"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.		R60080	1	603

(2) I-40-McCAIN BLVD. & WILDWOOD-KIEHL AVE. (F)

I-40-McCAIN BLVD. & WILDWOOD-KIEHL AVE. (F)

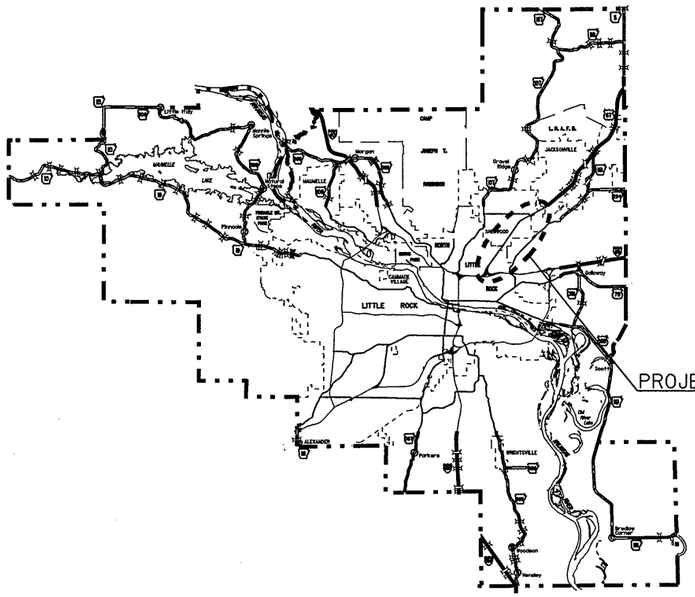
PULASKI COUNTY

ROUTE 67 SECTION 10

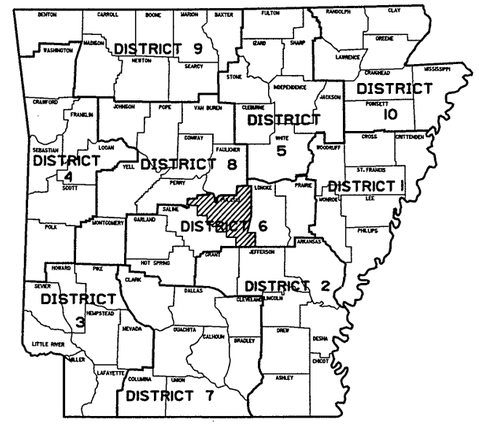
FEDERAL AID PROJ. NH-9253(53)

JOB R60080

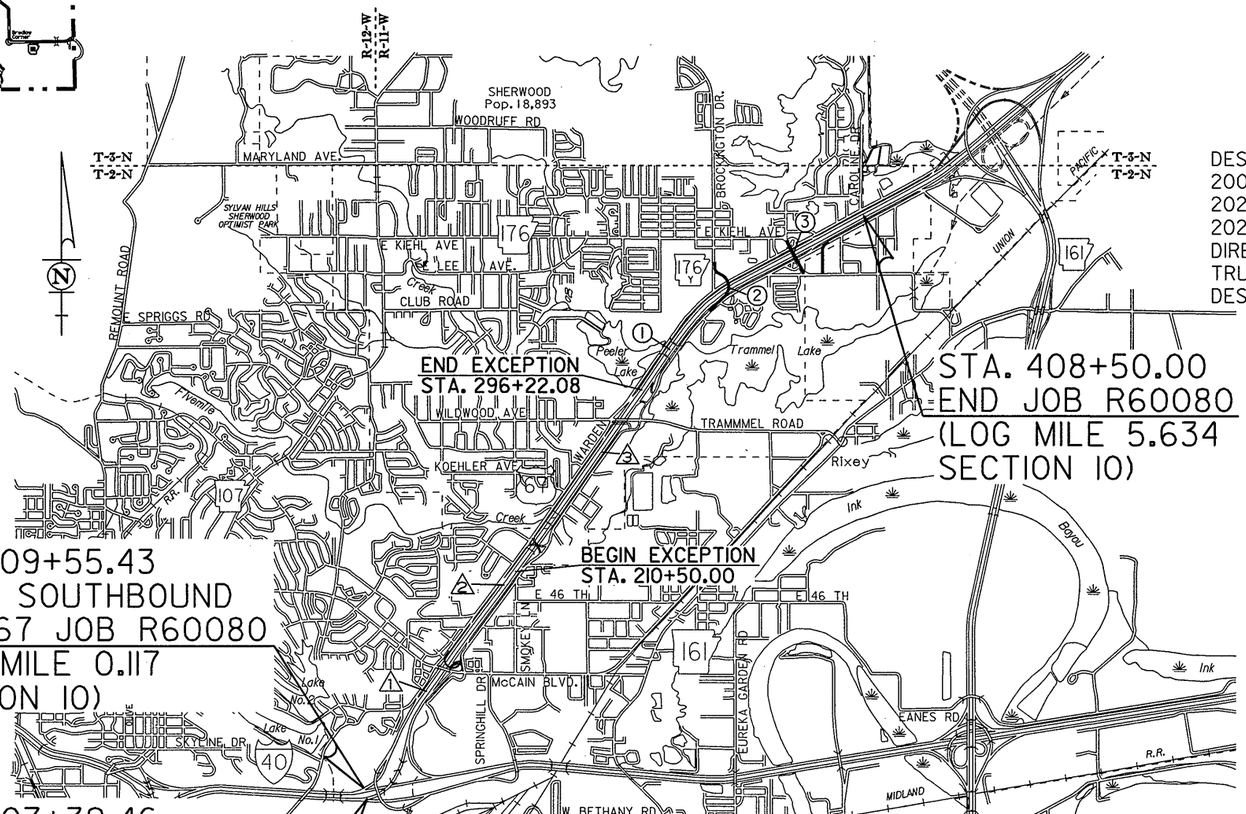
SCALE: 1" = 1/2 MILE



VICINITY MAP



ARK. HWY. DIST. NO. 6



END EXCEPTION
STA. 296+22.08

STA. 408+50.00
END JOB R60080
(LOG MILE 5.634
SECTION 10)

BEGIN EXCEPTION
STA. 210+50.00

STA. 109+55.43
BEGIN SOUTHBOUND
HWY. 67 JOB R60080
(LOG MILE 0.117
SECTION 10)

STA. 107+39.46
BEGIN NORTHBOUND
HWY. 67 JOB R60080
(LOG MILE 0.057
SECTION 10)

DESIGN TRAFFIC DATA

	HWY. 67/167
DESIGN YEAR	2025
2005 ADT	72450
2025 ADT	108700
2025 DHV	11957
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	8%
DESIGN SPEED	65 MPH

EQUATIONS:

C.L. NORTHBOUND HWY. 67/167 STA. 159+56.24
⚠1 C.L. SOUTHBOUND HWY. 67/167 STA. 159+56.24 BK. =
C.L. MEDIAN HWY. 67/167 STA. 22+13.45 AHD.

⚠2 C.L. HWY. 67/167 STA. 51+11.90 BK. =
C.L. HWY. 67/167 STA. 196+78.80 AHD.

⚠3 C.L. HWY. 67/167 STA. 273+08.52 BK. =
C.L. HWY. 67/167 STA. 273+06.12 AHD.

BRIDGE DATA

(1) STA. 314+30.74 BR. END HWY. 67
177'-6 1/4" CONT. COMP. W-BEAM UNIT
2 @ 56'-0" CLEAR ROADWAYS
BR. NO. 07051
STA. 316+08.26 BR. END HWY. 67

(2) STA. 344+22.90 BR. END BROOKSWOOD FLYOVER
492'-3" CONT. COMP. PLATE GIRDER UNIT
25'-0" CLEAR ROADWAY
BR. NO. 07052
STA. 349+15.15 BR. END BROOKSWOOD FLYOVER

(3) STA. 16+68.11 BR. END KIEHL AVE.
318'-2" CONT. COMP. W-BEAM UNIT
58'-0" CLEAR ROADWAY
BR. NO. 07053
STA. 19+86.27 BR. END KIEHL AVE.

MID POINT OF PROJECT
LATITUDE = N 34° 49' 47"
LONGITUDE = W 92° 10' 52"

COMPUTED ALONG SOUTHBOUND C.L. HWY. 67/167

GROSS LENGTH OF	PROJECT	29072.86	FEET OR	5.506	MILES
NET " "	ROADWAY	20323.26	"	3.849	"
NET " "	BRIDGES	177.52	"	0.033	"
NET " "	PROJECT	20500.78	"	3.883	"

P.E. JOB R60042
NON-PART.

APPROVED

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4034
ROBERT L. WALTERS

8-25 2005
CHIEF ENGINEER

08-19-2004 RR60080.TIT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	2	609
				(2)	INDEX OF SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS

INDEX OF SHEETS

SHEET NUMBER	TITLE	BRIDGE NUMBER	DRAWING NUMBER	DATE
1.	TITLE SHEET			
2.	INDEX OF SHEETS			
3.	GOVERNING SPECIFICATIONS AND GENERAL NOTES			
4-25.	TYPICAL SECTIONS OF IMPROVEMENT			
26-60.	SPECIAL DETAILS			
61-77.	EROSION CONTROL DETAILS			
78-100.	STAGE CONSTRUCTION FOR MAINTENANCE OF TRAFFIC			
101-107.	TEMPORARY SIGNALIZATION			
108-175.	MAINTENANCE OF TRAFFIC			
176-195.	QUANTITIES			
196-197.	SCHEDULE OF BRIDGE QUANTITIES			
198.	SUMMARY OF QUANTITIES AND REVISIONS			
199-209.	SURVEY CONTROL DETAILS - MAINTENANCE OF TRAFFIC			
210-235.	SURVEY CONTROL DETAILS			
237.	SOIL LOG			
238-254.	PLAN AND PROFILE			
255-257.	TRAFFIC SIGNAL NOTES & SUMMARY OF QUANTITIES			
258.	SYSTEM MAP			
259-268.	SIGNALIZATION PLANS			
269-270.	SIGNAL DETAILS			
271-272.	SIGNAL DETAILS			
273.	ROADWAY ILLUMINATION PLAN SHEET			
274.	ILLUMINATION DETAILS			
275.	SIGNING DETAILS			
275-277.	SIGNING QUANTITIES			
278-301.	SIGN LAYOUT			
302-307.	PAVEMENT MARKING LAYOUT			
308.	GUIDE SIGN DETAILS			
309.	GUIDE SIGN PLACEMENT			
310.	GUIDE SIGN SUPPORTS			
311-312.	GUIDE SIGN DETAILS			
313.	SIGN PANEL DETAILS			
314.	SPECIAL DETAILS			
315.	SPECIAL DETAILS			
316.	TYPICAL GUARDRAIL WIDENING (SIGN)			
317.	LAYOUT OF BRIDGE OVER WOODRUFF CREEK (SHEET 1 OF 2)			
318.	LAYOUT OF BRIDGE OVER WOODRUFF CREEK (SHEET 2 OF 2)			
319.	STAGE CONSTRUCTION SEQUENCE - WOODRUFF CREEK			
320.	DETAILS OF APPROACH SLAB TYPE SPECIAL			
321.	DETAILS OF BENT 1 WOODRUFF CREEK (SHEET 1 OF 4)	07051	47713	04-10-03
322.	DETAILS OF BENT 1 WOODRUFF CREEK (SHEET 2 OF 4)	07051	47714	04-10-03
323.	DETAILS OF BENT 1 WOODRUFF CREEK (SHEET 3 OF 4)	07051	47715	04-10-03
324.	DETAILS OF BENT 1 WOODRUFF CREEK (SHEET 4 OF 4)	07051	47716	04-10-03
325.	DETAILS OF BENTS 2 - 5 WOODRUFF CREEK (SHEET 1 OF 2)	B & C 2855	47717	04-10-03
326.	DETAILS OF BENTS 2 - 5 WOODRUFF CREEK (SHEET 2 OF 2)	07051	47718	04-10-03
327.	DETAILS OF BENT 6 WOODRUFF CREEK (SHEET 1 OF 4)	07051	47719	04-10-03
328.	DETAILS OF BENT 6 WOODRUFF CREEK (SHEET 2 OF 4)	07051	47720	04-10-03
329.	DETAILS OF BENT 6 WOODRUFF CREEK (SHEET 3 OF 4)	07051	47721	04-10-03
330.	DETAILS OF BENT 6 WOODRUFF CREEK (SHEET 4 OF 4)	07051	47722	04-10-03
331.	DETAILS OF EXPANSION JOINTS FOR W-BEAM UNIT WOODRUFF CREEK (SHEET 1 OF 7)	07051	47723	04-10-03
332.	DETAILS OF EXPANSION JOINTS FOR W-BEAM UNIT WOODRUFF CREEK (SHEET 2 OF 7)	07051	47724	04-10-03
333.	DETAILS OF 175' CONTINUOUS COMPOSITE W-BEAM UNIT WOODRUFF CREEK (SHEET 3 OF 7)	07051	47725	04-10-03
334.	DETAILS OF 175' CONTINUOUS COMPOSITE W-BEAM UNIT WOODRUFF CREEK (SHEET 4 OF 7)	07051	47726	04-10-03
335.	DETAILS OF 175' CONTINUOUS COMPOSITE W-BEAM UNIT WOODRUFF CREEK (SHEET 5 OF 7)	07051	47727	04-10-03
336.	DETAILS OF 175' CONTINUOUS COMPOSITE W-BEAM UNIT WOODRUFF CREEK (SHEET 6 OF 7)	07051	47728	04-10-03
337.	DETAILS OF 175' CONTINUOUS COMPOSITE W-BEAM UNIT WOODRUFF CREEK (SHEET 7 OF 7)	07051	47729	04-10-03
338.	DETAILS OF JOINTS WOODRUFF CREEK	07051	47730	04-10-03
340.	LAYOUT OF BROOKSWOOD FLYOVER OVER U.S. HWY. 67/167 (SHEET 1 OF 2)	07051	47731	04-10-03
341.	LAYOUT OF BROOKSWOOD FLYOVER OVER U.S. HWY. 67/167 (SHEET 2 OF 2)	07051	47732	04-10-03
342.	DETAILS OF BENT 1 BROOKSWOOD FLYOVER (SHEET 1 OF 2)	07051	47733	04-10-03
343.	DETAILS OF BENT 1 BROOKSWOOD FLYOVER (SHEET 2 OF 2)	07051	47734	04-10-03
344.	DETAILS OF BENT 2 BROOKSWOOD FLYOVER	07051	47735	04-10-03
345.	DETAILS OF BENT 3 BROOKSWOOD FLYOVER	07052	47736	04-10-03
346.	DETAILS OF BENT 4 BROOKSWOOD FLYOVER (SHEET 1 OF 2)	07052	47737	04-10-03
347.	DETAILS OF BENT 4 BROOKSWOOD FLYOVER (SHEET 2 OF 2)	07052	47738	04-10-03
348.	DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT BROOKSWOOD FLYOVER (SHEET 1 OF 9)	07052	47739	04-10-03
349.	DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT BROOKSWOOD FLYOVER (SHEET 2 OF 9)	07052	47740	04-10-03
350.	DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT BROOKSWOOD FLYOVER (SHEET 3 OF 9)	07052	47741	04-10-03
351.	DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT BROOKSWOOD FLYOVER (SHEET 4 OF 9)	07052	47742	04-10-03
352.	DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT BROOKSWOOD FLYOVER (SHEET 5 OF 9)	07052	47743	04-10-03
353.	DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT BROOKSWOOD FLYOVER (SHEET 6 OF 9)	07052	47744	04-10-03
354.	DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT BROOKSWOOD FLYOVER (SHEET 7 OF 9)	07052	47745	04-10-03
355.	DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT BROOKSWOOD FLYOVER (SHEET 8 OF 9)	07052	47746	04-10-03
356.	DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT BROOKSWOOD FLYOVER (SHEET 9 OF 9)	07052	47747	04-10-03
357.	DETAILS OF ELASTOMERIC BEARINGS WITH MASONRY PLATES	07052	47748	04-10-03
358.	DETAILS OF ELASTOMERIC BEARINGS WITH SHEAR BLOCKS	07052	47749	04-10-03
359.	DETAILS OF ELASTOMERIC BEARINGS WITH MASONRY PLATES & PINTLES	07052	47750	04-10-03
360.	DETAILS OF ELASTOMERIC BEARINGS WITH SHEAR BLOCKS & PINTLES	07052	47751	04-10-03
361.	LAYOUT OF KIBEL AVENUE BRIDGE OVER U.S. HWY. 67/167 (SHEET 1 OF 2)	07052	47752	04-10-03
362.	LAYOUT OF KIBEL AVENUE BRIDGE OVER U.S. HWY. 67/167 (SHEET 2 OF 2)	07052	47753	04-10-03
363.	STAGE CONSTRUCTION SEQUENCE - KIBEL AVENUE BRIDGE OVER U.S. HWY. 67/167	07052	47754	04-10-03
364.	DETAILS OF BENT 1 KIBEL AVENUE (SHEET 1 OF 5)	07053	47755	04-10-03
365.	DETAILS OF BENT 1 KIBEL AVENUE (SHEET 2 OF 5)	07053	47756	04-10-03
366.	DETAILS OF BENT 1 KIBEL AVENUE (SHEET 3 OF 5)	07053	47757	04-10-03
367.	DETAILS OF BENT 1 KIBEL AVENUE (SHEET 4 OF 5)	07053	47758	04-10-03
368.	DETAILS OF BENT 1 KIBEL AVENUE (SHEET 5 OF 5)	07053	47759	04-10-03
369.	DETAILS OF BENT 2 KIBEL AVENUE	07053	47760	04-10-03
370.	DETAILS OF BENT 3 KIBEL AVENUE	07053	47761	04-10-03
371.	DETAILS OF BENT 4 KIBEL AVENUE (SHEET 1 OF 2)	07053	47762	04-10-03
372.	DETAILS OF BENT 4 KIBEL AVENUE (SHEET 2 OF 2)	07053	47763	04-10-03
373.	DETAILS OF BENT 5 KIBEL AVENUE	07053	47764	04-10-03
374.	DETAILS OF BENT 6 KIBEL AVENUE (SHEET 1 OF 5)	07053	47765	04-10-03
375.	DETAILS OF BENT 6 KIBEL AVENUE (SHEET 2 OF 5)	07053	47766	04-10-03
376.	DETAILS OF BENT 6 KIBEL AVENUE (SHEET 3 OF 5)	07053	47767	04-10-03
377.	DETAILS OF BENT 6 KIBEL AVENUE (SHEET 4 OF 5)	07053	47768	04-10-03
378.	DETAILS OF BENT 6 KIBEL AVENUE (SHEET 5 OF 5)	07053	47769	04-10-03
379.	DETAILS OF 316' CONTINUOUS COMPOSITE W-BEAM UNIT KIBEL AVENUE (SHEET 1 OF 7)	07053	47770	04-10-03
380.	DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES (SHEET 1 OF 4)	07053	47771	04-10-03
381.	DETAILS OF 316' CONTINUOUS COMPOSITE W-BEAM UNIT KIBEL AVENUE (SHEET 2 OF 7)	07053	47772	04-10-03
382.	DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES (SHEET 2 OF 4)	07053	47773	04-10-03
383.	DETAILS OF 316' CONTINUOUS COMPOSITE W-BEAM UNIT KIBEL AVENUE (SHEET 3 OF 7)	07053	47774	04-10-03
384.	DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES (SHEET 3 OF 4)	07053	47775	04-10-03
385.	DETAILS OF 316' CONTINUOUS COMPOSITE W-BEAM UNIT KIBEL AVENUE (SHEET 4 OF 7)	07053	47776	04-10-03
386.	DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES (SHEET 4 OF 4)	07053	47777	04-10-03
387.	DETAILS OF 316' CONTINUOUS COMPOSITE W-BEAM UNIT KIBEL AVENUE (SHEET 5 OF 7)	07053	47778	04-10-03
388.	DETAILS OF JOINTS KIBEL AVENUE	07053	47781	04-10-03
389.	DETAILS OF ELASTOMERIC BEARINGS KIBEL AVE.	07053	47782	04-10-03
390.	DETAILS OF BARRIER WALL AT McCAIN BLVD. (SHEET 1 OF 2)	07053	47783	04-10-03
391.	DETAILS OF BARRIER WALL AT McCAIN BLVD. (SHEET 2 OF 2)	07052 & 09264	47449	04-10-03
392.	DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES (SHEET 1 OF 4)		47785	04-10-03
393.	DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES (SHEET 2 OF 4)		47786	04-10-03
394.	DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES (SHEET 3 OF 4)		47787	04-10-03
395.	DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES (SHEET 4 OF 4)		47788	04-10-03
396.	DETAILS FOR STANDARD 41' TO 60' OVERHEAD SIGN STRUCTURES (SHEET 1 OF 4)		47789	04-10-03
397.	DETAILS FOR STANDARD 41' TO 60' OVERHEAD SIGN STRUCTURES (SHEET 2 OF 4)		47790	04-10-03
398.	DETAILS FOR STANDARD 41' TO 60' OVERHEAD SIGN STRUCTURES (SHEET 3 OF 4)		47791	04-10-03
399.	DETAILS FOR STANDARD 41' TO 60' OVERHEAD SIGN STRUCTURES (SHEET 4 OF 4)		47792	04-10-03
400.	DETAILS FOR STANDARD 81' TO 100' OVERHEAD SIGN STRUCTURE WITH MEDIAN FOUNDATION (SHEET 1 OF 5)		47793	04-10-03
401.	DETAILS FOR STANDARD 81' TO 100' OVERHEAD SIGN STRUCTURE WITH MEDIAN FOUNDATION (SHEET 2 OF 5)		47795	04-10-03
402.	DETAILS FOR STANDARD 81' TO 100' OVERHEAD SIGN STRUCTURE WITH MEDIAN FOUNDATION (SHEET 3 OF 5)		47796	04-10-03
403.	DETAILS FOR STANDARD 81' TO 100' OVERHEAD SIGN STRUCTURE WITH MEDIAN FOUNDATION (SHEET 4 OF 5)		47797	04-10-03
404.	DETAILS OF BRIDGE MOUNTED SIGN STRUCTURE (SHEET 1 OF 2)		47798	04-10-03
405.	DETAILS OF BRIDGE MOUNTED SIGN STRUCTURE (SHEET 2 OF 2)		47799	04-10-03
406.	DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURE WITH MEDIAN FOUNDATION (SHEET 1 OF 4)		47800	04-10-03
407.	DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURE WITH MEDIAN FOUNDATION (SHEET 2 OF 4)		47802	04-10-03
408.	DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURE WITH MEDIAN FOUNDATION (SHEET 3 OF 4)		47803	04-10-03
409.	DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURE WITH MEDIAN FOUNDATION (SHEET 4 OF 4)		1881E	04-10-03
410.	DETAILS OF STANDARD TYPE B BRIDGE NAME PLATES		1881F	04-10-03
411.	DETAILS OF STANDARD TYPE C APPROACH GUTTERS		2011C	04-10-03
412.	DETAILS OF STANDARD TYPE C APPROACH GUTTERS		2387	02-17-05
413.	DETAILS OF STANDARD PRECAST PARAPET RAILS FOR 19'-0" & 25'-0" & 31'-0" PRECAST CONCRETE SPANS - 24'-6" ROADWAY		1509J	04-10-03
414.	DETAILS OF STANDARD PRECAST PARAPET RAILS FOR 19'-0" & 25'-0" & 31'-0" PRECAST SPANS		1523G	04-10-03
415.	DETAILS OF STANDARD 31'-0" PRECAST CONCRETE SPANS 28'-0" & 24'-6" CLEAR ROADWAYS		1524D	04-10-03
416.	DETAILS OF STANDARD 31'-0" PRECAST CONCRETE SPANS 28'-0" & 24'-6" CLEAR ROADWAYS		1569J	04-10-03
417.	DETAILS OF PRESTRESSED I BEAM TYPE PERMANENT STEEL BRIDGE DECK FORMS FOR STEEL & CONCRETE GIRDER SPANS		1591J	04-10-03
418.	DETAILS OF CONCRETE RIPRAP AND MISC. DETAILS OF STEEL PILING		1599BA	04-10-03
419.	CONCRETE EDITION OF PAVING		CDP-1	05-02-94
420.	CONCRETE EDITION OF PAVING		CDP-2	11-15-01
421.	TRANSVERSE AND LONGITUDINAL JOINTS FOR CONCRETE PAVEMENT (NON-REINFORCED)		CPTJ-6A	10-09-09
422.	DETAILS OF DRIVEWAYS & ISLANDS		DR-1	08-22-02
423.	FLARED END SECTION		FES-1	10-18-96
424.	FLARED END SECTION		FES-2	10-18-96
425.	DETAILS OF DROP INLETS & JUNCTION BOXES		FPC-9	11-16-01
426.	DETAILS OF DROP INLETS		FPC-9D	08-22-02
427.	DETAILS OF DROP INLETS (TYPE C)		FPC-9E	08-22-02
428.	DETAILS OF DROP INLET (TYPE MD)		FPC-9M	08-22-02
429.	DETAILS OF DROP INLETS AND SPILLWAY OUTLET		FPC-9N	07-02-98
430.	DETAILS OF SLOPE INLET & JUNCTION BOX (TYPE ST)		FPC-9S	11-16-01
431.	GUARD RAIL DETAILS		GR-3	04-10-03
433.	GUARD RAIL DETAILS		GR-8A	11-18-04
434.	GUARD RAIL DETAILS		GR-9	11-16-01
435.	GUARD RAIL DETAILS		GR-10	11-18-04
436.	GUARD RAIL DETAILS		GR-10A	08-22-02
437.	CONCRETE BARRIER WALL (PIER PROTECTION TYPE A)		GR-11	08-22-02
438.	GUARD RAIL DETAILS		GRT-1	06-26-97
439.	MEDIAN BARRIER AND BARRIER		GRT-1A	11-18-04
440.	MAILBOX DETAILS		MB-1	11-18-04
441.	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING		PCC-1	05-18-00
442.	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING		PCM-1	05-18-00
443.	PAVEMENT MARKING DETAILS		PM-2	11-18-04
444.	PERMANENT PAVEMENT MARKING ON ACCESS CONTROLLED ROADWAYS		PV-1	04-10-03
445.	DETAILS OF PAVEMENT ELEVATION FOR ONE-WAY TRAFFIC		SE-1	10-18-96
446.	DETAILS OF PAVEMENT ELEVATION FOR ONE-WAY TRAFFIC		SE-2	10-18-96
447.	TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC		SI-1	10-09-03
448.	TABLES OF SPECIAL ITEMS		TC-1	11-18-04
449.	TEMPORARY EROSION CONTROL DEVICES		TC-2	11-18-04
450.	TEMPORARY EROSION CONTROL DEVICES		TC-3	11-18-04
451.	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION		TC-4	08-22-02
452.	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION		TEC-1	11-18-98
453.	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER		TEC-3	11-03-94
454.	TEMPORARY EROSION CONTROL DEVICES		TP-1A	08-22-02
455.	TEMPORARY EROSION CONTROL DEVICES		WF-5	08-22-02
456.	CHAIN LINK FENCE AND GUARD TURNOUT FOR ENTRANCE AND EXIT RAMPS (NON-REINFORCED)		WF-7	08-22-02
457.	CHAIN LINK FENCE		WR-1	10-09-09
458.	WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS			
459-609.	CROSS SECTIONS			

NOTE: CROSS SECTIONS NOT NORMALLY INCLUDED IN PLANS SOLD TO PROSPECTIVE BIDDERS, BUT MAY BE HAD UPON REQUEST.

08-10-2005 RR60080.BOI

INDEX OF SHEETS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	3	609

(2) GOVERNING SPECIFICATIONS & GENERAL NOTES

GENERAL NOTES

1. LEVEL DATUM U. S. C. & G. S.
2. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
3. ALL PIPE LINES, POWER, TELEPHONE AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
4. 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.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U. S. MAIL BOXES WITHIN THE PROJECT LIMITS IN SUCH A MANNER THAT THE PUBLIC MAY RECEIVE CONTINUED MAIL SERVICE. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS BID ITEMS.
6. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
7. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO INSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
8. THIS PROJECT IS COVERED UNDER A NATIONWIDE 14 SECTION 404 PERMIT. REFER TO SECTION 110 OF THE STANDARD SPECIFICATIONS, EDITION OF 2003, FOR PERMIT REQUIREMENTS.
9. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - OPTIONAL TRAINING PROGRAM - JOB NO. R60080
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
103-1	DETERMINATION OF DBE PARTICIPATION
105-1	CONSTRUCTION CONTROL MARKINGS
108-1	LIQUIDATED DAMAGES
404-1	PRODUCTION VERIFICATION OF ASPHALT CONCRETE HOT MIX
600-1	WATER FOR VEGETATION
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
606-1	PIPE CULVERTS FOR SIDE DRAINS
711-1	CONCRETE PULL BOX
714-1	DESIGN AND MATERIAL REQUIREMENTS FOR TRAFFIC SIGNAL MAST ARMS AND POLES
715-1	DESIGN AND MATERIAL REQUIREMENTS FOR TRAFFIC SIGNAL PEDESTAL POLES
718-1	REFLECTORIZED PAINT PAVEMENT MARKINGS
719-1	GLASS BEADS FOR THERMOPLASTIC PAVEMENT MARKINGS
JOB R60080	CABINET DRAWER ASSEMBLY
JOB R60080	CONCRETE BARRIER WALL
JOB R60080	CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB R60080	CONSTRUCTION PAVEMENT MARKINGS
JOB R60080	COORDINATION OF WORK
JOB R60080	DELAY IN RIGHT-OF-WAY OCCUPANCY
JOB R60080	ELASTOMERIC BEARINGS
JOB R60080	ELECTRICAL CONDUCTORS FOR LUMINAIRES
JOB R60080	ELECTRICAL CONDUCTORS-IN-CONDUIT
JOB R60080	ELECTRICAL CONDUCTORS-IN-CONDUIT, ALUMINUM
JOB R60080	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB R60080	HIGH PERFORMANCE CONTRAST MARKING TAPE
JOB R60080	LED PEDESTRIAN SIGNAL HEAD
JOB R60080	LED TRAFFIC SIGNAL HEAD
JOB R60080	LUMINAIRE ASSEMBLY (CUTOFF TYPE)
JOB R60080	LUMINAIRE POLE RELOCATION (EMBEDDED FOUNDATION)
JOB R60080	MAINTENANCE OF TRAFFIC
JOB R60080	NESTING SITES OF MIGRATORY BIRDS
JOB R60080	OVERHEAD, BRIDGE MOUNTED, AND CANTILEVER SIGN STRUCTURES
JOB R60080	PARTNERING REQUIREMENTS
JOB R60080	PROSECUTION AND PROGRESS
JOB R60080	REMOVAL AND DISPOSAL OF BRIDGE MOUNTED SIGN STRUCTURE
JOB R60080	REMOVAL AND DISPOSAL OF GUARDRAIL
JOB R60080	REMOVAL AND DISPOSAL OF OVERHEAD SIGN STRUCTURE
JOB R60080	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT
JOB R60080	REMOVING EXISTING PORTLAND CEMENT CONCRETE PAVEMENT
JOB R60080	RETAINING WALLS
JOB R60080	SCARIFYING CONCRETE PAVEMENT
JOB R60080	SEQUENCE OF CONSTRUCTION
JOB R60080	SHORING BRIDGE NO. 07053
JOB R60080	SILICONE JOINT SEALANT
JOB R60080	SITE USE (A + C METHOD)
JOB R60080	SOIL STABILIZATION
JOB R60080	SPECIAL SAFETY REQUIREMENTS BRIDGE NOS. 07052 & 07053
JOB R60080	SPECIAL SAFETY REQUIREMENTS FOR OVERHEAD SIGNS
JOB R60080	SPECIFICATIONS FOR INVERTED PROFILE PAVEMENT MARKING
JOB R60080	STORM WATER POLLUTION PREVENTION PLAN
JOB R60080	TEMPORARY IMPACT ATTENUATION BARRIER
JOB R60080	TEMPORARY RELOCATION OF EXISTING SIGNS
JOB R60080	TEXTURE WALL TREATMENT
JOB R60080	TEXTURED COATING FINISH
JOB R60080	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
JOB R60080	TRANSITIONAL APPROACH RAILING
JOB R60080	UTILITY ADJUSTMENTS
JOB R60080	VALUE ENGINEERING
JOB R60080	VIDEO DETECTOR RELOCATION
JOB R60080	VIDEO DETECTOR ROTATION

08-15-2005 RR60080.801

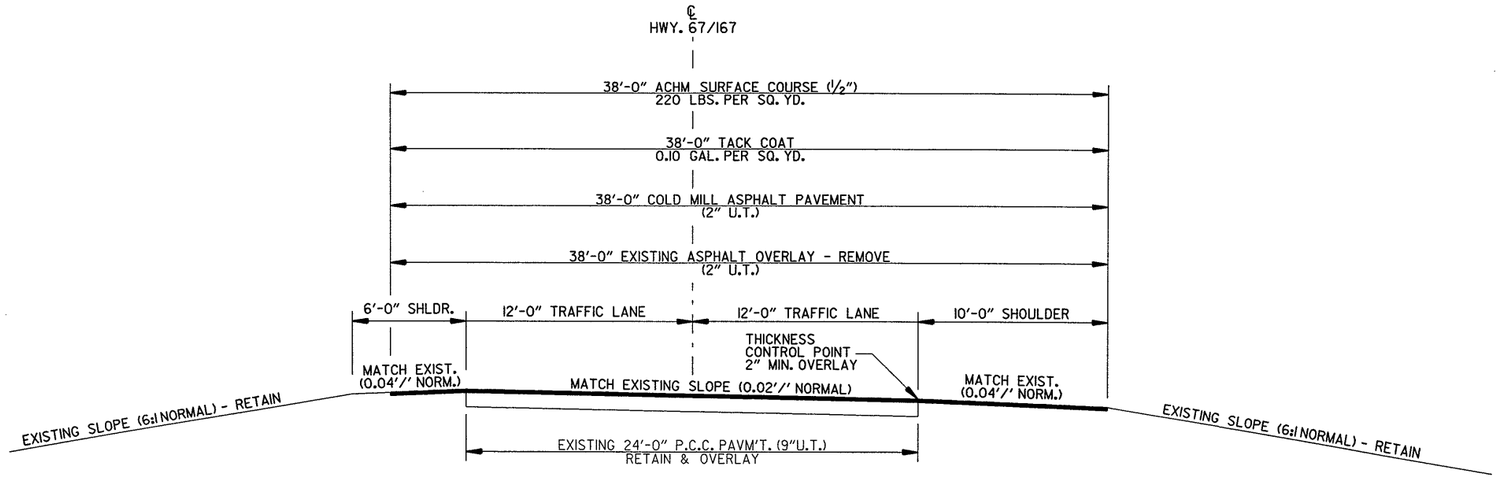
GOVERNING SPECIFICATION & GENERAL NOTES

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.		R60080	4	609

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 479
CHARLES D. CLEMENTS
8-22-21



HWY. 67/167 LANES
(SHOWN IN DIRECTION OF TRAFFIC)

SOUTHBOUND LANES
STA. 109+55.43 TO STA. 127+72.68

NORTHBOUND LANES
STA. 107+39.46 TO STA. 114+67.22
STA. 118+42.30 TO STA. 122+95.62
STA. 127+54.37 TO STA. 133+85.81

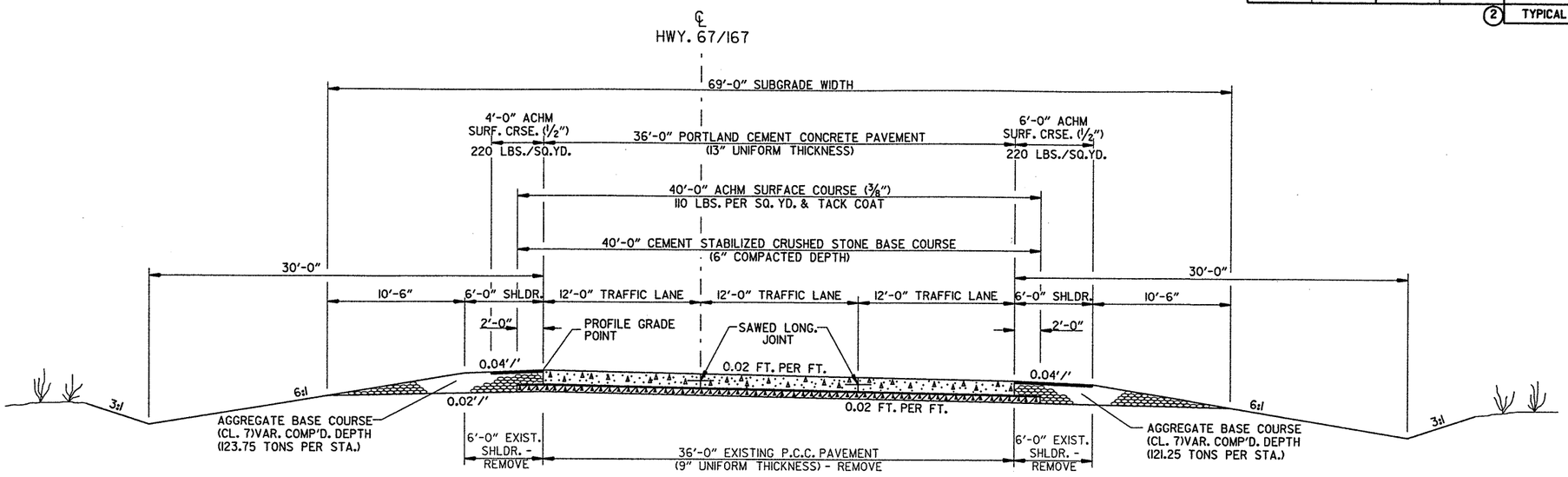
05-18-2005 RR60080.TOI

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.		R60080	5	609

(2) TYPICAL SECTIONS OF IMPROVEMENT

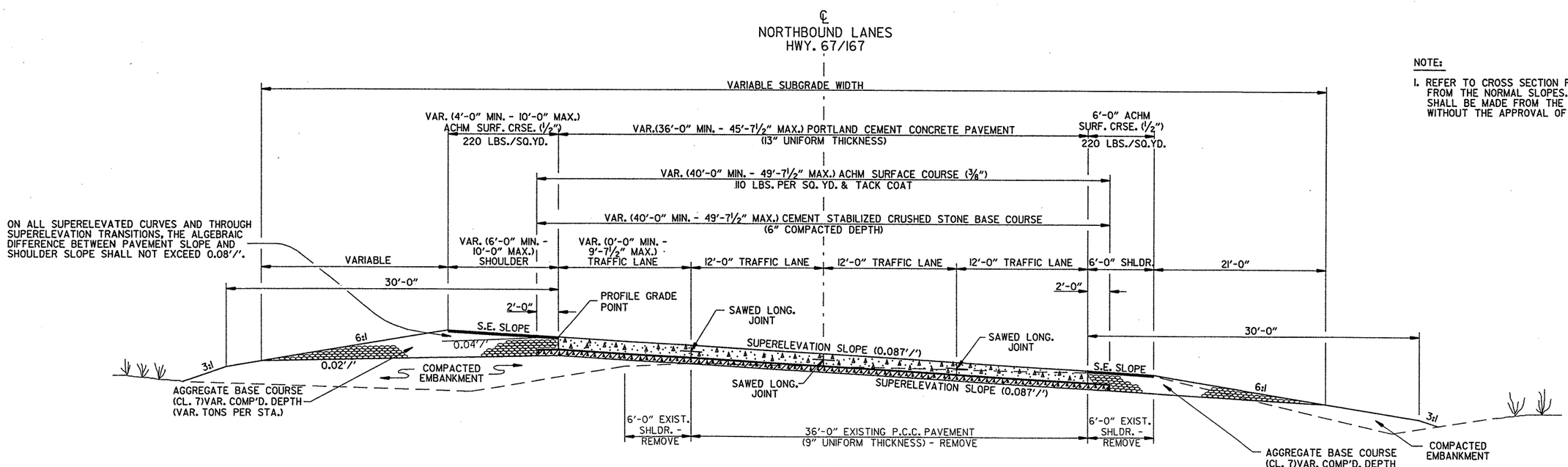
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4754
8-22-05
CHARLES D. CLEMENTS



HWY. 67/167
(SHOWN IN DIRECTION OF TRAFFIC)

SOUTHBOUND LANES
STA. 127+72.68 TO STA. 139+74.00

NORTHBOUND LANES
STA. 133+85.81 TO STA. 143+03.33



NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

NORTHBOUND LANES
HWY. 67/167
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 143+03.33 TO STA. 147+25.00

07-08-2005 RR60080.TOI

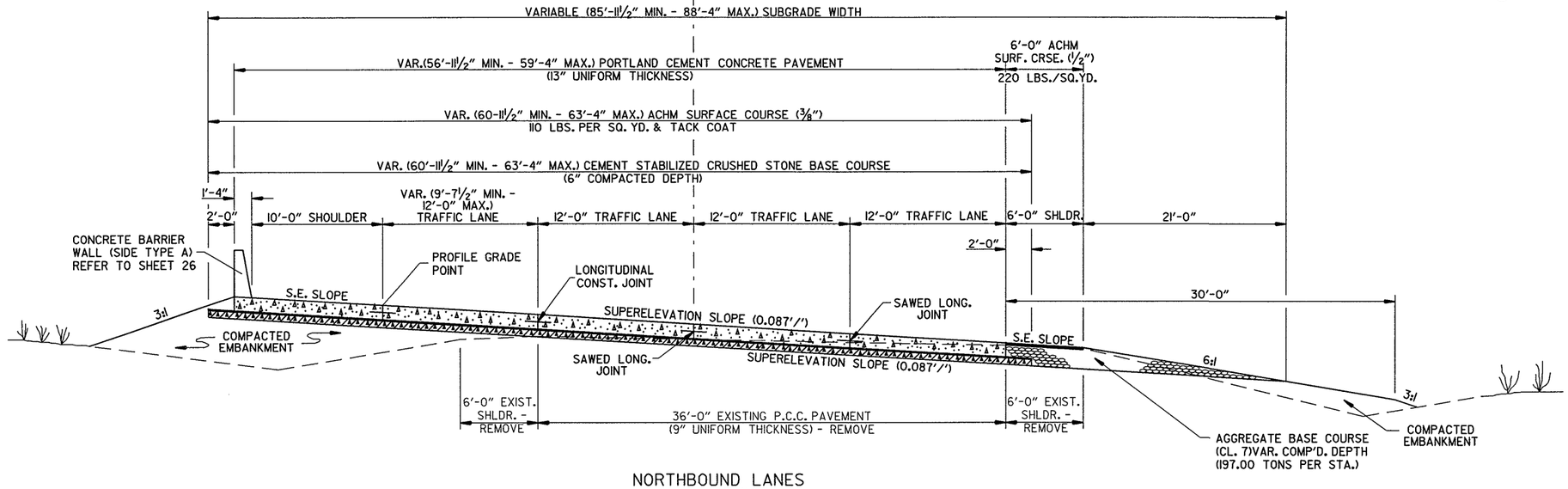
TYPICAL SECTIONS OF IMPROVEMENT

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.		R60080	6	609

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4793 CHARLES D. CLEMENTS

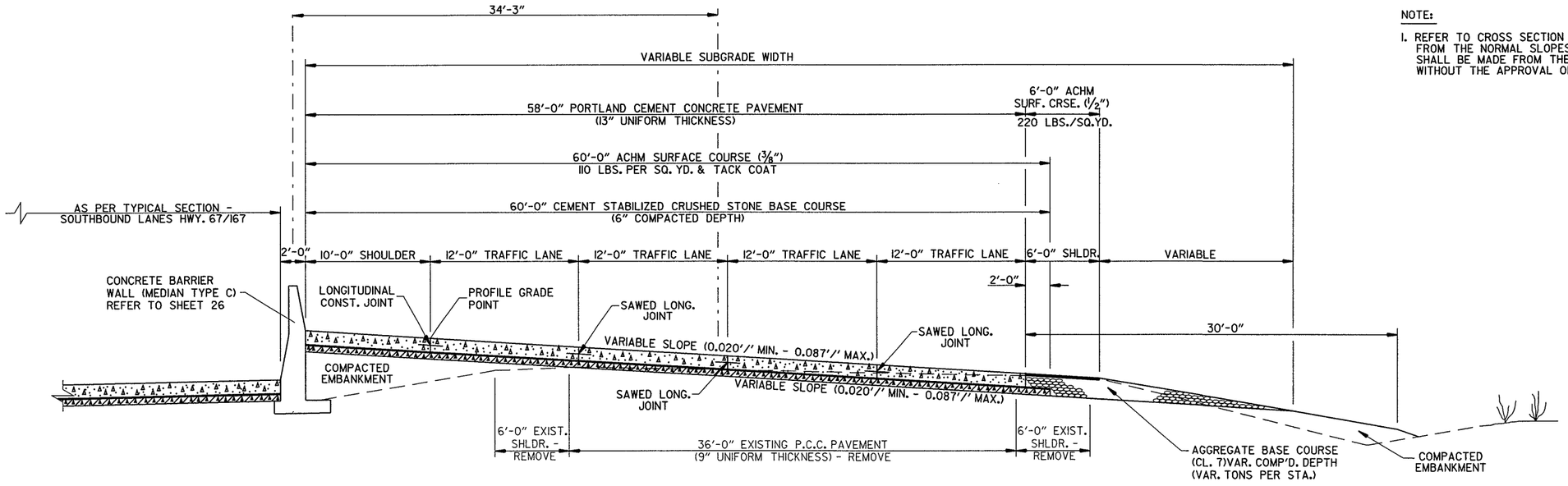
℄ NORTHBOUND LANES HWY. 67/167



NORTHBOUND LANES
HWY. 67/167
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 147+25.00 TO STA. 149+16.62

℄ MEDIAN HWY. 67/167

℄ NORTHBOUND LANES HWY. 67/167



NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

NORTHBOUND LANES
HWY. 67/167
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 149+16.62 TO STA. 159+56.24

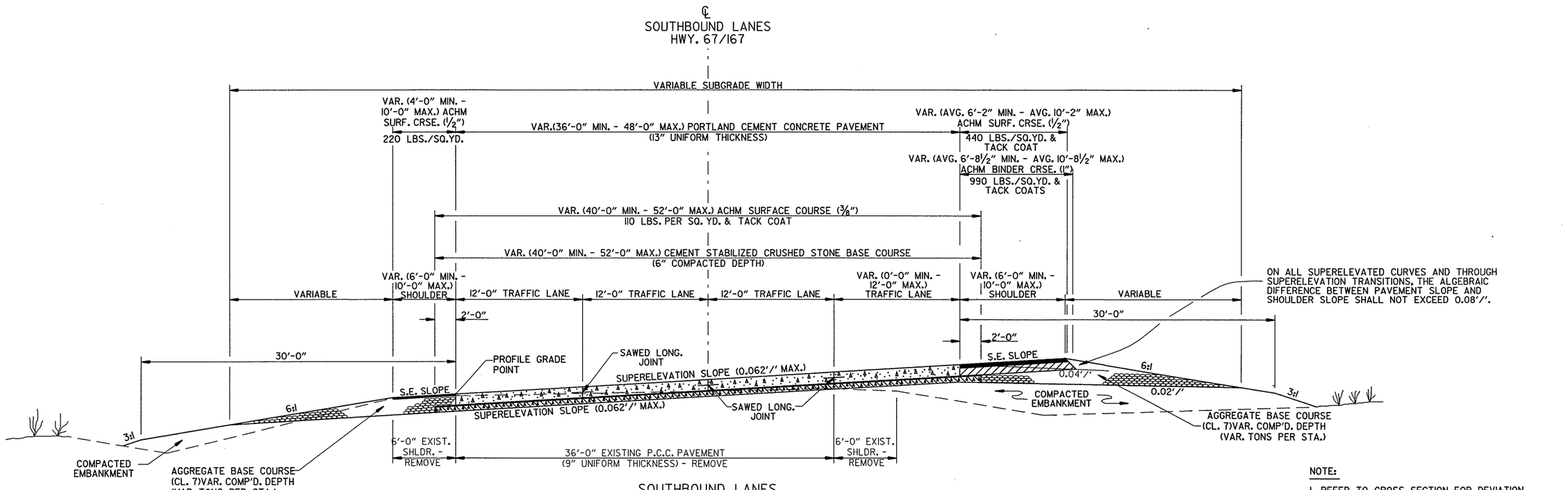
08-08-2005 RR60080.TOI

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.		R60080	7	603

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 479
8-22-05
CHARLES D. CLEMENTS



SOUTHBOUND LANES
HWY. 67/167
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 139+74.00 TO STA. 144+31.36

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

08-08-2005 RR60080.TOI

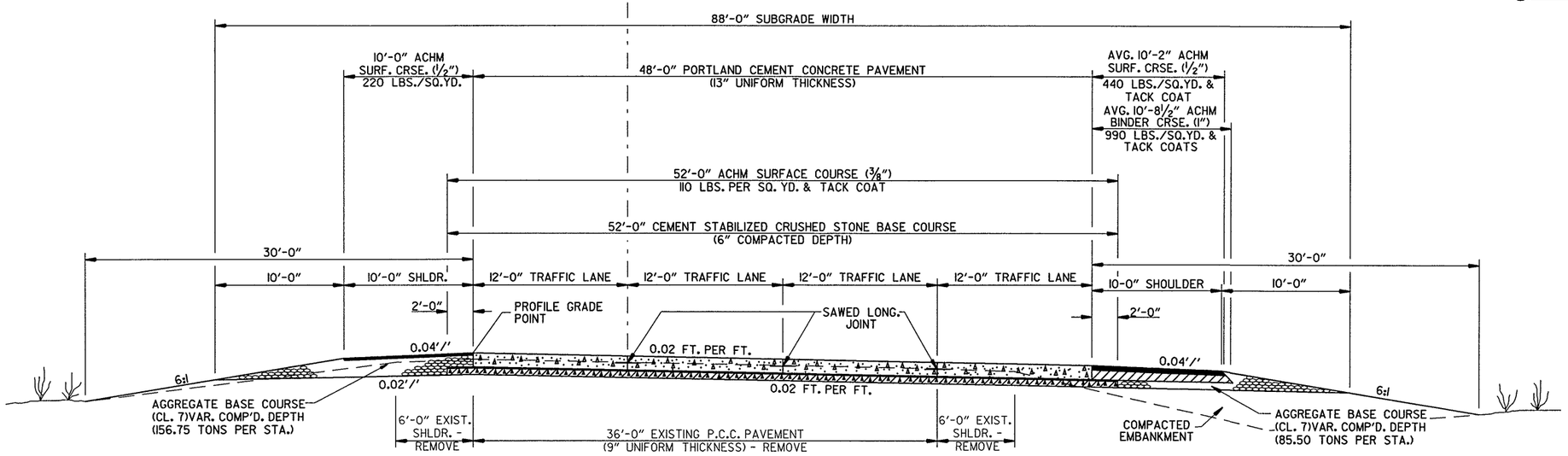
TYPICAL SECTIONS OF IMPROVEMENT

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.		R60080	8	609

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 479 CHARLES D. CLEMENTS

℄
SOUTHBOUND LANES
HWY. 67/167

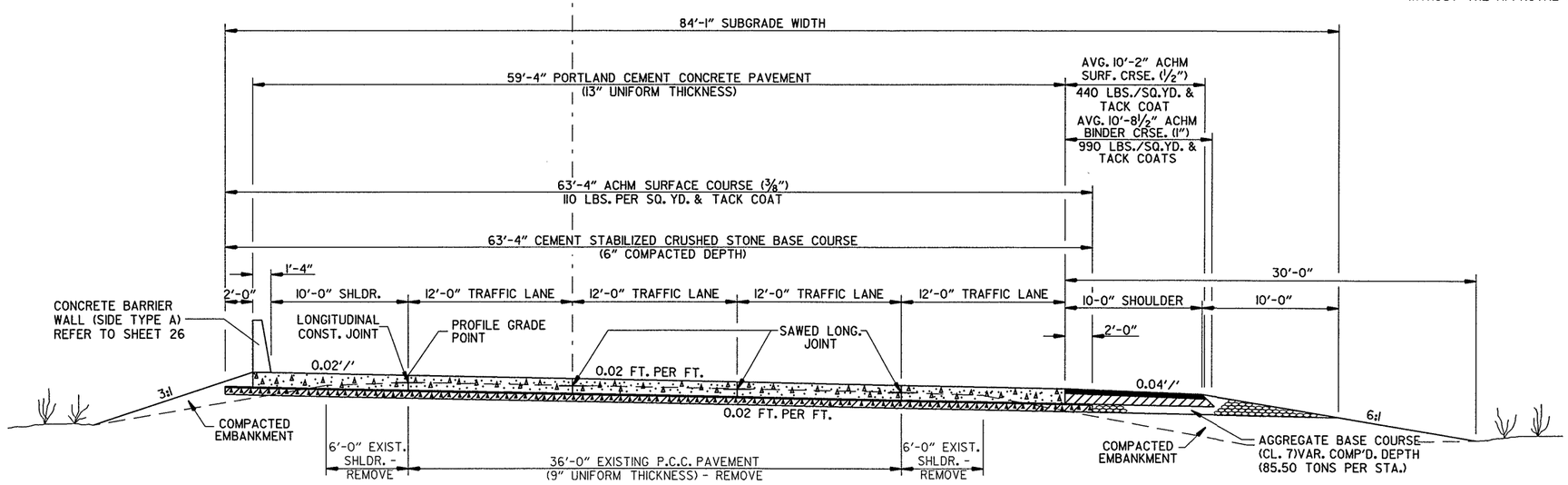


SOUTHBOUND LANES
HWY. 67/167
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 144+31.36 TO STA. 146+30.00

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

℄
SOUTHBOUND LANES
HWY. 67/167



SOUTHBOUND LANES
HWY. 67/167
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 146+30.00 TO STA. 149+15.11

08-08-2005 RR60080.T01

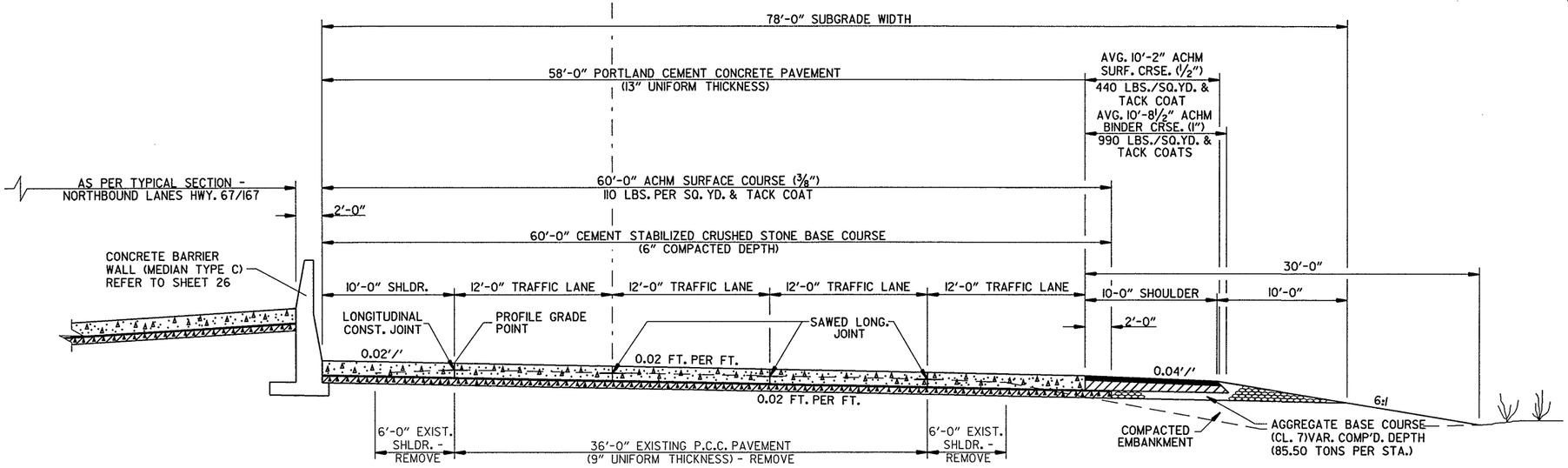
TYPICAL SECTIONS OF IMPROVEMENT

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.		R60080	9	609

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-05

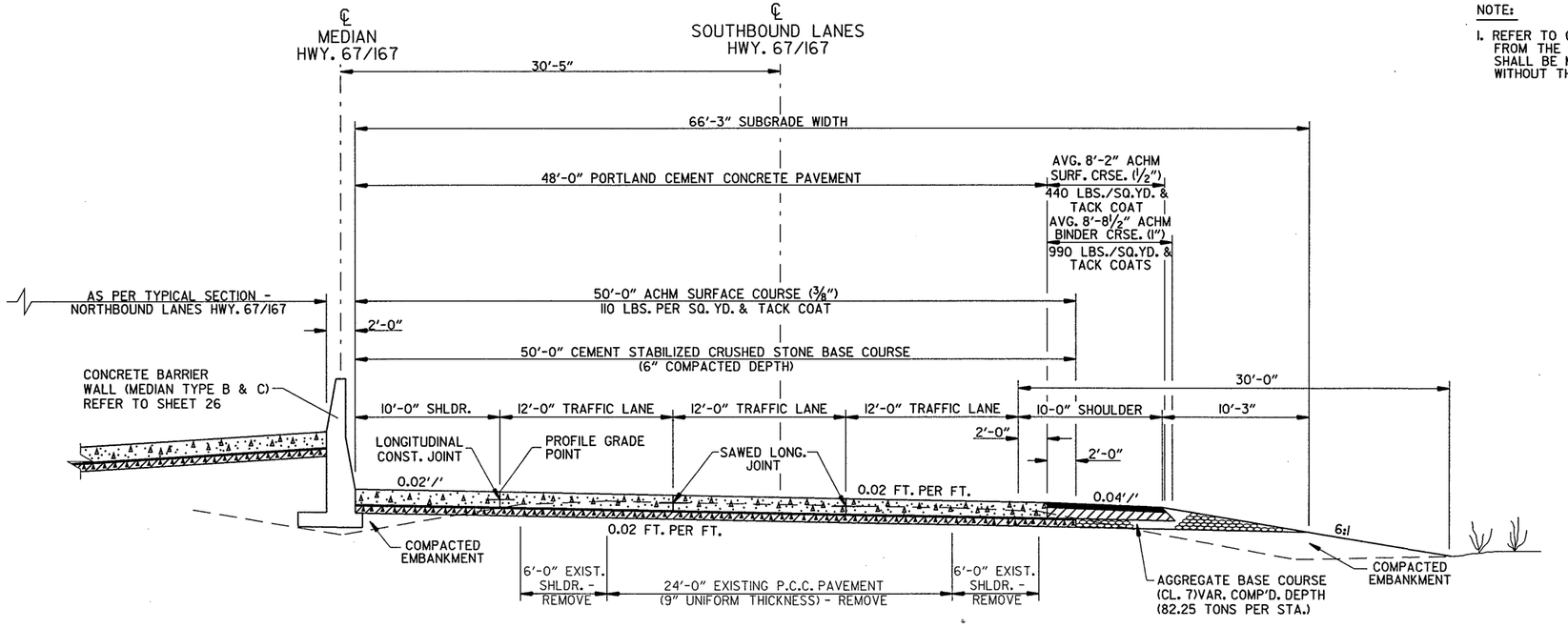
℄ SOUTHBOUND LANES HWY. 67/167



SOUTHBOUND LANES
HWY. 67/167
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 149+15.11 TO STA. 151+48.05

℄ MEDIAN HWY. 67/167

℄ SOUTHBOUND LANES HWY. 67/167



SOUTHBOUND LANES
HWY. 67/167
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 151+48.05 TO STA. 159+56.24

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

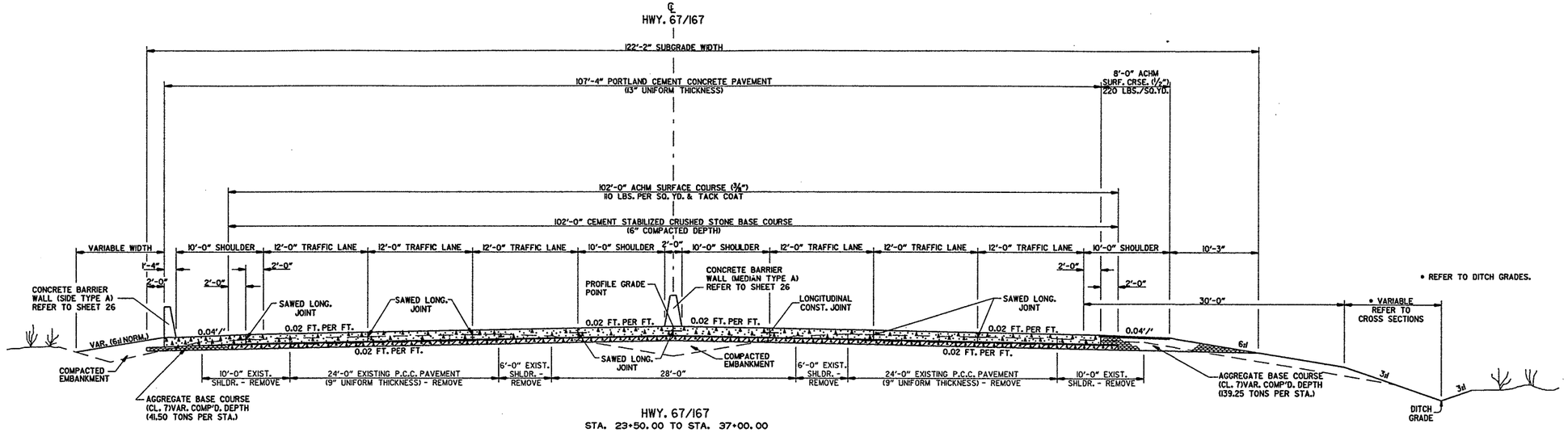
08-08-2005 RR60080.TOI

TYPICAL SECTIONS OF IMPROVEMENT

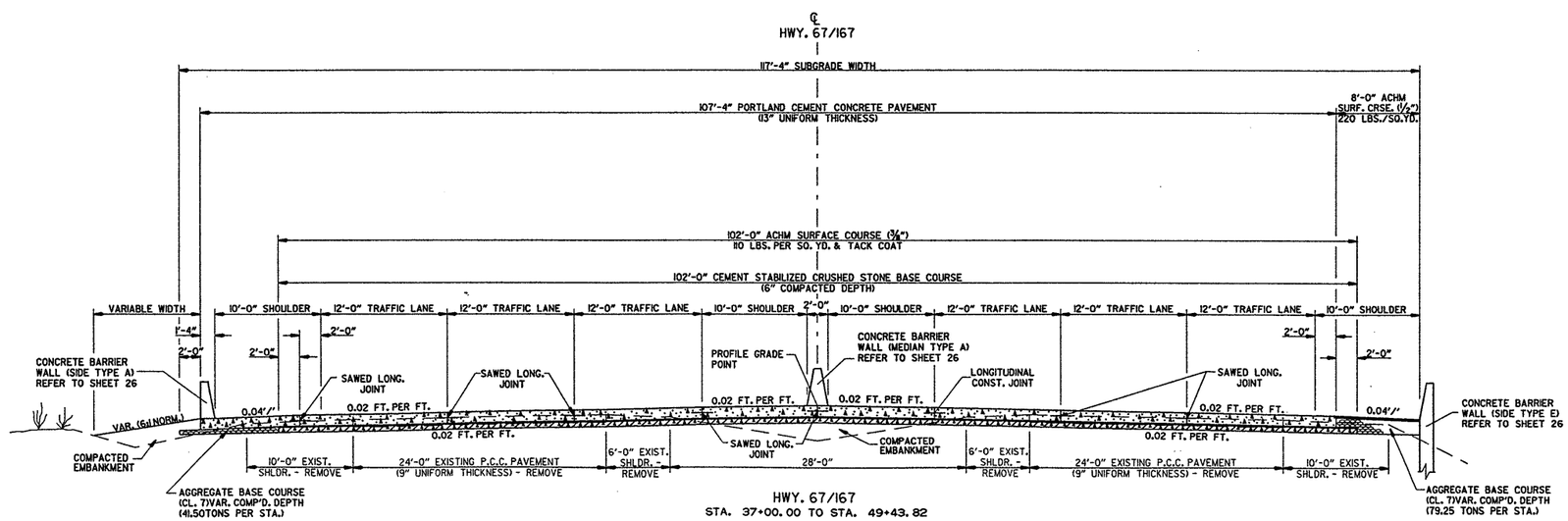
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	10	609

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-22-05
CHARLES D. CLEMENTS



HWY. 67/167
STA. 23+50.00 TO STA. 37+00.00



HWY. 67/167
STA. 37+00.00 TO STA. 49+43.82

NOTE:
1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

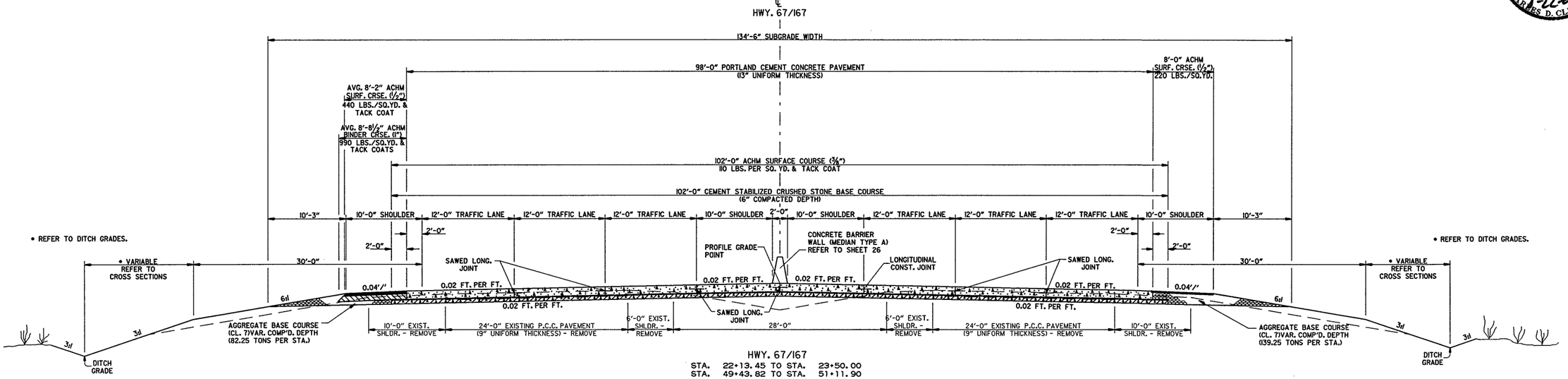
08-08-2005 RR60080.TOI

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.		R60080	11	609

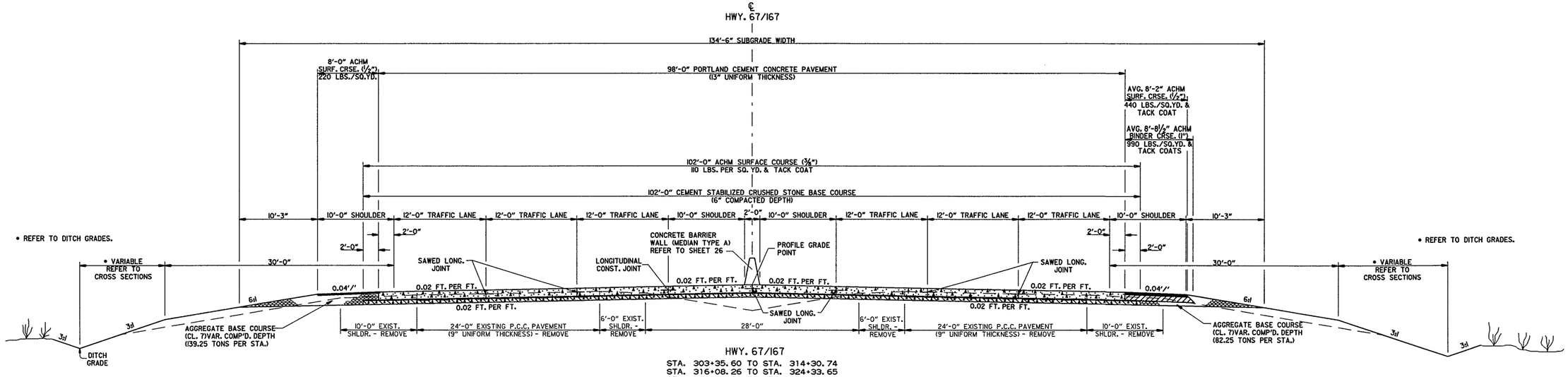
(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
12-22-04



HWY. 67/167
STA. 22+13.45 TO STA. 23+50.00
STA. 49+43.82 TO STA. 51+11.90
STA. 196+78.80 TO STA. 210+50.00

NOTE:
1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.



HWY. 67/167
STA. 303+35.60 TO STA. 314+30.74
STA. 316+08.26 TO STA. 324+33.65
STA. 349+29.86 TO STA. 408+50.00

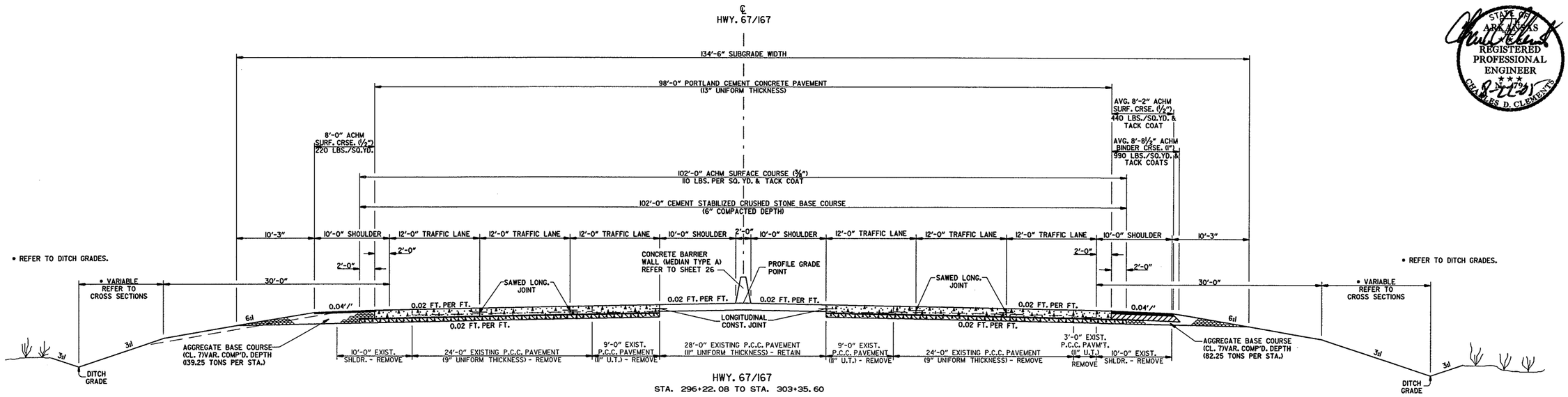
08-08-2005 RR60080.TOI

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.		R60080	12	60

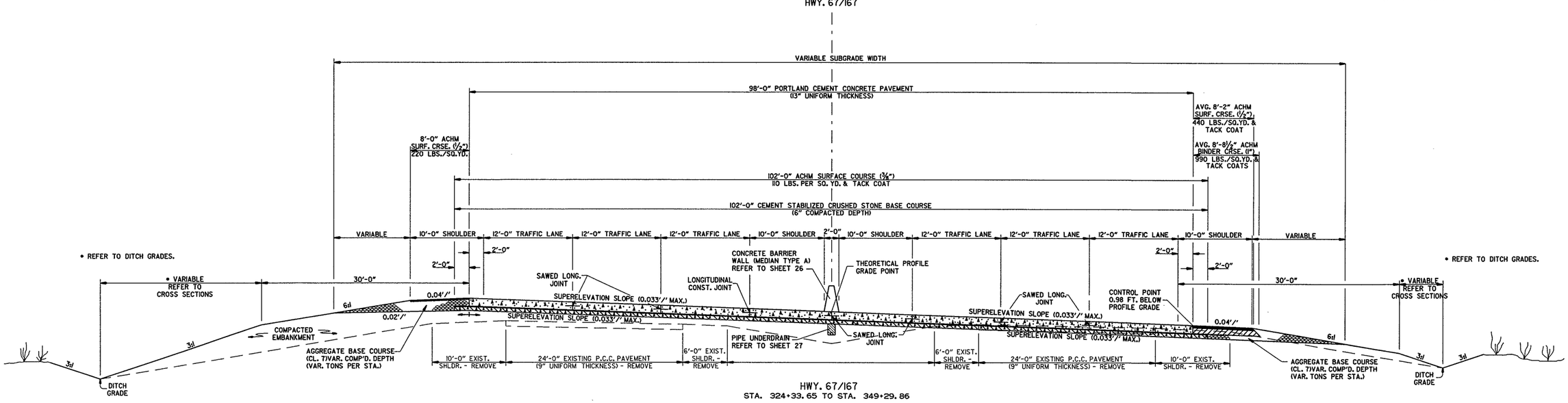
(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
9-22-05



HWY. 67/167
STA. 296+22.08 TO STA. 303+35.60

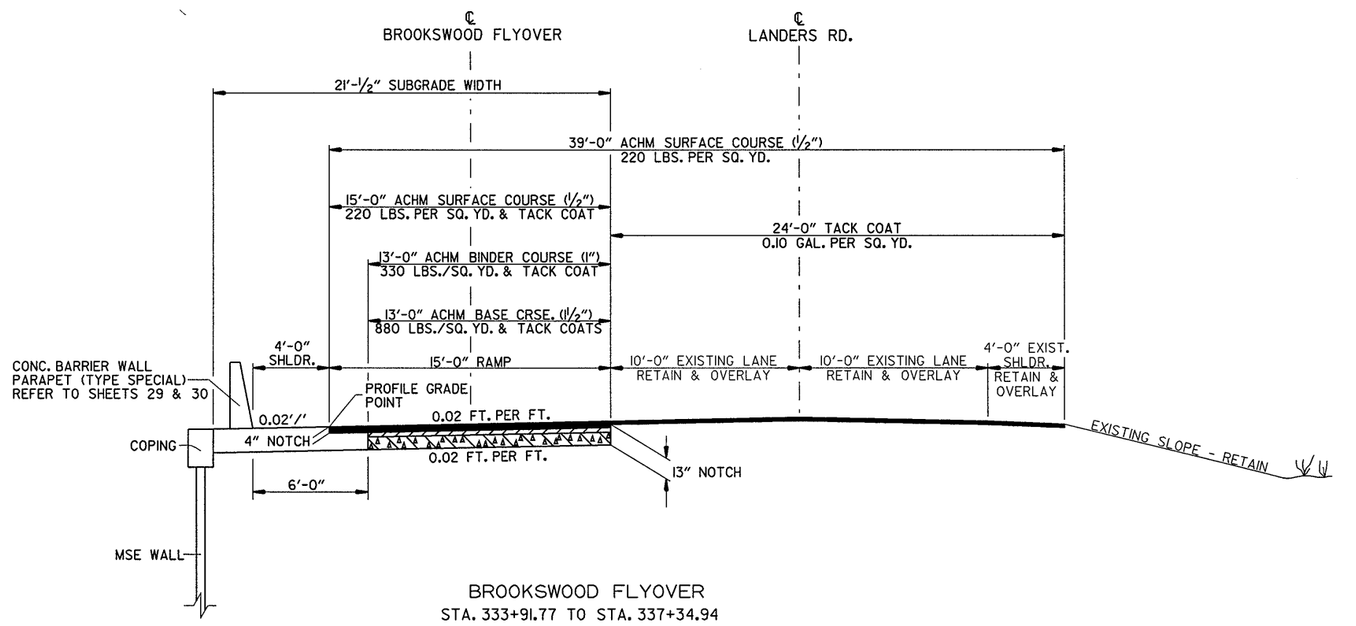
NOTE:
1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.



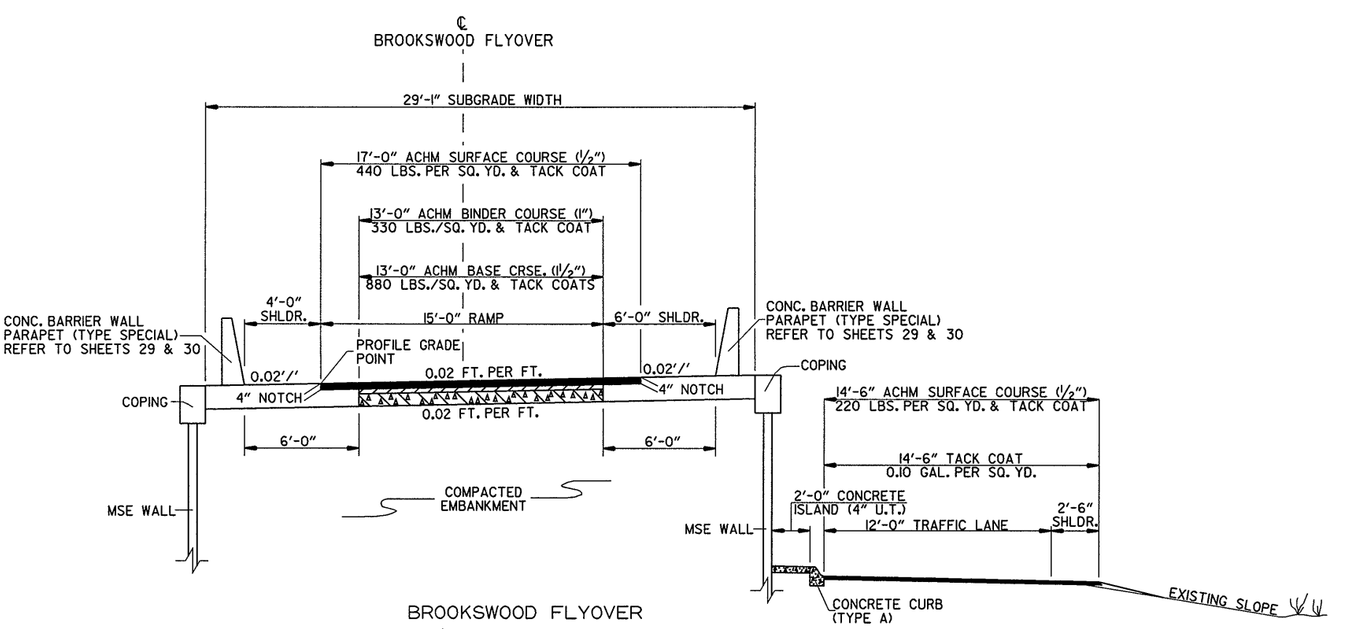
HWY. 67/167
STA. 324+33.65 TO STA. 349+29.86

08-08-2005 RR60080.TOI

TYPICAL SECTIONS OF IMPROVEMENT



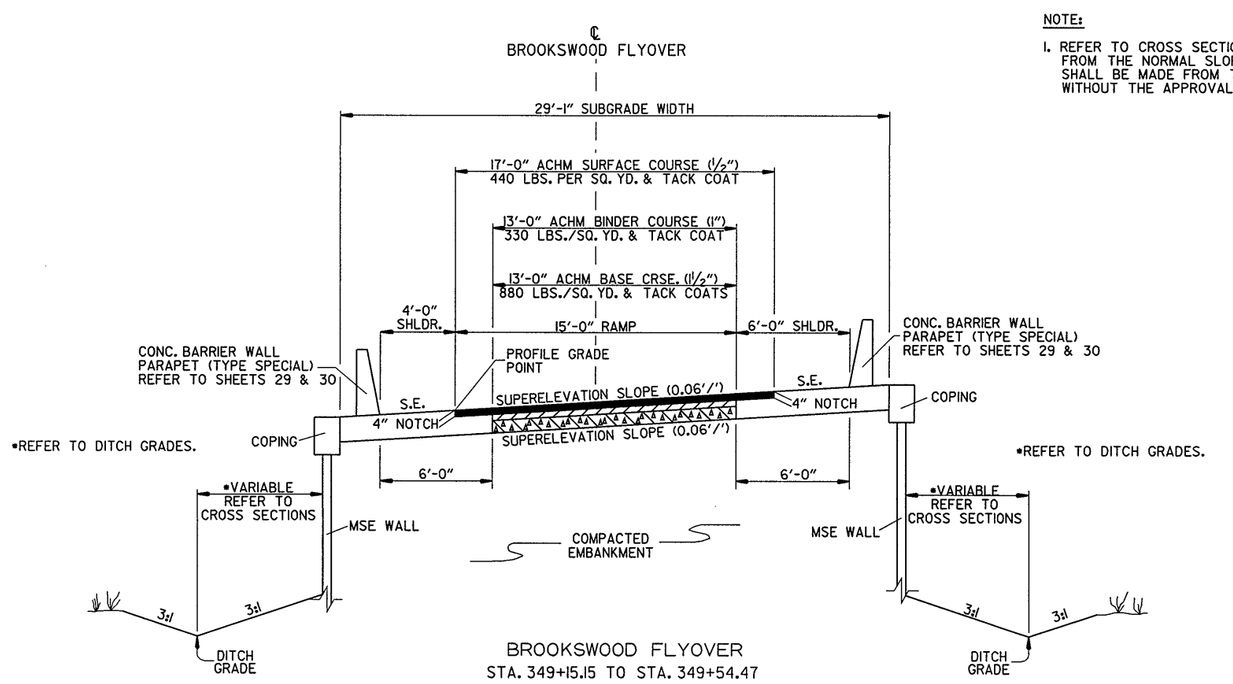
BROOKSWOOD FLYOVER
STA. 333+91.77 TO STA. 337+34.94



BROOKSWOOD FLYOVER
STA. 337+34.94 STA. 344+22.90

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

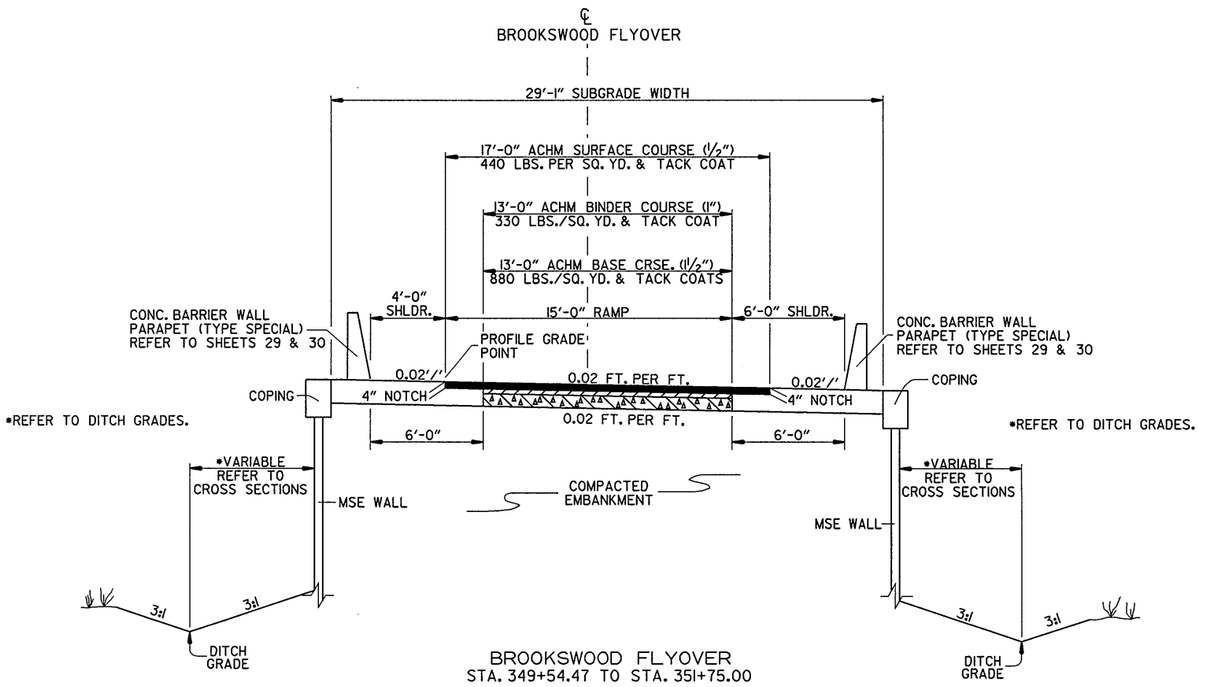


BROOKSWOOD FLYOVER
STA. 349+15.15 TO STA. 349+54.47

TYPICAL SECTIONS OF IMPROVEMENT

							DATE REVISED
							DATE FILED
							DATE REVISED
							DATE FILED
2	TYPICAL SECTIONS OF IMPROVEMENT						FED.RD. DIST.NO.
		6	ARK.	R60080	13	603	JOB NO. / STATE / FED.AID PROJ.NO. / SHEET NO. / TOTAL SHEETS

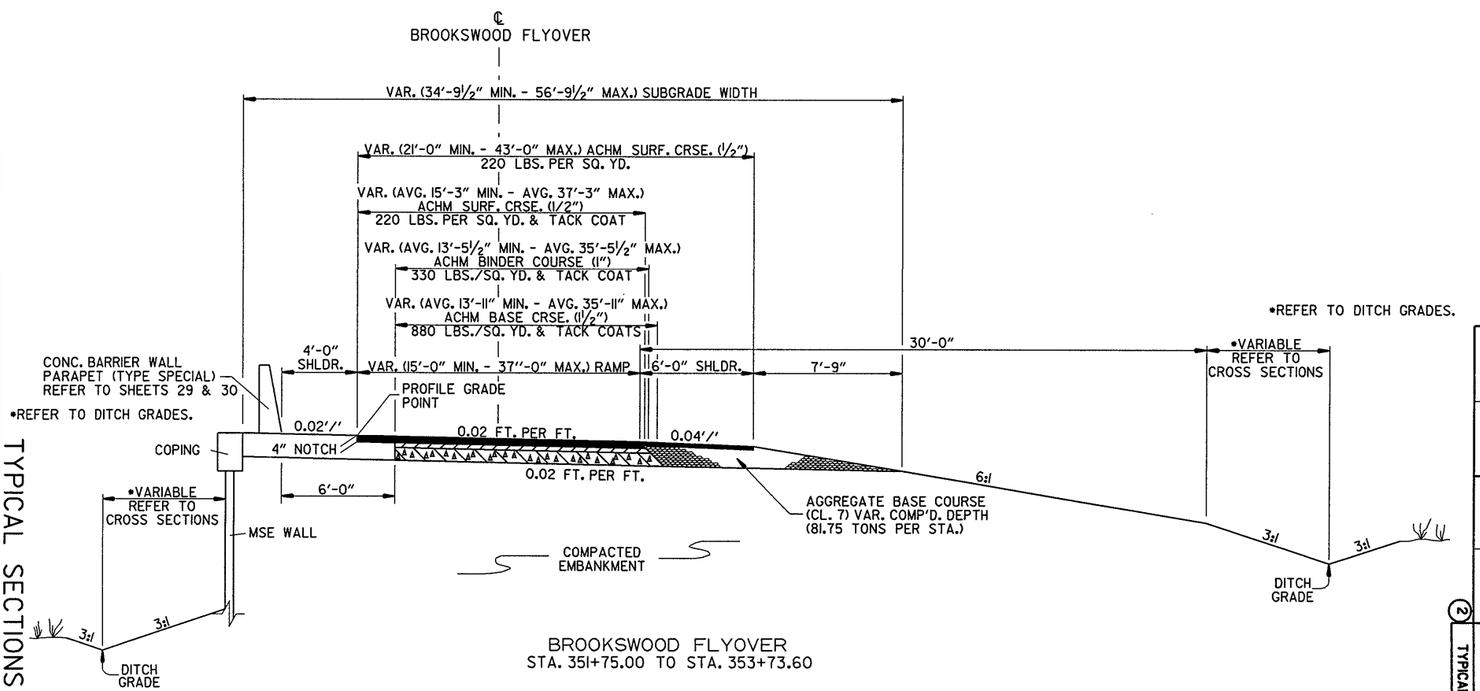
STANLEY G. ARKANSAS REGISTERED PROFESSIONAL ENGINEER



BROOKSWOOD FLYOVER
STA. 349+54.47 TO STA. 351+75.00

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.



BROOKSWOOD FLYOVER
STA. 351+75.00 TO STA. 353+73.60

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.	R60080	14	609

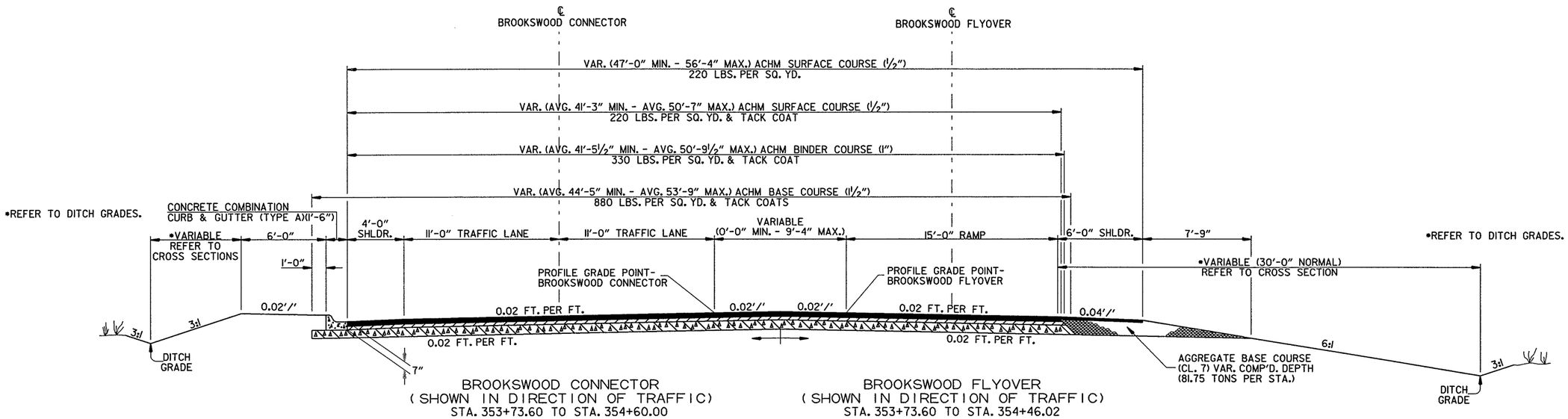
(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
CHAD D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
8-22-07

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	15	603

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-01

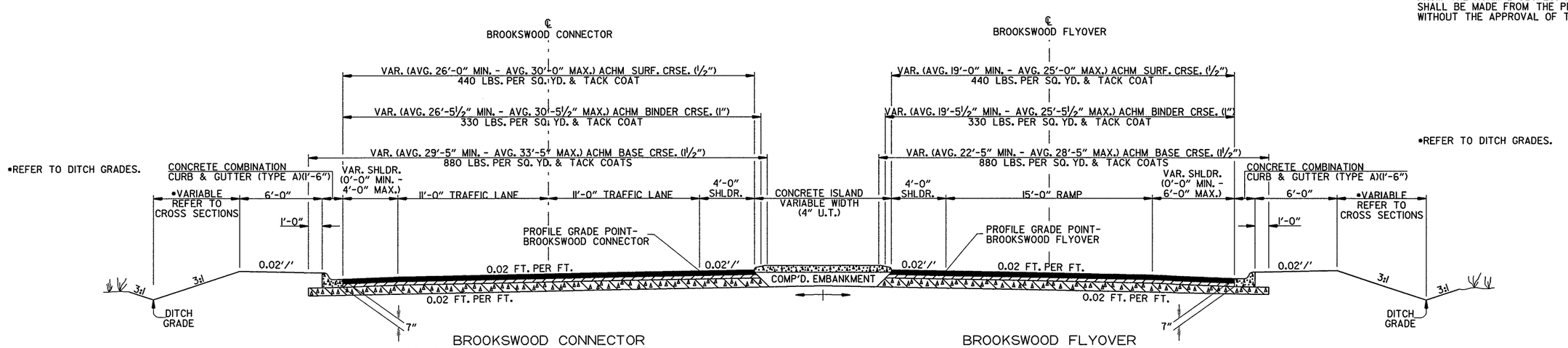


BROOKSWOOD CONNECTOR
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 353+73.60 TO STA. 354+60.00

BROOKSWOOD FLYOVER
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 353+73.60 TO STA. 354+46.02

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.



BROOKSWOOD CONNECTOR
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 354+60.00 TO STA. 355+58.10

BROOKSWOOD FLYOVER
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 354+46.02 TO STA. 357+03.56

08-08-2005 RR60080.TOI

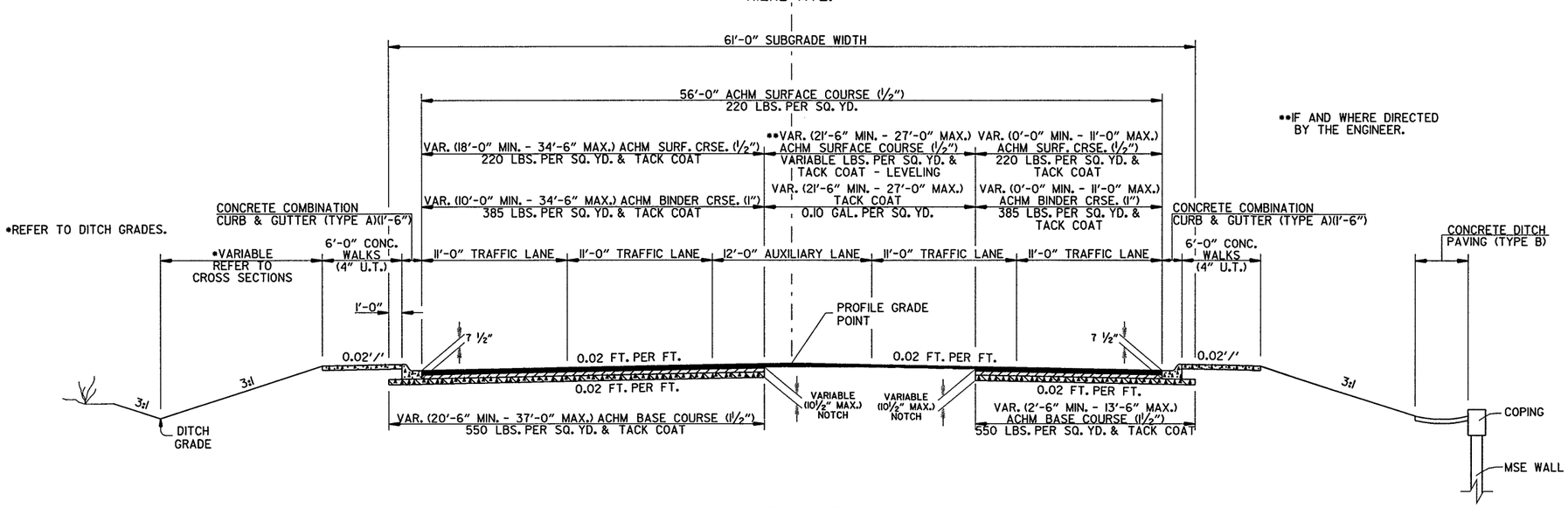
TYPICAL SECTIONS OF IMPROVEMENT

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.		R60080	16	603

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
5-25-05
CHARLES D. CLEMENTS

℄
KIEHL AVE.



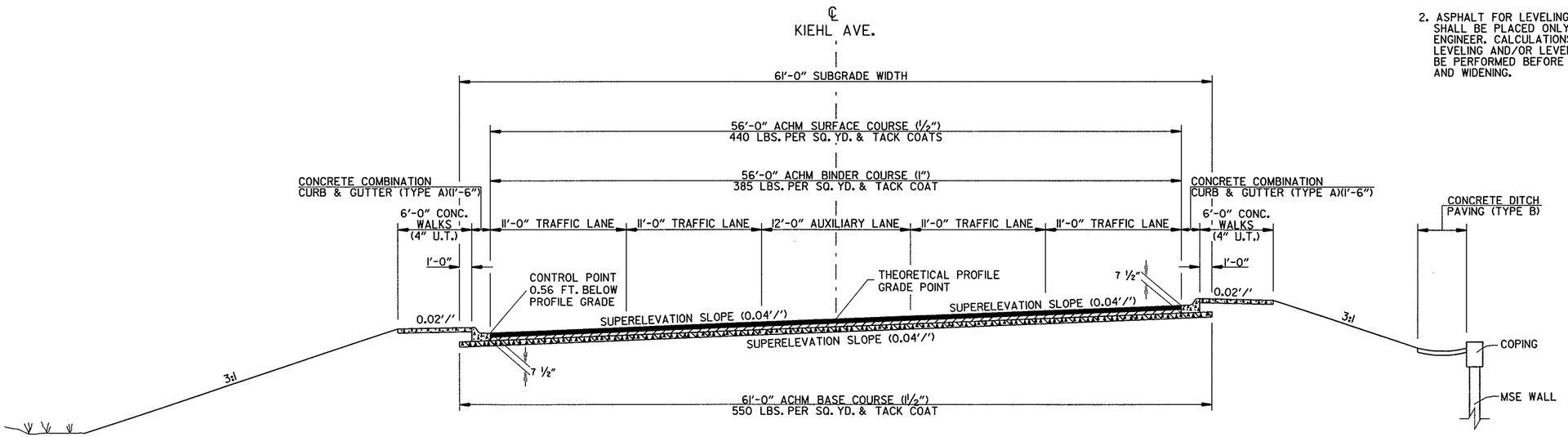
**IF AND WHERE DIRECTED BY THE ENGINEER.

KIEHL AVE.
STA. 10+11.72 TO STA. 13+54.02

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING.

℄
KIEHL AVE.



KIEHL AVE.
STA. 14+58.12 TO STA. 15+16.55

05-17-2005 RR60080.T01

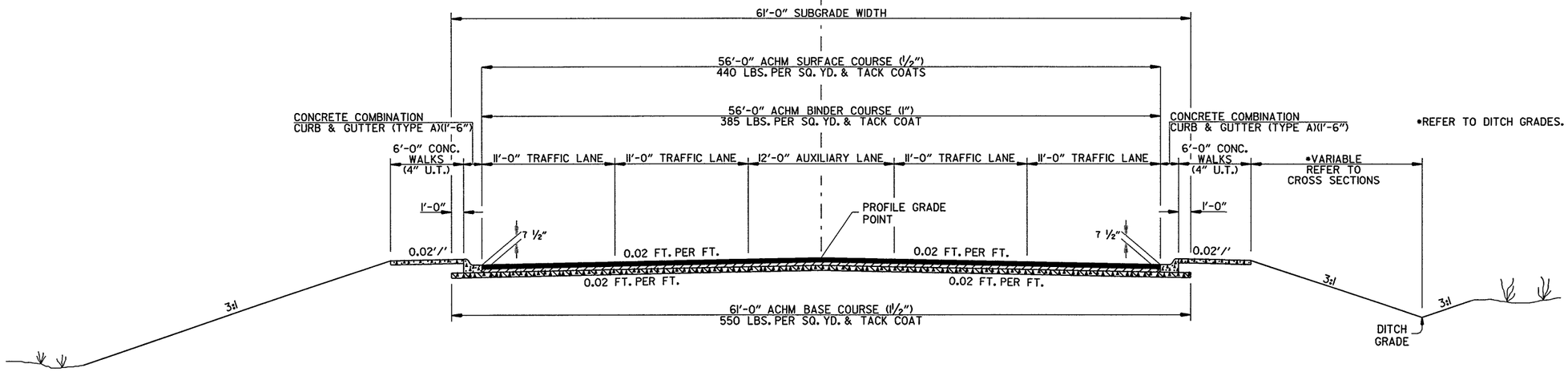
TYPICAL SECTIONS OF IMPROVEMENT

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.		R60080	17	609

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4794 CHARLES D. CLEMENTS 8-26-91

℄
KIEHL AVE.



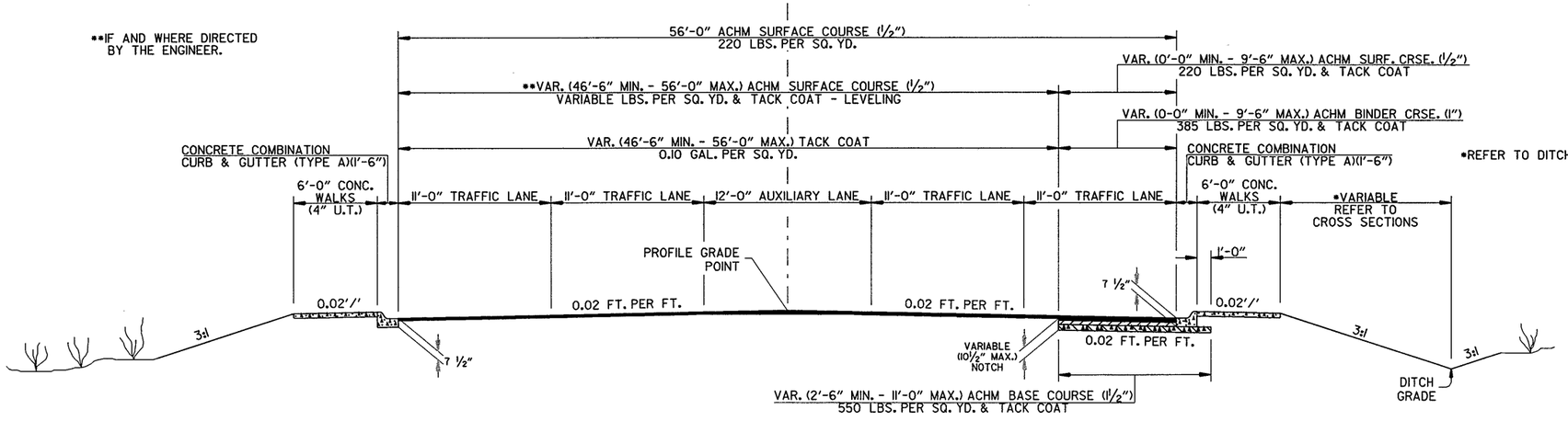
•REFER TO DITCH GRADES.

KIEHL AVE.
STA. 13+54.02 TO STA. 14+58.12
STA. 15+16.55 TO STA. 16+68.11
STA. 19+86.27 TO STA. 22+25.00

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING.

℄
KIEHL AVE.



•REFER TO DITCH GRADES.

KIEHL AVE.
STA. 22+25.00 TO STA. 24+14.90

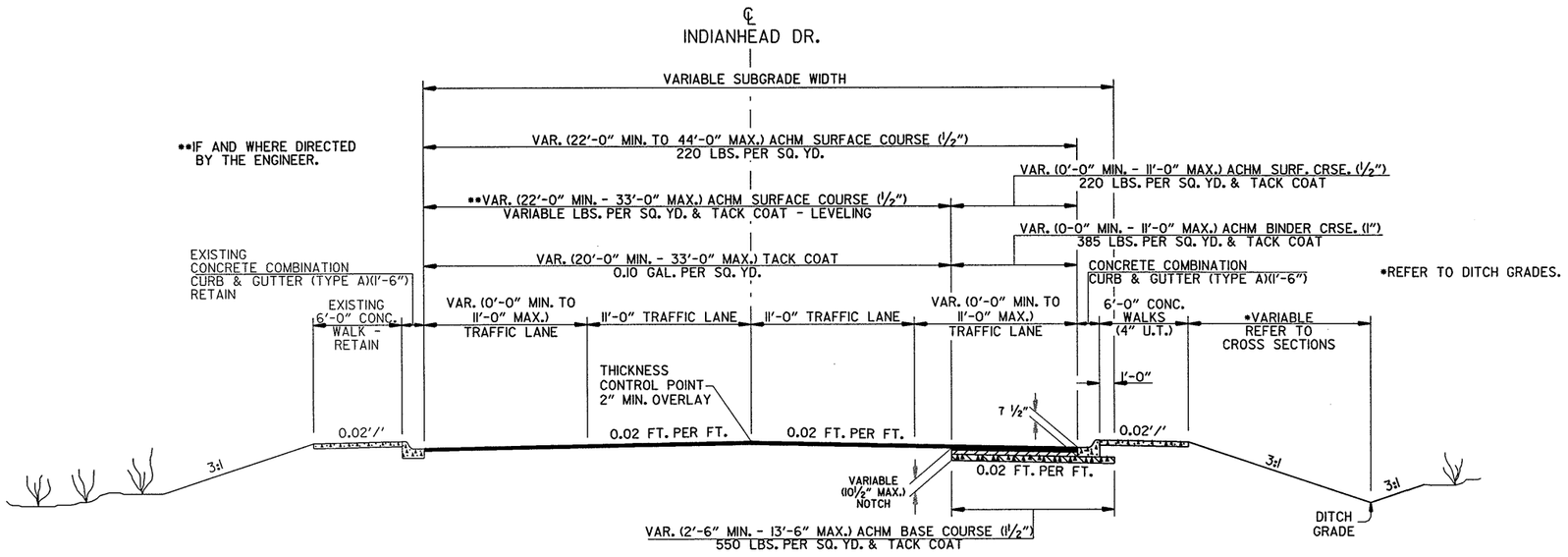
05-17-2005 RR60080.T01

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.		R60080	18	609

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-25-94
CHARLES D. CLEMENTS



INDIANHEAD DR.
STA. 25+00.00 TO STA. 26+40.65

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.

2. ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING.

08-08-2005 RR60080.T01

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.		R60080	19	609

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 479
8-22-05
CHARLES D. CLEMENTS

℄
LANDERS CONNECTOR

33'-0" SUBGRADE WIDTH

28'-0" ACHM SURFACE COURSE (1½")
440 LBS. PER SQ. YD. & TACK COAT

28'-0" ACHM BINDER COURSE (1")
330 LBS. PER SQ. YD. & TACK COAT

28'-0" ACHM BASE COURSE (1½")
440 LBS. PER SQ. YD. & TACK COAT

CONCRETE COMBINATION CURB & GUTTER (TYPE A)(1'-6")

CONCRETE COMBINATION CURB & GUTTER (TYPE A)(1'-6")

*REFER TO DITCH GRADES.

*REFER TO DITCH GRADES.

*VARIABLE REFER TO CROSS SECTIONS

6'-0"

14'-0" TRAFFIC LANE

14'-0" TRAFFIC LANE

6'-0"

*VARIABLE REFER TO CROSS SECTIONS

1'-0"

1'-0"

11"

11"

PROFILE GRADE POINT

0.02'/'

0.02 FT. PER FT.

0.02 FT. PER FT.

0.02'/'

3:1

3:1

3:1

3:1

DITCH GRADE

DITCH GRADE

0.02 FT. PER FT.

0.02 FT. PER FT.

AGGREGATE BASE COURSE (CL. 7)
6" COMP'D. DEPTH
(128.25 TONS PER STA.)

LANDERS CONNECTOR
STA. 373+28.56 TO STA. 383+54.35

℄
LANDERS CONNECTOR

VARIABLE SUBGRADE WIDTH

32'-0" ACHM SURFACE COURSE (1½")
220 LBS. PER SQ. YD.

AVG. 28'-3" ACHM SURFACE COURSE (1/2")
220 LBS. PER SQ. YD. & TACK COAT

AVG. 28'-5½" ACHM BINDER COURSE (1")
330 LBS. PER SQ. YD. & TACK COAT

AVG. 28'-9" ACHM BASE COURSE (1½")
440 LBS. PER SQ. YD. & TACK COAT

CONCRETE COMBINATION CURB & GUTTER (TYPE A)(1'-6")

*REFER TO DITCH GRADES.

*REFER TO DITCH GRADES.

*VARIABLE REFER TO CROSS SECTIONS

4'-0" SHLDR.

14'-0" TRAFFIC LANE

14'-0" TRAFFIC LANE

6'-0"

*VARIABLE REFER TO CROSS SECTIONS

VARIABLE

1'-0"

THEORETICAL PROFILE GRADE POINT

CONTROL POINT 0.28 FT. BELOW PROFILE GRADE

S.E. SLOPE

SUPERELEVATION SLOPE (0.06'/' MAX.)

0.02'/'

0.02'/'

4:1

3:1

2:1

2:1

DITCH GRADE

DITCH GRADE

SUPERELEVATION SLOPE (0.06'/' MAX.)

AGGREGATE BASE COURSE (CL. 7) VAR. COMP'D. DEPTH (VAR. TONS PER STA.)

AGGREGATE BASE COURSE (CL. 7)
6" COMP'D. DEPTH
(118.50 TONS PER STA.)

11"

LANDERS CONNECTOR
STA. 383+54.35 TO STA. 386+13.91

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE PAID FOR MATERIALS PLACED IN EXCESS OF THE TOLERANCE INDICATED.

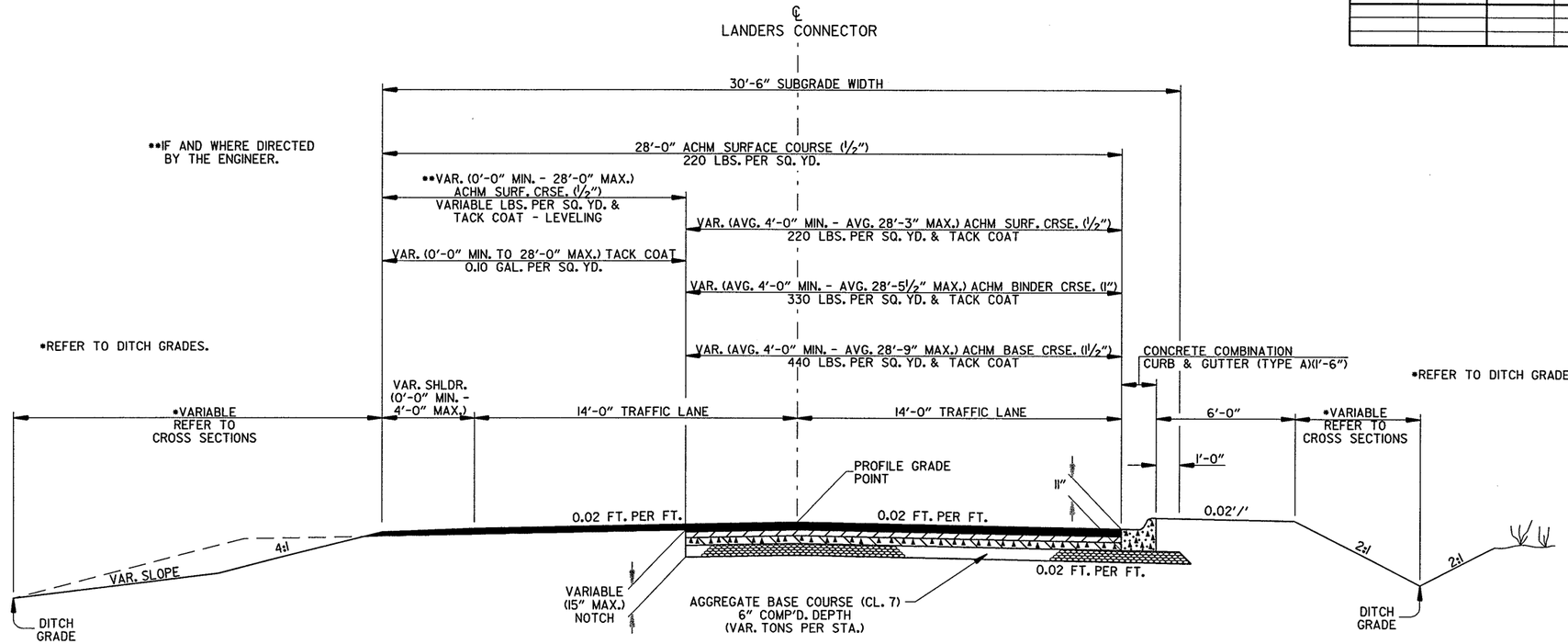
08-08-2005 RR60080.TOI

TYPICAL SECTIONS OF IMPROVEMENT

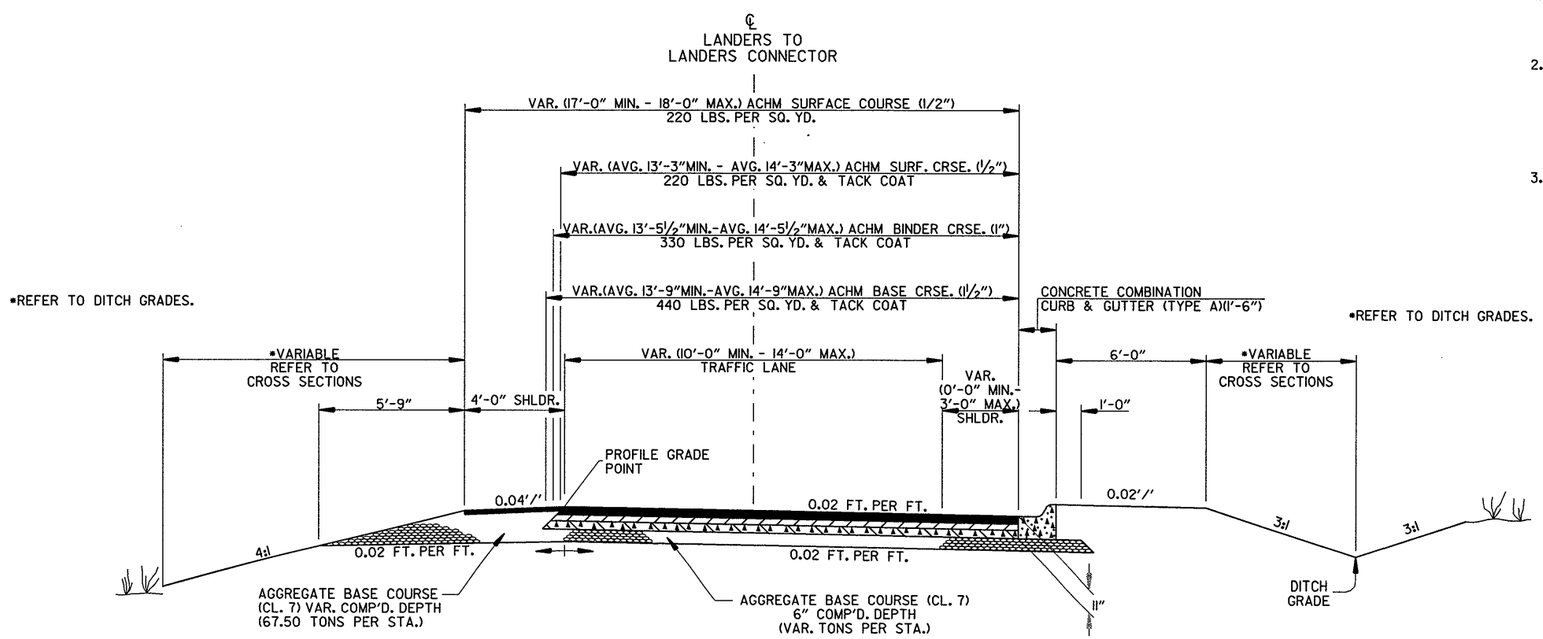
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	20	603

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4791
CHARLES D. CLEMENTS
8-22-05



LANDERS CONNECTOR
STA. 386+13.91 TO STA. 387+29.00



LANDERS TO LANDERS CONNECTOR
STA. 382+00.00 TO STA. 385+30.26

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE PAID FOR MATERIALS PLACED IN EXCESS OF THE TOLERANCE INDICATED.
3. ASPHALT FOR LEVELING FOR EXISTING PAVEMENT SHALL BE PLACED ONLY WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING.

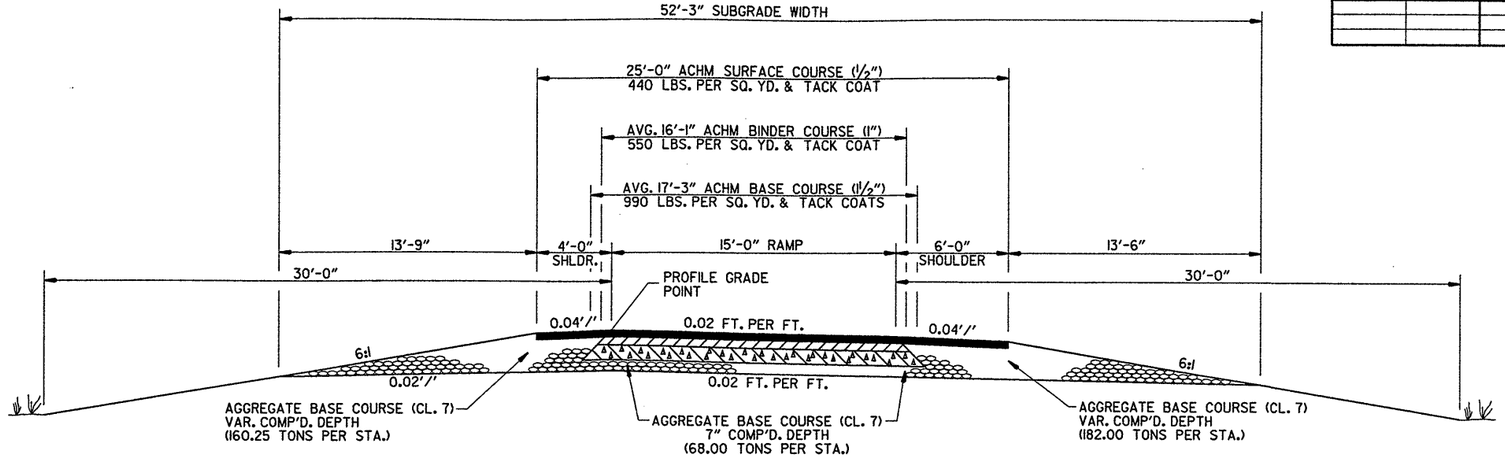
08-08-2005 R60080.TOI

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.		R60080	21	609

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 479
CHARLES D. CLEMENTS



McCAIN BLVD. EASTBOUND EXIT RAMP
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 154+78.54 TO STA. 161+41.03

WILDWOOD ENTRANCE RAMP
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 302+00.00 TO STA. 303+15.23

WILDWOOD EXIT RAMP
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 294+40.07 TO STA. 297+52.52

BROOKSWOOD ENTRANCE RAMP
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 326+99.64 TO STA. 330+12.95

BROOKSWOOD EXIT RAMP
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 321+54.87 TO STA. 324+64.92

KIEHL AVE. SOUTHBOUND ENTRANCE RAMP
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 357+99.66 TO STA. 360+90.66

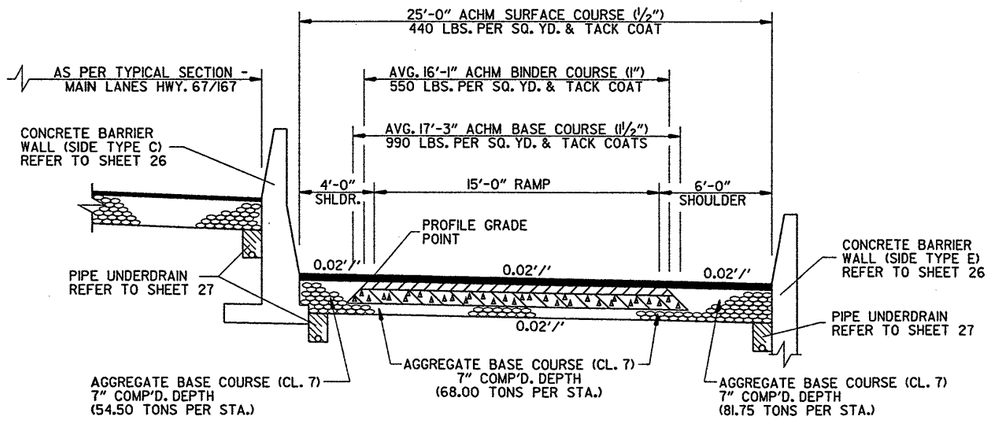
KIEHL AVE. SOUTHBOUND EXIT RAMP
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 380+78.69 TO STA. 384+36.19

KIEHL AVE. NORTHBOUND EXIT RAMP
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 348+48.28 TO STA. 351+72.97

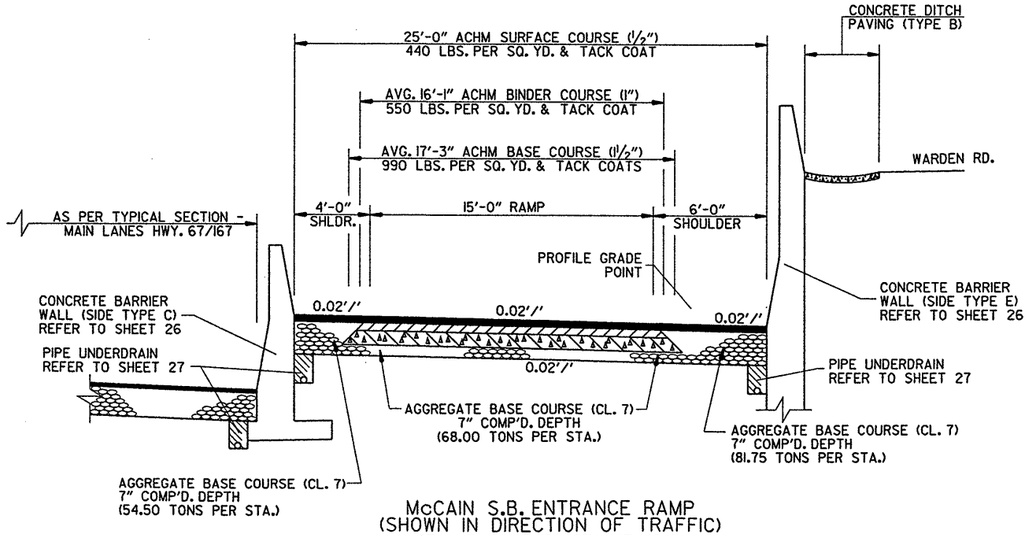
KIEHL AVE. NORTHBOUND ENTRANCE RAMP
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 382+52.63 TO STA. 385+50.44

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.
2. THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN THICKNESS SHOWN. THE CONTRACTOR WILL CORRECT ANY DEFICIENT THICKNESS THAT DOES NOT MEET TOLERANCE INDICATED. PAYMENT WILL NOT BE PAID FOR MATERIALS PLACED IN EXCESS OF THE TOLERANCE INDICATED.



McCAIN N.B. ENTRANCE RAMP
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 44+63.30 TO STA. 49+43.82



McCAIN S.B. ENTRANCE RAMP
(SHOWN IN DIRECTION OF TRAFFIC)
STA. 43+00.63 TO STA. 47+49.41

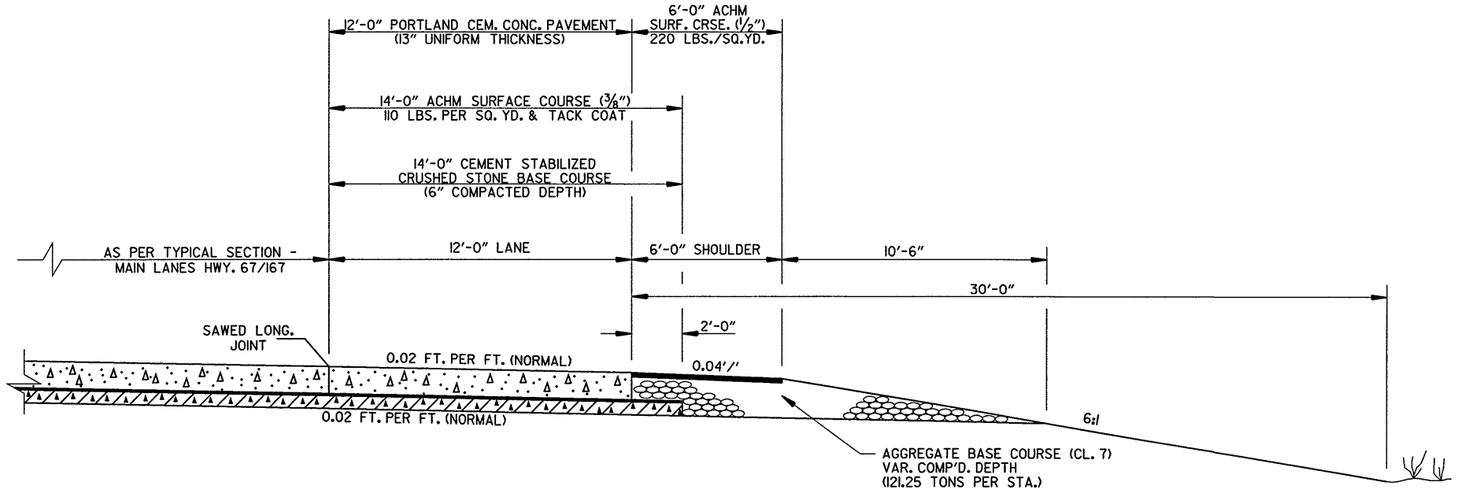
08-08-2005 RR60080.TOI

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.		R60080	22	609

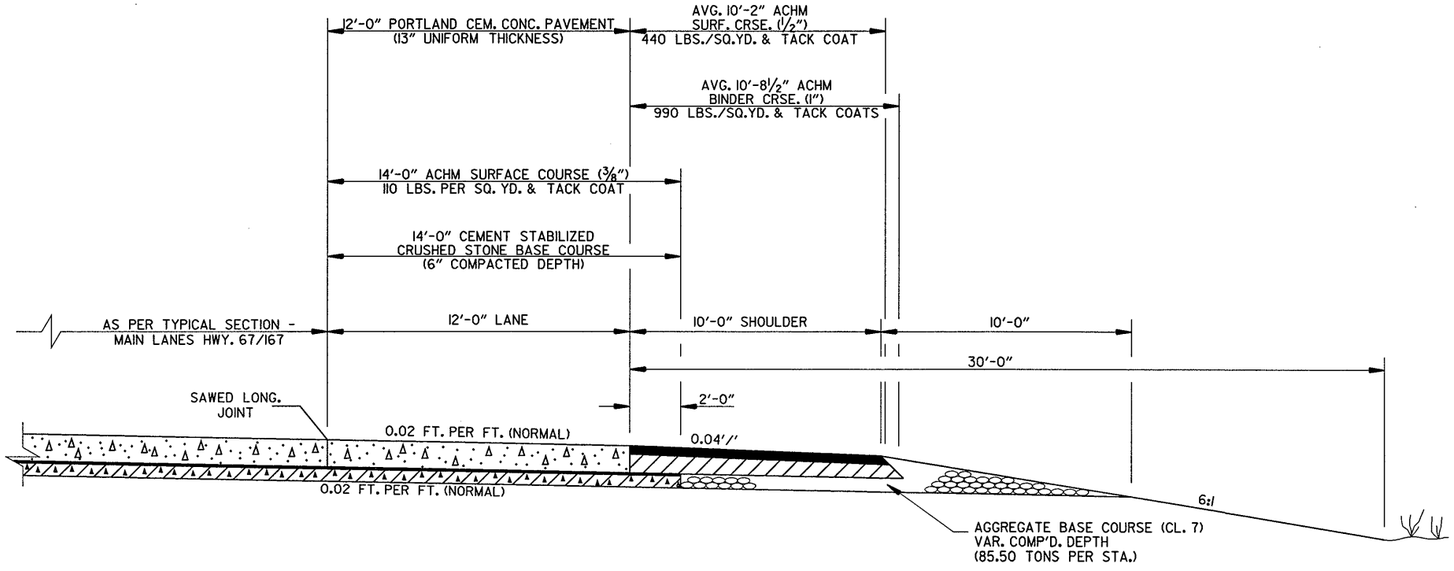
(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS 12/31/09 REGISTERED PROFESSIONAL ENGINEER No. 9791 CHARLES D. CLEMENTS



McCAIN BLVD. NORTHBOUND ACCELERATION LANE & TAPER (SHOWN IN DIRECTION OF TRAFFIC)
STA. 49+43.82 TO STA. 205+10.72

BROOKSWOOD ACCELERATION LANE & TAPER (SHOWN IN DIRECTION OF TRAFFIC)
STA. 316+98.60 TO STA. 326+98.60



McCAIN BLVD. SOUTHBOUND ACCELERATION LANE & TAPER (SHOWN IN DIRECTION OF TRAFFIC)
STA. 138+48.05 TO STA. 151+48.05

WILDWOOD ACCELERATION LANE & TAPER (SHOWN IN DIRECTION OF TRAFFIC)
STA. 303+14.66 TO STA. 313+14.66

KIEHL AVE. NORTHBOUND DECELERATION LANE & TAPER (SHOWN IN DIRECTION OF TRAFFIC)
STA. 338+55.00 TO STA. 344+75.00

KIEHL AVE. NORTHBOUND ACCELERATION LANE & TAPER (SHOWN IN DIRECTION OF TRAFFIC)
STA. 385+50.00 TO STA. 395+50.00

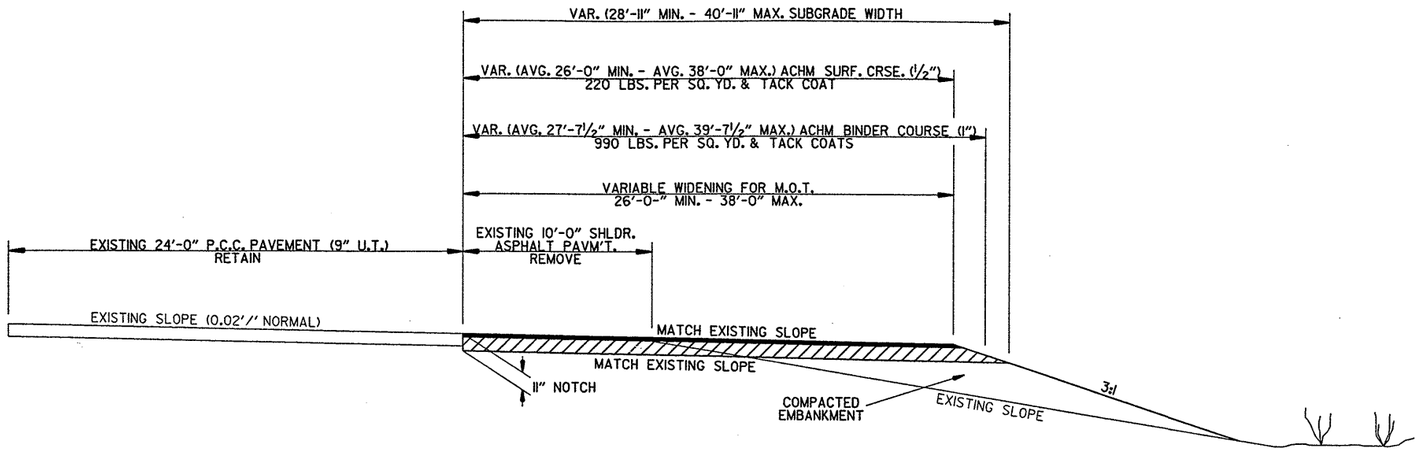
10-07-2004 RR60080.TOI

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.		R60080	23	609

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 17971 CHARLES D. CLEMENTS 8-11-05



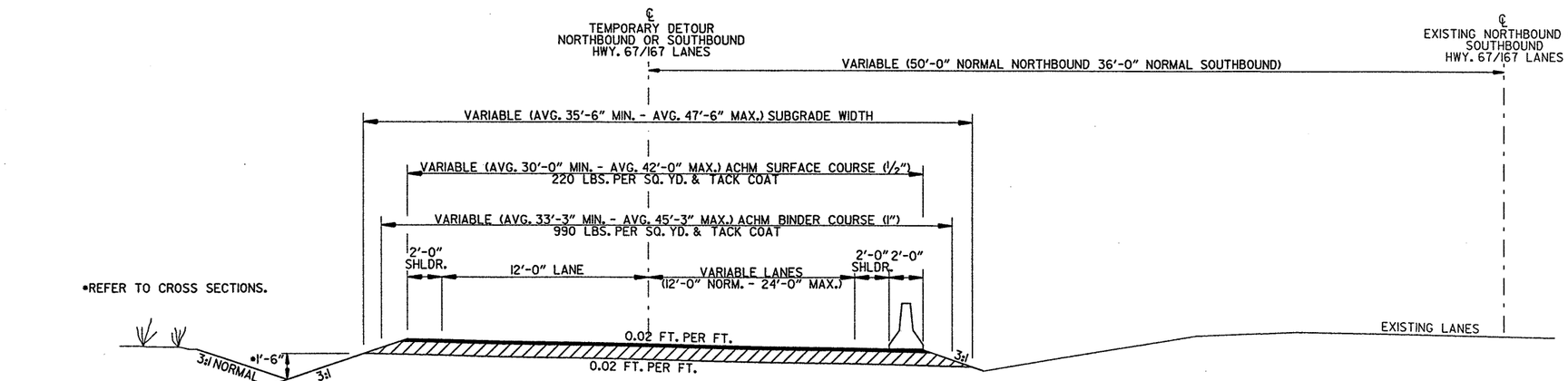
TEMPORARY WIDENING FOR MAINTENANCE OF TRAFFIC - MAIN LANES
(SHOWN IN DIRECTION OF TRAFFIC)

C.L. HWY. 67/167
STA. 22+13.45 TO STA. 210+50.00
STA. 326+98.60 TO STA. 414+05.32

C.L. NORTHBOUND HWY. 67/167
STA. 145+29.44 TO STA. 159+56.24

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.



TEMPORARY DETOUR HWY. 67/167 LANES FOR
MAINTENANCE OF TRAFFIC
(SHOWN IN DIRECTION OF TRAFFIC)

SOUTHBOUND
STA. 124+82.09 TO STA. 148+43.05

NORTHBOUND
STA. 130+99.02 TO STA. 151+37.76

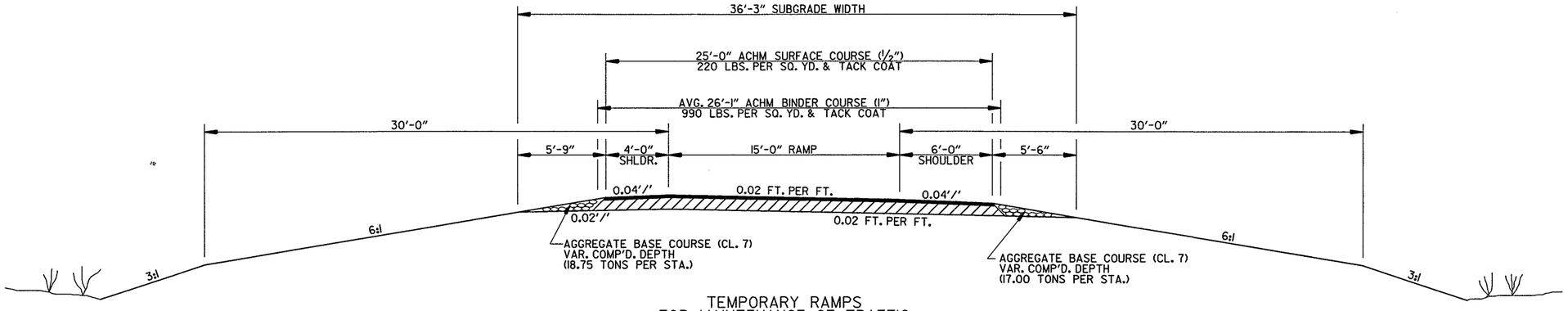
08-08-2005 RR60080.TOI

TYPICAL SECTIONS OF IMPROVEMENT

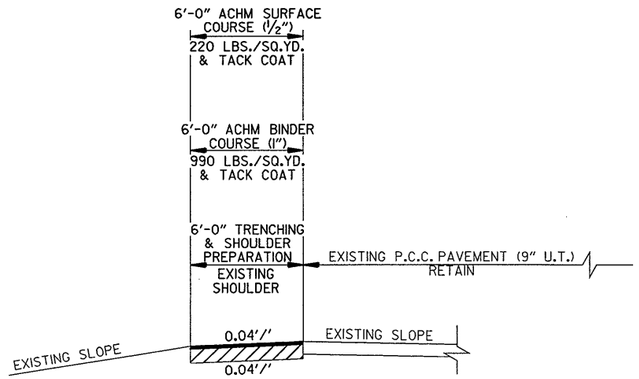
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	24	609

(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS



TEMPORARY RAMPS
FOR MAINTENANCE OF TRAFFIC
(SHOWN IN DIRECTION OF TRAFFIC)



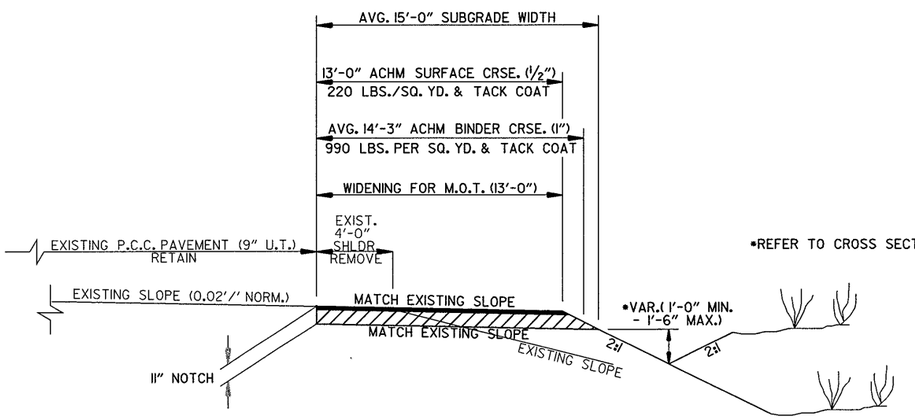
TYPICAL SECTION OF SHOULDER RECONSTRUCTION
FOR MAINTENANCE OF TRAFFIC
(SHOWN IF DIRECTION OF TRAFFIC)

INSIDE SHOULDER N.B. HWY. 67/167 LANES
STA. 153+35.00 TO STA. 159+56.24
STA. 22+13.45 TO STA. 51+11.90
STA. 196+78.80 TO STA. 200+50.00

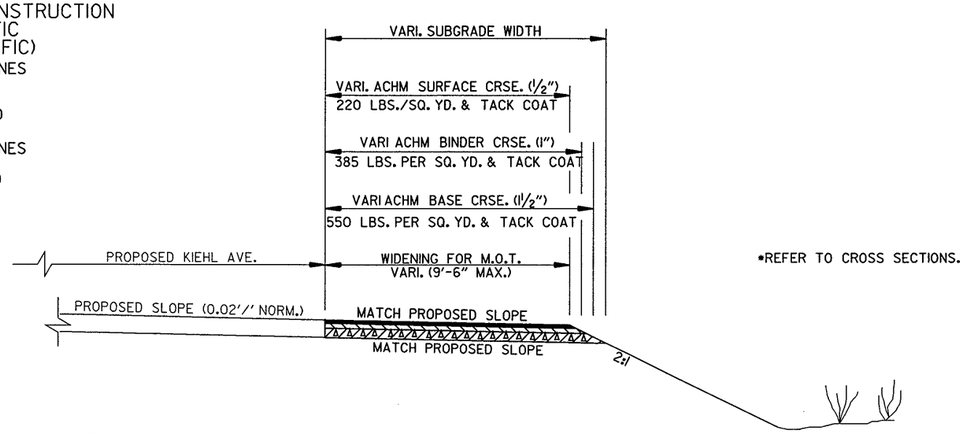
INSIDE SHOULDER S.B. HWY. 67/167 LANES
STA. 312+02.39 TO STA. 314+35.18
STA. 315+84.98 TO STA. 409+50.00

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.



TEMPORARY WIDENING FOR MAINTENANCE OF TRAFFIC - LANDERS RD.
STA. 331+32.33 TO STA. 346+39.75



TEMPORARY WIDENING FOR MAINTENANCE OF TRAFFIC - KIEHL AVE.

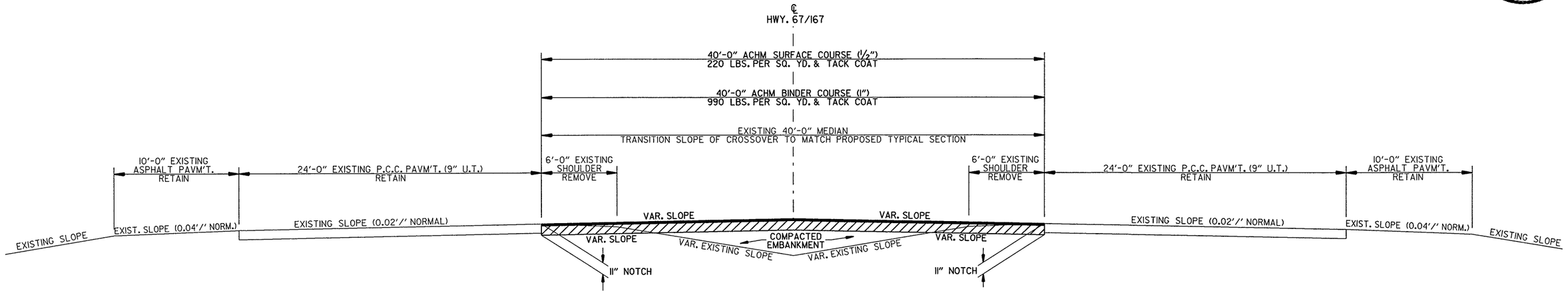
TYPICAL SECTIONS OF IMPROVEMENT

05-18-2005 RR60080.TOI

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	25	609

(2) TYPICAL SECTIONS OF IMPROVEMENT

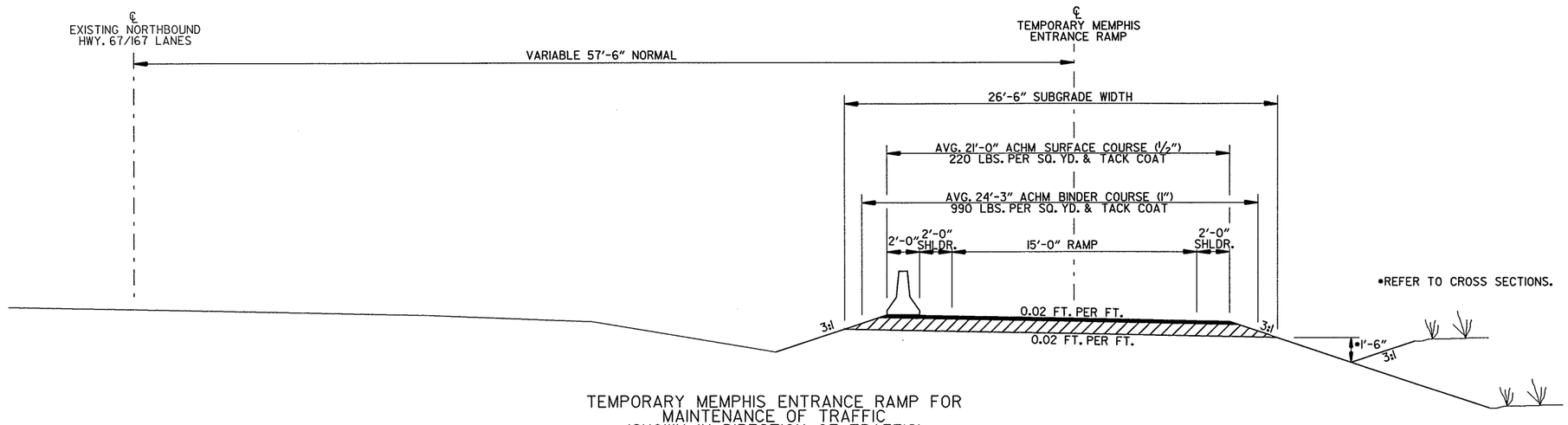
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER ★★★ No. 479 CHARLES D. CLEMENTS 8-22-2005



TEMPORARY CROSSOVER FOR MAINTENANCE OF TRAFFIC

NOTE:

1. REFER TO CROSS SECTION FOR DEVIATION FROM THE NORMAL SLOPES. NO CHANGES SHALL BE MADE FROM THE PLANNED SLOPES WITHOUT THE APPROVAL OF THE ENGINEER.



TEMPORARY MEMPHIS ENTRANCE RAMP FOR MAINTENANCE OF TRAFFIC (SHOWN IN DIRECTION OF TRAFFIC)
STA. 132+20.27 TO STA. 136+82.33

05-18-2005 RR60080.TOI

TYPICAL SECTIONS OF IMPROVEMENT

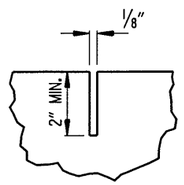
General Notes for Concrete Barrier Walls

1. All barrier walls shall be constructed in accordance with Section 631 of the Standard Specifications, 2003 Edition.
2. Contraction joints required @ 15'-0" maximum spacing for barrier types Median A & B, Side A & B. A 30'-0" maximum spacing is required for types Median C, Side C, D & E.
3. All contraction joints to be formed in fresh concrete on top and in sides of barrier wall.
4. Dowel bars for barrier types Median A & B, Side A & B will not be required if barrier and minimum 4' wide base are cast as a complete unit.
5. All exposed edges of concrete barrier wall shall have a ¾" chamfer.
6. The design of barrier wall types Median C, Side C, D & E is based on a minimum foundation bearing capacity of one ton per square foot. Unstable foundation material shall be removed and replaced to provide a firm foundation as directed by the Engineer.
7. Spacing between expansion joints shall not exceed 400 ft for barrier types Median A & B, Side A & B or 120 ft for barrier types Median C, Side C, D & E. Expansion joints shall be formed using 1" preformed joint filler. Continuous reinforcement shall be cut 2" clear of expansion joints.
8. Drainage openings to be constructed every 100' O.C. and at sags. Dowel bars shall not be placed withing 3" of drainage openings.

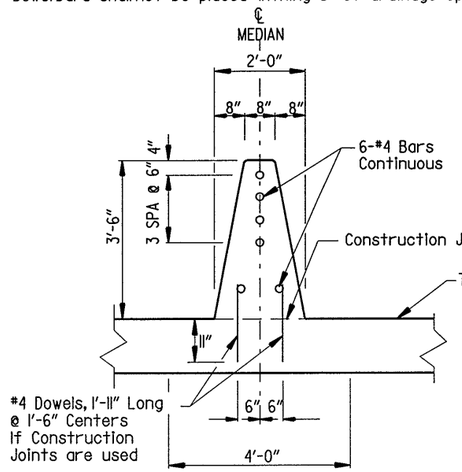
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	26	609

(2) SPECIAL DETAILS

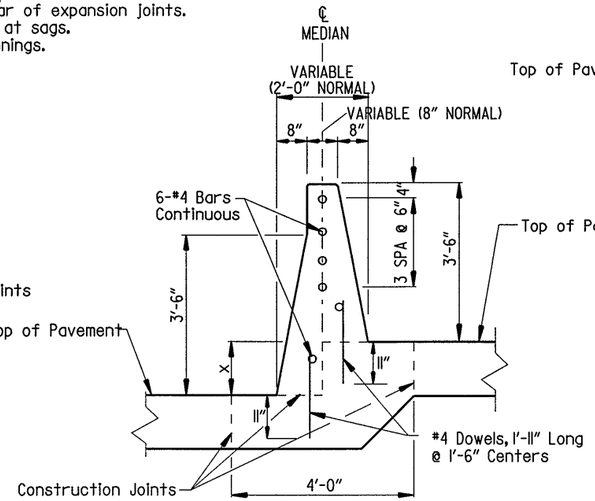
STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 4794 — CHARLES D. CLEMENTS — 5/23/05



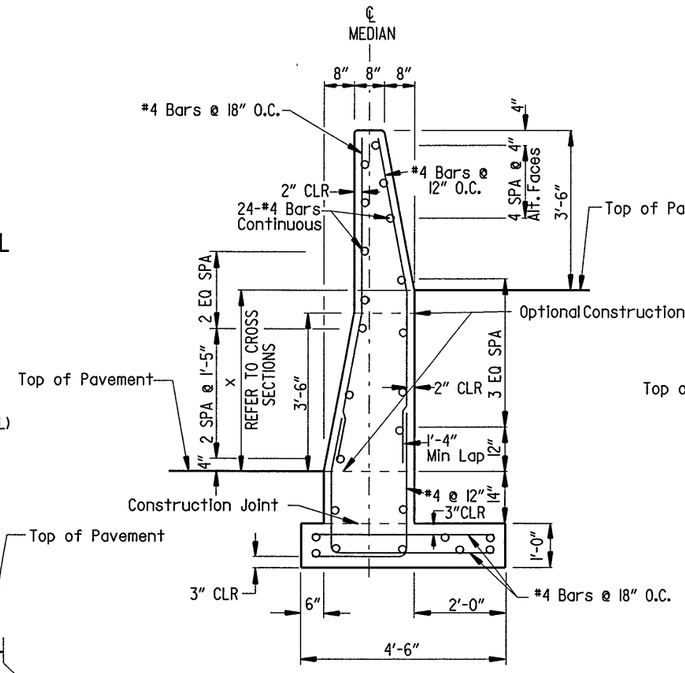
CONTRACTION JOINT DETAIL



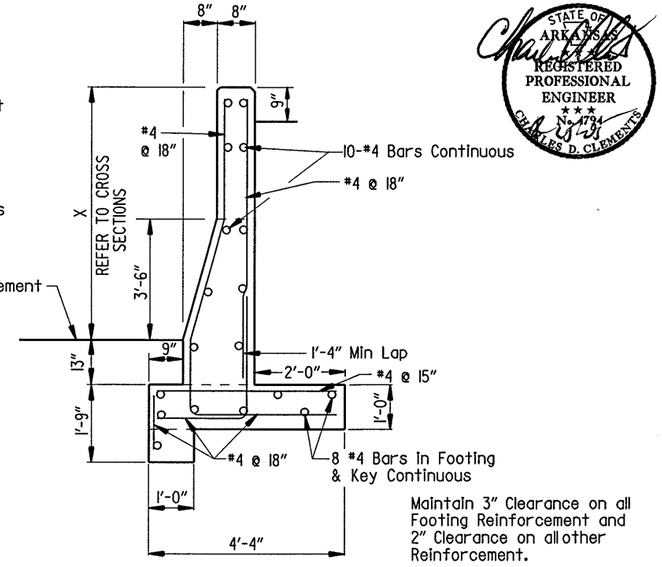
CONCRETE BARRIER WALL (MEDIAN TYPE A)



CONCRETE BARRIER WALL (MEDIAN TYPE B) x = 0'-0" to 1'-0" MAX

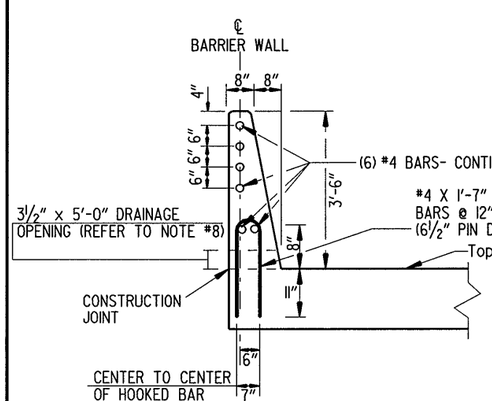


CONCRETE BARRIER WALL (MEDIAN TYPE C) x = 1'-0" to 5'-0" MAX

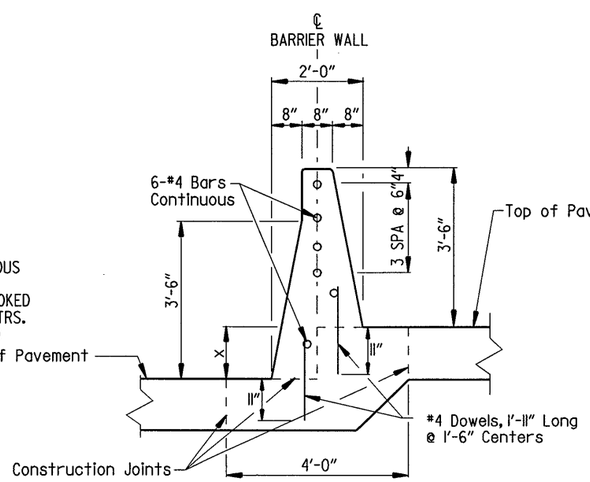


Maintain 3" Clearance on all Footing Reinforcement and 2" Clearance on all other Reinforcement.

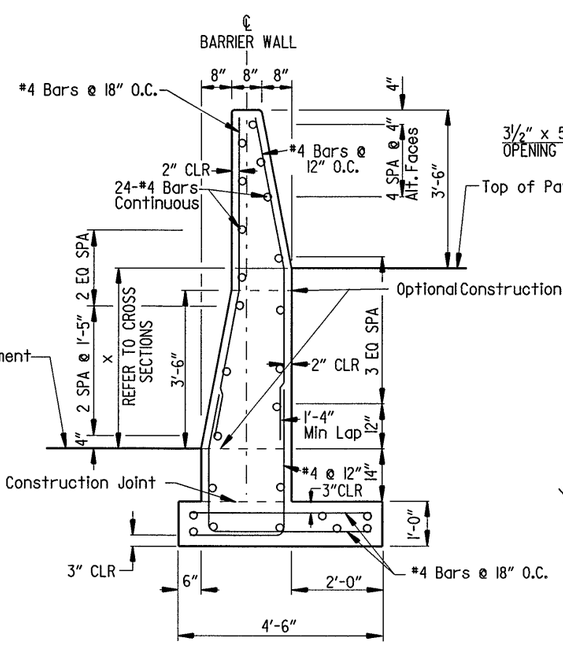
CONCRETE BARRIER WALL (SIDE TYPE D)



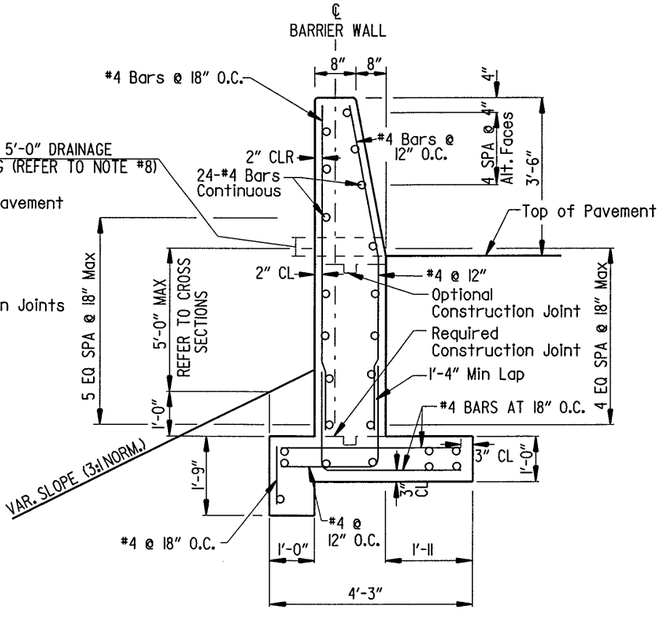
CONCRETE BARRIER WALL (SIDE TYPE A)



CONCRETE BARRIER WALL (SIDE TYPE B) x = 0'-0" to 1'-0" MAX



CONCRETE BARRIER WALL (SIDE TYPE C) x = 1'-0" to 5'-0" MAX



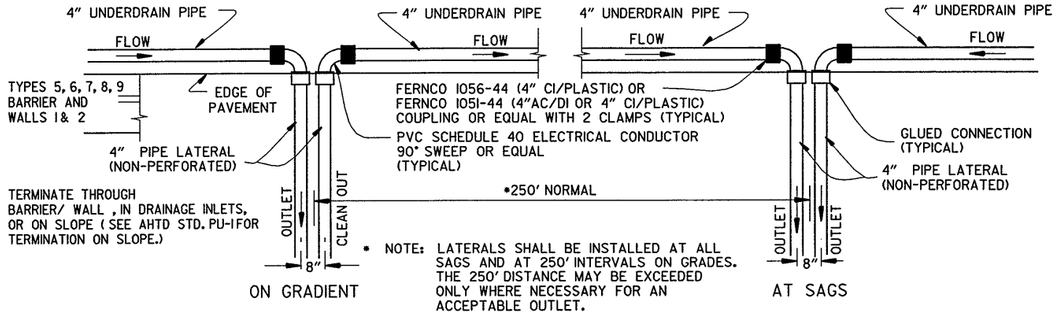
CONCRETE BARRIER WALL (SIDE TYPE E)

05-23-2005 RR60080.D03

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.		R60080	27	609

(2) SPECIAL DETAILS



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

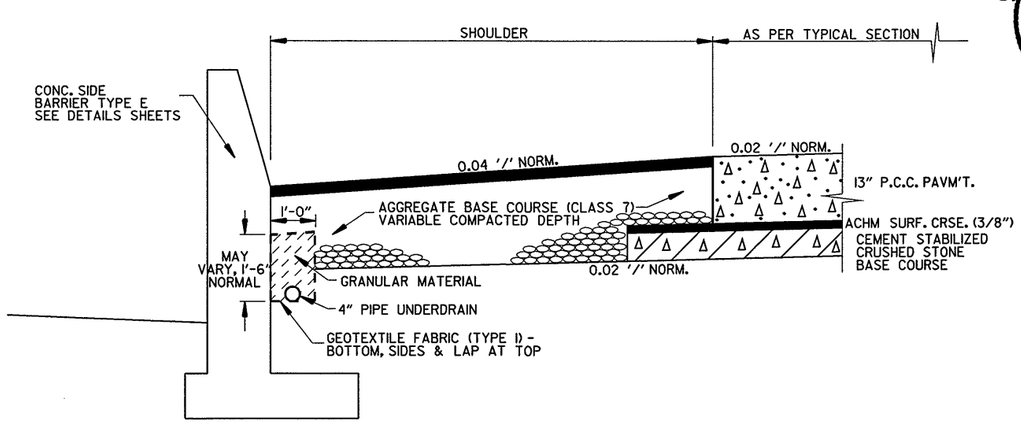
PLAN OF SIDE UNDERDRAIN PIPES AND LATERALS

NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

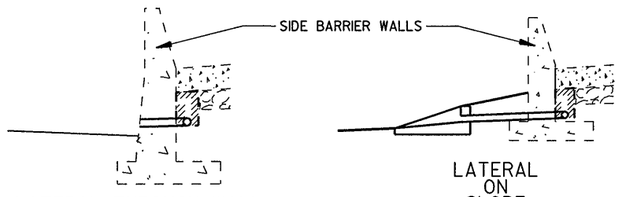
NOTES FOR UNDERDRAIN PIPES:

1. REFER TO TYPICAL SECTIONS AND SPECIAL DETAILS FOR PAVEMENT SECTIONS AND BARRIERS.
2. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE CONSIDERED INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.
3. 4" NON-PERFORATED PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HEREON. LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.
4. 4" UNDERDRAIN PIPES SHALL BE PLACED ON THE LOW SIDE OF SUPERELEVATED ROADWAYS AS SHOWN ON THE TYPICAL SECTIONS. 4" PIPE UNDERDRAINS SHALL BE CONNECTED TO MEDIAN DROP INLETS WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS.
5. ANY EXISTING UNDERDRAINS OR LATERALS ENCOUNTERED SHALL BE REMOVED. ANY TRENCHES FORMED SHALL BE FILLED WITH EARTH AND THOROUGHLY COMPACTED WITH A MECHANICAL TAMPER UNTIL IT IS AS FIRM AND UNYIELDING AS THE SURROUNDING MATERIAL. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

STATE OF ARKANSAS CHARLES D. CLEMENTS REGISTERED PROFESSIONAL ENGINEER No. 4791

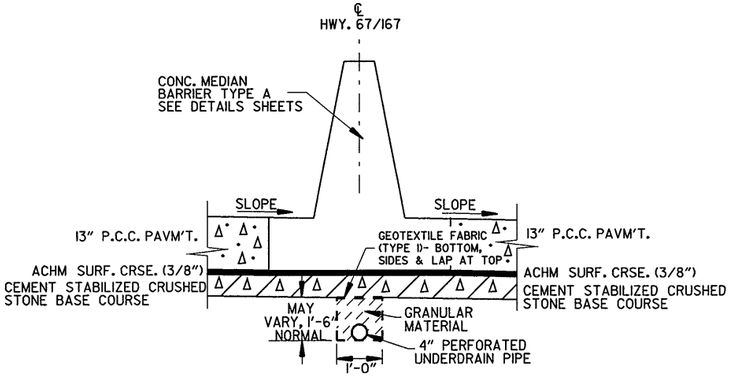


SIDE UNDERDRAIN

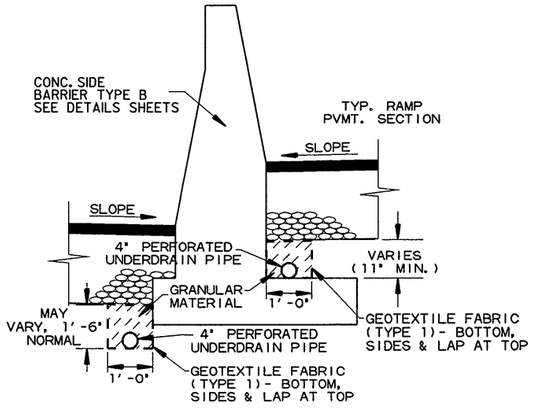


LATERAL THROUGH WALL

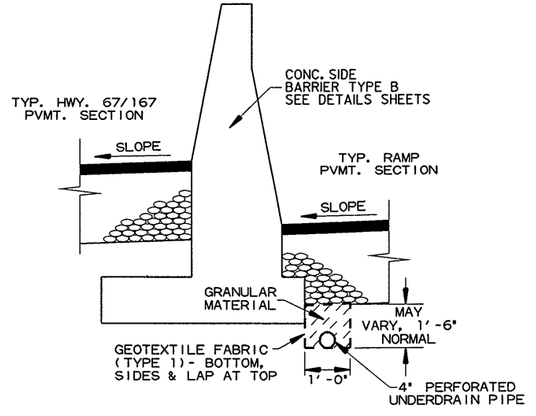
LATERAL ON SLOPE



MEDIAN UNDERDRAIN WITH TYPE A BARRIER, SUPERELEVATION SECTION



SIDE UNDERDRAINS WITH TYPE B OR C BARRIER, TANGENT SECTION



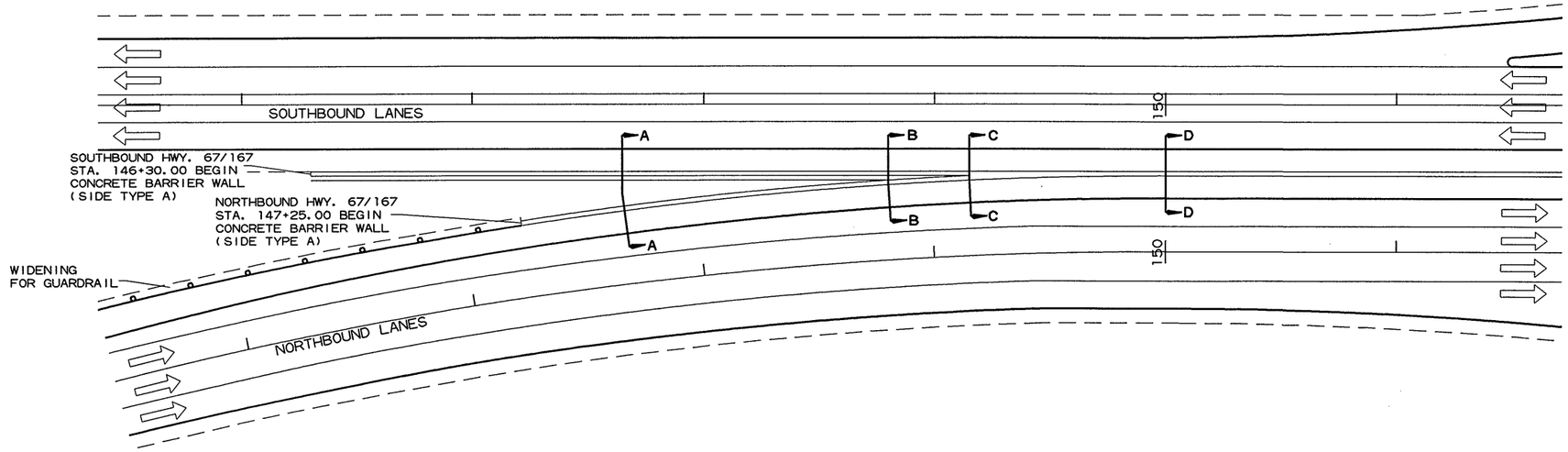
SIDE UNDERDRAINS WITH TYPE C BARRIER, FULL SE. SECTION

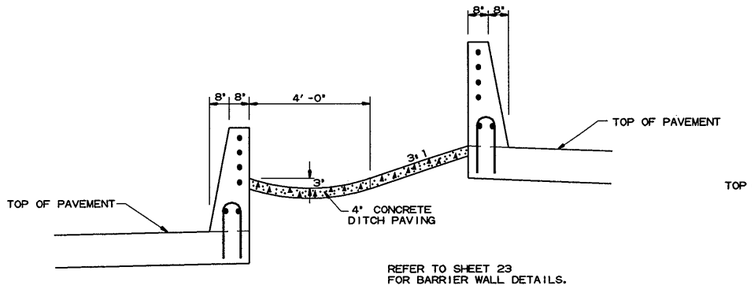
07-25-2005 RR60080.DO6

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	28	609

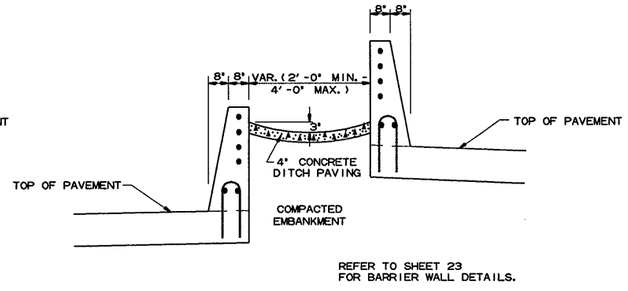
(2) SPECIAL DETAILS

STATE OF ARKANSAS CHARLES D. CLEMENTS REGISTERED PROFESSIONAL ENGINEER 9-22-05

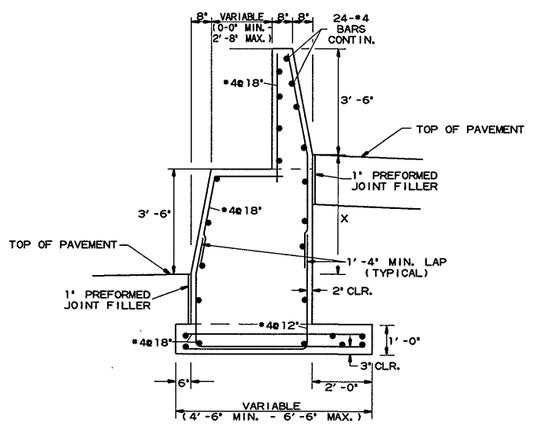




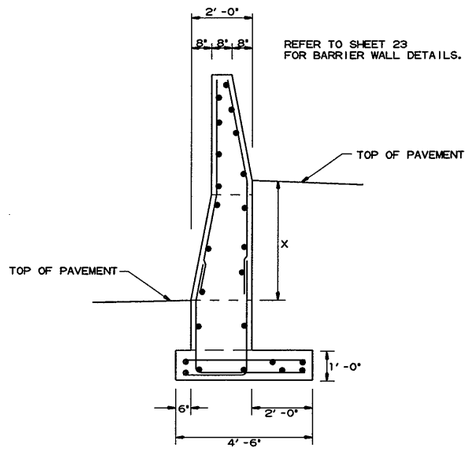
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

General Notes for Concrete Barrier Walls

1. All barrier walls shall be constructed in accordance with Section 631 of the Standard Specifications, 2003 Edition.
2. Contraction joints required @ 30'-0" maximum spacing.
3. All contraction joints to be formed in fresh concrete on top and in sides of barrier wall.
4. All exposed edges of concrete barrier wall shall have a 3/4" chamfer.
5. Expansion joints shall be formed using 1" preformed joint filler. Continuous reinforcement shall be cut 2" clear of expansion joints.
6. Maintain 3" Clearance on all Footing Reinforcement and 2" Clearance on all other Reinforcement.
7. Payment for Aggregate Base Course (CL. 7) to be included with transition barrier.

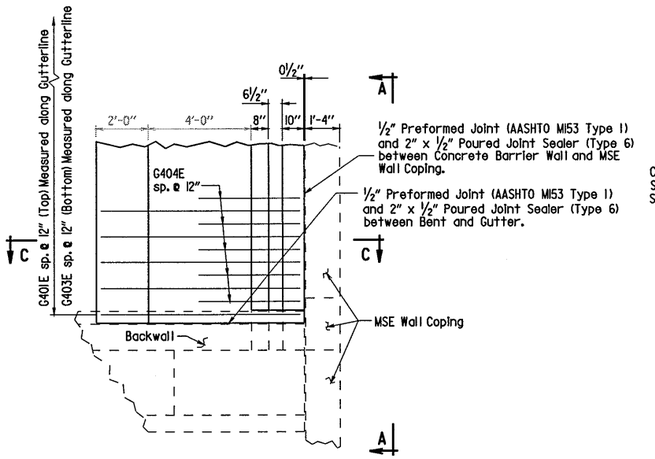
05-24-2005 RR60080.D02

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.		R60080	29	600

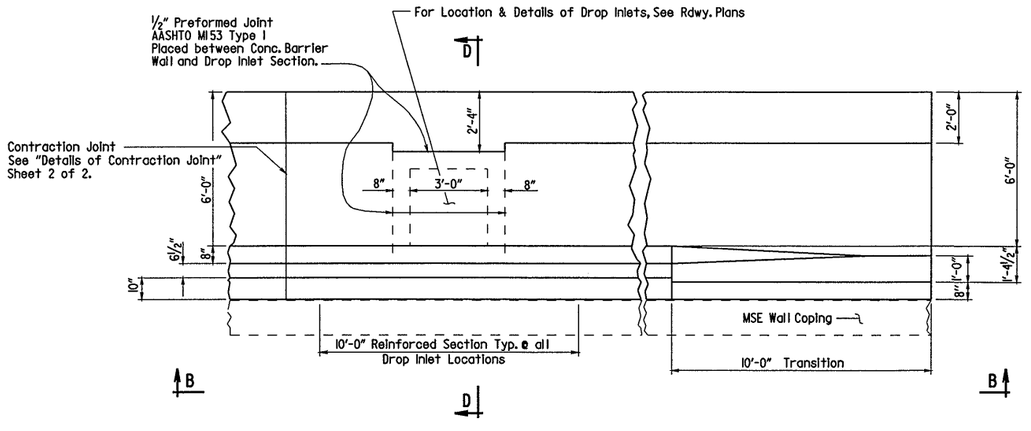
(2) SPECIAL DETAILS

STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
9776
CHARLES D. CLEMENTS



PLAN - CONC. BARRIER WALL NEAR BRIDGE ENDS

3/8" = 1'-0"



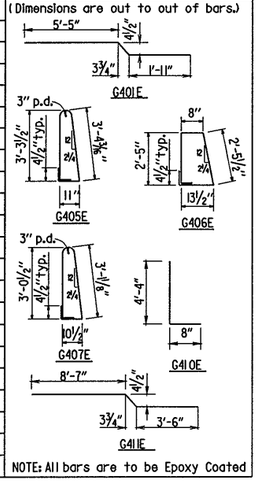
PLAN - CONC. BARRIER WALL

(Conc. Barrier Wall Shown Is Near Beg. of Bridge, Conc. Barrier Wall Near End of Bridge Is Similar.)

3/8" = 1'-0"

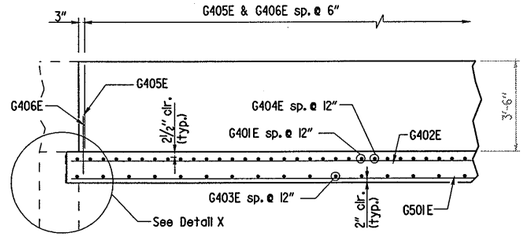
BAR LIST

MK	Length	Pin Dia.	Bending Diagram
G401E	7'-9"	2"	(Dimensions are out to out of bars.)
G402E	*As Required	Str.	
G403E	7'-8"	Str.	
G404E	3'-11"	Str.	
G405E	8'-2"	2"	
G406E	7'-0"	2"	
G407E	7'-8"	2"	
G408E	2'-0"	Str.	
G409E	4'-5"	Str.	
G410E	4'-11"	2"	
G411E	12'-6"	2"	
G412E	12'-7"	Str.	
G501E	*As Required	Str.	
G601E	*As Required	Str.	
G801E	10'-0"	Str.	



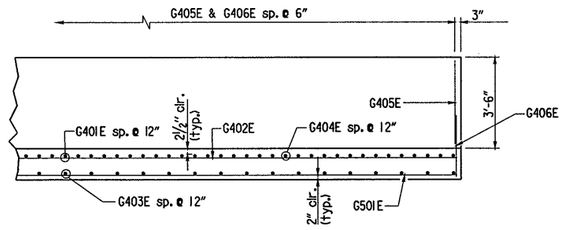
NOTE: All bars are to be Epoxy Coated

* NOTE: Min. Lap For Longitudinal Bars:
*4 Bar - 2'-7"
*5 Bar - 3'-3"
*6 Bar - 4'-5"



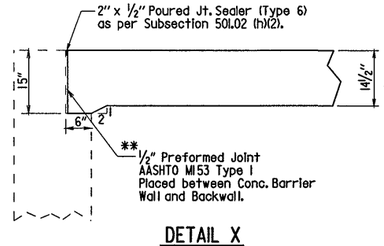
VIEW A-A

3/8" = 1'-0"



VIEW B-B

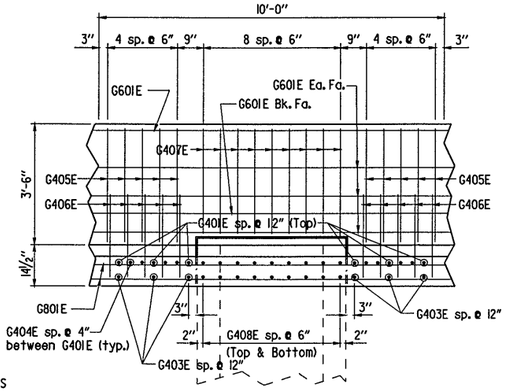
3/8" = 1'-0"



DETAIL X

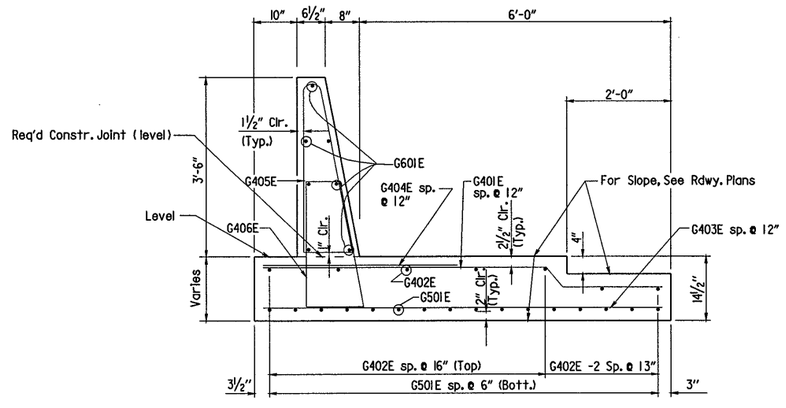
No Scale

** Note: Extend Top of Preformed Joint 4" above gutter at Barrier Wall.



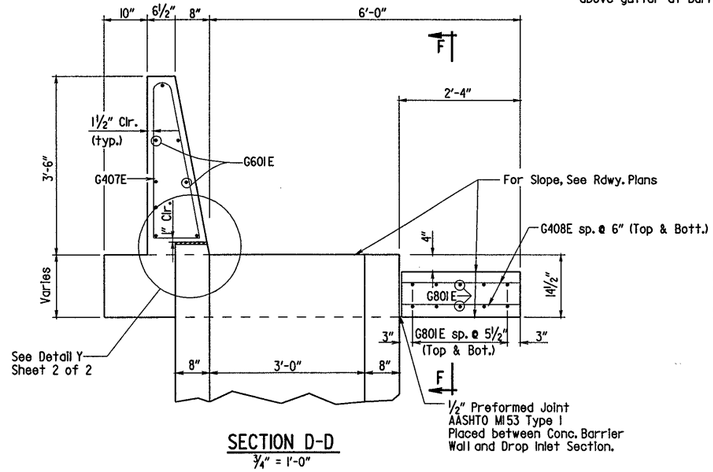
SECTION F-F

½" = 1'-0"



SECTION C-C

¾" = 1'-0"



SECTION D-D

¾" = 1'-0"

GENERAL NOTES

Concrete shall be Class S1AE) (f'c = 4,000 psi.)

Reinforcement Steel shall conform to AASHTO M31 or M53, Grade 60 (fy = 60,000 psi).

Concrete Barrier Wall will be paid for as "Concrete Barrier Wall (Parapet Type Special)".

07-26-2005 RR60080.D07

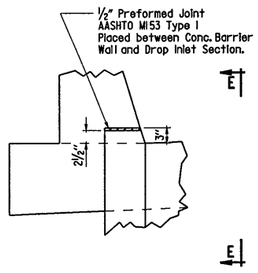
PARAPET WALL (TYPE SPECIAL)

SPECIAL DETAILS

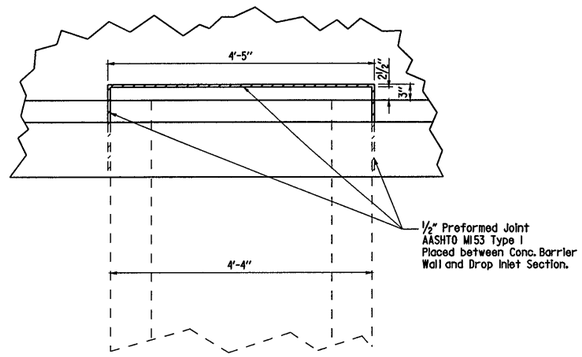
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	30	609

(2) SPECIAL DETAILS

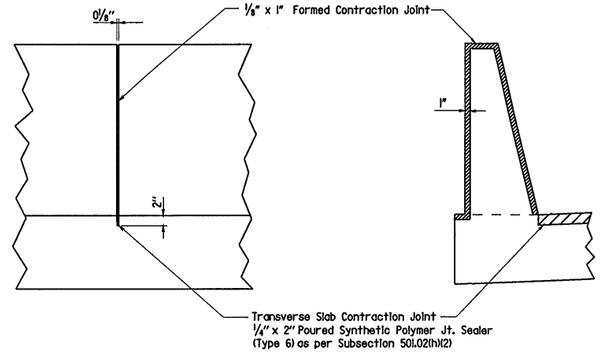
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
9-22-31



DETAIL Y
1" = 1'-0"

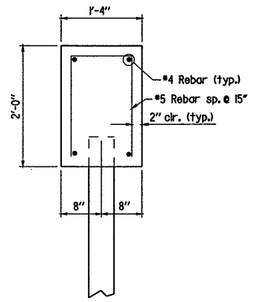


VIEW E-E
1" = 1'-0"

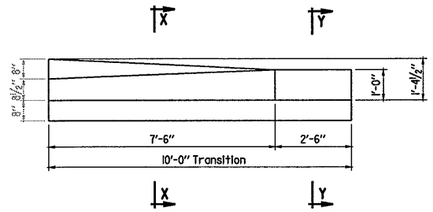


DETAILS OF CONTRACTION JOINTS

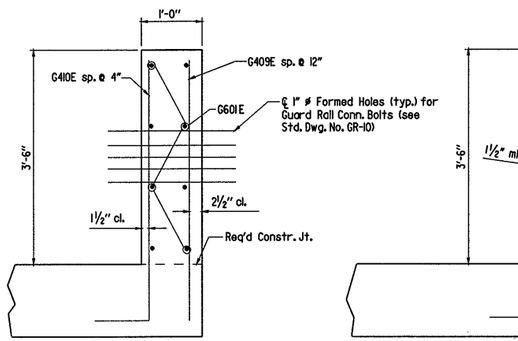
NOTE: Contraction Joints shall be constructed at 15'-0" Max. Sp. The formed ⅛" x 1" Contraction Joint shall be formed in fresh concrete. If Transverse Slab Joints are sawed, they shall be sawed before any vehicular traffic is allowed on the pavement.



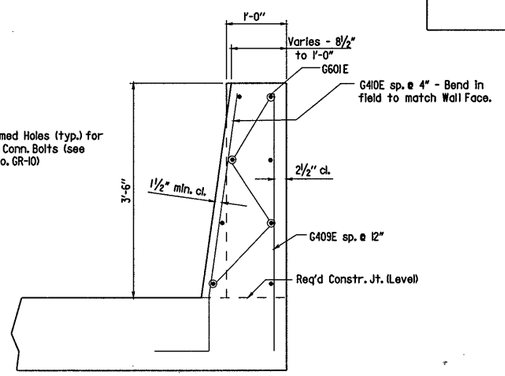
COPING DETAIL
No Scale



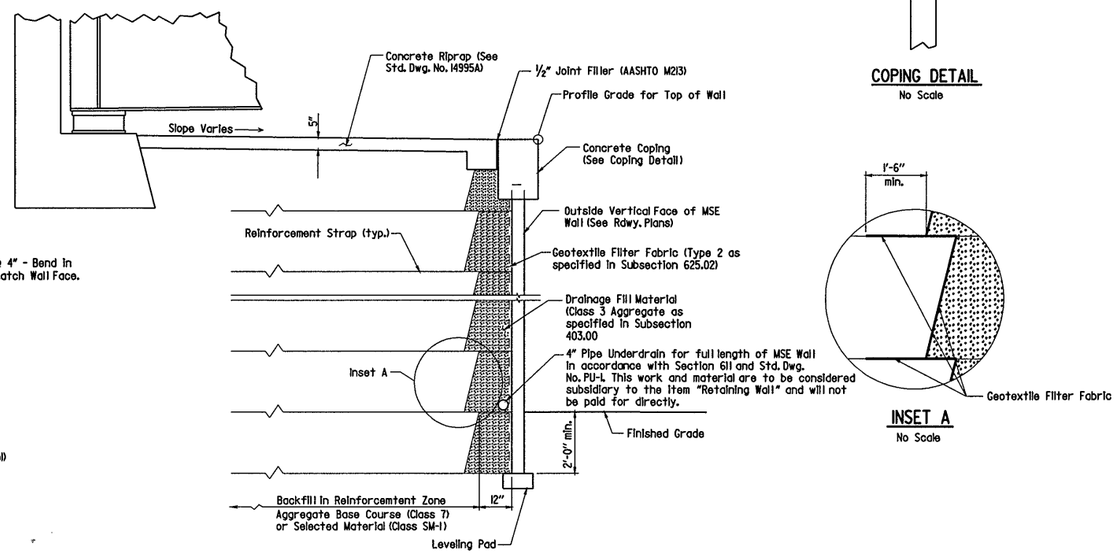
PLAN - 10'-0" TRANSITION
½" = 1'-0"



SECTION Y-Y
1" = 1'-0"



SECTION X-X
1" = 1'-0"



BACKFILL IN MSE WALL REINFORCEMENT ZONE
No Scale

INSET A
No Scale

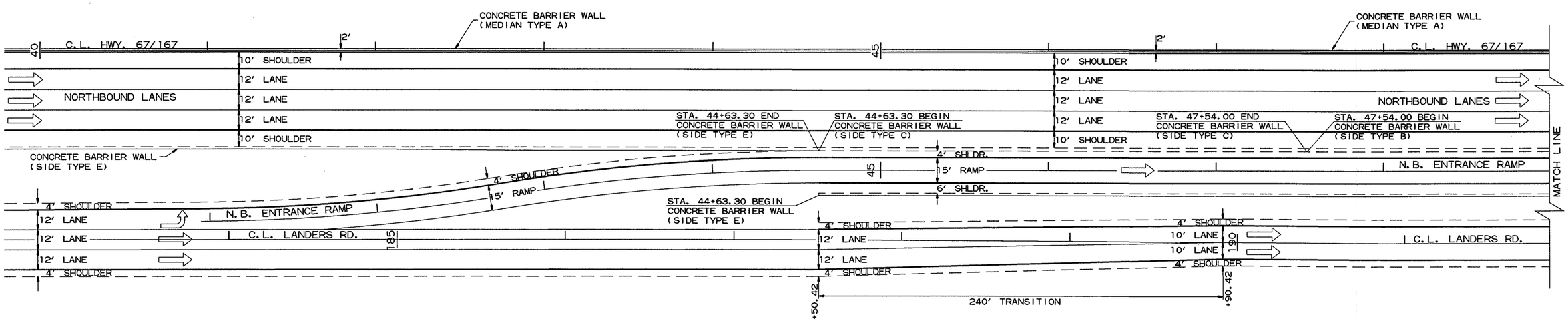
PARAPET WALL (TYPE SPECIAL)

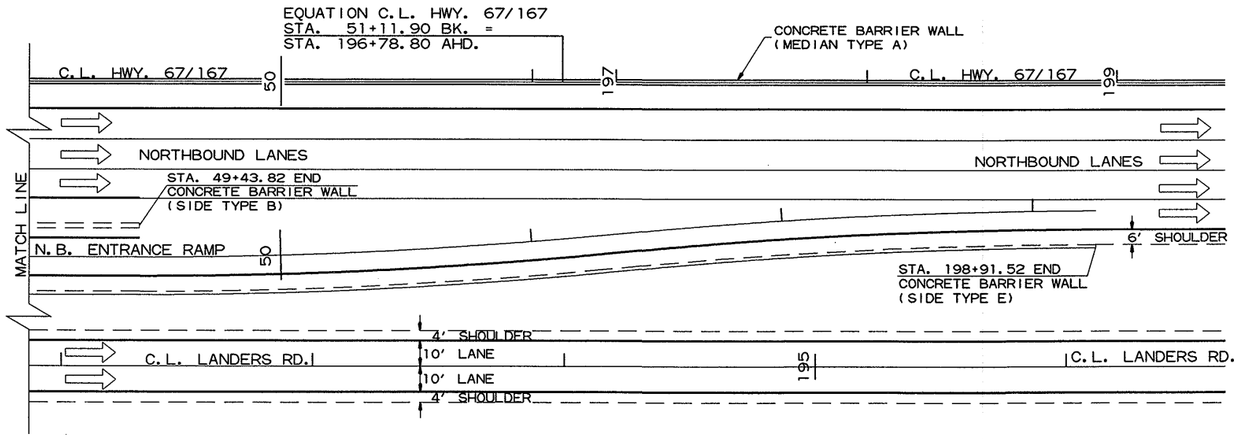
07-26-2005 RR60080.DGT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
09-15-2005				6	ARK.			
				JOB NO.		R60080	31	609

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES N. CLEMENTS
9-15-05





McCAIN BLVD. NORTHBOUND ENTRANCE RAMP

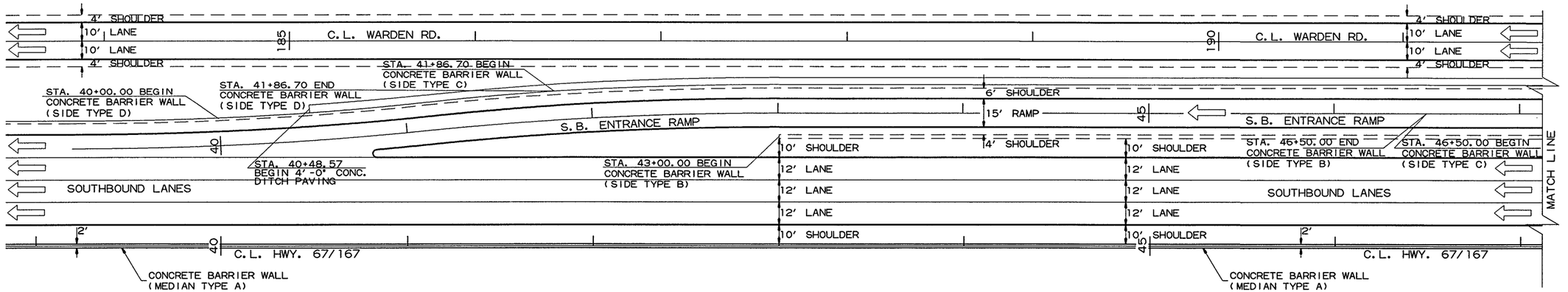
09-15-2005 RR60080.D02

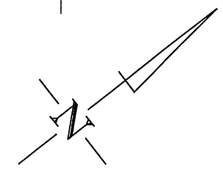
SPECIAL DETAILS

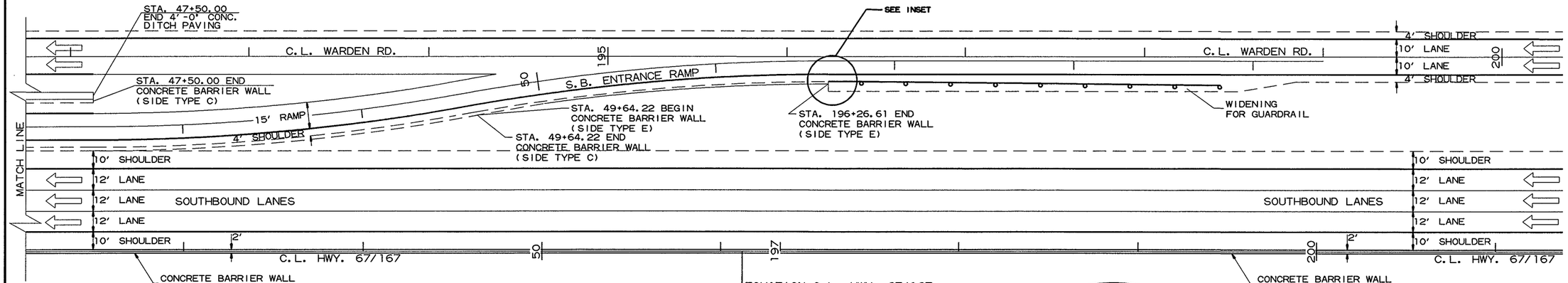
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	32	609

(2) SPECIAL DETAILS

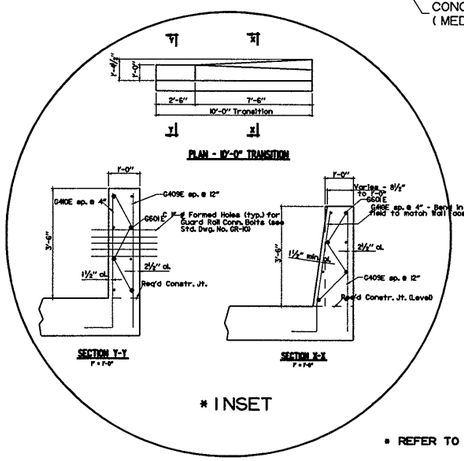
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-25-05







McCAIN BLVD. SOUTHBOUND ENTRANCE RAMP



* INSET

* REFER TO STD. DRWG. GR-11

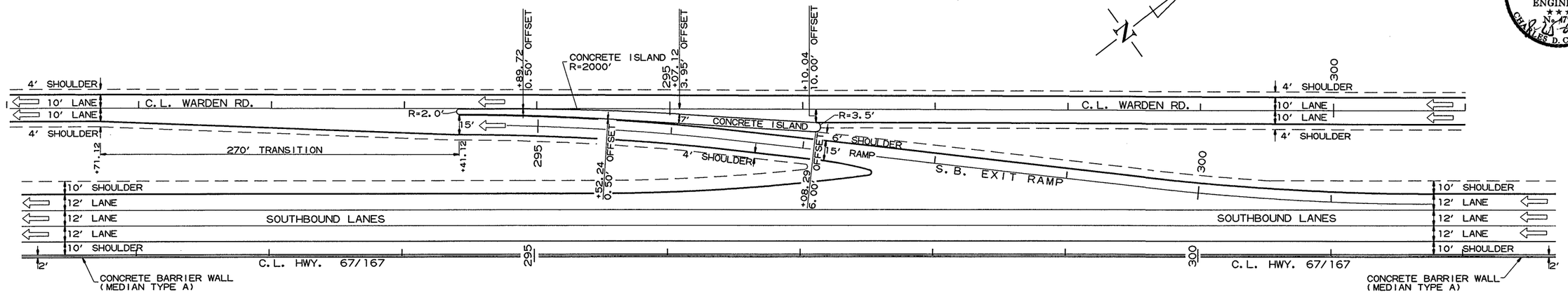
SPECIAL DETAILS

05-24-2005 RR60080.D02

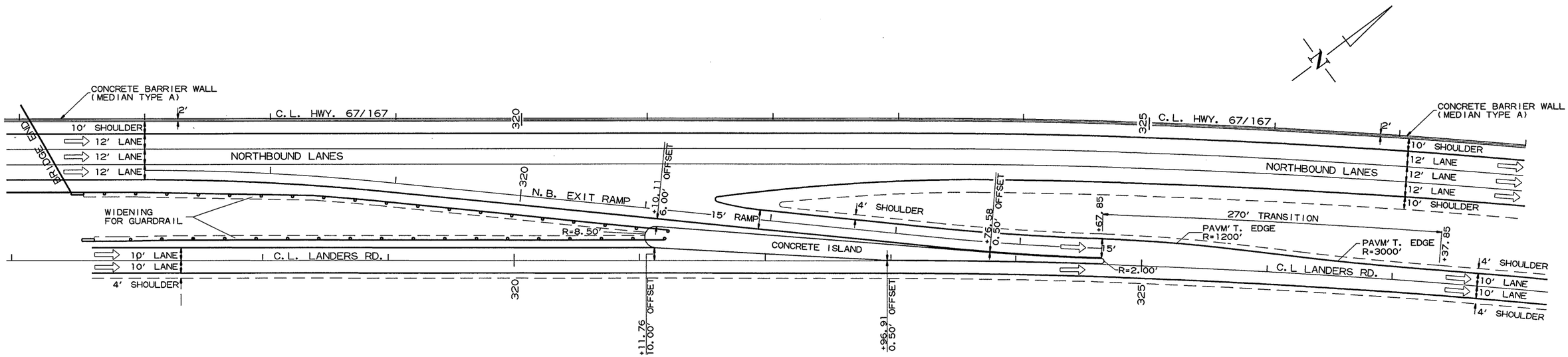
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	33	609

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 1794
CHARLES D. CLEMENTS



WILDWOOD DR. EXIT RAMP



BROOKSWOOD RD. EXIT RAMP

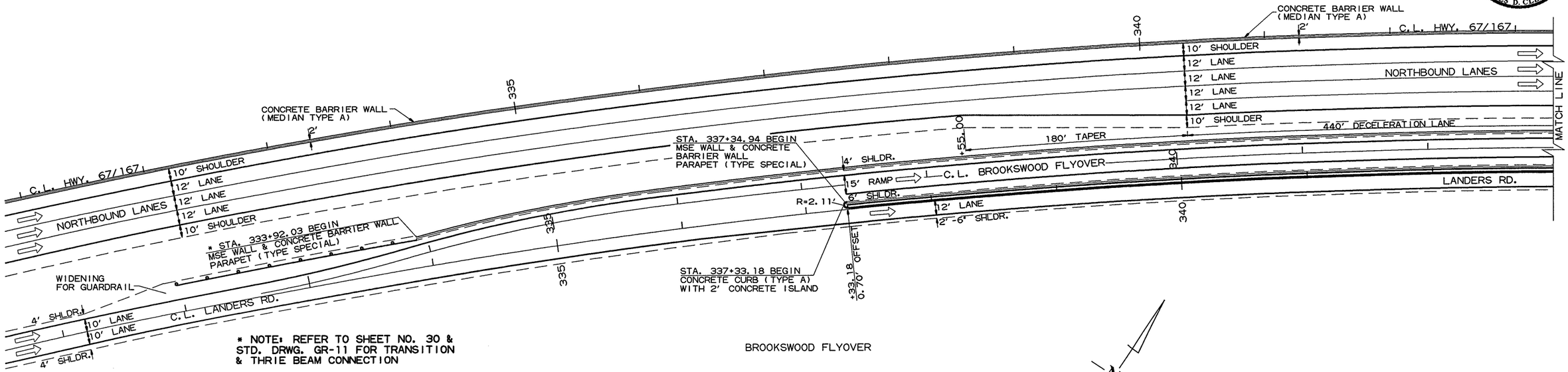
08-11-2005 RR60080.D02

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.		R60080	34	609

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-25-05
CHARLES D. CLEMENTS



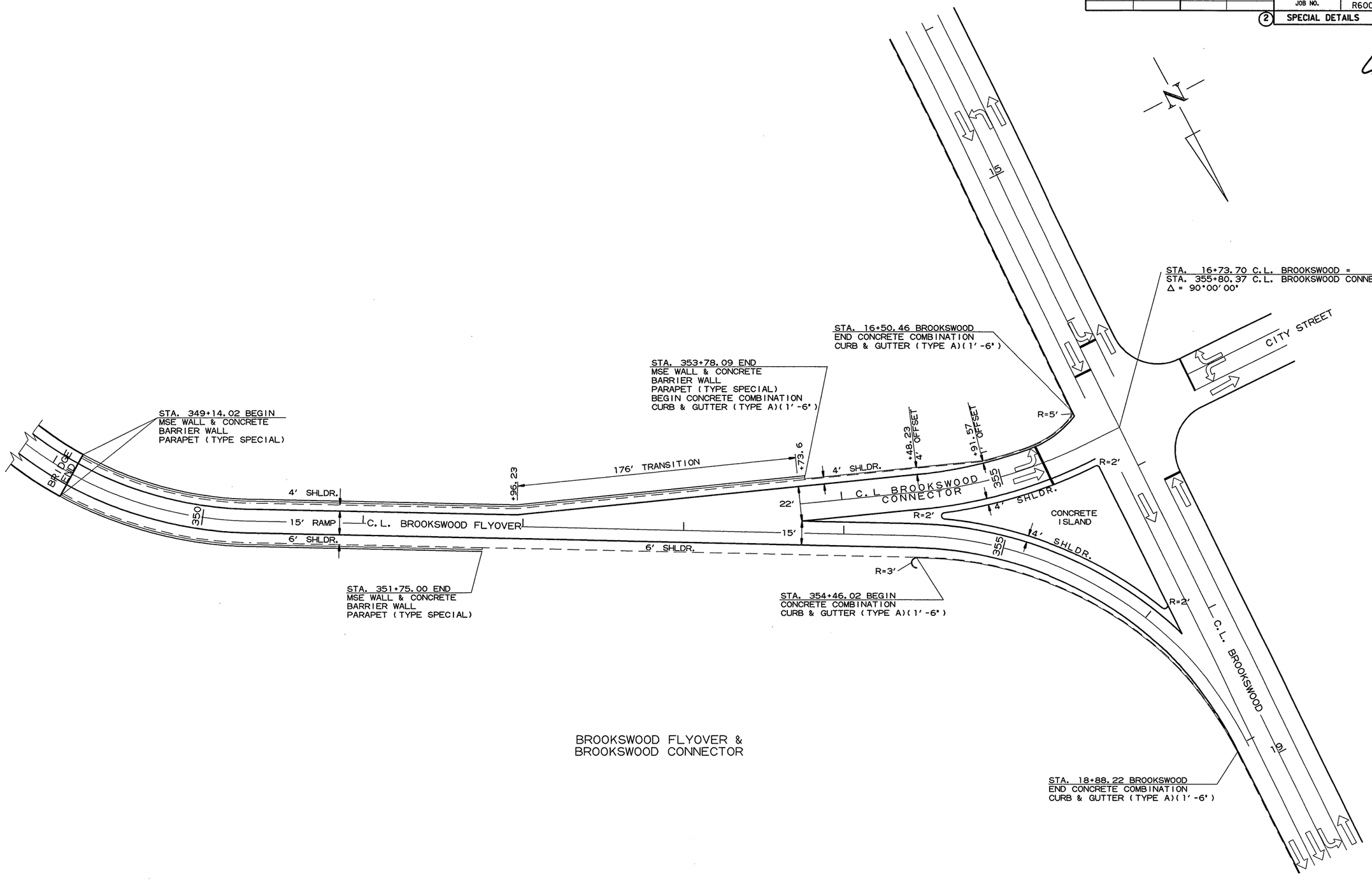
08-11-2005 RR60080.002

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.		R60080	35	609

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8791
5-22-05
CHARLES D. CLEMENTS



BROOKSWOOD FLYOVER &
BROOKSWOOD CONNECTOR

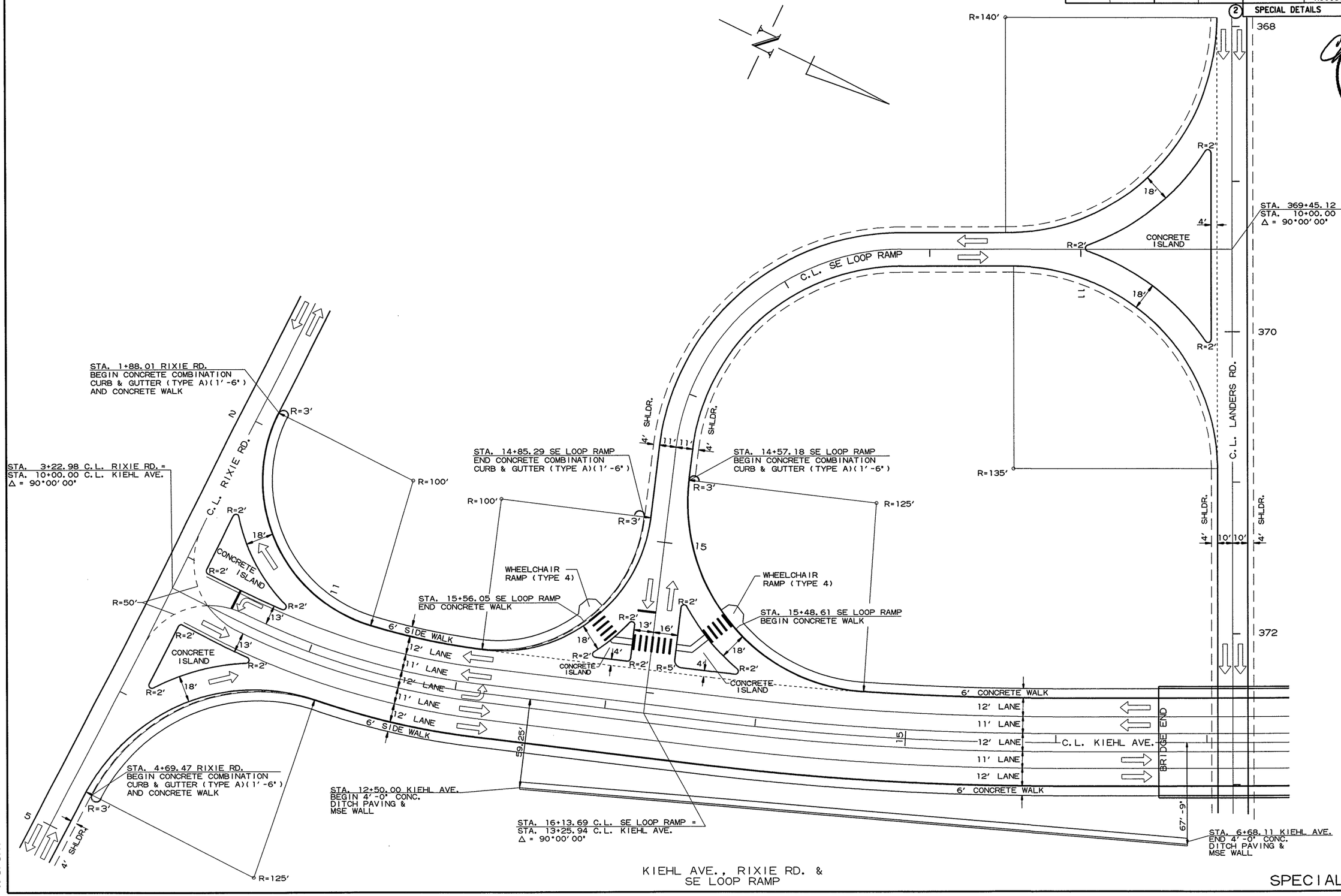
05-24-2005 RR60080.002

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.		R60080	36	609

2 SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7941
CHARLES D. CLEMENTS
5-31



KIEHL AVE., RIXIE RD. & SE LOOP RAMP

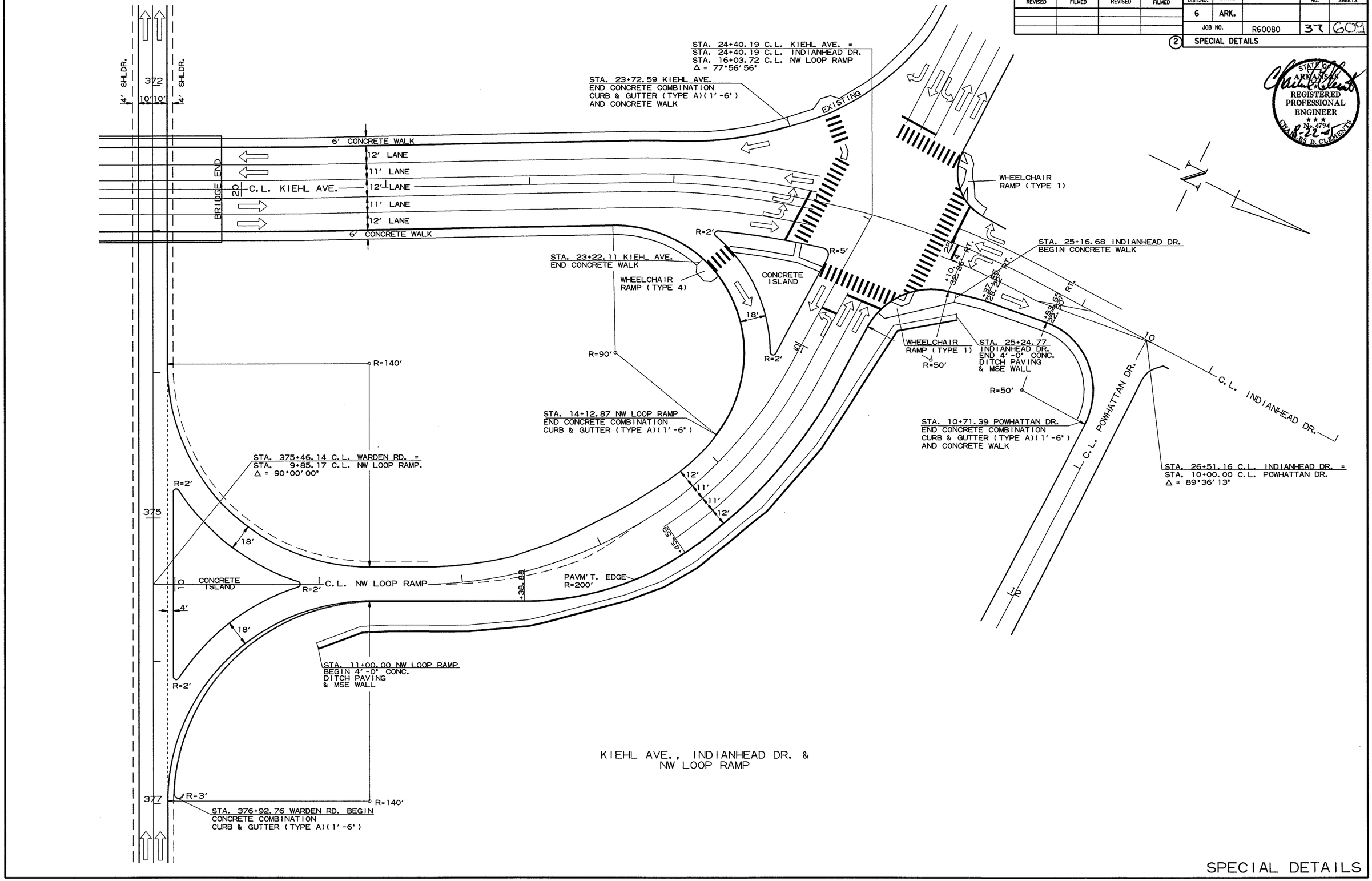
SPECIAL DETAILS

05-26-2005 RR60080.D02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	37	60

(2) SPECIAL DETAILS

STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
5-22-05
CHARLES D. CLEMENTS



KIEHL AVE., INDIANHEAD DR. & NW LOOP RAMP

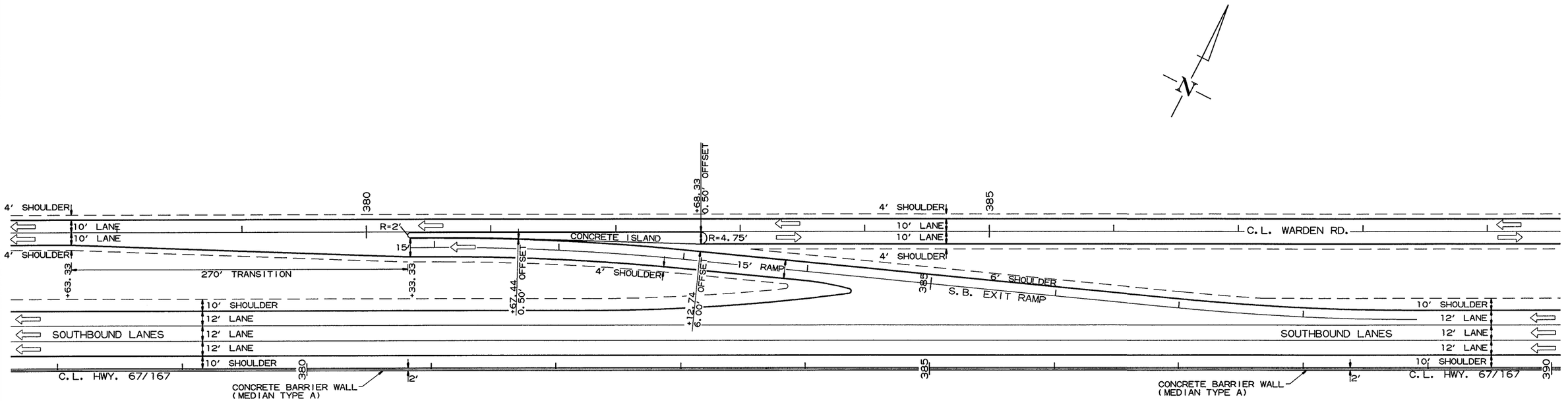
05-26-2005 RR60080.D02

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.		R60080	38	609

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9791
8-22-05
CHARLES D. CLEMENTS



KIEHL AVE. EXIT RAMP

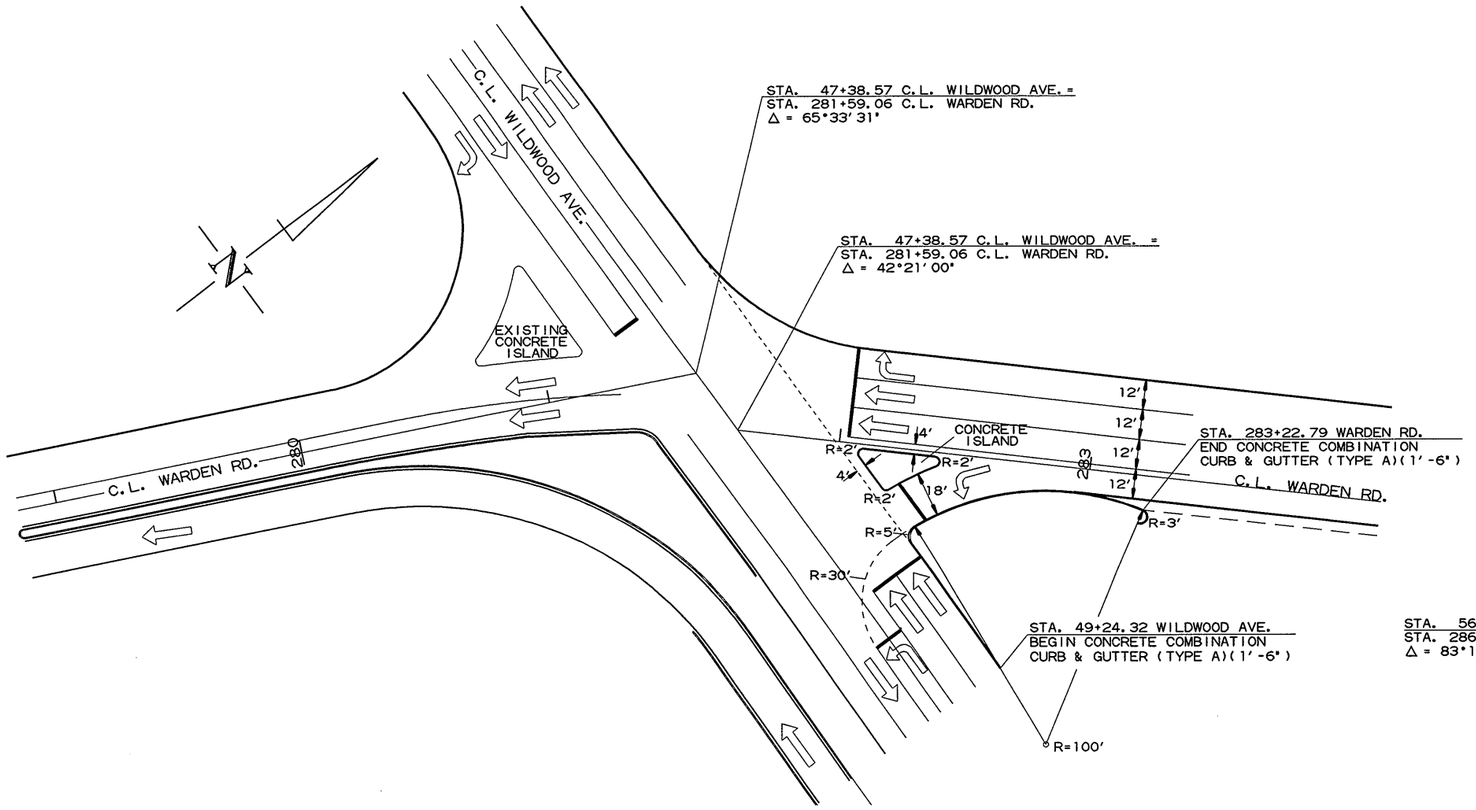
08-11-2005 RR60080.D02

SPECIAL DETAILS

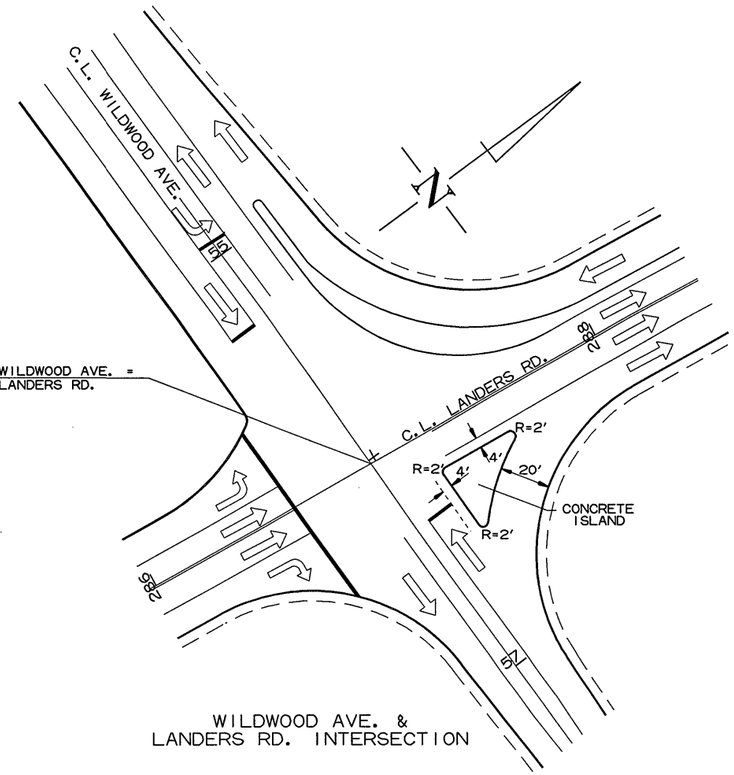
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	39	603

(2) SPECIAL DETAILS

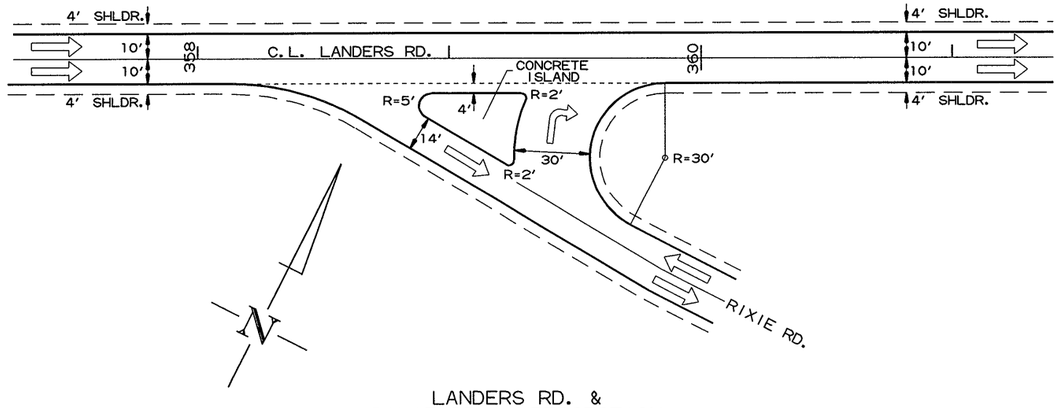
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
8-22-05



WILDWOOD AVE. &
WARDEN RD. INTERSECTION



WILDWOOD AVE. &
LANDERS RD. INTERSECTION



LANDERS RD. &
RIXIE RD. INTERSECTION

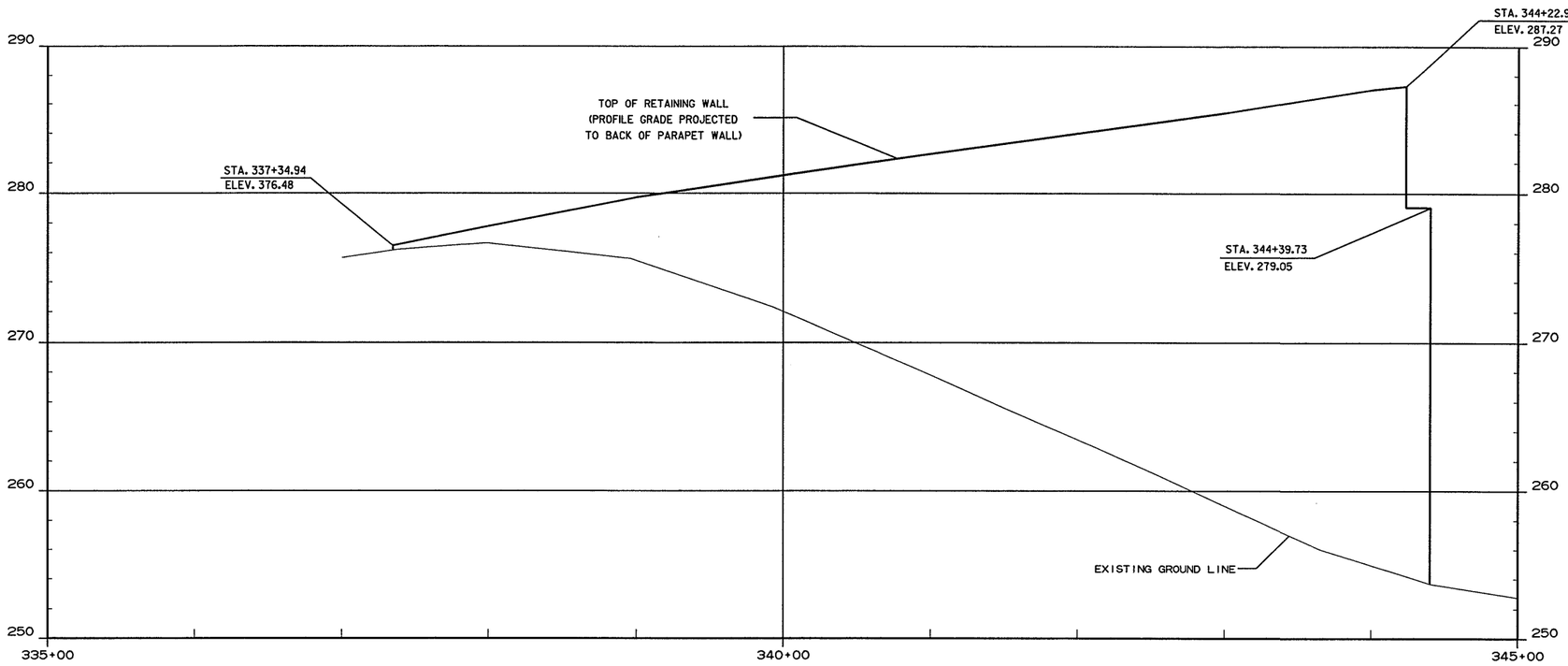
05-24-2005 RR60080.D02

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.		R60080	40	

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
9-22-05
CHARLES D. CLEMENTS



ELEVATION OF RETAINING WALL
BROOKSWOOD FLYOVER - RIGHT

QUANTITIES

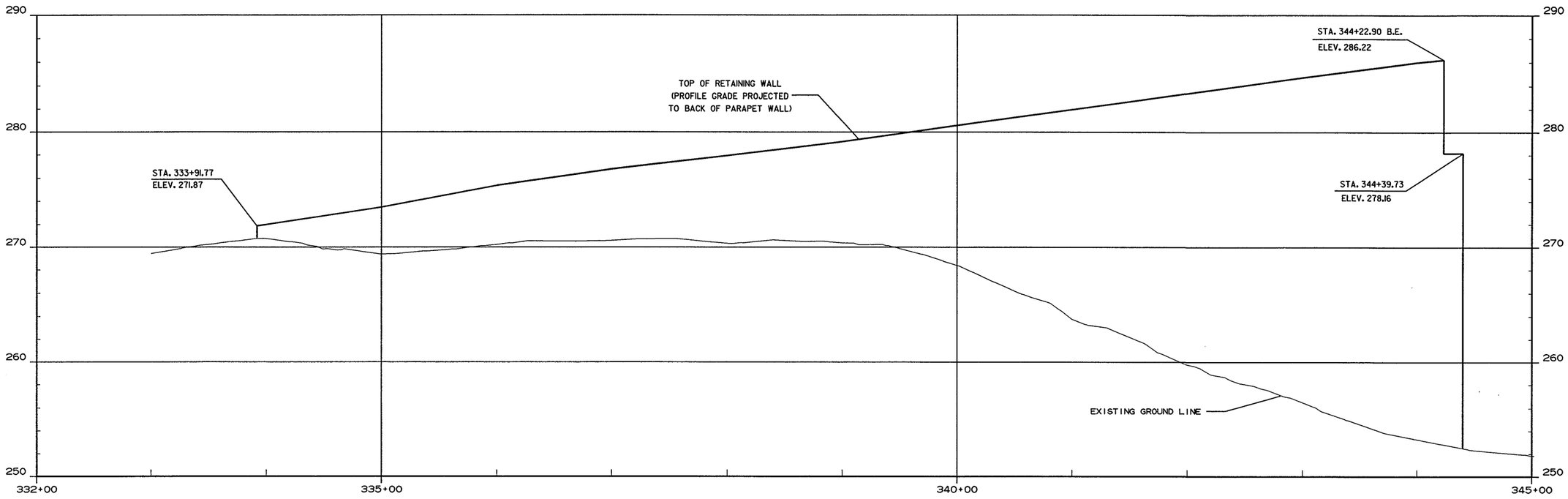
LOCATION	RETAINING WALL
	SQ. FT.
BROOKSWOOD FLYOVER	10472

07-26-2005 RR60080.D08

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	41	60

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 1794
7-27-05
CHARLES D. CLEMENTS



ELEVATION OF RETAINING WALL
BROOKSWOOD FLYOVER - LEFT

QUANTITIES

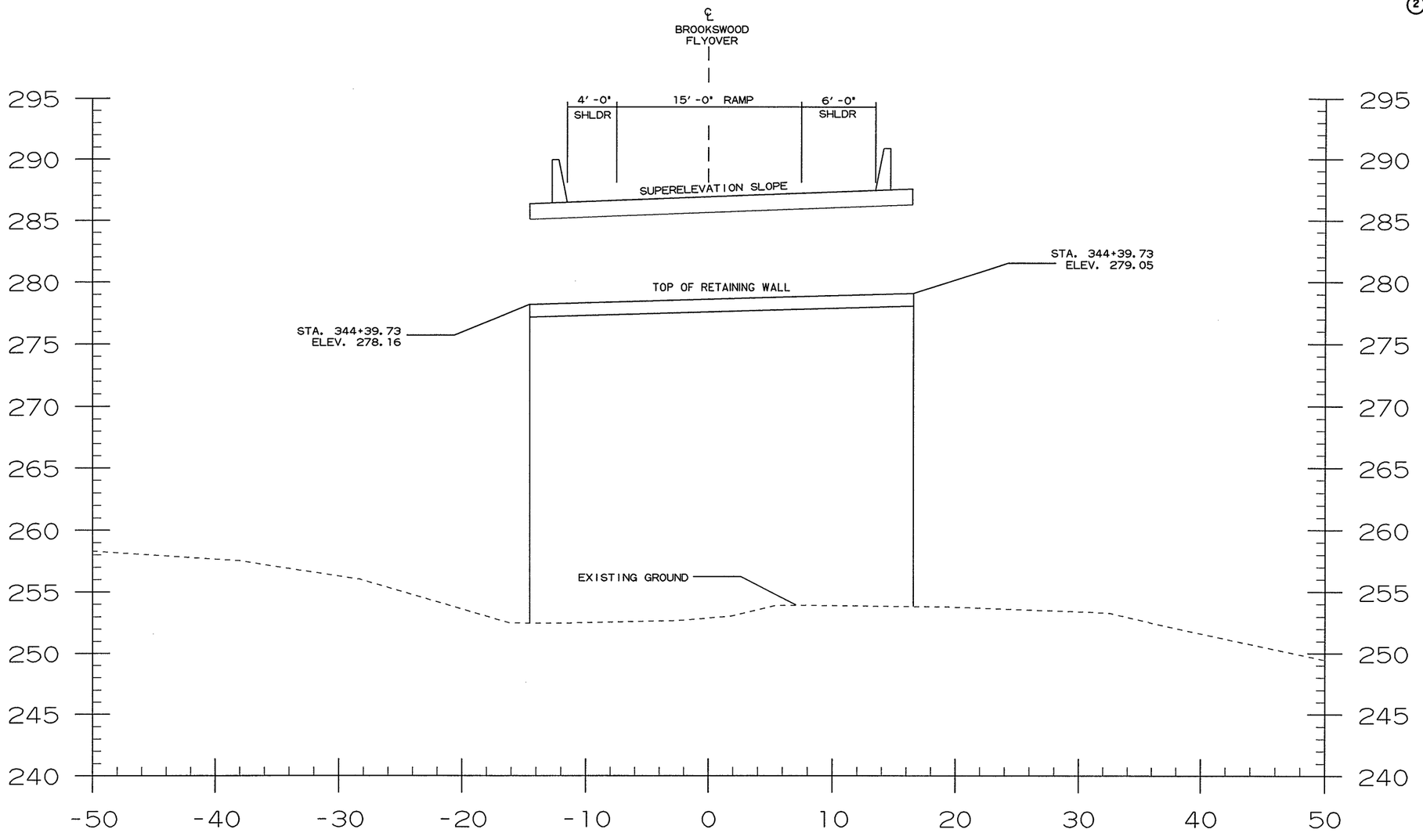
LOCATION	RETAINING WALL
	SQ. FT.
BROOKSWOOD FLYOVER	19976

07-26-2005 RR60080.D08

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	42	609

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9791
8-27-21
CHARLES D. CLEMENTS



ELEVATION OF RETAINING WALL BROOKSWOOD FLYOVER
℄ BRIDGE ABUTMENT STA. 344+39.73

QUANTITIES

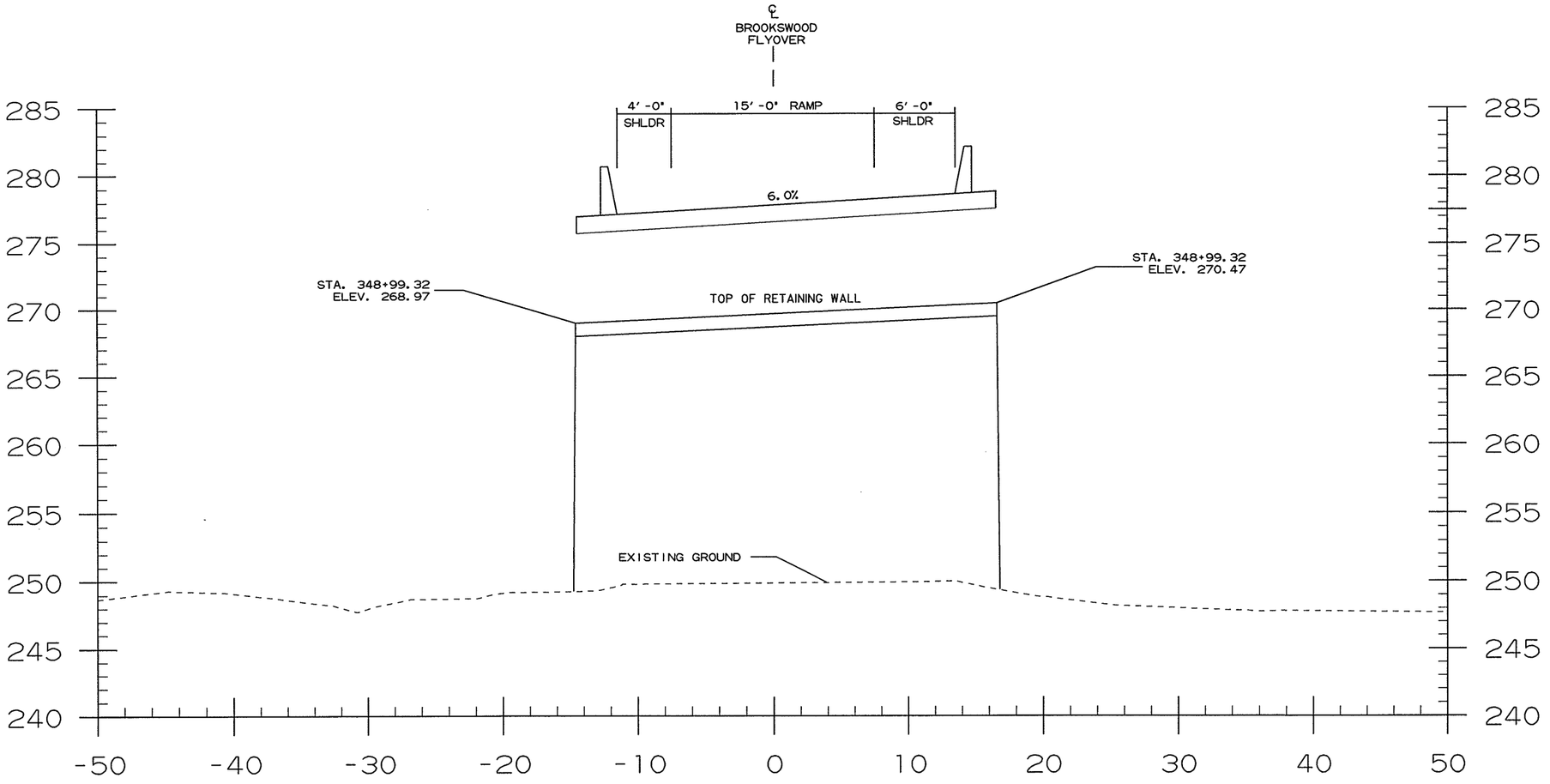
LOCATION	RETAINING WALL
	SQ. FT.
BROOKSWOOD FLYOVER	810

07-26-2005 RR60080.D08

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	43	68

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
7-22-25
CHARLES D. CLEMENTS



ELEVATION OF RETAINING WALL BROOKSWOOD FLYOVER
℄ BRIDGE ABUTMENT STA. 348+99.32

QUANTITIES

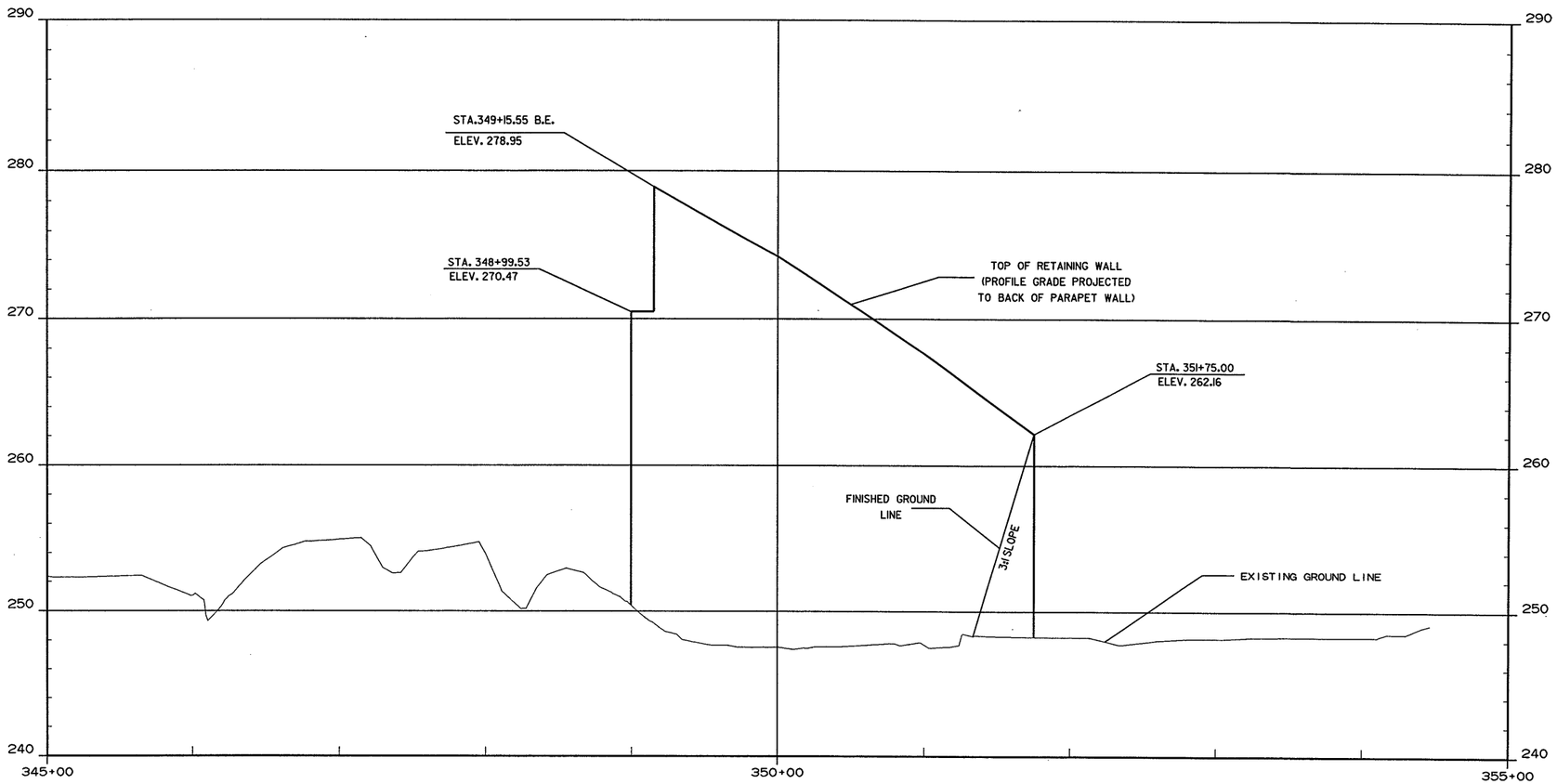
LOCATION	RETAINING WALL
	SQ. FT.
BROOKSWOOD FLYOVER	630

07-26-2005 R60080.D08

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	44	609

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
8-22-05



ELEVATION OF RETAINING WALL
BROOKSWOOD FLYOVER - RIGHT

QUANTITIES

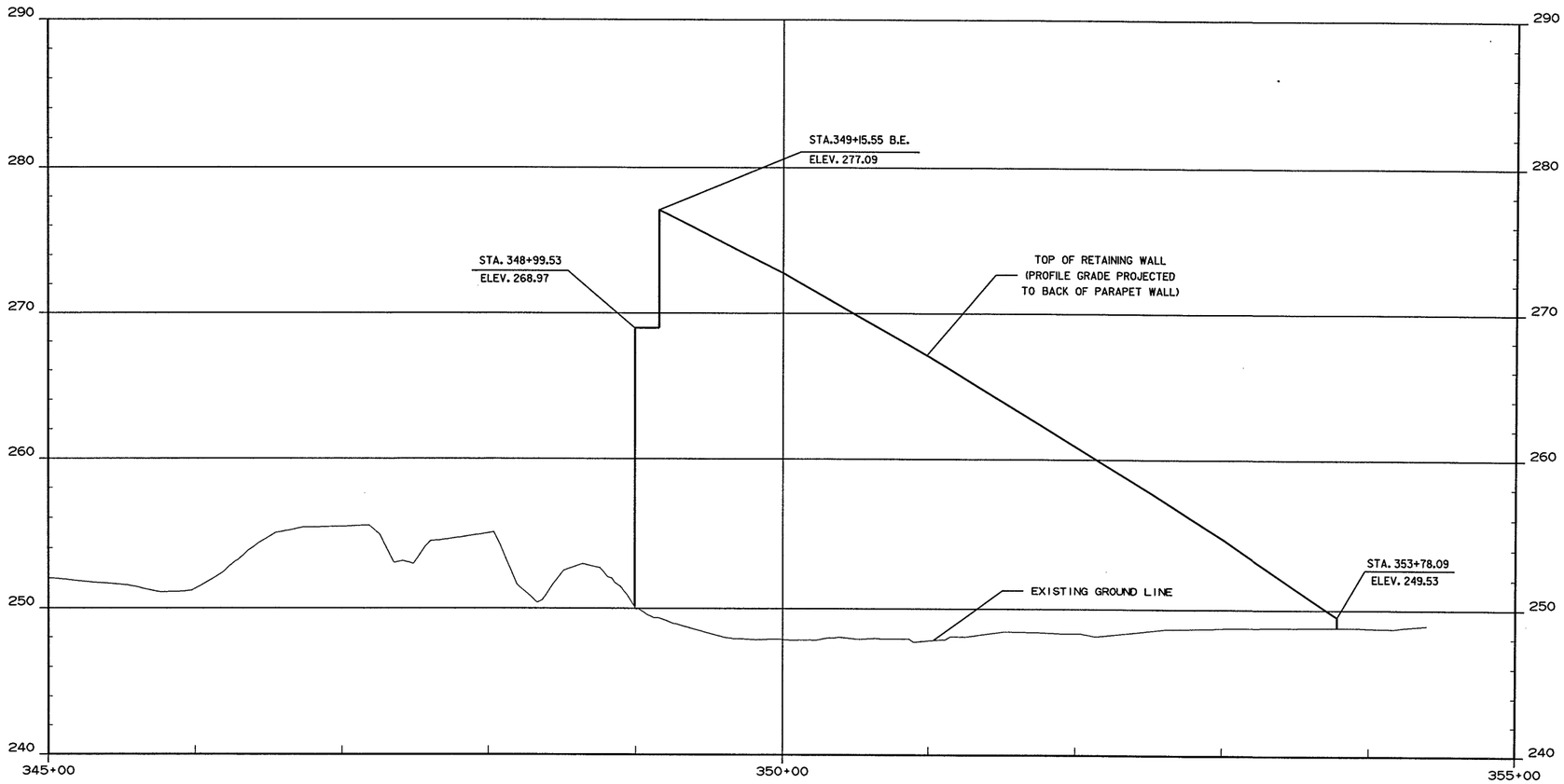
LOCATION	RETAINING WALL
	SQ. FT.
BROOKSWOOD FLYOVER	6605

07-26-2005 RR60081.D08

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	45	603

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-22-05
CHARLES D. CLEMENTS



ELEVATION OF RETAINING WALL
BROOKSWOOD FLYOVER - LEFT

QUANTITIES

LOCATION	RETAINING WALL
	SQ. FT.
BROOKSWOOD FLYOVER	7757

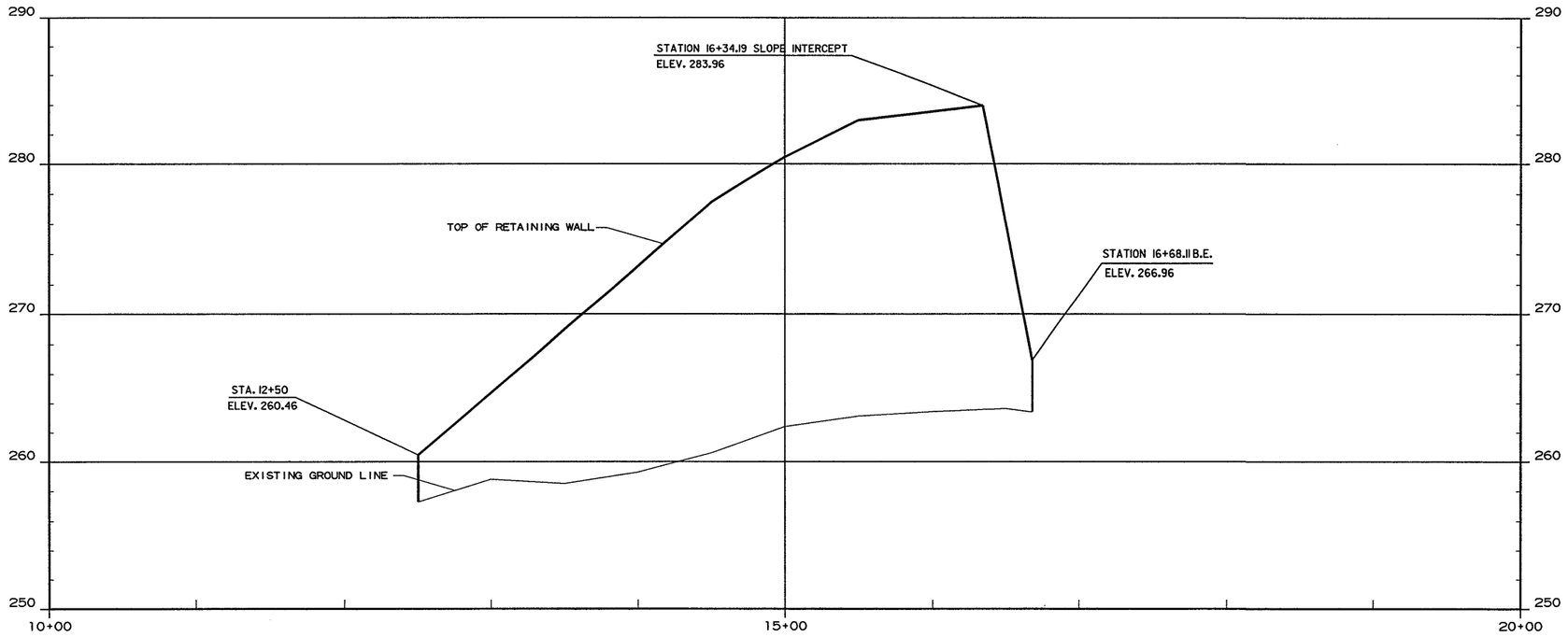
07-26-2005 RR60080.D08

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.		R60080	46	609

(2) SPECIAL DETAILS

STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
7-22-05



ELEVATION OF RETAINING WALL
KIEHL AVE. - RIGHT

QUANTITIES

LOCATION	RETAINING WALL
	SQ. FT.
KIEHL	4974

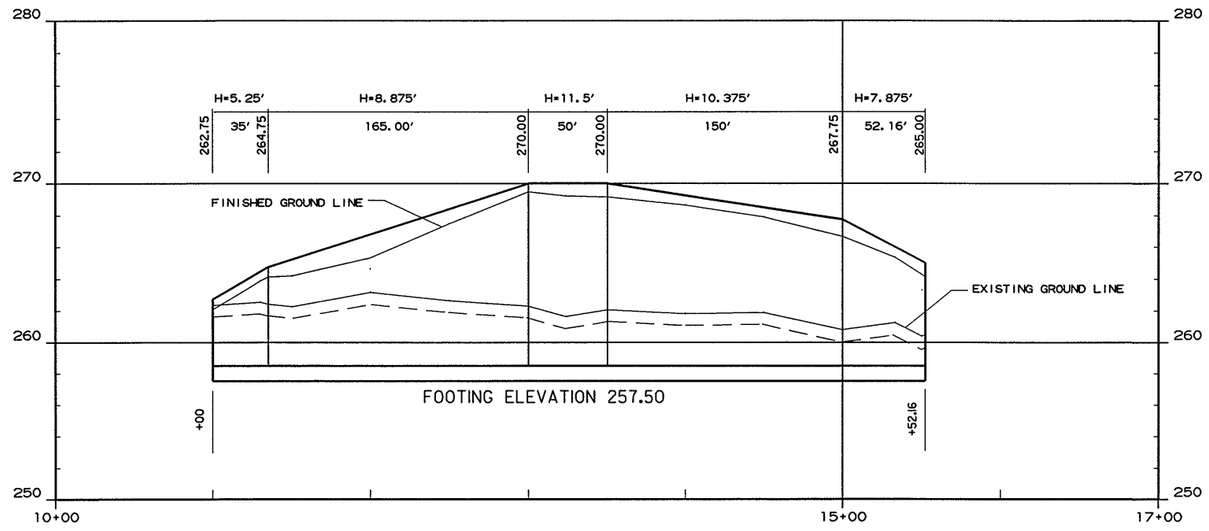
07-26-2005 RR60080.D08

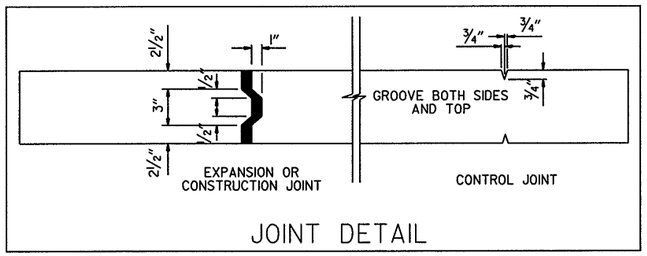
SPECIAL DETAILS

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.		R60080	47	609

(2) SPECIAL DETAILS

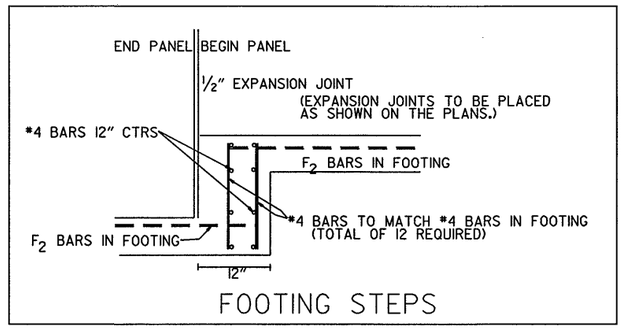
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9791
CHARLES D. CLEMENTS
8-11-05





JOINT DETAIL

ELEVATION OF RETAINING WALL NORTHWEST RAMP - KIEHL AVENUE



FOOTING STEPS

CLASS S CONCRETE - ROADWAY	REINFORCING STEEL-ROADWAY (GRADE 60)	UNCLASSIFIED EXCAVATION FOR STRUCTURES - ROADWAY	TEXTURE WALL TREATMENT
CU. YD.	POUND	CU. YD.	SQ. FT.
305.92	22653	754	214.50

NOTE: REFER TO SHEET 48

07-26-2005 RR60080.D08

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.		060230	48	60

(2) DETAILS OF RETAINING WALL

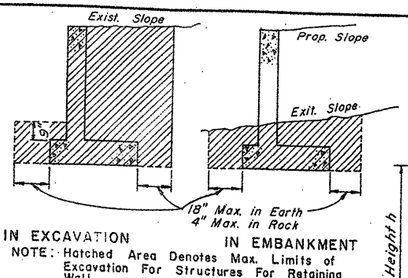
TABLE I — Dimensions and Reinforcement for 3, 4, 5 and 6 foot Retaining Walls — 6 foot Panel

Height h				3 Ft.			4 Ft.			5 Ft.			6 Ft.		
W				3'-0"			3'-0"			3'-0"			3'-0"		
a				1'-3"			1'-3"			1'-3"			1'-3"		
b				1'-0"			1'-0"			1'-0"			1'-0"		
c				0'-9"			0'-9"			0'-9"			0'-9"		
t				1'-3"			1'-3"			1'-3"			1'-3"		
Vertical Bars	No.	Spacing	Bending	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight
V_1	3	2'-0"	Bent	#5	5'-7"	17.47	#5	6'-7"	20.60	#5	7'-7"	23.73	#5	8'-7"	26.86
V_2	3	2'-0"	Bent	None			None			None			#5	3'-5"	10.69
V_f	4	1'-6"	Straight	#3	3'-10"	5.77	#3	4'-10"	7.27	#3	5'-10"	8.77	#3	6'-10"	10.28
Steel lbs. per Panel				23.24			27.87			32.50			47.83		
Concrete yd^3 per Panel Class S				1.50			1.72			1.94			2.16		

Bending Diagram

PIN DIA. 1¾" — V_1: 1'-10"; h=3 Ft. 3'-9½"; h=4 Ft. 4'-9½"; h=5 Ft. 5'-9½"; h=6 Ft. 6'-9½"

PIN DIA. 1¾" — V_2: 1'-10"; 2'-8"



NOTE: Hatched Area Denotes Max. Limits of Excavation For Structures For Retaining Wall.

