 310.770

℄ Bt. Sta. 745+06.90 Elev. 311.235

℄ Bt. Sta. 745+67.90 Elev. 311.510

New Concrete Parapet Rail

℄ Bt. Sta. 746+28.90 Elev. 311.636

Note: ℄ Bent Elevations are along New ℄ Bridge.

℄ Bt. Sta. 746+89.90 Elev. 311.615

℄ Bt. Sta. 747+50.90 Elev. 311.441

℄ Bt. Sta. 747+95.90 Elev. 311.219

End Br. Sta. 748+42.38 Elev. 310.904

Pt. Sta. 746+50 Elev. 325.04

+3.00% -3.00%

L = 1500'

Profile Grade Line is located on inside Existing Pavement Edge.

VERTICAL CURVE DATA

Guard Rail. See Rdwy Plans.

Grade Line

320 310 300 290 280 270 260

Assumed Track Elev. 284.96

New 40' Piles

New 45' Piles

Elev. 277.240 Elev. 277.464

Elev. 276.742 Elev. 276.877

Elev. 275.060 Elev. 275.111

Elev. 277.229 Elev. 277.196

Elev. 272.249 Elev. 272.130

Elev. 272.121 Elev. 271.920

Existing Ground Line

New 45' Piles

New 50' Piles

Bent Number	Bent Heights 8'-0" Side	Bent Heights 4'-0" Side	℄ Deck to Low Side of Cap (8'-0" Side)
2	–	–	3'-11 1/16"
3	29'-0"	29'-6"	4'-6 3/8"
4	30'-0"	30'-6"	4'-5 15/16"
5	32'-0"	32'-6"	4'-5 3/8"
6	30'-0"	30'-6"	4'-4 7/8"
7	35'-0"	35'-6"	4'-4 3/8"
8	35'-0"	35'-6"	4'-3 13/16"
9	–	–	3'-7 3/4"

Bent Number ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

ELEVATION

744+00 745+00 746+00 747+00

FOR INFORMATION ONLY

EXHIBIT A
SHEET 1 OF 3

LAYOUT OF REHABILITATED BRIDGE 'A' OVER U.S. 67 & MO.-PAC. R.R.

FULTON-SHEPPARD REHAB.
HEMPSTEAD COUNTY
INT. ROUTE 30 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: MAR 86
CHECKED BY: HAS DATE: 6-11-86
DESIGNED BY: – DATE: –
SCALE: 1" = 20'

Hurel Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 3864 AR DRAWING NO. 57495

	BB0305	119	153
3642 - LAYOUT - 57496			

Tangent Distance over 500'
Approx 0.5 mi to Red Lake Road

Provide Rdwy Drains at low side of rdwy approx 6' from bridge ends

Total Length of Bridge = 476'-11⅛" Comp. 1-8m. Spans

1'-6" | 38'-0" (Modified) | 38'-0" (Modified) | 66'-0" (Regular) | 61'-0" (Modified)

Beginning Bridge Sta 743+65 ±
Elev 310.04

Metal (Aluminum or Steel) Bridge Railing

Guard Fence ¢ Conc Posts — See Rdwy Plans

Existing Ground Line

38' Piles — 15' Spac. — 40' Spac.

Bt. 1 — Bt. 2 — Bt. 3 — Bt. 4 — Bt. 5

43' Piles

Sta 745+00, Rt 42

ELEVATION BRIDGE 3864B

Sta 745+77, Rt 1.7'

Sta 743+00, Lt 42' Med

Sta 745+50, Lt 45'

Beginning Bridge Sta 744+71.43
Elev. 310.80

Sta 744+00, Rt 42

ELEVATION BRIDGE 3864A

Total Length of Bridge = 470'-11⅛" Comp. 1-8m. Spans

1'-5⅝" | 38'-0" (Modified) | 38'-0" (Modified) | 66'-0" (Regular) | 61'-0" (Modified)

Existing Ground Line

Elev 279.1

Sta 747+13, ¢ Med

Elev 283.63 — Elev 381 — Elev 277.47 — Elev 276.95 — Elev 275.25

Elev 282.78 — Elev 277.14 — Elev 280.7 — Elev 277.37 — Elev 275.42

BORING LOG

a: Firm Red Sandy Clay-most clay-moist	N: 43	6'	
b: Very Firm Red Sandy Clay-most sand-moist	N: 90	11'	
c: Very Firm Red Sandy Clay-most clay-moist	N: 88	20'	
d: Med. Firm Red Sandy Clay-most clay-moist	N: 46	36'	
	N: 18	3'	
	N: 133	16'	
	N: 88	21'	

Sta 744+00, Lt 42' Med

Sta 745+50, Lt 45'

Sta 744+71, Lt 44'

Beginning Bridge 3864B
Sta 744+41.43

Beginning Bridge 3864A
Sta 743+65.21

Point of Switch
N 42°35'E
Sta 746+50.30

¢ Missouri Pacific R.R.

¢ U.S. 67

¢ Bridge ¢ Rdwy

¢ Median

Type C Approach Slabs ¢ Gutters at each end of both Bridges

Concrete Riprap toe wall this side only

Construct Corner of Riprap on Fill Slope (Typical)

Test Hole (Typ)

Face of Bent

Toe of Fill Slope

Conc. Riprap

Clear Rdwy

Slope Protection

Stone Down

Curb

Pipe Culvert

Tel Pole

Guy Wire

Power Pole

Underground Cable

Gravel Road

Ditch

Fence

Rdwy

Beg Br 743+65.21

End Br 743+44.20

Beg Br 744+41.43

End Br 744+12.42

Pt of Switch

¢ Median

¢ Bridge ¢ Rdwy

¢ U.S. 67

¢ RR

¢ Mo Pac RR

¢ Gravel Road

¢ Underground Cable

¢ Mo Pac RR

¢ End Br 744+12.42

LOCATION SKETCH
Scale 1"=50'

Pt of Switch 50.30

Tel Pole

Tel Pole

52.05'

46.18'

+3.00%

-3.00%

21 | 46+50 | Elev 323.04

1500' V.C.

Elev 310.46

Elev 311.09

Elev 311.58

Elev 311.66

Elev 310.81

Elev 311.27

Elev 311.54

Elev 310.46

Elev 311.09

Elev 311.58

Elev 311.66

Elev 310.81

Elev 311.27

Elev 311.54

All Bridges seated 6-25-63, J.H.C.

FOR INFORMATION ONLY

EXHIBIT A

SHEET 1 OF 2

LAYOUT OF OVERPASSES
OVER U.S. 67 & MO. PAC. R.R.
FULTON - SHEPPARD
HEMPSTEAD COUNTY
INT. ROUTE 30 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

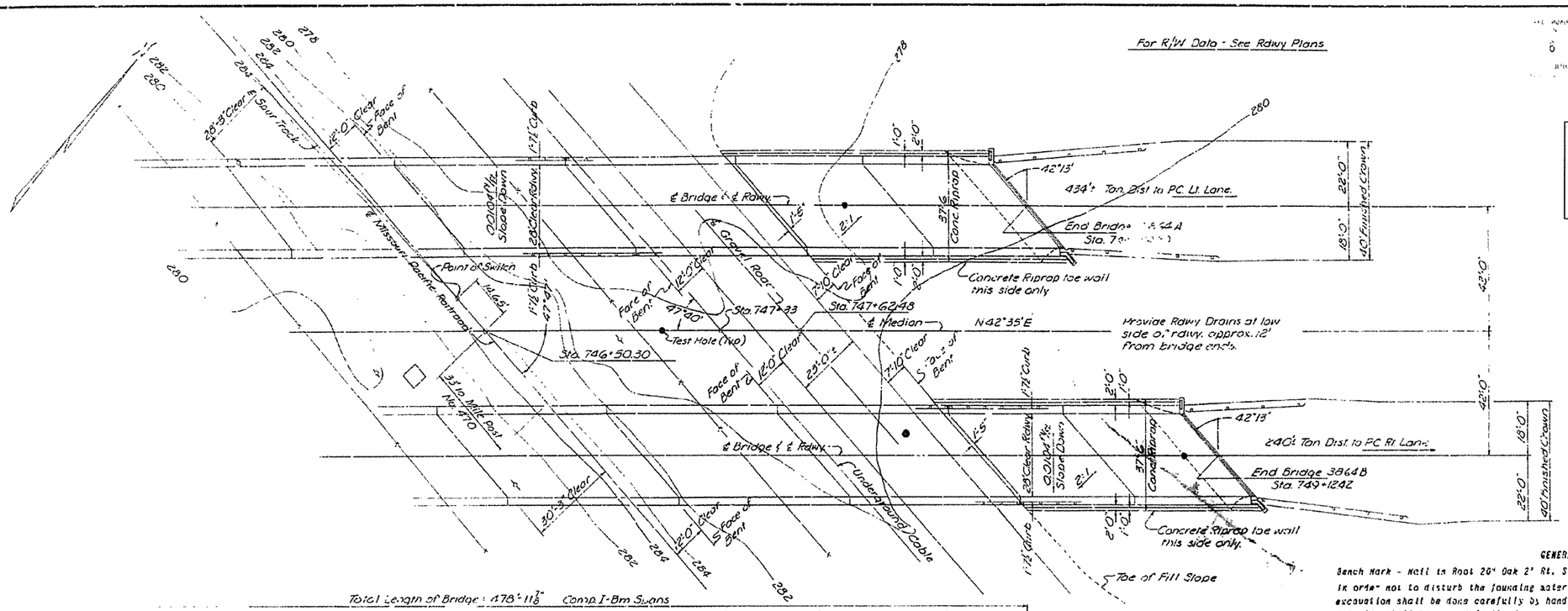
DRAWN BY: RWM DATE: 8-23-63
TRACED BY: DATE: SCALE: 1"=20'
CHKD BY: W.E.W. DATE: 8-29-63

BRIDGE ENGINEER

BRIDGE NO. 3864 A & B DRAWING NO. 57496

STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	BB0305		120	153
JOB NO.	3642 - LAYOUT - 57497			

FOR INFORMATION ONLY



GENERAL NOTES

Bench Mark - Nail in Root 20" Oak 2' Rt. Sta. 744+14. Elevation 281.53.

In order not to disturb the founding material the final one foot of footing excavation shall be done carefully by hand methods to neat lines of footing.

All piles shall be poured in the dry.

All piling shall be 16" Octagonal Precast Concrete or 16" Concrete Filled Metal Shells, and shall be driven with an approved air, steam or diesel hammer to a minimum bearing capacity of 36 tons per pile and to minimum penetration shown below the ground line. Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. Drive one 48' test pile in Bent 2 of Bridge A. Drive one 52' test pile in Bent 9 of Bridge B.

Piles in End Bents shall be driven after embankment is in place.

For Details of Precast Concrete Piles see Dwg. No. 2382.

For Details of Superstructure see Dwg. No. 14990-A, 15035 & 12723

For Details of Substructure see Dwg. No. 12719, 12720, 12721 & 12722

For Details of Concrete Filled Metal Shell Piles see Dwg. No 2381A.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959.

DESIGN SPECIFICATIONS: AASHO 1961

Live Loading: H20-S16 and special interstate loading of two 24,000# axles spaced 4' on centers.

Stresses:		
	Class A Concrete (n=15)	840 psi
	Class S Concrete (n=10)	1,200 psi
	Reinforcing Steel	20,000 psi
	Structural Steel (A-36)	20,000 psi

Foundation Pressure - 5000 DL + LL

EXHIBIT A

SHEET 2 OF 2

LAYOUT OF OVERPASSES
OVER U.S. 67 & MO. PAC. R.R.
FULTON - SHEPPARD
HEMPSTEAD COUNTY
INT. ROUTE 30 SEC. 1

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

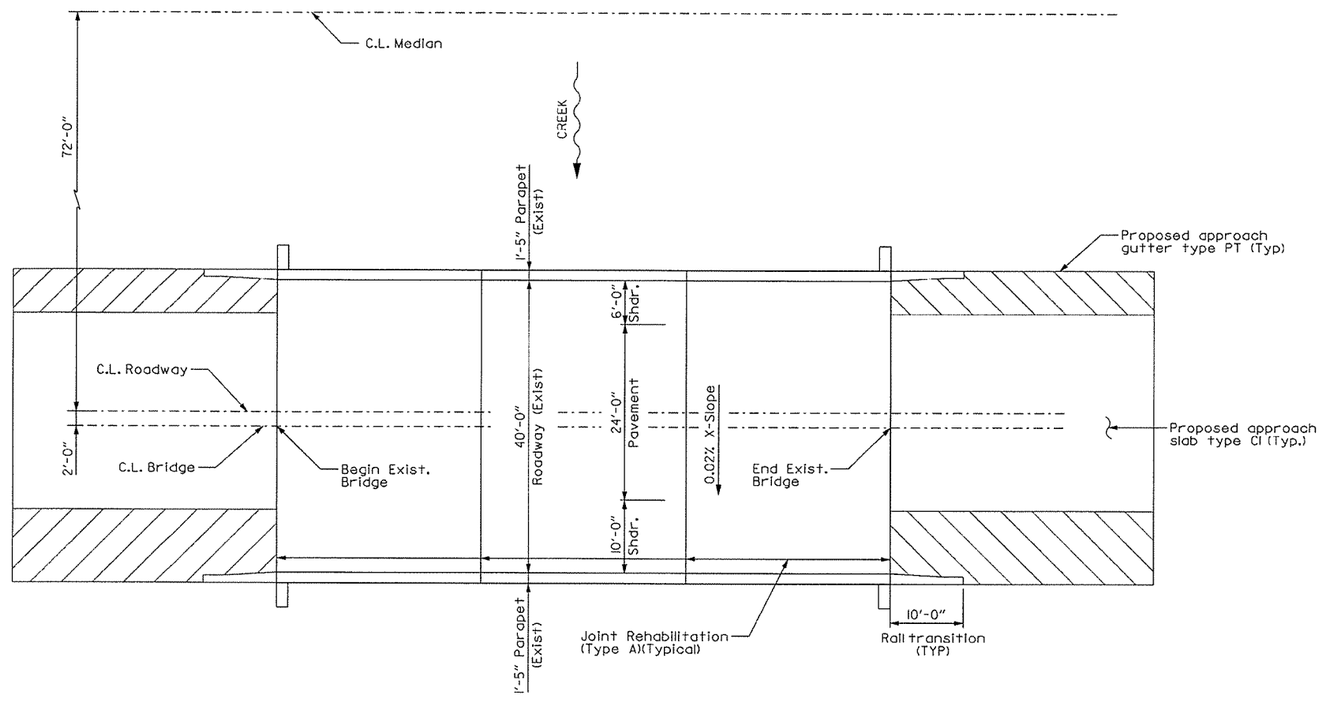
DRAWN BY: RWM DATE: 8-23-63
TRACED BY: DATE:
CHECKED BY: W.E.W. DATE: 8-23-63
SCALE: 1" = 20'

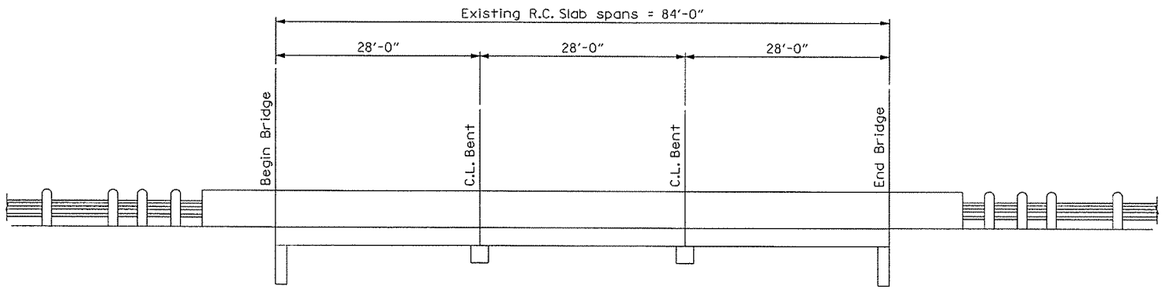
BRIDGE ENGINEER

BRIDGE NO. 3864 A & B DRAWING NO. 57497

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.		BB0305	121	153
(1) (A&B) 3866, 3867 - EXIST. BRIDGES - 57498				





Mile Log No.	Bridge No.	Bridge Location	Crossing	Stations Begin	Stations End	Offset to CL RDWY (Ft.)
20.27	A3866	IH 30 WB	Bridge Creek Relief	847+96.00	848+80.00	72.00 Lt
20.27	B3866	IH 30 EB	Bridge Creek Relief	847+96.00	848+80.00	72.00 Rt
20.44	A3867	IH 30 WB	Bridge Creek	856+65.00	857+49.00	72.00 Lt
20.44	B3867	IH 30 EB	Bridge Creek	856+65.00	857+49.00	72.00 Rt

• EAST BOUND BRIDGE SHOWN

STATE OF ARKANSAS
REGISTERED LICENSED ENGINEER
7-15-15
NO. 15762
JOHN W. TULEY
Bridge Engineer

BRIDGES (A & B) 3866, 3867
PLAN VIEW OF EXISTING BRIDGES

ROUTE I-30
ARKANSAS STATE HIGHWAY COMMISSION
HEMPSTEAD COUNTY

DRAWN BY: MGG DATE: 3-5-14 FILE NAME: Approach Slab Plan 01
CHECKED BY: JWT DATE: 3-28-14 SCALE: NO SCALE
DESIGNED BY: JHK DATE: 3-6-14

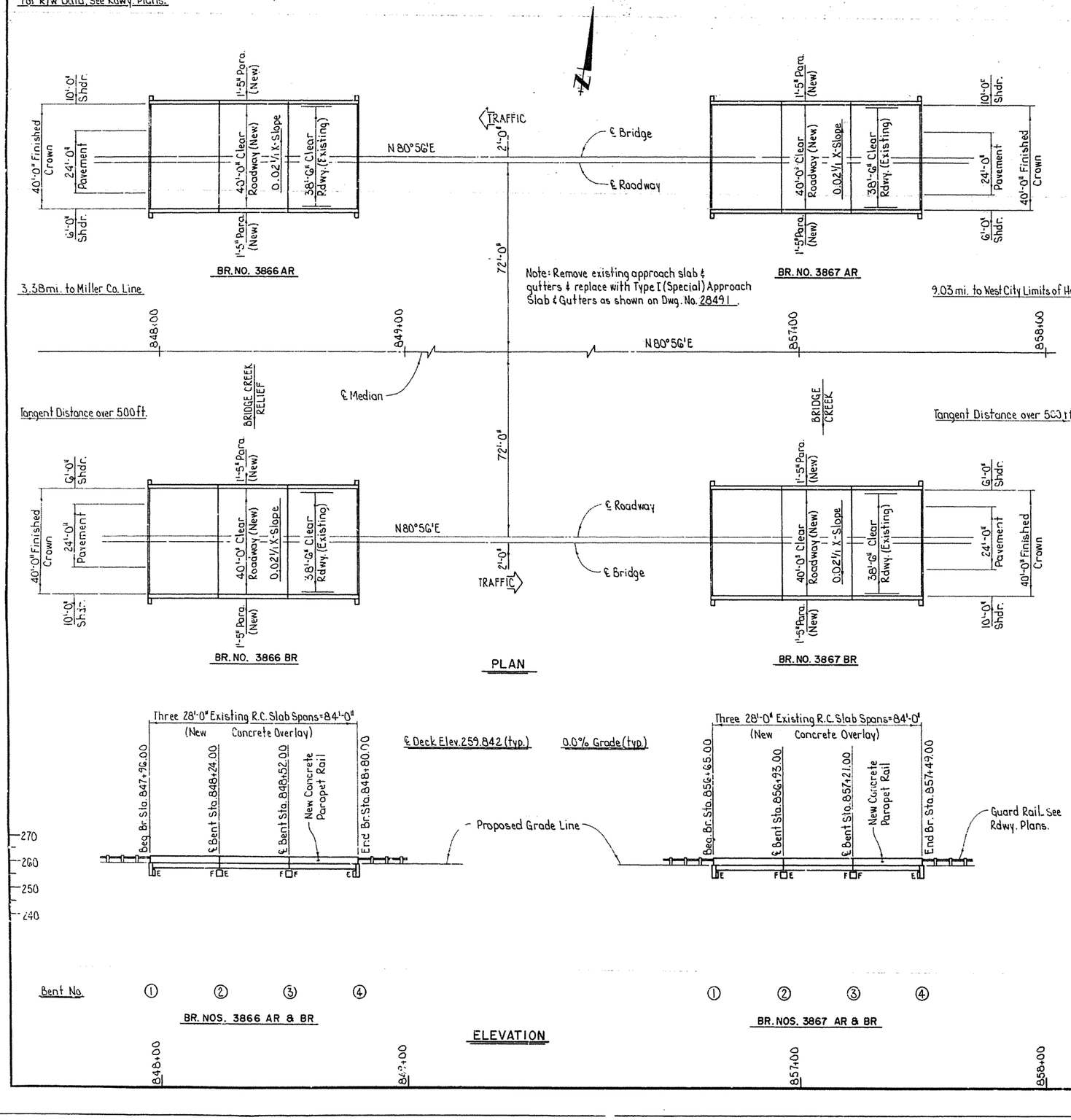
BRIDGE NO. (A&B) 3866, (A&B) 3867 DRAWING NO. 57498

7/10/2015 3:36:24 PM

P:\100037942\CADD\BDG\IH 30_Approach Slab_Plan01.dgn

For R/W Data, See Rdwy. Plans.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0305	122	153
				(1)	3971 - LAYOUT - 57499			



BENCH MARK: ELEVATIONS ARE ASSUMED TO BE THE SAME AS SHOWN ON THE ORIGINAL PLANS. THE ORIGINAL LAYOUT SHOWS THE ELEVATION AT TOP OF DECK AND CENTERLINE BRIDGE TO BE 259.35 AT STA. 847+96.00 (BEG. OF BR. 3866A & 3866B) AND AT STA. 856+65.00 (BEG. OF BR. 3867A & 3867B).

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 EDITION WITH CURRENT INTERIMS.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

DESIGN LIVE LOAD: HS20-44

DESIGN METHOD: LOAD FACTOR

CONCRETE: CONCRETE IN THE SUBSTRUCTURE SHALL BE CLASS S. CONCRETE IN THE SUPERSTRUCTURE TO BE CLASS S(AE). ALL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH f'c = 3500 PSI AND SHALL BE POURED IN THE DRY. UNLESS OTHERWISE NOTED, ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4 INCH.

DECK FINISH: THE ROADWAY SURFACE OF THE CONCRETE BRIDGE DECK SHALL BE GIVEN A TINE FINISH AS SPECIFIED FOR ALL FINAL FINISHING IN SUBSECTION 802.23 FOR A CLASS S, ROADWAY SURFACE FINISH.

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, grade 60 (YIELD STRENGTH = 60,000 PSI), OR AS NOTED ON THE DETAIL DRAWINGS.

ALL THE MATERIAL FROM THE EXISTING BRIDGE WHICH IS NOT INCORPORATED INTO THE NEW STRUCTURE SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

THE CONTRACTOR SHALL MAKE CHECK MEASUREMENTS AND MAKE ANY ADJUSTMENT NECESSARY TO FIT THE NEW WORK TO THE EXISTING BRIDGE.

HALF-SIZE DETAIL DRAWINGS OF THE EXISTING BRIDGE MAY BE OBTAINED FROM THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT UPON REQUEST.

MAINTENANCE OF TRAFFIC: DETAILS WHICH RELATE TO MAINTENANCE OF TRAFFIC ARE SHOWN ON THE BRIDGE PLANS FOR INFORMATION; HOWEVER, PAYMENT, JOB SPECIAL PROVISIONS, ETC., ARE CONSIDERED AS PART OF THE ROADWAY PLANS.

FOR REMODELING DETAILS, SEE DWG. NOS. 28488 through 28490.
FOR APPROACH SLABS AND GUTTERS (TYPE I - SPECIAL), SEE DWG. 28491.

FOR INFORMATION ONLY

LAYOUT OF REHABILITATED BRIDGES OVER BRIDGE CREEK AND BRIDGE CREEK RELIEF FULTON-SHEPPARD REHAB. HEMPSTEAD COUNTY INT. ROUTE 30 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

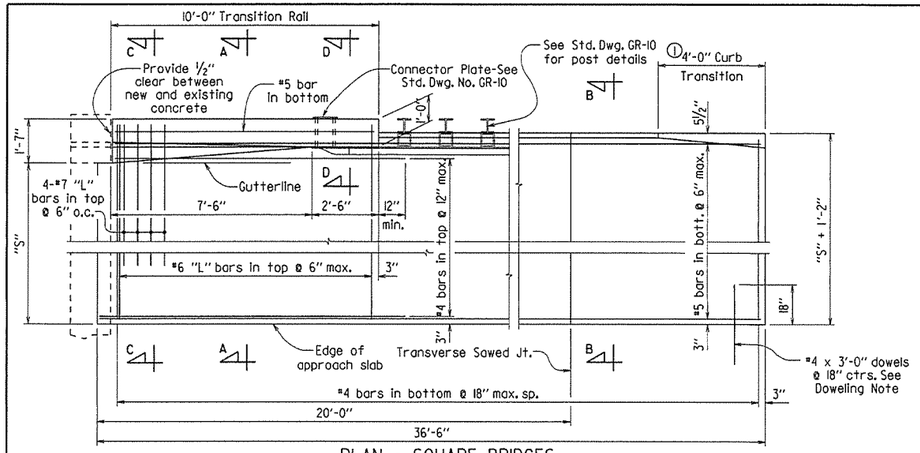
DRAWN BY: KDH DATE: MAR 86
CHECKED BY: CSL DATE: 10 June 86
DESIGNED BY: — DATE: —
SCALE: 1" = 20'

Neal Pinkerton
BRIDGE ENGINEER

BRIDGE NO. 3866AR&BR
3867AR&BR
DRAWING NO. 57499

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9/2/15				6	ARK.		123	
				JOB NO.				

