"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.		BB0104	1	88
				(2) GOODWIN-FORREST CITY (S)				

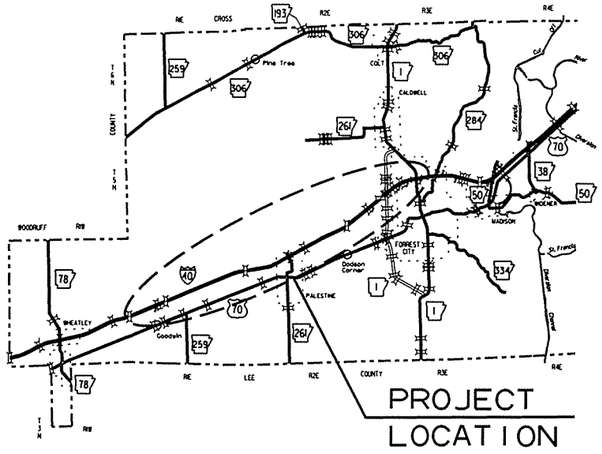
GOODWIN-FORREST CITY (S)

ST. FRANCIS COUNTY

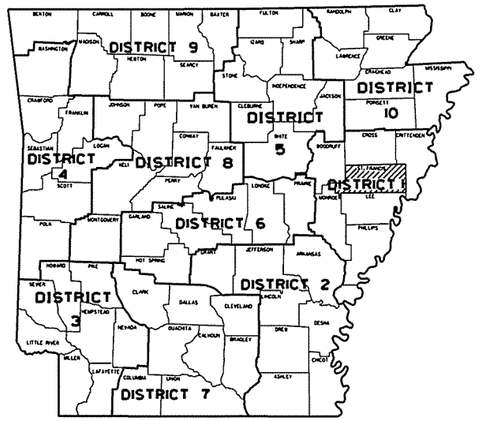
ROUTE 40 SECTION 51

FED. AID PROJ. BIM-B40-0(204) & 9050

JOB NO. BB0104



VICINITY MAP



ARK. HWY. DIST. NO. 1

NOT TO SCALE

STA. 3438+70.00
BEGIN JOB NO. BB0104
LOG MILE 228.23

BRIDGE DATA

① STA. 3943+66.12 BR. END
EXISTING 90.0' BRIDGE A3614
40'-0" CLEAR ROADWAY
STA. 3944+56.12 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

② STA. 3944+87.45 BR. END
EXISTING 90.0' BRIDGE B3614
40'-0" CLEAR ROADWAY
STA. 3945+77.45 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

③ STA. 4032+95.82 BR. END
EXISTING 90.0' BRIDGE A3617
40'-0" CLEAR ROADWAY
STA. 4033+85.82 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

④ STA. 4034+14.44 BR. END
EXISTING 90.0' BRIDGE B3617
40'-0" CLEAR ROADWAY
STA. 4035+04.44 BR. END
REHABILITATE BRIDGE DECK-HYDRODEMOLITION

STRUCTURES OVER 20'-0" SPAN

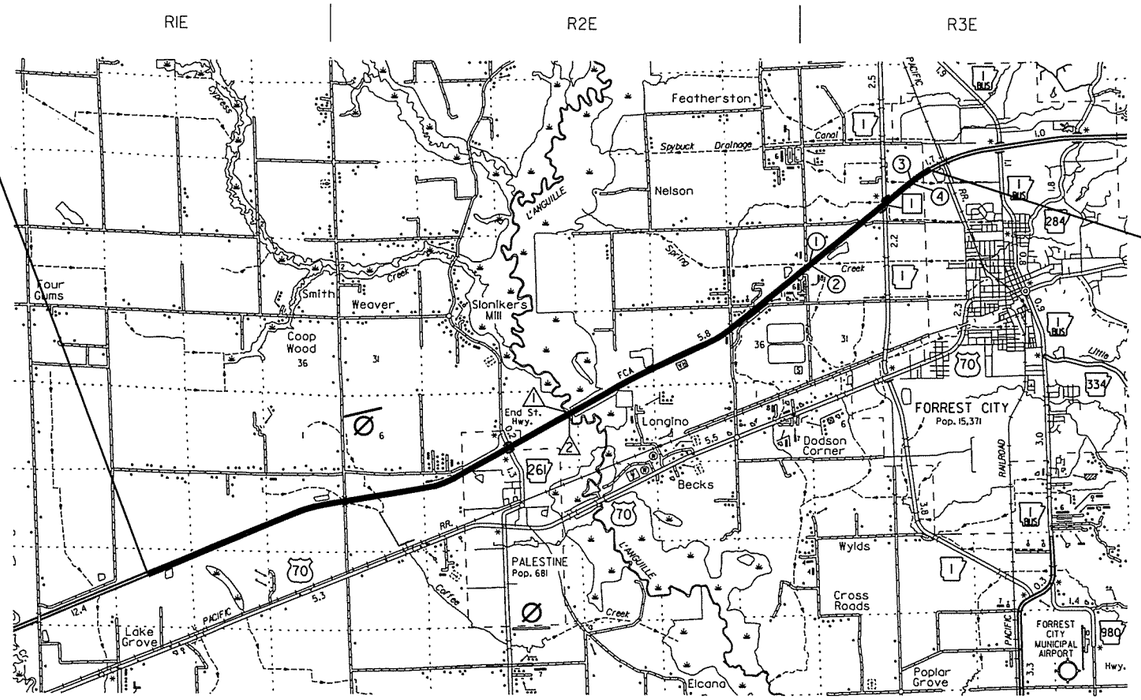
[1] STA 4009+65 IN PLACE
QUINTUPLE 12' X 6' X 172' R.C. BOX CULV'T.
RETAIN

EXCEPTIONS TO JOB NO. BB0104 (BRIDGES)

⚠1 STA. 3745+08.53 BR. END
788.16' BRIDGE NO. A6518
41'-0" CLEAR ROADWAY
STA. 3752+96.69 BR. END

⚠2 STA. 3745+08.53 BR. END
788.16' BRIDGE NO. B6518
41'-0" CLEAR ROADWAY
STA. 3752+96.69 BR. END

TOTAL LENGTH OF EXCEPTIONS
788.16' MEASURED ALONG CENTERLINE



STA. 4050+67.90
END JOB BB0104
LOG MILE 239.82

DESIGN TRAFFIC DATA

DESIGN YEAR	2034
2014 ADT	36,000
2034 ADT	57,500
2034 DHV	6,325
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	55%
DESIGN SPEED	70 MPH

APPROVED

STATE OF ARKANSAS
4-22-14
REGISTERED PROFESSIONAL ENGINEER
No. 4215
RALPH J. HALL

DEPUTY DIRECTOR
AND CHIEF ENGINEER

BEGINNING OF PROJECT	MID POINT OF PROJECT	END OF PROJECT
LATITUDE = N 34°57'45"	LATITUDE = N 34°59'21"	LATITUDE = N 35°01'59"
LONGITUDE = W 90°59'18"	LONGITUDE = W 90°53'31"	LONGITUDE = W 90°48'19"

LENGTH OF PROJECT CALCULATED ALONG C.L.

GROSS LENGTH OF	PROJECT	61197.90	FEET OR	11.591	MILES
NET	" "	ROADWAY	60229.74	"	11.407	"
NET	" "	BRIDGES	180.00	"	0.034	"
NET	" "	PROJECT	60409.74	"	11.441	"

4/10/2014

ZBORDER.CEL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	2	88

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

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-23-14

INDEX OF SHEETS

GENERAL NOTES

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

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

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

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

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

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

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 BB0104
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
620-1	MULCH COVER
JOB BB0104	ASSESSMENT OF WORKING DAYS - SATURDAYS
JOB BB0104	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB BB0104	CONCRETE DITCH PAVING
JOB BB0104	COORDINATION OF WORK
JOB BB0104	CULVERT REHABILITATION
JOB BB0104	ELECTRONIC SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB BB0104	EMPLOYMENT REPORTING
JOB BB0104	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB BB0104	HIGH PERFORMANCE PAVEMENT MARKING
JOB BB0104	HYDRODEMOLITION
JOB BB0104	LATEX MODIFIED CONCRETE OVERLAY
JOB BB0104	MAINTENANCE OF TRAFFIC
JOB BB0104	MANAGEMENT OF HYDRODEMOLITION WASTEWATER
JOB BB0104	MANDATORY USE OF INTERNET BIDDING
JOB BB0104	PARTNERING REQUIREMENTS
JOB BB0104	PERCENT WITHIN LIMITS/PAVEMENT SMOOTHNESS
JOB BB0104	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIERS
JOB BB0104	SEQUENCE OF CONSTRUCTION
JOB BB0104	SITE USE (A + C METHOD)
JOB BB0104	STORM WATER POLLUTION PREVENTION PLAN
JOB BB0104	TEMPORARY PORTABLE RUMBLE STRIPS
JOB BB0104	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB BB0104	TRENCHING AND SHOULDER PREPARATION
JOB BB0104	UNDERDRAIN FLUSHING AND REHABILITATION
JOB BB0104	UTILITY ADJUSTMENTS
JOB BB0104	VALUE ENGINEERING
JOB BB0104	WARM MIX ASPHALT
JOB BB0104	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS
JOB BB0104	WIRE ROPE SAFETY FENCE (POST REPAIR)
JOB BB0104	WIRE ROPE SAFETY FENCE (WRSF) SPECIFICATIONS
JOB BB0104	WRSF TRAINING WORKSHOP

4/23/2014

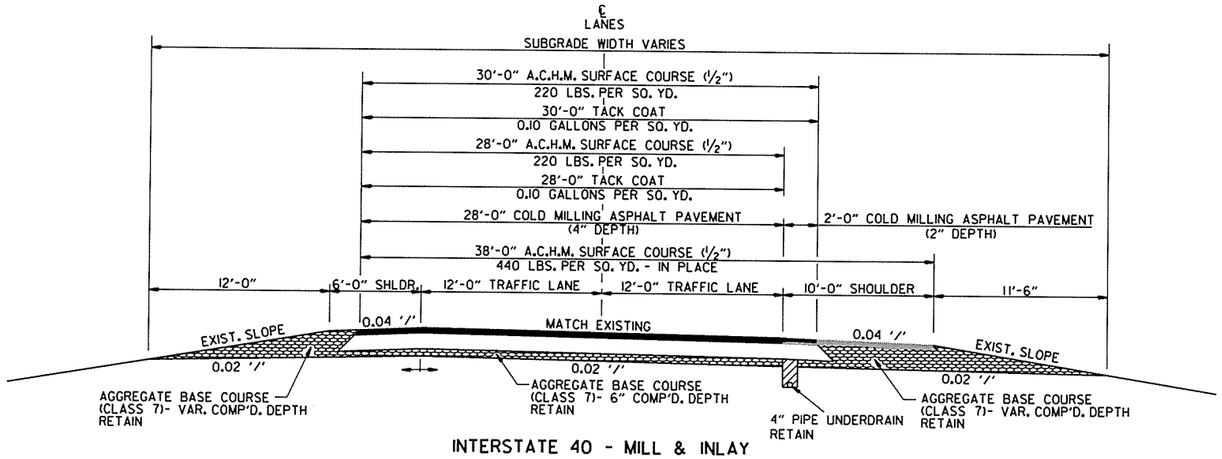
RBB0104.DGN

INDEX OF SHEETS, GOVERNING SPECIFICATIONS, & GENERAL NOTES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	3	88

(2) TYPICAL SECTIONS OF IMPROVEMENT

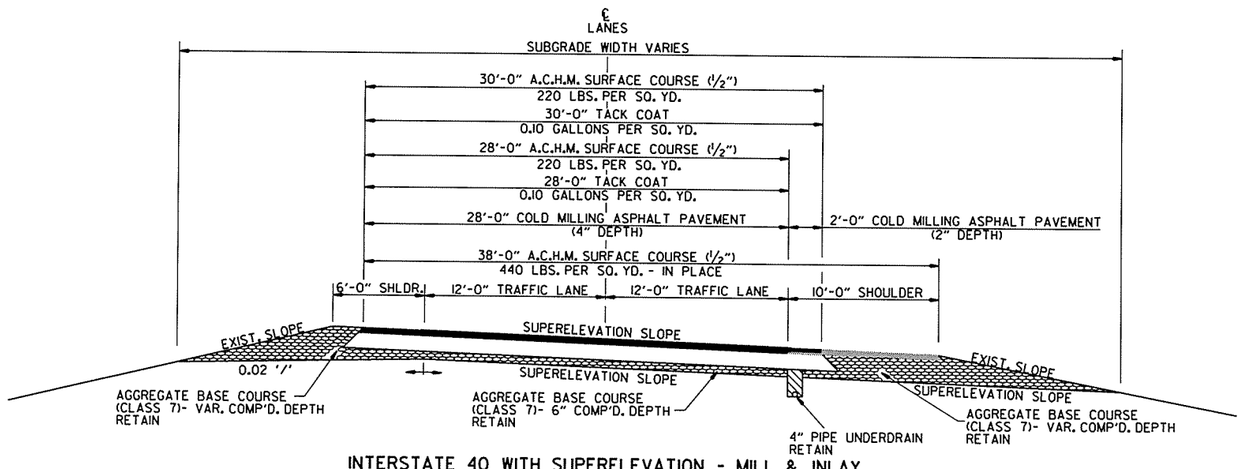
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



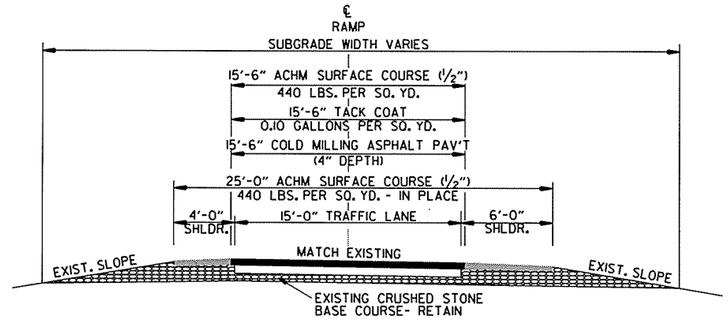
INTERSTATE 40 - MILL & INLAY
(SHOWN IN DIRECTION OF TRAFFIC)

LT. MAIN LANES
3573+64.00 TO 3590+64.00
3694+14.90 TO 3708+64.90
3868+22.00 TO 3882+22.00
3936+12.44 TO 3943+29.62
3944+92.62 TO 3952+12.44
3982+14.70 TO 3997+64.70
4008+92.50 TO 4010+37.50
4026+96.32 TO 4032+59.32
4034+22.32 TO 4050+67.90

RT. MAIN LANES
3573+64.00 TO 3590+64.00
3694+14.90 TO 3708+64.90
3868+22.00 TO 3882+22.00
3937+17.95 TO 3944+50.95
3946+13.95 TO 3953+17.95
3983+14.70 TO 3996+64.70
4008+92.50 TO 4010+37.50
4027+01.94 TO 4033+77.94
4035+40.94 TO 4050+67.90



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



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

1/17/2014

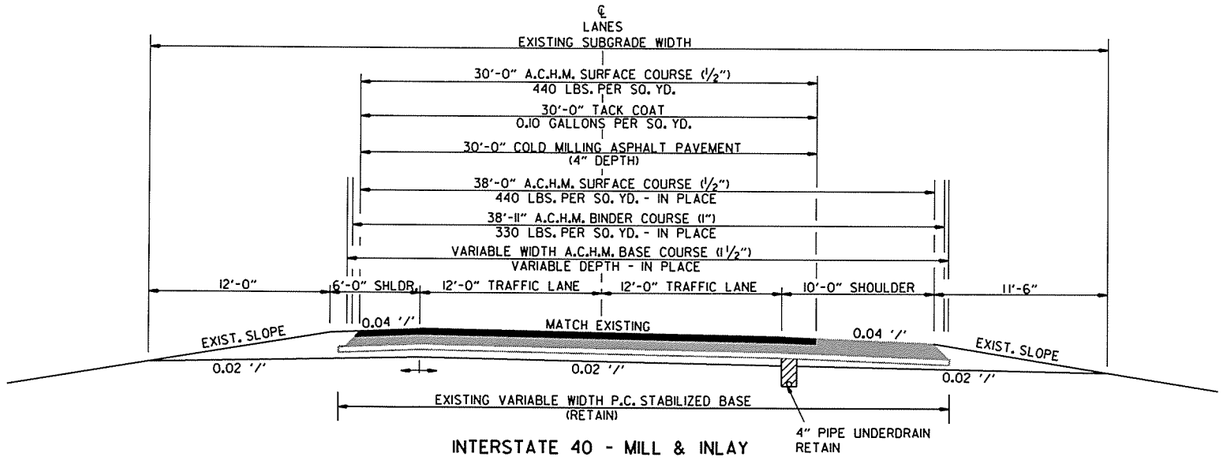
RBB0104.DGN

TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	3A	88

(2) TYPICAL SECTIONS OF IMPROVEMENT

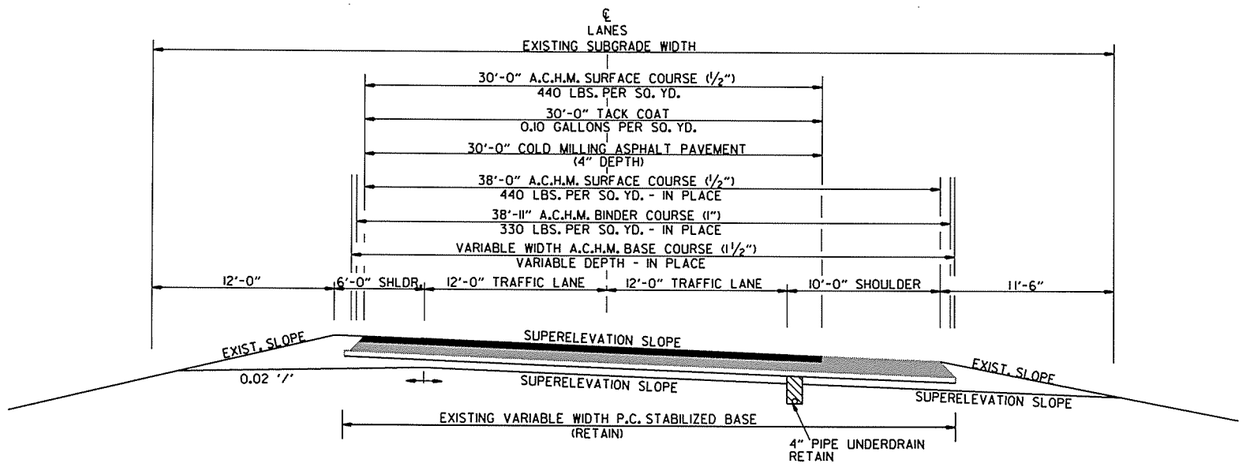
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



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

LT. MAIN LANES
3438+70.00 TO 3573+64.00
3590+64.00 TO 3694+14.90
3708+64.90 TO 3744+72.03
3753+33.19 TO 3868+22.00
3882+22.00 TO 3936+12.44
3952+12.44 TO 3982+14.70
3997+64.70 TO 4008+92.50
4010+37.50 TO 4026+96.32

RT. MAIN LANES
3438+70.00 TO 3573+64.00
3590+64.00 TO 3694+14.90
3708+64.90 TO 3744+72.03
3753+33.19 TO 3868+22.00
3882+22.00 TO 3937+17.95
3953+17.95 TO 3983+14.70
3996+64.70 TO 4008+92.50
4010+37.50 TO 4027+01.94



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

1/17/2014

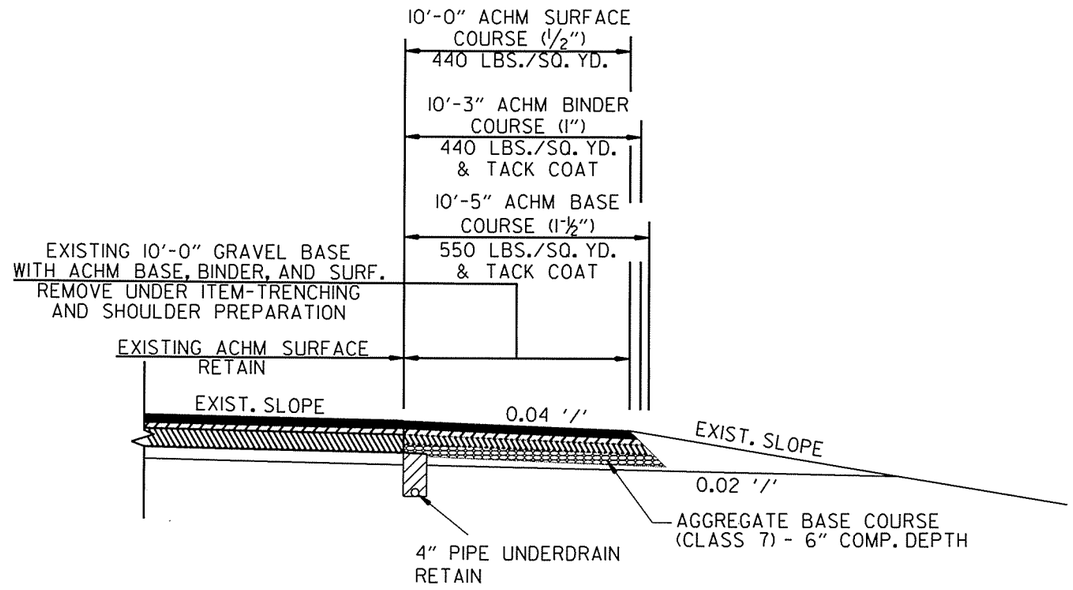
RBB0104.DGN

TYPICAL SECTIONS OF IMPROVEMENT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	4	88

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



TYPICAL SECTION OF SHOULDER RECONSTRUCTION
FOR MAINTENANCE OF TRAFFIC

STA. 3942+10.95 TO STA. 3944+50.95 (RT. OF RT. MAIN LANES)
STA. 3946+13.95 TO STA. 3948+53.95 (RT. OF RT. MAIN LANES)
STA. 4031+37.94 TO STA. 4033+77.94 (RT. OF RT. MAIN LANES)
STA 4035+40.94 TO STA. 4037+80.94 (RT. OF RT. MAIN LANES)

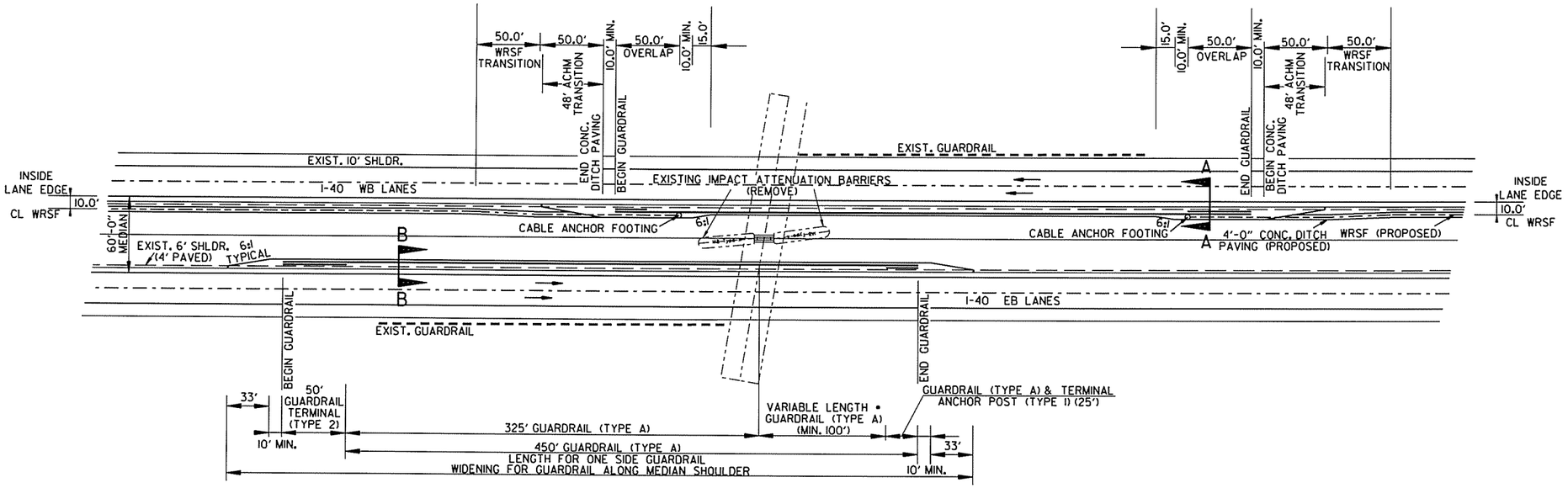
STA. 3940+89.62 TO STA. 3943+29.62 (LT. OF LT. MAIN LANES)
STA. 3944+92.62 TO STA. 3947+32.62 (LT. OF LT. MAIN LANES)
STA. 4030+19.32 TO STA. 4032+59.32 (LT. OF LT. MAIN LANES)
STA. 4034+22.32 TO STA. 4036+62.32 (LT. OF LT. MAIN LANES)

RBB0805.DGN 1/17/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	5	88

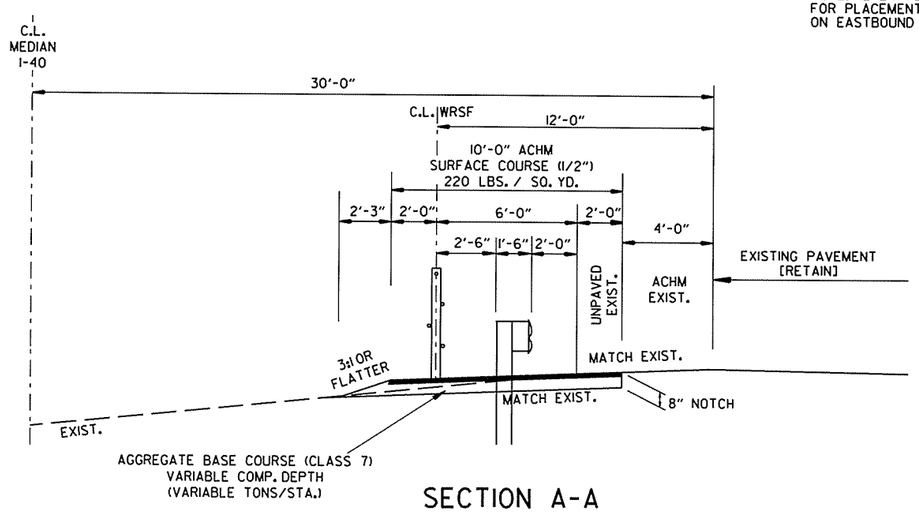
(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

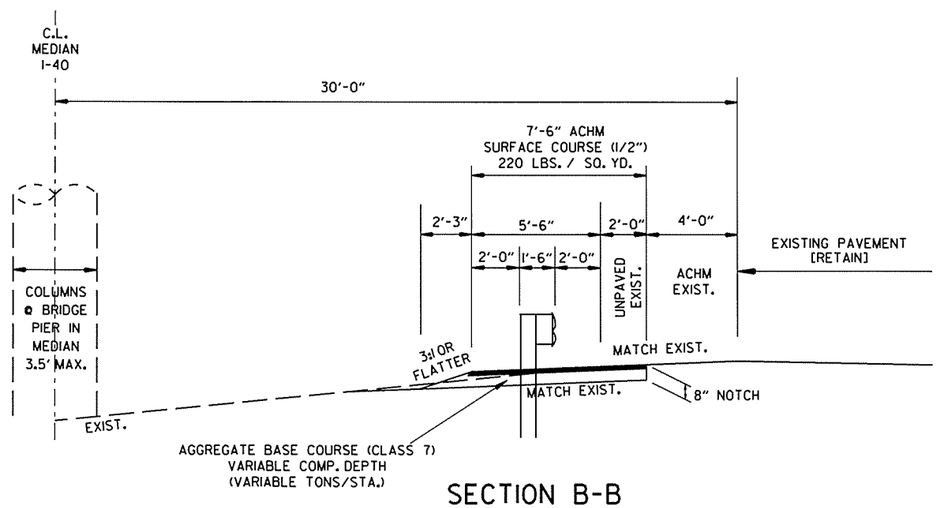


DETAIL AT OVERPASSES

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



SECTION A-A



SECTION B-B

DETAILS OF SHOULDER WIDENING FOR GUARDRAIL AND OVERLAPS WITH ENDS OF WIRE ROPE SAFETY FENCE

1/16/2014

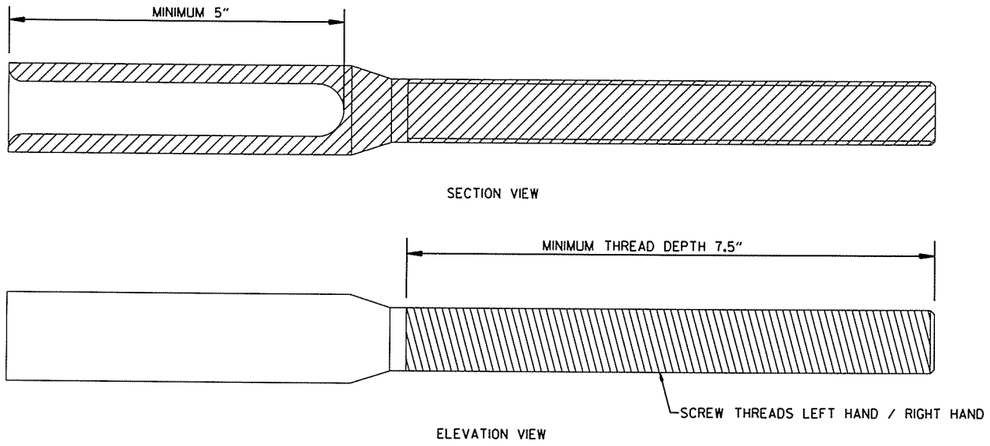
RBB0805.DGN

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.		BB0104	6	88

(2) SPECIAL DETAILS

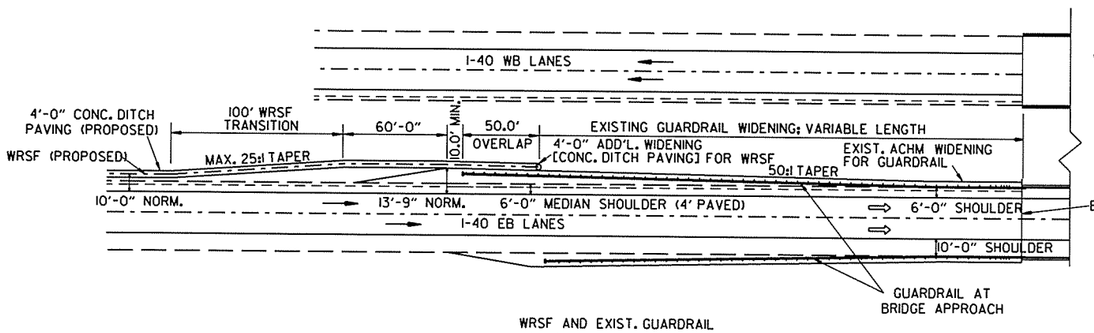
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



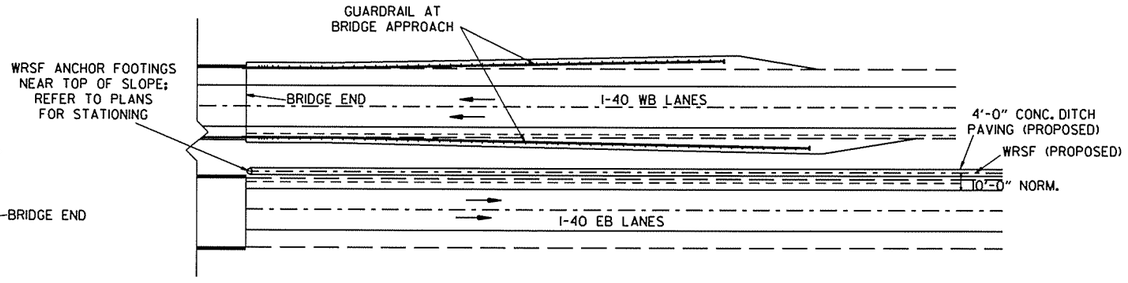
NOTE:

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

THREADED TERMINAL DETAIL



WRSF AND EXIST. GUARDRAIL ON SAME SIDE OF MEDIAN



WRSF AND EXIST. GUARDRAIL ON OPPOSITE SIDES OF MEDIAN

DETAIL OF WIRE ROPE SAFETY FENCE AT EXISTING BRIDGE ENDS

REFER TO PLANS FOR RELATIVE PLACEMENT OF GUARDRAIL AND WIRE ROPE SAFETY FENCE AT EACH BRIDGE END

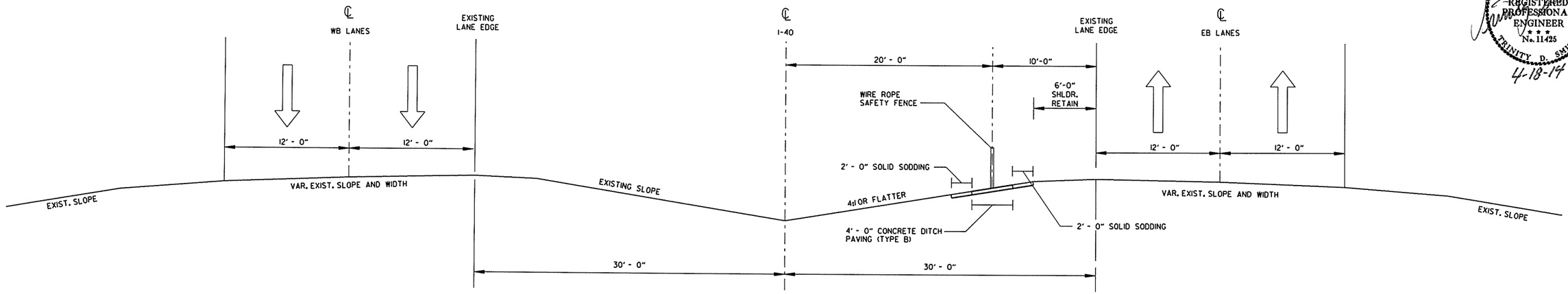
1/16/2014

RBB0805.DGN

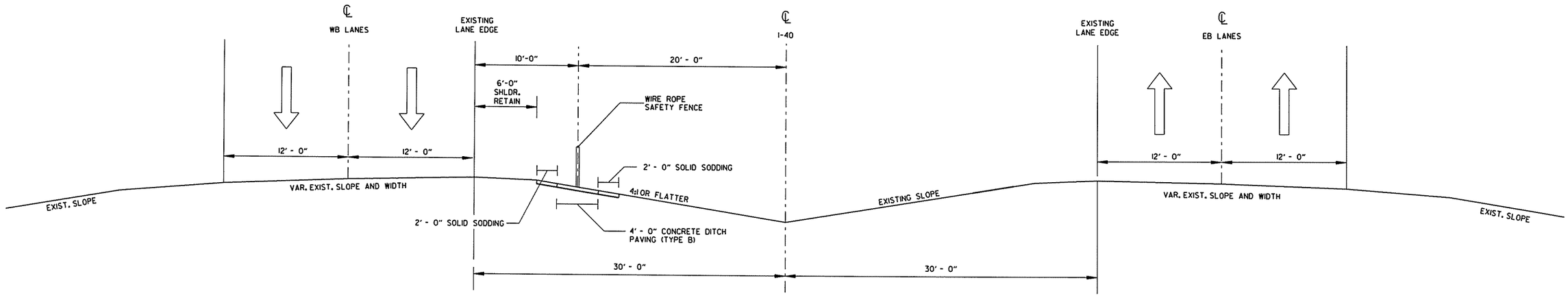
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	7	88

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



TYPICAL SECTION OF IMPROVEMENT
FOR WIRE ROPE SAFETY FENCE RIGHT OF CENTERLINE



TYPICAL SECTION OF IMPROVEMENT
FOR WIRE ROPE SAFETY FENCE LEFT OF CENTERLINE

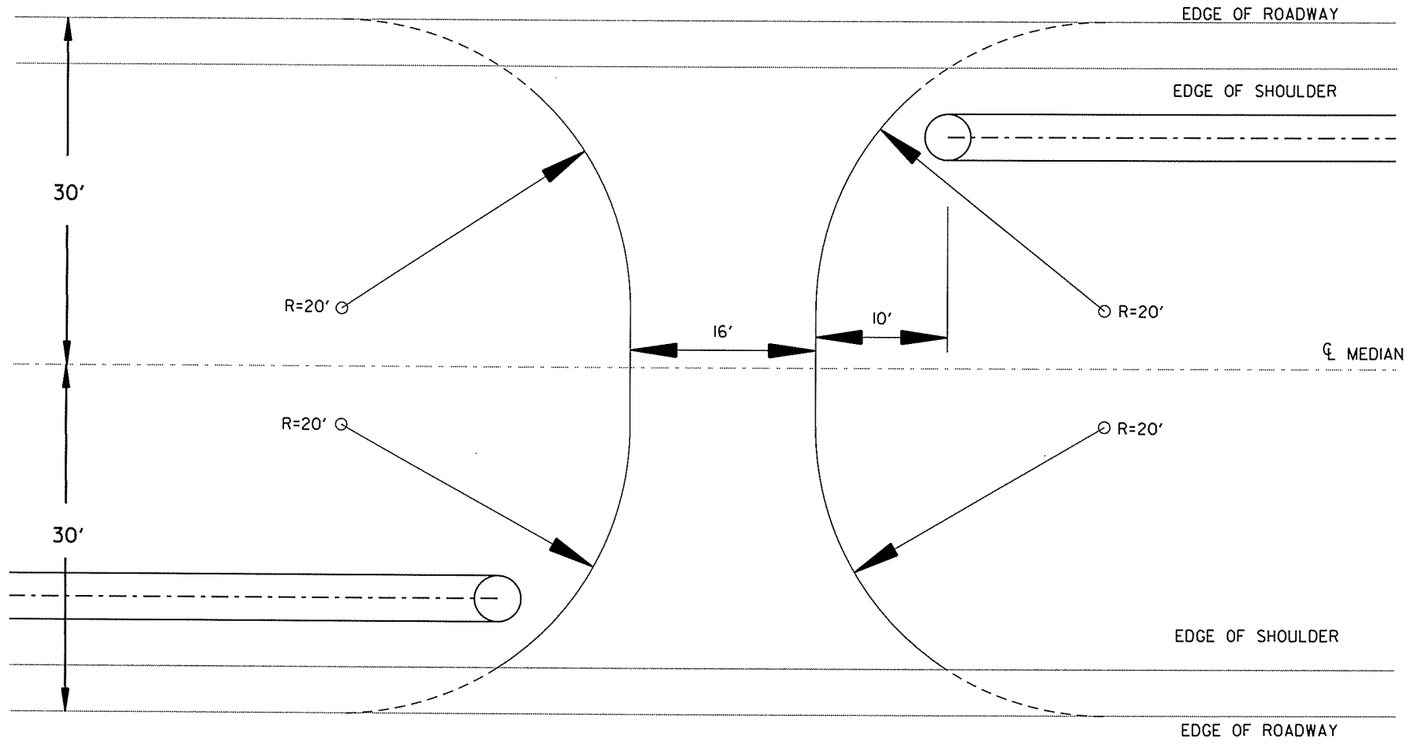
1/16/2014

RBB0805.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.		BB0104	8	88

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-21-14



DETAIL OF PROPOSED MEDIAN CROSSING

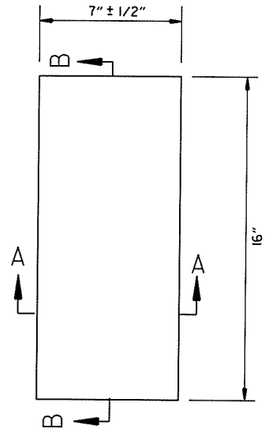
1/16/2014

RBB0805.DGN

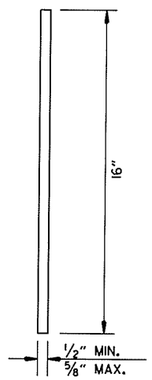
SPECIAL DETAILS

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.		BB0104	9	88

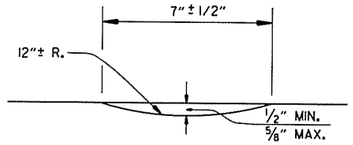
(2) SPECIAL DETAILS



PLAN

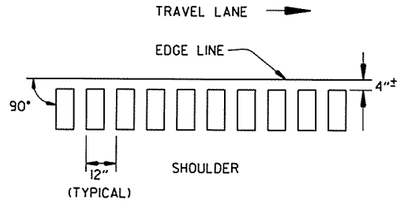


SECTION B-B

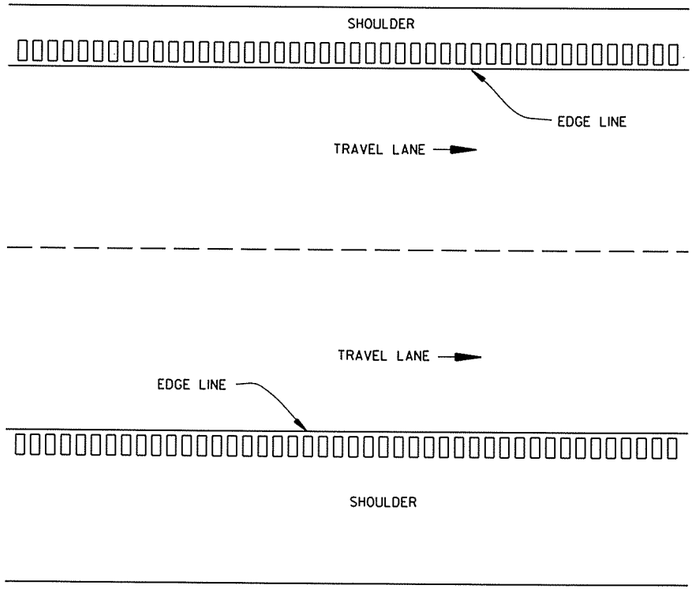


SECTION A-A

DETAILS OF RUMBLE STRIPS



LOCATION PLAN OF RUMBLE STRIPS
LEFT OR RIGHT SHOULDER



PLAN VIEW

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.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-21-14

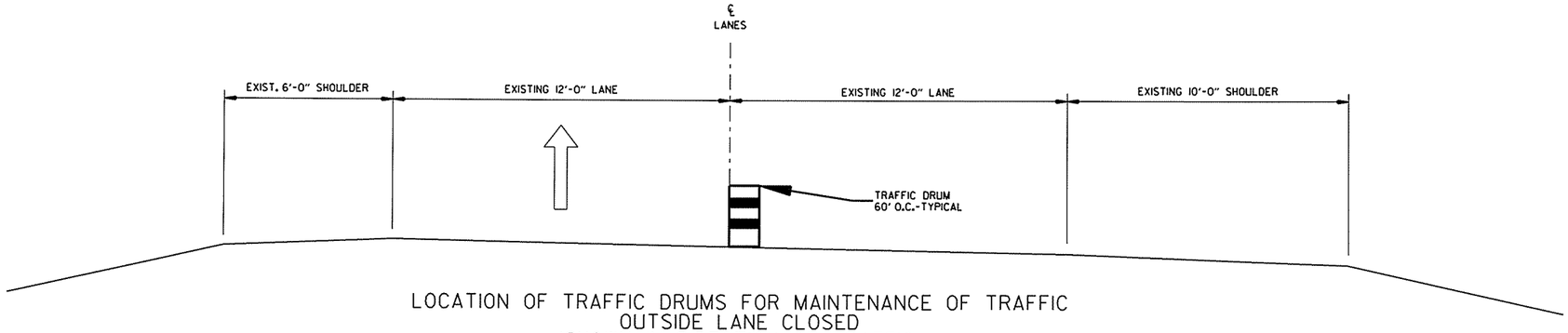
RBB0805.DGN 1/16/2014

SPECIAL DETAILS

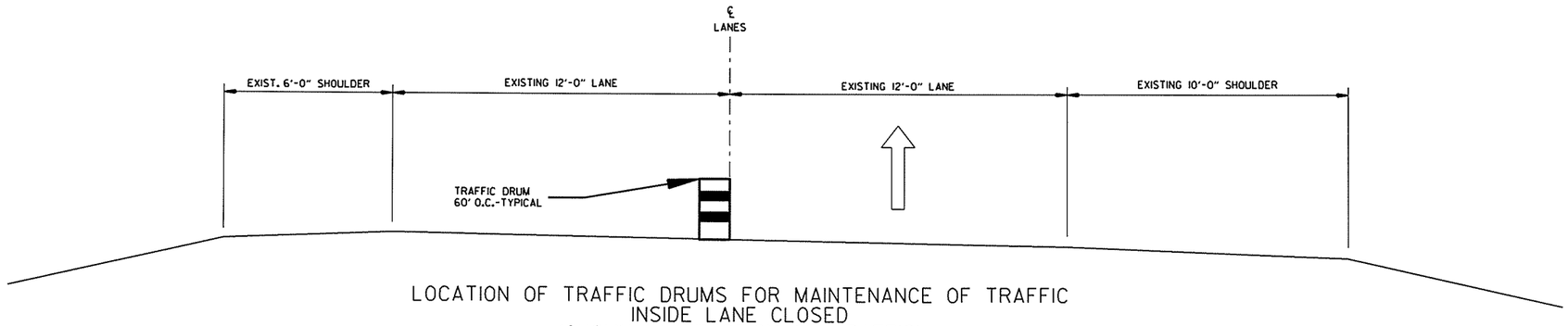
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	10	88

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



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



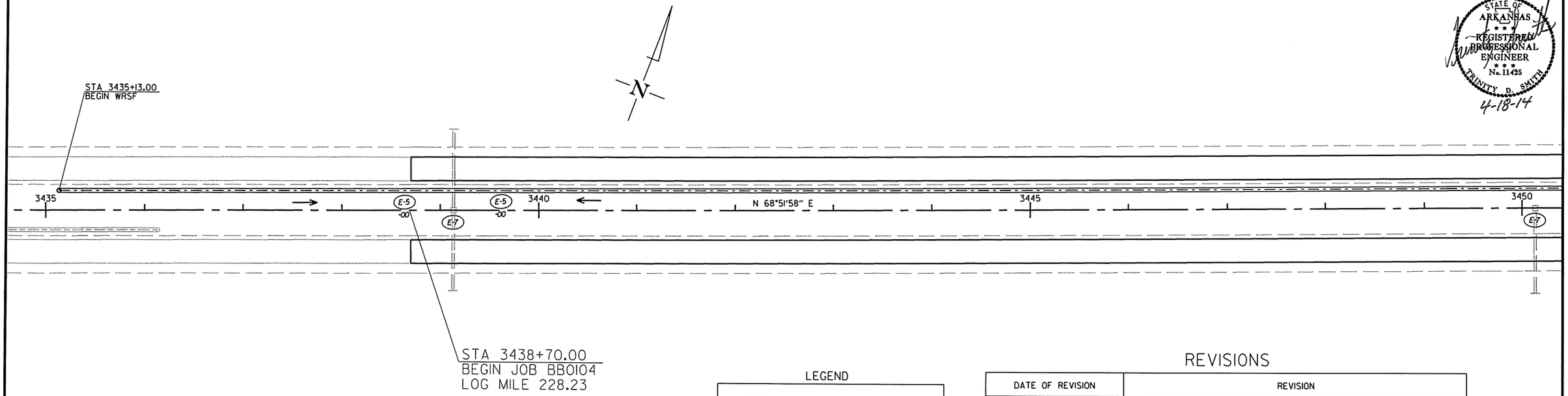
LOCATION OF TRAFFIC DRUMS FOR MAINTENANCE OF TRAFFIC
INSIDE LANE CLOSED
(SHOWN IN DIRECTION OF TRAFFIC)

RBB0805.DGN 1/16/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	11	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



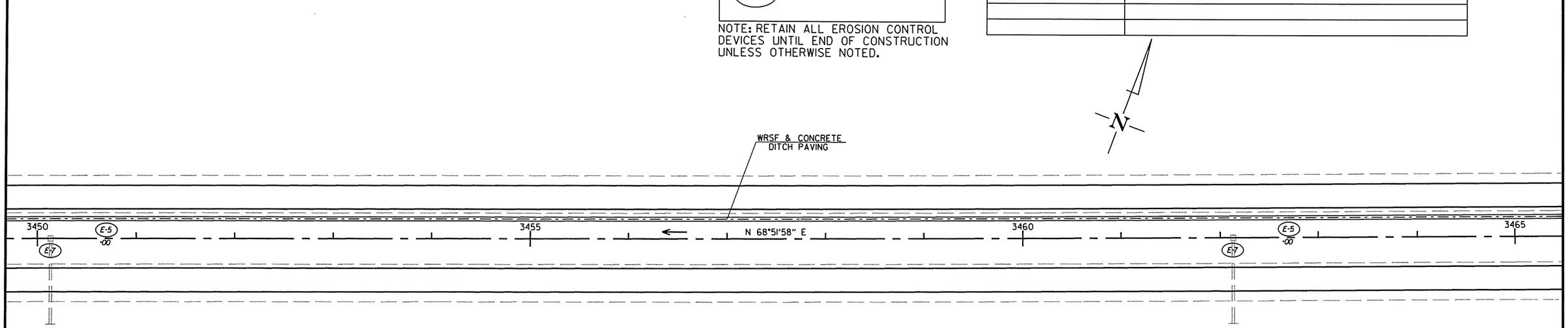
LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION



4/16/2014

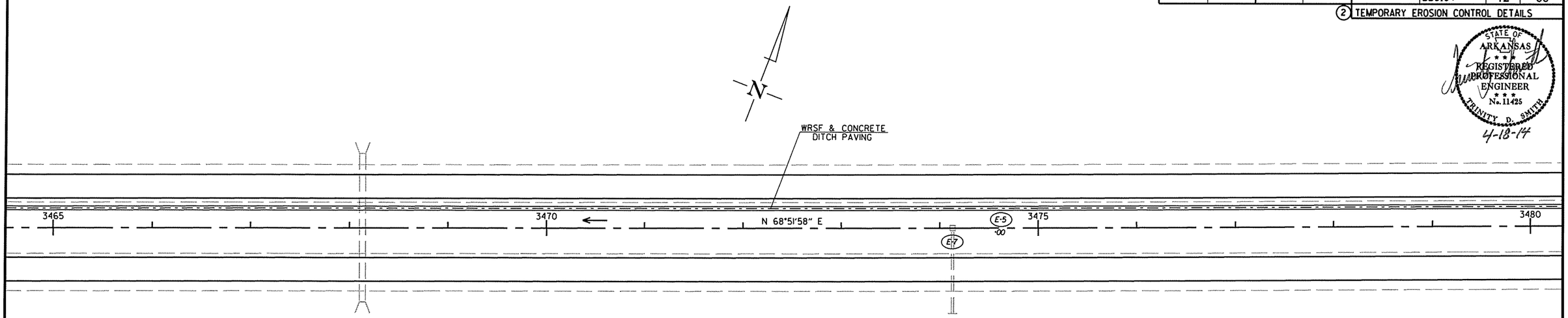
RBB0104.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	12	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