TABLE II — Dimensions and Reinforcement for 7, 8, 9, 10, 11 or 12 foot Retaining Walls or Extension to Base Walls — 6 foot Panel

	Height h				7 Ft.			8 Ft.			9 Ft.			10 Ft.			11 Ft.			12 Ft.		
Footing and Wall Dimensions	W				4'-6"			4'-6"			4'-6"			6'-0"			6'-0"			6'-0"		
	a				1'-6"			1'-6"			1'-6"			1'-9"			1'-9"			1'-9"		
	b				1'-0"			1'-0"			1'-0"			1'-0"			1'-0"			1'-0"		
	c				2'-0"			2'-0"			2'-0"			3'-3"			3'-3"			3'-3"		
	t				1'-6"			1'-6"			1'-6"			1'-6"			1'-6"			1'-6"		
Wall or Base Wall Extension Quantities	Vertical Bars	No.	Spacing	Bending	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight
	V_1	3	2'-0"	Straight	#5	6'-10"	21.38	#5	7'-10"	24.51	#5	8'-10"	27.64	#5	9'-10"	30.77	#5	10'-10"	33.90	#5	11'-10"	37.03
	V_2	3	2'-0"	Straight	#5	2'-8"	8.34	#5	3'-8"	11.47	#5	4'-8"	14.60	#5	5'-8"	17.73	#5	6'-8"	20.86	#5	7'-8"	23.99
	V_3	6	1'-0"	Straight	None			None			None			#5	4'-0"	25.03	#6	5'-0"	45.06	#6	6'-0"	54.07
	V_f	4	1'-6"	Straight	#4	6'-10"	18.26	#4	7'-10"	20.93	#4	8'-10"	23.60	#4	9'-10"	26.27	#4	10'-10"	28.95	#4	11'-10"	31.62
	Vertical Steels lbs. per Panel				47.98			56.91			65.84			99.80			128.77			146.71		
	Vertical Class S Concrete yd^3				1.57			1.79			2.01			2.23			2.45			2.68		
Footing Quantities	Footing Bars	No.	Spacing	Bending	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight
	F_1	6	1'-0"	Bent	#5	4'-11"	30.77	#5	4'-11"	30.77	#5	4'-11"	30.77	#5	5'-5"	33.90	#5	5'-5"	33.90	#6	6'-0"	54.07
	F_2	6	1'-0"	Bent	None			#5	5'-3"	32.85	#5	6'-3"	39.11	#5	5'-5"	33.90	#6	5'-9"	51.82	#7	7'-1"	86.87
	F_3	4	1'-6"	Straight	#4	2'-8"	7.13	#4	2'-8"	7.13	#4	2'-8"	7.13	#4	2'-8"	7.13	#4	2'-8"	7.13	#4	2'-8"	7.13
	F_f	6	1'-0"	Straight	None			None			#4	4'-2"	16.70	#5	5'-8"	35.46	#5	5'-8"	35.46	#6	5'-8"	51.07
	Footing Steel lbs. per Panel				37.90			70.75			93.71			110.39			128.31			199.14		
	Footing Class A Concrete yd^3				1.49			1.49			1.49			1.99			1.99			1.99		
Totals	Steel lbs. per Panel				85.88			127.66			159.55			210.19			257.08			345.85		
	Concrete yd^3 per Panel Class S				3.06			3.28			3.50			4.22			4.44			4.67		

Bending Diagram

PIN DIA. #5 1¾", #6 2¼" — F_1: 2'-1" / 2'-7"; h=7 Ft. 2'-11"; h=8 Ft. 2'-11"; h=9 Ft. 2'-11"; h=10 Ft. 2'-11"; h=11 Ft. 2'-11"; h=12 Ft. 3'-6"

PIN DIA. #5 1¾", #6 2¼", #7 5¼" — F_2: 2'-1" / 2'-7"; h=8 Ft. 3'-3"; h=9 Ft. 4'-3"; h=10 Ft. 2'-11"; h=11 Ft. 3'-3"; h=12 Ft. 4'-7"

TABLE III — Dimensions and Reinforcement for 8 foot and 12 foot Base Wall and Footing to be used with Extension Wall — 6 foot Panel

Height h'				13, 14 or 15 ft.			16, 17 or 18 ft.			19, 20 or 21 ft.			22, 23 or 24 ft.		
Base Wall Height h'				6'-0"			6'-0"			12'-0"			12'-0"		
Extension Wall Height (TABLE II)				7, 8 or 9 ft.			10, 11 or 12 ft.			7, 8 or 9 ft.			10, 11 or 12 ft.		
W				7'-6"			9'-0"			10'-6"			12'-0"		
a				2'-0"			2'-6"			3'-0"			3'-6"		
b_1				1'-6"			1'-6"			2'-0"			2'-0"		
c				4'-0"			5'-0"			5'-6"			6'-6"		
t				1'-9"			1'-9"			2'-0"			2'-0"		
Vertical Bars	No.	Spacing	Bending	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight
B_1	6	1'-0"	Bent	None			None			#7	15'-4"	188.05	#7	15'-4"	188.05
B_2	6	1'-0"	Bent	None			None			#7	14'-4"	175.78	#7	14'-4"	175.78
B_3	6	1'-0"	Straight	None			None			#8	7'-8"	122.82	#8	11'-10"	241.40
B_f	4	1'-6"	Straight	#4	7'-4"	19.59	#4	7'-4"	19.59	#4	13'-4"	35.63	#4	13'-4"	35.63
Footing Bars	No.	Spacing	Bending	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight	Size	Length	Weight
F_1	6	1'-0"	Bent	#7	13'-9"	168.63	#7	14'-3"	174.76	#7	8'-6"	104.24	#8	12'-4"	197.58
F_2	6	1'-0"	Bent	#7	12'-9"	156.37	#7	13'-3"	162.50	#7	8'-6"	104.24	#8	11'-4"	181.56
F_3	6	1'-0"	Bent	None			#7	10'-8"	130.82	#8	8'-8"	138.84	#10	10'-11"	281.85
F_f	4	1'-6"	Straight	#4	2'-11"	7.79	#4	2'-11"	7.79	#4	3'-2"	8.46	#4	3'-2"	8.46
F_t	12	0'-6"	Straight	#5	7'-2"	39.70	#7	8'-8"	212.58	#7	10'-2"	249.37	#9	11'-8"	476.00
Steel lbs. per Panel				442.08			708.04			1127.43			1786.31		
Concrete yd^3 per Panel Class S				4.58			5.16			8.66			9.32		

Bending Diagram

B_1: h=13'-15': 12'-0" / 3'-4"; h=16'-18', h=19'-21', h=22'-24': 12'-0" / 3'-4"

B_2: h=13'-15': 12'-0" / 2'-4"; h=16'-18', h=19'-21', h=22'-24': 12'-0" / 2'-4"

PIN DIA. #7 5¼", #8 8" — F_1: 3'-1", 3'-7", 4'-7", 5'-1"; h=13'-15'; h=16'-18'; h=19'-21'; h=22'-24': 3'-4", 4'-1", 7'-5½", 7'-5½"

PIN DIA. #7 5¼", #8 8" — F_2: 3'-1", 3'-7", 4'-7", 5'-1"; h=13'-15'; h=16'-18'; h=19'-21'; h=22'-24': 2'-4", 4'-1", 7'-5½", 7'-5½"

PIN DIA. #7 5¼", #8 8", #10 10" — F_3: 3'-7", 4'-7", 5'-1"; h=16'-18'; h=19'-21'; h=22'-24': 4'-5", 6'-1", 7'-3"

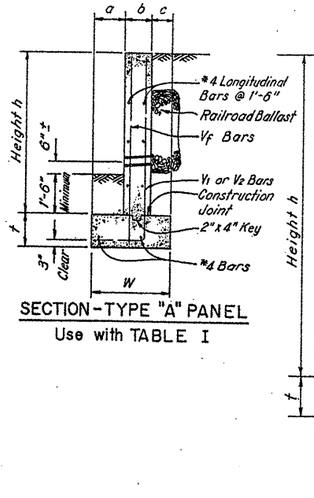
TABLE IV — Longitudinal Reinforcement Quantities — #4 Bars @ 1'-6"

6 Foot Panel; 1'-4" Lap

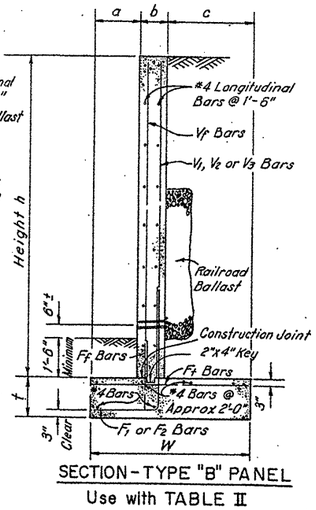
Type Wall	Height h or h"	Wall No.	Wall Weight	Footing No.	Footing Weight	Total No.	Total Weight	Wall No.	Wall Weight	Footing No.	Footing Weight	Total No.	Total Weight
Retaining Walls or Extensions to Base Walls	3	4	16.03	2	8.02	6	24.05	4	3.56	2	1.78	8	5.34
	4	6	24.05	2	8.02	8	32.06	6	5.34	2	1.78	8	7.13
	5	8	32.06	2	8.02	10	40.08	8	7.13	2	1.78	10	8.91
	6	8	32.06	2	8.02	10	40.08	8	7.13	2	1.78	10	8.91
	7	10	40.08	5	20.04	15	60.12	10	8.91	5	4.45	15	13.36
	8	12	48.10	5	20.04	17	68.14	12	10.69	5	4.45	17	15.14
	9	12	48.10	5	20.04	17	68.14	12	10.69	5	4.45	17	15.14
	10	14	56.11	6	24.05	20	80.16	14	12.47	6	5.34	20	17.81
	11	16	64.13	6	24.05	22	88.18	15	14.25	6	5.34	22	19.59
	12	16	64.13	6	24.05	22	88.18	16	14.25	6	5.34	22	19.59
8 Foot Base Wall	13 thru 15	8	32.06	8	32.06	16	64.13	8	7.13	8	7.13	16	14.25
	16 thru 18	8	32.06	9	36.07	17	68.14	8	7.13	9	8.02	17	15.14
12 Foot Base Wall	19 thru 21	16	64.13	9	36.07	25	100.20	16	14.25	9	8.02	25	22.27
	22 thru 24	16	64.13	10	40.08	26	104.21	16	14.25	10	8.91	26	23.16

TABLE V — Additional Quantities for Walls with 2:1 and 3:1 Top Slopes — 6' Panel

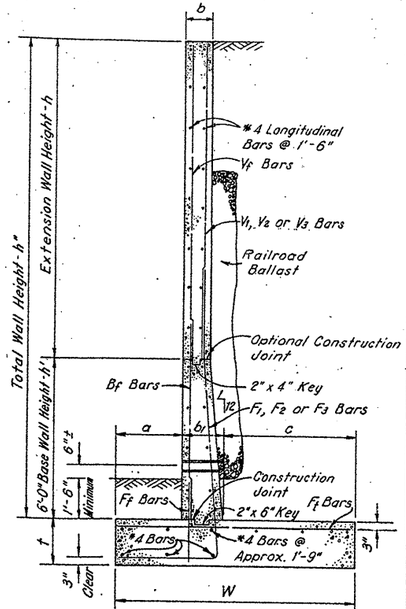
Top Slope	2:1			3:1		
#4 Bars	No.	Length	Weight	No.	Length	Weight
Vertical Dowels	3	3'-0"	6.01	2	2'-0"	2.67
Longitudinal Bars	2	3'-4"	4.45	2	2'-10"	3.79
Top Bars	2	8'-0"	10.69	2	7'-8"	10.24
Steel lbs. per Panel		21.15			16.74	
Additional Class S Concrete yd^3	0.11			None		



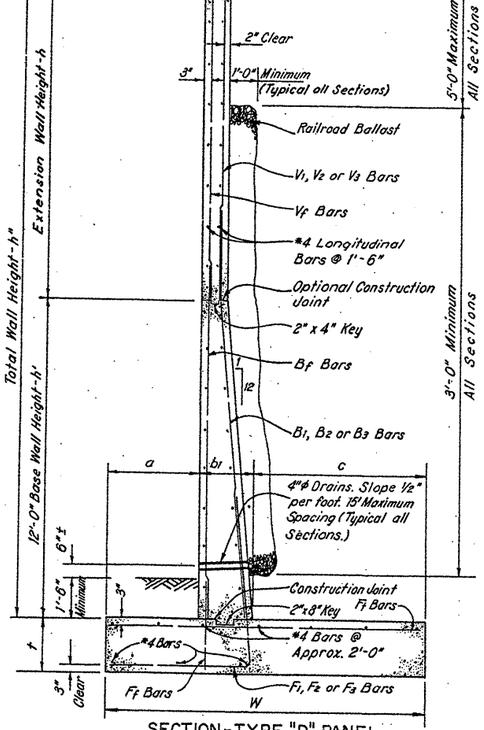
SECTION - TYPE "A" PANEL
Use with TABLE I



SECTION - TYPE "B" PANEL
Use with TABLE II



SECTION - TYPE "C" PANEL
Use with TABLES II and III



SECTION - TYPE "D" PANEL
Use with TABLES II and III

DESIGN LOADING: 30*/ft³ Equivalent Fluid Pressure; 2' Surcharge

UNIT STRESSES:

Concrete Class S (n = 10)	1,200 psi
Reinforcing Steel	20,000 psi
Maximum Toe Pressure	5,400 #/ft²

NOTES:

(1) Use Class S Concrete.
(2) See Elevation of Vertical Backwall Placement to ensure proper tie of Vertical Bars.
(3) In computing quantities, longitudinal laps will be computed for Bars equal to 20 feet, consistent with joint spacing.
(4) Chamfer all exposed corners ¾".
(5) Elevation of Vertical Backwall Reinforcement, Joint Details, Corner Plans and Footing Steps are shown on Drawing of Retaining Wall Details, Sheet
(6) Railroad Ballast will not be paid for directly, but will be considered subsidiary to the Item of Unclassified Excavation for Structures.

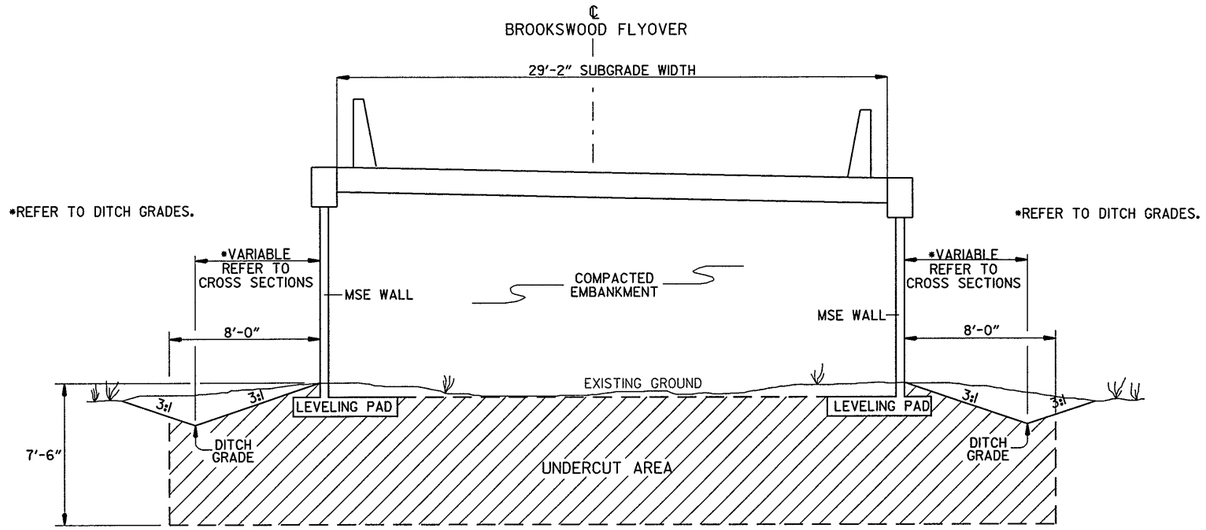
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
6-22-71

SPECIAL DETAILS

FARRELL & SCHAER—PORTS IMPERIAL

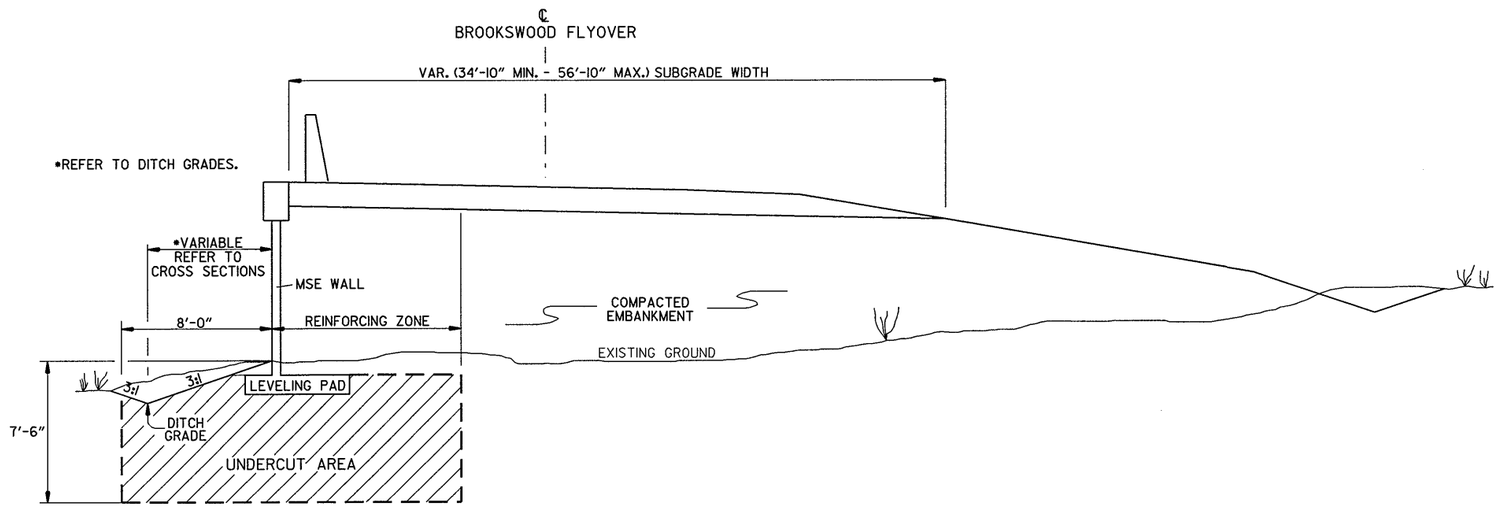
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	49	603
				(2)	SPECIAL DETAILS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS



BROOKSWOOD FLYOVER
UNDERCUT AREAS
STA. 349+14 TO STA. 351+75

NOTE:
UNDERCUT AREAS TO BE BACKFILLED
WITH SELECTED MATERIAL (CLASS SM-1)



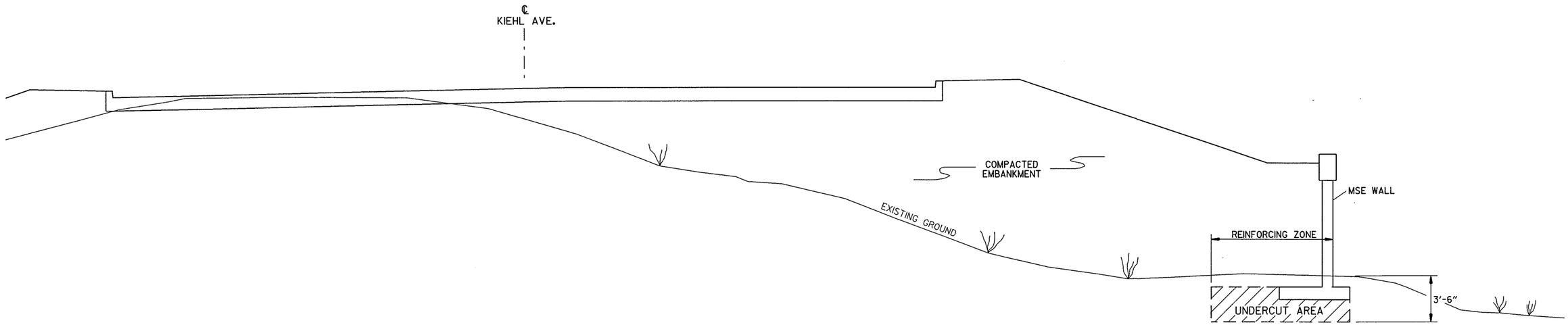
BROOKSWOOD FLYOVER
UNDERCUT AREAS
STA. 351+75 TO STA. 352+00

06-17-2005 RR60080.003

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	50	609

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9794
8-23-05
CHARLES D. CLEMENTS



KIEHL AVE. OVERPASS
UNDERCUT AREAS
STA. 12+50 TO STA. 14+00

NOTE:
UNDERCUT AREAS TO BE BACKFILLED WITH SELECTED MATERIAL (CLASS SM-1)

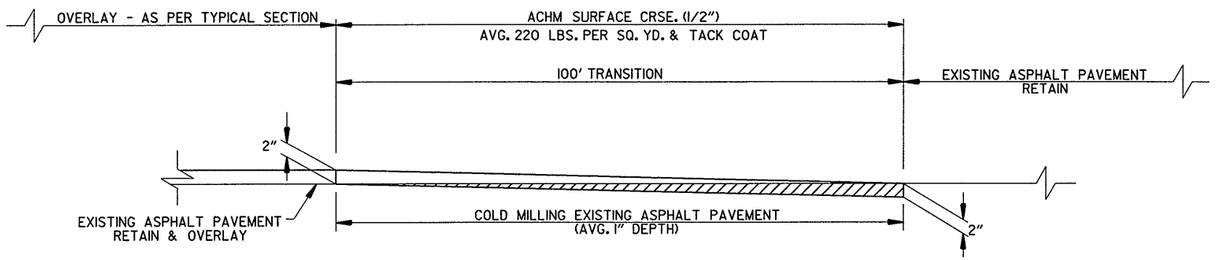
06-17-2005 RR60080.D03

SPECIAL DETAILS

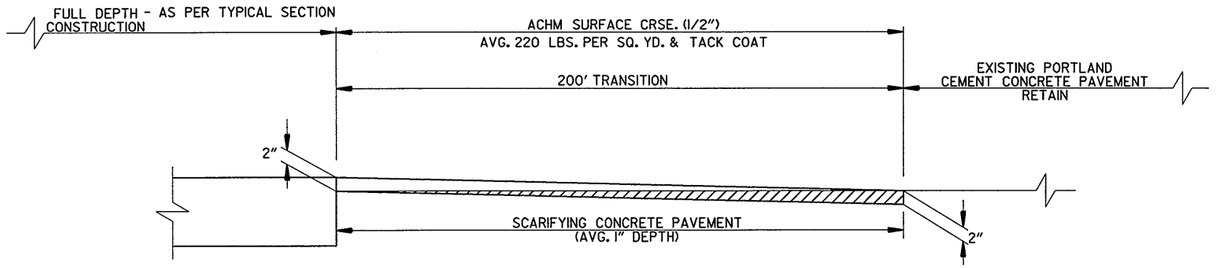
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	51	603

(2) SPECIAL DETAILS

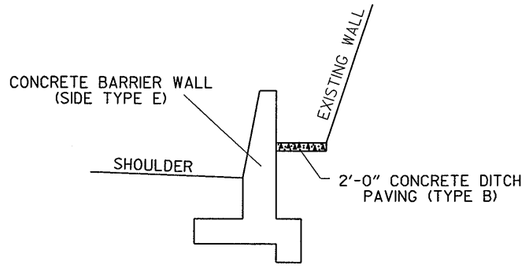
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 9794 CHARLES D. CLEMENTS



PAVEMENT TRANSITION

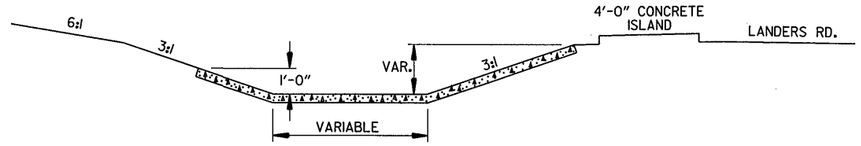


PAVEMENT TRANSITION



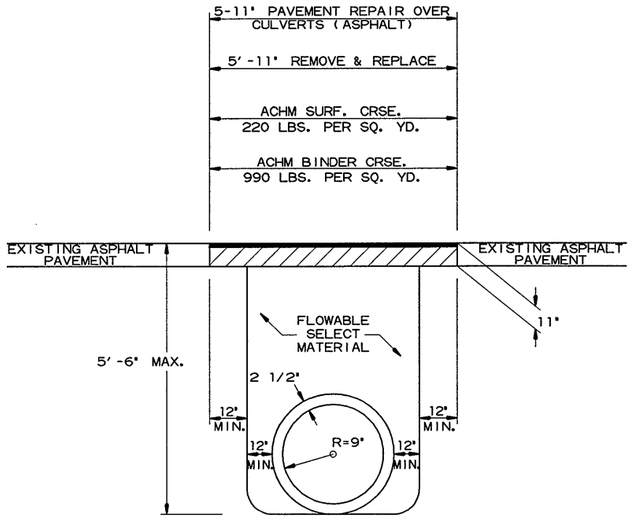
CONCRETE DITCH
PAVING (TYPE B)

RT. OF C.L. MEDIAN HWY. 67/167
STA. 27+00.00 TO STA. 27+90.00



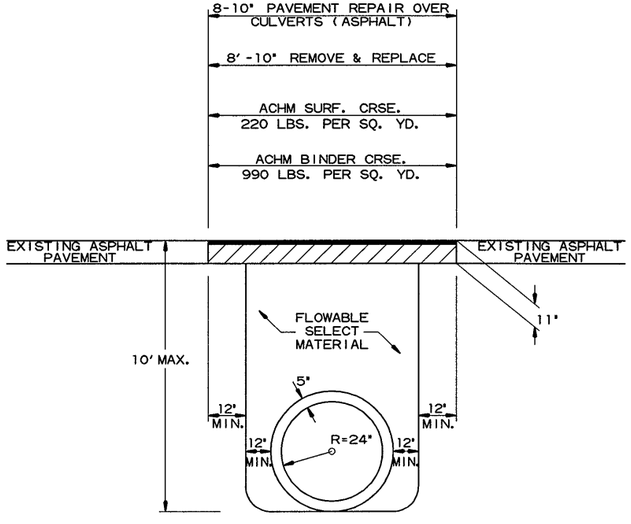
CONCRETE DITCH
PAVING (TYPE A)

RT. OF C.L. MEDIAN HWY. 67/167
STA. 344+75.00 TO STA. 346+87.72

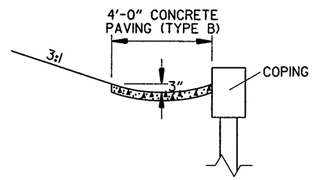


DETAILS SHOWING REPAIR OF EXISTING
PAVEMENT AT CULVERT INSTALLATION

LANDERS RD.
STA. 370+52



DETAILS SHOWING REPAIR OF EXISTING
PAVEMENT AT CULVERT INSTALLATION
FOR LANDERS & WARDEN RD. AND SHOULDERS



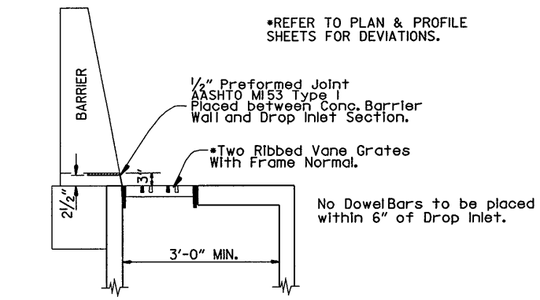
CONCRETE DITCH
PAVING (TYPE B)

RT. OF C.L. KIEHL AVE.
STA. 12+25.00 TO STA. 16+68.11

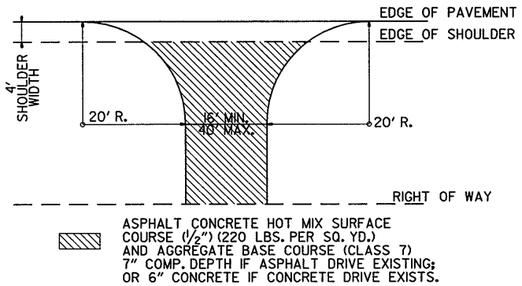
07-26-2005 RR60080.D04

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	52	

(2) SPECIAL DETAILS



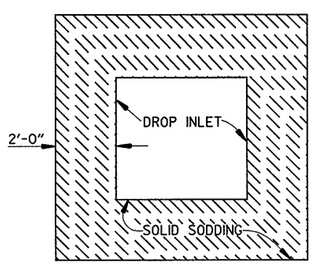
DETAILS OF DROP INLET AT BARRIER (STRAIGHT)



PLAN

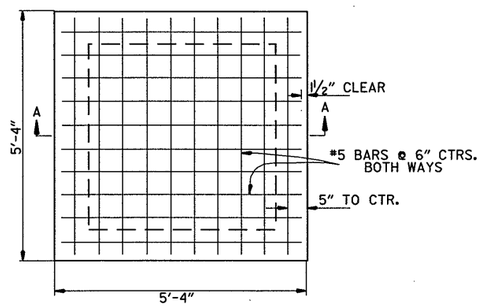
DETAIL OF OPEN SHOULDER DRIVEWAY TURNOUTS

NOTE: TURNOUTS SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS AS DIRECTED BY THE ENGINEER.

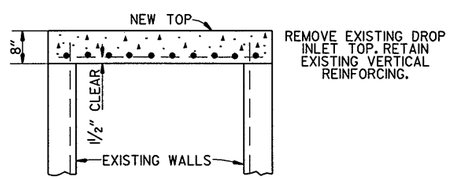


PLAN

DETAIL OF SOLID SODDING AROUND DROP INLET

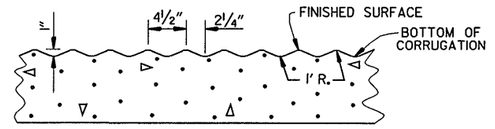


TOP VIEW

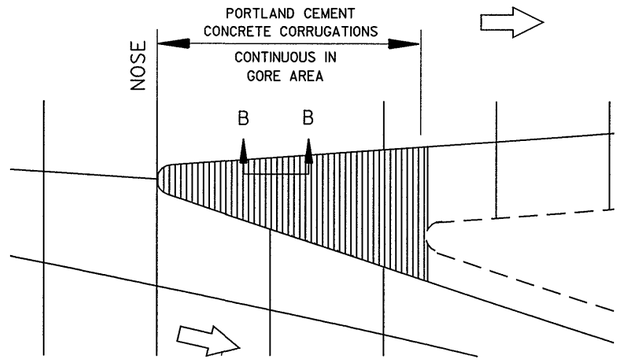


SECTION A-A

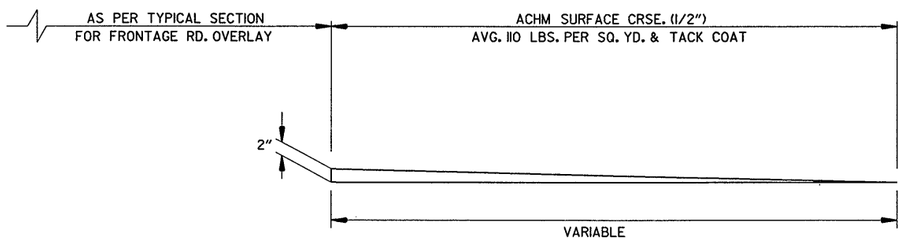
DETAILS OF MODIFIED DROP INLET



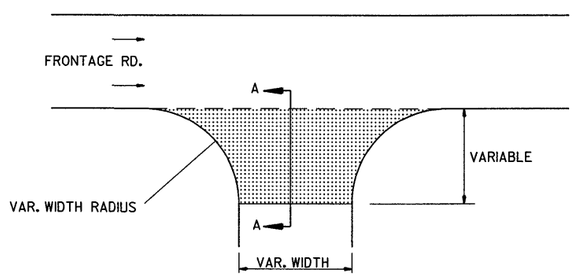
SECTION B-B



LAYOUT OF SHOULDER CORRUGATIONS IN EXIT GORE AREAS



SECTION A-A



DRIVEWAY TRANSITION

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4794 CHARLES D. CLEMENTS 9-22-05

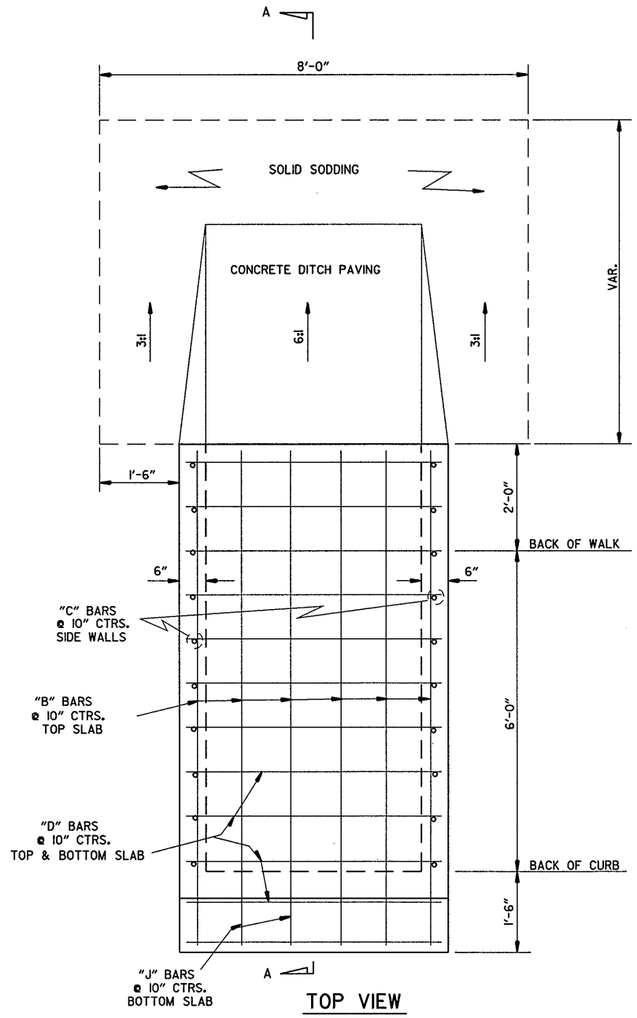
07-26-2005 RR60080.D04

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.		R60080	52A	609

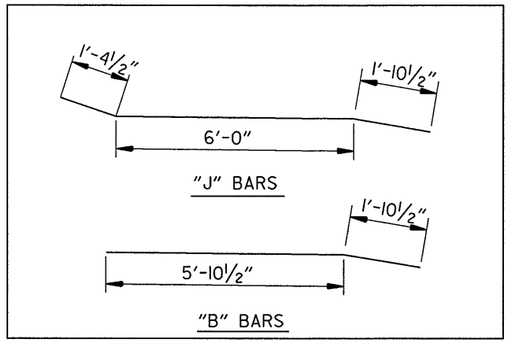
(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-27-91
CHARLES D. CLEMENTS



TOP VIEW

BAR DIAGRAM

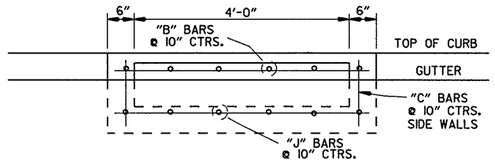


GENERAL NOTES:

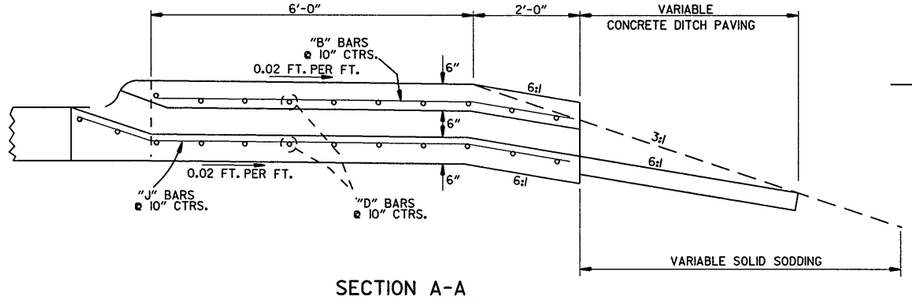
1. ALL EXPOSED CORNERS TO HAVE $\frac{3}{4}$" CHAMFER.
2. ALL REINF. BARS SHALL BE #4 AND HAVE $1\frac{1}{2}$" COVER.
3. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
4. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
5. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.

CLASS A CONC.	REINF. STEEL-RDWY GRADE 60
CU. YDS.	POUND
1.90	155

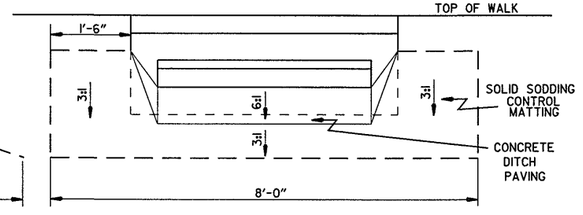
QUANTITIES FOR INFORMATION ONLY.



FRONT VIEW



SECTION A-A



BACK VIEW

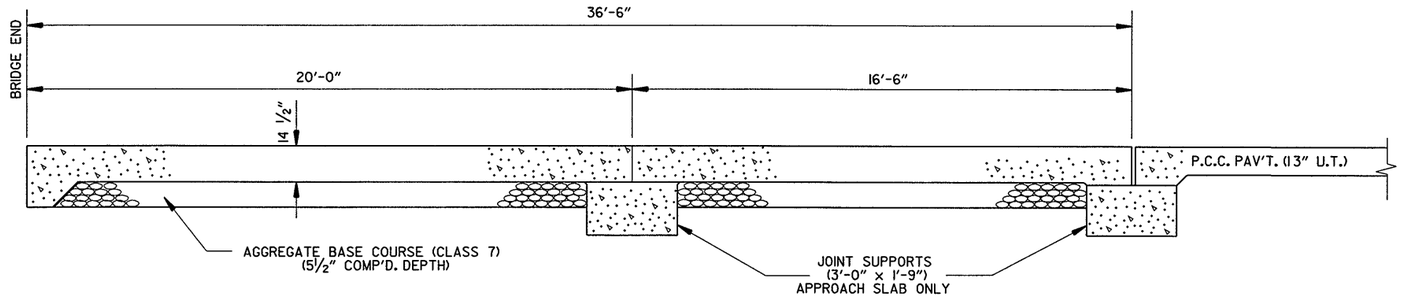
DROP INLET (TYPE SPECIAL)

05-25-05 r11013l.dgn

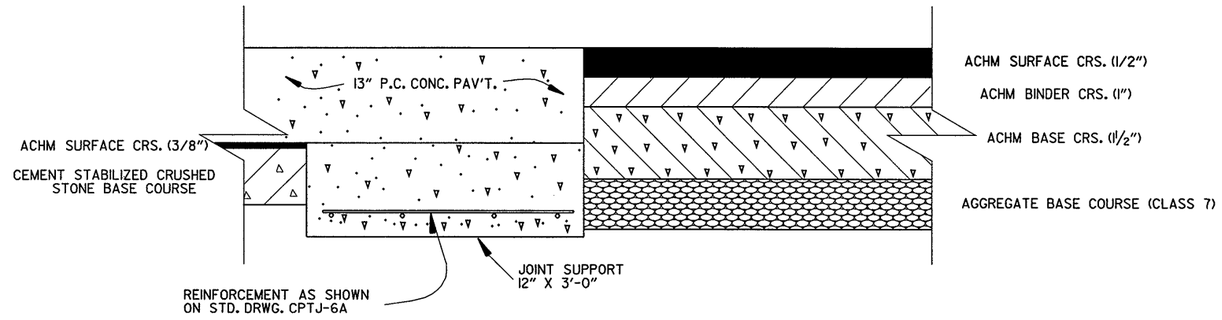
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	53	603

(2) SPECIAL DETAILS

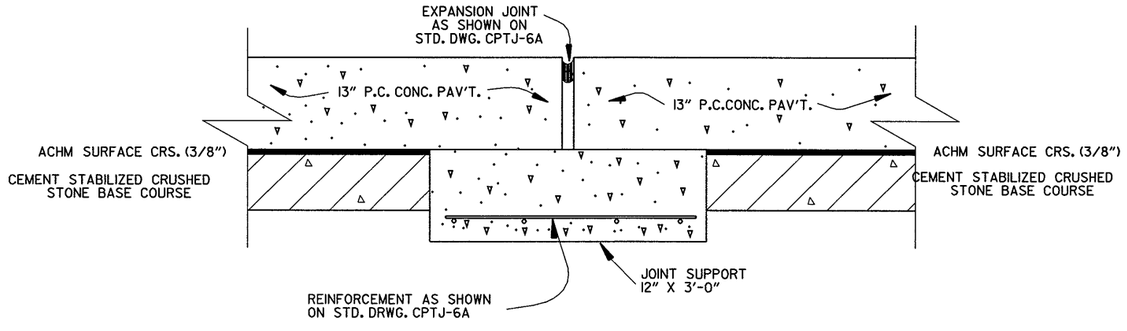
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
9-22-05



LONGITUDINAL SECTION OF APPROACH SLABS



DETAILS OF JOINT SUPPORT AT
ENTRANCE AND EXIT RAMPS



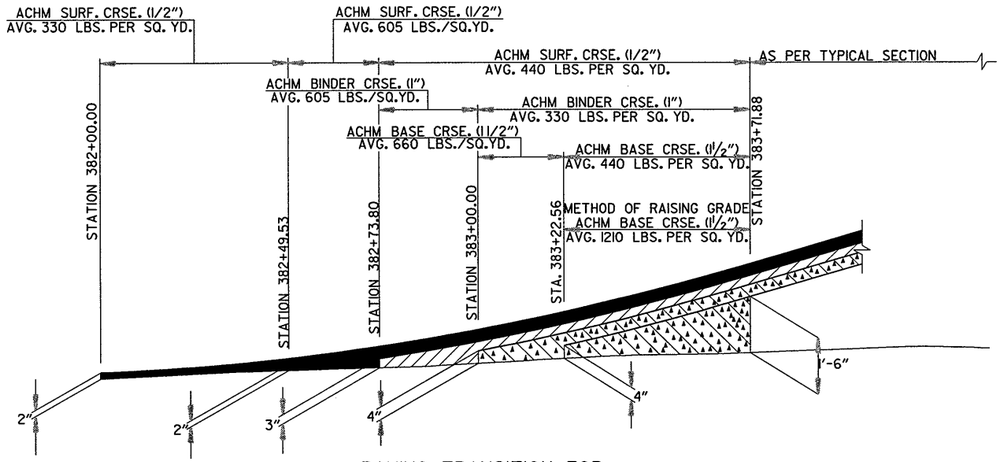
DETAILS OF JOINT SUPPORT

07-26-2005 RR60080.D04

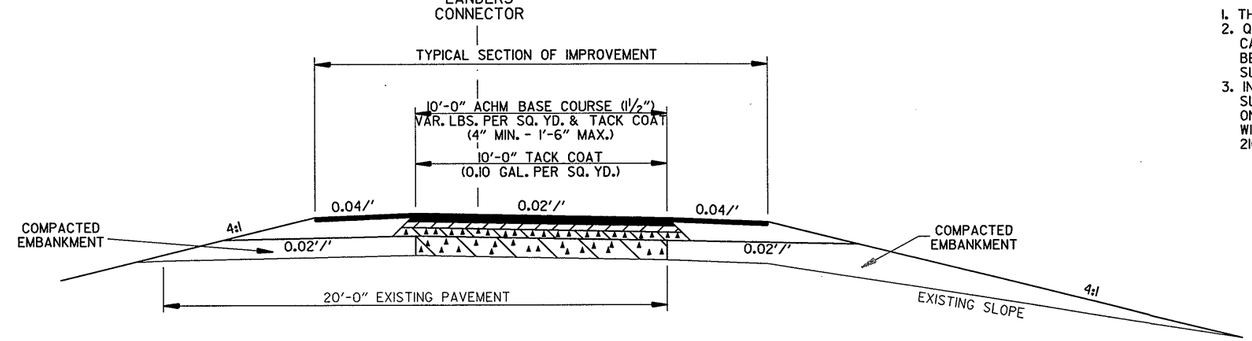
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	54	609

(2) SPECIAL DETAILS

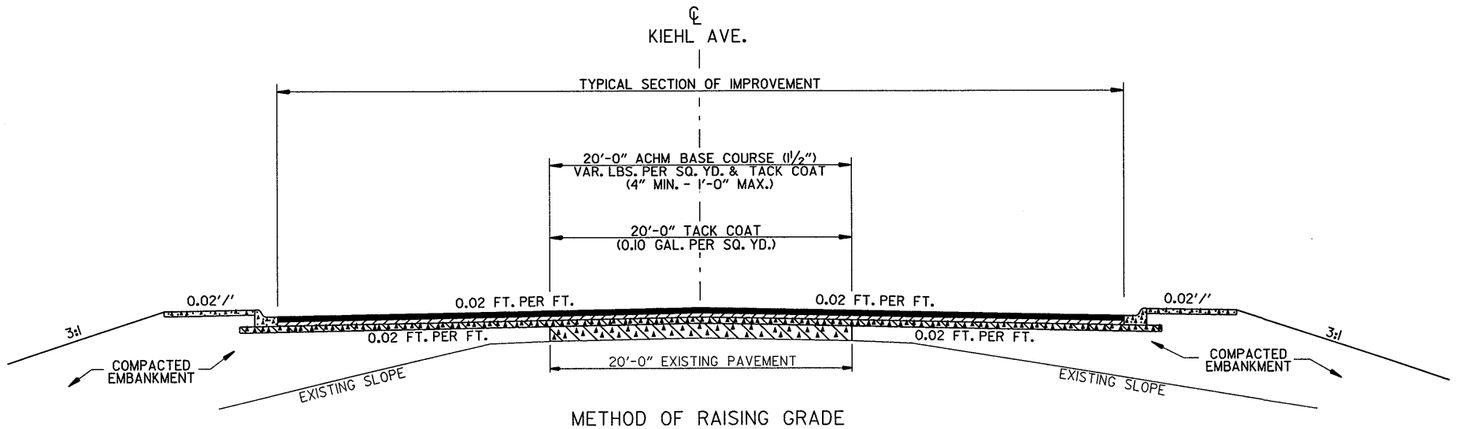
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS



PAVING TRANSITION FOR
LANDERS TO LANDERS CONNECTOR



METHOD OF RAISING GRADE
LANDERS TO LANDERS CONNECTION



METHOD OF RAISING GRADE
KIEHL AVE.

NOTES

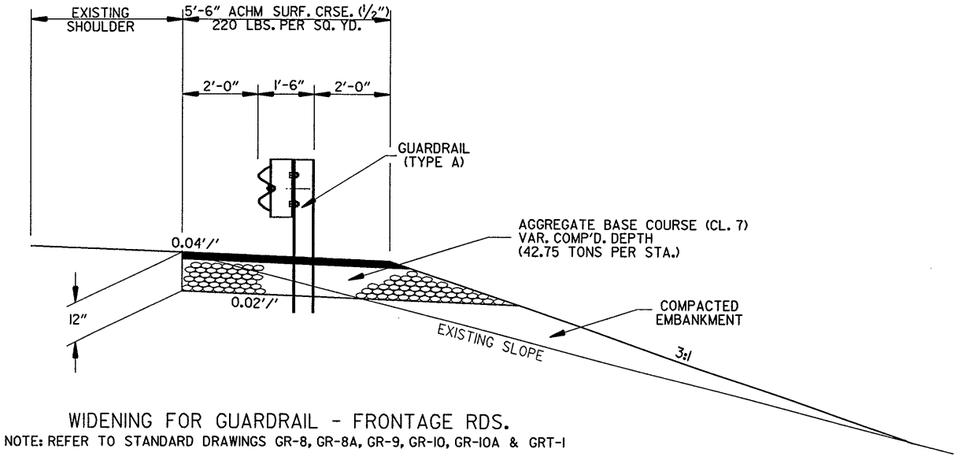
1. THIS DETAIL TO BE USED ONLY WHERE DIRECTED BY THE ENGINEER.
2. QUANTITIES FOR METHOD OF GRADE RAISE USING ASPHALT WERE CALCULATED ON THE PROJECT AT LOCATIONS WHERE THE DISTANCE BETWEEN THE EXISTING ASPHALT ROADWAY AND THE PROPOSED SUBGRADE WAS ONE FOOT OR LESS.
3. IN LOCATIONS WHERE THE DISTANCE BETWEEN THE PROPOSED SUBGRADE AND THE EXISTING ASPHALT ROADWAY IS MORE THAN ONE FOOT, SCARIFICATION OF THE EXISTING ASPHALT ROADWAY WILL BE REQUIRED AS STATED IN SECTION 210, SUBSECTION 210.09, OF THE STANDARD SPECIFICATIONS, EDITION OF 2003.

07-26-2005 RR60080.D04

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	55	609

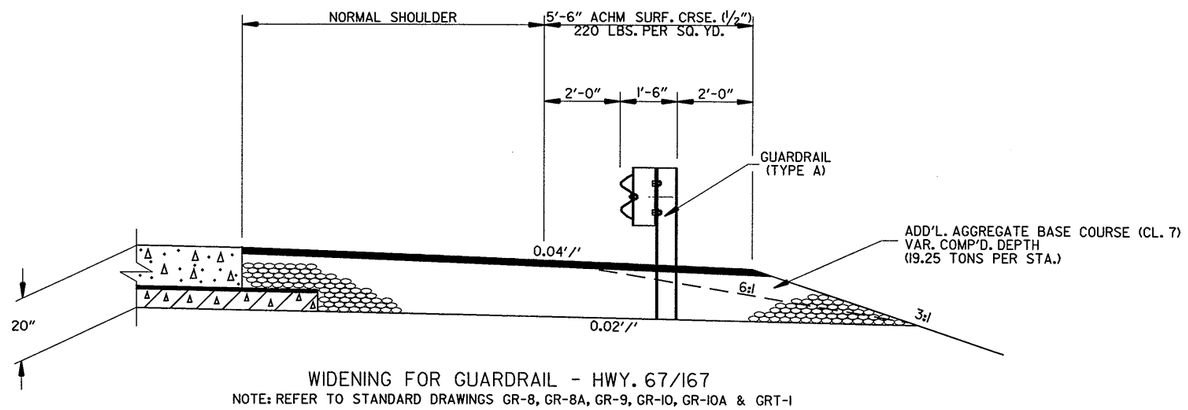
(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-22-01
CHARLES D. CLEMENTS



WIDENING FOR GUARDRAIL - FRONTAGE RDS.

NOTE: REFER TO STANDARD DRAWINGS GR-8, GR-8A, GR-9, GR-10, GR-10A & GRT-1



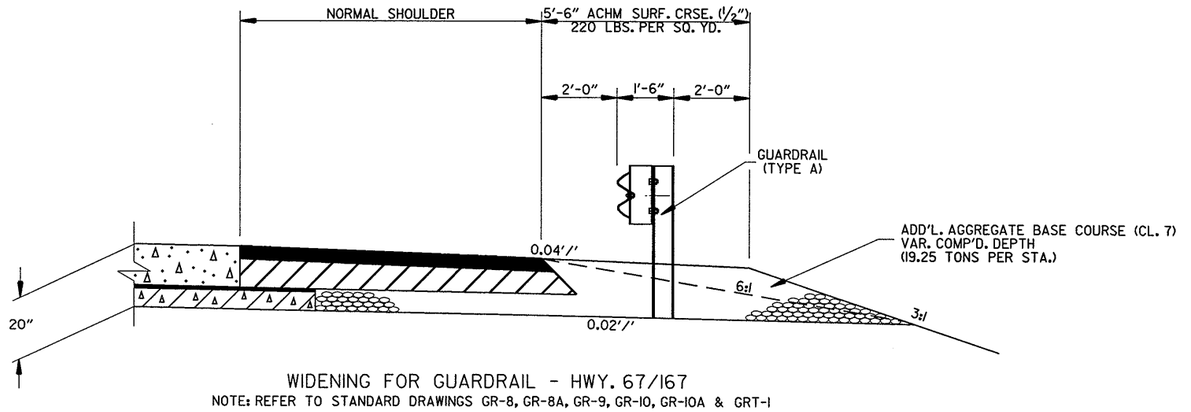
WIDENING FOR GUARDRAIL - HWY. 67/167

NOTE: REFER TO STANDARD DRAWINGS GR-8, GR-8A, GR-9, GR-10, GR-10A & GRT-1

LT. OF C.L. N.B. HWY. 67/167
STA. 144+36.00 TO STA. 147+25.00

RT. OF C.L. MEDIAN HWY. 67/167
STA. 22+81.25 TO STA. 26+00.00
STA. 33+81.25 TO STA. 37+00.00

LT. OF C.L. MEDIAN HWY. 67/167
STA. 309+69.34 TO STA. 313+88.09
STA. 315+85.09 TO STA. 321+53.84



WIDENING FOR GUARDRAIL - HWY. 67/167

NOTE: REFER TO STANDARD DRAWINGS GR-8, GR-8A, GR-9, GR-10, GR-10A & GRT-1

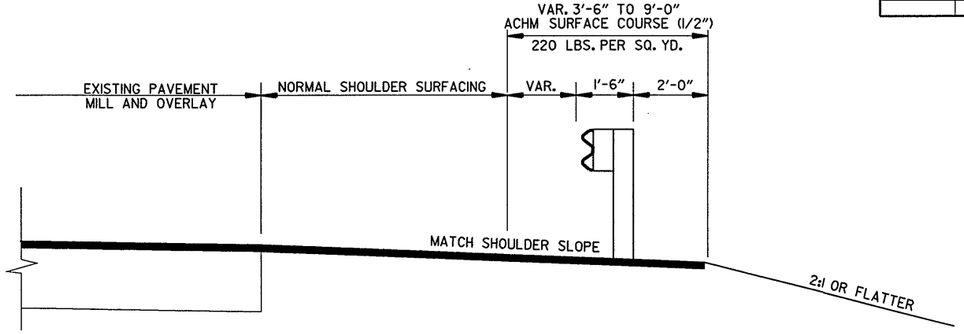
RT. OF C.L. MEDIAN HWY. 67/167
STA. 307+10.15 TO STA. 314+53.90
STA. 316+50.90 TO STA. 321+19.43

07-26-2005 RR60080.004

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	56	609

(2) SPECIAL DETAILS

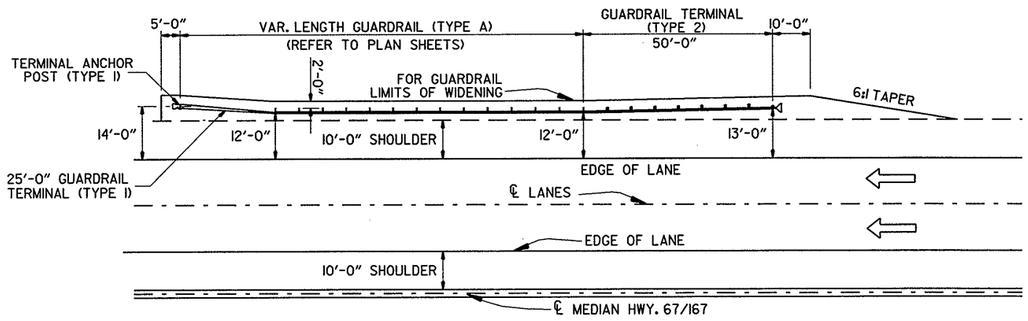
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 17911
CHARLES D. CLEMENTS
9-22-05



SECTION DETAIL OF WIDENING FOR GUARDRAIL

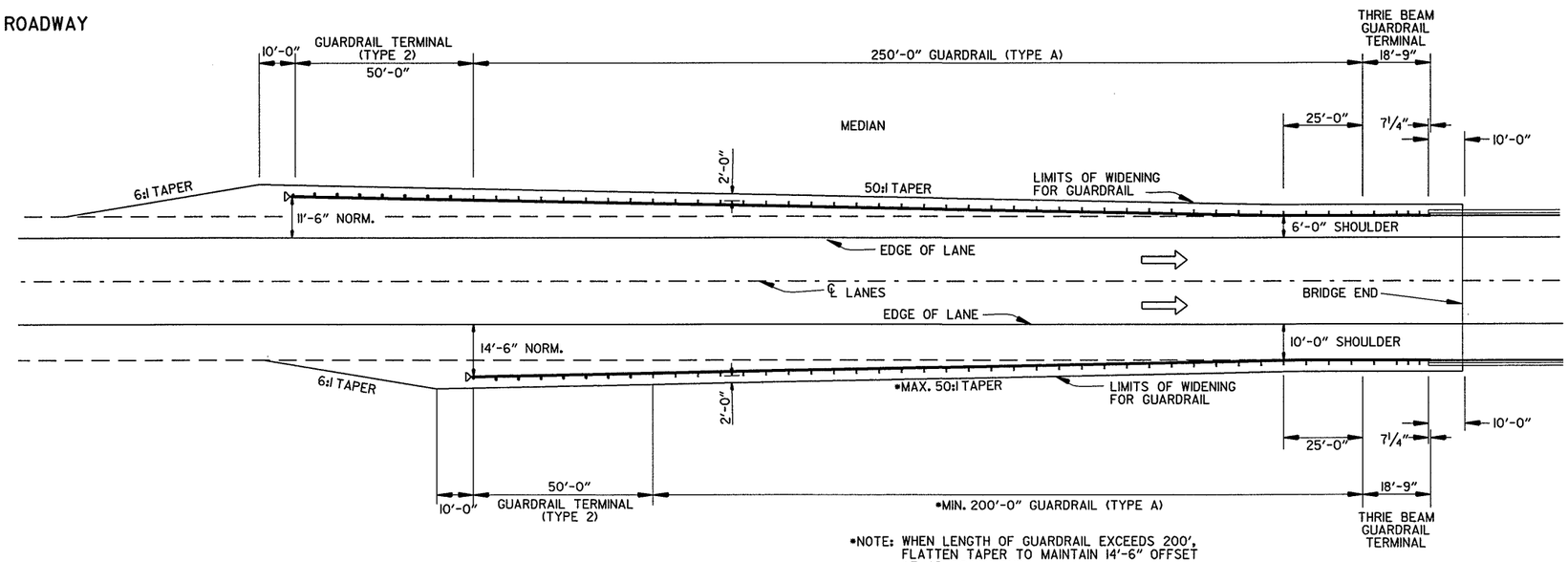
NOTE: REFER TO STANDARD DRAWINGS, GR-8, GR-8A, GR-9, GR-10, GR-10A & GRT-1 FOR ADDITIONAL INFORMATION.

STA. 112+50.64 TO STA. 115+19.39 RT. OF C.L. N.B. HWY. 67/167
STA. 111+54.55 TO STA. 114+73.30 LT. OF C.L. N.B. HWY. 67/167
STA. 120+29.87 TO STA. 122+98.62 RT. OF C.L. N.B. HWY. 67/167
STA. 120+21.91 TO STA. 123+40.66 LT. OF CL. N.B. HWY. 67/167
STA. 114+36.00 TO STA. 117+11.00 LT. OF C.L. S.B. HWY. 67/167



TYPICAL LAYOUT OF GUARDRAIL ALONG ROADWAY

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



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

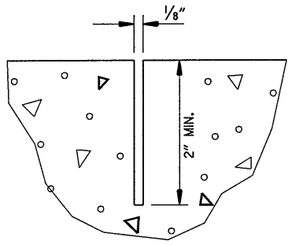
TYPICAL LAYOUT OF GUARDRAIL AT BRIDGE ENDS - HWY. 67/167

08-09-2005 RR60080.D04

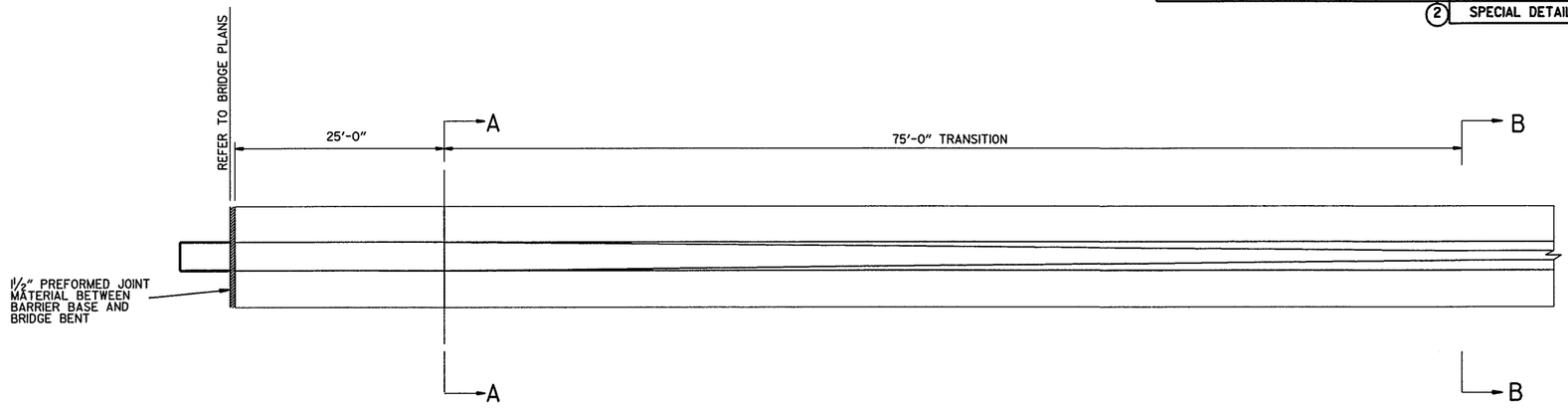
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	57	609

(2) SPECIAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7991
CHARLES D. CLEMENTS

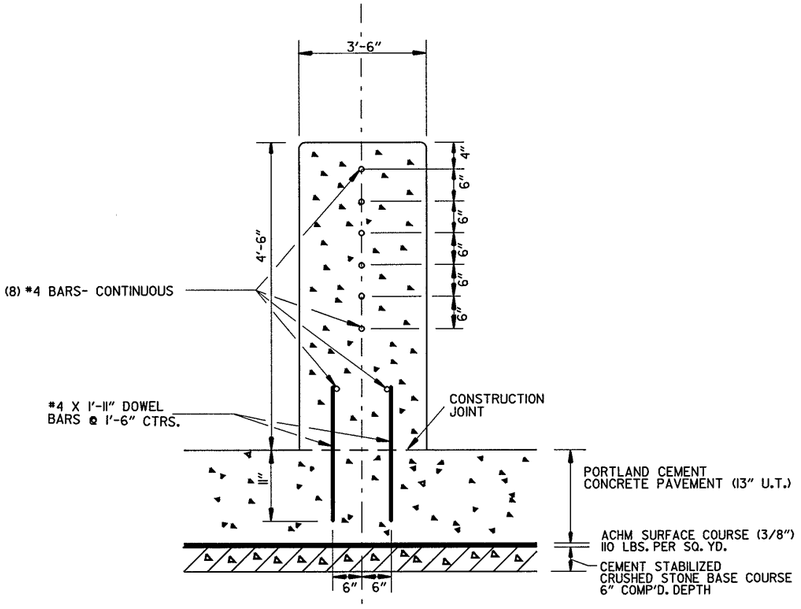


CONTRACTION JOINT DETAIL

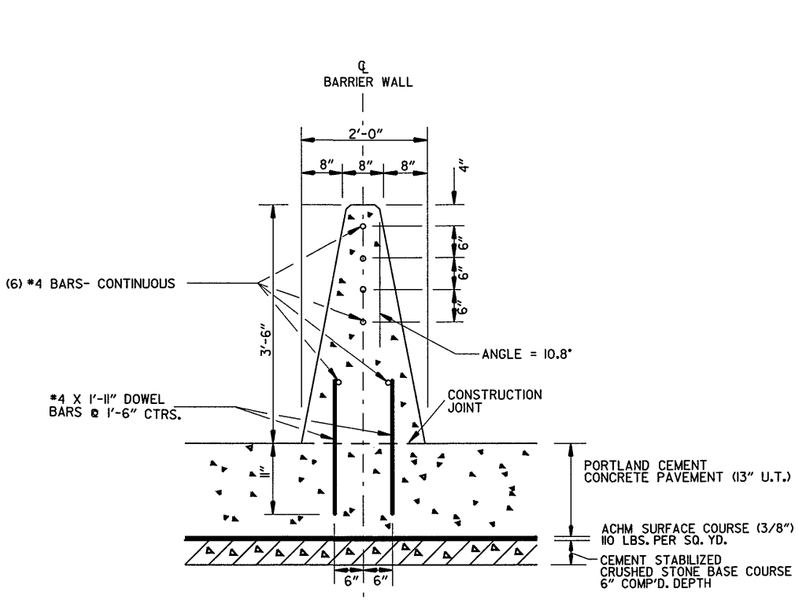


PLAN VIEW
CONCRETE BARRIER WALL (MEDIAN TYPE A) TRANSITION

NOTES FOR MEDIAN BARRIER:
1. ALL EXPOSED EDGES SHALL HAVE ¾" CHAMFERS.
2. CONTRACTION JOINTS SHALL BE CONSTRUCTED AT 15'-0" MAXIMUM SPACING IN TOP AND SIDES OF MEDIAN BARRIER AND SHALL BE FORMED IN FRESH CONCRETE.
3. CONTRACTION JOINTS ARE NOT PERMITTED AT THE DOWEL BAR LOCATIONS.
4. ALL REINFORCING BARS SHALL HAVE 2" MINIMUM COVER.



CONCRETE BARRIER WALL (MEDIAN TYPE A)
(SECTION A-A)



CONCRETE BARRIER WALL (MEDIAN TYPE A)
(SECTION B-B)

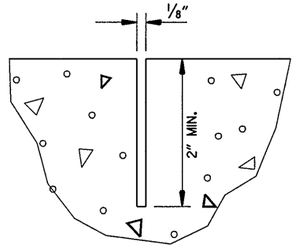
CONCRETE BARRIER WALL (MEDIAN TYPE A) TRANSITION
FOR BRIDGE PIER STRUCTURE

SPECIAL DETAILS

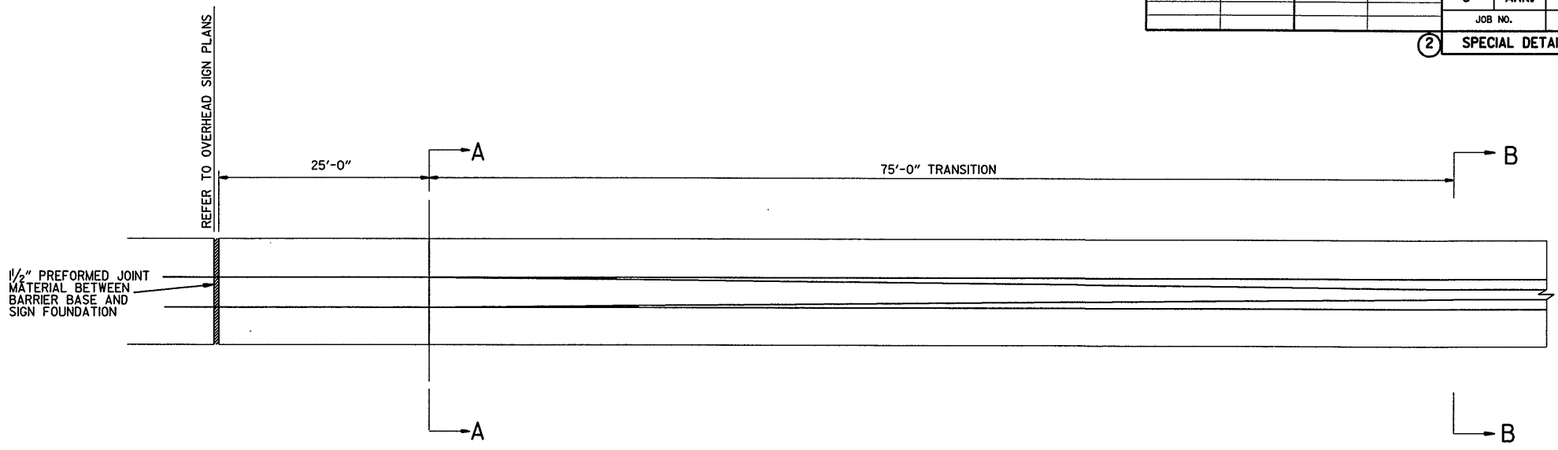
08-08-2005 RR60080.005

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	58	609

(2) SPECIAL DETAILS

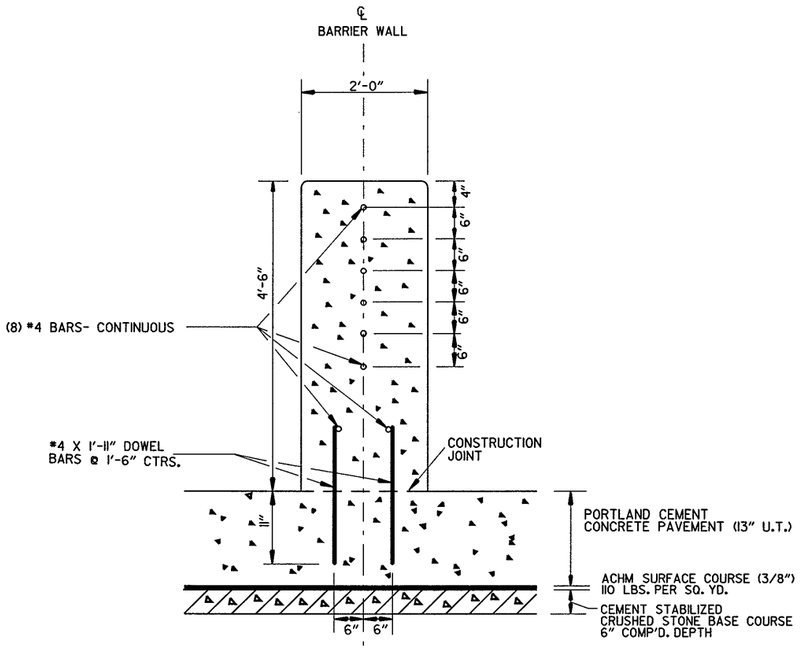


CONTRACTION JOINT DETAIL

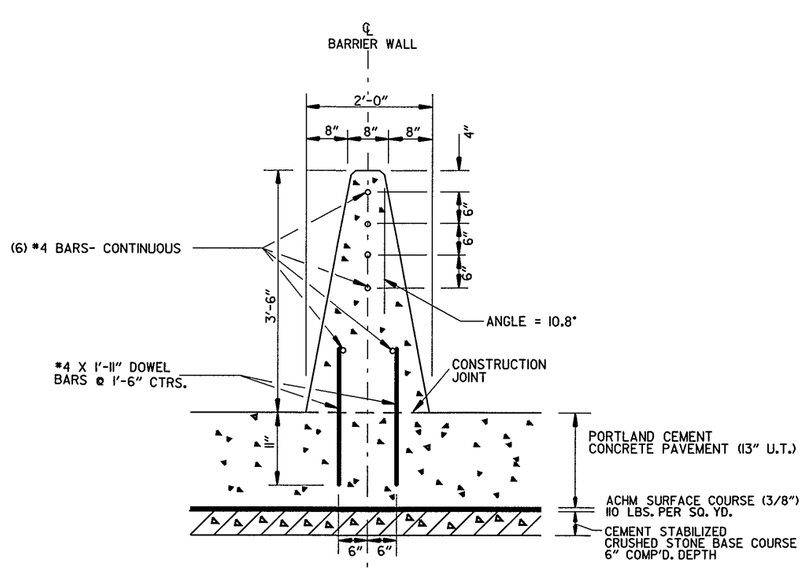


PLAN VIEW
CONCRETE BARRIER WALL (MEDIAN TYPE A) TRANSITION

NOTES FOR MEDIAN BARRIER:
1. ALL EXPOSED EDGES SHALL HAVE ¾" CHAMFERS.
2. CONTRACTION JOINTS SHALL BE CONSTRUCTED AT 15'-0" MAXIMUM SPACING IN TOP AND SIDES OF MEDIAN BARRIER AND SHALL BE FORMED IN FRESH CONCRETE.
3. CONTRACTION JOINTS ARE NOT PERMITTED AT THE DOWEL BAR LOCATIONS.
4. ALL REINFORCING BARS SHALL HAVE 2" MINIMUM COVER.



CONCRETE BARRIER WALL (MEDIAN TYPE A)
(SECTION A-A)



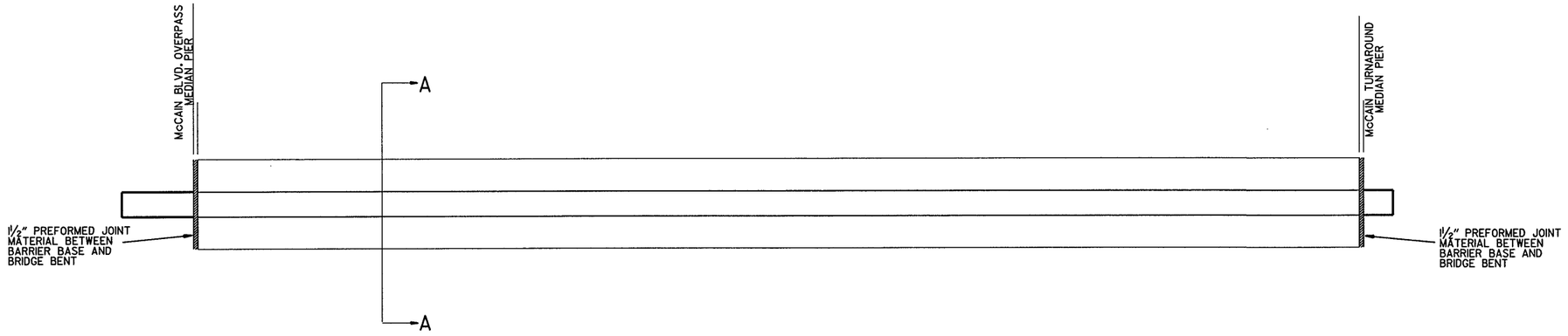
CONCRETE BARRIER WALL (MEDIAN TYPE A)
(SECTION B-B)

CONCRETE BARRIER WALL (MEDIAN TYPE A) TRANSITION
FOR OVERHEAD SIGN STRUCTURE

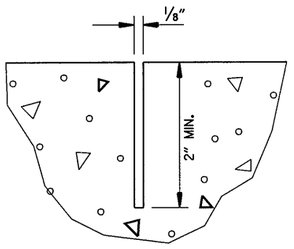
08-08-2005 RR60080.005

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	52	609
				(2) SPECIAL DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 17791
CHARLES D. CLEMENTS
12-05-01

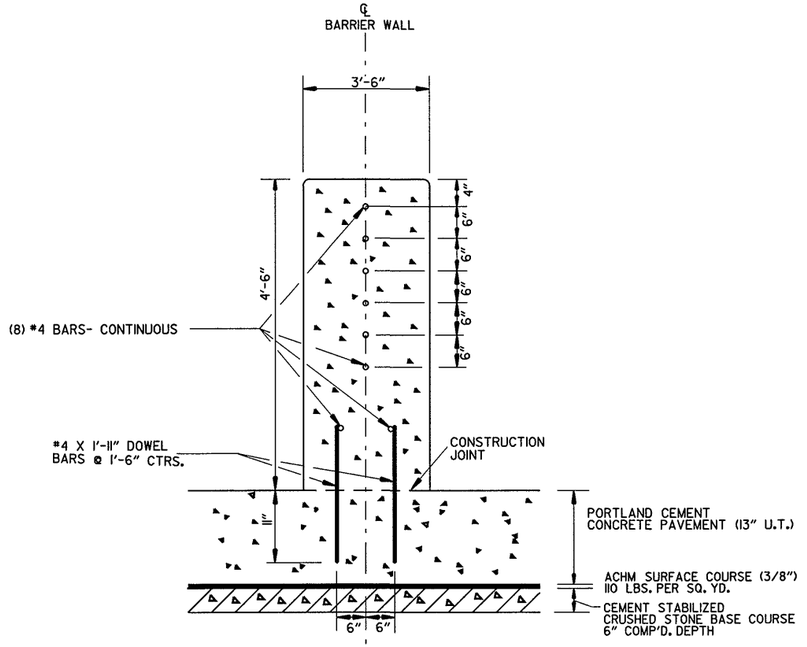


PLAN VIEW
CONCRETE BARRIER WALL (MEDIAN TYPE A)



CONTRACTION JOINT DETAIL

NOTES FOR MEDIAN BARRIER:
1. ALL EXPOSED EDGES SHALL HAVE ¾" CHAMFERS.
2. CONTRACTION JOINTS SHALL BE CONSTRUCTED AT 15'-0" MAXIMUM SPACING IN TOP AND SIDES OF MEDIAN BARRIER AND SHALL BE FORMED IN FRESH CONCRETE.
3. CONTRACTION JOINTS ARE NOT PERMITTED AT THE DOWEL BAR LOCATIONS.
4. ALL REINFORCING BARS SHALL HAVE 2" MINIMUM COVER.



CONCRETE BARRIER WALL (MEDIAN TYPE A)
(SECTION A-A)

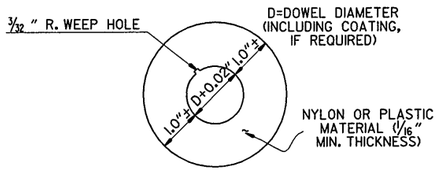
CONCRETE BARRIER WALL (MEDIAN TYPE A) BETWEEN
McCAIN BLVD. OVERPASS AND McCAIN TURNAROUND

SPECIAL DETAILS

08-08-2005 RR60080.D05

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	60	609

(2) SPECIAL DETAILS



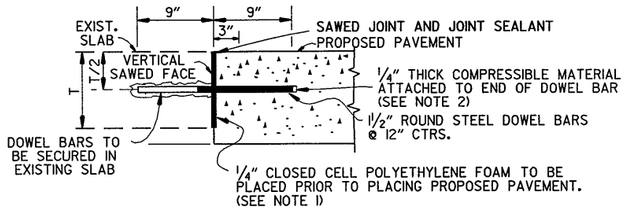
DETAIL OF EPOXY RETENTION DISK

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

1. CLOSED CELL POLYETHYLENE FOAM SHALL BE SECURED TO FACE OF EXISTING P.C.C. PAVEMENT WITH ADHESIVE OR ADHESIVE TAPE AS APPROVED BY THE ENGINEER AND TRIMMED FLUSH WITH TOP OF EXISTING SLAB TO PREVENT DISPLACEMENT WHEN THE PROPOSED PAVEMENT IS BEING PLACED.

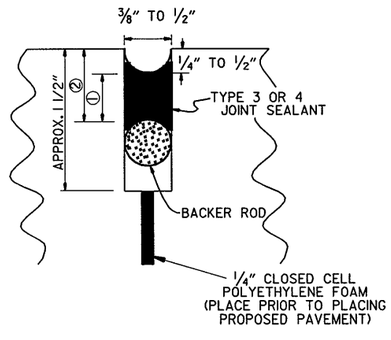
2. 1/4" THICK COMPRESSIBLE MATERIAL SHALL BE ATTACHED TO THE ENDS OF DOWEL BARS AT ALL TRANSVERSE JOINTS. THE MATERIAL SHALL BE THE SAME DIAMETER AS THE DOWEL BAR. A PLASTIC CAP OR OTHER TYPE OF DEVICE MAY BE USED WITH THE APPROVAL OF THE ENGINEER.

3. PAYMENT FOR SAWED TRANSVERSE JOINTS AND ALL OTHER JOINTS IN NEW PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD FOR "PORTLAND CEMENT CONCRETE PAVEMENT".

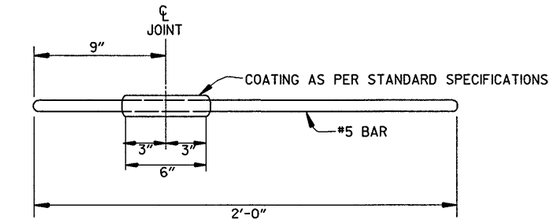


JOINT CONFIGURATION FOR TYPE 3 OR 4 JOINT SEALANT

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



DETAIL OF SAWED TRANSVERSE JOINT



DETAIL OF TIE BAR COATING

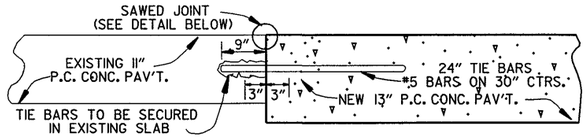
NOTES:

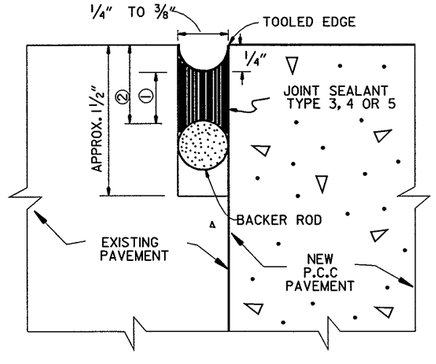
1. ALL TRANSVERSE JOINTS IN THE NEW P.C. CONCRETE PAVEMENT SHALL BE CONTRACTION JOINTS @ 15'-0" CENTERS. THESE JOINTS SHALL COINCIDE WITH THE TRANSVERSE CONTRACTION AND WARPING JOINTS IN THE EXISTING CONCRETE PAVEMENT. REFER TO STD. DWG. CPTJ-6A FOR DETAILS OF CONTRACTION JOINTS.

2. TIE BARS SHALL BE SECURED INTO HOLES DRILLED AT MID SLAB AS SHOWN. NO TIE BARS SHALL BE PLACED CLOSER THAN 15" TO A TRANSVERSE JOINT.

3. MATERIALS FOR SECURING TIE BARS IN EXISTING SLAB SHALL MEET THE REQUIREMENTS AS SPECIFIED IN SUB-SECTION 507.02 OF THE STANDARD SPECIFICATIONS.

4. PAYMENT FOR SAWED LONGITUDINAL CONSTRUCTION JOINTS AND ALL OTHER JOINTS IN NEW PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD FOR "PORTLAND CEMENT CONCRETE PAVEMENT".





JOINT CONFIGURATION FOR TYPE 3 OR 4 JOINT SEALANT

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

JOINT CONFIGURATION FOR TYPE 5 JOINT SEALANT

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

DETAIL OF SAWED LONGITUDINAL CONSTRUCTION JOINT

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 1294 8-23-91 CHARLES D. CLEMENTS

07-26-2005 RR60080.004

SPECIAL DETAILS

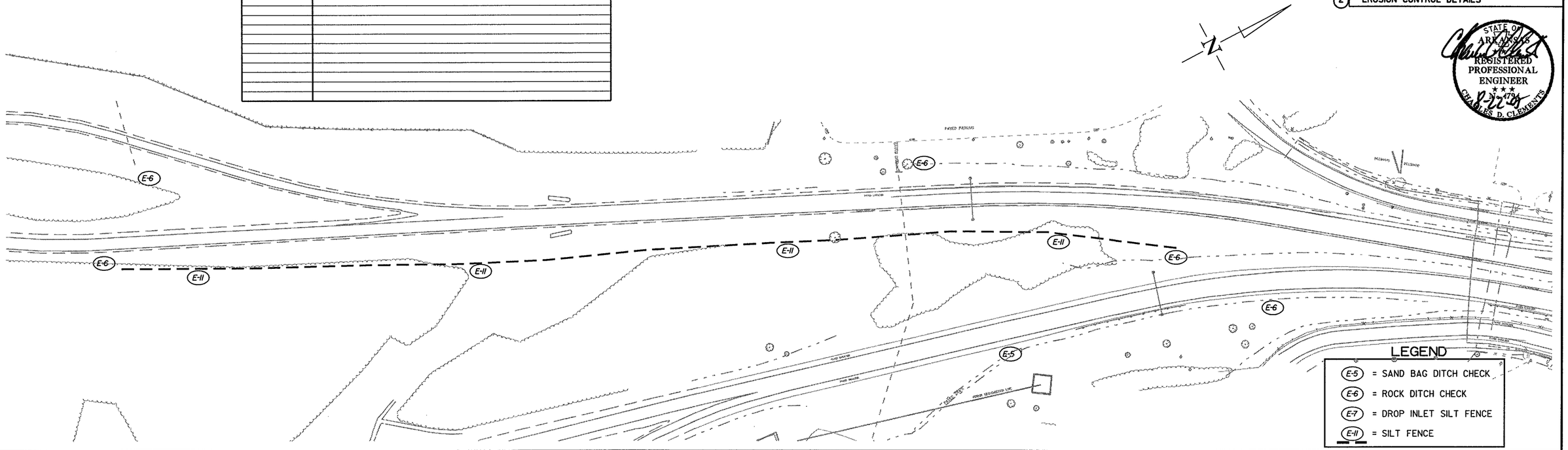
REVISIONS

DATE OF REVISION	REVISION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	61	609

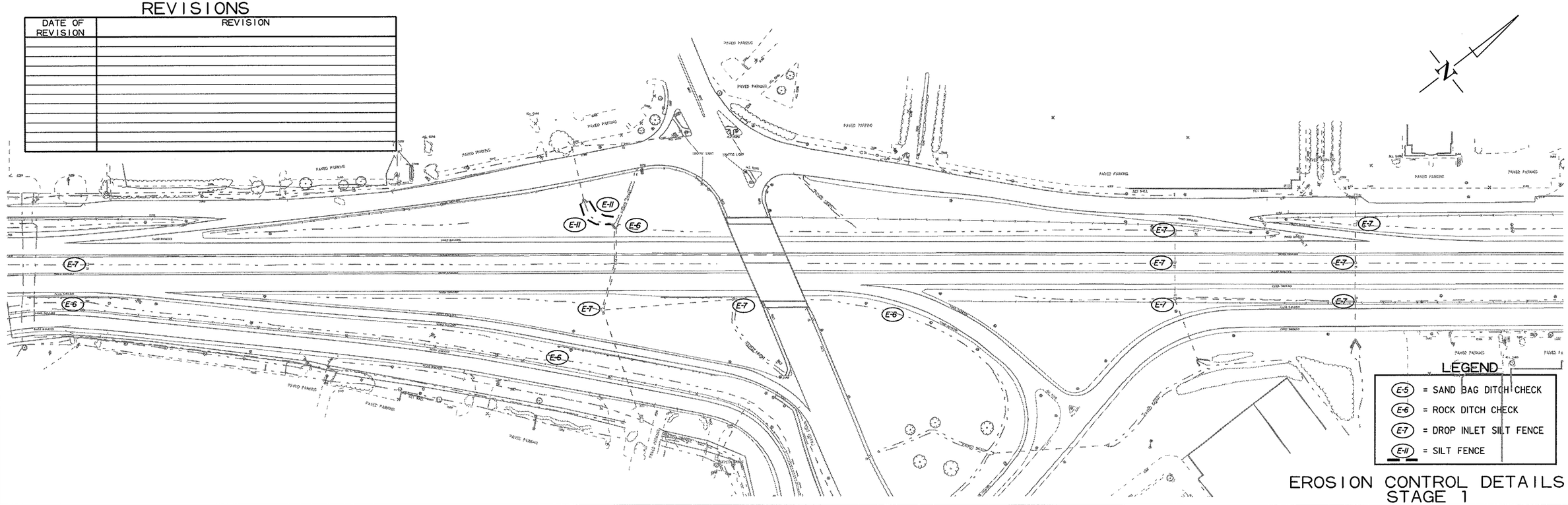
(2) EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-05



REVISIONS

DATE OF REVISION	REVISION



EROSION CONTROL DETAILS
STAGE 1

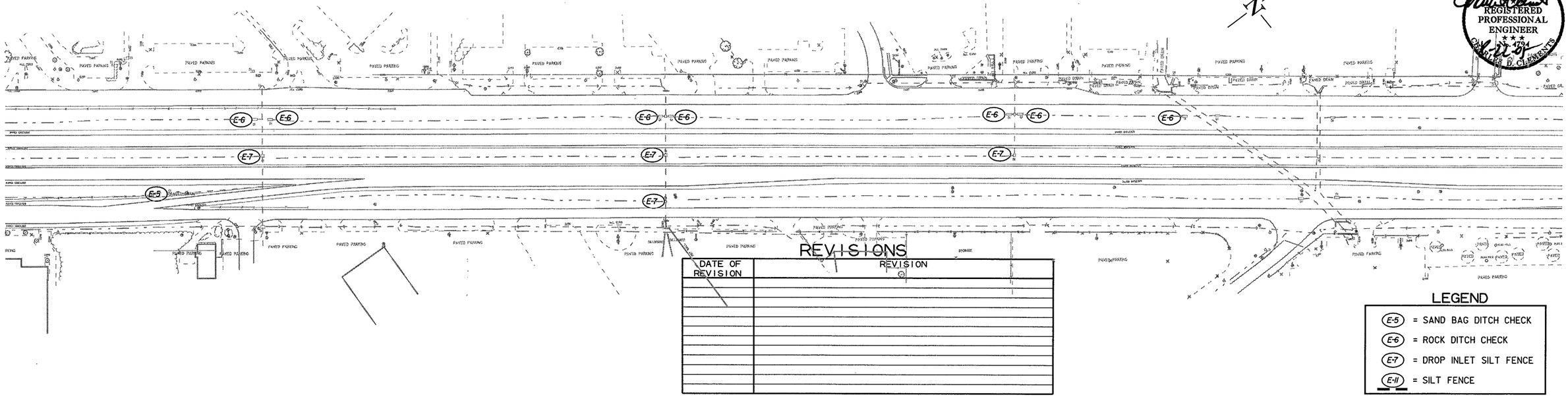
07-11-2005 RR60080MOT.POI

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	62	603

(2) EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
11-3-04



REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE
- (E-11) = SILT FENCE

07-11-2005 RR60080MOT.P01

EROSION CONTROL DETAILS
STAGE 1

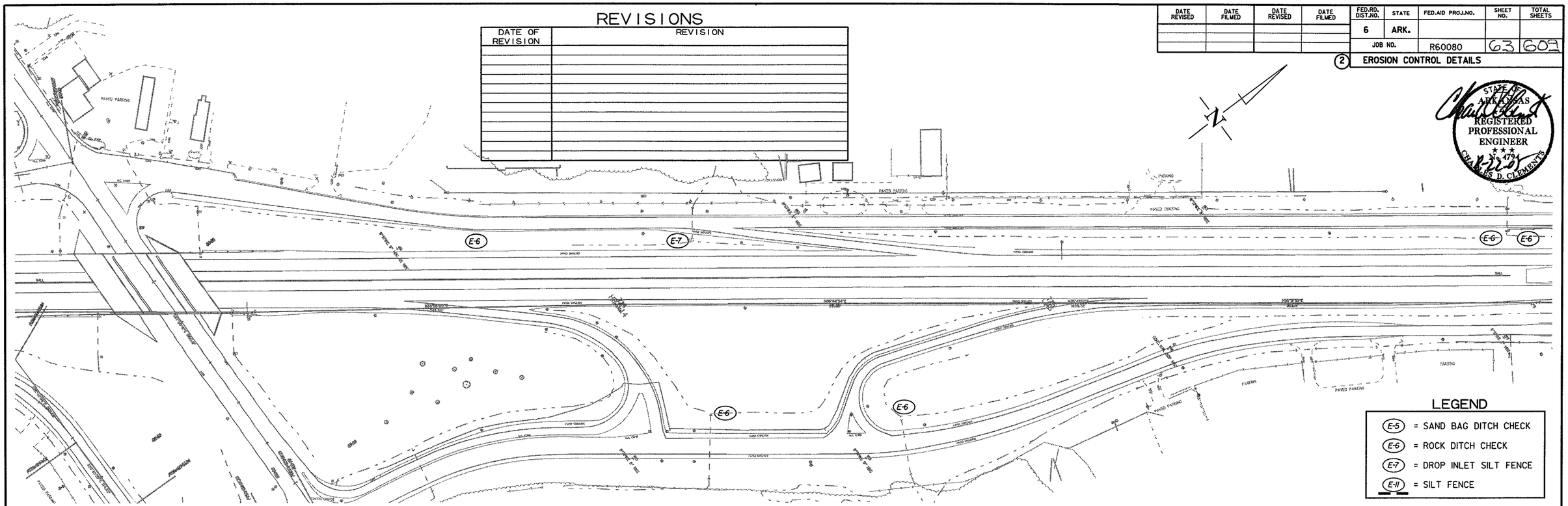
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	63	609

(2) EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11791
CHARLES D. CLEMENTS
8-22-05


E-6
E-7
E-6
E-6
E-6
E-6
E-6
E-7
PAVED PARKING
PAVED PARKING
PAVED PARKING
PAVED PARKING
PARKING
PARKING
PARKING
PARKING
PAVED PARKING
PAVED PARKING
PAVED

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	64	603

(2) EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION

STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
8-22-97

N

LEGEND

- E-5 = SAND BAG DITCH CHECK
- E-6 = ROCK DITCH CHECK
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE

REVISIONS

DATE OF REVISION	REVISION

N

LEGEND

- E-5 = SAND BAG DITCH CHECK
- E-6 = ROCK DITCH CHECK
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE

EROSION CONTROL DETAILS
STAGE 1

07-11-205 RR6008MOT.P02

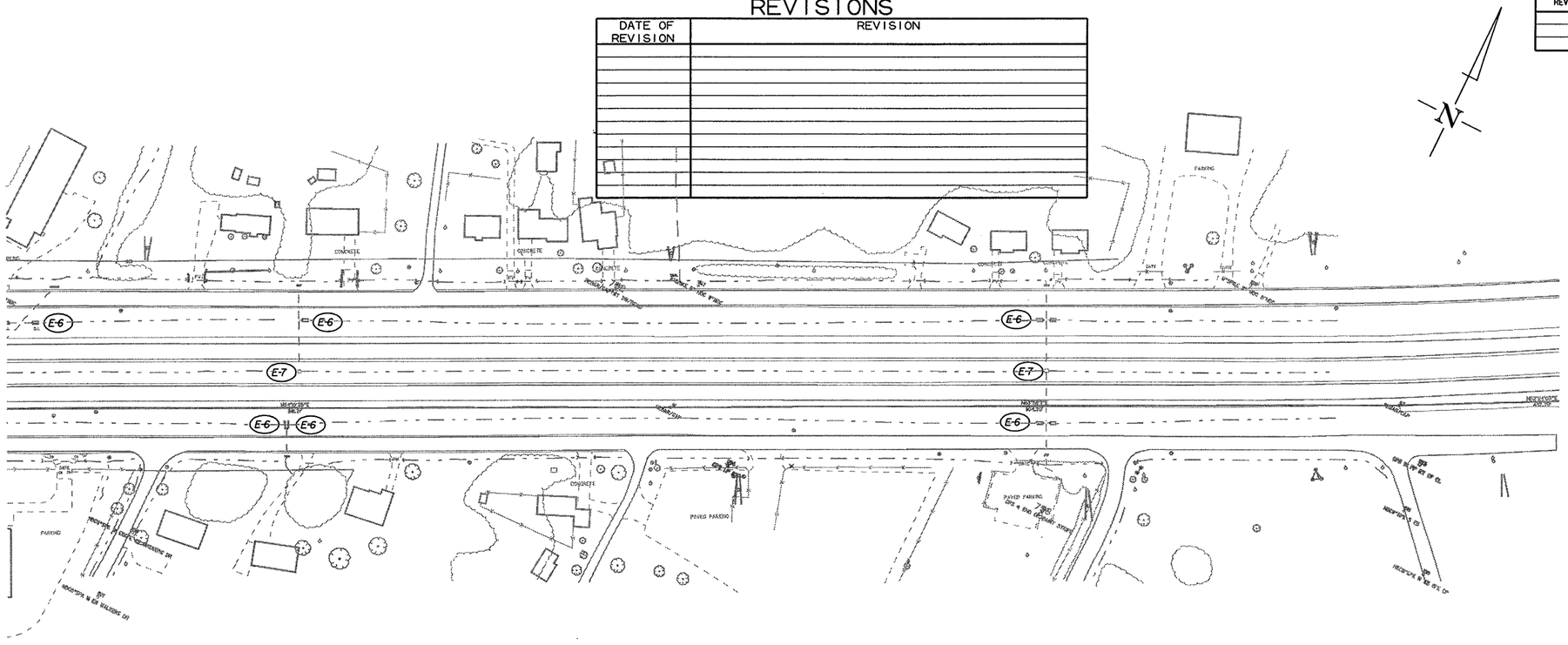
REVISIONS

DATE OF REVISION	REVISION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	65	609

(2) EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4734
7-22-11
CHARLES D. CLEMENTS



LEGEND

- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE
- (E-11) = SILT FENCE

07-11-205 RR60080MOT.P02

EROSION CONTROL DETAILS
STAGE 1

REVISIONS

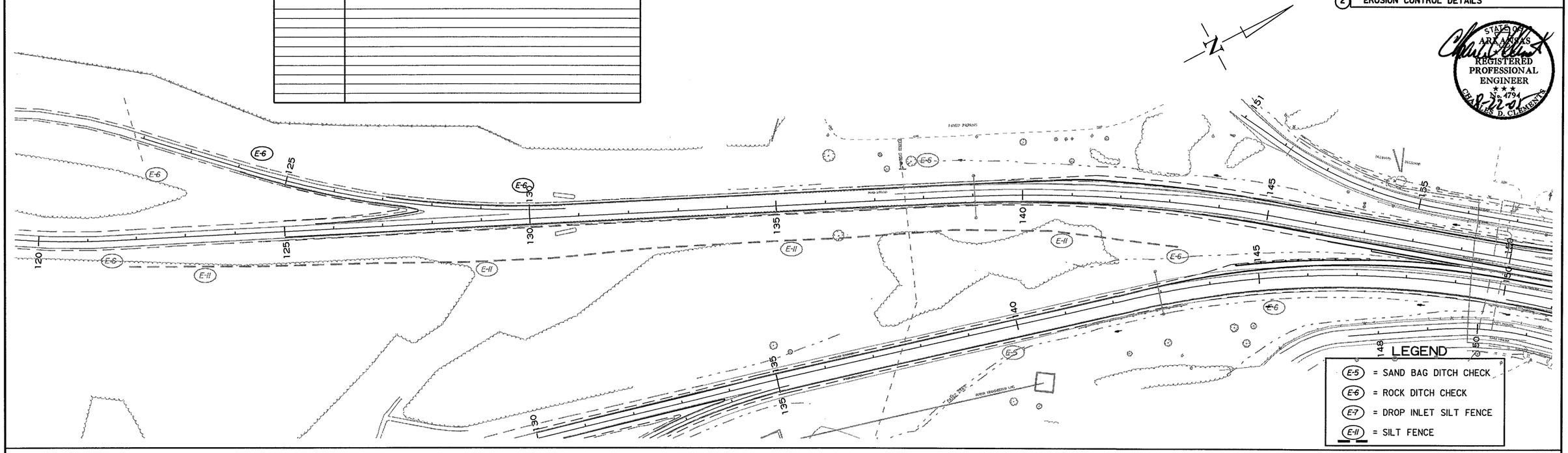
DATE OF REVISION	REVISION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	66	69

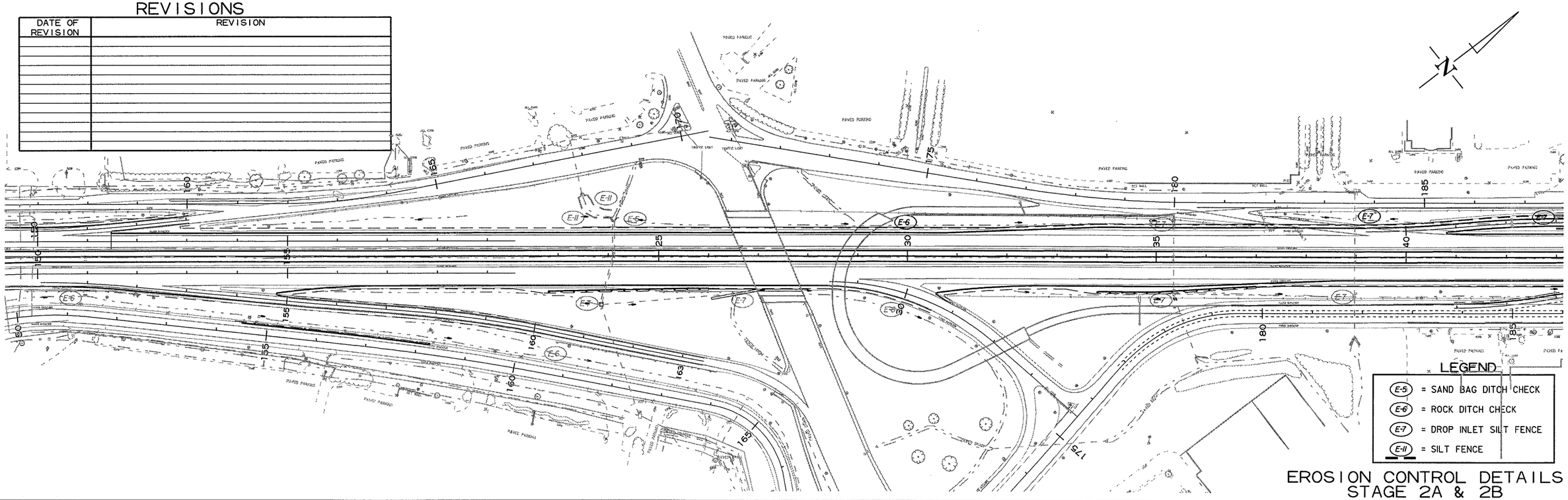
(2) EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
3-22-05
CHARLES D. CLEMENTS



REVISIONS

DATE OF REVISION	REVISION



EROSION CONTROL DETAILS STAGE 2A & 2B

07-11-2005 RR60080MOT.POI

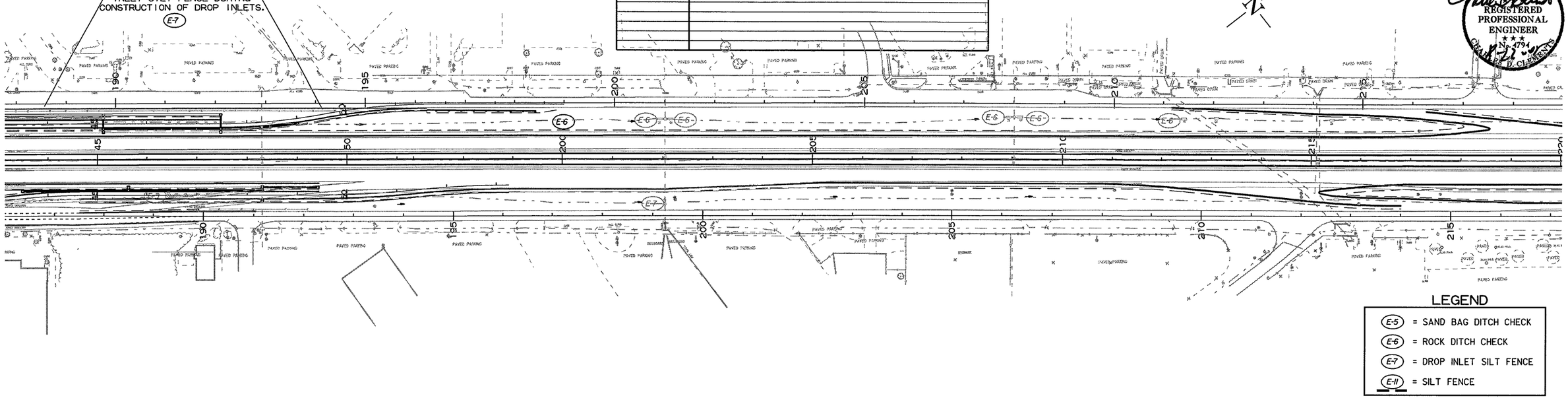
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	67	609

(2) EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION

7 INSTALLATIONS OF DROP INLET SILT FENCE DURING CONSTRUCTION OF DROP INLETS. (E-7)



STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS

LEGEND

- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE
- (E-11) = SILT FENCE

07-11-2005 RR60080MOT.P01

EROSION CONTROL DETAILS
STAGE 2A & 2B

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	68	609

(2) EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11791
8-22-05
CHARLES D. CLEMENTS

LEGEND

- E-5 = SAND BAG DITCH CHECK
- E-6 = ROCK DITCH CHECK
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 = SAND BAG DITCH CHECK
- E-6 = ROCK DITCH CHECK
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE

EROSION CONTROL DETAILS
STAGE 2A & 2B

07-11-205 RR60080MOT.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	62	63

(2) EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
3-22-01
CHARLES D. CLEMENTS

N

LEGEND

- E-5 = SAND BAG DITCH CHECK
- E-6 = ROCK DITCH CHECK
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE

REVISIONS

DATE OF REVISION	REVISION

N

WARDEN RD.

LEGEND

- E-5 = SAND BAG DITCH CHECK
- E-6 = ROCK DITCH CHECK
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE

EROSION CONTROL DETAILS
STAGE 2A & 2B

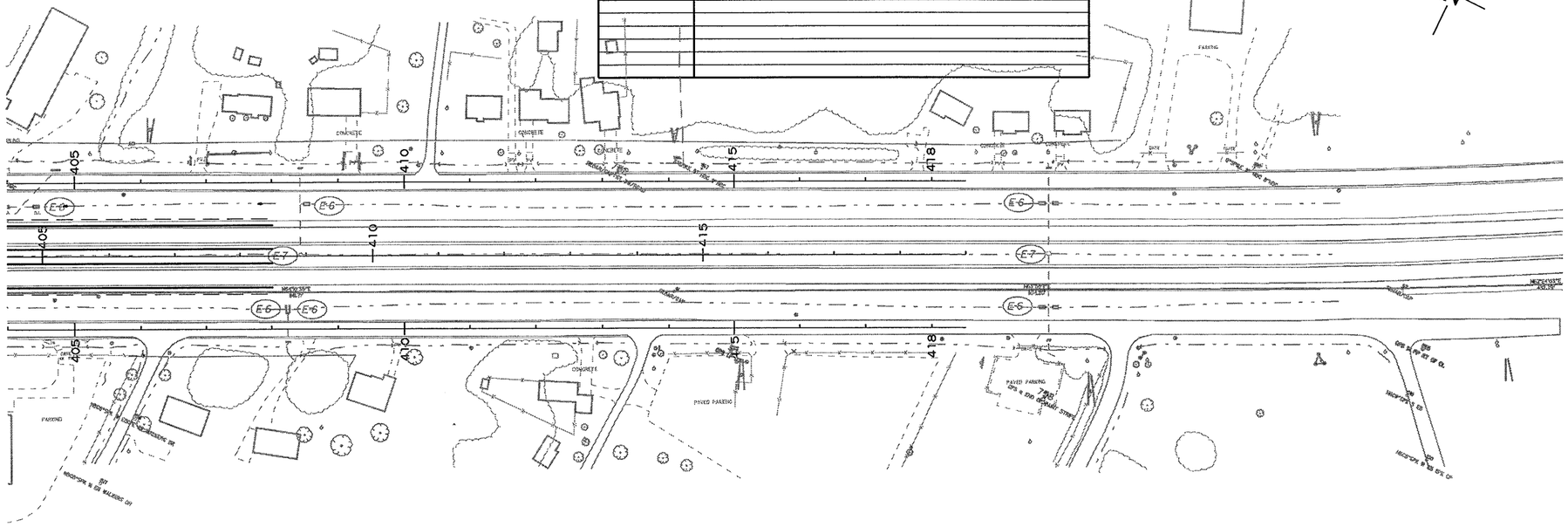
07-11-205 RR60080MOT.P02

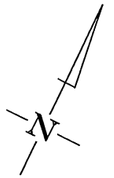
REVISIONS

DATE OF REVISION	REVISION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	70	609

(2) EROSION CONTROL DETAILS





STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
8021

LEGEND

- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE
- (E-11) = SILT FENCE

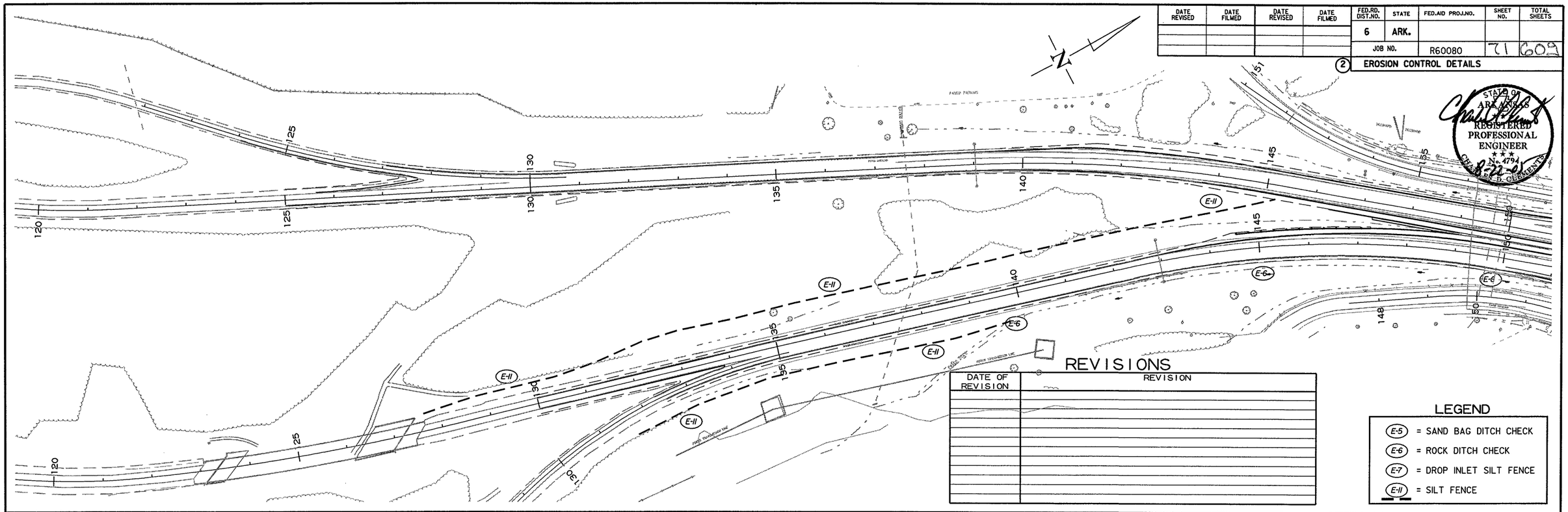
EROSION CONTROL DETAILS
STAGE 2A & 2B

07-11-205 RR60080MOT.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	71	609

(2) EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-22-05
CHARLES B. CLEMENTS



REVISIONS

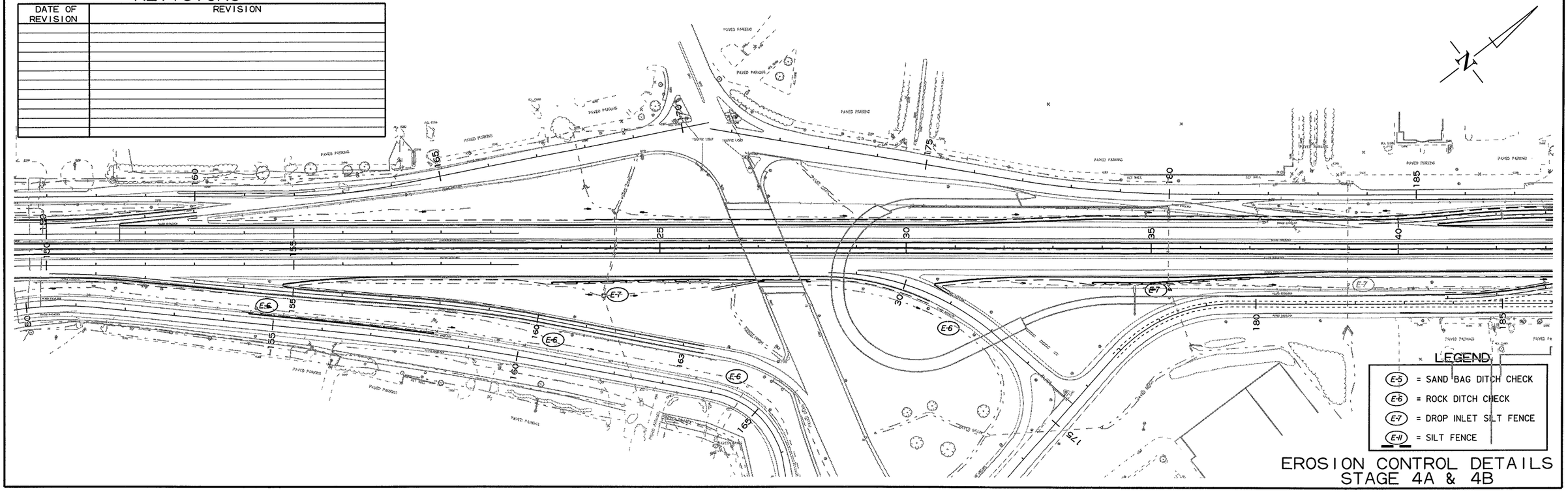
DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE
- (E-11) = SILT FENCE

REVISIONS

DATE OF REVISION	REVISION



LEGEND

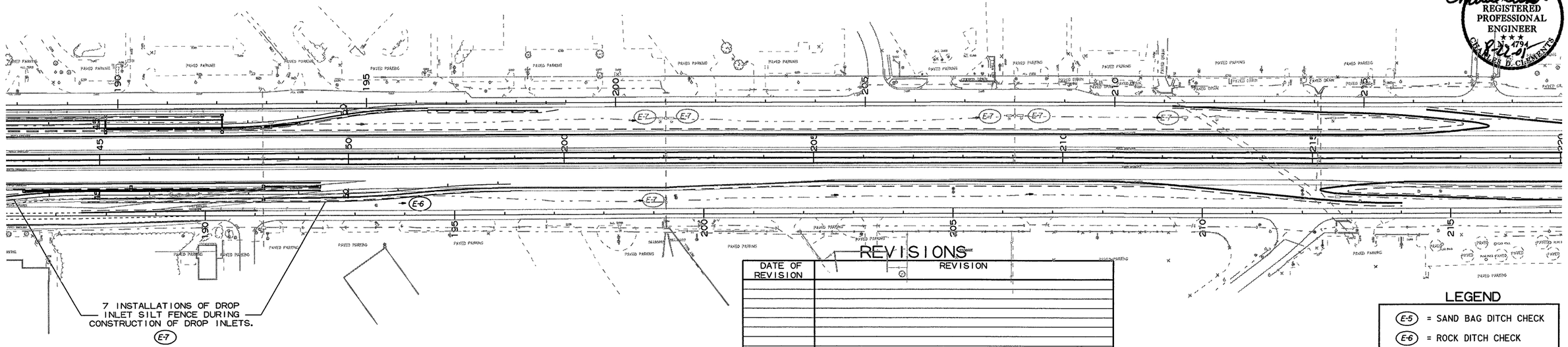
- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE
- (E-11) = SILT FENCE

EROSION CONTROL DETAILS
STAGE 4A & 4B

07-11-2005 RR60080MOT.P01

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	72	609

(2) EROSION CONTROL DETAILS



STATE OF ARKANSAS
CHARLES B. CLEMENTS
No. 7941
REGISTERED PROFESSIONAL ENGINEER
8-22-05

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE
- (E-11) = SILT FENCE

07-11-2005 RR60080MOT.PDI

EROSION CONTROL DETAILS
STAGE 4A & 4B

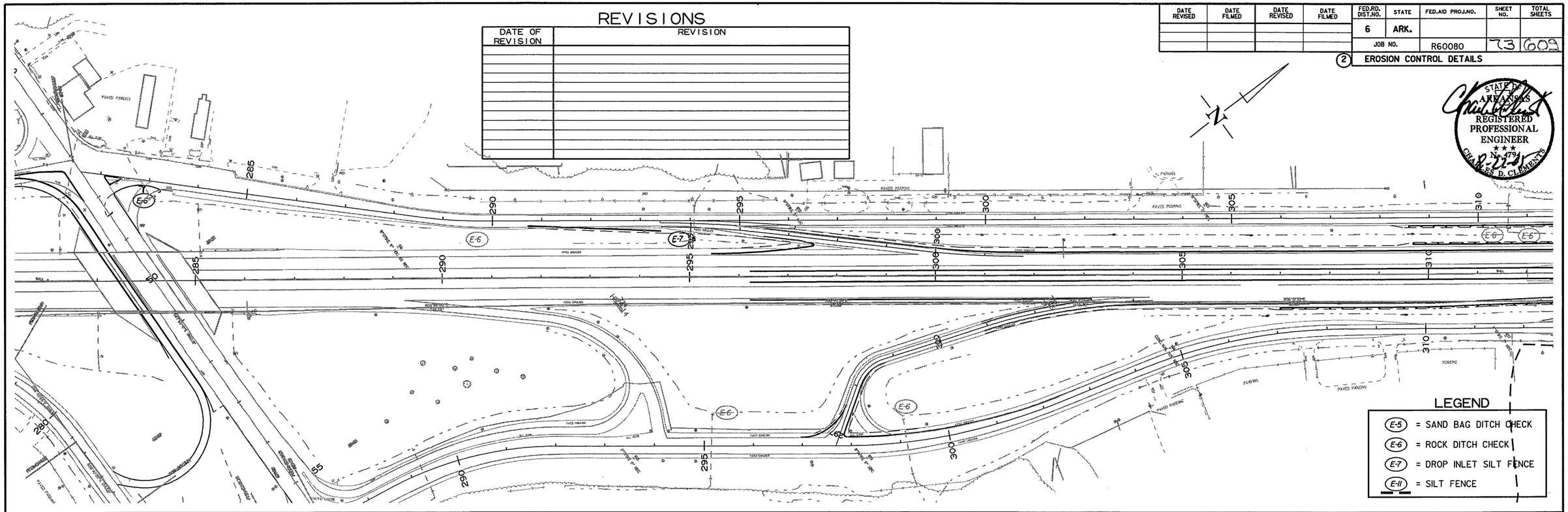
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	73	609

(2) EROSION CONTROL DETAILS

REVISIONS

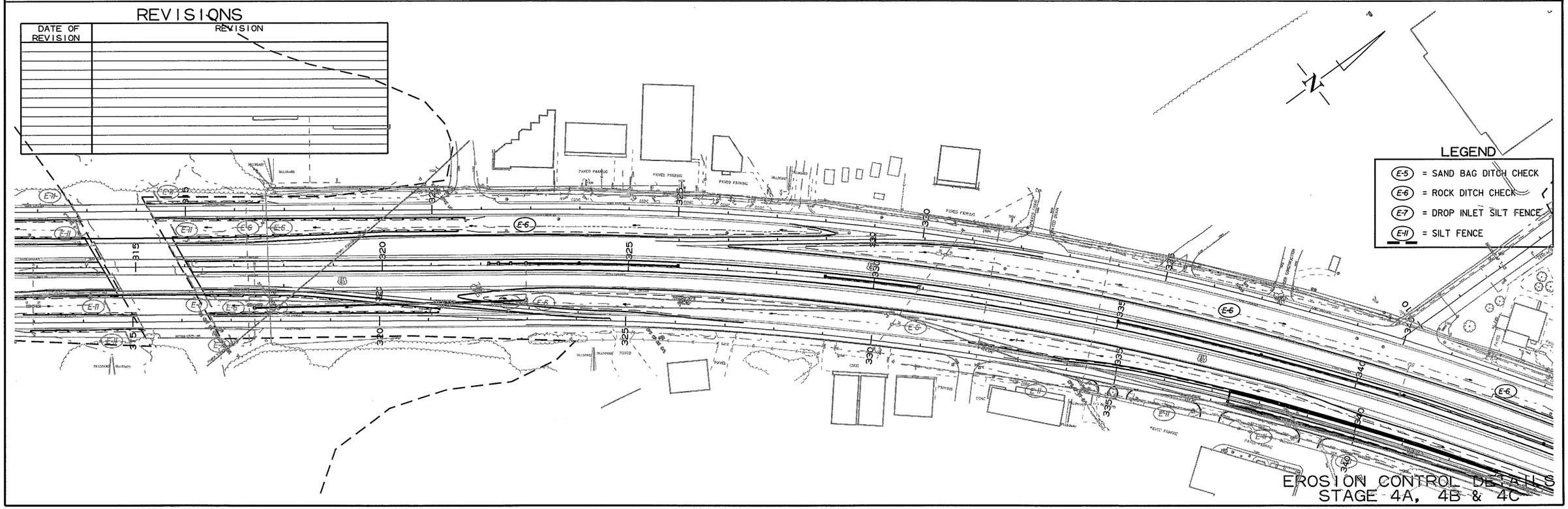
DATE OF REVISION	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7791
CHARLES D. CLEMENTS



REVISIONS

DATE OF REVISION	REVISION



EROSION CONTROL DETAILS
STAGE 4A, 4B & 4C

07-11-205 RR60080MOT.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	74	609

(2) EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11794
CHARLES D. CLEMENTS

N

LEGEND

- E-5 SAND BAG DITCH CHECK
- E-6 ROCK DITCH CHECK
- E-7 DROP INLET SILT FENCE
- E-11 SILT FENCE

WARDEN RD.

REVISIONS

DATE OF REVISION	REVISION

LEGEND

- E-5 = SAND BAG DITCH CHECK
- E-6 = ROCK DITCH CHECK
- E-7 = DROP INLET SILT FENCE
- E-11 = SILT FENCE

EROSION CONTROL DETAILS
STAGE 4A, 4B & 4C

07-11-205 RR60080MOT.P02

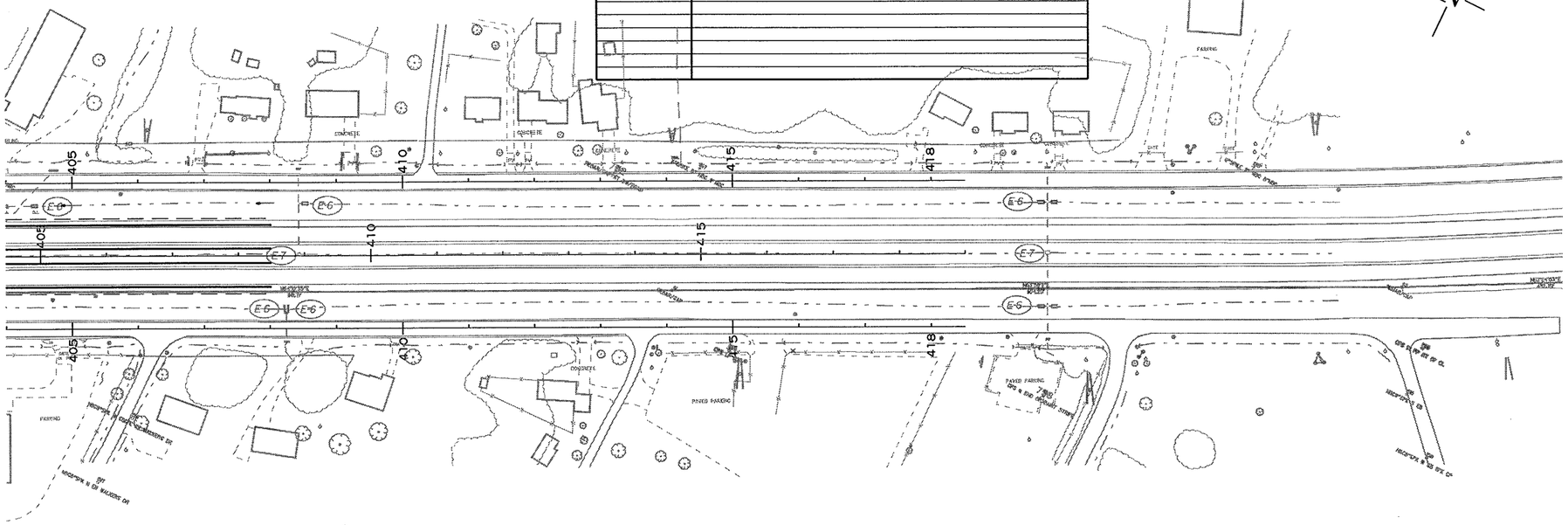
REVISIONS

DATE OF REVISION	REVISION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	75	609

(2) EROSION CONTROL DETAILS

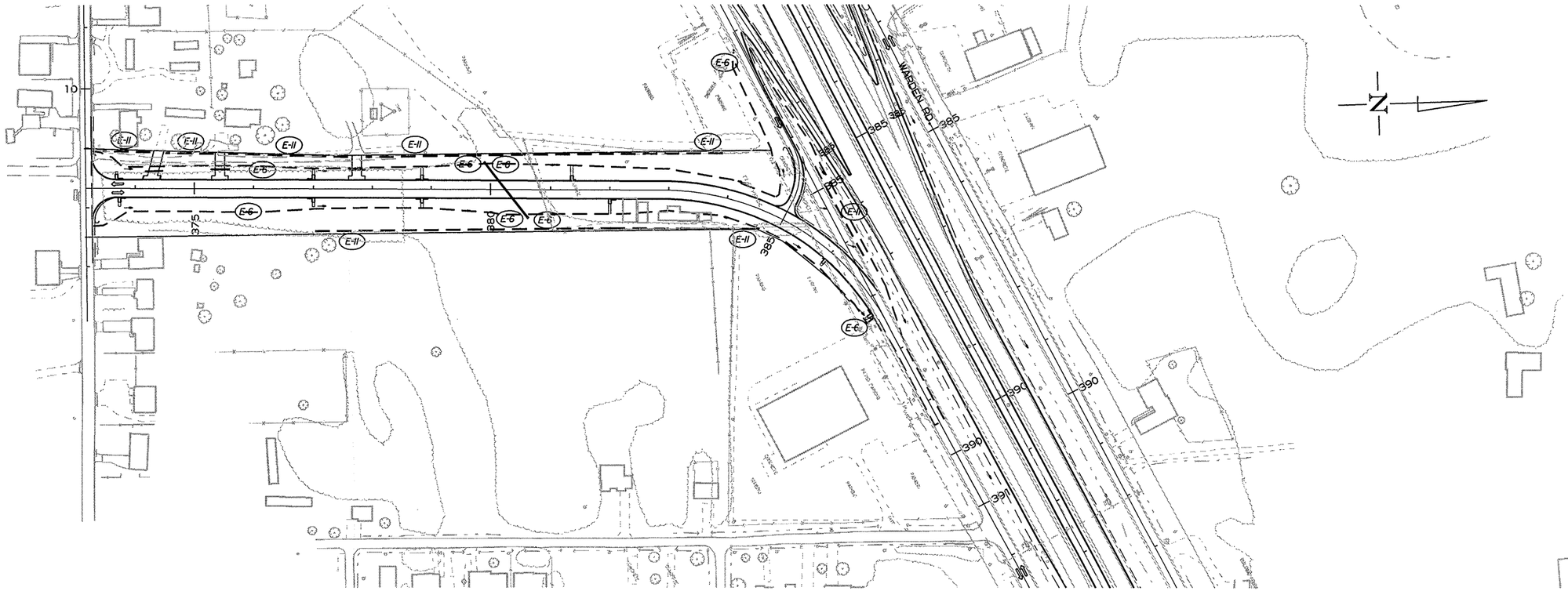
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 17941
CHARLES D. CLEMENTS
4-22-97


N
405
410
415
418
E-6
E-7
CONCRETE
PAVED PARKING
PARKING
MEDIAN
MEDIAN ISLAND
MEDIAN ISLAND
MEDIAN ISLAND

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	76	605

(2) EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4791
7-22-05
CHARLES D. CLEMENTS



REVISIONS

DATE OF REVISION	REVISION

LEGEND

- (E-5) = SAND BAG DITCH CHECK
- (E-6) = ROCK DITCH CHECK
- (E-7) = DROP INLET SILT FENCE
- (E-11) = SILT FENCE

EROSION CONTROL DETAILS
LANDERS CONNECTOR

07-20-2005 RR60080.E03

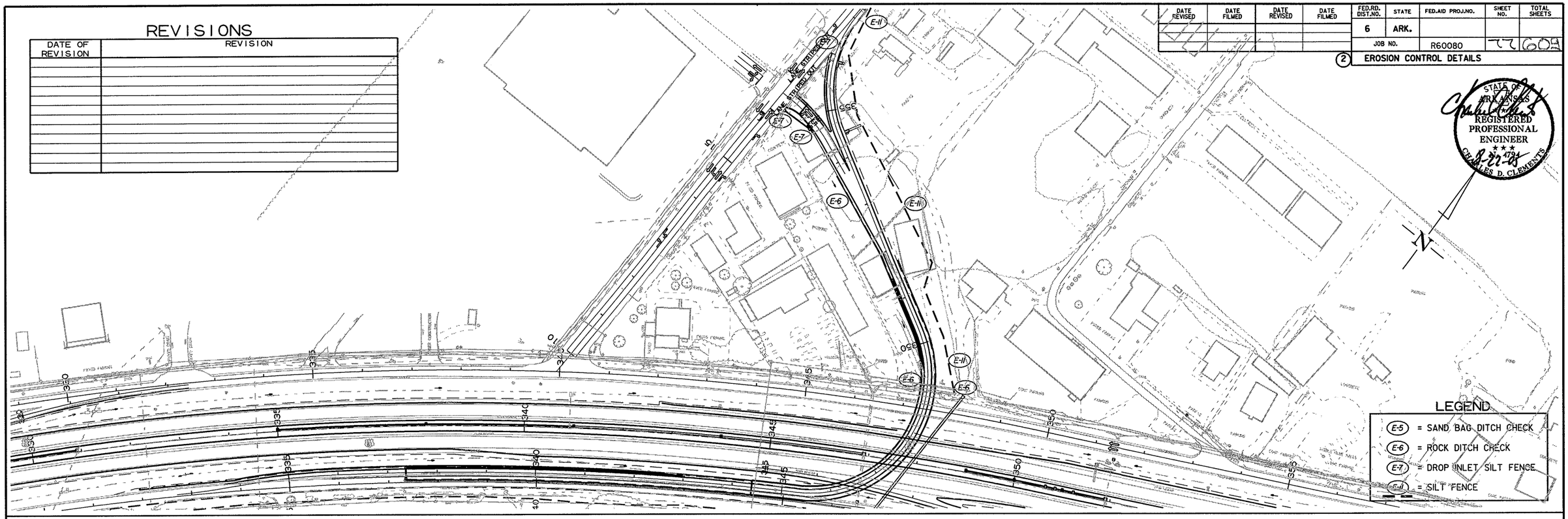
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	77	609

(2) EROSION CONTROL DETAILS

REVISIONS

DATE OF REVISION	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
8-22-05



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	18	60

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
9-21-04

TEMPORARY MEMPHIS EXIT RAMP
STA. 126+32 INSTALL
18' x 11' x 92' ARCHED TEMPORARY CULV'T.

① TEMP. MEMPHIS EXIT
P.I. 124+99.12
Δ = 8°31'30.3"RT.
D = 8°00'00"
T = 53.38'
L = 106.56'
P.C. 124+45.74
P.T. 125+52.30

② TEMP. MEMPHIS EXIT
P.I. 127+83.11
Δ = 26°54'19.4"LT.
D = 8°00'00"
T = 171.32'
L = 336.32'
P.C. 126+11.79
P.T. 129+48.11

TEMPORARY SOUTHBOUND HWY. 67/167
STA. 143+55 INSTALL
18' x 11' x 162' ARCHED TEMPORARY CULV'T.
(60° LT. FWD. SKEW)

PAVM'T. EDGE
R=500'

SOUTHBOUND HWY. 67/167

NORTHBOUND HWY. 67/167

① TEMP. S.B. LANES
P.I. 122+11.31
Δ = 5°04'06.3"RT.
D = 3°00'00"
T = 84.53'
L = 168.95'
P.C. 121+26.78
P.T. 122+95.73

② TEMP. S.B. LANES
P.I. 125+64.54
Δ = 5°42'30.0"LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 124+69.33
P.T. 126+59.60

③ TEMP. S.B. LANES
P.I. 140+71.01
Δ = 12°52'06.1"RT.
D = 2°00'00"
T = 323.07'
L = 643.42'
P.C. 137+47.95
P.T. 143+91.36

TEMP. N.B. SHIFT
P.I. 147+06.77
Δ = 14°05'17.6"RT.
D = 4°00'00"
T = 177.00'
L = 352.21'
P.C. 145+29.44
P.T. 148+81.65

① TEMP. McCAIN ENTRANCE RAMP
P.I. 151+83.03
Δ = 20°51'55.7"LT.
D = 7°00'00"
T = 150.71'
L = 298.08'
P.C. 150+32.32
P.T. 153+30.40

② TEMP. McCAIN ENTRANCE RAMP
P.I. 154+84.47
Δ = 15°00'00.0"RT.
D = 8°00'00"
T = 94.29'
L = 187.50'
P.C. 153+90.18
P.T. 155+77.68

① TEMP. McCAIN E.B. EXIT RAMP
P.I. 150+25.11
Δ = 5°23'09.8"RT.
D = 10°00'00"
T = 26.95'
L = 53.86'
P.C. 149+98.16
P.T. 150+52.02

② TEMP. McCAIN E.B. EXIT RAMP
P.I. 155+45.55
Δ = 5°00'00 "LT.
D = 3°00'00"
T = 83.39'
L = 166.67'
P.C. 154+62.16
P.T. 156+28.83

① TEMP. McCAIN RAMP
P.I. 40+52.60
Δ = 5°20'23.6"LT.
D = 5°00'00"
T = 53.44'
L = 106.80'
P.C. 39+99.16
P.T. 41+05.96

② TEMP. McCAIN RAMP
P.I. 43+16.25
Δ = 5°42'30.0"RT.
D = 5°00'00"
T = 57.13'
L = 114.17'
P.C. 42+59.12
P.T. 43+73.28

C.L. HWY. 67/167
STA. 39+00 INSTALL 84' RT.
18" x 6' TEMPORARY CULV'T.

C.L. HWY. 67/167
STA. 35+35 INSTALL 82' RT.
18" x 8" TEMPORARY CULV'T.

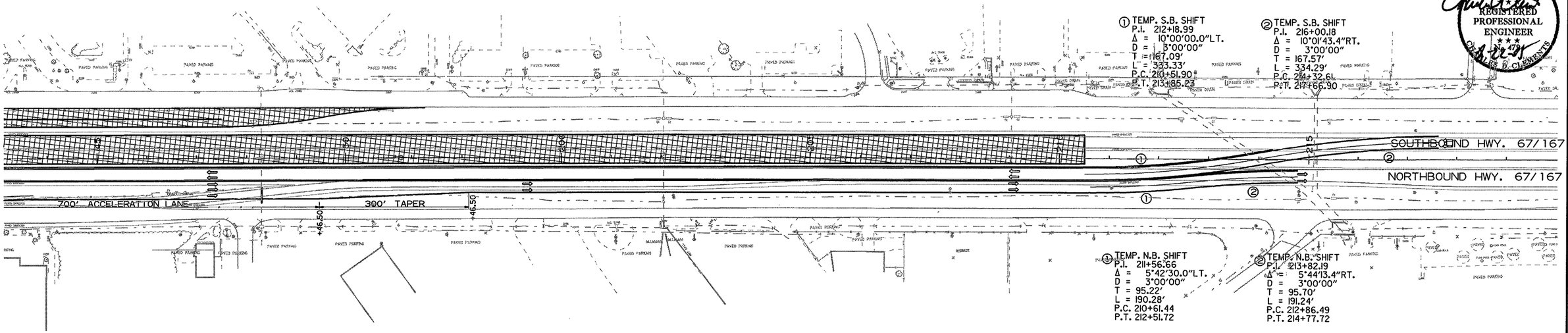
STAGE CONSTRUCTION STAGE 2A

07-11-2005 RR6008OMOT.POI

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		79	609
				JOB NO.		R60080		

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS



C.L. HWY. 67/167
STA. 48+30 INSTALL 91' RT.
18" x 28' TEMPORARY CULV'T.

STAGE CONSTRUCTION
STAGE 2A

07-11-2005 RR60080MOT.PDI

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	80	603

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7791
CHARLES D. CLEMENTS

C.L. HWY. 67/167
STA. 295+10 INSTALL 75' LT.
18' x 58' TEMPORARY CULVERT

① TEMP. S.B. SHIFT
P.I. 291+94.25
Δ = 8°00'00.0"LT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 290+60.70
P.T. 293+27.36

② TEMP. S.B. SHIFT
P.I. 294+66.85
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 293+33.30
P.T. 295+99.97

SOUTHBOUND 67/167

NORTHBOUND 67/167

① TEMP. N.B. SHIFT
P.I. 289+25.68
Δ = 8°00'00.0"LT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 287+92.13
P.T. 290+58.80

② TEMP. N.B. SHIFT
P.I. 294+71.33
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 293+37.78
P.T. 296+04.45

TEMP. WILDWOOD ENTRANCE RAMP
P.I. 300+64.35
Δ = 70°17'05.7"RT.
D = 15°00'00"
T = 268.88'
L = 468.57'
P.C. 297+95.46
P.T. 302+64.02

TEMP. NOSE +26.55 28.34'

300' TAPER

700' ACCELERATION LANE

① TEMP. N.B. SHIFT
P.I. 312+15.89
Δ = 5°04'26.7"RT.
D = 4°00'00"
T = 63.47'
L = 126.85'
P.C. 311+52.42
P.T. 312+79.27

TEMPORARY WILDWOOD ENTRANCE RAMP
STA. 298+88 INSTALL
18' x 94' TEMPORARY CULVERT

C.L. HYW. 67/167
STA. 331+35 INSTALL 76' LT.
18' x 26' TEMPORARY CULVERT

① TEMP. S.B. SHIFT
P.I. 316+26.98
Δ = 5°01'08.0"RT.
D = 4°00'00"
T = 62.78'
L = 125.47'
P.C. 315+64.20
P.T. 316+89.67

② TEMP. S.B. SHIFT
P.I. 317+75.49
Δ = 5°01'08.0"LT.
D = 4°00'00"
T = 62.78'
L = 125.47'
P.C. 317+12.72
P.T. 318+38.19

SOUTHBOUND 67/167

NORTHBOUND 67/167

300' TAPER

700' ACCELERATION LANE

① TEMP. BROOKSWOOD ENTRANCE RAMP
P.I. 335+06.84
Δ = 4°57'03.6"LT.
D = 3°00'00"
T = 82.57'
L = 165.03'
P.C. 334+24.27
P.T. 335+89.30

② TEMP. BROOKSWOOD ENTRANCE RAMP
P.I. 338+33.28
Δ = 9°56'45.5"RT.
D = 5°00'00"
T = 99.71'
L = 198.92'
P.C. 337+33.57
P.T. 339+32.49

TEMP. NOSE +62.56 73.81'

② TEMP. N.B. SHIFT
P.I. 313+51.48
Δ = 5°04'26.7"LT.
D = 4°00'00"
T = 63.47'
L = 126.85'
P.C. 312+88.02
P.T. 314+14.87

STAGE CONSTRUCTION
STAGE 2A

07-II-205 RR60080MOT.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	81	

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
8-12-98
479
CHARLES D. CLEMENTS

C.L. HYW. 67/167
STA. 346+91 INSTALL 81' LT.
18" x 14' TEMPORARY CULVERT

C.L. HYW. 67/167
STA. 351+90 INSTALL 77' LT.
18" x 18' TEMPORARY CULVERT

C.L. HYW. 67/167
STA. 361+90 INSTALL 80' LT.
18" x 20' TEMPORARY CULVERT

C.L. HYW. 67/167
STA. 369+93 INSTALL 73' LT.
18" x 2' TEMPORARY CULVERT

300' TAPER

700' ACCELERATION LANE

SOUTHBOUND 67/167

NORTHBOUND 67/167

TEMP. NOSE +33.82 16.26'

TEMP. NOSE +24.35 73.84'

OPS SOUTHBOUND

(1) TEMP. KIEHL AVE. EXIT RAMP
P.I. 349+85.88
Δ = 17°19'23.7"RT.
D = 4°00'00"
T = 218.21'
L = 433.08'
P.C. 347+67.67
P.T. 352+00.75

(2) TEMP. KIEHL AVE. EXIT RAMP
P.I. 353+52.79
Δ = 8°28'19.1"LT.
D = 4°00'00"
T = 106.09'
L = 211.80'
P.C. 352+46.70
P.T. 354+58.50

TEMPORARY KIEHL AVE. EXIT RAMP
STA. 351+01 INSTALL
18" x 222' TEMPORARY CULVERT

(1) TEMP. N.B. & S.B. SHIFT
P.I. 377+66.69
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 377+00.00
P.T. 378+33.33

(2) TEMP. N.B. & S.B. SHIFT
P.I. 379+38.67
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 378+71.97
P.T. 380+05.31

(3) TEMP. N.B. & S.B. SHIFT
P.I. 399+67.00
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 399+00.31
P.T. 400+33.64

(4) TEMP. N.B. & S.B. SHIFT
P.I. 401+38.95
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 400+72.28
P.T. 402+05.62

SOUTHBOUND 67/167

NORTHBOUND 67/167

TEMP. NOSE +65.88 26.21'

700' ACCELERATION LANE

300' TAPER

OPS SOUTHBOUND

(1) TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 380+40.57
Δ = 10°00'00.0"LT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 379+40.32
P.T. 381+40.32

(2) TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 383+55.78
Δ = 15°36'23.3"RT.
D = 5°00'00"
T = 157.04'
L = 312.13'
P.C. 381+98.74
P.T. 385+10.87

TEMPORARY KIEHL AVE. ENTRANCE RAMP
STA. 382+61 INSTALL
18" x 200' TEMPORARY CULVERT

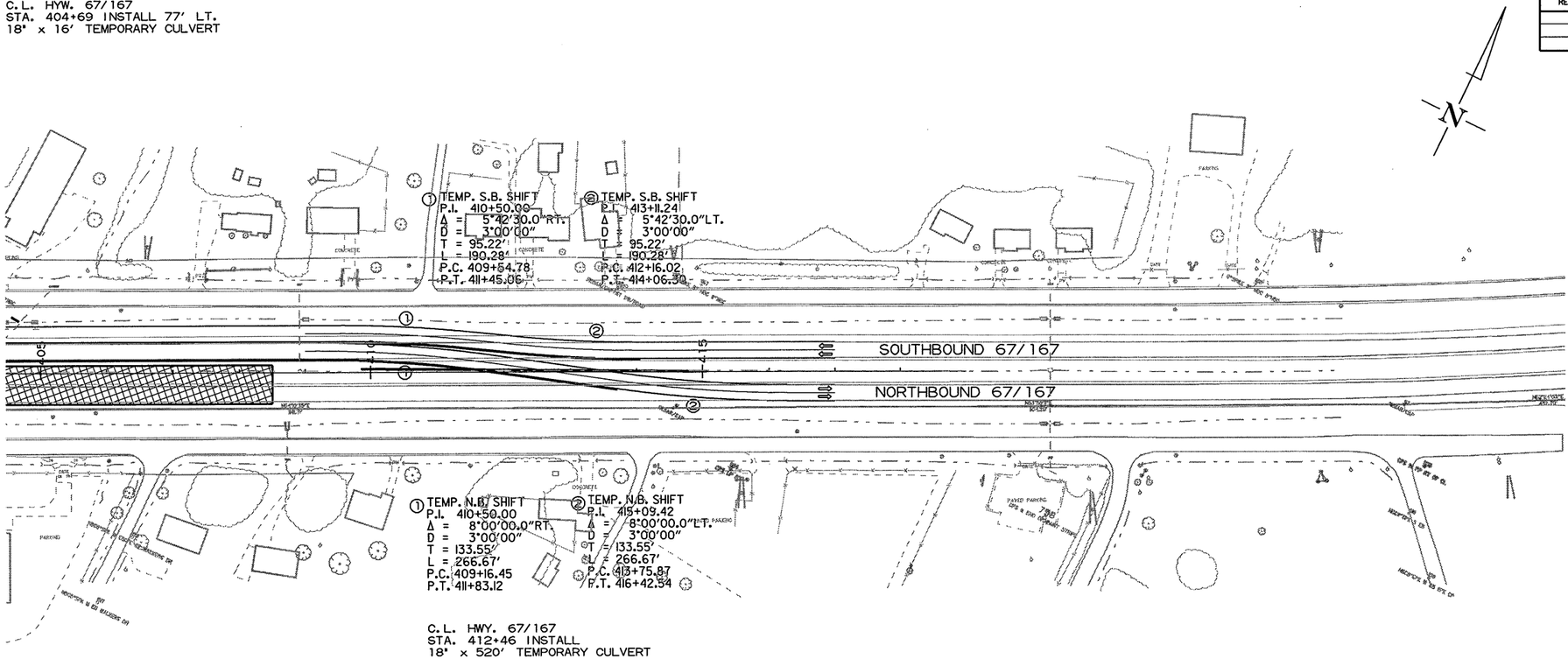
07-II-205 RR60080MOT.P02

STAGE CONSTRUCTION
STAGE 2A

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	82	609

(2) STAGE CONSTRUCTION

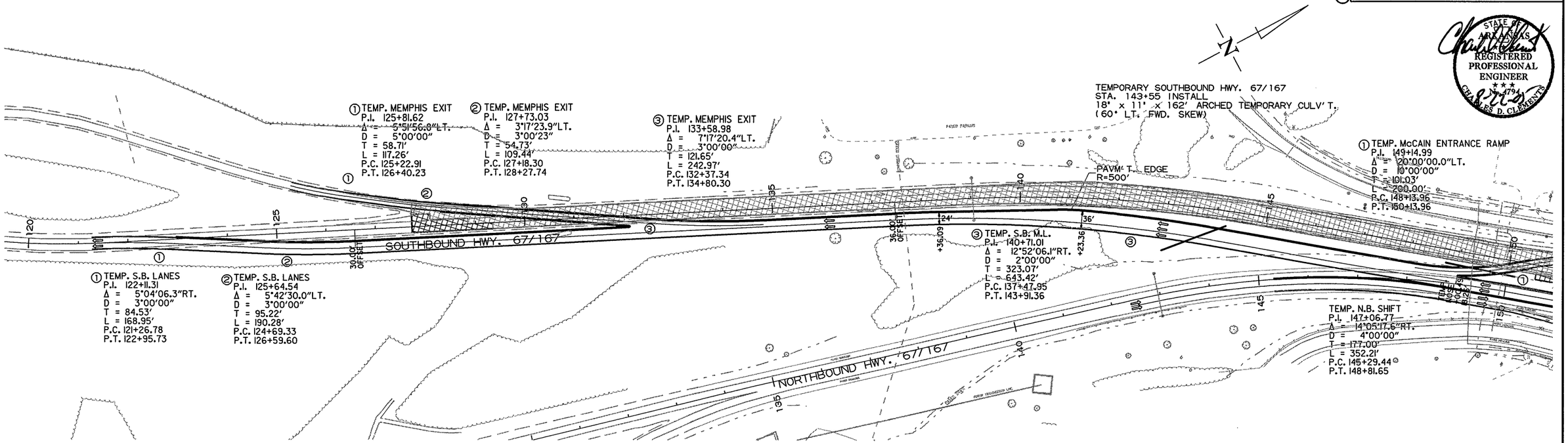
C.L. HWY. 67/167
STA. 404+69 INSTALL 77' LT.
18" x 16' TEMPORARY CULVERT

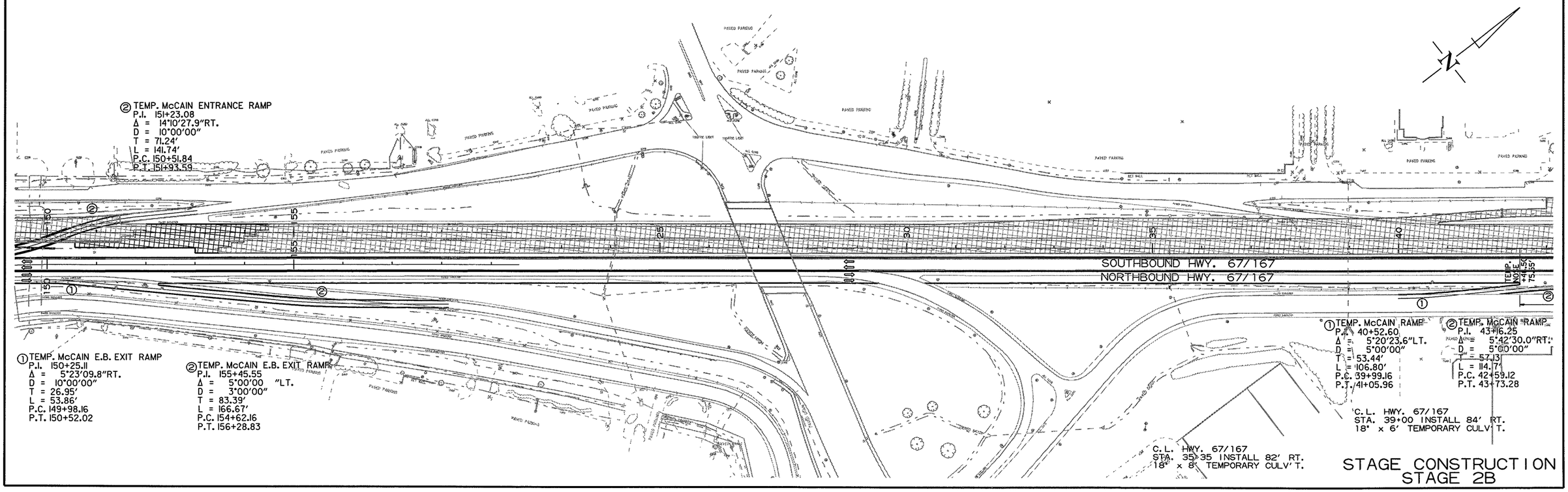

(1) TEMP. S.B. SHIFT
P.I. 410+50.00
Δ = 5°42'30.0"RT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 409+54.78
P.T. 411+45.06
(2) TEMP. S.B. SHIFT
P.I. 413+11.24
Δ = 5°42'30.0"LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 412+16.02
P.T. 414+06.30
SOUTHBOUND 67/167
NORTHBOUND 67/167
(1) TEMP. N.B. SHIFT
P.I. 410+50.00
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 409+16.45
P.T. 411+83.12
(2) TEMP. N.B. SHIFT
P.I. 415+09.42
Δ = 8°00'00.0"LT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 413+75.87
P.T. 416+42.54
PAVED PARKING
GPS & END GUARDRAIL STAKE
PARKING
CONCRETE
GATE
FENCE
MEDIAN SEC. STAKE
MEDIAN SEC. STAKE
MEDIAN SEC. STAK

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	83	609

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9791
CHARLES D. CLEMENTS



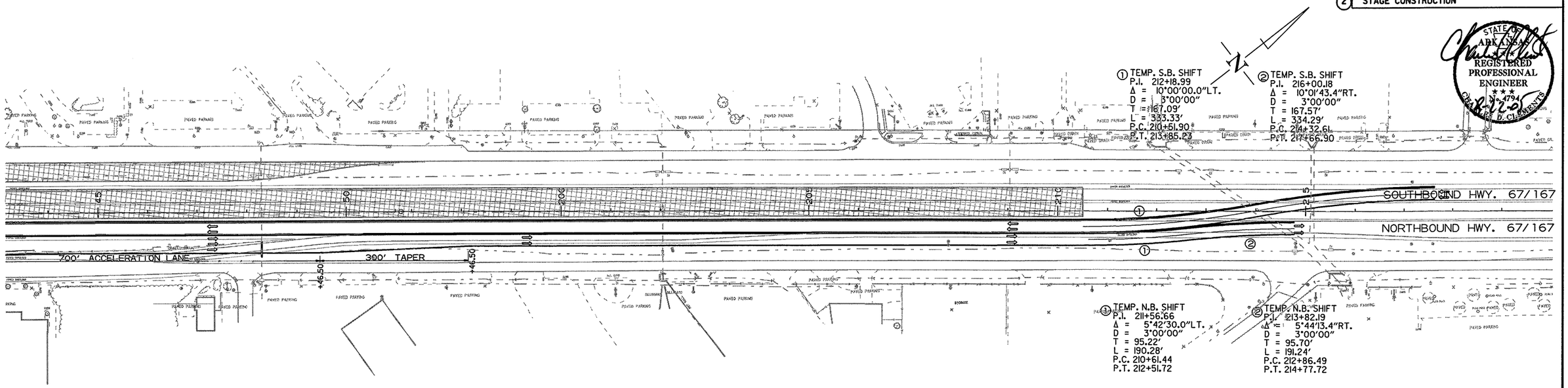


STAGE CONSTRUCTION
STAGE 2B

07-11-2005 RR60080MOT.POI

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	84	609

(2) STAGE CONSTRUCTION



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9791
CHARLES D. CLEMENTS
7-12-05

C.L. HWY. 67/167
STA. 48+30 INSTALL 91' RT.
18' x 28' TEMPORARY CULV'T.

07-11-2005 RR60080MOT.POI

STAGE CONSTRUCTION
STAGE 2B

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	85	609

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4754
CHARLES D. CLEMENTS

C.L. HWY. 67/167
STA. 295+10 INSTALL 75' LT.
18' x 58' TEMPORARY CULVERT

(1) TEMP. S.B. SHIFT
P.I. 291+94.25
Δ = 8°00'00.0"LT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 290+60.70
P.T. 293+27.36

(2) TEMP. S.B. SHIFT
P.I. 294+66.85
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 293+33.30
P.T. 295+99.97

(1) TEMP. N.B. SHIFT
P.I. 289+25.68
Δ = 8°00'00.0"LT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 287+92.13
P.T. 290+58.80

(2) TEMP. N.B. SHIFT
P.I. 294+71.33
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 293+37.78
P.T. 296+04.45

(1) TEMP. WILDWOOD ENTRANCE RAMP
P.I. 299+12.09
Δ = 10°00'00.0"LT.
D = 13°00'00"
T = 38.56'
L = 76.92'
P.C. 298+73.53
P.T. 299+50.45

(2) TEMP. WILDWOOD ENTRANCE RAMP
P.I. 302+96.47
Δ = 27°27'21.9"RT.
D = 13°00'00"
T = 107.67'
L = 211.20'
P.C. 301+88.80
P.T. 304+00.00

(1) TEMP. N.B. SHIFT
P.I. 312+15.89
Δ = 5°04'26.7"RT.
D = 4°00'00"
T = 63.47'
L = 126.85'
P.C. 311+52.42
P.T. 312+79.27

285 SOUTHBOUND 67/167
NORTHBOUND 67/167
290
295
300
305
310
TEMP. NOSE +22.91 28.32
550' ACCELERATION LANE
350' TAPER
+26.55
+28.55

C.L. HYW. 67/167
STA. 331+35 INSTALL 76' LT.
18' x 26' TEMPORARY CULVERT

(1) TEMP. S.B. SHIFT
P.I. 316+26.98
Δ = 5°01'08.0"RT.
D = 4°00'00"
T = 62.78'
L = 125.47'
P.C. 315+64.20
P.T. 316+89.67

(2) TEMP. S.B. SHIFT
P.I. 317+75.49
Δ = 5°01'08.0"LT.
D = 4°00'00"
T = 62.78'
L = 125.47'
P.C. 317+12.72
P.T. 318+38.19

(2) TEMP. N.B. SHIFT
P.I. 313+51.48
Δ = 5°04'26.7"LT.
D = 4°00'00"
T = 63.47'
L = 126.85'
P.C. 312+88.02
P.T. 314+14.87

(1) TEMP. BROOKSWOOD ENTRANCE RAMP
P.I. 335+06.84
Δ = 4°57'03.6"LT.
D = 3°00'00"
T = 82.57'
L = 165.03'
P.C. 334+24.27
P.T. 335+89.30

(2) TEMP. BROOKSWOOD ENTRANCE RAMP
P.I. 338+33.28
Δ = 9°56'45.5"RT.
D = 5°00'00"
T = 99.71'
L = 198.92'
P.C. 337+33.57
P.T. 339+32.49

315
320
325
330
335
340
TEMP. NOSE +62.50 +62.58
300' TAPER
700' ACCELERATION LANE
+73.81
SOUTHBOUND 67/167
NORTHBOUND 67/167

STAGE CONSTRUCTION
STAGE 2B

07-II-205 RR60080MOT.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	86	609

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-97

C.L. HYW. 67/167
STA. 346+91 INSTALL 81' LT.
18' x 14' TEMPORARY CULVERT

C.L. HYW. 67/167
STA. 351+90 INSTALL 77' LT.
18' x 18' TEMPORARY CULVERT

C.L. HYW. 67/167
STA. 361+90 INSTALL 80' LT.
18' x 20' TEMPORARY CULVERT

C.L. HYW. 67/167
STA. 369+93 INSTALL 73' LT.
18' x 12' TEMPORARY CULVERT

300' TAPER

700' ACCELERATION LANE

SOUTHBOUND 67/167

NORTHBOUND 67/167

TEMP. NOSE +00.00 16.26'

TEMP. NOSE +24.35 73.84'

① TEMP. KIEHL AVE. EXIT RAMP
P.I. 353+99.69
Δ = 10°00'00.0"RT.
D = 3°00'00"
T = 167.09'
L = 333.33'
P.C. 352+32.60
P.T. 355+65.93

② TEMP. KIEHL AVE. EXIT RAMP
P.I. 357+93.32
Δ = 10°00'00.0"LT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 356+93.06
P.T. 358+93.06

③ TEMP. KIEHL AVE. EXIT RAMP
P.I. 360+55.35
Δ = 10°00'00.0"RT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 359+55.10
P.T. 361+55.10

④ TEMP. KIEHL AVE. EXIT RAMP
P.I. 364+66.39
Δ = 10°00'00.0"LT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 363+66.34
P.T. 365+66.34

TEMPORARY KIEHL AVE. EXIT RAMP
STA. 362+85 INSTALL
18' x 304' TEMPORARY CULVERT

① TEMP. N.B. & S.B. SHIFT
P.I. 377+66.69
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 377+00.00
P.T. 378+33.33

② TEMP. N.B. & S.B. SHIFT
P.I. 379+38.67
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 378+71.97
P.T. 380+05.31

③ TEMP. N.B. & S.B. SHIFT
P.I. 399+67.00
Δ = 4°00'00.0"RT
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 399+00.31
P.T. 400+33.64

④ TEMP. N.B. & S.B. SHIFT
P.I. 401+38.98
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 400+72.28
P.T. 402+05.62

SOUTHBOUND 67/167

NORTHBOUND 67/167

700' ACCELERATION LANE

300' TAPER

TEMP. NOSE +47.62 28.29'

① TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 386+12.79
Δ = 15°00'00.0"LT.
D = 10°00'00"
T = 75.43'
L = 150.00'
P.C. 385+37.36
P.T. 386+87.36

② TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 388+33.25
Δ = 20°42'30.0"RT.
D = 10°00'00"
T = 104.68
L = 207.08
P.C. 387+28.56
P.T. 389+35.65

STAGE CONSTRUCTION
STAGE 2B

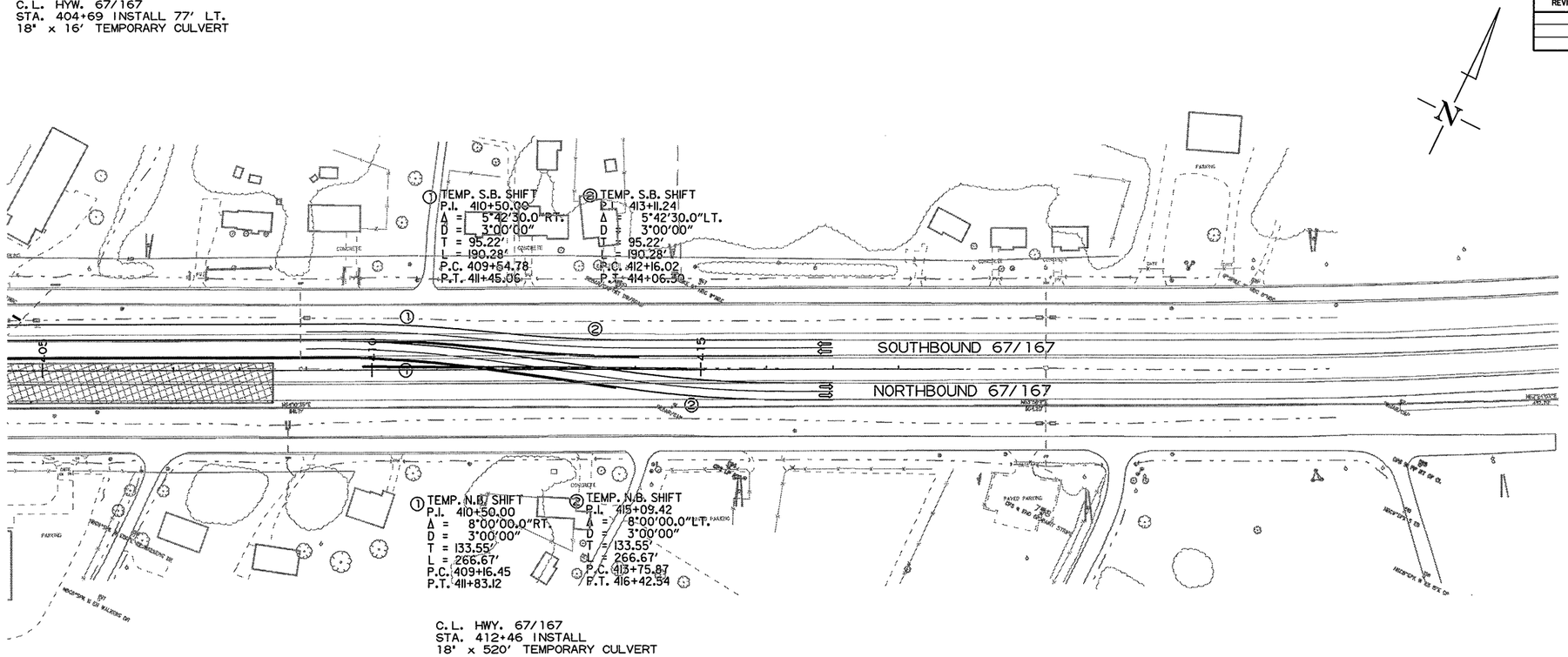
07-11-205 RR6008MOT.P02

C.L. HYW. 67/167
STA. 404+69 INSTALL 77' LT.
18' x 16' TEMPORARY CULVERT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	87	209

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
7-20-11



C.L. HWY. 67/167
STA. 412+46 INSTALL
18' x 520' TEMPORARY CULVERT

STAGE CONSTRUCTION
STAGE 2B

07-11-205 RR60080MOT.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	88	609

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
NO. 479
CHARLES D. CLEMENTS
12-22-04

SOUTHBOUND 67/167

NORTHBOUND 67/167

700' ACCELERATION LANE

435' TAPER

PAVM'T. EDGE R=500'

(1) TEMP. N.B. LANES
P.I. 129+10.14
Δ = 8°43'53.8"LT.
D = 3°00'00"
T = 145.81'
L = 291.05'
P.C. 127+64.33
P.T. 130+55.38

(2) TEMP. N.B. LANES
P.I. 132+36.42
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 131+02.87
P.T. 133+69.54

(1) TEMP. MEMPHIS RAMP
P.I. 134+98.01
Δ = 18°21'58.6"RT.
D = 6°00'00"
T = 185.25'
L = 367.33'
P.C. 133+12.76
P.T. 136+80.09

(3) TEMP. N.B. LANES
P.I. 146+60.98
Δ = 22°42'40.5"RT.
D = 5°00'00"
T = 230.13'
L = 454.23'
P.C. 144+30.85
P.T. 148+85.07

TEMPORARY NORTHBOUND HWY. 67/167
STA. 144+14 INSTALL
18' x 60' TEMPORARY CULV'T.
(30° RT. FWD. SKEW)

SOUTHBOUND 67/167

NORTHBOUND 67/167

(1) TEMP. McCAIN E.B. EXIT RAMP
P.I. 151+53.39
Δ = 20°00'00.0"RT.
D = 7°00'00"
T = 144.33'
L = 285.71'
P.C. 150+09.06
P.T. 152+94.77

(2) TEMP. McCAIN E.B. EXIT RAMP
P.I. 154+31.88
Δ = 14°38'33.7"LT.
D = 7°00'00"
T = 105.16'
L = 209.18'
P.C. 153+26.72
P.T. 155+35.90

TEMP. McCAIN W.B. EXIT RAMP
P.I. 30+78.97
Δ = 56°33'43.0"RT.
D = 13°00'00"
T = 237.12'
L = 435.09'
P.C. 28+41.85
P.T. 32+76.94

TEMPORARY McCAIN EASTBOUND EXIT RAMP
STA. 152+04 INSTALL
18' x 174' TEMPORARY CULV'T.

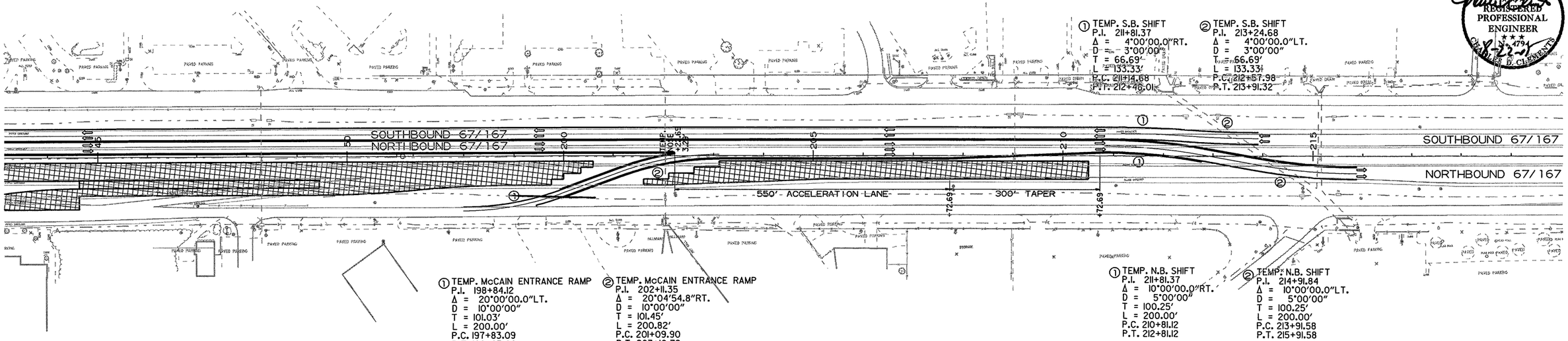
STAGE CONSTRUCTION
STAGE 4A

07-11-2005 RR60080MOT.P01

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	83	6054

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4791
8-22-05
CHARLES D. CLEMENTS



TEMPORARY McCAIN ENTRANCE RAMP
STA. 199+63 INSTALL
18" x 176' TEMPORARY CULV'T.

07-11-2005 RR60080MOT.POI

STAGE CONSTRUCTION
STAGE 4A

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	90	609

TEMPORARY BROOKSWOOD ENTRANCE RAMP (2) **STAGE CONSTRUCTION**
STA. 309+69 INSTALL
18" x 176' TEMPORARY CULVERT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
3-21-01

① TEMP. S.B. SHIFT
P.I. 290+07.87
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 288+74.32
P.T. 291+40.99

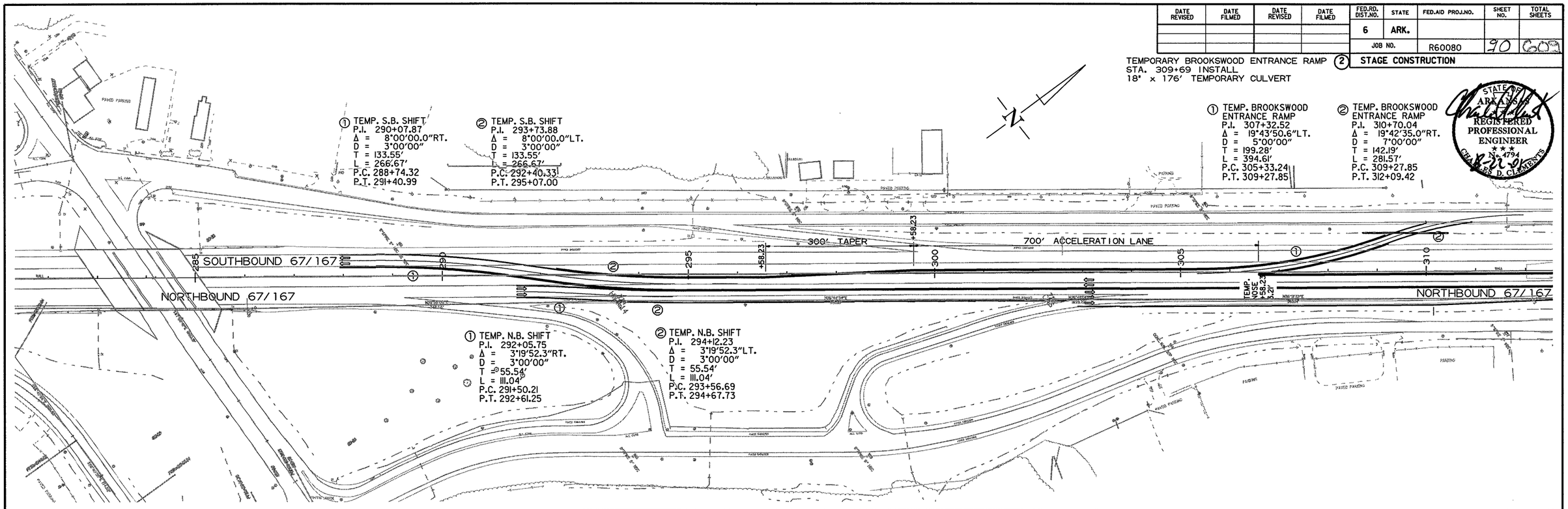
② TEMP. S.B. SHIFT
P.I. 293+73.88
Δ = 8°00'00.0"LT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 292+40.33
P.T. 295+07.00

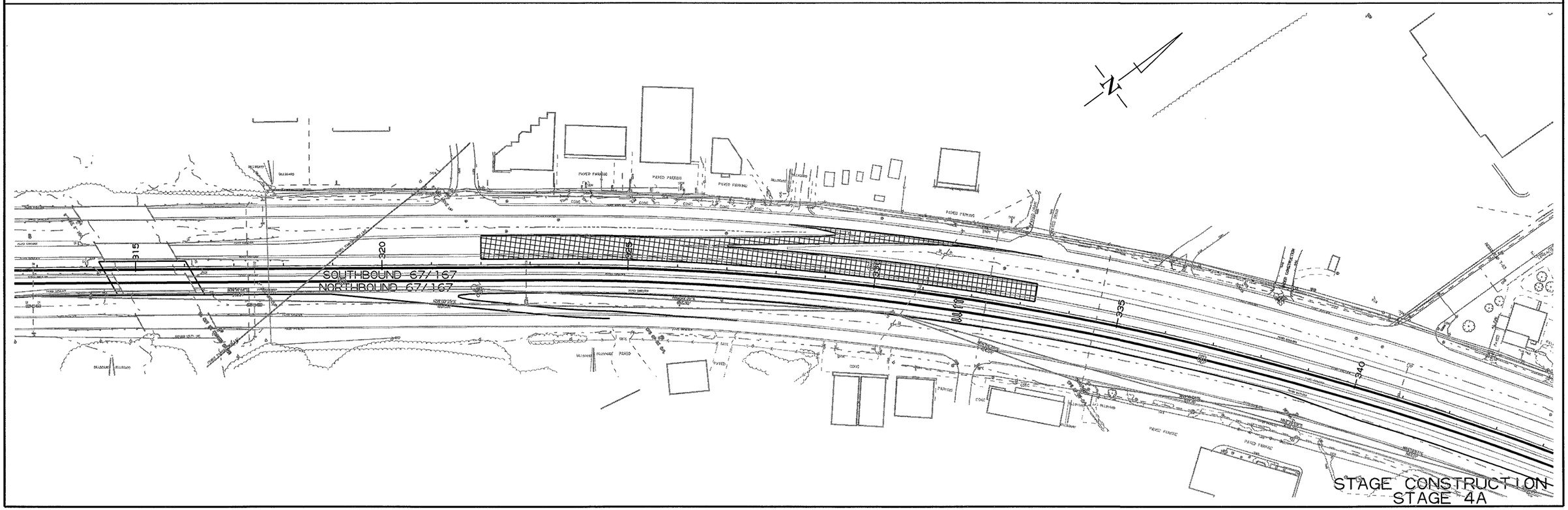
① TEMP. BROOKSWOOD ENTRANCE RAMP
P.I. 307+32.52
Δ = 19°43'50.6"LT.
D = 5°00'00"
T = 199.28'
L = 394.61'
P.C. 305+33.24
P.T. 309+27.85

② TEMP. BROOKSWOOD ENTRANCE RAMP
P.I. 310+70.04
Δ = 19°42'35.0"RT.
D = 7°00'00"
T = 142.19'
L = 281.57'
P.C. 309+27.85
P.T. 312+09.42

① TEMP. N.B. SHIFT
P.I. 292+05.75
Δ = 3°19'52.3"RT.
D = 3°00'00"
T = 55.54'
L = 111.04'
P.C. 291+50.21
P.T. 292+61.25

② TEMP. N.B. SHIFT
P.I. 294+12.23
Δ = 3°19'52.3"LT.
D = 3°00'00"
T = 55.54'
L = 111.04'
P.C. 293+56.69
P.T. 294+67.73





STAGE CONSTRUCTION
STAGE 4A

07-II-205 RR60080MOT.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	21	609

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
CHARLES D. CLEMENTS
No. 11791
REGISTERED PROFESSIONAL ENGINEER
3-20-97

① TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 364+87.23
Δ = 15°21'48.8"LT.
D = 5°00'00"
T = 154.56'
L = 307.27'
P.C. 363+32.67
P.T. 366+39.94

② TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 367+84.32
Δ = 10°00'00.0"RT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 366+84.06
P.T. 368+84.06

300' TAPER

700' ACCELERATION LANE

SOUTHBOUND 67/167
NORTHBOUND 67/167

TEMP. NOSE +57.66 3.2'

① TEMP. KIEHL AVE. EXIT RAMP
P.I. 386+39.33
Δ = 5°00'00.0"RT.
D = 5°00'00"
T = 50.03'
L = 100.00'
P.C. 385+89.29
P.T. 386+89.29

② TEMP. KIEHL AVE. EXIT RAMP
P.I. 389+50.40
Δ = 10°42'30.0"LT.
D = 5°00'00"
T = 107.40'
L = 214.17
P.C. 388+43.00
P.T. 390+57.17

SOUTHBOUND 67/167
NORTHBOUND 67/167

TEMP. NOSE +50.50 3.33'

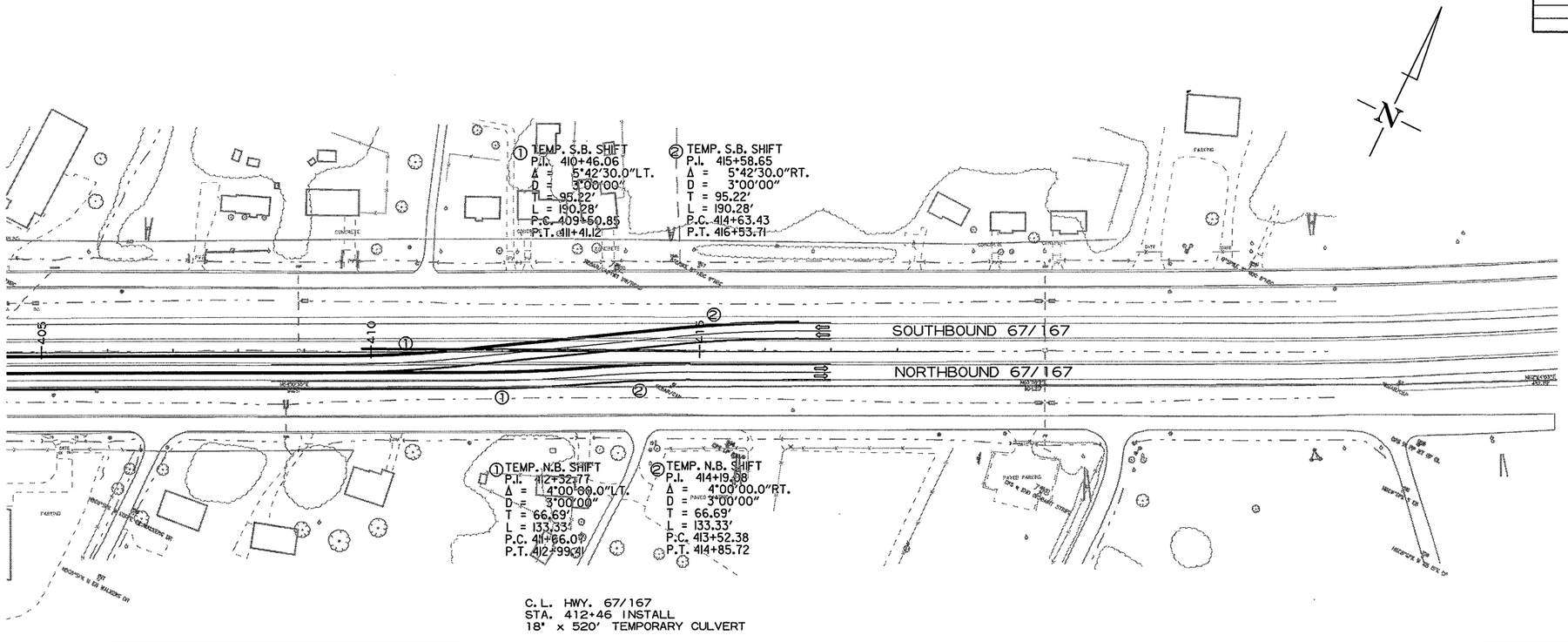
STAGE CONSTRUCTION
STAGE 4A

07-II-205 RR60080MOT.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	92	609

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 17971
CHARLES D. CLEMENTS
9-21-07



STAGE CONSTRUCTION
STAGE 4A

07-11-205 RR60080MOT.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	93	609

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
CHARLES B. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 4791
8-23-21

SOUTHBOUND 67/167

NORTHBOUND 67/167

291' TAPER

550' ACCELERATION LANE

PAVM'T. EDGE R=500'

① TEMP. N.B. LANES
P.I. 129+10.14
Δ = 8°43'53.8"LT.
D = 3°00'00"
T = 145.81'
L = 291.05'
P.C. 127+64.33
P.T. 130+55.38

② TEMP. N.B. LANES
P.I. 132+36.42
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 131+02.87
P.T. 133+69.54

③ TEMP. N.B. LANES
P.I. 146+60.98
Δ = 22°42'40.5"RT.
D = 5°00'00"
T = 230.13'
L = 454.23'
P.C. 144+30.85
P.T. 148+85.07

① TEMP. MEMPHIS RAMP
P.I. 130+83.96
Δ = 38°52'47.9"RT.
D = 6°00'00"
T = 337.03'
L = 648.00'
P.C. 127+46.93
P.T. 133+94.93

② TEMP. MEMPHIS RAMP
P.I. 136+17.44
Δ = 20°31'53.1"LT.
D = 8°00'00"
T = 129.71'
L = 256.64'
P.C. 134+87.73
P.C.C. 137+44.37

③ TEMP. MEMPHIS RAMP
P.I. 138+14.37
Δ = 20°31'53.1"RT.
D = 8°00'00"
T = 129.71'
L = 256.64'
P.C.C. 137+44.37
P.T. 140+01.02

TEMPORARY NORTHBOUND HWY. 67/167
STA. 144+14 INSTALL
18' x 60' TEMPORARY CULV'T.
(30° RT. FWD. SKEW)

SOUTHBOUND 67/167

NORTHBOUND 67/167

① TEMP. McCAIN E.B. EXIT RAMP
P.I. 156+32.78
Δ = 15°00'00.0"RT.
D = 8°00'00"
T = 94.23'
L = 187.50'
P.C. 155+38.49
P.T. 157+25.99

② TEMP. McCAIN E.B. EXIT RAMP
P.I. 163+84.81
Δ = 16°47'53.3"RT.
D = 10°00'00"
T = 84.60'
L = 167.98'
P.C. 163+00.22
P.T. 164+68.20

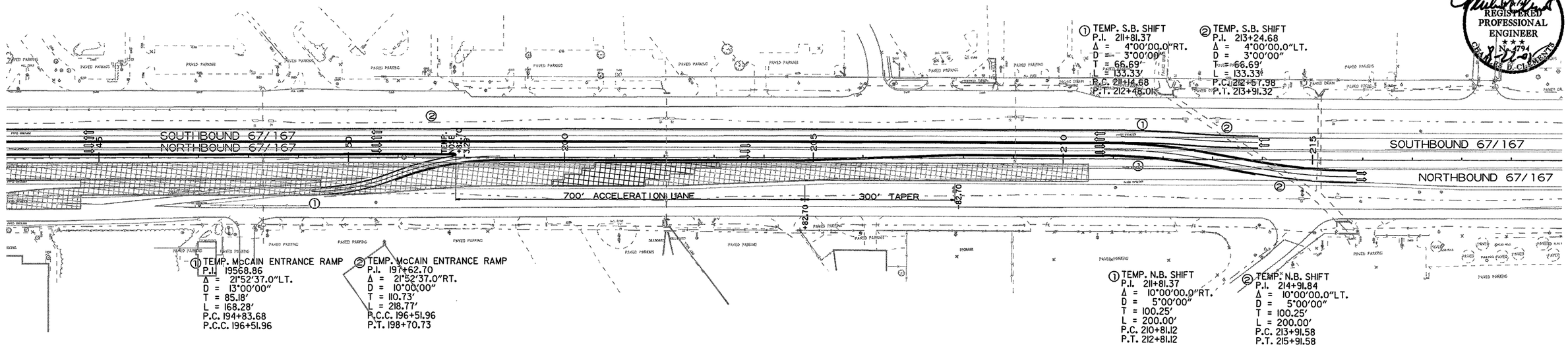
TEMPORARY McCAIN EASTBOUND EXIT RAMP
STA. 159+83 INSTALL
18' x 176' TEMPORARY CULV'T.

STAGE CONSTRUCTION
STAGE 4B

07-11-2005 RR60080MOT.POI

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	24	609

② STAGE CONSTRUCTION



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7794
CHARLES B. CLEMENTS
11-1-05

07-11-2005 RR60080MOT.P01

STAGE CONSTRUCTION
STAGE 4B

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	95	609

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9479
CHARLES D. CLEMENTS
12-22-97

① TEMP. S.B. SHIFT
P.I. 290+07.87
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 288+74.32
P.T. 291+40.99

② TEMP. S.B. SHIFT
P.I. 293+73.88
Δ = 8°00'00.0"LT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 292+40.33
P.T. 295+07.00

① TEMP. WILDWOOD EXIT RAMP
P.I. 299+56.83
Δ = 8°00'00.0"RT.
D = 5°00'00"
T = 80.13'
L = 160.00'
P.C. 298+76.70
P.T. 300+36.70

② TEMP. WILDWOOD EXIT RAMP
P.I. 302+21.40
Δ = 14°27'15.2"LT.
D = 5°00'00"
T = 145.31'
L = 289.08'
P.C. 300+76.09
P.T. 303+65.17

285
290
295
300
305
SOUTHBOUND 67/167
NORTHBOUND 67/167
TEMP. NOSE 298+58.50 3.33'

① TEMP. N.B. SHIFT
P.I. 292+05.75
Δ = 3°19'52.3"RT.
D = 3°00'00"
T = 55.54'
L = 111.04'
P.C. 291+50.21
P.T. 292+61.25

② TEMP. N.B. SHIFT
P.I. 294+12.23
Δ = 3°19'52.3"LT.
D = 3°00'00"
T = 55.54'
L = 111.04'
P.C. 293+56.69
P.T. 294+67.73

① TEMP. BROOKSWOOD ENTRANCE RAMP
P.I. 323+42.15
Δ = 10°23'24.1"LT.
D = 5°00'00"
T = 104.19'
L = 207.80'
P.C. 322+37.96
P.T. 324+45.76

② TEMP. BROOKWOOD ENTRANCE RAMP
P.I. 326+00.86
Δ = 10°00'00.0"RT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 325+00.60
P.T. 327+00.60

315
320
325
330
335
340
345
350
355
360
365
370
375
380
385
390
395
400
405
410
415
420
425
430
435
440
445
450
455
460
465
470
475
480
485
490
495
500
505
510

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	96	609

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
12-22-21

① TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 364+87.23
Δ = 15°21'48.8"LT.
D = 5°00'00"
T = 154.56'
L = 307.27'
P.C. 363+32.67
P.T. 366+39.94

② TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 367+84.32
Δ = 10°00'00.0"RT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 366+84.06
P.T. 368+84.06

300' TAPER
700' ACCELERATION LANE
SOUTHBOUND 67/167
NORTHBOUND 67/167
TEMP. NOSE +57.66 3.2'
POND EL=74.3mu 3/18/96
CEMETERY
GPS CONTROL

① TEMP. KIEHL AVE. EXIT RAMP
P.I. 386+39.33
Δ = 5°00'00.0"RT.
D = 5°00'00"
T = 50.03'
L = 100.00'
P.C. 385+89.29
P.T. 386+89.29

② TEMP. KIEHL AVE. EXIT RAMP
P.I. 389+50.40
Δ = 10°42'30.0"LT.
D = 5°00'00"
T = 107.40'
L = 214.17'
P.C. 388+43.00
P.T. 390+57.17

SOUTHBOUND 67/167
NORTHBOUND 67/167
TEMP. NOSE +50.50 3.33'
GPS CONTROL

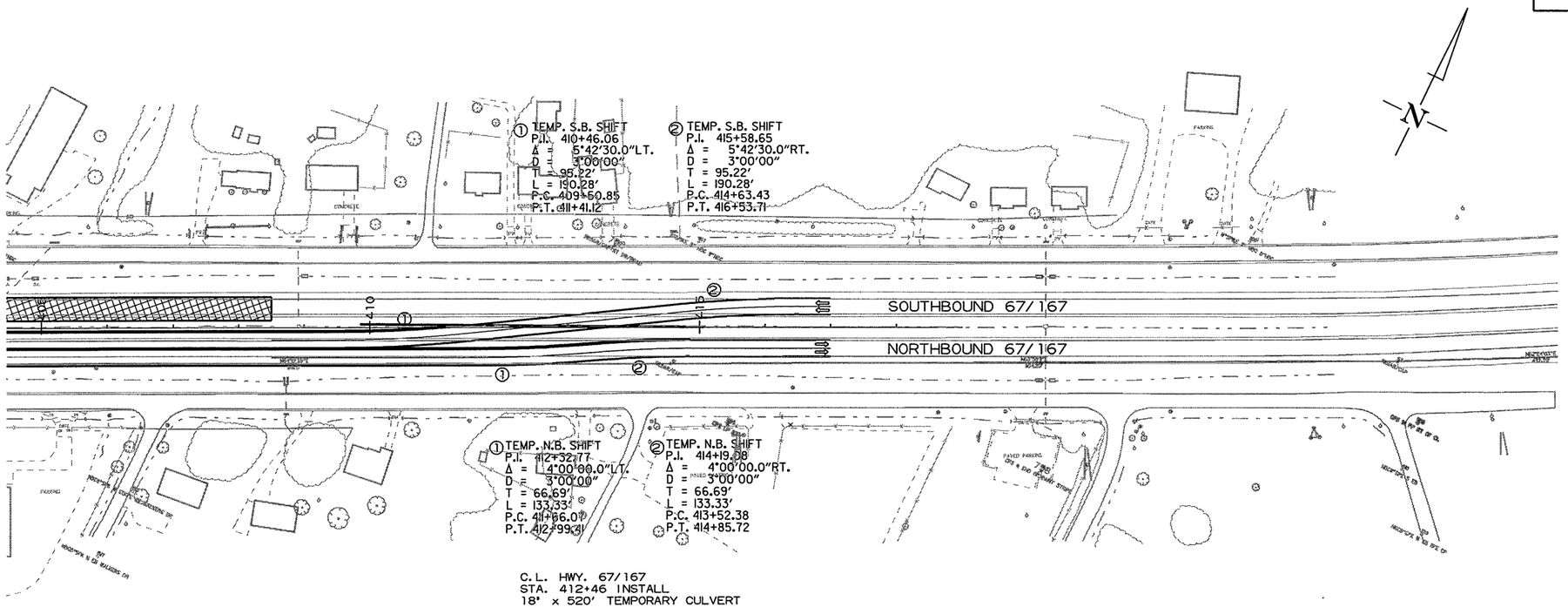
STAGE CONSTRUCTION
STAGE 4B

07-11-205 RR60080MOT.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	97	609

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
7-22-97



C.L. HWY. 67/167
STA. 412+46 INSTALL
18' x 520' TEMPORARY CULVERT

07-11-205 RR60080M0T.P02

STAGE CONSTRUCTION
STAGE 4B

TEMPORARY WILDWOOD EXIT RAMP
STA. 302+39 INSTALL
18' x 202' TEMPORARY CULVERT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	98	209

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-07

① TEMP. S.B. SHIFT
P.I. 290+07.87
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 288+74.32
P.T. 291+40.99

② TEMP. S.B. SHIFT
P.I. 293+73.88
Δ = 8°00'00.0"LT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 292+40.33
P.T. 295+07.00

① TEMP. WILDWOOD EXIT RAMP
P.I. 301+14.64
Δ = 14°50'30.9"RT.
D = 5°00'00"
T = 149.25'
L = 296.84'
P.C. 299+65.39
P.T. 302+62.23

② TEMP. WILDWOOD EXIT RAMP
P.I. 306+01.72
Δ = 15°00'00.0"LT.
D = 5°00'00"
T = 150.86'
L = 300.00'
P.C. 304+50.86
P.T. 307+50.86

① TEMP. N.B. SHIFT
P.I. 292+05.75
Δ = 3°19'52.3"RT.
D = 3°00'00"
T = 55.54'
L = 111.04'
P.C. 291+50.21
P.T. 292+61.25

② TEMP. N.B. SHIFT
P.I. 294+12.23
Δ = 3°19'52.3"LT.
D = 3°00'00"
T = 55.54'
L = 111.04'
P.C. 293+56.69
P.T. 294+67.73

① TEMP. BROOKSWOOD ENTRANCE RAMP
P.I. 323+42.15
Δ = 10°23'24.1"LT.
D = 5°00'00"
T = 104.19'
L = 207.80'
P.C. 322+33.96
P.T. 324+45.76

② TEMP. BROOKWOOD ENTRANCE RAMP
P.I. 326+00.86
Δ = 10°00'00.0"RT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 325+00.60
P.T. 327+00.60

STAGE CONSTRUCTION
STAGE 4C

07-II-205 RR60080MOT.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	99	609

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
CHARLES D. CLEMENTS
No. 4794
REGISTERED PROFESSIONAL ENGINEER
8-22-07

① TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 354+58.30
Δ = 12°00'00.0"LT.
D = 5°00'00"
T = 120.44'
L = 240.00'
P.C. 353+37.86
P.T. 355+77.86

② TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 357+22.55
Δ = 8°00'00.0"RT.
D = 5°00'00"
T = 80.13'
L = 160.00'
P.C. 356+42.42
P.T. 358+02.42

199.24' TAPER — 555.34' ACCELERATION LANE

PAVM'T. EDGE R=954.93'
PAVM'T. EDGE R=716.20'
SOUTHBOUND 67/167
NORTHBOUND 67/167
TEMP. NOSE +62.85 3.21°
POND EL=743.9MSL 3/8/99
CEMETERY
GPS CONTROL POINT

TEMPORARY KIEHL AVE. EXIT RAMP
STA. 390+74 INSTALL
18" x 208' TEMPORARY CULVERT

① TEMP. KIEHL AVE. EXIT RAMP
P.I. 389+34.92
Δ = 15°00'00.0"RT.
D = 5°00'00"
T = 150.86'
L = 300.00'
P.C. 387+84.06
P.T. 390+84.06

② TEMP. KIEHL AVE. EXIT RAMP
P.I. 394+27.75
Δ = 15°00'00.0"LT.
D = 5°00'00"
T = 150.86'
L = 300.00'
P.C. 392+76.89
P.T. 395+76.89

SOUTHBOUND 67/167
NORTHBOUND 67/167
TEMP. NOSE +70.22 3.33°
GRADE & CAP
GPS CONTROL POINT

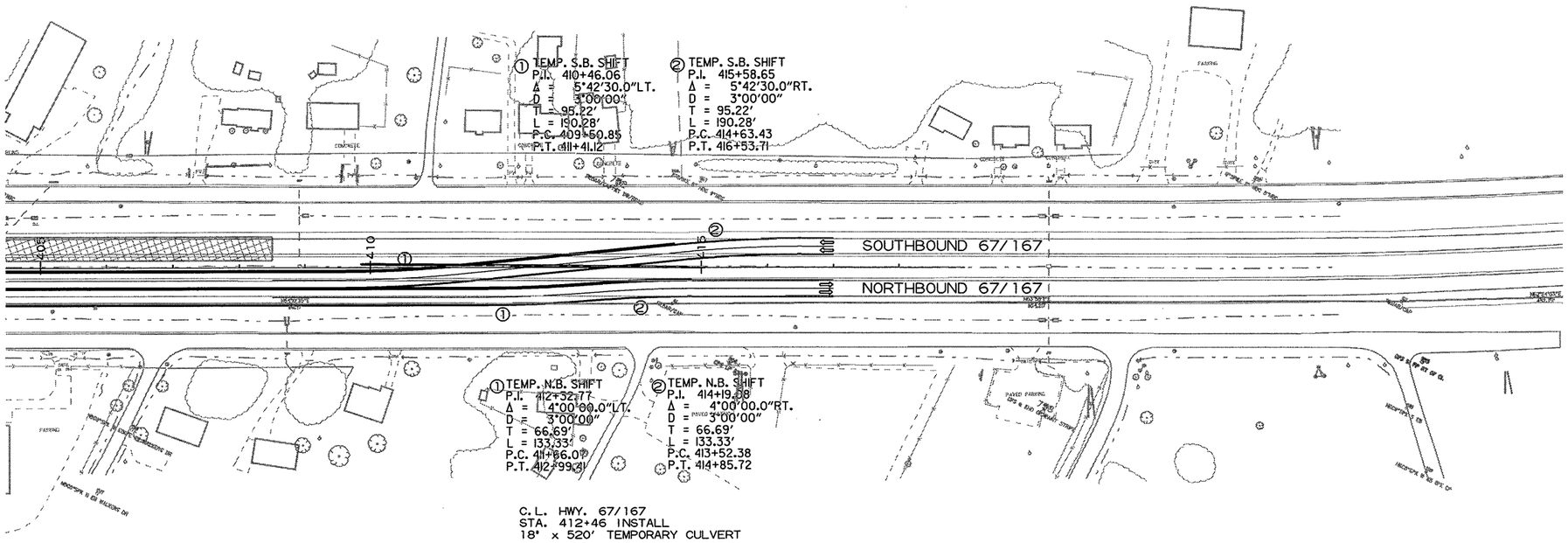
07-II-205 RR60080MOT.P02

STAGE CONSTRUCTION
STAGE 4C

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	100	603

(2) STAGE CONSTRUCTION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9793
CHARLES D. CLEMENTS



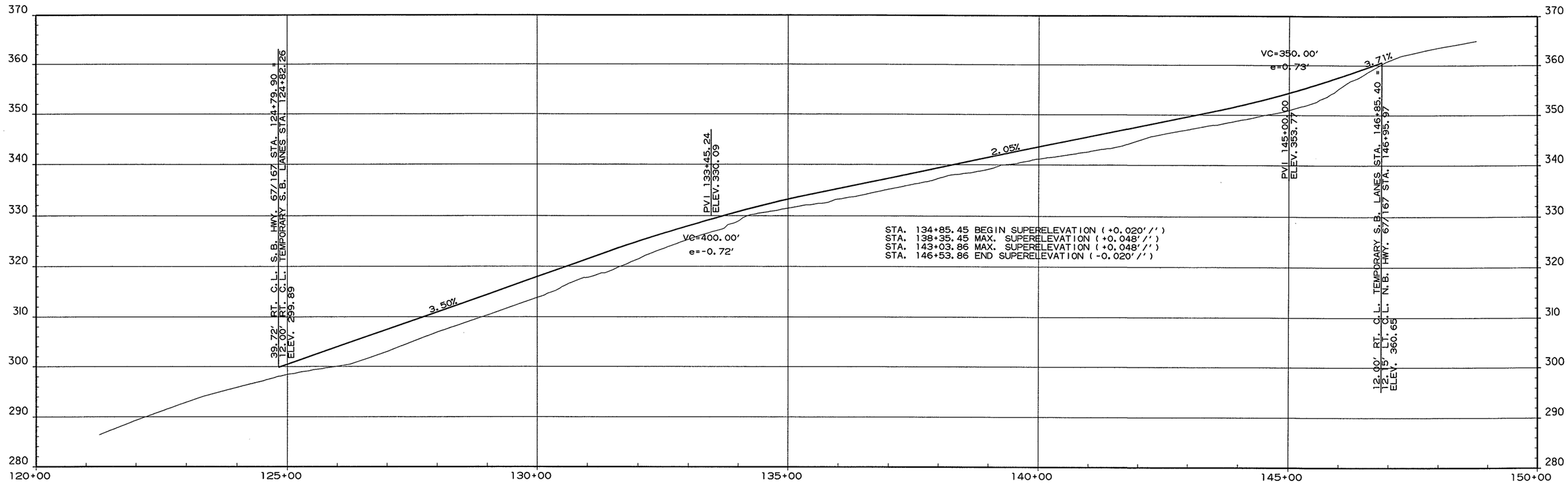
STAGE CONSTRUCTION
STAGE 4C

07-11-205 RR60080MOT.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	101	609

(2) RAMP PROFILE FOR M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS



TEMPORARY SOUTHBOUND HWY. 67/167
STAGE 2A & 2B

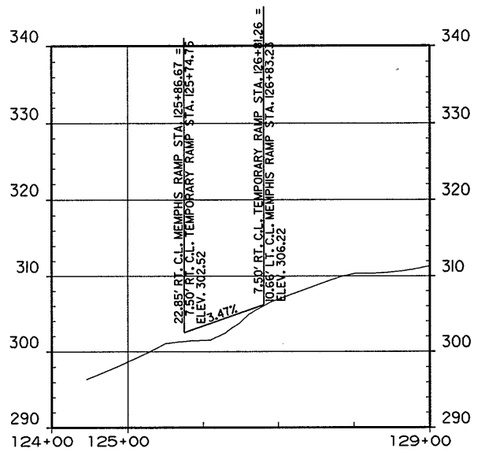
07-18-2005 RR60080.PR2

RAMP PROFILES FOR
MAINTENANCE OF TRAFFIC

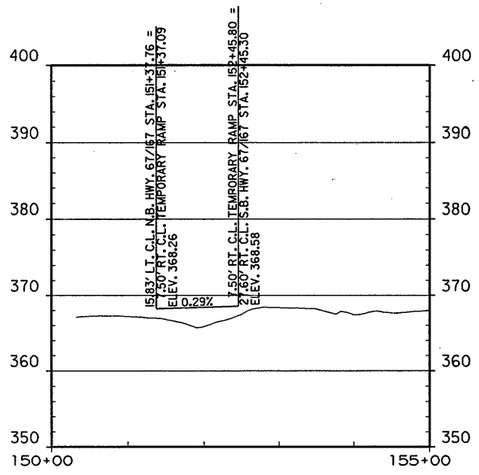
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	102	109

(2) RAMP PROFILE FOR M.O.T.

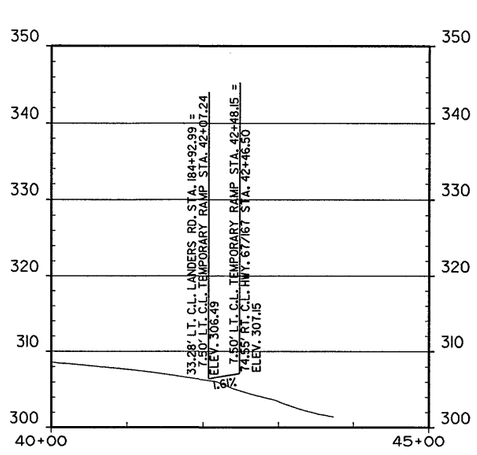
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11794 CHARLES D. CLEMENTS



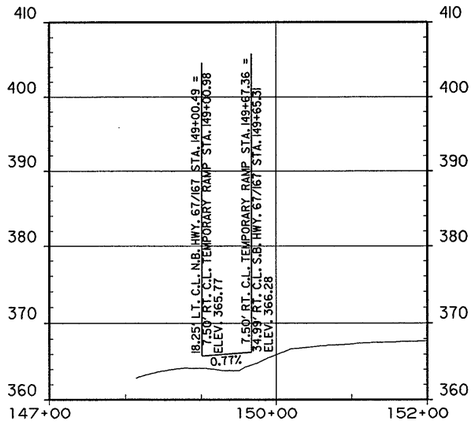
TEMPORARY MEMPHIS EXIT RAMP
STAGE 2A



TEMPORARY SOUTHBOUND MCCAIN ENTRANCE RAMP
STAGE 2A



TEMPORARY NORTHBOUND MCCAIN ENTRANCE RAMP
STAGE 2A



TEMPORARY SOUTHBOUND MCCAIN ENTRANCE RAMP
STAGE 2A

07-18-2005 RR60080.PR2

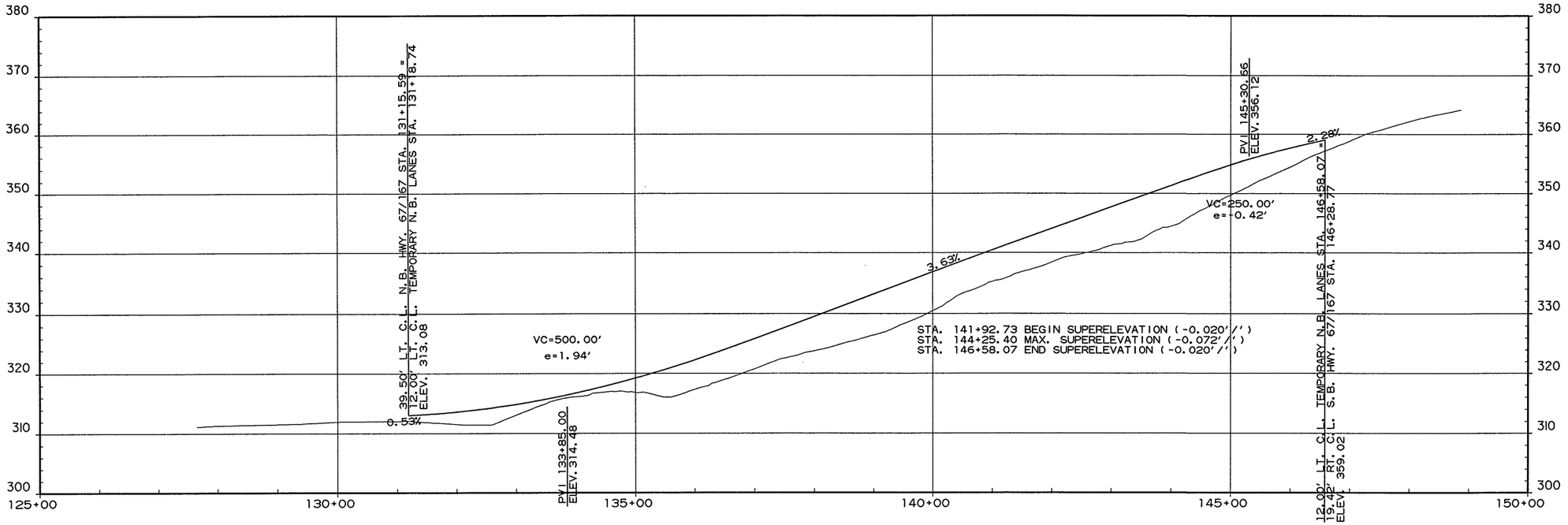
RAMP PROFILES FOR
MAINTENANCE OF TRAFFIC

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	103	609

(2) RAMP PROFILE FOR M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11794
CHARLES D. CLEMENTS



TEMPORARY NORTHBOUND HWY. 67/167
STAGE 4A & 4B

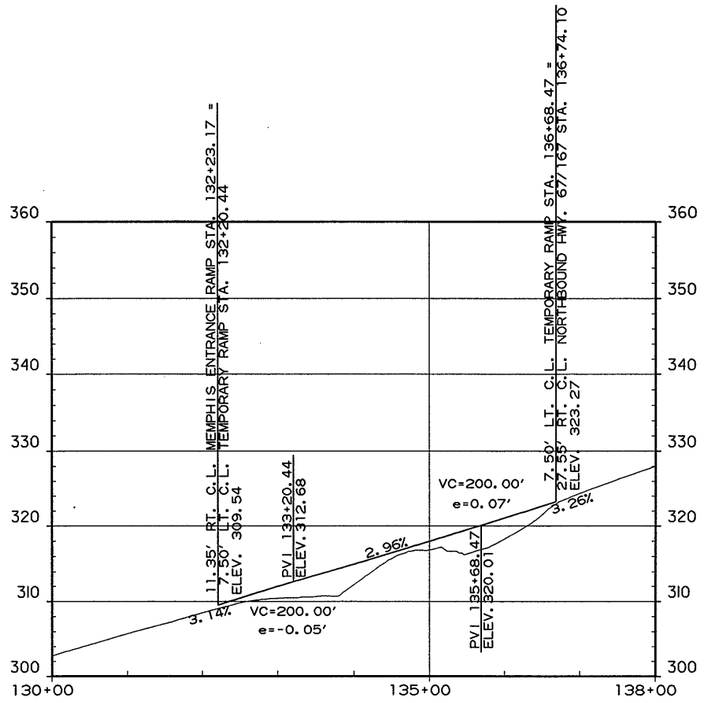
07-18-2005 RR60080.PR2

RAMP PROFILES FOR
MAINTENANCE OF TRAFFIC

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	104	609

(2) RAMP PROFILE FOR M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
9-22-05



TEMPORARY MEMPHIS ENTRANCE RAMP
STAGE 4B

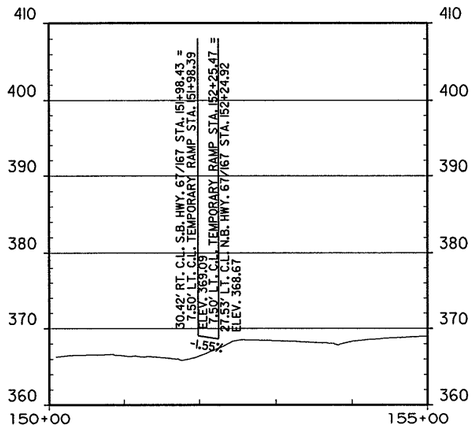
07-18-2005 RR60080.PR2

RAMP PROFILES FOR
MAINTENANCE OF TRAFFIC

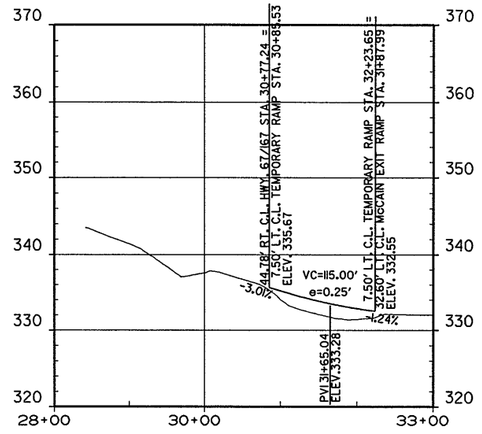
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	105609	

(2) RAMP PROFILE FOR M.O.T.

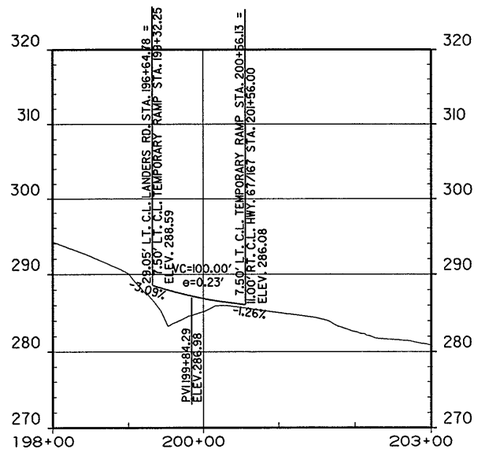
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS



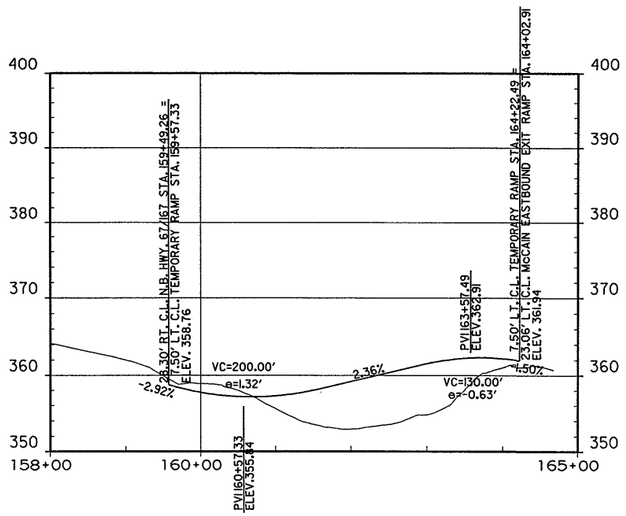
TEMPORARY McCAIN EASTBOUND EXIT RAMP
STAGE 4A



TEMPORARY McCAIN WESTBOUND EXIT RAMP
STAGE 4A



TEMPORARY McCAIN ENTRANCE RAMP
STAGE 4A



TEMPORARY McCAIN EASTBOUND EXIT RAMP
STAGE 4B

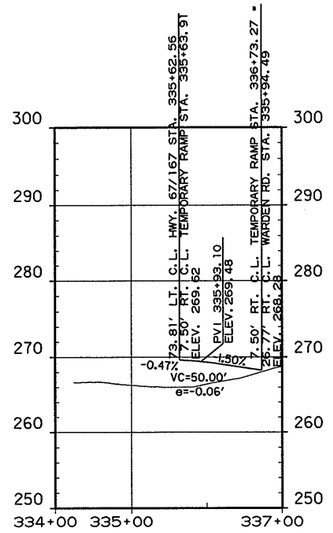
07-18-2005 RR60080.PR2

RAMP PROFILES FOR MAINTENANCE OF TRAFFIC

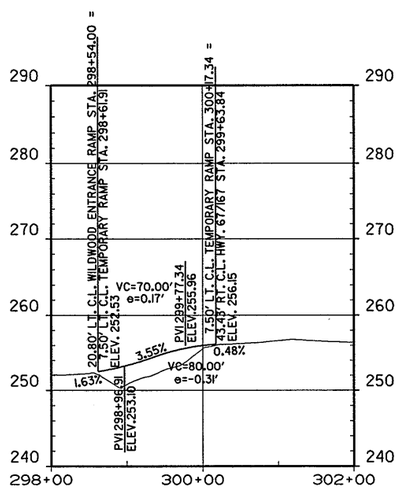
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	106	602

(2) RAMP PROFILE FOR M.O.T.

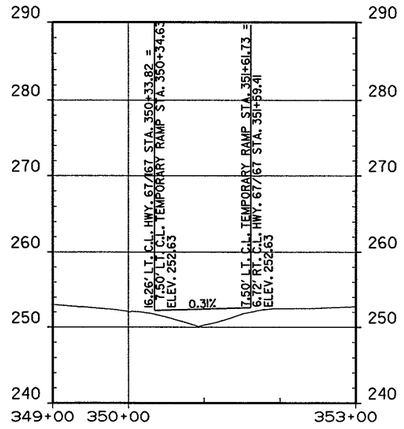
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS



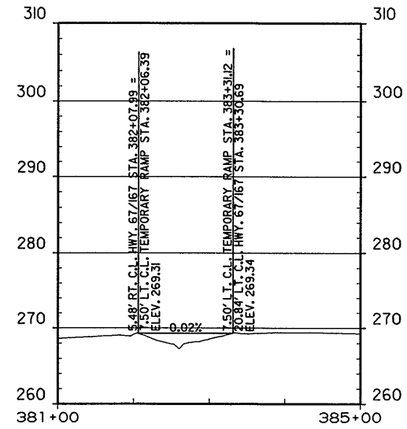
TEMPORARY BROOKSWOOD ENTRANCE RAMP
STAGE 2A



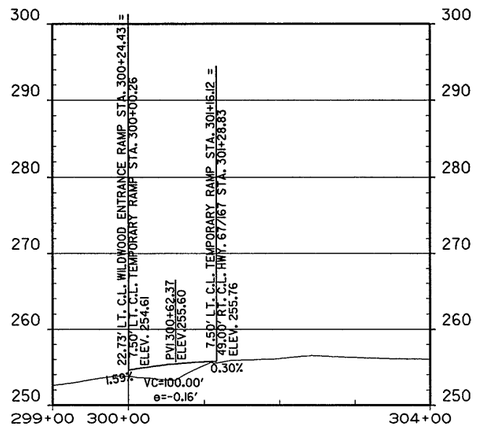
TEMPORARY WILDWOOD ENTRANCE RAMP
STAGE 2A



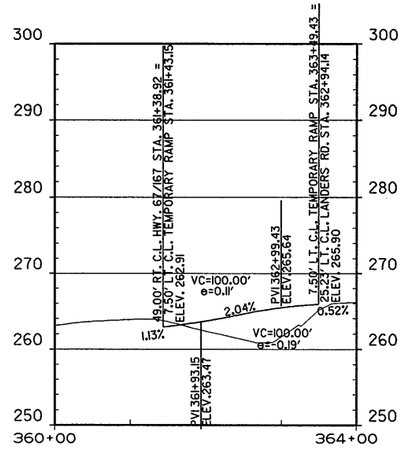
TEMPORARY KIEHL AVE. EXIT RAMP
STAGE 2A



TEMPORARY KIEHL AVE. ENTRANCE RAMP
STAGE 2A



TEMPORARY WILDWOOD ENTRANCE RAMP
STAGE 2B



TEMPORARY KIEHL AVE. EXIT RAMP
STAGE 2B

07-18-2005 RR60080.PR2

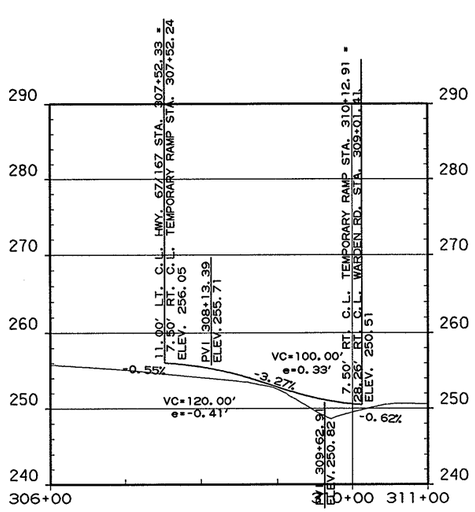
RAMP PROFILES FOR
MAINTENANCE OF TRAFFIC

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

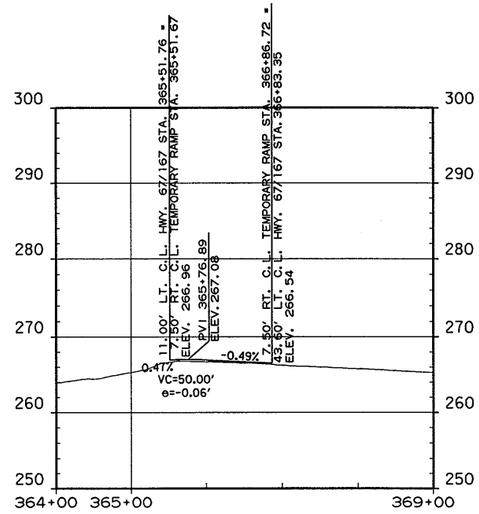
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	107	609

(2) RAMP PROFILE FOR M.O.T.

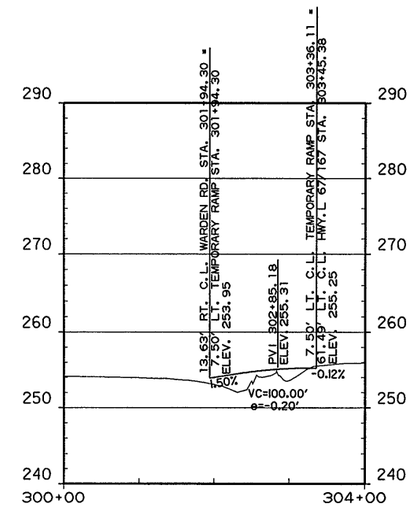
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS



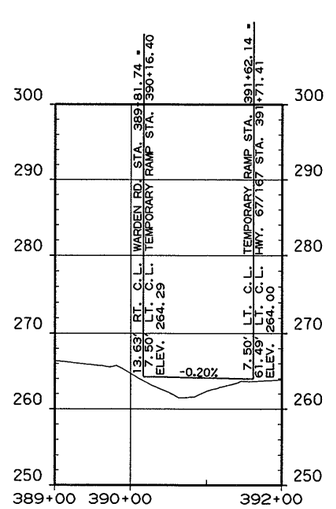
TEMPORARY BROOKSWOOD ENTRANCE RAMP
STAGE 4A



TEMPORARY KIEHL AVE. ENTRANCE RAMP
STAGE 4A



TEMPORARY KIEHL AVE. ENTRANCE RAMP
STAGE 4B



TEMPORARY KIEHL AVE. EXIT RAMP
STAGE 4B

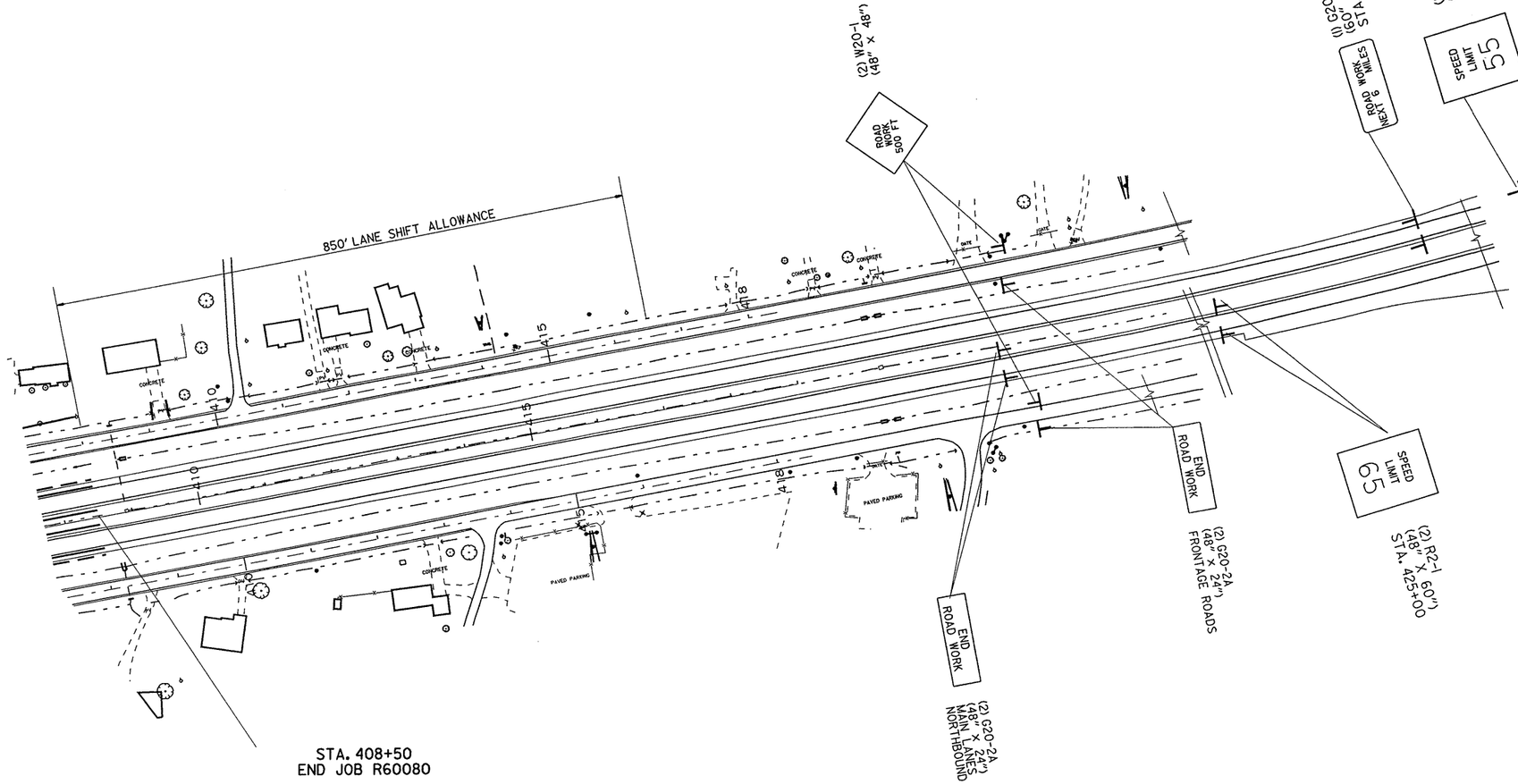
07-18-2005 RR60080.PR2

RAMP PROFILES FOR MAINTENANCE OF TRAFFIC

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	108	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-05



MAINTENANCE OF TRAFFIC
ADVANCE SIGNS ALL STAGES
NORTH END OF JOB

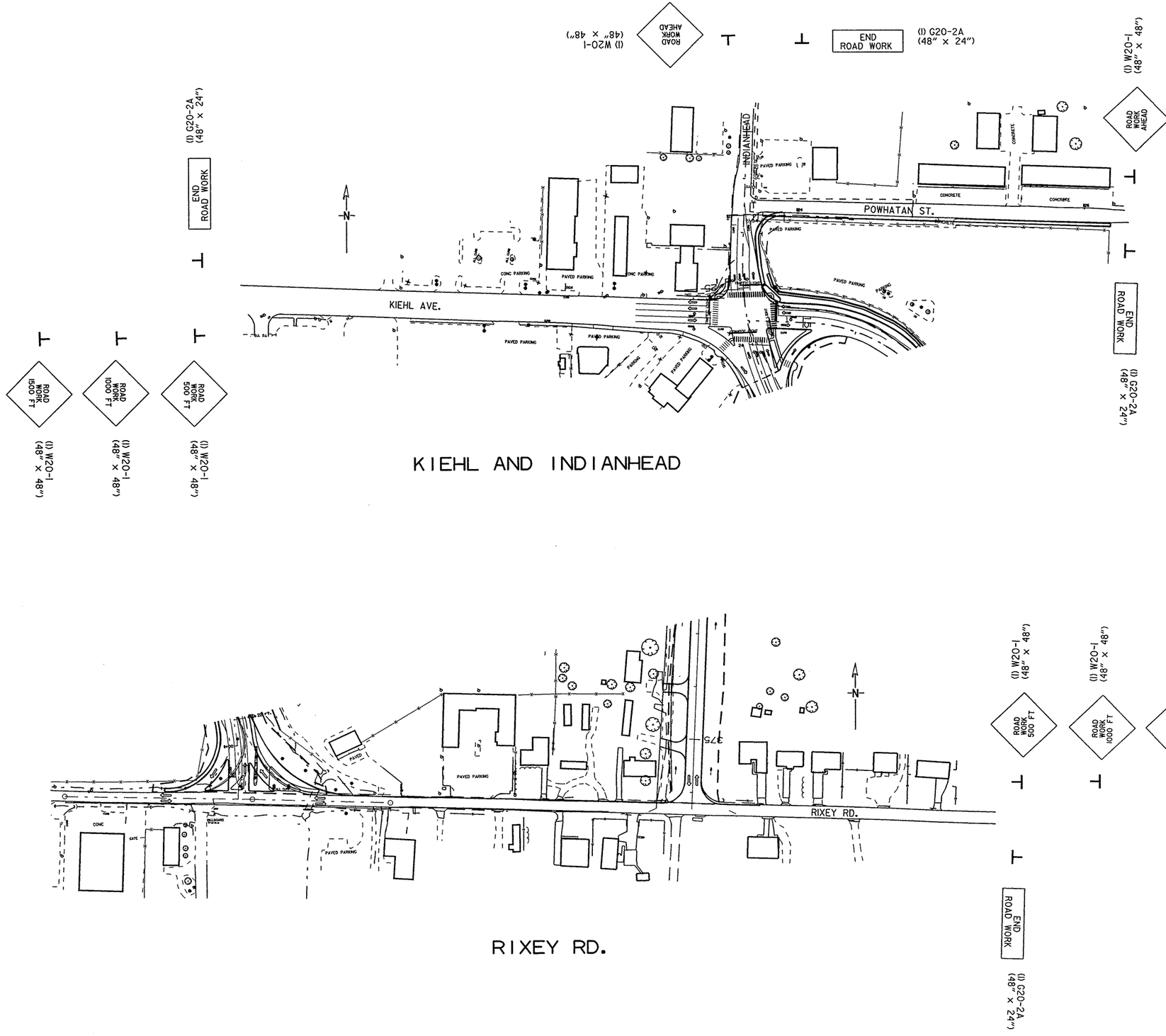
08/16/05 mot1study

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	109	6003

(2) MAINTENANCE OF TRAFFIC

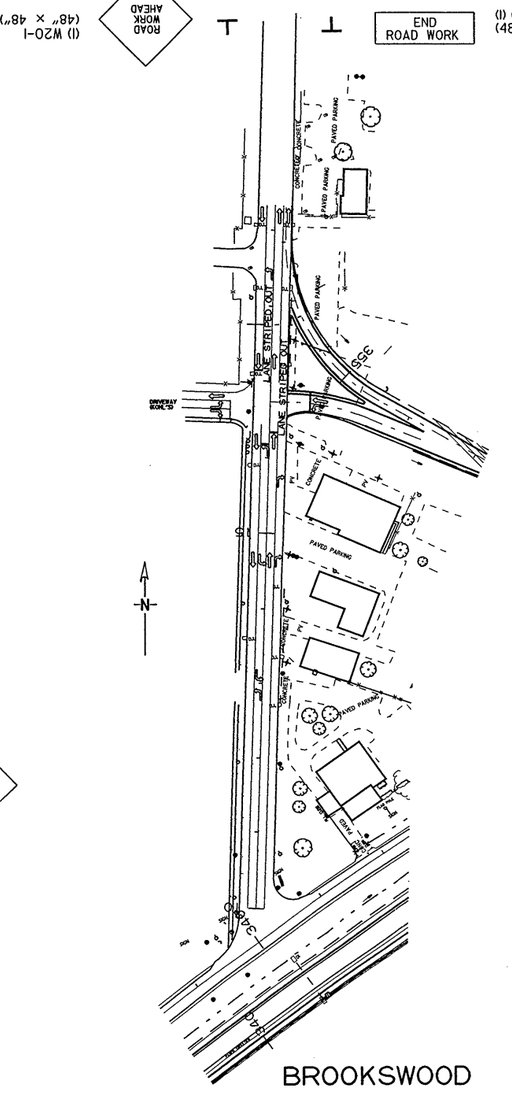
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
9-12-05

ADVANCE SIGNS LIKE THIS ALSO NEEDED ON
CARNEGIE ST. (STA. 332+00 RT. LANDERS ROAD)
HILLS RD. (STA. 391+50 RT. LANDERS ROAD)



KIEHL AND INDIANHEAD

RIXEY RD.



BROOKSWOOD

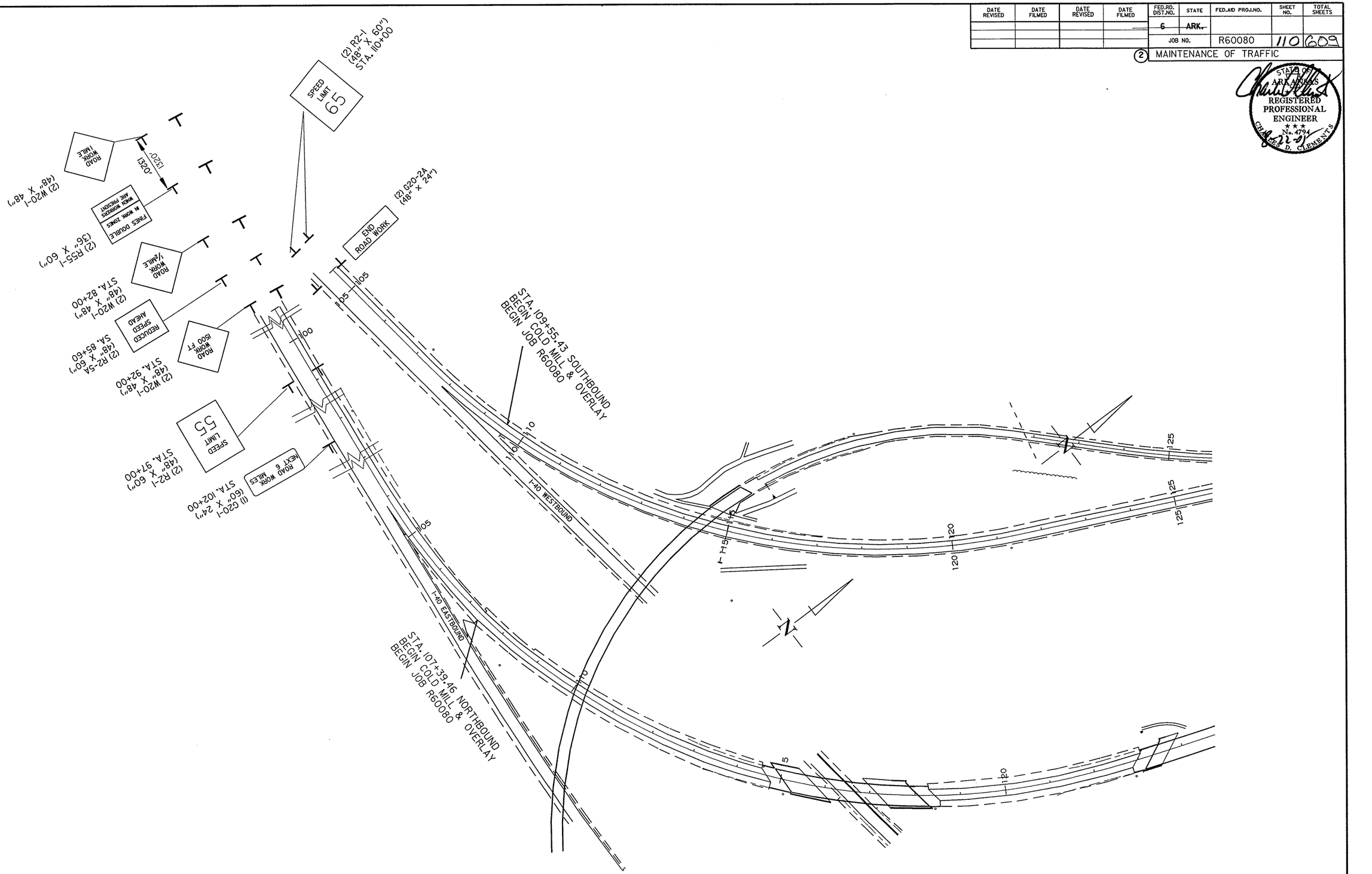
MAINTENANCE OF TRAFFIC
ADVANCE SIGNS ALL STAGES
KIEHL, RIXEY, AND BROOKSWOOD

06/01/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	110	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4734
12-21
CHARLES D. CLEMENTS



MAINTENANCE OF TRAFFIC
ADVANCE SIGNS ALL STAGES
SOUTH END OF JOB

3

08/15/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	111	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4794 CHARLES D. CLEMENTS

STA. 133+85.81 SOUTHBOUND
END COLD MILL & OVERLAY
BEGIN FULL DEPTH CONSTRUCTION

STA. 127+72.68 SOUTHBOUND
END COLD MILL & OVERLAY
BEGIN FULL DEPTH CONSTRUCTION

(1) G20-1 (60" X 24") STA. 128+85
ROAD WORK NEXT 6 MILES

(2) R2-1 (48" X 60") STA. 124+00
SPEED LIMIT 55

(1) W20-1 (48" X 48") STA. 118+85
ROAD WORK 1500 FT

(2) R2-5A (48" X 60") STA. 116+00
REDUCED SPEED AHEAD

(2) W20-1 (48" X 48")
ROAD WORK 1/2 MILE

(2) R5-1 (36" X 60")
TWO DOUBLE WORK ZONES NEXT PRESENT

(2) W20-1 (48" X 48")
ROAD WORK 1 MILE

500'
1320'
1320'
1140'

I-40 WESTBOUND

MAINTENANCE OF TRAFFIC
ADVANCE SIGNS ALL STAGES
SOUTH END OF JOB

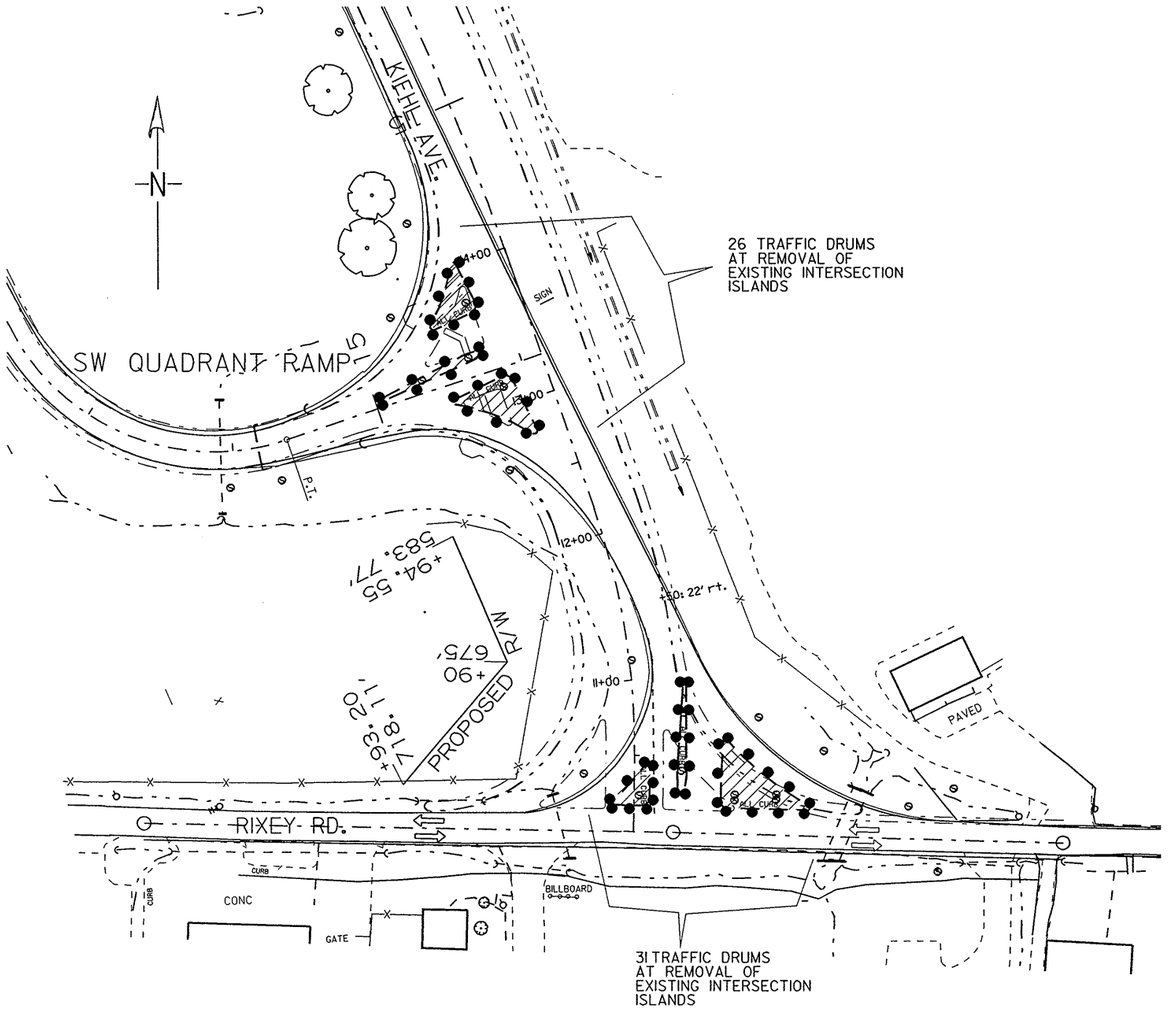
08/15/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	112	603

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS



08/15/05 motstudy

INDICATES AREA OF CONSTRUCTION

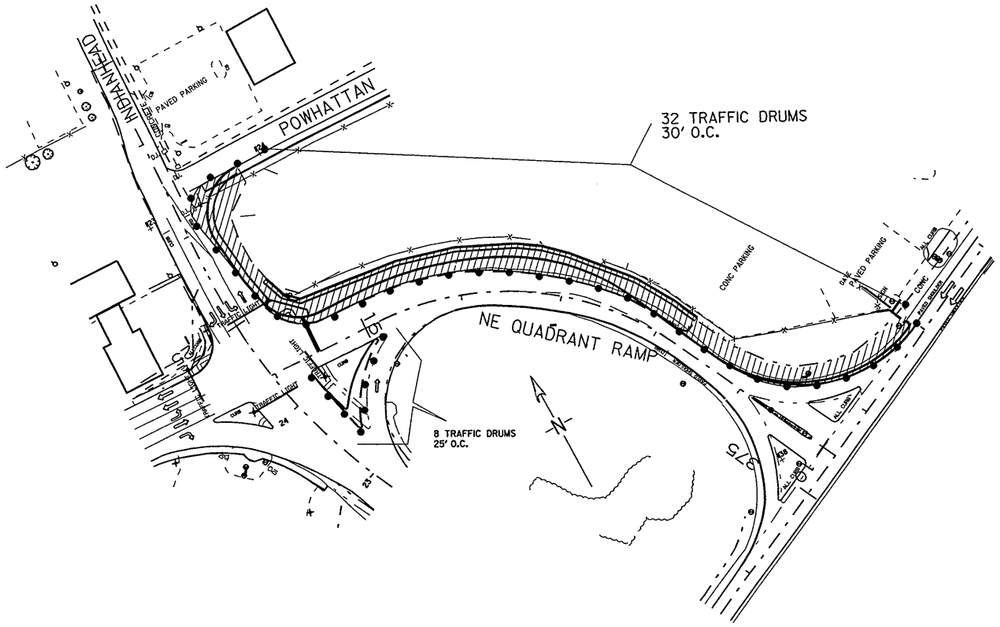
KIEHL STAGE 1: REMOVE EXISTING INTERSECTION ISLANDS AT KIEHL INTERSECTIONS WITH SW QUADRANT RAMP AND RIXEY ROAD.

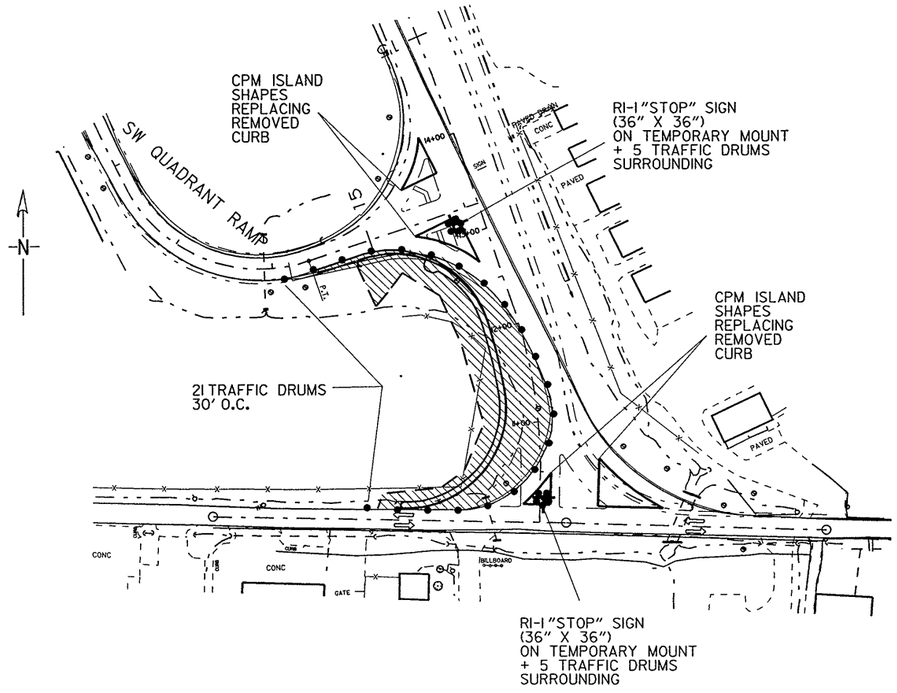
MAINTENANCE OF TRAFFIC
KIEHL OVERPASS
STAGE 1

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	113	609

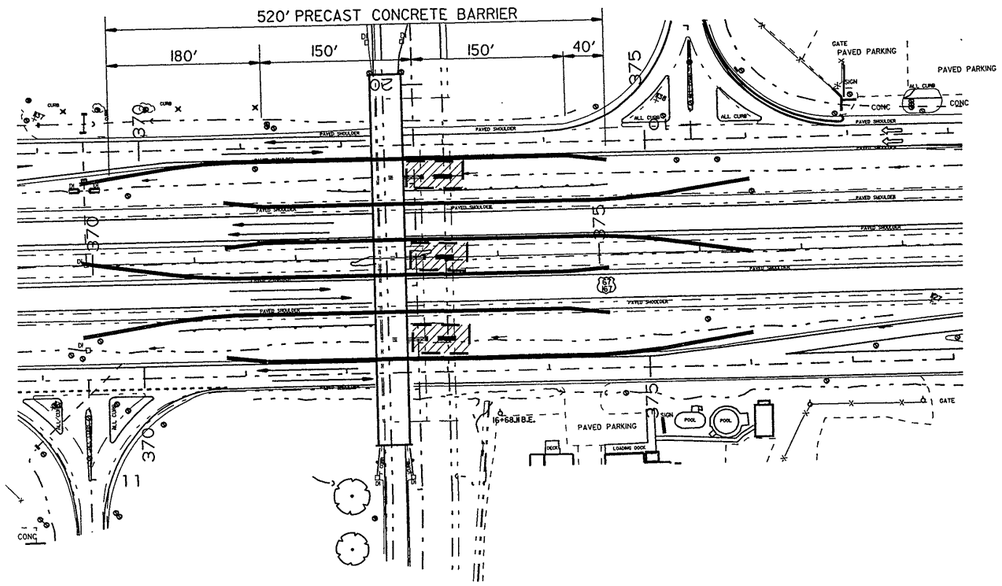
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
CHARLES D. CLEMENTS
No. 479
REGISTERED PROFESSIONAL ENGINEER
8-22-05

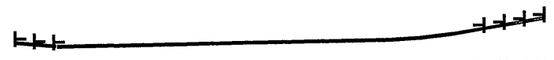




FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER ON SHOULDERS OF MAIN LANES AND FRONTAGE ROADS AT SITES FOR NEW OVERPASS PIERS = 3120 LIN.FT.



CONSTRUCTION PAVEMENT MARKINGS
8" STRIPE ISLAND OUTLINES
REPLACING REMOVED CURB ISLANDS = 595 LIN.FT.



(3) OM-3L 20' APART

(4) OM-3R 20' APART

DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
24 OM-3R
18 OM-3L

KIEHL STAGE 2:
NOTCH AND WIDEN NE AND SW QUADRANT RAMPS.
CONSTRUCT PIERS FOR NEW OVERPASS.

INDICATES AREA OF CONSTRUCTION

MAINTENANCE OF TRAFFIC KIEHL OVERPASS STAGE 2

08/15/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	119	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
CHARLES E. CLEMENTS
No. 7794
REGISTERED PROFESSIONAL ENGINEER

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
STRIPING ISLAND AT RIXEY INTERSECTION = 91 LIN.FT.

CONSTRUCTION PAVEMENT MARKINGS
8" STRIPING ISLAND AT RIXEY INTERSECTION = 165 LIN.FT.
DBL.4" CENTERLINE, RIXEY TO BRIDGE END, = 1208 LIN.FT.
RT. EDGE LINE, RIXEY TO STA. 13+50 = 310 LIN.FT.
8" STRIPING ISLANDS AT SW QUANDRANT INTERSECTION
INCLUDING EXTRA FOR REPLACING STRIPING OVER GRADE RAISE = 1434 LIN.FT.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
EXISTING STOP BAR ON NE QUADRANT RAMP = 37 LIN.FT.

CONSTRUCTION PAVEMENT MARKINGS
KIEHL AVE.
DBL. CENTERLINE EXIST. OVERPASS TO INDIANHEAD INTERSECTION = 820 LIN.FT.
8" ISLAND OUTLINE AT INTERSECTION = 370 LIN.FT.
RT. EDGE AND TURN LANE DIVIDERS = 644 LIN.FT.
12" STOP BAR = 42 LIN.FT.
ARROWS = 3 EACH
INDIANHEAD
12" STOP BAR = 40 LIN.FT.
DBL. CENTERLINE AND TAPER = 476 LIN.FT.
TURN LANE DIVIDERS = 193 LIN.FT.
ARROWS = 3 EACH
NE QUADRANT RAMP
12" STOP BAR = 36 LIN.FT.
DBL. CENTERLINE AND TAPER = 1224 LIN.FT.
TURN LANE DIVIDERS = 420 LIN.FT.
ARROWS = 3 EACH

INSTALL ACHM FOR RAISING GRADE AS NEEDED FOR CONNECTION TO NEW SURFACE ELEVATION OF KIEHL AVE.

RI-1 "STOP" SIGN (36" X 36") ON TEMPORARY MOUNT + 5 TRAFFIC DRUMS SURROUNDING

CPM STRIPE ISLAND

REM CPM ISLAND

CL TRAFFIC 10' LT. CL CONST RIXEY INTERSECTION TO STA. 13+50; AFTER THAT ON CL EXISTING

CPM CENTER LINE AND RT. EDGE LINE

SW QUADRANT RAMP

CPM STRIPE ISLANDS

7 TRAFFIC DRUMS 30' O.C.

ROAD CLOSED

(1) R11-2 (48" X 30")

16' BARR. TYP. III RT.
16' BARR. TYP. III LT.

16 TRAFFIC DRUMS 40' O.C.

RI-1 "STOP" SIGN (36" X 36") ON TEMPORARY MOUNT + 5 TRAFFIC DRUMS SURROUNDING

CPM CENTER LINE AND RT. EDGE LINE

FOLLOW CURB CURVE

CPM LANE LINES; 13'-8" LANE WIDTHS

KIEHL AVE.

CPM NEW STRIPING, INCLUDING ARROWS

8 TRAFFIC DRUMS 30' O.C.

8 TRAFFIC DRUMS 40' O.C.

REMOVE OLD STOP BAR

NE QUADRANT RAMP

CPM NEW STRIPING, INCLUDING ARROWS

POWHATAN

NOTE:
RETAIN PCCB ON MAIN LANES AND ASSOCIATED QM-3 FROM PREVIOUS STAGE

KIEHL STAGE 3
CONSTRUCT RIGHT SIDE OF NEW BRIDGE DECK AND APPROACHES
• CONSTRUCT ADD'L PAVEMENT WIDTH AT BRIDGE ENDS.
MAINTAIN TRAFFIC ON LEFT SIDE OF EXISTING KIEHL AVE.

INDICATES AREA OF CONSTRUCTION

MAINTENANCE OF TRAFFIC KIEHL OVERPASS STAGE 3

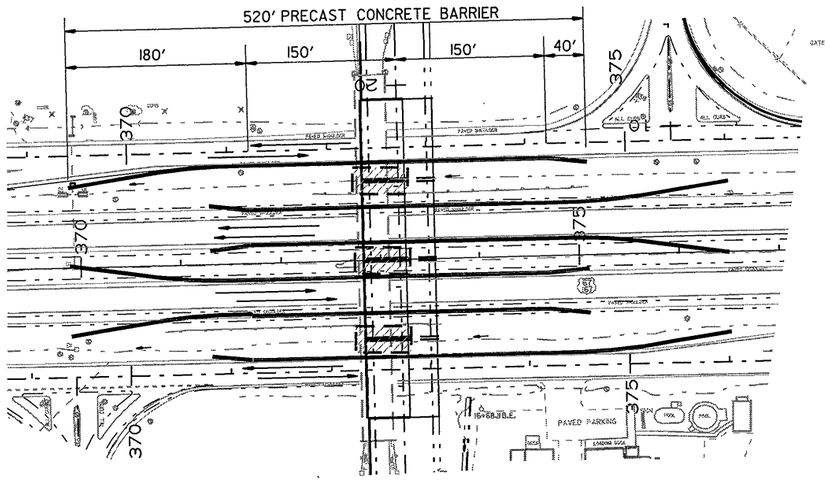
08/15/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	115	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS

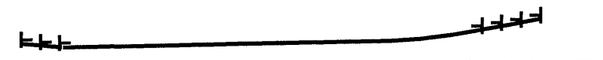
RELOCATING PRECAST CONCRETE BARRIER
AS-NEEDED BY MAIN LANES CONSTRUCTION = 2080 LIN.FT.



REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
IN INDIANHEAD INTERSECTION = 350 LIN.FT.

CONSTRUCTION PAVEMENT MARKINGS
ISLAND SHAPES IN SW QUADRANT RAMP INTERSECTION = 526 LIN.FT.
ISLAND SHAPES IN RIXEY RD. INTERSECTION = 383 LIN.FT.
RT. & LT. EDGE LINES + DBL. CENTERLINE
AHEAD AND BEYOND BRIDGE = 3950 LIN.FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES + DBL. CENTERLINE ON BRIDGE DECK = 1272 LIN.FT.



(3) OM-3L 20' APART

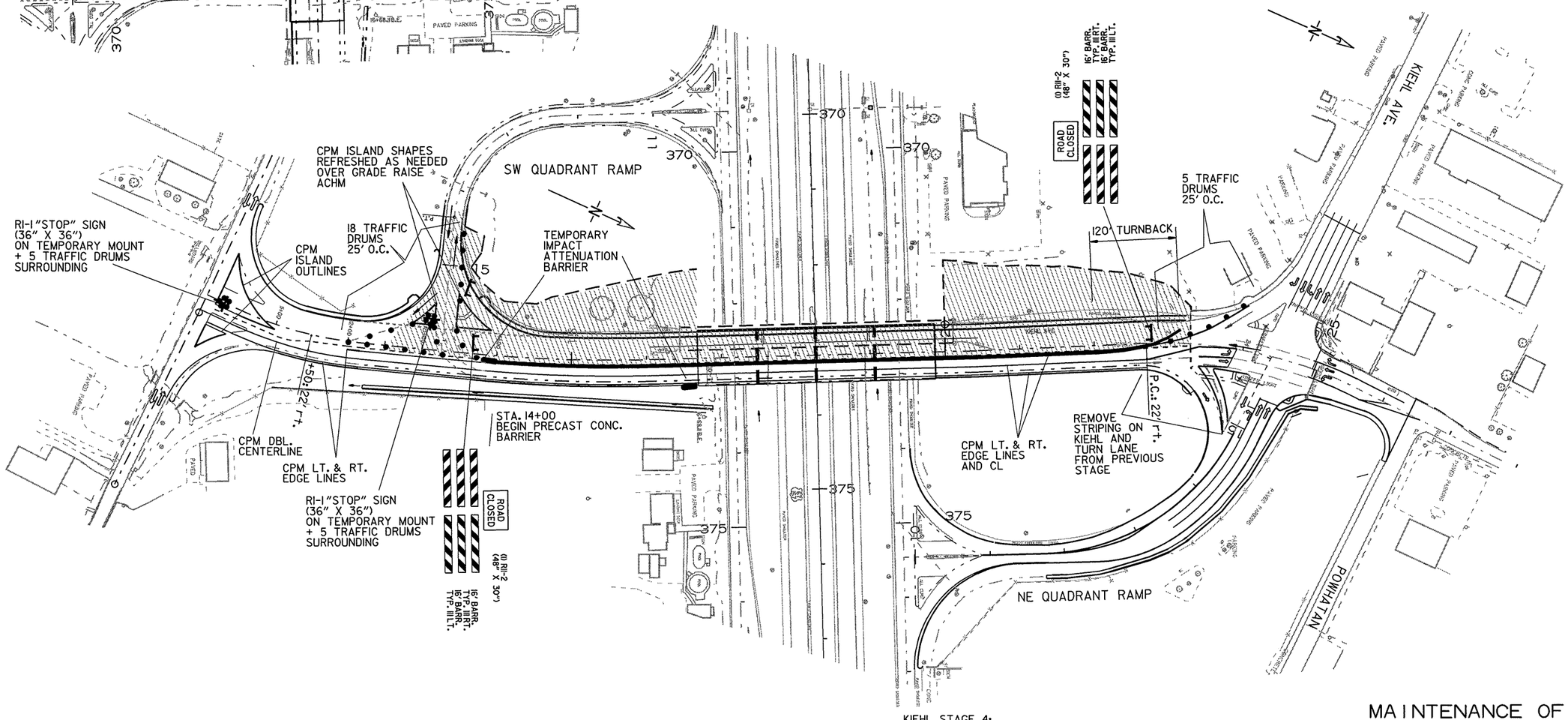
(4) OM-3R 20' APART

DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
24 OM-3R 18 OM-3L

FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER
ALONG KIEHL AVE. = 920 LIN.FT.

TEMPORARY IMPACT ATTENUATION BARRIER = 1 EACH



INDICATES AREA OF CONSTRUCTION

KIEHL STAGE 4:
SHIFT TRAFFIC ONTO NEW BRIDGE AND PAVEMENT.
REMOVE OLD BRIDGE.
CONSTRUCT LEFT SIDE OF NEW BRIDGE AND APPROACHES.
ADJUST GRADE OF SW QUADRANT RAMP TO MEET NEW GRADE OF KIEHL.

MAINTENANCE OF TRAFFIC
KIEHL OVERPASS
STAGE 4

08/15/05 mots tudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	116	609

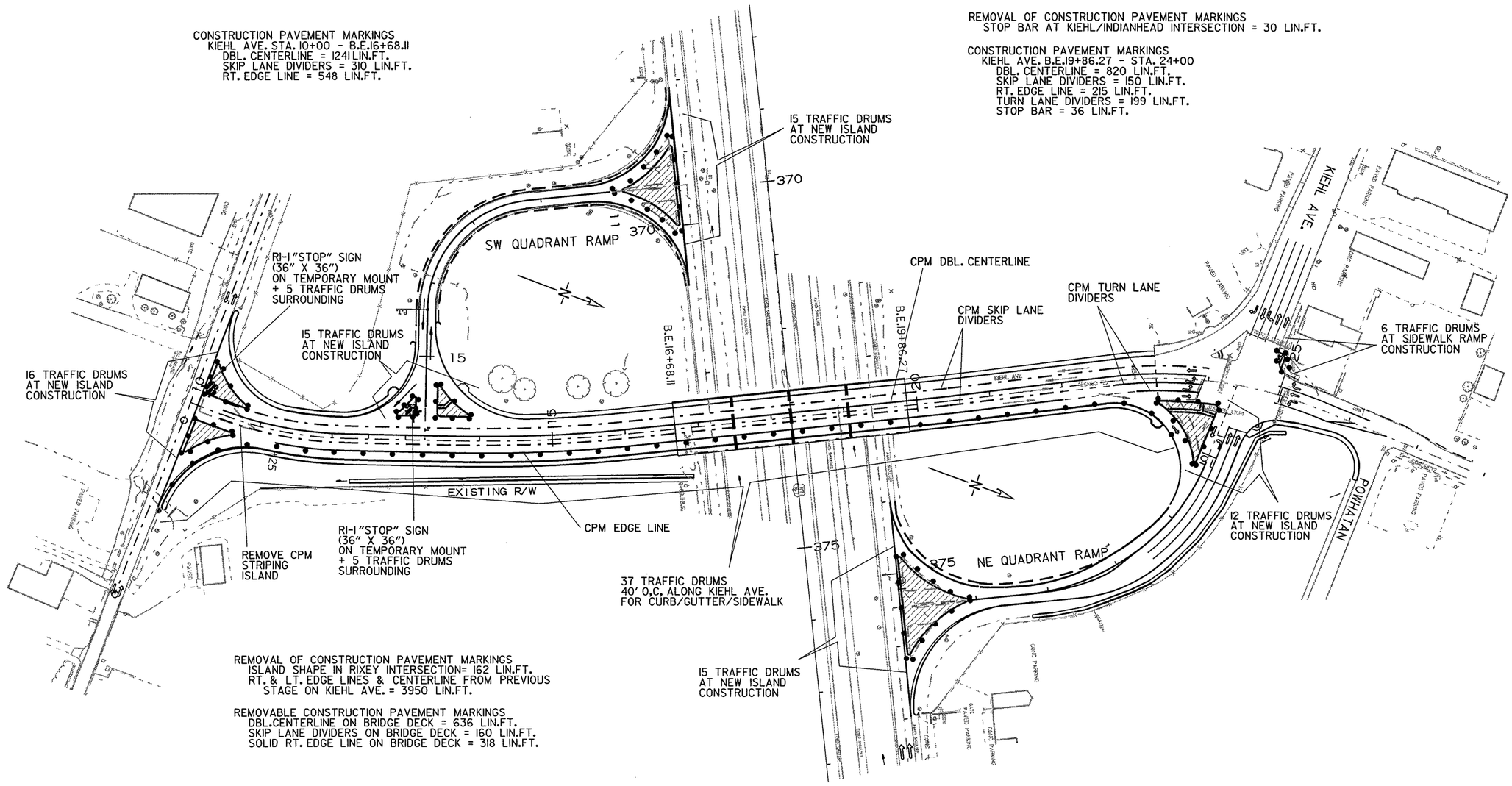
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11794
CHARLES D. CLEMENTS
9-30-05

CONSTRUCTION PAVEMENT MARKINGS
KIEHL AVE. STA. 10+00 - B.E.16+68.11
DBL. CENTERLINE = 1241 LIN.FT.
SKIP LANE DIVIDERS = 310 LIN.FT.
RT. EDGE LINE = 548 LIN.FT.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
STOP BAR AT KIEHL/INDIANHEAD INTERSECTION = 30 LIN.FT.

CONSTRUCTION PAVEMENT MARKINGS
KIEHL AVE. B.E.19+86.27 - STA. 24+00
DBL. CENTERLINE = 820 LIN.FT.
SKIP LANE DIVIDERS = 150 LIN.FT.
RT. EDGE LINE = 215 LIN.FT.
TURN LANE DIVIDERS = 199 LIN.FT.
STOP BAR = 36 LIN.FT.



REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
ISLAND SHAPE IN RIXEY INTERSECTION= 162 LIN.FT.
RT. & LT. EDGE LINES & CENTERLINE FROM PREVIOUS STAGE ON KIEHL AVE. = 3950 LIN.FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
DBL.CENTERLINE ON BRIDGE DECK = 636 LIN.FT.
SKIP LANE DIVIDERS ON BRIDGE DECK = 160 LIN.FT.
SOLID RT. EDGE LINE ON BRIDGE DECK = 318 LIN.FT.

INDICATES AREA OF CONSTRUCTION

KIEHL STAGE 5:
SHIFT TRAFFIC BACK TO FOUR LANES ON RIGHT SIDE OF KIEHL.
REMOVE INTERSECTION ISLANDS ALONG LANDERS AND WARDEN ROADS.
CONSTRUCT NEW INTERSECTION ISLANDS.
CONSTRUCT CURB AND GUTTER & SIDEWALK RIGHT OF KIEHL
INSTALL FINAL OVERLAY OF SURFACE ON KIEHL AND RAMPS.