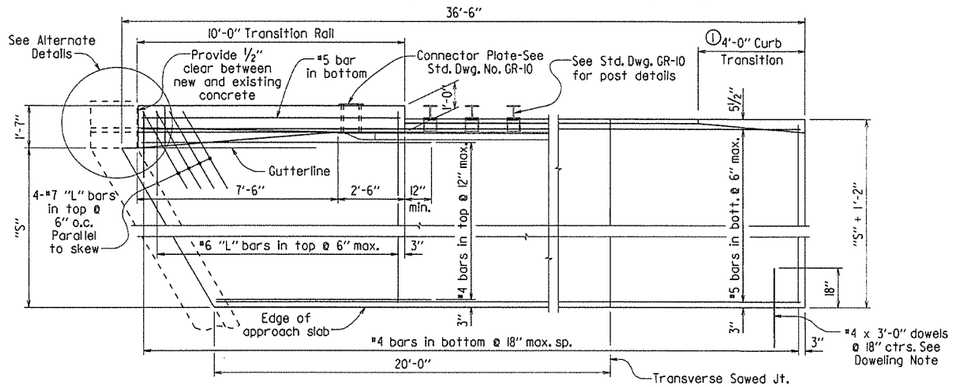
① TYPE PT GUTTERS 55035

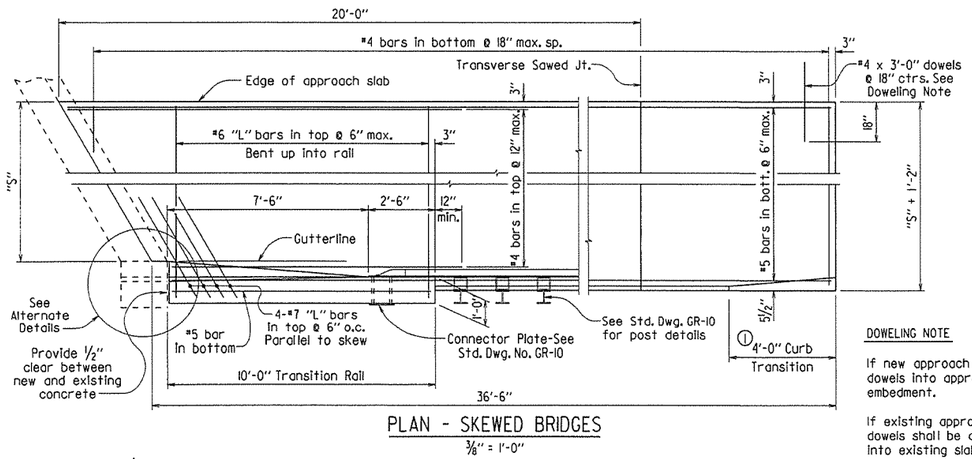


PLAN - SQUARE BRIDGES

⅜" = 1'-0"

"S" = Distance from gutterline to edge of approach slab.

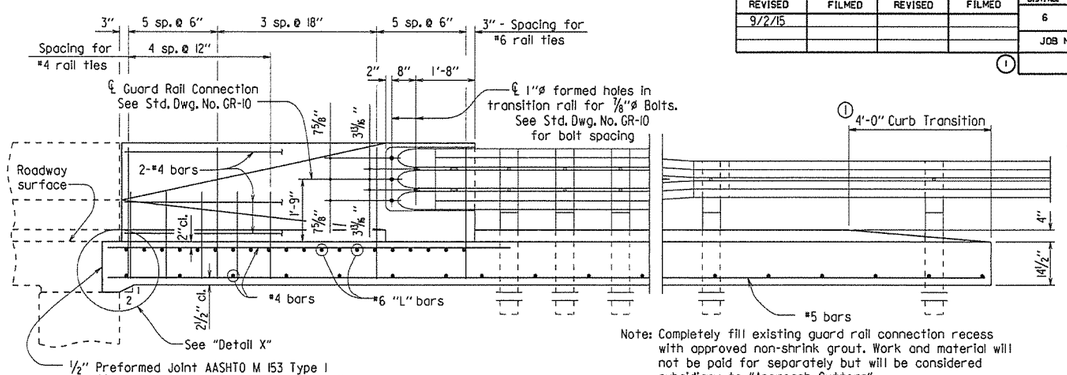




PLAN - SKEWED BRIDGES

⅜" = 1'-0"

⚠ Note:
All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustment to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.



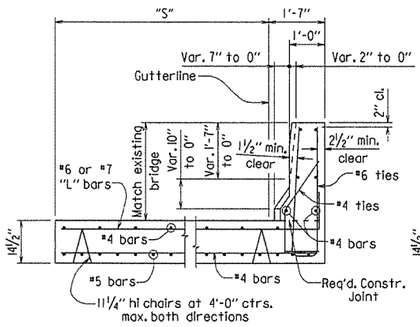
LONGITUDINAL SECTION THRU GUTTER

½" = 1'-0"

① Construct curb with height-transition as shown if drop inlet is not used at end of gutter.

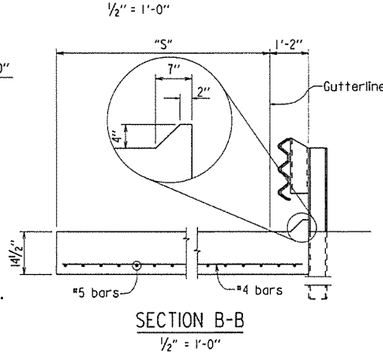
Construct curb full height (no height-transition) if drop inlet is used at end of gutter. Curb height transition placed on drop inlet. See drop inlet details.

Note: Completely fill existing guard rail connection recess with approved non-shrink grout. Work and material will not be paid for separately but will be considered subsidiary to "Approach Gutters".



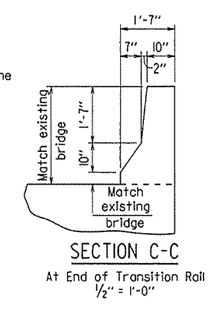
SECTION A-A

½" = 1'-0"



SECTION B-B

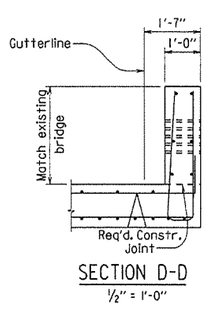
½" = 1'-0"



SECTION C-C

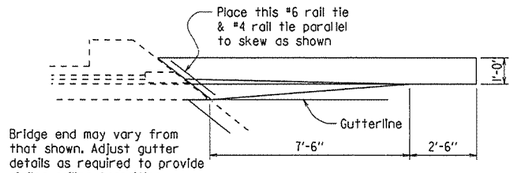
At End of Transition Rail

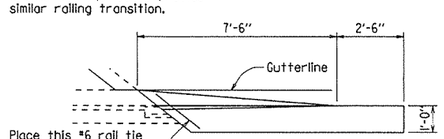
½" = 1'-0"



SECTION D-D

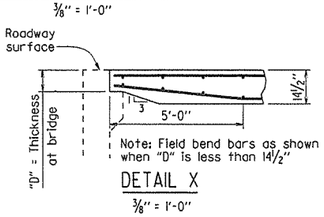
½" = 1'-0"





ALTERNATE DETAILS

⅜" = 1'-0"



DETAIL X

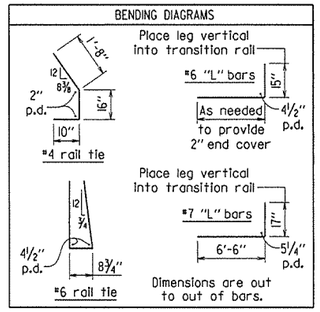
⅜" = 1'-0"

DOWELING NOTE

If new approach slab is used, place dowels into approach slab using 18" embedment.

If existing approach slab is retained, dowels shall be drilled and grouted 18" into existing slab. At the Contractor's option, existing dowels may be retained, cleaned and incorporated into new gutters. Work for drilling and grouting, or retaining and cleaning will not be paid for separately but will be considered subsidiary to "Approach Gutters".

BENDING DIAGRAMS



⚠ Added note for gutters within the limits of horizontal curves. By: AMS
Checked By: KWY 9/2/15

GENERAL NOTES

All concrete shall be Class S or S(AE) or mixture used for Portland Cement Concrete Pavement and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports. Fabricate bar lengths to provide 2" minimum cover at each end.

Approach gutters will be measured and paid for in accordance with Section 504.

QUANTITIES FOR ONE SQUARE APPROACH GUTTER

(FOR INFORMATION ONLY)

"S"	Concrete	Reinforcing Steel
5'-6"	12.49 cu.yd.	1227 lb.
5'-9"	12.91 cu.yd.	1276 lb.
6'-0"	13.34 cu.yd.	1296 lb.
9'-6"	19.23 cu.yd.	1746 lb.
9'-9"	19.65 cu.yd.	1795 lb.
10'-0"	20.07 cu.yd.	1815 lb.

STANDARD DETAILS FOR TYPE 'PT' APPROACH GUTTERS (BRIDGES WITH CONCRETE PARAPET RAILING)

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 2/27/2014 FILENAME: b55035.dgn
CHECKED BY: KWY DATE: 2/27/2014 SCALE: AS SHOWN
DESIGNED BY: STD. DATE:

DRAWING NO. 55035

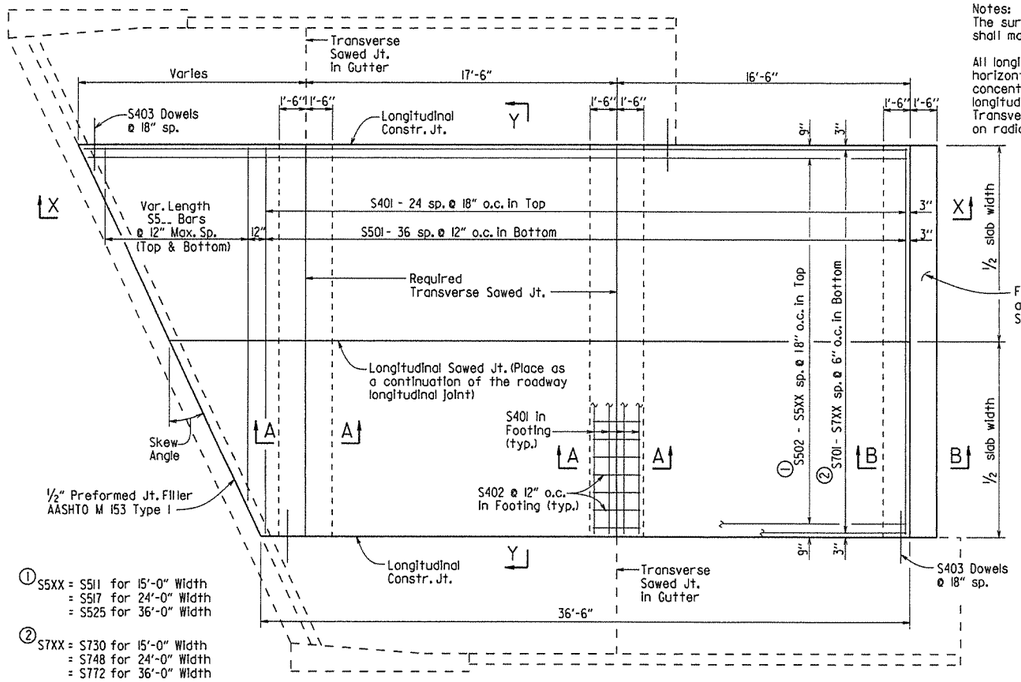
This document was originally issued and sealed by Charles R. Ellis, PE No. 9235, on September 2, 2015. This copy is not a signed and sealed document.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9235
CHARLES R. ELLIS

BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		124	
				JOB NO.				

TYPE CI APPROACH SLAB 55040CI



① S5XX = S511 for 15'-0" Width
= S517 for 24'-0" Width
= S525 for 36'-0" Width

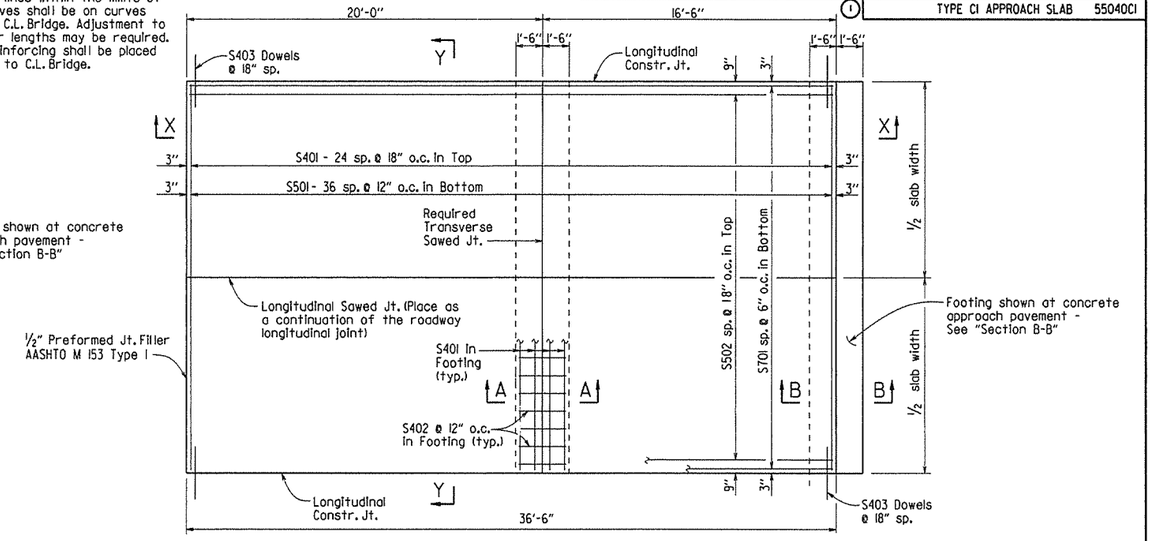
② S7XX = S730 for 15'-0" Width
= S748 for 24'-0" Width
= S772 for 36'-0" Width

PLAN - SKEWED APPROACH SLAB WITH APPROACH GUTTERS

1/4" = 1'-0"

Notes:
The surface finish for Approach Slabs shall match that used on the bridge deck.

All longitudinal lines within the limits of horizontal curves shall be on curves concentric to C.L. Bridge. Adjustment to longitudinal bar lengths may be required. Transverse reinforcing shall be placed on radial lines to C.L. Bridge.



PLAN - SQUARE APPROACH SLAB

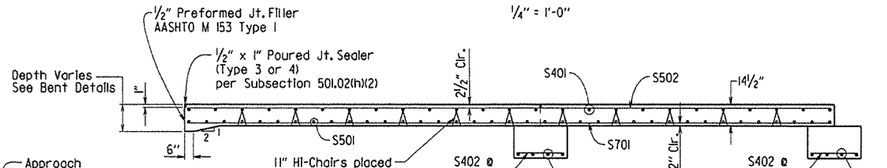
1/4" = 1'-0"

BAR LIST

(Square & Skewed Approach Slabs)

	Mark	Square No. Req'd.	Square Length	Skewed No. Req'd.	Skewed Length
15'-0" Slab Width	S401	33	14'-8"	37	14'-8"
	S402	30	2'-8"	45	2'-8"
	S403	50	3'-0"	*	3'-0"
	S501	37	14'-8"	37	14'-8"
	S502	10	36'-2"	—	—
	S502 - S511	—	—	1 Ea.	36.1' + 0.75'(tan skew angle) to 36.1' + 14.25'(tan skew angle)
	S5_ _	—	—	2 Ea.	14.7' - 0.75'/(tan skew angle) to 2'-0" Min.
	S701	30	36'-2"	—	—
	S701 - S730	—	—	1 Ea.	36.1' + 0.25'(tan skew angle) to 36.1' + 14.75'(tan skew angle)
24'-0" Slab Width	S401	33	23'-8"	37	23'-8"
	S402	48	2'-8"	72	2'-8"
	S403	50	3'-0"	*	3'-0"
	S501	37	23'-8"	37	23'-8"
	S502	16	36'-2"	—	—
	S502 - S517	—	—	1 Ea.	36.1' + 0.75'(tan skew angle) to 36.1' + 23.25'(tan skew angle)
	S5_ _	—	—	2 Ea.	23.7' - 0.75'/(tan skew angle) to 2'-0" Min.
	S701	48	36'-2"	—	—
	S701 - S748	—	—	1 Ea.	36.1' + 0.25'(tan skew angle) to 36.1' + 23.75'(tan skew angle)
36'-0" Slab Width	S401	33	35'-8"	37	35'-8"
	S402	72	2'-8"	108	2'-8"
	S403	50	3'-0"	*	3'-0"
	S501	37	35'-8"	37	35'-8"
	S502	24	36'-2"	—	—
	S502 - S525	—	—	1 Ea.	36.1' + 0.75'(tan skew angle) to 36.1' + 35.25'(tan skew angle)
	S5_ _	—	—	2 Ea.	35.7' - 0.75'/(tan skew angle) to 2'-0" Min.
	S701	72	36'-2"	—	—
	S701 - S772	—	—	1 Ea.	36.1' + 0.25'(tan skew angle) to 36.1' + 35.75'(tan skew angle)

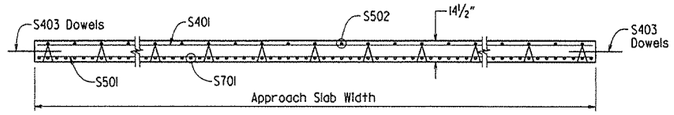
* Varies with skew angle



SECTION X-X

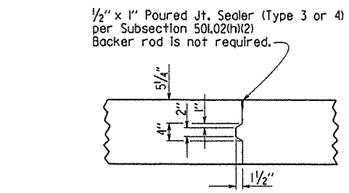
SQUARE APPROACH SLAB SHOWN

1/4" = 1'-0"



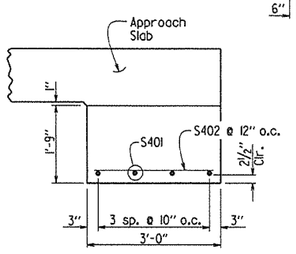
SECTION Y-Y

N.T.S.



DETAILS OF LONGITUDINAL CONSTRUCTION JOINT

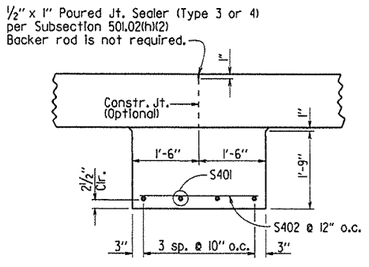
¾" = 1'-0"



SECTION B-B

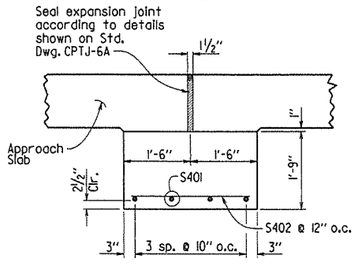
AT ASPHALT APPROACH PAVEMENT

N.T.S.



SECTION A-A

N.T.S.



SECTION B-B

AT CONCRETE APPROACH PAVEMENT

N.T.S.

TABLE OF QUANTITIES FOR ONE SQUARE APPROACH SLAB

(FOR INFORMATION ONLY)

Slab Width	Reinforcing Steel (Lbs.)	Concrete (Cu. Yds.)
15'-0"	3640	30.75
24'-0"	5775	49.15
36'-0"	8620	73.75

GENERAL NOTES

This drawing shall be used for Approach Slabs in Seismic Performance Zone 1 and for the maximum skew angles shown below:

15'-0" Slab Width: Maximum Skew Angle = 50°
24'-0" Slab Width: Maximum Skew Angle = 40°
36'-0" Slab Width: Maximum Skew Angle = 30°

All concrete shall be Class S (AE) with a minimum 28 day compressive strength f'c = 4,000 psi and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

Approach Slabs will be measured and paid for in accordance with Section 504.

STANDARD DETAILS FOR TYPE CI APPROACH SLAB

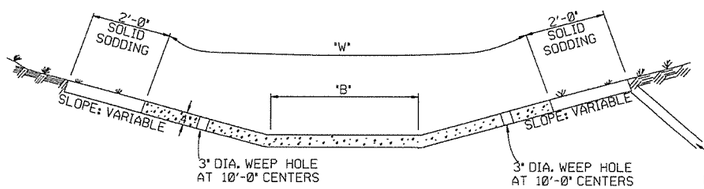
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: A.M.S. DATE: 2/27/2014 FILENAME: b55040ci.dgn
CHECKED BY: K.W.Y. DATE: 2/27/2014 SCALE: AS SHOWN
DESIGNED BY: STD. DATE:

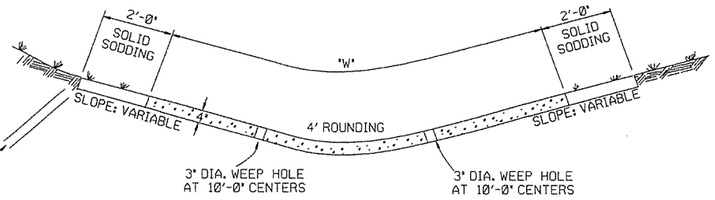
DRAWING NO. 55040CI

REFER TO TABULATION OF QUANTITIES FOR 'W' & 'B' DIMENSIONS



TYPE A

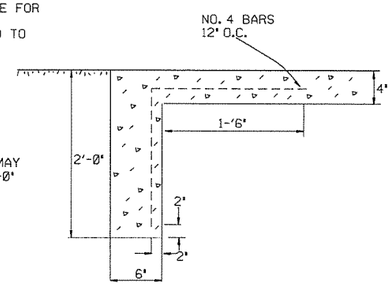
REFER TO TABULATION OF QUANTITIES FOR 'W' DIMENSIONS



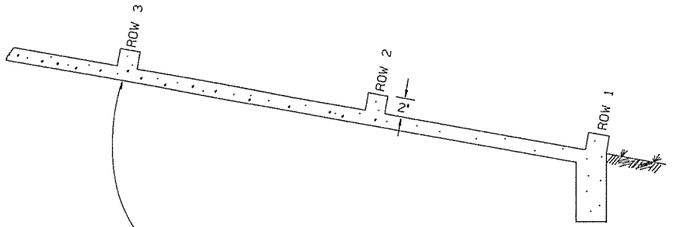
TYPE B

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.'

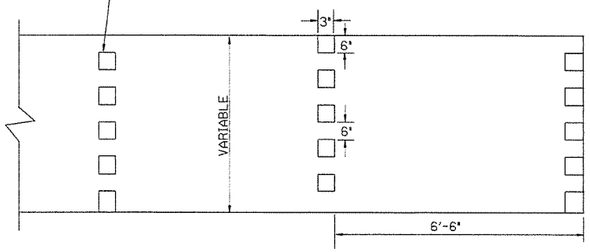
TOE WALL DEPTH MAY BE ALTERED TO 1'-0" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION



TOE WALL DETAIL FOR CONCRETE DITCH PAVING



ENERGY DISSIPATORS 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.



ENERGY DISSIPATORS
(NO SCALE)

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.

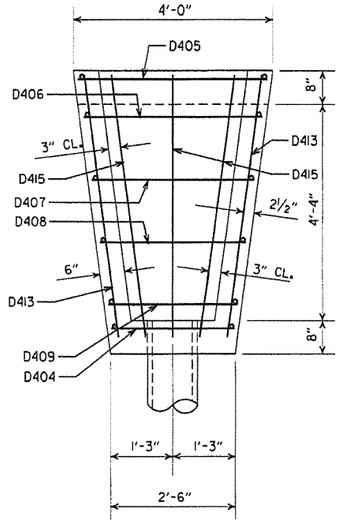
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

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	693-7-15-88
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

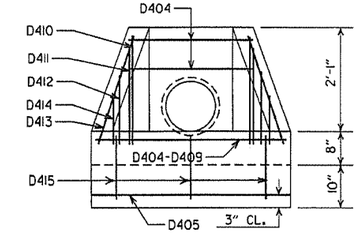
STANDARD DRAWING CDP-1



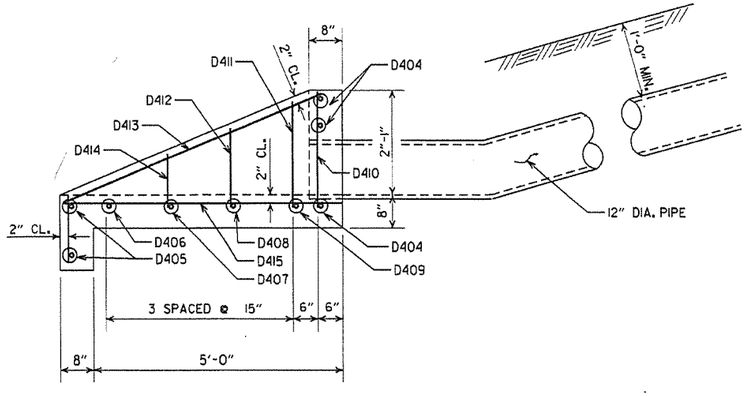
PLAN

BAR LIST (CONCRETE SPILLWAY)

MARK	NO. REQ'D.	LENGTH	BENDING DIAGRAM
D404	3	2'-2"	5'-4", 1'-2", 2" P.D., D415
D405	2	3'-8"	
D406	1	3'-5"	
D407	1	3'-1"	
D408	1	2'-9"	
D409	1	2'-5"	
D410	2	2'-5"	
D411	2	2'-2"	
D412	2	1'-9"	
D413	2	5'-6"	
D414	2	1'-2"	
D415	3	6'-5"	

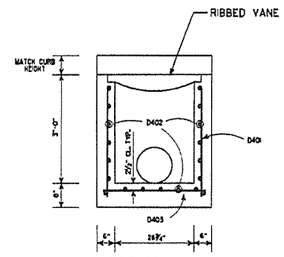


FRONT ELEVATION



SIDE ELEVATION
CONCRETE SPILLWAY

DETAILS OF CONCRETE SPILLWAY (TYPE A)

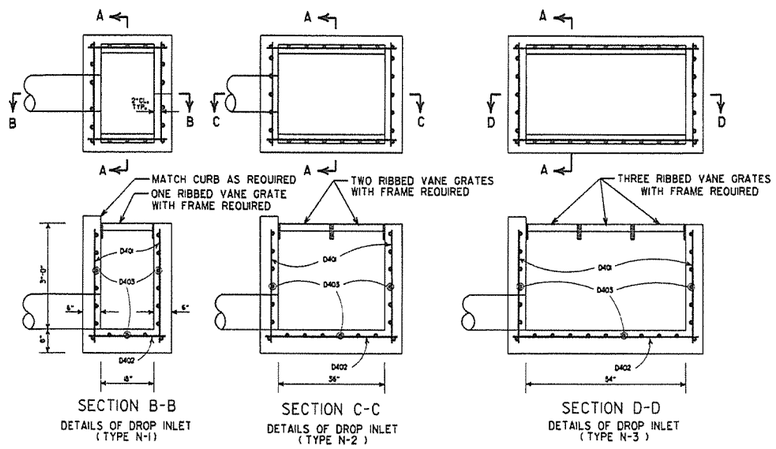


SECTION A-A

BAR LIST (DROP INLET)

MARK	TYPE N-1		TYPE N-2		TYPE N-3	
	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH
D401	20	3'-0"	26	3'-0"	32	3'-0"
D402	19	2'-2"	19	3'-8"	19	5'-2"
D403	17	2'-11"	20	2'-11"	23	2'-11"

ALL BARS #4 @ 6" SPACING



SECTION B-B
DETAILS OF DROP INLET
(TYPE N-1)

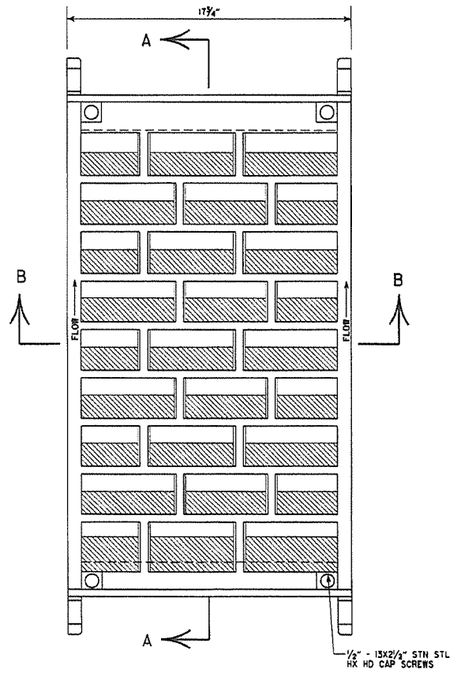
SECTION C-C
DETAILS OF DROP INLET
(TYPE N-2)

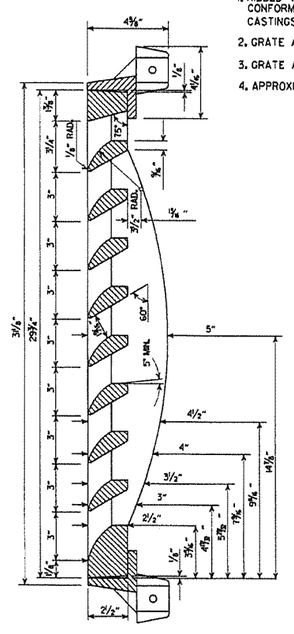
SECTION D-D
DETAILS OF DROP INLET
(TYPE N-3)

DETAILS OF DROP INLET

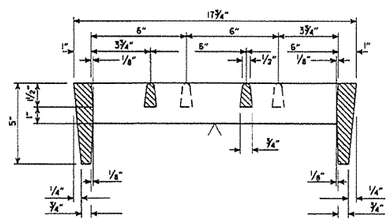
GENERAL NOTES (GRATE & FRAME)

1. RIBBED VANE GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B & AASHTO M 306.
2. GRATE AND FRAME SHALL NOT BE PAINTED.
3. GRATE AND FRAME SHALL BE INSTALLED IN DROP INLET IN ASSEMBLED POSITION.
4. APPROXIMATE WEIGHT OF GRATE SHALL BE 170 LBS.

