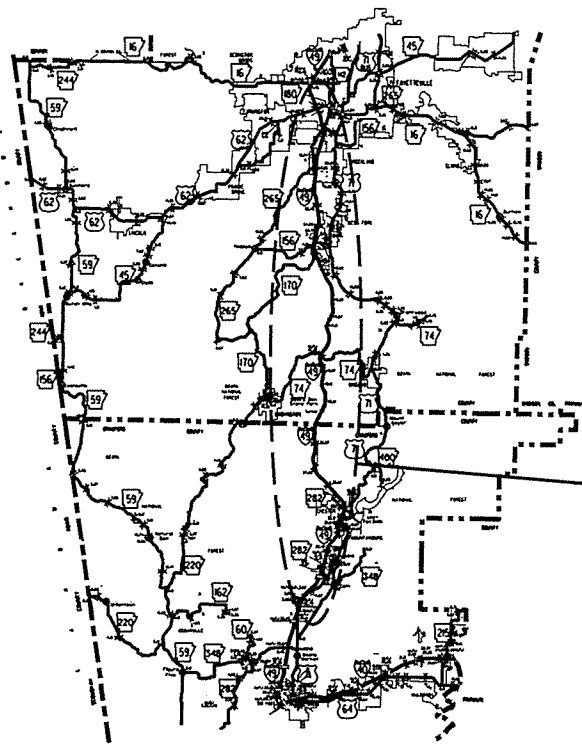


"A FULLY CONTROLLED ACCESS FACILITY"
 ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
 CONSTRUCTION PLANS FOR STATE HIGHWAY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		1	105
				② I-49 PAVEMENT REHABILITATION (SEL. SECS.) (S)				



PROJECT LOCATION

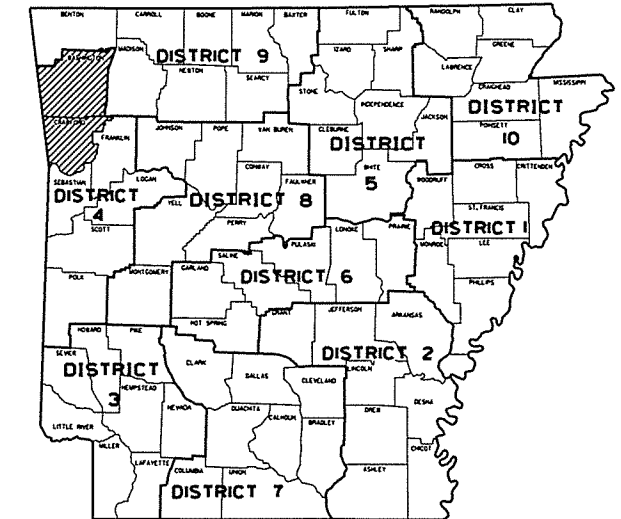
I-49 PAVEMENT REHABILITATION (SEL. SECS.) (S)

CRAWFORD & WASHINGTON COUNTIES

ROUTE 49 SECTIONS 27 & 28

JOB NO. BB0409

FED. AID PROJ. NHPP-49-(15)29



ARK. HWY. DIST. NO. 4

VICINITY MAP

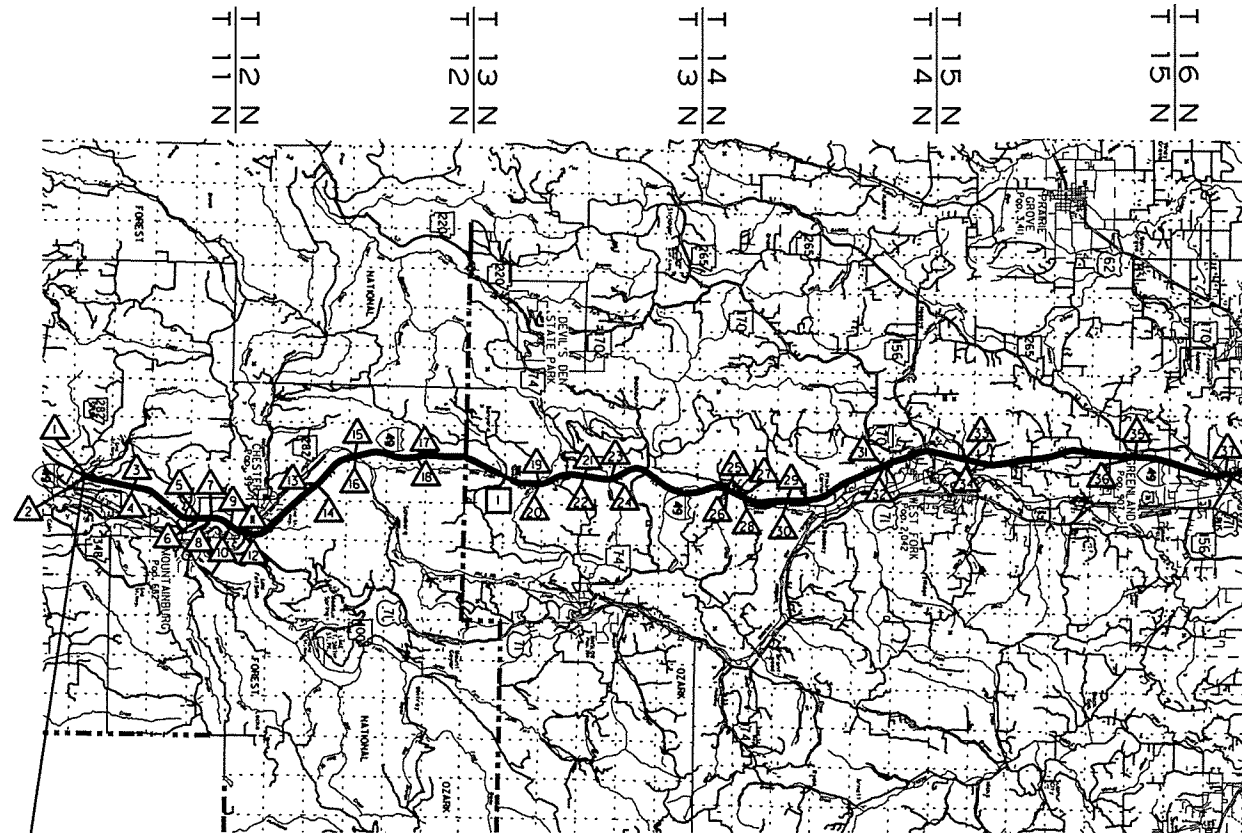
EXCEPTIONS TO JOB NO. BB0409

△ STA. 526+89.92 BR. END 798.16' BRIDGE NO. A6284 40'-0" CLEAR ROADWAY STA. 534+88.08 BR. END	△ STA. 865+70.96 BR. END 1466.98' BRIDGE NO. B6605 40'-0" CLEAR ROADWAY STA. 880+37.94 BR. END	△ STA. 1497+68.59 BR. END 1322.23' BRIDGE NO. A6484 40'-0" CLEAR ROADWAY STA. 1510+90.82 BR. END
△ STA. 526+24.92 BR. END 798.16' BRIDGE NO. B6284 40'-0" CLEAR ROADWAY STA. 534+23.08 BR. END	△ STA. 942+21.43 BR. END 2050.19' BRIDGE NO. A6606 40'-0" CLEAR ROADWAY STA. 962+71.62 BR. END	△ STA. 1498+85.59 BR. END 1367.23' BRIDGE NO. B6484 40'-0" CLEAR ROADWAY STA. 1512+52.82 BR. END
△ STA. 595+91.88 BR. END 1222.25' BRIDGE NO. A6503 40'-0" CLEAR ROADWAY STA. 608+14.13 BR. END	△ STA. 945+86.44 BR. END 1822.16' BRIDGE NO. B6606 40'-0" CLEAR ROADWAY STA. 964+08.60 BR. END	△ STA. 1564+97.40 BR. END 842.20' BRIDGE NO. A6485 40'-0" CLEAR ROADWAY STA. 1573+39.60 BR. END
△ STA. 595+91.88 BR. END 1222.25' BRIDGE NO. B6503 40'-0" CLEAR ROADWAY STA. 608+14.13 BR. END	△ STA. 1030+08.11 BR. END 1520.49' BRIDGE NO. A6607 40'-0" CLEAR ROADWAY STA. 1045+28.60 BR. END	△ STA. 1564+97.40 BR. END 782.20' BRIDGE NO. B6485 40'-0" CLEAR ROADWAY STA. 1572+79.60 BR. END
△ STA. 697+98.91 BR. END 254.18' BRIDGE NO. A6505 40'-0" CLEAR ROADWAY STA. 700+53.09 BR. END	△ STA. 1029+64.76 BR. END 1503.84' BRIDGE NO. B6607 40'-0" CLEAR ROADWAY STA. 1044+68.60 BR. END	△ STA. 1702+81.94 BR. END 882.17' BRIDGE NO. A6237 40'-0" CLEAR ROADWAY STA. 1711+64.11 BR. END
△ STA. 697+55.89 BR. END 286.22' BRIDGE NO. B6505 40'-0" CLEAR ROADWAY STA. 700+42.11 BR. END	△ STA. 1205+66.90 BR. END 1512.08' BRIDGE NO. A6479 40'-0" CLEAR ROADWAY STA. 1220+78.98 BR. END	△ STA. 1702+81.94 BR. END 1022.16' BRIDGE NO. B6237 40'-0" CLEAR ROADWAY STA. 1713+04.10 BR. END
△ STA. 712+76.82 BR. END 492.56' BRIDGE NO. A6506 40'-0" CLEAR ROADWAY STA. 717+69.38 BR. END	△ STA. 1205+66.90 BR. END 1512.08' BRIDGE NO. B6479 40'-0" CLEAR ROADWAY STA. 1220+78.98 BR. END	△ STA. 1824+44.19 BR. END 275.56' BRIDGE NO. A6239 40'-0" CLEAR ROADWAY STA. 1827+19.75 BR. END
△ STA. 711+85.34 BR. END 492.32' BRIDGE NO. B6506 40'-0" CLEAR ROADWAY STA. 716+77.66 BR. END	△ STA. 1263+66.45 BR. END 1032.08' BRIDGE NO. A6480 40'-0" CLEAR ROADWAY STA. 1273+98.53 BR. END	△ STA. 1825+11.66 BR. END 275.56' BRIDGE NO. B6239 40'-0" CLEAR ROADWAY STA. 1827+87.22 BR. END
△ STA. 742+26.88 BR. END 372.24' BRIDGE NO. A6507 40'-0" CLEAR ROADWAY STA. 745+99.12 BR. END	△ STA. 1263+66.45 BR. END 1032.08' BRIDGE NO. B6480 40'-0" CLEAR ROADWAY STA. 1273+98.53 BR. END	△ STA. 2042+44.18 BR. END 160.15' BRIDGE NO. A6242 40'-0" CLEAR ROADWAY STA. 2044+04.33 BR. END
△ STA. 742+41.88 BR. END 372.24' BRIDGE NO. B6507 40'-0" CLEAR ROADWAY STA. 746+14.12 BR. END	△ STA. 1304+21.45 BR. END 1357.08' BRIDGE NO. A6481 40'-0" CLEAR ROADWAY STA. 1317+78.53 BR. END	△ STA. 2042+28.63 BR. END 160.15' BRIDGE NO. B6242 40'-0" CLEAR ROADWAY STA. 2043+88.78 BR. END
△ STA. 760+25.58 BR. END 868.60' BRIDGE NO. A6508 40'-0" CLEAR ROADWAY STA. 768+94.18 BR. END	△ STA. 1304+21.45 BR. END 1357.08' BRIDGE NO. B6481 40'-0" CLEAR ROADWAY STA. 1317+78.53 BR. END	△ STA. 2179+70.67 BR. END 243.10' BRIDGE NO. A6243 40'-0" CLEAR ROADWAY STA. 2182+13.77 BR. END
△ STA. 759+65.43 BR. END 868.70' BRIDGE NO. B6508 40'-0" CLEAR ROADWAY STA. 768+34.13 BR. END	△ STA. 1480+75.61 BR. END 297.12' BRIDGE NO. A6483 40'-0" CLEAR ROADWAY STA. 1483+72.73 BR. END	△ STA. 2180+36.73 BR. END 243.10' BRIDGE NO. B6243 40'-0" CLEAR ROADWAY STA. 2182+79.83 BR. END
△ STA. 865+07.00 BR. END 1337.33' BRIDGE NO. A6605 40'-0" CLEAR ROADWAY STA. 878+44.33 BR. END	△ STA. 1480+28.56 BR. END 402.13' BRIDGE NO. B6483 40'-0" CLEAR ROADWAY STA. 1484+30.69 BR. END	□ STA. 1160+17.02 TUNNEL END 1594.52' BOBBY HOPPER TUNNEL 40'-0" CLEAR ROADWAY STA. 1176+11.54 TUNNEL END

TOTAL LENGTH OF EXCEPTIONS 18507.73' MEASURED ALONG CENTERLINE

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 35°36'35"	LATITUDE = N 35°49'04"	LATITUDE = N 36°02'16"
LONGITUDE = W 94°11'33"	LONGITUDE = W 94°11'32"	LONGITUDE = W 94°11'21"

NOT TO SCALE



STA. 522+34.58
 BEGIN JOB NO. BB0409
 LOG MILE 29.05

DESIGN TRAFFIC DATA

DESIGN YEAR	2035
2015 ADT	18000
2035 ADT	25000
2035 DHV	2750
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	28%
DESIGN SPEED	70 MPH



R 31 W
 R 30 W

STA. 2190+50.69
 END JOB BB0409
 LOG MILE 60.64

R 30 W
 R 29 W

APPROVED



9-9-15
 DEPUTY DIRECTOR
 AND CHIEF ENGINEER

GROSS LENGTH OF PROJECT	166816.11	FEET OR	31.594	MILES
NET ROADWAY	148308.38		28.390	
NET BRIDGES	0.00		0.000	
NET PROJECT	148308.38		28.390	

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. BBO409	2	105

2 INDEX OF SHEETS, GOV. SPECS, & GEN. NOTES

INDEX OF SHEETS

SHEET NO.	TITLE	DRWG. NO.	DATE
1	TITLE SHEET		
2	INDEX OF SHEETS, GOVERNING SPECIFICATIONS, AND GENERAL NOTES		
3 - 4	TYPICAL SECTIONS OF IMPROVEMENT		
5 - 10	SPECIAL DETAILS		
11 - 18	MAINTENANCE OF TRAFFIC DETAILS		
19	PERMANENT PAVEMENT MARKING DETAILS		
20 - 28	QUANTITIES		
29	SUMMARY OF QUANTITIES AND REVISIONS		
30 - 85	PLAN SHEETS		
86	STANDARD DETAILS FOR TYPE C1 APPROACH SLAB	55040C1	2-27-14
87	FLARED END SECTION	FES-1	10-18-96
88	FLARED END SECTION	FES-2	10-18-96
89	DETAILS OF DROP INLETS & JUNCTION BOXES	FPC-9	11-16-01
90	GUARD RAIL DETAILS	GR-8	7-14-10
91	GUARD RAIL DETAILS	GR-8A	7-14-10
92	GUARD RAIL DETAILS	GR-9	4-17-08
93	GUARD RAIL DETAILS	GR-9A	4-17-08
94	GUARD RAIL DETAILS	GR-10	7-14-10
95	GUARD RAIL DETAILS	GR-10A	7-14-10
96	GUARD RAIL DETAILS	GRT-1	7-14-10
97	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING	PCC-1	2-27-14
98	PAVEMENT MARKING DETAILS	PM-1	9-12-13
99	PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS	PM-2	9-12-13
100	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-1	9-02-15
101	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-2	9-02-15
102	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	TC-3	9-02-15
103	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	TC-4	2-27-14
104	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER	TC-5	10-15-09
105	DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMPS (NON-REINFORCED)	TR-1A	8-22-02

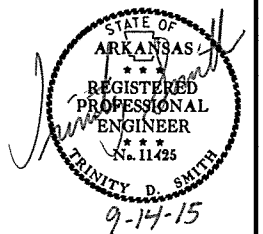
GOVERNING SPECIFICATIONS

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 BB0409
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
108-1	LIQUIDATED DAMAGES
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB0409	BIDDING REQUIREMENTS AND CONDITIONS
JOB BB0409	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB BB0409	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB BB0409	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB BB0409	EMPLOYMENT REPORTING
JOB BB0409	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB BB0409	HIGH PERFORMANCE PAVEMENT MARKING
JOB BB0409	MAINTENANCE OF TRAFFIC
JOB BB0409	MANDATORY ELECTRONIC CONTRACT
JOB BB0409	OFF-SITE RESTRAINING CONDITIONS FOR BATS
JOB BB0409	PARTNERING REQUIREMENTS
JOB BB0409	PERCENT WITHIN LIMITS
JOB BB0409	PIPE CULVERTS
JOB BB0409	REMOVAL AND DISPOSAL OF GUARDRAIL
JOB BB0409	REMOVAL AND DISPOSAL OF PORTLAND CEMENT CONCRETE PAVEMENT GRINDING RESIDUE
JOB BB0409	SEQUENCE OF CONSTRUCTION
JOB BB0409	SILANE PROTECTIVE SURFACE TREATMENT FOR CONCRETE PAVEMENT
JOB BB0409	SITE USE (A+C METHOD)
JOB BB0409	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB BB0409	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB0409	UTILITY ADJUSTMENTS
JOB BB0409	VALUE ENGINEERING
JOB BB0409	WARM MIX ASPHALT

GENERAL NOTES

- ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
- 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.
- ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
- ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.

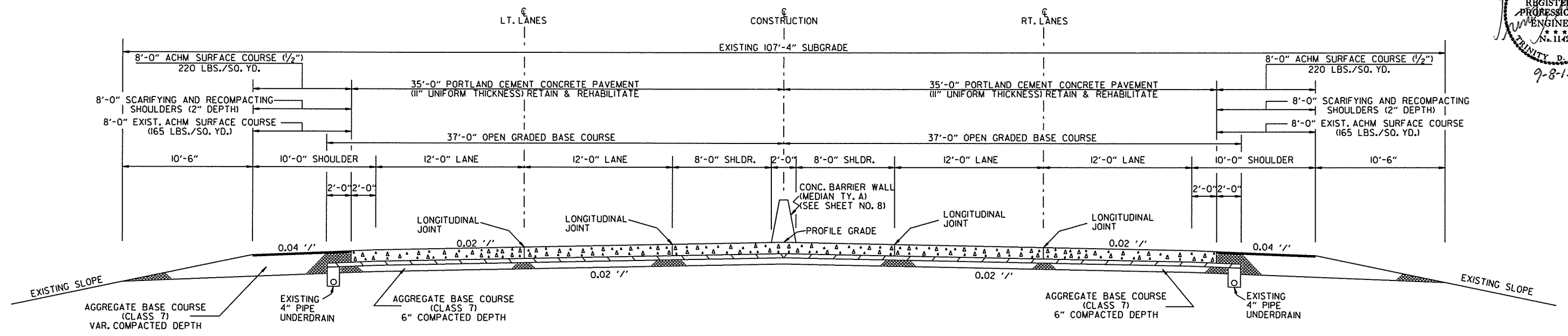
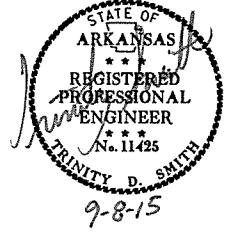


9/10/2015

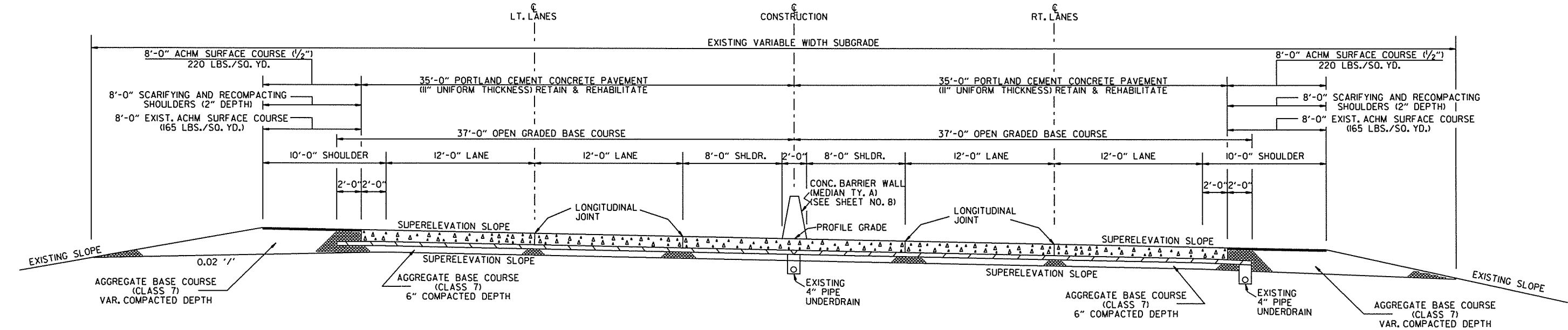
RBB0409.DGN

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.	BBO409		3	105

2 TYPICAL SECTIONS OF IMPROVEMENT



PCC PAVEMENT REHABILITATION - CONCRETE BARRIER WALL



PCC PAVEMENT REHABILITATION - CONCRETE BARRIER WALL (SUPERELEVATION)

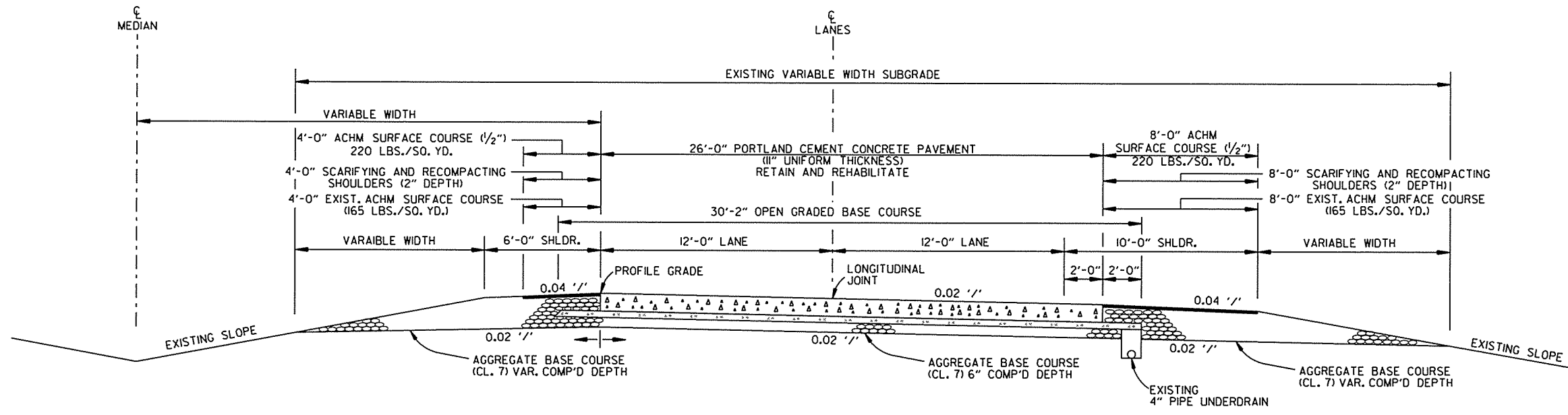
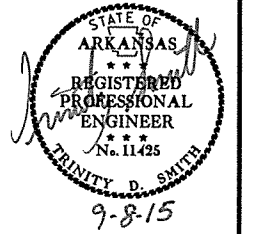
TYPICAL SECTIONS OF IMPROVEMENT

9/2/2015

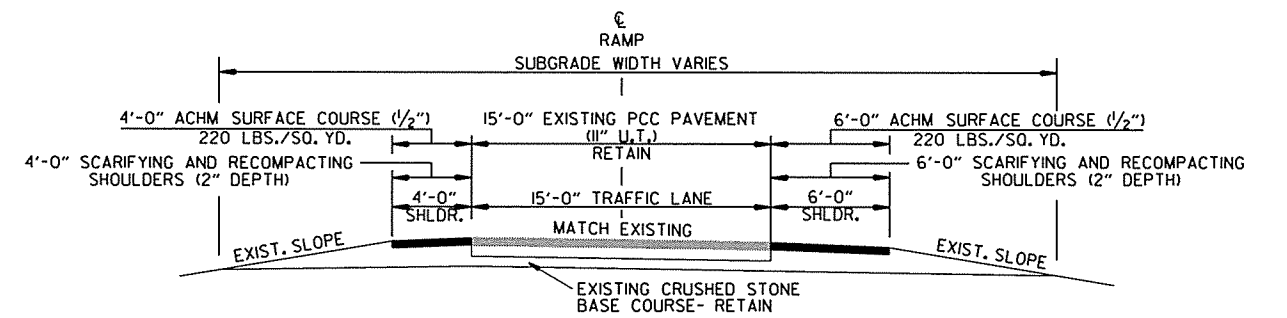
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		4	105

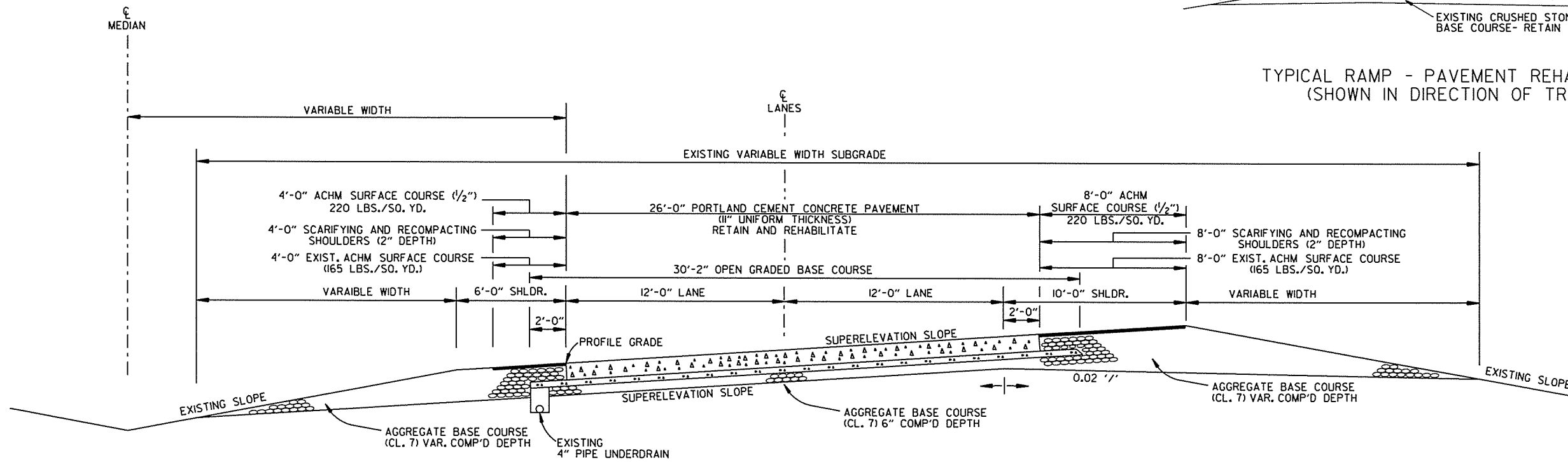
2 TYPICAL SECTIONS OF IMPROVEMENT



PCC PAVEMENT REHABILITATION - DEPRESSED MEDIAN (SHOWN IN DIRECTION OF TRAFFIC)



TYPICAL RAMP - PAVEMENT REHABILITATION (SHOWN IN DIRECTION OF TRAFFIC)



PCC PAVEMENT REHABILITATION - DEPRESSED MEDIAN (SUPERELEVATION) (SHOWN IN DIRECTION OF TRAFFIC)

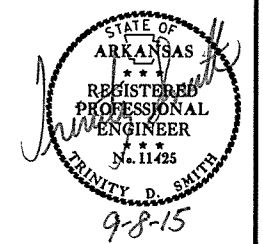
TYPICAL SECTIONS OF IMPROVEMENT

9/2/2015

RB0409.DCN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. RD. PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BBO409		5	105

② SPECIAL DETAILS



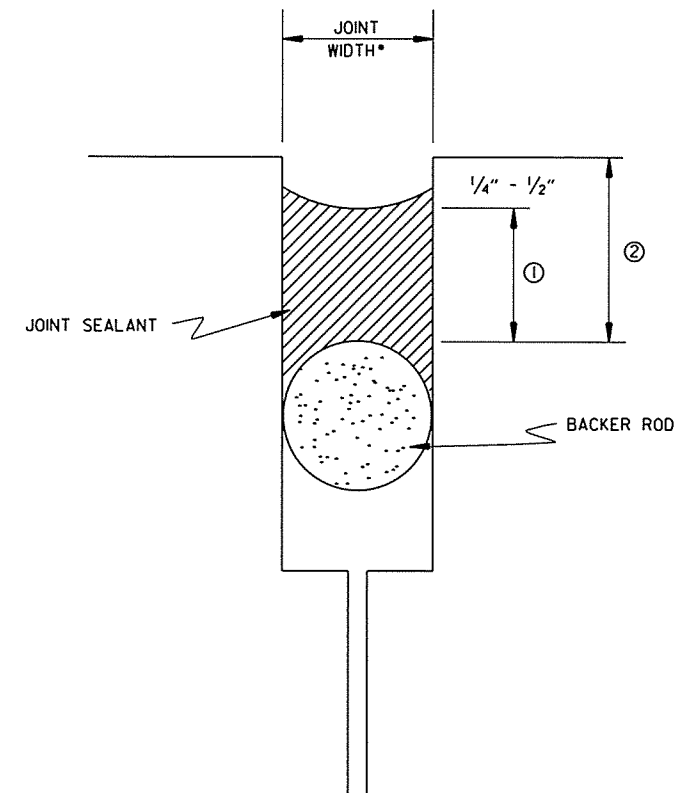
JOINT CONFIGURATION FOR TYPE 3 & 4 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
1/4	1/4	3/8	1/2
3/8	1/4	1/2	1/2
1/2	1/4	5/8	1/2
5/8	3/16	3/4	5/16
3/4	3/8	7/8	7/8
7/8	3/16	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.

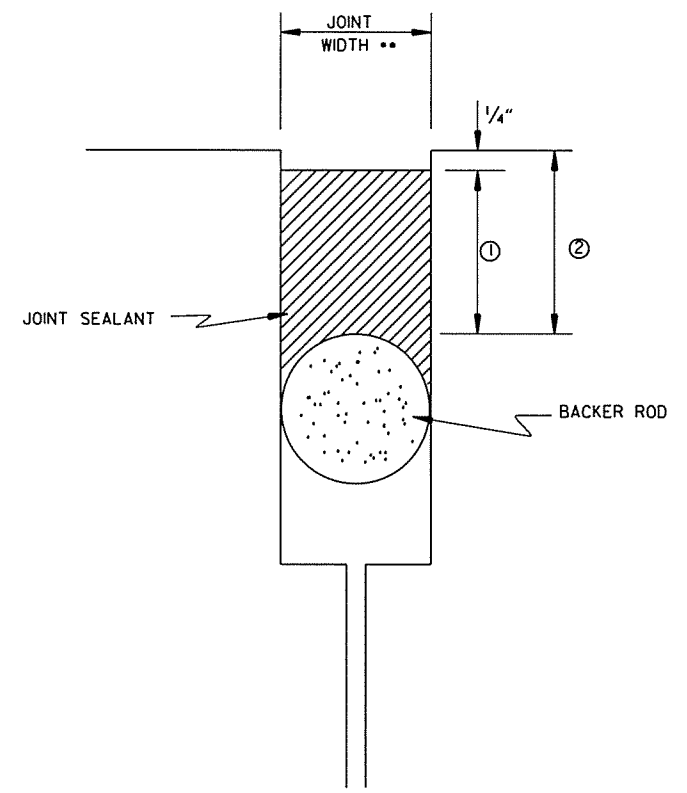
JOINT CONFIGURATION FOR TYPE 5 JOINT SEALANT

JOINT WIDTH	APPROX. WIDTH TO DEPTH RATIO	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES				
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 +



DETAILS OF TYPE A OR TYPE B JOINT REHABILITATION

- 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 B JOINT REHABILITATION

** 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.

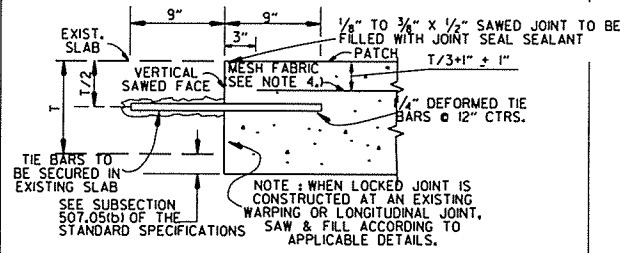
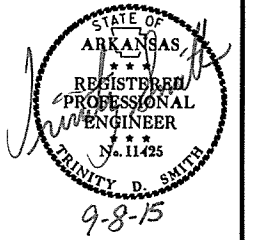
REFER TO SECTION 509 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL INFORMATION.

9/2/2015

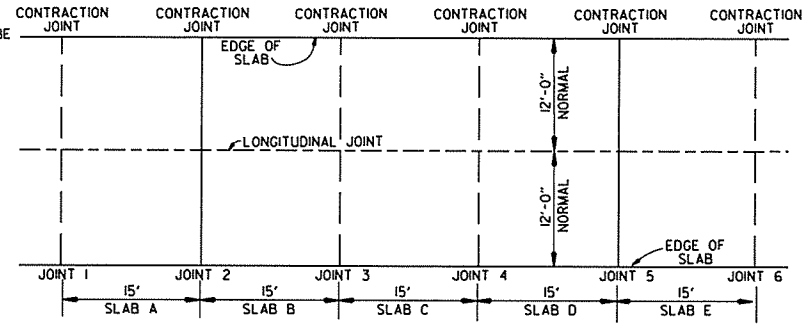
RBB0409.DCN

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				6	ARK.			
				JOB NO.	BBO409		6	105

2 SPECIAL DETAILS

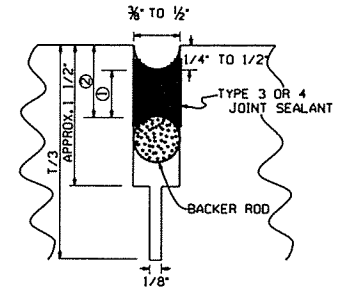


SECTION D-D
LOCKED JOINT

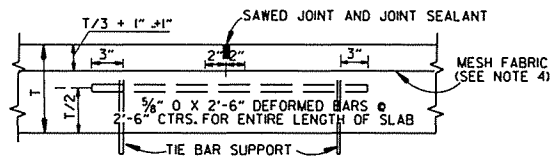


PLAN OF PAVEMENT REPAIR
(FULL SLABS)

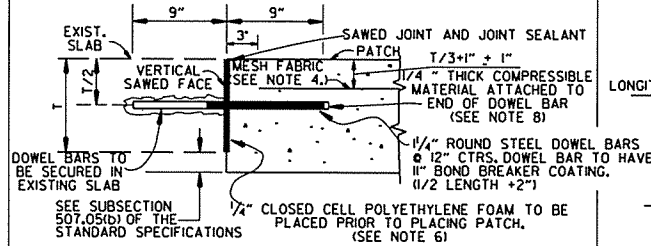
LOCKED JOINTS ARE TO BE CONSTRUCTED AT RECONSTRUCTED SLABS.



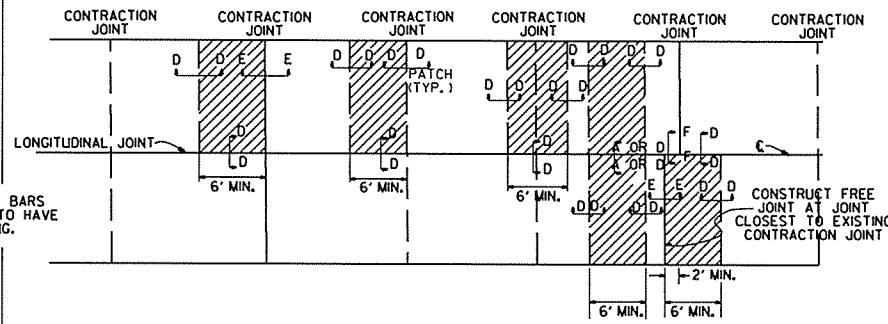
DETAIL OF SAWED CONTRACTION JOINT



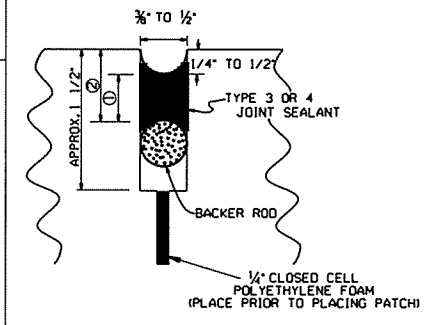
SECTION A-A
TIED LONGITUDINAL JOINT



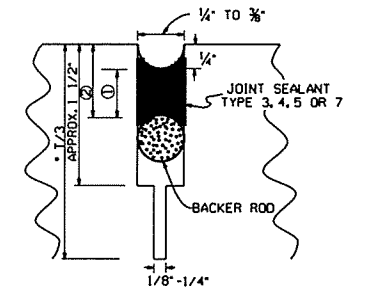
SECTION E-E
FREE TRANSVERSE JOINT



PLAN OF PAVEMENT REPAIR
(PARTIAL SLABS)

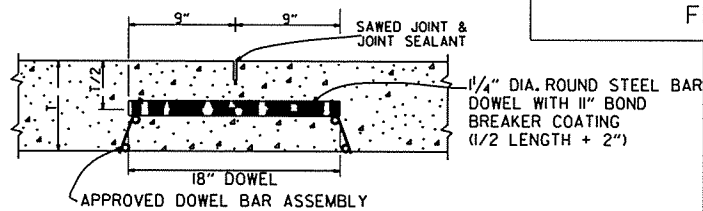


DETAIL OF SAWED FREE TRANSVERSE &
FREE LONGITUDINAL JOINT

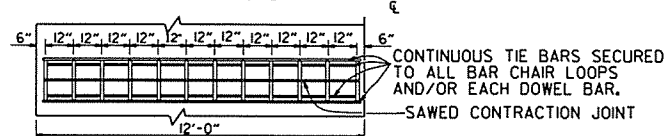


NOTE: T/3 SAW CUT NOT REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINT.

DETAIL OF SAWED
TIED LONGITUDINAL JOINT



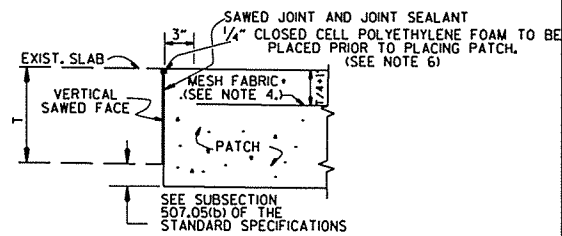
SECTION C-C



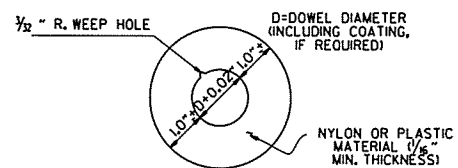
ONE-HALF 24' PAVEMENT
12 DOWELS
PLAN - CONTRACTION JOINT

NOTE: FOR 20' PAVEMENT USE 20 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 15' PAVEMENT USE 15 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR 26' PAVEMENT USE 26 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR PAVEMENT WIDTHS OTHER THAN THOSE SHOWN ABOVE, USE DOWELS AT 12" CTRS. WITH 6" MAX. SPACING FROM C.L. TO FIRST BAR. DISTANCE FROM EDGE OF SLAB TO FIRST BAR SHALL BE ADJUSTED TO MAINTAIN 12" DOWEL BAR SPACING

CONTRACTION JOINT DETAILS



SECTION F-F
FREE LONGITUDINAL JOINT



DETAIL OF EPOXY
RETENTION DISK

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

JOINT CONFIGURATION FOR
TYPE 3 OR 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

JOINT CONFIGURATION FOR
TYPE 5 OR 7 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
1/4	1/2	3/8	3/4
3/8	3/4	1/2	1

NOTES FOR PAVEMENT REPAIR

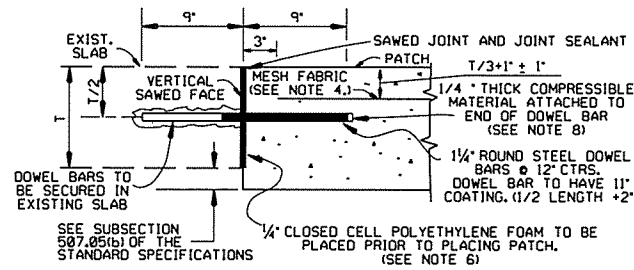
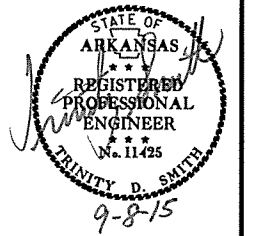
- EXACT SIZE AND LOCATION OF AREA TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER. ALL PATCHES SHALL EXTEND ACROSS THE FULL WIDTH OF THE SLAB AS SHOWN IN THESE DETAILS.
- THE FINAL SURFACE FINISH FOR PATCHES SHALL MATCH THAT OF THE EXISTING PAVEMENT.
- WHEN AREA TO BE REPAIRED INCLUDES AN EXISTING JOINT, THE JOINT SHALL BE RECONSTRUCTED TO THE CONFIGURATION SHOWN IN THESE DETAILS.
- 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.
- FORMS FOR PAVEMENT REPAIR SHALL BE METAL UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- 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.
- 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.
- 1/4" 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.
- DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS 1/8" WILL BE ALLOWED FOR VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS 1/4" WILL BE ALLOWED FOR THE TILT AND SKEW.

DETAILS OF PORTLAND CEMENT
CONCRETE PAVEMENT PATCHING
(MAIN LANES)

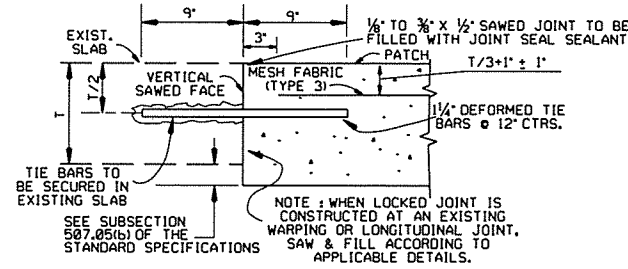
SPECIAL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		7	105

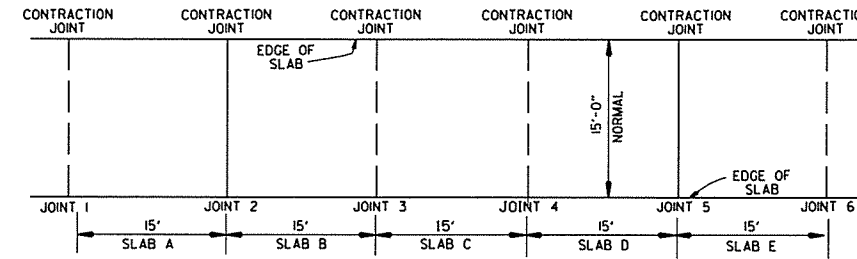
2 SPECIAL DETAILS



SECTION E-E
FREE TRANSVERSE JOINT

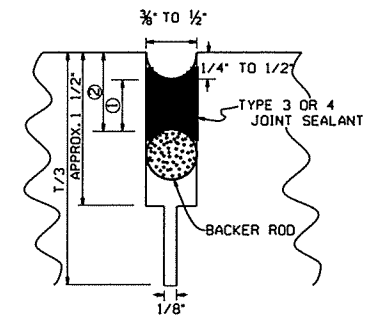


SECTION D-D

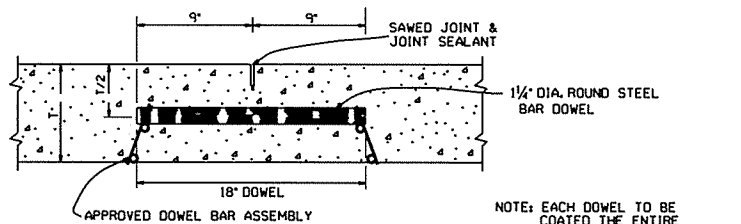


PLAN OF PAVEMENT REPAIR
(FULL SLABS)

LOCKED JOINTS ARE TO BE CONSTRUCTED AT RECONSTRUCTED SLABS.

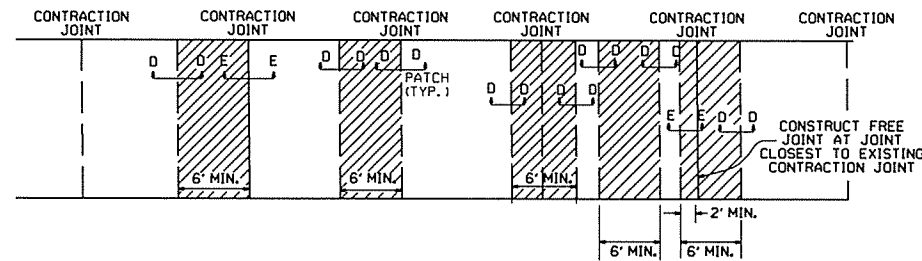


DETAIL OF SAWED CONTRACTION JOINT

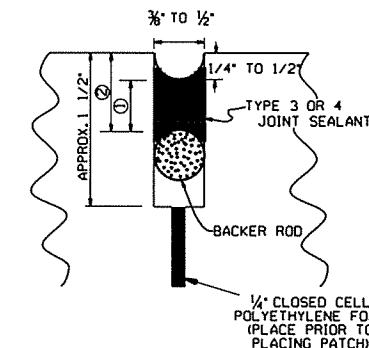


SECTION C-C

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



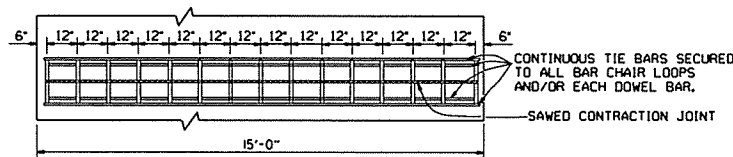
PLAN OF PAVEMENT REPAIR
(PARTIAL SLABS)



DETAIL OF SAWED FREE TRANSVERSE JOINT

NOTES FOR PAVEMENT REPAIR

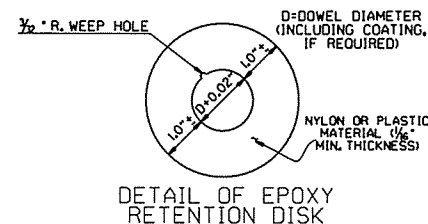
- EXACT SIZE AND LOCATION OF AREA TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER. ALL PATCHES SHALL EXTEND ACROSS THE FULL WIDTH OF THE SLAB AS SHOWN IN THESE DETAILS.
- THE FINAL SURFACE FINISH FOR PATCHES SHALL MATCH THAT OF THE EXISTING PAVEMENT.
- WHEN AREA TO BE REPAIRED INCLUDES AN EXISTING JOINT, THE JOINT SHALL BE RECONSTRUCTED TO THE CONFIGURATION SHOWN IN THESE DETAILS.
- 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.
- FORMS FOR PAVEMENT REPAIR SHALL BE METAL UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- 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.
- 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.
- 1" 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.
- DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS 1" WILL BE ALLOWED FOR VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS 1/4" WILL BE ALLOWED FOR THE TILT AND SKEW.



15' PAVEMENT
15 DOWELS
PLAN - CONTRACTION JOINT

NOTE: FOR 15' PAVEMENT USE 15 DOWELS @ 12" CTRS. WITH 6" SPACING FROM C.L. AND EDGE OF SLAB TO FIRST BAR. FOR PAVEMENT WIDTHS OTHER THAN THOSE SHOWN ABOVE, USE DOWELS AT 12" CTRS. WITH 6" MAX. SPACING FROM C.L. TO FIRST BAR. DISTANCE FROM EDGE OF SLAB TO FIRST BAR SHALL BE ADJUSTED TO MAINTAIN 12" DOWEL BAR SPACING.

CONTRACTION JOINT DETAILS



DETAIL OF EPOXY RETENTION DISK

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

JOINT CONFIGURATION FOR
TYPE 3 OR 4 JOINT SEALANT

JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
1/4	1/4	3/8	1/2
3/8	1/4	1/2	1/2
1/2	1/4	5/8	1/2

JOINT CONFIGURATION FOR
TYPE 5 JOINT SEALANT

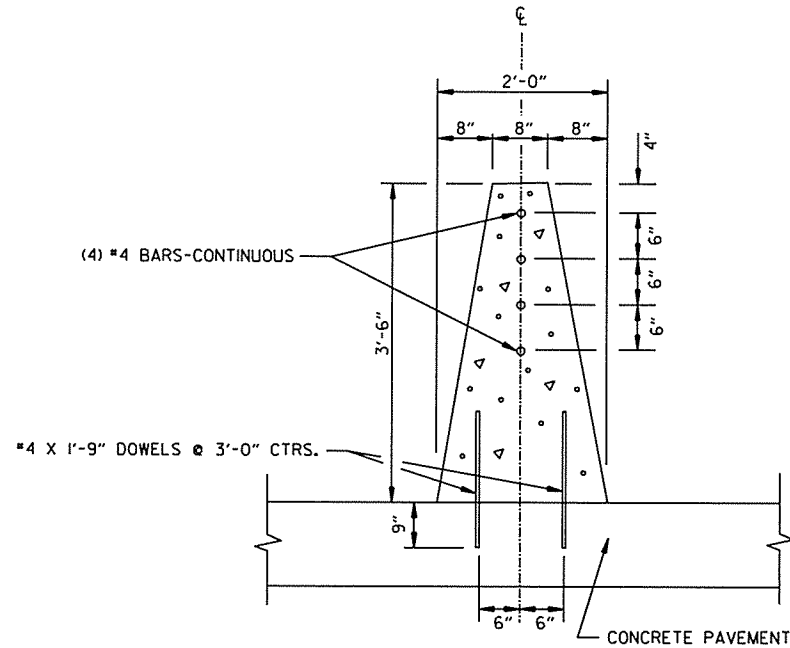
JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
1/4	1/2	3/8	3/4
3/8	3/4	1/2	1

DETAILS OF PORTLAND CEMENT
CONCRETE PAVEMENT PATCHING
(RAMPS)

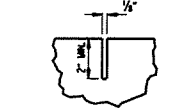
SPECIAL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		8	105

2 SPECIAL DETAILS



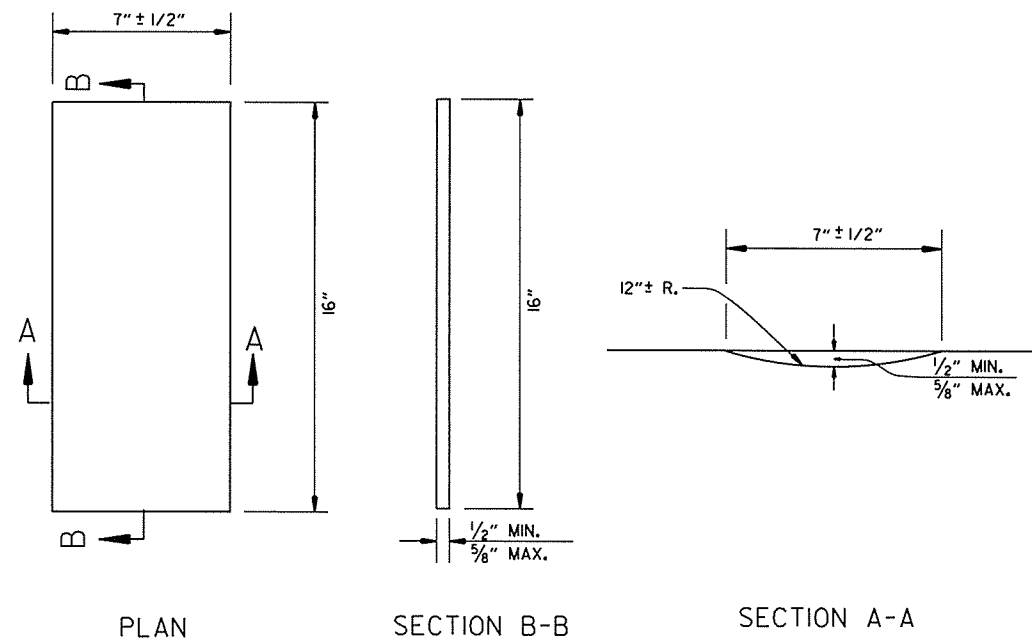
CONCRETE BARRIER WALL
(MEDIAN TYPE SP-1)
NOT TO SCALE



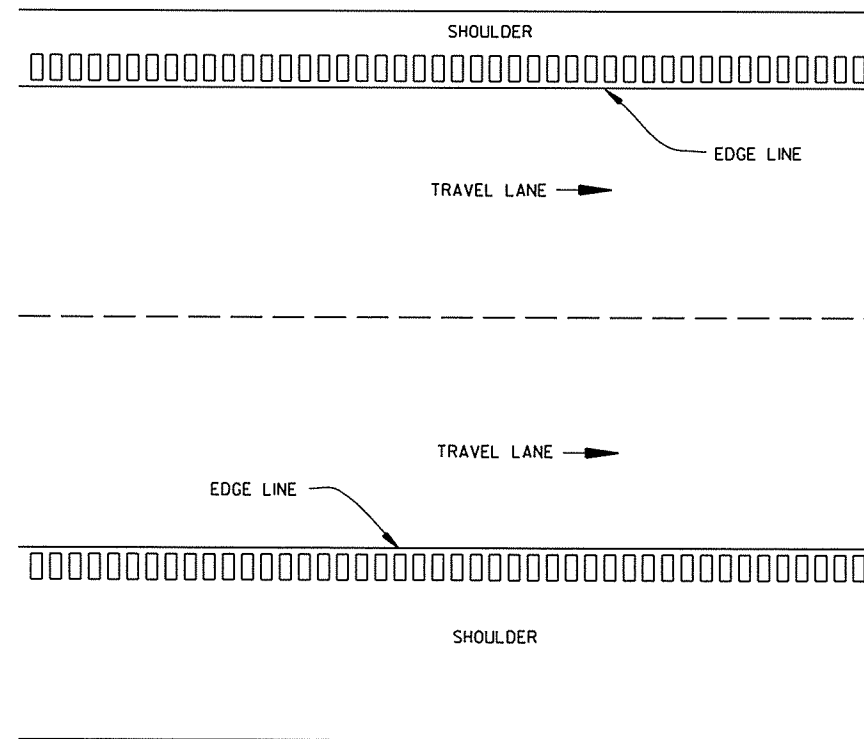
CONTRACTION JOINT DETAIL

GENERAL NOTES FOR CONCRETE BARRIER WALLS

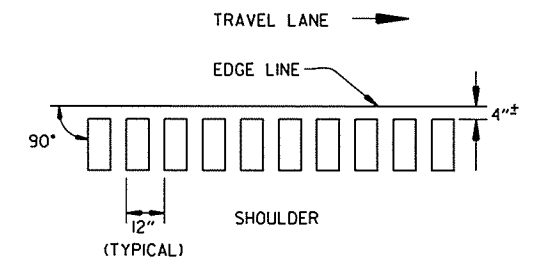
1. ALL BARRIER WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 631 OF THE STANDARD SPECIFICATIONS, 2014 EDITION.
2. CONTRACTION JOINTS REQUIRED @ 15'-0" MAXIMUM SPACING FOR BARRIER TYPES MEDIAN A.
3. ALL CONTRACTION JOINTS TO BE FORMED IN FRESH CONCRETE ON TOP AND IN SIDES OF BARRIER WALL.
4. DOWEL BARS FOR BARRIER TYPES MEDIAN A WILL NOT BE REQUIRED IF BARRIER AND MINIMUM 4' WIDE BASE ARE CAST AS A COMPLETE UNIT.
5. ALL EXPOSED EDGES OF CONCRETE BARRIER WALL SHALL HAVE A 3/4" CHAMFER.
6. SPACING BETWEEN EXPANSION JOINTS SHALL NOT EXCEED 400 FT FOR BARRIER TYPES MEDIAN A. EXPANSION JOINTS SHALL BE FORMED USING 1" PREFORMED JOINT FILLER. CONTINUOUS REINFORCEMENT SHALL BE CUT 2" CLEAR OF EXPANSION JOINTS.
7. DRAINAGE OPENINGS TO BE CONSTRUCTED EVERY 100' O.C. AND AT SAGS AND ADJACENT TO DROP INLETS. DOWEL BARS SHALL NOT BE PLACED WITHIN 3" OF DRAINAGE OPENINGS.



DETAILS OF RUMBLE STRIPS



PLAN VIEW



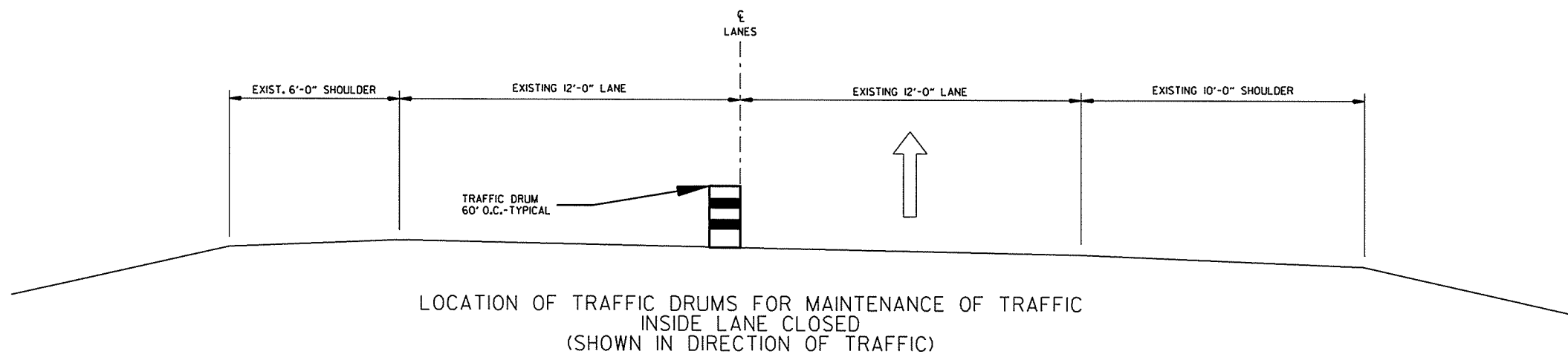
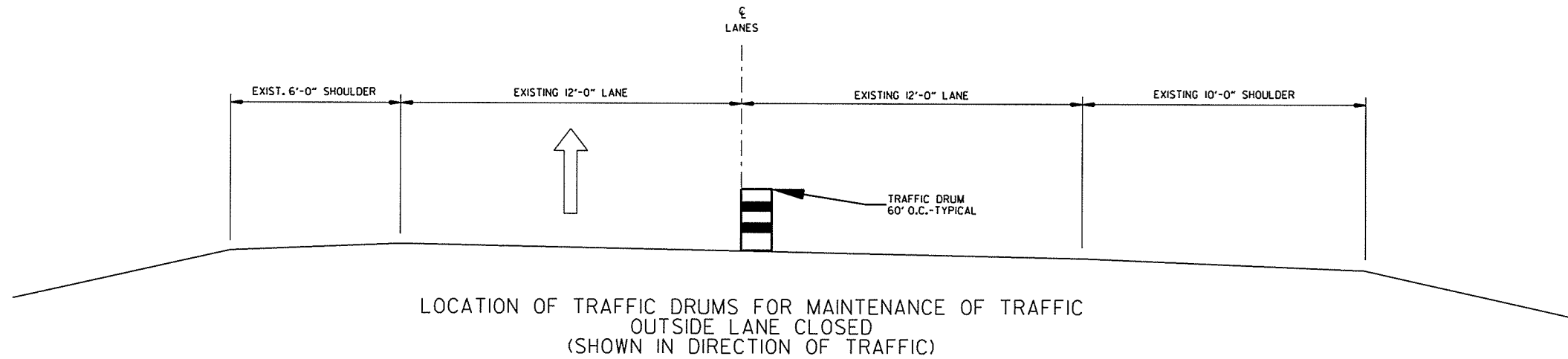
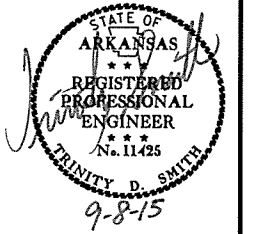
LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER

NOTES:

1. ALIGNMENT OF RUMBLE STRIPS SHALL GENERALLY BE STRAIGHT AND OFFSET APPROXIMATELY 4" FROM THE OUTER EDGE OF THE EDGE LINE. THIS OFFSET MAY BE ADJUSTED TO ACCOMMODATE VARIATIONS IN THE EDGE LINE.
2. THE 1/2" 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.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0409	9	105

2 SPECIAL DETAILS



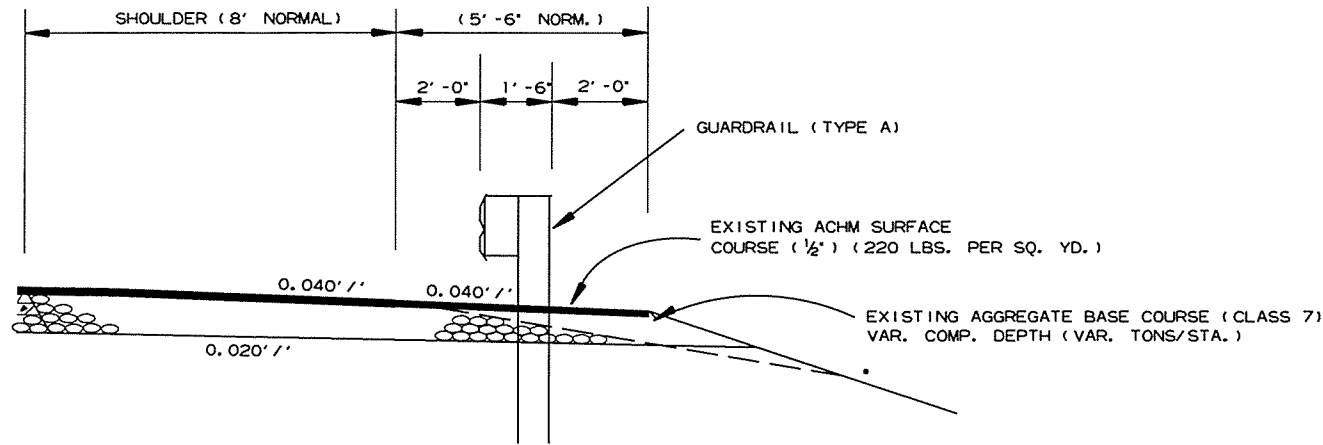
9/2/2015

RB0409.DCN

SPECIAL DETAILS

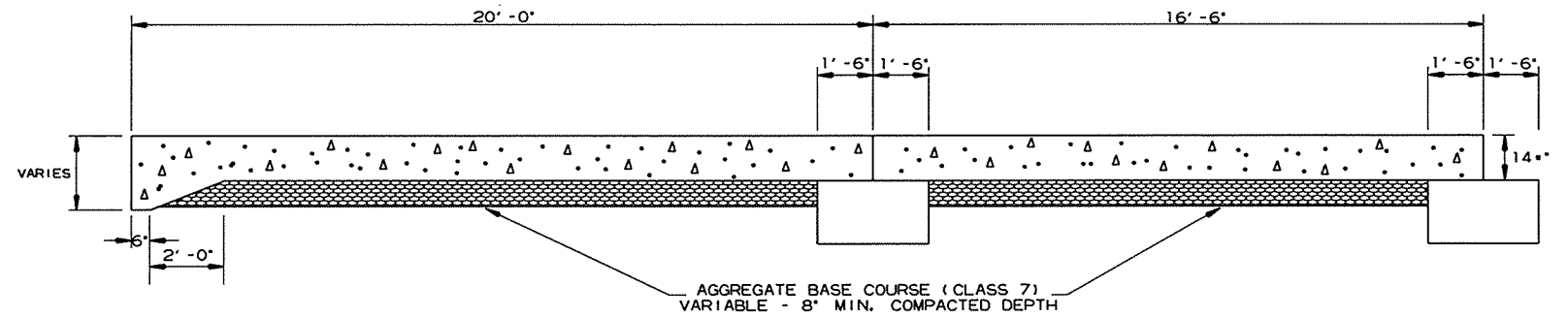
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9-25-15				6	ARK.		10	105
				JOB NO.	BB0409			

2 SPECIAL DETAILS

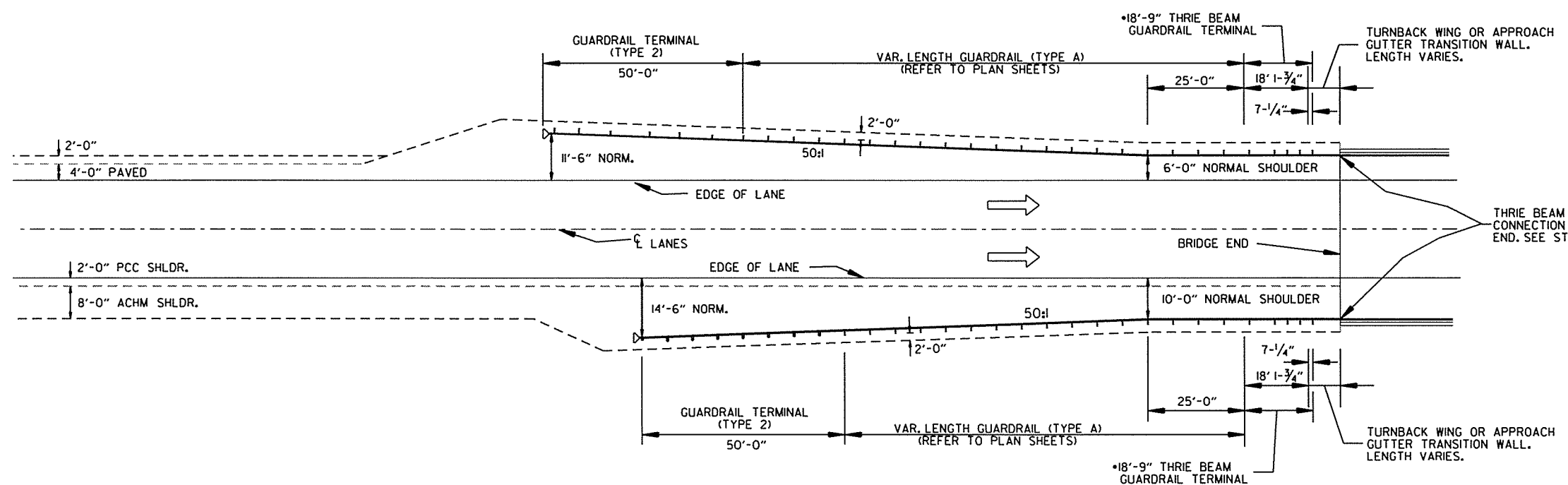


WIDENING FOR GUARDRAIL

NOTE: REFER TO STD. DWG. GR-9A AND CROSS SECTIONS FOR SLOPE REQUIREMENTS BEHIND GUARDRAIL.



SECTION OF APPROACH SLAB



TYPICAL LAYOUT OF GUARDRAIL AT BRIDGE ENDS

* THE CONTRACTOR SHALL DRILL 1" DIA. HOLES FOR THE NEW THRIE BEAM CONNECTION BOLTS IN THE EXISTING TRANSITION RAIL. CARE SHALL BE EXERCISED TO AVOID THE EXISTING REINFORCING STEEL IN THE RAIL. THIS WORK WILL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED INCLUDED IN THE VARIOUS CONTRACT ITEMS. SEE STANDARD DRAWING GR-10 FOR ADDITIONAL DETAILS.

THRIE BEAM GUARDRAIL CONNECTION AT BRIDGE END. SEE STD. DWG. GR-10.

9/25/2015

RB0409.DGN

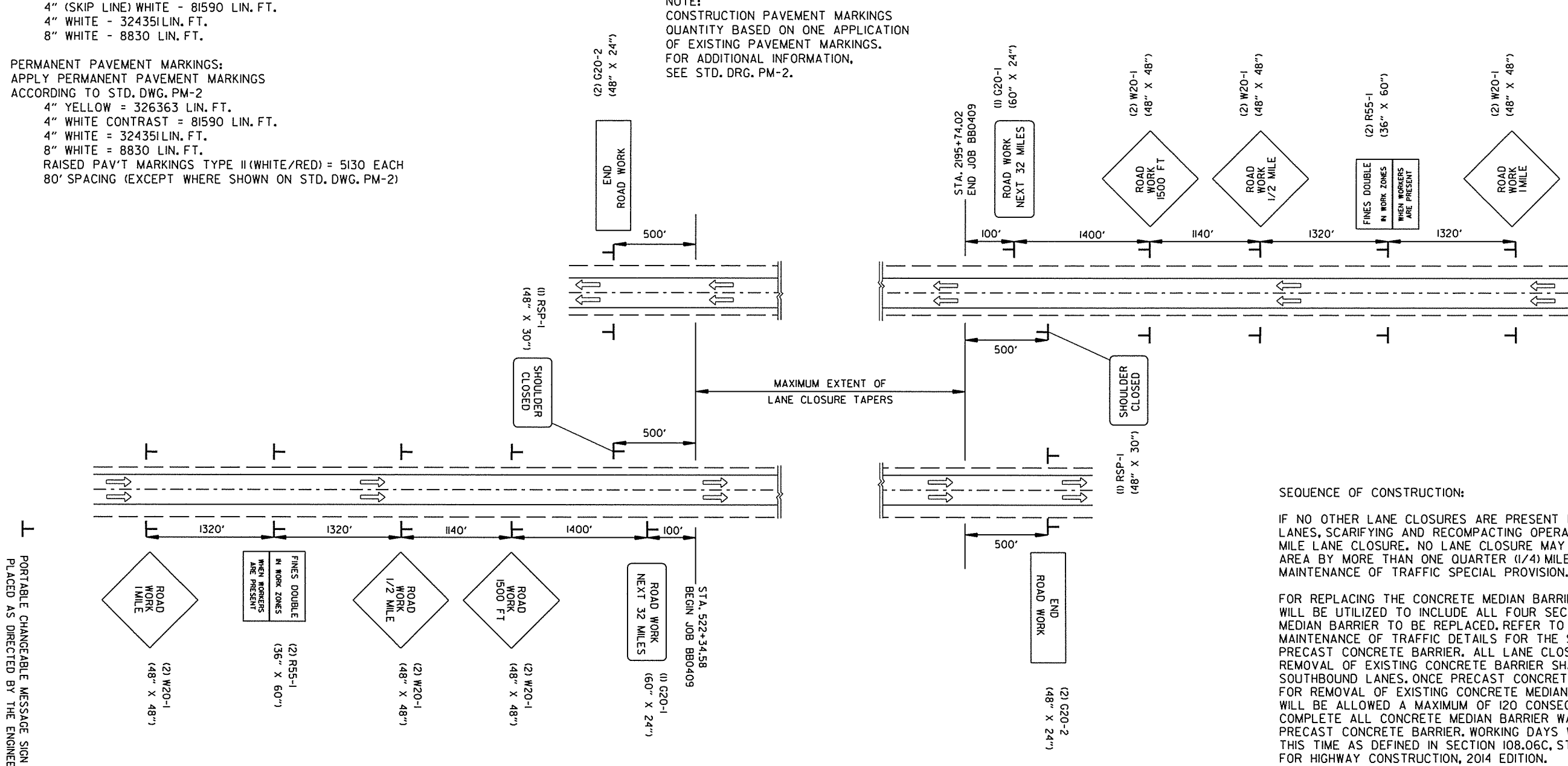
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				6	ARK.		11	105
				JOB NO.	BB0409			

② MAINTENANCE OF TRAFFIC DETAILS

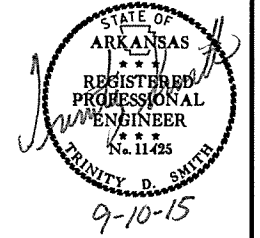
CONSTRUCTION PAVEMENT MARKINGS:
 APPLY CONSTRUCTION PAVEMENT MARKINGS
 ACCORDING TO STD. DWG. PM-2
 4" YELLOW - 326363 LIN. FT.
 4" (SKIP LINE) WHITE - 81590 LIN. FT.
 4" WHITE - 324351 LIN. FT.
 8" WHITE - 8830 LIN. FT.

PERMANENT PAVEMENT MARKINGS:
 APPLY PERMANENT PAVEMENT MARKINGS
 ACCORDING TO STD. DWG. PM-2
 4" YELLOW = 326363 LIN. FT.
 4" WHITE CONTRAST = 81590 LIN. FT.
 4" WHITE = 324351 LIN. FT.
 8" WHITE = 8830 LIN. FT.
 RAISED PAV'T MARKINGS TYPE II (WHITE/RED) = 5130 EACH
 80' SPACING (EXCEPT WHERE SHOWN ON STD. DWG. PM-2)

NOTE:
 CONSTRUCTION PAVEMENT MARKINGS
 QUANTITY BASED ON ONE APPLICATION
 OF EXISTING PAVEMENT MARKINGS.
 FOR ADDITIONAL INFORMATION,
 SEE STD. DRG. PM-2.



PORTABLE CHANGEABLE MESSAGE SIGN
 PLACED AS DIRECTED BY THE ENGINEER



SEQUENCE OF CONSTRUCTION:

IF NO OTHER LANE CLOSURES ARE PRESENT IN A GIVEN SET OF LANES, SCARIFYING AND RECOMPACTING OPERATIONS SHALL UTILIZE A FOUR (4) MILE LANE CLOSURE. NO LANE CLOSURE MAY EXCEED THE ACTIVE AREA BY MORE THAN ONE QUARTER (1/4) MILE. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

FOR REPLACING THE CONCRETE MEDIAN BARRIER, A SHOULDER CLOSURE WILL BE UTILIZED TO INCLUDE ALL FOUR SECTIONS OF CONCRETE MEDIAN BARRIER TO BE REPLACED. REFER TO SHEET NUMBER 15 OF THE MAINTENANCE OF TRAFFIC DETAILS FOR THE STATIONING OF THE PRECAST CONCRETE BARRIER. ALL LANE CLOSURES REQUIRED FOR REMOVAL OF EXISTING CONCRETE BARRIER SHALL BE CLOSED IN THE SOUTHBOUND LANES. ONCE PRECAST CONCRETE BARRIER IS INSTALLED FOR REMOVAL OF EXISTING CONCRETE MEDIAN BARRIER, THE CONTRACTOR WILL BE ALLOWED A MAXIMUM OF 120 CONSECUTIVE CALENDAR DAYS TO COMPLETE ALL CONCRETE MEDIAN BARRIER WALL WORK AND REMOVE THE PRECAST CONCRETE BARRIER. WORKING DAYS WILL BE CHARGED DURING THIS TIME AS DEFINED IN SECTION 108.06C, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2014 EDITION.

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

FOR REPLACEMENT OF APPROACH SLABS, WORK SHALL BE ACCOMPLISHED IN HALF WIDTHS, UTILIZING A LANE CLOSURE IF NO OTHER LANE CLOSURES CURRENTLY EXIST IN A GIVEN SET OF LANES.

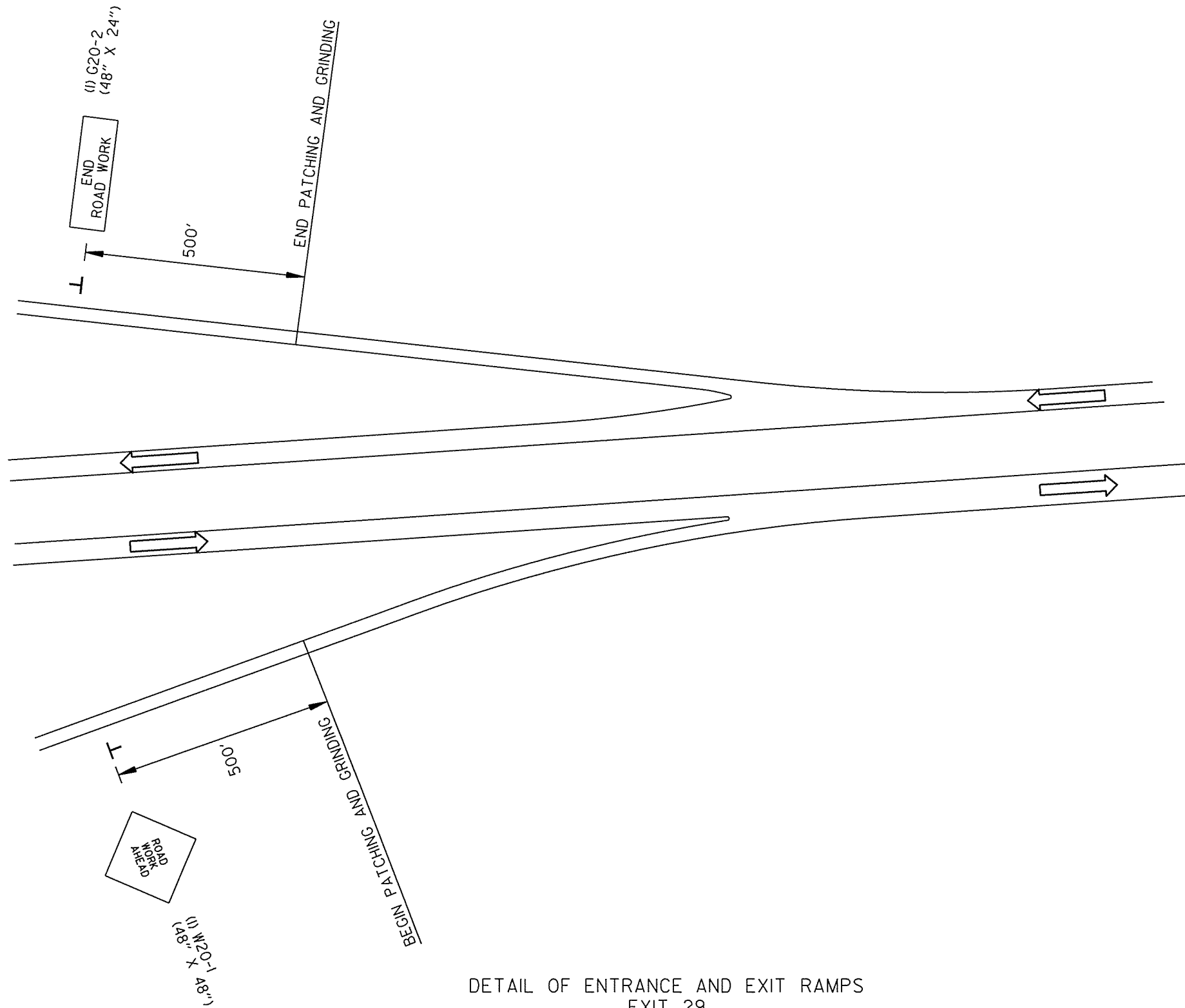
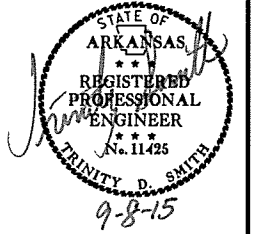
PORTABLE CHANGEABLE MESSAGE SIGN
 PLACED AS DIRECTED BY THE ENGINEER

ADVANCE WARNING
 MAINTENANCE OF TRAFFIC DETAILS

ADVANCE WARNING SIGNS FOR ENTRANCE AND EXIT RAMP
 ROAD WORK AHEAD (I) = 160 SQ. FT.
 END ROAD WORK (II) = 88 SQ. FT.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		12	105
				JOB NO.		BBO409		

② MAINTENANCE OF TRAFFIC DETAILS



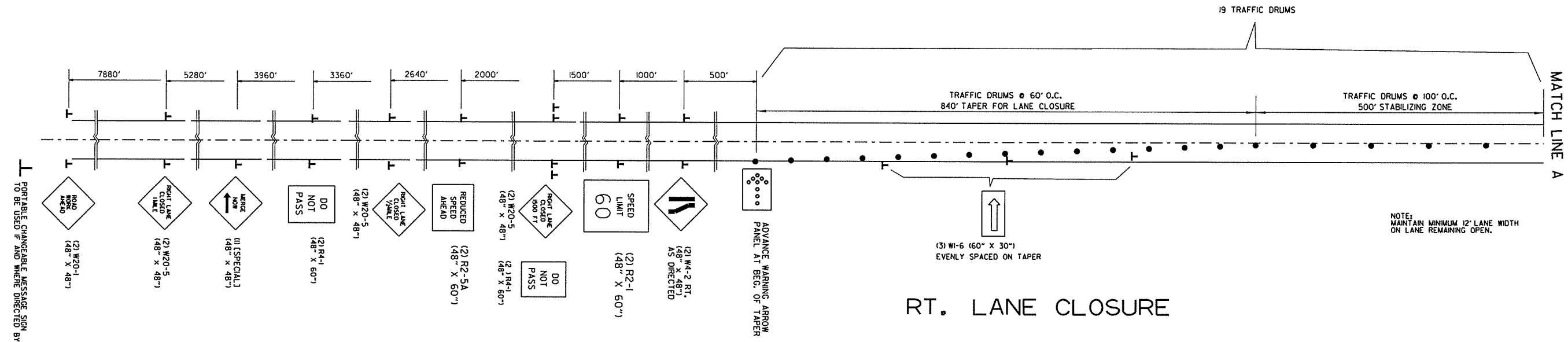
DETAIL OF ENTRANCE AND EXIT RAMP

- EXIT 29
- EXIT 34
- EXIT 45
- EXIT 53
- EXIT 58
- EXIT 60

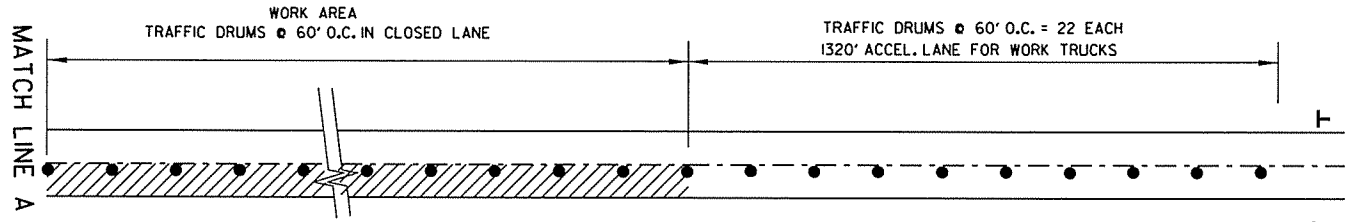
DETAIL OF RAMPS
 MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. BB0409	13	105

2 MAINTENANCE OF TRAFFIC DETAILS

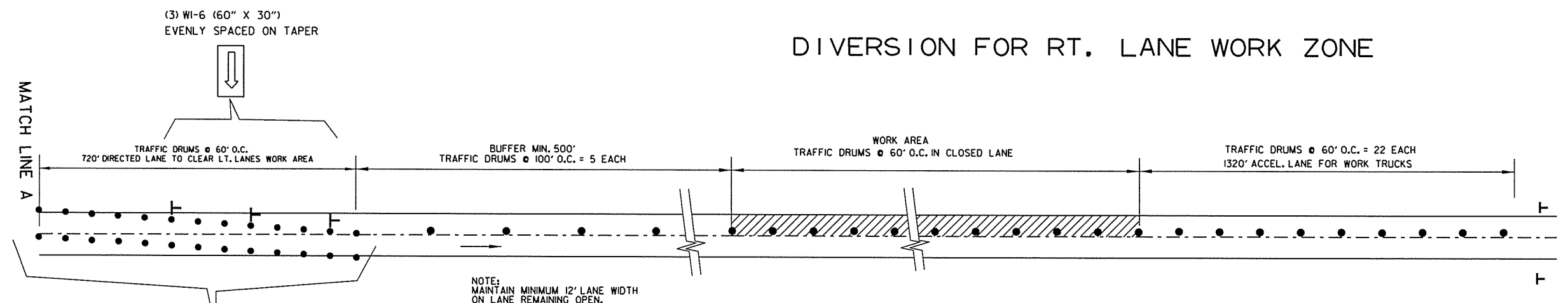


SPEED LIMIT SIGNS ARE ALSO PROVIDED FOR PLACEMENT PAST ENTRANCE RAMP WITHIN THE WORK ZONE.