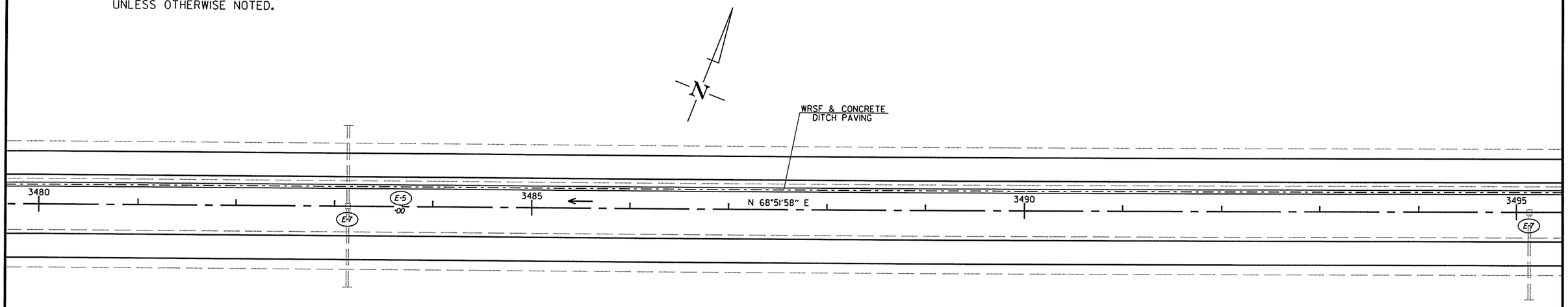
LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION



4/16/2014

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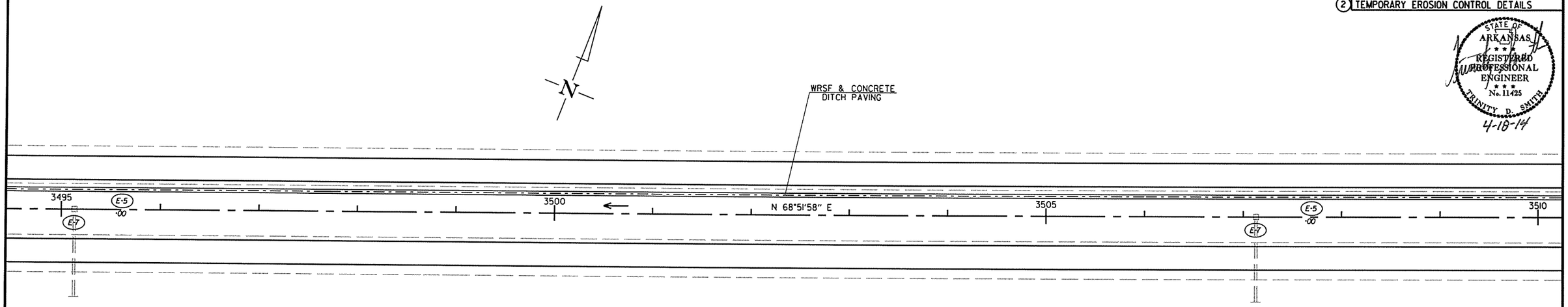
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	13	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



LEGEND

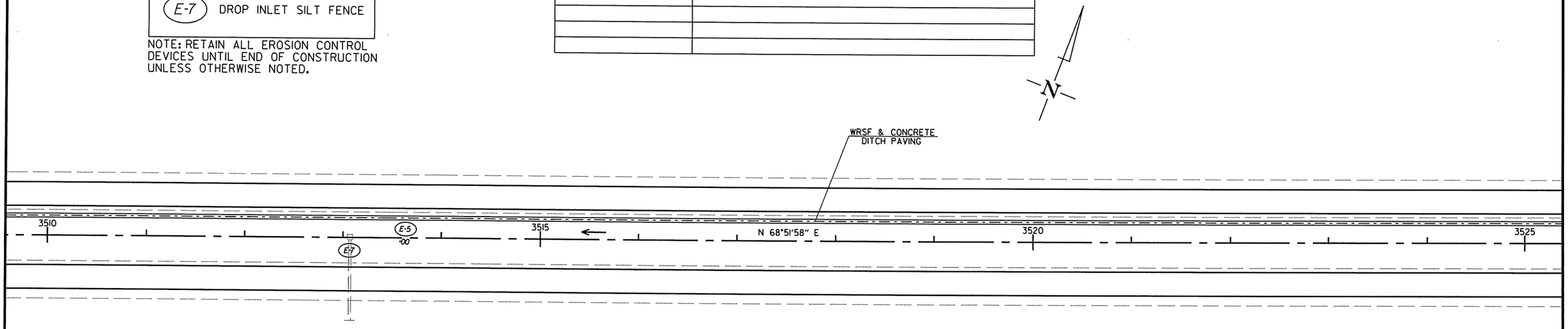
(E-5) SAND BAG DITCH CHECKS

(E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION



4/16/2014

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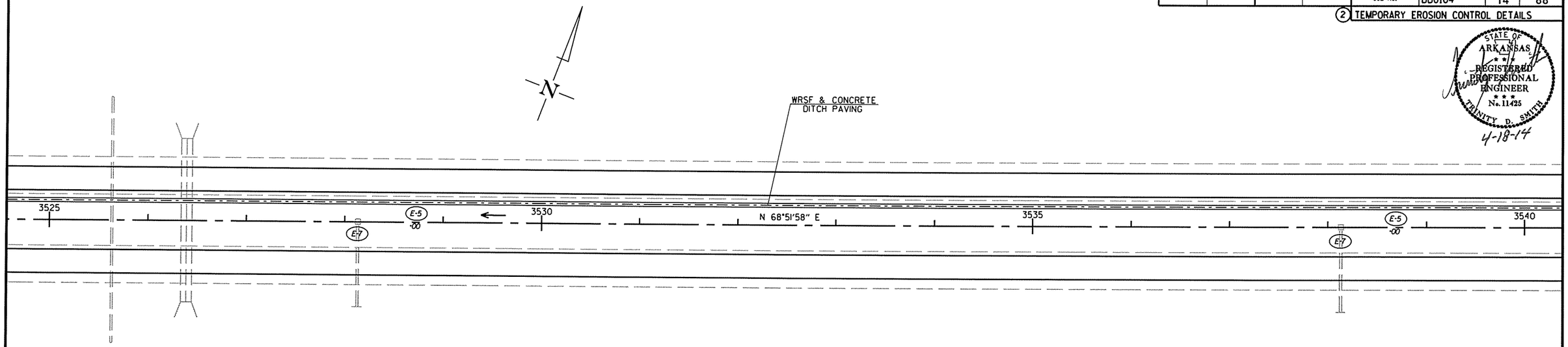
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	14	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



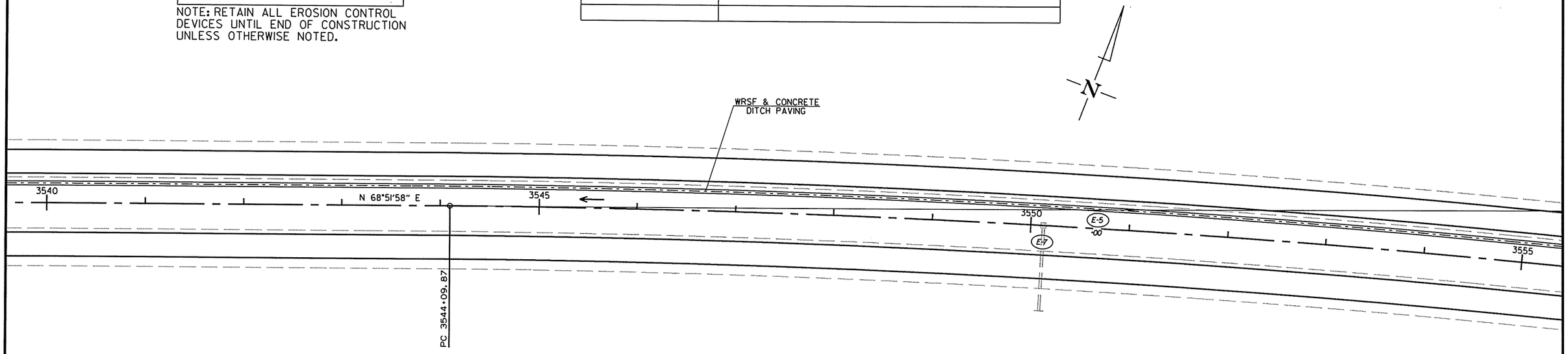
LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION



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TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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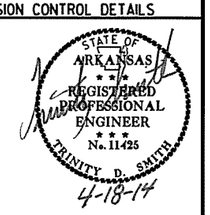
				JOB NO.		BB0104	15	88

(2) TEMPORARY EROSION CONTROL DETAILS



LEGEND

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

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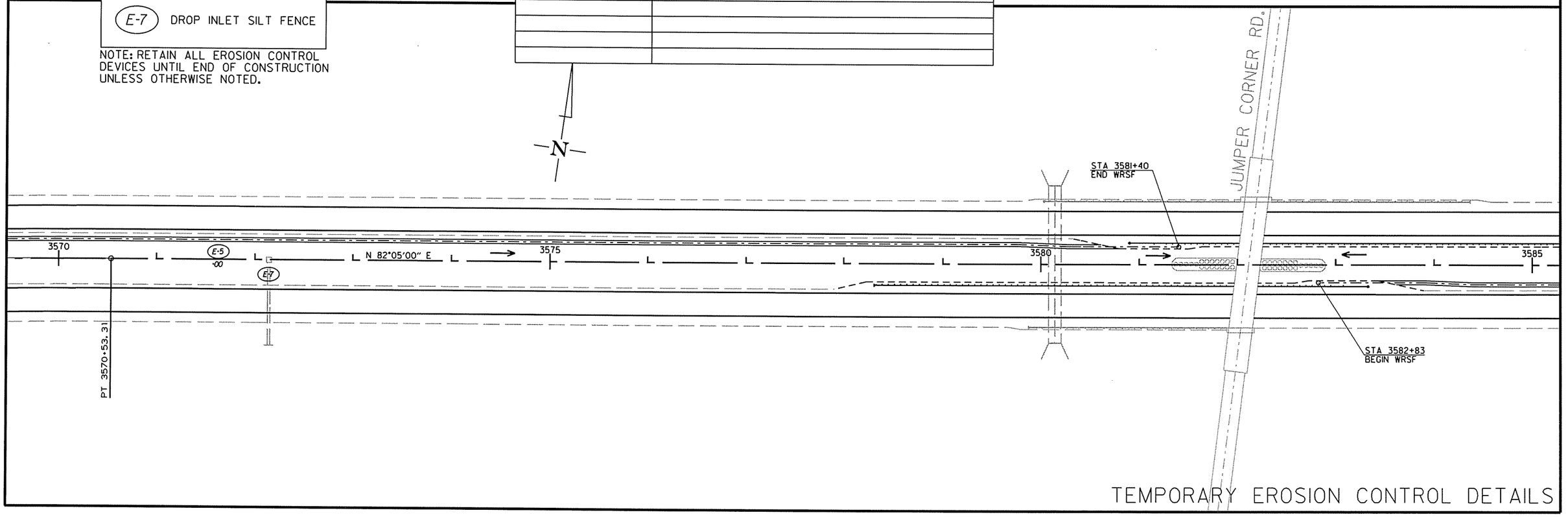
REVISIONS

DATE OF REVISION	REVISION



TEMPORARY EROSION CONTROL DETAILS

4/16/2014

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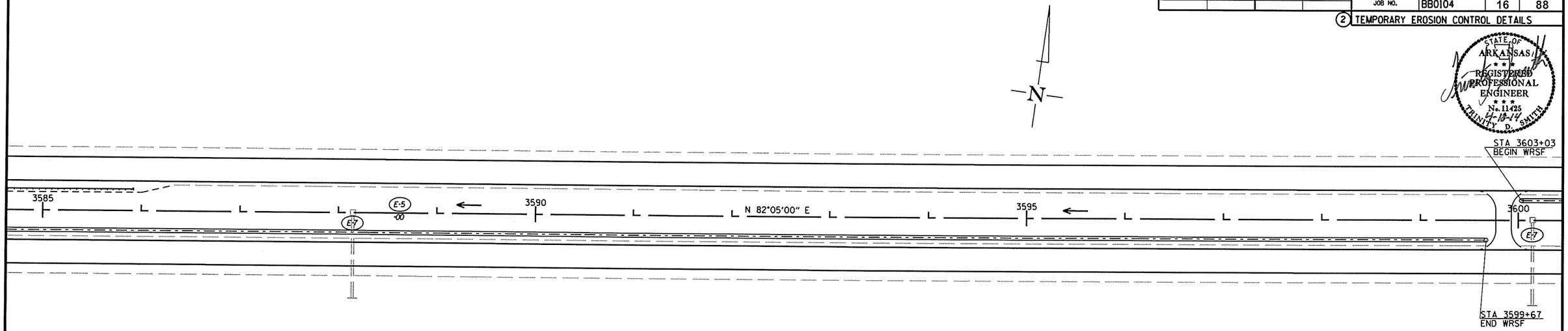
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	16	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
4-18-14
TRINITY D. SMITH



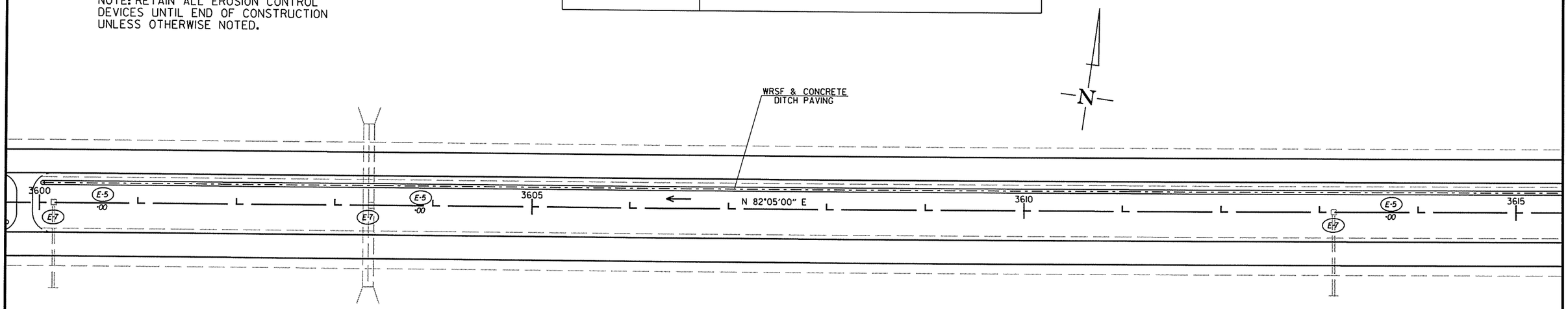
LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION



4/16/2014

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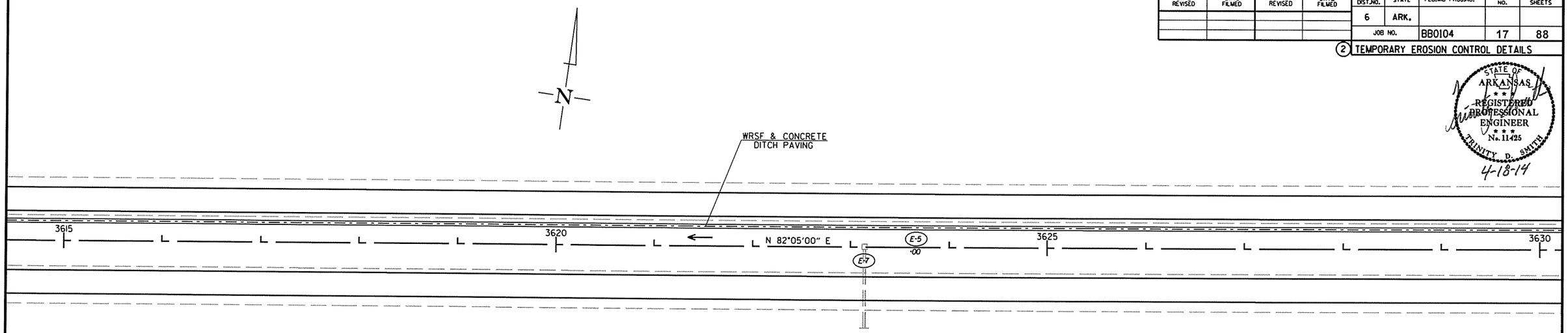
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	17	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



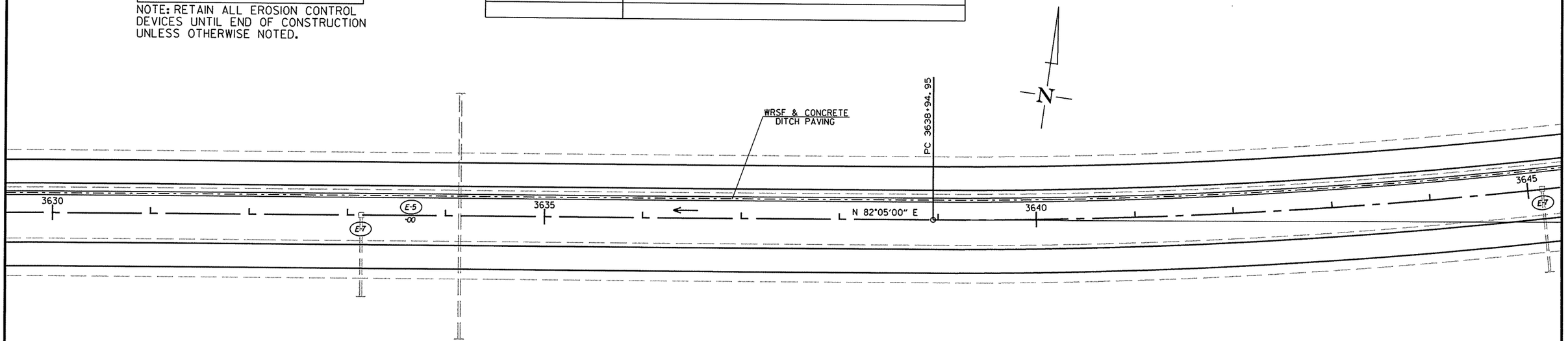
LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION



4/16/2014

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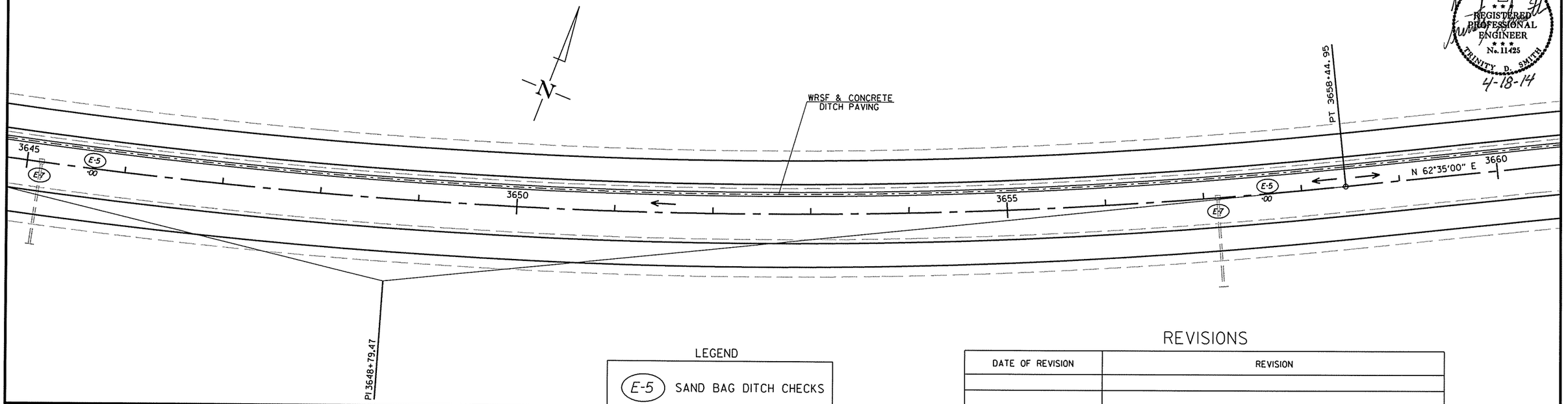
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	18	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



LEGEND

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

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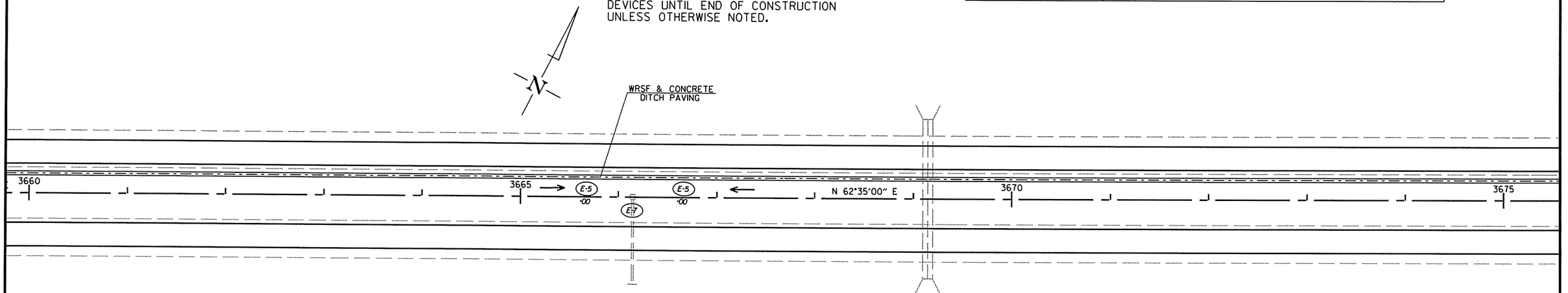
REVISIONS

DATE OF REVISION	REVISION



4/16/2014

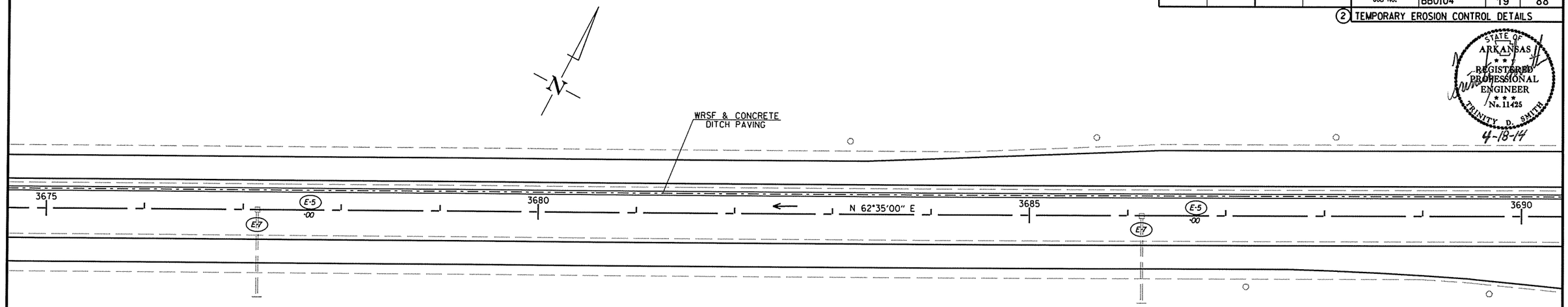
RBB0104.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	19	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



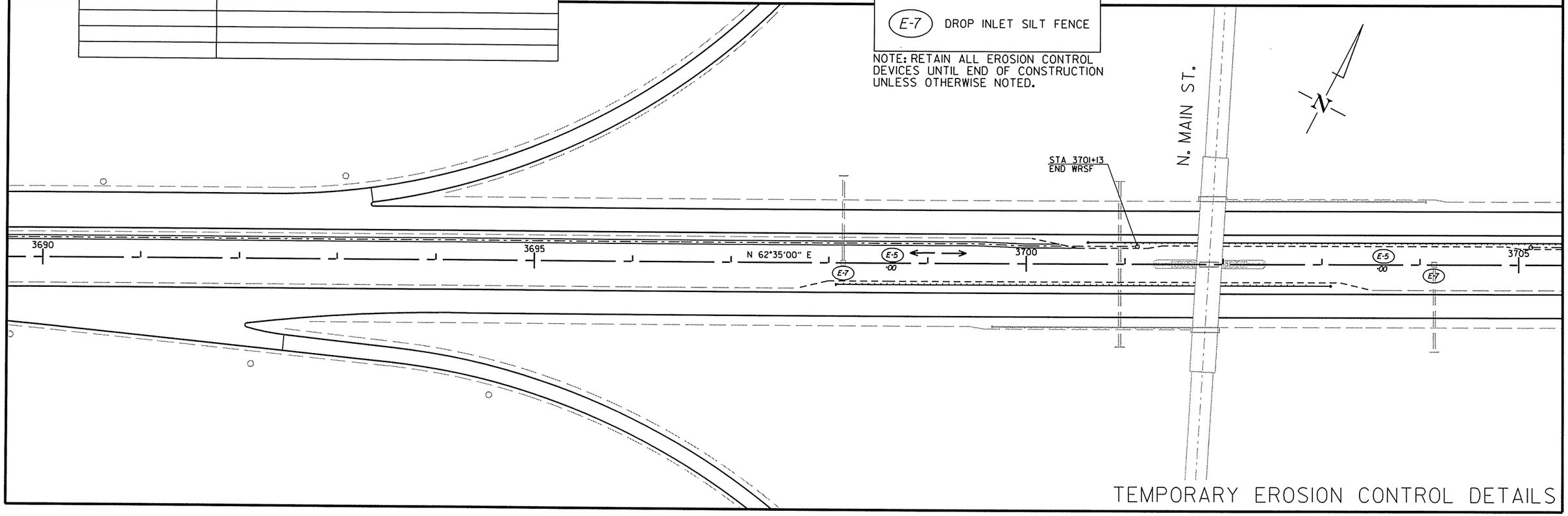
REVISIONS

DATE OF REVISION	REVISION

LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



TEMPORARY EROSION CONTROL DETAILS

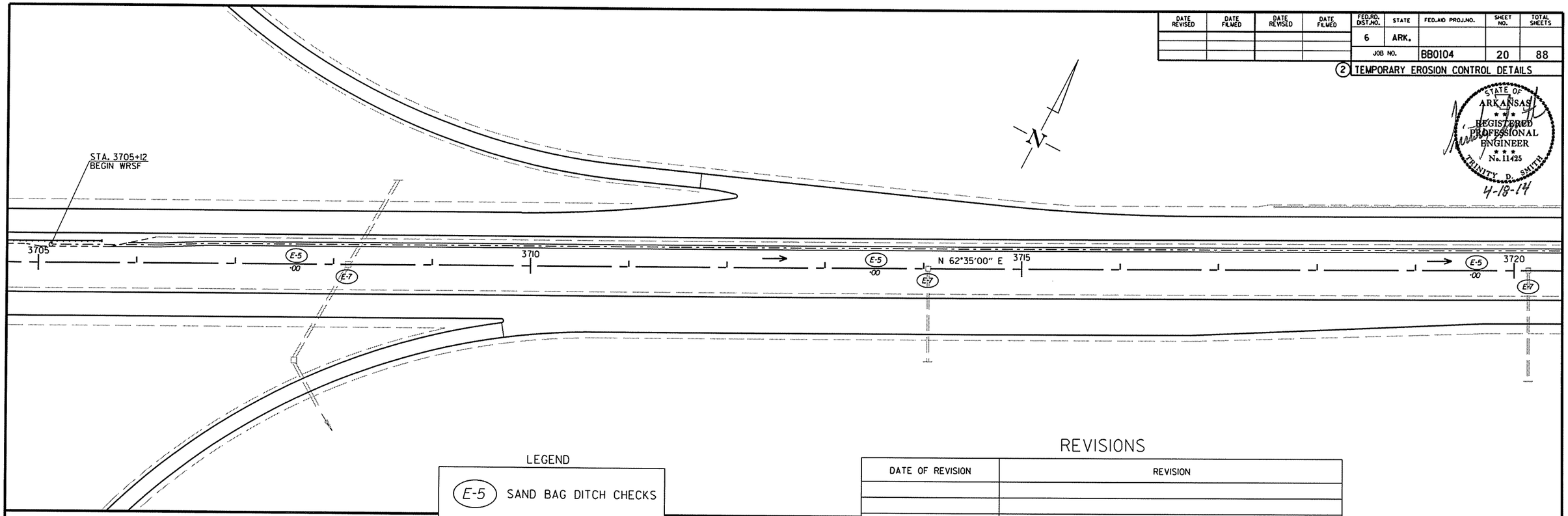
4/16/2014

RBB0104.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.		BB0104	20	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



LEGEND

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

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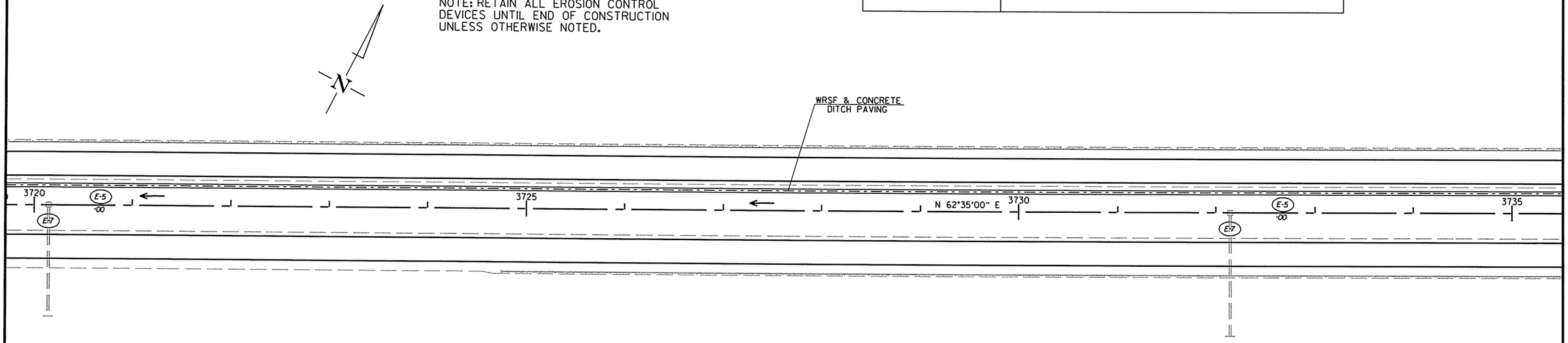
REVISIONS

DATE OF REVISION	REVISION



4/16/2014

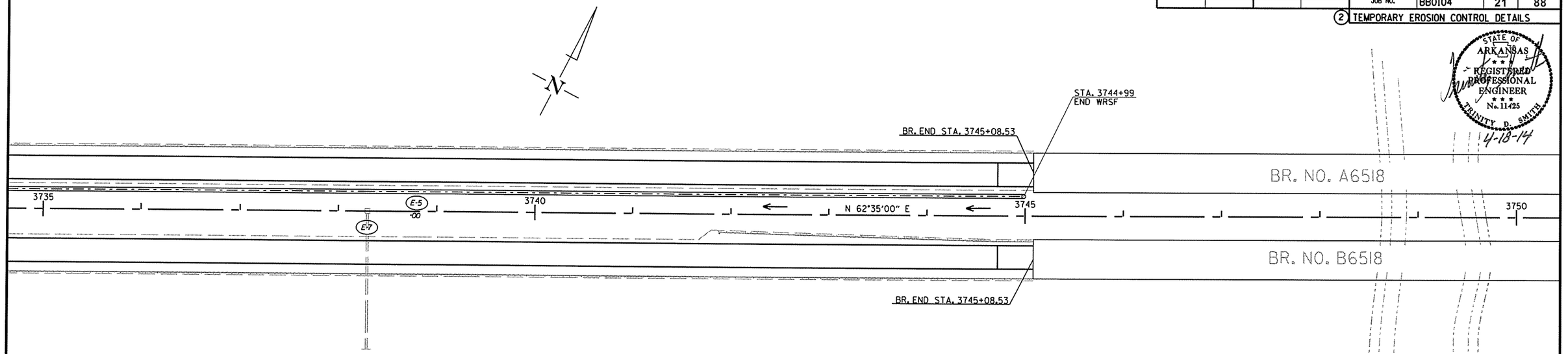
RBB0104.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	21	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



LEGEND

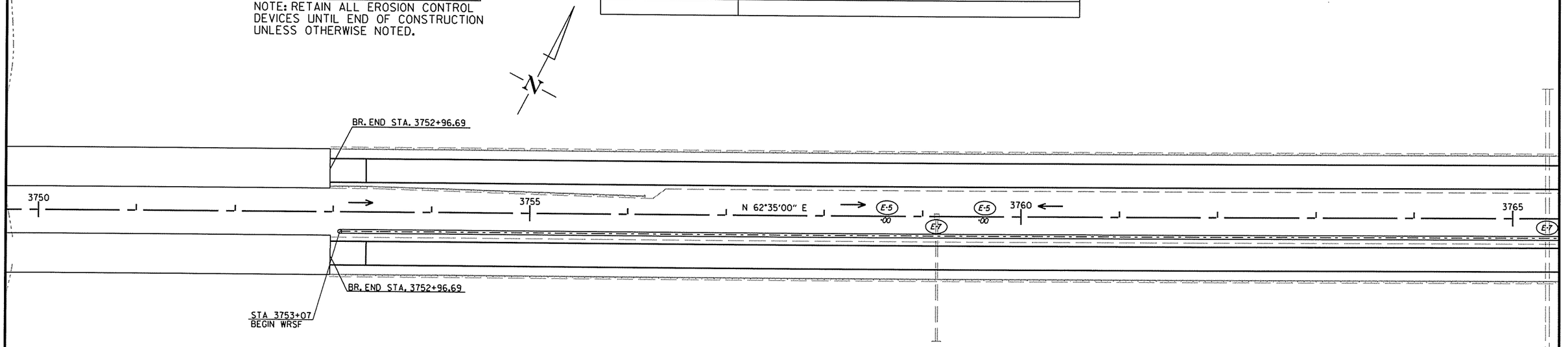
E-5 SAND BAG DITCH CHECKS

E-7 DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION



4/16/2014

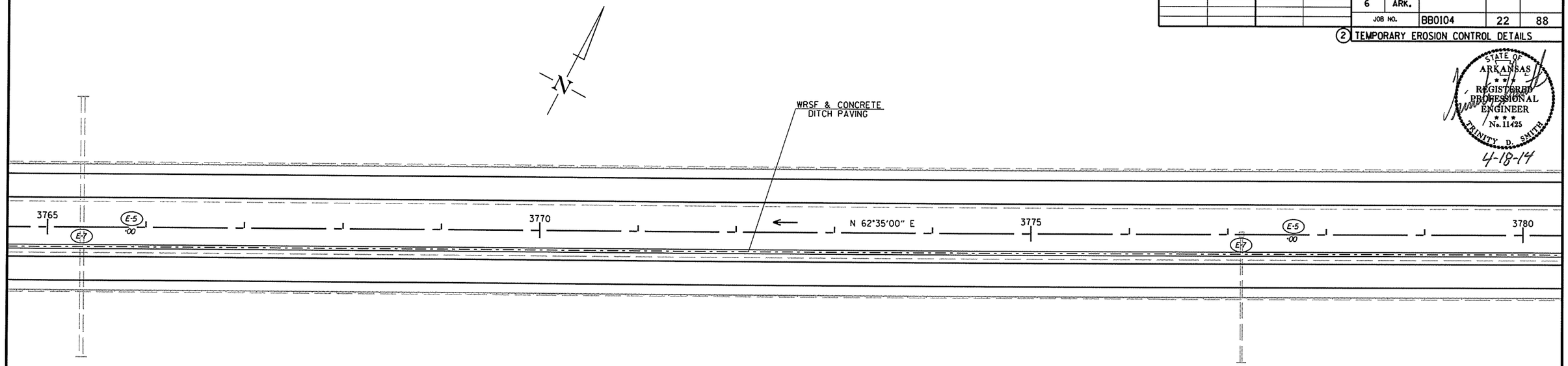
RBB0104.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	22	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



LEGEND

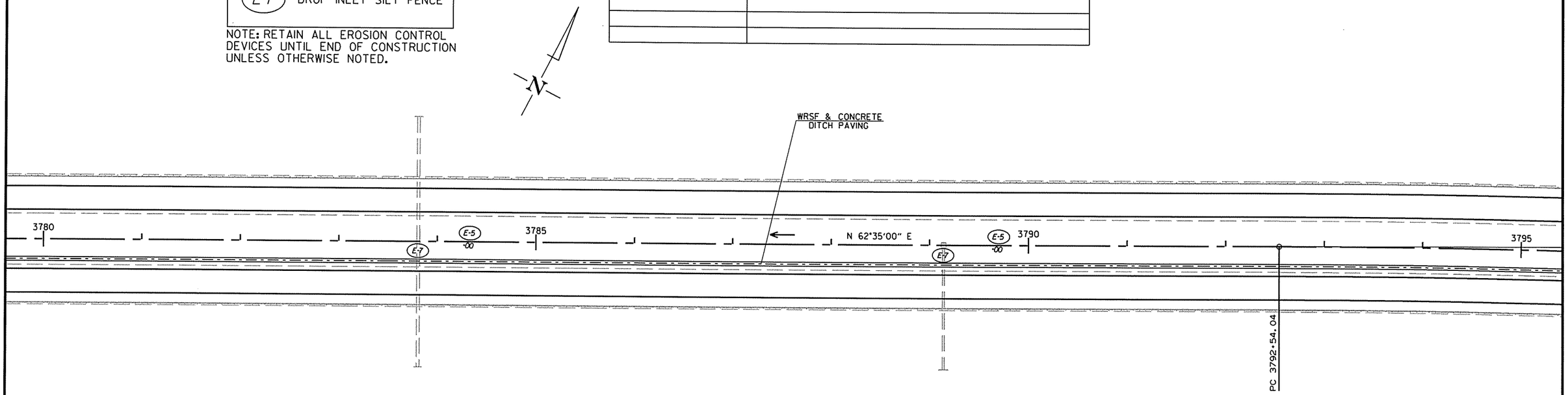
(E-5) SAND BAG DITCH CHECKS

(E-7) DROP INLET SILT FENCE

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION



4/16/2014

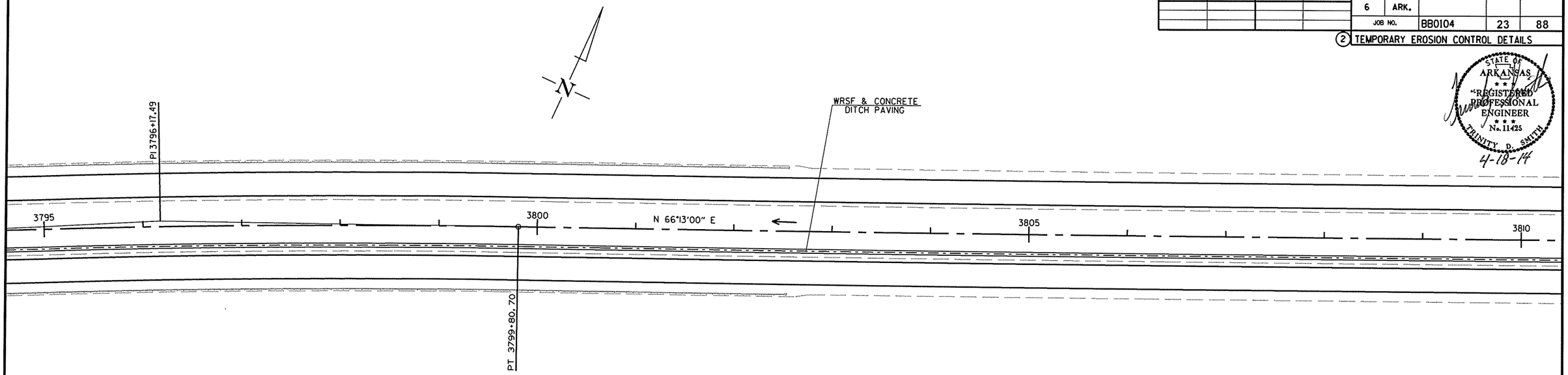
RBB0104.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	23	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
"REGISTERED PROFESSIONAL ENGINEER"
No. 11425
TRINITY D. SMITH
4-18-14



LEGEND

(E-5) SAND BAG DITCH CHECKS

(E-7) DROP INLET SILT FENCE

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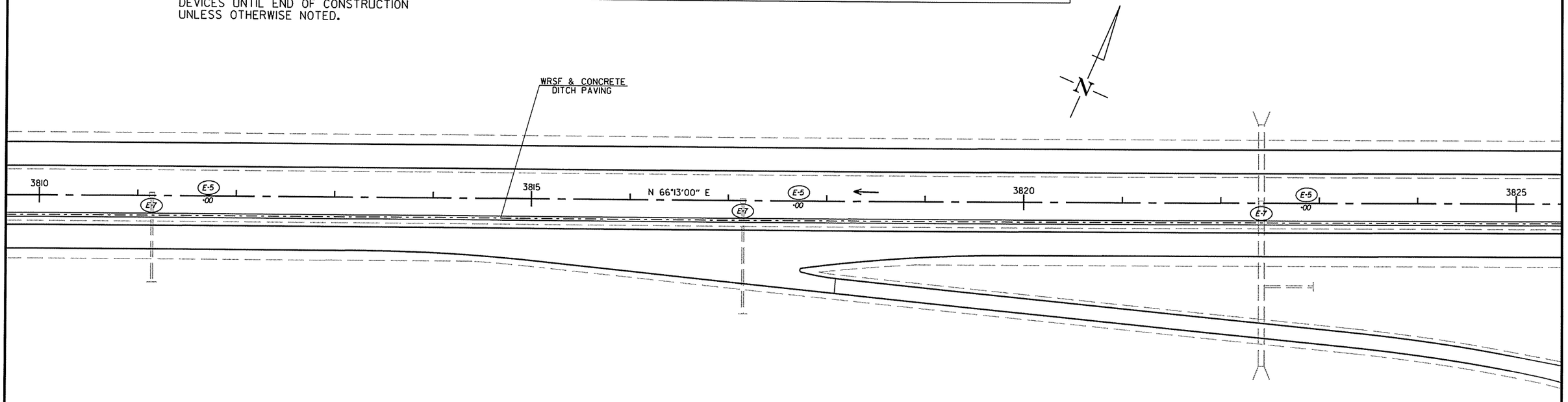
REVISIONS

DATE OF REVISION	REVISION



4/16/2014

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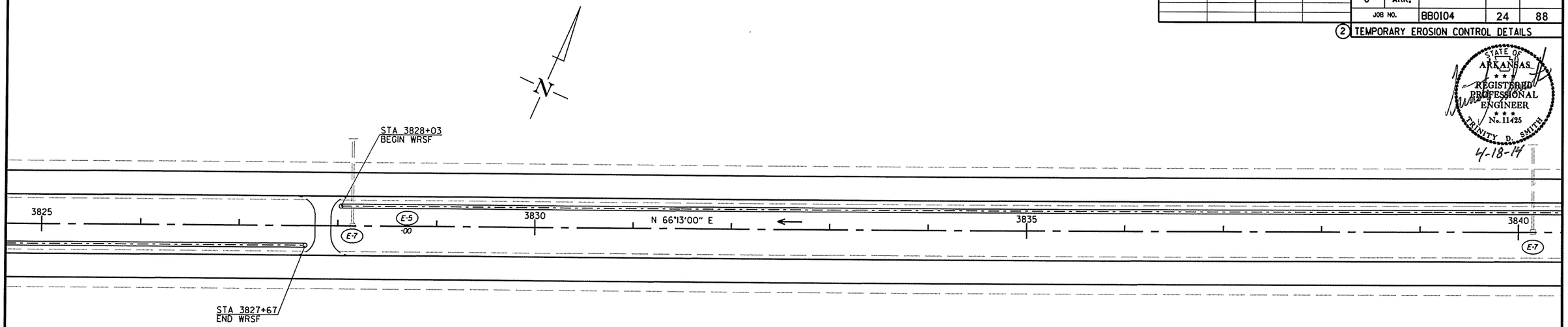
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	24	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



LEGEND

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

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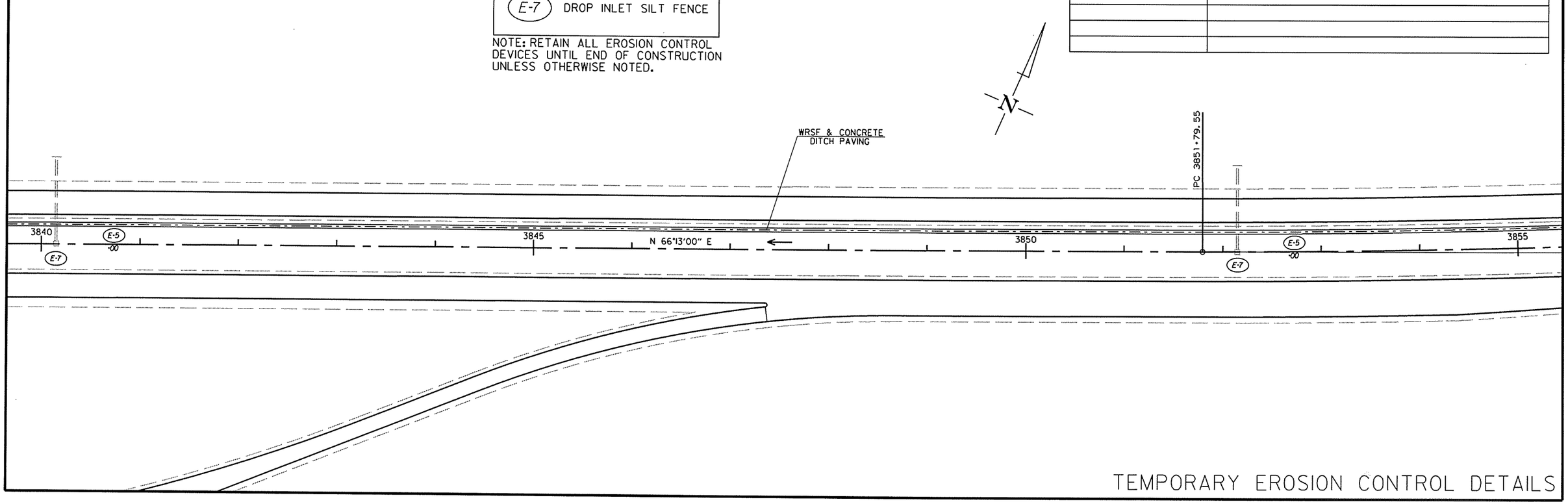
REVISIONS

DATE OF REVISION	REVISION



4/16/2014

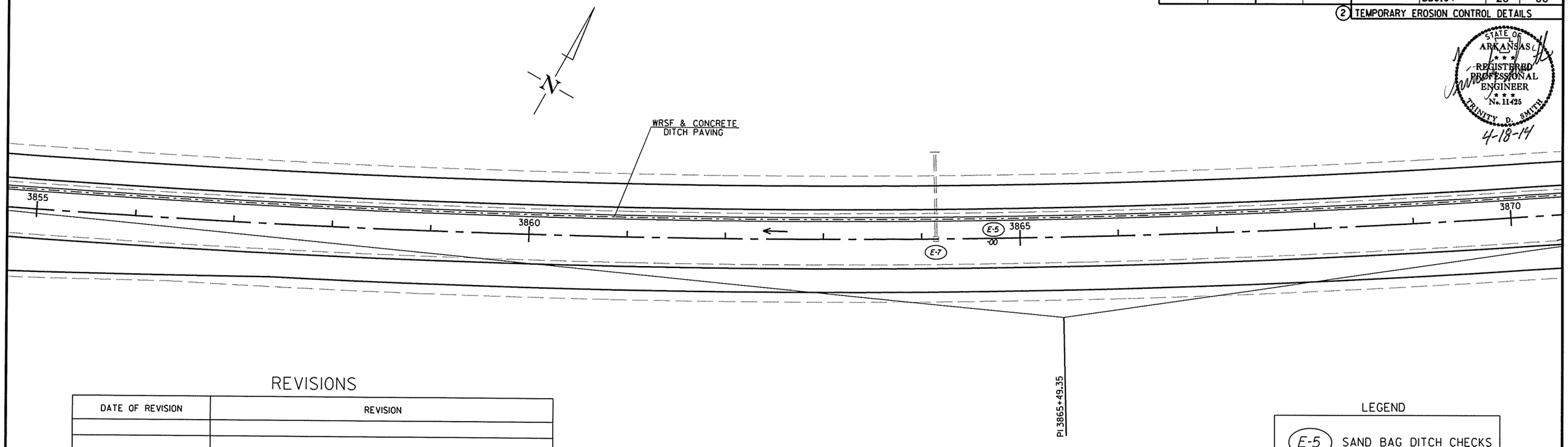
RBB0104.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	25	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



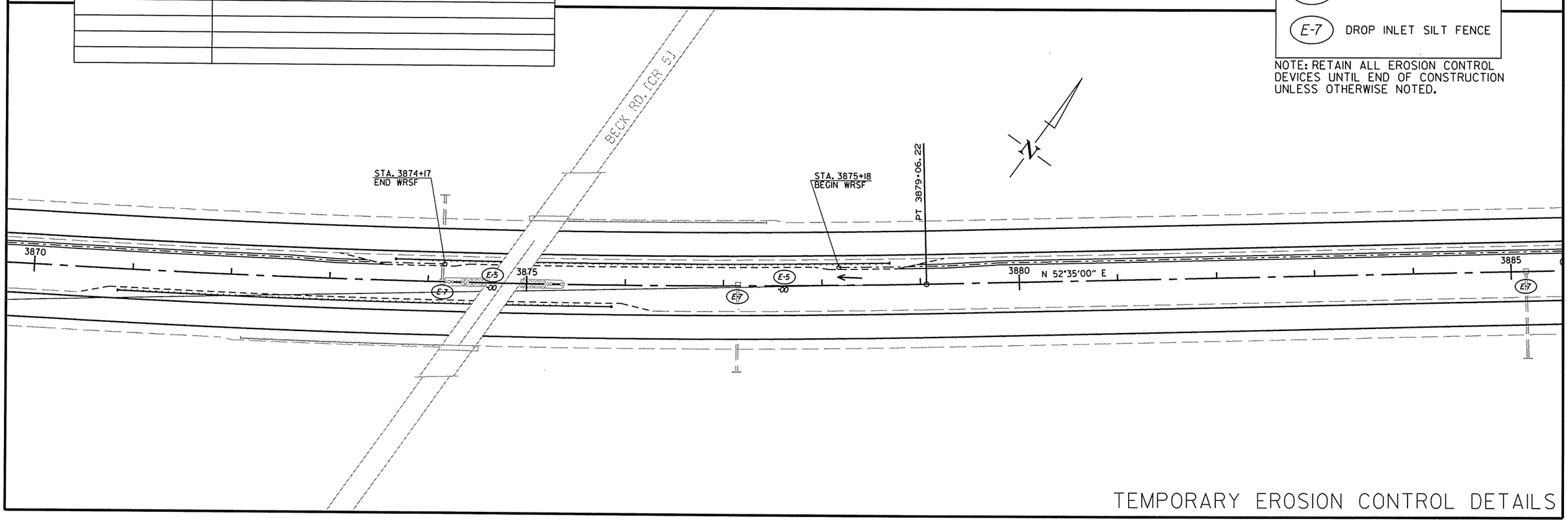
REVISIONS

DATE OF REVISION	REVISION

LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



4/16/2014

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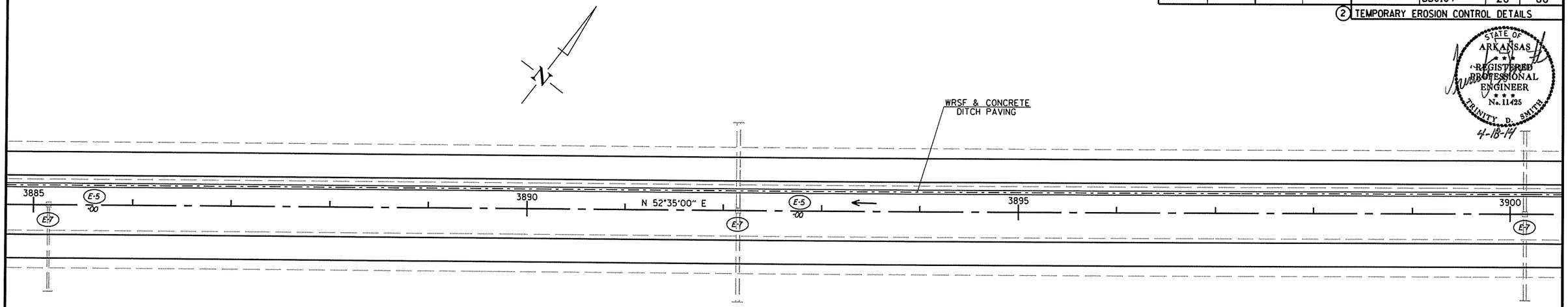
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	26	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