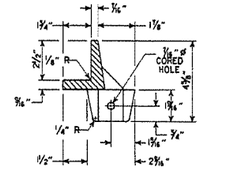




SECTION A-A



SECTION B-B



SECTION THRU FRAME

DETAILS OF RIBBED VANE GRATE AND FRAME

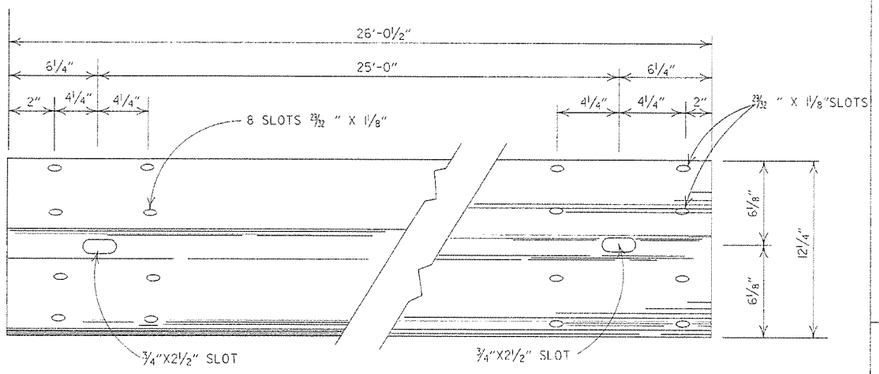
DATE REVISED	DATE FILMED	DESCRIPTION
7-02-98	7-2-98	REVISED SECT. A-A DETAIL OF DROP INLET & ADDED AASHTO REF. TO NOTE 1, REVISED GRATE
10-18-96		REVISED ASTM REF. TO AASHTO
8-15-91		ISSUED

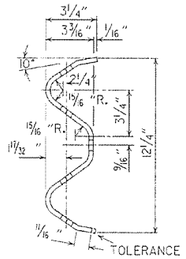
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS AND SPILLWAY OUTLET

STANDARD DRAWING FPC-9N

STDfpc9N.DGN

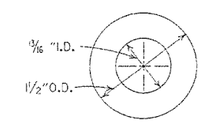




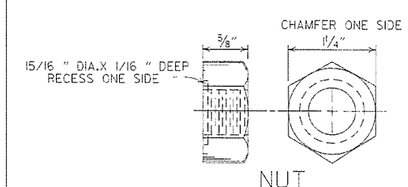
DETAILS OF W-BEAM GUARD RAIL

RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.

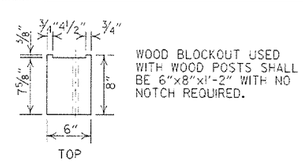
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

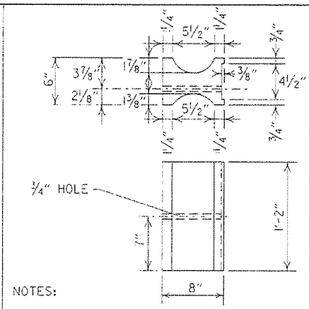


NUT



WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.

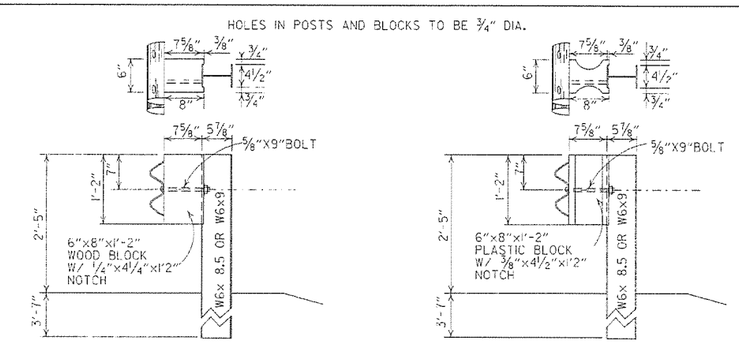
WOOD BLOCKOUT (W-BEAM)



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)

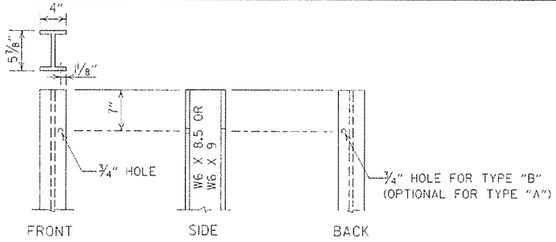
HOLES IN POSTS AND BLOCKS TO BE 3/4" DIA.



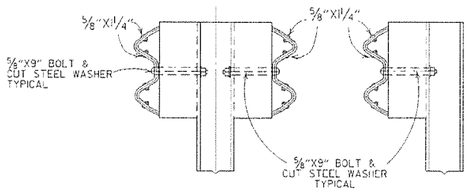
WOOD BLOCKOUT CONNECTIONS

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.

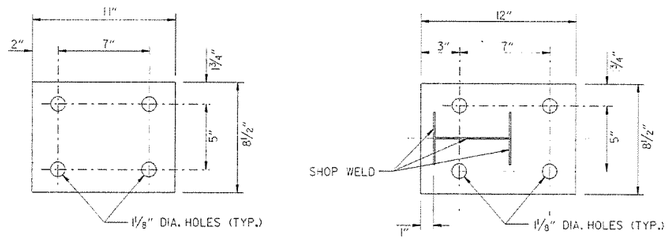
CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARD RAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) FOR W-BEAM GUARD RAIL.

DATE	REVISION	DATE FILM
7-4-10	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

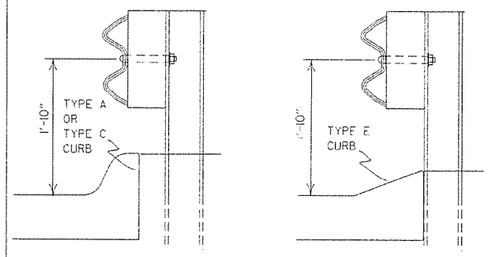
STANDARD DRAWING GR-8



WASHER PLATE

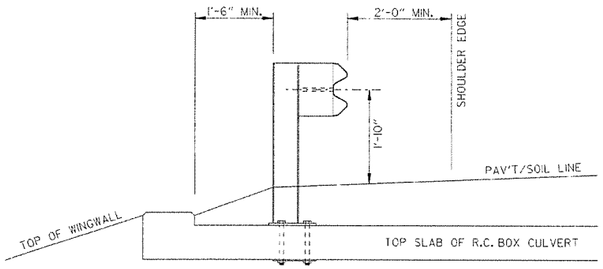
BASE PLATE

Note: Bolts, nuts, washers and plates shall be galvanized in accordance with Section 807 of the Standard Specifications.

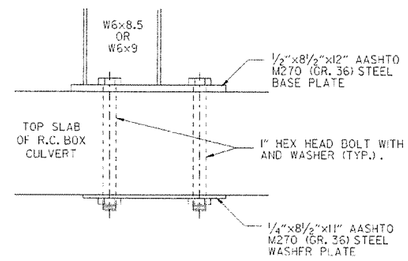


DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB (W-BEAM)

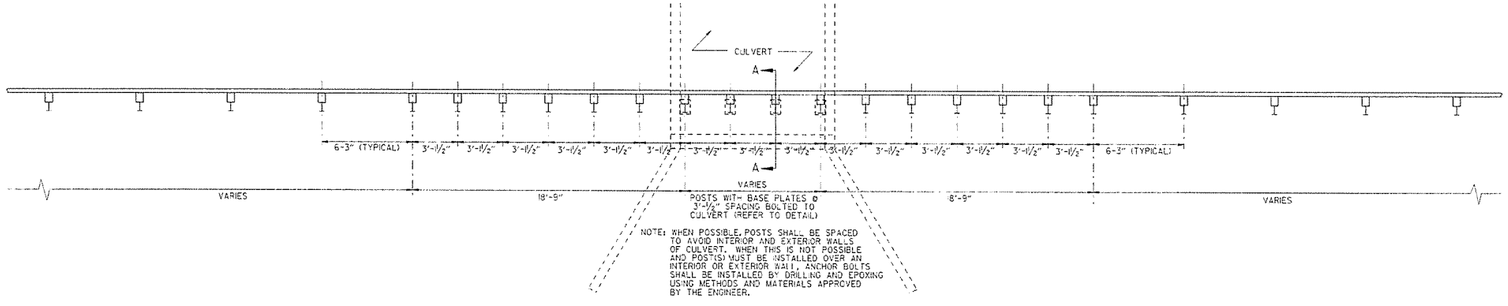
FOR DESIGN SPEEDS OF 50 MPH OR LESS ALL CURB FACES, AS SHOWN ON STD. DRWG. CG-1, MAY BE USED. FOR DESIGN SPEEDS OF 55 MPH OR MORE TYPE "E" CURB FACE SHALL BE USED.



SECTION A-A



DETAIL OF CONNECTION

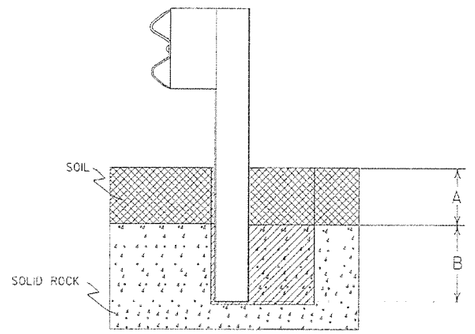


NOTE: WHEN POSSIBLE, POSTS SHALL BE SPACED TO AVOID INTERIOR AND EXTERIOR WALLS OF CULVERT. WHEN THIS IS NOT POSSIBLE AND POST(S) MUST BE INSTALLED OVER AN INTERIOR OR EXTERIOR WALL, ANCHOR BOLTS SHALL BE INSTALLED BY DRILLING AND EPOXING USING METHODS AND MATERIALS APPROVED BY THE ENGINEER.

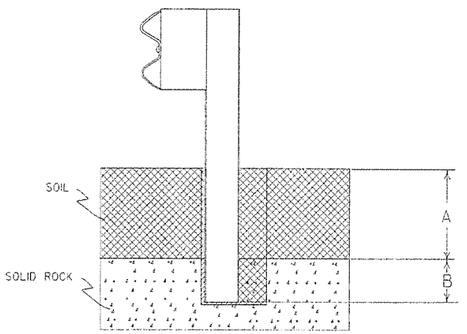
PLAN LAYOUT OF TYPE A GUARD RAIL AT LOW-FILL CULVERTS

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

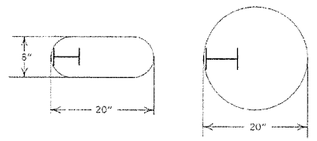


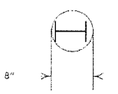
Case 2



Plan View Steel Posts

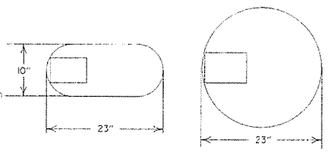
Either hole configuration acceptable

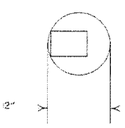




Plan View Wood Posts

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 hole in 6" lifts with material meeting the requirements of Section 802.02(c) - Alternate gradation. Compact to 95% maximum dry density per ASTM D-698.

Notes: For overlying soil depths (A) ranging from 18" to 44", the depth of required drilling (B) is equal to either 12" or 44" minus the depth of soil whichever is less.

Zone A & B:
Backfill according to Section 617.03(a).

DETAIL OF POST PLACEMENT IN SOLID ROCK (W-BEAM)

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	
8-12-98	CHANGED STEEL SPACER BLOCK TO WOOD BLOCKOUT, ADD. DET. OF GUARD RAIL CONNECTION TO R.C. BOX CULVT. 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	742-10-30-87
10-30-87	REVISED PLACEMENT BEHIND CURB	547-10-30-87
10-9-87	REDRAWN & REVISED	803-10-9-87

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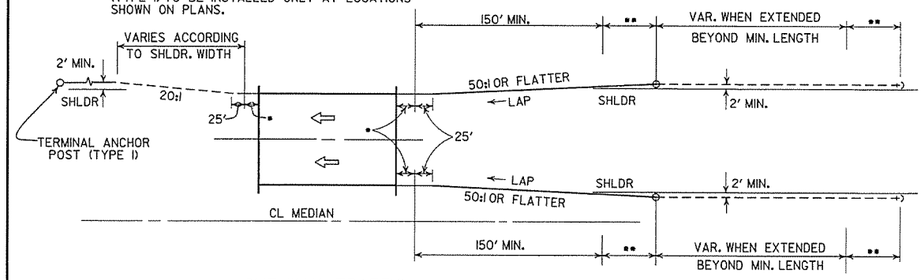
GUARD RAIL DETAILS

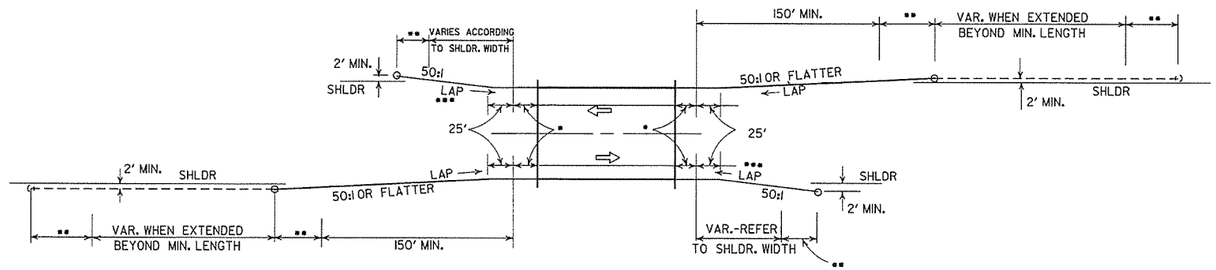
STANDARD DRAWING GR-8A

NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

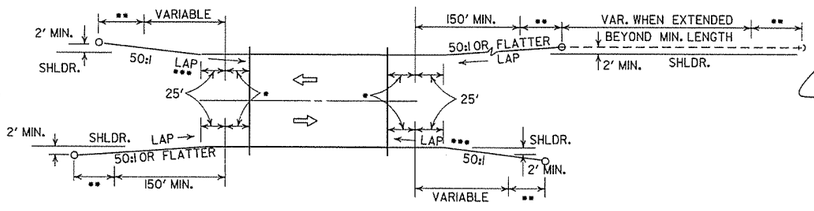
••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

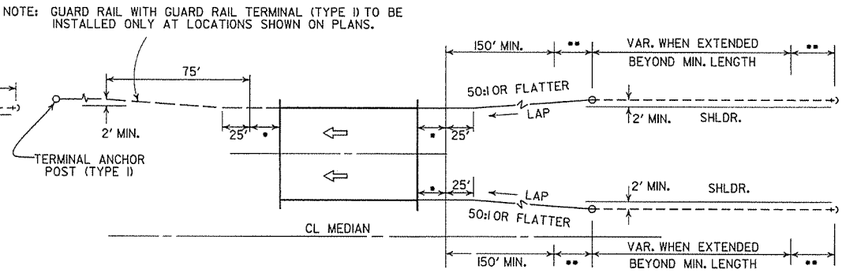
METHODS OF INSTALLATION OF GUARD RAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

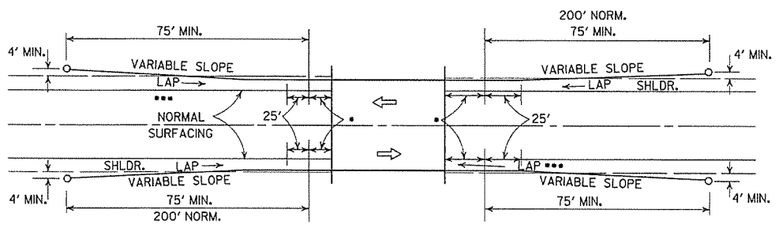
NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

METHOD OF INSTALLATION OF GUARD RAIL AT FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERMINAL (TYPE I) (FULL SHOULDER WIDTH OR LESS BRIDGES)

LEGEND

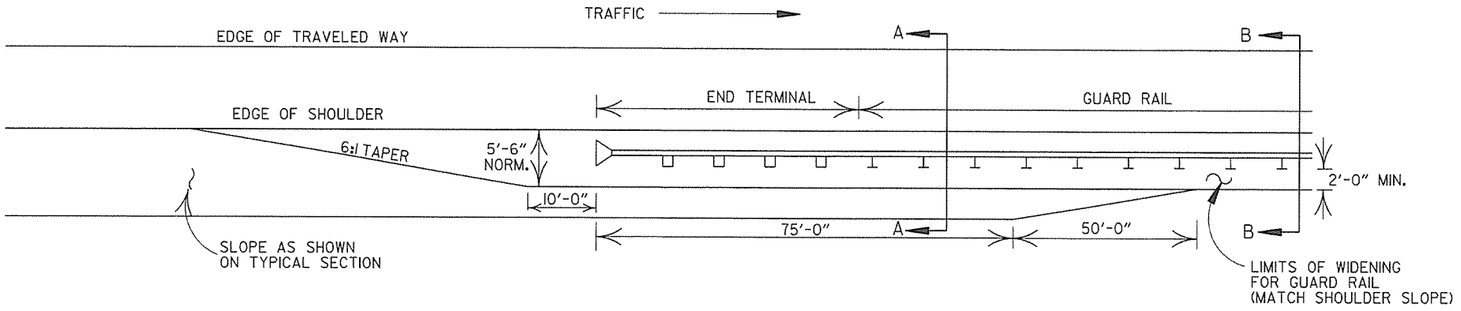
- • THRIE BEAM GUARD RAIL TERMINAL
- •• GUARD RAIL TERMINAL (TYPE 2)

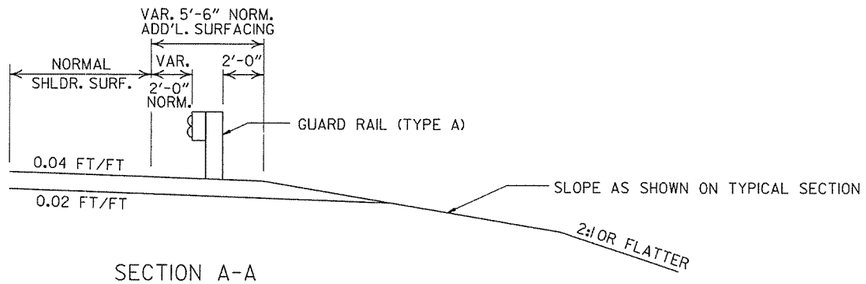
DATE	REVISION	DATE FILM
4-17-08	REVISED LAYOUTS	
11-10-05	REMOVED GUARD RAIL NOTES AND DETAILS	
11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERM. (TY. I)	
1-12-00	ADDED CONSTRUCTION NOTE	1-12-00
6-26-97	REVISED LAYOUT	
10-1-92	REDRAWN & REVISED	10-1-92
	ADDED NOTE	
10-9-87	REDRAWN & REVISED	

ARKANSAS STATE HIGHWAY COMMISSION

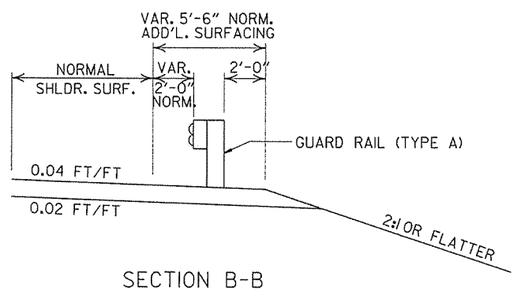
GUARD RAIL DETAILS

STANDARD DRAWING GR-9





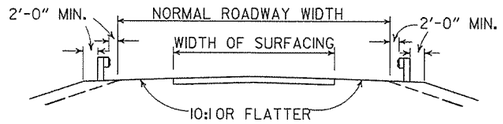
SECTION A-A



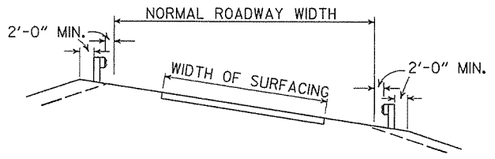
SECTION B-B

DETAILS OF WIDENING FOR GUARD RAIL

NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARD RAIL.

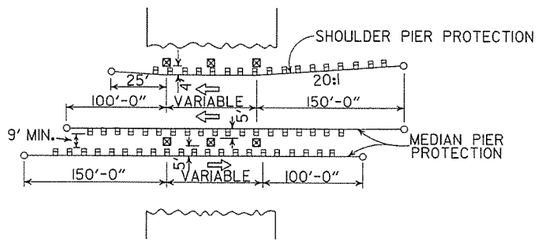


SECTION ON TANGENT



SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY



METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

DATE	REVISION	DATE FILM
4-17-08	MINOR REVISION	
11-10-05	DRAWN	

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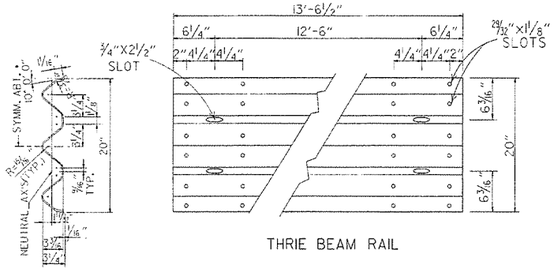
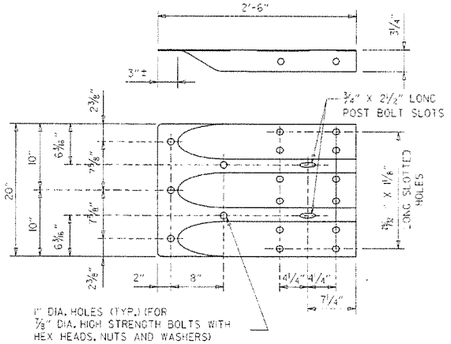
GUARD RAIL DETAILS

STANDARD DRAWING GR-9A



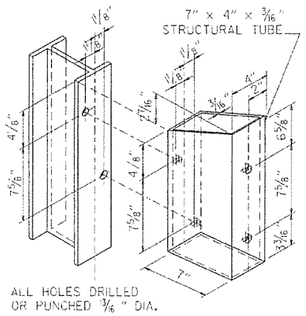
THRIE BEAM RAIL

SECTION THRU
THRIE BEAM RAIL



1" DIA. HOLES (TYP.) FOR
⅞" DIA. HIGH STRENGTH BOLTS WITH
HEX HEADS, NUTS AND WASHERS)

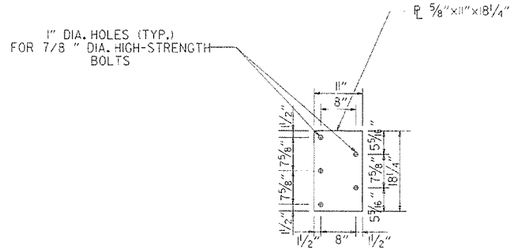
SPECIAL END SHOE



ALL HOLES DRILLED
OR PUNCHED ⅜" DIA.