SPEED LIMIT 70 (2) R2-1 (48" X 60")

DIVERSION FOR RT. LANE WORK ZONE

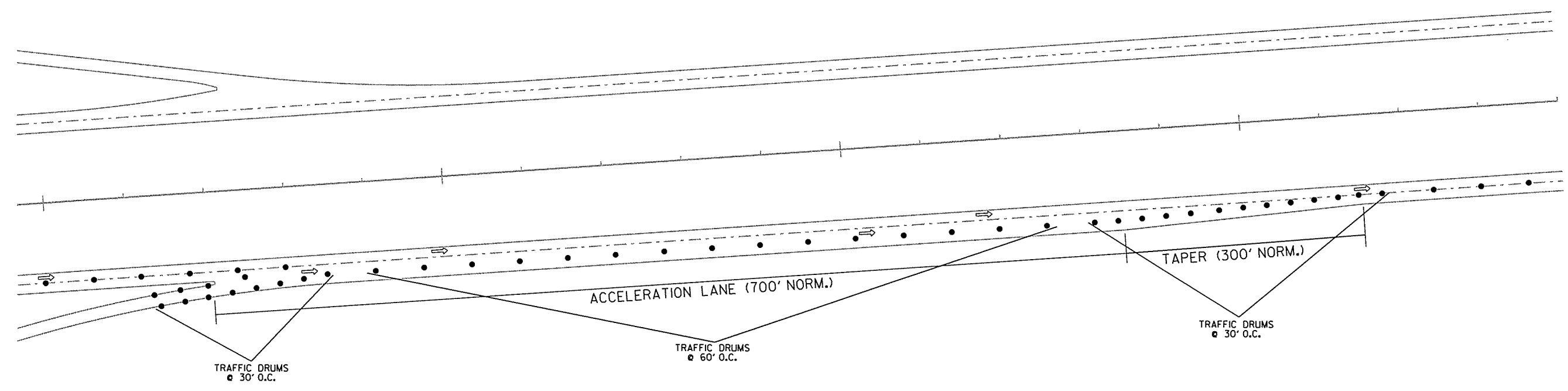
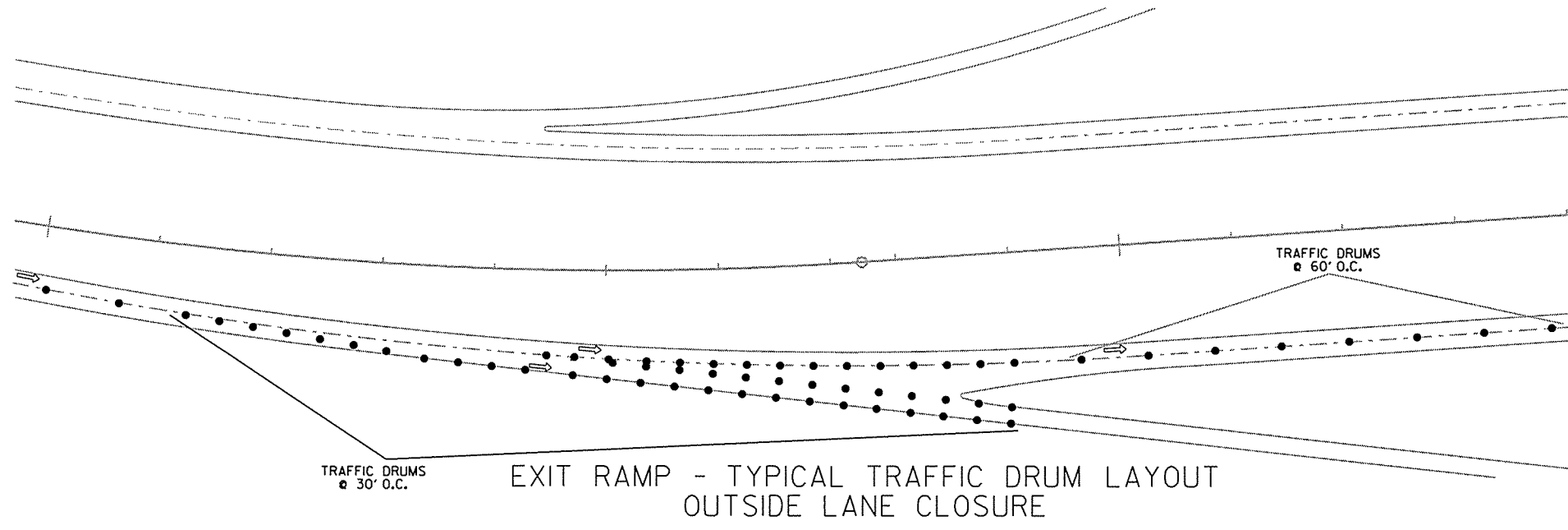
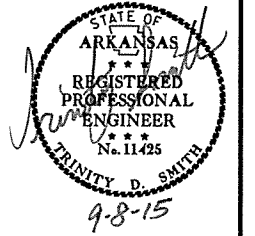


SPEED LIMIT 70 (2) R2-1 (48" X 60")

DIVERSION FOR LT. LANE WORK ZONE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		14	105

② MAINTENANCE OF TRAFFIC DETAILS



ENTRANCE RAMP - TYPICAL TRAFFIC DRUM LAYOUT
ACCELERATION LANE CLOSURE

EXIT 29, 34, 45, 53, 58, 60:
 NORTHBOUND EXIT = 40 TRAFFIC DRUMS
 NORTHBOUND ENTRANCE = 17 TRAFFIC DRUMS
 SOUTHBOUND EXIT = 40 TRAFFIC DRUMS
 SOUTHBOUND ENTRANCE = 17 TRAFFIC DRUMS

DETAIL OF RAMPS WITH LANE CLOSURE
 MAINTENANCE OF TRAFFIC DETAILS

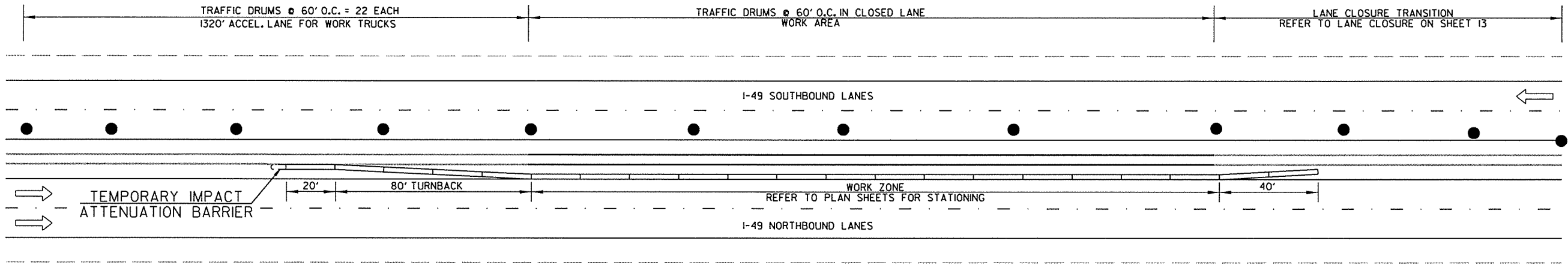
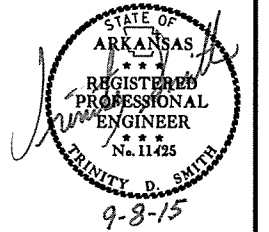
9/2/2015

RB0409.DGN

FOR REMOVAL OF EXISTING CONCRETE BARRIER:
 STA. 1219+78.98 TO STA. 1392+18.02 = 17240 LIN. FT. FURNISH AND INSTALL PRECAST CONCRETE BARRIER & I.T.I.A.B. (RELOCATION)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BBO409		15	105

② MAINTENANCE OF TRAFFIC DETAILS

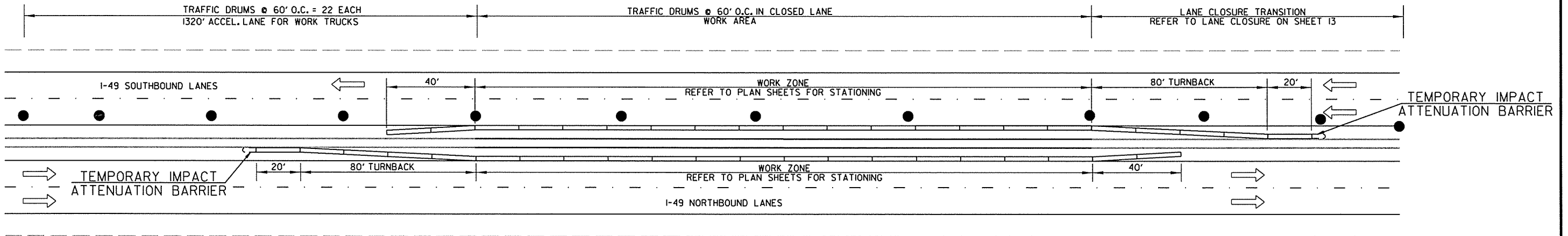


REMOVAL OF EXISTING CONCRETE BARRIER

FOR INSTALLING NEW CONCRETE BARRIER:
 STA. 1219+78.98 TO STA. 1392+65.06 = 17240 LIN. FT. FURNISH AND INSTALL PRECAST CONCRETE BARRIER & I.T.I.A.B.

NOTE: PRECAST CONCRETE BARRIER WALL FROM REMOVAL OF EXISTING CONCRETE BARRIER TO REMAIN IN PLACE FOR INSTALLATION OF NEW CONCRETE BARRIER.

NOTE: THE LANE CLOSURE IS TO BE UTILIZED DURING POURING OF CONCRETE FOR PROPOSED CONCRETE BARRIER.



INSTALLING NEW CONCRETE BARRIER

REPLACING CONCRETE MEDIAN BARRIER
 MAINTENANCE OF TRAFFIC DETAILS

9/4/2015

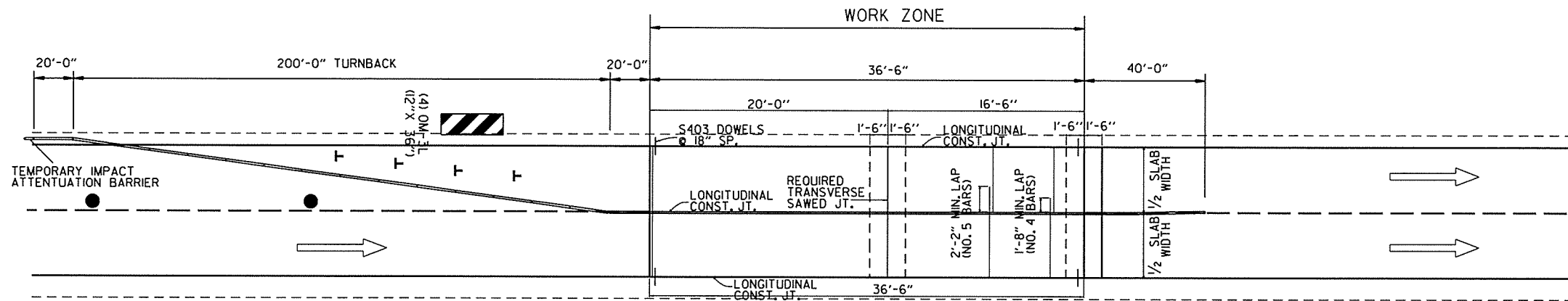
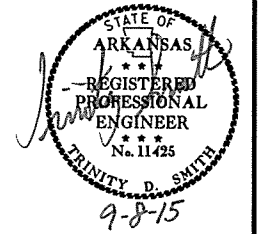
RBB0409.DGN

FOR CONSTRUCTION OF PROPOSED APPROACH SLAB:
 STA. 524+33.42 TO STA. 527+33.42 = 320 LIN. FT. FURNISH AND INSTALL PRECAST CONCRETE BARRIER & I.T.I.A.B.
 STA. 1027+51.61 TO STA. 1030+51.61 = 320 LIN. FT. RELOCATING PRECAST CONCRETE BARRIER & I.T.I.A.B. (RELOCATION)

NOTE: APPROACH SLABS ARE TO BE CONSTRUCTED IN HALF-WIDTHS.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BBO409		16	105

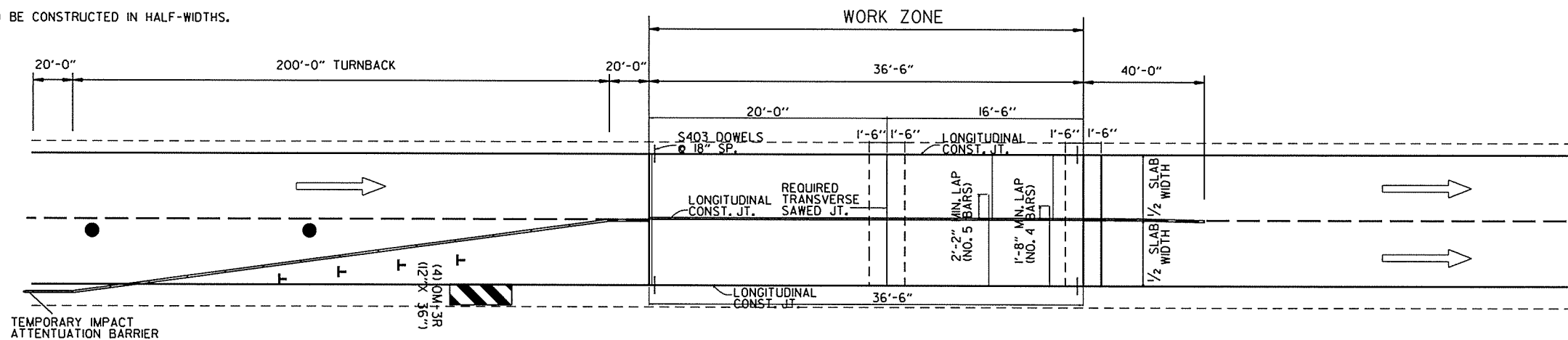
② MAINTENANCE OF TRAFFIC DETAILS



STAGE 1
NOT TO SCALE

FOR CONSTRUCTION OF PROPOSED APPROACH SLAB:
 STA. 524+33.42 TO STA. 527+33.42 = 320 LIN. FT. RELOCATING PRECAST CONCRETE BARRIER & I.T.I.A.B. (RELOCATION)
 STA. 1027+51.61 TO STA. 1030+51.61 = 320 LIN. FT. RELOCATING PRECAST CONCRETE BARRIER & I.T.I.A.B. (RELOCATION)

NOTE: APPROACH SLABS ARE TO BE CONSTRUCTED IN HALF-WIDTHS.



STAGE 2
NOT TO SCALE

CONSTRUCTION OF PROPOSED APPROACH SLABS

9/2/2015

RBB0409.DGN

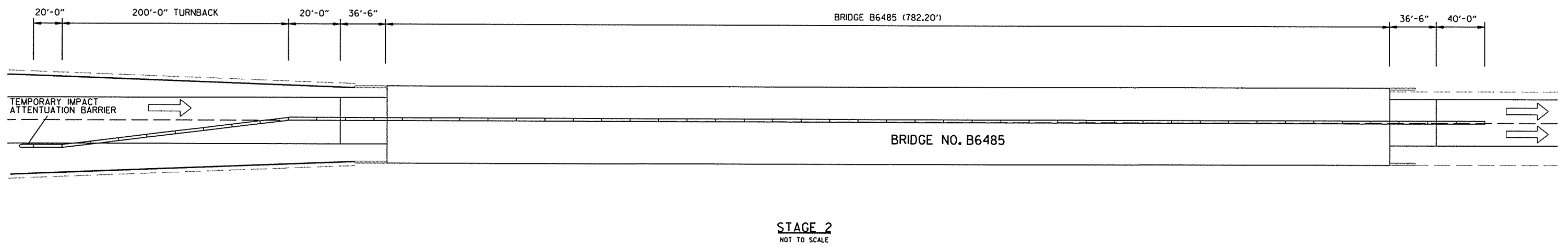
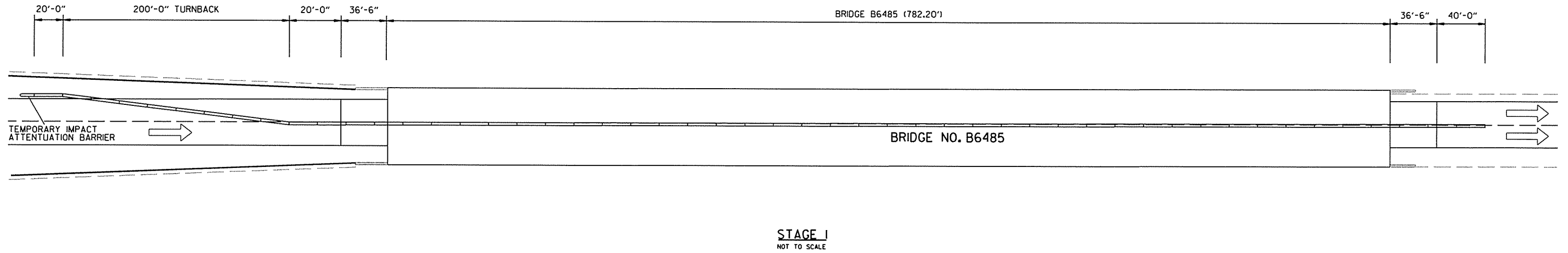
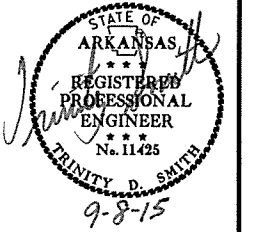
FOR CONSTRUCTION OF PROPOSED APPROACH SLAB:

STA. 1562+20.90 TO STA. 1573+60.90 = 1140 LIN. FT. FURNISH AND INSTALL PRECAST CONCRETE BARRIER & I.T.J.A.B.
 STA. 1562+20.90 TO STA. 1573+60.90 = 1140 LIN. FT. RELOCATING PRECAST CONCRETE BARRIER & I.T.J.A.B. (RELOCATION)

NOTE: APPROACH SLABS ARE TO BE CONSTRUCTED IN HALF-WIDTHS.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		17	105

② MAINTENANCE OF TRAFFIC DETAILS



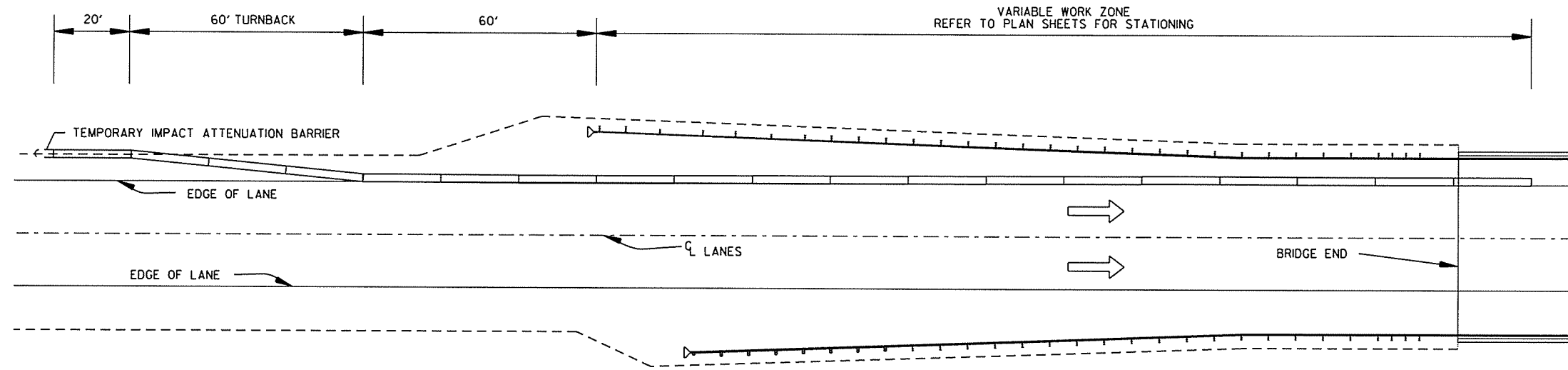
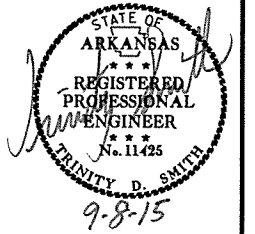
CONSTRUCTION OF PROPOSED APPROACH SLABS

PRECAST CONCRETE BARRIER WALL (74 LOCATIONS)
 (1) FURNISH AND INSTALL = 2360 LIN. FT.
 (73) RELOCATE = 34120 TOTAL LIN. FT.

NOTE: LENGTH OF PRECAST CONCRETE BARRIER WALL TO BE RELOCATED VARIES BY LOCATION. REFER TO PLAN SHEETS FOR STATIONING OF WORK ZONE FOR GUARDRAIL REPLACEMENT.

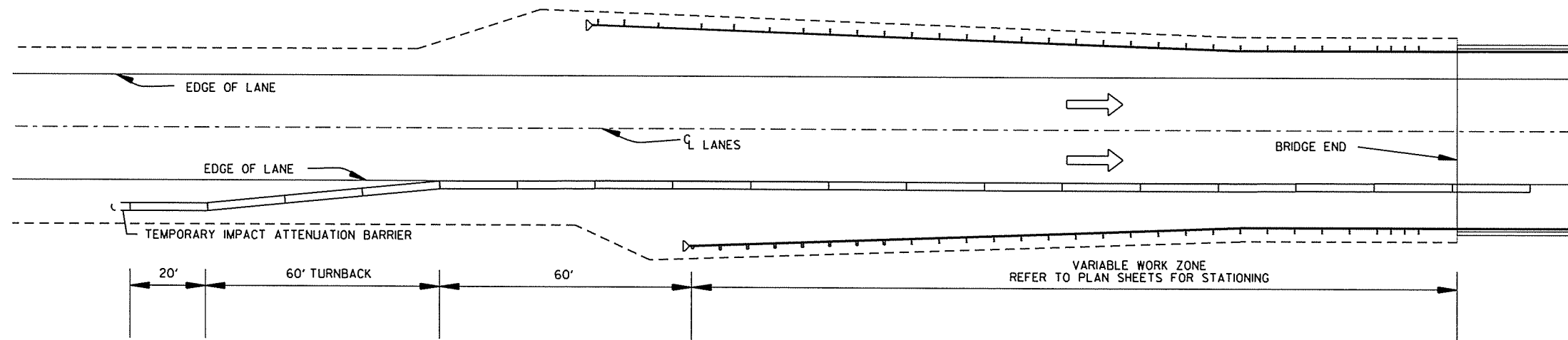
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		18	105

② MAINTENANCE OF TRAFFIC DETAILS



TYPICAL LAYOUT OF PRECAST BARRIER AT BRIDGE ENDS (INSIDE SHOULDER)

NOTE: FOR GUARDRAIL REPLACEMENT IN AREAS WHERE MILL AND INLAY OF THE ASPHALT PAVEMENT IS TO OCCUR, THE COLD MILLING SHALL BE PERFORMED AFTER REMOVAL OF EXISTING GUARDRAIL. THE ACHM SURFACE COURSE WILL PLACE AFTER THE COLD MILLING BEFORE CONSTRUCTION OF THE PROPOSED GUARDRAIL.



TYPICAL LAYOUT OF PRECAST BARRIER AT BRIDGE ENDS (OUTSIDE SHOULDER)

TYPICAL LAYOUT OF PRECAST BARRIER FOR GUARDRAIL REPLACEMENT

9/2/2015

RB0409.DGN

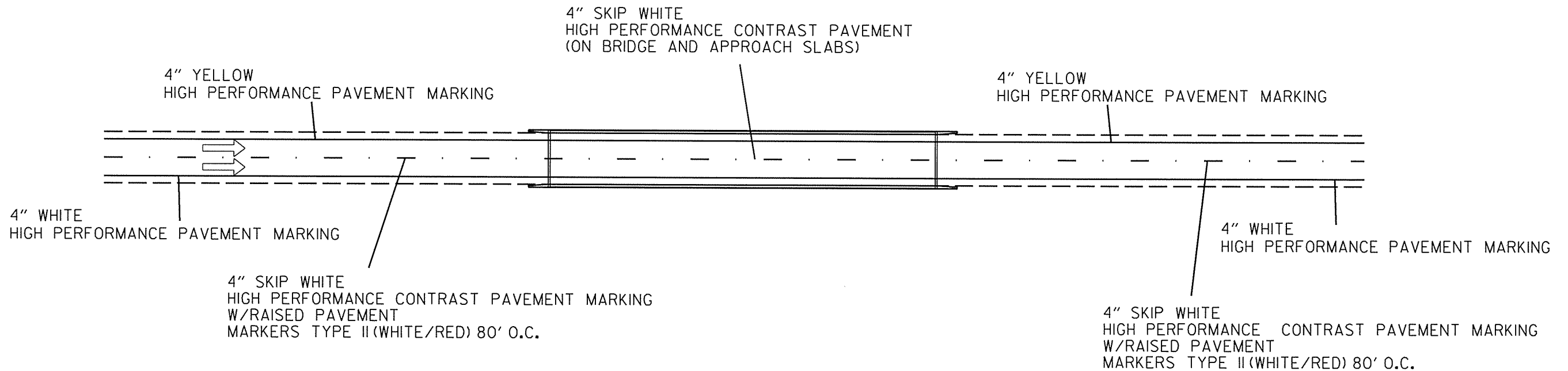
PERMANENT PAVEMENT MARKINGS

HIGH PERFORMANCE CONTRAST PAVEMENT MARKING WHITE (4") - 81590 LIN. FT.
 HIGH PERFORMANCE PAVEMENT MARKING WHITE (4") - 324351 LIN. FT.
 HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4") - 326363 LIN. FT.
 HIGH PERFORMANCE PAVEMENT MARKING WHITE (8") - 8830 LIN. FT.

RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) - 5130 EACH
 80' SPACING (EXCEPT WHERE SHOWN ON STD. DWG. PM-2)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		19	105

2 PERMANENT PAVEMENT MARKING DETAILS



TYPICAL STRIPING DETAIL
 I-49 NORTHBOUND AND SOUTHBOUND LANES

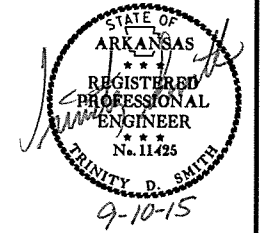
NOTE: SEE STD. DWG. PM-2 FOR ENTRANCE RAMP, EXIT RAMP, GORE AREAS, AND ACCEL. LANE PAV'T MARKING.

9/3/2015

RB0409.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.	BB0409
								20
								105

2 QUANTITIES



CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	END OF JOB LIN. FT. - EACH	CONSTRUCTION PAVEMENT MARKINGS LIN. FT.	RAISED PAVEMENT MARKERS	HIGH PERFORMANCE CONTRAST PAVEMENT MARKING	HIGH PERFORMANCE PAVEMENT MARKING		
			TYPE II (WHITE/RED)	4" WHITE	4" WHITE YELLOW		8" WHITE
			EACH	LIN. FT.	WHITE	YELLOW	WHITE
CONSTRUCTION PAVEMENT MARKINGS	741134	741134					
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)	5130		5130				
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING WHITE (4")	81590			81590			
HIGH PERFORMANCE PAVEMENT MARKING WHITE (4")	324351				324351		
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4")	326363					326363	
HIGH PERFORMANCE PAVEMENT MARKING WHITE (8")	8830						8830
TOTALS:		741134	5130	81590	324351	326363	8830

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

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	ENTIRE PROJECT	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMP. IMPACT ATTEN.BARR. (REPAIR)	TEMP. IMPACT ATTEN.BARR. (RELOCATION)	ADVANCE WARNING ARROW PANEL	PORTABLE CHANGEABLE MESSAGE SIGN
			LIN. FT. - EACH		NO.	SQ. FT.								
W20-1	ROAD WORK 1 MILE	48"x48"	4	4	4	64.0								
W20-1	ROAD WORK 1/2 MILE	48"x48"	4	4	4	64.0								
W20-1	ROAD WORK 1500 FT.	48"x48"	4	4	4	64.0								
W20-1	ROAD WORK AHEAD	48"x48"	14	14	14	224.0								
G20-2	END ROAD WORK	48"x24"	15	15	15	120.0								
G20-1	ROAD WORK NEXT XX MILES	60"x24"	2	2	2	20.0								
R55-1	FINES DOUBLE IN WORK ZONES	36"x60"	4	4	4	60.0								
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	4	4	4	64.0								
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"	4	4	4	64.0								
W20-5	RIGHT LANE CLOSED 1500 FT.	48"x48"	4	4	4	64.0								
SPECIAL	MERGE NOW W/ ARROW	48"x48"	2	2	2	32.0								
R2-5A	REDUCED SPEED AHEAD	48"x60"	4	4	4	80.0								
W1-6	LARGE ARROW	48"x24"	12	12	12	96.0								
R4-1	DO NOT PASS	48"x60"	4	4	4	80.0								
RSP-1	SHOULDER CLOSED	48"x30"	2	2	2	20.0								
R2-1	SPEED LIMIT 60 MPH	48"x60"	6	6	6	120.0								
R2-1	SPEED LIMIT 70 MPH	48"x60"	4	4	4	80.0								
W4-2 RT.	MERGE RIGHT	48"x48"	4	4	4	64.0								
OM-3R	OBJECT MARKER	12"x36"	4	4	4	12.0								
OM-3L	OBJECT MARKER	12"x36"	4	4	4	12.0								
	TRAFFIC DRUMS		962	962			962							
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		38300	38300				38300						
	RELOCATING PRECAST CONCRETE BARRIER		36220	36220				36220						
	TEMPORARY IMPACT ATTENUATION BARRIER		4	4					4					
	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)		4	4						4				
	TEMPORARY IMPACT ATTENUATION BARRIER (RELOCATION)		80	80							80			
	ADVANCE WARNING ARROW PANEL		2	2								500		
	PORTABLE CHANGEABLE MESSAGE SIGN		4	4									268	
TOTALS:						1404.0	962	38300	36220	4	4	80	500	268

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

NOTE: THE QUANTITY OF TRAFFIC DRUMS PROVIDED IS FOR A FOUR MILE LANE CLOSURE IN EACH DIRECTION. HOWEVER, THE INSTALLATION OF TRAFFIC DRUMS SHALL NEVER EXCEED THE ACTUAL WORK AREA BY MORE THAN 1/4 MILE, UNLESS APPROVED BY THE ENGINEER.

9/10/2015

RB0409.DCN

QUANTITIES

RUMBLE STRIPS IN PORTLAND CEMENT CONCRETE SHOULDERS		STATION	LOCATION	* RUMBLE STRIPS IN PORTLAND CEMENT CONCRETE SHOULDERS LIN. FT.
534+60	545+73	RT. MAIN LANES - OUTSIDE SHOULDER		1113
563+85	595+55	RT. MAIN LANES - OUTSIDE SHOULDER		3170
608+51	697+19	RT. MAIN LANES - OUTSIDE SHOULDER		8668
700+79	711+49	RT. MAIN LANES - OUTSIDE SHOULDER		1070
717+14	734+65	RT. MAIN LANES - OUTSIDE SHOULDER		1751
735+22	742+05	RT. MAIN LANES - OUTSIDE SHOULDER		683
770+63	780+86	RT. MAIN LANES - OUTSIDE SHOULDER		1023
798+79	865+34	RT. MAIN LANES - OUTSIDE SHOULDER		6655
880+74	945+50	RT. MAIN LANES - OUTSIDE SHOULDER		6476
964+45	1029+29	RT. MAIN LANES - OUTSIDE SHOULDER		6484
1045+05	1115+95	RT. MAIN LANES - OUTSIDE SHOULDER		7090
1116+34	1160+17	RT. MAIN LANES - OUTSIDE SHOULDER		4383
1176+12	1189+21	RT. MAIN LANES - OUTSIDE SHOULDER		1309
1189+10	1205+30	RT. MAIN LANES - OUTSIDE SHOULDER		1620
1221+16	1263+30	RT. MAIN LANES - OUTSIDE SHOULDER		4214
1274+35	1303+85	RT. MAIN LANES - OUTSIDE SHOULDER		2950
1318+15	1332+17	RT. MAIN LANES - OUTSIDE SHOULDER		1402
1336+85	1378+45	RT. MAIN LANES - OUTSIDE SHOULDER		4160
1389+36	1451+29	RT. MAIN LANES - OUTSIDE SHOULDER		2869
1450+59	1479+28	RT. MAIN LANES - OUTSIDE SHOULDER		2689
1512+89	1533+28	RT. MAIN LANES - OUTSIDE SHOULDER		2039
1533+02	1558+95	RT. MAIN LANES - OUTSIDE SHOULDER		2593
1559+04	1584+61	RT. MAIN LANES - OUTSIDE SHOULDER		557
1573+16	1702+45	RT. MAIN LANES - OUTSIDE SHOULDER		12929
1713+41	1753+42	RT. MAIN LANES - OUTSIDE SHOULDER		4001
1757+18	1776+37	RT. MAIN LANES - OUTSIDE SHOULDER		1919
1778+93	1785+93	RT. MAIN LANES - OUTSIDE SHOULDER		910
1798+91	1824+83	RT. MAIN LANES - OUTSIDE SHOULDER		2592
1828+32	2023+38	RT. MAIN LANES - OUTSIDE SHOULDER		19706
2029+54	2041+92	RT. MAIN LANES - OUTSIDE SHOULDER		1238
2044+25	2057+32	RT. MAIN LANES - OUTSIDE SHOULDER		1307
2068+23	2158+87	RT. MAIN LANES - OUTSIDE SHOULDER		9064
2164+44	2171+54	RT. MAIN LANES - OUTSIDE SHOULDER		710
2171+38	2180+00	RT. MAIN LANES - OUTSIDE SHOULDER		862
535+25	548+19	LT. MAIN LANES - OUTSIDE SHOULDER		1294
551+55	595+55	LT. MAIN LANES - OUTSIDE SHOULDER		4400
608+51	697+62	LT. MAIN LANES - OUTSIDE SHOULDER		8911
700+90	712+40	LT. MAIN LANES - OUTSIDE SHOULDER		1150
718+06	733+50	LT. MAIN LANES - OUTSIDE SHOULDER		1544
732+95	741+90	LT. MAIN LANES - OUTSIDE SHOULDER		895
746+36	759+89	LT. MAIN LANES - OUTSIDE SHOULDER		1353
773+08	788+95	LT. MAIN LANES - OUTSIDE SHOULDER		1587
794+51	797+61	LT. MAIN LANES - OUTSIDE SHOULDER		310
798+44	864+71	LT. MAIN LANES - OUTSIDE SHOULDER		6627
878+62	941+85	LT. MAIN LANES - OUTSIDE SHOULDER		6303
963+08	1029+71	LT. MAIN LANES - OUTSIDE SHOULDER		6663
1045+65	1113+42	LT. MAIN LANES - OUTSIDE SHOULDER		6777
1113+04	1180+17	LT. MAIN LANES - OUTSIDE SHOULDER		4713
1176+12	1189+74	LT. MAIN LANES - OUTSIDE SHOULDER		1362
1189+86	1205+30	LT. MAIN LANES - OUTSIDE SHOULDER		1544
1221+16	1263+30	LT. MAIN LANES - OUTSIDE SHOULDER		2950
1274+35	1303+85	LT. MAIN LANES - OUTSIDE SHOULDER		1090
1318+15	1329+05	LT. MAIN LANES - OUTSIDE SHOULDER		3744
1339+94	1377+38	LT. MAIN LANES - OUTSIDE SHOULDER		6765
1382+07	1449+72	LT. MAIN LANES - OUTSIDE SHOULDER		3098
1450+06	1481+04	LT. MAIN LANES - OUTSIDE SHOULDER		1829
1484+09	1497+32	LT. MAIN LANES - OUTSIDE SHOULDER		1763
1511+27	1532+66	LT. MAIN LANES - OUTSIDE SHOULDER		2139
1523+29	1563+09	LT. MAIN LANES - OUTSIDE SHOULDER		2980
1562+92	1584+61	LT. MAIN LANES - OUTSIDE SHOULDER		169
1573+16	1702+45	LT. MAIN LANES - OUTSIDE SHOULDER		12869
1712+01	1745+95	LT. MAIN LANES - OUTSIDE SHOULDER		3394
1758+54	1776+83	LT. MAIN LANES - OUTSIDE SHOULDER		1829
1776+83	1794+36	LT. MAIN LANES - OUTSIDE SHOULDER		1763
1798+91	1830+00	LT. MAIN LANES - OUTSIDE SHOULDER		3109
1827+48	2019+87	LT. MAIN LANES - OUTSIDE SHOULDER		19239
2030+93	2042+08	LT. MAIN LANES - OUTSIDE SHOULDER		1115
2044+41	2056+51	LT. MAIN LANES - OUTSIDE SHOULDER		1210
2060+37	2153+61	LT. MAIN LANES - OUTSIDE SHOULDER		9324
2165+33	2172+13	LT. MAIN LANES - OUTSIDE SHOULDER		660
2172+29	2179+34	LT. MAIN LANES - OUTSIDE SHOULDER		705
TOTAL:				275922

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

RUMBLE STRIPS IN ASPHALT SHOULDERS		STATION	LOCATION	* RUMBLE STRIPS IN ASPHALT SHOULDERS LIN. FT.
535+25	595+55	LT. MAIN LANES - INSIDE SHOULDER		6030
608+51	697+62	LT. MAIN LANES - INSIDE SHOULDER		8911
700+90	712+40	LT. MAIN LANES - INSIDE SHOULDER		1150
718+06	733+50	LT. MAIN LANES - INSIDE SHOULDER		1544
732+95	741+90	LT. MAIN LANES - INSIDE SHOULDER		895
746+36	759+89	LT. MAIN LANES - INSIDE SHOULDER		1353
773+08	788+95	LT. MAIN LANES - INSIDE SHOULDER		1587
794+51	797+61	LT. MAIN LANES - INSIDE SHOULDER		310
798+44	864+71	LT. MAIN LANES - INSIDE SHOULDER		6627
878+62	941+85	LT. MAIN LANES - INSIDE SHOULDER		6303
963+08	1029+71	LT. MAIN LANES - INSIDE SHOULDER		6663
1045+65	1113+42	LT. MAIN LANES - INSIDE SHOULDER		6777
1113+04	1180+17	LT. MAIN LANES - INSIDE SHOULDER		4663
1176+12	1189+74	LT. MAIN LANES - INSIDE SHOULDER		104
1189+86	1205+30	LT. MAIN LANES - INSIDE SHOULDER		6095
1221+16	1263+30	LT. MAIN LANES - INSIDE SHOULDER		8668
1274+35	1303+85	LT. MAIN LANES - INSIDE SHOULDER		1070
1318+15	1329+05	LT. MAIN LANES - INSIDE SHOULDER		1751
1336+85	1378+45	LT. MAIN LANES - INSIDE SHOULDER		683
1389+36	1451+29	LT. MAIN LANES - INSIDE SHOULDER		1278
1450+59	1479+28	LT. MAIN LANES - INSIDE SHOULDER		3093
1512+89	1533+28	LT. MAIN LANES - INSIDE SHOULDER		6655
1533+02	1558+95	LT. MAIN LANES - INSIDE SHOULDER		6476
1559+04	1584+61	LT. MAIN LANES - INSIDE SHOULDER		6484
1573+16	1702+45	LT. MAIN LANES - INSIDE SHOULDER		7090
1713+41	1753+42	LT. MAIN LANES - INSIDE SHOULDER		4333
1757+18	1776+37	LT. MAIN LANES - INSIDE SHOULDER		637
1778+93	1785+93	LT. MAIN LANES - INSIDE SHOULDER		
1798+91	1824+83	LT. MAIN LANES - INSIDE SHOULDER		
1828+32	2023+38	LT. MAIN LANES - INSIDE SHOULDER		
2029+54	2041+92	LT. MAIN LANES - INSIDE SHOULDER		
2044+25	2057+32	LT. MAIN LANES - INSIDE SHOULDER		
2068+23	2158+87	LT. MAIN LANES - INSIDE SHOULDER		
2164+44	2171+54	LT. MAIN LANES - INSIDE SHOULDER		
2171+38	2180+00	LT. MAIN LANES - INSIDE SHOULDER		
TOTAL:				108363

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

GUARDRAIL		STATION	LOCATION	GUARDRAIL (TYPE A) LIN. FT.	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
522+40.83	526+09.58	LEFT OF RIGHT MAIN LANES		300	1	1
523+15.83	526+09.58	RIGHT OF RIGHT MAIN LANES		225	1	1
534+98.25	537+67.00	LEFT OF LEFT MAIN LANES		200	1	1
534+98.25	538+17.00	RIGHT OF LEFT MAIN LANES		250	1	1
592+63.13	595+81.88	LEFT OF RIGHT MAIN LANES		250	1	1
593+13.13	595+81.88	RIGHT OF RIGHT MAIN LANES		200	1	1
608+24.13	610+92.88	LEFT OF LEFT MAIN LANES		200	1	1
608+24.13	611+42.88	RIGHT OF LEFT MAIN LANES		250	1	1
694+27.14	697+45.89	LEFT OF RIGHT MAIN LANES		200	1	1
694+27.14	697+45.89	RIGHT OF RIGHT MAIN LANES		250	1	1
700+63.09	703+81.84	LEFT OF LEFT MAIN LANES		200	1	1
708+63.94	711+82.89	LEFT OF RIGHT MAIN LANES		250	1	1
708+63.94	711+82.89	RIGHT OF RIGHT MAIN LANES		200	1	1
717+72.01	720+90.76	LEFT OF LEFT MAIN LANES		250	1	1
717+72.01	720+90.76	RIGHT OF LEFT MAIN LANES		200	1	1
739+10.54	742+29.29	LEFT OF RIGHT MAIN LANES		250	1	1
739+66.91	742+35.06	RIGHT OF RIGHT MAIN LANES		200	1	1
746+09.95	748+74.70	LEFT OF LEFT MAIN LANES		250	1	1
746+09.95	749+30.47	RIGHT OF LEFT MAIN LANES		200	1	1
756+49.13	759+67.88	LEFT OF RIGHT MAIN LANES		250	1	1
756+49.13	759+67.88	RIGHT OF RIGHT MAIN LANES		200	1	1
768+91.74	772+10.49	LEFT OF LEFT MAIN LANES		250	1	1
768+91.74	771+85.38	LEFT OF RIGHT MAIN LANES		200	1	1
865+60.96	865+60.96	LEFT OF LEFT MAIN LANES		250	1	1
865+60.96	865+60.96	LEFT OF RIGHT MAIN LANES		200	1	1
881+23.21	881+23.21	LEFT OF LEFT MAIN LANES		200	1	1
885+23.21	885+23.21	RIGHT OF LEFT MAIN LANES		600	1	1
942+57.69	945+76.44	LEFT OF RIGHT MAIN LANES		250	1	1
943+07.69	945+76.44	RIGHT OF RIGHT MAIN LANES		200	1	1
962+81.61	965+50.36	LEFT OF LEFT MAIN LANES		200	1	1
962+81.61	965+50.36	RIGHT OF LEFT MAIN LANES		250	1	1
1026+36.14	1029+54.89	LEFT OF RIGHT MAIN LANES		250	1	1
1026+36.14	1029+54.89	RIGHT OF RIGHT MAIN LANES		200	1	1
1045+38.60	1048+07.35	LEFT OF LEFT MAIN LANES		200	1	1
1045+38.60	1048+07.35	RIGHT OF LEFT MAIN LANES		250	1	1
1156+98.27	1160+17.02	LEFT OF RIGHT MAIN LANES		200	1	1
1156+98.27	1160+17.02	RIGHT OF RIGHT MAIN LANES		250	1	1
1202+73.15	1205+41.90	LEFT OF LEFT MAIN LANES		200	1	1
1202+73.15	1205+41.90	RIGHT OF LEFT MAIN LANES		50	1	1
1260+82.70	1263+63.12	LEFT OF RIGHT MAIN LANES		200	1	1
1260+82.70	1263+63.12	RIGHT OF RIGHT MAIN LANES		200	1	1
1274+13.53	1276+82.28	LEFT OF LEFT MAIN LANES		200	1	1
1301+37.70	1304+06.45	RIGHT OF RIGHT MAIN LANES		200	1	1
1318+04.65	1320+73.40	LEFT OF LEFT MAIN LANES		200	1	1
1457+92.80	1480+03.07	LEFT OF RIGHT MAIN LANES		2100	1	1
1457+92.80	1480+03.07	RIGHT OF RIGHT MAIN LANES		2175	1	1
1477+35.61	1480+04.36	LEFT OF LEFT MAIN LANES		200	1	1
1483+82.72	1486+51.47	LEFT OF RIGHT MAIN LANES		200	1	1
1483+82.72	1487+01.47	RIGHT OF RIGHT MAIN LANES		250	1	1
1495+41.84	1498+60.59	LEFT OF LEFT MAIN LANES		250	1	1
1495+41.84	1498+60.59	RIGHT OF LEFT MAIN LANES		200	1	1
1511+10.82	1513+79.57	LEFT OF RIGHT MAIN LANES		250	1	1
1511+10.82	1514+29.57	RIGHT OF RIGHT MAIN LANES		200	1	1
1561+53.65	1564+72.40	LEFT OF LEFT MAIN LANES		250	1	1
1561+53.65	1564+72.40	RIGHT OF LEFT MAIN LANES		200	1	1
1573+64.60	1576+33.35	LEFT OF RIGHT MAIN LANES		200	1	1
1573+64.60	1576+33.35	RIGHT OF RIGHT MAIN LANES		250	1	1
1699+33.19	1702+51.94	LEFT OF LEFT MAIN LANES		250	1	1
1699+33.19	1702+51.94	RIGHT OF LEFT MAIN LANES		200	1	1
1711+89.11	1714+57.66	LEFT OF RIGHT MAIN LANES		200	1	1
1711+89.11	1715+07.66	RIGHT OF RIGHT MAIN LANES		250	1	1
1821+71.23	1824+89.98	LEFT OF LEFT MAIN LANES		250	1	1
1821+71.23	1825+15.93	RIGHT OF LEFT MAIN LANES		200	1	1
1827+15.47	1829+84.22	LEFT OF RIGHT MAIN LANES		200	1	1
1827+15.47	1830+59.36	RIGHT OF RIGHT MAIN LANES		250	1	1
2039+02.27	2042+21.02	LEFT OF LEFT MAIN LANES		250	1	1
2039+02.27	2042+21.02	RIGHT OF LEFT MAIN LANES		200	1	1
2044+11.93	2047+30.68	LEFT OF RIGHT MAIN LANES		250	1	1
2044+11.93	2047+30.68	RIGHT OF RIGHT MAIN LANES		200	1	1
2176+89.40	2180+08.15	LEFT OF LEFT MAIN LANES		200	1	1
2176+89.40	2180+08.15	RIGHT OF LEFT MAIN LANES		200	1	1
2182+01.06	2184+69.81	LEFT OF RIGHT MAIN LANES		200	1	1
2182+01.06	2185+61.10	RIGHT OF RIGHT MAIN LANES		250	1	1
TOTALS:				20550	74	74

STATION	LOCATION	APPROACH SLABS		REINFORCING STEEL-RDWY. (GR. 60)	AGGREGATE BASE CRS. (CLASS 7)
		CU.YD.	TON		
526+53.42	H49 S.B. MAIN LANES	49.15	5775	39.2	
1029+71.61	H49 S.B. MAIN LANES	49.15	5775	39.2	
1564+60.90	H49 N.B. MAIN LANES	49.15	5775	39.2	
1572+79.60	H49 N.B. MAIN LANES	49.15	5775	39.2	
TOTALS:		196.60	23100	156.8	

SELECTED PIPE BEDDING

PCCP PATCHING (I-49 NORTHBOUND) (BOX 1 OF 3)

LOG MILE	LOG MILE	LOCATION	LENGTH	WIDTH	REM. & DISP.	P.C.C.P.
					CONC. PVMT. FOR PATCHING	PATCHING (11" U.T.)
			FEET		SQ. YD.	SQ. YD.
36.520	36.524	I49 NORTHBOUND - OUTSIDE LANE AND JOINT	21	14	32.7	32.7
41.560	41.562	I49 NORTHBOUND - BOTH LANES JOINT	6	26	17.3	17.3
41.652	41.654	I49 NORTHBOUND - INSIDE JOINT	6	12	8.0	8.0
42.365	42.368	I49 NORTHBOUND - OUTSIDE LANE	15	14	23.3	23.3
42.402	42.404	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
42.460	42.462	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
42.762	42.764	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
42.988	42.990	I49 NORTHBOUND - INSIDE JOINT	6	12	8.0	8.0
43.311	43.317	I49 NORTHBOUND - OUTSIDE LANE	30	14	46.7	46.7
43.589	43.591	I49 NORTHBOUND - INSIDE JOINT	6	12	8.0	8.0
43.596	43.598	I49 NORTHBOUND - INSIDE JOINT	6	12	8.0	8.0
43.670	43.672	I49 NORTHBOUND - INSIDE JOINT	6	12	8.0	8.0
44.153	44.155	I49 NORTHBOUND - INSIDE JOINT	6	12	8.0	8.0
44.237	44.239	I49 NORTHBOUND - INSIDE JOINT	6	12	8.0	8.0
44.318	44.320	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.562	44.564	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.817	44.819	I49 NORTHBOUND - INSIDE JOINT	6	12	8.0	8.0
44.883	44.885	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.023	45.025	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.110	45.112	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.487	45.489	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.506	45.508	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.515	45.517	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.583	45.585	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.608	45.610	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.614	45.616	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.617	45.619	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.639	45.641	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.885	45.891	I49 NORTHBOUND - BOTH LANES	30	26	86.7	86.7
46.494	46.496	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.538	46.541	I49 NORTHBOUND - OUTSIDE LANE	15	14	23.3	23.3
46.526	46.529	I49 NORTHBOUND - OUTSIDE LANE	15	14	23.3	23.3
46.568	46.570	I49 NORTHBOUND - INSIDE JOINT	6	12	8.0	8.0
47.458	47.460	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
48.439	48.448	I49 NORTHBOUND - OUTSIDE LANE	45	14	70.0	70.0
48.820	48.823	I49 NORTHBOUND - OUTSIDE LANE	15	14	23.3	23.3
49.140	49.146	I49 NORTHBOUND - OUTSIDE LANE	30	14	46.7	46.7
49.155	49.158	I49 NORTHBOUND - OUTSIDE LANE AND JOINT	18	14	28.0	28.0
49.216	49.218	I49 NORTHBOUND - INSIDE JOINT	6	12	8.0	8.0
49.654	49.656	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
49.660	49.662	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
49.663	49.665	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
49.754	49.756	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
49.788	49.790	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
49.791	49.793	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
49.813	49.815	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
49.896	49.898	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
49.899	49.901	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
50.117	50.119	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
51.117	51.119	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
51.210	51.212	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
51.222	51.224	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
51.428	51.434	I49 NORTHBOUND - BOTH LANES	30	26	86.7	86.7
51.658	51.661	I49 NORTHBOUND - BOTH LANES	15	26	43.3	43.3
51.661	51.667	I49 NORTHBOUND - OUTSIDE LANE	30	14	46.7	46.7
51.671	51.677	I49 NORTHBOUND - OUTSIDE LANE	30	14	46.7	46.7
51.791	51.793	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
51.797	51.799	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
51.847	51.849	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
51.850	51.852	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
51.906	51.908	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
51.952	51.954	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
52.366	52.368	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
52.390	52.392	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
52.944	52.950	I49 NORTHBOUND - OUTSIDE LANE	33	14	51.3	51.3
53.040	53.042	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
53.059	53.061	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
53.116	53.122	I49 NORTHBOUND - OUTSIDE LANE	30	12	40.0	40.0
53.156	53.176	I49 NORTHBOUND - OUTSIDE LANE	105	12	140.0	140.0
53.826	53.828	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
54.074	54.076	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
54.670	54.672	I49 NORTHBOUND - INSIDE JOINT	6	12	8.0	8.0
54.881	54.884	I49 NORTHBOUND - INSIDE LANE	15	12	20.0	20.0
55.172	55.174	I49 NORTHBOUND - INSIDE JOINT	6	12	8.0	8.0
56.004	56.006	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
56.006	56.009	I49 NORTHBOUND - OUTSIDE LANE	15	14	23.3	23.3
56.128	56.130	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
56.178	56.180	I49 NORTHBOUND - INSIDE JOINT	6	12	8.0	8.0
56.309	56.311	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
57.531	57.533	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
57.854	57.856	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
57.925	57.927	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
58.189	58.191	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
58.716	58.718	I49 NORTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
60.478	60.481	I49 NORTHBOUND - OUTSIDE LANE	15	14	23.3	23.3
SUBTOTALS (BOX 1 OF 3):					1520.9	1520.9

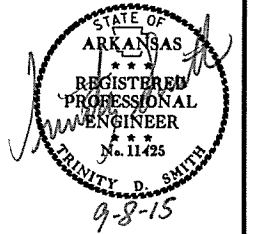
PCCP PATCHING (I-49 SOUTHBOUND) (BOX 2 OF 3)

LOG MILE	LOG MILE	LOCATION	LENGTH	WIDTH	REM. & DISP.	P.C.C.P.
					CONC. PVMT. FOR PATCHING	PATCHING (11" U.T.)
			FEET		SQ. YD.	SQ. YD.
30.135	30.138	I49 SOUTHBOUND - OUTSIDE LANE	36	14	56.0	56.0
33.715	33.719	I49 SOUTHBOUND - OUTSIDE JOINT	6	12	8.0	8.0
33.727	33.729	I49 SOUTHBOUND - OUTSIDE JOINT	6	12	8.0	8.0
33.737	33.739	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
34.809	34.828	I49 SOUTHBOUND - OUTSIDE LANE AND JOINT	126	14	196.0	196.0
34.825	34.838	I49 SOUTHBOUND - INSIDE LANE AND JOINT	66	12	88.0	88.0
35.848	35.852	I49 SOUTHBOUND - OUTSIDE LANE AND JOINT	36	14	56.0	56.0
36.279	36.282	I49 SOUTHBOUND - OUTSIDE LANE	36	14	56.0	56.0
36.530	36.543	I49 SOUTHBOUND - INSIDE LANE AND JOINT	66	12	88.0	88.0
37.043	37.046	I49 SOUTHBOUND - OUTSIDE LANE	36	14	56.0	56.0
40.114	40.116	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
40.253	40.255	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
41.304	41.306	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
41.402	41.415	I49 SOUTHBOUND - OUTSIDE LANE AND JOINT	96	14	149.3	149.3
41.490	41.492	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
41.653	41.655	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
42.662	42.664	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
42.774	42.776	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
42.994	42.996	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
43.088	43.093	I49 SOUTHBOUND - BOTH LANES AND JOINT	36	26	104.0	104.0
43.355	43.357	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
43.373	43.375	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
43.454	43.456	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
43.531	43.533	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
43.553	43.555	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
43.577	43.579	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
43.597	43.599	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
43.614	43.616	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
43.711	43.713	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
43.746	43.748	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
43.763	43.765	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
43.776	43.778	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
43.779	43.781	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.130	44.134	I49 SOUTHBOUND - OUTSIDE LANE	36	14	56.0	56.0
44.151	44.153	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.157	44.159	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.224	44.226	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.228	44.230	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.243	44.245	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.246	44.248	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.274	44.276	I49 SOUTHBOUND - INSIDE AND OUTSIDE JOINT	6	26	17.3	17.3
44.367	44.369	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.392	44.394	I49 SOUTHBOUND - OUTSIDE JOINT	6	12	8.0	8.0
44.472	44.474	I49 SOUTHBOUND - OUTSIDE JOINT	6	12	8.0	8.0
44.495	44.497	I49 SOUTHBOUND - OUTSIDE JOINT	6	12	8.0	8.0
44.509	44.511	I49 SOUTHBOUND - OUTSIDE JOINT	6	12	8.0	8.0
44.519	44.521	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.526	44.532	I49 SOUTHBOUND - OUTSIDE LANE AND JOINT	66	14	102.7	102.7
44.655	44.667	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.964	44.966	I49 SOUTHBOUND - INSIDE AND OUTSIDE JOINT	6	26	17.3	17.3
44.989	44.991	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.998	45.000	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.001	45.003	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
44.004	45.006	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.054	45.056	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.112	45.114	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.341	45.343	I49 SOUTHBOUND - INSIDE JOINT	6	12	8.0	8.0
45.356	45.358	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.643	45.645	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.736	45.741	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.760	45.762	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.794	45.796	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
45.967	45.974	I49 SOUTHBOUND - OUTSIDE JOINT	66	14	102.7	102.7
45.983	45.990	I49 SOUTHBOUND - OUTSIDE JOINT	66	14	102.7	102.7
46.041	46.043	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.044	46.046	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.047	46.049	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.050	46.052	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.066	46.068	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.090	46.092	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.097	46.099	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.103	46.105	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.109	46.111	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.112	46.114	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.201	46.203	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.208	46.210	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.263	46.265	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.266	46.268	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
46.297	46.299	I49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3
SUBTOTALS (BOX 2 OF 3):					1834.1	1834.1

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE</
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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. BB0409							24	105

2 QUANTITIES



PCCP PATCHING (I-49 SOUTHBOUND) (BOX 3 OF 3)

LOG MILE	LOG MILE	LOCATION	LENGTH	WIDTH	REM. & DISP. CONC. P.V.M.T. FOR PATCHING	P.C.C.P. PATCHING (11" U.T.)	
						SQ. YD.	SQ. YD.
46.312	46.314	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
46.316	46.318	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
46.393	46.395	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
46.485	46.487	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
46.507	46.509	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
46.517	46.523	I-49 SOUTHBOUND - OUTSIDE LANE AND JOINT	66	14	102.7	102.7	
46.525	46.527	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
46.587	46.589	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
46.649	46.651	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
46.800	46.802	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
46.818	46.820	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
46.828	46.830	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
46.843	46.847	I-49 SOUTHBOUND - OUTSIDE JOINT	36	14	56.0	56.0	
46.945	46.947	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.000	47.002	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.004	47.006	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.010	47.012	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.013	47.015	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.016	47.018	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.019	47.021	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.028	47.030	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.031	47.033	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.042	47.044	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.053	47.055	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.056	47.058	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.075	47.077	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.087	47.089	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.093	47.095	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.096	47.098	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.102	47.104	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.105	47.107	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.108	47.110	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.149	47.151	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.194	47.202	I-49 SOUTHBOUND - BOTH LANES AND JOINT	96	26	277.3	277.3	
47.269	47.280	I-49 SOUTHBOUND - OUTSIDE LANE AND JOINT	66	14	102.7	102.7	
47.397	47.399	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.407	47.409	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.414	47.416	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.424	47.426	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.427	47.429	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.430	47.432	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.434	47.436	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.453	47.455	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.457	47.459	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.463	47.465	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.532	47.534	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
47.831	47.833	I-49 SOUTHBOUND - INSIDE JOINT	6	12	8.0	8.0	
48.431	48.433	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
50.404	50.406	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
50.508	50.510	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
50.636	50.638	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
51.432	51.437	I-49 SOUTHBOUND - OUTSIDE JOINT	66	14	102.7	102.7	
52.306	52.308	I-49 SOUTHBOUND - OUTSIDE JOINT	6	12	8.0	8.0	
53.599	53.601	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
53.640	53.642	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
53.646	53.648	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
53.740	53.744	I-49 SOUTHBOUND - OUTSIDE LANE AND JOINT SKEWED	51	14	79.3	79.3	
53.811	53.815	I-49 SOUTHBOUND - OUTSIDE LANE	36	14	56.0	56.0	
54.609	54.618	I-49 SOUTHBOUND - OUTSIDE LANE AND JOINT	96	14	149.3	149.3	
54.639	54.641	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
55.111	55.113	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
55.182	55.184	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
55.228	55.230	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
55.312	55.314	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
55.700	55.702	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
55.709	55.711	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
55.719	55.721	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
55.740	55.742	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
55.806	55.808	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
55.812	55.814	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
56.008	56.010	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
56.943	56.945	I-49 SOUTHBOUND - OUTSIDE JOINT	6	14	9.3	9.3	
57.862	57.864	I-49 SOUTHBOUND - OUTSIDE LANE	15	14	23.3	23.3	
57.865	57.867	I-49 SOUTHBOUND - OUTSIDE LANE	15	14	23.3	23.3	
57.912	57.914	I-49 SOUTHBOUND - OUTSIDE LANE	15	14	23.3	23.3	
60.480	60.482	I-49 SOUTHBOUND - OUTSIDE LANE	15	14	23.3	23.3	
SUBTOTALS (BOX 3 OF 3):						1611.8	1611.8
SUBTOTALS (BOX 1 OF 3):						1520.9	1520.9
SUBTOTALS (BOX 2 OF 3):						1834.1	1834.1
TOTALS:						4966.8	4966.8

JOINT REHABILITATION (I-49 NORTHBOUND) (BOX 1 OF 2)

STATION	STATION	LOCATION	JOINT REHABILITATION			
			NUMBER OF JOINTS	LENGTH	TYPE A	TYPE B
534+59.58	547+34.71	I-49 NORTHBOUND	85	26	1275	
547+34.71	566+84.69	I-49 NORTHBOUND	130	24	3120	1950
566+84.69	595+55.38	I-49 NORTHBOUND	192	26	4992	2871
608+50.63	697+19.39	I-49 NORTHBOUND	592	26	15392	8869
700+76.61	711+48.85	I-49 NORTHBOUND	72	26	1872	1070
717+14.16	734+64.51	I-49 NORTHBOUND	117	26	3042	1750
735+21.78	742+05.38	I-49 NORTHBOUND	46	26	1196	684
746+50.62	759+28.93	I-49 NORTHBOUND	86	26	2236	1278
768+71.77	770+62.54	I-49 NORTHBOUND	13	24	312	191
770+62.54	782+39.98	I-49 NORTHBOUND	79	26	2054	1177
782+39.98	798+42.57	I-49 NORTHBOUND	107	24	2568	1603
798+42.57	799+62.69	I-49 NORTHBOUND	8	26	208	120
798+79.40	865+34.46	I-49 NORTHBOUND	444	26	11544	6655
880+74.44	945+49.94	I-49 NORTHBOUND	432	26	11232	6476
964+45.10	1029+28.26	I-49 NORTHBOUND	433	26	11258	6483
1045+05.10	1115+94.80	I-49 NORTHBOUND	473	26	12298	7090
1116+33.76	1160+17.02	I-49 NORTHBOUND	293	26	7618	4383
1176+11.54	1189+21.48	I-49 NORTHBOUND	88	26	2288	1310
1189+10.10	1205+30.40	I-49 NORTHBOUND	108	26	2808	1620
1221+15.48	1263+29.95	I-49 NORTHBOUND	281	26	7306	4214
1274+35.03	1303+84.95	I-49 NORTHBOUND	197	26	5122	2950
1318+15.03	1332+17.47	I-49 NORTHBOUND	94	26	2444	1402
1332+17.47	1338+83.80	I-49 NORTHBOUND	45	24	1080	666
1338+83.80	1379+86.78	I-49 NORTHBOUND	274	26	7124	4103
1379+86.78	1389+36.89	I-49 NORTHBOUND	64	24	1536	947
1389+36.89	1451+29.07	I-49 NORTHBOUND	413	26	10738	6192
1450+59.10	1479+27.61	I-49 NORTHBOUND	192	26	4992	2869
1484+67.19	1498+49.09	I-49 NORTHBOUND	93	26	2418	1382
1512+89.32	1533+28.35	I-49 NORTHBOUND	136	26	3536	2039
1533+01.61	1558+95.01	I-49 NORTHBOUND	173	26	4498	2593
1559+03.63	1564+60.90	I-49 NORTHBOUND	38	26	988	557
1573+16.10	1702+45.44	I-49 NORTHBOUND	862	26	22412	12929
1713+40.60	1753+42.13	I-49 NORTHBOUND	267	26	6942	4002
1753+42.13	1755+77.03	I-49 NORTHBOUND	16	24	384	235
1755+77.03	1776+36.58	I-49 NORTHBOUND	138	26	3588	2060
1776+36.58	1787+50.88	I-49 NORTHBOUND	72	26	1872	1066
1787+50.88	1798+41.95	I-49 NORTHBOUND	73	24	1752	1091
1798+41.95	1824+75.16	I-49 NORTHBOUND	176	26	4576	2633
1828+23.71	2025+37.50	I-49 NORTHBOUND	1315	26	34190	19714
2025+37.50	2027+95.37	I-49 NORTHBOUND	18	24	432	258
2027+95.37	2041+92.13	I-49 NORTHBOUND	94	26	2444	1397
2044+25.27	2058+80.71	I-49 NORTHBOUND	97	26	2522	1455
2058+80.71	2068+23.03	I-49 NORTHBOUND	63	24	1512	942
2068+23.03	2158+87.02	I-49 NORTHBOUND	605	26	15730	9064
2158+87.02	2163+13.55	I-49 NORTHBOUND	29	24	696	427
2163+13.55	2171+53.79	I-49 NORTHBOUND	56	26	1456	840
2171+53.79	2180+00.23	I-49 NORTHBOUND	58	26	1508	862
ADDITIONAL FOR TURN OUTS AND ACCELERATION LANES						
547+34.74	566+84.69	I-49 NORTHBOUND	130	12	1560	1950
768+55.93	770+62.54	I-49 NORTHBOUND	14	12	168	207
782+39.98	798+42.57	I-49 NORTHBOUND	107	12	1284	1603
1332+17.47	1338+83.80	I-49 NORTHBOUND	45	12	540	666
1379+86.78	1389+36.89	I-49 NORTHBOUND	64	12	768	950
1753+42.13	1755+77.03	I-49 NORTHBOUND	16	12	192	235
1787+50.88	1798+41.95	I-49 NORTHBOUND	73	12	876	1091
2025+37.50	2027+95.37	I-49 NORTHBOUND	18	12	216	258
2058+80.71	2068+23.03	I-49 NORTHBOUND	63	12	756	942
SUBTOTALS (BOX 1 OF 2):						
			258406	1		

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BBO409		25	105

2 QUANTITIES



GRINDING PORTLAND CEMENT CONCRETE PAVEMENT (I-49 NORTHBOUND) (BOX 1 OF 2)

STATION	STATION	LOCATION	LENGTH	WIDTH	GRINDING PORTLAND CEMENT CONCRETE PAVEMENT
			FEET		SQ. YD.
534+59.58	547+34.71	I49 NORTHBOUND	1275	26	3683.3
547+34.71	566+84.69	I49 NORTHBOUND	1950	24	5200.0
566+84.69	595+55.38	I49 NORTHBOUND	2871	26	8294.0
608+50.63	697+19.39	I49 NORTHBOUND	8869	26	25621.6
700+78.61	711+48.85	I49 NORTHBOUND	1070	26	3091.1
717+14.16	734+64.51	I49 NORTHBOUND	1750	26	5055.6
735+21.78	742+05.38	I49 NORTHBOUND	684	26	1976.0
746+50.62	759+28.93	I49 NORTHBOUND	1278	26	3692.0
768+71.77	770+62.54	I49 NORTHBOUND	191	24	509.3
770+62.54	782+39.98	I49 NORTHBOUND	1177	26	3400.2
782+39.98	798+42.57	I49 NORTHBOUND	1603	24	4274.7
798+42.57	799+62.69	I49 NORTHBOUND	120	26	346.7
798+79.40	865+34.46	I49 NORTHBOUND	6655	26	19225.6
880+74.44	945+49.94	I49 NORTHBOUND	6476	26	18708.4
964+45.10	1029+28.26	I49 NORTHBOUND	6483	26	18728.7
1045+05.10	1115+94.80	I49 NORTHBOUND	7090	26	20482.2
1116+33.76	1160+17.02	I49 NORTHBOUND	4383	26	12662.0
1176+11.54	1189+21.48	I49 NORTHBOUND	1310	26	3784.4
1189+10.10	1205+30.40	I49 NORTHBOUND	1620	26	4680.0
1221+15.48	1263+29.95	I49 NORTHBOUND	4214	26	12173.8
1274+35.03	1303+84.95	I49 NORTHBOUND	2950	26	8522.2
1318+15.03	1332+17.47	I49 NORTHBOUND	1402	26	4050.2
1332+17.47	1338+83.80	I49 NORTHBOUND	666	24	1776.0
1338+83.80	1379+86.78	I49 NORTHBOUND	4103	26	11853.1
1379+86.78	1389+36.89	I49 NORTHBOUND	947	24	2525.3
1389+36.89	1451+29.07	I49 NORTHBOUND	6192	26	17888.0
1450+59.10	1479+27.61	I49 NORTHBOUND	2869	26	8288.2
1484+67.19	1498+49.09	I49 NORTHBOUND	1382	26	3992.4
1512+89.32	1533+28.35	I49 NORTHBOUND	2039	26	5890.4
1533+01.61	1558+95.01	I49 NORTHBOUND	2593	26	7490.9
1559+03.63	1564+60.90	I49 NORTHBOUND	557	26	1609.1
1573+16.10	1702+45.44	I49 NORTHBOUND	12929	26	37350.4
1713+40.60	1753+42.13	I49 NORTHBOUND	4002	26	11561.3
1753+42.13	1755+77.03	I49 NORTHBOUND	235	24	626.7
1755+77.03	1776+36.58	I49 NORTHBOUND	2060	26	5951.1
1776+36.58	1787+50.88	I49 NORTHBOUND	1068	26	3085.3
1787+50.88	1798+41.95	I49 NORTHBOUND	1091	24	2909.3
1798+41.95	1824+75.16	I49 NORTHBOUND	2633	26	7606.4
1828+23.71	2025+37.50	I49 NORTHBOUND	19714	26	56951.6
2025+37.50	2027+95.37	I49 NORTHBOUND	258	24	688.0
2027+95.37	2041+92.13	I49 NORTHBOUND	1397	26	4035.8
2044+25.27	2058+80.71	I49 NORTHBOUND	1455	26	4203.3
2058+80.71	2068+23.03	I49 NORTHBOUND	942	24	2512.0
2068+23.03	2158+87.02	I49 NORTHBOUND	9064	26	26184.9
2158+87.02	2163+13.55	I49 NORTHBOUND	427	24	1138.7
2163+13.55	2171+53.79	I49 NORTHBOUND	840	26	2426.7
2171+53.79	2180+00.23	I49 NORTHBOUND	862	26	2490.2
ADDITIONAL FOR TURN OUTS AND ACCELERATION LANES					
547+34.74	566+84.69	DOLLARD RD. INTERCHANGE - ACCEL. LANE & TAPER	1950	VARIES	2422.3
768+55.93	770+62.54	HWY. 282 - TURN OUT	207	VARIES	150.9
782+39.98	798+42.57	HWY. 282 - ACCEL. LANE & TAPER	1603	VARIES	1861.1
1332+17.47	1338+83.80	HWY. 74 - TURN OUT	666	VARIES	717.5
1379+86.78	1389+36.89	HWY. 74 - ACCEL. LANE & TAPER	950	VARIES	1130.7
1753+42.13	1755+77.03	HWY. 170 - TURN OUT	235	VARIES	141.9
1787+50.88	1798+41.95	HWY. 170 - ACCEL. LANE & TAPER	1091	VARIES	1264.5
2025+37.50	2027+95.37	CO. RD. 26 - TURN OUT	258	VARIES	184.5
2058+80.71	2068+23.03	CO. RD. 26 - ACCEL. LANE & TAPER	942	VARIES	1070.1
2158+87.02	2163+13.55	HWY. 265 - TURN OUT	427	VARIES	486.7
SUBTOTAL (BOX 1 OF 2):					428627.3

NOTE: THE REMOVAL AND DISPOSAL OF PLOWABLE PAVEMENT MARKERS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "GRINDING PORTLAND CEMENT CONCRETE PAVEMENT."

GRINDING PORTLAND CEMENT CONCRETE PAVEMENT (I-49 SOUTHBOUND) (BOX 2 OF 2)

STATION	STATION	LOCATION	LENGTH	WIDTH	GRINDING PORTLAND CEMENT CONCRETE PAVEMENT
			FEET		SQ. YD.
534+59.58	549+13.17	I49 SOUTHBOUND	1454	26	4200.4
549+13.17	551+51.64	I49 SOUTHBOUND	238	24	634.7
551+51.64	595+55.38	I49 SOUTHBOUND	4404	26	12722.7
608+50.63	697+19.39	I49 SOUTHBOUND	8912	26	25745.8
700+78.61	712+40.33	I49 SOUTHBOUND	1151	26	3325.1
718+05.88	733+49.91	I49 SOUTHBOUND	1544	26	4460.4
732+95.31	741+90.38	I49 SOUTHBOUND	895	26	2585.6
746+35.62	759+89.08	I49 SOUTHBOUND	1353	26	3908.7
769+30.68	772+17.60	I49 SOUTHBOUND	287	24	765.3
772+17.60	791+02.86	I49 SOUTHBOUND	1885	26	5445.6
791+02.86	794+50.93	I49 SOUTHBOUND	348	24	928.0
794+50.93	797+61.26	I49 SOUTHBOUND	310	26	895.6
798+43.85	864+70.50	I49 SOUTHBOUND	6627	26	19144.7
878+80.83	941+84.93	I49 SOUTHBOUND	6304	26	18211.6
962+71.62	1029+71.61	I49 SOUTHBOUND	6700	26	19355.6
1045+65.10	1113+41.86	I49 SOUTHBOUND	6777	26	19578.0
1113+04.41	1160+17.02	I49 SOUTHBOUND	4713	26	13615.3
1176+11.54	1189+21.48	I49 SOUTHBOUND	1362	26	3934.7
1189+85.56	1205+30.40	I49 SOUTHBOUND	1545	26	4463.3
1221+15.48	1263+29.95	I49 SOUTHBOUND	4214	26	12173.8
1274+35.03	1303+84.95	I49 SOUTHBOUND	2950	26	8522.2
1318+15.03	1329+05.08	I49 SOUTHBOUND	1090	26	3148.9
1329+05.08	1338+20.04	I49 SOUTHBOUND	915	24	2440.0
1338+20.04	1378+48.77	I49 SOUTHBOUND	4029	26	11639.3
1378+48.77	1382+07.15	I49 SOUTHBOUND	358	24	954.7
1382+07.15	1449+72.46	I49 SOUTHBOUND	6765	26	19543.3
1450+05.64	1481+03.55	I49 SOUTHBOUND	3098	26	8949.8
1484+09.23	1497+32.09	I49 SOUTHBOUND	1323	26	3822.0
1511+27.32	1532+65.54	I49 SOUTHBOUND	2138	26	6176.4
1533+29.28	1563+08.96	I49 SOUTHBOUND	2980	26	8608.9
1562+92.20	1564+60.90	I49 SOUTHBOUND	169	26	488.2
1573+39.60	1702+45.44	I49 SOUTHBOUND	12906	26	37284.0
1712+00.61	1745+95.13	I49 SOUTHBOUND	3395	26	9807.8
1745+95.13	1757+13.70	I49 SOUTHBOUND	1119	24	2984.0
1757+13.70	1776+82.82	I49 SOUTHBOUND	1969	26	5688.2
1776+82.82	1795+76.99	I49 SOUTHBOUND	1894	26	5471.6
1795+76.99	1798+27.93	I49 SOUTHBOUND	251	24	669.3
1798+27.93	1824+07.69	I49 SOUTHBOUND	2580	26	7453.3
1827+56.25	2019+87.08	I49 SOUTHBOUND	19231	26	55556.2
2019+87.08	2029+29.24	I49 SOUTHBOUND	942	24	2512.0
2029+29.24	2042+07.69	I49 SOUTHBOUND	1278	26	3692.0
2044+40.83	2057+92.47	I49 SOUTHBOUND	1352	26	3905.8
2057+92.47	2060+37.37	I49 SOUTHBOUND	245	24	653.3
2060+37.37	2153+60.65	I49 SOUTHBOUND	9323	26	26933.1
2153+60.65	2163+44.15	I49 SOUTHBOUND	984	24	2624.0
2163+44.15	2172+13.03	I49 SOUTHBOUND	869	26	2510.4
2172+28.99	2179+34.17	I49 SOUTHBOUND	705	26	2036.7
ADDITIONAL FOR TURN OUTS AND ACCELERATION LANES					
549+13.17	551+51.64	DOLLARD RD. INTERCHANGE - TURN OUT	238	VARIES	132.3
769+30.68	772+17.60	HWY. 282 - ACCEL. LANE	287	VARIES	381.0
791+02.86	794+50.93	HWY. 282 - TURN OUT	348	VARIES	386.7
1329+05.08	1338+20.04	HWY. 74 - ACCEL. LANE & TAPER	915	VARIES	1076.2
1378+48.77	1382+07.15	HWY. 74 - TURN OUT	358	VARIES	432.6
1745+95.13	1757+13.70	HWY. 170 - ACCEL. LANE & TAPER	1119	VARIES	1304.2
1795+76.99	1798+27.93	HWY. 170 - TURN OUT	251	VARIES	139.7
2019+87.08	2029+29.24	CO. RD. 26 - ACCEL. LANE & TAPER	942	VARIES	1124.1
2057+92.47	2060+37.37	CO. RD. 26 - TURN OUT	245	VARIES	143.2
2153+60.65	2163+44.15	HWY. 265 - ACCEL. LANE & TAPER	984	VARIES	1177.3
SUBTOTAL (BOX 2 OF 2):					426467.6

NOTE: THE REMOVAL AND DISPOSAL OF PLOWABLE PAVEMENT MARKERS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "GRINDING PORTLAND CEMENT CONCRETE PAVEMENT."