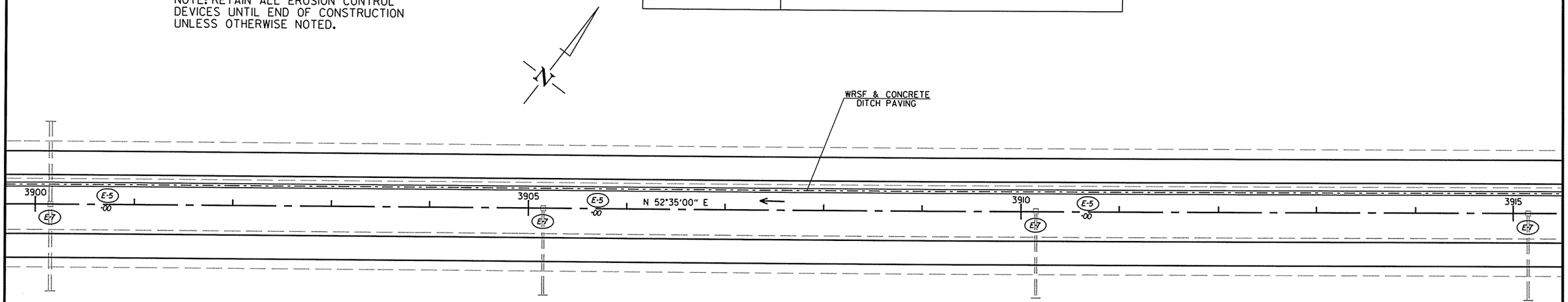
LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION



4/16/2014

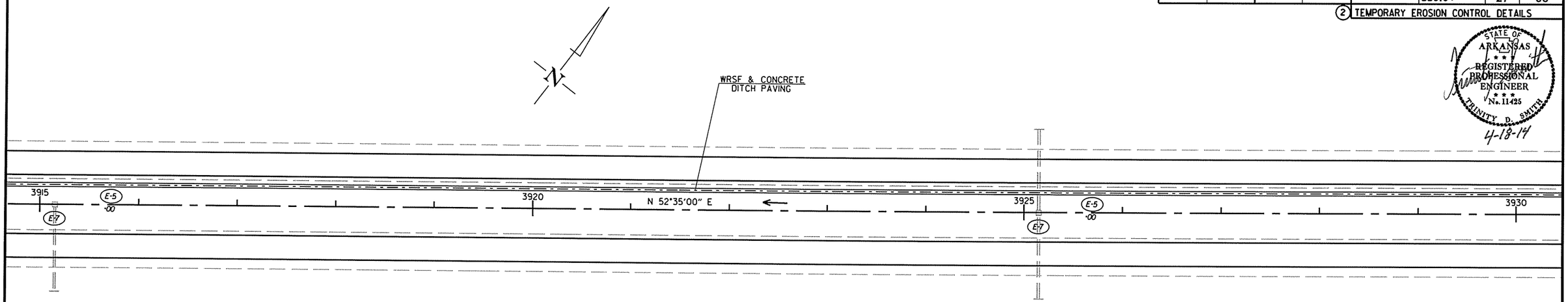
RBB0104.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	27	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



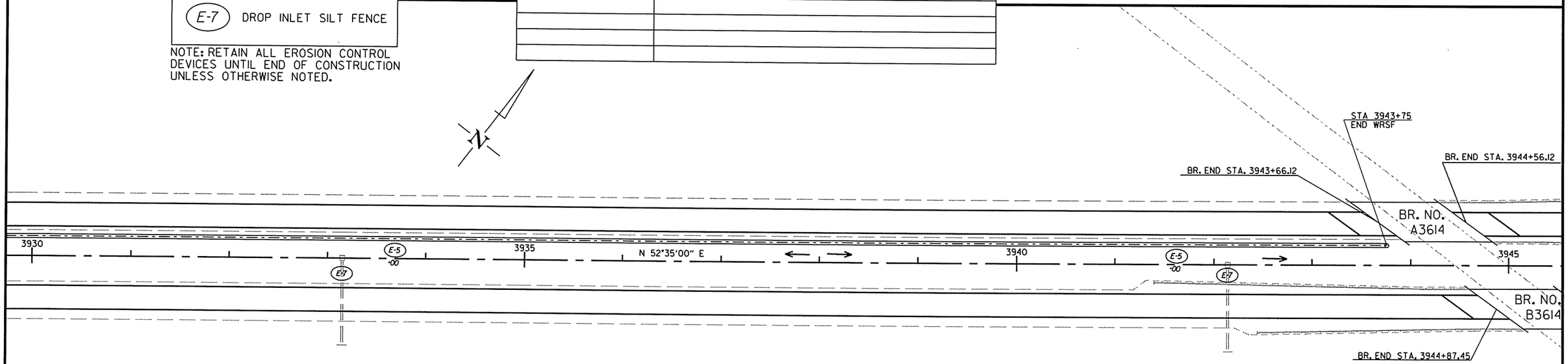
LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION



4/16/2014

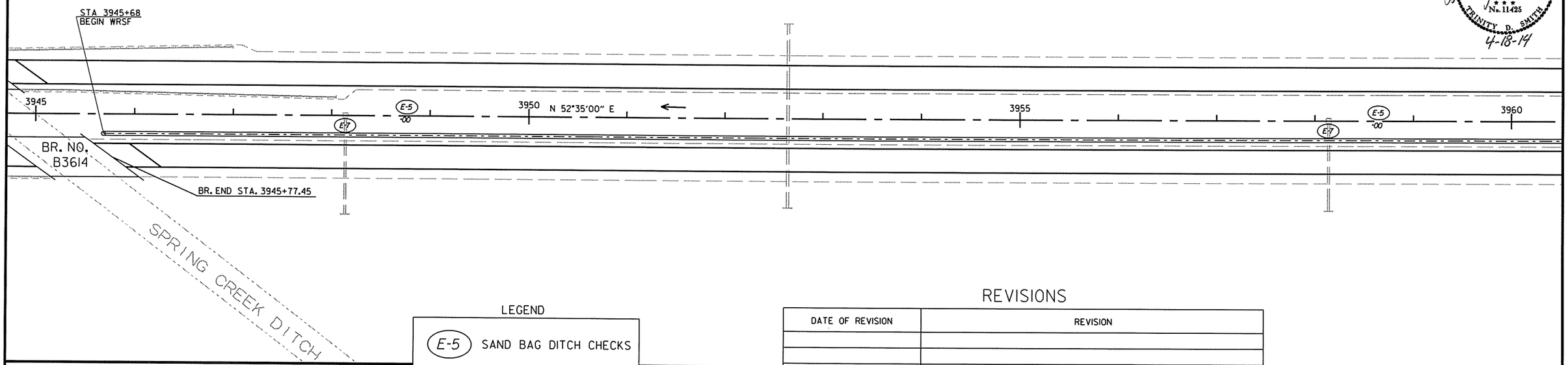
RBB0104.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	28	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



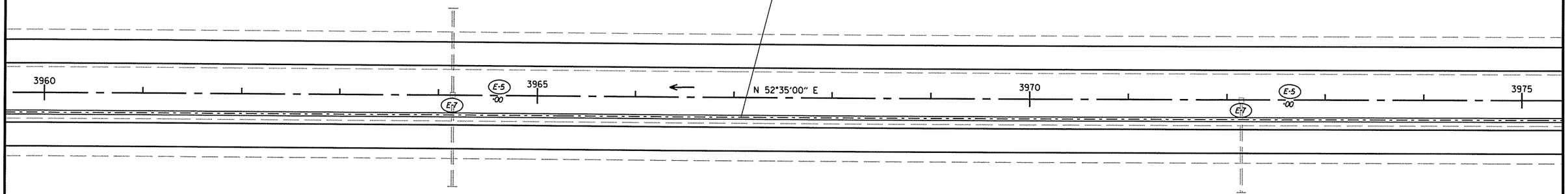
LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION



4/16/2014

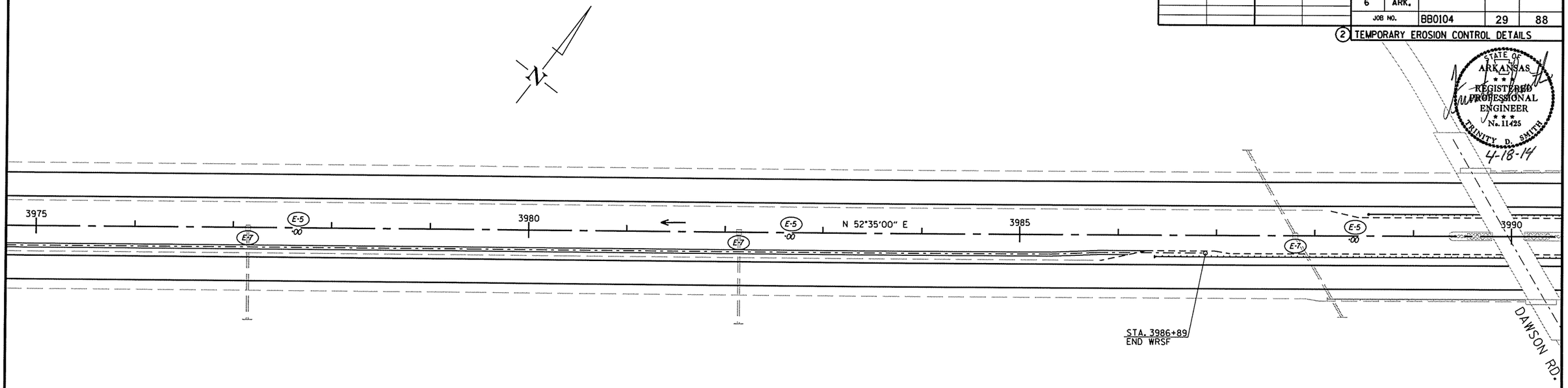
RBB0104.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	29	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



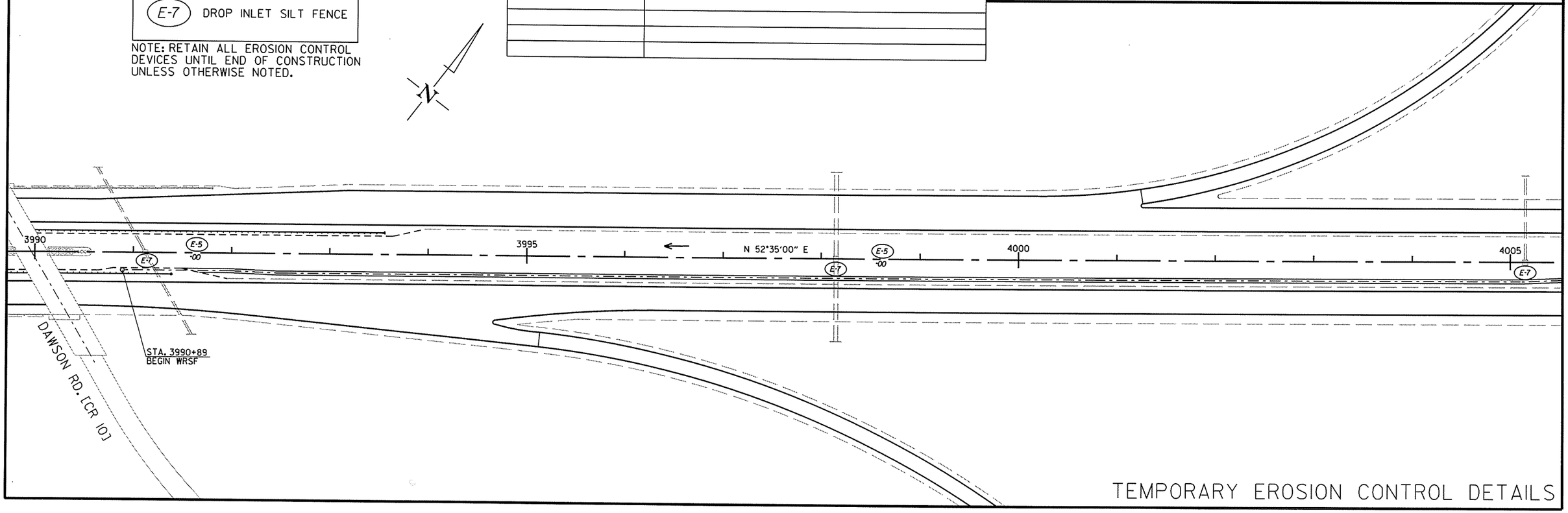
LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

REVISIONS

DATE OF REVISION	REVISION



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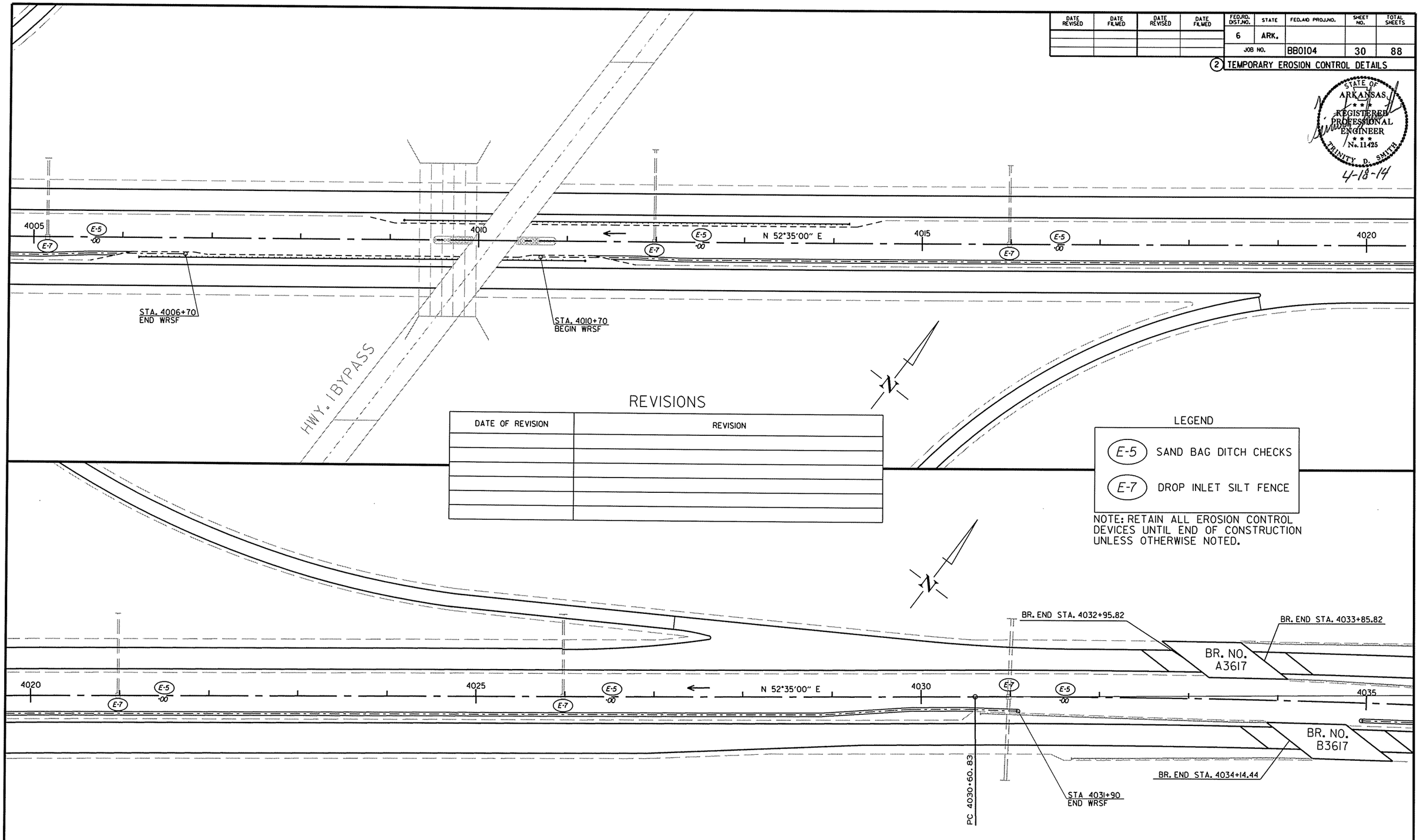
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	30	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



REVISIONS

DATE OF REVISION	REVISION

LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.

4/16/2014

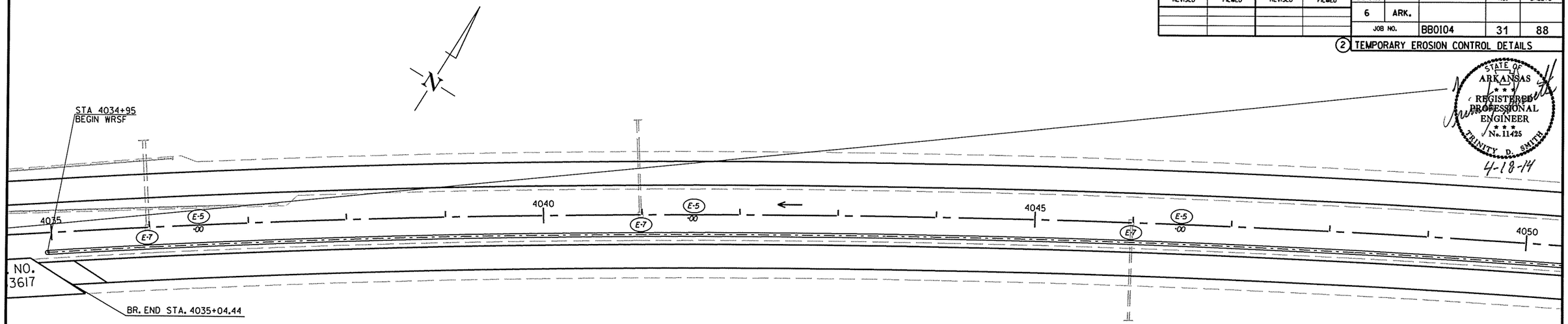
RBB0104.DGN

TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	31	88

(2) TEMPORARY EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



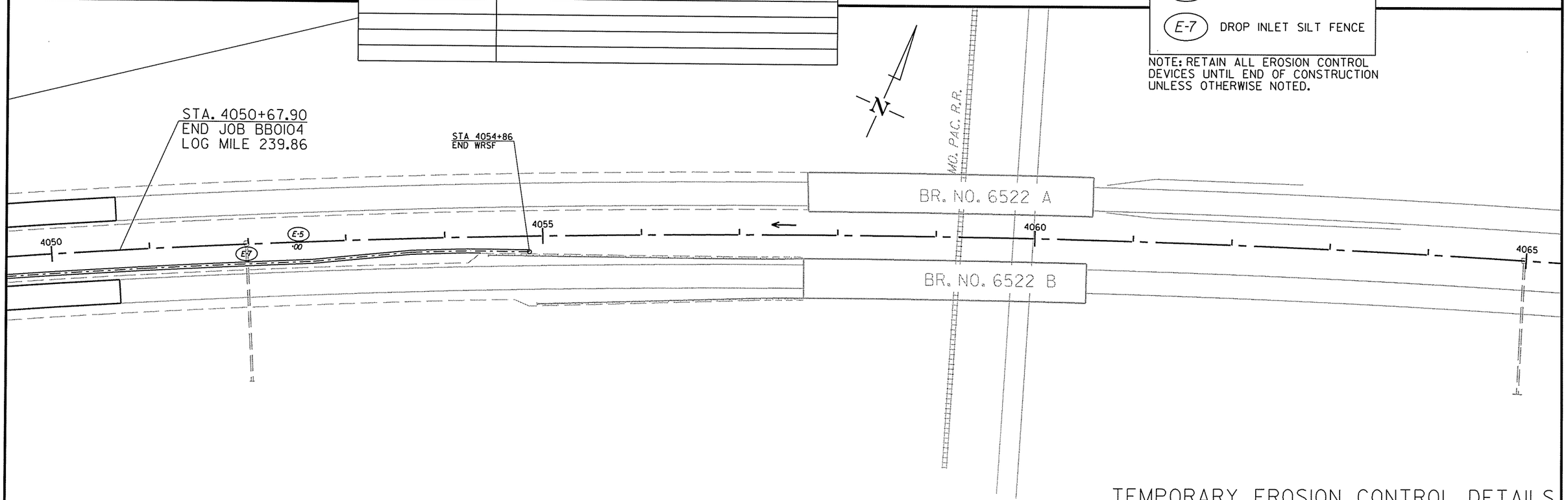
REVISIONS

DATE OF REVISION	REVISION

LEGEND

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

NOTE: RETAIN ALL EROSION CONTROL DEVICES UNTIL END OF CONSTRUCTION UNLESS OTHERWISE NOTED.



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TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
5-20-14				6	ARK.			
				JOB NO.		BB0104	32	88

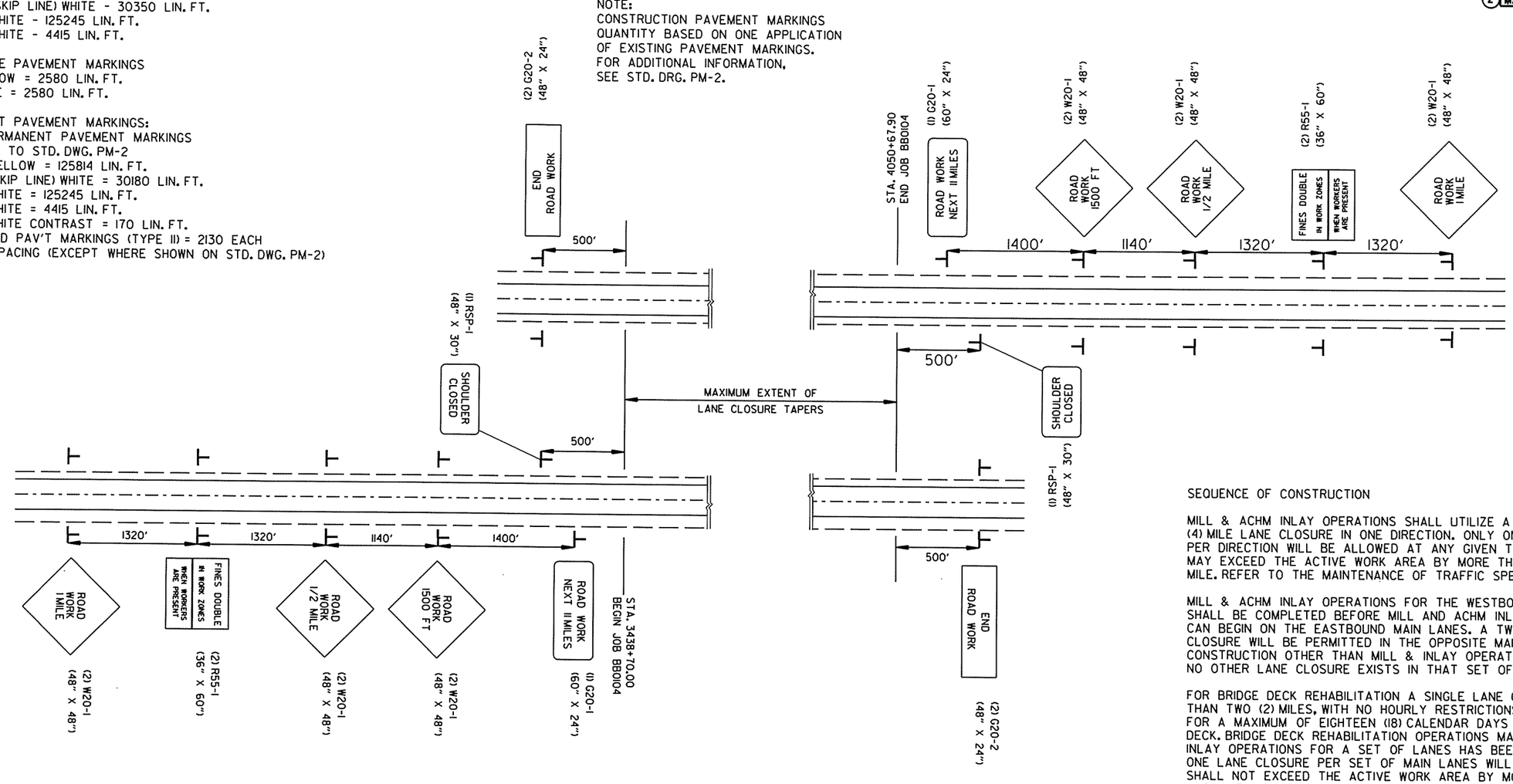
(2) MAINTENANCE OF TRAFFIC

CONSTRUCTION PAVEMENT MARKINGS:
APPLY CONSTRUCTION PAVEMENT MARKINGS
ACCORDING TO STD. DWG. PM-2
- 4" YELLOW - 125814 LIN. FT.
- 4" (SKIP LINE) WHITE - 30350 LIN. FT.
- 4" WHITE - 125245 LIN. FT.
- 8" WHITE - 4415 LIN. FT.

REMOVABLE PAVEMENT MARKINGS
- YELLOW = 2580 LIN. FT.
- WHITE = 2580 LIN. FT.

PERMANENT PAVEMENT MARKINGS:
APPLY PERMANENT PAVEMENT MARKINGS
ACCORDING TO STD. DWG. PM-2
- 4" YELLOW = 125814 LIN. FT.
- 4" (SKIP LINE) WHITE = 30180 LIN. FT.
- 4" WHITE = 125245 LIN. FT.
- 8" WHITE = 4415 LIN. FT.
- 4" WHITE CONTRAST = 170 LIN. FT.
- RAISED PAV'T MARKINGS (TYPE II) = 2130 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.



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-20-14

SEQUENCE OF CONSTRUCTION

MILL & ACHM INLAY OPERATIONS SHALL UTILIZE A SINGLE FOUR (4) MILE LANE CLOSURE IN ONE DIRECTION. ONLY ONE LANE CLOSURE PER DIRECTION WILL BE ALLOWED AT ANY GIVEN TIME. NO LANE CLOSURE MAY EXCEED THE ACTIVE WORK AREA BY MORE THAN ONE QUARTER (1/4) MILE. REFER TO THE MAINTENANCE OF TRAFFIC SPECIAL PROVISION.

MILL & ACHM INLAY OPERATIONS FOR THE WESTBOUND MAIN LANES SHALL BE COMPLETED BEFORE MILL AND ACHM INLAY OPERATIONS CAN BEGIN ON THE EASTBOUND MAIN LANES. A TWO (2) MILE LANE CLOSURE WILL BE PERMITTED IN THE OPPOSITE MAIN LANES FOR CONSTRUCTION OTHER THAN MILL & INLAY OPERATIONS AS LONG AS NO OTHER LANE CLOSURE EXISTS IN THAT SET OF LANES.

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

THE WESTBOUND MAIN LANE BRIDGES ARE TO BE COMPLETED BEFORE EASTBOUND MAIN LANE BRIDGE DECK REHABILITATION BEGINS. WHILE BRIDGE DECK OPERATIONS ARE UNDERWAY IN ONE DIRECTION, A TWO (2) MILE LANE CLOSURE WILL BE PERMITTED IN THE OPPOSITE MAIN LANES FOR CONSTRUCTION ACTIVITIES OTHER THAN BRIDGE DECK REHABILITATION, AS LONG AS NO OTHER LANE CLOSURE EXISTS IN THAT SET OF LANES. AS THE CONTRACTOR PROCEEDS WITH BRIDGE DECK REHABILITATION IN THE EASTBOUND LANES, BRIDGE DECK GROOVING WILL BE PERMITTED ON THE WESTBOUND LANES BRIDGES UTILIZING THE PERMITTED SINGLE TWO (2) MILE LANE CLOSURE.

RBB0104.DGN 5/20/2014

MAINTENANCE OF TRAFFIC
ADVANCE SIGNS AT JOB ENDS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
5-9-14				6	ARK.			
				JOB NO.		BB0104	33	88

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-13-14

TEMPORARY RUMBLE STRIP ARRAYS (12) TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

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

7880' | 150' | 250' | 250' | 5280' | 3960' | 3360' | 2640' | 2000' | 1500' | 1000' | 500'

- ROAD WORK AHEAD — (2) W20-1 (48" X 48")
- RUMBLE STRIPS AHEAD — (2) [SPECIAL] (48" X 48")
- RIGHT LANE CLOSED 1 MILE — (2) W20-5 (48" X 48")
- MERGE RIGHT — (1) [SPECIAL] (48" X 48")
- DO NOT PASS — (2) R4-1 (48" X 60")
- RIGHT LANE CLOSED 1 MILE — (2) W20-5 (48" X 48")
- REDUCED SPEED AHEAD — (2) R2-5A (48" X 60")
- RIGHT LANE CLOSED 500 FT — (2) W20-5 (48" X 48")
- DO NOT PASS — (2) R4-1 (48" X 60")
- SPEED LIMIT 60 — (2) R2-1 (48" X 60")
- (2) W4-2 RT. (48" X 48") AS DIRECTED

19 TRAFFIC DRUMS

TRAFFIC DRUMS @ 60' O.C.
840' TAPER FOR LANE CLOSURE

TRAFFIC DRUMS @ 100' O.C.
500' STABILIZING ZONE

MATCH LINE A

(3) WI-6 (60" X 30")
EVENLY SPACED ON TAPER

ADVANCE WARNING ARROW PANEL AT BEG. OF TAPER

NOTE:
MAINTAIN MINIMUM 12' LANE WIDTH ON LANE REMAINING OPEN

RT. LANE CLOSURE

SPEED LIMIT 70 / TRUCKS 65

(2) R2-1 (48" X 60")
(2) R2-2 (48" X 48")

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

MATCH LINE A

WORK AREA
TRAFFIC DRUMS @ 60' O.C. IN CLOSED LANE

TRAFFIC DRUMS @ 60' O.C. = 22 EACH
1320' ACCEL. LANE FOR WORK TRUCKS

DIVERSION FOR RT. LANE WORK ZONE

(3) WI-6 (60" X 30")
EVENLY SPACED ON TAPER

MATCH LINE A

TRAFFIC DRUMS @ 60' O.C.
720' DIRECTED LANE TO CLEAR LT. LANES WORK AREA

BUFFER MIN. 500'
TRAFFIC DRUMS @ 100' O.C. = 5 EACH

WORK AREA
TRAFFIC DRUMS @ 60' O.C. IN CLOSED LANE

TRAFFIC DRUMS @ 60' O.C. = 22 EACH
1320' ACCEL. LANE FOR WORK TRUCKS

NOTE:
MAINTAIN MINIMUM 12' LANE WIDTH ON LANE REMAINING OPEN

26 TRAFFIC DRUMS

DIVERSION FOR LT. LANE WORK ZONE

SPEED LIMIT 70 / TRUCKS 65

(2) R2-1 (48" X 60")
(2) R2-2 (48" X 48")

MAINTENANCE OF TRAFFIC LANE CLOSURE

5/9/2014

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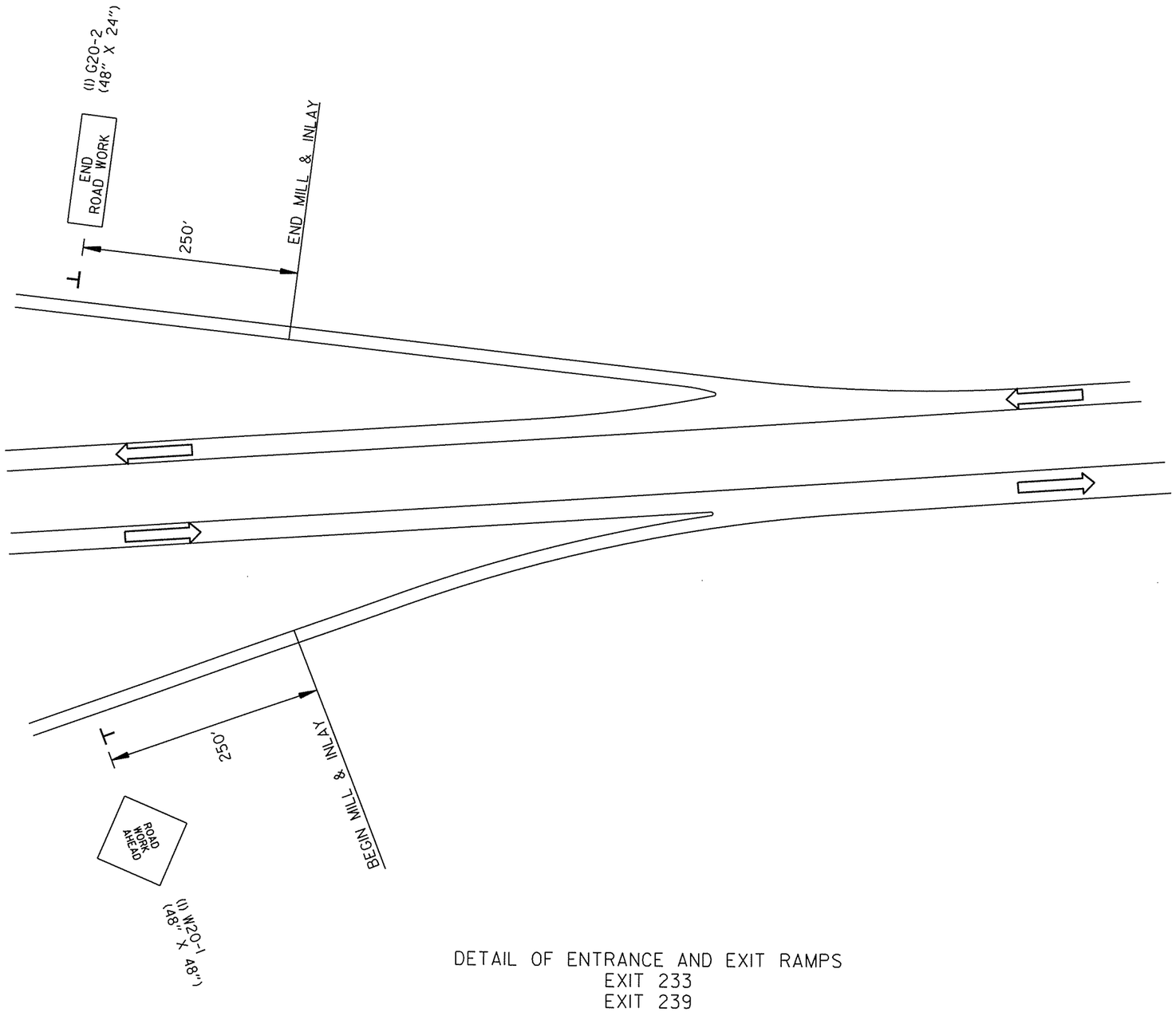
ADVANCE WARNING SIGNS FOR ENTRANCE AND EXIT RAMPS
ROAD WORK AHEAD (4) = 64 SQ. FT.
END ROAD WORK (4) = 32 SQ. FT.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	34	88

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



DETAIL OF ENTRANCE AND EXIT RAMPS
EXIT 233
EXIT 239

4/15/2014

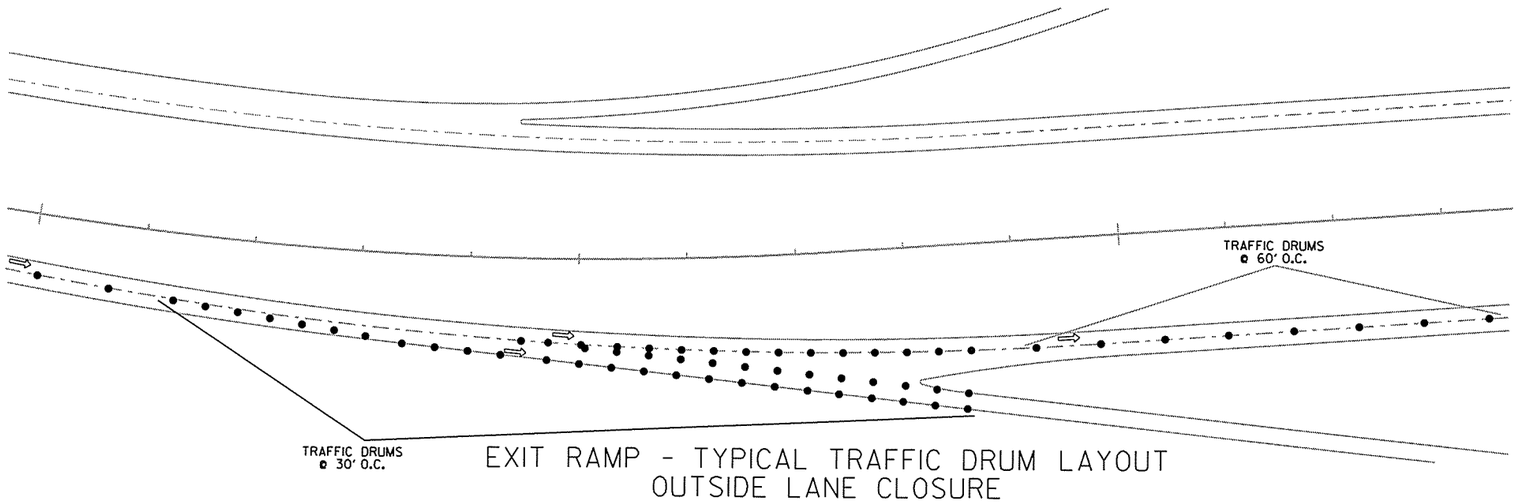
RBB0104.DGN

MAINTENANCE OF TRAFFIC
DETAIL OF RAMPS

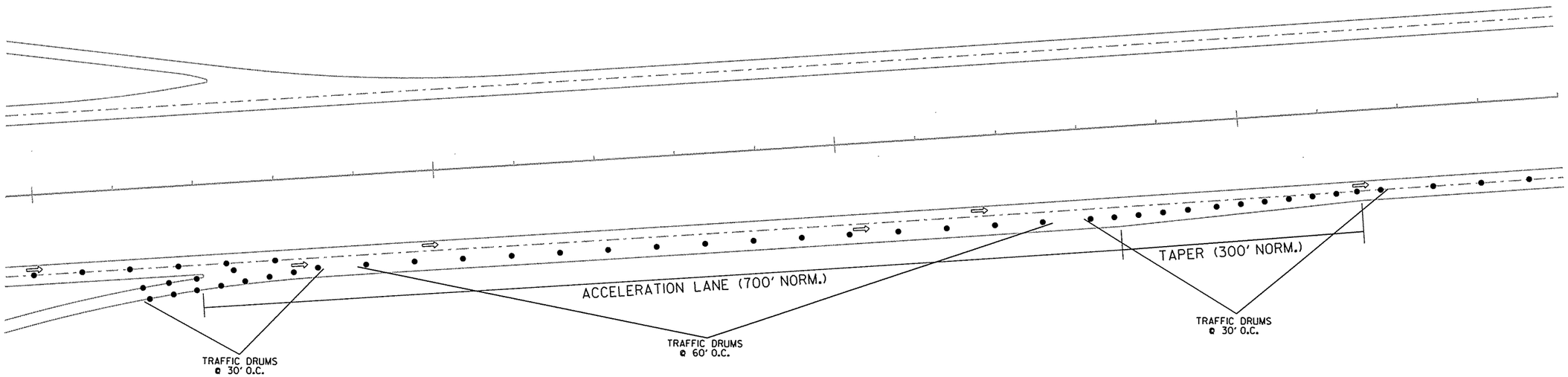
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	35	88

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



EXIT RAMP - TYPICAL TRAFFIC DRUM LAYOUT
OUTSIDE LANE CLOSURE



ENTRANCE RAMP - TYPICAL TRAFFIC DRUM LAYOUT
ACCELERATION LANE CLOSURE

EXIT 233:
EASTBOUND EXIT = 40 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 17 TRAFFIC DRUMS

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

EXIT 239:
EASTBOUND EXIT = 40 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 17 TRAFFIC DRUMS

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

REST AREA:
EASTBOUND EXIT = 40 TRAFFIC DRUMS
EASTBOUND ENTRANCE = 17 TRAFFIC DRUMS

4/15/2014

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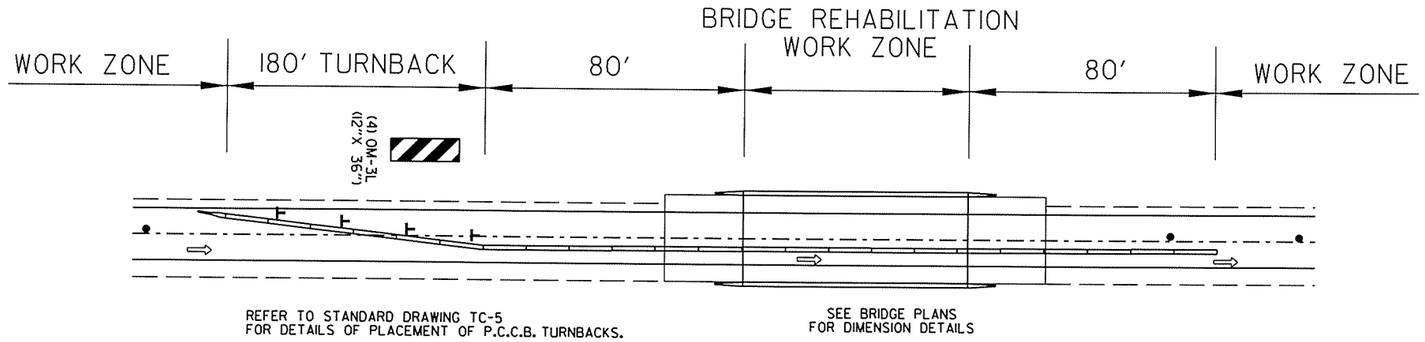
MAINTENANCE OF TRAFFIC
DETAIL OF RAMPS WITH LANE CLOSURE

PRECAST CONCRETE BARRIER WALL (4 LOCATIONS - 8 INSTALLATIONS)
(1) FURNISH AND INSTALL = 453 LIN. FT.
(7) RELOCATE = 453 LIN. FT. (PER INSTALLATION)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	36	88

(2) MAINTENANCE OF TRAFFIC

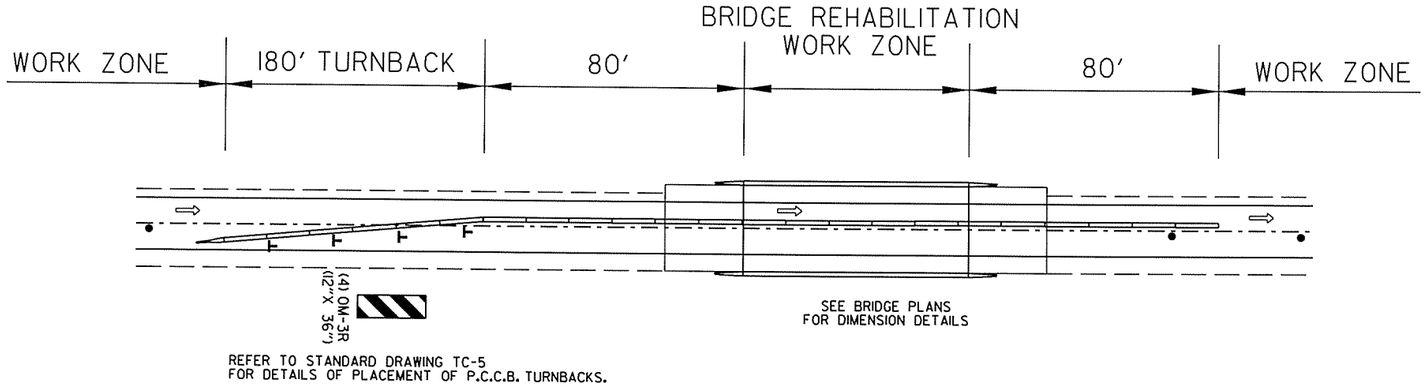
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



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

DIVERSION FOR LT. LANE BRIDGE DECK REHABILITATION

1 SET OF THIS NEEDED FOR JOB BB0104.



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

DIVERSION FOR RT. LANE BRIDGE DECK REHABILITATION

1 SET OF THIS NEEDED FOR JOB BB0104.

NOTE:
BRIDGE DECK REHABILITATION CAN BE PERFORMED FOLLOWING THE COMPLETION OF MAIN LANE MILL & INLAY OPERATIONS. REFER TO SHEET 32 FOR DETAIL OF TRAFFIC SHIFT USING TRAFFIC DRUMS. REFER TO SHEET 31 FOR SEQUENCE OF CONSTRUCTION DETAILS.

4/15/2014

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MAINTENANCE OF TRAFFIC DETAILS
WORK ZONE - BRIDGE DECK REHABILITATION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
5-9-14				6	ARK.			
				JOB NO.		BB0104	37	88

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-13-14

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	ENTIRE PROJECT	CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	HIGH PERFORMANCE CONTRAST PAVEMENT MARKING	HIGH PERFORMANCE PAVEMENT MARKING			
					4"	4"			8"
				TYPE II (WHITE/RED)	WHITE	(SKIP LINE) WHITE	WHITE	YELLOW	WHITE
	LIN. FT. - EACH	LIN. FT.	LIN. FT.	EACH	LIN. FT.	LIN. FT.			
CONSTRUCTION PAVEMENT MARKINGS	285824	285824							
REMOVABLE CONSTRUCTION PAV'T MARKINGS	5160		5160						
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)	2130			2130					
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING WHITE (4")	170				170				
HIGH PERFORMANCE PAVEMENT MARKING (SKIP LINE) WHITE (4")	30180					30180			
HIGH PERFORMANCE PAVEMENT MARKING WHITE (4")	125245						125245		
HIGH PERFORMANCE PAVEMENT MARKING YELLOW (4")	125814							125814	
HIGH PERFORMANCE PAVEMENT MARKING WHITE (8")	4415								4415
TOTALS:		**285824**	**5160**	**2130**	**170**	**30180**	**125245**	**125814**	**4415**

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

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	ADVANCE WARNING ARROW PANEL	PORTABLE CHANGEABLE MESSAGE SIGN	TEMPORARY PORTABLE RUMBLE STRIP
			LIN. FT. - EACH		NO.	SQ. FT.	EACH	LIN. FT.		DAY	WEEK	EACH
W20-1	ROAD WORK 1500 FT.	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 1 MILE	48"x48"	4	4	4	64.0						
W20-1	ROAD WORK AHEAD	48"x48"	8	8	8	128.0						
G20-2	END ROAD WORK	48"x24"	8	8	8	64.0						
G20-1	ROAD WORK NEXT XX MILES	60"x24"	2	2	2	20.0						
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						
R55-1	FINES DOUBLE IN WORK ZONES	36"X60"	4	4	4	60.0						
OM-3L	OBJECT MARKER	12"x36"	4	4	4	12.0						
OM-3R	OBJECT MARKER	12"x36"	4	4	4	12.0						
W1-6	LARGE ARROW	48"x24"	12	12	12	96.0						
R4-1	DO NOT PASS	48"x60"	8	8	8	160.0						
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						
R2-2	TRUCKS SPEED LIMIT 65 MPH	48"X60"	4	4	4	80.0						
W4-2 RT.	MERGE RIGHT	48"x48"	4	4	4	64.0						
SPECIAL	RUMBLE STRIPS AHEAD	48"x48"	4	4	4	64.0						
	TRAFFIC DRUMS		843	843			843					
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		453	453				453				
	RELOCATING PRECAST CONCRETE BARRIER		3171	3171					3171			
	ADVANCE WARNING ARROW PANEL		2	2						130		
	PORTABLE CHANGEABLE MESSAGE SIGN		4	4							152	
	TEMPORARY PORTABLE RUMBLE STRIP		24	24								24
TOTALS:						**1476.0**	**843**	**453**	**3171**	**130**	**152**	**24**

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

NOTE: THE QUANTITY OF TRAFFIC DRUMS PROVIDED IS FOR A 4 MILE WORK AREA IN ONE DIRECTION AND A 2 MILE WORK AREA IN THE OTHER 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.

5/9/2014

RBB0104.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.		BB0104	38	88

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH	"W"	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
			LIN. FT.	FEET	SQ. YD.	SQ. YD.	M. GAL.
3435+13	3580+80	RIGHT OF LEFT MAIN LANES	14567.00	4	6474.22	6474.22	81.58
3583+43	3599+67	LEFT OF RIGHT MAIN LANES	1624.00	4	721.78	721.78	9.09
3603+03	3700+53	RIGHT OF LEFT MAIN LANES	9750.00	4	4333.33	4333.33	54.60
3705+72	3744+99	RIGHT OF LEFT MAIN LANES	3927.00	4	1745.33	1745.33	21.99
3753+07	3827+67	LEFT OF RIGHT MAIN LANES	7460.00	4	3315.56	3315.56	41.78
3828+03	3873+57	RIGHT OF LEFT MAIN LANES	4554.00	4	2024.00	2024.00	25.50
3878+78	3943+75	RIGHT OF LEFT MAIN LANES	6497.00	4	2887.56	2887.56	36.38
3945+68	3986+29	LEFT OF RIGHT MAIN LANES	4061.00	4	1804.89	1804.89	22.74
3991+49	4006+10	LEFT OF RIGHT MAIN LANES	1461.00	4	649.33	649.33	8.18
4011+30	4031+09	LEFT OF RIGHT MAIN LANES	1979.00	4	879.56	879.56	11.08
4034+95	4054+86	LEFT OF RIGHT MAIN LANES	1991.00	4	884.89	884.89	11.15
TOTALS:					25720.45	25720.45	324.07

BASIS OF ESTIMATE:
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING.

WIRE ROPE SAFETY FENCE

STATION	STATION	LOCATION	WIRE ROPE SAFETY FENCE	* WRSF ANCHOR	WRSF MAINTENANCE MATERIALS	**WRSF POST REPAIR
			LIN. FT	EACH	LUMP SUM	EACH
3435+13.00	3581+40.00	RIGHT OF LEFT MAIN LANES	14627.00	2		
3582+83.00	3599+67.00	LEFT OF RIGHT MAIN LANES	1684.00	2		
3603+03.00	3701+13.00	RIGHT OF LEFT MAIN LANES	9810.00	2		
3705+13.00	3744+99.00	RIGHT OF LEFT MAIN LANES	3986.00	2		
3753+07.00	3827+67.00	LEFT OF RIGHT MAIN LANES	7460.00	2		
3828+03.00	3874+17.00	RIGHT OF LEFT MAIN LANES	4614.00	2		
3878+18.00	3943+75.00	RIGHT OF LEFT MAIN LANES	6557.00	2		
3945+68.00	3986+89.00	LEFT OF RIGHT MAIN LANES	4121.00	2		
3990+89.00	4006+70.00	LEFT OF RIGHT MAIN LANES	1581.00	2		
4010+70.00	4031+09.00	LEFT OF RIGHT MAIN LANES	2039.00	2		
4034+95.00	4054+86.00	LEFT OF RIGHT MAIN LANES	1991.00	2		
ENTIRE	PROJECT				1.00	50
TOTALS:			58470.00	22	1.00	50

* SHOWN FOR INFORMATION ONLY.
** QUANTITY ESTIMATED
SEE SECTION 104.03 OF THE STD. SPECS.