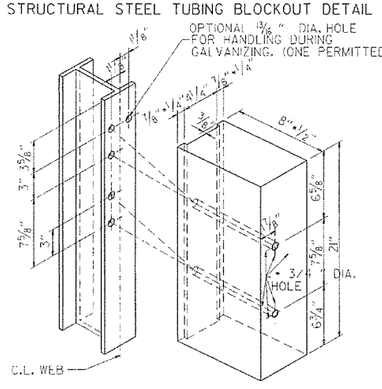
ATTACH BLOCKOUT TO POST USING
⅝" DIA. HEX HEAD BOLTS WITH 1½"
O.D. CUT STEEL WASHERS AND NUT.

STRUCTURAL STEEL TUBING BLOCKOUT DETAIL



CONNECTOR PLATE

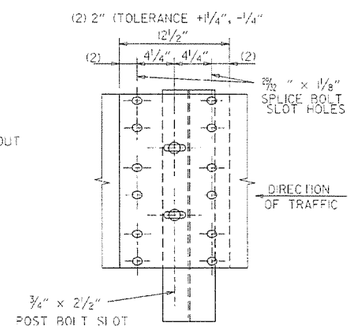
CONNECTOR PLATE SHALL BE AASHTO M270, GR. 36 AND SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO SUBSECTION 807.19 OF THE STANDARD SPECIFICATIONS. CONNECTOR PLATE TO BE BOLTED TO SPECIAL END SHOE USING ⅞" DIA. HIGH STRENGTH BOLTS, WITH THE HEADS PLACED ON THE TRAFFIC FACE. WASHERS SHALL BE USED UNDER THE HEAD AND NUT. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AND SHALL CONFORM TO SUBSECTION 807.06.



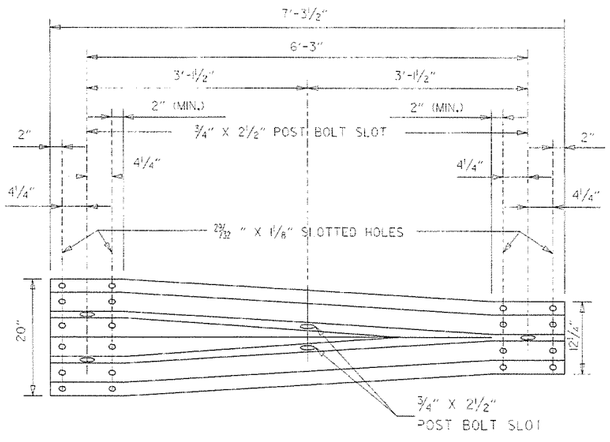
ALL HOLES 1⅛" DIAMETER EXCEPT AS NOTED

HOLE PUNCHING DETAIL
FOR STEEL POST & WOOD
OR PLASTIC BLOCKOUTS

NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.

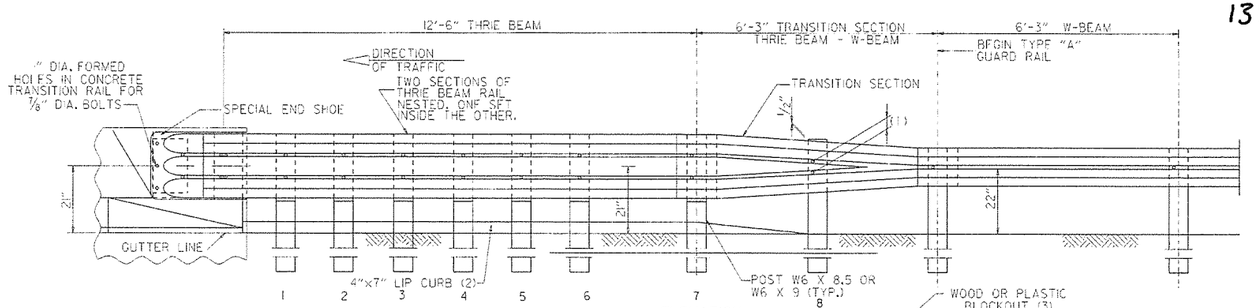


THRIE BEAM RAIL
SPLICE AT POST

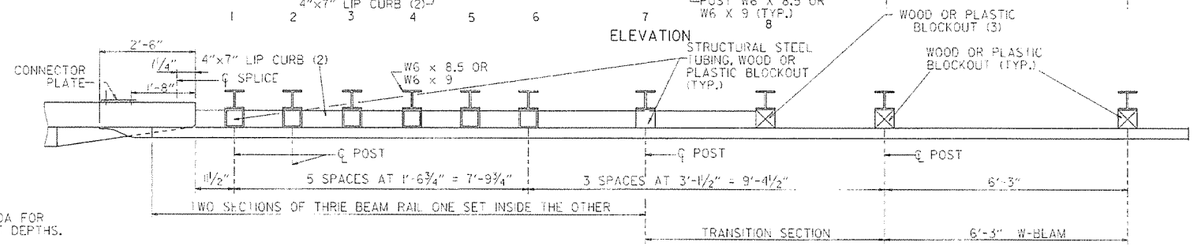


TRANSITION SECTION

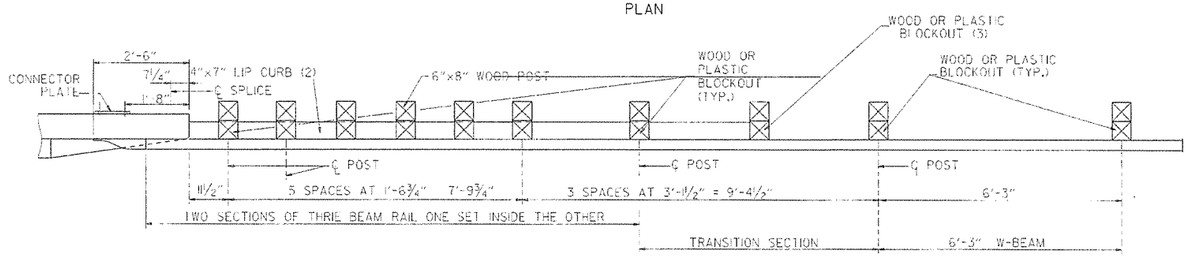
NOTE:
SEE STANDARD DRAWING GR-10A FOR
GUARD RAIL POST EMBEDMENT DEPTHS.



ELEVATION



PLAN



PLAN

(1) VERIFY BOLT SPACING FROM RAIL TRANSITION PRODUCER.
(2) REFER TO APPROACH GUTTER DETAILS.
(3) LENGTH OF BLOCKOUT ON POST 8 TO BE MODIFIED TO FIT RAIL WIDTH.

THRIE BEAM GUARD RAIL CONNECTION AT BRIDGE ENDS

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE I.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 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# (M.C. 19%) 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.

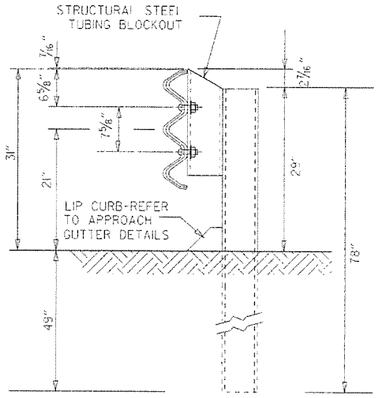
THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W BEAM POSTS FOR ENTIRE JOB.

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	

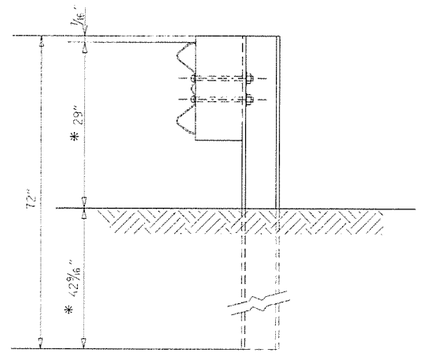
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-10

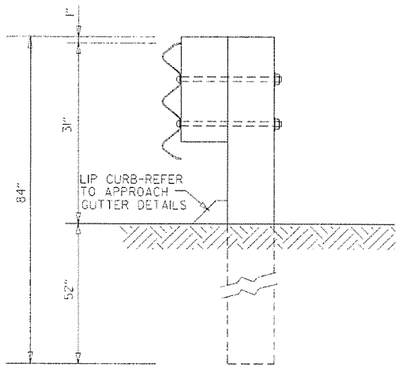


THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7

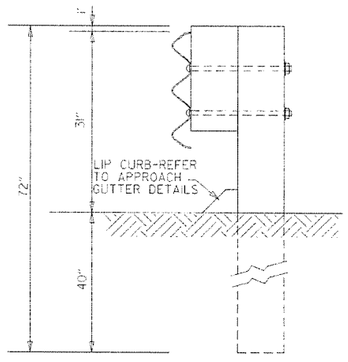


W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8

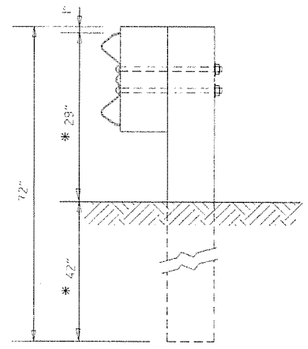
* NOTE:
THESE DIMENSIONS WILL NEED TO BE ADJUSTED IN THE FIELD TO MAKE THE TRANSITION FROM 21" MID POINT OF THRIE BEAM TO 22" MID POINT OF W-BEAM.



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.

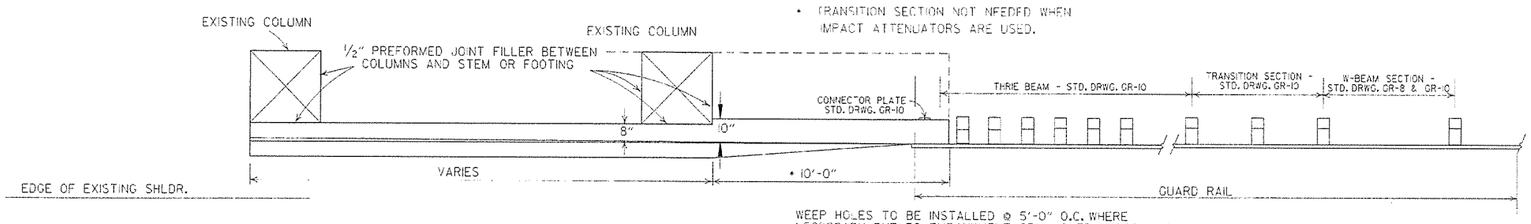
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7 f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

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

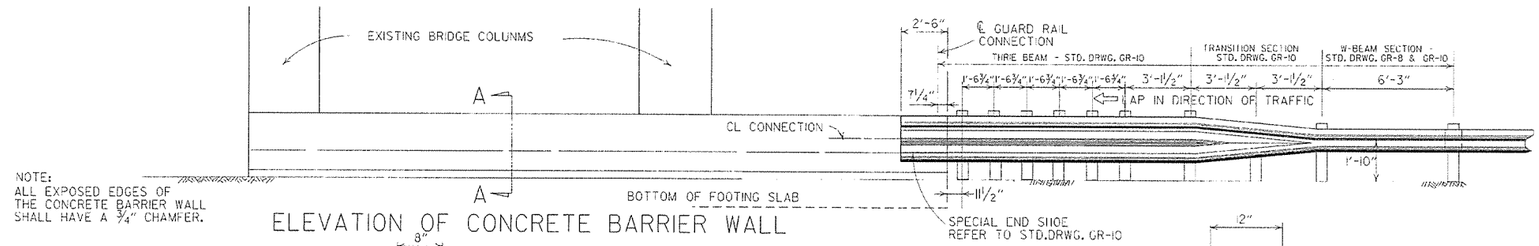
STANDARD DRAWING GR-10A



* TRANSITION SECTION NOT NEEDED WHEN IMPACT ATTENUATORS ARE USED.

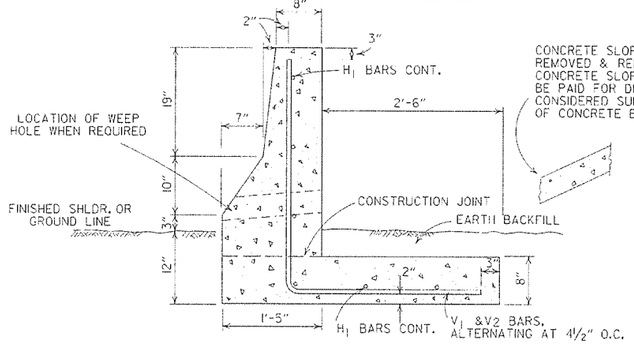
AT LEAST ONE 1/2" JOINT SHALL BE CONSTRUCTED IN THE CONCRETE BARRIER WALL. JOINTS SHALL BE EQUALLY SPACED AT A MAXIMUM OF 25'-0" O.C. FILL JOINT WITH PREFORMED JOINT FILLER.

PLAN OF CONCRETE BARRIER WALL



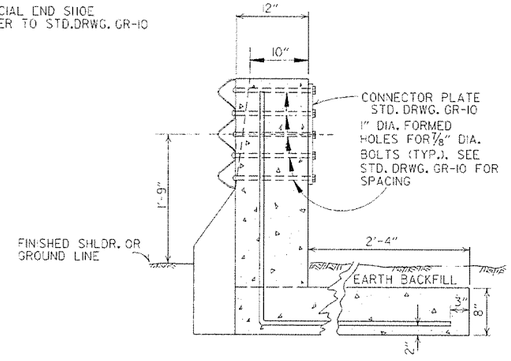
NOTE:
ALL EXPOSED EDGES OF THE CONCRETE BARRIER WALL SHALL HAVE A ¾" CHAMFER.

ELEVATION OF CONCRETE BARRIER WALL



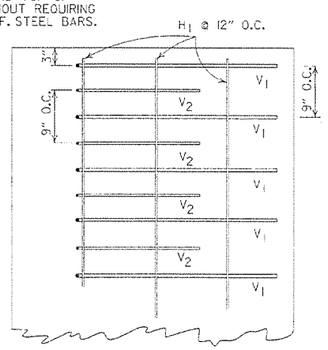
CONCRETE SLOPE PAVING TO BE REMOVED & REPLACED WHERE REQ'D. CONCRETE SLOPE PAVING WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM OF CONCRETE BARRIER WALL.

SECTION A-A



SECTION THRU CONNECTION

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.

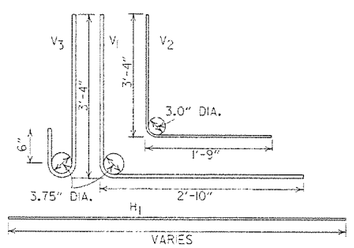


PLAN OF REINFORCING STEEL IN FOOTING

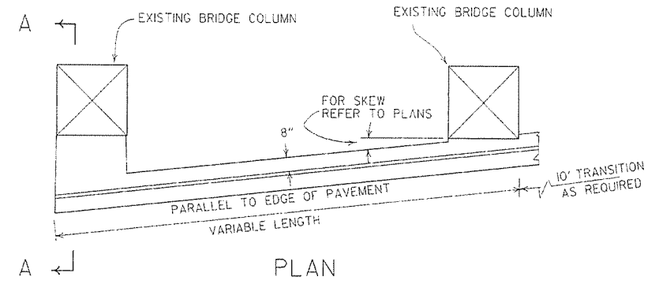
BAR LIST

MARK	NO.	SIZE	LENGTH
V1		#5	6'-2½"
V2		#4	5'-1"
V3		#5	2'-11⅞"
H1	6	4	VAR.

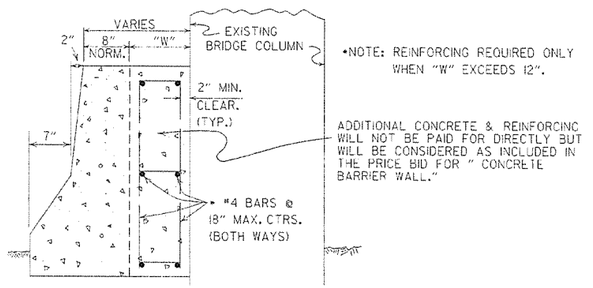
THE V3 BARS SHALL BE USED IN PLACE OF THE V1 & V2 BARS IN FRONT OF PIERS.



BEND DIAGRAMS



PLAN



•NOTE: REINFORCING REQUIRED ONLY WHEN "W" EXCEEDS 12".

SECTION A-A

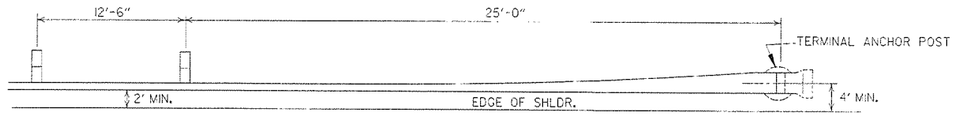
DETAILS OF CONCRETE BARRIER WALL WHEN PIERS ARE SKEWED TO ROADWAY

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	

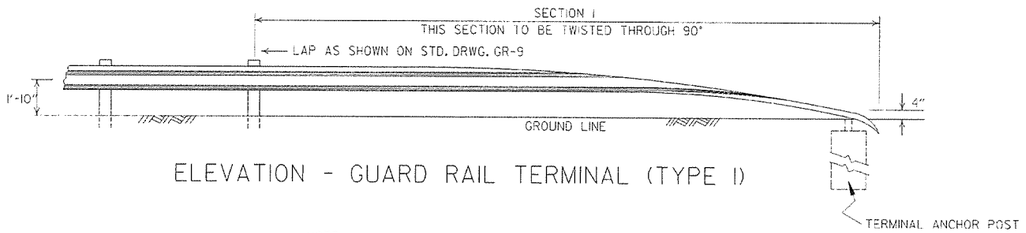
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE BARRIER WALL
(PIER PROTECTION TYPE A)

STANDARD DRAWING GR-11

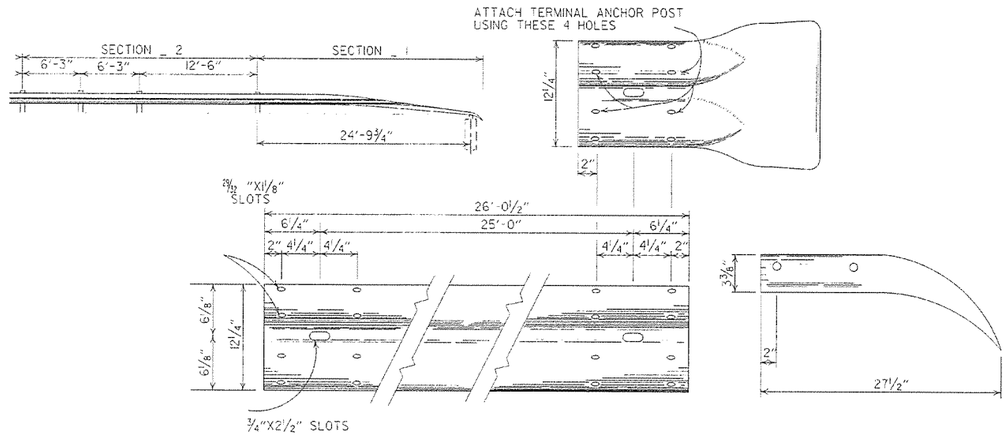


PLAN - GUARD RAIL TERMINAL (TYPE I)



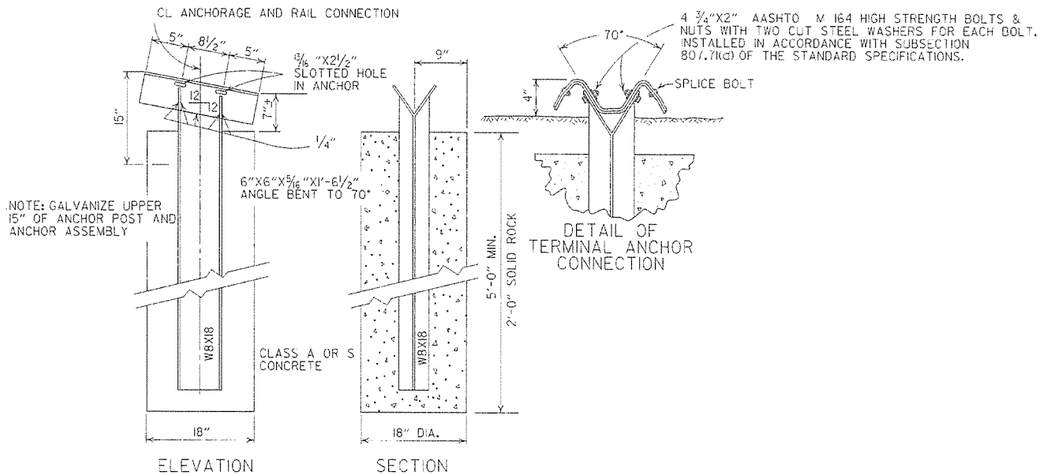
ELEVATION - GUARD RAIL TERMINAL (TYPE I)

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.

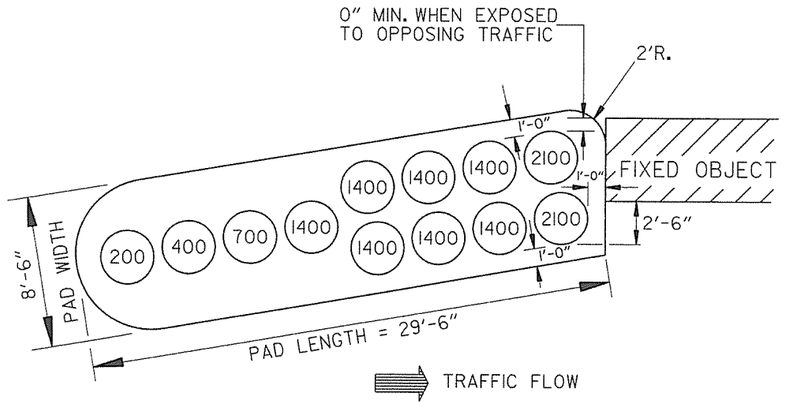
DETAIL OF TERMINAL ANCHOR POST (TYPE I)

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

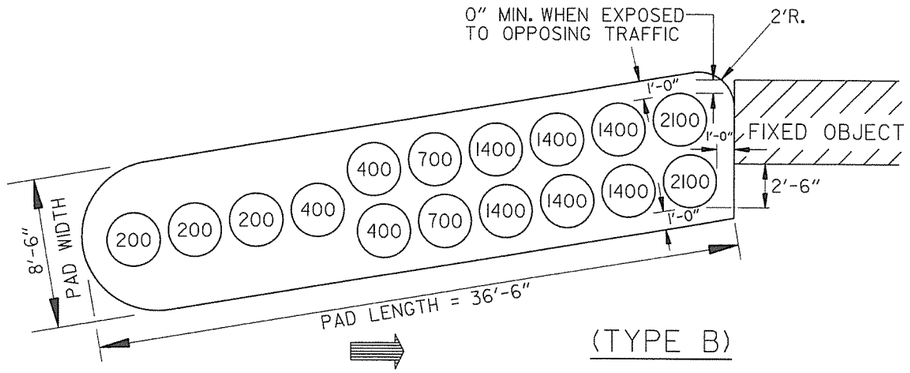
GUARD RAIL DETAILS

STANDARD DRAWING GRT-1



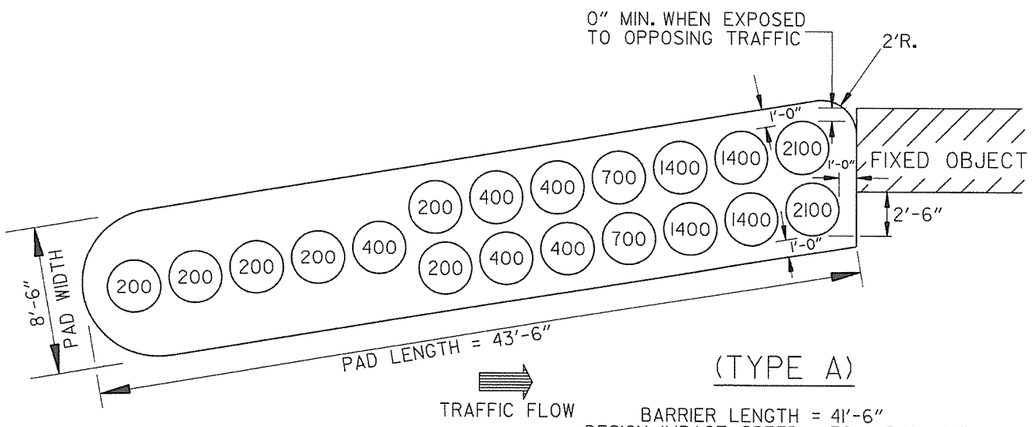
(TYPE C)

BARRIER LENGTH = 27'-6"
DESIGN IMPACT SPEED = 50 M.P.H.= 73.3 fps



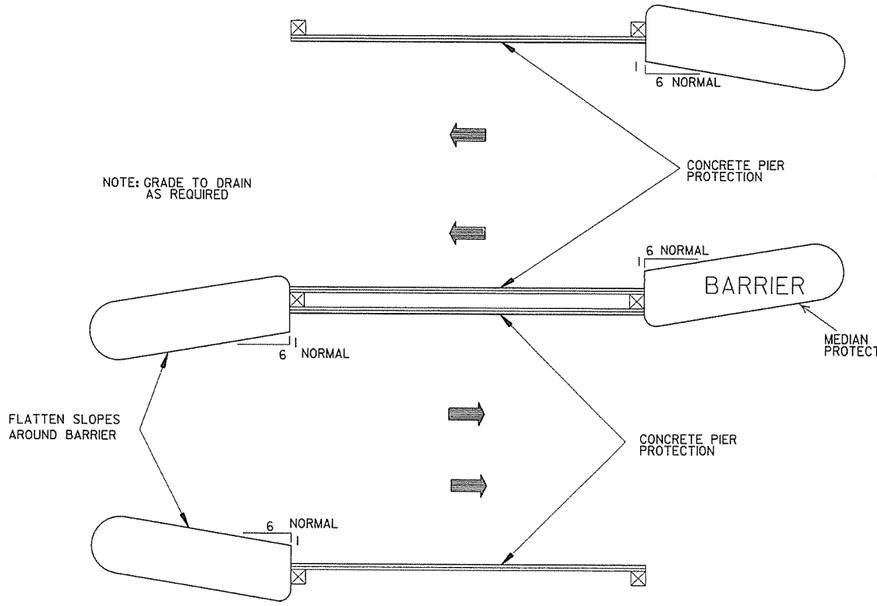
(TYPE B)

BARRIER LENGTH = 34'-6"
DESIGN IMPACT SPEED = 60 M.P.H.= 88 fps

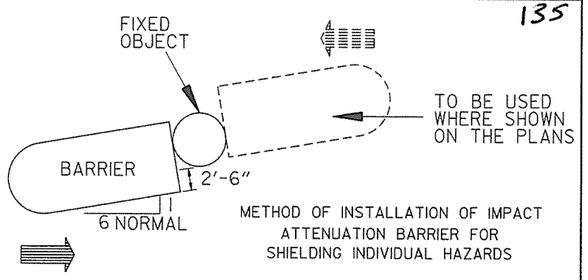


(TYPE A)

BARRIER LENGTH = 41'-6"
DESIGN IMPACT SPEED = 70 M.P.H.= 103 fps



METHOD OF INSTALLATION OF
IMPACT ATTENUATION BARRIER
FOR PIER PROTECTION



METHOD OF INSTALLATION OF IMPACT
ATTENUATION BARRIER FOR
SHIELDING INDIVIDUAL HAZARDS

GENERAL NOTES

1. DIMENSIONS SHOWN ARE TO TOP OF PLASTIC MODULES.
2. SPACING BETWEEN PLASTIC MODULES SHALL NOT EXCEED 6" AT THE TOP.
3. PLASTIC MODULES SHALL MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

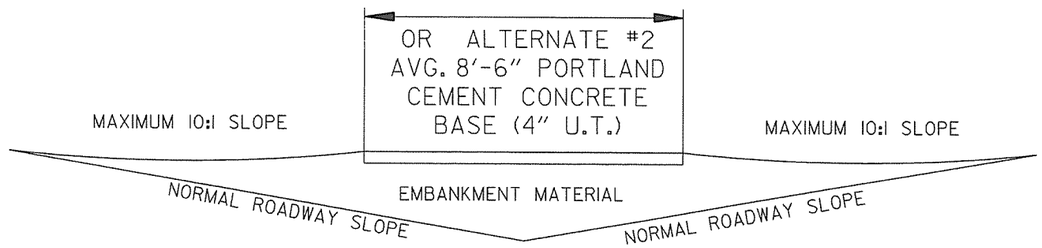
APPROXIMATE QUANTITIES PER PAD

TYPE	ALTERNATE #1		ALTERNATE #2
	AGGR. BASE COURSE	A.C.H.M. SURFACE COURSE	P.C.CONC. BASE (4"U.T.)
	TONS	TONS	SQ.YDS.
A	9.7	4.6	41.6
B	8.1	3.8	34.9
C	6.6	3.1	28.3

NOTE: APPROXIMATE QUANTITIES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. PAYMENT TO BE INCLUDED IN UNIT PRICE BID FOR IMPACT ATTENUATION BARRIER.