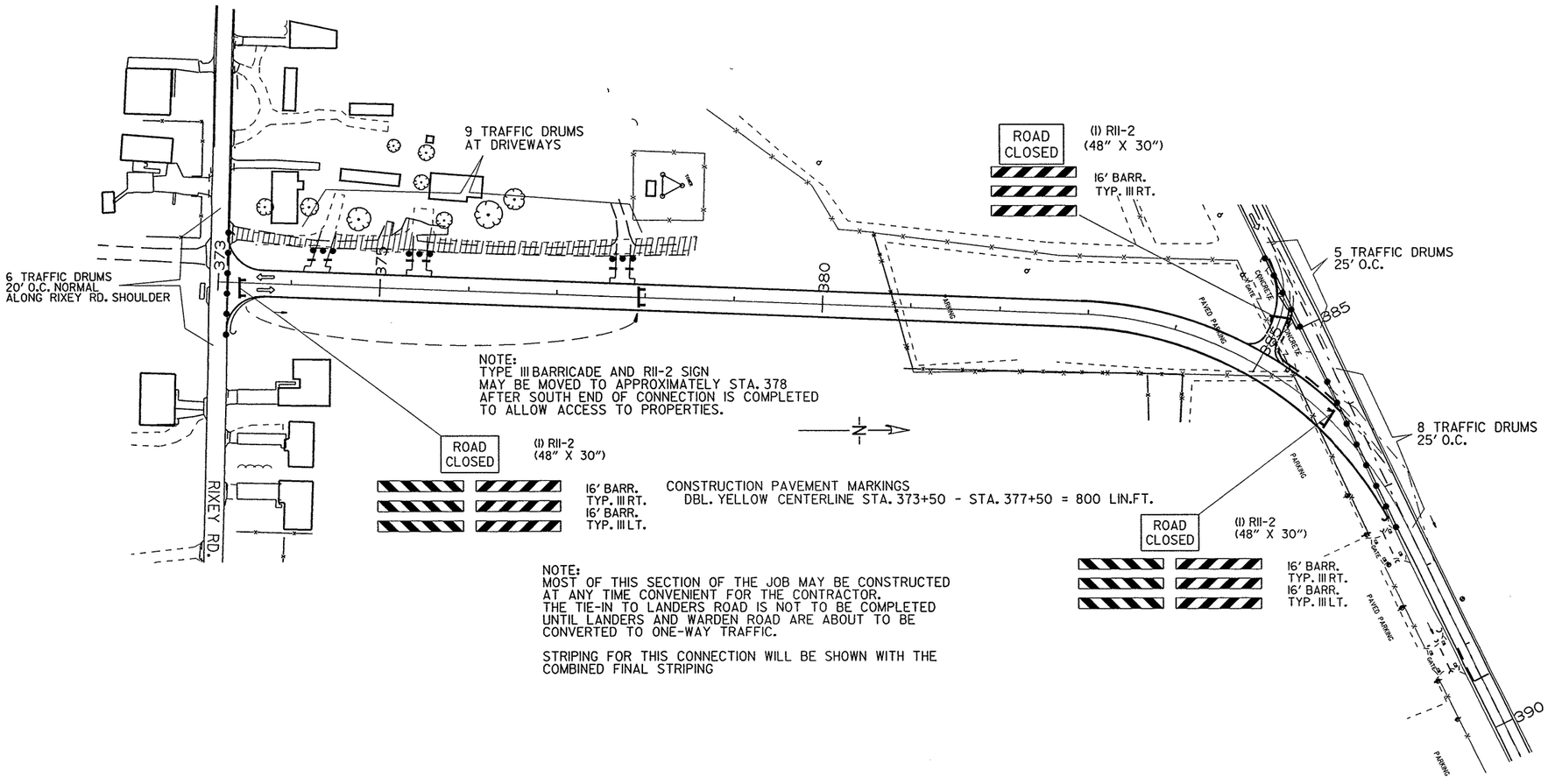
MAINTENANCE OF TRAFFIC
KIEHL OVERPASS
STAGE 5

08/15/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	117	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4924
CHARLES D. CLEMENTS
8-22-05



NOTE:
MOST OF THIS SECTION OF THE JOB MAY BE CONSTRUCTED AT ANY TIME CONVENIENT FOR THE CONTRACTOR. THE TIE-IN TO LANDERS ROAD IS NOT TO BE COMPLETED UNTIL LANDERS AND WARDEN ROAD ARE ABOUT TO BE CONVERTED TO ONE-WAY TRAFFIC.

STRIPING FOR THIS CONNECTION WILL BE SHOWN WITH THE COMBINED FINAL STRIPING

08/15/05 motstudy

MAINTENANCE OF TRAFFIC
KIEHL STAGE 6
LANDERS CONNECTION

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9-19-05				6	ARK.			
				JOB NO.		R60080	118	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
9-19-05

STRIPING FOR SW QUADRANT RAMP

REFLECTORIZED PAINT PAVEMENT MARKINGS
INTERSECTION ISLAND CURB
CURB ALONG LANDERS RD. = 108 LIN.FT. 10" WHITE
CURB ALONG RAMP BRANCHES = 189 LIN.FT. 10" YELLOW

THERMOPLASTIC PAVEMENT MARKINGS
ISLAND OUTLINE ALONG LANDERS RD. - 146 LIN.FT. 8" WHITE
ISLAND OUTLINE ALONG RAMP BRANCHES = 242 LIN.FT. 8" YELLOW
RT. & LT. EDGE LINES = 1212 LIN.FT. 4" WHITE
DBL. CENTERLINE = 909 LIN.FT. 4" YELLOW

RAISED PAVEMENT MARKERS
TYPE II (YEL/YEL) ON CENTERLINE = 12 EACH

CONSTRUCTION PAVEMENT MARKINGS
LT. EDGE LINE AND CENTERLINE RIXEY ROAD
THROUGH INTERSECTION WORK AREA = 355 LIN.FT.

STRIPING FOR INTERSECTION RIXEY RD. / KIEHL

REFLECTORIZED PAINT PAVEMENT MARKINGS
ISLAND CURBS = 375 LIN.FT. 10" WHITE

THERMOPLASTIC PAVEMENT MARKINGS
ISLAND OUTLINES = 530 LIN.FT. 8" WHITE
STOP BAR = 11 LIN.FT. 12" WHITE
ARROW = 1 EACH
WORD "ONLY" = 1 EACH

STRIPING FOR INTERSECTION SW QUADRANT / KIEHL

REFLECTORIZED PAINT PAVEMENT MARKINGS
ISLAND CURBS = 250 LIN.FT. 10" WHITE

THERMOPLASTIC PAVEMENT MARKINGS
ISLAND OUTLINES = 375 LIN.FT. 8" WHITE
CROSSWALKS = 170 LIN.FT. 12" WHITE
STOP BAR = 11 LIN.FT. 12" WHITE
ARROW = 1 EACH
WORD "ONLY" = 1 EACH

STRIPING ON KIEHL AVE. B.E.19+86.27 - STA. 24+50

THERMOPLASTIC PAVEMENT MARKINGS
DBL. YELLOW CENTER LANE DIVIDER = 1034 LIN.FT. 4" YELLOW
SKIP LANE DIVIDERS = 150 LIN.FT. 4" WHITE
TURN LANE DIVIDERS = 391 LIN.FT. 4" WHITE
STOP BAR = 38 LIN.FT. 12" WHITE
CROSSWALK = 160 LIN.FT. 12" WHITE
WORD "ONLY" = 3 EACH
ARROWS = 3 EACH

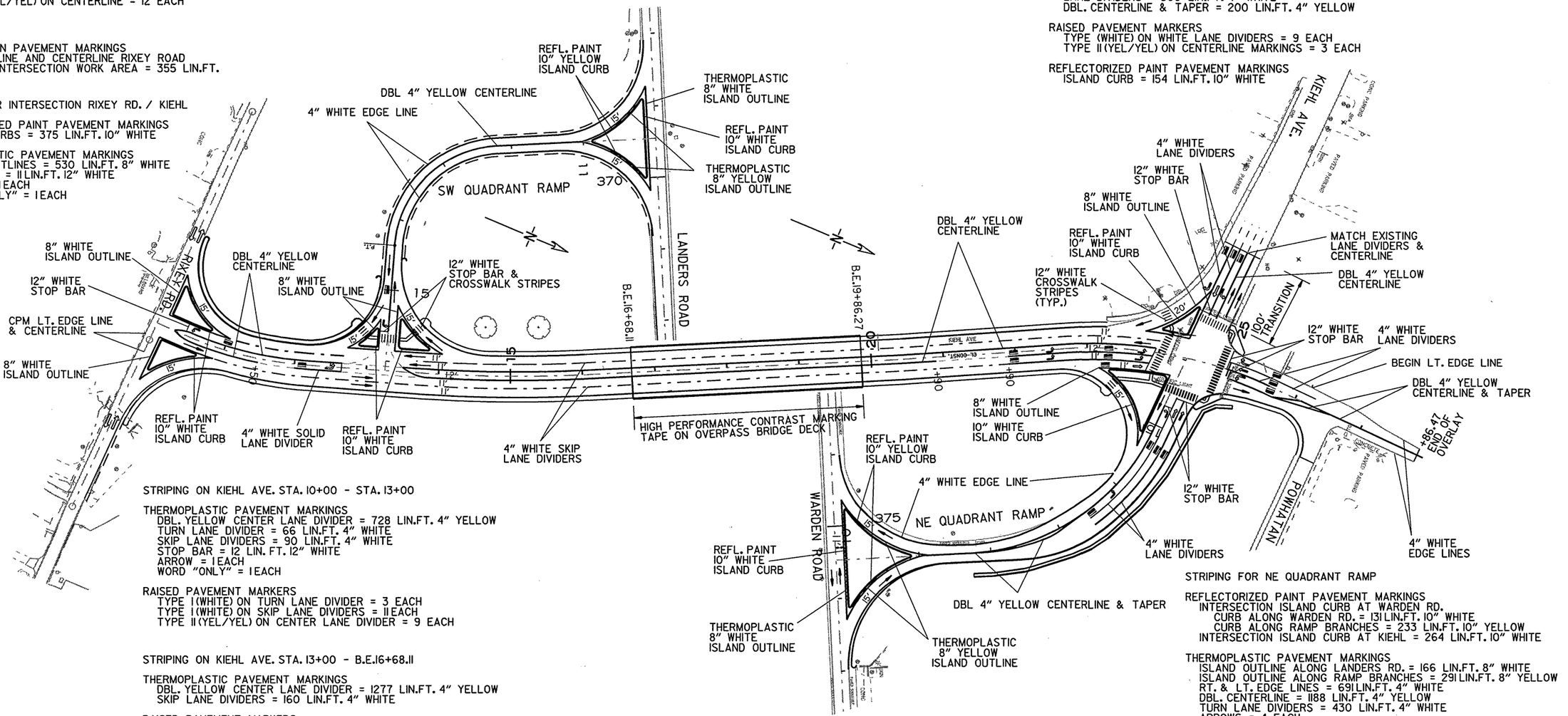
RAISED PAVEMENT MARKERS
TYPE I (WHITE) ON WHITE LANE DIVIDERS = 29 EACH
TYPE II (YEL/YEL) ON CENTER LANE DIVIDER = 14 EACH

STRIPING FOR IKIEHL AVE. & RT. TURN LANE TO OVERPASS

THERMOPLASTIC PAVEMENT MARKINGS
CROSSWALKS = 170 LIN.FT. 12" WHITE
STOP BAR = 26 LIN.FT. 12" WHITE
ARROWS = 3 EACH
WORD "ONLY" = 3 EACH
ISLAND OUTLINE = 449 LIN.FT. 8" WHITE
LANE DIVIDERS = 300 LIN.FT. 4" WHITE
DBL. CENTERLINE & TAPER = 200 LIN.FT. 4" YELLOW

RAISED PAVEMENT MARKERS
TYPE (WHITE) ON WHITE LANE DIVIDERS = 9 EACH
TYPE II (YEL/YEL) ON CENTERLINE MARKINGS = 3 EACH

REFLECTORIZED PAINT PAVEMENT MARKINGS
ISLAND CURB = 154 LIN.FT. 10" WHITE



STRIPING ON KIEHL AVE. STA. 10+00 - STA. 13+00

THERMOPLASTIC PAVEMENT MARKINGS
DBL. YELLOW CENTER LANE DIVIDER = 728 LIN.FT. 4" YELLOW
TURN LANE DIVIDER = 66 LIN.FT. 4" WHITE
SKIP LANE DIVIDERS = 90 LIN.FT. 4" WHITE
STOP BAR = 12 LIN. FT. 12" WHITE
ARROW = 1 EACH
WORD "ONLY" = 1 EACH

RAISED PAVEMENT MARKERS
TYPE I (WHITE) ON TURN LANE DIVIDER = 3 EACH
TYPE I (WHITE) ON SKIP LANE DIVIDERS = 11 EACH
TYPE II (YEL/YEL) ON CENTER LANE DIVIDER = 9 EACH

STRIPING ON KIEHL AVE. STA. 13+00 - B.E.16+68.11

THERMOPLASTIC PAVEMENT MARKINGS
DBL. YELLOW CENTER LANE DIVIDER = 1277 LIN.FT. 4" YELLOW
SKIP LANE DIVIDERS = 160 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I (WHITE) ON TURN LANE DIVIDER = 16 EACH
TYPE II (YEL/YEL) ON CENTER LANE DIVIDER = 15 EACH

HIGH PERFORMANCE CONTRAST MARKING TAPE
DBL. YELLOW CENTER LANE DIVIDERS ON BRIDGE DECK = 1273 LIN.FT. (YELLOW)
SKIP RT. & LT. LANE DIVIDERS = 160 LIN.FT. (WHITE)

RAISED PAVEMENT MARKERS
TYPE I (WHITE) ON SKIP LINES = 16 EACH
TYPE II (YEL/YEL) ON CENTER LANE = 16 EACH

STRIPING FOR INDIANHEAD DR. STA. 24+50 - STA. 27+86.47

THERMOPLASTIC PAVEMENT MARKINGS
CROSSWALKS = 180 LIN.FT. 12" WHITE
STOP BARS = 41 LIN.FT. 12" WHITE
ARROWS = 3 EACH
WORD "ONLY" = 3 EACH
TURN LANE DIVIDERS = 194 LIN.FT. 4" WHITE
DBL. CENTERLINE & TAPER = 744 LIN.FT. 4" YELLOW
RT. & LT. EDGE LINES = 353 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE (WHITE) ON WHITE LANE DIVIDERS = 7 EACH
TYPE II (YEL/YEL) ON CENTERLINE MARKINGS = 10 EACH

STRIPING FOR NE QUADRANT RAMP

REFLECTORIZED PAINT PAVEMENT MARKINGS
INTERSECTION ISLAND CURB AT WARDEN RD.
CURB ALONG WARDEN RD. = 131 LIN.FT. 10" WHITE
CURB ALONG RAMP BRANCHES = 233 LIN.FT. 10" YELLOW
INTERSECTION ISLAND CURB AT KIEHL = 264 LIN.FT. 10" WHITE

THERMOPLASTIC PAVEMENT MARKINGS
ISLAND OUTLINE ALONG LANDERS RD. = 166 LIN.FT. 8" WHITE
ISLAND OUTLINE ALONG RAMP BRANCHES = 291 LIN.FT. 8" YELLOW
RT. & LT. EDGE LINES = 691 LIN.FT. 4" WHITE
DBL. CENTERLINE = 1188 LIN.FT. 4" YELLOW
TURN LANE DIVIDERS = 430 LIN.FT. 4" WHITE
ARROWS = 4 EACH
WORDS "ONLY" = 4 EACH
STOP BARS = 36 LIN.FT. 12" WHITE
CROSSWALKS = 170 LIN.FT. 12" WHITE
ISLAND OUTLINE AT KIEHL = 338 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS
TYPE I (WHITE) ON TURN LANE DIVIDERS = 10 EACH
TYPE II (YEL/YEL) ON CENTERLINE = 16 EACH

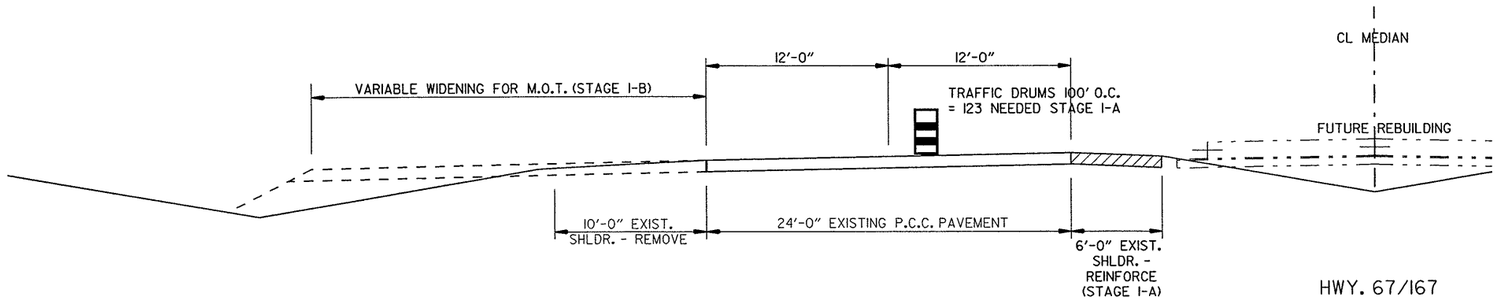
MAINTENANCE OF TRAFFIC
KIEHL OVERPASS
STAGE 6 - STRIPING
AT END OF WORK ON OVERPASS

08/15/05 mofstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	11	609

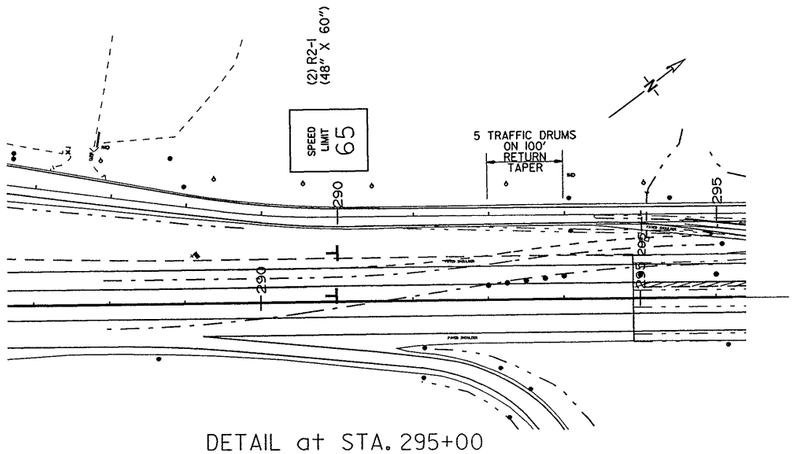
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4794 CHARLES D. CLEMENTS 3-22-05

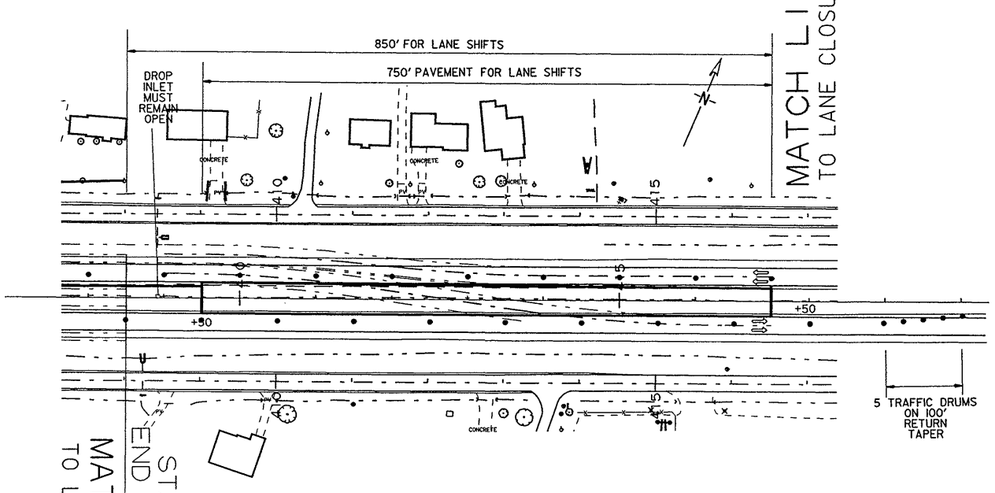


HWY. 67/167

STAGE CONSTRUCTION DETAIL
STA. 295+00 - STA. 409+50



DETAIL at STA. 295+00



DETAIL at STA. 408+50 - STA. 417+00

STAGE I-A
CLOSE INSIDE SOUTHBOUND LANE AT NIGHT;
REINFORCE INSIDE SHOULDER OF SOUTHBOUND LANES
CLOSE INSIDE LANE BOTH DIRECTIONS TO CONSTRUCT
MEDIAN PAVING FOR CROSSOVERS AT NORTH END OF JOB

MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 1-A

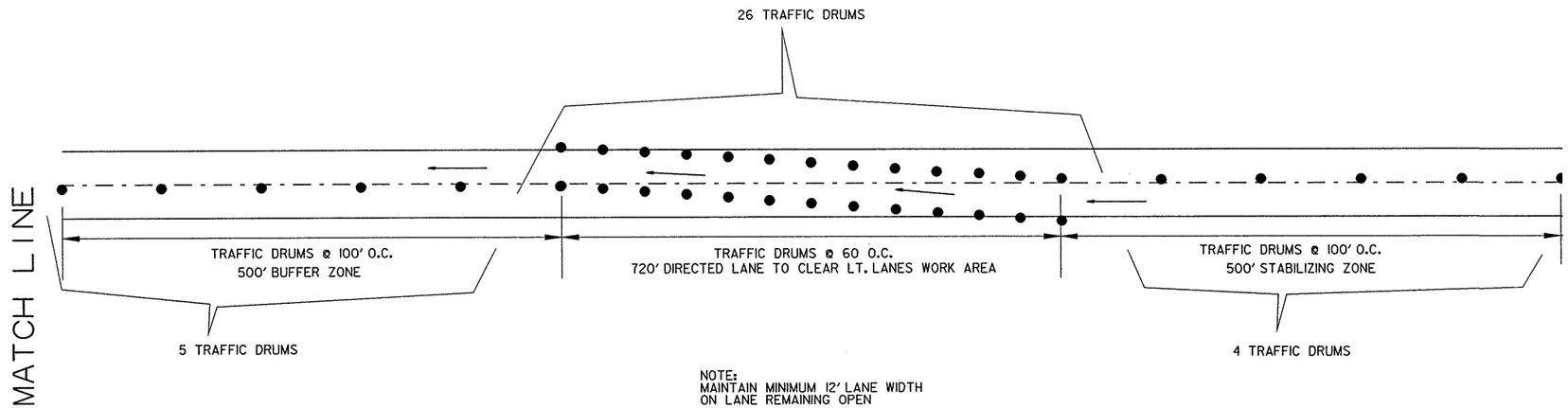
12

06/13/05 motstudy

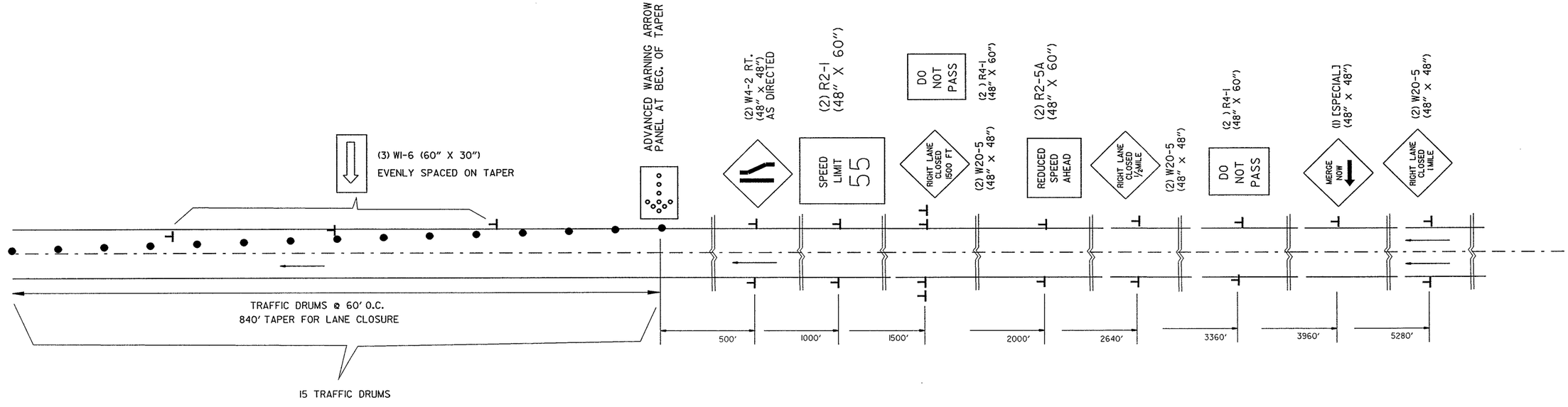
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	120	80

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9479
CHARLES D. CLEMENTS



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



RT. LANE CLOSURE

STAGE 1-A
CLOSE INSIDE SOUTHBOUND LANE AT NIGHT;
REINFORCE INSIDE SHOULDER OF SOUTHBOUND LANES
CLOSE INSIDE LANE BOTH DIRECTIONS TO CONSTRUCT
MEDIAN PAVING FOR CROSSOVERS AT NORTH END OF JOB

MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 1-A

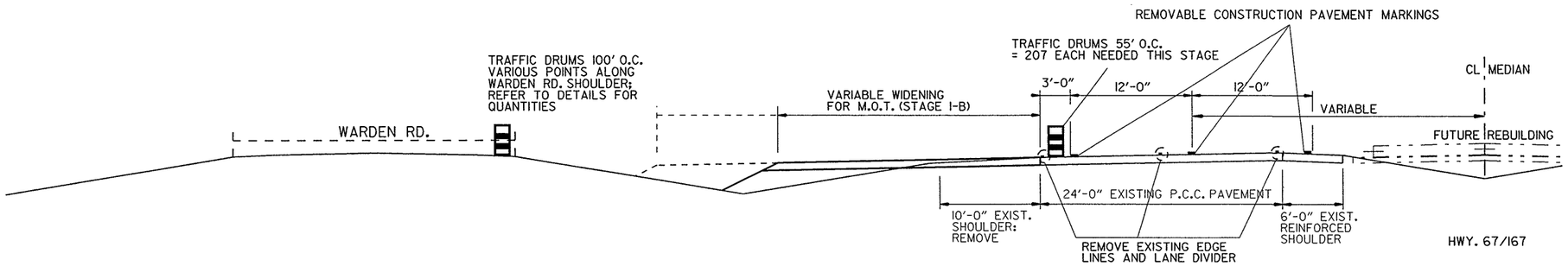
13

06/13/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	121	609

(2) MAINTENANCE OF TRAFFIC

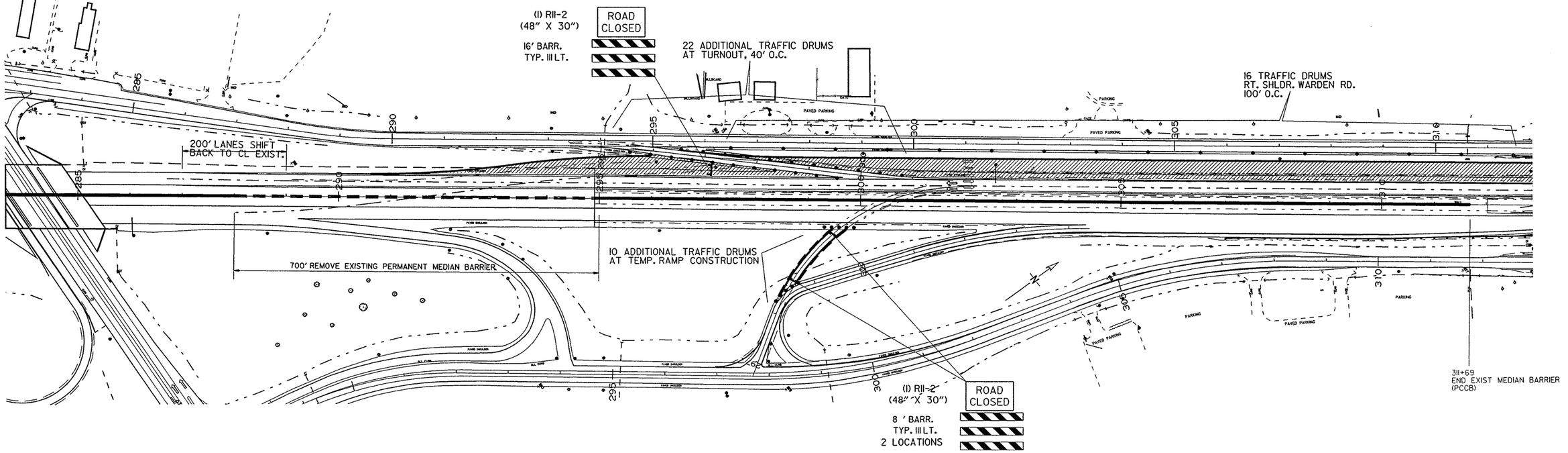
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS



STAGE CONSTRUCTION DETAIL
STA. 290+00 - STA. 414+00

REMOVAL OF PERMANENT PAVEMENT MARKINGS
STA. 287+00 - STA. 421+00 RT. & LT. EDGE LINES + SKIP LANE DIVIDER = 30150 LIN.FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
STA. 287+00 - STA. 421+00 RT. & LT. EDGE LINES + SKIP LANE DIVIDER = 30150 LIN.FT.



▨ INDICATES AREA OF CONSTRUCTION

STAGE 1-B
SHIFT SOUTHBOUND TRAFFIC 3' TOWARD CL CONSTRUCTION.
CONSTRUCT DETOUR BRIDGE AND ADDITIONAL PAVEMENT LEFT
OF SOUTHBOUND LANES.

MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 1-B

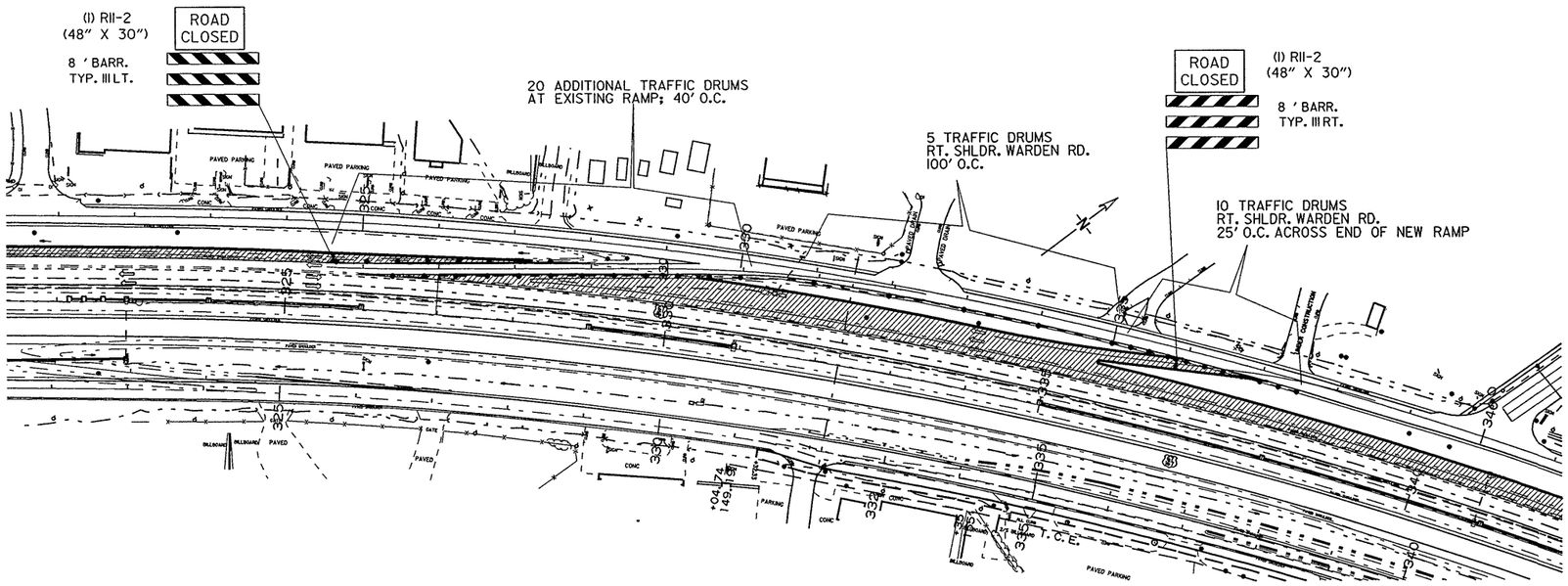
14

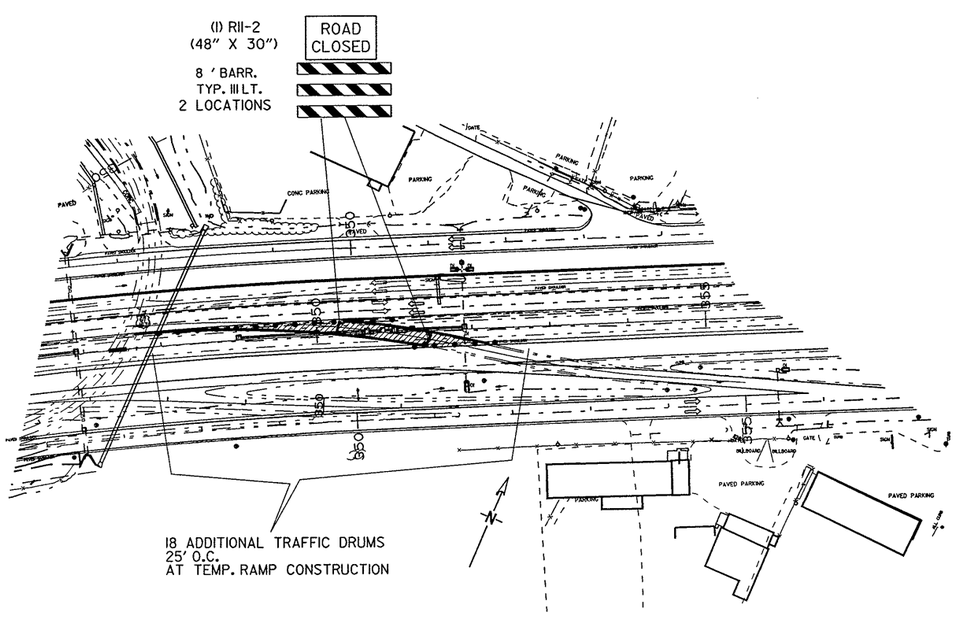
06/13/05 motstudy

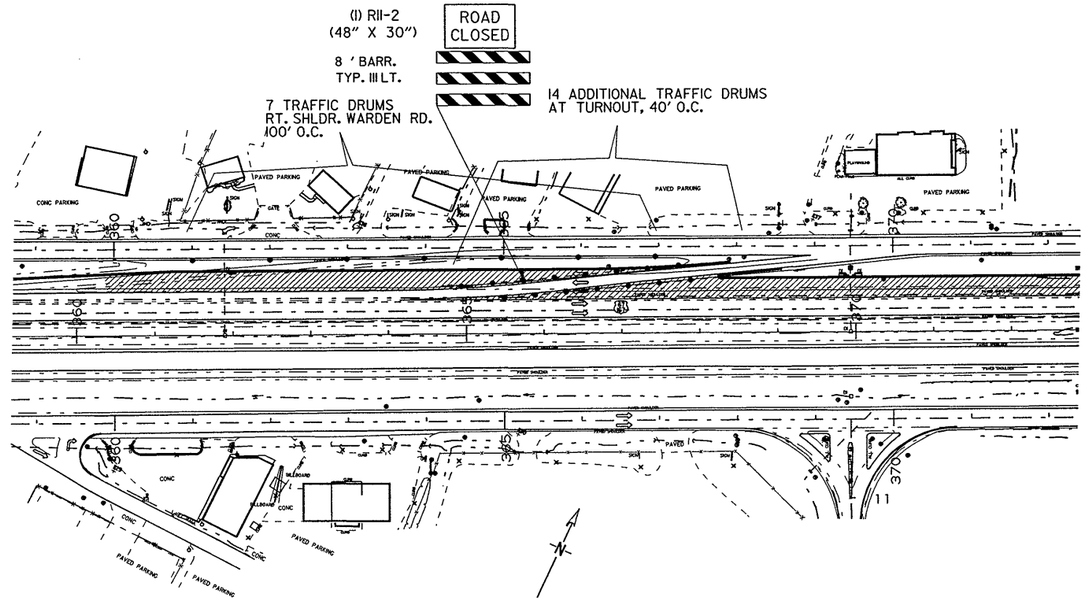
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	122	602

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-05







INDICATES AREA OF CONSTRUCTION

STAGE I-B
SHIFT SOUTHBOUND TRAFFIC 3' TOWARD CL CONSTRUCTION.
CONSTRUCT DETOUR BRIDGE AND ADDITIONAL PAVEMENT LEFT
OF SOUTHBOUND LANES.

MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 1-B

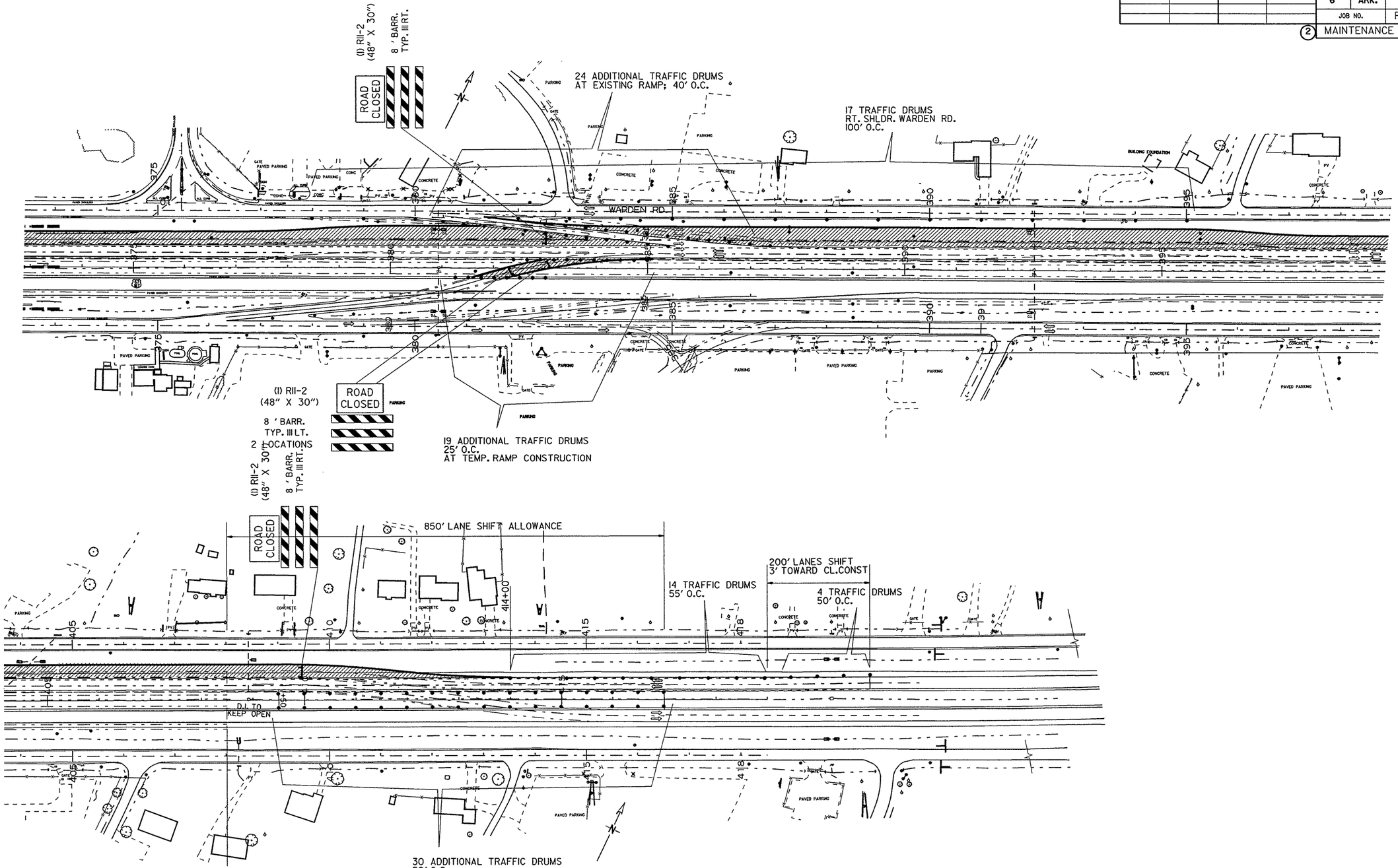
15

06/13/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	123	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
5-21-01
CHARLES D. CLEMENTS



INDICATES AREA OF CONSTRUCTION

STAGE I-B
SHIFT SOUTHBOUND TRAFFIC 3' TOWARD CL CONSTRUCTION.
CONSTRUCT DETOUR BRIDGE AND ADDITIONAL PAVEMENT LEFT OF SOUTHBOUND LANES.

MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 1-B

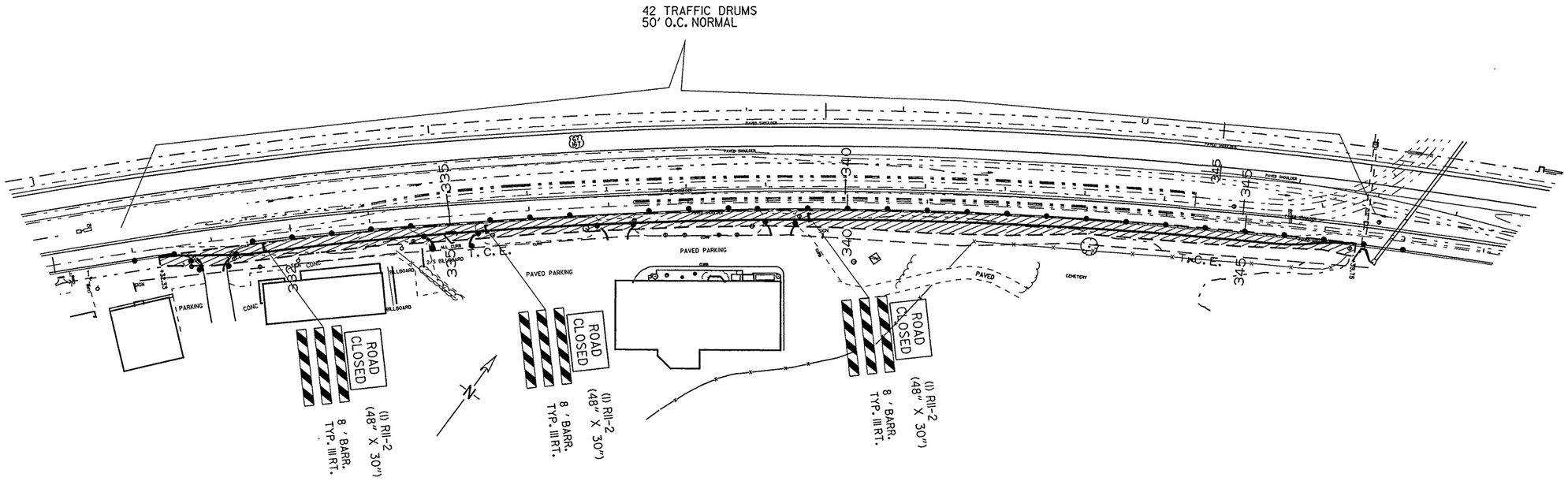
16

06/13/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	124	603

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-05



TEMPORARY WIDENING OF LANDERS
AT BROOKSWOOD FLYOVER AREA

BLUE NOTCH AND WIDEN RT. SIDE OF LANDERS ROAD TO TAKE TRAFFIC DURING OVERPASS CONSTRUCTION.

INDICATES AREA OF CONSTRUCTION

MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 1-B

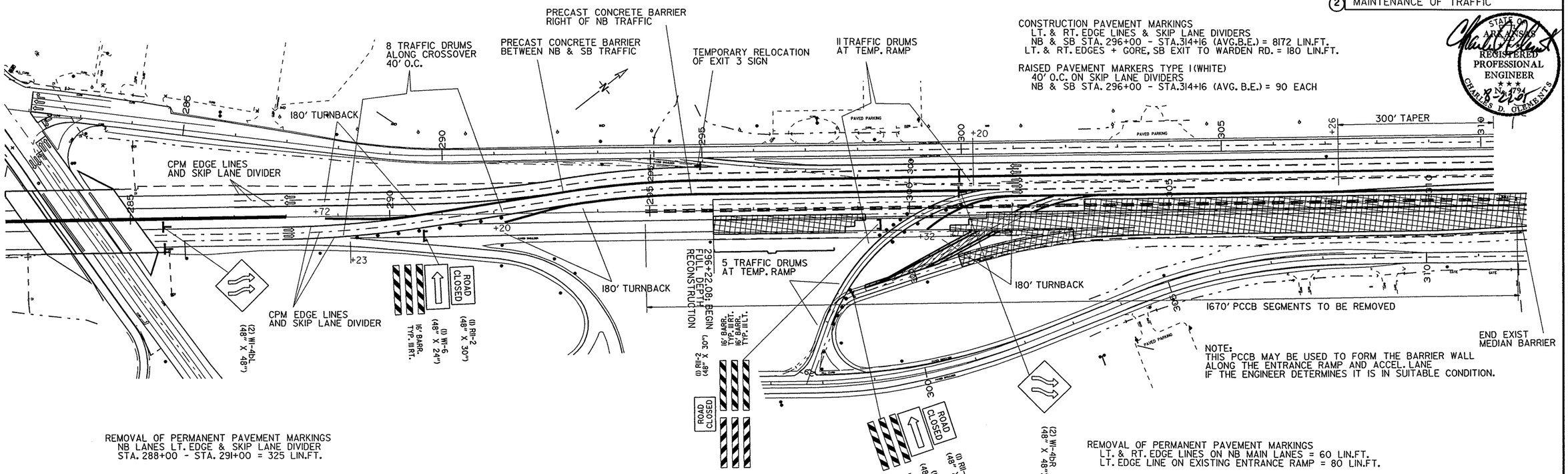
17

06/15/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	125	600

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9794
CHARLES D. CLEMENTS
8-2-05



CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES & SKIP LANE DIVIDERS
NB & SB STA. 296+00 - STA.314+16 (AVG.B.E.) = 8172 LIN.FT.
LT. & RT. EDGES + GORE, SB EXIT TO WARDEN RD. = 180 LIN.FT.

RAISED PAVEMENT MARKERS TYPE I (WHITE)
40' O.C. ON SKIP LANE DIVIDERS
NB & SB STA. 296+00 - STA.314+16 (AVG. B.E.) = 90 EACH

NOTE:
THIS PCCB MAY BE USED TO FORM THE BARRIER WALL ALONG THE ENTRANCE RAMP AND ACCEL. LANE IF THE ENGINEER DETERMINES IT IS IN SUITABLE CONDITION.

REMOVAL OF PERMANENT PAVEMENT MARKINGS
NB LANES LT. EDGE & SKIP LANE DIVIDER
STA. 288+00 - STA. 291+00 = 325 LIN.FT.

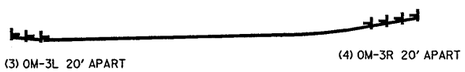
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES & SKIP LANE DIVIDERS
NB STA. 288+00 - STA. 296+00 = 1827 LIN.FT.
SB STA. 287+00 - STA. 296+00 = 2025 LIN.FT.

RAISED PAVEMENT MARKERS TYPE I (WHITE)
40' O.C. ON SKIP LANE DIVIDERS
NB STA. 288+00 - STA. 296+00 = 20 EACH
SB STA. 287+00 - STA. 296+00 = 23 EACH

REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. & RT. EDGE LINES ON NB MAIN LANES = 60 LIN.FT.
LT. EDGE LINE ON EXISTING ENTRANCE RAMP = 80 LIN.FT.

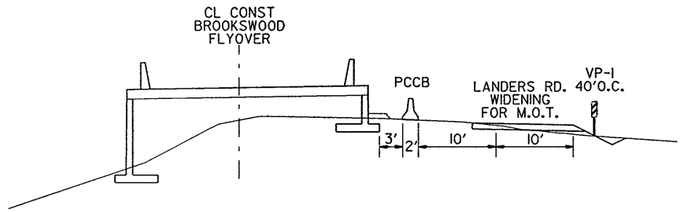
CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES ON ENTRANCE RAMP = 864 LIN.FT.
GORE AND ACCEL.LANE SKIPLINE (8" WHITE) = 220 LIN.FT.

FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER
NOTE THAT PCCB REMOVED STA. 300+00 - STA.311+69 MAY BE USED TO SUPPLY SOME OF THIS, IF THE ENGINEER DETERMINES IT IS IN SUITABLE CONDITION.
STATIONING IS CL MEDIAN OF HWY.67/167 UNLESS OTHERWISE STATED
STA. 292+20 - STA. 300+20 RT. OF NB TRAFFIC = 800 LIN.FT.
STA. 288+72 - STA. 314+12 BETWEEN NB AND SB TRAFFIC = 2540 LIN.FT.
STA. 300+32 - STA. 314+32 RT. OF ENTRANCE RAMP AND NB TRAFFIC = 1400 LIN.FT.
STA. 312+29 - STA. 314+19 TURNBACK AHEAD OF BRIDGE LT. OF NB TRAFFIC = 190 LIN.FT.
STA. 315+60 - STA. 318+60 BEYOND BRIDGE RT OF SB TRAFFIC = 200 LIN.FT.
STA. 315+66 - STA. 415+86 BETWEEN NB & SB TRAFFIC = 10020 LIN.FT.
STA. 315+82 - STA. 352+82 RT. OF NB TRAFFIC AND EXIT RAMP = 3700 LIN.FT.
STA. 350+53 - STA. 352+53 LT. OF EXIT RAMP = 200 LIN.FT.
STA. 300+53 - STA. 382+93 RT OF NB TRAFFIC = 8240 LIN.FT.
STA. 382+00 - STA. 413+00 RT. OF ENTRANCE RAMP & NB TRAFFIC = 3100 LIN.FT.
STA. 379+53 - STA. 382+93 LT. OF ENTRANCE RAMP = 340 LIN.FT.
STA. 335+80 - STA. 346+47 CL LANDERS RD. = 1070 LIN. FT.

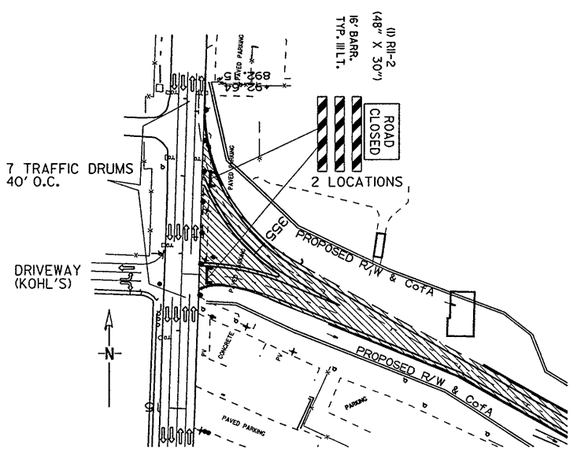


DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
8 OM-3R 4 OM-3L



DETAIL AT FLYOVER CONSTRUCTION ALONG LANDERS RD.



DETAIL AT FLYOVER CONNECTION TO BROOKSWOOD DRIVE

INDICATES AREAS OF CONSTRUCTION

MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 2-A

18

08/16/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	126	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS — CHARLES D. CLEMENTS — REGISTERED PROFESSIONAL ENGINEER — 12347

REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. & RT. EDGE LINES, NORMALLY SB LANES BRIDGE
OVER WOODRUFF CREEK = 296 LIN.FT.

REMOVAL OF PERMANENT PAVEMENT MARKINGS
GORE STRIPING FOR OLD ENTRANCE RAMP SB = 100 LIN.FT.

CONSTRUCTION PAVEMENT MARKINGS
EDGE LINES AND GORE STRIPING, SB ENTRANCE RAMP
AND ACCEL LANE = 560 LIN.FT.

PRECAST CONCRETE BARRIER
BETWEEN NB & SB TRAFFIC

PRECAST CONCRETE BARRIER
RIGHT OF NB TRAFFIC

(1) RII-2 (48" X 30")
16' BARR. TYP. III RT.

(2) WI-4DR (48" X 48")

288' REVERSE CURVE

275' REVERSE CURVE

300' TAPER

200'

18 TRAFFIC DRUMS
25' O.C.
BLOCKING RAMP NOT USED

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

ROAD CLOSED

(1) WI-6 (48" X 24")
16' BARR. TYP. III LT.

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

(16" X 60" X 60")
(1) RI-2

YIELD

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

TEMPORARY RELOCATION
OF ENTRANCE SIGN

12" STOP BAR

7 TRAFFIC DRUMS
50' O.C.
LT. SHLDR. LANDERS RD.

REDUCED SPEED AHEAD

21 TRAFFIC DRUMS
50' O.C.
LT. SHLDR. LANDERS RD.

SPEED LIMIT 40

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

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

7 TRAFFIC DRUMS
25' O.C.
LT. SHLDR. LANDERS RD. DETOUR

120' TURNBACK

CPM DBL. YELLOW CENTERLINE

CPM LT. & RT. EDGE LINES

7 TRAFFIC DRUMS
50' O.C.
LT. SHLDR. LANDERS RD. DETOUR

PRECAST CONCRETE BARRIER
LT. SHLDR. LANDERS DETOUR
AT RETAINING WALL FOOTINGS

17 VERTICAL
PANELS
40' O.C.
NORMAL

(1) R2-5A (48" X 60")

(3) OM-3L 20' APART

(4) OM-3R 20' APART

DETAIL OF OBJECT MARKERS ON
TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
7 OM-3R 7 OM-3L

CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES & DBL. CENTERLINE ON LANDERS DETOUR
STA. 331+32.33 - STA. 346+38.75 LANDERS RD. = 6026 LIN.FT.
LT. & RT. EDGE LINES & SKIP LANE DIVIDERS ON MAIN LANES
BOTH DIRECTIONS STA. 314+16 = STA. 370+00 = 25128 LIN.FT.

RAISED PAVEMENT MARKERS
TYPE I (WHITE) 40' O.C. ON SKIP LANE DIVIDERS = 280 EACH

REMOVAL OF PERMANENT PAVEMENT MARKINGS
RT. EDGE LINE & CENTERLINE MARKINGS
STA. 331+32.33 - STA. 346+38.75 LANDERS RD. = 4520 LIN.FT.

PRECAST CONCRETE BARRIER
BETWEEN NB & SB TRAFFIC

PRECAST CONCRETE BARRIER
RIGHT OF NB TRAFFIC

(1) RII-2 (48" X 30")
16' BARR. TYP. III LT.

(1) RII-2 (48" X 30")
16' BARR. TYP. III RT.

7 TRAFFIC
DRUMS
25' O.C.

TEMP. IMPACT
ATTENUATION
BARRIER

40'
TURN-
BACK

(1) WI-6 (48" X 24")

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

ROAD CLOSED

300' TAPER

(2) WI-4DL (48" X 48")

(6") WI-8 (18" X 24")

TEMPORARY
RELOCATION
OF EXIT 5 SIGN

40'
TURN-
BACK

19 TRAFFIC DRUMS
40' O.C.
LT. SHLDR.
LANDERS RD.

5 TRAFFIC DRUMS
25' O.C.

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

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

28 TRAFFIC DRUMS
50' O.C.
LT. SHLDR.
LANDERS RD.

REDUCED SPEED AHEAD

(1) R2-5A (48" X 60")

(2) WI-4DL (48" X 48")

CPM DBL. YELLOW CENTERLINE

CPM LT. & RT. EDGE LINES

14 VERTICAL
PANELS
40' O.C.

PRECAST CONCRETE BARRIER
LT. SHLDR. LANDERS DETOUR
AT RETAINING WALL FOOTINGS

CONSTRUCTION PAVEMENT MARKINGS
EDGE LINES AND GORE STRIPING,
TEMPORARY NB EXIT RAMP = 1790 LIN.FT.

REMOVAL OF PERMANENT PAVEMENT MARKINGS
INSIDE EDGE LINE NB LANES WHERE TEMP RAMP CROSSES OVER = 91 LIN.FT.

SPEED LIMIT 40

INDICATES AREA OF CONSTRUCTION

MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 2-A

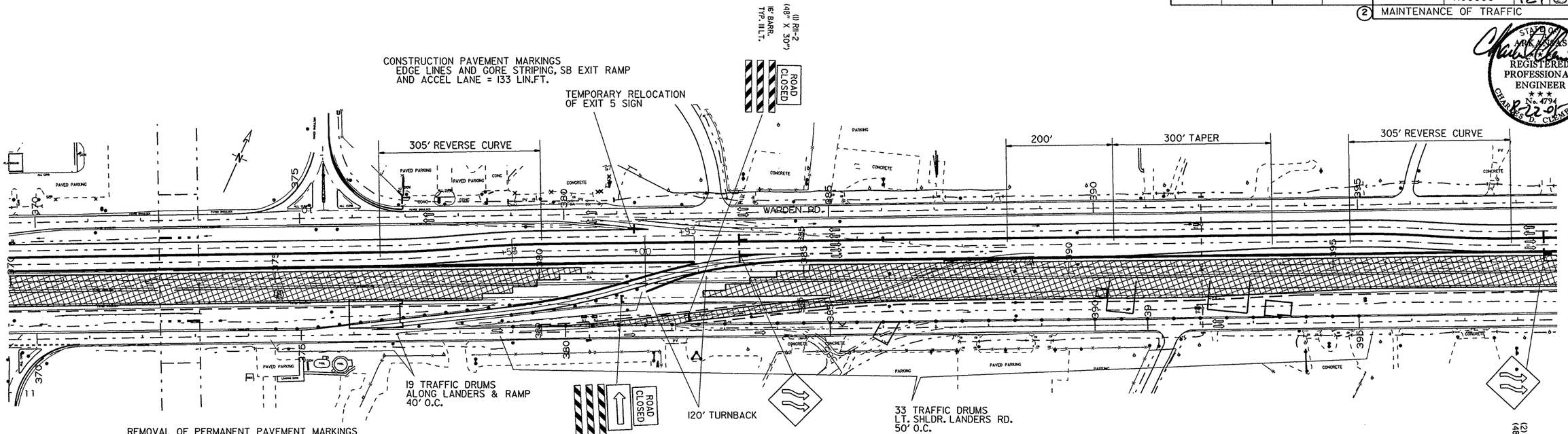
19

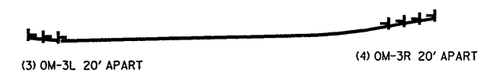
07/26/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	127	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-22-05
CHARLES D. CLEMENTS





DETAIL OF OBJECT MARKERS ON
TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
8 OM-3R 7 OM-3L

INDICATES AREA OF CONSTRUCTION

MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 2-A

08/15/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	128	60

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
3-22-05

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES AT ELBOW CURVE OF TEMP RAMP = 140 LIN.FT.
INSIDE EDGE LINE NB LANES = 123 LIN.FT.

RETAIN PRECAST CONCRETE BARRIER
BETWEEN NB & SB TRAFFIC,
AND RT. OF NB TRAFFIC

8 TRAFFIC DRUMS
ALONG CROSSOVER
40' O.C.

RETAIN RELOCATED
EXIT SIGN

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. & RT .EDGE LINES ALONG RELOCATED TEMP. RAMP = 1700 LIN.FT.
GORE FOR RELOCATED TEMP. RAMP = 120 LIN.FT.

12 TRAFFIC DRUMS
30' O.C. ALONG TEMP RAMP

REMOVE CPM
INSIDE EDGE LINE

300' TAPER

5 TRAFFIC DRUMS
AT TEMP. RAMP

296+22.08; BEGIN
FULL DEPTH
RECONSTRUCTION

180' TURNBACK

REMOVE PPM
LT EDGE LINE

REM CPM
LT & RT
EDGES

(2) W1-4DL
(48" X 48")

(1) R11-2
(48" X 30")

(1) W1-6
(48" X 24")

16' BARR.
TYP. III RT.

ROAD
CLOSED

(3) OM-3L 20' APART

(4) OM-3R 20' APART

DETAIL OF OBJECT MARKERS ON
TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
8 OM-3R 12 OM-3L

INDICATES AREAS OF CONSTRUCTION

REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. EDGE LINE EXISTING RAMP AT TEMP. TURNOFF = 123 LIN.FT.

RELOCATING PRECAST CONCRETE BARRIER:
TURNBACK RT. OF TEMP RAMP = 180 LIN.FT.
STRAIGHT RUN SHIFTED ACROSS ACCEL LANE = 200 LIN.FT.

FURNISHING & INSTALLING PRECAST CONC. BARRIER
LT. OF TEMP RAMP = 340 LIN.FT.

NOTE:
BROOKSWOOD FLYOVER WILL NOT OPEN TO TRAFFIC
UNTIL LNADERS RD. IS CONVERTED TO ONE-WAY OPERATION.

RETAIN PRECAST CONCRETE BARRIER
BETWEEN NB & SB TRAFFIC,
AND RT. OF NB TRAFFIC

288' REVERSE CURVE

275' REVERSE CURVE

300' TAPER

200'

18 TRAFFIC DRUMS
25' O.C.
BLOCKING RAMP NOT USED

(1) R11-2
(48" X 30")

8' BARR.
TYP. III RT.

(1) W1-4DR
(48" X 48")

RETAIN RELOCATED
ENTRANCE SIGN

17 VERTICAL
PANELS
40' O.C.
NORMAL

7 TRAFFIC DRUMS
50' O.C.
LT. SHLDR. LANDERS RD.

REDUCED
SPEED
AHEAD

(1) R2-5A
(48" X 60")

21 TRAFFIC DRUMS
50' O.C.
LT. SHLDR. LANDERS RD.

SPEED
LIMIT
40

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

(1) W1-4DR
(48" X 48")

7 TRAFFIC DRUMS
25' O.C.
LT. SHLDR. LANDERS RD. DETOUR

7 TRAFFIC DRUMS
50' O.C.
LT. SHLDR. LANDERS RD. DETOUR

120' TURNBACK

RETAIN PRECAST CONCRETE BARRIER
LT. SHLDR. LANDERS DETOUR
AT RETAINING WALL FOOTINGS

STAGE 2-B:
SHIFT RAMP TRAFFIC
RECONSTRUCT REMAINDER OF NORTHBOUND LANES

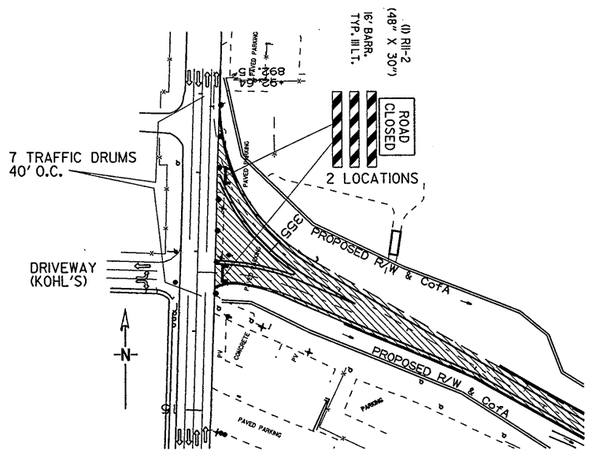
07/26/05 motstudy

MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 2-B

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	129	603

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
8-22-05



DETAIL AT FLYOVER CONNECTION TO BROOKSWOOD DRIVE

DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
4 OM-3R 3 OM-3L

STAGE 2-B:
SHIFT RAMP TRAFFIC
RECONSTRUCT REMAINDER OF NORTHBOUND LANES

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
RT. EDGE LINE NB TRAFFIC STA. 352+32 - STA. 355+10 = 278 LIN.FT.

RETAIN PRECAST CONCRETE BARRIER BETWEEN NB & SB TRAFFIC, AND RT. OF NB TRAFFIC

7 TRAFFIC DRUMS 25' O.C.

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

REMOVE CPM RT. EDGE LINE

TEMP. IMPACT ATTENUATION BARRIER

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

(1) WI-9 (48" X 24") ROAD CLOSED
16' BARR. TYP. III LT.
(1) RII-2 (48" X 30")

300' TAPER

RETAIN PRECAST CONCRETE BARRIER BETWEEN NB & SB TRAFFIC, AND RT. OF NB TRAFFIC

(2) WI-4DL (48" X 48")

REM PPM EDGE LINE

(6) WI-8 (18" X 24")

19 TRAFFIC DRUMS 40' O.C. LT. SHLDR. LANDERS RD.

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

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

40' TURN BACK

TEMPORARY RELOCATION OF EXIT 5 SIGN

17 TRAFFIC DRUMS 50' O.C. LT. SHLDR. LANDERS RD.
15 TRAFFIC DRUMS 50' O.C. LT. OF TEMPORARY RAMP

(1) R2-1 (69" X 69" X 69")
YIELD

(1) R2-5A (48" X 60")
REDUCED SPEED AHEAD

(2) R2-1 (.69 X .69 X .69)
YIELD

14 VERTICAL PANELS 40' O.C.

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

INDICATES AREAS OF CONSTRUCTION

RELOCATING PRECAST CONCRETE BARRIER
AT RELOCATION OF TEMPORARY RAMP
ALONG RT. SIDE NB TRAFFIC = 250 LIN.FT.
AT RT. OF EXIT RAMP = 390 LIN.FT.

REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. EDGE LINE LANDERS RD. STA. 362+70 - STA. 364+00 = 130 LIN.FT.
STOP BARS AT PREVIOUS LOCATION OF EXIT RAMP = 22 LIN.FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT & RT. EDGE LINES TEMPORARY RAMP = 2065 LIN.FT.

CONSTRUCTION PAVEMENT MARKINGS
LT.EDGE LINE LANDERS RD. STA. 354+24 - STA. 357+44 = 320 LIN.FT.
STOP BARS AT TEMPORARY LOCATION OF EXIT RAMP = 22 LIN.FT.

MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 2-B

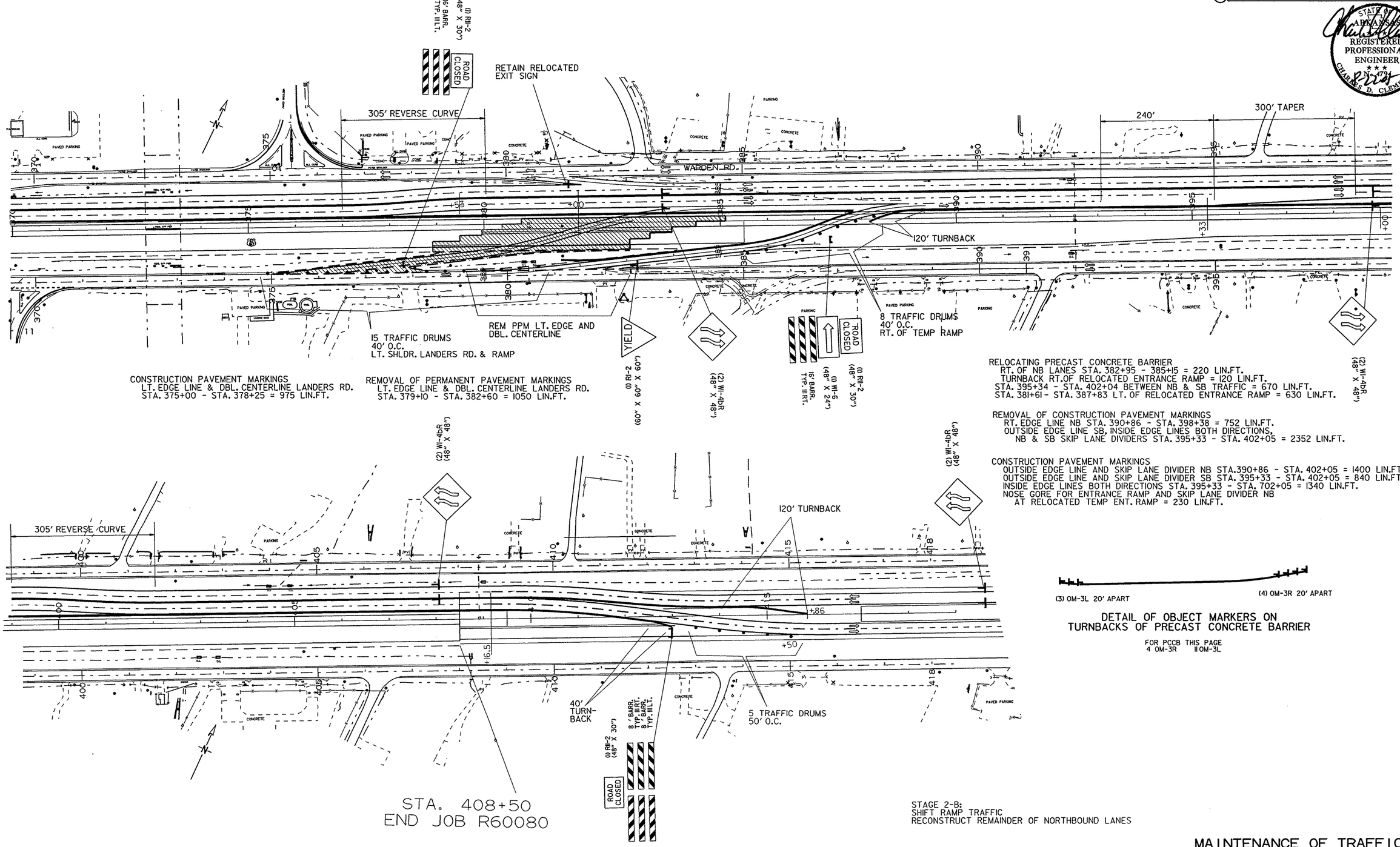
22

07/26/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	130	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11791
CHARLES D. CLEMENTS



CONSTRUCTION PAVEMENT MARKINGS
LT. EDGE LINE & DBL. CENTERLINE LANDERS RD.
STA. 375+00 - STA. 378+25 = 975 LIN.FT.

REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. EDGE LINE & DBL. CENTERLINE LANDERS RD.
STA. 379+10 - STA. 382+60 = 1050 LIN.FT.

RELOCATING PRECAST CONCRETE BARRIER
RT. OF NB LANES STA. 382+95 - 385+15 = 220 LIN.FT.
TURNBACK RT.OF RELOCATED ENTRANCE RAMP = 120 LIN.FT.
STA. 395+34 - STA. 402+04 BETWEEN NB & SB TRAFFIC = 670 LIN.FT.
STA. 381+61 - STA. 387+83 LT. OF RELOCATED ENTRANCE RAMP = 630 LIN.FT.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
RT. EDGE LINE NB STA. 390+86 - STA. 398+38 = 752 LIN.FT.
OUTSIDE EDGE LINE SB, INSIDE EDGE LINES BOTH DIRECTIONS,
NB & SB SKIP LANE DIVIDERS STA. 395+33 - STA. 402+05 = 2352 LIN.FT.

CONSTRUCTION PAVEMENT MARKINGS
OUTSIDE EDGE LINE AND SKIP LANE DIVIDER NB STA.390+86 - STA. 402+05 = 1400 LIN.FT.
OUTSIDE EDGE LINE AND SKIP LANE DIVIDER SB STA. 395+33 - STA. 402+05 = 840 LIN.FT.
INSIDE EDGE LINES BOTH DIRECTIONS STA. 395+33 - STA. 702+05 = 1340 LIN.FT.
NOSE GORE FOR ENTRANCE RAMP AND SKIP LANE DIVIDER NB
AT RELOCATED TEMP ENT. RAMP = 230 LIN.FT.

DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
4 OM-3R 11 OM-3L

STAGE 2-B:
SHIFT RAMP TRAFFIC
RECONSTRUCT REMAINDER OF NORTHBOUND LANES

INDICATES AREA OF CONSTRUCTION

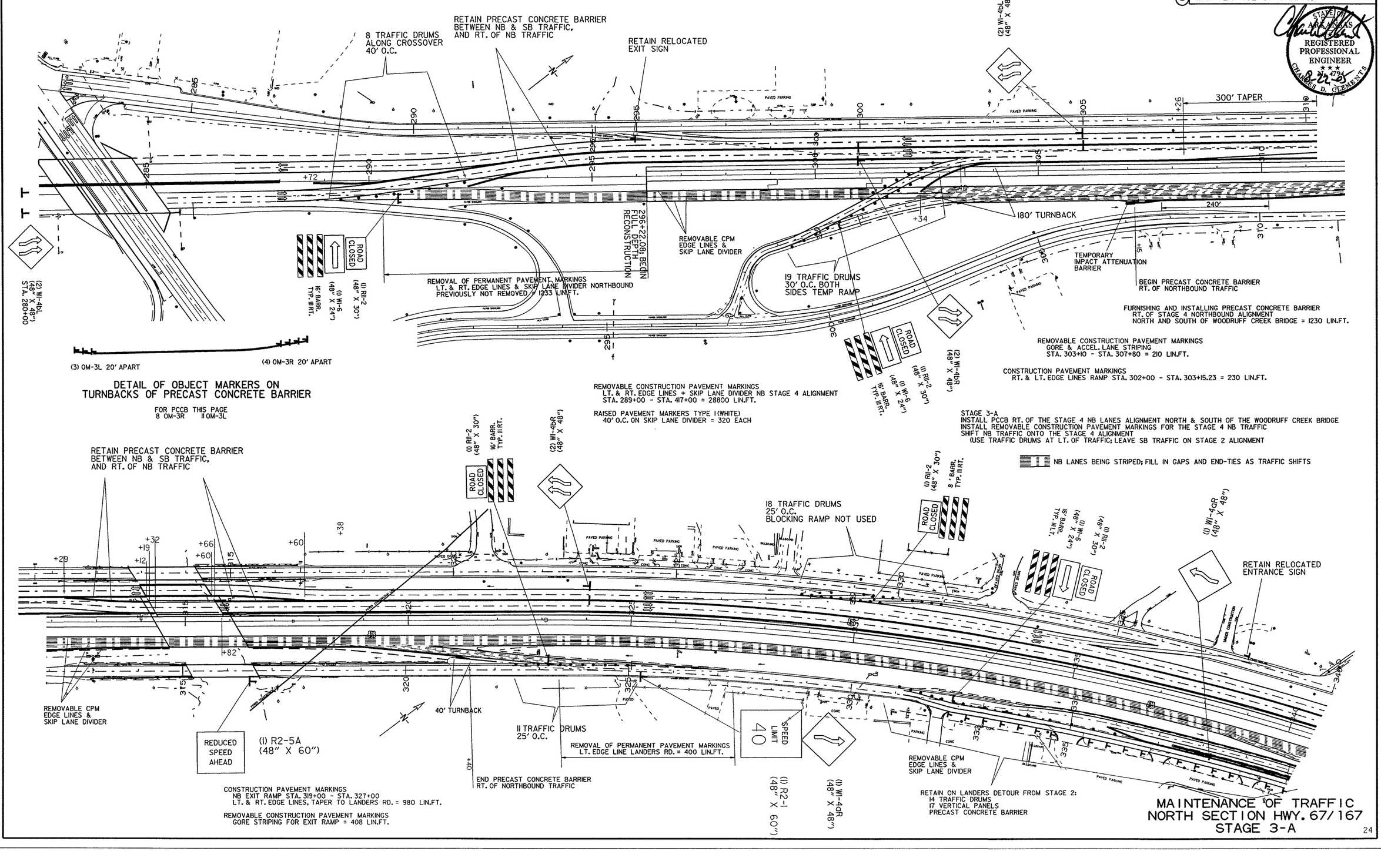
MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 2-B

08/15/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	131	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
8-22-05

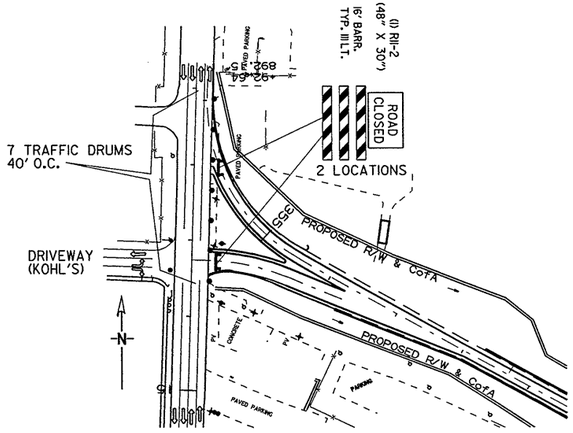


08/15/05 motstudy

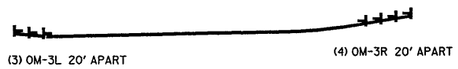
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	132	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS

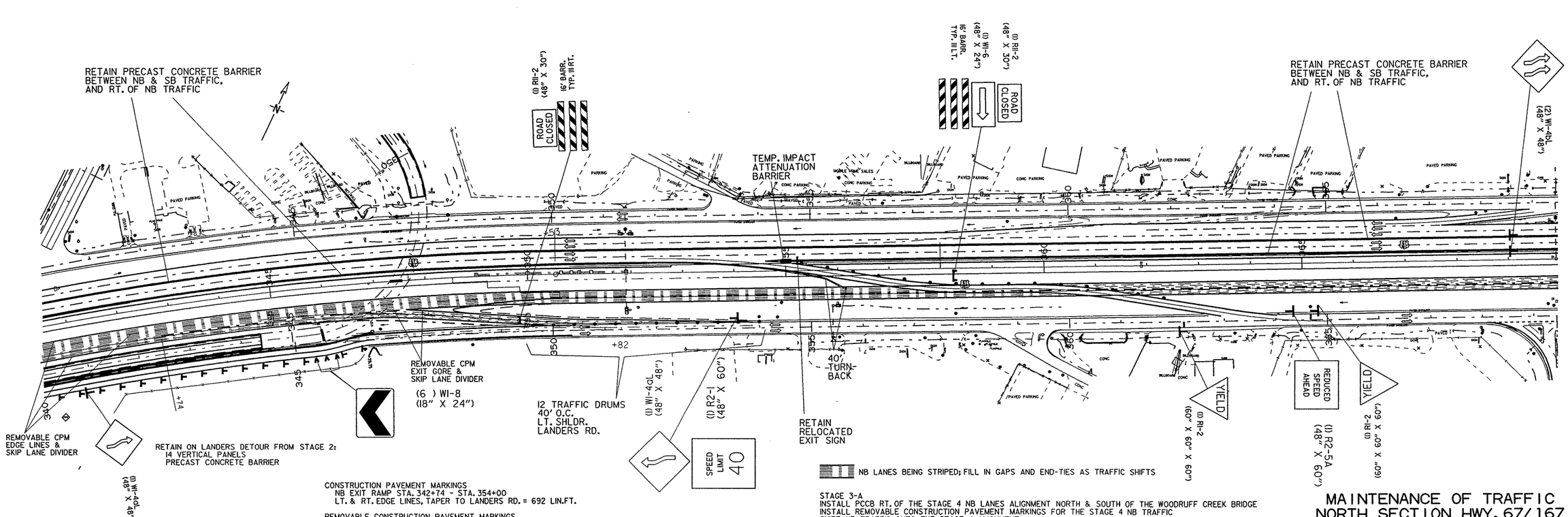


DETAIL AT FLYOVER CONNECTION TO BROOKSWOOD DRIVE



DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
4 OM-3R 3 OM-3L



NB LANES BEING STRIPED; FILL IN GAPS AND END-TIES AS TRAFFIC SHIFTS

CONSTRUCTION PAVEMENT MARKINGS
NB EXIT RAMP STA. 342+74 - STA. 354+00
LT. & RT. EDGE LINES, TAPER TO LANDERS RD. = 692 LIN.FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
GORE STRIPING FOR EXIT RAMP = 420 LIN.FT.

STAGE 3-A
INSTALL PCCB RT. OF THE STAGE 4 NB LANES ALIGNMENT NORTH & SOUTH OF THE WOODRUFF CREEK BRIDGE
INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS FOR THE STAGE 4 NB TRAFFIC
SHIFT NB TRAFFIC ONTO THE STAGE 4 ALIGNMENT
(USE TRAFFIC DRUMS AT LT. OF TRAFFIC; LEAVE SB TRAFFIC ON STAGE 2 ALIGNMENT

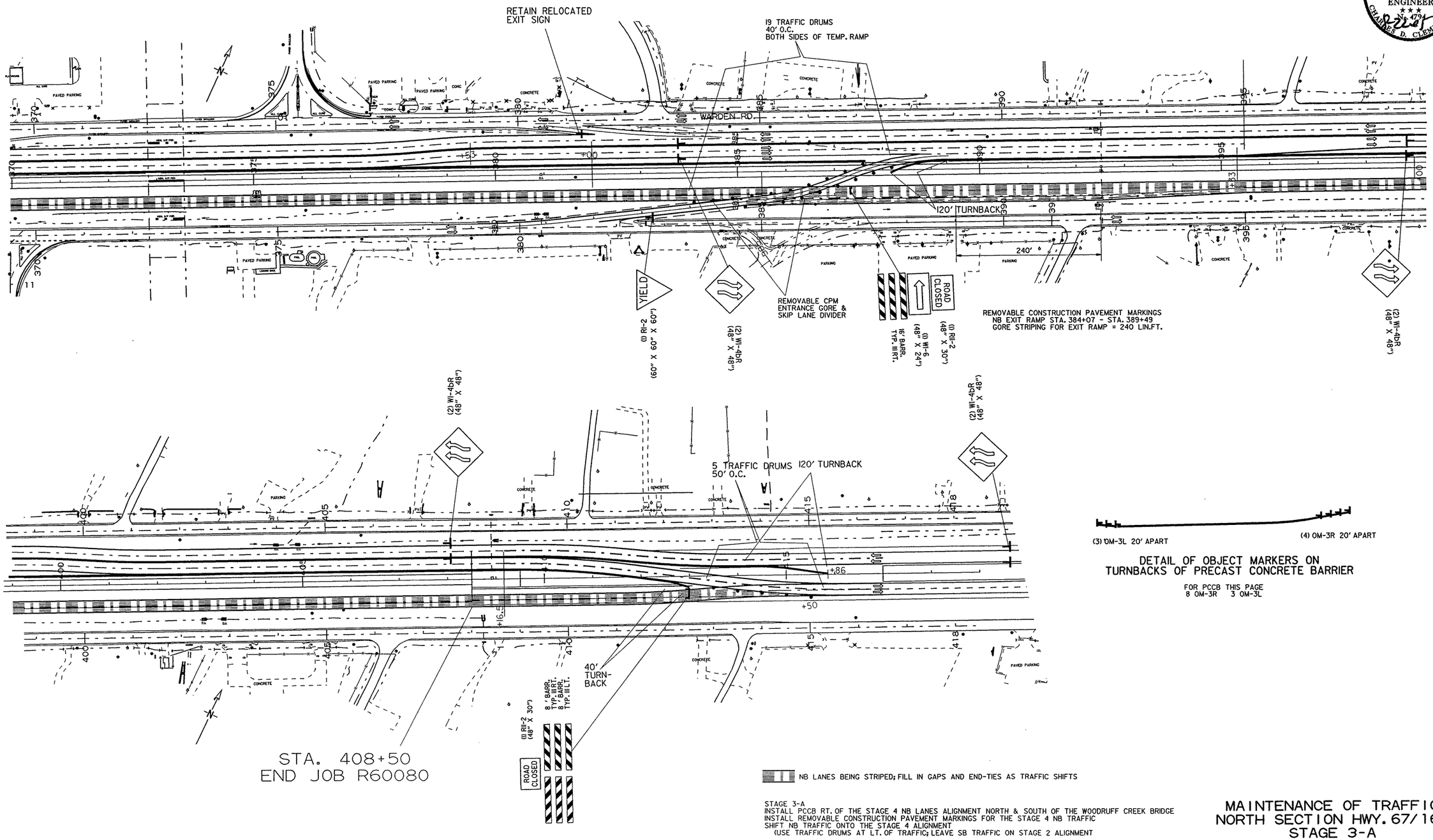
MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 3-A

007/27/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	133	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4791
CHARLES D. CLEMENTS



DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
8 OM-3R 3 OM-3L

NB LANES BEING STRIPED; FILL IN GAPS AND END-TIES AS TRAFFIC SHIFTS

STAGE 3-A
INSTALL PCCB RT. OF THE STAGE 4 NB LANES ALIGNMENT NORTH & SOUTH OF THE WOODRUFF CREEK BRIDGE
INSTALL REMOVABLE CONSTRUCTION PAVEMENT MARKINGS FOR THE STAGE 4 NB TRAFFIC
SHIFT NB TRAFFIC ONTO THE STAGE 4 ALIGNMENT
(USE TRAFFIC DRUMS AT LT. OF TRAFFIC; LEAVE SB TRAFFIC ON STAGE 2 ALIGNMENT

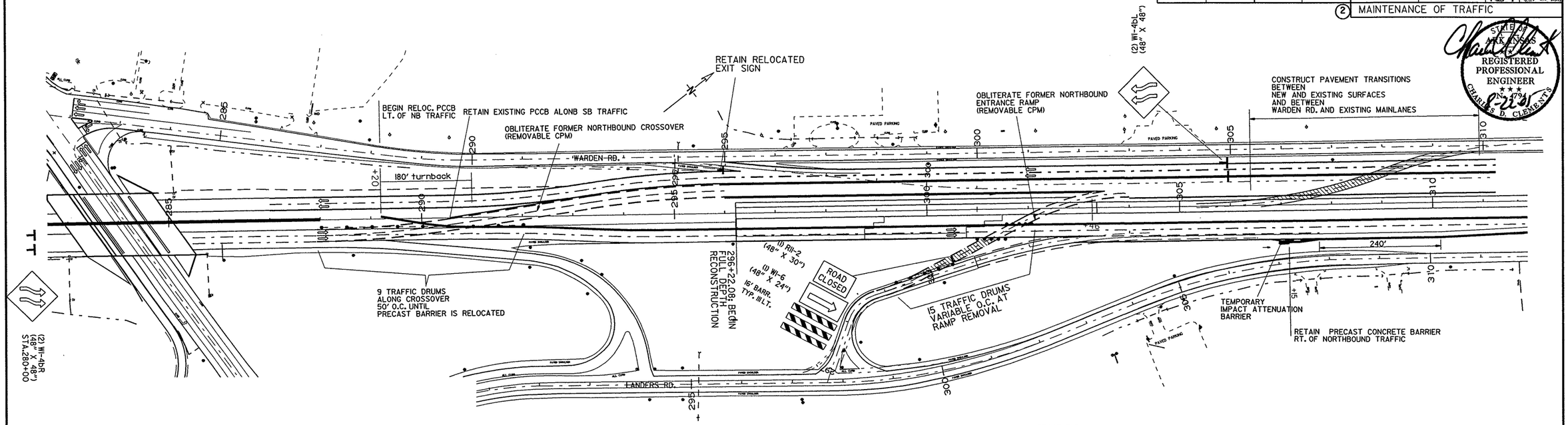
MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 3-A

007/27/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	124	602

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
7-22-05



(3) OM-3L 20' APART

(4) OM-3R 20' APART

DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

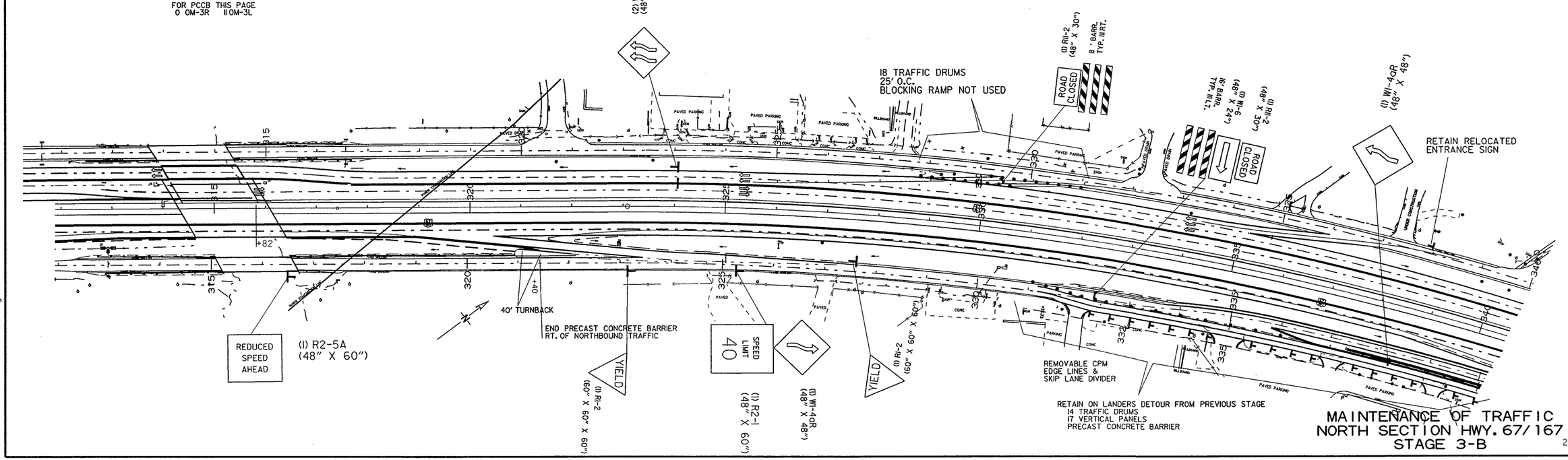
FOR PCCB THIS PAGE
0 OM-3R 11 OM-3L

RELOCATING PRECAST CONCRETE BARRIER
STA. 289+20 - STA. 413+90 LT. OF STAGE 4 ALIGNMENT = 12470 LIN.FT.

TRAFFIC DRUMS 100' O.C.
LEFT OF NORTHBOUND TRAFFIC
BEFORE PCCB RELOCATION
STA. 287+00 - STA. 417+00 = 131 EACH

STAGE 3-B
CONSTRUCT TRANSITIONS FOR STAGE 4 SB RAMPS BETWEEN NEW AND EXISTING PAVEMENT ELEVATIONS
WORKING AT NIGHT, CLOSE INNER LANES OF NB & SB TRAFFIC AND SHIFT PCCB FOR BETWEEN-DIRECTIONS
WORKING AT NIGHT, CLOSE OUTER LANE OF SB TRAFFIC AND COMPLETE THE CONNECTION FOR THE SB ENTRANCE RAMP FROM WARDEN RD. STA. 310

WORK AREAS



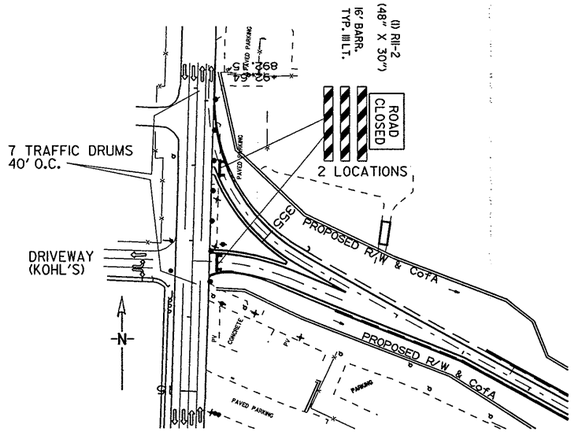
07/28/05 mststudy

MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 3-B

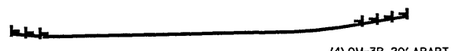
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	135	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
8-22-05

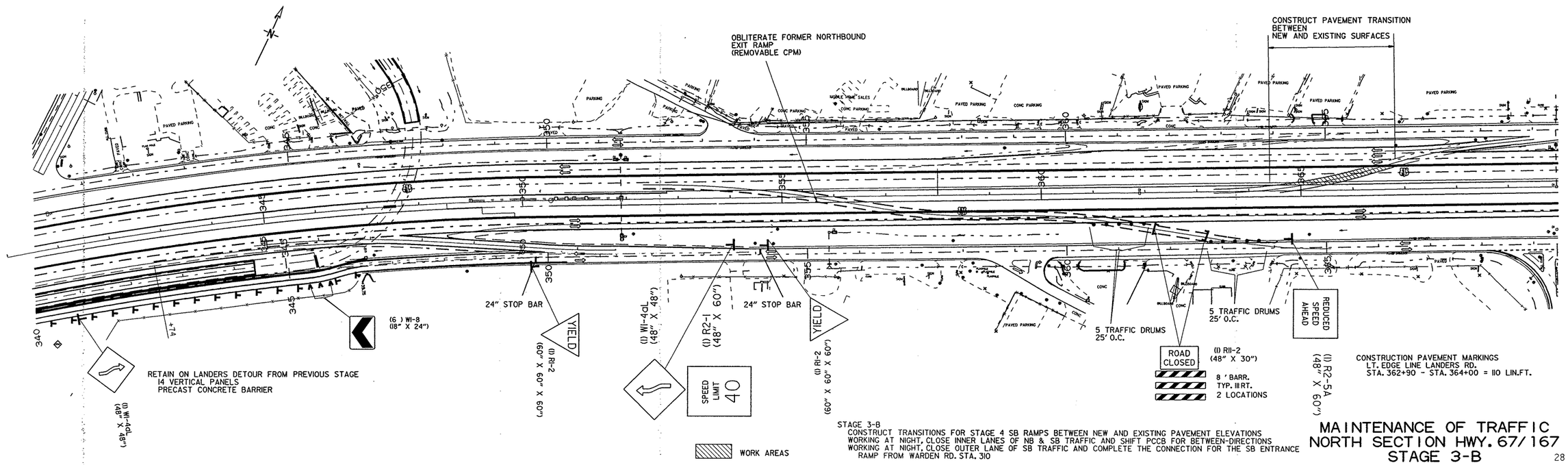


DETAIL AT FLYOVER CONNECTION TO BROOKSWOOD DRIVE



DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
4 OM-3R 0 OM-3L



STAGE 3-B
CONSTRUCT TRANSITIONS FOR STAGE 4 SB RAMPS BETWEEN NEW AND EXISTING PAVEMENT ELEVATIONS
WORKING AT NIGHT, CLOSE INNER LANES OF NB & SB TRAFFIC AND SHIFT PCCB FOR BETWEEN-DIRECTIONS
WORKING AT NIGHT, CLOSE OUTER LANE OF SB TRAFFIC AND COMPLETE THE CONNECTION FOR THE SB ENTRANCE RAMP FROM WARDEN RD. STA. 310

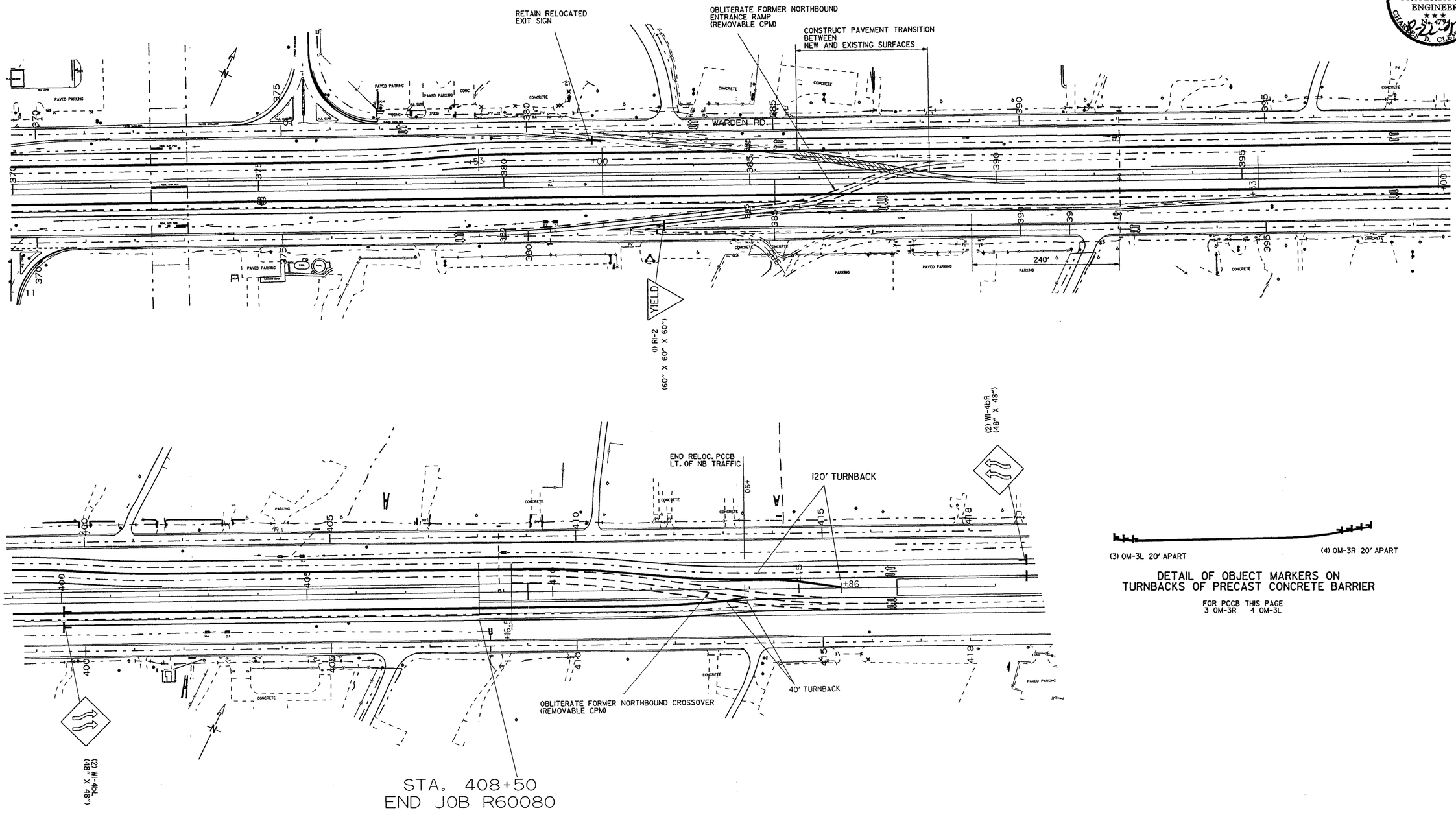
MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 3-B

07/28/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	136	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-05



DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
3 OM-3R 4 OM-3L

WORK AREAS

STAGE 3-B
CONSTRUCT TRANSITIONS FOR STAGE 4 SB RAMPS BETWEEN NEW AND EXISTING PAVEMENT ELEVATIONS
WORKING AT NIGHT, CLOSE INNER LANES OF NB & SB TRAFFIC AND SHIFT PCCB FOR BETWEEN-DIRECTIONS
WORKING AT NIGHT, CLOSE OUTER LANE OF SB TRAFFIC AND COMPLETE THE CONNECTION FOR THE SB ENTRANCE RAMP FROM WARDEN RD. STA. 310

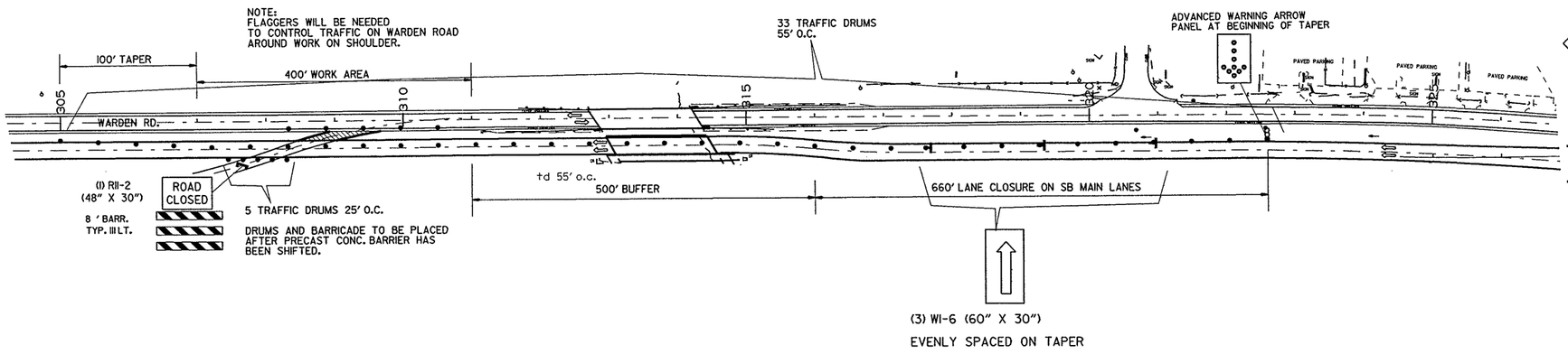
MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 3-B

07/28/05 motstudy

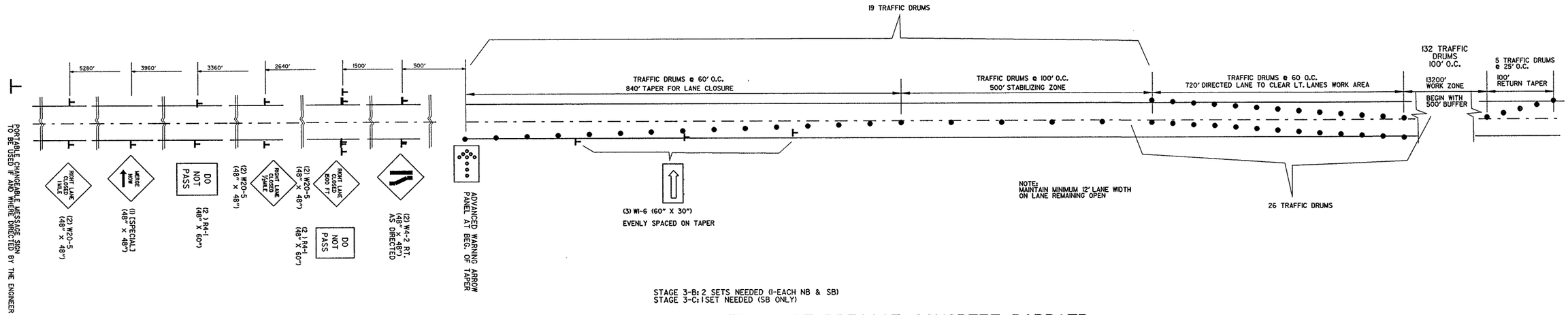
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	137	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4794 CHARLES D. CLEMENTS 8-22-05



SHORT-TERM LANE CLOSURE ON SB LANES AND WARDEN



STAGE 3-B: 2 SETS NEEDED (1-EACH NB & SB)
STAGE 3-C: 1 SET NEEDED (SB ONLY)

LANE CLOSURE FOR SHIFTING OF PRECAST CONCRETE BARRIER

WORK AREAS

STAGE 3-B
CONSTRUCT TRANSITIONS FOR STAGE 4 SB RAMPS BETWEEN NEW AND EXISTING PAVEMENT ELEVATIONS
WORKING AT NIGHT, CLOSE INNER LANES OF NB & SB TRAFFIC AND SHIFT PCCB FOR BETWEEN-DIRECTIONS
WORKING AT NIGHT, CLOSE OUTER LANE OF SB TRAFFIC AND COMPLETE THE CONNECTION FOR THE SB ENTRANCE RAMP FROM WARDEN RD. STA. 310

MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 3-B

08/15/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	138	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-2-05

SB ENTRANCE RAMP STA. 306+80 - STA. 311+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
GORE, AND ACCEL LANE SKIP LANE DIVIDER + RAMP ON NEW CONCRETE = 414 LIN.FT.

CONSTRUCTION PAVEMENT MARKINGS
LT.& RT.EDGE LINES, RAMP ON EXISTING PAVEMENT = 700 LIN.FT.

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

(2) WI-4bR (48" X 48")

BEGIN PRECAST CONCRETE BARRIER LT. OFSOUTHBOUND TRAFFIC

9 TRAFFIC DRUMS 40' O.C.

6 TRAFFIC DRUMS 20' O.C.

40' TURNBACK

REMOVAL OF PERMANENT PAVEMENT MARKINGS LT. EDGE LINE WARDEN RD. = 100 LIN.FT.

TEMPORARY RELOCATION OF ENTRANCE SIGN

180' TURNBACK

120' TURNBACK

WARDEN RD.

300'

240'

40' TURNBACK

9 TRAFFIC DRUMS 40' O.C.

RETAIN PRECAST CONCRETE BARRIER BETWEEN NORTHBOUND AND SOUTHBOUND TRAFFIC

(2) WI-4bR (48" X 48") STA.280+00

TEMPORARY IMPACT ATTENUATION BARRIER

BEGIN PRECAST CONCRETE BARRIER RT. OF NORTHBOUND TRAFFIC

LANDERS RD.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES + SKIP LANE DIVIDER SB STAGE 4 ALIGNMENT
STA. 289+00 - STA. 417+00 = 28800 LIN.FT.

RAISED PAVEMENT MARKERS TYPE I (WHITE)
40' O.C. ON SKIP LANE DIVIDER = 320 EACH

(3) OM-3L 20' APART

(4) OM-3R 20' APART

DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
7 OM-3R 14 OM-3L

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

ROAD CLOSED

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

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

ROAD CLOSED

17 TRAFFIC DRUMS 50' O.C.

7 TRAFFIC DRUMS 25' O.C.

23 VERTICAL PANELS 40' O.C. NORMAL

REDUCED SPEED AHEAD

(1) R2-5A (48" X 60")

TEMPORARY RELOCATION OF EXIT SIGN

40' TURNBACK

END PRECAST CONCRETE BARRIER RT. OF NORTHBOUND TRAFFIC

YIELD (1) R1-2 (60" X 60" X 60")

SPEED LIMIT 40 (1) R2-1 (48" X 60")

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

YIELD (1) R1-2 (60" X 60")

(1) RII-2 (48" X 30")
(1) WI-6 (48" X 24")
16' BARR. TYP. III LT.

ROAD CLOSED

RETAIN ON LANDERS DETOUR FROM PREVIOUS STAGE
14 TRAFFIC DRUMS
23 VERTICAL PANELS
PRECAST CONCRETE BARRIER

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

STAGE 3-C
SHIFT SOUTHBOUND TRAFFIC ONTO NEW PAVEMENT, WITH TRAFFIC DRUMS LEFT OF TRAFFIC FLOW
WORKING AT NIGHT, CLOSE OUTER LANE OF SB TRAFFIC AND SHIFT PCCB FOR LEFT OF SB TRAFFIC, AND RAMPS

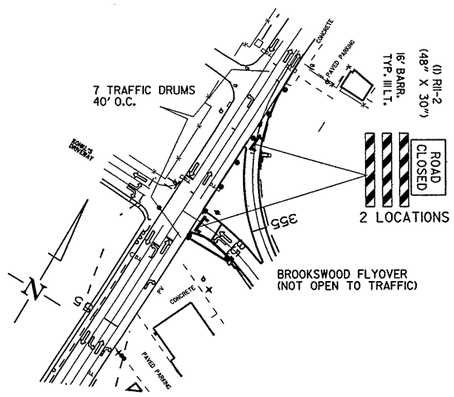
MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 3-C

7/29/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	139	609

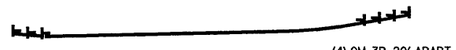
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
8-22-05
CHARLES D. CLEMENTS



RELOCATING PRECAST CONCRETE BARRIER
LT. OF SOUTHBOUND AND EXIT RAMP STA. 291+60 - STA. 309+20 = 1760 LIN.FT.
RIGHT OF ENTRANCE RAMP = 390 LIN.FT.
LT. OF SOUTHBOUND AND EXIT RAMP STA. 306+60 - STA. 368+10 = 6150 LIN.FT.
RT. OF ENTRANCE RAMP = 370 LIN.FT.
LT. OF SOUTHBOUND STA. 364+60 - STA. 388+30 = 2370 LIN.FT.
LT. & RT. OF EXIT RAMP = 360 LIN.FT.
LT. OF SOUTHBOUND STA. 388+70 - STA. 413+80 = 2510 LIN.FT.

TRAFFIC DRUMS 100' O.C.
LEFT OF SOUTHBOUND TRAFFIC
BEFORE PCCB RELOCATION
STA. 287+00 - STA. 417+00 = 131 EACH

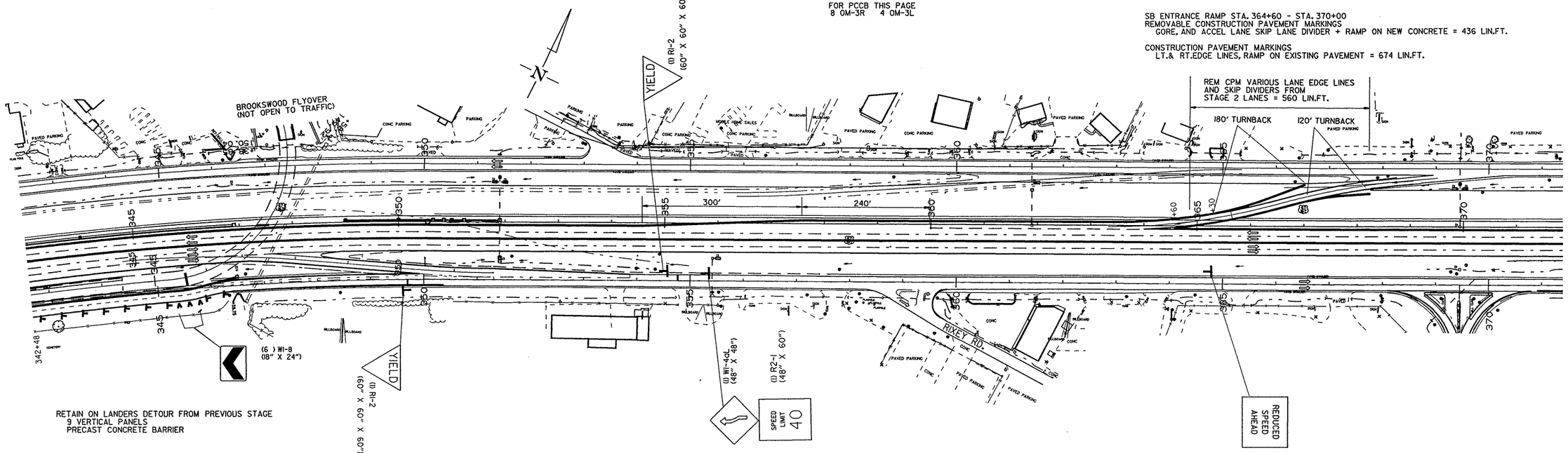


DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
8 OM-3R 4 OM-3L

SB ENTRANCE RAMP STA. 364+60 - STA. 370+00
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
GORE, AND ACCEL LANE SKIP LANE DIVIDER + RAMP ON NEW CONCRETE = 436 LIN.FT.

CONSTRUCTION PAVEMENT MARKINGS
LT.& RT.EDGE LINES, RAMP ON EXISTING PAVEMENT = 674 LIN.FT.



RETAIN ON LANDERS DETOUR FROM PREVIOUS STAGE
9 VERTICAL PANELS
PRECAST CONCRETE BARRIER

STAGE 3-C
SHIFT SOUTHBOUND TRAFFIC ONTO NEW PAVEMENT, WITH TRAFFIC DRUMS LEFT OF TRAFFIC FLOW
WORKING AT NIGHT, CLOSE OUTER LANE OF SB TRAFFIC AND SHIFT PCCB FOR LEFT OF SB TRAFFIC, AND RAMPS

7/29/05 mot-study

MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 3-C

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	140	609

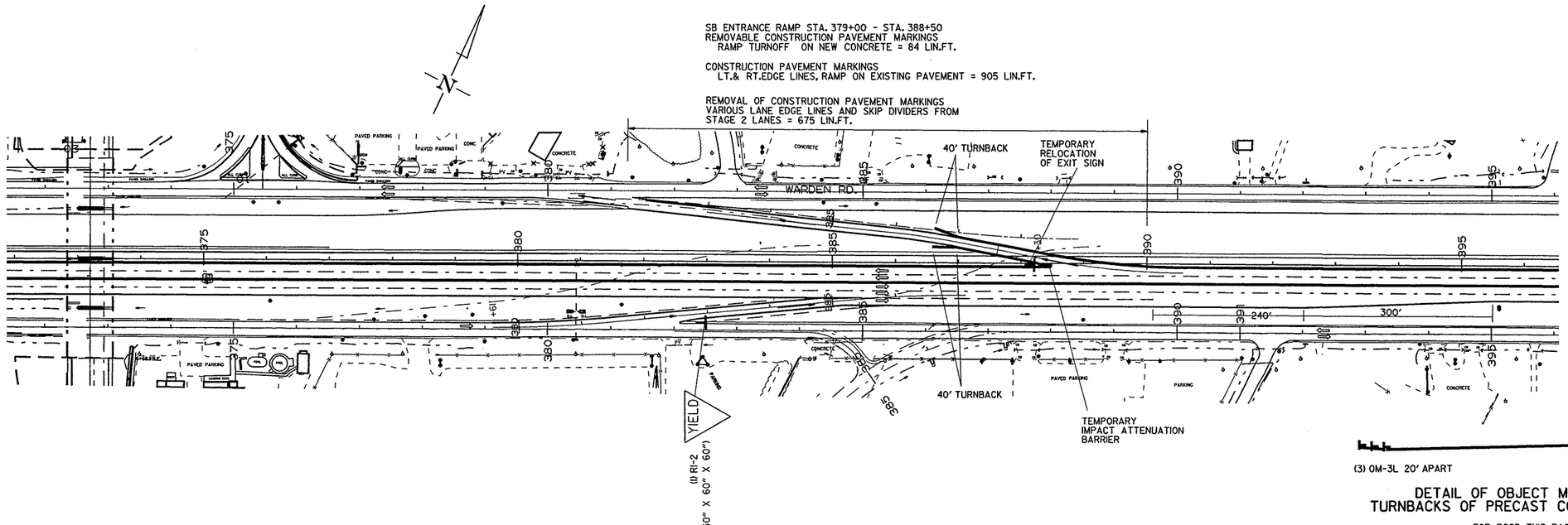
(2) MAINTENANCE OF TRAFFIC

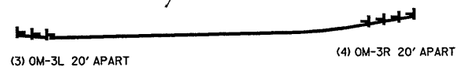
STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS

SB ENTRANCE RAMP STA. 379+00 - STA. 388+50
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
RAMP TURNOFF ON NEW CONCRETE = 84 LIN.FT.

CONSTRUCTION PAVEMENT MARKINGS
LT.& RT.EDGE LINES, RAMP ON EXISTING PAVEMENT = 905 LIN.FT.

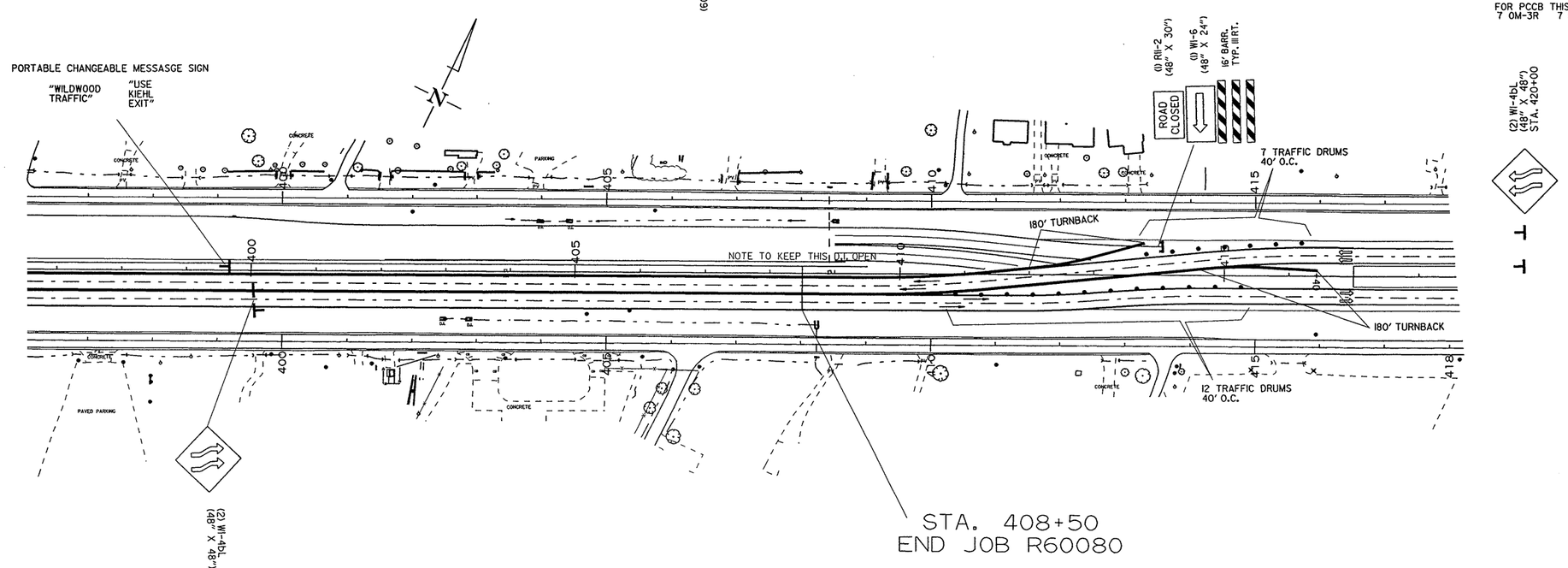
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
VARIOUS LANE EDGE LINES AND SKIP DIVIDERS FROM
STAGE 2 LANES = 675 LIN.FT.





DETAIL OF OBJECT MARKERS ON
TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
7 OM-3R 7 OM-3L



STAGE 3-C
SHIFT SOUTHBOUND TRAFFIC ONTO NEW PAVEMENT, WITH TRAFFIC DRUMS LEFT OF TRAFFIC FLOW
WORKING AT NIGHT, CLOSE OUTER LANE OF SB TRAFFIC AND SHIFT PCCB FOR LEFT OF SB TRAFFIC, AND RAMPS

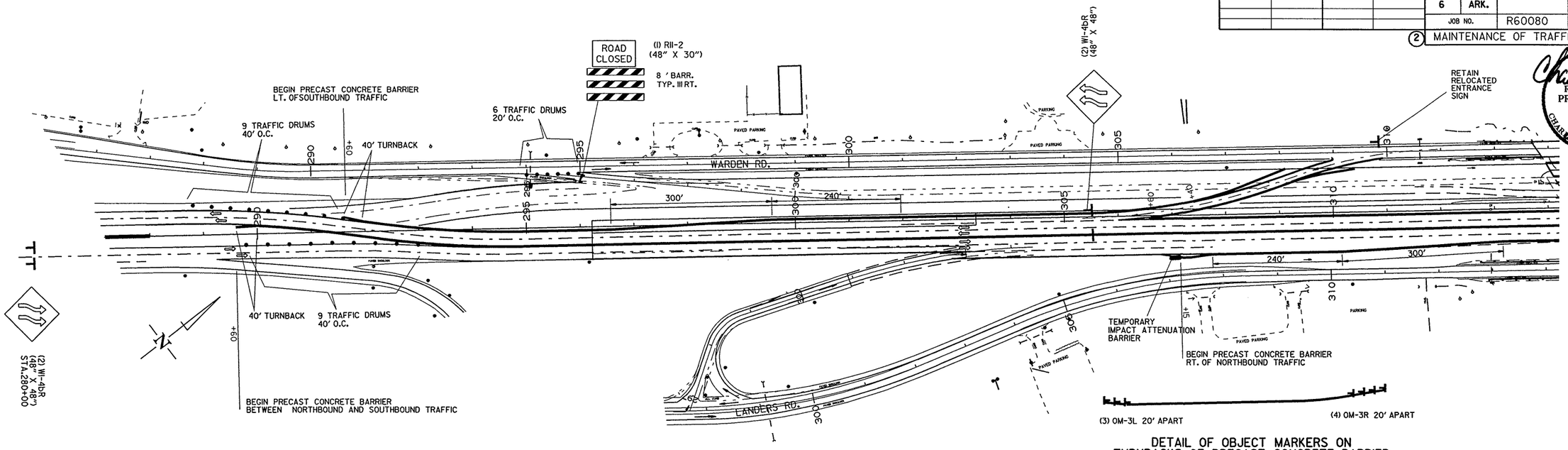
MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 3-C

7/29/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	14	60

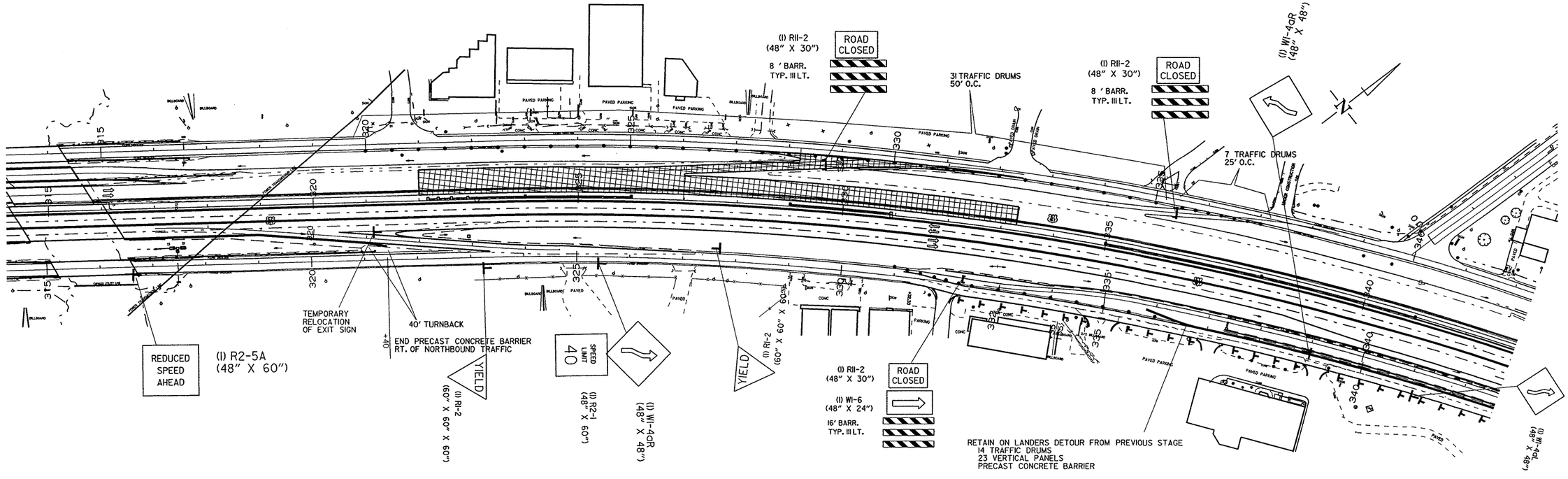
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
9-29-05



DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
10 OM-3R 11 OM-3L



STAGE 4A
BOTH DIRECTIONS TRAFFIC NOW RUN ON REBUILT NORTHBOUND LANES
RECONSTRUCT SOUTHBOUND LANES STA. 322+00 - STA. 332+30

MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 4-A

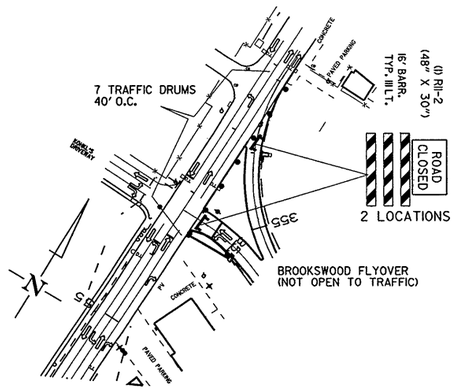
34

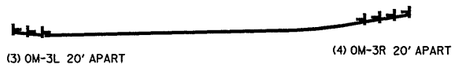
7/29/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	142	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-05



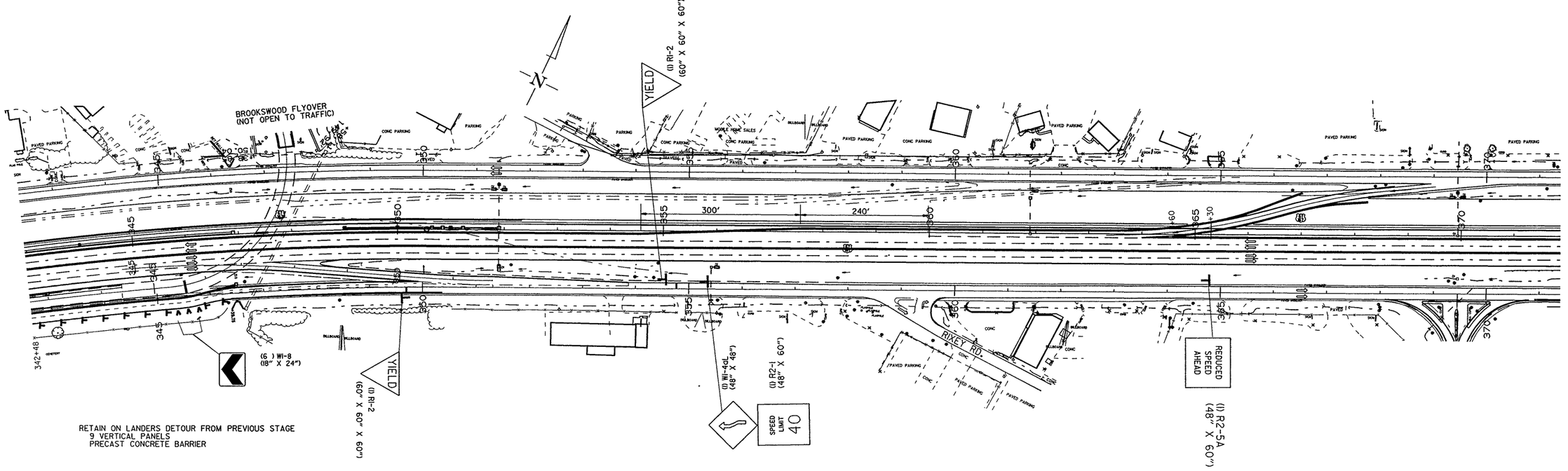


(3) OM-3L 20' APART

(4) OM-3R 20' APART

DETAIL OF OBJECT MARKERS ON
TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
18 OM-3R 4 OM-3L



RETAIN ON LANDERS DETOUR FROM PREVIOUS STAGE
9 VERTICAL PANELS
PRECAST CONCRETE BARRIER

STAGE 4A
BOTH DIRECTIONS TRAFFIC NOW RUN ON REBUILT NORTHBOUND LANES
RECONSTRUCT SOUTHBOUND LANES STA. 322+00 - STA. 332+30

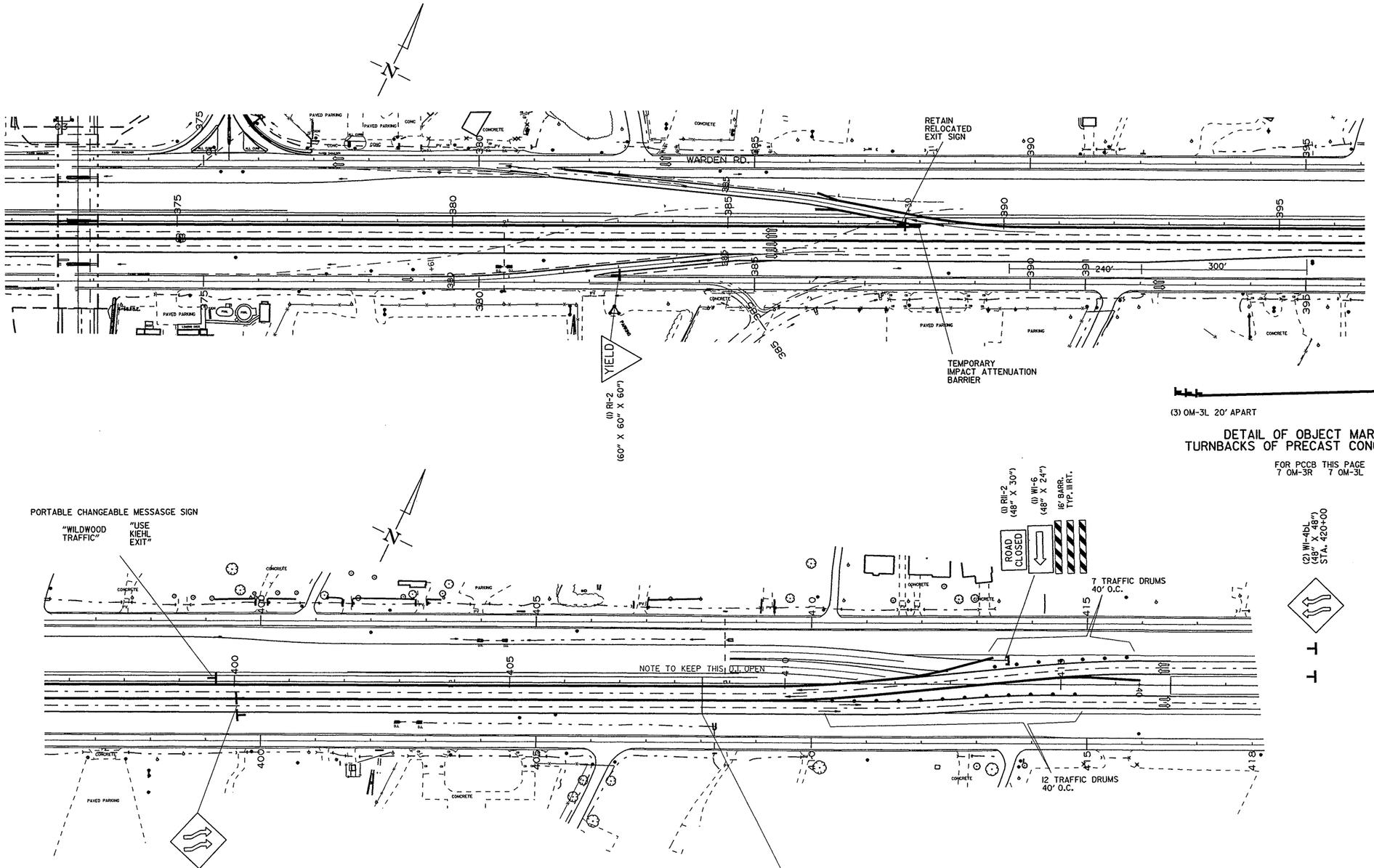
MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 4-A

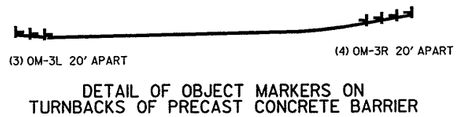
7/29/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	143	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER CHARLES D. CLEMENTS 9-22-05





DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
7 OM-3R 7 OM-3L

STAGE 4A
BOTH DIRECTIONS TRAFFIC NOW RUN ON REBUILT NORTHBOUND LANES
RECONSTRUCT SOUTHBOUND LANES STA. 322+00 - STA. 332+30

MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 4-A

7/29/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	144	609

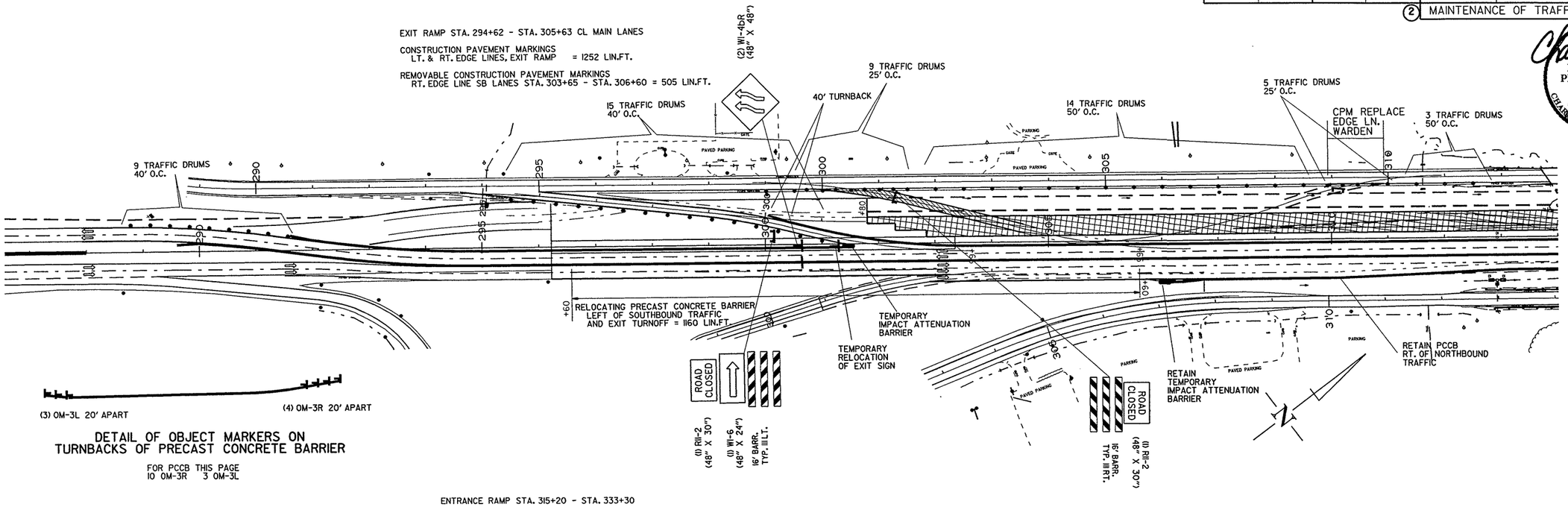
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS

EXIT RAMP STA. 294+62 - STA. 305+63 CL MAIN LANES

CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES, EXIT RAMP = 1252 LIN.FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
RT. EDGE LINE SB LANES STA. 303+65 - STA. 306+60 = 505 LIN.FT.



(3) OM-3L 20' APART

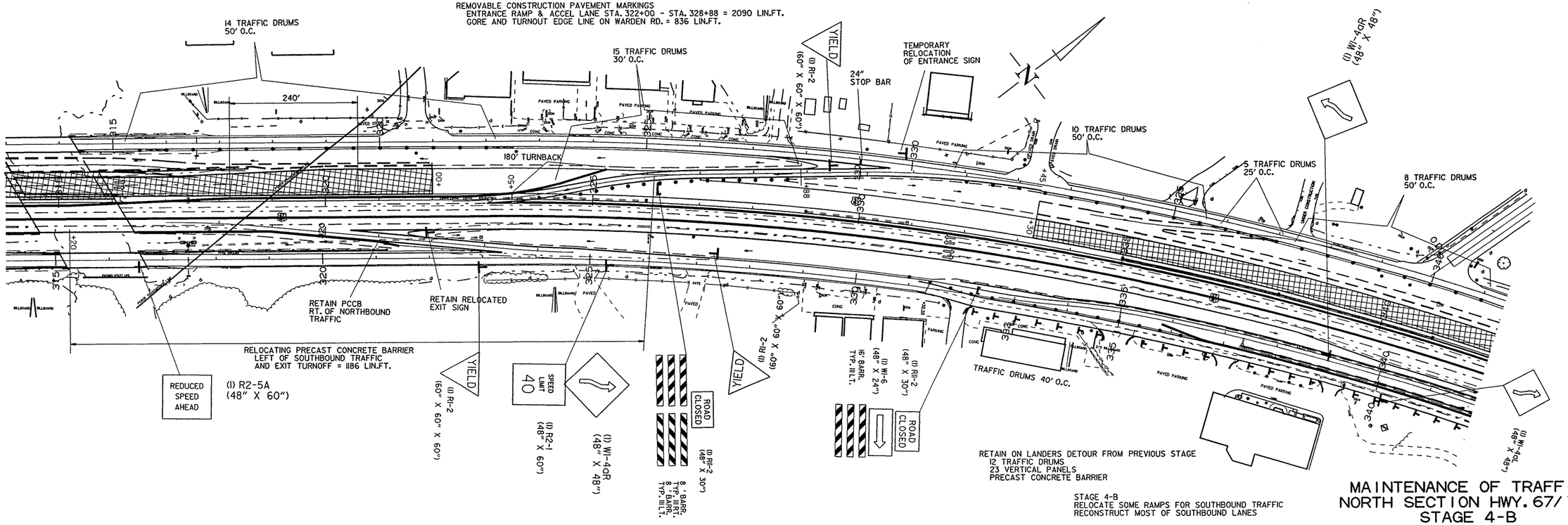
(4) OM-3R 20' APART

DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
10 OM-3R 3 OM-3L

ENTRANCE RAMP STA. 315+20 - STA. 333+30

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
ENTRANCE RAMP & ACCEL LANE STA. 322+00 - STA. 328+88 = 2090 LIN.FT.
GORE AND TURNOUT EDGE LINE ON WARDEN RD. = 836 LIN.FT.



STAGE 4-B
RELOCATE SOME RAMPS FOR SOUTHBOUND TRAFFIC
RECONSTRUCT MOST OF SOUTHBOUND LANES

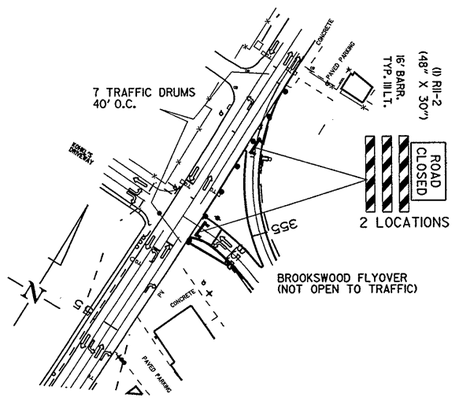
MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 4-B

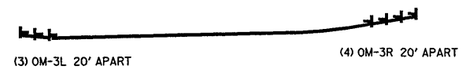
08/01/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	145	609

(2) MAINTENANCE OF TRAFFIC

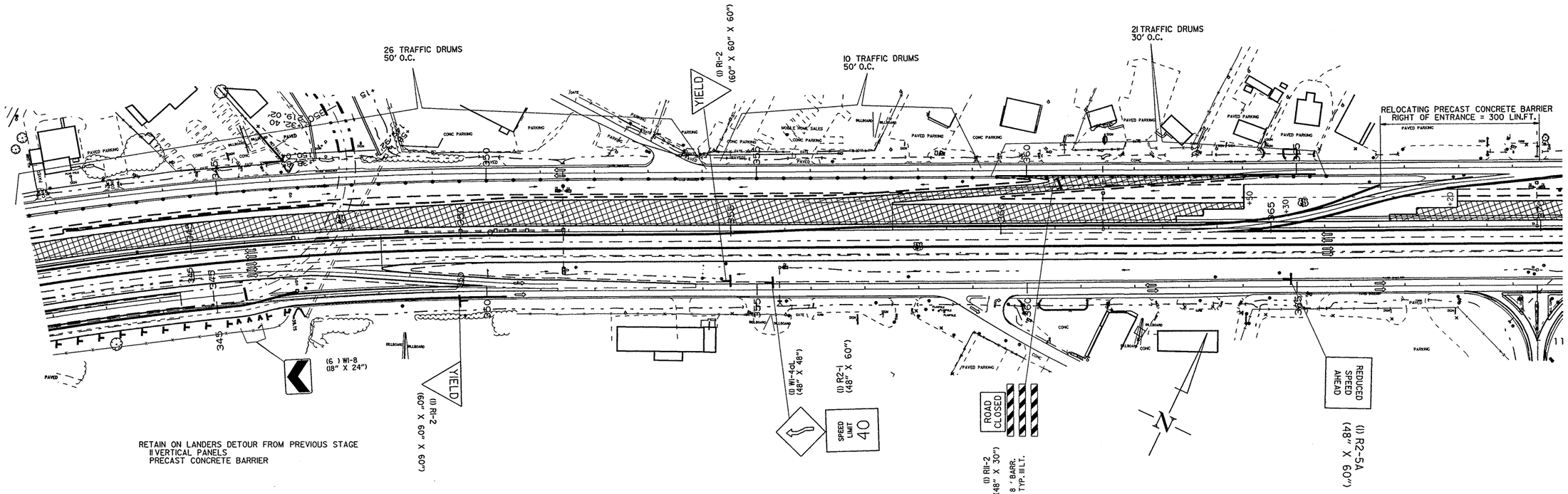
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
12-07-05





DETAIL OF OBJECT MARKERS ON
TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
8 OM-3R 4 OM-3L



RETAIN ON LANDERS DETOUR FROM PREVIOUS STAGE
II VERTICAL PANELS
PRECAST CONCRETE BARRIER

STAGE 4-B
RELOCATE SOME RAMPS FOR SOUTHBOUND TRAFFIC
RECONSTRUCT MOST OF SOUTHBOUND LANES

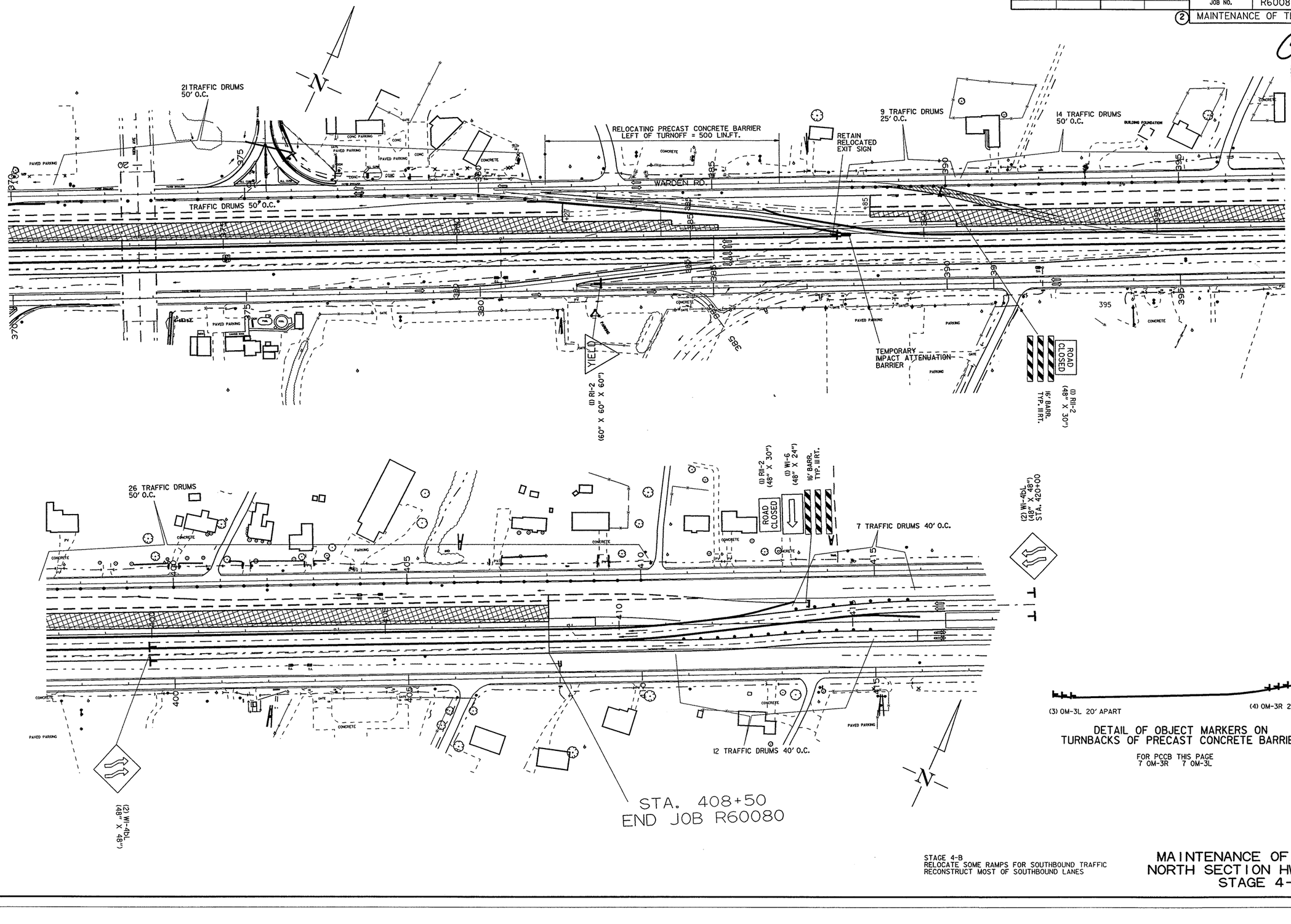
MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 4-B

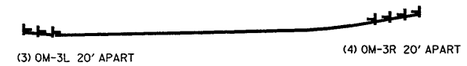
7/29/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	146	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS





DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
7 OM-3R 7 OM-3L

STAGE 4-B
RELOCATE SOME RAMPS FOR SOUTHBOUND TRAFFIC
RECONSTRUCT MOST OF SOUTHBOUND LANES

MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 4-B

7/29/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	17	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
12-22-05

(2) W1-4bR (48" X 48")

REMOVAL OF PERMANENT PAVEMENT MARKINGS
RT. EDGE LINE WARDEN RD. STA.299+80 - STA.301+10 = 130 LIN.FT.

RELOCATION OF PRECAST CONCRETE BARRIER
RT. & LT. OF TEMP.EXIT RAMP = 500 LIN.FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
RT. & LT. EDGE LINES OF TEMP.EXIT RAMP = 1030 LIN.FT.

9 TRAFFIC DRUMS 40' O.C.

23 TRAFFIC DRUMS 50' O.C.

REM PPM EDGE LINE

40' TURNBACK

40' TURNBACK

TIAB

ROAD CLOSED

(1) R11-2 (48" X 30")

15' BARR. TYP. III RT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
RT. EDGE LINE SB LANES STA. 301+56 - STA. 303+66 = 210 LIN.FT.

RELOCATION OF PRECAST CONCRETE BARRIER
RT. EDGE LINE SB LANES STA. 301+56 - STA. 303+66 = 210 LIN.FT.

RETAIN TEMPORARY IMPACT ATTENUATION BARRIER

RETAIN PCCB RT. OF NORTHBOUND TRAFFIC

(3) OM-3L 20' APART

(4) OM-3R 20' APART

DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
10 OM-3R 10 OM-3L

15 TRAFFIC DRUMS 30' O.C.

180° TURNBACK

(1) R1-2 (60" X 60" X 60")

RETAIN RELOCATED ENTRANCE SIGN

(1) W1-4bR (48" X 48")

REDUCED SPEED AHEAD

(1) R2-5A (48" X 60")

RETAIN PCCB RT. OF NORTHBOUND TRAFFIC

RETAIN RELOCATED EXIT SIGN

YIELD

(1) R1-2 (60" X 60" X 60")

SPEED LIMIT 40

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

(1) W1-4bR (48" X 48")

ROAD CLOSED

(1) R11-2 (48" X 30")

8' BARR. TYP. II RT.
8' BARR. TYP. III LT.

YIELD

(1) R1-2 (60" X 60" X 60")

16' BARR. TYP. III LT.

(1) W1-6 (48" X 24")

(1) R11-2 (48" X 30")

ROAD CLOSED

RETAIN ON LANDERS DETOUR FROM PREVIOUS STAGE
12 TRAFFIC DRUMS
23 VERTICAL PANELS
PRECAST CONCRETE BARRIER

(1) W1-4bR (48" X 48")

STAGE 4-C
RELOCATE OTHER RAMPS FOR SOUTHBOUND TRAFFIC
RECONSTRUCT REMAINDER OF SOUTHBOUND LANES

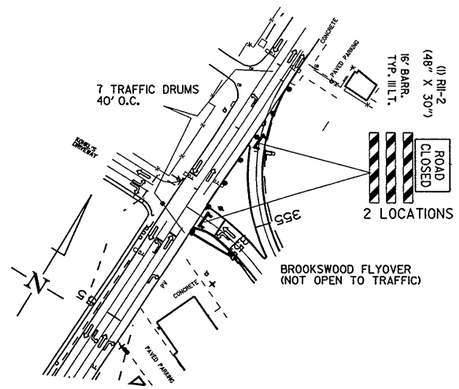
MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 4-C

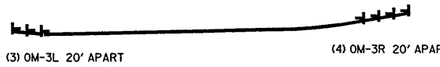
08/01/05 matstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		149609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
479



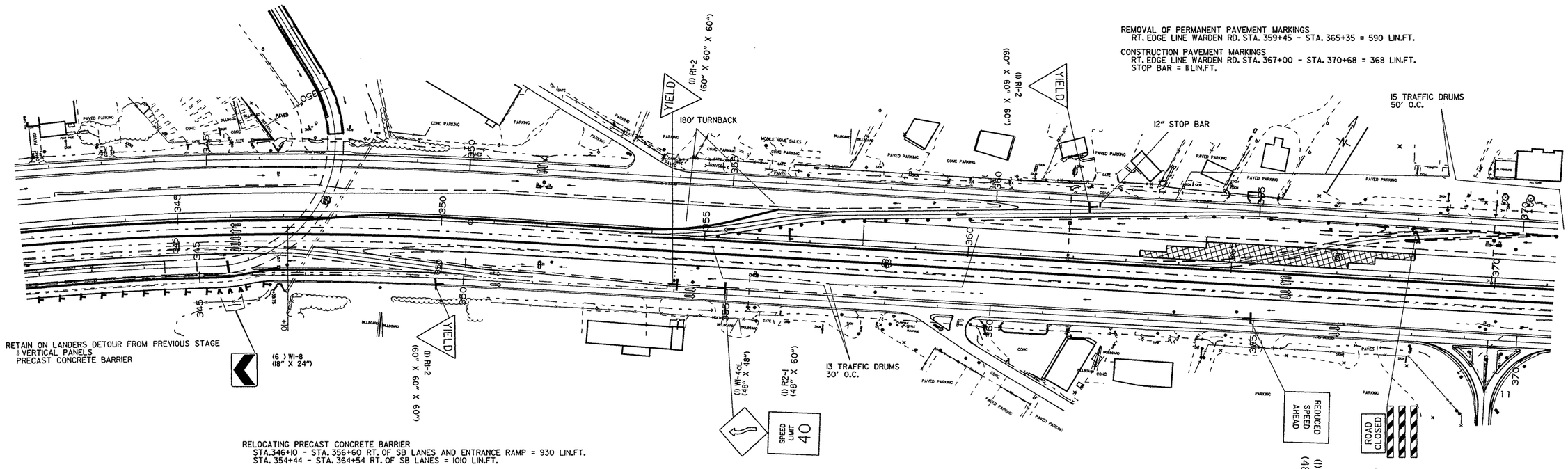


DETAIL OF OBJECT MARKERS ON
TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
8 OM-3R 0 OM-3L

REMOVAL OF PERMANENT PAVEMENT MARKINGS
RT. EDGE LINE WARDEN RD. STA. 359+45 - STA. 365+35 = 590 LIN.FT.

CONSTRUCTION PAVEMENT MARKINGS
RT. EDGE LINE WARDEN RD. STA. 367+00 - STA. 370+68 = 368 LIN.FT.
STOP BAR = 11 LIN.FT.



RELOCATING PRECAST CONCRETE BARRIER
STA.346+10 - STA. 356+60 RT. OF SB LANES AND ENTRANCE RAMP = 930 LIN.FT.
STA. 354+44 - STA. 364+54 RT. OF SB LANES = 1010 LIN.FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
RT. EDGE & GORE STRIPING AT ACCEL LANE STA. 347+10 - STA. 354+44 = 930 LIN.FT.
RT. & LT. EDGE LINES ENTRANCE RAMP = 1200 LIN.FT.
TURNOUT AND NOSE GORE, WARDEN RD. TO ENTRANCE RAMP = 1088 LIN.FT.

STAGE 4-C
RELOCATE OTHER RAMPS FOR SOUTHBOUND TRAFFIC
RECONSTRUCT REMAINDER OF SOUTHBOUND LANES

MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 4-C

08/01/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	149	209

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7794
CHARLES D. CLEMENTS
8/25

REMOVAL OF PERMANENT PAVEMENT MARKINGS
RT. EDGE LINE WARDEN RD. = 128 LIN.FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES EXIT RAMP = 964 LIN.FT.

RELOCATING PRECAST CONCRETE BARRIER
LT. & RT. OF EXIT RAMP = 590 LIN.FT.

28 TRAFFIC DRUMS
50' O.C.

REM PPM
EDGE LINE

TEMPORARY
RELOCATION
OF EXIT SIGN

40' TURNBACKS

WARDEN RD.

TEMPORARY
IMPACT ATTENUATION
BARRIER

RELOCATING PRECAST CONCRETE BARRIER
STA. 388+45 - STA. 390+55 = 210 LIN.FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
RT. EDGE LINE SB LANES = 210 LIN.FT.

(1) RI-2
(60" X 60" X 60")

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

(1) WI-6
(48" X 24")

16' BARR.
TYP. IIIRT.

ROAD
CLOSED

7 TRAFFIC DRUMS 40' O.C.

(2) WI-4bL
(48" X 48")
STA. 420+00

12 TRAFFIC DRUMS 40' O.C.

(2) WI-4bL
(48" X 48")

STA. 408+50
END JOB R60080

(3) OM-3L 20' APART

(4) OM-3R 20' APART

DETAIL OF OBJECT MARKERS ON
TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
7 OM-3R 7 OM-3L

STAGE 4-C
RELOCATE OTHER RAMPS FOR SOUTHBOUND TRAFFIC
RECONSTRUCT REMAINDER OF SOUTHBOUND LANES

MAINTENANCE OF TRAFFIC
NORTH SECTION HWY. 67/167
STAGE 4-C

08/01/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9-19-05				6	ARK.			
				JOB NO.		R60080	150	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 14794
9-19-05

STRIPING FOR SOUTHBOUND EXIT RAMP
WARDEN RD. STA.290+90 - STA.296+15
(REFER ALSO TO STD. DWG. PM-2)

THERMOPLASTIC PAVEMENT MARKINGS
NOSE GORE = 536 LIN.FT. 8" WHITE
LT. EDGE LINE RAMP = 526 LIN.FT. 4" YELLOW
RT. EDGE LINE RAMP = 277 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I(WHITE) = 38 EACH
TYPE II(WHITE/RED) = 48 EACH

STRIPING FOR PAVEMENT TRANSITION
MAIN LANES STA.288+00 - STA.296+22.08

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
INSIDE EDGE LINES (YELLOW) = 1844 LIN.FT.

SKIP LANE DIVIDERS
HIGH PERFORMANCE CONTRAST MARKING TAPE (WHITE) = 460 LIN.FT.

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
OUTSIDE EDGE LINES = 1844 LIN.FT. 4" WHITE

PLOWABLE PAVEMENT MARKERS TYPE I(WHITE)
80' O.C. ON SKIP LANE DIVIDERS = 22 EACH

REMOVAL OF PERMANENT PAVEMENT MARKINGS
CENTER LINE WARDEN RD. STA.288+50 - STA.293+50 = 1000 LIN.FT.

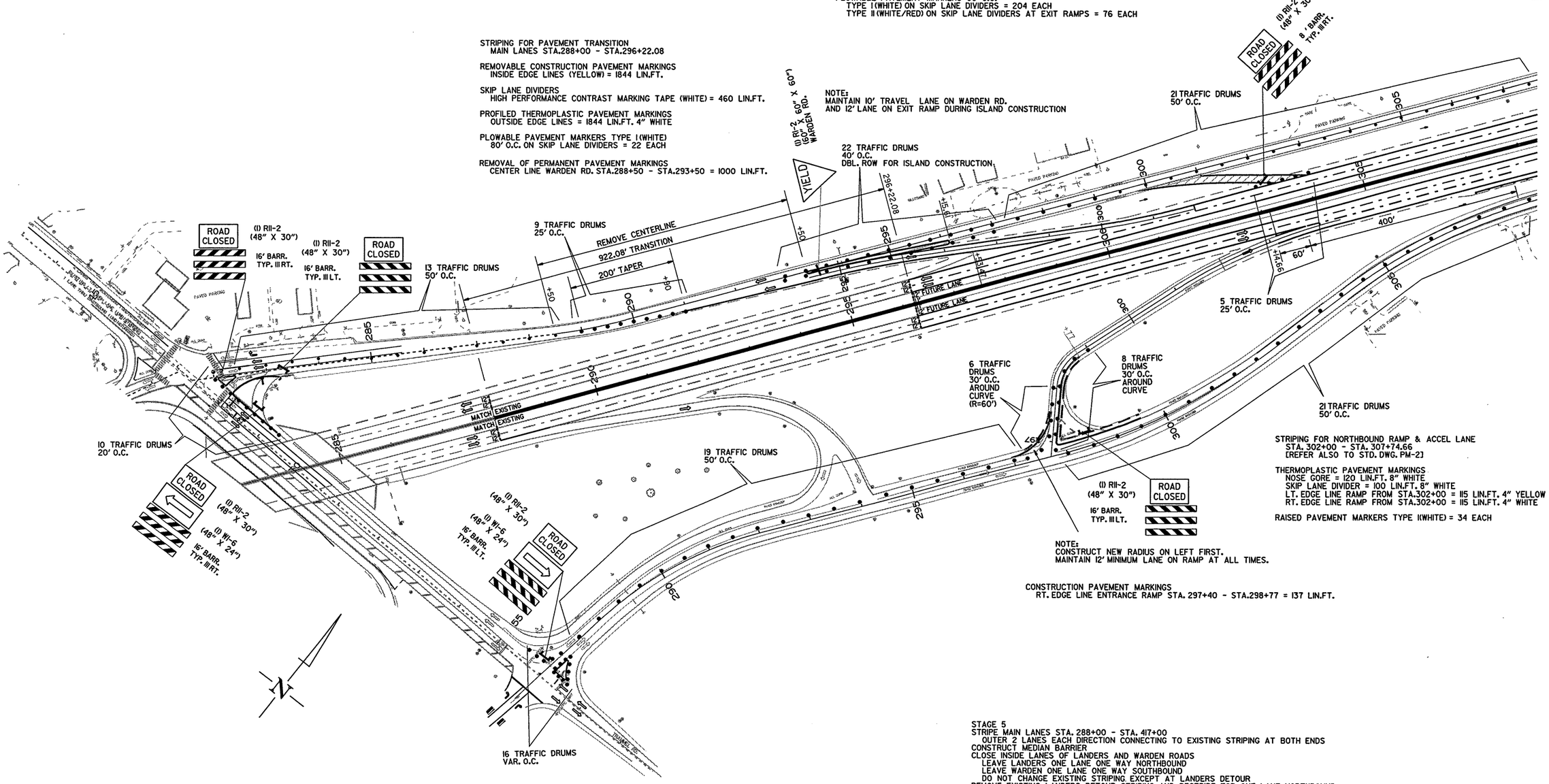
STRIPING FOR MAIN LANES STA.296+22.08 - STA. 408+50

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
INSIDE EDGE LINES (YELLOW) = 22456 LIN.FT.

SKIP LANE DIVIDERS
HIGH PERFORMANCE CONTRAST MARKING TAPE (WHITE) = 5620 LIN.FT.

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
OUTSIDE EDGE LINES = 22456 LIN.FT. 4" WHITE

PLOWABLE PAVEMENT MARKERS 80' O.C.
TYPE I(WHITE) ON SKIP LANE DIVIDERS = 204 EACH
TYPE II(WHITE/RED) ON SKIP LANE DIVIDERS AT EXIT RAMPS = 76 EACH



STRIPING FOR NORTHBOUND RAMP & ACCEL LANE
STA. 302+00 - STA. 307+74.66
(REFER ALSO TO STD. DWG. PM-2)

THERMOPLASTIC PAVEMENT MARKINGS
NOSE GORE = 120 LIN.FT. 8" WHITE
SKIP LANE DIVIDER = 100 LIN.FT. 8" WHITE
LT. EDGE LINE RAMP FROM STA.302+00 = 115 LIN.FT. 4" YELLOW
RT. EDGE LINE RAMP FROM STA.302+00 = 115 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS TYPE I(WHITE) = 34 EACH

CONSTRUCTION PAVEMENT MARKINGS
RT. EDGE LINE ENTRANCE RAMP STA. 297+40 - STA.298+77 = 137 LIN.FT.

STAGE 5
STRIPE MAIN LANES STA. 288+00 - STA. 417+00
OUTER 2 LANES EACH DIRECTION CONNECTING TO EXISTING STRIPING AT BOTH ENDS
CONSTRUCT MEDIAN BARRIER
CLOSE INSIDE LANES OF LANDERS AND WARDEN ROADS
LEAVE LANDERS ONE LANE ONE WAY NORTHBOUND
LEAVE WARDEN ONE LANE ONE WAY SOUTHBOUND
DO NOT CHANGE EXISTING STRIPING EXCEPT AT LANDERS DETOUR
REMOVE EXISTING LANDERS DETOUR STRIPING AND RESTRIPE FOR ONE LANE NORTHBOUND
REMOVE LANDERS DETOUR TEMPORARY PAVEMENT AND
RECONSTRUCT TURNOUTS FOR DRIVEWAYS IN THAT SECTION
CONSTRUCT TIE-IN TO LANDERS CONNECTION ROAD
INSTALL FINAL STRIPING ON LANDERS CONNECTION AND OPEN IT TO TRAFFIC
COLD MILL AND RESTRIPE BROOKSWOOD ROAD
INSTALL FINAL STRIPING ON BROOKSWOOD FLYOVER AND OPEN IT TO TRAFFIC
OPEN LANDERS CONNECTION AND BROOKSWOOD FLYOVER TO TRAFFIC
REMOVE REMAINING TEMPORARY RAMPS
CONSTRUCT EXIT RAMP ISLANDS
CONSTRUCT INTERSECTION ISLAND AT RIXIE ROAD

MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 5

08/03/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9-19-05				6	ARK.			
				JOB NO.		R60080	151	609

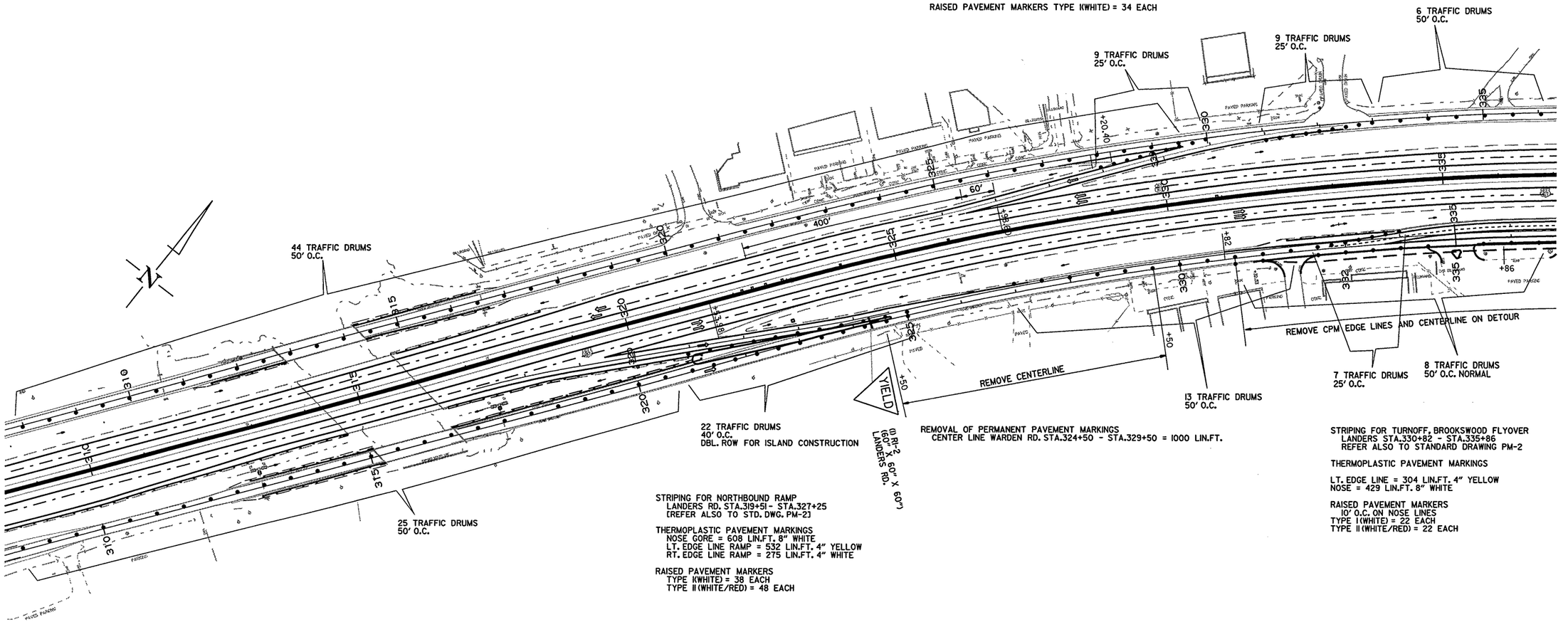
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9779
CHARLES D. CLEMENTS
9-19-05

STRIPING FOR SOUTHBOUND RAMP & ACCEL LANE
WARDEN STA. 321+38 - STA. 332+45
(REFER ALSO TO STD. DWG. PM-2)

THERMOPLASTIC PAVEMENT MARKINGS
NOSE GORE = 120 LIN.FT. 8" WHITE
SKIP LANE DIVIDER = 100 LIN.FT. 8" WHITE
LT. EDGE LINE = 640 LIN.FT. 4" YELLOW
RT. EDGE LINE = 180 LIN.FT. 4" WHITE
NOSE ON WARDEN = 397 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE I(WHITE) = 34 EACH



REMOVAL OF PERMANENT PAVEMENT MARKINGS
CENTER LINE WARDEN RD. STA.324+50 - STA.329+50 = 1000 LIN.FT.

STRIPING FOR NORTHBOUND RAMP
LANDERS RD. STA.319+51 - STA.327+25
(REFER ALSO TO STD. DWG. PM-2)

THERMOPLASTIC PAVEMENT MARKINGS
NOSE GORE = 608 LIN.FT. 8" WHITE
LT. EDGE LINE RAMP = 532 LIN.FT. 4" YELLOW
RT. EDGE LINE RAMP = 275 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I(WHITE) = 38 EACH
TYPE II(WHITE/RED) = 48 EACH

STRIPING FOR TURNOFF, BROOKSWOOD FLYOVER
LANDERS STA.330+82 - STA.335+86
REFER ALSO TO STANDARD DRAWING PM-2

THERMOPLASTIC PAVEMENT MARKINGS

LT. EDGE LINE = 304 LIN.FT. 4" YELLOW
NOSE = 429 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS
10' O.C. ON NOSE LINES
TYPE I(WHITE) = 22 EACH
TYPE II(WHITE/RED) = 22 EACH

STAGE 5
STRIPE MAIN LANES STA. 288+00 - STA. 417+00
OUTER 2 LANES EACH DIRECTION CONNECTING TO EXISTING STRIPING AT BOTH ENDS
CONSTRUCT MEDIAN BARRIER
CLOSE INSIDE LANES OF LANDERS AND WARDEN ROADS
LEAVE LANDERS ONE LANE ONE WAY NORTHBOUND
LEAVE WARDEN ONE LANE ONE WAY SOUTHBOUND
DO NOT CHANGE EXISTING STRIPING EXCEPT AT LANDERS DETOUR
REMOVE EXISTING LANDERS DETOUR STRIPING AND RESTRIPE FOR ONE LANE NORTHBOUND
REMOVE LANDERS DETOUR TEMPORARY PAVEMENT AND
RECONSTRUCT TURNOUTS FOR DRIVEWAYS IN THAT SECTION
CONSTRUCT TIE-IN TO LANDERS CONNECTION ROAD
INSTALL FINAL STRIPING ON LANDERS CONNECTION AND OPEN IT TO TRAFFIC
COLD MILL AND RESTRIPE BROOKSWOOD ROAD
INSTALL FINAL STRIPING ON BROOKSWOOD FLYOVER AND OPEN IT TO TRAFFIC
OPEN LANDERS CONNECTION AND BROOKSWOOD FLYOVER TO TRAFFIC
REMOVE REMAINING TEMPORARY RAMPS
CONSTRUCT EXIT RAMP ISLANDS
CONSTRUCT INTERSECTION ISLAND AT RIXIE ROAD

08/03/05 motstudy

MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 5

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9-19-05				6	ARK.			
				JOB NO.		R60080	152	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS CHARLES D. CLEMENTS REGISTERED PROFESSIONAL ENGINEER 9794 9-19-05

STRIPING FOR BROOKSWOOD CONNECTION
STA. 352+00 - EDGE OF PAVEMENT BROOKSWOOD RD.

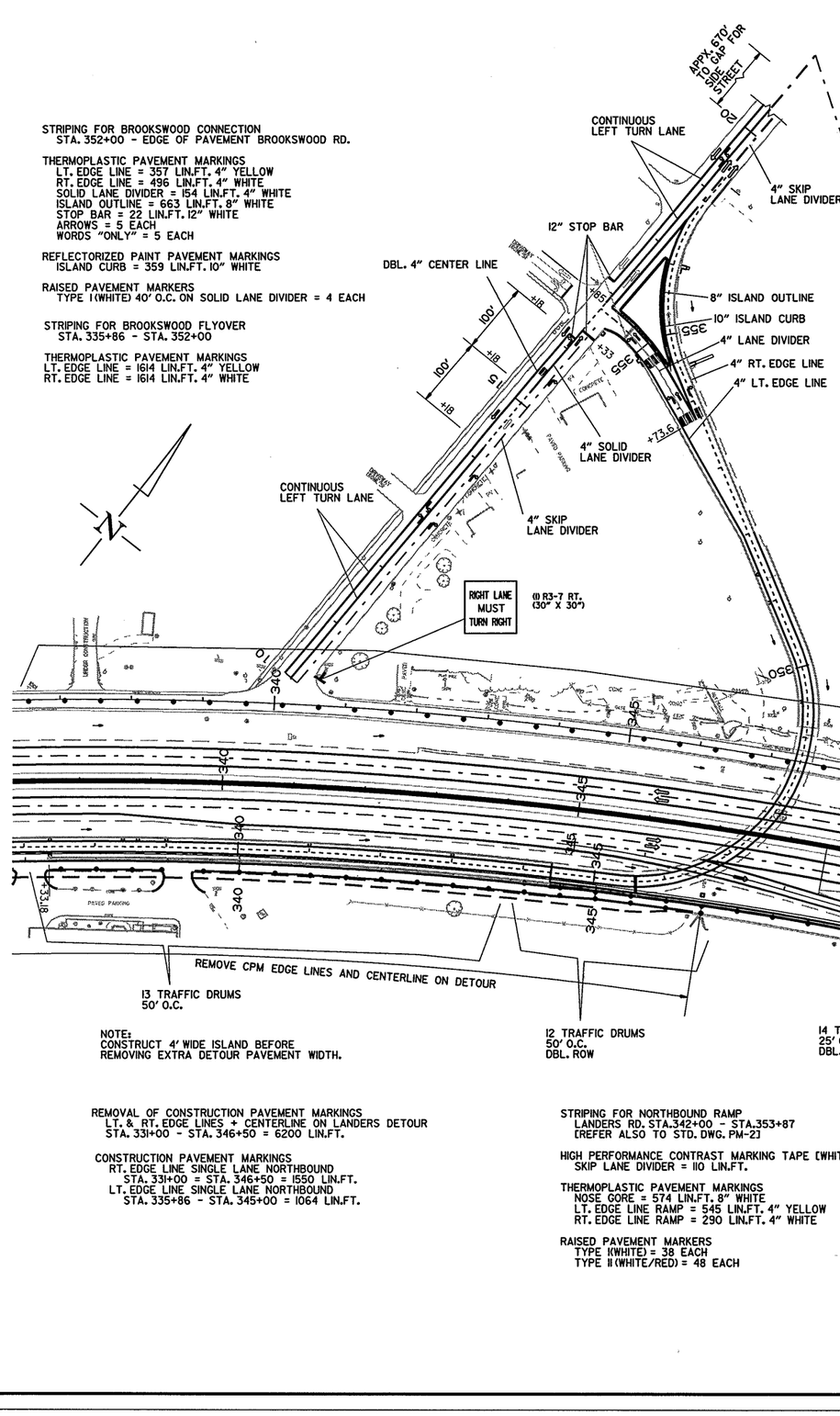
THERMOPLASTIC PAVEMENT MARKINGS
LT. EDGE LINE = 357 LIN.FT. 4" YELLOW
RT. EDGE LINE = 496 LIN.FT. 4" WHITE
SOLID LANE DIVIDER = 154 LIN.FT. 4" WHITE
ISLAND OUTLINE = 663 LIN.FT. 8" WHITE
STOP BAR = 22 LIN.FT. 12" WHITE
ARROWS = 5 EACH
WORDS "ONLY" = 5 EACH

REFLECTORIZED PAINT PAVEMENT MARKINGS
ISLAND CURB = 359 LIN.FT. 10" WHITE

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SOLID LANE DIVIDER = 4 EACH

STRIPING FOR BROOKSWOOD FLYOVER
STA. 335+86 - STA. 352+00

THERMOPLASTIC PAVEMENT MARKINGS
LT. EDGE LINE = 1614 LIN.FT. 4" YELLOW
RT. EDGE LINE = 1614 LIN.FT. 4" WHITE



NOTE:
CONSTRUCT 4' WIDE ISLAND BEFORE REMOVING EXTRA DETOUR PAVEMENT WIDTH.

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES + CENTERLINE ON LANDERS DETOUR
STA. 331+00 - STA. 346+50 = 6200 LIN.FT.

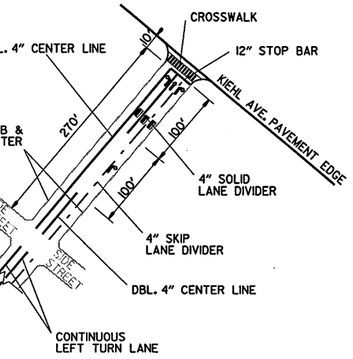
CONSTRUCTION PAVEMENT MARKINGS
RT. EDGE LINE SINGLE LANE NORTHBOUND
STA. 331+00 = STA. 346+50 = 1550 LIN.FT.
LT. EDGE LINE SINGLE LANE NORTHBOUND
STA. 335+86 - STA. 345+00 = 1064 LIN.FT.

STRIPING FOR NORTHBOUND RAMP
LANDERS RD. STA.342+00 - STA.353+87
[REFER ALSO TO STD. DWG. PM-2]

HIGH PERFORMANCE CONTRAST MARKING TAPE [WHITE]
SKIP LANE DIVIDER = 110 LIN.FT.

THERMOPLASTIC PAVEMENT MARKINGS
NOSE GORE = 574 LIN.FT. 8" WHITE
LT. EDGE LINE RAMP = 545 LIN.FT. 4" YELLOW
RT. EDGE LINE RAMP = 290 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I(WHITE) = 38 EACH
TYPE II(WHITE/RED) = 48 EACH

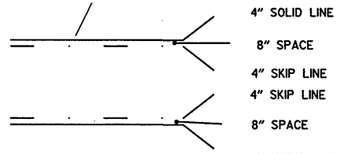


BROOKSWOOD DRIVE SOUTH OF KOHL'S DRIVEWAY

THERMOPLASTIC PAVEMENT MARKINGS
CONTINUOUS LEFT TURN LANE = 1045 LIN.FT. 4" YELLOW
SKIP LANE DIVIDER = 160 LIN.FT. 4" WHITE
DBL. CL AT LEFT TURN LANE = 400 LIN.FT. 4" WHITE
SOLID LANE DIVIDER AT LT. TURN LANE = 115 LIN.FT. 4" WHITE
STOP BARS = 44 LIN.FT. 12" WHITE
ARROWS = 6 EACH
WORD "ONLY" = 1 EACH

RAISED PAVEMENT MARKERS
TYPE I(WHITE) ON SKIP AND SOLID LANE DIVIDERS = 20 EACH
TYPE II(YEL/YEL) ON C.L.T.L. AND CENTERLINE = 16 EACH

TYPE II(YEL/YEL) RAISED PAVEMENT MARKER



DETAIL OF CONTINUOUS LT. TURN LANE
(ALL YELLOW)

BROOKSWOOD DRIVE NORTH OF KOHL'S DRIVEWAY

THERMOPLASTIC PAVEMENT MARKINGS
CONTINUOUS LEFT TURN LANE = 2463 LIN.FT. 4" YELLOW
SKIP LANE DIVIDER = 200 LIN.FT. 4" WHITE
DBL. IN BLOCK SOUTH OF KIEHL = 680 LIN.FT. 4" WHITE
SOLID LANE DIVIDER AT LT. TURN LANE = 100 LIN.FT. 4" WHITE
SKIP LANE DIVIDER IN BLOCK SOUTH OF KIEHL = 70 LIN.FT. 4" WHITE
STOP BAR = 33 LIN.FT. 12" WHITE
CROSSWALK STRIPING = 110 LIN.FT. 24" WHITE
ARROWS = 6 EACH
WORD "ONLY" = 3 EACH

RAISED PAVEMENT MARKERS
TYPE I(WHITE) ON SKIP AND SOLID LANE DIVIDERS = 27 EACH
TYPE II(YEL/YEL) ON C.L.T.L. AND CENTERLINE = 59 EACH

STRIPING FOR SOUTHBOUND RAMP & ACCEL LANE
WARDEN STA. 352+92 - STA. 365+35
[REFER ALSO TO STD. DWG. PM-2]

THERMOPLASTIC PAVEMENT MARKINGS
NOSE CORE = 120 LIN.FT. 8" WHITE
SKIP LANE DIVIDER = 100 LIN.FT. 8" WHITE
LT. EDGE LINE = 783 LIN.FT. 4" YELLOW
RT. EDGE LINE = 253 LIN.FT. 4" WHITE
NOSE ON WARDEN = 558 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE I(WHITE) = 34 EACH

STAGE 5
STRIPE MAIN LANES STA. 288+00 - STA. 417+00
OUTER 2 LANES EACH DIRECTION CONNECTING TO EXISTING STRIPING AT BOTH ENDS
CONSTRUCT MEDIAN BARRIER
CLOSE INSIDE LANES OF LANDERS AND WARDEN ROADS
LEAVE LANDERS ONE LANE ONE WAY NORTHBOUND
LEAVE WARDEN ONE LANE ONE WAY SOUTHBOUND
DO NOT CHANGE EXISTING STRIPING EXCEPT AT LANDERS DETOUR
REMOVE EXISTING LANDERS DETOUR STRIPING AND RESTRIPE FOR ONE LANE NORTHBOUND
REMOVE LANDERS DETOUR TEMPORARY PAVEMENT AND
RECONSTRUCT TURNOUTS FOR DRIVEWAYS IN THAT SECTION
CONSTRUCT TIE-IN TO LANDERS CONNECTION ROAD
INSTALL FINAL STRIPING ON LANDERS CONNECTION AND OPEN IT TO TRAFFIC
COLD MILL AND RESTRIPE BROOKSWOOD ROAD
INSTALL FINAL STRIPING ON BROOKSWOOD FLYOVER AND OPEN IT TO TRAFFIC
OPEN LANDERS CONNECTION AND BROOKSWOOD FLYOVER TO TRAFFIC
REMOVE REMAINING TEMPORARY RAMPS
CONSTRUCT EXIT RAMP ISLANDS
CONSTRUCT INTERSECTION ISLAND AT RIXIE ROAD

08/04/05 motstudy

MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 5

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9-19-05				6	ARK.			
				JOB NO.		R60080	153	609

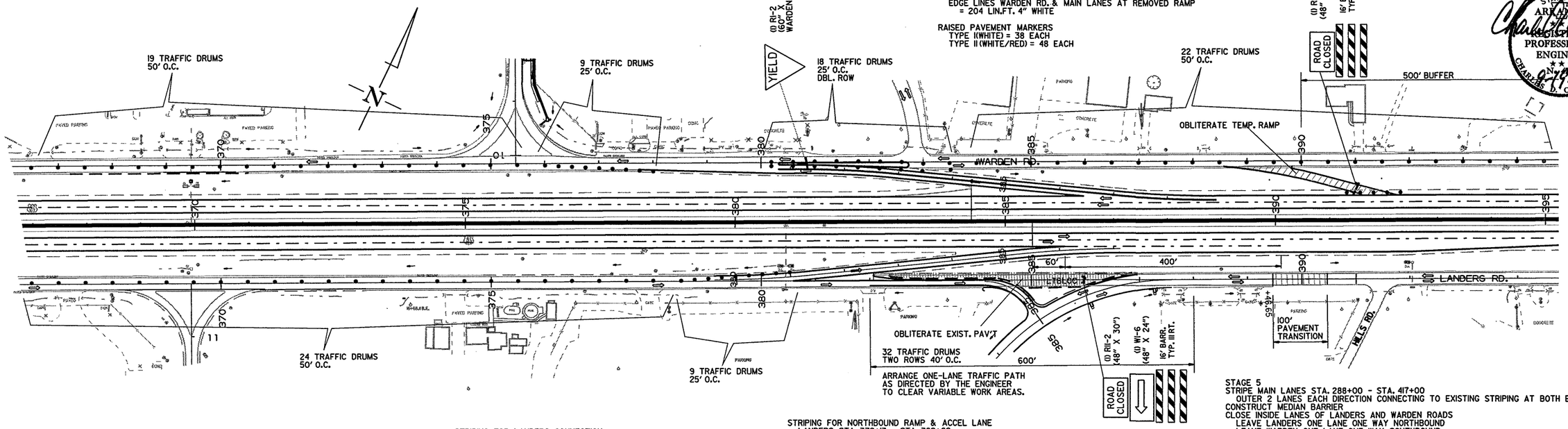
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER CHARLES D. CLEMENTS 9479 9-19-05

STRIPING FOR SOUTHBOUND EXIT RAMP
WARDEN RD. STA.380+00 - STA.386+00
(REFER ALSO TO STD. DWG. PM-2)

THERMOPLASTIC PAVEMENT MARKINGS
NOSE GORE = 663 LIN.FT. 8" WHITE
LT. EDGE LINE RAMP = 575 LIN.FT. 4" YELLOW
RT. EDGE LINE RAMP = 293 LIN.FT. 4" WHITE
EDGE LINES WARDEN RD. & MAIN LANES AT REMOVED RAMP = 204 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I(WHITE) = 38 EACH
TYPE II(WHITE/RED) = 48 EACH



STAGE 5
STRIPE MAIN LANES STA. 288+00 - STA. 417+00
OUTER 2 LANES EACH DIRECTION CONNECTING TO EXISTING STRIPING AT BOTH ENDS
CONSTRUCT MEDIAN BARRIER
CLOSE INSIDE LANES OF LANDERS AND WARDEN ROADS
LEAVE LANDERS ONE LANE ONE WAY NORTHBOUND
LEAVE WARDEN ONE LANE ONE WAY SOUTHBOUND
DO NOT CHANGE EXISTING STRIPING EXCEPT AT LANDERS DETOUR
REMOVE EXISTING LANDERS DETOUR STRIPING AND RESTRIPE FOR ONE LANE NORTHBOUND
REMOVE LANDERS DETOUR TEMPORARY PAVEMENT AND
RECONSTRUCT TURNOUTS FOR DRIVEWAYS IN THAT SECTION
CONSTRUCT TIE-IN TO LANDERS CONNECTION ROAD
INSTALL FINAL STRIPING ON LANDERS CONNECTION AND OPEN IT TO TRAFFIC
COLD MILL AND RESTRIPE BROOKSWOOD ROAD
INSTALL FINAL STRIPING ON BROOKSWOOD FLYOVER AND OPEN IT TO TRAFFIC
OPEN LANDERS CONNECTION AND BROOKSWOOD FLYOVER TO TRAFFIC
REMOVE REMAINING TEMPORARY RAMPS
CONSTRUCT EXIT RAMP ISLANDS
CONSTRUCT INTERSECTION ISLAND AT RIXIE ROAD

STRIPING FOR LANDERS CONNECTION

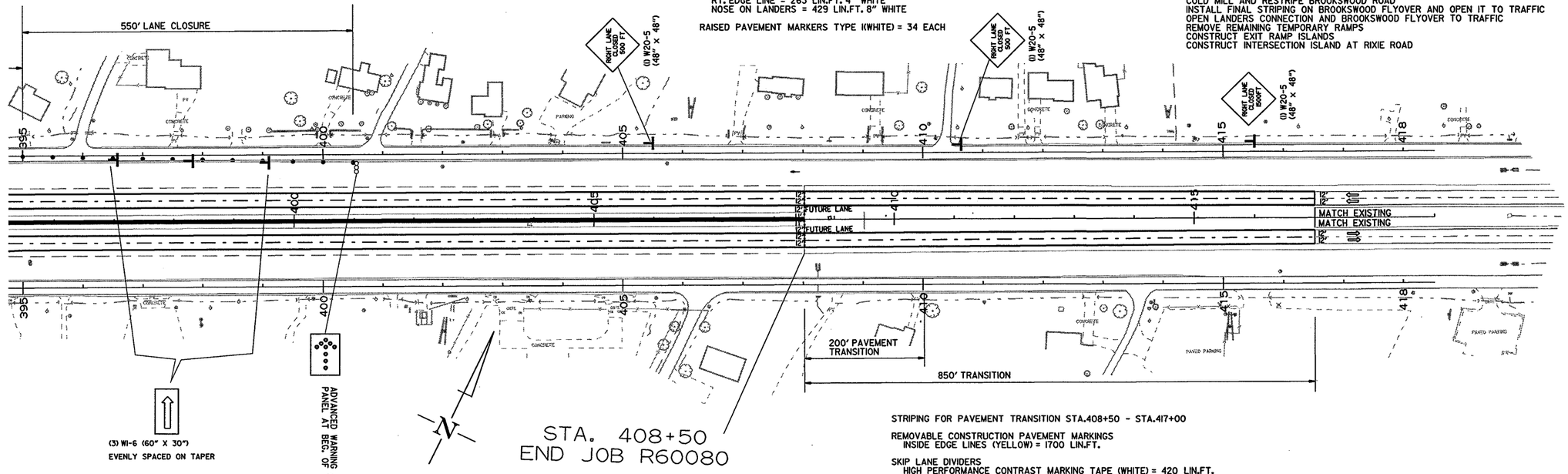
THERMOPLASTIC PAVEMENT MARKINGS
DBL. CENTERLINE STA. 373+50 - STA. 387+50 = 2800 LIN.FT. 4" YELLOW

RAISED PAVEMENT MARKERS
TYPE II(YEL/YEL) 40' O.C. ON CENTERLINE = 35 EACH

STRIPING FOR NORTHBOUND RAMP & ACCEL LANE
LANDERS STA. 379+13 - STA. 389+62
(REFER ALSO TO STD. DWG. PM-2)

THERMOPLASTIC PAVEMENT MARKINGS
NOSE GORE = 120 LIN.FT. 8" WHITE
SKIP LANE DIVIDER = 100 LIN.FT. 8" WHITE
LT. EDGE LINE = 589 LIN.FT. 4" YELLOW
RT. EDGE LINE = 263 LIN.FT. 4" WHITE
NOSE ON LANDERS = 429 LIN.FT. 8" WHITE

RAISED PAVEMENT MARKERS TYPE I(WHITE) = 34 EACH



STRIPING FOR PAVEMENT TRANSITION STA.408+50 - STA.417+00

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
INSIDE EDGE LINES (YELLOW) = 1700 LIN.FT.

SKIP LANE DIVIDERS
HIGH PERFORMANCE CONTRAST MARKING TAPE (WHITE) = 420 LIN.FT.

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
OUTSIDE EDGE LINES = 1700 LIN.FT. 4" WHITE

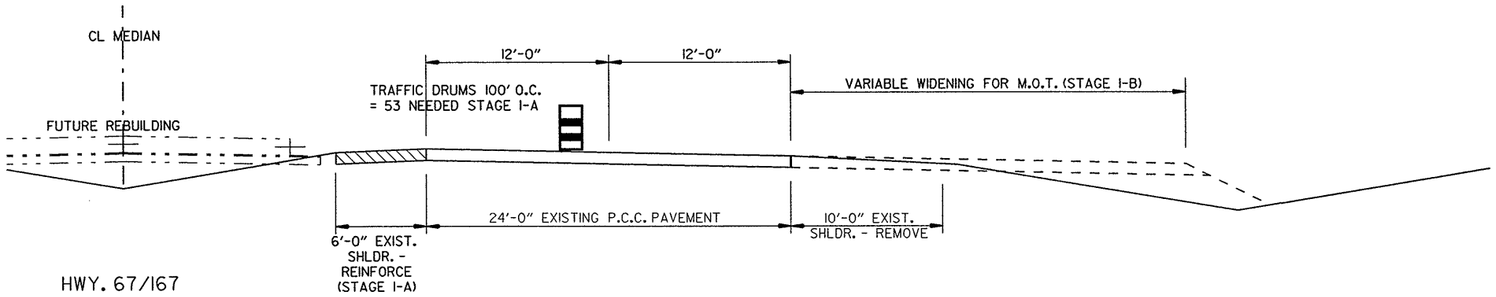
PLOWABLE PAVEMENT MARKERS TYPE I(WHITE)
80' O.C. ON SKIP LANE DIVIDERS = 20 EACH

MAINTENANCE OF TRAFFIC NORTH SECTION HWY. 67/167 STAGE 5

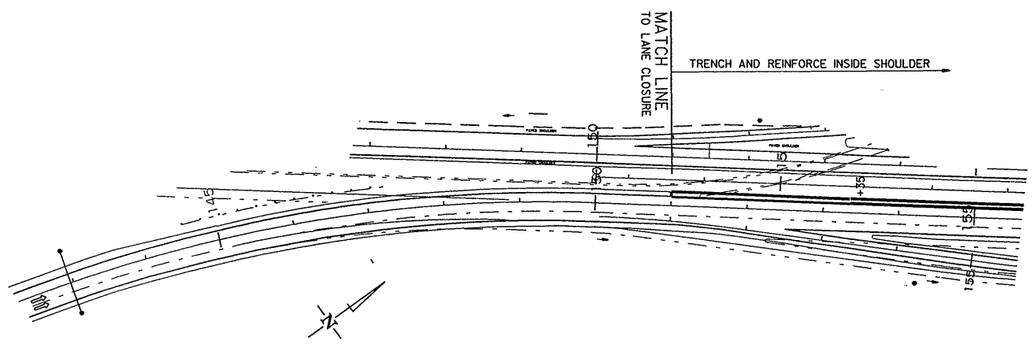
08/04/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	154	609
				(2)	MAINTENANCE OF TRAFFIC			

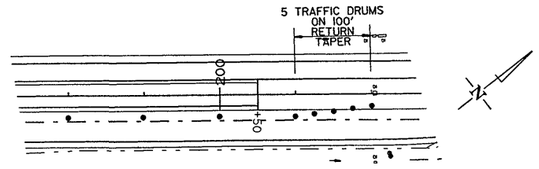
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11791
CHARLES D. CLEMENTS



STAGE CONSTRUCTION DETAIL
NB LANES STA. 151+00 - STA. 159+56.24 EQ.BK.
MEDIAN AHD. STA.22+13.45 - STA. 51+11.90 EQ.BK
MEDIAN AHD. STA.196+78.80 - STA. 200+50



DETAIL AT STA. 151+00



DETAIL AT STA. 200+50

STAGE 1-A
WORKING AT NIGHT, CLOSE INSIDE NOTTHBOUND LANE;
REINFORCE INSIDE SHOULDER OF NORTHBOUND LANES
RECONSTRUCT PORTION OF MEDIAN STA.145+00 - STA. 153+35 NB

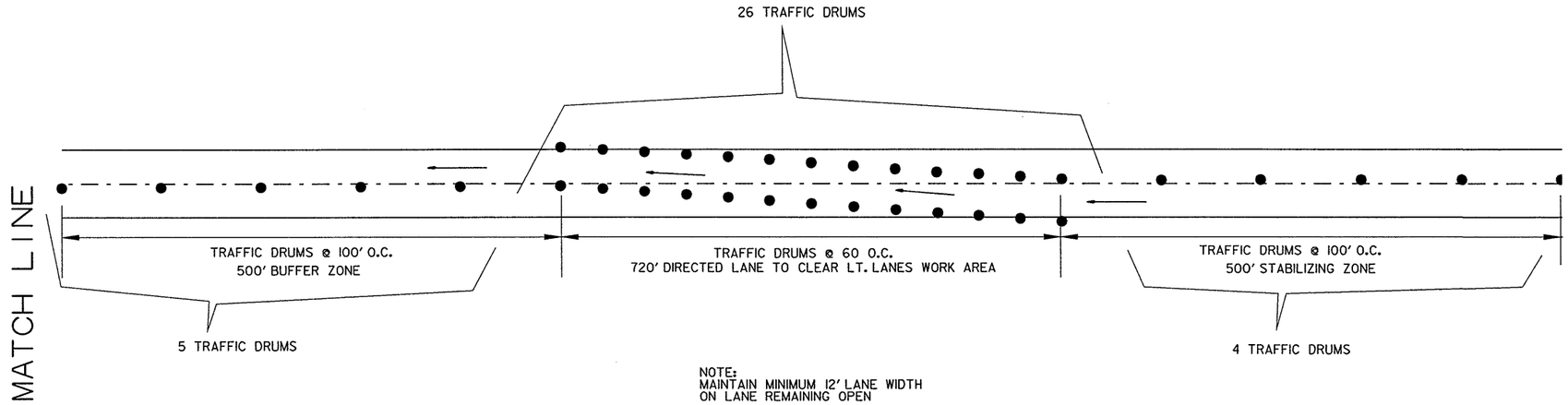
MAINTENANCE OF TRAFFIC
SOUTH SECTION HWY. 67/167
STAGE 1-A

08/08/05 motstudy

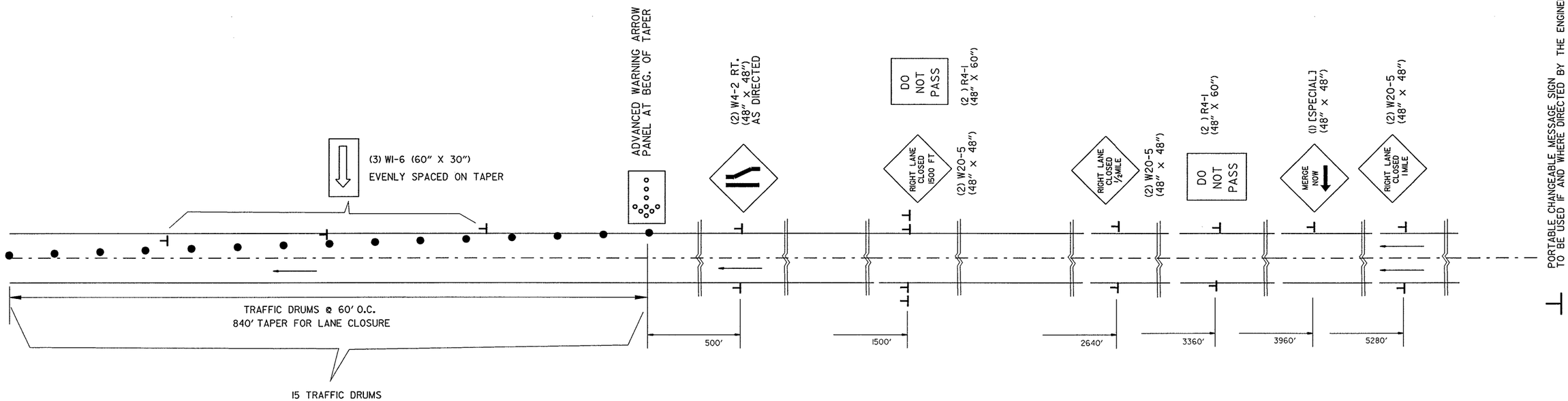
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	155	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-22-01
CHARLES D. CLEMENTS



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



RT. LANE CLOSURE

STAGE I-A
WORKING AT NIGHT, CLOSE INSIDE NORTHBOUND LANE;
REINFORCE INSIDE SHOULDER OF NORTHBOUND LANES
RECONSTRUCT PORTION OF MEDIAN STA.145+00 - STA. 153+35 NB

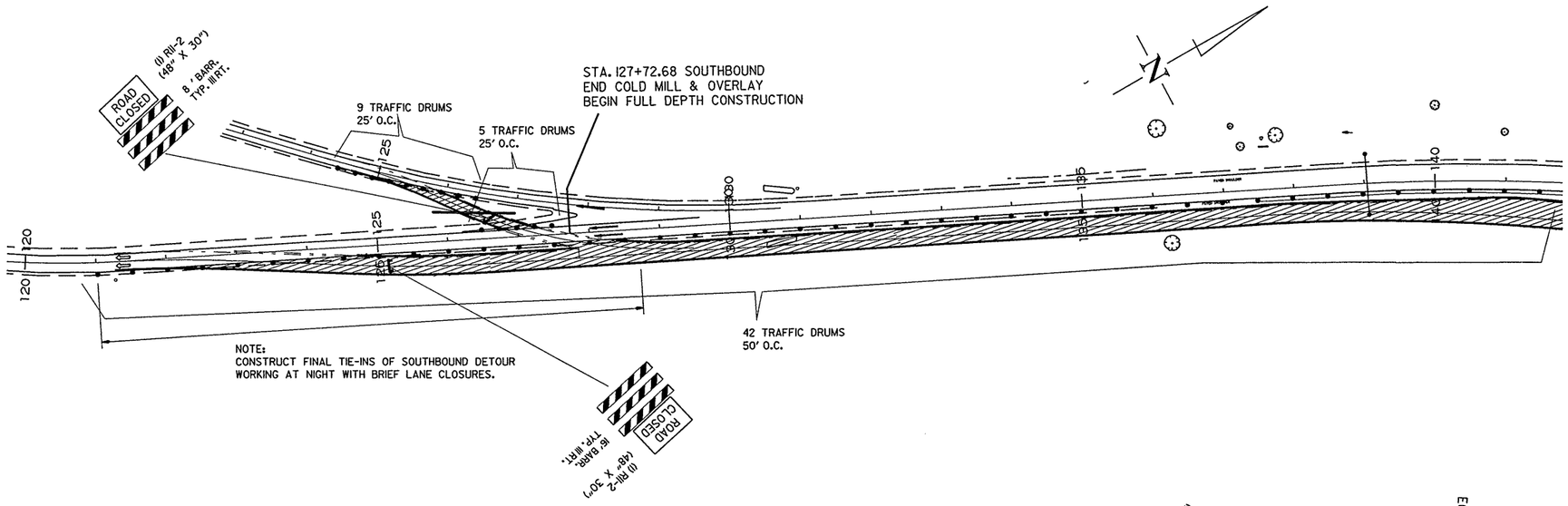
MAINTENANCE OF TRAFFIC
SOUTH SECTION HWY. 67/167
STAGE 1-A

08/05/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	156	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 12128
8-22-05
CHARLES D. CLEMENTS



NOTE:
MAINTAIN 12' TRAFFIC LANE ON EXIT RAMP DURING WIDENING

STAGE 1-B
CONSTRUCT TEMPORARY WIDENING RT. OF McCAIN EXIT RAMP.
CONSTRUCT DETOUR ALIGNMENT FOR SOUTHBOUND LANES SOUTH OF McCAIN EXIT

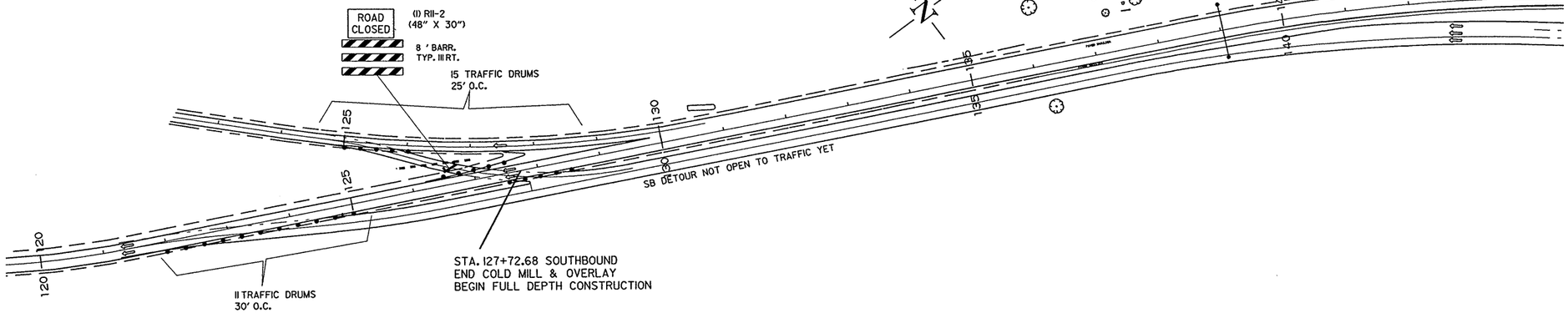
MAINTENANCE OF TRAFFIC SOUTH SECTION HWY. 67/167 STAGE 1-B

08/08/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		157609

(2) MAINTENANCE OF TRAFFIC

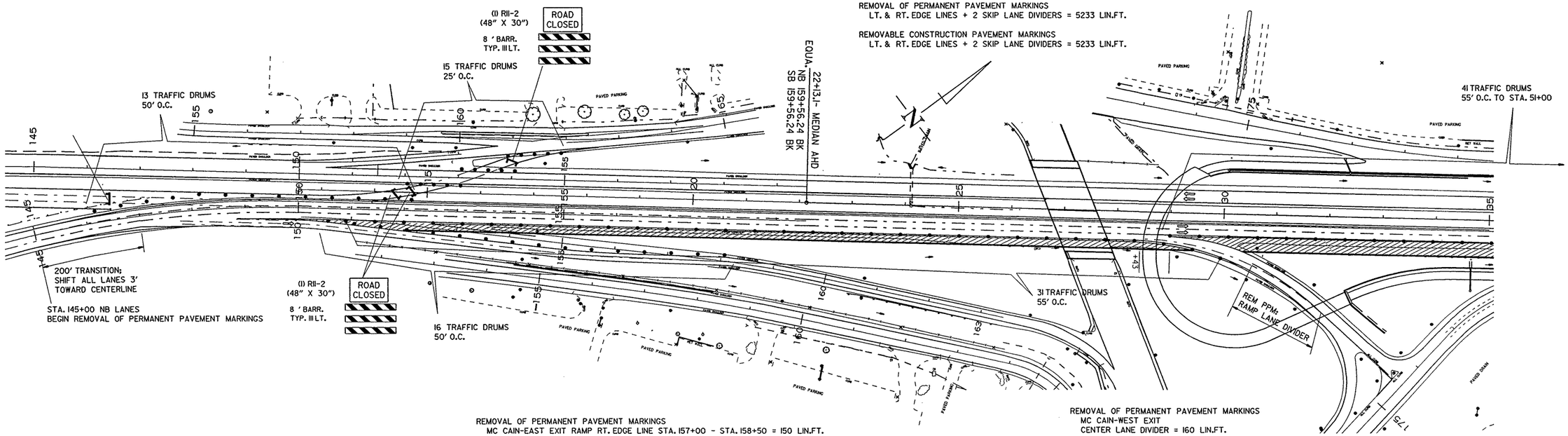
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER CHARLES D. CLEMENTS



MAIN LANES NORTHBOUND STA. 145+00 THROUGH EQUATION TO STA. 28+43

REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. & RT. EDGE LINES + 2 SKIP LANE DIVIDERS = 5233 LIN.FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES + 2 SKIP LANE DIVIDERS = 5233 LIN.FT.



REMOVAL OF PERMANENT PAVEMENT MARKINGS
MC CAIN-EAST EXIT RAMP RT. EDGE LINE STA. 157+00 - STA. 158+50 = 150 LIN.FT.

CONSTRUCTION PAVEMENT MARKINGS
MC CAIN-EAST TEMPORARY EXIT RAMP LT. & RT. EDGE LINES
STA. 148+00 - STA. 158+50 = 2100 LIN.FT.

REMOVAL OF PERMANENT PAVEMENT MARKINGS
MC CAIN-WEST EXIT
CENTER LANE DIVIDER = 160 LIN.FT.

STAGE 1-C
SHIFT NB MCCAIN EXIT TRAFFIC ONTO TEMPORARY RAMP
SHIFT NB MAIN LANES TRAFFIC 3' ONTO LT. SHOULDER
CONSTRUCT TEMPORARY WIDENING RT. OF EXISTING NB LANES

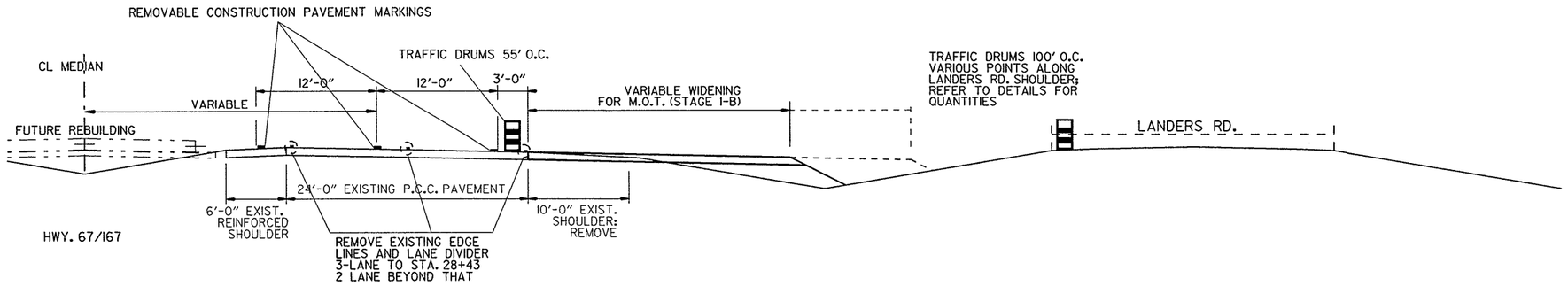
MAINTENANCE OF TRAFFIC SOUTH SECTION HWY. 67/167 STAGE 1-C

08/08/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	158	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
14224
CHARLES D. CLEMENTS

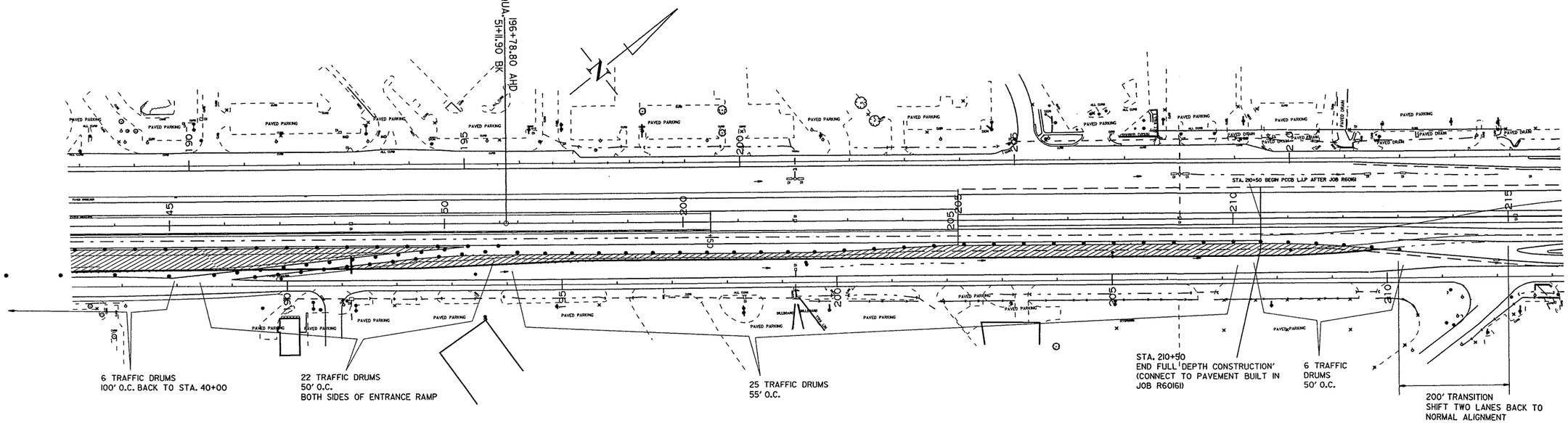


STAGE CONSTRUCTION DETAIL
NB LANES STA. 150+00 - STA. 159+56.24 EQ.BK.
MEDIAN AHD. STA. 22+13.45 - STA. 51+11.90 EQ.BK
MEDIAN AHD. STA. 196+78.80 - STA. 215+00

MAIN LANES STA. 28+50 THROUGH EQUATION TO STA. 215+00

REMOVAL OF PERMANENT PAVEMENT MARKINGS
RT. & LT. EDGE LINE AND SKIP LANE DIVIDER = 9203 LIN.FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
RT. & LT. EDGE LINES AND SKIP LANE DIVIDER = 9203 LIN.FT.



STAGE 1-C
SHIFT NB MCCAIN EXIT TRAFFIC ONTO TEMPORARY RAMP
SHIFT NB MAIN LANES TRAFFIC 3' ONTO LT. SHOULDER
CONSTRUCT TEMPORARY WIDENING RT. OF EXISTING NB LANES

MAINTENANCE OF TRAFFIC
SOUTH SECTION HWY. 67/167
STAGE 1-C

08/08/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	159	609

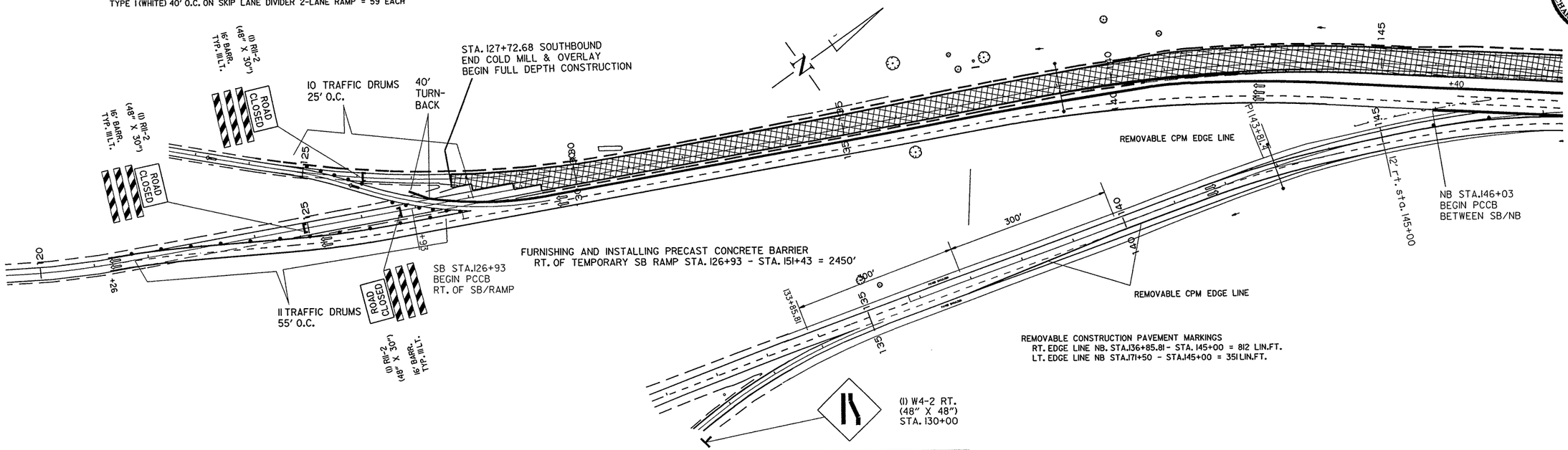
(2) MAINTENANCE OF TRAFFIC

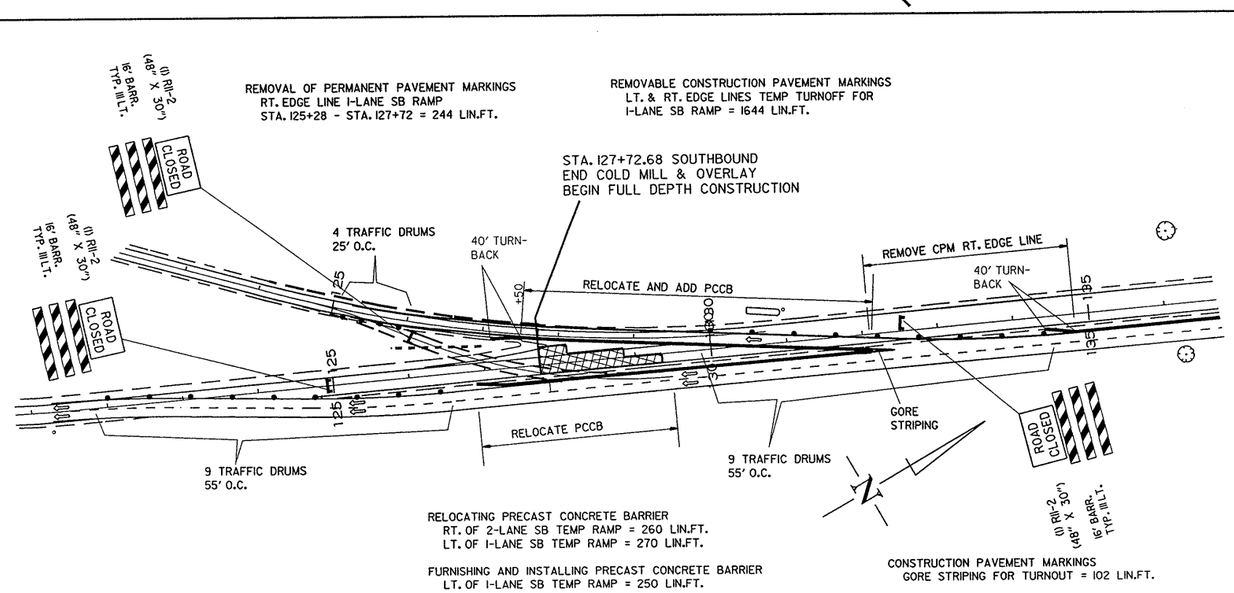
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9794
CHARLES D. CLEMENTS

REMOVAL OF PERMANENT PAVEMENT MARKINGS
EDGE AND CENTERLINE MARKINGS WHERE TEMPORARY SB RAMPS CROSS OVER OR TIE IN TO PERMANENT RAMPS = 589 LIN.FT.

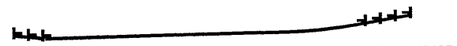
CONSTRUCTION PAVEMENT MARKINGS
LT & RT. EDGE LINES SINGLE LANE TEMP SB RAMP = 712 LIN.FT.
LT. & RT. EDGES + SKIP LANE DIVIDER
2- LANE TEMP SB RAMP STA. 121+26 - STA. 145+00 = 5342 LIN.FT.

RAISED PAVEMENT MARKERS
TYPE I (WHITE) 40' O.C. ON SKIP LANE DIVIDER 2-LANE RAMP = 59 EACH





STAGE 2-B DIFFERENCES DETAIL AT SB TEMP. RAMP SPLIT



DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
0 OM-3R 3 OM-3L

NOTE;
ALL OTHER SIGNS AND DEVICES PLACED IN STAGE 2-A REMAIN IN PLACE.

STAGE 2-A
SHIFT ALL TRAFFIC ONTO WIDENED NORTHBOUND LANES
RECONSTRUCT MOST OF SOUTHBOUND LANES
CONSTRUCT TEMPORARY RAMPS FOR NEXT STAGE USE
STAGE 2-B
SHIFT RAMP TRAFFIC
RECONSTRUCT REST OF SOUTHBOUND LANES

MAINTENANCE OF TRAFFIC
SOUTH SECTION HWY. 67/167
STAGE 2-A & 2-B

08/12/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	160	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7791
9-11-91
CHARLES D. CLEMENTS

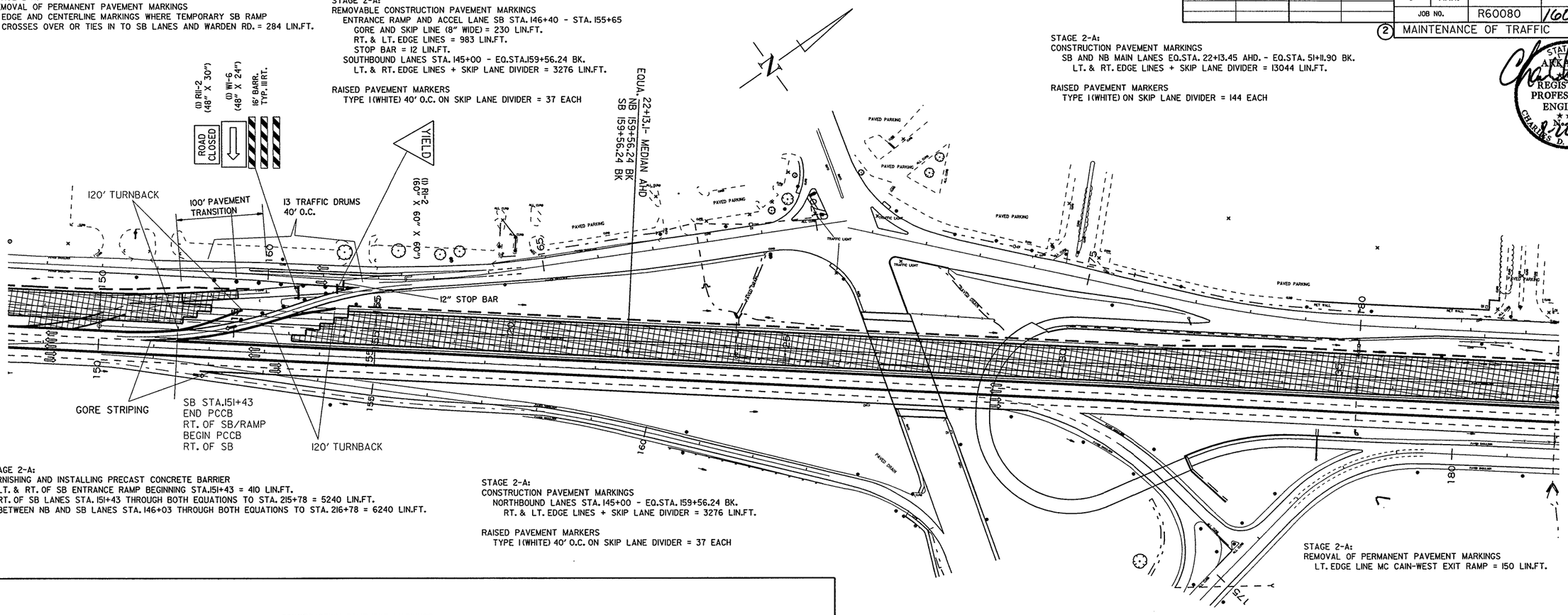
STAGE 2-A:
REMOVAL OF PERMANENT PAVEMENT MARKINGS
EDGE AND CENTERLINE MARKINGS WHERE TEMPORARY SB RAMP CROSSES OVER OR TIES IN TO SB LANES AND WARDEN RD. = 284 LIN.FT.

STAGE 2-A:
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
ENTRANCE RAMP AND ACCEL LANE SB STA. 146+40 - STA. 155+65
GORE AND SKIP LINE (8" WIDE) = 230 LIN.FT.
RT. & LT. EDGE LINES = 983 LIN.FT.
STOP BAR = 12 LIN.FT.
SOUTHBOUND LANES STA. 145+00 - EQ.STA.159+56.24 BK.
LT. & RT. EDGE LINES + SKIP LANE DIVIDER = 3276 LIN.FT.

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SKIP LANE DIVIDER = 37 EACH

STAGE 2-A:
CONSTRUCTION PAVEMENT MARKINGS
SB AND NB MAIN LANES EQ.STA. 22+13.45 AHD. - EQ.STA. 51+11.90 BK.
LT. & RT. EDGE LINES + SKIP LANE DIVIDER = 13044 LIN.FT.

RAISED PAVEMENT MARKERS
TYPE I(WHITE) ON SKIP LANE DIVIDER = 144 EACH



STAGE 2-A:
FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER
LT. & RT. OF SB ENTRANCE RAMP BEGINNING STA.151+43 = 410 LIN.FT.
RT. OF SB LANES STA. 151+43 THROUGH BOTH EQUATIONS TO STA. 215+78 = 5240 LIN.FT.
BETWEEN NB AND SB LANES STA. 146+03 THROUGH BOTH EQUATIONS TO STA. 216+78 = 6240 LIN.FT.

STAGE 2-A:
CONSTRUCTION PAVEMENT MARKINGS
NORTHBOUND LANES STA. 145+00 - EQ.STA. 159+56.24 BK.
RT. & LT. EDGE LINES + SKIP LANE DIVIDER = 3276 LIN.FT.

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SKIP LANE DIVIDER = 37 EACH

STAGE 2-A:
REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. EDGE LINE MC CAIN-WEST EXIT RAMP = 150 LIN.FT.

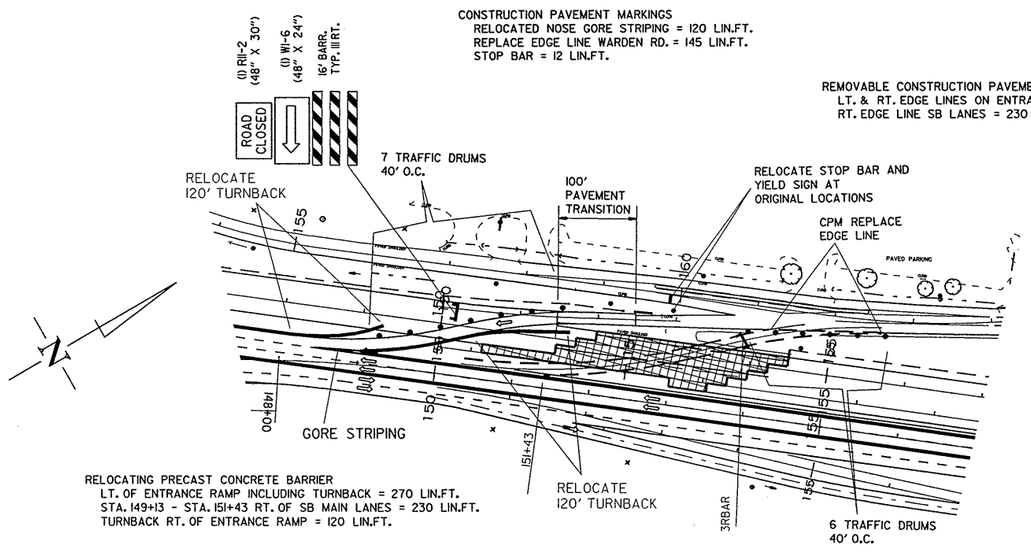
NOTE;
ALL OTHER SIGNS AND DEVICES PLACED IN STAGE 2-A REMAIN IN PLACE.

DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
4 OM-3R 4 OM-3L

CONSTRUCTION PAVEMENT MARKINGS
RELOCATED NOSE GORE STRIPING = 120 LIN.FT.
REPLACE EDGE LINE WARDEN RD. = 145 LIN.FT.
STOP BAR = 12 LIN.FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES ON ENTRANCE RAMP = 738 LIN.FT.
RT. EDGE LINE SB LANES = 230 LIN.FT.



RELOCATING PRECAST CONCRETE BARRIER
LT. OF ENTRANCE RAMP INCLUDING TURNBACK = 270 LIN.FT.
STA. 149+13 - STA. 151+43 RT. OF SB MAIN LANES = 230 LIN.FT.
TURNBACK RT. OF ENTRANCE RAMP = 120 LIN.FT.

STAGE 2-B DIFFERENCES DETAIL AT SB ENTRANCE RAMP

STAGE 2-A
SHIFT ALL TRAFFIC ONTO WIDENED NORTHBOUND LANES
RECONSTRUCT MOST OF SOUTHBOUND LANES
CONSTRUCT TEMPORARY RAMPS FOR NEXT STAGE USE
STAGE 2-B
SHIFT RAMP TRAFFIC
RECONSTRUCT REST OF SOUTHBOUND LANES

MAINTENANCE OF TRAFFIC
SOUTH SECTION HWY. 67/167
STAGE 2-A & 2-B

08/10/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	16	60

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4704
CHARLES D. CLEMENTS
8-22-05

STAGE 2-A:
CONSTRUCTION PAVEMENT MARKINGS
SB MAIN LANES EQ.STA. 196+78.8 AHD. - STA. 210+50
LT. & RT. EDGE LINES + SKIP LANE DIVIDER = 3085 LIN.FT.

RAISED PAVEMENT MARKERS
TYPE I (WHITE) ON SKIP LANE DIVIDER = 35 EACH

EQUA. 51+11.90 BK = 196+78.80 AHD

19 TRAFFIC DRUMS
50' O.C.

18 TRAFFIC DRUMS
IN 2 ROWS
30' O.C. IN EACH ROW

STAGE 2-A:
REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. EDGE LINE LANDERS = 216 LIN.FT.

STAGE 2-A:
CONSTRUCTION PAVEMENT MARKINGS
ENTRANCE RAMP NB STA. 40+00 - STA. 47+00
GORE AND SKIP LINE (8" WIDE) = 230 LIN.FT.
RT. & LT. EDGE LINES = 324 LIN.FT.

STAGE 2-A:
CONSTRUCTION PAVEMENT MARKINGS
NB MAIN LANES EQ.STA. 196+78.8 AHD. - STA. 210+50
LT. & RT. EDGE LINES + SKIP LANE DIVIDER = 3085 LIN.FT.

RAISED PAVEMENT MARKERS
TYPE I (WHITE) ON SKIP LANE DIVIDER = 35 EACH

(2) WI-4bL
(48" X 48")

(2) WI-4bL
(48" X 48")

STAGE 2-A:
REMOVAL OF PERMANENT PAVEMENT MARKINGS
SB LANES STA. 210+50 - STA. 218+00
LT. & RT. EDGE LINES + SKIP LANE DIVIDER = 1688 LIN.FT.
NB LANES STA. 210+50 - STA. 215+00
LT. & RT. EDGE LINES + SKIP LANE DIVIDER = 1013 LIN.FT.

STAGE 2-A:
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
SB LANES STA. 210+50 - STA. 218+00
LT. & RT. EDGE LINES + SKIP LANE DIVIDER = 1688 LIN.FT.
NB LANES STA. 210+50 - STA. 215+00
LT. & RT. EDGE LINES + SKIP LANE DIVIDER = 1013 LIN.FT.

REMOVE PPM ALL THREE LINES SB TRAFFIC

5 TRAFFIC DRUMS 55' O.C.

180' TURNBACK

STA. 210+50 BEGIN PCCB L.I.P. AFTER JOB R6016I OVERLAY = 500'±

STA. 218+50 END PCCB L.I.P. AFTER JOB R6016I
BEGIN PERMANENT MEDIAN WALL

STRIPING FROM JOB R6018I

STRIPING FROM JOB R6018I

STA. 210+50
END FULL DEPTH CONSTRUCTION
(CONNECT TO PAVEMENT BUILT IN JOB R6016I)

REMOVE PPM ALL THREE LINES NB TRAFFIC

180' TURNBACK

(3) OM-3L 20' APART

(4) OM-3R 20' APART

DETAIL OF OBJECT MARKERS ON
TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
4 OM-3R 4 OM-3L

STAGE 2-A
SHIFT ALL TRAFFIC ONTO WIDENED NORTHBOUND LANES
RECONSTRUCT MOST OF SOUTHBOUND LANES
CONSTRUCT TEMPORARY RAMPS FOR NEXT STAGE USE
STAGE 2-B
SHIFT RAMP TRAFFIC
RECONSTRUCT REST OF SOUTHBOUND LANES

MAINTENANCE OF TRAFFIC
SOUTH SECTION HWY. 67/167
STAGE 2-A & 2-B

08/09/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	162	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER 14473 CHARLES D. CLEMENTS

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS
LT. EDGE AND CENTERLINE FROM STAGE 2 ALIGNMENT
STA. 121+26 - STA. 124+70 = 430 LIN.FT.

CONSTRUCTION PAVEMENT MARKINGS
RT. EDGE AND CENTERLINE 2-LANE SB RAMP
STA. 121+26 - STA. 124+70 = 430 LIN.FT.

RAISED PAVEMENT MARKERS
TYPE I(WHITE) ON SKIP LINE = 9 EACH

CONSTRUCTION PAVEMENT MARKINGS
RT. & LT. EDGES 1-LANE SB RAMP
STA. 125+28 - STA. 130+00 = 944 LIN.FT.

STA. 127+72.68 SOUTHBOUND
END COLD MILL & OVERLAY
BEGIN FULL DEPTH CONSTRUCTION

CONSTRUCTION PAVEMENT MARKINGS
RT. & LT. EDGES AND 2 SKIP LANE DIVIDERS, 3-LANE SB RAMP
STA. 130+00 - STA. 140+74 = 2685 LIN.FT.

PLOWABLE PAVEMENT MARKERS
TYPE I(WHITE) ON SKIP LINES STA. 127+72 - STA. 140+00 = 32 EACH

23 TRAFFIC DRUMS
50' O.C.

REM CPM LT EDGE AND CENTERLINE
FROM PREV STAGE

14 TRAFFIC DRUMS
30' O.C.

ROAD CLOSED

(1) RII-2 (48" X 30")
16' BARR. TYP. III RT.

CONSTRUCTION PAVEMENT MARKINGS
RT. & LT. EDGES AND CENTERLINE 2-LANE SB RAMP
STA. 126+50 - STA. 130+00 = 788 LIN.FT.

(1) RII-2 (48" X 30")
16' BARR. TYP. III LT.

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

29 TRAFFIC DRUMS
50' O.C.

300'

REMOVE OLD DETOUR

CONSTRUCT NEW DETOUR

(3) OM-3L 20' APART

(4) OM-3R 20' APART

DETAIL OF OBJECT MARKERS ON
TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
3 OM-3R 0 OM-3L

STA. 133+85.81 SOUTHBOUND
END COLD MILL & OVERLAY
BEGIN FULL DEPTH CONSTRUCTION

9 TRAFFIC DRUMS
30' O.C.

(1) W4-2 RT.
(48" X 48")
STA. 130+00

EQUA. NB I59+56.24 BK
SB I59+56.24 BK
22+13.45 MEDIAN AHD

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES + SKIP LANE DIVIDER SOUTHBOUND LANES
STA. 140+00 - EQ. STA. 159+56.24 = 4402 LIN.FT.
LT & RT. EDGE LINES, SKIP LINE AND GORE ON ENTRANCE RAMP = 270 LIN.FT.

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SKIP LANE DIVIDER = 50 EACH

5 TRAFFIC DRUMS
100' O.C.

11 TRAFFIC DRUMS
100' O.C.

5 TRAFFIC DRUMS
50' O.C.

40' TURNBACK

PAVED PARKING

TRAFFIC LIGHT

FIXED SIGNAL

PAVED DRAIN

FULL-DEPTH CONSTRUCTION OF
PART OF PERMANENT MEDIAN

CONSTRUCTION OF
TEMPORARY PAVEMENT; GRADE ADJUSTMENT
BETWEEN NEW AND OLD PAVEMENT

5 TRAFFIC DRUMS 25' O.C.
AT TEMP RAMP CONNECTION

CONSTRUCTION OF
TEMPORARY PAVEMENT

11 TRAFFIC DRUMS
50' O.C.

STAGE 3
SHIFT SB TRAFFIC ONTO REBUILT LANES
RELOCATE PCCB FROM NB TO SB
RECONSTRUCT MEDIAN SHOULDER SB STA.146+30 - STA. 150+56
CONSTRUCT NORTHBOUND DETOUR LANES
CONSTRUCT RAMPS FOR USE IN NEXT STAGE

MAINTENANCE OF TRAFFIC
SOUTH SECTION HWY. 67/167
STAGE 3

08/12/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	163	608

(2) MAINTENANCE OF TRAFFIC

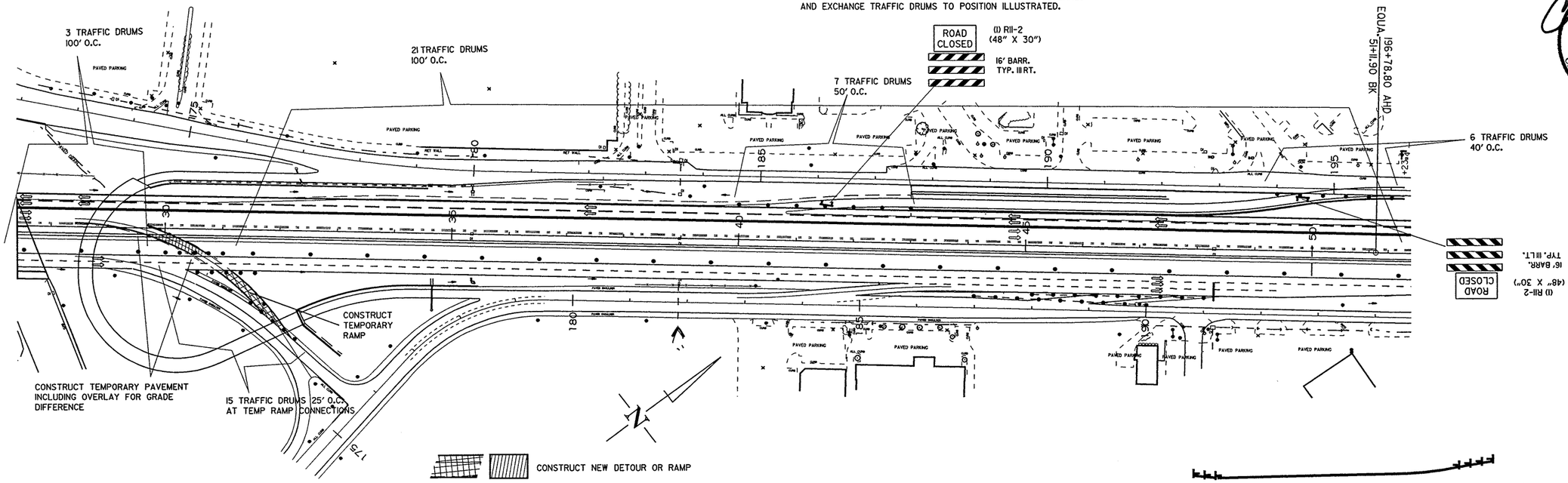
STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER CHARLES D. CLEMENTS

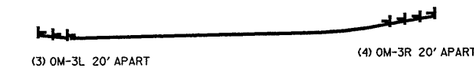
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES + SKIP LANE DIVIDER SOUTHBOUND LANES
EQ. STA. 22+13.45 - EQ.STA. 51+11+.90 BK. = 6522 LIN.FT.

RAISED PAVEMENT MARKERS
TYPE I (WHITE) 40' O.C. ON SKIP LANE DIVIDER = 72 EACH

RELOCATING PRECAST CONCRETE BARRIER
ENTIRE SOUTHERN SECTION BETWEEN SB AND FUTURE NB TRAFFIC = 6420 LIN.FT.

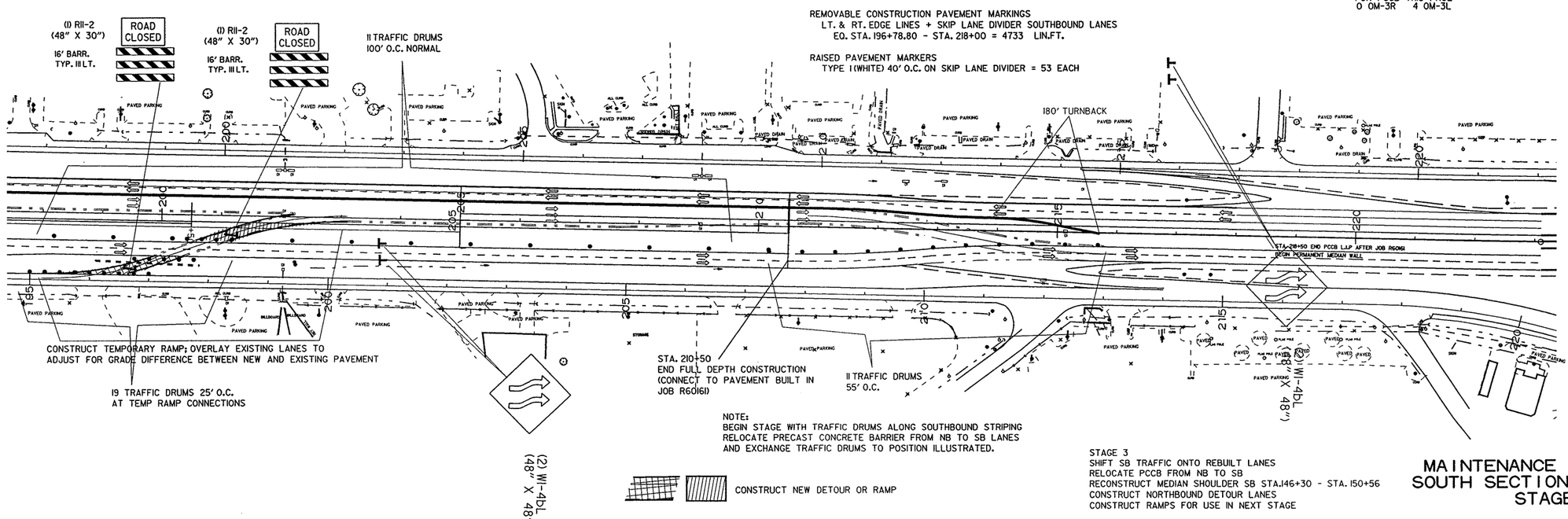
NOTE:
BEGIN STAGE WITH TRAFFIC DRUMS ALONG SOUTHBOUND STRIPING
RELOCATE PRECAST CONCRETE BARRIER FROM NB TO SB LANES
AND EXCHANGE TRAFFIC DRUMS TO POSITION ILLUSTRATED.





DETAIL OF OBJECT MARKERS ON
TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
0 OM-3R 4 OM-3L



NOTE:
BEGIN STAGE WITH TRAFFIC DRUMS ALONG SOUTHBOUND STRIPING
RELOCATE PRECAST CONCRETE BARRIER FROM NB TO SB LANES
AND EXCHANGE TRAFFIC DRUMS TO POSITION ILLUSTRATED.

STAGE 3
SHIFT SB TRAFFIC ONTO REBUILT LANES
RELOCATE PCCB FROM NB TO SB
RECONSTRUCT MEDIAN SHOULDER SB STA.146+30 - STA. 150+56
CONSTRUCT NORTHBOUND DETOUR LANES
CONSTRUCT RAMPS FOR USE IN NEXT STAGE

MAINTENANCE OF TRAFFIC SOUTH SECTION HWY. 67/167 STAGE 3

08/12/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	16	60

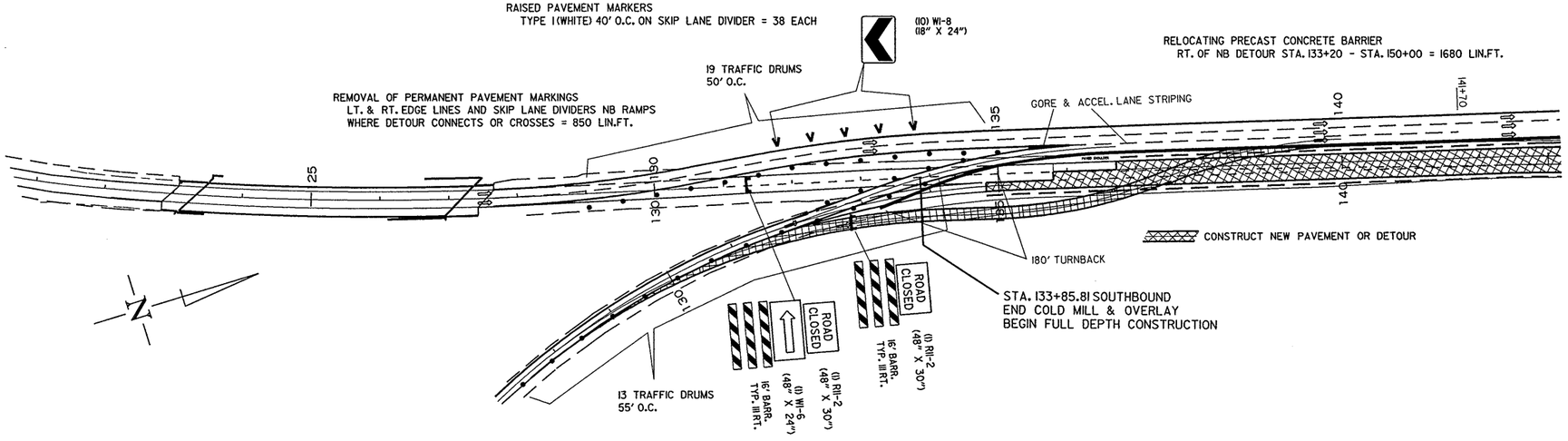
(2) MAINTENANCE OF TRAFFIC

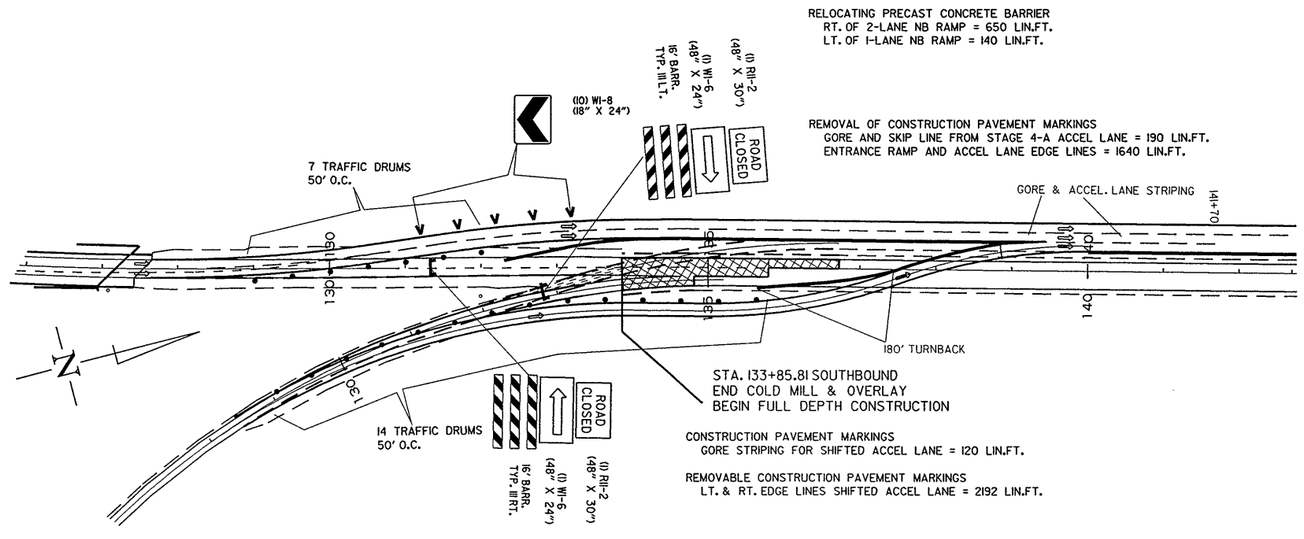
STATE OF ARKANSAS
No. 4794
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
8-22-05

CONSTRUCTION PAVEMENT MARKINGS
LT. & RT. EDGE LINES 1-LANE NB RAMP = 800 LIN.FT.
LT. & RT. EDGE LINES + SKIP LANE DIVIDER 2-LANE RAMP
BRIDGE END - STA. 143+00 = 3460 LIN.FT.
GORE AND ACCEL LANE STRIPING = 260 LIN.FT.

RAISED PAVEMENT MARKERS
TYPE I (WHITE) 40' O.C. ON SKIP LANE DIVIDER = 38 EACH

REMOVAL OF PERMANENT PAVEMENT MARKINGS
LT. & RT. EDGE LINES AND SKIP LANE DIVIDERS NB RAMPS
WHERE DETOUR CONNECTS OR CROSSES = 850 LIN.FT.





STAGE 4-B DIFFERENCES DETAIL AT NB TEMP. RAMP MERGE

DETAIL OF OBJECT MARKERS ON
TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
4 OM-3R 4 OM-3L

STAGE 4-A
SHIFT NORTHBOUND TRAFFIC TO REBUILT LANES AND DETOURS
PLACE PRECAST CONCRETE BARRIER RT. OF NB TRAFFIC
RECONSTRUCT MOST OF NORTHBOUND LANES
CONSTRUCT TEMP RAMPS FOR NEXT STAGE USE

STAGE 4-B
SHIFT TEMP RAMP TRAFFIC
RECONSTRUCT REMAINDER OF NORTHBOUND LANES

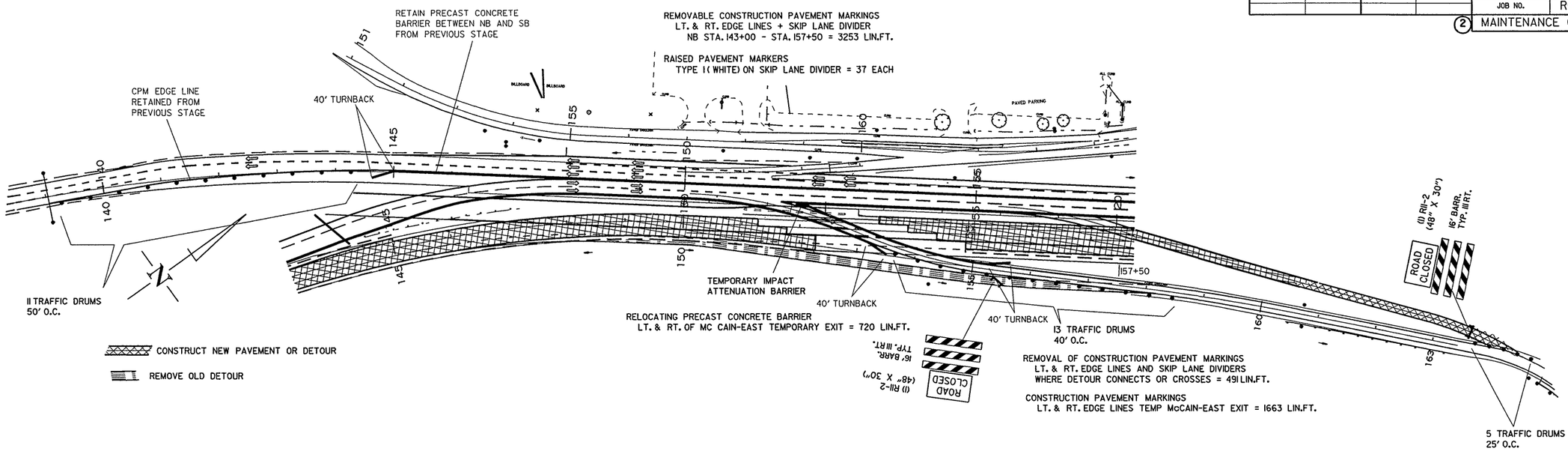
MAINTENANCE OF TRAFFIC
SOUTH SECTION HWY. 67/167
STAGE 4-A & 4-B

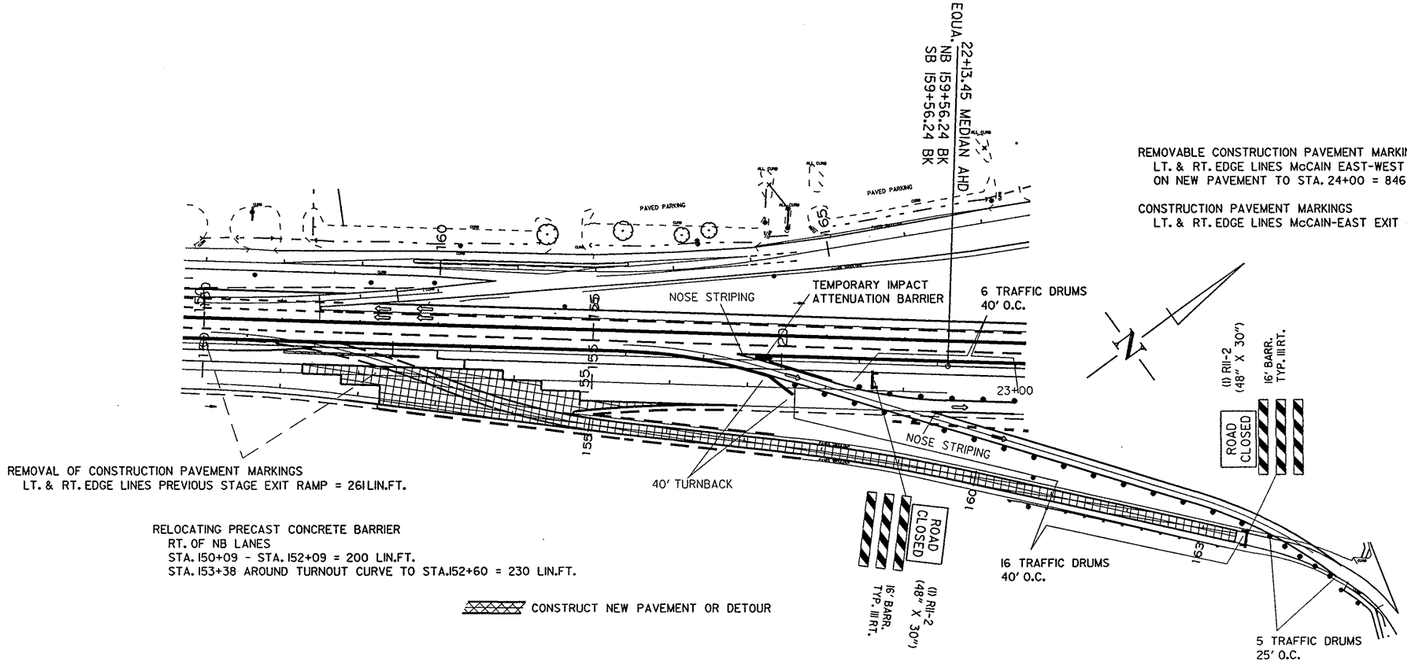
08/11/05 motstudy

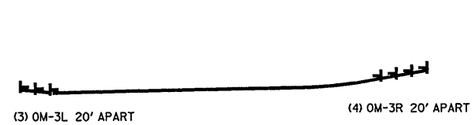
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	165	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER CHARLES D. CLEMENTS 9735







DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
6 OM-3R 3 OM-3L

STAGE 4-B DIFFERENCES DETAIL AT McCAIN TEMP. RAMP

STAGE 4-A
SHIFT NORTHBOUND TRAFFIC TO REBUILT LANES AND DETOURS
PLACE PRECAST CONCRETE BARRIER RT. OF NB TRAFFIC
RECONSTRUCT MOST OF NORTHBOUND LANES
CONSTRUCT TEMP RAMPS FOR NEXT STAGE USE

STAGE 4-B
SHIFT TEMP RAMP TRAFFIC
RECONSTRUCT REMAINDER OF NORTHBOUND LANES

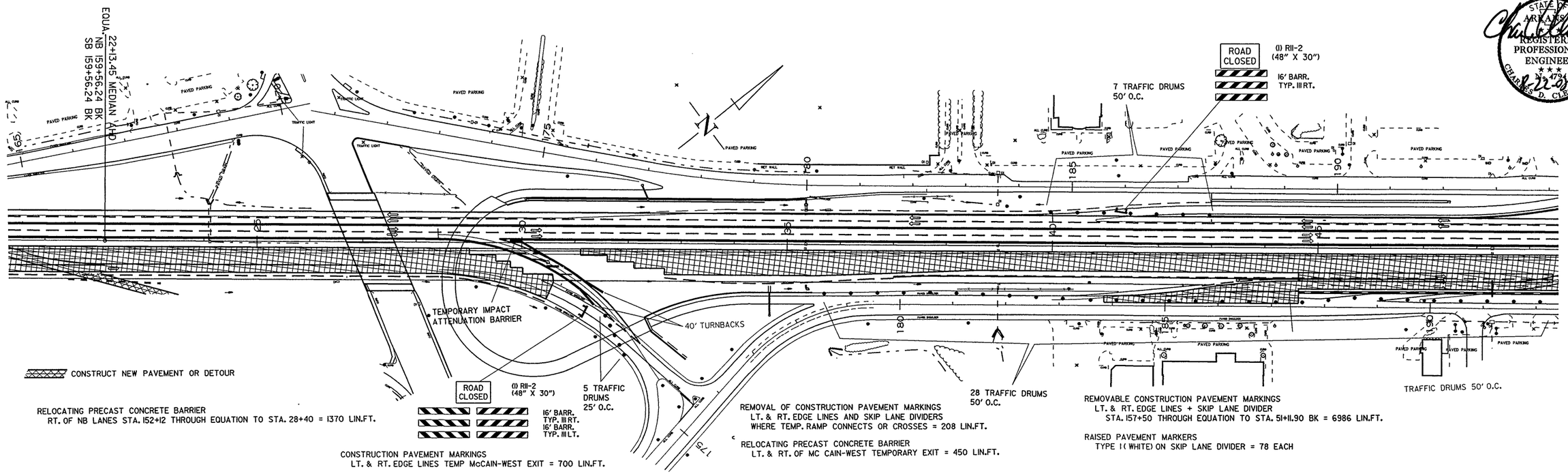
MAINTENANCE OF TRAFFIC
SOUTH SECTION HWY. 67/167
STAGE 4-A & 4-B

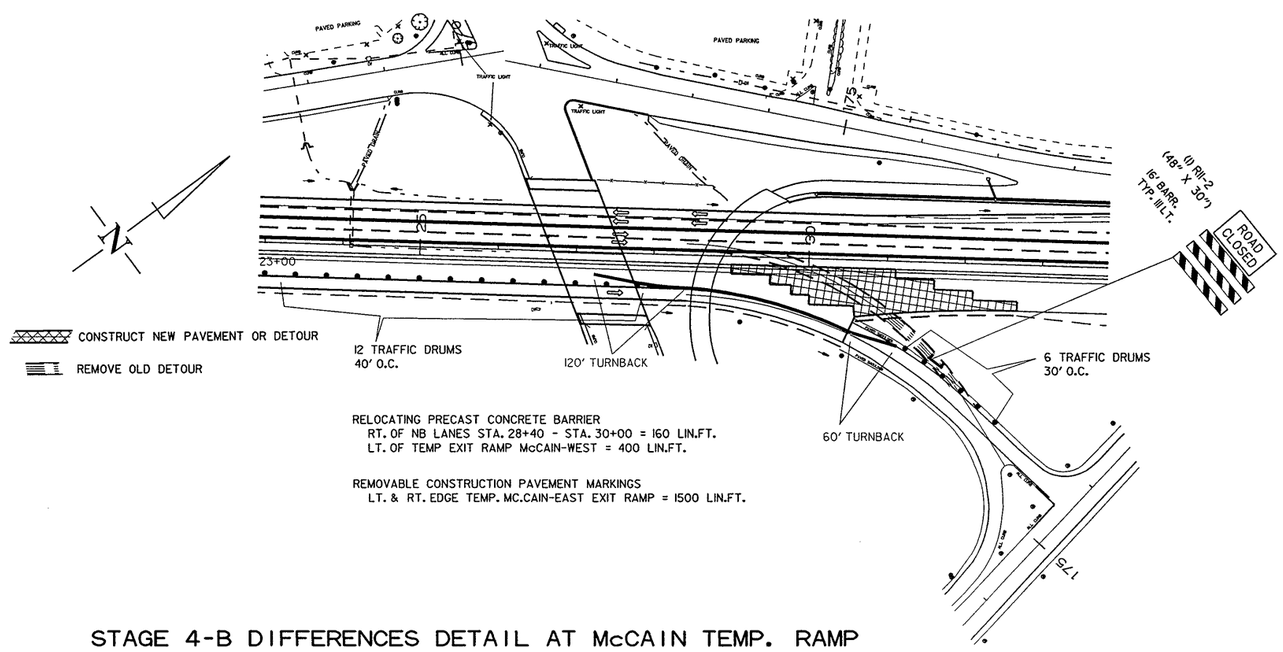
08/12/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	166	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
8-22-05





STAGE 4-B DIFFERENCES DETAIL AT McCAIN TEMP. RAMP

STAGE 4-A
SHIFT NORTHBOUND TRAFFIC TO REBUILT LANES AND DETOURS
PLACE PRECAST CONCRETE BARRIER RT. OF NB TRAFFIC
RECONSTRUCT MOST OF NORTHBOUND LANES
CONSTRUCT TEMP RAMPS FOR NEXT STAGE USE

STAGE 4-B
SHIFT TEMP RAMP TRAFFIC
RECONSTRUCT REMAINDER OF NORTHBOUND LANES

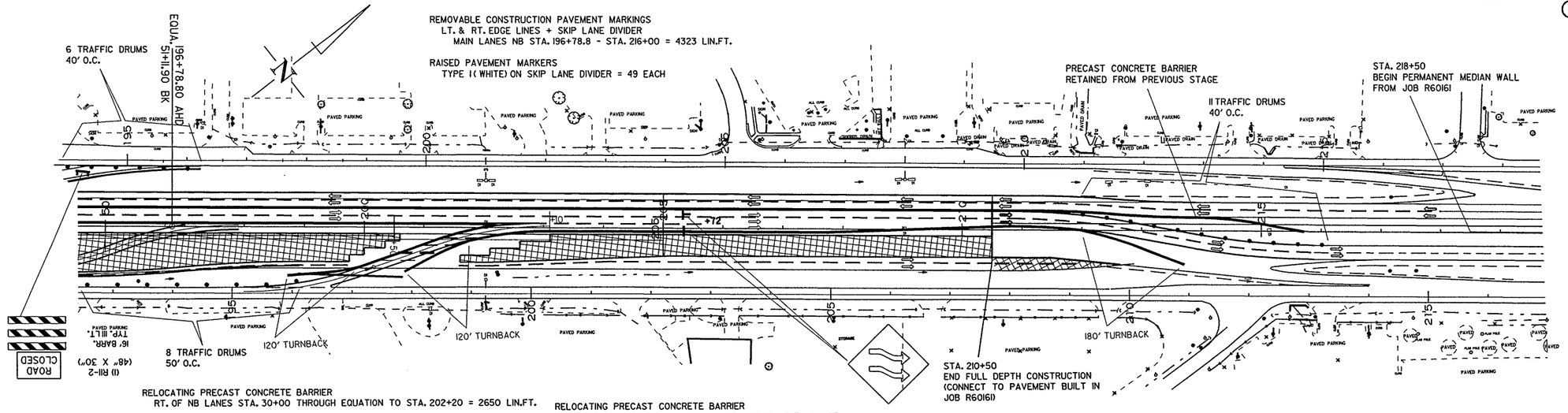
MAINTENANCE OF TRAFFIC SOUTH SECTION HWY. 67/167 STAGE 4-A & 4-B

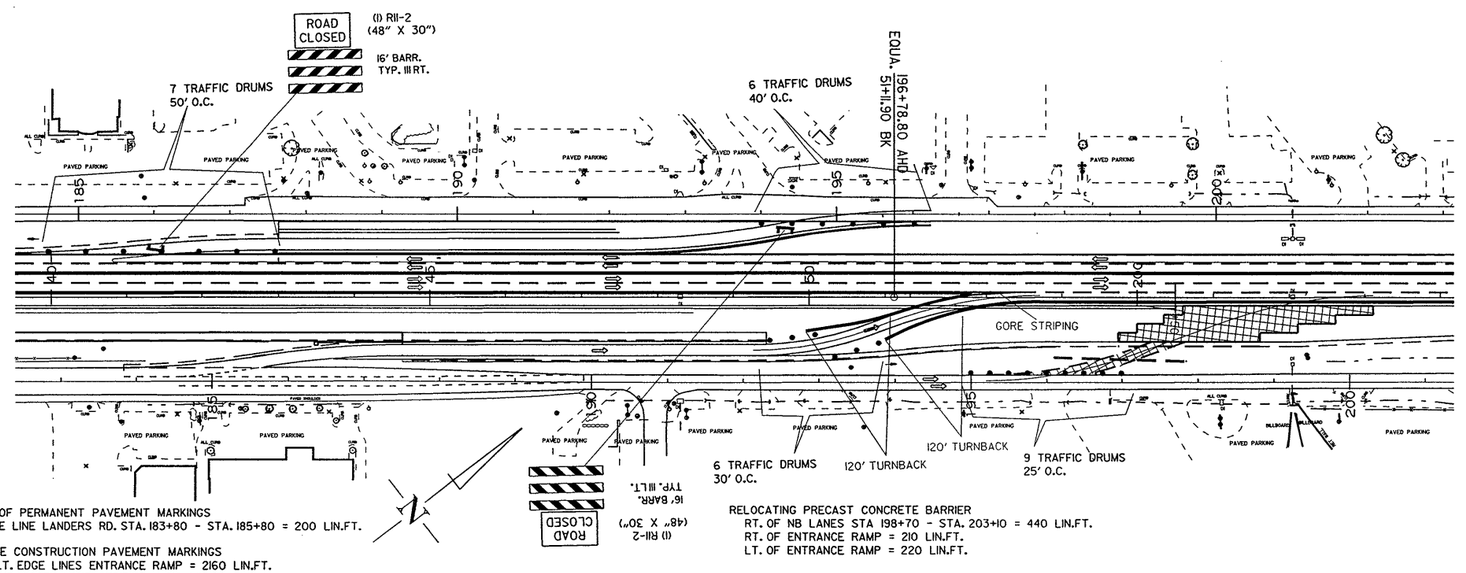
08/12/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	167	609

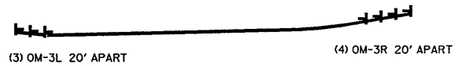
(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7941
CHARLES D. CLEMENTS
8-22-05





STAGE 4-B DIFFERENCES DETAIL AT TEMP. RAMP



DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
4 OM-3R 8 OM-3L

STAGE 4-A
SHIFT NORTHBOUND TRAFFIC TO REBUILT LANES AND DETOURS
PLACE PRECAST CONCRETE BARRIER RT. OF NB TRAFFIC
RECONSTRUCT MOST OF NORTHBOUND LANES
CONSTRUCT TEMP RAMPS FOR NEXT STAGE USE

STAGE 4-B
SHIFT TEMP RAMP TRAFFIC
RECONSTRUCT REMAINDER OF NORTHBOUND LANES

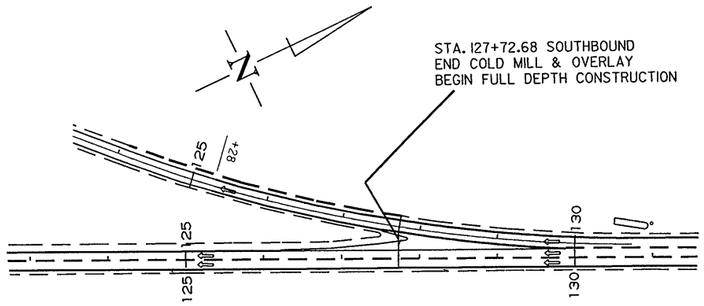
MAINTENANCE OF TRAFFIC SOUTH SECTION HWY. 67/167 STAGE 4-A & 4-B

08/12/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	168	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
9235



STAGE 5 STRIPING
SB INTERCHANGE RAMPS

CONSTRUCTION PAVEMENT MARKINGS
2-LANE RAMP STA. 127+54 - STA. 133+85.81 LT. & RT. EDGE LINES + SKIP LANE DIVIDER = 2908 LIN.FT.
1-LANE RAMP STA. 128+00 - STA. 133+85.81 LT. & RT. EDGE LINES = 490 LIN.FT.