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	TERMINAL ANCHOR POST (TYPE 1)
			LIN. FT.	EACH	
3578+32.62	3583+32.62	LEFT OF RIGHT MAIN LANES	450	1	1
3580+90.13	3585+90.13	RIGHT OF LEFT MAIN LANES	450	1	1
3698+08.90	3703+08.90	LEFT OF RIGHT MAIN LANES	450	1	1
3700+62.57	3705+62.57	RIGHT OF LEFT MAIN LANES	450	1	1
3870+87.06	3875+87.06	LEFT OF RIGHT MAIN LANES	450	1	1
3873+66.61	3878+66.61	RIGHT OF LEFT MAIN LANES	450	1	1
3986+38.81	3991+38.81	LEFT OF RIGHT MAIN LANES	450	1	1
3988+54.17	3993+54.17	RIGHT OF LEFT MAIN LANES	450	1	1
4006+20.25	4011+20.25	LEFT OF RIGHT MAIN LANES	450	1	1
4009+15.88	4014+15.88	RIGHT OF LEFT MAIN LANES	450	1	1
TOTALS:			4500	10	10

CULVERT REHABILITATION

STA.	LOCATION	DESCRIPTION	SLIP LINE PIPE 18"	24"	30"	36"	48"
			LIN. FT.				
3450+14	UNDER RT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3462+13	UNDER RT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3474+13	UNDER RT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3483+14	UNDER LT. & RT. LANES	36" X 164' C.M. PIPE CULVERT				164	
3495+14	UNDER RT. LANE	24" X 86' C.M. PIPE OUTLET		86			
3507+13	UNDER RT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3513+06	UNDER RT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3528+13	UNDER RT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3538+13	UNDER RT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3550+13	UNDER RT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3562+15	UNDER RT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3572+15	UNDER RT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3588+15	UNDER RT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3600+15	UNDER RT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3613+15	UNDER RT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3623+14	UNDER RT. LANE	24" X 80' C.M. PIPE OUTLET		80			
3633+14	UNDER RT. LANE	24" X 80' C.M. PIPE OUTLET		80			
3634+15	UNDER LT. & RT. LANES	24" X 250' C.M. PIPE CULVERT		250			
3645+15	UNDER RT. LANE	24" X 82' C.M. PIPE OUTLET		82			
3657+15	UNDER RT. LANE	24" X 88' C.M. PIPE OUTLET		88			
3666+15	UNDER RT. LANE	24" X 86' C.M. PIPE OUTLET		86			
3677+15	UNDER RT. LANE	24" X 86' C.M. PIPE OUTLET		86			
3686+15	UNDER RT. LANE	24" X 86' C.M. PIPE OUTLET		86			
3698+15	UNDER LT. LANE	24" X 86' C.M. PIPE OUTLET		86			
3700+95	UNDER LT. & RT. LANES	24" X 168' C.M. PIPE CULVERT		168			
3704+15	UNDER RT. LANE	24" X 86' C.M. PIPE OUTLET		86			
3708+15	UNDER LT. & RT. LANES	36" X 200' C.M. PIPE CULVERT				200	
3714+05	UNDER RT. LANE	24" X 92' C.M. PIPE OUTLET		92			
3720+15	UNDER RT. LANE	24" X 110' C.M. PIPE OUTLET		110			
3732+15	UNDER RT. LANE	24" X 122' C.M. PIPE OUTLET		122			
3738+30	UNDER RT. LANE	24" X 138' C.M. PIPE OUTLET		138			
3759+14	UNDER RT. LANE	24" X 124' C.M. PIPE OUTLET		124			
3765+36	UNDER LT. & RT. LANES	48" X 264' C.M. PIPE CULVERT					264
3777+14	UNDER RT. LANE	18" X 128' C.M. PIPE OUTLET	128				
3783+81	UNDER LT. & RT. LANES	36" X 254' C.M. PIPE CULVERT				254	
3789+14	UNDER RT. LANE	18" X 124' C.M. PIPE OUTLET	124				
3811+15	UNDER RT. LANE	24" X 86' C.M. PIPE OUTLET		86			
3817+15	UNDER RT. LANE	24" X 86' C.M. PIPE OUTLET		86			
3828+15	UNDER LT. LANE	24" X 86' C.M. PIPE OUTLET		86			
3852+15	UNDER LT. LANE	24" X 86' C.M. PIPE OUTLET		86			
3864+15	UNDER LT. LANE	24" X 86' C.M. PIPE OUTLET			86		
3874+14	UNDER LT. LANE	24" X 84' C.M. PIPE OUTLET		84			
3964+15	UNDER LT. & RT. LANES	24" X 88' PIPE INLET, 24" X 92' PIPE OUTLET		180			
TOTALS:			252	3550	86	618	264

4/21/2014

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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.		BB0104	39	88

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL					TEMPORARY EROSION CONTROL		
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	SAND BAG DITCH CHECKS (E-5)	DROP INLET SILT FENCE (E-7)	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	BAG	LIN. FT.	CU. YD.
ENTIRE	PROJECT	MAIN LANES	14.42	28.84	14.42	1470.8	14.42	1694	1825	145
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			3.61	7.22	3.61	368.2	3.61	424	456	36
TOTALS:			**18.03**	**36.06**	**18.03**	**1839.0**	**18.03**	**2118**	**2281**	**181**

BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING.
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
DROP INLET SILT FENCE.....25 LIN. FT./LOCATION

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

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

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
3577+90	3583+91	LT. OF RT. MAIN LANES SHLDR. WIDENING FOR GUARDRAIL AT JUMPER CORNER RD. OVERPASS	119	
3580+33	3586+34	RT. OF LT. MAIN LANES SHLDR. WIDENING FOR GUARDRAIL AT JUMPER CORNER RD. OVERPASS	119	
3697+67	3703+53	LT. OF RT. MAIN LANES SHLDR. WIDENING FOR GUARDRAIL AT N. MAIN ST. OVERPASS	116	
3700+06	3706+22	RT. OF LT. MAIN LANES SHLDR. WIDENING FOR GUARDRAIL AT N. MAIN ST. OVERPASS	122	
3870+44	3876+30	LT. OF RT. MAIN LANES SHLDR. WIDENING FOR GUARDRAIL AT BECK RD. OVERPASS	116	
3873+10	3879+26	RT. OF LT. MAIN LANES SHLDR. WIDENING FOR GUARDRAIL AT BECK RD. OVERPASS	122	
3985+82	3991+98	LT. OF RT. MAIN LANES SHLDR. WIDENING FOR GUARDRAIL AT DAWSON RD. OVERPASS	122	
3988+12	3993+98	RT. OF LT. MAIN LANES SHLDR. WIDENING FOR GUARDRAIL AT DAWSON RD. OVERPASS	116	
4005+63	4011+79	LT. OF RT. MAIN LANES SHLDR. WIDENING FOR GUARDRAIL AT HWY. 1 OVERPASS	122	
4008+74	4014+60	RT. OF LT. MAIN LANES SHLDR. WIDENING FOR GUARDRAIL AT HWY. 1 OVERPASS	116	
3599+85		MEDIAN CROSSOVER	15	260
3827+85		MEDIAN CROSSOVER	15	260
* ENTIRE	PROJECT	TO BE USED IF AND WHERE		200*
		DIRECTED BY THE ENGINEER		
TOTALS:			**1220**	**720**

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.
COMPACTION WILL BE AT THE SATISFACTION OF THE ENGINEER.
NOTE: EARTHWORK QUANTITIES SHOWN ABOVE SHALL BE PAID AS PLAN QUANTITY.

RUMBLE STRIPS IN ASPHALT SHOULDERS

STATION	STATION	LOCATION	* RUMBLE STRIPS IN ASPHALT SHOULDERS
			LIN.FT.
3438+70	3692+45	RT. OF RT. MAIN LANES	25375
3694+39	3709+71	RT. OF RT. MAIN LANES	1532
3709+73	3744+72	RT. OF RT. MAIN LANES	3499
3753+33	3818+08	RT. OF RT. MAIN LANES	6475
3819+85	3847+36	RT. OF RT. MAIN LANES	2751
3847+38	3944+65	RT. OF RT. MAIN LANES	9727
3946+28	3995+12	RT. OF RT. MAIN LANES	4884
3996+32	4018+78	RT. OF RT. MAIN LANES	2246
4018+81	4033+91	RT. OF RT. MAIN LANES	1510
4035+55	4050+65	RT. OF RT. MAIN LANES	1510
3438+70	3693+34	LT. OF LT. MAIN LANES	25464
3693+36	3709+91	LT. OF LT. MAIN LANES	1655
3711+74	3744+72	LT. OF LT. MAIN LANES	3298
3753+33	3943+16	LT. OF LT. MAIN LANES	18983
3944+79	4001+24	LT. OF LT. MAIN LANES	5645
4001+26	4025+97	LT. OF LT. MAIN LANES	2471
4027+24	4032+46	LT. OF LT. MAIN LANES	522
4034+07	4050+65	LT. OF LT. MAIN LANES	1658
3438+70	3744+72	RT. OF LT. MAIN LANES	30602
3753+33	3943+49	RT. OF LT. MAIN LANES	19016
3944+75	4032+78	RT. OF LT. MAIN LANES	8803
4034+03	4050+65	RT. OF LT. MAIN LANES	1662
3438+70	3744+72	LT. OF RT. MAIN LANES	30602
3753+33	3944+32	LT. OF RT. MAIN LANES	19099
3945+58	4033+58	LT. OF RT. MAIN LANES	8800
4034+85	4050+65	LT. OF RT. MAIN LANES	1580
TOTAL:			**239369**

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

FLUSHING UNDERDRAIN

STA.	STA.	LOCATION	LIN. FT.
3438+70	3745+09	LT. MAIN LANES	30639
3752+97	3943+66	LT. MAIN LANES	19069
3944+56	4032+96	LT. MAIN LANES	8840
4033+84	4050+65	LT. MAIN LANES	1681
3438+70	3745+09	RT. MAIN LANES	30639
3752+97	3944+87	RT. MAIN LANES	19190
3945+77	4034+14	RT. MAIN LANES	8837
4035+05	4050+65	RT. MAIN LANES	1560
TOTAL:			**120455**

4/16/2014

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QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	40	88

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
		MAIN LANES		
* 3438+70.20	3744+72.03	LT. MAIN LANES	30	102006.10
* 3753+33.19	3943+32.38	LT. MAIN LANES	30	63330.63
* 3944+95.38	4032+62.15	LT. MAIN LANES	30	29222.57
* 4034+23.16	4050+65.40	LT. MAIN LANES	30	5474.13
* 3438+70.20	3744+72.03	RT. MAIN LANES	30	102006.10
* 3753+33.54	3944+48.20	RT. MAIN LANES	30	63715.53
* 3946+11.19	4033+74.51	RT. MAIN LANES	30	29211.07
* 4035+37.90	4050+65.40	RT. MAIN LANES	30	5091.67
		ADDITIONAL FOR ENTRANCE AND EXIT RAMPS		
3687+61.51	3694+39.19	EXIT 233 RT. MAIN LANES - TURN OUT	VARIES	906.15
3692+45.23	3697+95.23	EXIT 233 RAMP 1 - EXIT RAMP	15.5	947.22
3709+70.74	3719+70.22	EXIT 233 RT. MAIN LANES - ACCELERATION LANE AND TAPER	VARIES	1214.06
3704+22.24	3709+72.24	EXIT 233 RAMP 2 - ENTRANCE RAMP	15.5	947.22
3709+90.51	3716+76.05	EXIT 233 LT. MAIN LANES - TURN OUT	VARIES	1018.17
3706+22.83	3711+72.83	EXIT 233 RAMP 3 - EXIT RAMP	15.5	947.22
3683+35.36	3693+36.27	EXIT 233 LT. MAIN LANES - ACCELERATION LANE AND TAPER	VARIES	1163.80
3693+34.84	3698+84.84	EXIT 233 RAMP 4 - ENTRANCE RAMP	15.5	947.22
3813+19.66	3819+85.03	REST AREA RT. MAIN LANES - TURN OUT	VARIES	922.54
3818+08.72	3823+58.72	REST AREA RAMP 1 - EXIT RAMP	15.5	947.22
3847+35.69	3857+38.36	REST AREA RT. MAIN LANES - ACCELERATION LANE AND TAPER	VARIES	1170.21
3841+86.91	3847+36.91	REST AREA RAMP 2 - ENTRANCE RAMP	15.5	947.22
3990+35.98	3996+32.08	EXIT 239 RT. MAIN LANES - TURN OUT	VARIES	815.49
3995+13.08	4000+63.08	EXIT 239 RAMP 1 - EXIT RAMP	15.5	947.22
4018+78.38	4029+34.54	EXIT 239 RT. MAIN LANES - ACCELERATION LANE AND TAPER	VARIES	1047.24
4013+29.94	4018+79.94	EXIT 239 RAMP 2 - ENTRANCE RAMP	15.5	947.22
4025+97.39	4031+93.00	EXIT 239 LT. MAIN LANES - TURN OUT	VARIES	807.09
4021+72.85	4027+22.85	EXIT 239 RAMP 3 - EXIT RAMP	15.5	947.22
3990+65.99	4001+26.37	EXIT 239 LT. MAIN LANES - ACCELERATION LANE AND TAPER	VARIES	1165.71
4001+24.89	4006+74.89	EXIT 239 RAMP 4 - ENTRANCE RAMP	15.5	947.22
TOTAL:				419760.46

*NOTE: REFER TO TYPICAL SECTIONS OF IMPROVEMENT FOR DEPTH AND WIDTH OF COLD MILLING.

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER

STATION	LOCATION	EACH
3582+11	JUMPER CORNER RD. OVERPASS	2
3701+86	PALESTINE RD. OVERPASS	2
3874+77	BECK RD. OVERPASS	2
3989+96	DAWSON RD. OVERPASS	2
4010+18	HWY. 1 OVERPASS	2
TOTAL:		10

SHOULDER RECONSTRUCTION FOR MAINTENANCE OF TRAFFIC

STATION	STATION	LOCATION	LENGTH	TACK COAT .03 GAL PER SQ. YD.		ACHM BASE COURSE (1-1/2")				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")				TRENCHING AND SHOULDER PREPARATION
			LIN. FT.	AREA SQ. YD.	GAL.	AVG. WIDTH FEET	AREA SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	AREA SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	AREA SQ. YD.	LBS. PER SQ. YD.	TON	STATION
3940+89.62	3943+29.62	LT. OF LT. MAIN LANES	240.00	551.20	16.54	10.42	277.87	550.00	76.41	10.25	273.33	440.00	60.13	10.00	266.67	440.00	58.67	2.40
3944+92.62	3947+32.62	LT. OF LT. MAIN LANES	240.00	551.20	16.54	10.42	277.87	550.00	76.41	10.25	273.33	440.00	60.13	10.00	266.67	440.00	58.67	2.40
4030+19.32	4032+59.32	LT. OF LT. MAIN LANES	240.00	551.20	16.54	10.42	277.87	550.00	76.41	10.25	273.33	440.00	60.13	10.00	266.67	440.00	58.67	2.40
4034+22.32	4036+62.32	LT. OF LT. MAIN LANES	240.00	551.20	16.54	10.42	277.87	550.00	76.41	10.25	273.33	440.00	60.13	10.00	266.67	440.00	58.67	2.40
3942+10.95	3944+50.95	RT. OF RT. MAIN LANES	240.00	551.20	16.54	10.42	277.87	550.00	76.41	10.25	273.33	440.00	60.13	10.00	266.67	440.00	58.67	2.40
3946+13.95	3948+53.95	RT. OF RT. MAIN LANES	240.00	551.20	16.54	10.42	277.87	550.00	76.41	10.25	273.33	440.00	60.13	10.00	266.67	440.00	58.67	2.40
4031+37.94	4033+77.94	RT. OF RT. MAIN LANES	240.00	551.20	16.54	10.42	277.87	550.00	76.41	10.25	273.33	440.00	60.13	10.00	266.67	440.00	58.67	2.40
4035+40.94	4037+80.94	RT. OF RT. MAIN LANES	240.00	551.20	16.54	10.42	277.87	550.00	76.41	10.25	273.33	440.00	60.13	10.00	266.67	440.00	58.67	2.40
TOTALS:					132.32		2222.96		611.28		2186.64		481.04		2133.36		469.36	19.20

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2") MIN AGG = 94.8%_____ ASPH BINDER (PG 76-22) = 5.2%
ACHM BINDER COURSE (1") MIN AGG = 95.7%_____ ASPH BINDER (PG 76-22) = 4.3%
ACHM BASE COURSE (1-1/2") MIN AGG = 96.1%_____ ASPH BINDER (PG 76-22) = 3.9%
NMAX = 205

4/21/2014

RBB0104.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.		BB0104	41	88

(2) QUANTITIES

BASE AND SURFACING

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT				ACHM SURFACE COURSE (1/2")			
				TON / STATION	TON	AVG. WID.	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22
			FEET			FEET				FEET			TON
MAIN LANES													
3438+70.00	3573+64.00	LT. MAIN LANES	13494.00			60.00	89960.00	0.10	8996.00	60.00	89960.00	220.00	9895.60
3573+64.00	3590+64.00	LT. MAIN LANES	1700.00			58.00	10955.56	0.10	1095.56	58.00	10955.56	220.00	1205.11
3590+64.00	3694+14.90	LT. MAIN LANES	10350.90			60.00	69006.00	0.10	6900.60	60.00	69006.00	220.00	7590.66
3694+14.90	3708+64.90	LT. MAIN LANES	1450.00			58.00	9344.44	0.10	934.44	58.00	9344.44	220.00	1027.89
3708+64.90	3744+72.03	LT. MAIN LANES	3607.13			60.00	24047.53	0.10	2404.75	60.00	24047.53	220.00	2645.23
3753+33.19	3868+22.00	LT. MAIN LANES	11488.81			60.00	76592.07	0.10	7659.21	60.00	76592.07	220.00	8425.13
3868+22.00	3882+22.00	LT. MAIN LANES	1400.00			58.00	9022.22	0.10	902.22	58.00	9022.22	220.00	992.44
3882+22.00	3936+12.44	LT. MAIN LANES	5390.44			60.00	35936.27	0.10	3593.63	60.00	35936.27	220.00	3952.99
3936+12.44	3943+29.62	LT. MAIN LANES	717.18			58.00	4621.83	0.10	462.18	58.00	4621.83	220.00	508.40
3944+92.62	3952+12.44	LT. MAIN LANES	719.82			58.00	4638.84	0.10	463.88	58.00	4638.84	220.00	510.27
3952+12.44	3982+14.70	LT. MAIN LANES	3002.26			60.00	20015.07	0.10	2001.51	60.00	20015.07	220.00	2201.66
3982+14.70	3997+64.70	LT. MAIN LANES	1550.00			58.00	9988.89	0.10	998.89	58.00	9988.89	220.00	1098.78
3997+64.70	4008+92.50	LT. MAIN LANES	1127.80			60.00	7518.67	0.10	751.87	60.00	7518.67	220.00	827.05
4008+92.50	4010+37.50	LT. MAIN LANES	145.00			58.00	934.44	0.10	93.44	58.00	934.44	220.00	102.79
4010+37.50	4026+96.32	LT. MAIN LANES	1658.82			60.00	11058.80	0.10	1105.88	60.00	11058.80	220.00	1216.47
4026+96.32	4032+59.32	LT. MAIN LANES	563.00			58.00	3628.22	0.10	362.82	58.00	3628.22	220.00	399.10
4034+22.32	4050+67.90	LT. MAIN LANES	1645.58			58.00	10604.85	0.10	1060.49	58.00	10604.85	220.00	1166.53
3438+70.00	3573+64.00	RT. MAIN LANES	13494.00			60.00	89960.00	0.10	8996.00	60.00	89960.00	220.00	9895.60
3573+64.00	3590+64.00	RT. MAIN LANES	1700.00			58.00	10955.56	0.10	1095.56	58.00	10955.56	220.00	1205.11
3590+64.00	3694+14.90	RT. MAIN LANES	10350.90			60.00	69006.00	0.10	6900.60	60.00	69006.00	220.00	7590.66
3694+14.90	3708+64.90	RT. MAIN LANES	1450.00			58.00	9344.44	0.10	934.44	58.00	9344.44	220.00	1027.89
3708+64.90	3744+72.03	RT. MAIN LANES	3607.13			60.00	24047.53	0.10	2404.75	60.00	24047.53	220.00	2645.23
3753+33.19	3868+22.00	RT. MAIN LANES	11488.81			60.00	76592.07	0.10	7659.21	60.00	76592.07	220.00	8425.13
3868+22.00	3882+22.00	RT. MAIN LANES	1400.00			58.00	9022.22	0.10	902.22	58.00	9022.22	220.00	992.44
3882+22.00	3937+17.95	RT. MAIN LANES	5495.95			60.00	36639.67	0.10	3663.97	60.00	36639.67	220.00	4030.36
3937+17.95	3944+50.95	RT. MAIN LANES	733.00			58.00	4723.78	0.10	472.38	58.00	4723.78	220.00	519.62
3946+13.95	3953+17.95	RT. MAIN LANES	704.00			58.00	4536.89	0.10	453.69	58.00	4536.89	220.00	499.06
3953+17.95	3983+14.70	RT. MAIN LANES	2996.75			60.00	19978.33	0.10	1997.83	60.00	19978.33	220.00	2197.62
3983+14.70	3996+64.70	RT. MAIN LANES	1350.00			58.00	8700.00	0.10	870.00	58.00	8700.00	220.00	957.00
3996+64.70	4008+92.50	RT. MAIN LANES	1227.80			60.00	8185.33	0.10	818.53	60.00	8185.33	220.00	900.39
4008+92.50	4010+37.50	RT. MAIN LANES	145.00			58.00	934.44	0.10	93.44	58.00	934.44	220.00	102.79
4010+37.50	4027+01.94	RT. MAIN LANES	1664.44			60.00	11096.27	0.10	1109.63	60.00	11096.27	220.00	1220.59
4027+01.94	4033+77.94	RT. MAIN LANES	676.00			58.00	4356.44	0.10	435.64	58.00	4356.44	220.00	479.21
4035+40.94	4050+67.90	RT. MAIN LANES	1526.96			58.00	9840.41	0.10	984.04	58.00	9840.41	220.00	1082.45
ADDITIONAL FOR ENTRANCE AND EXIT RAMPS													
3687+61.51	3694+39.19	EXIT 233 RT. MAIN LANES - TURN OUT	677.68			VARIES	906.15	0.10	90.62	VARIES	906.15	440.00	199.35
3692+45.23	3697+95.23	EXIT 233 RAMP 1 - EXIT RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	440.00	208.39
3709+70.74	3719+70.22	EXIT 233 RT. MAIN LANES - ACCELERATION LANE AND TAPER	999.48			VARIES	1214.06	0.10	121.41	VARIES	1214.06	440.00	267.09
3704+22.24	3709+72.24	EXIT 233 RAMP 2 - ENTRANCE RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	440.00	208.39
3709+90.51	3716+76.05	EXIT 233 LT. MAIN LANES - TURN OUT	685.54			VARIES	1018.17	0.10	101.82	VARIES	1018.17	440.00	224.00
3706+22.83	3711+72.83	EXIT 233 RAMP 3 - EXIT RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	440.00	208.39
3683+35.36	3693+36.27	EXIT 233 LT. MAIN LANES - ACCELERATION LANE AND TAPER	1000.91			VARIES	1163.80	0.10	116.38	VARIES	1163.80	440.00	256.04
3693+34.84	3698+84.84	EXIT 233 RAMP 4 - ENTRANCE RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	440.00	208.39
3813+19.66	3819+85.03	REST AREA RT. MAIN LANES - TURN OUT	665.37			VARIES	922.54	0.10	92.25	VARIES	922.54	440.00	202.96
3818+08.72	3823+58.72	REST AREA RAMP 1 - EXIT RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	440.00	208.39
3847+35.69	3857+38.36	REST AREA RT. MAIN LANES - ACCELERATION LANE AND TAPER	1002.67			VARIES	1170.21	0.10	117.02	VARIES	1170.21	440.00	257.45
3841+86.91	3847+36.91	REST AREA RAMP 2 - ENTRANCE RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	440.00	208.39
3990+35.98	3996+32.08	EXIT 239 RT. MAIN LANES - TURN OUT	596.10			VARIES	815.49	0.10	81.55	VARIES	815.49	440.00	179.41
3995+13.08	4000+63.08	EXIT 239 RAMP 1 - EXIT RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	440.00	208.39
4018+78.38	4029+34.54	EXIT 239 RT. MAIN LANES - ACCELERATION LANE AND TAPER	1056.16			VARIES	1047.24	0.10	104.72	VARIES	1047.24	440.00	230.39
4013+29.94	4018+79.94	EXIT 239 RAMP 2 - ENTRANCE RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	440.00	208.39
4025+97.39	4031+93.00	EXIT 239 LT. MAIN LANES - TURN OUT	595.61			VARIES	807.09	0.10	80.71	VARIES	807.09	440.00	177.56
4021+72.85	4027+22.85	EXIT 239 RAMP 3 - EXIT RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	440.00	208.39
3990+65.99	4001+26.37	EXIT 239 LT. MAIN LANES - ACCELERATION LANE AND TAPER	1060.38			VARIES	1165.71	0.10	116.57	VARIES	1165.71	440.00	256.46
4001+24.89	4006+74.89	EXIT 239 RAMP 4 - ENTRANCE RAMP	550.00			15.50	947.22	0.10	94.72	15.50	947.22	440.00	208.39
ADDITIONAL FOR WIDENING FOR GUARDRAIL													
3577+90.48	3583+91.48	LEFT OF RIGHT MAIN LANES	601.00	29.50	177.30					VARIES	504.28	220.00	55.47
3580+33.19	3586+34.19	RIGHT OF LEFT MAIN LANES	601.00	29.50	177.30					VARIES	504.28	220.00	55.47
3697+66.76	3703+52.76	LEFT OF RIGHT MAIN LANES	586.00	28.75	168.48					VARIES	468.16	220.00	51.50
3700+05.61	3706+21.61	RIGHT OF LEFT MAIN LANES	616.00	30.25	186.34					VARIES	540.39	220.00	59.44
3870+44.45	3876+30.45	LEFT OF RIGHT MAIN LANES	586.00	28.75	168.48					VARIES	468.16	220.00	51.50
3873+09.78	3879+25.78	RIGHT OF LEFT MAIN LANES	616.00	30.25	186.34					VARIES	540.39	220.00	59.44
3985+81.93	3991+97.93	LEFT OF RIGHT MAIN LANES	616.00	30.25	186.34					VARIES	540.39	220.00	59.44
3988+12.03	3993+98.03	RIGHT OF LEFT MAIN LANES	586.00	28.75	168.48					VARIES	468.16	220.00	51.50
4005+63.38	4011+79.38	LEFT OF RIGHT MAIN LANES	616.00	30.25	186.34					VARIES	540.39	220.00	59.44
4008+73.75	4014+59.75	RIGHT OF LEFT MAIN LANES	586.00	28.75	168.48					VARIES	468.16	220.00	51.50
ADDITIONAL FOR MEDIAN CROSSOVER													
3599+85.00		I-40 MAIN LANE MEDIAN	60.00	VARIES	60.00					16.00	146.00	220.00	16.06
3827+85.00		I-40 MAIN LANE MEDIAN	60.00	VARIES	60.00					16.00	146.00	220.00	16.06
TOTALS:					**1893.88**		**815495.74**		**81549.55**		**820830.50**		**92458.68**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

4/21/2014

RBB0104.DGN

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0104	42	88

(1) A&B3614, A&B3617 - QUANTITIES - 55471

SCHEDULE OF BRIDGE QUANTITIES - JOB BB0104

LOG MILE	(2) UNIT OF STRUCTURE	ITEM NO.	509	802	803	803	804	SP JOB BB0104	SP JOB BB0104
		ITEM	JOINT REHABILITATION (TYPE A)	GROOVING	CLASS 1 PROTECTIVE SURFACE TREATMENT	CLASS 3 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL - BRIDGE (GRADE 60)	HYDRODEMOLITION	LATEX MODIFIED CONCRETE OVERLAY (1½" THICK)
		UNIT	LIN. FT.	SQ. YD.	GAL.	LIN. FT.	LBS.	SQ. YD.	SQ. YD.
237.80	EXISTING BRIDGE NO. A3614		129	365	8.0	180	200	395	395
237.80	EXISTING BRIDGE NO. B3614		129	365	8.0	180	200	395	395
239.52	EXISTING BRIDGE NO. A3617		129	365	8.0	180	200	395	395
239.52	EXISTING BRIDGE NO. B3617		129	365	8.0	180	200	395	395
	TOTALS FOR JOB NO. BB0104		516	1,460	32.0	720	800 (1)	1,580	1,580

(2) Bridge decks have no existing asphalt overlay.

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

AILEEN SCHUBEL
DESIGN SECTION SUPERVISOR

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7510
CARL T. FUSELIER
4/10/14

BRIDGE ENGINEER

SCHEDULE OF BRIDGE QUANTITIES
GOODWIN-FORREST CITY (S)
ST. FRANCIS COUNTY

ROUTE 40 SEC. 51

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KWY DATE: 1/24/14 FILENAME: bbb0104_ql.dgn
CHECKED BY: AMS DATE: 4/10/14 SCALE:
DESIGNED BY: DATE:

BRIDGE NO. A&B3614, A&B3617 DRAWING NO. 55471

PRINT DATE: 4/10/2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
5-9-14				6	ARK.			
5-20-14				JOB NO.		BB0104	43	88

(2) SUMMARY OF QUANTITIES AND REVISIONS

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM		QUANTITY 9050	QUANTITY BIM-B40-0(204)	QUANTITY BB0104 TOTAL	UNIT
SP	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER			10	10	EACH
210	UNCLASSIFIED EXCAVATION			1220	1220	CU. YD.
210	COMPACTED EMBANKMENT			720	720	CU. YD.
SP & 215	TRENCHING AND SHOULDER PREPARATION			19	19	STATION
303	AGGREGATE BASE COURSE (CLASS 7)			1894	1894	TON
401	TACK COAT			81682	81682	GAL.
SP & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")			587	587	TON
SP & 405	ASPHALT BINDER (PG 76-22) IN ACHM BASE COURSE (1 1/2")			24	24	TON
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")			460	460	TON
SP, SS, & 406	ASPHALT BINDER (PG 76-22) IN ACHM BINDER COURSE (1")			21	21	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")			88096	88096	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")			4832	4832	TON
412	COLD MILLING ASPHALT PAVEMENT			419760	419760	SQ. YD.
601	MOBILIZATION			1.00	1.00	LUMP SUM
SP & 603	MAINTENANCE OF TRAFFIC			1.00	1.00	LUMP SUM
604	SIGNS			1476	1476	SQ. FT.
604	TRAFFIC DRUMS			843	843	EACH
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER			453	453	LIN. FT.
604	RELOCATING PRECAST CONCRETE BARRIER			3171	3171	LIN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS			285824	285824	LIN. FT.
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS			5160	5160	LIN. FT.
604	ADVANCE WARNING ARROW PANEL			130	130	DAY
SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN			152	152	WEEK
SP & 605	CONCRETE DITCH PAVING (TYPE B)		25720		25720	SQ. YD.
617	GUARDRAIL (TYPE A)			4500	4500	LIN. FT.
617	GUARDRAIL TERMINAL (TYPE 2)			10	10	EACH
617	TERMINAL ANCHOR POSTS (TYPE 1)			10	10	EACH
620	LIME			36	36	TON
620	SEEDING			18.03	18.03	ACRE
SS & 620	MULCH COVER			18.03	18.03	ACRE
620	WATER		324.1	1839.0	2163.1	M.GAL.
621	SAND BAG DITCH CHECKS			2118	2118	BAG
621	DROP INLET SILT FENCE			2281	2281	LIN. FT.
621	SEDIMENT REMOVAL AND DISPOSAL			181	181	CU. YD.
623	SECOND SEEDING APPLICATION			18.03	18.03	ACRE
624	SOLID SODDING		25720		25720	SQ. YD.
635	ROADWAY CONSTRUCTION CONTROL			1.00	1.00	LUMP SUM
642	RUMBLE STRIPS IN ASPHALT SHOULDERS			239369	239369	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING (SKIP LINE) WHITE (4")	(ALTERNATE NO. 1)		30180	30180	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE (SKIP LINE) WHITE (4")	(ALTERNATE NO. 2)		30180	30180	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)		125245	125245	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)		125245	125245	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	(ALTERNATE NO. 1)		125814	125814	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE YELLOW (4")	(ALTERNATE NO. 2)		125814	125814	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)		170	170	LIN. FT.
* SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)		170	170	LIN. FT.
* SP & 719	INVERTED PROFILE THERMOPLASTIC PAVEMENT MARKING WHITE (8")	(ALTERNATE NO. 1)		4415	4415	LIN. FT.
* SP	HIGH PERFORMANCE MARKING TAPE WHITE (8")	(ALTERNATE NO. 2)		4415	4415	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)			2130	2130	EACH
SP	FLUSHING UNDERDRAIN			120455	120455	LIN. FT.
SP	TEMPORARY PORTABLE RUMBLE STRIP			24	24	EACH
SP	WIRE ROPE SAFETY FENCE (POST REPAIR)		50		50	EACH
SP	WIRE ROPE SAFETY FENCE		58470		58470	LIN. FT
SP	WIRE ROPE SAFETY FENCE MAINTENANCE MATERIALS		1.00		1.00	LUMP SUM
SP	SLIP LINE PIPE (18")			252	252	LIN. FT.
SP	SLIP LINE PIPE (24")			3550	3550	LIN. FT.
SP	SLIP LINE PIPE (30")			86	86	LIN. FT.
SP	SLIP LINE PIPE (36")			618	618	LIN. FT.
SP	SLIP LINE PIPE (48")			264	264	LIN. FT.
	STRUCTURES OVER 20' SPAN					
509	JOINT REHABILITATION (TYPE A)			516	516	LIN. FT.
636	BRIDGE CONSTRUCTION CONTROL			1.00	1.00	LUMP SUM
802	GROOVING			1460	1460	SQ. YD.
803	CLASS 1 PROTECTIVE SURFACE TREATMENT			32.0	32.0	GAL.
803	CLASS 3 PROTECTIVE SURFACE TREATMENT			720	720	LIN. FT.
804	REINFORCING STEEL - BRIDGE (GRADE 60)			800	800	LBS.
SP	LATEX MODIFIED CONCRETE OVERLAY (1 1/2" THICK)			1580	1580	SQ. YD.
SP	HYDRODEMOLITION			1580	1580	SQ. YD.

* DENOTES ALTERNATE BID ITEMS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
5-20-14

REVISIONS

DATE	REVISION	SHEET NUMBER
5/9/2014	ADDED "RUMBLE STRIPS AHEAD" SIGNS AND CHANGED DIMENSION BETWEEN TEMPORARY PORTABLE RUMBLE STRIPS FROM 50' TO 250'	33, 37, 43
5/20/2014	CHANGED NUMBER OF DAYS PERMITTED FOR BRIDGE DECK REHABILITATION FROM 10 TO 18	32, 43

4/21/2014

RBB0104.DGN

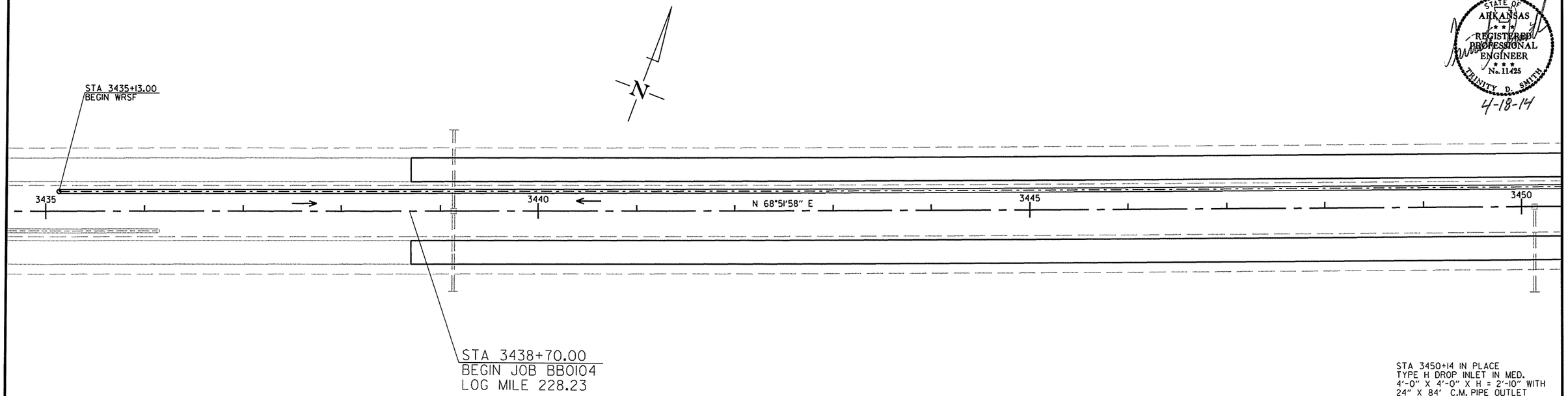
SUMMARY OF QUANTITIES AND REVISIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	44	88
				(2) PLAN SHEETS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

STA 3439+14 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-8" X H = 3'-10" WITH
30" X 164' C.M. PIPE CULV'T WITH PVC INSIDE
RETAIN

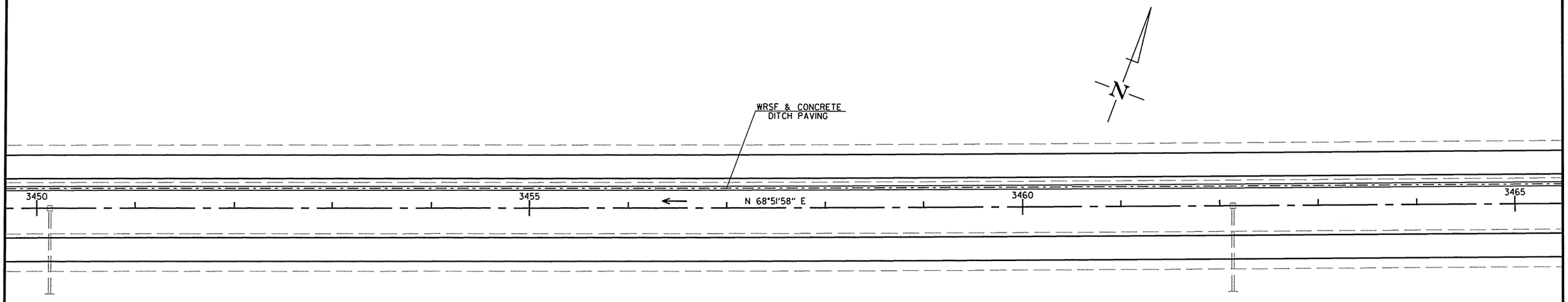
STA 3435+13.00
BEGIN WRSF



STA 3438+70.00
BEGIN JOB BB0104
LOG MILE 228.23

STA 3450+14 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 84' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

WRSF & CONCRETE
DITCH PAVING



STA 3462+13 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 84' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

4/16/2014

RBB0104.DGN

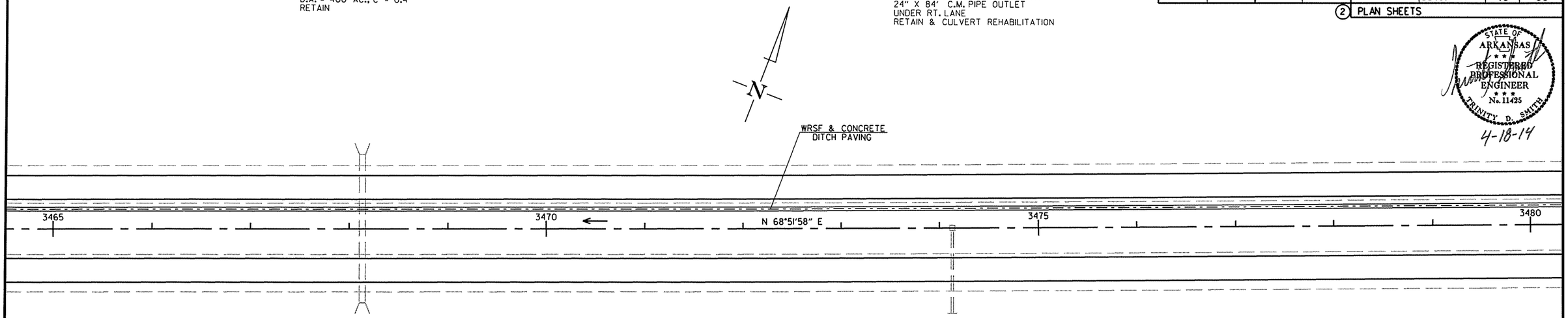
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	45	88

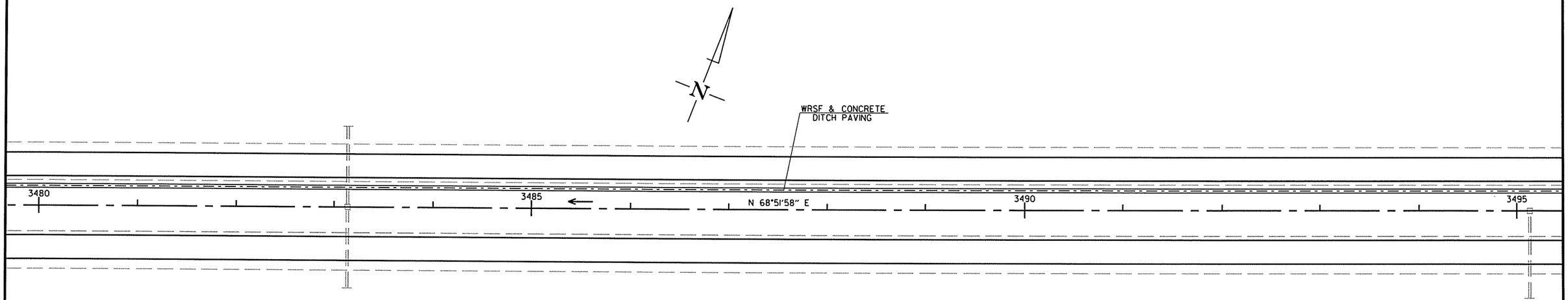
(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

STA 3468+14 IN PLACE
6' X 6' X 150' R.C. BOX CULV'T.
D.A. = 400 AC., C = 0.4
RETAIN

STA 3474+13 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 84' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION





STA 3483+14 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-8" X H = 3'-10" WITH
36" X 164' C.M. PIPE CULVERT
RETAIN & CULVERT REHABILITATION

STA 3495+14 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 86' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

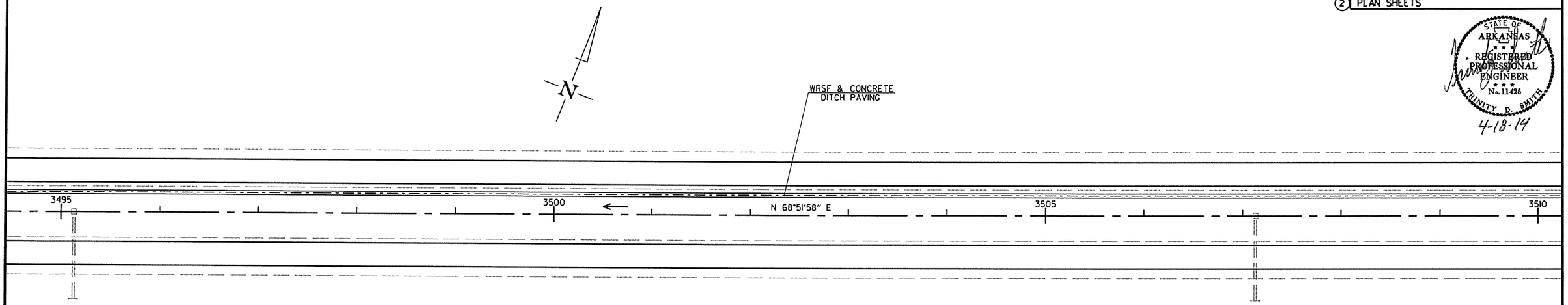
4/16/2014

RBB0104.DGN

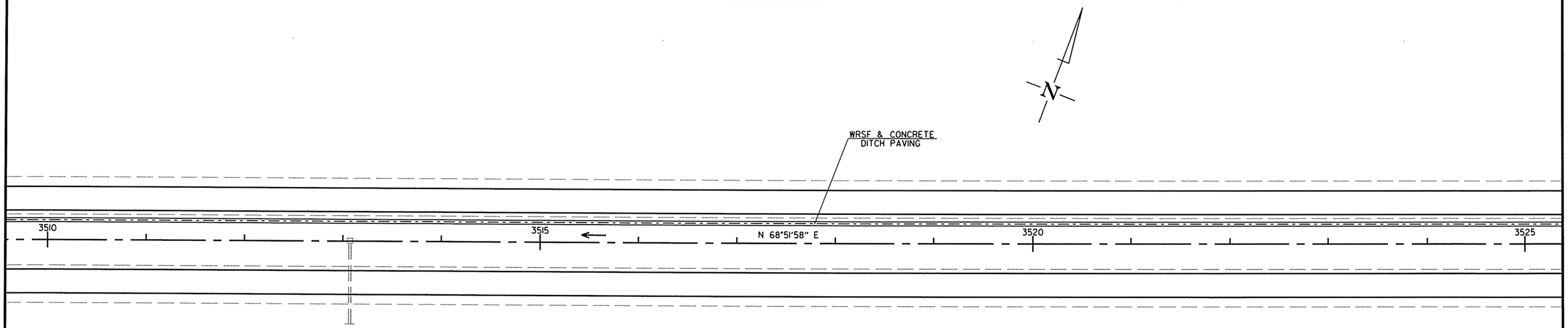
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	46	88

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



STA 3507+13 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 84' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION



STA 3513+06 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 84' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

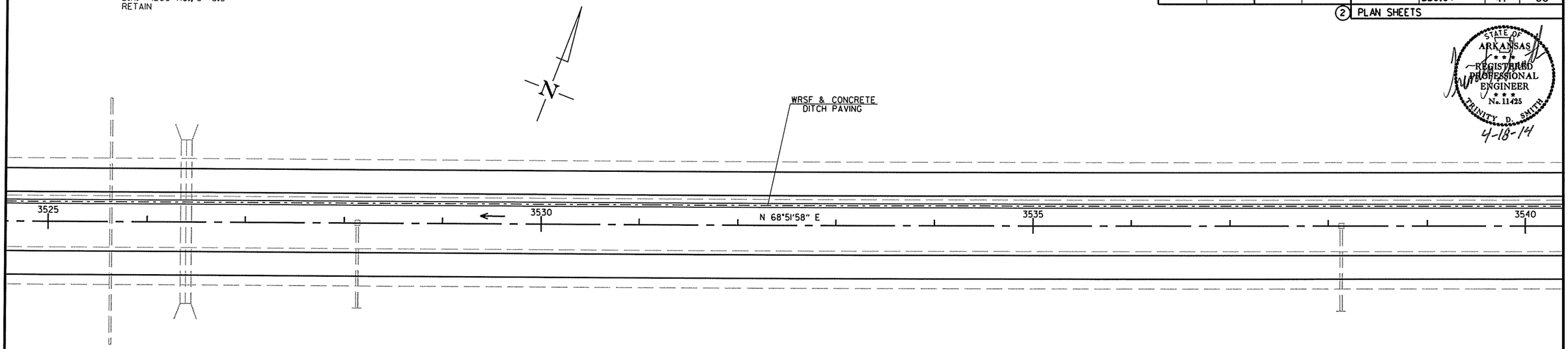
4/16/2014

RBB0104.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.		BB0104	47	88
				(2) PLAN SHEETS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

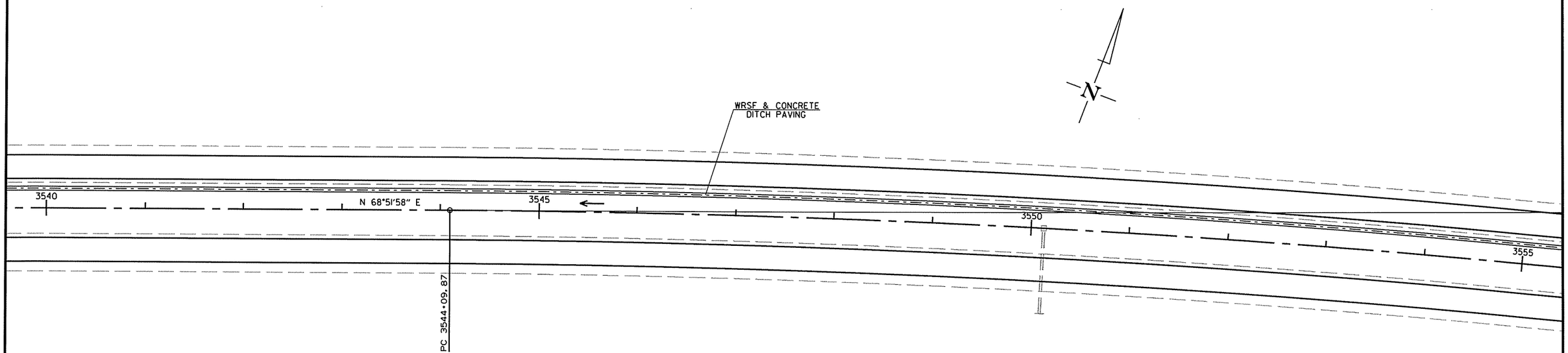
STA 3526+39 IN PLACE
DBL. 5' X 5' X 166' R.C. BOX CULV'T.
D.A. = 1200 AC., C= 0.3
RETAIN



STA 3525+64 IN PLACE
24" X 250' PIPE SIPHON
RETAIN

STA 3528+13 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 84' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

STA 3538+13 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 84' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION



STA 3550+13 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 84' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

4/16/2014

RBB0104.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.		BB0104	48	88

(2) PLAN SHEETS

STA 3562+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 84' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

PI 3557+37.48

WRSF & CONCRETE DITCH PAVING

3555 3560 3565 3570

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

STA 3580+15 IN PLACE
DBL. 6' X 6' X 159' R.C. BOX CULV'T.
TYPE K DROP INLET IN MED.
(4'-0" X 4'-0 X 2'-10")
D.A. = 700 AC., C= 0.4
RETAIN

JUMPER CORNER RD.

STA 3581+40
END WRSF

3570 3575 3580 3585

N 82°05'00" E

PT 3570+53.31

STA 3582+83
BEGIN WRSF

STA 3572+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 84' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 3582+11 C.L. OF I-40 = 2 EACH

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
3578+32.62	3583+32.62	R.M.L. - LT.	450 LIN. FT.	1EA.	1EA.
3580+90.13	3585+90.13	L.M.L - RT.	450 LIN. FT.	1EA.	1EA.