ALTERNATE #1
AVG. 8'-6" A.C.H.M. SURF. COURSE(1/2")
220 LBS. PER SQ. YD. &
AGGREGATE BASE COURSE
(4" COMPACTED DEPTH)

OR ALTERNATE #2
AVG. 8'-6" PORTLAND
CEMENT CONCRETE
BASE (4" U.T.)



DETAIL OF BARRIER PAD

NOTE: BARRIER PAD TO BE SKEWED TOWARD ONCOMING TRAFFIC
A MAXIMUM OF 6:1 WITH 6:1 BEING NORMAL

DATE	REVISION	DATE FILMED
10-15-09	ADDED REFERENCE TO MASH	
11-29-07	REVISED TY. A & TY. C ARRAYS	
11-19-98	REVISED FIXED OBJECT	
11-18-98	REV. NOTES & TYPE A MOD. WTS.	
10-18-96	REDRAWN	
7-15-88	CONFORMED TO 1988 SPECS	
7-29-87	REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

IMPACT ATTENUATION BARRIER

STANDARD DRAWING IB-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	31⅞	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.

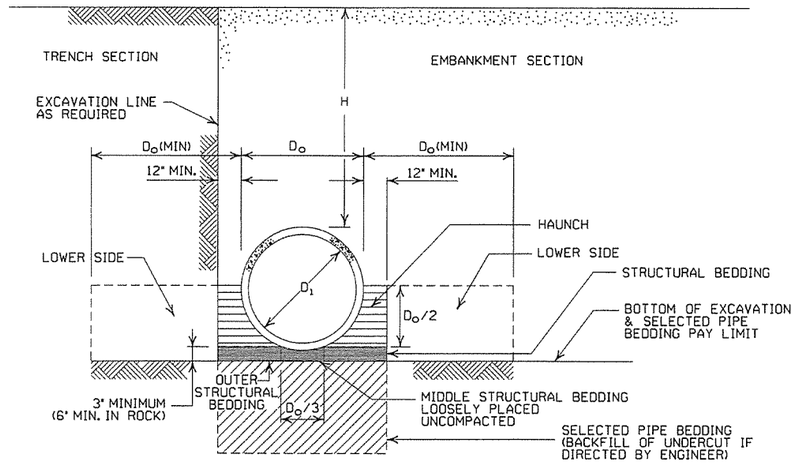
- LEGEND -

D_1 = 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 (CURRENT 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
2-27-14	REVISED GENERAL NOTE 1.	
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	

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

CORRUGATED STEEL PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS (INCHES)				
		0.064	0.079	0.109	0.138	0.168
		2⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM				
12	1	84	91			
15	1	67	73			
18	1	56	61			
24	1	42	46	59		
30	2	34	36	47		
36	2		30	39	41	
42	2		43	67	70	73
48	2		37	58	61	64
		② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, BOLTED, OR HELICAL LOCK-SEAM				
36	1	48	60	88	111	118
42	1	41	51	72	90	102
48	1	36	45	64	77	85
54	2	32	40	59	71	79
60	2	29	36	53	64	71
66	2	26	33	47	58	64
72	2	24	30	44	53	59
78	2		28	41	49	54
84	2		26	38	45	51
90	2		24	35	43	45
96	2		22	33	40	44
102	2			31	38	42
108	2			30	35	39
114	2			28	34	37
120	2			27	32	35

CORRUGATED ALUMINUM PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS IN INCHES				
		0.060	0.075	0.105	0.135	0.164
		2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM				
12	1	45	45			
18	2	30	30	52		
24	2	22	22	39	41	
30	2		18	31	32	34
36	2.5		15	26	27	28
42	2			43	43	44
48	2			40	41	43
54	2			35	37	38
60	2				33	34
66	2					31
72	2					29

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. COMPLETE STRUCTURAL BACKFILL OPERATION BY WORKING FROM SIDE TO SIDE OF THE PIPE. THE SIDE TO SIDE STRUCTURAL BACKFILL DIFFERENTIAL SHALL NOT EXCEED 24 INCHES OR 1/3 THE SIZE OF THE PIPE, WHICHEVER IS LESS.

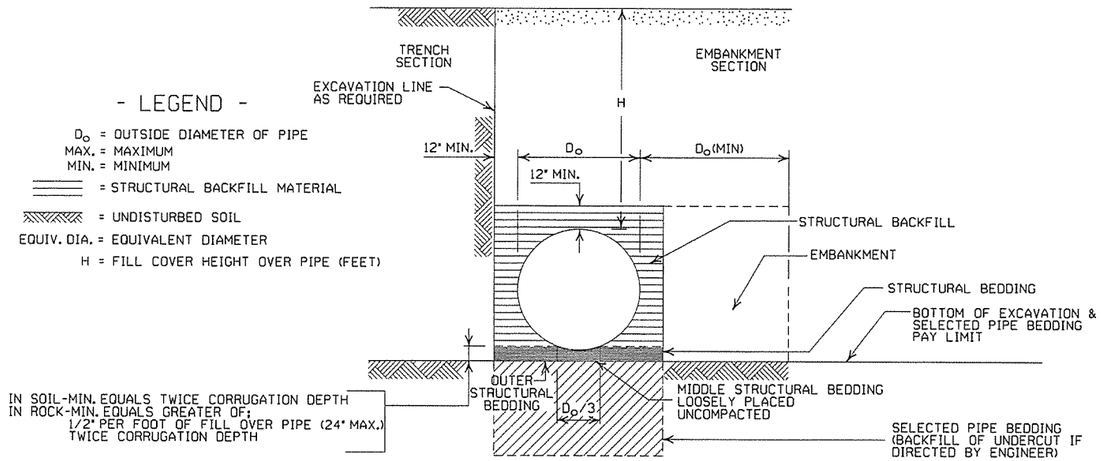
NOTE: STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF METAL PIPE.

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL ③

③ SM-3 WILL NOT BE ALLOWED.

EQUIVALENT METAL THICKNESSES AND GAUGES

METAL THICKNESS IN INCHES			GAUGE NUMBER
STEEL			
ZINC COATED	UNCOATED	ALUMINUM	
0.064	0.0598	0.060	16
0.079	0.0747	0.075	14
0.109	0.1046	0.105	12
0.138	0.1345	0.135	10
0.168	0.1644	0.164	8



EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE (ROUND).
3. INSTALALTION TYPE 1 SHALL BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 2⅔" X ½" CORRUGATION.
4. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 3" X 1" OR 5" X 1" CORRUGATION.

GENERAL NOTES

1. METAL PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. METAL PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. METAL PIPE CULVERT MATERIALS AND INSTALLATIONS SHALL CONFORM TO SECTION 606 AND JOB SPECIAL PROVISION "METAL PIPE".
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. 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."
9. 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 AS STRUCTURAL BACKFILL), 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."

CORRUGATED METAL PIPE ARCHES

EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINUMUM CORNER RADIUS (INCHES)	STEEL					ALUMINUM				
			MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)		MAX. HEIGHT OF FILL, "H" (FT.)		MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.)		MAX. HEIGHT OF FILL, "H" (FT.)	
				INSTALLATION		INSTALLATION			INSTALLATION		INSTALLATION	
				TYPE 1		TYPE 1			TYPE 1		TYPE 1	
			2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM					2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM				
15	17x13	3	0.064	2		15		0.060	2		15	
18	21x15	3	0.064	2		15		0.060	2		15	
21	24x18	3	0.064	2.25		15		0.060	2.25		15	
24	28x20	3	0.064	2.5		15		0.075	2.5		15	
30	35x24	3	0.079	3		12		0.075	3		12	
36	42x29	3½	0.079	3		12		0.105	3		12	
42	49x33	4	0.079	3		12		0.105	3		12	
48	57x38	5	0.109	3		13		0.135	3		13	
54	64x43	6	0.109	3		14		0.135	3		14	
60	71x47	7	0.138	3		15		0.164	3		15	
66	77x52	8	0.168	3		15						
72	83x57	9	0.168	3		15						
			② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM									
				INSTALLATION		INSTALLATION						
				TYPE 2	TYPE 1	TYPE 2	TYPE 1					
36	40x31	5	0.079	3	2	12	15					
42	46x36	6	0.079	3	2	13	15					
48	53x41	7	0.079	3	2	13	15					
54	60x46	8	0.079	3	2	13	15					
60	66x51	9	0.079	3	2	13	15					
66	73x55	12	0.079	3	2	15	15					
72	81x59	14	0.079	3	2	15	15					
78	87x63	14	0.079	3	2	15	15					
84	95x67	16	0.109	3	2	15	15					
90	103x71	16	0.109	3	2	15	15					
96	112x75	18	0.109	3	2	15	15					
102	117x79	18	0.109	3	2	15	15					
108	128x83	18	0.138	3	2	15	15					

① FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

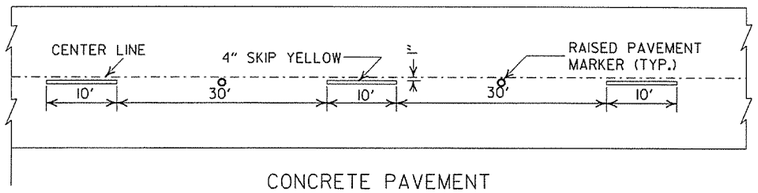
② WHERE THE STANDARD 2 2/3"x ½" CORRUGATION AND GAUGE IS SPECIFIED FOR A GIVEN DIAMETER, A PIPE OF THE SAME DIAMETER WITH A 3" x 1" OR 5" x 1" CORRUGATION MAY BE SUBSTITUTED, PROVIDING IT IS GAUGED FOR A FILL HEIGHT CONDITION EQUAL TO OR GREATER THAN THE MAXIMUM FILL HEIGHT CONDITION FOR THE SPECIFIED GAUGE AND CORRUGATION.

DATE	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.	
12-15-11	REVISED FOR LRFD DESIGN SPECS	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

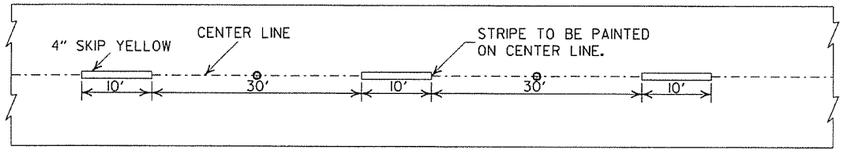
ARKANSAS STATE HIGHWAY COMMISSION

METAL PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCM-1

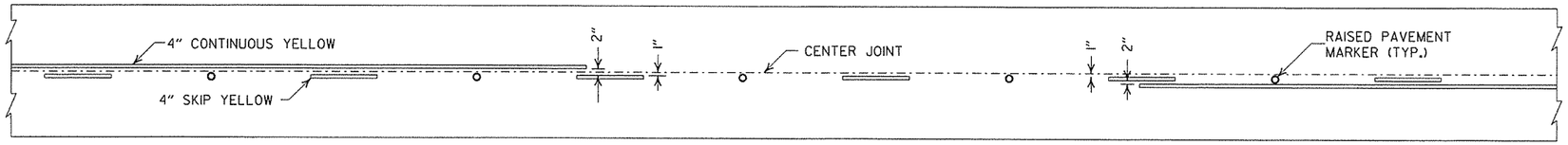


CONCRETE PAVEMENT

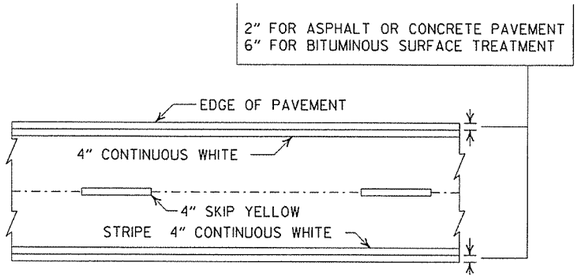


ASPHALT PAVEMENT

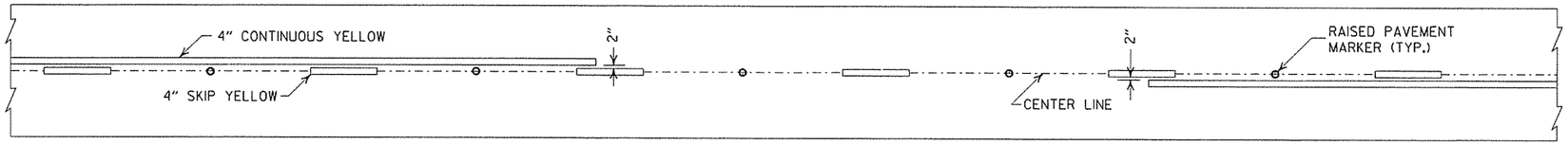
BROKEN LINE STRIPING



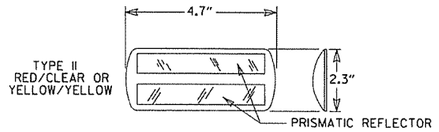
SOLID LINE STRIPING ON CONCRETE PAVEMENT



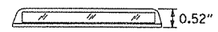
PAVEMENT EDGE LINE MARKING



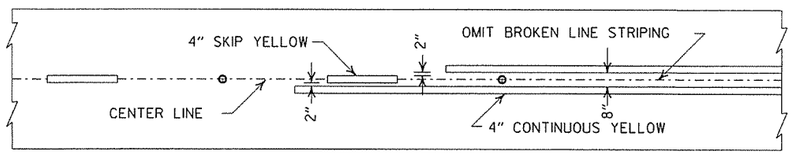
SOLID LINE STRIPING ON ASPHALT PAVEMENT



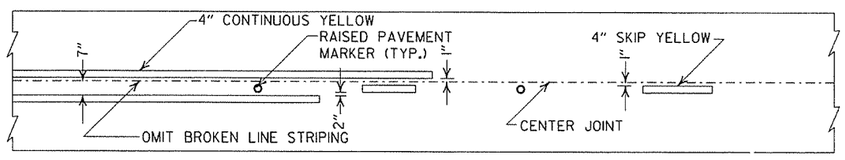
NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

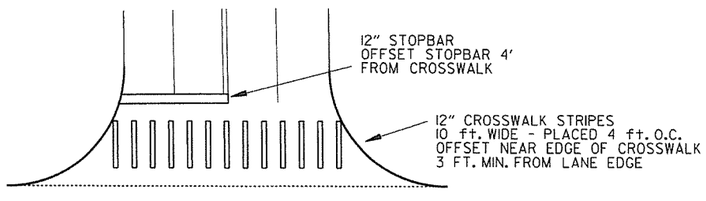


ASPHALT PAVEMENT



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.

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
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
11-17-10	REVISED GENERAL NOTES & REMOVED PLOWABLE PVMT MRKRS	
11-18-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	ADDED CROSSWALK & STOPBAR DTLS.	
7-02-98	ADDED DETAILS OF STD. RAISED PAV'T. MARKERS	
4-26-96	REV. NOTES 3&4; ADDED R.P.M.	
9-30-80	DRAWN	1-9-30-80

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

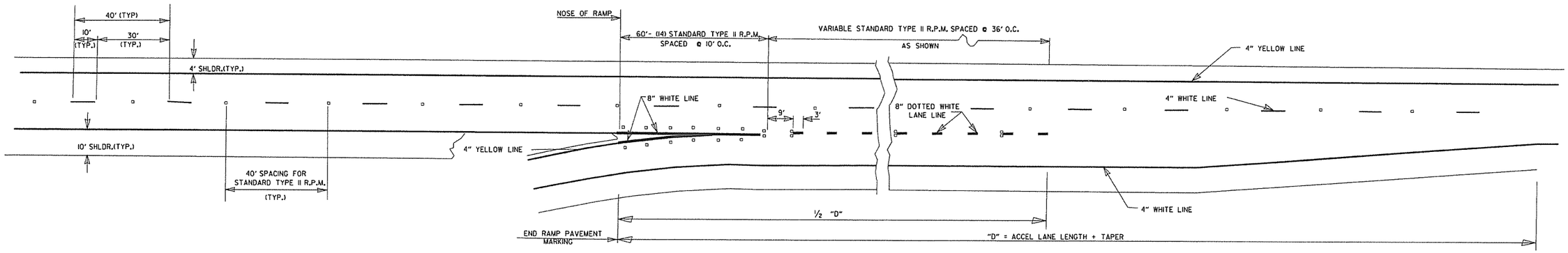
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP

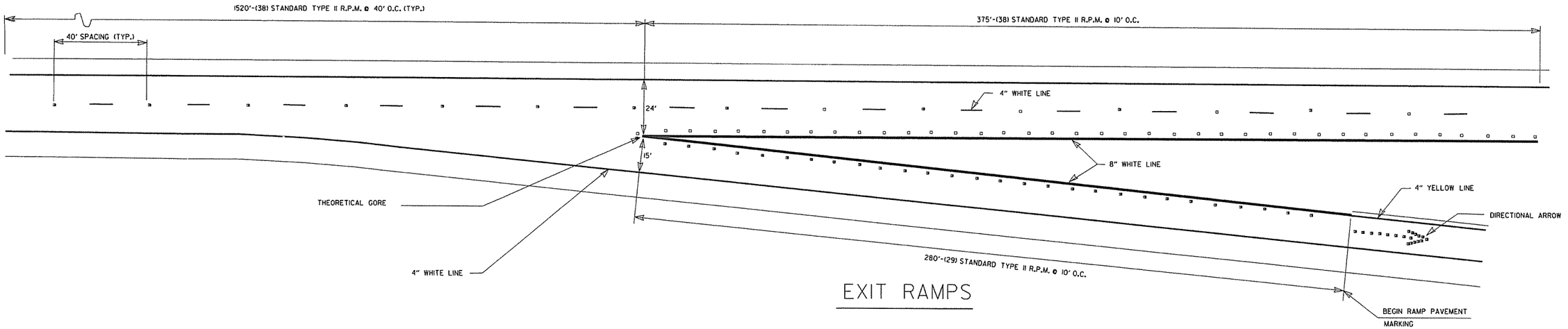
8" WHITE = 228 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP

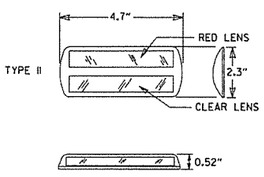
4" WHITE = 280 LIN. FT.
8" WHITE = 655 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH



ENTRANCE RAMPS

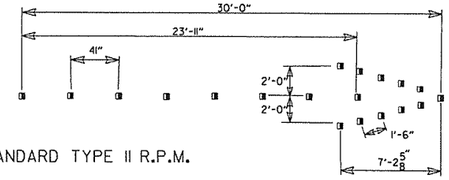


EXIT RAMPS



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
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
7-26-12	REVISED RPM NOTATION	
12-15-11	REVISED RPMs ACCORDING TO LATEST POLICY	
11-17-10	REMOVED PLOWABLE PAVEMENT MARKERS	
6-3-10	REVISED PER 2009 MUTCD	
11-18-04	REVISED NOTES	
8-22-02	ADDED & REVISED NOTES; REV. ENTRANCE & EXIT RAMPS	
5-18-00	REMOVED HASHMARKS	
7-02-98	CHANGED TYPES TO ROMAN NUMERALS	
4-26-96	ADDED DIMENSIONS & QUANTITIES; REVISED LANE WIDTH ON EXIT RAMP	
2-2-95	PLACED IN USE	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

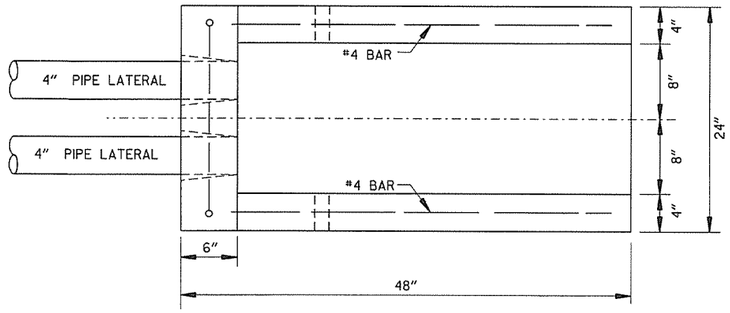
PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS

STANDARD DRAWING PM-2

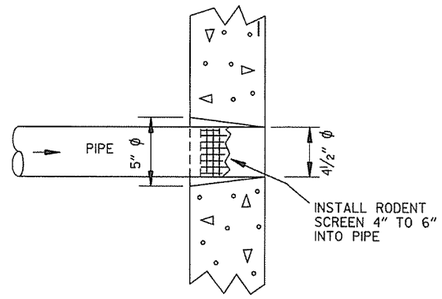
NOTE:
1. GRANULAR BACKFILL TO BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

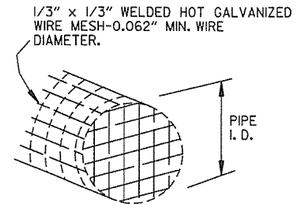
3. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



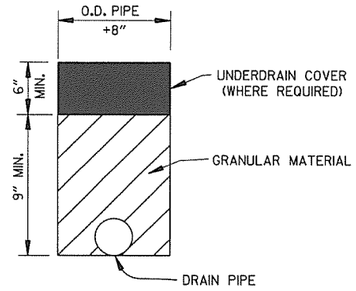
PLAN VIEW

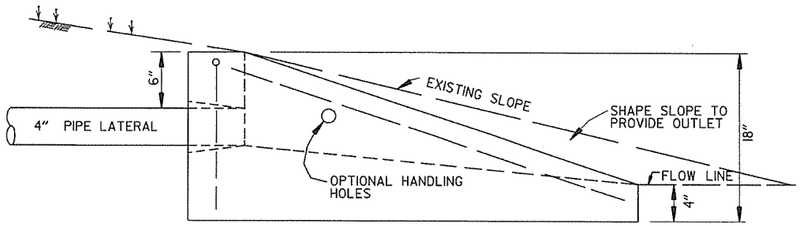


DETAIL OF HOLE FOR 4" PIPE

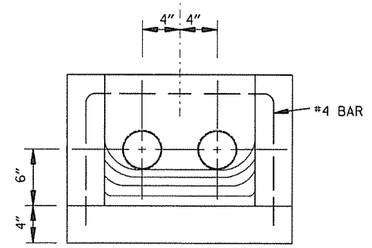


DETAIL OF RODENT SCREEN

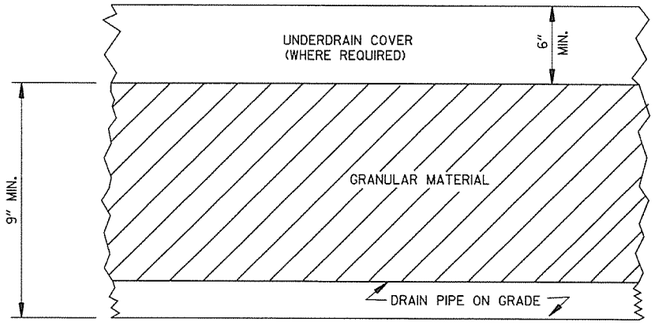




SIDE VIEW

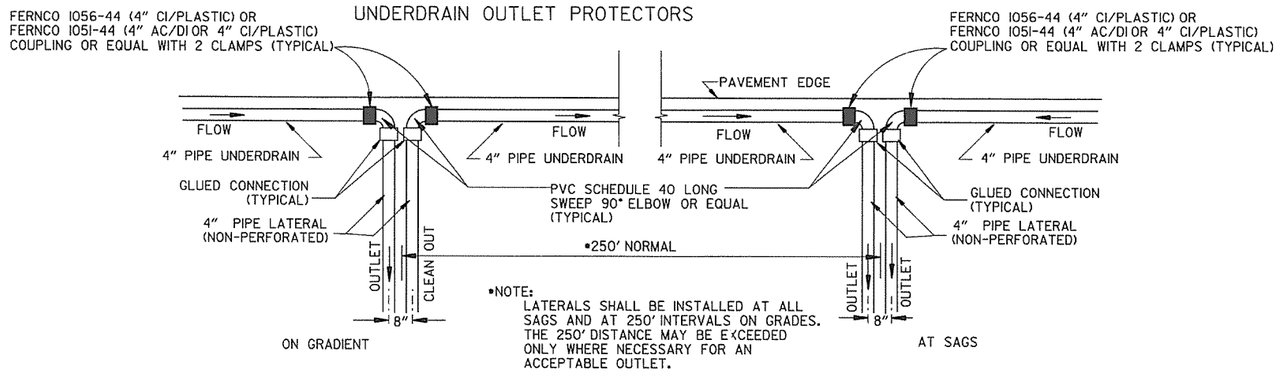


FRONT VIEW



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.			N. C.			N. C.			N. C.		
0° 45′	N. C.			N. C.			R. C.			0.022			0.023			0.025			0.028		
1° 00′	N. C.			N. C.			0.021			0.026			0.030			0.033			0.037		
1° 15′	N. C.			R. C.			0.026			0.032			0.037			0.041			0.046		
1° 30′	N. C.			0.021			0.031	200		0.037	225		0.043	250		0.048	250		0.054	275	
1° 45′	N. C.			0.025	175		0.036			0.043			0.049			0.055			0.062		
2° 00′	R. C.			0.028			0.040		300	0.048		350	0.055		350	0.062		350	0.070		350
2° 15′	R. C.			0.031			0.045			0.053			0.061			0.069	265		0.078	300	
2° 30′	0.021			0.034			0.049			0.058			0.067	230		0.075	280		0.085	315	400
2° 45′	0.023			0.037			0.053			0.063			0.072	260		0.081	300		0.091	335	
3° 00′	0.025			0.040			0.057			0.067	230		0.077	260		0.087	315		0.096	350	
3° 15′	0.027			0.043			0.061			0.072	245		0.082	275		0.090	325		0.098	360	450
3° 30′	0.029			0.046			0.065	205		0.076	255		0.086	285		0.094	340		0.100	360	
3° 45′	0.031			0.049			0.069	215		0.080	270		0.090	295		0.097	345				
4° 00′	0.033			0.051			0.072	225		0.083	270		0.093	305		0.099	350				
4° 30′	0.037			0.056			0.078	240		0.087	280		0.096	315							
5° 00′	0.040			0.061			0.083	250		0.091	295		0.098	320							
5° 30′	0.043			0.066	185		0.088	260		0.094	300	400									
6° 00′	0.046			0.070	190		0.092	270		0.096	305										
6° 30′	0.050			0.074	200		0.095	280	350	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′