STAGE 5 STRIPING
SB RAMPS DIVERGENCE
STA. 127+72.68 - STA. 130+00

THERMOPLASTIC PAVEMENT MARKINGS
GORE STRIPING = 655 LIN.FT. 8" WHITE

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
LT. EDGE LINE = 227 LIN.FT. 4" YELLOW
RT. EDGE LINE = 227 LIN.FT. 4" WHITE

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDER = 23 LIN.FT. (WHITE)

RAISED PAVEMENT MARKINGS
TYPE I (WHITE) ON GORE = 38 EACH
TYPE II (WHITE/RED) ON GORE = 48 EACH

PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) 80' O.C. ON SKIP LINE = 3 EACH

REFER-ALSO TO STANDARD DRAWING PM-2
FOR DETAILS OF EXIT RAMP MARKINGS

STAGE 5 STRIPING
3-LANE SB RAMP
STA. 130+00 - STA. 142+00

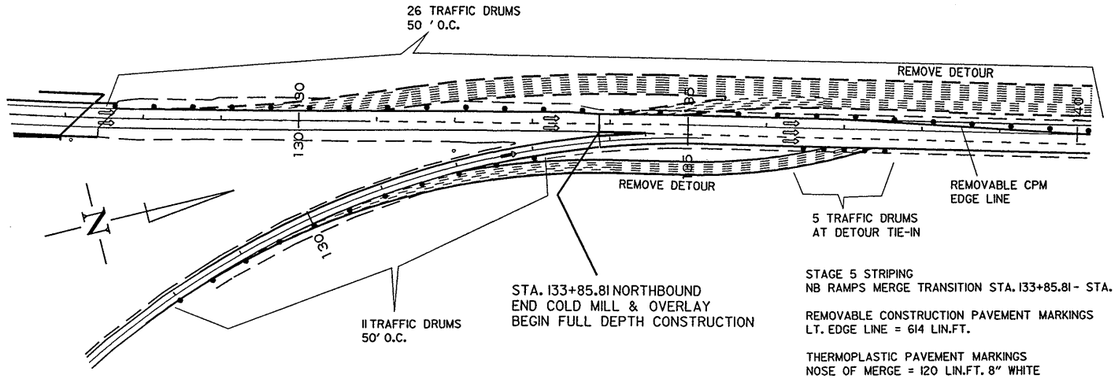
PROFILED THERMOPLASTIC PAVEMENT MARKINGS
LT. EDGE LINE = 1200 LIN.FT. 4" YELLOW
RT. EDGE LINE = 1200 LIN.FT. 4" WHITE

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDERS = 600 LIN.FT. (WHITE)

PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) 80' O.C ON SKIP LINES = 30 EACH.

STAGE 5 STRIPING
NB INTERCHANGE RAMPS

CONSTRUCTION PAVEMENT MARKINGS
2-LANE RAMP STA. 127+54 - STA. 133+85.81 LT. & RT. EDGE LINES + SKIP LANE DIVIDER = 1422 LIN.FT.
1-LANE RAMP STA. 128+00 - STA. 133+85.81 LT. & RT. EDGE LINES = 1174 LIN.FT.



STAGE 5 STRIPING
NB RAMPS MERGE TRANSITION STA. 133+85.81 - STA. 140+00

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. EDGE LINE = 614 LIN.FT.

THERMOPLASTIC PAVEMENT MARKINGS
NOSE OF MERGE = 120 LIN.FT. 8" WHITE

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
RT. EDGE LINE = 614 LIN.FT. 4" YELLOW

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDER LT. = 30 LIN.FT. (WHITE)
SKIP LANE DIVIDER RT. = 150 LIN.FT. (WHITE)

PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) 80' O.C. ON SKIP LANE DIVIDERS = 9 EACH

STAGE 5 STRIPING
SB LANES AND ACCEL LANE
STA. 142+00 - STA. 151+48 APPX. RAMP NOSE

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. EDGE LINE = 948 LIN.FT. (YELLOW)

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
RT. EDGE LINE = 948 LIN. FT. (4" WHITE)

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDER = 240 LIN.FT. (WHITE)

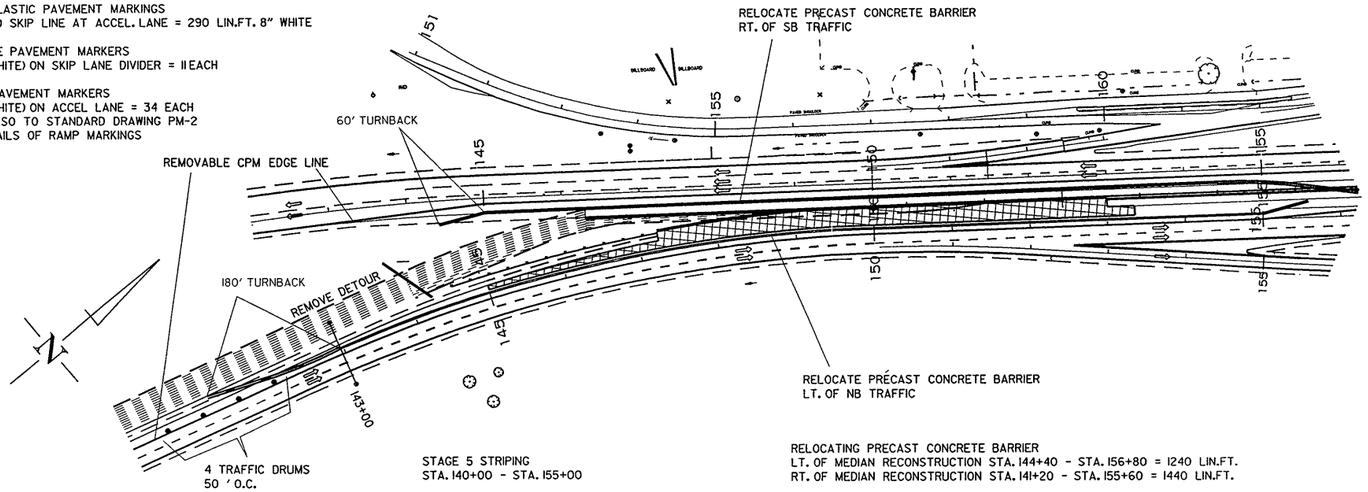
THERMOPLASTIC PAVEMENT MARKINGS
NOSE AND SKIP LINE AT ACCEL. LANE = 290 LIN.FT. 8" WHITE

PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) ON SKIP LANE DIVIDER = 11 EACH

RAISED PAVEMENT MARKINGS
TYPE I (WHITE) ON ACCEL LANE = 34 EACH
REFER-ALSO TO STANDARD DRAWING PM-2
FOR DETAILS OF RAMP MARKINGS

STAGE 5 STRIPING
ENTRANCE RAMP SB
STA. 151+48 - STA. 155+00

THERMOPLASTIC PAVEMENT MARKINGS
LT. EDGE LINE = 100 LIN.FT. 4" YELLOW
RT. EDGE LINE + TURNOUT EDGES = 674 LIN.FT. 4" WHITE



STAGE 5 STRIPING
STA. 140+00 - STA. 155+00

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
LT. EDGE LINE = 1500 LIN.FT. (YELLOW)

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIPE LANE DIVIDER = 340 LIN.FT. (WHITE)

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
RT. EDGE LINE = 1500 LIN.FT. (4" WHITE)

PLOWABLE PAVEMENT MARKERS
TYPE II (WHITE/RED) ON SKIP LANE DIVIDER = 19 EACH

RELOCATING PRECAST CONCRETE BARRIER
LT. OF MEDIAN RECONSTRUCTION STA. 144+40 - STA. 156+80 = 1240 LIN.FT.
RT. OF MEDIAN RECONSTRUCTION STA. 141+20 - STA. 155+60 = 1440 LIN.FT.

DETAIL OF OBJECT MARKERS ON
TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
3 OM-3R 7 OM-3L

STAGE 5 STRIPING
MAIN LANES BOTH DIRECTIONS
SB LANES STA. 151+48 - STA. 159+56.24 EQ.BK.
NB LANES STA. 155+00 - STA. 159+56.24 EQ.BK.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
INSIDE EDGE LINES = 1255 LIN.FT. (YELLOW)

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
OUTSIDE EDGE LINES = 1255 LIN.FT. (4" WHITE)

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LINES BOTH DIRECTIONS = 370 LIN.FT. (WHITE)

PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) 80' O.C. ON SKIP LANE DIVIDERS = 20 EACH

STAGE 5
SHIFT NORTHBOUND AND SOUTHBOUND TRAFFIC ONTO FINAL ALIGNMENT
[OUTER TWO LANES IN 3-LANE AREAS, INCLUDING JOBS R60161 & R60075 AREAS]
CONSTRUCT LAST SECTION OF MEDIAN AND CONSTRUCT NEW MEDIAN BARRIER
REMOVE REMAINING DETOUR PAVEMENT AND TEMPORARY RAMPS
REPLACE GUARDRAILS AT BRIDGES ON INTERCHANGE RAMPS.

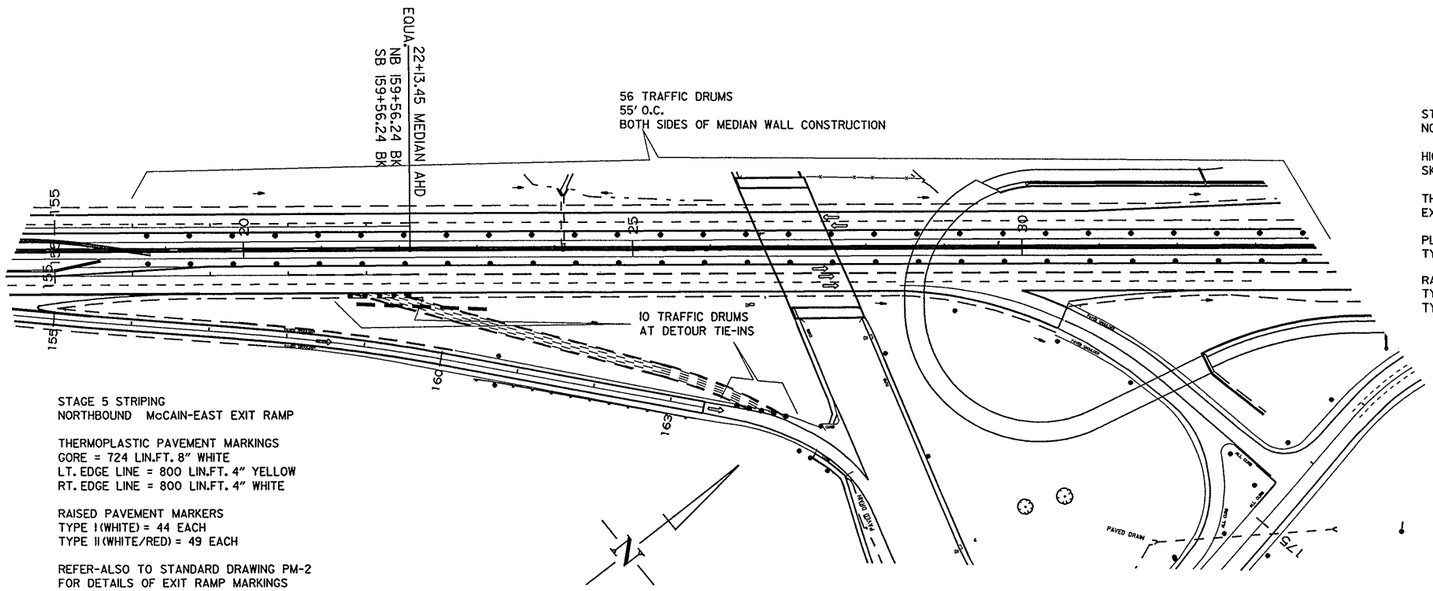
MAINTENANCE OF TRAFFIC
SOUTH SECTION HWY. 67/167
STAGE 5

08/15/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	169	603

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9474
8-22-05
CHARLES D. CLEMENTS



STAGE 5 STRIPING
NORTHBOUND McCAIN-EAST EXIT RAMP

THERMOPLASTIC PAVEMENT MARKINGS
GORE = 724 LIN.FT. 8" WHITE
LT. EDGE LINE = 800 LIN.FT. 4" YELLOW
RT. EDGE LINE = 800 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I (WHITE) = 44 EACH
TYPE II (WHITE/RED) = 49 EACH

REFER-ALSO TO STANDARD DRAWING PM-2
FOR DETAILS OF EXIT RAMP MARKINGS

STAGE 5 STRIPING
NORTHBOUND McCAIN-WEST EXIT RAMP

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDER STA. 22+13.45 - STA. 33+00 = 270 LIN.FT. (WHTIE)

THERMOPLASTIC PAVEMENT MARKINGS
EXIT GORE STRIPING = 333 LIN.FT. 8" WHITE

PLOWABLE PAVEMENT MARKERS
TYPE II (WHITE/RED) ON SKIP LANE DIVIDER = 13 EACH

RAISED PAVEMENT MARKERS
TYPE I (WHITE) ON GORE STRIPING = 28 EACH
TYPE II (WHITE/RED) ON GORE STRIPING = 26 EACH

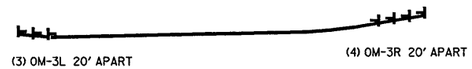
STAGE 5 STRIPING
MAIN LANES BOTH DIRECTIONS STA. 22+13.45 EQ.AHD - STA. 51+11.90 EQ.BK.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
INSIDE EDGE LINES = 5797 LIN.FT. (YELLOW)

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDERS = 1450 LIN.FT. (WHITE)

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
OUTSIDE EDGE LINES = 5797 LIN.FT. 4" WHITE

PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) ON SKIP LANE DIVIDERS = 74 EACH



(3) OM-3L 20' APART (4) OM-3R 20' APART

DETAIL OF OBJECT MARKERS ON TURNBACKS OF PRECAST CONCRETE BARRIER

FOR PCCB THIS PAGE
3 OM-3R 4 OM-3L

STAGE 5 STRIPING
McCAIN SB EXIT RAMP

THERMOPLASTIC PAVEMENT MARKINGS
ACCEL. LANE SKIP LINE AND GORE = 220 LIN.FT. 8" WHITE
LT. EDGE LINE RAMP = 1080 LIN.FT. 4" YELLOW
RT. EDGE LINE RAMP = 900 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I (WHITE) ON NOSE & ACCEL. LANE = 34 EACH

REFER-ALSO TO STANDARD DRAWING PM-2
FOR PLACEMENT OF RAMP MARKINGS.

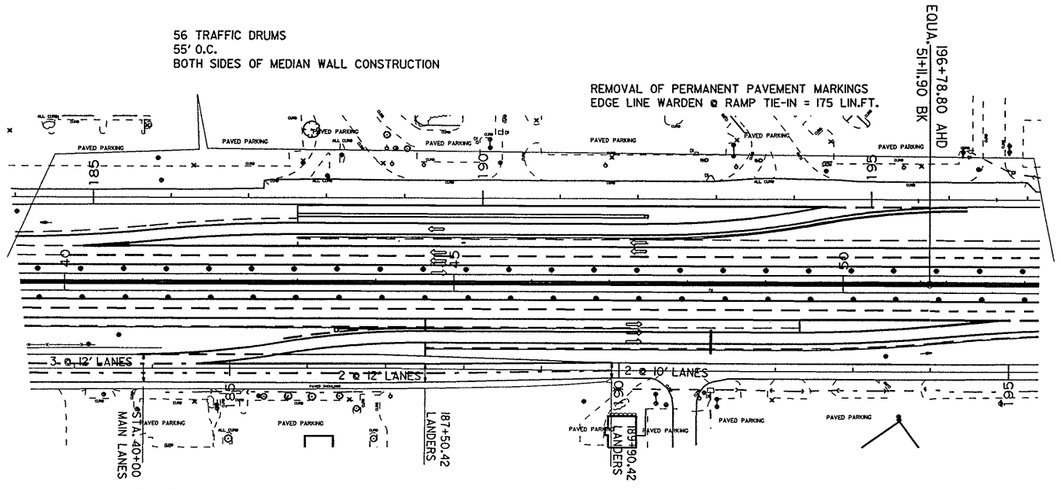
20 TRAFFIC DRUMS
55' O.C. STA. 34+00 - STA. 39+50
BOTH SIDES OF MEDIAN WALL CONSTRUCTION

STAGE 5 STRIPING
McCAIN NB EXIT RAMP

THERMOPLASTIC PAVEMENT MARKINGS
ACCEL. LANE SKIP LINE AND GORE = 215 LIN.FT. 8" WHITE
LT. EDGE LINE RAMP = 1032 LIN.FT. 4" YELLOW
RT. EDGE LINE RAMP = 950 LIN.FT. 4" WHITE
LT. EDGE LINE LANDERS = 544 LIN.FT. 4" YELLOW
SKIP CENTERLINE LANDERS = 180 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I (WHITE) ON NOSE & ACCEL. LANE = 24 EACH
TYPE I (WHITE) ON LANDERS SKIP CENTERLINE = 17 EACH

REFER-ALSO TO STANDARD DRAWING PM-2
FOR PLACEMENT OF RAMP MARKINGS.



REMOVAL OF PERMANENT PAVEMENT MARKINGS
EDGE LINE LANDERS @ RAMP TIE-IN = 200 LIN.FT.

STAGE 5 STRIPING
MAIN LANES BOTH DIRECTIONS
STA. 196+78.8 AHD. - STA. 210+50

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
INSIDE EDGE LINES = 2473 LIN.FT. (YELLOW)

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
OUTSIDE EDGE LINES = 2473 LIN.FT. 4" WHITE

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDERS = 680 LIN.FT. (WHITE)

PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) 80' O.C. ON SKIP LANE DIVIDER = 36 EACH

STAGE 5
SHIFT NORTHBOUND AND SOUTHBOUND TRAFFIC ONTO FINAL ALIGNMENT
[OUTER TWO LANES IN 3-LANE AREAS, INCLUDING JOBS R60161 & R60075 AREAS]
CONSTRUCT LAST SECTION OF MEDIAN AND CONSTRUCT NEW MEDIAN BARRIER
REMOVE REMAINING DETOUR PAVEMENT AND TEMPORARY RAMPS
REPLACE GUARDRAILS AT BRIDGES ON INTERCHANGE RAMPS.

MAINTENANCE OF TRAFFIC SOUTH SECTION HWY. 67/167 STAGE 5

08/15/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	170	605

(2) MAINTENANCE OF TRAFFIC

STAGE 5 STRIPING
MAIN LANES BOTH DIRECTIONS
TRANSITION TO JOB R60160 STRIPING

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS
INSIDE EDGE LINES = 1283 LIN.FT. (YELLOW)

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
OUTSIDE EDGE LINES = 1283 LIN.FT. 4" WHITE

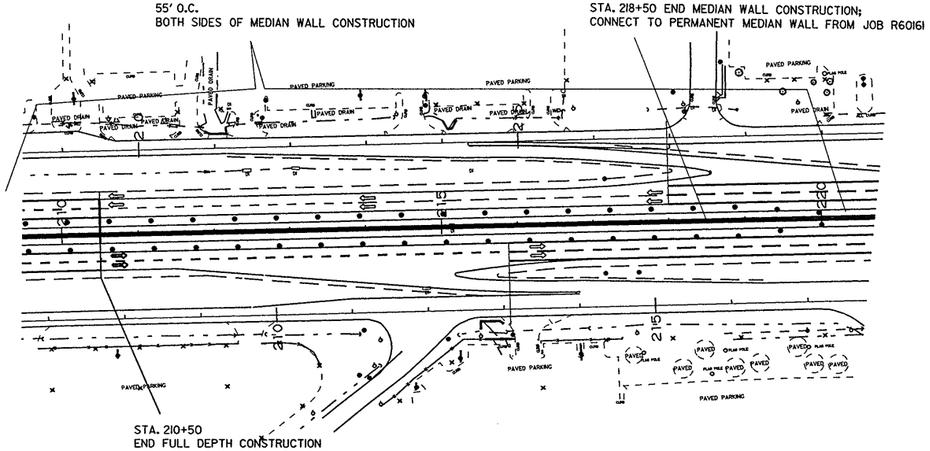
HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDERS = 320 LIN.FT. (WHITE)

PLOWABLE PAVEMENT MARKERS
TYPE I(WHITE) 80' O.C. ON SKIP LANE DIVIDER = 17 EACH

20 TRAFFIC DRUMS
55' O.C. STA.197+80 -STA. 209+50
BOTH SIDES OF MEDIAN WALL CONSTRUCTION

40 TRAFFIC DRUMS
55' O.C.
BOTH SIDES OF MEDIAN WALL CONSTRUCTION

STA. 218+50 END MEDIAN WALL CONSTRUCTION;
CONNECT TO PERMANENT MEDIAN WALL FROM JOB R60161



STA. 210+50
END FULL DEPTH CONSTRUCTION
(CONNECT TO PAVEMENT BUILT IN
JOB R60161)

STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 4794

08/15/05 motstudy

STAGE 5
SHIFT NORTHBOUND AND SOUTHBOUND TRAFFIC ONTO FINAL ALIGNMENT
[OUTER TWO LANES IN 3-LANE AREAS, INCLUDING JOBS R60161 & R60075 AREAS]
CONSTRUCT LAST SECTION OF MEDIAN AND CONSTRUCT NEW MEDIAN BARRIER
REMOVE REMAINING DETOUR PAVEMENT AND TEMPORARY RAMPS
REPLACE GUARD RAILS AT BRIDGES ON INTERCHANGE RAMPS.

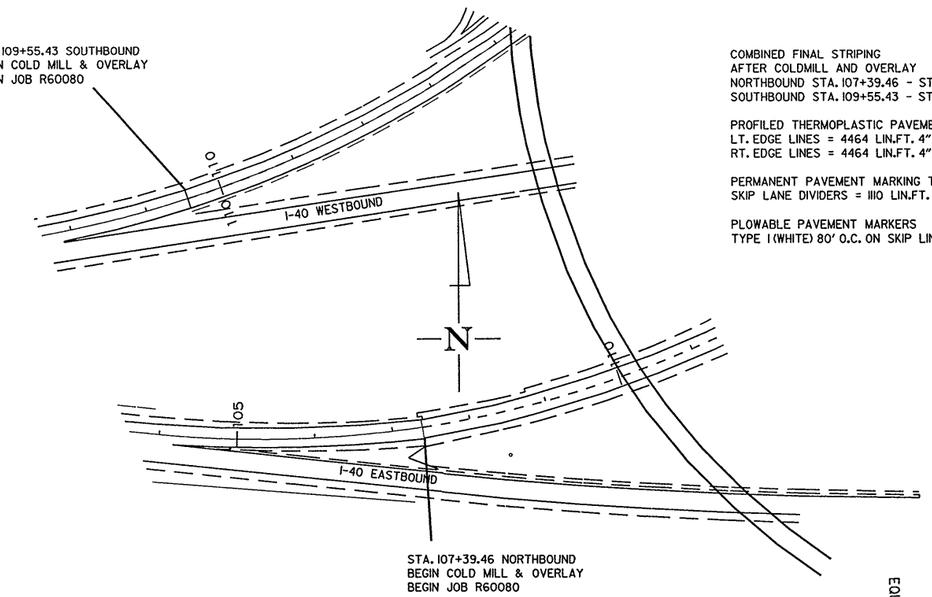
MAINTENANCE OF TRAFFIC SOUTH SECTION HWY. 67/167 STAGE 5

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	171	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS CHARLES D. CLEMENT'S REGISTERED PROFESSIONAL ENGINEER No. 4791 8-22-05

STA. 109+55.43 SOUTHBOUND
BEGIN COLD MILL & OVERLAY
BEGIN JOB R60080



STA. 107+39.46 NORTHBOUND
BEGIN COLD MILL & OVERLAY
BEGIN JOB R60080

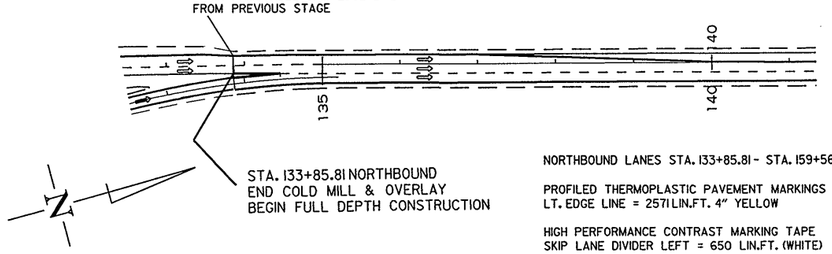
COMBINED FINAL STRIPING
AFTER COLDMILL AND OVERLAY
NORTHBOUND STA. 107+39.46 - STA. 133+85.81
SOUTHBOUND STA. 109+55.43 - STA. 127+72.68

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
LT. EDGE LINES = 4464 LIN.FT. 4" YELLOW
RT. EDGE LINES = 4464 LIN.FT. 4" WHITE

PERMANENT PAVEMENT MARKING TAPE (TYPE 3)
SKIP LANE DIVIDERS = 1110 LIN.FT. 4" WHITE

PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) 80' O.C. ON SKIP LINES = 56 EACH

BEGIN REMOVABLE CPM EDGE LINE
FROM PREVIOUS STAGE



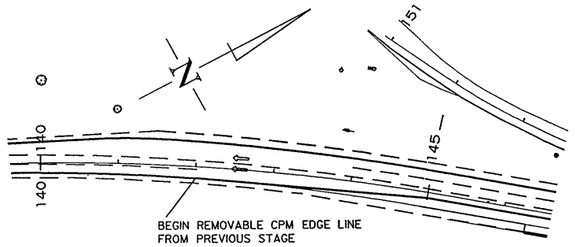
STA. 133+85.81 NORTHBOUND
END COLD MILL & OVERLAY
BEGIN FULL DEPTH CONSTRUCTION

NORTHBOUND LANES STA. 133+85.81 - STA. 159+56.24 EQ.BK.

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
LT. EDGE LINE = 2571 LIN.FT. 4" YELLOW

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDER LEFT = 650 LIN.FT. (WHITE)

PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) 80' O.C. ON SKIP LINE = 33 EACH



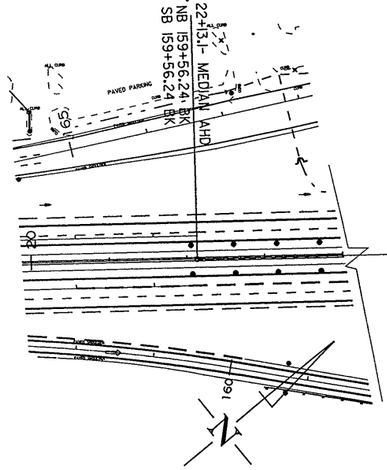
BEGIN REMOVABLE CPM EDGE LINE
FROM PREVIOUS STAGE

SOUTHBOUND LANES STA. 142+00 - STA. 159+56.24 EQ.BK.

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
LT. EDGE LINE = 1756 LIN.FT. 4" YELLOW

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDER = 440 LIN.FT. (WHITE)

PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) 80' O.C. ON SKIP LANE DIVIDER = 23 EACH



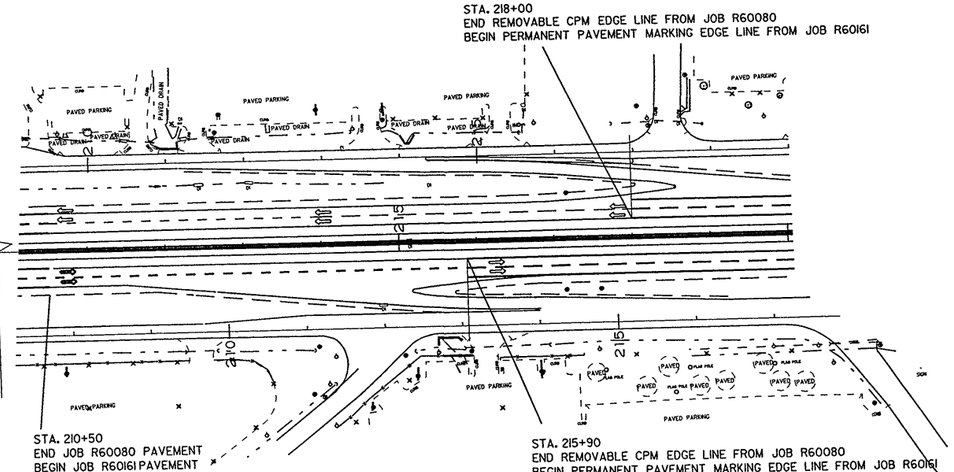
BOTH DIRECTIONS
STA. 22+13.45 EQ.AHD. - STA. 51+11.90 EQ. BK.
STA. 196+78.80 EQ.AHD. - STA. 210+50

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
LT. EDGE LINE = 8540 LIN.FT. 4" YELLOW

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDER = 2140 LIN.FT. (WHITE)

PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) 80' O.C. ON SKIP LANE DIVIDER = 106 EACH

STA. 218+00
END REMOVABLE CPM EDGE LINE FROM JOB R60080
BEGIN PERMANENT PAVEMENT MARKING EDGE LINE FROM JOB R60161



STA. 210+50
END JOB R60080 PAVEMENT
BEGIN JOB R60161 PAVEMENT

STA. 215+90
END REMOVABLE CPM EDGE LINE FROM JOB R60080
BEGIN PERMANENT PAVEMENT MARKING EDGE LINE FROM JOB R60161

CONNECTIONS TO JOB R60161 STRIPING
NORTHBOUND STA. 210+50 - STA. 215+90
SOUTHBOUND STA. 210+50 - STA. 218+00

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
LT. EDGE LINE = 1290 LIN.FT. 4" YELLOW

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDER = 320 LIN.FT. (WHITE)

PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) 80' O.C. ON SKIP LANE DIVIDER = 17 EACH

COMBINED FINAL STAGE

WORKING AT NIGHT, COLD MILL AND OVERLAY RAMPS CONNECTING TO INTERSTATE-40
NB STA. 107+39.46 - STA. 133+85.81
SB STA 109+55.43 - STA. 127+72.68
PLACE FINAL STRIPING ON RAMPS.
REPLACE INSIDE EDGE LINES BOTH DIRECTIONS
WITH STRIPING FOR THIRD LANE (JOBS R60080, R60161, & R60075 MAIN LANES)
OVERLAY AND RESTRIPE WARDEN AND LANDERS ROADS
WARDEN STA 281+97.9 - STA. 388+00
LANDERS STA. 287+18.6 - STA. 386+09

08/15/05 motstudy

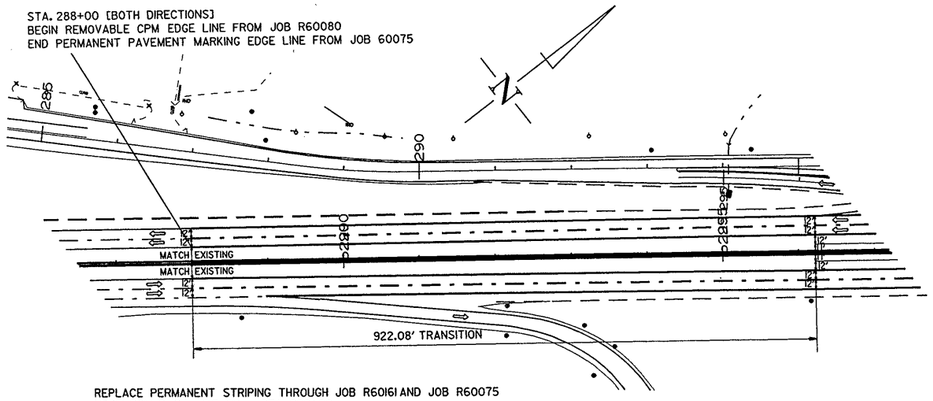
MAINTENANCE OF TRAFFIC COMBINED FINAL STRIPING NORTH AND SOUTH SECTIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	177	209

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14794
CHARLES D. CLEMENTS
9-22-05

STA. 288+00 (BOTH DIRECTIONS)
BEGIN REMOVABLE CPM EDGE LINE FROM JOB R60080
END PERMANENT PAVEMENT MARKING EDGE LINE FROM JOB 60075



REPLACE PERMANENT STRIPING THROUGH JOB R60161 AND JOB R60075
NORTHBOUND STA. 215+90 - STA. 288+00
SOUTHBOUND STA. 218+00 - STA. 288+00

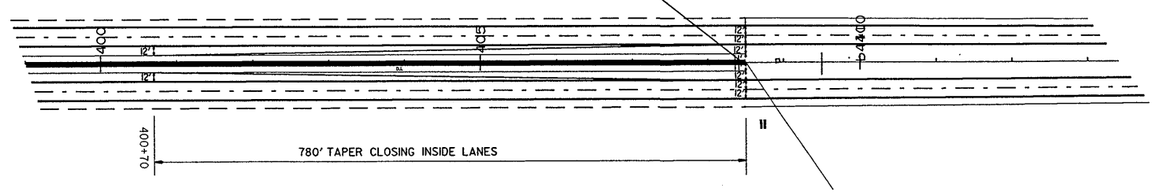
REMOVAL OF PERMANENT PAVEMENT MARKINGS
INSIDE EDGE LINE = 14210 LIN.FT.

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
LT. EDGE LINE = 14210 LIN.FT. 4" YELLOW

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDER = 3550 LIN.FT. (WHITE)

PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) 80' O.C. ON SKIP LANE DIVIDER = 178 EACH

STA. 408+50
END REMOVABLE CPM EDGE LINE FROM JOB R60080
CONNECT TO EXISTING STRIPING
END TAPER FROM 3 LANES TO 2



STA. 408+50
END JOB R60080

BOTH DIRECTIONS
STA. 288+00 - STA. 408+50

PROFILED THERMOPLASTIC PAVEMENT MARKINGS
LT. EDGE LINE = 24100 LIN.FT. 4" YELLOW

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDER = 6030 LIN.FT. (WHITE)

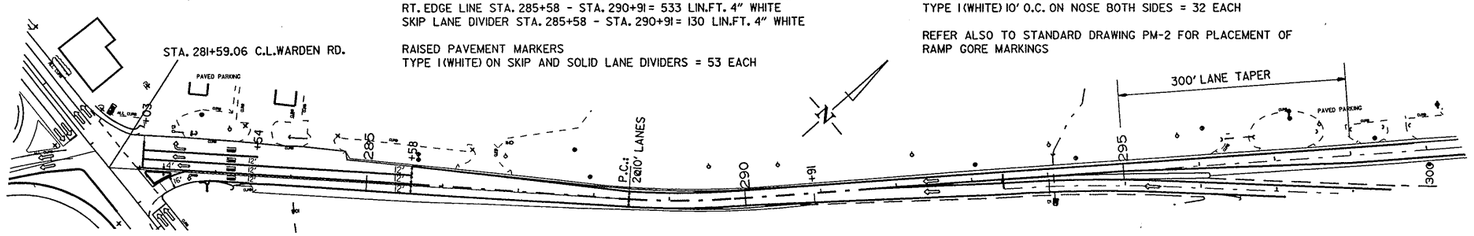
PLOWABLE PAVEMENT MARKERS
TYPE I (WHITE) 80' O.C. ON SKIP LANE DIVIDER = 304 EACH

FINAL STRIPING WARDEN ROAD
WILDWOOD INTERSECTION - STA. 290+91

REFLECTORIZED PAINT PAVEMENT MARKINGS
ISLAND CURB = 127 LIN.FT. 10" WHITE

THERMOPLASTIC PAVEMENT MARKINGS
STOP BAR STA. 282+03 = 45 LIN.FT. 12" WHITE
SOLID LANE DIVIDER STA. 282+04 - STA. 283+54 = 150 LIN.FT. 4" WHITE
ARROWS = 4 EACH
WORD "ONLY" = 4 EACH
SOLID LANE DIVIDERS STA. 282+04 - STA. 285+58 = 708 LIN.FT. 4" WHITE
ISLAND OUTLINE = 153 LIN.FT. 8" WHITE
LT. EDGE LINE STA. 282+04 - STA. 290+91 = 887 LIN.FT. 4" YELLOW
RT. EDGE LINE STA. 285+58 - STA. 290+91 = 533 LIN.FT. 4" WHITE
SKIP LANE DIVIDER STA. 285+58 - STA. 290+91 = 130 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I (WHITE) ON SKIP AND SOLID LANE DIVIDERS = 53 EACH



FINAL STRIPING WARDEN ROAD
STA. 290+91 - STA. 298+00

THERMOPLASTIC PAVEMENT MARKINGS

RT. EDGE LINE STA. 290+91 STA. 298+00 = 709 LIN.FT. 4" WHITE
GORE = 334 LIN.FT. 8" WHITE
LT. EDGE LINE = 460 LIN.FT. 4" YELLOW

RAISED PAVEMENT MARKERS
TYPE I (WHITE) 10' O.C. ON NOSE BOTH SIDES = 32 EACH

REFER ALSO TO STANDARD DRAWING PM-2 FOR PLACEMENT OF RAMP GORE MARKINGS

FINAL STRIPING WARDEN ROAD
STA. 298+00 - STA. 327+00

THERMOPLASTIC PAVEMENT MARKINGS

RT. EDGE LINE = 2900 LIN.FT. 4" WHITE
LT. EDGE LINE = 2900 LIN.FT. 4" YELLOW
SKIP LANE DIVIDER ON ACHM SURFACE = 690 LIN.FT. 4" WHITE

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDER ON BRIDGE DECK = 40 LIN.FT. (WHITE)

RAISED PAVEMENT MARKERS
TYPE I (WHITE) 40' O.C. ON ENTIRE SKIP LANE DIVIDER = 73 EACH

COMBINED FINAL STAGE

WORKING AT NIGHT, COLD MILL AND OVERLAY RAMPS CONNECTING TO INTERSTATE-40
NB STA. 107+39.46 - STA. 133+85.81
SB STA 109+55.43 - STA. 127+72.68
PLACE FINAL STRIPING ON RAMPS.
REPLACE INSIDE EDGE LINES BOTH DIRECTIONS
WITH STRIPING FOR THIRD LANE (JOBS R60080, R60161, & R60075 MAIN LANES)
OVERLAY AND RESTRIPE WARDEN AND LANDERS ROADS
WARDEN STA 281+97.9 - STA. 388+00
LANDERS STA. 287+18.6 - STA. 386+09

MAINTENANCE OF TRAFFIC COMBINED FINAL STRIPING NORTH AND SOUTH SECTIONS

08/15/05 mot-study

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9-19-05				6	ARK.			
				JOB NO.		R60080	173	609

(2) MAINTENANCE OF TRAFFIC

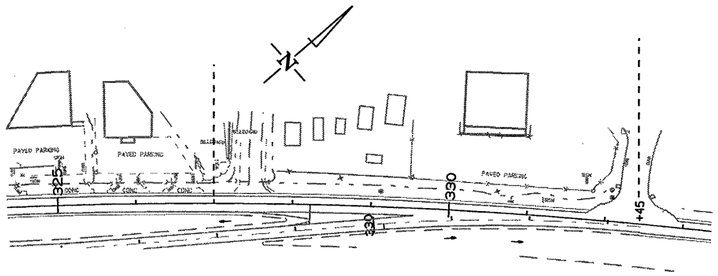
STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 9491
CHARLES D. CLEMENTS

FINAL STRIPING WARDEN ROAD
STA. 327+00 - STA. 332+45

THERMOPLASTIC PAVEMENT MARKINGS

RT. EDGE LINE = 545 LIN.FT. 4" WHITE
SKIP LANE DIVIDER = 140 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SKIP LANE DIVIDER = 14 EACH



FINAL STRIPING WARDEN ROAD
STA. 332+45 - STA. 359+45

THERMOPLASTIC PAVEMENT MARKINGS

RT. EDGE LINE = 2700 LIN.FT. 4" WHITE
LT. EDGE LINE = 2700 LIN.FT. 4" YELLOW
SKIP LANE DIVIDER = 670 LIN.FT. 4" WHITE

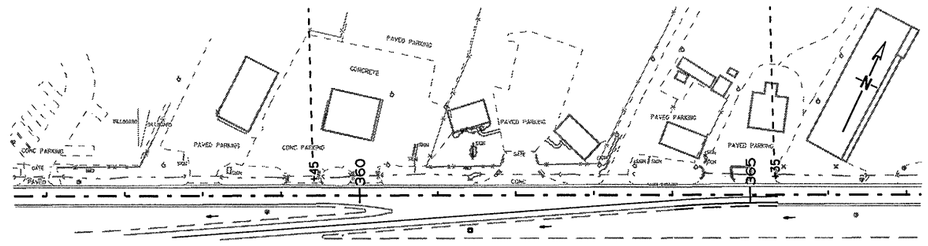
RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SKIP LANE DIVIDER = 68 EACH

FINAL STRIPING WARDEN ROAD
STA. 359+45 - STA. 365+35

THERMOPLASTIC PAVEMENT MARKINGS

RT. EDGE LINE = 590 LIN.FT. 4" WHITE
SKIP LANE DIVIDER = 150 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SKIP LANE DIVIDER = 15 EACH



FINAL STRIPING WARDEN ROAD
STA. 365+35 - STA. 374+00

THERMOPLASTIC PAVEMENT MARKINGS

RT. EDGE LINE = 865 LIN.FT. 4" WHITE
LT. EDGE LINE = 865 LIN.FT. 4" YELLOW
SKIP LANE DIVIDER = 220 LIN.FT. 4" WHITE

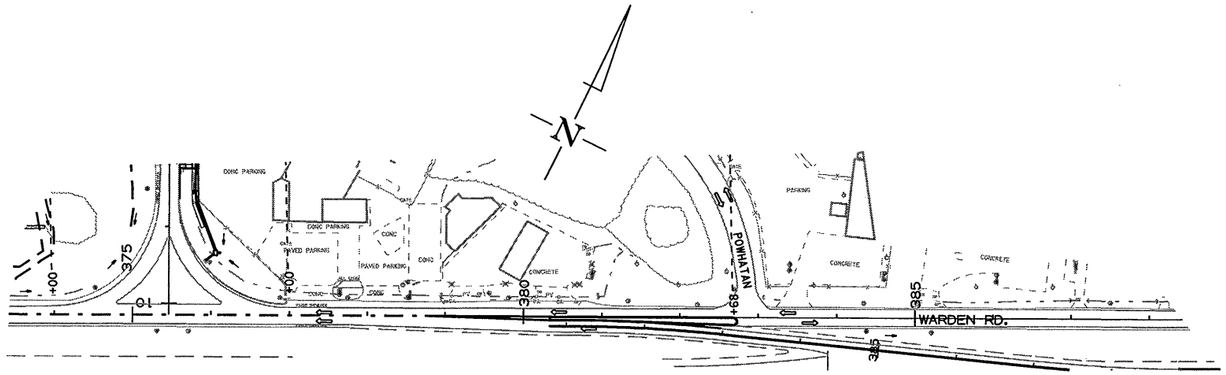
RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SKIP LANE DIVIDER = 22 EACH

FINAL STRIPING WARDEN ROAD
STA. 374+00 - STA. 377+00

THERMOPLASTIC PAVEMENT MARKINGS

LT. EDGE LINE = 300 LIN.FT. 4" YELLOW
SKIP LANE DIVIDER = 80 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SKIP LANE DIVIDER = 8 EACH



FINAL STRIPING WARDEN ROAD
STA. 377+00 - STA. 382+68

THERMOPLASTIC PAVEMENT MARKINGS

RT. EDGE LINE = 568 LIN.FT. 4" WHITE
GORE = 322 LIN.FT. 8" WHITE
LT. EDGE STA. 380+35 - STA. 382+68 = 233 LIN FT. 4" YELLOW

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 10' O.C. ON GORE = 32 EACH

REFER ALSO TO STANDARD DRAWING PM-2
FOR PLACEMENT OF GORE MARKINGS

COMBINED FINAL STAGE

WORKING AT NIGHT, COLD MILL AND OVERLAY RAMPS CONNECTING TO INTERSTATE-40
NB STA. 107+39.46 - STA. 133+85.81
SB STA 109+55.43 - STA. 127+72.68
PLACE FINAL STRIPING ON RAMPS.
REPLACE INSIDE EDGE LINES BOTH DIRECTIONS
WITH STRIPING FOR THIRD LANE (JOBS R60080, R60161, & R60075 MAIN LANES)
OVERLAY AND RESTRIPE WARDEN AND LANDERS ROADS
WARDEN STA 281+97.9 - STA. 388+00
LANDERS STA. 287+18.6 - STA. 386+09

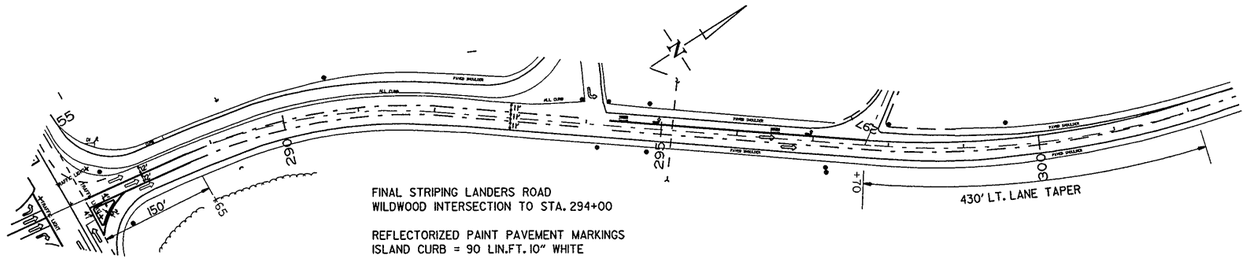
MAINTENANCE OF TRAFFIC COMBINED FINAL STRIPING NORTH AND SOUTH SECTIONS

08/15/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	179	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4791 CHARLES D. CLEMENTS 8-22-05



FINAL STRIPING LANDERS ROAD
WILDWOOD INTERSECTION TO STA. 294+00

REFLECTORIZED PAINT PAVEMENT MARKINGS
ISLAND CURB = 90 LIN.FT. 10" WHITE

THERMOPLASTIC PAVEMENT MARKINGS
ISLAND OUTLINE = 160 LIN.FT. 8" WHITE
SOLID LANE DIVIDERS = 300 LIN.FT. 4" WHITE
SKIP LANE DIVIDERS = 260 LIN.FT. 4" WHITE
RT. EDGE LINE = 600 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SOLID AND SKIP LANE DIVIDERS = 34 EACH

FINAL STRIPING LANDERS ROAD
STA. 294+00 - STA. 320+00

THERMOPLASTIC PAVEMENT MARKINGS
SKIP & SOLID LANE DIVIDERS STA.294+30 - STA.297+70 = 425 LIN.FT. 4" WHITE
SKIP LANE DIVIDER STA. 297+70 - STA. 318+00 ON ACHM = 500 LIN.FT. 4" WHITE
RT. EDGE LINE = 2670 LIN.FT. 4" WHITE
LT. EDGE LINE STA. 297+70 - STA. 320+00 = 2330 LIN.FT. 4" YELLOW
WORD "ONLY" = 2 EACH
ARROW = 2 EACH

HIGH PERFORMANCE CONTRAST MARKING TAPE
SKIP LANE DIVIDER ON BRIDGE DECK = 40 LIN.FT.

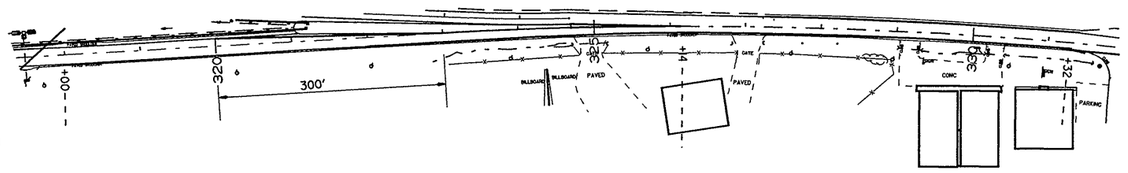
RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON ALL LANE DIVIDERS = 694 EACH

FINAL STRIPING LANDERS ROAD
STA. 320+00 - STA. 326+14

THERMOPLASTIC PAVEMENT MARKINGS
NOSE GORE = 293 LIN.FT. 8" WHITE
RT. EDGE LINE = 614 LIN.FT. 4" WHITE
LT. EDGE LINE = 467 LIN.FT. 4" YELLOW

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 10' O.C. NOSE GORE LINES = 30 EACH

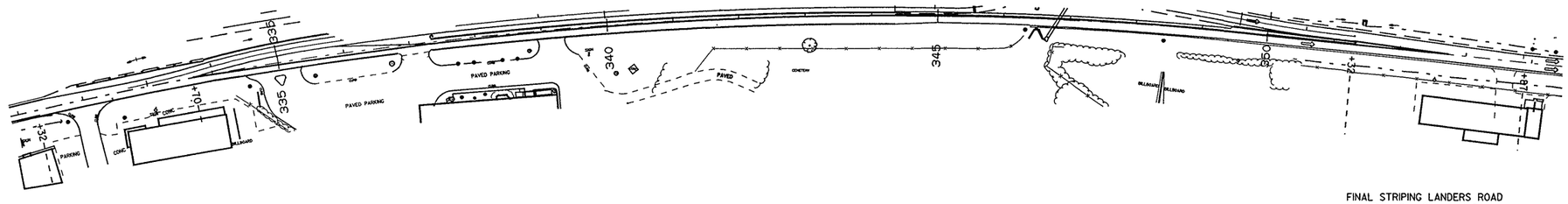
REFER ALSO TO STANDARD DRAWING PM-2
FOR PLACEMENT DETAILS OF GORE MARKINGS



FINAL STRIPING LANDERS ROAD
STA. 326+14 - STA. 331+32

THERMOPLASTIC PAVEMENT MARKINGS
RT. EDGE LINE = 518 LIN.FT. 4" WHITE
LT. EDGE LINE = 518 LIN.FT. 4" YELLOW
SKIP LANE DIVIDER = 130 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SKIP LANE DIVIDERS = 13 EACH



FINAL STRIPING LANDERS ROAD
STA. 331+32 - STA. 351+32

THERMOPLASTIC PAVEMENT MARKINGS
RT. EDGE LINE = 2000 LIN.FT. 4" WHITE
SKIP LANE DIVIDER STA. 331+32 - STA.333+70 = 60 LIN.FT. 4" WHITE
LT. EDGE LINE STA. 333+70 - STA. 351+32 = 1762 LIN.FT. 4" YELLOW

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SKIP LANE DIVIDER = 6 EACH

FINAL STRIPING LANDERS ROAD
STA. 351+32 - STA. 353+87

THERMOPLASTIC PAVEMENT MARKINGS
NOSE GORE = 289 LIN.FT. 8" WHITE
RT. EDGE LINE = 255 LIN.FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 10' O.C. ON GORE STRIPING = 30 EACH

NOTE: REFER-ALSO TO STANDARD DRAWING PM-2
FOR DETAILS OF PLACEMENT OF GORE MARKINGS

COMBINED FINAL STAGE

WORKING AT NIGHT, COLD MILL AND OVERLAY RAMPS CONNECTING TO INTERSTATE-40
NB STA. 107+39.46 - STA. 133+85.81
SB STA 109+55.43 - STA. 127+72.68
PLACE FINAL STRIPING ON RAMPS.
REPLACE INSIDE EDGE LINES BOTH DIRECTIONS
WITH STRIPING FOR THIRD LANE (JOBS R60080, R60161, & R60075 MAIN LANES)
OVERLAY AND RESTRIPE WARDEN AND LANDERS ROADS
WARDEN STA 281+97.9 - STA. 388+00
LANDERS STA. 287+18.6 - STA. 386+09

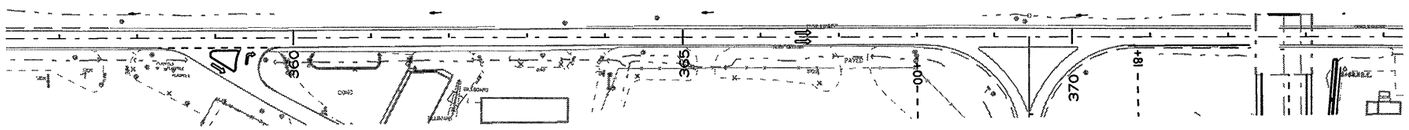
MAINTENANCE OF TRAFFIC COMBINED FINAL STRIPING NORTH AND SOUTH SECTIONS

08/15/05 motstudy

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
9-19-05				6	ARK.			
				JOB NO.		R60080	175	609

(2) MAINTENANCE OF TRAFFIC

STATE OF ARKANSAS
CHARLES DE CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
NO. 9794



FINAL STRIPING LANDERS ROAD
STA. 353+97 - STA. 368+00

THERMOPLASTIC PAVEMENT MARKINGS
RT. EDGE LINE = 1413 LIN.FT. 4" WHITE
SKIP LANE DIVIDER = 350 LIN.FT. 4" WHITE
LT. EDGE LINE = 1413 LIN.FT. 4" YELLOW

REFLECTORIZED PAINT PAVEMENT MARKINGS
ISLAND CURB AT RIXIE RD. INTERSECTION = 102 LIN.FT. 10" WHITE

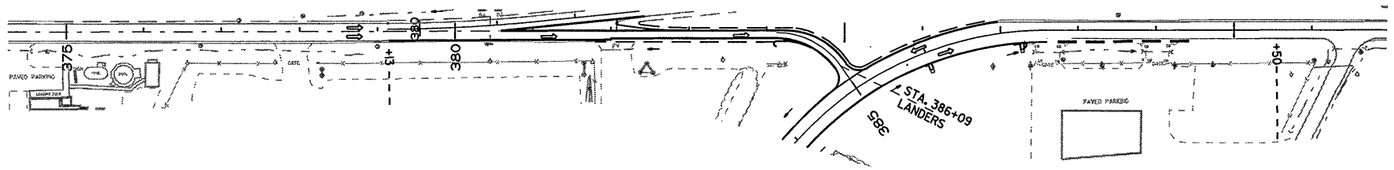
RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SKIP LANE DIVIDER = 35 EACH

FINAL STRIPING LANDERS ROAD
STA. 368+00 - STA. 370+81

THERMOPLASTIC PAVEMENT MARKINGS
SKIP LANE DIVIDER = 70 LIN.FT. 4" WHITE
LT. EDGE LINE = 281 LIN.FT. 4" YELLOW

REFLECTORIZED PAINT PAVEMENT MARKINGS
ISLAND CURB AT RIXIE RD. INTERSECTION = 52 LIN.FT. 10" WHITE

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SKIP LANE DIVIDER = 7 EACH



FINAL STRIPING LANDERS ROAD
STA. 370+81 - STA. 379+13

THERMOPLASTIC PAVEMENT MARKINGS
RT. EDGE LINE = 832 LIN.FT. 4" WHITE
SKIP LANE DIVIDER = 200 LIN.FT. 4" WHITE
LT. EDGE LINE = 832 LIN.FT. 4" YELLOW

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON SKIP LANE DIVIDER = 20 EACH

FINAL STRIPING LANDERS ROAD
STA. 379+13 - INTERSECTION WITH LANDERS-CONNECTOR
AND ALONG LANDERS-CONNECTOR TO STA. 390+50

THERMOPLASTIC PAVEMENT MARKINGS
SKIP LINE ON ONE-WAY LANDERS = 30 LIN.FT. 4" WHITE
RT. EDGE LINE AROUND BUTTONHOOK = 856 LIN.FT. 4" WHITE
LT. EDGE LINE AROUND BUTTONHOOK = 213 LIN.FT. 4" YELLOW
TURNOUT RADIUS AND LT. EDGE LINE 2-WAY LANDERS CONNECTION = 210 LIN.FT. 4" WHITE
LT. & RT. EDGE LINES 2-WAY LANDERS = 600 LIN.FT. 4" WHITE
DBL.• CENTERLINE LANDERS CONNECTION STA. 387+50 - STA. 390+50 = 3400 LIN.FT. 4" YELLOW

RAISED PAVEMENT MARKERS
TYPE I(WHITE) 40' O.C. ON ONE-WAY SKIP LANE DIVIDER = 20 EACH
TYPE II(YEL/YEL) 40' O.C. ON TWO-WAY CENTERLINE = 43 EACH

• NOTE:
CONTACT MAINTENANCE DIVISION TO DETERMINE
NO PASSING ZONES.

COMBINED FINAL STAGE

WORKING AT NIGHT, COLD MILL AND OVERLAY RAMPS CONNECTING TO INTERSTATE-40
NB STA. 107+39.46 - STA. 133+85.81
SB STA 109+55.43 - STA. 127+72.68
PLACE FINAL STRIPING ON RAMPS.
REPLACE INSIDE EDGE LINES BOTH DIRECTIONS
WITH STRIPING FOR THIRD LANE (JOBS R60080, R60161, & R60075 MAIN LANES)
OVERLAY AND RESTRIPE WARDEN AND LANDERS ROADS
WARDEN STA 281+97.9 - STA. 388+00
LANDERS STA. 287+18.6 - STA. 386+09

08/15/05 motstudy

MAINTENANCE OF TRAFFIC COMBINED FINAL STRIPING NORTH AND SOUTH SECTIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	DISTRICT	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NUMBER		R60080	176	609

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9794
CHARLES D. CLEMENTS

ADVANCE WARNING SIGNS AND DEVICES - KIEHL OVERPASS & LANDERS CONNECTOR

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGES						MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	BARRICADES (TYPE III)		FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	RELOCATING PRECAST CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)
			STAGE K-1	STAGE K 2	STAGE K 3	STAGE K 4	STAGE K 5	STAGE K 6		NO.	SQ. FT.	EACH	RIGHT	LEFT				
			SQ. FT.-LIN.FT.-EACH										LIN.FT.		LIN.FT.		EACH	
W20-1	ROAD WORK 1 MILE	48"x48"	5	5	5	5	5			5	80.0							
W20-1	ROAD WORK 1/2 MILE	48"x48"	6	6	6	6	6			6	96.0							
W20-1	ROAD WORK 1500 FT.	48"x48"	8	8	8	8	8			8	128.0							
W20-1	ROAD WORK 1000 FT	48"x48"	2	2	2	2	2			2	32.0							
W20-1	ROAD WORK 500 FT.	48"x48"	4	4	4	4	4			4	64.0							
W20-1	ROAD WORK AHEAD	48"x48"	5	5	5	5	5			5	80.0							
G20-2A	END ROAD WORK	48"x24"	13	13	13	13	13			13	104.0							
G20-1	ROAD WORK NEXT 6 MILES	60"x24"	3	3	3	3	3			3	30.0							
R11-2	ROAD CLOSED	48"x30"			3	2	3			3	30.0							
R55-1	FINES DOUBLE IN WORK ZONES	36"x60"	6	6	6	6	6			6	90.0							
R2-5A	REDUCED SPEED AHEAD	48"x60"	6	6	6	6	6			6	120.0							
R2-1	SPEED LIMIT 55 MPH	48"x60"	6	6	6	6	6			6	120.0							
R2-1	SPEED LIMIT 65 MPH	48"x60"	4	4	4	4	4			4	80.0							
OM-3R	OBJECT MARKERS	12"x36"		24	24	24				24	72.0							
OM-3L	OBJECT MARKERS	12"x36"		18	18	18				18	54.0							
R1-1	STOP	36"x36"		2	2	2	2			2	18.0							
	TRAFFIC DRUMS		57	63	49	33	154		154			154						
	TYPE III BARRICADE-RT. (16')				3	2	3		3				48					
	TYPE III BARRICADE-LT. (16')				3	2	2		3					48				
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER			3120		920			4040						4040			
	RELOCATING PRECAST CONCRETE BARRIER					2080			2080							2080		
	TEMPORARY IMPACT ATTENUATION BARRIER					2			2								2	
	TEMP. IMPACT ATTEN.BARRIER (REPAIR)								2									2
TOTALS											1198.0	154	48	48	4040	2080	2	2

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

THERMOPLASTIC PAVEMENT MARKINGS MAY BE SUBSTITUTED FOR INVERTED PROFILE PAVEMENT MARKINGS AT INTERSECTIONS, ISLANDS, TURNOUTS, AND OTHER SIMILAR LOCATIONS AS DIRECTED BY THE ENGINEER.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	DISTRICT	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NUMBER		R60080	177	602

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
13735

ADVANCE WARNING SIGNS AND DEVICES - MAIN LANES SOUTH SECTION

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGES								COMBINED FINAL STAGE	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		TRAFFIC DRUMS	ADVANCE WARNING ARROW PANEL	PORTABLE CHANGEABLE MESSAGE SIGN	BARRICADES (TYPE III)		FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	RELOCATING PRECAST CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)
			STAGE 1 A	STAGE 1 B	STAGE 1-C	STAGE 2-A	STAGE 2 B	STAGE 3	STAGE 4-A	STAGE 4 B	STAGE 5							RIGHT	LEFT				
			SQ. FT.-LIN.FT.-EACH										NO.	SQ. FT.	EACH	DAY	WEEK	LIN.FT.		LIN.FT.		EACH	
W20-1	ROAD WORK 1 MILE	48"x48"	5	5	5	5	5	5	5	5	5		5	80.0									
W20-1	ROAD WORK 1/2 MILE	48"x48"	6	6	6	6	6	6	6	6	6		6	96.0									
W20-1	ROAD WORK 1500 FT.	48"x48"	8	8	8	8	8	8	8	8	8		8	128.0									
W20-1	ROAD WORK 1000 FT	48"x48"	2	2	2	2	2	2	2	2	2		2	32.0									
W20-1	ROAD WORK 500 FT.	48"x48"	4	4	4	4	4	4	4	4	4		4	64.0									
W20-1	ROAD WORK AHEAD	48"x48"	5	5	5	5	5	5	5	5	5		5	80.0									
G20-2A	END ROAD WORK	48"x24"	13	13	13	13	13	13	13	13	13		13	104.0									
G20-1	ROAD WORK NEXT 6 MILES	60"x24"	3	3	3	3	3	3	3	3	3		3	30.0									
W1-4AR	REVERSE CURVE RT.	48"x48"																					
W1-4AL	REVERSE CURVE LT.	48"x48"																					
W1-4BR	2 LANES REVERSE CURVE RT.	48"x48"																					
W1-4BL	2 LANES REVERSE CURVE LT.	48"x48"				4		2	2	2			4	64.0									
R11-2	ROAD CLOSED	48"x30"		6	3	4	4	6	7	6			7	70.0									
SPECIAL 1	MERGE NOW + ARROW	48"x48"	1										1	16.0									
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	2										2	32.0									
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"	2										2	32.0									
W20-5	RIGHT LANE CLOSED 1500 FEET	48"x48"	2										2	32.0									
W4-2R	RIGHT LANE CLOSING GRAPHIC	48"x48"	2			1	1	1					2	32.0									
W1-6	LARGE ARROW	48"x24"				1	1		1	2			2	16.0									
W1-6	LARGER ARROW	30" x 60"	3										3	45.0									
W1-8	CHEVRONS	36"x48"							10	10			10	120.0									
R4-1	DO NOT PASS	24"x30"	4										4	20.0									
R55-1	FINES DOUBLE IN WORK ZONES	36"x60"	6	6	6	6	6	6	6	6	6	6	6	90.0									
R2-5A	REDUCED SPEED AHEAD	48"x60"	6	6	6	6	6	6	6	6	6	6	6	120.0									
R2-1	SPEED LIMIT 55 MPH	48"x60"	6	6	6	6	6	6	6	6	6	6	6	120.0									
R2-1	SPEED LIMIT 65 MPH	48"x60"	4	4	4	4	4	4	4	4	4	4	4	80.0									
R2-1	SPEED LIMIT 40 MPH	48"x60"																					
OM-3R	OBJECT MARKERS	12"x36"				4	4	3	17	17	6		17	51.0									
OM-3L	OBJECT MARKERS	12"x36"				7	7	4	14	19	11		19	57.0									
R1-1	STOP	36"x36"																					
R1-2	YIELD	60"X60"X60"				1	1						1	7.0									
	TRAFFIC DRUMS		108	129	201	55	35	205	121	94	248		248		248								
	TYPE III BARRICADE-RT. (8')			3	1							3						24					
	TYPE III BARRICADE-LT. (8')				2			1				2							16				
	TYPE III BARRICADE-RT. (16')			3		1	1	2	6	6		6						96					
	TYPE III BARRICADE-LT. (16')					3	3	3	2			3							48				
	ADVANCE WARNING ARROW PANEL		1									1				20							
	PORTABLE CHANGEABLE MESSAGE SIGN		1									1					33						
	FURNISHING AND INSTALLING PRECAST CONCRETE					14340	250					14590								14590			
	RELOCATING PRECAST CONCRETE BARRIER						1150	6420	8550	2650	2680	21450									21450		
	TEMPORARY IMPACT ATTENUATION BARRIER								1	1		2										2	
	TEMP. IMPACT ATTEN.BARRIER (REPAIR)											2											2
TOTALS													1618.0		248	20	33	120	64	14590	21450	2	2

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

THERMOPLASTIC PAVEMENT MARKINGS MAY BE SUBSTITUTED FOR INVERTED PROFILE PAVEMENT MARKINGS AT INTERSECTIONS, ISLANDS, TURNOUTS, AND OTHER SIMILAR LOCATIONS AS DIRECTED BY THE ENGINEER.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	DISTRICT	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NUMBER		R60080	178	604

(2) QUANTITIES

ADVANCE WARNING SIGNS AND DEVICES - MAIN LANES NORTH SECTION

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGES											MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		VERTICAL PANELS	TRAFFIC DRUMS	ADVANCE WARNING ARROW PANEL	PORTABLE CHANGEABLE MESSAGE SIGN	TEMPORARY RELOCATION OF SIGN	BARRICADES (TYPE III)		FURNISHING AND INSTALLING PRECAST CONCRETE	RELOCATING PRECAST CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)
			STAGE 1-A	STAGE 1 B	STAGE 2 A	STAGE 2 B	STAGE 3-A	STAGE 3-B	STAGE 3 C	STAGE 4-A	STAGE 4-B	STAGE 4-C	STAGE 5									RIGHT	LEFT				
			SQ. FT.-LIN.FT.-EACH												NO.	SQ. FT.	EACH	EACH	DAY	WEEK	EACH	LIN.FT.		LIN.FT.			EACH
W20-1	ROAD WORK 1 MILE	48"x48"	5	5	5	5	5	5	5	5	5	5	5		5	80.0											
W20-1	ROAD WORK 1/2 MILE	48"x48"	6	6	6	6	6	6	6	6	6	6	6		6	96.0											
W20-1	ROAD WORK 1500 FT.	48"x48"	8	8	8	8	8	8	8	8	8	8	8		8	128.0											
W20-1	ROAD WORK 1000 FT	48"x48"	2	2	2	2	2	2	2	2	2	2	2		2	32.0											
W20-1	ROAD WORK 500 FT.	48"x48"	4	4	4	4	4	4	4	4	4	4	4		4	64.0											
W20-1	ROAD WORK AHEAD	48"x48"	5	5	5	5	5	5	5	5	5	5	5		5	80.0											
G20-2A	END ROAD WORK	48"x24"	13	13	13	13	13	13	13	13	13	13	13		13	104.0											
G20-1	ROAD WORK NEXT xx MILES	60"x24"	3	3	3	3	3	3	3	3	3	3	3		3	30.0											
W1-4AR	REVERSE CURVE RT.	48"x48"			4	2	3	2	2	2	2	2			4	64.0											
W1-4AL	REVERSE CURVE LT.	48"x48"			4	2	5	1	2	2	1	2			5	80.0											
W1-4BR	2 LANES REVERSE CURVE RT.	48"x48"			10	12	12	6	8	4	4	2	2		12	192.0											
W1-4BL	2 LANES REVERSE CURVE LT.	48"x48"			2	3	2	4		4	4	4			4	64.0											
R11-2	ROAD CLOSED	48"x30"		15	13	12	11	8	6	7	9	7	8		15	150.0											
SPECIAL 1	MERGE NOW + ARROW	48"x48"	1					2	1						2	32.0											
W20-5	RIGHT LANE CLOSED 1 MILE	48"x48"	2					4	2						4	64.0											
W20-5	RIGHT LANE CLOSED 1/2 MILE	48"x48"	2					4	2						4	64.0											
W20-5	RIGHT LANE CLOSED 1500 FEET	48"x48"	2					6	2				1		6	96.0											
W20-5	RIGHT LANE CLOSED 1000 FT	48"x48"						2					1		2	32.0											
W20-5	RIGHT LANE CLOSED 500 FEET	48"x48"						2					1		2	32.0											
W4-2R	RIGHT LANE CLOSING GRAPHIC	48"x48"	2					2	2						2	32.0											
W1-6	LARGE ARROW	48"x24"			5	5	5	2	1	2	3	2	3		5	40.0											
W1-6	LARGER ARROW	30" x 60"	3					9	3				3		9	135.0											
W1-8	CHEVRONS	36"x48"			8	6	6	6	6	6	6	6			8	96.0											
R4-1	DO NOT PASS	24"x30"	4		2			8	4						8	40.0											
R55-1	FINES DOUBLE IN WORK ZONES	36"x60"	6	6	6	6	6	6	6	6	6	6	6		6	90.0											
R2-5A	REDUCED SPEED AHEAD	48"x60"	8	6	6	8	8	8	8	8	8	8	6		8	160.0											
R2-1	SPEED LIMIT 55 MPH	48"x60"	8	6	4	6	6	6	6	6	6	6	6		8	160.0											
R2-1	SPEED LIMIT 65 MPH	48"x60"	6	4	4	4	4	4	4	4	4	4	4		6	120.0											
R2-1	SPEED LIMIT 40 MPH	48"x60"			2	2	2	2	2	2	2	2			2	40.0											
R1-W	YIELD	60"X60"X60"			1	3	3	5	5	5	6	7	3		7	140.0											
OM-3R	OBJECT MARKERS	12"x36"			19	16	20	7	22	25	25	25			25	75.0											
OM-3L	OBJECT MARKERS	12"x36"			18	22	17	15	25	22	14	17			25	75.0											
R1-1	STOP	36"x36"																									
R3-7R	RIGHT LANE MUST TURN RIGHT	30"X30"											1		1	7.0											
	VERTICAL PANELS RT.					31	31	31	31	31	31	31		31			31										
	TRAFFIC DRUMS		183	479	207	178	89	606	320	102	272	207	559	606				606									
	TYPE III BARRICADE-RT. (8')			6	2	2	2	3	1	1	1	1	1	6								48					
	TYPE III BARRICADE-LT. (8')			8	1	1	1	1	2	2	2	2		8									64				
	TYPE III BARRICADE-RT. (16')				7	6	5			1	2	2	4	7								112					
	TYPE III BARRICADE-LT. (16')			1	5	5	4	4	3	3	4	3	3	5									80				
	ADVANCE WARNING ARROW PANEL		1					3	1				1	3					20								
	PORTABLE CHANGEABLE MESSAGE SIGN		1					2	2	1				2						66							
	TEMPORARY RELOCATION OF SIGN				3	1			3	1	2	1		11							11						
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER				31800	340	1230							33370										33370			
	RELOCATING PRECAST CONCRETE BARRIER					2480		12470	28630		3146	3450		50176											50176		
	TEMPORARY IMPACT ATTENUATION BARRIER					1	2	1	2	2	3	2		3												3	
	TEMP. IMPACT ATTEN.BARRIER (REPAIR)													3													3
TOTALS															2694.0		31	606	20	66	11	160	144	33370	50176	3	3

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

THERMOPLASTIC PAVEMENT MARKINGS MAY BE SUBSTITUTED FOR INVERTED PROFILE PAVEMENT MARKINGS AT INTERSECTIONS, ISLANDS, TURNOUTS, AND OTHER SIMILAR LOCATIONS AS DIRECTED BY THE ENGINEER.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	DISTRICT	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
9-19-05				6	ARK.			
				JOB NUMBER		R60080	179	609

(2) QUANTITIES

CONSTRUCTION PAVEMENT MARKINGS - KIEHL OVERPASS & LANDERS CONNECTOR

DESCRIPTION	STAGES						MAXIMUM NUMBER REQUIRED	CONSTRUCTION PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS - ARROW	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	
	STAGE K 1	STAGE K 2	STAGE K-3	STAGE K-4	STAGE K 5	STAGE K-6						TYPE I (WHITE)	TYPE II (YEL/YEL)
	SQ. FT.-LIN.FT.-EACH							LIN.FT.	EACH	LIN.FT.		EACH	
CONSTRUCTION PAVEMENT MARKINGS		595	7382	4859	4009	355	17200	17200					
CONSTRUCTION PAVEMENT MARKINGS - ARROW			9				9		9				
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS			128	350	5226		5704			5704			
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS				1272			1272				1272		
RAISED PAVEMENT MARKERS (TYPE I) (WHITE)						99	99					99	
RAISED PAVEMENT MARKERS (TYPE II) (YELLOW/YELLOW)						95	95						95
TOTALS								17200	9	5704	1272	99	95

PERMANENT PAVEMENT MARKINGS - KIEHL OVERPASS & LANDERS CONNECTOR

DESCRIPTION	STAGES						MAXIMUM NUMBER REQUIRED	REFL. PAINT PAVEMENT MARKINGS		THERMOPLASTIC PAVEMENT MARKINGS							HIGH PERF. CONTRAST MARKING TAPE	
	STAGE K 1	STAGE K 2	STAGE K-3	STAGE K-4	STAGE K 5	STAGE K-6		WHITE (10")	YELLOW (10")	WHITE (12")	WHITE (8")	YELLOW (8")	WHITE (4")	YELLOW (4")	WORD	ARROW	WHITE	YELLOW
	SQ. FT.-LIN.FT.-EACH							LIN.FT.		LIN.FT.					EACH		LIN.FT.	
REFLECTORIZED PAINT PAVEMENT MARKINGS-WHITE(10")						1282	1282	1282										
REFLECTORIZED PAINT PAVEMENT MARKINGS-YELLOW (10")						422	422		422									
THERMOPLASTIC PAVEMENT MARKINGS-WHITE (12")						1025	1025			1025								
THERMOPLASTIC PAVEMENT MARKINGS-WHITE (8")						2004	2004				2004							
THERMOPLASTIC PAVEMENT MARKINGS-YELLOW (8")						533	533					533						
THERMOPLASTIC PAVEMENT MARKINGS-WHITE(4")						4037	4037						4037					
THERMOPLASTIC PAVEMENT MARKINGS-YELLOW(4")						6080	6080							6080				
THERMOPLASTIC PAVEMENT MARKINGS-WORD						16	16								16			
THERMOPLASTIC PAVEMENT MARKINGS-ARROW						16	16									16		
HIGH PERFORMANCE CONTRAST MARKING TAPE (WHITE)						160	160										160	
HIGH PERFORMANCE CONTRAST MARKING TAPE (YELLOW)						1273	1273											1273
TOTALS								1282	422	1025	2004	533	4037	6080	16	16	160	1273

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

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

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	DISTRICT	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
9-19-05				6	ARK.			
				JOB NUMBER		R60080	180	609

(2) QUANTITIES

STATE OF ARKANSAS CHARLES R. REED PROFESSIONAL ENGINEER 9-19-05

CONSTRUCTION PAVEMENT MARKINGS - MAIN LANES NORTH SECTION

DESCRIPTION	STAGES											MAXIMUM NUMBER REQUIRED	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		
	STAGE 1 A	STAGE 1 B	STAGE 2-A	STAGE 2-B	STAGE 3-A	STAGE 3-B	STAGE 3 C	STAGE 4-A	STAGE 4 B	STAGE 4 C	STAGE 5						TYPE I (WHITE)	TYPE II (WHITE/RED)	TYPE II (YEL/YEL)
	SQ. FT.-LIN.FT.-EACH												LIN.FT.		LIN.FT.		EACH		
REMOVAL OF PERMANENT PAVEMENT MARKINGS		30150	5552	1325	1633		660			848	2000	42168	42168						
CONSTRUCTION PAVEMENT MARKINGS			62057	5127	1902	110	2279		1252	379	2751	75857		75857					
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS				3104			675				6200	9979			9979				
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS		30150	7677	3885	29838		29734		3431	5632	26000	136347				136347			
RAISED PAVEMENT MARKERS (TYPE I) (WHITE)			649		320		320				289	1578					1578		
RAISED PAVEMENT MARKERS (TYPE II) (WHITE/RED)											166	166						166	
RAISED PAVEMENT MARKERS (TYPE II) (YELLOW/YELLOW)											158	158							158
TOTALS													42168	75857	9979	136347	1578	166	158

PERMANENT PAVEMENT MARKINGS - MAIN LANES NORTH SECTION

DESCRIPTION	STAGES											MAXIMUM NUMBER REQUIRED	PLOWABLE PAVEMENT MARKERS		REFL. PAINT PAVEMENT MARKINGS		PROFILED THERMOPLASTIC PAVEMENT MARKINGS - WHITE (4")	THERMOPLASTIC PAVEMENT MARKINGS					HIGH PERF. CONTRAST MARKING TAPE - YELLOW
	STAGE 1 A	STAGE 1 B	STAGE 2-A	STAGE 2-B	STAGE 3-A	STAGE 3-B	STAGE 3 C	STAGE 4-A	STAGE 4 B	STAGE 4 C	STAGE 5		TYPE I (WHITE)	TYPE II (WHITE/RED)	WHITE (10")	YELLOW (10")		WHITE (12")	WHITE (8")	WHITE (4")	YELLOW (4")	WHITE (24")	
	SQ. FT.-LIN.FT.-EACH														LIN.FT.		LIN.FT.	LIN.FT.					
PLOWABLE PAVEMENT MARKERS TYPE I(WHITE)											246	246	246										
PLOWABLE PAVEMENT MARKERS TYPE II(WHITE/RED)											76	76		76									
REFLECTORIZED PAINT PAVEMENT MARKINGS-WHITE(10")											359	359				359							
PROFILED THERMOPLASTIC PAVEMENT MARKINGS-WHITE(4")											26000	26000					26000						
PROFILED THERMOPLASTIC PAVEMENT MARKINGS-YELLOW(4")																							
THERMOPLASTIC PAVEMENT MARKINGS-WHITE (12")											99	99						99					
THERMOPLASTIC PAVEMENT MARKINGS-WHITE (8")											5737	5737							5737				
THERMOPLASTIC PAVEMENT MARKINGS-WHITE(4")											6934	6934								6934			
THERMOPLASTIC PAVEMENT MARKINGS-YELLOW(4")											12633	12633									12633		
THERMOPLASTIC PAVEMENT MARKINGS-WHITE(24")											110	110										110	
HIGH PERFORMANCE CONTRAST MARKING TAPE (WHITE)											6610	6610											6610
HIGH PERFORMANCE CONTRAST MARKING TAPE (YELLOW)																							
TOTALS													246	76		359	26000	99	5737	6934	12633	110	6610

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

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

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	DISTRICT	STATE	FEDERAL AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
9-19-05				6	ARK.			
				JOB NUMBER		R60080	181	609

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9794
9-19-05

CONSTRUCTION PAVEMENT MARKINGS - MAIN LANES SOUTH & COMBINED FINAL STRIPING

DESCRIPTION	STAGES									COMBINED FINAL STAGE	MAXIMUM NUMBER REQUIRED	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		
	STAGE 1-A	STAGE 1 B	STAGE 1-C	STAGE 2-A	STAGE 2 B	STAGE 3	STAGE 4-A	STAGE 4-B	STAGE 5							TYPE I (WHITE)	TYPE II (WHITE/RED)	TYPE II (YEL/YEL)
	SQ. FT.-LIN.FT.-EACH											LIN.FT.		LIN.FT.		EACH		
REMOVAL OF PERMANENT PAVEMENT MARKINGS			14746	3940	244	4847	850		375	14210	39212	39212						
CONSTRUCTION PAVEMENT MARKINGS				29098	379	430	7613	1424	5994		44938		44938					
REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS							1159	2091			3250			3250				
REMOVABLE CONSTRUCTION PAVEMENT MARKINGS			14636	8365	2612	15927	14562	6908	13870		76880				76880			
RAISED PAVEMENT MARKERS (TYPE I) (WHITE)				347		216	202		219	1137	2121					2121		
RAISED PAVEMENT MARKERS (TYPE II) (WHITE/RED)									123		123						123	
RAISED PAVEMENT MARKERS (TYPE II) (YELLOW/YELLOW)										43	43							43
TOTALS												39212	44938	3250	76880	2121	123	43

PERMANENT PAVEMENT MARKINGS - MAIN LANES SOUTH & COMBINED FINAL STRIPING

DESCRIPTION	STAGES									COMBINED FINAL STAGE	MAXIMUM NUMBER REQUIRED	PLOWABLE PAVEMENT MARKERS		REFL. PAINT PAVEMENT MARKINGS-WHITE (10")	PROFILED THERMOPLASTIC PAVEMENT MARKINGS (4")		THERMOPLASTIC PAVEMENT MARKINGS						HIGH PERF. CONTRAST MARKING TAPE (WHITE)	PERMANENT PAVEMENT MARKING TAPE TYPE 3-WHITE
	STAGE 1-A	STAGE 1 B	STAGE 1-C	STAGE 2-A	STAGE 2 B	STAGE 3	STAGE 4-A	STAGE 4-B	STAGE 5			TYPE I (WHITE)	TYPE II (WHITE/RED)		WHITE	YELLOW	WHITE (12")	WHITE (8")	WHITE (4")	YELLOW (4")	WORD	ARROW		
	SQ. FT.-LIN.FT.-EACH													LIN.FT.	LIN.FT.			LIN.FT.			EACH		LIN.FT.	LIN.FT.
PLOWABLE PAVEMENT MARKERS TYPE I(WHITE)									219	717	936	936				14976								
PLOWABLE PAVEMENT MARKERS TYPE II(WHITE/RED)									13		13		13											
REFLECTORIZED PAINT PAVEMENT MARKINGS-WHITE(10")										371	371			371										
PROFILED THERMOPLASTIC PAVEMENT MARKINGS-WHITE(4")									14683	42774	57457				57457									
PROFILED THERMOPLASTIC PAVEMENT MARKINGS-YELLOW(4")									1427	18621	20048					20048								
THERMOPLASTIC PAVEMENT MARKINGS-WHITE (12")										45	45						45							
THERMOPLASTIC PAVEMENT MARKINGS-WHITE (8")									2557	6112	8669							8669						
THERMOPLASTIC PAVEMENT MARKINGS-WHITE(4")									3504	26819	30323								30323					
THERMOPLASTIC PAVEMENT MARKINGS-YELLOW(4")									3556	13422	16978									16978				
THERMOPLASTIC PAVEMENT MARKINGS-WORD										6	6										6			
THERMOPLASTIC PAVEMENT MARKINGS-ARROW										6	6											6		
HIGH PERFORMANCE CONTRAST MARKING TAPE (WHITE)									4473	13210	17683												17683	
PERMANENT PAVEMENT MARKING TAPE TYPE 3-WHITE (4")										1110	1110													1110
TOTALS												936	13	371	57457	35024	45	8669	30323	16978	6	6	17683	1110

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

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

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	182	209

(2) QUANTITIES

REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT

STATION	STATION	LOCATION	LENGTH LIN. FT.	AVG. WIDTH FEET	SQ. YD.
133+85.81	135+20.51	C.L. N.B. HWY. 67/167 LANES & MEMPHIS ENTRANCE RAMP TURNOUT	134.70	VAR.	571
135+20.51	139+95.26	C.L. N.B. HWY. 67/167 LANES	474.75	36	1899
139+95.26	159+56.24	C.L. N.B. HWY. 67/167 LANES	1960.98	24	5229
22+13.45	49+80.00	C.L. N.B. HWY. 67/167 LANES	2766.55	24	7377
49+80.00	51+11.90	C.L. N.B. HWY. 67/167 LANES & McCAIN ENTRANCE RAMP ACCELERATION LANE	131.90	36	528
196+78.80	202+46.90	C.L. HWY. 67/167 N.B. LANES & McCAIN ENTRANCE RAMP ACCELERATION LANE	568.10	36	2272
202+46.90	205+46.90	C.L. HWY. 67/167 N.B. LANES & McCAIN ENTRANCE RAMP ACCELERATION LANE TAPER	300.00	31	1033
205+46.90	210+50.00	C.L. HWY. 67/167 N.B. LANES	503.10	24	1342
296+22.08	303+09.80	C.L. HWY. 67/167 N.B. LANES	687.72	27	2063
303+09.80	304+39.65	C.L. HWY. 67/167 N.B. LANES & WILDWOOD ENTRANCE RAMP TURNOUT	129.85	VAR.	569
304+39.65	310+19.28	C.L. HWY. 67/167 N.B. LANES & WILDWOOD ENTRANCE RAMP ACCELERATION LANE	579.63	36	2319
310+19.28	313+19.28	C.L. HWY. 67/167 N.B. LANES & WILDWOOD ENTRANCE RAMP ACCELERATION LANE TAPER	300.00	31	1033
313+19.28	314+63.09	C.L. HWY. 67/167 N.B. LANES	143.81	24	383
316+12.76	408+50.00	C.L. HWY. 67/167 N.B. LANES	9237.24	24	24633
127+72.68	130+73.50	C.L. S.B. HWY. 67/167 LANES & MEMPHIS EXIT RAMP TURNOUT	300.82	VAR.	1459
130+73.50	146+60.16	C.L. S.B. HWY. 67/167 LANES & MEMPHIS EXIT RAMP	1586.66	36	6347
146+60.16	159+56.24	C.L. S.B. HWY. 67/167 LANES	1296.08	24	3456
22+13.45	51+11.90	C.L. HWY. 67/167 S.B. LANES	2898.45	24	7729
196+78.80	210+50.00	C.L. HWY. 67/167 S.B. LANES	1371.20	24	3657
296+22.08	314+26.30	C.L. HWY. 67/167 S.B. LANES	1804.22	24	4811
315+75.40	408+50.00	C.L. HWY. 67/167 S.B. LANES	9274.60	24	24732
303+35.60	312+02.33	C.L. HWY. 67/167 MEDIAN	866.73	40	3852
TOTAL					107294

REMOVAL & DISPOSAL OF IMPACT ATTENUATION BARRIER

STATION	LOCATION	EACH
130+70	RT. OF C.L. S.B. HWY. 67/167	1
130+70	LT. OF C.L. S.B. HWY. 67/167	1
139+17	RT. OF C.L. S.B. HWY. 67/167	1
139+17	LT. OF C.L. S.B. HWY. 67/167	1
26+59	C.L. MEDIAN HWY. 67/167	1
27+70	C.L. MEDIAN HWY. 67/167	1
28+59	C.L. MEDIAN HWY. 67/167	1
28+91	C.L. MEDIAN HWY. 67/167	1
302+78	LT. OF L.M.L.	1
311+80	C.L. MEDIAN HWY. 67/167	1
351+76	LT. OF L.M.L.	1
372+70	C.L. MEDIAN HWY. 67/167	1
373+23	C.L. MEDIAN HWY. 67/167	1
TOTAL		13

STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 9794
9-22-05

REMOVAL & DISPOSAL OF PARAPET WALLS

STATION	STATION	LOCATION	LIN. FT.
314+47	314+72	RT. OF R.M.L.	25
314+29	314+54	LT. OF R.M.L.	25
315+85	316+10	RT. OF L.M.L.	25
315+66	315+91	LT. OF L.M.L.	25
312+62	312+87	RT. OF C.L. WARDEN RD.	25
314+21	314+46	LT. OF C.L. WARDEN RD.	25
TOTAL			150

REMOVAL & DISPOSAL OF APPROACH GUTTERS

STATION	LOCATION	EACH
115+00	RT. OF C.L. N.B. HWY. 67/167	1
114+73	LT. OF C.L. N.B. HWY. 67/167	1
123+00	RT. OF C.L. N.B. HWY. 67/167	1
123+26	LT. OF C.L. N.B. HWY. 67/167	1
16+35	RT. OF C.L. KIEHL AVE.	1
16+35	LT. OF C.L. KIEHL AVE.	1
20+20	RT. OF C.L. KIEHL AVE.	1
20+20	LT. OF C.L. KIEHL AVE.	1
TOTAL		8

REMOVAL & DISPOSAL OF GUARDRAIL

STATION	STATION	LOCATION	LIN. FT.
113+29	115+29	RT. OF C.L. N.B. HWY. 67/167	200
112+83	114+83	LT. OF C.L. N.B. HWY. 67/167	200
121+08	123+08	RT. OF C.L. N.B. HWY. 67/167	200
121+50	123+50	LT. OF C.L. N.B. HWY. 67/167	200
141+19	143+44	RT. OF C.L. N.B. HWY. 67/167	225
149+73	151+73	RT. OF C.L. N.B. HWY. 67/167	200
114+61	117+11	LT. OF C.L. S.B. HWY. 67/167	250
25+00	27+00	RT. OF R.M.L.	200
312+47	314+47	RT. OF R.M.L.	200
312+29	314+29	LT. OF R.M.L.	200
316+10	318+10	RT. OF L.M.L.	200
315+91	317+91	LT. OF L.M.L.	200
370+83	373+58	RT. OF R.M.L.	275
372+33	375+08	LT. OF L.M.L.	275
16+15	16+40	LT. OF C.L. KIEHL AVE.	25
16+15	16+40	LT. OF C.L. KIEHL AVE.	25
313+72	315+22	RT. OF C.L. LANDERS RD.	150
314+32	315+07	LT. OF C.L. LANDERS RD.	75
316+56	318+06	LT. OF C.L. LANDERS RD.	150
310+62	312+62	RT. OF C.L. WARDEN RD.	200
314+37	315+37	RT. OF C.L. WARDEN RD.	100
314+46	316+46	LT. OF C.L. WARDEN RD.	200
160+45	163+70	RT. OF C.L. McCAIN EASTBOUND EXIT RAMP	325
TOTAL			4275

REMOVAL & DISPOSAL OF DROP INLETS

STATION	LOCATION	EACH
150+95	LT. OF C.L. N.B. HWY. 67/167	1
26+53	RT. OF C.L. HWY. 67/167	1
35+35	RT. OF C.L. HWY. 67/167	1
312+93	C.L. MEDIAN HWY. 67/167	1
317+42	C.L. MEDIAN HWY. 67/167	1
330+91	C.L. MEDIAN HWY. 67/167	1
340+91	C.L. MEDIAN HWY. 67/167	1
345+90	C.L. MEDIAN HWY. 67/167	1
346+90	RT. OF C.L. MEDIAN HWY. 67/167	1
361+89	C.L. MEDIAN HWY. 67/167	1
351+90	C.L. MEDIAN HWY. 67/167	1
369+93	C.L. MEDIAN HWY. 67/167	1
282+81	RT. OF C.L. WARDEN RD.	1
294+08	RT. OF C.L. WARDEN RD.	1
18+24	RT. OF C.L. BROOKSWOOD	1
23+05	LT. OF C.L. KIEHL AVE.	1
26+22	RT. OF C.L. INDIANHEAD DR.	1
14+75	LT. OF C.L. NW LOOP RAMP	1
322+92	C.L. MEDIAN HWY. 67/167	1
TOTAL		19

REMOVAL & DISPOSAL OF CONCRETE ISLANDS

STATION	LOCATION	SQ. YD.
282+55	RT. OF C.L. WARDEN RD.	272
287+30	RT. OF C.L. LANDERS RD.	21
298+09	LT. OF C.L. LANDERS RD.	85
23+86	RT. OF C.L. KIEHL AVE.	264
TOTAL		642

REMOVAL & DISPOSAL OF CURB

STATION	STATION	LOCATION	LIN. FT.
354+42	354+81	RT. OF C.L. MEDIAN HWY. 67/167	60
383+01	383+43	LT. OF C.L. MEDIAN HWY. 67/167	53
10+16	10+59	RT. OF C.L. KIEHL AVE.	175
10+26	10+96	RT. OF C.L. KIEHL AVE.	151
10+16	10+45	RT. OF C.L. KIEHL AVE.	86
12+77	13+20	LT. OF C.L. KIEHL AVE.	145
13+30	13+42	LT. OF C.L. KIEHL AVE.	148
13+64	14+03	LT. OF C.L. KIEHL AVE.	115
10+03	10+37	RT. OF C.L. NW LOOP RAMP	130
10+15	10+85	C.L. NW LOOP RAMP	145
10+03	10+50	LT. OF C.L. NW LOOP RAMP	160
10+18	10+53	RT. OF C.L. SE LOOP RAMP	123
10+29	11+01	C.L. SE LOOP RAMP	147
10+18	10+63	LT. OF C.L. SE LOOP RAMP	148
334+59	334+72	RT. OF C.L. LANDERS RD.	20
334+92	335+08	RT. OF C.L. LANDERS RD.	48
335+39	335+40	RT. OF C.L. LANDERS RD.	16
336+77	336+85	RT. OF C.L. LANDERS RD.	17
337+27	337+37	RT. OF C.L. LANDERS RD.	17
338+90	338+95	RT. OF C.L. LANDERS RD.	13
339+35	339+43	RT. OF C.L. LANDERS RD.	19
TOTAL			1936

REMOVAL & DISPOSAL OF PIER PROTECTION

STATION	STATION	LOCATION	LIN. FT.
26+77	27+50	C.L. MEDIAN HWY. 67/167	146
373+09	373+29	C.L. MEDIAN HWY. 67/167	40
TOTAL			186

REMOVAL & DISPOSAL OF APPROACH SLAB & GUTTERS

STATION	LOCATION	EACH
314+53	RT. OF C.L. MED. HWY. 67/167	1
314+16	LT. OF C.L. MED. HWY. 67/167	1
316+23	RT. OF C.L. N.B. HWY. 67/167	1
315+85	LT. OF C.L. N.B. HWY. 67/167	1
TOTAL		4

REMOVAL & DISPOSAL OF CURB & GUTTER

FROM STATION	FROM LOCATION	TO STATION	TO LOCATION	LIN. FT.
20+11	LT. OF C.L. KIEHL AVE.	23+72	LT. OF C.L. KIEHL AVE.	361
20+11	LT. OF C.L. KIEHL AVE.	14+13	LT. OF C.L. NW LOOP RAMP	452
11+80	RT. OF C.L. NW LOOP RAMP	10+51	RT. OF C.L. POWHATTAN	591
49+24	LT. OF C.L. WILDWOOD	283+23	RT. OF C.L. WARDEN RD.	147
TOTAL				1551

08-08-2005 RR60080.001

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.		R60080	183	609

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
5-27-05

REMOVAL & DISPOSAL ITEMS

STATION	CENTERLINE LOCATION HWY. 67	DESCRIPTION	SIGNS	BUILDING
			EACH	EACH
334+50	Rt.	Sign	1	
334+50	Rt.	Sign	1	
345+00	Lt.	1-S-B Building		1
345+90	Lt.	Sign	1	
346+10	Rt.	Sign	1	
346+50	Lt.	1-S-B Building		1
347+00	Lt.	1-S-M Building		1
347+49	Lt.	Sign	1	
348+25	Lt.	Sign	1	
375+54	Rt.	Building		1
384+10	Rt.	Shop Building		1
384+34	Rt.	Canopy		1
384+62	Rt.	Mobile Home		1
384+92	Rt.	Shed		1
			6	8

REMOVAL & DISPOSAL OF WALKS

STATION	STATION	LOCATION	LENGTH LIN. FT.	AVG. WIDTH FEET	SQ. YD.
23+26.21	23+72.59	LT. OF C.L. KIEHL AVE.	46.38	6	31
TOTAL					31

REMOVAL & DISPOSAL OF FENCE

	TO		FROM	
STATION	LOCATION	STATION	LOCATION	LIN. FT.
27+23	LT. OF C.L. MEDIAN HWY. 67/167	29+42	LT. OF C.L. MEDIAN HWY. 67/167	219
34+55	LT. OF C.L. MEDIAN HWY. 67/167	50+96	LT. OF C.L. MEDIAN HWY. 67/167	1641
35+68	RT. OF C.L. MEDIAN HWY. 67/167	46+06	RT. OF C.L. MEDIAN HWY. 67/167	1038
15+20	RT. OF C.L. NW LOOP RAMP	10+97	RT. OF C.L. POWHATTAN	225
TOTAL				3123

REMOVAL & DISPOSAL OF PRECAST CONCRETE BARRIER

STATION	STATION	LOCATION	LIN. FT.
210+50	218+10	C.L. MEDIAN HWY. 67/167	760
306+22	311+72	C.L. MEDIAN HWY. 67/167	550
TOTAL			1310

REMOVAL & DISPOSAL OF JUNCTION BOXES

STATION	LOCATION	EACH
312+93	RT. OF C.L MEDIAN HWY. 67/167	1
351+90	LT. OF C.L. MEDIAN HWY. 67/167	1
369+93	LT. OF C.L. MEDIAN HWY. 67/167	1
13+24	RT. OF C.L. NW LOOP RAMP	1
48+30	LT. OF C.L. MEDIAN HWY. 67/167	1
48+30	RT. OF C.L. MEDIAN HWY. 67/167	1
202+05	RT. OF C.L MEDIAN HWY. 67/167	1
355+42	LT. OF C.L. LANDERS RD.	1
TOTAL		8

REMOVAL & DISPOSAL OF PIPE CULVERTS

STATION	LOCATION	EACH
137+63	LT. OF C.L. N.B. HWY. 67/167	1
48+30	RT. OF C.L. MEDIAN HWY. 67/167	2
282+81	RT. OF C.L. WARDEN RD.	2
330+91	LT. OF C.L. MEDIAN HWY. 67/167	2
330+91	RT. OF C.L. MEDIAN HWY. 67/167	2
330+91	C.L. MEDIAN HWY. 67/167	1
312+93	RT. OF C.L. MEDIAN HWY. 67/167	2
317+42	RT. OF C.L. MEDIAN HWY. 67/167	3
351+90	C.L. MEDIAN HWY. 67/167	1
351+90	LT. OF C.L. MEDIAN HWY. 67/167	3
355+42	LT. OF C.L. LANDERS RD.	2
369+93	LT. OF C.L. MEDIAN HWY. 67/167	3
380+93	LT. OF C.L. MEDIAN HWY. 67/167	2
380+93	RT. OF C.L. MEDIAN HWY. 67/167	2
2+75	LT. OF C.L. RIXIE RD.	1
2+02	LT. OF C.L. RIXIE RD.	1
23+05	RT. OF C.L. KIEHL AVE.	1
26+55	RT. OF C.L. INDIANHEAD DR.	1
10+18	RT. OF C.L. NW LOOP RAMP	1
14+75	LT. OF C.L. NW LOOP RAMP	1
13+24	RT. OF C.L. NW LOOP RAMP	2
TOTAL		36

NOTE: PAYMENT FOR REMOVAL AND DISPOSAL OF PIPE CULVERTS SHALL INCLUDE REMOVAL & DISPOSAL OF ALL HEADWALLS & FLARED END SECTIONS IF APPLICABLE.

REMOVAL & DISPOSAL OF STEEL GRATE ASSEMBLY

STATION	LOCATION	EACH
322+92	RT. OF C.L. MEDIAN HWY. 67/167	1
340+91	RT. OF C.L. MEDIAN HWY. 67/167	1
351+90	RT. OF C.L. MEDIAN HWY. 67/167	1
TOTAL		3

REMOVAL & DISPOSAL OF CONCRETE DRIVEWAYS

STATION	LOCATION	SQ. YD.
384+39	RT. OF C.L. LANDERS RD.	57
385+09	RT. OF C.L. LANDERS RD.	67
TOTAL		124

REMOVAL & DISPOSAL OF CONCRETE MEDIAN BARRIER

STATION	STATION	LOCATION	LIN. FT.
290+00.00	296+22.08	C.L. MEDIAN HWY. 67/167	622
TOTAL			622

08-08-2005 RR60080.001

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	189	609

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 1794
CHARLES D. CLEMENTS

EROSION CONTROL

STATION	STATION	LOCATION	LIME	SEEDING	MULCH COVER	WATER	SECOND SEEDING APPLICATION
			TON	ACRE		M. GAL.	ACRE
127+46.93	133+86.83	RT. OF C.L. MEMPHIS ENTRANCE RAMP	1	0.26	0.26	26.5	0.26
127+64.33	146+40.65	LT. OF C.L. N.B. HWY. 67/167	6	2.93	2.93	298.9	2.93
133+85.81	154+79.69	RT. OF C.L. N.B. HWY. 67/167	5	2.47	2.47	251.9	2.47
154+80.08	164+45.29	LT. & RT. C.L. McCAIN E.B. EXIT RAMP	4	2.21	2.21	225.4	2.21
27+90.00	43+47.00	RT. OF C.L. MEDIAN HWY. 67/167	2	1.01	1.01	103.0	1.01
43+53.30	49+43.82	RT. OF C.L. McCAIN ENTRANCE RAMP N.B.	0	0.15	0.15	15.3	0.15
49+43.82	210+50.00	RT. OF C.L. MEDIAN HWY. 67/167	2	1.05	1.05	107.1	1.05
121+26.78	144+26.00	RT. OF C.L. S.B. HWY. 67/167	6	2.98	2.98	304.0	2.98
124+68.91	151+48.05	LT. OF C.L. S.B. HWY. 67/167	5	2.27	2.27	231.5	2.27
153+25.00	159+56.24	LT. OF C.L. S.B. HWY. 67/167	1	0.40	0.40	40.8	0.40
22+13.45	43+00.00	LT. OF C.L. MEDIAN HWY. 67/167	2	1.00	1.00	102.0	1.00
47+49.00	51+11.90	RT. OF C.L. MEDIAN HWY. 67/167	0	0.18	0.18	18.4	0.18
196+78.80	210+50.00	LT. OF C.L. MEDIAN HWY. 67/167	2	0.86	0.86	87.7	0.86
292+25.00	314+80.00	RT. OF C.L. MEDIAN HWY. 67/167	3	1.54	1.54	157.1	1.54
316+40.00	320+98.00	RT. OF C.L. MEDIAN HWY. 67/167	0	0.22	0.22	22.4	0.22
322+05.00	349+90.25	RT. OF C.L. MEDIAN HWY. 67/167	3	1.61	1.61	164.2	1.61
349+05.95	408+50.00	RT. OF C.L. MEDIAN HWY. 67/167	11	5.46	5.46	556.9	5.46
290+60.70	314+10.00	LT. OF C.L. MEDIAN HWY. 67/167	4	2.16	2.16	220.3	2.16
315+45.00	408+50.00	LT. OF C.L. MEDIAN HWY. 67/167	15	7.48	7.48	763.0	7.48
408+50.00	417+00.00	C.L. MEDIAN HWY. 67/167	2	0.78	0.78	79.6	0.78
331+00.00	346+50.00	RT. OF C.L. LANDERS RD.	2	0.97	0.97	98.9	0.97
349+00.00	357+06.36	LT. & RT. C.L. BROOKSWOOD FLYOVER	2	1.09	1.09	111.2	1.09
10+11.72	16+68.11	LT. & RT. C.L. KIEHL AVE.	2	0.88	0.88	89.8	0.88
19+86.27	23+26.12	LT. & RT. C.L. KIEHL AVE.	2	1.11	1.11	113.2	1.11
10+00.00	15+80.00	LT. & RT. C.L. NW LOOP RAMP	1	0.72	0.72	73.4	0.72
25+00.00	26+40.00	RT. OF C.L. INDIANHEAD DR.	0	0.10	0.10	10.2	0.10
373+28.60	385+00.00	LT. & RT. C.L. LANDERS CONNECTOR	6	2.76	2.76	281.5	2.76
385+00.00	387+40.00	RT. OF C.L. LANDERS CONNECTOR	0	0.10	0.10	10.2	0.10
282+32.00	283+50.00	RT. OF C.L. WARDEN RD.	0	0.14	0.14	14.3	0.14
297+85.61	298+87.64	LT. OF C.L. LANDERS RD.	0	0.09	0.09	9.2	0.09
TOTALS			89	44.98	44.98	4587.9	44.98

BASIS FOR ESTIMATE: LIME = 2 TONS PER ACRE OF SEEDING
WATER = 102 M. GAL. PER ACRE OF SEEDING

TEMPORARY EROSION CONTROL

STAGE	LOCATION	TEMPORARY SEEDING	MULCH COVER	WATER	SAND BAG DITCH CHECK (E-5)	ROCK DITCH CHECK (E-6)	DROP INLET SILT FENCE (E-7)	SILT FENCE (E-11)	SEDIMENT REMOVAL & DISPOSAL
		ACRE		M. GAL.	BAG	CU. YD.	LIN. FT.		CU. YD.
STAGE 1	MAIN LANES HWY. 67/167					110	496	3835	190
STAGE 1A	MAIN LANES HWY. 67/167	13.54	13.54	276.2		25	688		
STAGE 2	MAIN LANES HWY. 67/167	24.68	24.68	503.5		30	208	2581	130
	BROOKSWOOD FLYOVER	1.09	1.09	22.2		6		1435	75
	LANDERS CONNECTOR	2.86	2.86	58.3		17		2325	115
	KIEHL AVE., INDIANHEAD DR. & NW LOOP RAMP	2.81	2.81	57.3	44	30	80	2164	110
*ENTIRE PROJECT - IF AND WHERE DIRECTED BY THE ENGINEER.		22.50	22.50	459.0	250	110	700	6000	300
TOTALS		67.48	67.48	1376.5	294	328	2172	18340	920

BASIS FOR ESTIMATE: WATER = 20.4 M. GAL. PER ACRE OF TEMPORARY SEEDING
SAND BAG DITCH CHECKS = 22 BAGS PER INSTALLATION

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

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

EARTHWORK

STATION	STATION	LOCATION	UNCLASSIFIED EXCAVATION	SELECTED MATERIAL (CL. SM-1))	COMPACTED EMBANKMENT
			CU. YD.		
133+85.81	159+56.24	NORTHBOUND LANES HWY. 67/167	10748		2847
127+72.68	159+56.24	SOUTHBOUND LANES HWY. 67/167	9704		3399
22+13.45	208+50.00	MAIN LANES HWY. 67/167	30388		9803
296+22.08	408+50.00	MAIN LANES HWY. 67/167	69862		53394
154+78.54	161+41.03	McCAIN EASTBOUND EXIT RAMP	5560		503
40+94.81	49+43.82	McCAIN NORTHBOUND ENTRANCE RAMP	918		140
43+00.63	54+24.31	McCAIN SOUTHBOUND ENTRANCE RAMP	627		1315
302+00.00	303+15.23	WILDWOOD ENTRANCE RAMP	394		
291+85.07	297+52.52	WILDWOOD EXIT RAMP	809		
321+54.87	327+22.72	BROOKSWOOD EXIT RAMP	257		395
326+99.64	333+41.57	BROOKSWOOD ENTRANCE RAMP	397		232
332+70.30	357+03.56	BROOKSWOOD FLYOVER	1199		20811
349+14.00	352+00.00	BROOKSWOOD FLYOVER - UNDERCUT AREAS	3653	3653	
353+73.61	355+58.41	BROOKSWOOD CONNECTOR	325		35
348+48.28	354+30.12	KIEHL AVE. NORTHBOUND EXIT RAMP	350		372
357+99.66	365+85.28	KIEHL AVE. SOUTHBOUND ENTRANCE RAMP	752		141
10+11.72	23+00.00	KIEHL AVE.	2978		27167
12+50.00	14+00.00	KIEHL AVE. - UNDERCUT AREAS	91	91	
25+00.00	26+50.00	INDIANHEAD DR.	102		
10+50.00	15+52.16	NW LOOP RAMP	195		703
379+59.89	385+50.44	KIEHL AVE. NORTHBOUND ENTRANCE RAMP	527		30
378+23.58	384+36.18	KIEHL AVE. SOUTHBOUND EXIT RAMP	653		10
373+28.56	387+29.00	LANDERS CONNECTOR	1355		8726
382+00.00	385+30.25	LANDERS TO LANDERS CONNECTOR	158		744
290+60.70	414+05.32	TEMPORARY WIDENING FOR M.O.T. ALONG S.B. LANES HWY. 67/167	8786		9191
408+50.00	416+50.00	CROSSOVER CONSTRUCTION	489		210
147+00.00	159+56.24	TEMPORARY WIDENING FOR M.O.T. ALONG N.B. LANES HWY. 67/167	2108		202
22+13.45	208+50.00	TEMPORARY WIDENING FOR M.O.T. ALONG N.B LANES HWY. 67/167	3019		1914
331+32.33	346+39.75	TEMPORARY WIDENING FOR M.O.T. ALONG LANDERS RD.	606		194
121+26.79	146+85.40	TEMPORARY SOUTHBOUND LANES HWY. 67/167 FOR M.O.T.	811		8443
127+64.34	146+58.07	TEMPORARY NORTHBOUND LANES HWY. 67/167 FOR M.O.T.	1979		8951
132+20.44	136+68.47	TEMPORARY MEMPHIS ENTRANCE RAMP FOR M.O.T.	685		582
10+28.37	13+92.17	LT. OF SE LOOP RAMP - DITCH	345		
10+93.00	11+40.00	LT. OF NW LOOP RAMP - DITCH	492		
282+00.00	283+23.00	RT. OF WARDEN RD.	590		
397+95.00	298+90.00	LT. OF LANDERS RD.	610		
121+26.79	146+85.40	REMOVAL OF TEMPORARY SOUTHBOUND LANES HWY. 67/167 FOR M.O.T.	11485		517
127+64.34	146+58.07	REMOVAL OF TEMPORARY NORTHBOUND LANES HWY. 67/167 FOR M.O.T.	11335		1089
132+20.44	136+68.47	REMOVAL OF TEMPORARY MEMPHIS ENTRANCE RAMP FOR M.O.T.	930		498
408+50.00	416+50.00	REMOVAL OF CROSSOVER CONSTRUCTION	420		667
		WOODRUFF CREEK BRIDGE			
TOTALS			186692	3744	163225

08-08-2005 RR60080.Q01

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	185	609
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4791
CHARLES D. CLEMENTS
8-22-05

STRUCTURES

STATION	LOCATION	DESCRIPTION	R.C. PIPE CULVERTS (CLASS III)					F.E.S. FOR R.C. PIPE CULVERTS					R.C. ARCH PIPE CULV'T. (CL. III)	SIDE DRAIN	DROP INLETS						DROP INLET EXTENSIONS		JUNCTION BOX		SOLID SODDING	WATER	STANDARD DRAWING NUMBER
			18"	24"	30"	36"	48"	18"	24"	30"	36"	48"	29" x18"	18"	ST	TM	RM	MO	SPECIAL		4'	8'	ST	E			
			LIN. FT.					EACH					LIN. FT.	LIN. FT.	EACH										SQ. YD.	M. GAL.	
23+86	RT. OF C.L. MEDIAN HWY. 67/166	CONSTRUCT DROP INLET														1									4	0.1	FPC-9D
35+35	RT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET														1									4	0.1	FPC-9D
35+35	LT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET														1									4	0.1	FPC-9D
45+12	LT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		2											1												FPC-9S, PCC-1
45+63	RT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET													1												FPC-9S
47+47	LT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		2											1												FPC-9S, PCC-1
48+30	LT. OF C.L. MEDIAN HWY. 67/167					4																					PCC-1
48+30	RT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET													1												FPC-9S
48+30	RT. OF C.L. MEDIAN HWY. 67/167					4																					PCC-1
49+41	RT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		108											1												FPC-9S, PCC-1
137+63	C.L. S.B. HWY. 67/167	SHORTEN EXISTING PIPE CULV'T.			4					1															29	0.4	PCC-1, FES-1, FES-2
202+05	RT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET															1								4	0.1	FPC-9D
282+81	RT. OF C.L. WARDEN RD.	CONSTRUCT DROP INLET W/ STUB INLET	8					1										1			1				12	0.2	FPS-9M, PCC-1, FES-1, FES-2
294+08	RT. OF C.L. WARDEN RD.	CONSTRUCT DROP INLET	4														1								4	0.1	FPC-9D, PCC-1
317+42	RT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET													1										4	0.1	FPC-9S
320+00	RT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		256											1												FPC-9S, PCC-1
322+17	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET	16												1												FPC-9S, PCC-1
322+36	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET	22												1												FPC-9S, PCC-1
322+61	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET	28												1												FPC-9S, PCC-1
322+92	RT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET W/ PIPE OUTLET		288													1								4	0.1	FPC-9D, PCC-1
322+92	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		70											1												FPC-9S, PCC-1
324+00	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		92											1												FPC-9S, PCC-1
326+00	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		198											1												FPC-9S, PCC-1
329+00	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		190											1												FPC-9S, PCC-1
330+91	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		4											1												FPC-9S, PCC-1
335+00	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		298											1												FPC-9S, PCC-1
338+00	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		298											1												FPC-9S, PCC-1
341+00	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET			298										1												FPC-9S, PCC-1
344+00	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET			286										1												FPC-9S, PCC-1
346+90	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET													1												FPC-9S, PCC-1
346+90	RT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET														1											FPC-9D
347+88	C.L. MEDIAN HWY. 67/167	CONSTRUCT PIPE CULVERT				326						2													92	1.2	PCC-1 FES-1, FES-2
349+00	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		98											1												FPC-9S, PCC-1
350+00	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		54											1												FPC-9S, PCC-1
350+65	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		18											1												FPC-9S, PCC-1
350+85	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		12											1												FPC-9S, PCC-1
351+00	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		20											1												FPC-9S, PCC-1
351+23	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		64											1												FPC-9S, PCC-1
351+90	LT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET															1								4	0.1	FPC-9D
351+90	C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		4											1												FPC-9S, PCC-1
351+90	RT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET		4													1								4	0.1	FPC-9D, PCC-1
361+89	LT. OF C.L. MEDIAN HWY. 67/167		4																								PCC-1
361+89	LT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET															1								4	0.1	FPC-9D
369+93	LT. OF C.L. MEDIAN HWY. 67/167		4																								PCC-1
369+93	LT. OF C.L. MEDIAN HWY. 67/167	CONSTRUCT DROP INLET	6														1								4	0.1	FPC-9D, PCC-1
43+51	LT. OF C.L. McCAIN ENTRANCE RAMP N.B.	CONSTRUCT DROP INLET W/ PIPE OUTLET		210													1										FPC-9D, PCC-1
45+63	LT. OF C.L. McCAIN ENTRANCE RAMP N.B.	CONSTRUCT DROP INLET W/ PIPE OUTLET		264											1												FPC-9S, PCC-1
48+30	LT. OF C.L. McCAIN ENTRANCE RAMP N.B.	CONSTRUCT JUNCTION BOX																					1				FPC-9S
48+30	RT. OF C.L. McCAIN ENTRANCE RAMP N.B.	CONSTRUCT DROP INLET													1												FPC-9S
43+00	LT. OF C.L. McCAIN ENTRANCE RAMP S.B.	CONSTRUCT DROP INLET W/ PIPE OUTLET		146											1												FPC-9S, PCC-1
44+50	LT. OF C.L. McCAIN ENTRANCE RAMP S.B.	CONSTRUCT DROP INLET W/ PIPE OUTLET		60											1												FPC-9S, PCC-1
45+13	LT. OF C.L. McCAIN ENTRANCE RAMP S.B.	CONSTRUCT DROP INLET W/ PIPE OUTLET		18											1												FPC-9S, PCC-1
45+13	RT. OF C.L. McCAIN ENTRANCE RAMP S.B.	CONSTRUCT DROP INLET W/ PIPE OUTLET		134																			1				FPC-9S, PCC-1
46+50	RT. OF C.L. McCAIN ENTRANCE RAMP S.B.	CONSTRUCT DROP INLET W/ PIPE OUTLET		46											1												FPC-9S, PCC-1
47+00	RT. OF C.L. McCAIN ENTRANCE RAMP S.B.	CONSTRUCT DROP INLET W/ PIPE OUTLET		44											1												FPC-9S, PCC-1
47+48	RT. OF C.L. McCAIN ENTRANCE RAMP S.B.	CONSTRUCT DROP INLET W/ PIPE OUTLET			78										1												FPC-9S, PCC-1
48+29	RT. OF C.L. McCAIN ENTRANCE RAMP S.B.	CONSTRUCT DROP INLET													1												FPC-9S, PCC-1
49+00	RT. OF C.L. McCAIN ENTRANCE RAMP S.B.	CONSTRUCT DROP INLET W/ PIPE OUTLET		68											1												FPC-9S, PCC-1
189+75	RT. OF C.L. WARDEN RD.	CONSTRUCT DROP INLET W/ PIPE OUTLET		2											1												FPC-9S, PCC-1
192+11	RT. OF C.L. WARDEN RD.	CONSTRUCT DROP INLET W/ PIPE OUTLET		24											1												FPC-9S, PCC-1
16+48	RT. OF C.L. BROOKSWOOD	CONSTRUCT DROP INLET																1									FPC-9M
18+24	RT. OF C.L. BROOKSWOOD	CONSTRUCT JUNCTION BOX																					1				FPC-9
337+37	RT. OF C.L. BROOKSWOOD FLYOVER	CONSTRUCT DROP INLET W/ PIPE OUTLET	20												1												FPC-9S, PCC-1
337+37	LT. OF C.L. BROOKSWOOD FLYOVER	CONSTRUCT JUNCTION BOX W/ PIPE OUTLET		4																			1				FPC-9S, PCC-1
338+39	LT. OF C.L. BROOKSWOOD FLYOVER	CONSTRUCT DROP INLET W/ PIPE OUTLET		100											1												FPC-9S, PCC-1
338+60	LT. OF C.L. BROOKSWOOD FLYOVER	CONSTRUCT DROP INLET W/ PIPE OUTLET		18											1												FPC-9S, PCC-1
339+00	LT. OF C.L. BROOKSWOOD FLYOVER	CONSTRUCT DROP INLET W/ PIPE OUTLET		38											1												FPC-9S, PCC-1
341+00	LT. OF C.L. BROOKSWOOD FLYOVER	CONSTRUCT DROP INLET W/ PIPE OUTLET		198											1												FPC-9S, PCC-1
343+00	LT. OF C.L. BROOKSWOOD FLYOVER	CONSTRUCT DROP INLET W/ PIPE OUTLET		198											1												FPC-9S, PCC-1
354+49	RT. OF C.L. BROOKSWOOD FLYOVER	CONSTRUCT DROP INLET																	1								
354+88	LT. OF C.L. BROOKSWOOD CONNECTOR	CONSTRUCT DROP INLET W/ PIPE OUTLET	60															1			2						FPC-9M, PCC-1
356+00	RT. OF C.L. BROOKSWOOD FLYOVER	CONSTRUCT DROP INLET																	1		1						
2+75	LT. OF C.L. RIXIE RD.	CONSTRUCT JUNCTION BOX W/ PIPE INLET		26																			1				FPC-9S, PCC-1
10+40	LT. OF C.L. KIEHL AVE.	CONSTRUCT DROP INLET W/ PIPE INLET		8					1									1			1				8	0.1	FPC-9M, PCC-1, FES-1, FES-2
11+37	LT. OF C.L. KIEHL AVE.	CONSTRUCT DROP INLET																	1		1						
14+72	LT. OF C.L. KIEHL AVE.	CONSTRUCT DROP INLET																	1		1						
16+00	LT. OF C.L. KIEHL AVE.	CONSTRUCT DROP INLET																	1		1						
20+50	LT. & RT. OF C.L. KIEHL AVE.	CONSTRUCT DROP INLET																	1		2						
21+50	LT. & RT. OF C.L. KIEHL AVE.	CONSTRUCT DROP INLET																	1		2						
22+55	RT. OF C.L. KIEHL AVE.	CONSTRUCT DROP INLET																	1		1						
23+00	LT. OF C.L. KIEHL AVE.	CONSTRUCT DROP INLET																	1		1						
25+82	RT. OF C.L. INDIANHEAD DR.	CONSTRUCT DROP INLET																	1		1						
26+22	RT. OF C.L. INDIANHEAD DR.	CONSTRUCT JUNCTION BOX W/ PIPE INLET	36					1															1		5	0.1	FPC-9, PCC-1, FES-1, FES-2
10+82	C.L. NW LOOP RAMP	CONSTRUCT PIPE CULVERT		100					1																8	0.1	PCC-1, FES-1, FES-2
10+18	RT. OF C.L. NW LOOP RAMP	CONSTRUCT JUNCTION BOX W/ PIPE INLET	20					1															1		5	0.1	FPC-9, PCC-1, FES-1, FES-2
13+24	RT. OF C.L. NW LOOP RAMP	CONSTRUCT JUNCTION BOX W/ PIPE INLET	4											278									1				FPC-9S, PCC-1, FES-2
373+69	LT. OF C.L. LANDERS CONNECTOR	CONSTRUCT DROP INLET																	1		1						
373+74	RT. OF C.L. LANDERS CONNECTOR	CONSTRUCT DROP INLET																	1		1						
374+28	LT. OF C.L. LANDERS CONNECTOR	INSTALL SIDE DRAIN																									
375+43	LT. OF C.L. LANDERS CONNECTOR	INSTALL SIDE DRAIN																									
377+00	LT. & RT. OF C.L. LANDERS CONNECTOR	CONSTRUCT DROP INLET																	1		2						
377+74	LT. OF C.L. LANDERS CONNECTOR	INSTALL SIDE DRAIN																									
378+84	LT. & RT. OF C.L. LANDERS CONNECTOR	CONSTRUCT DROP INLET																	1		2						
380+25	C.L. LANDERS CONNECTOR	CONSTRUCT PIPE CULVERT		114					2																16	0.2	PCC-1, FES-1, FES-2
381+36	LT. OF C.L. LANDERS CONNECTOR	CONSTRUCT DROP INLET																	1	1							
382+00	RT. OF C.L. LANDERS CONNECTOR	CONSTRUCT DROP INLET																	1		1						
386+00	RT. OF C.L. LANDERS CONNECTOR	CONSTRUCT DROP INLET																	1	1							
387+27	RT. OF C.L. LANDERS CONNECTOR	CONSTRUCT DROP INLET																	1		1						
TOTALS			232	3900	666	8	326	3	4	1	2		278	90	45	4	8	4	18	2	23	5	3	219	3.5	

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS, USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
FOR C.M. PIPE CULVERT INSTALLATIONS, USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.
BASIS FOR ESTIMATE: WATER = 12.6 GALS. PER SQ. YD. OF SOLID SODDING.

08-08-2005 RR60080.001

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	186	609

(2) QUANTITIES

STATE OF ARKANSAS CHARLES D. CLEMENTS REGISTERED PROFESSIONAL ENGINEER N. 4794

CONCRETE DITCH PAVING (TYPE B)

STATION	STATION	LOCATION	LENGTH LIN. FT.	' W ' FEET	SQ. YD.	SOLID SODDING SQ. YD.	WATER M. GAL.
40+48.73	47+44.70	LT. OF C.L. MEDIAN HWY. 67/167	695.97	4	309	56	0.7
25+50.00	27+90.00	RT. OF C.L. MEDIAN HWY. 67/167	240.00	4	107	68	0.9
354+49.61		RT. OF C.L. BROOKSWOOD FLYOVER	26.56	4	12	14	0.2
356+00.00		RT. OF C.L. BROOKSWOOD FLYOVER	3.90	4	2	3	0.0
11+36.83		LT. OF C.L. KIEHL AVE.	27.50	4	12	14	0.2
12+25.00	16+68.11	RT. OF C.L. KIEHL AVE.	443.11	4	197	98	1.2
14+72.26		LT. OF C.L. KIEHL AVE.	46.25	4	21	22	0.3
16+00.00		LT. OF C.L. KIEHL AVE.	73.16	4	33	34	0.4
20+50.00		LT. OF C.L. KIEHL AVE.	77.22	4	34	36	0.5
20+50.00		RT. OF C.L. KIEHL AVE.	77.64	4	35	36	0.5
21+50.00		LT. OF C.L. KIEHL AVE.	69.11	4	31	32	0.4
21+50.00		RT. OF C.L. KIEHL AVE.	58.23	4	26	28	0.4
22+55.27		RT. OF C.L. KIEHL AVE.	55.49	4	25	26	0.3
23+00.00		LT. OF C.L. KIEHL AVE.	40.53	4	18	20	0.3
25+82.86		RT. OF C.L. INDIANHEAD DR.	7.00	4	3	5	0.1
11+77.63		RT. OF C.L. NW LOOP RAMP	8.00	4	4	4	0.1
14+10.00		LT. OF C.L. NW LOOP RAMP	48.43	4	22	23	0.3
11+00.00	15+68.09	RT. OF C.L. NW LOOP RAMP	533.13	4	237	104	1.3
15+30.83		RT. OF C.L. NW LOOP RAMP	6.30	4	3	3	0.0
373+68.62		LT. OF C.L. LANDERS CONNECTOR	4.38	4	2	4	0.1
373+73.85		RT. OF C.L. LANDERS CONNECTOR	6.76	4	3	5	0.1
377+00.00		LT. OF C.L. LANDERS CONNECTOR	8.96	4	4	6	0.1
377+00.00		RT. OF C.L. LANDERS CONNECTOR	7.20	4	3	5	0.1
378+84.33		LT. OF C.L. LANDERS CONNECTOR	14.36	4	6	8	0.1
378+84.33		RT. OF C.L. LANDERS CONNECTOR	8.45	4	4	6	0.1
381+35.60		LT. OF C.L. LANDERS CONNECTOR	17.56	4	8	10	0.1
382+00.00		RT. OF C.L. LANDERS CONNECTOR	17.14	4	8	9	0.1
386+00.00		RT. OF C.L. LANDERS CONNECTOR	4.41	4	2	4	0.1
387+26.50		RT. OF C.L. LANDERS CONNECTOR	3.98	4	2	4	0.1
TOTAL					1173	687	9.1

BASIS FOR ESTIMATE: WATER = 12.6 GAL. PER SQ. YD. OF SOLID SODDING.

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	LENGTH LIN. FT.	AVG. WIDTH FEET	SQ. YD.
107+39.46	114+67.22	C.L. N.B. HWY. 67/167 LANES	727.76	38	3073
118+42.30	122+95.62	C.L. N.B. HWY. 67/167 LANES	453.32	38	1914
127+54.37	133+85.81	C.L. N.B. HWY. 67/167 LANES	631.44	38	2666
109+55.43	127+50.26	C.L. S.B. HWY. 67/167 LANES	1794.83	38	7578
127+50.26	146+60.16	C.L. S.B. HWY. 67/167 LANES	1909.90	28	5942
151+47.61	152+47.61	C.L. McCAIN S.B. ENTRANCE RAMP	100.00	25	278
161+41.03	162+41.03	C.L. McCAIN E.B. EXIT RAMP	100.00	25	278
30+57.65	31+57.65	C.L. McCAIN W.B. EXIT RAMP	100.00	34	378
9+65.95	29+86.83	C.L. BROOKSWOOD	2020.88	44	9880
		KIEHL AVE.	100.00	65	722
26+86.47	27+86.47	C.L. INDIANHEAD DR.	100.00	25	278
287+19.91	288+19.91	C.L. LANDERS RD.	100.00	VAR.	793
314+14.40	315+14.40	C.L. LANDERS RD.	100.00	28	311
316+63.52	317+63.52	C.L. LANDERS RD.	100.00	28	311
389+46.65	390+46.65	C.L. LANDERS RD.	100.00	28	311
281+98.00	283+00.00	C.L. WARDEN RD.	102.00	VAR.	854
311+77.40	312+77.40	C.L. WARDEN RD.	100.00	28	311
314+28.05	315+28.05	C.L. WARDEN RD.	100.00	28	311
383+14.34	384+14.34	C.L. WARDEN RD.	100.00	28	311
TOTAL					36500

GUARDRAIL

STATION	STATION	LOCATION	GUARDRAIL (TYPE A) LIN. FT.	TERMINAL ANCHOR POST (TYPE 1) EACH	GUARDRAIL TERMINAL (TYPE 2) EACH	THRIE BEAM GUARDRAIL TERMINAL EACH
112+50.64	115+19.39	RT. OF C.L. N.B. HWY. 67/167	200		1	1
111+54.55	114+73.30	LT. OF C.L. N.B. HWY. 67/167	250		1	1
120+29.87	122+98.62	RT. OF C.L. N.B. HWY. 67/167	200		1	1
120+21.91	123+40.66	LT. OF C.L. N.B. HWY. 67/167	250		1	1
144+56.25	147+25.00	LT. OF C.L. N.B. HWY. 67/167	200		1	1
114+36.00	117+11.00	LT. OF C.L. S.B. HWY. 67/167	225	1	1	
22+81.25	26+00.00	RT. OF C.L. MEDIAN HWY. 67/167	250		1	1
33+81.25	37+00.00	RT. OF C.L. MEDIAN HWY. 67/167	250		1	1
307+10.15	314+53.90	RT. OF C.L. MEDIAN HWY. 67/167	675		1	1
309+69.34	313+88.09	LT. OF C.L. MEDIAN HWY. 67/168	350	1		1
316+50.90	321+19.43	RT. OF C.L. MEDIAN HWY. 67/167	450	1		1
315+85.09	321+53.84	LT. OF C.L. MEDIAN HWY. 67/167	500		1	1
342+75.00	347+50.00	LT. OF C.L. MEDIAN HWY. 67/167	425	1	1	
154+50.00	158+25.00	LT. OF C.L. LANDERS RD.	325	1	1	
196+23.10	198+41.85	RT. OF C.L. WARDEN RD.	150		1	1
312+93.39	315+12.14	RT. OF C.L. LANDERS RD.	150		1	1
312+78.61	314+97.36	LT. OF C.L. LANDERS RD.	150		1	1
316+65.48	321+08.75	LT. OF C.L. LANDERS RD.	375	1		1
308+59.00	312+77.75	RT. OF C.L. WARDEN RD.	350	1		1
314+47.30	320+66.05	RT. OF C.L. WARDEN RD.	550		1	1
314+30.05	316+48.80	LT. OF C.L. WARDEN RD.	150		1	1
331+96.50	333+90.25	LT. OF C.L. LANDERS RD.	125		1	1
TOTAL			6550	7	18	19

TEMPORARY CULVERT

STATION	LOCATION	TEMPORARY CULVERT 18" LIN. FT.	TEMPORARY CULVERT 18"x11" LIN. FT.
126+32	TEMPORARY MEMPHIS EXIT RAMP		92
143+55	TEMPORARY S.B. HWY. 67/167	162	
35+35	RT. OF C.L. MEDIAN HWY. 67/167	8	
39+00	RT. OF C.L. MEDIAN HWY. 67/167	6	
48+30	RT. OF C.L. MEDIAN HWY. 67/167	28	
144+14	TEMPORARY N.B. HWY. 67/167	60	
152+04	TEMPORARY McCAIN E.B. EXIT RAMP	174	
199+63	TEMPORARY McCAIN ENTRANCE RAMP	176	
159+83	TEMPORARY McCAIN E.B. EXIT RAMP	176	
295+10	LT. OF C.L. MEDIAN HWY. 67/167	58	
298+88	TEMPORARY WILDWOOD ENTRANCE RAMP	94	
331+35	LT. OF C.L. MEDIAN HWY. 67/167	26	
346+91	LT. OF C.L. MEDIAN HWY. 67/167	14	
351+01	TEMPORARY KIEHL AVE. EXIT RAMP	222	
351+90	LT. OF C.L. MEDIAN HWY. 67/167	18	
361+90	LT. OF C.L. MEDIAN HWY. 67/167	20	
382+61	TEMPORARY KIEHL AVE. ENTRANCE RAMP	200	
404+69	LT. OF C.L. MEDIAN HWY. 67/167	16	
412+46	C.L. MEDIAN HWY. 67/167	520	
382+65	TEMPORARY KIEHL AVE. EXIT RAMP	304	
309+59	TEMPORARY BROOKSWOOD ENTRANCE RAMP	176	
302+39	TEMPORARY WILDWOOD EXIT RAMP	202	
390+74	TEMPORARY KIEHL AVE. EXIT RAMP	208	
TOTALS		2868	92

CONCRETE WALKS AND HAND RAILING

FROM STATION	FROM LOCATION	TO STATION	TO LOCATION	LENGTH LIN. FT.	AVG. WIDTH FEET	CONCRETE WALK SQ. YD.	HAND RAILING LIN. FT.
4+69.47	LT. OF C.L. RIXIE RD.	16+68.11	RT. OF C.L. KIEHL AVE.	731.46	6	488	
19+86.27	RT. OF C.L. KIEHL AVE.	23+22.11	RT. OF C.L. KIEHL AVE.	335.25	6	224	
1+88.01	LT. OF C.L. RIXIE RD.	15+56.05	RT. OF C.L. SE LOOP RAMP	304.34	6	203	
15+48.61	LT. OF C.L. SE LOOP RAMP	16+68.11	LT. OF C.L. KIEHL AVE.	286.80	6	191	
19+86.27	LT. OF C.L. KIEHL AVE.	23+72.59	LT. OF C.L. KIEHL AVE.	394.06	6	263	
25+16.68	RT. OF C.L. INDIANHEAD DR.	10+71.39	RT. OF POWHATTAN	140.83	6	94	
12+50.00	RT. OF C.L. KIEHL AVE.	16+13.00	RT. OF C.L. KIEHL AVE.				363
TOTAL						1463	363

CONCRETE ISLAND

STATION	STATION	LOCATION	SQ. YD.
287+37.06		RT. OF C.L. LANDERS RD.	50
321+04.14	324+69.85	LT. OF C.L. LANDERS RD.	450
337+31.07	351+31.98	LT. OF C.L. LANDERS RD.	492
359+11.83		RT. OF C.L. LANDERS RD.	84
369+43.61		RT. OF C.L. LANDERS RD.	495
282+23.34		RT. OF C.L. WARDEN RD.	34
293+39.12	296+13.54	RT. OF C.L. WARDEN RD.	184
375+46.15		LT. OF C.L. WARDEN RD.	538
380+33.33	382+73.08	RT. OF C.L. WARDEN RD.	163
17+16.85		RT. OF C.L. BROOKSWOOD	450
10+34.33		LT. OF C.L. KIEHL AVE.	134
10+32.22		RT. OF C.L. KIEHL AVE.	132
13+03.86		LT. OF C.L. KIEHL AVE.	42
13+56.54		LT. OF C.L. KIEHL AVE.	100
23+83.25		RT. OF C.L. KIEHL AVE.	324
TOTAL			3672

08-08-2005 RR60080.001

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
09-15-2005				6	ARK.			
				JOB NO.		R60080	187	609

(2) QUANTITIES

STATE OF ARKANSAS CHARLES D. CLEMENTS REGISTERED PROFESSIONAL ENGINEER No. 4794

APPROACH SLABS & GUTTERS

STATION	STATION	LOCATION	APPROACH SLABS (TYPE SPECIAL)	APPROACH GUTTER (TYPE SPECIAL 1)	APPROACH GUTTER (TYPE C)	APPROACH GUTTER (TYPE PT)	EPOXY COATED REINFORCING STEEL	REINFORCING STEEL - RDWY. (GRADE 60)	12" ZINC COATED (GALVANIZED) CORR. STEEL PIPE CULV'T. (16 GAUGE)	CONCRETE SPILLWAY (TYPE A)	DROP INLET (TYPE N2)
			CU. YD.				POUND		LIN. FT.	EACH	
313+94.24	314+30.74	C.L. MEDIAN HWY. 67/167	199.00				542	22261			
316+08.26	316+44.76	C.L. MEDIAN HWY. 67/167	199.00				542	22261			
314+92.97	315+29.47	RT. OF C.L. MEDIAN HWY. 67/167			18.06			991			
12+95.51	13+32.01	LT. OF C.L. MEDIAN HWY. 67/167			18.06			991			
317+06.99	317+43.49	RT. OF C.L. MEDIAN HWY. 67/167			18.06			991			
315+09.53	315+46.03	LT. OF C.L. MEDIAN HWY. 67/167			18.06			991			
114+92.89	115+29.39	RT. OF C.L. N.B. HWY. 67/167				20.07		1815			
114+46.80	114+83.30	LT. OF C.L. N.B. HWY. 67/167				20.07		1815	30	1	1
122+72.12	123+08.62	RT. OF C.L. N.B. HWY. 67/167				20.07		1815			
123+14.16	123+50.66	LT. OF C.L. N.B. HWY. 67/167				20.07		1815	40	1	1
314+85.64	315+22.14	RT. OF C.L. LANDERS RD.		19.10				2000			
314+70.48	315+06.98	LT. C.L. LANDERS RD.		19.10				2000			
316+56.12	316+92.62	LT. C.L. LANDERS RD.		19.10				2000			
312+51.45	312+87.95	RT. OF C.L. WARDEN RD.		19.10				2000			
314+37.30	314+73.80	RT. OF C.L. WARDEN RD.		19.10				2000			
314+20.06	314+56.56	LT. OF C.L. WARDEN RD.		19.10				2000			
TOTALS			398.00	114.60	72.24	80.28	1084	67746	70	2	2

CONCRETE BARRIER WALL

STATION	STATION	LOCATION	MEDIAN BARRIER (TYPE A)	MEDIAN BARRIER (TYPE B)	MEDIAN BARRIER (TYPE C)	SIDE BARRIER (TYPE A)	SIDE BARRIER (TYPE B)	SIDE BARRIER (TYPE C)	SIDE BARRIER (TYPE D)	SIDE BARRIER (TYPE E)	PARAPET (TYPE SPECIAL)
			LIN. FT.								
147+25.00	149+03.83	LT. OF C.L. N.B. HWY. 67/167				179					
149+03.83	152+30.00	LT. OF C.L. N.B. HWY. 67/167			326						
152+30.00	154+00.00	LT. OF C.L. N.B. HWY. 67/167		170							
154+00.00	159+56.24	LT. OF C.L. N.B. HWY. 67/167	556								
146+30.00	149+02.02	RT. OF C.L. S.B. HWY. 67/167				272					
22+13.46	26+76.90	C.L. MEDIAN HWY. 67/167	463								
27+50.06	28+71.57	C.L. MEDIAN HWY. 67/167	122								
28+80.57	51+11.90	C.L. MEDIAN HWY. 67/168	2231								
196+78.80	218+50.00	C.L. MEDIAN HWY. 67/167	2171								
290+00.00	313+94.24	C.L. MEDIAN HWY. 67/168	2394								
316+44.76	347+42.09	C.L. MEDIAN HWY. 67/169	3097								
347+57.09	372+89.45	C.L. MEDIAN HWY. 67/170	2532								
373+49.95	398+50.00	C.L. MEDIAN HWY. 67/171	2500								
26+00.00	28+00.00	RT. OF C.L. MEDIAN HWY. 67/167								200	
37+00.00	44+63.30	RT. OF C.L. MEDIAN HWY. 67/167								763	
44+63.30	47+54.00	RT. OF C.L. MEDIAN HWY. 67/167						291			
47+54.00	49+43.82	RT. OF C.L. MEDIAN HWY. 67/167					190				
44+63.30	49+43.83	RT. OF C.L. McCAIN ENTRANCE RAMP N.B.								481	
49+43.83	198+91.52	RT. OF C.L. MEDIAN HWY. 67/167								381	
23+50.00	40+00.00	LT. OF C.L. MEDIAN HWY. 67/167				1650					
40+00.00	41+86.70	LT. OF C.L. McCAIN ENTRANCE RAMP S.B.							187		
41+86.70	47+50.00	LT. OF C.L. McCAIN ENTRANCE RAMP S.B.						563			
43+00.00	46+50.00	LT. OF C.L. MEDIAN HWY. 67/167					350				
46+50.00	49+64.22	LT. OF C.L. MEDIAN HWY. 67/167						314			
49+64.22	196+26.61	LT. OF C.L. MEDIAN HWY. 67/167								196	
333+91.77	344+22.90	LT. OF C.L. BROOKSWOOD FLYOVER									1031
337+34.94	344+22.90	RT. OF C.L. BROOKSWOOD FLYOVER									688
349+15.15	353+74.83	LT. OF C.L. BROOKSWOOD FLYOVER									460
349+15.15	351+75.00	RT. OF C.L. BROOKSWOOD FLYOVER									260
TOTALS			16066	170	326	2101	540	1168	187	2021	2439

RETAINING WALLS

STATION	STATION	LOCATION	CLASS 'S' CONCRETE ROADWAY	REINFORCING STEEL - RDWY. (GRADE 60)	UNCLASSIFIED EXCAVATION FOR STRUCTURES - RDWY.	TEXTURE WALL TREATMENT	RETAINING WALL
			CU. YD.	LBS.	CU. YD.	SQ. FT.	
337+34.94	344+39.73	BROOKSWOOD FLYOVER - RIGHT					10472
333+91.77	344+39.73	BROOKSWOOD FLYOVER - LEFT					19976
344+39.73		BROOKSWOOD FLYOVER @ BRIDGE ABUTMENT					810
348+99.32		BROOKSWOOD FLYOVER @ BRIDGE ABUTMENT					630
348+99.32	353+78.09	BROOKSWOOD FLYOVER - LEFT					7757
348+99.32	351+75.00	BROOKSWOOD FLYOVER - RIGHT					6605
12+50.00	16+68.11	KIEHL AVE. - RIGHT					4974
11+00.00	15+52.16	NORTHWEST LOOP RAMP	305.92	22653	754	214.5	
TOTAL			305.92	22653	754	214.5	51224

FLOWABLE SELECT MATERIAL

STATION	LOCATION	CU. YD.
150+95	C.L. N.B. HWY. 67/167	9
26+53	RT. OF C.L. HWY. 67/167	17
312+93	C.L. MEDIAN HWY. 67/167	5
312+93	RT. OF C.L. HWY. 67/167	4
317+42	C.L. MEDIAN HWY. 67/167	5
340+91	C.L. MEDIAN HWY. 67/167	4
361+89	C.L. MEDIAN HWY. 67/167	5
369+93	C.L. MEDIAN HWY. 67/167	4
14+75	C.L. NW LOOP RAMP	11
369+61	C.L. LANDERS RD.	8
TOTAL		72

09-15-2005 RR60080.001

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	188	609

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4934
CHARLES D. CLEMENTS

FENCE

FROM		TO		5' CHAIN LINK FENCE		10' CHAIN LINK FENCE	
STATION	LOCATION	STATION	LOCATION	* STEEL	* ALUMINUM	* STEEL	* ALUMINUM
				LIN. FT.			
15+20.62	RT. OF C.L. NW LOOP RAMP	10+96.52	RT. OF C.L. POWHATTAN			160	160
393+03.67	RT. OF C.L. BROOKSWOOD FLYOVER	357+37.46	RT. OF C.L. BROOKSWOOD FLYOVER	883	883		
349+05.64	LT. OF C.L. BROOKSWOOD FLYOVER	355+47.32	LT. OF C.L. BROOKSWOOD CONNECTOR	643	643		
TOTAL				1526	1526	160	160

NOTE ALTERNATE BID ITEMS.

PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

STATION	STATION	LOCATION	LENGTH	PAVEMENT REPAIR OVER CULVERTS (ASPHALT)		
			LIN. FT.	AVG. WIDTH FEET	THICKNESS INCHES	TON
346+69.37	346+96.67	LANDERS RD.	27.30	9.83	11	18.0
370+52.00		LANDERS RD.	20.00	5.92	11	8.0
347+82.51	348+08.92	WARDEN RD.	26.41	9.83	11	17.5
TOTAL						43.5

4" PIPE UNDERDRAINS

STATION	STATION	LOCATION	4" PIPE UNDERDRAINS				UNDERDRAIN OUTLET PROTECTORS
			EDGE DRAINS	DOUBLE LATERALS (NON-PERFORATED)		TOTAL	
			LIN. FT.	NO.	LIN. FT.		EACH
26+70.00	28+00.00	RT. OF C.L. MEDIAN HWY. 67/167	130	1	20	150	1
37+00.00	49+41.32	RT. OF C.L. MEDIAN HWY. 67/167	1241	6	30	1271	6
43+51.08	48+29.80	LT. OF C.L. McCAIN ENTRANCE RAMP N.B.	479			479	
48+29.80	53+25.25	RT. OF C.L. McCAIN ENTRANCE RAMP N.B.	495	3	15	510	3
40+00.00	45+12.50	LT. OF C.L. McCAIN ENTRANCE RAMP S.B.	513	3	15	528	3
45+12.50	51+62.56	RT. OF C.L. McCAIN ENTRANCE RAMP S.B.	650	4	20	670	4
184+63.05	192+10.75	RT. OF C.L. WARDEN RD.	748	4	20	768	4
322+16.67	351+90.32	C.L. MEDIAN HWY. 67/167	2974			2974	
TOTALS			7230	21	120	7350	21

JOINT SUPPORT

STATION	LOCATION	AVG. WIDTH	CLASS 'S' CONCRETE - RDWY.
		FEET	CU. YD.
313+64.24	C.L. MEDIAN HWY. 67/167	98.00	10.89
313+79.24	C.L. MEDIAN HWY. 67/167	98.00	10.89
316+59.76	C.L. MEDIAN HWY. 67/167	98.00	10.89
316+74.76	C.L. MEDIAN HWY. 67/167	98.00	10.89
155+13.69	C.L. McCAIN E.B. EXIT RAMP	15.00	1.67
155+14.54	C.L. McCAIN S.B. ENTRANCE RAMP	15.00	1.67
30+93.61	C.L. McCAIN W.B. EXIT RAMP	30.00	3.33
43+00.63	C.L. McCAIN S.B. ENTRANCE RAMP	15.00	1.67
49+43.82	C.L. McCAIN N.B. ENTRANCE RAMP	15.00	1.67
297+16.52	C.L. WILDWOOD EXIT RAMP	15.00	1.67
303+15.23	C.L. WILDWOOD ENTRANCE RAMP	15.00	1.67
321+90.87	C.L. BROOKSWOOD EXIT RAMP	15.00	1.67
325+99.64	C.L. BROOKSWOOD ENTRANCE RAMP	15.00	1.67
348+84.28	C.L. KIEHL AVE. N.B. EXIT RAMP	15.00	1.67
357+99.66	C.L. KIEHL AVE. S.B. ENTRANCE RAMP	15.00	1.67
384+00.19	C.L. KIEHL AVE. S.B. EXIT RAMP	15.00	1.67
385+50.44	C.L. KIEHL AVE. N.B. ENTRANCE RAMP	15.00	1.67
TOTAL			66.93

CONCRETE COMBINATION CURB & GUTTER (TYPE A)(1'6")

FROM		TO		LENGTH
STATION	LOCATION	STATION	LOCATION	LIN. FT.
49+24.32	LT. OF C.L. WILDWOOD AVE.	283+22.79	RT. OF C.L. WARDEN RD.	168.74
4+69.47	LT. OF C.L. RIXIE RD.	16+68.11	RT. OF C.L. KIEHL AVE.	751.33
19+86.27	RT. OF C.L. KIEHL AVE.	14+12.87	LT. OF C.L. NW LOOP RAMP	474.00
1+88.01	LT. OF C.L. RIXIE RD.	14+85.29	RT. OF C.L. SE LOOP RAMP	423.68
14+57.18	RT. OF C.L. SE LOOP RAMP	16+68.11	LT. OF C.L. KIEHL AVE.	408.98
19+86.27	LT. OF C.L. KIEHL AVE.	23+72.59	LT. OF C.L. KIEHL AVE.	395.79
376+92.76	RT. OF C.L. WARDEN RD.	10+71.39	RT. OF C.L. POWHATTAN	869.80
353+78.09	LT. OF C.L. BROOKSWOOD CONNECTOR	16+50.46	RT. OF C.L. BROOKSWOOD	178.53
354+46.02	RT. OF C.L. BROOKSWOOD FLYOVER	18+88.22	RT. OF C.L. BROOKSWOOD	254.60
11+12.80	LT. OF C.L. RIXIE RD.	384+12.67	RT. OF C.L. LANDERS RD.	1310.28
12+22.87	LT. OF C.L. RIXIE RD.	387+30.10	RT. OF C.L. LANDERS RD.	1419.18
TOTAL				6654.91

PORTLAND CEMENT CONCRETE DRIVEWAY

STATION	LOCATION	DRIVEWAY WIDTH	SQ. YD.
		FEET	
374+28.00	LT. OF C.L. LANDERS CONNECTOR	16	18.67
375+43.00	LT. OF C.L. LANDERS CONNECTOR	16	18.67
377+74.00	LT. OF C.L. LANDERS CONNECTOR	16	18.67
TOTAL			56.01

LIMITS OF MODIFIED CURB

DRIVEWAY	LOCATION	LIMITS OF MODIFIED CURB		DRIVEWAY WIDTH
		STATION	STATION	FEET
374+28.00	LT. OF C.L. LANDERS CONNECTOR	374+06.00	374+50.00	16
375+43.00	LT. OF C.L. LANDERS CONNECTOR	375+21.00	375+65.00	16
377+74.00	LT. OF C.L. LANDERS CONNECTOR	377+52.00	377+96.00	16

NOTE: SHOWN FOR INFORMATION ONLY

SCARIFYING CONCRETE PAVEMENT

STATION	STATION	LOCATION	LENGTH	AVG. WIDTH	SQ. YD.
			LIN. FT.	FEET	
408+50.00	410+50.00	C.L. N.B. HWY. 67/167 LANES	200.00	24	533
408+50.00	410+50.00	C.L. N.B. HWY. 67/167 LANES	200.00	24	533
TOTAL					1066

INTEGRAL CURB (TYPE A)

STATION	STATION	LOCATION	LENGTH
			LIN. FT.
337+33.18	344+34.81	LT. OF C.L. LANDERS RD.	702
TOTAL			702

08-08-2005 RR60080.001

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.		R60080	189	609
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
8-5-05

BENCH MARK CAPS

LOCATION	EACH
WOODRUFF CREEK BRIDGE #07051	1
BROOKSWOOD FLYOVER BRIDGE #07052	1
KIEHL AVE. BRIDGE #07053	1
TOTAL	3

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

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON
IF AND WHERE DIRECTED BY THE ENGINEER.	200
TOTAL	200

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

SOIL STABILIZATION

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

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

CONCRETE DITCH PAVING (TYPE A)

STATION	STATION	LOCATION	LENGTH	'W'	'B'	SQ. YD.
			LIN. FT.	FEET		
147+21.22	149+02.02	RT. OF C.L. S.B. HWY. 67/167	180.80	11.00	4.00	221
344+75.00	346+87.72	RT. OF C.L. MEDIAN HWY. 67/167	212.72	12.50	6.00	295
TOTAL						516

WHEELCHAIR RAMPS

STATION	LOCATION	TYPE 1	TYPE 4
		SQ.YD.	
15+49.44	RT. OF C.L. SE LOOP RAMP		15.27
15+42.20	LT. OF C.L. SE LOOP RAMP		15.28
23+27.52	RT. OF C.L. KIEHL AVE.		15.75
24+93.02	RT. OF C.L. INDIANHEAD DR.	65.68	
24+96.23	LT. OF C.L. INDIANHEAD DR.	40.92	
TOTALS		106.6	46.3

MAILBOXES

STATION	LOCATION	SUPPORTS (SINGLE)	MAILBOXES
		EACH	
375+15.40	LT. OF C.L. LANDERS CONNECTOR	1	1
375+68.16	LT. OF C.L. LANDERS CONNECTOR	1	1
TOTAL		2	2

PORTLAND CEMENT CONCRETE CORRUGATIONS

STATION	STATION	LOCATION	SQ. Y D.
127+34.64	127+72.68	LT. OF C.L. S.B. HWY. 67/167	47
154+77.69	155+10.26	RT. OF C.L. N.B. HWY. 67/167	32
30+57.94	30+74.06	RT. OF C.L. MEDIAN HWY. 67/167	17
297+05.67	297+53.47	LT. OF C.L. MEDIAN HWY. 67/167	60
321+53.98	322+05.20	RT. OF C.L. MEDIAN HWY. 67/167	65
348+52.00	349+05.95	RT. OF C.L. MEDIAN HWY. 67/167	68
383+86.43	384+37.07	LT. OF C.L. MEDIAN HWY. 67/167	64
TOTAL			353

DROP INLETS ADJUSTED TO GRADE

STATION	LOCATION	EACH
24+11	RT. OF C.L. MEDIAN HWY. 67/167	1
346+90	LT. OF C.L. MEDIAN HWY. 67/167	1
TOTALS		2

MODIFYING DROP INLETS

STATION	LOCATION	EACH
24+11	C.L. MEDIAN HWY. 67/167	1
35+35	C.L. MEDIAN HWY. 67/167	1
39+00	C.L. MEDIAN HWY. 67/167	1
48+30	C.L. MEDIAN HWY. 67/167	1
202+05	C.L. MEDIAN HWY. 67/167	1
209+04	C.L. MEDIAN HWY. 67/167	1
380+93	C.L. MEDIAN HWY. 67/167	1
392+52	C.L. MEDIAN HWY. 67/167	1
403+92	C.L. MEDIAN HWY. 67/167	1
TOTAL		9

SELECTED PIPE BEDDING & BACKFILL

LOCATION	BEDDING	BACKFILL
	CU. YD.	
IF AND WHERE DIRECTED BY THE ENGINEER.	500	500
TOTALS	500	500

IMPACT ATTENUATION BARRIER (TYPE A)

STATION	LOCATION	EACH
408+30.00	C.L. MEDIAN HWY. 67/167	1
TOTAL		1

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

CRASH CUSHION

STATION	LOCATION	EACH
44+58.30	RT. OF C.L. McCAIN N.B. ENTRANCE RAMP	1
47+55.00	LT. OF C.L. McCAIN S.B. ENTRANCE RAMP	1
TOTAL		2

08-08-2005 RR60080.001

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	190	609
				(2)	QUANTITIES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
9-22-21
CHARLES D. CLEMENTS

BASE & SURFACING - HWY. 67/167 MAIN LANES

STATION	STATION	LOCATION	LENGTH	CEMENT STABILIZED CRUSHED STONE BASE COURSE (6" COMP'D. DEPTH)				*ACHM SURFACE COURSE (3/8") 110 LBS. PER SQ. YD.			ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD.			TACK COAT 0.10 GAL. PER SQ. YD.			TACK COAT 0.03 GAL. PER SQ. YD.			TOTAL GALLON	PORTLAND CEMENT CONCRETE PAVM'T. (13")	
			LIN. FT.	AVG. WIDTH FEET	PROCESSING SQ. YD.	CEMENT TON	AGGREGATE TON	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	GAL.	AVG. WIDTH FEET	SQ. YD.	GAL.		AVG. WIDTH FEET	SQ. YD.
107+39.46	114+67.22	NORTHBOUND MAIN LANES	727.76								24.00	1940.7	213.5	24.00	1940.7	194.1				194.1		
118+42.30	122+95.62	NORTHBOUND MAIN LANES	453.32								24.00	1208.9	133.0	24.00	1208.9	120.9				120.9		
127+54.37	133+85.81	NORTHBOUND MAIN LANES	631.44								24.00	1683.8	185.2	24.00	1683.8	168.4				168.4		
133+85.81	135+20.51	N.B. M.L. & MEMPHIS ENTRANCE RAMP TURNOUT	134.70	VAR.	631.6	13.3	207.8	VAR.	631.6	34.7							VAR.	572.1	17.2	17.2	VAR.	572.1
135+20.51	142+37.70	NORTHBOUND MAIN LANES	717.19	40.00	3187.5	66.9	1048.7	40.00	3187.5	175.3							40.00	2868.8	86.1	86.1	36.00	2868.8
142+37.70	150+00.00	NORTHBOUND MAIN LANES	762.30	46.00	3896.2	81.8	1281.8	46.00	3896.2	214.3							46.00	3557.4	106.7	106.7	42.00	3557.4
150+00.00	156+87.69	N.B. M.L. & McCAIN E.B. EXIT RAMP TURNOUT	687.69	VAR.	4725.3	99.2	1554.6	VAR.	4725.3	259.9							VAR.	4572.5	137.2	137.2	VAR.	4572.5
156+87.69	159+56.24	NORTHBOUND MAIN LANES	268.55	50.00	1491.9	31.3	490.8	50.00	1491.9	82.1							50.00	1432.3	43.0	43.0	48.00	1432.3
22+13.45	28+43.00	NORTHBOUND MAIN LANES	629.55	50.00	3497.5	73.4	1150.7	50.00	3497.5	192.4							50.00	3357.6	100.7	100.7	48.00	3357.6
28+43.00	32+68.05	N.B. M.L. & McCAIN W.B. EXIT RAMP TURNOUT	425.05	VAR.	2921.3	61.3	961.1	VAR.	2921.3	160.7							VAR.	2828.0	84.8	84.8	VAR.	2828.0
32+68.05	35+57.94	NORTHBOUND MAIN LANES	289.89	50.00	1610.5	33.8	529.9	50.00	1610.5	88.6							50.00	1546.1	46.4	46.4	48.00	1546.1
35+57.94	38+07.94	NORTHBOUND MAIN LANES	250.00	45.00	1250.0	26.3	411.3	45.00	1250.0	68.8							45.00	1194.4	35.8	35.8	43.00	1194.4
38+07.94	49+43.82	NORTHBOUND MAIN LANES	1135.88	40.00	5048.4	106.0	1660.9	40.00	5048.4	277.7							40.00	4795.9	143.9	143.9	38.00	4795.9
49+43.82	51+11.90	N.B. M.L. & McCAIN ENTRANCE RAMP ACCELERATION LANE	168.08	VAR.	1243.4	26.1	409.1	VAR.	1243.4	68.4							VAR.	1206.0	36.2	36.2	VAR.	1206.0
196+78.80	198+91.52	N.B. M.L. & McCAIN ENTRANCE RAMP ACCELERATION LANE	212.72	VAR.	1275.4	26.8	419.6	VAR.	1275.4	70.1							VAR.	1228.0	36.8	36.8	VAR.	1228.0
198+91.52	202+10.72	N.B. M.L. & McCAIN ENTRANCE RAMP ACCELERATION LANE	319.20	50.00	1773.3	37.2	583.4	50.00	1773.3	97.5							50.00	1702.4	51.1	51.1	48.00	1702.4
202+10.72	204+60.72	N.B. M.L. & McCAIN ENTRANCE RAMP ACCELERATION LANE TAPER	250.00	45.00	1250.0	26.3	411.3	45.00	1250.0	68.8							45.00	1194.4	35.8	35.8	43.00	1194.4
204+60.72	210+50.00	NORTHBOUND MAIN LANES	589.28	40.00	2619.0	55.0	861.7	40.00	2619.0	144.0							40.00	2488.1	74.6	74.6	38.00	2488.1
296+22.08	303+14.66	NORTHBOUND MAIN LANES	692.58	40.00	3078.1	64.6	1012.7	40.00	3078.1	169.3							40.00	2924.2	87.7	87.7	38.00	2924.2
303+14.66	304+39.65	N.B. M.L. & WILDWOOD ENTRANCE RAMP TURNOUT	124.99	VAR.	724.5	15.2	238.4	VAR.	724.5	39.8							VAR.	697.1	20.9	20.9	VAR.	697.1
304+39.65	310+14.66	N.B. M.L. & WILDWOOD ENTRANCE RAMP ACCELERATION LANE	575.01	50.00	3194.5	67.1	1051.0	50.00	3194.5	175.7							50.00	3066.7	92.0	92.0	48.00	3066.7
310+14.66	312+64.66	N.B. M.L. & WILDWOOD ENTRANCE RAMP ACCELERATION LANE TAPER	250.00	45.00	1250.0	26.3	411.3	45.00	1250.0	68.8							45.00	1194.4	35.8	35.8	43.00	1194.4
312+64.66	314+47.74	NORTHBOUND MAIN LANES	183.08	40.00	813.7	17.1	267.7	40.00	813.7	44.8							40.00	773.0	23.2	23.2	38.00	773.0
316+24.74	317+00.00	NORTHBOUND MAIN LANES	75.26	40.00	334.5	7.0	110.0	40.00	334.5	18.4							40.00	317.8	9.5	9.5	38.00	317.8
317+00.00	323+64.44	N.B. M.L. & BROOKSWOOD EXIT RAMP TURNOUT	664.44	VAR.	3672.3	77.1	1208.2	VAR.	3672.3	202.0							VAR.	3524.7	105.7	105.7	VAR.	3524.7
323+64.44	338+79.93	NORTHBOUND MAIN LANES	1515.49	40.00	6735.5	141.4	2216.0	40.00	6735.5	370.5							40.00	6398.7	192.0	192.0	38.00	6398.7
338+79.93	340+35.00	N.B. M.L. & KIEHL AVE. EXIT RAMP DECEL. LANE TAPER	155.07	45.00	775.4	16.3	255.1	45.00	775.4	42.6							45.00	740.9	22.2	22.2	43.00	740.9
340+35.00	344+75.00	N.B. M.L. & KIEHL AVE. EXIT RAMP DECELERATION LANE	440.00	50.00	2444.4	51.3	804.2	50.00	2444.4	134.4							50.00	2346.7	70.4	70.4	48.00	2346.7
344+75.00	350+62.01	N.B. M.L. & KIEHL AVE. EXIT RAMP TURNOUT	587.01	VAR.	3445.2	72.3	1133.5	VAR.	3445.2	189.5							VAR.	3316.3	99.5	99.5	VAR.	3316.3
350+62.01	385+50.00	NORTHBOUND MAIN LANES	3487.99	40.00	15502.2	325.5	5100.2	40.00	15502.2	852.6							40.00	14727.1	441.8	441.8	38.00	14727.1
385+50.00	387+11.77	N.B. M.L. & KIEHL AVE. ENTRANCE RAMP TURNOUT	161.77	VAR.	938.6	19.7	308.8	VAR.	938.6	51.6							VAR.	902.9	27.1	27.1	VAR.	902.9
387+11.77	392+50.00	N.B. M.L. & KIEHL AVE. ENTRANCE RAMP ACCELERATION LANE	538.23	50.00	2990.2	62.8	983.8	50.00	2990.2	164.5							50.00	2870.6	86.1	86.1	48.00	2870.6
392+50.00	395+00.00	N.B. M.L. & KIEHL AVE. ENTRANCE RAMP ACCEL. LANE TAPER	250.00	45.00	1250.0	26.3	411.3	45.00	1250.0	68.8							45.00	1194.4	35.8	35.8	43.00	1194.4
395+00.00	408+50.00	NORTHBOUND MAIN LANES	1350.00	40.00	6000.0	126.0	1974.0	40.00	6000.0	330.0							40.00	5700.0	171.0	171.0	38.00	5700.0
408+50.00	410+50.00	TRANSITION NORTHBOUND MAIN LANES	200.00								24.00	533.3	58.7	24.00	533.3	53.3	24.00	533.3	16.0	69.3		
109+55.43	127+50.26	SOUTHBOUND MAIN LANES	1794.83								24.00	4786.2	526.5	24.00	4786.2	478.6				478.6		
127+72.68	130+73.50	S.B. M.L. & MEMPHIS EXIT RAMP TURNOUT	300.82	VAR.	1600.7	33.6	526.6	VAR.	1600.7	88.0							VAR.	1596.5	47.9	47.9	VAR.	1596.5
130+73.50	138+47.68	SOUTHBOUND MAIN LANES	774.18	40.00	3440.8	72.3	1132.0	40.00	3440.8	189.2							40.00	3096.7	92.9	92.9	36.00	3096.7
138+47.68	141+47.68	S.B. M.L. & McCAIN S.B. ENTRANCE RAMP ACCEL. LANE TAPER	300.00	46.00	1533.3	32.2	504.5	46.00	1533.3	84.3							46.00	1400.0	42.0	42.0	42.00	1400.0
141+47.68	149+86.28	S.B. M.L. & McCAIN S.B. ENTRANCE RAMP ACCELERATION LANE	838.60	42.00	4845.2	82.2	1287.5	52.00	4845.2	266.5							42.00	4472.5	134.2	134.2	48.00	4472.5
149+86.28	151+48.05	S.B. M.L. & McCAIN S.B. ENTRANCE RAMP TURNOUT	161.77	VAR.	938.7	19.7	308.8	VAR.	938.7	51.6							VAR.	903.0	27.1	27.1	VAR.	903.0
151+48.05	159+56.24	SOUTHBOUND MAIN LANES	808.19	40.00	3592.0	75.4	1181.8	40.00	3592.0	197.6							40.00	3412.4	102.4	102.4	38.00	3412.4
22+13.45	31+31.26	SOUTHBOUND MAIN LANES	917.81	40.00	4079.2	85.7	1342.0	40.00	4079.2	224.4							40.00	3875.2	116.3	116.3	38.00	3875.2
31+31.26	33+81.26	S.B. M.L. & McCAIN S.B. ENTRANCE RAMP ACCEL. LANE TAPER	250.00	45.00	1250.0	26.3	411.3	45.00	1250.0	68.8							45.00	1194.4	35.8	35.8	43.00	1194.4
33+81.26	39+19.49	S.B. M.L. & McCAIN S.B. ENTRANCE RAMP ACCELERATION LANE	538.23	40.00	2990.2	50.2	787.0	50.00	2990.2	164.5							50.00	2870.6	86.1	86.1	48.00	2870.6
39+19.49	43+00.00	S.B. M.L. & McCAIN S.B. ENTRANCE RAMP TURNOUT	380.51	VAR.	2515.9	52.8	827.7	VAR.	2515.9	138.4							VAR.	2431.6	72.9	72.9	VAR.	2431.6
43+00.00	51+11.90	SOUTHBOUND MAIN LANES	811.90	40.00	3608.4	75.8	1187.2	40.00	3608.4	198.5							40.00	3428.0	102.8	102.8	38.00	3428.0
196+78.80	210+50.00	SOUTHBOUND MAIN LANES	1371.20	40.00	6094.2	128.0	2005.0	40.00	6094.2	335.2							40.00	5789.5	173.7	173.7	38.00	5789.5
296+22.08	301+78.09	S.B. M.L. & WILDWOOD EXIT RAMP TURNOUT	556.01	VAR.	3834.1	80.5	1261.4	VAR.	3834.1	210.9							VAR.	3693.0	110.8	110.8	VAR.	3693.0
301+78.09	314+14.25	SOUTHBOUND MAIN LANES	1236.16	40.00	5494.0	115.4	1807.5	40.00	5494.0	302.2							40.00	5219.3	156.6	156.6	38.00	5219.3
315+91.25	317+48.60	SOUTHBOUND MAIN LANES	157.35	40.00	699.3	14.7	230.1	40.00	699.3	38.5							40.00	664.4	19.9	19.9	38.00	664.4
317+48.60	319+98.60	S.B. M.L. & BROOKSWOOD ENTRANCE RAMP ACCEL. LANE TAPER	250.00	45.00	1250.0	26.3	411.3	45.00	1250.0	68.8							45.00	1194.4	35.8	35.8	43.00	1194.4
319+98.60	325+52.00	S.B. M.L. & BROOKSWOOD ENTRANCE RAMP ACCELERATION LANE	553.40	50.00	3074.4	64.6	1011.5	50.00	3074.4	169.1							50.00	2951.5	88.5	88.5	48.00	2951.5
325+52.00	326+98.60	S.B. M.L. & BROOKSWOOD ENTRANCE RAMP TURNOUT	146.60	VAR.	859.0	18.0	282.6	VAR.	859.0	47.2							VAR.	826.3	24.8	24.8	VAR.	826.3
326+98.60	348+90.21	SOUTHBOUND MAIN LANES	2191.61	40.00	9740.5	204.6	3204.6	40.00	9740.5	535.7							40.00	9253.5	277.6	277.6	38.00	9253.5
348+90.21	351+00.00	S.B. M.L. & KIEHL AVE. ENTRANCE RAMP ACCEL. LANE TAPER	209.79	45.00	1049.0	22.0	345.1	45.00	1049.0	57.7							45.00	1002.3	30.1	30.1	43.00	1002.3
351+00.00	356+34.87	S.B. M.L. & KIEHL AVE. ENTRANCE RAMP ACCELERATION LANE	534.87	50.00	2971.5	62.4	977.6	50.00	2971.5	163.4							50.00	2852.6	85.6	85.6	48.00	2852.6
356+34.87	358+00.00	S.B. M.L. & KIEHL AVE. ENTRANCE RAMP TURNOUT	165.13	VAR.	959.9	20.2	315.8	VAR.	959.9	52.8							VAR.	923.4	27.7	27.7	VAR.	923.4
358+00.00	382+27.07	SOUTHBOUND MAIN LANES	2427.07	40.00	10787.0	226.5	3548.9	40.00	10787.0	593.3							40.00	10247.6	307.4	307.4	38.00	10247.6
382+27.07	388+91.05	S.B. M.L. & KIEHL AVE. EXIT RAMP TURNOUT	663.98	VAR.	3669.0	77.0	1207.1	VAR.	3669.0	201.8							VAR.	3521.4	105.6	105.6	VAR.	3521.4
388+91.05	408+50.00	SOUTHBOUND MAIN LANES	1958.95	40.00	8706.4	182.8	2864.4	40.00	8706.4	478.9							40.00	8271.1	248.1	248.1	38.00	8271.1
408+50.00	410+50.00	TRANSITION SOUTHBOUND MAIN LANES	200.00								24.00	533.3	58.7	24.00	533.3	53.3	24.00	533.3	16.0	69.3		
TOTALS					179153.1	3729.9	58438.2		179153.1	9853.9		10686.2	1175.6		10686.2	1068.6		171397.3	5141.6	6210.2		170330.7

BASIS OF ESTIMATE: *ACHM SURFACE COURSE (3/8") - MIN. AGG. = 95.0%, ASPH. BINDER (PG64-22) = 5.0%
*Nmax = 115
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 95.0%, ASPH. BINDER (PG70-22) = 5.0%
Nmax = 160

08-08-2005 RR60080.001

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	191	693

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-05

BASE & SURFACING - HWY. 67/167 SHOULDERS

STATION	STATION	LOCATION	LENGTH	ACHM BINDER COURSE (1") 990 LBS. PER SQ. YD.			ACHM SURFACE COURSE (1/2")				CEMENT STABILIZED CRUSHED STONE BASE COURSE (6" COMP'D. DEPTH)				TACK COAT 0.10 GAL. PE R SQ. YD.			TACK COAT 0.03 GAL. PE R SQ. YD.			TOTAL GALLON	ACHM SURFACE COURSE (3/8") 110 LBS. PER SQ. YD.			PORTLAND CEMENT CONCRETE PAVM'T. (13")		AGGREGATE BASE COURSE (GL. 7)	
			LIN. FT.	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	PROCESSING SQ. YD.	CEMENT TON	AGGREGATE TON	AVG. WIDTH FEET	SQ. YD.	GAL.	AVG. WIDTH FEET	SQ. YD.	GAL.		AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	TONS PER STA.	TON
107+39.46	114+67.22	N.B. M.L. RIGHT SHOULDER	727.76				10.00	808.6	22	8.9					10.00	808.6	80.9				80.9							
118+42.30	122+95.62	N.B. M.L. RIGHT SHOULDER	453.32				10.00	503.7	220	55.4					10.00	503.7	50.4				50.4							
127+54.37	139+85.81	N.B. M.L. RIGHT SHOULDER	631.44				10.00	701.6	220	77.2					10.00	701.6	70.2				70.2							
139+85.81	138+83.33	N.B. M.L. RIGHT SHOULDER	497.52				6.00	331.7	220	36.5																121.25	603.2
138+83.33	143+03.33	N.B. M.L. RIGHT SHOULDER W/ SUPERELEVATION TRANSITION	420.00				6.00	280.0	220	30.8																159.25	568.9
143+03.33	148+81.87	N.B. M.L. RIGHT SHOULDER W/ FULL SUPERELEVATION	578.54				6.00	385.7	220	42.4																197.00	1139.7
148+81.87	153+54.37	N.B. M.L. RIGHT SHOULDER W/ SUPERELEVATION TRANSITION	472.50				6.00	315.0	220	34.7																159.25	758.5
153+54.37	154+77.69	N.B. M.L. RIGHT SHOULDER	123.32				6.00	82.2	220	9.0																121.25	149.5
154+77.69	159+55.24	N.B. M.L. RIGHT SHOULDER	478.55				6.00	319.0	220	35.1																121.25	590.2
22+13.45	22+78.31	N.B. M.L. RIGHT SHOULDER	64.86				6.00	43.2	220	4.8																121.25	78.6
22+78.31	26+70.03	N.B. M.L. RIGHT SHOULDER W/ WIDENING FOR GUARDRAIL	391.69				VAR.	437.3	220	48.1																VAR.	783.4
26+70.00	28+00.00	N.B. M.L. RIGHT SHOULDER W/ BARRIER WALL	130.00				6.00	86.7	220	9.5																58.25	75.7
28+00.00	30+48.26	N.B. M.L. RIGHT SHOULDER	248.26				6.00	165.5	220	18.2																121.25	301.0
30+57.67	33+17.25	N.B. M.L. RIGHT SHOULDER	259.58				6.00	173.1	220	19.0																121.25	314.7
33+17.25	37+00.00	N.B. M.L. RIGHT SHOULDER W/ WIDENING FOR GUARDRAIL	382.75				VAR.	523.7	220	57.6																VAR.	765.5
37+00.00	37+58.13	N.B. M.L. RIGHT SHOULDER W/ BARRIER WALL	58.13				6.00	38.8	220	4.3																58.25	33.9
37+58.13	38+07.94	N.B. M.L. RIGHT SHOULDER TRANSITION W/ BARRIER WALL	49.81				7.00	38.7	220	4.3																58.75	34.2
38+07.94	49+43.82	N.B. M.L. RIGHT SHOULDER W/ BARRIER WALL	1135.88				8.00	1009.7	220	111.1																79.25	900.2
49+43.82	51+11.90	N.B. M.L. RIGHT SHOULDER W/ BARRIER WALL	168.08				6.00	112.1	220	12.3																58.25	72.9
196+78.80	198+91.52	N.B. M.L. RIGHT SHOULDER W/ BARRIER WALL	212.72				6.00	141.8	220	15.6																58.25	129.9
198+91.52	204+10.84	N.B. M.L. RIGHT SHOULDER	519.32				6.00	345.2	220	38.1																121.25	529.7
204+10.84	204+60.72	N.B. M.L. RIGHT SHOULDER TRANSITION	49.88				7.00	38.8	220	4.3																130.25	65.0
204+60.72	210+50.00	N.B. M.L. RIGHT SHOULDER	589.28				8.00	523.8	220	57.6																139.25	820.6
296+22.08	303+10.66	N.B. M.L. RIGHT SHOULDER	688.58	8.71	666.4	329.9	8.16	624.3	440	137.3								25.03	1915.0	57.5	57.5						566.4
303+10.66	306+75.00	N.B. M.L. RIGHT SHOULDER	364.34	8.71	352.6	174.5	6.00	242.9	440	53.4								20.71	838.4	25.2	25.2						286.0
306+75.00	312+64.67	N.B. M.L. RIGHT SHOULDER W/ WIDENING FOR GUARDRAIL	589.67	12.21	800.0	396.0	11.66	764.0	440	168.1								35.53	2328.0	69.8	69.8						514.5
312+64.67	314+22.79	N.B. M.L. RIGHT SHOULDER W/ WIDENING FOR GUARDRAIL	158.12	14.21	249.7	123.6	13.66	240.0	440	52.8								41.53	729.7	21.9	21.9						141.5
316+75.53	317+00.00	N.B. M.L. RIGHT SHOULDER W/ WIDENING FOR GUARDRAIL	24.47	14.21	38.6	19.1	13.66	37.1	440	8.2								41.53	112.8	3.4	3.4						21.9
317+00.00	318+34.65	N.B. M.L. RIGHT SHOULDER W/ WIDENING FOR GUARDRAIL	134.65	13.21	197.6	97.8	12.56	189.4	440	41.7								38.53	576.4	17.3	17.3						120.2
318+34.65	319+33.65	N.B. M.L. RIGHT SHOULDER W/ WIDENING FOR GUARDRAIL	99.00	12.21	134.3	66.5	11.55	128.3	440	28.2								35.53	390.9	11.7	11.7						86.4
319+33.65	320+98.90	N.B. M.L. RIGHT SHOULDER W/ WIDENING FOR GUARDRAIL & SUPER TRANSITION	165.25	12.21	224.2	111.0	11.66	214.1	440	47.1								35.53	652.4	19.6	19.6						144.2
320+98.90	321+53.98	N.B. M.L. RIGHT SHOULDER W/ SUPERELEVATION TRANSITION	55.08	8.71	53.3	26.4	8.16	49.9	440	11.0								16.87	153.1	4.6	4.6						45.3
321+53.98	324+33.65	N.B. M.L. RIGHT SHOULDER W/ SUPERELEVATION TRANSITION	279.67	8.71	270.7	134.0	8.16	253.6	440	55.6								16.87	769.9	23.3	23.3						255.9
324+33.65	338+79.93	N.B. M.L. RIGHT SHOULDER W/ FULL SUPERELEVATION	1446.28	8.71	1399.7	692.9	8.16	1311.3	440	288.5								16.87	4022.3	120.7	120.7						1453.5
338+79.93	344+75.00	N.B. M.L. RIGHT SHOULDER W/ FULL SUPERELEVATION	595.07	10.71	708.1	350.5	10.16	671.8	440	147.8								20.87	2051.7	61.6	61.6						598.0
344+75.00	347+16.68	N.B. M.L. RIGHT SHOULDER W/ FULL SUPERELEVATION	241.68	8.71	233.9	115.8	8.16	219.1	440	48.2								16.87	672.1	20.2	20.2						234.9
347+16.68	348+51.90	N.B. M.L. RIGHT SHOULDER W/ FULL SUPERELEVATION	135.22	6.71	100.8	49.9	6.16	92.6	440	20.4								12.87	295.0	9.6	9.6						135.9
348+51.90	349+29.86	N.B. M.L. RIGHT SHOULDER W/ FULL SUPERELEVATION	77.96	8.71	75.4	37.3	8.16	70.7	440	15.6								16.87	215.8	6.5	6.5						78.3
349+29.86	354+29.86	N.B. M.L. RIGHT SHOULDER W/ SUPERELEVATION TRANSITION	500.00	8.71	483.9	239.5	8.16	453.3	440	99.7								16.87	1390.5	41.7	41.7						457.5
354+29.86	385+50.00	N.B. M.L. RIGHT SHOULDER	3120.14	8.71	3019.5	1494.7	8.16	2828.9	440	622.4								16.87	8677.4	260.3	260.3						2566.3
385+50.00	395+00.00	N.B. M.L. RIGHT SHOULDER	950.00	10.71	1130.5	559.6	10.16	1072.4	440	235.9								20.87	3275.3	98.3	98.3						812.3
395+00.00	408+50.00	N.B. M.L. RIGHT SHOULDER	1350.00	8.71	1306.5	646.7	8.16	1224.0	440	269.3								25.03	3754.5	112.6	112.6						1110.4
408+50.00	410+50.00	TRANSITION N.B. M.L. RIGHT SHOULDER	200.00				10.00	222.2	220	24.4					10.0	222.2	22.2				22.2							
107+39.46	114+67.22	N.B. M.L. LEFT SHOULDER	727.76				4.00	323.4	220	35.6					4.00	323.4	32.3				32.3							
118+42.30	122+95.62	N.B. M.L. LEFT SHOULDER	453.32				4.00	201.5	220	22.2					4.00	201.5	20.2				20.2							
127+54.37	139+85.81	N.B. M.L. LEFT SHOULDER	631.44				4.00	280.6	220	30.9					4.00	280.6	28.1				28.1							
139+85.81	143+93.98	N.B. M.L. LEFT SHOULDER	408.17				4.00	448.1	220	49.3																123.75	1247.6
143+93.98	147+25.00	N.B. M.L. LEFT SHOULDER W/ WIDENING FOR GUARDRAIL	331.02				VAR.	547.7	220	60.2																VAR.	662.0
147+25.00	150+00.00	N.B. M.L. LEFT SHOULDER W/ BARRIER WALL	275.00												10.00	305.6	6.4	100.5				10.00	305.6	9.2	9.2	10.00	305.6	16.8	10.00	305.6	31.25	85.9
109+55.43	127+72.68	S.B. M.L. LEFT SHOULDER	1817.25				10.00	2019.2	220	222.1					10.00	2019.2	201.9				201.9							
127+72.68	135+99.00	S.B. M.L. LEFT SHOULDER	826.32				6.00	550.9	220	60.6																121.25	1001.9
135+99.00	139+74.00	S.B. M.L. LEFT SHOULDER W/ SUPERELEVATION TRANSITION	375.00				6.00	250.0	220	27.5																158.75	595.3
139+74.00	140+72.35	S.B. M.L. LEFT SHOULDER W/ FULL SUPERELEVATION	98.35				6.00	65.6	220	7.2																195.25	193.0
140+72.35	141+48.54	S.B. M.L. LEFT SHOULDER W/ FULL SUPERELEVATION	76.19	8.71	73.7	36.5	8.16	69.1	440	15.2								25.03	211.9	6.4	6.4						144.6
141+48.54	144+31.36	S.B. M.L. LEFT SHOULDER W/ FULL SUPERELEVATION	282.82	10.71	336.6	166.6	10.16	319.3	440	70.2								31.03	975.2	29.3	29.3						657.6
144+31.36	148+06.36	S.B. M.L. LEFT SHOULDER W/ SUPERELEVATION TRANSITION	375.00	10.71	446.3	220.9	10.16	423.3	440	93.1								31.03	1292.9	38.8	38.8						596.3
148+06.36	149+86.28	S.B. M.L. LEFT SHOULDER	179.92	10.71	214.1	106.0	10.16	203.1	440	44.7								31.03	620.3	18.5	18.5						133.8
149+86.28	151+48.05	S.B. M.L. LEFT SHOULDER	161.77	8.71	156.6	77.5	8.16	146.7	440	32.3								25.03	450.0	13.5	13.5						133.1
151+48.05	159+56.24	S.B. M.L. LEFT SHOULDER	808.19	8.71	782.1	387.1	8.16	732.8	440	161.2								25.03	2247.7	67.4	67.4						664.7
22+13.45	23+50.00	S.B. M.L. LEFT SHOULDER	136.55	8.71	132.2	65.4	8.16	123.8	440	27.2								25.03	379.8	11.4	11.4						112.3
23+50.00	31+91.26	S.B. M.L. LEFT SHOULDER W/ BARRIER WALL	781.26								10.00	868.1	18.2	285.6				10.00	868.1	26.0	26.0	10.00	868.1	47.7	10.00	868.1	41.50	324.2
31+91.26	43+00.00	S.B. M.L. LEFT SHOULDER W/ BARRIER WALL	1158.74								8.00	1038.9	21.6	341.8				8.00	1038.9	31.2	31.2	8.00	1038.9	57.1	8.00	1038.9		
43+00.00	47+49.36	S.B. M.L. LEFT SHOULDER W/ BARRIER WALL	449.36	8.71	434.9	215.3	8.16	407.4	440	89.6								25.03	1249.7	37.5	37.5						369.6
47+49.36	51+11.90	S.B. M.L. LEFT SHOULDER	362.54	8.71	350.9	173.7	8.16	328.7	440	72.3								25.03	1008.3	30.2	30.2						298.2
196+78.80	210+50.00	S.B. M.L. LEFT SHOULDER	1371.20	8.71	1327.0	656.9	8.16	1243.2	440	273.5								25.03	3813.4	114.4	114.4						1127.6
296+22.08	297+53.47	S.B. M.L. LEFT SHOULDER	131.39				8.00	116.8	220	12.8																139.25	183.0
297+22.08	300+54.98	S.B. M.L. LEFT SHOULDER	332.90				6.00	221.9	220	24.4																121.25	403.6
300+54.98	301+78.09	S.B. M.L. LEFT SHOULDER	123.11				7.00	95.8	220	10.5																130.25	160.4
301+78.09	309+35.34	S.B. M.L. LEFT SHOULDER	758.25				8.00	674.0	220	74.1																139.25	1005.9
309+36.34	313+67.36	S.B. M.L. LEFT SHOULDER W/ WIDENING FOR GUARDRAIL	431.02				VAR.	715.6	220	78.7																VAR.	862.0
316+17.36	319+33.65	S.B. M.L. LEFT SHOULDER W/ WIDENING FOR GUARDRAIL	316.29				VAR.	785.9	220	86.4																VAR.	632.6
319+33.65	321+96.84	S.B. M.L. LEFT SHOULDER W/ WIDENING FOR GUARDRAIL & SUPERELEVATION TRANSITION	263.19				6.00	175.5	220	19.3																121.25	319.1
321+96.84	324+33.65	S.B. M.L. LEFT SHOULDER W/ SUPERELEVATION TRANSITION	236.81				6.00	157.9	220	17.4																121.25	287.1
324+33.65	329+98.58	S.B. M.L. LEFT SHOULDER W/ FULL SUPERELEVATION	564.93				6.00	376.6	220	41.4																121.25	685.0
329+98.58	342+70.00	S.B. M.L. LEFT SHOULDER W/ FULL SUPERELEVATION	1271.42				8.00	1130.2	220	124.3																139.25	1770.5
342+70.00	348+09.21	S.B. M.L. LEFT SHOULDER W/ WIDENING FOR GUARDRAIL & SUPERELEVATION TRANSITION	539.21				VAR.	933.3	220	102.7																VAR.	1078.4
348+09.21	349+29.86	S.B. M.L. LEFT SHOULDER W/ FULL SUPERELEVATION	120.65				6.00	80.4	220	8.8																121.25	146.3
349+29.86	354+29.86	S.B. M.L. LEFT SHOULDER W/ SUPERELEVATION TRANSITION	500.00				6.00	333.3	220	36.7																121.25	606.3
348+09.21	358+00.00	S.B. M.L. LEFT SHOULDER	990.79				6.00	660.5	220	72.7																121.25	1201.3
358+00.00	384+37.07	S.B. ML. LEFT SHOULDER	2637.07				8.00	2344.1	220	257.9																139.25	3676.1
384+37.07	387+67.95	S.B. M.L. LEFT SHOULDER	330.88				6.00	220.6	220	24.3																121.25	401.2
387+67.95	388+91.05	S.B. M.L. LEFT SHOULDER	123.10				7.00	95.7	220	10.5																130.25	160.3
388+91.05	408+50.00	S.B. M.L. LEFT SHOULDER	1958.95				8.00	1741.3	220	191.5																139.25	2727.8
408+50.00	410+50.00	TRANSITION N.B. M.L. LEFT SHOULDER	200.00				10.00	222.2	220	24.4					10.00	222.2	22.2				22.2							
109+55.43	127+72.68	S.B. M.L. RIGHT SHOULDER	1817.25				4.00	807.7	220	88.8					4.00	807.7	80.8				80.8							
127+72.68	135+99.00	S.B. M.L. RIGHT SHOULDER	826.32				4.00	367.3	220	40.4																123.75	1022.6
135+99.00	139+74.00	S.B. M.L. RIGHT SHOULDER W/ SUPERELEVATION TRANSITION	375.00				4.00	166.7	220	18.3																145.50	545.6
139+74.00	143+39.67	S.B. M.L. RIGHT SHOULDER W/ FULL SUPERELEVATION	365.67				4.00	162.5	220	17.9																167.25	611.6
143+39.67	144+31.36	S.B. M.L. RIGHT SHOULDER W/ FULL SUPERELEVATION	91.69				4.00	40.8	220	4.5																197.25	139.4
144+31.36	146+30.00	S.B. M.L. RIGHT SHOULDER W/ SUPERELEVATION TRANSITION	198.64				7.00	154.5	220	17.0																189.25	375.9
146+30.00	148+06.36	S.B. M.L. RIGHT SHOULDER W/ SUPERELEVATION TRANSITION	175.36								10.00	196.0	4.1	64.5				10.00	196.0	5.9	5.9	10.00	196.0	10.8	10.00	196.0		
148+06.36	150+00.00	S.B. M.L. RIGHT SHOULDER W/ BARRIER WALL	193.64								10.00	215.2	4.5	70.8				10.00	215.2	6.5	6.5	10.00	215.2	11.8	10.00	215.2		
150+00.00	159+56.24	MAIN LANE MEDIAN	956.24								22.00	2337.5	49.1	769.0				22.00	2337.5	70.1	70.1	22.00	2337.5	128.6	22.00	2337.5		
22+13.45	51+11.90	MAIN LANE MEDIAN	2898.45								22.00	7085.1	148.8	2331.0				22.00	7085.1	212.6	212.6	22.00	7085.1	389.7	22.00	7085.1		
196+78.80	208+50.00	MAIN LANE MEDIAN	1171.20								22.00	2862.9	60.1	941.9				22.00	2862.9	85.9	85.9	22.00	2862.9	157.5	22.00	2862.9		
303+35.60	313+94.24	MAIN LANE MEDIAN	1058.64								22.00	2587.8	54.3	851.4				22.00	2587.8	77.6	77.6	22.00	2587.8	142.3	22.00	2587.8		
316+44.76	408+50.00	MAIN LANE MEDIAN	9205.24								22.00	22501.7	472.5	7403.1				22.00	22501.7	675.1	675.1	22.00	22501.7	1237.6	22.00	22501.7		
408+50.00	410+50.00	TRANSITION N.B. M.L. LEFT SHOULDER	200.00				4.00	88.9	220	9.8								4.00	88.9	2.7	2.7							
408+50.00	410+50.00	TRANSITION S.B. M.L. RIGHT SHOULDER	200.00				4.00	88.9	220	9.8								4.00	88.9	2.7	2.7							
TOTALS					15700.2	7771.6		39950.1		5930.8		39998.8	839.8	13159.5		5090.7	509.2		85247.0	2557.8	3167.0		39998.8	2199.9		39998.8		45985.6

BASIS OF ESTIMATE: ACHM BINDER COURSE (1") - MIN. AGG. = 95.0%, ASPH. BINDER (PG64-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 95.0%, ASPH. BINDER (PG64-22) = 5.0%
Nmax = 115

08-08-2005 RR60080.001

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	192	609

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
8-11-05
CHARLES D. CLEMENTS

SURFACING - RAMPS

STATION	STATION	LOCATION	LENGTH	ACHM BASE COURSE (1 1/2") 990 LBS. PER SQ. YD.			ACHM BINDER COURSE (1") 550 LBS. PER SQ. YD.			ACHM SURFACE COURSE (1/2") 440 LBS. PER SQ. YD.			TACK COAT 0.03 GAL. PER SQ. YD.			AGGREGATE BASE COURSE (CL. 7)	
			LIN. FT.	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	GALLON	TONS PER STA.	TON
154+78.54	161+41.03	McCAIN BLVD. E.B. EXIT RAMP	662.49	17.25	1269.8	628.6	16.08	1183.6	325.5	15.00	615.7	135.5	63.33	3684.8	110.5	68.00	450.5
290+71.12	293+41.12	WILDWOOD EXIT RAMP TAPER	270.00	8.63	258.9	128.2	8.04	241.2	66.3	7.50	225.0	49.5	31.67	950.1	28.5	34.00	91.8
294+40.07	295+52.24	WILDWOOD EXIT RAMP	112.17	16.63	207.3	102.6	16.04	199.9	55.0	15.50	193.2	42.5	63.67	793.6	23.8	70.25	78.8
295+52.24	297+52.52	WILDWOOD EXIT RAMP	200.28	17.25	383.9	190.0	16.08	357.8	98.4	15.00	333.8	73.4	63.33	1409.3	42.3	68.00	136.2
294+40.07	297+52.52	WILDWOOD ENTRANCE RAMP	312.45	17.25	598.9	296.5	16.08	558.2	153.5	15.00	520.8	114.6	63.33	2198.7	66.0	68.00	212.5
321+54.87	323+76.58	BROOKSWOOD EXIT RAMP	221.71	17.25	424.9	210.3	16.08	396.1	108.9	15.00	369.5	81.3	63.33	1560.0	46.8	68.00	150.8
323+76.58	324+64.92	BROOKSWOOD EXIT RAMP	88.34	16.63	163.2	80.8	16.04	157.4	43.3	15.50	152.1	33.5	63.67	624.8	18.7	70.25	62.1
324+67.85	327+37.85	BROOKSWOOD EXIT RAMP TAPER	270.00	8.63	258.9	128.2	8.04	241.2	66.3	7.50	225.0	49.5	31.67	950.1	28.5	34.00	91.8
326+99.64	329+18.60	BROOKSWOOD ENTRANCE RAMP	218.96	17.25	419.7	207.8	16.08	391.2	107.6	15.00	364.9	80.3	63.33	1540.7	46.2	68.00	148.9
329+18.60	333+41.58	BROOKSWOOD ENTRANCE RAMP TURNOUT	422.98	15.97	750.6	371.5	15.38	722.8	198.8	14.84	697.4	153.4	61.03	2868.2	86.0	67.25	284.5
348+48.28	351+40.67	KIEHL AVE. N.B. EXIT RAMP	292.39	17.25	560.4	277.4	16.08	522.4	143.7	15.00	487.3	107.2	63.33	2057.4	61.7	68.00	198.8
351+40.68	351+72.97	KIEHL AVE. N.B. EXIT RAMP	32.29	16.63	59.7	29.6	16.04	57.5	15.8	15.50	55.6	12.2	63.67	228.4	6.9	70.25	22.7
351+29.98	353+99.98	KIEHL AVE. N.B. EXIT RAMP TAPER	270.00	8.63	258.9	128.2	8.04	241.2	66.3	7.50	225.0	49.5	31.67	950.1	28.5	34.00	91.8
357+99.66	360+90.67	KIEHL AVE. S.B. ENTRANCE RAMP	291.01	17.25	557.8	276.1	16.08	519.9	143.0	15.00	485.0	106.7	63.33	2047.7	61.4	68.00	197.9
360+90.67	365+85.28	KIEHL AVE. S.B. ENTRANCE RAMP TURNOUT	494.61	15.97	877.7	434.5	15.38	845.2	232.4	14.84	815.6	179.4	61.03	3354.1	100.6	67.25	332.6
379+59.89	382+52.63	KIEHL AVE. N.B. ENTRANCE RAMP TURNOUT	292.74	15.97	519.5	257.2	15.38	500.3	137.6	14.84	482.7	106.2	61.03	1985.2	59.6	67.25	196.9
382+52.63	385+50.44	KIEHL AVE. N.B. ENTRANCE RAMP	297.81	17.25	570.8	282.5	16.08	532.1	146.3	15.00	496.4	109.2	63.33	2095.7	62.9	68.00	202.5
377+63.33	380+33.33	KIEHL AVE. S.B. EXIT RAMP TAPER	270.00	8.63	258.9	128.2	8.04	241.2	66.3	7.50	225.0	49.5	31.67	950.1	28.5	34.00	91.8
380+78.69	381+67.44	KIEHL AVE. S.B. EXIT RAMP	88.75	16.63	164.0	81.2	16.04	158.2	43.5	15.50	152.8	33.6	63.67	627.8	18.8	70.25	62.3
381+67.44	384+36.19	KIEHL AVE. S.B. EXIT RAMP	268.75	17.25	515.1	255.0	16.08	480.2	132.1	15.00	447.9	98.5	63.33	1891.1	56.7	68.00	182.8
40+94.81	44+63.30	McCAIN BLVD. N.B. ENTRANCE RAMP TURNOUT	368.49	17.26	706.7	349.8	16.67	682.5	187.7	16.13	660.4	145.3	66.19	2710.0	81.3	73.25	269.9
44+63.30	49+43.82	McCAIN BLVD. N.B. ENTRANCE RAMP	480.52	17.25	921.0	455.9	16.08	858.5	236.1	15.00	800.9	176.2	63.33	3381.3	101.4	68.00	326.8
43+00.63	47+49.41	McCAIN BLVD. S.B. ENTRANCE RAMP	448.78	17.25	860.2	425.8	16.08	801.8	220.5	15.00	748.0	164.6	63.33	3158.0	94.7	68.00	305.2
47+49.41	51+62.56	McCAIN BLVD. S.B. ENTRANCE RAMP TURNOUT	413.15	20.21	927.8	459.3	19.62	900.7	247.7	19.08	875.9	192.7	77.99	3580.3	107.4	86.50	357.4
TOTALS					12494.6	6185.2		11791.1	3242.6		10655.9	2344.3		45597.5	1367.7		4547.3

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 96.2%, ASPH. BINDER (PG70-22) = 3.8%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.6%, ASPH. BINDER (PG70-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 95.0%, ASPH. BINDER (PG70-22) = 5.0%
Nmax = 160

SURFACING - RAMP SHOULDERS

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2") 440 LBS. PER SQ. YD.			TACK COAT 0.03 GAL. PER SQ. YD.			AGGREGATE BASE COURSE (CL. 7)	
			LIN. FT.	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	GALLON	TONS PER STA.	TON
154+78.54	161+41.03	McCAIN BLVD. E.B. EXIT RAMP - RT. SHOULDER	662.49	6.00	441.7	97.2	6.00	441.7	13.3	182.00	1205.7
154+78.54	161+41.03	McCAIN BLVD. E.B. EXIT RAMP - LT. SHOULDER	662.49	4.00	294.4	64.8	4.00	294.4	8.8	160.25	1061.6
290+71.12	293+41.12	WILDWOOD EXIT RAMP TAPER - RT. SHOULDER	270.00	4.00	120.0	26.4	4.00	120.0	3.6	160.25	432.7
294+40.07	297+52.52	WILDWOOD EXIT RAMP - RT. SHOULDER	312.45	4.00	138.9	30.6	4.00	138.9	4.2	160.25	500.7
295+52.24	297+08.29	WILDWOOD EXIT RAMP - LT. SHOULDER	155.05	3.25	56.4	12.4	3.25	56.4	1.7	43.50	67.9
297+08.29	297+52.52	WILDWOOD EXIT RAMP - LT. SHOULDER	44.23	6.00	29.5	6.5	6.00	29.5	0.9	182.00	80.5
302+00.00	303+15.23	WILDWOOD ENTRANCE RAMP - RT. SHOULDER	115.23	6.00	76.8	16.9	6.00	76.8	2.3	182.00	209.7
302+00.00	303+15.23	WILDWOOD ENTRANCE RAMP - LT. SHOULDER	115.23	4.00	51.2	11.3	4.00	51.2	1.5	160.25	184.7
321+54.87	323+76.58	BROOKSWOOD EXIT RAMP - RT. SHOULDER	221.71	3.25	80.1	17.6	3.25	80.1	2.4	43.50	96.4
321+54.87	324+64.92	BROOKSWOOD EXIT RAMP - LT. SHOULDER	310.05	4.00	137.8	30.3	4.00	137.8	4.1	160.25	496.9
324+67.85	327+37.85	BROOKSWOOD EXIT RAMP TAPER - LT. SHOULDER	270.00	4.00	120.0	26.4	4.00	120.0	3.6	160.25	432.7
326+99.64	333+41.58	BROOKSWOOD ENTRANCE RAMP - RT. SHOULDER	641.94	4.00	285.3	62.8	4.00	285.3	8.6	160.25	1028.7
326+99.64	329+18.60	BROOKSWOOD ENTRANCE RAMP - LT. SHOULDER	218.96	6.00	146.0	32.1	6.00	146.0	4.4	182.00	398.5
348+48.28	349+90.92	KIEHL AVE. N.B. EXIT RAMP - RT. SHOULDER	142.64	6.00	95.1	20.9	6.00	95.1	2.9	182.00	259.6
349+90.92	351+40.67	KIEHL AVE. N.B. EXIT RAMP - RT. SHOULDER	149.75	3.25	54.1	11.9	3.25	54.1	1.6	43.50	65.1
348+48.28	351+72.97	KIEHL AVE. N.B. EXIT RAMP - LT. SHOULDER	324.69	4.00	144.3	31.7	4.00	144.3	4.3	160.25	520.3
351+29.98	353+99.98	KIEHL AVE. N.B. EXIT RAMP TAPER - LT. SHOULDER	270.00	4.00	120.0	26.4	4.00	120.0	3.6	160.25	432.7
357+99.68	365+85.28	KIEHL AVE. S.B. ENTRANCE RAMP - RT. SHOULDER	785.60	4.00	349.2	76.8	4.00	349.2	10.5	160.25	1258.9
357+99.68	360+90.67	KIEHL AVE. S.B. ENTRANCE RAMP - LT. SHOULDER	290.99	6.00	194.0	42.7	6.00	194.0	5.8	182.00	529.6
382+52.63	385+50.44	KIEHL AVE. N.B. ENTRANCE RAMP - RT. SHOULDER	297.81	6.00	198.5	43.7	6.00	198.5	6.0	182.00	542.0
379+59.89	385+50.44	KIEHL AVE. N.B. ENTRANCE RAMP - LT. SHOULDER	590.55	4.00	262.5	57.8	4.00	262.5	7.9	160.25	946.4
377+63.33	380+33.33	KIEHL AVE. S.B. EXIT RAMP - RT. SHOULDER	270.00	4.00	120.0	26.4	4.00	120.0	3.6	160.25	432.7
380+78.69	384+36.19	KIEHL AVE. S.B. EXIT RAMP - RT. SHOULDER	357.50	4.00	158.9	35.0	4.00	158.9	4.8	160.25	572.9
381+67.44	383+12.74	KIEHL AVE. S.B. EXIT RAMP - LT. SHOULDER	145.30	3.25	52.5	11.6	3.25	52.5	1.6	43.50	63.2
383+12.74	384+36.19	KIEHL AVE. S.B. EXIT RAMP - LT. SHOULDER	123.45	6.00	82.3	18.1	6.00	82.3	2.5	182.00	224.7
44+63.30	49+43.82	McCAIN BLVD. N.B. ENTRANCE RAMP - RT. SHOULDER	480.52	6.00	320.3	70.5	6.00	320.3	9.6	81.75	392.8
40+94.81	44+63.30	McCAIN BLVD. N.B. ENTRANCE RAMP TURNOUT - LT. SHOULDER	368.49	4.00	163.8	36.0	4.00	163.8	4.9	160.25	590.5
44+63.30	49+43.82	McCAIN BLVD. N.B. ENTRANCE RAMP - LT. SHOULDER	480.52	4.00	213.6	47.0	4.00	213.6	6.4	54.50	261.9
43+00.83	47+49.41	McCAIN BLVD. S.B. ENTRANCE RAMP - RT. SHOULDER	448.58	4.00	199.4	43.9	4.00	199.4	6.0	54.50	244.5
47+49.41	51+62.56	McCAIN BLVD. S.B. ENTRANCE RAMP TURNOUT - RT. SHOULDER	413.15	4.00	183.6	40.4	4.00	183.6	5.5	54.50	225.2
43+00.63	47+49.41	McCAIN BLVD. S.B. ENTRANCE RAMP - LT. SHOULDER	448.78	6.00	299.2	65.8	6.00	299.2	9.0	81.75	366.9
TOTALS					5189.4	1141.9		5189.4	155.9		14126.6

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 96.2%, ASPH. BINDER (PG70-22) = 3.8%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.6%, ASPH. BINDER (PG70-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 95.0%, ASPH. BINDER (PG70-22) = 5.0%
Nmax = 160

08-08-2005 RR60080.001

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	193	603

(2) QUANTITIES

STATE OF ARKANSAS CHARLES D. CLEMENTS REGISTERED PROFESSIONAL ENGINEER No. 14791

BASE & SURFACING - BROOKSWOOD FLYOVER & BROOKSWOOD CONNECTOR

STATION	STATION	LOCATION	LENGTH	ACHM BASE COURSE (1 1/2") 880 LBS. PER SQ. YD.			ACHM BINDER COURSE (1") 330 LBS. PER SQ. YD.			ACHM SURFACE COURSE (1/2") 440 LBS. PER SQ. YD.			TACK COAT 0.03 GAL. PER SQ. YD.		
			LIN. FT.	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	GALLON
333+91.77	337+34.94	BROOKSWOOD FLYOVER	343.17	7.71	294.0	129.4	7.71	294.0	48.5	8.71	332.1	73.1	32.84	1252.20	37.6
337+34.94	344+22.90	BROOKSWOOD FLYOVER	687.96	13.00	993.7	437.2	13.00	993.7	164.0	17.00	1299.5	285.9	60.00	4586.40	137.6
349+15.15	351+75.00	BROOKSWOOD FLYOVER	259.85	13.00	375.3	165.1	13.00	375.3	61.9	17.00	490.8	108.0	60.00	1732.20	52.0
351+75.00	351+96.23	BROOKSWOOD FLYOVER	21.23	13.92	32.8	14.4	13.46	31.8	5.2	17.00	40.1	8.8	61.38	144.80	4.3
351+96.23	353+73.60	BROOKSWOOD FLYOVER W/ TRANSITION	177.37	37.93	747.5	328.9	37.46	738.3	121.8	37.00	729.2	160.4	149.39	2944.20	88.3
353+73.60	354+46.02	BROOKSWOOD FLYOVER	72.42	15.93	128.2	56.4	15.46	124.4	20.5	15.00	120.7	26.6	61.39	494.00	14.8
354+46.02	356+14.29	BROOKSWOOD FLYOVER	168.27	15.00	280.5	123.4	15.00	280.5	46.3	15.00	280.5	61.7	60.00	1122.00	33.7
356+14.29	357+03.29	BROOKSWOOD FLYOVER	89.00	7.50	74.2	32.6	7.50	74.2	12.2	7.50	74.2	16.3	30.00	296.80	8.9
353+73.60	353+78.09	BROOKSWOOD FLYOVER CONNECTOR	4.49	20.00	10.0	4.4	20.00	10.0	1.7	22.00	11.0	2.4	84.00	42.00	1.3
353+78.09	355+58.10	BROOKSWOOD FLYOVER CONNECTOR	180.01	22.00	440.0	193.6	22.00	440.0	72.6	22.00	440.0	96.8	88.00	1760.00	52.8
TOTALS					3376.2	1485.4		3362.2	554.7		3818.1	840.0		14374.6	431.3

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 96.2%, ASPH. BINDER (PG70-22) = 3.8%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.6%, ASPH. BINDER (PG70-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 95.0%, ASPH. BINDER (PG70-22) = 5.0%
Nmax = 160

BASE & SURFACING - BROOKSWOOD FLYOVER & BROOKSWOOD CONNECTOR SHOULDERS

STATION	STATION	LOCATION	LENGTH	ACHM BASE COURSE (1 1/2") 880 LBS. PER SQ. YD.			ACHM BINDER COURSE (1") 330 LBS. PER SQ. YD.			ACHM SURFACE COURSE (1/2") 440 LBS. PER SQ. YD.			TACK COAT 0.03 GAL. PER SQ. YD.		
			LIN. FT.	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	GALLON
351+75.00	354+46.02	BROOKSWOOD FLYOVER RIGHT SHOULDER	271.02							6.00	180.7	39.8	6.00	180.70	5.4
354+46.02	357+03.29	BROOKSWOOD FLYOVER RIGHT SHOULDER	257.27	4.25	121.5	53.5	4.25	121.5	20.0	3.00	85.8	18.9	14.50	414.60	12.4
353+73.60	354+59.80	BROOKSWOOD FLYOVER LEFT SHOULDER	86.20	2.50	23.9	10.5	2.50	23.9	3.9	2.50	23.9	5.3	10.00	95.60	2.9
354+59.80	356+13.51	BROOKSWOOD FLYOVER LEFT SHOULDER	153.71	4.92	84.0	37.0	4.46	76.2	12.6	4.16	71.0	15.6	17.70	302.20	9.1
353+78.09	354+48.23	BROOKSWOOD CONNECTOR LEFT SHOULDER	70.14	6.50	50.7	22.3	6.50	50.7	8.4	4.00	31.2	6.9	21.00	163.80	4.9
354+48.23	354+91.57	BROOKSWOOD CONNECTOR LEFT SHOULDER	43.34	5.00	24.1	10.6	5.00	24.1	4.0	2.50	12.0	2.6	15.00	72.20	2.2
354+91.57	355+58.10	BROOKSWOOD CONNECTOR LEFT SHOULDER	66.53	3.50	25.9	11.4	3.50	25.9	4.3	1.00	7.4	1.6	9.00	66.60	2.0
353+73.60	354+59.89	BROOKSWOOD CONNECTOR RIGHT SHOULDER	86.29	2.50	24.0	10.6	2.50	24.0	4.0	2.50	24.0	5.3	10.00	96.00	2.9
354+59.89	355+58.10	BROOKSWOOD CONNECTOR RIGHT SHOULDER	98.21	4.92	53.7	23.6	4.46	48.7	8.0	4.16	45.4	10.0	17.70	193.20	5.8
TOTALS					407.8	179.5		395.0	65.2		481.4	106.0		1584.9	47.6

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 96.2%, ASPH. BINDER (PG70-22) = 3.8%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.6%, ASPH. BINDER (PG70-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 95.0%, ASPH. BINDER (PG70-22) = 5.0%
Nmax = 160

BASE & SURFACING - KIEHL AVE., INDIANHEAD DR., SE LOOP RAMP & NW LOOP RAMP

STATION	STATION	LOCATION	LENGTH	METHOD OF RAISING GRADE ACHM BASE COURSE (1 1/2")				ACHM BASE COURSE (1 1/2")					ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2") LEVELING				NORMAL				TACK COAT 0.10 GAL.			TACK COAT 0.03 GAL.			TOTAL GALLON
			LIN. FT.	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD.	TON	TOTAL TON	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	GALLON	AVG. WIDTH FEET	SQ. YD.	GALLON	
10+11.22	12+14.16	KIEHL AVE. - NOTCH & WIDENING LT.	202.94					VAR.	954.6	550	262.5	262.5	VAR.	912.6	385	175.7					VAR.	912.6	440	200.8				VAR.	2779.80	83.4	83.4
11+61.09	13+00.00	KIEHL AVE. - NOTCH & WIDENING RT.	138.91					VAR.	219.0	550	60.2	60.2	VAR.	194.6	385	37.5					VAR.	194.6	440	42.8				VAR.	608.20	18.2	18.2
10+11.22	13+00.00	KIEHL AVE. - OVERLAY	288.78														VAR.	1315.3	440	289.4	VAR.	1315.3	220	144.7	VAR.	1315.3	131.5	VAR.	1315.31	39.5	171.0
13+00.00	14+00.00	KIEHL AVE.	100.00	VAR.	328.0	660	108.2	VAR.	328.0	550	90.2	198.4	VAR.	328.0	385	63.1					VAR.	328.0	440	72.2	VAR.	328.0	32.8	VAR.	984.00	29.5	62.3
14+00.00	16+68.11	KIEHL AVE.	268.11					61.00	1817.2	550	499.7	499.7	56.00	1668.2	385	321.1					56.00	1668.2	440	367.0				173.00	5153.60	154.6	154.6
19+86.27	22+00.00	KIEHL AVE.	213.73					61.00	1448.6	550	398.4	398.4	56.00	1329.9	385	256.0					56.00	1329.9	440	292.6				173.00	4108.40	123.3	123.3
22+00.00	22+50.00	KIEHL AVE.	50.00	VAR.	254.9	660.00	84.1	VAR.	254.9	550	70.1	154.2	VAR.	254.9	385	49.1					VAR.	254.9	440	56.1	VAR.	254.9	25.5	VAR.	764.70	22.9	48.4
22+00.00	23+31.63	KIEHL AVE. - NOTCH & WIDENING RT.	131.63					VAR.	139.3	550	38.3	38.3	VAR.	117.3	385	22.6					VAR.	117.3	440	25.8				VAR.	373.90	11.2	11.2
22+50.00	23+00.00	KIEHL AVE. - OVERLAY	50.00														VAR.	297.9	550	81.9	VAR.	297.9	220	32.8	VAR.	297.9	29.8	VAR.	297.90	8.9	38.7
23+00.00	26+86.47	KIEHL AVE. & INDIANHEAD DR.	386.47														VAR.	3096.1	220	340.6	VAR.	3096.1	220	340.6	VAR.	3096.1	309.6	VAR.	3096.10	92.9	402.5
25+00.00	26+40.65	INDIANHEAD DR. - NOTCH & WIDENING RT.	140.65					VAR.	120.4	550	33.1	33.1	VAR.	97.1	385	18.7					VAR.	97.1	440	21.4				VAR.	314.60	9.4	9.4
10+10.00	15+84.69	SE LOOP RAMP W/ SHOULDERS - OVERLAY	574.69														VAR.	2962.4	220	325.9	VAR.	2962.4	220	325.9	VAR.	2962.4	296.2	VAR.	2962.4	88.9	385.1
15+23.87	15+84.69	SE LOOP RAMP - NOTCH & WIDENING RT.	60.82					VAR.	143.0	550	39.3	39.3	VAR.	125.1	385	24.1					VAR.	125.1	440	27.5				VAR.	393.20	11.8	11.8
10+00.00	15+71.98	NW LOOP RAMP W/ SHOULDERS - OVERLAY	571.98														VAR.	2588.1	220	284.7	VAR.	2588.1	220	284.7	VAR.	2588.1	258.8	VAR.	2588.1	77.6	336.4
10+50.00	15+71.98	NW LOOP RAMP - NOTCH & WIDENING RT.	521.98					VAR.	522.7	550	143.7	143.7	VAR.	421.2	385	81.1					VAR.	421.2	440	92.7				VAR.	1365.10	41.0	41.0
TOTALS					582.9		192.3		5947.7		1635.5	1827.8		5448.9		1049.0		10259.8	1650.0	1322.5		15708.7		2327.6		10842.7	1084.2		27105.31	813.1	1897.3

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 96.2%, ASPH. BINDER (PG70-22) = 3.8%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.6%, ASPH. BINDER (PG70-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 95.0%, ASPH. BINDER (PG70-22) = 5.0%
Nmax = 160

08-08-2005 RR60080.001

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.		R60080	194	609

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-22-05
CHARLES D. CLEMENTS

SURFACING - FRONTAGE RDS. & BROOKSWOOD

STATION	STATION	LOCATION	LENGTH	ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD.			TACK COAT 0.10 GAL. PER SQ. YD.			AGGREGATE BASE COURSE (CL. 7)	
			LIN. FT.	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	GALLON	TONS PER STA.	TON
287+18.26	287+91.44	LANDERS RD. W/ RT. SHOULDER	73.18	VAR.	615.7	67.7	VAR.	615.7	61.6		
287+91.44	294+25.46	LANDERS RD. W/ RT. SHOULDER	634.02	36.00	2536.1	279.0	36.00	2536.1	253.6		
294+25.46	297+81.45	LANDERS RD. W/ LT. & RT. SHOULDERS	355.99	40.00	1582.2	174.0	40.00	1582.2	158.2		
297+81.45	302+21.77	LANDERS RD. W/ LT. & RT. SHOULDERS	440.32	34.00	1663.4	183.0	34.00	1663.4	166.3		
302+21.77	315+14.40	LANDERS RD. W/ LT. & RT. SHOULDERS	1292.63	28.00	4021.5	442.4	28.00	4021.5	402.2		
316+69.51	321+11.76	LANDERS RD. W/ LT. & RT. SHOULDERS	448.25	28.00	1394.6	153.4	28.00	1394.6	139.5		
321+11.76	322+96.91	LANDERS RD. W/ RT. SHOULDER	185.15	19.25	396.0	43.6	19.25	396.0	39.6		
322+96.91	324+67.85	LANDERS RD. W/ RT. SHOULDER	170.94	14.50	275.4	30.3	14.50	275.4	27.5		
324+67.85	327+37.85	LANDERS RD. W/ RT. SHOULDER	270.00	24.00	720.0	79.2	24.00	720.0	72.0		
327+37.85	330+90.25	LANDERS RD. W/ LT. & RT. SHOULDERS	652.40	28.00	2029.7	223.3	28.00	2029.7	203.0		
330+90.25	337+33.18	LANDERS RD. W/ RT. SHOULDER	642.93	24.00	1714.5	188.6	24.00	1714.5	171.5		
337+33.18	351+29.98	LANDERS RD. W/ RT. SHOULDER	1396.80	14.50	2250.4	247.5	14.50	2250.4	225.0		
351+29.98	359+99.98	LANDERS RD. W/ RT. SHOULDER	270.00	24.00	720.9	79.2	24.00	720.0	72.0		
353+99.98	379+13.12	LANDERS RD. W/ LT. & RT. SHOULDERS	2513.14	28.00	7818.7	860.1	28.00	7818.7	781.9		
379+13.12	382+00.00	LANDERS RD. W/ RT. SHOULDER	286.88	24.00	765.0	84.2	24.00	765.0	76.5		
281+98.30	283+42.44	WARDEN RD. W/ RT. SHOULDER	144.14	VAR.	1155.9	127.1	VAR.	1155.9	115.6		
283+42.44	284+72.54	WARDEN RD. W/ RT. SHOULDER	130.10	55.00	795.1	87.5	55.00	795.1	79.5		
284+72.54	289+85.40	WARDEN RD. W/ LT. & RT. SHOULDERS	512.86	36.00	2051.4	225.7	36.00	2051.4	205.1		
289+85.40	290+71.12	WARDEN RD. W/ LT. SHOULDER	85.72	28.00	256.7	29.3	28.00	256.7	25.7		
290+71.12	293+41.12	WARDEN RD. W/ LT. SHOULDER	270.00	24.00	720.0	79.2	24.00	720.0	72.0		
293+41.12	293+89.91	WARDEN RD. W/ LT. SHOULDER	48.79	14.50	78.6	8.6	14.50	78.6	7.9		
293+89.91	296+10.31	WARDEN RD. W/ LT. SHOULDER	220.40	19.25	471.4	51.9	19.25	471.4	47.1		
296+10.31	312+77.40	WARDEN RD. W/ LT. & RT. SHOULDERS	1667.09	28.00	5186.5	570.5	28.00	5186.5	518.7		
314+28.05	327+26.21	WARDEN RD. W/ LT. & RT. SHOULDERS	1298.16	28.00	4038.7	444.3	28.00	4038.7	403.9		
327+26.21	332+45.86	WARDEN RD. W/ LT. SHOULDER	519.65	24.00	1385.7	152.4	24.00	1385.7	138.6		
332+45.86	359+45.26	WARDEN RD. W/ LT. & RT. SHOULDERS	2699.40	28.00	8398.1	923.8	28.00	8398.1	839.8		
359+45.26	365+35.41	WARDEN RD. W/ LT. SHOULDER	590.15	24.00	1573.7	173.1	24.00	1573.7	157.4		
365+35.41	377+63.33	WARDEN RD. W/ LT. & RT. SHOULDERS	1227.92	28.00	3820.2	420.2	28.00	3820.2	382.0		
377+78.33	380+35.33	WARDEN RD. W/ LT. SHOULDER	257.00	24.00	685.3	75.4	24.00	685.3	68.5		
380+35.33	382+68.33	WARDEN RD. W/ LT. SHOULDER	233.00	14.50	375.4	41.3	14.50	375.4	37.5		
9+65.95	29+86.83	BROOKSWOOD	2020.88	44.00	9879.9	1086.8	44.00	9879.9	988.0		
154+34.26	158+25.00	LANDERS RD. - LT. SHOULDER WIDENING FOR G.R.	390.74	5.50	238.8	26.3				42.75	167.0
312+56.06	315+12.14	LANDERS RD. - RT. SHOULDER WIDENING FOR G.R.	256.08	5.50	156.5	17.2				42.75	109.5
312+37.91	314+97.36	LANDERS RD. - LT. SHOULDER WIDENING FOR G.R.	259.45	5.50	158.6	17.4				42.75	110.9
316+65.48	321+04.16	LANDERS RD. - LT. SHOULDER WIDENING FOR G.R.	438.68	5.50	268.1	29.5				42.75	187.5
331+42.06	333+90.25	LANDERS RD. - RT. SHOULDER WIDENING FOR G.R.	248.19	5.50	151.7	16.7				42.75	106.1
196+23.10	198+84.85	WARDEN RD. - RT. SHOULDER WIDENING FOR G.R.	261.75	5.50	160.0	17.6				42.75	111.9
308+21.79	312+77.75	WARDEN RD. - RT. SHOULDER WIDENING FOR G.R.	455.96	5.50	278.6	30.6				42.75	194.9
314+47.30	321+07.58	WARDEN RD. - RT. SHOULDER WIDENING FOR G.R.	660.28	5.50	403.5	44.4				42.75	282.3
314+30.05	316+90.16	WARDEN RD. - LT. SHOULDER WIDENING FOR G.R.	260.11	5.50	159.0	17.5				42.75	111.2
		DRIVEWAYS - WARDEN RD.		VAR.	4750.0	522.5	VAR.	4750.0	475.0		
		DRIVEWAYS - LANDERS RD.		VAR.	2427.8	267.1	VAR.	2427.8	242.8		
335+00.00		RT. OF C.L. LANDERS		VAR.	148.7	16.4					60.7
337+06.00		RT. OF C.L. LANDERS		VAR.	132.1	14.5					53.9
339+15.00		RT. OF C.L. LANDERS		VAR.	133.5	14.7					54.5
TOTALS					78952.7	8685.0		76563.6	7656.5		1550.4

BASIS OF ESTIMATE: ACHM SURFACE COURSE (1/2") - MIN. AGG. = 95.0%, ASPH. BINDER (PG70-22) = 5.0%
Nmax = 115

BASE & SURFACING - LANDERS CONNECTOR & LANDERS TO LANDERS CONNECTOR

STATION	STATION	LOCATION	LENGTH	METHOD OF RAISING GRADE ACHM BASE COURSE (1 1/2")				ACHM BASE COURSE (1 1/2")				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")				TACK COAT 0.10 GAL. PER SQ. YD.			TACK COAT 0.03 GAL. PER SQ. YD.			TOTAL GALLON	AGGREGATE BASE COURSE (CL. 7)	
			LIN. FT.	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD.	TON	TOTAL TON	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	GALLON	AVG. WIDTH FEET	SQ. YD.	GALLON		TONS PER STA.	TON
373+28.56	373+68.35	LANDERS CONNECTOR	39.79					VAR.	241.1	440	53.0	53.0	VAR.	241.1	330	39.8	VAR.	241.1	440	53.0					VAR.	482.20	14.5	14.5	VAR.	92.6
373+68.35	384+74.54	LANDERS CONNECTOR	1106.19					28.00	3441.5	440	757.1	757.1	28.00	3441.5	330	567.8	28.00	3441.5	440	757.1					112.00	6883.00	206.5	206.5	130.25	1440.8
384+74.54	385+25.46	LANDERS CONNECTOR	50.92					29.00	164.1	440	36.1	36.1	29.00	164.1	330	27.1	29.00	164.1	440	36.1					116.00	328.20	9.8	9.8	122.50	62.4
385+25.46	386+13.91	LANDERS CONNECTOR	88.45					28.75	282.5	440	62.2	62.2	28.46	279.7	330	46.2	28.25	277.6	440	61.1					113.71	562.20	16.9	16.9	122.50	108.4
386+13.91	387+29.00	LANDERS CONNECTOR - NOTCH & WIDENING	115.09					16.38	209.5	440	46.1	46.1	16.23	207.5	330	34.2	16.13	206.3	440	45.4					64.87	417.00	12.5	12.5	72.00	82.9
386+13.91	387+29.00	LANDERS CONNECTOR - OVERLAY	115.09					13.00	166.2	1045	86.8	86.8	12.46	159.3	330	26.3	12.16	155.5	440	34.2	10.0	127.9	12.8	49.78	325.50	9.8	22.6		
387+29.00	389+46.65	LANDERS CONNECTOR - OVERLAY	217.65														20.00	483.7	385	93.1	20.0	483.7	48.4	40.00	0.00	0.0	48.4		
389+46.65	390+46.65	LANDERS CONNECTOR - TRANSITION	100.00														20.00	222.2	220	24.4	20.0	222.2	22.2	40.00	0.00	0.0	22.2		
374+28.00		DRIVEWAY - LT. OF C.L. LANDERS CONNECTOR															16.00	76.6	220	8.4				32.00					31.3
375+43.00		DRIVEWAY - LT. OF C.L. LANDERS CONNECTOR															16.00	69.6	220	7.7				32.00					28.4
377+74.00		DRIVEWAY - LT. OF C.L. LANDERS CONNECTOR															16.00	61.9	220	6.8				32.00					25.5
382+00.00	382+49.52	LANDERS TO LANDERS CONNECTOR TRANSITION	49.52														10.00	55.0	330	9.1	10.0	55.0	5.5				5.5		
382+49.52	382+73.80	LANDERS TO LANDERS CONNECTOR TRANSITION	24.28														10.00	27.0	605	8.2	10.0	27.0	2.7	10.00	27.00	0.8	3.5		
382+73.80	383+00.00	LANDERS TO LANDERS CONNECTOR TRANSITION	26.20										10.00	29.1	550	8.0	10.00	29.1	440	6.4	10.0	29.1	2.9	30.00	29.10	0.9	3.8		
383+00.00	383+71.88	LANDERS TO LANDERS CONNECTOR TRANSITION	71.88	10.00	79.9	990	39.6	10.00	79.9	440	17.6	57.2	10.00	79.9	330	13.2	10.00	79.9	440	17.6	10.0	79.9	8.0	40.00	159.80	4.8	12.8		
383+71.88	384+12.67	LANDERS TO LANDERS CONNECTOR	40.79					11.50	52.1	440	11.5	11.5	10.92	49.5	330	8.2	10.33	46.8	440	10.3	10.0	46.8	4.7	43.08	101.60	3.0	7.7	39.00	15.9
384+12.67	385+11.07	LANDERS TO LANDERS CONNECTOR	98.40					14.75	161.3	440	35.5	35.5	14.46	158.1	330	26.1	14.16	154.8	440	34.1	5.0	154.8	15.5	57.53	319.40	9.6	25.1	58.25	57.3
385+11.07	385+30.26	LANDERS TO LANDERS CONNECTOR	19.19					VAR.	49.2	440	10.8	10.8	VAR.	49.2	330	8.1	VAR.	49.2	440	10.8				VAR.	98.40	3.0	3.0	VAR.	19.5
TOTALS					79.9		39.6		4847.4		1116.7	1156.3		4859.0		805.0		5841.9		1223.8		1226.4	122.7		9733.4	292.1	414.8		1965.0

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 96.2%, ASPH. BINDER (PG70-22) = 3.8%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.6%, ASPH. BINDER (PG70-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 95.0%, ASPH. BINDER (PG70-22) = 5.0%
Nmax = 160

BASE & SURFACING - LANDERS CONNECTOR & LANDERS TO LANDERS CONNECTOR SHOULDERS

STATION	STATION	LOCATION	LENGTH	ACHM BASE COURSE (1 1/2")				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")				TACK COAT 0.10 GAL. PER SQ. YD.			TACK COAT 0.03 GAL. PER SQ. YD.			TOTAL GALLON	AGGREGATE BASE COURSE (CL. 7)	
			LIN. FT.	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	LBS. PER SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	GALLON	AVG. WIDTH FEET	SQ. YD.	GALLON		TONS PER STA.	TON
385+25.46	386+13.91	LANDERS CONNECTOR	88.45									4.00	39.3	220	4.3								67.50	59.7
386+13.91	387+29.00	LANDERS CONNECTOR - NOTCH & WIDENING RIGHT SHOULDER	115.09	5.04	64.5	1210	39.0	4.46	57.0	330	9.4	4.16	53.2	440	11.7	4.0	51.2	5.1	1.18	70.12	1.50	3.6	8.7		
387+29.00	389+46.65	LANDERS CONNECTOR - OVERLAY RIGHT SHOULDER	217.65	4.88	118.0	770	45.4	4.46	107.9	330	17.8	4.16	100.6	330	16.6	4.0	96.7	9.7	18.38	225.90	6.8	16.5		
389+46.65	390+46.65	LANDERS CONNECTOR - TRANSITION RIGHT SHOULDER	100.00									4.16	46.2	220	5.1	4.0	44.4	4.4				4.4		
387+29.00	390+46.65	LANDERS CONNECTOR - LEFT SHOULDER	317.65									4.00	141.2	220	15.5	4.0	141.2	14.1				14.1		
382+00.00	382+49.52	LANDERS TO LANDERS CONNECTOR TRANSITION RIGHT SHOULDER	49.52									4.16	22.9	330	3.8	4.0	22.9	2.3				2.3		
382+49.52	382+73.80	LANDERS TO LANDERS CONNECTOR TRANSITION RIGHT SHOULDER	24.28									4.16	11.2	605	3.4	4.0	11.2	1.1	4.16	11.20	0.3	1.4		
382+73.80	383+00.00	LANDERS TO LANDERS CONNECTOR TRANSITION RIGHT SHOULDER	26.20					4.75	13.8	550	3.8	4.16	12.1	440	2.7	4.0	12.1	1.2	8.91	25.90	0.8	2.0		
383+00.00	383+71.88	LANDERS TO LANDERS CONNECTOR TRANSITION RIGHT SHOULDER	71.88	4.75	37.9	440	8.3	4.42	35.3	330	5.8	4.16	33.2	440	7.3	4.0	33.2	3.3	18.08	106.40	3.2	6.5	67.50	48.5
383+71.88	384+12.67	LANDERS TO LANDERS CONNECTOR	40.79									4.16	18.9	220	2.1	4.0	18.9	1.9	4.16	18.90	0.6	2.5	67.50	27.5
382+00.00	382+49.52	LANDERS TO LANDERS CONNECTOR TRANSITION LEFT SHOULDER	49.52									4.16	22.9	330	3.8	4.0	22.9	2.3				2.3		
382+49.52	382+73.80	LANDERS TO LANDERS CONNECTOR TRANSITION LEFT SHOULDER	24.28									4.16	11.2	605	3.4	4.0	11.2	1.1	4.16	11.20	0.3	1.4		
382+73.80	383+00.00	LANDERS TO LANDERS CONNECTOR TRANSITION LEFT SHOULDER	26.20					4.75	13.8	550	3.8	4.16	12.1	440	2.7	4.0	12.1	1.2	8.91	25.90	0.8	2.0		
383+00.00	383+71.88	LANDERS TO LANDERS CONNECTOR TRANSITION LEFT SHOULDER	71.88	4.75	37.9	440	8.3	4.42	35.3	330	5.8	4.16	33.2	440	7.3	4.0	33.2	3.3	18.08	106.40	3.2	6.5	67.50	48.5
383+71.88	385+27.04	LANDERS TO LANDERS CONNECTOR LEFT SHOULDER	155.16									4.00	69.0	220	7.6								67.50	104.7
TOTALS					258.3		101.0		263.1		46.4		627.2		97.3		511.2	51.0		653.3	19.6	70.6		288.9

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 96.2%, ASPH. BINDER (PG70-22) = 3.8%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.6%, ASPH. BINDER (PG70-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 95.0%, ASPH. BINDER (PG70-22) = 5.0%
Nmax = 160

08-08-2005 RR60080.001

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	195	609

(2) QUANTITIES

STATE OF ARKANSAS 17794 REGISTERED PROFESSIONAL ENGINEER CHARLES D. CLEMENTS 8-22-05

BASE & SURFACING - MAINTENANCE OF TRAFFIC

STATION	STATION	LOCATION	LENGTH	TRENCHING & SHOULDER PREPARATION	ACHM BINDER COURSE (1") 990 LBS. PER SQ. YD.			ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD.			TACK COAT 0.03 GAL. PER SQ. YD.			AGGREGATE BASE COURSE (CL. 7)	
			LIN. FT.	STATION	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	TON	AVG. WIDTH FEET	SQ. YD.	GALLON	TONS PER STA.	TON
121+26.78	126+59.60	TEMPORARY C.L. S.B. HWY. 67/167	532.82		16.63	984.5	487.3	15.25	902.8	99.3	31.88	1887.3	56.6		
126+59.60	138+36.09	TEMPORARY C.L. S.B. HWY. 67/167	1176.49		33.25	4346.5	2151.5	30.50	3987.0	438.6	63.75	8333.5	250.0		
138+36.09	141+23.36	TEMPORARY C.L. S.B. HWY. 67/167	287.27		39.25	1252.8	620.1	36.50	1165.0	128.2	75.75	2417.8	72.5		
141+23.36	146+85.40	TEMPORARY C.L. S.B. HWY. 67/167	562.04		45.25	2825.8	1398.8	42.50	2654.1	292.0	87.75	5479.9	164.4		
146+85.40	148+75.82	TEMPORARY C.L. S.B. HWY. 67/167	190.42		31.44	665.2	329.3	29.38	621.6	68.4	60.82	1286.8	38.6		
148+85.88	151+37.76	LT. OF C.L. N.B. HWY. 67/167	251.88		17.63	493.4	244.2	16.25	454.8	50.0	33.88	948.2	28.4		
145+29.44	148+84.32	RT. OF C.L. N.B. HWY. 67/167	354.88		8.82	347.8	172.2	8.13	320.6	35.3	16.95	668.4	20.1		
148+84.32	152+25.14	RT. OF C.L. N.B. HWY. 67/167	340.82		17.63	667.6	330.5	16.25	615.4	67.7	33.88	1283.0	38.5		
152+50.34	159+56.24	RT. OF C.L. N.B. HWY. 67/167	705.90		17.63	1382.8	684.5	16.25	1274.5	140.2	33.88	2657.3	79.7		
22+13.45	42+46.50	RT. OF C.L. MEDIAN HWY. 67/167	2033.05		17.63	3982.5	1971.3	16.25	3670.8	403.8	33.88	7653.3	229.6		
42+46.50	49+46.50	RT. OF C.L. MEDIAN HWY. 67/167	700.00		39.63	3082.3	1525.7	38.25	2975.0	327.3	77.88	6057.3	181.7		
49+46.50	198+13.40	RT. OF C.L. MEDIAN HWY. 67/167	300.00		33.63	1121.0	554.9	32.25	1075.0	118.3	65.88	2196.0	65.9		
198+13.40	210+50.00	RT. OF C.L. MEDIAN HWY. 67/167	1236.60		27.63	3796.4	1879.2	26.25	3606.8	396.7	53.88	7403.2	222.1		
124+45.74	127+05.79	TEMPORARY C.L. MEMPHIS EXIT RAMP	260.05		22.25	642.9	318.2	19.50	563.4	62.0	41.75	1206.3	36.2		
150+32.32	152+99.34	TEMPORARY C.L. McCAIN S.B. ENTRANCE RAMP	267.02		22.25	660.1	326.7	19.50	578.5	63.6	41.75	1238.6	37.2		
153+29.62	155+77.68	TEMPORARY C.L. McCAIN S.B. ENTRANCE RAMP	248.06		11.13	306.8	151.9	9.75	268.7	29.6	20.88	575.5	17.3		
152+25.07	158+15.78	TEMPORARY C.L. McCAIN E.B. EXIT RAMP	590.71		25.63	1682.2	832.7	24.25	1591.6	175.1	49.88	3273.8	98.2		
39+99.16	42+48.34	TEMPORARY C.L. McCAIN N.B. ENTRANCE RAMP	249.18		11.13	308.2	152.6	9.75	269.9	29.7	20.88	578.1	17.3		
148+13.96	150+16.56	TEMPORARY C.L. McCAIN S.B. ENTRANCE RAMP	202.60		22.25	500.9	247.9	19.50	439.0	48.3	41.75	939.9	28.2		
153+35.00	159+56.24	LT. SHOULDER N.B. HWY. 67/167	621.24	6.21	4.00	276.1	136.7	4.00	276.1	30.4	8.00	552.2	16.6		
22+13.45	51+11.90	LT. SHOULDER N.B. HWY. 67/167	2898.45	28.98	4.00	1288.2	637.7	4.00	1288.2	141.7	8.00	2576.4	77.3		
196+78.80	200+50.00	LT. SHOULDER N.B. HWY. 67/167	371.20	3.71	4.00	165.0	81.7	4.00	165.0	18.2	8.00	330.0	9.9		
127+64.33	130+99.02	TEMPORARY C.L. N.B. HWY. 67/167	334.69		16.63	618.4	306.1	15.25	567.1	62.4	31.88	1185.5	35.6		
130+99.02	135+48.35	TEMPORARY C.L. N.B. HWY. 67/167	449.33		33.25	1660.0	821.7	30.50	1522.7	167.5	63.75	3182.7	95.5		
135+48.35	144+54.28	TEMPORARY C.L. N.B. HWY. 67/167	905.93		45.25	4554.8	2254.6	42.50	4278.0	470.6	87.75	8832.8	265.0		
144+54.28	147+46.91	TEMPORARY C.L. N.B. HWY. 67/168	291.63		39.25	1271.8	629.5	36.50	1182.5	130.1	75.75	2454.3	73.6		
131+55.08	133+84.49	TEMPORARY C.L. MEMPHIS ENTRANCE RAMP	229.41		11.13	283.7	140.4	9.75	248.5	27.3	20.88	532.2	16.0		
134+24.46	135+55.89	TEMPORARY C.L. MEMPHIS ENTRANCE RAMP	131.43		22.25	324.9	160.8	19.50	284.8	31.3	41.75	609.7	18.3		
151+25.59	152+77.51	TEMPORARY C.L. McCAIN E.B. EXIT RAMP	156.82		22.25	387.7	191.9	19.50	339.9	37.4	41.75	727.5	21.8		
30+60.57	32+88.41	TEMPORARY C.L. McCAIN W.B. EXIT RAMP	227.84		22.25	563.3	278.8	19.50	493.4	54.3	41.75	1057.0	31.7		
197+83.09	200+53.61	TEMPORARY C.L. McCAIN N.B. ENTRANCE RAMP	270.52		22.25	668.8	331.1	19.50	586.1	64.5	41.75	1254.9	37.6		
127+46.93	132+20.27	TEMPORARY C.L. MEMPHIS ENTRANCE RAMP	473.34		12.13	638.0	315.8	10.75	565.4	62.2	22.88	1203.4	36.1		
132+20.27	137+29.24	TEMPORARY C.L. MEMPHIS ENTRANCE RAMP	508.97		24.25	1371.4	678.8	21.50	1215.9	133.7	45.75	2587.3	77.6		
158+87.97	164+68.20	TEMPORARY C.L. McCAIN E.B. EXIT RAMP	580.23		16.08	1036.7	513.2	25.00	1611.8	177.3	41.08	2648.5	79.5	89.50	519.3
290+60.70	296+30.23	LT. OF C.L. MEDIAN HWY. 67/167	569.53		19.81	1253.6	620.5	19.13	1210.6	133.2	38.94	2464.2	73.9		
296+30.23	298+51.68	LT. OF C.L. MEDIAN HWY. 67/167	221.45		19.81	487.4	241.3	19.13	470.7	51.8	38.94	958.1	28.7		
297+61.32	301+30.06	LT. OF C.L. MEDIAN HWY. 67/167	368.74		19.81	811.6	401.7	19.13	783.8	86.2	38.94	1535.4	47.9		
301+30.06	314+04.14	LT. OF C.L. MEDIAN HWY. 67/167	1274.08		39.63	5610.2	2777.0	38.25	5414.8	595.6	77.88	11025.1	330.8		
315+51.97	318+37.78	LT. OF C.L. MEDIAN HWY. 67/167	285.81		33.63	1068.0	528.7	32.25	1024.2	112.7	65.88	2092.2	62.8		
318+37.78	325+62.56	LT. OF C.L. MEDIAN HWY. 67/167	724.78		27.63	2225.1	1101.4	26.25	2113.9	232.5	53.88	4339.0	130.2		
325+62.56	328+62.56	LT. OF C.L. MEDIAN HWY. 67/167	300.00		33.63	1121.0	554.9	32.25	1075.0	118.3	65.88	2196.0	65.9		
328+62.56	335+62.56	LT. OF C.L. MEDIAN HWY. 67/167	700.00		39.63	3082.3	1525.7	38.25	2975.0	327.3	77.88	6057.3	181.7		
335+62.56	358+24.35	LT. OF C.L. MEDIAN HWY. 67/167	2261.79		27.63	6943.7	3437.1	26.25	6596.9	725.7	53.88	13540.6	406.2		
358+24.35	361+24.35	LT. OF C.L. MEDIAN HWY. 67/167	300.00		33.63	1121.0	554.9	32.25	1075.0	118.3	65.88	2196.0	65.9		
361+24.35	368+24.35	LT. OF C.L. MEDIAN HWY. 67/167	700.00		39.63	3082.3	1525.7	38.25	2975.0	327.3	77.88	6057.3	181.7		
368+24.35	377+00.00	LT. OF C.L. MEDIAN HWY. 67/167	875.65		27.63	2688.2	1330.7	26.25	2554.0	280.9	53.88	5242.2	157.3		
377+00.00	380+05.00	LT. OF C.L. MEDIAN HWY. 67/167	305.00		33.63	1139.7	564.2	32.25	1092.9	120.2	65.88	2232.6	67.0		
380+05.00	382+98.27	LT. OF C.L. MEDIAN HWY. 67/167	293.27		39.63	895.1	443.1	38.25	863.9	95.0	77.88	1759.0	52.8		
382+98.27	384+49.22	LT. OF C.L. MEDIAN HWY. 67/167	240.95		19.81	530.4	262.5	19.13	512.2	56.3	38.94	1042.6	31.3		
383+27.37	387+17.96	LT. OF C.L. MEDIAN HWY. 67/167	390.59		19.81	859.7	425.6	19.13	830.2	91.3	38.94	1689.9	50.7		
387+17.96	399+00.00	LT. OF C.L. MEDIAN HWY. 67/167	1182.04		39.63	5204.9	2576.4	38.25	5023.7	552.6	77.88	10228.6	306.9		
399+00.00	402+05.00	LT. OF C.L. MEDIAN HWY. 67/167	305.00		33.63	1139.7	564.2	32.25	1092.9	120.2	65.88	2232.6	67.0		
402+05.00	409+00.00	LT. OF C.L. MEDIAN HWY. 67/167	695.00		27.63	2133.7	1056.2	26.25	2027.1	223.0	53.88	4160.8	124.8		
409+00.00	414+05.32	LT. OF C.L. MEDIAN HWY. 67/167	505.32		13.81	775.4	383.8	13.13	737.2	81.1	26.94	1512.6	45.4		
409+00.00	416+38.33	C.L. MEDIAN HWY. 67/167	738.93		33.25	2729.9	1351.3	30.50	2504.2	275.5	63.75	5234.1	157.0		
298+14.23	300+38.33	TEMPORARY C.L. WILDWOOD ENTRANCE RAMP	224.10		16.08	400.4	198.2	25.00	622.5	68.5	41.08	1025.9	30.7	89.50	200.6
347+67.67	352+23.42	TEMPORARY C.L. KIEHL AVE. N.B. EXIT RAMP	455.75		22.25	1126.7	557.7	19.50	987.5	108.6	41.75	2114.2	63.4		
381+53.89	383+86.67	TEMPORARY C.L. KIEHL AVE. N.B. ENTRANCE RAMP	232.78		22.25	575.5	284.9	19.50	504.4	55.4	41.75	1079.9	32.4		
312+02.39	314+35.18	RT. SHOULDER S.B. HWY. 67/167	232.79	2.33											
315+84.98	409+50.00	RT. SHOULDER S.B. HWY. 67/168	9365.02	93.65											
408+50.00	411+66.07	RT. OF C.L. MEDIAN HWY. 67/167	316.07		17.63	619.1	306.5	16.25	570.7	62.8	33.88	1189.8	35.7		
411+66.07	414+85.37	RT. OF C.L. MEDIAN HWY. 67/167	319.30		8.82	312.9	154.9	8.13	288.4	31.7	16.95	601.3	18.0		
408+50.00	416+51.48	C.L. MEDIAN HWY. 67/167	801.48		33.25	2961.0	1465.7	30.50	2716.1	298.8	63.75	5677.1	170.3		
298+73.53	301+47.39	TEMPORARY C.L. WILDWOOD ENTRANCE RAMP	273.86		22.25	677.0	335.1	19.50	593.4	65.3	41.75	1270.4	38.1		
359+55.10	364+58.90	TEMPORARY C.L. KIEHL AVE. EXIT RAMP	503.80		22.25	1245.5	616.5	19.50	1091.6	120.1	41.75	2337.1	70.1		
291+50.21	296+22.00	RT. OF C.L. MEDIAN HWY. 67/167	471.79		16.63	871.8	431.5	15.25	799.4	87.9	31.88	1671.2	50.1		
308+32.01	311+06.29	TEMPORARY C.L. BROOKSWOOD ENTRANCE RAMP	274.28		22.25	678.1	335.7	19.50	594.3	65.4	41.75	1272.4	38.2		
366+35.00	368+84.06	TEMPORARY C.L. KIEHL AVE. S.B. ENTRANCE RAMP	249.06		11.13	308.0	152.5	9.75	269.8	29.7	20.88	577.8	17.3		
300+69.56	303+92.22	TEMPORARY C.L. WILDWOOD EXIT RAMP	322.66		22.25	797.7	394.9	19.50	699.1	76.9	41.75	1496.8	44.9		
388+91.50	392+30.87	TEMPORARY C.L. KIEHL AVE. S.B. EXIT RAMP	339.37		22.25	839.0	415.3	19.50	735.3	80.9	41.75	1574.3	47.2		
331+32.33	332+47.93	RT. OF C.L. LANDERS	115.60		7.13	91.6	45.3	6.50	83.5	9.2	13.63	175.1	5.3		
332+47.93	345+36.01	RT. OF C.L. LANDERS	1288.08		14.25	2039.5	1009.6	13.00	1860.6	204.7	27.25	3900.1	117.0		
345+36.01	346+39.75	RT. OF C.L. LANDERS	103.74		7.13	82.2	40.7	6.50	74.9	8.2	13.63	157.1	4.7		
														VAR.	200.0
DRIVEWAYS		ENTIRE PROJECT													
TOTALS				134.88		102687.4	50830.2		97105.0	10682.2		199792.4	5993.9		919.9

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 96.2%, ASPH. BINDER (PG70-22) = 3.8%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.6%, ASPH. BINDER (PG70-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 95.0%, ASPH. BINDER (PG70-22) = 5.0%
Nmax = 160

SUMMARY OF BASE & SURFACING

	TRENCHING & SHOULDER PREPARATION	CEMENT STABILIZED CRUSHED STONE BASE COURSE (6" COMP'D. DEPTH)			PORTLAND CEMENT CONCRETE PAVEMENT (13" UNIFORM THICKNESS)	ACHM BASE COURSE(1 1/2")	ACHM BINDER COURSE (1")	ACHM SURFACE COURSE (1/2")	ACHM SURFACE COURSE (3/8")	TACK COAT	AGGREGATE BASE COURSE (CL. 7)
		PROCESSING	CEMENT	AGGREGATE			TON				
	STATION	SQ. YD.	TON		SQ. YD.					GALLON	TON
MAIN LANES		179153	3730	58438	170331			1176	*9854	6210	
MAIN LANE SHOULDERS		39999	840	13160	39999		*7772	*5931	*2200	3167	45986
BROOKSWOOD FLYOVER & BROOKSWOOD CONNECTOR						1485	555	840		431	
BROOKSWOOD FLYOVER & BROOKSWOOD CONNECTOR SHOULDERS						180	65	106		48	
LANDERS CONNECTOR & LANDERS TO LANDERS CONNECTOR						1156	805	1224		415	1965
LANDERS CONNECTOR & LANDERS TO LANDERS CONNECTOR SHOULDERS						101	46	97		71	289
FRONTAGE RDS. & BROOKSWOOD								8685		7657	1550
KIEHL AVE., INDIANHEAD DR., SE LOOP RAMP & NW LOOP RAMP						1828	1049	2328		1897	
RAMPS						6185	3243	2344		1368	4547
RAMP SHOULDERS								1142		156	14127
MAINTENANCE OF TRAFFIC	134.88						50830	10682		5994	920
TOTALS	134.88	219152	4570	71598	210330	10935	64365	34555	12054	27414	69384

BASIS OF ESTIMATE: ACHM BASE COURSE (1 1/2") - MIN. AGG. = 96.2%, ASPH. BINDER (PG70-22) = 3.8%
ACHM BINDER COURSE (1") - MIN. AGG. = 95.6%, ASPH. BINDER (PG70-22) = 4.4%
ACHM SURFACE COURSE (1/2") - MIN. AGG. = 95.0%, ASPH. BINDER (PG70-22) = 5.0%
Nmax = 160
*ACHM BINDER COURSE (1") - MIN. AGG. = 95.6%, ASPH. BINDER (PG64-22) = 4.4%
*ACHM SURFACE COURSE (1/2") - MIN. AGG. = 95.0%, ASPH. BINDER (PG64-22) = 5.0%
*ACHM SURFACE COURSE (3/8") - MIN. AGG. = 95.0%, ASPH. BINDER (PG64-22) = 5.0%
*Nmax = 115

08-08-2005 RR60080.001

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-4-05				6	ARK.			
				JOB NO.		R60080	196	609
				① 07051, 07052 & 07053 QUANT.				47711

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. R60080

BRIDGE NO.	CODE NO.	BRIDGE NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NO.	205	603	801	802	802	803	804	804	805	805	805	805	806	807	807	807
				ITEM	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO..)	TEMPORARY BRIDGE STRUCTURE (24' ROADWAY WIDTH)	UNCLASSIFIED EXCAVATION FOR STRUCTURES -BRIDGE	CLASS S CONCRETE -BRIDGE	CLASS S(AE) CONCRETE -BRIDGE	CLASS I PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL -BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	STEEL PILING (HP 12 x 53)	STEEL PILING (HP 14 x 73)	PILE ENCASEMENT	PREBORING	METAL BRIDGE RAILING (TYPE H)	STRUCTURAL STEEL IN BEAM SPANS (M270, GR. 50W)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270, GR. 50)	STRUCTURAL STEEL IN BEAM SPANS (M270, GR. 50)
				UNIT	LUMP SUM	LIN. FT.	CU. YD.	CU. YD.	CU. YD.	GAL.	LB.	LB.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LB.	LB.	LB.
07051	X071	WOODRUFF CREEK	BENT NO. 1					81.45		0.5	8010		560					2773		
			BENT NOS. 2 THRU 5					148.10			17570		2240		756					
			BENT NO. 6					81.45		0.5	8010		560					2773		
			175'-0" CONT. COMP. W-BEAM UNIT						557.90	49.3		145060						289224		
			EXISTING BRIDGE NO. 03057 (SITE NO. 1)		1															
			EXISTING BRIDGE NO. A3057 (SITE NO. 2)		1															
			TOTAL FOR BRIDGE NO. 07051			150		311.0	557.9	50.3	33590	145060	3360		756			294770		
07052	X771	BROOKWOOD FLYOVER	BENT NO. 1					24.48		0.1	3481		320			73			579	
			BENT NO. 2				167	129.37			20594		1050							
			BENT NO. 3				156	152.77			20950			990						
			BENT NO. 4					26.18		0.1	3685		560			92			579	
			490'-0" CONT. COMP. PLATE GIRDER UNIT						441.90	36.2		129160							947892	
			⚠ TOTAL FOR BRIDGE NO. 07052				323	332.8	441.9	36.4	48710	129160	1930	990		165			949050	
07053	X771	KIEHL AVENUE	BENT NO. 1					345.40		0.7	41539		2760							1510
			BENT NO. 2				16	112.34			16698		1960							
			BENT NO. 3				18	150.68			19081		1960							
			BENT NO. 4				17	110.47			16536		1960							
			BENT NO. 5					342.71		0.7	41236		2980							1510
			316'-0" CONT. COMP. W-BEAM UNIT						725.10	54.6		165270					768			671690
			EXISTING BRIDGE NO. 03058 (SITE NO. 3)		1															
			TOTAL FOR BRIDGE NO. 07053				51	1061.6	725.1	56.0	135090	165270	11620				768			674710
			TOTAL FOR JOB R60080		150	374	1705.4	1724.9	142.7	217390	439490	16910	990	756	165	768	294770	949050	674710	

⚠ Revised Bridge Name Plate Title for Bridge No. 07052 - KDH 10-4-05

ROSS WYLIE
DESIGN SECTION SUPERVISOR

STATE OF ARKANSAS
No. 4337
REGISTERED PROFESSIONAL ENGINEER
10/5/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 1 OF 2
SCHEDULE OF BRIDGE QUANTITIES
I-40 - McCAIN BLVD.
& WILDWOOD - KIEHL AVE. (F)
PULASKI COUNTY
ROUTE 67 SEC. 10
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MAH DATE: 5-14-05 FILENAME: br60080_ql.dgn
CHECKED BY: CAO DATE: 10-05-05 SCALE: no scale
DESIGNED BY: DATE:
BRIDGE NO. 07051, 07052 & 07053 DRAWING NO. 47711

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10-4-05				6	ARK.			
				JOB NO.		R60080	197	609
				(1) 07051, 07052 & 07053 QUANT.				47712

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. R60080

BRIDGE NO.	CODE NO.	BRIDGE NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NO.	807	SP & 808	812	816	816	816	SP JOB R60080	SP JOB R60080
				ITEM	PAINTING STRUCTURAL STEEL **	ELASTOMERIC BEARINGS	BRIDGE NAME PLATE (TYPE D)	FILTER BLANKET	DUMPED RIPRAP	CONCRETE RIPRAP	SILICONE JOINT SEALANT	TRANSITIONAL APPROACH RAILING
				UNIT	TON	CU. IN.	EA.	SQ. YD.	CU. YD.	CU. YD.	LIN. FT.	EACH
07051	X071	WOODRUFF CREEK	BENT NO. 1					512	256			
			BENT NOS. 2 THRU 5									
			BENT NO. 6					512	256			
			175'-0" CONT. COMP. W-BEAM UNIT				1				264	
			EXISTING BRIDGE NO. 03057 (SITE NO. 1)									
			EXISTING BRIDGE NO. A3057 (SITE NO. 2)									
			TOTAL FOR BRIDGE NO. 07051				1	1024	512		264	
07052	X171	BROOKWOOD FLYOVER	BENT NO. 1		0.3					6		
			BENT NO. 2									
			BENT NO. 3									
			BENT NO. 4		0.3					5		
			⚠1 490'-0" CONT. COMP. PLATE GIRDER UNIT		473.9	43917.0	1				51	
			TOTAL FOR BRIDGE NO. 07052		474.5	43917	1			11	51	
07053	X171	KIEHL AVENUE	BENT NO. 1		0.8					69		2
			BENT NO. 2									
			BENT NO. 3									
			BENT NO. 4									
			BENT NO. 5		0.8					133		2
			316'-0" CONT. COMP. W-BEAM UNIT		335.9	30888.0	1				153	
			EXISTING BRIDGE NO. 03058 (SITE NO. 3)									
			TOTAL FOR BRIDGE NO. 07053		337.5	30888	1			202	153	4
			TOTAL FOR JOB R60080		812.0	74805	3	1024	512	213	468	4

** The color of the paint shall conform to Federal Standard 595A Color Chip No. 37200, Aluminum.

⚠ Revised Bridge Name Plate Title for Bridge No. 07052 - KDH 10-4-05

ROSS WYLIE
DESIGN SECTION SUPERVISOR

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
10/5/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 2 OF 2
SCHEDULE OF BRIDGE QUANTITIES
I-40 - McCAIN BLVD.
& WILDWOOD - KIEHL AVE. (F)
PULASKI COUNTY
ROUTE 67 SEC. 10
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MAH DATE: 7-14-05 FILENAME: br60080_ql.dgn
CHECKED BY: CAS DATE: 10-05-05 SCALE: no scale
DESIGNED BY: _____ DATE: _____

BRIDGE NOS. 07051, 07052 & 07053 DRAWING NO. 47712

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
09-15-2005		12-06-2005	
09-19-2005			
10-04-2005			

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	198	609

(2) SUMMARY OF QUANTITIES & REVISIONS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
12-12-05
CHARLES D. CLEMENTS

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNITS
202	REMOVAL AND DISPOSAL OF APPROACH GUTTERS	8	EACH
202	REMOVAL AND DISPOSAL OF APPROACH SLAB AND GUTTERS	4	EACH
202	REMOVAL AND DISPOSAL OF BUILDINGS	8	EACH
202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS	124	SQ. YD.
202	REMOVAL AND DISPOSAL OF CONCRETE ISLANDS	642	SQ. YD.
202	REMOVAL AND DISPOSAL OF CONCRETE MEDIAN BARRIER	622	LIN. FT.
202	REMOVAL AND DISPOSAL OF CURB	1936	LIN. FT.
202	REMOVAL AND DISPOSAL OF CURB AND GUTTER	1551	LIN. FT.
202	REMOVAL AND DISPOSAL OF DROP INLETS	19	EACH
202	REMOVAL AND DISPOSAL OF FENCE	3122	LIN. FT.
202	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER	13	EACH
202	REMOVAL AND DISPOSAL OF JUNCTION BOXES	8	EACH
202	REMOVAL AND DISPOSAL OF PARAPET WALLS	150	LIN. FT.
202	REMOVAL AND DISPOSAL OF PIER PROTECTION	186	LIN. FT.
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS	36	EACH
202	REMOVAL AND DISPOSAL OF PRECAST CONCRETE BARRIER	1310	LIN. FT.
202	REMOVAL AND DISPOSAL OF SIGNS	6	EACH
202	REMOVAL AND DISPOSAL OF STEEL GRATE ASSEMBLIES	3	EACH
202	REMOVAL AND DISPOSAL OF WALKS	31	SQ. YD.
SP & 202	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT	107294	SQ. YD.
206	FLOWABLE SELECT MATERIAL	72	CU. YD.
210	UNCLASSIFIED EXCAVATION	186692	CU. YD.
210	COMPACTED EMBANKMENT	163223	CU. YD.
SP & 210	SOIL STABILIZATION	1000	TON
215	TRENCHING AND SHOULDER PREPARATION	135	STATION
302	SELECTED MATERIAL (CLASS SM-1)	3744	CU. YD.
303	AGGREGATE BASE COURSE (CLASS 7)	70784	TON
308	AGGREGATE IN CEMENT STABILIZED CRUSHED STONE BASE COURSE	71598	TON
308	CEMENT IN CEMENT STABILIZED CRUSHED STONE BASE COURSE	4570	TON
308	PROCESSING CEMENT STABILIZED CRUSHED STONE BASE COURSE	219152	SQ. YD.
401	TACK COAT	27414	GALLON
SS & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")	10519	TON
SS & 405	ASPHALT BINDER (PG70-22) IN ACHM BASE COURSE (1 1/2")	416	TON
SS & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")	61533	TON
SS & 406	ASPHALT BINDER (PG64-22) IN ACHM BINDER COURSE (1")	342	TON
SS & 406	ASPHALT BINDER (PG70-22) IN ACHM BINDER COURSE (1")	2490	TON
SS & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	33148	TON
SS & 407	ASPHALT BINDER (PG64-22) IN ACHM SURFACE COURSE (1/2")	316	TON
SS & 407	ASPHALT BINDER (PG70-22) IN ACHM SURFACE COURSE (1/2")	1431	TON
SS & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (3/8")	11451	TON
SS & 407	ASPHALT BINDER (PG64-22) IN ACHM SURFACE COURSE (3/8")	603	TON
412	COLD MILLING ASPHALT PAVEMENT	36500	SQ. YD.
414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC	200	TON
501	PORTLAND CEMENT CONCRETE PAVEMENT (13" UNIFORM THICKNESS)	210330	SQ. YD.
504	APPROACH SLABS	398.00	CU. YD.
504	APPROACH GUTTERS (TYPE C)	72.24	CU. YD.
504	APPROACH GUTTERS (TYPE PT)	80.28	CU. YD.
504	APPROACH GUTTERS (TYPE SPECIAL 1)	114.60	CU. YD.
505	PORTLAND CEMENT CONCRETE DRIVEWAY	56.01	SQ. YD.
506	PORTLAND CEMENT CONCRETE CORRUGATION	353	SQ. YD.
601	MOBILIZATION	1.00	LUMP SUM
602	FURNISHING FIELD OFFICE	1	EACH
SP & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
603	TRAFFIC CONTROL SUPERVISOR	1.00	LUMP SUM
603	18" TEMPORARY CULVERT	2868	LIN. FT.
603	18" x 11" TEMPORARY CULVERT	92	LIN. FT.
SS & 604	SIGNS	5510	SQ. FT.
SS & 604	VERTICAL PANELS	31	EACH
SS & 604	TRAFFIC DRUMS	1008	EACH
SS & 604	BARRICADES	584	LIN. FT.
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	52000	LIN. FT.
604	RELOCATING PRECAST CONCRETE BARRIER	73706	LIN. FT.
SP, SS & 604	CONSTRUCTION PAVEMENT MARKINGS	137995	LIN. FT.
SS & 604	CONSTRUCTION PAVEMENT MARKINGS (ARROWS)	2	EACH
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	81380	LIN. FT.
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	18933	LIN. FT.
SP & 604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	214499	LIN. FT.
604	ADVANCE WARNING ARROW PANEL	40	DAY
SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN	99	WEEK
605	CONCRETE DITCH PAVING (TYPE A)	516	SQ. YD.
605	CONCRETE DITCH PAVING (TYPE B)	1173	SQ. YD.
606	12" ZINC COATED (GALVANIZED) CORRUGATED STEEL PIPE CULVERTS (16 GAUGE)	70	LIN. FT.
606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	232	LIN. FT.
606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	3900	LIN. FT.
606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	666	LIN. FT.
606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	8	LIN. FT.
606	48" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	326	LIN. FT.
606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	3	EACH
606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	4	EACH
606	30" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	1	EACH
606	48" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	2	EACH
606	29" x 18" REINFORCED CONCRETE ARCH PIPE CULVERTS (CLASS III)	278	LIN. FT.
SS & 606	18" SIDE DRAIN	90	LIN. FT.
606	SELECTED PIPE BEDDING	500	CU. YD.
606	SELECTED PIPE BACKFILL	500	CU. YD.
609	DROP INLETS (TYPE N2)	2	EACH
609	DROP INLETS (TYPE N0)	4	EACH
609	DROP INLETS (TYPE RM)	8	EACH
609	DROP INLETS (TYPE ST)	45	EACH
609	DROP INLETS (TYPE TM)	4	EACH
609	DROP INLETS (TYPE SPECIAL)	18	EACH
609	DROP INLET EXTENSIONS (4')	2	EACH
609	DROP INLET EXTENSIONS (8')	23	EACH
609	JUNCTION BOXES (TYPE ST)	2	EACH
609	JUNCTION BOXES (TYPE E)	3	EACH
610	DROP INLETS ADJUSTED TO GRADE	2	EACH
611	4" PIPE UNDERDRAINS	7350	LIN. FT.
611	UNDERDRAIN OUTLET PROTECTORS	21	EACH
614	CONCRETE SPILLWAY (TYPE A)	2	EACH
615	PAVEMENT REPAIR OVER CULVERTS (ASPHALT)	44	TON
617	GUARDRAIL (TYPE A)	9550	LIN. FT.
617	TERMINAL ANCHOR POSTS (TYPE 1)	27	EACH
617	GUARDRAIL TERMINAL (TYPE 2)	38	EACH
617	TYPE II BEAM GUARDRAIL TERMINAL	19	EACH
• 619	5' STEEL CHAIN LINK FENCE - (ALTERNATE NO. 1)	1526	LIN. FT.
• 619	5' ALUMINUM CHAIN LINK FENCE - (ALTERNATE NO. 2)	1526	LIN. FT.
• 619	10' STEEL CHAIN LINK FENCE - (ALTERNATE NO. 1)	160	LIN. FT.
• 619	10' ALUMINUM CHAIN LINK FENCE - (ALTERNATE NO. 2)	160	LIN. FT.
620	LIME	89	TON
620	SEEDING	44.98	ACRE
620	MULCH COVER	112.46	ACRE
SS & 620	WATER	5977.0	M. GAL.
621	TEMPORARY SEEDING	67.48	ACRE
621	SILT FENCE	18340	LIN. FT.
621	SAND BAG DITCH CHECKS	294	BAG
621	DROP INLET SILT FENCE	2172	LIN. FT.
621	ROCK DITCH CHECKS	328	CU. YD.
621	SEDIMENT REMOVAL AND DISPOSAL	920	CU. YD.
623	SECOND SEEDING APPLICATION	44.98	ACRE
624	SOLID SODDING	906	SQ. YD.
631	CONCRETE BARRIER WALL (MEDIAN TYPE A)	16066	LIN. FT.
631	CONCRETE BARRIER WALL (MEDIAN TYPE B)	170	LIN. FT.
631	CONCRETE BARRIER WALL (MEDIAN TYPE C)	326	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE A)	2101	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE B)	540	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE C)	1168	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE D)	187	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE E)	2021	LIN. FT.
631	CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL)	2439	LIN. FT.
632	CONCRETE ISLAND	3672	SQ. YD.
633	CONCRETE WALKS	1463	SQ. YD.
633	HAND RAILING	363	LIN. FT.
634	INTEGRAL CURB (TYPE A)	702	LIN. FT.
634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A)(1'6")	6655	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
637	MAILBOX SUPPORTS (SINGLE)	2	EACH
637	MAILBOXES	2	EACH

SUMMARY OF QUANTITIES - CONTINUED

ITEM NUMBER	ITEM	QUANTITY	UNITS
640	MODIFYING DROP INLETS	9	EACH
641	WHEELCHAIR RAMPS (TYPE 1)	107	SQ. YD.
641	WHEELCHAIR RAMPS (TYPE 4)	46	SQ. YD.
SP & 701	ACTUATED CONTROLLER TS1 (8 PHASES)	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	11	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, LENS RETROFIT (3 SECTION, 1 WAY)	10	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, LENS RETROFIT (5 SECTION, 1 WAY)	3	EACH
SP & 707	PEDESTRIAN SIGNAL HEAD, LED	8	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1442	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	138	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12C/14 A.W.G.)	175	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	215	LIN. FT.
709	GALVANIZED STEEL CONDUIT (1.25")	15	LIN. FT.
710	NON-METALLIC CONDUIT (1.25")	10	LIN. FT.
710	NON-METALLIC CONDUIT (2")	506	LIN. FT.
710	NON-METALLIC CONDUIT (3")	232	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	8	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (10')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (20')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (22')	2	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (36')	1	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	4	EACH
SS & 718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (10')	1653	LIN. FT.
SS & 718	REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (10')	781	LIN. FT.
SS& 719	THERMOPLASTIC PAVEMENT MARKING WHITE (4")	41294	LIN. FT.
SS& 719	THERMOPLASTIC PAVEMENT MARKING WHITE (8")	16410	LIN. FT.
SS& 719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")	1169	LIN. FT.
SS& 719	THERMOPLASTIC PAVEMENT MARKING WHITE (24")	110	LIN. FT.
SS& 719	THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	35691	LIN. FT.
SS& 719	THERMOPLASTIC PAVEMENT MARKING YELLOW (8")	533	LIN. FT.
SS& 719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	22	EACH
SS& 719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	22	EACH
SP & 719	PROFILED THERMOPLASTIC PAVEMENT MARKING WHITE (4")	83457	LIN. FT.
SP & 719	PROFILED THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	35024	LIN. FT.
720	PERMANENT PAVEMENT MARKING TAPE (WHITE,4",TYPE 3)	1110	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE I)	3798	EACH
721	RAISED PAVEMENT MARKERS (TYPE II)	585	EACH
722	PLOWABLE PAVEMENT MARKER (I)	1182	EACH
722	PLOWABLE PAVEMENT MARKER (II)	89	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-01)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-02)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-03)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-04)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-05)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (BM-067-60-06)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-07)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-08)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-09)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-10)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-11)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-12)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-16)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-17)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-18)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-19)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-20)	1	EACH
725	GUIDE SIGN - ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)	2279	SQ. FT.
725	GUIDE SIGN - OVERHEAD MOUNTED (DEMOUNTABLE LEGEND)	5931	SQ. FT.
727	EXIT NUMBER PANEL (TYPE A)	355	SQ. FT.
727	EXIT NUMBER PANEL (TYPE B)	60	SQ. FT.
727	EXIT NUMBER PANEL (TYPE C)	55	SQ. FT.
730	BREAKAWAY SIGN SUPPORT (TYPE G-1)	12156	POUND
731	IMPACT ATTENUATION BARRIER (TYPE A)	1	EACH
732	CRASH CUSHION	2	EACH
733	VIDEO DETECTOR	16	EACH
733	VIDEO PROCESSOR (4 CHANNEL)	2	EACH
733	VIDEO PROCESSOR (6 CHANNEL)	1	EACH
733	VIDEO CABLE	2335	LIN. FT.
733	VIDEO MONITOR (B/W)	1	EACH
SP & 733	VIDEO DETECTOR RELOCATION	1	EACH
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES - ROADWAY	754	CU. YD.
802	CLASS S CONCRETE - ROADWAY	372.85	CU. YD.
804	REINFORCING STEEL - ROADWAY (GRADE 60)	90393	POUND
804	EPOXY COATED REINFORCING STEEL (GRADE 60)	1084	POUND
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	147	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., EGC)	450	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., EGC)	2305	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	189	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT, ALUMINUM (3C/0 A.W.G., W/G)	400	LIN. FT.
SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE	17843	LIN. FT.
SP	HIGH PERFORMANCE CONTRAST MARKING TAPE YELLOW	7883	LIN. FT.
SP	LUMINAIRE ASSEMBLY	1	EACH
SP	LUMINAIRE POLE RELOCATION	3	EACH
SP	REMOVAL AND DISPOSAL OF BRIDGE MOUNTED SIGN STRUCTURE	2	EACH
SP	REMOVAL AND DISPOSAL OF GUARDRAIL	4275	LIN. FT.
SP	REMOVAL AND DISPOSAL OF OVERHEAD SIGN STRUCTURE	6	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1.00	LUMP SUM
SP	RETAINING WALL	51224	SQ. FT.
SP	SCARIFYING CONCRETE PAVEMENT	1056	SQ. YD.
SP	TEXTURE WALL TREATMENT	215	SQ. FT.
SP	TEMPORARY IMPACT ATTENUATION BARRIER	7	EACH
SP	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)	7	EACH
SP	TEMPORARY RELOCATION OF EXISTING SIGNS	11	EACH
SP	VIDEO DETECTOR ROTATION	5	EACH
	STRUCTURES OVER 20'-0" SPAN		
	STRUCTURES OVER 20'-0" SPAN		
205	REMOVAL OF EXISTING BRIDGE STRUCTURES (SITE NO. 1)	1.00	LUMP SUM
205	REMOVAL OF EXISTING BRIDGE STRUCTURES (SITE NO. 2)	1.00	LUMP SUM
205	REMOVAL OF EXISTING BRIDGE STRUCTURES (SITE NO. 3)	1.00	LUMP SUM
603	TEMPORARY BRIDGE STRUCTURE (24' ROADWAY WIDTH)	150	LIN. FT.
636	BRIDGE CONSTRUCTION CONTROL	1.00	LUMP SUM
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	374	CU. YD.
802	CLASS S CONCRETE - BRIDGE	1705.40	CU. YD.
802	CLASS S(AE) CONCRETE - BRIDGE	1724.9	CU. YD.
803	CLASS 1 PROTECTIVE SURFACE TREATMENT	142.7	GALLON
804	REINFORCING STEEL - BRIDGE (GRADE 60)	217390	POUND
804	EPOXY COATED REINFORCING STEEL (GRADE 60)	439490	POUND
805	STEEL PILING (HP 12 x 53)	16910	LIN. FT.
805	STEEL PILING (HP 14 x 73)	990	LIN. FT.
805	PILE ENCASEMENT	756	LIN. FT.
805	PREBORING	165	LIN. FT.
806	METAL BRIDGE RAILING (TYPE H)	768	LIN. FT.
807	STRUCTURAL STEEL IN BEAM SPANS (M270-GR50W)	294770	POUND
807	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GR50)	949050	POUND
807	STRUCTURAL STEEL IN BEAM SPANS (M270-GR50)	674710	POUND
807	PAINTING STRUCTURAL STEEL	812	TON
SP & 808	ELASTOMERIC BEARINGS	74805	CU. IN.
812	BRIDGE NAME PLATE (TYPE D)	3	EACH
816	FILTER BLANKET	1024	SQ. YD.
816	DUMPED RIPRAP	512	CU. YD.
816	CONCRETE RIPRAP	213	CU. YD.
SP	SILICONE JOINT SEALANT	468	LIN. FT.
SP	TRANSITIONAL APPROACH RAILING	4	EACH

• DENOTES ALTERNATE BID ITEM.