I-40

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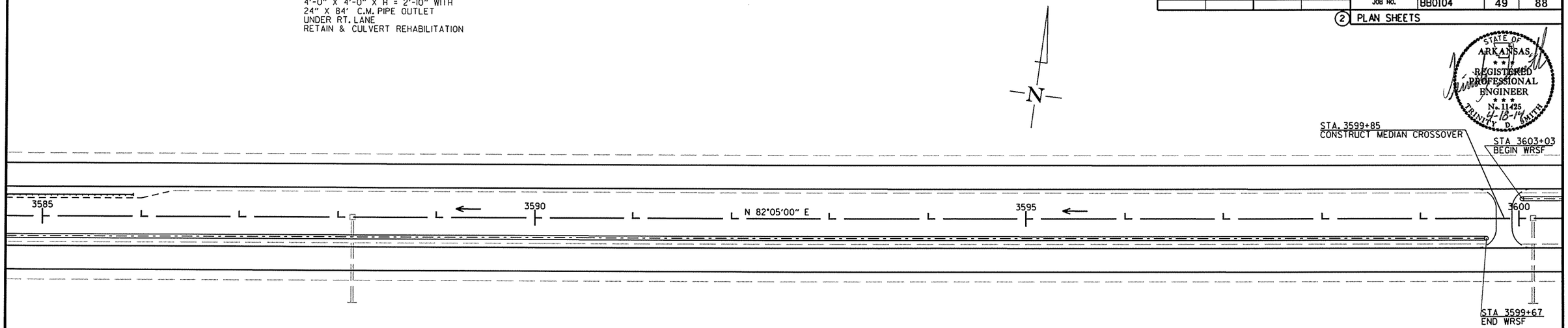
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	49	88

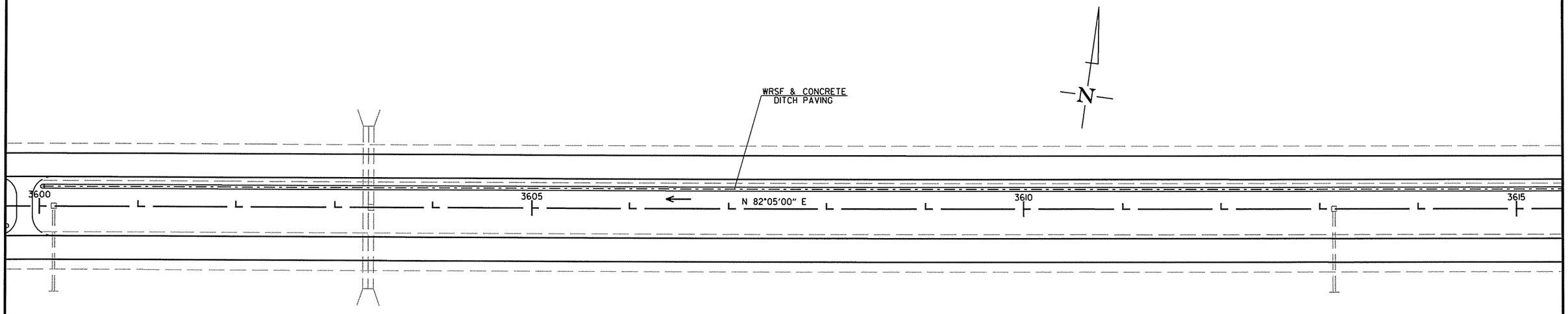
(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
4-18-14
TRINITY D. SMITH

STA 3588+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 84' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION



STA 3600+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 84' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION



STA 3603+35 IN PLACE
DBL. 5' X 4' X 165' R.C. BOX CULV'T.
TYPE K DROP INLET IN MED.
(4'-0" X 4'-0 X 0'-10")
D.A. = 400 AC., C= 0.4
RETAIN

STA 3613+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 82' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

4/16/2014

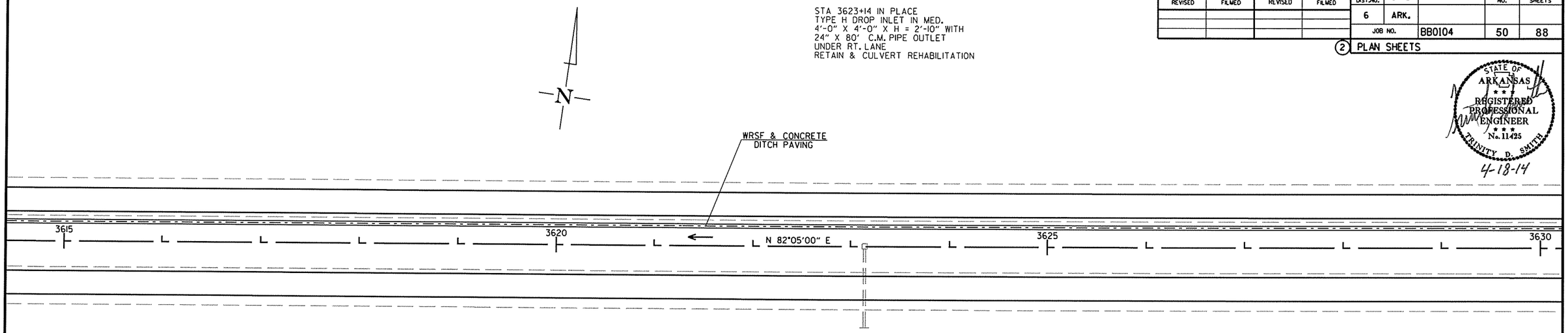
RBB0104.DGN

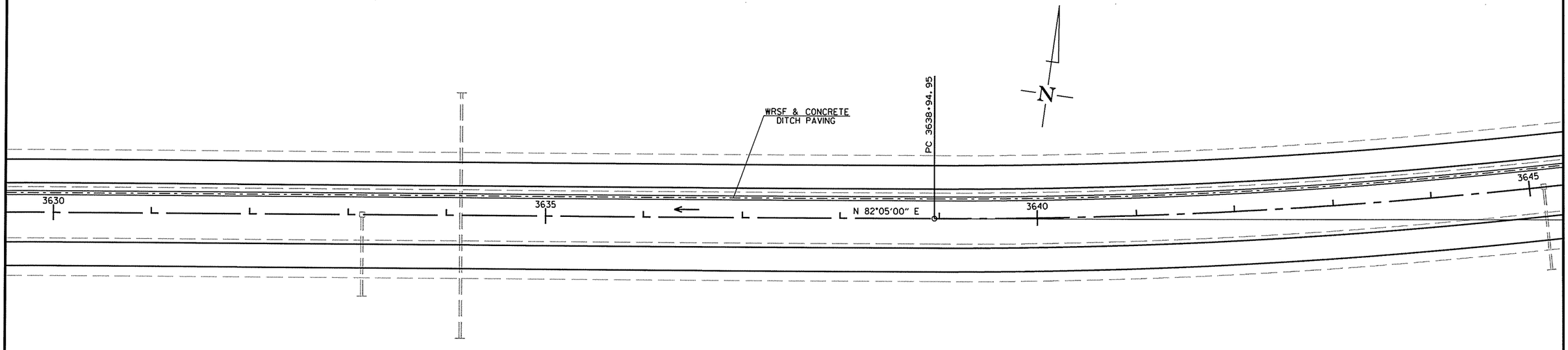
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	50	88

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

STA 3623+14 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 80' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION





STA 3633+14 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 80' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

STA 3634+15 IN PLACE
24" X 250' C.M. PIPE CULVERT
RETAIN & CULVERT REHABILITATION

RBB0104.DGN 4/16/2014

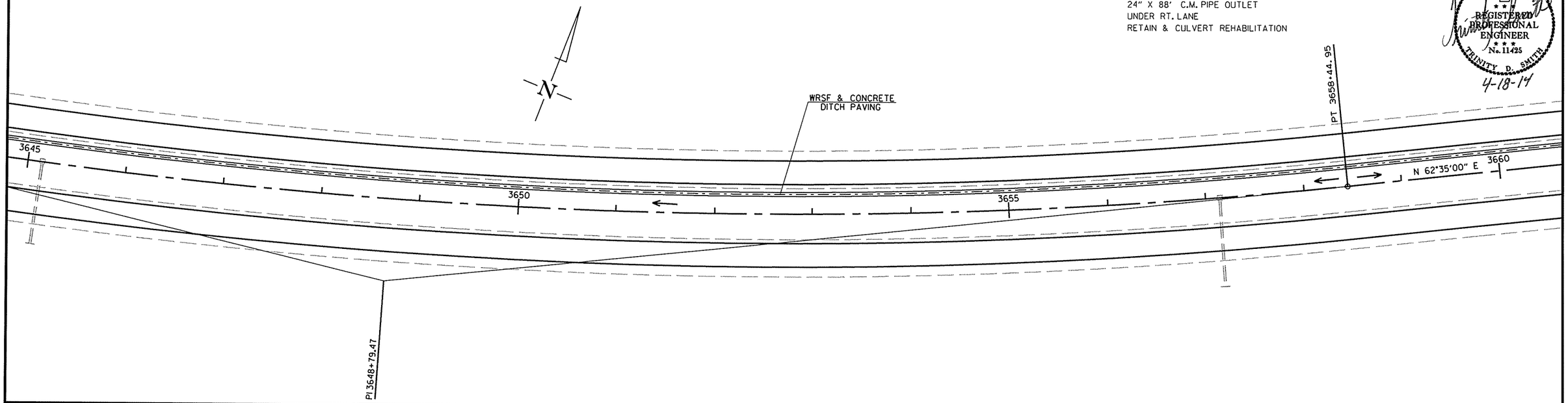
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	51	88

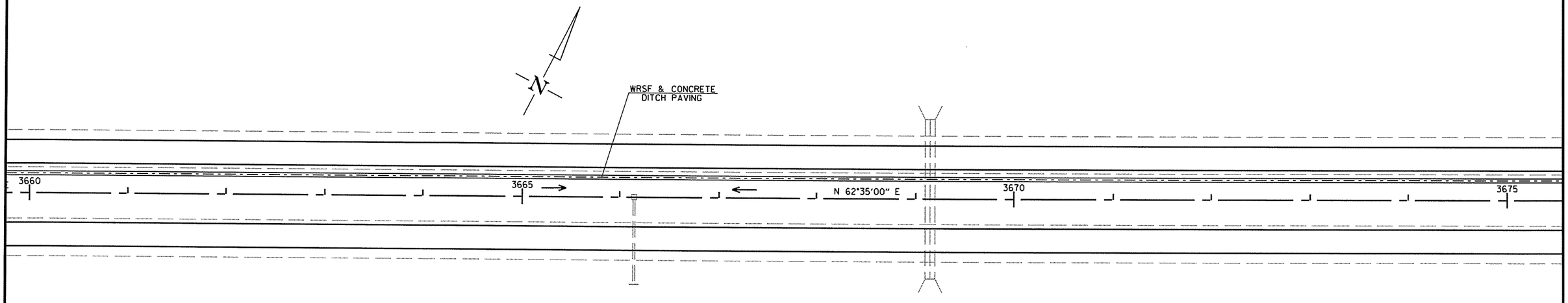
(2) PLAN SHEETS

STA 3645+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 82' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

STA 3657+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 88' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14





STA 3666+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 86' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

STA 3669+15 IN PLACE
5' X 5' X 162' R.C. BOX CULV'T.
D.A. = 600 AC., C= 0.4
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.		BB0104	52	88
				(2) PLAN SHEETS				

STA 3677+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 86' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

STA 3686+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 86' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

WRSF & CONCRETE DITCH PAVING

3675 3680 N 62°35'00" E 3685 3690

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 3701+86 C.L. OF I-40 = 2 EACH

STA 3701+13
END WRSF

N. MAIN ST.

3690 3695 N 62°35'00" E 3700 3705

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE I)	GUARDRAIL TERMINAL (TYPE 2)
3698+08.90	3703+08.90	R.M.L. - LT.	450 LIN. FT.	1EA.	1EA.
3700+62.57	3705+62.57	L.M.L - RT.	450 LIN. FT.	1EA.	1EA.

STA 3698+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 86' C.M. PIPE OUTLET
UNDER LT. LANE
RETAIN & CULVERT REHABILITATION

STA 3700+95 IN PLACE
24" X 168' C.M. PIPE CULVERT
RETAIN & CULVERT REHABILITATION

STA 3704+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 86' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

I-40

4/16/2014

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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.		BB0104	53	88

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

STA 3708+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 5'-6" X H = 4'-6" WITH
36" X 200' C.M. PIPE CULVERT
RETAIN & CULVERT REHABILITATION

STA 3714+05 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 92' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

STA. 3705+12
BEGIN WRSF

3705 3710 N 62°35'00" E 3715 3720

RAMP-2
STA 3707+61 IN PLACE
36" X 56' PIPE CULVERT
RETAIN

WRSF & CONCRETE DITCH PAVING

3720 3725 N 62°35'00" E 3730 3735

STA 3720+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-4" WITH
24" X 110' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

STA 3732+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-4" WITH
24" X 122' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

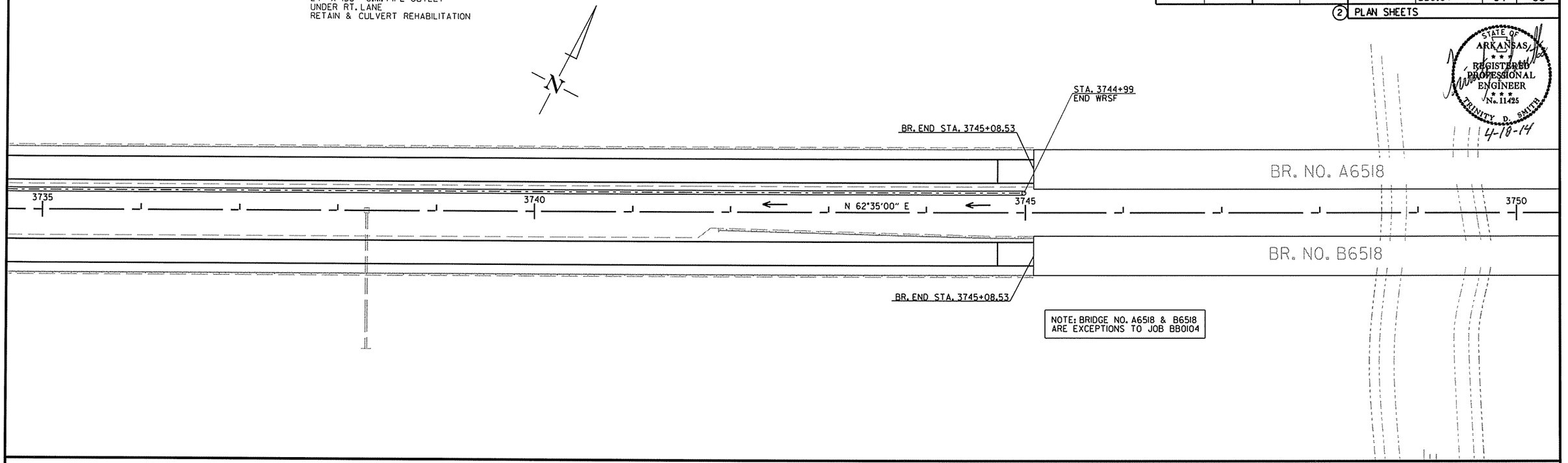
4/16/2014

RBB0104.DGN

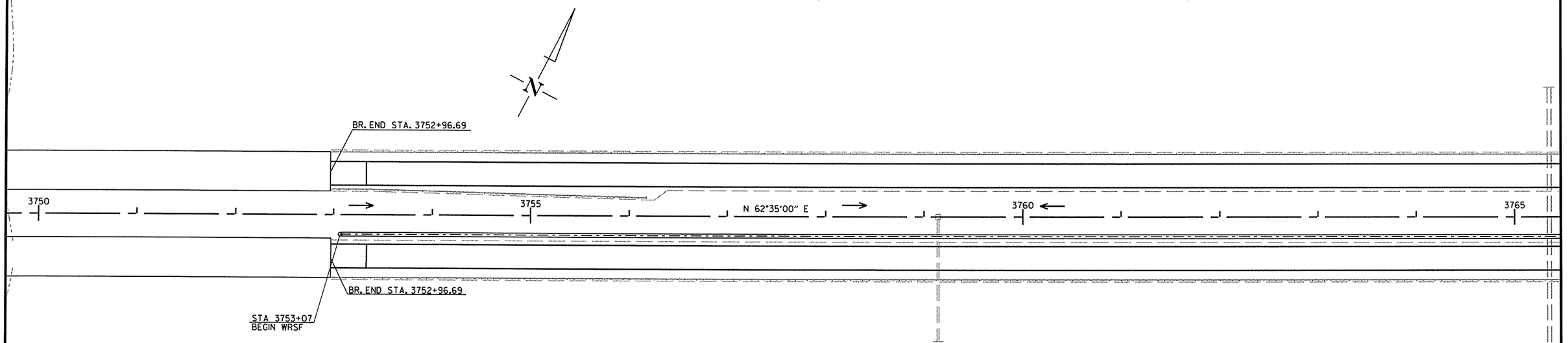
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	54	88
				(2) PLAN SHEETS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

STA 3738+30 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-4" WITH
24" X 138' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION



NOTE: BRIDGE NO. A6518 & B6518 ARE EXCEPTIONS TO JOB BB0104



STA 3759+14 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-4" WITH
24" X 124' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

4/16/2014

RBB0104.DGN

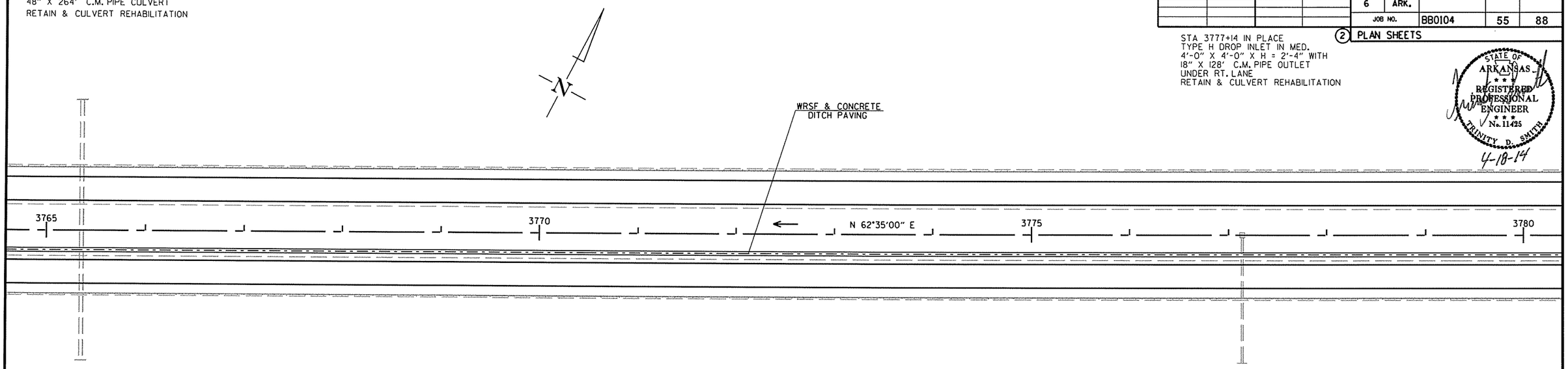
STA 3765+36 IN PLACE
48" X 264' C.M. PIPE CULVERT
RETAIN & CULVERT REHABILITATION

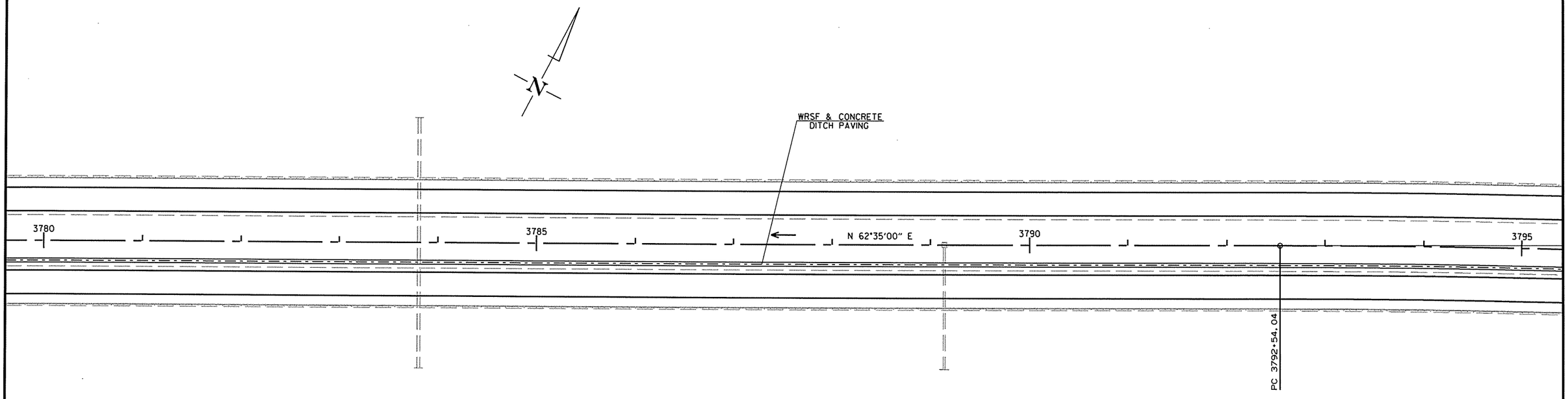
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	55	88

(2) PLAN SHEETS

STA 3777+14 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-4" WITH
18" X 128' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14





STA 3783+81 IN PLACE
36" X 254' C.M. PIPE CULVERT
RETAIN & CULVERT REHABILITATION

STA 3789+14 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-4" WITH
18" X 124' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

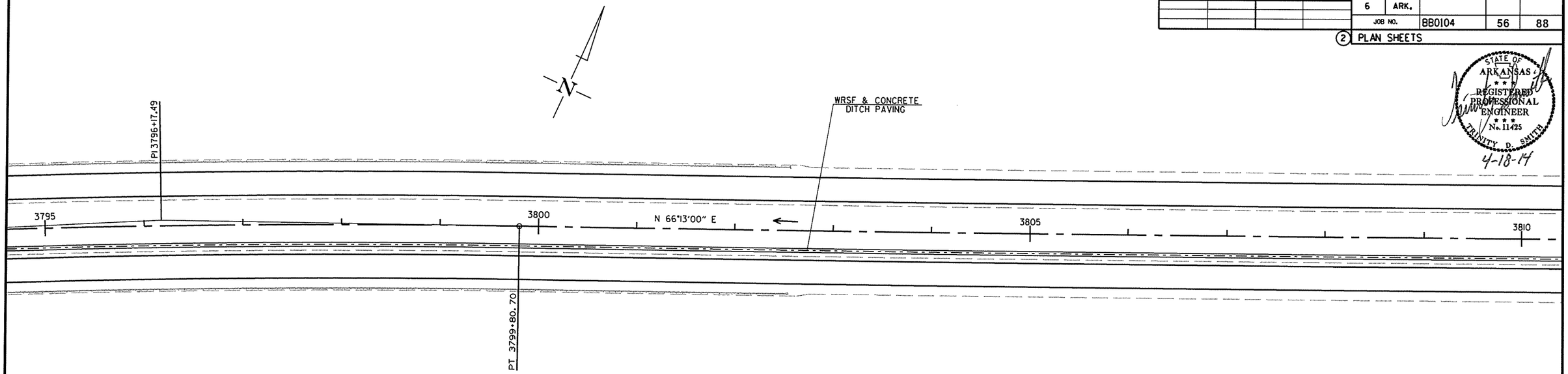
4/16/2014

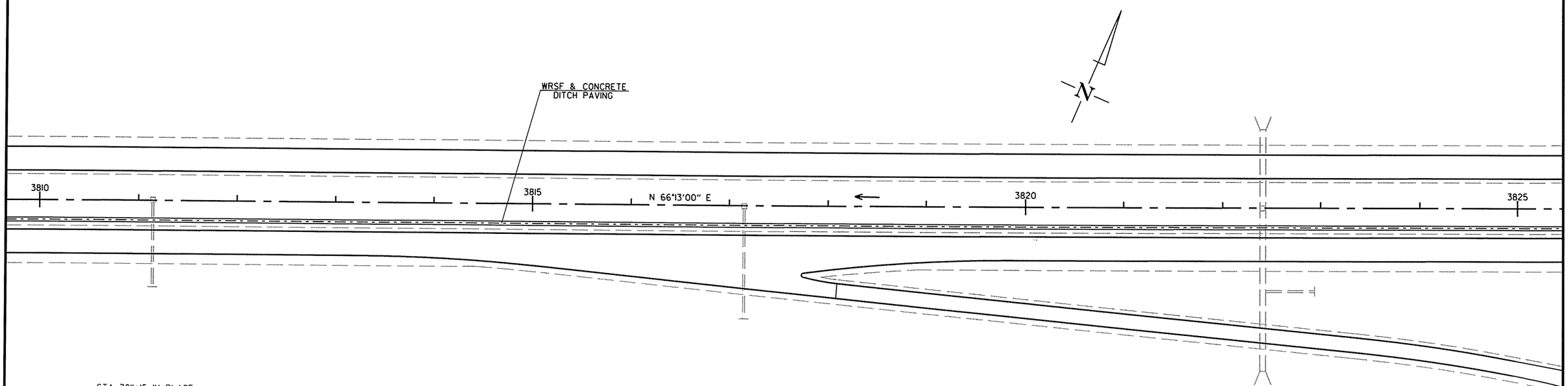
RBB0104.DGN

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.		BB0104	56	88

(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14





STA 3811+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 86' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

STA 3817+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 86' C.M. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

STA 3822+41 IN PLACE
6' X 4' X 245' R.C. BOX CULVERT
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 0'-10" WITH
D.A. 225 AC., C=0.4
RETAIN

4/16/2014

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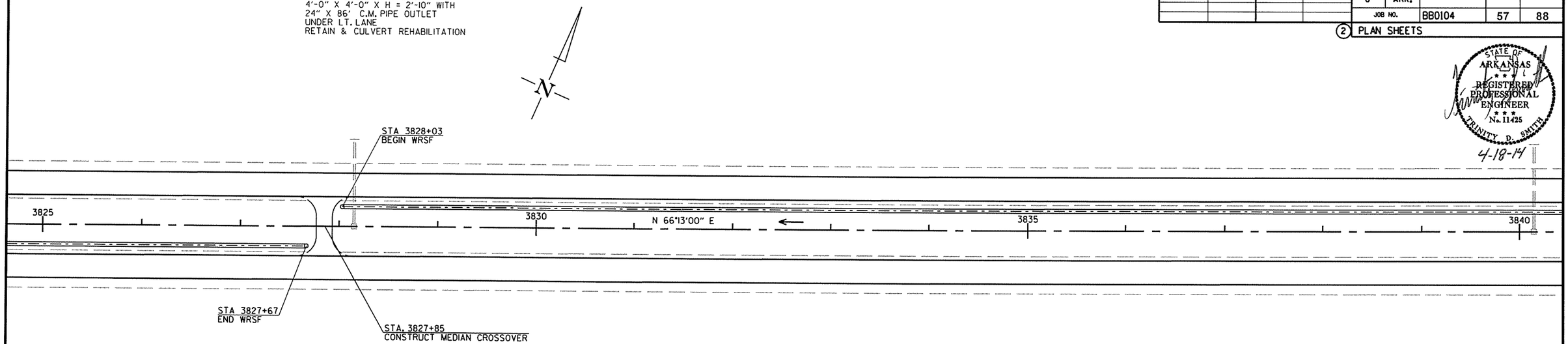
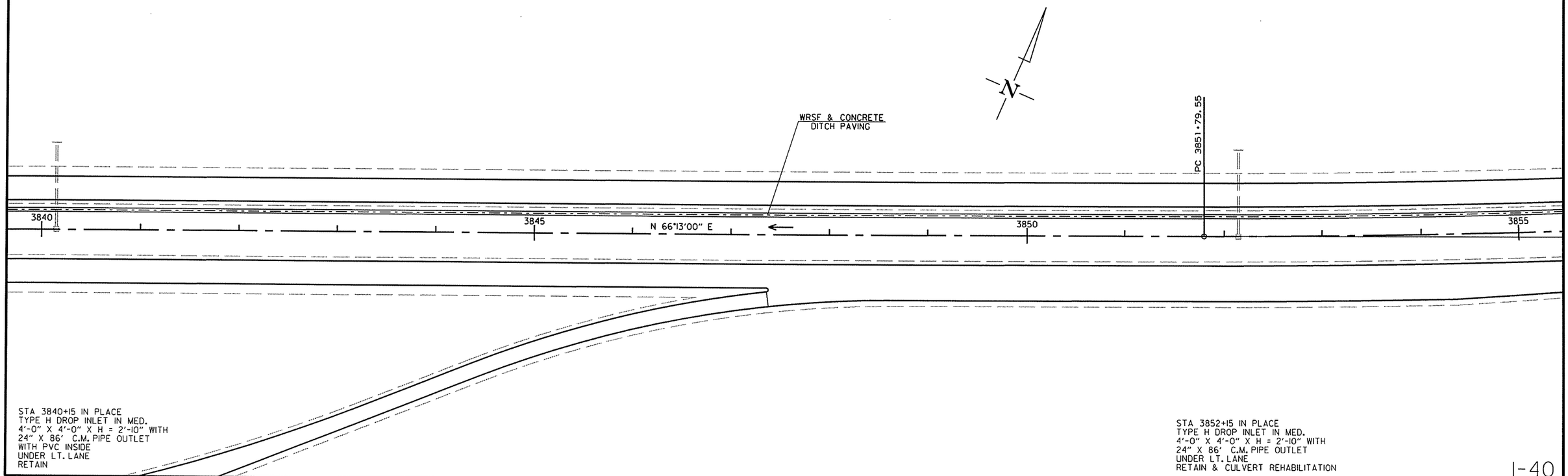
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	57	88
				(2) PLAN SHEETS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

STA 3828+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 86' C.M. PIPE OUTLET
UNDER LT. LANE
RETAIN & CULVERT REHABILITATION



REST AREA



STA 3840+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 86' C.M. PIPE OUTLET
WITH PVC INSIDE
UNDER LT. LANE
RETAIN

STA 3852+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 2'-10" WITH
24" X 86' C.M. PIPE OUTLET
UNDER LT. LANE
RETAIN & CULVERT REHABILITATION

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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.		BB0104	58	88
				(2) PLAN SHEETS				

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REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

STA 3864+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 2'-10" WITH
24" X 86' C.M. PIPE OUTLET
UNDER LT. LANE
RETAIN & CULVERT REHABILITATION

WRSF & CONCRETE DITCH PAVING

3855 3860 3865 3870

PI 3865+49.35

BECK RD. (CR 51)

STA. 3874+17
END WRSF

STA. 3875+18
BEGIN WRSF

PT 3879+06.22

3870 3875 3880 N 52°35'00" E 3885

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 3874+77 C.L. OF I-40 = 2 EACH

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
3870+87.06	3875+87.06	R.M.L. - LT.	450 LIN. FT.	1 EA.	1 EA.
3873+66.61	3878+66.61	L.M.L - RT.	450 LIN. FT.	1 EA.	1 EA.

STA 3874+14 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 2'-10" WITH
24" X 84' C.M. PIPE OUTLET
UNDER LT. LANE
RETAIN & CULVERT REHABILITATION

STA 3877+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 88' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

STA 3885+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 88' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

I-40

4/16/2014

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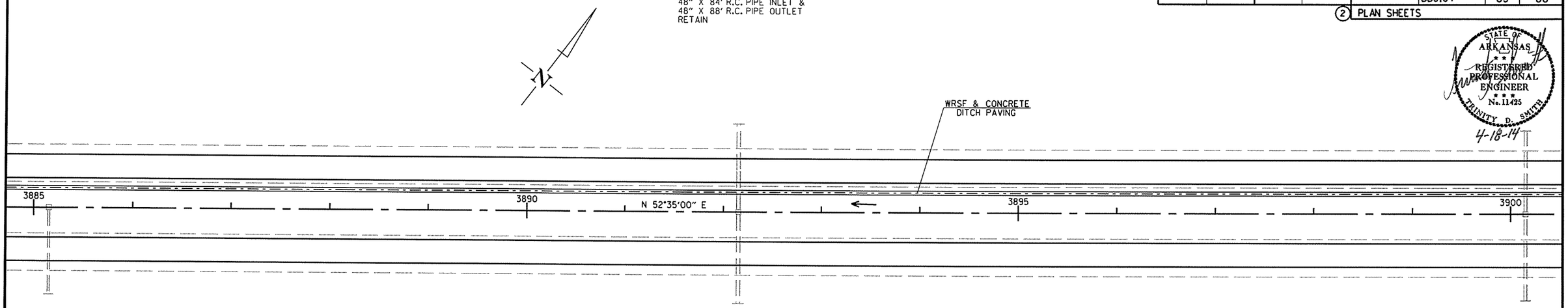
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	59	88

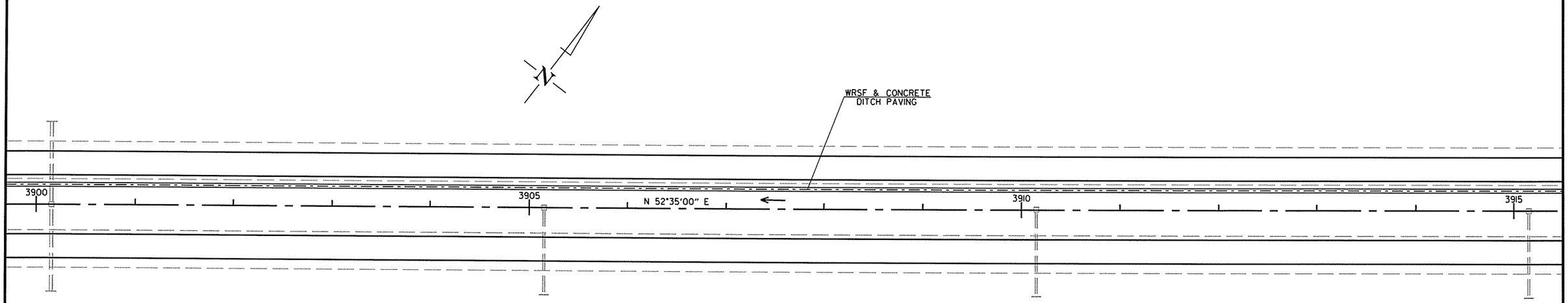
(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

STA 3892+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 5'-0" X H = 5'-0" WITH
48" X 84' R.C. PIPE INLET &
48" X 88' R.C. PIPE OUTLET
RETAIN



STA 3900+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-6" X H = 4'-6" WITH
48" X 84' R.C. PIPE INLET &
48" X 88' R.C. PIPE OUTLET
RETAIN



STA 3905+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 88 R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

STA 3910+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 88' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

STA 3915+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 88' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

RBB0104.DGN 4/16/2014

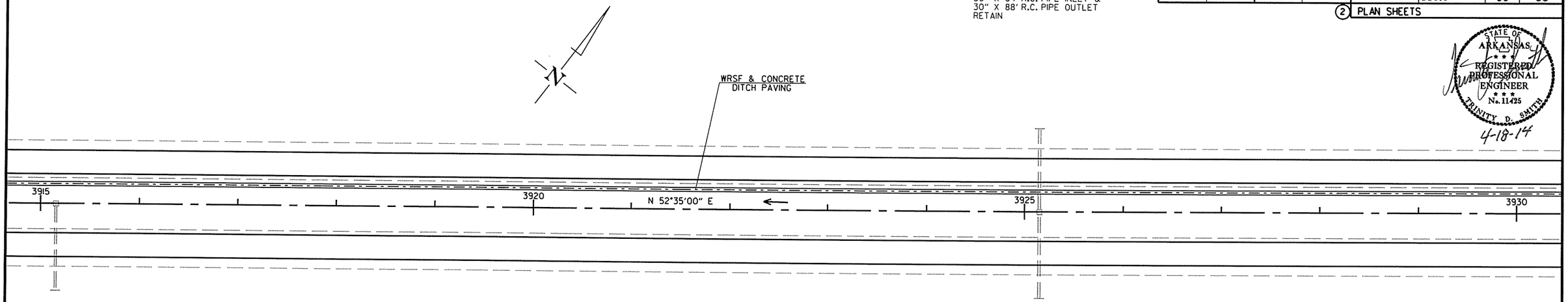
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	60	88

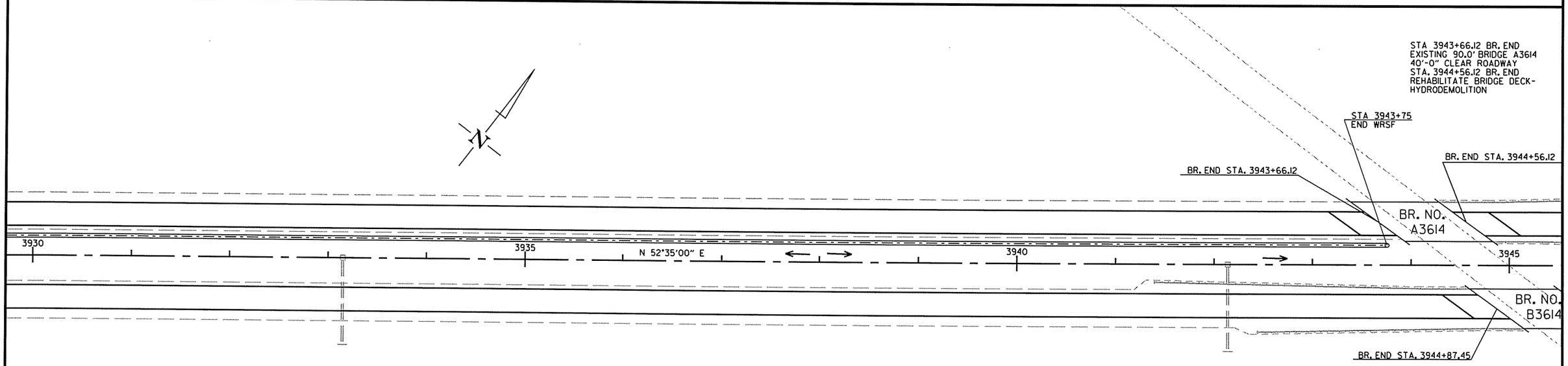
(2) PLAN SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

STA 3925+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 4'-0" WITH
30" X 84' R.C. PIPE INLET &
30" X 88' R.C. PIPE OUTLET
RETAIN

WRSF & CONCRETE DITCH PAVING





STA 3933+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 88' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

STA 3942+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 88' R.C. PIPE OUTLET
UNDER RT. LANE
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.		BB0104	61	88
				(2)	PLAN SHEETS			

STATE OF ARKANSAS
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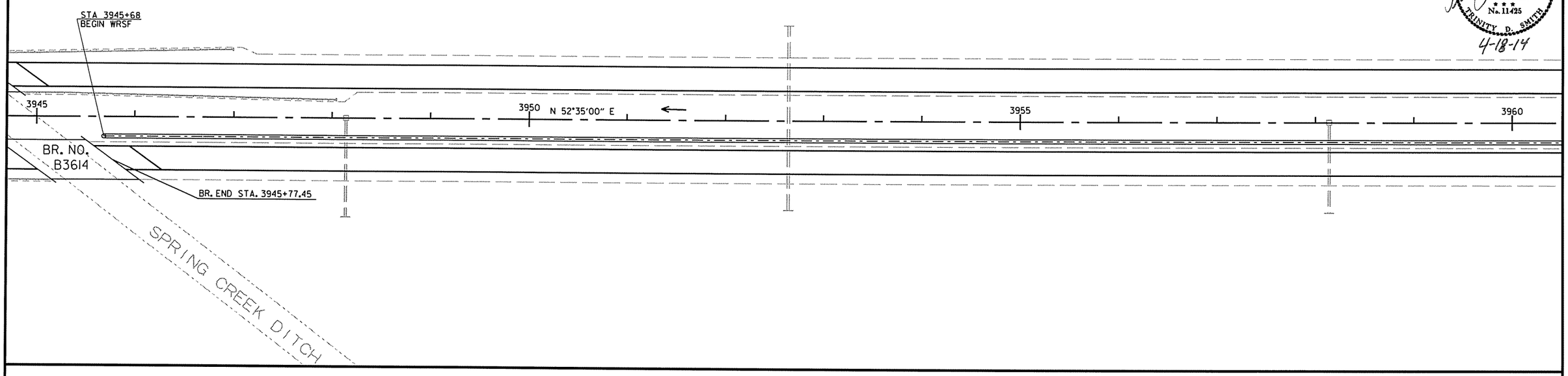
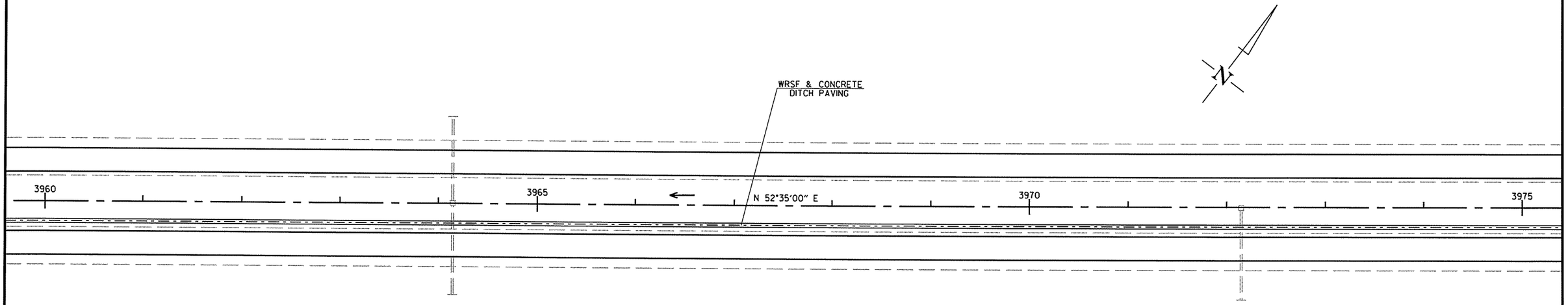
4-18-14

STA 3948+14 IN PLACE
TYPE H DROP INLET IN MED.
4'-3" X 3'-6" X H = 3'-6" WITH
24" X 92' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN & CULVERT REHABILITATION

STA 3952+65 IN PLACE
30" X 182' R.C. PIPE CULVERT
RETAIN

STA 3958+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 92' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN





STA 3964+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-6" X H = 4'-0" WITH
24" X 88' C.M. PIPE INLET &
24" X 92' C.M. PIPE OUTLET
RETAIN & CULVERT REHABILITATION

STA 3972+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 88' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

4/16/2014

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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.		BB0104	62	88

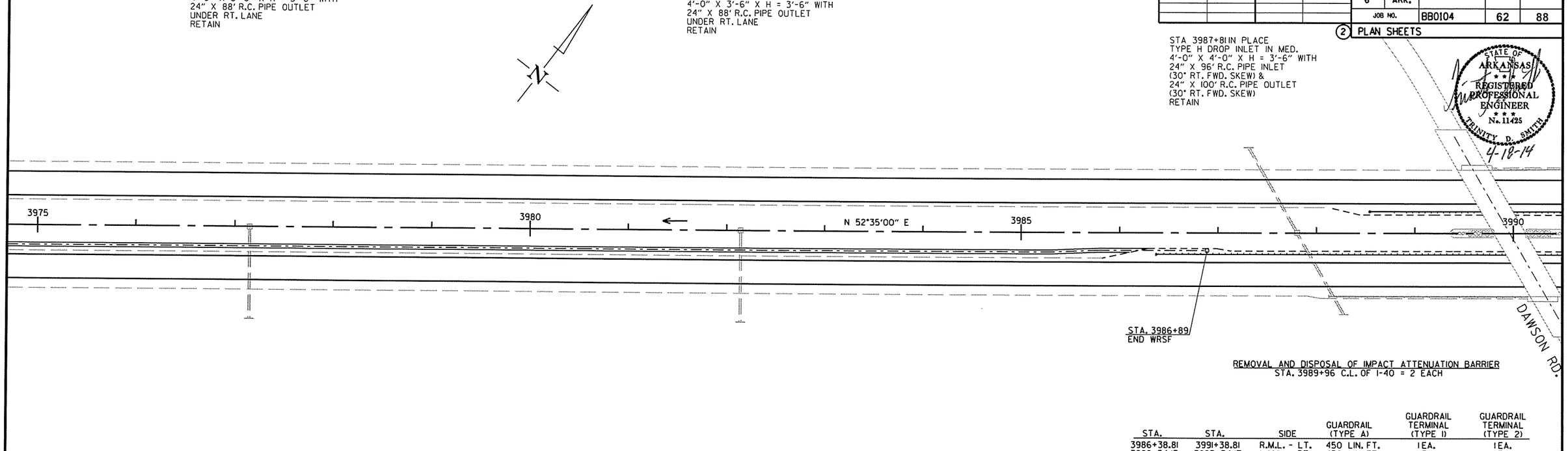
(2) PLAN SHEETS

STA 3977+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 88' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

STA 3982+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 88' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

STA 3987+81 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 3'-6" WITH
24" X 96' R.C. PIPE INLET
(30° RT. FWD. SKEW) &
24" X 100' R.C. PIPE OUTLET
(30° RT. FWD. SKEW)
RETAIN

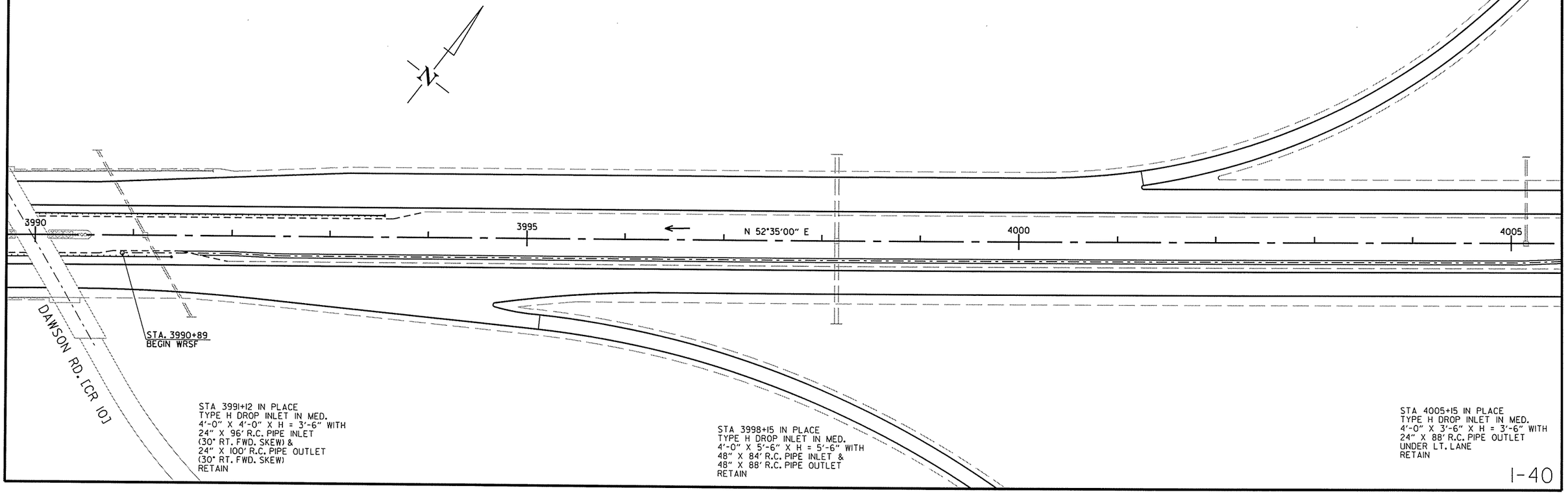
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14



STA. 3986+89
END WRSF

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 3989+96 C.L. OF I-40 = 2 EACH

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
3986+38.81	3991+38.81	R.M.L. - LT.	450 LIN. FT.	1 EA.	1 EA.
3988+54.17	3993+54.17	L.M.L - RT.	450 LIN. FT.	1 EA.	1 EA.



STA. 3990+89
BEGIN WRSF

STA 3991+12 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-0" X H = 3'-6" WITH
24" X 96' R.C. PIPE INLET
(30° RT. FWD. SKEW) &
24" X 100' R.C. PIPE OUTLET
(30° RT. FWD. SKEW)
RETAIN

STA 3998+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 5'-6" X H = 5'-6" WITH
48" X 84' R.C. PIPE INLET &
48" X 88' R.C. PIPE OUTLET
RETAIN

STA 4005+15 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 88' R.C. PIPE OUTLET
UNDER LT. LANE
RETAIN

I-40

4/16/2014

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				6	ARK.			
				JOB NO.		BB0104	63	88
				(2) PLAN SHEETS				

STATE OF ARKANSAS
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4-18-14

STA 4009+65 IN PLACE
QUINTUPLE 12' X 6' X 172' R.C. BOX CULV'T.
RETAIN

STA 4011+98 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 88' R.C. PIPE OUTLET
UNDER LT. LANE
RETAIN

STA 4015+98 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 88' R.C. PIPE OUTLET
UNDER LT. LANE
RETAIN

STA.	STA.	SIDE	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)
4006+20.25	4011+20.25	R.M.L. - LT.	450 LIN. FT.	1 EA.	1 EA.
4009+15.88	4014+15.88	L.M.L - RT.	450 LIN. FT.	1 EA.	1 EA.

REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 4010+18 C.L. OF I-40 = 2 EACH

4005 4010 4015 4020

N 52°35'00" E

STA. 4006+70
END WRSF

STA. 4010+70
BEGIN WRSF

HWY. 1 BYPASS

N

STA 4032+95.82 BR. END
EXISTING 90.0' BRIDGE A3617
40'-0" CLEAR ROADWAY
STA. 4033+85.82 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

BR. END STA. 4032+95.82

BR. END STA. 4033+85.82

BR. NO. A3617

4020 4025 4030 4035

N 52°35'00" E

BR. NO. B3617

BR. END STA. 4034+14.44

PC 4030+60.83

STA 4031+90
END WRSF

STA 4020+98 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 92' R.C. PIPE OUTLET
UNDER LT. LANE
RETAIN

STA 4025+98 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 92' R.C. PIPE OUTLET
UNDER LT. LANE
RETAIN

STA 4030+98 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 4'-6" X H = 5'-0" WITH
36" X 88' R.C. PIPE INLET &
36" X 92' R.C. PIPE OUTLET
RETAIN

STA 4034+14.44 BR. END
EXISTING 90.0' BRIDGE B3617
40'-0" CLEAR ROADWAY
STA. 4035+04.44 BR. END
REHABILITATE BRIDGE DECK-
HYDRODEMOLITION

I-40

4/16/2014

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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.		BB0104	64	88
				(2) PLAN SHEETS				

STA 4035+99 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 5'-6" WITH
24" X 100' R.C. PIPE OUTLET
UNDER LT. LANE
RETAIN

STA 4040+99 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 3'-6" WITH
24" X 96' R.C. PIPE OUTLET
UNDER LT. LANE
RETAIN

STA 4045+98 IN PLACE
TYPE H DROP INLET IN MED.
4'-0" X 3'-6" X H = 7'-6" WITH
24" X 100' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-18-14

STA 4034+95
BEGIN WRSF

4035

4040

4045

4050

. NO.
3617

BR. END STA. 4035+04.44

STA. 4050+67.90
END JOB BB0104
LOG MILE 239.86

STA 4054+86
END WRSF

4050

4055

4060

4065

MO. PAC. R.R.