TOTAL: 855094.9

9/2/2015

RBB0409.DCN

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.							BBO409	26	105

2 QUANTITIES



SILANE PROTECTIVE SURFACE TREATMENT (I-49 NORTHBOUND) (BOX 1 OF 3)

STATION	STATION	LOCATION	LENGTH	WIDTH	SILANE PROTECTIVE SURFACE TREATMENT
			FEET		SQ. YD.
534+60	547+35	I-49 NORTHBOUND	1275	26	3683.3
547+35	566+85	I-49 NORTHBOUND	1950	24	5200.0
566+85	595+55	I-49 NORTHBOUND	2870	26	8291.1
608+51	697+19	I-49 NORTHBOUND	8868	26	25618.7
700+79	711+49	I-49 NORTHBOUND	1070	26	3091.1
717+14	734+65	I-49 NORTHBOUND	1751	26	5058.4
735+22	742+05	I-49 NORTHBOUND	683	26	1973.1
746+51	759+29	I-49 NORTHBOUND	1278	26	3692.0
768+72	770+63	I-49 NORTHBOUND	191	24	509.3
770+63	782+40	I-49 NORTHBOUND	1177	26	3400.2
782+40	798+43	I-49 NORTHBOUND	1603	24	4274.7
798+43	799+63	I-49 NORTHBOUND	120	26	346.7
798+79	865+34	I-49 NORTHBOUND	6655	26	19225.6
880+74	945+50	I-49 NORTHBOUND	6476	26	18708.4
964+45	1029+28	I-49 NORTHBOUND	6483	26	18728.7
1045+05	1115+96	I-49 NORTHBOUND	7090	26	20482.2
1116+34	1160+17	I-49 NORTHBOUND	4383	26	12662.0
1176+12	1189+21	I-49 NORTHBOUND	1309	26	3781.6
1189+10	1205+30	I-49 NORTHBOUND	1620	26	4680.0
1221+15	1263+30	I-49 NORTHBOUND	4215	26	12176.7
1274+35	1303+85	I-49 NORTHBOUND	2950	26	8522.2
1318+15	1332+17	I-49 NORTHBOUND	1402	26	4050.2
1332+17	1338+84	I-49 NORTHBOUND	667	24	1778.7
1338+84	1379+87	I-49 NORTHBOUND	4103	26	11853.1
1379+90	1389+37	I-49 NORTHBOUND	947	24	2525.3
1389+37	1451+29	I-49 NORTHBOUND	6192	26	17888.0
1450+59	1479+28	I-49 NORTHBOUND	2869	26	8288.2
1484+67	1498+49	I-49 NORTHBOUND	1382	26	3992.4
1512+89	1533+28	I-49 NORTHBOUND	2039	26	5890.4
1533+02	1558+95	I-49 NORTHBOUND	2593	26	7490.9
1559+04	1564+61	I-49 NORTHBOUND	557	26	1609.1
1573+16	1702+45	I-49 NORTHBOUND	12929	26	37350.4
1713+41	1753+42	I-49 NORTHBOUND	4001	26	11558.4
1753+42	1755+77	I-49 NORTHBOUND	235	24	626.7
1755+77	1776+37	I-49 NORTHBOUND	2060	26	5951.1
1776+37	1787+51	I-49 NORTHBOUND	1068	26	3085.3
1787+51	1798+42	I-49 NORTHBOUND	1091	24	2909.3
1798+42	1824+75	I-49 NORTHBOUND	2633	26	7606.4
1828+24	2025+38	I-49 NORTHBOUND	19714	26	56951.6
2025+38	2027+95	I-49 NORTHBOUND	257	24	685.3
2027+95	2041+92	I-49 NORTHBOUND	1397	26	4035.8
2044+25	2058+81	I-49 NORTHBOUND	1456	26	4206.2
2058+81	2068+23	I-49 NORTHBOUND	942	24	2512.0
2068+23	2158+87	I-49 NORTHBOUND	9064	26	26184.9
2158+87	2163+14	I-49 NORTHBOUND	427	24	1138.7
2163+14	2171+54	I-49 NORTHBOUND	840	26	2426.7
2171+38	2180+00	I-49 NORTHBOUND	862	26	2490.2
ADDITIONAL FOR TURN OUTS AND ACCELERATION LANES					
547+35	566+85	DOLLARD RD. INTERCHANGE - ACCEL. LANE & TAPER	1950	VARIES	2422.3
768+56	770+63	HWY. 282 - TURN OUT	207	VARIES	150.9
782+40	798+43	HWY. 282 - ACCEL. LANE & TAPER	1603	VARIES	1861.1
1332+17	1338+84	HWY. 74 - TURN OUT	667	VARIES	717.5
1379+87	1389+37	HWY. 74 - ACCEL. LANE & TAPER	950	VARIES	1130.7
1753+42	1755+77	HWY. 170 - TURN OUT	235	VARIES	141.9
1787+51	1798+42	HWY. 170 - ACCEL. LANE & TAPER	1091	VARIES	1264.5
2025+38	2027+95	CO. RD. 26 - TURN OUT	257	VARIES	184.5
2058+81	2068+23	CO. RD. 26 - ACCEL. LANE & TAPER	942	VARIES	1070.1
2158+87	2163+14	HWY. 265 - TURN OUT	427	VARIES	486.7
SUBTOTAL (BOX 1 OF 3):					428621.5

SILANE PROTECTIVE SURFACE TREATMENT (I-49 SOUTHBOUND) (BOX 2 OF 3)

STATION	STATION	LOCATION	LENGTH	WIDTH	SILANE PROTECTIVE SURFACE TREATMENT
			FEET		SQ. YD.
534+60	549+13	I-49 SOUTHBOUND	1453	26	4197.6
549+13	551+52	I-49 SOUTHBOUND	239	24	637.3
551+52	595+55	I-49 SOUTHBOUND	4403	26	12719.8
608+51	697+62	I-49 SOUTHBOUND	8911	26	25742.9
700+90	712+40	I-49 SOUTHBOUND	1150	26	3322.2
718+06	733+50	I-49 SOUTHBOUND	1544	26	4460.4
732+95	741+90	I-49 SOUTHBOUND	895	26	2585.6
746+36	759+89	I-49 SOUTHBOUND	1353	26	3908.7
769+31	772+18	I-49 SOUTHBOUND	287	24	765.3
772+18	791+03	I-49 SOUTHBOUND	1885	26	5445.6
791+03	794+51	I-49 SOUTHBOUND	348	24	928.0
794+51	797+61	I-49 SOUTHBOUND	310	26	895.6
798+44	864+71	I-49 SOUTHBOUND	6627	26	19144.7
878+81	941+85	I-49 SOUTHBOUND	6304	26	18211.6
962+72	1029+72	I-49 SOUTHBOUND	6700	26	19355.6
1045+65	1113+42	I-49 SOUTHBOUND	6777	26	19578.0
1113+04	1160+17	I-49 SOUTHBOUND	4713	26	13615.3
1176+12	1189+74	I-49 SOUTHBOUND	1362	26	3934.7
1189+86	1205+30	I-49 SOUTHBOUND	1544	26	4460.4
1221+15	1263+30	I-49 SOUTHBOUND	4215	26	12176.7
1274+35	1303+85	I-49 SOUTHBOUND	2950	26	8522.2
1318+15	1329+05	I-49 SOUTHBOUND	1090	26	3148.9
1329+05	1338+20	I-49 SOUTHBOUND	915	24	2440.0
1338+20	1378+49	I-49 SOUTHBOUND	4029	26	11639.3
1378+49	1382+07	I-49 SOUTHBOUND	358	24	954.7
1382+07	1449+72	I-49 SOUTHBOUND	6765	26	19543.3
1450+06	1481+04	I-49 SOUTHBOUND	3098	26	8949.8
1484+09	1497+32	I-49 SOUTHBOUND	1323	26	3822.0
1511+27	1532+66	I-49 SOUTHBOUND	2139	26	6179.3
1533+29	1563+09	I-49 SOUTHBOUND	2980	26	8608.9
1562+92	1564+61	I-49 SOUTHBOUND	169	26	488.2
1573+40	1702+45	I-49 SOUTHBOUND	12905	26	37281.1
1712+01	1745+95	I-49 SOUTHBOUND	3394	26	9804.9
1745+95	1757+14	I-49 SOUTHBOUND	1119	24	2984.0
1757+14	1776+83	I-49 SOUTHBOUND	1969	26	5688.2
1776+83	1795+77	I-49 SOUTHBOUND	1894	26	5471.6
1795+77	1798+28	I-49 SOUTHBOUND	251	24	669.3
1798+28	1824+08	I-49 SOUTHBOUND	2580	26	7453.3
1827+56	2019+87	I-49 SOUTHBOUND	19231	26	55556.2
2019+87	2029+29	I-49 SOUTHBOUND	942	24	2512.0
2029+29	2042+08	I-49 SOUTHBOUND	1279	26	3694.9
2044+41	2057+92	I-49 SOUTHBOUND	1351	26	3902.9
2057+92	2060+37	I-49 SOUTHBOUND	245	24	653.3
2060+37	2153+61	I-49 SOUTHBOUND	9324	26	26936.0
2153+61	2163+44	I-49 SOUTHBOUND	983	24	2621.3
2163+44	2172+13	I-49 SOUTHBOUND	869	26	2510.4
2172+29	2179+34	I-49 SOUTHBOUND	705	26	2036.7
ADDITIONAL FOR TURN OUTS AND ACCELERATION LANES					
549+13	551+52	DOLLARD RD. INTERCHANGE - TURN OUT	239	VARIES	132.3
769+31	772+18	HWY. 282 - ACCEL. LANE	287	VARIES	381.0
791+03	794+51	HWY. 282 - TURN OUT	348	VARIES	386.7
1329+05	1338+20	HWY. 74 - ACCEL. LANE & TAPER	915	VARIES	1076.2
1378+49	1382+07	HWY. 74 - TURN OUT	358	VARIES	432.6
1745+95	1757+14	HWY. 170 - ACCEL. LANE & TAPER	1119	VARIES	1304.2
1795+77	1798+28	HWY. 170 - TURN OUT	251	VARIES	139.7
2019+87	2029+29	CO. RD. 26 - ACCEL. LANE & TAPER	942	VARIES	1124.1
2057+92	2060+37	CO. RD. 26 - TURN OUT	245	VARIES	143.2
2153+61	2163+44	HWY. 265 - ACCEL. LANE & TAPER	983	VARIES	1177.3
SUBTOTAL (BOX 2 OF 3):					426456.0

SILANE PROTECTIVE SURFACE TREATMENT (BARRIER WALL) (BOX 3 OF 3)

STATION	STATION	LOCATION	LENGTH	WIDTH	SILANE PROTECTIVE SURFACE TREATMENT
			FEET		SQ. YD.
1176+12	1179+22	I-49 MEDIAN	310	8.13	280.0
1176+12	1179+12	I-49 MEDIAN	300	8.13	271.0
1179+62	1220+79	I-49 MEDIAN	4117	8.13	3719.0
1231+83	1234+62	I-49 MEDIAN	279	8.13	252.0
1263+66	1273+99	I-49 MEDIAN	1033	8.13	933.1
1304+21	1362+98	I-49 MEDIAN	5877	8.13	5308.9
1391+65	1402+00	I-49 MEDIAN	1035	8.13	935.0
SUBTOTALS (BOX 3 OF 3):					11699.0
SUBTOTALS (BOX 1 OF 3):					428621.5
SUBTOTALS (BOX 2 OF 3):					426456.0
TOTALS:					866776.5

9/4/2015

RB0409.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BBO409		27	105

2) QUANTITIES



BASE AND SURFACING (BOX 1 OF 3)

STATION	STATION	LOCATION	LENGTH FEET	ACHM SURFACE COURSE (1/2")			
				AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 76-22 TON
				RT. MAIN LANES			
534+59.60	595+55.38	RIGHT MAIN LANES - INSIDE SHOULDER	6095.78	4.00	2709.24	220.00	298.02
608+50.63	697+19.39	RIGHT MAIN LANES - INSIDE SHOULDER	8868.76	4.00	3941.67	220.00	433.58
700+78.61	711+48.85	RIGHT MAIN LANES - INSIDE SHOULDER	1070.24	4.00	475.66	220.00	52.32
717+14.16	734+64.51	RIGHT MAIN LANES - INSIDE SHOULDER	1750.35	4.00	777.93	220.00	85.57
735+21.78	742+05.38	RIGHT MAIN LANES - INSIDE SHOULDER	683.60	4.00	303.82	220.00	33.42
746+50.62	759+29.42	RIGHT MAIN LANES - INSIDE SHOULDER	1278.80	4.00	568.36	220.00	62.52
768+70.07	799+62.69	RIGHT MAIN LANES - INSIDE SHOULDER	3092.62	4.00	1374.50	220.00	151.20
798+79.40	865+34.46	RIGHT MAIN LANES - INSIDE SHOULDER	6655.06	4.00	2957.80	220.00	325.36
880+73.74	945+49.94	RIGHT MAIN LANES - INSIDE SHOULDER	6476.20	4.00	2878.31	220.00	316.61
964+45.10	1029+29.12	RIGHT MAIN LANES - INSIDE SHOULDER	6484.02	4.00	2881.79	220.00	317.00
1045+05.10	1115+94.80	RIGHT MAIN LANES - INSIDE SHOULDER	7089.70	4.00	3150.98	220.00	346.61
1116+33.76	1159+67.06	RIGHT MAIN LANES - INSIDE SHOULDER	4333.30	4.00	1925.91	220.00	211.85
1512+89.32	1519+26.32	RIGHT MAIN LANES - INSIDE SHOULDER	637.00	4.00	283.11	220.00	31.14
534+59.60	545+73.58	RIGHT MAIN LANES - OUTSIDE SHOULDER	1113.98	8.00	990.20	220.00	108.92
566+84.69	595+55.38	RIGHT MAIN LANES - OUTSIDE SHOULDER	2870.69	8.00	2551.72	220.00	280.69
608+50.63	697+19.39	RIGHT MAIN LANES - OUTSIDE SHOULDER	8868.76	8.00	7883.34	220.00	867.17
700+78.61	711+48.85	RIGHT MAIN LANES - OUTSIDE SHOULDER	1070.24	8.00	951.32	220.00	104.65
717+14.16	734+64.51	RIGHT MAIN LANES - OUTSIDE SHOULDER	1750.35	8.00	1555.87	220.00	171.15
735+21.78	742+05.38	RIGHT MAIN LANES - OUTSIDE SHOULDER	683.60	8.00	607.64	220.00	66.84
746+50.62	759+29.42	RIGHT MAIN LANES - OUTSIDE SHOULDER	1278.80	8.00	1136.71	220.00	125.04
769+29.96	780+85.91	RIGHT MAIN LANES - OUTSIDE SHOULDER	1155.95	8.00	1027.51	220.00	113.03
797+62.98	799+62.69	RIGHT MAIN LANES - OUTSIDE SHOULDER	199.71	8.00	177.52	220.00	19.53
798+79.40	865+34.46	RIGHT MAIN LANES - OUTSIDE SHOULDER	6655.06	8.00	5915.61	220.00	650.72
880+73.74	945+49.94	RIGHT MAIN LANES - OUTSIDE SHOULDER	6476.20	8.00	5756.62	220.00	633.23
964+45.10	1029+29.12	RIGHT MAIN LANES - OUTSIDE SHOULDER	6484.02	8.00	5763.57	220.00	633.99
1045+05.10	1115+94.80	RIGHT MAIN LANES - OUTSIDE SHOULDER	7089.70	8.00	6301.96	220.00	693.22
1116+33.76	1159+67.06	RIGHT MAIN LANES - OUTSIDE SHOULDER	4333.30	8.00	3851.82	220.00	423.70
1194+15.40	1205+30.40	RIGHT MAIN LANES - OUTSIDE SHOULDER	1115.00	8.00	991.11	220.00	109.02
1231+11.40	1263+29.95	RIGHT MAIN LANES - OUTSIDE SHOULDER	3218.55	8.00	2860.93	220.00	314.70
1274+35.03	1295+16.03	RIGHT MAIN LANES - OUTSIDE SHOULDER	2081.00	8.00	1849.78	220.00	203.48
1360+96.90	1378+44.90	RIGHT MAIN LANES - OUTSIDE SHOULDER	1748.00	8.00	1553.78	220.00	170.92
1399+39.92	1410+64.92	RIGHT MAIN LANES - OUTSIDE SHOULDER	1125.00	8.00	1000.00	220.00	110.00
1621+71.44	1632+52.44	RIGHT MAIN LANES - OUTSIDE SHOULDER	1081.00	8.00	960.89	220.00	105.70
1669+75.44	1687+40.44	RIGHT MAIN LANES - OUTSIDE SHOULDER	1765.00	8.00	1568.89	220.00	172.58
1713+40.60	1715+45.60	RIGHT MAIN LANES - OUTSIDE SHOULDER	205.00	8.00	182.22	220.00	20.04
1742+84.98	1753+42.13	RIGHT MAIN LANES - OUTSIDE SHOULDER	1057.15	8.00	939.69	220.00	103.37
1839+11.05	1843+65.05	RIGHT MAIN LANES - OUTSIDE SHOULDER	454.00	8.00	403.56	220.00	44.39
1909+81.71	1925+42.71	RIGHT MAIN LANES - OUTSIDE SHOULDER	1561.00	8.00	1387.56	220.00	152.63
2099+58.78	2122+83.78	RIGHT MAIN LANES - OUTSIDE SHOULDER	2325.00	8.00	2066.67	220.00	227.33
AS DIRECTED BY THE ENGINEER						2000.00	220.00
SUBTOTALS (BOX 1 OF 3):						86465.57	9511.24

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

BASE AND SURFACING (BOX 2 OF 3)

STATION	STATION	LOCATION	LENGTH FEET	ACHM SURFACE COURSE (1/2")			
				AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 76-22 TON
				LT. MAIN LANES			
535+24.58	595+55.38	LEFT MAIN LANES - INSIDE SHOULDER	6030.80	4.00	2680.36	220.00	294.84
608+50.63	697+62.41	LEFT MAIN LANES - INSIDE SHOULDER	8911.78	4.00	3960.79	220.00	435.69
700+89.59	712+40.33	LEFT MAIN LANES - INSIDE SHOULDER	1150.74	4.00	511.44	220.00	56.26
718+05.88	733+49.91	LEFT MAIN LANES - INSIDE SHOULDER	1544.03	4.00	686.24	220.00	75.49
732+95.31	741+90.38	LEFT MAIN LANES - INSIDE SHOULDER	895.07	4.00	397.81	220.00	43.76
746+35.62	759+89.09	LEFT MAIN LANES - INSIDE SHOULDER	1353.47	4.00	601.54	220.00	66.17
769+30.68	797+61.26	LEFT MAIN LANES - INSIDE SHOULDER	2830.58	4.00	1258.04	220.00	138.38
798+43.85	864+70.50	LEFT MAIN LANES - INSIDE SHOULDER	6626.65	4.00	2945.18	220.00	323.97
878+81.56	941+84.93	LEFT MAIN LANES - INSIDE SHOULDER	6303.37	4.00	2801.50	220.00	308.17
963+08.12	1029+70.70	LEFT MAIN LANES - INSIDE SHOULDER	6662.58	4.00	2961.15	220.00	325.73
1045+65.10	1113+41.86	LEFT MAIN LANES - INSIDE SHOULDER	6776.76	4.00	3011.89	220.00	331.31
1113+04.41	1159+67.06	LEFT MAIN LANES - INSIDE SHOULDER	4662.65	4.00	2072.29	220.00	227.95
1514+84.85	1515+88.85	LEFT MAIN LANES - INSIDE SHOULDER	104.00	4.00	46.22	220.00	5.08
535+24.58	548+19.37	LEFT MAIN LANES - OUTSIDE SHOULDER	1294.79	8.00	1150.92	220.00	126.60
551+51.64	595+55.38	LEFT MAIN LANES - OUTSIDE SHOULDER	4403.74	8.00	3914.44	220.00	430.59
608+50.63	697+62.41	LEFT MAIN LANES - OUTSIDE SHOULDER	8911.78	8.00	7921.58	220.00	871.37
700+89.59	712+40.33	LEFT MAIN LANES - OUTSIDE SHOULDER	1150.74	8.00	1022.88	220.00	112.52
718+05.88	733+49.91	LEFT MAIN LANES - OUTSIDE SHOULDER	1544.03	8.00	1372.47	220.00	150.97
732+95.31	741+90.38	LEFT MAIN LANES - OUTSIDE SHOULDER	895.07	8.00	795.62	220.00	87.52
746+35.62	759+89.09	LEFT MAIN LANES - OUTSIDE SHOULDER	1353.47	8.00	1203.08	220.00	132.34
773+05.47	788+52.02	LEFT MAIN LANES - OUTSIDE SHOULDER	1546.55	8.00	1374.71	220.00	151.22
794+50.93	797+61.26	LEFT MAIN LANES - OUTSIDE SHOULDER	310.33	8.00	275.85	220.00	30.34
798+43.85	864+70.50	LEFT MAIN LANES - OUTSIDE SHOULDER	6626.65	8.00	5890.36	220.00	647.94
878+81.56	941+84.93	LEFT MAIN LANES - OUTSIDE SHOULDER	6303.37	8.00	5603.00	220.00	616.33
963+08.12	1029+70.70	LEFT MAIN LANES - OUTSIDE SHOULDER	6662.58	8.00	5922.29	220.00	651.45
1045+65.10	1113+41.86	LEFT MAIN LANES - OUTSIDE SHOULDER	6776.76	8.00	6023.79	220.00	662.62
1113+04.41	1159+67.06	LEFT MAIN LANES - OUTSIDE SHOULDER	4662.65	8.00	4144.58	220.00	455.90
1199+56.40	1205+30.40	LEFT MAIN LANES - OUTSIDE SHOULDER	574.00	8.00	510.22	220.00	56.12
1234+72.38	1241+08.38	LEFT MAIN LANES - OUTSIDE SHOULDER	636.00	8.00	565.33	220.00	62.19
1253+29.95	1263+29.95	LEFT MAIN LANES - OUTSIDE SHOULDER	1000.00	8.00	888.89	220.00	97.78
1277+24.90	1303+84.95	LEFT MAIN LANES - OUTSIDE SHOULDER	2660.05	8.00	2364.49	220.00	260.09
1383+04.95	1393+04.95	LEFT MAIN LANES - OUTSIDE SHOULDER	1000.00	8.00	888.89	220.00	97.78
1514+34.99	1520+08.99	LEFT MAIN LANES - OUTSIDE SHOULDER	574.00	8.00	510.22	220.00	56.12
1523+85.99	1530+40.99	LEFT MAIN LANES - OUTSIDE SHOULDER	655.00	8.00	582.22	220.00	64.04
1576+88.78	1579+18.78	LEFT MAIN LANES - OUTSIDE SHOULDER	230.00	8.00	204.44	220.00	22.49
1587+44.78	1588+86.78	LEFT MAIN LANES - OUTSIDE SHOULDER	142.00	8.00	126.22	220.00	13.88
1668+70.44	1683+69.44	LEFT MAIN LANES - OUTSIDE SHOULDER	1499.00	8.00	1332.44	220.00	146.57
1913+81.63	1916+07.63	LEFT MAIN LANES - OUTSIDE SHOULDER	226.00	8.00	200.89	220.00	22.10
2097+65.60	2114+60.60	LEFT MAIN LANES - OUTSIDE SHOULDER	1695.00	8.00	1506.67	220.00	165.73
AS DIRECTED BY THE ENGINEER						2000.00	220.00
SUBTOTALS (BOX 2 OF 3):						82230.94	9045.40

BASIS OF ESTIMATE:
 ACHM SURFACE COURSE (1/2").....94.5% MIN. AGGR.....5.5% ASPHALT BINDER

9/14/2015 R880409.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0409	28	105

2 QUANTITIES



BASE AND SURFACING (BOX 3 OF 3)

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2")			
				AVG. WID.	SQ. YD.	POUND / SQ. YD.	PG 76-22
				FEET	FEET		TON
DOLLARD RD. INTERCHANGE							
529+68.50	545+73.58	RAMP 2 - INSIDE SHOULDER	1605.08	4.00	713.37	220.00	78.47
529+68.50	566+84.69	RAMP 2 - OUTSIDE SHOULDER	3716.19	6.00	2477.46	220.00	272.52
535+60.50	548+19.37	RAMP 3 - INSIDE SHOULDER	1258.87	4.00	559.50	220.00	61.55
535+60.50	551+51.64	RAMP 3 - OUTSIDE SHOULDER	1591.14	6.00	1060.76	220.00	116.68
HWY. 282 INTERCHANGE							
768+56.89	782+52.95	RAMP 1 - OUTSIDE SHOULDER	1396.06	6.00	930.71	220.00	102.38
769+29.96	776+02.99	RAMP 1 - INSIDE SHOULDER	673.03	4.00	299.12	220.00	32.90
764+95.70	797+62.98	RAMP 2 - OUTSIDE SHOULDER	3267.28	6.00	2178.19	220.00	239.60
771+73.14	780+85.91	RAMP 2 - INSIDE SHOULDER	912.77	4.00	405.68	220.00	44.62
773+97.34	794+50.93	RAMP 3 - OUTSIDE SHOULDER	2053.59	6.00	1369.06	220.00	150.60
774+61.12	778+52.02	RAMP 3 - INSIDE SHOULDER	390.90	4.00	173.73	220.00	19.11
769+40.01	781+79.60	RAMP 4 - OUTSIDE SHOULDER	1239.59	6.00	826.39	220.00	90.90
773+05.47	781+17.47	RAMP 4 - INSIDE SHOULDER	812.00	4.00	360.89	220.00	39.70
HWY. 74 INTERCHANGE							
1332+17.47	1359+53.29	RAMP 1 - OUTSIDE SHOULDER	2735.82	6.00	1823.88	220.00	200.63
1363+47.35	1367+84.35	RAMP 2 - INSIDE SHOULDER	437.00	4.00	194.22	220.00	21.36
1363+82.86	1389+36.92	RAMP 2 - OUTSIDE SHOULDER	2554.06	6.00	1702.71	220.00	187.30
1362+97.15	1366+19.15	RAMP 3 - INSIDE SHOULDER	322.00	4.00	143.11	220.00	15.74
1363+33.77	1382+07.15	RAMP 3 - OUTSIDE SHOULDER	1873.38	6.00	1248.92	220.00	137.38
1347+40.84	1366+02.84	RAMP 4 - OUTSIDE SHOULDER	1862.00	6.00	1241.33	220.00	136.55
1364+11.56	1366+41.56	RAMP 4 - INSIDE SHOULDER	230.00	4.00	102.22	220.00	11.24
HWY. 170 INTERCHANGE							
1753+42.13	1774+97.44	RAMP 1 - OUTSIDE SHOULDER	2155.31	6.00	1436.87	220.00	158.06
1777+11.58	1782+00.58	RAMP 2 - INSIDE SHOULDER	489.00	4.00	217.33	220.00	23.91
1777+31.58	1798+41.95	RAMP 2 - OUTSIDE SHOULDER	2110.37	6.00	1406.91	220.00	154.76
1769+45.26	1775+65.26	RAMP 3 - INSIDE SHOULDER	620.00	4.00	275.56	220.00	30.31
1773+98.26	1792+09.26	RAMP 3 - OUTSIDE SHOULDER	1811.00	6.00	1207.33	220.00	132.81
1752+75.39	1771+39.52	RAMP 4 - OUTSIDE SHOULDER	1864.13	6.00	1242.75	220.00	136.70
1766+79.52	1771+39.52	RAMP 4 - INSIDE SHOULDER	460.00	4.00	204.44	220.00	22.49
CO. RD. 26 INTERCHANGE							
2025+37.51	2041+87.13	RAMP 1 - OUTSIDE SHOULDER	1649.62	6.00	1099.75	220.00	120.97
2043+41.64	2068+23.03	RAMP 2 - OUTSIDE SHOULDER	2481.39	6.00	1654.26	220.00	181.97
2044+24.23	2054+07.23	RAMP 3 - OUTSIDE SHOULDER	983.00	6.00	655.33	220.00	72.09
2029+87.17	2042+75.17	RAMP 4 - OUTSIDE SHOULDER	1288.00	6.00	858.67	220.00	94.45
2041+59.25	2043+23.25	RAMP 4 - INSIDE SHOULDER	164.00	4.00	72.89	220.00	8.02
HWY. 265 INTERCHANGE							
2167+18.30	2184+09.30	RAMP 1 - OUTSIDE SHOULDER	1691.00	6.00	1127.33	220.00	124.01
2183+55.69	2190+50.69	RAMP 3 - OUTSIDE SHOULDER	695.00	6.00	463.33	220.00	50.97
2171+69.28	2176+27.28	RAMP 4 - OUTSIDE SHOULDER	458.00	6.00	305.33	220.00	33.59
AS DIRECTED BY THE ENGINEER					2000.00	220.00	220.00
SUBTOTALS (BOX 3 OF 3):					32039.33		3524.34
SUBTOTALS (BOX 1 OF 3):					86465.57		9511.24
SUBTOTALS (BOX 2 OF 3):					82230.94		9045.40
TOTALS:					200735.84		22080.98

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

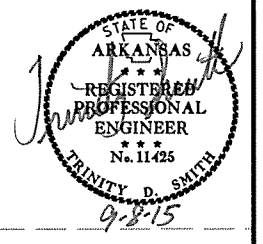
9/2/2015

RB0409.DGN

QUANTITIES

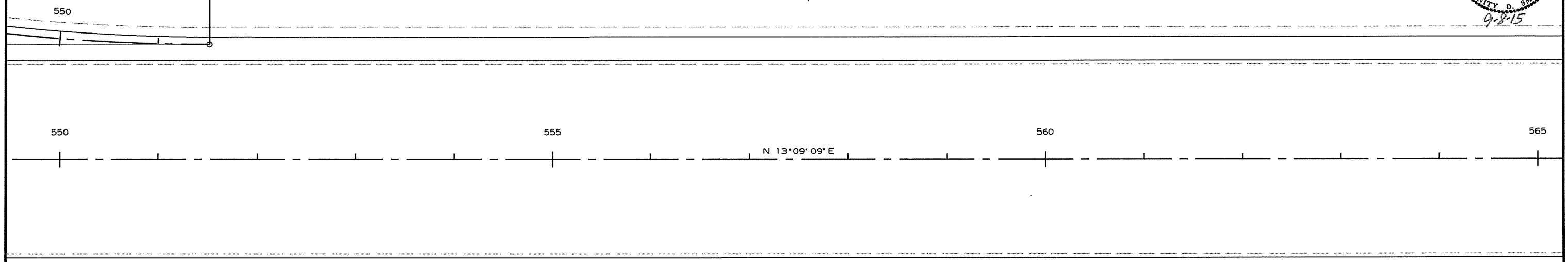
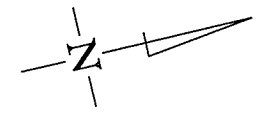
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				6	ARK.			
				JOB NO.	BB0409		31	105

② PLAN SHEETS

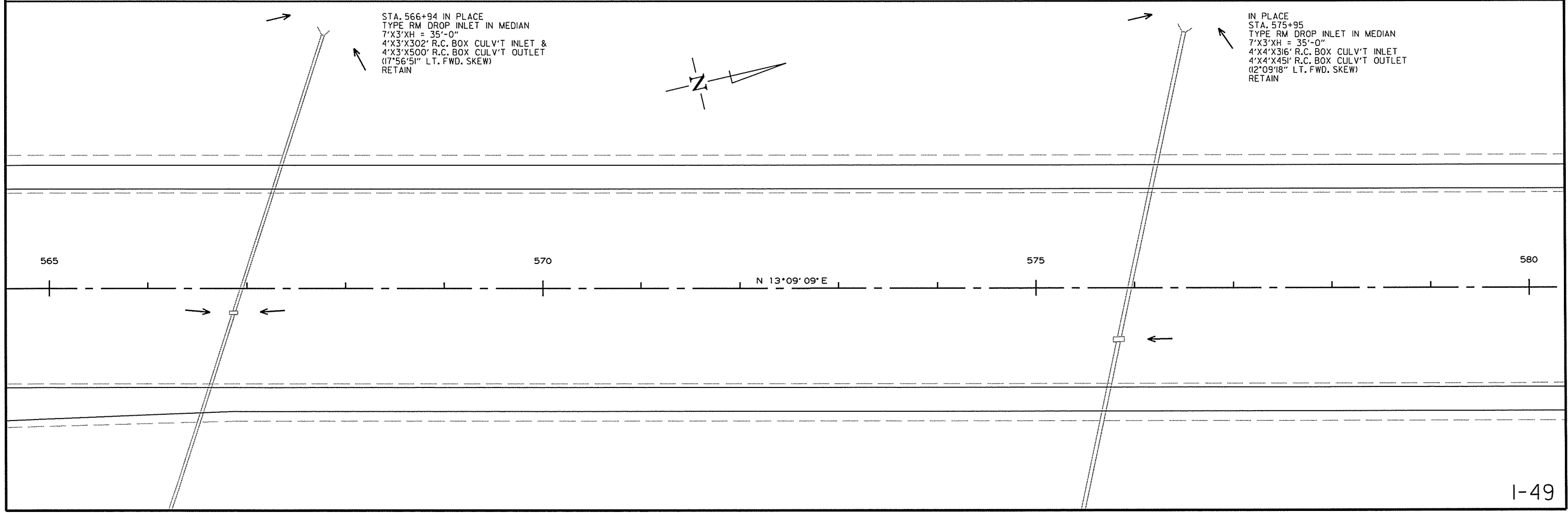


I-49 C.L.
 PI = 536+31.84
 Δ = 14°27' 11" LT.
 D = 0°45' 00"
 T = 968.68'
 L = 1927.08'
 PC = 526+63.16
 PT = 545+90.24

PT551+51.64



553+81.93
 142.00'



STA. 566+94 IN PLACE
 TYPE RM DROP INLET IN MEDIAN
 7'X3'XH = 35'-0"
 4'X3'X302' R.C. BOX CULV'T INLET &
 4'X3'X500' R.C. BOX CULV'T OUTLET
 (17'56'51" LT. FWD. SKEW)
 RETAIN

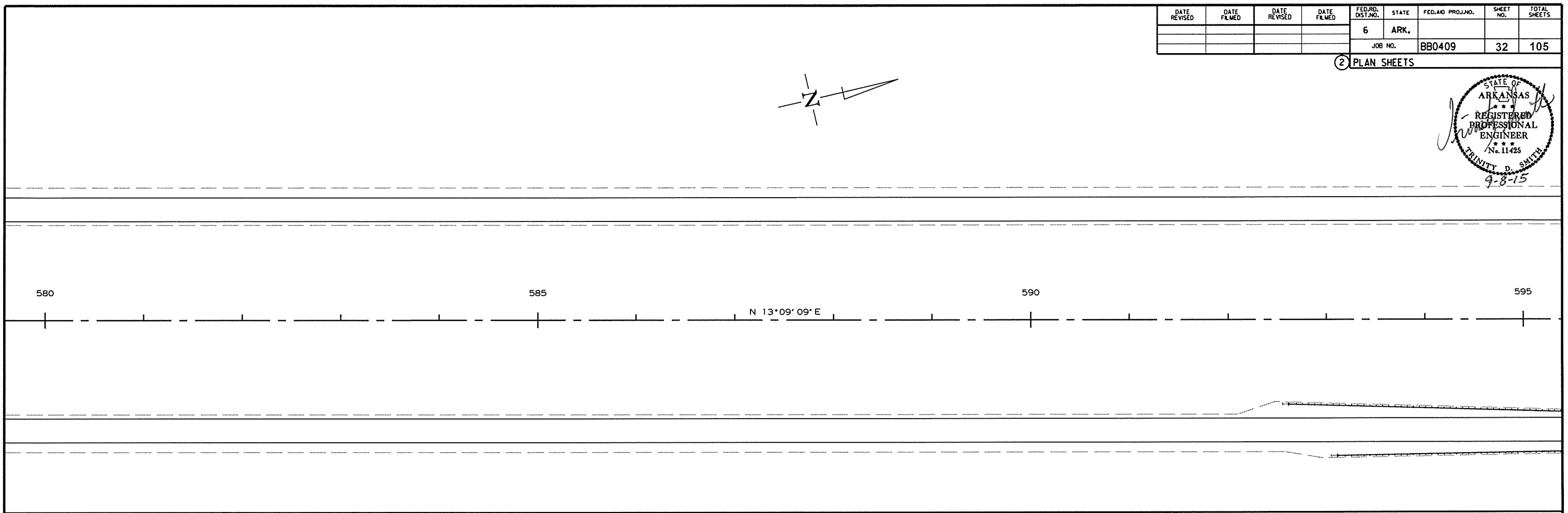
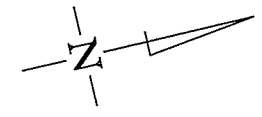
IN PLACE
 STA. 575+95
 TYPE RM DROP INLET IN MEDIAN
 7'X3'XH = 35'-0"
 4'X4'X316' R.C. BOX CULV'T INLET
 4'X4'X451' R.C. BOX CULV'T OUTLET
 (12'09'18" LT. FWD. SKEW)
 RETAIN

9/2/2015

RB80409.DGN

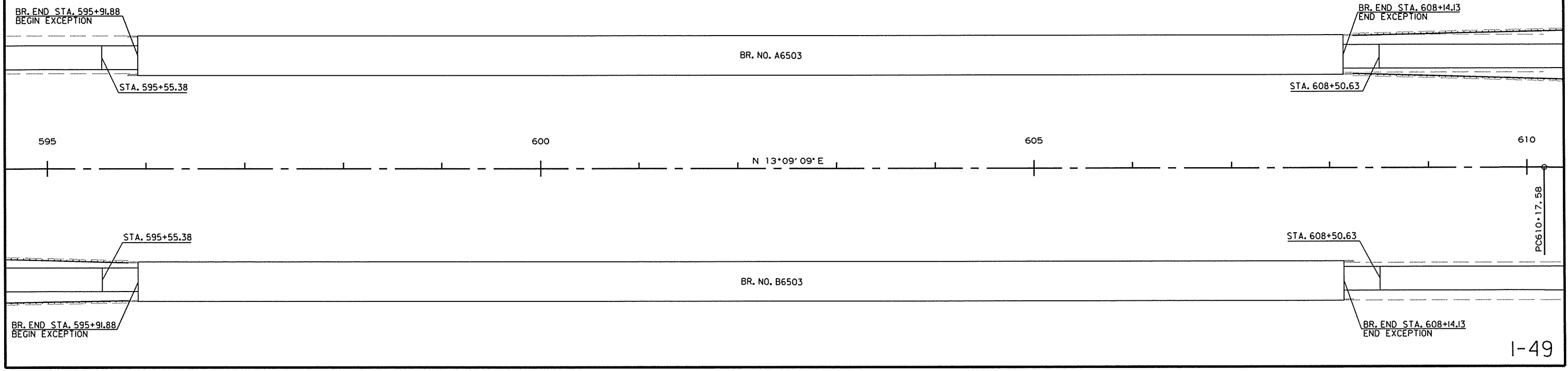
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		32	105

2 PLAN SHEETS



STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
592+63.13	595+81.88	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.
593+13.13	595+81.88	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.
608+24.13	610+92.88	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.
608+24.13	611+42.88	L.M.L. - RT.	250 LIN. FT.	IEA.	IEA.

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 592+56.88 TO STA. 595+81.88 LT. OF RT. LANES = 325 LIN. FT.
 STA. 593+06.88 TO STA. 595+81.88 RT. OF RT. LANES = 275 LIN. FT.
 STA. 608+24.13 TO STA. 610+99.13 LT. OF LT. LANES = 275 LIN. FT.
 STA. 608+24.13 TO STA. 611+49.13 RT. OF LT. LANES = 325 LIN. FT.

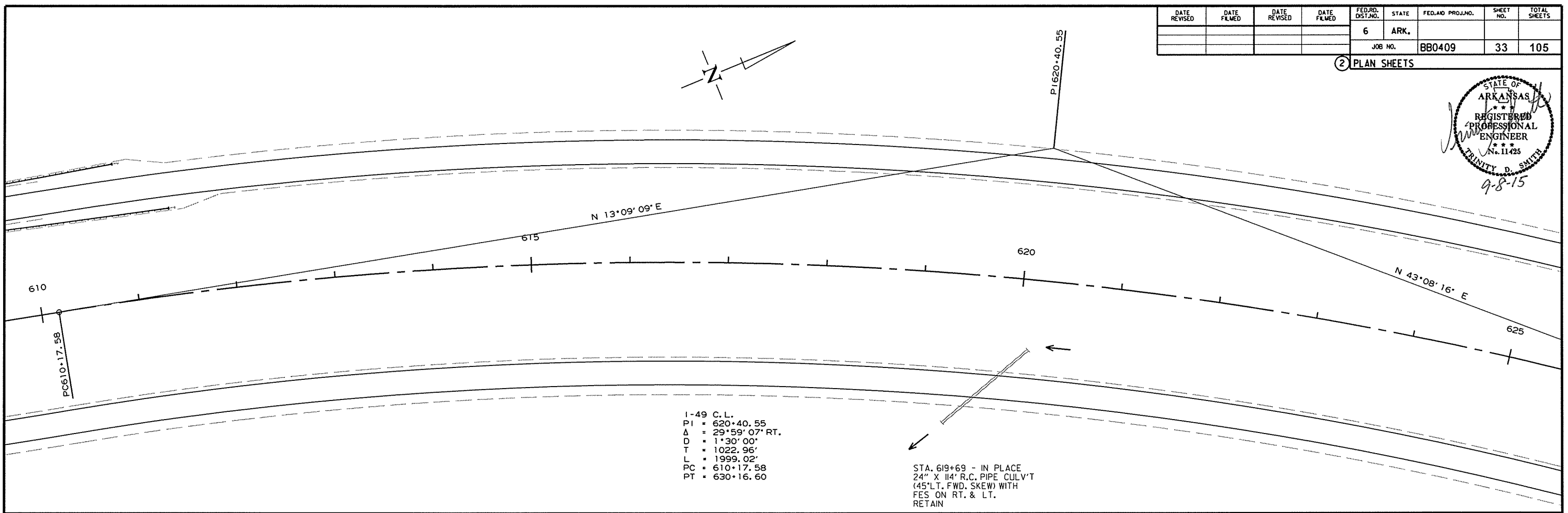
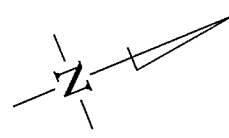
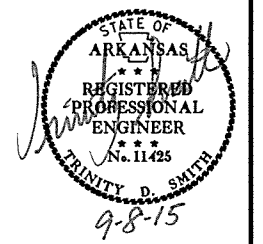


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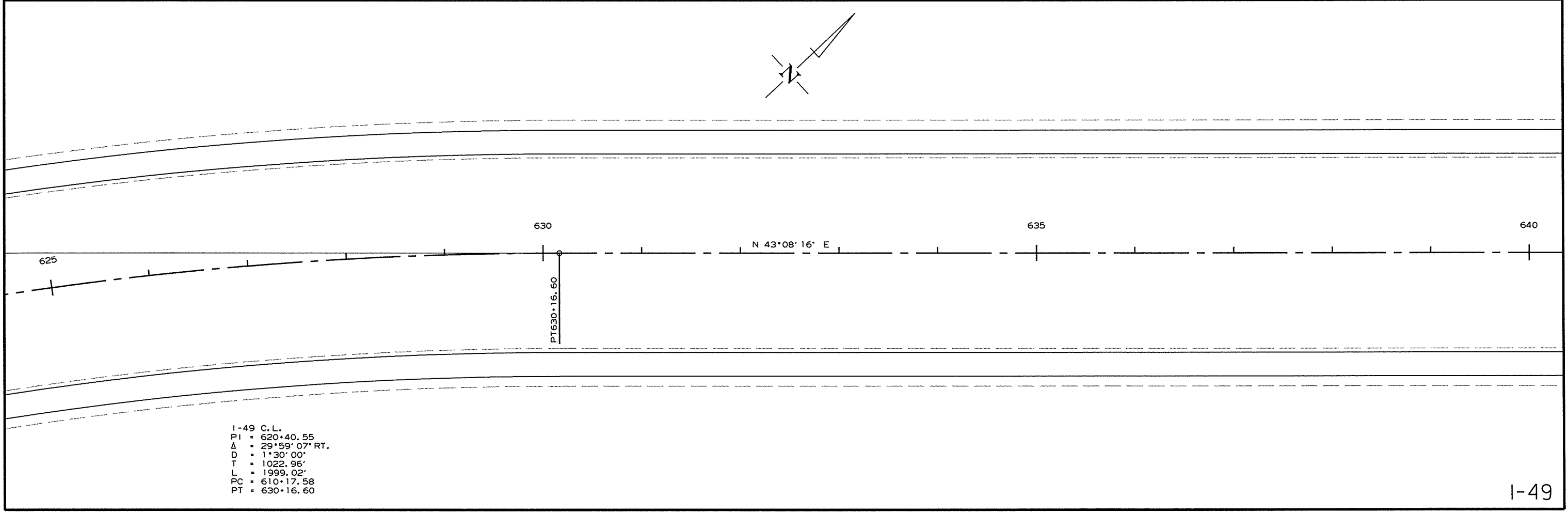
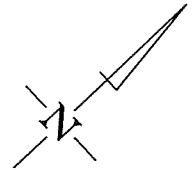
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0409	33	105

2 PLAN SHEETS



I-49 C.L.
 PI = 620+40.55
 Δ = 29°59'07" RT.
 D = 1°30'00"
 T = 1022.96'
 L = 1999.02'
 PC = 610+17.58
 PT = 630+16.60

STA. 619+69 - IN PLACE
 24" X 114' R.C. PIPE CULV'T
 (45' LT. FWD. SKEW) WITH
 FES ON RT. & LT.
 RETAIN



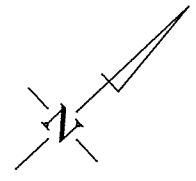
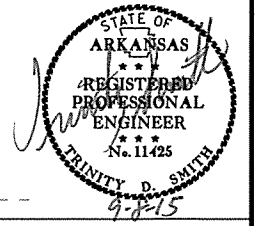
I-49 C.L.
 PI = 620+40.55
 Δ = 29°59'07" RT.
 D = 1°30'00"
 T = 1022.96'
 L = 1999.02'
 PC = 610+17.58
 PT = 630+16.60

9/2/2015

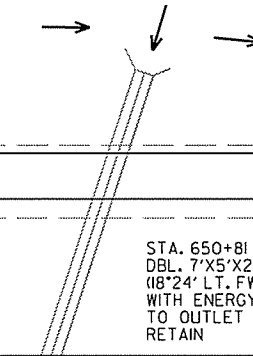
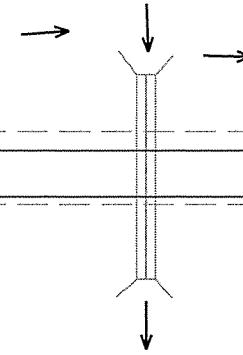
RB0409.DGN

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. BB0409							34	105

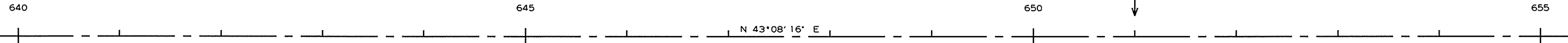
② PLAN SHEETS



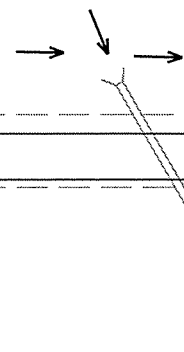
STA. 651+00 - IN PLACE
DBL. 7'X5'X107' R.C. BOX CULV'T
RETAIN



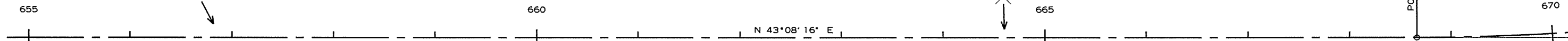
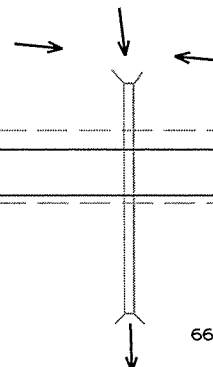
STA. 650+81 - IN PLACE
DBL. 7'X5'X216' R.C. BOX CULV'T
(18'24' LT. FWD. SKEW)
WITH ENERGY DISSIPATOR CONN.
TO OUTLET END
RETAIN



STA. 656+25 - IN PLACE
6' X 4' X 123' R.C. BOX CULV'T
(30° RT. FWD. SKEW)
RETAIN

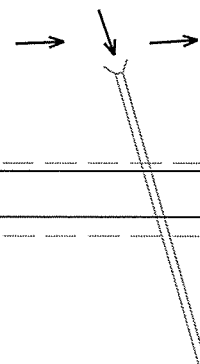


STA. 664+59 - IN PLACE
6' X 5' X 120' R.C. BOX CULV'T
RETAIN

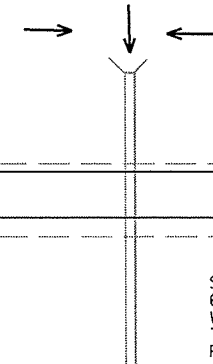


PC668+66.35

STA. 657+16 - IN PLACE
6' X 4' X 260' R.C. BOX CULV'T
(15°50' RT. FWD. SKEW)
WITH ENERGY DISSIPATOR CONN.
TO OUTLET END
RETAIN



STA. 664+59 - IN PLACE
6' X 5' X 179' R.C. BOX CULV'T
WITH ENERGY DISSIPATOR CONN.
TO OUTLET END
RETAIN



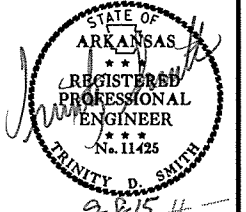
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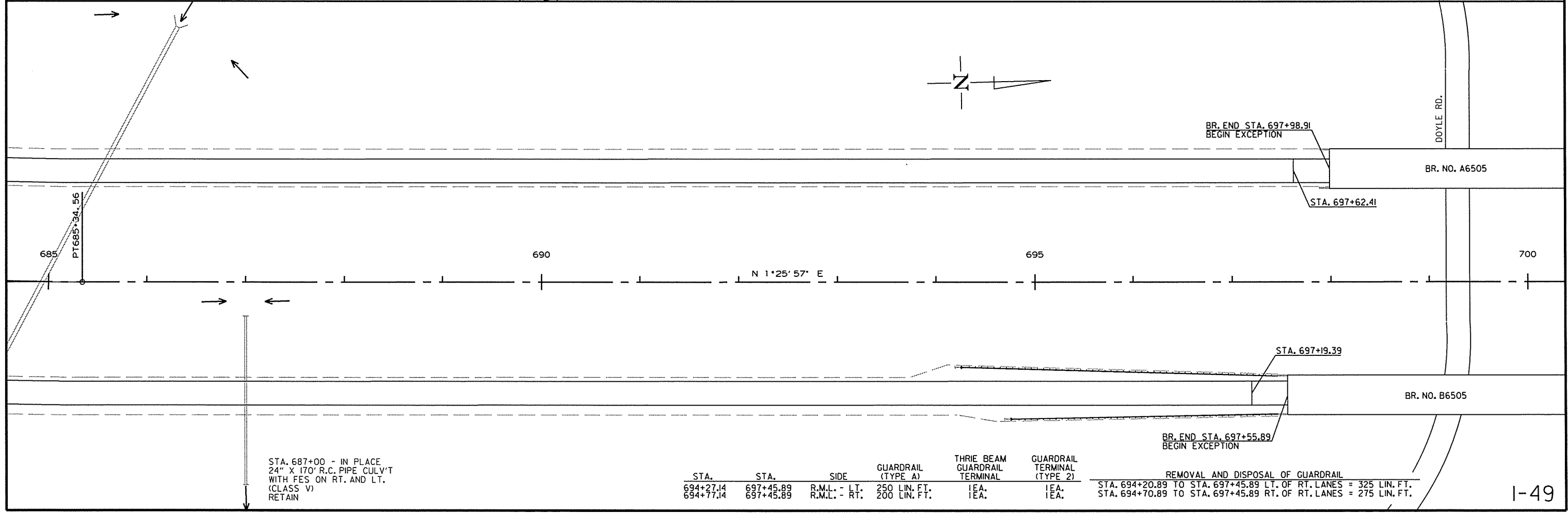
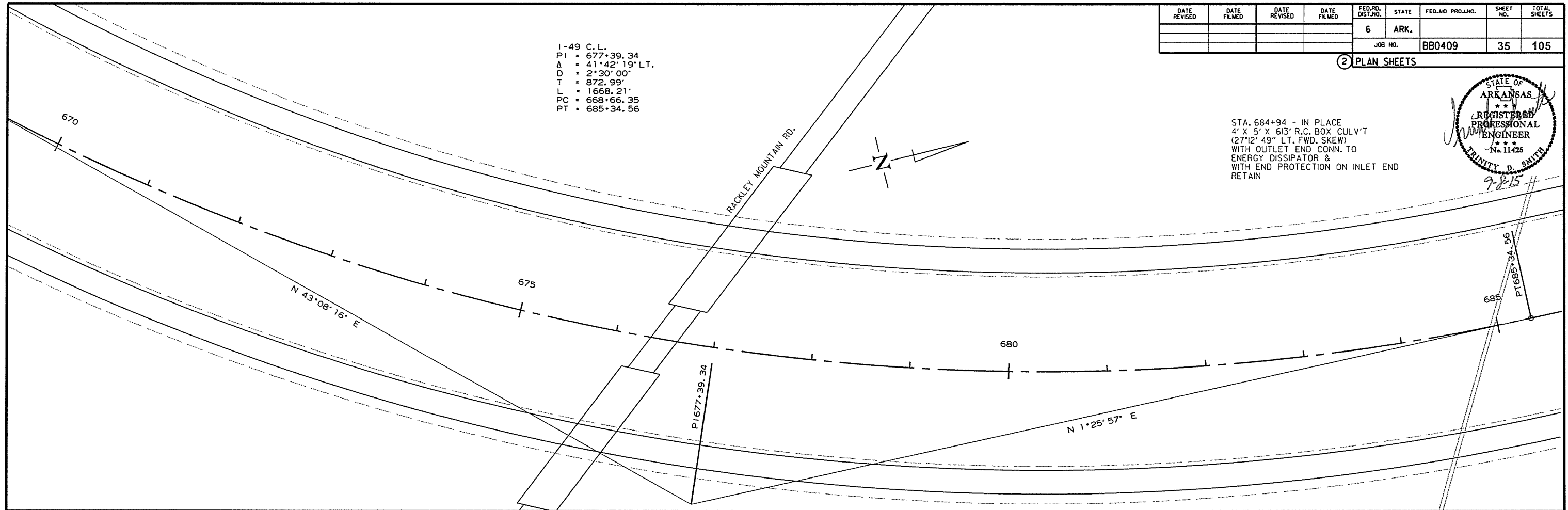
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0409	35	105

2 PLAN SHEETS

I-49 C.L.
 PI = 677+39.34
 Δ = 41°42'19" LT.
 D = 2°30'00"
 T = 872.99'
 L = 1668.21'
 PC = 668+66.35
 PT = 685+34.56



STA. 684+94 - IN PLACE
 4' X 5' X 613' R.C. BOX CULV'T
 (27'12" 49" LT. FWD. SKEW)
 WITH OUTLET END CONN. TO
 ENERGY DISSIPATOR &
 WITH END PROTECTION ON INLET END
 RETAIN



STA. 687+00 - IN PLACE
 24" X 170' R.C. PIPE CULV'T
 WITH FES ON RT. AND LT.
 (CLASS V)
 RETAIN

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	REMOVAL AND DISPOSAL OF GUARDRAIL
694+27.14	697+45.89	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.	STA. 694+20.89 TO STA. 697+45.89 LT. OF RT. LANES = 325 LIN. FT.
694+77.14	697+45.89	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.	STA. 694+70.89 TO STA. 697+45.89 RT. OF RT. LANES = 275 LIN. FT.

9/2/2015

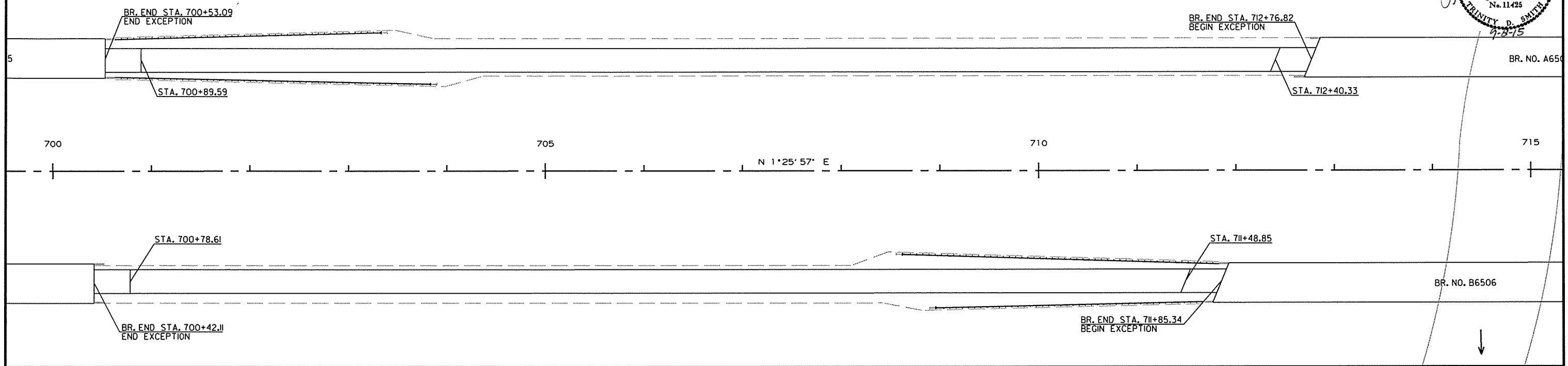
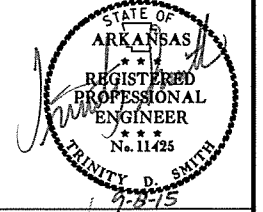
RBB0409.DGN

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.	BB0409		36	105

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 700+63.09 TO STA. 703+38.09 LT. OF LT. LANES = 275 LIN. FT.
 STA. 700+63.09 TO STA. 703+88.09 RT. OF LT. LANES = 325 LIN. FT.
 STA. 708+57.69 TO STA. 711+82.69 LT. OF RT. LANES = 325 LIN. FT.
 STA. 708+91.36 TO STA. 711+66.36 RT. OF RT. LANES = 275 LIN. FT.

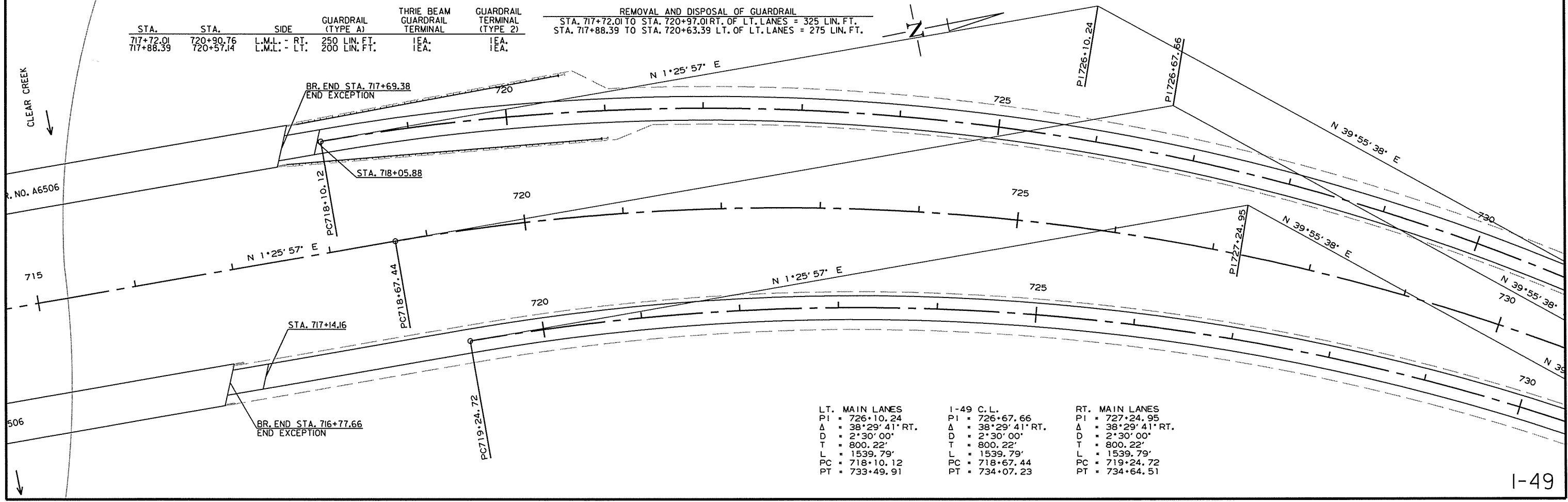
STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
700+63.09	703+31.84	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.
700+63.09	703+81.84	L.M.L. - RT.	250 LIN. FT.	IEA.	IEA.
708+63.94	711+82.69	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.
708+97.61	711+66.36	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.

2 PLAN SHEETS



REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 717+72.01 TO STA. 720+97.01 RT. OF LT. LANES = 325 LIN. FT.
 STA. 717+88.39 TO STA. 720+63.39 LT. OF LT. LANES = 275 LIN. FT.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
717+72.01	720+90.76	L.M.L. - RT.	250 LIN. FT.	IEA.	IEA.
717+88.39	720+57.14	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.

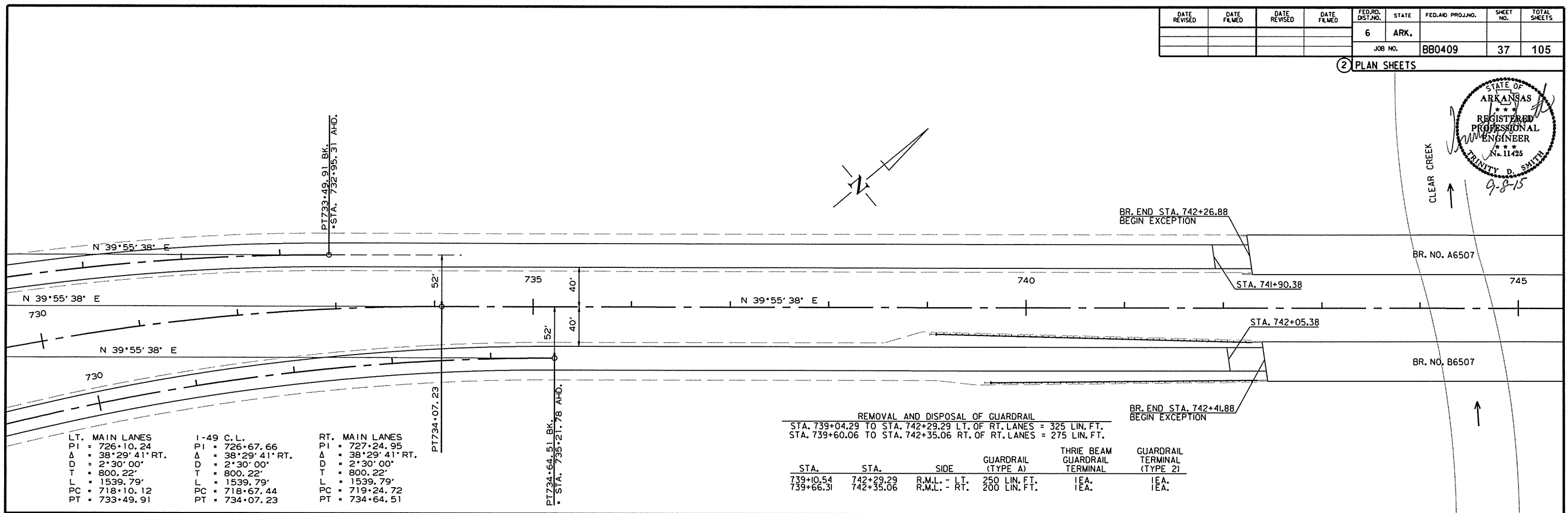
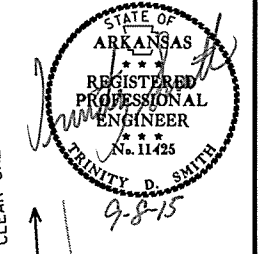


LT. MAIN LANES	1-49 C.L.	RT. MAIN LANES
PI = 726+10.24	PI = 726+67.66	PI = 727+24.95
Δ = 38°29'41" RT.	Δ = 38°29'41" RT.	Δ = 38°29'41" RT.
D = 2°30'00"	D = 2°30'00"	D = 2°30'00"
T = 800.22'	T = 800.22'	T = 800.22'
L = 1539.79'	L = 1539.79'	L = 1539.79'
PC = 718+10.12	PC = 718+67.44	PC = 719+24.72
PT = 733+49.91	PT = 734+07.23	PT = 734+64.51

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2 PLAN SHEETS



LT. MAIN LANES PI = 726+10.24 Δ = 38°29'41" RT. D = 2°30'00" T = 800.22' L = 1539.79' PC = 718+10.12 PT = 733+49.91	I-49 C.L. PI = 726+67.66 Δ = 38°29'41" RT. D = 2°30'00" T = 800.22' L = 1539.79' PC = 718+67.44 PT = 734+07.23	RT. MAIN LANES PI = 727+24.95 Δ = 38°29'41" RT. D = 2°30'00" T = 800.22' L = 1539.79' PC = 719+24.72 PT = 734+64.51
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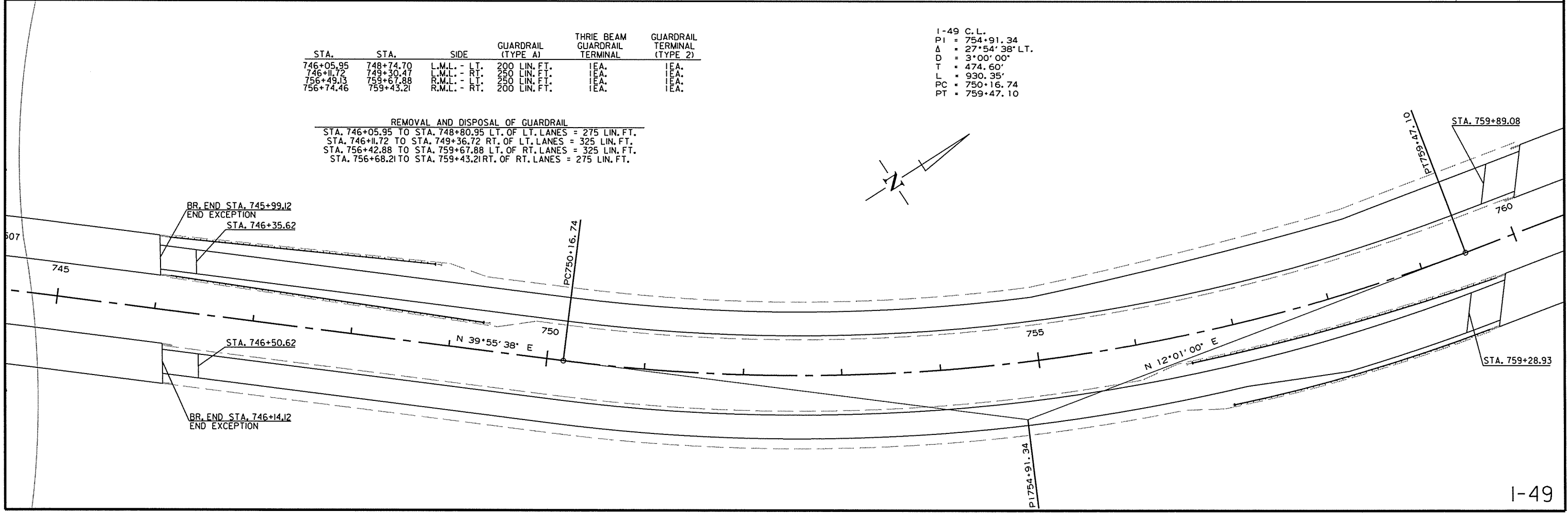
REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 739+04.29 TO STA. 742+29.29 LT. OF RT. LANES = 325 LIN. FT.
 STA. 739+60.06 TO STA. 742+35.06 RT. OF RT. LANES = 275 LIN. FT.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
739+10.54	742+29.29	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.
739+66.31	742+35.06	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
746+05.95	748+74.70	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.
746+11.72	749+30.47	L.M.L. - RT.	250 LIN. FT.	IEA.	IEA.
756+49.13	759+67.88	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.
756+74.46	759+43.21	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.

I-49 C.L. PI = 754+91.34 Δ = 27°54'38" LT. D = 3°00'00" T = 474.60' L = 930.35' PC = 750+16.74 PT = 759+47.10
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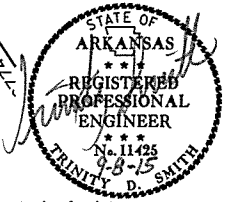
REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 746+05.95 TO STA. 748+80.95 LT. OF LT. LANES = 275 LIN. FT.
 STA. 746+11.72 TO STA. 749+36.72 RT. OF LT. LANES = 325 LIN. FT.
 STA. 756+42.88 TO STA. 759+67.88 LT. OF RT. LANES = 325 LIN. FT.
 STA. 756+68.21 TO STA. 759+43.21 RT. OF RT. LANES = 275 LIN. FT.



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				6	ARK.			
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2 PLAN SHEETS



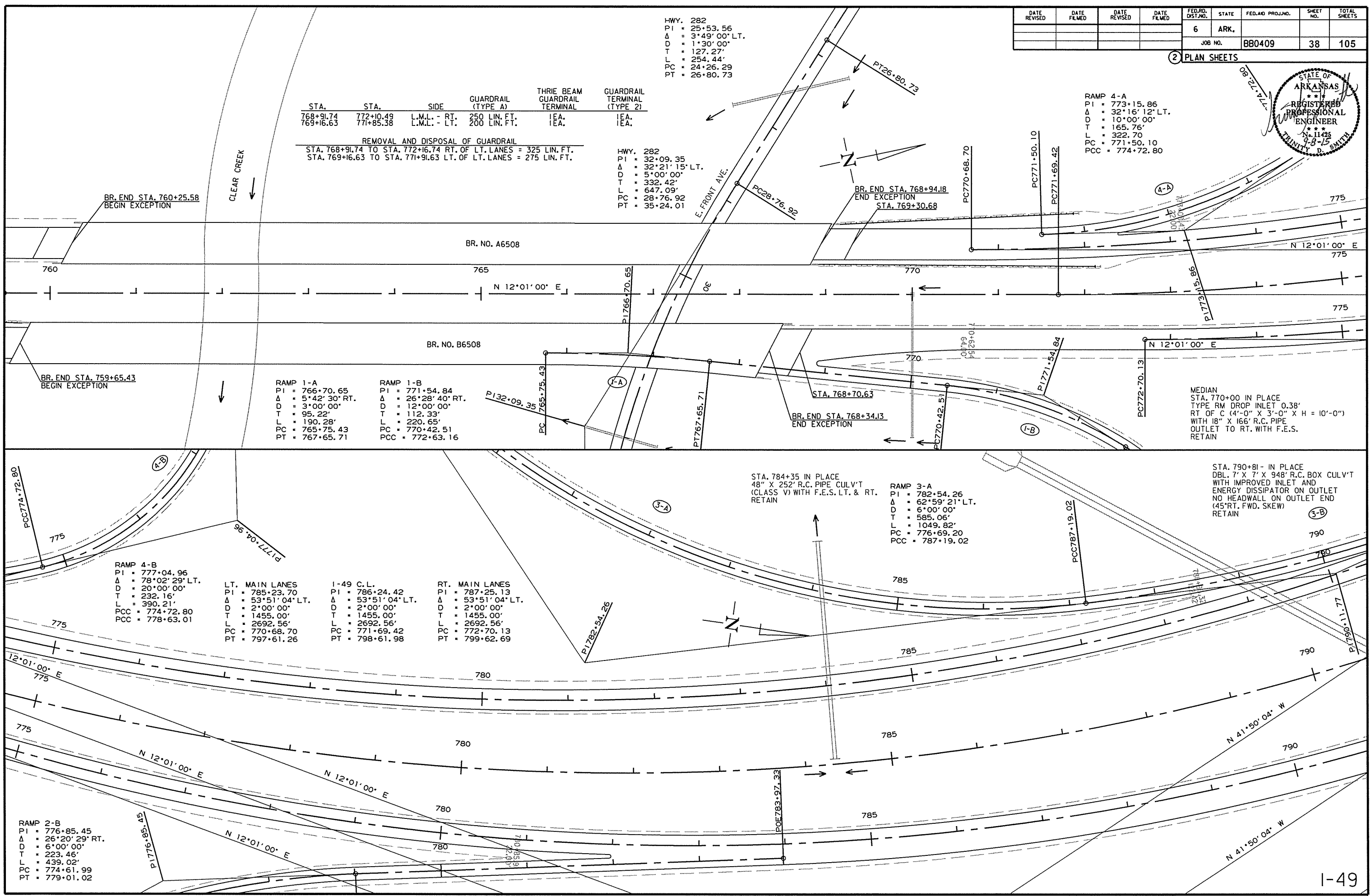
HWY. 282
 PI = 25+53.56
 Δ = 3°49'00" LT.
 D = 1°30'00"
 T = 127.27'
 L = 254.44'
 PC = 24+26.29
 PT = 26+80.73

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
768+91.74	772+10.49	L.M.L. - RT.	250 LIN. FT.	IEA.	IEA.
769+16.63	771+85.38	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 768+91.74 TO STA. 772+16.74 RT. OF LT. LANES = 325 LIN. FT.
 STA. 769+16.63 TO STA. 771+91.63 LT. OF LT. LANES = 275 LIN. FT.

HWY. 282
 PI = 32+09.35
 Δ = 32°21'15" LT.
 D = 5°00'00"
 T = 332.42'
 L = 647.09'
 PC = 28+76.92
 PT = 35+24.01

RAMP 4-A
 PI = 773+15.86
 Δ = 32°16'12" LT.
 D = 10°00'00"
 T = 165.76'
 L = 322.70'
 PC = 771+50.10
 PCC = 774+72.80



RAMP 1-A
 PI = 766+70.65
 Δ = 5°42'30" RT.
 D = 3°00'00"
 T = 95.22'
 L = 190.28'
 PC = 765+75.43
 PT = 767+65.71

RAMP 1-B
 PI = 771+54.84
 Δ = 26°28'40" RT.
 D = 12°00'00"
 T = 112.33'
 L = 220.65'
 PC = 770+42.51
 PCC = 772+63.16

MEDIAN
 STA. 770+00 IN PLACE
 TYPE RM DROP INLET 0.38'
 RT OF C (4'-0" X 3'-0" X H = 10'-0")
 WITH 18" X 166' R.C. PIPE
 OUTLET TO RT. WITH F.E.S.
 RETAIN

STA. 784+35 IN PLACE
 48" X 252' R.C. PIPE CULV'T
 (CLASS V) WITH F.E.S. LT. & RT.
 RETAIN

RAMP 3-A
 PI = 782+54.26
 Δ = 62°59'21" LT.
 D = 6°00'00"
 T = 585.06'
 L = 1049.82'
 PC = 776+69.20
 PCC = 787+19.02

STA. 790+81 - IN PLACE
 DBL. 7' X 7' X 948' R.C. BOX CULV'T
 WITH IMPROVED INLET AND
 ENERGY DISSIPATOR ON OUTLET
 NO HEADWALL ON OUTLET END
 (45° RT. FWD. SKEW)
 RETAIN

RAMP 4-B
 PI = 777+04.96
 Δ = 78°02'29" LT.
 D = 20°00'00"
 T = 232.16'
 L = 390.21'
 PCC = 774+72.80
 PCC = 778+63.01

LT. MAIN LANES	I-49 C.L.	RT. MAIN LANES
PI = 785+23.70	PI = 786+24.42	PI = 787+25.13
Δ = 53°51'04" LT.	Δ = 53°51'04" LT.	Δ = 53°51'04" LT.
D = 2°00'00"	D = 2°00'00"	D = 2°00'00"
T = 1455.00'	T = 1455.00'	T = 1455.00'
L = 2692.56'	L = 2692.56'	L = 2692.56'
PC = 770+68.70	PC = 771+69.42	PC = 772+70.13
PT = 797+61.26	PT = 798+61.98	PT = 799+62.69

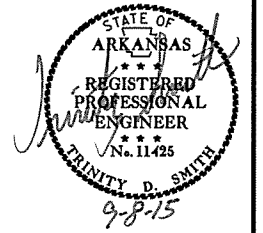
RAMP 2-B
 PI = 776+85.45
 Δ = 26°20'29" RT.
 D = 6°00'00"
 T = 223.46'
 L = 439.02'
 PC = 774+61.99
 PT = 779+01.02

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2 PLAN SHEETS



RAMP 3-B
 PI = 790+11.77
 Δ = 17°25'46" LT.
 D = 3°00'00"
 T = 292.75'
 L = 580.98'
 PCC = 787+19.02
 PCC = 793+00.00

STA. 796+00 IN PLACE
 24" X 10' R.C. PIPE CULV'T
 WITH F.E.S. LT. & RT.
 RETAIN

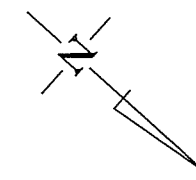
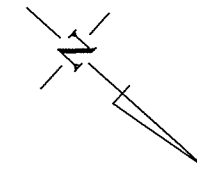
N 41°50'04" W

N 41°50'04" W

N 41°50'04" W

C.L. MEDIAN
 STA. 809+27 IN PLACE
 TYPE E JUNCTION BOX
 (6'-0" X 3'-0" X H = 15'-8")
 WITH 2 - 24" X 8' R.C. PIPE INLETS
 WITH STEEL GRATE
 ASSEMBLIES (TYPE 2)
 RETAIN

RIGHT LANES
 STA. 810+04 - IN PLACE
 30" X 228' R.C. PIPE CULV'T
 (35° RT. FWD. SKEW) WITH
 F.E.S. ON INLET END
 RETAIN

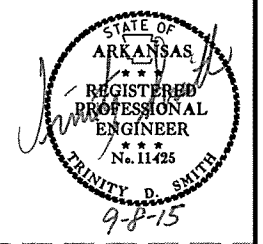


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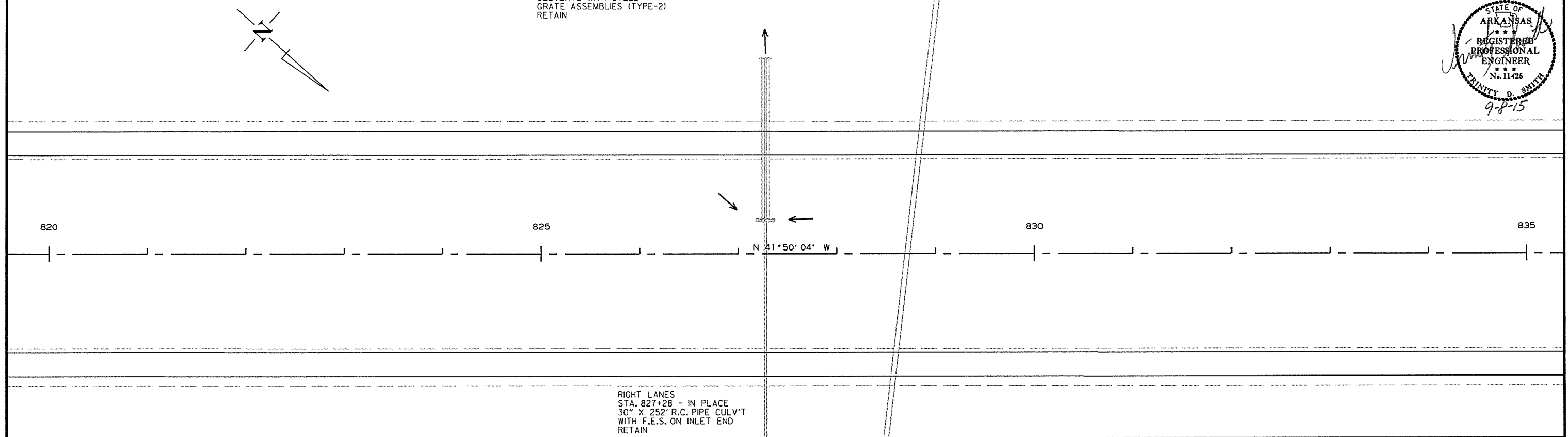
2 PLAN SHEETS



C.L. MEDIAN
 STA. 827+28 IN PLACE
 TYPE E JUNCTION BOX
 (10'-0" X 3'-0" X H = 15'-3")
 WITH 2 - 24" X 8' R.C. PIPE
 CULVERTS WITH STEEL
 GRATE ASSEMBLIES (TYPE-2)
 RETAIN

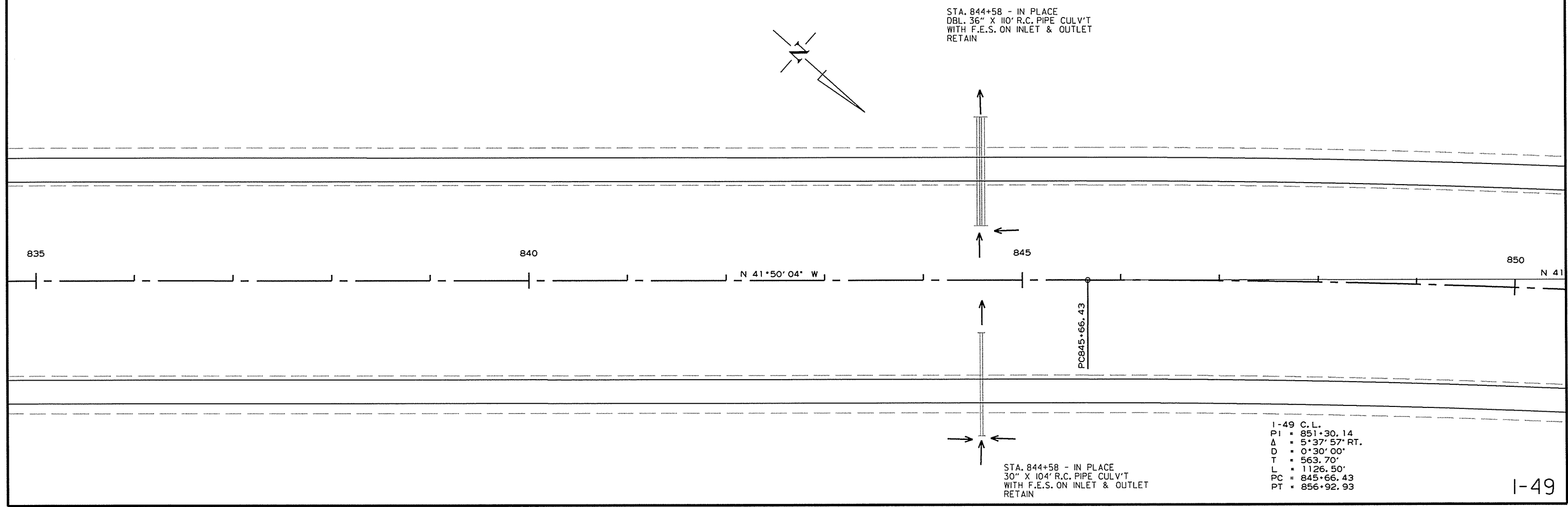
LT. LANES
 827+28 IN PLACE
 DBL. 30" X 164' R.C. PIPE CULV'T
 WITH F.E.S. ON OUTLET END
 RETAIN

STA. 828+71 - IN PLACE
 6' X 5' X 84' R.C. BOX CULV'T
 WITH IMPROVED INLET
 (6°37' LT. FWD. SKEW)
 RETAIN



RIGHT LANES
 STA. 827+28 - IN PLACE
 30" X 252' R.C. PIPE CULV'T
 WITH F.E.S. ON INLET END
 RETAIN

STA. 844+58 - IN PLACE
 DBL. 36" X 110' R.C. PIPE CULV'T
 WITH F.E.S. ON INLET & OUTLET
 RETAIN



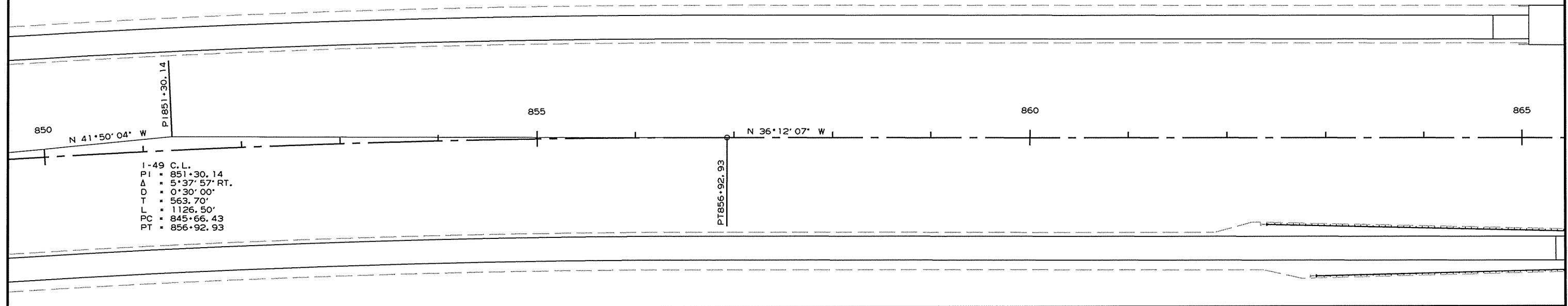
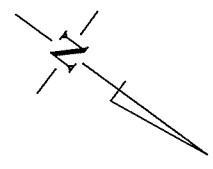
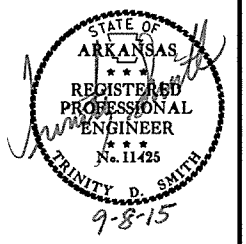
STA. 844+58 - IN PLACE
 30" X 104' R.C. PIPE CULV'T
 WITH F.E.S. ON INLET & OUTLET
 RETAIN

1-49 C.L.
 P1 = 851+30.14
 Δ = 5°37'57" RT.
 D = 0°30'00"
 T = 563.70'
 L = 1126.50'
 PC = 845+66.43
 PT = 856+92.93

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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.			
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2 PLAN SHEETS

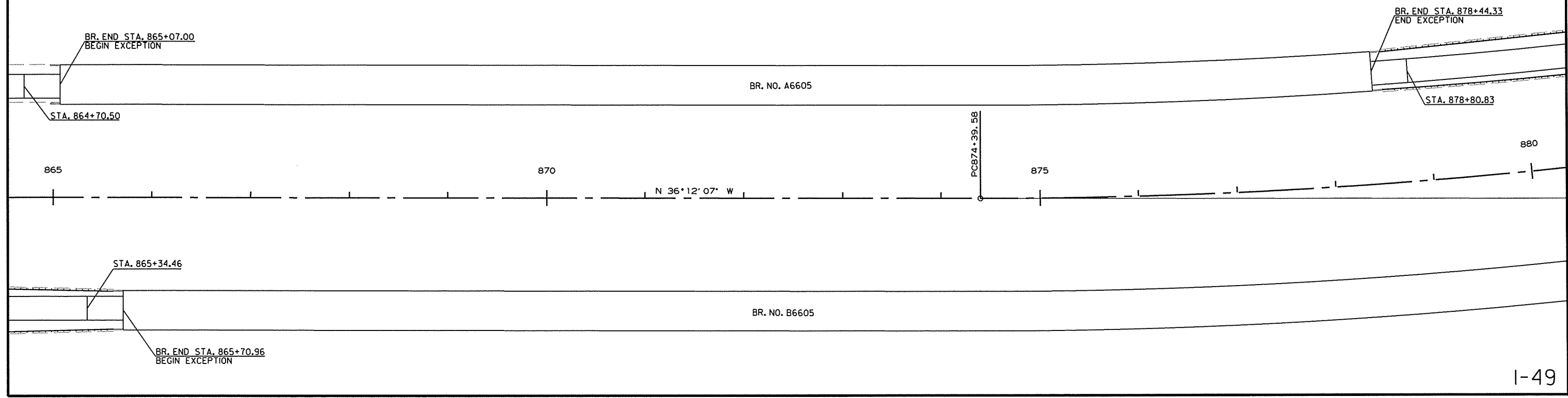
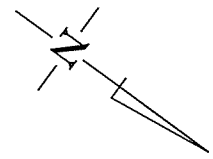


1-49 C.L.
 PI = 851+30.14
 Δ = 5°37'57" RT.
 D = 0°30'00"
 T = 563.70'
 L = 1126.50'
 PC = 845+66.43
 PT = 856+92.93

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
862+42.21	865+60.96	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.
862+92.21	865+60.96	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.
878+54.46	881+23.21	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.
878+54.46	885+23.21	L.M.L. - RT.	600 LIN. FT.	IEA.	IEA.