REVISIONS

DATE	REVISION	SHEET NUMBER
09-15-2005	REVISED CONCRETE BARRIER WALL LIMITS ON McCAIN N.B. ENTRANCE RAMP	31, 187 & 198
09-19-2005	MINOR REVISIONS IN PAVEMENT MARKING QUANTITIES AND SPELLING CORRECTIONS	118, 150, 151, 152, 153, 173, 175, 179, 180, 181 & 196
10-04-2005	NAME PLATE REVISED TO BROOKWOOD	196, 197 & 198
12-06-2005	REMOVED ARKANSAS FORM INSERT FROM INTERMEDIATE BENTS	198, 341, 345, 362, 370, 371, 373 & 389

03-19-2005 RR60080.001

SUMMARY OF QUANTITIES & REVISIONS

COORDINATES

ARKANSAS STATE PLANE, BASED ON GPS CONTROL PROJECTED, TO GROUND.

Point	Northing	Easting	Elevation
2	165264.45599	1243784.18199	367.23700
3	165745.86354	1244271.85359	363.21400
5	167467.94596	1245661.94798	306.15400
7	169537.25002	1247271.33704	259.13300
9	171122.79402	1248476.04603	254.18300
11	173076.35003	1249934.04505	272.48300
13	175226.09303	1251550.64302	272.78500
21	177321.45996	1253103.95399	250.28200
22	178744.69804	1254218.18703	267.03000
23	179773.28896	1255563.83397	253.88700
50	178975.82035	1254573.70644	271.41220
51	179276.40872	1254877.18730	276.11550
52	179565.61984	1255293.81090	255.47370
53	179803.42298	1254868.74463	259.75180
54	180439.60324	1254938.99437	249.87750
55	181088.50740	1254905.99366	258.48320
56	181635.11059	1254980.86972	260.15950
57	180192.23817	1258186.71555	252.48570
58	181431.86039	1257689.50831	268.68650
59	181726.79298	1259583.18078	262.96780
60	182200.47834	1260562.65384	248.68070
61	182697.80936	1261590.34979	258.08780
62	183182.37979	1262582.54134	259.15620
63	183763.91640	1263526.49189	249.94800
64	165237.02897	1243750.14833	365.58670
65	164603.89698	1243266.28667	349.97100
66	163984.97434	1242945.01631	333.77640
67	163497.24304	1242722.19728	318.92020
68	162587.58304	1242372.54274	286.96500
69	162461.57990	1241962.17199	283.77310
70	162023.68483	1242094.66438	264.24170
71	161833.35042	1241254.04766	251.35990
72	161609.76122	1241254.23436	254.15460
73	161528.75151	1241901.00300	253.67940
74	161855.75034	1242504.01977	278.73520
75	162106.23798	1242731.43282	290.43590
76	162501.43653	1242942.57871	303.28300
77	162573.66089	1243048.48544	284.66280
78	162820.16769	1242915.18909	288.41460
79	162906.11960	1243071.95682	311.17800
80	163380.40284	1243202.03450	310.13600
81	163971.05939	1243364.84349	326.22660
82	164532.61009	1243545.35719	352.47710
83	162246.46677	1244145.70456	262.81950
84	162684.12904	1243451.75067	281.72710
100	180767.76502	1257920.08904	282.79500
101	181626.01804	1258929.45101	267.41400
109	162080.28001	1244047.57802	287.28000
110	163310.23800	1242987.55704	324.40200
111	162449.52097	1249271.04804	278.14900
601	164041.66671	1259839.99998	334.79600
602	164041.66671	1259839.99998	338.82500
603	164041.66671	1259839.99998	335.13400
604	164041.66671	1259839.99998	341.38700
605	164041.66671	1259839.99998	268.59500
606	164041.66671	1259839.99998	268.04700
607	164041.66671	1259839.99998	253.94600
608	164041.66671	1259839.99998	252.01100
609	164041.66671	1259839.99998	263.02800
610	164041.66671	1259839.99998	256.42000
611	164041.66671	1259839.99998	244.37600
612	164041.66671	1259839.99998	247.52600
613	164041.66671	1259839.99998	258.80500
614	164041.66671	1259839.99998	250.27500
615	164041.66671	1259839.99998	286.27600
616	164041.66671	1259839.99998	254.87800
617	164041.66671	1259839.99998	258.67700
618	164041.66671	1259839.99998	256.82700
619	182041.48139	1258114.64238	261.75100
620	180461.50258	1258674.48405	257.22700
651	183024.48651	1260368.63367	256.89250
652	181407.38615	1261083.30334	261.97800
653	184199.36147	1262377.51491	249.71470
654	182465.98289	1263382.40526	251.45050
655	181493.10918	1257172.75795	261.59680
656	179938.58866	1257339.70538	259.34780
658	180482.56275	1259583.06859	266.00680
701	164419.45104	1243190.73204	348.36500
704	166549.97499	1244943.40196	333.24700
706	168674.19699	1246605.11196	279.03200
708	170369.24298	1247915.44099	260.33100
710	172200.29201	1249277.20300	264.63900
712	174304.70999	1250850.45098	264.46800
714	175832.41396	1251989.81604	258.00500
715	176530.83498	1252511.21502	255.72100
716	178105.08302	1253678.43398	255.36000
717	179396.78698	1254672.81204	269.07400
718	180230.05899	1256480.04301	259.68100
719	180758.12300	1257570.43800	266.75500
720	181188.12498	1258481.02996	268.18200
751	182068.60853	1260657.71779	252.26550
752	182823.32692	1261436.76333	260.58370
753	182797.30045	1262167.22608	257.80920
754	183385.20201	1262970.51607	255.74290
755	180856.15354	1257260.31181	263.70620
756	181691.08538	1258866.56559	267.19190
901	164041.66671	1259839.99998	340.06500
902	164041.66671	1259839.99998	347.33500
903	164041.66671	1259839.99998	321.02600
904	164041.66671	1259839.99998	277.55200
905	164041.66671	1259839.99998	254.82200
906	164041.66671	1259839.99998	268.36600
907	164041.66671	1259839.99998	272.83700
908	164041.66671	1259839.99998	261.92200
909	164041.66671	1259839.99998	252.94900
910	177634.94002	1253427.52305	250.40000
911	178339.94797	1253978.74896	258.66400
912	178958.92701	1254578.03197	271.96100
913	179717.41896	1255524.20503	249.12700
914	180166.08300	1256579.31801	260.31100
915	180622.17805	1257576.30697	264.32000
916	181026.05196	1258356.12798	265.58300
950	180410.60958	1254936.99194	249.97520
951	181653.31417	1254972.31555	260.75930
952	181672.59241	1259638.68940	262.95540
953	182180.02194	1260569.97275	246.57790
954	182654.63026	1261707.59047	262.08050
955	183112.87523	1262651.16934	261.35140
956	162195.75796	1241903.39091	289.05280
957	161869.22631	1242513.97538	279.85760
958	162100.52771	1242727.42298	290.41310
959	162518.86924	1242944.27244	304.10850
960	166187.29557	1244695.17233	366.94480
961	166231.92431	1244533.23631	369.87150

Point	Northing	Easting	Elevation
1000	179767.51399	1255164.28800	258.64100
1001	179350.74699	1254606.98203	269.73000
1100	170987.39395	1248945.37296	253.38900
1101	171073.84705	1248884.14297	253.89400
1102	171190.32696	1248800.74995	253.50700
1103	171600.68701	1248873.43399	252.68300
1104	171798.73102	1249101.64201	255.63900
1105	172090.22005	1248767.15797	251.32500
1106	171978.53704	1248420.60401	254.14000
1107	171695.45398	1248835.67497	253.44100
1108	171684.66001	1248751.10800	252.38100
1109	171512.17700	1248399.45504	256.64000
1110	171606.79897	1249151.13996	254.86200
1111	171529.66401	1249170.29700	252.74600
1112	171463.20702	1249185.88099	251.04600
1113	171383.68295	1249206.11100	251.07900
1114	171328.41403	1249216.31099	249.90400
1115	171278.09901	1249225.66803	249.41900
1116	171225.08699	1249235.64503	249.31700
1117	171204.44801	1249236.91798	248.91700
1118	171151.50799	1249229.30898	249.27100
1119	171093.31598	1249222.31796	249.46800
1120	171017.84995	1249213.22302	246.21000
1150	162474.76508	1243670.84525	270.57040
1151	165882.28087	1244114.37869	366.01400
1152	166250.92366	1244320.48018	369.41270
1153	166131.80555	1244810.67589	360.84070
1154	165617.63989	1244340.72688	366.92550
1155	165197.48572	1243922.77143	366.79540
1156	165281.78510	1243710.93237	367.52820
1708	170369.24258	1247915.44049	260.35700
1709	171122.88612	1248476.05133	254.18300
1710	172200.29011	1249277.20160	264.63900

USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT.
TO CONVERT TO GRID USE CAF = 1.000039357.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME SR60080G1.CTL
HORIZONTAL DATUM: NAD 83
VERTICAL DATUM: NAVD 88

BASIS OF BEARINGS
GRID NORTH, BASED ON GPS CONTROL AT POINT NUMBER 101,
ARKANSAS STATE PLANE GRID COORDINATES NORTH ZONE,
NORTHING 181633.1663, EASTING 1258978.9987.
CONVERGENCE ANGLE 00°06'12.41" LEFT.
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

SURVEY CONTROL DETAILS

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		13	63

JOB NO. R60080

STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
12179

SURVEY CONTROL DETAILS

C.L. HWY. 67/167

NAME	STATION	NORTHING	EASTING
8000	12+57.21	165092.1497	1243742.8641
8001	196+78.80	168132.6860	1246112.2090
8002	223+10.20	170208.3000	1247729.6360
8003	273+08.13	174215.0040	1250717.2200
8004	323+08.65	178225.7008	1253707.7813
8005	350+54.85	179957.9919	1255804.8107
8006	418+99.85	182940.1602	1261966.0278

C.L. NORTHBOUND HWY. 67/167

NAME	STATION	NORTHING	EASTING
8007	99+20.30	161607.46420	1240973.03670
8008	103+87.91	161557.96550	1241438.01760
8009	121+87.20	162421.48300	1242874.76010
8010	122+09.70	162442.36370	1242883.15820
8011	128+22.86	163024.82310	1243073.28230
8012	134+63.67	163645.92440	1243230.96710
8013	142+37.70	164393.37870	1243432.06700
8014	150+00.00	165071.10680	1243769.86800
8015	165+64.11	166304.85430	1244731.26860

C.L. SOUTHBOUND HWY. 67/167

NAME	STATION	NORTHING	EASTING
8016	104+41.45	161760.5239	1240983.1513
8017	107+27.16	161801.9893	1241265.8361
8018	121+42.77	162613.1711	1242355.8184
8019	138+80.25	164187.4684	1243090.9459
8020	145+25.11	164736.2599	1243426.9697
8021	165+64.10	166344.5957	1244680.2691

C.L. KIEHL AVE.

NAME	STATION	NORTHING	EASTING
8032	10+00.00	180168.5924	1258104.3737
8033	10+44.72	180213.3020	1258105.1719
8034	12+17.19	180382.8753	1258078.7408
8035	13+68.12	180525.8061	1258030.2464
8036	16+06.55	180746.2266	1257939.7657
8037	20+43.91	181139.6794	1257748.7657
8038	22+69.29	181340.6786	1257646.8191
8039	25+60.72	181622.3428	1257585.2921
8040	28+31.23	181892.6437	1257595.9107

C.L. BROOKSWOOD CONNECTOR

NAME	STATION	NORTHING	EASTING
8041	353+73.60	180210.8611	1255106.0667
8042	354+48.23	180239.0017	1255036.9406
8043	355+55.08	180261.0042	1254932.9600
8044	355+80.37	180261.7742	1254907.6781

C.L. LANDERS TO LANDERS CONNECTOR

NAME	STATION	NORTHING	EASTING
8093	382+00.00	181247.8888	1258727.9847
8094	384+12.67	181340.5421	1258919.4082
8095	385+09.82	181337.2782	1259012.7250
8096	385+45.26	181319.6464	1259043.4689

C.L. LANDERS CONNECTOR

NAME	STATION	NORTHING	EASTING
8045	373+17.03	180147.4648	1258948.1436
8046	382+91.85	181121.5298	1258986.4930
8047	387+59.15	181493.7430	1259230.1858
8048	391+00.00	181642.2434	1259536.9907

C.L. NW LOOP RAMP

NAME	STATION	NORTHING	EASTING
8097	10+00.00	181177.6958	1258035.5337
8098	11+77.63	181337.5857	1257958.1434
8099	14+89.92	181497.8333	1257706.9215
8100	16+03.72	181502.2962	1257593.2168

C.L. POWHATTEN

NAME	STATION	NORTHING	EASTING
8101	10+00.00	181712.7084	1257588.8424
8102	16+79.43	181690.7320	1258267.9134

C.L. RIXIE RD.

NAME	STATION	NORTHING	EASTING
8103	0+00.00	180174.3576	1257781.4425
8104	3+49.05	180168.1271	1258130.4398
8105	6+06.15	180161.1326	1258387.4389
8106	13+91.98	180141.9827	1259173.0405

C.L. SE LOOP RAMP

NAME	STATION	NORTHING	EASTING
8107	10+00.00	180703.4280	1257597.3799
8108	12+19.58	180505.7464	1257692.9656
8109	14+36.70	180428.9968	1257876.2019
8110	16+13.69	180485.8604	1258043.7994

C.L. WILDWOOD

NAME	STATION	NORTHING	EASTING
8201	41+85.53	175135.6682	1250567.0732
8202	60+46.44	175065.6892	1252426.6624

C.L. McCAIN BLVD. EAST EXIT RAMP

NAME	STATION	NORTHING	EASTING
8283	28+43.00	166311.3477	1244758.2169
8414	32+20.51	166503.2575	1245073.7338
8415	34+24.84	166540.6580	1245274.6120

C.L. BROOKSWOOD ENTRANCE RAMP

NAME	STATION	NORTHING	EASTING
8135	325+52.00	178450.1507	1253817.4040
8136	326+46.12	178524.5793	1253874.9947
8137	329+92.18	178803.4094	1254079.9649
8138	333+41.58	179064.4811	1254311.4362

C.L. BROOKSWOOD EXIT RAMP

NAME	STATION	NORTHING	EASTING
8139	317+00.00	177714.1497	1253375.6176
8140	318+90.28	177860.7766	1253496.7626
8141	323+33.75	178188.1640	1253795.8997
8142	324+64.92	178287.9654	1253880.9894

C.L. KIEHL AVE. ENTRANCE RAMP NORTHBOUND

NAME	STATION	NORTHING	EASTING
8144	379+58.63	181127.4036	1258467.5832
8145	381+48.91	181218.6898	1258634.4440
8146	385+21.49	181413.5638	1258951.9969
8147	387+11.77	181504.8500	1259118.8576

C.L. KIEHL AVE. ENTRANCE RAMP SOUTHBOUND

NAME	STATION	NORTHING	EASTING
8148	356+34.87	180257.0438	1256304.4493
8149	357+68.20	180319.2737	1256422.3391
8150	364+51.94	180659.3654	1257015.4995
8151	365+85.28	180721.5954	1257133.3893

C.L. KIEHL AVE. EXIT RAMP NORTHBOUND

NAME	STATION	NORTHING	EASTING
8152	344+75.00	179635.5558	1255323.5465
8153	348+08.33	179784.7577	1255621.1505
8154	350+32.92	179867.5309	1255829.9283
8155	351+72.97	179923.8712	1255958.1090

C.L. KIEHL AVE. EXIT RAMP SOUTHBOUND

NAME	STATION	NORTHING	EASTING
8158	380+78.70	181365.2005	1258486.0346
8159	381+07.76	181377.8597	1258512.1972
8160	382+98.04	181452.0965	1258687.3102
8161	387+00.78	181590.6325	1259065.4747
8162	388+91.06	181664.8693	1259240.5877

C.L. McCAIN BLVD. ENTRANCE RAMP NORTHBOUND

NAME	STATION	NORTHING	EASTING
8182	40+94.81	167269.4991	1245567.9427
8183	42+66.87	167413.2871	1245662.1389
8184	42+83.30	167427.6728	1245670.0892
8185	44+63.30	167577.7433	1245769.1462
8186	49+43.82	167956.7706	1246064.5041
8187	51+27.15	168106.5643	1246170.0842
8188	51+41.92	168119.0236	1246177.9995
8189	53+25.25	168268.8172	1246283.5796

C.L. McCAIN BLVD. ENTRANCE RAMP SOUTHBOUND

NAME	STATION	NORTHING	EASTING
8190	149+86.28	165112.9867	1243693.8113
8191	151+82.75	165273.8960	1243806.3996
8192	153+05.30	165377.7853	1243871.4009

C.L. McCAIN BLVD. ENTRANCE RAMP SOUTHBOUND

NAME	STATION	NORTHING	EASTING
8173	39+19.49	167223.7793	1245338.6513
8174	41+09.77	167379.4413	1245447.9446
8175	41+10.36	167379.9385	1245448.2579
8176	43+00.63	167535.6005	1245557.5512
8177	47+50.00	167890.0532	1245833.7592
8178	49+50.00	168057.7118	1245942.3370
8179	49+62.56	168068.8139	1245948.2221
8180	51+62.56	168236.4728	1246056.8000
8181	54+39.47	168454.8912	1246227.0031

C.L. McCAIN BLVD. EXIT RAMP NORTHBOUND

NAME	STATION	NORTHING	EASTING
8193	150+05.86	165065.1133	1243787.0859
8194	151+84.44	165200.6395	1243903.2716
8195	155+47.03	165464.5904	1244151.8749
8196	157+37.90	165605.3910	1244280.7365
8197	160+15.75	165799.7321	1244479.1277
8198	163+96.91	166051.2131	1244765.5510
8199	166+65.19	166109.6591	1245016.4369
8200	166+86.81	166104.0429	1245037.3152

C.L. WILDWOOD ENTRANCE RAMP

NAME	STATION	NORTHING	EASTING
8163	296+71.16	176007.1588	1252480.9249
8164	298+02.91	176116.9255	1252408.0650
8165	298+78.98	176189.7551	1252398.9154
8166	300+90.53	176389.4760	1252468.6760
8167	304+39.65	176696.5931	1252631.8485

C.L. WILDWOOD EXIT RAMP

NAME	STATION	NORTHING	EASTING
8169	294+40.07	175987.4730	1251915.5040
8170	296+49.94	176148.1252	1252050.3840
8171	299+62.95	176376.4306	1252264.5084
8172	301+78.09	176541.3028	1252402.5441

SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED
PROFESSIONAL
ENGINEER
12-21-05
CHARLES CLEMENTS

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

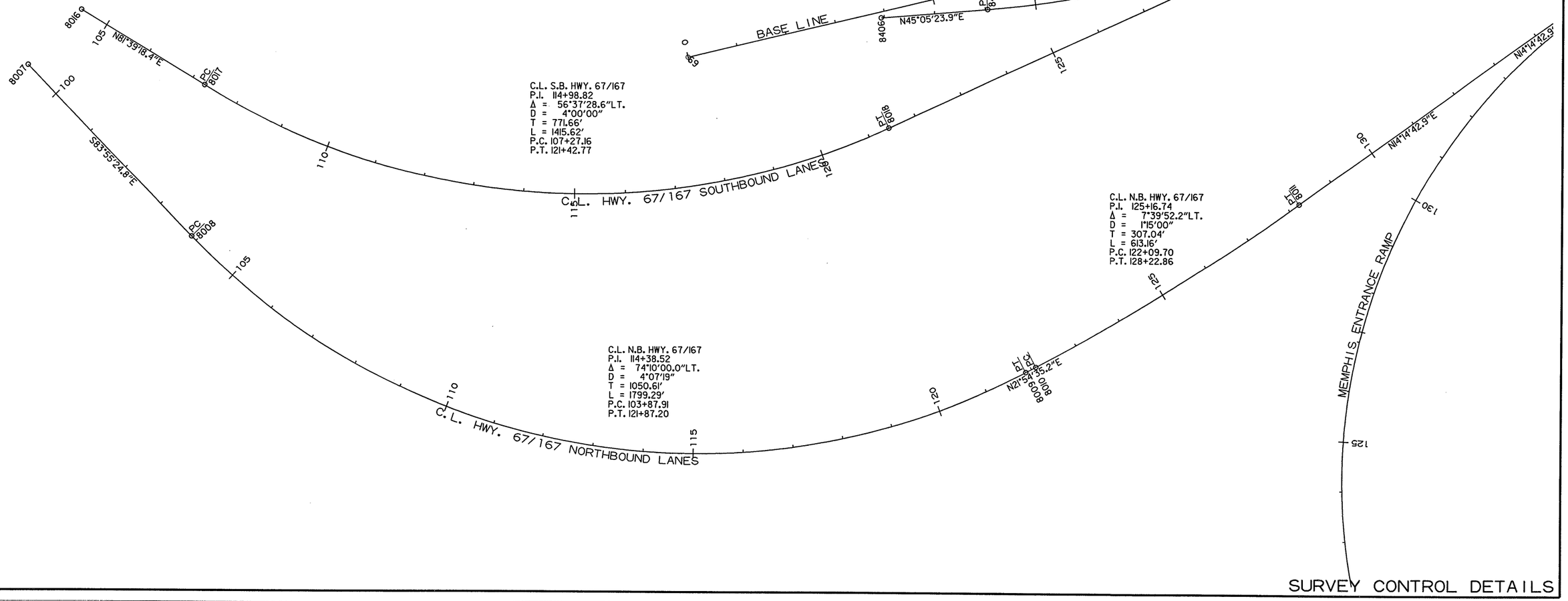
JOB NO. RR60080

(2) SURVEY 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.		R60080	201	609

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
12-12-05



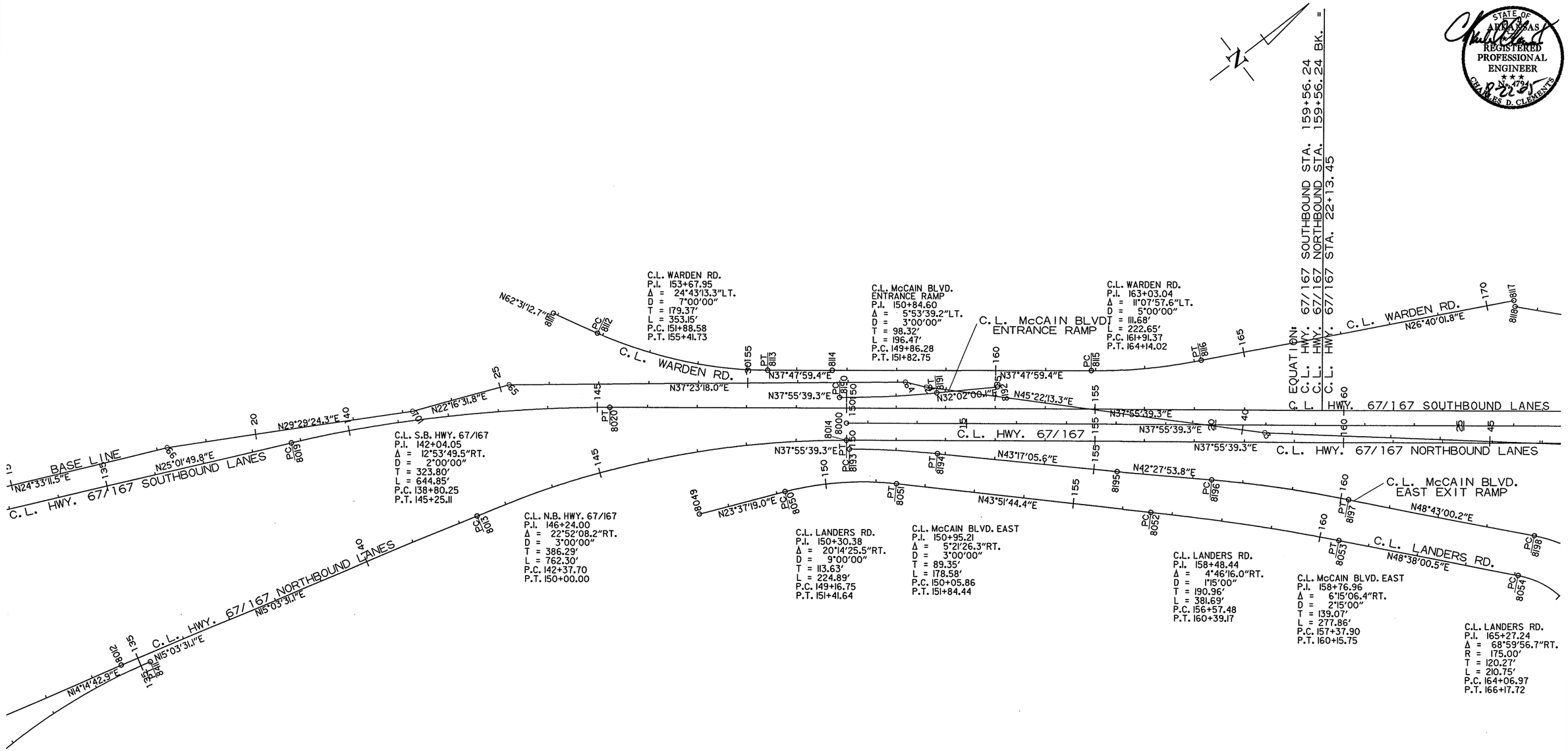
07-12-2005 RR60080.SURI

SURVEY 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.		R60080	202	609

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 17891
9-22-05
CHARLES D. CLEMENTS



07-12-2005 RR60080.SURI

SURVEY 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.		R60080	203	609

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS 4794 REGISTERED PROFESSIONAL ENGINEER CHARLES D. CLEMENTS 8-22-05

C.L. WARDEN RD.
N47°23'49.8"E
P.C. 8119
C.L. WARDEN RD.
P.I. 178+56.03
Δ = 9°27'31.2"LT.
D = 2°30'00"
T = 189.60'
L = 378.35'
P.C. 176+66.42
P.T. 180+44.77
P.T. 8120
C.L. McCAIN BLVD. ENTRANCE RAMP S.B.
P.I. 40+14.71
Δ = 5°42'30.0"LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 39+19.49
P.T. 40+09.77
C.L. McCAIN BLVD. ENTRANCE RAMP S.B.
P.I. 42+05.57
Δ = 5°42'30.0"RT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 41+10.36
P.T. 43+00.63
C.L. McCAIN BLVD. ENTRANCE RAMP S.B.
P.I. 48+50.25
Δ = 10°00'00.0"LT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 47+50.00
P.T. 49+50.00
C.L. McCAIN BLVD. ENTRANCE RAMP S.B.
P.I. 50+62.82
Δ = 10°00'00.0"RT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 49+62.56
P.T. 51+62.56
N37°56'18.6"E
N37°55'39.3"E
N32°13'09.3"E
N27°55'39.3"E
C.L. McCAIN BLVD. ENTRANCE RAMP S.B.
EQUATION C.L. HWY. 67/167
STA. 51+11.90 BK. =
STA. 196+78.80 AHD.
C.L. WARDEN RD.
C.L. HWY. 67/167
N39°52'00.2"E
BASE LINE
N38°03'08.0"E
N37°31'49.5"E
N28°55'39.3"E
N37°55'39.3"E
N32°25'39.3"E
N38°01'18.3"E
C.L. McCAIN BLVD. ENTRANCE RAMP N.B.
C.L. McCAIN BLVD. WEST EXIT RAMP
C.L. LANDERS RD.
N37°50'56.4"E
N38°11'30.4"E
N37°55'46.1"E
N37°50'44.5"E
C.L. McCAIN BLVD. EAST
P.I. 165+43.02
Δ = 56°20'21.3"RT.
D = 21°00'00"
T = 146.11'
L = 268.28'
P.C. 163+96.91
P.T. 166+65.19
C.L. McCAIN BLVD. WEST
P.I. 30+40.47
Δ = 41°31'32.1"RT.
D = 11°00'00"
T = 197.47'
L = 377.51'
P.C. 28+43.00
P.T. 32+20.51
N79°27'11.4"E
N10°25'05.0"E
S14°56'38.5"E
S82°22'02.8"E
N3°58'19.2"E
C.L. LANDERS RD.
P.I. 178+25.39
Δ = 48°41'48.3"RT.
D = 18°15'00"
T = 142.07'
L = 266.83'
P.C. 176+83.32
P.T. 179+50.15
C.L. McCAIN BLVD. ENTRANCE RAMP N.B.
P.I. 41+81.00
Δ = 8°36'10.2"LT.
D = 5°00'00"
T = 86.19'
L = 172.06'
P.C. 40+94.81
P.T. 42+66.87
C.L. McCAIN BLVD. ENTRANCE RAMP N.B.
P.I. 43+73.49
Δ = 9°00'00.0"RT.
D = 5°00'00"
T = 90.19'
L = 180.00'
P.C. 42+83.30
P.T. 44+63.30
C.L. McCAIN BLVD. ENTRANCE RAMP N.B.
P.I. 50+35.56
Δ = 5°30'00.0"LT.
D = 3°00'00"
T = 91.74'
L = 183.33'
P.C. 49+43.82
P.T. 51+27.15
C.L. McCAIN BLVD. ENTRANCE RAMP N.B.
P.I. 52+33.65
Δ = 5°30'00.0"RT.
D = 3°00'00"
T = 91.74'
L = 183.33'
P.C. 51+41.92
P.T. 53+25.25
C.L. LANDERS RD.
P.I. 172+54.76
Δ = 14°49'11.1"LT.
D = 8°00'00"
T = 93.14'
L = 185.25'
P.C. 171+61.62
P.T. 173+46.87
C.L. LANDERS RD.
P.I. 169+54.16
Δ = 113°39'38.1"LT.
R = 95.00'
T = 145.34'
L = 188.46'
P.C. 168+08.81
P.T. 169+97.27

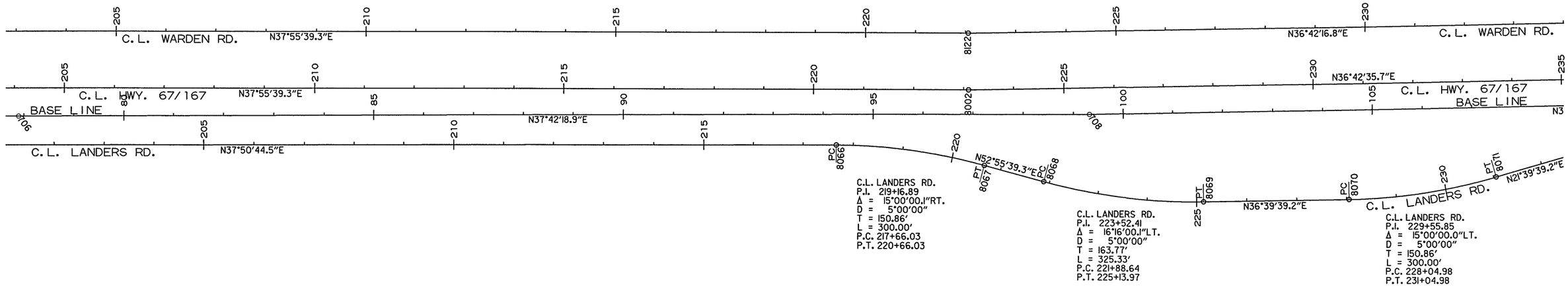
07-12-2005 RR60080.SURI

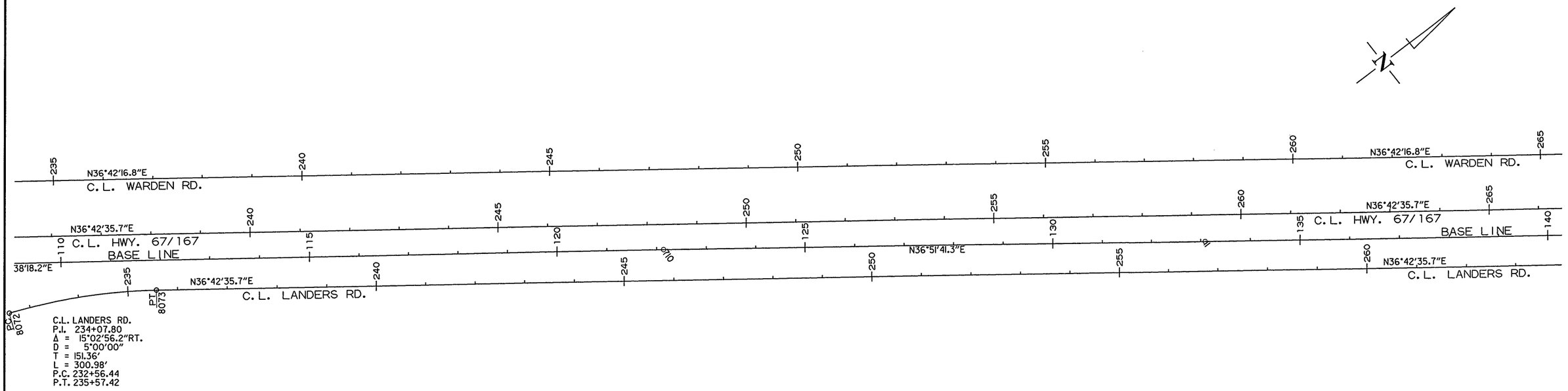
SURVEY CONTROL DETAILS

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.		R60080	204	609

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 1794
CHARLES D. CLEMENTS
8-22-05





07-12-2005 RR60080.SURI

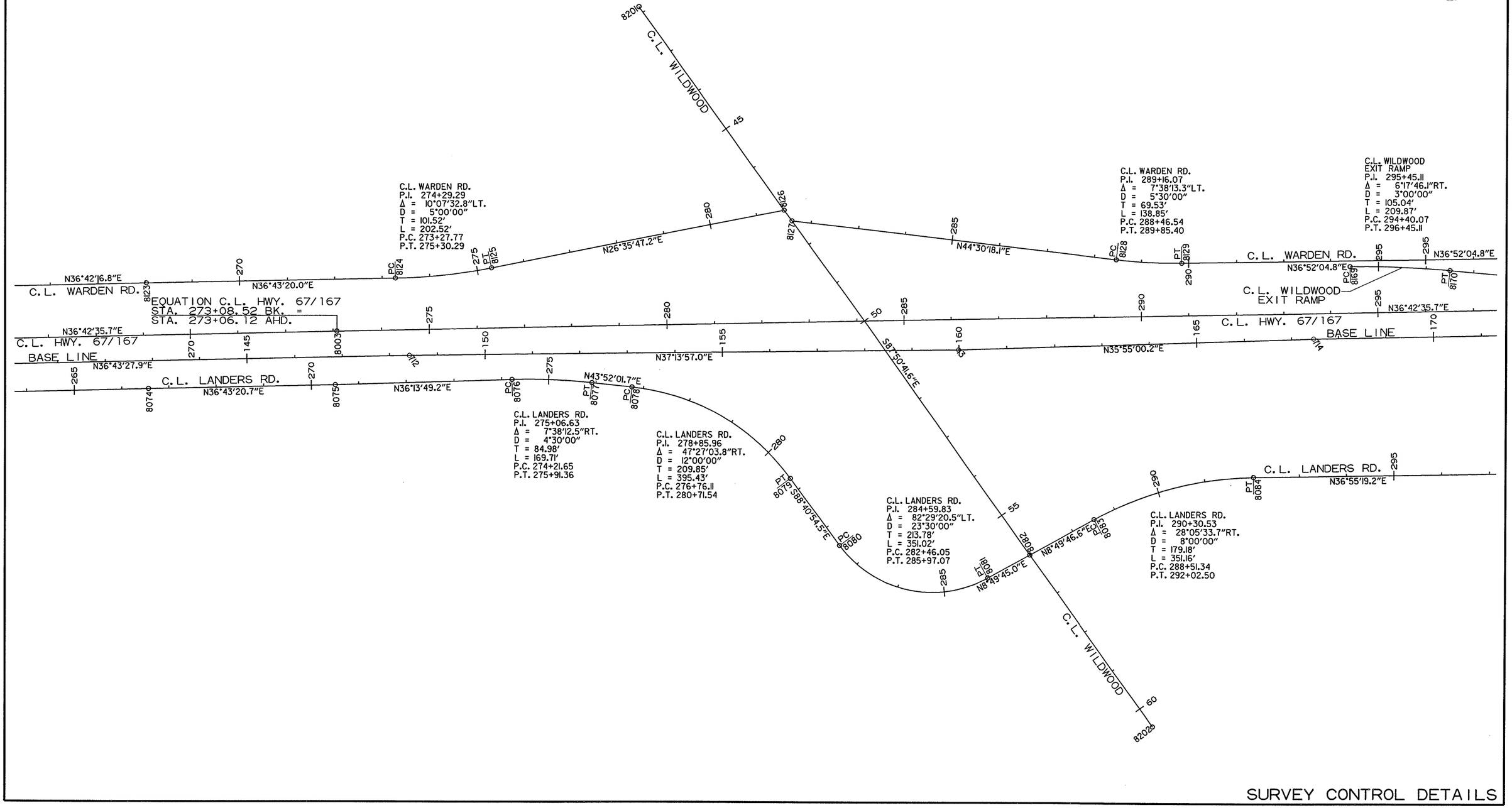
SURVEY CONTROL DETAILS

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.		R60080	205	209

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4791
CHARLES D. CLEMENTS
8-22-05



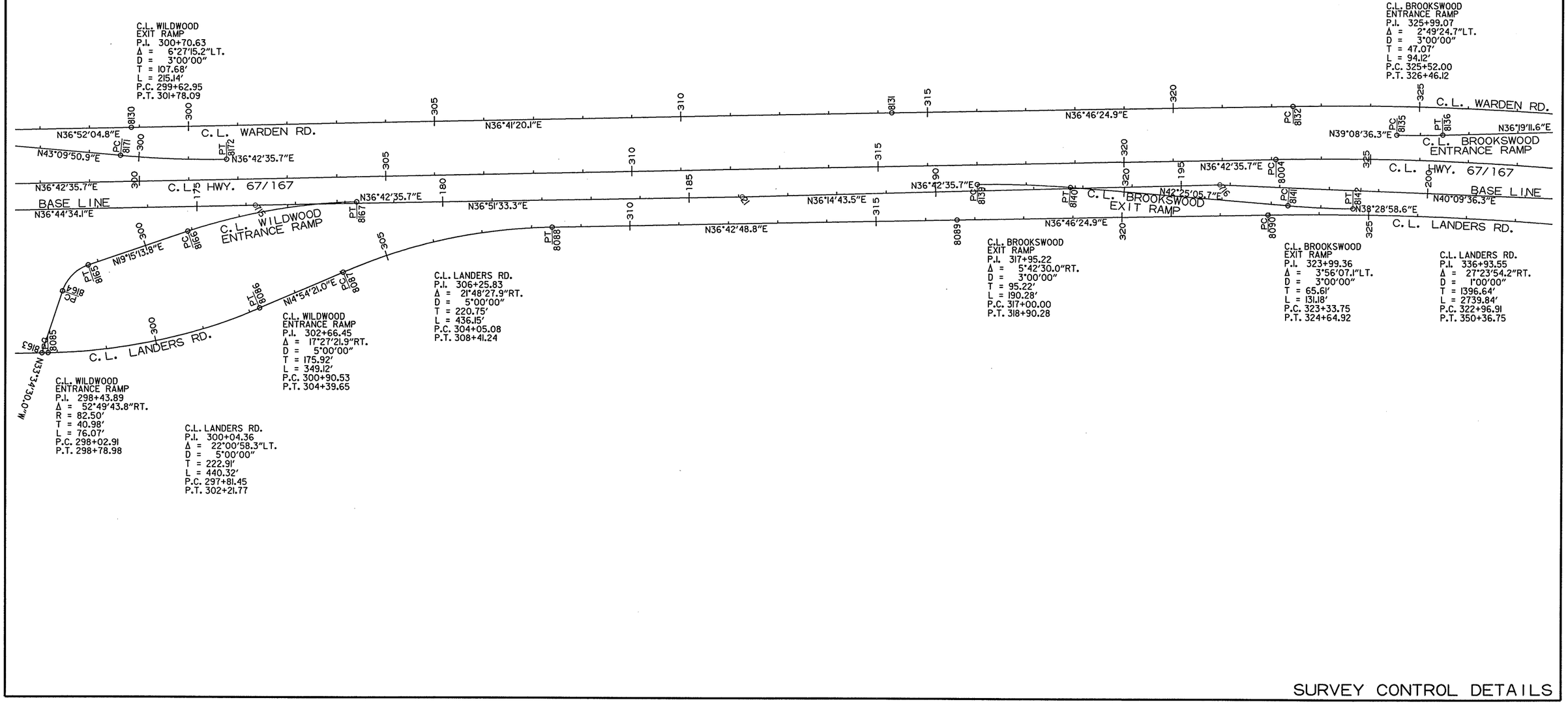
07-12-2005 RR60080.SURI

SURVEY 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.		R60080	206	609

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4791
CHARLES D. CLEMENTS



07-12-2005 RR60080.SURI

SURVEY 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.		R60080	207	609

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4794 CHARLES D. CLEMENTS 9-22-05

C.L. BROOKSWOOD ENTRANCE RAMP
P.I. 331+67.37
Δ = 10°28'54.8"RT.
D = 3°00'00"
T = 175.19'
L = 349.40'
P.C. 329+92.18
P.T. 333+41.58

C.L. WARDEN RD.
P.I. 336+39.68
Δ = 27°23'54.2"RT.
D = 1°00'00"
T = 1396.64'
L = 2739.84'
P.C. 322+43.04
P.T. 349+82.88

C.L. HWY. 67/167
P.I. 337+08.66
Δ = 27°27'43.4"RT.
D = 1°00'00"
T = 1400.01'
L = 2746.21'
P.C. 323+08.65
P.T. 350+54.85

C.L. BROOKSWOOD CONNECTOR
P.I. 355+02.23
Δ = 20°24'22.4"LT.
R = 300.00'
T = 54.00'
L = 106.85'
P.C. 354+48.23
P.T. 355+02.23

C.L. BROOKSWOOD FLYOVER
P.I. 355+90.85
Δ = 62°28'07.5"RT.
D = 24°00'00"
T = 144.78'
L = 499.11'
P.C. 354+46.07
P.T. 357+06.36

C.L. BROOKSWOOD FLYOVER
P.I. 333+29.80
Δ = 4°45'28.6"LT.
D = 4°00'00"
T = 59.51'
L = 118.95'
P.C. 332+70.29
P.R.C. 333+89.24

C.L. BROOKSWOOD FLYOVER
P.I. 334+88.31
Δ = 7°54'47.6"RT.
D = 4°00'00"
T = 99.07'
L = 197.83'
P.R.C. 332+89.24
P.C.C. 335+87.07

C.L. BROOKSWOOD FLYOVER
P.I. 340+59.77
Δ = 9°24'00.8"RT.
D = 0°59'48"
T = 472.71'
L = 943.29'
P.R.C. 345+30.36
P.C.C. 335+87.07

C.L. LANDERS RD.
P.I. 336+93.55
Δ = 27°23'54.2"RT.
D = 1°00'00"
T = 1396.64'
L = 2739.84'
P.C. 322+96.91
P.T. 350+36.75

C.L. KIEHL AVE. EXIT RAMP N.B.
P.I. 346+42.09
Δ = 10°00'00.0"RT.
D = 3°00'00"
T = 167.09'
L = 333.33'
P.C. 344+75.00
P.T. 348+08.33

C.L. BROOKSWOOD FLYOVER
P.I. 349+42.09
Δ = 119°47'13.3"LT.
D = 24°00'00"
T = 411.73'
L = 499.11'
P.R.C. 345+30.36
P.T. 350+29.47

C.L. KIEHL AVE. EXIT RAMP N.B.
P.I. 351+02.98
Δ = 4°12'05.1"LT.
D = 3°00'00"
T = 70.06'
L = 140.05'
P.C. 350+32.92
P.T. 351+72.97

C.L. KIEHL AVE. ENTRANCE RAMP S.B.
P.I. 357+01.56
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 356+34.87
P.T. 357+68.20

C.L. BROOKSWOOD ENTRANCE RAMP
C.L. WARDEN RD.
C.L. HWY. 67/167
BASE LINE
C.L. LANDERS RD.
C.L. BROOKSWOOD
C.L. BROOKSWOOD FLYOVER
C.L. KIEHL AVE. EXIT RAMP N.B.
C.L. KIEHL AVE. ENTRANCE RAMP S.B.

07-12-2005 RR60080.SURI

SURVEY 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.		R60080	208	603

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
9794
CHARLES D. CLEMENTS
8-22-05

N

C.L. KIEHL AVE.
EXIT RAMP S.B.
P.I. 387+96.00
Δ = 5°42'30.0"LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 387+00.78
P.T. 388+91.06

C.L. KIEHL AVE.
EXIT RAMP S.B.
P.I. 382+02.98
Δ = 5°42'30.0"RT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 381+07.76
P.T. 382+98.04

C.L. KIEHL AVE.
ENTRANCE RAMP N.B.
P.I. 386+16.71
Δ = 5°42'30.0"RT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 385+21.49
P.T. 387+11.77

C.L. KIEHL AVE.
ENTRANCE RAMP N.B.
P.I. 380+53.85
Δ = 5°42'30.0"LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 379+58.63
P.T. 381+48.91

C.L. LANDERS TO LANDERS CONNECTOR
P.I. 384+65.46
Δ = 55°39'45.2"RT.
R = 100.00'
T = 52.79'
L = 97.15'
P.C. 384+12.67
P.T. 385+09.82

C.L. LANDERS CONNECTOR
P.I. 385+51.25
Δ = 61°55'02.5"RT.
D = 13°15'00"
T = 259.40'
L = 467.30'
P.C. 382+91.85
P.T. 387+59.15

C.L. KIEHL AVE.
ENTRANCE RAMP S.B.
P.I. 365+18.64
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 364+51.94
P.T. 365+85.28

C.L. KIEHL AVE.
P.I. 24+18.23
Δ = 29°08'37.5"RT.
D = 10°00'00"
T = 148.94'
L = 291.44'
P.C. 22+69.29
P.T. 25+60.72

C.L. NW LOOP RAMP
P.I. 13+50.17
Δ = 60°35'49.0"LT.
D = 19°24'15"
T = 172.53'
L = 312.29'
P.C. 11+77.63
P.T. 14+89.92

C.L. KIEHL AVE.
P.I. 14+87.49
Δ = 7°09'09.7"LT.
D = 3°00'00"
T = 119.37'
L = 238.42'
P.C. 13+68.12
P.T. 16+06.55

C.L. SE LOOP RAMP
P.I. 13+52.14
Δ = 82°56'09.8"LT.
R = 150.00'
T = 132.56'
L = 217.13'
P.C. 12+19.58
P.T. 14+36.70

C.L. KIEHL AVE.
P.I. 11+31.82
Δ = 19°45'50.9"LT.
R = 500.00'
T = 87.10'
L = 172.47'
P.C. 10+44.72
P.T. 12+17.19

C.L. POWHATTEN S88°08'47.1"E

C.L. WARDEN RD.

C.L. KIEHL AVE. ENTRANCE RAMP S.B.

C.L. KIEHL AVE. EXIT RAMP S.B.

C.L. KIEHL AVE. ENTRANCE RAMP N.B.

C.L. HWY. 67/167 BASE LINE

C.L. LANDERS RD.

C.L. LANDERS CONNECTOR

C.L. RIXIE RD. S88°36'13.1"E

07-12-2005 RR60080.SURI

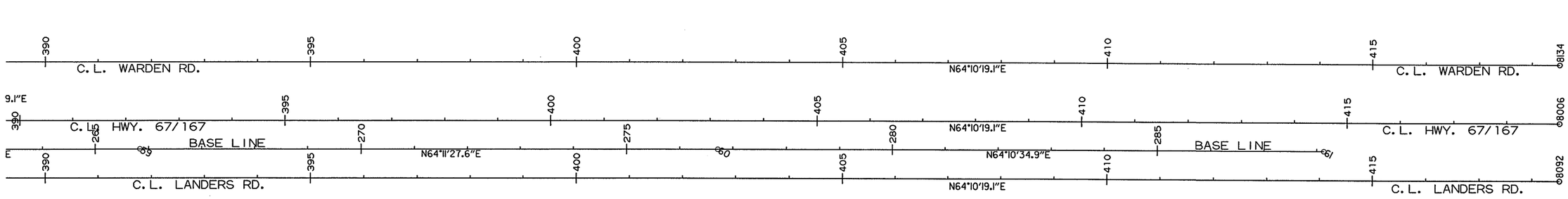
SURVEY CONTROL DETAILS

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.		R60080	209	603

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9734
CHARLES D. CLEMENTS

N



07-12-2005 RR60080.SURI

SURVEY 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.		R60080	210	602

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 9325
CHARLES D. CLEMENTS
7-22-05

C.L. TEMPORARY McCAIN ENTRANCE RAMP NORTHBOUND STAGE 2A

POINT	STATION	NORTHING	EASTING
8233	39+99.16	167192.3146	1245508.6518
8234	41+05.96	167279.9157	1245569.6733
8235	42+59.12	167409.5305	1245651.2662
8236	43+73.28	167502.9606	1245716.7953

C.L. TEMPORARY McCAIN ENTRANCE RAMP NORTHBOUND STAGE 4A

POINT	STATION	NORTHING	EASTING
8240	197+83.09	168159.4239	1246273.4006
8241	199+83.09	168335.3692	1246366.3454
8242	201+09.90	168456.0818	1246405.2082
8243	203+10.72	168632.6734	1246498.6559

C.L. TEMPORARY McCAIN ENTRANCE RAMP NORTHBOUND STAGE 2B

POINT	STATION	NORTHING	EASTING
8425	194+83.68	167942.8019	1246053.6190
8426	196+51.96	168091.8496	1246129.5269
8427	198+70.73	168285.6115	1246228.2071

C.L. TEMPORARY McCAIN ENTRANCE RAMP SOUTHBOUND STAGE 2A

POINT	STATION	NORTHING	EASTING
8244	150+32.32	165106.7471	1243776.7021
8245	153+30.40	165369.7681	1243913.4245
8246	153+90.18	165426.9311	1243930.9374
8247	155+77.68	165597.0168	1244008.5696

C.L. TEMPORARY MCCAIN ENTRANCE RAMP SOUTHBOUND STAGE 2B

POINT	STATION	NORTHING	EASTING
8248	148+13.96	164932.7091	1243641.2228
8249	150+13.96	165108.5680	1243734.3308
8250	150+51.84	165144.6174	1243745.9737
8251	151+93.59	165272.7685	1243805.6936
8192	153+16.14	165377.7853	1243871.4009

C.L. TEMPORARY McCAIN EXIT RAMP EASTBOUND STAGE 2A

POINT	STATION	NORTHING	EASTING
8219	149+98.16	165050.9282	1243792.8119
8220	150+52.02	165091.8128	1243827.8441
8221	154+62.16	165390.3775	1244109.0487
8222	156+28.83	165516.5320	1244217.8843
8223	158+15.78	165663.2733	1244333.7108

C.L. TEMPORARY McCAIN EXIT RAMP EASTBOUND STAGE 4A

POINT	STATION	NORTHING	EASTING
8224	150+09.06	165108.2112	1243736.9974
8225	152+94.77	165298.6890	1243948.0076
8226	153+26.72	165315.6512	1243975.0765
8227	155+35.90	165448.0464	1244136.2928
8228	156+49.04	165530.4055	1244213.8632

C.L. TEMPORARY McCAIN EXIT RAMP EASTBOUND STAGE 4B

POINT	STATION	NORTHING	EASTING
8229	155+38.49	165525.8201	1244062.4201
8230	157+25.99	165657.0340	1244195.6072
8231	163+00.22	166003.1919	1244653.7683
8232	164+68.20	166083.5036	1244800.6227

C.L. TEMPORARY McCAIN EXIT RAMP WESTBOUND STAGE 4A

POINT	STATION	NORTHING	EASTING
8252	28+41.85	166351.0068	1244705.4488
8253	32+76.94	166519.4858	1245087.5963
8254	33+66.71	166512.4589	1245177.0904

C.L. TEMPORARY MEMPHIS ENTRANCE RAMP STAGE 4A

POINT	STATION	NORTHING	EASTING
8418	131+55.08	163334.5721	1243224.4204
8419	133+12.76	163491.9919	1243215.3226
8420	136+80.09	163855.8253	1243252.7639

C.L. TEMPORARY MEMPHIS ENTRANCE RAMP STAGE 4B

POINT	STATION	NORTHING	EASTING
8205	127+46.93	162939.9167	1243319.6387
8281	133+94.93	163573.6974	1243271.0794
8282	134+97.73	163663.3127	1243295.1901
8416	137+44.37	163917.6907	1243316.5191
8417	140+01.02	164172.0697	1243337.8483

C.L. TEMPORARY MEMPHIS EXIT RAMP STAGE 2A

POINT	STATION	NORTHING	EASTING
8255	124+45.74	162959.0259	1242391.5754
8256	125+52.30	163030.7148	1242470.2870
8261	126+11.79	163067.3929	1242517.1247
8262	129+48.11	163328.2468	1242724.4923

C.L. TEMPORARY MEMPHIS EXIT RAMP STAGE 2B

POINT	STATION	NORTHING	EASTING
8212	125+22.91	163006.6408	1242435.1193
8213	126+40.23	163098.3594	1242508.1857
8257	127+18.30	163161.8341	1242553.6446
8258	128+27.74	163252.5866	1242614.7756
8259	132+37.34	163598.7254	1242833.7603
8260	134+80.30	163811.7495	1242950.2668

C.L. NORTHBOUND CROSSOVER STAGE 2A

POINT	STATION	NORTHING	EASTING
8269	210+61.44	169187.8817	1247007.5064
8270	212+51.72	169343.5986	1247116.7216
8271	212+86.49	169373.0240	1247135.2450
8272	214+77.72	169529.4966	1247245.0487

C.L. NORTHBOUND CROSSOVER STAGE 4A & 4B

POINT	STATION	NORTHING	EASTING
8273	210+81.12	169250.4926	1246959.1748
8274	212+81.12	169396.7498	1247095.2167
8275	213+91.58	169470.7686	1247177.2142
8276	215+91.58	169617.0258	1247313.2561

C.L. TEMPORARY NORTHBOUND LANE SHIFT STAGE 4A

POINT	STATION	NORTHING	EASTING
8203	145+29.44	164663.3769	1243540.0198
8204	148+81.65	164964.9741	1243720.1985

C.L. TEMPORARY NORTHBOUND LANES STAGE 4A

POINT	STATION	NORTHING	EASTING
8206	127+64.33	162968.1864	1243058.5178
8207	130+55.38	163253.9867	1243112.0610
8208	131+45.91	163343.9798	1243121.9093
8209	134+12.58	163606.1815	1243169.3007
8210	134+66.99	163658.9137	1243182.6883
8211	144+13.98	164573.3919	1243428.7254
8263	148+71.36	164980.0288	1243631.4060
8264	148+86.79	164980.0288	1243640.8890

C.L. TEMPORARY SOUTHBOUND CROSSOVER STAGE 2A & 2B

POINT	STATION	NORTHING	EASTING
8265	210+51.90	169196.3406	1246981.1420
8266	213+85.23	169475.8625	1247161.9649
8267	214+32.61	169517.7305	1247184.1318
8268	217+66.90	169798.0080	1247365.5432

C.L. TEMPORARY SOUTHBOUND CROSSOVER STAGE 4A & 4B

POINT	STATION	NORTHING	EASTING
8277	211+14.68	169292.9463	1246959.2950
8278	212+48.01	169395.1731	1247044.8535
8279	212+57.98	169402.5894	1247051.5143
8280	213+91.32	169504.8162	1247137.0727

C.L. TEMPORARY SOUTHBOUND LANES STAGE 2A

POINT	STATION	NORTHING	EASTING
8214	121+26.78	162598.7135	1242348.9688
8215	122+95.73	162747.5519	1242428.7907
8216	124+69.33	162896.7611	1242517.5215
8217	126+59.60	163064.8763	1242606.4763
8218	137+47.95	164051.0055	1243066.9552
8412	143+91.36	164598.6634	1243402.0961
8413	148+75.82	164980.9451	1243699.6820

07-11-2005 RR60080MOT.P01

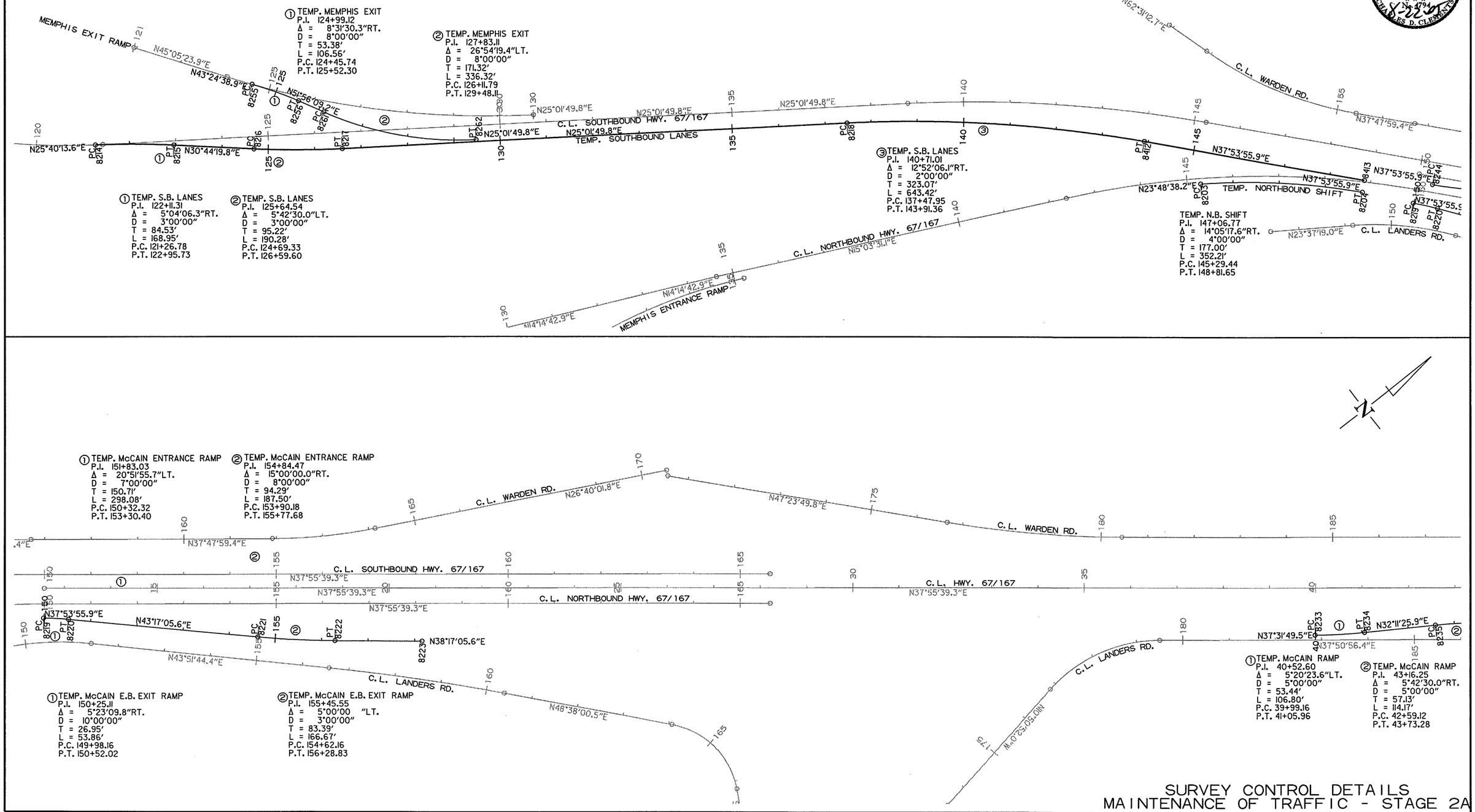
SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	211	609

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11791
8-22-05
CHARLES D. CLEMENTS



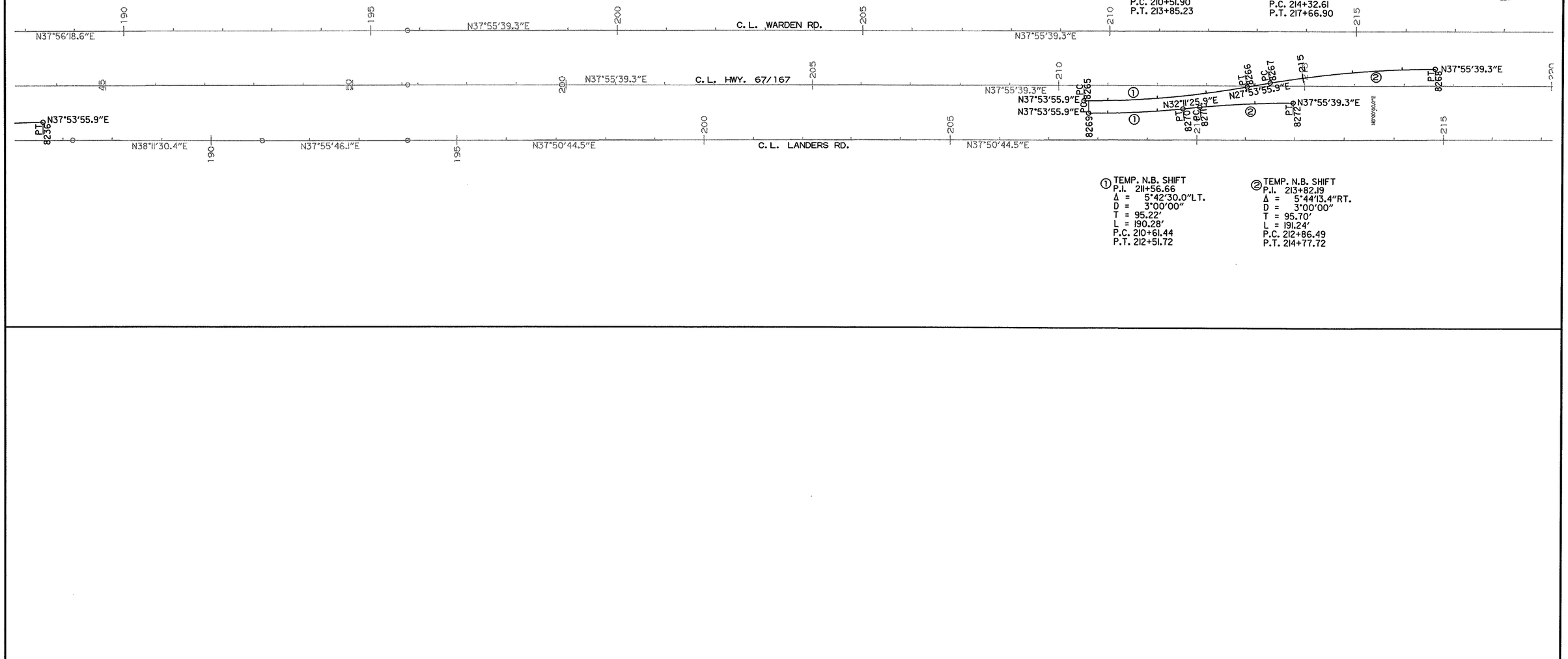
07-11-2005 RR60080MOT.P01

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 2A

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	212	609

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-05



(1) TEMP. S.B. SHIFT
P.I. 212+18.99
Δ = 10°00'00.0"LT.
D = 3°00'00"
T = 167.09'
L = 333.33'
P.C. 210+51.90
P.T. 213+85.23

(2) TEMP. S.B. SHIFT
P.I. 216+00.18
Δ = 10°01'43.4"RT.
D = 3°00'00"
T = 167.57'
L = 334.29'
P.C. 214+32.61
P.T. 217+66.90

(1) TEMP. N.B. SHIFT
P.I. 211+56.66
Δ = 5°42'30.0"LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 210+61.44
P.T. 212+51.72

(2) TEMP. N.B. SHIFT
P.I. 213+82.19
Δ = 5°44'13.4"RT.
D = 3°00'00"
T = 95.70'
L = 191.24'
P.C. 212+86.49
P.T. 214+77.72

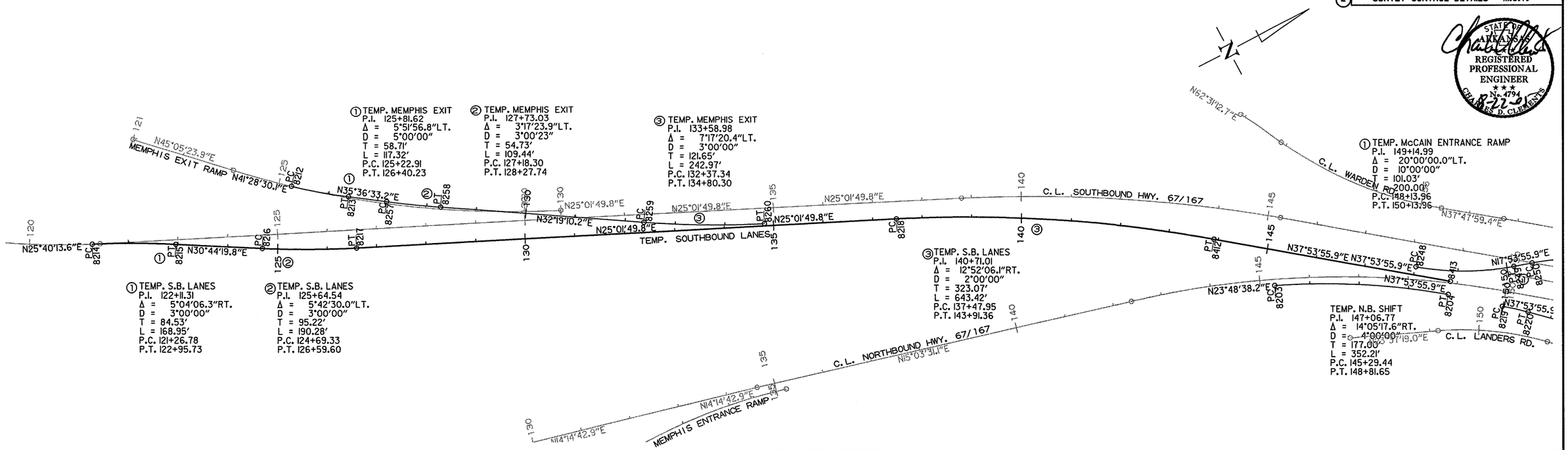
07-11-2005 RR6008OMOT.P01

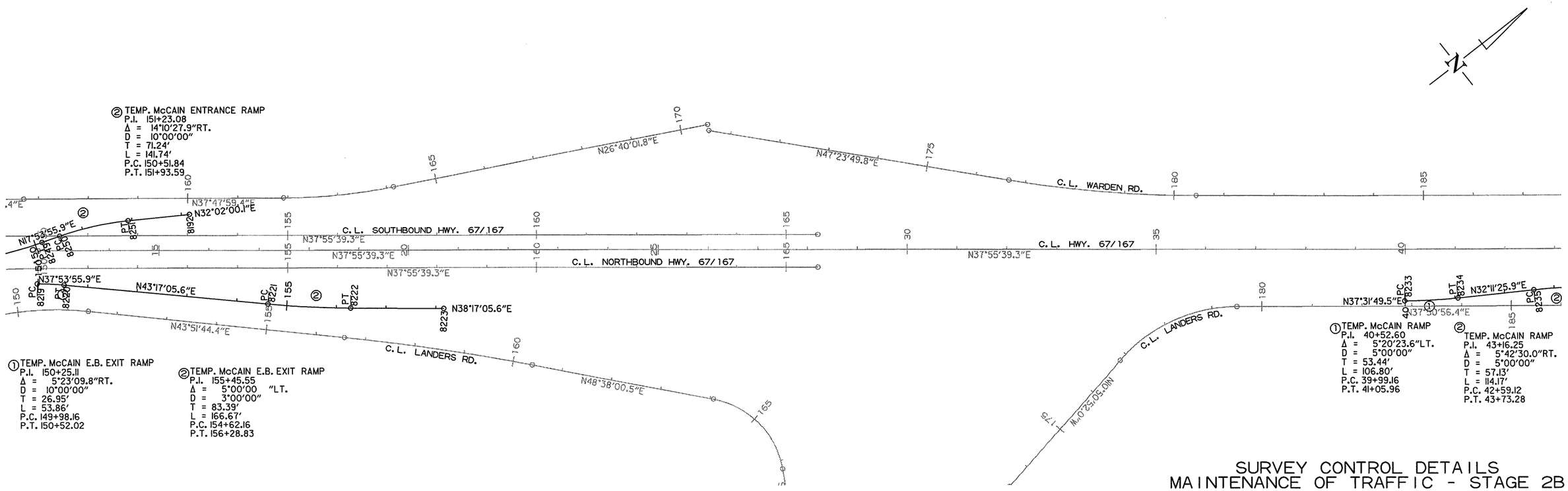
SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 2A

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	213	609

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-22-05
CHARLES D. CLEMENTS





SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 2B

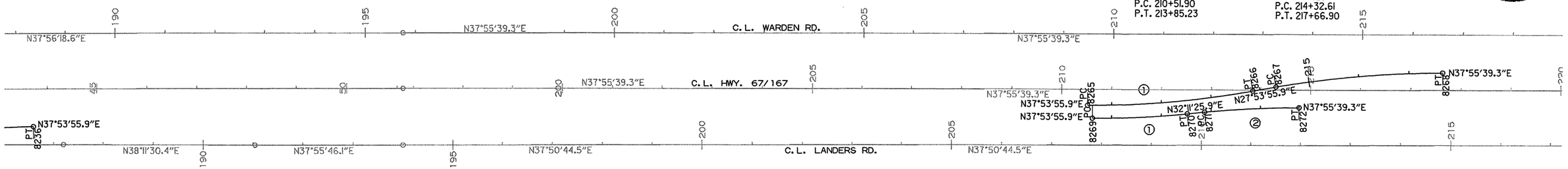
07-11-2005 RR60080MOT.POI

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	214	609

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-22-05
CHARLES D. CLEMENTS



① TEMP. S.B. SHIFT
P.I. 212+18.99
Δ = 10°00'00.0"LT.
D = 3°00'00"
T = 167.09'
L = 333.33'
P.C. 210+51.90
P.T. 213+85.23

② TEMP. S.B. SHIFT
P.I. 216+00.18
Δ = 10°01'43.4"RT.
D = 3°00'00"
T = 167.57'
L = 334.29'
P.C. 214+32.61
P.T. 217+66.90

① TEMP. N.B. SHIFT
P.I. 211+56.66
Δ = 5°42'30.0"LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 210+61.44
P.T. 212+51.72

② TEMP. N.B. SHIFT
P.I. 213+82.19
Δ = 5°44'13.4"RT.
D = 3°00'00"
T = 95.70'
L = 191.24'
P.C. 212+86.49
P.T. 214+77.72

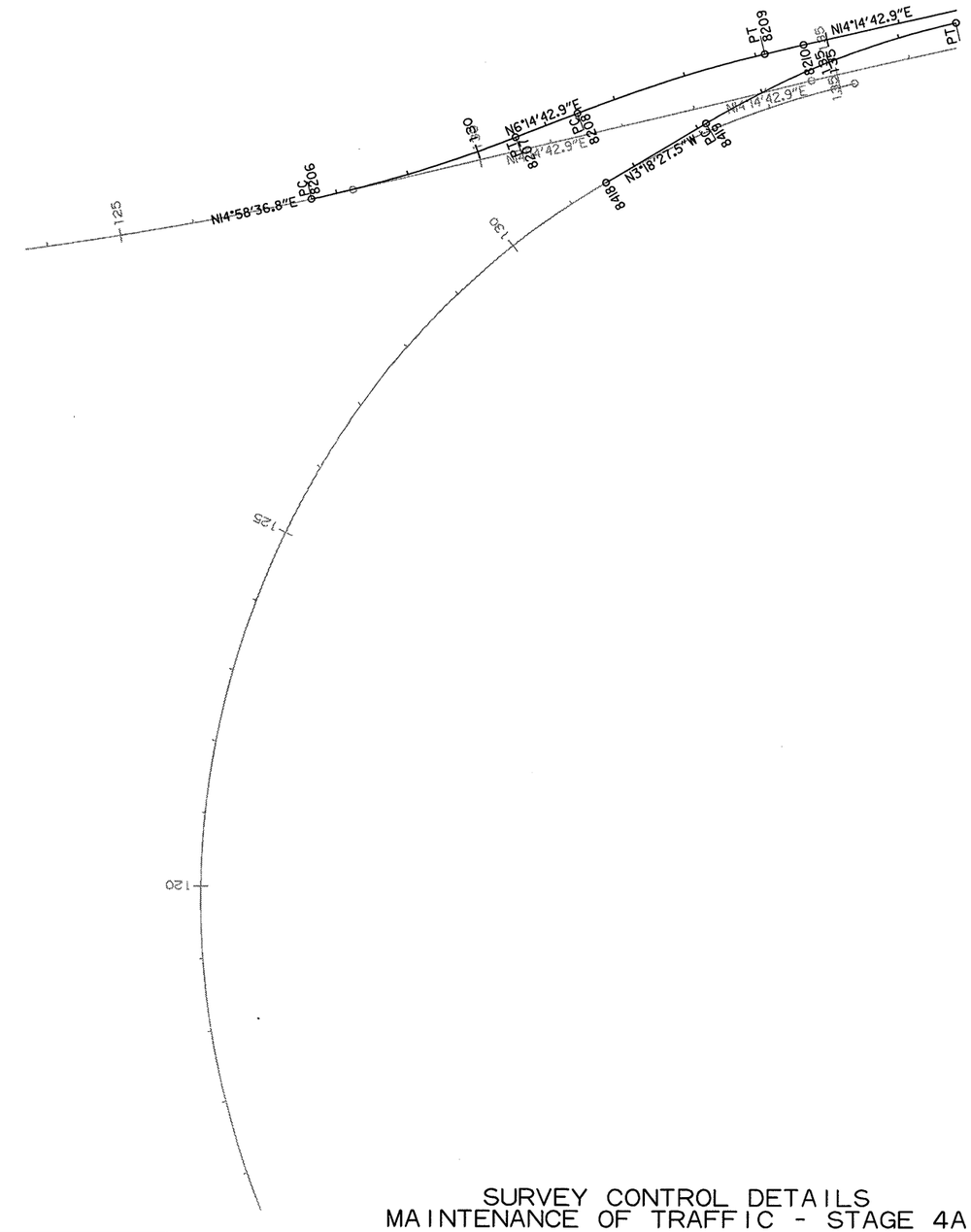
07-11-2005 RR60080MOT.PDI

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 2B

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	215	609

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
CHARLES D. CLEMENTS
No. 4794
REGISTERED PROFESSIONAL ENGINEER
8-22-05



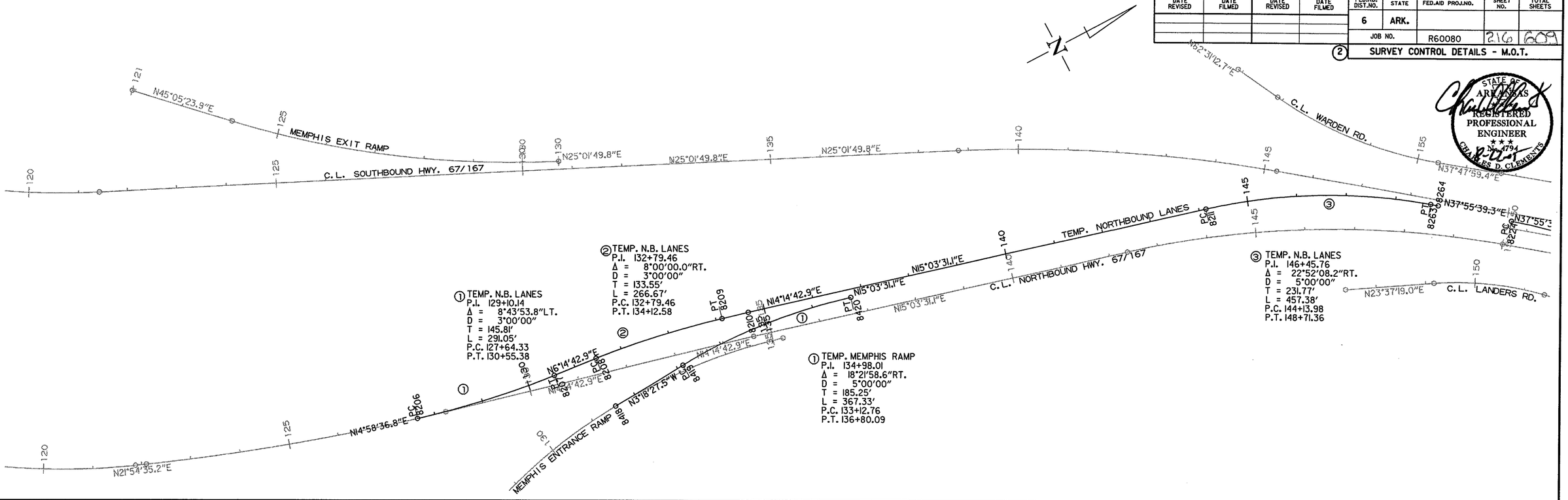
SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4A

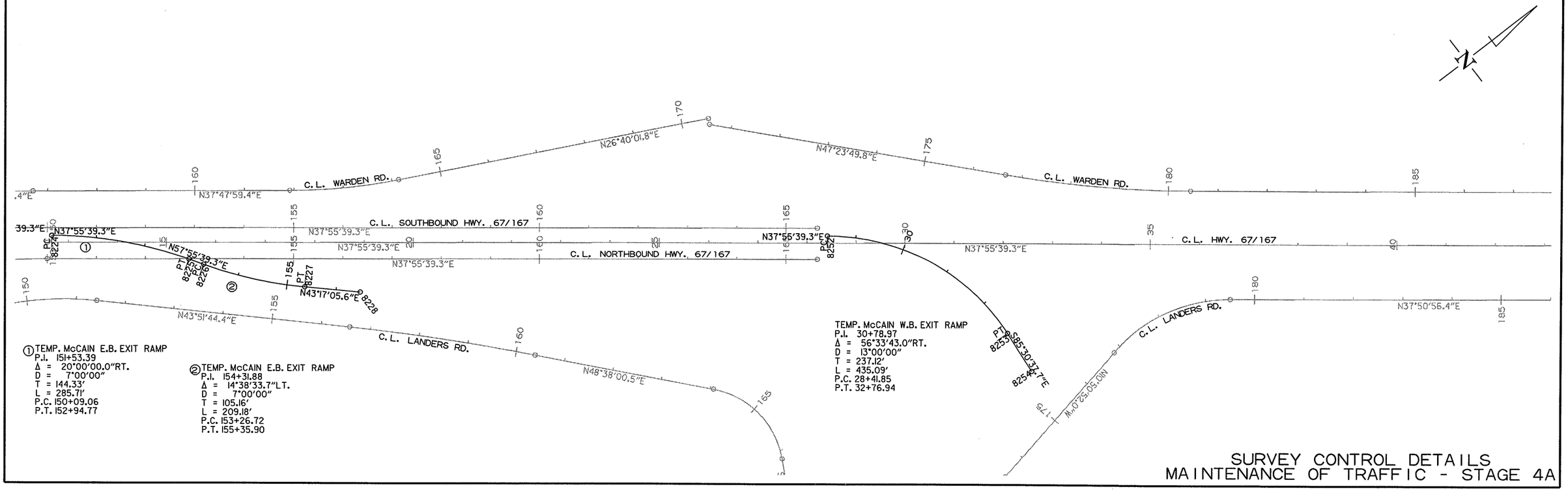
07-11-2005 RR6008MOT.PDI

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	216	609

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9794
8-02-05
CHARLES D. CLEMENTS





07-11-2005 RR60080MOT.POI

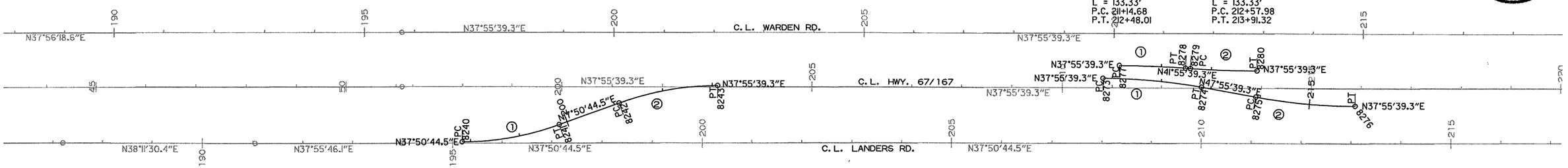
SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4A

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	217	609

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
11-7-05



① TEMP. S.B. SHIFT
P.I. 211+81.37
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 211+14.68
P.T. 212+48.01

② TEMP. S.B. SHIFT
P.I. 213+24.68
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 212+57.98
P.T. 213+91.32

① TEMP. McCAIN ENTRANCE RAMP
P.I. 198+84.12
Δ = 20°00'00.0"LT.
D = 10°00'00"
T = 101.03'
L = 200.00'
P.C. 197+83.09
P.T. 199+83.09

② TEMP. McCAIN ENTRANCE RAMP
P.I. 202+11.35
Δ = 20°04'54.8"RT.
D = 10°00'00"
T = 101.45'
L = 200.82'
P.C. 201+09.90
P.T. 203+10.72

① TEMP. N.B. SHIFT
P.I. 211+81.37
Δ = 10°00'00.0"RT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 210+81.12
P.T. 212+81.12

② TEMP. N.B. SHIFT
P.I. 214+91.84
Δ = 10°00'00.0"LT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 213+91.58
P.T. 215+91.58

07-11-2005 RR60080MOT.P01

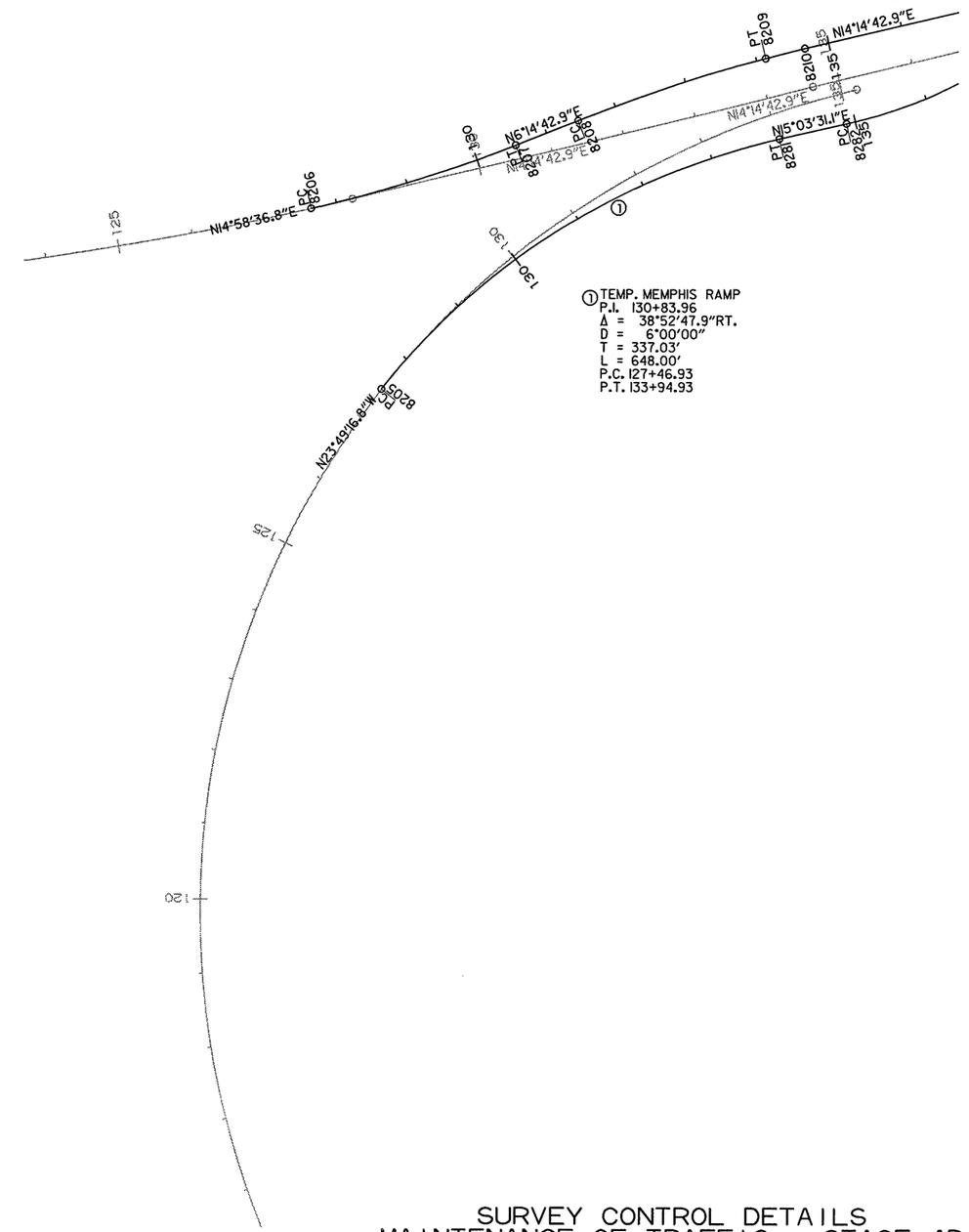
SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4A

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	218	609

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
★★★
No. 4794
CHARLES D. CLEMENTS
2-22-05



① TEMP. MEMPHIS RAMP
P.I. 130+83.96
Δ = 38°52'47.9"RT.
D = 6°00'00"
T = 337.03'
L = 648.00'
P.C. 127+46.93
P.T. 133+94.93

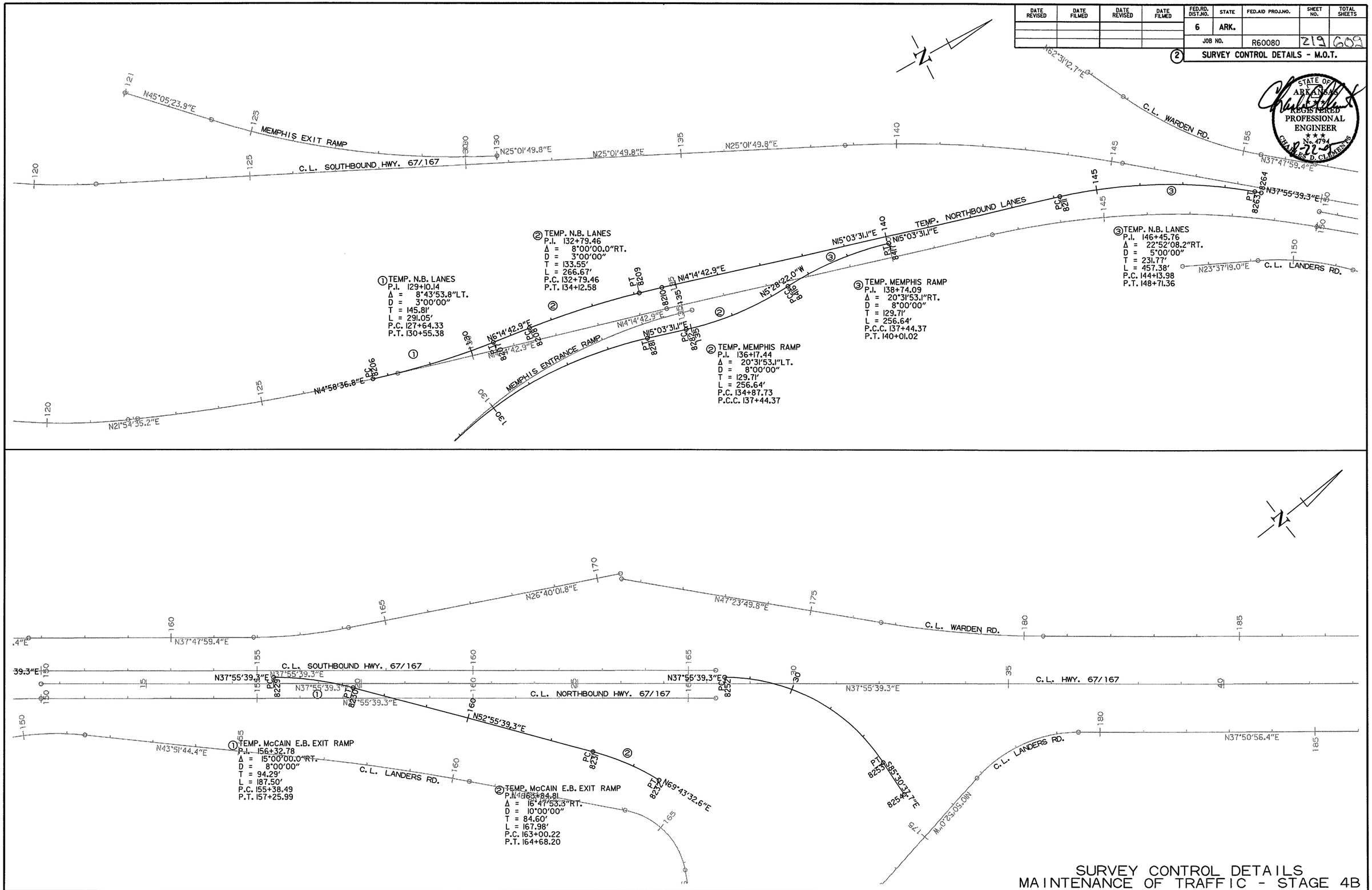
07-11-2005 RR60080MOT.PDI

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4B

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	219	609

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-05



① TEMP. N.B. LANES
P.I. 129+10.14
Δ = 8°43'53.8"LT.
D = 3°00'00"
T = 145.81'
L = 291.05'
P.C. 127+64.33
P.T. 130+55.38

② TEMP. N.B. LANES
P.I. 132+79.46
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 132+79.46
P.T. 134+12.58

② TEMP. MEMPHIS RAMP
P.I. 136+17.44
Δ = 20°31'53.1"LT.
D = 8°00'00"
T = 129.71'
L = 256.64'
P.C. 134+87.73
P.C.C. 137+44.37

③ TEMP. MEMPHIS RAMP
P.I. 138+74.09
Δ = 20°31'53.1"RT.
D = 8°00'00"
T = 129.71'
L = 256.64'
P.C.C. 137+44.37
P.T. 140+01.02

③ TEMP. N.B. LANES
P.I. 146+45.76
Δ = 22°52'08.2"RT.
D = 5°00'00"
T = 231.77'
L = 457.38'
P.C. 144+13.98
P.T. 148+71.36

① TEMP. McCAIN E.B. EXIT RAMP
P.I. 156+32.78
Δ = 15°00'00.0"RT.
D = 8°00'00"
T = 94.29'
L = 187.50'
P.C. 155+38.49
P.T. 157+25.99

② TEMP. McCAIN E.B. EXIT RAMP
P.I. 163+84.81
Δ = 16°47'53.5"RT.
D = 10°00'00"
T = 84.60'
L = 167.98'
P.C. 163+00.22
P.T. 164+68.20

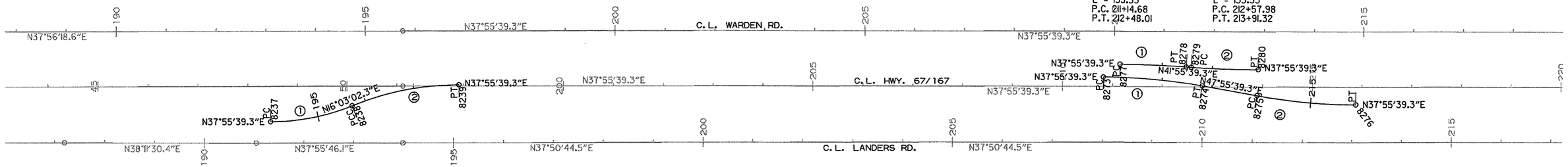
SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4B

07-11-2005 RR60080MOT.P01

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	220	223

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11791
8-22-05
CHARLES D. CLEMENTS



① TEMP. S.B. SHIFT
P.I. 211+81.37
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 211+14.68
P.T. 212+48.01

② TEMP. S.B. SHIFT
P.I. 213+24.68
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 212+57.98
P.T. 213+91.32

① TEMP. McCAIN ENTRANCE RAMP
P.I. 195+68.86
Δ = 21°52'37.0"LT.
D = 13°00'00"
T = 85.18'
L = 168.28'
P.C. 194+83.68
P.C.C. 196+51.96

② TEMP. McCAIN ENTRANCE RAMP
P.I. 197+62.70
Δ = 21°52'37.0"RT.
D = 10°00'00"
T = 110.73'
L = 218.77'
P.C.C. 196+51.96
P.T. 198+70.73

① TEMP. N.B. SHIFT
P.I. 211+81.37
Δ = 10°00'00.0"RT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 210+81.12
P.T. 212+81.12

② TEMP. N.B. SHIFT
P.I. 214+91.84
Δ = 10°00'00.0"LT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 213+91.58
P.T. 215+91.58

07-11-2005 RR60080MOT.P01

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4B

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	221	669
				(2)	SURVEY CONTROL DETAILS - M.O.T.			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-22-05
CHARLES D. CLEMENTS

C.L. TEMPORARY BROOKWOOK ENTRANCE RAMP STAGE 2A

POINT	STATION	NORTHING	EASTING
8291	334+24.27	179104.9496	1254407.2701
8292	335+89.30	179220.8116	1254524.7228
8293	337+33.57	179326.4679	1254622.9566
8294	339+32.49	179459.6920	1254770.3370

C.L. TEMPORARY BROOKSWOOD ENTRANCE RAMP STAGE 4A

POINT	STATION	NORTHING	EASTING
8284	305+33.24	176800.9119	1252648.5111
8285	309+27.85	177151.2636	1252825.8286
8286	312+09.42	177401.2742	1252952.3046

C.L. TEMPORARY BROOKSWOOD ENTRANCE RAMP STAGE 4B

POINT	STATION	NORTHING	EASTING
8287	322+37.96	178167.5411	1253667.5331
8288	324+45.76	178344.4492	1253776.0059
8289	325+00.60	178393.6058	1253800.3218
8290	327+00.60	178564.2447	1253904.1531
8137	329+97.43	178803.4094	1254079.9649

C.L. TEMPORARY KIEHL ENTRANCE RAMP NORTHBOUND STAGE 2A

POINT	STATION	NORTHING	EASTING
8295	376+69.75	181017.6970	1258209.1690
8296	379+40.32	181158.8043	1258440.0273
8297	381+40.32	181277.4342	1258600.7304
8298	381+98.74	181316.0968	1258644.5314
8299	385+10.87	181488.4344	1258903.6135

C.L. TEMPORARY KIEHL ENTRANCE RAMP NORTHBOUND STAGE 2B

POINT	STATION	NORTHING	EASTING
8300	385+37.36	181427.8015	1258975.1977
8301	386+87.36	181522.0040	1259091.3772
8302	387+28.56	181551.9096	1259119.7206
8303	389+35.65	181673.4980	1259285.9583

C.L. TEMPORARY KIEHL ENTRANCE RAMP SOUTHBOUND STAGE 2A

POINT	STATION	NORTHING	EASTING
8304	363+32.67	180512.4501	1256956.0702
8305	366+39.94	180681.5806	1257211.5034
8306	366+84.06	180710.6374	1257244.7047
8307	368+84.06	180828.5851	1257405.9093
8308	369+60.34	180868.0899	1257471.1612

C.L. TEMPORARY KIEHL ENTRANCE RAMP SOUTHBOUND STAGE 4C

POINT	STATION	NORTHING	EASTING
8309	353+37.86	180079.0416	1256060.6400
8310	355+77.86	180205.3796	1256264.1798
8311	356+42.42	180244.9763	1256315.1761
8312	358+02.42	180333.9763	1256447.9821
8313	360+59.32	180461.7578	1256670.8482

C.L. TEMPORARY KIEHL EXIT RAMP NORTHBOUND STAGE 2A

POINT	STATION	NORTHING	EASTING
8314	347+67.67	179850.5736	1255536.3566
8315	352+00.75	179998.4029	1255941.6734
8316	352+46.70	180007.4666	1255986.7195
8317	354+58.50	180064.4163	1256190.5182
8318	355+58.70	180098.4377	1256284.7660

C.L. TEMPORARY KIEHL EXIT RAMP NORTHBOUND STAGE 2B

POINT	STATION	NORTHING	EASTING
8389	352+32.60	180060.1857	1255952.8242
8390	355+65.93	180178.5568	1256263.9795
8391	356+93.06	180213.2316	1256386.2894
8392	358+93.06	180284.2543	1256572.9826
8393	359+55.10	180311.2798	1256628.8180
8394	361+55.10	180382.3025	1256815.5112
8395	363+66.34	180439.9192	1257018.7447
8396	365+66.34	180510.9418	1257205.4379

C.L. TEMPORARY KIEHL EXIT RAMP SOUTHBOUND STAGE 4A

POINT	STATION	NORTHING	EASTING
8319	382+92.77	181441.4825	1258691.1985
8320	385+89.29	181543.4817	1258969.6277
8321	386+89.29	181573.7419	1259064.9062
8322	388+43.00	181613.8337	1259213.2904
8323	390+57.17	181688.6360	1259413.6367

C.L. TEMPORARY KIEHL EXIT RAMP SOUTHBOUND STAGE 4C

POINT	STATION	NORTHING	EASTING
8324	387+84.06	181690.7028	1259124.1074
8325	390+84.06	181784.7707	1259408.0764
8326	392+76.89	181820.9958	1259597.4719
8327	395+76.89	181915.0637	1259881.4408

C.L. TEMPORARY NORTHBOUND LANE SHIFT STAGE 2A

POINT	STATION	NORTHING	EASTING
8328	311+52.42	177325.0899	1252981.3588
8329	312+79.27	177423.2956	1253061.5875
8330	312+88.02	177429.8156	1253067.4138
8331	314+14.87	177528.0213	1253147.6425
8332	315+63.74	177656.6090	1253243.5235

C.L. TEMPORARY NORTHBOUND & SOUTHBOUND LANE SHIFT STAGE 2A

POINT	STATION	NORTHING	EASTING
8340	377+00.00	181150.9121	1258166.1180
8341	378+33.33	181213.1420	1258284.0077
8342	378+71.97	181232.3613	1258317.5284
8343	380+05.31	181294.5912	1258435.4181
8344	399+00.31	182120.1907	1260141.1225
8345	400+33.64	182174.0455	1260263.0660
8346	400+72.28	182188.4125	1260298.9353
8347	402+05.62	182242.2673	1260420.8788

C.L. TEMPORARY NORTHBOUND CROSSOVER STAGE 2A & 2B (NORTH)

POINT	STATION	NORTHING	EASTING
8348	409+00.00	182533.3595	1261052.1200
8349	409+16.45	182540.5262	1261066.9264
8350	411+83.12	182639.5982	1261314.2732
8351	413+75.87	182698.6133	1261497.7751
8352	416+42.54	182797.6853	1261745.1218
8353	417+03.45	182824.2225	1261799.9482

C.L. TEMPORARY NORTHBOUND LANE SHIFT STAGE 4A, 4B & 4C (NORTH)

POINT	STATION	NORTHING	EASTING
8354	408+50.00	182442.2678	1261040.6615
8355	411+66.07	182579.9722	1261325.1614
8356	412+99.41	182642.2022	1261443.0511
8357	413+52.38	182668.5519	1261489.0082
8358	414+85.72	182730.7818	1261606.8980
8353	417+00.19	182824.2225	1261799.9482

C.L. TEMPORARY SOUTHBOUND LANE SHIFT STAGE 2A & 2B (NORTH)

POINT	STATION	NORTHING	EASTING
8359	409+00.00	182556.7623	1261040.7926
8360	409+54.78	182580.6294	1261090.1025
8361	411+45.06	182654.8662	1261265.2155
8362	412+16.02	182679.2768	1261331.8496
8363	414+06.30	182753.5136	1261506.9626
8364	417+00.83	182881.8292	1261772.0652

C.L. TEMPORARY SOUTHBOUND CROSSOVER STAGE 4A, 4B & 4C (NORTH)

POINT	STATION	NORTHING	EASTING
8365	408+50.00	182465.6706	1261029.3340
8366	409+50.85	182509.6059	1261120.1053
8367	411+41.12	182600.8922	1261286.9661
8368	414+63.43	182769.4734	1261561.6741
8369	416+53.71	182860.7596	1261728.5349
8364	417+02.07	182881.8292	1261772.0652

C.L. TEMPORARY SOUTHBOUND LANE SHIFT STAGE 2A

POINT	STATION	NORTHING	EASTING
8333	314+04.14	177543.0203	1253110.1781
8334	315+51.98	177661.5359	1253198.5489
8335	315+64.20	177671.3354	1253205.8559
8336	316+89.67	177768.5114	1253285.1653
8337	317+12.72	177785.7109	1253300.5051
8338	318+38.19	177882.8869	1253379.8145
8339	318+50.41	177892.6864	1253387.1215

C.L. TEMPORARY NORTHBOUND CROSSOVER STAGE 2A & 2B (SOUTH)

POINT	STATION	NORTHING	EASTING
8370	287+92.13	175387.4792	1251631.3884
8371	290+58.80	175611.6750	1251775.3743
8372	293+37.78	175856.3596	1251909.3902
8373	296+04.45	176080.5553	1252053.3761

C.L. TEMPORARY SOUTHBOUND LANE SHIFT STAGE 2A & 2B)(SOUTH)

POINT	STATION	NORTHING	EASTING
8374	287+92.13	175425.7361	1251580.0814
8375	290+60.70	175641.0380	1251740.6204
8376	293+27.36	175865.2337	1251884.6063
8377	293+33.30	175870.4439	1251887.4600
8378	295+99.97	176094.6396	1252031.4459

C.L. TEMPORARY SOUTHBOUND CROSSOVER STAGE 4A, 4B & 4C (SOUTH)

POINT	STATION	NORTHING	EASTING
8374	288+00.00	175425.7361	1251580.0814
8379	288+74.32	175485.3152	1251624.5063
8380	291+40.99	175687.2901	1251798.2929
8381	292+40.33	175757.8955	1251868.1870
8382	295+07.00	175959.8704	1252041.9736
8383	296+10.57	176042.8962	1252103.8815

C.L. TEMPORARY WILDWOOD ENTRANCE RAMP STAGE 2A

POINT	STATION	NORTHING	EASTING
8163	296+71.16	176007.1588	1252480.9249
8384	297+95.46	176110.7188	1252412.1849
8385	302+64.02	176550.2890	1252424.2133

C.L. TEMPORARY WILDWOOD ENTRANCE RAMP STAGE 2B

POINT	STATION	NORTHING	EASTING
8386	298+73.53	176209.7404	1252405.8961
8387	299+50.45	176284.2008	1252424.8119
8388	301+88.80	176519.4476	1252463.1404
8397	304+00.00	176712.0299	1252544.8148

C.L. TEMPORARY WILDWOOD EXIT RAMP STAGE 4B

POINT	STATION	NORTHING	EASTING
8170	296+43.82	176148.1252	1252050.3840
8398	298+76.70	176317.9839	1252209.6920
8399	300+36.70	176426.6796	1252326.9255
8400	300+76.09	176451.3819	1252357.6096
8401	303+65.17	176659.0009	1252557.6644

C.L. TEMPORARY WILDWOOD EXIT RAMP STAGE 4C

POINT	STATION	NORTHING	EASTING
8402	299+65.39	176425.0023	1252224.8788
8403	302+62.23	176636.8937	1252431.5752
8404	304+50.86	176753.7773	1252579.6282
8405	307+50.86	176968.2007	1252788.2181

C.L. TEMPORARY NORTHBOUND LANE SHIFT STAGE 4A, 4B & 4C (SOUTH)

POINT	STATION	NORTHING	EASTING
8421	291+50.21	175673.9468	1251846.2393
8422	292+61.25	175760.9849	1251915.1642
8423	293+56.69	175834.0550	1251976.5667
8424	294+67.73	175921.0930	1252045.4916

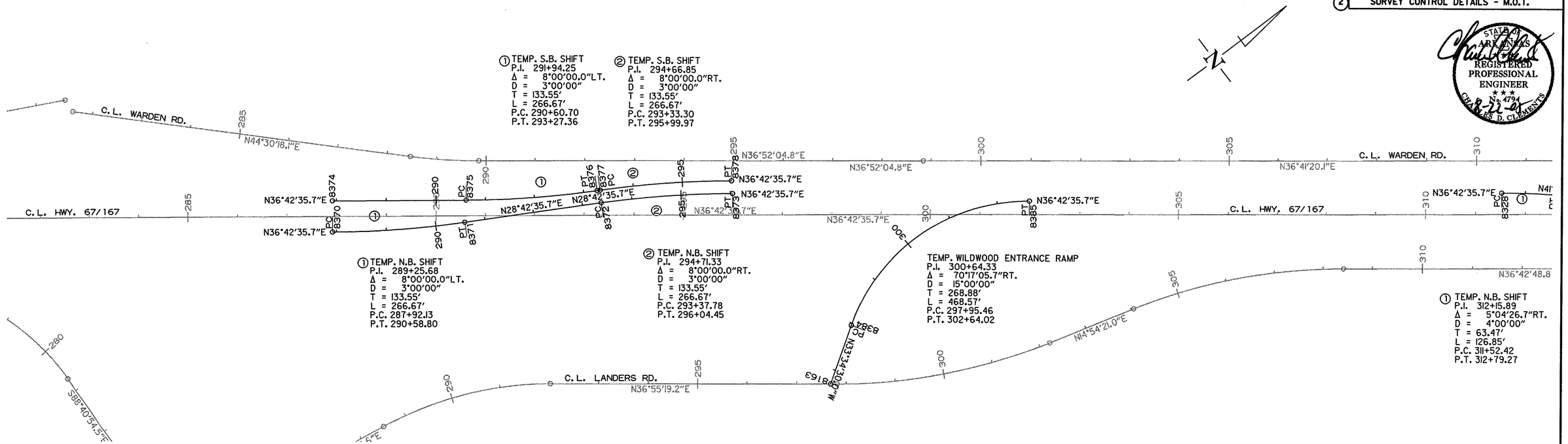
07-II-205 RR60080MOT.SUR2

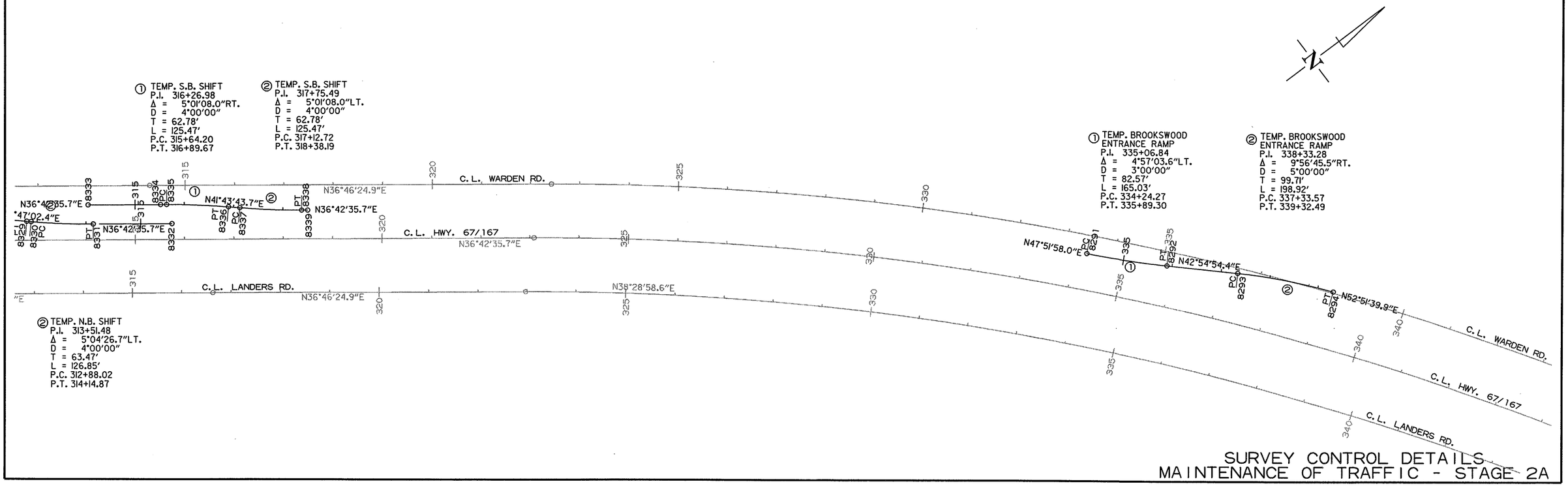
SURVEY CONTROL DETAILS MAINTENANCE OF TRAFFIC

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	222	609

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4794 CHARLES D. CLEMENTS 8-22-97





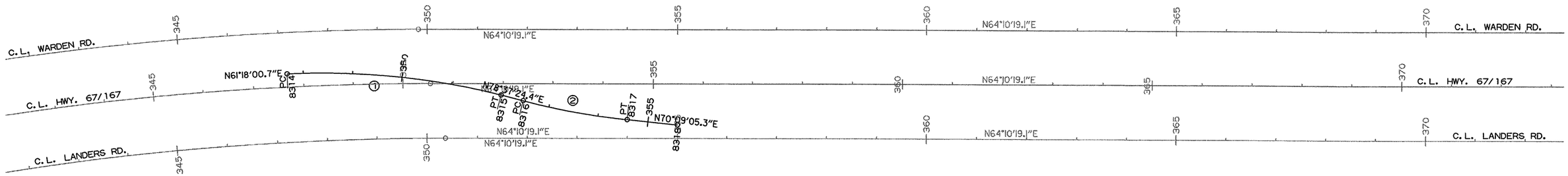
07-11-205 RR60080MOT.SUR2

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 2A

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	223	609

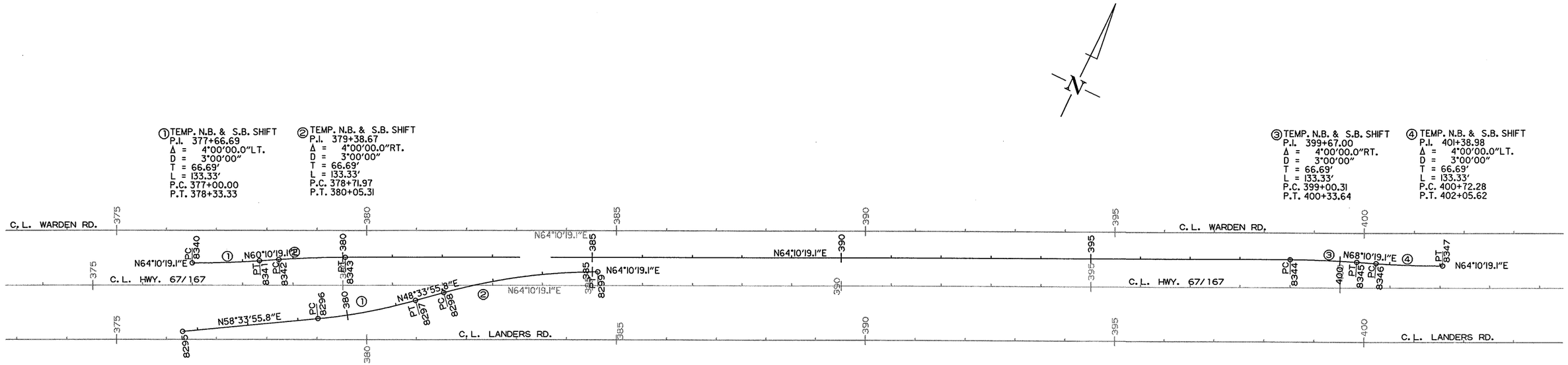
(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS



① TEMP. KIEHL AVE. EXIT RAMP
P.I. 349+85.88
Δ = 17°19'23.7"RT.
D = 4°00'00"
T = 218.21'
L = 433.08'
P.C. 347+67.67
P.T. 352+00.75

② TEMP. KIEHL AVE. EXIT RAMP
P.I. 353+52.79
Δ = 8°28'19.1"LT.
D = 4°00'00"
T = 106.09'
L = 211.80'
P.C. 352+46.70
P.T. 354+58.50



① TEMP. N.B. & S.B. SHIFT
P.I. 377+66.69
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 377+00.00
P.T. 378+33.33

② TEMP. N.B. & S.B. SHIFT
P.I. 379+38.67
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 378+71.97
P.T. 380+05.31

③ TEMP. N.B. & S.B. SHIFT
P.I. 399+67.00
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 399+00.31
P.T. 400+33.64

④ TEMP. N.B. & S.B. SHIFT
P.I. 401+38.98
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 400+72.28
P.T. 402+05.62

① TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 380+40.57
Δ = 10°00'00.0"LT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 379+40.32
P.T. 381+40.32

② TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 383+55.78
Δ = 15°36'23.3"RT.
D = 5°00'00"
T = 157.04'
L = 312.13'
P.C. 381+98.74
P.T. 385+10.87

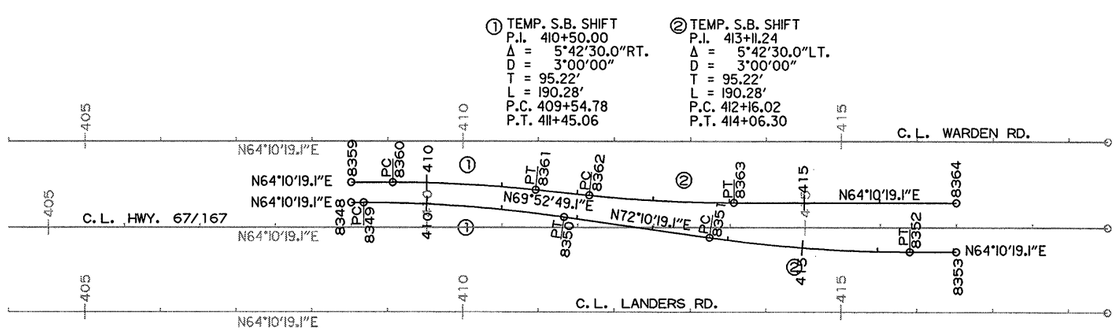
07-11-205 RR60080MOT.SUR2

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 2A

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	22A	608

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
4-22-05
CHARLES D. CLEMENTS



① TEMP. N.B. SHIFT
P.I. 410+50.00
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 409+16.45
P.T. 411+83.12

② TEMP. N.B. SHIFT
P.I. 415+09.42
Δ = 8°00'00.0"LT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 413+75.87
P.T. 416+42.54

07-11-205 RR60080MOT.SUR2

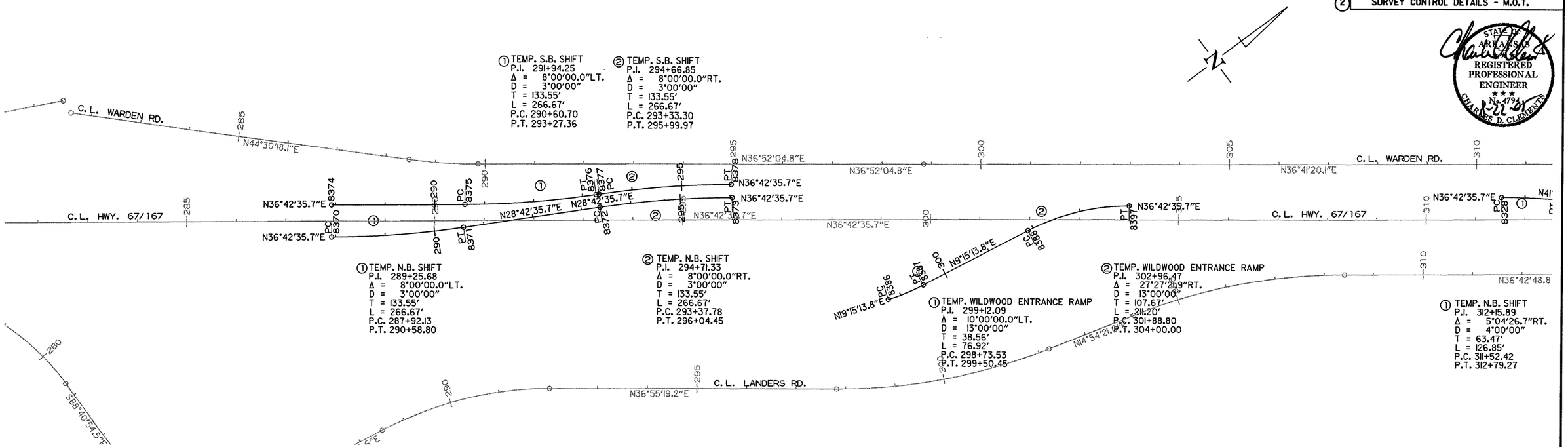
SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 2A

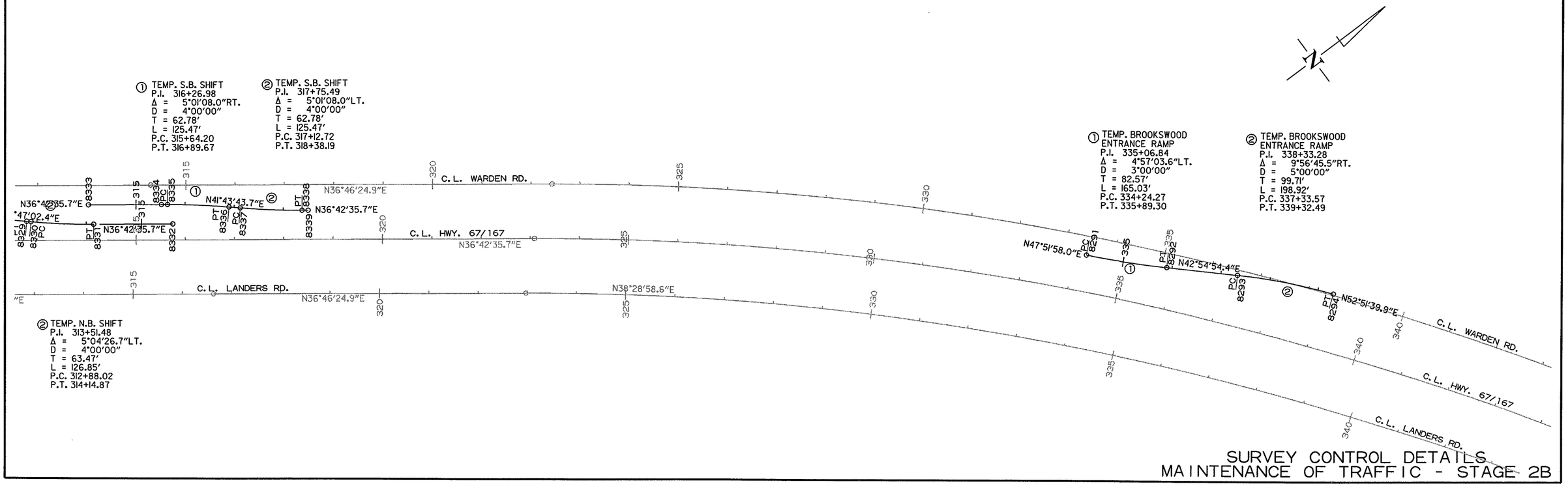
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	225	609

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
5-22-01





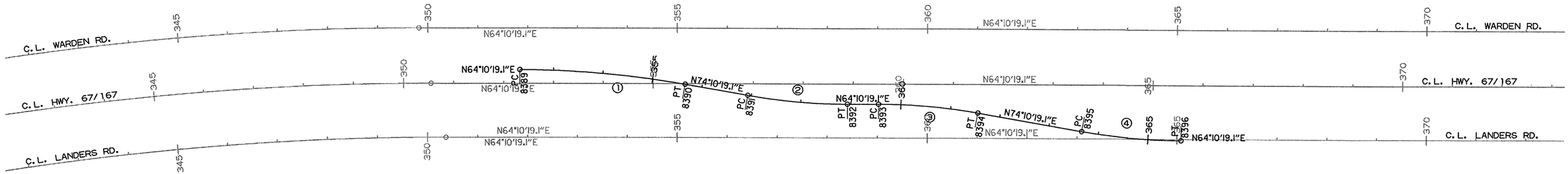
07-11-205 RR60080MOT.SUR2

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 2B

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	226	6009

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4791
CHARLES D. CLEMENTS
9-22-21

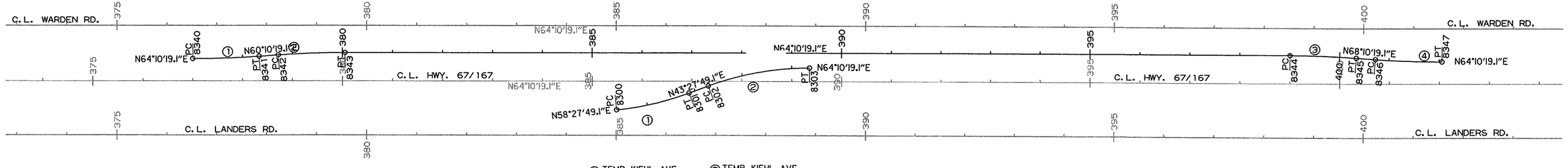


①TEMP. KIEHL AVE.
EXIT RAMP
P.I. 353+99.69
Δ = 10°00'00.0"RT.
D = 3°00'00"
T = 167.09'
L = 333.33'
P.C. 352+32.60
P.T. 355+65.93

②TEMP. KIEHL AVE.
EXIT RAMP
P.I. 357+93.32
Δ = 10°00'00.0"LT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 356+93.06
P.T. 358+93.06

③TEMP. KIEHL AVE.
EXIT RAMP
P.I. 360+55.35
Δ = 10°00'00.0"RT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 359+55.10
P.T. 361+55.10

④TEMP. KIEHL AVE.
EXIT RAMP
P.I. 364+66.59
Δ = 10°00'00.0"LT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 363+66.34
P.T. 365+66.34



①TEMP. N.B. & S.B. SHIFT
P.I. 377+66.69
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 377+00.00
P.T. 378+33.33

②TEMP. N.B. & S.B. SHIFT
P.I. 379+38.67
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 378+71.97
P.T. 380+05.31

③TEMP. N.B. & S.B. SHIFT
P.I. 399+67.00
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 399+00.31
P.T. 400+33.64

④TEMP. N.B. & S.B. SHIFT
P.I. 401+38.98
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 400+72.28
P.T. 402+05.62

①TEMP. KIEHL AVE.
ENTRANCE RAMP
P.I. 386+12.79
Δ = 15°00'00.0"LT.
D = 10°00'00"
T = 75.43'
L = 150.00'
P.C. 385+37.36
P.T. 386+87.36

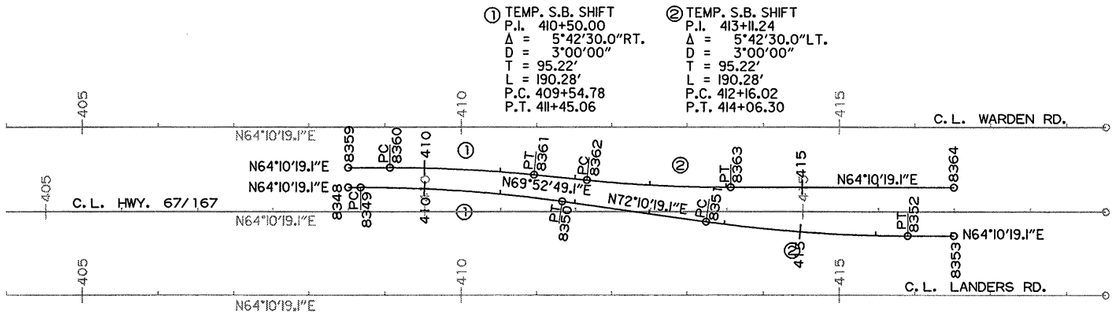
②TEMP. KIEHL AVE.
ENTRANCE RAMP
P.I. 388+33.25
Δ = 20°42'30.0"RT.
D = 10°00'00"
T = 104.68
L = 207.08
P.C. 387+28.56
P.T. 389+35.65

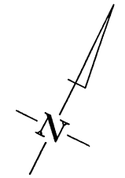
07-11-205 RR60080MOT.SUR2

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 2B

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	227	609

(2) SURVEY CONTROL DETAILS - M.O.T.





07-11-205 RR60080MOT.SUR2

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 2B

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	228	608

(2) SURVEY CONTROL DETAILS - M.O.T.

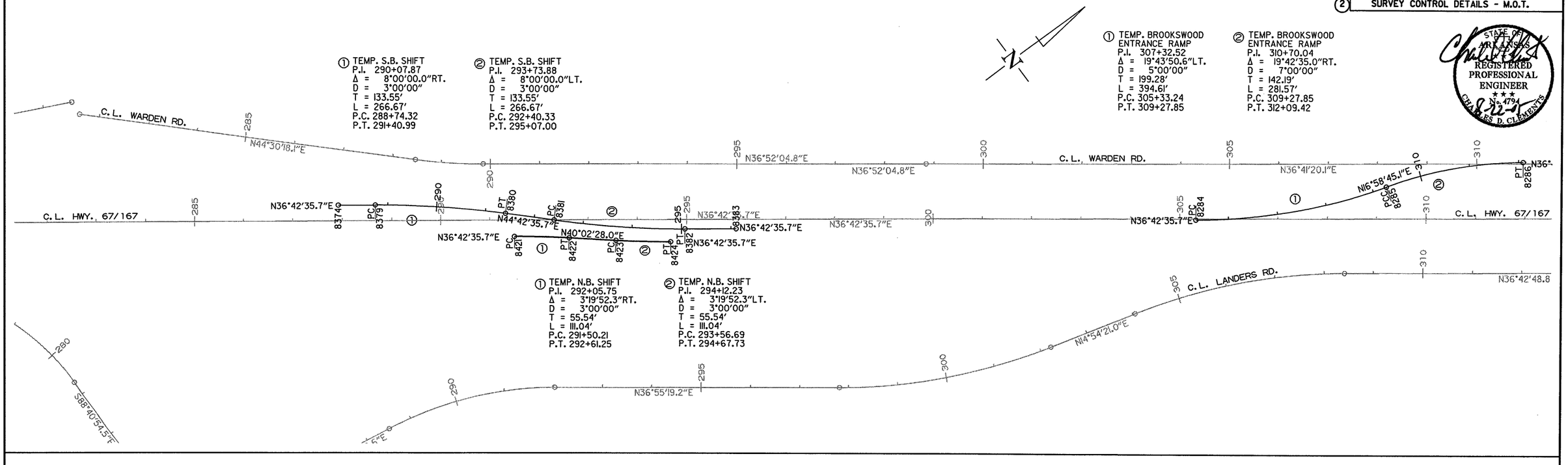
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-97

① TEMP. S.B. SHIFT
P.I. 290+07.87
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 288+74.32
P.T. 291+40.99

② TEMP. S.B. SHIFT
P.I. 293+73.88
Δ = 8°00'00.0"LT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 292+40.33
P.T. 295+07.00

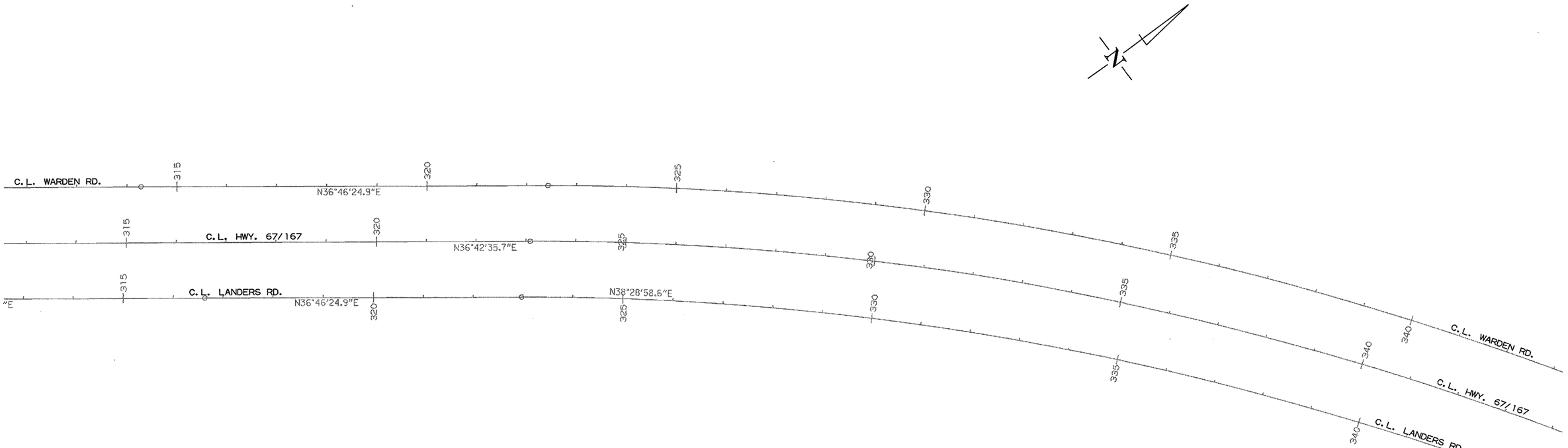
① TEMP. BROOKSWOOD ENTRANCE RAMP
P.I. 307+32.52
Δ = 19°43'50.6"LT.
D = 5°00'00"
T = 199.28'
L = 394.61'
P.C. 305+33.24
P.T. 309+27.85

② TEMP. BROOKSWOOD ENTRANCE RAMP
P.I. 310+70.04
Δ = 19°42'35.0"RT.
D = 7°00'00"
T = 142.19'
L = 281.57'
P.C. 309+27.85
P.T. 312+09.42



① TEMP. N.B. SHIFT
P.I. 292+05.75
Δ = 3°19'52.3"RT.
D = 3°00'00"
T = 55.54'
L = 111.04'
P.C. 291+50.21
P.T. 292+61.25

② TEMP. N.B. SHIFT
P.I. 294+12.23
Δ = 3°19'52.3"LT.
D = 3°00'00"
T = 55.54'
L = 111.04'
P.C. 293+56.69
P.T. 294+67.73

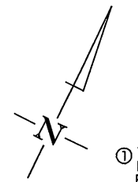


07-11-205 RR60080MOT.SUR2

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4A

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	225	609

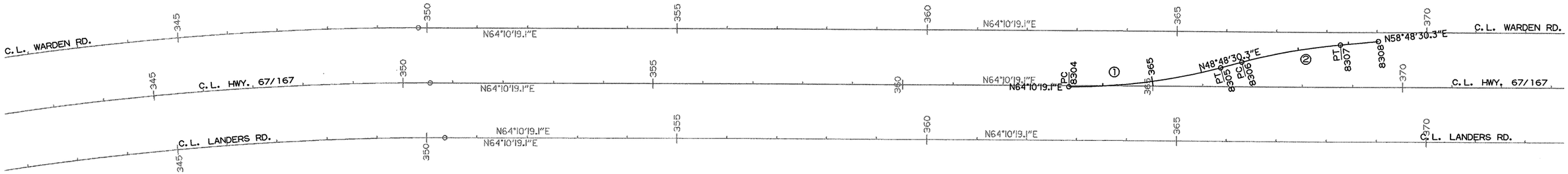
(2) SURVEY CONTROL DETAILS - M.O.T.

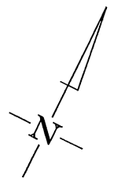


① TEMP. KIEHL AVE.
ENTRANCE RAMP
P.I. 364+87.23
Δ = 15°21'48.8"LT.
D = 5°00'00"
T = 154.56'
L = 307.27'
P.C. 363+32.67
P.T. 366+39.94

② TEMP. KIEHL AVE.
ENTRANCE RAMP
P.I. 367+84.32
Δ = 10°00'00.0"RT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 366+84.06
P.T. 368+84.06

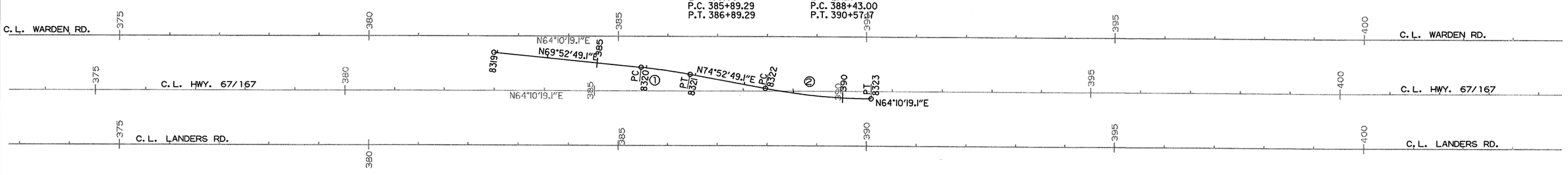
STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-22-07





① TEMP. KIEHL AVE.
EXIT RAMP
P.I. 386+39.33
Δ = 5°00'00.0"RT.
D = 5°00'00"
T = 50.03'
L = 100.00'
P.C. 385+89.29
P.T. 386+89.29

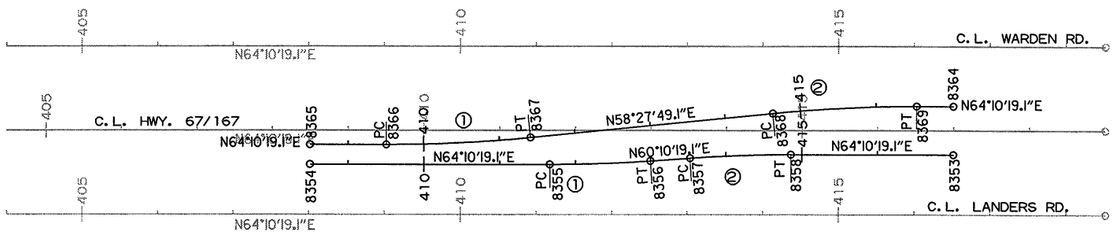
② TEMP. KIEHL AVE.
EXIT RAMP
P.I. 389+50.40
Δ = 10°42'30.0"LT.
D = 5°00'00"
T = 107.40'
L = 214.17'
P.C. 388+43.00
P.T. 390+57.17



07-II-205 RR60080MOT.SUR2

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4A

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	230	263
				(2)	SURVEY CONTROL DETAILS - M.O.T.			

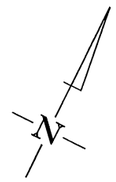


① TEMP. S.B. SHIFT
P.I. 410+46.06
Δ = 5°42'30.0"LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 409+50.85
P.T. 411+41.12

② TEMP. S.B. SHIFT
P.I. 415+58.65
Δ = 5°42'30.0"RT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 414+63.43
P.T. 416+53.71

① TEMP. N.B. SHIFT
P.I. 412+32.77
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 411+66.07
P.T. 412+99.41

② TEMP. N.B. SHIFT
P.I. 414+19.08
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 413+52.38
P.T. 414+85.72



07-11-205 RR60080M0T.SUR2

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4A

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	231	609

(2) SURVEY CONTROL DETAILS - M.O.T.

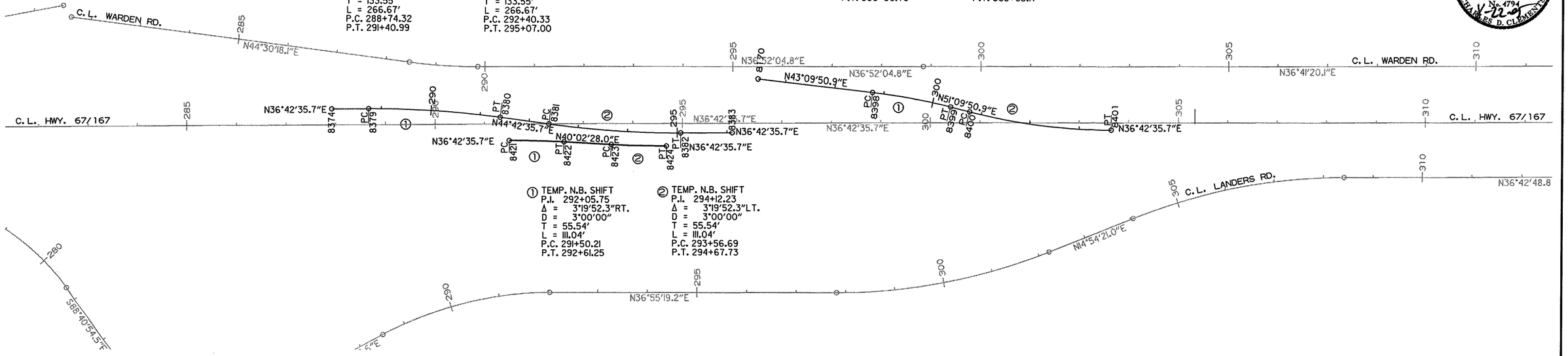
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
7-22-97

① TEMP. S.B. SHIFT
P.I. 290+07.87
Δ = 8°00'00.0"RT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 288+74.32
P.T. 291+40.99

② TEMP. S.B. SHIFT
P.I. 293+73.88
Δ = 8°00'00.0"LT.
D = 3°00'00"
T = 133.55'
L = 266.67'
P.C. 292+40.33
P.T. 295+07.00

① TEMP. WILDWOOD EXIT RAMP
P.I. 299+56.83
Δ = 8°00'00.0"RT.
D = 5°00'00"
T = 80.13'
L = 160.00'
P.C. 298+76.70
P.T. 300+36.70

② TEMP. WILDWOOD EXIT RAMP
P.I. 302+21.40
Δ = 14°27'15.2"LT.
D = 5°00'00"
T = 145.31'
L = 289.08'
P.C. 300+76.09
P.T. 303+65.17

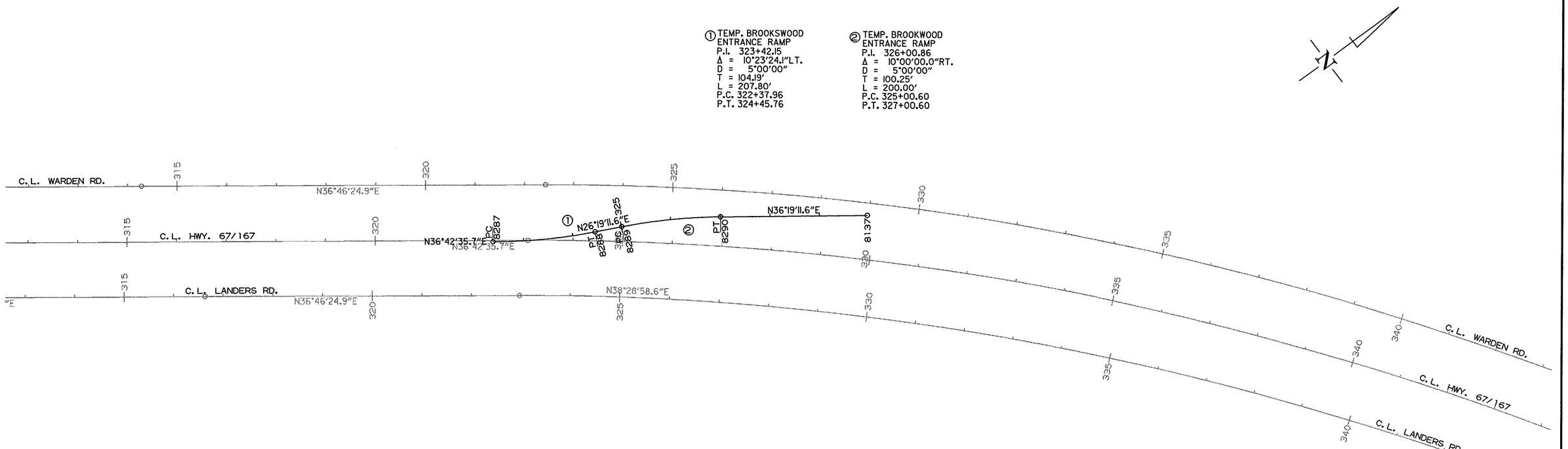


① TEMP. N.B. SHIFT
P.I. 292+05.75
Δ = 3°19'52.3"RT.
D = 3°00'00"
T = 55.54'
L = 111.04'
P.C. 291+50.21
P.T. 292+61.25

② TEMP. N.B. SHIFT
P.I. 294+12.23
Δ = 3°19'52.3"LT.
D = 3°00'00"
T = 55.54'
L = 111.04'
P.C. 293+56.69
P.T. 294+67.73

① TEMP. BROOKSWOOD ENTRANCE RAMP
P.I. 323+42.15
Δ = 10°23'24.1"LT.
D = 5°00'00"
T = 104.19'
L = 207.80'
P.C. 322+37.96
P.T. 324+45.76

② TEMP. BROOKWOOD ENTRANCE RAMP
P.I. 326+00.86
Δ = 10°00'00.0"RT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 325+00.60
P.T. 327+00.60



07-11-205 RR60080MOT.SUR2

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4B

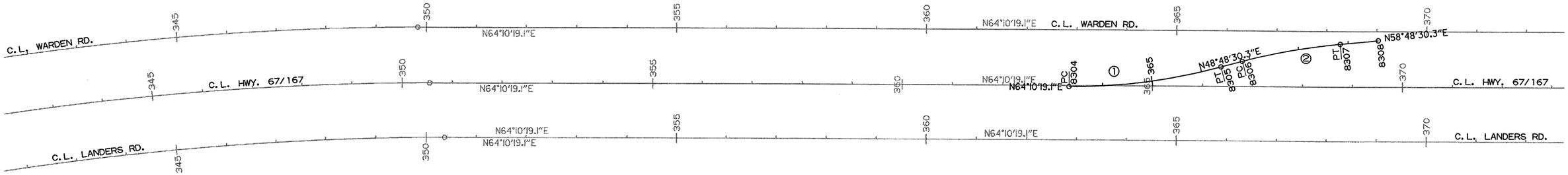
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	232	609

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
12-23

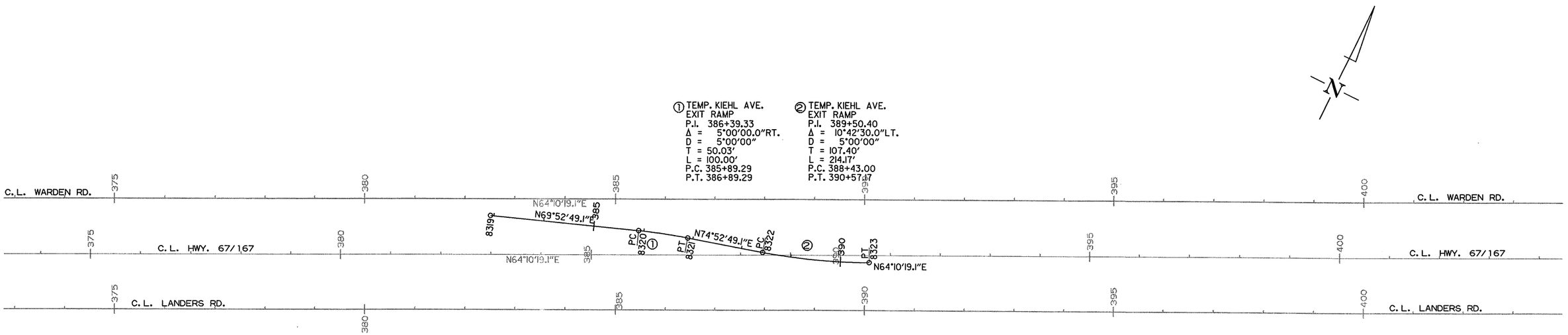
① TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 364+87.23
Δ = 15°21'48.8"LT.
D = 5°00'00"
T = 154.56'
L = 307.27'
P.C. 363+32.67
P.T. 366+39.94

② TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 367+84.32
Δ = 10°00'00.0"RT.
D = 5°00'00"
T = 100.25'
L = 200.00'
P.C. 366+84.06
P.T. 368+84.06



① TEMP. KIEHL AVE. EXIT RAMP
P.I. 386+39.33
Δ = 5°00'00.0"RT.
D = 5°00'00"
T = 50.03'
L = 100.00'
P.C. 385+89.29
P.T. 386+89.29

② TEMP. KIEHL AVE. EXIT RAMP
P.I. 389+50.40
Δ = 10°42'30.0"LT.
D = 5°00'00"
T = 107.40'
L = 214.17'
P.C. 388+43.00
P.T. 390+57.17



07-11-205 RR60080MOT.SUR2

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4B

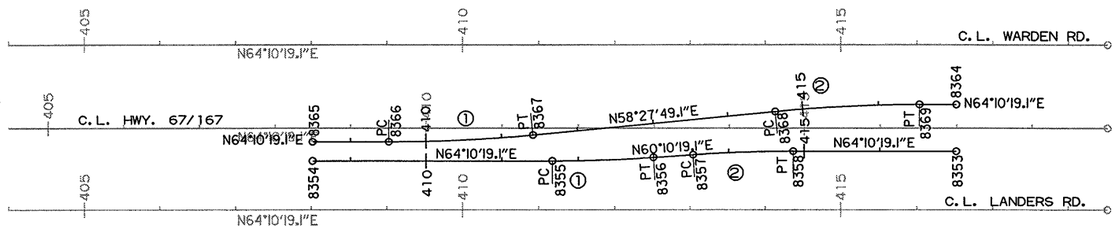
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	233	603

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9734
CHARLES D. CLEMENTS
8-22-07

① TEMP. S.B. SHIFT
P.I. 410+46.06
Δ = 5°42'30.0"LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 409+50.85
P.T. 411+41.12

② TEMP. S.B. SHIFT
P.I. 415+58.65
Δ = 5°42'30.0"RT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 414+63.43
P.T. 416+53.71



①TEMP. N.B. SHIFT
P.I. 412+32.77
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 411+66.07
P.T. 412+99.41

②TEMP. N.B. SHIFT
P.I. 414+19.08
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 413+52.38
P.T. 414+85.72

07-11-205 RR60080MOT.SUR2

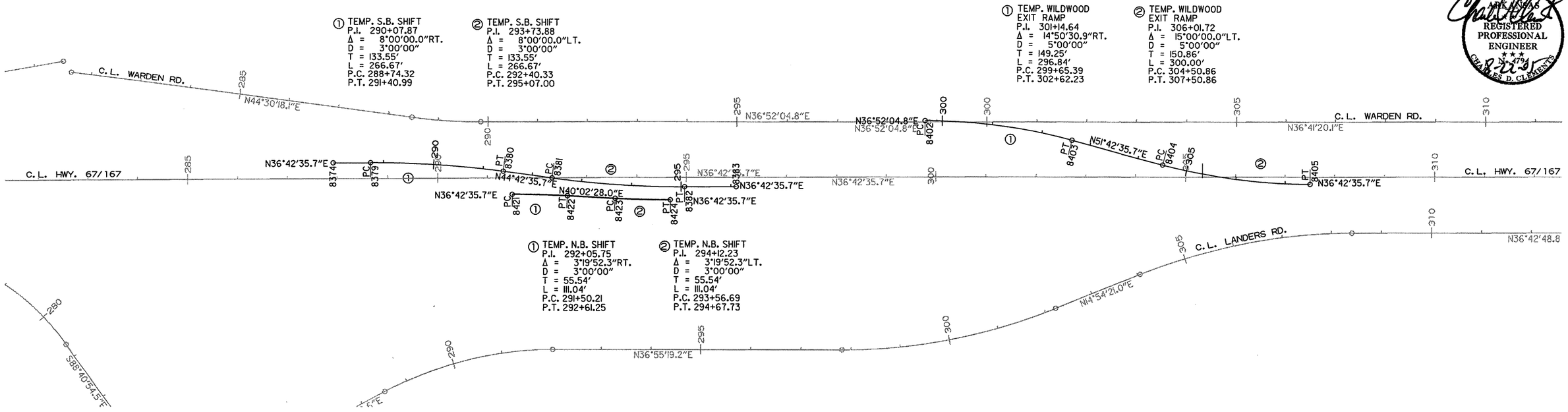
SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4B

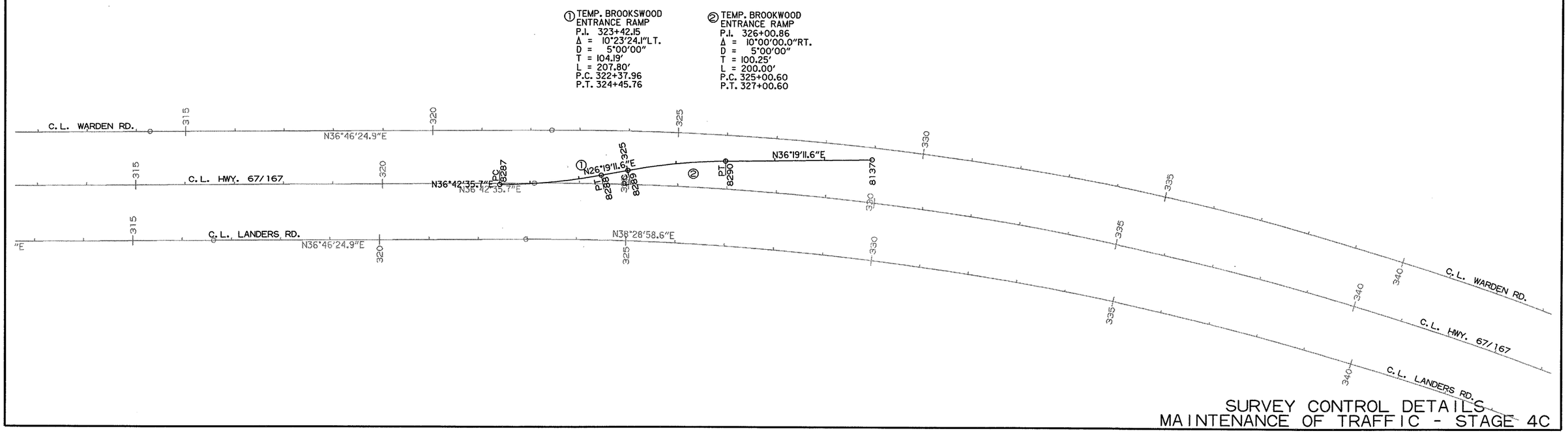
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	234	608

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4734
CHARLES D. CLEMENTS
8-22-91





07-11-205 RR60080MOT.SUR2

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4C

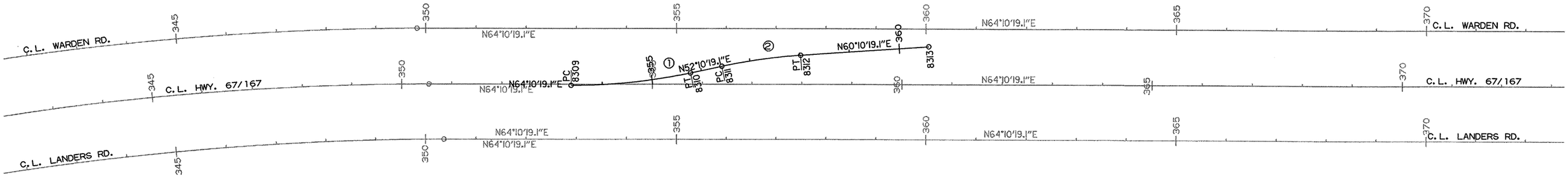
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	235	609

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
8-22-07
CHARLES D. CLEMENTS

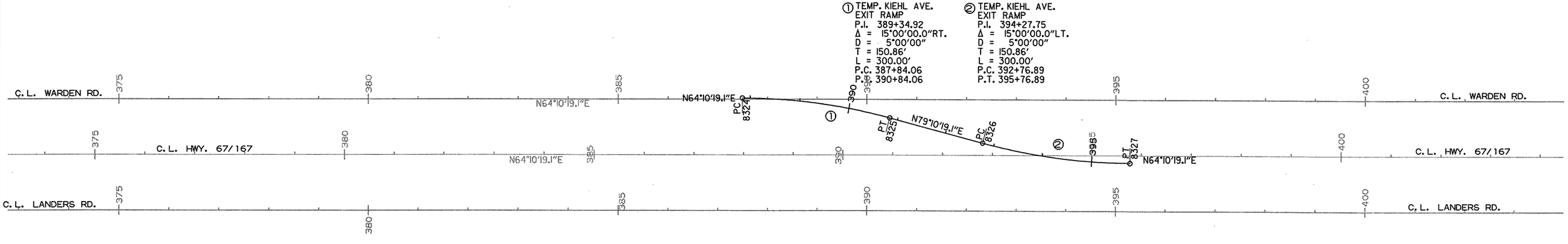
① TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 354+58.30
Δ = 12°00'00.0"LT.
D = 5°00'00"
T = 120.44'
L = 240.00'
P.C. 353+37.86
P.T. 355+77.86

② TEMP. KIEHL AVE. ENTRANCE RAMP
P.I. 357+22.55
Δ = 8°00'00.0"RT.
D = 5°00'00"
T = 80.13'
L = 160.00'
P.C. 356+42.42
P.T. 358+02.42



① TEMP. KIEHL AVE. EXIT RAMP
P.I. 389+34.92
Δ = 15°00'00.0"RT.
D = 5°00'00"
T = 150.86'
L = 300.00'
P.C. 387+84.06
P.T. 390+84.06

② TEMP. KIEHL AVE. EXIT RAMP
P.I. 394+27.75
Δ = 15°00'00.0"LT.
D = 5°00'00"
T = 150.86'
L = 300.00'
P.C. 392+76.89
P.T. 395+76.89



07-11-205 RR60080MOT.SUR2

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4C

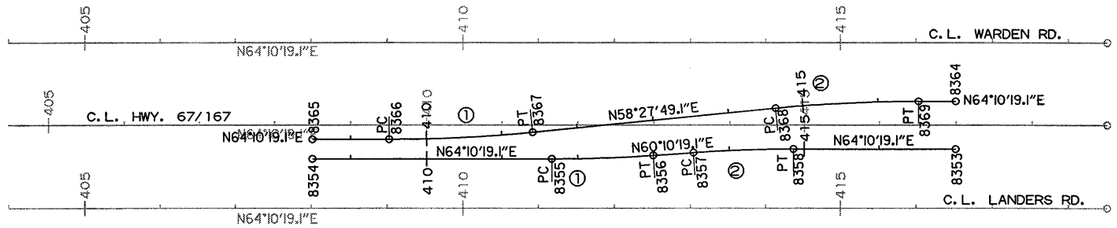
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	236	C053

(2) SURVEY CONTROL DETAILS - M.O.T.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
11-22-04
CHARLES D. CLEMENTS

① TEMP. S.B. SHIFT
P.I. 410+46.06
Δ = 5°42'30.0"LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 409+50.85
P.T. 411+41.12

② TEMP. S.B. SHIFT
P.I. 415+58.65
Δ = 5°42'30.0"RT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 414+63.43
P.T. 416+53.71



①TEMP. N.B. SHIFT
P.I. 412+32.77
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 411+66.07
P.T. 412+99.41

②TEMP. N.B. SHIFT
P.I. 414+19.08
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 413+52.38
P.T. 414+85.72

07-11-205 RR60080MOT.SUR2

SURVEY CONTROL DETAILS
MAINTENANCE OF TRAFFIC - STAGE 4C

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	237	609

(2) SOIL LOG

STATE OF ARKANSAS CHARLES D. CLEMENTS REGISTERED PROFESSIONAL ENGINEER No. 4794 5-27-05

SOIL LOG

STATION	LATITUDE	LONGITUDE	LOCATION	DEPTH FEET	A. A. S. H. T. O. CLASSIFICATION	LIQUID LIMIT	PLASTICITY INDEX	REMARKS
105+00.00	34°46'36.30"	92°14'08.00"	28' RT. OF NB HWY. 67/167	0-5	A-2-4 (0)	20	4	RED/GRAY
107+00.00	34°46'39.30"	92°14'11.50"	30' RT. OF SB HWY. 67/167	0-5	A-4 (0)	21	5	RED
109+00.00	34°46'36.90"	92°14'03.20"	18' RT. OF NB HWY. 67/167	0-5	A-4 (0)	20	04	RED
111+00.00	34°46'40.00"	92°14'07.20"	18' LT. OF SB HWY. 67/167	0-3.5 Z	A-4 (0)	ND	NP	GRAY
117+00.00	34°46'43.50"	92°14'01.50"	18' LT. OF SB HWY. 67/167	0-5	A-4 (0)	ND	NP	BROWN
119+00.00	34°46'43.20"	92°13'52.80"	18' RT. OF NB HWY. 67/167	0-5	A-6 (9)	35	18	RED
125+00.00	34°46'50.30"	92°13'56.30"	18' LT. OF SB HWY. 67/167	0-5	A-4 (0)	21	05	GRAY
133+00.00	34°47'21.80"	92°13'17.60"	18' RT. OF NB HWY. 67/167	0-5	A-6 (17)	39	19	RED
133+00.00	34°46'57.90"	92°13'52.40"	30' LT. OF SB HWY. 67/167	0-3.6 Z	A-4 (2)	20	10	GRAY
141+00.00	34°47'03.20"	92°13'44.70"	18' RT. OF NB HWY. 67/167	0-3.8 Z	A-6 (10)	33	13	BROWN
141+00.00	34°47'01.00"	92°13'58.20"	30' LT. OF SB HWY. 67/167	0-2.5 Z	A-4 (0)	ND	NP	GRAY
149+00.00	34°47'10.60"	92°13'41.60"	50' RT. OF NB HWY. 67/167	0-5	A-4 (2)	22	7	GRAY/BROWN
149+00.00	34°47'08.10"	92°13'51.80"	60' LT. OF SB HWY. 67/167	0-5	A-4 (1)	22	7	RED
149+00.00	34°47'11.30"	92°13'41.70"	C.L. MEDIAN HWY. 67/167	0-5	A-6 (8)	31	12	RED/BROWN
13+00.00	34°49'43.10"	92°10'49.30"	5' RT. OF KIEHL AVE.	0-5	A-6 (5)	33	18	RED/BROWN
15+00.00	34°47'12.70"	92°13'39.50"	50' RT. OF KIEHL AVE.	0-3.5 Z	A-6 (11)	32	17	RED
19+00.00	34°47'15.90"	92°13'37.30"	C.L. OF KIEHL AVE.	0-5	A-6 (10)	31	15	RED
21+00.00	34°49'51.40"	92°10'54.00"	5' LT. OF KIEHL AVE.	0-5	A-6 (4)	28	13	RED/BROWN
23+00.00	34°47'20.90"	92°13'34.80"	50' LT. OF KIEHL AVE.	0-5	A-4 (2)	23	8	RED/BROWN
317+00.00	34°49'17.50"	92°11'47.10"	38' LT. OF SB HWY. 67/167	0-5	A-6 (7)	31	13	RED
320+00.00	34°49'19.00"	92°11'44.00"	40' RT. OF SB HWY. 67/167	0-5	A-4 (3)	23	10	RED
324+00.00	34°49'21.00"	92°11'41.10"	C.L. MEDIAN HWY. 67/167	0-5	A-4 (5)	27	10	RED/BROWN
329+00.00	34°49'25.80"	92°11'38.30"	40' LT. OF SB HWY. 67/167	0-5	A-4 (0)	21	4	RED
332+00.00	34°49'28.20"	92°11'35.30"	40' RT. OF NB HWY. 67/167	0-5	A-2-4 (0)	ND	NP	RED/BROWN
334+00.00	34°49'29.70"	92°11'33.00"	C.L. BROOKSWOOD FLYOVER	0-5	A-7-6 (12)	41	12	RED/GRAY
336+00.00	34°49'31.10"	92°11'31.60"	C.L. MEDIAN HWY. 67/167	0-5	A-4 (0)	ND	NP	RED
340+00.00	34°49'33.90"	92°11'28.60"	50' LT. OF SB HWY. 67/167	0-5	A-4 (0)	ND	NP	RED/GRAY
342+00.00	34°49'34.40"	92°11'25.90"	C.L. BROOKSWOOD FLYOVER	0-5	A-7-6 (19)	42	22	BROWN
344+00.00	34°49'35.40"	92°11'23.60"	50' RT. OF NB HWY. 67/167	0-5	A-4 (0)	18	2	BROWN
348+00.00	34°49'37.80"	92°11'19.80"	C.L. MEDIAN HWY. 67/167	0-5	A-6 (9)	31	14	RED/BROWN
350+00.00	34°49'40.10"	92°11'21.80"	C.L. BROOKSWOOD FLYOVER	0-5	A-4 (6)	26	9	GRAY
352+00.00	34°49'40.00"	92°11'16.00"	40' LT. OF SB HWY. 67/167	0-5	A-6 (8)	28	13	BROWN/GRAY
356+00.00	34°49'40.90"	92°11'10.60"	40' RT. OF NB HWY. 67/167	0-5	A-6 (7)	28	14	BROWN
360+00.00	34°49'43.10"	92°11'06.90"	C.L. MEDIAN HWY. 67/167	0-5	A-6 (5)	26	12	BROWN
364+00.00	34°49'45.40"	92°11'03.20"	40' LT. OF SB HWY. 67/167	0-5	A-4 (0)	ND	NP	RED/BROWN
368+00.00	34°49'45.70"	92°10'57.80"	40' RT. OF NB HWY. 67/167	0-5	A-2-4 (0)	ND	NP	RED/BROWN
372+00.00	34°49'47.80"	92°10'54.60"	C.L. MEDIAN HWY. 67/167	0-5	A-4 (5)	25	10	BROWN
376+00.00	34°49'50.40"	92°10'50.20"	40' LT. OF SB HWY. 67/167	0-5	A-4 (3)	26	10	RED/BROWN
380+00.00	34°49'51.20"	92°10'45.00"	75' RT. OF NB HWY. 67/167	0-5	A-4 (1)	21	8	RED/BROWN
384+00.00	34°49'53.30"	92°10'41.30"	C.L. MEDIAN HWY. 67/167	0-5	A-4 (0)	18	2	RED/BROWN
388+00.00	34°49'55.80"	92°10'37.30"	40' LT. OF SB HWY. 67/167	0-5	A-4 (3)	26	10	RED/BROWN
392+00.00	34°49'56.50"	92°10'32.20"	40' RT. OF NB HWY. 67/167	0-5	A-4 (0)	18	4	BROWN
396+00.00	34°49'59.00"	92°10'28.30"	C.L. MEDIAN HWY. 67/167	0-5	A-6 (5)	29	12	RED/BROWN
400+00.00	34°50'01.00"	92°10'23.60	40' LT. OF SB HWY. 67/167	0-5	A-4 (0)	ND	NP	BROWN/GRAY
404+00.00	34°50'01.80"	92°10'19.40"	40' RT. OF NB HWY. 67/167	0-5	A-4 (0)	19	6	BROWN
408+00.00	34°50'04.10"	92°10'14.50"	C.L. MEDIAN HWY. 67/167	0-5	A-4 (3)	24	8	BROWN
17+00.00	34°49'41.70"	92°11'27.30"	18' RT. OF BROOKSWOOD DRIVE	0-5	A-7-6 (16)	41	23	RED
124+00.00	34°46'47.70"	92°13'50.10"	C.L. NB HWY. 67/167	0-3.5 Z	A-6 (6)	29	11	RED
124+00.00	34°46'47.70"	92°13'50.10"	C.L. NB HWY. 67/167	3.5-10.0	A-6 (12)	35	13	RED
126+00.00	34°46'49.00"	92°13'49.90"	30' LT. OF NB HWY. 67/167	0-5	A-6 (12)	36	14	BROWN
126+00.00	34°46'49.00"	92°13'49.90"	30' LT. OF NB HWY. 67/167	5-10	A-6 (9)	36	15	RED/BROWN
105+00.00	34°46'36.30"	92°14'08.00"	34' RT. OF CENTERLINE 67/167	0-5	A-2-4 (0)	19	2	RED/BROWN
149+00.00	34°47'11.30"	92°13'41.70"	CENTERLINE 67/167	0-5	A-6 (6)	27	11	RED/BROWN
334+00.00	34°49'29.70"	92°11'33.00"	CENTERLINE OF BROOKSWOOD FLYOVER	0-5	A-6 (8)	34	12	RED/GRAY

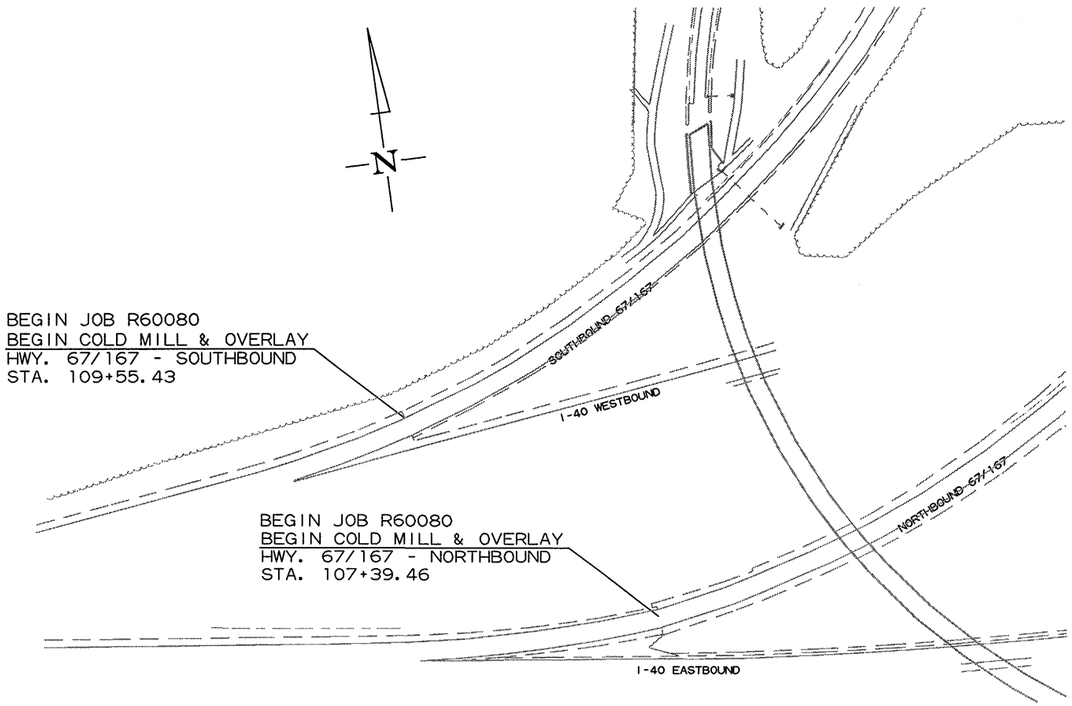
NOTE: SOIL CHARACTERISTICS TABULATED ABOVE ARE REPRESENTATIVE OF THE SAMPLE, AND FROM SURFACE INDICATIONS ARE TYPICAL FOR THE LIMITS SHOWN. THESE DATA ARE SHOWN FOR INFORMATION ONLY. THE STATE WILL NOT BE RESPONSIBLE FOR VARIATIONS IN THE SOIL CHARACTERISTICS AND/OR EXTENT OF SAME DIFFERING FROM THE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

08-15-2005 R60080.D09

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	238	609

(2) PLAN - HWY. 67/167

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
8-23-99



HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	232	603

(2) PLAN & PROFILE - HWY. 67/167

REMOVAL & DISPOSAL OF GUARDRAIL
STA. 113+29 TO STA. 115+29 RT. OF C.L. N.B. HWY. 67/167 = 200 LIN. FT.
STA. 112+83 TO STA. 114+83 RT. OF C.L. N.B. HWY. 67/167 = 200 LIN. FT.
STA. 121+08 TO STA. 123+08 RT. OF C.L. N.B. HWY. 67/167 = 200 LIN. FT.
STA. 121+50 TO STA. 123+50 LT. OF C.L. N.B. HWY. 67/167 = 200 LIN. FT.
STA. 141+19 TO STA. 143+44 RT. OF C.L. N.B. HWY. 67/167 = 225 LIN. FT.
STA. 114+67 TO STA. 117+11 LT. OF C.L. S.B. HWY. 67/167 = 250 LIN. FT.

REMOVAL & DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 130+70 RT. OF C.L. S.B. HWY. 67/167 = 1 EACH
STA. 130+70 LT. OF C.L. S.B. HWY. 67/167 = 1 EACH
STA. 139+17 RT. OF C.L. S.B. HWY. 67/167 = 1 EACH
STA. 139+17 LT. OF C.L. S.B. HWY. 67/167 = 1 EACH

S.B. HWY. 67/167
STA. 137+63 IN PLACE
30" x 168' R.C. PIPE CULV'T.
(5° RT. FWD. SKEW)
WITH HEADWALLS LT. & RT.
RETAIN PORTION OF PIPE CULV'T.
REMOVE 3' ON LT. & HEADWALL
CONSTRUCT F.E.S. LT.
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T. (CL. III)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4791
CHARLES D. CLEMENTS

END COLD MILL & OVERLAY
BEGIN FULL DEPTH CONSTRUCTION
HWY. 67/167 - SOUTHBOUND
STA. 127+72.68

300' TAPER
PAVM'T EDGE
R= 750'
SOUTHBOUND 67/167

S.B. HWY. 67/167
P.I. 142+04.05
Δ = 12°53'49.5" RT.
D = 2°00'00"
T = 323.80'
L = 644.85'
P.C. 138+80.25
P.T. 145+25.11
Ls = 375'
e = 0.062'/'

END COLD MILL & OVERLAY
BEGIN FULL DEPTH CONSTRUCTION
HWY. 67/167 - NORTHBOUND
STA. 133+85.81

NORTHBOUND 67/167

N.B. HWY. 67/167
STA. 137+59 IN PLACE
30" x 268' R.C. PIPE CULV'T.
(30° LT. FWD. SKEW)
WITH HEADWALLS LT. & RT.
RETAIN

HWY. 67/167

	GUARDRAIL (TYPE A)	TERMINAL ANCHOR POST (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
STA. 112+50.64 TO STA. 115+19.39 RT. OF C.L. N.B. HWY. 67/167	= 200 LIN. FT.		1 EACH	1 EACH
STA. 111+54.55 TO STA. 114+73.30 LT. OF C.L. N.B. HWY. 67/167	= 250 LIN. FT.		1 EACH	1 EACH
STA. 120+29.87 TO STA. 122+98.62 RT. OF C.L. N.B. HWY. 67/167	= 200 LIN. FT.		1 EACH	1 EACH
STA. 120+21.91 TO STA. 123+40.66 LT. OF C.L. N.B. HWY. 67/167	= 250 LIN. FT.		1 EACH	1 EACH
STA. 114+36.00 TO STA. 117+11.00 LT. OF C.L. S.B. HWY. 67/167	= 225 LIN. FT.	1 EACH	1 EACH	

MEMPHIS EXIT RAMP
STA. 127+72.62 BEGIN SUPERELEVATION (0.054'/')
STA. 130+73.50 END SUPERELEVATION (0.020'/')

+72.68

HWY. 67/167 - SOUTHBOUND
STA. 135+99.00 BEGIN SUPERELEVATION (0.020'/')
STA. 139+74.00 MAX. SUPERELEVATION (-0.062'/')
STA. 144+31.36 MAX. SUPERELEVATION (-0.062'/')
STA. 148+06.36 END SUPERELEVATION (0.020'/')

+85.81

EARTHWORK HWY. 67/167 - NORTHBOUND
STA. 133+85.81 TO STA. 159+56.24
UNCLASSIFIED EXCAVATION = 10748 CU. YD.
COMPACTED EMBANKMENT = 2847 CU. YD.

S.B. HWY. 67/167
STA. 142+42.53
Elev 350.22

MEMPHIS ENTRANCE RAMP
STA. 133+86.61 BEGIN SUPERELEVATION (0.037'/')
STA. 135+20.51 END SUPERELEVATION (0.020'/')

P.V.I. 133+31.57
Elev 329.45

HWY. 67/67 - S.B.
2.28%

HWY. 67/67 - N.B.
3.62%

S.B. HWY. 67/167
STA. 127+72.68
Elev 309.69

HWY. 67/67 - S.B.
3.50%

HWY. 67/67 - S.B.
VC=400.00'
e=-0.61'

HWY. 67/67 - N.B.
VC=550.00'
e=2.15'

HWY. 67/67 - N.B.
-2.50%

+63 S.B. LANES
+63 S.B. LANES
F.L. INLET 326.74
F.L. OUTLET 307.95

N.B. HWY. 67/167
STA. 142+42.53
Elev 344.25

N.B. HWY. 67/167
STA. 133+85.81
Elev 316.29

P.V.I. 134+05.64
Elev 313.96

+59 N.B. LANES
+59 N.B. LANES
F.L. INLET 308.03
F.L. OUTLET 292.26

BM-957- AHTD ALUM. CAP IN N.W. CORNER BR. 27.60' RT. C.L. NORTHBOUND HWY. 67/167 STA. 115+28.41 ELEV. 279.86

BM-958- AHTD ALUM. CAP IN N.E. CORNER BR. 27.66' RT. C.L. NORTHBOUND HWY. 67/167 STA. 118+37.65 ELEV. 290.41

BM-959- AHTD ALUM. CAP IN S.E. CORNER BR. 29.11' RT. C.L. NORTHBOUND HWY. 67/167 STA. 123+02.90 ELEV. 304.11

360 350 340 330 320 310 300 290 280 270

113+00 115+00 120+00 125+00 130+00 135+00 140+00 143+00

06-29-2005 RR60080.P01

REMOVAL & DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 26+59 C.L. MEDIAN M.L. = 1 EACH
STA. 27+70 C.L. MEDIAN M.L. = 1 EACH
STA. 28+59 C.L. MEDIAN M.L. = 1 EACH
STA. 28+91 C.L. MEDIAN M.L. = 1 EACH

DENOTES: PAVEMENT TRANSITION.

CONCRETE DITCH PAVING (TYPE A)

	"W"	"B"	SQ. YD.
STA. 147+21.22 TO STA. 149+02.02 RT. OF C.L. S.B. HWY. 67/167	11'-0"	4'-0"	221

CONCRETE DITCH PAVING (TYPE B)

	"W"	SQ. YD.
STA. 25+50.00 TO STA. 27+90.00 RT. OF C.L. MEDIAN HWY. 67/167	4'-0"	107

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	240	609

(2) PLAN & PROFILE - HWY. 67/167

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4779
CHARLES D. CLEMENTS
6-22-05

McCAIN ENTRANCE - SOUTHBOUND
P.I. 150+84.60
Δ = 5°53'39.2"IT.
D = 3°00'00"
T = 98.32'
L = 196.47'
P.C. 149+86.28
P.T. 151+82.75

EQUATION:
NORTHBOUND C.L. HWY. 67/167 STA. 159+56.24
SOUTHBOUND C.L. HWY. 67/167 STA. 159+56.24 BK. =
C.L. MEDIAN HWY. 67/167 STA. 22+13.45 AHD.

1000' ACCELERATION LANE

STA. 146+30.00 BEGIN CONCRETE BARRIER WALL (SIDE TYPE)

STA. 147+25.00 BEGIN CONCRETE BARRIER WALL (SIDE TYPE)

SOUTHBOUND 67/167

NORTHBOUND 67/167

WARDEN RD.

LANDERS RD.

REMOVAL & DISPOSAL OF CONCRETE PIER PROTECTION
STA. 26+77 TO STA. 27+50 = 146 LIN. FT.

N.B. HWY. 67/167
P.I. 146+24.00
Δ = 22°52'08.2"RT.
D = 3°00'00"
T = 386.29'
L = 762.30'
P.C. 142+37.70
P.T. 150+00.00
Ls = 472.50'
e = 0.087'/'

(1) McCAIN EXIT - EASTBOUND
P.I. 150+95.21
Δ = 5°21'26.3"RT.
D = 3°00'00"
T = 89.35'
L = 178.58'
P.C. 150+05.86
P.T. 151+84.44

N.B. HWY. 67/167
STA. 150+95 IN PLACE
DROP INLET IN MEDIAN WITH 24" x 74' R.C. PIPE OUTLET WITH HEADWALL ON RT.
REMOVE DROP INLET
ABANDON PIPE OUTLET

(2) McCAIN EXIT - EASTBOUND
P.I. 158+76.96
Δ = 6°15'06.4"RT.
D = 2°15'00"
T = 139.07'
L = 277.86'
P.C. 157+37.90
P.T. 160+15.75

HWY. 67/167
STA. 24+11 IN PLACE
4' x 3' x 170' R.C. BOX CULV'T.
TYPE 'K' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 4'-0"
MODIFY DROP INLET

END FULL DEPTH CONSTRUCTION STA. 161+41.03

HWY. 67/167
STA. 24+11 IN PLACE
4' x 3' x 170' R.C. BOX CULV'T.
TYPE 'K' DROP INLET 97' RT.
C.L. HWY. 67/167
5'-0" x 5'-0" x H = 8'-5" WITH 48" x 228' R.C. PIPE OUTLET
ADJUST DROP INLET TO GRADE

HWY. 67/167
STA. 26+53 IN PLACE
TYPE 'R' DROP INLET 75' RT.
C.L. HWY. 67/167
4'-0" x 3'-0" x 2'-4" WITH 18" x 264' R.C. PIPE OUTLET
CONNECTED TO DROP INLET AT STA. 23+86 97' RT. C.L. HWY. 67/167
REMOVE DROP INLET
ABANDON PIPE OUTLET

STA. 23+50.00 BEGIN CONCRETE BARRIER WALL (SIDE TYPE A)

STA. 26+00.00 BEGIN CONCRETE BARRIER WALL (SIDE TYPE E)

STA. 28+00.00 END CONCRETE BARRIER WALL (SIDE TYPE E)

300' TAPER

C.L. HWY. 67/167

DENOTES: PAVEMENT TRANSITION.

McCAIN EXIT WESTBOUND
P.I. 30+40.47
Δ = 41°31'32.1"RT.
D = 11°00'00"
T = 197.47'
L = 377.51'
P.C. 28+43.00
P.T. 32+20.51

HWY. 67/167

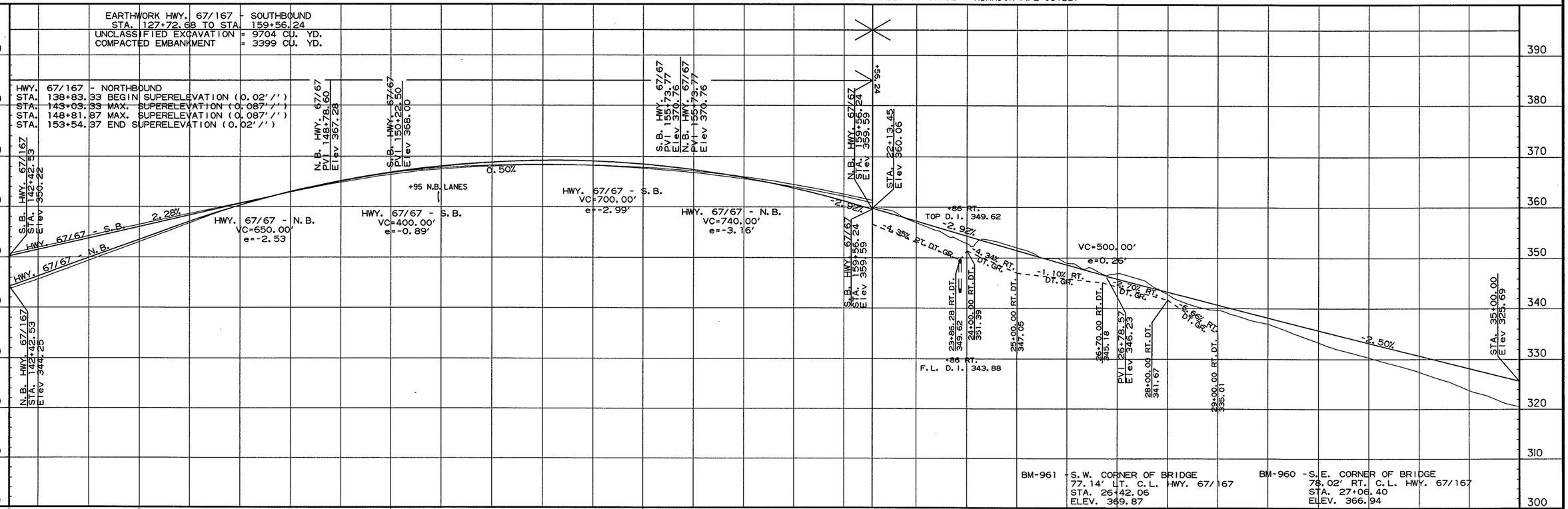
REMOVAL & DISPOSAL OF GUARDRAIL

STA. 149+73 TO STA. 151+73 RT. OF C.L. N.B. 67/167	= 200 LIN. FT.
STA. 25+00 TO STA. 27+00 RT. OF C.L. MEDIAN HWY. 67/167	= 200 LIN. FT.
STA. 160+45 TO STA. 163+70 RT. OF C.L. McCAIN E.B. EXIT RAMP	= 325 LIN. FT.

	GUARDRAIL (TYPE A)	TERMINAL ANCHOR POST (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
STA. 144+56.25 TO STA. 147+25.00 LT. OF N.B. HWY. 67/167	= 200 LIN. FT.		1 EACH	1 EACH
STA. 22+81.25 TO STA. 26+00.00 RT. OF C.L. MEDIAN HWY. 67/167	= 250 LIN. FT.		1 EACH	
STA. 154+50.00 TO STA. 158+25.00 LT. OF C.L. LANDERS RD.	= 325 LIN. FT.	1 EACH	1 EACH	1 EACH

EARTHWORK HWY. 67/167 - SOUTHBOUND
STA. 127+72.68 TO STA. 159+56.24
UNCLASSIFIED EXCAVATION = 9704 CU. YD.
COMPACTED EMBANKMENT = 3399 CU. YD.

HWY. 67/167 - NORTHBOUND
STA. 138+83.33 BEGIN SUPERELEVATION (0.02'/')
STA. 143+03.33 MAX. SUPERELEVATION (0.087'/')
STA. 148+81.87 MAX. SUPERELEVATION (0.087'/')
STA. 153+54.37 END SUPERELEVATION (0.02'/')



BM-961 - S.W. CORNER OF BRIDGE
77.14' LT. C.L. HWY. 67/167
STA. 26+42.06
ELEV. 369.87

BM-960 - S.E. CORNER OF BRIDGE
78.02' RT. C.L. HWY. 67/167
STA. 27+06.40
ELEV. 366.94

06-29-2005 RR60080.P01

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	2A1	609

(2) PLAN & PROFILE - HWY. 67/167

CONCRETE DITCH PAVING (TYPE B)

	"W"	SQ. YD.
STA. 40+48.73 TO STA. 47+44.70 RT. OF C.L. MEDIAN HWY. 67/167	4'-0"	309

STA. 35+35 IN PLACE
5' x 4' x 298' R.C. BOX CULV'T.
CONSTRUCT TYPE 'TM' DROP INLET
4'-0" x 3'-0" x H = 7'-3"
75' LT. C.L. HWY. 67.167

STA. 35+35 IN PLACE
5' x 4' x 298' R.C. BOX CULV'T.
TYPE 'K' DROP INLET 64' LT.
C.L. HWY. 67/167
4'-0" x 4'-0" x H = 7'-3"
REMOVE DROP INLET

HWY. 67/167
STA. 35+35 IN PLACE
5' x 4' x 298' R.C. BOX CULV'T.
TYPE 'K' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 8'-6"
MODIFY DROP INLET

HWY. 67/167
STA. 39+00 IN PLACE
4' x 6' x 266' R.C. BOX CULV'T.
TYPE 'K' DROP INLET 78' LT.
C.L. HWY. 67/167
4'-0" x 4'-0" x H = 1'-9"
RETAIN

HWY. 67/167
STA. 39+00 IN PLACE
4' x 6' x 266' R.C. BOX CULV'T.
TYPE 'K' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 2'-9"
MODIFY DROP INLET

HWY. 67/167
STA. 45+12 CONSTRUCT
TYPE 'ST' DROP INLET 54'-9" LT.
C.L. HWY. 67/167
4'-0" x 4'-6" X H = 4'-2" WITH
24" x 2' R.C. PIPE OUTLET (CL. III)
(USE 3 VANE GRATES)
CONNECT TO JUNCTION BOX AT
STA. 45+13 10' RT. C.L. McCAIN
BLVD. ENTRANCE RAMP
(USE TYPE 3 BEDDING)

REFER TO SHEET 32
FOR RAMP DETAILS.

HWY. 67/167
STA. 48+30 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 7'-6" WITH
36" x 72' R.C. PIPE INLET
36" x 84' R.C. PIPE OUTLET
MODIFY DROP INLET

HWY. 67/167
STA. 48+30 IN PLACE
TYPE 'E' JUNCTION BOX 74' LT. C.L. HWY. 67/167
4'-0" x 3'-0" x H = 4'-0" WITH
18" x 4' R.C. PIPE STUB INLETS W/
MODIFIED GRATES
36" x 52' R.C. PIPE INLET
36" x 72' R.C. PIPE OUTLET
RETAIN PIPE CULV'T.
REMOVE JUNCTION BOX & STUB INLETS
W/ MODIFIED GRATES
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T. (CL. III)

EQUATION C.L. HWY. 67/167
STA. 51+11.90 BK. =
STA. 196+78.80 AHD.

HWY. 67/167
STA. 47+47 CONSTRUCT
TYPE 'ST' DROP INLET 54'-9" LT.
C.L. HWY. 67/167
4'-0" x 4'-6" X H = 4'-2" WITH
24" x 2' R.C. PIPE OUTLET (CL. III)
(USE 3 VANE GRATES)
CONNECT TO DROP INLET AT
STA. 47+48 10' RT. C.L. McCAIN
BLVD. ENTRANCE RAMP
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 202+05 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
24" x 74' R.C. PIPE INLET
24" x 86' R.C. PIPE OUTLET
MODIFY DROP INLET

HWY. 67/167
STA. 209+04 IN PLACE
TYPE 'E' JUNCTION BOX 82' LT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLETS W/
MODIFIED GRATES
18" x 62' R.C. PIPE OUTLET
RETAIN

HWY. 67/167
STA. 202+05 IN PLACE
TYPE 'E' JUNCTION BOX 78' LT. C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
24" x 50' R.C. PIPE INLET
RETAIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
12-1-05

BEGIN EXCEPTION
STA. 210+50.00

WARDEN RD.

700' ACCELERATION LANE

STA. 37+00.00 BEGIN
CONCRETE BARRIER WALL
(SIDE TYPE)

300' TAPER

LANDERS RD.

HWY. 67/167
STA. 35+35 IN PLACE
5' x 4' x 298' R.C. BOX CULV'T.
TYPE 'K' DROP INLET 74' RT.
C.L. HWY. 67/167
4'-0" x 4'-0" x H = 11'-4"
REMOVE DROP INLET
CONSTRUCT TYPE 'TM' DROP INLET
4'-0" x 3'-0" x H = 8'-0"
84' RT. C.L. HWY. 67/167

HWY. 67/167
STA. 39+00 IN PLACE
4' x 6' x 266' R.C. BOX CULV'T.
TYPE 'K' DROP INLET 78' RT.
C.L. HWY. 67/167
4'-0" x 4'-0" x H = 1'-0"
RETAIN

STA. 45+63 CONSTRUCT
TYPE 'ST' DROP INLET 54'-9" RT.
C.L. HWY. 67/167
4'-0" x 4'-6" x H = 7'-6" WITH
24" x 2' R.C. PIPE OUTLET (CL. III)
(USE 3 VANE GRATES)
CONNECT TO DROP INLET AT
STA. 42+63 10' LT.
C.L. McCAIN BLVD. ENTRANCE RAMP
(USE TYPE 3 BEDDING)

REFER TO SHEET 31
FOR RAMP DETAILS.

STA. 48+30 IN PLACE
36" x 84' R.C. PIPE OUTLET
RETAIN PORTION OF PIPE CULV'T.
REMOVE 6' PIPE CULV'T.
CONSTRUCT TYPE 'ST' DROP INLET
54'-9" RT. C.L HWY. 67/167
4'-0" x 4'-6" x H = 11'-11/4"
(USE 3 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 48+30 IN PLACE
TYPE 'E' JUNCTION BOX 58' RT.
C.L. HWY. 67/167
4'-0" x 3'-0" x H = 4'-0" WITH
18" x 182' R.C. PIPE STUB INLET
36" x 84' R.C. PIPE INLET
36" x 52' R.C. PIPE OUTLET
RETAIN PORTION OF PIPE CULV'T.
REMOVE JUNCTION BOX & STUB INLET
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T. (CL. III)

STA. 49+41 CONSTRUCT
TYPE 'ST' DROP INLET 54'-9" RT.
C.L HWY. 67/167
4'-0" x 4'-6" x H = 4'-0" WITH
24" x 108' R.C. PIPE OUTLET (CL. III)
(USE 3 VANE GRATES)
CONNECT TO DROP INLET AT
STA. 48+30 54'-9" RT. C.L. HWY. 67/167
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 202+05 IN PLACE
TYPE 'E' JUNCTION BOX 88' RT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 2'-6" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
24" x 38' R.C. PIPE OUTLET
REMOVE JUNCTION BOX & STUB INLET
CONSTRUCT TYPE 'RM' DROP INLET
89' RT. C.L. HWY. 67/167
4'-0" x 3'-0" x H = 3'-0"

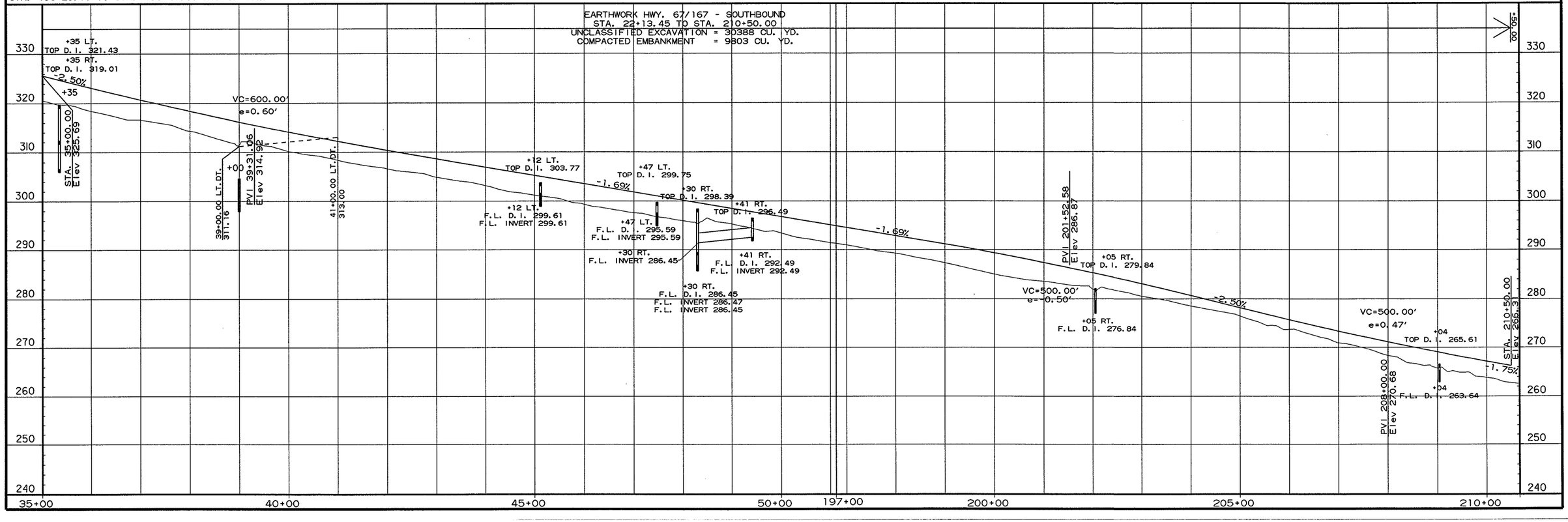
END FULL DEPTH CONSTRUCTION
HWY. 67/167 - MAIN LANES
STA. 210+50.00

HWY. 67/167
STA. 209+04 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x 3'-0" WITH
18" x 78' R.C. PIPE OUTLET
MODIFY DROP INLET

	GUARDRAIL (TYPE A)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
STA. 33+81.25 TO STA. 37+00.00 RT. OF C.L. MEDIAN HWY. 67/167	= 250 LIN. FT.	1 EACH	1 EACH
STA. 196+23.10 TO STA. 198+41.85 RT. OF C.L. WARDEN RD.	= 150 LIN. FT.	1 EACH	1 EACH

HWY. 67/167

EARTHWORK HWY. 67/167 - SOUTHBOUND
STA. 22+13.45 TO STA. 210+50.00
UNCLASSIFIED EXCAVATION = 30388 CU. YD.
COMPACTED EMBANKMENT = 9803 CU. YD.



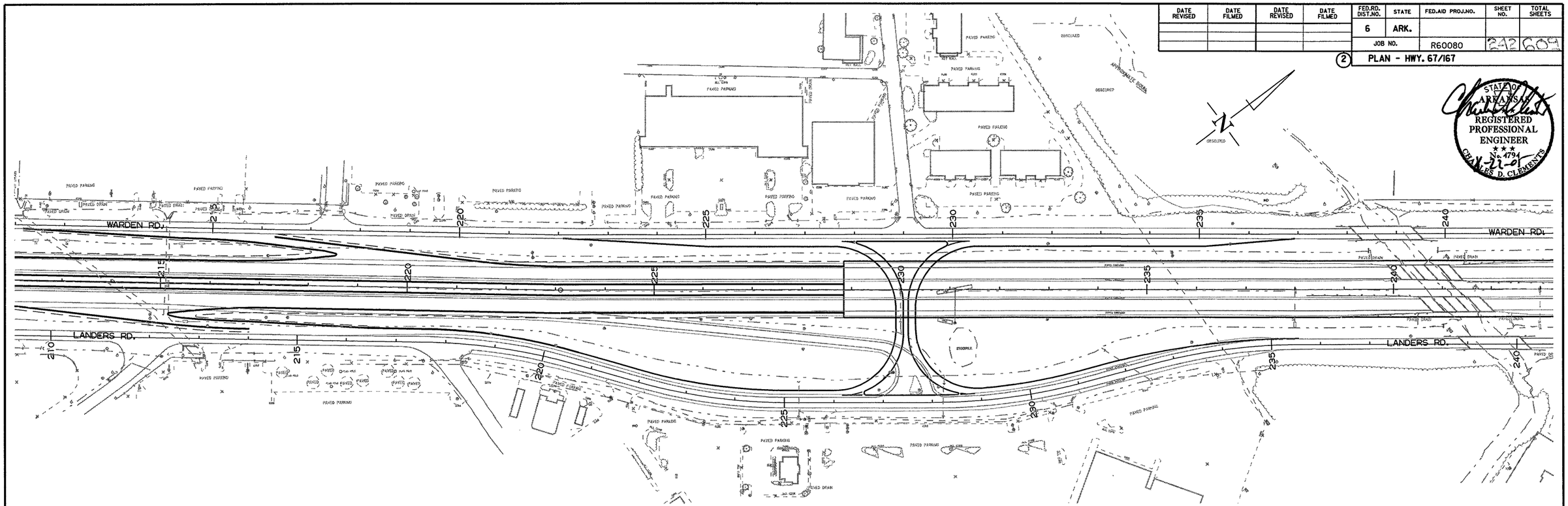
06-29-2005 RR60080.POI

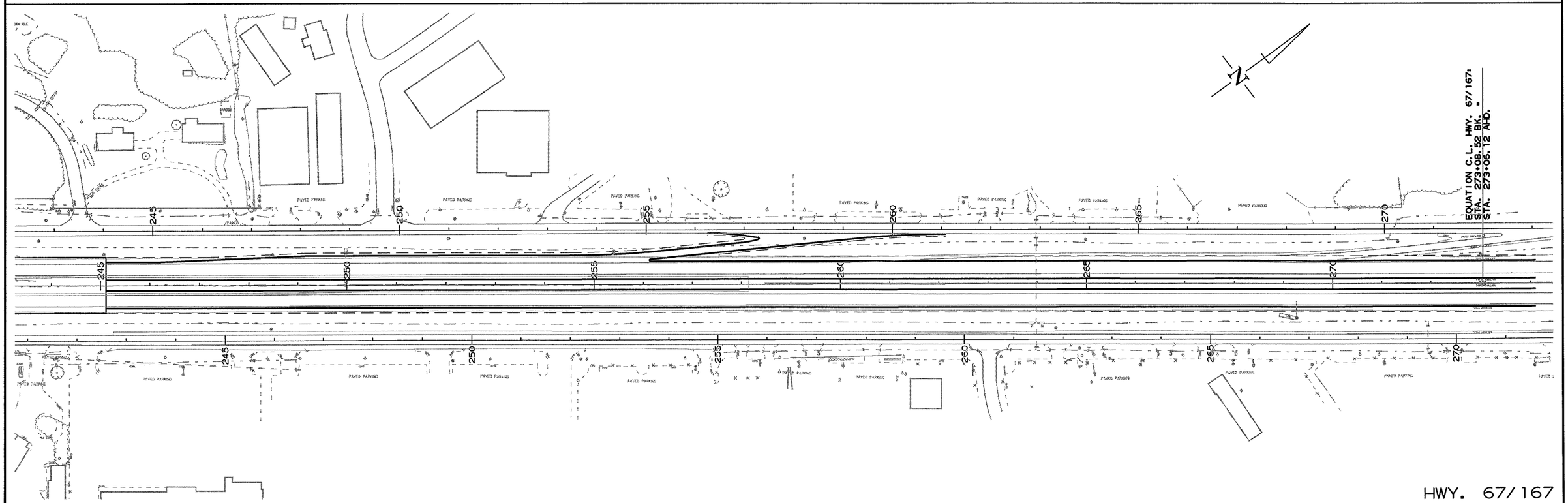
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	242	605

(2) PLAN - HWY. 67/167

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 17971
12-21-04
CHARLES D. CLEMENTS





HWY. 67/167

08-12-2005 RR60080.POI

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.	R60080		243	602

PLAN & PROFILE - HWY. 67/167

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
6-22-05

REFER TO SHEET 39 FOR INTERSECTION DETAILS.

WARDEN RD.
STA. 282+81 IN PLACE
18" x 102' R.C. PIPE CULV'T.
CONNECTED TO DROP INLET 30' RT.
C.L. WARDEN RD. WITH
18" x 14' R.C. PIPE STUB INLET
WITH F.E.S.
REMOVE DROP INLET & STUB INLET
RETAIN PORTION OF PIPE CULV'T.
REMOVE 24' PIPE CULV'T.
CONSTRUCT DROP INLET WITH 8' EXTENSION
12' RT. C.L. WARDEN RD. WITH
18" x 8' R.C. STUB INLET WITH F.E.S.
(USE TYPE 3 BEDDING)
USE 4' & 8' R.C. PIPE CULV'T. (CL. III)
TYPE C = 4'-0" x 3'-0" x H = 5'-2½"
TYPE MO = 4'-0" I.D. x H = 5'-2½"

WARDEN RD.
STA. 294+08 IN PLACE
TYPE 'RM' DROP INLET 33' RT.
C.L. WARDEN RD.
4'-0" x 3'-0" x H = 3'-6" WITH
18" x 58' R.C. PIPE OUTLET
WITH F.E.S. ON LT.
RETAIN PORTION OF PIPE OUTLET
REMOVE DROP INLET
CONSTRUCT TYPE 'RM' DROP INLET
36'-9" RT. C.L. WARDEN RD.
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T. (CL. III)

① WILDWOOD EXIT
P.I. 295+45.11
Δ = 6°17'46.1"RT.
D = 3°00'00"
T = 165.04'
L = 209.87'
P.C. 294+40.07
P.T. 296+49.94
REFER TO SHEET 33 FOR RAMP DETAILS.

② WILDWOOD EXIT
P.I. 300+70.63
Δ = 6°27'15.2"LT.
D = 3°00'00"
T = 107.58'
L = 215.14'
P.C. 299+62.95
P.T. 301+78.09

REMOVAL & DISPOSAL OF CONCRETE ISLAND

GRADE TO DRAIN

DENOTES: OBLITERATION OF PAVEMENT

DENOTES: PAVEMENT TRANSITION.

END EXCEPTION
STA. 296+22.08

BEGIN FULL DEPTH CONSTRUCTION
HWY. 67/167 - MAIN LANES
STA. 296+22.08

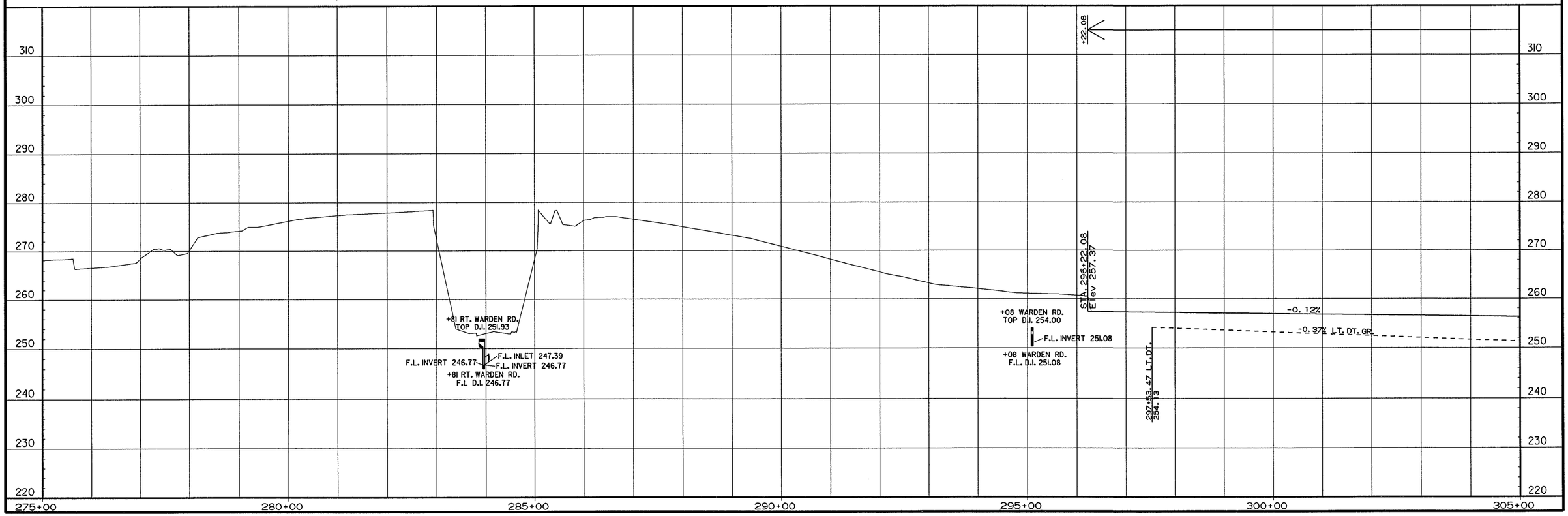
① WILDWOOD ENTRANCE
P.I. 298+43.89
Δ = 52°49'43.8"RT.
R = 82.50'
T = 40.98'
L = 76.07'
P.C. 298+02.91
P.T. 298+78.98

② WILDWOOD ENTRANCE
P.I. 302+66.45
Δ = 17°27'21.9"RT.
D = 5°00'00"
T = 175.92'
L = 349.12'
P.C. 300+90.53
P.T. 304+39.65

REFER TO SHEET 39 FOR INTERSECTION DETAILS.

REMOVAL & DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 302+78 LT. OF L.M.L. = 1 EACH

HWY. 67/167



06-30-2005 RR60080.P01

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	244	609

(2) PLAN & PROFILE - HWY. 67/167

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS

REMOVAL & DISPOSAL OF GUARDRAIL

STA. 312+47 TO STA. 314+47	RT. OF R.M.L.	= 200 LIN. FT.
STA. 312+29 TO STA. 314+29	LT. OF R.M.L.	= 200 LIN. FT.
STA. 316+10 TO STA. 318+10	RT. OF L.M.L.	= 200 LIN. FT.
STA. 315+91 TO STA. 317+91	LT. OF L.M.L.	= 200 LIN. FT.
STA. 313+72 TO STA. 315+22	RT. OF C.L. LANDERS RD.	= 150 LIN. FT.
STA. 314+32 TO STA. 315+07	LT. OF C.L. LANDERS RD.	= 75 LIN. FT.
STA. 316+56 TO STA. 318+06	LT. OF C.L. LANDERS RD.	= 150 LIN. FT.
STA. 310+62 TO STA. 312+62	RT. OF C.L. WARDEN RD.	= 200 LIN. FT.
STA. 314+37 TO STA. 315+37	RT. OF C.L. WARDEN RD.	= 100 LIN. FT.
STA. 314+46 TO STA. 316+46	LT. OF C.L. WARDEN RD.	= 200 LIN. FT.

FOR THE CONSTRUCTION OF TEMPORARY WORK RAMPS OR HAUL ROADS, THE STREAM IS CLASSIFIED AS A PERENNIAL STREAM. THE STREAM BANK ELEVATION IS 248.0 FT. MSL. SEE SUBSECTION 110.06(C) OF THE STANDARD SPECIFICATIONS REGARDING CONSTRUCTION OF TEMPORARY FILLS WITH PERENNIAL STREAM LIMITS.

FLOODWAY LIMITS

STA. 314+30.74 - STA. 316+08.26 CONSTRUCT
177'-6 1/4" x 112" BRIDGE
32', 37', 37', 37', 32' CONT. COMP. W-BEAM

STA. 314+62.47 - STA. 316+12.47 IN PLACE
150'-0" x 28' CLEAR ROADWAY WIDTH
BRIDGE CONSISTING OF R.C. SLAB SPAN
REMOVE AS EXISTING BRIDGE STRUCTURE = 1.00 LUMP SUM

STA. 314+25.32 - STA. 315+75.52 IN PLACE
150'-0" x 28' CLEAR ROADWAY WIDTH
BRIDGE CONSISTING OF R.C. SLAB SPAN
REMOVE AS EXISTING BRIDGE STRUCTURE = 1.00 LUMP SUM

WARDEN RD.
STA. 316+57 IN PLACE
24" x 50' R.C. PIPE CULV'T.
HEADWALLS LT. & RT.
ABANDON

WARDEN RD.
STA. 310+62 IN PLACE
24" x 44' R.C. PIPE CULV'T.
HEADWALLS LT. & RT.
ABANDON

HWY. 67/167
STA. 312+93 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
18" x 74' R.C. PIPE OUTLET
CONNECTED TO JUNCTION BOX AT
STA. 312+93.77 RT. C.L. HWY. 67/167
REMOVE DROP INLET &
ABANDON PIPE OUTLET

HWY. 67/167
STA. 322+17 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-0" WITH
18" x 16' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 322+36.4 LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 317+42 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 2'-6" WITH
18" x 74' R.C. PIPE OUTLET
CONNECTED TO JUNCTION BOX AT
STA. 317+42 78' RT. C.L. HWY. 67/167
REMOVE DROP INLET
ABANDON PIPE OUTLET

HWY. 67/167
STA. 322+36 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-0" WITH
18" x 22' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 322+61 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 329+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-0" WITH
24" x 190' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 330+91 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

REMOVAL & DISPOSAL OF PARAPET WALL

STA. 314+47 TO STA. 314+72	RT. OF R.M.L.	= 1 EACH
STA. 314+29 TO STA. 314+54	LT. OF R.M.L.	= 1 EACH
STA. 315+85 TO STA. 316+10	RT. OF L.M.L.	= 1 EACH
STA. 315+66 TO STA. 315+91	LT. OF L.M.L.	= 1 EACH

HWY. 67/167
STA. 330+91 IN PLACE
TYPE 'E' JUNCTION BOX 77' LT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
24" x 58' R.C. PIPE INLET
24" x 84' R.C. PIPE OUTLET
RETAIN PORTION OF PIPE CULV'T.
REMOVE 4' PIPE CULV'T.
REMOVE DROP INLET
CONSTRUCT TYPE 'ST' JUNCTION BOX
4' LT. C.L. HWY. 67/167
3'-6" x 6'-0" x H = 7'-0"
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T. (CL. III)

HWY. 67/167
STA. 330+91 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
24" x 58' R.C. PIPE INLET
24" x 84' R.C. PIPE OUTLET
RETAIN PORTION OF PIPE CULV'T.
REMOVE 4' PIPE CULV'T.
REMOVE DROP INLET
CONSTRUCT TYPE 'ST' JUNCTION BOX
4' LT. C.L. HWY. 67/167
3'-6" x 6'-0" x H = 7'-0"
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T. (CL. III)

HWY. 67/167
STA. 330+91 IN PLACE
TYPE 'E' JUNCTION BOX 77' LT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLET
W/ MODIFIED GRATES
24" x 6' R.C. PIPE OUTLET
REMOVE PIPE STUB INLET

(1) BROOKSWOOD ENTRANCE
P.I. 325+99.07
Δ = 2°49'24.7"LT.
D = 3°00'00"
T = 47.07'
L = 94.02'
P.C. 325+52.00
P.T. 326+46.12

(2) BROOKSWOOD ENTRANCE
P.I. 331+67.37
Δ = 10°28'54.8"RT.
D = 3°00'00"
T = 175.19'
L = 349.40'
P.C. 329+92.18
P.T. 333+41.58

WARDEN RD. ℄

BR. END
STA. 314+30.74

BR. END
STA. 316+08.26

300' TAPER

700' ACCELERATION LANE

255' TAPER

700' ACCELERATION LANE

LANDERS RD.

REMOVAL & DISPOSAL OF IMPACT ATTENUATION BARRIER
STA. 311+80 C.L. MEDIAN M.L. = 1 EACH

HWY. 67/167
STA. 312+93 IN PLACE
TYPE 'E' JUNCTION BOX 77' RT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 2'-6" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
18" x 54' R.C. PIPE OUTLET
REMOVE JUNCTION BOX &
STUB INLETS
ABANDON PIPE OUTLET

HWY. 67/167
STA. 317+42 IN PLACE
TYPE 'E' JUNCTION BOX 78' RT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 2'-6" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
18" x 64' R.C. PIPE OUTLET
REMOVE STUB INLETS

HWY. 67/167
STA. 317+42 IN PLACE
18" x 64' R.C. PIPE OUTLET
RETAIN PORTION OF PIPE CULV'T.
REMOVE 6' PIPE CULV'T.
CONSTRUCT TYPE 'ST' JUNCTION BOX
83'-6" RT. C.L. HWY. 67/167
4'-0" x 3'-0" x H = 3'-5"
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 320+00 CONSTRUCT
TYPE 'ST' JUNCTION BOX 78' RT.
C.L. HWY. 67/167
4'-0" x 3'-0" x H = 6'-6½" WITH
24" x 256' R.C. PIPE OUTLET
CONNECT TO JUNCTION BOX AT
STA. 317+42 83'-6" 'RT. C.L. HWY. 67/167
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 322+92 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-0" WITH
18" x 66' R.C. PIPE OUTLET WITH
GRATE ASSEMBLY ON RT.
RETAIN PIPE CULV'T.
REMOVE DROP INLET &
GRATE ASSEMBLY

HWY. 67/167
STA. 322+92 CONSTRUCT
TYPE 'RM' DROP INLET 71'-8" RT.
C.L. HWY. 67/167
4'-0" x 3'-0" x H = 4'-5" WITH
24" x 288' R.C. PIPE OUTLET
CONNECT TO JUNCTION BOX AT
STA. 320+00 78'RT. C.L. HWY. 67/167
(USE TYPE 3 BEDDING)

(1) BROOKSWOOD EXIT
P.I. 317+95.22
Δ = 5°42'30.0"RT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 317+00.00
P.T. 318+90.28

REFER TO SHEET 34 FOR RAMP DETAILS.

(2) BROOKSWOOD EXIT
P.I. 323+99.36
Δ = 15°07.1"LT.
D = 3°00'00"
T = 65.61'
L = 131.18'
P.C. 323+33.75
P.T. 324+64.92

HWY. 67/167
STA. 322+61 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-0" WITH
18" x 28' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 322+92 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 322+92 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 6'-8½" WITH
24" x 70' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 322+92 72' RT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 324+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-0" WITH
24" x 92' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 322+92 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 325+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-0" WITH
24" x 198' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 324+00 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167

STA. 307+10.15 TO STA. 314+53.90	RT. OF C.L. MEDIAN HWY. 67/167	= 675 LIN. FT.						
STA. 309+69.34 TO STA. 313+88.09	LT. OF C.L. MEDIAN HWY. 67/167	= 350 LIN. FT.						
STA. 316+50.90 TO STA. 321+19.43	RT. OF C.L. MEDIAN HWY. 67/167	= 450 LIN. FT.						
STA. 315+85.09 TO STA. 321+53.84	LT. OF C.L. MEDIAN HWY. 67/167	= 500 LIN. FT.						
STA. 312+93.99 TO STA. 315+12.14	RT. OF C.L. LANDERS RD.	= 150 LIN. FT.						
STA. 312+78.61 TO STA. 314+97.36	LT. OF C.L. LANDERS RD.	= 150 LIN. FT.						
STA. 316+65.48 TO STA. 321+08.75	LT. OF C.L. LANDERS RD.	= 375 LIN. FT.						
STA. 308+59.00 TO STA. 312+77.75	RT. OF C.L. WARDEN RD.	= 350 LIN. FT.						
STA. 314+47.30 TO STA. 320+66.05	RT. OF C.L. WARDEN RD.	= 550 LIN. FT.						
STA. 314+30.05 TO STA. 316+48.80	LT. OF C.L. WARDEN RD.	= 150 LIN. FT.						

	GUARDRAIL (TYPE A)	TERMINAL ANCHOR POST (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
		1 EACH	1 EACH	1 EACH
		1 EACH		1 EACH
			1 EACH	1 EACH
			1 EACH	1 EACH
			1 EACH	1 EACH
		1 EACH		1 EACH
		1 EACH		1 EACH
			1 EACH	1 EACH
			1 EACH	1 EACH

VC=400.00'
e=0.06'
-0.12%
-0.37% LT. DT. GR.
PVI 307+29.72
Elev 256.00
313+59.99 LT. DT. 248.11
BR. END STA. 314+30.74
2%
0.00%
BR. END STA. 316+08.26
+42 RT. TOP JUNCTION BOX 247.27
F.L. INVERT 243.77
F.L. INVERT 244.50
+42 RT. F.L. JUNCTION BOX 243.77
+00 RT. TOP JUNCTION BOX 254.42
+00 RT. F.L. JUNCTION BOX 247.96
VC=400.00'
e=0.79'
+92 RT. TOP D.I. 255.18
+92 MEDIAN TOP D.I. 256.85
+61 MEDIAN TOP D.I. 258.30
+36 MEDIAN TOP D.I. 258.05
+17 MEDIAN TOP D.I. 257.82
+17 MEDIAN F.L. D.I. 253.82 F.L. INVERT 253.82
+36 MEDIAN F.L. D.I. 253.45 F.L. INVERT 253.45
+61 MEDIAN F.L. D.I. 252.90 F.L. INVERT 252.90
+92 MEDIAN F.L. D.I. 252.14 F.L. INVERT 252.14
+92 RT. F.L. D.I. 250.77 F.L. INVERT 250.77
PVI 321+44.57
Elev 256.00
322+91.91 RT. DT. 255.18
+00 MEDIAN F.L. D.I. 256.57 F.L. INVERT 256.57
+00 MEDIAN TOP D.I. 260.57
1.59%
0.93% RT. DT. GR.
+00 MEDIAN TOP D.I. 263.75
+00 MEDIAN F.L. D.I. 259.75 F.L. INVERT 259.75
327+00.00 RT. DT. 258.99
+00 MEDIAN TOP D.I. 268.09
+00 MEDIAN F.L. D.I. 264.09 F.L. INVERT 264.09
+91 MEDIAN TOP D.I. 269.87
F.L. INVERT 263.25
F.L. INVERT 262.87
+91 MEDIAN F.L. D.I. 262.87
VC=1200.00'
e=-4.36'
PVI 333+12.98
Elev 275.04
0.51% RT. DT. GR.
0.13% RT. DT. GR.
0.91% RT. DT. GR.
332+30.84 RT. DT. 265.93
333+00.00 RT. DT. 266.28
334+00.00 RT. DT. 264.15
335+00.00 RT. DT. 265.24

BM-910 - SQ. CUT N.E. CORNER OF BRIDGE
128.46' RT. C.L. HWY. 67/167
STA. 316+67.52
ELEV. 250.40

BM-911 - CPS IN CP
143.18' RT. C.L. HWY. 67/167
STA. 325+68.80
ELEV. 258.66

BM-912 - CPS IN CP
148.27' RT. C.L. HWY. 67/167
STA. 334+53.70
ELEV. 271.96

305+00 310+00 315+00 320+00 325+00 330+00 335+00

HWY. 67/167

06-30-2005 RR60080.P01

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	245	609

(2) PLAN & PROFILE - HWY. 67/167

HWY. 67/167
STA. 335+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-2" WITH
24" x 298' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 338+00 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 338+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 6'-3" WITH
24" x 298' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 341+00 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 340+91IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H =3'-0" WITH
18" x 66' R.C. PIPE OUTLET WITH
GRATE ASSEMBLY ON LT.
REMOVE DROP INLET &
ABANDON PIPE CULV'T.

HWY. 67/167
STA. 341+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 6'-7" WITH
30" x 298' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 344+00 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 346+90 IN PLACE
4' x 6' x 256' R.C. BOX CULV'T.
TYPE 'K' DROP INLET 82' LT.
C.L. HWY. 67/167
4'-0" x 4'-0" x H = 1'-0"
ADJUST DROP INLET TO GRADE

HWY. 67/167
STA. 346+90 IN PLACE
4' x 6' x 256' R.C. BOX CULV'T.
TYPE 'K' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H =3'-6"
REMOVE DROP INLET

HWY. 67/167
STA. 344+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 6'-9" WITH
30" x 286' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 346+90 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 346+90 IN PLACE
4' x 6' x 256' R.C. BOX CULV'T.
CONSTRUCT TYPE 'ST' DROP INLET
4' LT. C.L. HWY. 67/167
3'-0" x 6'-0" x H = 7'-7½"
(USE 4 VANE GRATES)

HWY. 67/167
STA. 349+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-8" WITH
24" x 98' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 350+00 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 350+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-4" WITH
24" x 54' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 350+65 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 350+65 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-4½" WITH
24" x 18' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 350+85 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 350+85 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-5" WITH
24" x 12' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 351+00 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 351+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-5½" WITH
24" x 20' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 351+23 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 351+90 IN PLACE
TYPE 'E' JUNCTION BOX 77' LT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
24" x 50' R.C. PIPE OUTLET
HEADWALL ON LT.
REMOVE JUNCTION BOX &
STUB INLETS
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 361+89 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-0" WITH
18" x 76' R.C. PIPE OUTLET
REMOVE DROP INLET &
ABANDON PIPE CULV'T.

STATE OF ARKANSAS
CHARLES D. CLEMENTS
No. 479
REGISTERED PROFESSIONAL ENGINEER
1-22-05

N

① KIEHL AVE. ENTRANCE
P.I. 357+01.56
Δ = 4°00'00.0"LT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 356+34.87
P.T. 357+68.20

② KIEHL AVE. ENTRANCE
P.I. 365+18.64
Δ = 4°00'00.0"RT.
D = 3°00'00"
T = 66.69'
L = 133.33'
P.C. 364+51.94
P.T. 365+85.28

C.L. HWY. 67/167 STA. 347+49.59 =
C.L. BROOKSWOOD FLYOVER STA. 347+43.02

WARDEN RD.

300' TAPER

700' ACCELERATION LANE

440' DECELERATION LANE

L=180' TAPER

LANDERS RD.

REFER TO SHEET 24 FOR RAMP DETAILS.

REFER TO SHEET 24 FOR BROOKSWOOD FLYOVER DETAILS.

① KIEHL AVE. EXIT
P.I. 346+42.09
Δ = 10°00'00.0"RT.
D = 3°00'00"
T = 167.09'
L = 333.33'
P.C. 344+75.00
P.T. 348+08.33

② KIEHL AVE. EXIT
P.I. 351+02.98
Δ = 41°27'05.1"LT.
D = 3°00'00"
T = 70.06'
L = 140.05'
P.C. 350+32.92
P.T. 351+72.97

DENOTES: OBLITERATION OF PAVEMENT

HWY. 67/167
P.I. 337+08.66
Δ = 27°27'43.4"RT.
D = 1°00'00"
T = 1400.01'
L = 2746.21'
P.C. 323+08.65
P.T. 350+54.86
Ls = 500'
e = 0.033'/'

HWY. 67/167
STA. 346+90 IN PLACE
4' x 6' x 256' R.C. BOX CULV'T.
TYPE 'K' DROP INLET 83' RT.
C.L. HWY. 67/167
4'-0" x 4'-0" x H = 1'-0"
REMOVE DROP INLET

HWY. 67/167
STA. 346+90 IN PLACE
4' x 6' x 256' R.C. BOX CULV'T.
CONSTRUCT TYPE 'TM' DROP INLET
95' RT. C.L. HWY. 67/167
4'-0" x 3'-0" x H = 1'-9"

HWY. 67/167
STA. 347+88 CONSTRUCT
48" x 326' R.C. PIPE CULV'T. (CL. III)
(29° LT. FWD. SKEW) WITH
F.E.S. LT. & RT.
(USE TYPE 3 BEDDING)

REMOVAL & DISPOSAL OF
IMPACT ATTENUATION BARRIER
STA. 351+76 LT. OF L.M.L. = 1 EACH

GUARDRAIL (TYPE A)
STA. 342+75.00 TO STA. 347+50.00 LT. OF C.L. MEDIAN HWY. 67/167 = 425 LIN. FT.
STA. 331+96.50 TO STA. 333+90.25 LT. OF C.L. LANDERS RD. = 125 LIN. FT.

TERMINAL ANCHOR POST (TYPE 1)	GUARDRAIL TERMINAL (TYPE 2)	THRIE BEAM GUARDRAIL TERMINAL
1 EACH	1 EACH	1 EACH
1 EACH	1 EACH	1 EACH

HWY. 67/167
STA. 351+23 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-6¼" WITH
24" x 64' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 351+90 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 351+90 IN PLACE
24" x 64' R.C. PIPE INLET WITH
GRATE ASSEMBLY ON RT.
RETAIN PORTION OF PIPE CULV'T.
REMOVE GRATE ASSEMBLY
CONSTRUCT TYPE 'RM' DROP INLET
71' RT. C.L. HWY. 67/167
4'-0" x 3'-0" x H = 2-6"
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T. (CL. III)

HWY. 67/167
STA. 351+90 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
24" x 74' R.C. PIPE OUTLET
24" x 64' R.C. PIPE INLET WITH
GRATE ASSEMBLY ON RT.
RETAIN PORTION OF PIPE CULV'T.
REMOVE 5' PIPE CULV'T.
REMOVE DROP INLET
CONSTRUCT TYPE 'ST' DROP INLET
4' LT. C.L. HWY. 67/167
3'-0" x 6'-0" x H = 5'-11"
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CUT. (CL. III)

LANDERS RD.
STA. 355+42 IN PLACE
TYPE 'E' JUNCTION BOX LT.
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLET
W/ MODIFIED GRATE
24" x 62' R.C. PIPE OUTLET
HEADWALL ON RT.
REMOVE JUNCTION BOX
ABANDON PIPE CULV'T.

HWY. 67/167

EARTHWORK HWY. 67/167
STA. 296+22.08 TO STA. 408+50.00
UNCLASSIFIED EXCAVATION = 69862 CU. YD.
COMPACTED EMBANKMENT = 53394 CU. YD.

CONCRETE DITCH PAVING (TYPE A)
STA. 344+75.00 TO STA. 346+87.72 RT. OF C.L. MEDIAN HWY. 67/167

'W'	'B'	SQ. YD.
12'-6"	6'-0"	295

STA. 319+33.65 BEGIN SUPERELEVATION (N.C.)
STA. 324+33.65 MAX. SUPERELEVATION (0.039'/')
STA. 349+29.86 MAX. SUPERELEVATION (0.039'/')
STA. 354+29.86 END SUPERELEVATION (N.C.)

STA. 351+90 IN PLACE
24" x 50' R.C. PIPE CULV'T.
RETAIN PORTION OF PIPE CULV'T.
REMOVE 6' PIPE CULV'T.
CONSTRUCT TYPE 'RM' DROP INLET
86' LT. C.L. HWY. 67/167
4'-0" x 3'-0" x H = 3'-1½"
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 351+89 IN PLACE
TYPE 'E' JUCTION BOX 80' LT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 2'-6" WITH
18" x 4' R.C. PIPE STUB INLET
W/ MODIFIED GRATE
18" x 50' R.C. PIPE OUTLET
HEADWALL ON LT.
RETAIN PORTION OF PIPE CULVT.
REMOVE JUNCTION BOX & STUB INLETS
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T. (CL. III)

HWY. 67/167
STA. 361+89 IN PLACE
18" x 76' R.C. PIPE CULV'T.
RETAIN PORTION OF PIPE CULV'T.
REMOVE 6' PIPE CULV'T.
CONSTRUCT TYPE 'RM' DROP INLET
67' LT. C.L. HWY. 67/167
4'-0" x 3'-0" x H = 2'-0"
(USE TYPE 3 BEDDING)

BM-913 - SQ. CUT IN DROP INLET
82.97' RT. C.L. HWY. 67/167
STA. 346+91.97
ELEV. 249.13

BM-914 - CPS IN PP
150.13' RT. C.L. HWY. 67/167
STA. 358+42.65
ELEV. 260.31

06-30-2005 RR60080.P01

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	246	669

(2) PLAN & PROFILE - HWY. 67/167

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
P-22-94

HWY. 67/167
STA. 369+93 IN PLACE
TYPE 'E' JUNCTION BOX 73' LT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 2'-6" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
18" x 56' R.C. PIPE OUTLET
HEADWALL ON LT.
REMOVE JUNCTION BOX & STUB INLETS
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T. (CL. III)

HWY. 67/167
STA. 369+93 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 13'-0" WITH
18" x 68' R.C. PIPE OUTLET
REMOVE DROP INLET &
ABANDON PIPE CULV'T.

HWY. 67/167
STA. 369+93 IN PLACE
18" x 56' R.C. PIPE OUTLET
RETAIN PORTION OF PIPE CULV'T.
REMOVE 6' PIPE CULV'T.
CONSTRUCT TYPE 'RM' DROP INLET
82' LT. C.L. HWY. 67/167
4'-0" x 3'-0" x H =
(USE TYPE 3 BEDDING)

C.L. HWY. 67/167 STA. 373+19.70 =
C.L. KIEHL AVE. STA. 8+27.19

DENOTES: OBLITERATION OF PAVEMENT

HWY. 67/167
STA. 380+93 IN PLACE
TYPE 'E' JUNCTION BOX 76' LT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
24" x 58' R.C. PIPE OUTLET
REMOVE STUB INLETS

HWY. 67/167
STA. 380+93 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
24" x 70' R.C. PIPE OUTLET
24" x 78' R.C. PIPE INLET
MODIFY DROP INLET

(1) KIEHL AVE. EXIT
P.I. 382+02.98
Δ = 5°42'30.0"LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 381+07.76
P.T. 382+98.04

REFER TO SHEET 38
FOR RAMP DETAILS.

(2) KIEHL AVE. EXIT
P.I. 387+96.00
Δ = 5°42'30.0"LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 387+00.78
P.T. 388+91.06

HWY. 67/167
STA. 392+52 IN PLACE
TYPE 'E' JUNCTION BOX 79' LT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLET
W/ MODIFIED GRATE
24" x 50' R.C. PIPE OUTLET
HEADWALL ON LT.
RETAIN

HWY. 67/167
STA. 392+52 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
24" x 74' R.C. PIPE OUTLET
24" x 76' R.C. PIPE INLET
MODIFY DROP INLET

WARDEN RD.

255' TAPER

700' ACCELERATION LANE

300' TAPER

LANDERS RD.

REMOVAL & DISPOSAL OF
IMPACT ATTENUATION BARRIER
STA. 372+70 C.L. MEDIAN M.L. = 1 EACH
STA. 373+23 C.L. MEDIAN M.L. = 1 EACH

REMOVAL & DISPOSAL OF
CONCRETE PIER PROTECTION
STA. 373+09 TO STA. 373+29 = 40 LIN. FT.

REMOVAL & DISPOSAL OF GUARDRAIL
STA. 370+83 TO STA. 373+58 RT. OF R.M.L. = 275 LIN. FT.
STA. 372+33 TO STA. 375+08 LT. OF L.M.L. = 275 LIN. FT.

HWY. 67/167
STA. 371+00 CONSTRUCT
TYPE 'RM' DROP INLET 80' RT.
C.L. HWY. 67/167
4'-0" x 3'-0" x H = 2'-8" WITH
24" x 56' R.C. PIPE/OUTLET (CL. III)
WITH F.E.S. RT.
(USE TYPE 3 BEDDING)

HWY. 67/167
STA. 380+93 IN PLACE
TYPE 'E' JUNCTION BOX 82' RT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
24" x 44' R.C. PIPE INLET WITH
HEADWALL ON RT.
REMOVE STUB INLETS

(1) KIEHL AVE. ENTRANCE
P.I. 380+53.85
Δ = 5°42'30.0"LT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 379+58.63
P.T. 381+48.91

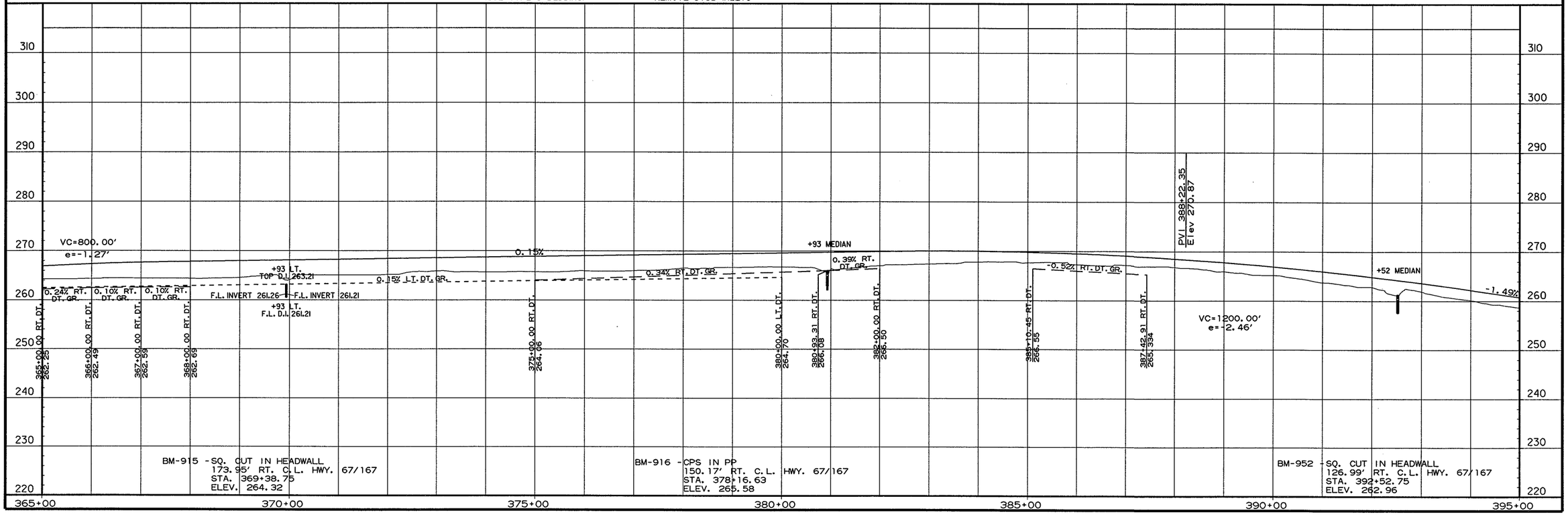
(2) KIEHL AVE. ENTRANCE
P.I. 386+16.71
Δ = 5°42'30.0"RT.
D = 3°00'00"
T = 95.22'
L = 190.28'
P.C. 385+21.49
P.T. 387+11.77

DENOTES: PAVEMENT TRANSITION.

DENOTES: OBLITERATION OF PAVEMENT

HWY. 67/167
STA. 392+52 IN PLACE
TYPE 'E' JUNCTION BOX 79' RT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLET
W/ MODIFIED GRATE
24" x 46' R.C. PIPE INLET WITH
HEADWALL ON RT.
RETAIN

HWY. 67/167



BM-915 - SQ. CUT IN HEADWALL
173.95' RT. C.L. HWY. 67/167
STA. 369+38.75
ELEV. 264.32

BM-916 - CPS IN PP
150.17' RT. C.L. HWY. 67/167
STA. 378+16.63
ELEV. 265.58

BM-952 - SQ. CUT IN HEADWALL
126.99' RT. C.L. HWY. 67/167
STA. 392+52.75
ELEV. 262.96

06-30-2005 RR60080.POI

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	247	609

(2) PLAN & PROFILE - HWY. 67/167

STATE OF ARKANSAS CHARLES D. CLEMENTS REGISTERED PROFESSIONAL ENGINEER No. 4794 9-22-05

HWY. 67/167
STA. 403+92 IN PLACE
TYPE 'E' JUNCTION BOX 77' LT.
C.L. HWY. 67/167
5'-0" x 3'-0" x H = 4'-6" WITH
18" x 12' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
42" x 70' R.C. PIPE OUTLET
(45° LT. FWD. SKEW)
HEADWALL ON LT.
RETAIN

HWY. 67/167
STA. 403+92 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
42" x 102' R.C. PIPE OUTLET
(45° LT. FWD. SKEW)
42" x 98' R.C. PIPE INLET
(45° LT. FWD. SKEW)
MODIFY DROP INLET

HWY. 67/167
STA. 408+81 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
18" x 74' R.C. PIPE OUTLET
RETAIN

HWY. 67/167
STA. 408+81 IN PLACE
TYPE 'E' JUNCTION BOX LT. OF L.M.L
3'-0" x 3'-0" x H = 2'-6" WITH
18" x 4' R.C. PIPE STUB INLET
W/ MODIFIED GRATE
18" x 50' R.C. PIPE OUTLET
HEADWALL ON LT.
RETAIN

DENOTES: PAVEMENT TRANSITION.