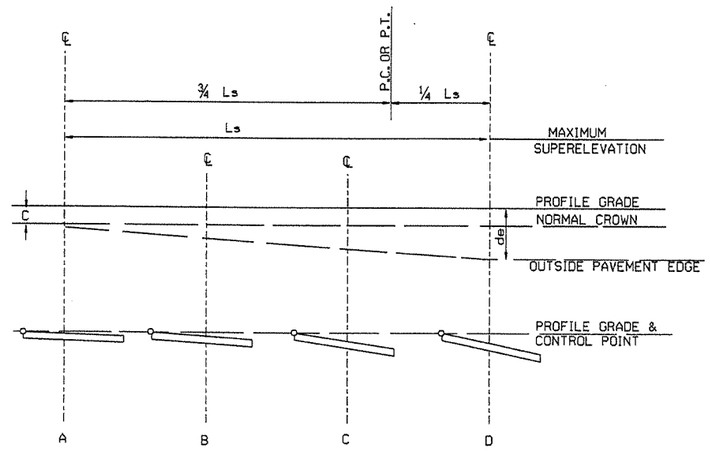
GENERAL NOTES

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 L_s MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. MINIMUM L_s 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%

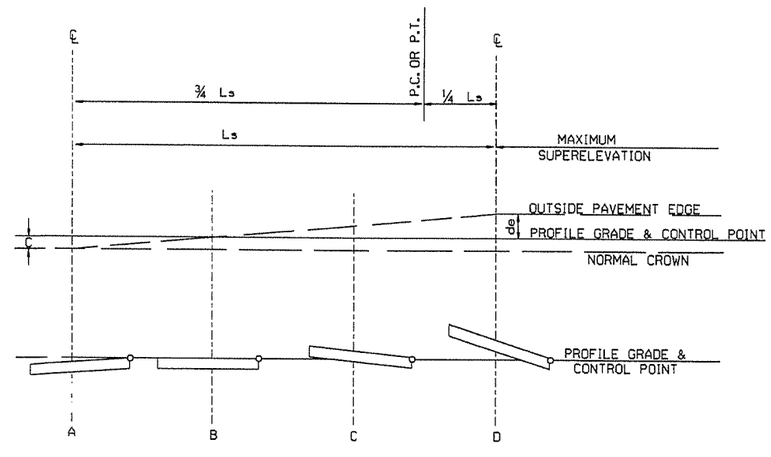
ABBREVIATIONS

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.)
L_s - LENGTH OF SUPERELEVATION TRANSITION (FT.)
C - NORMAL CROWN (FT.)



ONE-WAY TRAFFIC
INSIDE LANE

SUPERELEVATION FORMULA = $S = -\frac{L(de-C)}{Ls} - C$



ONE-WAY TRAFFIC
OUTSIDE LANE

SUPERELEVATION FORMULA = $S = +\frac{L(de+C)}{Ls} - C$

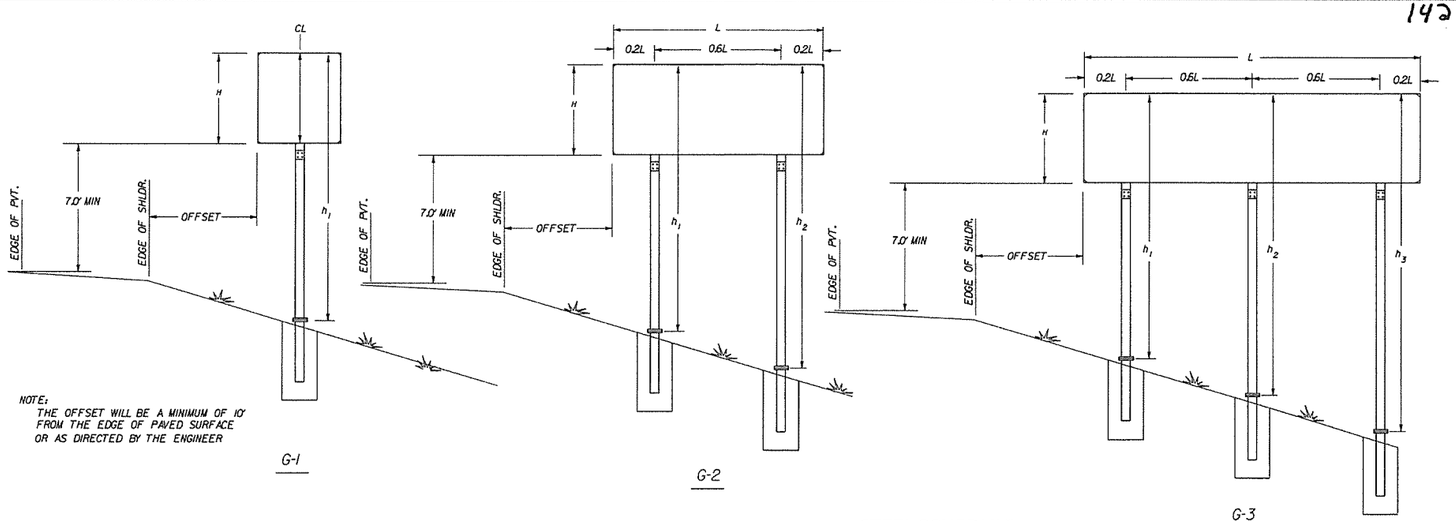
DATE	REVISION	DATE FILMED
01-09-87	ISSUED	578-1-15-87

ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC

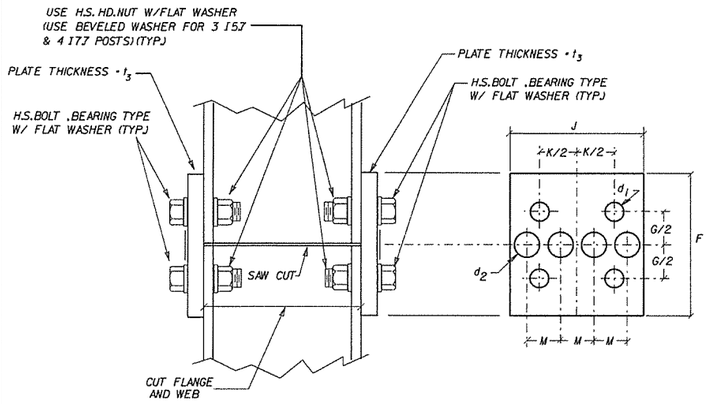
STANDARD DRAWING SE-1

POST SIZE	BASE CONNECTION DATA											FUSE PLATE DATA									WT. OF EACH FUSE PLATE LBS.
	BOLT SIZE	BOLT TORQUE (INCH/LBS)	A	B	C	D	E	t_1	t_2	W	R	F	G		J	K	M	d_1	d_2	t_3	BOLT SIZE	
W 6X9																						
W 6X12	5/8" x 2 3/4"	450"-680"	5"	2"	1 1/4"	2 3/4"	1 1/8"	3/4"	1/2"	1/4"	11/32"	4 1/4"	2"		4"	2 1/4"	1"	9/16"	3/4"	1/4"	1/2" x 1 1/2"	1.01
W 6X15												5"	2 1/2"		6"	3 1/2"	1 1/2"	11/16"	1 1/4"	3/8"	5/8" x 2 1/4"	2.51
W 8X18												5"	2 1/2"		5 1/4"	2 3/4"	1 1/4"	13/16"	1 1/16"	3/8"	3/4" x 2 1/4"	2.26
W 8X21												5 1/2"	2 1/2"		5 1/4"	2 3/4"	1 1/4"	13/16"	1"	1/2"	3/4" x 2 1/4"	3.35
W 10X22	3/4" x 3 1/2"	750"-1050"	6"	2 1/4"	1 3/8"	3 1/2"	1 1/4"	1"	3/4"	5/16"	13/32"	6"	3"		5 3/4"	2 3/4"	1 3/16"	13/16"	1 1/16"	1/2"	3/4" x 2 1/4"	4.03
W 10X26																						
W 12X26												6"	3"		6 1/2"	3 1/2"	1 3/16"	13/16"	1 5/16"	1/2"	3/4" x 2 1/4"	4.47



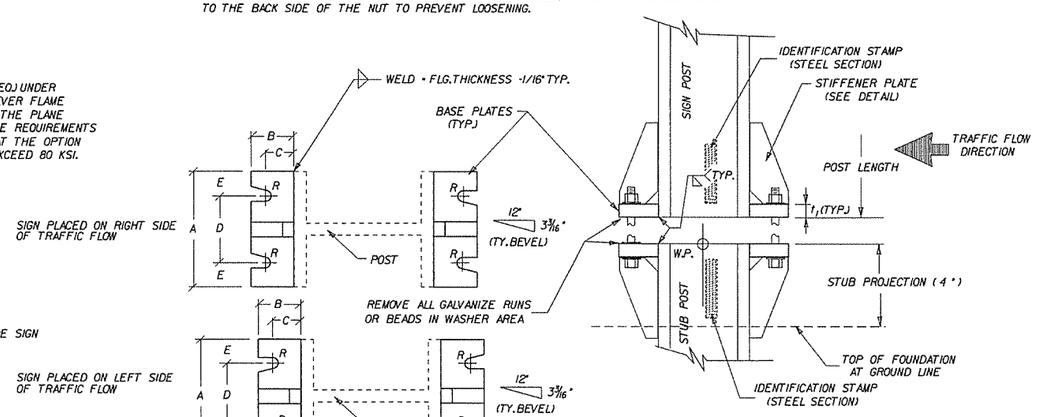
NOTE:
THE OFFSET WILL BE A MINIMUM OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER

G-1 G-2 G-3

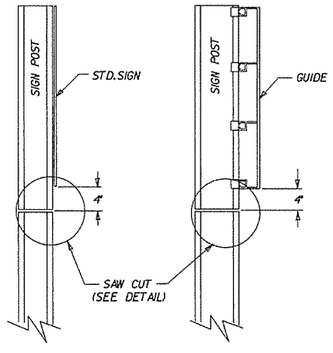


NOTE: USE H.S. HEX HEAD BOLTS, HEX HEAD NUTS AND BEVEL OR FLAT WASHERS (WHERE REQ.) UNDER NUTS. ALL HOLES SHALL BE DRILLED. ALL PLATE CUTS SHALL PREFERABLY BE SAW CUTS, HOWEVER FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND. METAL PROJECTING BEYOND THE PLANE OF THE PLATE FACE WILL NOT BE PERMITTED. STEEL FUSE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM-A36, ASTM-A441, ASTM-572 GRADE 50, OR ASTM-A588 MAY BE SUBSTITUTED FOR A36 AT THE OPTION OF THE FABRICATOR. STEEL USED SHALL HAVE AN ULTIMATE TENSILE STRENGTH NOT TO EXCEED 80 KSI.

NOTE: SECTIONS SHOWN ARE FOR INSTALLATION ON THE RIGHT SHOULDER AND IN THE GORE. BOLT HOLES IN BASE PLATE ARE SLOTTED AND BEVELED AS SHOWN. USE H.S. BOLTS WITH HEX HD., HEX NUT AND THREE FLAT WASHERS FOR EACH BOLT. SEE TABLE FOR BOLT DIA. AND TORQUE.
NOTE: ASSEMBLE SIGN POST TO STUB POST USING THE BOLTS SPEC. IN THE TABLE AND AS SHOWN IN THE ELEVATION DETAILS. THERE SHALL BE THREE FLAT WASHERS ON EACH BOLT LOCATED AS SHOWN IN THE ELEVATIONS. USE A SHIM TO PLUMB THE SIGN POST, THEN TIGHTEN THE BOLTS USING A 12" TO 15" WRENCH UNTIL THE WASHERS AND SHIMS ARE SEATED AND THE BOLT THREADS ARE CLEAR, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE (SEE TABLE). THE BURR THREADS ADJACENT TO THE BACK SIDE OF THE NUT TO PREVENT LOOSENING.



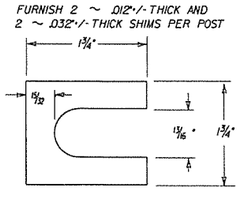
NOTE: BOLT HOLES, USED IN THE MOUNTING OF STANDARD SIGNS SHALL BE LOCATED IN THE FLANGE ADJACENT TO THE NEAR EDGE OF PAVEMENT FOR SINGLE POST ASSEMBLIES AND IN THE OUTSIDE FLANGES FOR MULTIPLE POST ASSEMBLIES.



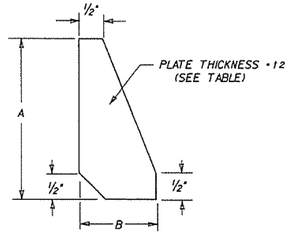
NOTE: POST SHALL BE SAW CUT AFTER GALVANIZING AND THE CUT SURFACE TREATED. AFTER PLATE IS INSTALLED AND ALL BOLTS FULLY TIGHTENED, WITH AN APPROVED ZINC SOLDER MEETING THE FEDERAL SPEC. O-G-93 (STICK ONLY).

STANDARD SIGNS GUIDE SIGNS

FUSE PLATE DETAILS



SHIM DETAIL

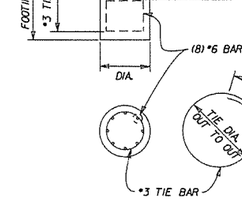


STIFFENER PLATE DETAIL

STEEL SCHEDULE

FOOTING DIAMETER	#3 TIE BARS		
	DIAMETER	BAR LENGTH	POUNDS
INCHES	INCHES	FEET	
18	12	4.39	1.65
24	18	5.96	2.24
30	24	7.53	2.83
36	30	9.1	3.42

FOOTINIG DEPTH	#6 STRAIGHT BARS		
	BAR LENGTH	NUMBER REQ'D.	POUNDS
FEET	FEET		
2.50	2.00	8	24.03
3.00	2.50	8	30.04
3.50	3.00	8	36.05
4.00	3.50	8	42.06
4.50	4.00	8	48.06
5.00	4.50	8	54.07
5.50	5.00	8	60.08
6.00	5.50	8	66.09
6.50	6.00	8	72.10
7.00	6.50	8	78.10
7.50	7.00	8	84.11
8.00	7.50	8	90.12



FOOTING QUANTITIES

FOOTINIG DEPTH	NUMBER TIE BARS REQ'D	18" DIAMETER		24" DIAMETER		30" DIAMETER		36" DIAMETER	
		CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL	CLASS S CONCRETE	REINF STEEL
FEET		CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)	CU. YD.	(GRADE 60)
2.50	4	0.16	31						
3.00	4	0.20	37						
3.50	5	0.23	44						
4.00	6	0.26	52	0.47	56				
4.50	6	0.29	58	0.52	62				
5.00	7	0.33	66	0.58	70	0.91	74		
5.50	8			0.64	78	1.00	83		
6.00	8			0.70	84	1.09	89	1.57	93
6.50	9					1.18	98	1.70	103
7.00	10					1.27	106	1.83	112
7.50	10							1.96	118
8.00	11							2.09	128

GENERAL NOTES

TIGHTEN THE HIGH STRENGTH BOLTS IN THE BASE CONNECTION ONLY TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.

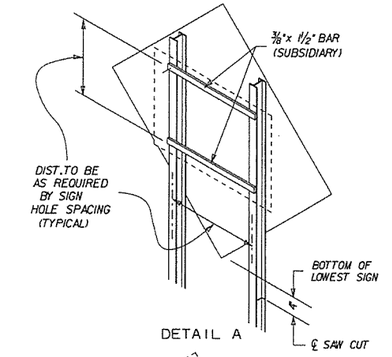
BASE PLATES AND STIFFENER PLATES SHALL BE OF THE SAME MATERIAL AS THE PRIMARY SUPPORT POSTS WHICH THEY ARE WELDED.

REFER TO THE PLANS FOR FOOTING DIMENSIONS.

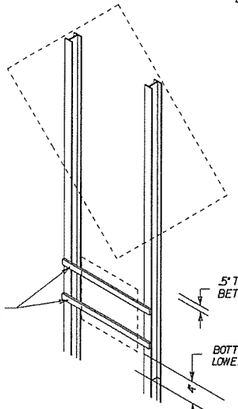
EACH STUB POST AND SIGN POST SHALL HAVE A PERMANENT IDENTIFYING STAMP WHICH SPECIFIES THE STEEL SECTION USED. IF THE CONTRACTOR ELECTS TO SHIP THE STUB POST SEPARATE FROM THE SIGN POST A MATCH MARK SYSTEM WILL BE REQUIRED.

SIGN POST AND STUB POST

			ARKANSAS STATE HIGHWAY COMMISSION
			DETAIL OF BREAKAWAY SIGN SUPPORTS FOR GUIDE SIGNS
9-12-13	ISSUED		STANDARD DRAWING SHS-3
DATE	REVISION	FILMED	

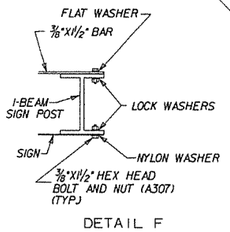


DETAIL A



DETAIL B

DETAIL C



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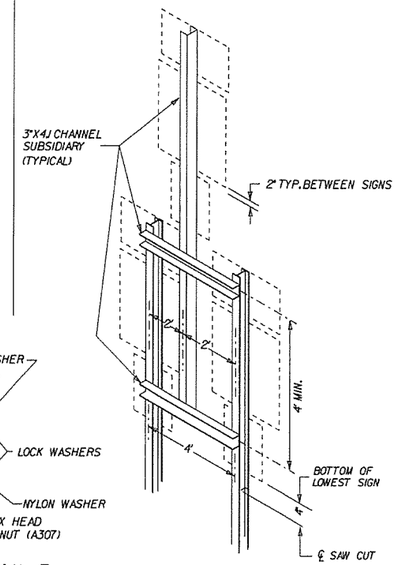
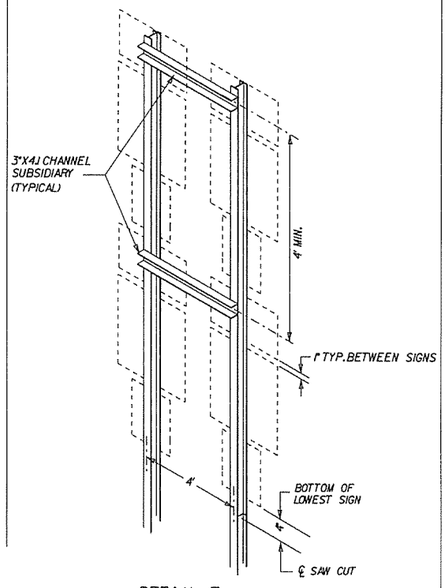


DETAIL D



DETAIL E

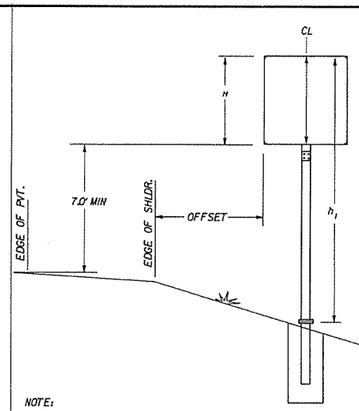
NOTE

ALL ADDITIONAL MOUNTING HARDWARE, BOLTS, NUTS, CHANNELS AND BAR STRAPS REQUIRED TO MOUNT SECONDARY SIGNS WILL BE CONSIDERED TO BE SUPPLEMENTAL TO THE MAIN SIGN SUPPORT SPECIFIED. PAYMENT WILL BE CONSIDERED SUBSIDIARY TO THE MAIN SUPPORT.

THE GALVANIZED STEEL CHANNEL AND BAR SUPPORTS MAY BE ASTM A-36.

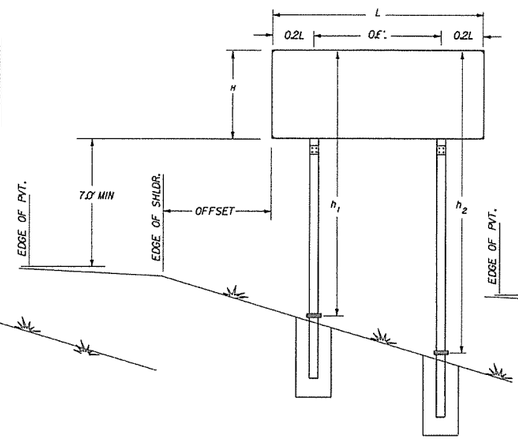
REFER TO THE P.C. RUTLEDGE FORMULA ON PAGE 58 OF THE AASHTO PUBLICATION "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

ALL BOLT HOLES SHALL BE 1/8" DIA. UNLESS OTHERWISE SHOWN.

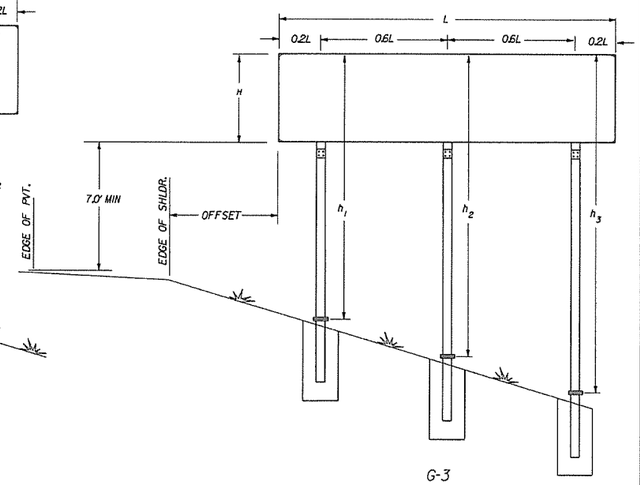


G-1

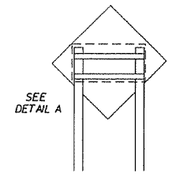
NOTE:
THE OFFSET WILL BE A MINIMUM OF 10' FROM THE EDGE OF PAVED SURFACE OR AS DIRECTED BY THE ENGINEER.