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 862+35.96 TO STA. 865+60.96 LT. OF RT. LANES = 325 LIN. FT.
 STA. 862+85.96 TO STA. 865+60.96 RT. OF RT. LANES = 275 LIN. FT.
 STA. 878+54.46 TO STA. 881+29.46 LT. OF LT. LANES = 275 LIN. FT.
 STA. 878+54.46 TO STA. 885+29.46 RT. OF LT. LANES = 675 LIN. FT.

1-49 C.L.
 PI = 881+79.89
 Δ = 14°43'29" LT.
 D = 1°00'00"
 T = 740.31'
 L = 1472.47'
 PC = 874+39.58
 PT = 889+12.05



BR. END STA. 865+07.00
 BEGIN EXCEPTION

BR. END STA. 878+44.33
 END EXCEPTION

STA. 864+70.50

STA. 878+80.83

STA. 865+34.46

BR. END STA. 865+70.96
 BEGIN EXCEPTION

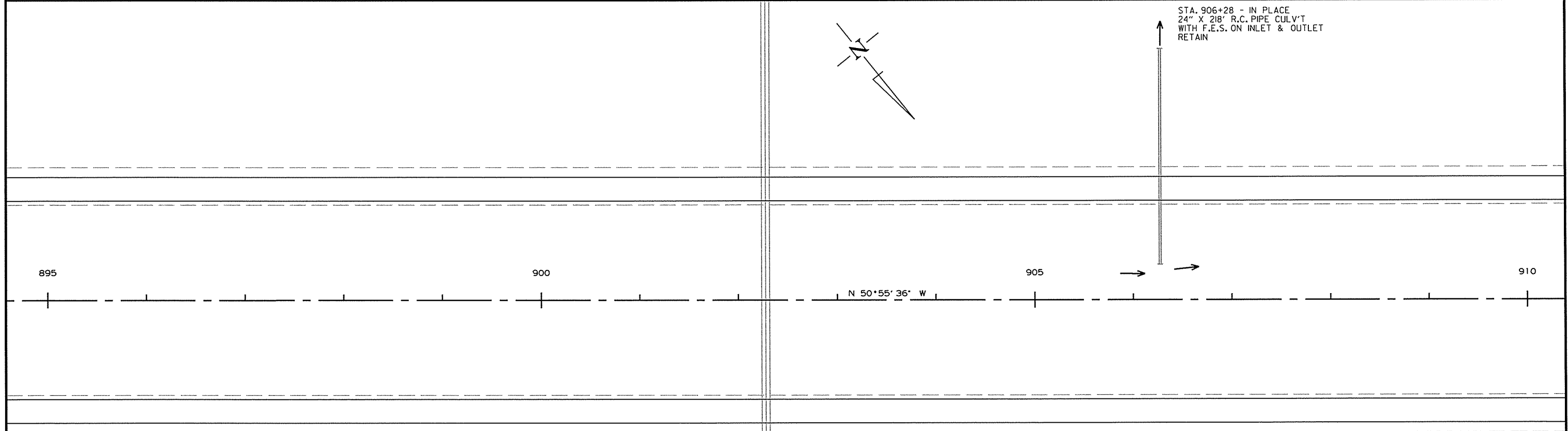
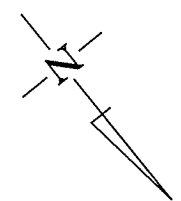
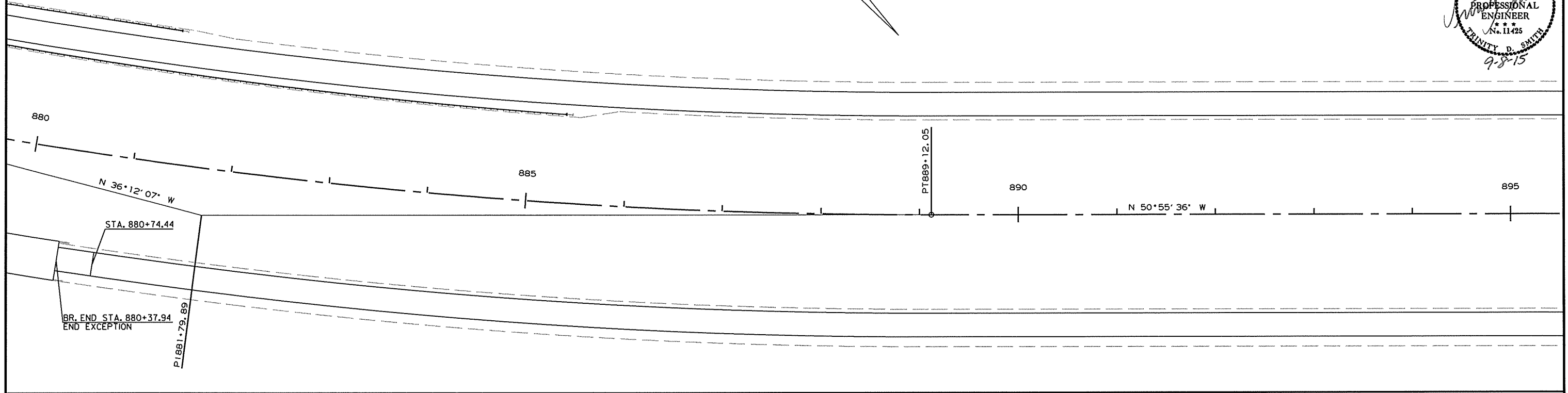
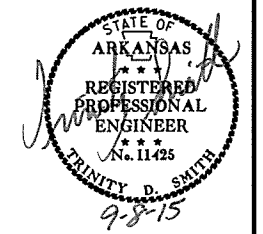
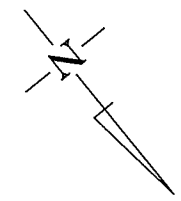
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2 PLAN SHEETS

I-49 C.L.
 PI = 881+79.89
 Δ = 14°43'29" L.T.
 D = 1°00'00"
 T = 740.31'
 L = 1472.47'
 PC = 874+39.58
 PT = 889+12.05



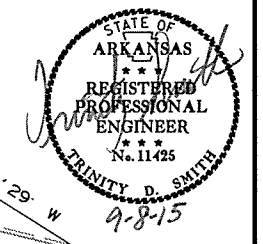
STA. 902+28 - IN PLACE
 DBL. 4' X 4' X 726' R.C. BOX CULV'T
 WITH IMPROVED INLET
 CONNECT OUTLET END TO
 ENERGY DISSIPATOR
 RETAIN

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				6	ARK.		43	105

2 PLAN SHEETS



STA. 915+34 - IN PLACE
24" X 176' R.C. PIPE CULV'T
WITH F.E.S. ON INLET & OUTLET
RETAIN

F.L. INLET = 1178.78
F.L. OUTLET = 1178.17

STA. 915+44 - CONSTRUCT
24" X 176' R.C. PIPE CULV'T
(CLASS V) (TYPE 3 BEDDING)
WITH F.E.S. ON INLET
CONNECT TO JUNCTION BOX AT STA. 915+44 LT.

STA. 915+44 - CONSTRUCT
JUNCTION BOX ON LT.
WITH 24" X 153' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
WITH F.E.S. ON OUTLET

F.L. INLET = 1187.46
F.L. OUTLET = 1178.78

1-49 MAIN LANES
PI = 923+51.95
Δ = 39°04'07" RT.
D = 2°00'00"
T = 1016.41'
L = 1953.43'
PC = 913+35.55
PT = 932+88.98

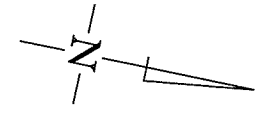
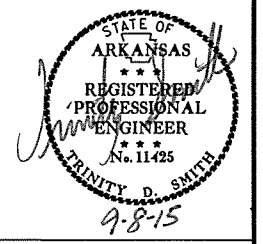
1-49 MAIN LANES
PI = 923+51.95
Δ = 39°04'07" RT.
D = 2°00'00"
T = 1016.41'
L = 1953.43'
PC = 913+35.55
PT = 932+88.98

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				6	ARK.			
				JOB NO.	BB0409		44	105

2 PLAN SHEETS

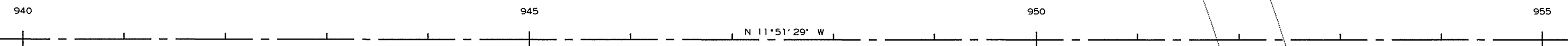


CLEAR CREEK ↑

BR. END STA. 942+21.43
BEGIN EXCEPTION

STA. 941+84.93

BR. NO. A6606



STA. 945+49.94

BR. NO. B6606

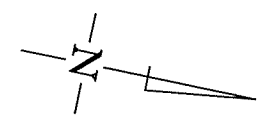
REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 942+51.44 TO STA. 945+76.44 LT. OF RT. LANES = 325 LIN. FT.
 STA. 943+01.44 TO STA. 945+76.44 RT. OF RT. LANES = 275 LIN. FT.

BR. END STA. 945+86.44
BEGIN EXCEPTION

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
942+57.69	945+76.44	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.
943+07.69	945+76.44	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.

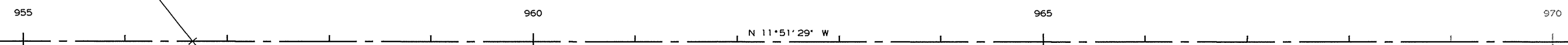
REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 962+81.61 TO STA. 965+56.61 LT. OF LT. LANES = 275 LIN. FT.
 STA. 962+81.61 TO STA. 966+06.61 RT. OF LT. LANES = 325 LIN. FT.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
962+81.61	965+50.36	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.
962+81.61	966+00.36	L.M.L. - RT.	250 LIN. FT.	IEA.	IEA.



BR. END STA. 962+71.62
END EXCEPTION

STA. 962+71.62



STA. 964+45.10

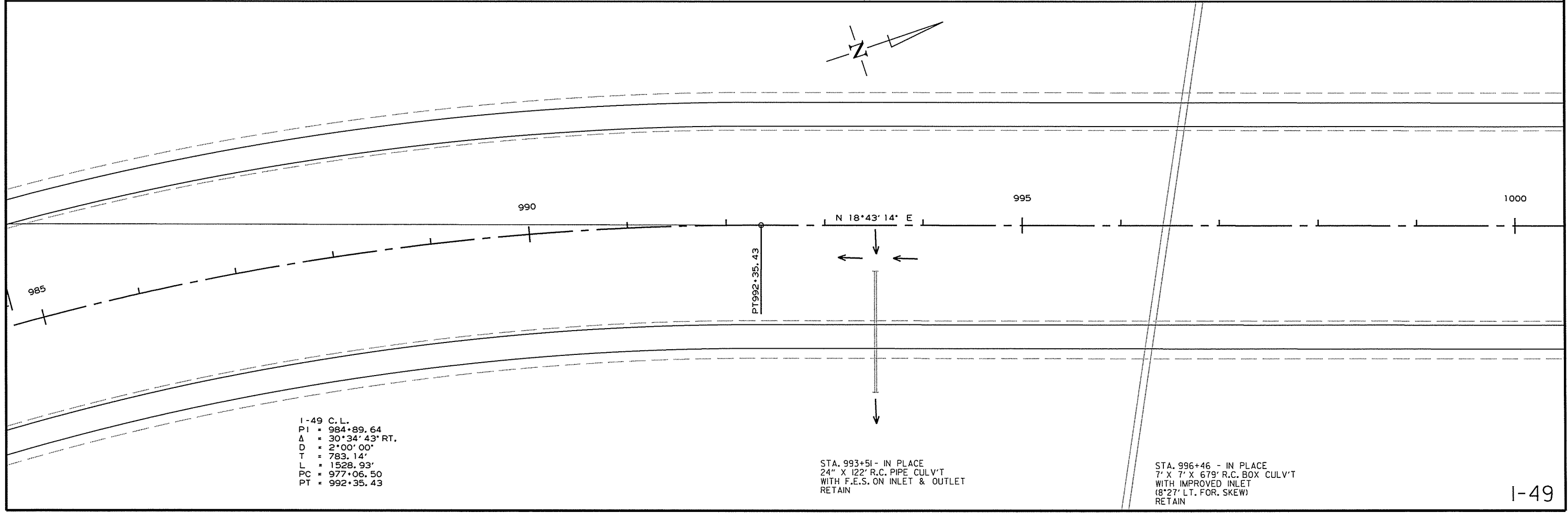
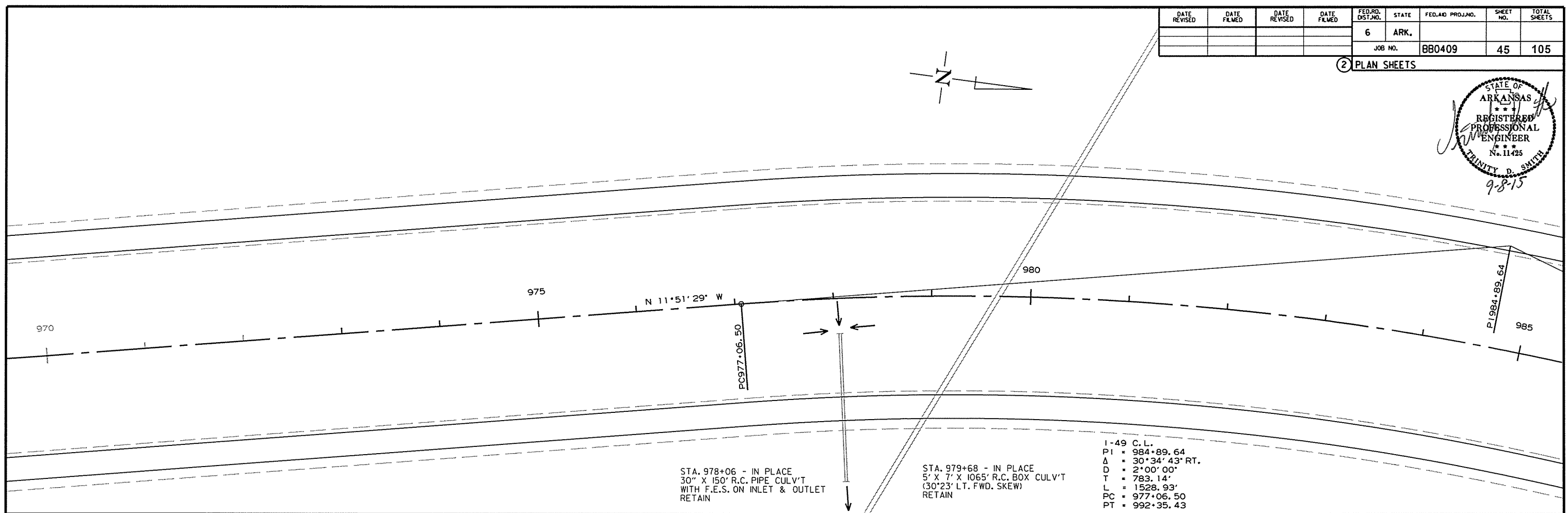
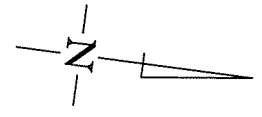
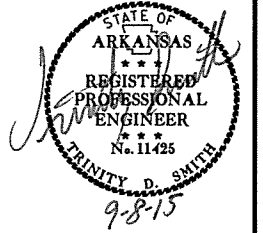
BR. END STA. 964+08.60
END EXCEPTION

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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. BB0409							45	105

2 PLAN SHEETS



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RB0409.DGN

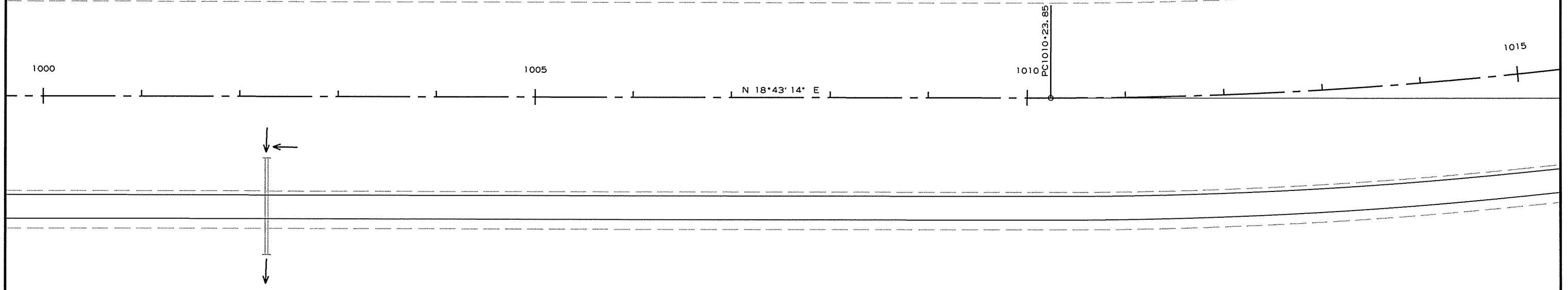
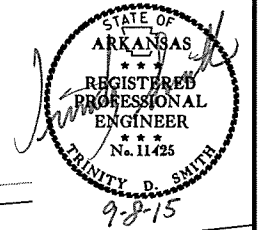
STA. 1002+28 - IN PLACE
 36" X 98" R.C. PIPE CULV'T
 WITH F.E.S. ON INLET & OUTLET
 RETAIN



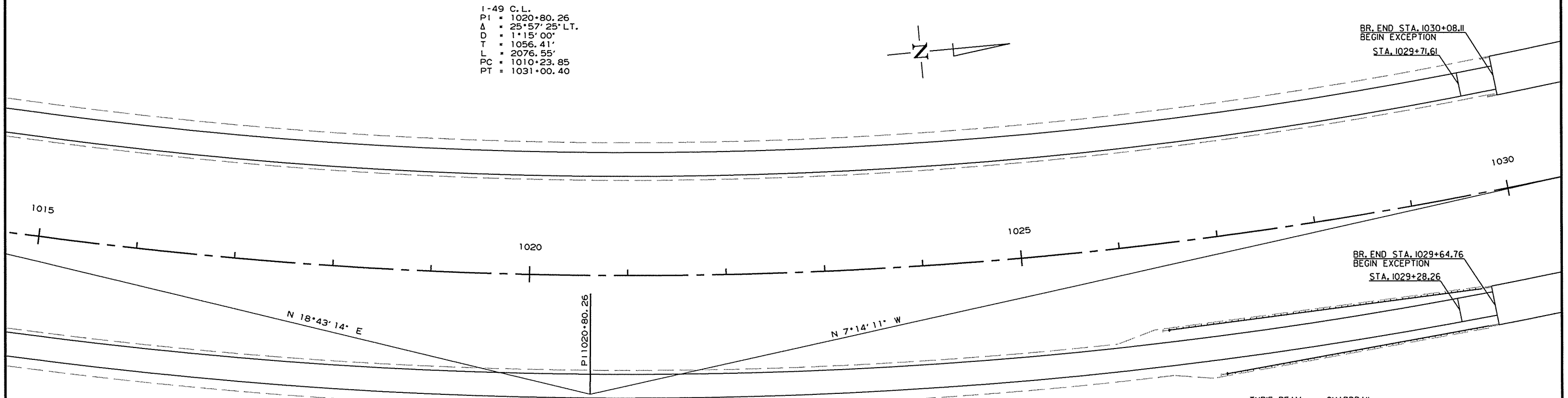
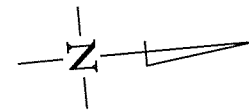
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		46	105

2 PLAN SHEETS

I-49 C.L.
 PI = 1020+80.26
 Δ = 25°57'25" LT.
 D = 1°15'00"
 T = 1056.41'
 L = 2076.55'
 PC = 1010+23.85
 PT = 1031+00.40



I-49 C.L.
 PI = 1020+80.26
 Δ = 25°57'25" LT.
 D = 1°15'00"
 T = 1056.41'
 L = 2076.55'
 PC = 1010+23.85
 PT = 1031+00.40

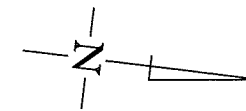
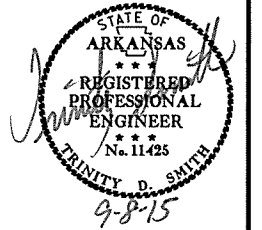


REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 1026+29.89 TO STA. 1029+54.89 LT. OF RT. LANES = 325 LIN. FT.
 STA. 1026+79.89 TO STA. 1029+54.89 RT. OF RT. LANES = 275 LIN. FT.

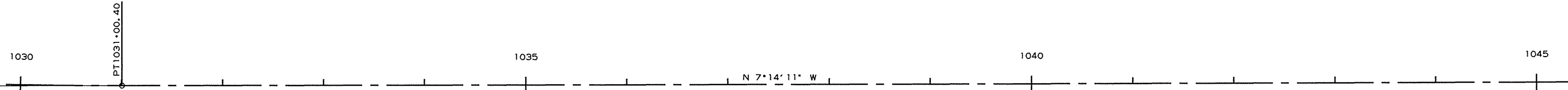
STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1026+36.14	1029+54.89	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.
1026+86.14	1029+54.89	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		47	105
				JOB NO.		BB0409		

2 PLAN SHEETS



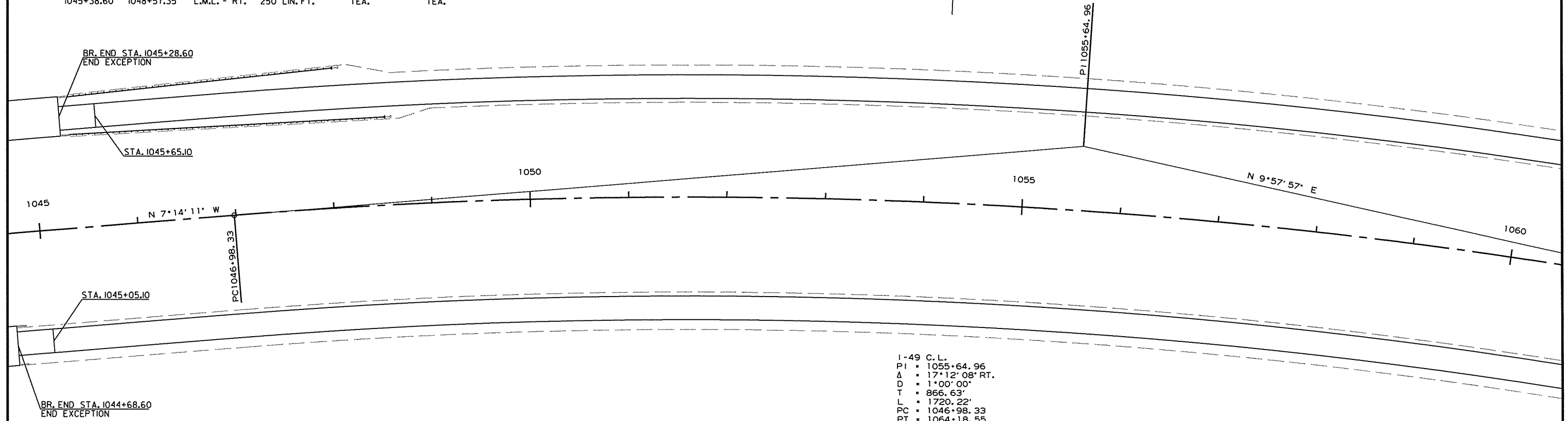
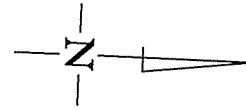
BR. NO. A6607



BR. NO. B6607

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1045+38.60	1048+07.35	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.
1045+38.60	1048+57.35	L.M.L. - RT.	250 LIN. FT.	IEA.	IEA.

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 1045+38.60 TO STA. 1048+13.60 LT. OF LT. LANES = 275 LIN. FT.
 STA. 1045+38.60 TO STA. 1048+63.60 RT. OF LT. LANES = 325 LIN. FT.



1-49 C.L.
 PI = 1055+64.96
 Δ = 17°12'08\"/>

BR. END STA. 1044+68.60
 END EXCEPTION

STA. 1045+05.10

PC1046+98.33

PI1055+64.96

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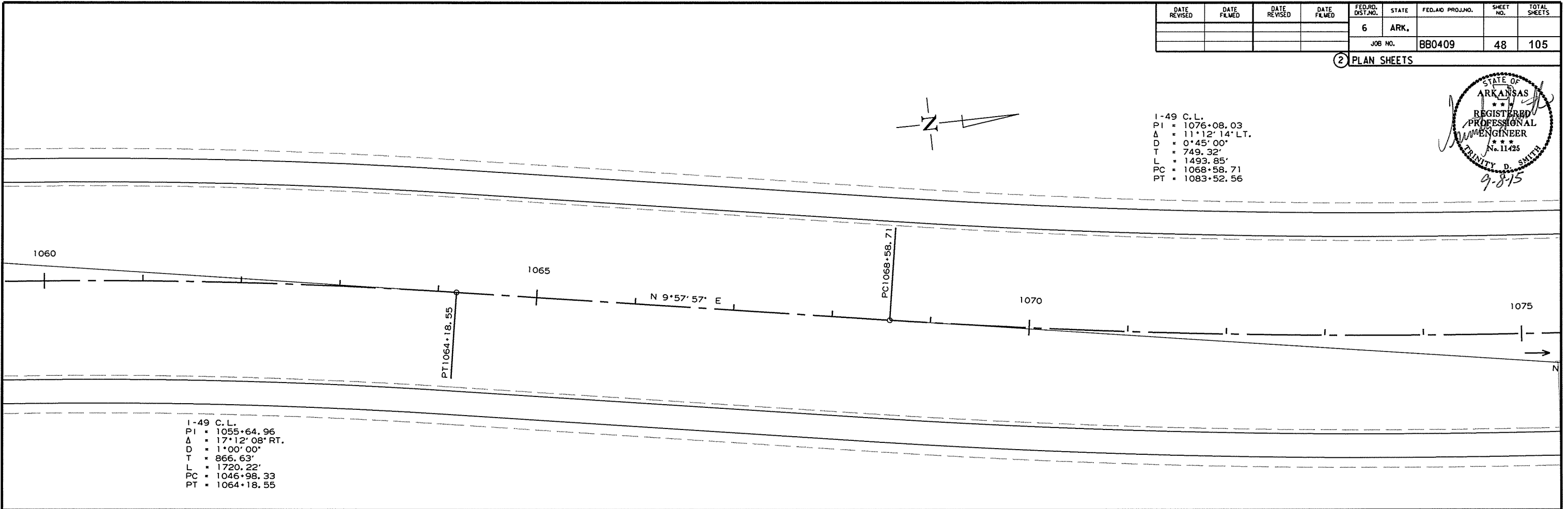
RB0409.DGN

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.	BB0409		48	105

2 PLAN SHEETS

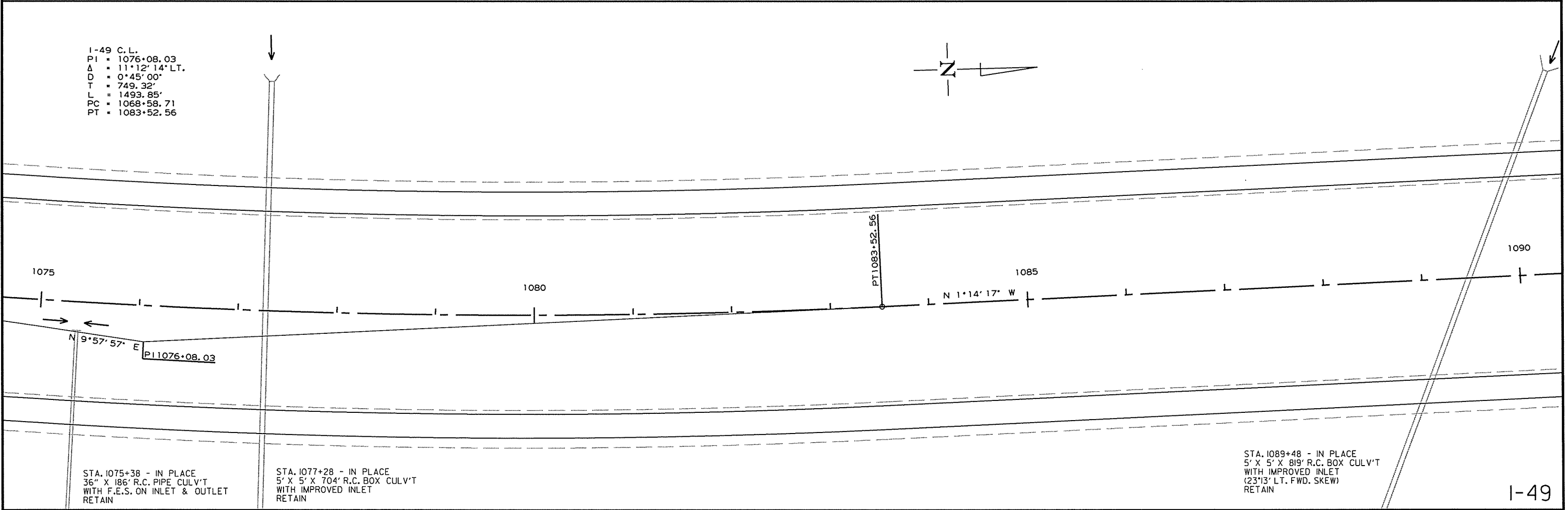
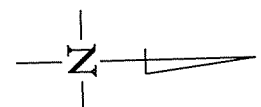


I-49 C.L.
 PI = 1076+08.03
 Δ = 11°12'14" LT.
 D = 0°45'00"
 T = 749.32'
 L = 1493.85'
 PC = 1068+58.71
 PT = 1083+52.56



I-49 C.L.
 PI = 1055+64.96
 Δ = 17°12'08" RT.
 D = 1°00'00"
 T = 866.63'
 L = 1720.22'
 PC = 1046+98.33
 PT = 1064+18.55

I-49 C.L.
 PI = 1076+08.03
 Δ = 11°12'14" LT.
 D = 0°45'00"
 T = 749.32'
 L = 1493.85'
 PC = 1068+58.71
 PT = 1083+52.56



STA. 1075+38 - IN PLACE
 36" X 186" R.C. PIPE CULV'T
 WITH F.E.S. ON INLET & OUTLET
 RETAIN

STA. 1077+28 - IN PLACE
 5' X 5' X 704' R.C. BOX CULV'T
 WITH IMPROVED INLET
 RETAIN

STA. 1089+48 - IN PLACE
 5' X 5' X 819' R.C. BOX CULV'T
 WITH IMPROVED INLET
 (23'13" LT. FWD. SKEW)
 RETAIN

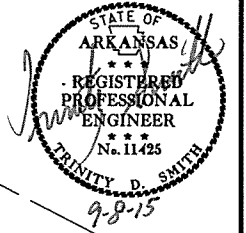
I-49

9/2/2015

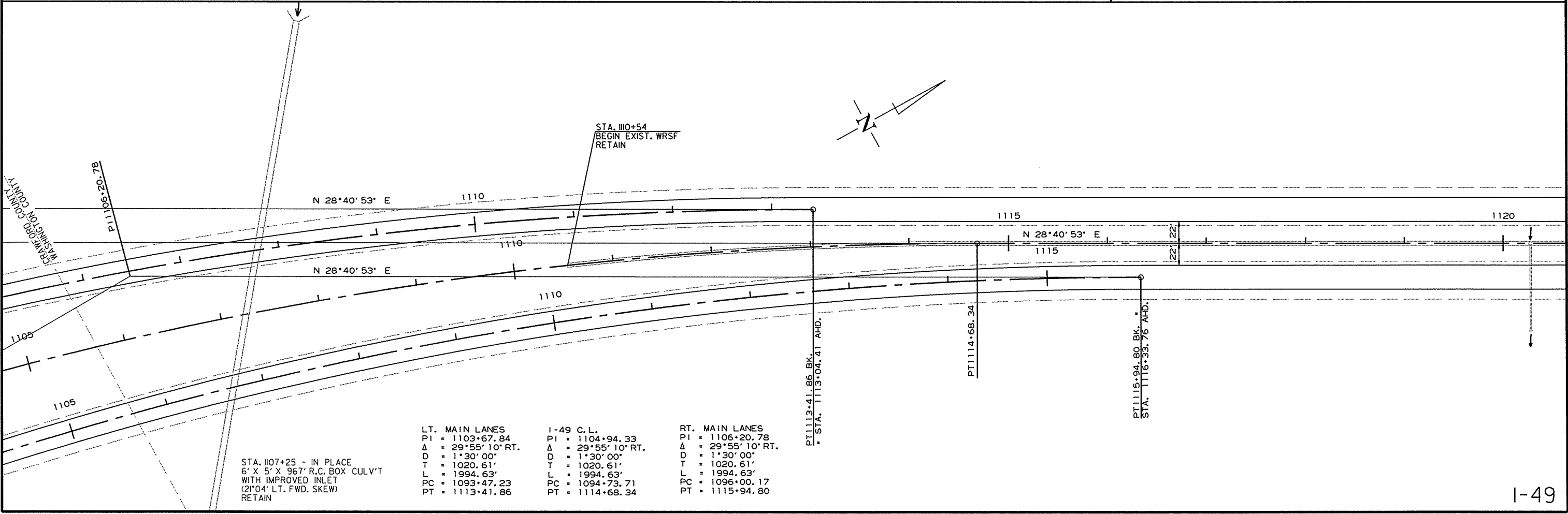
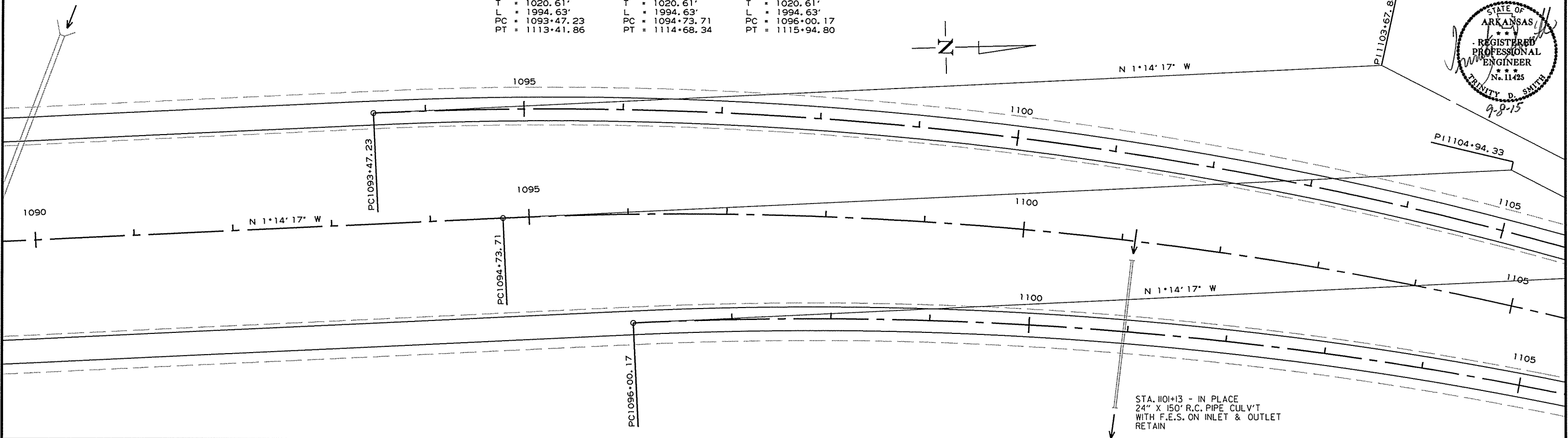
RB0409.DGN

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.	BB0409		49	105

2 PLAN SHEETS



LT. MAIN LANES PI = 1103+67.84 Δ = 29°55' 10" RT. D = 1°30' 00" T = 1020.61' L = 1994.63' PC = 1093+47.23 PT = 1113+41.86	I-49 C.L. PI = 1104+94.33 Δ = 29°55' 10" RT. D = 1°30' 00" T = 1020.61' L = 1994.63' PC = 1094+73.71 PT = 1114+68.34	RT. MAIN LANES PI = 1106+20.78 Δ = 29°55' 10" RT. D = 1°30' 00" T = 1020.61' L = 1994.63' PC = 1096+00.17 PT = 1115+94.80
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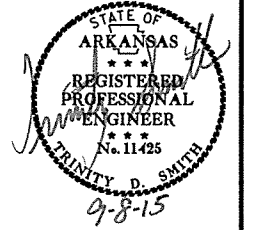


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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		50	105

② PLAN SHEETS



1120 1125 1130 1135
N 28°40' 53" E

STA. 1120+28
IN PLACE 88 L.F. 18" CL. III RCP.
W/TYPE "RM" DROP INLET AND I.F.E.S.
RETAIN



STA. 1126+28
IN PLACE 2-300 L.F. 54" R.C.P. W/ 2 F.E.S.
AND 2 HEADWALLS W/ENERGY DISSIPATORS
RETAIN

STA. 1132+28
IN PLACE 79 L.F. 18" CL. III R.C.P.
W/TYPE "RM" DROP INLET AND I.F.E.S.
RETAIN



1135 1140 1145 1150
N 28°40' 53" E

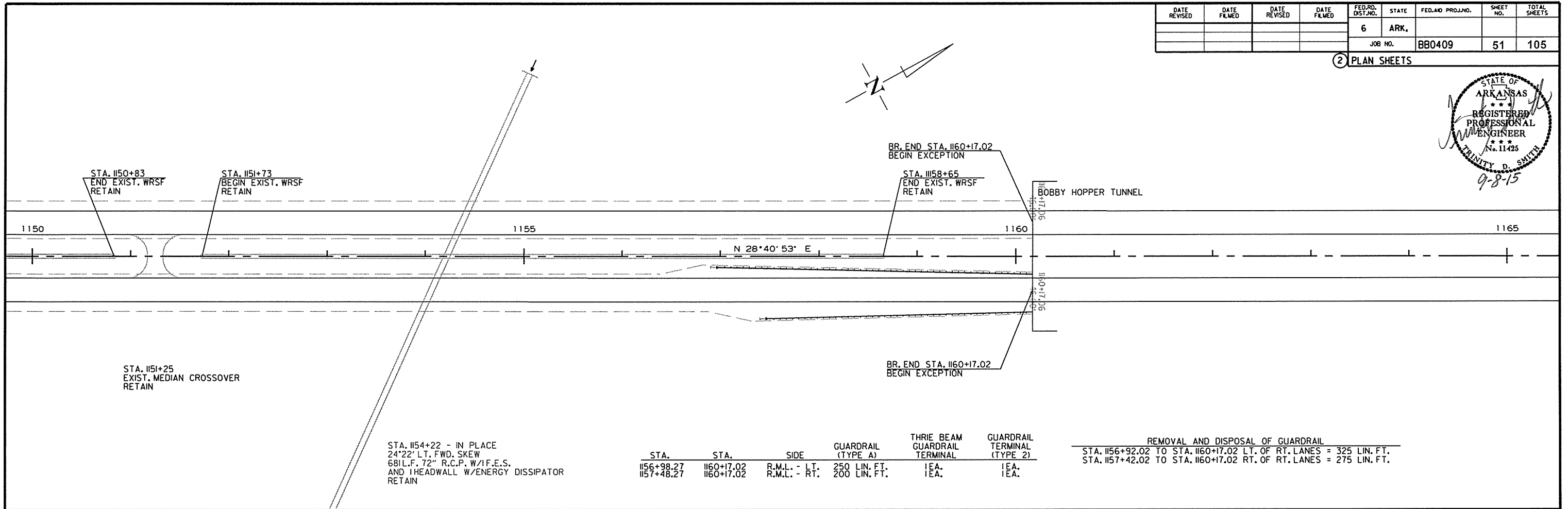
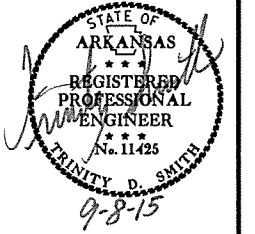
STA. 1144+28 - IN PLACE
84 L.F. 18" CL. III R.C.P.
W/TYPE "RM" DROP INLET AND I.F.E.S.
RETAIN

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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.	BBO409		51	105

2 PLAN SHEETS



STA. 1154+22 - IN PLACE
24'22" LT. FWD. SKEW
68'L.F. 72" R.C.P. W/1F.E.S.
AND 1 HEADWALL W/ENERGY DISSIPATOR
RETAIN

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1156+98.27	1160+17.02	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.
1157+48.27	1160+17.02	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.

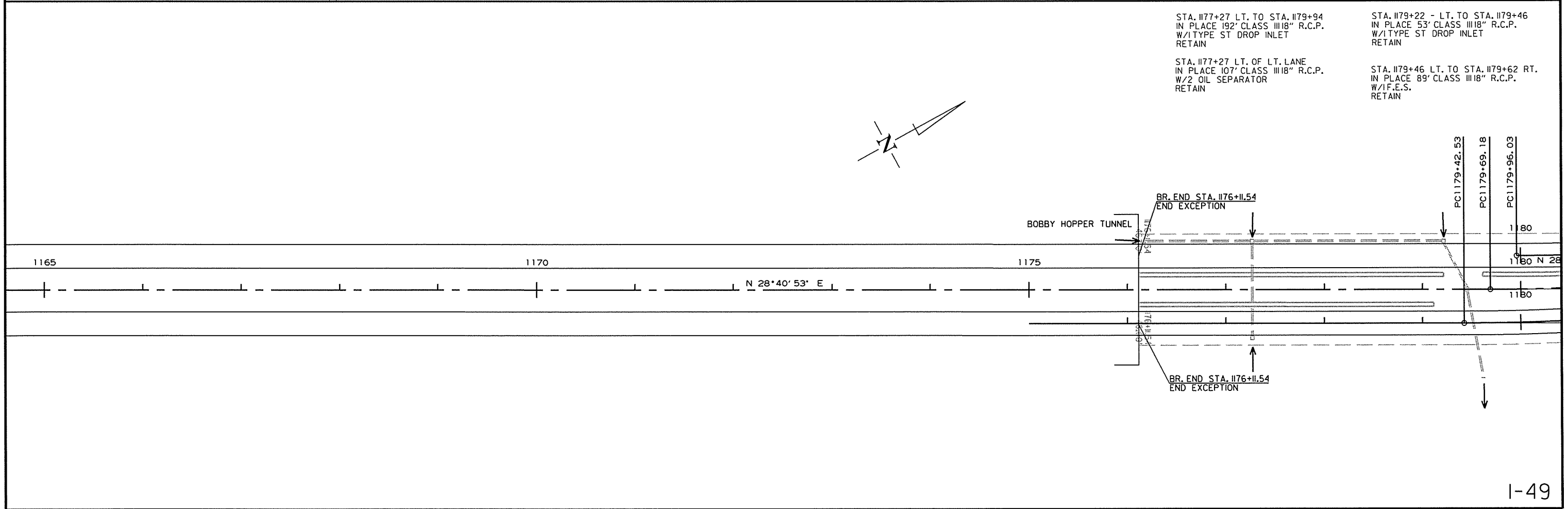
REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 1156+92.02 TO STA. 1160+17.02 LT. OF RT. LANES = 325 LIN. FT.
STA. 1157+42.02 TO STA. 1160+17.02 RT. OF RT. LANES = 275 LIN. FT.

STA. 1177+27 LT. TO STA. 1179+94
IN PLACE 192' CLASS III 18" R.C.P.
W/1 TYPE ST DROP INLET
RETAIN

STA. 1179+22 - LT. TO STA. 1179+46
IN PLACE 53' CLASS III 18" R.C.P.
W/1 TYPE ST DROP INLET
RETAIN

STA. 1177+27 LT. OF LT. LANE
IN PLACE 107' CLASS III 18" R.C.P.
W/2 OIL SEPARATOR
RETAIN

STA. 1179+46 LT. TO STA. 1179+62 RT.
IN PLACE 89' CLASS III 18" R.C.P.
W/1F.E.S.
RETAIN



BR. END STA. 1176+11.54
END EXCEPTION

BOBBY HOPPER TUNNEL

BR. END STA. 1176+11.54
END EXCEPTION

PC 1179+42.53

PC 1179+69.18

PC 1179+96.03

STA. 1181+72 IN PLACE 18" X 174' CLASS III R.C.P. W/3 TYPE ST DROP INLET & F.E.S. RETAIN

STA. 1183+01 IN PLACE 121' CLASS III 18" R.C.P. W/1 TYPE ST DROP INLET & F.E.S. RETAIN

STA. 1184+32 IN PLACE 121' CLASS III 18" R.C.P. W/1 TYPE ST DROP INLET & F.E.S. RETAIN

STA. 1186+28 IN PLACE 68 L.F. 18" CLASS III R.C.P. W/1 F.E.S. AND 1 TYPE "ST" DROP INLET RETAIN

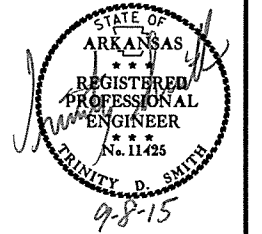
STA. 1187+93 IN PLACE 82' CLASS III 18" R.C.P. W/1 TYPE ST DROP INLET & F.E.S. RETAIN

STA. 1189+28 IN PLACE 440 L.F. 72" CLASS III R.C.P. W/1 F.E.S. AND ENERGY DISSIPATOR RETAIN

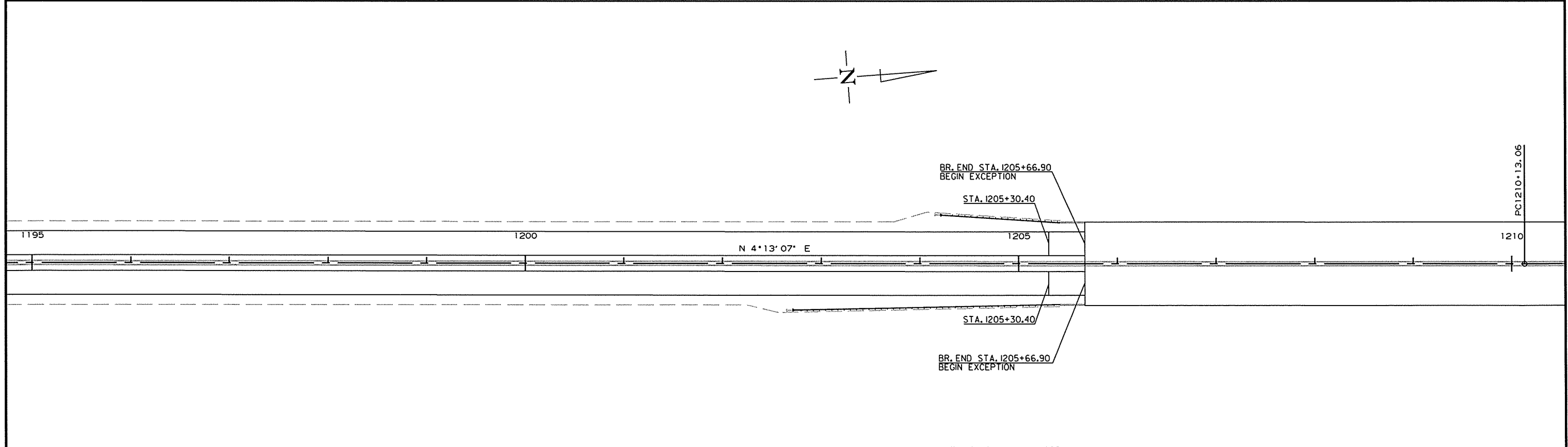
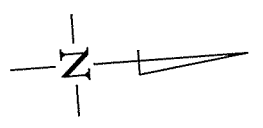
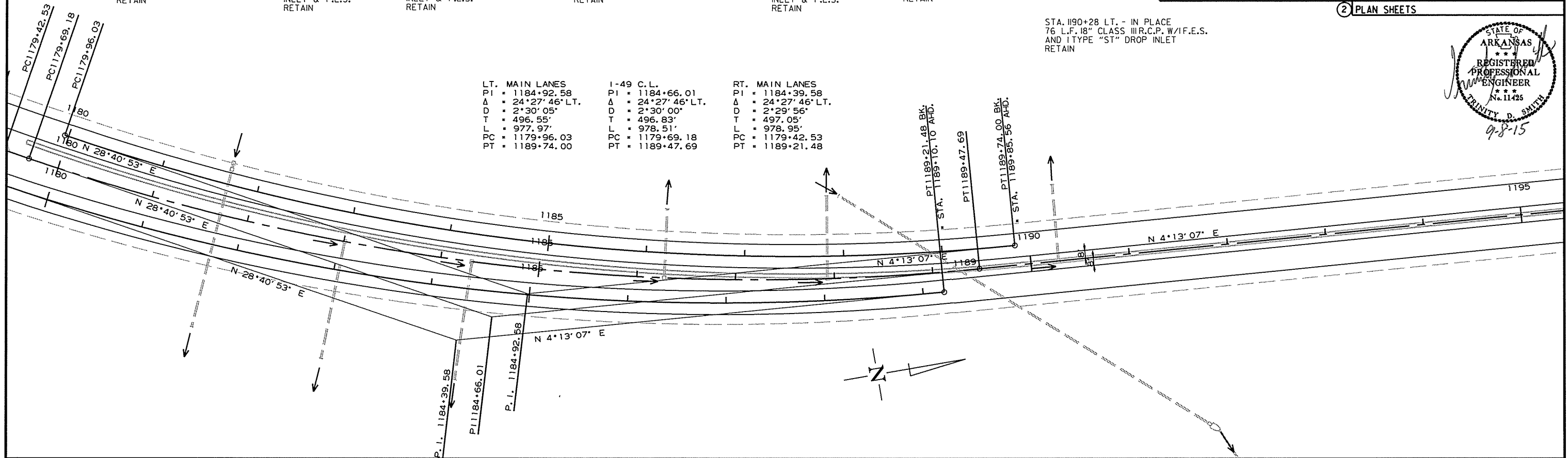
STA. 1190+28 LT. - IN PLACE 76 L.F. 18" CLASS III R.C.P. W/1 F.E.S. AND 1 TYPE "ST" DROP INLET RETAIN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		52	105

2 PLAN SHEETS



LT. MAIN LANES	I-49 C.L.	RT. MAIN LANES
PI = 1184+92.58	PI = 1184+66.01	PI = 1184+39.58
Δ = 24°27'46" LT.	Δ = 24°27'46" LT.	Δ = 24°27'46" LT.
D = 2°30'05"	D = 2°30'00"	D = 2°29'56"
T = 496.55'	T = 496.83'	T = 497.05'
L = 977.97'	L = 978.51'	L = 978.95'
PC = 1179+96.03	PC = 1179+69.18	PC = 1179+42.53
PT = 1189+74.00	PT = 1189+47.69	PT = 1189+21.48



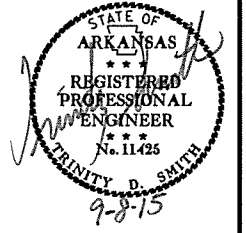
STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	REMOVAL AND DISPOSAL OF GUARDRAIL
1202+73.15	1205+41.90	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.	STA. 1202+66.90 TO STA. 1205+41.90 RT. OF RT. LANES = 275 LIN. FT.
1204+23.15	1205+41.90	L.M.L. - LT.	50 LIN. FT.	IEA.	IEA.	STA. 1204+66.90 TO STA. 1205+41.90 LT. OF LT. LANES = 125 LIN. FT.

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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.							BB0409	53	105

2 PLAN SHEETS



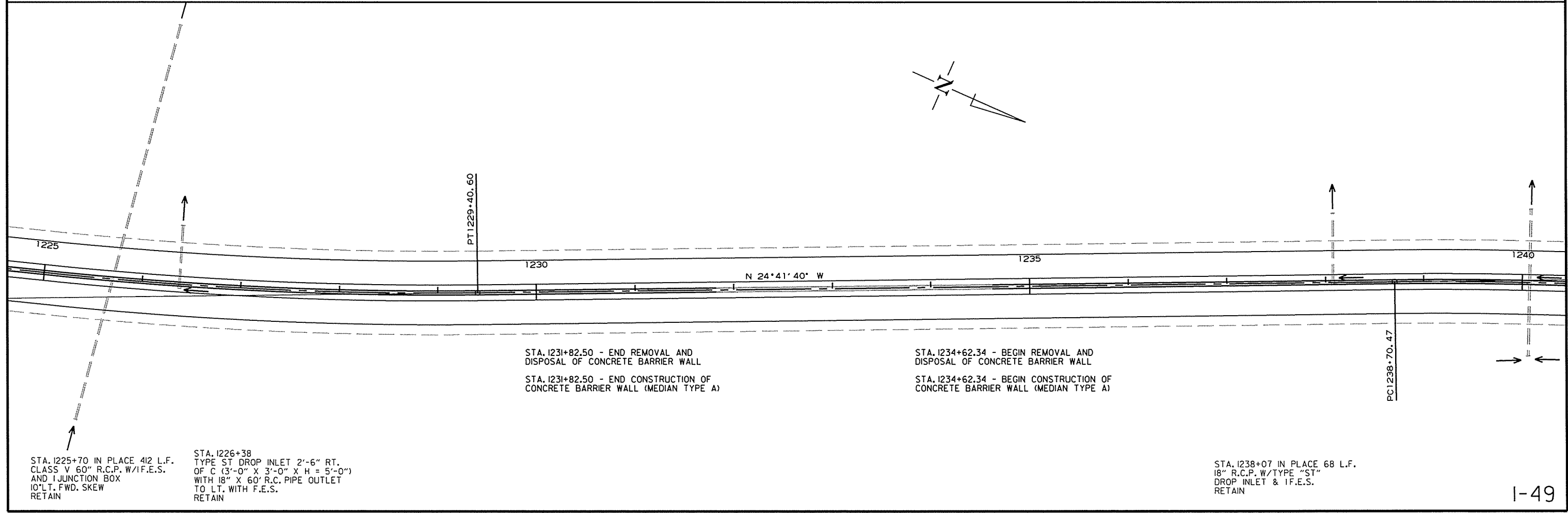
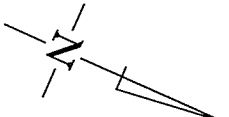
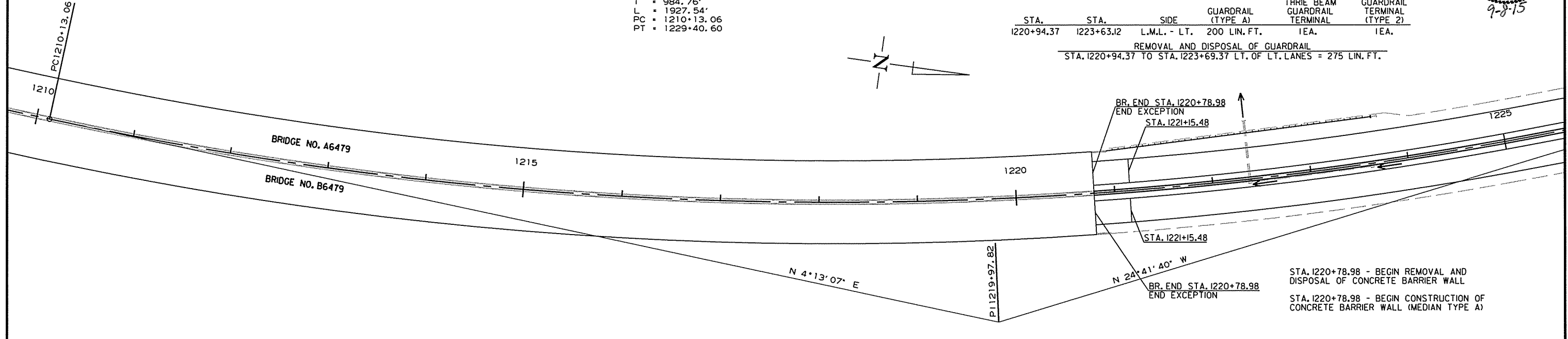
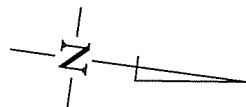
STA. 1222+38
TYPE ST DROP INLET 2'-6" RT.
OF C (3'-0" X 3'-0" X H = 6'-0")
WITH 18" X 60" R.C. PIPE OUTLET
TO LT. WITH F.E.S.
RETAIN

STA. 1223+60
TYPE ST DROP INLET 2'-6" RT.
OF C (3'-0" X 3'-0" X H = 5'-0")
WITH 18" X 122' R.C. PIPE OUTLET
TO D.I. AT STA. 1222+38
RETAIN

1-49 C.L.
PI = 1219+97.82
Δ = 28°54'47" LT.
D = 1°30'00"
T = 984.76'
L = 1927.54'
PC = 1210+13.06
PT = 1229+40.60

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1220+94.37	1223+63.12	L.M.L. - LT.	200 LIN. FT.	1EA.	1EA.

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 1220+94.37 TO STA. 1223+69.37 LT. OF LT. LANES = 275 LIN. FT.



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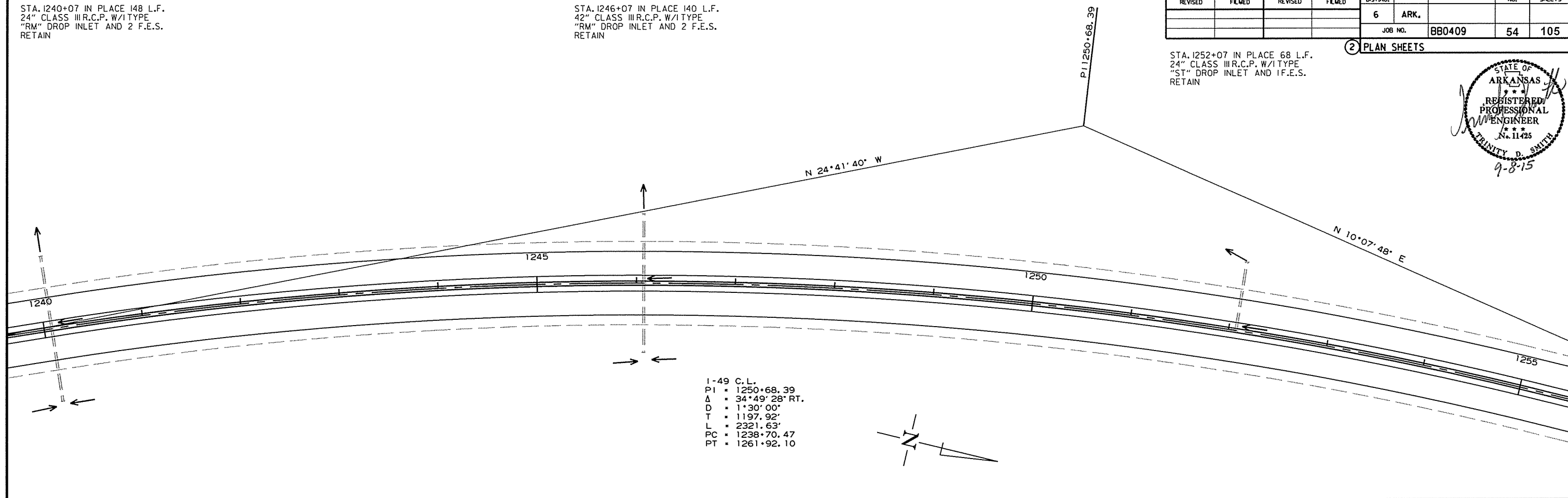
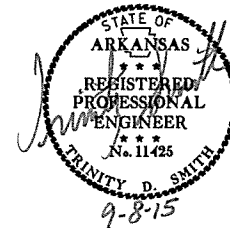
STA. 1240+07 IN PLACE 148 L.F.
24" CLASS III R.C.P. W/1 TYPE
"RM" DROP INLET AND 2 F.E.S.
RETAIN

STA. 1246+07 IN PLACE 140 L.F.
42" CLASS III R.C.P. W/1 TYPE
"RM" DROP INLET AND 2 F.E.S.
RETAIN

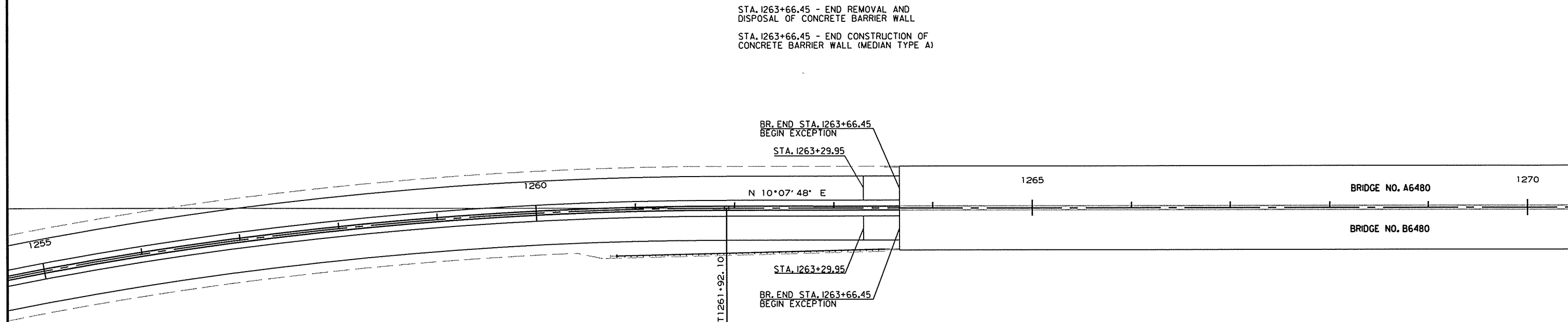
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		54	105

2 PLAN SHEETS

STA. 1252+07 IN PLACE 68 L.F.
24" CLASS III R.C.P. W/1 TYPE
"ST" DROP INLET AND 1 F.E.S.
RETAIN



STA. 1263+66.45 - END REMOVAL AND DISPOSAL OF CONCRETE BARRIER WALL
STA. 1263+66.45 - END CONSTRUCTION OF CONCRETE BARRIER WALL (MEDIAN TYPE A)



I-49 C.L.
PI = 1250+68.39
Δ = 34°49'28" RT.
D = 1'30" 00"
T = 1197.92'
L = 2321.63'
PC = 1238+70.47
PT = 1261+92.10

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 1260+76.45 TO STA. 1263+51.45 RT. OF RT. LANES = 275 LIN. FT.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1260+82.70	1263+51.45	R.M.L. - RT.	200 LIN. FT.	1EA.	1EA.

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				6	ARK.			
				JOB NO.	BBO409		55	105

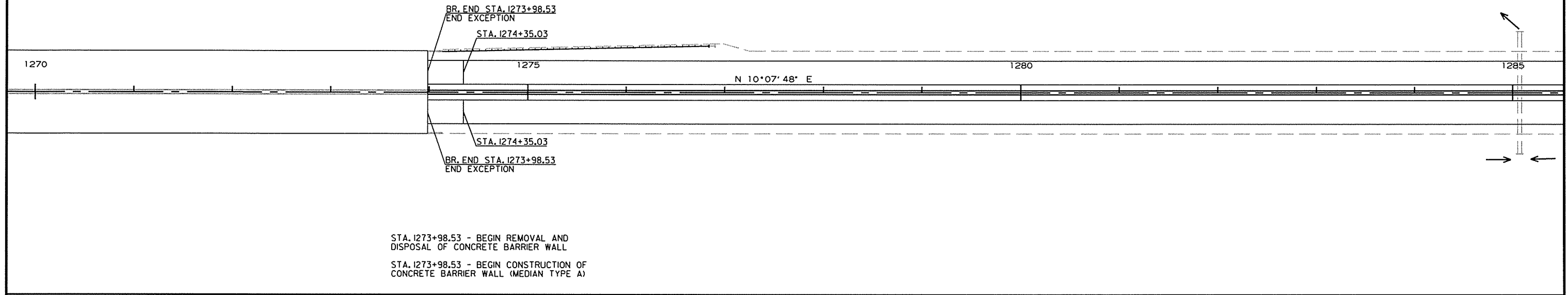
STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1274+13.53	1276+82.28	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 1274+13.53 TO STA. 1276+88.53 LT. OF LT. LANES = 275 LIN. FT.

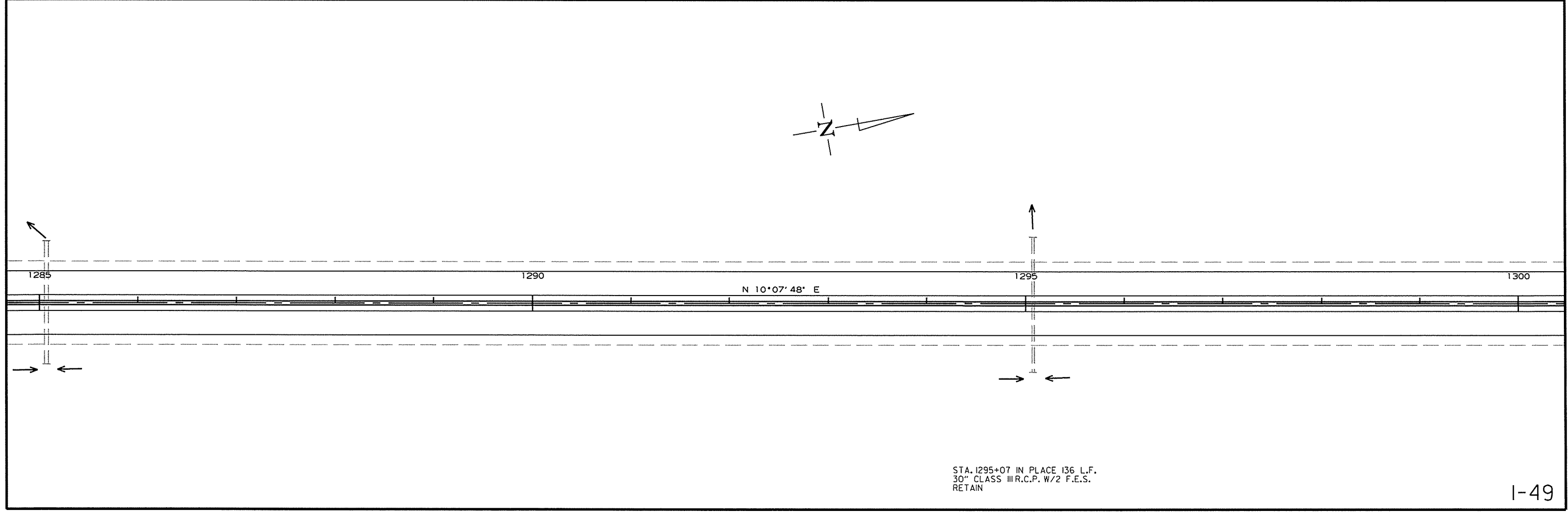
2 PLAN SHEETS



9-8-15
 STA. 1285+07 IN PLACE 124 L.F.
 48" CLASS III R.C.P. W/2 F.E.S.
 RETAIN



STA. 1273+98.53 - BEGIN REMOVAL AND DISPOSAL OF CONCRETE BARRIER WALL
 STA. 1273+98.53 - BEGIN CONSTRUCTION OF CONCRETE BARRIER WALL (MEDIAN TYPE A)

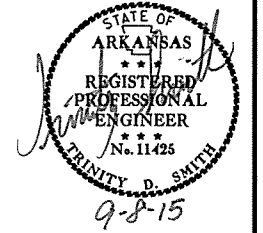


STA. 1295+07 IN PLACE 136 L.F.
 30" CLASS III R.C.P. W/2 F.E.S.
 RETAIN

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 RBB0409.DGN

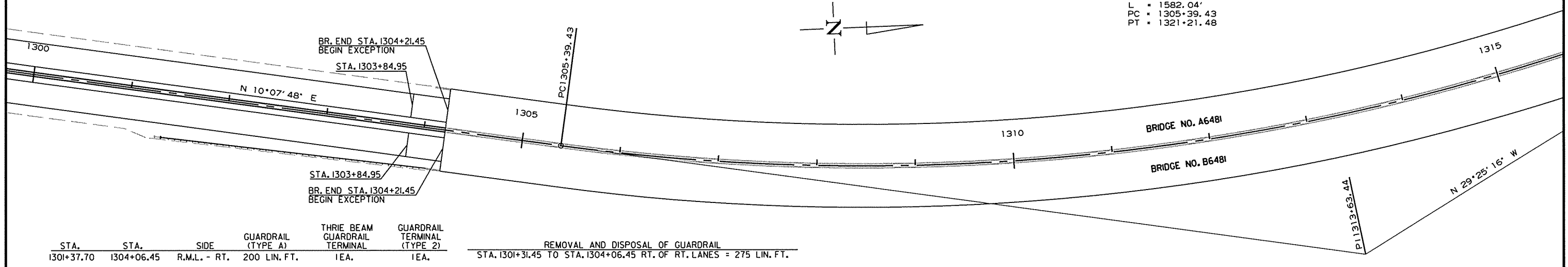
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BBO409	56	105	

2 PLAN SHEETS



STA. 1304+21.45 - END REMOVAL AND DISPOSAL OF CONCRETE BARRIER WALL
 STA. 1304+21.45 - END CONSTRUCTION OF CONCRETE BARRIER WALL (MEDIAN TYPE A)

I-49 C.L.
 PI = 1313+63.44
 Δ = 39°33'04" LT.
 D = 2°30'00"
 T = 824.01'
 L = 1582.04'
 PC = 1305+39.43
 PT = 1321+21.48



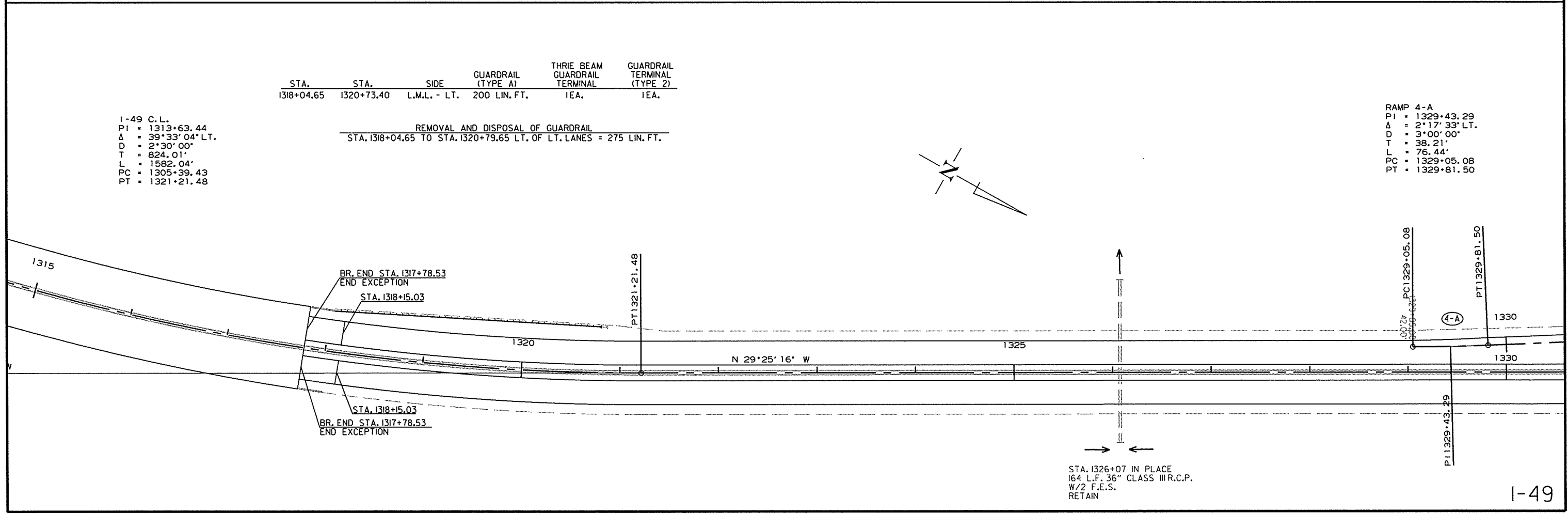
STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)	REMOVAL AND DISPOSAL OF GUARDRAIL
1301+37.70	1304+06.45	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.	STA. 1301+31.45 TO STA. 1304+06.45 RT. OF RT. LANES = 275 LIN. FT.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1318+04.65	1320+73.40	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 1318+04.65 TO STA. 1320+79.65 LT. OF LT. LANES = 275 LIN. FT.