END JOB R60080
STA. 408+50.00
(L.M.)

N

WARDEN RD.

LANDERS RD.

END FULL DEPTH CONSTRUCTION
HWY. 67/167 & MAIN LANES
STA. 408+50.00

HWY. 67/167
STA. 403+92 IN PLACE
TYPE 'E' JUNCTION BOX 73' RT.
C.L. HWY. 67/167
5'-0" x 3'-0" x H = 4'-6" WITH
18" x 12' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
42" x 72' R.C. PIPE INLET
(45° LT. FWD. SKEW)
HEADWALL ON RT.
RETAIN

LANDERS RD.
STA. 408+24 IN PLACE
24" x 60' R.C. PIPE CULV'T.
HEADWALL ON RT.
GRATE ASSEMBLY ON LT.
RETAIN

HWY. 67/167

-1.49%

VC=700.00'
e=2.49'

+92 MEDIAN

-0.14% LT. DT. GR.

6.44% LT. DT. GR.

403+00.00 LT DT.
246.24

PVI 403+80.02
Elev 247.64

404+69.00 LT DT.
246.01

406+00.00
246.58

END JOB R60080
STA. 408+50.00
Elev 253.99

+81 MEDIAN

1.35%

PVI 413+74.69
Elev 261.08

0.03%

VC=1000.00'
e=1.65'

BM-953 - SQ. CUT IN A CA
75.98' RT. C.L. HWY. 67/167
STA. 403+12.08
ELEV. 246.58

BM-954 - CPS IN LP
144.41' RT. C.L. HWY. 67/167
STA. 415+42.83
ELEV. 262.08

310 300 290 280 270 260 250 240 230 220

395+00 400+00 405+00 410+00 415+00 420+00 425+00

06-30-2005 RR60080.P01

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	248	268

(2) PLAN & PROFILE - BROOKSWOOD FLYOVER & CONNECTOR

BROOKSWOOD FLYOVER
STA. 337+37 CONSTRUCT
TYPE 'ST' DROP INLET 12' RT.
C.L. BROOKSWOOD FLYOVER
4'-0" x 3'-0" x H = 3'-6" WITH
18" x 20' R.C. PIPE OUTLET (CL. III)
CONNECT TO JUNCTION BOX AT
STA. 337+37 10' LT. C.L. BROOKWOOD
FLYOVER
(USE TYPE 3 BEDDING)

BROOKSWOOD FLYOVER
STA. 337+37 CONSTRUCT
TYPE 'ST' JUNCTION BOX 10' LT.
C.L. BROOKSWOOD FLYOVER
4'-0" x 3'-0" x H = 13'-5" WITH
24" x 4' R.C. PIPE OUTLET (CL. III)
(USE TYPE 3 BEDDING)

BROOKSWOOD FLYOVER
STA. 338+39 CONSTRUCT
TYPE 'ST' DROP INLET 10' LT.
BROOKSWOOD FLYOVER
4'-0" x 3'-0" x H = 3'-6" WITH
24" x 100' R.C. PIPE OUTLET (CL. III)
CONNECT TO JUNCTION BOX AT
STA. 337+37 10' LT. C.L. BROOKSWOOD
FLYOVER
(USE TYPE 3 BEDDING)

BROOKSWOOD FLYOVER
STA. 338+60 CONSTRUCT
TYPE 'ST' DROP INLET 10' LT.
C.L. BROOKSWOOD FLYOVER
4'-0" x 3'-0" x H = 3'-6" WITH
24" x 18' R.C. PIPE OUTLET (CL. III)
CONNECT TO DROP INLET AT
STA. 338+39 10' LT. C.L. BROOKSWOOD
FLYOVER
(USE TYPE 3 BEDDING)

BROOKSWOOD FLYOVER
STA. 339+00 CONSTRUCT
TYPE 'ST' DROP INLET 10' LT.
C.L. BROOKSWOOD FLYOVER
4'-0" x 3'-0" x H = 3'-6" WITH
24" x 38' R.C. PIPE OUTLET (CL. III)
CONNECT TO DROP INLET AT
STA. 338+60 10' LT. C.L. BROOKSWOOD
FLYOVER
(USE TYPE 3 BEDDING)

BROOKSWOOD FLYOVER
STA. 341+00 CONSTRUCT
TYPE 'ST' DROP INLET 10' LT.
C.L. BROOKSWOOD FLYOVER
4'-0" x 3'-0" x H = 3'-6" WITH
24" x 198' R.C. PIPE OUTLET (CL. III)
CONNECT TO DROP INLET AT
STA. 339+00 10' LT. C.L. BROOKSWOOD
FLYOVER
(USE TYPE 3 BEDDING)

BROOKSWOOD FLYOVER
STA. 343+00 CONSTRUCT
TYPE 'ST' DROP INLET 10' LT.
C.L. BROOKSWOOD FLYOVER
4'-0" x 3'-0" x H = 3'-6" WITH
24" x 198' R.C. PIPE OUTLET (CL. III)
CONNECT TO DROP INLET AT
STA. 341+00 10' LT. C.L. BROOKSWOOD
FLYOVER
(USE TYPE 3 BEDDING)

END BROOKSWOOD FLYOVER
STA. 357+03.29

C.L. BROOKSWOOD CONNECTION STA. 355+80.37 =
C.L. BROOKSWOOD STA. 16+73.70
= 90°00'00"

END BROOKSWOOD CONN.
STA. 355+58.10

BEGIN BROOKSWOOD CONN.
STA. 353+73.60

BROOKSWOOD FLYOVER
P.I. 340+59.77
Δ = 9°24'00.8"RT.
D = 0°59'47"
T = 472.71'
L = 943.29'
P.C. 335+87.07
P.T. 345+30.36
NO SUPERELEVATION

BROOKSWOOD FLYOVER
P.I. 349+42.09
Δ = 119°47'13.3"LT.
D = 24°00'00"
T = 411.73'
L = 499.11'
P.C. 345+30.36
P.T. 350+29.47
Ls = 150'
e = 0.06'/'

BROOKSWOOD FLYOVER
STA. 356+00 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT. WITH 8' EXTENSION

REFER TO SHEET 35 FOR
INTERSECTION DETAILS

BROOKSWOOD FLYOVER
STA. 354+49 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT.

BROOKSWOOD FLYOVER
P.I. 355+88.60
Δ = 61°51'28.4"RT.
D = 24°00'00"
T = 143.04'
L = 257.74'
P.C. 354+45.55
P.T. 357+03.29
NO SUPERELEVATION

PROPOSED R/W & CONST. LIMITS

FLOODWAY LIMITS

STA. 344+22.90 - STA. 349+15.15 CONSTRUCT
492'-3" x 25'-0" BRIDGE
135', 184', 171' CONT. COMP. PLATE GIRDER UNIT

CONCRETE DITCH PAVING (TYPE B)

	'W'	SQ. YD.
STA. 354+49.61 RT. OF C.L. BROOKSWOOD	4'-0"	12
STA. 356+00.00 RT. OF C.L. BROOKSWOOD	4'-0"	2

BRIDGE END
STA. 349+15.15

C.L. BROOKSWOOD FLYOVER STA. 347+43.02 =
C.L. HWY. 67/167 STA. 347+49.59

STA. 351+00 CONSTRUCT
TYPE 'ST' DROP INLET 10' LT.
C.L. BROOKSWOOD FLYOVER
4'-0" x 3'-0" x H = 3'-6" WITH
24" x 40' R.C. PIPE OUTLET (CL. III)
CONNECT TO DROP INLET AT
STA. 351+42 10' LT. C.L. BROOKSWOOD
FLYOVER
(USE TYPE 3 BEDDING)

STA. 349+50 CONSTRUCT
TYPE 'ST' DROP INLET 10' LT.
C.L. BROOKSWOOD FLYOVER
4'-0" x 3'-0" x H = 3'-6" WITH
24" x 144' R.C. PIPE OUTLET (CL. III)
CONNECT TO DROP INLET AT
STA. 351+00 10' LT. C.L. BROOKSWOOD
FLYOVER
(USE TYPE 3 BEDDING)

STA. 351+42 CONSTRUCT
TYPE 'ST' DROP INLET 10' LT.
C.L. BROOKSWOOD FLYOVER
4'-0" x 3'-0" x H = 16'-0" WITH
24" x 4' R.C. PIPE OUTLET (CL. III)
(USE TYPE 3 BEDDING)

BROOKSWOOD CONNECTOR
STA. 354+88 CONSTRUCT
DROP INLET WITH 16' EXTENSION
15' LT. OF C.L. BROOKSWOOD CONNECTION
18" x 60' R.C. PIPE OUTLET (CL. III)
CONNECT TO DROP INLET AT
STA. 16+48 26' RT. C.L. BROOKSWOOD
(USE TYPE 3 BEDDING)
TYPE C = 4'-0" x 5'-0" x H = 2'-0"
TYPE MO = 5'-0" I.D. x H = 2'-0"

STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
6-22-04

BROOKSWOOD FLYOVER & CONNECTOR

WARDEN RD.
C.L. HWY. 67/167
BEGIN MSE WALL LT STA. 333+91.77
LANDERS RD.
REFER TO SHEET 34 FOR DETAILS
BRIDGE END STA. 344+22.90
FLOODWAY LIMITS
C.L. HWY. 67/167

BEGIN BROOKSWOOD FLYOVER
STA. 332+70.29

EARTHWORK BROOKSWOOD FLYOVER & CONNECTOR
STA. 335+87.07 TO STA. 356+14.29
UNCLASSIFIED EXCAVATION = 1199 & 325 CU. YD.
COMPACTED EMBANKMENT = 20811 & 35 CU. YD.

STA. 337+34.94 MATCH LANDERS RD.
STA. 339+09.94 (+0.02'/')

STA. 343+05.36 BEGIN SUPERELEVATION (+0.02'/')
STA. 346+05.36 MAX. SUPERELEVATION (+0.06'/')
STA. 349+54.47 MAX. SUPERELEVATION (+0.06'/')
STA. 352+54.47 END SUPERELEVATION (-0.02'/')

C.L. LANDERS RD. STA. 335+85.81 =
C.L. BROOKSWOOD FLYOVER STA. 335+87.07
27.40' LT. ELEV. 274.93

+37 LT. TOP JUNCTION BOX 277.12 LT.
+37 LT. JUNCTION BOX F.L. INVERT 273.62
+37 LT. JUNCTION BOX F.L. INVERT 272.50
+37 JUNCTION BOX F.L. OUTLET 263.62
+37 LT. JUNCTION BOX F.L. D.I. 263.70 F.L. INVERT 263.70
+37 RT. TOP D.I. 276.58 RT.
+37 RT. F.L. D.I. 273.08 F.L. INVERT 273.08
+00 TOP D.I. 279.24
+60 TOP D.I. 278.70
+39 TOP D.I. 278.41
+00 F.L. D.I. 275.74 F.L. INVERT 275.74
+60 F.L. D.I. 275.20 F.L. INVERT 275.20
+39 F.L. D.I. 274.91 F.L. INVERT 274.91
+00 TOP D.I. 282.03
+00 F.L. D.I. 278.53 F.L. INVERT 278.53
1.40%
BRIDGE END STA. 344+22.90
+00 TOP D.I. 284.82
+00 F.L. D.I. 281.32 F.L. INVERT 281.32
PVI 347+42.81 Elev 291.10
VC=750.00' e=-7.59'
BRIDGE END STA. 349+15.15
+50 TOP D.I. 275.45
+00 TOP D.I. 267.14
+42 TOP D.I. 264.31
-6.70%
+50 LT. F.L. D.I. 271.95 F.L. INVERT 271.95
F.L. INVERT 260.81
+00 F.L. D.I. 263.64 F.L. INVERT 263.64
F.L. OUTLET 248.25
+42 F.L. D.I. 248.31 F.L. INVERT 248.31
1.92% LT. DT. GR.
249+00.00 LT. DT. 243.24
PVI 353+64.29 Elev 249.45
355+50.00 LT. DT. 249.85
VC=300.00' e=2.51
+00 RT. TOP D.I. 249.55
+49 RT. TOP D.I. 249.93
0.00%
7.50' LT. C.L. BROOKSWOOD FLYOVER STA. 353+73.60 = 11.00' RT. C.L. BROOKSWOOD CONNECTOR STA. 353+73.60 ELEV. 251.66
11.00' RT. C.L. BROOKSWOOD CONNECTOR STA. 355+68.41 = 0.21' RT. C.L. BROOKSWOOD STA. 16+84.10 ELEV. 250.35
+88 LT. TOP D.I. 249.52
+88 LT. F.L. D.I. 247.52 F.L. INVERT 247.52
PVI 354+70.94 Elev 248.60
VC=150.00' e=0.96'
7.50' LT. C.L. BROOKSWOOD FLYOVER STA. 356+14.29 = 25.40' RT. C.L. BROOKSWOOD STA. 17+98.51 ELEV. 249.45

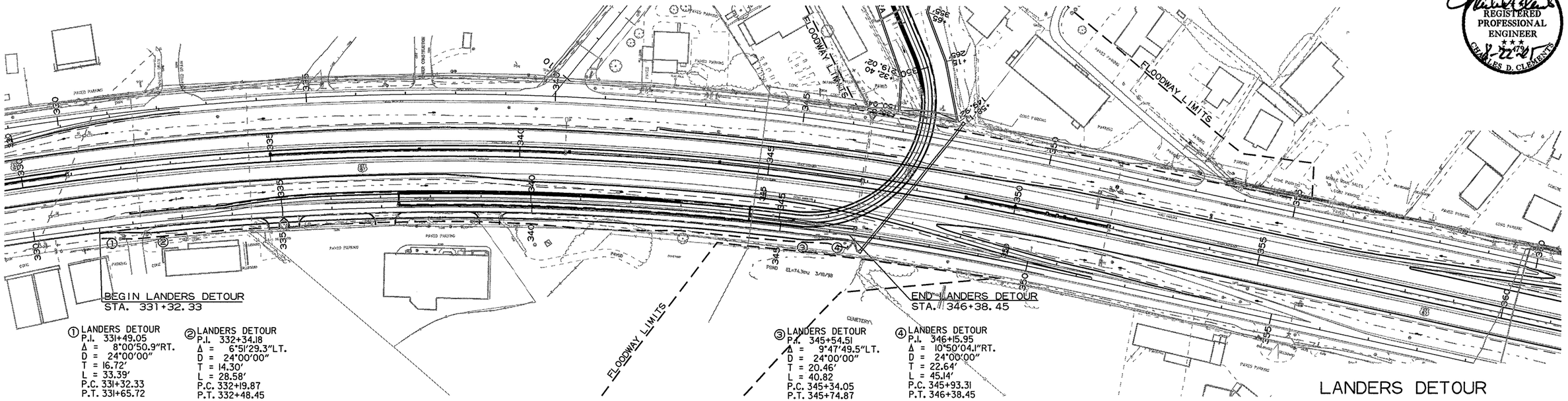
BROOKSWOOD CONNECTOR

09-31-2004 RR60080.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	249	6063

(2) PLAN - LANDERS DETOUR & WILDWOOD AVE.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
CHARLES D. CLEMENTS
9-22-21



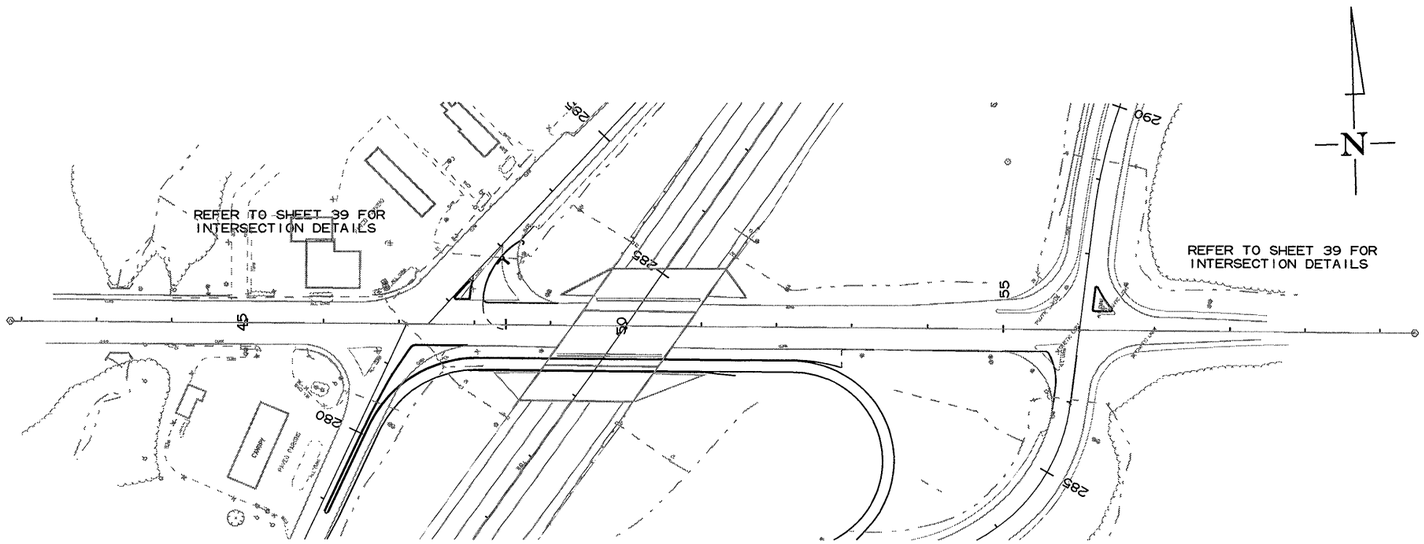
① LANDERS DETOUR
P.I. 331+49.05
Δ = 8°00'50.9"RT.
D = 24°00'00"
T = 16.72'
L = 33.39'
P.C. 331+32.33
P.T. 331+65.72

② LANDERS DETOUR
P.I. 332+34.18
Δ = 6°51'29.3"LT.
D = 24°00'00"
T = 14.30'
L = 28.58'
P.C. 332+19.87
P.T. 332+48.45

③ LANDERS DETOUR
P.I. 345+54.51
Δ = 9°47'49.5"LT.
D = 24°00'00"
T = 20.46'
L = 40.82
P.C. 345+34.05
P.T. 345+74.87

④ LANDERS DETOUR
P.I. 346+15.95
Δ = 10°50'04.1"RT.
D = 24°00'00"
T = 22.64'
L = 45.14'
P.C. 345+93.31
P.T. 346+38.45

LANDERS DETOUR



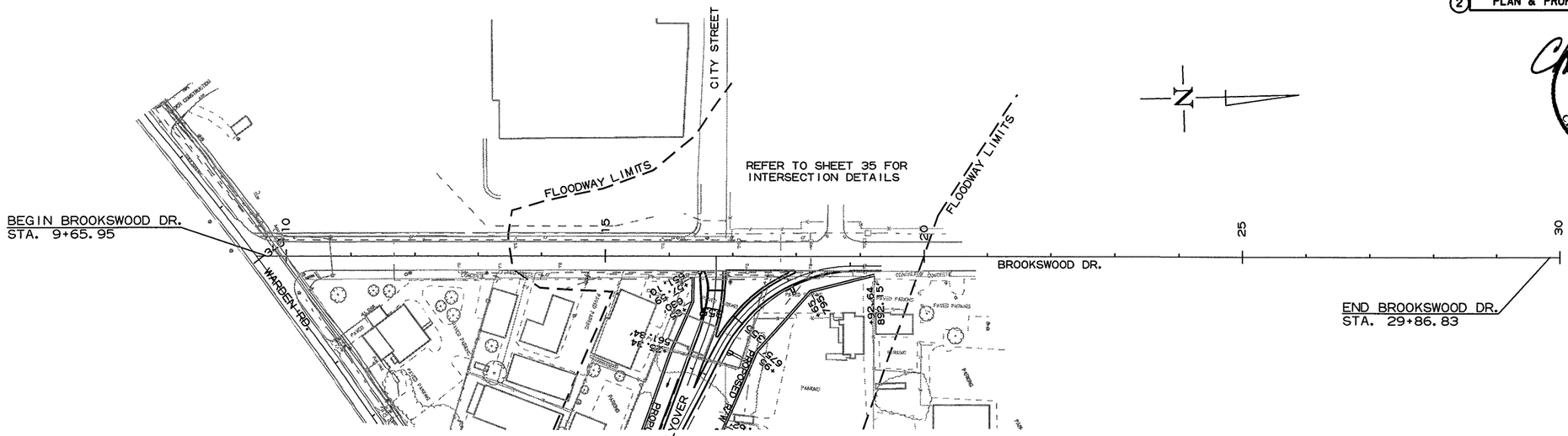
WILDWOOD AVE.

08-12-2005 RR60080.P02

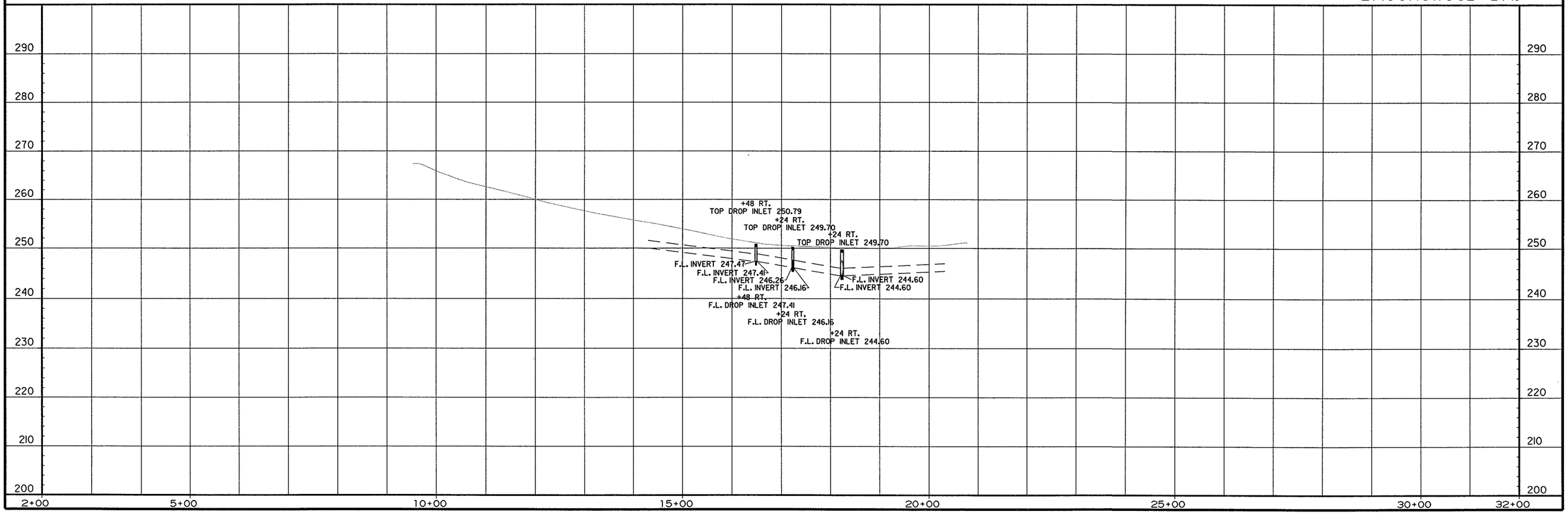
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	250	609

(2) PLAN & PROFILE - BROOKSWOOD DR.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-27-25



BROOKSWOOD DR.



09-31-2004 RR60080.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	25	109

(2) PLAN & PROFILE - KIEHL AVE. & INDIANHEAD DR.

RIXIE RD.
STA. 2+75 IN PLACE
24' x 46' R.C. PIPE CULV'T.
(15° RT. FWD. SKEW)
WITH HEADWALLS LT. & RT.
RETAIN PORTION OF PIPE CULV'T.
REMOVE 8' OF PIPE CULV'T.
CONSTRUCT TYPE 'ST' JUNCTION BOX
3'-0" x 3'-0" x H = 4'-10"
21' LT. OF C.L. RIXIE RD. WITH
24" x 22" R.C. PIPE INLET
(15° RT. FWD. SKEW)
CONNECT TO DROP INLET AT
STA. 10+40 LT. OF C.L. KIEHL AVE.
(USE TYPE 3 BEDDING)
USE 4' & 22' R.C. PIPE CULV'T. (CL. III)

KIEHL AVE.
STA. 10+40 CONSTRUCT
DROP INLET WITH 8' EXTENSION
66' LT. OF C.L. KIEHL AVE.
24" x 8' R.C. PIPE INLET (CL. III)
WITH F.E.S. ON LT.
(USE TYPE 3 BEDDING)
TYPE C = 4'-0" x 3'-0" x H = 5'-0"
TYPE MO = 4'-0" I.D. x H = 5'-0"

CONCRETE DITCH PAVING (TYPE B)

	W	SQ. YD.
STA. 11+36.83 LT. OF C.L. KIEHL AVE.	4'-0"	12
STA. 12+25.00 TO STA. 16+68.11 RT. OF C.L. KIEHL AVE.	4'-0"	197
STA. 14+72.25 LT. OF C.L. KIEHL AVE.	4'-0"	21
STA. 16+00.00 LT. OF C.L. KIEHL AVE.	4'-0"	33
STA. 20+50.00 LT. OF C.L. KIEHL AVE.	4'-0"	34
STA. 20+50.00 RT. OF C.L. KIEHL AVE.	4'-0"	35
STA. 21+50.00 LT. OF C.L. KIEHL AVE.	4'-0"	31
STA. 21+50.00 RT. OF C.L. KIEHL AVE.	4'-0"	26
STA. 22+55.27 RT. OF C.L. KIEHL AVE.	4'-0"	25
STA. 23+00.00 LT. OF C.L. KIEHL AVE.	4'-0"	18
STA. 25+82.86 RT. OF C.L. INDIANHEAD DR.	4'-0"	3

KIEHL AVE.
STA. 20+50 CONSTRUCT
TYPE SPECIAL DROP INLET
ON LT. WITH 8' EXTENSION

KIEHL AVE.
STA. 23+00 CONSTRUCT
TYPE SPECIAL DROP INLET
ON LT. WITH 8' EXTENSION

KIEHL AVE.
STA. 21+50 CONSTRUCT
TYPE SPECIAL DROP INLET
ON LT. WITH 8' EXTENSION

KIEHL AVE.
STA. 23+05 IN PLACE
TYPE DROP INLET LT. WITH
18" x 40' R.C. PIPE OUTLET
WITH F.E.S. ON LT.
REMOVE

KIEHL AVE.
STA. 11+37 CONSTRUCT
TYPE SPECIAL DROP INLET
ON LT. WITH 8' EXTENSION

KIEHL AVE.
STA. 14+72 CONSTRUCT
TYPE SPECIAL DROP INLET
ON LT. WITH 8' EXTENSION

KIEHL AVE.
STA. 16+00 CONSTRUCT
TYPE SPECIAL DROP INLET
ON LT. WITH 8' EXTENSION

INDIANHEAD DR.
STA. 25+82 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT. WITH 8' EXTENSION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
9-23-05
CHARLES D. CLEMENTS

STA. 16+44.70 - STA. 20+10.86 IN PLACE
366'-2" x 26' CLEAR ROADWAY WIDTH
BRIDGE CONSISTING OF I-BEAM SPANS W/ R.C. DECK
REMOVE AS EXISTING BRIDGE STRUCTURE = 1.00 LUMP SUM

STA. 10+00.00 C.L. KIEHL AVE. =
STA. 3+22.98 C.L. RIXIE RD.
Δ= 90°00'00"

BEGIN KIEHL AVE.
STA. 10+11.72

STA. 13+54.94 C.L. KIEHL AVE. =
STA. 16+13.69 C.L. SE RAMP
Δ= 90°00'00"

STA. 18+27.19 C.L. KIEHL AVE. =
STA. 373+19.70 C.L. HWY. 67/167
Δ= 89°56'02"

END KIEHL AVE.
BEGIN INDIANHEAD DR.
STA. 24+40.19

STA. 24+40.19 C.L. KIEHL AVE. BK. =
STA. 24+40.19 C.L. INDIANHEAD DR. AHD.
STA. 16+03.72 C.L. NW LOOP RAMP
Δ= 77°56'56"

DENOTES: PAVEMENT TRANSITION.

REFER TO SHEET 37 FOR INTERSECTION DETAILS

END INDIANHEAD DR.
STA. 27+86.47

RIXIE RD.
STA. 2+02 IN PLACE
18" x 40' C.M. PIPE CULV'T.
LT. SIDE DRAIN
REMOVE

RIXIE RD.
STA. 4+54 IN PLACE
24" x 54' R.C. PIPE CULV'T.
(20° LT. FWD. SKEW)
WITH HEADWALLS LT. & RT.
RETAIN

RIXIE RD.
STA. 4+65 IN PLACE
24" x 50' R.C. PIPE CULV'T.
(20° LT. FWD. SKEW)
WITH HEADWALLS LT. & RT.
RETAIN

REFER TO SHEET 96 FOR INTERSECTION DETAILS

KIEHL AVE.
P.I. 11+31.82
Δ = 19°45'50.9"LT.
R = 500.00'
T = 87.10'
L = 172.47'
P.C. 10+44.72
P.T. 12+17.19
NO SUPERELEVATION

KIEHL AVE.
P.I. 14+87.49
Δ = 7°09'09.7"LT.
D = 3°00'00"
T = 119.37'
L = 238.42'
P.C. 13+68.12
P.T. 16+06.55
Ls = 360'
e = 0.04'/'

KIEHL AVE.
P.I. 24+18.23
Δ = 29°08'38.5"RT.
D = 10°00'00"
T = 148.94'
L = 291.44'
P.C. 22+69.29
P.T. 25+60.72
NO SUPERELEVATION

INDIANHEAD DR.
STA. 26+22 IN PLACE
DROP INLET WITH
15' x 4' R.C. PIPE INLET
WITH F.E.S. &
15' x 60' R.C. PIPE OUTLET
RETAIN PORTION OF PIPE OUTLET
REMOVE DROP INLET & PIPE INLET
CONSTRUCT JUNCTION BOX TYPE 'E'
3'-0" x 3'-0" x H = 3'-1"
18' RT. OF C.L. INDIANHEAD RD. WITH
18" x 36' R.C. PIPE INLET
WITH F.E.S.
(USE TYPE 3 BEDDING)
USE 4' & 36' R.C. PIPE CULV'T. (CL. III)

STA. 16+68.11 - STA. 19+86.27 CONSTRUCT
318'-2" x 58'-0" BRIDGE
4 SPANS @ 79' CONT. COMP. W-BEAM

KIEHL AVE.
STA. 20+50 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT. WITH 8' EXTENSION

KIEHL AVE.
STA. 21+50 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT. WITH 8' EXTENSION

KIEHL AVE.
STA. 22+55 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT. WITH 8' EXTENSION

REMOVAL & DISPOSAL OF GUARDRAIL
STA. 16+15 TO STA. 16+40 LT. OF C.L. KIEHL AVE. = 25 LIN. FT.
STA. 16+15 TO STA. 16+40 LT. OF C.L. KIEHL AVE. = 25 LIN. FT.

KIEHL AVE. & INDIANHEAD DR.

EARTHWORK KIEHL AVE. & INDIANHEAD DR.
STA. 10+11.72 TO STA. 23+57.44
UNCLASSIFIED EXCAVATION = 2978 & 102 CU. YD.
COMPACTED EMBANKMENT = 27167 & 0 CU. YD.

STA. 10+98.12 BEGIN SUPERELEVATION (N.C.)
STA. 14+58.12 MAX. SUPERELEVATION (0.04'/')
STA. 15+16.55 MAX. SUPERELEVATION (0.04'/')
STA. 18+76.55 END SUPERELEVATION (N.C.)

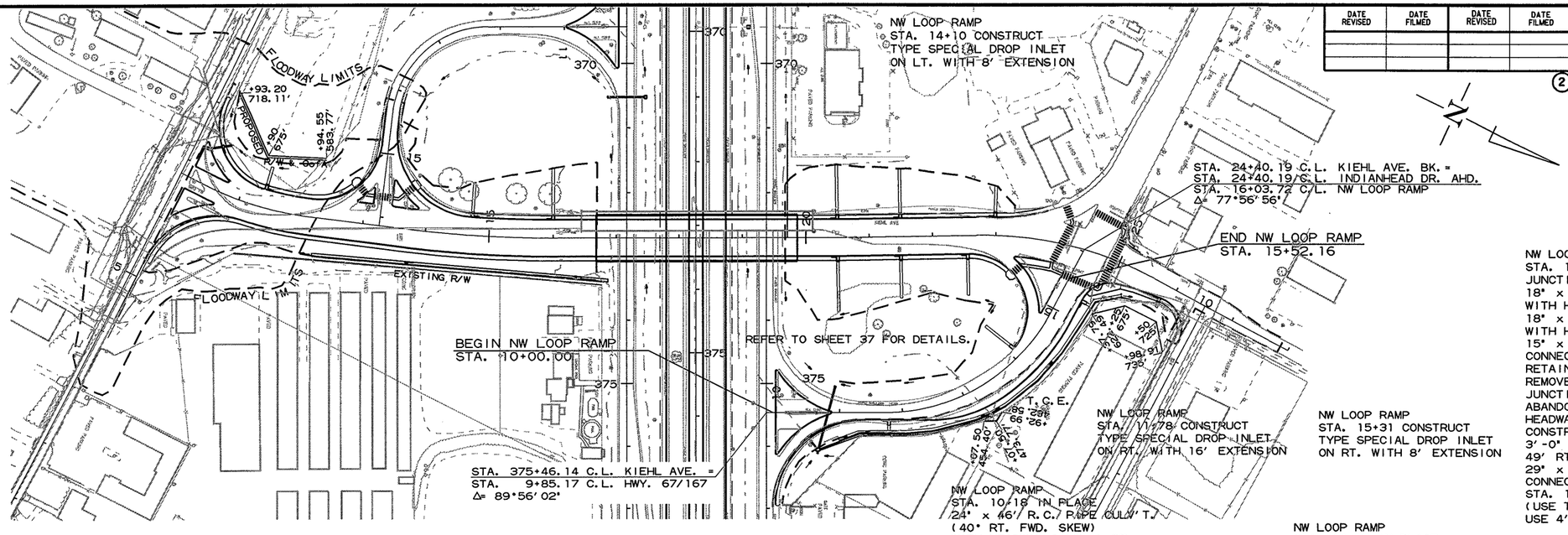
BM-915 - SQ. CUT IN HEADWALL
381.14' LT. C.L. KIEHL AVE.
STA. 16+53.68
ELEV. 264.32

BM-916 - CPS IN POWER POLE
496.76' RT. C.L. KIEHL AVE.
STA. 16+76.45
ELEV. 265.58

09-31-2004 RR60080.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	252	

(2) PLAN & PROFILE - NW LOOP RAMP



NW LOOP RAMP
STA. 15+31 CONSTRUCT
ON RT. WITH 8' EXTENSION

NW LOOP RAMP
STA. 13+24 IN PLACE 48' RT.
JUNCTION BOX WITH
18" x 78' R.C. PIPE INLET
WITH HEADWALL ON LT.
18" x 168' R.C. PIPE INLET
WITH HEADWALL
15" x 92' R.C. PIPE OUTLET
CONNECTED TO DROP INLET TO RT.
RETAIN PORTION OF PIPE OUTLET
REMOVE 4' OF PIPE OUTLET,
JUNCTION BOX, 168' PIPE INLET & HEADWALL
ABANDON 78' PIPE INLET & REMOVE
HEADWALL ON LT.
CONSTRUCT JUNCTION BOX TYPE 'ST'
3'-0" x 3'-0" x H = 2'-5"
49' RT. OF C.L. NW LOOP RAMP
29" x 18" x 278' R.C. ARCHED PIPE INLET
CONNECT TO DROP INLET AT
STA. 10+66 59' RT. C.L. NW LOOP RAMP
(USE TYPE 3 BEDDING)
USE 4' & 278' R.C. PIPE CULV'T. (CL. III)

CONCRETE DITCH PAVING (TYPE B)

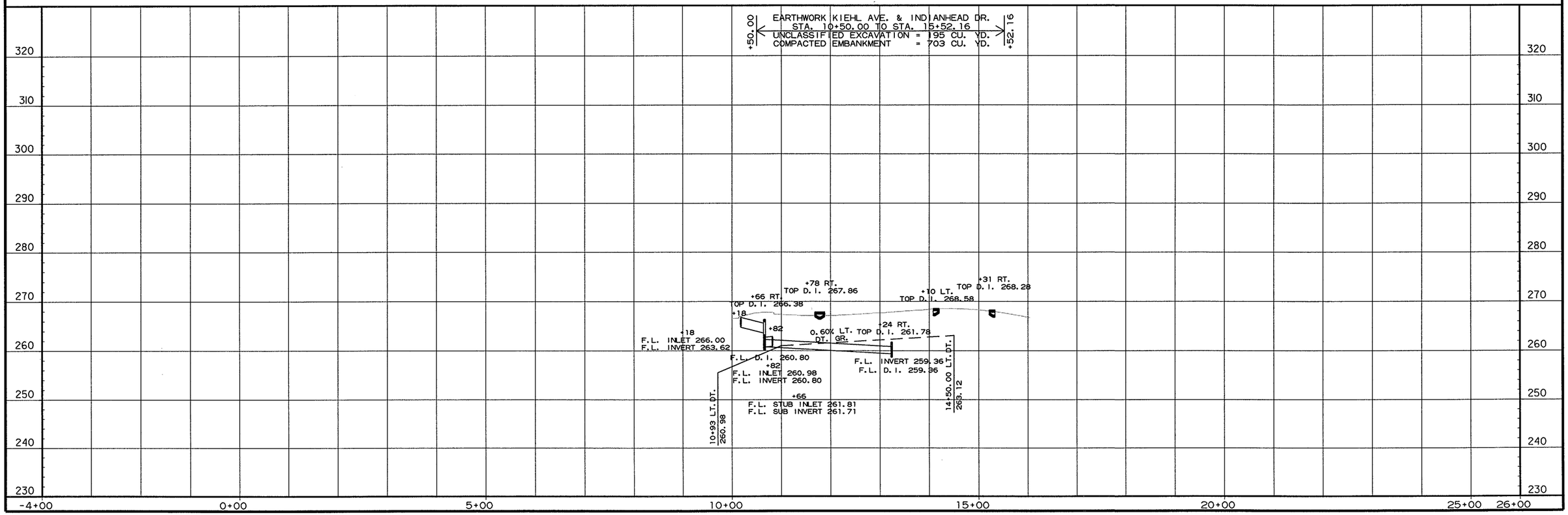
	'W'	SQ. YD.
STA. 11+77.63 RT. OF C.L. NW LOOP RAMP	4'-0"	4
STA. 14+10.00 LT. OF C.L. NW LOOP RAMP	4'-0"	22
STA. 11+00.00 TO STA. 15+68.09 RT. OF C.L. NW LOOP RAMP	4'-0"	237
STA. 15+30.83 RT. OF C.L. NW LOOP RAMP	4'-0"	3

NW LOOP RAMP
STA. 10+82 CONSTRUCT
24' x 100' R.C. PIPE CULV'T. (CL. III)
(15° LT. FWD. SKEW)
WITH F.E.S. ON LT. AND
CONNECT TO DROP INLET AT
STA. 10+66 RT. C.L. NW LOOP RAMP
(USE TYPE 3 BEDDING)

NW LOOP RAMP
STA. 10+18 IN PLACE
24" x 46' R.C. PIPE CULV'T.
(40° RT. FWD. SKEW)
WITH HEADWALLS LT. & RT.
RETAIN PORTION OF PIPE CULV'T.
EXTEND 14' RT
CONSTRUCT JUNCTION BOX (TYPE E)
6'-0" x 4'-0" x H = 5'-7"
59' RT. OF C.L. NW LOOP RAMP WITH
18" x 6' R.C. PIPE STUB INLET W/ F.E.S.
(USE TYPE 3 BEDDING)
USE 14' & 6' R.C. PIPE CULV'T. (CL. III)

NW LOOP RAMP
STA. 14+75 IN PLACE
DROP INLET WITH
18" x 4' R.C. PIPE INLET
WITH F.E.S. &
18" x 170' R.C. PIPE OUTLET
CONNECTED TO JUNCTION BOX AT
STA. 13+24 RT. OF C.L. NW LOOP RAMP
REMOVE DROP INLET & PIPE INLET
ABANDON PIPE OUTLET

NW LOOP RAMP



09-31-2004 RR60080.P02

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		253	609
				JOB NO.		R60080		

(2) PLAN & PROFILE - LANDERS CONN. & LANDERS TO LANDERS CONN.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 479
CHARLES D. CLEMENTS
4-22-05

STA. 373+69 CONSTRUCT TYPE SPECIAL DROP INLET ON LT. WITH 8' EXTENSION

STA. 377+00 CONSTRUCT TYPE SPECIAL DROP INLET ON LT. WITH 8' EXTENSION

STA. 378+84 CONSTRUCT TYPE SPECIAL DROP INLET ON LT. WITH 16' EXTENSION

STA. 381+36 CONSTRUCT TYPE SPECIAL DROP INLET ON LT. WITH 4' EXTENSION

BEGIN LANDERS TO LANDERS CONNECTOR STA. 382+00.00

STA. 375+43 INSTALL 18" x 32' PIPE CULV'T. LT. SIDE DRAIN CONSTR. APPR. =35 CU. YD.

STA. 377+74 INSTALL 18" x 28' PIPE CULV'T. LT. SIDE DRAIN CONSTR. APPR. =55 CU. YD.

BEGIN LANDERS CONNECTOR STA. 373+28.56

STA. 374+28 INSTALL 18" x 30' PIPE CULV'T. LT. SIDE DRAIN CONSTR. APPR. =30 CU. YD.

END LANDERS TO LANDERS CONNECTOR STA. 385+30.26

LANDERS TO LANDERS CONNECTOR

LANDERS CONNECTOR

WARDEN RD.

STA. 385+00.00 C.L. LANDERS CONNECTOR = STA. 375+45.26 C.L. LANDERS TO LANDERS CONNECTOR
Δ= 90°00'00"

STA. 11+67.02 C.L. RIXIE RD. = STA. 373+17.03 C.L. LANDERS CONNECTOR
Δ= 89°08'30"

LANDERS CONNECTOR
P.I. 385+51.25
Δ = 61°55'02.5"RT.
D = 13°15'00"
T = 259.40'
L = 467.30'
P.C. 382+91.85
P.T. 387+59.15
Ls = 250'
e = 0.060'/'

END LANDERS CONNECTOR STA. 387+59.15

DENOTES : OBLITERATION OF PAVEMENT.

DENOTES : PAVEMENT TRANSITION.

STA. 378+84 CONSTRUCT TYPE SPECIAL DROP INLET ON RT. WITH 16' EXTENSION

STA. 382+00 CONSTRUCT TYPE SPECIAL DROP INLET ON RT. WITH 8' EXTENSION

STA. 386+00 CONSTRUCT TYPE SPECIAL DROP INLET ON RT. WITH 4' EXTENSION

CONCRETE DITCH PAVING (TYPE B)

	"W"	SQ. YD.
STA. 373+68.62 LT. OF C.L. LANDERS CONNECTOR	4'-0"	2
STA. 373+73.85 RT. OF C.L. LANDERS CONNECTOR	4'-0"	3
STA. 377+00.00 LT. OF C.L. LANDERS CONNECTOR	4'-0"	4
STA. 377+00.00 RT. OF C.L. LANDERS CONNECTOR	4'-0"	3
STA. 378+84.33 LT. OF C.L. LANDERS CONNECTOR	4'-0"	6
STA. 378+84.33 RT. OF C.L. LANDERS CONNECTOR	4'-0"	4
STA. 381+35.60 LT. OF C.L. LANDERS CONNECTOR	4'-0"	8
STA. 382+00.00 RT. OF C.L. LANDERS CONNECTOR	4'-0"	8
STA. 386+00.00 RT. OF C.L. LANDERS CONNECTOR	4'-0"	2
STA. 387+26.50 RT. OF C.L. LANDERS CONNECTOR	4'-0"	2

LANDERS CONNECTOR & LANDERS TO LANDERS CONNECTOR

STA. 373+74 CONSTRUCT TYPE SPECIAL DROP INLET ON RT. WITH 8' EXTENSION

STA. 377+00 CONSTRUCT TYPE SPECIAL DROP INLET ON RT. WITH 8' EXTENSION

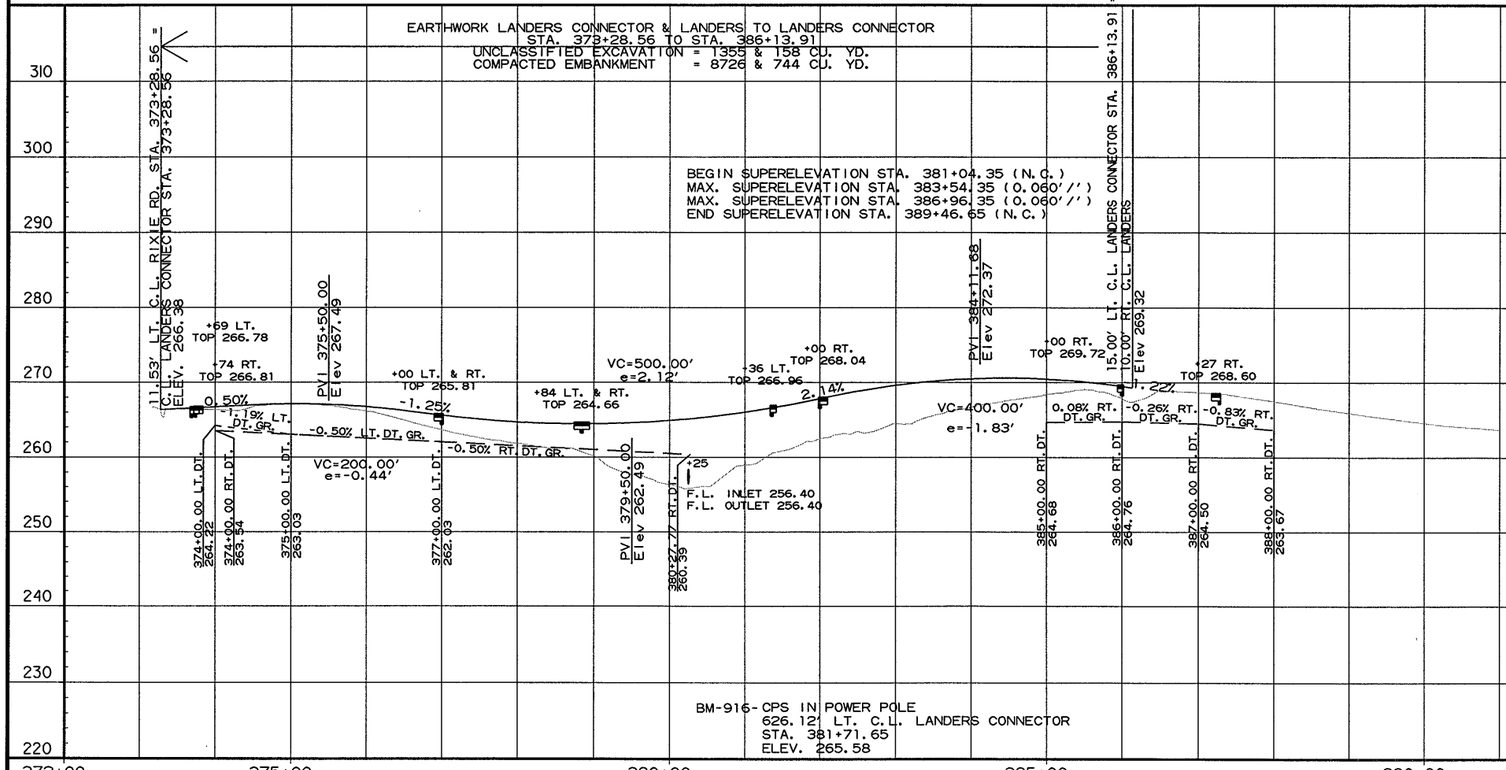
STA. 380+25 CONSTRUCT 24" x 114' R.C. PIPE CULV'T. (CL. III) (45° RT. FWD. SKEW) WITH F.E.S. ON LT. & RT. (USE TYPE 3 BEDDING)

STA. 387+27 CONSTRUCT TYPE SPECIAL DROP INLET ON RT. WITH 8' EXTENSION

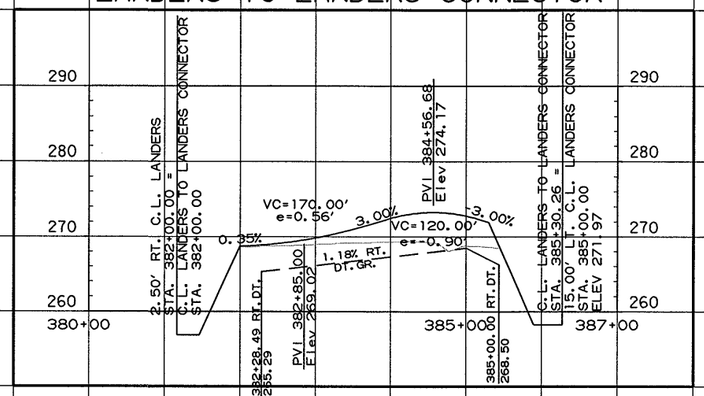
EARTHWORK LANDERS CONNECTOR & LANDERS TO LANDERS CONNECTOR
STA. 373+28.56 TO STA. 386+13.91
UNCLASSIFIED EXCAVATION = 1355 & 158 CU. YD.
COMPACTED EMBANKMENT = 8726 & 744 CU. YD.

BEGIN SUPERELEVATION STA. 381+04.35 (N.C.)
MAX. SUPERELEVATION STA. 383+54.35 (0.060'/')
MAX. SUPERELEVATION STA. 386+96.35 (0.060'/')
END SUPERELEVATION STA. 389+46.65 (N.C.)

BM-916-CPS IN POWER POLE
626.12' LT. C.L. LANDERS CONNECTOR
STA. 381+71.65
ELEV. 265.58



LANDERS TO LANDERS CONNECTOR



02-25-2005 RR60080.P03

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

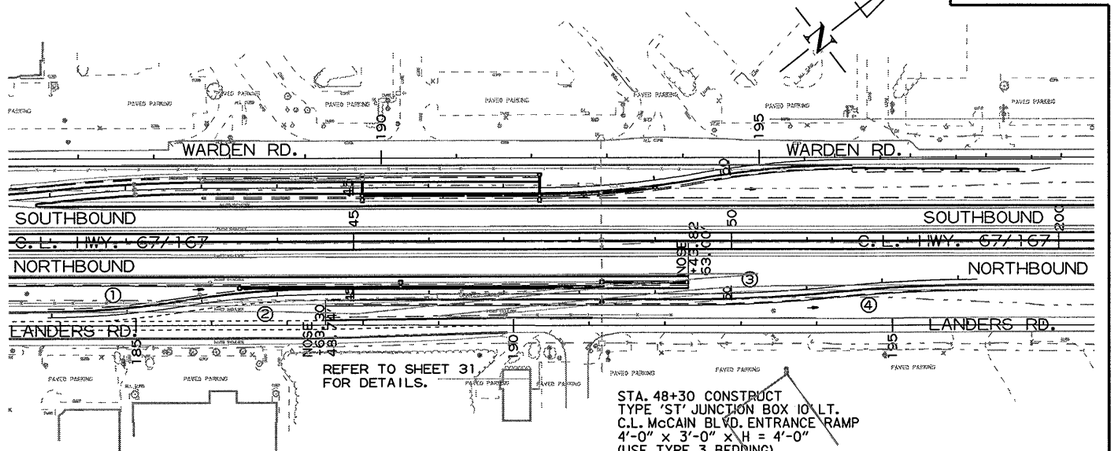
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	25A	604

(2) PLAN & PROFILE - McCAIN BLVD. NB & SB ENTRANCE RAMPS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
CHARLES D. CLEMENTS
8-22-05

McCAIN BLVD. NORTHBOUND ENTRANCE RAMP CURVE DATA

①	②	③	④
P.I. 41+81.00	P.I. 43+73.49	P.I. 50+35.56	P.I. 52+33.65
Δ = 8°36'10.2"LT.	Δ = 9°00'00.0"RT.	Δ = 5°30'00.0"LT.	Δ = 5°30'00.0"RT.
D = 5°00'00"	D = 5°00'00"	D = 3°00'00"	D = 3°00'00"
T = 86.19'	T = 90.19'	T = 91.74'	T = 91.74'
L = 172.06'	L = 180.00'	L = 183.33'	L = 183.33'
P.C. 40+94.81	P.C. 42+83.30	P.C. 49+43.82	P.C. 51+41.92
P.T. 42+66.87	P.T. 44+63.30	P.T. 51+27.15	P.T. 53+25.25



STA. 43+00 CONSTRUCT TYPE 'ST' DROP INLET 12' LT. C.L. McCAIN BLVD. ENTRANCE RAMP 4'-0" × 4'-6" × H = 4'-7" WITH 24" × 146' R.C. PIPE OUTLET (CL. III) CONNECT TO DROP INLET AT STA. 44+50 12' LT. C.L. McCAIN BLVD. ENTRANCE RAMP (USE 3 VANE GRATES) (USE TYPE 3 BEDDING)

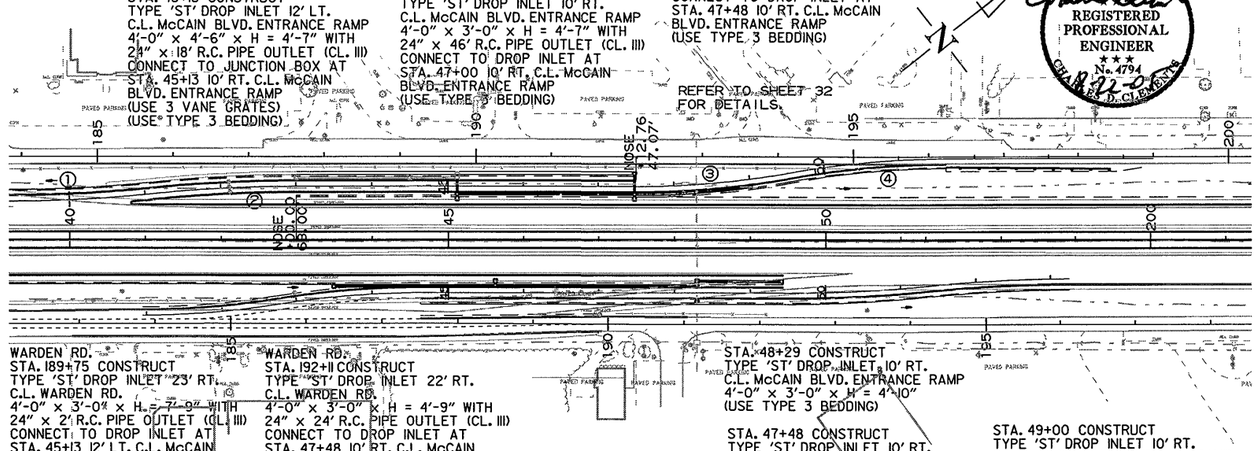
STA. 44+50 CONSTRUCT TYPE 'ST' DROP INLET 12' LT. C.L. McCAIN BLVD. ENTRANCE RAMP 4'-0" × 4'-6" × H = 4'-7" WITH 24" × 60' R.C. PIPE OUTLET (CL. III) CONNECT TO DROP INLET AT STA. 45+13 12' LT. C.L. McCAIN BLVD. ENTRANCE RAMP (USE 3 VANE GRATES) (USE TYPE 3 BEDDING)

STA. 45+13 CONSTRUCT TYPE 'ST' DROP INLET 12' LT. C.L. McCAIN BLVD. ENTRANCE RAMP 4'-0" × 4'-6" × H = 4'-7" WITH 24" × 18' R.C. PIPE OUTLET (CL. III) CONNECT TO JUNCTION BOX AT STA. 45+13 10' RT. C.L. McCAIN BLVD. ENTRANCE RAMP (USE 3 VANE GRATES) (USE TYPE 3 BEDDING)

STA. 45+13 CONSTRUCT TYPE 'ST' JUNCTION BOX 10' RT. C.L. McCAIN BLVD. ENTRANCE RAMP 4'-0" × 3'-0" × H = 5'-2" WITH 24" × 134' R.C. PIPE OUTLET (CL. III) CONNECT TO DROP INLET AT STA. 46+50 10' RT. C.L. McCAIN BLVD. ENTRANCE RAMP (USE TYPE 3 BEDDING)

STA. 46+50 CONSTRUCT TYPE 'ST' DROP INLET 10' RT. C.L. McCAIN BLVD. ENTRANCE RAMP 4'-0" × 3'-0" × H = 4'-7" WITH 24" × 46' R.C. PIPE OUTLET (CL. III) CONNECT TO DROP INLET AT STA. 47+00 10' RT. C.L. McCAIN BLVD. ENTRANCE RAMP (USE TYPE 3 BEDDING)

STA. 47+00 CONSTRUCT TYPE 'ST' DROP INLET 10' RT. C.L. McCAIN BLVD. ENTRANCE RAMP 4'-0" × 3'-0" × H = 4'-7" WITH 24" × 44' R.C. PIPE OUTLET (CL. III) CONNECT TO DROP INLET AT STA. 47+48 10' RT. C.L. McCAIN BLVD. ENTRANCE RAMP (USE TYPE 3 BEDDING)



WARDEN RD. STA. 189+75 CONSTRUCT TYPE 'ST' DROP INLET 23' RT. C.L. WARDEN RD. 4'-0" × 3'-0" × H = 7'-9" WITH 24" × 2' R.C. PIPE OUTLET (CL. III) CONNECT TO DROP INLET AT STA. 45+13 12' LT. C.L. McCAIN BLVD. ENTRANCE RAMP (USE TYPE 3 BEDDING)

WARDEN RD. STA. 192+11 CONSTRUCT TYPE 'ST' DROP INLET 22' RT. C.L. WARDEN RD. 4'-0" × 3'-0" × H = 4'-9" WITH 24" × 24' R.C. PIPE OUTLET (CL. III) CONNECT TO DROP INLET AT STA. 47+48 10' RT. C.L. McCAIN BLVD. ENTRANCE RAMP (USE TYPE 3 BEDDING)

McCAIN BLVD. SOUTHBOUND ENTRANCE RAMP CURVE DATA

①	②	③	④
P.I. 40+14.71	P.I. 42+05.57	P.I. 48+50.25	P.I. 50+62.82
Δ = 5°42'30.0"LT.	Δ = 5°42'30.0"RT.	Δ = 10°00'00.0"LT.	Δ = 10°00'00.0"RT.
D = 3°00'00"	D = 3°00'00"	D = 5°00'00"	D = 5°00'00"
T = 95.22'	T = 95.22'	T = 100.25'	T = 100.25'
L = 190.28'	L = 190.28'	L = 200.00'	L = 200.00'
P.C. 39+19.49	P.C. 41+10.36	P.C. 47+50.00	P.C. 49+62.56
P.T. 41+09.77	P.T. 43+00.63	P.T. 49+50.00	P.T. 51+62.56

STA. 48+30 CONSTRUCT TYPE 'ST' JUNCTION BOX 10' LT. C.L. McCAIN BLVD. ENTRANCE RAMP 4'-0" × 3'-0" × H = 4'-0" (USE TYPE 3 BEDDING)

STA. 43+51 CONSTRUCT TYPE 'RM' DROP INLET 15'-10" LT. C.L. McCAIN BLVD. ENTRANCE RAMP 4'-0" × 3'-0" × H = 3'-10" WITH 24" × 210' R.C. PIPE OUTLET (CL. III) CONNECT TO DROP INLET AT STA. 45+63 10' LT. C.L. McCAIN BLVD. ENTRANCE RAMP (USE TYPE 3 BEDDING)

STA. 45+63 CONSTRUCT TYPE 'ST' DROP INLET 10' LT. C.L. McCAIN BLVD. ENTRANCE RAMP 4'-0" × 3'-0" × H = 4'-6" WITH 24" × 264' R.C. PIPE OUTLET (CL. III) CONNECT TO JUNCTION BOX AT STA. 48+30 10' LT. C.L. McCAIN BLVD. ENTRANCE RAMP (USE TYPE 3 BEDDING)

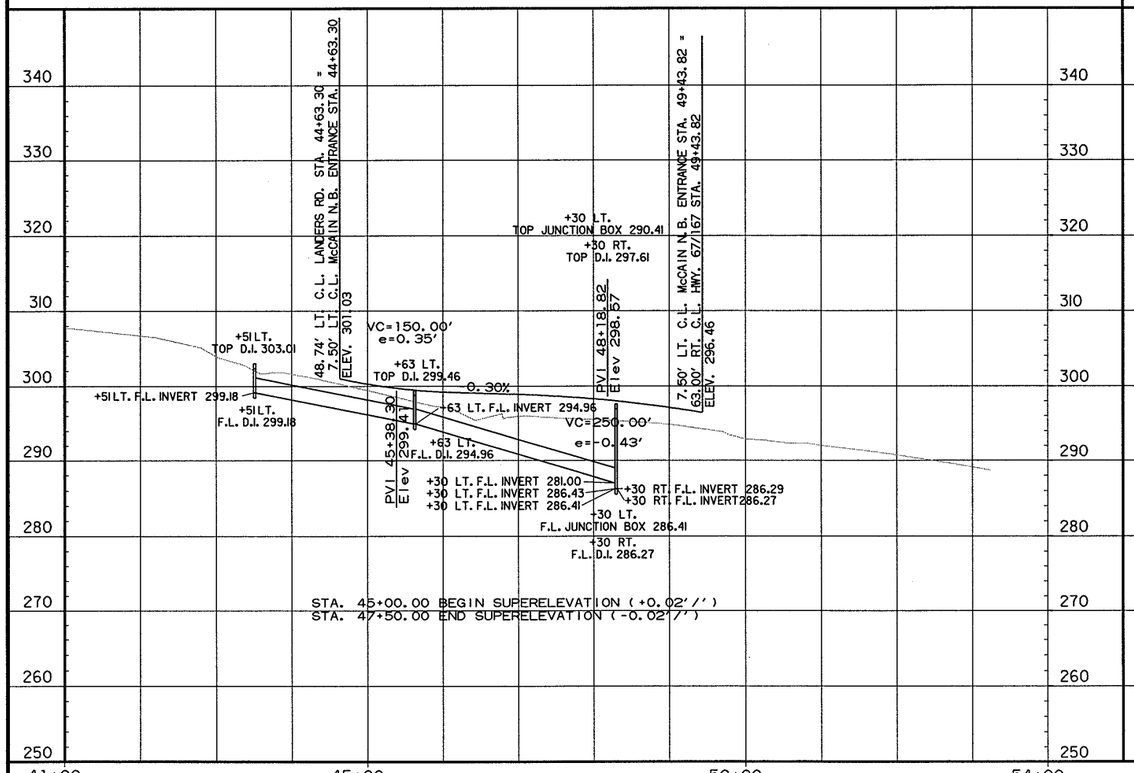
STA. 48+30 CONSTRUCT TYPE 'ST' DROP INLET 12' RT. C.L. McCAIN BLVD. ENTRANCE RAMP 4'-0" × 3'-0" × H = 11'-4" (USE TYPE 3 BEDDING)

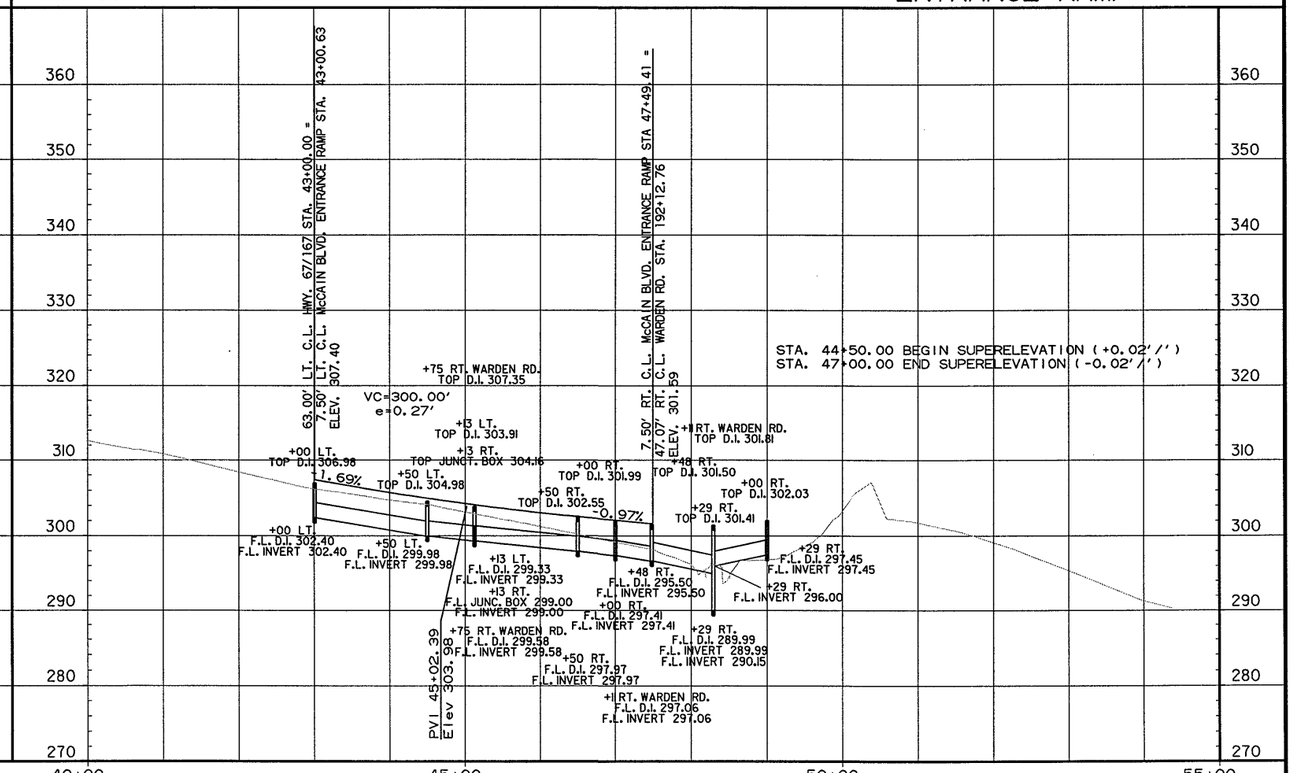
STA. 47+48 CONSTRUCT TYPE 'ST' DROP INLET 10' RT. C.L. McCAIN BLVD. ENTRANCE RAMP 4'-0" × 3'-0" × H = 6'-0" WITH 30" × 78' R.C. PIPE OUTLET (CL. III) CONNECT TO DROP INLET AT STA. 48+29 10' RT. C.L. McCAIN BLVD. ENTRANCE RAMP (USE TYPE 3 BEDDING)

STA. 48+29 CONSTRUCT TYPE 'ST' DROP INLET 10' RT. C.L. McCAIN BLVD. ENTRANCE RAMP 4'-0" × 3'-0" × H = 4'-10" (USE TYPE 3 BEDDING)

STA. 49+00 CONSTRUCT TYPE 'ST' DROP INLET 10' RT. C.L. McCAIN BLVD. ENTRANCE RAMP 4'-0" × 3'-0" × H = 4'-7" WITH 24" × 68' R.C. PIPE OUTLET (CL. III) CONNECT TO DROP INLET AT STA. 48+29 10' RT. C.L. McCAIN BLVD. ENTRANCE RAMP (USE TYPE 3 BEDDING)

McCAIN BLVD. NORTHBOUND ENTRANCE RAMP

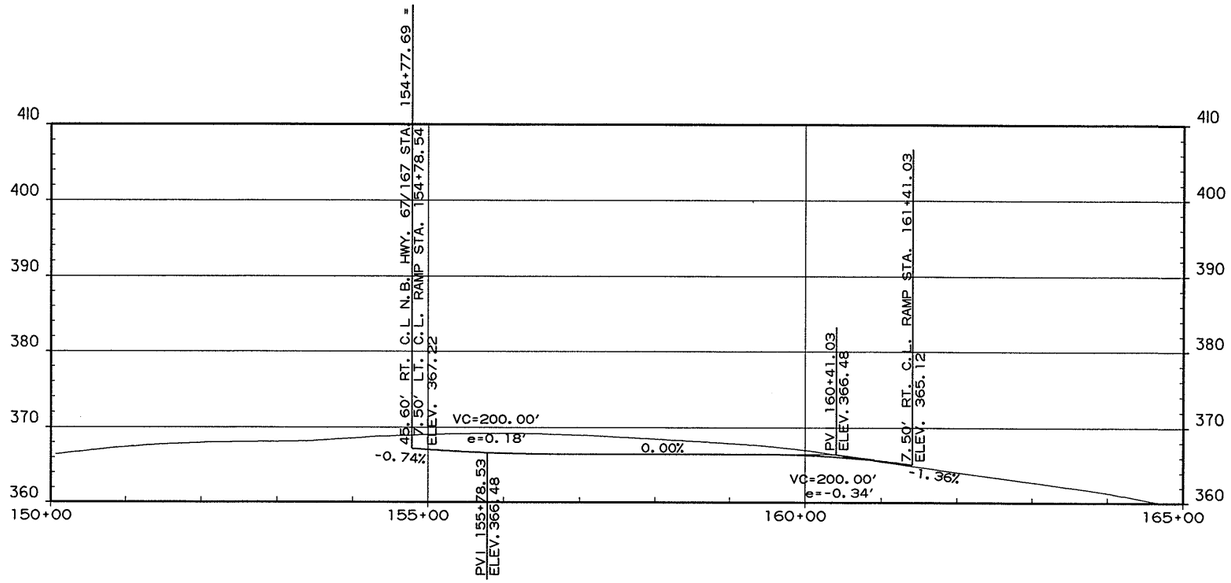




02-25-2005 RR60080.P03

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	25	609
				(2)	RAMP PROFILES			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4794
7-22-05
CHARLES D. CLEMENTS



McCAIN EASTBOUND EXIT RAMP

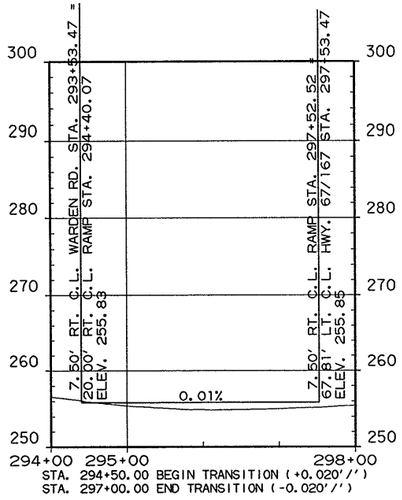
07-18-2005 RR60080.PRI

RAMP PROFILES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	256	609

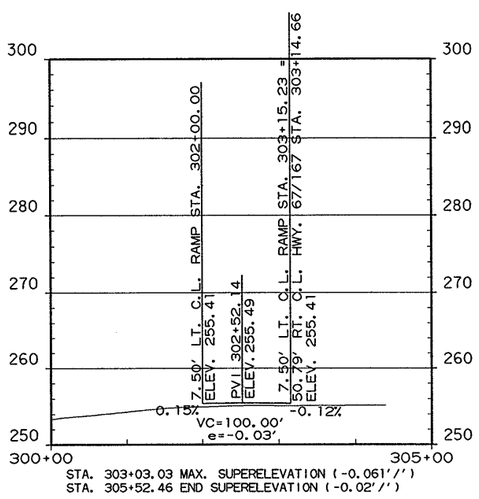
(2) RAMP PROFILES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
4794
CHARLES D. CLEMENTS



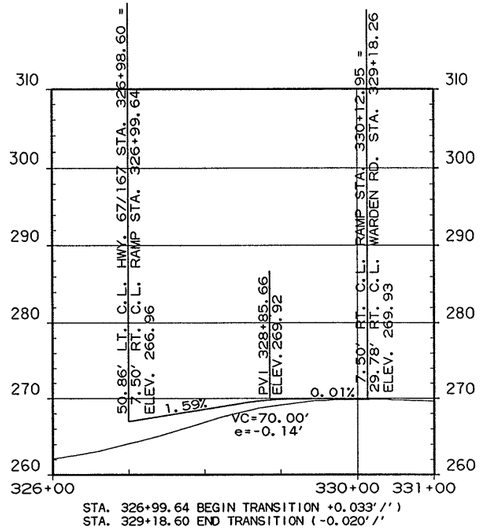
STA. 294+50.00 BEGIN TRANSITION (+0.020'/')
STA. 297+00.00 END TRANSITION (-0.020'/')

WILDWOOD EXIT RAMP



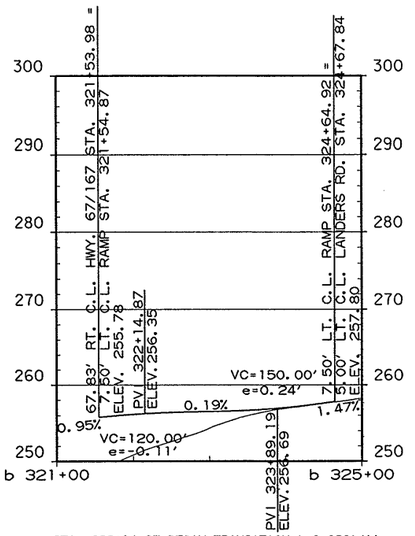
STA. 303+03.03 MAX. SUPERELEVATION (-0.061'/')
STA. 305+52.46 END SUPERELEVATION (-0.02'/')

WILDWOOD ENTRANCE RAMP



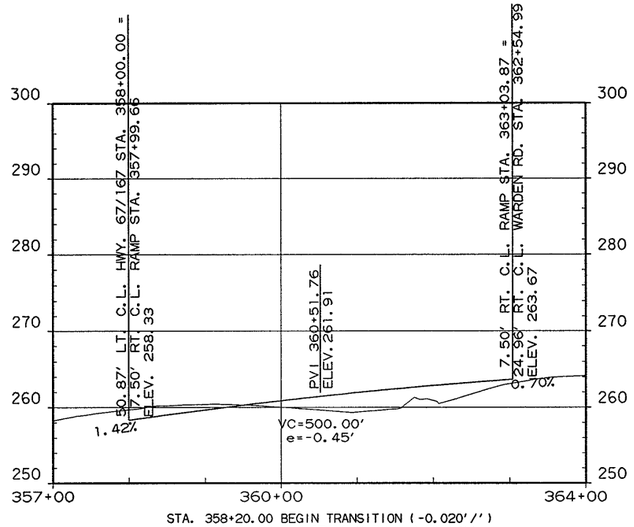
STA. 326+99.64 BEGIN TRANSITION +0.033'/')
STA. 329+18.60 END TRANSITION (-0.020'/'

BROOKSWOOD ENTRANCE RAMP



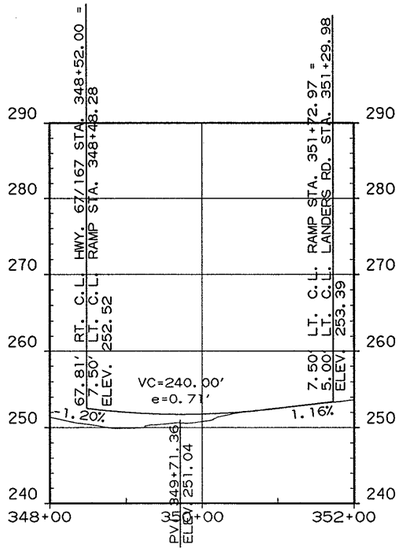
STA. 322+14.87 BEGIN TRANSITION (-0.020'/')
STA. 324+64.87 END TRANSITION (+0.020'/'

BROOKSWOOD EXIT RAMP



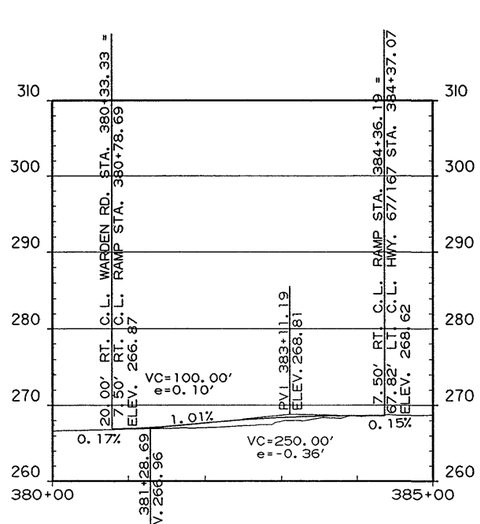
STA. 358+20.00 BEGIN TRANSITION (-0.020'/')
STA. 360+70.00 END TRANSITION (+0.020'/')

KIEHL AVE. ENTRANCE RAMP (SOUTHBOUND)



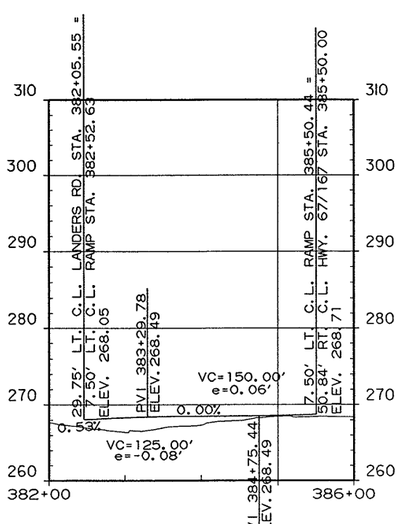
STA. 349+00.00 BEGIN TRANSITION (-0.020'/')
STA. 351+50.00 END TRANSITION (+0.020'/')

KIEHL AVE. EXIT RAMP (NORTHBOUND)



STA. 381+50.00 BEGIN TRANSITION (+0.020'/')
STA. 384+00.00 END TRANSITION (-0.020'/')

KIEHL AVE. EXIT RAMP (SOUTHBOUND)



STA. 382+52.63 BEGIN TRANSITION (+0.020'/')
STA. 385+02.63 END TRANSITION (-0.020'/')

KIEHL AVE. ENTRANCE RAMP (NORTHBOUND)

07-18-2005 RR60080.PRI

RAMP PROFILES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	257	609

(2) TRAFFIC SIGNAL NOTES & SUMM. OF QUANT.

TRAFFIC SIGNAL NOTES:

1. PERFORM ELECTRICAL WORK IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2002) NATIONAL ELECTRICAL CODE, NFPA 101(2000) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.
2. EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (EGC) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND EGC TO GROUND LUG OF CONTROL CABINET AND TO POLE GROUND. ENSURE THAT ONLY ONE NEUTRAL-TO-GROUND BOND EXISTS IN THE SYSTEM AND THAT IT IS AT THE MAIN BREAKER.
3. ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY TO A SERVICE POLE WITH EXTERNAL RAINTIGHT BREAKER (MAIN BREAKER), GALVANIZED STEEL SERVICE RISER, METER LOOP (IF REQUIRED), AND WEATHERHEAD AT A MUTUALLY ACCEPTABLE POINT WITHIN THE RIGHT-OF-WAY. THIS SHALL INCLUDE 2" CONDUIT TO A POINT 18" BELOW GROUND LINE. THE CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE TWO CIRCUIT EXTERNAL BREAKER (SECONDARY BREAKER) ON OR NEAR THE TRAFFIC SIGNAL CONTROLLER CABINET; AND SHALL INSTALL CONDUIT, ELECTRICAL SERVICE WIRE (2c/#6 USE RATED, WITH GROUND TYPICAL), AND PERFORM WIRING TO TAP INTO THE COUNTY'S MAIN BREAKER AS PART OF THIS CONTRACT. CONDUIT IS PAID FOR AS A SEPARATE ITEM OF THIS CONTRACT. TWO CIRCUIT BREAKERS, CONSIDERED SUBSIDIARY TO THE CONTROL EQUIPMENT WHERE STREET LIGHTING IS INCLUDED AS PART OF THE SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (2c/#12 AWG UF RATED, TYPICAL) SHALL BE KEPT FROM THE CIRCUIT SERVING THE TRAFFIC SIGNAL CONTROL EQUIPMENT FROM THE POINT OF TIE-IN AT THE SECONDARY BREAKER PROVIDED BY THE CONTRACTOR.
4. CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE.
5. TRAFFIC CONTROLLER CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER, OR REMOVE LOAD SWITCHES IN ORDER TO EASILY TEST OR MODIFY DETECTOR INPUTS TO THE CONTROLLER.
6. CONTROLLER CABINET SHALL BE WIRED SUCH THAT DURING FLASH OPERATION, POWER TO THE LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUSS.
7. ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ARKANSAS HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARDS AND DETAILS, AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITIONS.
8. CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHODS, IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE DETAILS MAY BE USED.
9. TRAFFIC SIGNAL POLES SHALL BE GALVANIZED. BACKPLATES SHALL BE SUPPLIED FOR ALL SIGNAL HEADS.
10. PAVEMENT MARKING SHOWN FOR REFERENCE ONLY.
11. FOUNDATION FOR ALL POLES SHALL BE EXTENDED IF NECESSARY TO ACCOMMODATE THE REQUIREMENTS FOR SIGNAL HEAD CLEARANCE ABOVE ROADWAY. PAYMENT WILL BE INCLUDED IN SECTION 714, AHTD STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
12. PULL BOXES ARE LABELED AS TYPE 1 OR 2 AS SPECIFIED ON PLANS. CONDUIT CONNECTING PULL BOX TO SIGNAL POLE SHALL BE 2" DIAMETER UNLESS SPECIFIED ON PLANS. CONDUIT CROSSING THE DRIVING SURFACE SHALL BE 3" DIAMETER UNLESS SPECIFIED ON PLANS.
13. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.
14. TRAFFIC SIGNAL CONTROLLERS SHALL BE COMPATIBLE WITH THE STATE'S EXISTING SYSTEM.
15. NEW TRAFFIC SIGNALS MUST BE OPERATIONAL PRIOR TO REMOVAL OF EXISTING SIGNALS.
16. TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES. IF TRAFFIC SIGNAL OPERATION IS INTERRUPTED, TRAFFIC SHALL BE MAINTAINED WITH A FLAGGING OPERATION.
17. THE WORD "ELECTRIC" SHALL BE EMBOSSED ON ALL PULL BOX LIDS.
18. ONE VIDEO PROGRAMMING MODULE SHALL BE PROVIDED FOR AIMING AND SETUP OF DETECTORS IF THE VIDEO SYSTEM CAN NOT BE ADJUSTED REMOTELY THROUGH HARDWARE AND SOFTWARE PROVIDED BY ITEMS WITHIN THE JOB.

SUMMARY OF QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
SP&701	ACTUATED CONTROLLER TSI (8 PHASES)	1	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	11	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED LENS, RETROFIT (3 SECTION, 1 WAY)	10	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED LENS, RETROFIT (5 SECTION, 1 WAY)	3	EACH
SP&707	PEDESTRIAN SIGNAL HEAD, LED	8	EACH
708	TRAFFIC SIGNAL CABLE (5c/14 A.W.G.)	1442	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7c/14 A.W.G.)	138	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12c/14 A.W.G.)	175	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20c/14 A.W.G.)	215	LIN. FT.
709	GALVANIZED STEEL CONDUIT (1.25")	15	LIN. FT.
710	NON-METALLIC CONDUIT (1.25")	10	LIN. FT.
710	NON-METALLIC CONDUIT (2")	136	LIN. FT.
710	NON-METALLIC CONDUIT (3")	232	LIN. FT.
SS&711	CONCRETE PULL BOX (TYPE 2 HD)	5	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (10')	1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (20')	1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (22')	2	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (36')	1	EACH
SS&715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	4	EACH
733	VIDEO DETECTOR	16	EACH
733	VIDEO PROCESSOR (4 CHANNEL)	2	EACH
733	VIDEO PROCESSOR (6 CHANNEL)	1	EACH
733	VIDEO CABLE	2335	LIN. FT.
733	VIDEO MONITOR (B/W)	1	EACH
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2c/6 A.W.G.)	189	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/8 A.W.G., EGC)	2305	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/12 A.W.G., EGC)	450	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	147	LIN. FT.
SP	LUMINAIRE ASSEMBLY	1	EACH
SP	VIDEO DETECTOR RELOCATION	1	EACH
SP	VIDEO DETECTOR ROTATION	5	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1.00	L.S.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER
7-28-05

DATE: 07/27/05 FILE NAME: tr60080.p01

LOCATION: U.S. 67
CITY: SHERWOOD
COUNTY: PULASKI
DISTRICT: 06 SCALE: 1"=NA' DRAWN BY: JPD

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	258	609

(2) SYSTEM MAP

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER

7-28-05

KIEHL AVENUE AT INDIANHEAD DRIVE

U.S. NB 67 FLYOVER AT BROOKSWOOD

MATCH LINE

MATCH LINE

WILDWOOD AVENUE AT WARDEN ROAD

WILDWOOD AVENUE AT LANDERS ROAD

N

SCALE IN FEET

0 250 500 1000

DATE: 7/27/05 FILE NAME: tr60080.p02

LOCATION: U.S. 67
CITY: SHERWOOD
COUNTY: PULASKI
DISTRICT: 06 SCALE: AS SHOWN DRAWN BY: JPD

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	2R9	609
				(2)	SIGNALIZATION PLANS			

POLE DIMENSIONS

POLE	MAST ARM(S) LENGTH	MAST ARM(S) ORIENTATION ANGLE FROM HAND HOLE (CLOCKWISE)	VERTICAL SHAFT LENGTH	LUM. ARM LENGTH	LUM. ARM(S) ORIENTATION ANGLE FROM HAND HOLE (CLOCKWISE)	STATION BROOKSWOOD	OFFSET
A	20'*	270 DEGREES	35'-0"	15'-0"	270 DEGREES	13+06	42' LT.
B	36'*	180 DEGREES	21'-0"	-	-	13+00	30' RT.
C	22'*	180 DEGREES	21'-0"	-	-	13+53	30' RT.
D	22'	270 DEGREES	21'-0"	-	-	13+64	37' LT.

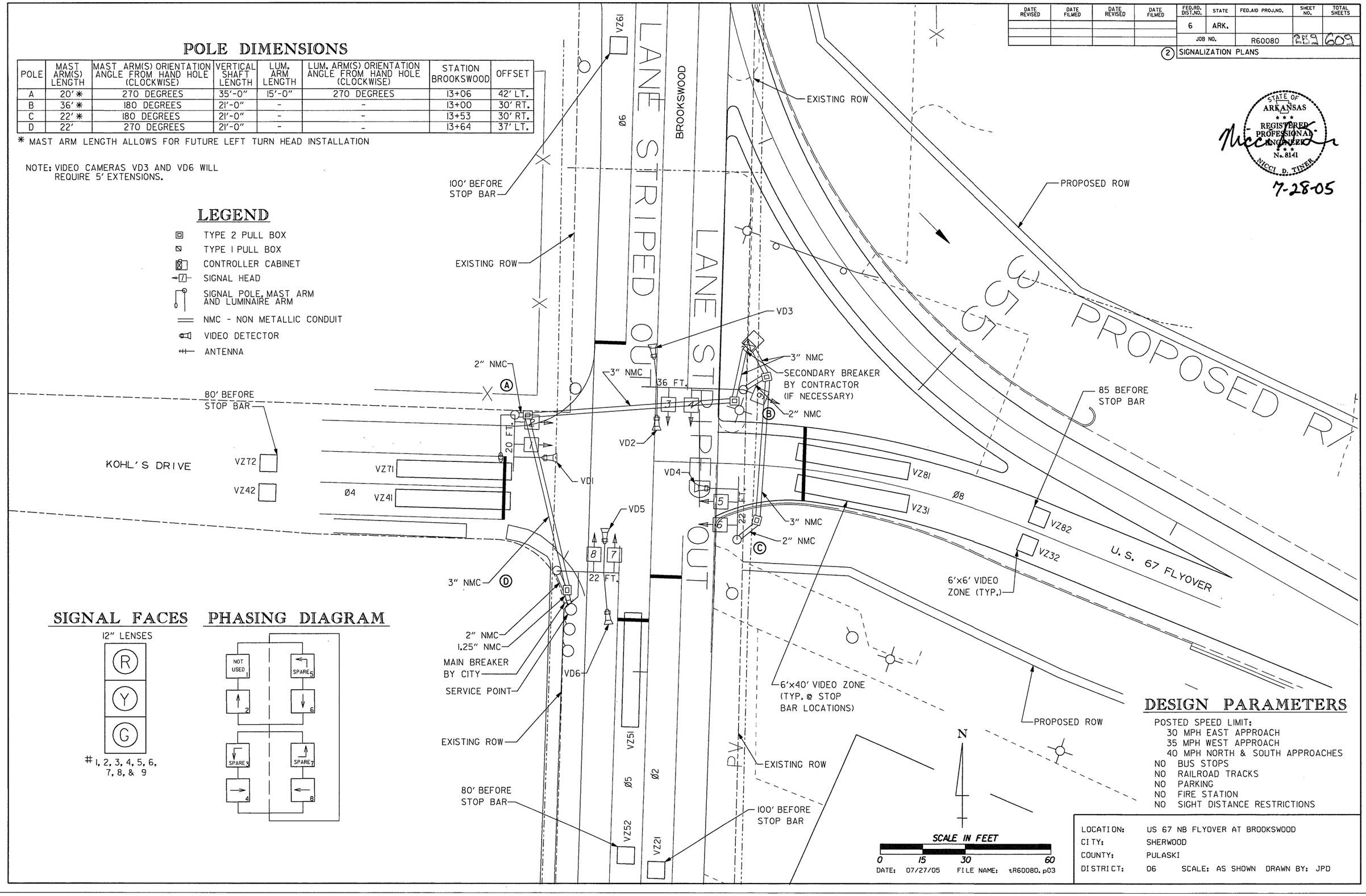
* MAST ARM LENGTH ALLOWS FOR FUTURE LEFT TURN HEAD INSTALLATION

NOTE: VIDEO CAMERAS VD3 AND VD6 WILL REQUIRE 5' EXTENSIONS.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER
7-28-05

LEGEND

- TYPE 2 PULL BOX
- TYPE 1 PULL BOX
- CONTROLLER CABINET
- SIGNAL HEAD
- SIGNAL POLE, MAST ARM AND LUMINAIRE ARM
- NMC - NON METALLIC CONDUIT
- VIDEO DETECTOR
- ANTENNA



SIGNAL FACES

12" LENSES

1, 2, 3, 4, 5, 6, 7, 8, & 9

PHASING DIAGRAM

DESIGN PARAMETERS

POSTED SPEED LIMIT:
- 30 MPH EAST APPROACH
- 35 MPH WEST APPROACH
- 40 MPH NORTH & SOUTH APPROACHES

NO BUS STOPS
NO RAILROAD TRACKS
NO PARKING
NO FIRE STATION
NO SIGHT DISTANCE RESTRICTIONS

LOCATION:	US 67 NB FLYOVER AT BROOKSWOOD
CITY:	SHERWOOD
COUNTY:	PULASKI
DISTRICT:	06 SCALE: AS SHOWN DRAWN BY: JPD

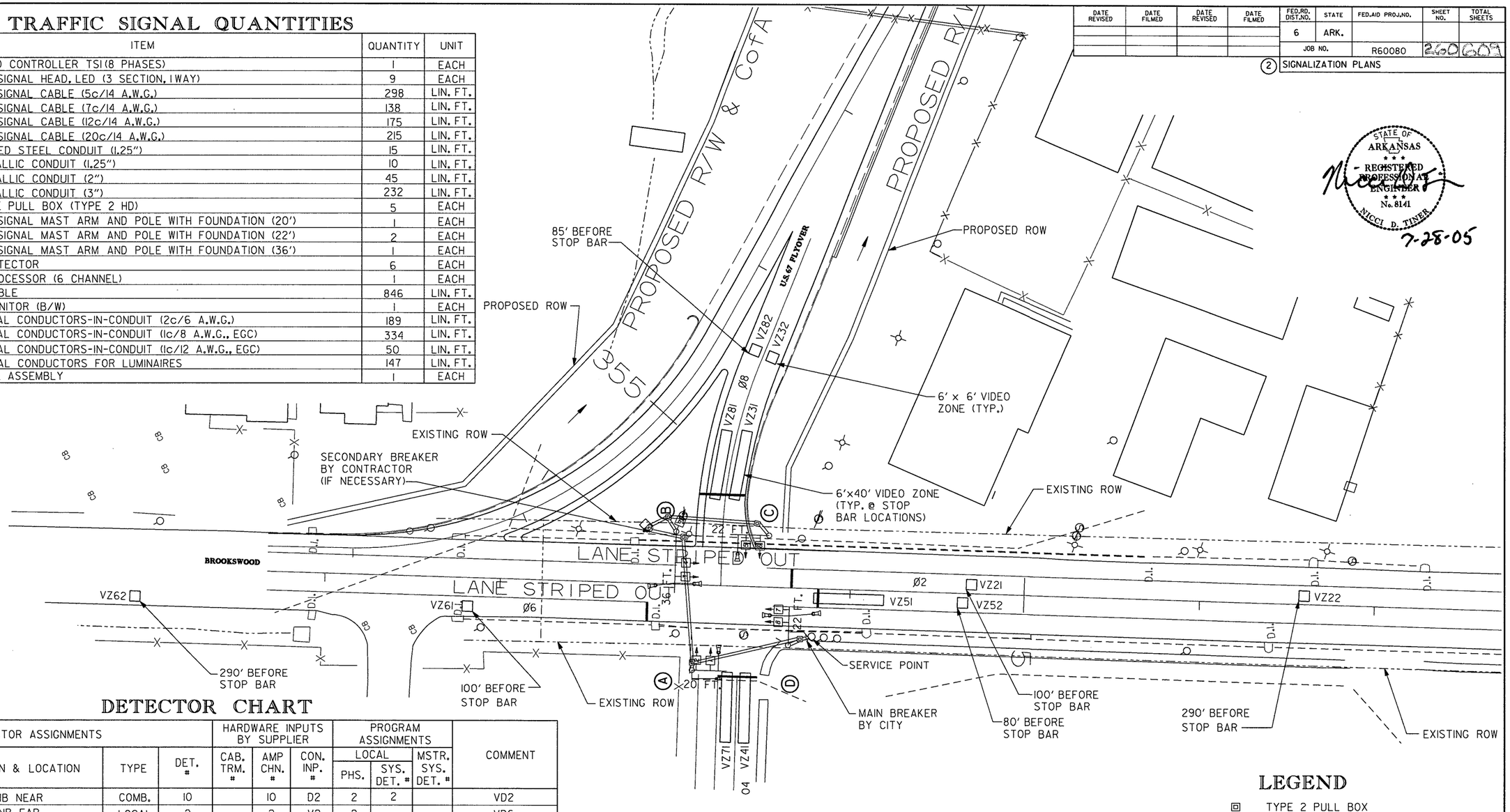
TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
SP&701	ACTUATED CONTROLLER TSI(8 PHASES)	1	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED (3 SECTION, 1WAY)	9	EACH
708	TRAFFIC SIGNAL CABLE (5c/14 A.W.G.)	298	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7c/14 A.W.G.)	138	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12c/14 A.W.G.)	175	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20c/14 A.W.G.)	215	LIN. FT.
709	GALVANIZED STEEL CONDUIT (1.25")	15	LIN. FT.
710	NON-METALLIC CONDUIT (1.25")	10	LIN. FT.
710	NON-METALLIC CONDUIT (2")	45	LIN. FT.
710	NON-METALLIC CONDUIT (3")	232	LIN. FT.
SS&711	CONCRETE PULL BOX (TYPE 2 HD)	5	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (20')	1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (22')	2	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (36')	1	EACH
733	VIDEO DETECTOR	6	EACH
733	VIDEO PROCESSOR (6 CHANNEL)	1	EACH
733	VIDEO CABLE	846	LIN. FT.
733	VIDEO MONITOR (B/W)	1	EACH
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2c/6 A.W.G.)	189	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/8 A.W.G., EGC)	334	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/12 A.W.G., EGC)	50	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	147	LIN. FT.
SP	LUMINAIRE ASSEMBLY	1	EACH

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	2	6

(2) SIGNALIZATION PLANS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER
7-28-05



DETECTOR CHART

DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENT
							LOCAL		MSTR. SYS. DET. #	
DETECTOR I.D. #	DIRECTION & LOCATION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. INP. #	PHS.	SYS. DET. #		
VZ21	NB NEAR	COMB.	10		10	D2	2	2		VD2
VZ22	NB FAR	LOCAL	2		2	V2	2			VD6
VZ31	WB LEFT NEAR	LOCAL	3		3	V3	8			VD1
VZ32	WB LEFT FAR	COMB.	11		11	D3	8	3		VD1
VZ41	EB NEAR	LOCAL	4		4	V4	4			VD4
VZ42	EB FAR	COMB.	12		12	D4	4	4		VD4
VZ51	NB LEFT NEAR	LOCAL	5		5	V5	5			VD2
VZ52	NB LEFT FAR	COMB.	13		13	D5	5	5		VD2
VZ61	SB NEAR	COMB.	14		14	D6	6	6		VD5
VZ62	SB FAR	LOCAL	6		6	V6	6			VD3
VZ71	EB LEFT NEAR	LOCAL	7		7	V7	4			VD4
VZ72	EB LEFT FAR	COMB.	15		15	D7	4	7		VD4
VZ81	WB NEAR	LOCAL	8		8	V8	8			VD1
VZ82	WB FAR	COMB.	16		16	D8	8	8		VD1

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

LEGEND

- TYPE 2 PULL BOX
- TYPE 1 PULL BOX
- CONTROLLER CABINET
- SIGNAL HEAD
- SIGNAL POLE, MAST ARM AND LUMINAIRE ARM
- NMC - NON METALLIC CONDUIT
- VIDEO DETECTOR
- ANTENNA

NOTE:
SEE PREVIOUS SHEET FOR ADDITIONAL SIGNAL CALL-OUTS.

N

SCALE IN FEET
0 30 60 120

DATE: 07/27/05 FILE NAME: tR60080.p04

LOCATION: US 67 NB FLYOVER AT BROOKSWOOD
CITY: SHERWOOD
COUNTY: PULASKI
DISTRICT: 06 SCALE: AS SHOWN DRAWN BY: JPD

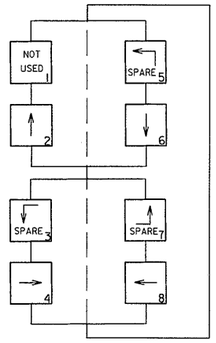
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	26	609

(2) SIGNALIZATION PLANS

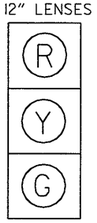
INTERVAL CHART

SIGNAL FACES	INTERSECTION INTERVALS				FLASH SEQ.
	2+6	CLR.	4+8	CLR.	
1 & 2	R	R	G	Y	R
3 & 4	G	Y	R	R	R
5 & 6	R	R	G	Y	R
7 & 8	G	Y	R	R	R
9	R	R	G	Y	R

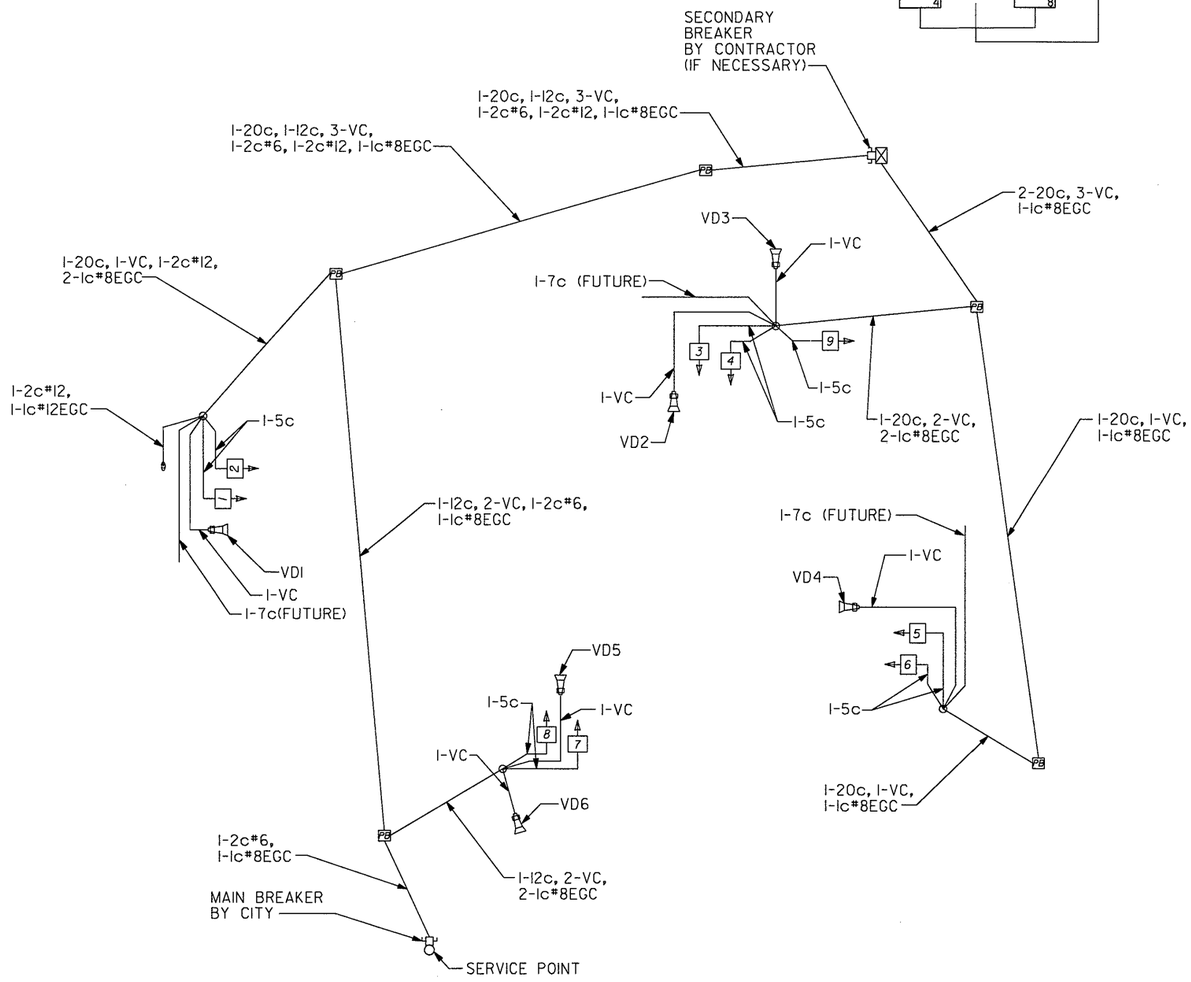
PHASING DIAGRAM

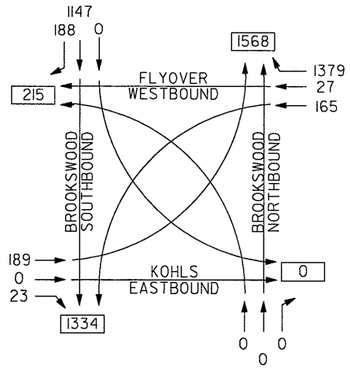


SIGNAL FACES



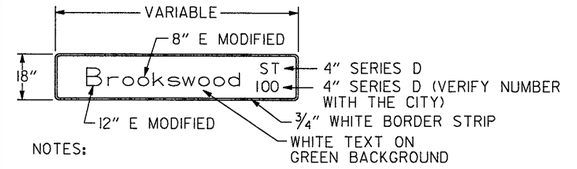
#1, 2, 3, 4, 5, 6, 7, 8, & 9





U.S. 67 NB FLYOVER AT BROOKSWOOD
TRAFFIC FLOW DIAGRAM
TRAFFIC VOLUME
PEAK HOUR

OVERHEAD STREET NAME MARKER STANDARD MAST ARM MOUNTED



NOTES:

1. REFLECTIVE SHEETING SHALL BE 3M VIP GRADE SHEETING. SHEETING AND LEGEND SHALL BE APPLIED IN SUCH A MANNER TO PROVIDE WRINKLE AND BUBBLE FREE SURFACES. APPLICATION OF SHEETING IS CAUSE FOR REJECTION OF MATERIALS DUE TO WORKMANSHIP.

2. ALUMINUM SIGN BLANK SHALL BE ALLOY 6061-T6 OR 5052-H38. THE ALUMINUM SIGN SHALL ALSO BE ANODIZED. THE ALUMINUM SHEETING SHALL BE 0.100 INCH NOMINAL THICKNESS AND OF THE SIZE SHOWN WITH 1.5" CORNER RADII. PRIOR TO FABRICATION OF THE SIGNS, THE LAYOUT SHALL FIRST BE APPROVED BY AN AGENT OF THE CITY OF SHERWOOD.

3. SEE STD. DETAIL SHEETS FOR MORE INFORMATION FOR MOUNTING ON MAST ARM ASSEMBLY.

4. STREET NAME "BROOKSWOOD" ON POLES A AND C.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER
7-28-05

WIRING DIAGRAM

TYPICAL WIRING INCLUDES:
1. SEPARATE 5c/#14 AWG FROM EACH 3 SEC SIGNAL HEAD TO BASE OF POLE.
2. SEPARATE 7c/#14 AWG FROM EACH 5 SEC SIGNAL HEAD TO BASE OF POLE.
3. PROVIDE SEPARATE CONDUIT FOR ANTENNA CABLE.

DATE: 7/27/05 FILE NAME: tr60080.p05

LOCATION:	US 67 NB FLYOVER AT BROOKSWOOD			
CITY:	SHERWOOD			
COUNTY:	PULASKI			
DISTRICT:	06	SCALE:	1"=NA'	DRAWN BY: JPD

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	262	609

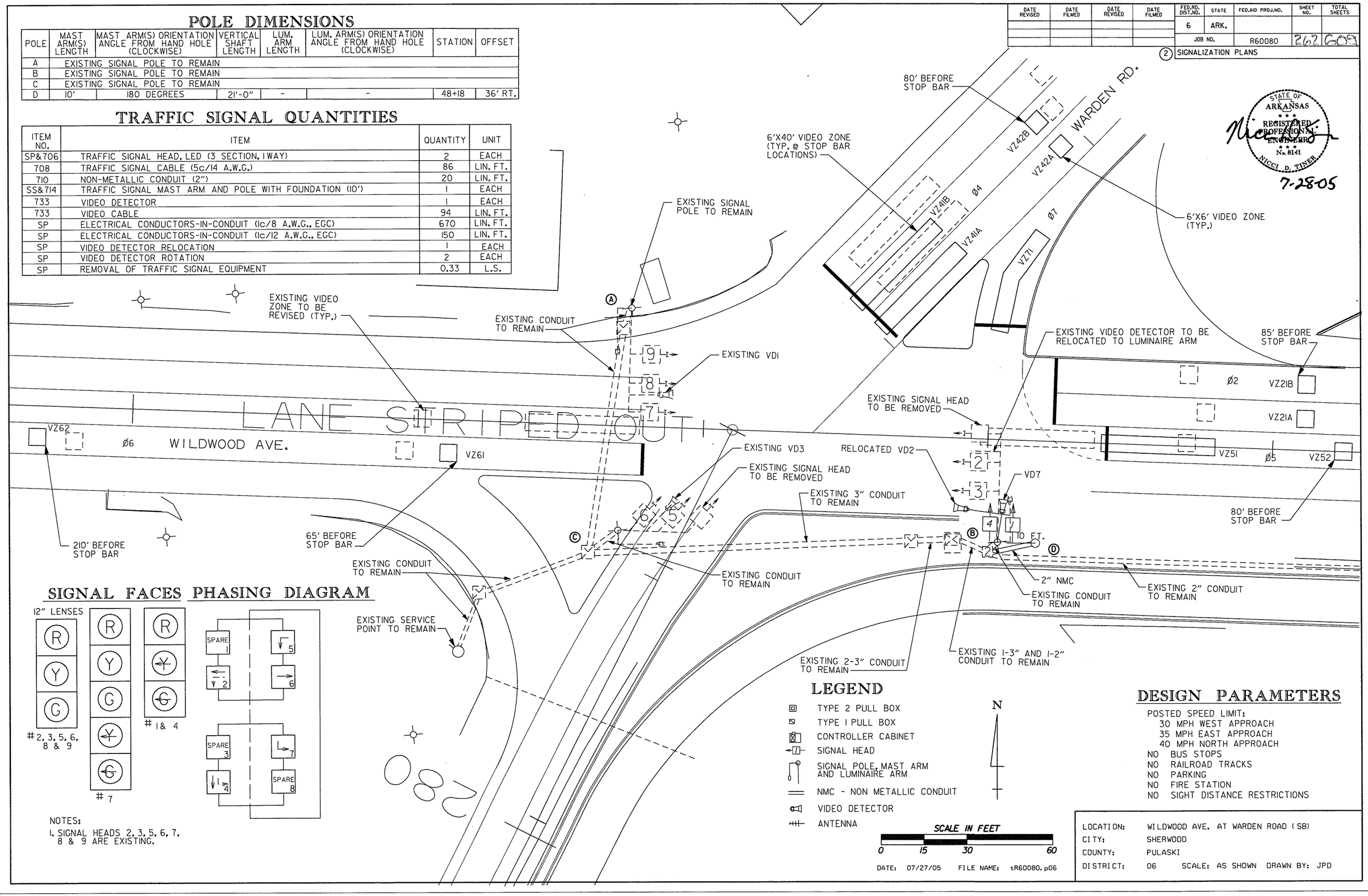
(2) SIGNALIZATION PLANS

POLE DIMENSIONS

POLE	MAST ARM(S) LENGTH	MAST ARM(S) ORIENTATION ANGLE FROM HAND HOLE (CLOCKWISE)	VERTICAL SHAFT LENGTH	LUM. ARM LENGTH	LUM. ARM(S) ORIENTATION ANGLE FROM HAND HOLE (CLOCKWISE)	STATION	OFFSET
A	EXISTING SIGNAL POLE TO REMAIN						
B	EXISTING SIGNAL POLE TO REMAIN						
C	EXISTING SIGNAL POLE TO REMAIN						
D	10'	180 DEGREES	21'-0"	-	-	48+18	36' RT.

TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
SP&706	TRAFFIC SIGNAL HEAD, LED (3 SECTION, 1 WAY)	2	EACH
708	TRAFFIC SIGNAL CABLE (5c/14 A.W.G.)	86	LIN. FT.
710	NON-METALLIC CONDUIT (2")	20	LIN. FT.
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (10')	1	EACH
733	VIDEO DETECTOR	1	EACH
733	VIDEO CABLE	94	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/8 A.W.G., EGC)	670	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/12 A.W.G., EGC)	150	LIN. FT.
SP	VIDEO DETECTOR RELOCATION	1	EACH
SP	VIDEO DETECTOR ROTATION	2	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.33	L.S.



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER
7-28-05

SIGNAL FACES PHASING DIAGRAM

NOTES:
1. SIGNAL HEADS 2, 3, 5, 6, 7, 8 & 9 ARE EXISTING.

LEGEND

- TYPE 2 PULL BOX
- TYPE 1 PULL BOX
- CONTROLLER CABINET
- SIGNAL HEAD
- SIGNAL POLE, MAST ARM AND LUMINAIRE ARM
- NMC - NON METALLIC CONDUIT
- VIDEO DETECTOR
- ANTENNA

N

SCALE IN FEET
0 15 30 60

DATE: 07/27/05 FILE NAME: tR60080.p06

DESIGN PARAMETERS

POSTED SPEED LIMIT:
- 30 MPH WEST APPROACH
- 35 MPH EAST APPROACH
- 40 MPH NORTH APPROACH

NO BUS STOPS
NO RAILROAD TRACKS
NO PARKING
NO FIRE STATION
NO SIGHT DISTANCE RESTRICTIONS

LOCATION:	WILDWOOD AVE. AT WARDEN ROAD (SB)
CITY:	SHERWOOD
COUNTY:	PULASKI
DISTRICT:	06 SCALE: AS SHOWN DRAWN BY: JPD

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	263	609
				(2) SIGNALIZATION PLANS				

SIGNAL FACES

12" LENSES

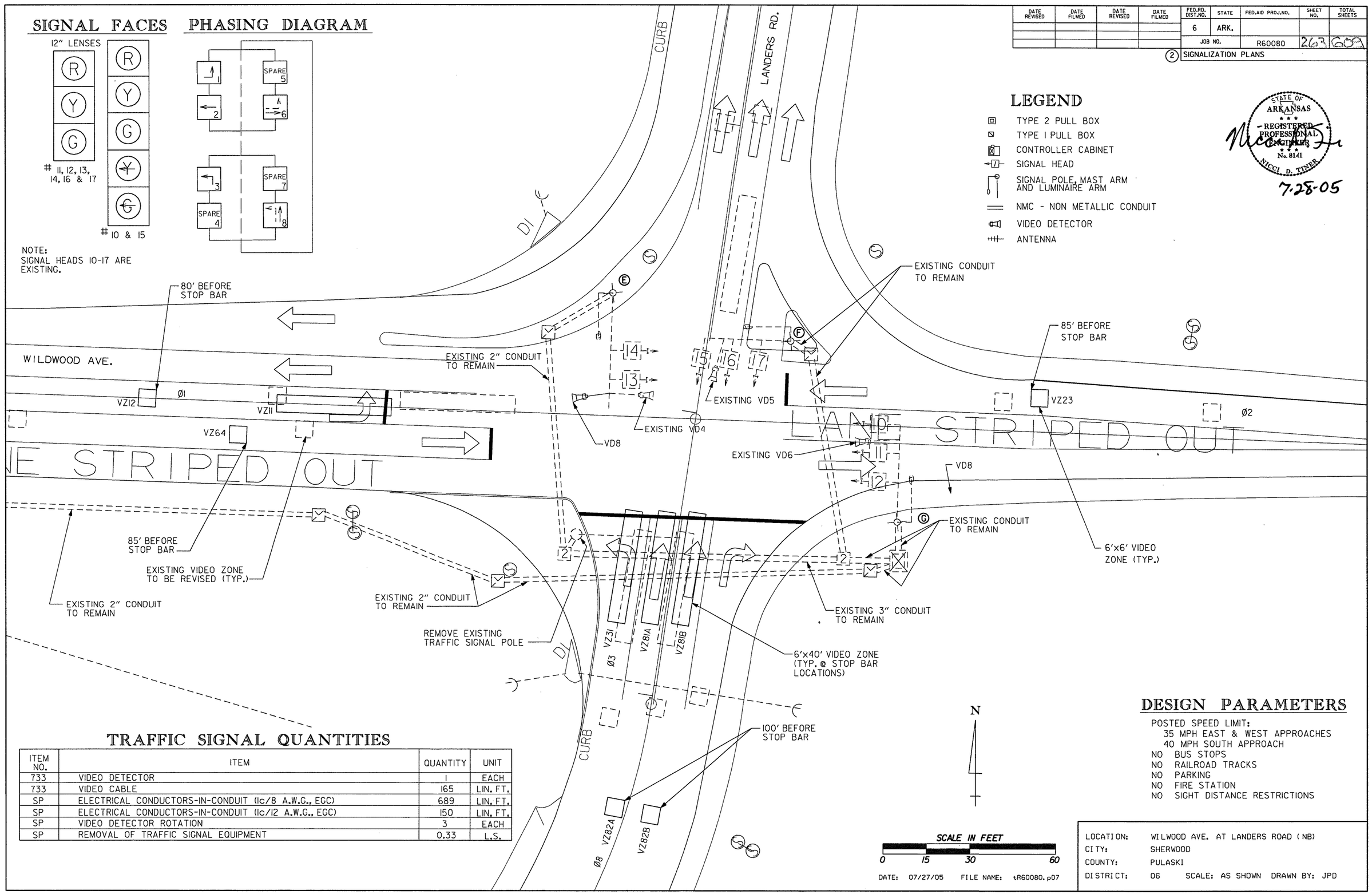
PHASING DIAGRAM

NOTE:
SIGNAL HEADS 10-17 ARE EXISTING.

LEGEND

- TYPE 2 PULL BOX
- TYPE I PULL BOX
- CONTROLLER CABINET
- SIGNAL HEAD
- SIGNAL POLE, MAST ARM AND LUMINAIRE ARM
- NMC - NON METALLIC CONDUIT
- VIDEO DETECTOR
- ANTENNA

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER
7-28-05



TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
733	VIDEO DETECTOR	1	EACH
733	VIDEO CABLE	165	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/8 A.W.G., EGC)	689	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/12 A.W.G., EGC)	150	LIN. FT.
SP	VIDEO DETECTOR ROTATION	3	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.33	L.S.

DESIGN PARAMETERS

POSTED SPEED LIMIT:
35 MPH EAST & WEST APPROACHES
40 MPH SOUTH APPROACH
NO BUS STOPS
NO RAILROAD TRACKS
NO PARKING
NO FIRE STATION
NO SIGHT DISTANCE RESTRICTIONS

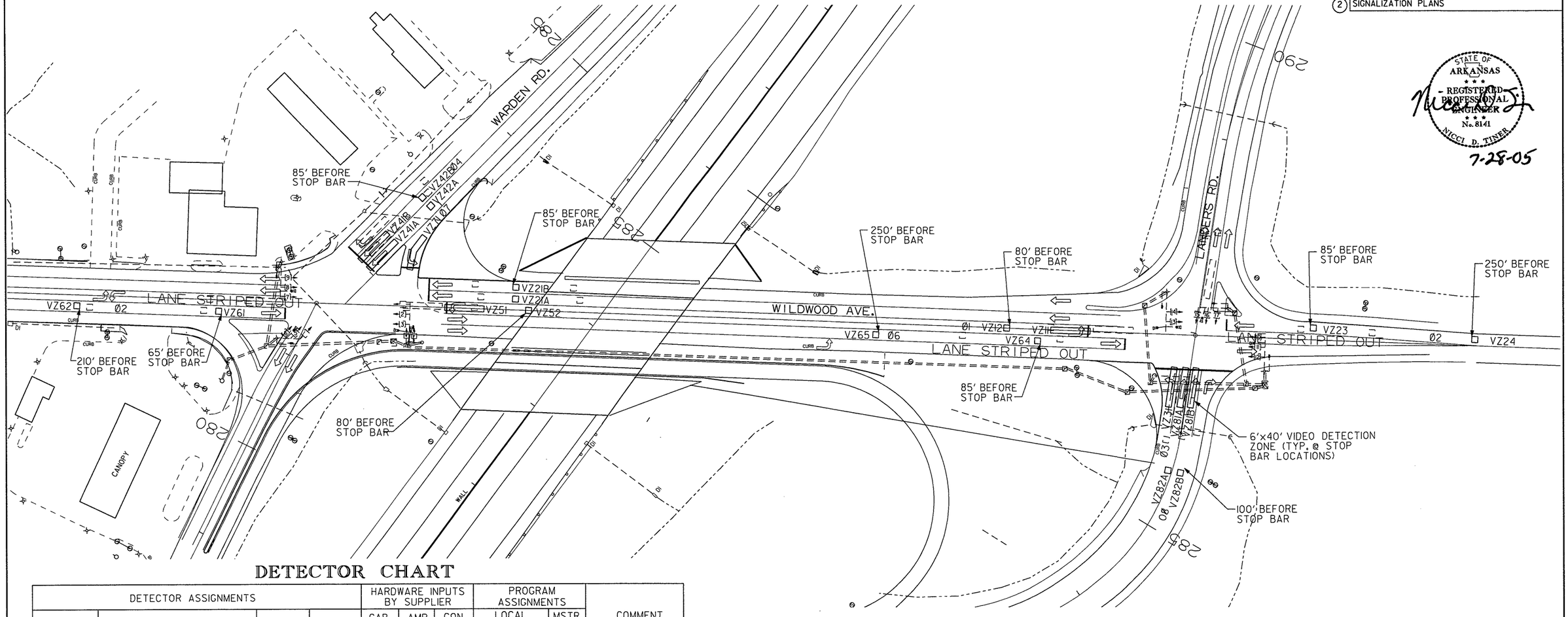
LOCATION: WILWOOD AVE. AT LANDERS ROAD (NB)
CITY: SHERWOOD
COUNTY: PULASKI
DISTRICT: 06 SCALE: AS SHOWN DRAWN BY: JPD

DATE: 07/27/05 FILE NAME: tR60080.p07

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	269	609

(2) SIGNALIZATION PLANS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER
7-28-05



DETECTOR CHART

DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENT
							LOCAL		MSTR.	
DETECTOR I.D. #	DIRECTION & LOCATION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. INP. #	PHS.	SYS. DET. #	SYS. DET. #	
VZ11	EB LEFT NEAR (LANDERS)	LOCAL	1		1	V1	1			VD6
VZ12	EB LEFT FAR (LANDERS)	COMB.	9		9	D1	1	1		VD6
VZ21A&B	WB NEAR (WARDEN)	COMB.	15		15	D7	2	7		VD1
VZ23	WB NEAR (LANDERS)	COMB.	10		10	D2	2	2		VD4
VZ24	WB FAR (LANDERS)	LOCAL	2		2	V2	2			VD4
VZ31	NB LEFT NEAR (LANDERS)	LOCAL	3		3	V3	3			VD5
VZ41A&B	SB NEAR (WARDEN)	LOCAL	4		4	V4	4			VD3
VZ42A&B	SB INSIDE FAR (WARDEN)	COMB.	12		12	D4	4	4		VD3
VZ51	WB LEFT NEAR (WARDEN)	LOCAL	5		5	V5	5			VD1
VZ52	WB FAR (WARDEN)	COMB.	13		13	D5	5	5		VD1
VZ61	EB NEAR (WARDEN)	COMB.	14		14	D6	6	6		VD2
VZ62	EB FAR (WARDEN)	LOCAL	6		6	V6	6			VD2
VZ64	EB NEAR (LANDERS)	COMB.	11		11	D3	6	3		VD6
VZ65	EB FAR (LANDERS)	LOCAL	17		17	P1	6			VD8
VZ71	SB LEFT NEAR (WARDEN)	LOCAL	7		7	V7	7			VD7
VZ81A&B	NB NEAR (LANDERS)	LOCAL	8		8	V8	8			VD5
VZ82A&B	NB FAR (LANDERS)	COMB.	16		16	D8	8	8		VD5

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

NOTE:
SEE PREVIOUS SHEETS FOR CONDUIT INFORMATION.

LEGEND

- TYPE 2 PULL BOX
- TYPE 1 PULL BOX
- CONTROLLER CABINET
- SIGNAL HEAD
- SIGNAL POLE, MAST ARM AND LUMINAIRE ARM
- NMC - NON METALLIC CONDUIT
- VIDEO DETECTOR
- ANTENNA

N

SCALE IN FEET
0 50 100 200

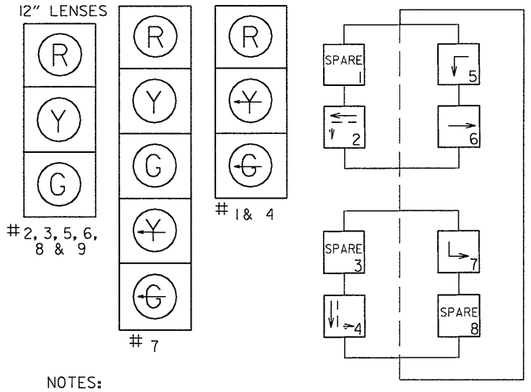
DATE: 07/27/05 FILE NAME: tR60080.p08

LOCATION:	WILDWOOD AVE AT WARDEN RD. (SB) AND LANDERS RD. (NB)
CITY:	SHERWOOD
COUNTY:	PULASKI
DISTRICT:	06 SCALE: AS SHOWN DRAWN BY: JPD

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	265	609

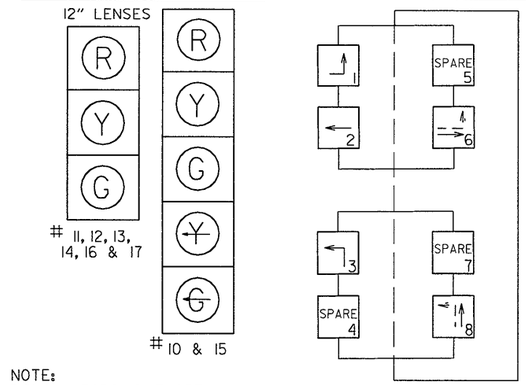
(2) SIGNALIZATION PLANS

WARDEN RD. (SB)
SIGNAL FACES PHASING DIAGRAM



NOTES:
1. SIGNAL HEADS 2, 3, 5, 6, 7, 8 & 9 ARE EXISTING.

LANDERS RD. (NB)
SIGNAL FACES PHASING DIAGRAM



NOTE:
SIGNAL HEADS 10-17 ARE EXISTING.

WARDEN RD. (SB)
INTERVAL CHART

SIGNAL FACES	INTERSECTION INTERVALS						FLASH SEQ.
	2+5	CLR.	2+6	CLR.	4+7	CLR.	
1	R	R	R	R	~~G~~	~~Y~~	R
2 & 3	R	R	G	Y	R	R	R
4	R	R	R	R	~~G~~	~~Y~~	R
5 & 6	R	R	R	R	G	Y	R
7	G / ~~G~~	** / *	G	**	R	R	R
8 & 9	G	**	G	**	R	R	R

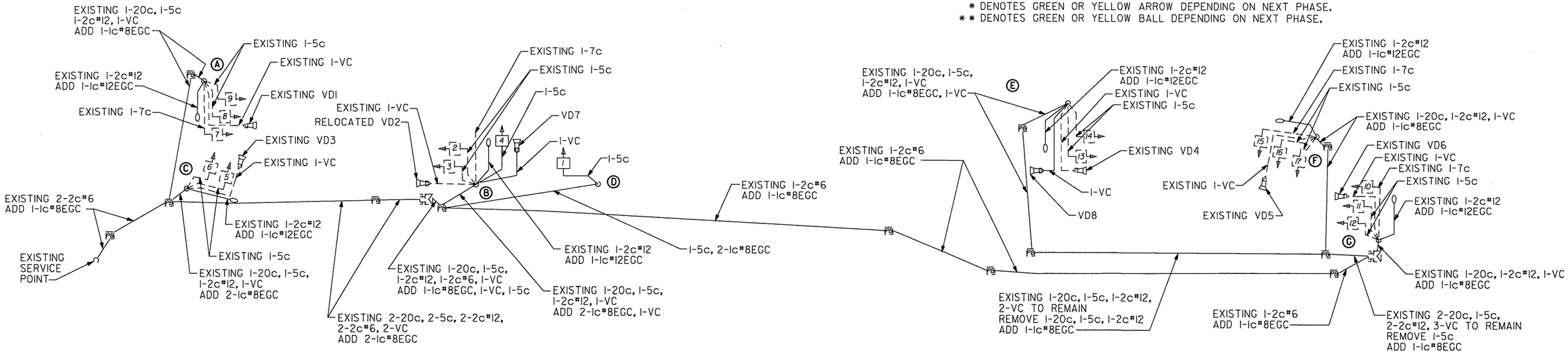
* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE.
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE.

LANDERS RD. (NB)
INTERVAL CHART

SIGNAL FACES	INTERSECTION INTERVALS						FLASH SEQ.
	1+6	CLR.	2+6	CLR.	3+8	CLR.	
10	G / ~~G~~	** / *	G	**	R	R	R
11 & 12	G	**	G	**	R	R	R
13 & 14	R	R	G	Y	R	R	R
15	R	R	R	R	G / ~~G~~	Y / ~~Y~~	R
16 & 17	R	R	R	R	G	Y	R

* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE.
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER
7-28-05



WARDEN RD.

LANDERS RD.

WIRING DIAGRAM

TYPICAL WIRING INCLUDES:
1. SEPARATE 5c/#14 AWG FROM EACH 3 SEC SIGNAL HEAD TO BASE OF POLE.
2. SEPARATE 7c/#14 AWG FROM EACH 5 SEC SIGNAL HEAD TO BASE OF POLE.

DATE: 7/27/05 FILE NAME: tr60080.p09

LOCATION:	WILDWOOD AVE. AT WARDEN RD (SB) AND LANDERS RD. (NB)
CITY:	SHERWOOD
COUNTY:	PULASKI
DISTRICT:	06 SCALE: 1"=NA' DRAWN BY: JPD

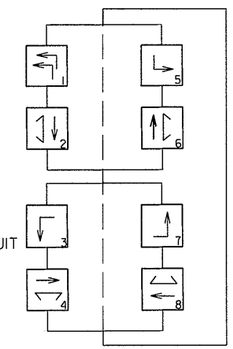
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	2606	6093

(2) SIGNALIZATION PLANS

LEGEND

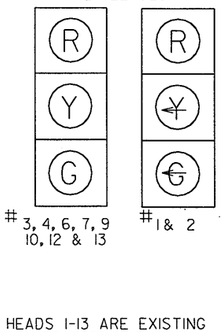
- TYPE 2 PULL BOX
- TYPE 1 PULL BOX
- EXISTING PULL BOX
- CONTROLLER CABINET
- EXISTING CONTROLLER CABINET
- SIGNAL HEAD
- EXISTING SIGNAL HEAD
- SIGNAL POLE, MAST ARM AND LUMINAIRE ARM
- EXISTING SIGNAL POLE
- NMC - NON METALLIC CONDUIT
- EXISTING CONDUIT
- VIDEO DETECTOR
- ANTENNA

EXISTING PHASING DIAGRAM



SIGNAL FACES

12" LENSES



3, 4, 6, 7, 9, 10, 12 & 13

1 & 2

5, 8 & 11

NOTE:
SIGNAL HEADS 1-13 ARE EXISTING AND SHALL BE RETROFIT FOR LED LENS.

ONE SECTION (SOLID SYMBOL)

14, 15, 16, 17, 18, 19, 20, & 21

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER
7-28-05

80' BEFORE STOP BAR
60' BEFORE STOP BAR
VZ21B
VZ21A
VZ52
Ø2
Ø5
IND/ANHEAD DR.
6'x40' VIDEO ZONE (TYP. AT STOP BAR LOCATIONS)
EXISTING ROW
2" NMC
EXISTING 3" CONDUIT
EXISTING CONTROLLER TO REMAIN
EXISTING 2-2" CONDUIT
EXISTING SIGNAL POLE TO REMAIN
VD2
VZ51
PROPOSED ROW
EXISTING SIGNAL POLE TO REMAIN
EXISTING 2" CONDUIT
2" NMC
EXISTING CONDUIT & PULL BOX TO BE ABANDONED
EXISTING SERVICE POINT TO REMAIN
REPLACE EXISTING PEDESTRIAN SIGNAL HEAD
100' BEFORE STOP BAR
80' BEFORE STOP BAR
VD1
VD8
EXISTING 3" CONDUIT
EXISTING 2-3" CONDUIT
HWY. 176 (KIEHL AVE.)
VZ72
Ø7
VZ71
VD7
VZ41A
Ø4
VZ42B
EXISTING 2" CONDUIT
VD6
VD5
VD3
VZ31
Ø3
EXISTING 3" CONDUIT
85' BEFORE STOP BAR
80' BEFORE STOP BAR
EXISTING CONDUIT & PULL BOX TO BE ABANDONED
VZ81B
VZ81A
VZ32
Ø8
U.S. 67/167 RAMP
2" NMC
EXISTING PEDESTRIAN SIGNAL TO BE REMOVED
EXISTING 2" CONDUIT
EXISTING 2" CONDUIT
6'x6' VIDEO ZONE (TYP.)
EXISTING PULL BOX TO BE ABANDONED
EXISTING CONDUIT TO BE ABANDONED
2" NMC
VD4
EXISTING SIGNAL POLE TO REMAIN
EXISTING SIGNAL POLE TO REMAIN
VZ12
VZ11
Ø1
EXISTING CONDUIT & PULL BOX TO BE ABANDONED
50' BEFORE STOP BAR
80' BEFORE STOP BAR
VZ61
VZ13A
VZ13B
Ø6

POLE DIMENSIONS

POLE	MAST ARM(S) LENGTH	MAST ARM(S) ORIENTATION ANGLE FROM HAND HOLE (CLOCKWISE)	VERTICAL SHAFT LENGTH	LUM. ARM LENGTH	LUM. ARM(S) ORIENTATION ANGLE FROM HAND HOLE (CLOCKWISE)	STATION KIEHL AVE.	OFFSET
A	EXISTING 35'-0" SIGNAL POLE TO REMAIN - PROVIDE 5' EXTENSION FOR VIDEO DETECTOR VD8						
B	-	-	15'-0"	-	-	25+02	37' LT.
C	EXISTING 21'-0" SIGNAL POLE TO REMAIN						
D	-	-	15'-0"	-	-	24+89	59' RT.
E	EXISTING 35'-0" SIGNAL POLE TO REMAIN - PROVIDE 5' EXTENSION FOR VIDEO DETECTOR VD3						
F	-	-	15'-0"	-	-	24+15	38' LT.
G	EXISTING 21'-0" SIGNAL POLE TO REMAIN						
H	-	-	15'-0"	-	-	24+32	51' LT.

N

SCALE IN FEET
0 15 30 60

DATE: 07/27/05 FILE NAME: tR60080.p10

DESIGN PARAMETERS

POSTED SPEED LIMIT:
25 MPH NORTH & SOUTH APPROACHES
40 MPH WEST APPROACH
35 MPH EAST APPROACH
NO BUS STOPS
NO RAILROAD TRACKS
NO PARKING
NO FIRE STATION
NO SIGHT DISTANCE RESTRICTIONS

LOCATION: KIEHL AVENUE AT INDIANHEAD DRIVE
CITY: SHERWOOD
COUNTY: PULASKI
DISTRICT: 06 SCALE: AS SHOWN DRAWN BY: JPD

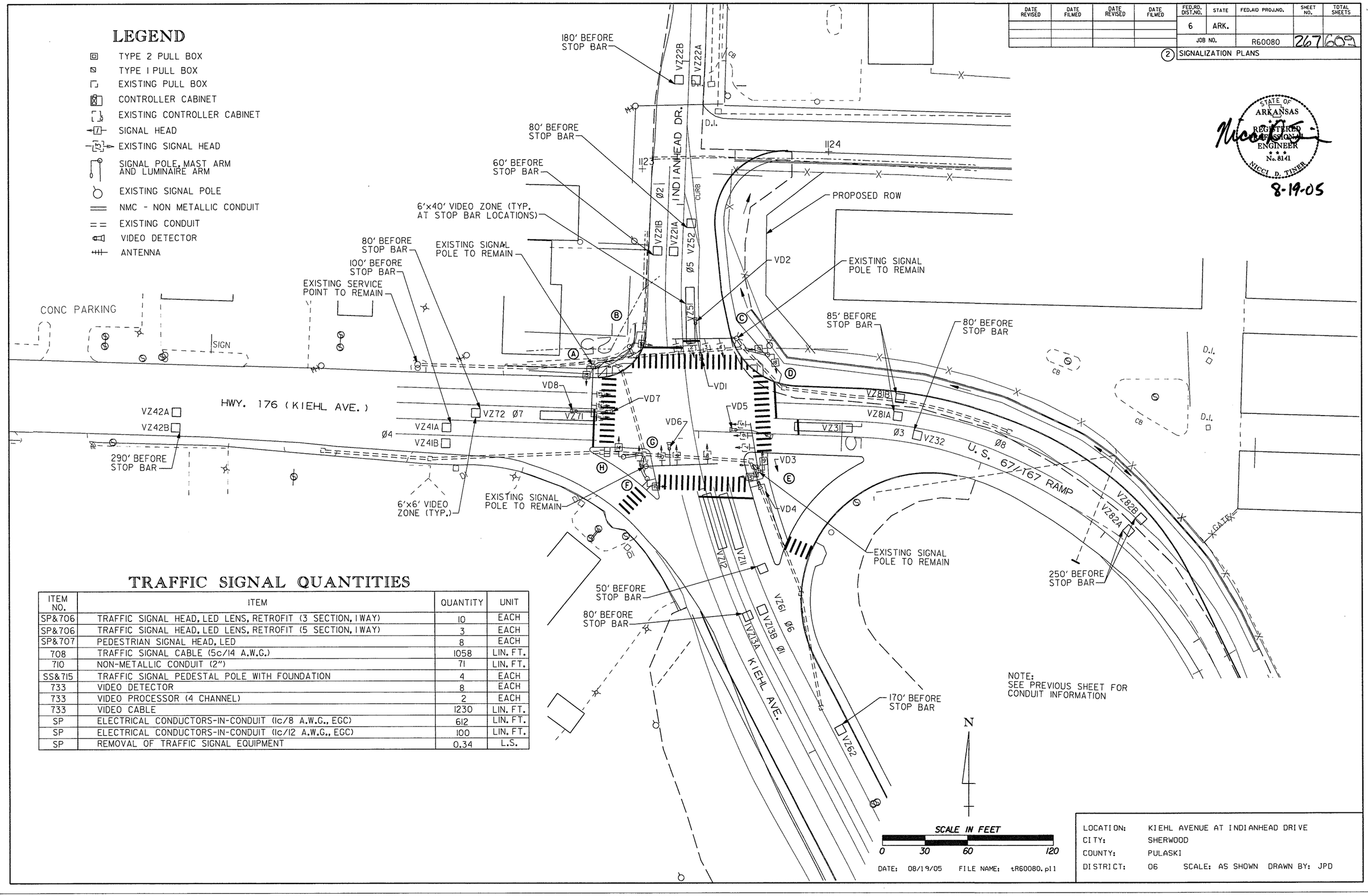
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	267	609
				(2)	SIGNALIZATION PLANS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER

8-19-05

LEGEND

- TYPE 2 PULL BOX
- TYPE I PULL BOX
- EXISTING PULL BOX
- CONTROLLER CABINET
- EXISTING CONTROLLER CABINET
- SIGNAL HEAD
- EXISTING SIGNAL HEAD
- SIGNAL POLE, MAST ARM AND LUMINAIRE ARM
- EXISTING SIGNAL POLE
- NMC - NON METALLIC CONDUIT
- EXISTING CONDUIT
- VIDEO DETECTOR
- ANTENNA



NOTE:
SEE PREVIOUS SHEET FOR CONDUIT INFORMATION

TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
SP&706	TRAFFIC SIGNAL HEAD, LED LENS, RETROFIT (3 SECTION, 1 WAY)	10	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED LENS, RETROFIT (5 SECTION, 1 WAY)	3	EACH
SP&707	PEDESTRIAN SIGNAL HEAD, LED	8	EACH
708	TRAFFIC SIGNAL CABLE (5c/14 A.W.G.)	1058	LIN. FT.
710	NON-METALLIC CONDUIT (2")	71	LIN. FT.
SS&715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	4	EACH
733	VIDEO DETECTOR	8	EACH
733	VIDEO PROCESSOR (4 CHANNEL)	2	EACH
733	VIDEO CABLE	1230	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/8 A.W.G., EGC)	612	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1c/12 A.W.G., EGC)	100	LIN. FT.
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.34	L.S.

LOCATION: KIEHL AVENUE AT INDIANHEAD DRIVE
CITY: SHERWOOD
COUNTY: PULASKI
DISTRICT: 06 SCALE: AS SHOWN DRAWN BY: JPD

DATE: 08/19/05 FILE NAME: tR60080.pl1

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	268	608

(2) SIGNALIZATION PLANS

DETECTOR CHART

DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENT
							LOCAL		MSTR.	
DETECTOR I.D. #	DIRECTION & LOCATION	TYPE	DET. #	CAB. TRM. #	AMP CHN. #	CON. INP. #	PHS.	SYS. DET. #	SYS. DET. #	
VZ11	NB LEFT NEAR	COMB.	14		14	D6	1	6		VD1
VZ12	NB LEFT FAR	COMB.	9		9	D1	1	1		VD1
VZ13A&B	SB NEAR	LOCAL	1		1	V1	1	2		VD6
VZ22A&B	SB FAR	LOCAL	2		2	V2	2			VD2
VZ31	WB LEFT NEAR	LOCAL	3		3	V3	3			VD7
VZ32	WB LEFT FAR	COMB.	11		11	D3	3	3		VD7
VZ41A&B	EB NEAR	COMB.	12		12	D4	4	4		VD5
VZ42A&B	EB FAR	LOCAL	4		4	V4	4			VD8
VZ51	SB LEFT NEAR	LOCAL	5		5	V5	5			VD6
VZ52	SB LEFT FAR	COMB.	13		13	D5	5	5		VD6
VZ61	NB NEAR	LOCAL	17		P1	P1	6			VD1
VZ62	NB FAR	LOCAL	6		6	V6	6			VD4
VZ71	EB LEFT NEAR	LOCAL	7		7	V7	7			VD5
VZ72	EB LEFT FAR	COMB.	15		15	D7	7	7		VD5
VZ81A&B	WB NEAR	COMB.	16		16	D8	8	8		VD7
VZ82A&B	WB FAR	LOCAL	8		8	V8	8			VD3

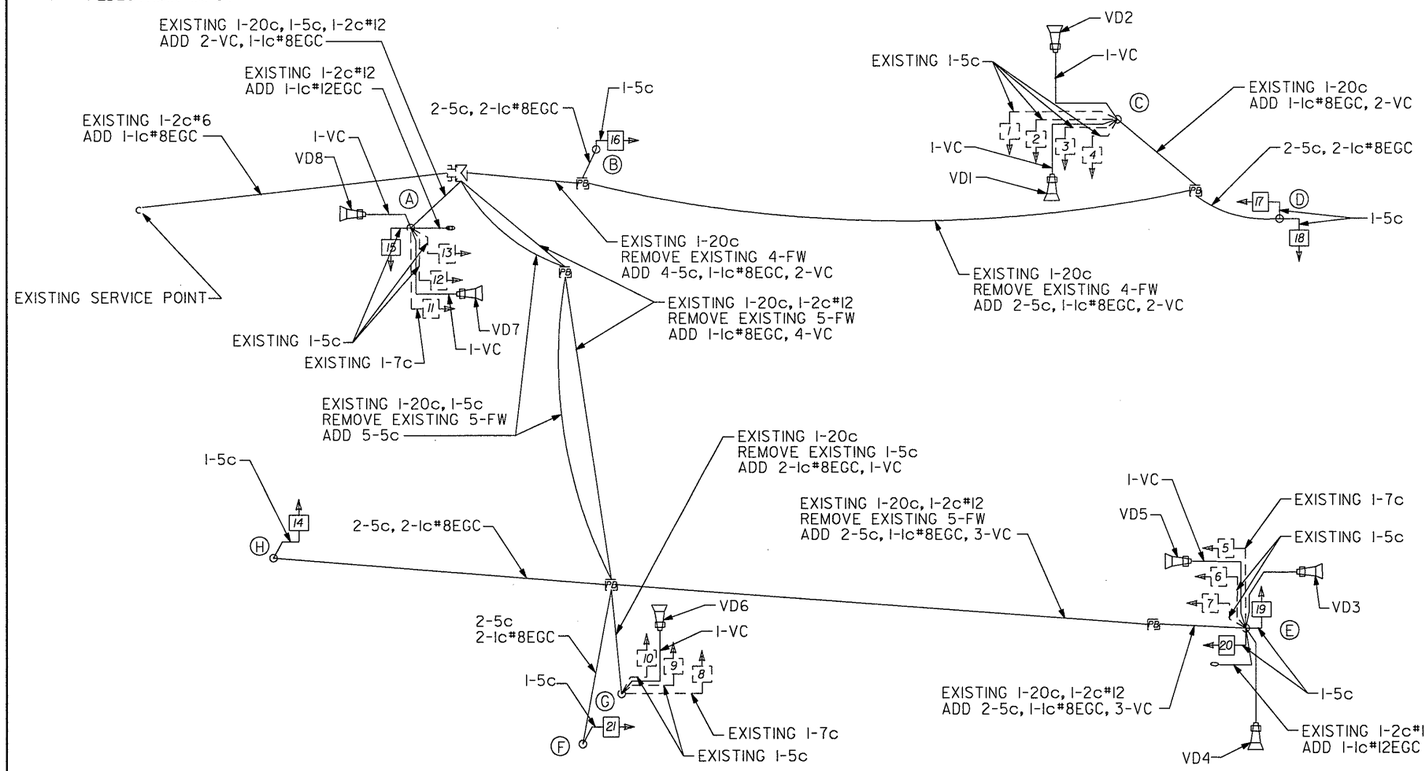
CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

INTERVAL CHART

SIGNAL FACES	INTERSECTION INTERVALS																FLASH SEQ.
	1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	3+7	CLR.	3+8	CLR.	4+7	CLR.	4+8	CLR.	
1 & 2	~~G~~	*	~~G~~	Y	R	R	R	R	R	R	R	R	R	R	R	R	R
3 & 4	R	R	G	**	R	R	G	**	R	R	R	R	R	R	R	R	R
5	R	R	R	R	R	R	R	R	R/~~G~~	**/*	G/~~G~~	**/Y	R	R	R	R	R
6 & 7	R	R	R	R	R	R	R	R	R	R	G	**	R	R	G	**	R
8	R/~~G~~	**/*	R	R	G/~~G~~	**/Y	R	R	R	R	R	R	R	R	R	R	R
9 & 10	R	R	R	R	G	**	G	**	R	R	R	R	R	R	R	R	R
11	R	R	R	R	R	R	R	R	R/~~G~~	**/*	R	R	G/~~G~~	**/Y	R	R	R
12 & 13	R	R	R	R	R	R	R	R	R	R	R	R	G	**	G	**	R
14 & 15	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	B
16 & 17	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	B
18 & 19	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	B
20 & 21	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	B

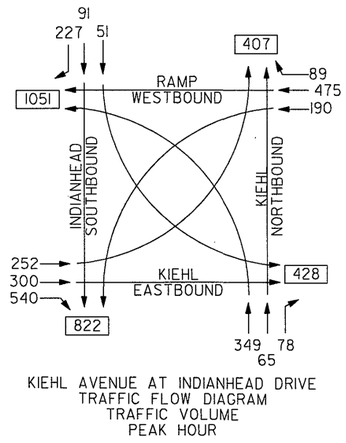
* DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE.
** DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER
7-28-05



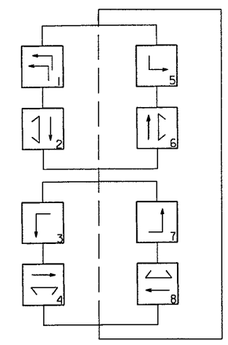
WIRING DIAGRAM

TYPICAL WIRING INCLUDES:
1. SEPARATE 5c/#14 AWG FROM EACH 3 SEC SIGNAL HEAD TO BASE OF POLE.
2. SEPARATE 7c/#14 AWG FROM EACH 5 SEC SIGNAL HEAD TO BASE OF POLE.
3. PROVIDE SEPARATE CONDUIT FOR ANTENNA CABLE.



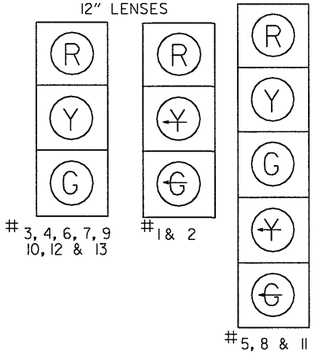
KIEHL AVENUE AT INDIANHEAD DRIVE
TRAFFIC FLOW DIAGRAM
TRAFFIC VOLUME
PEAK HOUR

PHASING DIAGRAM



SIGNAL FACES

12" LENSES



3, 4, 6, 7, 9, 10, 12 & 13
1 & 2
5, 8 & 11

ONE SECTION (SOLID SYMBOL)

14, 15, 16, 17, 18, 19, 20, & 21

LOCATION:	KIEHL AVENUE AT INDIANHEAD DRIVE
CITY:	SHERWOOD
COUNTY:	PULASKI
DISTRICT:	06 SCALE: 1"=NA' DRAWN BY: JPD

DATE: 07/27/05 FILE NAME: tr60080.pl2

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	269	609

(2) SIGNALIZATION DETAILS

NOTES, PED AND TRAFFIC SIGNAL HEAD SIGNS:
1. Each item 'TRAFFIC SIGNAL HEAD (5 SEC., 1-WAY)' shall include a sign (R10-12) as shown, attached to the mast arm or span assembly 12' to the right of the signal head.

Each item 'traffic signal head (3 sec., 1-way)' to be used as a left turn indication only shall include a sign (R10-100 as shown, attached to the mast arm or span assembly 12' to the right of the signal head.

Each Pedestrian Pushbutton shall have one R10-4b sign attached to the pole above the button. All sign faces shall be constructed of high intensity sheeting (Type III) with silkscreen legend and border.

All sign blanks shall be constructed of aluminum alloy (ASTM designation B-209, Alloy 5052-H38) with thickness of 0.100 inch.

GENERAL NOTES:
1. Mast arm poles shall be mounted a minimum of 4 ft. behind curb or shoulder.

2. Octagonal poles and arms meeting the requirements of the plans and specifications can be installed in lieu of round. All poles and arms in a job must be the same shape.

3. MINIMUM STRUCTURAL REQUIREMENTS:
All equipment shall be designed and constructed to meet or exceed the requirements of the 1994 AASHTO 'Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals' for steel poles for an 80 MPH wind zone with a 1.3 gust factor, to support fixed signals as described in this detail sheet or as required on the plans, whichever is greater. As a minimum, design shall be for the following fixed attachments:

All signal heads to be One Way, 12 inch, and have 5 in. back plates:

Heads at end of arm - one 5 Sec., 85 lb., 16.0 Sq. Ft. One Sign mounted 3 ft. from signal * 2' x 0" x 2' * 6', 20 Lb. Remaining heads spaced a 8 ft. * 3 Sec., 56 LB., two 5 Sec:
14.4 Sq. Ft. Design to accommodate (including
2 heads for Arms 10 to 16 Ft.
2 heads for Arms 10 to 16 Ft., including Lb.
3 heads for 18 to 24 ft. arms;
4 heads for over 26 ft. arms.

Street Name Sign -- 72' x 18", 36 lb., mounted such that outside edge is not greater than 12 ft. from pole. Depending upon position of signal head adjacent to pole, sign may overlap pole shaft Roadway Luminaires (where required on plan sheet) * 10 ft. arm length (Max.), 3.3 Sq. Ft., 75 Lb. Ped Signals -- Two 2 Sec. 12 inch mounted 8 ft. from base of pole.
Post Mounted 3 Sec. Signal Head at 10 ft. on side of pole.

4. Pole/Mast Arm Cap -- Pole and Mast Arms Caps shall be provided, fabricated of either steel or cast aluminum.

5. Hand Hole -- Hand holes shall be 4 x 6 inches for standard, and 3 x 5 inches for PED poles, minimum placed approximately 12 inches from base, and shall be fixed with a bolt down cover. Poles greater tan 21 ft. in height (for Roadway Laminar attachment) shall include a hand hold within 12 inches of mastarm(s) attachment(s).

6. POLE/MAST ARM TAPER AND SLOPE - Average taper of signal arms and pole shall be 0.125 to 0.15 inches per ft.

Mast arm centerline angle at attachment point with pole shall maintain not less than 0.5 degrees or more than 4 degrees positive slope with a line perpendicular to the pole centerline. The arm shall maintain a positive after it is placed under load.

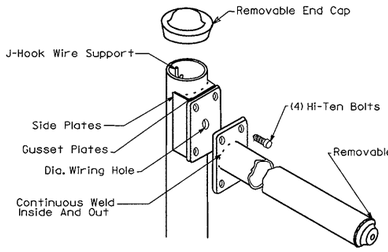
7. Nut Covers - Each pole shall include a bolt down nut cover for each anchor bolt.

8. Ground Rod - Each pole base shall include a 10' x *' copper-weld ground rod which extends a minimum of 8 ft. outside base. Ground rod shall be securely bonded to pole with a '*8 AWG, Solid Ground Wire.

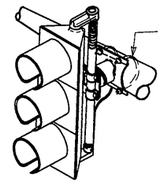
9. Pole Base/Foundation - Anchor Bolts shall include as a minimum, on leveling nut, two flat washers, one lock washer, and one Hex. Nut. Perimeter of anchor base shall be grouted with a*' weep hole. All concrete shall be Class S or greater.

10. Concrete - All concrete for controller cabinet and pole foundations shall be Class 'S' or greater.

11. Pedestrian Phases - Pedestrian movements shall be push button actuated and concurrently timed, unless otherwise indicated on the plan sheet(s). Furnishing and installing Ped push switch shall be considered subsidiary to the item Pedestrian Signal Head.



TYPICAL ARM ATTACHMENT



NOTE: THE SIGNAL SHALL BE CONNECTED TO THE MAST ARM BY BRACKETING AS DIRECTED BY THE ENGINEER

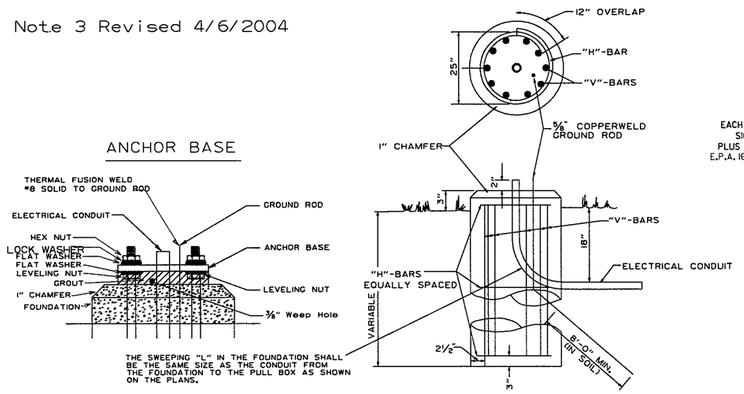
SIGNAL OPERATION NOTES:

Flashing Operation - Prior to Normal Operation, signal shall be flashed for a period of 3 to 5 work days or as directed by the Engineer. Signal shall be placed in operation only on a regular workday, except Friday.
The Contractor may be required to alter the flashing display during the temporary flash period. At the time intersection is placed in permanent operation, the flash sequence shall then be returned to that indicated on the plan sheets. No additional compensation shall be allowed for these alterations in flash sequence.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER
7-28-05

Note 3 Revised 4/6/2004

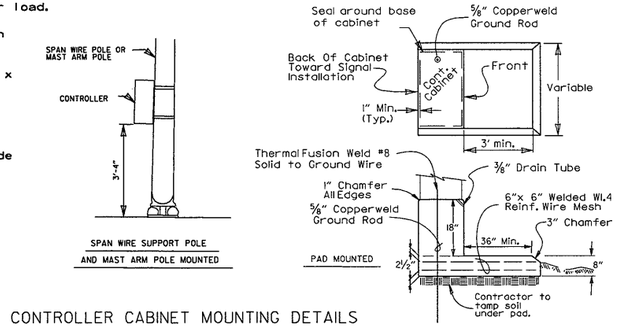
SPECIAL NOTE: 80 MPH WIND ZONE DESIGN, SEE NOTE 2. MINIMUM STRUCTURAL REQUIREMENTS.



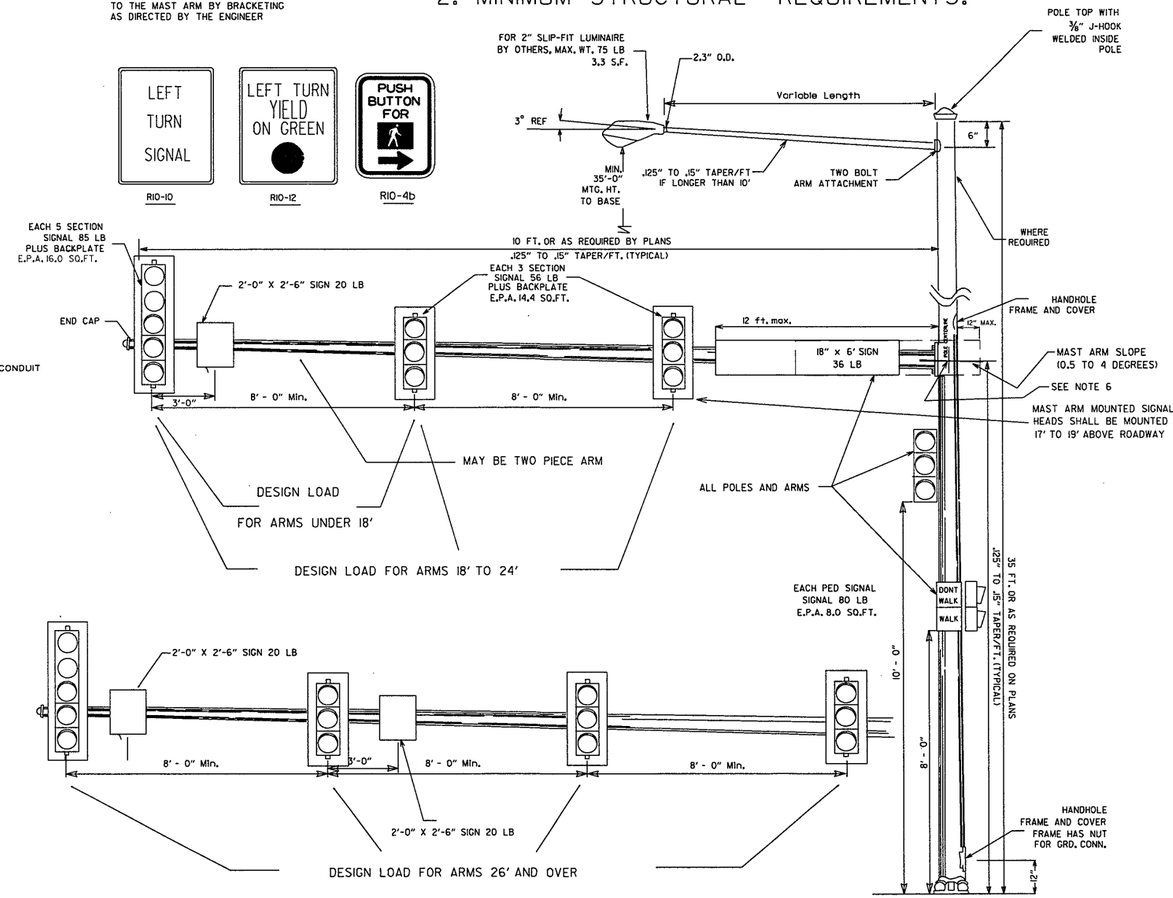
TYPICAL FOUNDATION DETAILS

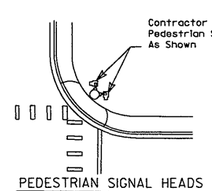
POLE FOUNDATION MINIMUM DIMENSIONS AND STEEL REINFORCING. ALL REINFORCING STEEL SHALL BE GRADE 40 MIN.

ARM LENGTH	FDN. DIAMETER	DEPTH	STEEL VERT.		STEEL HORZ.	STEEL O/C.
PED	30"	3'-6"	10-#5	36"	4-#4	8.50"
2' to 12'	30"	5'-0"	10-#6	55"	7-#4	9.16"
14' to 20'	30"	6'-0"	10-#6	67"	8-#4	9.57"
22' to 35'	30"	8'-0"	10-#6	91"	11-#4	9.10"
36' to 50'	36"	10'-0"	10-#6	115"	14-#4	8.85"
TWINS TO 35'	30"	10'-0"	10-#6	115"	14-#4	8.85"
TWINS 36'-50'	36"	10'-0"	10-#6	115"	14-#4	8.85"
52' AND OV	36"	10'-0"	11-#6	115"	14-#4	8.85"



CONTROLLER CABINET MOUNTING DETAILS





REVISIONS TO DETAILS AND NOTES

REVISION NOTE 3 AASHTO REQUIREMENTS 4-6-04 MCL
REVIS TO NOTES AND POLE MAST ARM SLOPE 6-11-01 MCL
REVISIONS TO POLE TAPERS 4-11-01 STM
REVISIONS TO NOTES & SIGNAL HEAD PLACEMENT 4-25-00
REVISIONS TO FOUNDATION DETAILS 11-22-99 STM
DATE: 11-17-98 REVISIONS BY: DPP
DATE: 11-21-95 DRAWN BY: MCL

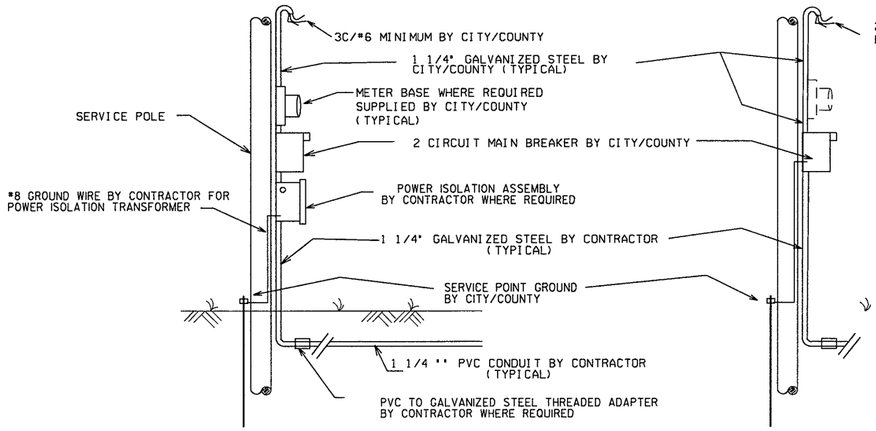
4-6-2004

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	210	603

(2) SIGNALIZATION DETAILS

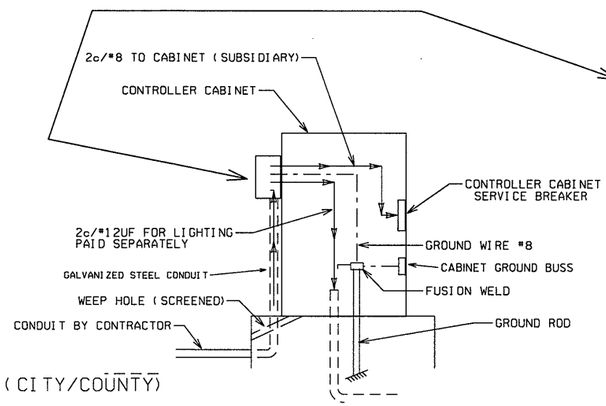
MAIN BREAKER NOT NEAR CONTROLLER CABINET SECONDARY REQUIRED

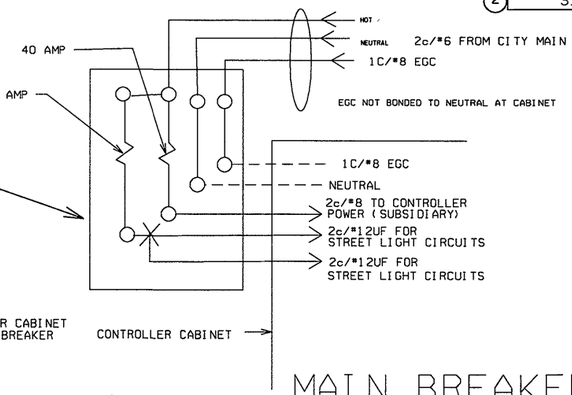
WITH POWER ISOLATION ASSEMBLY



WITHOUT POWER ISOLATION ASSEMBLY

SECONDARY BREAKER BY CONTRACTOR (SUBSIDIARY)





STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 8141 NICCI D. TINER 7-28-05

MAIN BREAKER WIRING (TYPICAL)

NOTES TO CONTRACTOR AND AGENCY RESPONSIBLE FOR MAINTENANCE OF THE INTERSECTION (CITY/COUNTY)

Electrical service typically falls into two categories: MAIN BREAKER NEAR CONTROLLER CABINET; and MAIN BREAKER NOT NEAR CONTROLLER CABINET. The Contractor's and the City's or County's responsibility varies accordingly as indicated on these details.

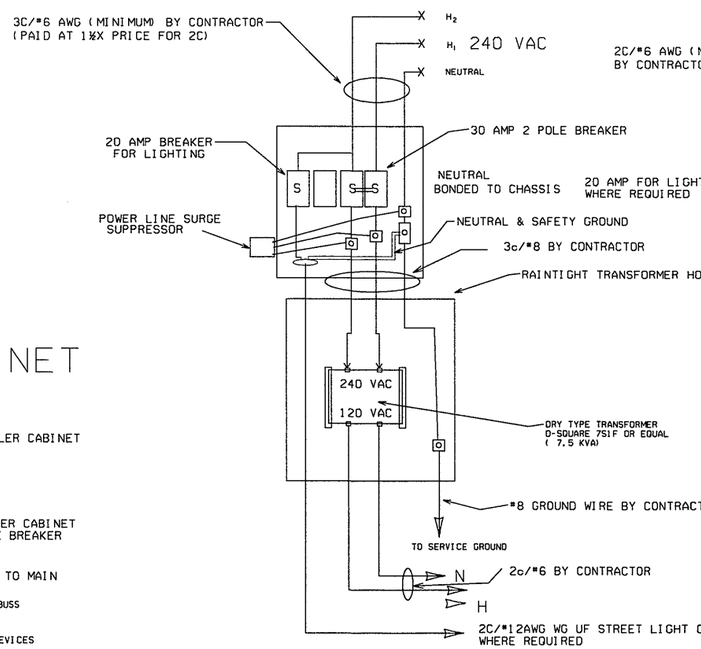
1. ALL SITUATIONS: Electrical service shall be provided by the City/County to a service pole with external raintight breaker (MAIN BREAKER) at a mutually acceptable point within the right-of-way. Service point includes galvanized steel conduit to a point 18" below ground line, two circuit main breaker, power isolation assembly where required, meter loop if required by local utility, electrical conductors and weatherhead. Where street lighting is included as part of signal installation, street lighting circuit (2c/#12 awg UF rated, typical) shall be kept separate from the circuit serving traffic signal. Service wire and wiring from the controller to main breaker is provided by the Contractor as a part of this contract. Wire and wiring from main breaker, and connection to the utility is the responsibility of the City/County.

2. MAIN BREAKER NOT NEAR CONTROLLER CABINET: The Main Breaker assembly, galvanized steel conduit, weatherhead and wire above Main Breaker and connection to the utility shall be provided by City/County. Contractor shall provide as part of contract Secondary Breaker, conduit, wire and wiring to the Main Breaker.

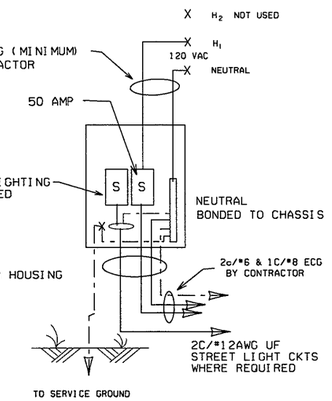
3. MAIN BREAKER NEAR CONTROLLER CABINET: All components of the service point with the exception of the wire and wiring above the Main Breaker is furnished and installed by the Contractor. Wiring from Main Breaker including connection to the utility, is the responsibility of the City/County. If meter loop is required, meter base and hardware is provided by the City/County and installed by the contractor.

Service Ground is typically tied to neutral at the Main Breaker. As such, controller ground IS NOT tied to Neutral at secondary Breaker or in controller cabinet.

WITH POWER ISOLATION ASSEMBLY
4 CIRCUIT MAIN BREAKER

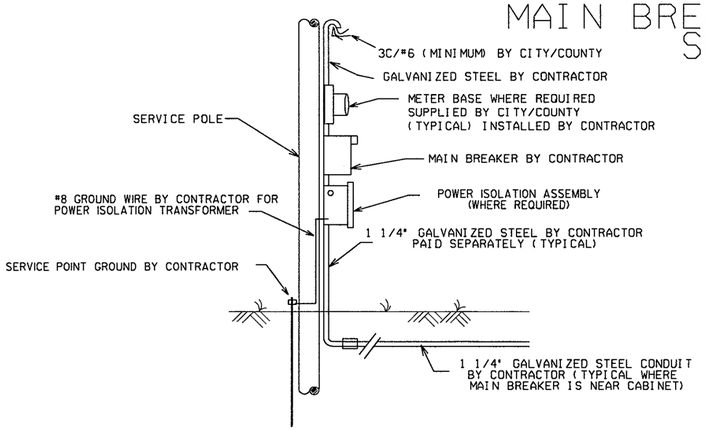


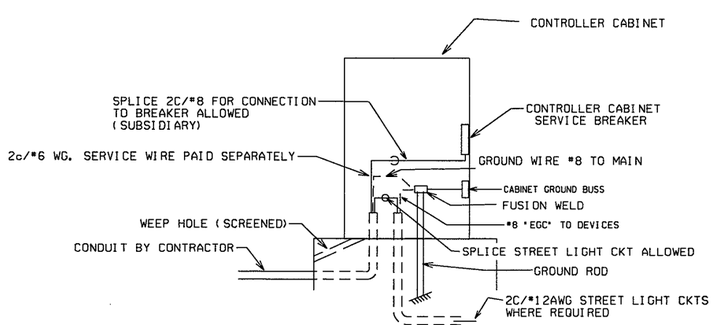
WITHOUT POWER ISOLATION ASSEMBLY
2 CIRCUIT MAIN BREAKER



NOTE: ELECTRICAL GROUND CONDUCTOR (ECG) ADDED 3-3-2003, CONSISTING OF A 1C/#8AWG CU GREEN WIRE AS PER NATIONAL ELECT. CODES.

MAIN BREAKER NEAR CONTROLLER CABINET SECONDARY NOT REQUIRED





REVISED 03-03-2003 MCL
REVISED 09-26-2001 MCL
REVISED 12-27-99 MCL
REVISED 7-28-99 STM
POWER ISOLATION ASSEMBLY CABINET

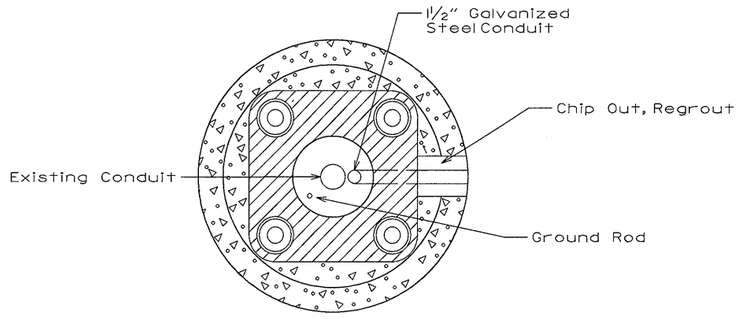
DATE: 2-5-99 DRAWN BY: GWE

DATE: 8-26-99 BY: MCL/STM

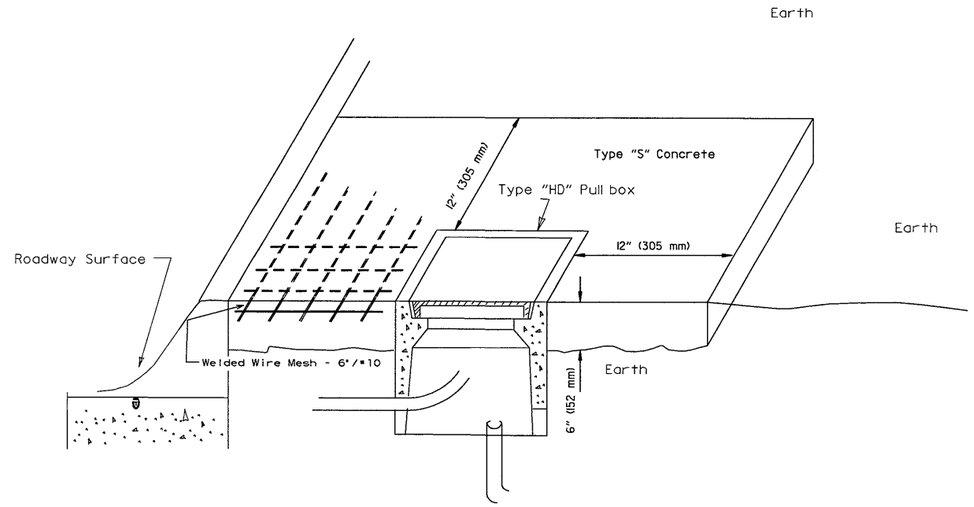
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	21	60
				(2)	SIGNAL DETAILS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER
7-28-05

CONDUIT ENTRY TO EXISTING POLE BASE

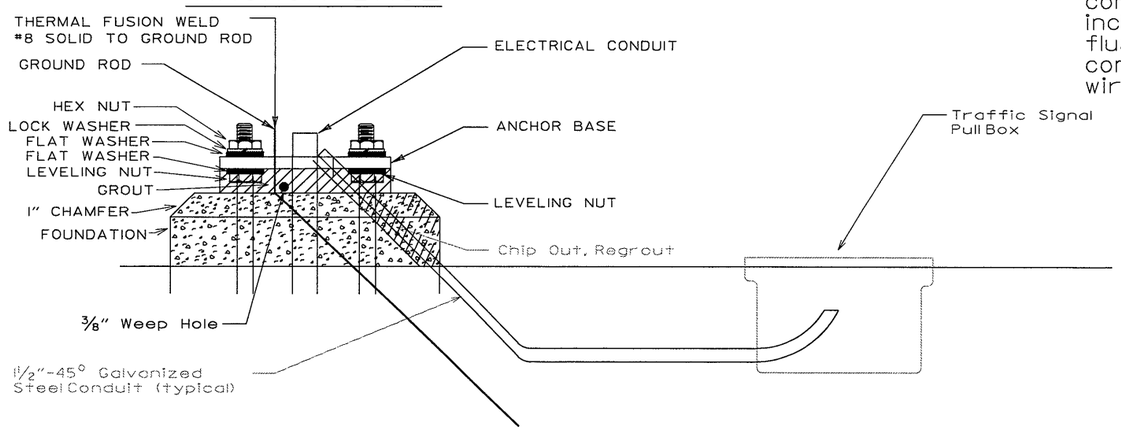


Type "HD" Concrete Pull Box Detail



Note: All Type 1 and Type 2 HD pull boxes are installed with an apron of concrete 12" (305 mm) wide and 6" (152 mm) in depth. All payment shall be included in the price of the Type HD pull box. Pull box shall be installed flush to surrounding grade unless otherwise instructed by the engineer. The concrete shall be class "S." Reinforcement consisting of 6"/#10 welded wire mesh is required in concrete.

ANCHOR BASE



REV. 01-04-02 Reinforcing added to box apron
REV. 07-02-01
tstd4.dgn 12-27-99

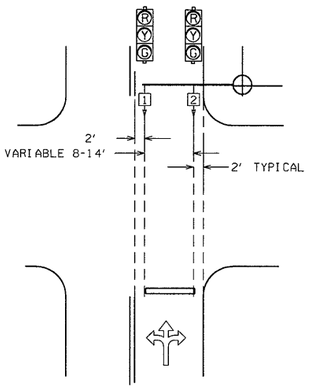
DATE: 11-18-98 DRAWN BY: DPP
REVISIONS TO NOTES
DATE: REVISIONS BY:

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	272	603

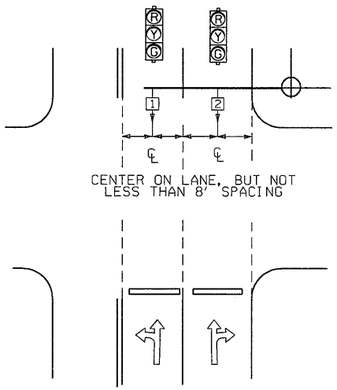
(2) SIGNAL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8141
NICCI D. TINER
7-28-05

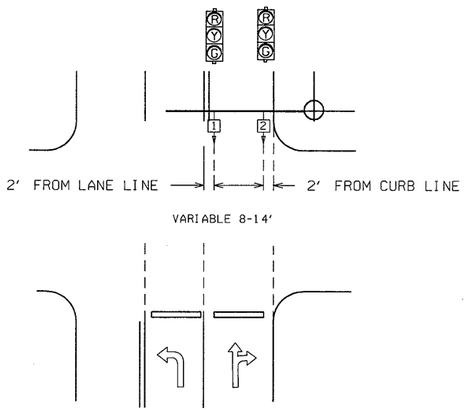
(A)



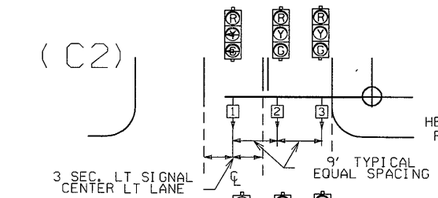
(B)



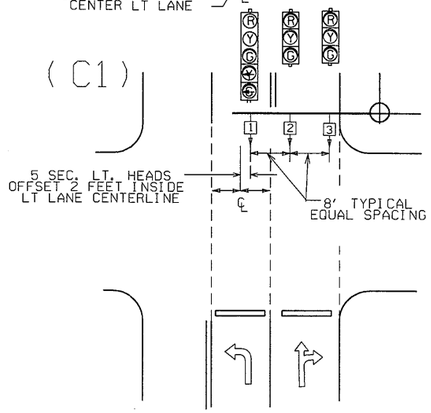
(C)



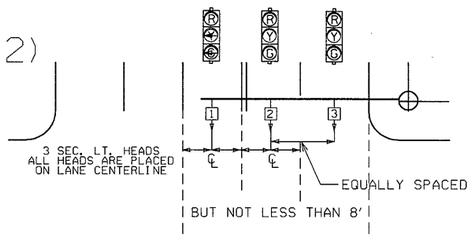
(C2)



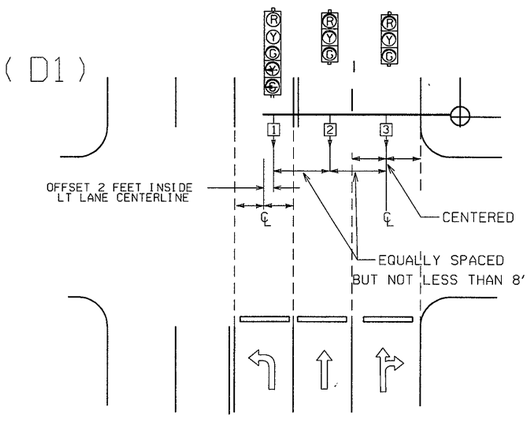
(C1)



(D2)

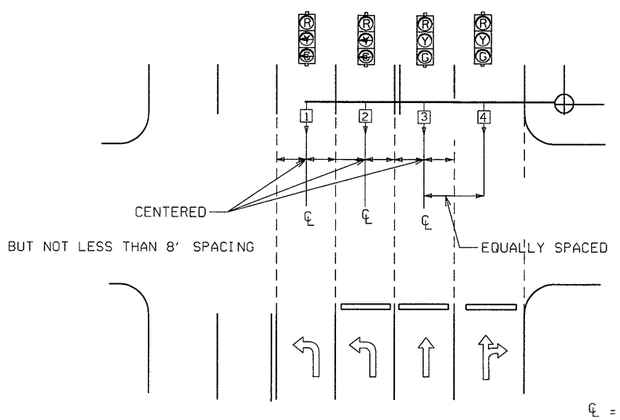


(D1)



NOTE: WHERE LEFT TURN HEAD (HEAD 1 ON D1 AND D2) IS NOT CALLED FOR ON PLANS, MAST ARM LENGTH MAY STILL BE ALLOWED FOR FUTURE INSTALLATION. HEADS FOR THROUGH MOVEMENTS SHALL STILL BE ALIGNED WITH THROUGH LANES AS SHOWN ON DETAILS

(E)



℄ = CENTER OF LANE FROM APPROACH SIDE

GENERAL NOTES:

1. FIVE SECTION "PROTECTED/PERMISSIVE" LEFT TURN HEADS SHOULD BE PLACED A MINIMUM OF TWO (2') FEET TO THE RIGHT OF THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.

2. THREE SECTION "PROTECTED" LEFT TURN HEADS SHOULD BE PLACED ON THE CENTERLINE OF THE APPROACHING LEFT TURN LANE.

3. WHEN IT IS NECESSARY TO PLACE POLES OTHER THAN AS SHOWN ON PLAN SHEET(S) RESULTING IN MAST ARM EXTENDING MORE THAN TWO FEET PAST (TO THE LEFT OF) THE CENTERLINE OF THE APPROACHING LEFT TURN LANE, MAST ARM SHALL BE CUT TO APPROPRIATE LENGTH AS DETERMINED BY THE ENGINEER, AND A NEW END CAP PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THIS PRIOR TO INSTALLING THE MAST ARM IF ADDITIONAL COMPENSATION IS REQUIRED.

4. SIGNAL HEAD SPACING SHALL, IN NO CASE, BE LESS THAN EIGHT (8') FEET BETWEEN HEADS.

5. ALL SIGNAL HEADS SHOWN ON THIS DETAIL SHEET SHALL BE LOCATED ACCORDING TO THE DIMENSIONS SHOWN IN RELATION TO THE APPROACH SIDE OF THE INTERSECTION.

DATE: 12-9-99 file name: tstd4.dgn

LOCATION: DETAIL SHEET

SIGNAL HEAD PLACEMENT VS. LANE LINES

CITY:

COUNTY:

DISTRICT: NA SCALE: 1" = NA' DRAWN BY: MCL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	213	669
				(2) Roadway Illumination Plan Sheet				

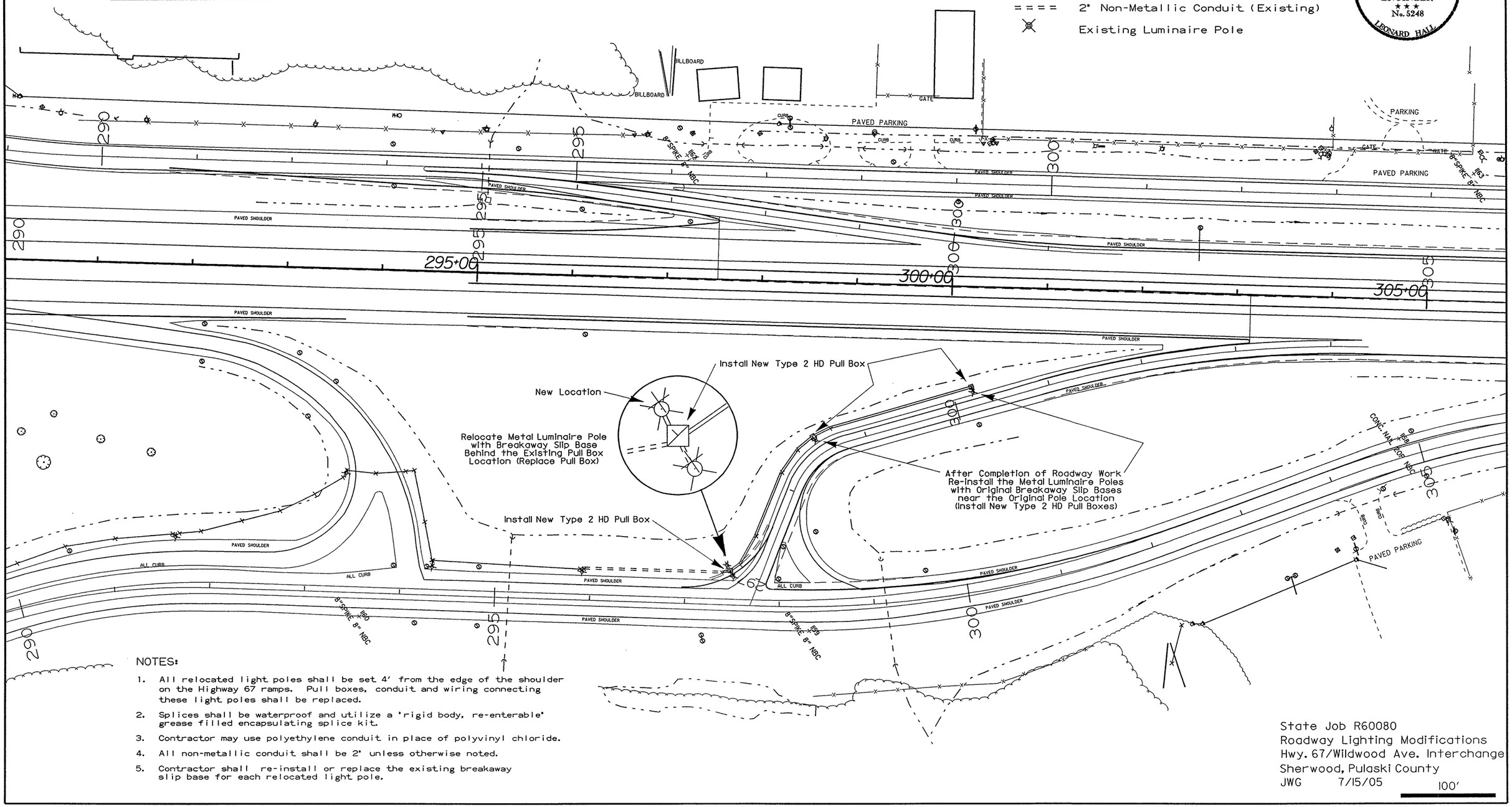
SUMMARY OF ILLUMINATION QUANTITIES

ITEM NO.	ITEM	QUANTITIES TOTAL	UNIT
710	NON-METALLIC CONDUIT (2")	370	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	3	EACH
SP	LUMINAIRE POLE RELOCATION	3	EACH
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT, ALUMINUM (3c/0 A.W.G. w/g)	400	LIN. FT.

LEGEND
ROADWAY ILLUMINATION:

- New Concrete Pull Box (Type 2 HD)
- 2" Non-Metallic Conduit (New)
- = = = = 2" Non-Metallic Conduit (Existing)
- Existing Luminaire Pole

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL



NOTES:

1. All relocated light poles shall be set 4' from the edge of the shoulder on the Highway 67 ramps. Pull boxes, conduit and wiring connecting these light poles shall be replaced.
2. Splices shall be waterproof and utilize a 'rigid body, re-enterable' grease filled encapsulating splice kit.
3. Contractor may use polyethylene conduit in place of polyvinyl chloride.
4. All non-metallic conduit shall be 2" unless otherwise noted.
5. Contractor shall re-install or replace the existing breakaway slip base for each relocated light pole.

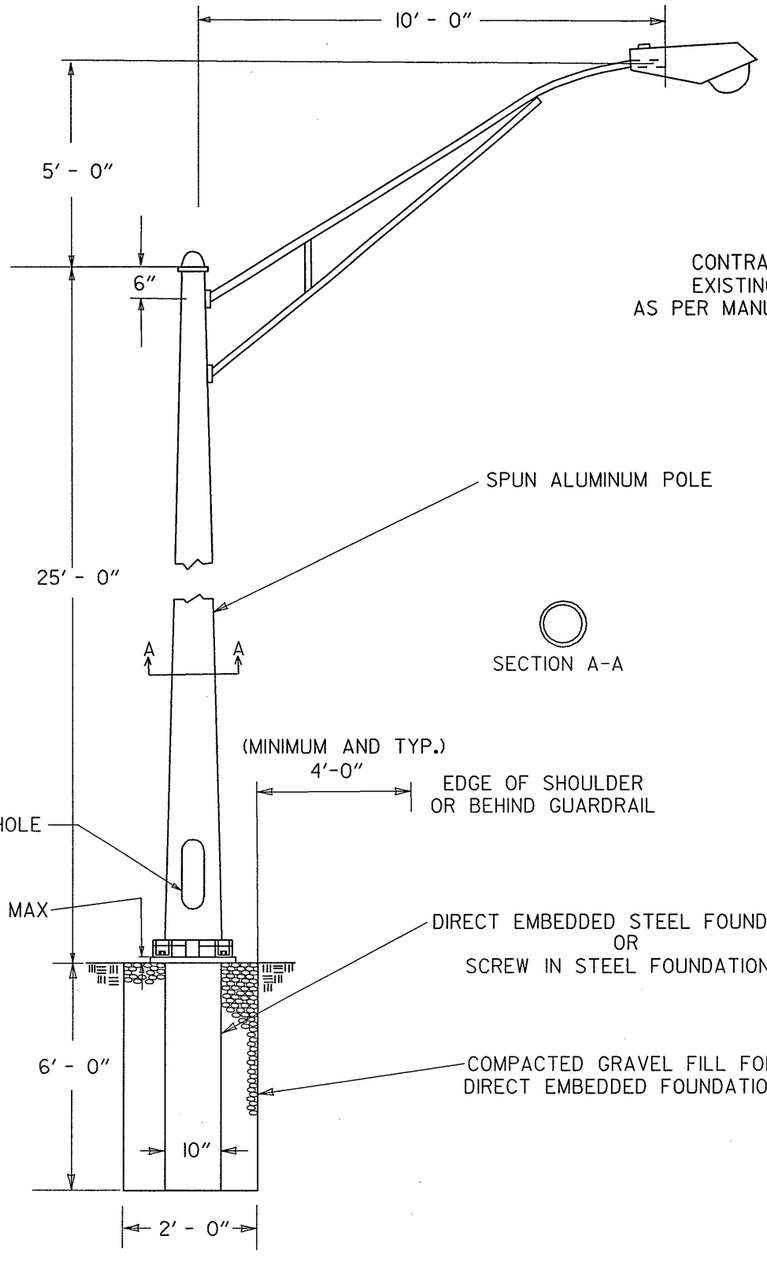
State Job R60080
Roadway Lighting Modifications
Hwy. 67/Wildwood Ave. Interchange
Sherwood, Pulaski County
JWG 7/15/05

100'

File: mr60080n.p01

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	274	609

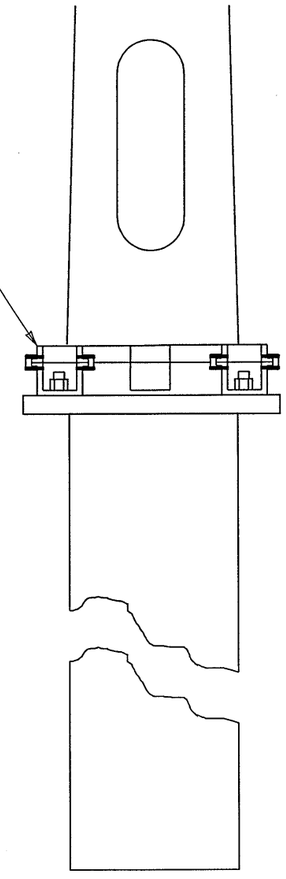
(2) ILLUMINATION DETAILS

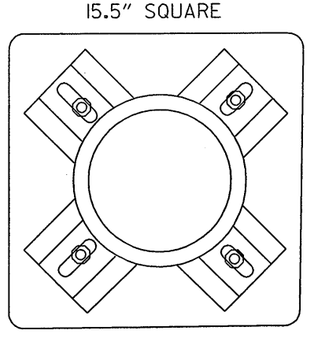


COBRA HEAD LUMINAIRE WITH TRUSS ARM AND SLIP BASE

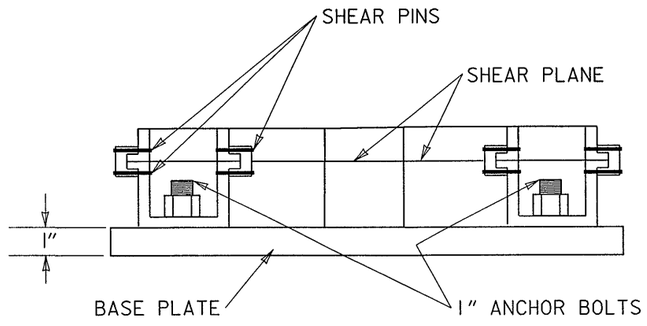
SPECIAL NOTE:

CONTRACTOR SHALL RE-INSTALL EXISTING BREAKAWAY SLIP-BASE AS PER MANUFACTURER'S RECOMMENDATION





SLIP BASE PLAN VIEW



SLIP BASE ELEVATION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No.4804
MARK C. LYONS

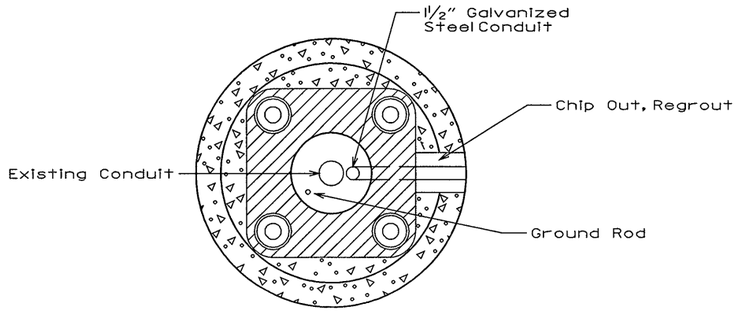
J.W.G. 7/18/05

File: light5.dgn

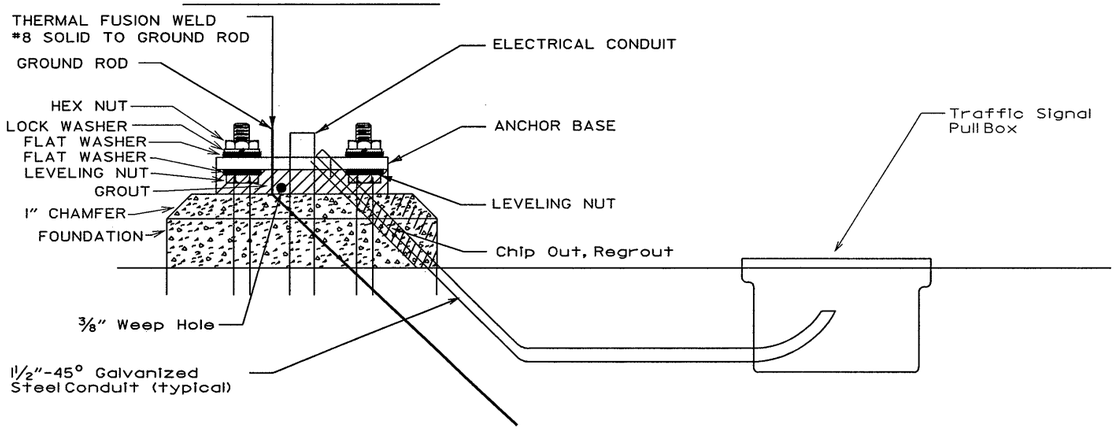
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	25	60
				(2)	SIGNAL DETAILS			

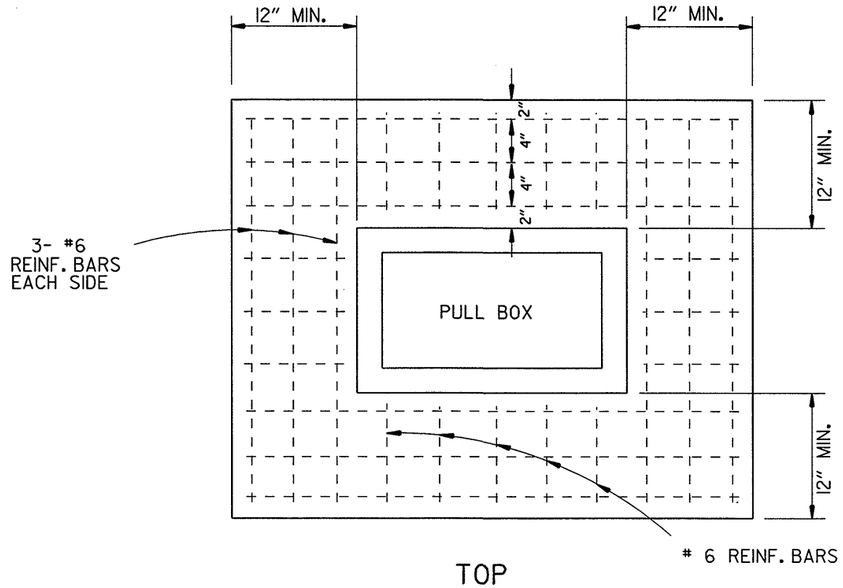
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
★★★
No. 5248
LEONARD HALL

CONDUIT ENTRY TO EXISTING POLE BASE

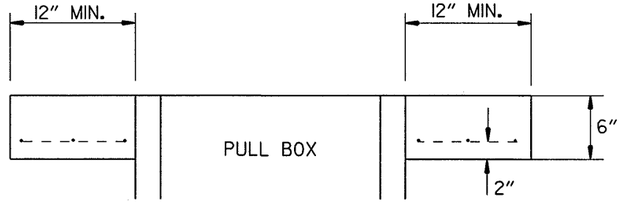


ANCHOR BASE





TOP



ELEVATION

DETAILS OF CONCRETE APRON FOR TYPE "HD" PULL BOX

REV. 07-14-05 CONC. APRON DETAILS
REV. 06-23-04 NOTE ON CLEARANCE AT CURB ENTRY
REV. 01-04-02 Reinforcing added to box apron
REV. 07-02-01
tstd4.dgn 12-27-99

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO	STATE	FED.AID PROJ.NO.	SHEET NO	TOTAL SHEETS
				6	AR			
				JOB NO:		R60080	276	602

2

SIGNING QUANTITIES

SIGNING SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	TOTAL JOB R60080	UNIT
SP	REMOVAL AND DISPOSAL OF BRIDGE MOUNTED SIGN STRUCTURE	2	EACH
SP	REMOVAL AND DISPOSAL OF OVERHEAD SIGN STRUCTURE	6	EACH
303	AGGREGATE BASE COURSE (CLASS 7)	1400	TON
SS & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	321	TON
SS & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")	19	TON
617	GUARDRAIL (TYPE A)	3000	LIN FT
617	TERMINAL ANCHOR POSTS (TYPE 1)	20	EACH
617	GUARDRAIL TERMINAL (TYPE 2)	20	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-01)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-02)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-03)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-04)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-05)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (BM-067-60-06)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-07)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-08)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-09)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-10)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-11)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-12)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-16)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-17)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-18)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-19)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-20)	1	EACH
725	GUIDE SIGN - ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)	2279	SQ. FT.
725	GUIDE SIGN - OVERHEAD MOUNTED (DEMOUNTABLE LEGEND)	5931	SQ. FT.
727	EXIT NUMBER PANEL (TYPE A)	355	SQ. FT.
727	EXIT NUMBER PANEL (TYPE B)	60	SQ. FT.
727	EXIT NUMBER PANEL (TYPE C)	55	SQ. FT.
730	BREAKAWAY SIGN SUPPORT (TYPE G-1)	12156	POUND

BASIS OF ESTIMATE:

NMAX = 115

MINERAL AGGREGATE	94.4%
ASPHALT BINDER (PG 64-22)	5.6%

NOTE:
BREAKAWAY SIGN SUPPORT TOTAL IS CALCULATED BY TAKING THE LENGTH OF H-1, H-2 AND EACH STUB POST AND MULTIPLYING BY THE BEAM WEIGHT (LBS).

NOTE:
THE CLEARVIEW FONT SHALL FOLLOW THE SPACE TABLES FOR CLEARVIEW AND NOT SHS E-MODIFIED. THIS INCLUDES THE USE OF CLEARVIEW 5-W-R. FOR GENERAL GUIDANCE ON LETTER AND WORD SPACING REFER TO THE FHWA CLEARVIEW TYPEFACE SUPPLEMENT. (http://mutcd.fhwa.dot.gov)

NOTE:
POST LENGTHS SHOWN ARE ESTIMATED AND THE CONTRACTOR WILL DETERMINE ACTUAL LENGTHS REQUIRED. THE CONTRACTOR'S METHOD OF ESTABLISHING ELEVATION FOR FOOTINGS AND POST LENGTHS SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO IMPLEMENTATION.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

GUIDESIGNS MAIN LANES QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO	STATE	FED.AID	SHEET NO	TOTAL SHEETS
					AR			
				JOB NO:		R60080	277	609

2

SIGNING QUANTITIES

SIGN NO./ LOCATION	STRUCTURE TYPE OH	BM	G-1	G-2	SIGN Length	Height	SQ. Ft.	BREAKAWAY SIGN SUPPORT STEEL SECT. A-572 BEAM	LBS	SIGN POST LENGTH H - 1	H - 2	H - 3	STUB POST H - 1	H - 2	H - 3	FOOTINGS DIA	DEPTH	SIGN POST AND STUB POUND	EXIT NUMBER PANEL LEGEND	TYPE A	B	C	GUARDRAIL TYPE A	TERM. ANCHOR POSTS TYPE 1	GUARDRAIL TERM. TYPE 2	AGG. BASE CR (CL. 7)	ACHM SURF. CR. 220 LBS/SY
					LIN. FT.			LIN FT					LIN FT			LIN FT				SQ. FT.			LIN. FT.	EACH	EACH	TON	TON
OH-067-60-20A	1				16.50	7.50	123.75																150	1	1	70	17
OH-067-60-20B					13.50	13.00	175.50												6	16.25							
0H-067-60-19A	1				16.00	14.50	232.00																150	1	1	70	17
OH-067-60-19B					15.50	7.50	116.25												5	16.25							
OH-067-60-18A	1				16.00	14.50	232.00																150	1	1	70	17
OH-067-60-18B					18.00	8.00	144.00												3	16.25							
OH-067-60-17A	1				16.00	11.50	184.00																150	1	1	70	17
OH-067-60-17B					14.50	12.00	174.00												6	16.25							
OH-067-60-17C					15.50	7.50	116.25												5	16.25							
OH-067-60-16A	1				16.00	11.50	184.00																				
OH-067-60-16B					12.50	9.50	118.75												5	16.25							
OH-067-60-16C					18.00	9.50	171.00												4	16.25							
OH-067-60-12A	1				16.00	14.50	232.00																150	1	1	70	17
OH-067-60-12B					20.50	6.00	123.00												3	16.25							
OH-067-60-11A	1				12.50	9.50	118.75												5	16.25			150	1	1	70	17
OH-067-60-11B					18.00	9.50	171.00												4	16.25							
OH-067-60-11C					16.00	6.00	96.00												3	16.25							
OH-067-60-10A	1				15.50	14.50	224.75																150	1	1	70	17
OH-067-60-10B					15.50	5.50	85.25												1	16.25							
OH-067-60-09A	1				16.00	12.50	200.00																150	1	1	70	17
OH-067-60-09B					11.50	10.50	120.75												155	23.75							
OH-067-60-09C					13.00	6.00	78.00												1	16.25							
OH-067-60-08A	1				16.00	11.50	184.00																150	1	1	70	17
OH-067-60-08B					18.00	5.50	99.00												3	16.25							
OH-067-60-08C					14.50	6.00	87.00												2	16.25							
OH-067-60-07A	1				16.00	12.50	200.00																150	1	1	70	17
OH-067-60-07B					11.50	15.50	178.25												155	23.75							
OH-067-60-05A	1				15.50	5.00	77.50												2	16.25			300	2	2	140	34
OH-067-60-05B					13.50	8.50	114.75												1B		20.00						
OH-067-60-05C					12.50	6.00	75.00												1A		20.00						
OH-067-60-04A	1				16.00	11.50	184.00																300	2	2	140	34
OH-067-60-04B					15.50	6.50	100.75												1A-B			27.50					
OH-067-60-03A	1				16.00	13.00	208.00																300	2	2	140	34
OH-067-60-03B					11.50	15.00	172.50												155	23.75							
OH-067-60-02A	1				16.00	11.50	184.00																300	2	2	140	34
OH-067-60-02B					15.50	6.00	93.00												1A-B			27.50					
OH-067-60-01A	1				16.00	13.00	208.00																300	2	2	140	34
OH-067-60-01B					15.50	14.00	217.00												155	23.75							
BM-067-60-06		1			19.50	6.50	126.75												1B		20.00						
GS-01			1		12.50	7.00	87.50	W6	12	15.00	16.00		3.60	3.60		1.50	5.00	458.40									
GS-02			1		12.50	7.00	87.50	W6	12	15.00	16.00		3.60	3.60		1.50	5.00	458.40									
GS-03			1		17.00	7.00	119.00	W8	18	15.00	16.00		4.30	4.30		2.00	6.00	712.80									
GS-04			1		13.00	5.00	65.00	W6	12	13.00	14.00		3.60	3.60		1.50	5.00	410.40									
LF-01NB			1		12.00	16.00	192.00	W8	18	24.00	25.00		3.60	3.60		2.00	5.00	1011.60									
LF-01SB			1		12.00	16.00	192.00	W8	18	24.00	25.00		3.60	3.60		2.00	5.00	1011.60									
LGL-01SB			1		12.00	16.00	192.00	W8	18	24.00	25.00		3.60	3.60		2.00	5.00	1011.60									
LG-03NB			1		12.00	16.00	192.00	W8	18	24.00	25.00		3.60	3.60		2.00	5.00	1011.60									
LG-03SB			1		12.00	16.00	192.00	W8	18	24.00	25.00		3.60	3.60		2.00	5.00	1011.60									
LLF-03NB			1		12.00	16.00	192.00	W8	18	24.00	25.00		3.60	3.60		2.00	5.00	1011.60									
LLF-03SB			1		12.00	16.00	192.00	W8	18	24.00	25.00		3.60	3.60		2.00	5.00	1011.60									
LG-05SB			1		12.00	16.00	192.00	W8	18	24.00	25.00		3.60	3.60		2.00	5.00	1011.60									
LF-05SB			1		12.00	16.00	192.00	W8	18	24.00	25.00		3.60	3.60		2.00	5.00	1011.60									
LFG-05NB			1		12.00	16.00	192.00	W8	18	24.00	25.00		3.60	3.60		2.00	5.00	1011.60									
GUIDE SIGNS ROADSIDE MOUNTED TOTALS:							2279.00																				
GUIDE SIGNS OVERHEAD MOUNTED TOTALS;							5930.50																				
TOTALS:	16	1	14				8209.50											12156.00		355.00	60.00	55.00	3000	20	20	1400	340

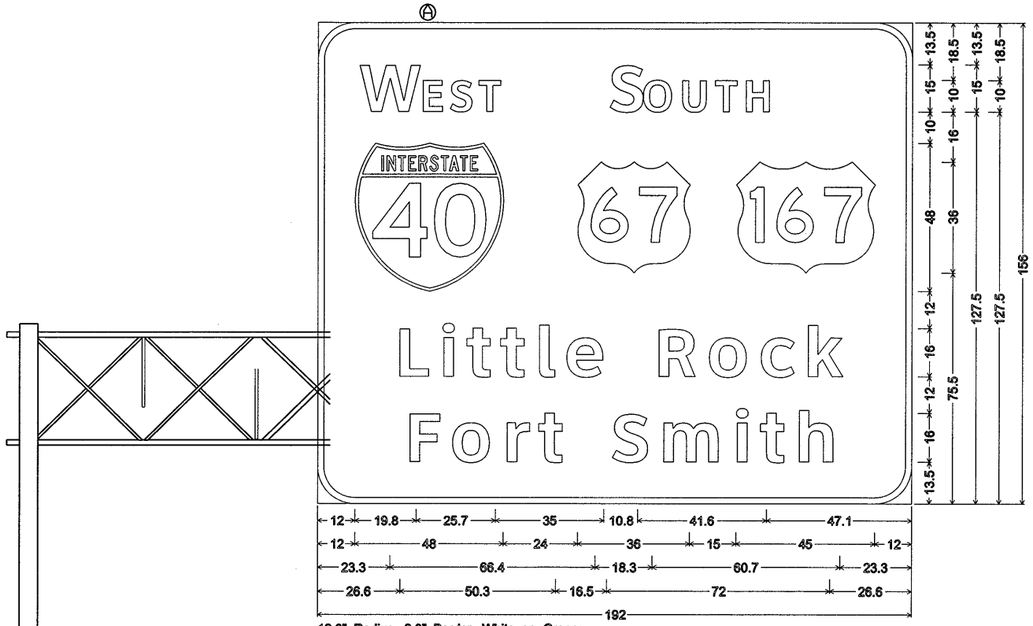
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	278	603

OH-067-60-01

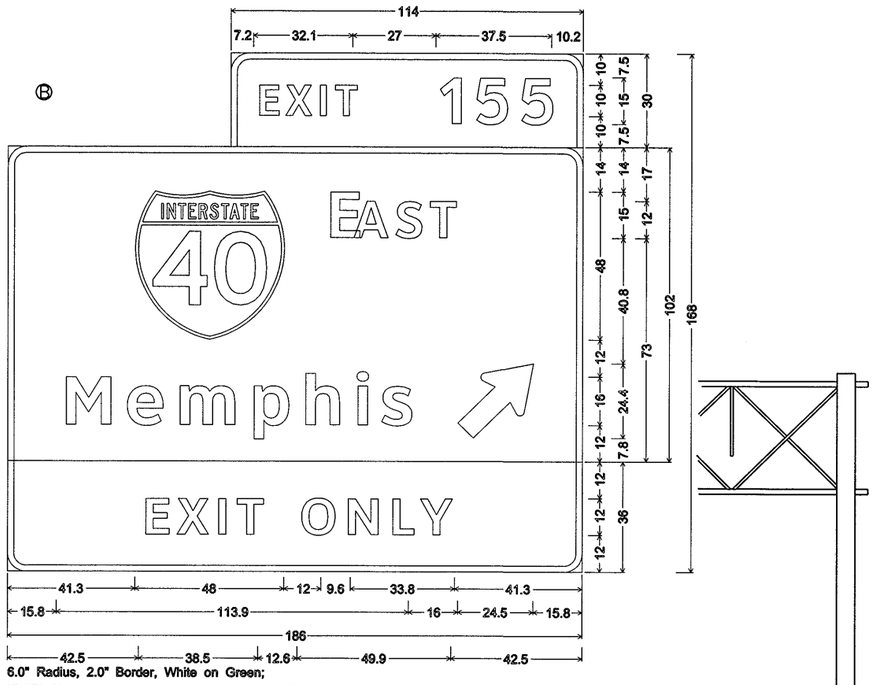
② SIGN LAYOUT

Ⓐ

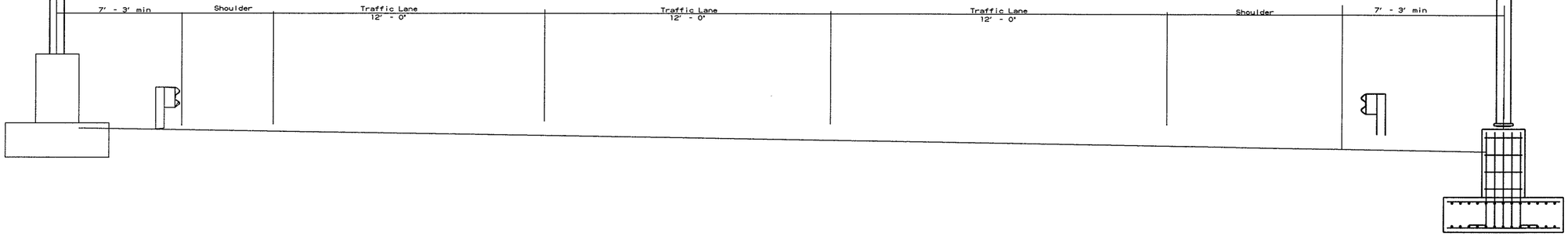


12.0" Radius, 2.0" Border, White on Green;
[WEST] ClearviewHwy-5-W; [SOUTH] ClearviewHwy-5-W; [Little Rock] ClearviewHwy-5-W;
[Fort Smith] ClearviewHwy-5-W;

Ⓑ



6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [155] ClearviewHwy-5-W;
6.0" Radius, 2.0" Border, White on Green;
[EAST] ClearviewHwy-5-W; [Memphis] ClearviewHwy-5-W;
Standard Arrow Custom 31.1" X 18.8" 45°;
6.0" Radius, 2.0" Border, Black on Yellow;
[EXIT ONLY] ClearviewHwy-5-W;

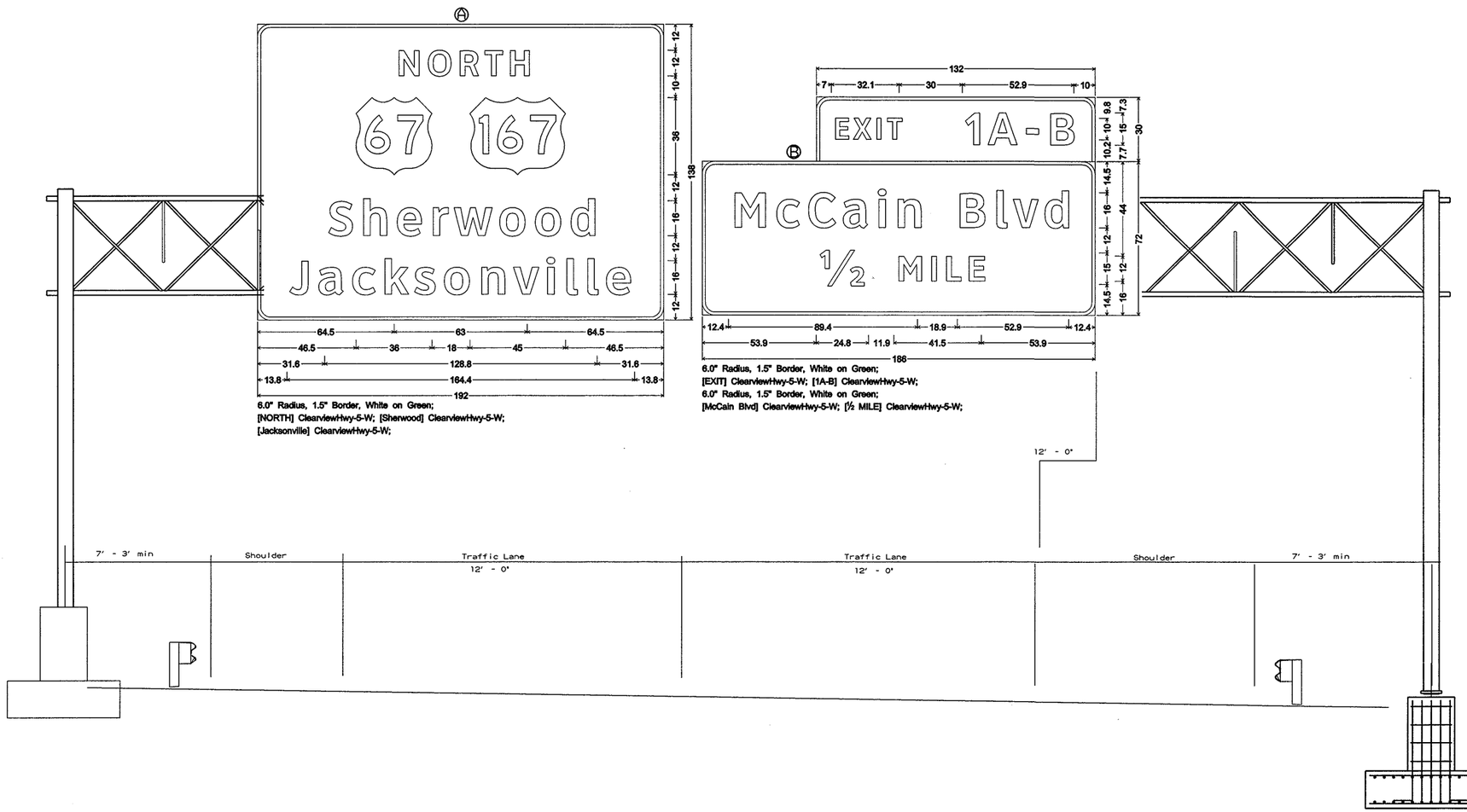


STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080		

OH-067-06-02

(2) SIGN LAYOUT



6.0" Radius, 1.5" Border, White on Green;
[NORTH] ClearviewHwy-5-W; [Sherwood] ClearviewHwy-5-W;
[Jacksonville] ClearviewHwy-5-W;

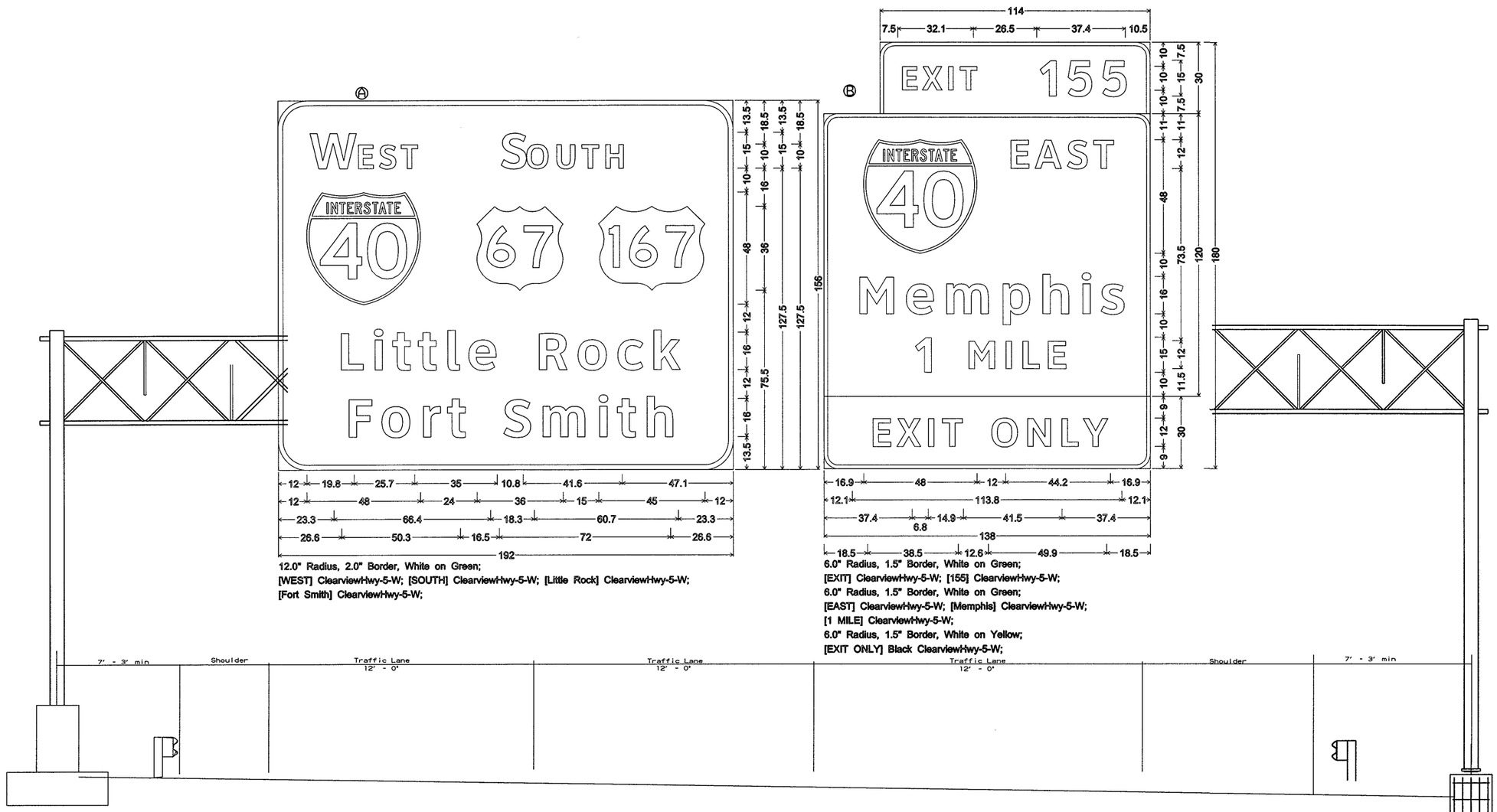
6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [1A-B] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[McCain Blvd] ClearviewHwy-5-W; [½ MILE] ClearviewHwy-5-W;

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	280	609

OH-067-60-03

(2) SIGN LAYOUT



12.0" Radius, 2.0" Border, White on Green;
[WEST] ClearviewHwy-5-W; [SOUTH] ClearviewHwy-5-W; [Little Rock] ClearviewHwy-5-W;
[Fort Smith] ClearviewHwy-5-W;

6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [155] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[EAST] ClearviewHwy-5-W; [Memphis] ClearviewHwy-5-W;
[1 MILE] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Yellow;
[EXIT ONLY] Black ClearviewHwy-5-W;

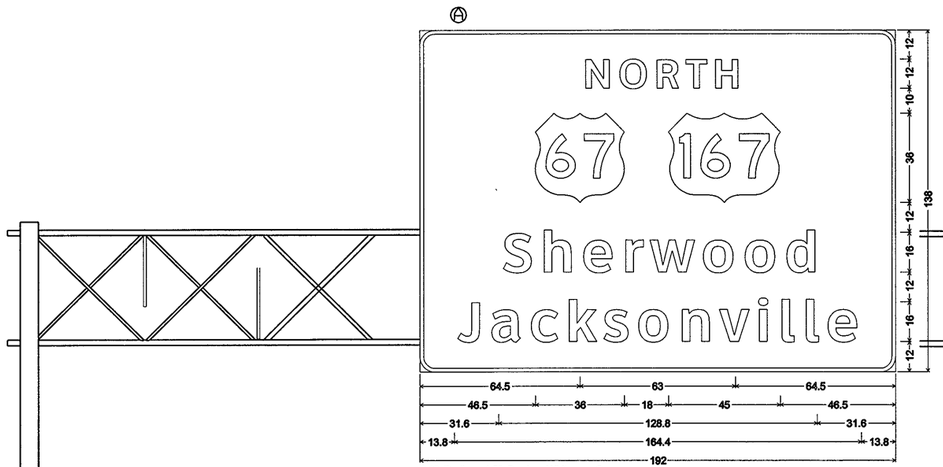
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	28	609

OH-067-60-04

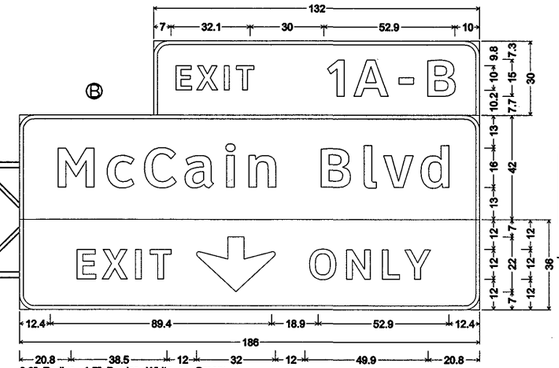
② SIGN LAYOUT

Ⓐ

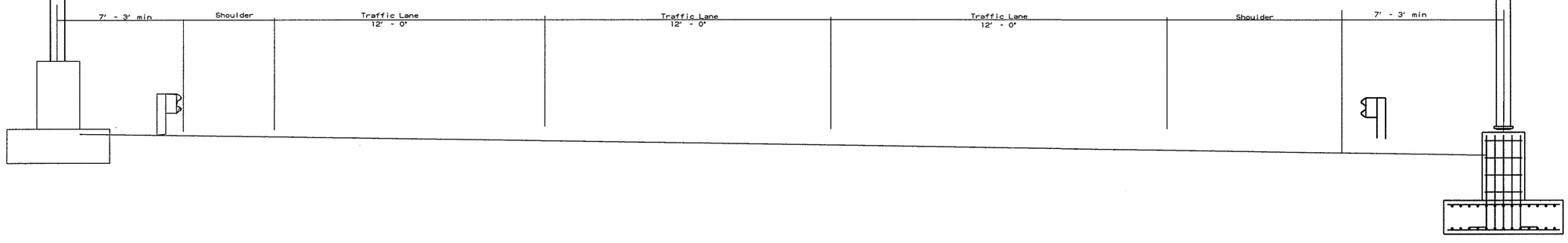


6.0" Radius, 1.5" Border, White on Green;
[NORTH] ClearviewHwy-5-W; [Sherwood] ClearviewHwy-5-W;
[Jacksonville] ClearviewHwy-5-W;

Ⓑ



6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [1A-B] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[McCain Blvd] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Yellow;
[EXIT] Black ClearviewHwy-5-W; Down Arrow 22.0° 270° Black;
[ONLY] Black ClearviewHwy-5-W;

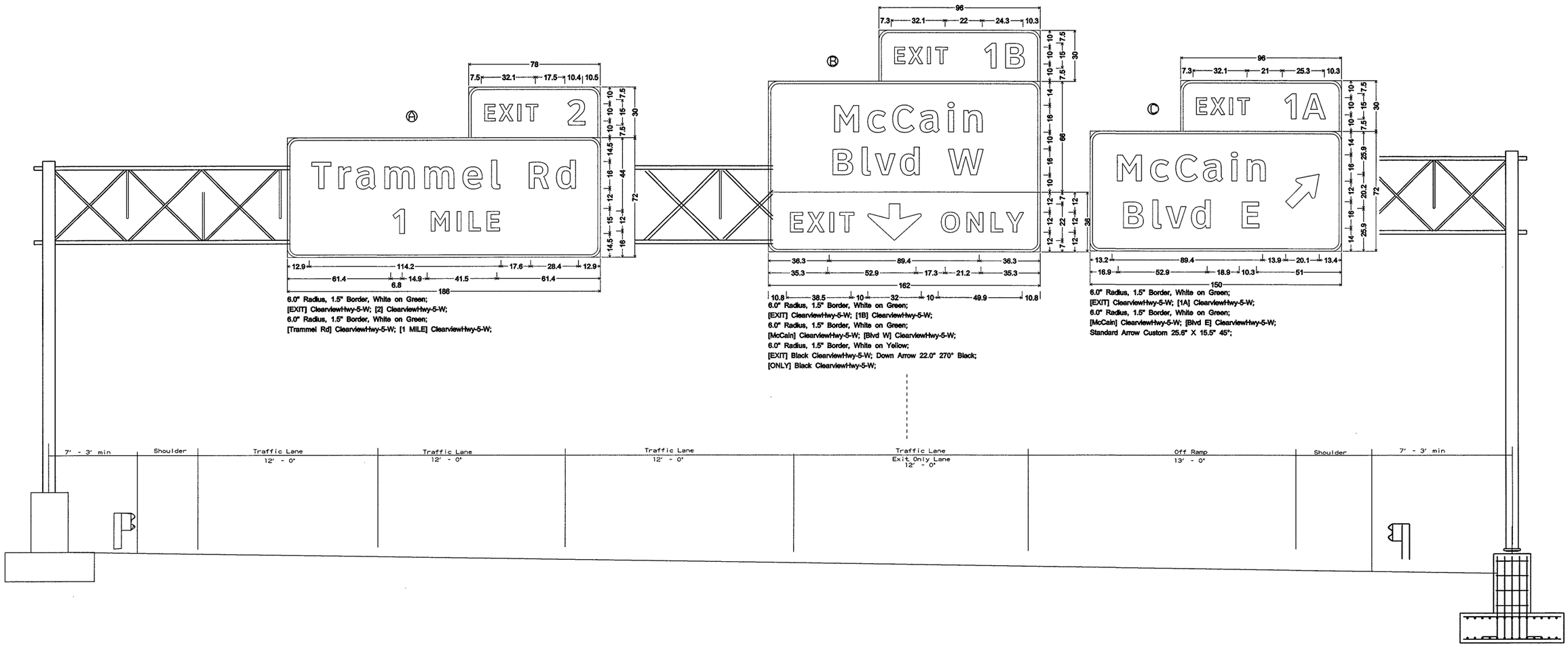


STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	282	609

OH-067-60-05

(2) SIGN LAYOUT



6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [2] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[Trammel Rd] ClearviewHwy-5-W; [1 MILE] ClearviewHwy-5-W;

6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [1B] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[McCain] ClearviewHwy-5-W; [Blvd W] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Yellow;
[EXIT] Black ClearviewHwy-5-W; Down Arrow 22.0" 270° Black;
[ONLY] Black ClearviewHwy-5-W;

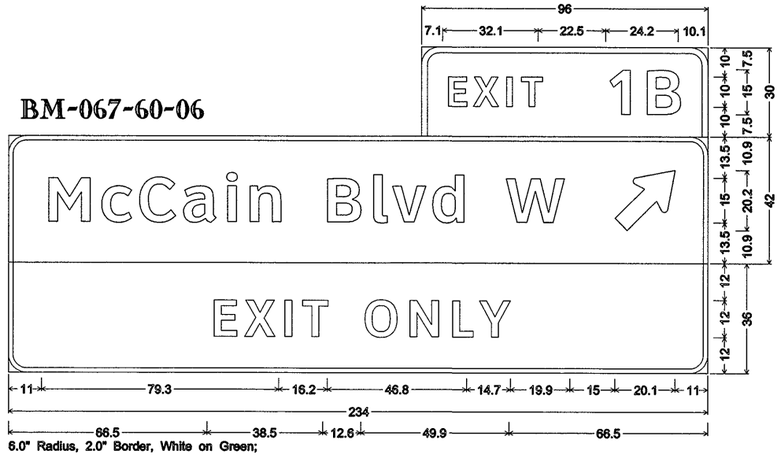
6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [1A] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[McCain] ClearviewHwy-5-W; [Blvd E] ClearviewHwy-5-W;
Standard Arrow Custom 25.6" X 15.5" 45°;

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

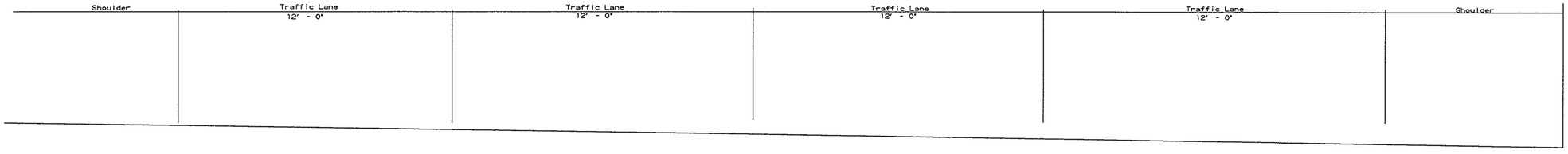
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	283	609

② **SIGN LAYOUT**

BM-067-60-06



6.0" Radius, 2.0" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [1B] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[McCain Blvd W] ClearviewHwy-5-W-R; Standard Arrow Custom 25.6" X 15.5" 45°;
6.0" Radius, 1.5" Border, White on Yellow;
[EXIT ONLY] Black ClearviewHwy-5-W;



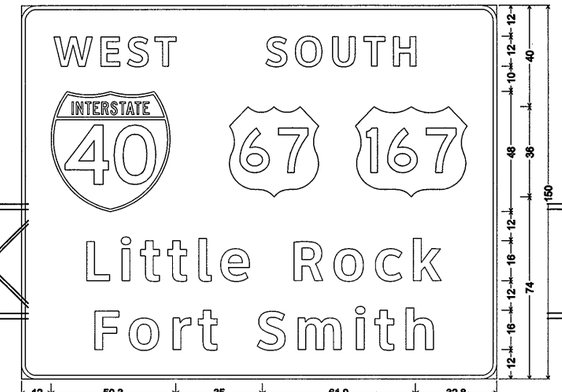
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. A/D PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	284	605

OH-067-60-07

② SIGN LAYOUT

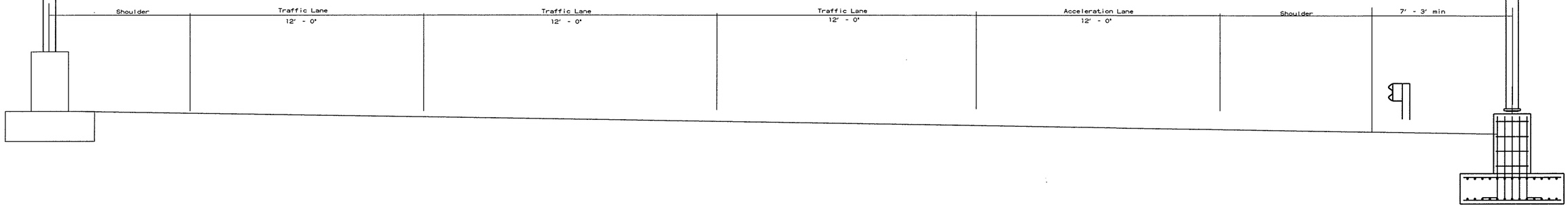
Ⓐ



6.0" Radius, 1.5" Border, White on Green;
[WEST] ClearviewHwy-5-W; [SOUTH] ClearviewHwy-5-W; [Little Rock] ClearviewHwy-5-W;
[Fort Smith] ClearviewHwy-5-W;

Ⓑ

6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [155] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[EAST] ClearviewHwy-5-W; [Memphis] ClearviewHwy-5-W;
[1 MILE] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Yellow;
[EXIT ONLY] Black E Mod;

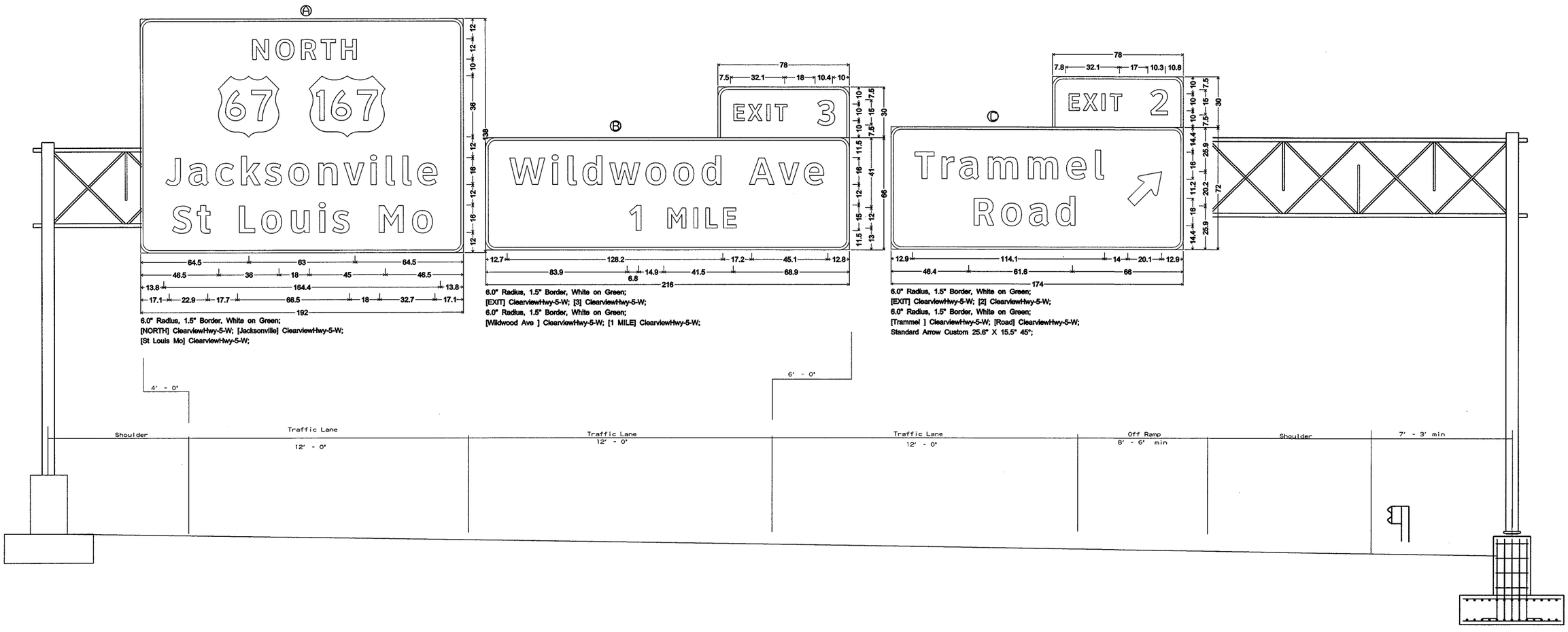


STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	285	6089

OH-067-60-08

② SIGN LAYOUT



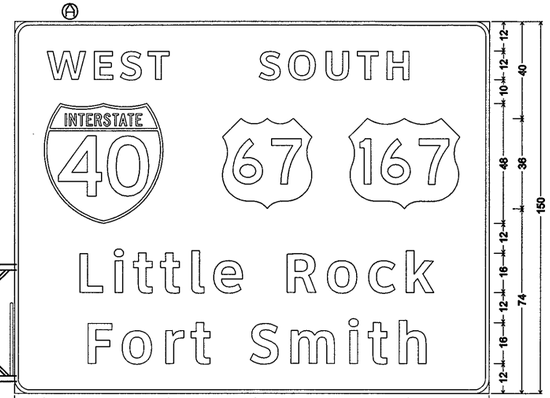
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	286609	

OH-067-60-09

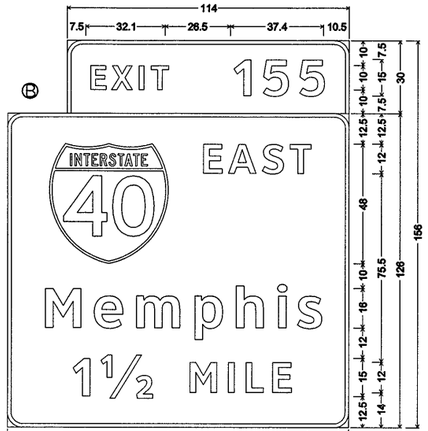
② SIGN LAYOUT

Ⓐ



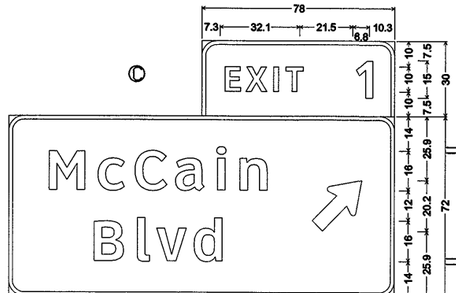
6.0" Radius, 1.5" Border, White on Green;
[WEST] ClearviewHwy-5-W; [SOUTH] ClearviewHwy-5-W; [Little Rock] ClearviewHwy-5-W;
[Fort Smith] ClearviewHwy-5-W;

Ⓑ

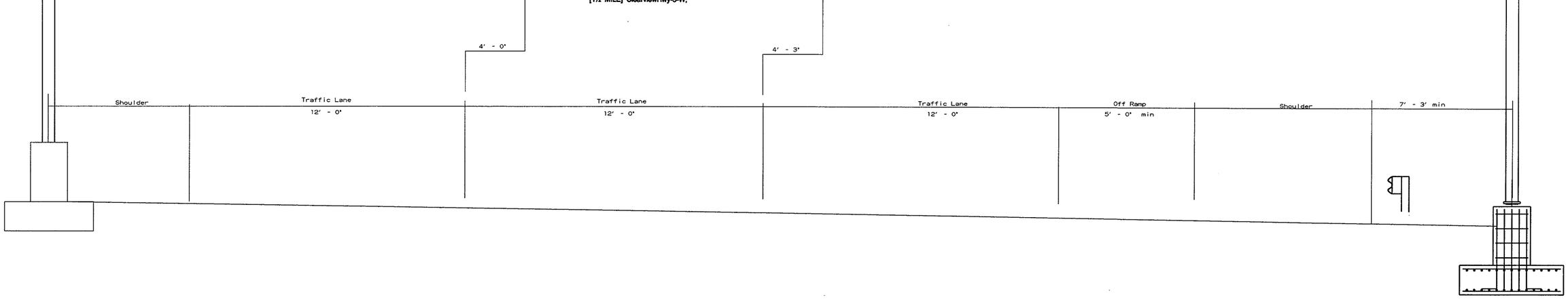


6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [155] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[EAST] ClearviewHwy-5-W; [Memphis] ClearviewHwy-5-W;
[1½ MILE] ClearviewHwy-5-W;

Ⓒ



6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [1] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[McCain] ClearviewHwy-5-W; [Blvd] ClearviewHwy-5-W;
Standard Arrow Custom 25.6" X 15.5" 45°;

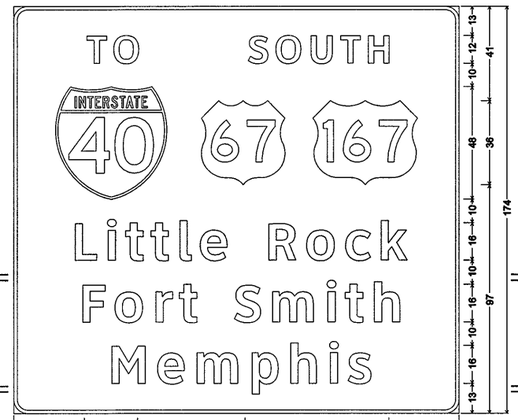


STATE OF ARKANSAS
REGISTERED
PROFESSIONAL
ENGINEER
★ ★ ★
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080		

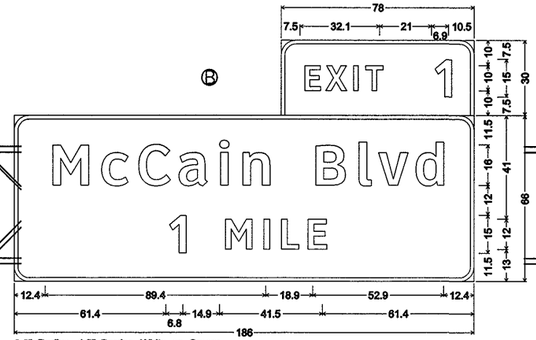
OH-067-60-10

Ⓐ

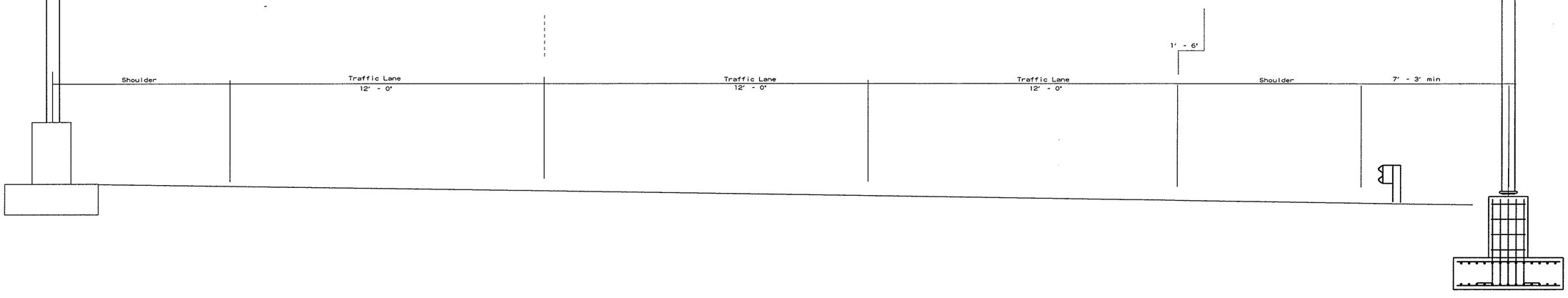


6.0" Radius, 1.5" Border, White on Green;
[TO] ClearviewHwy-5-W; [SOUTH] ClearviewHwy-5-W; [Little Rock] ClearviewHwy-5-W;
[Fort Smith] ClearviewHwy-5-W; [Memphis] ClearviewHwy-5-W;

Ⓑ



6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [1] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[McCain Blvd] ClearviewHwy-5-W; [1 MILE] ClearviewHwy-5-W;



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

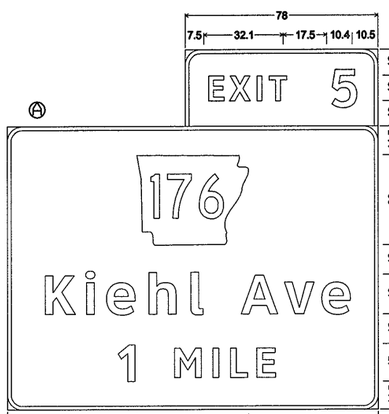
SIGN LAYOUT

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	268	603

OH-067-60-11

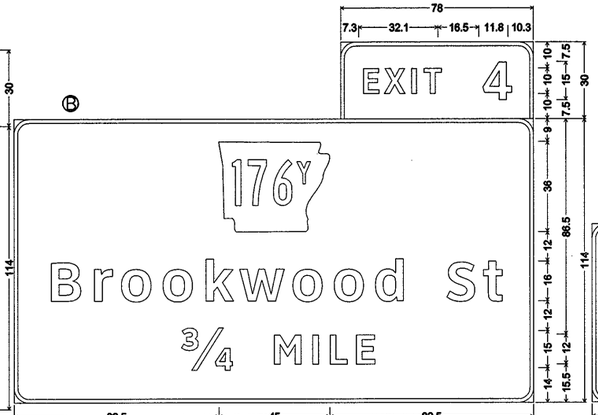
② SIGN LAYOUT

Ⓐ



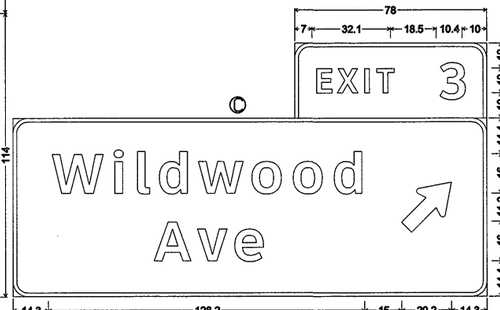
6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [5] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
M1-6; [Kiehl Ave] ClearviewHwy-5-W; [1 MILE] ClearviewHwy-5-W;

Ⓑ

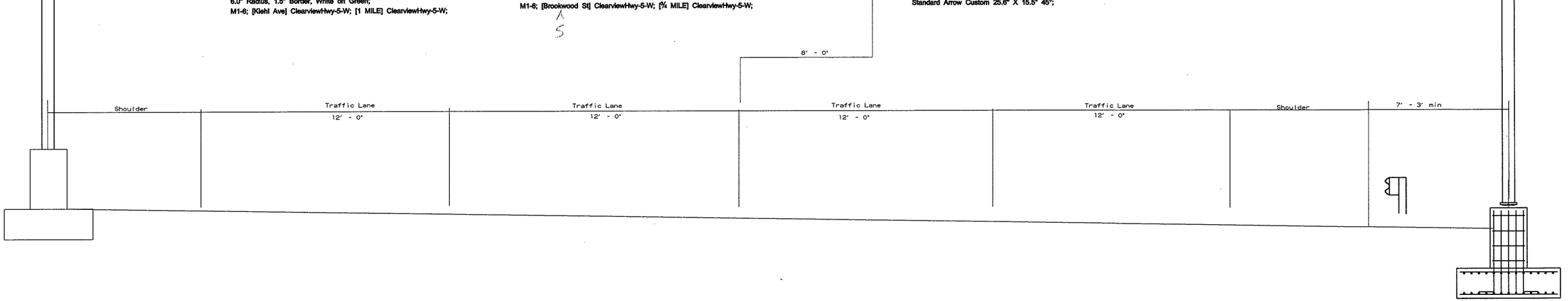


6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [4] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
M1-6; [Brookwood St] ClearviewHwy-5-W; [¾ MILE] ClearviewHwy-5-W;

Ⓒ



6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [3] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[Wildwood] ClearviewHwy-5-W; [Ave] ClearviewHwy-5-W;
Standard Arrow Custom 25.6" X 15.5" 45°;



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
★ ★ ★
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	25	60

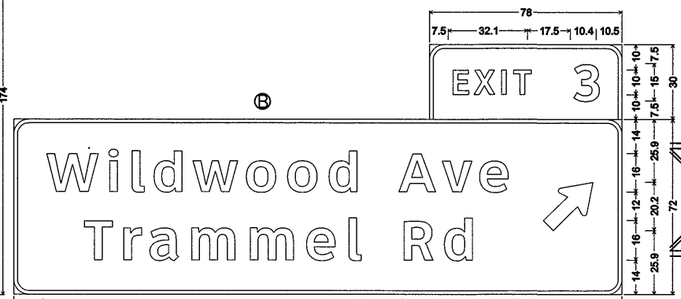
OH-067-60-12

SIGN LAYOUT

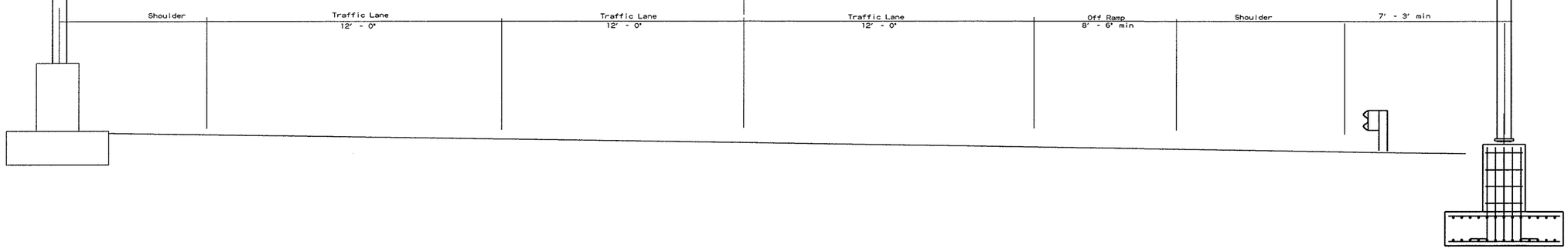
Ⓐ

6.0" Radius, 1.5" Border, White on Green;
[TO] ClearviewHwy-5-W; [SOUTH] ClearviewHwy-5-W; [Little Rock] ClearviewHwy-5-W;
[Fort Smith] ClearviewHwy-5-W; [Memphis] ClearviewHwy-5-W;

Ⓑ



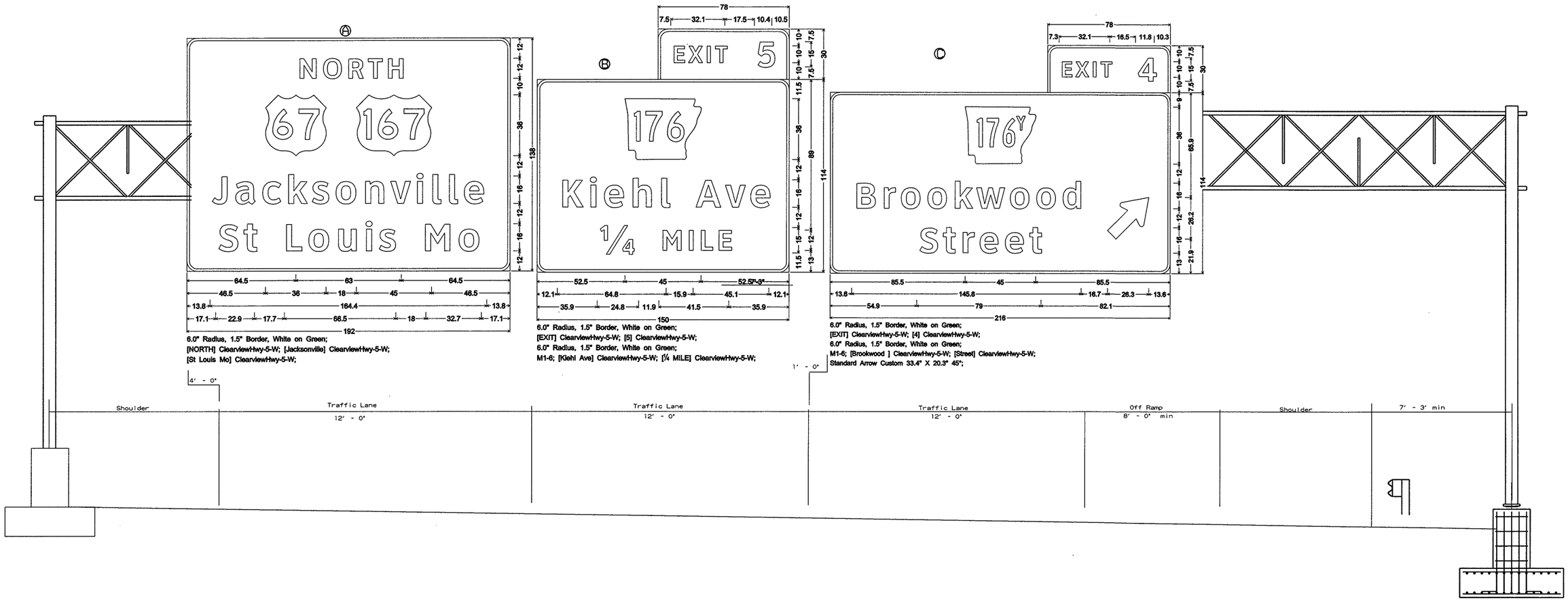
6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [3] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[Wildwood Ave] ClearviewHwy-5-W; [Trammel Rd] ClearviewHwy-5-W; Standard Arrow Custom 25.6" X 15.5" 45";



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	290	609

OH-067-60-16

(2) SIGN LAYOUT



6.0" Radius, 1.5" Border, White on Green;
[NORTH] ClearviewHwy-5-W; [Jacksonville] ClearviewHwy-5-W;
[St Louis Mo] ClearviewHwy-5-W;

6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [5] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
M1-6; [Kiehl Ave] ClearviewHwy-5-W; [1/4 MILE] ClearviewHwy-5-W;

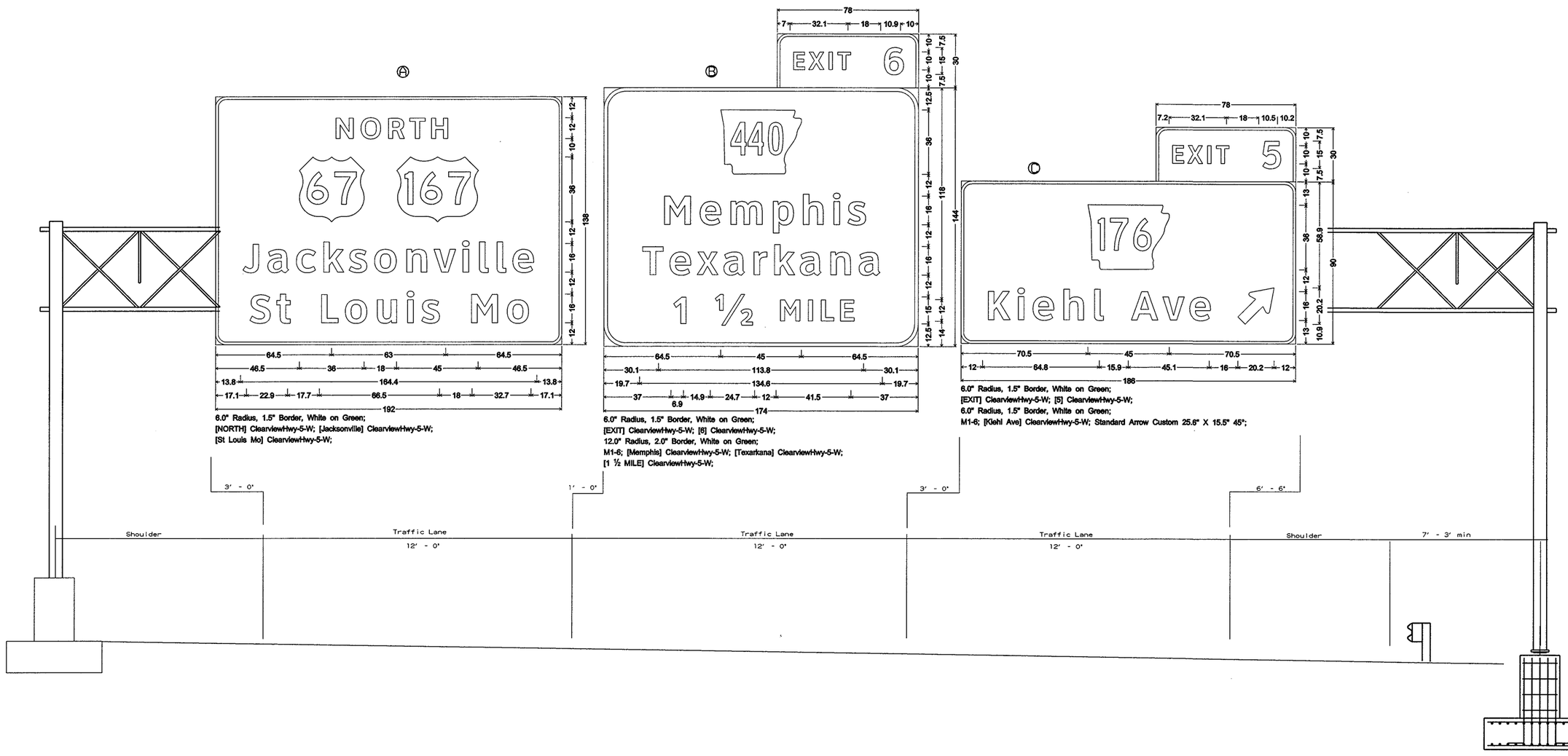
6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [4] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
M1-6; [Brookwood] ClearviewHwy-5-W; [Street] ClearviewHwy-5-W;
Standard Arrow Custom 33.4" X 20.3" 45°;

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	29	609

OH-067-60-17

② SIGN LAYOUT



6.0" Radius, 1.5" Border, White on Green;
[NORTH] ClearviewHwy-5-W; [Jacksonville] ClearviewHwy-5-W;
[St Louis Mo] ClearviewHwy-5-W;

6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [6] ClearviewHwy-5-W;
12.0" Radius, 2.0" Border, White on Green;
M1-6; [Memphis] ClearviewHwy-5-W; [Texarkana] ClearviewHwy-5-W;
[1 ½ MILE] ClearviewHwy-5-W;

6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [5] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
M1-6; [Kiehl Ave] ClearviewHwy-5-W; Standard Arrow Custom 25.6" X 15.5" 45°;

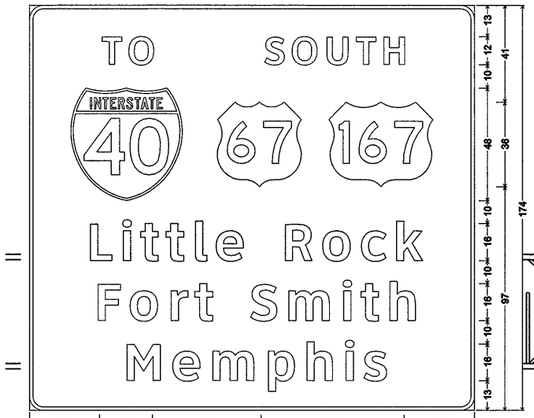
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
★★★
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	29	60

OH-067-60-18

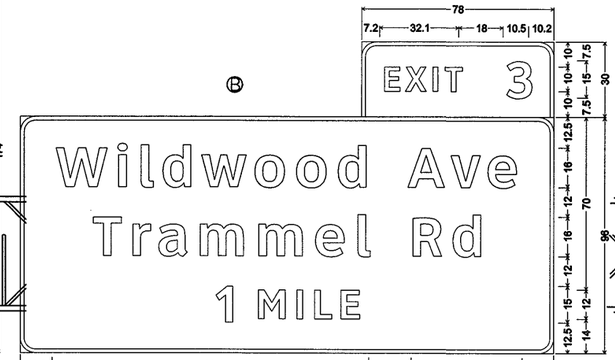
(2) SIGN LAYOUT

Ⓐ

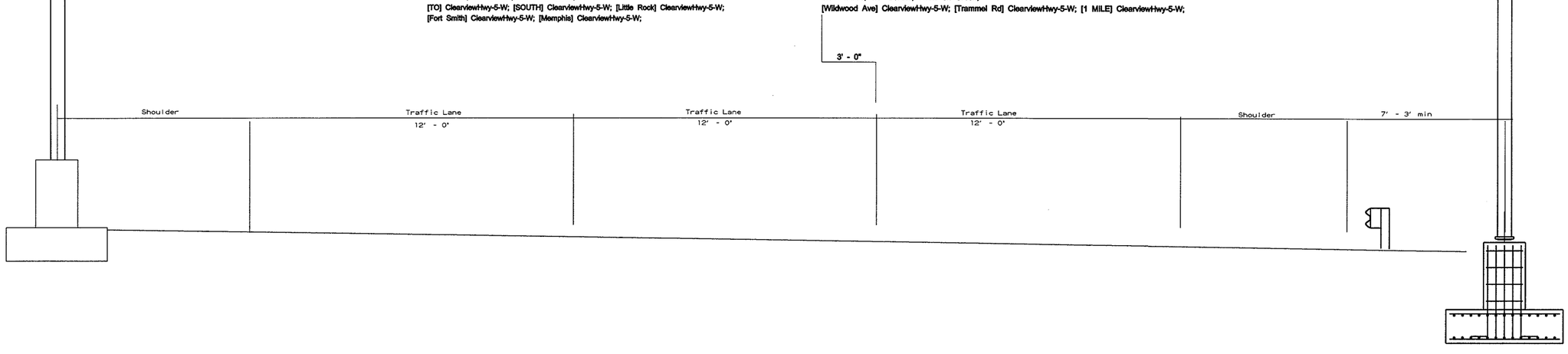


6.0" Radius, 1.5" Border, White on Green;
[TO] ClearviewHwy-5-W; [SOUTH] ClearviewHwy-5-W; [Little Rock] ClearviewHwy-5-W;
[Fort Smith] ClearviewHwy-5-W; [Memphis] ClearviewHwy-5-W;

Ⓑ



6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [3] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
[Wildwood Ave] ClearviewHwy-5-W; [Trammel Rd] ClearviewHwy-5-W; [1 MILE] ClearviewHwy-5-W;



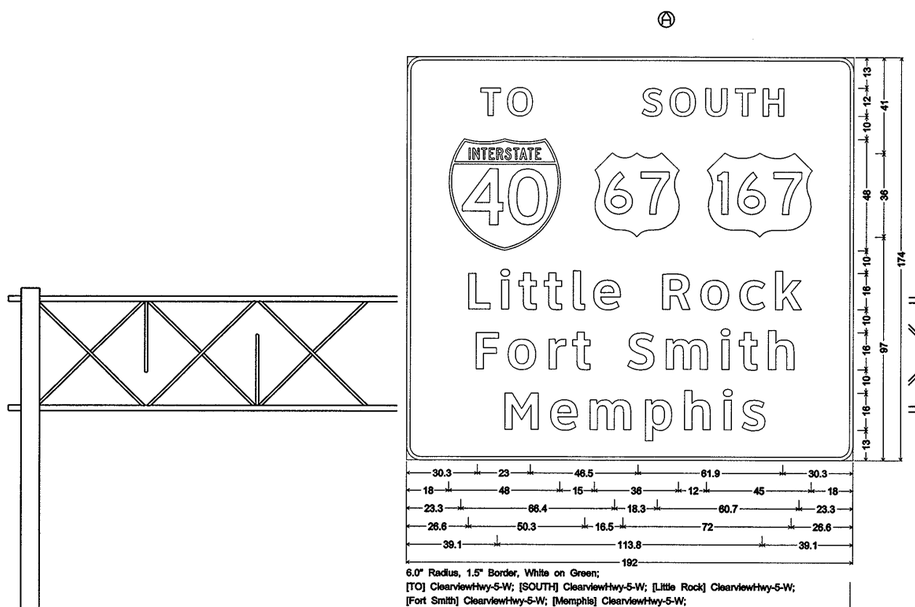
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	233	609

OH-067-60-19

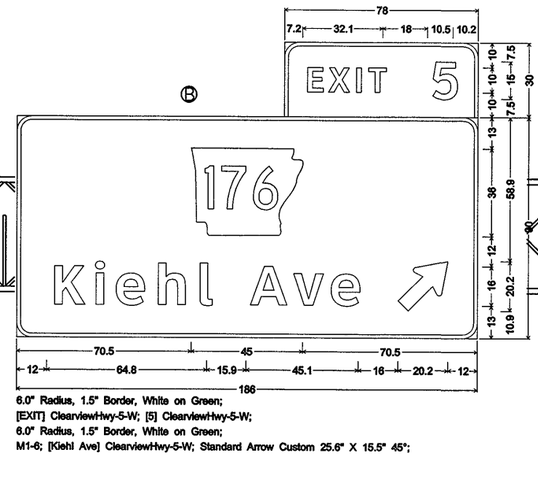
(2) SIGN LAYOUT

Ⓐ

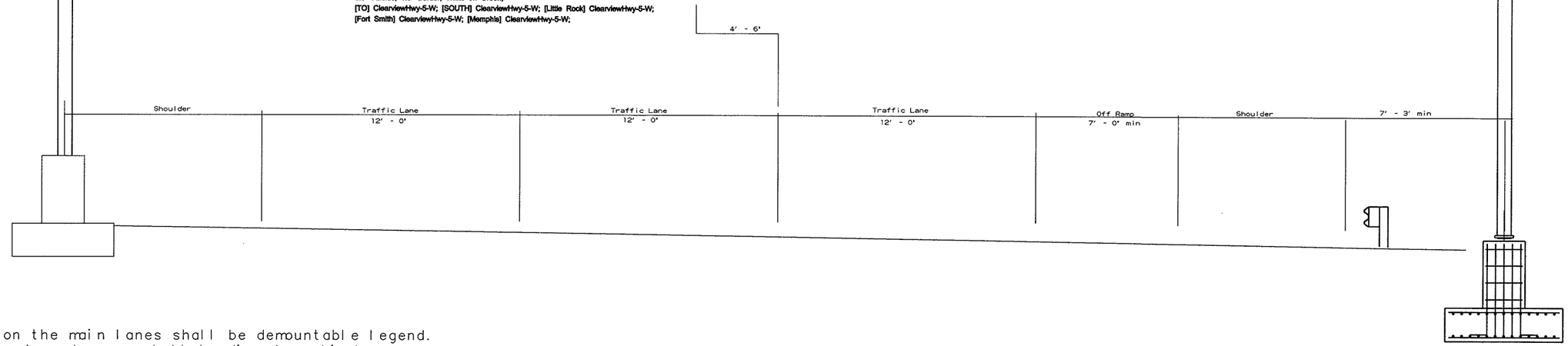


6.0" Radius, 1.5" Border, White on Green;
[TO] ClearviewHwy-5-W; [SOUTH] ClearviewHwy-5-W; [Little Rock] ClearviewHwy-5-W;
[Fort Smith] ClearviewHwy-5-W; [Memphis] ClearviewHwy-5-W;

Ⓑ



6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [5] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
M1-6; [Kiehl Ave] ClearviewHwy-5-W; Standard Arrow Custom 25.6" X 15.5" 45°;



GENERAL NOTES:

Legend on guide signs on the main lanes shall be demountable legend.
Guide signs on cross roads and ramps shall be direct applied.
Legend on standard signs shall be silk screened. The demountable and direct applied legends shall be diamond grade (VIP) (TYPE IX) sheeting.
The background on all guide signs and standard signs shall be constructed using high intensity (TYPE-III) sheeting.