BR. NO. 6522 A

BR. NO. 6522 B

STA 4051+98 IN PLACE
36" X 20' STACK PIPE INLET IN MED.
24" X 140' R.C. PIPE OUTLET
UNDER RT. LANE
RETAIN

4/16/2014

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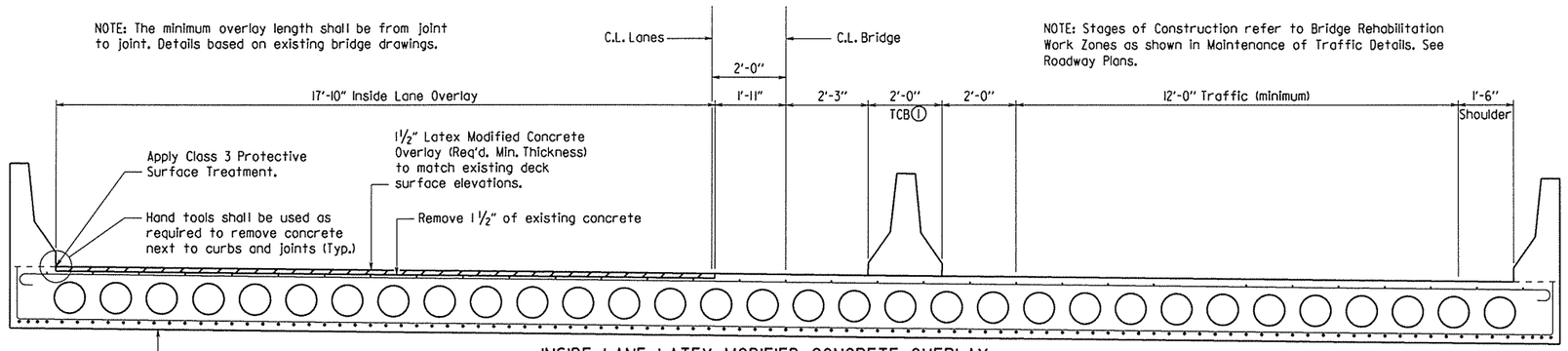
I-40

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	65	88

① A&B3614, - LMC OVERLAY - 55472
A&B3617

NOTE: The minimum overlay length shall be from joint to joint. Details based on existing bridge drawings.

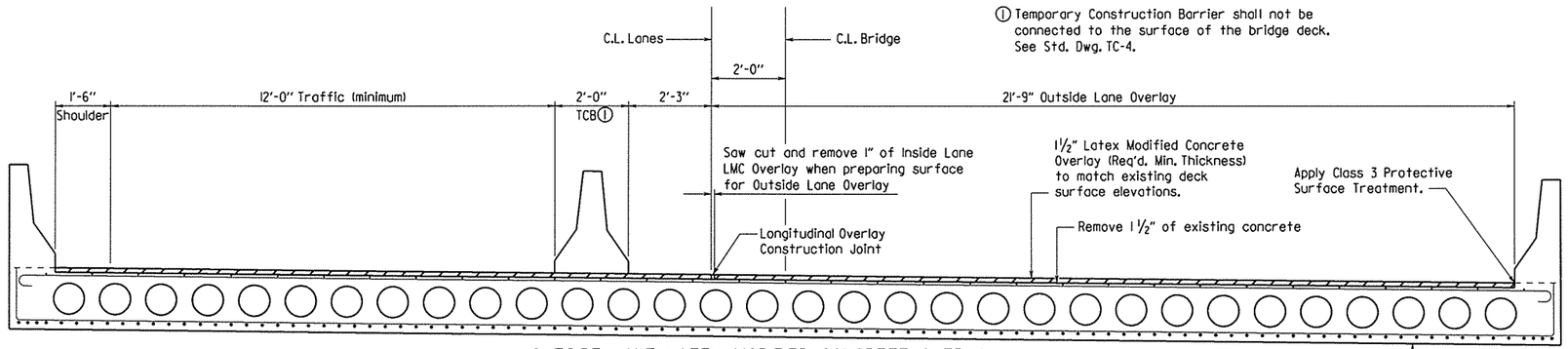
NOTE: Stages of Construction refer to Bridge Rehabilitation Work Zones as shown in Maintenance of Traffic Details. See Roadway Plans.



INSIDE LANE LATEX MODIFIED CONCRETE OVERLAY

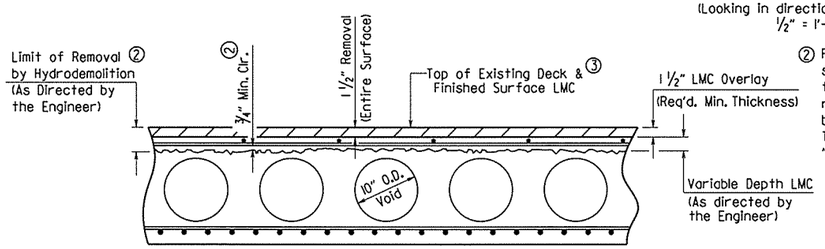
(Looking in direction of traffic)
½" = 1'-0"

① Temporary Construction Barrier shall not be connected to the surface of the bridge deck. See Std. Dwg. TC-4.



OUTSIDE LANE LATEX MODIFIED CONCRETE OVERLAY

(Looking in direction of traffic)
½" = 1'-0"



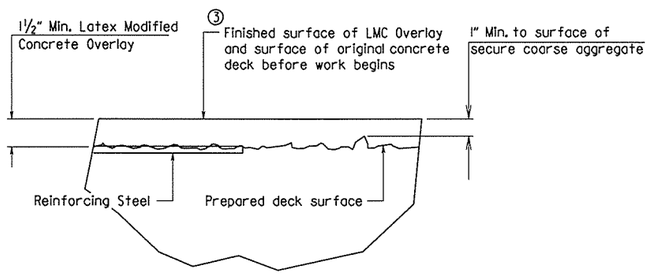
② Removal of unsound concrete beyond 1½" below the original surface shall be at the direction of the Engineer. If the bond between existing concrete and the top mat of reinforcing steel is destroyed, then the concrete shall be removed to a minimum of ¾" clearance around the bar. This removal shall be subsidiary to the item SP Job BB0104 "Hydrodemolition."

③ Finished surface of LMC overlay shall match existing concrete deck surface unless increase is required to maintain minimum required LMC Overlay thickness or a minimum of 1½" cover to reinforcing steel.

If the hydrodemolition equipment blows through the deck or into a deck void, that area shall be the responsibility of the Contractor and shall be repaired at the Contractor's expense. The Contractor shall provide a method of handling unexpected blow through of the deck or into a deck void.

DETAILS OF HYDRODEMOLITION AND LATEX MODIFIED CONCRETE OVERLAY

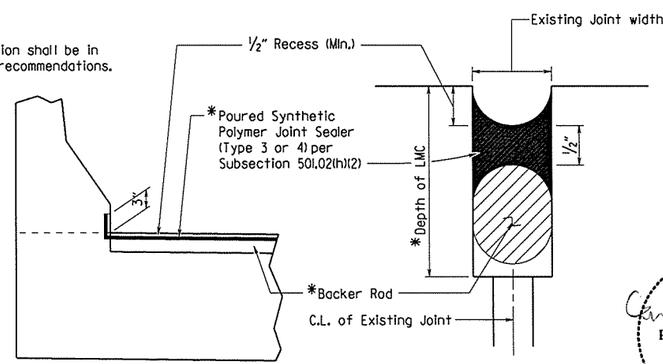
No Scale



LMC OVERLAY TOLERANCE

No Scale

* Depth of joint and joint installation shall be in accordance with manufacturer's recommendations.



Saw, cut or router ends of slab to achieve joint width as shown. Sawing beyond the face of curb is not required. See Section 509 for additional information & payment.

DETAILS OF TYPE A JOINT REHABILITATION

No Scale

GENERAL NOTES:

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

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

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

HYDRODEMOLITION: The entire area of the existing bridge deck shall receive hydrodemolition in accordance with the Special Provision Job BB0104 "Hydrodemolition" to a planned depth of 1½" below the existing bridge deck surface. Deteriorated concrete below this depth shall be removed up to the limits detailed and at the direction of the Engineer. These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item Special Provision Job BB0104 "Hydrodemolition". Prior to hydrodemolition, cold milling of the concrete deck to a maximum depth of 1" will be allowed unless there will be a conflict with the existing reinforcing.

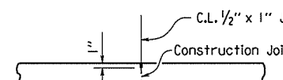
LATEX MODIFIED CONCRETE OVERLAY: The entire area of the existing bridge deck shall receive a Latex Modified Concrete (LMC) Overlay to a planned depth of 1½" below the existing bridge deck surface, in accordance with the Special Provision Job BB0104 "Latex Modified Concrete Overlay". These areas shall be measured by the square yard and shall be paid for at the unit price bid for the item SP Job BB0104 "Latex Modified Concrete Overlay (1½" Thick)". Areas of the existing bridge deck removed at the direction of the Engineer to a depth greater than 1½" below the existing bridge deck surface shall be filled with LMC concurrent to the placement of the 1½" LMC Overlay. This material shall be measured and paid for at the unit price bid for the item SP Job BB0104 "Latex Modified Concrete (Variable Depth)".

BRIDGE DECK: The LMC Overlay surface shall be given a grooved finish as specified for final finishing in Subsection 802.19 for Class 7 Grooved Bridge Roadway Surface Finish.

PROTECTIVE SURFACE TREATMENT: The longitudinal joint between the LMC Overlay and the adjacent existing concrete curb or rail shall be given a Class 3 Protective Surface Treatment as specified in Section 803 and in accordance with Special Provision Job BB0104 "Latex Modified Concrete Overlay". Transverse or longitudinal construction joints separating adjacent Overlay placements shall be sealed in accordance with the Longitudinal Overlay Construction Joint Detail.

The roadway surface of the completed LMC Overlay shall be given a Class 1 Protective Surface Treatment as specified in Section 803.

TRANSVERSE JOINT REHABILITATION: After the placement of the LMC Overlay, the existing transverse slab joints at the intermediate bents shall be given a Type A Joint Rehabilitation as specified in Section 509 and as shown in "Details of Type A Joint Rehabilitation".



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

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

LONGITUDINAL OVERLAY CONSTRUCTION JOINT DETAIL

No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7510
CARL HIOLT FUSELIER

BRIDGE ENGINEER

DETAILS OF LATEX MODIFIED CONCRETE OVERLAY

ROUTE 40 SEC. 51

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

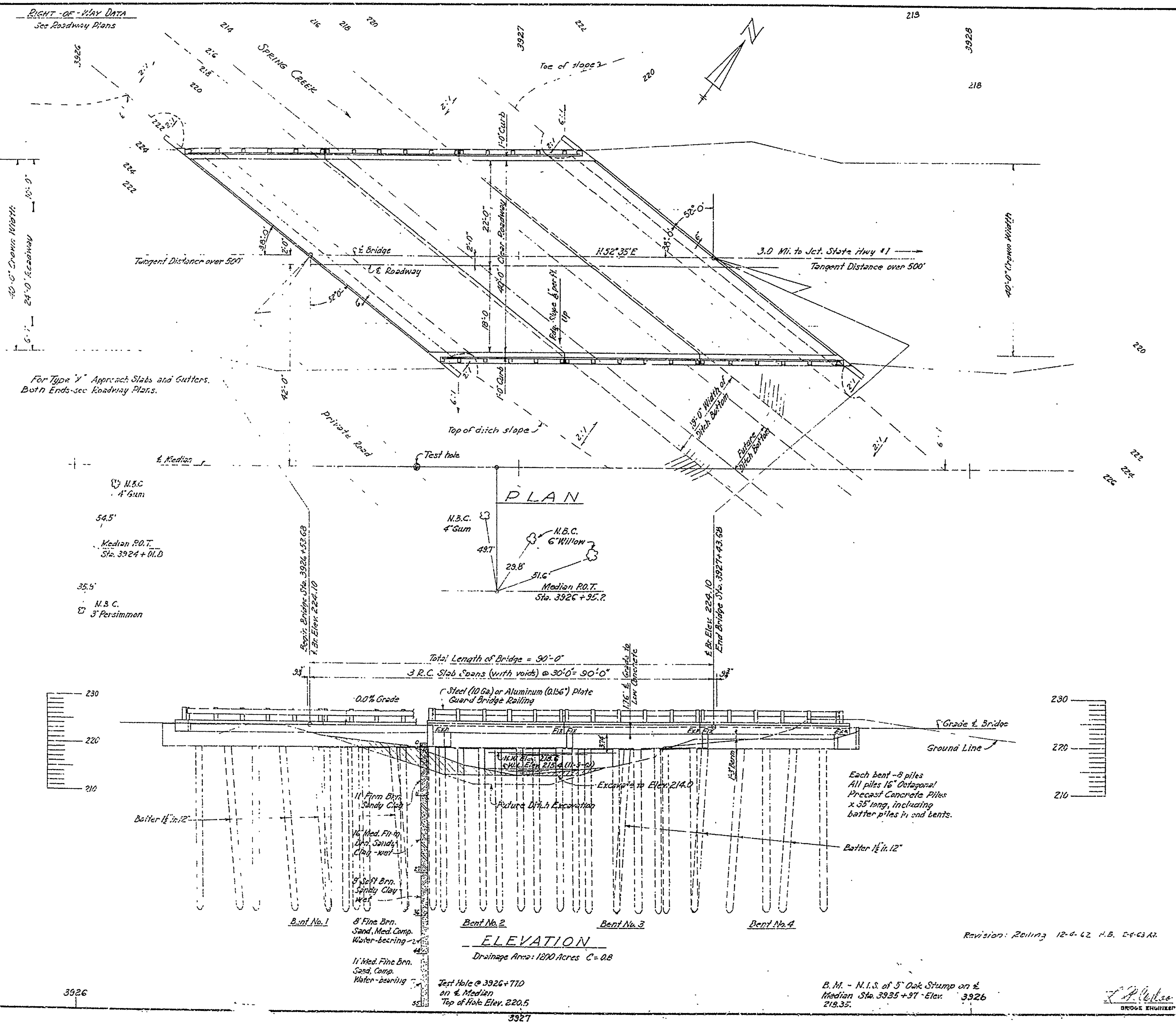
DRAWN BY: KWY DATE: 1/22/14 FILENAME: bbb0104_lmc.dgn
CHECKED BY: DATE: SCALE: as noted
DESIGNED BY: DATE:

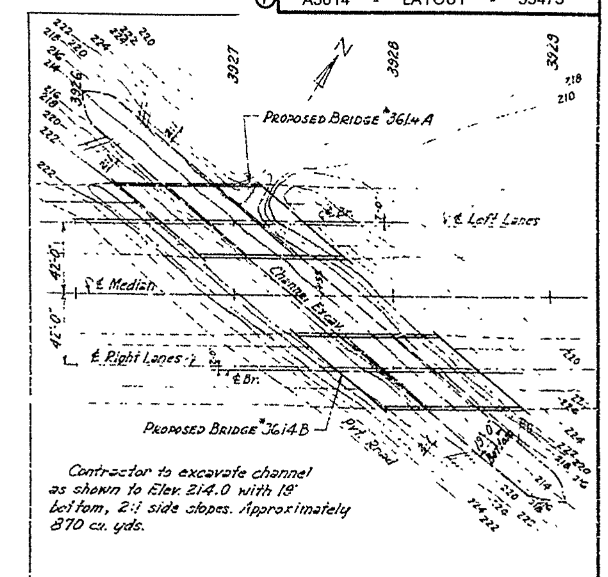
BRIDGE NO. A&B3614, A&B3617 DRAWING NO. 55472

PRINT DATE: 4/22/2014

FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0104	66	88

① A3614 - LAYOUT - 55473





LOCATION MAP
Scale: 1" = 50'

GENERAL NOTES

See Drawing No 12123 for General Notes and Specifications

Revision: Railing 12-6-62 H.B. 2-4-63 A.J.

FOR INFORMATION ONLY

(LEFT LANES)
LAYOUT OF BRIDGE
OVER SPRING CREEK
BECKS ROAD - FORREST CITY

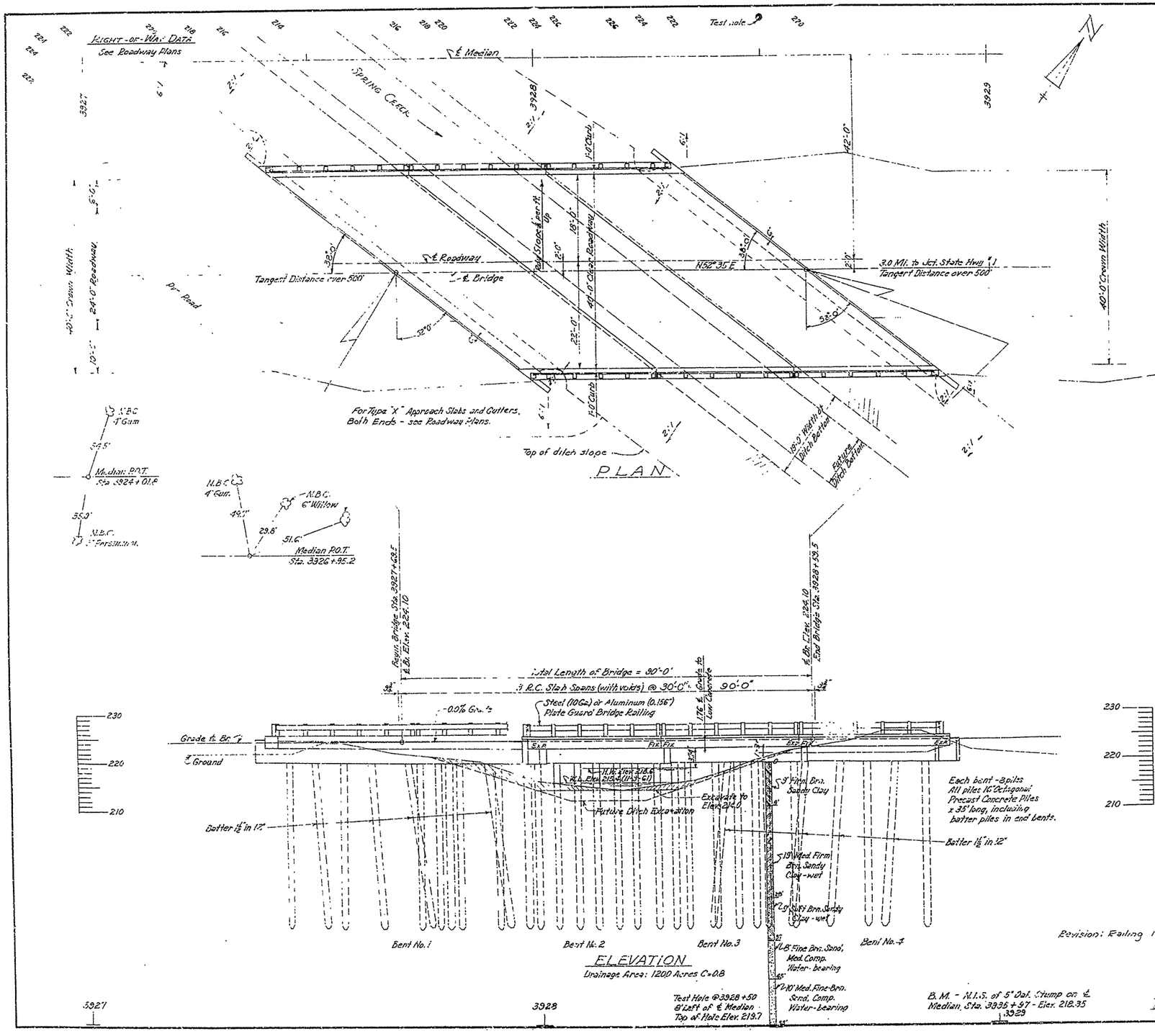
ST. FRANCIS COUNTY
INT. ROUTE 40 SEC. 5
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: A.J. DATE: 12-11-61
TRACED BY: DATE:
CHECKED BY: M.G. DATE: 7-20-62
SCALE: 1" = 12'

[illegible]
BRIDGE ENGINEER

BRIDGE NO. A3614 DRAWING NO. 55473

FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0104	67	88
B3614 -	LAYOUT	- 55474		



GENERAL NOTES

All concrete to be poured in the dry. Exposed corners to be chamfered ¾" unless otherwise noted.

All piling shall be 16" octagonal precast concrete and shall be driven with an approved air, steam or diesel hammer to a minimum bearing capacity of 16 tons per pile and to a minimum penetration of 20 feet below the ground line. Lengths of piling shown are for estimating quantities only. Actual lengths to be determined in the field. Drive one test pile 40 feet long in Bent No. 2 or 3 each of Bridge 3614A and Bridge No. 3614B.

Piles in End Bents shall be driven after embankment is in place.

For Details of Bents see Dwg. No. 12124

For Details of Precast Concrete Piles see Dwg. No. 2382.

For Details of R.C. Slab Spans see Dwg. No. 5431D except skew angle is opposite hand.

For Location Map see Dwg. No. 12122

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, and designated Special Provisions.

DESIGN SPECIFICATIONS: A.A.S.H.O. 1961
Live Loadit "H 20-S16 and Special Interstate Loading of 3-24,000" axles spaced 4'-0" on centers.
Unit Stresses: Class A Concrete (n=15) 640 p.s.i.
Class S Concrete (n=10) 1200 p.s.i.
Reinforcing Steel 20,000 p.s.i.

FOR INFORMATION ONLY

(RIGHT LANES)
LAYOUT OF BRIDGE OVER SPRING CREEK
BECKS ROAD - FORREST CITY

ST. FRANCIS COUNTY
INT. ROUTE 40 SEC. 5

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

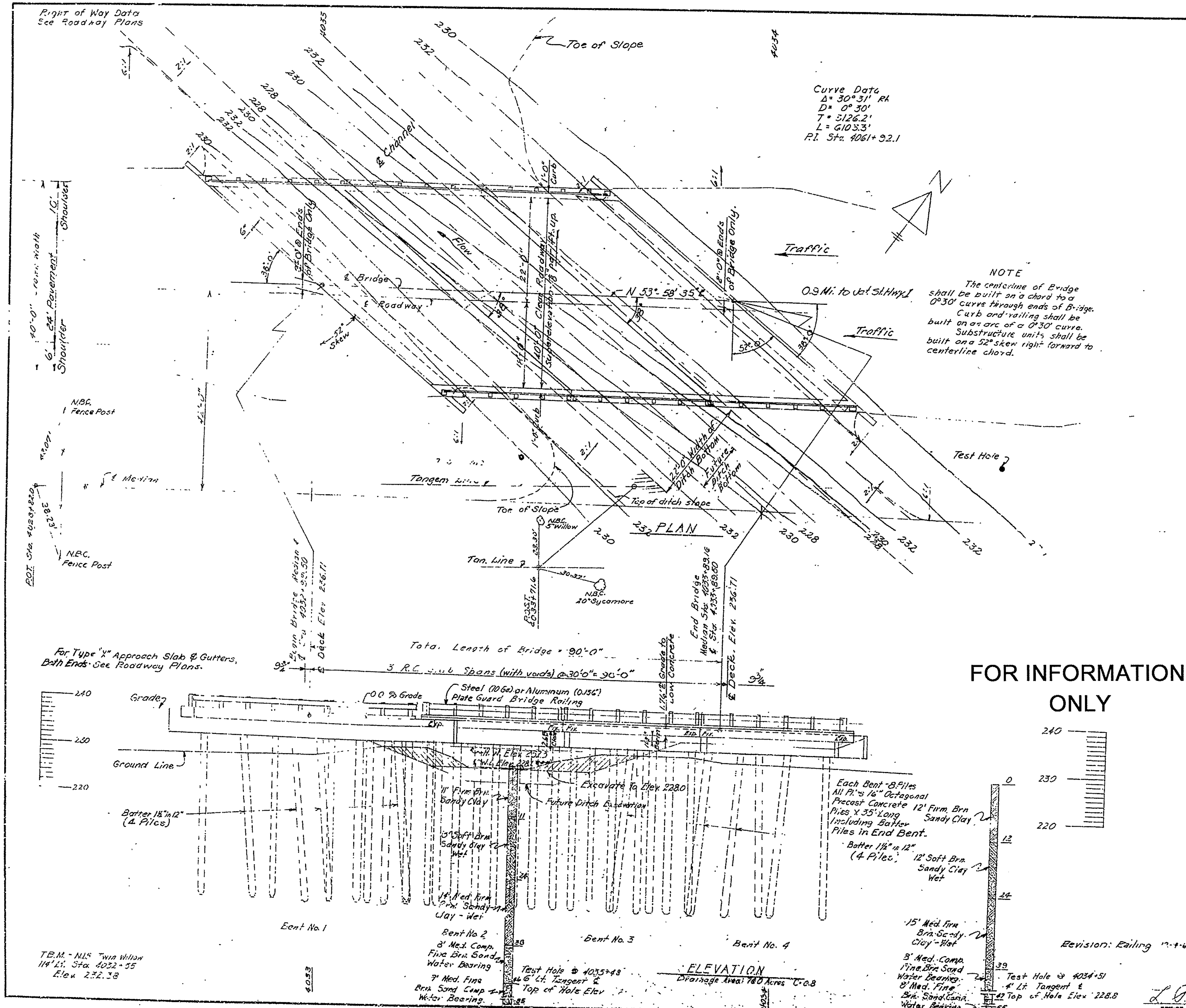
DRAWN BY: A.S. DATE: 12-13-61
TRACED BY: DATE: SCALE: 1" = 10'
CHECKED BY: W.G. DATE: 7-20-62

BRIDGE ENGINEER

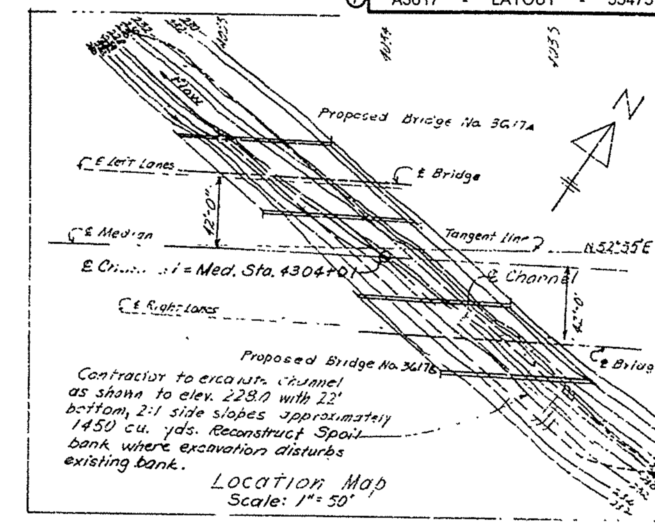
BRIDGE NO. B3614 DRAWING NO. 55474

FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0104	68	88

① A3617 - LAYOUT - 55475



FOR INFORMATION ONLY



GENERAL NOTES

All concrete to be poured in the dry. Exposed corners to be chamfered 3/4" unless otherwise noted.

All piling shall be 16" octagonal precast concrete and shall be driven with an approved air, steam, or diesel hammer to a minimum bearing capacity of 36 tons per pile, and to a minimum penetration of 20 feet below the ground line. Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. Drive one 40' test pile in Bent No. 2 or 3, each in Bridge No. 3617A and Bridge No. 3617B. Piles in End Bents shall be driven after embankment is in place.

For details of Bents, see Dwg. No. 12124.

For details of Precast Concrete Piles see Dwg. No. 2382.

For details of R.C. Slab Spans, see Dwg. No. 5431D, except skew-angle is opposite hand.

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, and designated Special Provisions.

DESIGN SPECIFICATIONS: AASHO 1961
Live Loading: H20-S16 and Special Interstate Loading of 2-24000# axles spaced 4'-0" on Center.

Unit Stresses:

Class S Concrete (n=10)	1,200 psi
Reinforcing Steel	20,000 psi

(LEFT LANES)
LAYOUT OF BRIDGE
OVER DRAINAGE DITCH
BECKS ROAD - FOREST CITY

ST. FRANCIS COUNTY
INT. ROUTE 40 SEC. 5

Revision: Railing 12-4-62 H.B. 2-4-63 MG

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

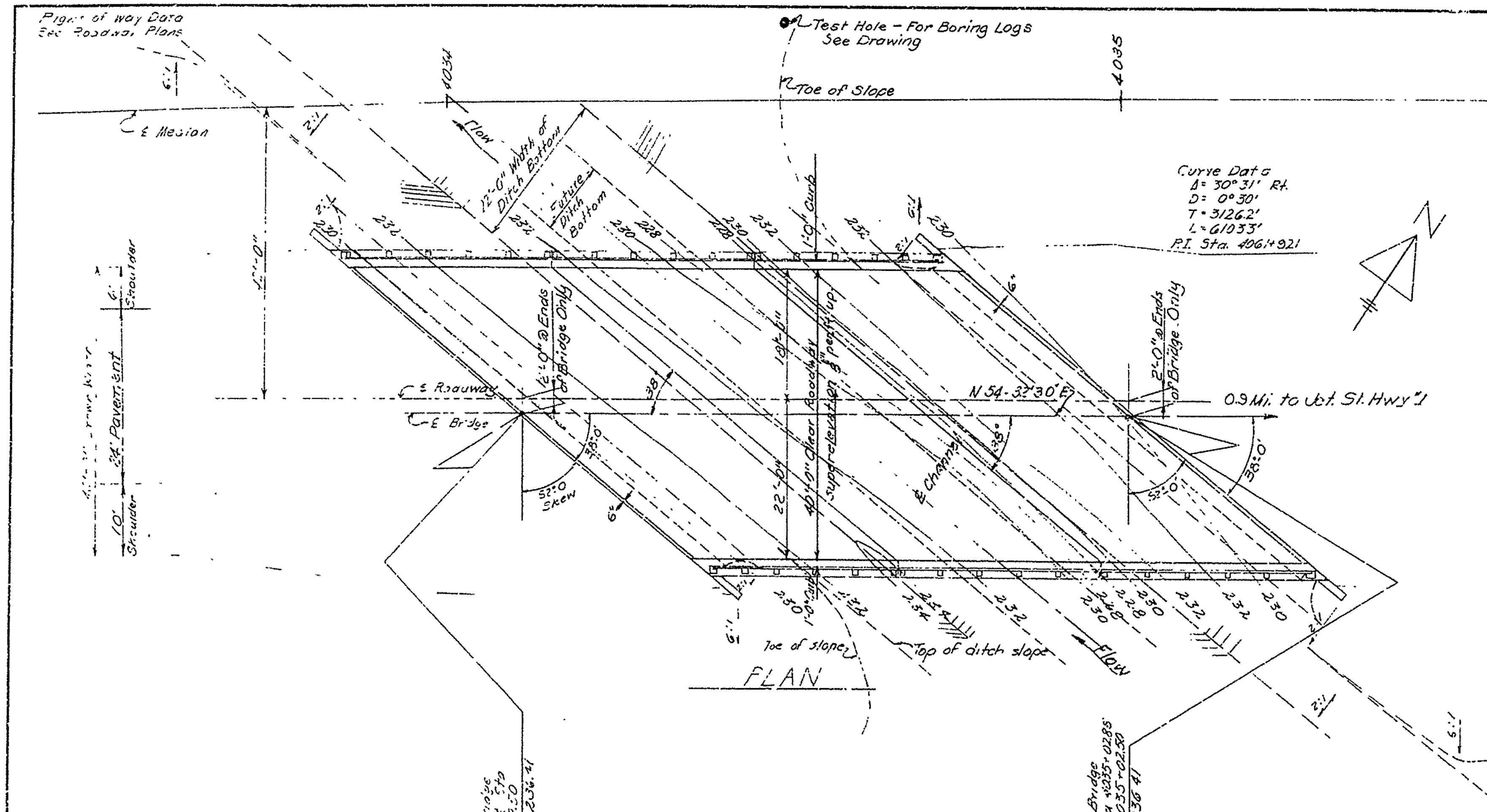
DRAWN BY [illegible] DATE 1-15-62
TRACED BY ______ DATE ______ SCALE 1" = 10'
CHECKED BY M.G. DATE 7-20-62

L. P. Carlson
BRIDGE ENGINEER

BRIDGE NO. A3617 DRAWING NO. 55475

FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0104	69	88

① B3617 - LAYOUT - 55476



NOTE

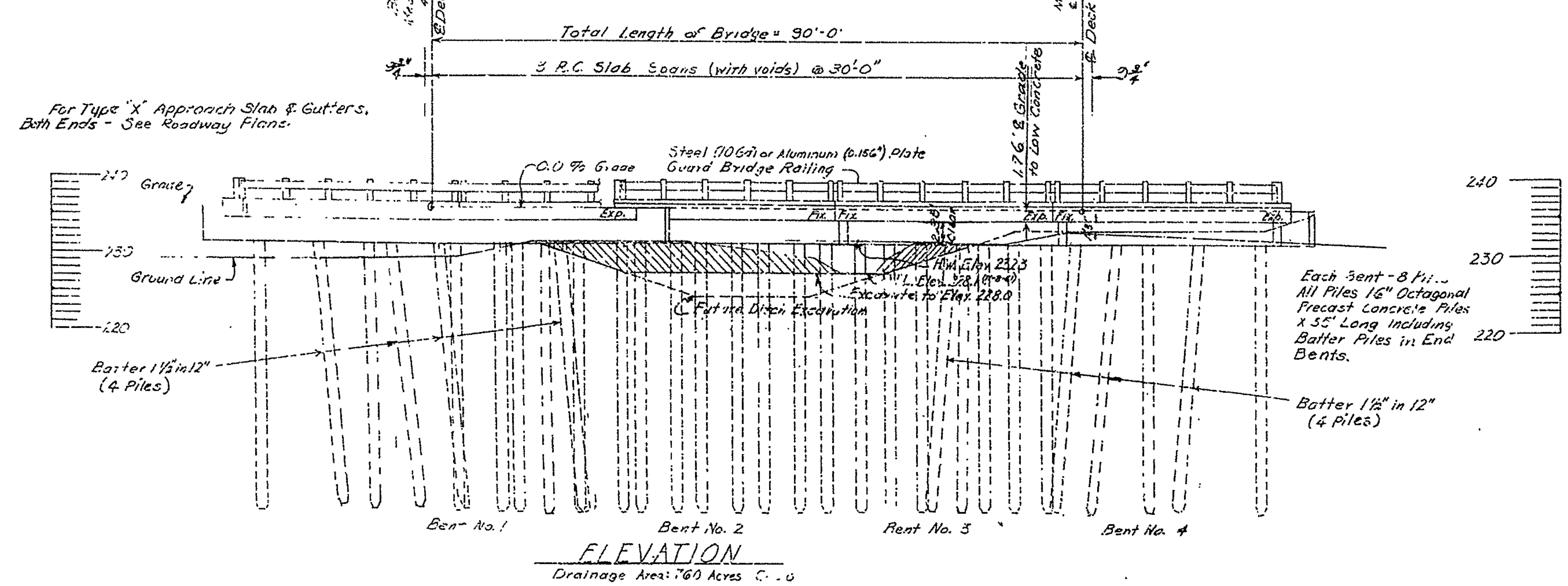
The centerline of Bridge shall be built on a chord to a 0°30' curve through ends of Bridge.

Curb and railing shall be built on an arc of a 0°30' curve.

Substructure units shall be built on a 52° skew right forward to centerline chord

GENERAL NOTES

See Bridge No. 3617A, Drawing No. 12123 for General Notes, Location Sketch, Reference Points and Boring Logs.



T.B.M. - N. S. Twin Hills
114' Lt. Sta 4032+55
Elev. 252.38

Revision: Railing 12-4-62 H.B.; 2-4-63 M.G.

FOR INFORMATION ONLY

(RIGHT LANES)
LAYOUT OF BRIDGE
OVER DRAINAGE DITCH
BECKS ROAD – FORREST CITY

ST. FRANCIS COUNTY
INT. ROUTE 40 SEC. 5

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

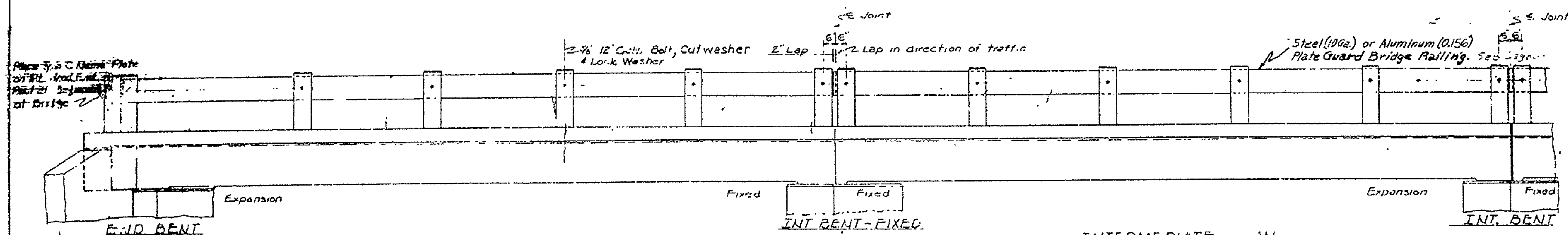
DRAWN BY: ___ DATE: 12-19-61
TRACED BY: ___ DATE: ___ SCALE: 1" = 10'
CHECKED BY: M.G. DATE: 7-20-62

L. P. Carlson
BRIDGE ENGINEER

BRIDGE NO. B3617 DRAWING NO. 55476

FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		BB0104	70	88

① A&B3614, A&B3617-SUPERSTR.-55477

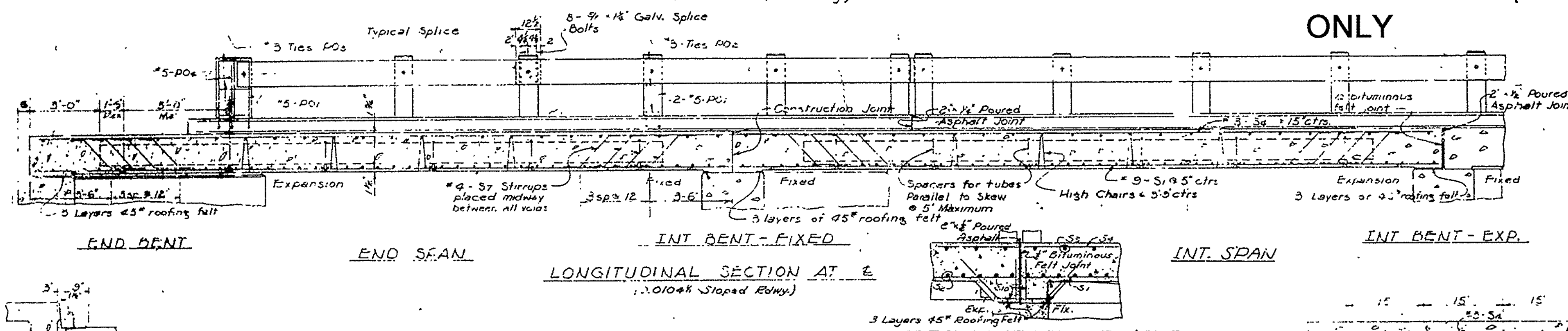


END SPAN

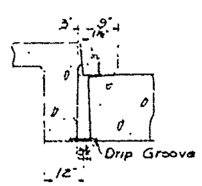
INTERMEDIATE SPAN

PART SIDE ELEVATION
(0.0104% Sloped Rdwy.)

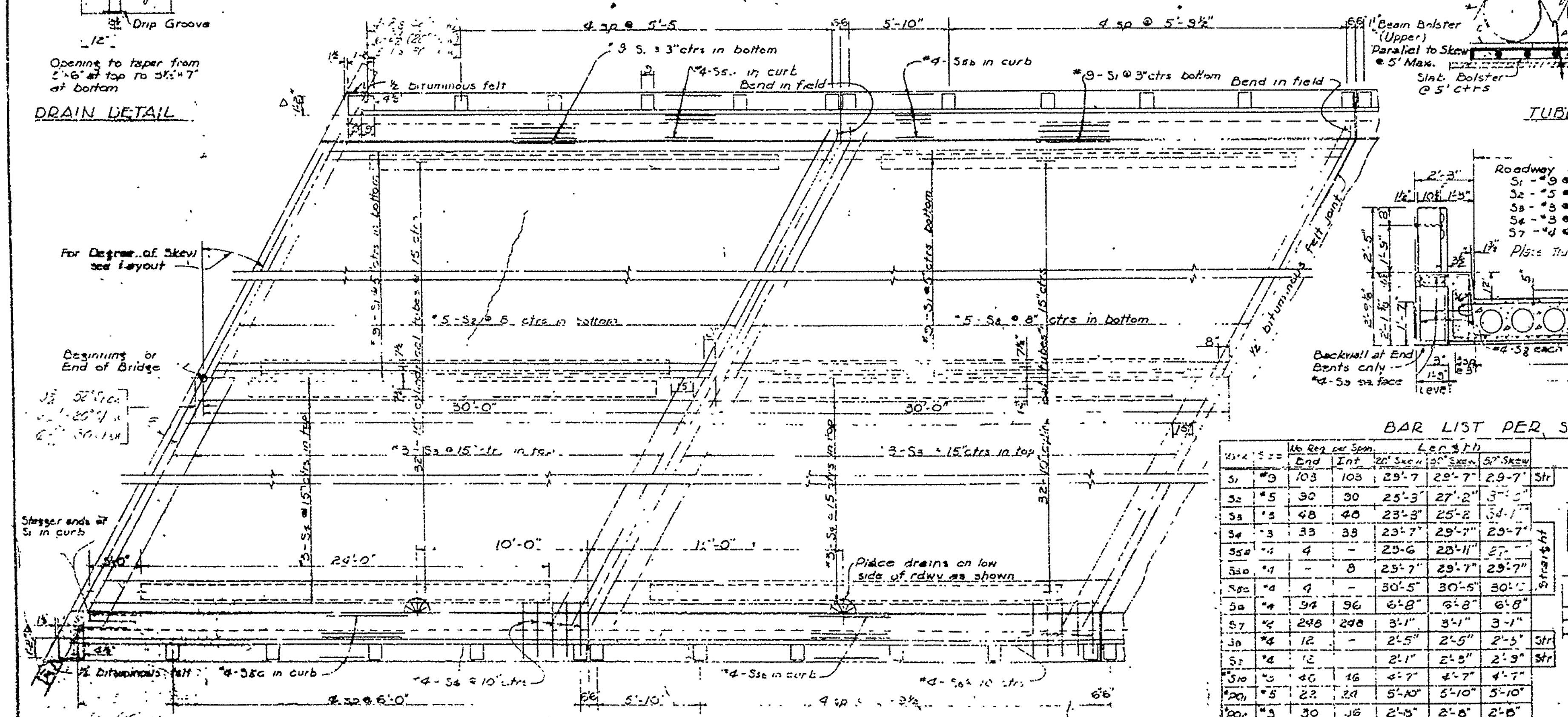
FOR INFORMATION ONLY



LONGITUDINAL SECTION AT ℄
(0.0104% Sloped Rdwy.)



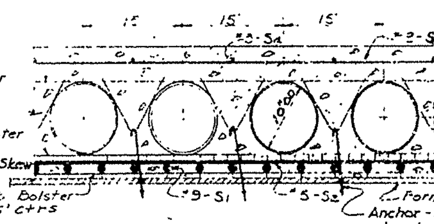
DRAIN DETAIL



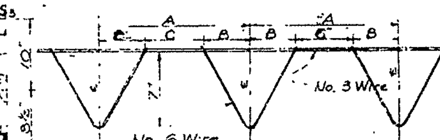
END SPAN

INT. SPAN

PART PLAN
Scale: ¼" = 1'-0"



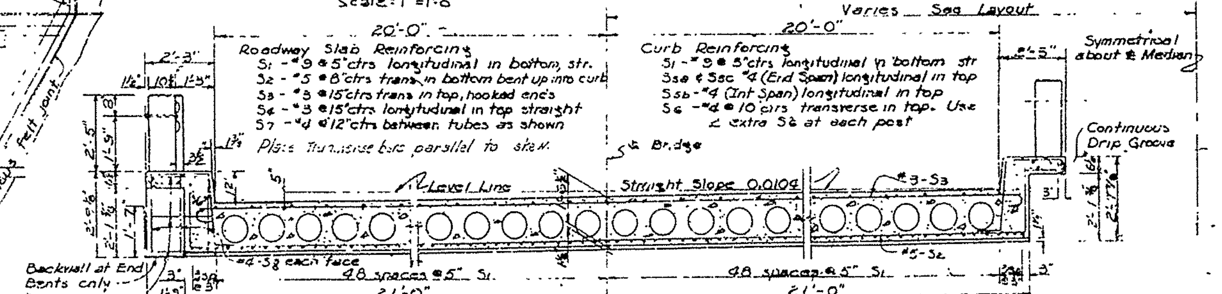
TUBE PLACING DETAIL
Scale: 1" = 1'-0"



	20° Skew	30° Skew
A	16"	17⅞
B	4¾"	5⅛"
C	6½"	6⅞"

Splice, when made, shall lap 15" minimum at anchorage.

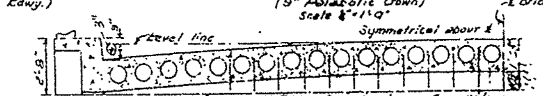
SPACER DETAIL



Roadway Slab Reinforcing
S1 - #9 @ 5" ctrs longitudinal in bottom, str.
S2 - #5 @ 8" ctrs trans. in bottom bent up into curb
S3 - #3 @ 15" ctrs trans in top, hooked ends
S4 - #3 @ 15" ctrs longitudinal in top straight
S7 - #4 @ 12" ctrs between tubes as shown
Place transverse bars parallel to skew.

Curb Reinforcing
S1 - #9 @ 5" ctrs longitudinal in bottom str
S5a & S5c #4 (End Span) longitudinal in top
S5b - #4 (Int Span) longitudinal in top
S6 - #4 @ 10" ctrs transverse in top. Use 2 extra S6 at each post

SECTION THRU ROADWAY
(0.0104% Sloped Rdwy.)



SECTION THRU ROADWAY
(9" Parabolic Crown)
Scale ⅜" = 1'-0"

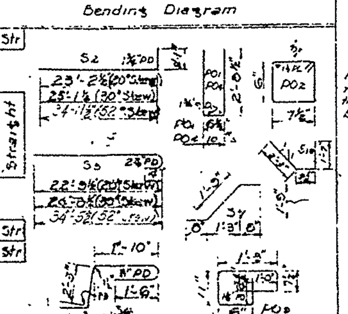
For reinf. and details not shown, see Section thru Rdwy. (0.0104% Sloped Roadway).

BAR LIST PER SPAN

Mark	Size	No. Req. per Span End	No. Req. per Span Int	Length 20° Skew	Length 30° Skew	Length 52° Skew	
S1	#9	103	103	29'-7	29'-7"	29-7'	Str
S2	#5	30	30	25'-3"	27'-2"	[illegible]	
S3	#3	48	48	23'-3"	25'-2	34-1	
S4	#3	33	33	29'-7"	29'-7"	29'-7"	Straight
S5a	#4	4	-	29-6	28'-11"	[illegible]	Straight
S5b	#4	-	8	29'-7"	29'-7"	29'-7"	Straight
S5c	#4	4	-	30'-5"	30'-5"	[illegible]	Straight
S6	#4	94	96	6'-8"	6'-8"	6'-8"	
S7	#4	248	248	3'-1"	3'-1"	3'-1"	
S8	#4	12	-	2'-5"	2'-5"	2'-5"	Str
S9	#4	12		2'-1"	2'-3"	2'-3"	Str
**S10	#3	46	46	4'-7"	4'-7"	4'-7"	
*PO1	#5	22	24	5'-10"	5'-10"	5'-10"	
*PO2	#3	30	36	2'-8"	2'-8"	2'-8"	
△ *PO3	#3	6	-	4'-7"	4'-7"	4'-7"	
*PO4	#5	4	-	6'-1"	6'-1"	6'-1"	

** Use with 9" Parabolic Crown only.

Bending Diagram



Dimensions are to centers of bars
* Non Pay Items

DESIGN SPECIFICATIONS — AASHO-1961△

Design Live Loading — H-20-S16 and Special Interstate loading of two 24,000# axles 4' on centers

Load distribution to slab. — △Dead Load 182 #/ft. / ft; △Live Load 0.174 wheels/ft width with 30% Impact

Unit Stresses — Class S Concrete (n=10) 1200 #/in²; Reinforcing Steel 20,000 #/in²

GENERAL NOTES

All concrete to be Class S. All exposed corners to be chamfered ¾" unless otherwise noted.

Reinforcing steel to be deformed bars of intermediate △or hard grade. Shop lists and bending diagrams must be submitted and approval secured before fabrication is begun.

All cylindrical tubes used to form voids shall be [illegible] be furnished complete with [illegible]

All reinforcing steel and fiber tubes shall be accurately located in the forms and firmly held in place by means of steel supports and spacers for tubes of sufficient size and number to prevent displacement during the course of construction, but in no case of lesser design than that shown.

Wire supports for reinforcing bars will not be paid for directly but will be considered subsidiary to the item of Reinforcing Steel.

Tubes for forming voids and wire supports and spacers for tubes will not be paid for directly but will be considered subsidiary to the item of Class S Concrete.

Shop lists and diagrams of wire supports and spacers for tubes shall be submitted for approval before fabrication is begun.

Roofing felt, bituminous felt and poured asphalt joints shall be measured and paid for as "Class S Concrete."

Steel or Aluminum Plate Guard shall be of the type shown or an equivalent rigid type as approved by the Engineer. The rail including all concrete posts and fastenings shall be paid for at the unit price bid per linear foot for "Steel or Aluminum Plate Guard Bridge Railing."

SPECIFICATIONS. Arkansas State Highway Commission Standard Specifications for Highway Construction adopted Dec. 9, 1959.