I-49 C.L.
 PI = 1313+63.44
 Δ = 39°33'04" LT.
 D = 2°30'00"
 T = 824.01'
 L = 1582.04'
 PC = 1305+39.43
 PT = 1321+21.48

RAMP 4-A
 PI = 1329+43.29
 Δ = 2°17'33" LT.
 D = 3°00'00"
 T = 38.21'
 L = 76.44'
 PC = 1329+05.08
 PT = 1329+81.50



STA. 1326+07 IN PLACE
 164 L.F. 36" CLASS III R.C.P.
 W/2 F.E.S.
 RETAIN

9/2/2015
 RBBO409.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.							BB0409	57	105

2 PLAN SHEETS



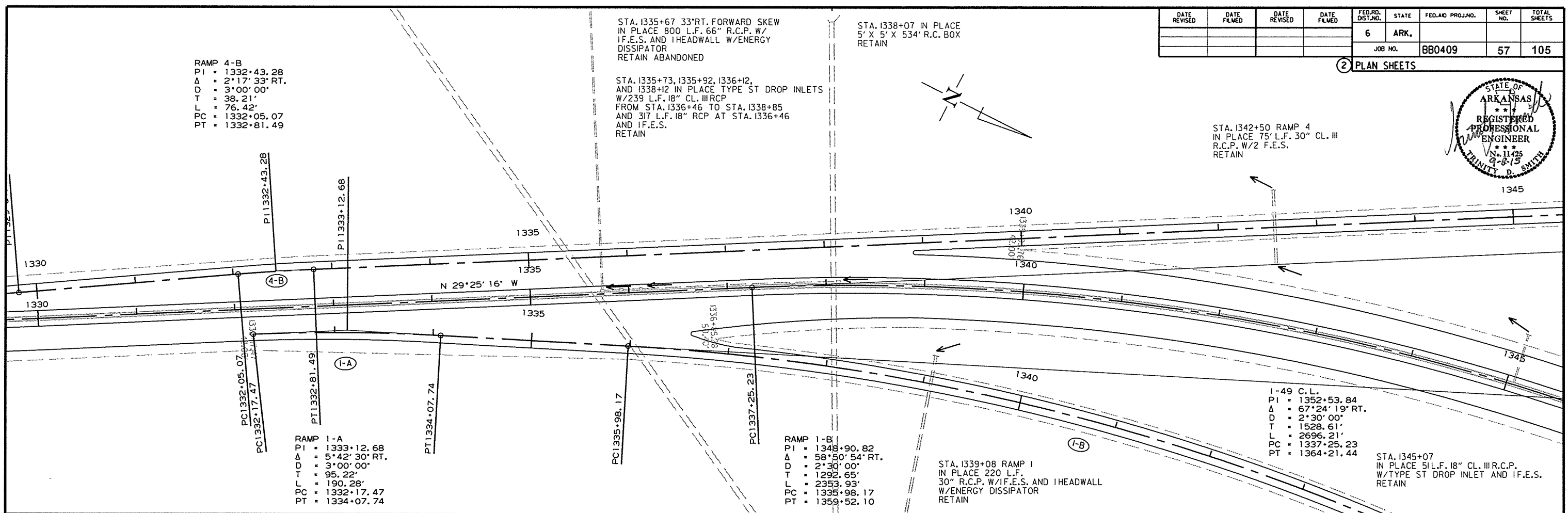
RAMP 4-B
 PI = 1332+43.28
 Δ = 2°17'33" RT.
 D = 3°00'00"
 T = 38.21'
 L = 76.42'
 PC = 1332+05.07
 PT = 1332+81.49

STA. 1335+67 33° RT. FORWARD SKEW
 IN PLACE 800 L.F. 66" R.C.P. W/
 I.F.E.S. AND I HEADWALL W/ENERGY
 DISSIPATOR
 RETAIN ABANDONED

STA. 1338+07 IN PLACE
 5' X 5' X 534" R.C. BOX
 RETAIN

STA. 1335+73, 1335+92, 1336+12,
 AND 1338+12 IN PLACE TYPE ST DROP INLETS
 W/239 L.F. 18" CL. III RCP
 FROM STA. 1336+46 TO STA. 1338+85
 AND 317 L.F. 18" RCP AT STA. 1336+46
 AND I.F.E.S.
 RETAIN

STA. 1342+50 RAMP 4
 IN PLACE 75" L.F. 30" CL. III
 R.C.P. W/2 F.E.S.
 RETAIN



RAMP 1-A
 PI = 1333+12.68
 Δ = 5°42'30" RT.
 D = 3°00'00"
 T = 95.22'
 L = 190.28'
 PC = 1332+17.47
 PT = 1334+07.74

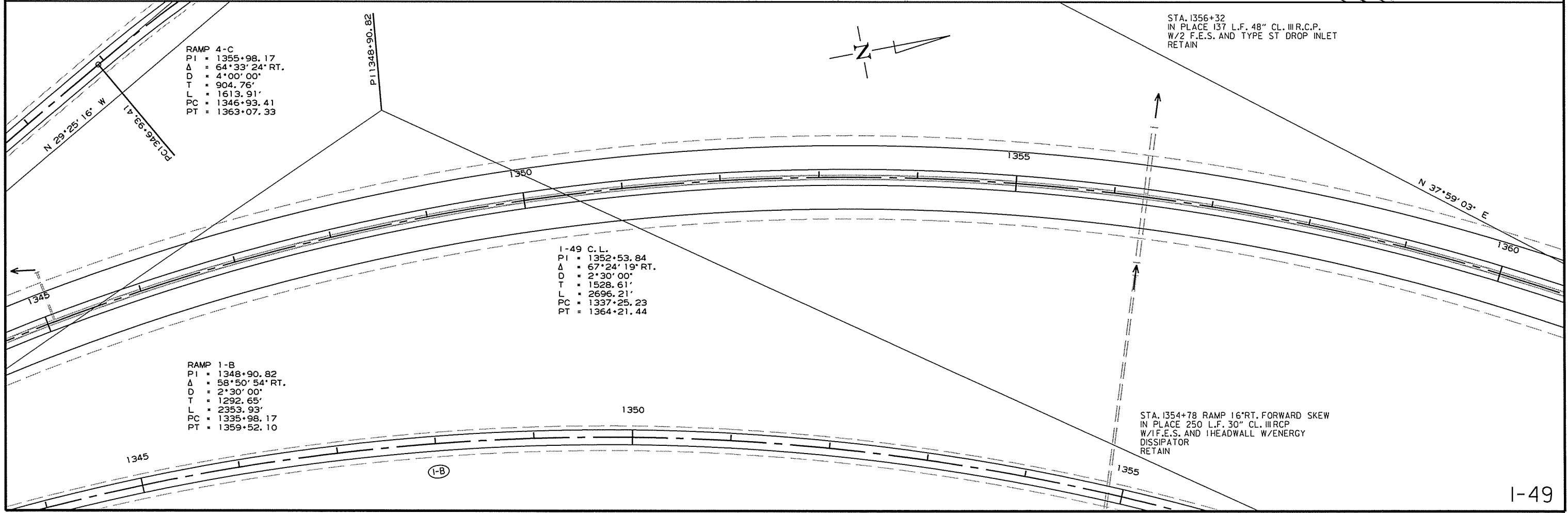
RAMP 1-B
 PI = 1348+90.82
 Δ = 58°50'54" RT.
 D = 2°30'00"
 T = 1292.65'
 L = 2353.93'
 PC = 1335+98.17
 PT = 1359+52.10

I-49 C.L.
 PI = 1352+53.84
 Δ = 67°24'19" RT.
 D = 2°30'00"
 T = 1528.61'
 L = 2696.21'
 PC = 1337+25.23
 PT = 1364+21.44

STA. 1345+07
 IN PLACE 51 L.F. 18" CL. III R.C.P.
 W/TYPED ST DROP INLET AND I.F.E.S.
 RETAIN

RAMP 4-C
 PI = 1355+98.17
 Δ = 64°33'24" RT.
 D = 4°00'00"
 T = 904.76'
 L = 1613.91'
 PC = 1346+93.41
 PT = 1363+07.33

STA. 1356+32
 IN PLACE 137 L.F. 48" CL. III R.C.P.
 W/2 F.E.S. AND TYPE ST DROP INLET
 RETAIN



I-49 C.L.
 PI = 1352+53.84
 Δ = 67°24'19" RT.
 D = 2°30'00"
 T = 1528.61'
 L = 2696.21'
 PC = 1337+25.23
 PT = 1364+21.44

RAMP 1-B
 PI = 1348+90.82
 Δ = 58°50'54" RT.
 D = 2°30'00"
 T = 1292.65'
 L = 2353.93'
 PC = 1335+98.17
 PT = 1359+52.10

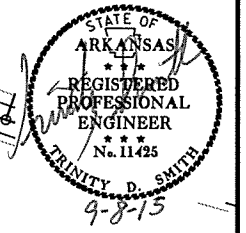
STA. 1354+78 RAMP 16° RT. FORWARD SKEW
 IN PLACE 250 L.F. 30" CL. III RCP
 W/I.F.E.S. AND I HEADWALL W/ENERGY
 DISSIPATOR
 RETAIN

9/2/2015

RB80409.DGN

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		58	105

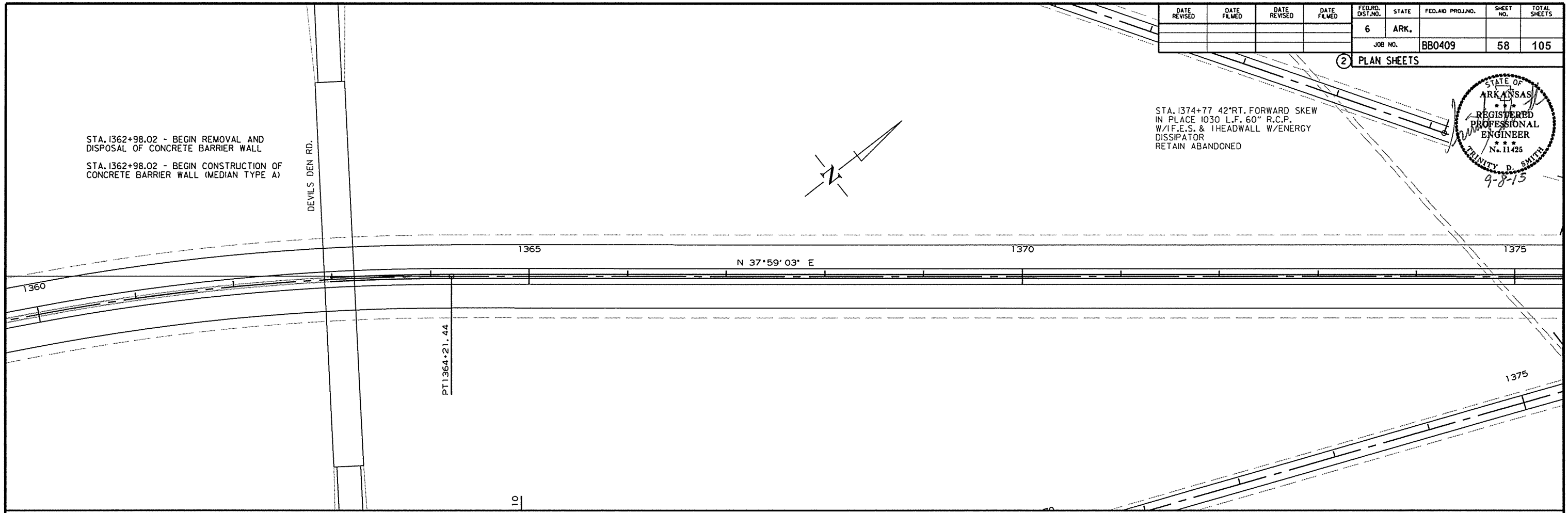
2 PLAN SHEETS



STA. 1374+77 42°RT. FORWARD SKEW
IN PLACE 1030 L.F. 60" R.C.P.
W/IF.E.S. & HEADWALL W/ENERGY
DISSIPATOR
RETAIN ABANDONED

STA. 1362+98.02 - BEGIN REMOVAL AND
DISPOSAL OF CONCRETE BARRIER WALL
STA. 1362+98.02 - BEGIN CONSTRUCTION OF
CONCRETE BARRIER WALL (MEDIAN TYPE A)

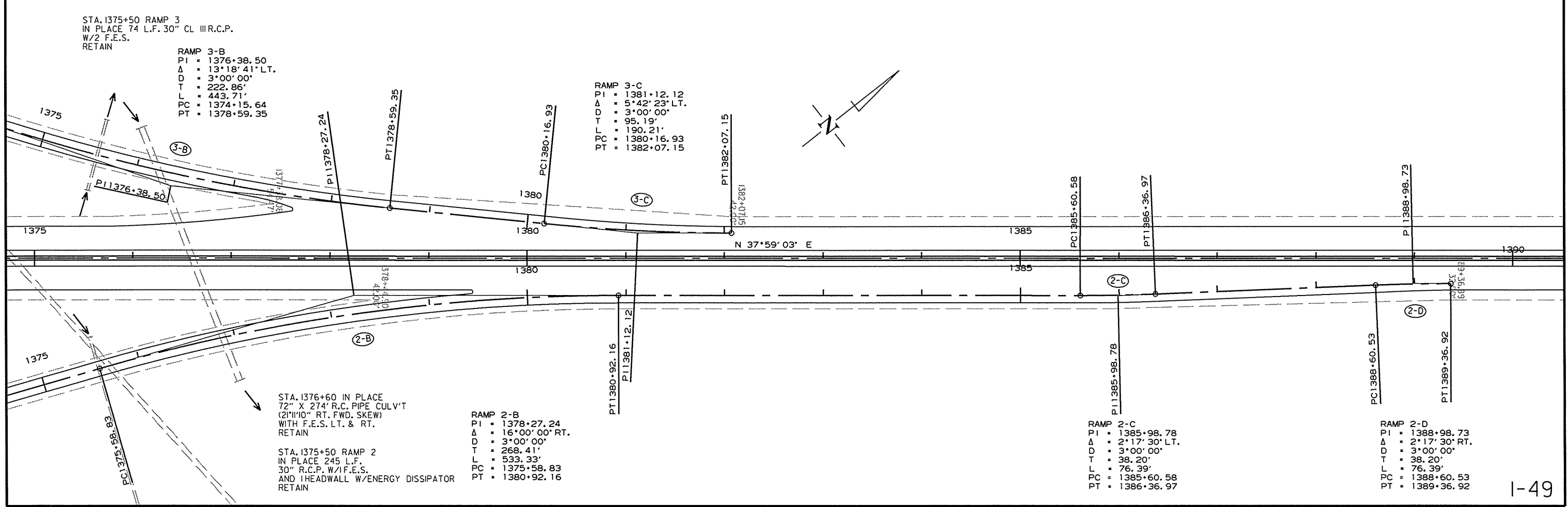
DEVILS DEN RD.



STA. 1375+50 RAMP 3
IN PLACE 74 L.F. 30" CL III R.C.P.
W/2 F.E.S.
RETAIN

RAMP 3-B
PI = 1376+38.50
Δ = 13°18'41" LT.
D = 3°00'00"
T = 222.86'
L = 443.71'
PC = 1374+15.64
PT = 1378+59.35

RAMP 3-C
PI = 1381+12.12
Δ = 5°42'23" LT.
D = 3°00'00"
T = 95.19'
L = 190.21'
PC = 1380+16.93
PT = 1382+07.15



STA. 1376+60 IN PLACE
72" X 274' R.C. PIPE CULVERT
(21°11'10" RT. FWD. SKEW)
WITH F.E.S. LT. & RT.
RETAIN

STA. 1375+50 RAMP 2
IN PLACE 245 L.F.
30" R.C.P. W/IF.E.S.
AND HEADWALL W/ENERGY DISSIPATOR
RETAIN

RAMP 2-B
PI = 1378+27.24
Δ = 16°00'00" RT.
D = 3°00'00"
T = 268.41'
L = 533.33'
PC = 1375+58.83
PT = 1380+92.16

RAMP 2-C
PI = 1385+98.78
Δ = 2°17'30" LT.
D = 3°00'00"
T = 38.20'
L = 76.39'
PC = 1385+60.58
PT = 1386+36.97

RAMP 2-D
PI = 1388+98.73
Δ = 2°17'30" RT.
D = 3°00'00"
T = 38.20'
L = 76.39'
PC = 1388+60.53
PT = 1389+36.92

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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. BB0409							59	105

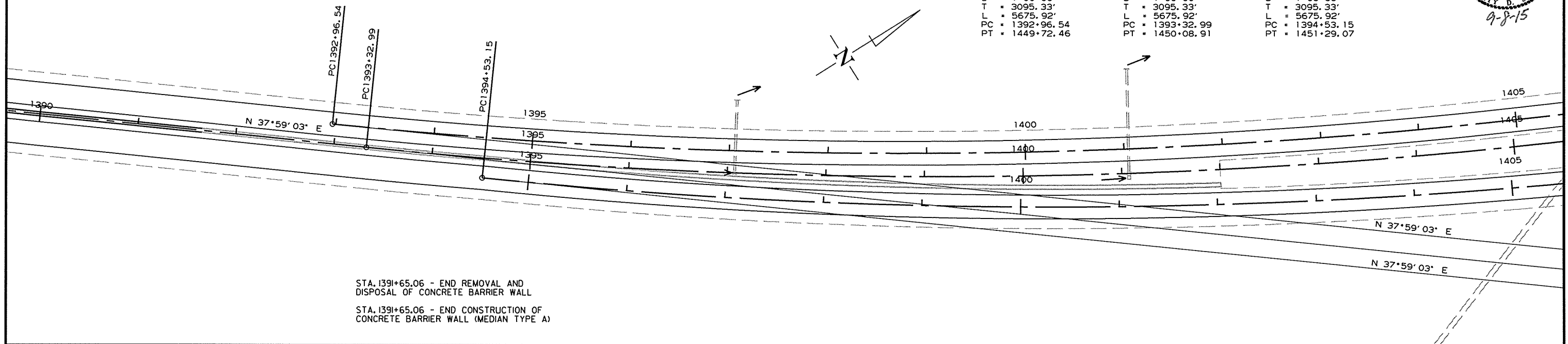
STA. 1397+07 IN PLACE 72 L.F. 24"
CLASS III R.C.P. W/1 TYPE ST
DROP INLET & I.F.E.S.
RETAIN

STA. 1401+07 IN PLACE 104 L.F. 24"
CLASS III R.C.P. W/2 TYPE ST
DROP INLETS & I.F.E.S.
RETAIN

2 PLAN SHEETS



LT. MAIN LANES PI = 1423+91.88 Δ = 56°45'33" LT. D = 1'00'00" T = 3095.33' L = 5675.92' PC = 1392+96.54 PT = 1449+72.46	I-49 C.L. PI = 1424+28.32 Δ = 56°45'33" LT. D = 1'00'00" T = 3095.33' L = 5675.92' PC = 1393+32.99 PT = 1450+08.91	RT. MAIN LANES PI = 1425+48.48 Δ = 56°45'33" LT. D = 1'00'00" T = 3095.33' L = 5675.92' PC = 1394+53.15 PT = 1451+29.07
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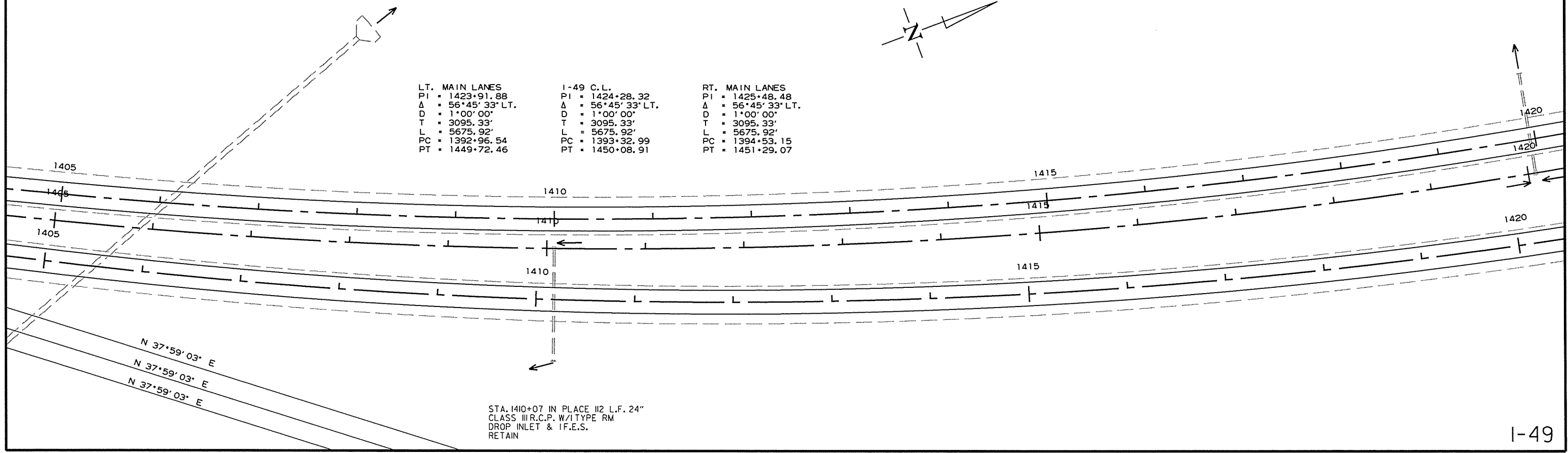


STA. 1391+65.06 - END REMOVAL AND
DISPOSAL OF CONCRETE BARRIER WALL

STA. 1391+65.06 - END CONSTRUCTION OF
CONCRETE BARRIER WALL (MEDIAN TYPE A)

STA. 1420+07 IN PLACE 100 L.F. 24"
CLASS III R.C.P. W/2 F.E.S.
RETAIN

LT. MAIN LANES PI = 1423+91.88 Δ = 56°45'33" LT. D = 1'00'00" T = 3095.33' L = 5675.92' PC = 1392+96.54 PT = 1449+72.46	I-49 C.L. PI = 1424+28.32 Δ = 56°45'33" LT. D = 1'00'00" T = 3095.33' L = 5675.92' PC = 1393+32.99 PT = 1450+08.91	RT. MAIN LANES PI = 1425+48.48 Δ = 56°45'33" LT. D = 1'00'00" T = 3095.33' L = 5675.92' PC = 1394+53.15 PT = 1451+29.07
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STA. 1410+07 IN PLACE 112 L.F. 24"
CLASS III R.C.P. W/1 TYPE RM
DROP INLET & I.F.E.S.
RETAIN

9/2/2015

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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. BB0409							60	105

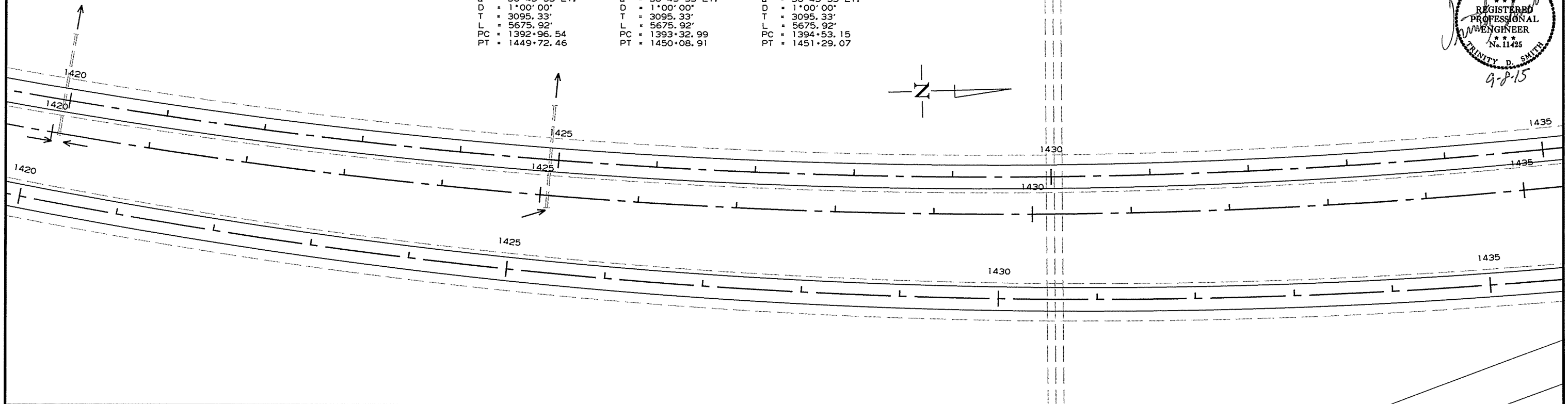
2 PLAN SHEETS



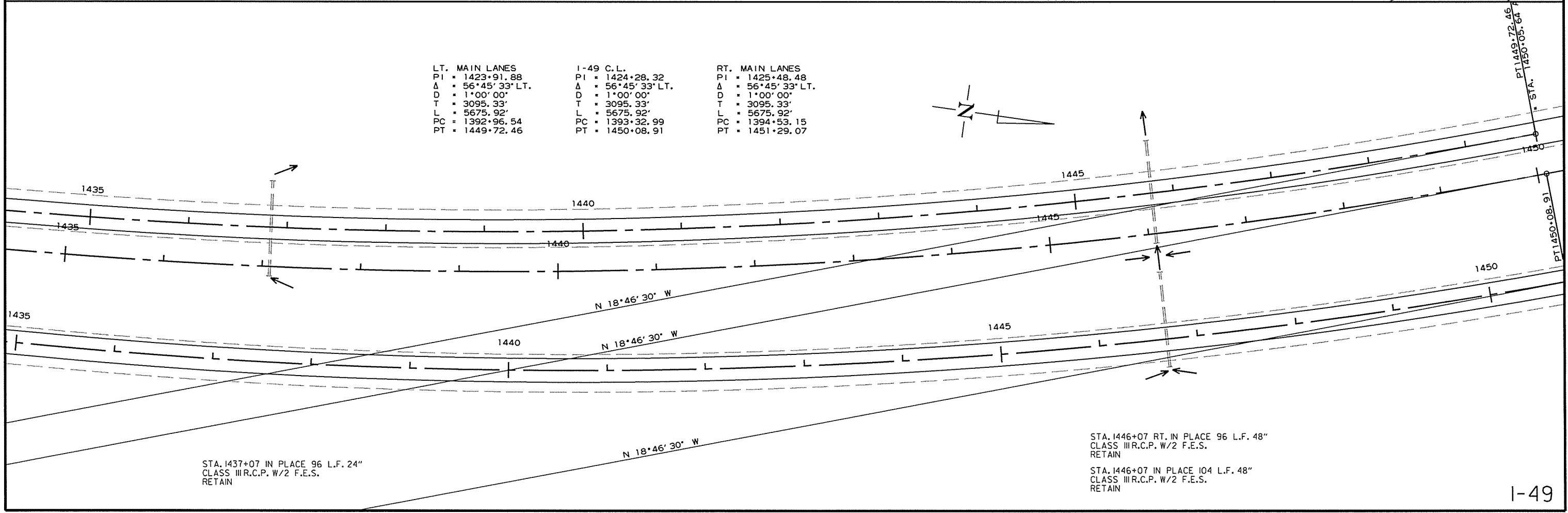
STA. 1425+07 IN PLACE 104 L.F. 24"
CLASS III R.C.P. W/2 F.E.S.
RETAIN

STA. 1430+22 IN PLACE
DBL 8' X 5' X 543'
R.C. BOX CULV'T
RETAIN

LT. MAIN LANES PI = 1423+91.88 Δ = 56°45'33" LT. D = 1'00'00" T = 3095.33' L = 5675.92' PC = 1392+96.54 PT = 1449+72.46	I-49 C.L. PI = 1424+28.32 Δ = 56°45'33" LT. D = 1'00'00" T = 3095.33' L = 5675.92' PC = 1393+32.99 PT = 1450+08.91	RT. MAIN LANES PI = 1425+48.48 Δ = 56°45'33" LT. D = 1'00'00" T = 3095.33' L = 5675.92' PC = 1394+53.15 PT = 1451+29.07
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LT. MAIN LANES PI = 1423+91.88 Δ = 56°45'33" LT. D = 1'00'00" T = 3095.33' L = 5675.92' PC = 1392+96.54 PT = 1449+72.46	I-49 C.L. PI = 1424+28.32 Δ = 56°45'33" LT. D = 1'00'00" T = 3095.33' L = 5675.92' PC = 1393+32.99 PT = 1450+08.91	RT. MAIN LANES PI = 1425+48.48 Δ = 56°45'33" LT. D = 1'00'00" T = 3095.33' L = 5675.92' PC = 1394+53.15 PT = 1451+29.07
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STA. 1437+07 IN PLACE 96 L.F. 24"
CLASS III R.C.P. W/2 F.E.S.
RETAIN

STA. 1446+07 RT. IN PLACE 96 L.F. 48"
CLASS III R.C.P. W/2 F.E.S.
RETAIN

STA. 1446+07 IN PLACE 104 L.F. 48"
CLASS III R.C.P. W/2 F.E.S.
RETAIN

9/2/2015

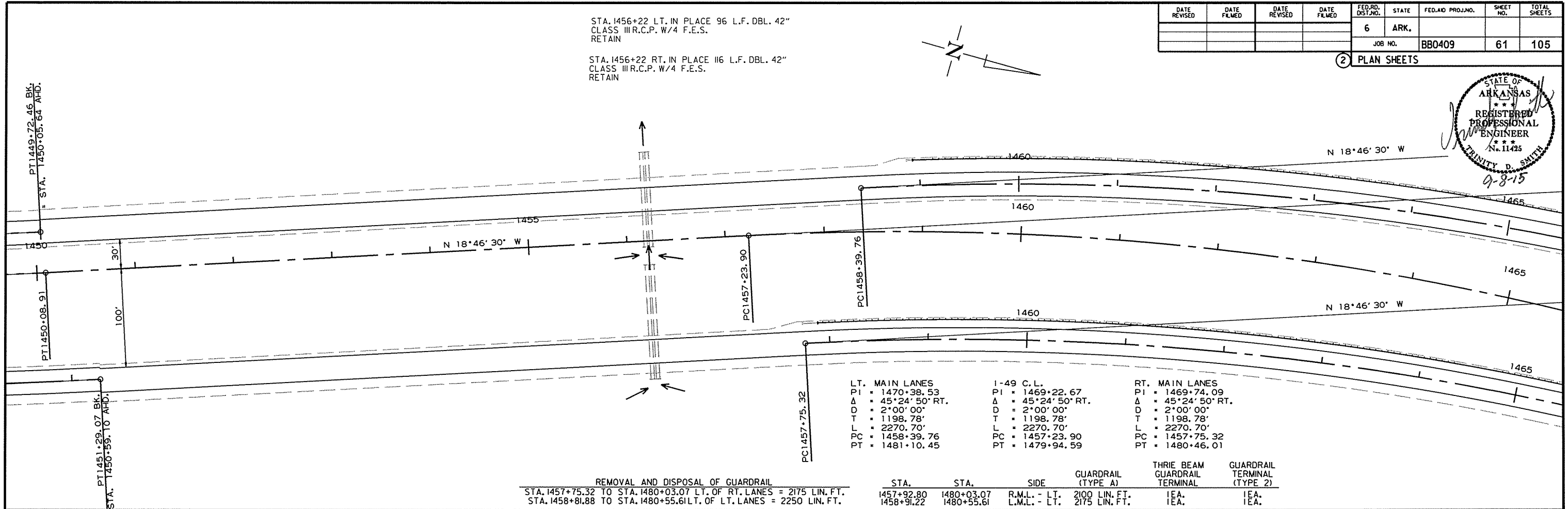
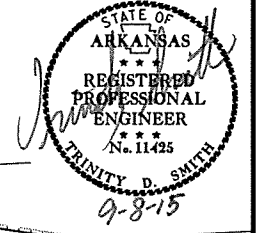
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STA. 1456+22 LT. IN PLACE 96 L.F. DBL. 42"
 CLASS III R.C.P. W/4 F.E.S.
 RETAIN

STA. 1456+22 RT. IN PLACE 116 L.F. DBL. 42"
 CLASS III R.C.P. W/4 F.E.S.
 RETAIN

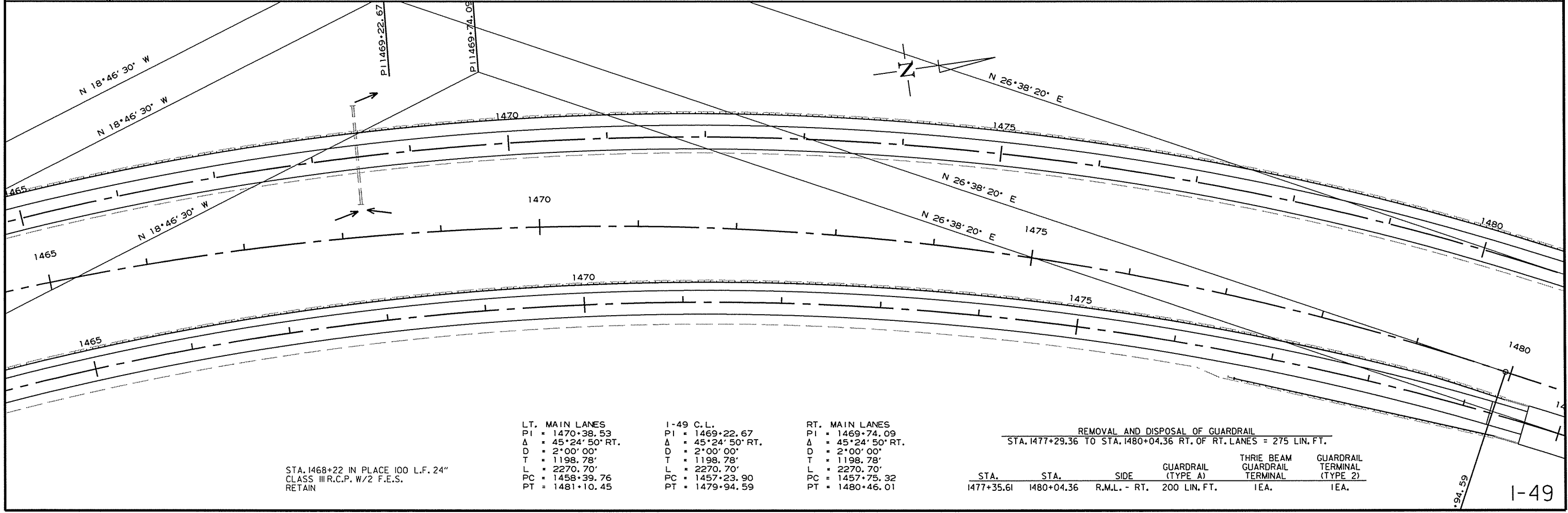
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. BB0409							61	105

2 PLAN SHEETS



REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 1457+75.32 TO STA. 1480+03.07 LT. OF RT. LANES = 2175 LIN. FT.
 STA. 1458+81.88 TO STA. 1480+55.61 LT. OF LT. LANES = 2250 LIN. FT.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1457+92.80	1480+03.07	R.M.L. - LT.	2100 LIN. FT.	IEA.	IEA.
1458+91.22	1480+55.61	L.M.L. - LT.	2175 LIN. FT.	IEA.	IEA.



REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 1477+29.36 TO STA. 1480+04.36 RT. OF RT. LANES = 275 LIN. FT.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1477+35.61	1480+04.36	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.

STA. 1468+22 IN PLACE 100 L.F. 24"
 CLASS III R.C.P. W/2 F.E.S.
 RETAIN

9/2/2015
 RB0409.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		62	105
				JOB NO.	BB0409		62	105

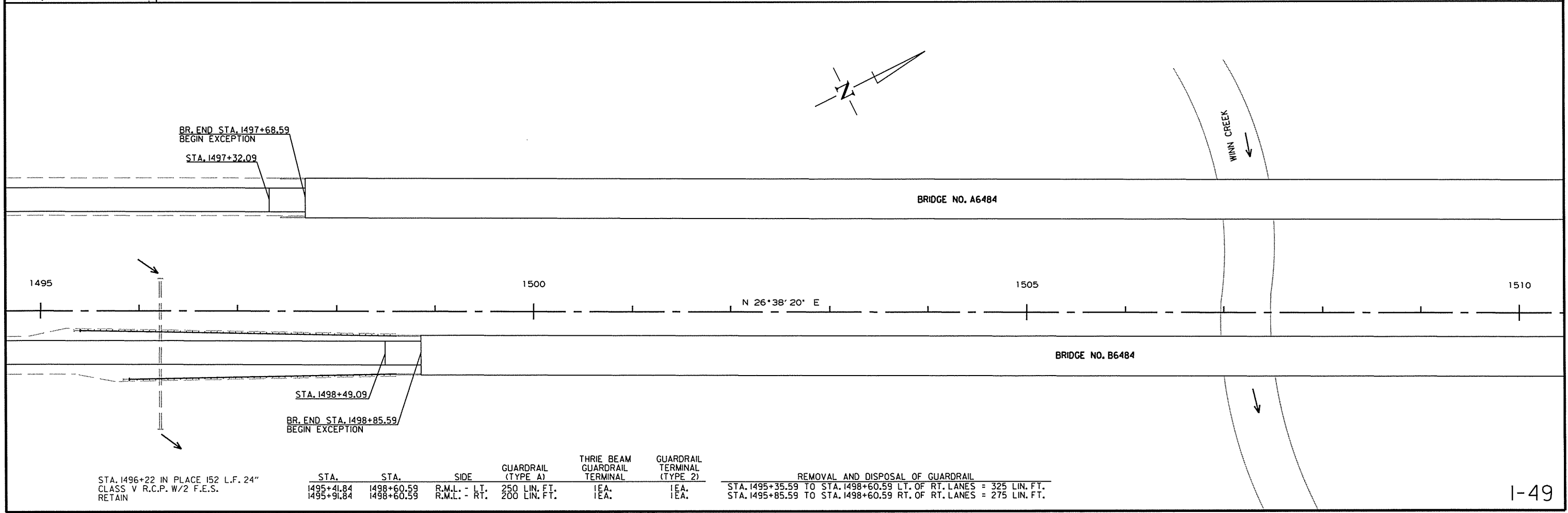
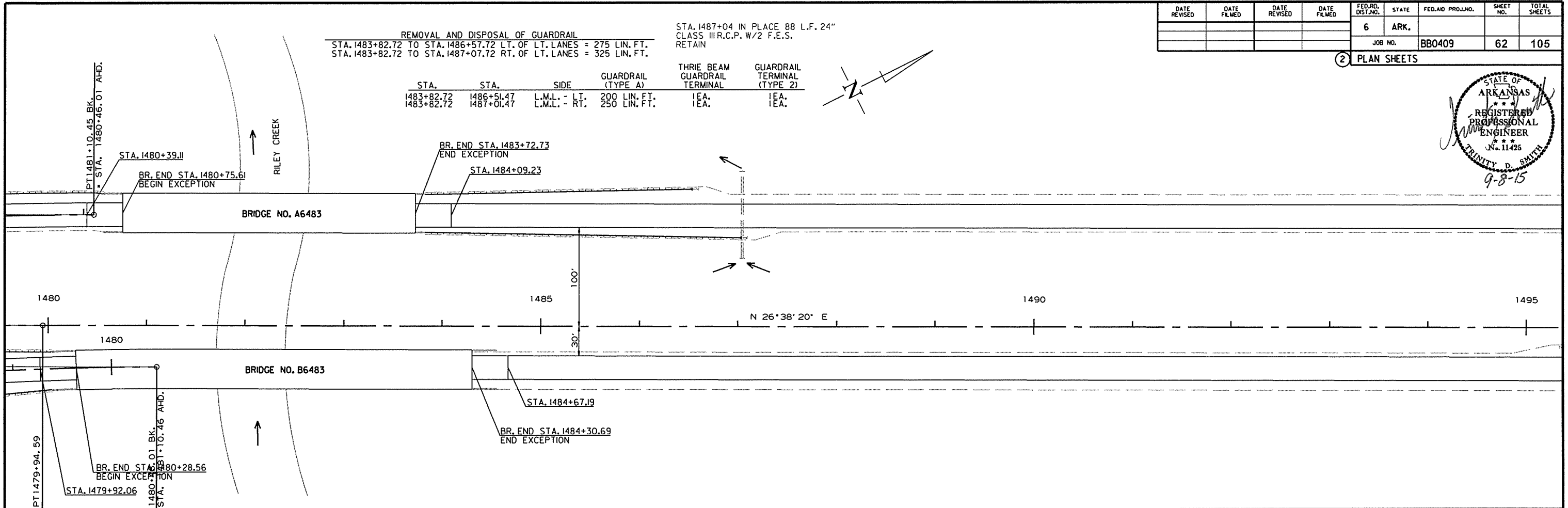
2 PLAN SHEETS



REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 1483+82.72 TO STA. 1486+57.72 LT. OF LT. LANES = 275 LIN. FT.
 STA. 1483+82.72 TO STA. 1487+07.72 RT. OF LT. LANES = 325 LIN. FT.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1483+82.72	1486+57.72	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.
1483+82.72	1487+07.72	L.M.L. - RT.	250 LIN. FT.	IEA.	IEA.

STA. 1487+04 IN PLACE 88 L.F. 24"
 CLASS III R.C.P. W/2 F.E.S.
 RETAIN



STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THRIE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1495+41.84	1498+60.59	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.
1495+91.84	1498+60.59	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 1495+35.59 TO STA. 1498+60.59 LT. OF RT. LANES = 325 LIN. FT.
 STA. 1495+85.59 TO STA. 1498+60.59 RT. OF RT. LANES = 275 LIN. FT.

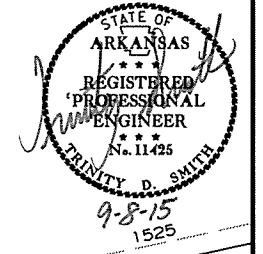
9/2/2015

RB0409.DGN

STA. 1513+22 LT. IN PLACE 132 L.F. 42"
 CLASS III R.C.P. W/2 F.E.S.
 STA. 1513+22 RT. IN PLACE 96 L.F. 42"
 CLASS III R.C.P. W/2 F.E.S.
 RETAIN

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BBO409		63	105

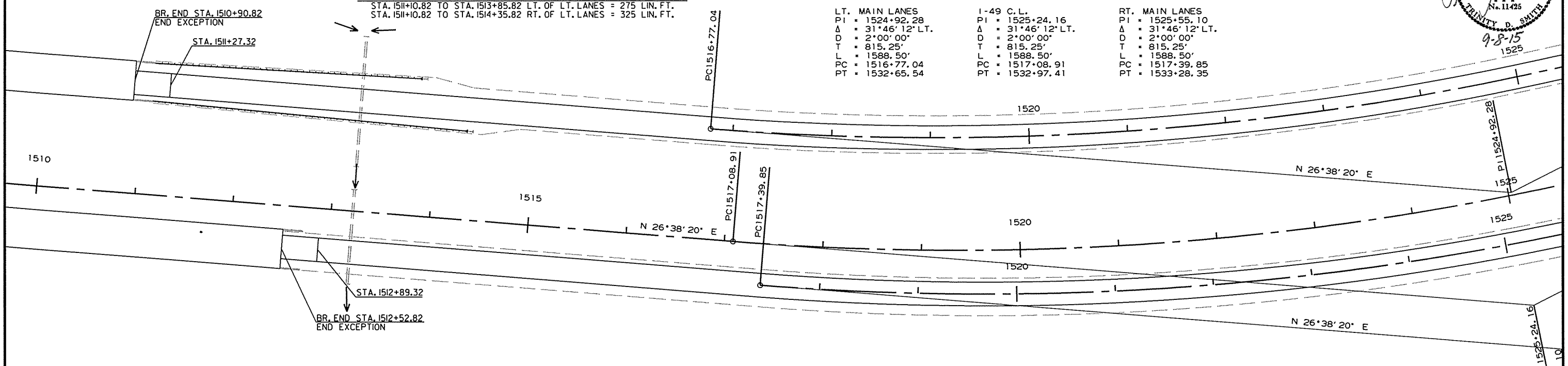
2 PLAN SHEETS



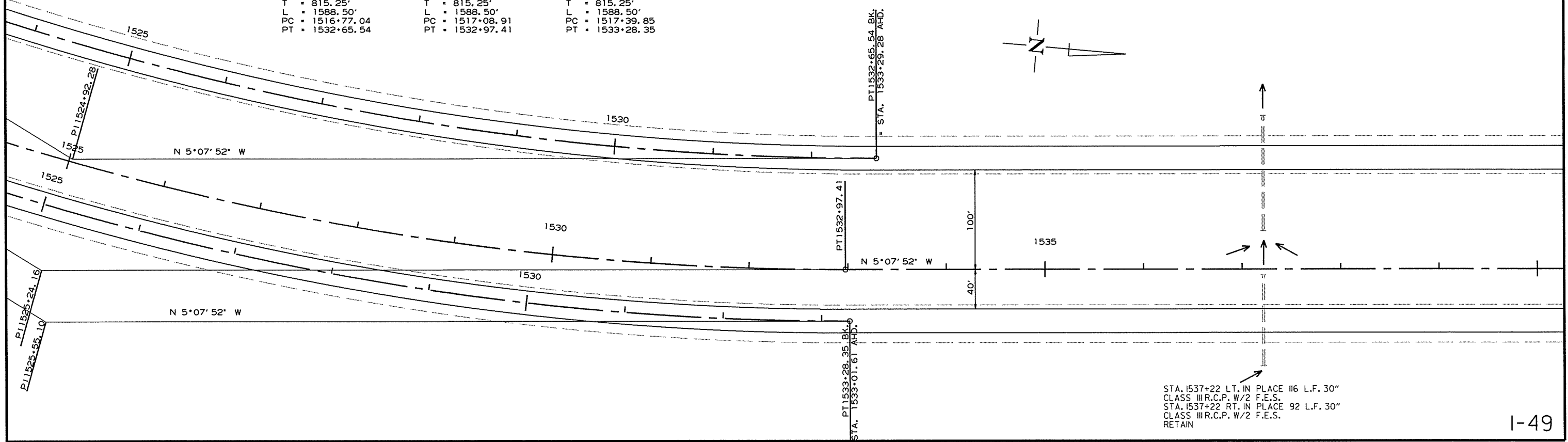
STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1511+0.82	1513+79.57	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.
1511+0.82	1514+29.57	L.M.L. - RT.	250 LIN. FT.	IEA.	IEA.

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 1511+0.82 TO STA. 1513+85.82 LT. OF LT. LANES = 275 LIN. FT.
 STA. 1511+0.82 TO STA. 1514+35.82 RT. OF LT. LANES = 325 LIN. FT.

LT. MAIN LANES	I-49 C.L.	RT. MAIN LANES
PI = 1524+92.28	PI = 1525+24.16	PI = 1525+55.10
Δ = 31°46'12" LT.	Δ = 31°46'12" LT.	Δ = 31°46'12" LT.
D = 2°00'00"	D = 2°00'00"	D = 2°00'00"
T = 815.25'	T = 815.25'	T = 815.25'
L = 1588.50'	L = 1588.50'	L = 1588.50'
PC = 1516+77.04	PC = 1517+08.91	PC = 1517+39.85
PT = 1532+65.54	PT = 1532+97.41	PT = 1533+28.35



LT. MAIN LANES	I-49 C.L.	RT. MAIN LANES
PI = 1524+92.28	PI = 1525+24.16	PI = 1525+55.10
Δ = 31°46'12" LT.	Δ = 31°46'12" LT.	Δ = 31°46'12" LT.
D = 2°00'00"	D = 2°00'00"	D = 2°00'00"
T = 815.25'	T = 815.25'	T = 815.25'
L = 1588.50'	L = 1588.50'	L = 1588.50'
PC = 1516+77.04	PC = 1517+08.91	PC = 1517+39.85
PT = 1532+65.54	PT = 1532+97.41	PT = 1533+28.35



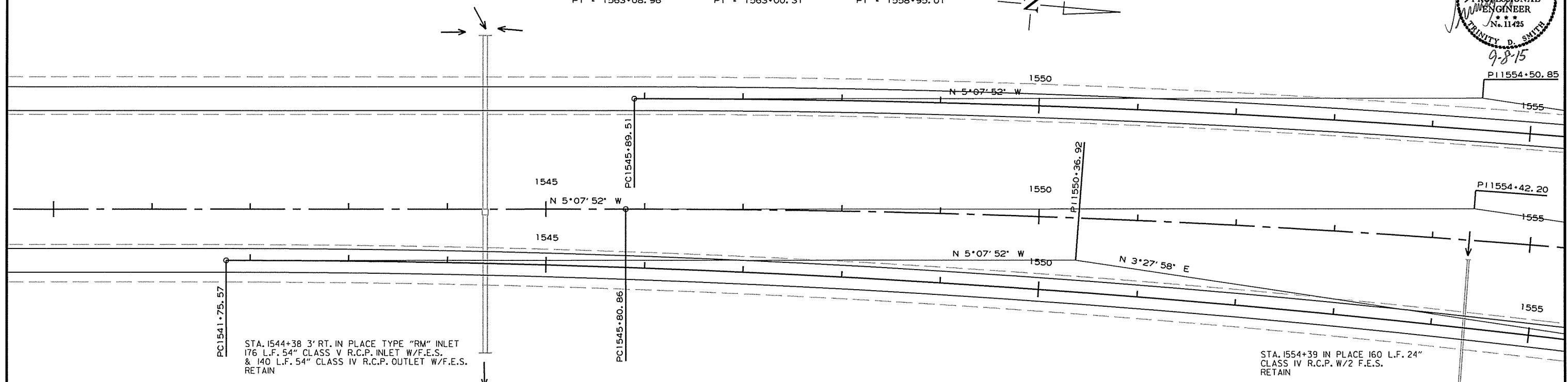
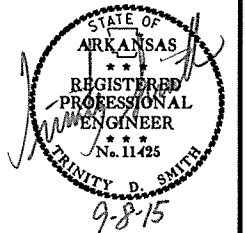
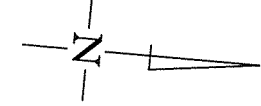
STA. 1537+22 LT. IN PLACE 116 L.F. 30"
 CLASS III R.C.P. W/2 F.E.S.
 STA. 1537+22 RT. IN PLACE 92 L.F. 30"
 CLASS III R.C.P. W/2 F.E.S.
 RETAIN

9/2/2015 R880409.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. BB0409							64	105

2 PLAN SHEETS

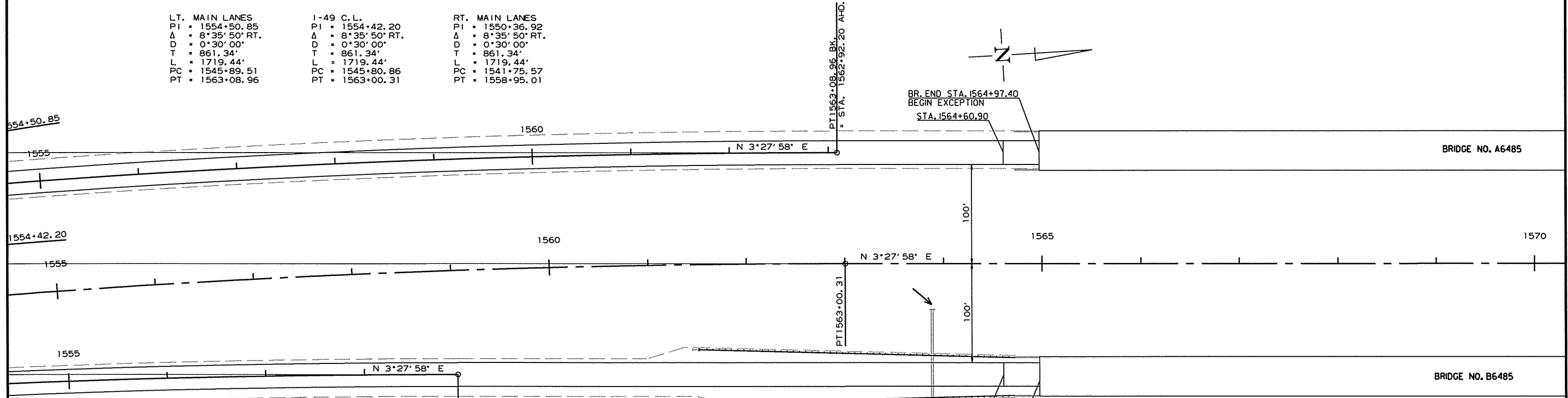
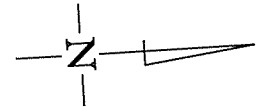
LT. MAIN LANES PI = 1554+50.85 Δ = 8°35'50" RT. D = 0°30'00" T = 861.34' L = 1719.44' PC = 1545+89.51 PT = 1563+08.96	I-49 C.L. PI = 1554+42.20 Δ = 8°35'50" RT. D = 0°30'00" T = 861.34' L = 1719.44' PC = 1545+80.86 PT = 1563+00.31	RT. MAIN LANES PI = 1550+36.92 Δ = 8°35'50" RT. D = 0°30'00" T = 861.34' L = 1719.44' PC = 1541+75.57 PT = 1558+95.01
--	---	--



STA. 1544+38 3' RT. IN PLACE TYPE "RM" INLET
176 L.F. 54" CLASS V R.C.P. INLET W/F.E.S.
& 140 L.F. 54" CLASS IV R.C.P. OUTLET W/F.E.S.
RETAIN

STA. 1554+39 IN PLACE 160 L.F. 24"
CLASS IV R.C.P. W/2 F.E.S.
RETAIN

LT. MAIN LANES PI = 1554+50.85 Δ = 8°35'50" RT. D = 0°30'00" T = 861.34' L = 1719.44' PC = 1545+89.51 PT = 1563+08.96	I-49 C.L. PI = 1554+42.20 Δ = 8°35'50" RT. D = 0°30'00" T = 861.34' L = 1719.44' PC = 1545+80.86 PT = 1563+00.31	RT. MAIN LANES PI = 1550+36.92 Δ = 8°35'50" RT. D = 0°30'00" T = 861.34' L = 1719.44' PC = 1541+75.57 PT = 1558+95.01
--	---	--



BR. END STA. 1564+97.40
BEGIN EXCEPTION
STA. 1564+60.90

BRIDGE NO. A6485

BRIDGE NO. B6485

PT1558+95.01 BK.
= STA. 1559+03.63 AHD.

STA. 1563+89 IN PLACE 156 L.F. 24"
CLASS IV R.C.P. W/2 F.E.S.
RETAIN

BR. END STA. 1564+97.40
BEGIN EXCEPTION

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 1561+47.40 TO STA. 1564+72.40 LT. OF RT. LANES = 325 LIN. FT.
STA. 1561+97.40 TO STA. 1564+72.40 RT. OF RT. LANES = 275 LIN. FT.

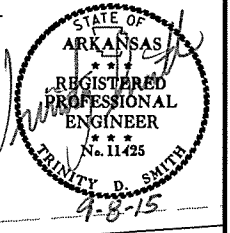
STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1561+53.65	1564+72.40	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.
1562+03.63	1564+72.40	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.

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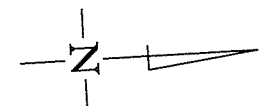
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. BB0409							65	105

2 PLAN SHEETS



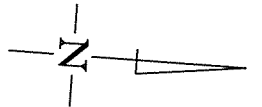
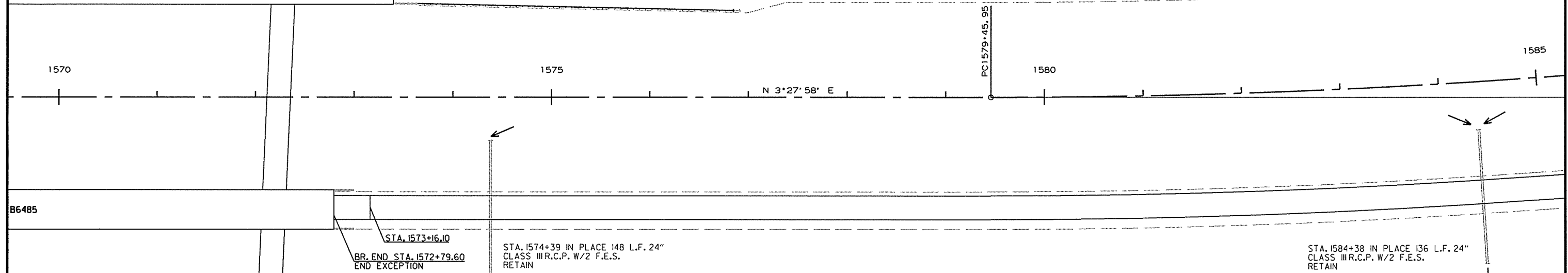
I-49 C.L.
 PI = 1586+96.88
 Δ = 11°13'40" LT.
 D = 0°45'00"
 T = 750.92'
 L = 1497.04'
 PC = 1579+45.95
 PT = 1594+42.99

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1573+64.60	1576+33.35	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.
1573+64.60	1576+83.35	L.M.L. - RT.	250 LIN. FT.	IEA.	IEA.

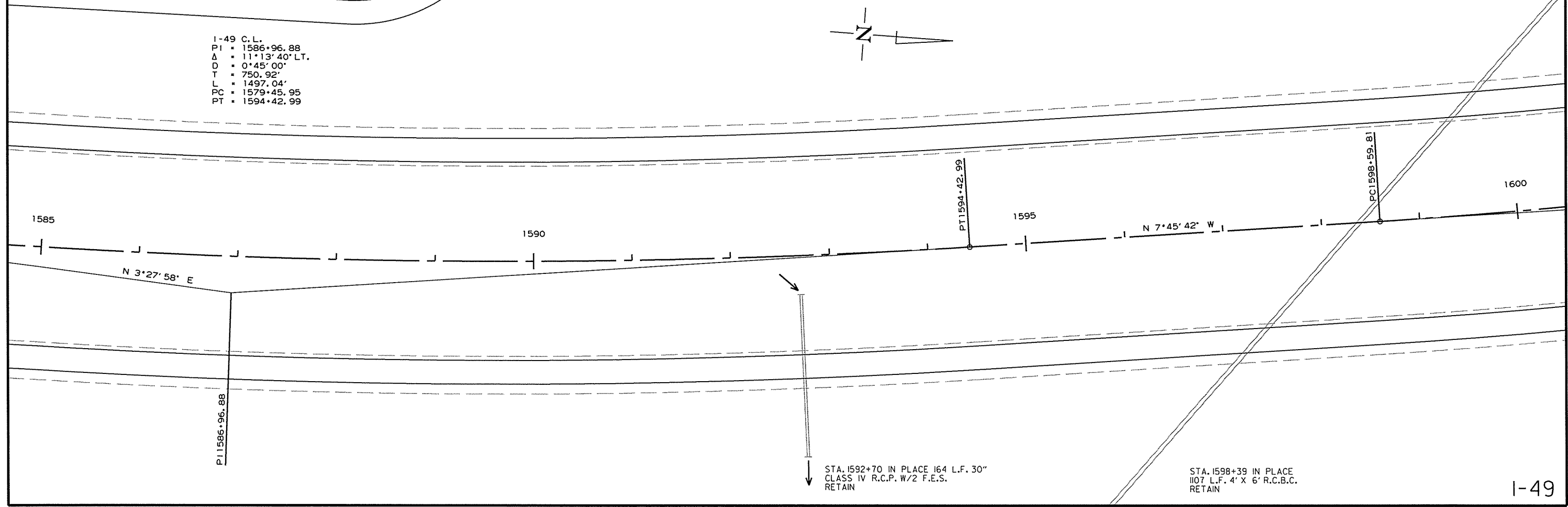


BR. END STA. 1573+39.60
 END EXCEPTION
 STA. 1573+76.10
 REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 1573+64.60 TO STA. 1576+39.60 LT. OF LT. LANES = 275 LIN. FT.
 STA. 1573+64.60 TO STA. 1576+89.60 RT. OF LT. LANES = 325 LIN. FT.

D. A6485



I-49 C.L.
 PI = 1586+96.88
 Δ = 11°13'40" LT.
 D = 0°45'00"
 T = 750.92'
 L = 1497.04'
 PC = 1579+45.95
 PT = 1594+42.99

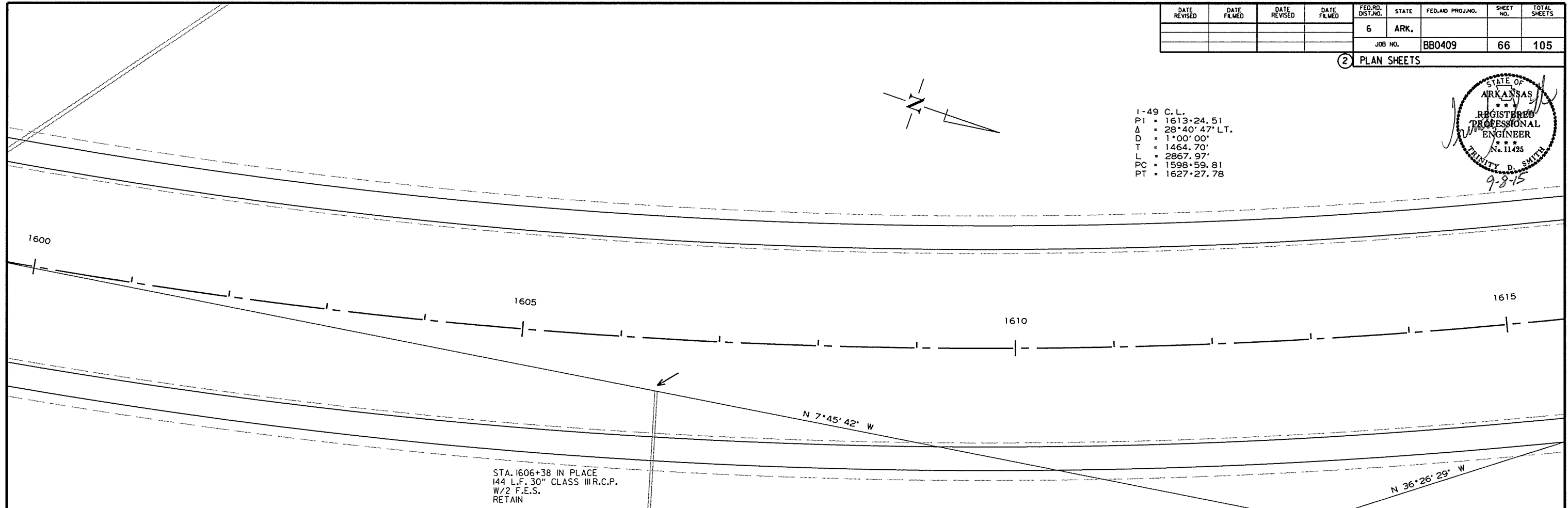
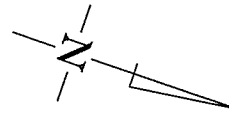


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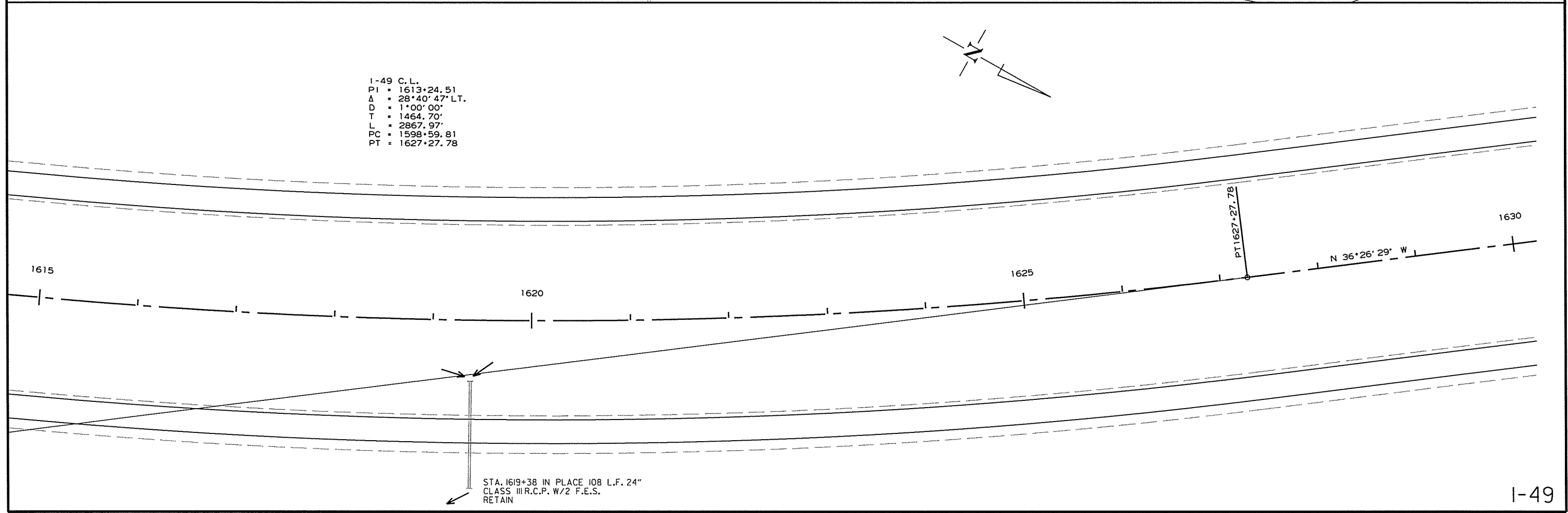
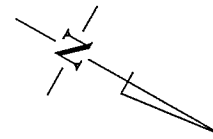
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
				6	ARK.				
JOB NO.							BB0409	66	105

② PLAN SHEETS

I-49 C.L.
 PI = 1613+24.51
 Δ = 28°40'47" LT.
 D = 1°00'00"
 T = 1464.70'
 L = 2867.97'
 PC = 1598+59.81
 PT = 1627+27.78



I-49 C.L.
 PI = 1613+24.51
 Δ = 28°40'47" LT.
 D = 1°00'00"
 T = 1464.70'
 L = 2867.97'
 PC = 1598+59.81
 PT = 1627+27.78



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STA. 1636+38 IN PLACE 164 L.F. 24"
CLASS III R.C.P. W/2 F.E.S.
RETAIN

STA. 1640+87 IN PLACE 869 FEET OF
DOUBLE 5' X 5' R.C. BOX CULV'T
WITH ENERGY DISSIPATOR AT OUTLET
RETAIN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
							JOB NO.	
							BB0409	
							67	105

② PLAN SHEETS

STA. 1642+38 IN PLACE 159 L.F. 24"
CLASS IV R.C.P. W/2 F.E.S.
RETAIN



1630

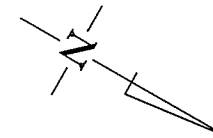
1635

1640

1645

N 36°26'29" W

PC1643+59.99



1645

1650

1655

1660

N 36°26'29" W

N 25°05'19" W

PT1654+95.27

P11649+29.50

1-49 C.L.
PI = 1649+29.50
Δ = 11°21'10" RT.
D = 1°00'00"
T = 569.50'
L = 1135.28'
PC = 1643+59.99
PT = 1654+95.27

STA. 1648+89 IN PLACE 124 L.F. 24"
CLASS III R.C.P. W/2 F.E.S.
RETAIN

STA. 1652+38 IN PLACE 120 L.F. 24"
CLASS III R.C.P. W/2 F.E.S.
RETAIN

STA. 1657+38 IN PLACE 152 L.F. 24"
CLASS III R.C.P. W/2 F.E.S.
RETAIN

1-49

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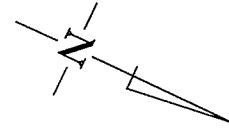
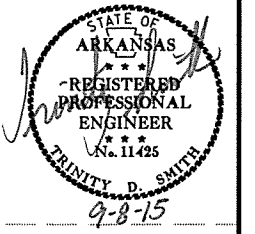
RB0409.DGN

STA. 1664+38 IN PLACE 152 L.F. 24"
CLASS III R.C.P. W/2 F.E.S.
RETAIN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. BB0409							68	105

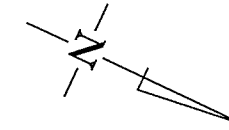
② PLAN SHEETS

STA. 1671+38 IN PLACE 86 L.F. 24"
CLASS III R.C.P. W/2 F.E.S.
RETAIN



1660 1665 1670 1675

N 25°05' 19" W



1675 1680 1685 1690

N 25°05' 19" W

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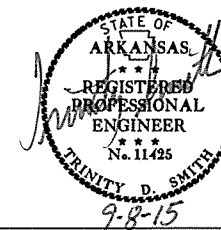
RB0409.DGN

STA. 1694+88 IN PLACE 88 L.F. 24"
 CLASS III R.C.P. W/2 F.E.S.
 RETAIN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
				6	ARK.				
JOB NO.							BB0409	69	105

2 PLAN SHEETS

STA. 1701+88 IN PLACE 224 L.F. 24"
 CLASS IV R.C.P. W/2 F.E.S.
 RETAIN



BR. END STA. 1702+81.94
 BEGIN EXCEPTION

STA. 1702+45.44

1690 1695 1700 1705

N 25°05'19" W

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 1699+26.94 TO STA. 1702+51.94 LT. OF RT. LANES = 325 LIN. FT.
 STA. 1699+76.94 TO STA. 1702+51.94 RT. OF RT. LANES = 275 LIN. FT.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1699+33.19	1702+51.94	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.
1699+83.19	1702+51.94	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.

STA. 1702+45.44

BR. END STA. 1702+81.94
 BEGIN EXCEPTION

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
1711+89.11	1714+57.86	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.
1711+89.11	1715+07.86	L.M.L. - RT.	250 LIN. FT.	IEA.	IEA.

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 1711+89.11 TO STA. 1714+64.11 LT. OF LT. LANES = 275 LIN. FT.
 STA. 1711+89.11 TO STA. 1715+14.11 RT. OF LT. LANES = 325 LIN. FT.

BR. END STA. 1711+64.11
 END EXCEPTION

STA. 1712+00.61

BR. NO. A6237

1705 1710 1715 1720

N 25°05'19" W

N 20°06'27" W

1-49 C.L.
 PI = 1717+38.29
 Δ = 4°58'52" RT.
 D = 1°00'00"
 T = 249.21'
 L = 498.11'
 PC = 1714+89.07
 PT = 1719+87.19

PC 1714+89.07

PT 1719+87.19

BR. NO. B6237

STA. 1713+40.60

BR. END STA. 1713+04.10
 END EXCEPTION

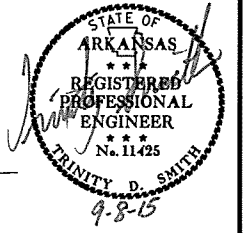
1-49

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RBB0409.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AD PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. BB0409							71	105

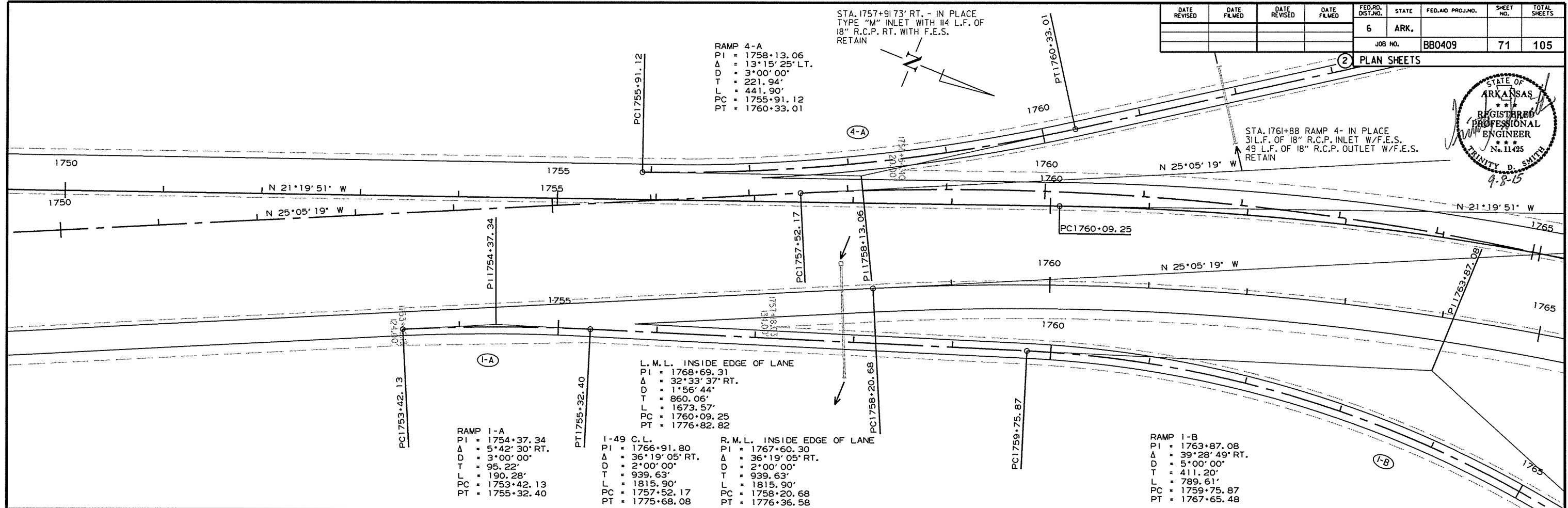
2 PLAN SHEETS



RAMP 4-A
 PI = 1758+13.06
 Δ = 13°15'25" LT.
 D = 3°00'00"
 T = 221.94'
 L = 441.90'
 PC = 1755+91.12
 PT = 1760+33.01

STA. 1757+91.73' RT. - IN PLACE TYPE "M" INLET WITH 114 L.F. OF 18" R.C.P. RT. WITH F.E.S. RETAIN

STA. 1761+88 RAMP 4- IN PLACE 31 L.F. OF 18" R.C.P. INLET W/F.E.S. 49 L.F. OF 18" R.C.P. OUTLET W/F.E.S. RETAIN

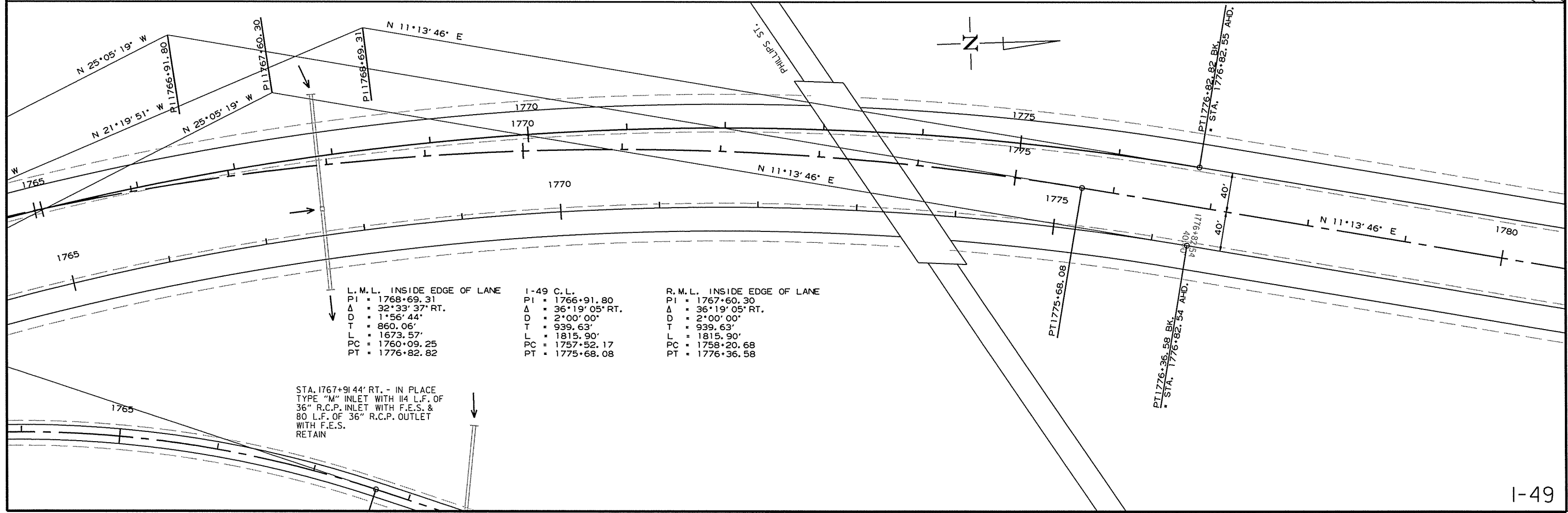


RAMP 1-A
 PI = 1754+37.34
 Δ = 5°42'30" RT.
 D = 3°00'00"
 T = 95.22'
 L = 190.28'
 PC = 1753+42.13
 PT = 1755+32.40

1-49 C.L.
 PI = 1766+91.80
 Δ = 36°19'05" RT.
 D = 2°00'00"
 T = 939.63'
 L = 1815.90'
 PC = 1757+52.17
 PT = 1775+68.08

R.M.L. INSIDE EDGE OF LANE
 PI = 1767+60.30
 Δ = 36°19'05" RT.
 D = 2°00'00"
 T = 939.63'
 L = 1815.90'
 PC = 1758+20.68
 PT = 1776+36.58

RAMP 1-B
 PI = 1763+87.08
 Δ = 39°28'49" RT.
 D = 5°00'00"
 T = 411.20'
 L = 789.61'
 PC = 1759+75.87
 PT = 1767+65.48



L.M.L. INSIDE EDGE OF LANE
 PI = 1768+69.31
 Δ = 32°33'37" RT.
 D = 1°56'44"
 T = 860.06'
 L = 1673.57'
 PC = 1760+09.25
 PT = 1776+82.82

1-49 C.L.
 PI = 1766+91.80
 Δ = 36°19'05" RT.
 D = 2°00'00"
 T = 939.63'
 L = 1815.90'
 PC = 1757+52.17
 PT = 1775+68.08

R.M.L. INSIDE EDGE OF LANE
 PI = 1767+60.30
 Δ = 36°19'05" RT.
 D = 2°00'00"
 T = 939.63'
 L = 1815.90'
 PC = 1758+20.68
 PT = 1776+36.58

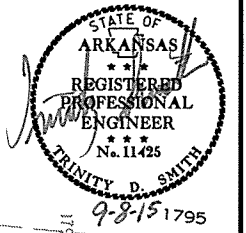
STA. 1767+91.44' RT. - IN PLACE TYPE "M" INLET WITH 114 L.F. OF 36" R.C.P. INLET WITH F.E.S. & 80 L.F. OF 36" R.C.P. OUTLET WITH F.E.S. RETAIN

PT 1776+82.82 BK.
 STA. 1776+82.54 AHD.