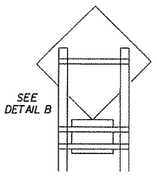
G-2



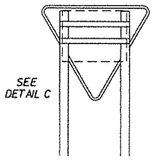
G-3



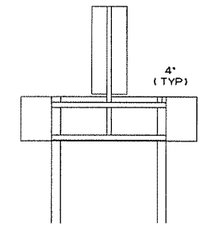
G2-1



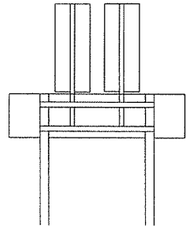
G2-2



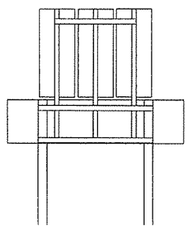
G2-3



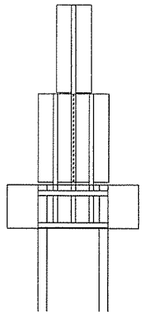
G2-4



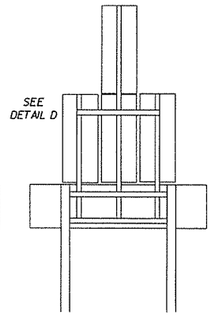
G2-5



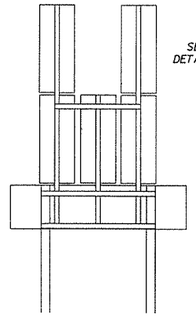
G2-6



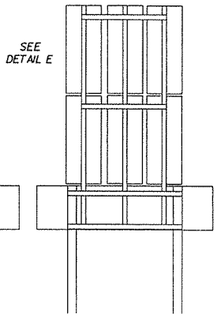
G2-7



G2-8

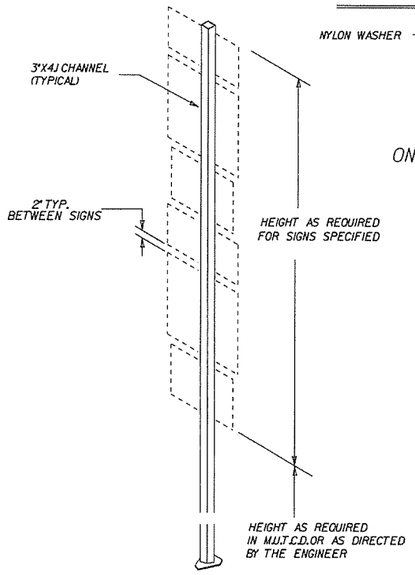


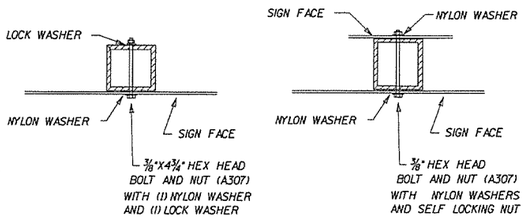
G2-9



G2-10

			ARKANSAS STATE HIGHWAY COMMISSION
			DETAIL OF BREAKAWAY SIGN SUPPORTS FOR STANDARD SIGNS
9-12-13	ISSUED		STANDARD DRAWING SHS-4
DATE	REVISION	FILMED	

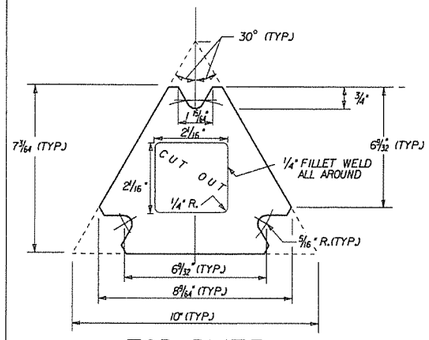




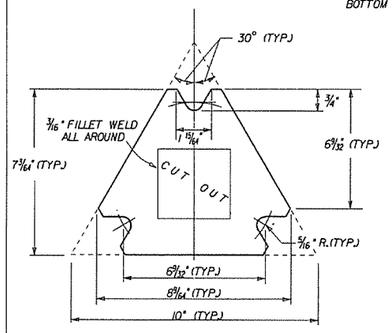
ONE SIGN TWO SIGNS

CHANNEL SHALL BE FULL LENGTH OF RECTANGULAR AND SQUARE SIGNS AND SHALL EXTEND 1/2" BEYOND BOLT HOLES ON DIAMOND OR IRREGULAR SHAPED SIGNS.

MOUNTING HARDWARE



TOP PLATE



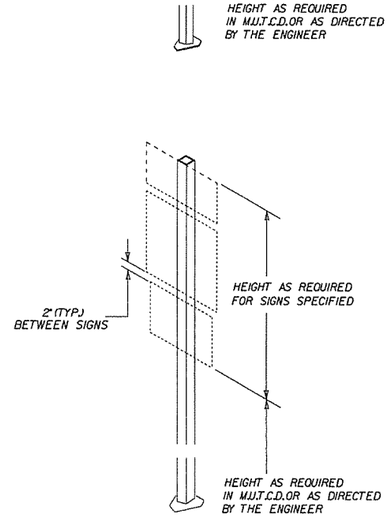
BOTTOM PLATE

GENERAL NOTES:

THE TOP PLATE OF TRIANGULAR SLIP BASES SHALL HAVE THE SAME EXTERIOR DIMENSIONS AS THE BOTTOM PLATE.

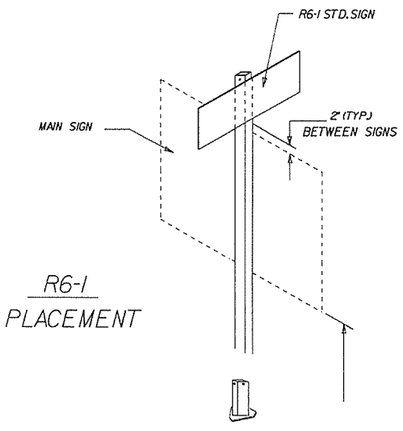
INSIDE DIAMETER OF THE SIGN POST SHALL BE CUT THROUGH THE CENTER OF THE TOP PLATE WITH THE HOLE EDGE BEVELED AS SHOWN. THE BEVEL END SHALL BE TANGENT TO THE BOLT HOLE . ANY MISALIGNMENT SHALL BE REMOVED BY GRINDING . FACE OF BEVEL SHALL BE FINISHED TO A MINIMUM SMOOTHNESS OF 1-500 .

OTHER MASH COMPLIANT BREAKAWAY SIGN SUPPORTS THAT HAVE THE SAME TOP PLATE DIMENSIONS AND SUPPORT 2¼" X 2¼" SQUARE TUBE SIGN POSTS MAY BE SUBSTITUTED AS APPROVED BY THE ENGINEER.

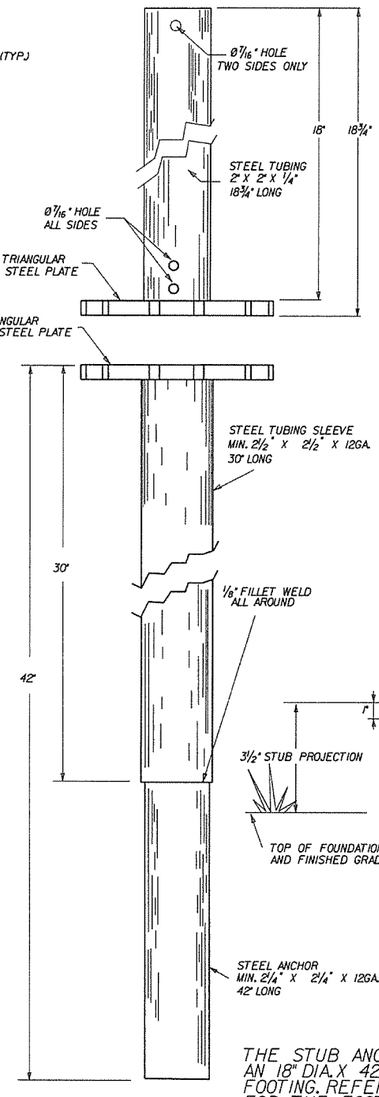


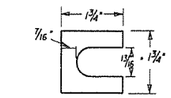
TYPE-1

BASIS OF ESTIMATE
APPROX. 100 lbs STEEL



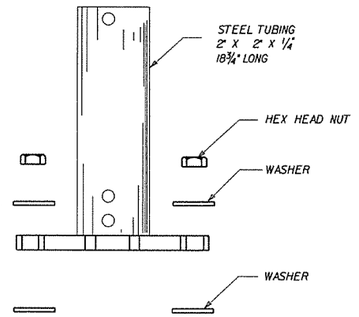
R6-1
PLACEMENT

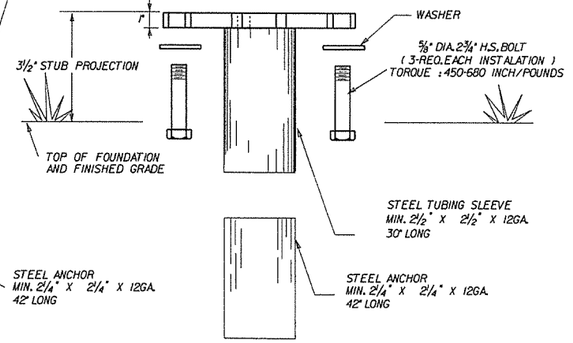




FURNISH (2) .012" THICK AND (2) .032" THICK SHIMS PER POST

SHIM DETAIL





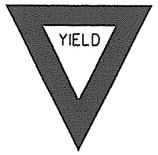
THE STUB ANCHOR SHALL BE SET IN AN 18" DIA. X 42" DEEP CONCRETE FOOTING. REFER TO STD. DRWG. SHS-3 FOR THE FOOTING DETAILS.

			ARKANSAS STATE HIGHWAY COMMISSION
			DETAIL OF OMNI-DIRECTIONAL BREAKAWAY SIGN SUPPORTS
9-12-13	ISSUED		STANDARD DRAWING SHS-7
DATE	REVISION	FILMED	

R1-1

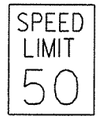
STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2



STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

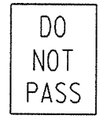
W3-5

STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

W3-5a

STD. 36"X36"
EXPWY. 48"X48"
FWY. 48"X48"

R4-1

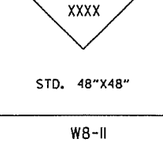


STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2

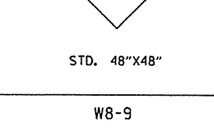
STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R5-1



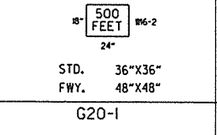
STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

RII-2



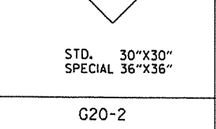
48"X30"

RII-3A



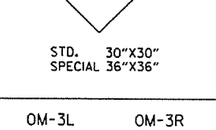
60"X30"

RII-4



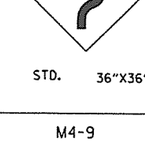
60"X30"

RSP-1



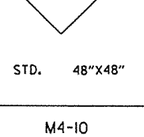
48"X30"

WI-1



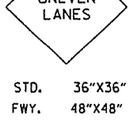
STD. 36"X36"
FWY. 48"X48"

WI-2



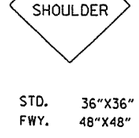
STD. 36"X36"
FWY. 48"X48"

WI-3



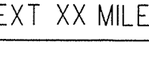
STD. 48"X48"

WI-4



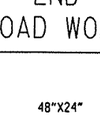
STD. 48"X48"

WI-6



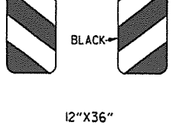
STD. 48"X24"
SPECIAL 60"X30"

WI-8



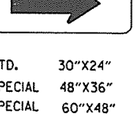
STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

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"

WI3-1

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"

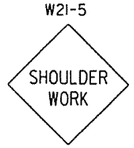
W20-7a

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"

WI-4b

STD. 48"X48"

R56-1

STD. 18"X18"

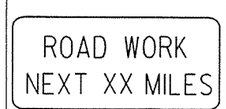
W8-11

STD. 36"X36"
FWY. 48"X48"

W8-9

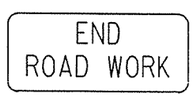
STD. 36"X36"
FWY. 48"X48"

G20-1



60"X24"

G20-2

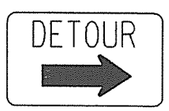


48"X24"

OM-3L OM-3R

12"X36"

M4-9

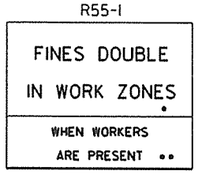


STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10

48"X18"

R55-1



36"X60"

• USE 6" C LETTERS
•• USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

500 FT	½ MILE
1000 FT	¾ MILE
1500 FT	1 MILE
	AHEAD

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.

2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.

3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.

• 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.

• 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.

6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.

7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.

8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.

9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.

10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

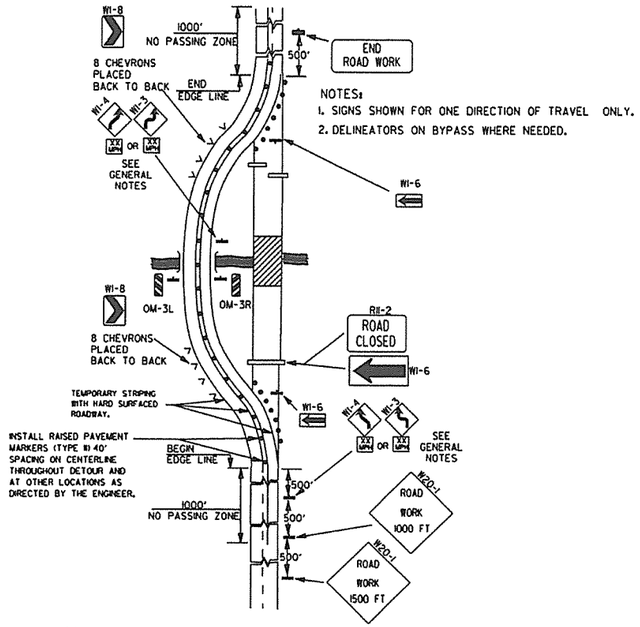
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

DATE	REVISION	FILMED
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES	
12-15-11	REVISED W24-1	
8-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
8-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
8-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
8-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION

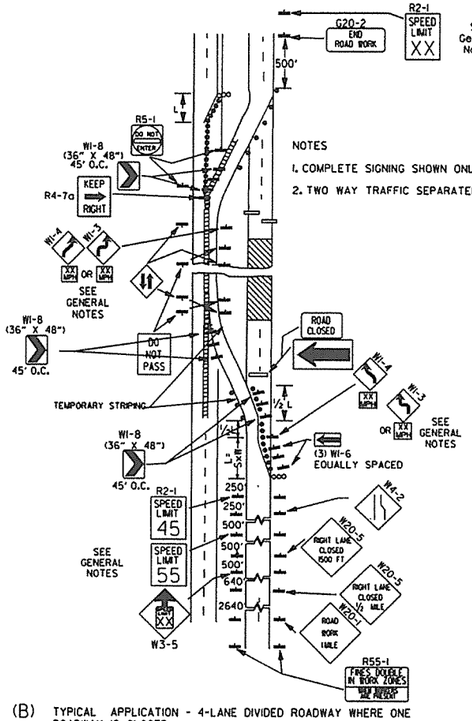
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



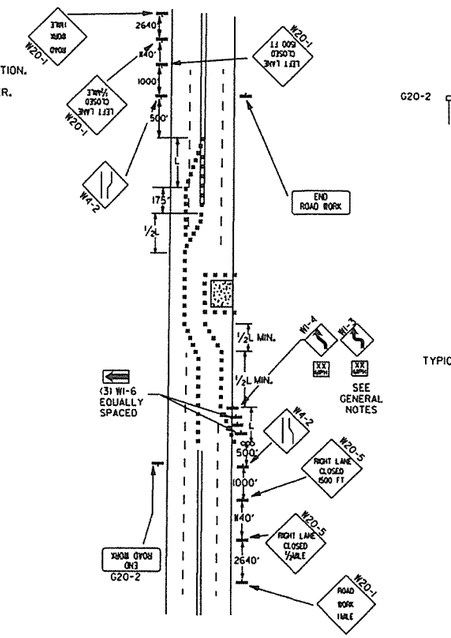
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.

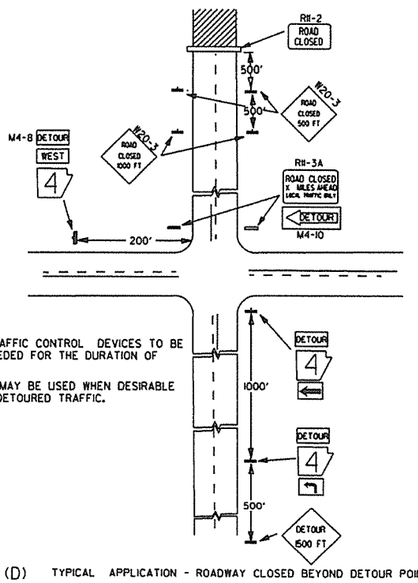


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.

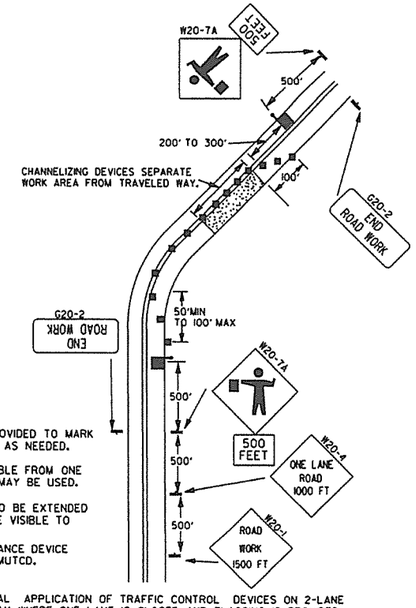


(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



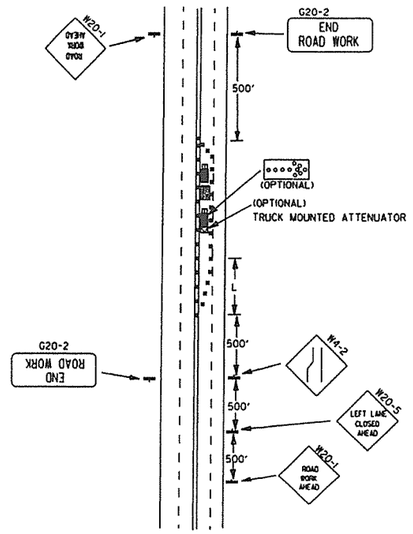
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



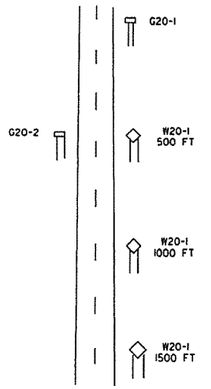
NOTES:
1. FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
2. IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
3. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
4. AUTOMATED FLAGGER ASSISTANCE 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.

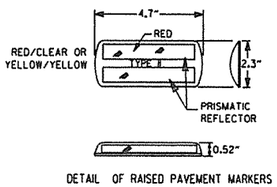


(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

KEY:
- FLAGGER
- POSITIVE BARRIER
- ARROW PANEL (IF REQUIRED)
- TYPE III BARRICADE
- CHANNELIZING DEVICE
- TRAFFIC DRUM
- RAISED PAVEMENT MARKER



TYPICAL ADVANCE WARNING SIGN PLACEMENT



DETAIL OF RAISED PAVEMENT MARKERS

TAPER FORMULAE:

L=SXW FOR SPEEDS OF 45MPH OR MORE.

$L = \frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.

WHERE:
L= MINIMUM LENGTH OF TAPER.
S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
W= WIDTH OF OFFSET.

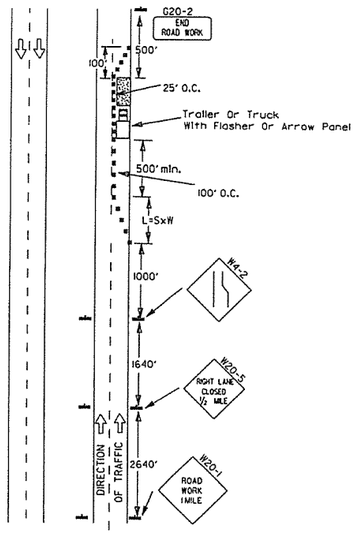
GENERAL NOTES:
1. ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE 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 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.
8. DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

DATE	REVISION	FILMED
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH W3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-11-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

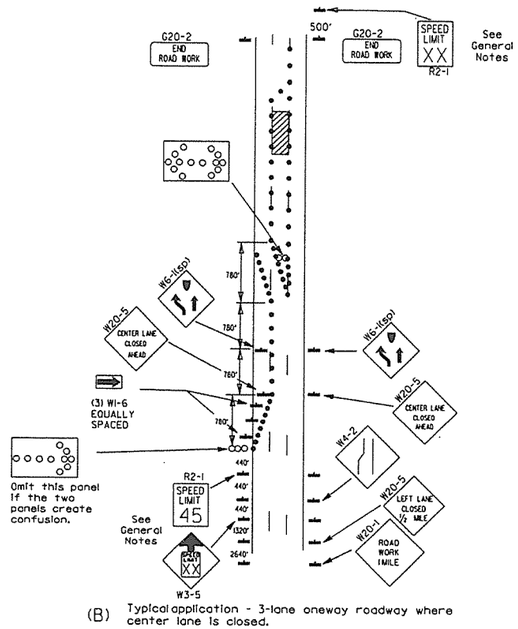
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

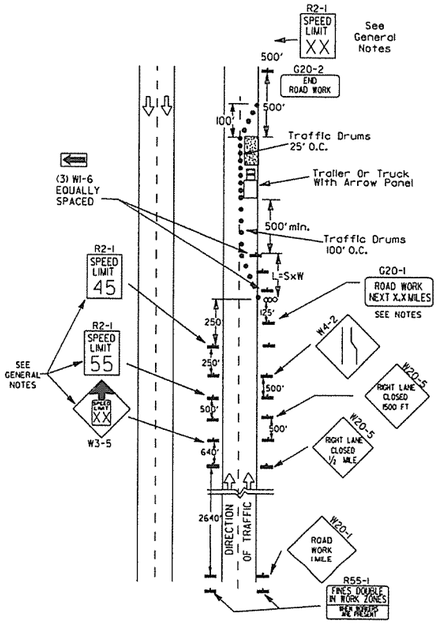
STANDARD DRAWING TC-2



(A) Typical application - daytime maintenance operations of short duration on a 4-lane divided roadway where half of the roadway is closed.



(B) Typical application - 3-lane oneway roadway where center lane is closed.



(C) Typical application - construction operations of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.

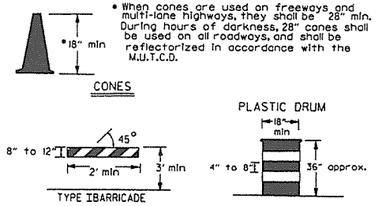
KEY:

- ○○○ Arrow Panel (If Required)
- ■ Channelizing Device
- ● Traffic drum

GENERAL NOTES:

1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the W3-5 shall be installed at that location. Additional R2-1 45mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(45) shall be omitted. Additional R2-1 55mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1 (1 MILE) signs are not required in advance of lane closures that begin inside the project limits.
8. Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
9. All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual For Assessing Safety Hardware (MASH).
10. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.

Channelizing devices



NOTE:
For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.

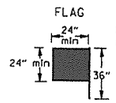
TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

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.

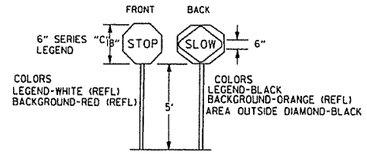
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

FLAG

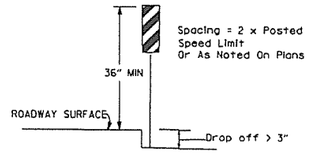


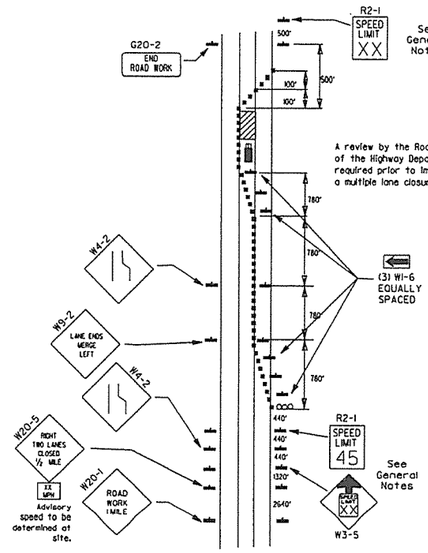
Flag shall be of good grade red material

STOP SLOW PADDLE



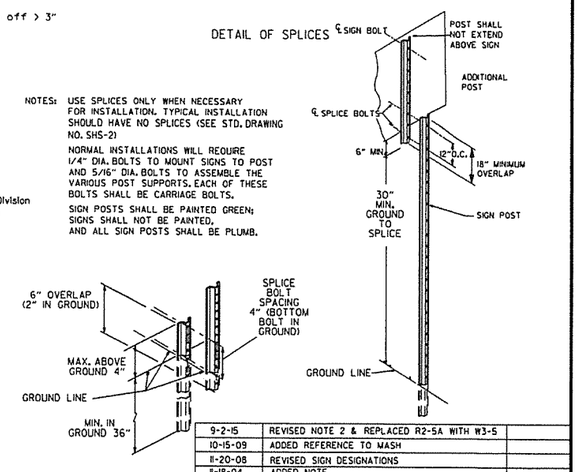
VERTICAL PANEL PLACEMENT





(D) Typical application - closing multiple lanes of a multilane highway.

DETAIL OF SPLICES



NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.

DATE	REVISION	FILMED
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1& REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

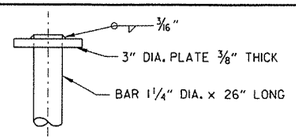
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

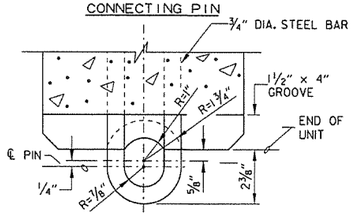
STANDARD DRAWING TC-3

REINFORCING BAR TABLE PER BARRIER UNIT

MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2. TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-5", 90°, 3 3/8" R, LIFTING HOLE
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S @ DRAIN SLOTS	#4	(2)	1 1/2" R, SLOTS, 7", 1'-6", 1" MIN. CLEAR TO BAR; 5'-1" BAR W/(4) 1 1/2" R BENDS & MIN. 1'-0" OVERLAP
V-1	VERTICAL IN BARRIER(3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)	TOTAL LENGTH 4'-9", 2 3/16" R, 12°, 9 1/2", 2'-1 3/8", 4 3/8"

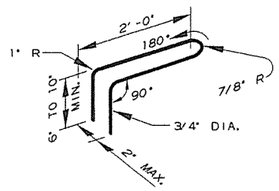


CONNECTING PIN

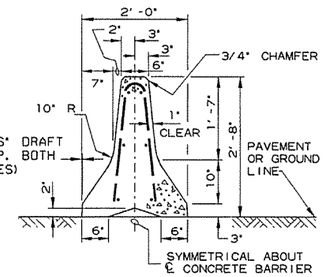


SECTION E-E

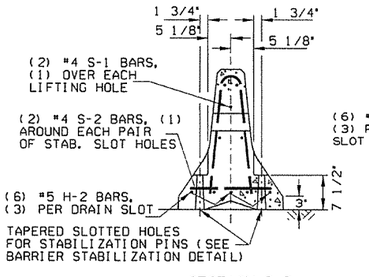
CONNECTION DETAILS



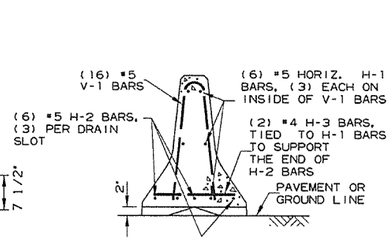
CONNECTION LOOP



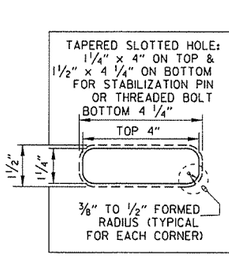
SECTION A-A

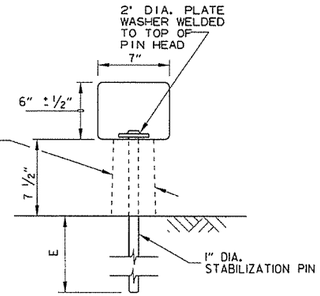


SECTION B-B



SECTION C-C

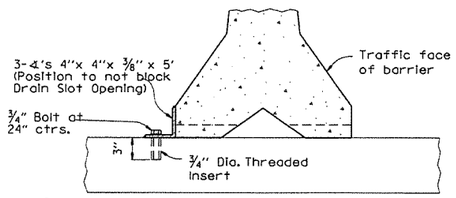




BARRIER STABILIZATION DETAIL

ROADWAY SECTION

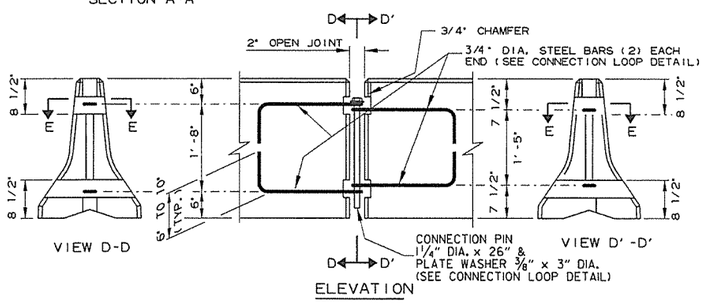
(E) 4" - Concrete Pavement
8" - Asphalt Pavement
12" - Shoulder Areas



NOTE: 3/4" Threaded Inserts shall be cast in place for all new bridge decks and drilled and grouted for existing bridge decks. Inserts shall have a minimum ultimate load capacity of 8000 lbs. in tension. After removal of barrier, bolts, and angles, the inserts shall be filled with approved non-shrink epoxy.