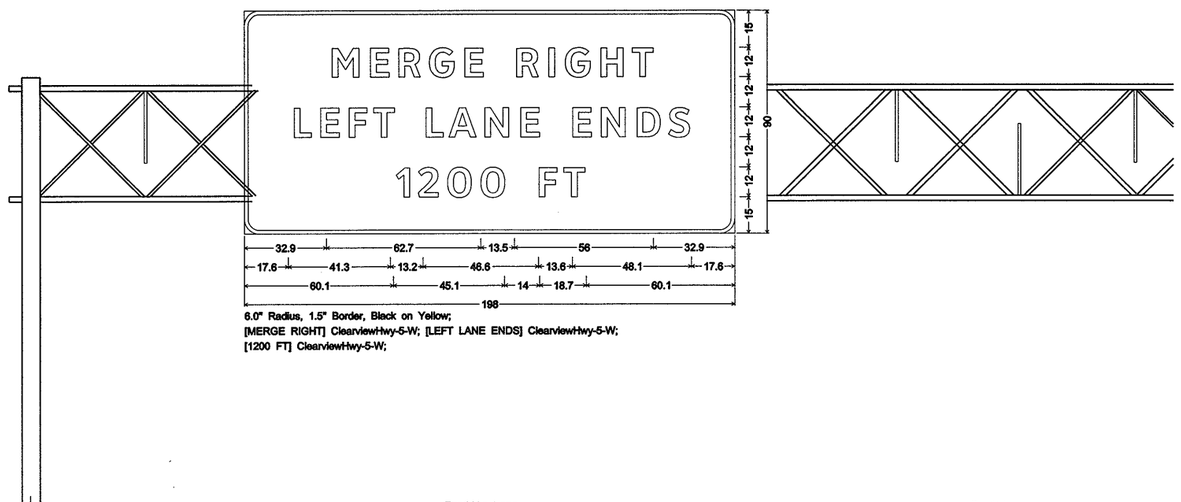
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	34	609

OH-067-60-20

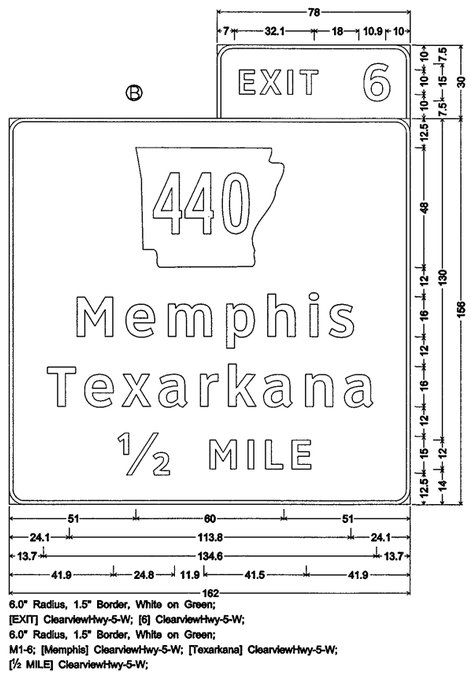
② SIGN LAYOUT

Ⓐ

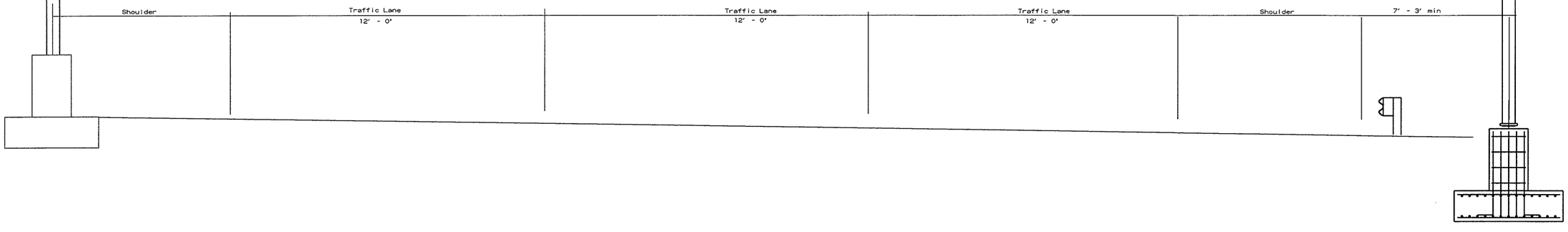


6.0" Radius, 1.5" Border, Black on Yellow;
[MERGE RIGHT] ClearviewHwy-5-W; [LEFT LANE ENDS] ClearviewHwy-5-W;
[1200 FT] ClearviewHwy-5-W;

Ⓑ



6.0" Radius, 1.5" Border, White on Green;
[EXIT] ClearviewHwy-5-W; [6] ClearviewHwy-5-W;
6.0" Radius, 1.5" Border, White on Green;
M1-6; [Memphis] ClearviewHwy-5-W; [Texarkana] ClearviewHwy-5-W;
[½ MILE] ClearviewHwy-5-W;

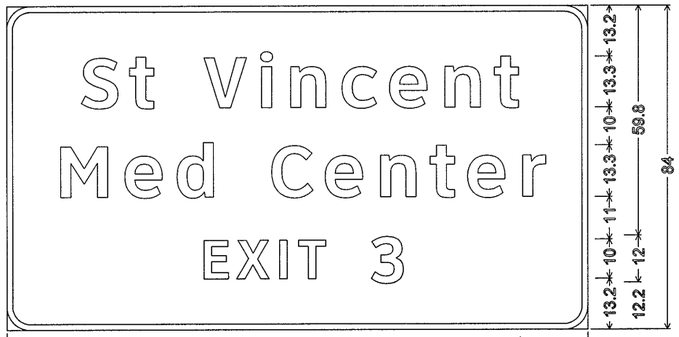


STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	295	609

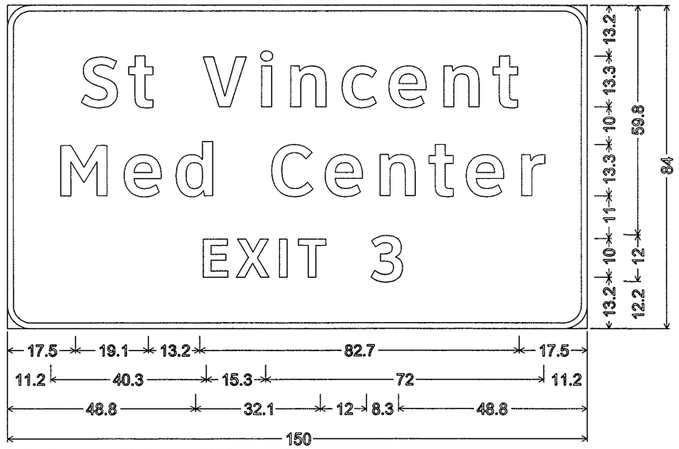
② SIGN LAYOUT

GS-01

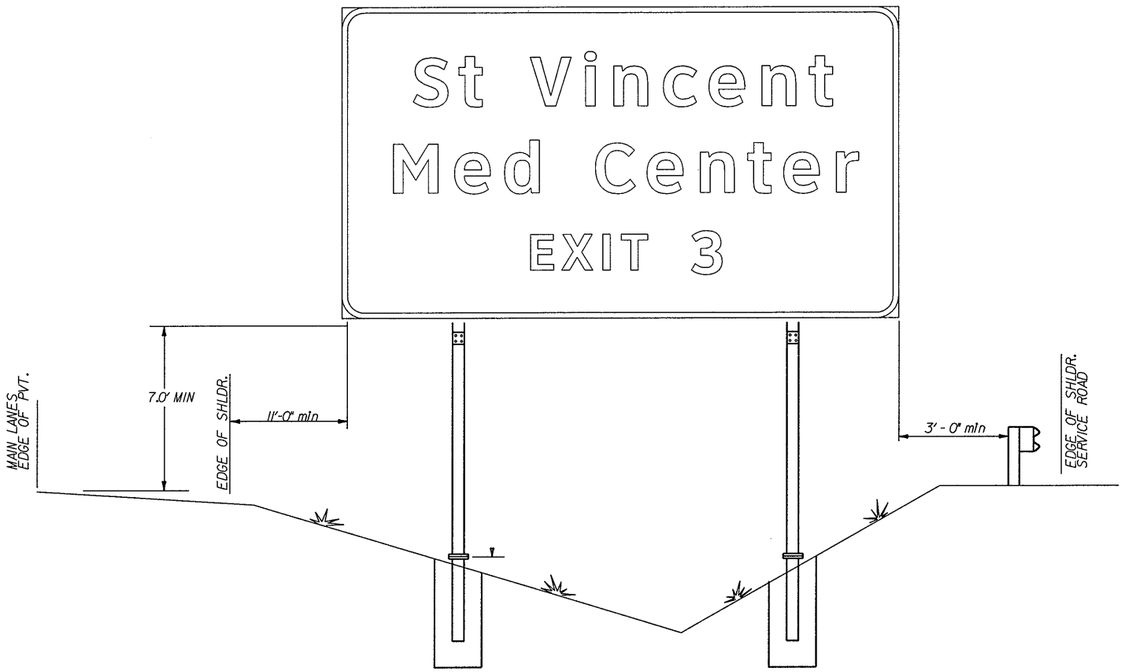


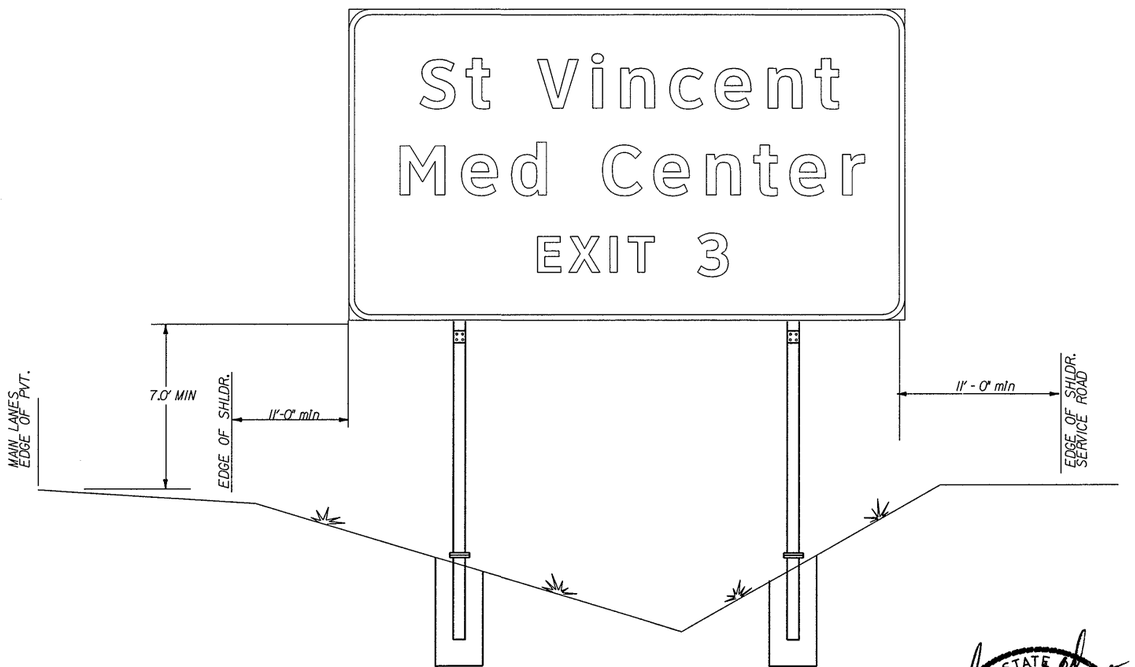
6.0" Radius, 1.5" Border, White on Green;
[St Vincent] ClearviewHwy-5-W; [Med Center] ClearviewHwy-5-W;
[EXIT] ClearviewHwy-5-W; [3] ClearviewHwy-5-W;

GS-02



6.0" Radius, 1.5" Border, White on Green;
[St Vincent] ClearviewHwy-5-W; [Med Center] ClearviewHwy-5-W;
[EXIT] ClearviewHwy-5-W; [3] ClearviewHwy-5-W;



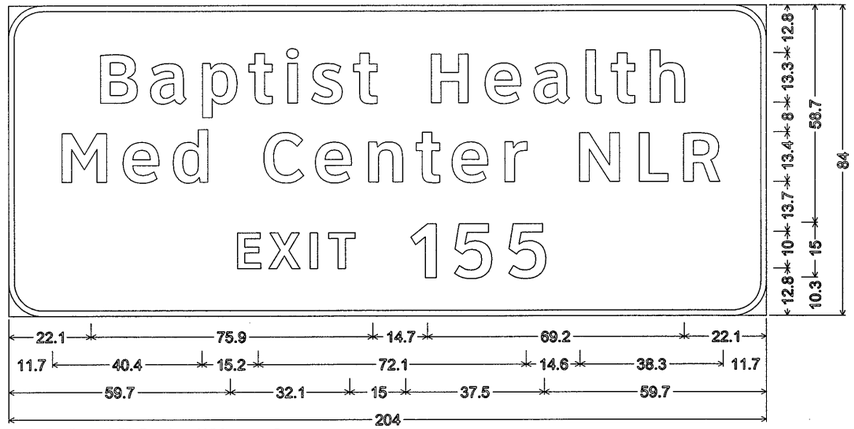


STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	296	609

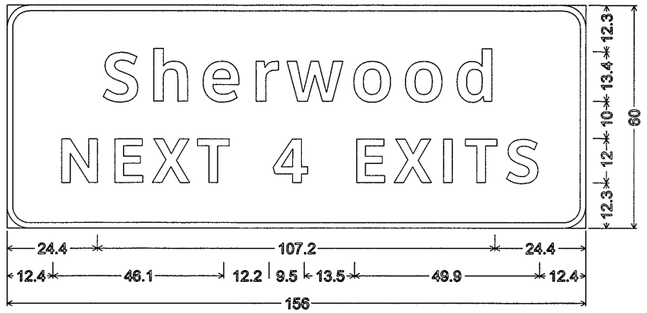
② SIGN LAYOUT

GS-03

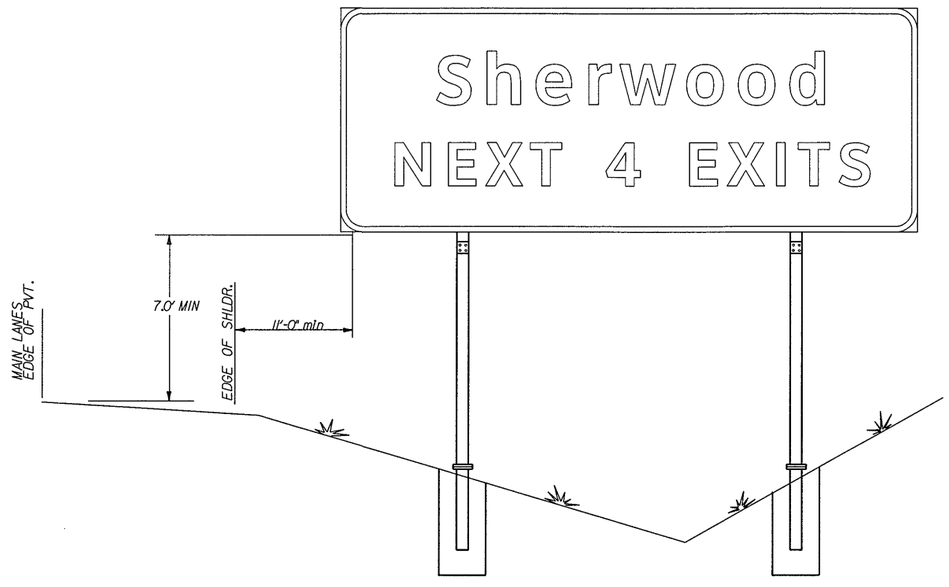


9.0" Radius, 1.5" Border, White on Green;
[Baptist Health] ClearviewHwy-5-W; [Med Center NLR] ClearviewHwy-5-W;
[EXIT] ClearviewHwy-5-W; [155] ClearviewHwy-5-W;

GS-04



6.0" Radius, 1.5" Border, White on Green;
[Sherwood] ClearviewHwy-5-W; [NEXT 4 EXITS] ClearviewHwy-5-W;

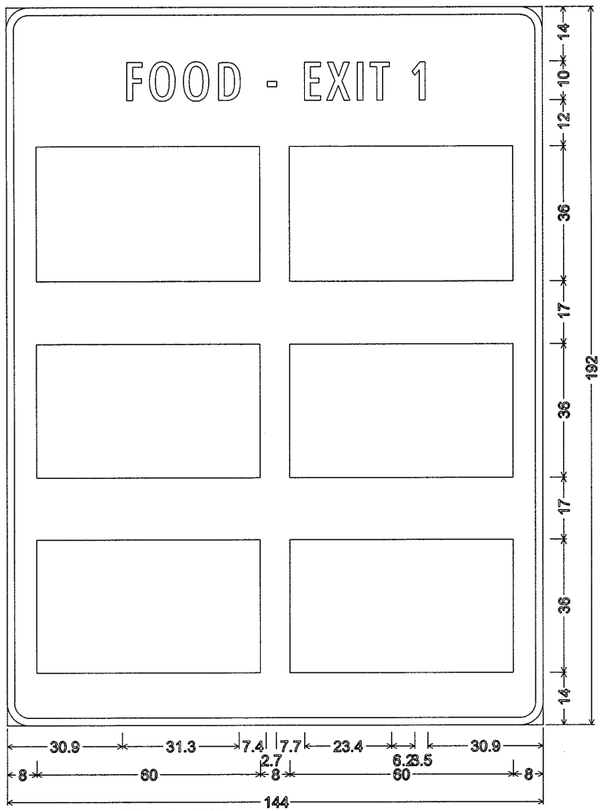


STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	297	693

② SIGN LAYOUT

LF-01NB

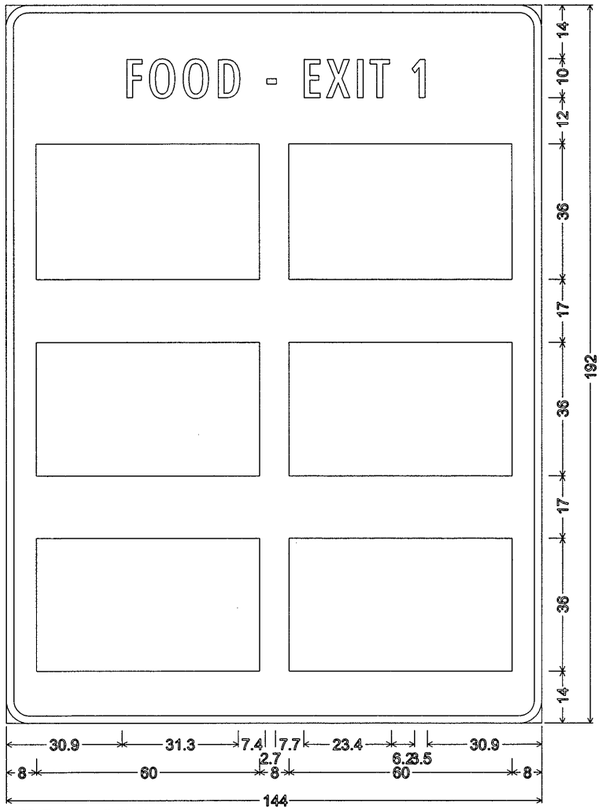


6.0" Radius, 2.0" Border, White on Blue;
[FOOD - EXIT 1] Clearviewl-Iwy-2-W;

Exit 1B, McCain Blvd., Northbound only

Food-1. Cici Pizza
2. McDonald
3. IHOP
4. Golden Corral
5. Wendy
6. Sonic

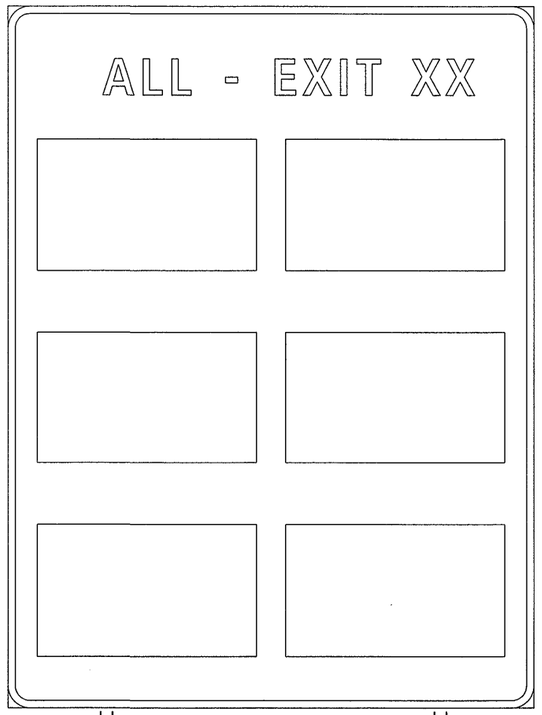
LF-01SB

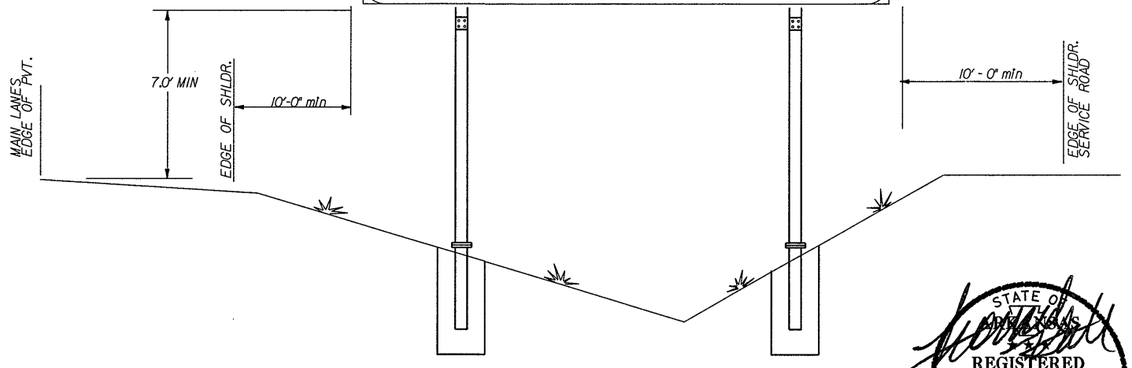


6.0" Radius, 2.0" Border, White on Blue;
[FOOD - EXIT 1] Clearviewl-Iwy-2-W;

Exit 1, McCain Blvd., Southbound only

Food-1. Cici Pizza
2. McDonald
3. IHOP
4. Golden Corral
5. Wendy
6. Sonic



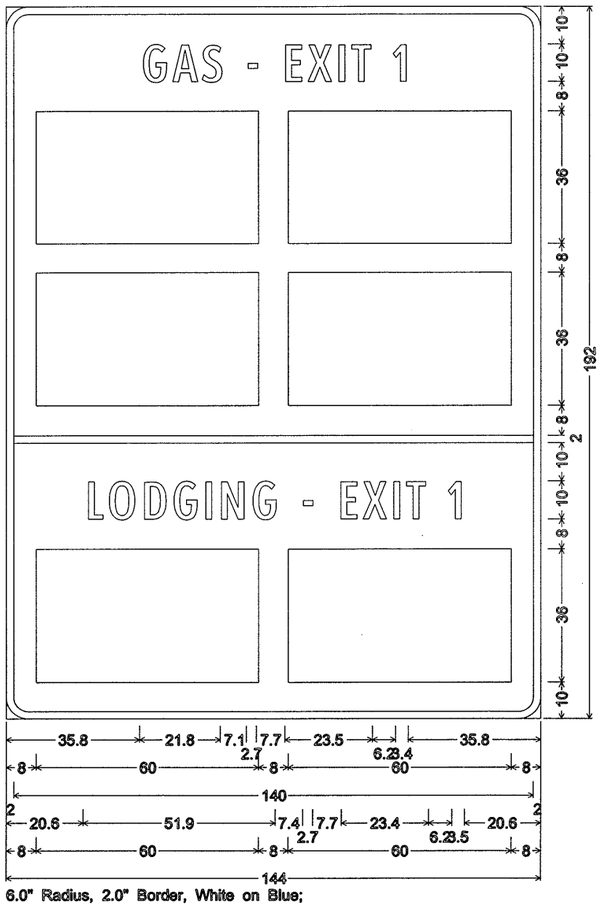


NOTE:
LOGO SIGNS WILL BE RELOCATED TO THE NEW SIGNS BY THE CONTRACTOR. THE LOCATION AND NUMBER OF LOGO SIGNS ON EACH SIGN WILL BE DETERMINED WHEN THE CONTRACTOR SUBMITS SHOP DRAWINGS.
LOGO INSTALLATION SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEM IN THE CONTRACT.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	23	603
				②		SIGN LAYOUT		

LGL-01SB

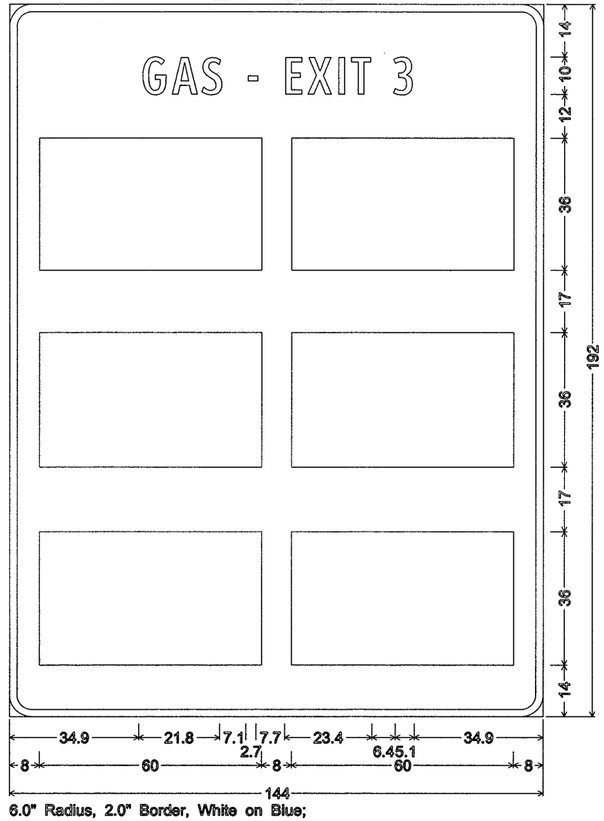


6.0" Radius, 2.0" Border, White on Blue;
[GAS - EXIT 1] Clearviewl-hwy-2-W;
[LODGING - EXIT 1] Clearviewl-hwy-2-W;

Exit 1, McCain Blvd., Southbound only
Gas--1. Phillips 66
2. Exxon
3. Murphy USA

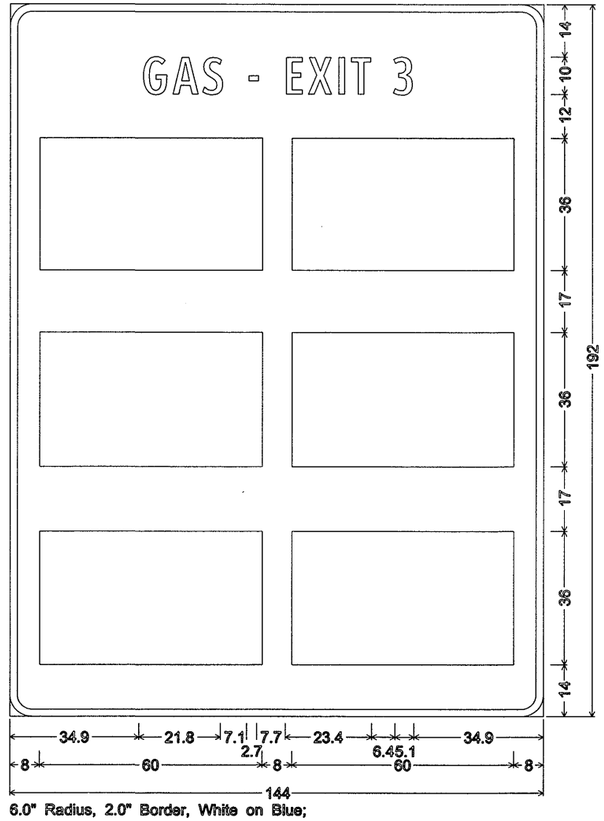
Lodging*1. Holiday Inn Express
2. LaQuinta Inn

LG-03NB



6.0" Radius, 2.0" Border, White on Blue;
[GAS - EXIT 3] Clearviewl-hwy-2-W;

LG-03SB



6.0" Radius, 2.0" Border, White on Blue;
[GAS - EXIT 3] Clearviewl-hwy-2-W;

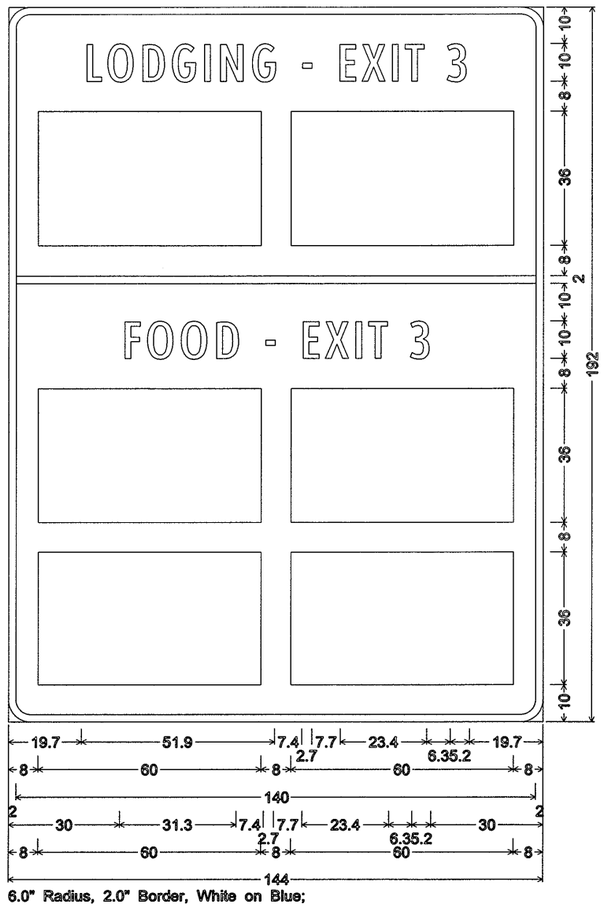
Exit 3, Wildwood Ave., both directions
Gas-1. Texaco
2. Phillips 66

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	299	605

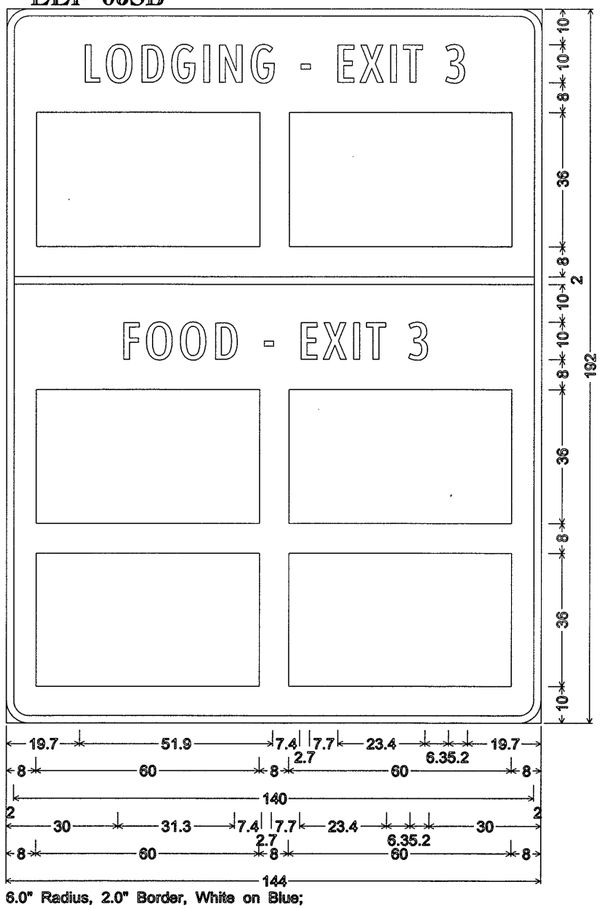
② SIGN LAYOUT

LLF-03NB



6.0" Radius, 2.0" Border, White on Blue;
[LODGING - EXIT 3] ClearviewHwy-2-W;
[FOOD - EXIT 3] ClearviewHwy-2-W;

LLF-03SB

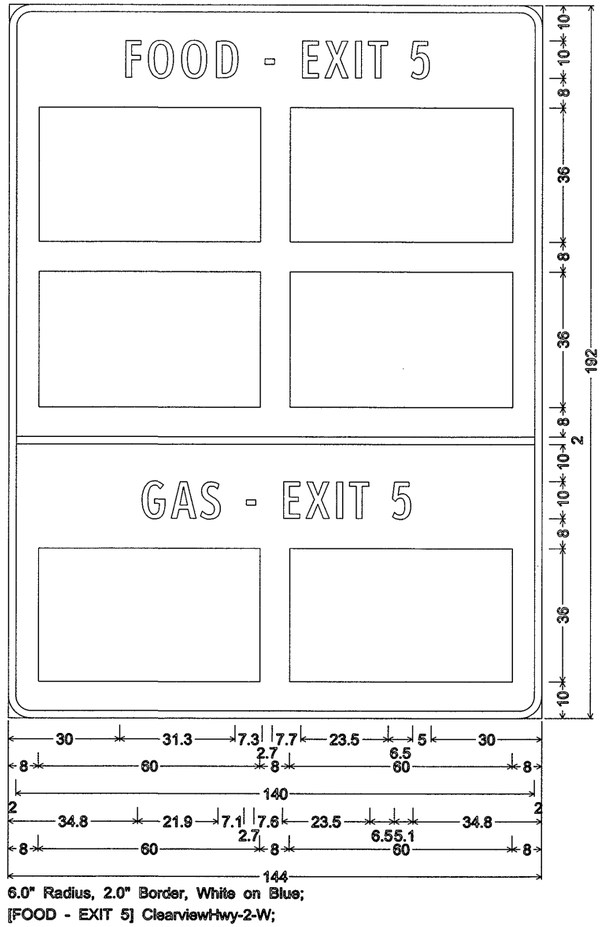


6.0" Radius, 2.0" Border, White on Blue;
[LODGING - EXIT 3] ClearviewHwy-2-W;
[FOOD - EXIT 3] ClearviewHwy-2-W;

Exit 3, Wildwood Ave., both directions

Food-1. Waffle House
Lodging-1. Hampton Inn

LFG-05NB



6.0" Radius, 2.0" Border, White on Blue;
[FOOD - EXIT 5] ClearviewHwy-2-W;
[GAS - EXIT 5] ClearviewHwy-2-W;

Exit 5, Kiehl Ave.

Gas-1. Shell

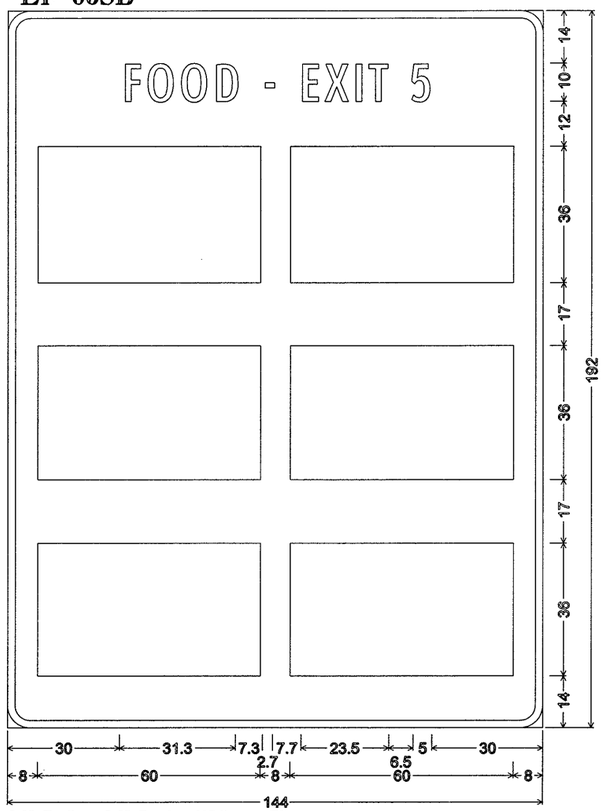
Food-1. McDonald
2. Popeye
3. Sonic
4. Casa Mexicana

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	300	609

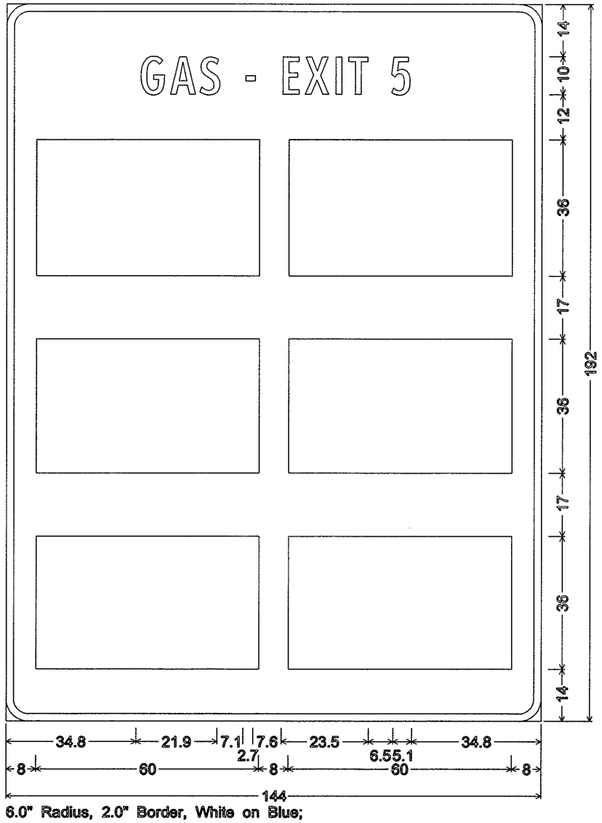
② SIGN LAYOUT

LF-05SB



6.0" Radius, 2.0" Border, White on Blue;
[FOOD - EXIT 5] Clearview-Hwy-2-W;

LG-05SB



6.0" Radius, 2.0" Border, White on Blue;
[GAS - EXIT 5] Clearview-Hwy-2-W;

Exit 5, Kiehl Ave.

Gas-1. Shell

Food-1. McDonald
2. Popeye
3. Sonic
4. Casa Mexicana

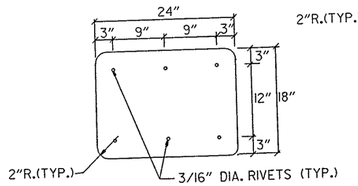
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	30	604

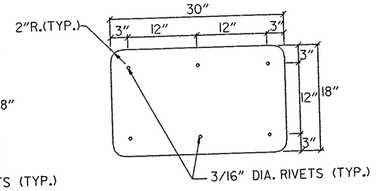
④ SIGN LAYOUTS

LOGO PANELS

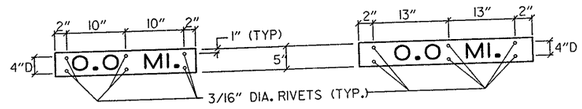
(GAS)



(FOOD-LODGING-CAMPING)

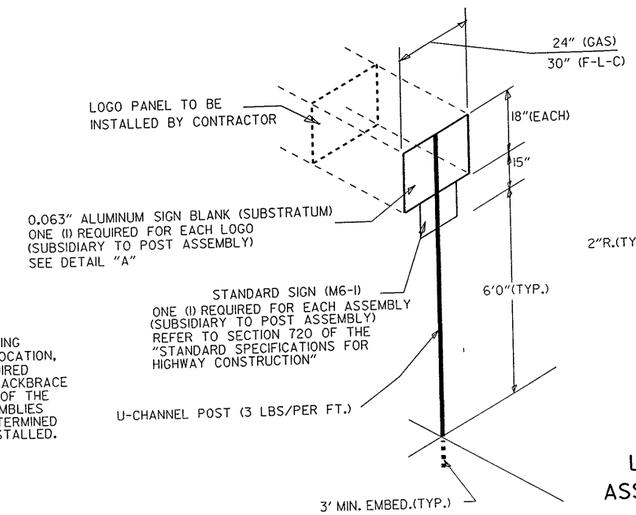


MILEAGE PANELS

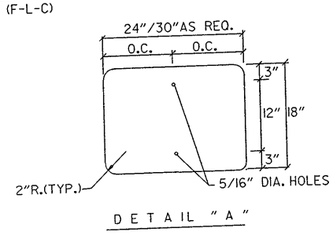


GENERAL NOTES

1. SIGN FACE SHALL HAVE BLUE TYPE III (H.I.) BACKGROUND WITH WHITE TYPE III (H.I.) DEMOUNTABLE LEGEND AND BORDER.
2. THE PRINCIPAL LEGEND SHALL BE 5" SERIES D LETTERS CENTERED HORIZONTALLY ON THE SIGN FACE AS SHOWN.
3. THE CONTRACTOR SHALL DRILL LOGO SIGNS AS SHOWN AND ATTACH THE LOGO SIGNS TO THE GUIDE SIGNS USING POP RIVETS.
4. THE LOGO PANELS WILL BE PROVIDED TO THE CONTRACTOR BY OTHERS.
5. THE MILEAGE PANELS SHALL BE CONSTRUCTED OF 0.063 INCH FLAT SHEET ALUMINUM ALLOY (ASTM B 209, ALLOY 5052 H-38) AND INSTALLED BY CONTRACTOR . PAYMENT SHALL BE CONSIDERED SUBSIDIARY TO ITEM 722 "GUIDE SIGN".
6. WHEN PLANS SPECIFY A U-I ASSEMBLY THE CONTRACTOR WILL PROVIDE AN ADDITIONAL SIGN BLANK (SUBSTRATUM) FOR EACH LOGO PANEL AND ALSO ONE STANDARD M6-1 ARROW SIGN.

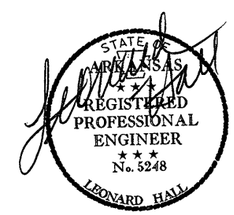


U-I ASSEMBLY



DETAIL "A"

NOTE: WHEN THE PLANS REQUIRE INSTALLING TWO OR MORE U-I ASSEMBLIES AT ONE LOCATION, A HORIZONTAL BACKBRACE WILL BE REQUIRED CONNECTING THE VERTICAL POST . THE BACKBRACE WILL BE INSTALLED 6" BELOW THE TOP OF THE VERTICAL POST . PAYMENT FOR U-I ASSEMBLIES (MULTIPLE INSTALLATION) SHALL BE DETERMINED BY THE NUMBER OF VERTICAL POSTS INSTALLED.

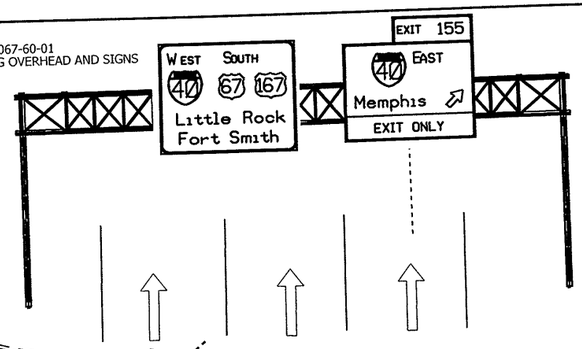


Details Of RAMP LOGO SIGNS

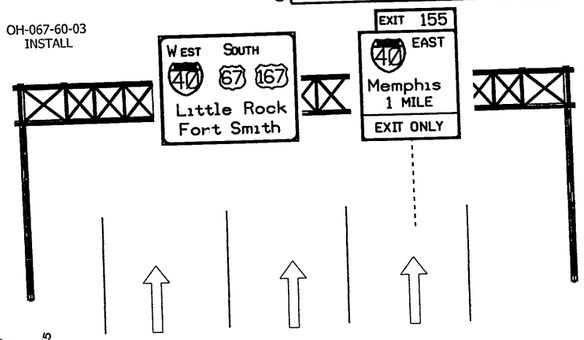
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	302	609

② SIGN PLACEMENT LAYOUT

OH-067-60-01
REPLACE EXISTING OVERHEAD AND SIGNS



OH-067-60-03
INSTALL

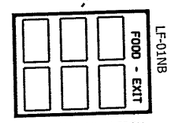


REMOVE
EXISTING OVERHEAD

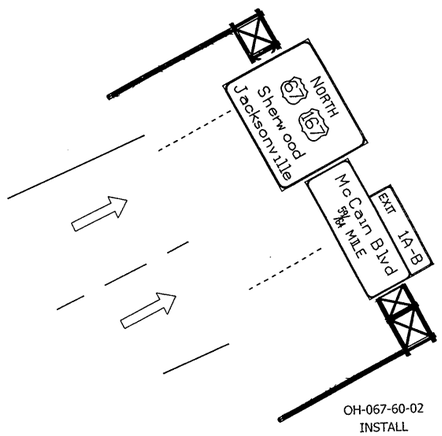
NOTE:
ALL EXISTING GUIDE SIGNS SHALL BE MAINTAINED IN SUCH A MANNER THAT THE SIGNS ARE FULLY VISIBLE, INTACT, AND ERECT FOR THE DURATION OF THE PROJECT, AND SHALL BE REMOVED WHEN THEIR USE IS NO LONGER REQUIRED.

REMOVAL AND DISPOSAL OF EXISTING ROADSIDE MOUNTED SIGN SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO OTHER ITEMS IN THE CONTRACT.

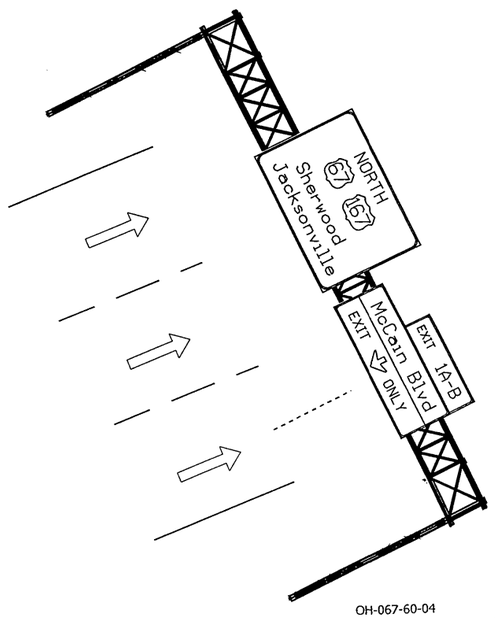
THE EXISTING SIGNS AND POSTS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE EXISTING FOOTINGS SHALL BE REMOVED AND THE HOLES FILLED WITH A SUITABLE MATERIAL AND COMPACTED.



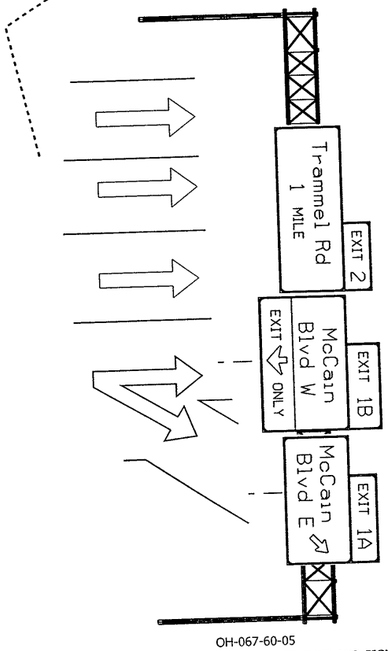
INSTALL NEW SIGN
REMOVE EXISTING



OH-067-60-02
INSTALL



OH-067-60-04
REPLACE EXISTING OVERHEAD AND SIGNS



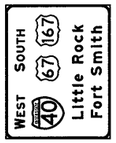
OH-067-60-05
REPLACES EXISTING CANTILEVER AND SIGNS

STATE OF ARKANSAS
REGISTERED
PROFESSIONAL
ENGINEER
No. 5248
LEONARD HALL

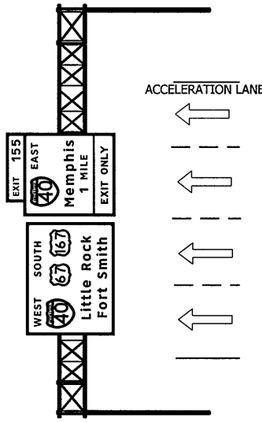
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080		

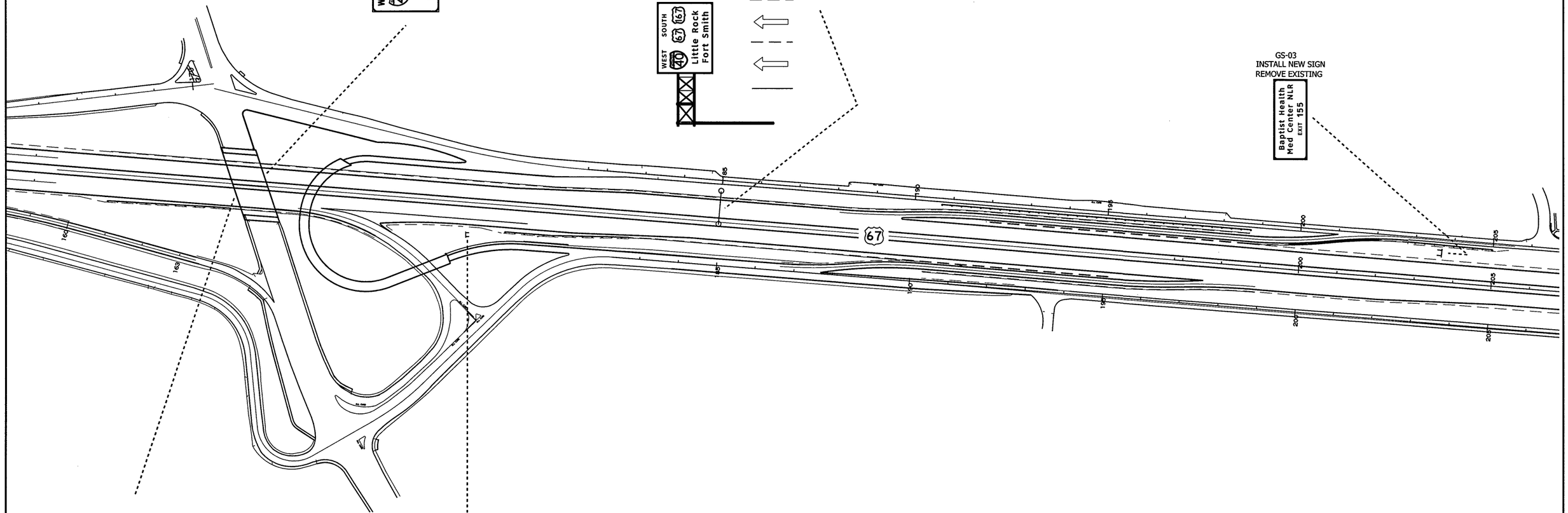
2 SIGN PLACEMENT LAYOUT

REMOVE BRIDGE MOUNTED SIGNS

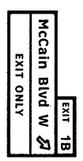


OH-067-60-07
INSTALL

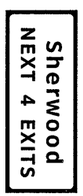




GS-03
INSTALL NEW SIGN
REMOVE EXISTING



BM-067-60-06
REPLACE EXISTING
BRIDGE MOUNTED-NEW SIGN



GS-04
INSTALL NEW SIGN
REMOVE EXISTING

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	204	609

(2) SIGN PLACEMENT LAYOUT

OH-067-60-09
INSTALL

EXIT 1
McCain Blvd
OFF RAMP

EXIT 155
EAST
40
Memphis
1½ MILE

WEST
40
SOUTH
67
167
Little Rock
Fort Smith

LF-01SB
INSTALL NEW SIGN
REMOVE EXISTING

FDOT - EXIT 1

McCLANAHAN DR

67

SMOKEY LN

BRILEY RD

NORTH
67
167
Jacksonville
St Louis Mo

Wildwood Ave
1 MILE
EXIT 3

Trammel
Road
EXIT 2
OFF RAMP

OH-067-60-08
INSTALL

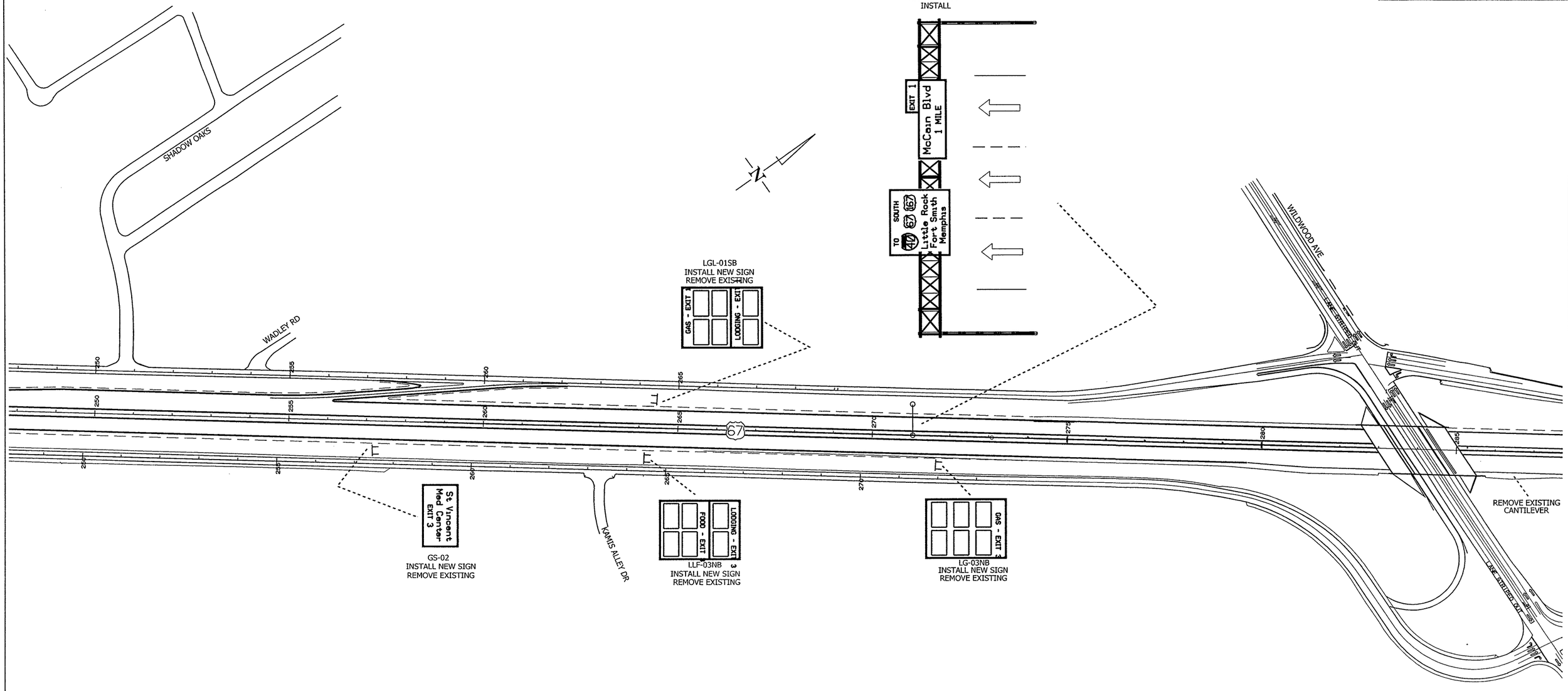
STATE OF ARKANSAS
REGISTERED
PROFESSIONAL
ENGINEER
★★★
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	305	

② SIGN PLACEMENT LAYOUT

OH-067-60-10
INSTALL

LGL-01SB
INSTALL NEW SIGN
REMOVE EXISTING



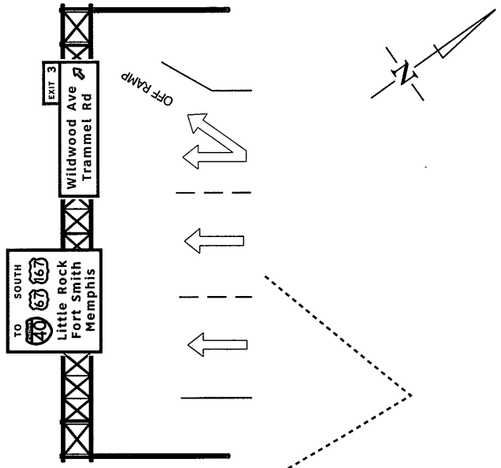
GS-02
INSTALL NEW SIGN
REMOVE EXISTING

LLF-03NB
INSTALL NEW SIGN
REMOVE EXISTING

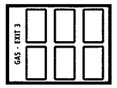
LG-03NB
INSTALL NEW SIGN
REMOVE EXISTING

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	306	609
				②	SIGN PLACEMENT LAYOUT			

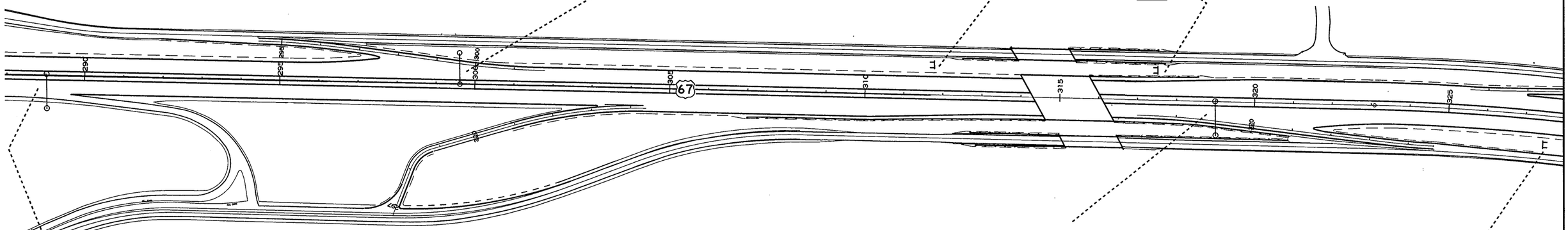
OH-067-60-12
REPLACE EXISTING CANTILEVER

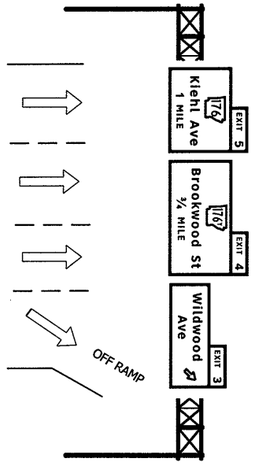


LG-03SB
INSTALL NEW SIGN
REMOVE EXISTING

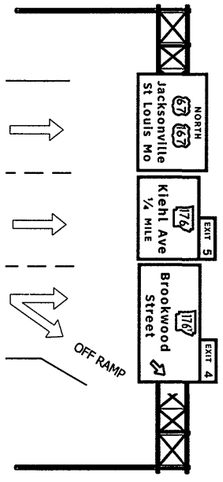


GS-01
INSTALL NEW SIGN
REMOVE EXISTING

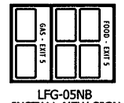




OH-067-60-11
INSTALL



OH-067-60-16
INSTALL



LFG-05NB
INSTALL NEW SIGN
REMOVE EXISTING

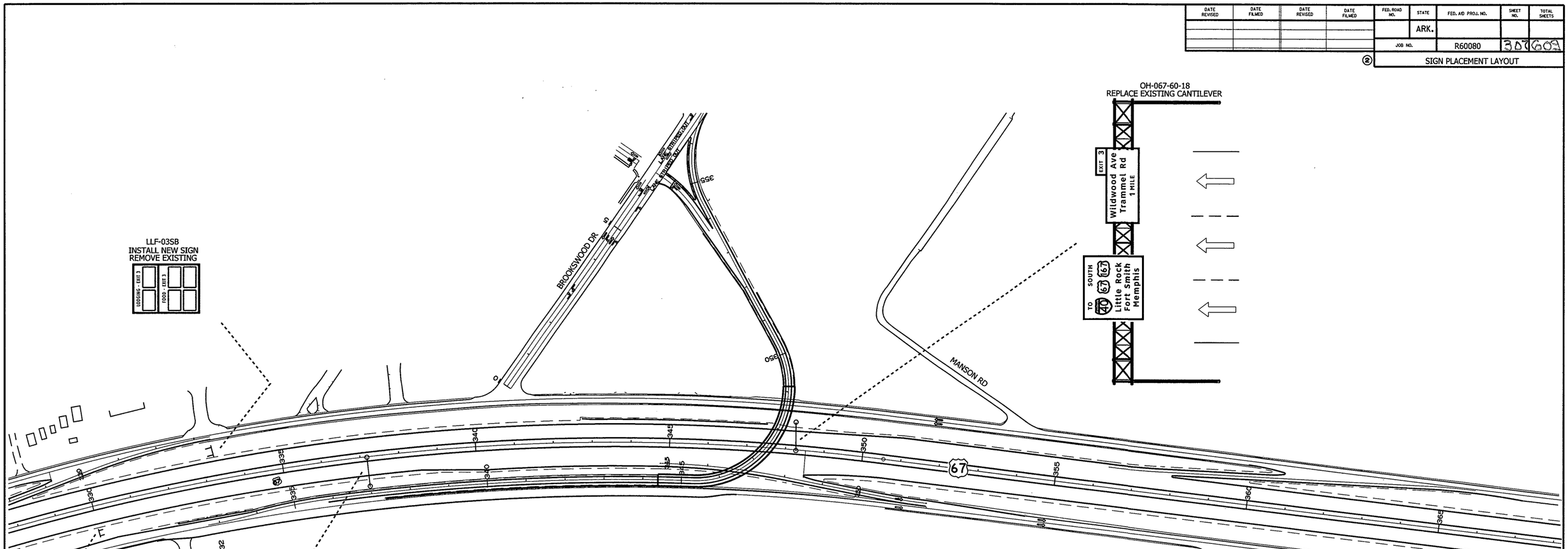
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

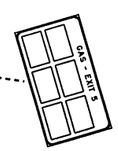
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	30760	2

SIGN PLACEMENT LAYOUT

LLF-03SB
INSTALL NEW SIGN
REMOVE EXISTING

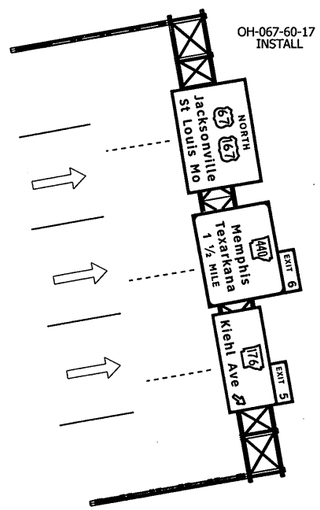
OH-067-60-18
REPLACE EXISTING CANTILEVER

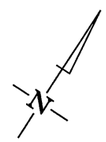


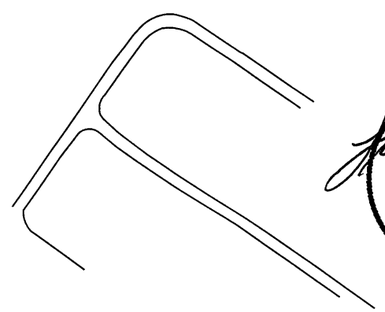


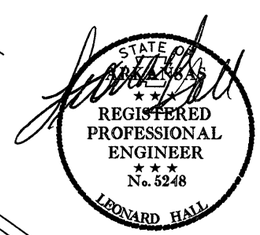
REMOVE EXISTING GAS LOGO

OH-067-60-17
INSTALL









DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	308	609

② SIGN PLACEMENT LAYOUT

KIEHL AVE

N

OH-067-60-19
INSTALL

EXIT 5
Kiehl Ave
OFF RAMP
SOUTH TO
Little Rock
Fort Smith
Memphis

LG-05-SB
INSTALL NEW SIGN
REMOVE EXISTING

GAS - EXIT 5

LF-05-SB
INSTALL NEW SIGN
REMOVE EXISTING

FOOD - EXIT 5

PLEASURE DR

WARDEN RD.

67

370 375 380 385 390 395 400 405

OBE

11

440 Jct
Memphis
Texarkana
1 MILE
EXIT 6

REMOVE EXISTING

RIXEY RD

HILLS RD

440 Jct
Memphis
Texarkana
½ MILE
EXIT 6

REMOVE EXISTING

OH-067-60-20
INSTALL

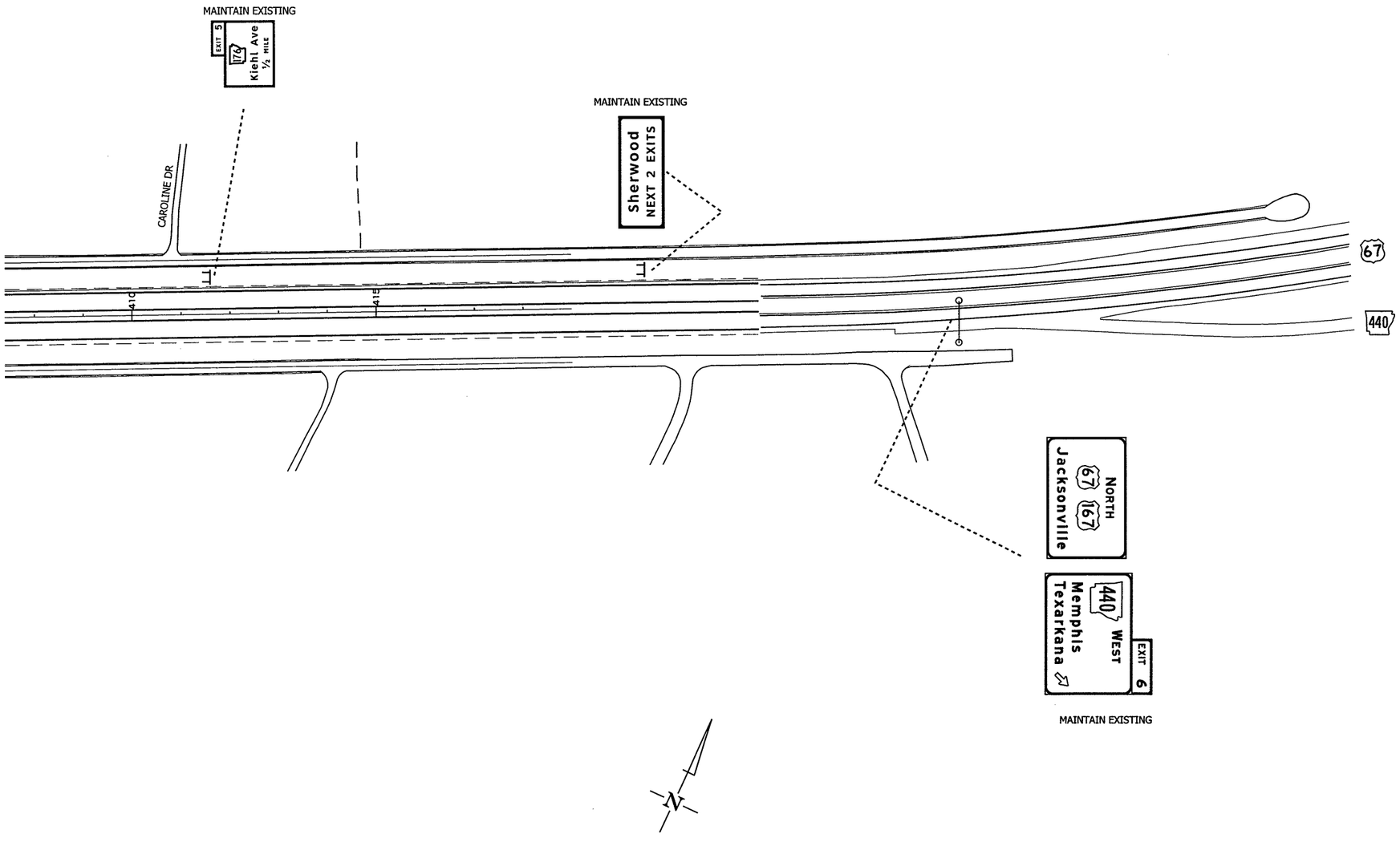
MERGE RIGHT
LEFT LANE ENDS
1200 FT

440
Memphis
Texarkana
½ MILE
EXIT 6

STATE OF ARKANSAS
REGISTERED
PROFESSIONAL
ENGINEER
★ ★ ★
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	303	603

(2) SIGN PLACEMENT LAYOUT

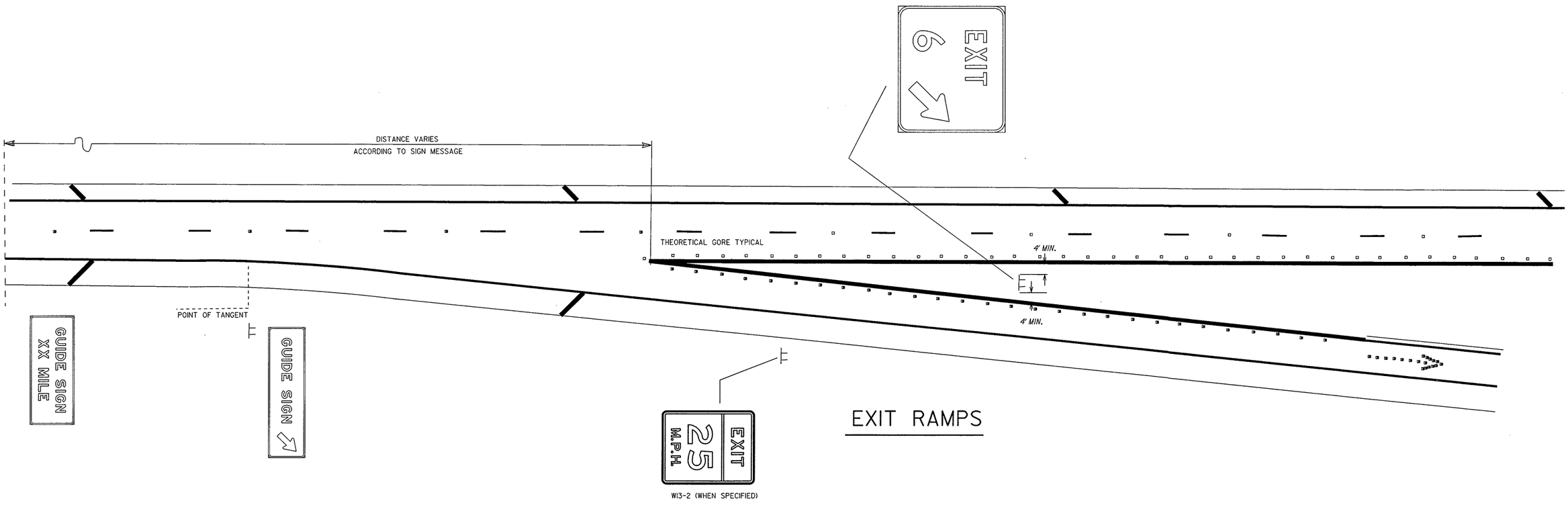


STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
★★★
No. 5248
LEONARD HALL

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	310	603

(5) DETAIL OF SIGN PLACEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
★★★
No. 5248
LEONARD HALL

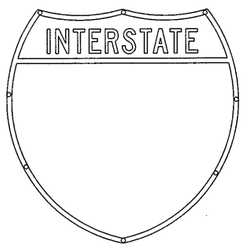


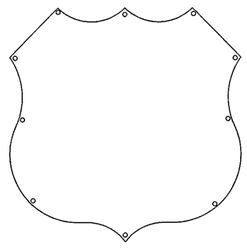
EXIT RAMPS

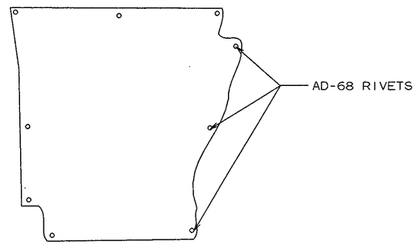
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	311	609

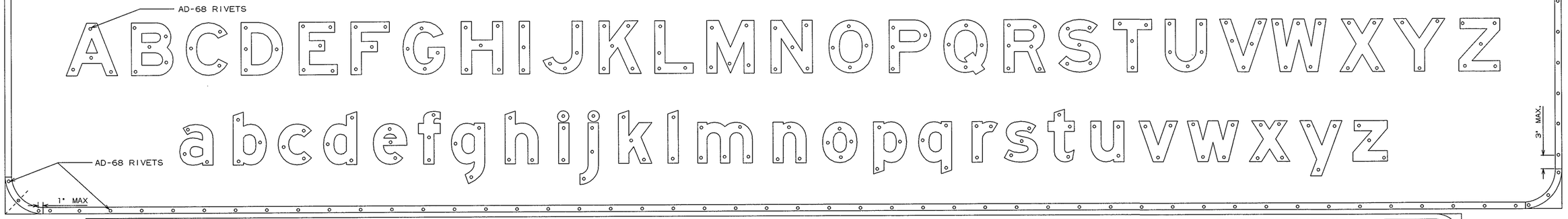
(2) GUIDE SIGN DETAILS

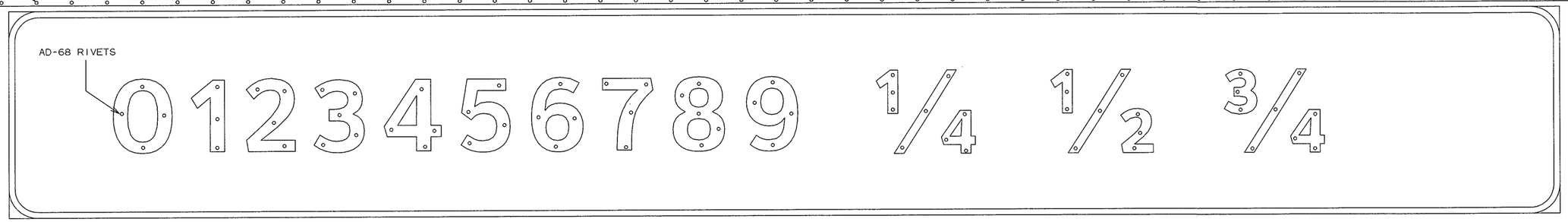
THE CONTRACTOR SHALL DRILL AND POP-RIVET BORDER, LEGEND, SHIELDS, ARROWS, OR OTHER COPY AS SHOWN.











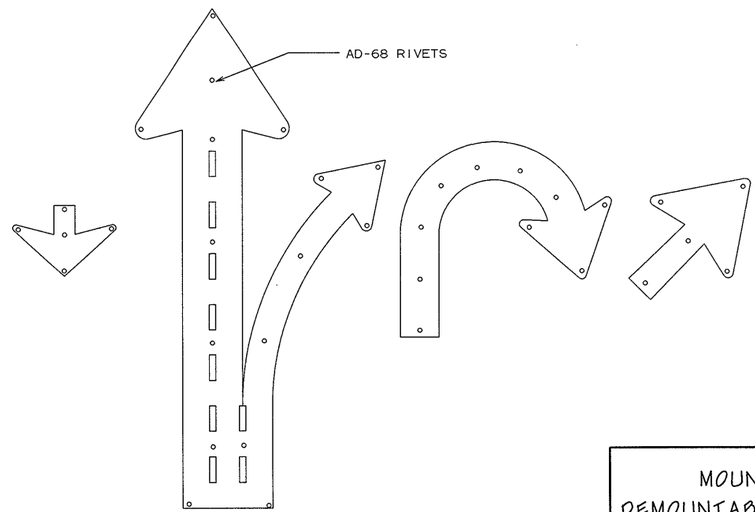
NOTE:

LEGEND ON GUIDE SIGNS ON THE MAIN LANES SHALL BE DEMOUNTABLE LEGEND.
LEGEND ON GUIDE SIGNS ON CROSS ROADS AND RAMPS SHALL BE DIRECT APPLIED.

THE DEMOUNTABLE AND DIRECT APPLIED LEGENDS SHALL BE DIAMOND GRADE (VIP) (TYPE IX) SHEETING.

THE BACKGROUND ON ALL GUIDE SIGNS AND STANDARD SIGNS SHALL BE CONSTRUCTED USING HIGH INTENSITY (TYPE III) SHEETING.

TYPE IX SHEETING FOR BORDER, LEGEND, SHIELDS, ARROWS, OR OTHER COPY SHALL BE ORIENTED VERTICALLY AS PER MANUFACTURERS' DATUM MARKS, ORIENTATION MARKS, OR OTHER RECOMMENDATIONS.



STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

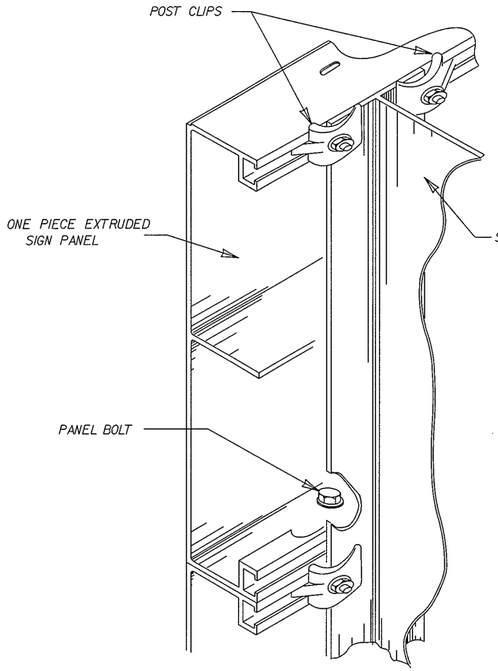
MOUNTING DETAILS FOR DEMOUNTABLE LEGEND ON GUIDE SIGNS

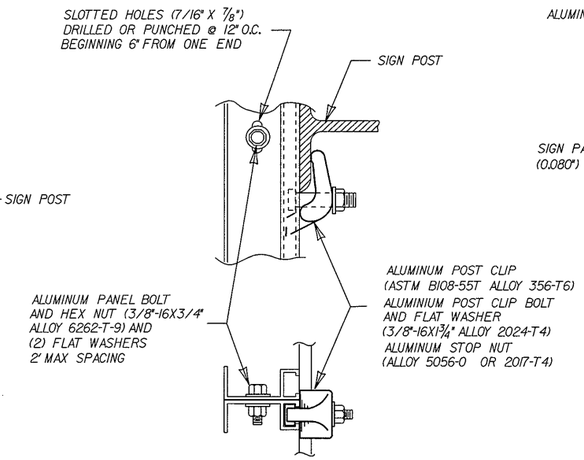
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	312	609

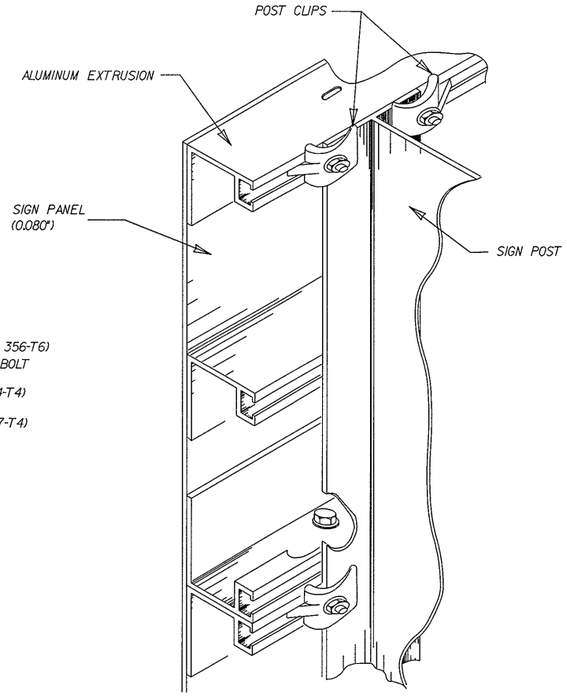
(2) GUIDE_SIGN_PANELS

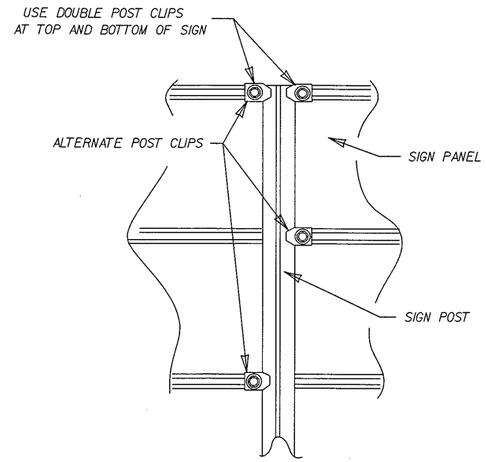
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL



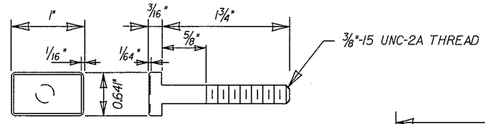


MOUNTING HARDWARE

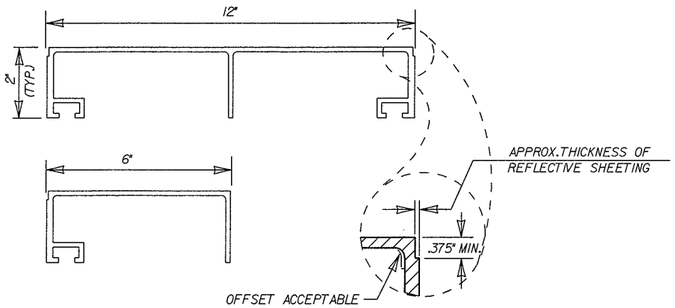




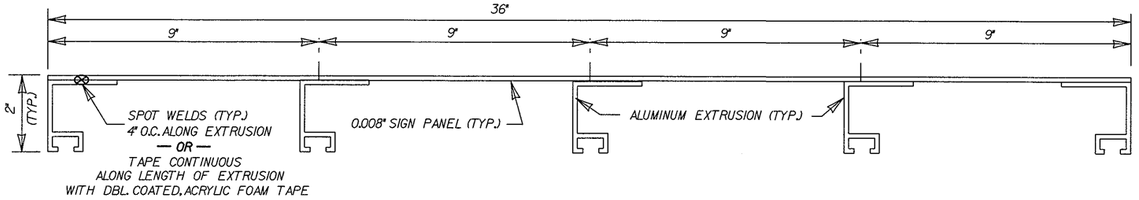
POST CLIP PLACEMENT

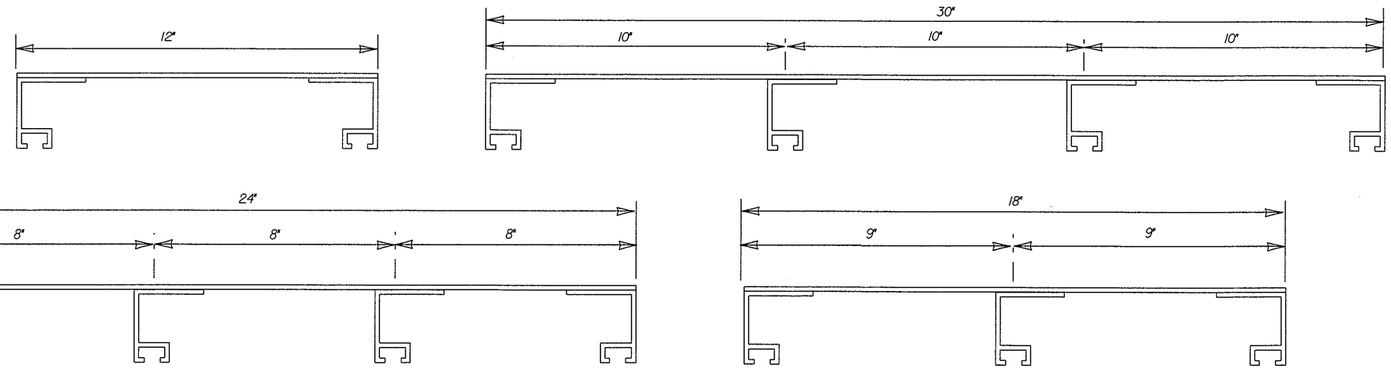


POST CLIP BOLT



ONE PIECE EXTRUDED SIGN PANELS

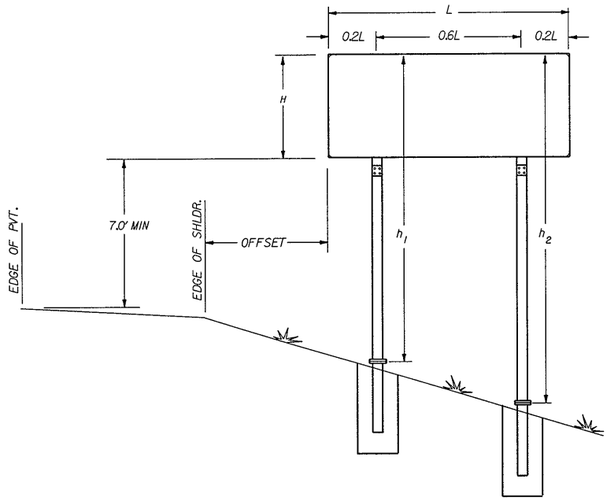




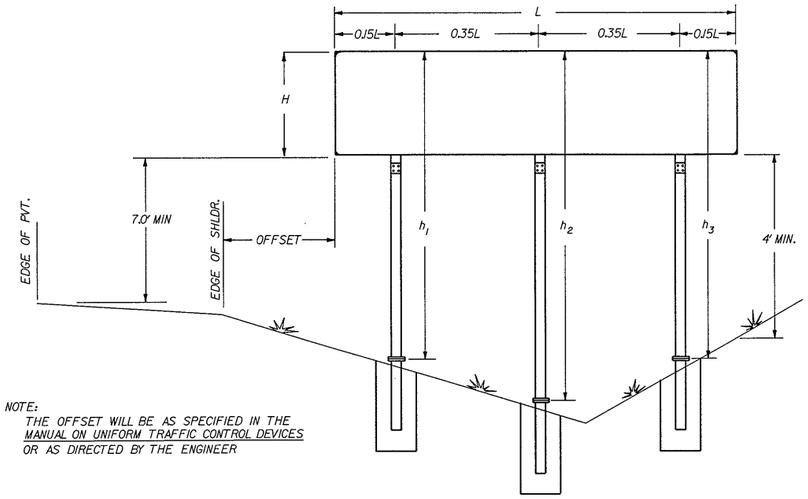
WELDED EXTRUSHEET SIGN PANELS
— OR —
TAPED EXTRUSHEET SIGN PANELS

DETAILS OF GUIDE SIGN PANELS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	313	609
				(2)	GUIDE SIGN SUPPORTS			

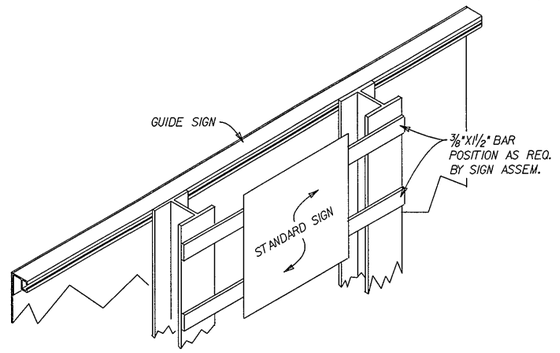


G-1

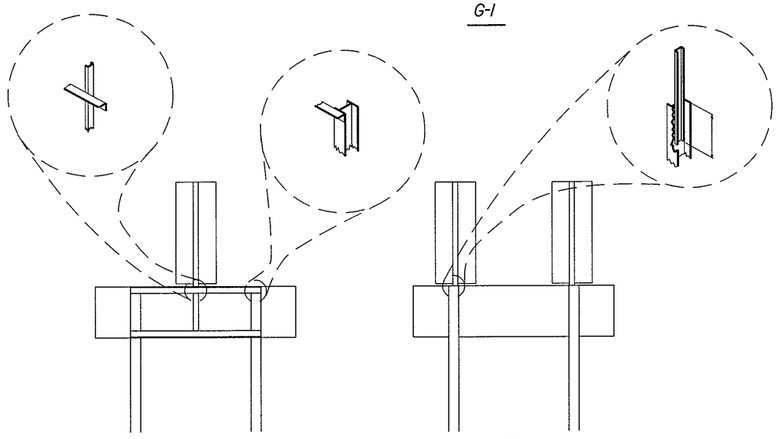


NOTE:
THE OFFSET WILL BE AS SPECIFIED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR AS DIRECTED BY THE ENGINEER

G-2

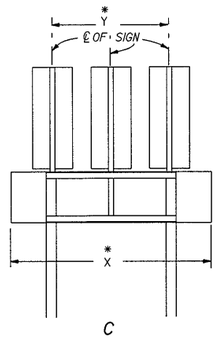


SECONDARY SIGN INSTALLATION ON BACKSIDE OF GUIDE SIGN



A

B

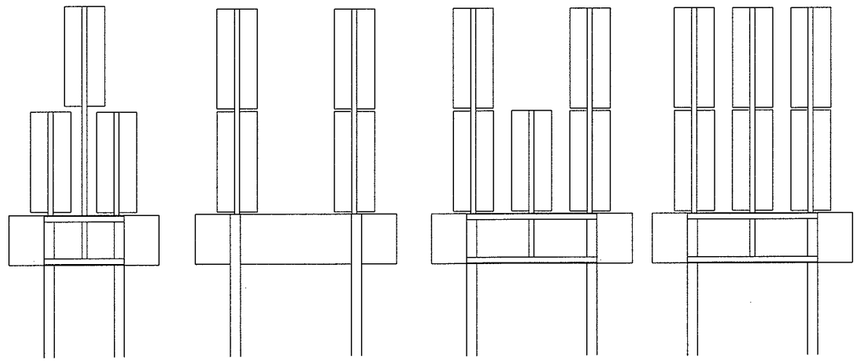


C

TRIPLE ASSEM.(C or D)

* Y	* X	TYPE ASSEM.
4'-4"	≥ 7'-6"	G-IC
4'-4"	< 7'-6"	G-ID
4'-10"	≥ 8'-0"	G-IC
4'-10"	< 8'-0"	G-ID
5'-1"	≥ 8'-6"	G-IC
5'-1"	< 8'-6"	G-ID
5'-4"	≥ 9'-0"	G-IC
5'-4"	< 9'-0"	G-ID

LEGEND
≥ GREATER THAN OR EQUAL TO
< LESS THAN

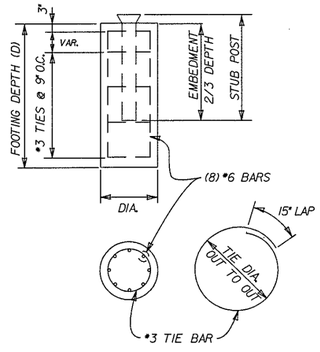


D

E

F

G



FOOTING QUANTITIES

FTG. DEPTH	NO. OF TIES	STUB PROJ.	18" DIA.		24" DIA.		30" DIA.		36" DIA.		"A"
			CU.YD.	# STEEL	CU.YD.	# STEEL	CU.YD.	# STEEL	CU.YD.	# STEEL	EMBED.
2'-6"	4	2½"	0.16	30.5							1'-8"
3'-0"	4	2½"	0.20	36.6							2'-0"
3'-6"	5	2½"	0.23	44.2							2'-4"
4'-0"	6	2½"	0.26	51.8	0.46	55.4					2'-8"
4'-6"	7	2½"	0.29	59.5	0.52	63.6					3'-0"
5'-0"	7	2½"	0.33	65.5	0.58	69.6	0.91	73.8			3'-4"
5'-6"	8	2½"			0.64	77.9	1.00	82.6			3'-8"
6'-0"	9	2½"			0.70	86.7	1.09	91.5	1.57	96.5	4'-0"
6'-6"	9	2½"					1.18	97.5	1.70	102.6	4'-4"
7'-0"	10	2½"					1.27	106.3	1.83	111.9	4'-8"
7'-6"	11	2½"							1.96	121.3	5'-0"
8'-0"	11	2½"							2.09	127.3	5'-4"

REINFORCING STEEL SCHEDULE

FTG. DIA. IN.	#3 TIE BARS DIA. IN.	#3 TIE BARS LGTH.-EA. FT./IN.	#3 TIE BARS WEIGHT LBS.	FTG. DEPTH FT./IN.	(8) #6 BARS LGTH.-EA. FT./IN.	(8) #6 BARS WEIGHT LBS.	NO. TIES EA.
18"	12"	4'-4"	1629	2'-6"	2'-0"	24.03	4
				3'-0"	2'-6"	30.04	4
24"	18"	5'-11"	2225	3'-6"	3'-0"	36.05	5
				4'-0"	3'-6"	42.06	6
30"	24"	7'-6"	2820	4'-6"	4'-0"	48.06	7
				5'-0"	4'-6"	54.07	7
36"	30"	9'-0"	3384	5'-6"	5'-0"	60.08	8
				6'-0"	5'-6"	66.09	9
				6'-6"	6'-0"	72.10	9
				7'-0"	6'-6"	78.10	10
				7'-6"	7'-0"	84.11	11
				8'-0"	7'-6"	90.12	11

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
★★★
No. 5248
LEONARD HALL

I-BEAM SIGN SUPPORTS

ARKANSAS STATE HIGHWAY COMMISSION
STANDARD HIGHWAY SIGNS

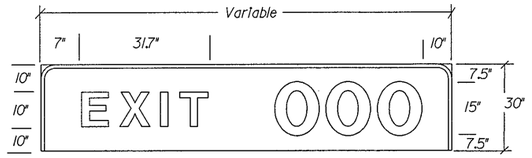
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	314	609

② EXIT PANEL DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 5248 LEONARD HALL

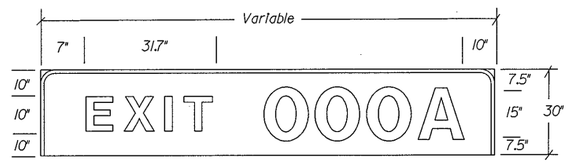
2"
6" R.
TYPICAL DETAIL

TYPE A



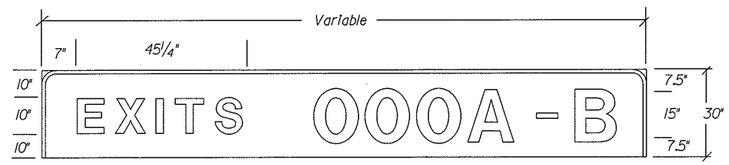
EXIT WITH 1 DIGIT 84"X30"=17.50 SF
EXIT WITH 2 DIGITS 96"X30"=20.0 SF
EXIT WITH 3 DIGITS 114"X30"=23.57 SF

TYPE B



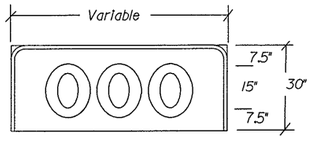
EXIT WITH 1 DIGIT PLUS "A"OR"B" 96"X30"=20.0 SF
EXIT WITH 2 DIGITS PLUS "A"OR"B" 114"X30"=23.57 SF
EXIT WITH 3 DIGITS PLUS "A"OR"B" 126"X30"=26.25 SF

TYPE C



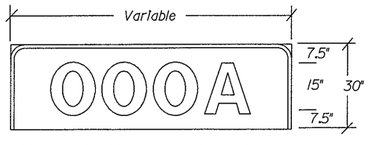
EXITS WITH 1 DIGIT PLUS "A"&"B" 132"X30"=27.50 SF
EXITS WITH 2 DIGITS PLUS "A"&"B" 150"X30"=31.25 SF
EXITS WITH 3 DIGITS PLUS "A"&"B" 168"X30"=35.00 SF

TYPE D

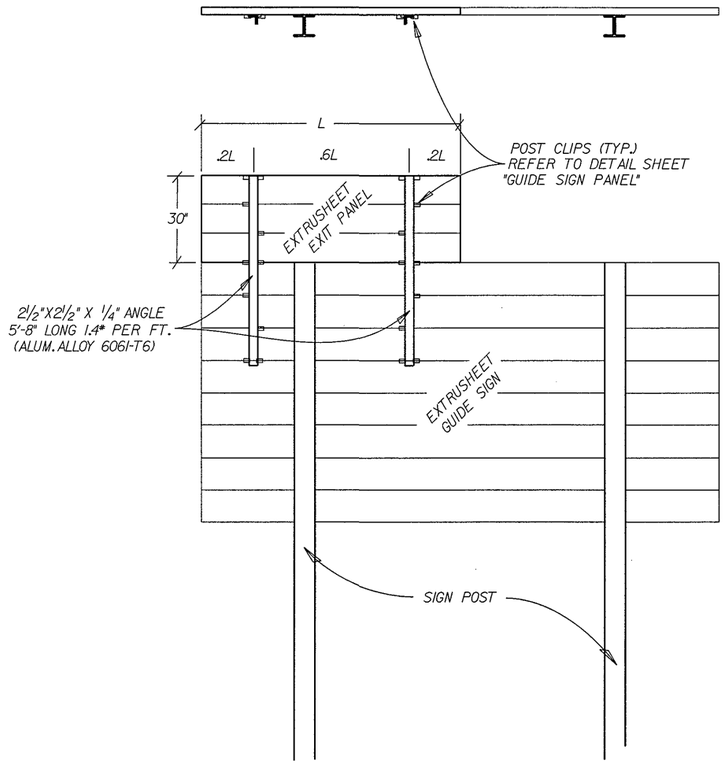


1 DIGIT 24"X30" =5.0 SF
2 DIGITS 42"X30" =8.75 SF
3 DIGITS 60"X30" =12.50 SF

TYPE E



1 DIGIT PLUS "A"OR"B" 42"X30"=8.75 SF
2 DIGITS PLUS "A"OR"B" 60"X30"=12.50 SF
3 DIGIT PLUS "A"OR"B" 78"X30"=16.25 SF



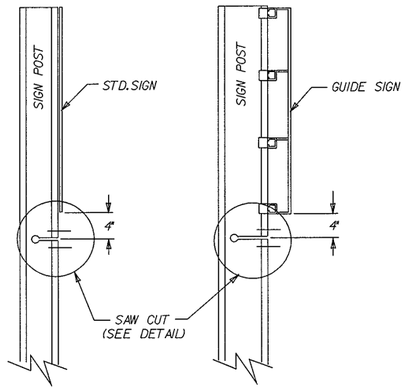
NOTE: EXIT NUMBER PANELS SHALL HAVE WHITE LEGENDS AND BORDERS. THE BACK GROUND COLOR WILL BE AS USE SPECIFIES. SHEETING TYPE WILL BE THE SAME AS THE GUIDE SIGN WHICH THE EXIT PANEL IS ATTACHED OR AS SPECIFIED IN THE PLANS. PAYMENT FOR ALL POST CLIPS, BOLTS, AND ANGLES SHALL BE SUBSIDIARY TO THE ITEM "EXIT NUMBER PANEL"

Not To Scale

EXIT PANEL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	315	609
				(2)	SPECIAL DETAILS			

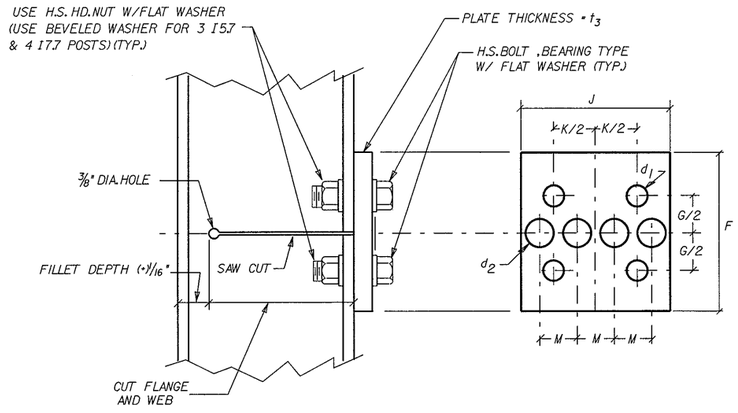
NOTE: BOLT HOLES, USED IN THE MOUNTING OF STANDARD SIGNS SHALL BE LOCATED IN THE FLANGE ADJACENT TO THE NEAR EDGE OF PAVEMENT FOR SINGLE POST ASSEMBLIES AND IN THE OUTSIDE FLANGES FOR MULTIPLE POST ASSEMBLIES.



NOTE: POST SHALL BE SAW CUT AFTER GALVANIZING AND THE CUT SURFACE TREATED, AFTER PLATE IS INSTALLED AND ALL BOLTS FULLY TIGHTENED, WITH AN APPROVED ZINC SOLDER MEETING THE FEDERAL SPEC. O-G-93 (STICK ONLY).

Standard Signs

Guide Signs

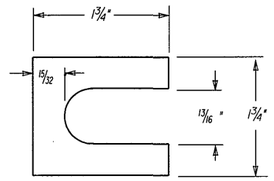


NOTE: USE H.S. HEX HEAD BOLTS, HEX HEAD NUTS AND BEVEL OR FLAT WASHERS (WHERE REQ.) UNDER NUTS. ALL HOLES SHALL BE DRILLED. ALL PLATE CUTS SHALL PREFERABLY BE SAW CUTS, HOWEVER FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND. METAL PROJECTING BEYOND THE PLANE OF THE PLATE FACE WILL NOT BE PERMITTED. STEEL FUSE PLATES SHALL CONFORM TO THE REQUIREMENTS OF AST M-A36, AST M-A441, AST M-572 GRADE 50, OR AST M-A588 MAY BE SUBSTITUTED FOR A36 AT THE OPTION OF THE FABRICATOR. STEEL USED SHALL HAVE AN ULTIMATE TENSILE STRENGTH NOT TO EXCEED 80 KSI.

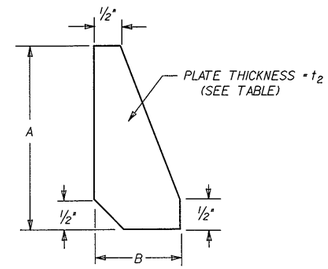
FUSE PLATE DETAILS

POST SIZE	BASE CONNECTION DATA											FUSE PLATE DATA									
	BOLT SIZE	BOLT TORQUE (INCH/LBS)	A	B	C	D	E	t_1	t_2	W	R	F	G		J	K	M	d_1	d_2	t_3	BOLT SIZE	WT. OF EACH FUSE PLATE LBS.
S 3X5.7	1/2" x 2 1/2"	200"-300"	3"	7 1/2"	6"	1 1/2"	3/4"	5/8"	—	—	3/32"	3 3/4"	1 1/2"		2 5/8"	1 1/2"	5/8"	9/16"	3/8"	1/4"	1/2" x 1 1/2"	0.60
S 4X7.7																						
W 6X9	5/8" x 2 3/4"	450"-680"	5"	2"	11/4"	2 3/4"	1 1/8"	3/4"	1/2"	1/4"	11/32"	4 1/4"	2"		4"	2 1/4"	1"	9/16"	3/4"	1/4"	1/2" x 1 1/2"	1.01
W 6X12																						
W 6X15												5"	2 1/2"		6"	3 1/2"	1 1/2"	11/16"	1 1/4"	3/8"	5/8" x 2 1/4"	2.51
W 8X18												5"	2 1/2"		5 1/4"	2 3/4"	1 1/4"	11/16"	1 1/16"	3/8"		2.26
W 8X21	3/4" x 3 1/2"	750"-1050"	6"	2 1/4"	1 3/8"	3 1/2"	1 1/4"	1"	3/4"	5/16"	11/32"	5 1/2"	2 1/2"		5 1/4"	2 3/4"	1 1/4"	13/16"	1"	1/2"	3/4" x 2 1/4"	3.35
W 10X22												6"	3"		5 3/4"	2 3/4"	1 3/8"	13/16"	1 1/8"	1/2"	3/4" x 2 1/4"	4.03
W 10X26																						
W 12X26												6"	3"		6 1/2"	3 1/2"	1 7/8"	13/16"	1 5/16"	1/2"	3/4" x 2 1/4"	4.47

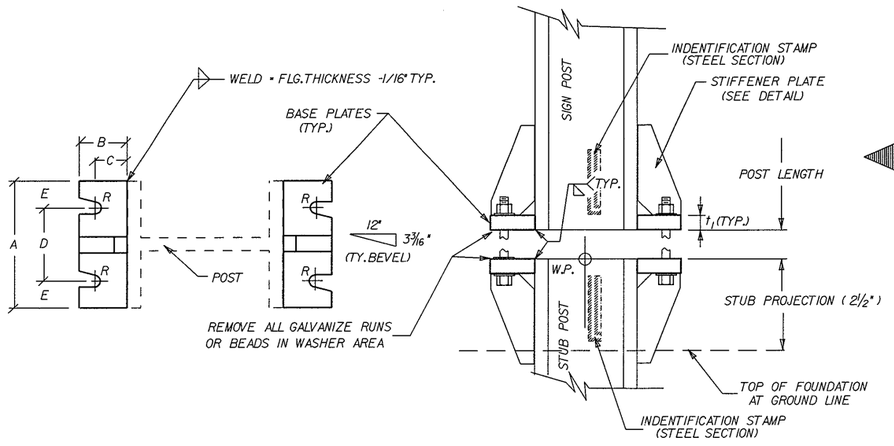
FURNISH 2 ~ .012"+/- THICK AND 2 ~ .032"+/- THICK SHIMS PER POST



SHIM DETAIL



STIFFENER PLATE DETAIL



NOTE: SECTIONS SHOWN ARE FOR INSTALLATION ON THE RIGHT SHOULDER AND IN THE GORE. BOLT HOLES IN BASE PLATE ARE SLOTTED AND BEVELED AS SHOWN. USE H.S. BOLTS WITH HEX HD., HEX NUT AND THREE FLAT WASHERS FOR EACH BOLT. SEE TABLE FOR BOLT DIA. AND TORQUE.
NOTE: ASSEMBLE SIGN POST TO STUB POST USING THE BOLTS SPEC. IN THE TABLE AND AS SHOWN IN THE ELEVATION DETAILS. THERE SHALL BE THREE FLAT WASHERS ON EACH BOLT LOCATED AS SHOWN IN THE ELEVATIONS. USE A SHIM TO PLUMB THE SIGN POST. THEN TIGHTEN THE BOLTS USING A 12" TO 15" WRENCH UNTIL THE WASHERS AND SHIMS ARE SEATED AND THE BOLT THREADS ARE CLEAR, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE (SEE TABLE). THE BURR THREADS ADJACENT TO THE BACK SIDE OF THE NUT TO PREVENT LOOSENING.

SIGN POST AND STUB POST

GENERAL NOTES

TIGHTEN THE HIGH STRENGTH BOLTS IN THE BASE CONNECTION ONLY TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.

BASE PLATES AND STIFFENER PLATES SHALL BE OF THE SAME MATERIAL AS THE PRIMARY SUPPORT POSTS WHICH THEY ARE WELDED.

FOR FOOTING DETAILS REFER TO PLANS.

EACH STUB POST AND SIGN POST SHALL HAVE A PERMANENT IDENTIFYING STAMP WHICH SPECIFIES THE STEEL SECTION USED. IF THE CONTRACTOR ELECTS TO SHIP THE STUB POST SEPARATE FROM THE SIGN POST A MATCH MARK SYSTEM WILL BE REQUIRED.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

DATE	REVISION	FILMED
	REDRAWN	

signpost.d01

DETAILS OF I-BEAM SIGN SUPPORTS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					ARK.			
				JOB NO.		R60080	316	609

TYPICAL GUARDRAIL WIDENING (SIGN)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 5248
LEONARD HALL

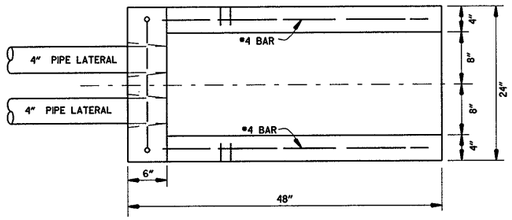
NOTE:

REFER TO GUARDRAIL DETAILS GR-8, GR-8A, GR-9, GR-10A AND GRT-1 FOR THE INSTALLATION REQUIREMENTS OF GUARDRAIL.

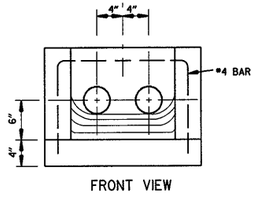
MINERAL AGGREGATE 94.4%
ASPHALT BINDER (PG 64-22) 5.6%
NMAX = 115

UNCLASSIFIED EXCAVATION AND COMPACTED EMBANKMENT SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE OTHER ITEM IN THE CONTRACT.

ADJUSTING AND EXTENDING UNDERDRAIN OUTLET PROTECTORS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE OTHER ITEM IN THE CONTRACT.

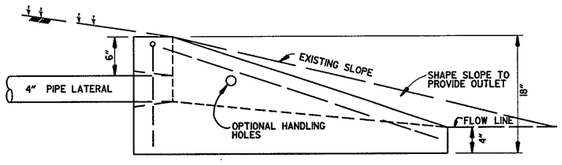


PLAN VIEW



FRONT VIEW

PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.



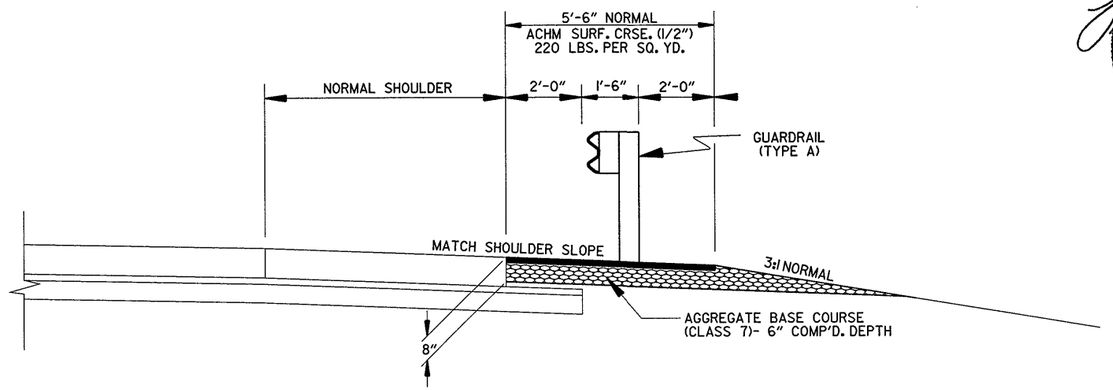
SIDE VIEW

UNDERDRAIN OUTLET PROTECTORS

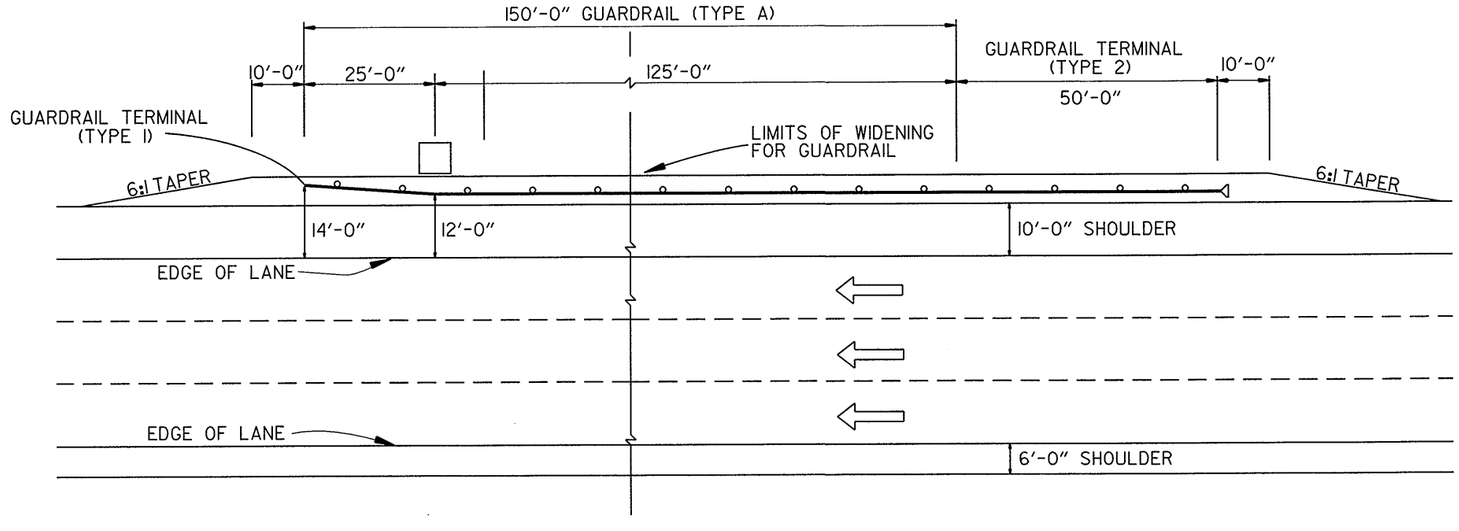
NOTE:

1. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO OTHER ITEMS IN THE CONTRACT.

2. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



TYPICAL SECTION OF WIDENING FOR GUARDRAIL



TYPICAL LAYOUT OF GUARDRAIL ALONG ROADWAY

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.		R60080	317	609
				①	07051 - LAYOUT-WOODRUFF - 47713			

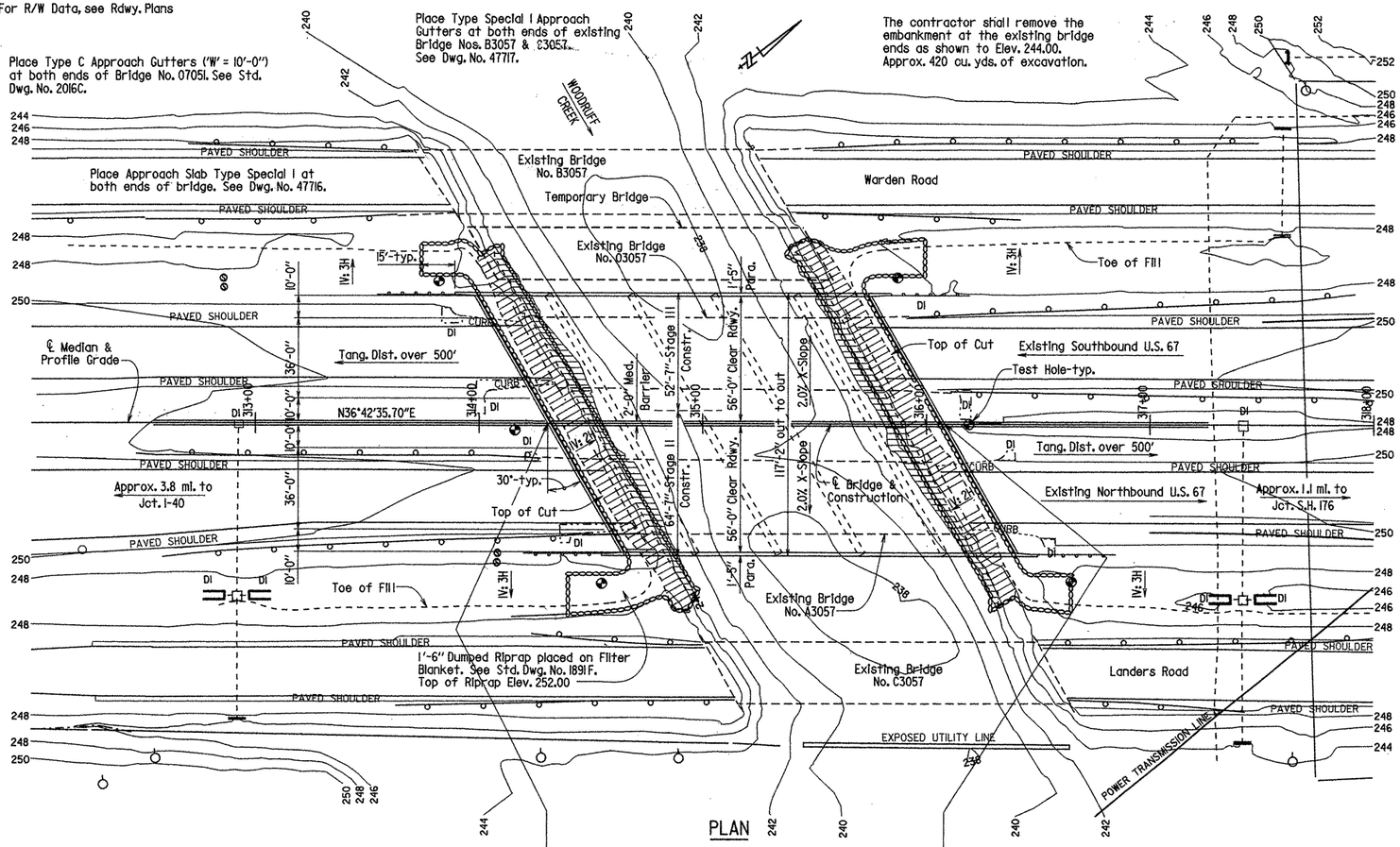
For R/W Data, see Rdwy. Plans

Place Type C Approach Gutters ('W' = 10'-0") at both ends of Bridge No. 07051. See Std. Dwg. No. 2016C.

Place Type Special I Approach Gutters at both ends of existing Bridge Nos. B3057 & C3057. See Dwg. No. 47717.

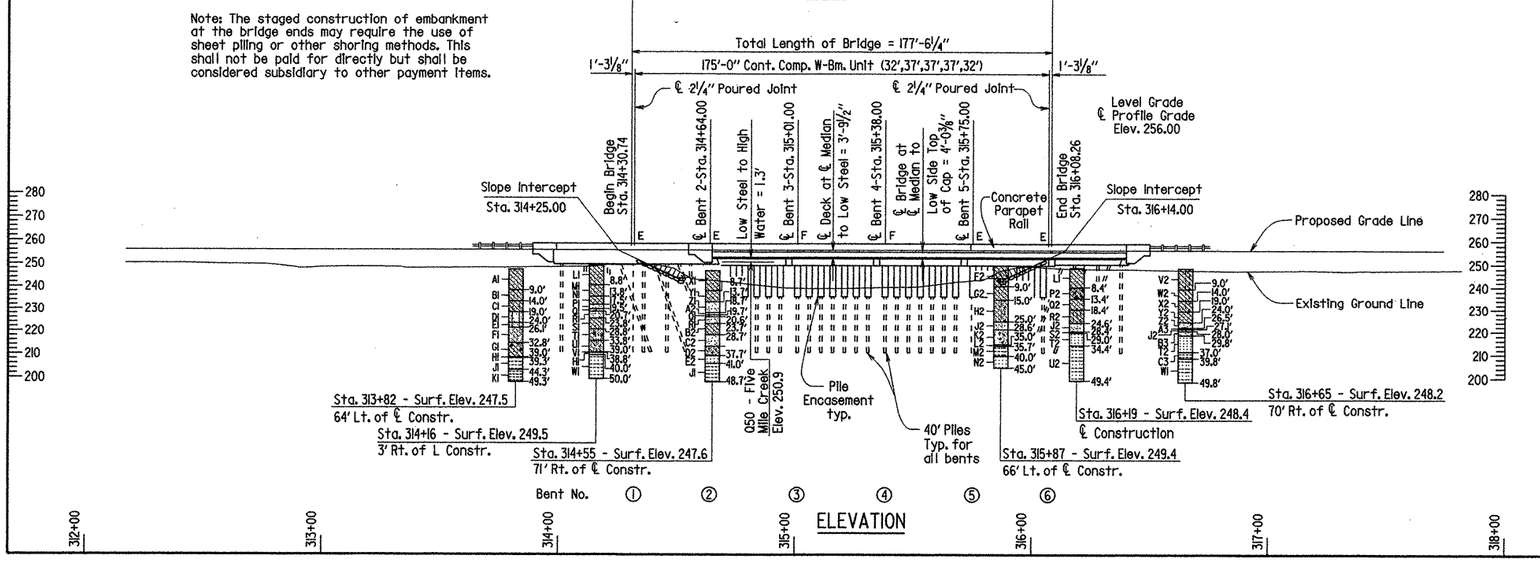
The contractor shall remove the embankment at the existing bridge ends as shown to Elev. 244.00. Approx. 420 cu. yds. of excavation.

Place Approach Slab Type Special I at both ends of bridge. See Dwg. No. 47716.



PLAN

Note: The staged construction of embankment at the bridge ends may require the use of sheet piling or other shoring methods. This shall not be paid for directly but shall be considered subsidiary to other payment items.



ELEVATION

HYDRAULIC DATA

FLOOD DESCRIPTION	FREQUENCY	DISCHARGE	*NATURAL WATER SURFACE ELEVATION	WATER SURFACE ELEV. WITH BACKWATER	**WATER SURFACE ELEV.-FIVE MILE CREEK
	YEARS	CFS	FEET	FEET	FEET
Design	50	4010	250.2	250.6	250.9
Base	100	4480	250.6	251.0	251.3
Extreme	500	5370	251.3	252.0	252.3
Overtopping	>500	-	-	-	N.A.

*Unconstricted water surface without structure or rdwy. approaches. Drainage area = 8.0 square miles. Historical H.W. Elev. = 250.0 ft.

**Bridge backwater is controlled by the backwater of Five Mile Creek

For General Notes and Soil Boring Data, See Dwg. No. 47714

STATE OF ARKANSAS No. 1337 REGISTERED PROFESSIONAL ENGINEER 8/3/05 CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 1 OF 2
LAYOUT OF BRIDGE OVER WOODRUFF CREEK
I-40 - McCAIN BLVD. & WILDWOOD-KIEHL AVE. (F)
PULASKI COUNTY
ROUTE 67 SEC. 10

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 2-11-05 FILENAME: br60080x1_III.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: 1" = 30'
DESIGNED BY: MAH DATE: Feb. 05

BRIDGE NO. 07051 DRAWING NO. 47713

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.		R60080	31	203
				①	07051 - LAYOUT-WOODRUFF - 47714			

GENERAL NOTES

BENCH MARK: Square cut in NE corner of bridge, 127.76' right of Sta. 316+67.67, Elev. 250.40

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, (2003 edition) with applicable supplemental specifications and special provisions. Section and Subsection refer to the Standard Construction Specification unless otherwise noted in the plans.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, (2002 Edition).

LIVE LOADING: HS20 + Military METHOD OF DESIGN: Load Factor

SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)	f'c = 4,000 psi.
Class S Concrete (substructure)	f'c = 3,500 psi.
Reinforcing Steel(AASHTO M31 or M53, Gr. 60)	fy = 60,000 psi.
Structural Steel (AASHTO M270, Gr. 36)	Fy = 36,000 psi.
Structural Steel (AASHTO M270, Gr. 50W)	Fy = 50,000 psi.

BORING LOGS: Boring logs may be obtained from the Programs and Contracts Division.

STEEL PILING: All piling shall be HP12x53 and shall be driven with an approved air, steam or diesel hammer to a minimum safe bearing capacity of 55 tons per pile and into the material designated as hard shale or hard limestone on the boring legend. Lengths shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with the specifications. Piles in end bents to be driven after embankment to bottom of cap is in place. On all piles the contractor shall use approved steel H-Pile driving points. Actual pile lengths to be determined in the field.

Pile encasement for Bents 2 - 5 shall be placed a minimum of 3 ft. into existing ground and poured to the bottom of the caps. See Std. Dwg. No. 14995A.

BRIDGE DECK: The concrete bridge deck shall be given a tine finish as specified for final finishing in Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

SURFACE TREATMENT: Class I Protective Surface treatment shall be applied to the roadway surface and to the face and top of the concrete parapet rail.

TEXTURED COATING FINISH: Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in SP Job R60080 "Textured Coating Finish" and in accordance with Subsection 802.19. Textured Coating Finish shall not be applied on surfaces where Class I Protective Surface Treatment is applied.

DETAIL DRAWINGS:

Stage Construction Sequence	47715
Approach Slabs Type Special	47716
Type Special I Approach Gutter	47717
End Bents	47718 - 47721, 47724 - 47727
Intermediate Bents	47722 & 47723
175' Cont. Comp. W-Beam Unit	47728 - 47734
Details of Joints	47735
Type C Approach Gutters	2016C
Steel Piling	14995A

REMOVAL AND SALVAGE: The existing Br. Nos. 03057 & A3057 shall be removed in accordance with Section 205. All material from the existing bridge shall become the property of the Contractor.

EXISTING BRIDGE: The existing bridge nos. 03057 & A3057 are 150' long and 33.5' wide and consist of six 25' R.C. Slab Spans with concrete pile bents.

TEMPORARY BRIDGE: Construct a temporary bridge approximately 71' upstream from centerline of median with a minimum low chord elevation of 248.50. See roadway plans for actual detour grade and alignment. The temporary bridge shall be a minimum of 150' long with minimum span lengths of 25', a minimum roadway width of 24', and a minimum live load capacity of HS20. See Section 603 and drawing numbers 15202, 15230, 15240, 15241 and GR-10 for details used for this temporary bridge. The contractor may submit an optional design as specified in Section 603.

All piling in the temporary bridge shall be in accordance with the requirements of Subsections 805.03 through 807.06, using method A, Empirical Pile Formula. Painting of steel piles will not be required.

MAINTENANCE OF TRAFFIC: See Roadway Plans.

BORING LEGEND

A1-Moist, Medium Stiff, Brown Sandy Clay
B1-Moist, Soft, Reddish Brown Sandy Clay
C1-Moist, Very Soft, Reddish Brown and Gray Sandy, Silty Clay with some Organic Matter
D1-Wet, Very Loose, Gray Sandy Silt
E1-Wet, Loose, Gray Sandy Silt with Traces of Clay and Gravel
F1-Moist, Dense, Dark Gray Sand with Clay Seams
G1-Moist, Very Hard, Dark Gray Sandy Clay with Lignite
H1-Moist, Very Dense, Gray Sand
J1-Hard, Dark Gray Shale with Gray Sandstone Seams
K1-Hard, Dark Gray Shale with some Thin Gray Sandstone Seams
L1-Moist, Stiff, Reddish Brown Sandy Clay
M1-Moist, Soft, Brown and Gray Sandy Clay
N1-Moist, Very Soft, Gray and Brown Clay with Sand Seams and some Organic Matter
P1-Wet, Medium Dense, Gray Sand with some Gravel
Q1-Wet, Medium Dense, Gray Sand and Gravel
R1-Wet, Medium Dense, Gray Sand
S1-Moist, Very Stiff, Dark Gray Sandy Clay
T1-Wet, Dense, Dark Gray Sand with Clay Seams and Lignite
U1-Wet, Dense, Gray Silty Sand with Clay Seams
V1-Moist, Hard, Gray Clay
W1-Alternating Layers of Hard, Dark Gray Shale and Hard, Gray Sandstone
X1-Moist, Very Soft, Brown Sandy Clay
Y1-Moist, Soft, Brown Sandy Clay
Z1-Wet, Loose, Gray Sand
A2-Wet, Medium Dense, Gray Sand with Traces of Gravel
B2-Moist, Hard, Gray Clay with Sand Seams
C2-Moist, Dense, Dark Gray Sand
D2-Moist, Dense, Gray Silty Sand with Dark Gray Clay Seams
E2-Hard, Gray Sandstone
F2-Moist, Medium Stiff, Reddish Brown and Gray Sandy Clay
G2-Moist, Very Soft, Reddish Brown and Gray Sandy Clay
H2-Wet, Very Loose, Gray Silty Sand with Clay Seams
J2-Wet, Very Loose, Gray Sand
K2-Wet, Very Dense to Dense, Gray Sand and Gravel
L2-Hard, Gray Cemented Sand
M2-Hard, Dark Gray Shale with Weathered Shale and Gray Sandstone Seams
N2-Hard, Gray Sandstone with Dark Gray Shale Seams
P2-Wet, Very Soft, Brown Sandy, Silty Clay with Gravel
Q2-Moist, Soft, Gray and Brown Sandy Clay
R2-Wet, Very Soft, Gray Sandy, Silty Clay
S2-Wet, Medium Dense, Dark Gray Sand
T2-Medium Hard, Gray Cemented Sand
U2-Hard, Dark Gray Shale interbedded with Hard, Gray Sandstone
V2-Moist, Medium Stiff, Brown and Gray Sandy, Silty Clay
W2-Moist, Soft, Reddish Brown and Gray Silty Clay
X2-Wet, Very Soft, Brown and Gray Sandy, Silty Clay with some Organic Matter
Y2-Wet, Very Soft, Gray Clay with Sand
Z2-Wet, Very Loose, Dark Gray Sand with Organic Matter (Wood)
A3-Wet, Very Loose, Gray Sand and Gravel
B3-Moist, Very Dense, Gray Sand with Thin Cemented Sand Seams
C3-Hard, Dark Gray Shale with some Gray Sandstone Seams

"N" VALUES

Sta. 313+82 - 64' Lt. of ℄ Construction
4.5- 5.5, N=5
9.5- 10.5, N=3
14.5- 15.5, N=1
19.5- 20.5, N=0
24.5- 25.5, N=8
29.5- 30.5, N=32
34.5- 35.2, N=77(9'')
39.0- 39.2, N=60(3'')

Sta. 314+16 - 3' Rt. of ℄ Construction
4.3- 5.3, N=13
9.3- 10.3, N=3
14.3- 15.3, N=1
19.3- 20.3, N=13
24.3- 25.3, N=18
29.3- 30.3, N=33
34.3- 35.3, N=42
38.8- 39.1, N=60(4'')

Sta. 314+55 - 71' Rt. of ℄ Construction
4.2- 5.2, N=1
9.2- 10.2, N=3
14.2- 15.2, N=5
19.2- 20.2, N=26
24.2- 25.2, N=60
29.2- 30.2, N=46
34.2- 35.2, N=40
38.7- 38.7, N=60(0.1'')

Sta. 315+87 - 66' Lt. of ℄ Construction
4.5- 5.5, N=6
9.5- 10.5, N=2
15.5- 16.5, N=0
20.5- 21.5, N=0
25.5- 26.5, N=1
30.0- 30.4, N=60(5'')

Sta. 316+19 - ℄ Construction
3.9- 4.9, N=12
8.9- 9.9, N=0
13.9- 14.9, N=2
18.9- 19.9, N=1
23.9- 24.9, N=1
28.9- 29.1, N=60(3'')

Sta. 316+65 - 70' Rt. of ℄ Construction
4.5- 5.5, N=6
9.5- 10.5, N=4
14.5- 15.5, N=1
19.5- 20.5, N=0
24.5- 25.5, N=1
29.0- 29.2, N=60(2'')

STATE OF ARKANSAS
CHARLES P. BRAND
No. 4337
REGISTERED PROFESSIONAL ENGINEER
5/3/05

BRIDGE ENGINEER

SHEET 2 OF 2
LAYOUT OF BRIDGE OVER
WOODRUFF CREEK
I-40 - McCAIN BLVD. &
WILDWOOD-KIEHL AVE. (F)
PULASKI COUNTY
ROUTE 67 SEC. 10

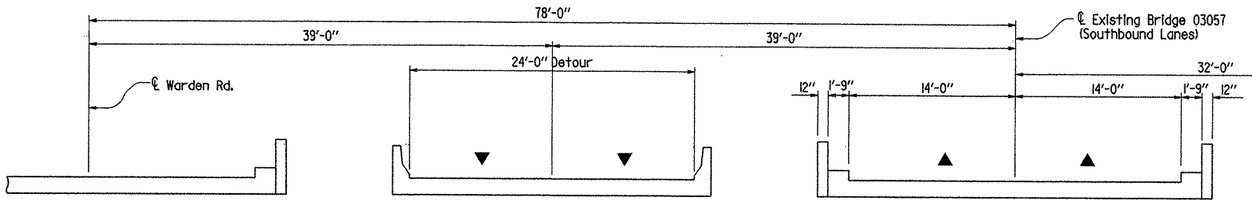
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

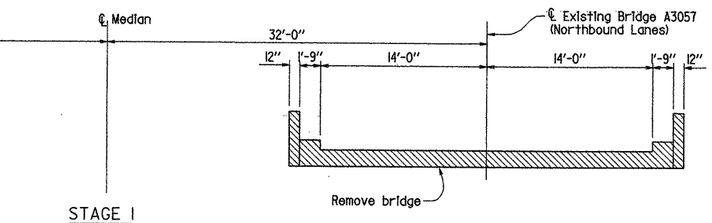
DRAWN BY: KDH DATE: 2-11-05 FILENAME: br60080x1_112.dgn
CHECKED BY: CAB DATE: 02-05 SCALE: 1" = 30'
DESIGNED BY: MAH DATE: Feb.05

BRIDGE NO. 07051 DRAWING NO. 47714

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.		R60080	21	63
				(1)		07051 - STAGE CONSTR. - 47715		

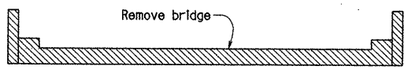
(1) Construct temporary bridge.
(2) Move southbound traffic to detour.
(3) Move northbound traffic to Existing Bridge 03057
(4) Remove Bridge A3057.

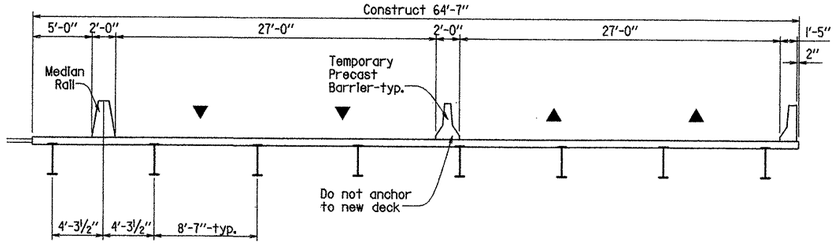




STAGE I

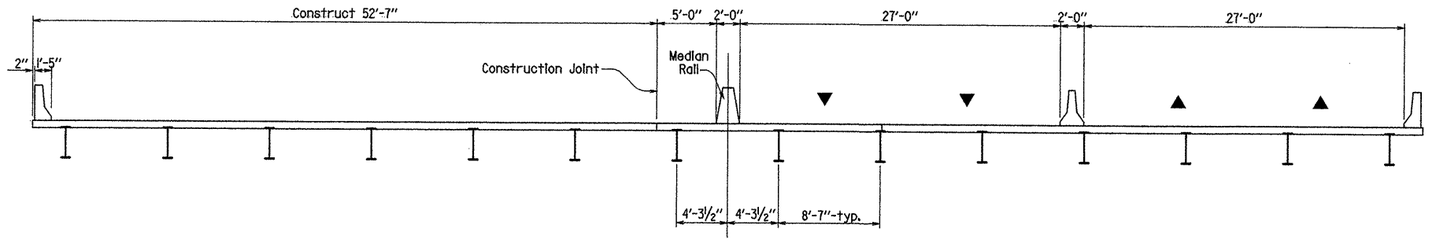
(1) Construct 64'-7" section
(2) Place temporary barriers on new construction
(3) Move northbound and southbound traffic to Stage II construction
(4) Remove existing Bridge 03057.





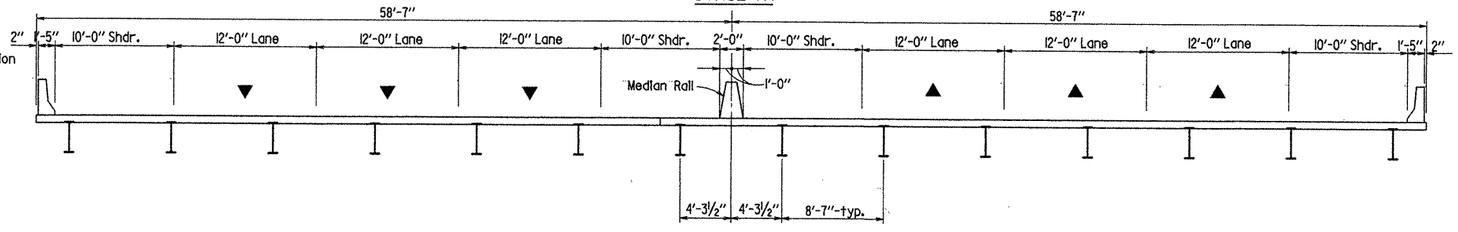
STAGE II

(1) Construct a 52'-7" section.



STAGE III

(1) Move southbound traffic to Stage III Construction
(2) Remove temporary barriers



STAGE IV

Note:

All sections are looking ahead.

For details of temporary precast barrier, see Std. Dwg. No. TC-4

▼ Indicates direction of southbound traffic

▲ Indicates direction of northbound traffic

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9337
5/3/05
CHARLES P. BRAND

BRIDGE ENGINEER

STAGE CONSTRUCTION SEQUENCE
WOODRUFF CREEK
I-40 - McCAIN BLVD. & WILDWOOD-KIEHL AVE. (F)
PULASKI COUNTY

ROUTE 67 SEC. 10

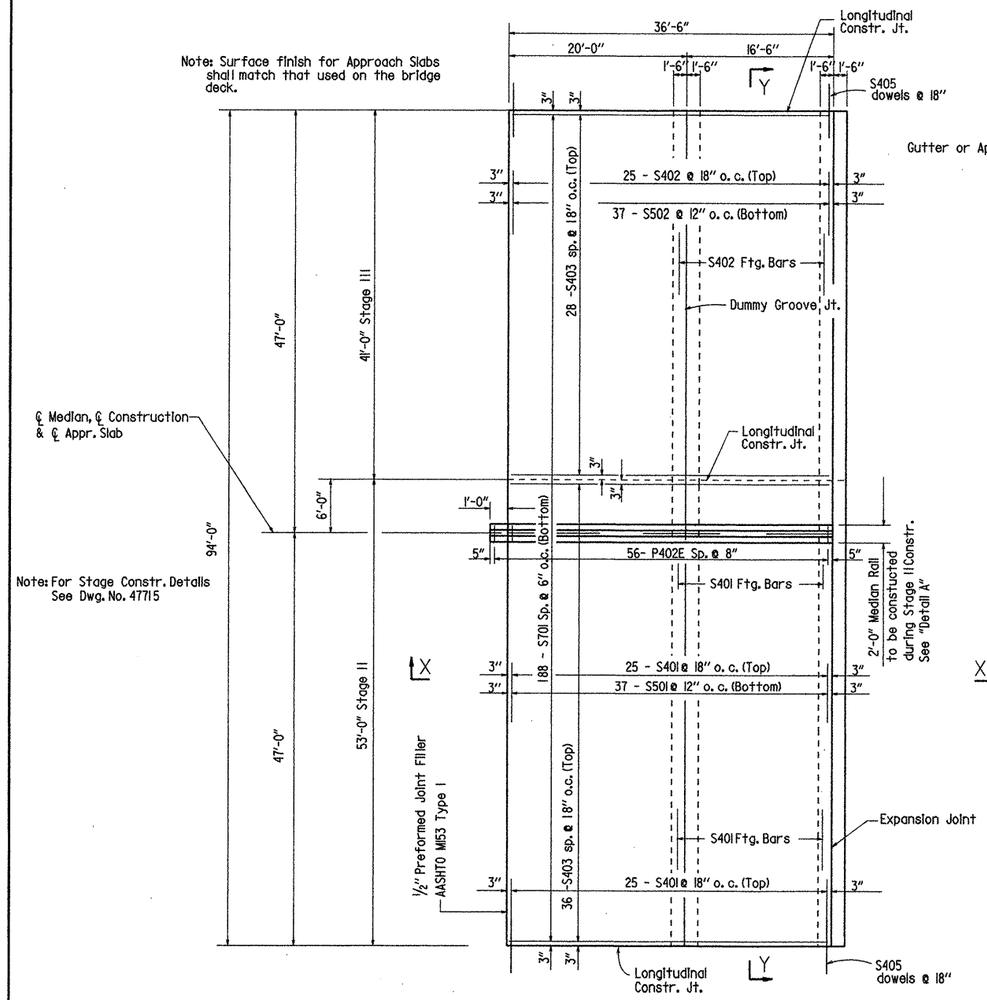
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 3-31-05 FILENAME: br60080xl_stg.dgn
CHECKED BY: CAS DATE: 07-05 SCALE: NONE
DESIGNED BY: MAH DATE: Feb 05

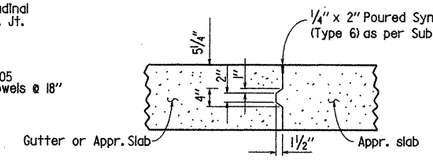
BRIDGE NO. 07051 DRAWING NO. 47715

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.		R60080	328	609
				1	07051	APPR. SLAB TYPE SPECIAL		47716



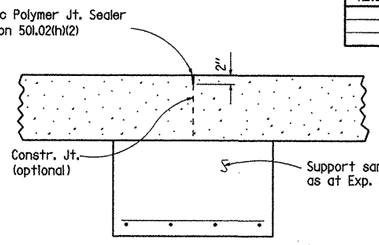
PLAN - APPROACH SLAB

(Shown at End of Br., Slab at Beg of Br. Similar)
No Scale



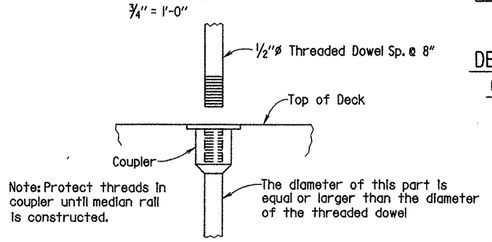
DETAILS OF LONGITUDINAL CONSTRUCTION JOINT

¾" = 1'-0"



DETAILS OF DUMMY GROOVED JOINT

¾" = 1'-0"



THREADED DOWEL AND COUPLER ASSEMBLY

No Scale

Notes:

Threaded Dowel and Coupler Assembly shall be of an approved type and shall develop in tension at the point of splicing at least 125 percent of the yield strength of the dowel bar.

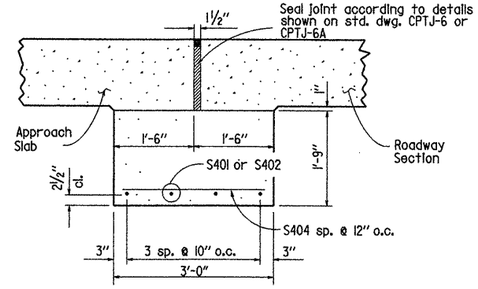
Dowel bars shall be of minimum 60 ksi yield strength and threaded as required.

Threaded Dowel and Coupler Assembly, except mating surfaces, shall be epoxy coated in accordance with the requirements of reinf. bars.

Threaded Dowel and Coupler Assembly shall be considered subsidiary to the Item "Reinforcing Steel".

TABLE OF QUANTITIES FOR ONE SQUARE TYPE SPECIAL APPROACH SLAB

Slab Width	Reinforcing Steel	Epoxy Coated Reinforcing Steel	Concrete (Cu. Yds.)
94'-0"	22,261 lbs.	542 lbs.	199.00

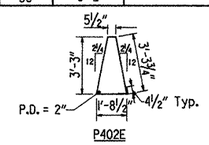


DETAILS OF SUPORT AT EXPANSION JOINT

¾" = 1'-0"

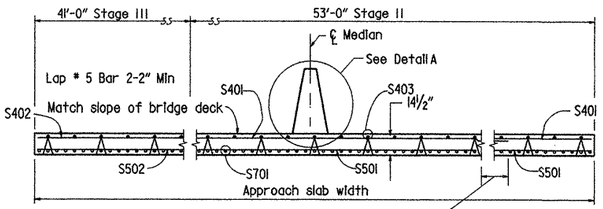
BAR LIST PER SLAB

Mark	No. Req'd.	Length	
		Square	Skewed
S401	66	28'-2"	28'-2" (secant skew angle)
S402	33	40'-10"	40'-10" (secant skew angle)
S403	64	36'-2"	
S404	188	2'-8"	
S405	50	3'-0"	
S501	37	55'-0"	55'-0" (secant skew angle)
S502	37	40'-10"	40'-10" (secant skew angle)
S701	188	36'-2"	
* P401E	8	37'-2"	
* P402E	56	9'-2"	



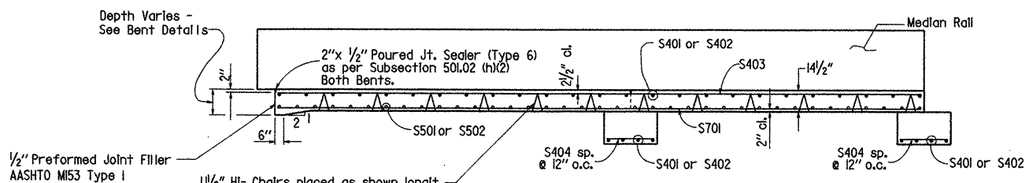
P402E

Note: Bars marked with an "E" suffix shall be epoxy coated. Dimensions are out to out of bars.



SECTION Y - Y

No Scale



SECTION X - X

No Scale

DETAIL A

No Scale

GENERAL NOTES

Concrete shall be Class S (AE) (f'c = 4,000 psi).

Reinforcement Steel shall conform to AASHTO M31 or M53, Grade 60 (fy = 60,000 psi).

Approach Slabs will be measured and paid for in accordance with Section 504 of the Standard Specifications.

This drawing to be used with Dwg. No. 2016C.

Details shown for a square approach slab, skewed approach slab is similar.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
8/31/05
CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF APPROACH SLAB TYPE SPECIAL

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: MAH DATE: 7-12-05 FILENAME: br60080asl.dgn

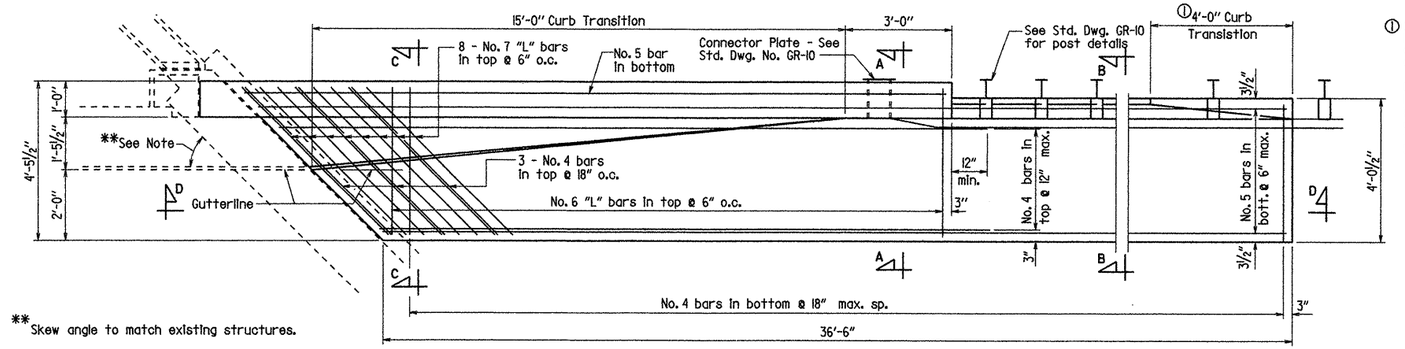
CHECKED BY: KWY DATE: 8-3-05 SCALE: AS SHOWN

DESIGNED BY: STD. DATE:

BRIDGE NO. 07051 DRAWING NO. 47716

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.		R60080	22	60

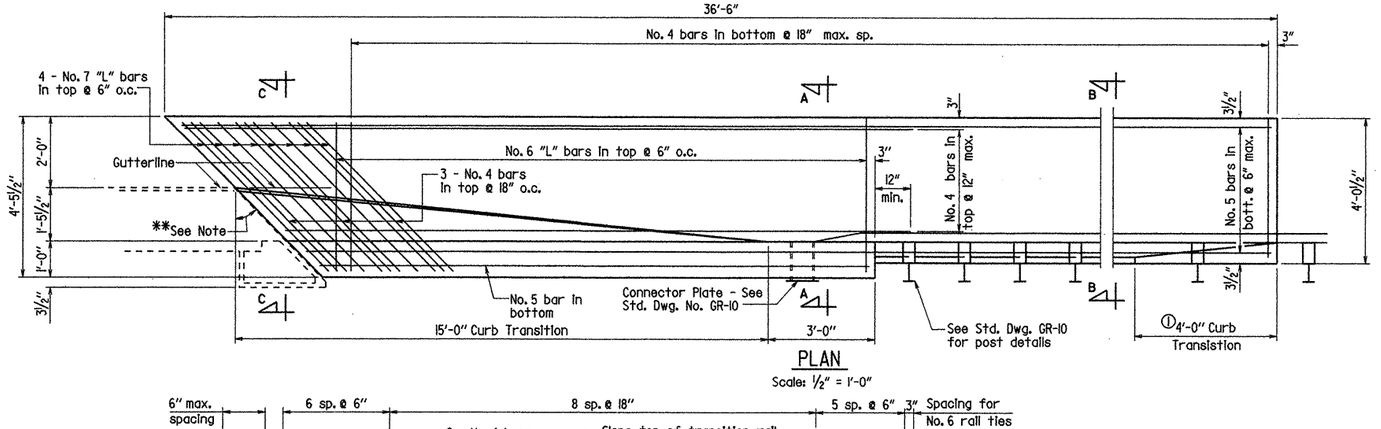
① B&C3057 - APPROACH GUTTER - 47717



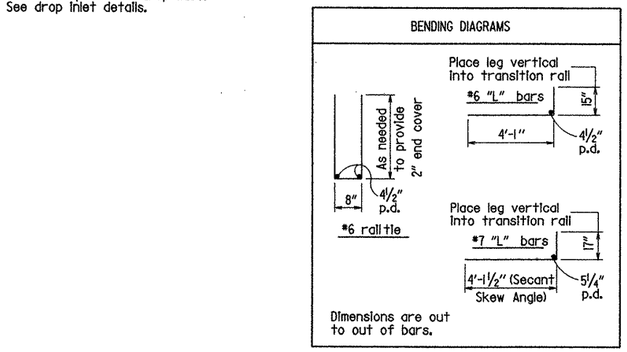
① Construct gutter curb with height-transition as shown if drop inlet is not placed at end of gutter.

Construct gutter curb full height (no height-transition) if drop inlet is placed at end of gutter. Curb height transition placed on drop inlet. See drop inlet details.

**Skew angle to match existing structures.

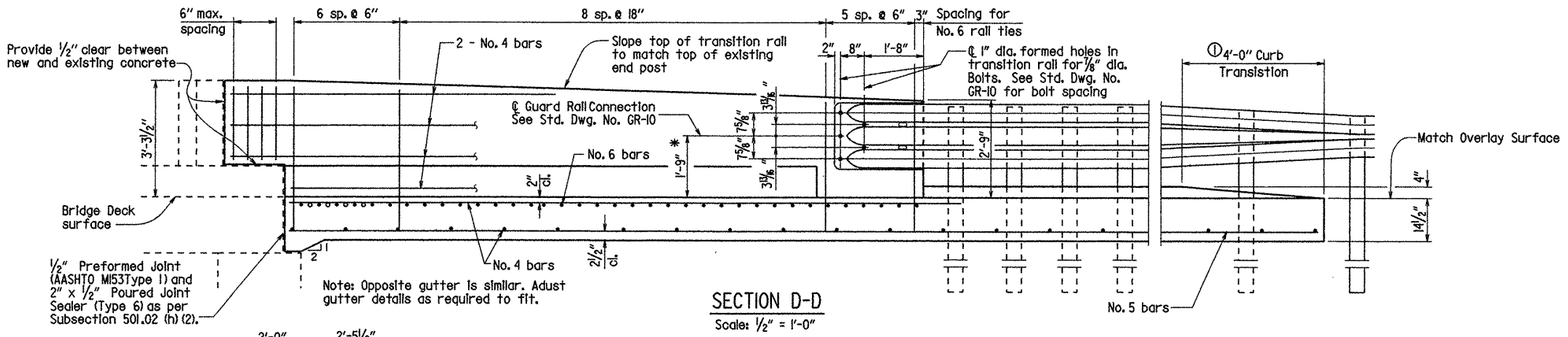


PLAN
Scale: ½" = 1'-0"

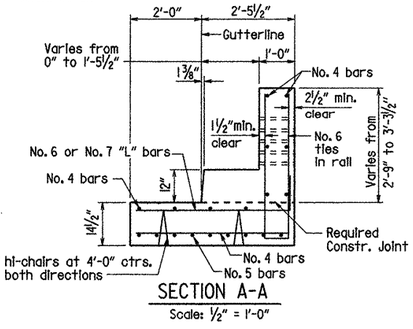


APPROXIMATE QUANTITIES FOR ONE PAIR OF APPROACH GUTTERS

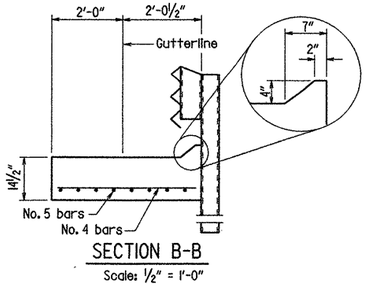
Concrete	Reinforcing Steel
19.10 cu. yds.	2000 lbs.



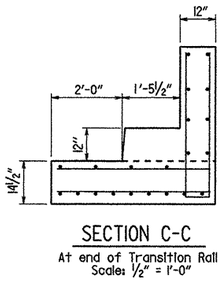
SECTION D-D
Scale: ½" = 1'-0"



SECTION A-A
Scale: ½" = 1'-0"



SECTION B-B
Scale: ½" = 1'-0"



SECTION C-C
At end of Transition Rail
Scale: ½" = 1'-0"

GENERAL NOTES

Concrete shall be Class S or S(AE) or mixture used for Portland Cement Concrete Pavement.

Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (fy = 60,000 psi.) Fabricate bar lengths to provide 2" minimum cover at each end.

Approach gutters will be measured and paid for in accordance with Section 504 of the Standard Specifications.

* Construct bridge guard rail transition such that C.L. Guard Rail Connection is 1'-9" above overlay surface. Bottom of footings shall be set 14½" below overlay surface.

NOTE: The contractor shall make check measurements and make any adjustments necessary to fit the new work to the existing bridge location.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
2/3/05
CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF TYPE SPECIAL I APPROACH GUTTER

ROUTE SEC.

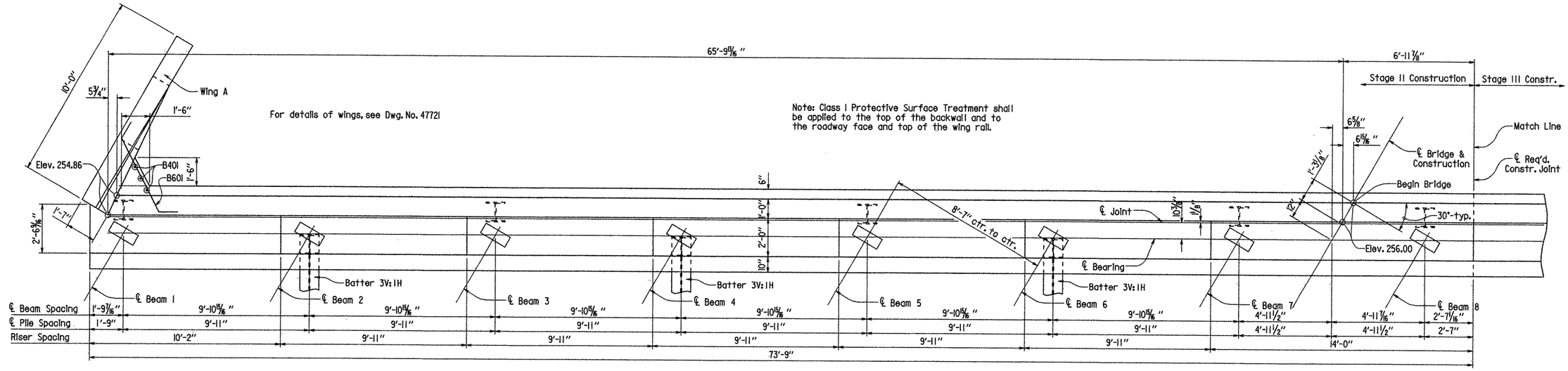
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 7-12-05 FILENAME: br60080_gl.dgn
CHECKED BY: KW DATE: 8-2-05 SCALE: AS NOTED
DESIGNED BY: STD. DATE:

BRIDGE NO. B&C3057 DRAWING NO. 47717

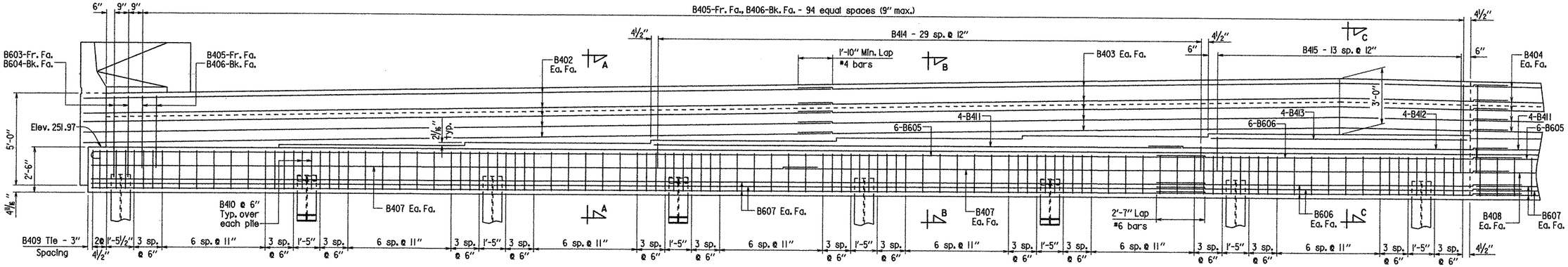
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	32	60
				07051-		BENT NO. 1 - 47718		



PLAN

Stage II Construction
Scale: 3/8" = 1'-0"

Note: For Stage III Construction, see Dwg. No. 47719



ELEVATION

Stage II Construction
Looking Back
Scale: 3/8" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4937
2/3/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 1 OF 4
DETAILS OF BENT 1
WOODRUFF CREEK

ROUTE SEC.

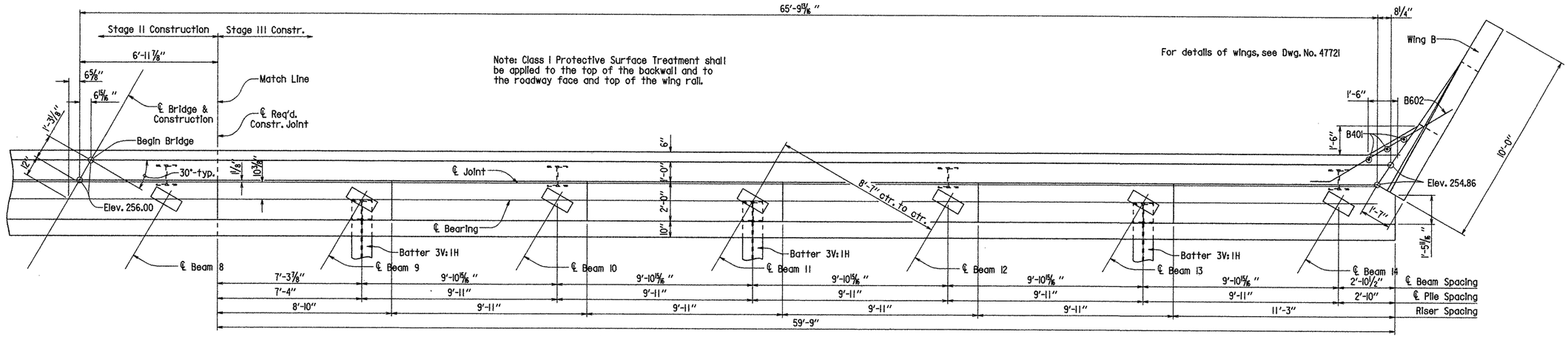
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-25-05 FILENAME: br60080xl_bll.dgn
CHECKED BY: JWD DATE: 7-05 SCALE: AS NOTED
DESIGNED BY: MAH DATE: Feb. 05

BRIDGE NO. 07051 DRAWING NO. 47718

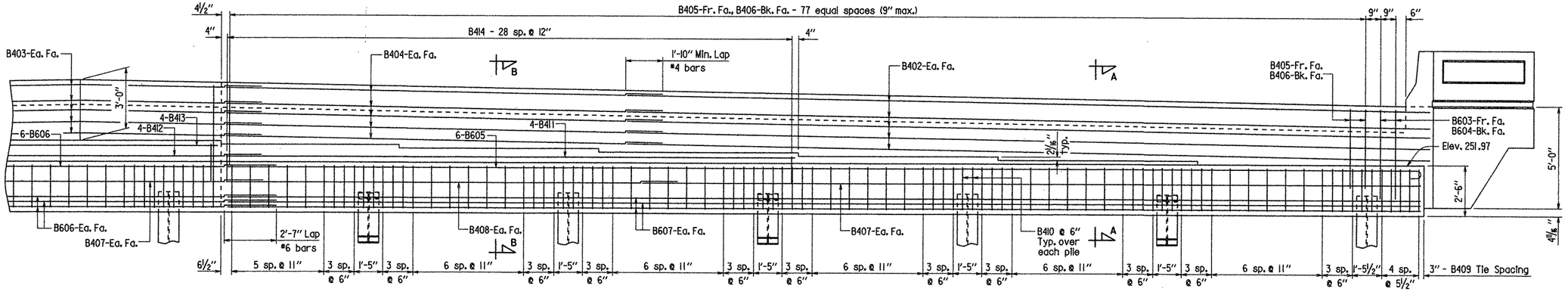
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	32	68
				07051 - BENT NO. 1 - 47719				



Note: For Stage II Construction, see Dwg. No. 47718

PLAN

Stage III Construction
Scale: 3/8" = 1'-0"



ELEVATION

Stage III Construction
Looking Back
Scale: 3/8" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13705
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 2 OF 4
DETAILS OF BENT 1
WOODRUFF CREEK

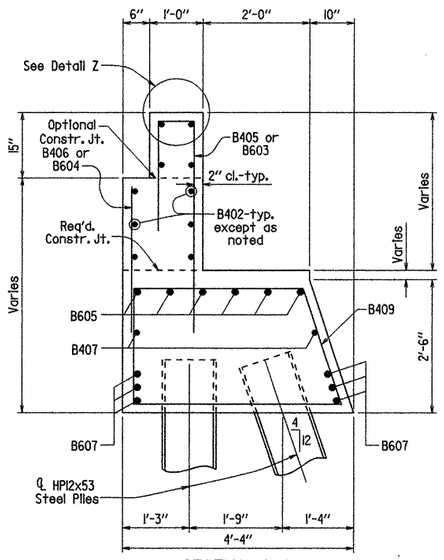
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-25-05 FILENAME: br60080xl_bl2.dgn
CHECKED BY: JWD DATE: 7-25-05 SCALE: AS NOTED
DESIGNED BY: MAH DATE: Feb 05

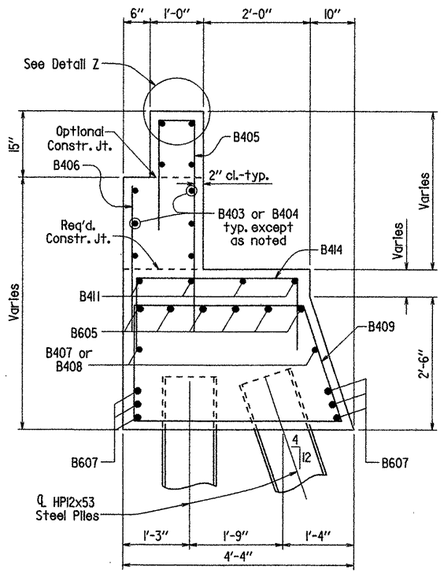
BRIDGE NO. 07051 DRAWING NO. 47719

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.		R60080	3A	4
				①	07051-	BENT NO. 1 - 47720		



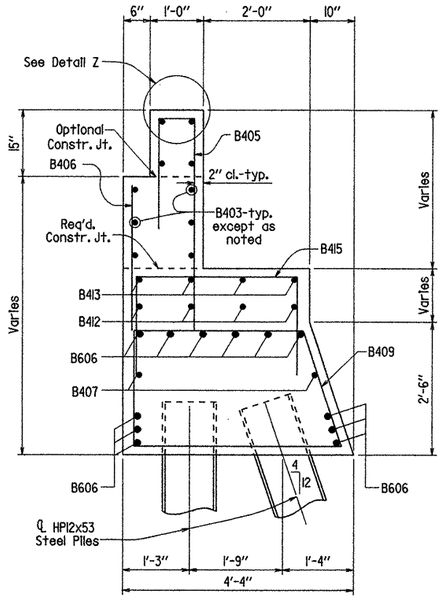
SECTION A-A

Scale: 3/4" = 1'-0"



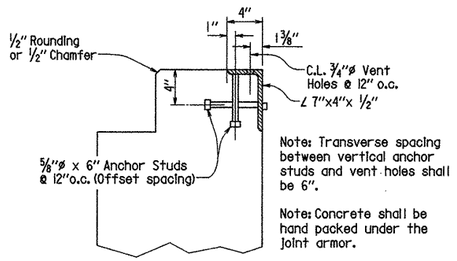
SECTION B-B

Scale: 3/4" = 1'-0"



SECTION C-C

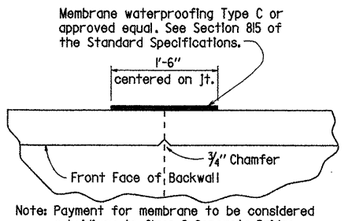
Scale: 3/4" = 1'-0"



Note: For additional joint details, see Dwg. No. 47735.

DETAIL Z

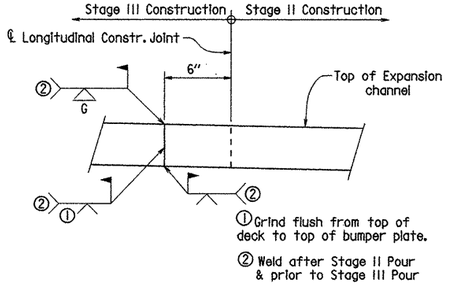
No Scale



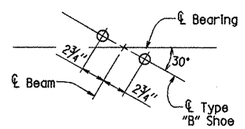
Note: Payment for membrane to be considered subsidiary to Class S Concrete-Bridge.

CONSTRUCTION JOINT DETAIL

No Scale



DETAIL OF WELD FOR EXPANSION DEVICE



TYP. ANCHOR BOLT LAYOUT

No Scale

GENERAL NOTES

All concrete shall be Class "S" and be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M 31 or M 53, Gr. 60.

Structural steel in end bents shall be AASHTO M270, Gr. 36 and shall be paid for as "Structural Steel in Beam Spans (M270-Gr. 50W)".

If anchor bolts are drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

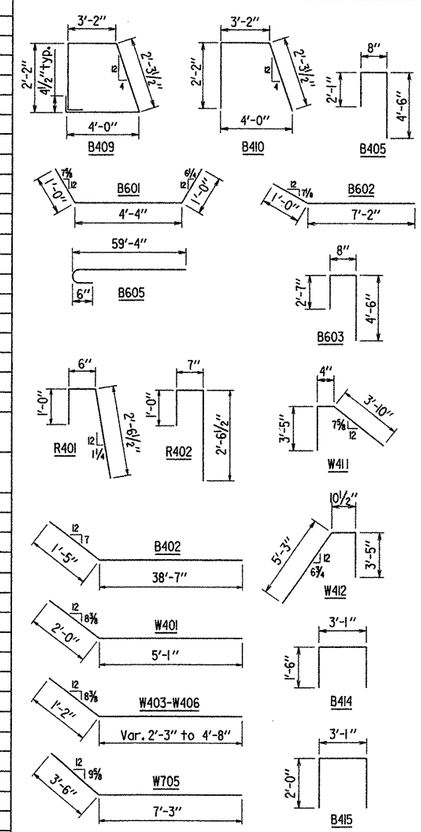
The backwall below the paving bracket shall not be poured before the beams are in place. The backwall above the paving bracked shall not be poured before the superstructure slab has been placed.

For additional information, See Layout.

BAR LIST

MARK	NO. REQ'D.	LENGTH	P.D.
B401	6	3'-5"	Str.
B402	20	40'-0"	2"
B403	10	38'-4"	Str.
B404	10	22'-7"	Str.
B405	173	7'-1"	2"
B406	173	3'-1"	Str.
B407	6	38'-10"	Str.
B408	2	23'-0"	Str.
B409	177	12'-0"	2"
B410	28	7'-6"	2"
B411	8	28'-4"	Str.
B412	4	19'-2"	Str.
B413	4	13'-8"	Str.
B414	59	5'-11"	2"
B415	14	6'-11"	2"
R401	8	3'-11"	2"
R402	8	4'-0"	2"
R403	12	9'-8"	Str.
W401	8	7'-1"	2"
W402	8	7'-5"	Str.
W403-W406	2 each	Var. 3'-5" to 5'-10"	2"
W407-W410	2 each	Var. 4'-7" to 7'-0"	Str.
W411	6	7'-6"	2"
W412	6	9'-5"	2"
B601	3	6'-4"	4 1/2"
B602	3	8'-2"	4 1/2"
B603	4	7'-5"	4 1/2"
B604	4	3'-7"	Str.
B605	12	60'-0"	4 1/2"
B606	12	19'-9"	Str.
B607	12	59'-5"	Str.
R601	20	4'-5"	Str.
R602	6	5'-0"	Str.
W701	12	9'-8"	Str.
W702	4	6'-5"	Str.
W703	4	5'-6"	Str.
W704	4	4'-6"	Str.
W705	4	10'-9"	5 1/4"

BENDING DIAGRAMS



Dimensions are out to out of bars.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4337 CHARLES P. BRAND 8/3/05

BRIDGE ENGINEER

SHEET 3 OF 4
DETAILS OF BENT NO. 1
WOODRUFF CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

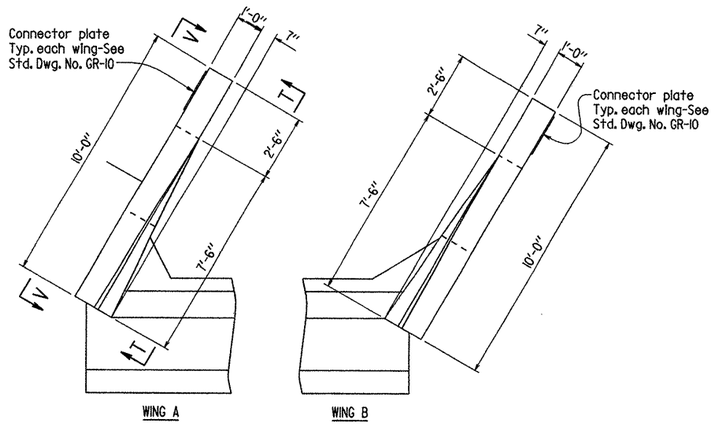
DRAWN BY: KDH DATE: 6-1-05 FILENAME: br60080x1_bl3.dgn

CHECKED BY: JWD DATE: 7-25-05 SCALE: AS NOTED

DESIGNED BY: MAH DATE: Feb. 05

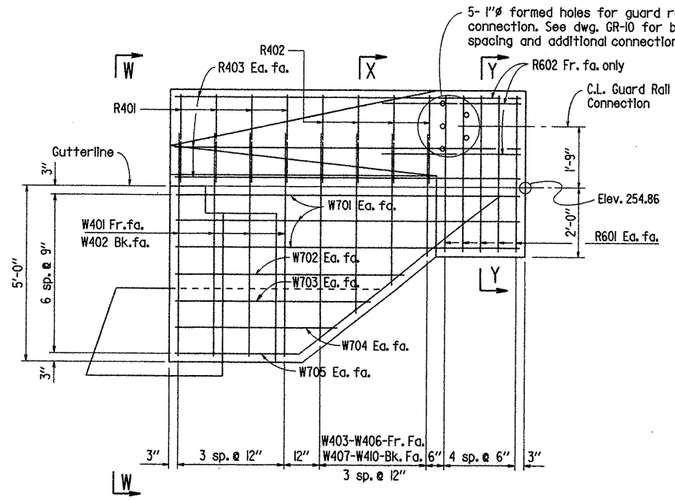
BRIDGE NO. 07015 DRAWING NO. 47720

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.		R60080	3715	69
				07051 - BENT NO. 1 - 47721				



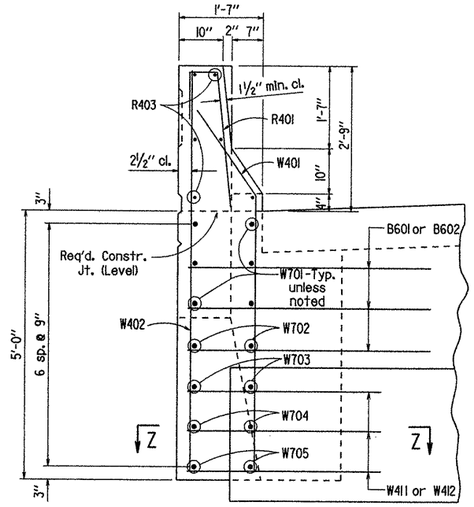
PLAN OF RAIL

Scale: 3/8" = 1'-0"



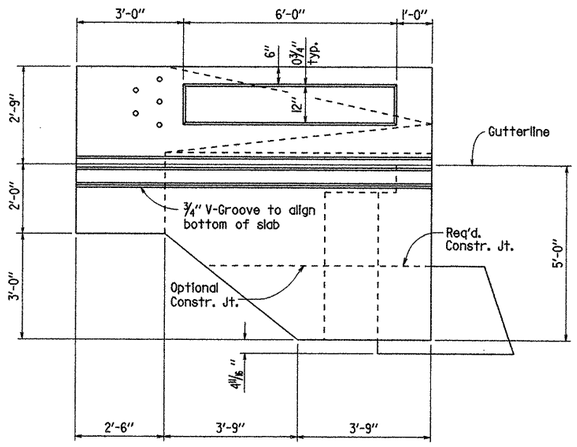
VIEW T-T

Scale: 1/2"= 1'-0"



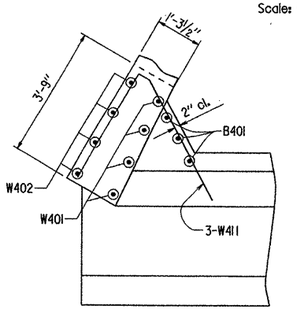
VIEW W-W

Scale: 3/4" = 1'-0"

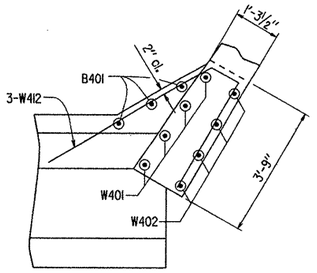


VIEW V-V

Scale: 1/2"= 1'-0"



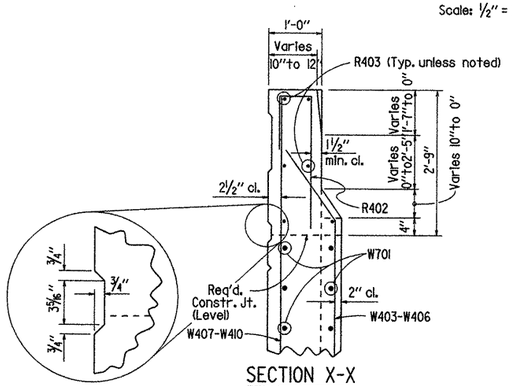
WING A



WING B

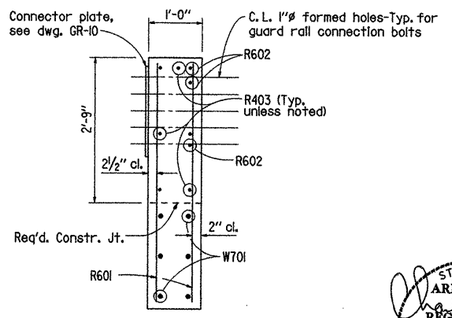
SECTION Z-Z

Scale: 1/2" = 1'-0"



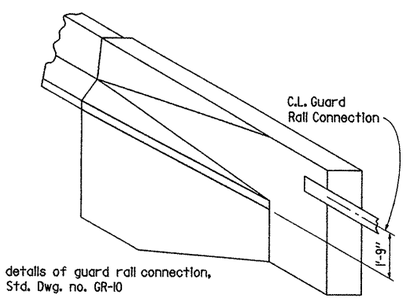
SECTION X-X

Scael: 3/4" = 1'-0"



SECTION Y-Y

Scale: 3/4"= 1'-0"



For details of guard rail connection,
See Std. Dwg. no. GR-10

THREE DIMENSIONAL VIEW OF RAIL

No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13337
5/6/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 4 OF 4
DETAILS OF BENT 1
WOODRUFF CREEK

ROUTE SEC.

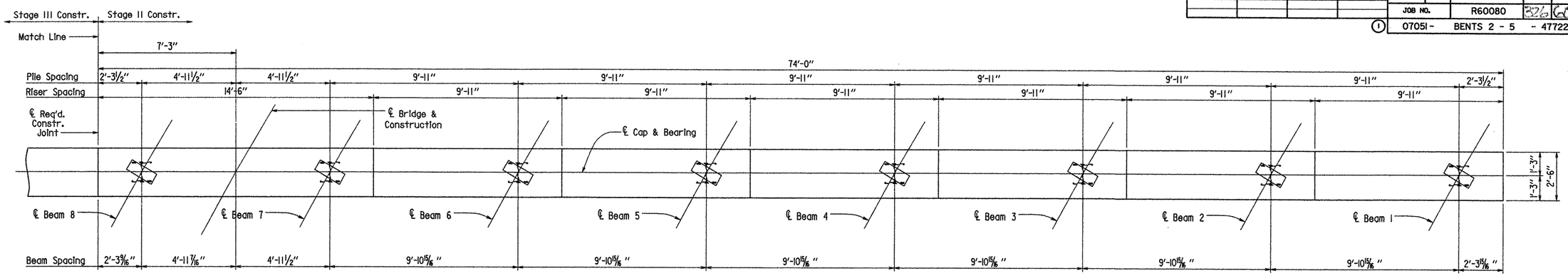
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 6-1-05 FILENAME: br60080x1_bl4.dgn
CHECKED BY: JWD DATE: 7-25-05 SCALE: AS NOTED
DESIGNED BY: MAH DATE: 2-6-05

BRIDGE NO. 07051 DRAWING NO. 47721

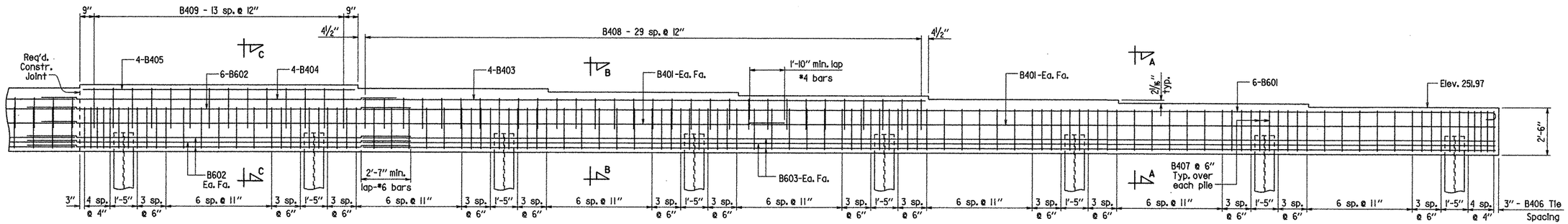
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	326	659
				① 07051-		BENTS 2 - 5 - 47722		



PLAN

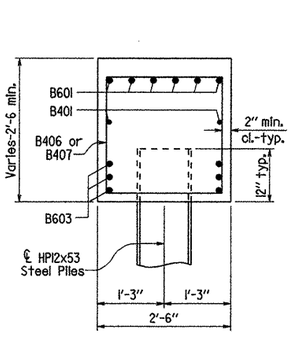
Scale: ⅜" = 1'-0"

Note: For Stage III Construction, see Dwg. No. 47723



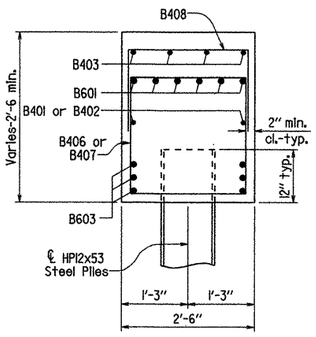
ELEVATION

Looking Ahead
Scale: ⅜" = 1'-0"



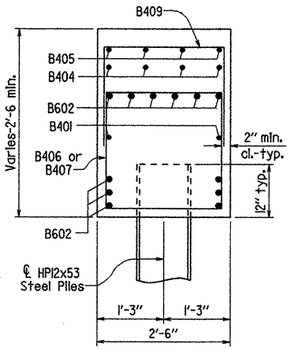
SECTION A-A

Scale: ¾" = 1'-0"



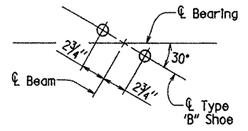
SECTION B-B

Scale: ¾" = 1'-0"



SECTION C-C

Scale: ¾" = 1'-0"



TYP. ANCHOR BOLT LAYOUT

No Scale

STATE OF ARKANSAS
CHARLES P. BRAND
No. 4637
REGISTERED PROFESSIONAL ENGINEER
5/31/05

BRIDGE ENGINEER

SHEET 1 OF 2
DETAILS OF BENTS 2 - 5
WOODRUFF CREEK

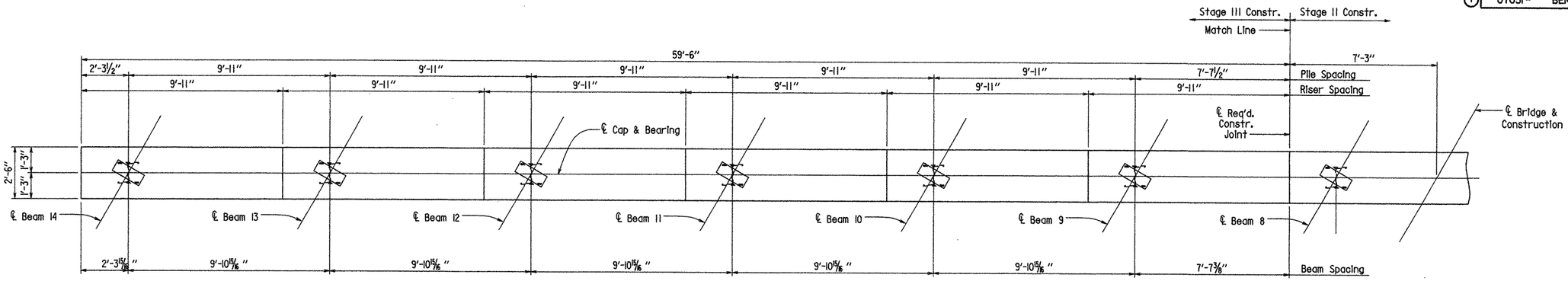
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 6-3-05 FILENAME: br60080xl_b21.dgn
CHECKED BY: JWD DATE: 7-25-05 SCALE: AS NOTED
DESIGNED BY: MAH DATE: Feb. 05

BRIDGE NO. 07051 DRAWING NO. 47722

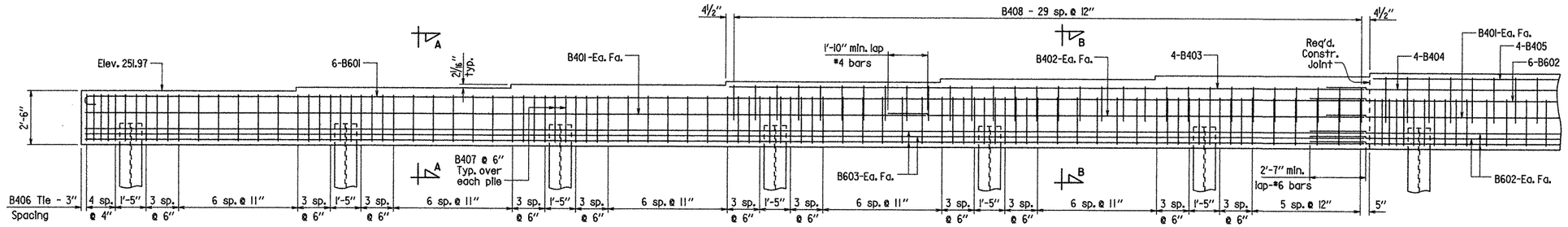
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	27	609
				(1) 07051-		BENTS 2 - 5 - 47723		



PLAN

Scale: ⅜" = 1'-0"

Note: For Stage II Construction, see Dwg. No. 47722



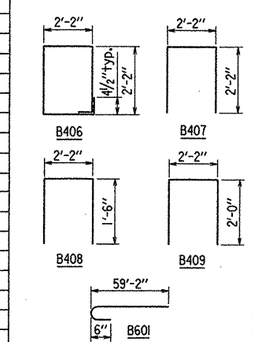
ELEVATION

Looking Ahead
Scale: ⅜" = 1'-0"

BAR LIST - PER BENT

MARK	NO. REQ'D.	LENGTH	P.D.
B401	6	38'-10"	Str.
B402	2	22'-2"	Str.
B403	8	29'-5"	Str.
B404	4	18'-6"	Str.
B405	4	14'-2"	Str.
B406	180	9'-0"	2"
B407	28	6'-4"	2"
B408	60	5'-0"	2"
B409	14	6'-0"	2"
B601	12	59'-10"	4½"
B602	12	20'-0"	Str.
B603	12	59'-2"	Str.

BENDING DIAGRAMS



Dimensions are out to out of bars.

GENERAL NOTES

All concrete shall be Class S. All exposed corners shall be chamfered ¾" unless otherwise noted. All concrete shall be pourd in the dry.

Steel piling shall be HP12x53.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

If Anchor bolts are drilled into cap, top reinforcing bars shall be properly places to avoid damage.

For additional information, see Layout.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13371
8/3/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 2 OF 2
DETAILS OF BENTS 2 - 5
WOODRUFF CREEK

ROUTE SEC.

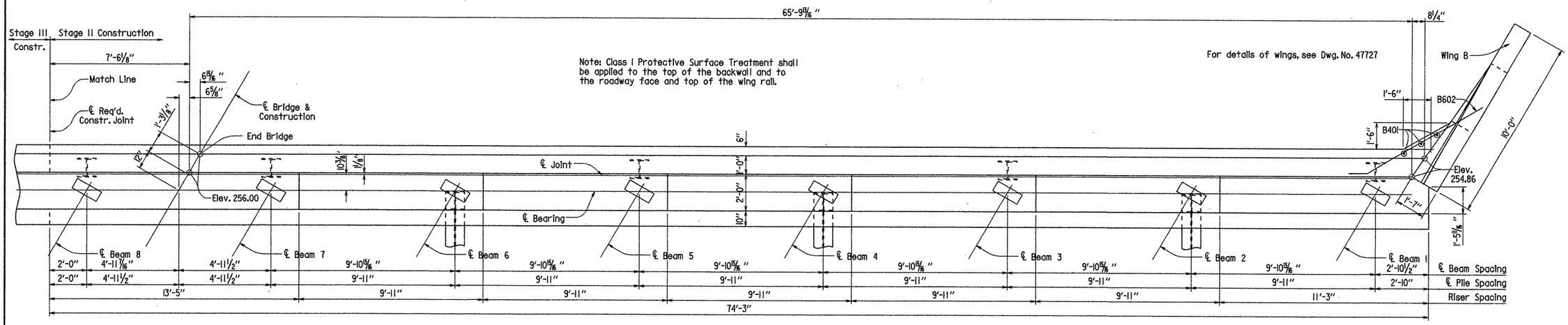
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 6-3-05
CHECKED BY: JWD DATE: 7-25-05
DESIGNED BY: MAH DATE: Feb 05

FILENAME: br60080xl_b22.dgn
SCALE: AS NOTED

BRIDGE NO. 07051 DRAWING NO. 47723

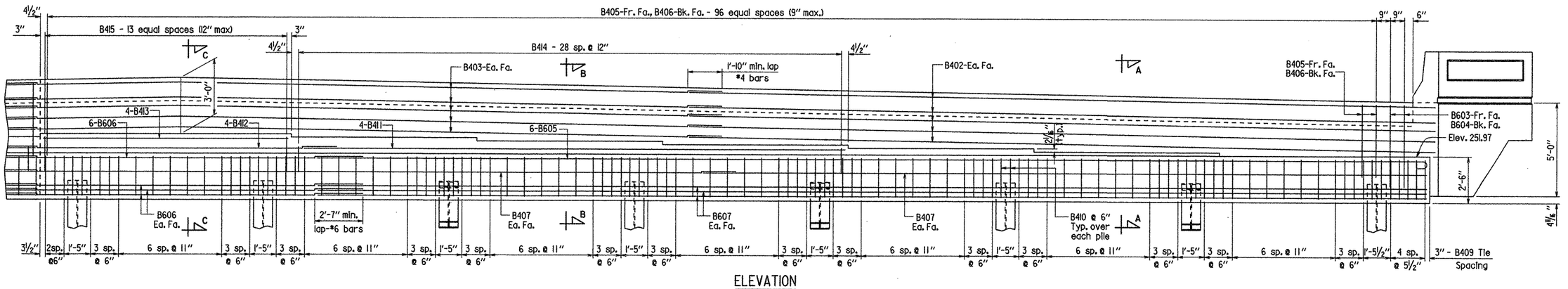
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	28	609
				① 07051-		BENT NO. 6	- 47724	



Note: For Stage III Construction, see Dwg. No. 47725.

PLAN

Stage II Construction
Scale: ⅜" = 1'-0"



ELEVATION

Stage II Construction
Looking Ahead
Scale: ⅜" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4637
CHARLES P. BRAND
BRIDGE ENGINEER

SHEET 1 OF 4
DETAILS OF BENT 6
WOODRUFF CREEK

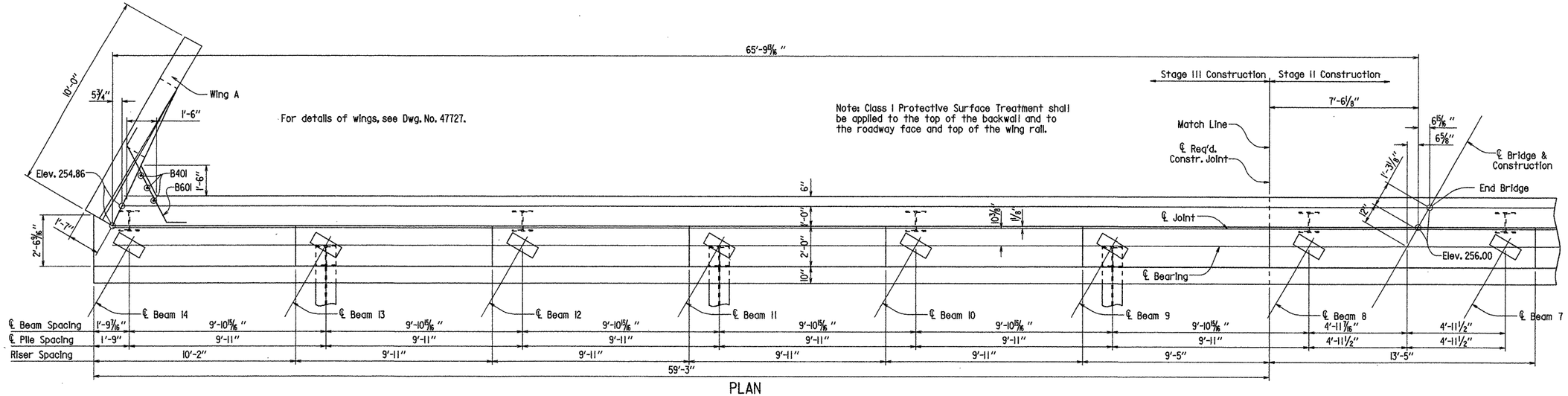
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-31-05 FILENAME: br60080x1_b61.dgn
CHECKED BY: JWD DATE: 7-25-05 SCALE: AS NOTED
DESIGNED BY: MAH DATE: Feb. 05

BRIDGE NO. 07051 DRAWING NO. 47724

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.		R60080	2	6
				07051 -		BENT NO. 6	- 47725	

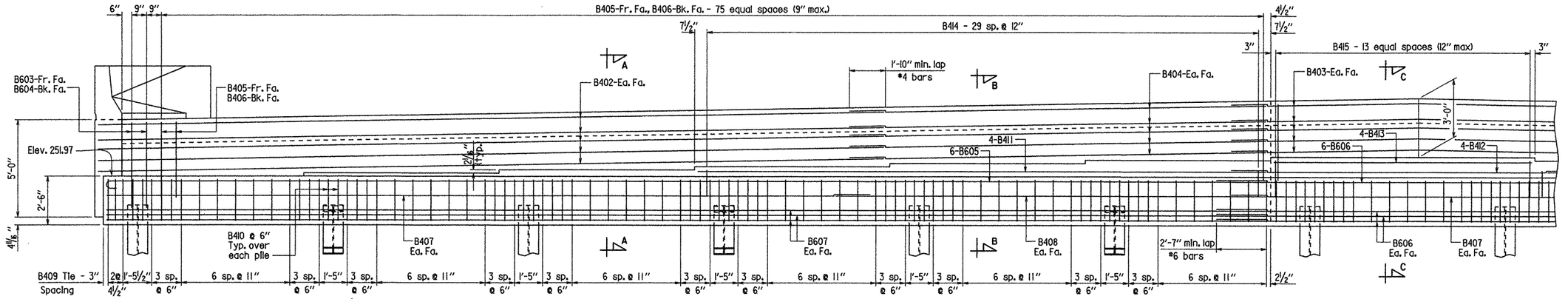


For details of wings, see Dwg. No. 47727.

Note: Class I Protective Surface Treatment shall be applied to the top of the backwall and to the roadway face and top of the wing rail.

PLAN
Stage III Construction
Scale: 3/8" = 1'-0"

Note: For Stage II Construction, see Dwg. No. 47724.



ELEVATION
Stage III Construction
Looking Ahead
Scale: 3/8" = 1'-0"

STATE OF ARKANSAS
Charles P. Brand
REGISTERED PROFESSIONAL ENGINEER
No. 13337
3/31/05
CHARLES P. BRAND
BRIDGE ENGINEER

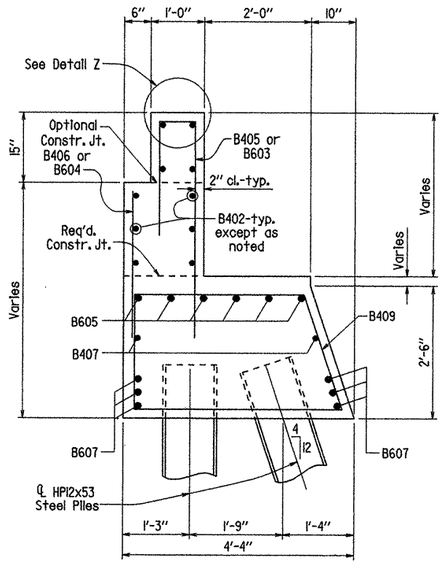
SHEET 2 OF 4
DETAILS OF BENT 6
WOODRUFF CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

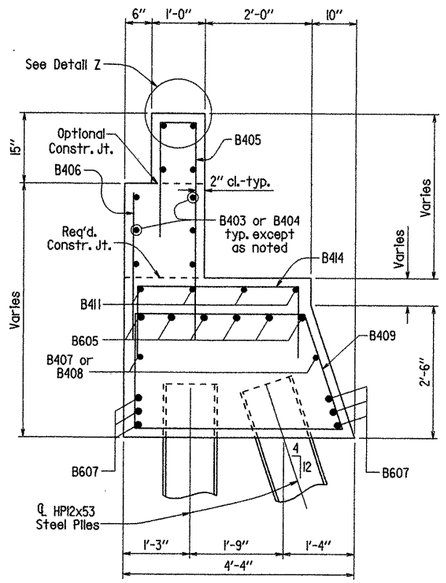
DRAWN BY: KDH DATE: 5-31-05 FILENAME: br60080xl_b62.dgn
CHECKED BY: JWD DATE: 7-25-05 SCALE: AS NOTED
DESIGNED BY: MAH DATE: Feb.05

BRIDGE NO. 07051 DRAWING NO. 47725



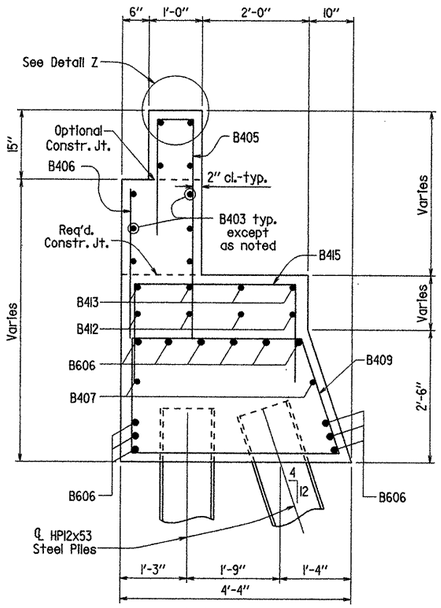
SECTION A-A

Scale: 3/4" = 1'-0"



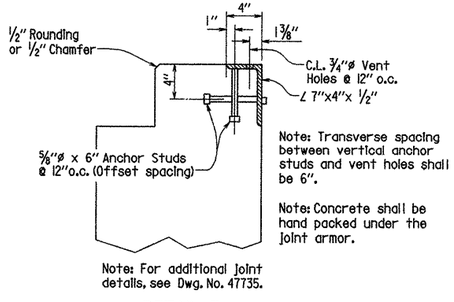
SECTION B-B

Scale: 3/4" = 1'-0"



SECTION C-C

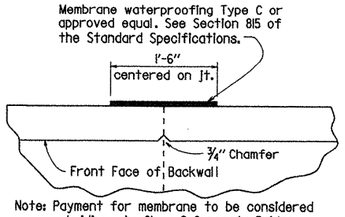
Scale: 3/4" = 1'-0"



Note: For additional joint details, see Dwg. No. 47735.

DETAIL Z

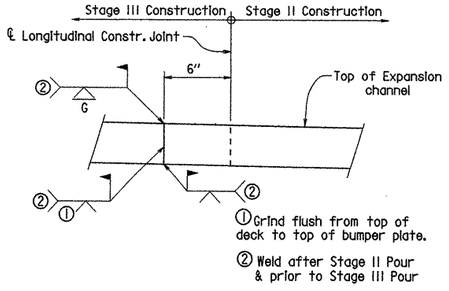
No Scale



Note: Payment for membrane to be considered subsidiary to Class S Concrete-Bridge.

CONSTRUCTION JOINT DETAIL

No Scale



DETAIL OF WELD FOR EXPANSION DEVICE

GENERAL NOTES

All concrete shall be Class "S" and be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

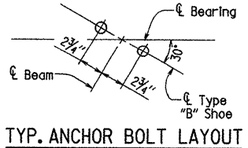
All reinforcing steel shall conform to AASHTO M 31 or M 53, Gr. 60.

Structural steel in end bents shall be AASHTO M270, Gr. 36 and shall be paid for as "Structural Steel in Beam Spans (M270-Gr. 50W)".

If anchor bolts are drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

The backwall below the paving bracket shall not be poured before the beams are in place. The backwall above the paving bracked shall not be poured before the superstructure slab has been placed.

For additional information, See Layout.



TYP. ANCHOR BOLT LAYOUT

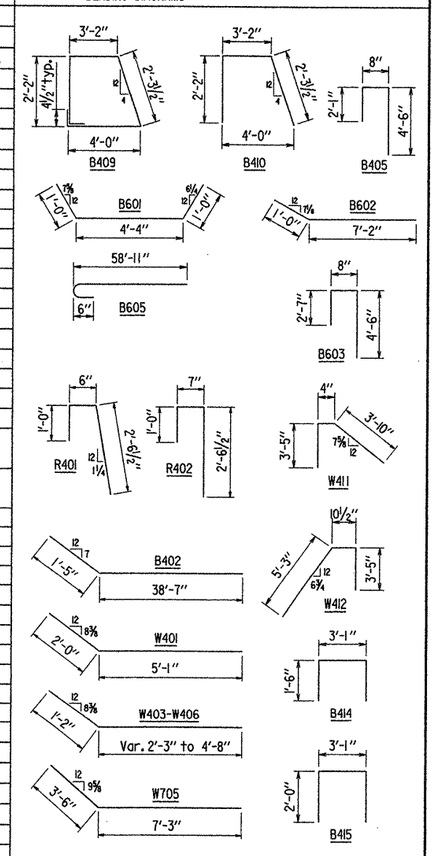
No Scale

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.		R60080	238	607
				① 07051 -		BENT NO. 6	- 47726	

BAR LIST

MARK	NO. REQ'D.	LENGTH	P.D.
B401	6	3'-5"	Str.
B402	20	40'-0"	2"
B403	10	39'-2"	Str.
B404	10	22'-7"	Str.
B405	173	7'-1"	2"
B406	173	3'-1"	Str.
B407	6	39'-0"	Str.
B408	2	21'-9"	Str.
B409	177	12'-0"	2"
B410	28	7'-6"	2"
B411	8	28'-11"	Str.
B412	4	17'-11"	Str.
B413	4	13'-1"	Str.
B414	59	5'-11"	2"
B415	14	6'-11"	2"
R401	8	3'-11"	2"
R402	8	4'-0"	2"
R403	12	9'-8"	Str.
W401	8	7'-1"	2"
W402	8	7'-5"	Str.
W403-W406	2 each	Var. 3'-5" to 5'-10"	2"
W407-W410	2 each	Var. 4'-7" to 7'-0"	Str.
W411	6	7'-6"	2"
W412	6	9'-5"	2"
B601	3	6'-4"	4 1/2"
B602	3	8'-2"	4 1/2"
B603	4	7'-5"	4 1/2"
B604	4	3'-7"	Str.
B605	12	59'-7"	4 1/2"
B606	12	20'-6"	Str.
B607	12	58'-11"	Str.
R601	20	4'-5"	Str.
R602	6	5'-0"	Str.
W701	12	9'-8"	Str.
W702	4	6'-5"	Str.
W703	4	5'-6"	Str.
W704	4	4'-6"	Str.
W705	4	10'-9"	5 1/4"

BENDING DIAGRAMS



Dimensions are out to out of bars.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13837
8/3/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 3 OF 4
DETAILS OF BENT 6
WOODRUFF CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

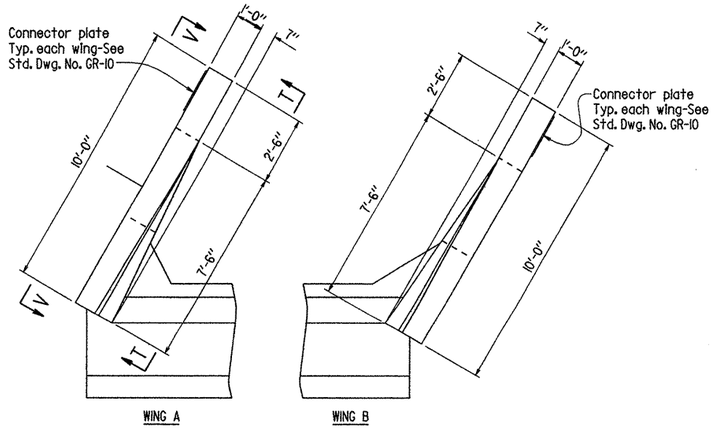
DRAWN BY: KDH DATE: 6-1-05
CHECKED BY: JWD DATE: 7-25-05
DESIGNED BY: MAH DATE: Feb 05

FILENAME: br60080x1_b63.dgn
SCALE: AS NOTED

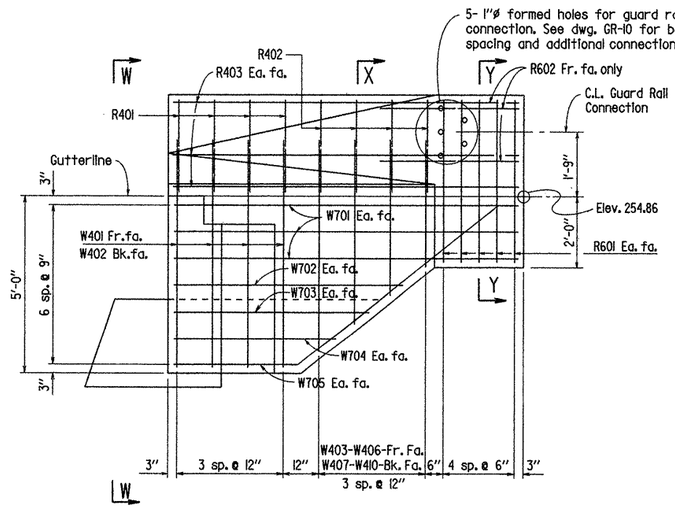
BRIDGE NO. 07051

DRAWING NO. 47726

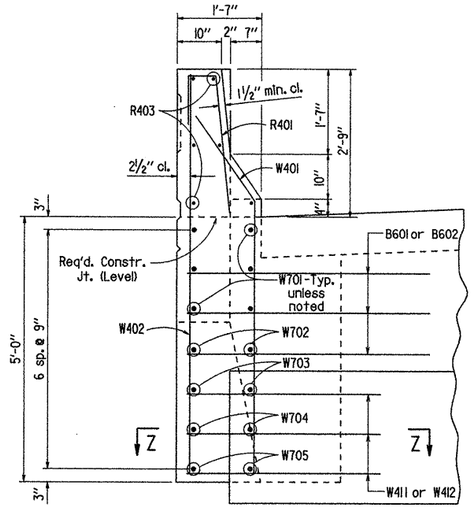
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	23	609
				①		07051 - BENT NO. 6 - 47727		



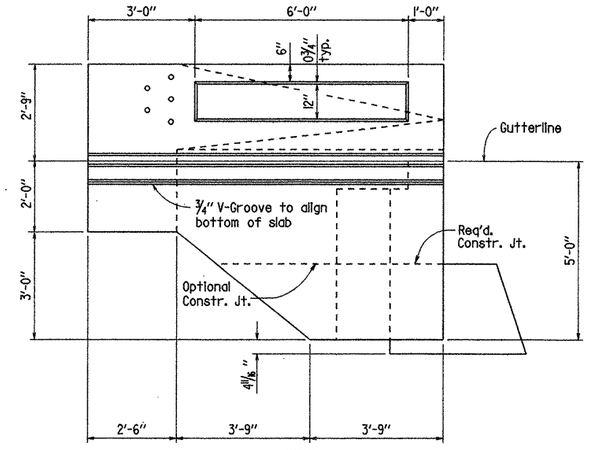
PLAN OF RAIL
Scale: 3/8" = 1'-0"



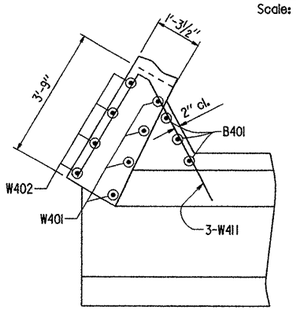
VIEW T-T
Scale: 1/2"= 1'-0"



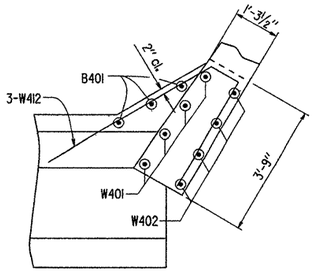
VIEW W-W
Scale: 3/4" = 1'-0"



VIEW V-V
Scale: 1/2"= 1'-0"

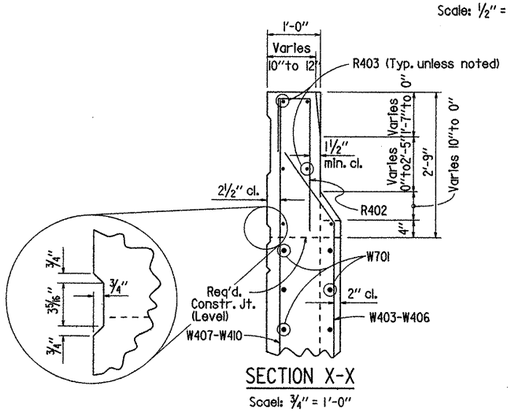


WING A

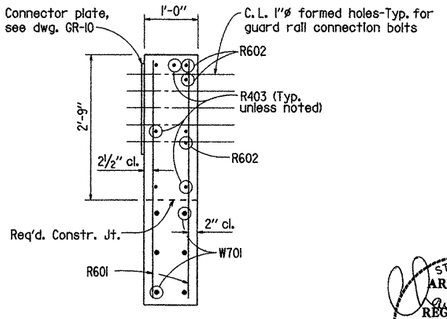


WING B

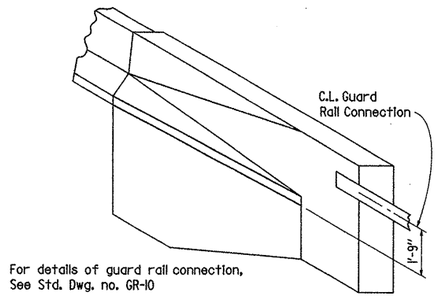
SECTION Z-Z
Scale: 1/2" = 1'-0"



SECTION X-X
Scale: 3/4" = 1'-0"



SECTION Y-Y
Scale: 3/4"= 1'-0"



For details of guard rail connection, See Std. Dwg. no. GR-10

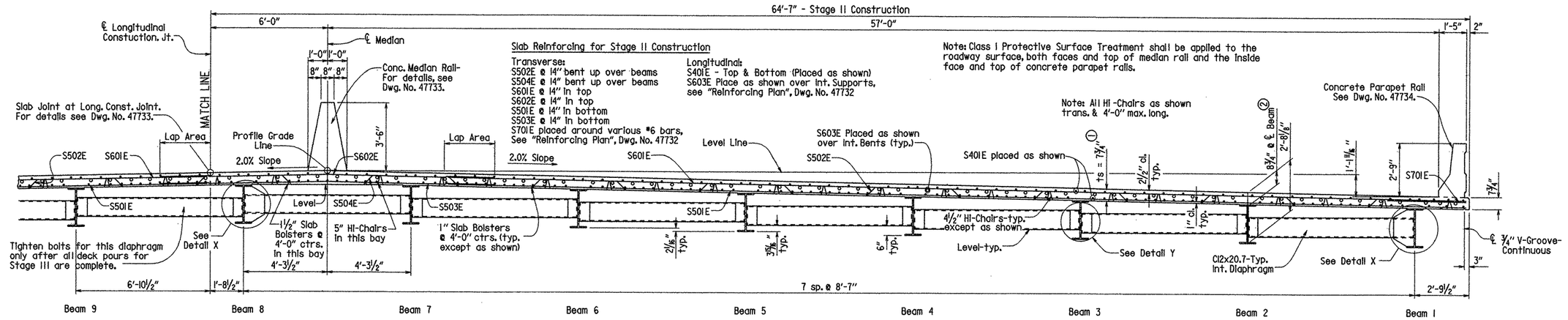
THREE DIMENSIONAL VIEW OF RAIL
No Scale

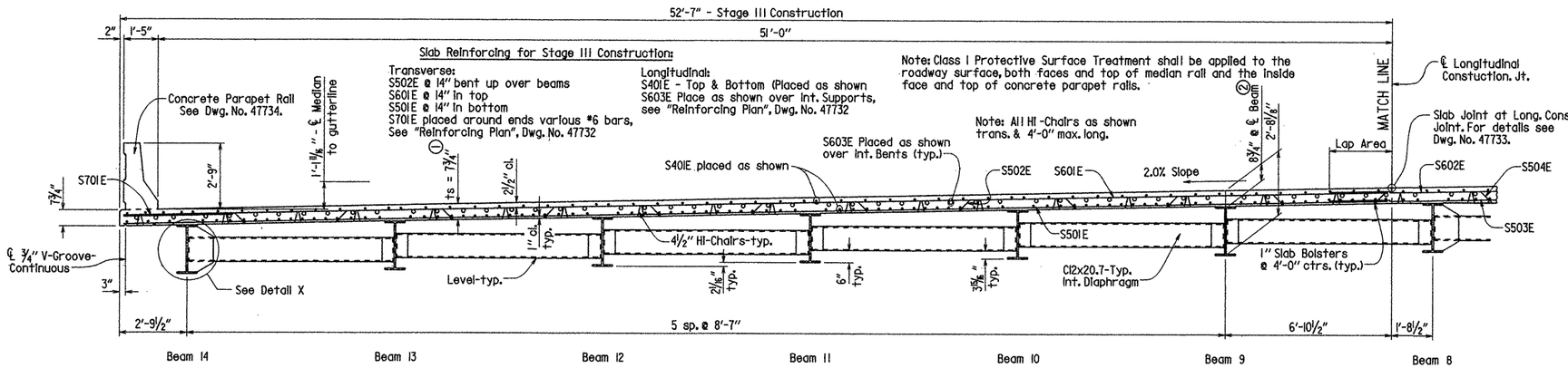
STATE OF ARKANSAS
No. 8887
01/31/05
REGISTERED PROFESSIONAL ENGINEER
CHARLES P. BRAND
BRIDGE ENGINEER

SHEET 4 OF 4
DETAILS OF BENT NO. 6
WOODRUFF CREEK
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 6-1-05 FILENAME: br60080x1_b64.dgn
CHECKED BY: JWD DATE: 7-25-05 SCALE: AS NOTED
DESIGNED BY: MM DATE: Feb 05
BRIDGE NO. 07051 DRAWING NO. 47727

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.		R60080	332	609
				① 07051 -		175 FT. UNIT	- 47728	



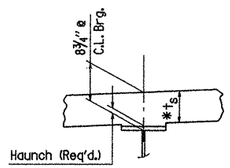


① See "Adustment for Slab and Haunch Thickness Tolerance."

② Tolerance: Minus = ¼"; Plus equal to the amount of slab thickening used to meet slab thickness tolerance. See "Adustment for Slab and Haunch Thickness Tolerance."

TYPICAL ROADWAY SECTION

Looking Ahead
Scale: ⅜" = 1'-0"



NOTE: t_s = slab thickness as shown in "Typical Roadway Section."

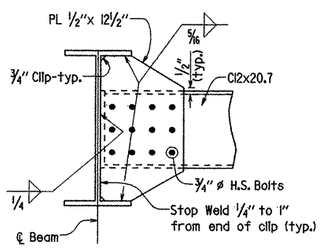
* Tolerance when removable deck forming is used is + ½", - ¼". Haunch forming is required and shall be adjusted to maintain slab thickness tolerance.

ADJUSTMENT FOR SLAB AND HAUNCH THICKNESS TOLERANCE

No Scale

Haunch dimension may vary within the following limits to maintain the grade and slab thickness tolerance: Minimum - occurs when top flange contacts bottom reinforcing steel; Maximum - top flange thickness plus 1¾". No increase in concrete and structural steel quantities will be made to maintain tolerances.

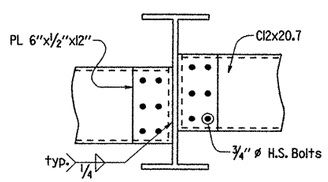
Tolerances shown are applicable only when removable deck forming is used. See Std. Dwg. no. 14991 for tolerances when permanent steel deck forms are used. Payment for concrete shall be based on removable deck forming.



DETAIL X

No Scale

Note: Bolts in Diaphragm Connections shall be properly installed and tightened in accordance with Subsection 807.22 of the Standard Specifications and as shown in Typical Roadway Section.



DETAIL Y

No Scale

STATE OF ARKANSAS
CHARLES P. BRAND
No. 4337
REGISTERED PROFESSIONAL ENGINEER
BRIDGE ENGINEER

SHEET 1 OF 7
DETAILS OF 175' CONTINUOUS COMPOSITE W-BEAM UNIT
WOODRUFF CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 4-22-05 FILENAME: br-60080x1_si.dgn
CHECKED BY: JWD DATE: 7-05 SCALE: AS NOTED
DESIGNED BY: MAH DATE: Feb. 05

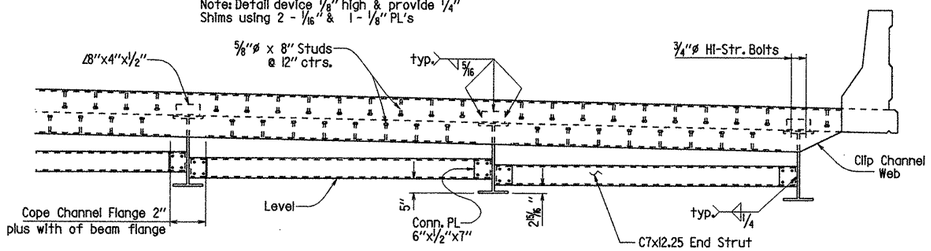
BRIDGE NO. 07051 DRAWING NO. 47728

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.		R60080	233	609
				07051 -		175 FT. UNIT	- 47729	

Expansion Device:

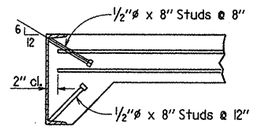
Poured Silicone Joint
Rdwy. C15x33.9
Conn. L's 8" x 4" x ½"
⅝"ø x 8" Studs @ 12" o.c.
Note: Detail device ⅛" high & provide ¼" Shims using 2 - 1/16" & 1 - ⅛" PL's

Note: For additional details of Joints, see Dwg. No. 47735.



PART SECTION THRU JOINT

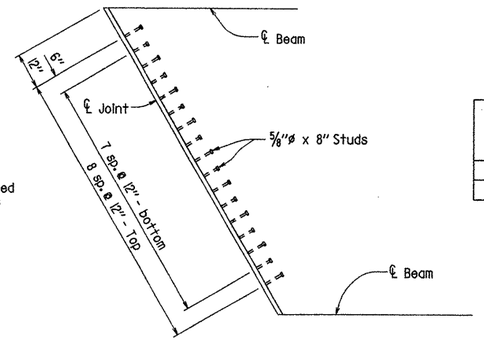
Scale: ½" = 1'-0"



Note: As an alternate to ⅝"ø studs, ½"ø x 8" studs spaced as shown may be used. Use weight of ⅝"ø stud as basis of measurement of structural steel in anchors.

DETAILS OF ALTERNATE ANCHORS

No Scale



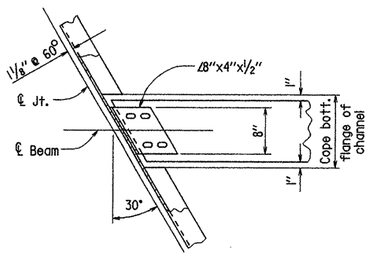
STUD CONNECTORS AT EXP. DEVICE

No Scale

TABLE FOR WELD

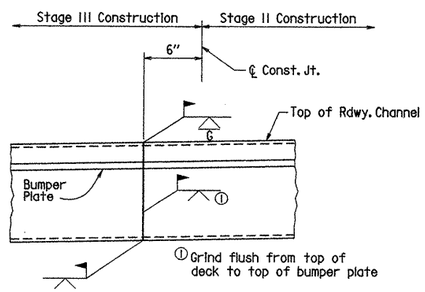
Material Thickness of Thicker Part Joined (Inches)	Minimum Size of Fillet Weld (Inches)	Single Pass Weld Must Be Used
To ¾" Inclusive	¼"	
Over ¾"	5/16"	

Note: When a fillet weld size, as shown on the plans, is larger than the minimum, the first pass shall be that specified for minimum size of fillet weld.



CHANNEL CONNECTION DETAIL

No Scale



EXPANSION DEVICE AT STAGE CONST. JOINT

No Scale

GENERAL NOTES

All concrete shall be Class S(AE) and shall be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

All concrete shall be poured and screeded off prior to initial set. The concrete deck shall be finished in accordance with section 802.19, Class 5 of the Standard Specifications. Movement of the finishing machine across new concrete shall be on planks placed on the surface and shall be prohibited for 72 hours after finishing the pour. Sufficient concrete must be placed ahead of the strike-off to fully load the beam. If a longitudinal strike-off is used, a vertical camber adjustment must be made in the strike-off to account for the future dead load deflection of the railing.

Concrete in bridge superstructure shall be placed and consolidated for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent. Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60. The reinforcing is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly but will be considered subsidiary to the item "Epoxy Coated Reinforcing Steel".

All stud shear connectors shall be granular flux filled, solid fluxed, or equal, and shall be automatically end welded in accordance with recommendations of the manufacturer.

Field connections shall be bolted with ¾" high strength bolts unless otherwise noted. Bolt holes shall be 15/16 "ø except that 15/16 "ø holes may be used for connection of expansion devices, diaphrgms and end struts if a washer is used under both the nut and head of the bolt.

Diaphragms shall be installed as beams are erected and shall be completely bolted prior to pouring of the concrete deck except as shown in "Typical Roadway Section". All bolts in diaphragms shall be installed and tightened in accordance with Subsection 807.71 prior to the pouring of the concrete deck except as shown in "Typical Roadway Section".

Drawings show general features of design only. Shop drawings shall be made in accordance with the specifications, submitted and approval secured before any fabrication is begun. Structural shapes of equal or greater strength may be substituted for shapes shown if approval is obtained from the bridge engineer. Payment will be made on the basis of shapes shown.

All Structural Steel shall be AASHTO M270, Gr. 50W unless otherwise noted and shall be paid for at the unit price per pound bid for "Structural Steel in Beam Spans (M270, Gr. 50W)". M270, Gr. 50W steel shall not be painted. All exposed surfaces to be cleaned in accordance with Subsection 807.84(e) of the Standard Specifications. Structural steel completely embedded in concrete may be AASHTO M270, Gr. 36.

All beams shall be blocked in their true position in the shop. The camber, length of sections, distance between bearings and openings of joints shall be measured with the beams in this position and this information shall become a part of the permanent record of the job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All beam dimensions are based on a temperature of 60°F. A tolerance of ± 1/4" is allowed for camber.

Beams and flange splice plates for main members shallbe cut and fabricated so that the primary direction of rolling is parallelto the direction of the main tensile and/or compressive stresses.

Beams & splice plates are considered main load carrying members and shall meet the longitudinal Charpy V-Notch test specified in Section 807.05. All welding shall conform to Subsection 807.26. Welded connections shall be 5/16" fillet shop welds unless otherwise noted. All welding that is to be done during fabrication of structural steel, including temporary welds, shallbe detailed on the shop drawings and submitted for approval. If the Contractor or Erector should want to make additional welds, whether temporary or permanent, he shall submit detailed drawings with formal request to the Bridge Engineer for approval.

Bearings shall be seated in accordance with Section 807.66. This work and material will not be paid for directly but will be considered subsidiary to the item "Structural Steel in Beam Spans (M270, Gr. 50W)".

MATERIALS AND STRENGTHS:

Class S(AE) Concrete	f'c = 4,000 psi.
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)	fy = 60,000 psi.
Structural Steel (AASHTO M270, Gr. 50W)	Fy = 50,000 psi.
Structural Steel (AASHTO M270, Gr. 36)	Fy = 36,000 psi.

Load Distribution

Dead Load:	Beam No.	
A. To W-Beam	1 & 14	686 plf + 1.3 (Wt. of Beam)
	2 - 7, 10 - 13	832 plf + 1.3 (Wt. of Beam)
	8	581plf + 1.3 (Wt. of Beam)
	9	749 plf + 1.3 (Wt. of Beam)
B. To Composite Beam	1 - 7	353 plf**
	8	686 plf**
	9 - 14	219 plf**

**Includes 192 plf future wearing surface.

STATE OF ARKANSAS
CHARLES P. BRAND
REGISTERED PROFESSIONAL ENGINEER
No. 4337
5/3/05

BRIDGE ENGINEER

SHEET 2 OF 7
DETAILS OF 175' CONTINUOUS COMPOSITE W-BEAM UNIT
WOODRUFF CREEK

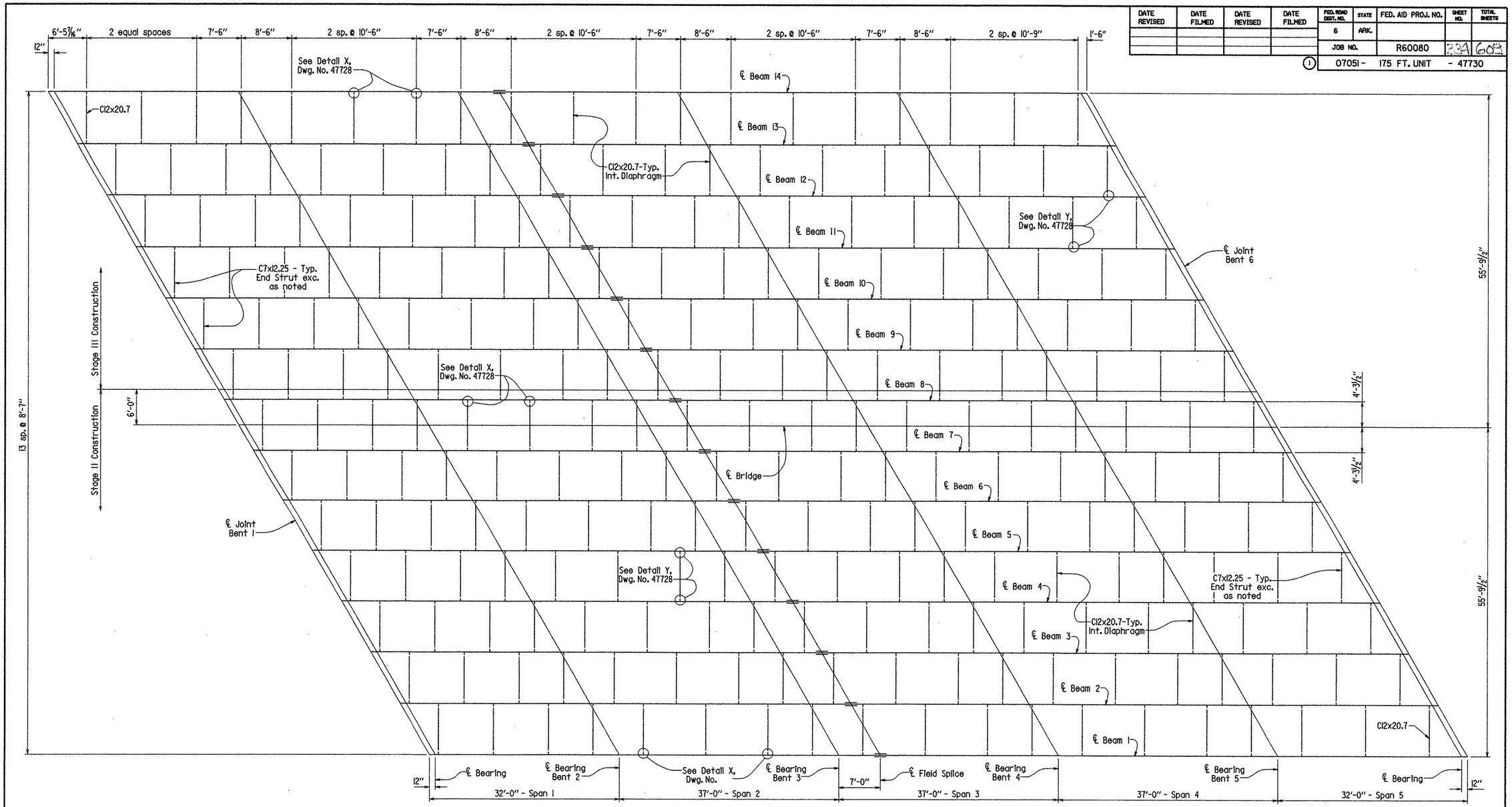
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 4-22-05 FILENAME: br60080xl_s2.dgn
CHECKED BY: JWD DATE: 1-25-05 SCALE: AS NOTED
DESIGNED BY: MAH DATE: Feb. 05

BRIDGE NO. 07051 DRAWING NO. 47729

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.		R60080	23	603
				07051 -		175 FT. UNIT	- 47730	



FRAMING PLAN
Scale: 1/8" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
8/3/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 3 OF 7
DETAILS OF 175' CONTINUOUS
COMPOSITE W-BEAM UNIT
WOODRUFF CREEK

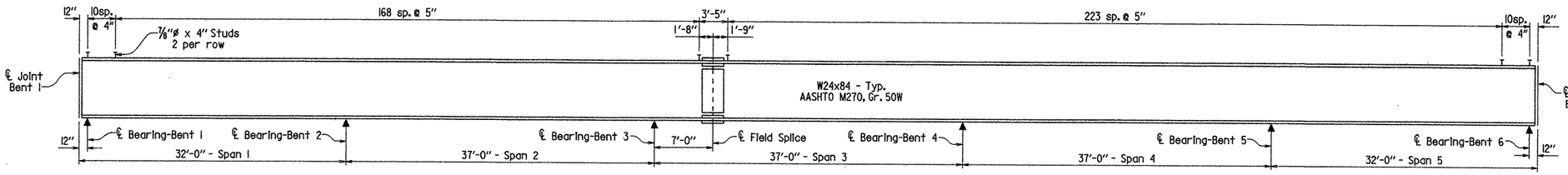
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 4-25-05 FILENAME: br60080x1_s3.dgn
CHECKED BY: JWD DATE: 7-05 SCALE: AS NOTED
DESIGNED BY: MAH DATE: Feb. 05

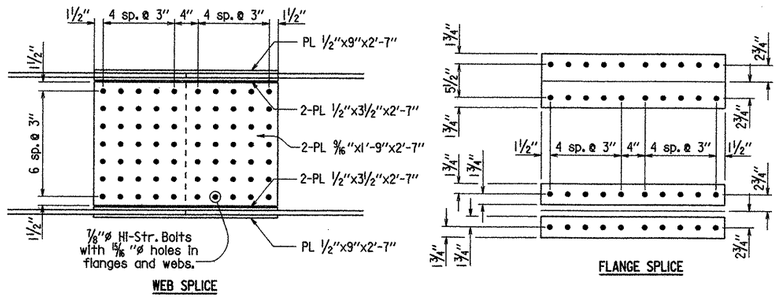
BRIDGE NO. 07051 DRAWING NO. 47730

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.		R60080	325	608
				(1) 07051-	175 FT. UNIT	- 47731		



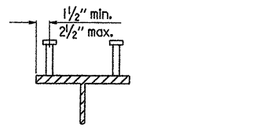
BEAM ELEVATION

No Scale



FIELD SPLICE DETAILS

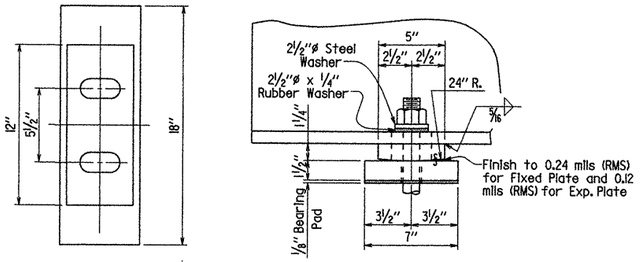
Scale: 1" = 1'-0"



Stud Shear Connectors shown shall be 7/8"ø x 4" long, granular flux filled, solid fluxed or equal, and automatically end welded to the beam flange in accordance with the recommendations of the Manufacturer. 3/4"ø studs may be used in place of the 7/8"ø studs shown, at the ratio of 1.361 - 3/4"ø studs in place of one 7/8"ø stud. 7/8"ø studs will be used as basis for measurement of structural steel in shear connectors. Maximum stud spacing = 24".

SHEAR CONNECTOR DETAIL

No Scale



FIXED SHOE: 1½"ø Holes in Sole Plate, Masonry Plate & Beam Flange.

EXPANSION SHOE: 3"x 1½" Slot in Sole Plate & Beam Flange; 1½"ø Holes in Masonry Plate.

TYPE "B" FIXED OR EXPANSION SHOE

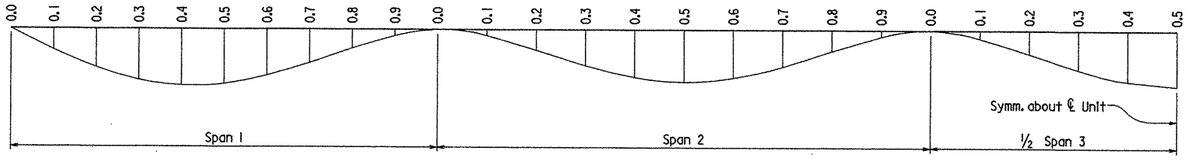
No Scale

NOTE: Plates for Type "B" Shoes shall be AASHTO M270, GR. 50W and shall be measured and paid for as 'Structural Steel in Beam Spans (M270 - Gr. 50W)'. ⅛" bearing pad shall not be paid for directly, but considered subsidiary to the item of 'Structural Steel'.

TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

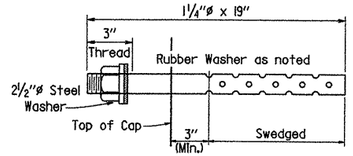
Span	Point of Deflection	Structural Steel	Structural Steel + Slab	Structural Steel + Slab + Parapet
1	0	0	0	0
	0.1	0.005	0.038	0.040
	0.2	0.008	0.069	0.073
	0.3	0.011	0.091	0.097
	0.4	0.012	0.101	0.107
	0.5	0.012	0.098	0.104
	0.6	0.010	0.083	0.088
	0.7	0.007	0.060	0.064
	0.8	0.004	0.034	0.036
	0.9	0.001	0.011	0.012
2	0	0	0	0
	0.1	0.001	0.010	0.011
	0.2	0.004	0.036	0.039
	0.3	0.007	0.063	0.068
	0.4	0.010	0.084	0.090
	0.5	0.011	0.092	0.099
	0.6	0.010	0.085	0.091
	0.7	0.008	0.065	0.070
	0.8	0.004	0.037	0.040
	0.9	0.001	0.011	0.012
½ Span 3	0	0	0	0
	0.1	0.001	0.014	0.015
	0.2	0.005	0.041	0.044
	0.3	0.008	0.069	0.074
	0.4	0.011	0.090	0.096
	0.5	0.012	0.098	0.105

Note: Table is symmetrical about ℄ Unit



DEAD LOAD DEFLECTION DIAGRAM

Note:
Camber for Dead Load Deflection plus Vertical curve ± 1/4" tolerance. Deflections shown are from a chord from ℄ Bearing to ℄ Bearing. Vertical curve corrections not included. Negative sign (-) indicates point above chord.



ANCHOR BOLT DETAIL

No Scale

Note: Anchor Bolts, washers and nuts shall conform to subsection 807.07. Anchor bolts shall be Grade 55. Indentations shall be circular with rounded bottoms and staggered as shown in the details. Rubber washer shall be closed cell expanded rubber, meeting the requirements of ASTM D1056 - 85 2B2 E2, and shall be considered subsidiary to the Item of 'Structural Steel'

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13337
05/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 4 OF 7
DETAILS OF 175' CONTINUOUS COMPOSITE W-BEAM UNIT WOODRUFF CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

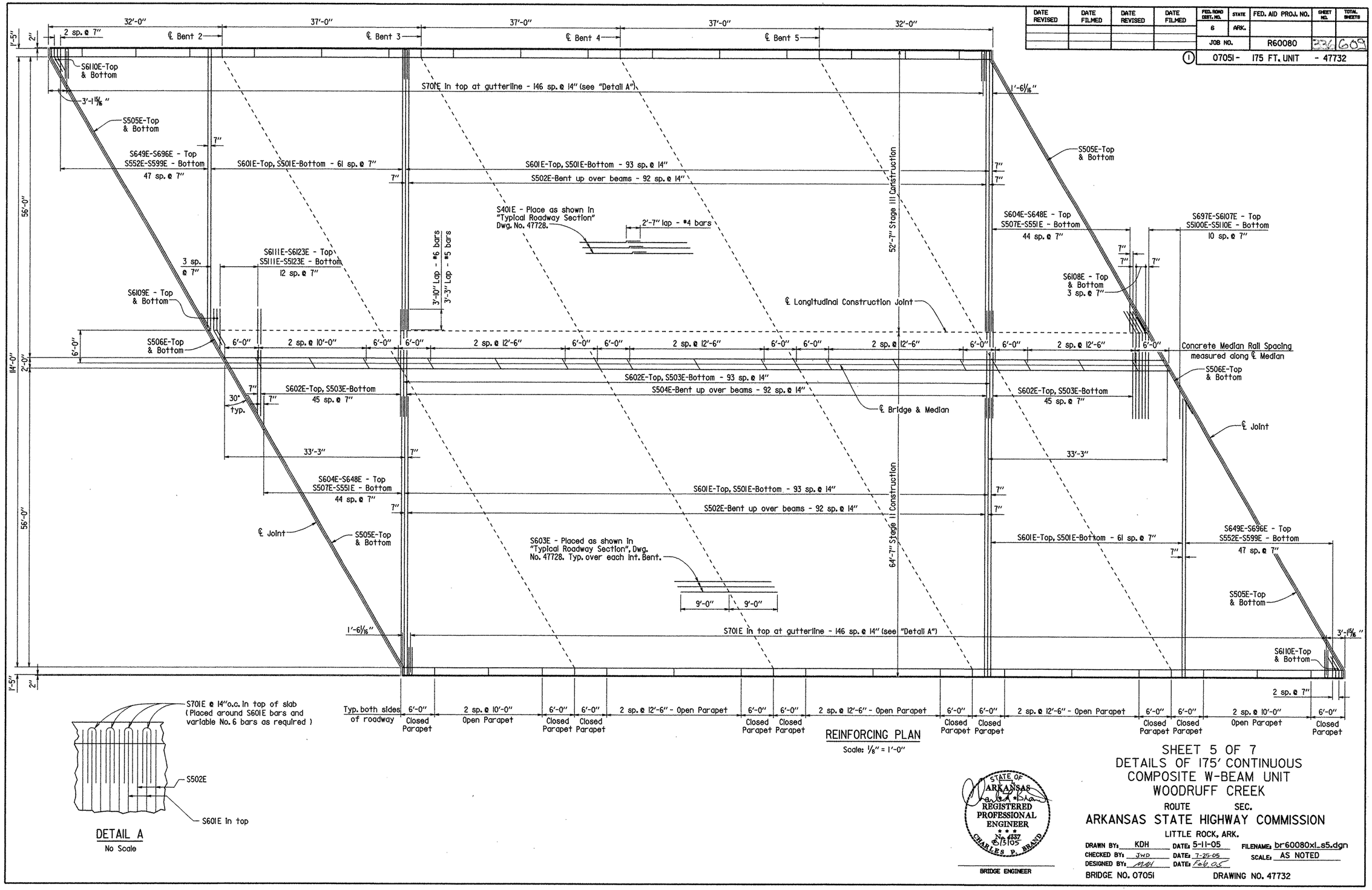
DRAWN BY: KDH DATE: 4-26-05 FILENAME: br60080xl_s4.dgn

CHECKED BY: JWD DATE: 7-25-05 SCALE: AS NOTED

DESIGNED BY: AAH DATE: Feb. 05

BRIDGE NO. 07051 DRAWING NO. 47731

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.		R60080	23	609
				07051 - 175 FT. UNIT - 47732				



DETAIL A
No Scale

REINFORCING PLAN
Scale: 1/8" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13105
CHARLES P. BRAND
BRIDGE ENGINEER

SHEET 5 OF 7
DETAILS OF 175' CONTINUOUS COMPOSITE W-BEAM UNIT WOODRUFF CREEK

ROUTE SEC.

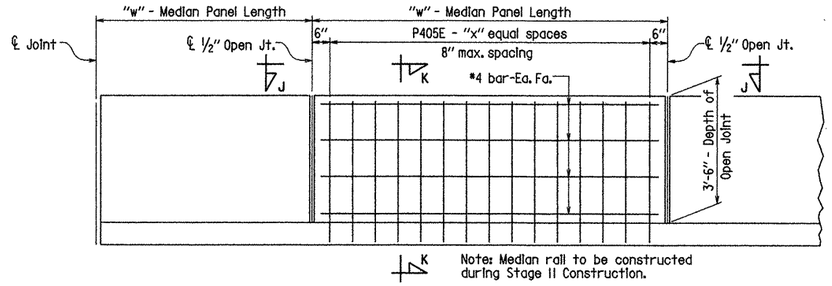
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-11-05
CHECKED BY: JWD DATE: 7-25-05
DESIGNED BY: MAH DATE: Feb 05
FILENAME: br60080xl_s5.dgn
SCALE: AS NOTED

BRIDGE NO. 07051 DRAWING NO. 47732

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.		R60080	23	609
				①	07051-	175 FT. UNIT	-	47733

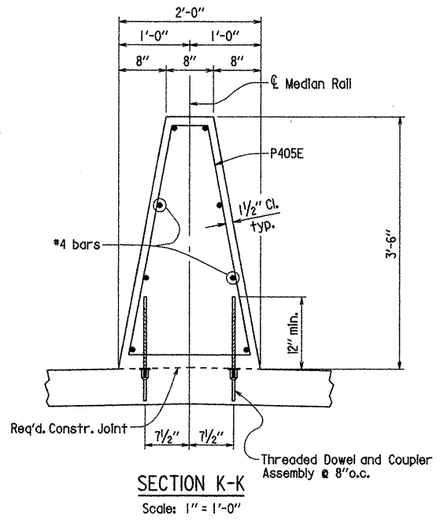


LONGITUDINAL SECTION AT CURB FOR CONCRETE MEDIAN RAIL

Scale: ½" = 1'-0"

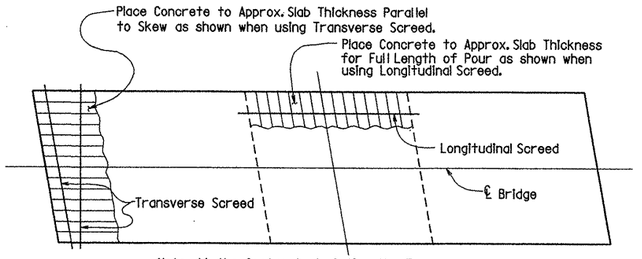
VARIABLES FOR CONCRETE MEDIAN RAIL

"w"	"x"	*4 bar
6'-0"	8	P406E
10'-0"	14	P407E
12'-6"	18	P408E



SECTION K-K

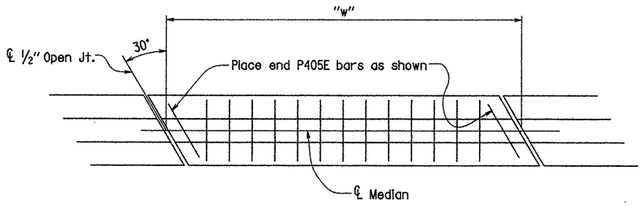
Scale: 1" = 1'-0"



Note: At the Contractor's Option, the Transverse Screed may be placed parallel to the skew or perpendicular to ℄ Bridge.

CONCRETE PLACEMENT PROCEDURE

No Scale

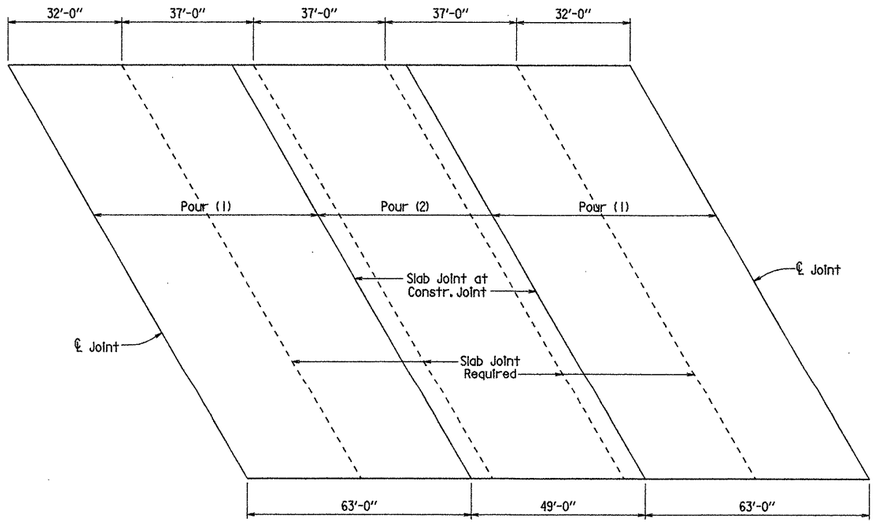


VIEW J-J

Scale: ½" = 1'-0"

Note: Pours with the same number may be placed simultaneously or separately. All Pours (1) must be placed before Pours (2) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. 72 hours shall elapse between the end of a pour and the start of an adjacent pour. Any railing pours made before the entire slab unit has been placed must be approved by the Bridge Engineer. The contractor must obtain approval from the Bridge Engineer for any deviations from the pouring sequence.

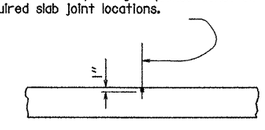
Concrete in bridge superstructure shall be placed and consolidated for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.