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DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. BB0409							72	105

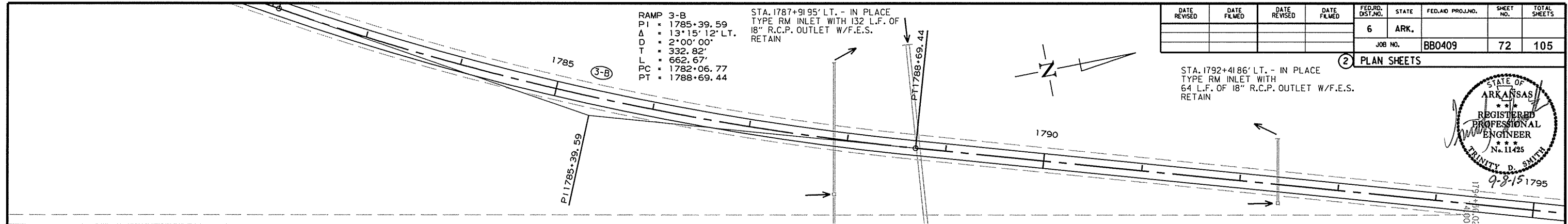
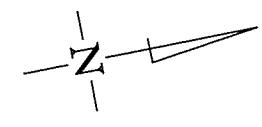
2 PLAN SHEETS



RAMP 3-B
 PI = 1785+39.59
 Δ = 13°15'12" LT.
 D = 2°00'00"
 T = 332.82'
 L = 662.67'
 PC = 1782+06.77
 PT = 1788+69.44

STA. 1787+91.95' LT. - IN PLACE
 TYPE RM INLET WITH 132 L.F. OF
 18" R.C.P. OUTLET W/F.E.S.
 RETAIN

STA. 1792+41.86' LT. - IN PLACE
 TYPE RM INLET WITH
 64 L.F. OF 18" R.C.P. OUTLET W/F.E.S.
 RETAIN

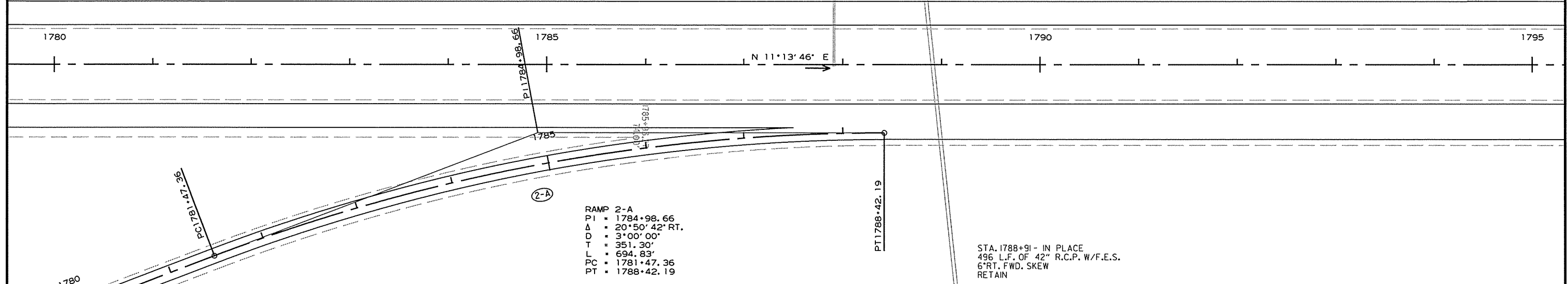


RAMP 2-A
 PI = 1784+98.66
 Δ = 20°50'42" RT.
 D = 3°00'00"
 T = 351.30'
 L = 694.83'
 PC = 1781+47.36
 PT = 1788+42.19

STA. 1788+91 - IN PLACE
 496 L.F. OF 42" R.C.P. W/F.E.S.
 6° RT. FWD. SKEW
 RETAIN

STA. 1788+91 - IN PLACE
 496 L.F. OF 42" R.C.P. W/F.E.S.
 6° RT. FWD. SKEW
 RETAIN

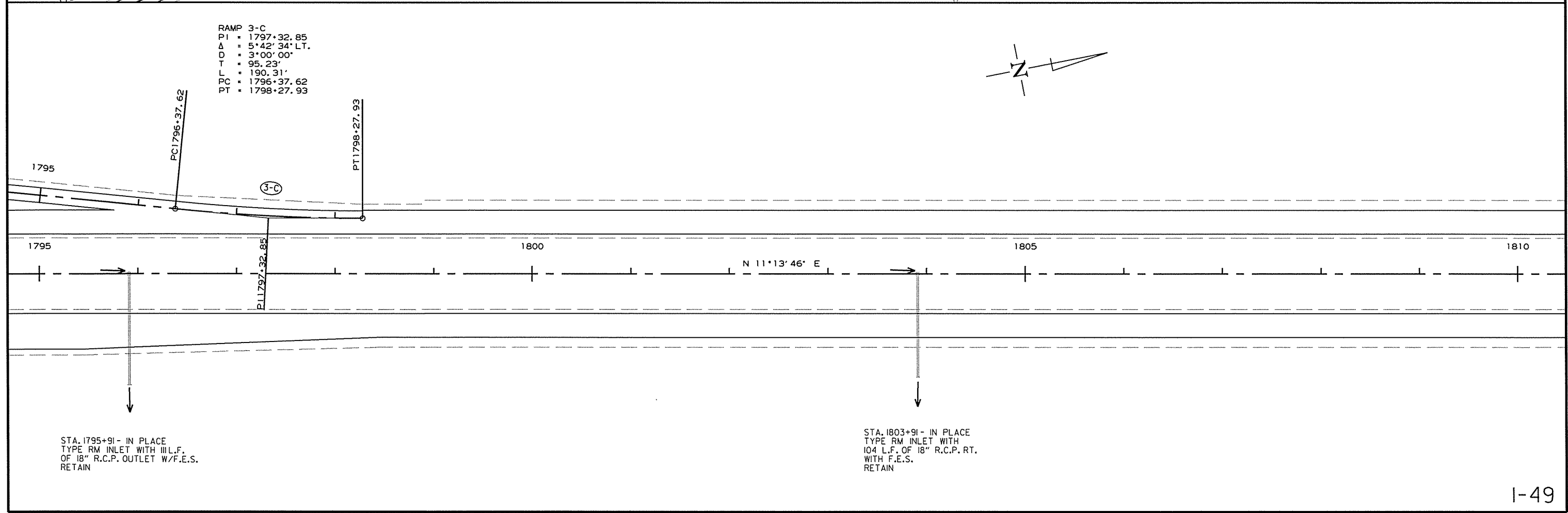
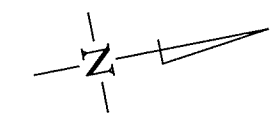
N 11°13'46" E



RAMP 3-C
 PI = 1797+32.85
 Δ = 5°42'34" LT.
 D = 3°00'00"
 T = 95.23'
 L = 190.31'
 PC = 1796+37.62
 PT = 1798+27.93

STA. 1795+91 - IN PLACE
 TYPE RM INLET WITH 111 L.F.
 OF 18" R.C.P. OUTLET W/F.E.S.
 RETAIN

STA. 1803+91 - IN PLACE
 TYPE RM INLET WITH
 104 L.F. OF 18" R.C.P. RT.
 WITH F.E.S.
 RETAIN

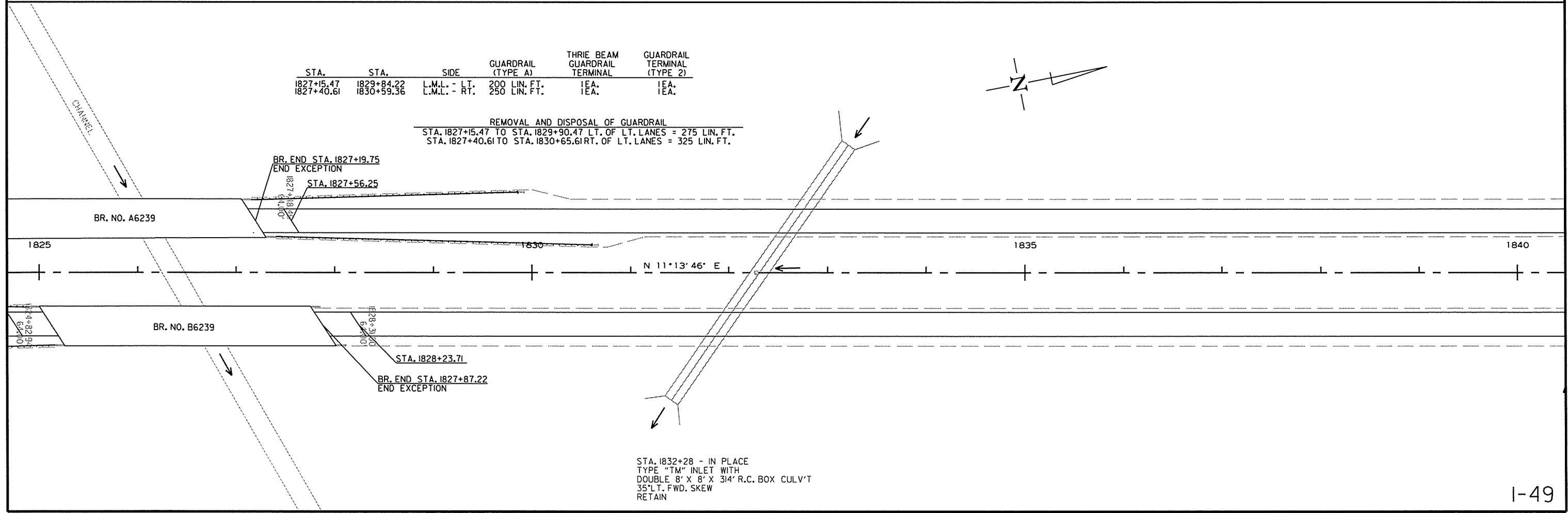
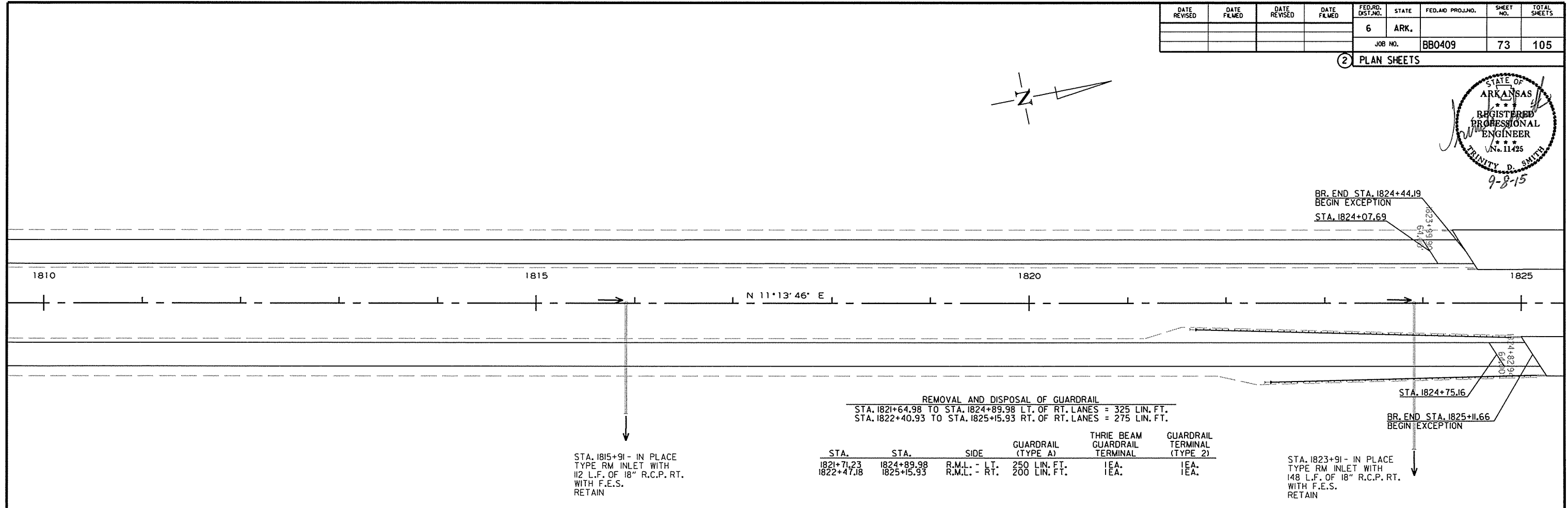
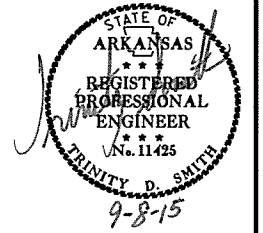


N 11°13'46" E

9/2/2015
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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.	BB0409		73	105

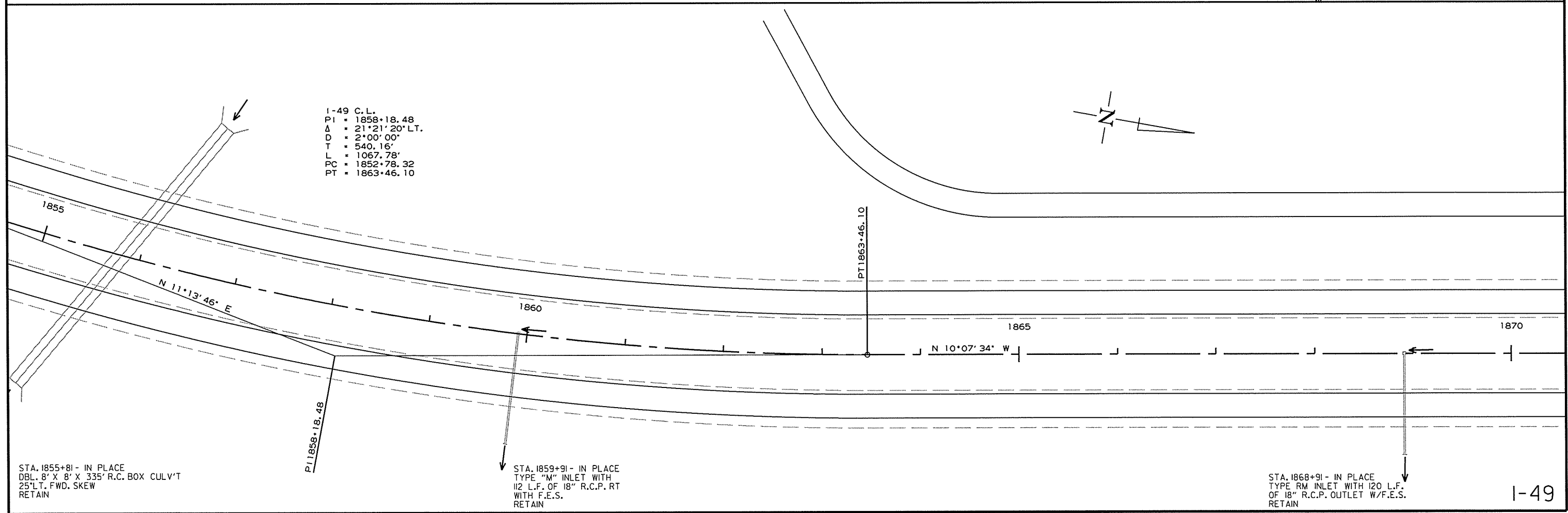
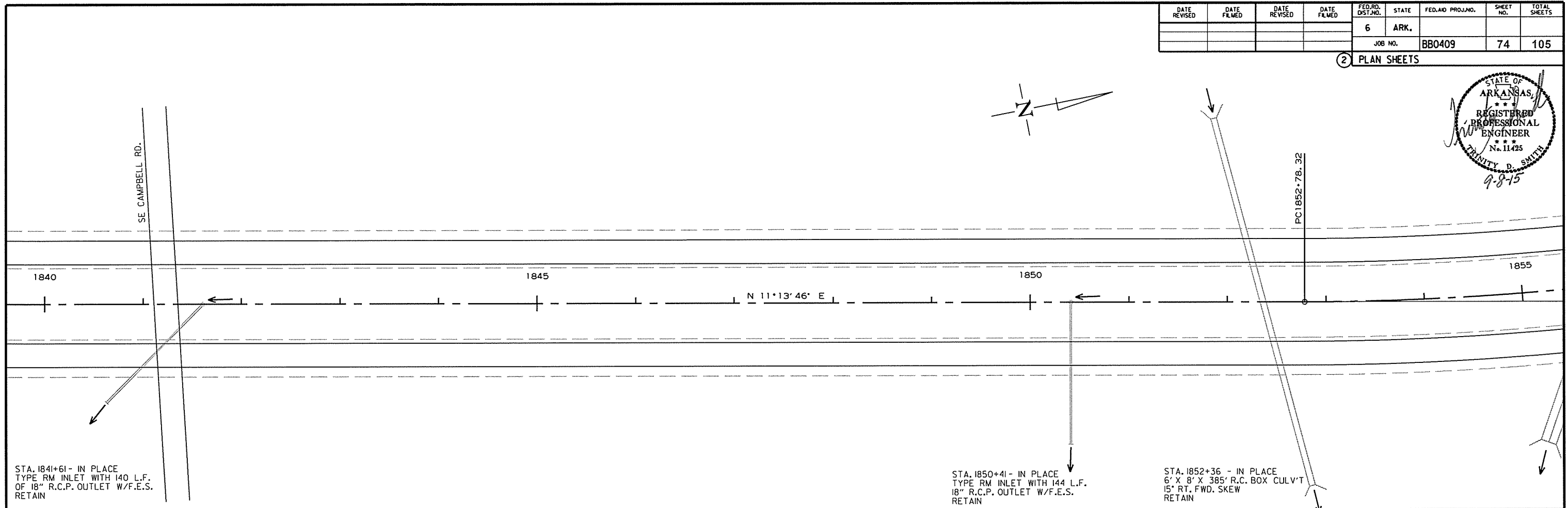
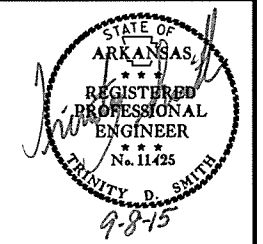
2 PLAN SHEETS



9/2/2015
RB0409.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. BB0409							74	105

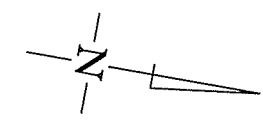
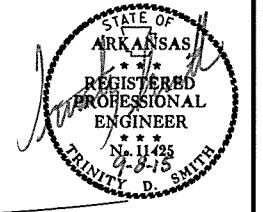
2 PLAN SHEETS



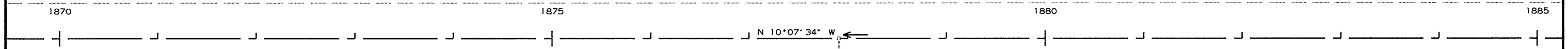
9/2/2015
RB0409.DGN

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. BB0409							75	105

② PLAN SHEETS

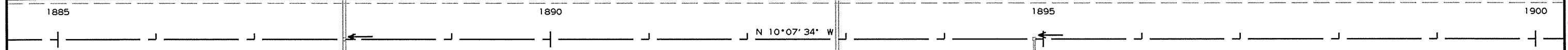
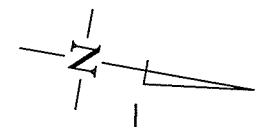


PEARCE RD.



STA. 1877+91 - IN PLACE
TYPE RM INLET WITH
124 L.F. OF 18" R.C.P. RT.
WITH F.E.S.
RETAIN

STA. 1914+50 CO. RD. 65 FR. RD.
IN PLACE 140 L.F. OF 36" R.C.P.
CULVERT W/F.E.S.
RETAIN



STA. 1887+91 - IN PLACE
TYPE RM INLET WITH
96 L.F. OF 36" R.C.P. INLET W/F.E.S.
168 L.F. OF 36" R.C.P. OUTLET W/F.E.S.
RETAIN

STA. 1892+91 - IN PLACE
308 L.F. OF 36" R.C.P. INLET
W/F.E.S.
RETAIN

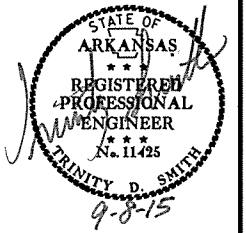
STA. 1894+91 - IN PLACE
TYPE RM INLET WITH 115 L.F.
OF 18" R.C.P. OUTLET W/F.E.S.
RETAIN

9/2/2015

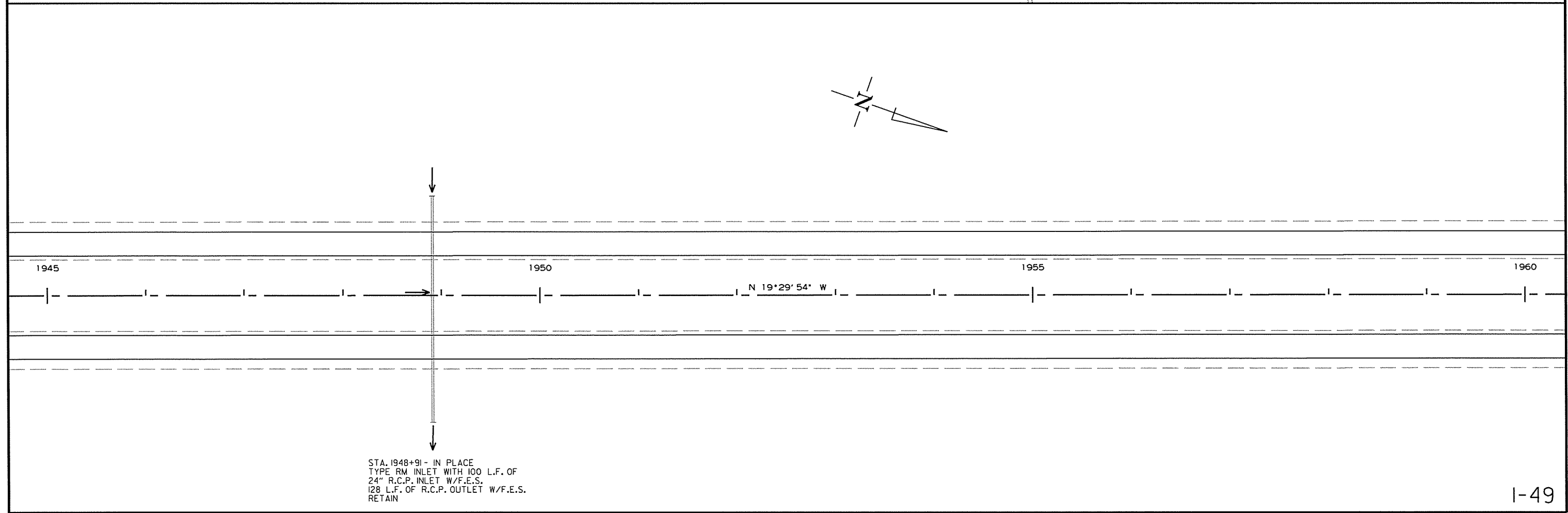
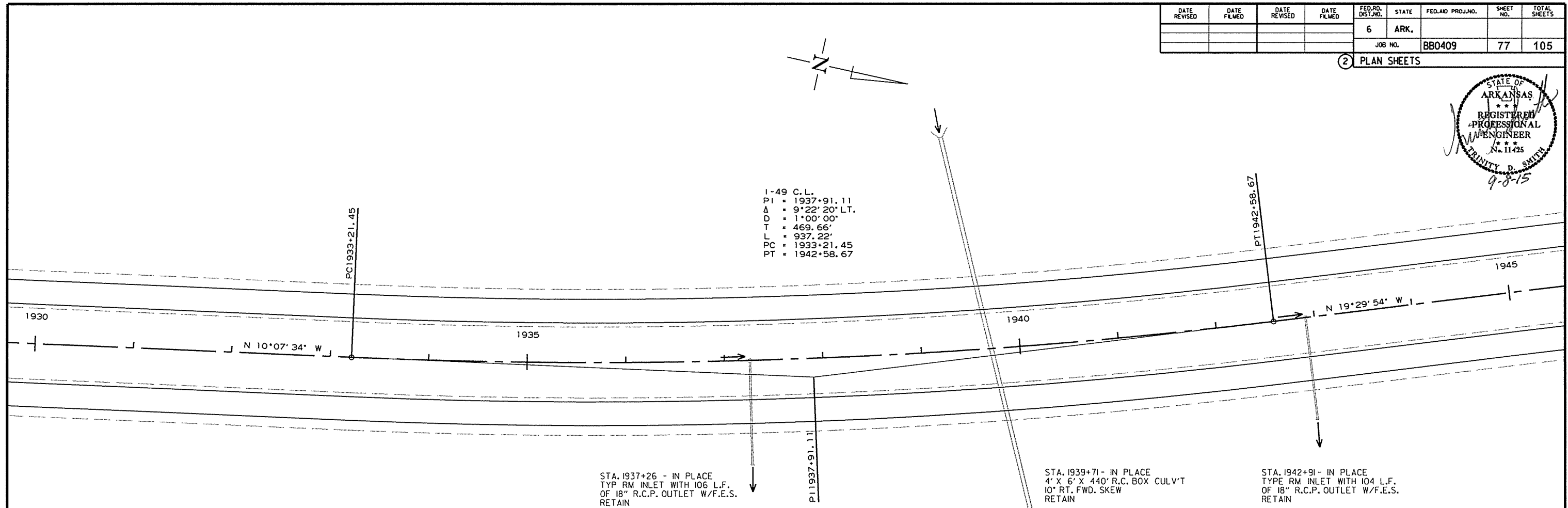
RBB0409.DGN

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. BB0409							77	105

2 PLAN SHEETS



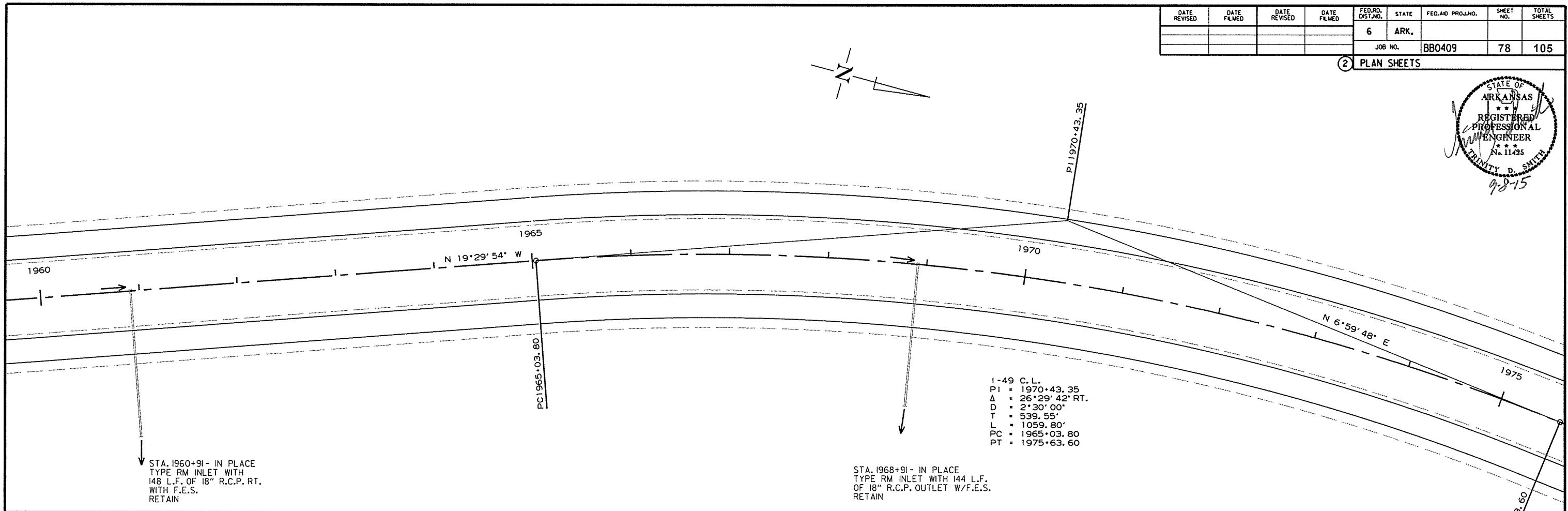
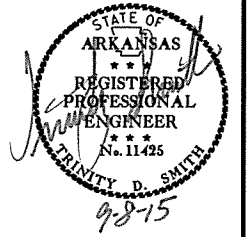
I-49 C.L.
 PI = 1937+91.11
 Δ = 9°22'20" LT.
 D = 1°00'00"
 T = 469.66'
 L = 937.22'
 PC = 1933+21.45
 PT = 1942+58.67



9/2/2015
RB0409.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. BB0409							78	105

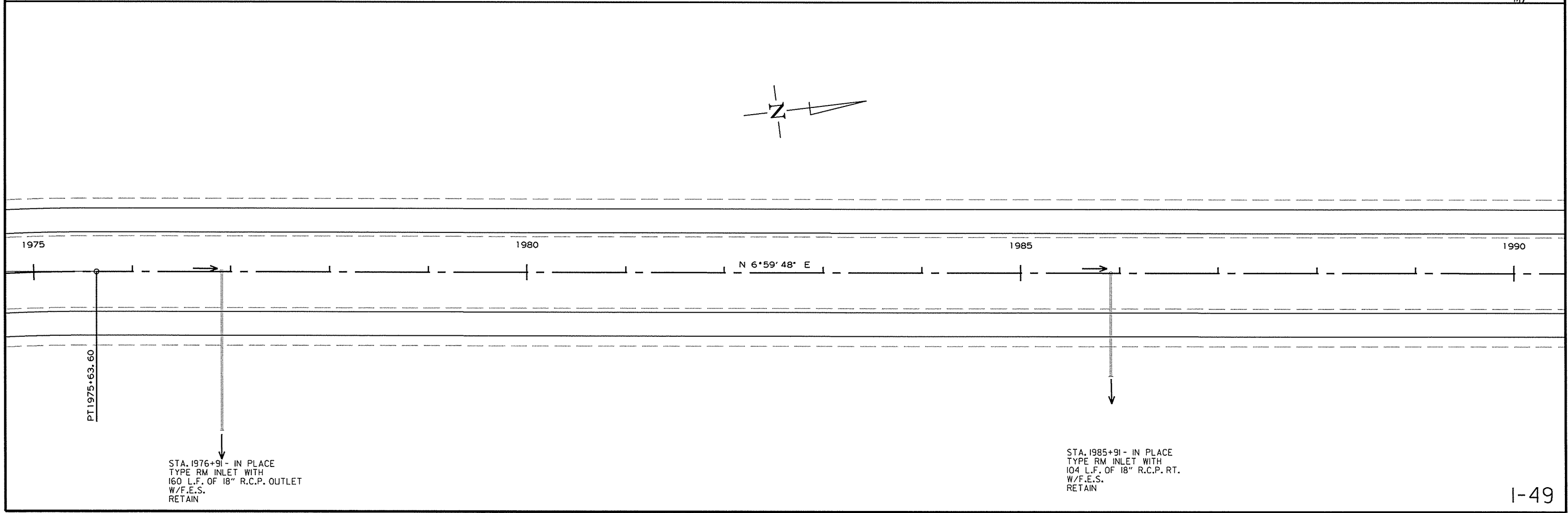
2 PLAN SHEETS



I-49 C.L.
 PI = 1970+43.35
 Δ = 26°29'42" RT.
 D = 2°30'00"
 T = 539.55'
 L = 1059.80'
 PC = 1965+03.80
 PT = 1975+63.60

STA. 1960+91 - IN PLACE
 TYPE RM INLET WITH
 148 L.F. OF 18" R.C.P. RT.
 WITH F.E.S.
 RETAIN

STA. 1968+91 - IN PLACE
 TYPE RM INLET WITH 144 L.F.
 OF 18" R.C.P. OUTLET W/F.E.S.
 RETAIN



STA. 1976+91 - IN PLACE
 TYPE RM INLET WITH
 160 L.F. OF 18" R.C.P. OUTLET
 W/F.E.S.
 RETAIN

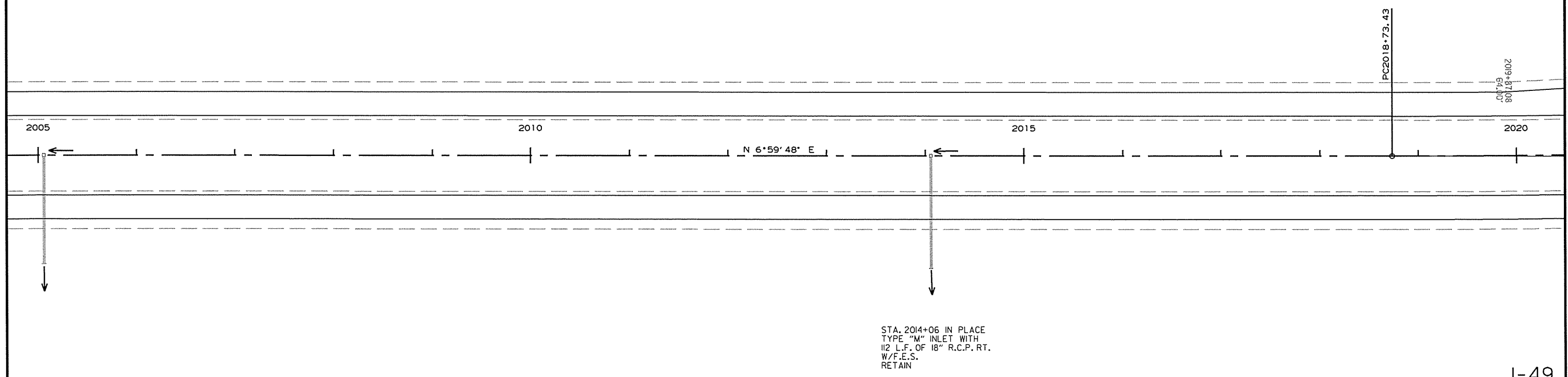
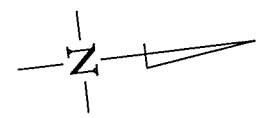
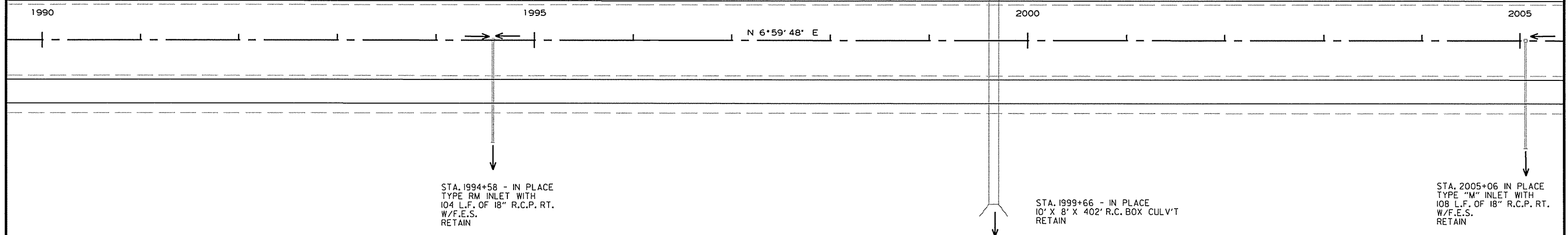
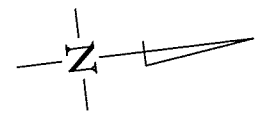
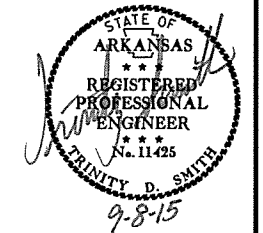
STA. 1985+91 - IN PLACE
 TYPE RM INLET WITH
 104 L.F. OF 18" R.C.P. RT.
 W/F.E.S.
 RETAIN

9/2/2015

RB0409.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.							BB0409	79	105

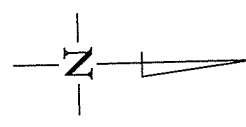
2 PLAN SHEETS



9/2/2015
RB0409.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.	BB0409		80	105

2 PLAN SHEETS



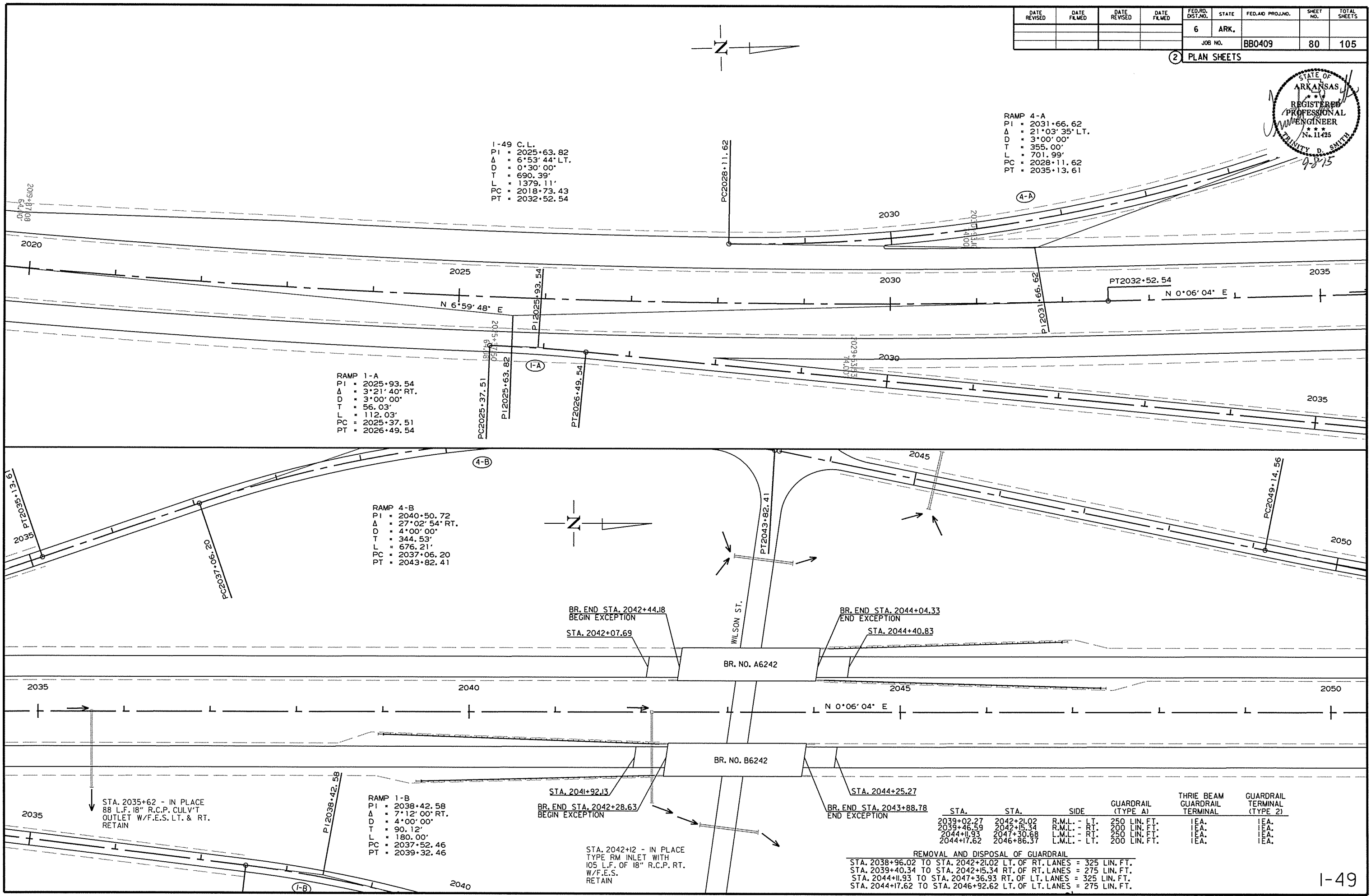
I-49 C.L.
 PI = 2025+63.82
 Δ = 6°53'44" LT.
 D = 0°30'00"
 T = 690.39'
 L = 1379.11'
 PC = 2018+73.43
 PT = 2032+52.54

RAMP 4-A
 PI = 2031+66.62
 Δ = 21°03'35" LT.
 D = 3°00'00"
 T = 355.00'
 L = 701.99'
 PC = 2028+11.62
 PT = 2035+13.61

RAMP 1-A
 PI = 2025+93.54
 Δ = 3°21'40" RT.
 D = 3°00'00"
 T = 56.03'
 L = 112.03'
 PC = 2025+37.51
 PT = 2026+49.54

RAMP 4-B
 PI = 2040+50.72
 Δ = 27°02'54" RT.
 D = 4°00'00"
 T = 344.53'
 L = 676.21'
 PC = 2037+06.20
 PT = 2043+82.41

RAMP 1-B
 PI = 2038+42.58
 Δ = 7°12'00" RT.
 D = 4°00'00"
 T = 90.12'
 L = 180.00'
 PC = 2037+52.46
 PT = 2039+32.46



BR. END STA. 2042+44.18
 BEGIN EXCEPTION
 STA. 2042+07.69

BR. END STA. 2044+04.33
 END EXCEPTION
 STA. 2044+40.83

BR. END STA. 2042+28.63
 BEGIN EXCEPTION
 STA. 2041+92.13

BR. END STA. 2043+88.78
 END EXCEPTION
 STA. 2044+25.27

STA. 2042+12 - IN PLACE
 TYPE RM INLET WITH
 105 L.F. OF 18" R.C.P. RT.
 W/F.E.S.
 RETAIN

STA.	STA.	SIDE	GUARDRAIL (TYPE 1)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
2039+02.27	2042+21.02	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.
2039+46.59	2042+15.34	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.
2044+11.93	2047+30.68	L.M.L. - RT.	250 LIN. FT.	IEA.	IEA.
2044+17.62	2046+86.37	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.

REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 2038+96.02 TO STA. 2042+21.02 LT. OF RT. LANES = 325 LIN. FT.
 STA. 2039+40.34 TO STA. 2042+15.34 RT. OF RT. LANES = 275 LIN. FT.
 STA. 2044+11.93 TO STA. 2047+30.68 RT. OF LT. LANES = 325 LIN. FT.
 STA. 2044+17.62 TO STA. 2046+86.37 LT. OF LT. LANES = 275 LIN. FT.

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STA. 2051+82 HWY. 71 - IN PLACE
839 L.F. OF 8' X 6' R.C. BOX CULV'T
33°30' LT. FWD. SKEW
RETAIN

STA. 2054+41 - IN PLACE
TYPE RM INLET WITH 172 L.F.
18" R.C.P. OUTLET WITH F.E.S.
RETAIN

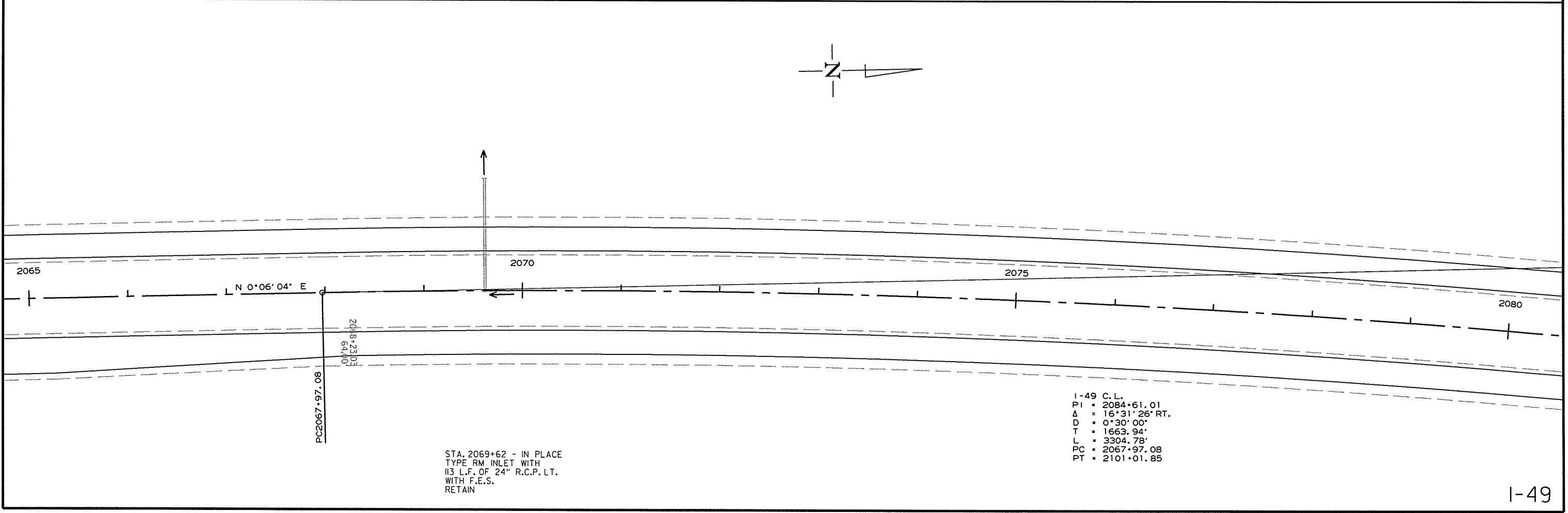
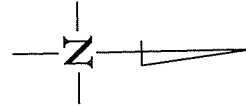
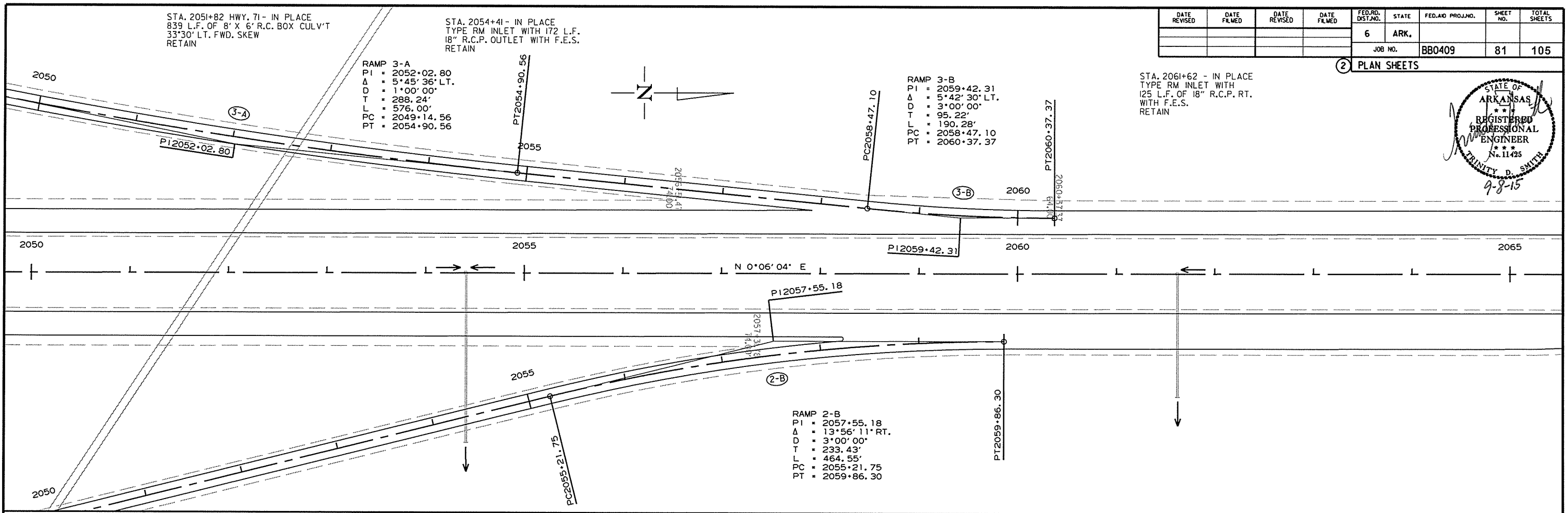
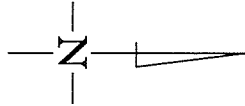
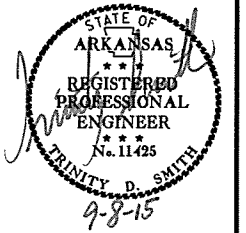
RAMP 3-A
PI = 2052+02.80
Δ = 5°45'36" LT.
D = 1°00'00"
T = 288.24'
L = 576.00'
PC = 2049+14.56
PT = 2054+90.56

RAMP 3-B
PI = 2059+42.31
Δ = 5°42'30" LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
PC = 2058+47.10
PT = 2060+37.37

STA. 2061+62 - IN PLACE
TYPE RM INLET WITH
125 L.F. OF 18" R.C.P. RT.
WITH F.E.S.
RETAIN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	BB0409		81	105

② PLAN SHEETS



1-49 C.L.
PI = 2084+61.01
Δ = 16°31'26" RT.
D = 0°30'00"
T = 1663.94'
L = 3304.78'
PC = 2067+97.08
PT = 2101+01.85

STA. 2069+62 - IN PLACE
TYPE RM INLET WITH
113 L.F. OF 24" R.C.P. LT.
WITH F.E.S.
RETAIN

9/2/2015

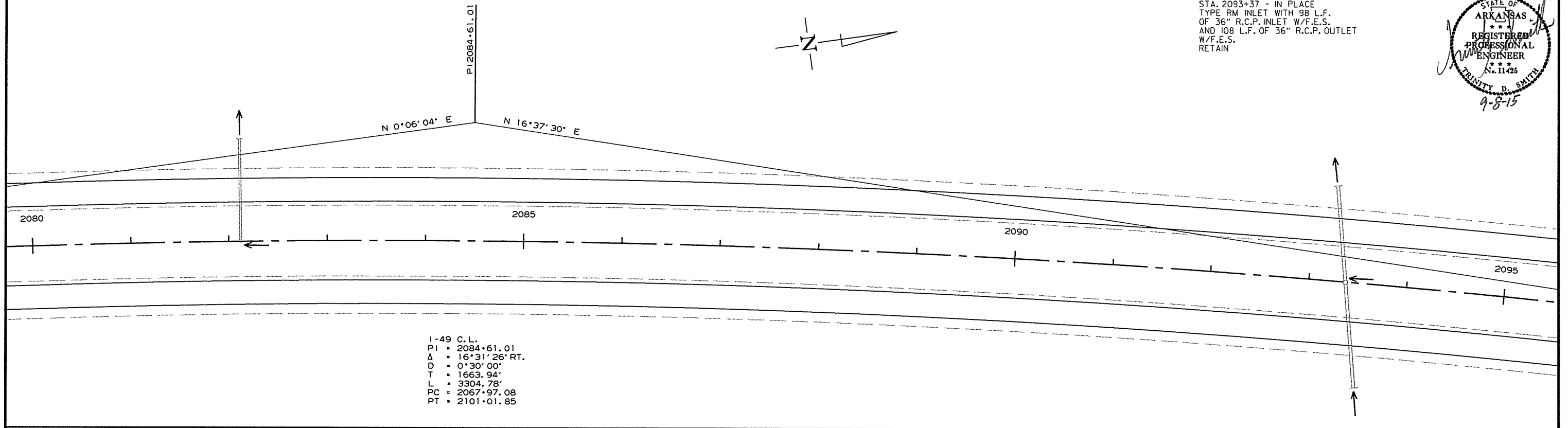
RB80409.DGN

STA. 2082+12 - IN PLACE
 TYPE RM INLET WITH 104 L.F.
 OF 24" R.C.P. LT. W/F.E.S.
 RETAIN

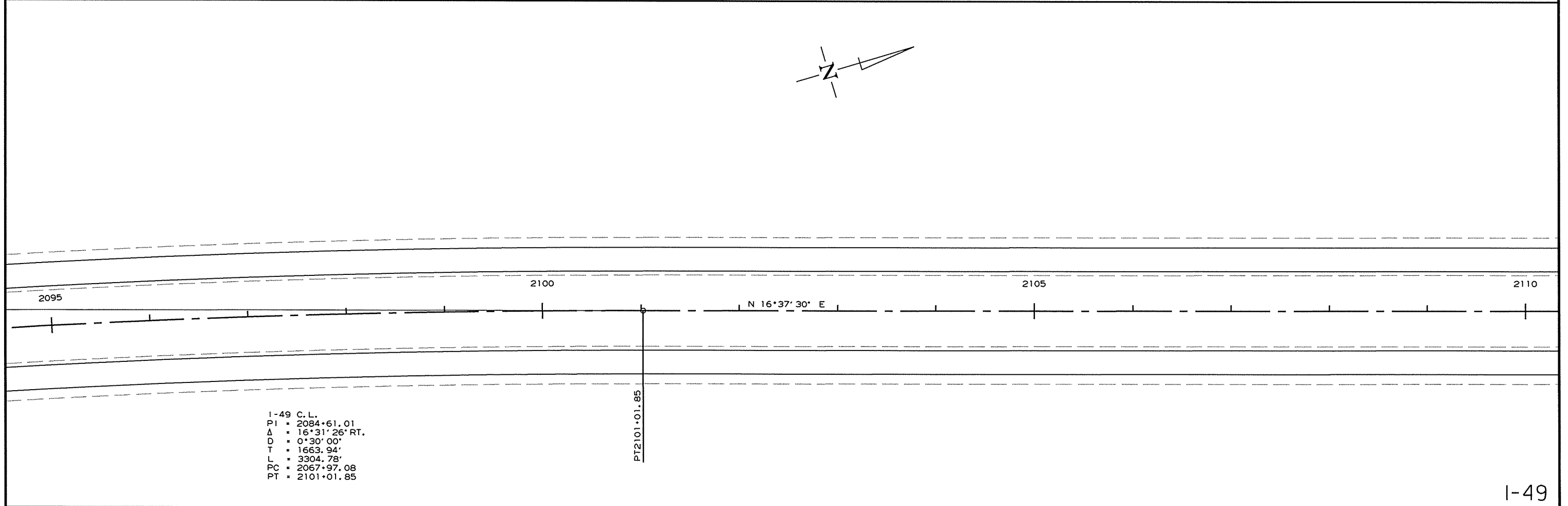
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0409	82	105

② PLAN SHEETS

STA. 2093+37 - IN PLACE
 TYPE RM INLET WITH 98 L.F.
 OF 36" R.C.P. INLET W/F.E.S.
 AND 108 L.F. OF 36" R.C.P. OUTLET
 W/F.E.S.
 RETAIN



1-49 C.L.
 PI = 2084+61.01
 Δ = 16°31'26" RT.
 D = 0°30'00"
 T = 1663.94'
 L = 3304.78'
 PC = 2067+97.08
 PT = 2101+01.85



1-49 C.L.
 PI = 2084+61.01
 Δ = 16°31'26" RT.
 D = 0°30'00"
 T = 1663.94'
 L = 3304.78'
 PC = 2067+97.08
 PT = 2101+01.85

PT2101+01.85

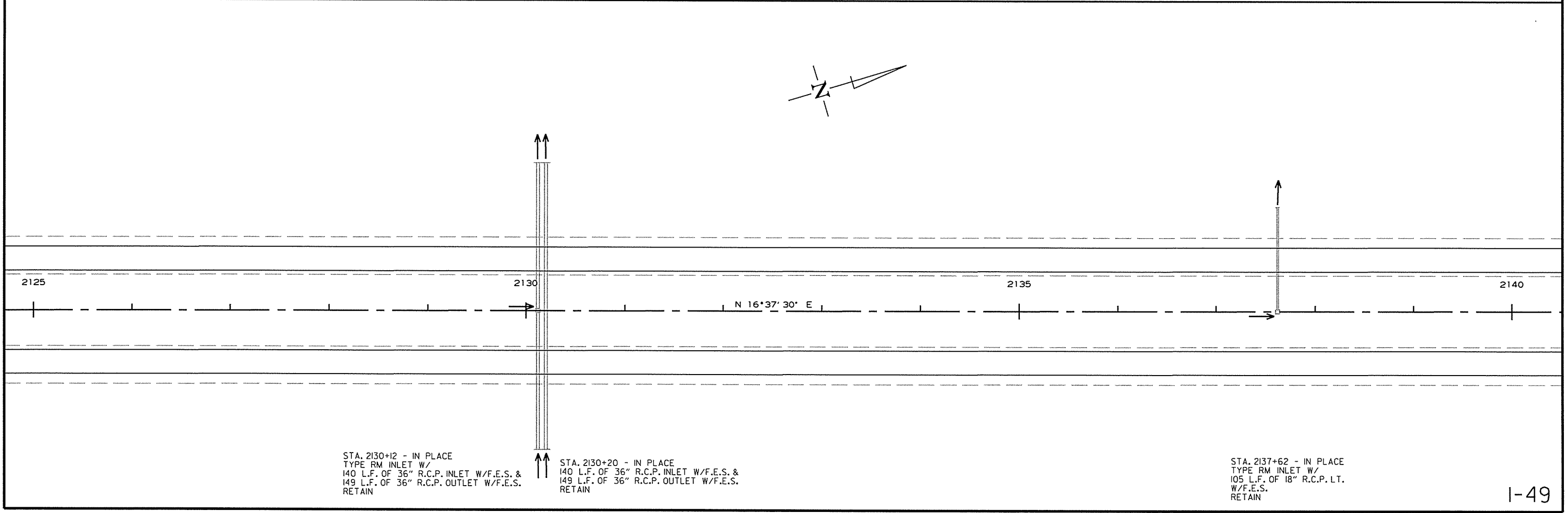
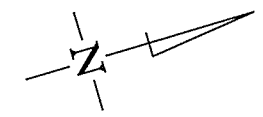
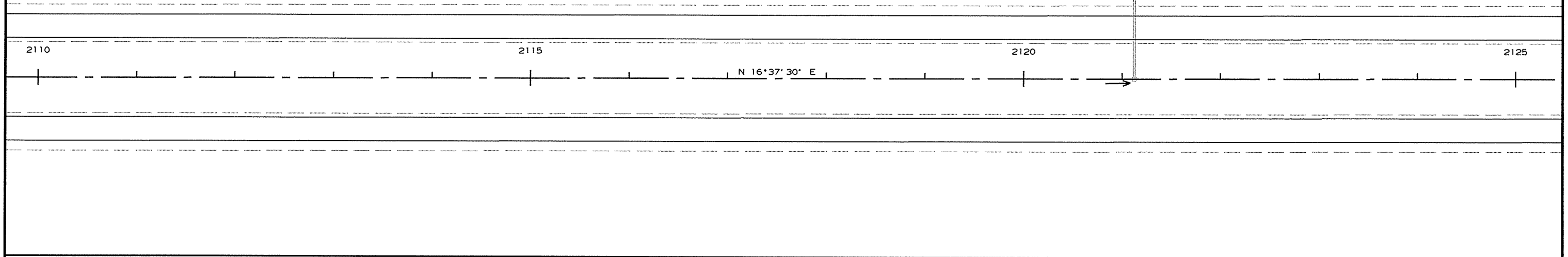
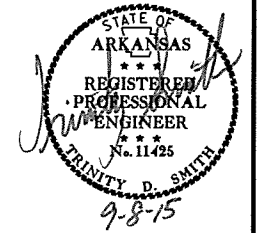
9/2/2015

RBB0409.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.		BB0409	83	105

② PLAN SHEETS

STA. 2121+12 - IN PLACE
TYPE RM INLET W/100 L.F.
OF 24" R.C.P. LT. W/F.E.S.
RETAIN



STA. 2130+12 - IN PLACE
TYPE RM INLET W/
140 L.F. OF 36" R.C.P. INLET W/F.E.S. &
149 L.F. OF 36" R.C.P. OUTLET W/F.E.S.
RETAIN

STA. 2130+20 - IN PLACE
140 L.F. OF 36" R.C.P. INLET W/F.E.S. &
149 L.F. OF 36" R.C.P. OUTLET W/F.E.S.
RETAIN

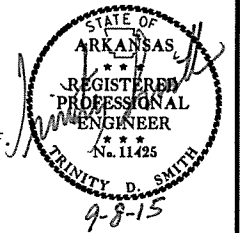
STA. 2137+62 - IN PLACE
TYPE RM INLET W/
105 L.F. OF 18" R.C.P. LT.
W/F.E.S.
RETAIN

9/2/2015

RB0409.DGN

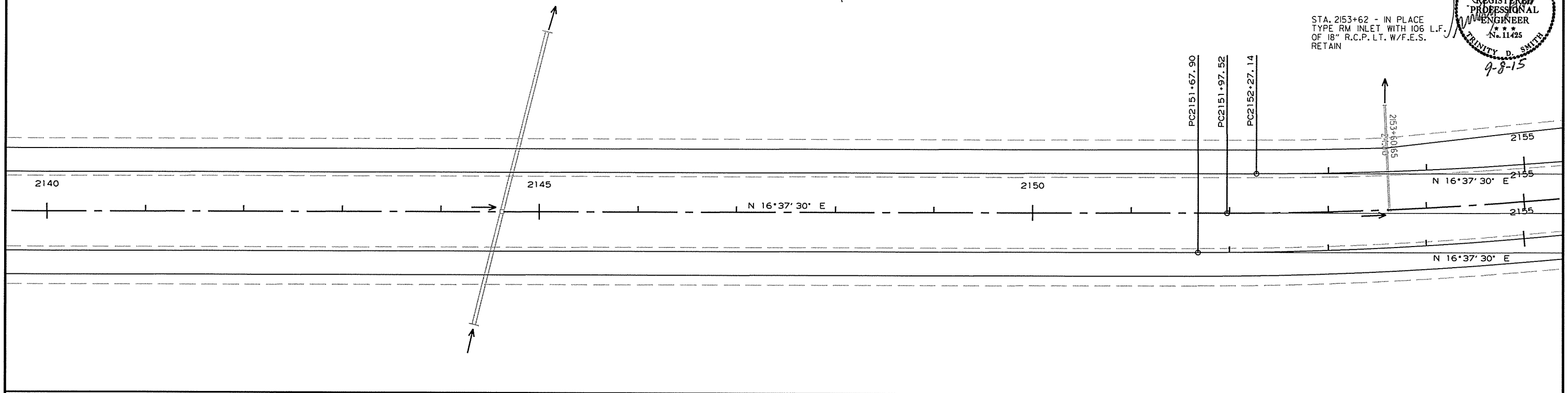
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
				6	ARK.				
JOB NO.							BB0409	84	105

2 PLAN SHEETS

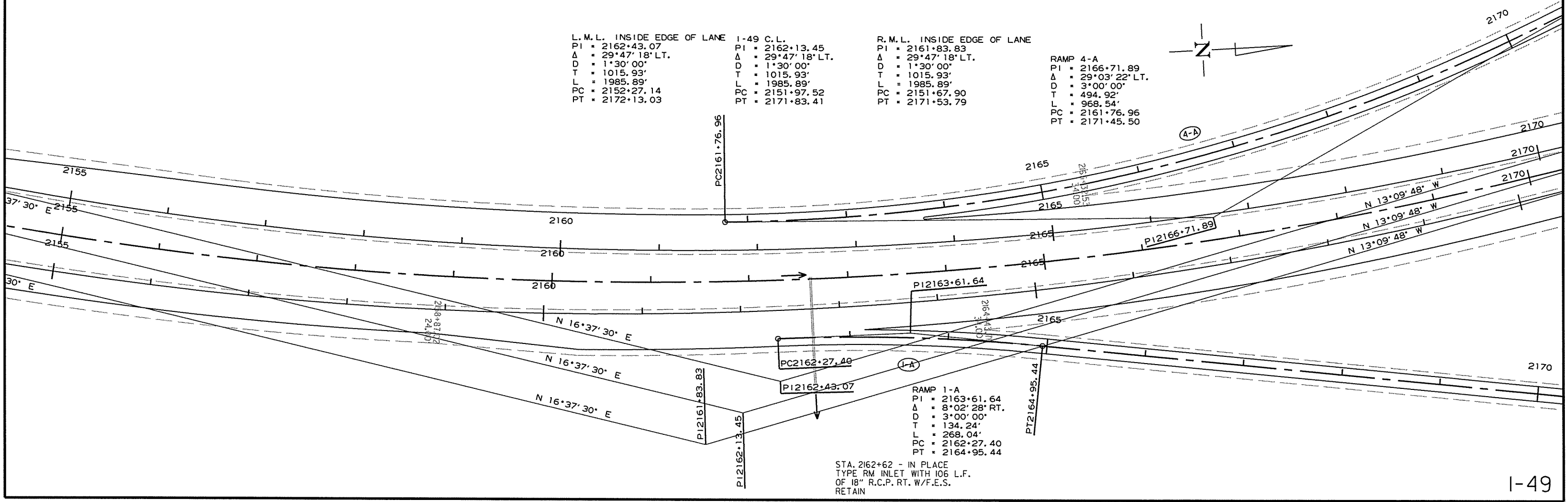


STA. 2144+62 - IN PLACE
TYPE RM INLET WITH
118 L.F. OF 42" R.C.P. INLET W/F.E.S. &
188 L.F. OF 42" R.C.P. OUTLET W/F.E.S.
14" LT. FWD. SKEW
RETAIN

STA. 2153+62 - IN PLACE
TYPE RM INLET WITH 106 L.F.
OF 18" R.C.P. LT. W/F.E.S.
RETAIN



L.M.L. INSIDE EDGE OF LANE	I-49 C.L.	R.M.L. INSIDE EDGE OF LANE	RAMP 4-A
PI = 2162+43.07	PI = 2162+13.45	PI = 2161+83.83	PI = 2166+71.89
Δ = 29°47'18" LT.	Δ = 29°47'18" LT.	Δ = 29°47'18" LT.	Δ = 29°03'22" LT.
D = 1°30'00"	D = 1°30'00"	D = 1°30'00"	D = 3°00'00"
T = 1015.93'	T = 1015.93'	T = 1015.93'	T = 494.92'
L = 1985.89'	L = 1985.89'	L = 1985.89'	L = 968.54'
PC = 2152+27.14	PC = 2151+97.52	PC = 2151+67.90	PC = 2161+76.96
PT = 2172+13.03	PT = 2171+83.41	PT = 2171+53.79	PT = 2171+45.50



STA. 2162+62 - IN PLACE
TYPE RM INLET WITH 106 L.F.
OF 18" R.C.P. RT. W/F.E.S.
RETAIN

9/2/2015
RB0409.DGN

STA. 2171+62 - IN PLACE
TYPE RM INLET WITH 75 L.F.
OF 18" R.C.P. RT. WITH F.E.S.
RETAIN

STA. 2179+89 - IN PLACE
TYPE RM INLET WITH 152 L.F.
OF 18" R.C.P. OUTLET W/F.E.S.
RETAIN

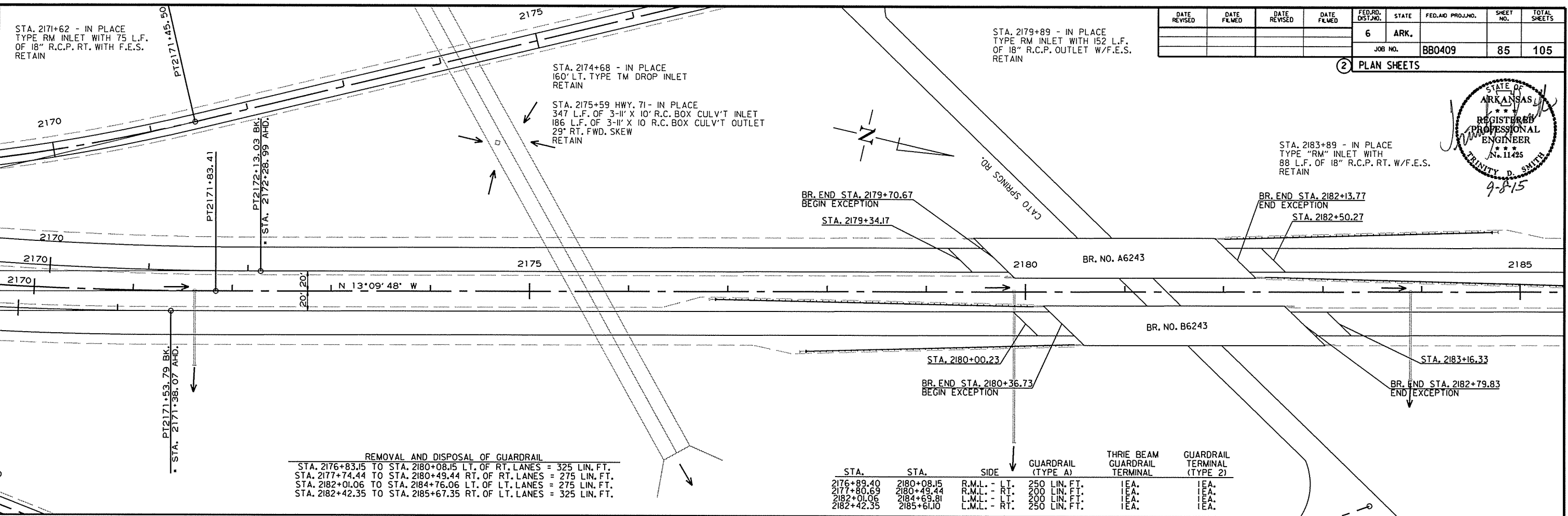
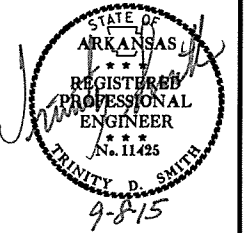
STA. 2174+68 - IN PLACE
160' LT. TYPE TM DROP INLET
RETAIN

STA. 2175+59 HWY. 71 - IN PLACE
347 L.F. OF 3-11" X 10" R.C. BOX CULV'T INLET
186 L.F. OF 3-11" X 10" R.C. BOX CULV'T OUTLET
29° RT. FWD. SKEW
RETAIN

STA. 2183+89 - IN PLACE
TYPE "RM" INLET WITH
88 L.F. OF 18" R.C.P. RT. W/F.E.S.
RETAIN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AD PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO. BB0409			85	105

2 PLAN SHEETS

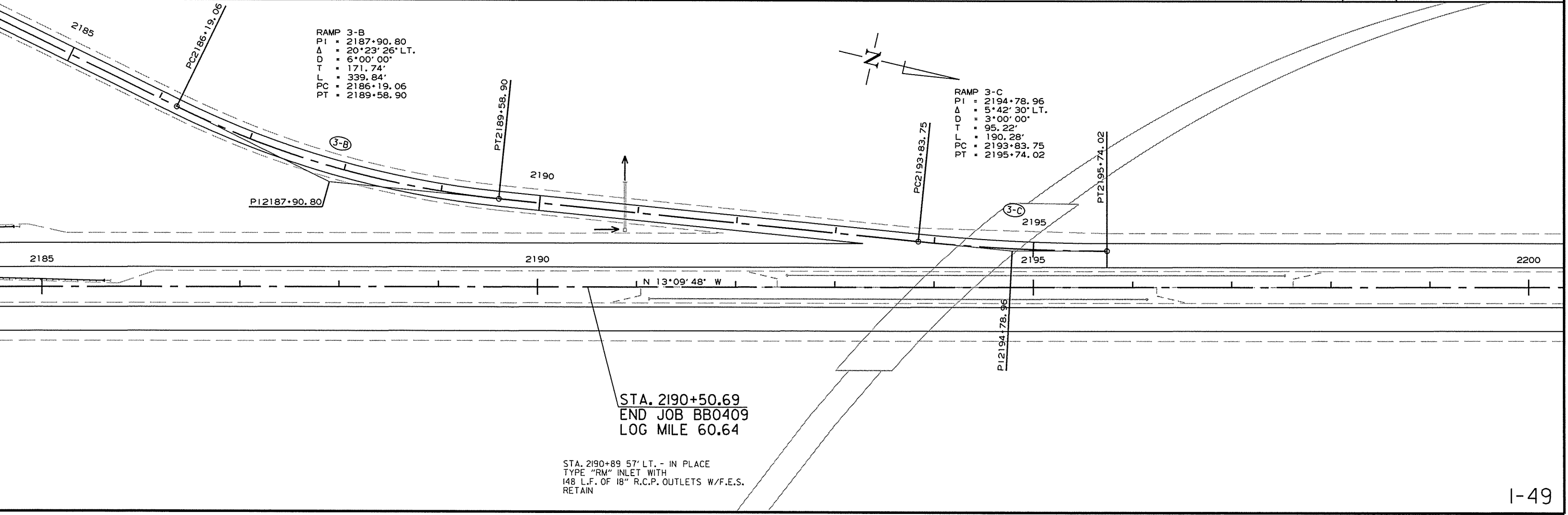


REMOVAL AND DISPOSAL OF GUARDRAIL
 STA. 2176+83.15 TO STA. 2180+08.15 LT. OF RT. LANES = 325 LIN. FT.
 STA. 2177+74.44 TO STA. 2180+49.44 RT. OF RT. LANES = 275 LIN. FT.
 STA. 2182+01.06 TO STA. 2184+76.06 LT. OF LT. LANES = 275 LIN. FT.
 STA. 2182+42.35 TO STA. 2185+67.35 RT. OF LT. LANES = 325 LIN. FT.

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	THREE BEAM GUARDRAIL TERMINAL	GUARDRAIL TERMINAL (TYPE 2)
2176+89.40	2180+08.15	R.M.L. - LT.	250 LIN. FT.	IEA.	IEA.
2177+80.69	2180+49.44	R.M.L. - RT.	200 LIN. FT.	IEA.	IEA.
2182+01.06	2184+69.81	L.M.L. - LT.	200 LIN. FT.	IEA.	IEA.
2182+42.35	2185+61.10	L.M.L. - RT.	250 LIN. FT.	IEA.	IEA.

RAMP 3-B
 PI = 2187+90.80
 Δ = 20°23'26" LT.
 D = 6°00'00"
 T = 171.74'
 L = 339.84'
 PC = 2186+19.06
 PT = 2189+58.90

RAMP 3-C
 PI = 2194+78.96
 Δ = 5°42'30" LT.
 D = 3°00'00"
 T = 95.22'
 L = 190.28'
 PC = 2193+83.75
 PT = 2195+74.02



STA. 2190+50.69
END JOB BB0409
LOG MILE 60.64

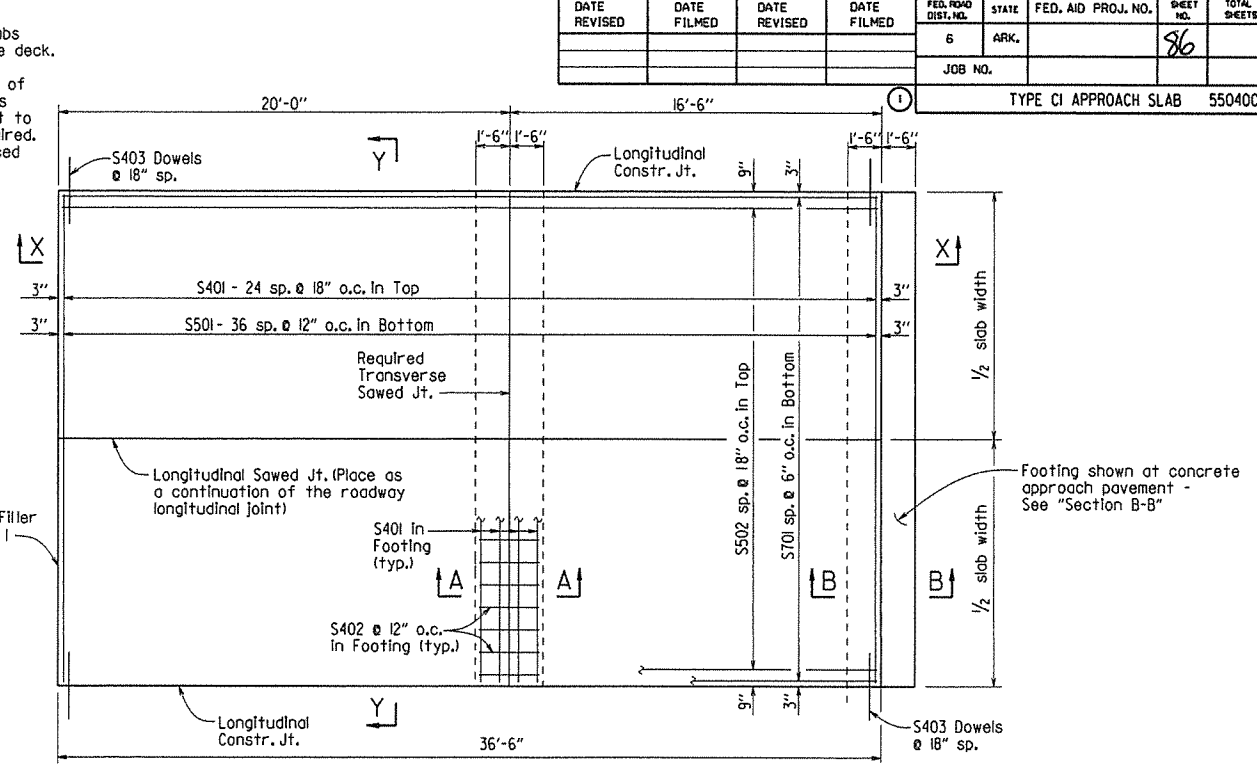
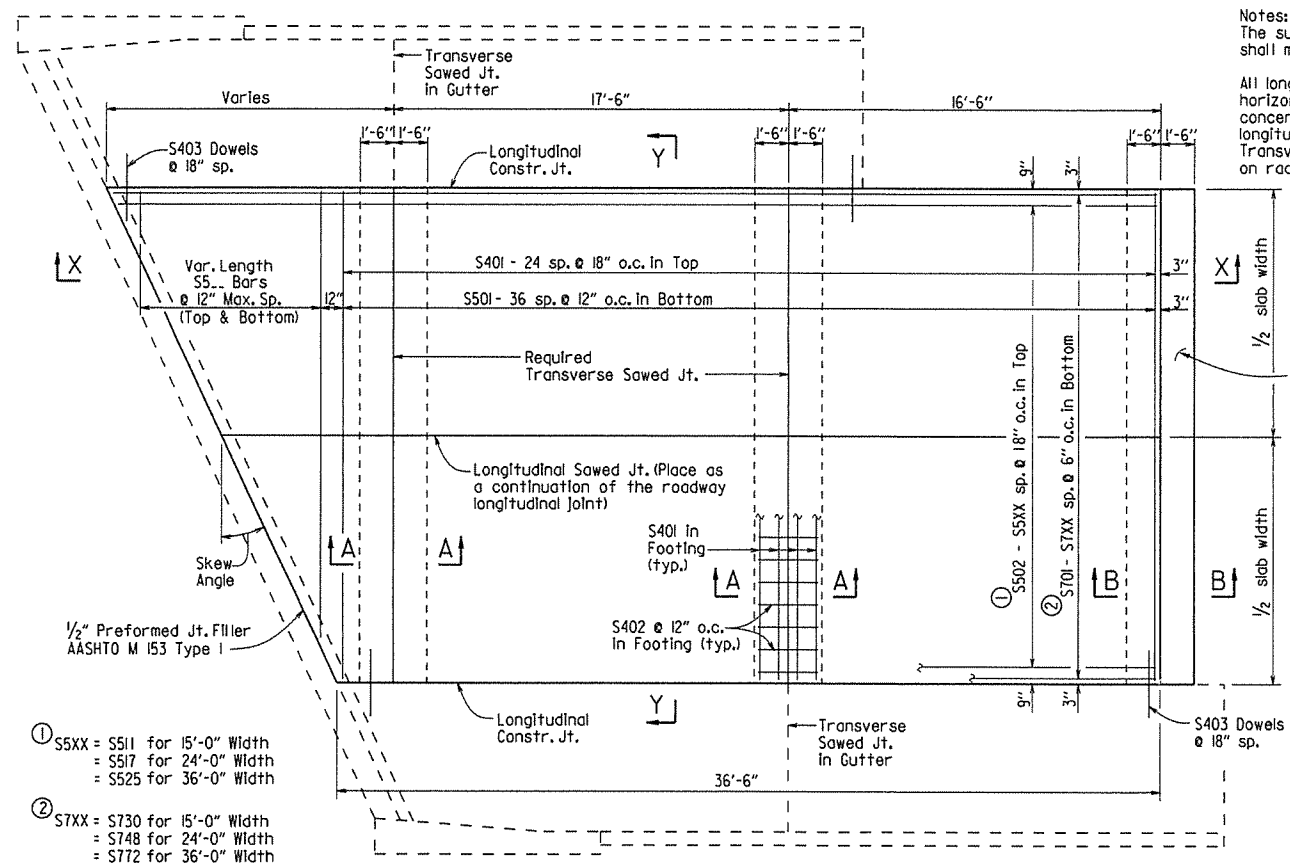
STA. 2190+89 57' LT. - IN PLACE
TYPE "RM" INLET WITH
148 L.F. OF 18" R.C.P. OUTLETS W/F.E.S.
RETAIN

9/2/2015

RB80409.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. PROJ. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		86	
JOB NO.							TYPE CI APPROACH SLAB 55040CI	

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.



- ① SSXX = S511 for 15'-0" Width
= S517 for 24'-0" Width
= S525 for 36'-0" Width
- ② STXX = S730 for 15'-0" Width
= S748 for 24'-0" Width
= S772 for 36'-0" Width

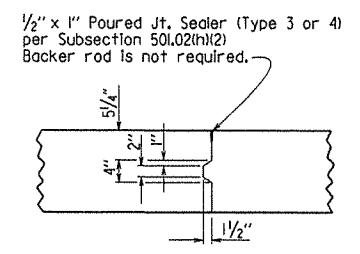
PLAN - SKEWED APPROACH SLAB WITH APPROACH GUTTERS

PLAN - SQUARE APPROACH SLAB

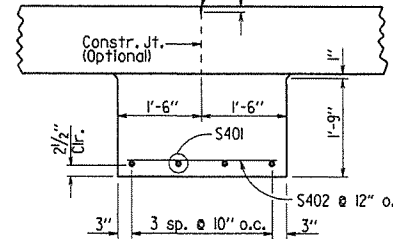
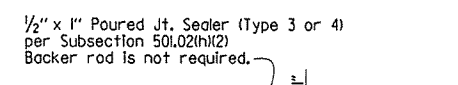
BAR LIST
(Square & Skewed Approach Slabs)

Slab Width	Square			Skewed		
	Mark	No. Req'd.	Length	Mark	No. Req'd.	Length
15'-0"	S401	33	14'-8"	S401	37	14'-8"
	S402	30	2'-8"	S402	45	2'-8"
	S403	50	3'-0"	S403	*	3'-0"
	S501	37	14'-8"	S501	37	14'-8"
	S502	10	36'-2"	S502	—	—
	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 - S730	—	—	1 Ea.	36.1' + 0.25' (tan skew angle) to 36.1' + 14.75' (tan skew angle)	
24'-0"	S401	33	23'-8"	S401	37	23'-8"
	S402	48	2'-8"	S402	72	2'-8"
	S403	50	3'-0"	S403	*	3'-0"
	S501	37	23'-8"	S501	37	23'-8"
	S502	16	36'-2"	S502	—	—
	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 - S748	—	—	1 Ea.	36.1' + 0.25' (tan skew angle) to 36.1' + 23.75' (tan skew angle)	
36'-0"	S401	33	35'-8"	S401	37	35'-8"
	S402	72	2'-8"	S402	108	2'-8"
	S403	50	3'-0"	S403	*	3'-0"
	S501	37	35'-8"	S501	37	35'-8"
	S502	24	36'-2"	S502	—	—
	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 - S772	—	—	1 Ea.	36.1' + 0.25' (tan skew angle) to 36.1' + 35.75' (tan skew angle)	

* Varies with skew angle

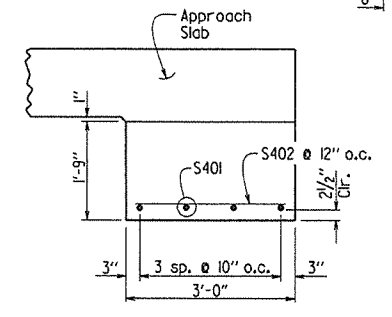


DETAILS OF LONGITUDINAL CONSTRUCTION JOINT



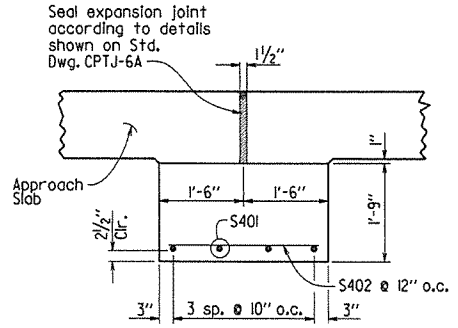
SECTION A-A

N.T.S.



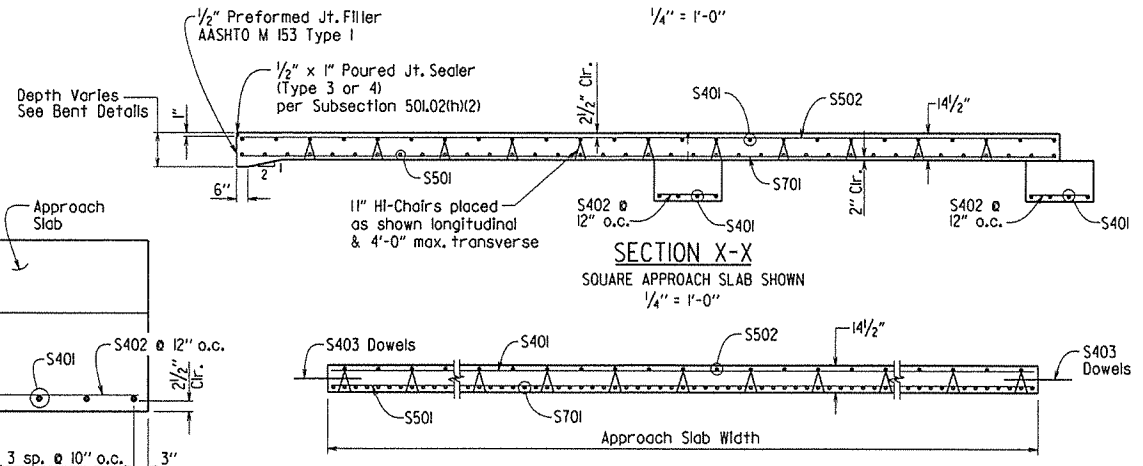
SECTION B-B

AT ASPHALT APPROACH PAVEMENT N.T.S.



SECTION B-B

AT CONCRETE APPROACH PAVEMENT N.T.S.



SECTION X-X

SQUARE APPROACH SLAB SHOWN 1/4" = 1'-0"

SECTION Y-Y

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 I 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 5 (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.

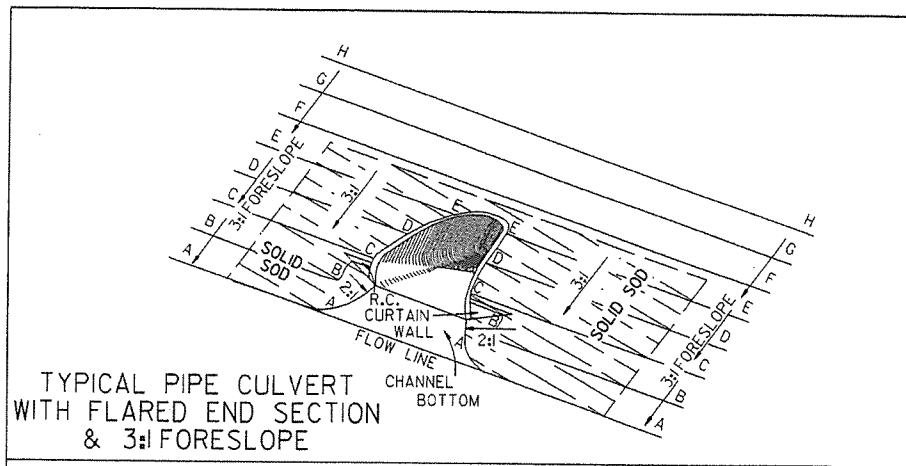
Approach Slabs will be measured and paid for in accordance with Section 504.

STANDARD DETAILS FOR TYPE CI APPROACH SLAB
ARKANSAS STATE HIGHWAY COMMISSION

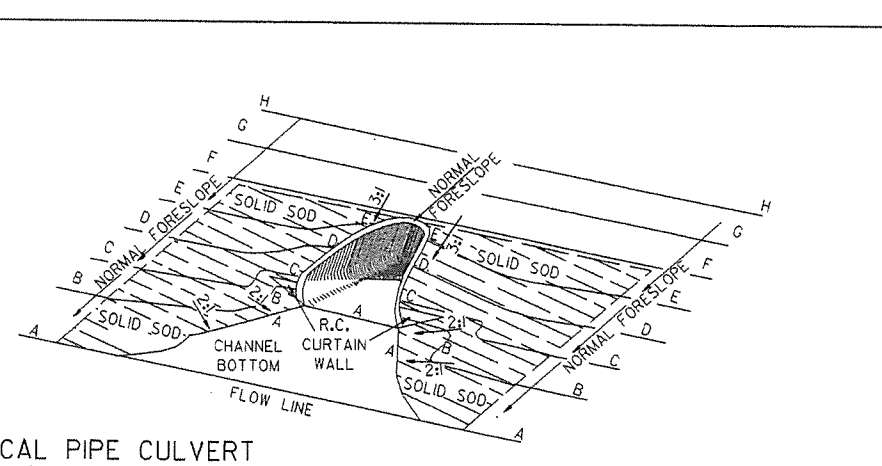
LITTLE ROCK, ARK.