BARRIER STABILIZATION DETAIL

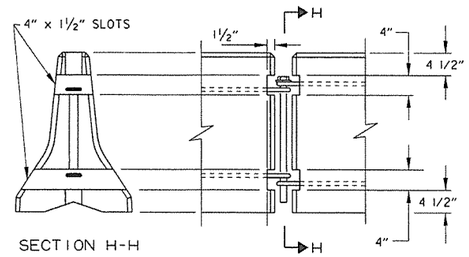
BRIDGE DECKS



VIEW D-D

VIEW D'-D'

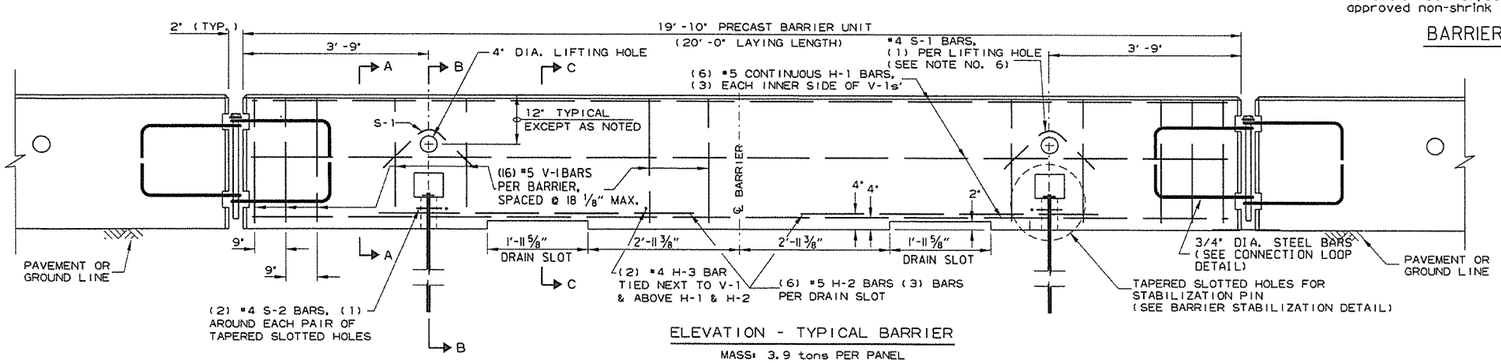
ELEVATION



SECTION H-H

ELEVATION

BARRIER REMOVAL SLOT DETAILS



ELEVATION - TYPICAL BARRIER

MASS: 3.9 tons PER PANEL

General Notes

1. The contractor shall furnish the Precast Concrete Barrier Units and shall be responsible for the manufacture, shipment, storage, placement and removal. At the completion of the project, the precast units will remain the property of the contractor.

2. Materials shall meet the following minimum requirements:
   Concrete: 2500 psi compressive strength at 28 days.
   Reinforcing Steel: AASHTO M 31 or M 53, Grade 60
   Structural Steel: AASHTO-M270 Grade 36 shall be used for the Connection Pin, Connection Loops, and Stabilization Pins. A One Piece Pin with a 3" rounded top may be used in place of the detailed Connection Pin.
   Delineators: Delineators shall be mounted at 10' spacing on top of precast barrier.

   In applications where barrier wall is within 6 feet of a traffic lane, additional delineators shall be placed on the barrier at 10' spacing approximately one (1) foot from the top of the barrier. Delineators shall be on the AHTD Qualified Products List for Construction Concrete Barrier Markers.
   Delineator color shall be in accordance with the Manual on Uniform Traffic Control Devices.
   Payment for delineators shall be considered included in the price bid per Lin. Ft. for "Furnishing and Installing Precast Concrete Barrier". The contractor shall certify to the Engineer that the material and the design used in the precast barrier units meets the requirements as shown on this standard drawing.

3. Other Precast Concrete Barriers that have been crash tested and approved by the Federal Highway Administration to meet the requirements of NCHRP-350 test level 3 or Manual For Assessing Safety Hardware (MASH) will be accepted in lieu of the barrier shown. Drain slots shall be provided as needed or as directed by the Engineer. The Contractor shall furnish a certification of NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) compliance for any other types of precast barrier to be used. The certification shall state that the precast concrete barrier meets the requirements of NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) and include a copy of the Federal Highway Administration's (FHWA) approval letter with all attachments. Precast concrete barrier units shall be fabricated and installed in accordance with crash testing and documentation provided in the FHWA approval letter. Mixing of shapes will not be allowed in a continuous line of units.

4. Dowel holes in pavement or bridge slabs that are to remain in place shall be filled. Holes in concrete pavement and bridge slabs shall be filled with an approved non-shrink epoxy grout. Holes in asphalt pavement shall be filled with an approved asphalt joint filler. Payment for drilling and filling holes to be included in the price for various barrier items.

5. Attach Units To Roadway Surface with Stabilization Pins and to Deck Slabs using bolts when required.

6. A 4" White PVC Sleeve may be used to form the Lifting Hole and if used the Sleeve is to be left in place.

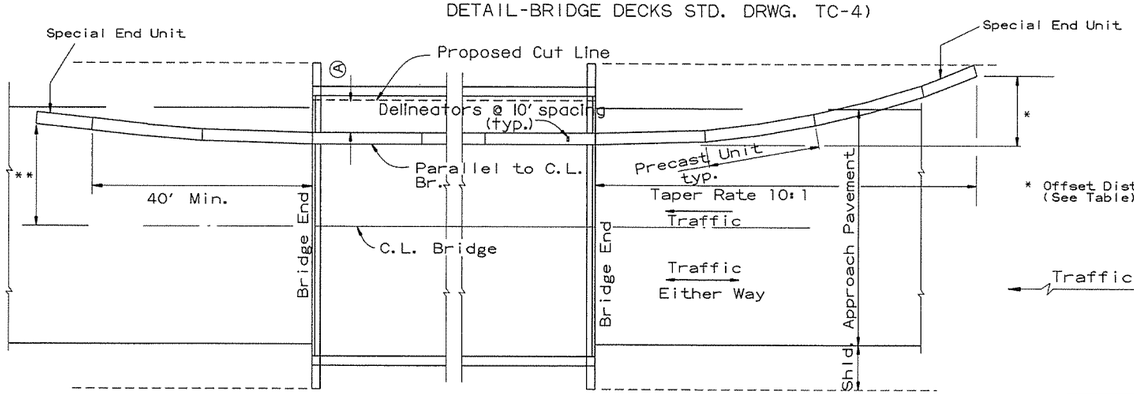
DATE	REVISION	FILMED
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

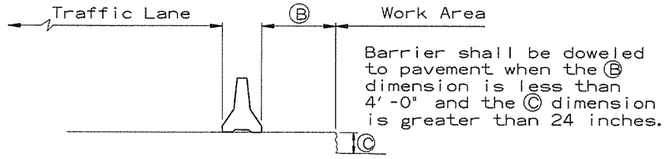
Ⓐ 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

* Offset Distance (See Table)

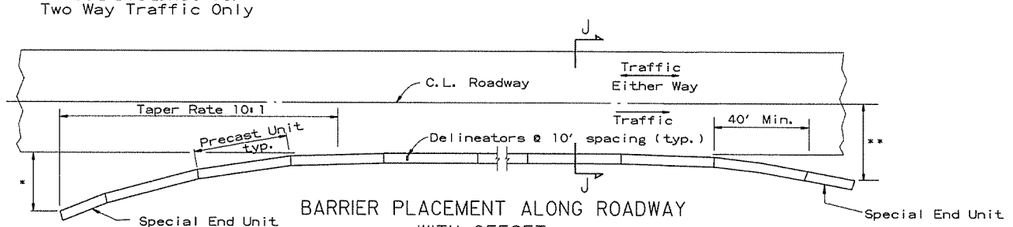


Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

SECTION J-J

No Scale

** Offset Distance for Two Way Traffic Only



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

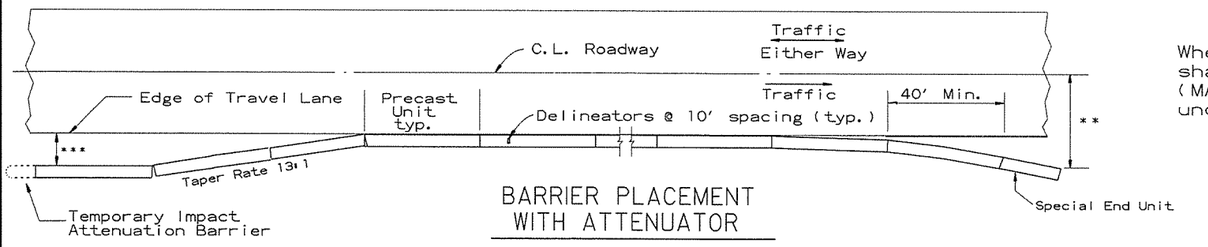
* Offset Distance (See Table)

** 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.

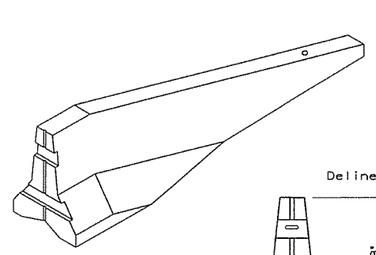


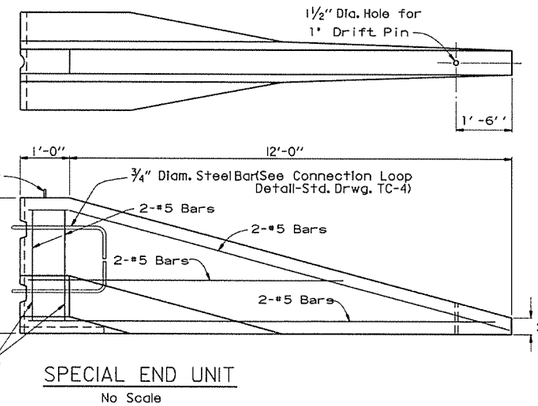
BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

*** Min. 3'-0" From Edge of Travel Lane to Nearest Edge of Attenuator





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	

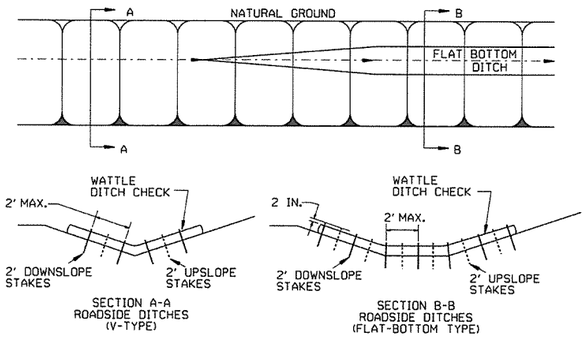
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

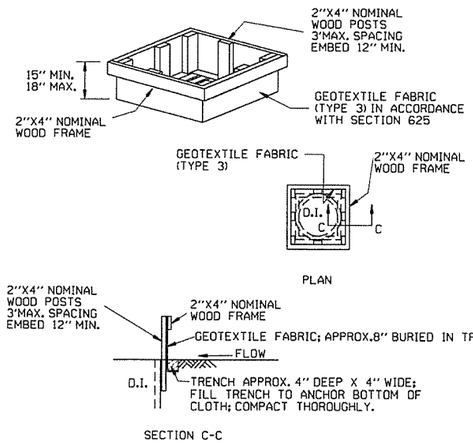
STANDARD DRAWING TC-5

GENERAL NOTES

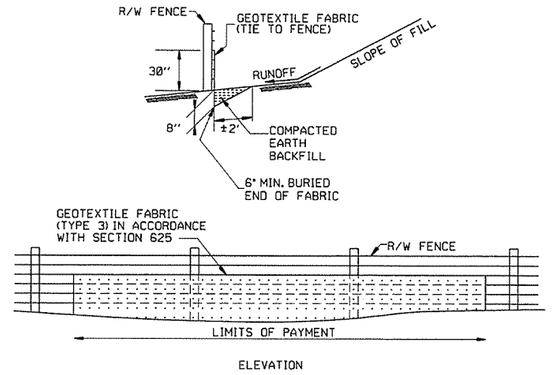
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

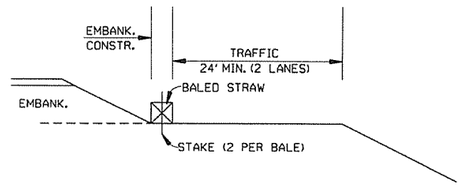
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

GENERAL NOTES

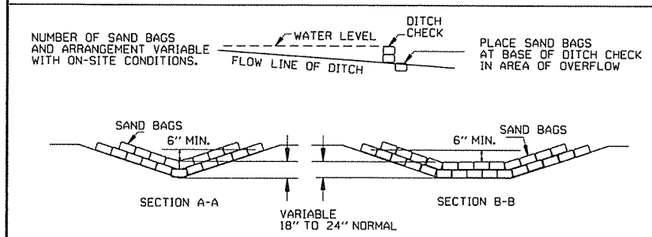
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

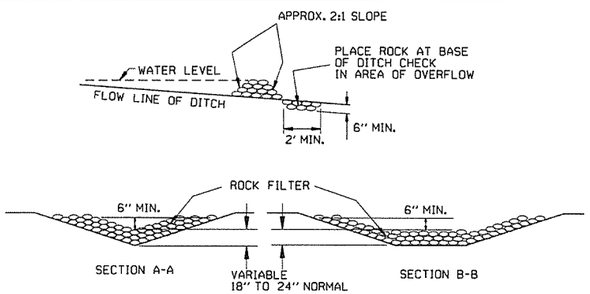
3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



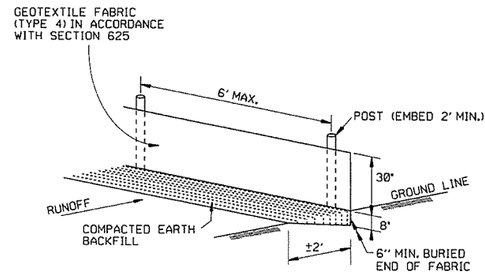
BALED STRAW FILTER BARRIER (E-2)



SAND BAG DITCH CHECK (E-5)



ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

GENERAL NOTES

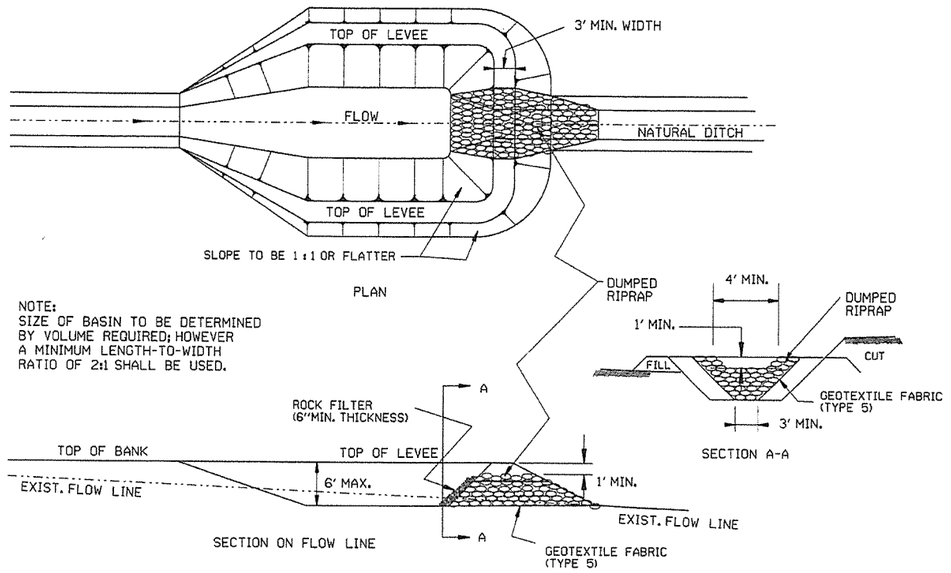
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

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

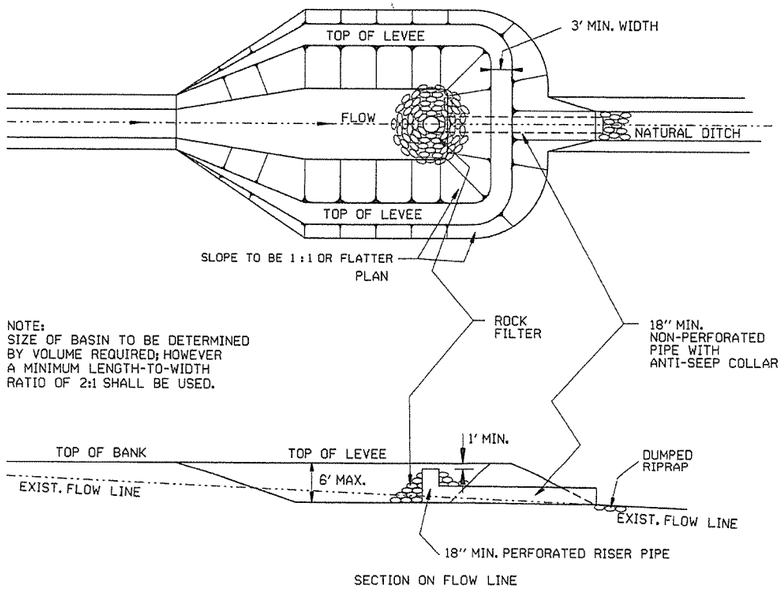
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

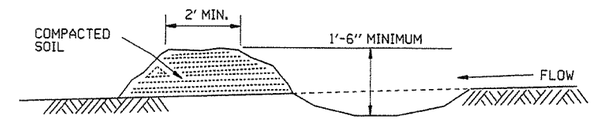
STANDARD DRAWING TEC-1



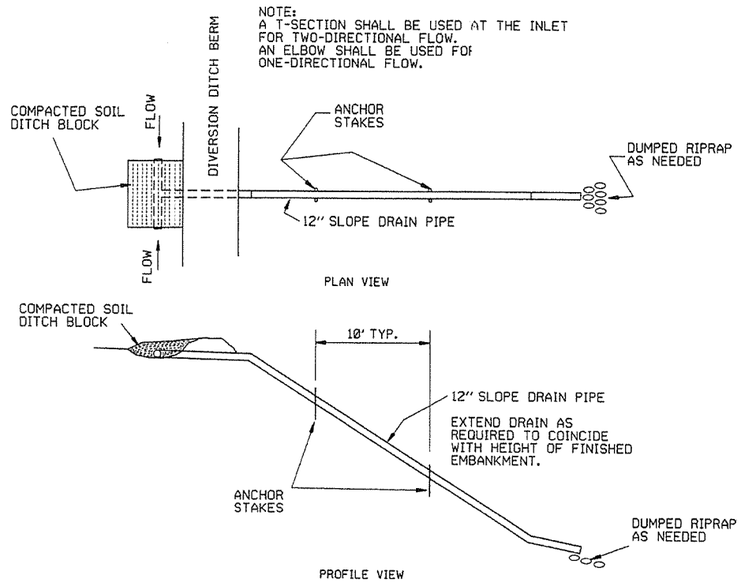
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



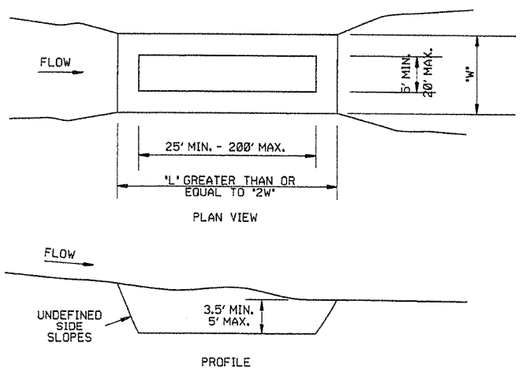
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



DIVERSION DITCH (E-8)



SLOPE DRAIN (E-12)



SEDIMENT BASIN (E-14)

DATE	REVISION	FILMED
6-2-94	Revised E-8 & E-12; Added E-14 & Deleted E-13	
4-1-93	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

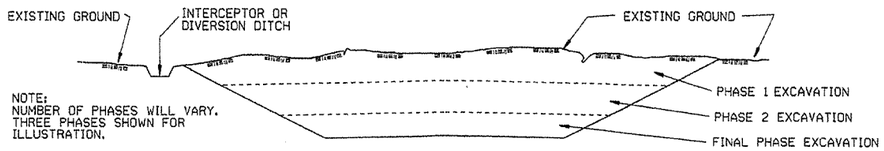
STANDARD DRAWING TEC-2

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES , DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION



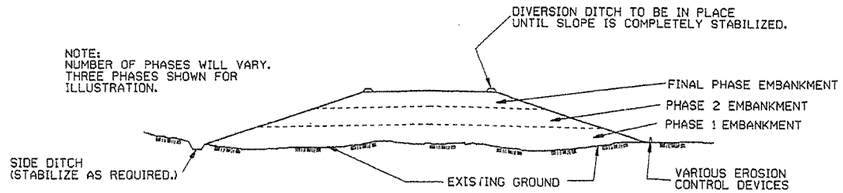
GENERAL NOTE

ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES. CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

EMBANKMENT



GENERAL NOTE

ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

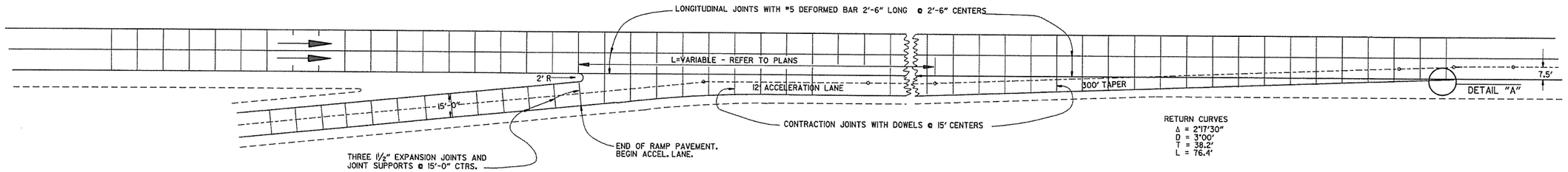
DATE	REVISION	FILMED
11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

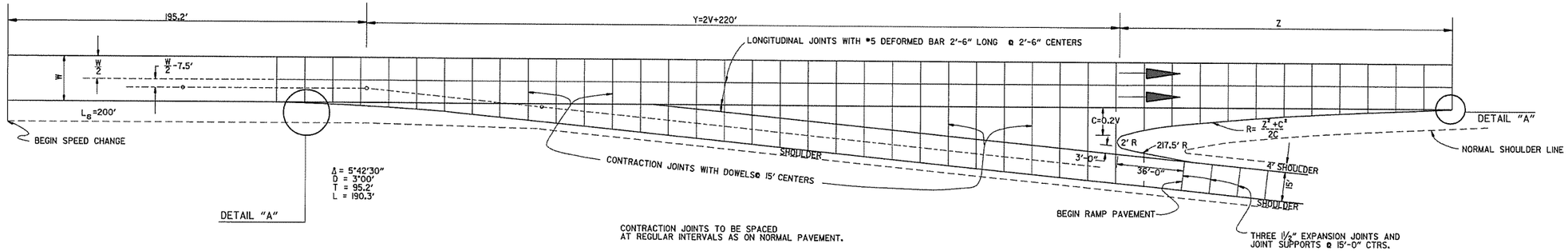
STANDARD DRAWING TEC-3

stdtec3.dgn



ENTRANCE RAMP

NOTE: JOINT SPACING ON THE MAIN LANES SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO THESE JOINT LAYOUTS. THE MAIN LANE JOINT SPACING MAY BE REDUCED TO A 12' MINIMUM.

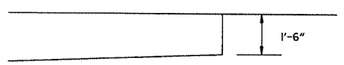


CONTRACTION JOINTS TO BE SPACED AT REGULAR INTERVALS AS ON NORMAL PAVEMENT.

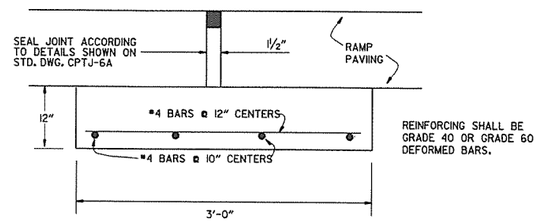
EXIT RAMP

EXIT RAMP

DESIGN SPEED V	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
1-25-90	REVISED EXPANSION JOINT	1-25-90
7-15-88	CONFORMED 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