△Revised (4-2-62 JAS) — Date of Specifications. Dead & Live Loading. Reinforcing Steel Grade. Bending of PO3 & PO4 Bars. End Posts (Ckd CEV 4-2-62)

Revisions:
High chair spacing Aug. 5, 1958 [illegible]
Added 9" Parabolic Crown 8-5-59 [illegible]
Curb Height to 12" 2-23-[illegible]
Revised Guard Rail and Specifications Notes 2-24-61 [illegible]
Revised Aluminum Bridge Railing Size CEV 7-5-61
Revision: Tube Note 8/16/62 [illegible]
Revision: 45° skew replaced by 52° skew 5-25-62 [illegible]

DETAILS OF STANDARD 30'-0" R.C. SLAB SPANS (WITH VOIDS)

20°, 30° or 52° SKEW

40'-0" CLEAR ROADWAY 2 CURBS 1'-0"

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: [illegible] DATE: 6-7-57
TRACED BY: DATE:
CHECKED BY: [illegible] DATE: 7-3-57
SCALE: ⅜" = 1'-0" And as noted

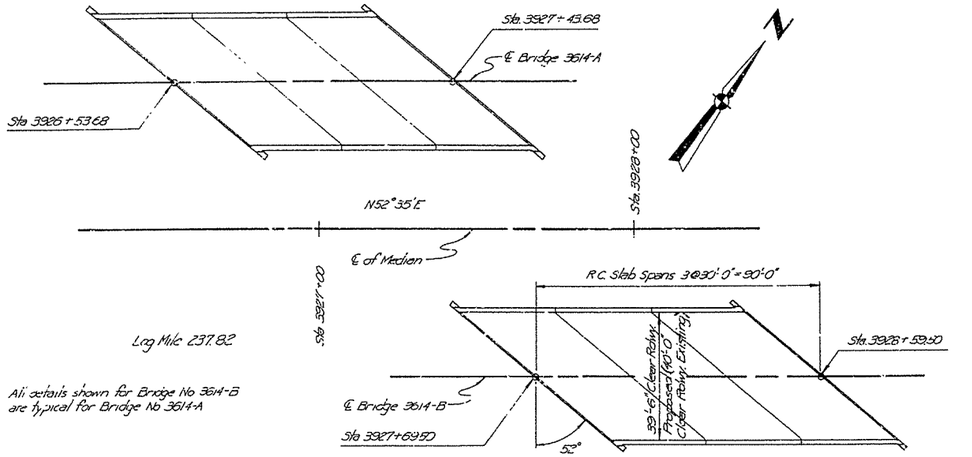
L.P. Carlson
BRIDGE ENGINEER

BRIDGE NO. 3614 A&B, 3617 A&B

DRAWING NO. 55477

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	71	86

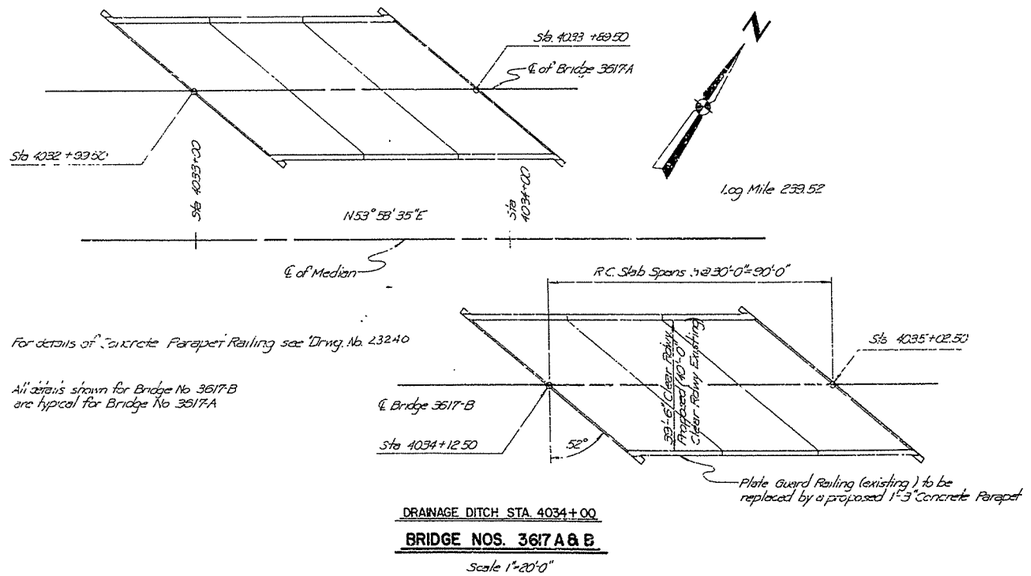
① A&B3614,A&B3617 - LAYOUT - 55478



SPRING CREEK

BRIDGE NOS. 3614 A & B

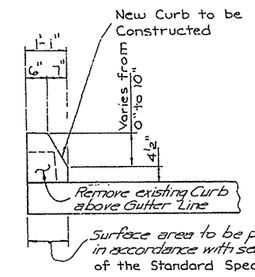
Scale 1"=20'-0"



DRAINAGE DITCH STA. 4034+00

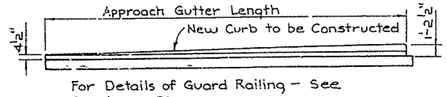
BRIDGE NOS. 3617 A & B

Scale 1"=20'-0"



TYPICAL APPROACH GUTTER SECTION

No Scale



For Details of Guard Railing – See Roadway Plans

LONGITUDINAL SECTION OF APPROACH GUTTER

No Scale

GENERAL NOTES

ALL CONCRETE SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

THE WORK CONTEMPLATED CONSISTS OF REPLACEMENT OF CURB AND RAILING OF THE EXISTING BRIDGES ON BOTH SIDES OF THE ROADWAY. FOR REQUIREMENTS IN CONDUCTING THE WORK, SEE JOB SPECIAL PROVISION "REMODELING EXISTING BRIDGE STRUCTURES AND MAINTENANCE OF TRAFFIC."

ALL DIMENSIONS RELATING TO EXISTING BRIDGE ARE TO BE VERIFIED IN THE FIELD AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING WORK TO EXISTING STRUCTURE.

PLANS OF THE EXISTING STRUCTURE WILL BE MADE AVAILABLE TO THE CONTRACTOR UPON REQUEST.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1977 WITH INTERIM SPECIFICATIONS.

LIVE LOADING. RAIL LOAD AS PER ASSHTO

UNIT STRESSES: f'c = COMPRESSIVE STRENGTH OF CLASS S(AE) CONCRETE 3500 PSI. fy = YIELD STRENGTH OF REINFORCING STEEL = 60,000 PSI.

METHOD OF DESIGN: LOAD FACTOR

REMOVE CURB PORTION OF APPROACH GUTTERS AND REPLACE AS SHOWN IN THIS DRAWING FOR BRIDGE NOS. 3614 A & B, 3616 A & B, 3617 A & B, 3876 A & B, 3878 A & B, 3880 A & B, 3845 A & B, 3846 A & B, 3848 A & B AND 3849 A & B.

FOR GUARD RAIL DETAILS, SEE ROADWAY PLANS.

FOR INFORMATION ONLY

SECTION A

LAYOUT OF BRIDGES OVER

SPRING CREEK

DRAINAGE DITCH STA. 3992+50

DRAINAGE DITCH STA. 4034+00

PALESTINE - WEST MEMPHIS (SAFETY)

(SELECTED SECTIONS)

ST. FRANCIS COUNTY

ROUTE 40 SEC. 51

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: W.M.D. DATE: 6-27-79

CHECKED BY: A.F.S. DATE:

DESIGNED BY: J.V. DATE: Sept. 79

SCALE: 1" = 20'-0"

W. Ross Hinkleston
BRIDGE ENGINEER

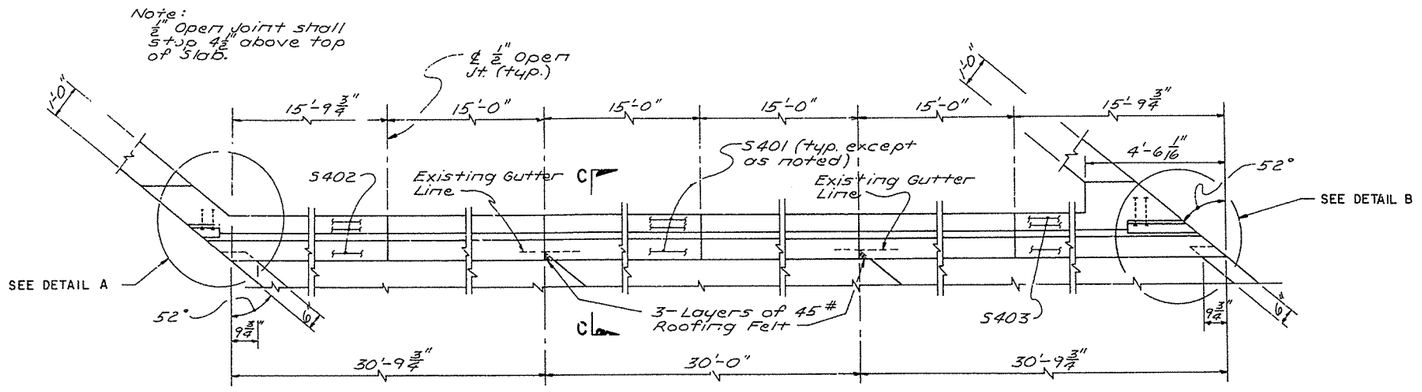
BRIDGE NO. 3614 A & B, 3617 A & B

DRAWING NO. 55478

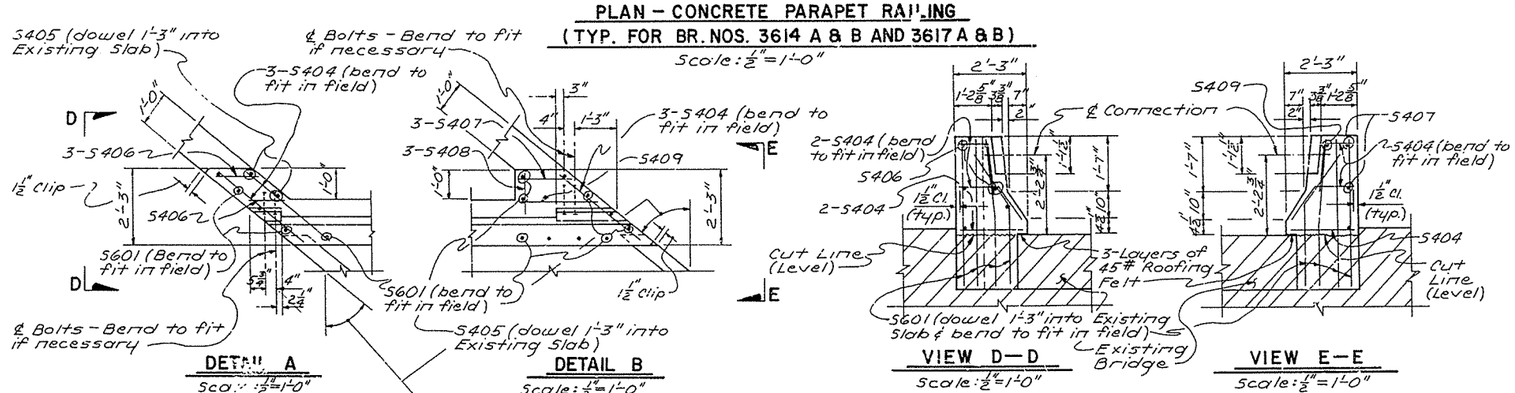
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		BB0104	72	88

① A&B3614,A&B3617 - RAILING - 55479

Note:
½" Open joint shall stop 4½" above top of slab.



PLAN - CONCRETE PARAPET RAILING
(TYP. FOR BR. NOS. 3614 A & B AND 3617 A & B)
Scale: ½"=1'-0"



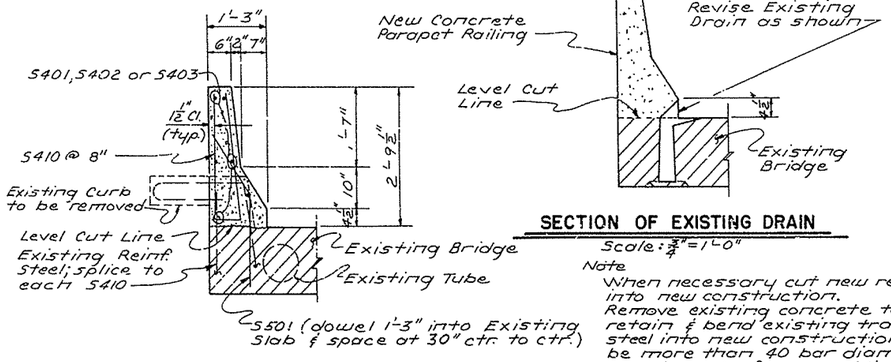
DETAIL A
Scale: ½"=1'-0"

DETAIL B
Scale: ½"=1'-0"

VIEW D—D
Scale: ½"=1'-0"

VIEW E—E
Scale: ½"=1'-0"

Note:
Bolts for Turnout Post shall be ¾"x8" A325 Galvanized Bolts with 1¾" threaded (non pay Item subsidiary to other Items) See dwg. GR-8A for Guard Rail Conn. details.



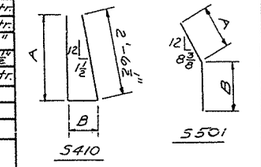
SECTION C—C
Scale: ¾"=1'-0"

SECTION OF EXISTING DRAIN
Scale: ¾"=1'-0"

Note
When necessary cut new reinforcing steel to fit into new construction.
Remove existing concrete to Cut Line. Strip, clean, retain & bend existing transverse reinforcing steel into new construction. Bars which would be more than 40 bar diameters into new work may be cut after providing 40 bar diameters embedment.

BAR LIST PER BRIDGE
(TYP. FOR BR. NOS. 3614 A & B OR 3617 A & B)

Mk.	No. Reqd	Length	A	B	Pin Dia.	Bending Diagrams
S401	48	14'-8			str.	Dimensions are out to out of Bars.
S402	12	16'-9"			str.	
S403	12	15'-1"			str.	
S404	18	3'-3"			str.	
S405	8	3'-11"			str.	
S406	12	1'-3"			str.	
S407	6	1'-6"			str.	
S408	6	1'-3"			str.	
S409	2	2'-11"			str.	
S410	274	5'-6"	2'-6½"	6¾"	2"	
S501	82	3'-5"	1'-6"	1'-11"	2½"	
S601	26	3'-11"			str.	



GENERAL NOTES

ALL CONCRETE TO BE CLASS S(AE). ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

REINFORCING STEEL TO BE ASTM A615 OR A617, GRADE 60.

BAR SUPPORTS FOR REINFORCING BARS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "REINFORCING STEEL."

ROOFING FELT & PREFORMED JOINT (AASHTO M153 TYPE III), SHALL BE MEASURED AND PAID FOR AS CLASS S(AE) CONCRETE.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO 1977 EDITION WITH INTERIM SPECIFICATIONS.

DESIGN LIVE LOADING: RAIL LOAD AS PER AASHTO

UNIT STRESSES: COMPRESSIVE STRENGTH OF CLASS S(AE) CONCRETE = 3500 PSI.
YIELD STRENGTH OF REINFORCEMENT = 60,000 PSI

LOAD FACTOR USED FOR DESIGN.

THE WORK CONTEMPLATED CONSISTS OF REPLACEMENT OF CURB & RAILING ON THE EXISTING BRIDGES ON BOTH SIDES OF THE ROADWAY. FOR REQUIREMENTS IN CONDUCTING THE WORK, SEE JOB SPECIAL PROVISION "REMODELING EXISTING BRIDGE STRUCTURES."

ALL DIMENSIONS RELATING TO EXISTING BRIDGE ARE TO BE VERIFIED IN THE FIELD AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE NEW WORK TO THE EXISTING STRUCTURE.

PLACE TYPE C BRIDGE NAME PLATE ON RIGHT PARAPET TURNOUT POST AT BEGINNING OF EACH BRIDGE.

AT INT. BENTS, THAT ARE FIX-EXPANSION, PLACE 1/2" PREFORMED JOINT (AASHTO M153, TYPE III) IN THE JOINT OF THE CONCRETE PARAPET RAILING FOR THE FIRST 4-1/2" ABOVE TOP OF SLAB.

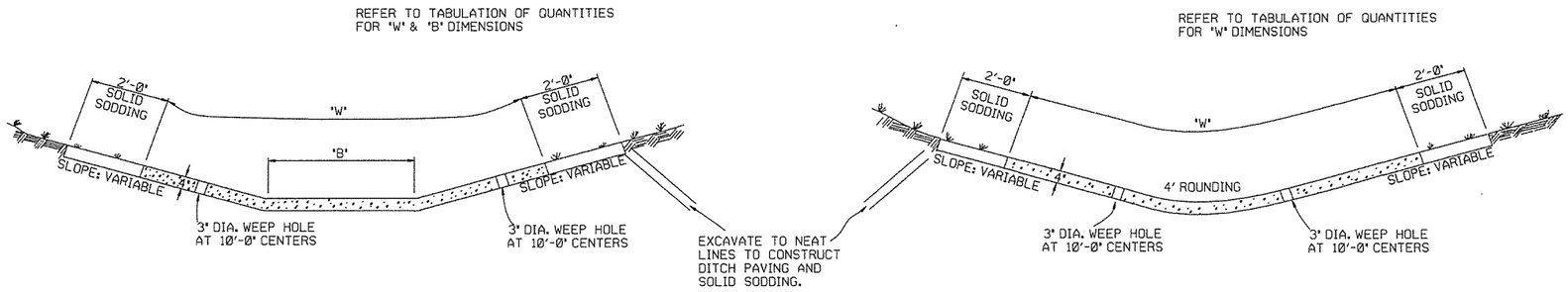
FOR INFORMATION ONLY

DETAILS OF
CONCRETE PARAPET RAILING
PALESTINE-WEST MEMPHIS (SAFETY)
SELECTED SECTIONS
ST. FRANCES COUNTY
ROUTE 40 SEC. 51
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: J.P.S. DATE: 8-31-79
CHECKED BY: H.B.W. DATE: 9-17-79
DESIGNED BY: D.V. DATE: Sept. 79
SCALE: as noted

Ernest Pinkerton
BRIDGE ENGINEER

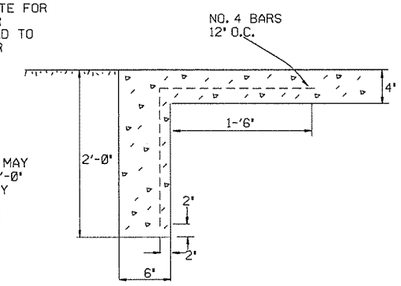
BRIDGE NO. 3614 A&B, 3617 A & B DRAWING NO. 55479



TYPE A

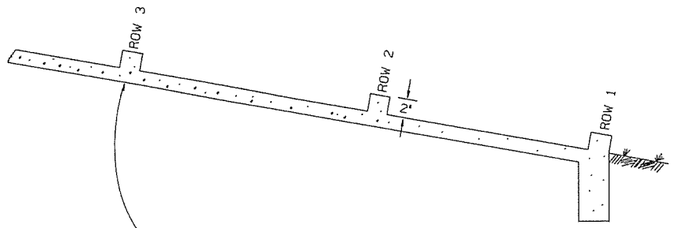
TYPE B

THE STEEL AND ADDITIONAL CONCRETE FOR THE WALLS SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR 'CONCRETE DITCH PAVING.'



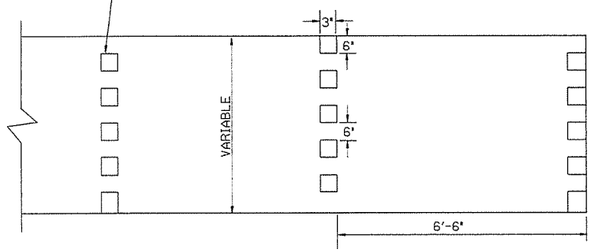
TOE WALL DEPTH MAY BE ALTERED TO 1'-0" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION

TOE WALL DETAIL FOR CONCRETE DITCH PAVING



NUMBER OF ELEMENTS PER ROW VARIES WITH WIDTH OF PAVING SPECIFIED

ENERGY DISSIPATORS TO BE USED FOR THE ENTIRE LENGTH OF DITCH WHEN SLOPE OF DITCH PAVING EXCEEDS 7%. THE DISSIPATORS WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED TO BE UNCLUDED IN THE PRICE BID FOR CONCRETE DITCH PAVING.



ENERGY DISSIPATORS
(NO SCALE)

GENERAL NOTES:

THE FULL WIDTH OF EACH SECTION SHALL BE POURED MONOLITHICALLY.

TOE WALLS TO BE CONSTRUCTED FULL WIDTH AT EACH END OF DITCH PAVING, AND POURED MONOLITHICALLY.

SOLID SOD ALONG DITCH PAVING TO BE PLACED WITHIN 14 DAYS OF DITCH PAVING CONSTRUCTION.

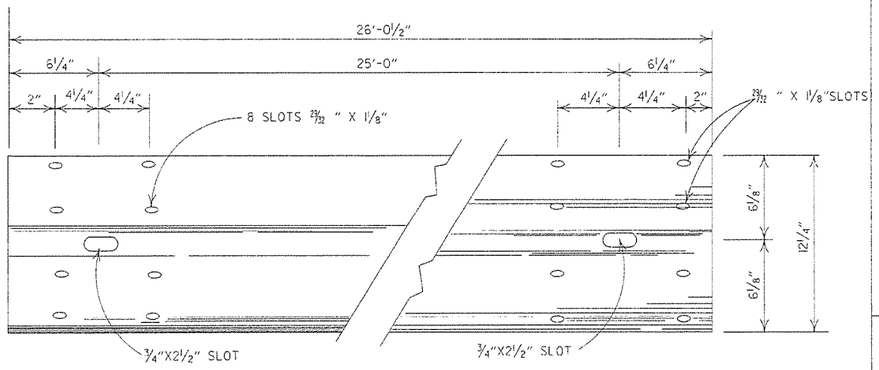
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

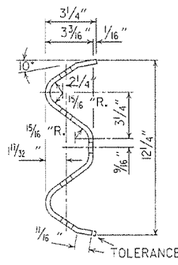
DATE	REVISION	DATE FILM'D
11-17-10	ADDED GENERAL NOTE	
6-2-94	ADDED GENERAL NOTE ABOUT SOLID SODDING	
11-30-8	ELIMINATED MIN. ROWS OF ELEMENTS	111-30-89
7-15-88	REVISED DISSIPATOR NOTE	653-7-15-88
4-3-87	REVISED ENERGY DISSIPATOR	671-4-3-87
1-9-87	MODIFIED NOTE ON ENERGY DISS.	532-1-9-87
11-3-86	ADDED NOTE TO ENERGY DISS.	599-12-1-86
11-1-84	ENERGY DISSIPATOR DETAILS ADDED	508-11-1-84
11-1-84	EXCAVATION DETAILS ADDED TYPED A & B	
10-2-72	REVISED AND REDRAWN	508-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE DITCH PAVING

STANDARD DRAWING CDP-1

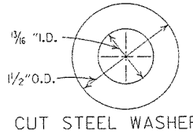




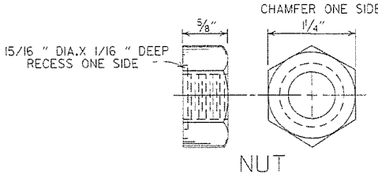
DETAILS OF W-BEAM GUARD RAIL

RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.

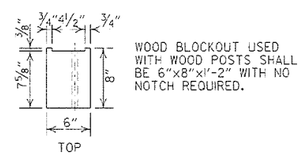
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

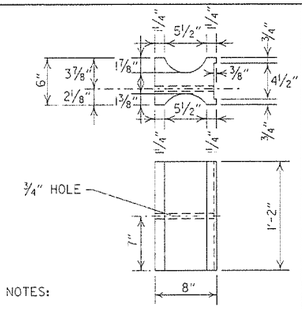


NUT



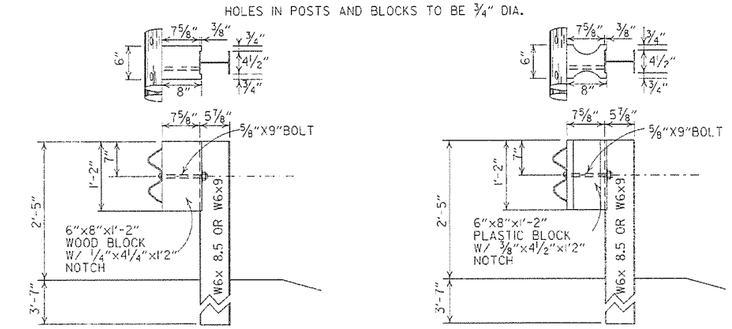
WOOD BLOCKOUT USED WITH WOOD POSTS SHALL BE 6"x8"x1'-2" WITH NO NOTCH REQUIRED.

WOOD BLOCKOUT (W-BEAM)



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

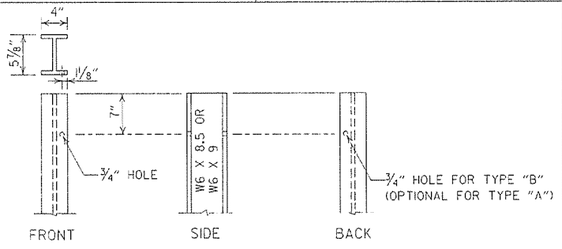
PLASTIC BLOCKOUT (W-BEAM)



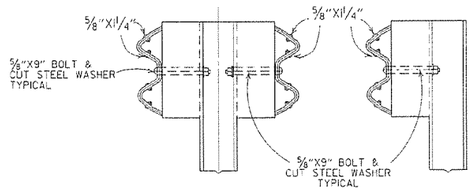
WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)



STEEL POST



TYPE "B" TYPE "A"

DETAILS OF STEEL LINE POST CONNECTIONS (W-BEAM)

-GENERAL NOTES-

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN 3/4" BEYOND IT.

WHERE W-BEAM GUARD RAIL CONTINUES, THE INTERMEDIATE SECTIONS SHALL HAVE A POST SPACING OF 6'-3" UNLESS OTHERWISE NOTED.

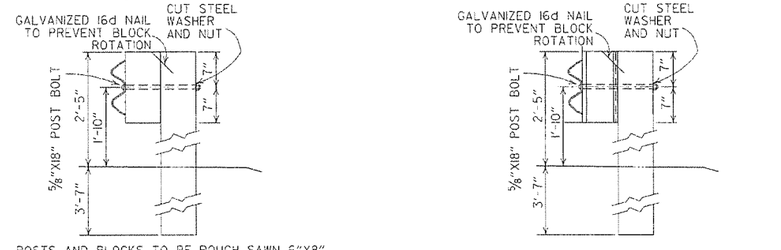
W-BEAM GUARD RAIL REPRESENTING INTERMEDIATE SECTIONS WILL BE MEASURED ALONG THE ROADWAY FACE FROM CENTERLINE OF POST TO CENTERLINE OF POST.

USE W-BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB. FOR EXTENSIONS OR MODIFICATION OF EXISTING GUARD RAIL, W-BEAM GUARD RAIL COMPONENTS OF THE SAME TYPE AS THOSE EXISTING SHALL BE USED.

ANY BACKFILLING UNDER OR AROUND POST SHALL BE DAMP SAND THOROUGHLY TAMPED IN PLACE.

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7# (1400 #) OR NO. 1 1350 # 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.



POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - 1/4".

WOOD BLOCKOUT CONNECTIONS

PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF WOOD LINE POST CONNECTIONS (W-BEAM)

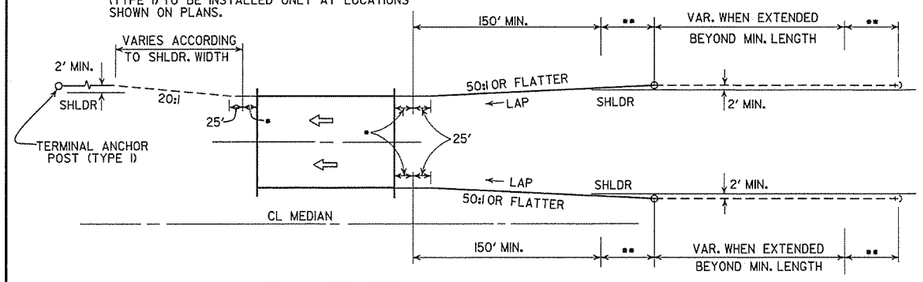
DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
10-15-09	ADDED REFERENCE TO MASH	
4-10-03	REVISED GENERAL NOTES	
8-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & ON STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
3-30-00	REMOVED GUARD RAIL AT BRIDGE ENDS	
1-12-00	ADDED PLASTIC BLOCKOUT	
8-12-98	REV. BLOCKOUTS TO WOOD, DELETED CONC. POST & REV. GENERAL NOTE, DELETED DET. OF GUARD RAIL REPLACE BEHIND CURB & DET. OF POST PLACE IN SOLID ROCK, & ADDED DETAILS OF STEEL LINE POST CONN. REMOVED BACK-UP PLATE, REVISED HOLES IN STEEL POLES	
4-3-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
6-2-94	ADDED ALT. STEEL POST SIZE	
8-5-93	REVISED STEEL POST SIZE	8-5-93
10-1-92	REDRAWN & REVISED	10-1-92
8-15-91	REVISED WASHER NOTE	8-15-91
8-2-90	REV. GEN. NOTE & DEPHT OF ANC. POST IN ROCK	8-2-90
7-15-88	REVISED SECTION 3 & GENERAL NOTES	
3-4-88	REV. ANCHOR POST, ELEV. NOTES & POST IN ROCK	786-3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-9-87	REDRAWN & REVISED	802-10-9-87

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

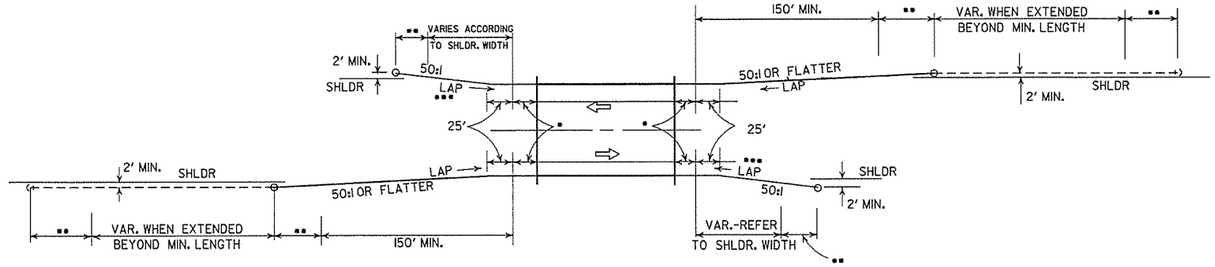
STANDARD DRAWING GR-8

NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

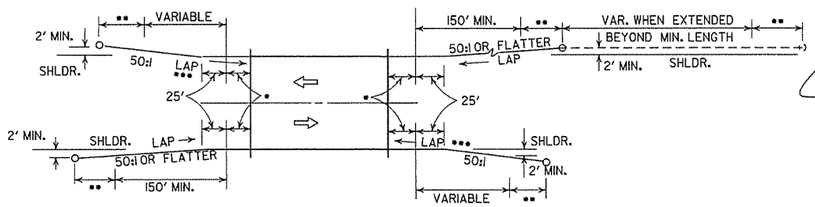
••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

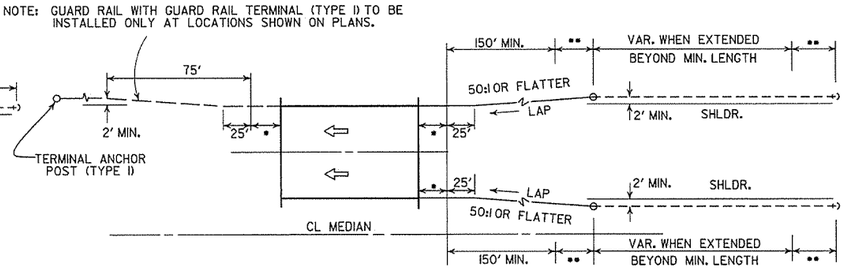
METHODS OF INSTALLATION OF GUARD RAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)

••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



TWO-WAY TRAFFIC

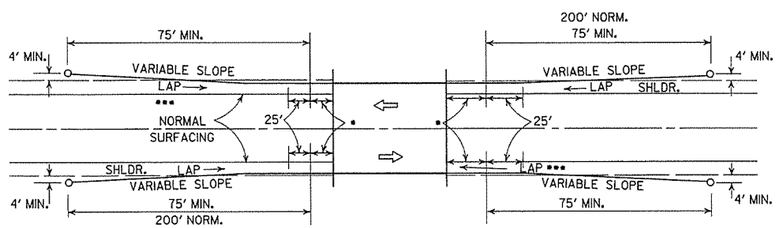
NOTE: GUARD RAIL WITH GUARD RAIL TERMINAL (TYPE I) TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



ONE-WAY TRAFFIC

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

••• LAP OF GUARD RAIL SHALL BE AS SHOWN FOR A DISTANCE OF UP TO 200', CHANGE TO LAP IN DIRECTION OF TRAVEL.



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

LEGEND

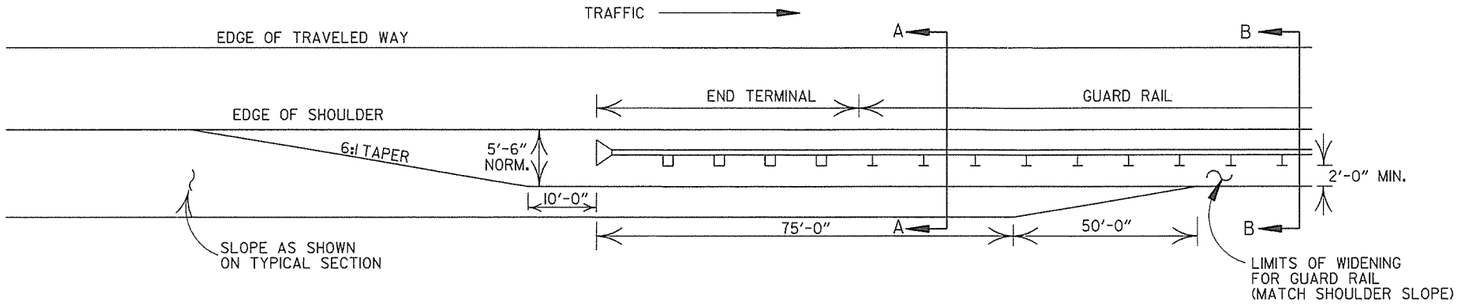
- THRIE BEAM GUARD RAIL TERMINAL
- •• GUARD RAIL TERMINAL (TYPE 2)

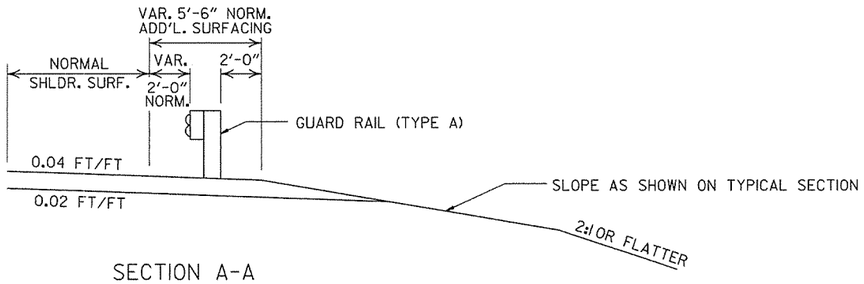
DATE	REVISION	DATE FILM
4-17-08	REVISED LAYOUTS	
11-10-05	REMOVED GUARD RAIL NOTES AND DETAILS	
11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERM. (TY. I)	
1-12-00	ADDED CONSTRUCTION NOTE	1-12-00
6-26-97	REVISED LAYOUT	
10-1-92	REDRAWN & REVISED	10-1-92
	ADDED NOTE	
10-9-87	REDRAWN & REVISED	

ARKANSAS STATE HIGHWAY COMMISSION

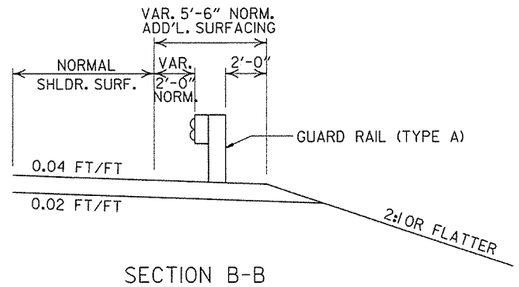
GUARD RAIL DETAILS

STANDARD DRAWING GR-9





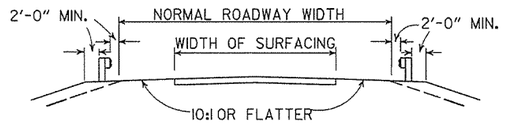
SECTION A-A



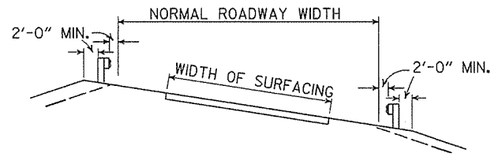
SECTION B-B

DETAILS OF WIDENING FOR GUARD RAIL

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

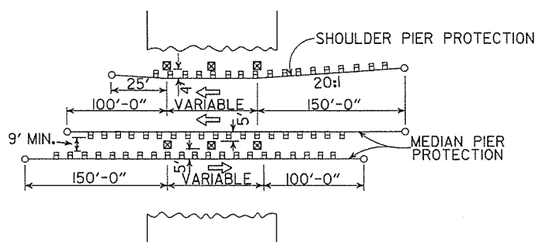


SECTION ON TANGENT



SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY



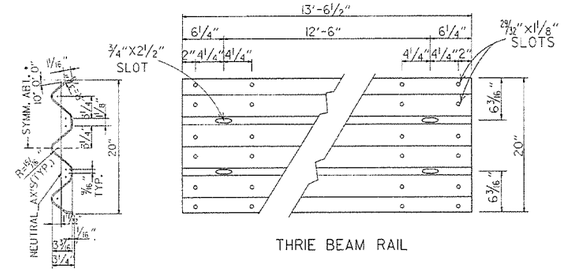
METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

DATE	REVISION	DATE FILM
4-17-08	MINOR REVISION	
11-10-05	DRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

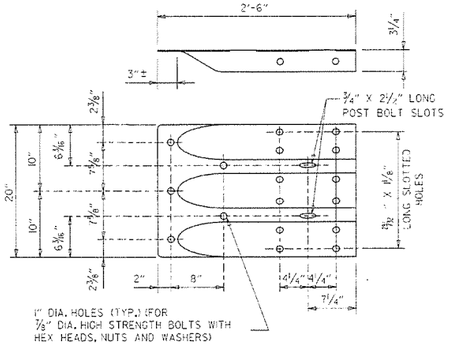
GUARD RAIL DETAILS

STANDARD DRAWING GR-9A

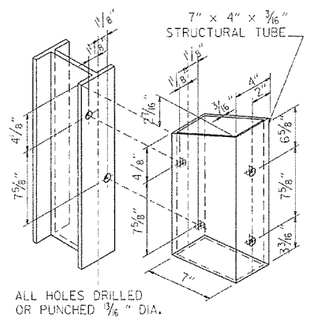


THRIE BEAM RAIL

SECTION THRU
THRIE BEAM RAIL



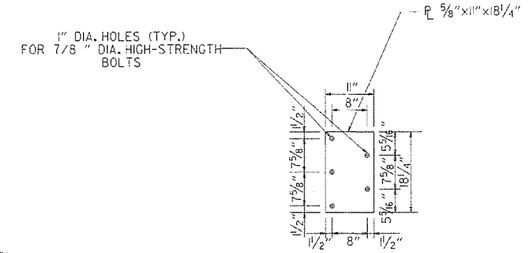
SPECIAL END SHOE



ALL HOLES DRILLED
OR PUNCHED ⅜" DIA.

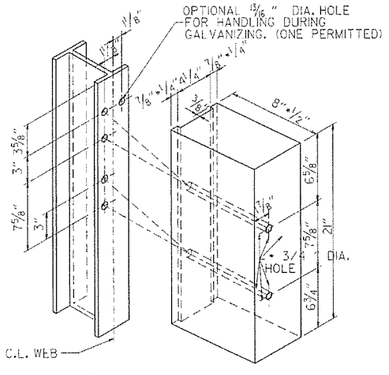
STRUCTURAL STEEL TUBING BLOCKOUT DETAIL

ATTACH BLOCKOUT TO POST USING ⅝" DIA. HEX HEAD BOLTS WITH 1½" O.D. CUT STEEL WASHERS AND NUT.



CONNECTOR PLATE

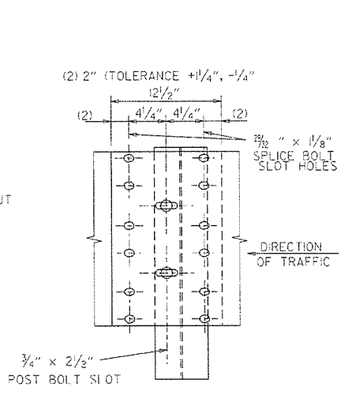
CONNECTOR PLATE SHALL BE AASHTO M270, GR. 36 AND SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO SUBSECTION 807.19 OF THE STANDARD SPECIFICATIONS. CONNECTOR PLATE TO BE BOLTED TO SPECIAL END SHOE USING ⅞" DIA. HIGH STRENGTH BOLTS, WITH THE HEADS PLACED ON THE TRAFFIC FACE. WASHERS SHALL BE USED UNDER THE HEAD AND NUT. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AND SHALL CONFORM TO SUBSECTION 807.06.



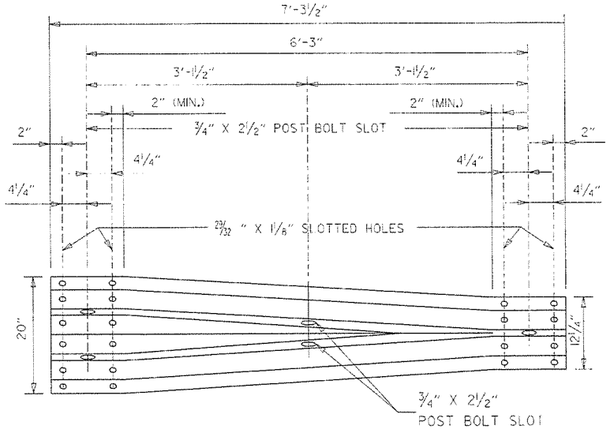
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED

HOLE PUNCHING DETAIL
FOR STEEL POST & WOOD
OR PLASTIC BLOCKOUTS

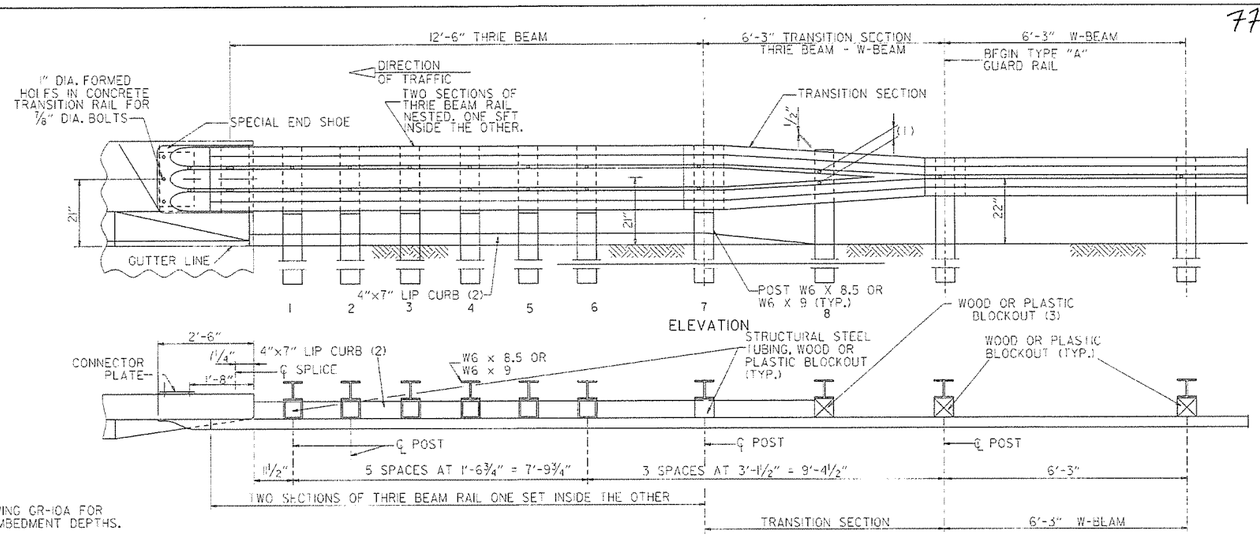
NOTE: BLOCKS SHALL BE THE SAME TYPE THROUGHOUT THE PROJECT LIMITS.



THRIE BEAM RAIL
SPLICE AT POST



TRANSITION SECTION



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

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

THRIE BEAM GUARD RAIL CONNECTION AT BRIDGE ENDS

GENERAL NOTES:

THE THRIE BEAM RAIL, SPECIAL END SHOE, AND THE TRANSITION SECTION SHALL BE MADE OF STEEL AND SHALL BE 12 GAGE. ZINC COATING SHALL BE TYPE I.

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

ALL BOLTS SHALL BE SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND NO MORE THAN ¾" BEYOND IT.

ALL LAP SPLICES, INCLUDING SPECIAL END SHOES, SHALL BE MADE IN THE DIRECTION SHOWN ON STANDARD DRAWINGS GR-9 & GR-11.

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7# (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

REFER TO STD. DRWG. GR-10A FOR POST DETAILS.

USE THRIE BEAM GUARD RAIL COMPONENTS OF SAME MATERIAL FOR ENTIRE JOB.

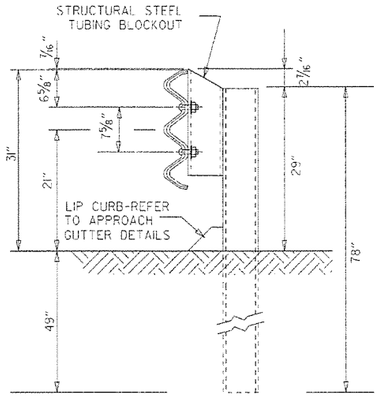
THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF W-BEAM 1"	
11-29-07	ADDED PLASTIC BLOCKOUTS	
11-10-05	ADDED NOTE FOR ATTACHING STEEL BLOCKOUT	
11-18-04	REVISED GENERAL NOTES	
10-9-03	REVISED GENERAL NOTES	
4-10-03	REVISED GENERAL NOTES	
8-22-02	REVISED NOTE (2)	
6-29-00	MOVED DIMENSION LINES	
5-18-00	ADDED NOTE	
3-30-00	DRAWN & ISSUED	

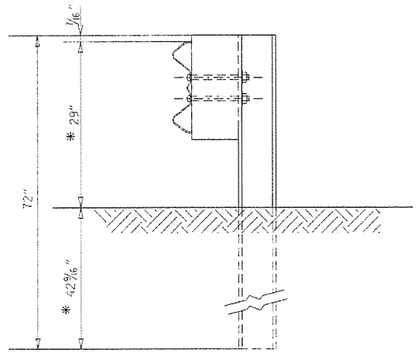
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-10

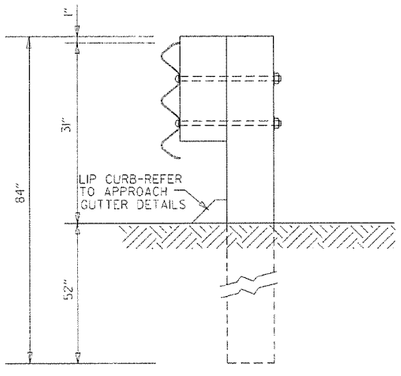


THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7

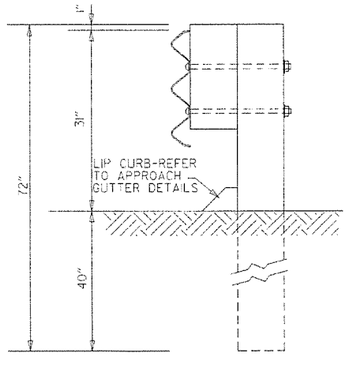


W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8

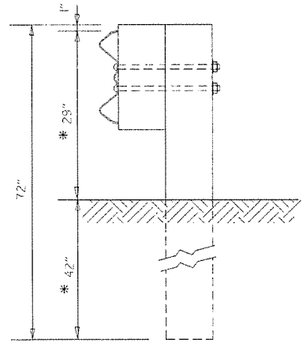
* NOTE:
THESE DIMENSIONS WILL NEED TO BE ADJUSTED IN THE FIELD TO MAKE THE TRANSITION FROM 21" MID POINT OF THRIE BEAM TO 22" MID POINT OF W-BEAM.



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



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



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

GENERAL NOTES:

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

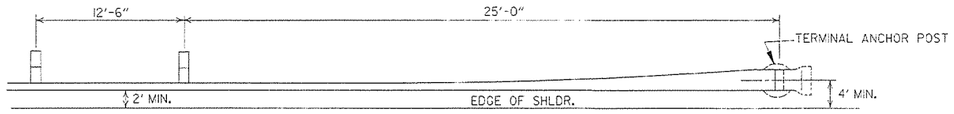
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7 f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	DATE FILM
7-14-10	REVISED POST & DIMENSIONS	
11-29-07	ADDED PLASTIC BLOCKOUTS	
8-22-02	REVISED LIP CURB NOTE	
3-30-00	DRAWN & ISSUED	

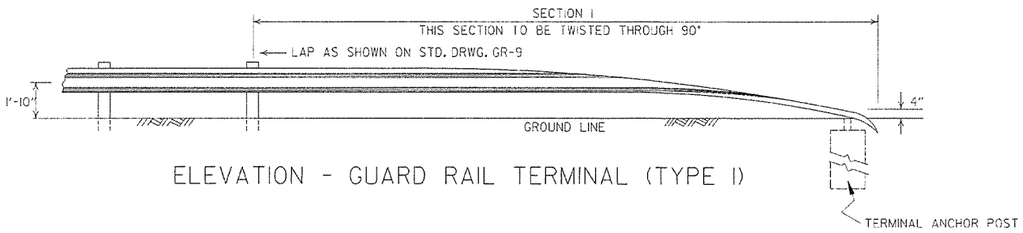
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-10A

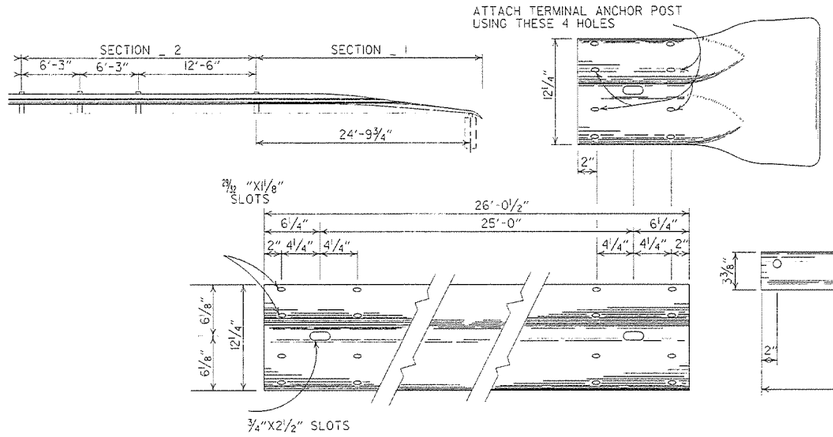


PLAN - GUARD RAIL TERMINAL (TYPE I)



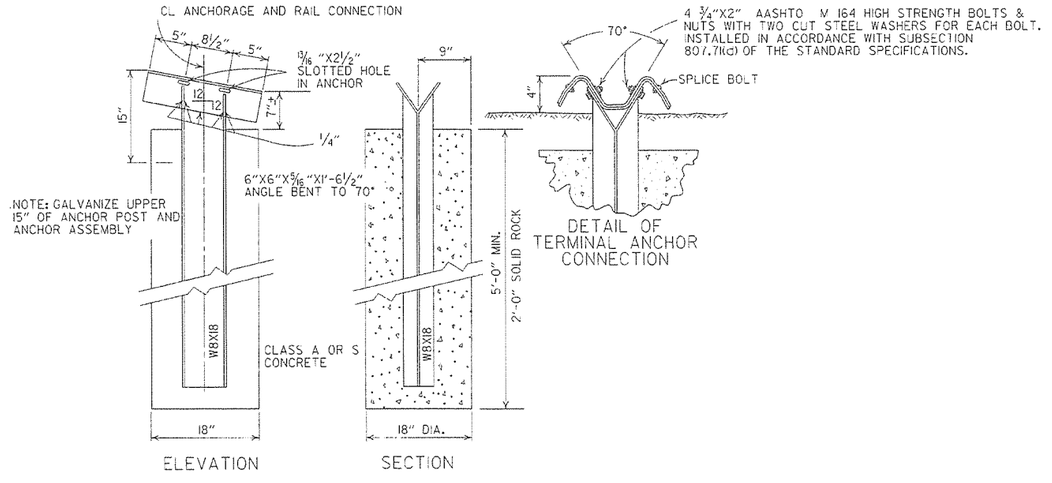
ELEVATION - GUARD RAIL TERMINAL (TYPE I)

NOTE:
SECTIONS 1 AND 2 OF GUARD RAIL TERMINAL SHALL BE PAID FOR AT THE PRICE BID PER LINEAR FOOT OF THE TYPE OF GUARD RAIL SPECIFIED.



SECTION 1

TERMINAL SECTION



ELEVATION SECTION

NOTE: RAIL MEMBERS MAY BE BOLTED TO ANGLE AT TERMINAL ANCHOR AND THE TWO ASSEMBLIES POSITIONED TO PROPER ALIGNMENT PRIOR TO PLACING CONCRETE AROUND 8 WF 17 POST IF CONTRACTOR SO DESIRES.