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: _____

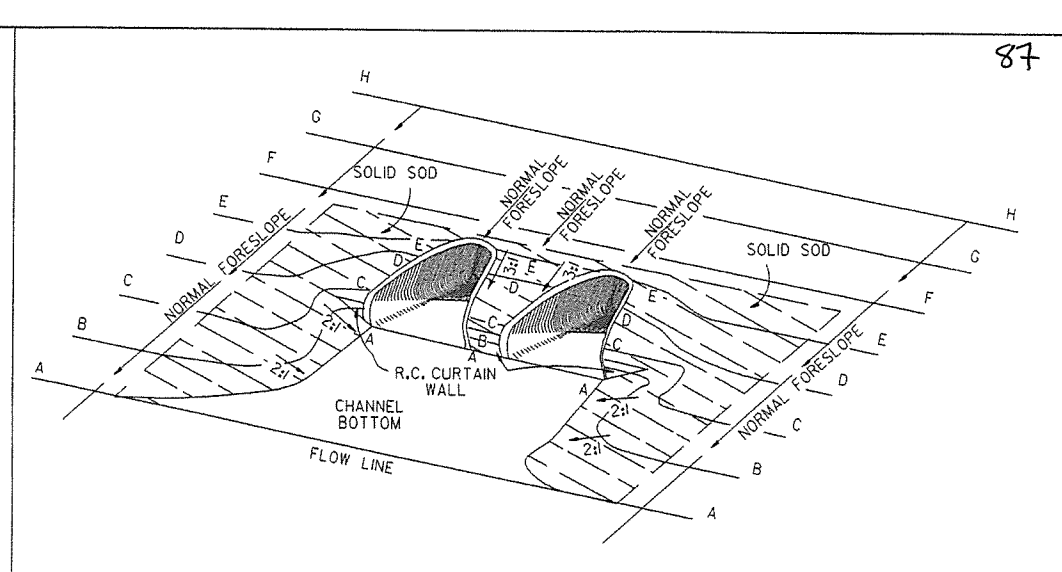
DRAWING NO. 55040CI



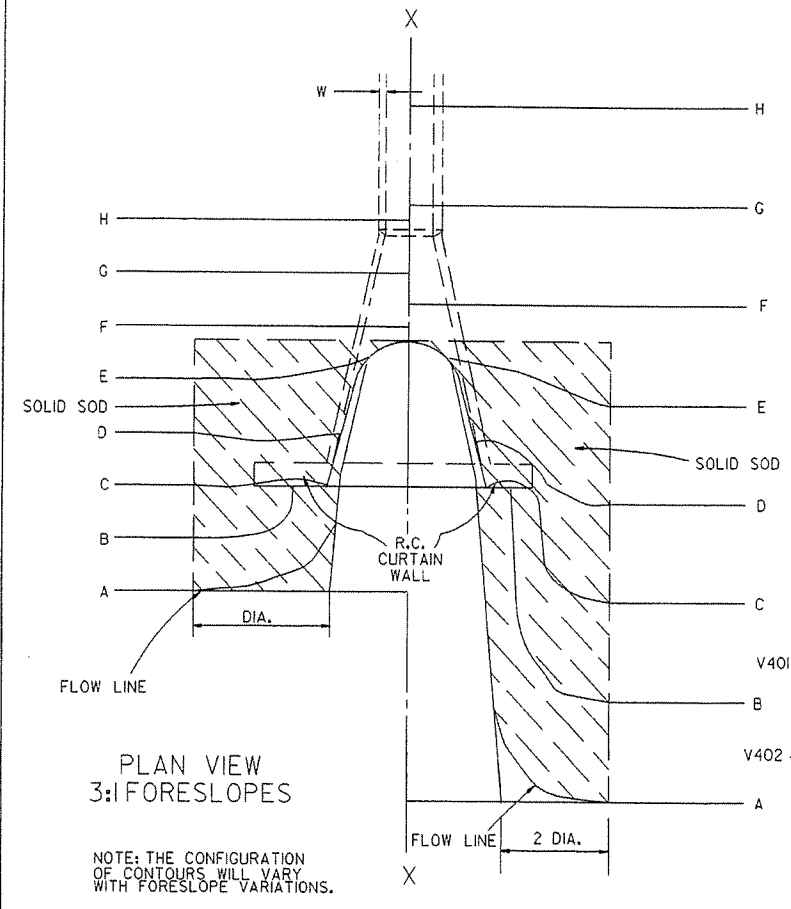
TYPICAL PIPE CULVERT WITH FLARED END SECTION & 3:1 FORESLOPE



TYPICAL PIPE CULVERT WITH FLARED END SECTION & FLATTENED ADJACENT SLOPES



TYPICAL MULTIPLE PIPE CULVERT WITH FLARED END SECTIONS & FLATTENED ADJACENT SLOPES



PLAN VIEW 3:1 FORESLOPES

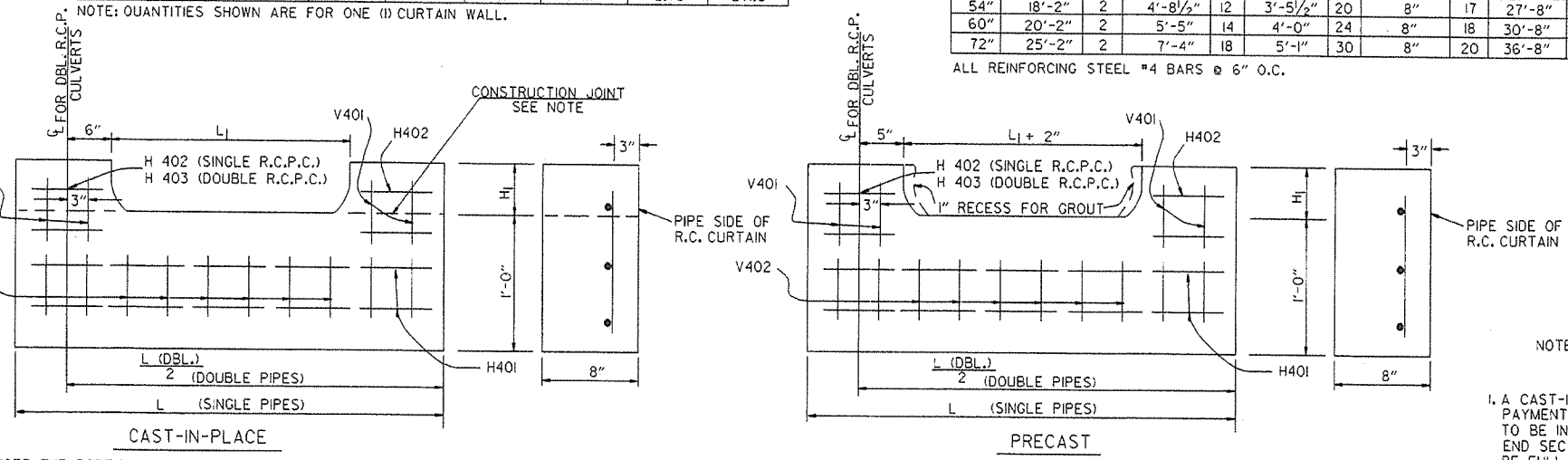
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW FLATTENED FORESLOPES

R.C. CURTAIN WALL DIMENSIONS & QUANTITIES

PIPE DIA.	H ₁	L ₁	L	L (DBL.) / 2	SINGLE R.C.P.C.		DOUBLE R.C.P.C.	
					CONC.	REINF. STEEL	CONC.	REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	11 1/2"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0 1/2"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3 1/2"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	13'-0"	10'-6"	0.58	52.6	0.83	73.9
42"	2'-1 1/2"	7'-3"	15'-6"	12'-0"	0.82	77.1	1.10	100.7
48"	2'-5"	7'-10"	17'-0"	13'-0"	0.98	94.9	1.27	120.4
54"	2'-9 1/2"	8'-5"	18'-6"	14'-0"	1.16	115.8	1.47	143.7
60"	3'-4"	9'-0"	20'-6"	15'-6"	1.47	149.7	1.84	180.3
72"	4'-5"	10'-2"	25'-6"	18'-6"	2.31	232.6	2.73	271.0

NOTE: QUANTITIES SHOWN ARE FOR ONE (1) CURTAIN WALL.



R.C. CURTAIN WALL DETAILS

NOTE: THE PORTION OF THE R.C. CURTAIN WALL BENEATH THE FLARED END SECTION (LOWER 1'-0") SHALL BE PLACED MONOLITHICALLY. THE FLARED END SECTION SHALL THEN BE SET IN PLACE & THE REMAINING PORTIONS OF THE R.C. CURTAIN WALL PLACED.

NOTE: THE PRECAST CURTAIN WALL WILL BE SET AND BACKFILLED WITH COMPACTED MATERIAL. THE FLARED END SECTION SHALL THEN BE SET IN PLACE AND THE 1" RECESS FILLED WITH GROUT. WHERE "L" EXCEEDS 11' THE CURTAIN WALL MAY BE CAST IN TWO (2) OR MORE SECTIONS. THE METHOD OF JOINING THE SECTIONS FOR INSTALLATION SHALL BE APPROVED BY THE ENGINEER.

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT								DOUBLE R.C. PIPE CULVERT									
	H401		H402		V401		V402		H401		H402		H403		V401		V402	
	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.	L	NO.
18"	7'-8"	2	1'-11 1/2"	4	1'-7 1/2"	8	8"	8	12'-2"	2	1'-11 1/2"	4	8"	2	1'-7 1/2"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8 1/2"	10	8"	9	14'-8"	2	2'-2"	4	8"	2	1'-8 1/2"	12	8"	18
30"	10'-8"	2	2'-4 1/2"	4	1'-11 1/2"	10	8"	12	17'-8"	2	2'-4 1/2"	4	8"	2	1'-11 1/2"	14	8"	22
36"	12'-8"	2	2'-10"	6	2'-3"	12	8"	14	20'-8"	2	2'-10"	6	8"	3	2'-3"	14	8"	28
42"	15'-2"	2	3'-9 1/2"	8	2'-9 1/2"	16	8"	15	23'-8"	2	3'-9 1/2"	8	8"	4	2'-9 1/2"	18	8"	30
48"	16'-8"	2	4'-3"	10	3'-1"	18	8"	16	25'-8"	2	4'-3"	10	8"	5	3'-1"	20	8"	32
54"	18'-2"	2	4'-8 1/2"	12	3'-5 1/2"	20	8"	17	27'-8"	2	4'-9"	12	8"	6	3'-5 1/2"	22	8"	34
60"	20'-2"	2	5'-5"	14	4'-0"	24	8"	18	30'-8"	2	5'-5"	14	8"	7	4'-0"	26	8"	36
72"	25'-2"	2	7'-4"	18	5'-1"	30	8"	20	36'-8"	2	7'-4"	18	8"	9	5'-1"	33	8"	40

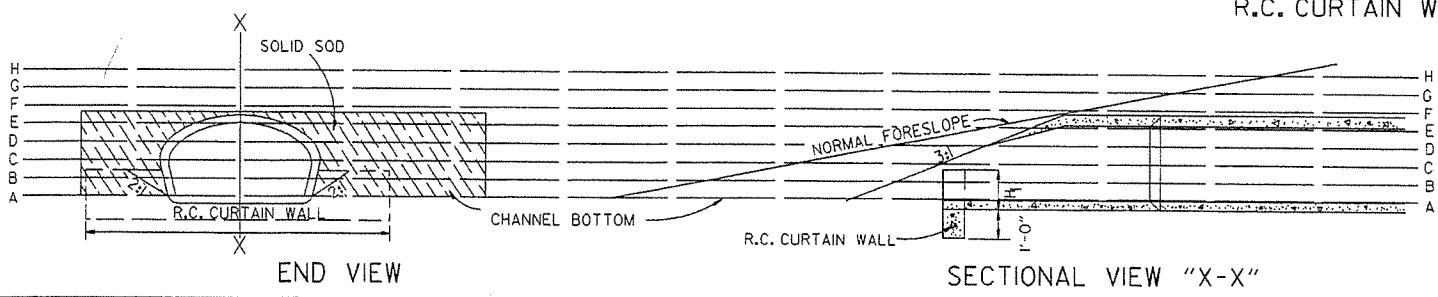
ALL REINFORCING STEEL #4 BARS @ 6" O.C.

SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C.			DOUBLE R.C.P.C.		
	3:1	4:1	6:1	3:1	4:1	6:1
	SO. YDS.			SO. YDS.		
18"	5	7	12	6	8	13
24"	8	12	19	9	13	20
30"	13	18	29	14	19	30
36"	17	26	41	18	28	43
42"	23	35	55	25	37	57
48"	29	46	68	31	48	70
54"	35	57	85	37	59	87
60"	45	62	104	48	65	107
72"	64	92	156	67	95	159

NOTE: QUANTITIES SHOWN ABOVE ARE FOR ONE (1) END OF F.E.S.

- GENERAL NOTES
1. A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE; FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL, AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
 2. ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4".
 3. CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAYING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
 4. WELDED WIRE MESH 3 x 3 W/10 x W/10 MAY BE USED IN LIEU OF REINFORCING BARS.



END VIEW

SECTIONAL VIEW "X-X"

10-18-96	ADDED NOTE TO SOLID SODDING		ARKANSAS STATE HIGHWAY COMMISSION
10-12-95	CORRECTED SPELLING	10-18-96	
11-3-94	ADDED GENERAL NOTE NO. 4		
8-15-91	REV. CURTAIN WALL QUANT. STEEL SCH. & SOLID SOD QUANT.		
3-2-81	ALLOW PRECAST IN 2 OR MORE PIECES CHAMFER EDGES		
5-15-80	ADDED PRECAST WALL & GENERAL NOTES		
10-2-72	REVISED AND REDRAWN		
DATE	REVISION	FILMED	STANDARD DRAWING FES-1

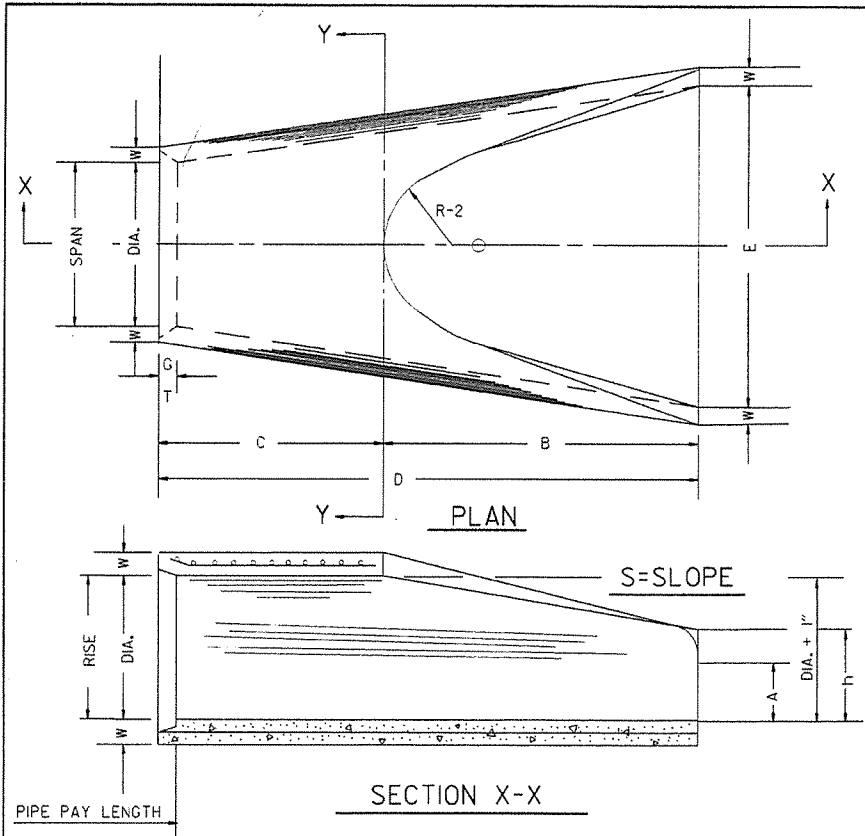
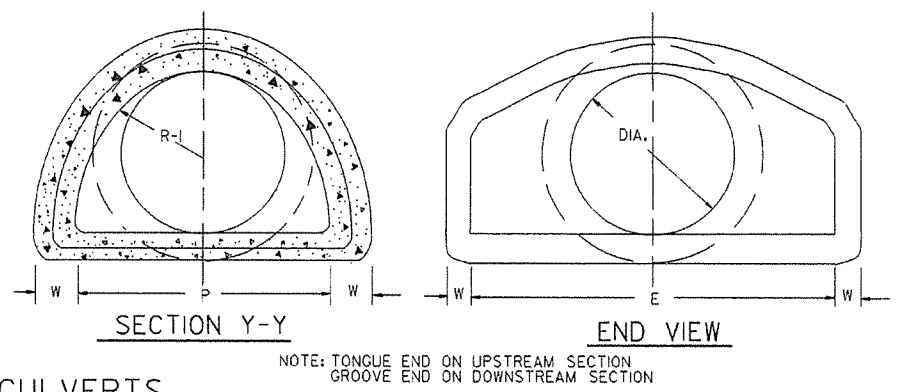


TABLE OF DIMENSIONS

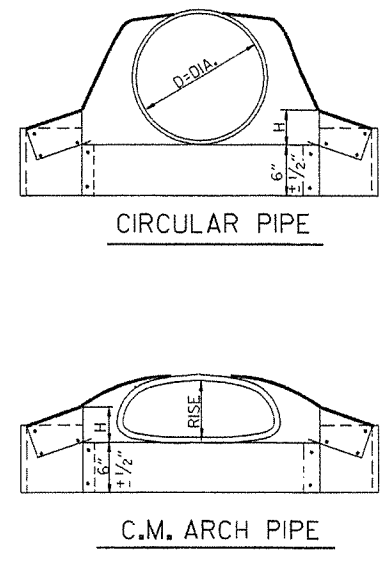
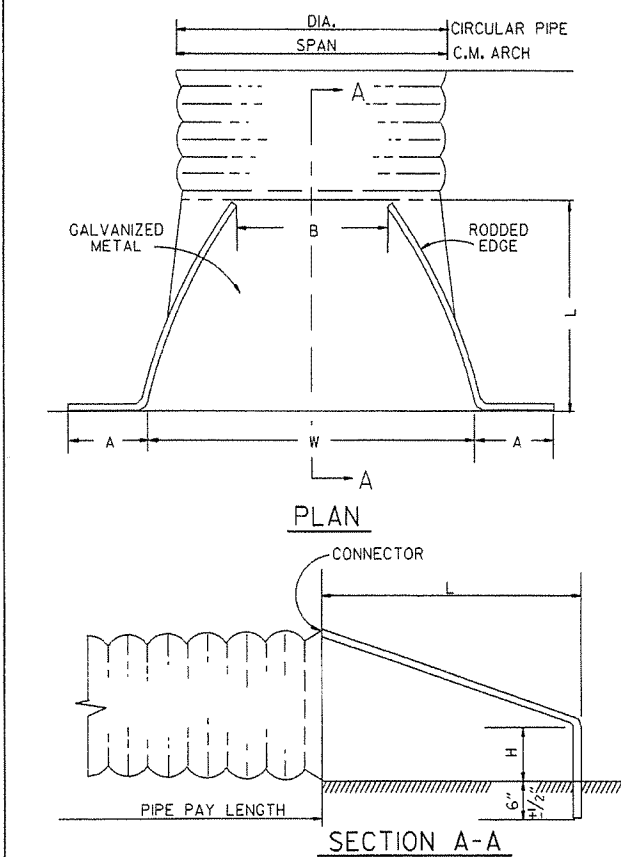
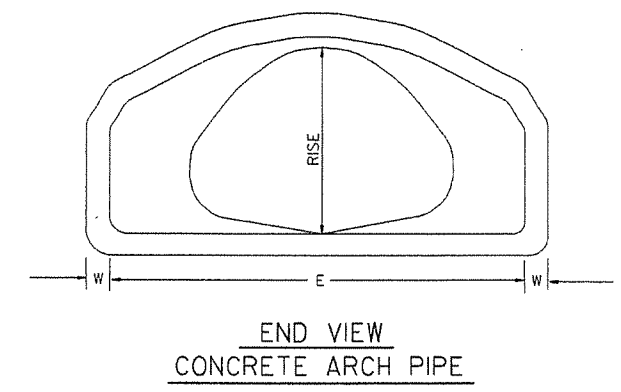
DIA.	WALL	A	B	C	D	E	S	DIA. - 1"	P	R-1	R-2	G-T	WT.	h
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15 1/2"	12"	2"	1000	1'-0 1/2"
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	3:1	25"	33 3/8"	16 1/8"	14"	2 1/2"	1600	1'-1 1/2"
30"	3 1/2"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3:1	31"	37"	18 1/2"	15"	3 1/4"	1940	1'-4 3/8"
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 1/4"	6'-0"	3:1	37"	47 1/8"	24 5/8"	20"	3 1/2"	4100	1'-8"
42"	4 1/2"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53 3/8"	27 1/2"	22"	3 1/2"	5380	2'-2 1/2"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56 1/2"	28 1/2"	22"	3 1/2"	6550	2'-6"
54"	5 1/2"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65 1/2"	33 3/8"	24"	4"	8750	2'-10 1/2"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72 1/2"	36 1/8"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77 1/8"	38 1/8"	24"	5"	13250	4'-6"



ARCH PIPE

EQUIV. DIA.	SPAN		RISE		W	A	B	C	D	E	P	R2	G-T	S
	AASHTO M 206	AHD NOMINAL	AASHTO M 206	AHD NOMINAL										
INCHES														
15	15	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1 1/2"	2 1/2:1
18	22	22	13 1/2	14	2 1/2"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32 1/8"	13"	2 1/2"	2 1/2:1
21	26	26	15 1/2	16	2 3/4"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34 1/8"	14"	2 1/2"	2 1/2:1
24	28 1/2	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36 1/8"	15"	2 1/2"	2 1/2:1
30	36 1/4	36	22 1/2	23	3 1/2"	10"	3'-1"	3'-0 1/2"	6'-1 1/2"	6'-0"	47 1/8"	20"	3"	2 1/2:1
36	43 3/4	44	26 5/8	27	4"	10 1/2"	4'-0"	2'-1 1/2"	6'-1 1/2"	6'-6"	54 5/8"	22"	3 1/2"	2 1/2:1
42	51 1/8	51	31 5/8	31	4 1/2"	11 1/2"	4'-7"	1'-10 1/4"	6'-5 1/4"	7'-2"	59 1/2"	23"	3 3/4"	2 1/2:1
48	58 1/2	59	36	36	5"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	7'-10"	70 1/8"	24"	4 1/4"	2 1/2:1
54	65	65	40	40	5 1/2"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72 1/8"	24"	4 3/4"	2 1/2:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 1/8"	24"	5"	2 1/2:1

* THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PER CENT FROM THE VALUES SPECIFIED BY AASHTO M 206.

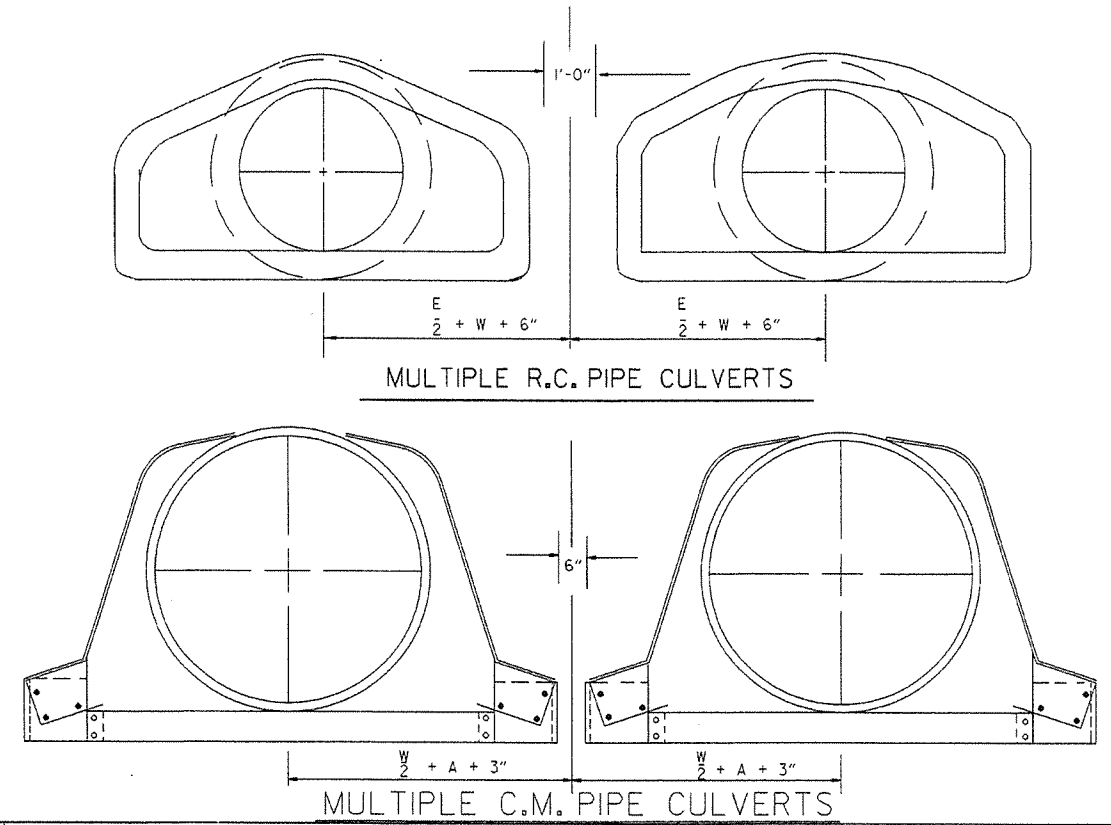


CIRCULAR PIPE

D. DIA.	GAUGE	A 1" ±	B. MAX. INCHES	H 1" ±	L 1 1/2" ±	W ±	S
12	16	6	6	6	21	24	2 1/2:1
15	16	7	8	6	26	30	2 1/2:1
18	16	8	10	6	31	36	2 1/2:1
21	16	9	12	6	36	42	2 1/2:1
24	16	10	13	6	41	48	2 1/2:1
30	14	12	16	8	51	60	2 1/2:1
36	14	14	19	9	60	72	2 1/2:1
42	12	16	22	11	69	84	2 1/2:1
48	12	18	27	12	78	90	2 1/2:1
54	12	18	30	12	84	102	2:1
60	12	18	33	12	87	114	1 3/4:1
66	2	18	36	12	87	120	1 1/2:1
72	2	18	39	12	87	126	1 1/3:1

C.M. ARCH PIPE

EQUIV. DIA.	SPAN	RISE	A 1" ±	B MAX. INCHES	H 1" ±	L 1 1/2" ±	W ±	S	GAUGE
15"	17	13	7	9	6	19	30	2 1/2:1	16
18"	21	15	7	10	6	23	36	2 1/2:1	16
21"	24	18	8	12	6	28	42	2 1/2:1	16
24"	28	20	9	14	6	32	48	2 1/2:1	16
30"	35	24	10	16	6	39	60	2 1/2:1	14
36"	42	29	12	18	8	46	75	2 1/2:1	14
42"	49	33	13	21	9	53	85	2 1/2:1	12
48"	57	38	18	26	12	63	90	2 1/2:1	12
54"	64	43	18	30	12	70	102	2 1/2:1	12
60"	71	47	18	33	12	77	114	2:1	12

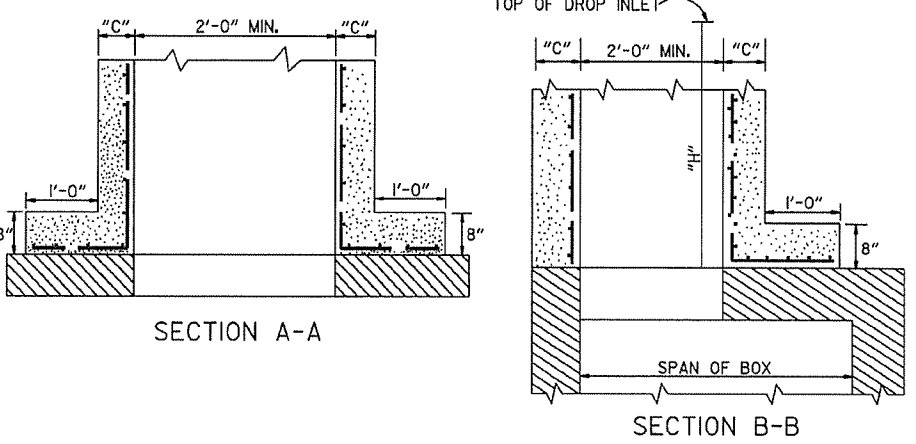
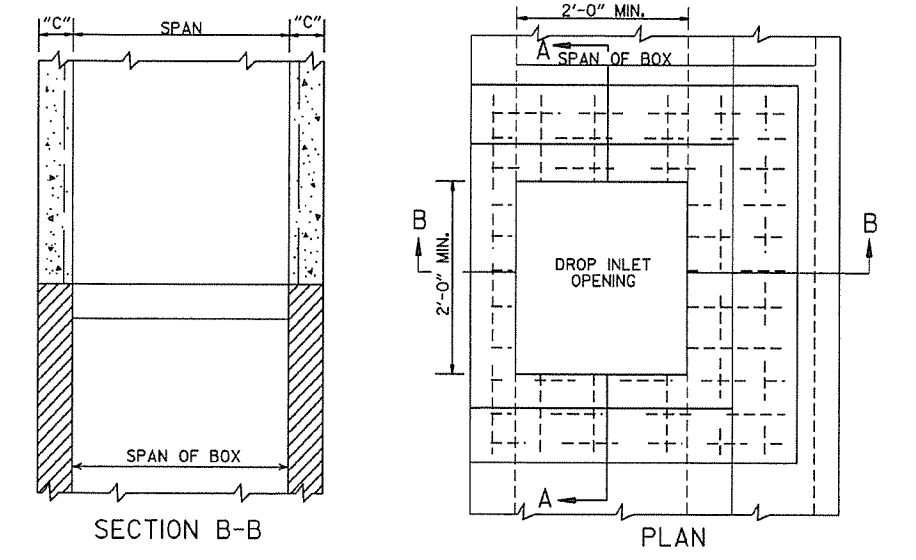


NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.

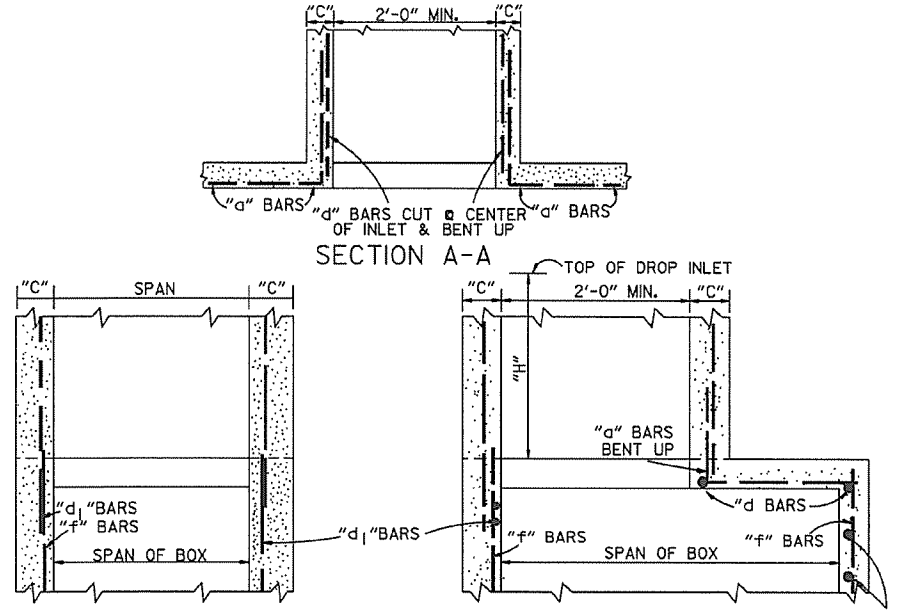
END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS

10-18-96	REVISED ASTM REF. TO AASHTO	10-18-96	ARKANSAS STATE HIGHWAY COMMISSION
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80	
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78	
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75	
12-5-74	REMOVED NOTE RE REINF. FOR R.C. F.E.S.	500-12-5-74	
5-24-73	CMP END SECTION, SHOW PIPE PAY LENGTH	627-5-24-73	
10-2-72	REVISED AND REDRAWN	760-10-2-72	
DATE	REVISION	FILMED	

FLARED END SECTION
STANDARD DRAWING FES-2

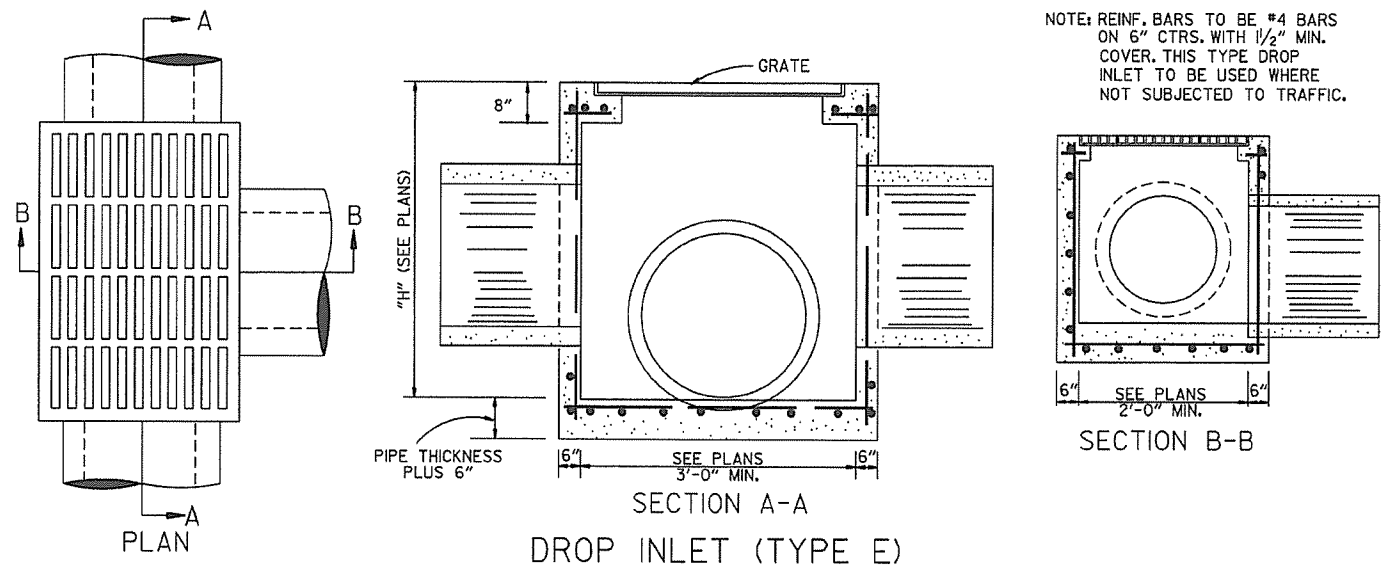


METHOD OF CONSTRUCTING DROP INLET ON EXISTING R.C. BOX CULVERT

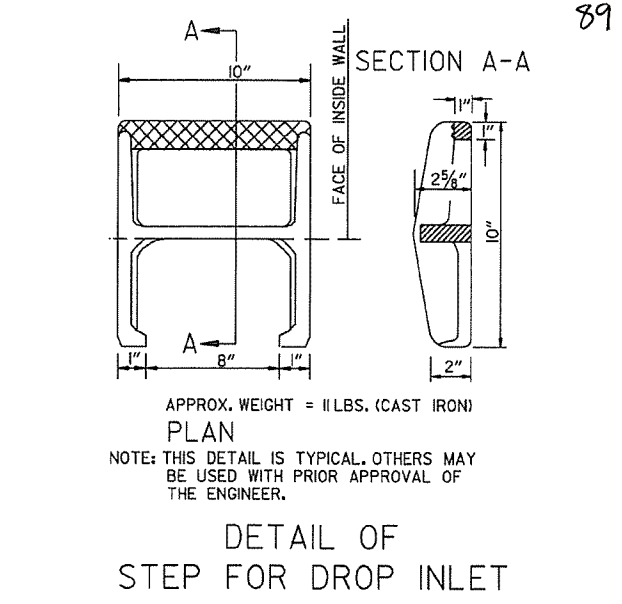


METHOD OF CONSTRUCTING DROP INLET ON NEW R.C. BOX CULVERT

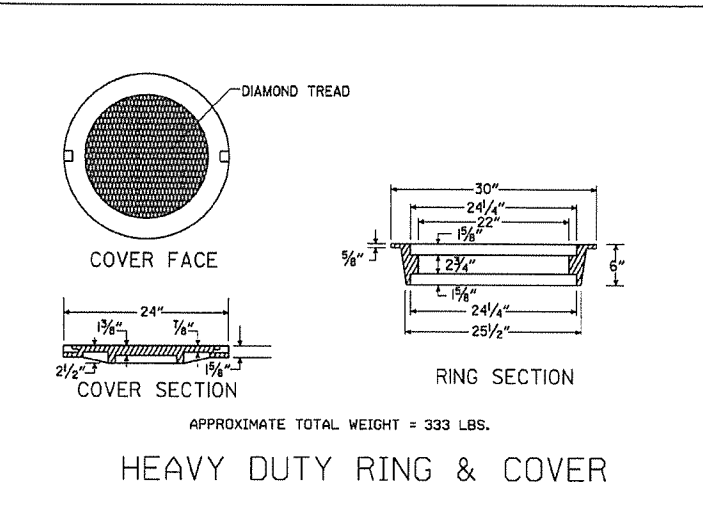
NOTE: "C" DIMENSIONS AND REINFORCING BAR SIZES, SHALL CONFORM TO THOSE SHOWN ON STANDARD DRAWING FOR DROP INLET.



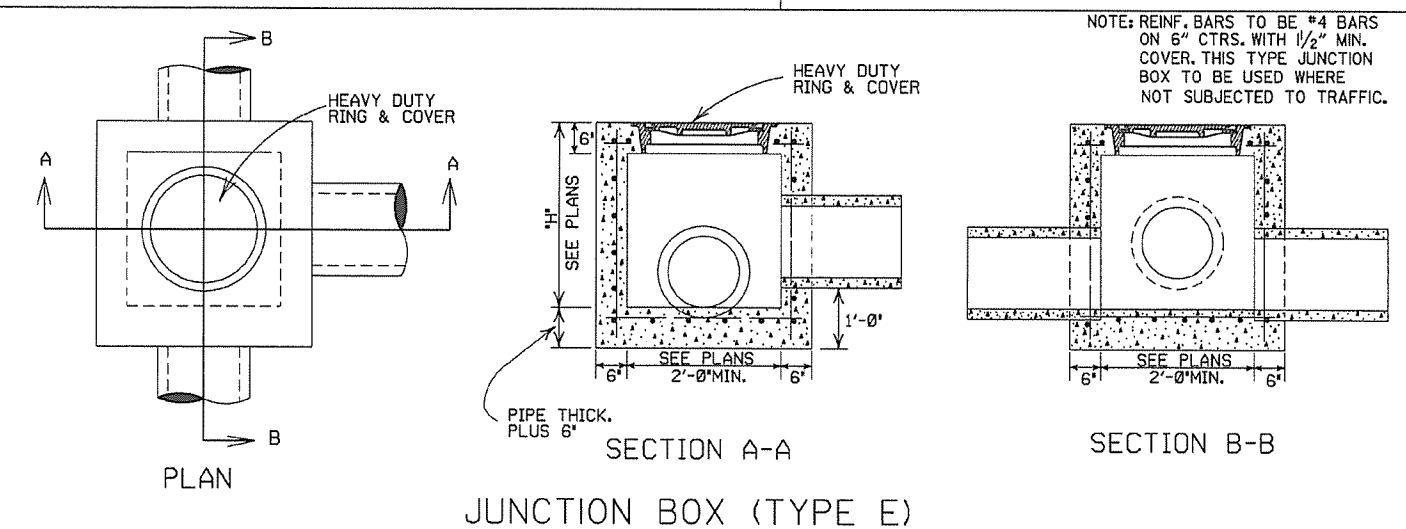
DROP INLET (TYPE E)



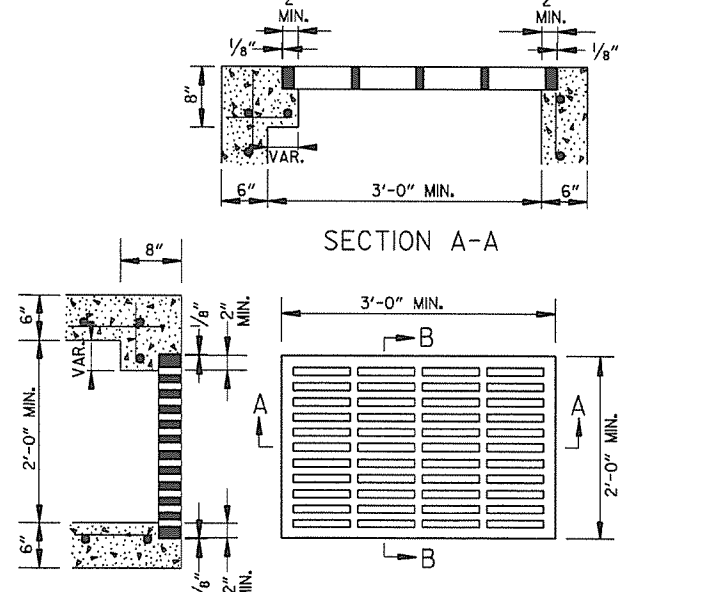
DETAIL OF STEP FOR DROP INLET



HEAVY DUTY RING & COVER

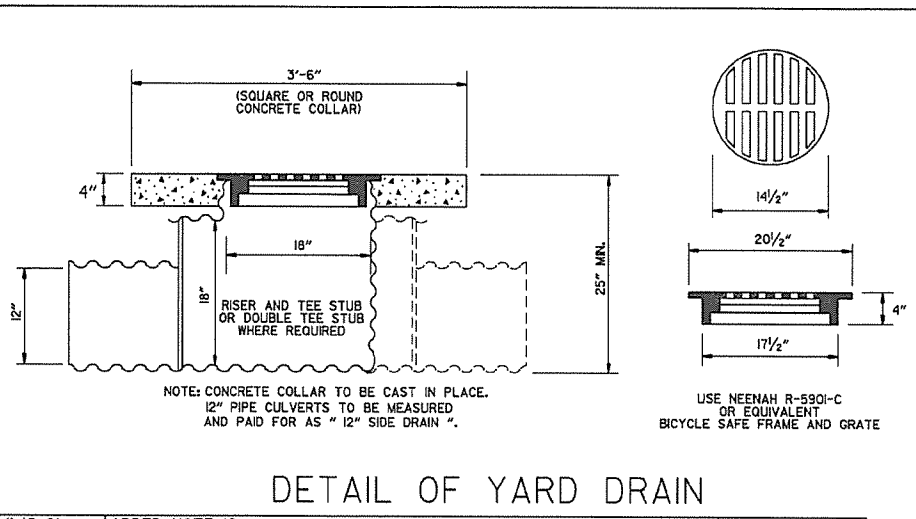


JUNCTION BOX (TYPE E)



GRATE FOR TYPE E DROP INLET

APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

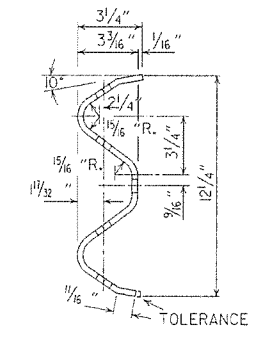
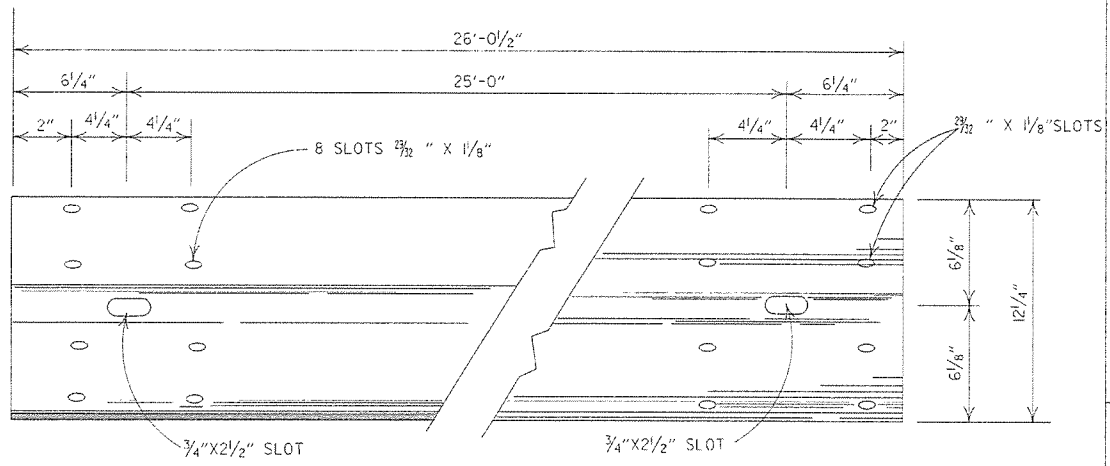


DETAIL OF YARD DRAIN

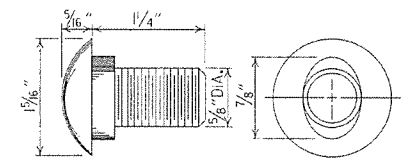
- GENERAL NOTES:
1. ALL EXPOSED CORNERS SHALL BE 3/4" CHAMFERED.
 2. STEPS SHALL BE INSTALLED ON 16" CENTERS ON ALL INLETS 4'-0" HIGH OR OVER, OR AS APPROVED BY THE ENGINEER.
 3. EXPANSION JOINT MATERIAL SHALL BE 3/4" PREFORMED FIBER.
 4. GRATE OR GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B. GRATE MAY BE USED WITHOUT FRAME.
 5. GRATE AND FRAME SHALL NOT BE PAINTED.
 6. GRATE SHALL BE BICYCLE SAFE.
 7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
 8. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B & AASHTO M 306.
 9. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
 10. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

DATE	REV.	REVISION	DATE FILED
11-16-01		ADDED NOTE 10	
1-12-00		REVISED HEAVY DUTY RING & COVER	
7-02-98		CHANGED GRATE DETAIL, DELETED DI (TYPE D), REPLACED RING & COVER W/HEAVY DUTY RING & COVER, ADDED JUNCTION BOX (TYPE E)	
6-26-97		ADDED DIMENSION TO TYPE IV-A	
10-18-96		ADDED DETAIL OF YARD DRAIN	
8-15-91		DELETE TYPE IV GRATE	
7-15-88		REVISED STEP DETAIL	
5-20-83		REVISED DETAILS OF GRATES (TYPE IV & IV-A)	
2-4-83		ADDED GENERAL NOTE NO. 4	
3-2-81		ADDED TYPE IV-A GRATE	
5-22-74		DELETED INLET (TYPE F) & GRATE (TYPE III)	
10-2-72		REVISED AND REDRAWN	

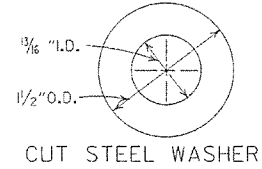
ARKANSAS STATE HIGHWAY COMMISSION
 DETAILS OF DROP INLETS
 & JUNCTION BOXES
 STANDARD DRAWING FPC-9



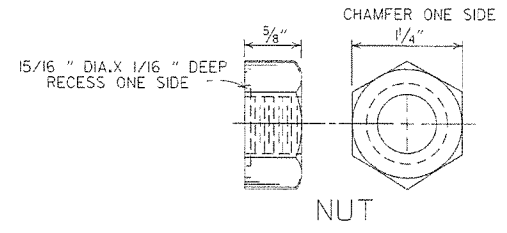
DETAILS OF W-BEAM GUARD RAIL
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



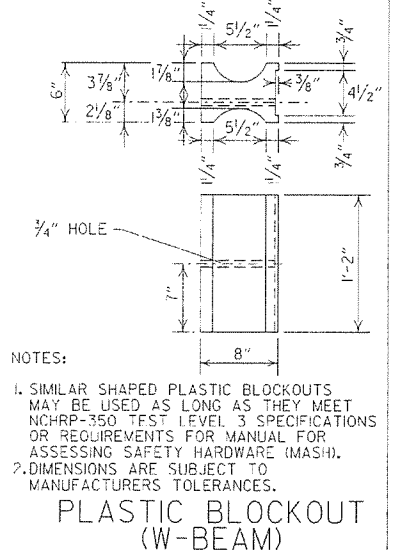
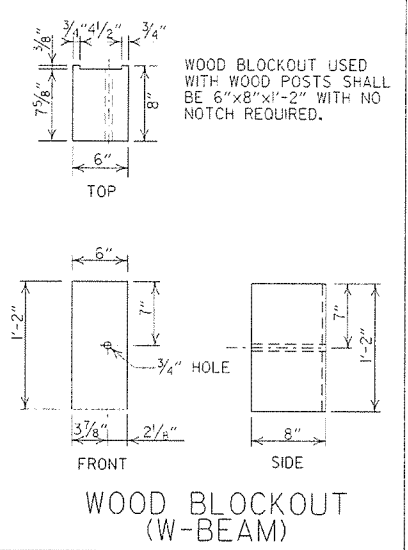
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



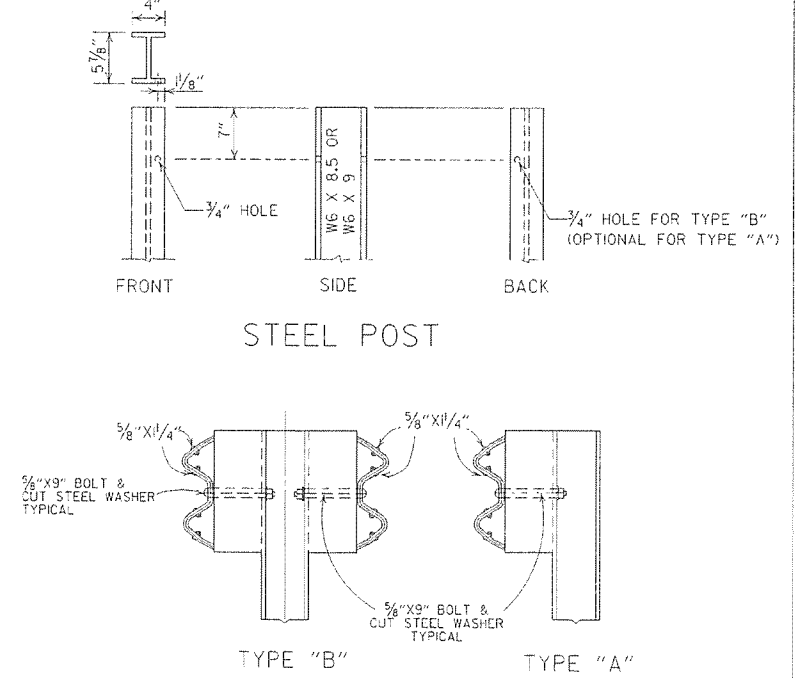
CUT STEEL WASHER



NUT



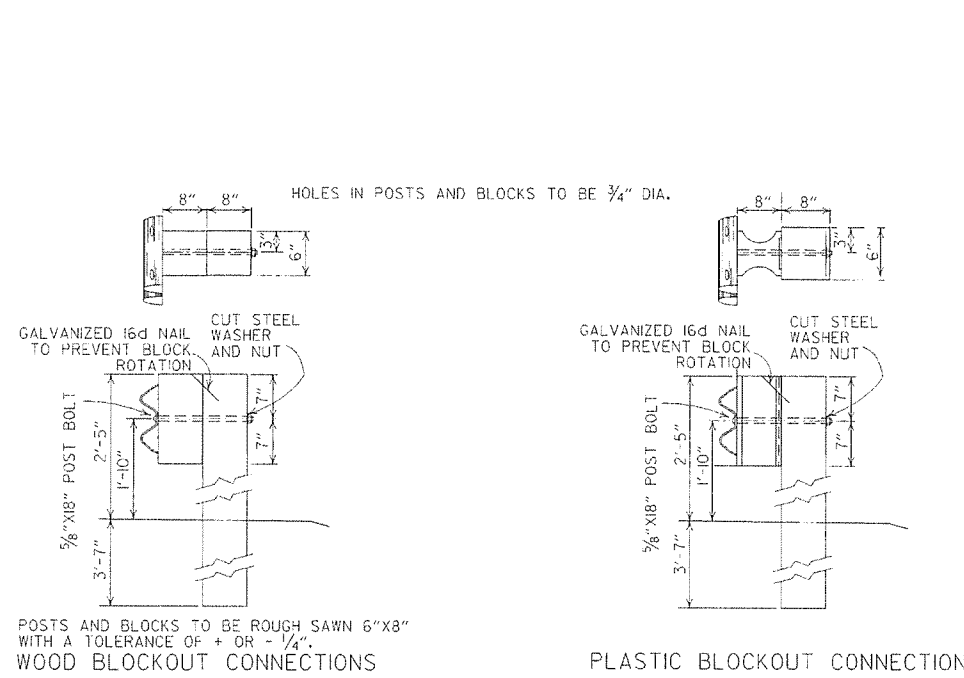
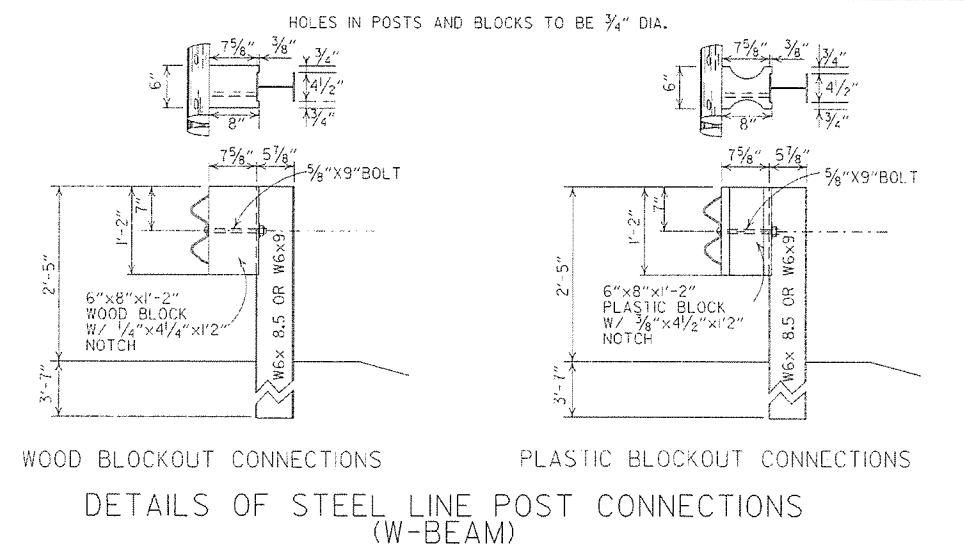
NOTES:
1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET NCHRP-350 TEST LEVEL 3 SPECIFICATIONS OR REQUIREMENTS FOR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.



DETAILS OF STEEL 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 9.7f (1400 f) OR NO. 1 (350 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.

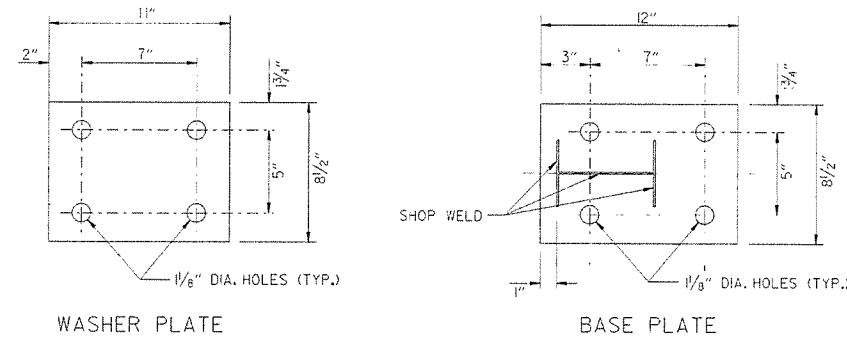


7-4-10	RAISED HEIGHT OF GUARD RAIL 1"	
0-15-09	ADDED REFERENCE TO MASH	
4-10-03	REVISED GENERAL NOTES	
8-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & ON STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
3-30-00	REMOVED GUARD RAIL AT BRIDGE ENDS	
1-2-00	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 AT T. 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 & DEPTH 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
0-9-87	REDRAWN & REVISED	802-10-9-87
DATE	REVISION	DATE FILM

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

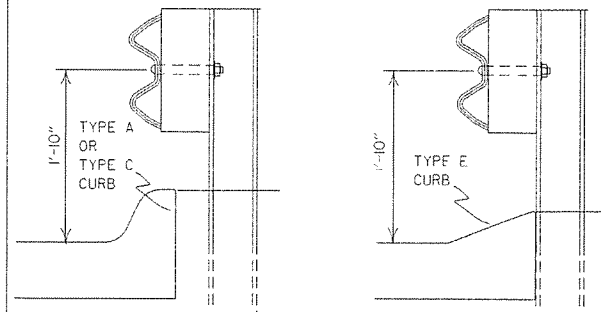
STANDARD DRAWING GR-8



WASHER PLATE

BASE PLATE

Note: Bolts, nuts, washers and plates shall be galvanized in accordance with Section 807 of the Standard Specifications.

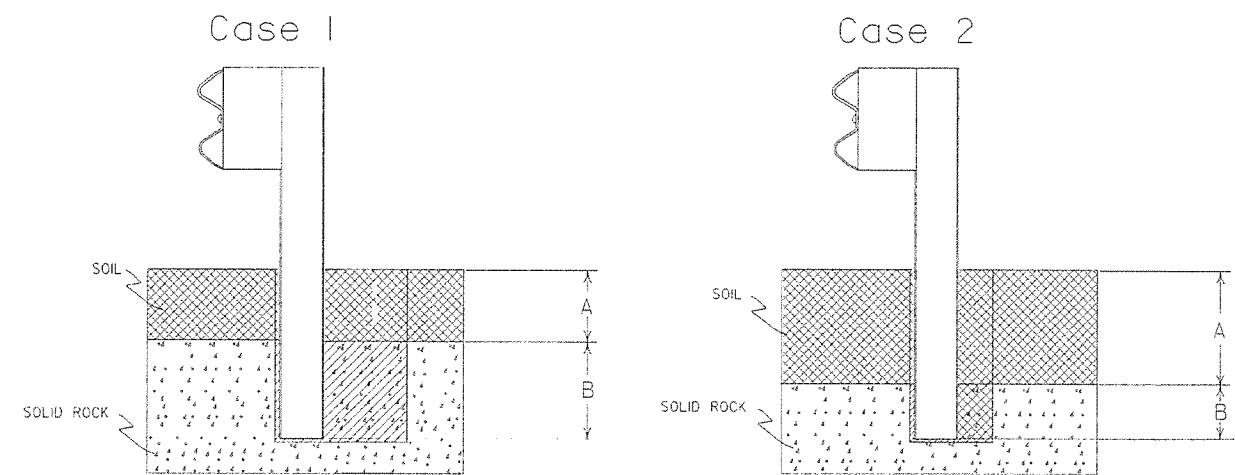


FOR DESIGN SPEEDS OF 50 MPH OR LESS
ALIGN FACE OF GUARD RAIL WITH FACE OF CURB.

FOR DESIGN SPEEDS OF 55 MPH OR MORE
PLACE GUARD RAIL POSTS AGAINST BACK OF CURB.

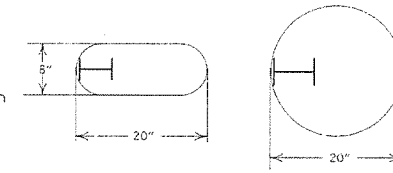
DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB (W-BEAM)

FOR DESIGN SPEEDS OF 50 MPH OR LESS ALL CURB FACES, AS SHOWN ON STD. DRWG. CG-1, MAY BE USED. FOR DESIGN SPEEDS OF 55 MPH OR MORE TYPE "E" CURB FACE SHALL BE USED.



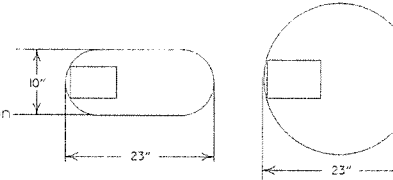
Plan View Steel Posts

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".

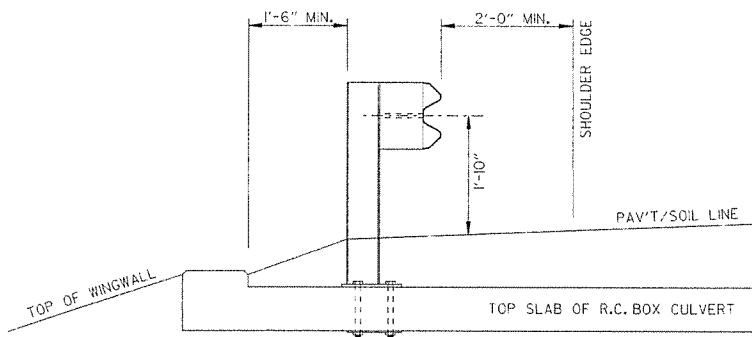
Zone A: Backfill according to Section 617.03(a).

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.

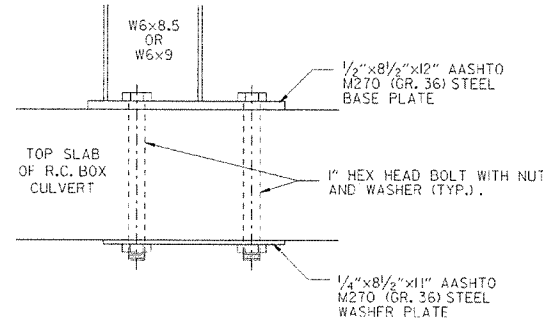
Notes: For overlying soil depths (A) ranging from 18" to 44", the depth of required drilling (B) is equal to either 12" or 44" minus the depth of soil whichever is less.

Zone A & B: Backfill according to Section 617.03(a).

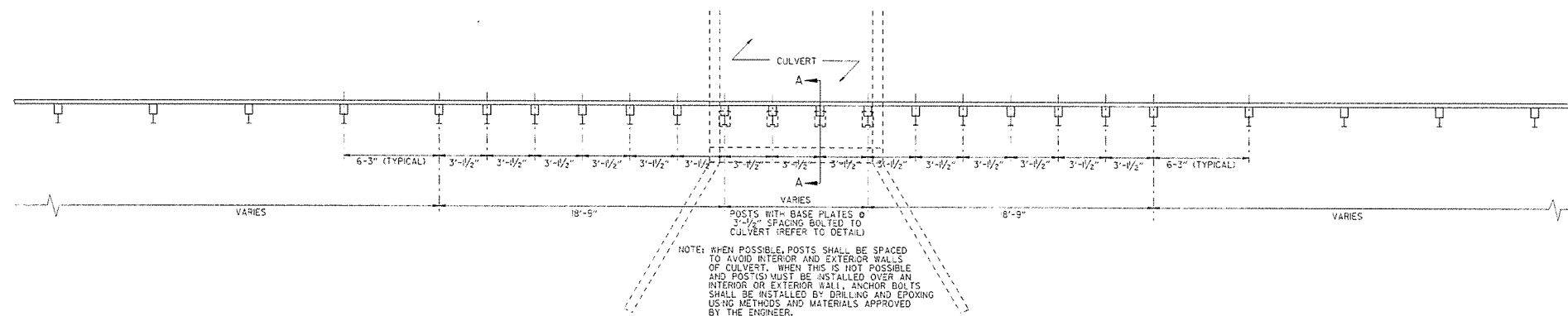
DETAIL OF POST PLACEMENT IN SOLID ROCK (W-BEAM)



SECTION A-A



DETAIL OF CONNECTION



PLAN LAYOUT OF TYPE A GUARD RAIL AT LOW-FILL CULVERTS

NOTE: THIS DETAIL IS TO BE USED ONLY WHEN THE COVER OVER THE CULVERT DOES NOT PERMIT FULL EMBEDMENT OF GUARD RAIL POSTS AS SHOWN ON STD. DRWG. GR-8.

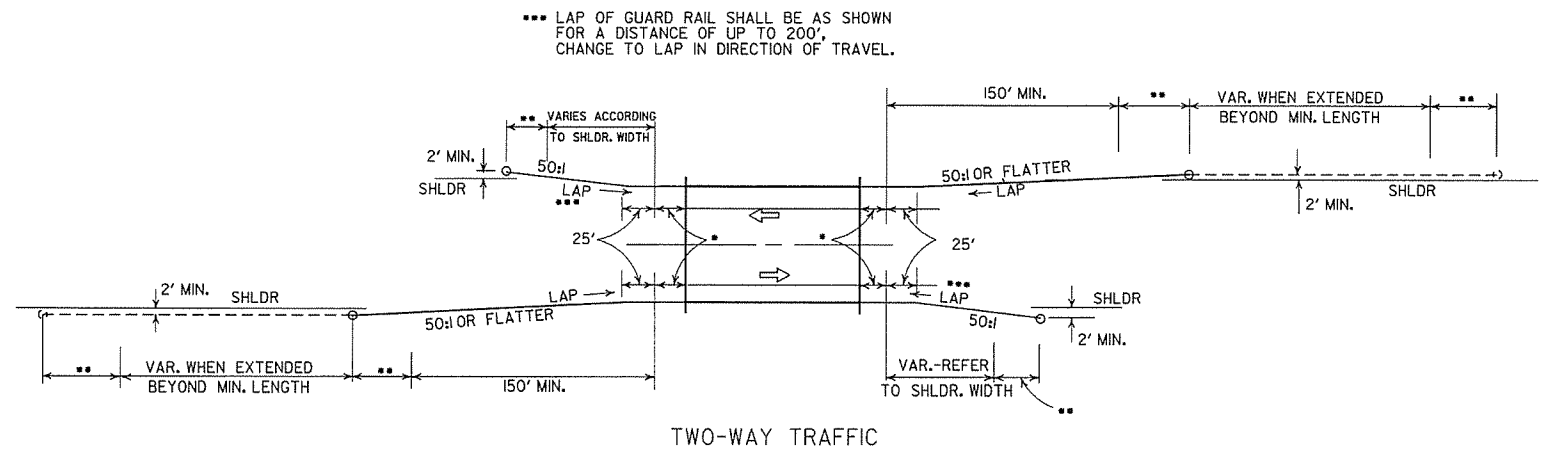
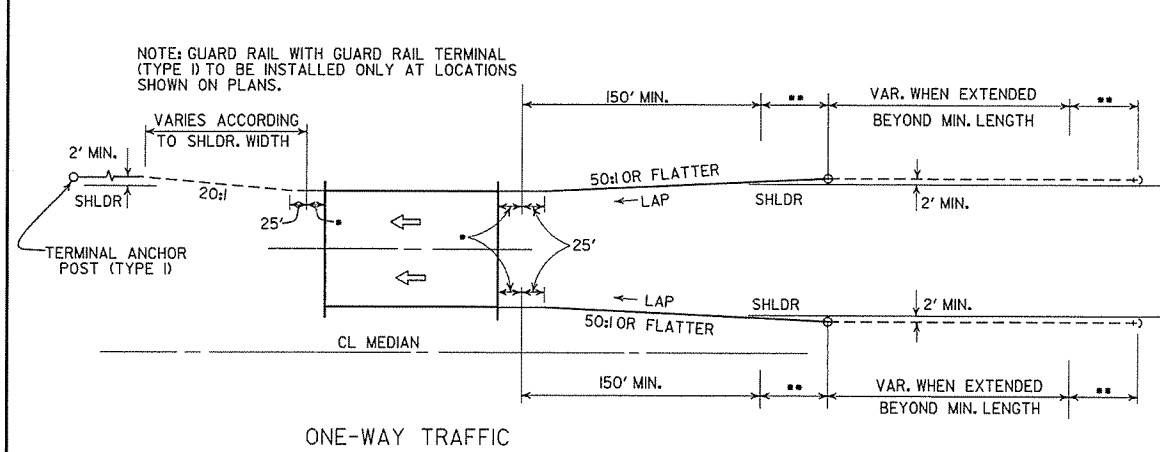
NOTE: WHEN POSSIBLE, POSTS SHALL BE SPACED TO AVOID INTERIOR AND EXTERIOR WALLS OF CULVERT. WHEN THIS IS NOT POSSIBLE AND POSTS MUST BE INSTALLED OVER AN INTERIOR OR EXTERIOR WALL, ANCHOR BOLTS SHALL BE INSTALLED BY DRILLING AND EPOXYING USING METHODS AND MATERIALS APPROVED BY THE ENGINEER.

7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
4-12-07	REVISED DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB	
11-10-05	ADDED GUARD RAIL PLACEMENT BEHIND CURB; REVISED DETAIL OF CONNECTION	
11-18-04	REVISED POST PLACEMENT IN ROCK & CULVERT CONNECTION DETAILS. ADDED DETAIL FOR GUARD RAIL PLACEMENT AT LOW-FILL CULVERTS	
3-30-00	REMOVED CONCRETE INSERT ANCHOR	
6-12-98	CHANGED STEEL SPACER BLOCK TO WOOD BLOCKOUT, ADD. DET. OF GUARD RAIL CONNECTION TO R.C. BOX CULVERT. 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
10-16-96	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	702-10-30-87
10-30-87	REVISED PLACEMENT BEHIND CURB	547-10-30-87
10-9-87	REDRAWN & REVISED	803-10-9-87
DATE	REVISION	DATE FILM

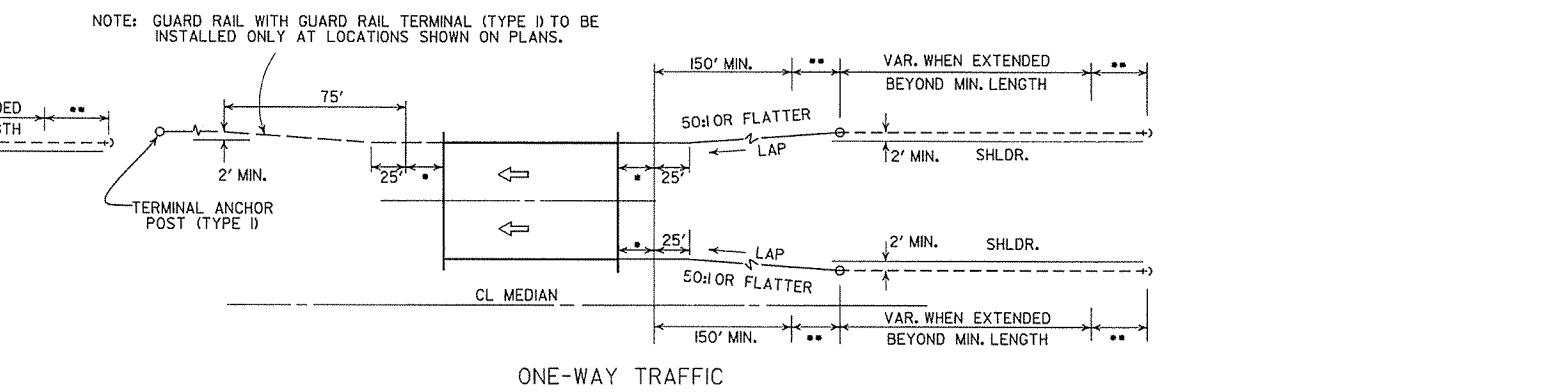
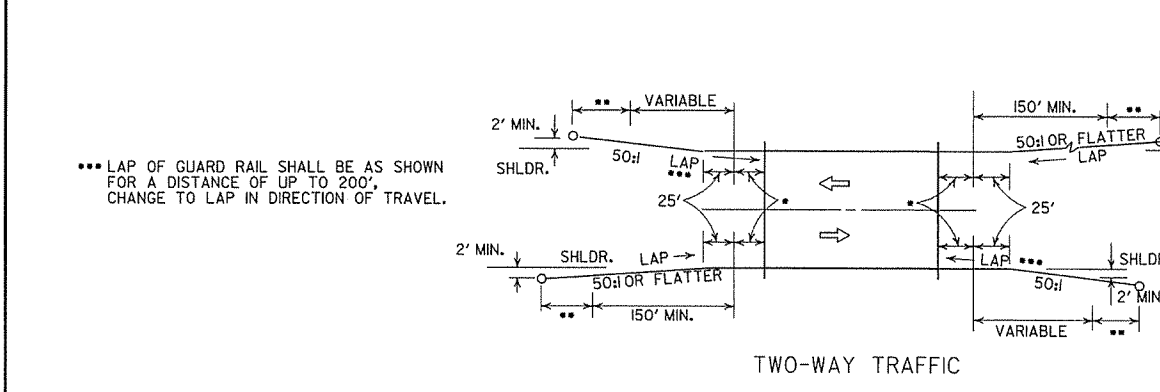
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

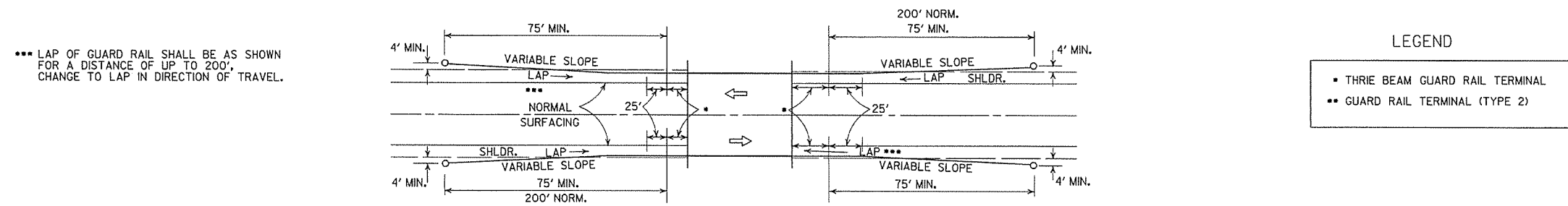
STANDARD DRAWING GR-8A



METHODS OF INSTALLATION OF GUARD RAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

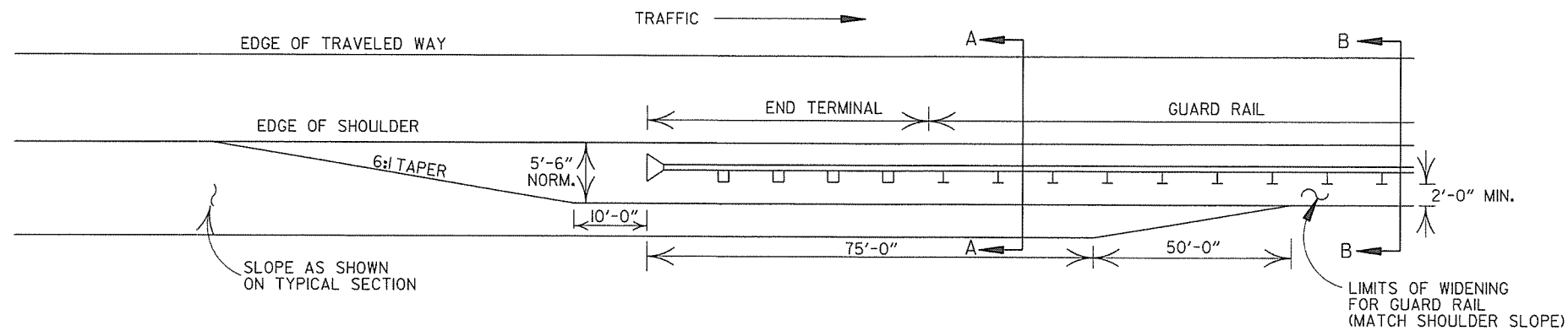


METHOD OF INSTALLATION OF GUARD RAIL AT FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

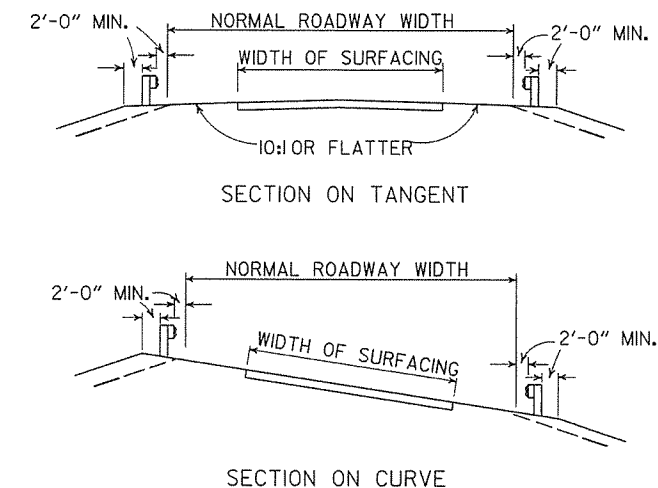
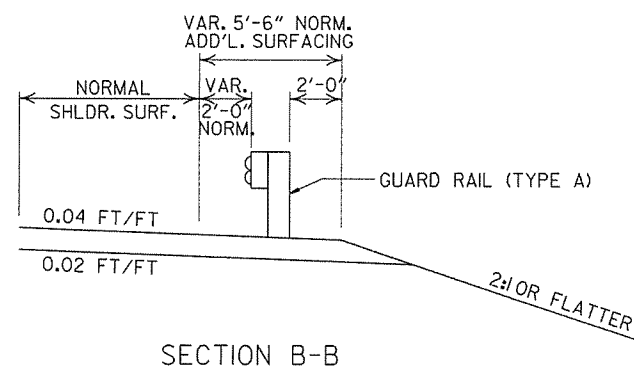
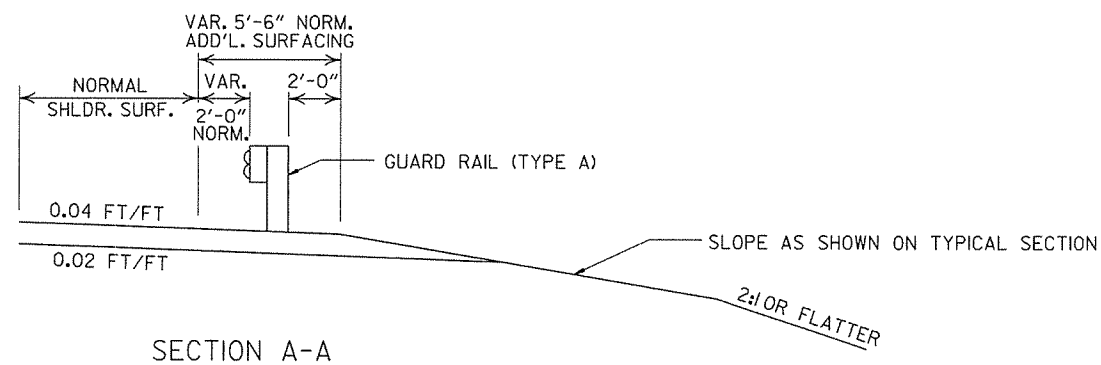


METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERMINAL (TYPE I) (FULL SHOULDER WIDTH OR LESS BRIDGES)

ARKANSAS STATE HIGHWAY COMMISSION		
GUARD RAIL DETAILS		
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
10-9-87	ADDED NOTE	
10-9-87	REDRAWN & REVISED	
DATE	REVISION	DATE FILM
STANDARD DRAWING GR-9		

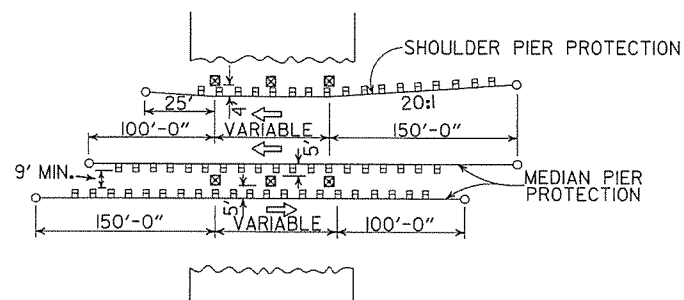


NOTE: NORMAL SECTION TO BE WIDENED APPROX. 5'-6" EACH SIDE TO SUPPORT GUARD RAIL.



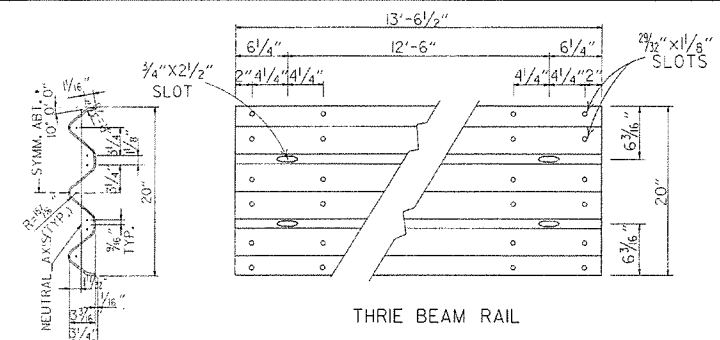
DETAILS OF WIDENING FOR GUARD RAIL

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY



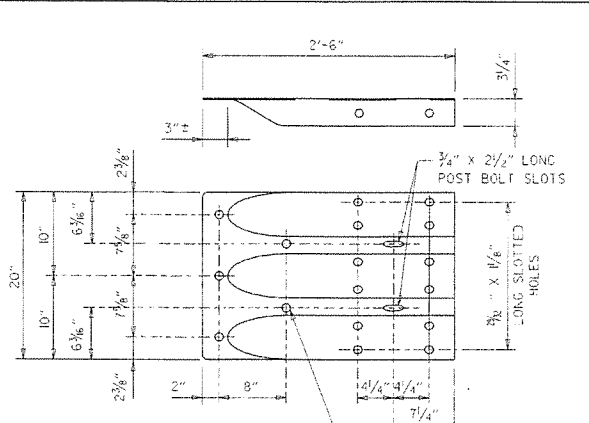
METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

ARKANSAS STATE HIGHWAY COMMISSION			
GUARD RAIL DETAILS			
STANDARD DRAWING GR-9A			
4-17-08	MINOR REVISION		
11-10-05	DRAWN		
DATE	REVISION	DATE	FILM

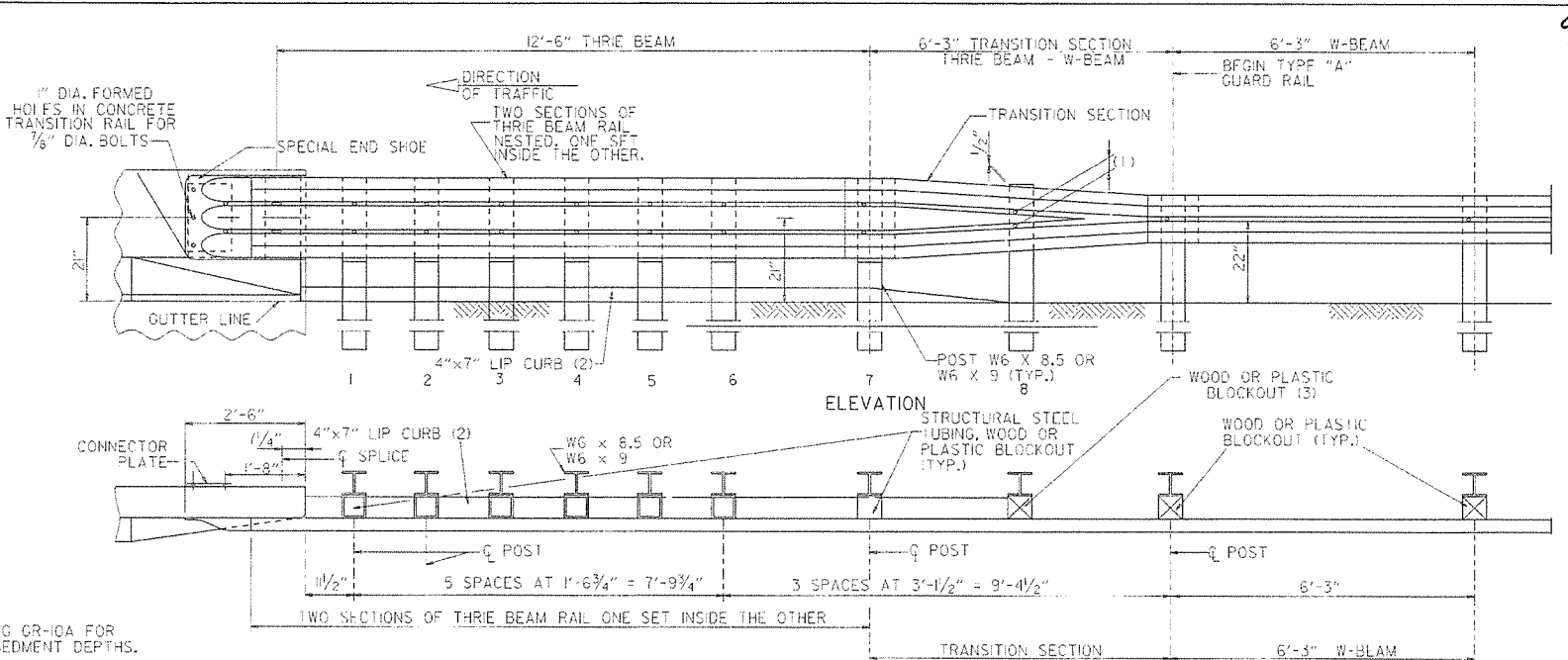


THRIE BEAM RAIL

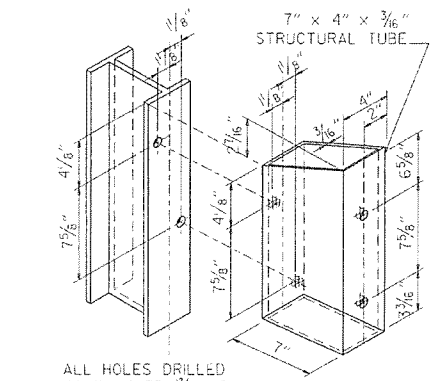
SECTION THRU THRIE BEAM RAIL



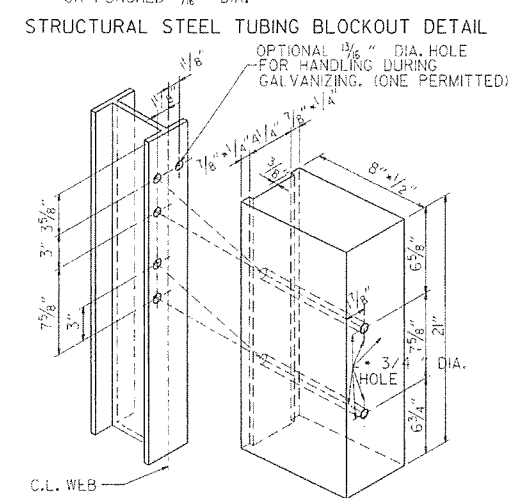
SPECIAL END SHOE



ELEVATION

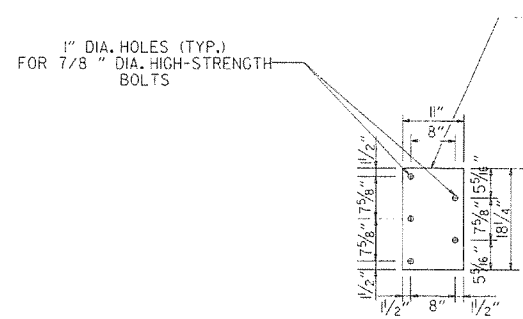


ATTACH BLOCKOUT TO POST USING 5/8\"/>



ALL HOLES 1/8\"/>

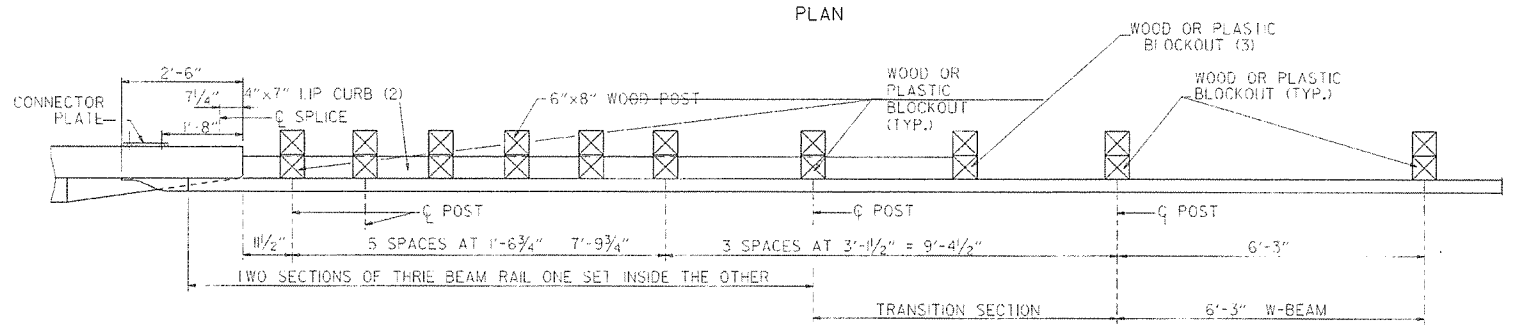
NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.



CONNECTOR PLATE

CONNECTOR PLATE SHALL BE AASHTO M270, GR. 36 AND SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO SUBSECTION 807.19 OF THE STANDARD SPECIFICATIONS. CONNECTOR PLATE TO BE BOLTED TO SPECIAL END SHOE USING 1/2\"/>

NOTE: SEE STANDARD DRAWING GR-10A FOR GUARD RAIL POST EMBEDMENT DEPTHS.



PLAN

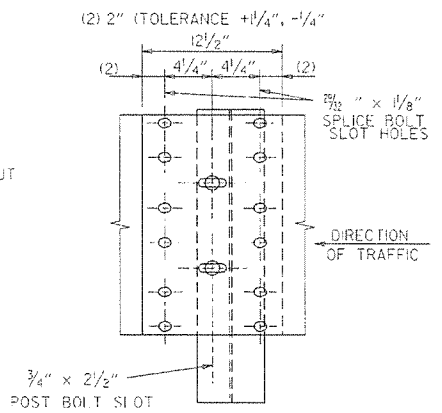
PLAN

- (1) VERIFY BOLT SPACING FROM RAIL TRANSITION PRODUCER.
- (2) REFER TO APPROACH GUTTER DETAILS.
- (3) LENGTH OF BLOCKOUT ON POST 8 TO BE MODIFIED TO FIT RAIL WIDTH.

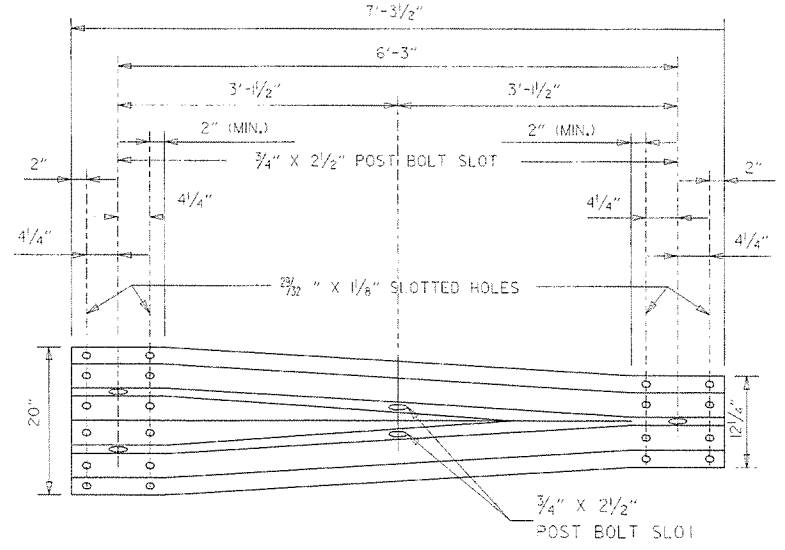
THRIE BEAM GUARD RAIL CONNECTION AT BRIDGE ENDS

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE 1. RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION. ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3/4\"/>



THRIE BEAM RAIL SPLICE AT POST



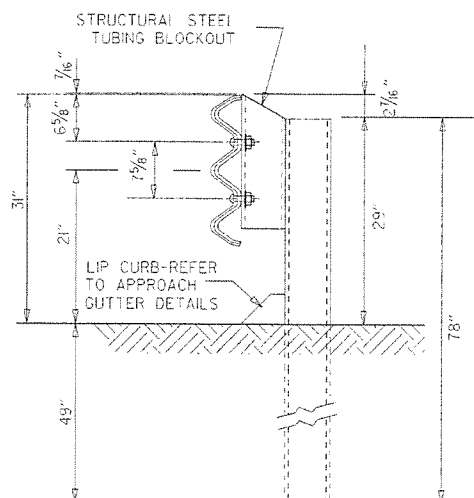
TRANSITION SECTION

DATE	REVISION	DATE FILED
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	

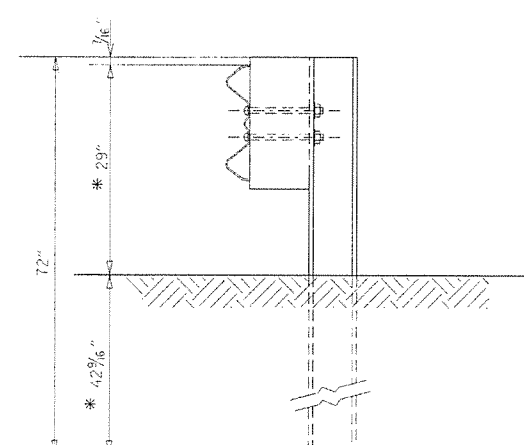
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-10

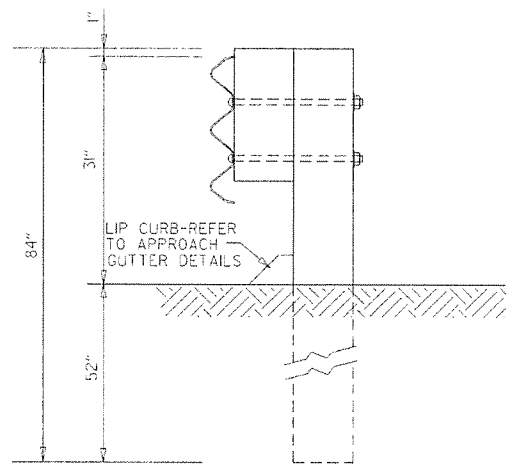


THREE BEAM RAIL WITH STEEL TUBING BLOCKOUT AND STEEL POST
POSTS 1-7

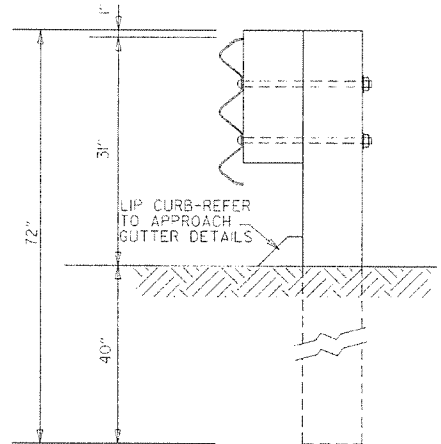


W-BEAM TO THREE BEAM TRANSITION RAIL WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8

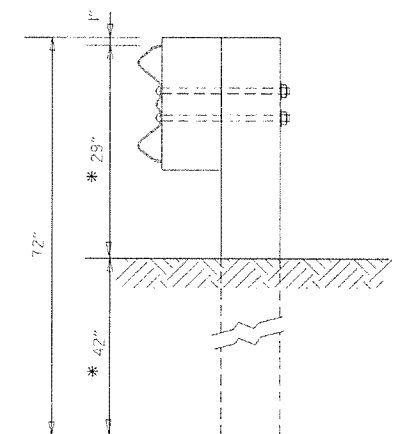
* NOTE:
THESE DIMENSIONS WILL NEED TO BE ADJUSTED IN THE FIELD TO MAKE THE TRANSITION FROM 21" MID POINT OF THREE BEAM TO 22" MID POINT OF W-BEAM.



THREE BEAM RAIL WITH WOOD OR PLASTIC BLOCKOUTS & WOOD POSTS
POSTS 1-6



THREE BEAM RAIL WITH WOOD OR PLASTIC BLOCKOUT & WOOD POST
POST 7



W-BEAM TO THREE BEAM TRANSITION RAIL WITH WOOD OR PLASTIC BLOCKOUT & WOOD POST
POST 8

GENERAL NOTES:
RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

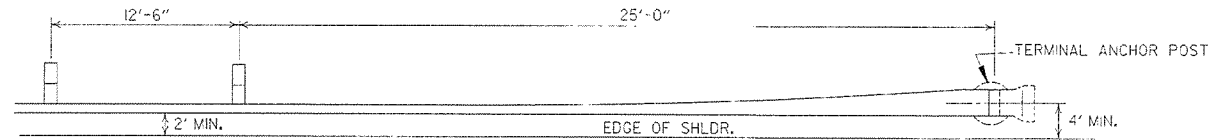
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7F (400 F) OR NO. 1 (350 F) SOUTHERN PINE.

ARKANSAS STATE HIGHWAY COMMISSION

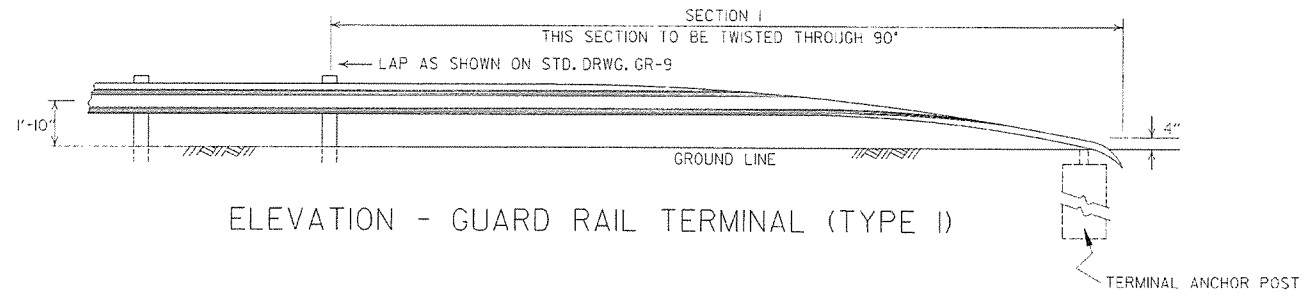
GUARD RAIL DETAILS

STANDARD DRAWING GR-10A

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	

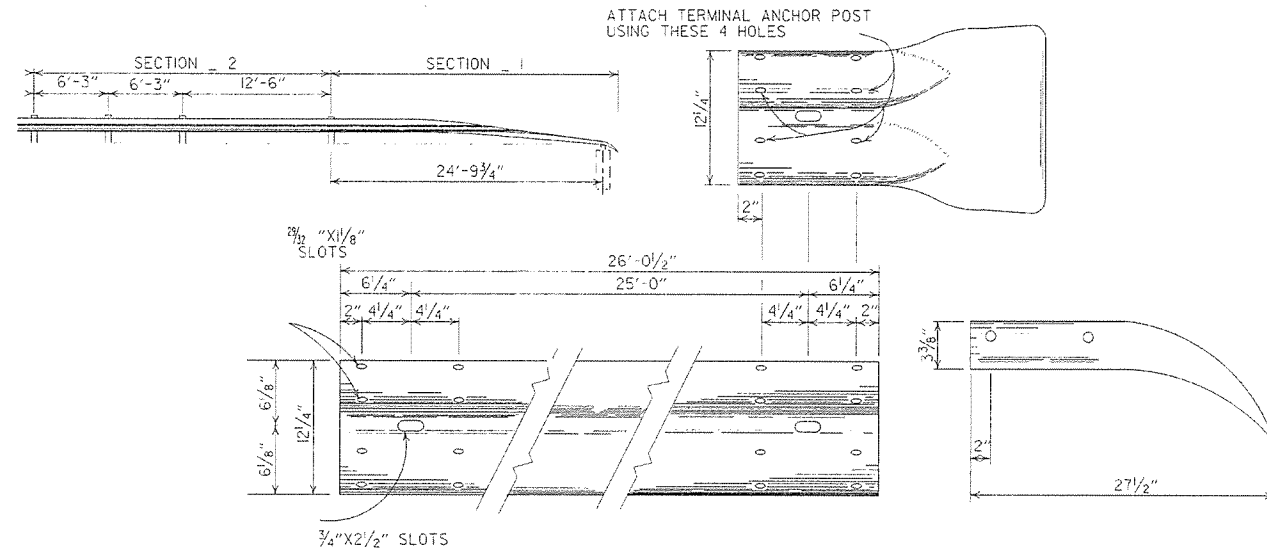


PLAN - GUARD RAIL TERMINAL (TYPE I)



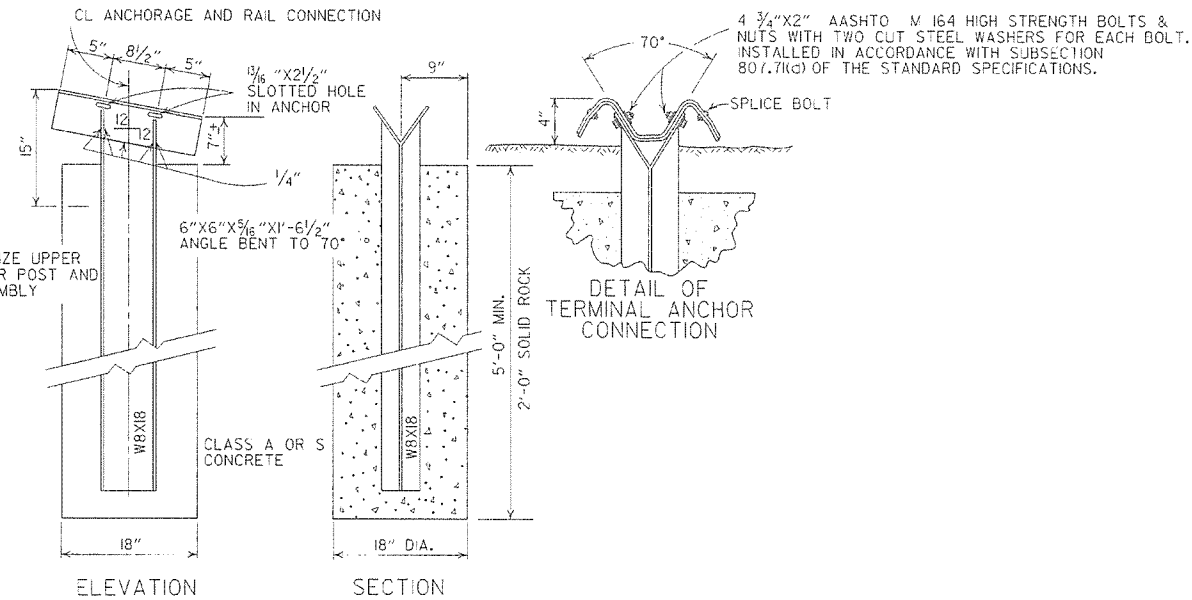
ELEVATION - GUARD RAIL TERMINAL (TYPE I)

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



DETAIL OF TERMINAL ANCHOR POST (TYPE I)

NOTE: GALVANIZE UPPER 15" OF ANCHOR POST AND ANCHOR ASSEMBLY

4 3/4" X 2" AASHTO M 164 HIGH STRENGTH BOLTS & NUTS WITH TWO CUT STEEL WASHERS FOR EACH BOLT. INSTALLED IN ACCORDANCE WITH SUBSECTION 801.7(k) OF THE STANDARD SPECIFICATIONS.

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.

		ARKANSAS STATE HIGHWAY COMMISSION
		GUARD RAIL DETAILS
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	DIVISION TERMINAL DETAIL	
11-11-92	ADDED NOTE FOR PAYMENT	11-11-92
10-1-92	DRAWN & ISSUED	10-1-92
DATE	REVISION	DATE FILE
		STANDARD DRAWING GRT-1

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	AHTD NOMINAL	AASHTO M 206	AHTD NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13 1/2	14
21	26	26	15 1/2	16
24	28 1/2	29	18	18
30	36 1/4	36	22 1/2	23
36	43 3/8	44	26 3/8	27
42	51 1/8	51	31 1/16	31
48	58 1/2	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	77 1/2	77
108	138	138	87 1/8	87
120	154	154	96 3/8	97
132	168 3/4	169	106 1/2	107

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M206.

REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS

EQUIV. DIA.	AASHTO M 207	
	SPAN	RISE
INCHES	INCHES	
18	23	14
24	30	19
27	34	22
30	38	24
33	42	27
36	45	29
39	49	32
42	53	34
48	60	38
54	68	43
60	76	48
66	83	53
72	91	58
78	98	63
84	106	68

THE MEASURED SPAN AND RISE SHALL NOT VARY MORE THAN ± 2 PERCENT FROM THE VALUES SPECIFIED BY AASHTO M207.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SUBSECTION 606.03.(F)(1).

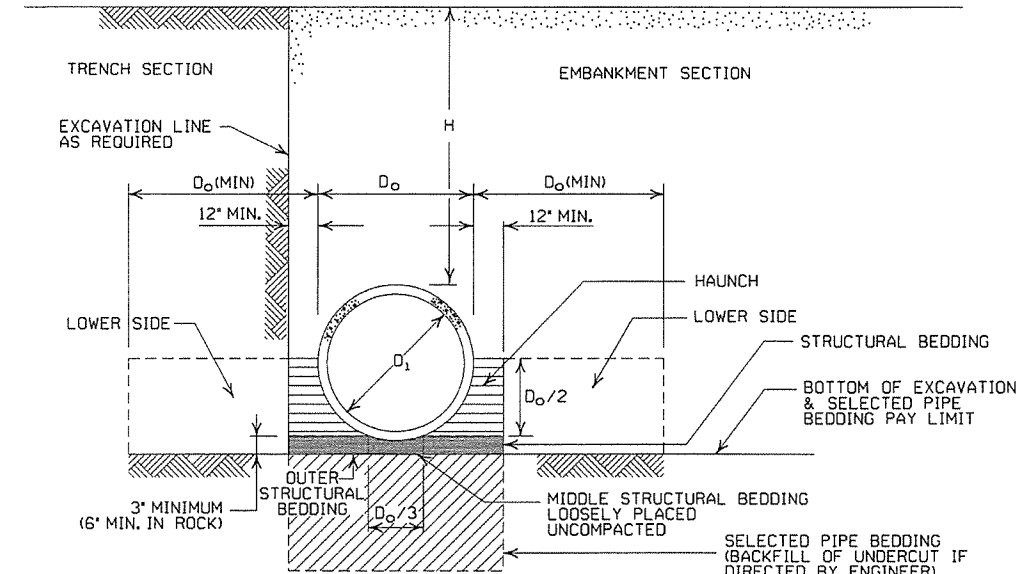
NOTE: HAUNCH AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF CONCRETE PIPE.

- LEGEND -

- D_i = NORMAL INSIDE DIAMETER OF PIPE
- D_o = OUTSIDE DIAMETER OF PIPE
- H = FILL COVER HEIGHT OVER PIPE (FEET)
- MIN. = MINIMUM
- [Symbol] = 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

INSTALLATION TYPE	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
	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

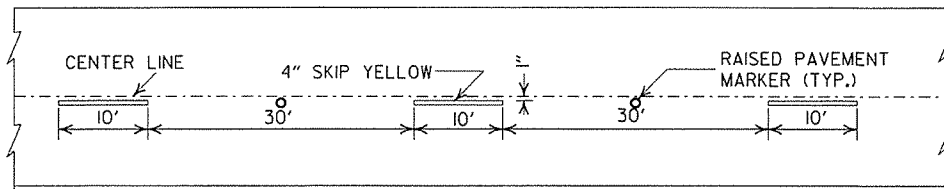
NOTE: TYPE 1 INSTALLATION WILL NOT BE ALLOWED FOR ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS.

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	

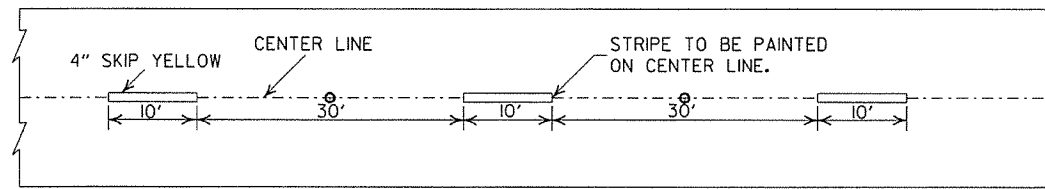
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT
FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

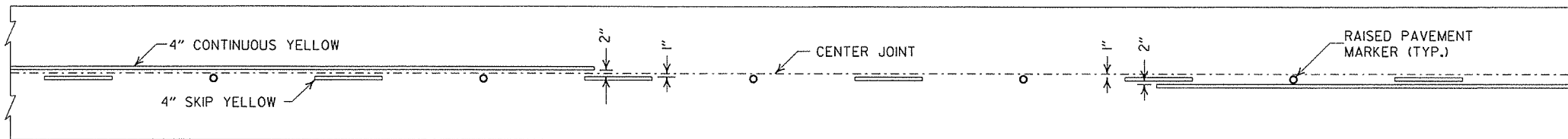


CONCRETE PAVEMENT

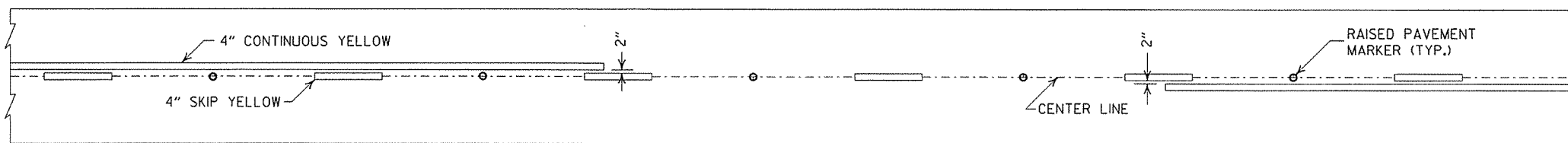


ASPHALT PAVEMENT

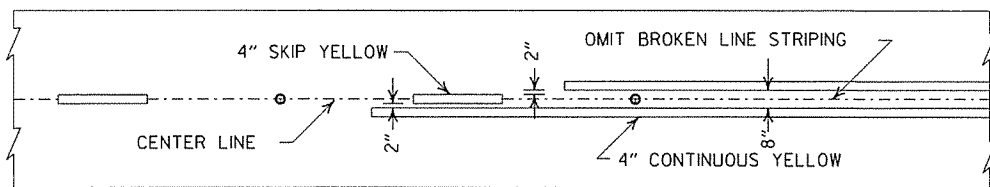
BROKEN LINE STRIPING



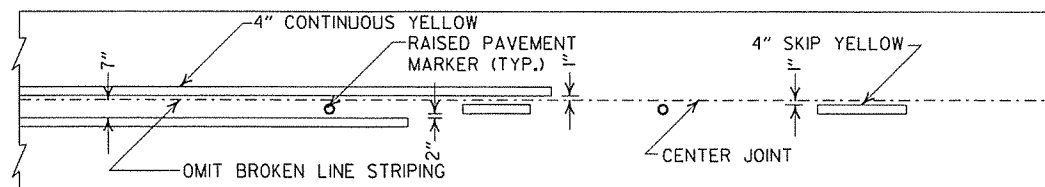
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

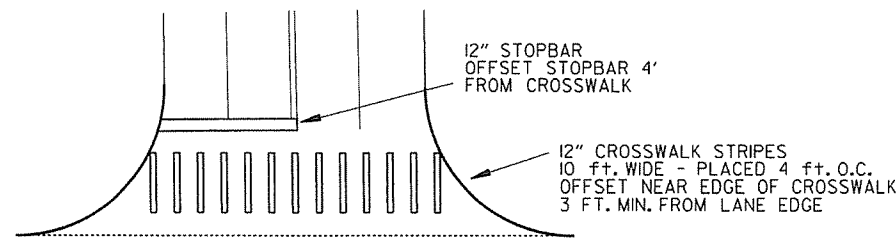


ASPHALT PAVEMENT



CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES

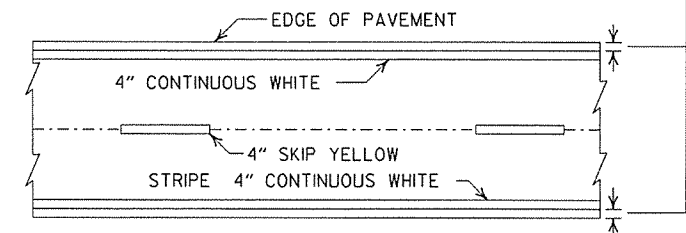


CROSSWALK AND STOPBAR DETAILS

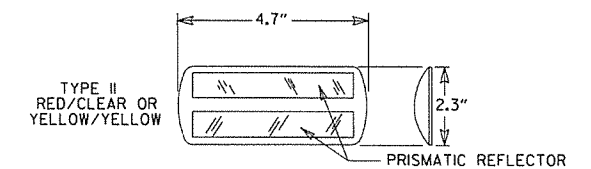
NOTES:

1. ALL LINES SHALL HAVE A WIDTH OF 4 INCHES.
2. THE THICKNESS AND RATE OF PAINT APPLICATION SHALL BE AS SPECIFIED IN SECTION 718 OF THE STANDARD SPECIFICATIONS.
3. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
4. RAISED PAVEMENT MARKERS SHALL BE CENTERED BETWEEN SKIP LINES ON 40 FEET SPACING UNLESS OTHERWISE SHOWN ON THE PLANS.

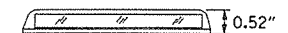
2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT



PAVEMENT EDGE LINE MARKING



NOTE:
THE RED LENS OF THE TYPE II R.P.M. SHALL FACE THE INCORRECT TRAFFIC MOVEMENT.



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

GENERAL NOTES:

THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND RAISED PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

NOTE:
DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
11-17-10	REVISED GENERAL NOTES & REMOVED PLOWABLE PVMT MRKRS	
11-18-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	ADDED CROSSWALK & STOPBAR DTLS.	
7-02-98	ADDED DETAILS OF STD. RAISED PAV'T. MARKERS	
4-26-96	REV. NOTES 3&4; ADDED R.P.M.	
9-30-80	DRAWN	1-9-30-80
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION

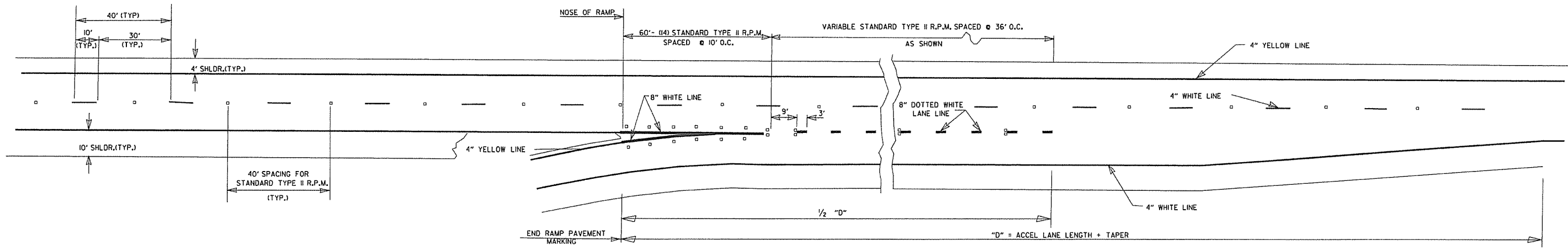
PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

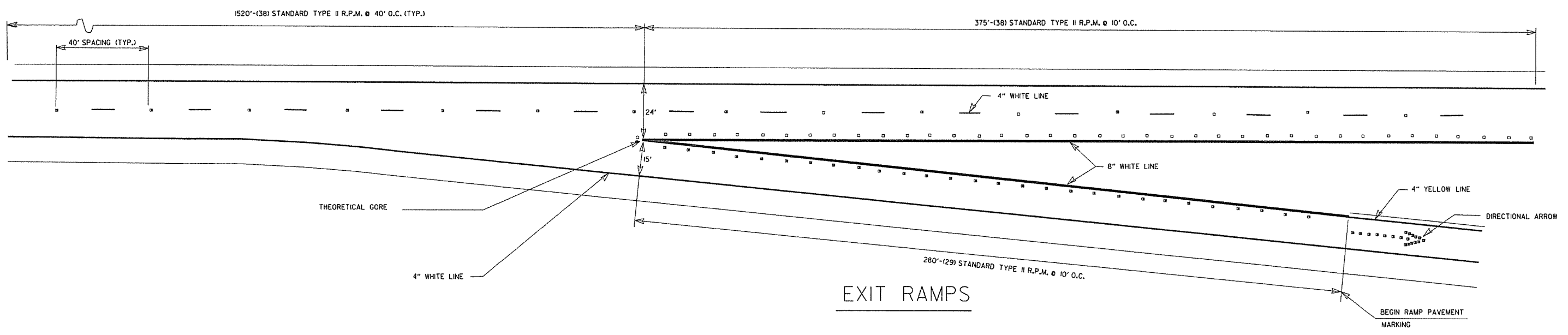
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP
8" WHITE = 228 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

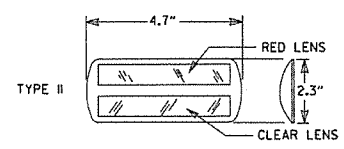
EXIT RAMP
4" WHITE = 280 LIN. FT.
8" WHITE = 655 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH



ENTRANCE RAMPS

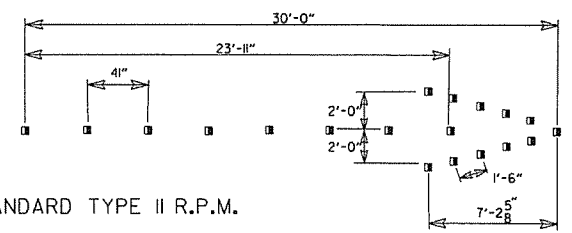


EXIT RAMPS



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.


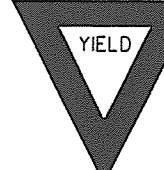
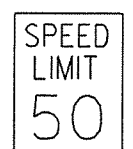






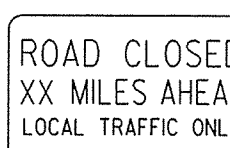
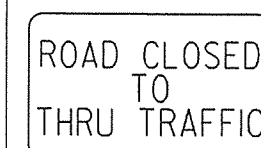
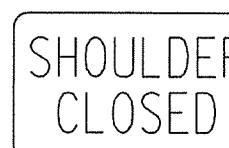
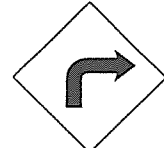
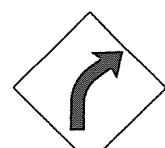
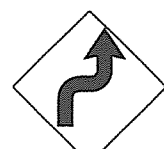
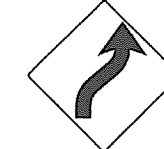
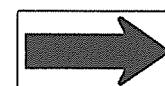
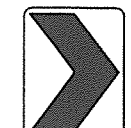
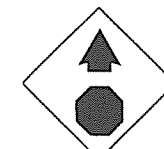
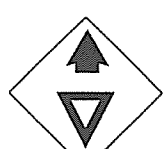
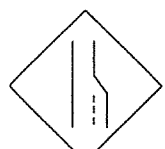

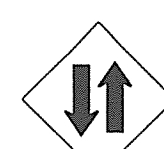



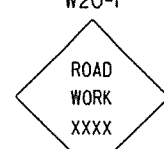
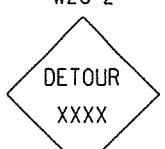
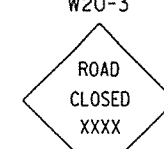




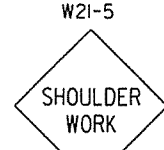
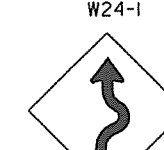

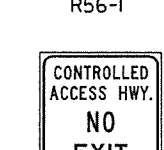

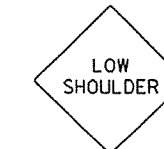
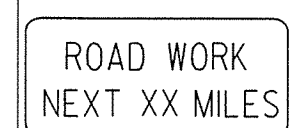
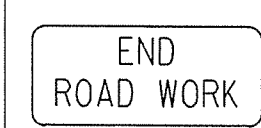
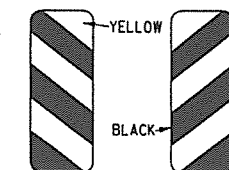

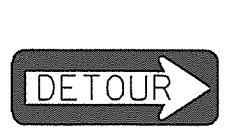
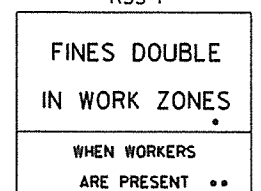
THIS DRAWING SHOULD BE USED IN CONJUNCTION WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST REVISION.

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

<p>RI-1</p>  <p>STANDARD 30"x30" EXPRESSWAY 36"x36" SPECIAL 48"x48"</p>	<p>RI-2</p>  <p>STD. 36"x36"x36" EXPWY. 48"x48"x48" FWY. 60"x60"x60"</p>	<p>R2-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>W3-5</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>W3-5a</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>R4-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R4-2</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	
<p>R5-1</p>  <p>STD. 30"x30" EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>R11-2</p>  <p>48"x30"</p>	<p>R11-3A</p>  <p>60"x30"</p>	<p>R11-4</p>  <p>60"x30"</p>	<p>RSP-1</p>  <p>48"x30"</p>	<p>W1-1</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W1-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	
<p>W1-3</p>  <p>STD. 48"x48"</p>	<p>W1-4</p>  <p>STD. 48"x48"</p>	<p>W1-6</p>  <p>STD. 48"x24" SPECIAL 60"x30"</p>	<p>W1-8</p>  <p>STD. 18"x24" SPECIAL 24"x30" EXPWY. 30"x36" FWY. 36"x48"</p>	<p>W3-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W3-2</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W4-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	
<p>W5-1</p>  <p>STD. 36"x36" SPECIAL 48"x48"</p>	<p>W6-3</p>  <p>EXPWY. 36"x36" SPECIAL 48"x48"</p>	<p>W8-7</p>  <p>EXPWY. 36"x36" FWY. 48"x48"</p>	<p>W9-2</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W13-1</p>  <p>STD. 24"x24"</p>	<p>W20-1</p>  <p>STD. 48"x48"</p>	<p>W20-2</p>  <p>STD. 48"x48"</p>	<p>W20-3</p>  <p>STD. 48"x48"</p>
<p>W20-4</p>  <p>STD. 48"x48"</p>	<p>W20-5</p>  <p>STD. 48"x48"</p>	<p>W20-7a</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W21-2</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W21-5</p>  <p>STD. 30"x30" SPECIAL 36"x36"</p>	<p>W24-1</p>  <p>STD. 36"x36"</p>	<p>W1-4b</p>  <p>STD. 48"x48"</p>	<p>R56-1</p>  <p>STD. 18"x18"</p>
<p>W8-11</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>W8-9</p>  <p>STD. 36"x36" FWY. 48"x48"</p>	<p>G20-1</p>  <p>60"x24"</p>	<p>G20-2</p>  <p>48"x24"</p>	<p>OM-3L OM-3R</p>  <p>12"x36"</p>	<p>M4-9</p>  <p>STD. 30"x24" SPECIAL 48"x36" SPECIAL 60"x48"</p>	<p>M4-10</p>  <p>48"x18"</p>	<p>R55-1</p>  <p>36"x60" • USE 6" C LETTERS •• USE 4" D LETTERS</p>

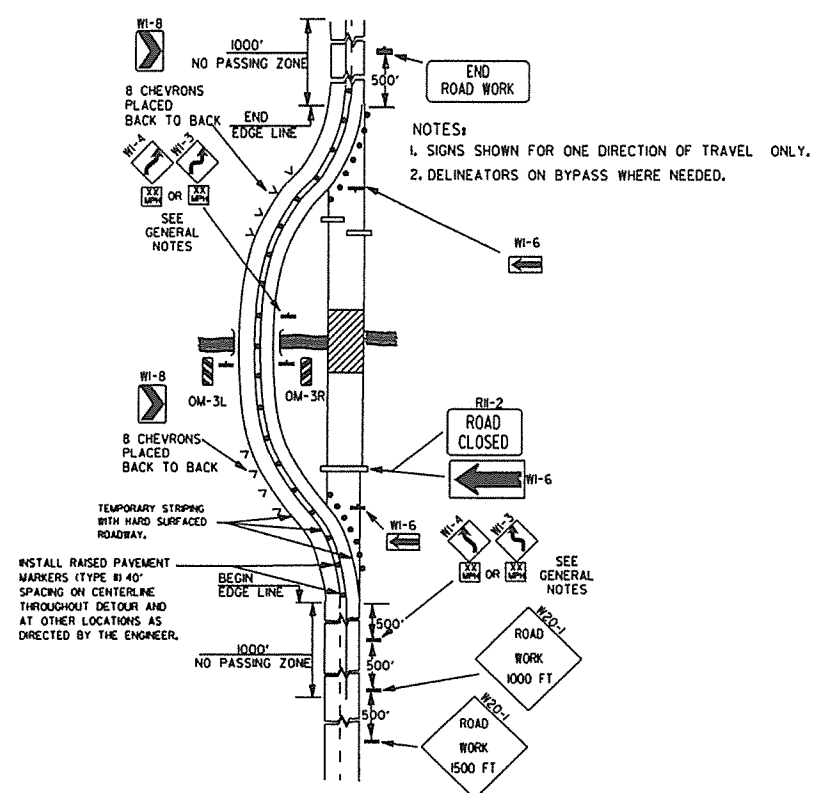
ADVANCE DISTANCES (XXXX)

500 FT	1/2 MILE
1000 FT	3/4 MILE
1500 FT	1 MILE AHEAD

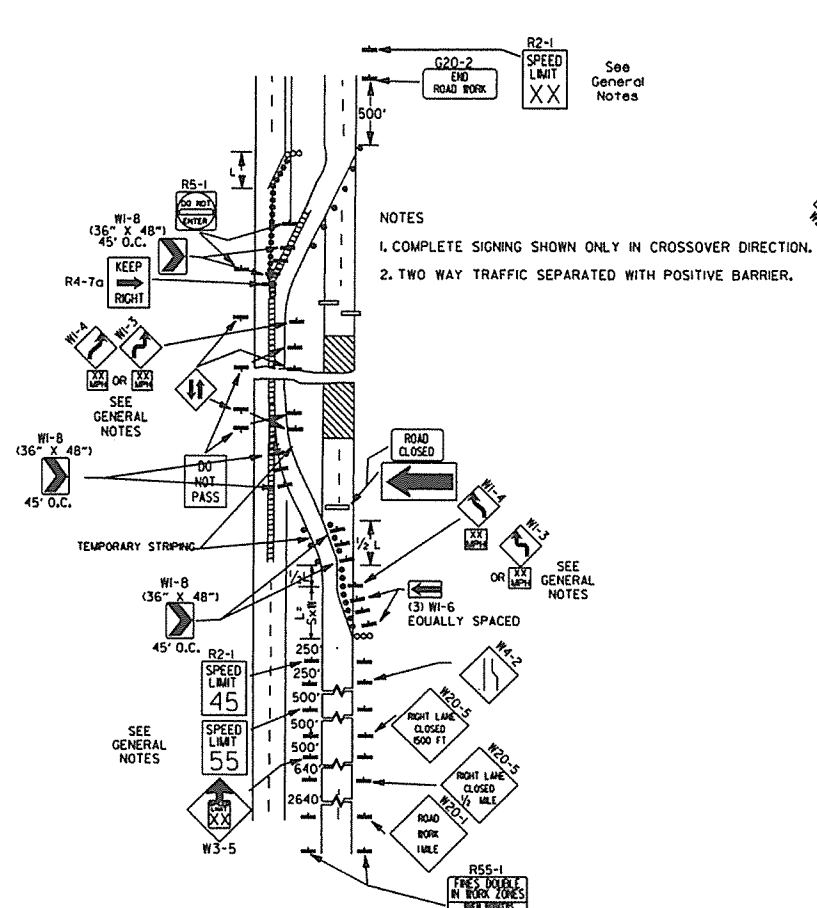
GENERAL NOTES:

- 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
 - 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.
 - 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.

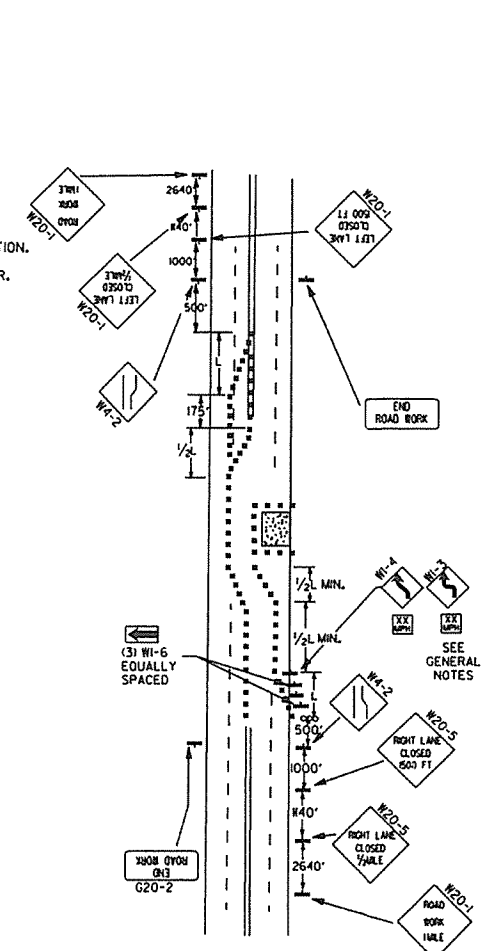
9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS	
12-15-1	REVISED ROAD WORK NEXT XX MILES	
1-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
1-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
1-18-98	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	
10-18-96	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	
DATE	REVISION	FILMED



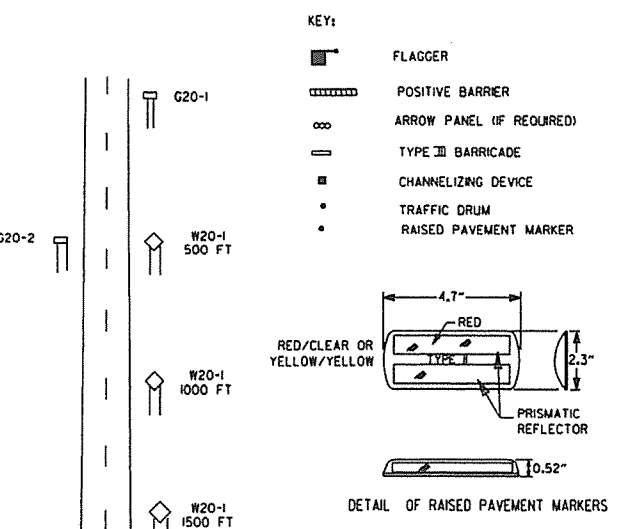
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



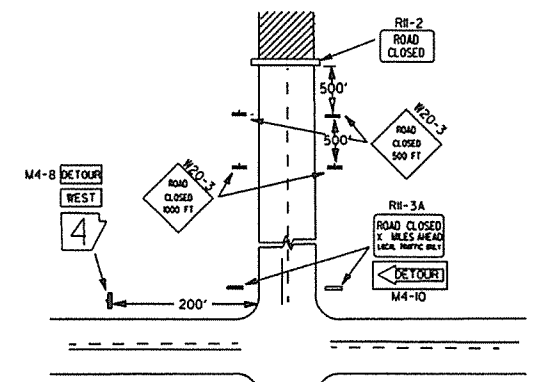
(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



TYPICAL ADVANCE WARNING SIGN PLACEMENT

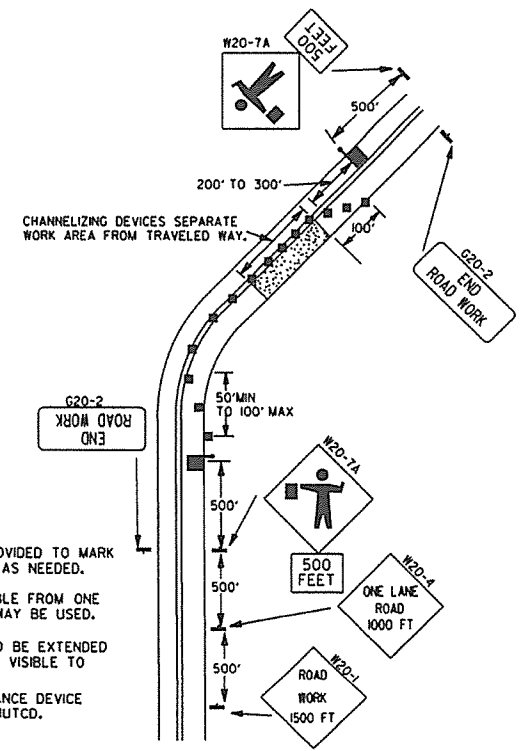
TAPER FORMULAE:
 $L = SXW$ FOR SPEEDS OF 45MPH OR MORE.
 $L = \frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.
 WHERE:
 L = MINIMUM LENGTH OF TAPER.
 S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
 W = WIDTH OF OFFSET.

- GENERAL NOTES:
- 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.
 - 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(45) 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.
 - WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(65) SHALL BE OMITTED. ADDITIONAL R2-1(55) 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.
 - 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.
 - WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
 - PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
 - 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.
 - DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.

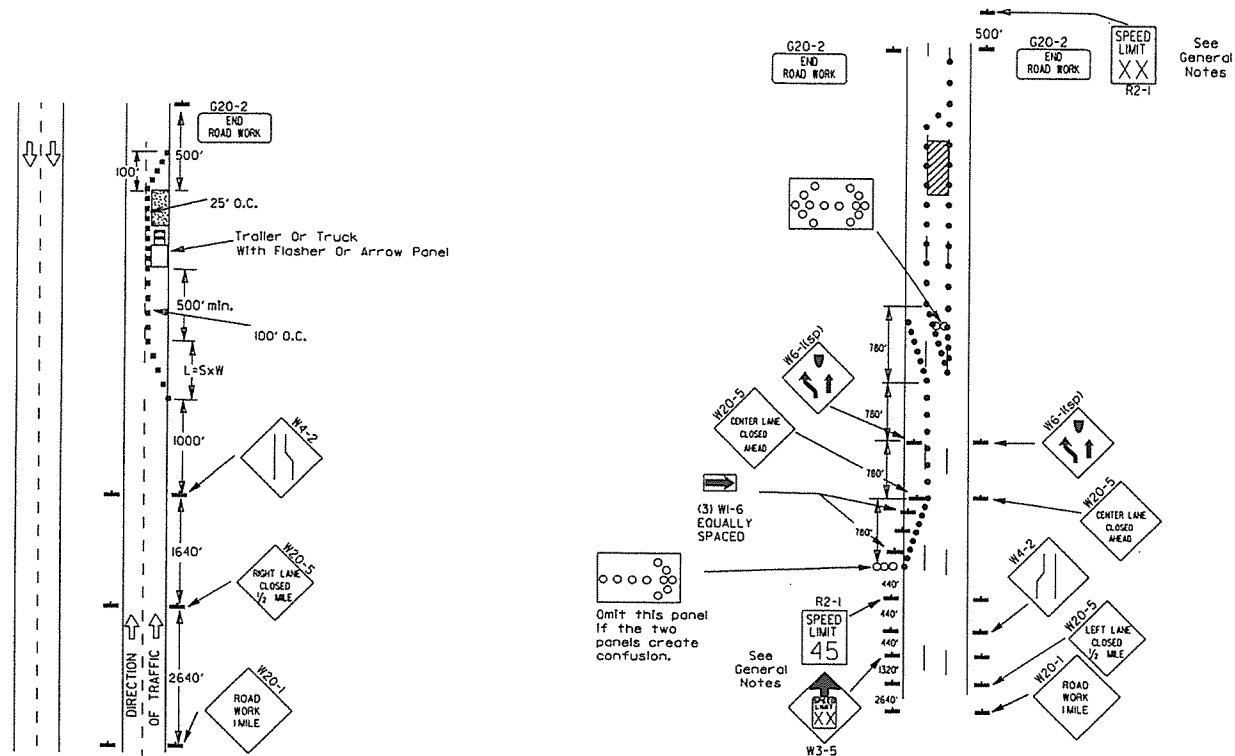


- NOTES:
- REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
 - STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

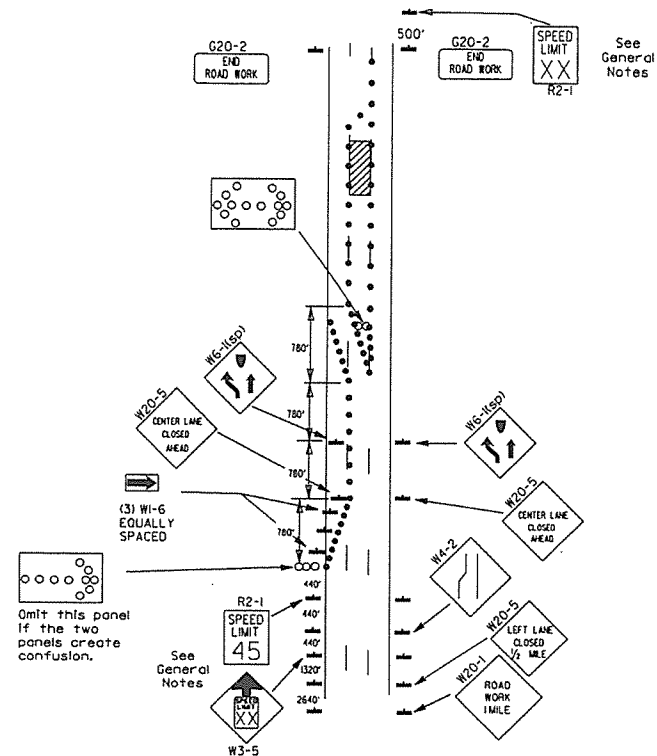
(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



Channelizing devices



(A) Typical application - daytime maintenance operations of short duration on a 4-lane divided roadway where half of the roadway is closed.

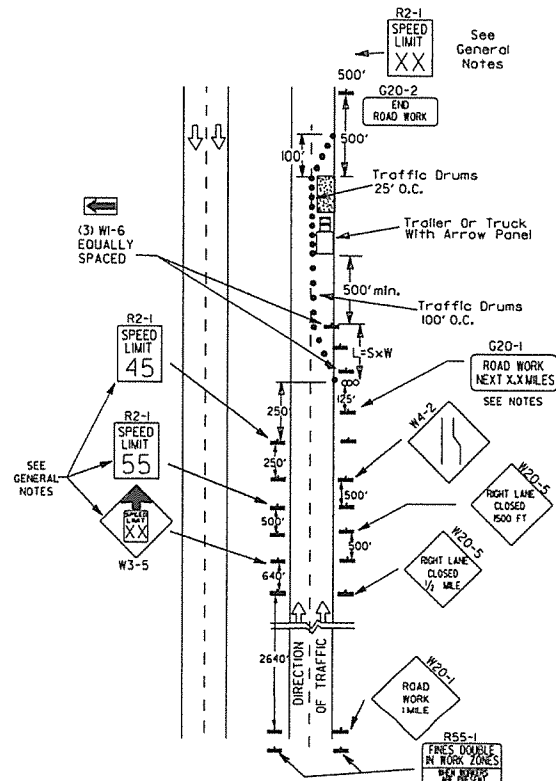


(B) Typical application - 3-lane one-way roadway where center lane is closed.

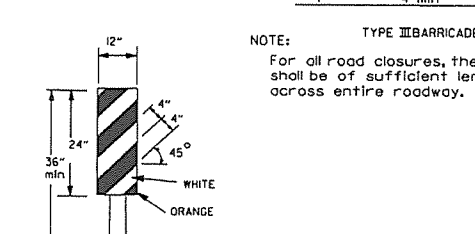
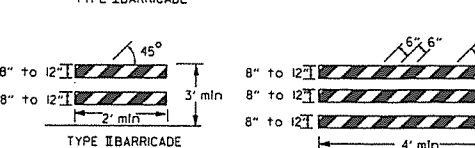
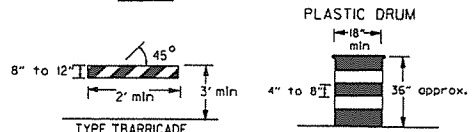
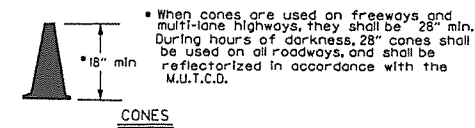
- KEY:
- Arrow Panel (if Required)
 - Channelizing Device
 - Traffic drum

GENERAL NOTES:

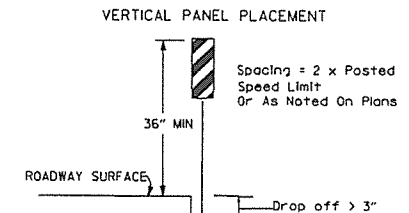
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(45) shall be omitted and the W3-5 shall be installed at that location. Additional R2-145mph 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 R2-155mph 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.



(C) Typical application - construction operations of intermediate to long term duration on a 4-lane divided roadway where half of the roadway is closed.



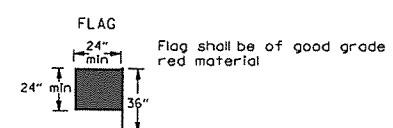
NOTE: For all road closures, the Type III barricades shall be of sufficient length to extend across entire roadway.



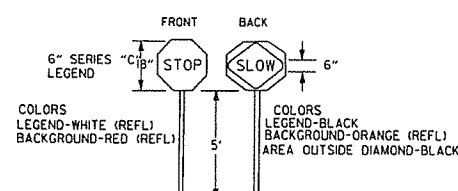
TRAFFIC CONTROL DEVICES FOR VERTICAL PAVEMENT DIFFERENTIALS

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-land vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical panels, drums or concrete barrier

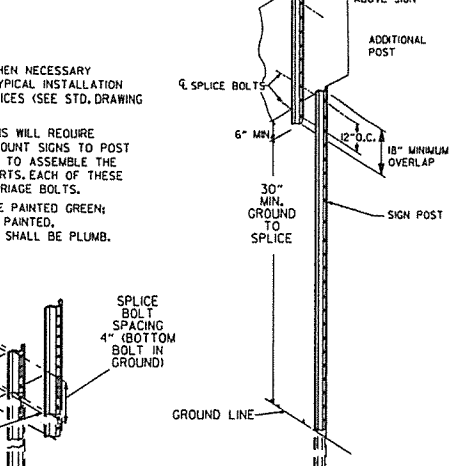
* When shown on the plans concrete barrier will be used. When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.



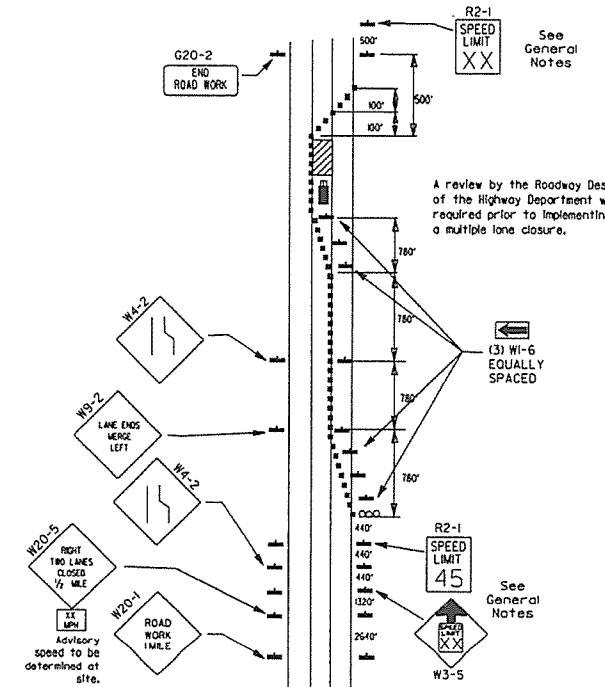
STOP SLOW PADDLE



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.

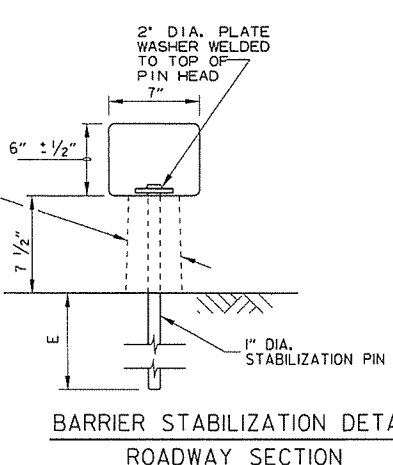
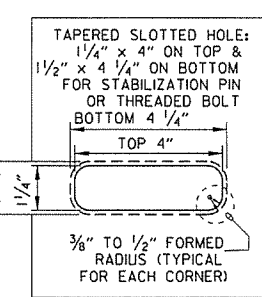
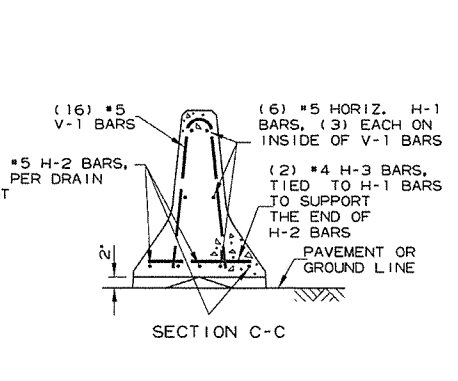
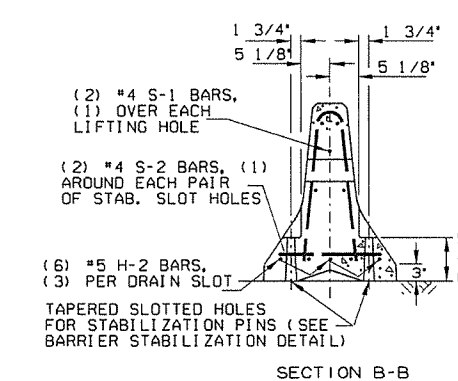
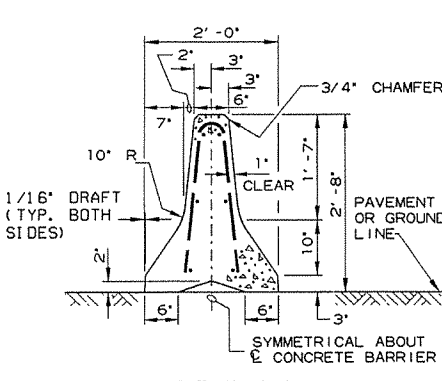
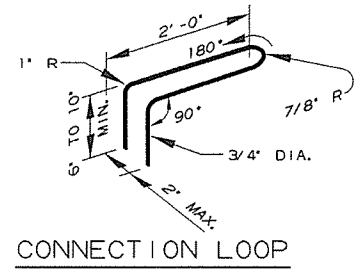
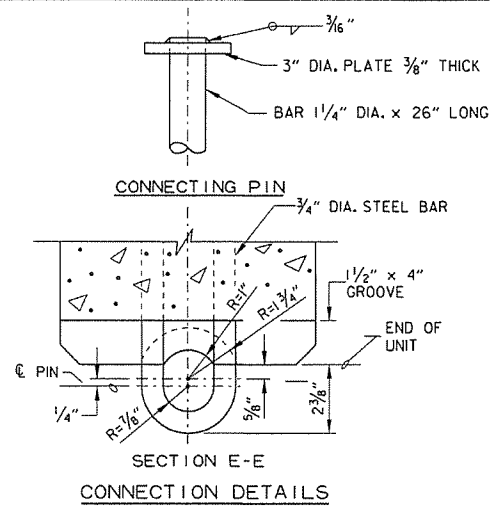


(D) Typical application - closing multiple lanes of a multilane highway.

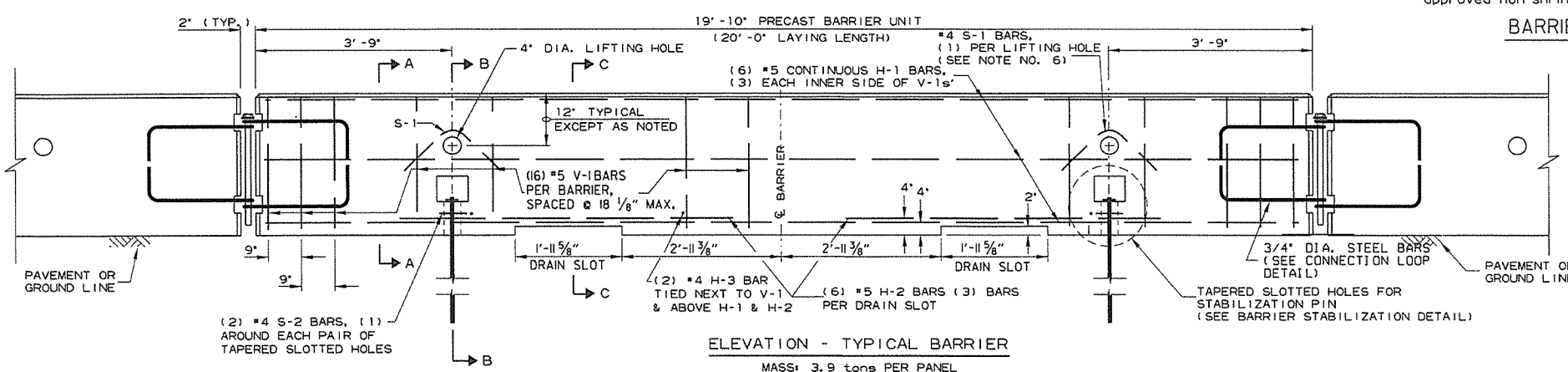
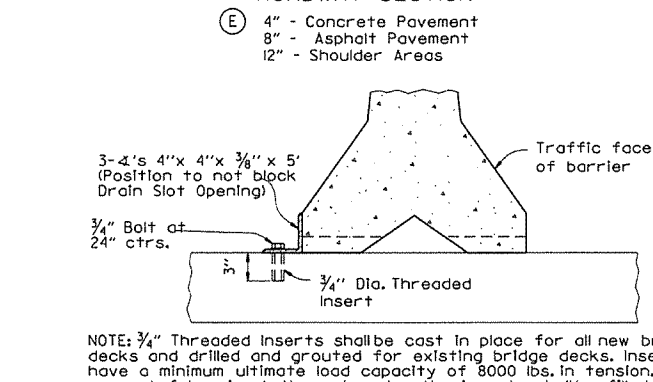
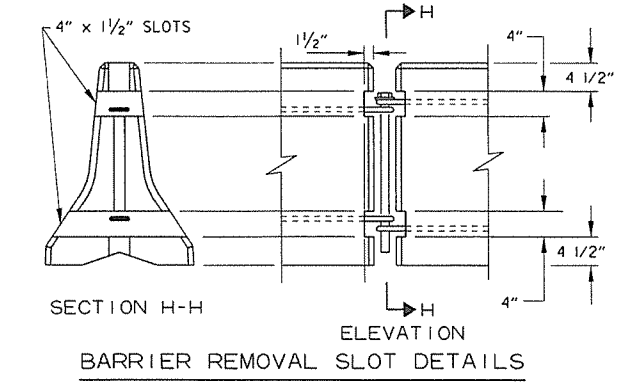
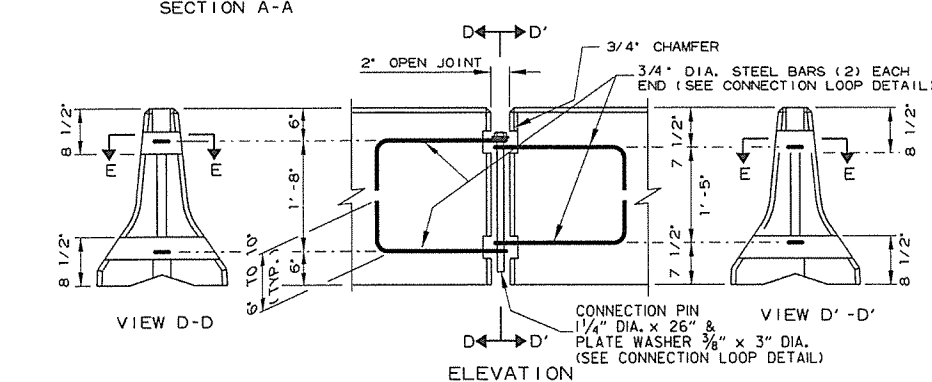
DATE	REVISION	FILED
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SPI) TO W6-1& REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	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)
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1	#4	(2)
S-1	OVER LIFT HOLES	#4	(2)
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S & DRAIN SLOTS	#4	(2)
V-1	VERTICAL IN BARRIER (3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)



- General Notes**
- 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.
 - 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 walls 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.
- 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.
 - 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.
 - Attach Units To Roadway Surface with Stabilization Pins and to Deck Slabs using bolts when required.
 - A 4" White PVC Sleeve may be used to form the Lifting Hole and if used the Sleeve is to be left in place.



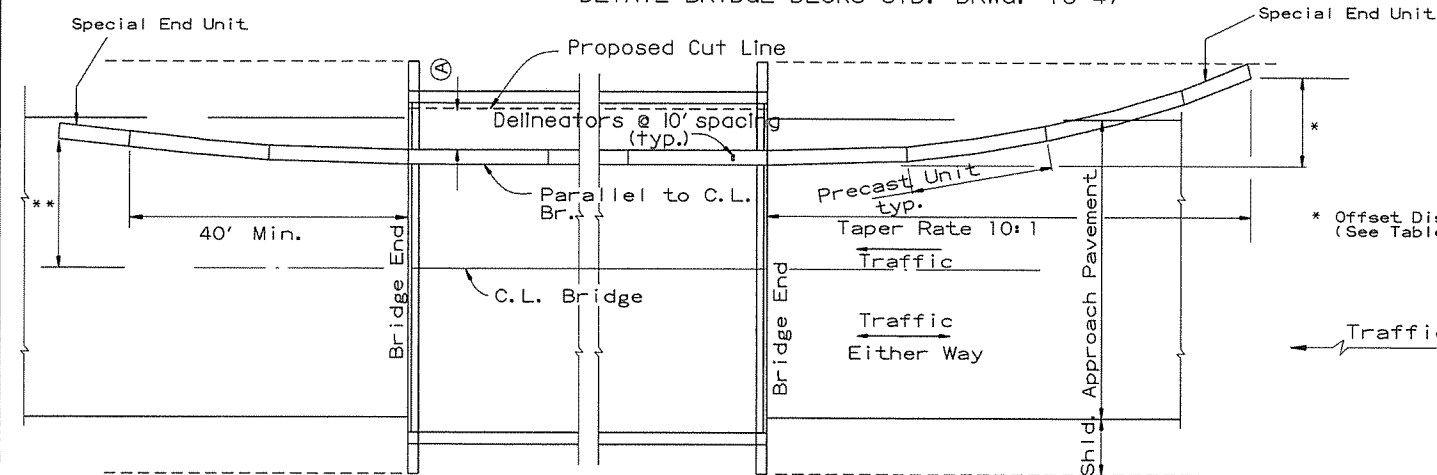
DATE	REVISION	FILMED
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

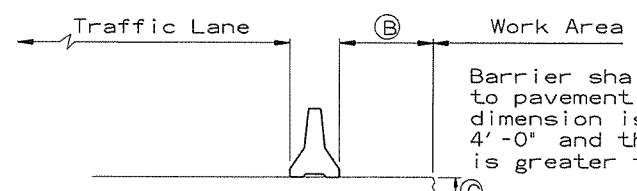
(A) 4 feet or greater preferred. If less than 4 feet, Precast Units shall be connected to slab (SEE BARRIER STABILIZATION DETAIL-BRIDGE DECKS STD. DRWG. TC-4)



BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

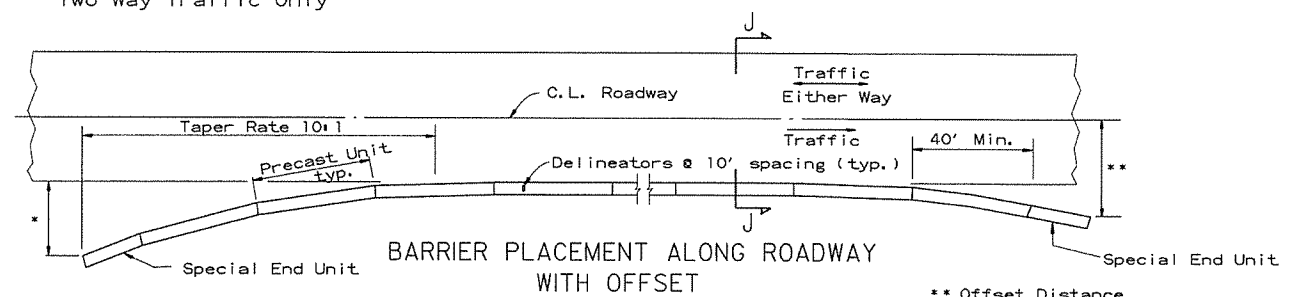
No Scale

** Offset Distance for Two Way Traffic Only



SECTION J-J

No Scale



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

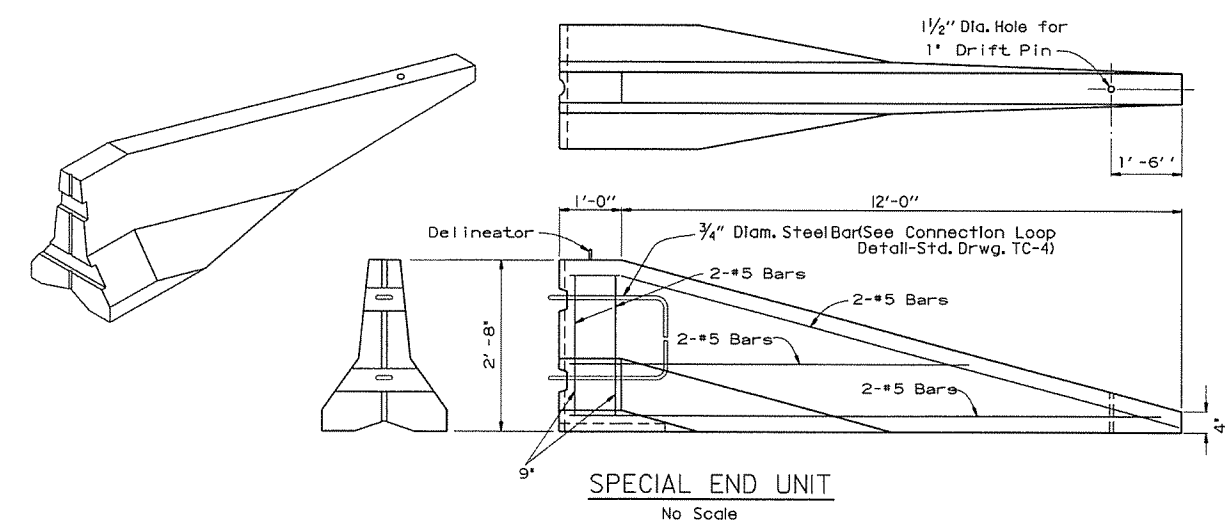
* Offset Distance (See Table)

** Offset Distance For Two Way Traffic Only

Offset Distance Table

Speed (MPH)	Offset Distance (FT.)
≤ 45	12
> 45	18

If offset distance is not attainable, then see 'Barrier Placement With Attenuator' Detail shown below.

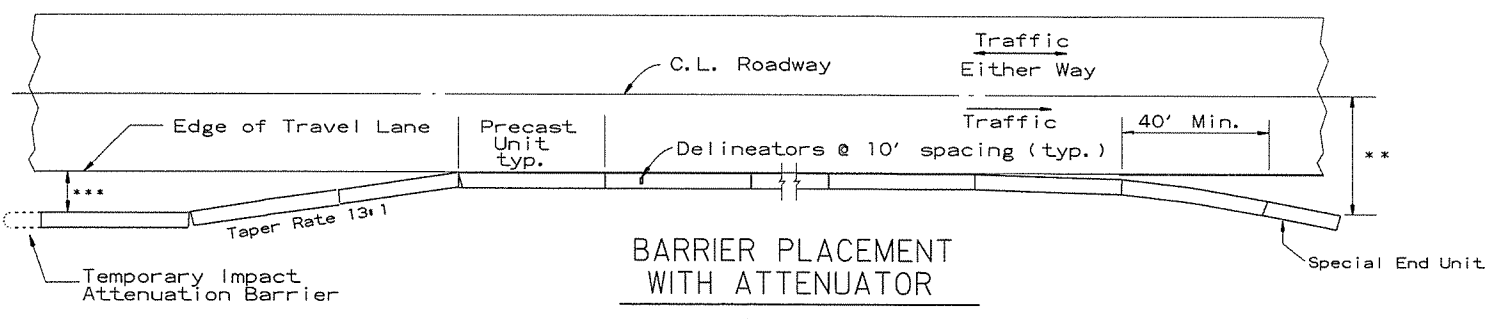


SPECIAL END UNIT

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.'



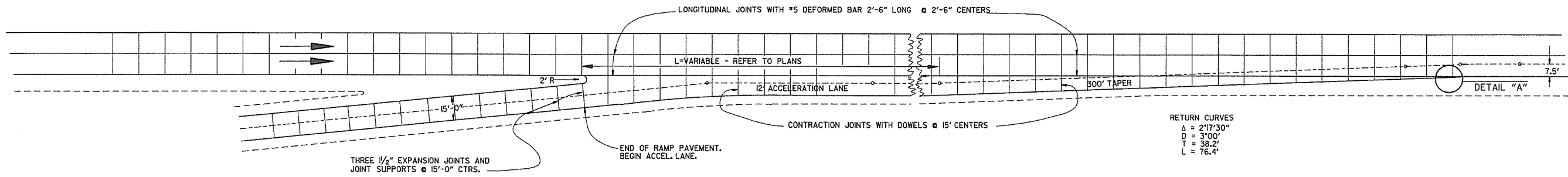
BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

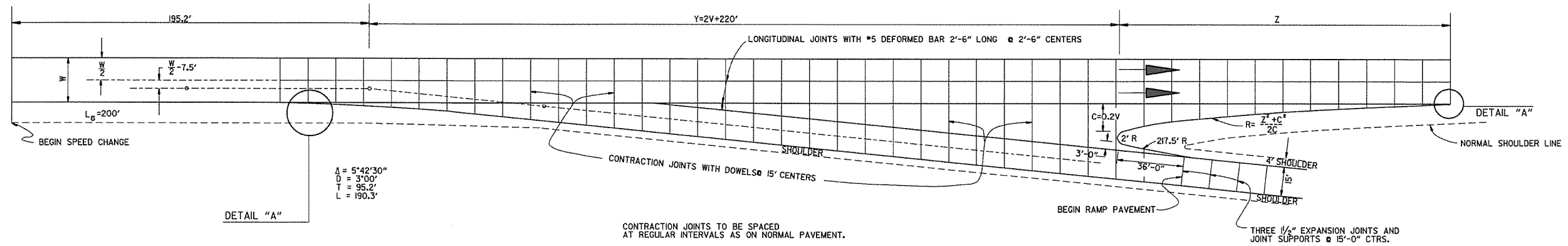
*** Min. 3'-0" From Edge of Travel Lane to Nearest Edge of Attenuator

ARKANSAS STATE HIGHWAY COMMISSION		
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER		
STANDARD DRAWING TC-5		
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	
DATE	REVISION	FILMED



ENTRANCE RAMP

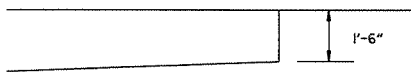
NOTE: JOINT SPACING ON THE MAIN LANES SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO THESE JOINT LAYOUTS. THE MAIN LANE JOINT SPACING MAY BE REDUCED TO A 12' MINIMUM.



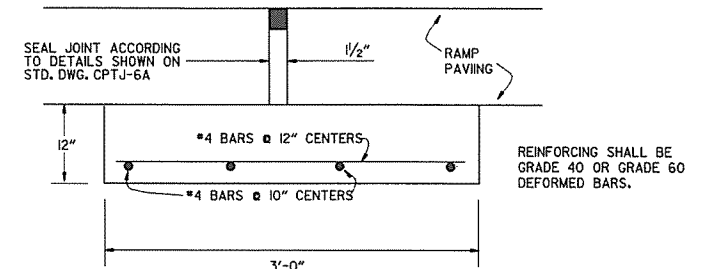
EXIT RAMP

EXIT RAMP

DESIGN SPEED V	Y	NOSE OFFSET C	LENGTH NOSE TAPER Z	RETURN RADIUS R	ADDITIONAL SURFACING SQ. YDS.
40	300.0	8.0	96.0	580.0	602.43
50	320.0	10.0	120.0	725.0	687.29
60	340.0	12.0	168.0	1182.0	790.55
70	360.0	14.0	210.0	1582.0	902.27



DETAIL "A"



DETAIL OF EXPANSION JOINT & JOINT SUPPORT

NOTE: THE EXPANSION JOINTS SHALL BE MEASURED AND PAID FOR AS P.C.C. PAVEMENT (RAMP THICKNESS). WHEN RAMP PAVING IS ASPHALT, EXPANSION JOINT IS NOT REQUIRED. THE JOINT SUPPORT MAY BE CONSTRUCTED WITH CLASS "A", "S", OR PAVING CONCRETE. PAYMENT FOR THE JOINT SUPPORT SHALL BE FOR THE CONTRACT UNIT PRICE BID FOR THE CLASS OF CONCRETE USED. ALL OTHER WORK AND MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE JOINT SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE ABOVE ITEMS.

DATE	REVISION	DATE FILM'D
8-22-02	DELETED NOTE	
11-16-01	CORRECTED SPELLING ON ENTRANCE RAMP NOTE	
5-13-99	ADDED, EDITED AND DELETED NOTES	
11-03-94	ADDED NOTE RE: REINF. BARS	
10-1-92	ADDED DETAIL A & OTHER MINOR CHANGES	10-1-92
1-25-90	REVISED EXPANSION JOINT	1-25-90
7-15-88	CONFORM'D TO 1988 SPECIFICATIONS	65C-7-15-88
3-2-81	ISSUED	511-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF STANDARD TURNOUT

FOR

ENTRANCE & EXIT RAMPS (NON-REINFORCED)

STANDARD DRAWING TR-1A