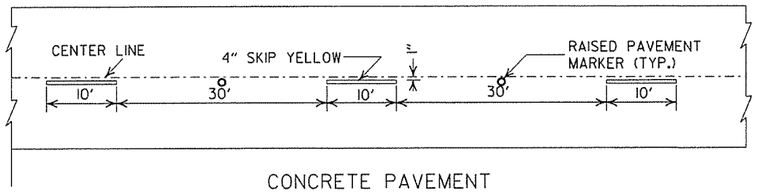
DETAIL OF TERMINAL ANCHOR POST (TYPE I)

DATE	REVISION	DATE FILM
7-14-10	RAISED HEIGHT OF GUARD RAIL 1"	
6-26-97	REVISED LAP NOTE	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-3-94	DIMENSION TERMINAL DETAIL	
11-11-92	ADDED NOTE FOR PAYMENT	11-11-92
10-1-92	DRAWN & ISSUED	10-1-92

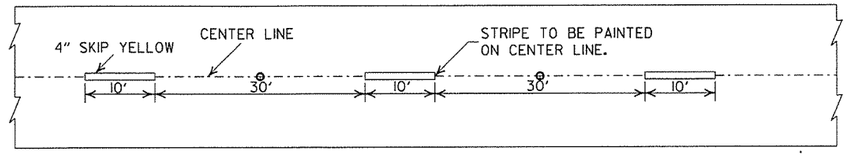
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GRT-1

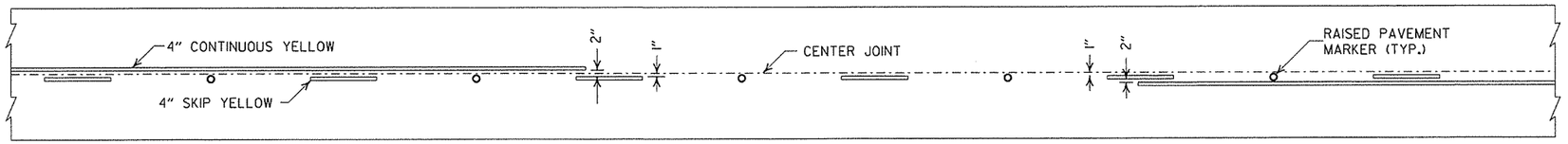


CONCRETE PAVEMENT

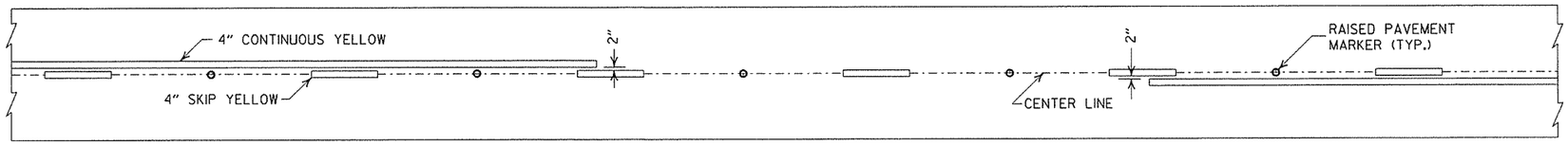


ASPHALT PAVEMENT

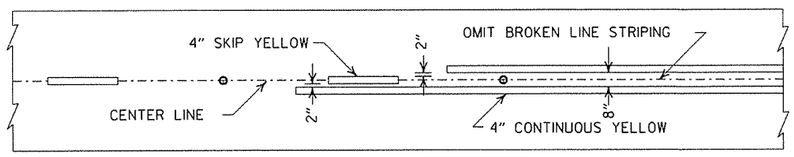
BROKEN LINE STRIPING



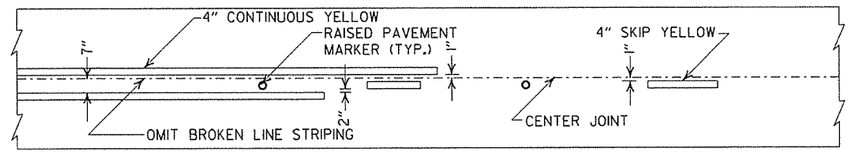
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT



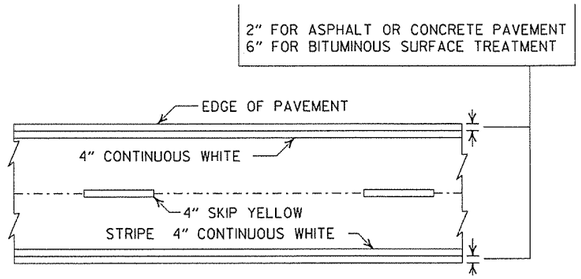
ASPHALT PAVEMENT



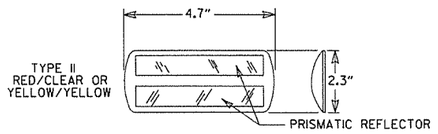
CONCRETE PAVEMENT

NOTES:

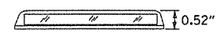
1. ALL LINES SHALL HAVE A WIDTH OF 4 INCHES.
2. THE THICKNESS AND RATE OF PAINT APPLICATION SHALL BE AS SPECIFIED IN SECTION 718 OF THE STANDARD SPECIFICATIONS.
3. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
4. RAISED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



PAVEMENT EDGE LINE MARKING



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



DETAIL OF STANDARD RAISED PAVEMENT MARKERS

GENERAL NOTES:

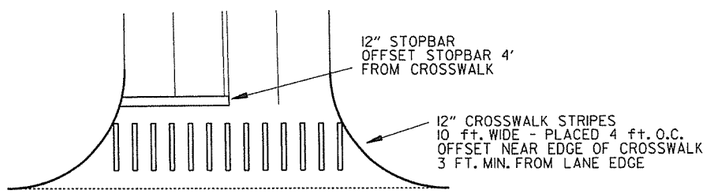
THIS DRAWING SHOULD BE CONSIDERED AS TYPICAL ONLY AND THE FINAL LOCATION OF THE STRIPING AND RAISED PAVEMENT MARKERS SHALL BE DETERMINED BY THE ENGINEER.

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

NOTE:

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

STRIPING AT ADJACENT NO PASSING LANES



CROSSWALK AND STOPBAR DETAILS

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

ARKANSAS STATE HIGHWAY COMMISSION

PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

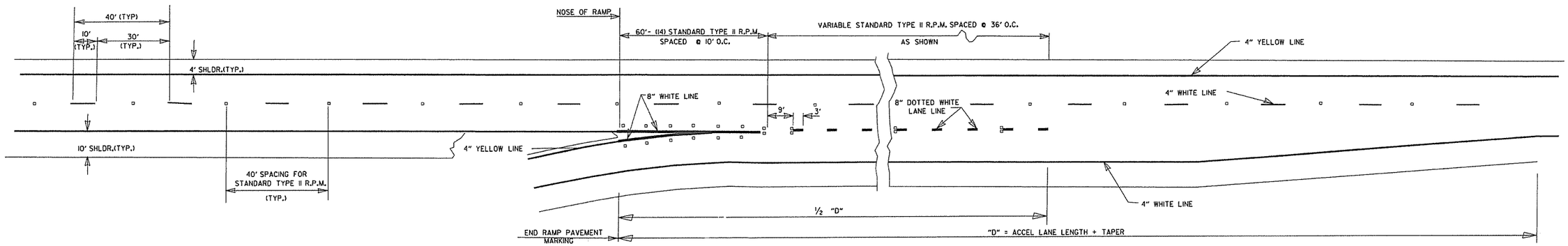
PAVEMENT MARKING QUANTITIES
(BASED ON 700' ACCEL. LANE + 300' TAPER)

ENTRANCE RAMP

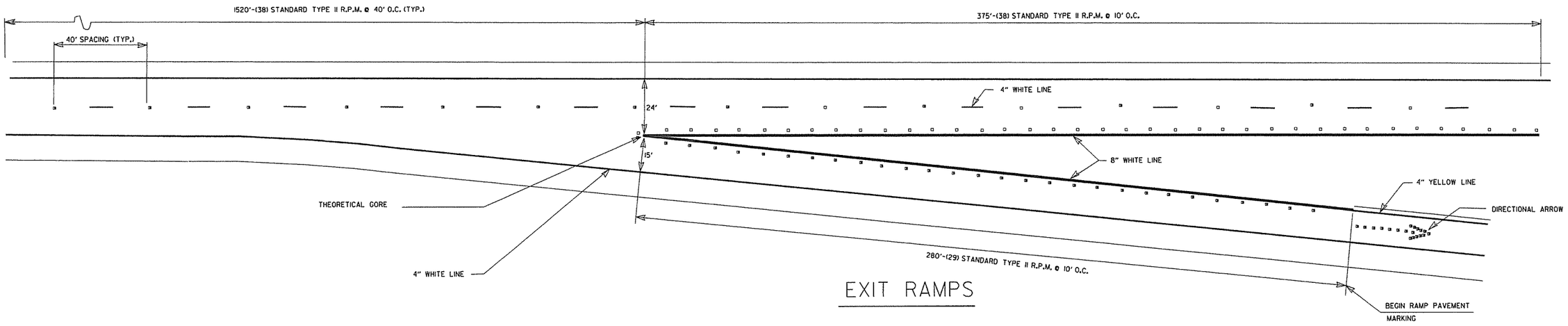
8" WHITE = 228 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH

EXIT RAMP

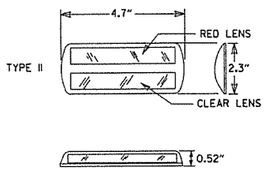
4" WHITE = 280 LIN. FT.
8" WHITE = 655 LIN. FT.
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 38 EACH



ENTRANCE RAMPS

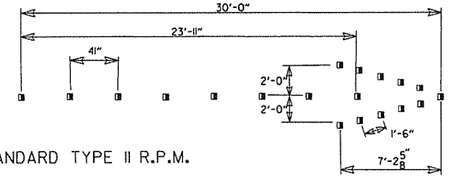


EXIT RAMPS



DETAIL OF
STANDARD
RAISED PAVEMENT MARKERS

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



(19) STANDARD TYPE II R.P.M.

DIRECTIONAL ARROWS

GENERAL NOTES:

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

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

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

DATE	REVISION	FILMED
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
7-26-12	REVISED RPM NOTATION	
12-15-11	REVISED RPMs ACCORDING TO LATEST POLICY	
11-17-10	REMOVED PLOWABLE PAVEMENT MARKERS	
6-3-10	REVISED PER 2009 MUTCD	
11-18-04	REVISED NOTES	
8-22-02	ADDED & REVISED NOTES; REV. ENTRANCE & EXIT RAMPS	
5-18-00	REMOVED HASHMARKS	
7-02-98	CHANGED TYPES TO ROMAN NUMERALS	
4-26-96	ADDED DIMENSIONS & QUANTITIES; REVISED LANE WIDTH ON EXIT RAMP	
2-2-95	PLACED IN USE	2-2-95

ARKANSAS STATE HIGHWAY COMMISSION

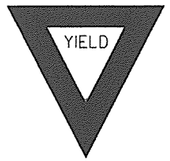
PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS

STANDARD DRAWING PM-2

R1-1

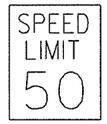
STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2



STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

R2-1



STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R2-5A

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R2-5C

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-1

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

R4-2

STD. 24"X30"
EXPWY. 36"X48"
FWY. 48"X60"

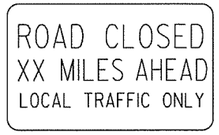
R5-1

STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2

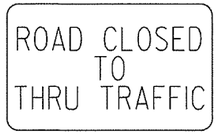
48"X30"

R11-3A



60"X30"

R11-4

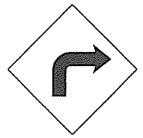


60"X30"

RSP-1

48"X30"

W1-1



STD. 36"X36"
FWY. 48"X48"

W1-2

STD. 36"X36"
FWY. 48"X48"

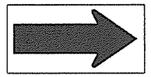
W1-3

STD. 48"X48"

W1-4

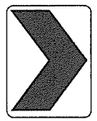
STD. 48"X48"

W1-6



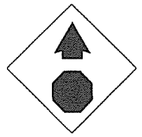
STD. 48"X24"
SPECIAL 60"X30"

W1-8



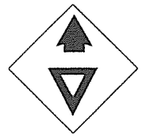
STD. 18"X24"
SPECIAL 24"X30"
EXPWY. 30"X36"
FWY. 36"X48"

W3-1



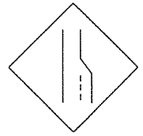
STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2



STD. 36"X36"
FWY. 48"X48"

W5-1

STD. 36"X36"
SPECIAL 48"X48"

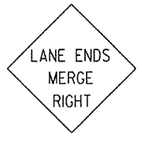
W6-3

EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7

EXPWY. 36"X36"
FWY. 48"X48"

W9-2



STD. 36"X36"
FWY. 48"X48"

W13-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

STD. 36"X36"
FWY. 48"X48"

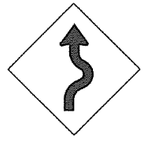
W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

W24-1



STD. 36"X36"

W1-4b

STD. 48"X48"

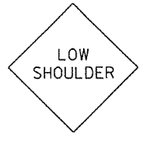
R56-1

STD. 18"X18"

W8-11

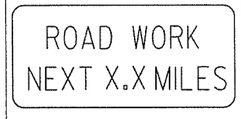
STD. 36"X36"
FWY. 48"X48"

W8-9



STD. 36"X36"
FWY. 48"X48"

G20-1



60"X24"

G20-2

48"X24"

OM-3L OM-3R

12"X36"

M4-9

STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10

48"X18"

R55-1

FINES DOUBLE
IN WORK ZONES *

WHEN WORKERS
ARE PRESENT **

36"X60"

* USE 6" C LETTERS
** USE 4" D LETTERS

ADVANCE DISTANCES
(XXXX)

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

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.

2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.

3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.

• 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.

• 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.

6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.

7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.

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

9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.

10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

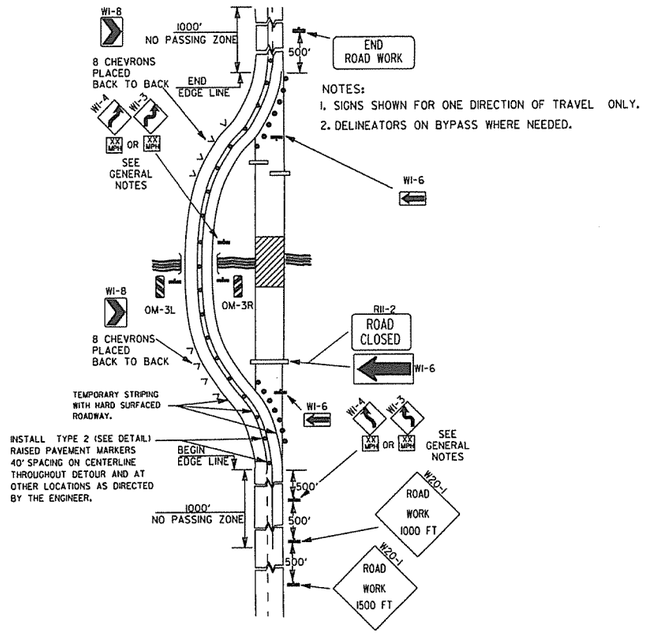
• NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.

DATE	REVISION	FILMED
12-15-11	REVISED W24-1	
11-17-10	DELETED W8-9a & ADDED W8-9	
10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1	
4-17-08	REVISED SIGN DESIGNATIONS	
11-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
9-28-00	REVISED NOTE	
11-18-98	ADDED NOTE	
6-26-97	REVISED NOTE 5	
4-03-97	REVISED NOTE 5	
10-18-96	ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7	
10-12-95	ADDED R55-1	
6-8-95	REVISED TO CORRECT SIGN ILLUSTRATIONS	6-8-95
2-2-95	REVISED PER PART VI, MUTCD SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

ARKANSAS STATE HIGHWAY COMMISSION

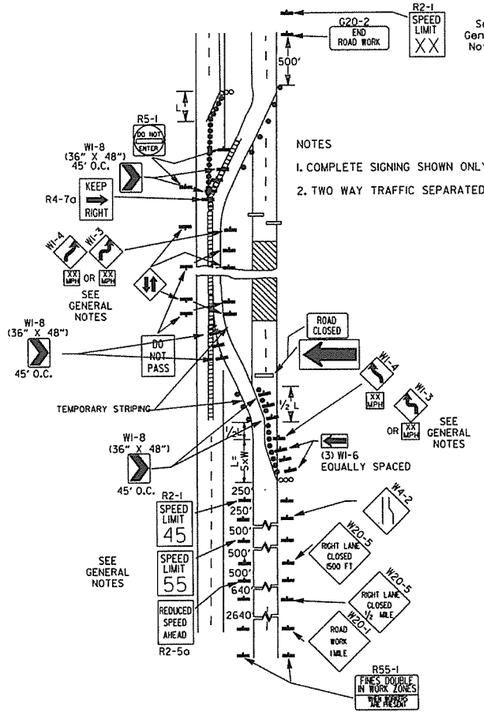
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



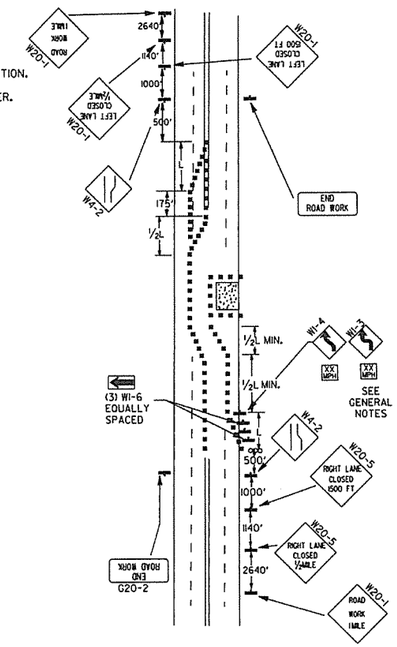
NOTES:
1. SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. DELINEATORS ON BYPASS WHERE NEEDED.

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

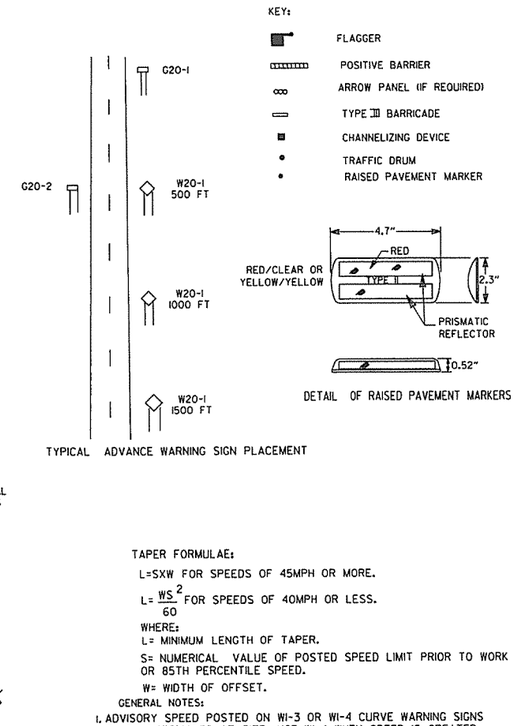


NOTES
1. COMPLETE SIGNING SHOWN ONLY IN CROSSOVER DIRECTION.
2. TWO WAY TRAFFIC SEPARATED WITH POSITIVE BARRIER.

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



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



DETAIL OF RAISED PAVEMENT MARKERS

TYPICAL ADVANCE WARNING SIGN PLACEMENT

TAPER FORMULAE:

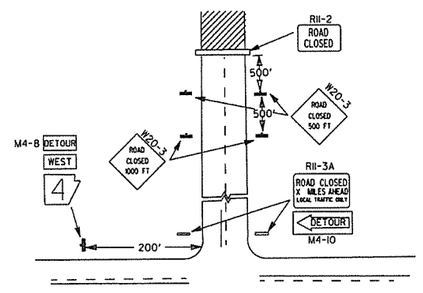
L=SXW FOR SPEEDS OF 45MPH OR MORE.

$L = \frac{WS^2}{60}$ 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.

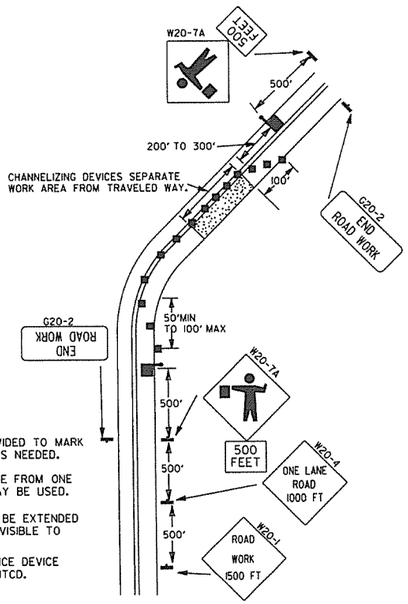
GENERAL NOTES:

1. ADVISORY SPEED POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS TO BE DETERMINED AT SITE. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE R2-5A SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1 45MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(45) SHALL BE OMITTED. ADDITIONAL R2-1 55MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
7. TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.



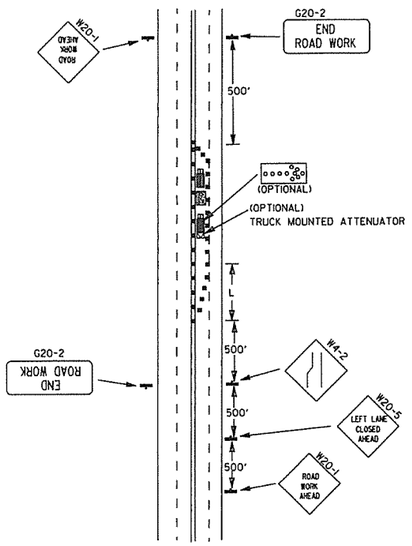
NOTES:
1. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
2. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC.

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



NOTES:
1. FLOOD LIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
2. IF ENTIRE WORK AREA IS VISIBLE FROM ONE STATION, A SINGLE FLAGGER MAY BE USED.
3. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
4. AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) OPTIONAL. REFER TO MUTCD.

(E) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY WHERE ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.



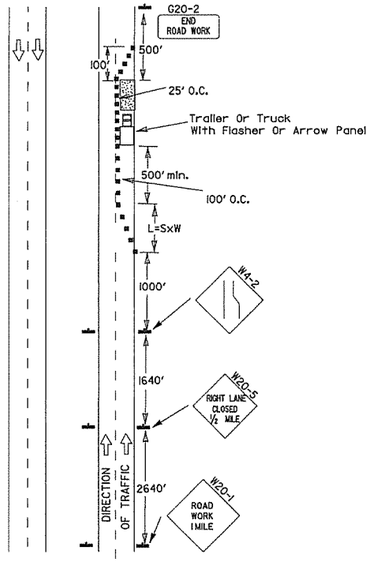
(F) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WITH INSIDE LANE CLOSED.

DATE	REVISION	FILMED
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-1-10	ADDED (AFAD)	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (G) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON W1-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

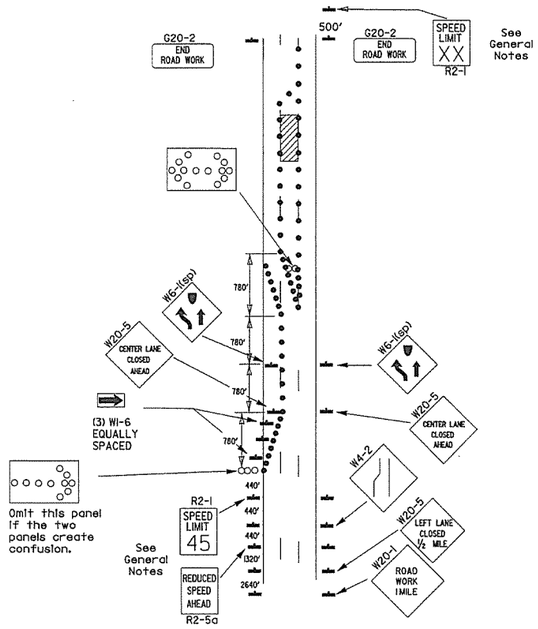
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

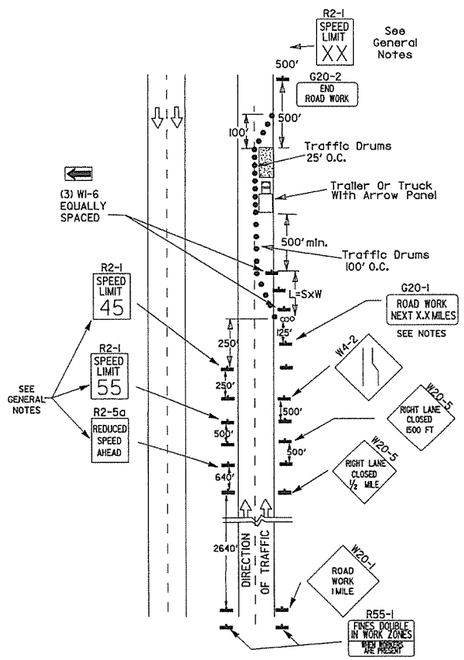
STANDARD DRAWING TC-2



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



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



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

KEY:

ooo Arrow Panel (If Required)

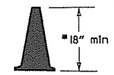
■ Channelizing Device

● Traffic drum

GENERAL NOTES:

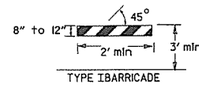
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional R2-1 45mph speed limit signs shall be installed at a maximum of 1mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(45) shall be omitted. Additional R2-1 55mph speed limit signs shall be installed at a maximum of 1mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1 (1 MILE) signs are not required in advance of lane closures that begin inside the project limits.
8. Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
9. All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual For Assessing Safety Hardware (MASH).
10. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.

Channelizing devices

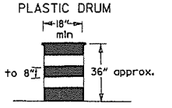


* When cones are used on freeways and multi-lane highways, they shall be 28" min. During hours of darkness, 28" cones shall be used on all roadways, and shall be reflectorized in accordance with the M.U.T.C.D.

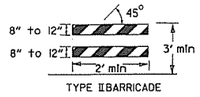
CONES



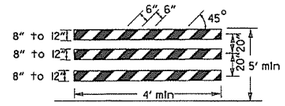
TYPE I BARRICADE



PLASTIC DRUM

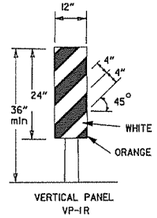


TYPE II BARRICADE



TYPE III BARRICADE

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



VERTICAL PANEL
VP-1R

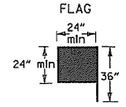
TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

VERTICAL DIFFERENTIAL	LOCATIONS	TRAFFIC CONTROL
1" to 3"	Centerline, lane lines	W8-11
1" to 3"	Edge of shoulder	W8-9
Greater than 3"	Lane lines	Standard lane closure required
Greater than 3"	Edge of traveled lane	*RSP-1 and vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical panels, drums or concrete barrier

* When shown on the plans concrete barrier will be used.

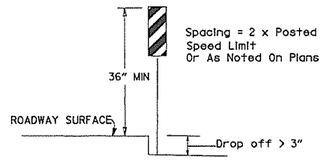
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

FLAG

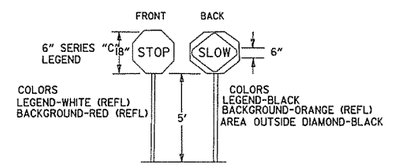


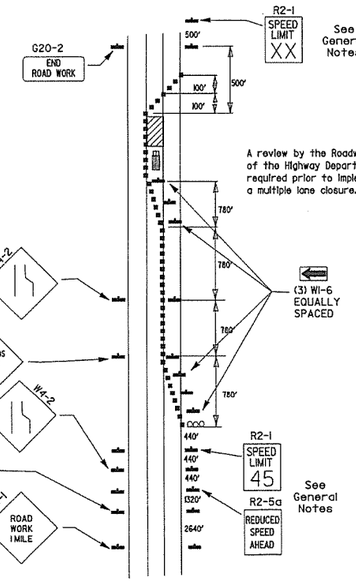
Flag shall be of good grade red material

VERTICAL PANEL PLACEMENT



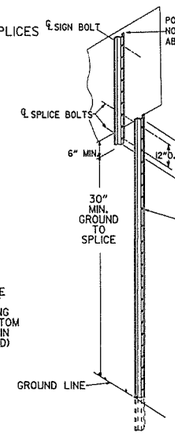
STOP SLOW PADDLE





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

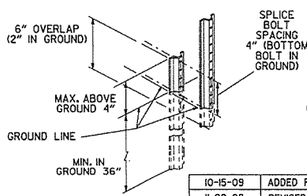
DETAIL OF SPLICES



NOTES: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-2)

NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.

SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED, AND ALL SIGN POSTS SHALL BE PLUMB.



DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

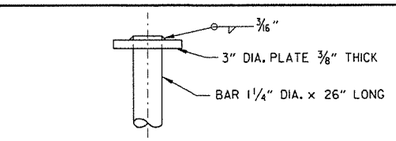
ARKANSAS STATE HIGHWAY COMMISSION

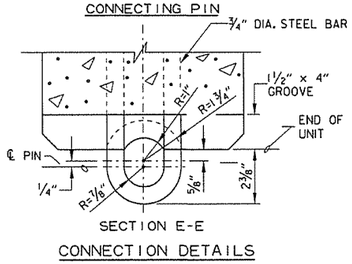
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-3

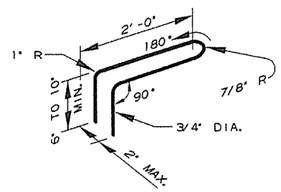
REINFORCING BAR TABLE PER BARRIER UNIT

MARK	LOCATION	BAR SIZE	(NO. BARS)	SKETCH
H-1	HORIZONTAL IN BARRIER TIED INSIDE V-1 BARS	#5	(6)	19'-3"
H-2	CENTERED ABOVE DRAIN SLOTS LONG. & TRANSVERSELY	#5	(6)	6'-6"
H-3	TIED ABOVE H-1 BARS TO SUPPORT H-2, TIED TO V-1	#4	(2)	1'-6"
S-1	OVER LIFT HOLES	#4	(2)	2'-5", 90°, 3 3/8" R, LIFTING HOLE
S-2	HORIZ. AROUND SLOTS BETWEEN V-1'S & DRAIN SLOTS	#4	(2)	1 1/2" R, SLOTS, 7", 1" MIN. CLEAR TO BAR, 1'-6", 5'-1" BAR W/(4) 1 1/2" R BENDS & MIN. 1'-0" OVERLAP
V-1	VERTICAL IN BARRIER(3) EACH END & (2) AT EACH DRAIN SLOTS	#5	(16)	TOTAL LENGTH 4'-9", 2 3/16" R, 12°, 19 1/2", 2'-1 3/8", 4 3/8"

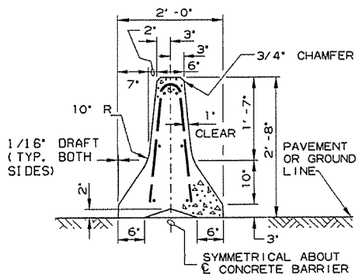




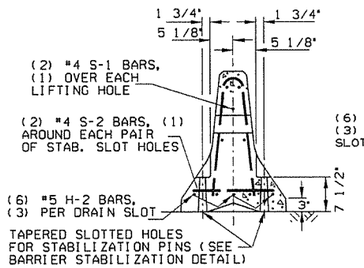
CONNECTION DETAILS



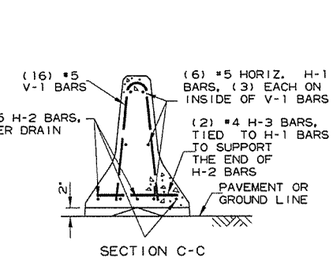
CONNECTION LOOP



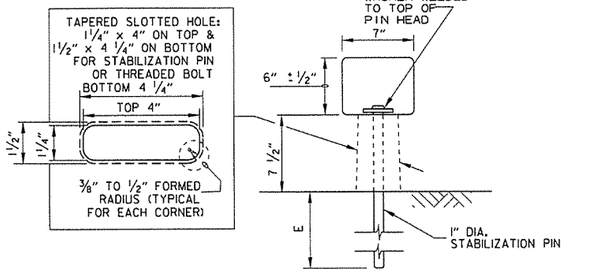
SECTION A-A



SECTION B-B



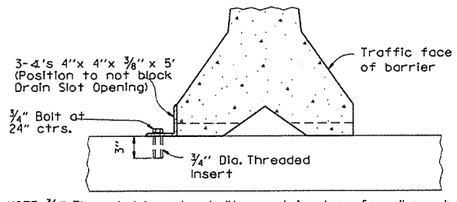
SECTION C-C



BARRIER STABILIZATION DETAIL

ROADWAY SECTION

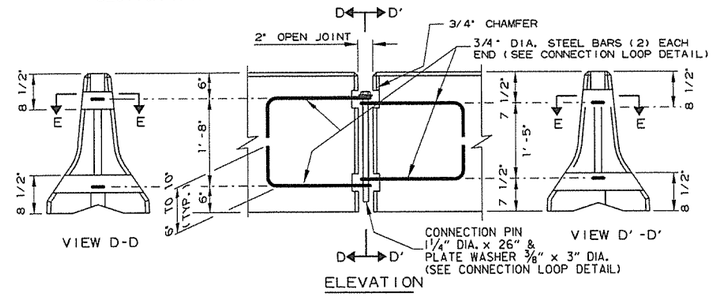
(E) 4" - Concrete Pavement
8" - Asphalt Pavement
12" - Shoulder Areas



NOTE: 3/4" Threaded Inserts shall be cast in place for all new bridge decks and drilled and grouted for existing bridge decks. Inserts shall have a minimum ultimate load capacity of 8000 lbs. in tension. After removal of barrier, bolts, and angles, the Inserts shall be filled with approved non-shrink epoxy.

BARRIER STABILIZATION DETAIL

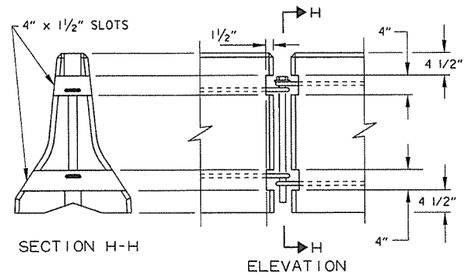
BRIDGE DECKS



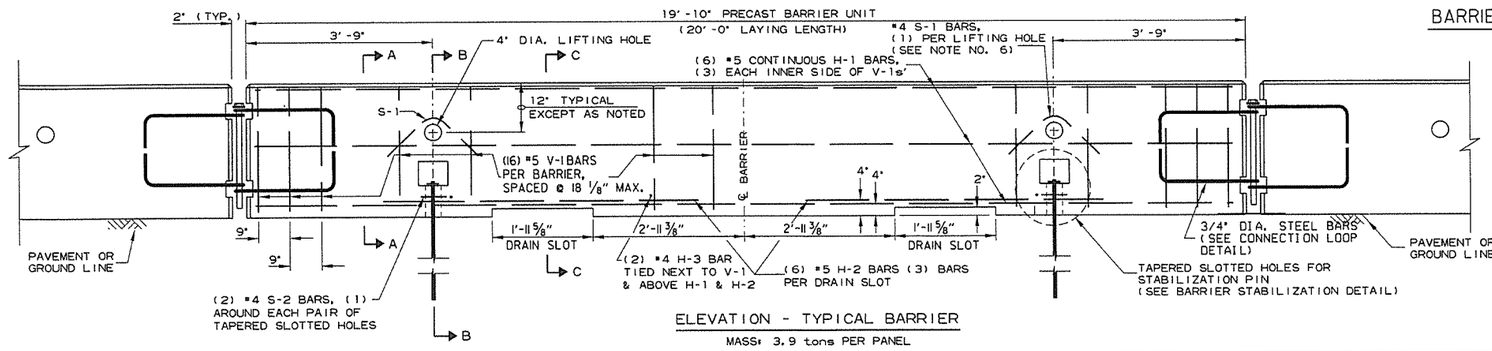
VIEW D-D

VIEW D'-D'

ELEVATION



BARRIER REMOVAL SLOT DETAILS



ELEVATION - TYPICAL BARRIER

MASS: 3.9 tons PER PANEL

General Notes

1. The contractor shall furnish the Precast Concrete Barrier Units and shall be responsible for the manufacture, shipment, storage, placement and removal. At the completion of the project, the precast units will remain the property of the contractor.

2. Materials shall meet the following minimum requirements:
   Concrete: 2500 psi compressive strength at 28 days.
   Reinforcing Steel: AASHTO M 31 or M 53, Grade 60
   Structural Steel: AASHTO-M270 Grade 36 shall be used for the Connection Pin, Connection Loops, and Stabilization Pins. A One Piece Pin with a 3" rounded top may be used in place of the detailed Connection Pin.
   Delineators: Delineators shall be mounted at 10' spacing on top of precast barrier.

   In applications where barrier wall is within 6 feet of a traffic lane, additional delineators shall be placed on the barrier at 10' spacing approximately one (1) foot from the top of the barrier. Delineators shall be on the AHTD Qualified Products List for Construction Concrete Barrier Markers.
   Delineator color shall be in accordance with the Manual on Uniform Traffic Control Devices.
   Payment for delineators shall be considered included in the price bid per Lin. Ft. for "Furnishing and Installing Precast Concrete Barrier". The contractor shall certify to the Engineer that the material and the design used in the precast barrier units meets the requirements as shown on this standard drawing.

3. Other Precast Concrete Barriers that have been crash tested and approved by the Federal Highway Administration to meet the requirements of NCHRP-350 test level 3 or Manual For Assessing Safety Hardware (MASH) will be accepted in lieu of the barrier shown. Drain slots shall be provided as needed or as directed by the Engineer. The Contractor shall furnish a certification of NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) compliance for any other types of precast barrier to be used. The certification shall state that the precast concrete barrier meets the requirements of NCHRP Report 350 or Manual For Assessing Safety Hardware (MASH) and include a copy of the Federal Highway Administration's (FHWA) approval letter with all attachments. Precast concrete barrier units shall be fabricated and installed in accordance with crash testing and documentation provided in the FHWA approval letter. Mixing of shapes will not be allowed in a continuous line of units.

4. Dowel holes in pavement or bridge slabs that are to remain in place shall be filled. Holes in concrete pavement and bridge slabs shall be filled with an approved non-shrink epoxy grout. Holes in asphalt pavement shall be filled with an approved asphalt joint filler. Payment for drilling and filling holes to be included in the price for various barrier items.

5. Attach Units To Roadway Surface with Stabilization Pins and to Deck Slabs using bolts when required.

6. A 4" White PVC Sleeve may be used to form the Lifting Hole and if used the Sleeve is to be left in place.

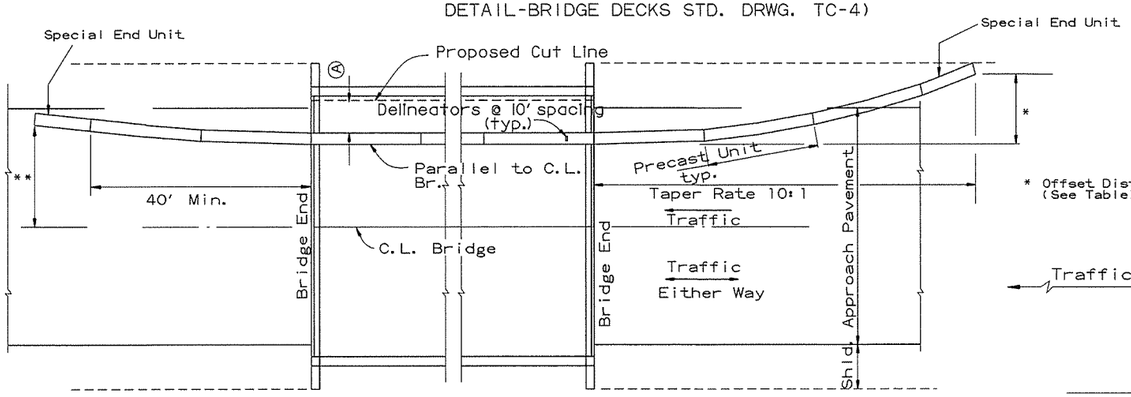
DATE	REVISION	FILMED
2-27-14	REVISED BARRIER STABILIZATION DETAIL	
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02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

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

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

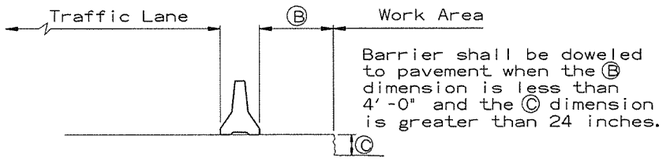


BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

* Offset Distance (See Table)

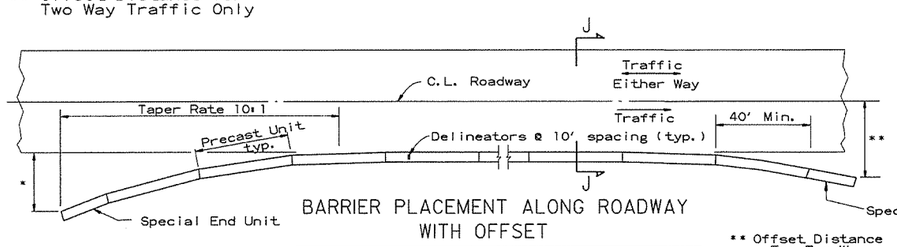
** Offset Distance for Two Way Traffic Only



Barrier shall be doweled to pavement when the Ⓑ dimension is less than 4'-0" and the Ⓒ dimension is greater than 24 inches.

SECTION J-J

No Scale



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

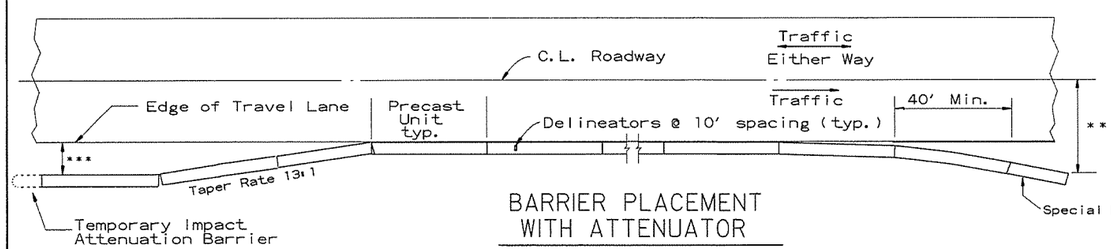
* Offset Distance (See Table)

** Offset Distance For Two Way Traffic Only

Offset Distance Table

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

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

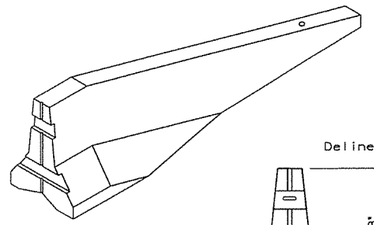


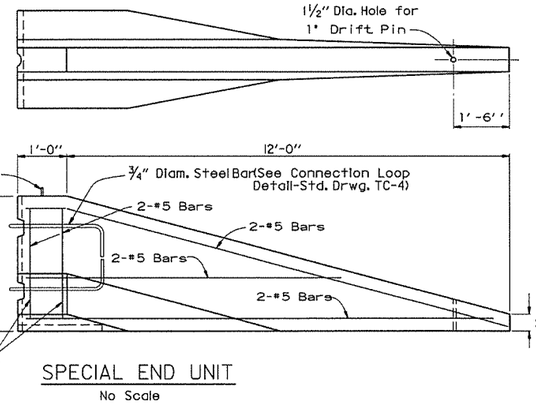
BARRIER PLACEMENT WITH ATTENUATOR

No Scale

** Offset Distance For Two Way Traffic Only

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





SPECIAL END UNIT

No Scale

General Notes

When shown on the Plans, the ends of the Temporary Precast Concrete Barrier shall be protected with an NCHRP-350 or Manual For Assessing Safety Hardware (MASH) approved Crash Cushion. Payment for Crash Cushions shall be made under the item of "Temporary Impact Attenuation Barrier."

DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
5-25-06	REVISED BARRIER PLACEMENT	
8-22-02	ISSUED NEW DRAWING	

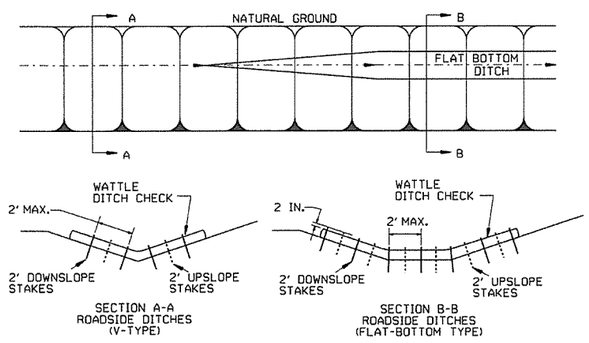
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

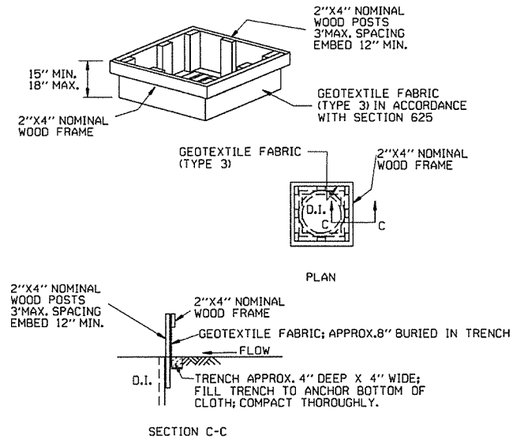
STANDARD DRAWING TC-5

GENERAL NOTES

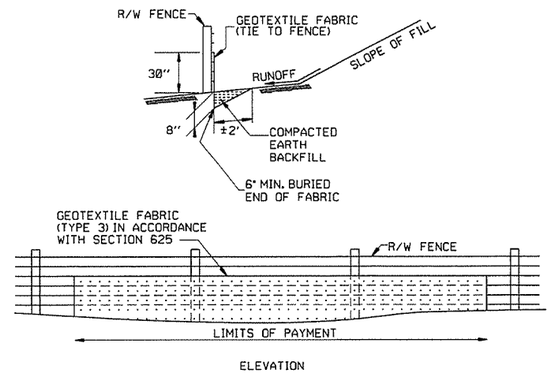
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

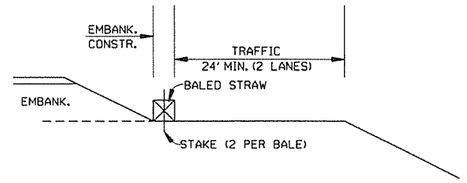
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

GENERAL NOTES

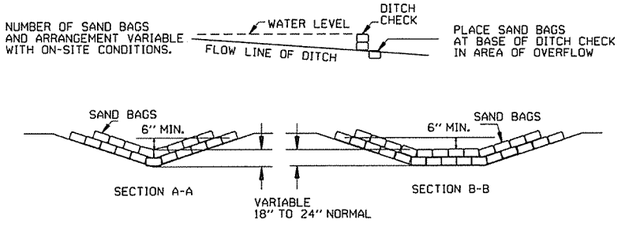
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

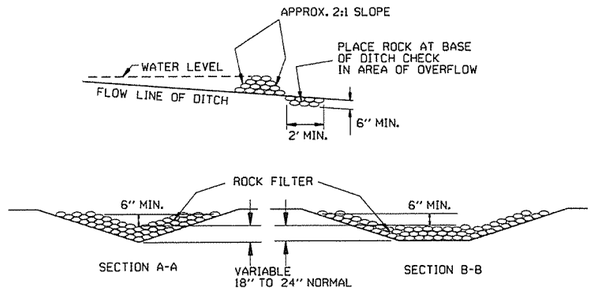
3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



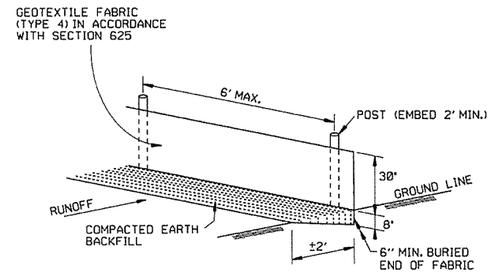
BALED STRAW FILTER BARRIER (E-2)



SAND BAG DITCH CHECK (E-5)



ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

GENERAL NOTES

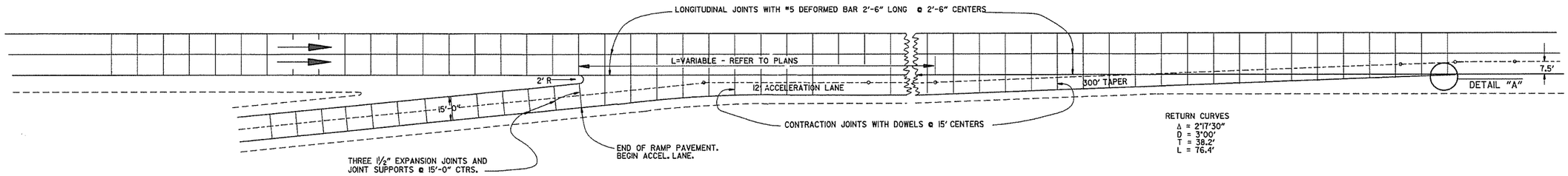
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

DATE	REVISION	FILMED
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
7-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
7-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
7-15-94	REV. E-4 & E-11 MIN. 13" BURIED END OF FABRIC	
6-2-94	REVISED E-1,4,7 & 11; DELETED E-2 & 3	6-2-94
4-1-93	REDRAWN	
10-1-92	REDRAWN	
8-2-76	ISSUED R.D.M.	298-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION

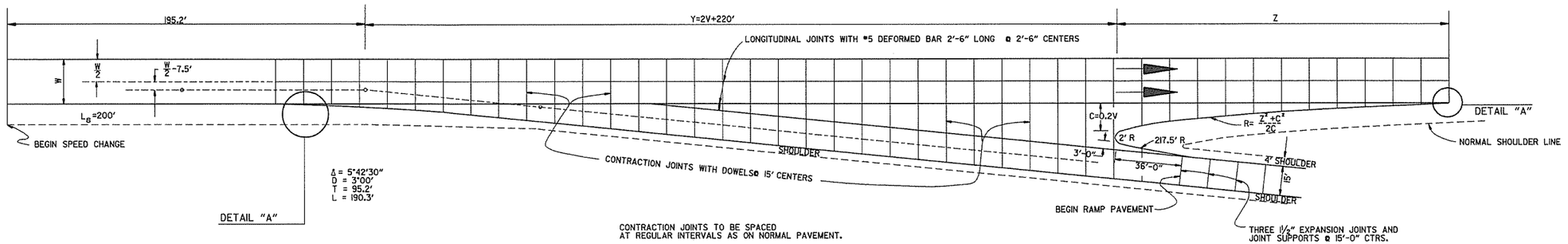
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-1



ENTRANCE RAMP

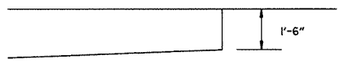
NOTE: JOINT SPACING ON THE MAIN LANES SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO THESE JOINT LAYOUTS. THE MAIN LANE JOINT SPACING MAY BE REDUCED TO A 12' MINIMUM.



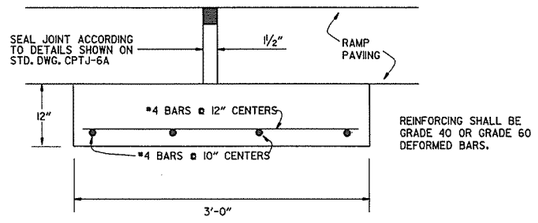
EXIT RAMP

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