SLAB POURING SEQUENCE

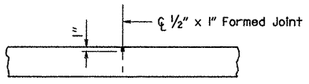
No Scale

½" x 1" Type 6 Joint Sealer. See Sections 501.02 (h) and 501.05 (j). Joint Sealer shall be measured and paid for as Class S (AE) Concrete-Bridge. Slab joints shall extend to the outside edge of the deck slab. Slab joint shall be installed before the parapet rail is poured. If slab joints are to be sawed, they shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the slab. Slab joints shall be placed at all pouring sequence construction joints and required slab joint locations.



SLAB JOINT DETAIL

No Scale



LONGITUDINAL CONSTRUCTION JOINT

No Scale

½" x 1" Type 6 Joint Sealer. See Sections 501.02 (h) and 501.05 (j). Joint Sealer shall be measured and paid for as Class S (AE) Concrete-Bridge. This joint shallbe formed. Seal must be gray or other color similar to concrete.

THREADED DOWEL AND COUPLER ASSEMBLY

No Scale

Notes:
Threaded Dowel and Coupler Assembly shall be of an approved type and shall develop in tension at the point of splicing at least 125 percent of the yield strength of the dowel bar.

Dowel bars shall be of minimum 60 ksi yield strength and threaded as required.

Threaded Dowel and Coupler Assembly, except mating surfaces, shall be epoxy coated in accordance with the requirements of reinf. bars.

Threaded Dowel and Coupler Assembly shall be considered subsidiary to the item "Reinforcing Steel".

STATE OF ARKANSAS
CHARLES P. BRAND
No. 13337
REGISTERED PROFESSIONAL ENGINEER
05/05

BRIDGE ENGINEER

SHEET 6 OF 7
DETAILS OF 175' CONTINUOUS COMPOSITE W-BEAM UNIT
WOODRUFF CREEK

ROUTE SEC.

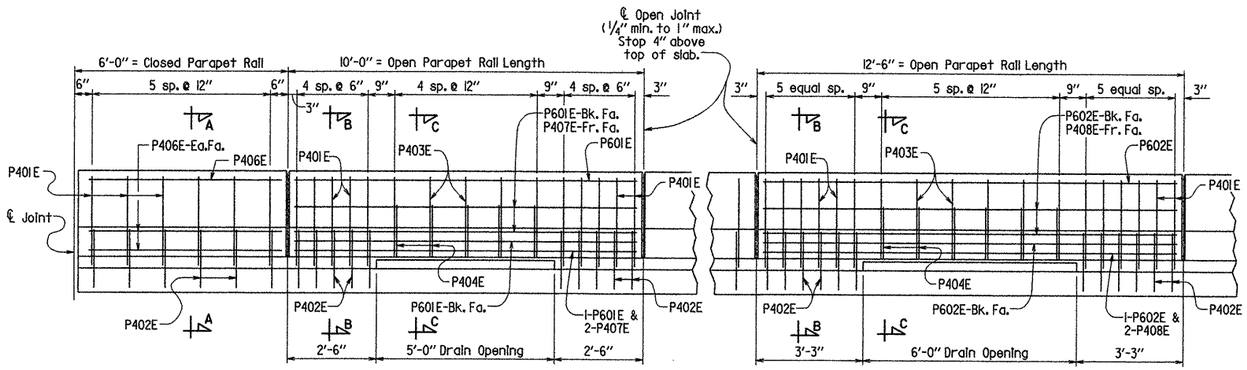
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-12-05
CHECKED BY: JWD DATE: 7-25-05
DESIGNED BY: MAH DATE: Feb 05
FILENAME: br-60080xl_s6.dgn
SCALE: AS NOTED

BRIDGE NO. 07051 DRAWING NO. 47733

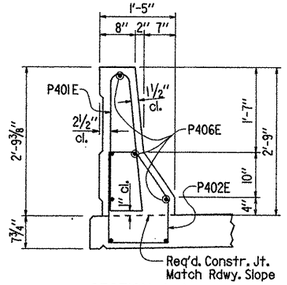
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	335	659

(1) 07051 - 175 FT. UNIT - 47734



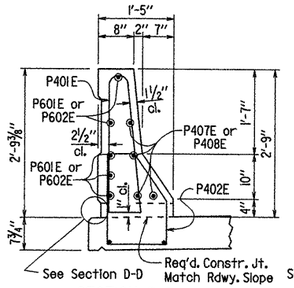
DETAILS OF PARAPET RAILING

Scale : 1/2" = 1'-0"



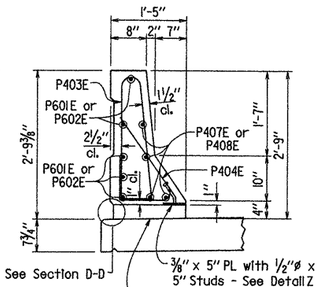
SECTION A-A

Scale : 3/4" = 1'-0"



SECTION B-B

Scale : 3/4" = 1'-0"



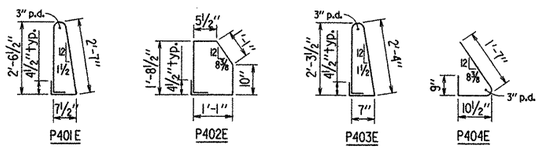
SECTION C-C

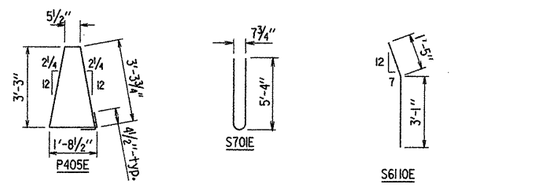
Scale : 3/4" = 1'-0"

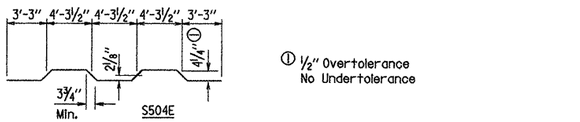
BAR LIST

MARK	NO. REQ'D.	LENGTH	P.D.
S401E	1630	37'-0"	Str.
P401E	344	6'-4"	2"
P402E	344	5'-7"	2"
P403E	112	5'-10"	2"
P404E	112	3'-2"	2"
P405E	264	9'-2"	2"
P406E	180	5'-6"	Str.
P407E	64	9'-6"	Str.
P408E	96	12'-0"	Str.
S501E	312	52'-5"	Str.
S502E	186	53'-7"	3"
S503E	186	18'-6"	Str.
S504E	93	19'-6"	3"
S505E	8	60'-4"	3"
S506E	4	20'-6"	Str.
S507E-S551E	2 each	Var. 5'-5" to 50'-0"	Str.
S552E-S599E	2 each	Var. 4'-4" to 51'-10"	Str.
S5100E-S5110E	1 each	Var. 5'-5" to 15'-7"	Str.
S5111E-S5123E	1 each	Var. 7'-6" to 19'-7"	Str.
S601E	312	52'-4"	Str.
S602E	186	19'-8"	Str.
S603E	440	18'-0"	Str.
S604E-S648E	2 each	Var. 5'-5" to 50'-0"	Str.
S649E-S696E	2 each	Var. 4'-4" to 51'-10"	Str.
S697E-S6107E	1 each	Var. 5'-5" to 15'-7"	Str.
S6108E	8	20'-8"	4 1/2"
S6109E	4	7'-1"	4 1/2"
S6110E	8	4'-6"	4 1/2"
S6111E-S6123E	1 each	Var. 7'-6" to 19'-7"	Str.
P601E	40	9'-6"	Str.
P602E	60	12'-0"	Str.
S701E	294	10'-11"	6"

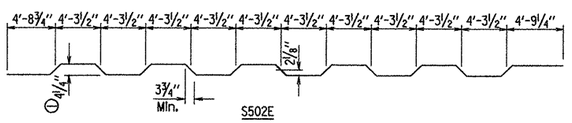
BENDING DIAGRAMS





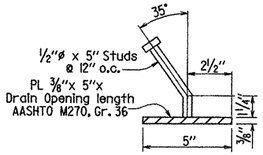


① 1/2" Overtolerance
No Undertolerance



Dimensions are out to out of bars.

NOTE: Bars marked with an "E" suffix shall be epoxy coated.

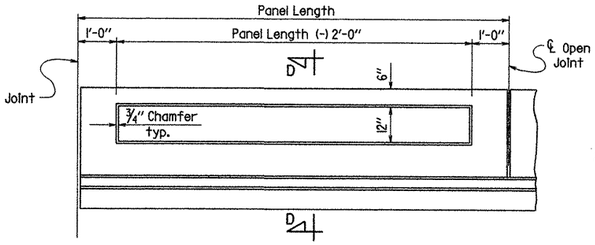


DETAIL Z

No Scale

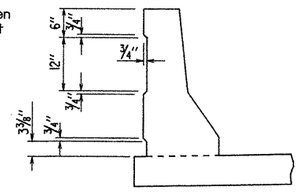
Note:
Parapet studs shall be 5" long, granular flux filled, solid fluxed, or equal and automatically end welded to the plate. Studs and plate shall meet the requirements of Section 807. Studs and plates shall be measured and paid for as Structural Steel in Beam Spans (M270,GR. 50W).

The surfaces of the 3/8" plates which will not be in contact with concrete shall be painted in accordance with Section 638, or as approved by the Engineer. Only one coat is required and shall be applied in the fabricator's shop. Painting will not be paid for directly, but will be considered subsidiary to Structural Steel in Beam Spans (M270,GR.50W).



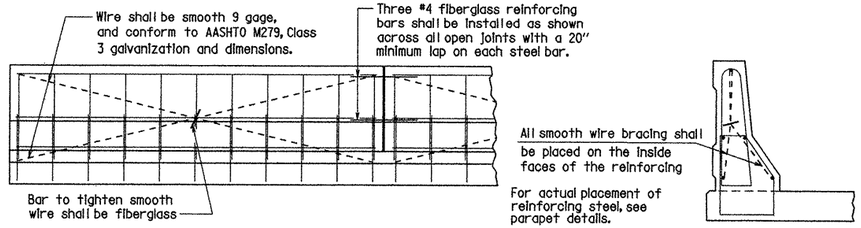
DETAILS OF PARAPET ENHANCEMENT

No Scale



SECTION D-D

No Scale

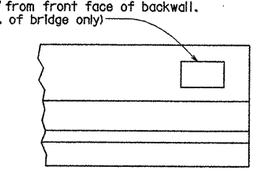


All panels shall be braced as shown to prevent racking. All open joints shall be sawed as soon as practical to a minimum width of 1/4". To control cracking before sawing all joints must be grooved before the concrete is set. Sawing of the joints must be controlled so it will follow the grooved joint.

The extruded parapet shall conform to the horizontal and vertical lines shown on the plans or as directed by the Engineer and shall present a smooth, uniform appearance and texture.

DETAILS OF OPTIONAL SLIPFORMING OF CONCRETE PARAPET RAIL

No Scale



NAME PLATE DETAIL

No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4937
01/31/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 7 OF 7
DETAILS OF 175' CONTINUOUS COMPOSITE W-BEAM UNIT WOODRUFF CREEK

ROUTE SEC.

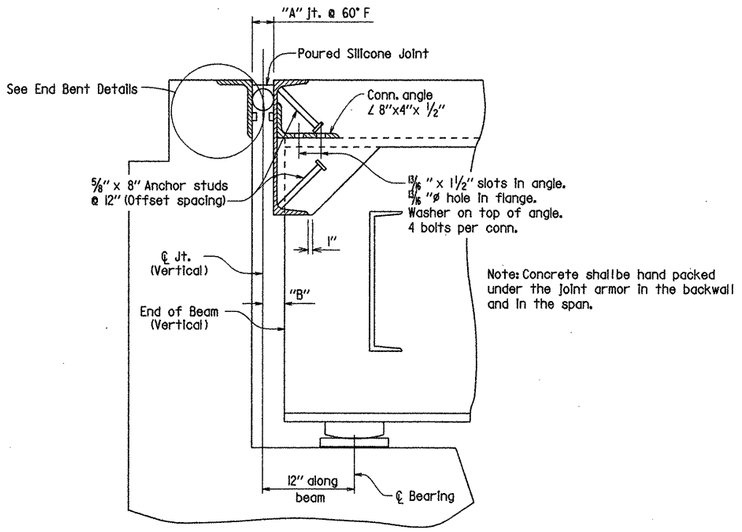
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-12-05 FILENAME: br60080xl_s7.dgn
CHECKED BY: JWD DATE: 1-25-05 SCALE: AS NOTED
DESIGNED BY: MHH DATE: Feb. 05

BRIDGE NO. 07051 DRAWING NO. 47734

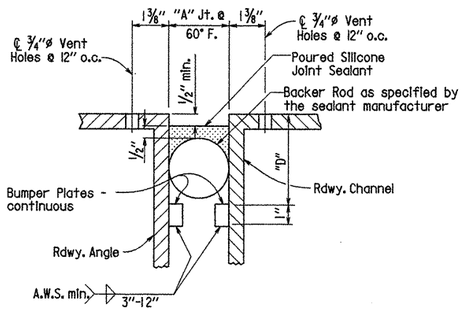
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	38	60
				①	07051-	JOINTS-WOODRUFF - 47735		



Note: Concrete shall be hand packed under the joint armor in the backwall and in the span.

JOINT AT END BENTS - Perpendicular to Joint

No Scale



DETAIL OF POURED SILICONE JOINT SEAL

No Scale

Note: Backer rods shall be extended beyond length of poured joint in Stage II so that the two pieces can be properly spliced together prior to installing sealant for Stage III. Manufacturer's recommendations shall be followed to prevent sealant from "running out of the joint" during stage construction.

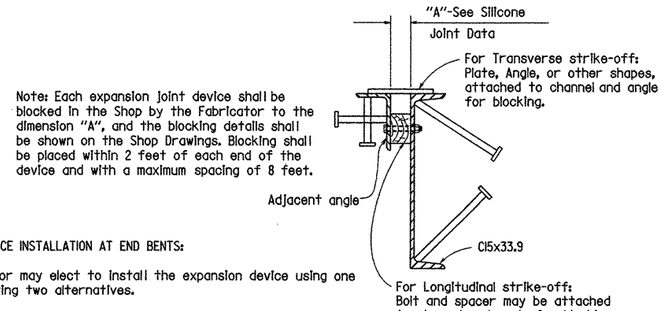
SILICONE JOINT DATA

Bent Number	"A" Width Perpendicular to Joint at 24 Hour Average Temperature* Of:			"B" Perpendicular to Joint at 60°F	Bumper Plate Size	"D"
	40°F	60°F	80°F			
1 & 6	2⅜"	2¼"	2⅛"	2¾" ±	1" x ¾"	4¾"

* The temperature used to set the joint opening shall be the approximate average air temperature during the 24 hour period immediately before the bolts are tightened. The Engineer shall establish the temperature. Interpolation of the table may be necessary.

Notes: The temperature limitations recommended by the sealant manufacturer shall be observed.

The sealant shall be installed only when the average 24 hour air temperature is between 40° and 80°F.



Note: Each expansion joint device shall be blocked in the Shop by the Fabricator to the dimension "A", and the blocking details shall be shown on the Shop Drawings. Blocking shall be placed within 2 feet of each end of the device and with a maximum spacing of 8 feet.

EXPANSION DEVICE INSTALLATION AT END BENTS:

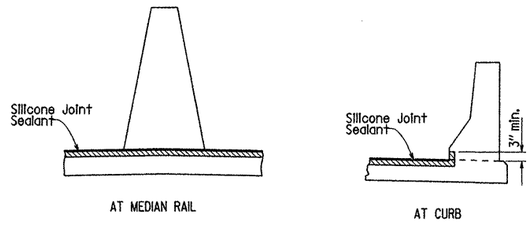
The Contractor may elect to install the expansion device using one of the following two alternatives.

1) The concrete span pour adjacent to joint shall be placed before the end bent backwall is placed. After the end bent backwall forms are in place and the beams erected, the blocked expansion device shall be installed and adjusted for grade. All connection bolts shall be fully tightened prior to placing the deck concrete adjacent to the bent. Immediately prior to pouring the backwall concrete, the blocking shall be removed, the opening adjusted for temperature, and the backwall constructed.

2) The backwall shall be poured to the optional construction joint after beams are erected. The blocked expansion device shall be installed and adjusted for grade. All connection bolts shall be fully tightened prior to placing the deck concrete adjacent to the bent. Immediately prior to pouring the remainder of the backwall concrete, the blocking shall be removed and the opening adjusted for temperature.

DETAILS FOR BLOCKING EXPANSION JOINT DEVICE

No Scale



JOINT SEAL PLACEMENT AT CURB

No Scale

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

STATE OF ARKANSAS
CHARLES P. BRAND
REGISTERED PROFESSIONAL ENGINEER
No. 4337
8/3/05

BRIDGE ENGINEER

DETAILS OF JOINTS WOODRUFF CREEK

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-18-05 FILENAME: br60080xl_jl.dgn

CHECKED BY: JWD DATE: 7-25-05 SCALE: AS NOTED

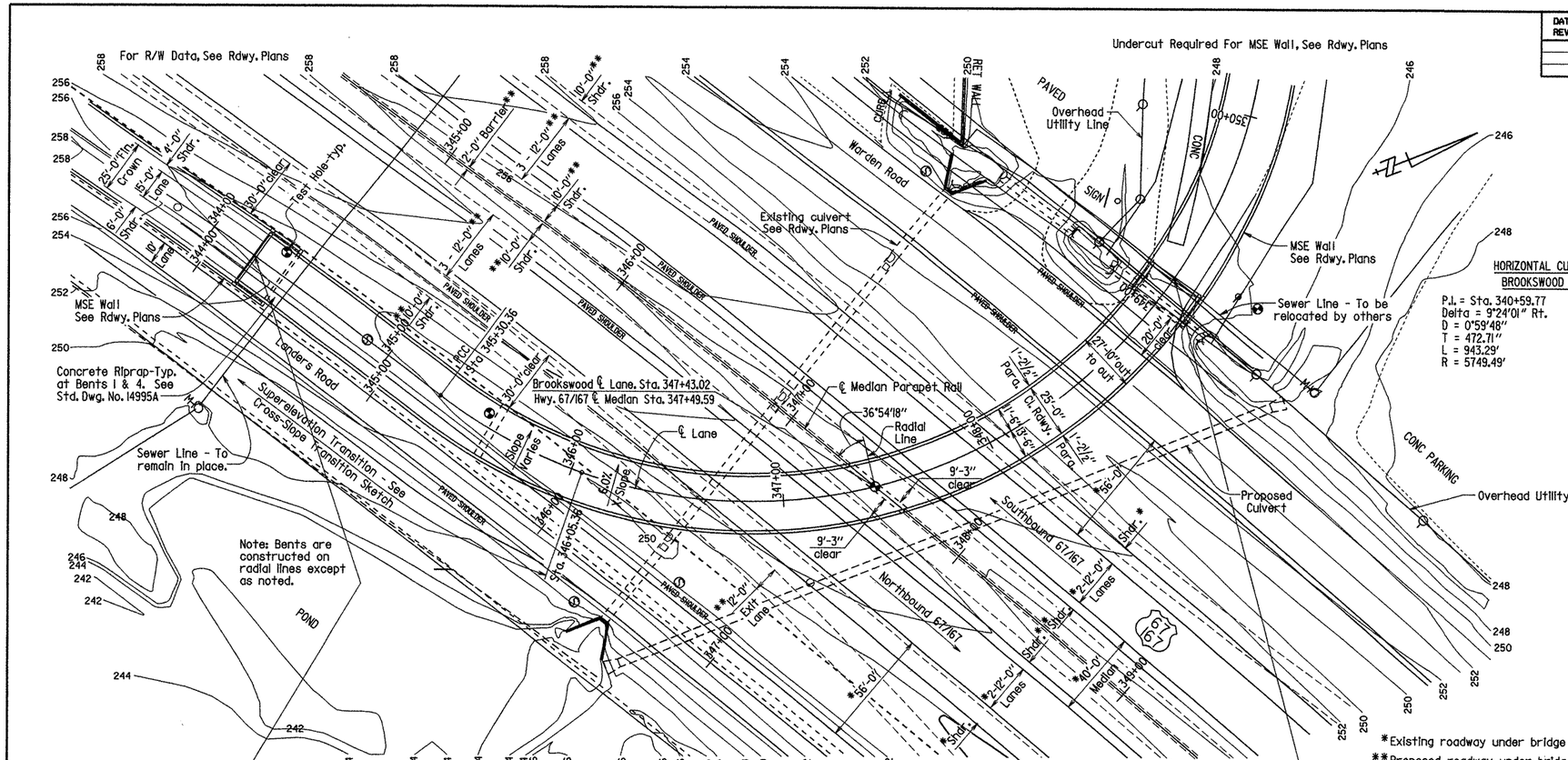
DESIGNED BY: MAH DATE: Feb. 05

BRIDGE NO. 07051 DRAWING NO. 47735

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.		R60080	340	608

(1) 07052 - LAYOUT-BROOKSWOOD - 47736



HORIZONTAL CURVE DATA
BROOKSWOOD FLYOVER

P.I. = Sta. 340+59.77
Delta = 9°24'01" Rt.
D = 0°59'48"
T = 472.71'
L = 943.29'
R = 5749.49'

P.I. = Sta. 349+42.09
Delta = 119°47'13" Lt.
D = 24°00'00"
T = 411.73'
L = 499.11'
R = 238.73'

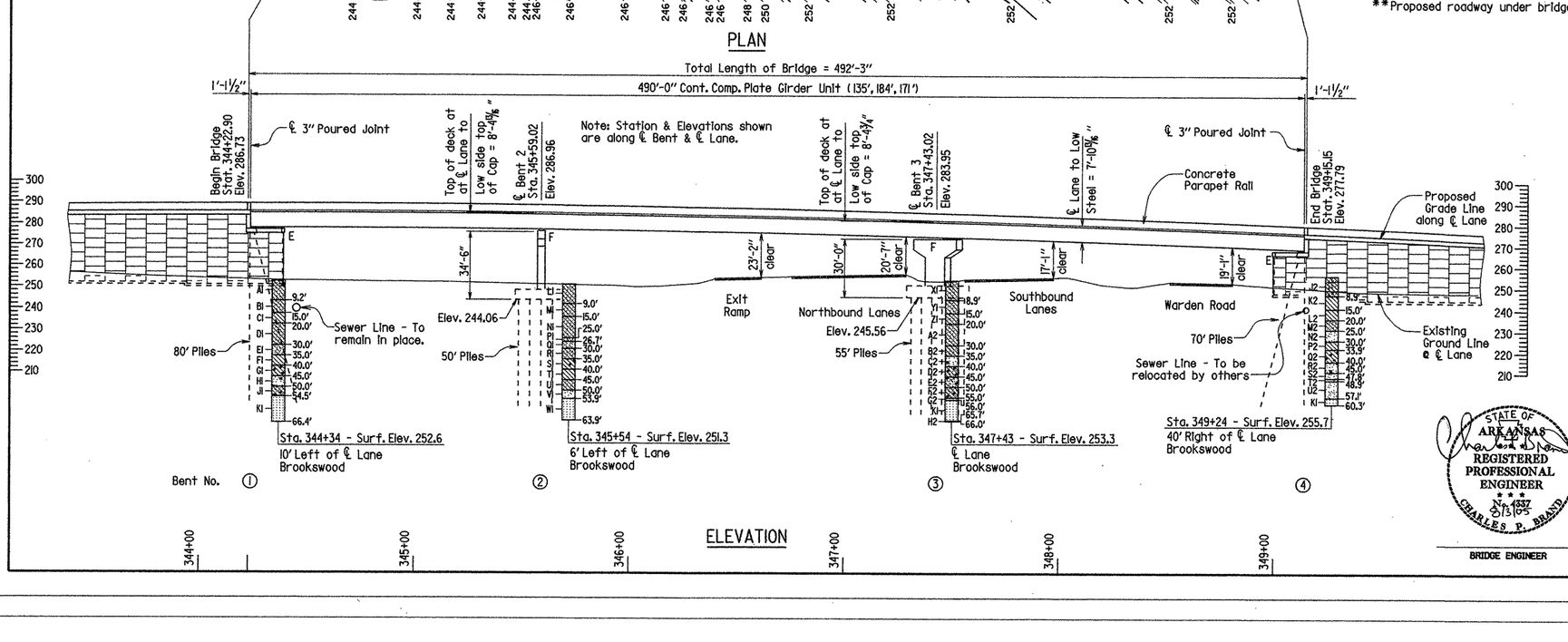
HORIZONTAL CURVE DATA
US 67/167

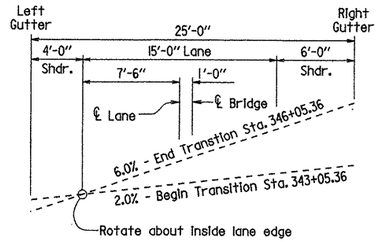
P.I. = Sta. 337+08.66
Delta = 27°27'43" Rt.
D = 1°00'00"
T = 1400.01'
L = 2746.21'
R = 5729.58'

L = 750'
+1.40% -6.70%
PVI 347+42.81
Elev 291.10

VERTICAL CURVE DATA
ALONG INSIDE LANE EDGE
(ROTATION POINT)

For General Notes and Soil Boring Data, See Dwg. No. 47737





Note: Stationing is along ℄ Lane of Bridge

CROSS SLOPE TRANSITION SKETCH
Looking Ahead

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13337
3/31/05
CHARLES P. BRAND
BRIDGE ENGINEER

SHEET 1 OF 2
LAYOUT OF BROOKSWOOD FLYOVER OVER U.S. HWY. 67/167 I-40 - McCAIN BLVD. & WILDWOOD-KIEHL AVE. (F) PULASKI COUNTY

ROUTE 67 SEC. 10

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 3-14-05 FILENAME: br60080x2_lll.dgn
CHECKED BY: MAH DATE: 8.30.5 SCALE: 1" = 30'
DESIGNED BY: KWV DATE: 11-04

BRIDGE NO. 07052 DRAWING NO. 47736

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
12-6-05				6	ARK.			
				JOB NO.		R60080	341	609
				(1)		07052 - GEN. NOTES-LAYOUT - 47737		

GENERAL NOTES

BENCH MARK: Chiseled square in drop inlet, 24.59' right of C.L. Lane. Sta. 346+49.37, Elev. 249.13.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 2003 edition, with applicable supplemental specifications and special provisions. Unless otherwise noted, section and subsection numbers in the plans refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, (2002 edition), and AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges (2003 edition).

LIVE LOADING: HS20 METHOD OF DESIGN: Load Factor
SEISMIC PERFORMANCE CATEGORY: A
f'c = 4,000 psi.
f'c = 3,500 psi.
MATERIALS AND STRENGTHS:
Class S(AE) Concrete (superstructure) Fy = 50,000 psi.
Class S Concrete (substructure) Fy = 36,000 psi.
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)
Structural Steel (AASHTO M270, Gr. 50)
Structural Steel (AASHTO M270, Gr. 36)

BORING LOGS: Boring logs may be obtained from the Programs and Contracts Division.

STEEL PILING: Piling in Bents 1, 2 and 4 shall be HP 12x53 and shall be driven with an approved air, steam or diesel hammer to a minimum safe bearing capacity of 70 tons per pile and into material designated as hard sandstone on the boring legend. Piling in Bent 3 shall be HP 14x73 and shall be driven with an approved air, steam or diesel hammer to a minimum safe bearing capacity of 90 tons per pile and into material designated as hard sandstone on the boring legend. Lengths of piling shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with the standard specifications. Piles in end bents to be driven after embankment to bottom of cap is in place. On all piles the Contractor shall use approved steel H-Pile driving points. Actual pile lengths to be determined in the field.

Pile casing are required for all piling in the end bent cap of Bent Nos 1 & 4. Casing shall be installed prior to or during embankment construction and shall extend from the prebored elevations to bottom of cap. Pile casing material shall be of sufficient strength to retain its original form free from harmful distortions after compaction of the fill material surrounding it. The minimum inside diameter of the casing shall be 18". Piling shall be driven through the open casings after embankment to bottom of cap is in place. After driving is completed, the pile casings shall be backfilled with Class "S" Concrete in a single continuous operation to completely fill voids. Pile casings and concrete backfill will not be paid for directly, but shall be considered subsidiary to the item "Steel Piling".

PREBORING: Piles at Bent 1 and Bent 4 shall be prebored to minimize driving impact to the existing and relocated sewer lines. Bent 1 shall be prebored to an elevation of 234.50 and Bent 4 shall be prebored to an elevation of 237.50. Preboring for such piles willbe paid for at the unit price bid for "Preboring".

At all other locations, preboring for the Contractor's convenience must be approved by the Engineer, and shall be at no cost to the Department.

FOOTINGS: The top of footings for bents 2 & 3 shall be set a minimum of 2'-0" below the top of the finished ground. Foundations for footings shall be prepared in accordance with Section 801.04 and shall be backfilled in accordance with Section 801.08.

BRIDGE DECK: The concrete bridge deck shall be given a tine finish as specified for final finishing in subsection 802.19 for Class S Tined Bridge Roadway Surface Finish.

TEXTURED COATING FINISH: Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in SP Job R60080"Textured Coating Finish" and in accordance with subsection 802.19. Textured Coating Finish shall not be applied on surfaces where Class 1 Protective Surface Treatment is applied.

⚠ PAINTING STRUCTURAL STEEL: Paint shall conform to Federal Standard 595A, Color Chip No. 37200, Aluminum.

DETAIL DRAWINGS:	DRAWING NO.
End Bents	47738, 47739, 47742 & 47743
Intermediate Bents	47740 & 47741
490'-0" Continuous Composite Plate Girder Unit	47744-47752
Elastomeric Bearings	47753-47755
Details of Permissible Permanent Deck Forms	47756
Steel Piling	14995A

BORING LEGEND

A1-Moist, Stiff, Gray and Brown Sandy Clay with some Organic Matter
B1-Moist, Stiff, Gray and Brown Sandy Clay
C1-Moist, Stiff, Gray and Brown Clay with some Sand
D1-Moist, Very Stiff, Gray Clay with Sand Lenses
E1-Moist, Dense, Gray Sand with Clay Seams
F1-Moist, Hard, Gray Clay with some Sand
G1-Moist, Hard, Dark Gray Clay with Lignite Seams
H1-Moist, Dense, Dark Gray Sand with Lignite
J1-Moist, Hard, Dark Gray Sandy Clay with Lignite
K1-Hard, Gray Sandstone
L1-Moist, Soft, Brown and Gray Sandy Clay
M1-Moist, Medium Stiff, Gray Sandy Clay with Traces of Organic Matter
N1-Moist, Stiff, Brown and Gray Sandy clay
P1-Moist, Medium Dense, Dark Gray Sand with Clay Seams and some Organic Matter
Q1-Wet, Medium Dense, Dark Gray Sand with Clay Seams and Traces of Gravel
R1-Moist, Hard, Dark Gray Sandy Clay with Traces of Gravel
S1-Moist, Hard, Dark Gray Lignitic Clay
T1-Moist, Very Stiff, Dark Gray Clay with Traces of Lignite
U1-Moist, Very Hard, Dark Gray Sandy Clay
V1-Wet, Very Dense, Dark Gray Sand
W1-Hard, Gray Sandstone
X1-Moist, Medium Stiff, Reddish Brown and Gray Sandy Clay
Y1-Moist, Very Soft, Brown and Gray Clay with Sand
Z1-Moist, Stiff, Brown and Gray Clay with Sand Seams
A2-Moist, Stiff, Brown and Gray to Brown Sandy Clay
B2-Wet, Stiff, Gray Clay with Sand Seams
C2-Wet, Medium Dense, Dark Gray Sand with Lignite
D2-Moist, Very Stiff, Dark Gray Sandy Clay with Lignite
E2-Moist, Very Dense, Dark Gray Sand with Clay Seams and Lignite
F2-Moist, Very Hard, Dark Gray Sandy Clay with Lignite
G2-Very Dense, Gray Poorly-Cemented Sand
H2-Hard, Dark Gray Shale
J2-Moist, Soft, Brown and Gray Sandy, Silty Clay
K2-Moist, Stiff, Brown Clay with some Sand
L2-Moist, Medium Stiff, Gray and Brown Clay
M2-Moist, Stiff, Brown and Gray Sandy Clay
N2-Wet, Medium Dense, Brown Sand
P2-Moist, Stiff, Dark Gray Clay
Q2-Moist, Very Stiff, Dark Gray Lignitic Clay
R2-Moist, Dense, Gray Sand with Lignite and some Clay Seams
S2-Moist, Very Dense, Gray Sand with some Cemented Sand Seams
T2-Moist, Dense, Gray Sand
U2-Moist, Very Dense, Gray Sand with Cemented Sand Seams

"N" VALUES

Sta. 344+34 - 10' Left of ℄ Lane - Brookswood
4.7- 5.7, N=7
9.7- 10.7, N=10
15.5- 16.5, N=11
20.5- 21.5, N=18
25.5- 26.5, N=22
30.5- 31.5, N=33
35.5- 36.5, N=38
40.5- 41.5, N=36
45.5- 46.5, N=50
50.5- 51.5, N=44
55.0- 55.0, N=60(0.1")

Sta. 345+54 - 6' Left of ℄ Lane - Brookswood
4.5- 5.5, N=4
9.5- 10.5, N=7
15.5- 16.5, N=11
20.5- 21.5, N=10
25.5- 26.5, N=17
27.2- 28.2, N=13
30.5- 31.5, N=34
35.5- 36.5, N=51
40.5- 41.5, N=19
45.5- 45.8, N=60(4")
50.5- 51.2, N=91(8")

Sta. 347+43 - ℄ Lane - Brookswood
4.4- 5.4, N=8
9.4- 10.4, N=0
15.5- 16.5, N=9
20.5- 21.5, N=12
25.5- 26.5, N=9
30.5- 31.5, N=11
35.5- 36.5, N=21
40.5- 41.5, N=28
45.5- 46.5, N=91
50.5- 51.5, N=73
55.0- 55.2, N=60(3")

Sta. 349+24 - 40' Right of ℄ Lane - Brookswood
4.4- 5.4, N=3
9.4- 10.4, N=10
15.5- 16.5, N=7
20.5- 21.5, N=13
25.5- 26.5, N=11
30.5- 31.5, N=11
35.5- 36.5, N=19
40.5- 41.5, N=40
45.0- 45.2, N=60(2")
50.0- 50.1, N=60(1")
55.0- 55.0, N=60(0.1")
60.0- 60.2, N=60(3")

⚠ Removed Arkansas Form Insert from Intermediate bents KDH - 12-6-05

STATE OF ARKANSAS
CHARLES P. BRAND
REGISTERED PROFESSIONAL ENGINEER
No. 4337
12/8/05
BRIDGE ENGINEER

SHEET 2 OF 2
LAYOUT OF BROOKSWOOD FLYOVER
OVER U.S. HWY. 67/167
I-40 - McCAIN BLVD. &
WILDWOOD-KIEHL AVE. (F)
PULASKI COUNTY

ROUTE 67 SEC. 10

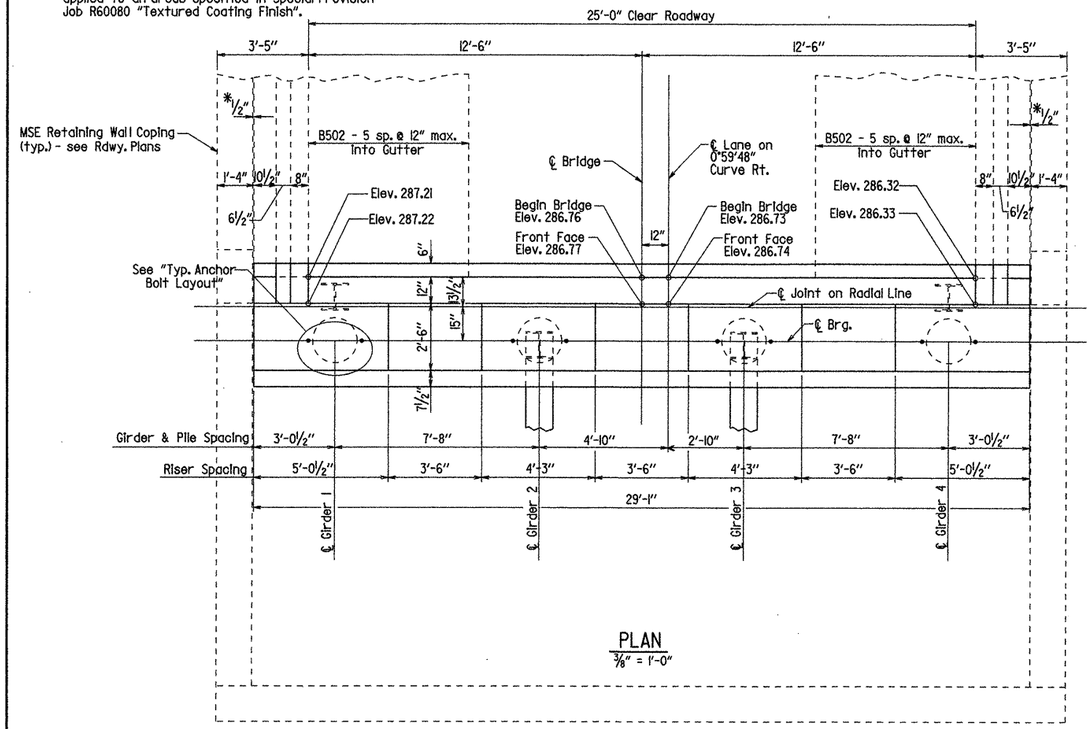
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 3-14-05 FILENAME: br60080x2_not.dgn
CHECKED BY: MAH DATE: 12-7-05 SCALE: NONE
DESIGNED BY: KWY DATE: 11-04

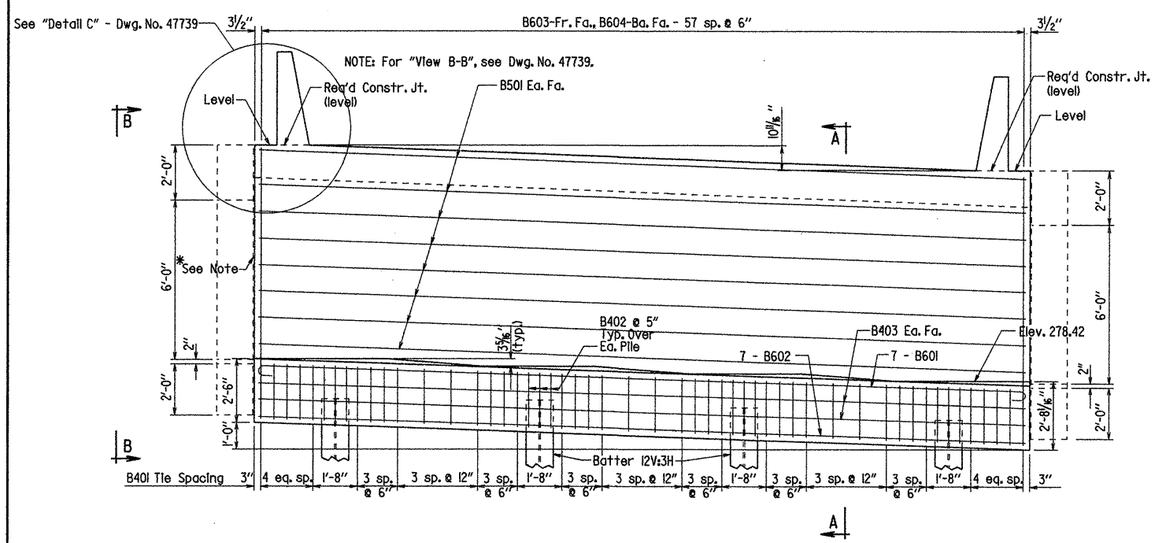
BRIDGE NO. 07052 DRAWING NO. 47737

NOTE: Class I Protective Surface Treatment shall be applied to the top of the backwall and to the rdwy. face and top of the End Bent rail. Class 3 Textured Coating Finish shall be applied to all areas specified in Special Provision Job R60080 "Textured Coating Finish".

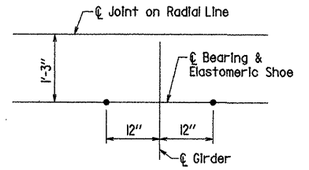
*½" Preformed Joint (AASHTO M153 Type I) and 2" x ½" Poured Joint Sealer (Type 6) between Bent I and coping.



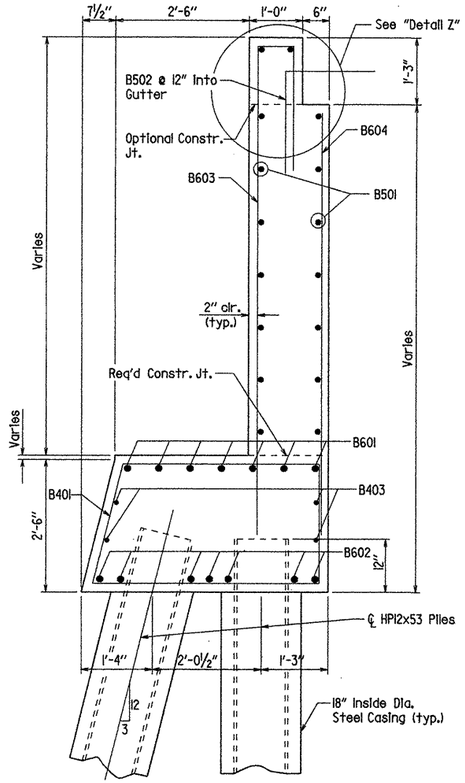
PLAN
⅜" = 1'-0"



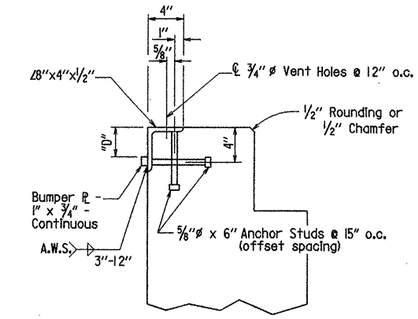
ELEVATION
Looking Back
⅜" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT
No Scale



SECTION A-A
¾" = 1'-0"



NOTE: For Joint Details & Dimension "D" see Dwg. No. 47752.

NOTE: Concrete shall be hand packed under the joint armor in the backwall.

DETAIL Z
No Scale

GENERAL NOTES

All concrete shall be Class "S" and shall be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

The backwall shown above the required construction joint shall not be poured until the deck concrete for Pours (1), (2) and (3) have been poured. The backwall shall be completed before the closure pours are made.

Structural steel in end bents shall be AASHTO M270, Gr. 36 and shall be paid for as "Structural Steel in Plate Girder Spans (M270, Gr. 50)."

If anchor bolts are drilled into the cap, top reinforcing bars shall be placed to avoid damage.

For additional information see Layout.

For Details of Elastomeric Bearings see Dwg. No. 47753.

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.		R60080	32	603
07052		END BENT I		47738

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
2/3/05
CHARLES P. BRAND

BRIDGE ENGINEER

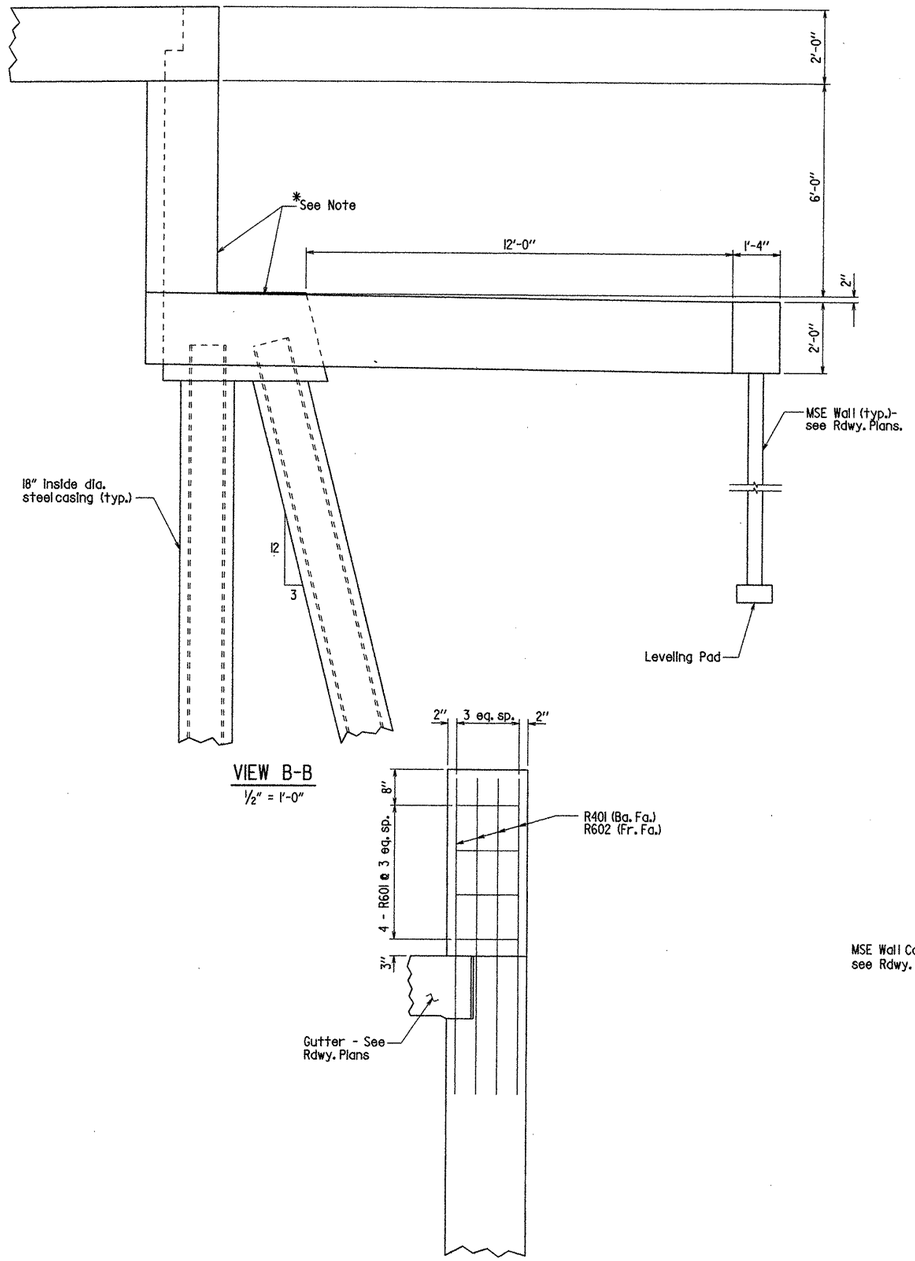
SHEET 1 OF 2
DETAILS OF END BENT 1
BROOKSWOOD FLYOVER
PULASKI COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: K.W.Y. DATE: 6-24-05
CHECKED BY: MAH DATE: 8-3-05
DESIGNED BY: K.W.Y. DATE: 6-05
FILENAME: br60080x2_bll.dgn
SCALE: as noted

BRIDGE NO. 07052 DRAWING NO. 47738

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.		R60080	24360	
				07052		END BENT 1		47739

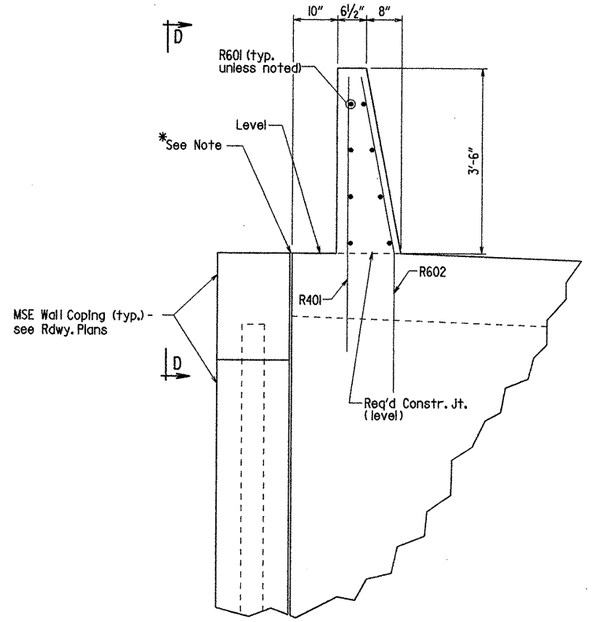


VIEW B-B
1/2" = 1'-0"

NOTE: Coping not shown for clarity

VIEW D-D
3/4" = 1'-0"

*1/2" Preformed Joint (AASHTO M153 Type 1) and 2" x 1/2" Poured Joint Sealer (Type 6) between Bent 1 and coping.

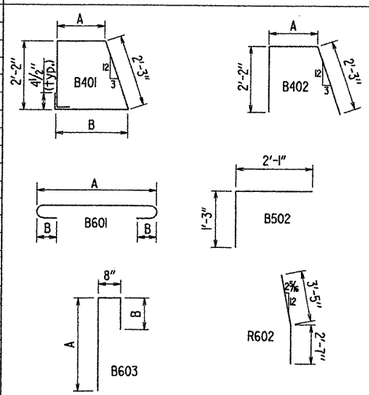


NOTE: High side is shown, low side is similar.

DETAIL C
3/4" = 1'-0"

BAR LIST

Mark	No. Req'd.	Length	A	B	Pin Dia.	Bending Diagrams (Dimensions are out to out of bars.)
B401	40	12'-8"	3'-8"	4'-2 1/2"	2"	
B402	12	7'-11"	3'-8"		2"	
B403	4	28'-9"			Str.	
B501	16	28'-9"			Str.	
B502	12	3'-3"			3 3/4"	
B601	7	30'-1"	28'-9"	6"	4 1/2"	
B602	7	28'-9"			Str.	
B603	58	12'-0"	9'-2"	2'-4"	4 1/2"	
B604	58	7'-11"			Str.	
R401	8	5'-2"			Str.	
R601	16	1'-2"			Str.	
R602	8	6'-0"			4 1/2"	



STATE OF ARKANSAS
CHARLES P. BRAND
REGISTERED PROFESSIONAL ENGINEER
No. 11637
8/3/05

BRIDGE ENGINEER

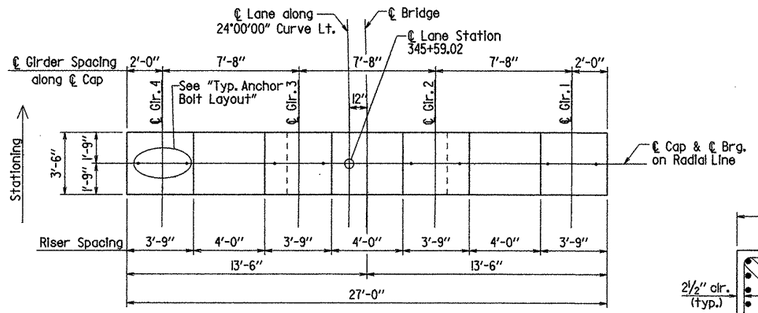
SHEET 2 OF 2
DETAILS OF END BENT 1
BROOKSWOOD FLYOVER
PULASKI COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

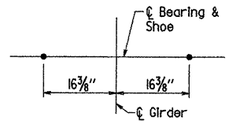
DRAWN BY: K.W.Y. DATE: 6-27-05 FILENAME: br60080x2_bl2.dgn
CHECKED BY: DATE: 8-2-05 SCALE: as noted
DESIGNED BY: K.W.Y. DATE: 6-05

BRIDGE NO. 07052 DRAWING NO. 47739

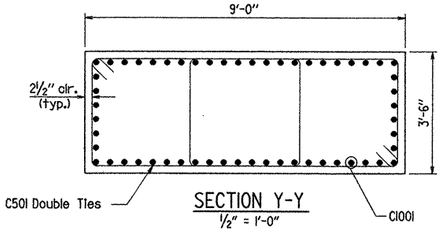
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	244	669
				(1) 07052		BENT 2		47740



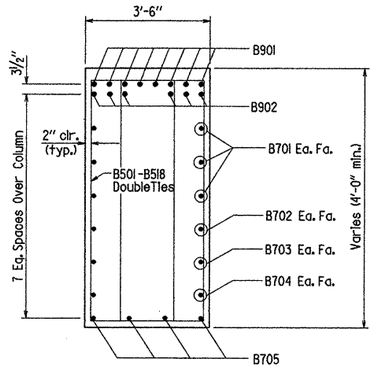
PLAN
1/4" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT
No Scale



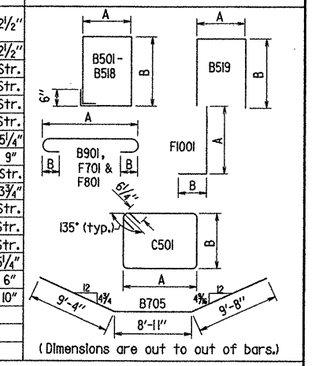
SECTION Y-Y
1/2" = 1'-0"



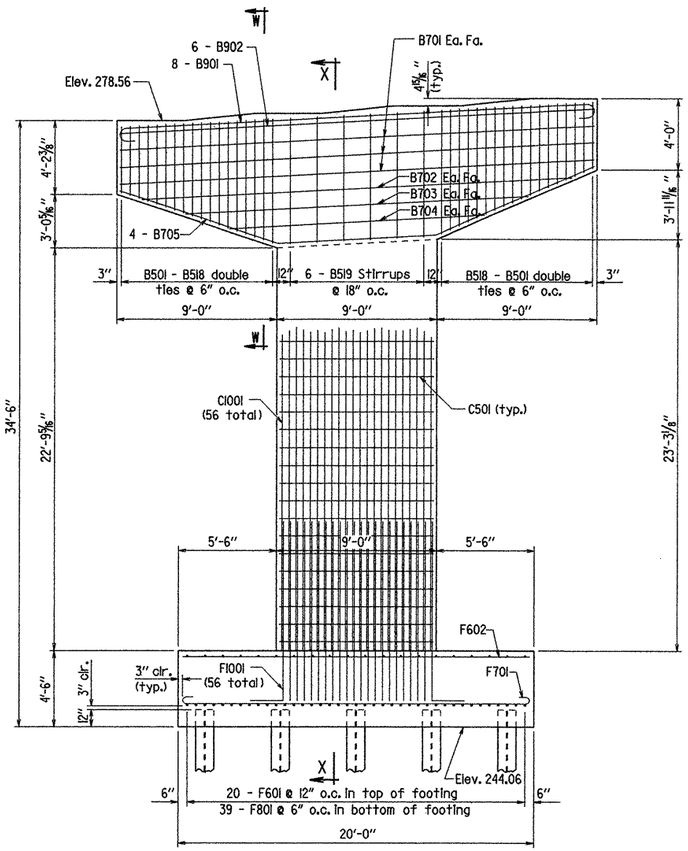
SECTION W-W
1/2" = 1'-0"

BAR LIST

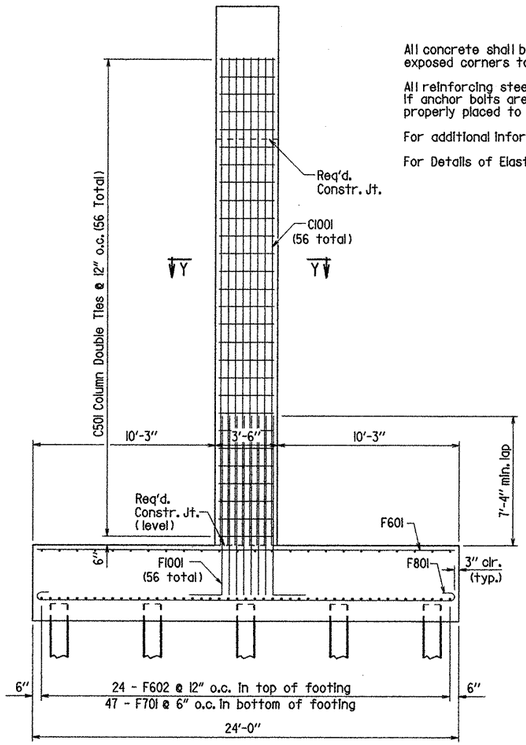
Mark	No. Req'd.	Length	A	B	Pin Dia.	Bending Diagrams
B50I-B518	4 ea.	12'-8"-19'-2"	2'-4"	3'-9"-7'-0"	2 1/2"	
B519	6	17'-4"	3'-2"	7'-2"	2 1/2"	
B70I	6	26'-8"			Str.	
B702	2	24'-2"			Str.	
B703	2	19'-3"			Str.	
B704	2	14'-4"			Str.	
B705	4	27'-11"			5 1/4"	
B90I	8	29'-2"	26'-8"	10"	9"	
B902	6	26'-8"			Str.	
C50I	56	18'-6"	5'-10"	3'-1"	3 3/4"	
C100I	56	27'-7"			Str.	
F60I	20	23'-6"			Str.	
F602	24	19'-6"			Str.	
F70I	47	21'-2"	19'-6"	7"	5 1/4"	
F80I	39	25'-4"	23'-6"	8"	6"	
F100I	56	13'-11"	12'-5"	1'-10"	10"	



(Dimensions are out to out of bars.)



ELEVATION
Looking Ahead
1/4" = 1'-0"



SECTION X-X
1/4" = 1'-0"

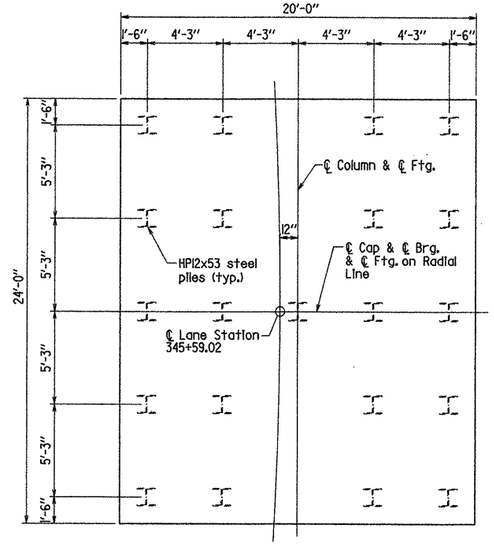
GENERAL NOTES

All concrete shall be Class "S" and shall be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60. If anchor bolts are drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

For additional information see Layout.

For Details of Elastomeric Bearings see Dwg. No. 47754.



PLAN OF FOOTING
1/4" = 1'-0"

STATE OF ARKANSAS
CHARLES P. BRAND
No. 1337
REGISTERED PROFESSIONAL ENGINEER
5/31/05

BRIDGE ENGINEER

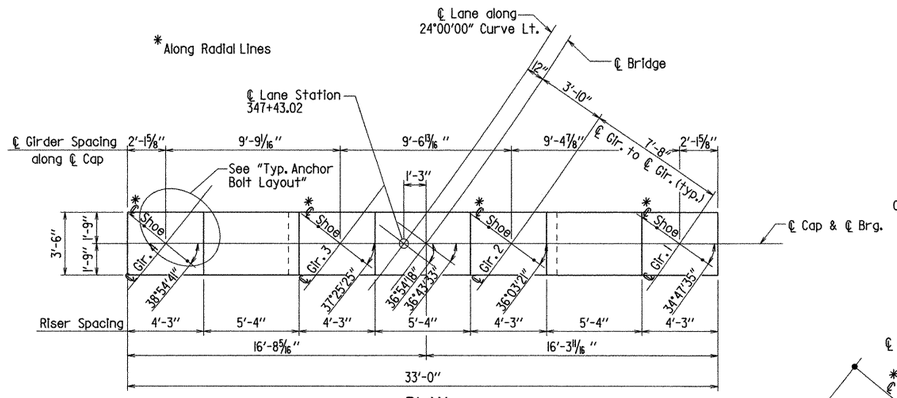
DETAILS OF BENT 2
BROOKSWOOD FLYOVER
PULASKI COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

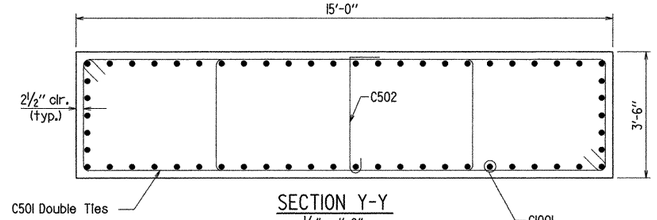
DRAWN BY: K.W.Y. DATE: 6-13-05
CHECKED BY: MAH DATE: 8-3-05
DESIGNED BY: K.W.Y DATE: 5-05
FILENAME: br60080x2_b2.dgn
SCALE: as noted

BRIDGE NO. 07052 DRAWING NO. 47740

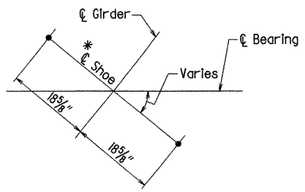
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
12-6-05				6	ARK.			
				JOB NO.		R60080	345	609
				①	07052	BENT 3		47741



PLAN
1/4" = 1'-0"



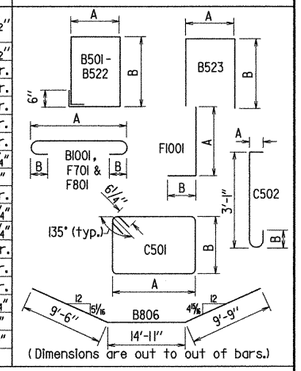
SECTION Y-Y
½" = 1'-0"



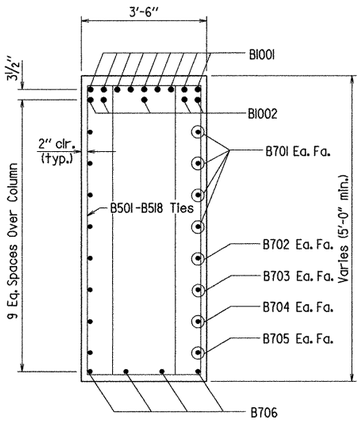
TYPICAL ANCHOR BOLT LAYOUT
No Scale

BAR LIST

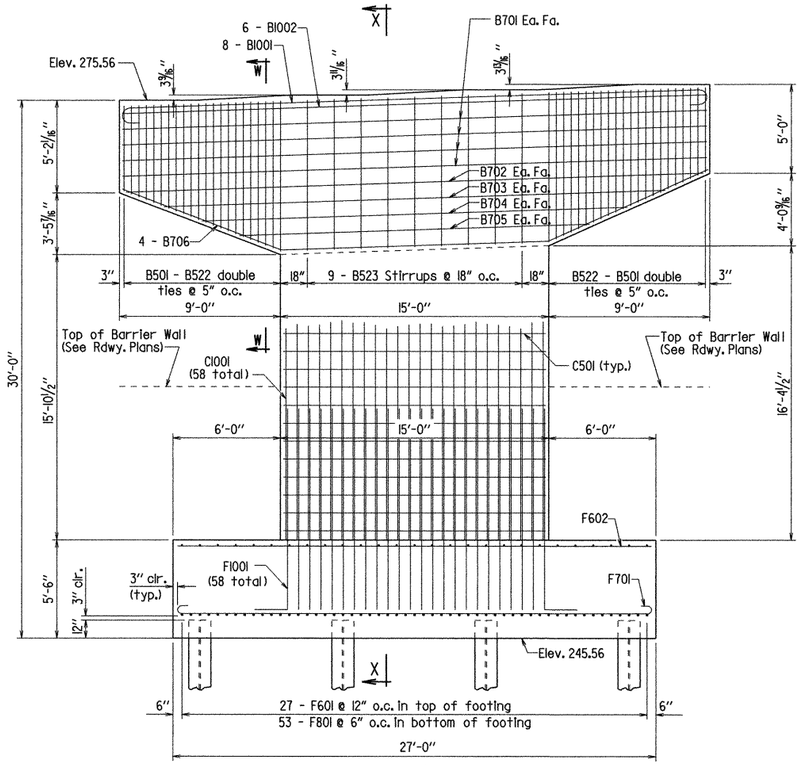
Mark	No. Req'd.	Length	A	B	Pin Dia.	Bending Diagrams
B501 - B522	4 ea.	14'-11" - 22'-1"	2'-5½"	4'-9" - 8'-4"	2½"	
B523	9	19'-10"	3'-2"	8'-5"	2½"	
B701	8	32'-8"			Str.	
B702	2	32'-3"			Str.	
B703	2	28'-0"			Str.	
B704	2	23'-9"			Str.	
B705	2	19'-7"			Str.	
B706	4	34'-2"			5¼"	
B1001	9	35'-6"	32'-8"	11½"	10"	
B1002	5	32'-8"			Str.	
C501	42	28'-7"	10'-10½"	3'-1"	3¾"	
C502	21	4'-5"	10"	5"	3¾"	
C1001	58	20'-9"			Str.	
F601	27	15'-6"			Str.	
F602	16	26'-6"			Str.	
F701	31	28'-2"	26'-6"	7"	5¼"	
F801	53	17'-4"	15'-6"	8"	6"	
F1001	58	14'-11"	13'-5"	1'-10"	10"	



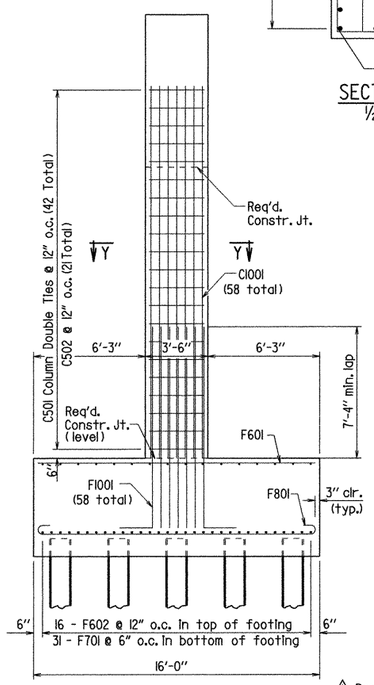
(Dimensions are out to out of bars.)



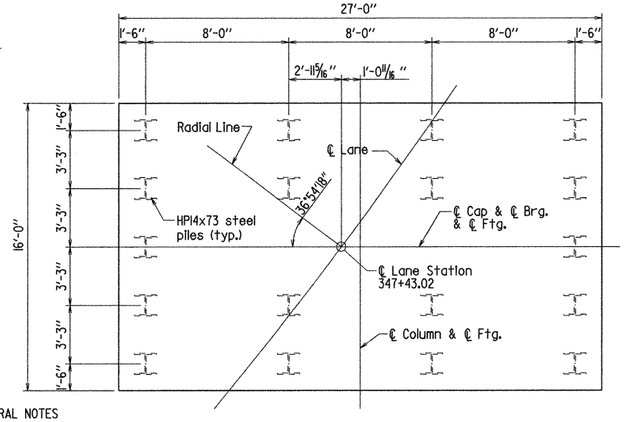
SECTION W-W
½" = 1'-0"



ELEVATION
Looking Ahead
1/4" = 1'-0"



SECTION X-X
1/4" = 1'-0"



PLAN OF FOOTING
1/4" = 1'-0"

⚠ Removed Arkansas Form Insert from Intermediate bents KDH - 12-6-05

⚠ GENERAL NOTES

All concrete shall be Class "S" and shall be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60. If anchor bolts are drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

For additional information see Layout.

For Details of Elastomeric Bearings see Dwg. No. 47754.

STATE OF ARKANSAS
CHARLES P. BRAND
No. 4337
REGISTERED PROFESSIONAL ENGINEER
12/8/05

BRIDGE ENGINEER

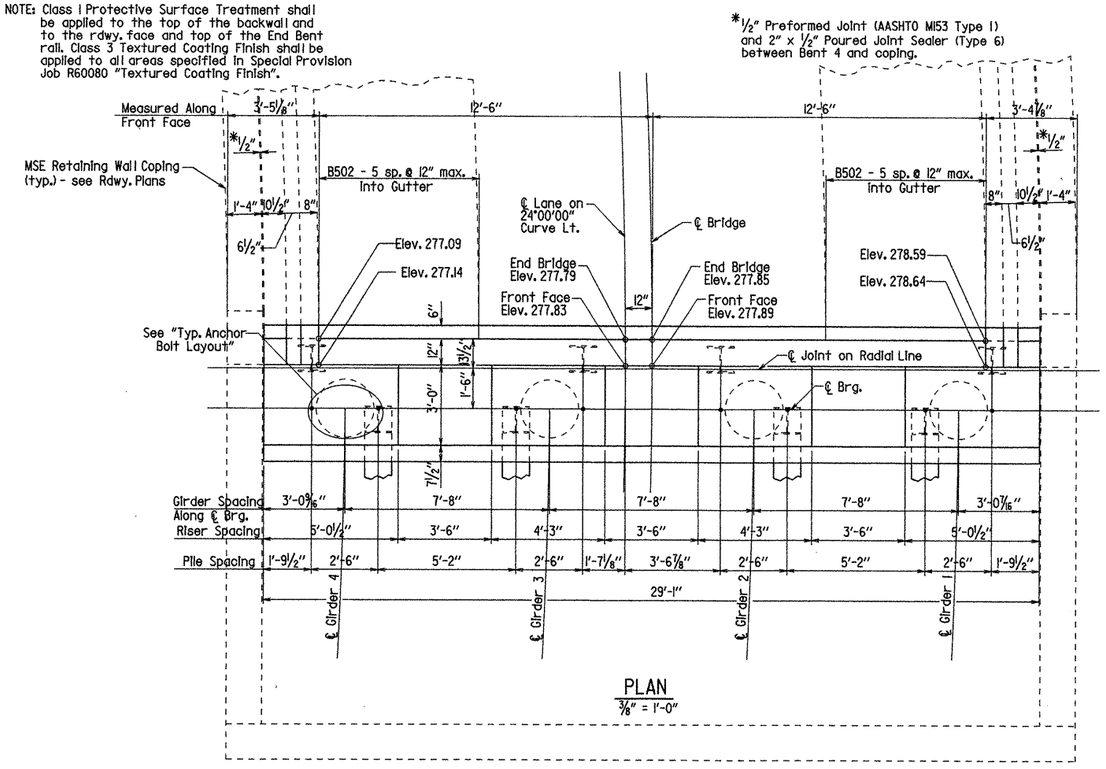
DETAILS OF BENT 3
BROOKSWOOD FLYOVER
PULASKI COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

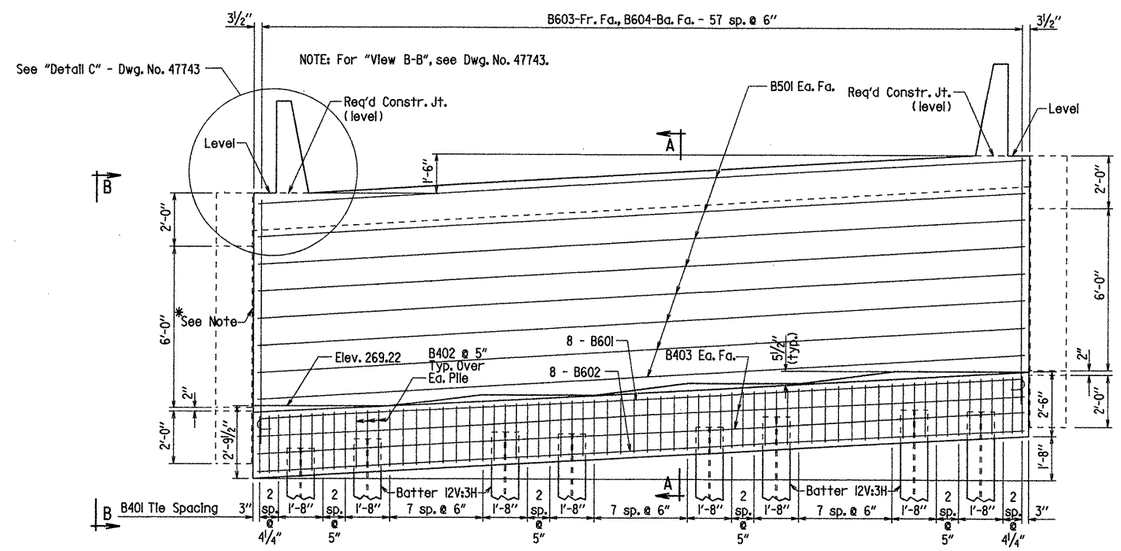
DRAWN BY: K.W.Y. DATE: 6-13-05 FILENAME: br60080x2_b3.dgn
CHECKED BY: MAH DATE: 12-7-05 SCALE: as noted
DESIGNED BY: KWY DATE: 5-05

BRIDGE NO. 07052 DRAWING NO. 47741

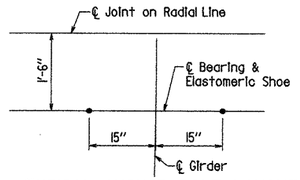
NOTE: Class I Protective Surface Treatment shall be applied to the top of the backwall and to the rdwy. face and top of the End Bent rail. Class 3 Textured Coating Finish shall be applied to all areas specified in Special Provision Job R60080 "Textured Coating Finish".



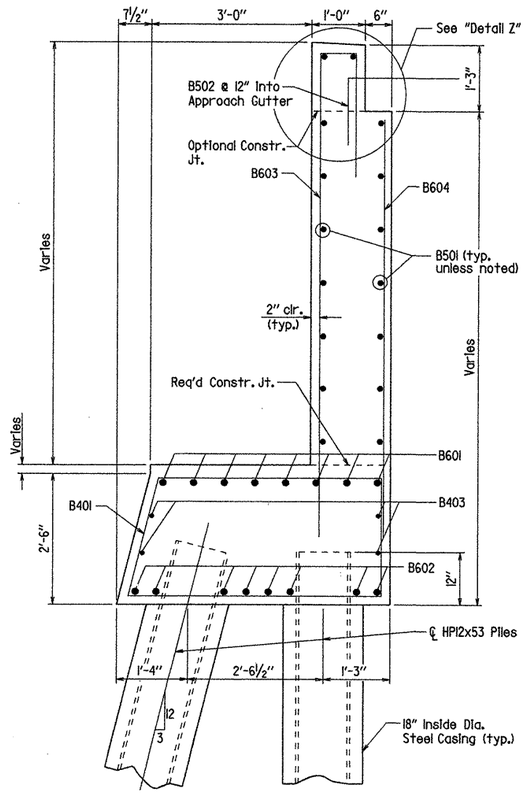
PLAN
⅜" = 1'-0"



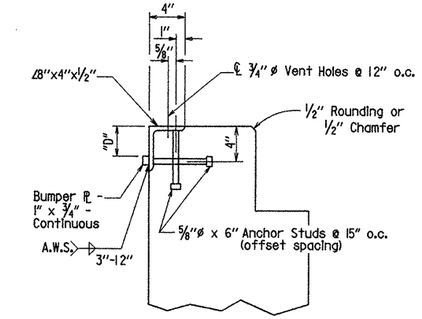
ELEVATION
Looking Forward
⅜" = 1'-0"



TYPICAL ANCHOR BOLT LAYOUT
No Scale



SECTION A-A
¾" = 1'-0"



NOTE: For Joint Details & Dimension "D" see Dwg. No. 47752.

NOTE: Concrete shall be hand packed under the joint armor in the backwall.

DETAIL Z
No Scale

GENERAL NOTES

All concrete shall be Class "S" and shall be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

The backwall shown above the required construction joint shall not be poured until the deck concrete for Pours (1), (2) and (3) have been poured. The backwall shall be completed before the closure pours are made.

Structural steel in end bents shall be AASHTO M270, Gr. 36 and shall be paid for as "Structural Steel in Plate Girder Spans (M270, Gr. 50)."

If anchor bolts are drilled into the cap, top reinforcing bars shall be placed to avoid damage.

For additional information see Layout.

For Details of Elastomeric Bearings see Dwg. No. 47754.

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.		R60080	3	60
				1	07052	END BENT 4	47742	

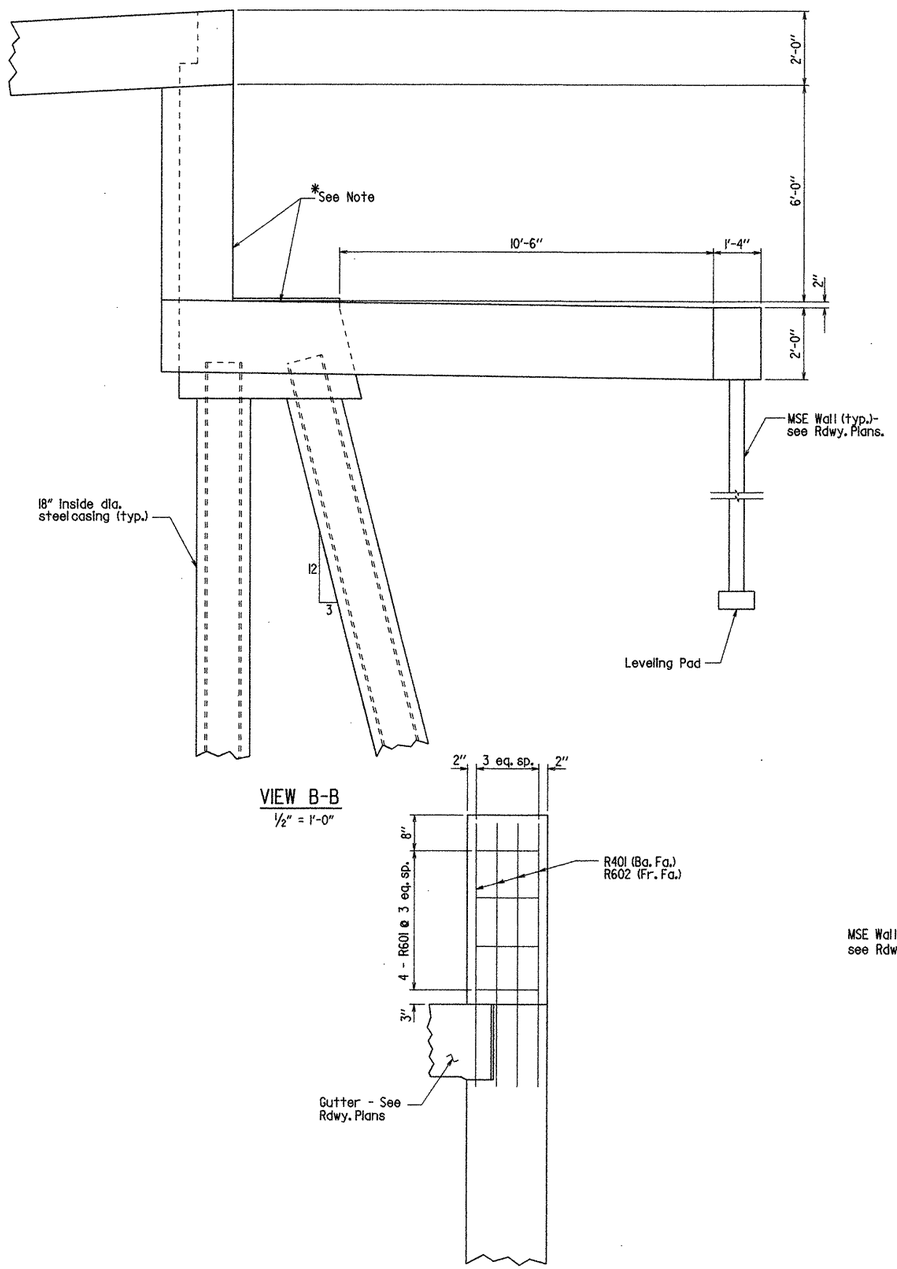
STATE OF ARKANSAS
No. 6337
REGISTERED PROFESSIONAL ENGINEER
CHARLES P. BRAND
BRIDGE ENGINEER

SHEET 1 OF 2
DETAILS OF END BENT 4
BROOKSWOOD FLYOVER
PULASKI COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: K.W.Y. DATE: 6-27-05 FILENAME: br60080x2_b4l.dgn
CHECKED BY: DATE: SCALE: as noted
DESIGNED BY: K.W.Y. DATE: 6-05

BRIDGE NO. 07052 DRAWING NO. 47742

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.		R60080	347	603
				(1) 07052		END BENT 4		47743

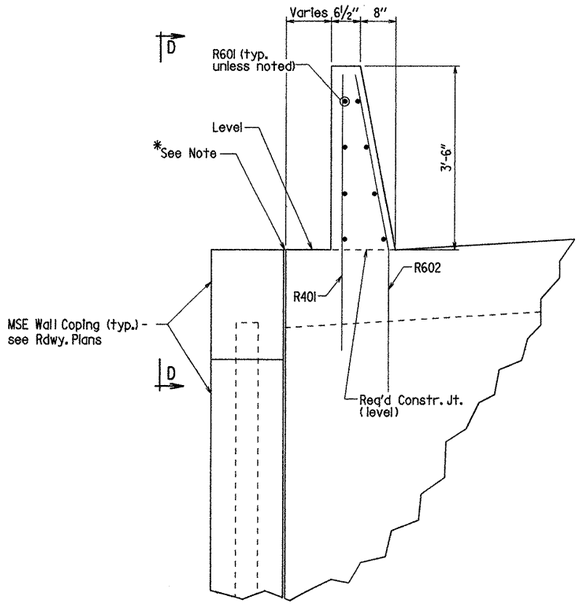


VIEW B-B
½" = 1'-0"

NOTE: Coping not shown for clarity

VIEW D-D
¾" = 1'-0"

*½" Preformed Joint (AASHTO M153 Type 1) and 2" x ½" Poured Joint Sealer (Type 6) between Bent 4 and coping.



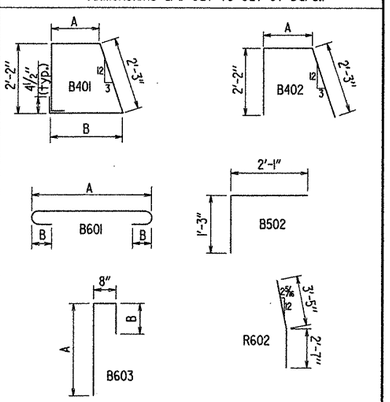
NOTE: Low side is shown, high side is similar.

DETAIL C
¾" = 1'-0"

BAR LIST

Mark	No. Req'd.	Length	A	B	Pin Dia.
B401	42	13'-8"	4'-2"	4'-8½"	2"
B402	24	8'-5"	4'-2"		2"
B403	4	28'-9"			Str.
B501	16	28'-9"			Str.
B502	12	3'-3"			3¾"
B601	8	30'-1"	28'-9"	6"	4½"
B602	8	28'-9"			Str.
B603	58	12'-0"	9'-2"	2'-4"	4½"
B604	58	7'-11"			Str.
R401	8	5'-2"			Str.
R601	16	1'-2"			Str.
R602	8	6'-0"			4½"

Bending Diagrams
(Dimensions are out to out of bars.)



STATE OF ARKANSAS
CHARLES P. BRAND
No. 8327
21/05
REGISTERED PROFESSIONAL ENGINEER
BRIDGE ENGINEER

SHEET 2 OF 2
DETAILS OF END BENT 4
BROOKSWOOD FLYOVER
PULASKI COUNTY
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: K.W.Y. DATE: 6-27-05
CHECKED BY: M.A.H. DATE: 8.2.05
DESIGNED BY: K.W.Y. DATE: 6-05
FILENAME: br60080x2.b42.dgn
SCALE: as noted

BRIDGE NO. 07052 DRAWING NO. 47743

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.		R60080	249	253
				(1) 07052 -		490 FT. UNIT	- 47744	

At the contractor's option, two straight #5 bars may be substituted for the bar S501E with the top and bottom bars epoxy coated. Payment for reinforcing will be based on the weight of bar S501E.

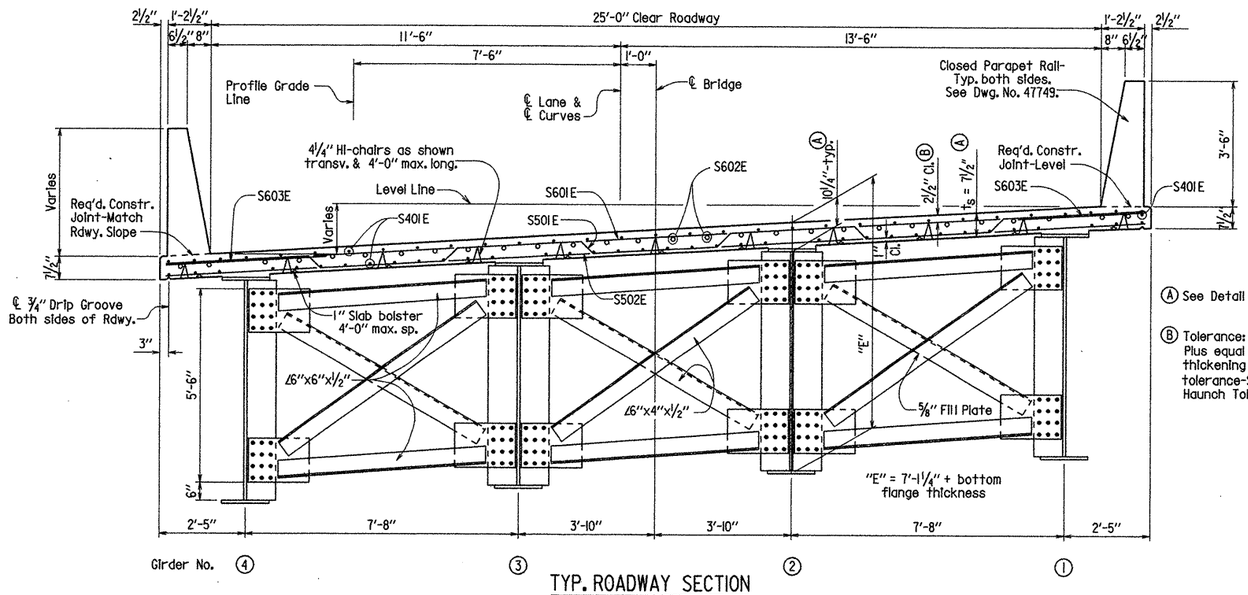
Note: Class I Protective Surface Treatment shall be applied to the roadway surface and the face and top of the concrete parapet rail. Class 3 Textured Coating Finish shall be applied to all areas specified in Special Provision Job R60080 "Textured Coating Finish".

Slab Reinforcing:

**Transverse: S501E @ 14"o.c. bent up over girders
S601E @ 14" o.c. in top
S502E @ 14" o.c. in bottom
S603E at gutterline

Longitudinal: S401E - Top & Bottom-Placed as shown-12" max.
S602E - Top-Place as shown
See Reinforcing Plan

**Transverse steel to be placed on radial lines & measured along ℄ Lane

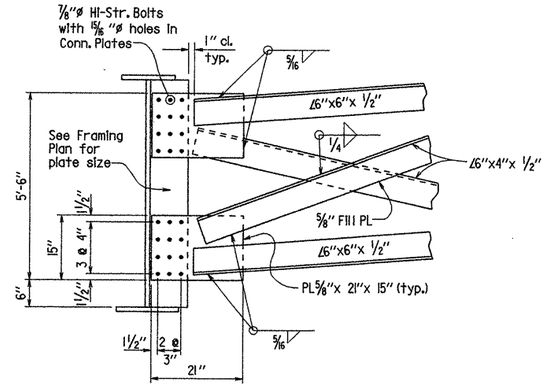


TYP. ROADWAY SECTION

Looking Ahead
Scale: ½" = 1'-0"

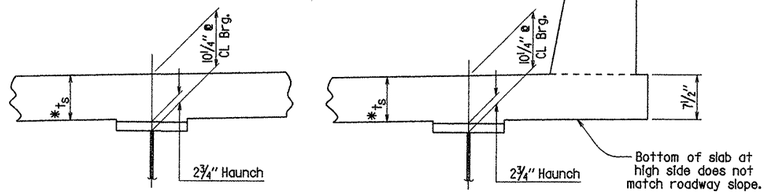
Ⓐ See Detail of Slab and Haunch Tolerances

Ⓑ Tolerance: Minus = ¼"
Plus equal to amount of slab thickening used to meet thickness tolerance-See Detail of Slab and Haunch Tolerances



TYP. CROSS-FRAME CONNECTION

No Scale



EXTERIOR GIRDER

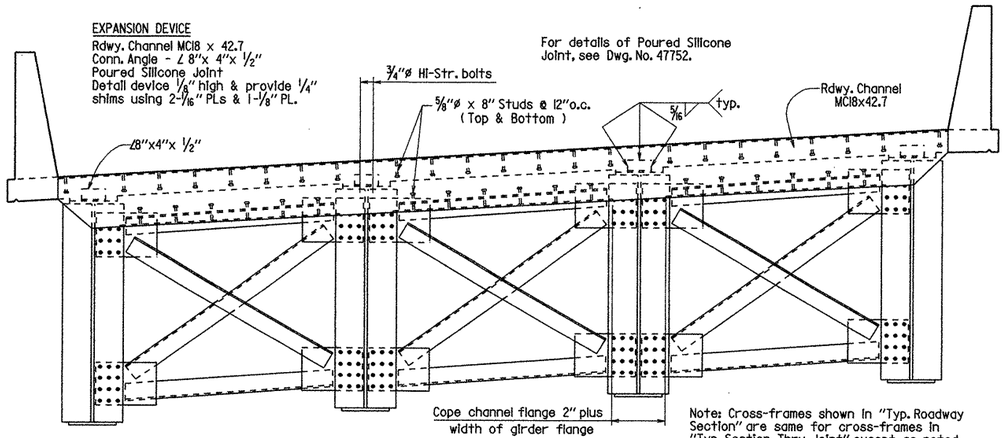
Note: t_s = slab thickness as shown in "Typ. Roadway Section".

* Tolerance when removable deck forming is used is +½", -¼". Haunch forming is required and shall be adjusted to maintain slab thickness tolerance.

Tolerances shown are applicable only when removable deck forming is used. See Dwg. No. 47756 for tolerances when permanent steel deck forms are used. Payment for concrete shall be based on removable deck forming.

TYPICAL HAUNCH DETAIL AND ADJUSTMENT FOR SLAB THICKNESS TOLERANCE WHEN REMOVABLE DECK FORMING IS USED

No Scale



TYP. SECTION THRU JOINT

Scale: ½" = 1'-0"

STATE OF ARKANSAS
No. 4337
REGISTERED PROFESSIONAL ENGINEER
CHARLES P. BRAND
BRIDGE ENGINEER

SHEET 1 OF 9
DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT
BROOKSWOOD FLYOVER

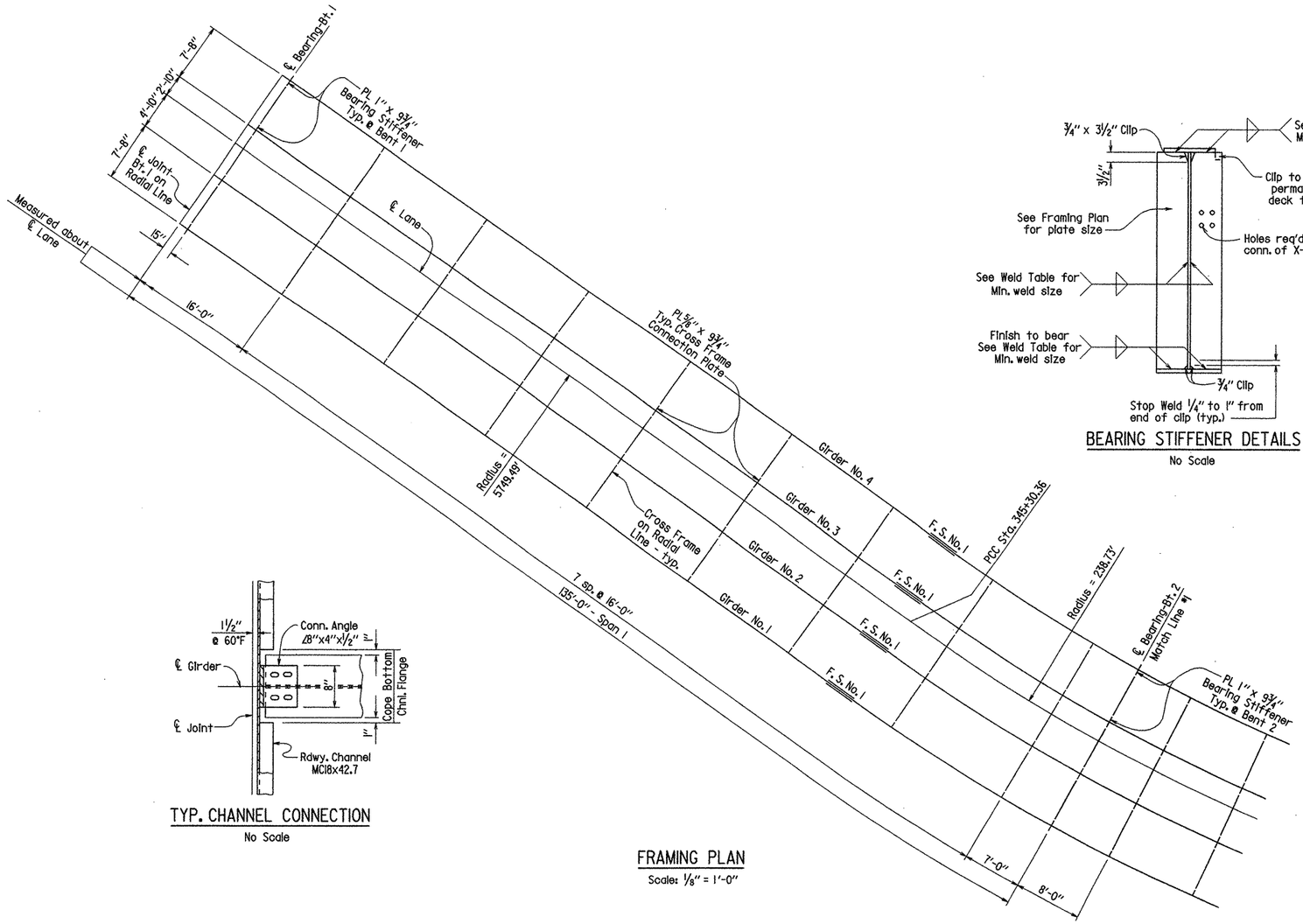
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 6-7-05 FILENAME: br60080x2_sl.dgn
CHECKED BY: MAH DATE: 8-2-05 SCALE: AS NOTED
DESIGNED BY: KWY DATE: 11-04

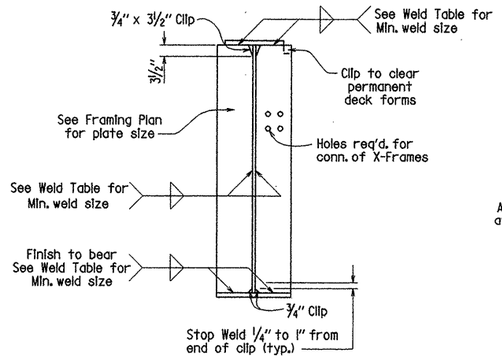
BRIDGE NO. 07052 DRAWING NO. 47744

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.		R60080	2	9
				07052 -		490 FT. UNIT	- 47745	



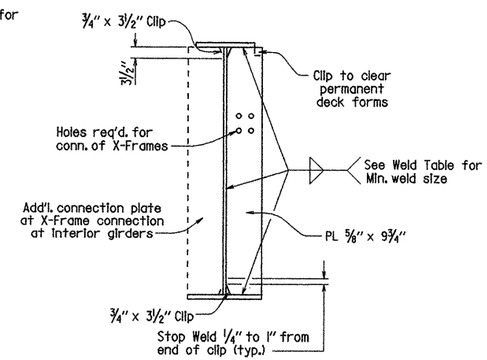
FRAMING PLAN

Scale: ⅛" = 1'-0"



BEARING STIFFENER DETAILS

No Scale

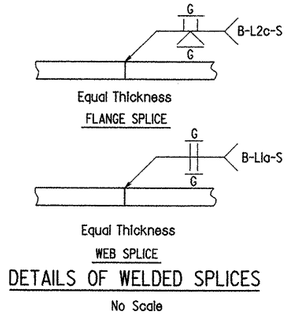


CROSS FRAME CONNECTION DETAILS

No Scale

TYP. CHANNEL CONNECTION

No Scale



DETAILS OF WELDED SPLICES

No Scale

TABLE FOR WELD

Material Thickness of Thicker Part Joined (Inches)	Minimum Size of Fillet Weld (Inches)	Single Pass Weld Must Be Used
To ¾" Inclusive	¼"	
Over ¾"	⅝"	

NOTE: When a fillet weld size, as shown on the plans, is larger than the minimum, the first pass shall be that specified for minimum size of fillet weld.

STATE OF ARKANSAS 9,237 REGISTERED PROFESSIONAL ENGINEER No. 4937 6/13/05 CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 2 OF 9
DETAILS OF 490' CONTINUOUS
COMPOSITE PLATE GIRDER UNIT
BROOKSWOOD FLYOVER

ROUTE SEC.

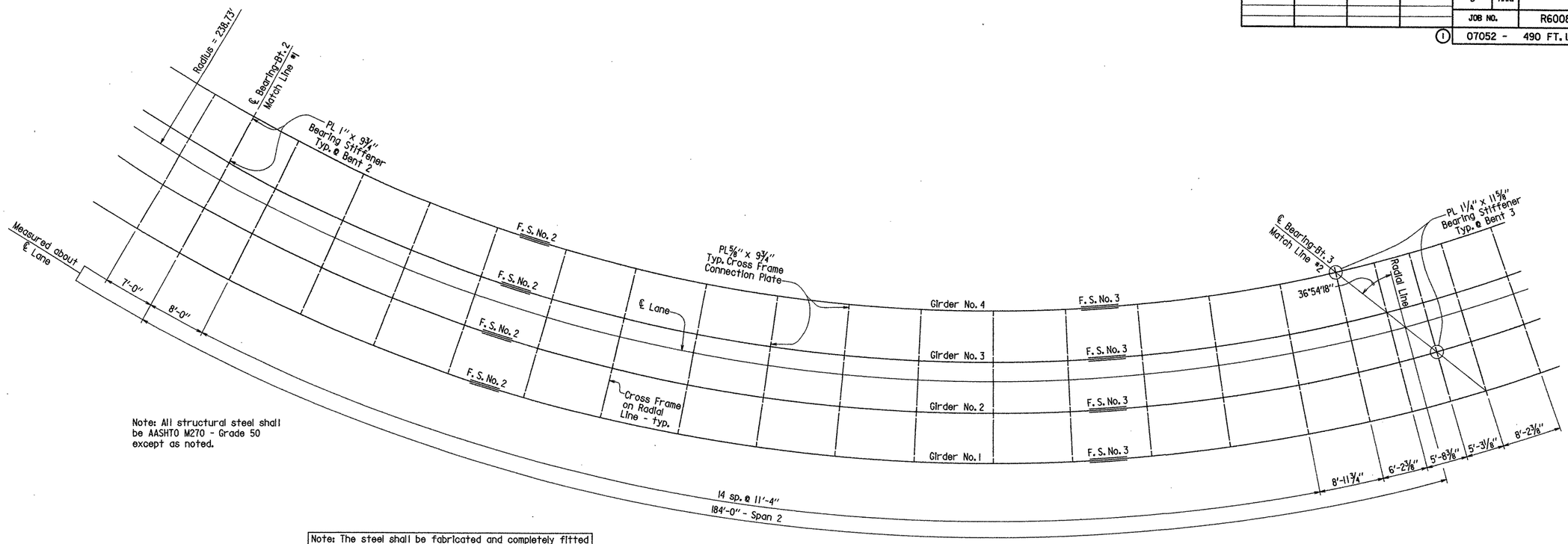
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 6-13-05 FILENAME: br-60080x2_s2.dgn
CHECKED BY: MAH DATE: 8-2-05 SCALE: AS NOTED
DESIGNED BY: KWY DATE: 11-04

BRIDGE NO. 07052 DRAWING NO. 47745

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.		R60080	257	609
				07052 -	490 FT. UNIT	- 47746		

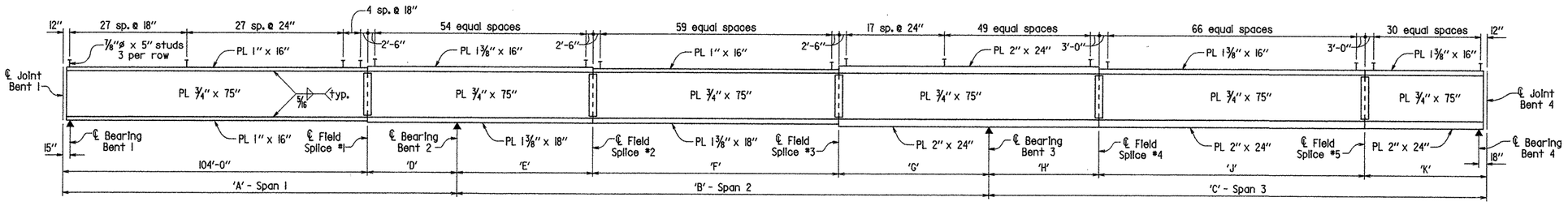


Note: All structural steel shall be AASHTO M270 - Grade 50 except as noted.

Note: The steel shall be fabricated and completely fitted together in the shop in the "no-load" position

FRAMING PLAN

Scale: ⅛" = 1'-0"

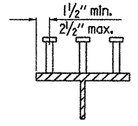


GIRDER ELEVATION

No Scale

TABLE OF VARIABLES

Girder No.	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'
1	136'-3¼"	202'-10¾"	170'-8⅝"	32'-3¼"	50'-0"	95'-0"	57'-10¾"	37'-8⅝"	92'-0"	41'-0"
2	135'-5⅞"	191'-4"	170'-10¼"	31'-5⅞"	48'-0"	93'-0"	50'-4"	41'-10¼"	90'-0"	39'-0"
3	134'-8⅝"	179'-8⅜"	171'-1¼"	30'-8⅝"	47'-0"	90'-0"	42'-8⅜"	46'-1¼"	87'-0"	38'-0"
4	133'-11⅜"	167'-11"	171'-5⅝"	29'-11⅜"	46'-0"	86'-0"	35'-11"	50'-5⅝"	84'-0"	37'-0"



Stud Shear Connectors shown shall be ⅞"ø x 5" long, granular flux filled, solid fluxed or equal, and automatically end welded to the beam flange in accordance with the recommendations of the Manufacturer. ¾"ø studs may be used in place of the ⅞"ø studs shown, at the ratio of 1.361 -¾"ø studs in place of one ⅞"ø stud. ½"ø studs will be used as basis for measurement of structural steel in shear connectors. Maximum stud spacing = 24".

SHEAR CONNECTOR DETAIL

No Scale

STATE OF ARKANSAS
No. 13415
REGISTERED PROFESSIONAL ENGINEER
No. 1537
2/5/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 3 OF 9
DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT BROOKSWOOD FLYOVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

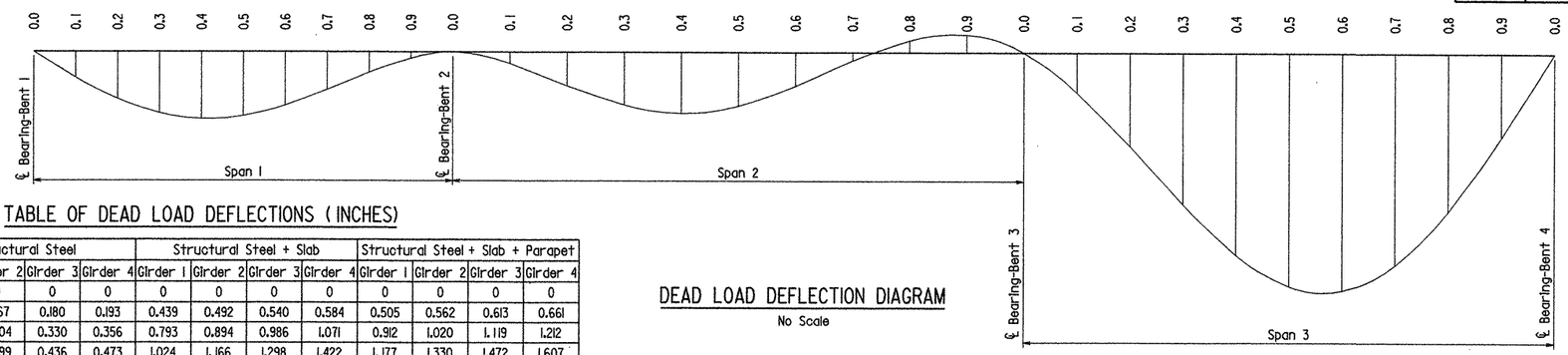
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 6-13-05
CHECKED BY: MAH DATE: 7-27-05
DESIGNED BY: KWY DATE: 11-04

FILENAME: br-60080x2_s3.dgn
SCALE: AS NOTED

BRIDGE NO. 07052 DRAWING NO. 47746

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.		R60080	35	609
				07052 -		490 FT. UNIT	- 47747	



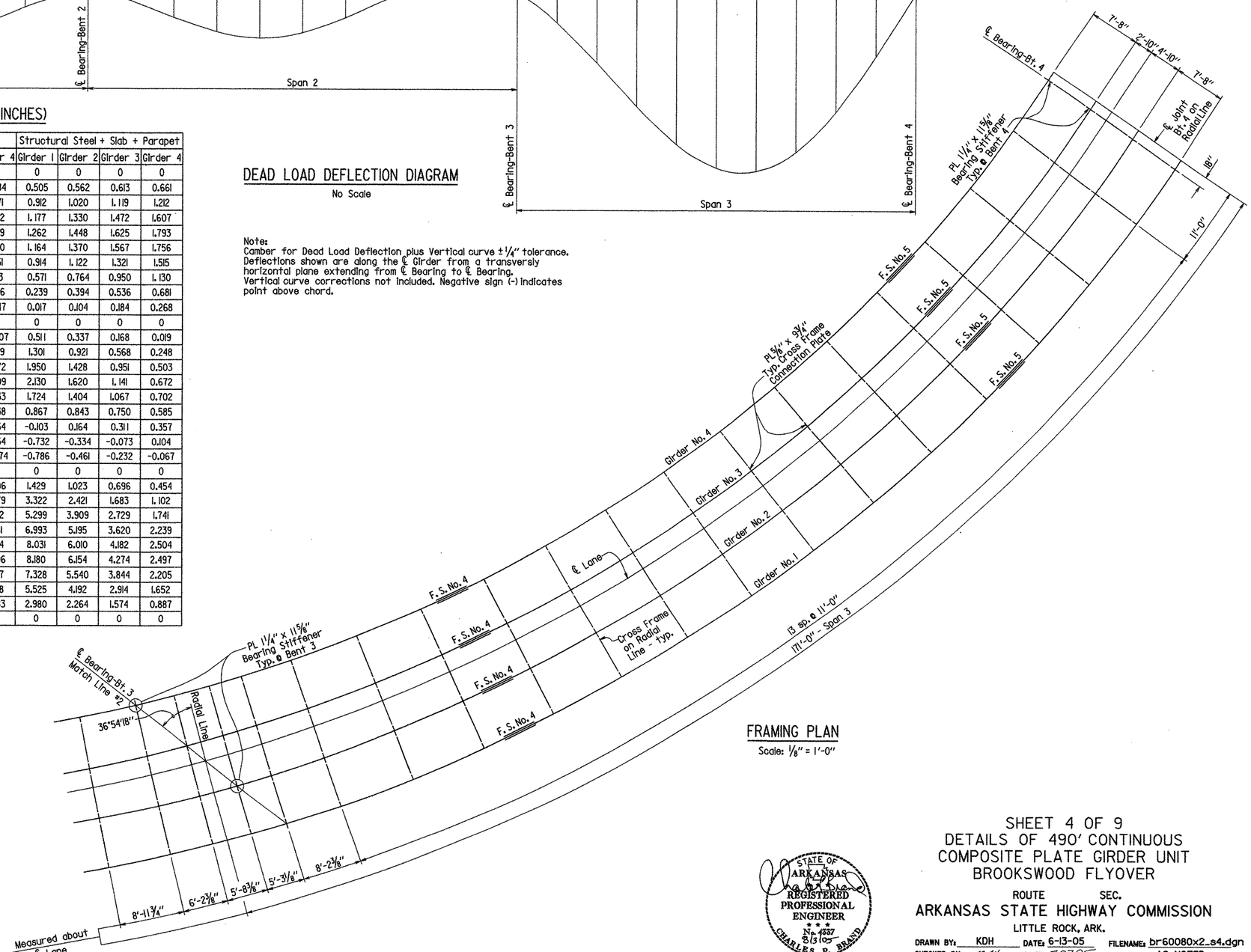
DEAD LOAD DEFLECTION DIAGRAM

No Scale

TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

Span	Point of Deflection	Structural Steel				Structural Steel + Slab				Structural Steel + Slab + Parapet			
		Girder 1	Girder 2	Girder 3	Girder 4	Girder 1	Girder 2	Girder 3	Girder 4	Girder 1	Girder 2	Girder 3	Girder 4
1	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.1	0.153	0.167	0.180	0.193	0.439	0.492	0.540	0.584	0.505	0.562	0.613	0.661
	0.2	0.277	0.304	0.330	0.356	0.793	0.894	0.986	1.071	0.912	1.020	1.119	1.212
	0.3	0.360	0.399	0.436	0.473	1.024	1.166	1.298	1.422	1.177	1.330	1.472	1.607
	0.4	0.390	0.438	0.484	0.530	1.098	1.271	1.434	1.589	1.262	1.448	1.625	1.793
	0.5	0.367	0.419	0.471	0.522	1.013	1.204	1.386	1.560	1.164	1.370	1.567	1.756
	0.6	0.297	0.350	0.403	0.455	0.795	0.988	1.172	1.351	0.914	1.122	1.321	1.515
	0.7	0.197	0.247	0.296	0.344	0.497	0.676	0.847	1.013	0.571	0.764	0.950	1.130
	0.8	0.096	0.136	0.174	0.212	0.209	0.351	0.483	0.616	0.239	0.394	0.536	0.681
	0.9	0.022	0.044	0.065	0.087	0.016	0.096	0.170	0.247	0.017	0.104	0.184	0.268
2	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.1	0.112	0.067	0.024	-0.013	0.443	0.284	0.130	-0.007	0.511	0.337	0.168	0.019
	0.2	0.288	0.194	0.108	0.032	1.127	0.783	0.462	0.169	1.301	0.921	0.568	0.248
	0.3	0.406	0.289	0.183	0.084	1.684	1.214	0.781	0.372	1.950	1.428	0.951	0.503
	0.4	0.379	0.288	0.201	0.114	1.826	1.369	0.935	0.509	2.130	1.620	1.141	0.672
	0.5	0.188	0.173	0.149	0.111	1.452	1.167	0.864	0.533	1.724	1.404	1.067	0.702
	0.6	-0.106	-0.022	0.038	0.073	0.686	0.668	0.586	0.438	0.867	0.843	0.750	0.585
	0.7	-0.387	-0.218	-0.087	0.012	-0.168	0.075	0.210	0.254	-0.103	0.164	0.311	0.357
	0.8	-0.508	-0.316	-0.168	-0.044	-0.705	-0.347	-0.108	0.054	-0.732	-0.334	-0.073	0.104
	0.9	-0.408	-0.265	-0.155	-0.065	-0.727	-0.433	-0.225	-0.074	-0.786	-0.461	-0.232	-0.067
3	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.1	0.622	0.446	0.307	0.200	1.286	0.919	0.625	0.406	1.429	1.023	0.696	0.454
	0.2	1.397	1.017	0.707	0.462	2.968	2.161	1.500	0.979	3.322	2.421	1.683	1.102
	0.3	2.181	1.605	1.117	0.709	4.718	3.480	2.426	1.542	5.299	3.909	2.729	1.741
	0.4	2.834	2.102	1.459	0.895	6.218	4.620	3.216	1.981	6.993	5.195	3.620	2.239
	0.5	3.218	2.406	1.667	0.988	7.133	5.340	3.712	2.214	8.031	6.010	4.182	2.504
	0.6	3.251	2.444	1.691	0.977	7.260	5.465	3.792	2.206	8.180	6.154	4.274	2.497
	0.7	2.896	2.188	1.513	0.858	6.501	4.918	3.410	1.947	7.328	5.540	3.844	2.205
	0.8	2.175	1.648	1.142	0.640	4.900	3.720	2.584	1.458	5.525	4.192	2.914	1.652
	0.9	1.170	0.888	0.615	0.343	2.642	2.009	1.396	0.783	2.980	2.264	1.574	0.887
	0	0	0	0	0	0	0	0	0	0	0	0	0

Note:
Camber for Dead Load Deflection plus Vertical curve ±1/4" tolerance.
Deflections shown are along the ℄ Girder from a transversly horizontal plane extending from ℄ Bearing to ℄ Bearing.
Vertical curve corrections not included. Negative sign (-) indicates point above chord.



FRAMING PLAN

Scale: 1/8" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4537
8/31/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 4 OF 9
DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT
BROOKSWOOD FLYOVER

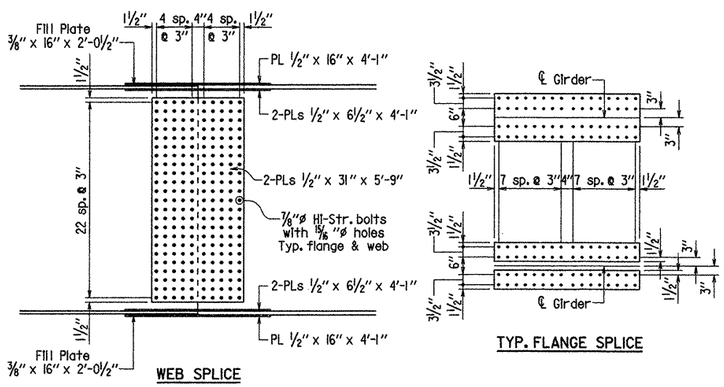
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 6-13-05
CHECKED BY: MAH DATE: 7-27-05
DESIGNED BY: KWY DATE: 11-04
FILENAME: br60080x2_s4.dgn
SCALE: AS NOTED

BRIDGE NO. 07052 DRAWING NO. 47747

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.		R60080	252	603
				07052 -	490 FT. UNIT	- 47748		

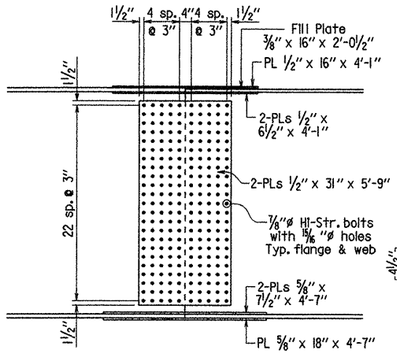


WEB SPLICE

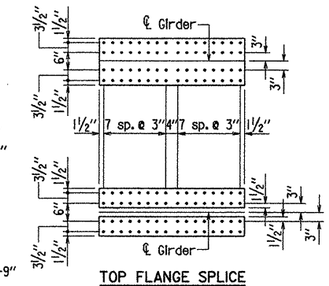
TYP. FLANGE SPLICE

DETAILS OF FIELD SPLICE NO. 1

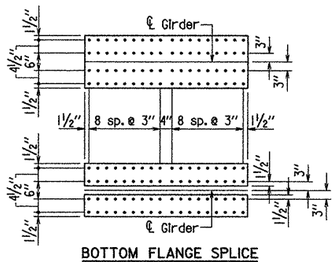
Scale: 1/2" = 1'-0"



WEB SPLICE



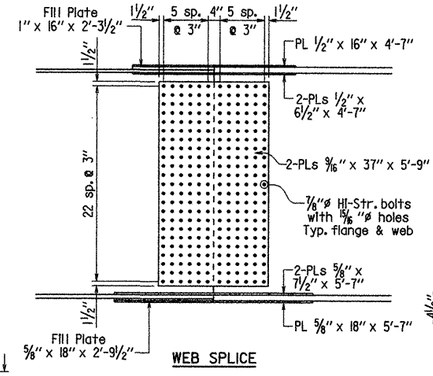
TOP FLANGE SPLICE



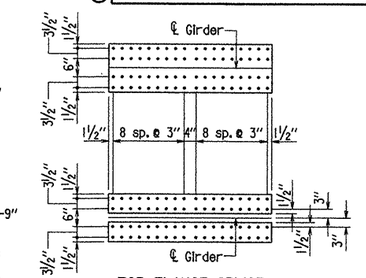
BOTTOM FLANGE SPLICE

DETAILS OF FIELD SPLICE NO. 2

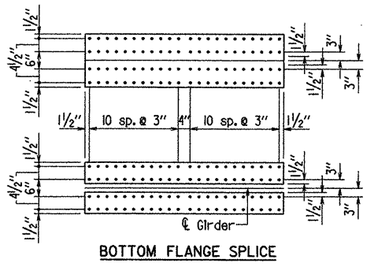
Scale: 1/2" = 1'-0"



WEB SPLICE



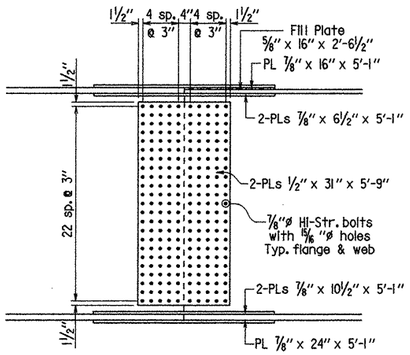
TOP FLANGE SPLICE



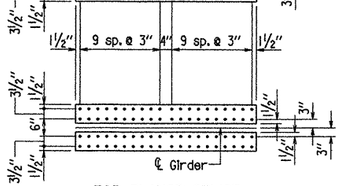
BOTTOM FLANGE SPLICE

DETAILS OF FIELD SPLICE NO. 3

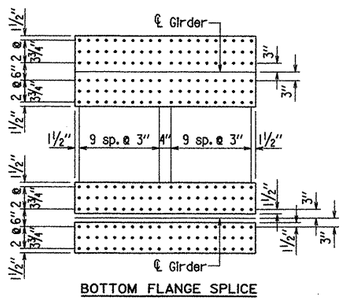
Scale: 1/2" = 1'-0"



WEB SPLICE



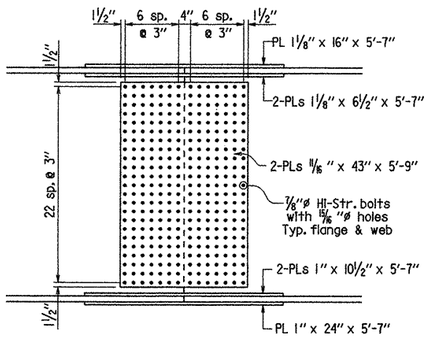
TOP FLANGE SPLICE



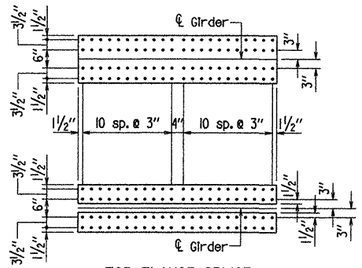
BOTTOM FLANGE SPLICE

DETAILS OF FIELD SPLICE NO. 4

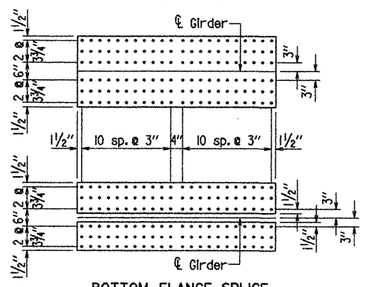
Scale: 1/2" = 1'-0"



WEB SPLICE



TOP FLANGE SPLICE



BOTTOM FLANGE SPLICE

DETAILS OF FIELD SPLICE NO. 5

Scale: 1/2" = 1'-0"

Note: All splice plates shall be AASHTO M270-Grade 50

STATE OF ARKANSAS
CHARLES P. BRAND
No. 1337
REGISTERED PROFESSIONAL ENGINEER
5/5/05

BRIDGE ENGINEER

SHEET 5 OF 9
DETAILS OF 490' CONTINUOUS
COMPOSITE PLATE GIRDER UNIT
BROOKSWOOD FLYOVER

ROUTE SEC.

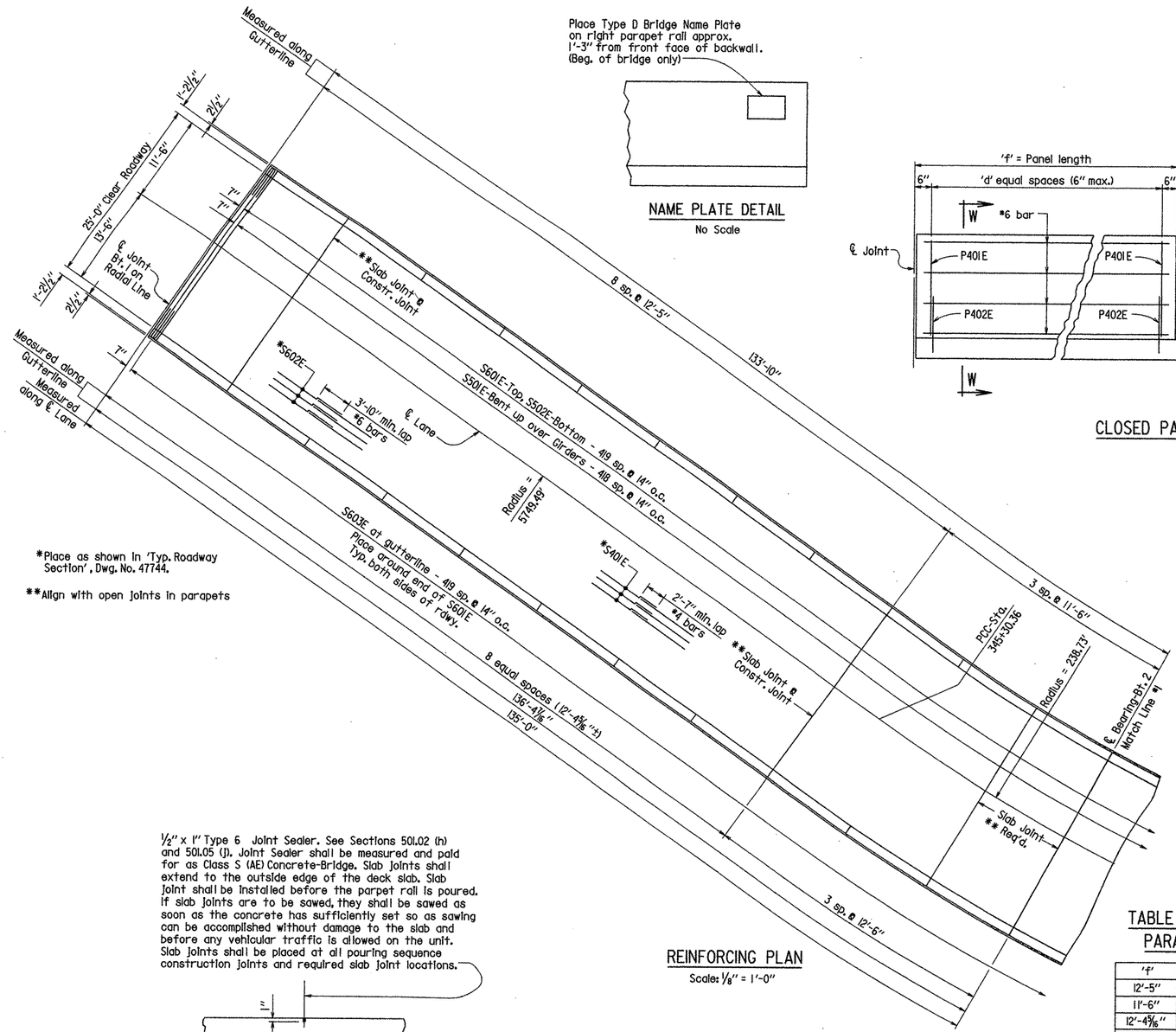
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 6-15-05
CHECKED BY: MAH DATE: 7-27-05
DESIGNED BY: KWV DATE: 11-04

FILENAME: br60080x2_s5.dgn
SCALE: AS NOTED

BRIDGE NO. 07052 DRAWING NO. 47748

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.		R60080	35	60
				07052 -		490 FT. UNIT	- 47749	



*Place as shown in 'Typ. Roadway Section', Dwg. No. 47744.

**Align with open joints in parapets

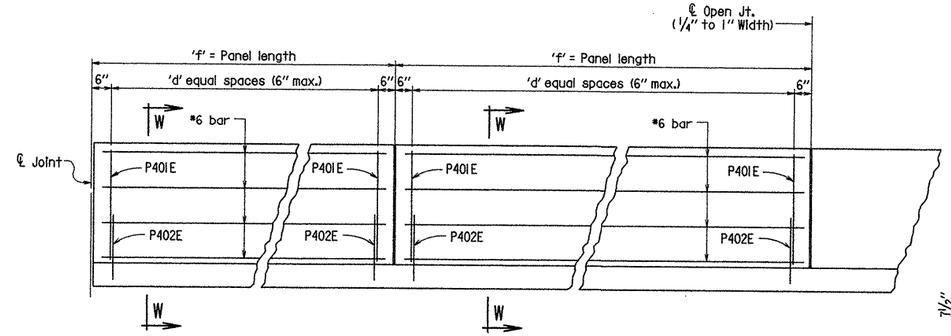
REINFORCING PLAN

Scale: 1/8" = 1'-0"

Place Type D Bridge Name Plate on right parapet rail approx. 1'-3" from front face of backwall. (Beg. of bridge only)

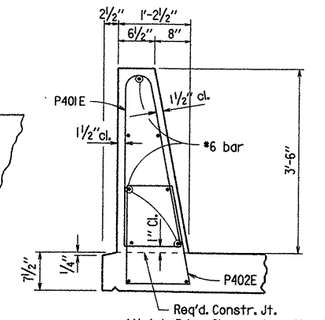
NAME PLATE DETAIL

No Scale



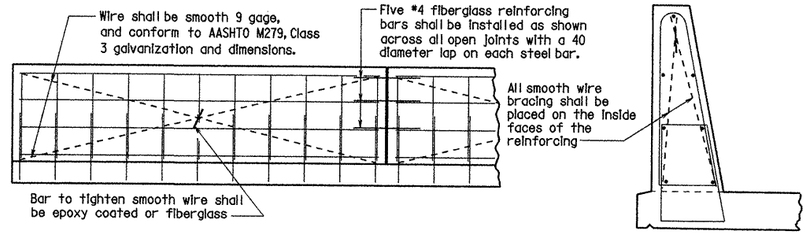
CLOSED PARAPET RAIL DETAILS

No Scale



SECTION W-W

No Scale



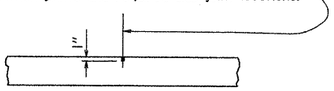
All panels shall be braced as shown to prevent racking. All open joints shall be sawed as soon as practical to a minimum width of 1/4". To control cracking before sawing, all joints must be grooved before the concrete is set. Sawing of the joints must be controlled so it will follow the grooved joint.

The extruded parapet shall conform to the horizontal and vertical lines shown on the plans or as directed by the Engineer and shall present a smooth, uniform appearance and texture.

DETAILS OF OPTIONAL SLIPFORMING OF CONCRETE PARAPET RAIL

No Scale

1/2" x 1" Type 6 Joint Sealer. See Sections 501.02 (h) and 501.05 (j). Joint Sealer shall be measured and paid for as Class S (AE) Concrete-Bridge. Slab joints shall extend to the outside edge of the deck slab. Slab joint shall be installed before the parpet rail is poured. If slab joints are to be sawed, they shall be sawed as soon as the concrete has sufficiently set so as sawing can be accomplished without damage to the slab and before any vehicular traffic is allowed on the unit. Slab joints shall be placed at all pouring sequence construction joints and required slab joint locations.



SLAB JOINT DETAIL

No Scale

TABLE OF VARIABLES PARAPET RAILING

'f'	'd'	*6 bar
12'-5"	23	P601E
11'-6"	21	P602E
12'-4 7/16"	23	P601E
12'-6"	23	P601E
13'-0"	24	P603E
12'-8 3/4"	24	P604E
12'-9"	24	P604E
14'-4"	27	P605E
14'-1 15/16"	27	P606E
13'-2 5/16"	25	P607E
13'-1 9/16"	25	P607E

Note:

Transverse reinforcing steel is placed on radial lines and measured along C.L. Lane. Longitudinal reinforcing, including parapet reinforcing, is placed on concentric curves to C.L. Lane. See Typ. Roadway Section fo placement of longitudinal reinforcing steel.

All skew angles shown are turned off radial lines.

Parapet rails are concentric to C.L. Lanes. Parapet panels and reinforcing shall not be placed on chords.

STATE OF ARKANSAS CHARLES P. BRAND REGISTERED PROFESSIONAL ENGINEER No. 4937 5/13/05

BRIDGE ENGINEER

SHEET 6 OF 9
DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT BROOKSWOOD FLYOVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 6-21-05 FILENAME: br60080x2_s6.dgn

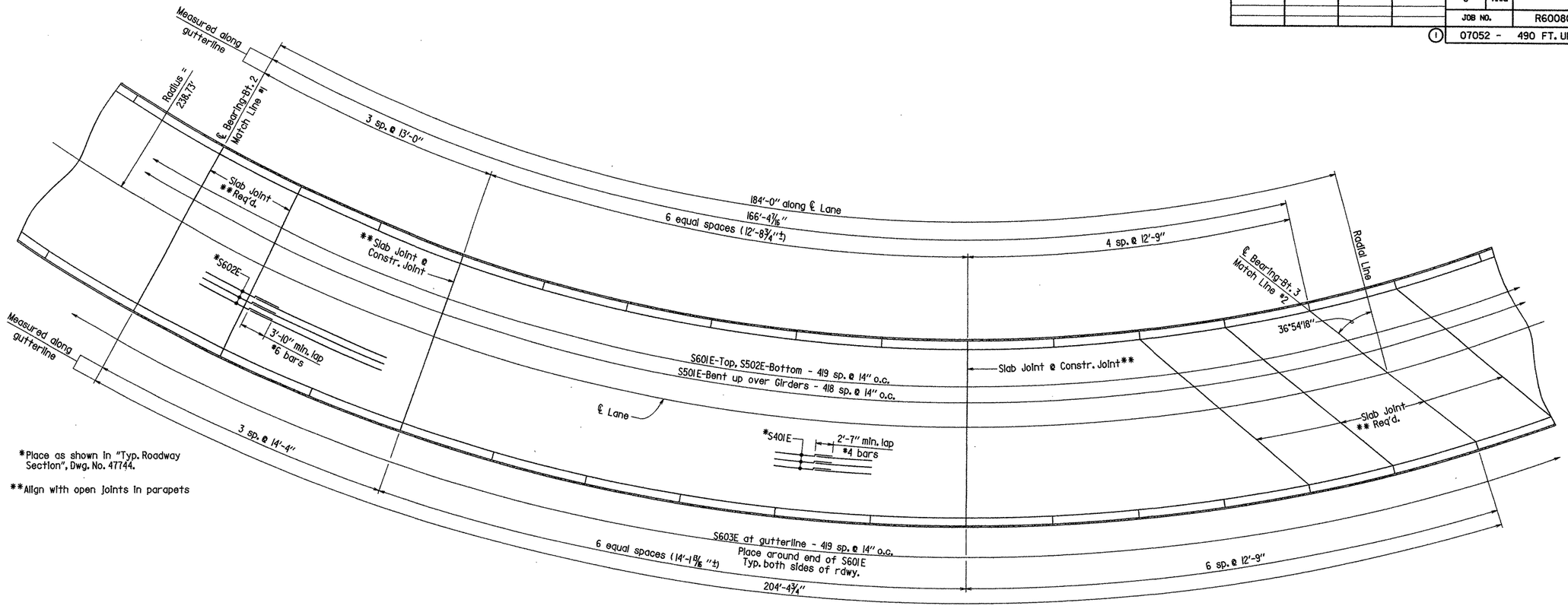
CHECKED BY: MHH DATE: 7-27-05 SCALE: AS NOTED

DESIGNED BY: KWY DATE: 11-04

BRIDGE NO. 07052 DRAWING NO. 47749

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.		R60080	354	403
① 07052 -		490 FT. UNIT	- 47750	



*Place as shown in "Typ. Roadway Section", Dwg. No. 47744.

**Align with open joints in parapets

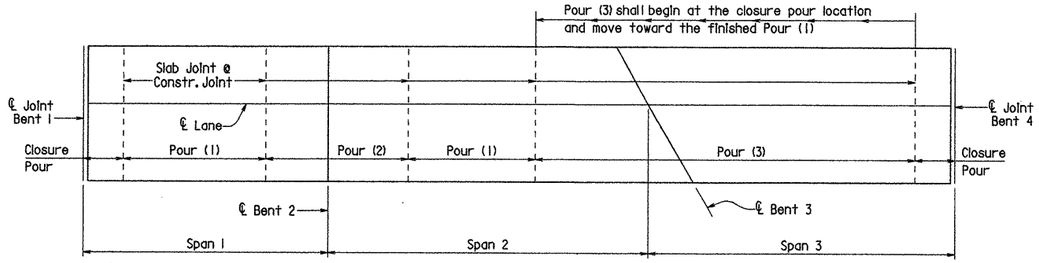
REINFORCING PLAN

Scale: 1/8" = 1'-0"

Note: Pours with the same number may be placed simultaneously or separately. All Pours (1) must be placed before Pour (2) can be placed, and Pour (2) must be placed before Pour (3) can be placed 48 hours shall elapse between the end of a pour and the start of the next pour. 72 hours shall elapse between the end of a pour and the start of an adjacent pour. Any railing pours made before the entire slab unit has been placed must be approved by the Bridge Engineer.

Concrete in bridge superstructure shall be placed and consolidated for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent. The contractor must obtain approval from the Bridge Engineer for any deviations from the pouring sequence shown.

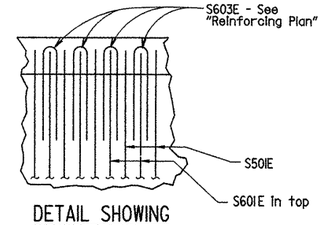
All Pours (1), (2) and (3) shall be poured at least 48 hours before the start of the closure pours. The backwall shall be in place before the closure pours are made.



Note: See "Reinforcing Plan" for locations of pouring sequence joints.

SLAB POURING SEQUENCE

No Scale



DETAIL SHOWING PLACEMENT OF S603E

No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13637
CHARLES P. BRANYD

BRIDGE ENGINEER

SHEET 7 OF 9
DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT BROOKSWOOD FLYOVER

ROUTE SEC.

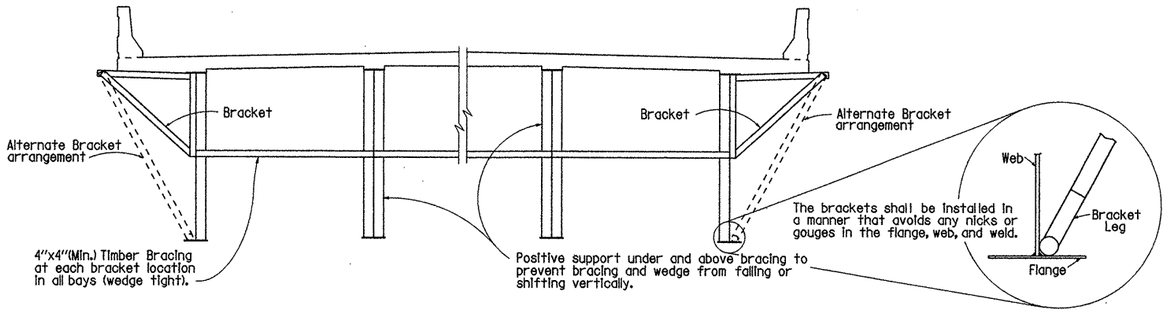
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 6-21-05
CHECKED BY: MAH DATE: 8-2-05
DESIGNED BY: KWY DATE: 11-04
FILENAME: br60080x2_s7.dgn
SCALE: AS NOTED

BRIDGE NO. 07052 DRAWING NO. 47750

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.		R60080		
				① 07052 -		490 FT. UNIT	- 47751	



Note: Using a transverse finishing machine, the rail shall be supported directly over the exterior girders, or as an alternate, the rail may be supported by the overhang brackets if the above strutting system is used. The strutting system may be omitted if 7/16" x 5 3/4" web stiffeners are welded to the insides of the exterior girders at the location of each bracket or if the alternate bracket arrangement shown above is used. The Alternate Bracket arrangement shall extend down to the junction of the web and bottom flange. The stiffener shall conform to the details for intermediate connection plates shown on drawing No. 47745. No direct payment will be made for brackets, timber bracing, supports, or welded stiffeners. Payment shall be subsidiary to "Structural Steel in Plate Girder Spans (M270. Gr. 50)."

SCREED RAIL SUPPORT

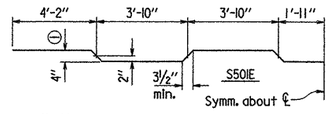
No Scale

BAR LIST

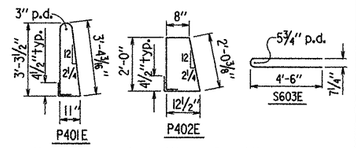
MARK	NO. REQ'D.	LENGTH	P.D.
S401E	938	39'-0"	Str.
P401E	1925	8'-2"	2"
P402E	1925	6'-3"	2"
S501E	419	28'-2"	3"
S502E	420	27'-6"	Str.
S601E	420	27'-4"	Str.
S602E	280	54'-8"	Str.
S603E	840	9'-3"	5 3/4"
P601E	133	11'-11"	Str.
P602E	21	11'-0"	Str.
P603E	21	12'-6"	Str.
P604E	112	12'-3"	Str.
P605E	21	13'-10"	Str.
P606E	42	13'-8"	Str.
P607E	182	12'-7"	Str.

BENDING DIAGRAMS

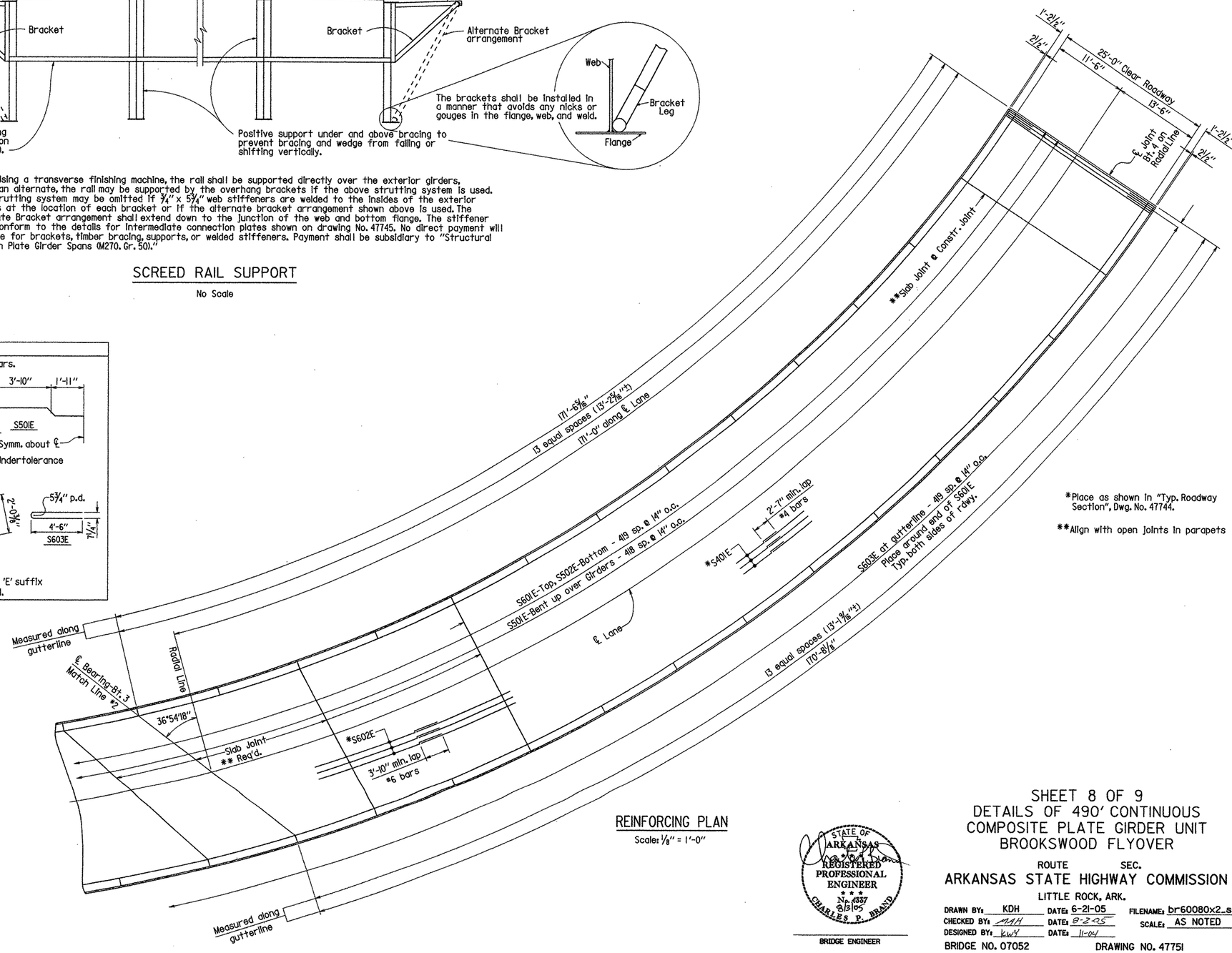
Dimensions are out to out of bars.



① 1/2" Overtolerance; No Undertolerance



Note: Bars marked with an 'E' suffix shall be epoxy coated.



*Place as shown in "Typ. Roadway Section", Dwg. No. 47744.

**Align with open joints in parapets

REINFORCING PLAN

Scale: 1/8" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
3/3/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 8 OF 9
DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT
BROOKSWOOD FLYOVER

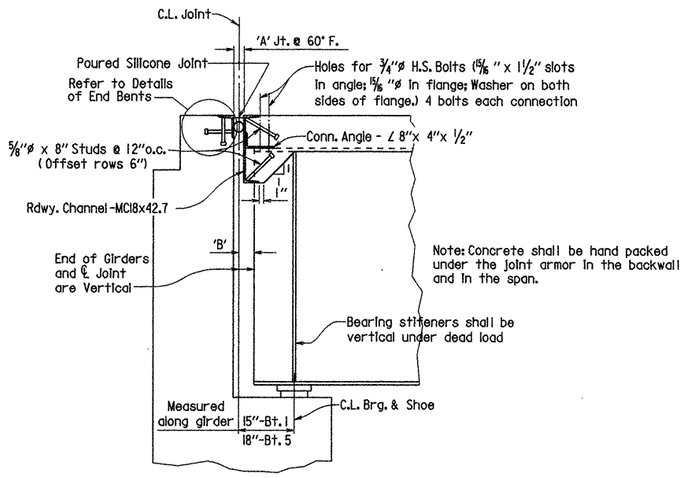
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

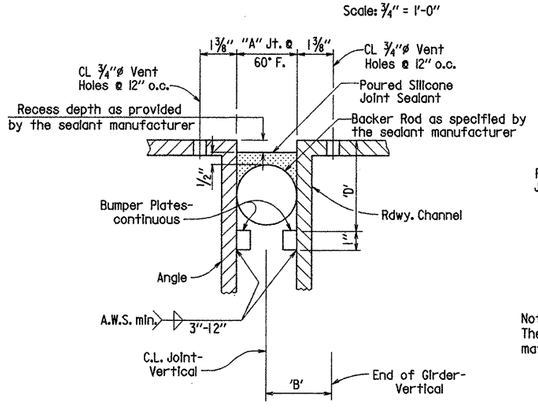
DRAWN BY: KDH DATE: 6-21-05 FILENAME: br60080x2_s8.dgn
CHECKED BY: MAH DATE: 8-22-05 SCALE: AS NOTED
DESIGNED BY: KWY DATE: 11-04

BRIDGE NO. 07052 DRAWING NO. 47751



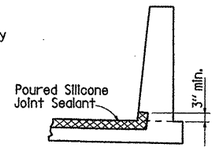
SECTION THRU JOINT AT BENTS 1 & 4

Scale: ¾" = 1'-0"



DETAIL OF POURED SILICONE JOINT SEAL

No Scale



JOINT SEAL PLACEMENT AT CURB

N.T.S.

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

SILICONE JOINT DATA

Bent Number	"A" Width Perpendicular to Joint at 24 Hour Average Temperature* Of:			"B" Perpendicular to Joint at 60°F	Bumper Plate Size	"D"
	40°F	60°F	80°F			
1	3 1/16"	3"	2 15/16"	2¾" ±	1" x ¾"	5½"
4	3 5/16"	3"	2 11/16"	2¾" ±	1" x ¾"	5½"

* The temperature used to set the joint opening shall be the approximate average air temperature during the 24 hour period immediately before the bolts are tightened. The Engineer shall establish the temperature. Interpolation of the table may be necessary.

Notes: The temperature limitations recommended by the sealant manufacturer shall be observed.

The sealant shall be installed only when the average 24 hour air temperature is between 40° and 80°F.

GENERAL NOTES

All concrete shall be Class S(AE) with a minimum 28 day compressive strength f'c = 4000 psi. Concrete shall be poured in the dry and all exposed corners to be chamfered ¾" unless otherwise noted.

Concrete in bridge superstructure shall be placed, consolidated, and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent. Use of a longitudinal screed is prohibited.

The concrete deck shall be given a tine finish in accordance with Section 802.19 for Class 5, Tined Bridge Roadway Surface Finish. Movement of the finishing machine across new concrete shall be on planks placed on the surface and shall be prohibited for 72 hours after finishing the pour. Sufficient concrete must be placed ahead of the strike-off to fully load the girder. A minimum of 72 hours shall elapse between the completion of the slab and the pouring of the parapet railing.

Pours with the same number may be placed simultaneously or separately. All Pours (1) must be placed before Pour (2) can be placed. Pour (2) must be placed before Pour (3) can be placed. Forty eight (48) hours shall elapse between the end of a pour and the start of the next pour. Seventy two (72) hours shall elapse between the end of a pour and the start of an adjacent pour. All Pours (1), (2), and (3) shall be poured at least 48 hours before the start of the closure pours. The backwall shall be in place before the closure pours are made. The contractor must obtain approval from the Bridge Engineer for any deviations from the pouring sequence.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60. The reinforcing steel is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly, but will be considered subsidiary to the item of "Epoxy Coated Reinforcing Steel - Bridge (Grade 60)".

Structural steel shall be AASHTO M270, Gr. 50, unless otherwise noted, and shall be paid for at the unit price per pound bid for "Structural Steel in Plate Girder Spans (M270, Gr. 50)". All structural steel shall be cleaned in accordance with Section 807.84 unless noted otherwise. See Drawing Nos. 47753, 47754 & 47755 for cleaning requirements of external load plates and masonry plates on elastomeric bearings.

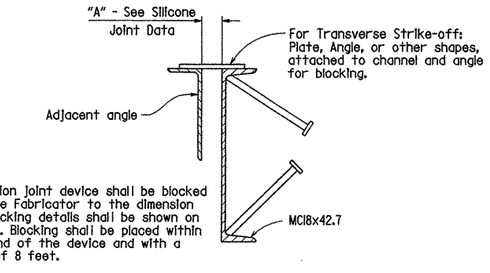
All girder webs & flanges of plate girders, splice plates, cross-frames and connection plates are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test specified in Section 807.05. This work and material will not be paid for directly but is considered as subsidiary to the item "Structural Steel in Plate Girder Spans (M270, Gr. 50)".

Drawings show general features of design only. Shop drawings shall be made in accordance with Section 807.04, submitted and approval secured before fabrication is begun. Girder webs may be made by shop splicing with minimum lengths of 25'-0" for sections. Flange plates longer than 50'-0" may be made by shop splicing with minimum lengths of 25'-0" for sections. Material specifications and location of shop-welded splices, if any, shall be shown on the shop drawings. No additional payment for welds for these splices will be made.

No substitutions will be allowed for the flange and web plates shown on these drawings. Structural steel shapes of equal or greater strength may be substituted for other shapes shown if prior approval is obtained from the Bridge Engineer. Payment will be made on the basis of shapes shown.

Cross-frames shall be installed as girders are erected. All bolts in cross-frames and field splices shall be installed and tightened in accordance with Section 807.71 prior to pouring the deck.

The erection of the structural steel should be performed according to a plan permitting the steel to be erected plumb with bolts tightened while the steel is as close as possible to the no-load condition, so that the bolt holes can be aligned. This requirement may necessitate the use of large capacity cranes, temporary shoring or jacking frames.



Note: Each expansion joint device shall be blocked in the Shop by the Fabricator to the dimension shown, and the blocking details shall be shown on the Shop Drawings. Blocking shall be placed within 2 feet of each end of the device and with a maximum spacing of 8 feet.

DETAILS FOR BLOCKING EXPANSION JOINT DEVICE

Scale: 1½" = 1'-0"

EXPANSION DEVICE INSTALLATION PROCEDURES

After the bent backwall forms are in place and the deck (except for the closure pours) has been poured, the blocked expansion device shall be installed and adjusted for grade. The end bent angle shall then be firmly secured to the backwall forms and connection bolts on the beams loosely installed.

The closure pours shall be poured after the backwall concrete is poured. Immediately prior to pouring the concrete in the closure pour, the blocking shall be removed and the joint width shall be adjusted for temperature. Joint openings shown are for when concrete is poured at an air temperature of 60° F. If concrete is poured at other temperatures, set the joint width by interpolating from Silicone Joint Data table. After the joint width has been set, the connection bolts on the beams shall be tightened and the closure pour can then be poured.

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.		R60080	35	60
				①	07052 -	JOINTS - 47752		

All structural steel except galvanized steel and steel which is completely encased in concrete shall be painted in accordance with subsection 807.75 and Special Provision Job R60080 "Painting Structural Steel". The color of paint shall conform to Federal Standard 595A Color Chip No. 37200, Aluminum.

The complete unit shall be assembled in the shop as specified in Section 807.54 (b) (5). The camber, length of sections, distance between bearings and opening of joints shall be measured with the girders in this position and this information shall become part of the permanent record of this job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All girder dimensions are based on a temperature of 60 degrees F. A tolerance of ¼" (plus or minus) is allowed for camber.

The Contractor shall submit to the Engineer for informational and record purposes, details of falsework construction in accordance with Subsection 807.64 of the Standard Specifications.

The Contractor shall ensure that girders are stable throughout the erection process. The Contractor will be responsible for providing temporary bracing or stiffening devices to accommodate handling stresses in individual members or segments of the structure during erection.

Webs, flange plates, cross-frame angles, and flange splice plates for main members shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If the contractor or erector should want to make additional welds, whether temporary or permanent, he shall submit detailed drawings with a formal request to the Bridge Engineer for approval. All welding shall conform to Section 807.26.

Groove welds in main plate girder members shall be Quality Control (Q.C.) tested by nondestructive testing, as required by the Standard Specifications. Fillet welds at flange to web plate connections shall be Q.C. tested by the magnetic particle method. All Quality Control (Q.C.) testing is at the contractor's expense.

Field connections shall be bolted with high-strength bolts. Bolts shall be 7/8" diameter, except as noted, and open holes shall be 15/16", except as noted. Holes for ¾" diameter bolts may be 15/16" diameter if a washer is supplied for use under both the nut and head of the bolt. Bolt spacing shall be 3" min. for 7/8" diameter bolts unless otherwise noted. Bolts shall be placed with its heads on the outside face of the exterior girder and on the bottom of the girder flanges.

All stud shear connectors shall be granular flux filled, solid fluxed, or equal and shall be automatically end welded in accordance with recommendations of the manufacturer.

Load Distribution

Dead Load:	Interior Girder	Exterior Girder
To Girder:	857 plf + 1.3 (Wt. of Girder)	655 plf + 1.3 (Wt. of Girder)
To Composite Girder:	* 380 plf	* 380 plf

* Includes 150 plf future wearing surface.

STATE OF ARKANSAS
CHARLES P. BRAND
No. 6237
REGISTERED PROFESSIONAL ENGINEER
01/05

BRIDGE ENGINEER

SHEET 9 OF 9
DETAILS OF 490' CONTINUOUS COMPOSITE PLATE GIRDER UNIT
BROOKSWOOD FLYOVER

ROUTE SEC.

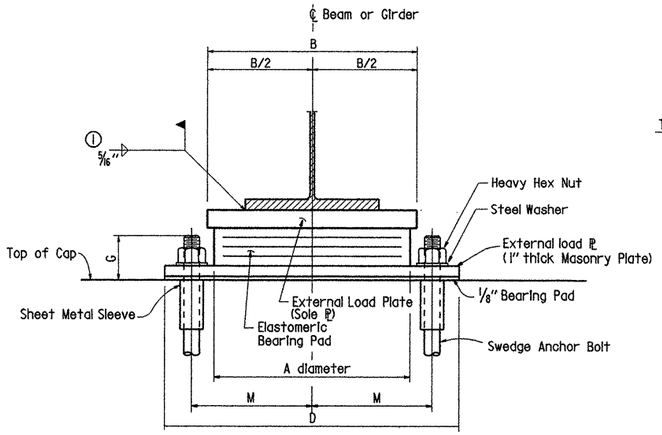
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 6-22-05
CHECKED BY: CPB DATE: 8-2-05
DESIGNED BY: KWY DATE: 11-04
FILENAME: br60080x2_s9.dgn
SCALE: AS NOTED

BRIDGE NO. 07052 DRAWING NO. 47752

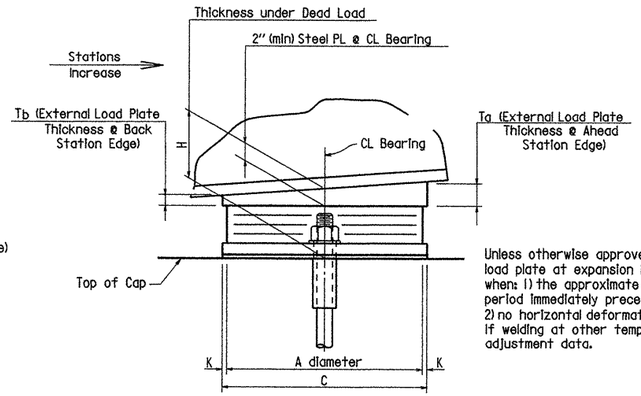
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	35	63
				①	07052 -	BEARINGS	- 47753	



FRONT VIEW

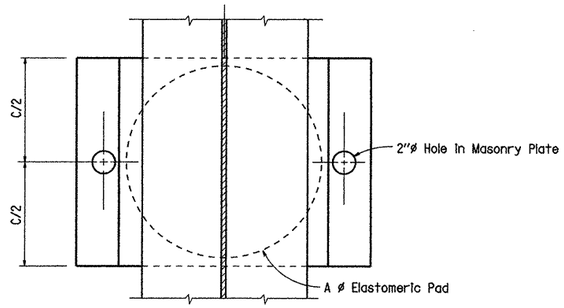
① Care shall be taken to ensure that the external load plate is in full and complete contact with the beam or girder flange before welding begins.

② Centerline of Girder shall align with centerline of bearing.

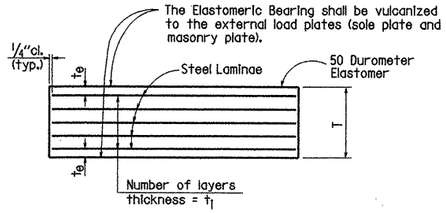


SIDE VIEW

Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40° F and 80° F; and 2) no horizontal deformation of the elastomeric pad is evident. If welding at other temperatures is required, the Engineer will provide adjustment data.



PLAN VIEW

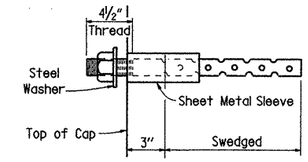


t_e = thickness of elastomer cover on top and bottom of pad

t_l = thickness of elastomer between steel laminae

N = number of elastomer layers of thickness t_l

ELASTOMERIC BEARING



ANCHOR BOLT DETAIL

NOTE: Anchor Bolts may be cast in place or drilled and grouted into place. If Anchor Bolts are to be cast in place, the Galvanized Sheet Metal Sleeves will not be required.

If Anchor Bolts are to be drilled and grouted in place, the Galvanized Sheet Metal Sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of Structural Steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the masonry. Bolts placed in drilled holes shall be accurately set and fixed using a QPL approved epoxy or non-shrink grout that completely fills the holes. Galvanized Sheet Metal Sleeves will not be paid for directly, but will be considered subsidiary to the item "Structural Steel in Plate Girder Spans, (M270, Gr. 50)".

TABLE OF FABRICATOR VARIABLES

BRIDGE NO.	LOCATION			BEARING TYPE	NO. of BEARINGS EACH BENT	*MAXIMUM DESIGN LOAD (KIPS)	G	H	A Dia.	B	N	t_l	t_e	NO. & THICKNESS OF STEEL LAMINAE	T	C	D	K	M	T_a	T_b	ANCHOR BOLT		SHEET METAL SLEEVE SIZE (ø x L)	STEEL WASHER SIZE (O.D.)
	BENT NO(S).	UNIT NO.	GIRDER NO.																			(ø x L)	GRADE		
	1	490'	All	Exp.	4	123.61	3⅜"	9⅛"	20"	21"	9	½"	¼"	10 @ 12 Gauge	6"	21"	29"	½"	12"	2.082"	1.918"	1¼"ø x 17"	55	3"ø x 6"	2½"

* Maximum Design Load = Service Load

Tabular Data by : KDH Date: 6-23-05

BRIDGE ENGINEER

GENERAL NOTES

Elastomeric Bearings shall conform to Special Provision Job R60080 " Elastomeric Bearings" and Section 808 of the Standard Specifications and shall be paid for at the unit price bid for "Elastomeric Bearings." Long-duration testing of random lot samples specified in subsection 808.05 is not required.

External load plates shall conform to AASHTO M 270, Grade 50.

External load plates (sole plates and masonry plates) shall be completely fabricated (including bevel and bolt holes) and shall be cleaned before vulcanizing to the elastomeric bearing. The surface in contact with the elastomeric bearing shall be cleaned in accordance with subsection 808.03. Other surfaces shall be blast cleaned in accordance with subsection 807.84(b) and painted in accordance with 807.75. Painting will not be paid for directly but will be considered subsidiary to the item 'Elastomeric Bearings'

Anchor Bolts, Washers and Nuts shall conform to subsection 807.07 of the Standard Specifications. The anchor bolt grade of steel shall be as specified in the "Table of Fabricator Variables". Indentations shall be circular with rounded bottoms and staggered as shown in the details.

Anchor Bolts and Washers and Nuts shall be paid for at the unit price bid for "Structural Steel in Plate Girder Spans (M270, Gr. 50)".

All external load plates (sole plates and masonry plates) will not be paid for separately but will be included in the unit price bid for "Elastomeric Bearings".

Bearings with masonry plates and ⅛" bearing pads shall be firmly seated in accordance with Subsection 807.66 of the Standard Specifications. This work and material shall be considered subsidiary to the item "Elastomeric Bearings"and shall not be paid for directly.

DETAILS OF ELASTOMERIC BEARINGS WITH MASONRY PLATES

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

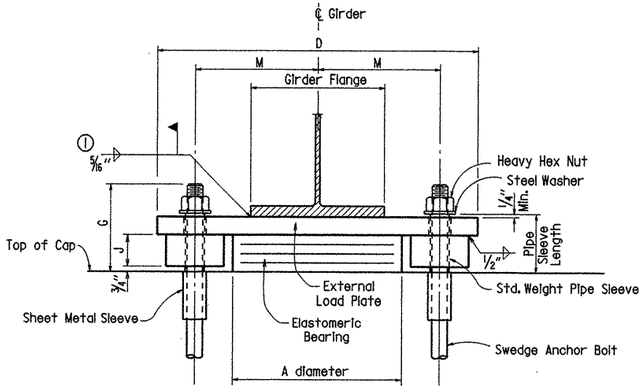
DRAWN BY: KDH DATE: 6-23-05 FILENAME: br60080x2_el.dgn

CHECKED BY: AAH DATE: 7.27.05 SCALE: NONE

DESIGNED BY: KWY DATE: 11-04

BRIDGE NO. 07052 DRAWING NO. 47753

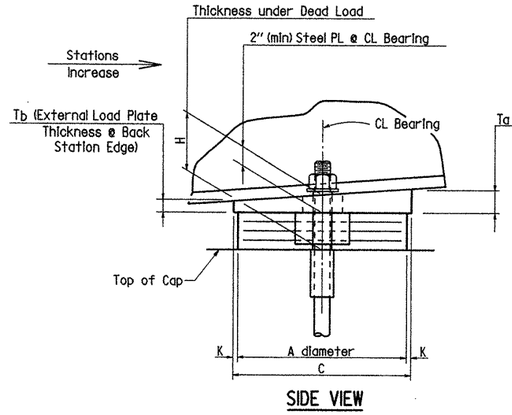
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				8	ARK.			
				JOB NO.		R60080		
				①	07052 -	BEARINGS	- 47754	



FRONT VIEW

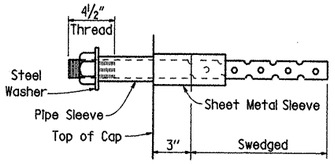
① Care shall be taken to ensure that the external load plate is in full and complete contact with the beam or girder flange before welding begins.

② Centerline of Girder shall align with centerline of bearing.



SIDE VIEW

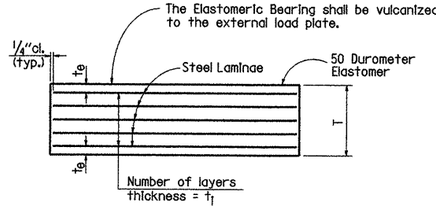
Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40° F and 80° F; and 2) no horizontal deformation of the elastomeric pad is evident. If welding at other temperatures is required, the Engineer will provide adjustment data.



ANCHOR BOLT DETAIL

NOTE: Anchor Bolts may be cast in place or drilled and grouted into place. If Anchor Bolts are to be cast in place, the Galvanized Sheet Metal Sleeves will not be required.

If Anchor Bolts are to be drilled and grouted in place, the Galvanized Sheet Metal Sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of Structural Steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the masonry. Bolts placed in drilled holes shall be accurately set and fixed using a QPL approved epoxy or non-shrink grout that completely fills the holes. Galvanized Sheet Metal Sleeves will not be paid for directly, but will be considered subsidiary to the item "Structural Steel in Plate Girder Spans, (M270, Gr. 50)".

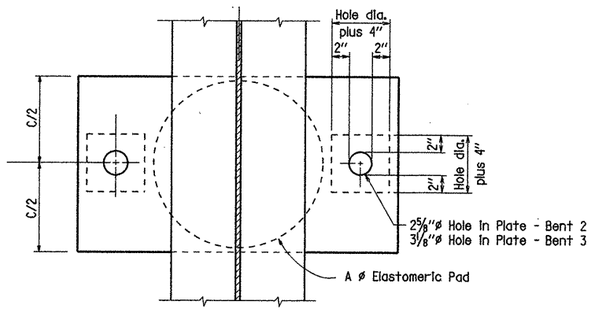


t_e = thickness of elastomer cover on top and bottom of pad

t_1 = thickness of elastomer between steel laminae

N = number of elastomer layers of thickness t_1

ELASTOMERIC BEARING



PLAN VIEW

TABLE OF FABRICATOR VARIABLES

BRIDGE NO.	LOCATION: BENT NO(S).	LOCATION: UNIT NO.	LOCATION: GIRDER NO.	BEARING TYPE	NO. of BEARINGS EACH BENT	*MAXIMUM DESIGN LOAD (KIPS)	G	H	ELASTOMERIC PAD: A DIA.	N	t_1	t_e	NO. & THICKNESS OF STEEL LAMINAE	T	EXTERNAL LOAD PLATE: C	D	K	J	M	T_a	T_b	ANCHOR BOLT: ANCHOR BOLT (ø x L)	GRADE	PIPE SLEEVE SIZE (ø x L)	SHEET METAL SLEEVE SIZE (ø x L)	STEEL WASHER SIZE (O.D.)
	2	490'	All	Fix	4	459.20	10 3/8"	7 3/8"	24"	8	1/2"	1/4"	9 @ 12 Gauge	5 1/16"	25"	41 1/2"	1/2"	4 5/8"	16 3/8"	1.917"	2.083"	1 3/4"ø x 31"	55	2"ø x 7 5/8"	4"ø x 10"	3 3/8"
	3	490'	All	Fix	4	681.40	11 7/8"	8 9/16"	28"	10	1/2"	1/4"	11 @ 12 Gauge	6 5/8"	29"	46 1/2"	1/2"	5 9/16"	18 5/8"	1.614"	2.386"	2"ø x 35"	55	2 1/2"ø x 8 7/8"	4"ø x 10"	3 3/4"

* Maximum Design Load = Service Load

Tabular Data by : KDH Date: 6-23-05

GENERAL NOTES

Elastomeric Bearings shall conform to Special Provision Job R60080 "Elastomeric Bearings" and Section 808 of the Standard Specifications and shall be paid for at the unit price bid for "Elastomeric Bearings." Long-duration testing of random lot samples specified in subsection 808.05 is not required.

External load plates and shear blocks shall conform to AASHTO M 270, Grade 50 and will not be paid for separately, but will be included in the unit price bid for "Elastomeric Bearings". Pipe sleeves shall be ASTM A53, Grade B, and shall be galvanized to conform to AASHTO M 232, Class C or AASHTO M 298, Class 50.

External load plates and shear blocks shall be completely fabricated (including bevel, bolt holes and all shop welding) and shall be cleaned before vulcanizing to the elastomeric bearing. The surface in contact with the elastomeric bearing shall be cleaned in accordance with subsection 808.03. Other surfaces shall be blast cleaned in accordance with subsection 807.84(b) and painted in accordance with 807.75. Painting will not be paid for directly but will be considered subsidiary to the item 'Elastomeric Bearings'

Anchor Bolts, Washers and Nuts shall conform to subsection 807.07 of the Standard Specifications. The anchor bolt grade of steel shall be as specified in the "Table of Fabricator Variables". Indentations shall be circular with rounded bottoms and staggered as shown in the details.

Pipe Sleeves, Anchor Bolts, Washers and Nuts shall be paid for at the unit price bid for "Structural Steel in Plate Girder Spans (M270, Gr. 50)".

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 13337 8/31/05 CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF ELASTOMERIC BEARINGS WITH SHEAR BLOCKS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

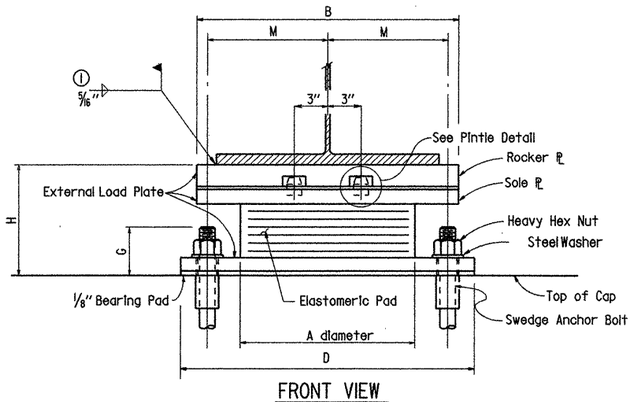
DRAWN BY: KDH DATE: 6-23-05 FILENAME: br60080x2_e2.dgn

CHECKED BY: MAH DATE: 8-2-05 SCALE: NONE

DESIGNED BY: KWY DATE: 11-04

BRIDGE NO. 07052 DRAWING NO. 47754

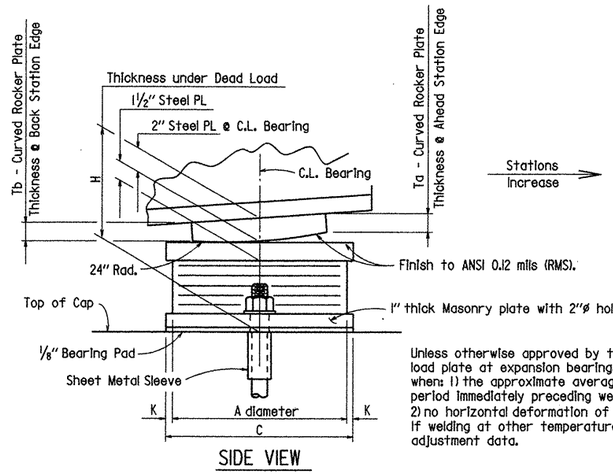
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		
				① 07052 -		BEARINGS		- 47755



FRONT VIEW

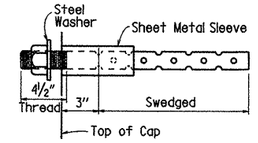
① Care shall be taken to ensure that the external load plate is in full and complete contact with the beam or girder flange before welding begins.

② Centerline of Girder shall align with centerline of bearing.



SIDE VIEW

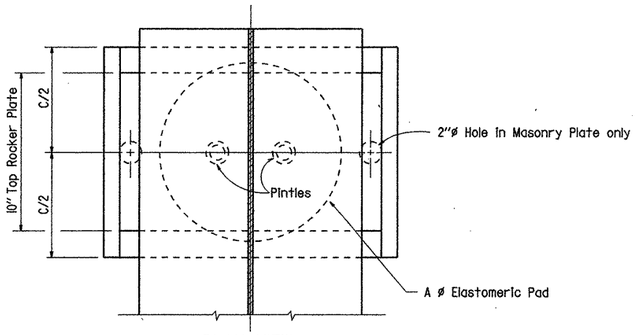
Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40° F and 80° F; and 2) no horizontal deformation of the elastomeric pad is evident. If welding at other temperatures is required, the Engineer will provide adjustment data.



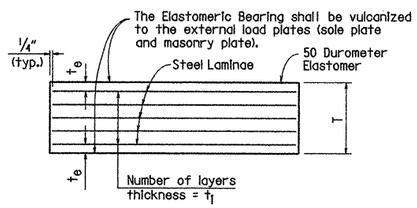
ANCHOR BOLT DETAIL

NOTE: Anchor Bolts may be cast in place or drilled and grouted into place. If Anchor Bolts are to be cast in place, the Galvanized Sheet Metal Sleeves will not be required.

If Anchor Bolts are to be drilled and grouted in place, the Galvanized Sheet Metal Sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of Structural Steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the masonry. Bolts placed in drilled holes shall be accurately set and fixed using a QPL approved epoxy or non-shrink grout that completely fills the holes. Galvanized Sheet Metal Sleeves will not be paid for directly, but will be considered subsidiary to the item "Structural Steel in Plate Girder Spans, (M270, Gr. 50)"



PLAN VIEW

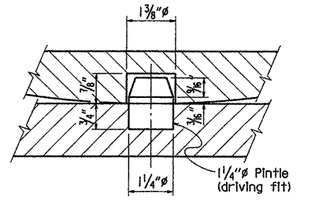


t_e = thickness of elastomer cover on top and bottom of pad

t_1 = thickness of elastomer between steel laminae

N = number of elastomer layers of thickness t_1

ELASTOMERIC BEARING



Pintles shall be annealed stainless steel, Type 304 or 316, meeting the physical and chemical requirements of ASTM F593 or A276.

PINTLE DETAILS
(Side View)

GENERAL NOTES

Elastomeric Bearings shall conform to Section 808 of the Standard Specifications. Long-duration testing of random lot samples specified in Subsection 808.05 is not required. See SP Job R60080 "Elastomeric Bearings". Bearings shall be paid for at the unit price bid for "Elastomeric Bearings".

External load plates shall conform to AASHTO M 270, Gr. 50. Pintles shall be annealed Stainless steel, Type 304 or 316, meeting the physical and chemical requirements of ASTM F593 or A276.

External load plates (sole plates, rocker plates, and masonry plates including bevel, holes and slots) shall be completely fabricated and shall be blast cleaned to remove rust, loose mill scale, dirt, oil, grease and foreign substances before vulcanizing to the elastomeric bearing. Surfaces in contact with the elastomeric bearing shall be cleaned in accordance with subsection 808.03. Other surfaces shall be blast cleaned in accordance with subsection 807.84(b) and painted in accordance with 807.75. Painting will not be paid for directly but will be considered subsidiary to the item 'Elastomeric Bearings'

Anchor Bolts, Washers and Nuts shall conform to subsection 807.07 of the Standard Specifications. The anchor bolt grade of steel shall be as specified in the "Table of Fabricator Variables". Indentations shall be circular with rounded bottoms and staggered as shown in the details.

Anchor Bolts and Washers and Nuts shall be paid for at the unit price bid for "Structural Steel in Plate Girder Spans (M270, Gr. 50)".

All external load plates (sole plates, rocker plates, and masonry plates), bearing pads, and pintles will not be paid for separately but will be included in the unit price bid for "Elastomeric Bearings".

Bearings with masonry plates and 1/8" bearing pads shall be firmly seated in accordance with Subsection 807.66 of the Standard Specifications. This work and material shall be considered subsidiary to the item "Elastomeric Bearings" and shall not be paid for directly.

TABLE OF FABRICATOR VARIABLES

BRIDGE NO.	LOCATION			BEARING TYPE	NO. of BEARINGS EACH BENT	* MAXIMUM DESIGN LOAD	G	H	A DIA.	B	N	t_1	t_e	NO. & THICKNESS OF STEEL LAMINAE	T	C	D	K	M	Ta	Tb	ANCHOR BOLT		SHEET METAL SLEEVE SIZE (ø x L)	STEEL WASHER SIZE (O.D.)
	BENT NO(S).	UNIT	GIR. NO.																			(ø x L)	GRADE		
	4	490'	All	Exp.	4	257.24	3⅜"	9⅞"	26"	27"	7	½"	¼"	8 @ 12 Gauge	4¹⁵⁄₁₆"	27"	35"	½"	15"	1.249"	1.697"	1¼"ø x 17"	55	3"ø x 6"	2½"

*Maximum Design Load = SERVICE LOAD in Kips

Tabular Data by : KDH Date: 6-23-05

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
6/23/05
CHARLES P. BRAND
BRIDGE ENGINEER

DETAILS OF ELASTOMERIC BEARINGS WITH MASONRY PLATES AND PINTLES

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

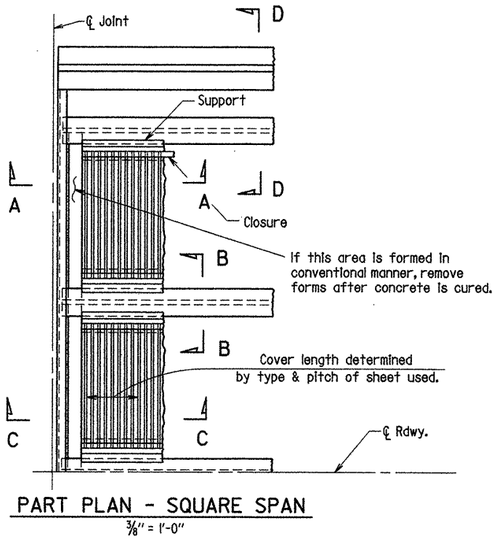
DRAWN BY: KDH DATE: 6-23-05 FILENAME: br-60080x2_e3.dgn

CHECKED BY: MAH DATE: 8-2-05 SCALE: NONE

DESIGNED BY: KWY DATE: 11-04

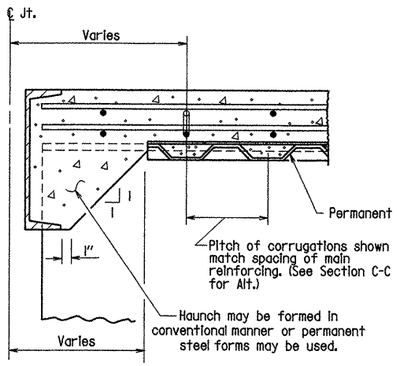
BRIDGE NO. 07052 DRAWING NO. 47755

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.		R60080		
				①	07052 -	DECK FORMS	- 47756	



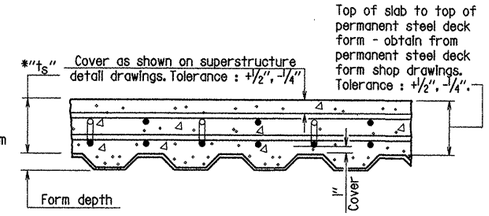
PART PLAN - SQUARE SPAN

3/8" = 1'-0"



SECTION A-A

N.T.S.



SECTION C-C

1" = 1'-0"

*t_s = slab thickness as shown on superstructure detail drawings.

GENERAL NOTES

Permanent steel deck forms may be used at the Contractor's option and shall be at no additional cost to the Department. Such use may result in changes to the dead load deflection of the girder. Any cost for adjustments due to a change in the dead load deflection will be borne by the Contractor. Payment for deck concrete and structural steel will not be increased due to use of permanent steel deck forms.

Permanent steel deck forms shall conform to subsection 802.14(b) of the Standard Specifications. Detailed plans, including detailed calculations and manufacturer's technical brochure, shall be submitted to and approved by the Bridge Engineer before work of forming the bridge deck is started.

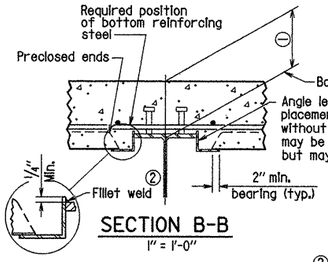
Welding of form supports to the tension flange of steel girders will be permitted only in areas where shear connectors are used. When welding is not allowed, the method of fastening Z or ∠ supports to the flange must be approved by the Bridge Engineer.

Form sheets shall be fastened to supporting members and to each other with galvanized metal screws sufficient in size and number to provide a secure attachment. Alternate methods of attachment must be approved by the Bridge Engineer.

Bar support rods, when used, shall be sized and spaced to adequately support the bottom reinforcing mat at the required position.

High chairs shall be sized to support the top mat of reinforcing at the proper position. High chairs shall be placed at locations shown on the detail drawings.

Specifications: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2003 Edition), with applicable supplemental specifications and special provisions.

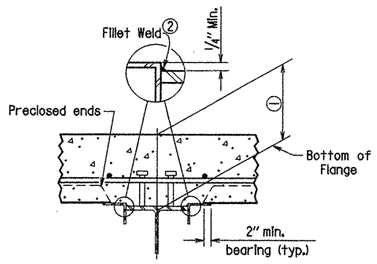


SECTION B-B

1" = 1'-0"

(Showing permissible support for tension flange where shear connectors are used, and for all compression flanges)

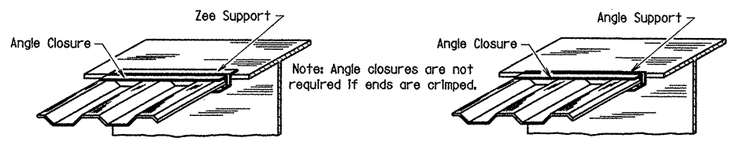
② Minimum weld: 1/8" x 1" @ 12". More weld may be required; maximum length per weld = 1 1/2" (typ.)



SECTION B-B

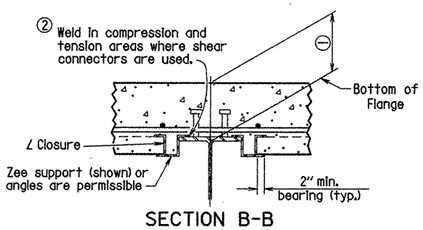
1" = 1'-0"

(Showing permissible support for tension flange where shear connectors are used and for all compression flanges)



SKETCH OF PERMISSIBLE SUPPORTS

N.T.S.

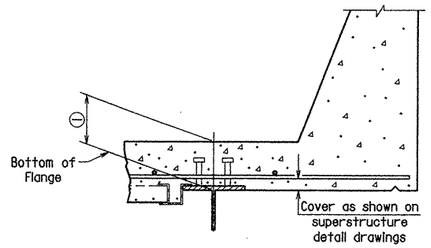


SECTION B-B

1" = 1'-0"

(Showing ∠ Closure)

① Distance from top of slab to bottom of top flange as measured at centerline girder and as shown on superstructure detail drawings. This dimension may vary within the following limits to maintain the grade and slab thickness tolerances : Minimum - occurs when either the top flange or the support angle leg contacts the bottom reinforcing steel; Maximum = t_s + 1 3/4" + flange thickness. See Section C-C for slab thickness tolerance between adjacent girder flanges.



SECTION D-D

1" = 1'-0"

Note: Only Bottom Reinforcing is shown.

STATE OF ARKANSAS
CHARLES P. BRAND
No. 4337
6/13/05
REGISTERED PROFESSIONAL ENGINEER

BRIDGE ENGINEER

DETAILS OF PERMISSIBLE TYPE PERMANENT STEEL BRIDGE DECK FORMS FOR STEEL GIRDER SPANS BROOKSWOOD FLYOVER

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 7-19-05
CHECKED BY: MAH DATE: 7-27-05
DESIGNED BY: KWY DATE: 6-05

FILENAME: br60080x2_sl0.dgn
SCALE: AS NOTED

BRIDGE NO. 07052 DRAWING NO. 44756

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.		R60080	26	65
				07053 -		LAYOUT-KIEHL	- 47757	

For R/W Data, See Rdwy. Plans

HORIZONTAL CURVE DATA
KIEHL AVENUE
PI = Sta. 14+87.49
Delta = 7°09'09.7" Lt.
D = 3°00'00"
T = 119.37'
L = 238.42'

Note: Concrete riprap shall be placed at both ends of bridge as shown. See Std. Dwg. No. 14995A.

*Existing roadway under bridge

Toe of Fill

Cross-slope Transition in this area See Sketch

Sta. 15+16.55

Temp. Shoring as Required

Approx. 0.2 mi. to Lee Avenue

℄ Constr. Jct.

PT Sta. 16+06.55

Top of Cut See Rdwy. Plans

MSE Wall - See Rdwy. Plans

Landers Road

NORTHBOUND 67/167

SOUTHBOUND 67/167

Sta. 18+76.55

Exist. Br. No. 03058

Test Hole-typ.

Warden Road

Sta. 18+73.55

℄ Bridge

Sta. 19+73.55

Stage 2 Constr.

Stage 3 Construction

Sidewalk this side

Kiehl Ave. ℄ Bridge Sta. 18+27.19
Hwy. 67/167 ℄ Median Sta. 373+19.70

Sta. 373+00

Sta. 374+00

2'-0" Barrier

Sta. 372+00

Median

Lanes

Shdr.

Curb

Sidewalk

Parapet

Clear Rdwy.

Stage 1 Constr.

Stage 2 Constr.

Stage 3 Constr.

18' clear

Slope 2.00% Slope

Temp. Shoring as Required

KIEHL AVE

CURB

PAVED SHOULDER

45°-typ. except as noted

Approx. 2.9 mi. to Jct. S.H. 107

Concrete Transitional Approach Rail (typ.) See Dwg. No. 47759A.

PI Sta. 20+43.91

Toe of Fill

Note: Excavate the embankment as shown at both bridge ends See roadway plans and SP Job R60080 "Shoring Bridge No. 07053".

N25°53'38.65"W

N26°53'38.65"W

N64°10'19.11"E

**Proposed roadway under bridge

PLAN

PVI 18+27.19
Elev 305.47

7.00% -7.00%

L = 625'

VERTICAL CURVE DATA AT ℄ BRIDGE

Total Length of Bridge = 318'-2"

316'-0" Cont. Comp. W-Beam Unit (4 spans @ 79')

1'-1" 1'-1"

Begin Bridge - Sta. 16+68.11
Elev. 291.10

End Bridge - Sta. 19+86.27
Elev. 291.70

℄ 2" Poured Silicone Joint

℄ Bent 2 - Sta. 17+48.19
Elev. 293.83

℄ Deck to Low Side Top of Cap = 4'-11⅝"-typ.

℄ Bent 3 - Sta. 18+27.19
Elev. 294.53

Type H Metal Bridge Railing on Concrete Parapet Rail

℄ Bent 4 - Sta. 19+06.19
Elev. 293.83

℄ Deck to Low Steel = 4'-6⅛"

Slope Intercept Sta. 16+34.19

Slope Intercept Sta. 20+20.19

Concrete Transitional Approach Rail - typ.

Proposed Grade Line along ℄ Bridge

Existing Ground Line @ ℄ Bridge

Elev. 256.70

90' piles

60' Piles

Elev. 257.86

8.5' Landers Road

Northbound Lanes

Southbound Lanes

Elev. 262.06

70' Piles Typ. for Bents 2-4

Elev. 257.86

Warden Road

Elev. 256.70

95' piles

65' Piles

Sta. 16+95-Surf. Elev. 264.4 ℄ Kiehl Ave.

Sta. 17+50-Surf. Elev. 263.9 ℄ Kiehl Ave.

Sta. 18+24-Surf. Elev. 266.5 ℄ Kiehl Ave.

Sta. 19+10-Surf. Elev. 264.0 ℄ Kiehl Ave.

Sta. 20+34-Surf. Elev. 282.4 ℄ Kiehl Ave.

Bent No. ① ② ③ ④ ⑤

ELEVATION

℄ Bridge

4.0% (Full Super) at Sta. 15+16.55

2.0% at Sta. 16+36.55

2.0%

-2.0% at Sta. 18+76.55

Rotation Point & Profile Grade at Working Point, see Dwg. No. 47774

CROSS SLOPE TRANSITION SKETCH

Looking Ahead

For General Notes and Soil Boring Data See Dwg. No. 47758.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4937
2/3/05
CHARLES P. BRAND
BRIDGE ENGINEER

SHEET 1 OF 2
LAYOUT OF KIEHL AVENUE BRIDGE OVER U.S. HWY. 67/167 I-40 - McCAIN BLVD. & WILDWOOD-KIEHL AVE. (F) PULASKI COUNTY

ROUTE 67 SEC. 10

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 1-20-05 FILENAME: br60080x3_III.dgn
CHECKED BY: KWY DATE: 8-2-05 SCALE: 1" = 30'
DESIGNED BY: CAB DATE: 01-05

BRIDGE NO. 07053 DRAWING NO. 47757

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
12-6-05				6	ARK.			
				JOB NO.		R60080	362	609
				①	07053 - GEN. NOTES-LAYOUT - 47758			

GENERAL NOTES

BENCH MARK: GPS Point 60039A AZ on rod & cap, 8.30' left of C.L. Bridge Sta. 16+34.52, Elev. 282.80.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 2003 edition, with applicable supplemental specifications and special provisions. Unless otherwise noted, section and subsection numbers in the plans refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, 2002 edition.

LIVE LOADING: HS20 METHOD OF DESIGN: Load Factor
SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)	f'c = 4,000 psi.
Class S Concrete (substructure)	f'c = 3,500 psi.
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)	fy = 60,000 psi.
Structural Steel (AASHTO M270, Gr. 50)	Fy = 50,000 psi.
Structural Steel (AASHTO M270, Gr. 36)	Fy = 36,000 psi.

BORING LOGS: Boring logs may be obtained from the Programs and Contracts Division.

STEEL PILING: All piling shall be HP 12X53 and shall be driven with an approved air, steam or diesel hammer to a minimum safe bearing capacity of 70 tons per pile and into material designated as dense to very dense sand or medium hard weathered shale on the boring legend. Piles in end & intermediate bent footings shall be driven to a minimum penetration of 10 feet below the bottom of the footing. Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. On all piles the Contractor shall use approved steel H-Pile driving points.

FOOTINGS: Footings shall have a minimum cover above top of footings of 2'-0". Foundations for footings shall be prepared in accordance with Section 801.04 and shall be backfilled in accordance with Section 801.08.

TEMPORARY SHORING: Temporary shoring will be required to complete excavation while maintaining traffic on the existing bridge. Payments for these items shall be included in SP Job R60080 "Shoring Bridge No. 07053".

BRIDGE DECK: The concrete bridge deck shall be given a tine finish as specified for final finishing in subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

PAINTING STRUCTURAL STEEL: Paint shall conform to Federal Standard 595A, Color Chip No. 37200, Aluminum.

TEXTURED COATING FINISH: Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in SP Job R60080"Textured Coating Finish" and in accordance with subsection 802.19. Textured Coating Finish shall not be applied on surfaces where Class 1 Protective Surface Treatment is applied.

⚠ FORM INSERT: State of Arkansas form insert to be used at abutment wingwalls (4 locations), see Dwg. No. 47784.

DETAIL DRAWINGS:	DRAWING NO(S).
Stage Construction Sequence	47759
Transitional Approach Railing	47759A
End Bents	47760- 47764, 47769 - 47773
Intermediate Bents	47765 - 47768
316'-0" Continuous Composite W-Beam Unit	47774 - 47780
Elastomeric Bearings	47783
Details of Joints	47781 & 47782
Steel Piling	14995A

EXISTING BRIDGE: The existing bridge No. 03058 (Route 176, Sec. 2, log mile 2.89) is 31.3' wide and 366' long and consists of a steel multi-beam superstructure supported by a concrete substructure. The existing bridge is located at the proposed site of the new bridge.

REMOVAL AND SALVAGE: After Stage 1 of the new bridge is open to traffic, the existing bridge (No. 03058) shall be removed in accordance with section 205. All material from the existing bridge shall become the property of the contractor.

BORING LEGEND

A1-Moist, Stiff, Brown and Gray Sandy Clay
B1-Moist, Very Stiff, Reddish Brown and Gray Sandy Clay
C1-Moist, Stiff, Reddish Brown Clay
D1-Moist, Stiff, Reddish Brown and Gray Clay
E1-Moist, Very Stiff, Brown and Gray Clay with some Sand
F1-Moist, Very Stiff, Brown and Gray Clay
G1-Moist, Medium Stiff, Brown and Gray Clay
H1-Wet, Medium Dense, Brown Clayey Sand
J1-Wet, Medium Dense, Gray Sand with clay Seams and Traces of Gravel
K1-Moist, Very Dense, Gray Sand with Traces of Lignite
L1-Wet, Medium Dense, Dark Gray Sand with Black Lignite
M1-Moist, Dense, Dark Gray Sand with Black Lignite
N1-Moist, Very Dense, Dark Gray Sand with Black Lignite
P1-Medium Hard, Dark Gray Weathered Shale
Q1-Hard, Dark Gray Shale
R1-Moist, Medium Stiff, Brown and Gray Sandy Clay
S1-Moist, Stiff, Reddish Brown Sandy Clay
T1-Wet, Soft, Reddish Brown Clay
U1-Moist, Very Stiff, Brown and Gray Sandy Clay
V1-Moist, Very Stiff, Reddish Brown and Gray Clay
W1-Moist, Stiff, Brown and Gray Clay
X1-Moist, Very Stiff, Gray Sandy Clay
Y1-Moist, Very Stiff, Gray and Brown Clay with Gravel
Z1-Moist, Medium Dense, Gray Clayey Sand with Traces of Gravel
A2-Moist, Dense, Gray Sand with Black Lignite
B2-Moist, Very Dense, Gray Sand with Black Lignite
C2-Moist, Very Hard, Gray Clay with Sand Lenses and Traces of Lignite
D2-Moist, Very Dense, Dark Gray Sand with some Thin Cemented Sand Seams
E2-Medium Hard, Dark Gray Highly Weathered Shale with some Thin Gray Cemented Sand Seams
F2-Moist, Medium Stiff, Brown and Gray Clay with Sand
G2-Moist, Very Stiff, Reddish Brown and Gray Clay with Sand
H2-Moist, Stiff, Reddish Brown Clay with some Sand
J2-Moist, Stiff, Brown Sandy Clay
K2-Wet, Loose, Gray and Brown Sand with Clay Seams
L2-Moist, Medium Stiff, Gray Clay with Sand
M2-Wet, Very Stiff, Brown Clay with Sand and some Gravel
N2-Moist, Stiff, Brown Clay with Sand and Gravel
P2-Moist, Hard, Dark Gray Sandy Clay with Traces of Gravel
Q2-Moist, Very Dense, Dark Gray Sand with Clay Seams and Traces of Gravel
R2-Very Dense, Dark Gray Poorly-Cemented Sand
S2-Very Dense, Dark Gray Cemented Sand
T2-Moist, Stiff, Reddish Brown and Gray Sandy Clay
U2-Moist, Medium Stiff, Reddish Brown Clay with Traces of Sand
V2-Moist, Medium Stiff, Reddish Brown Clay with some Sand Seams
W2-Moist, Very Stiff, Brown Clay with Sand Seams
X2-Moist, Stiff to Medium Stiff, Brown and Gray Sandy Clay
Y2-Moist, Medium Dense, Brown Clayey Sand
Z2-Wet, Hard, Brown and Gray Sandy Clay with Gravel
A3-Hard, Brown and Gray Sandstone
B3-Wet, Very Dense, Dark Gray Sand with Black Lignite and some Clay
C3-Hard, Dark Gray Shale with some Weathered Shale Seams
D3-Moist, Stiff, Brown and Gray Clay with Sand Seams
E3-Moist, Soft, Brown and Gray Clay with some Sand Seams
F3-Moist, Very Stiff, Reddish Brown and Gray Clay with Sand Lenses
G3-Wet, Soft, Brown and Gray Sandy, Silty Clay
H3-Moist, Very Stiff, Brown Sandy Clay
J3-Moist, Stiff to Very Stiff, Reddish Brown and Gray Sandy Clay
K3-Moist, Stiff, Gray Sandy Clay
L3-Moist, Hard, Brown and Gray Sandy Clay with Gravel
M3-Wet, Very Stiff, Brown and Gray Sandy Clay with Gravel
N3-Moist, Medium Dense, Dark Gray Sand with Clay Seams and Black Lignite

"N" VALUES

Sta. 16+95 - ℄ Kiehl Ave.
4.0- 5.0, N=15
9.0- 10.0, N=24
15.5- 16.5, N=11
20.5- 21.5, N=9
25.5- 26.5, N=12
30.5- 31.5, N=17
35.5- 36.5, N=15
40.5- 41.5, N=16
45.5- 46.5, N=7
50.5- 51.5, N=12
55.5- 56.5, N=17
60.5- 61.5, N=11
65.5- 66.5, N=69
70.5- 71.5, N=27
75.5- 76.5, N=44
80.0- 80.1, N=60(1'')
85.0- 85.4, N=60(5'')
90.0- 90.0, N=60(0.25'')

Sta. 17+50 - ℄ Kiehl Ave.
4.5- 5.5, N=22
9.5- 10.5, N=13
15.5- 16.5, N=10
20.5- 21.5, N=3
25.5- 26.5, N=7
30.5- 31.5, N=18
35.5- 36.5, N=17
40.5- 41.5, N=14
45.5- 46.5, N=12
50.5- 51.5, N=9
55.5- 56.5, N=21
60.5- 61.5, N=27
65.5- 66.5, N=21
70.5- 71.5, N=36
75.5- 75.8, N=60(4'')
80.0- 80.3, N=60(4'')
85.0- 85.1, N=60(1'')
90.0- 90.2, N=60(3'')
95.0- 95.2, N=60(2'')

Sta. 18+24 - ℄ Kiehl Ave.
4.3- 5.3, N=6
9.3- 10.3, N=22
15.5- 16.5, N=12
20.5- 21.5, N=9
25.5- 26.5, N=10
30.5- 31.5, N=12
35.5- 36.5, N=13
40.5- 41.5, N=14
45.5- 46.5, N=8
50.5- 51.5, N=5
55.5- 56.5, N=11
60.5- 61.5, N=16
65.5- 66.5, N=15
70.5- 71.5, N=32
75.5- 76.5, N=56
80.0- 80.2, N=60(3'')
85.0- 85.0, N=60(0.1'')
90.0- 90.0, N=60(0.1'')

Sta. 19+10 - ℄ Kiehl Ave.
4.5- 5.5, N=26
9.5- 10.5, N=13
15.5- 16.5, N=7
20.5- 21.5, N=8
25.5- 26.5, N=12
30.5- 31.5, N=24
35.5- 36.5, N=15
40.5- 41.5, N=7
45.5- 46.5, N=18
50.5- 51.5, N=23
55.5- 56.5, N=19
60.5- 61.1, N=30(7'')
65.5- 66.5, N=23
70.5- 71.5, N=53
75.5- 75.8, N=60(4'')

Sta. 20+34 - ℄ Kiehl Ave.
4.5- 5.5, N=8
9.5- 10.5, N=15
15.5- 16.5, N=9
20.5- 21.5, N=4
26.5- 27.5, N=21
30.5- 31.5, N=11
35.5- 36.5, N=13
40.5- 41.5, N=4
45.5- 46.5, N=19
50.5- 51.5, N=10
55.5- 56.5, N=15
60.5- 61.5, N=16
65.5- 66.5, N=12
70.5- 71.5, N=22
75.5- 76.5, N=34
80.5- 81.5, N=18
85.5- 86.5, N=22
90.5- 90.8, N=60(4'')
95.5- 95.8, N=60(3'')
100.0-100.2, N=60(2'')

⚠ Removed Arkansas Form Insert from intermediate bents KDH - 12-6-05

STATE OF ARKANSAS
CHARLES P. BRAND
REGISTERED PROFESSIONAL ENGINEER
No. 8337
12/8/05

BRIDGE ENGINEER

SHEET 2 OF 2
LAYOUT OF KIEHL AVENUE BRIDGE
OVER U.S. HWY. 67/167
I-40 - McCAIN BLVD. &
WILDWOOD-KIEHL AVE. (F)
PULASKI COUNTY

ROUTE 67 SEC. 10

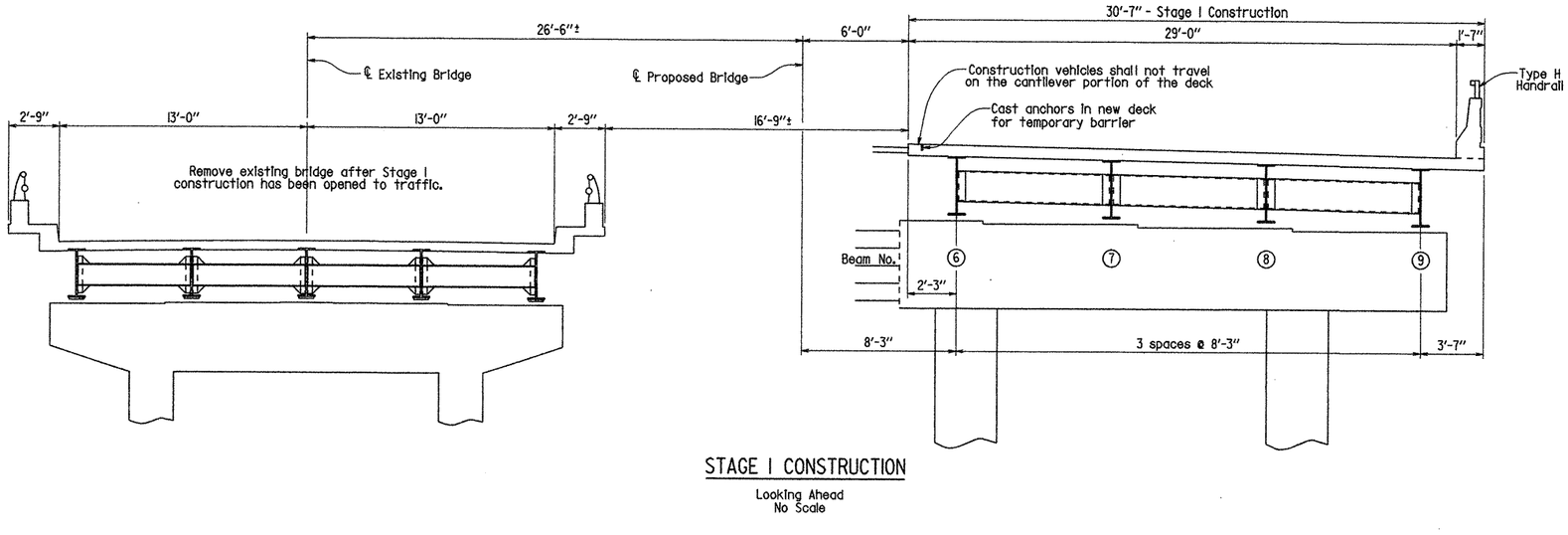
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 1-21-05 FILENAME: br60080x3_not.dgn
CHECKED BY: KWY DATE: 12-7-05 SCALE: NONE
DESIGNED BY: CAB DATE: 01-05

BRIDGE NO. 07053 DRAWING NO. 47758

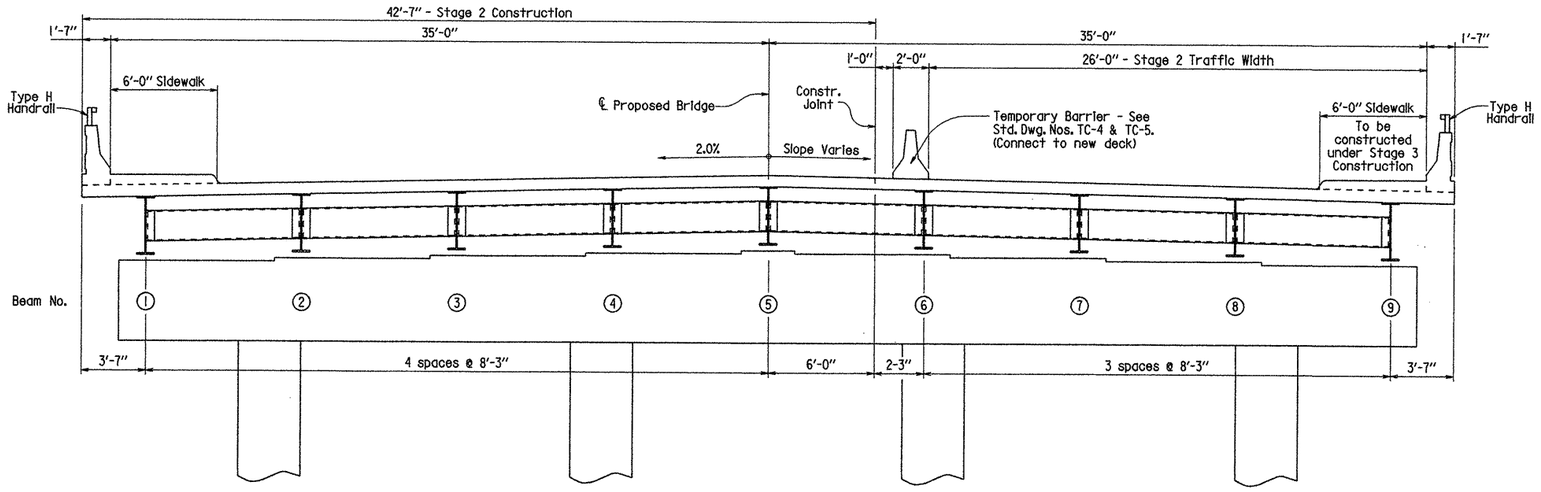
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	16	16

(1) 07053 - STAGE CONSTRUCTION - 47759



STAGE 1 CONSTRUCTION

Looking Ahead
No Scale



STAGE 2 CONTRUCTION

Looking Ahead
No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
01/05
CHARLES P. BRAND

BRIDGE ENGINEER

STAGE CONSTRUCTION SEQUENCE
KIEHL AVENUE BRIDGE
OVER U.S. 67/167
I-40 - McCAIN BLVD. & WILDWOOD-KIEHL AVE. (F)
PULASKI COUNTY
ROUTE 67 SEC. 10

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

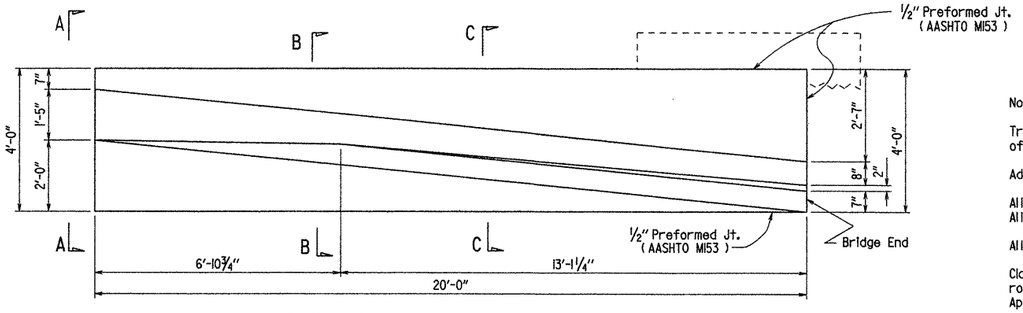
DRAWN BY: KDH DATE: 1-25-05
CHECKED BY: EWY DATE: 8-1-05
DESIGNED BY: CAB DATE: 01-05

FILENAME: br60080x3_stg.dgn
SCALE: AS NOTED

BRIDGE NO. 07053

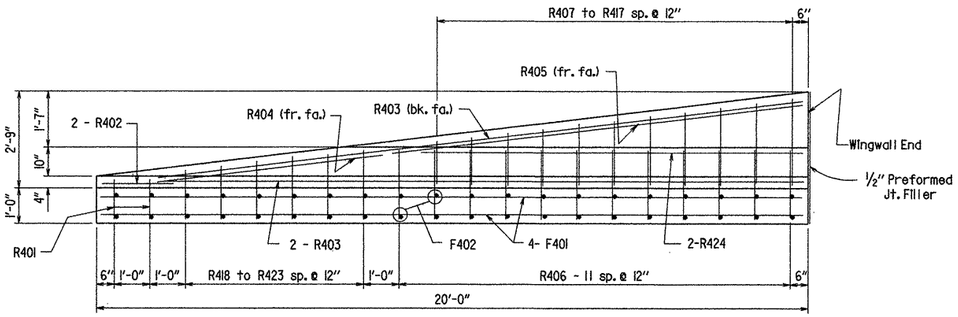
DRAWING NO. 47759

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.		R60080		
				07053 -		TRANS. RAIL	- 47759A	



PLAN - TRANSITIONAL APPROACH RAILING

½" = 1'-0"



ELEVATION - TRANSITIONAL APPROACH RAILING

½" = 1'-0"

Notes:

Transitional Approach Railing shall be placed at each side of beginning and end of bridge.

Adjacent Railing is opposite hand to railing shown.

All concrete shall be Class "S" and be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

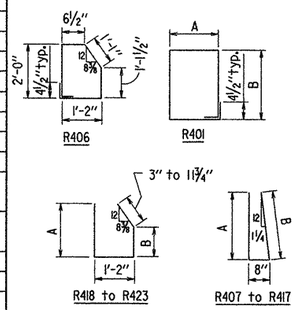
Class 1 Protective Surface Treatment shall be applied to the roadway surface, front face and top of the Transitional Approach Railing. Class 3 Textured Coating Finish shall be applied to all areas specified in Special Provision Job R60080 "Textured Coating Finish".

Transitional Approach Railing shall be paid for at the contract unit price bid per each for "Transitional Approach Railing." See SP Job No. R60080 "Transitional Approach Railing."

BAR LIST PER RAILING

MARK	NO. REQ'D.	LENGTH	'A'	'B'	P.D.
F401	8	19'-8"			Str.
F402	40	3'-8"			Str.
R401	2	4'-10"	1'-2"	1'-1"	2"
R402	2	2'-0"			Str.
R403	3	17'-9"			Str.
R404	1	5'-0"			Str.
R405	1	12'-9"			Str.
R406	12	6'-3"			2"
R407 to R417	1ea.	3'-0" to 5'-5"	1'-3" to 2'-5½"	1'-3" to 2'-5½"	2"
R418 to R423	1ea.	3'-9" to 5'-1"	1'-4" to 1'-11¼"	1'-1½"	2"
R424	2	10'-9"			Str.

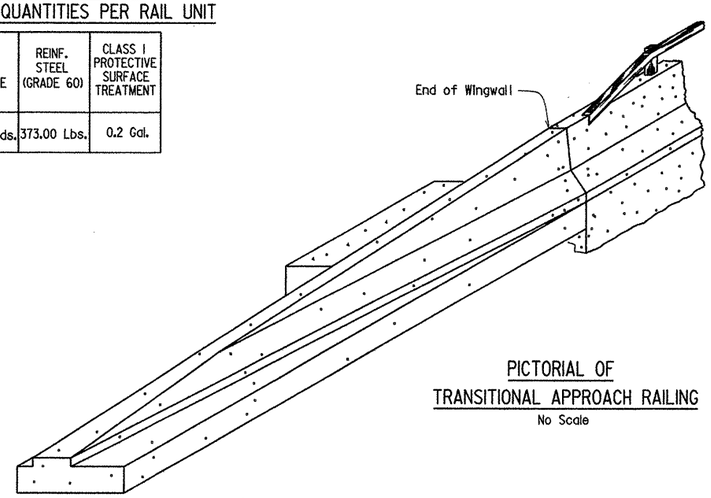
BENDING DIAGRAMS



Dimensions are out to out of bars.

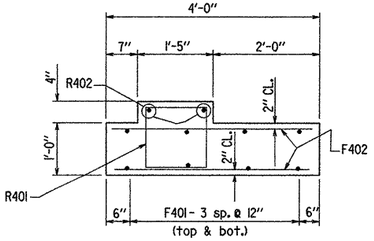
FOR INFORMATION ONLY
SCHEDULE OF QUANTITIES PER RAIL UNIT

CLASS "S" CONCRETE	REINF. STEEL (GRADE 60)	CLASS 1 PROTECTIVE SURFACE TREATMENT
4.20 Cu. Yds.	373.00 Lbs.	0.2 Gal.



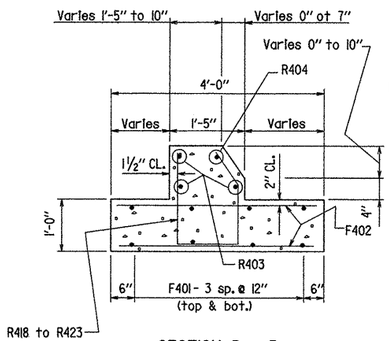
PICTORIAL OF
TRANSITIONAL APPROACH RAILING

No Scale



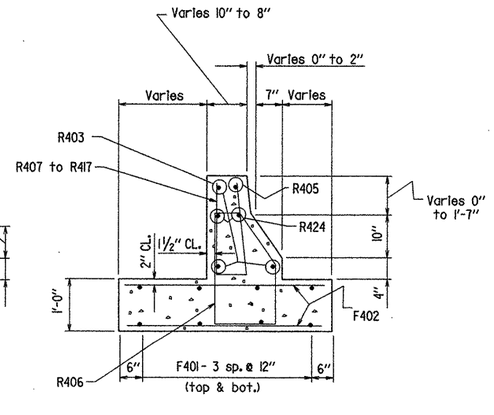
VIEW A -A

¾" = 1'-0"



SECTION B - B

¾" = 1'-0"



SECTION C - C

¾" = 1'-0"

STATE OF ARKANSAS
No. 4337
01/5/05
REGISTERED PROFESSIONAL ENGINEER
CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF TRANSITIONAL APPROACH RAILING

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

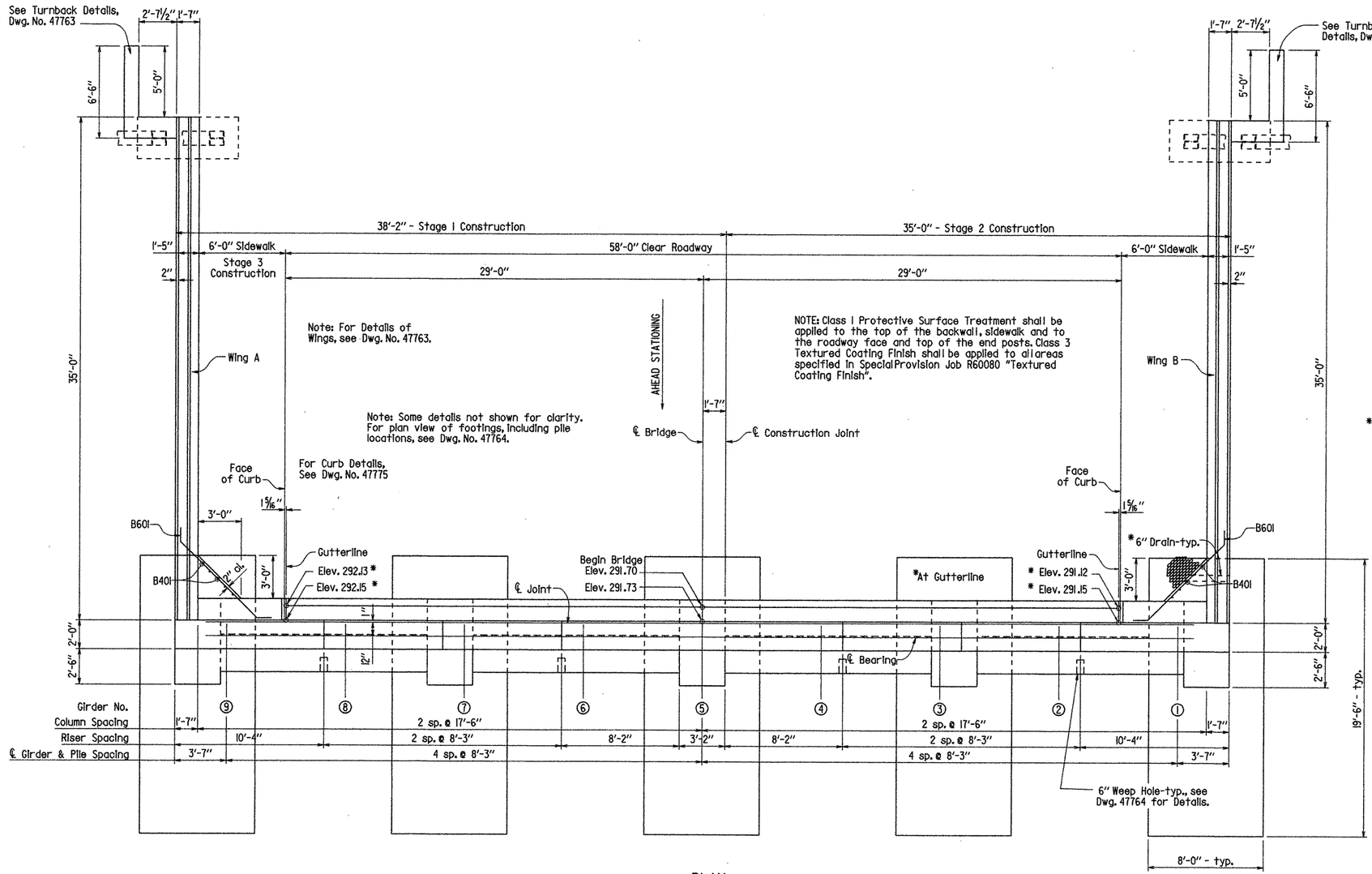
DRAWN BY: CAB DATE: 7-20-05 FILENAME: br60080x3.tri

CHECKED BY: M.A.H. DATE: 8-2-05 SCALE: AS NOTED

DESIGNED BY: STD. DATE:

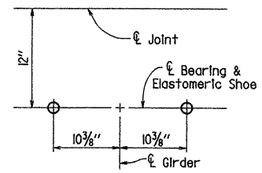
BRIDGE NO. 07053 DRAWING NO. 47759A

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.		R60080		
				07053	-	BENT 1 - 47760		



PLAN

Scale: 1/4" = 1'-0"



TYP. ANCHOR BOLT LAYOUT

No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
8/5/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 1 OF 5
DETAILS OF BENT 1
KIEHL AVENUE

ROUTE SEC.

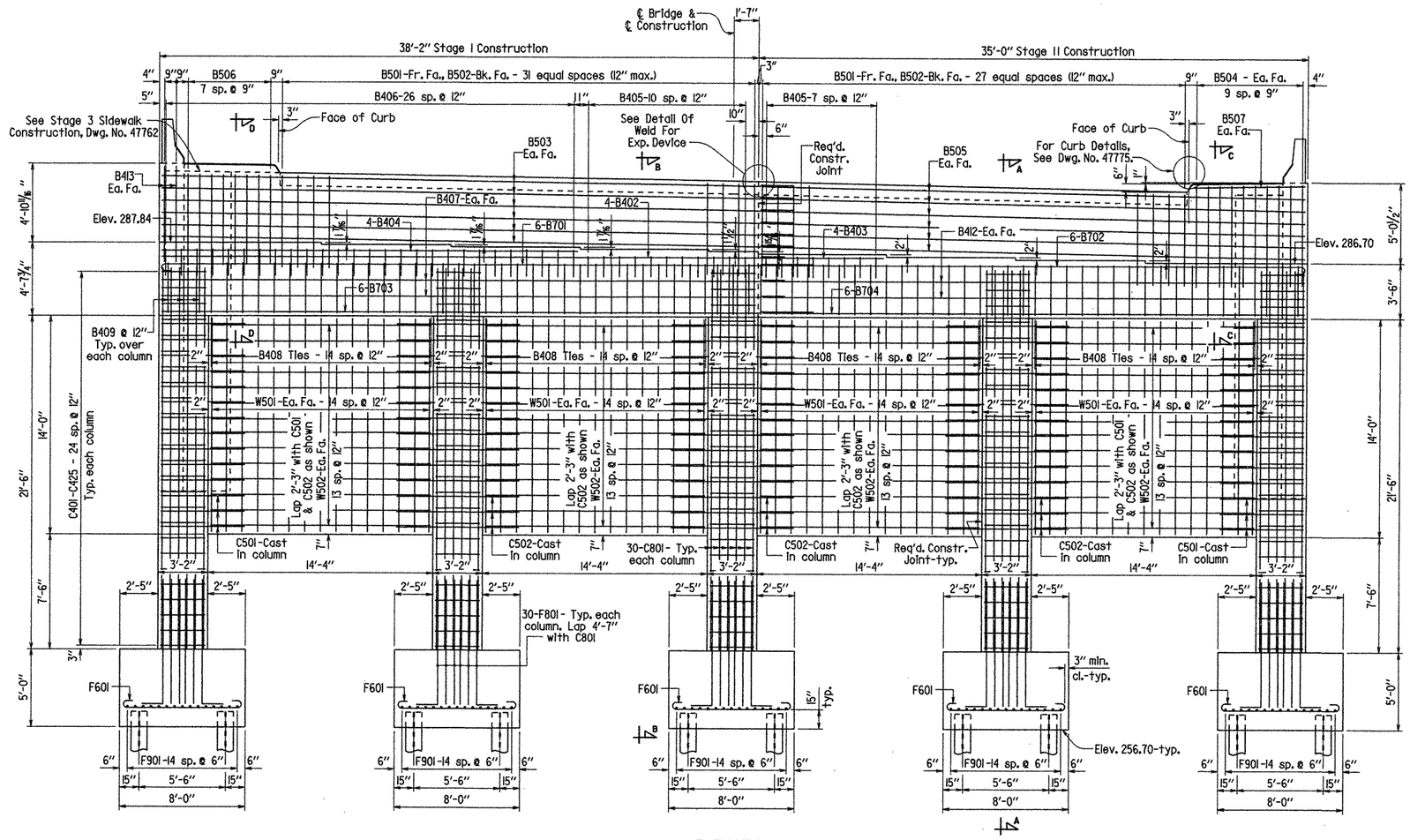
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 7-11-05 FILENAME: br60080x3_bll.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: ACCJ DATE: 7-05

BRIDGE NO. 07053 DRAWING NO. 47760

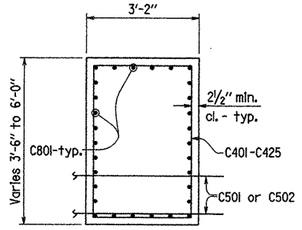
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		
				07053 -		BENT 1 - 47761		



ELEVATION

Looking Back
Scale: 1/4" = 1'-0"

Note: For Section A-A, B-B, C-C, and D-D see Dwg. No. 47762



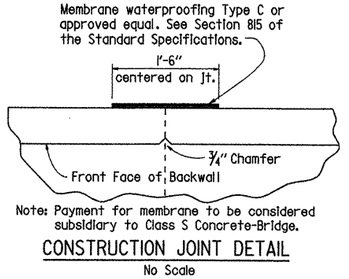
TYPICAL SECTION THRU COLUMN

Scale: ½" = 1'-0"

Note: For location of W723 bars in exterior columns, see details of Wing Elevation on Dwg. No. 47763.

MINIMUM LAP LENGTHS

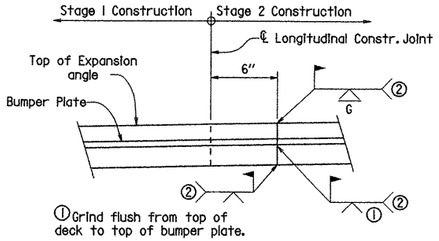
#4 bars	1'-9"
#5 bars	2'-3"
#7 bars	3'-6"
#8 bars	4'-7"



Note: Payment for membrane to be considered subsidiary to Class S Concrete-Bridge.

CONSTRUCTION JOINT DETAIL

No Scale



① Grind flush from top of deck to top of bumper plate.

② Weld after Stage I Pour & prior to Stage 2 Pour

DETAIL OF WELD FOR EXPANSION DEVICE

Looking Back - Bent 1
No Scale

STATE OF ARKANSAS
CHARLES P. BRAND
REGISTERED PROFESSIONAL ENGINEER
No. 4637
05/05
BRIDGE ENGINEER

SHEET 2 OF 5
DETAILS OF BENT 1
KIEHL AVENUE

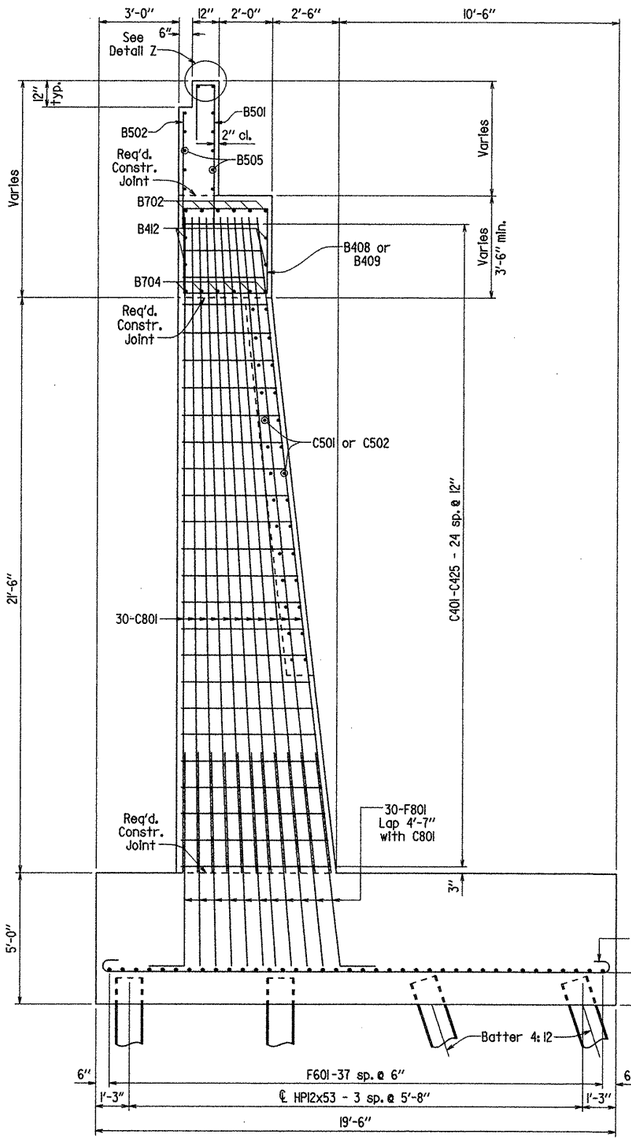
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 7-12-05 FILENAME: br60080x3_bl2.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: APW DATE: 06-05

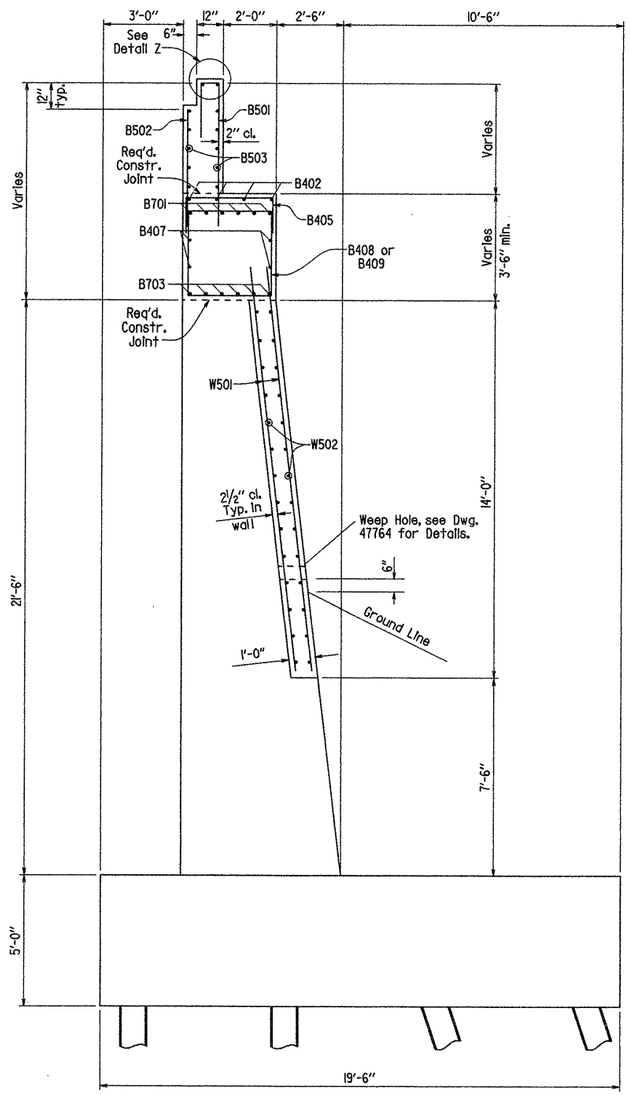
BRIDGE NO. 07053 DRAWING NO. 47761

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.		R60080		
				07053 -		BENT 1 - 47762		



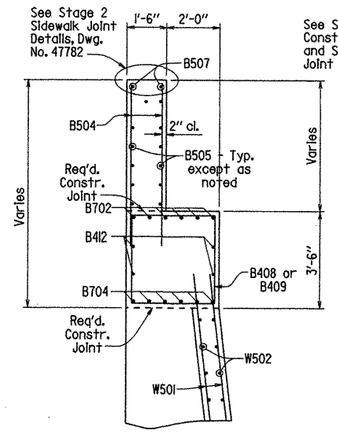
SECTION A-A

Scale: 3/8" = 1'-0"



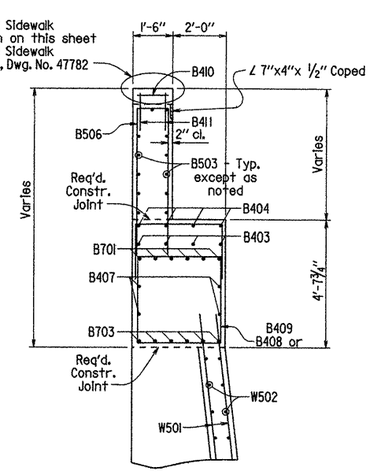
SECTION B-B

Scale: 3/8" = 1'-0"



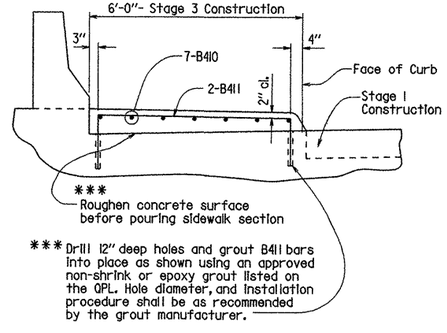
SECTION C-C

Scale: 3/8" = 1'-0"



SECTION D-D

Scale: 3/8" = 1'-0"

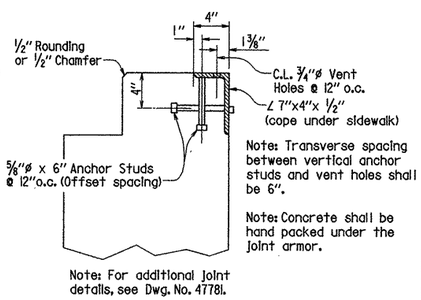


*** Drill 12" deep holes and grout B411 bars into place as shown using an approved non-shrink or epoxy grout listed on the QPL. Hole diameter, and installation procedure shall be as recommended by the grout manufacturer.

*** This work to be completed as part of Stage 3 Construction. Payment for this work will not be paid for directly, but shall be considered subsidiary to the item "Class S(AE) Concrete.

STAGE 3 SIDEWALK CONSTRUCTION

No Scale



Note: Transverse spacing between vertical anchor studs and vent holes shall be 6".

Note: Concrete shall be hand packed under the joint armor.

Note: For additional joint details, see Dwg. No. 47781.

DETAIL Z

No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4937
8/3/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 3 OF 5
DETAILS OF BENT 1
KIEHL AVENUE

ROUTE SEC.

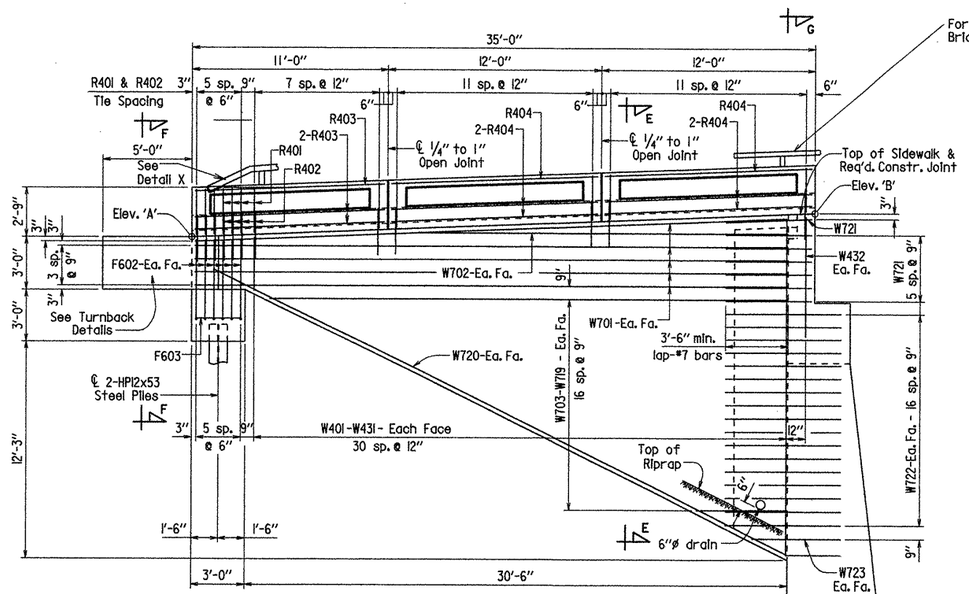
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 7-13-05 FILENAME: br60080x3_bl3.dgn
CHECKED BY: CPB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: ARW DATE: 6-05

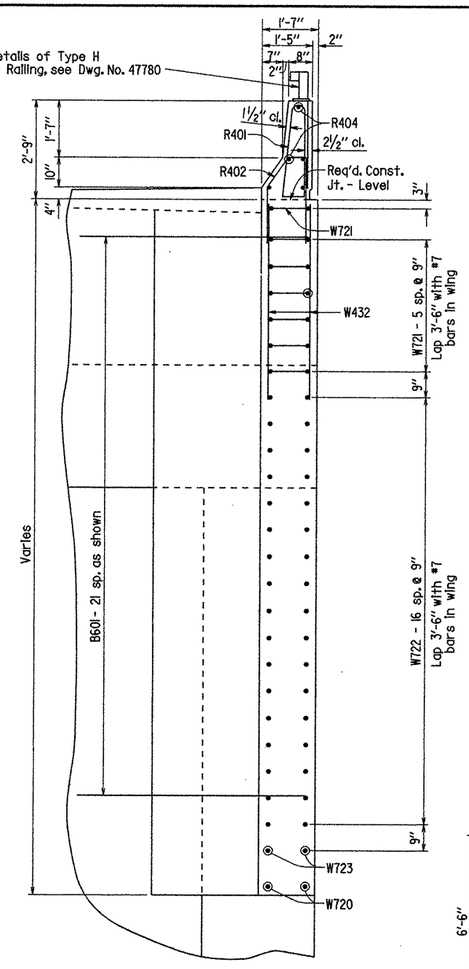
BRIDGE NO. 07053 DRAWING NO. 47762

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.		R60080		
				①	07053 -	BENT 1 - 47763		



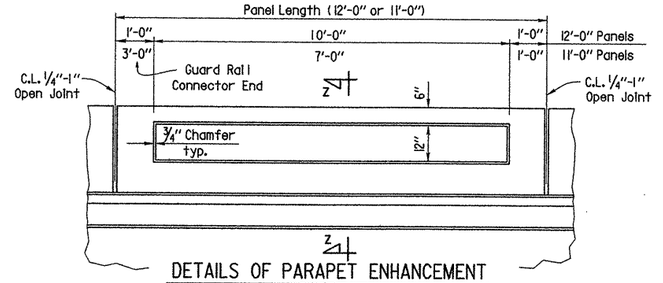
WING ELEVATION

Wing A shown
Wing B similar
Scale: 1/4" = 1'-0"



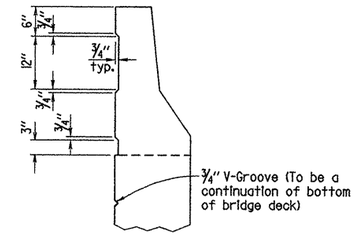
SECTION G-G

Scale: 1/2" = 1'-0"



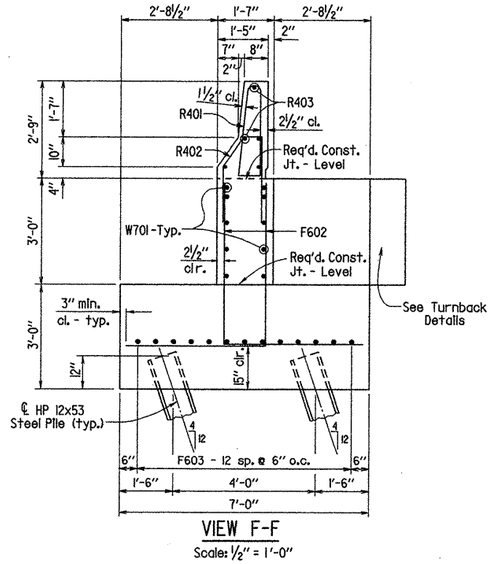
DETAILS OF PARAPET ENHANCEMENT

No Scale



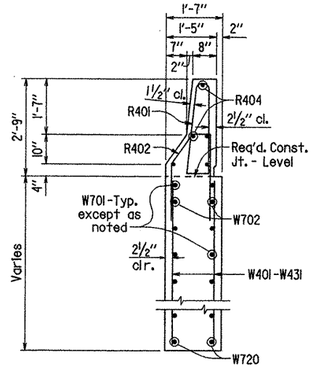
SECTION Z-Z

No Scale



VIEW F-F

Scale: 1/2" = 1'-0"

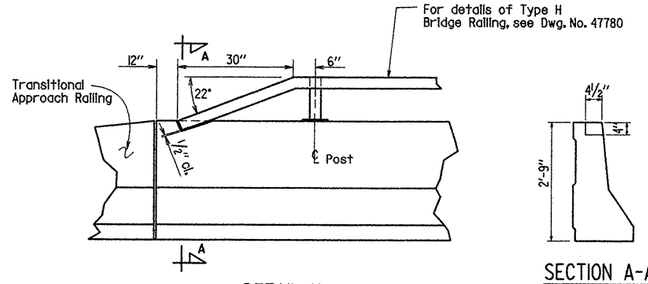


SECTION E-E

Scale: 1/2" = 1'-0"

TABLE OF VARIABLES

Wing	Elev. 'A'	Elev. 'B'
A	291.54	292.73
B	290.35	291.74

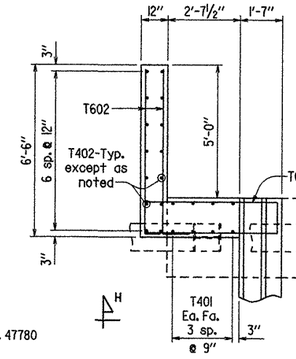


DETAIL X

No Scale

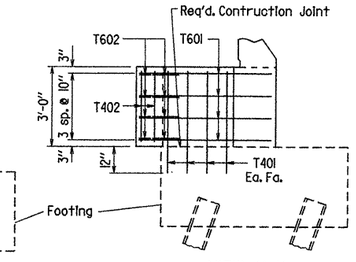
SECTION A-A

No Scale



TOP VIEW OF TURNBACK DETAILS

Scale: 3/8" = 1'-0"



VIEW H-H

Scale: 3/8" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
8/3/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 4 OF 5
DETAILS OF BENT 1
KIEHL AVENUE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 7-14-05 FILENAME: br60080x3_bl4.dgn
CHECKED BY: CAG DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: AEW DATE: 6-05

BRIDGE NO. 07053 DRAWING NO. 47763

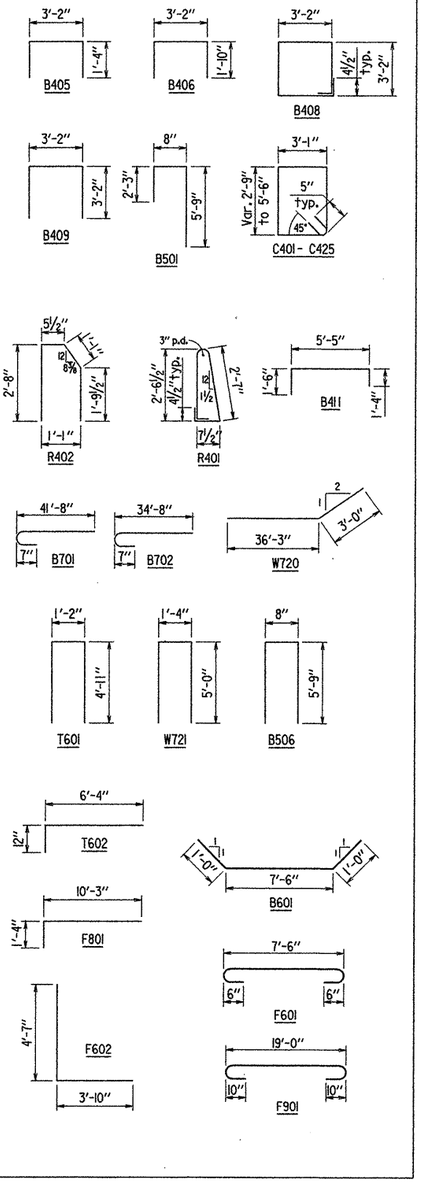
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	5	5
				1		07053 - BENT 1 - 47764		

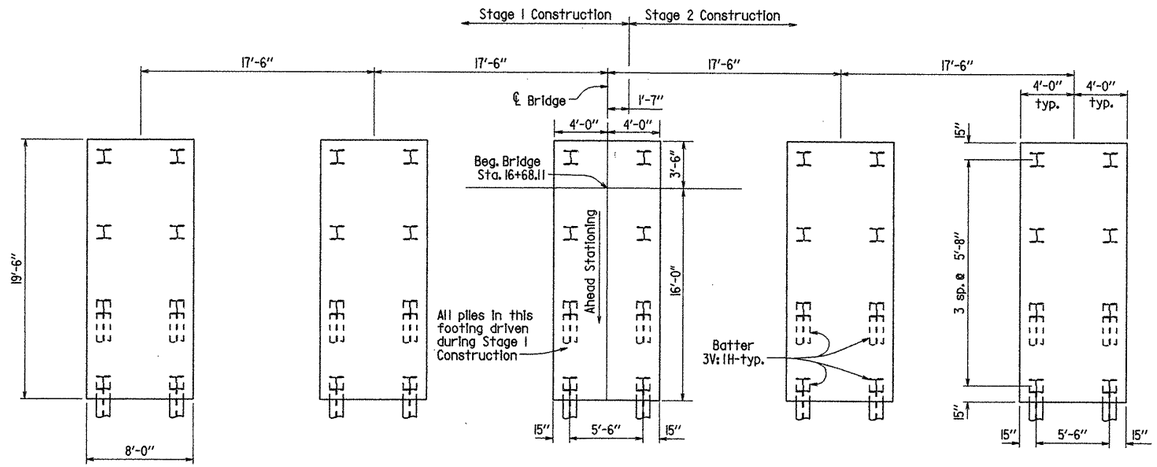
BAR LIST

MARK	NO. REQ'D.	LENGTH	P.D.
B401	10	16'-11"	Str.
B402	4	39'-9 "	Str.
B403	4	8'-0"	Str.
B404	4	26'-8"	Str.
B405	19	5'-8"	2"
B406	27	6'-8"	2"
B407	4	39'-9"	Str.
B408	60	13'-0"	2"
B409	15	9'-4"	2"
B410	7	1'-2"	Str.
B411	2	8'-1"	2"
B412	4	34'-8"	Str.
B413	4	6'-0"	Str.
C401-C425	5 each	Var. 12'-2" to 17'-8"	2"
R401	38	6'-4"	2"
R402	38	5'-10"	2"
R403	5	10'-6"	Str.
R404	10	11'-6"	Str.
W401-W431	4 each	Var. 3'-0" to 19'-4"	Str.
W432	4	6'-10"	Str.
T401	8	3'-10"	Str.
T402	14	2'-8"	Str.
B501	60	8'-6"	3¾"
B502	60	4'-7"	Str.
B503	12	40'-5"	Str.
B504	20	6'-4"	Str.
B505	12	34'-8"	Str.
B506	8	11'-11"	3¾"
B507	2	7'-3"	Str.
C501	56	5'-5"	Str.
C502	84	8'-0"	Str.
W501	120	15'-2"	Str.
W502	112	14'-0"	Str.
B601	44	9'-5"	4½"
F601	190	8'-10"	4½"
F602	24	8'-4"	4½"
F603	26	2'-6"	Str.
T601	8	10'-9"	4½"
T602	16	7'-2"	4½"
B701	6	42'-6"	5¼"
B702	6	35'-6"	5¼"
B703	6	41'-8"	Str.
B704	6	34'-8"	Str.
W701	20	34'-8"	Str.
W702	4	20'-11"	Str.
W703-W719	4 each	Var. 5'-1" to 28'-10"	Str.
W720	4	39'-3"	5¼"
W721	14	11'-0"	5¼"
W722	68	6'-8"	Str.
W723	4	5'-0"	Str.
C801	150	24'-6"	Str.
F801	150	11'-5"	6"
F901	75	21'-6"	9"

BENDING DIAGRAMS

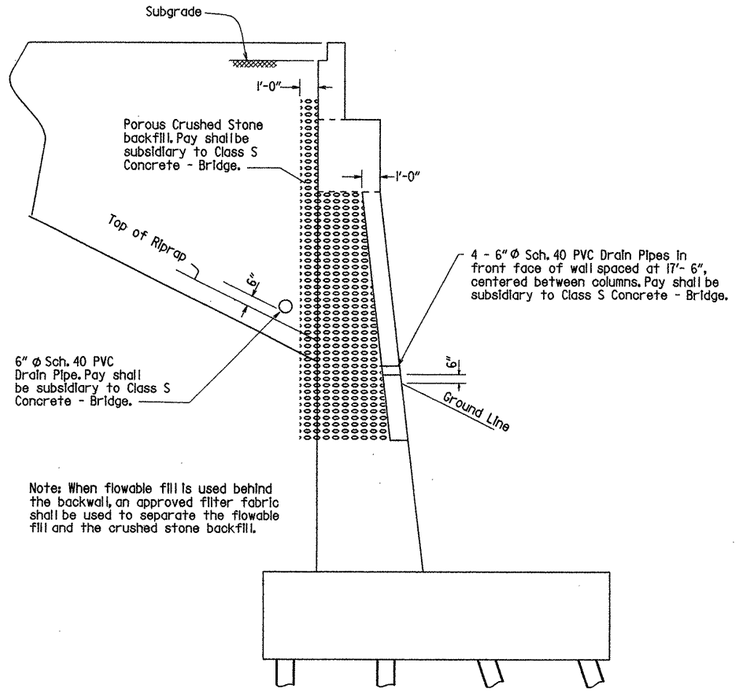
Dimensions are out to out of bars.





PLAN VIEW OF FOOTINGS

No Scale



TYPICAL DRAINAGE DETAILS

No Scale

GENERAL NOTES

All concrete shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi. Concrete shall be poured in the dry and all exposed corners to be chamfered ¾" unless otherwise noted.

Structural steel in abutments shall be AASHTO M270, Gr. 36 and shall be paid for as "Structural Steel in Beam Spans (M270, Gr. 50)". Structural steel shall be cleaned and painted as specified in Section 807.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi.)

Top reinforcing bars in cap shall be properly placed to avoid interference with anchor bolts or sheet metal sleeves.

Backwall shall not be poured above the top of the cap until the deck slab is in place.

For additional information, see layout, dwg. no. 47758.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4337 8/3/05 CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 5 OF 5
DETAILS OF BENT 1
KIEHL AVENUE

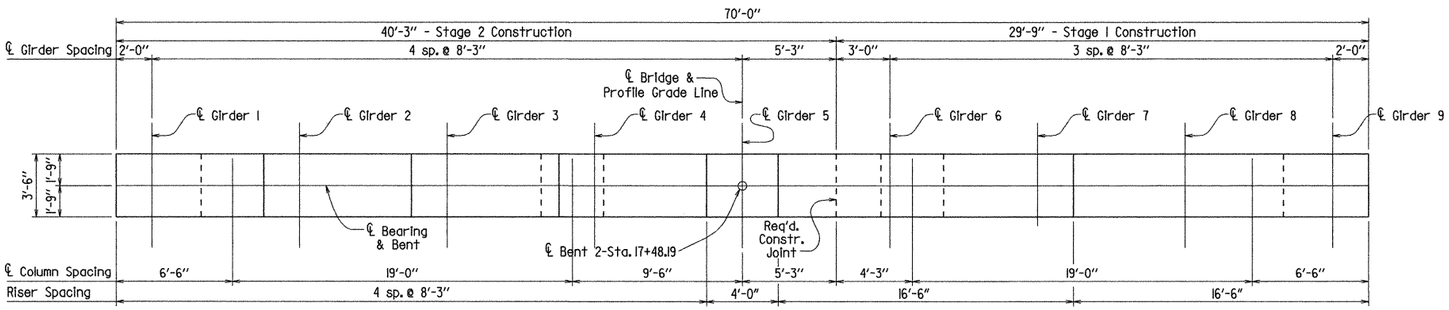
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 7-15-05
CHECKED BY: CAB DATE: 07-05
DESIGNED BY: AKW DATE: 6-05
FILENAME: br60080x3_bl5.dgn
SCALE: AS NOTED

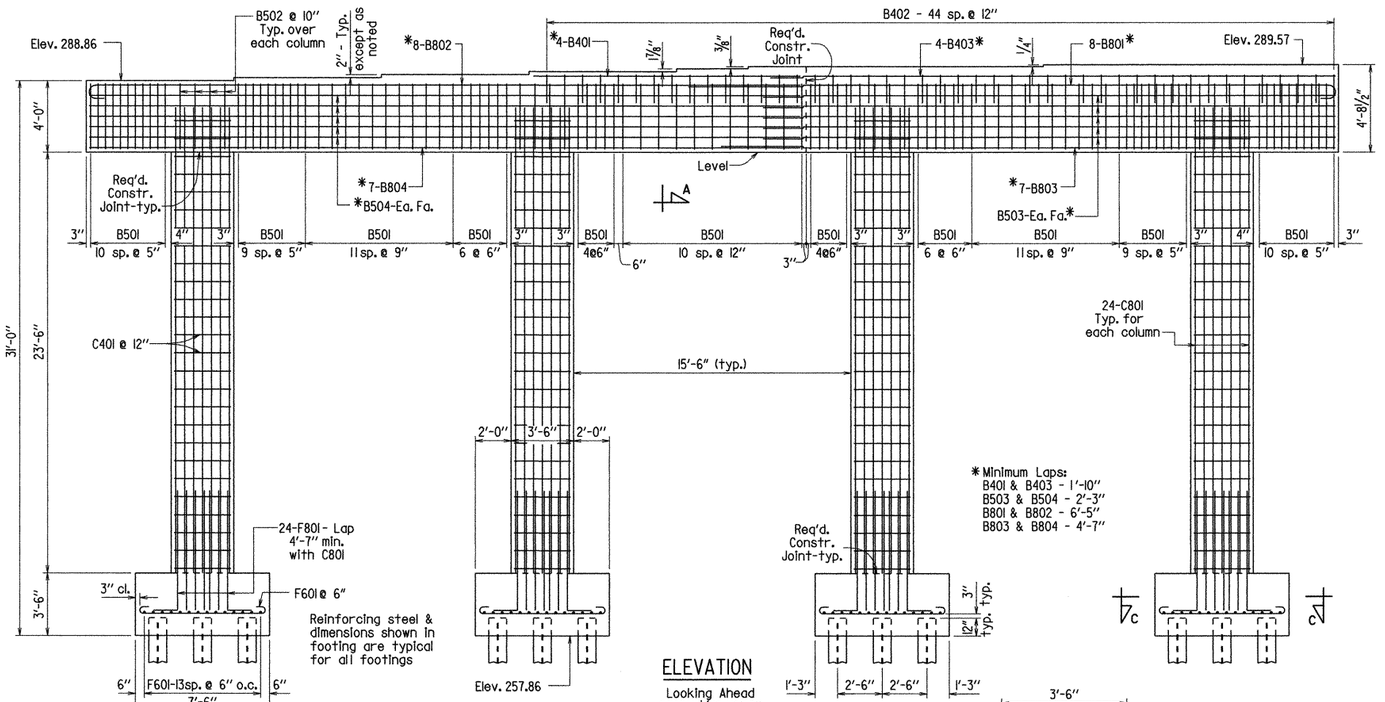
BRIDGE NO. 07053 DRAWING NO. 47764

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
12-6-05				6	ARK.			
				JOB NO.		R60080	370	609
				①		07053 - BENT 2 - 47765		



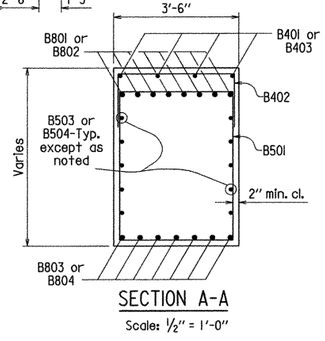
PLAN

Scale: 1/4" = 1'-0"



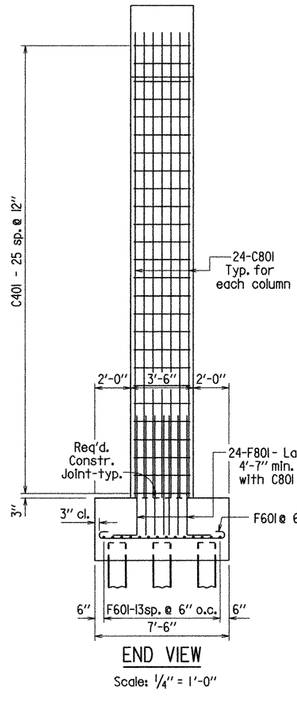
ELEVATION

Looking Ahead
Scale: 1/4" = 1'-0"



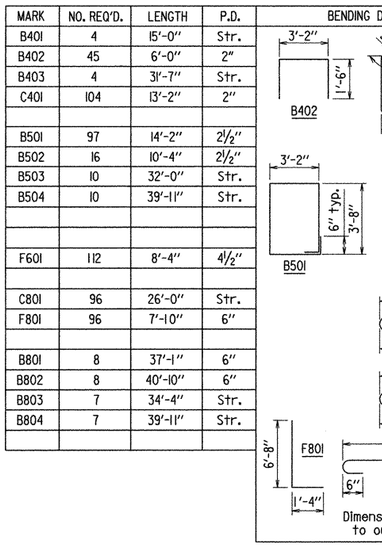
SECTION A-A

Scale: 1/2" = 1'-0"



END VIEW

Scale: 1/4" = 1'-0"



Dimensions are out to out of bars.

BAR LIST-PER BENT

MARK	NO. REQ'D.	LENGTH	P.D.
B401	4	15'-0"	Str.
B402	45	6'-0"	2"
B403	4	31'-7"	Str.
C401	104	13'-2"	2"
B501	97	14'-2"	2 1/2"
B502	16	10'-4"	2 1/2"
B503	10	32'-0"	Str.
B504	10	39'-11"	Str.
F601	112	8'-4"	4 1/2"
C801	96	26'-0"	Str.
F801	96	7'-10"	6"
B801	8	37'-1"	6"
B802	8	40'-10"	6"
B803	7	34'-4"	Str.
B804	7	39'-11"	Str.

GENERAL NOTES

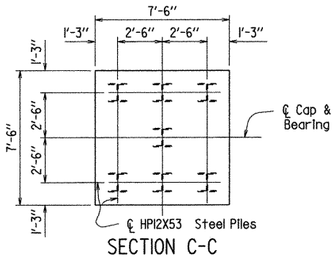
⚠ All concrete shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi. All exposed corners to be chamfered 3/4" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi).

If anchor bolts are drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

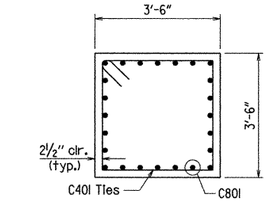
For Details of Elastomeric Bearings see Dwg. No. 47783

For additional information see Layout.



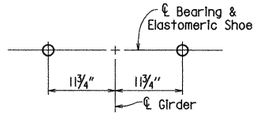
SECTION C-C

Scale: 1/4" = 1'-0"



TYP. SECTION THRU COLUMN

Scale: 1/2" = 1'-0"



TYP. ANCHOR BOLT LAYOUT

No Scale

⚠ Removed Arkansas Form Insert from Intermediate bents KDH - 12-6-05

STATE OF ARKANSAS No. 13718 REGISTERED PROFESSIONAL ENGINEER No. 13718 12/8/05 CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF BENT 2
KIEHL AVENUE
PULASKI COUNTY

ROUTE 67 SEC. 10

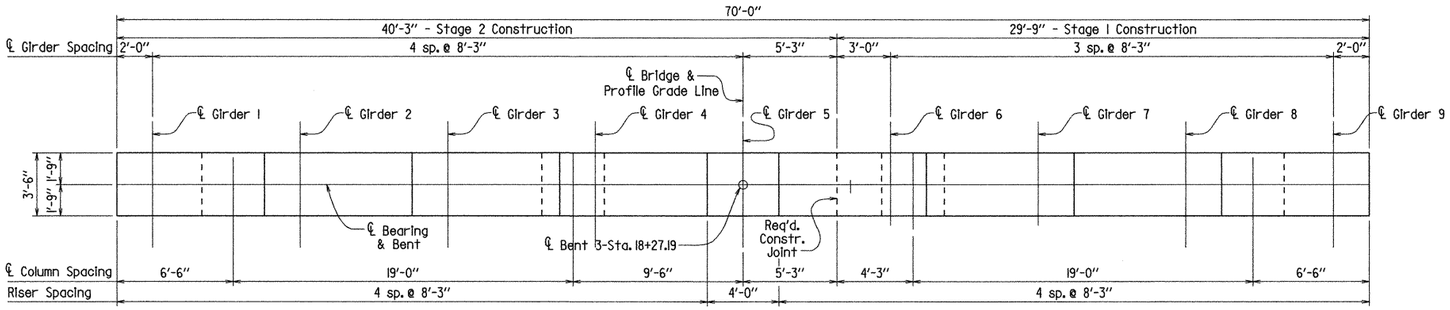
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 6-14-05 FILENAME: br60080x3_b2.dgn
CHECKED BY: CAS DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: JWD DATE: 05-05

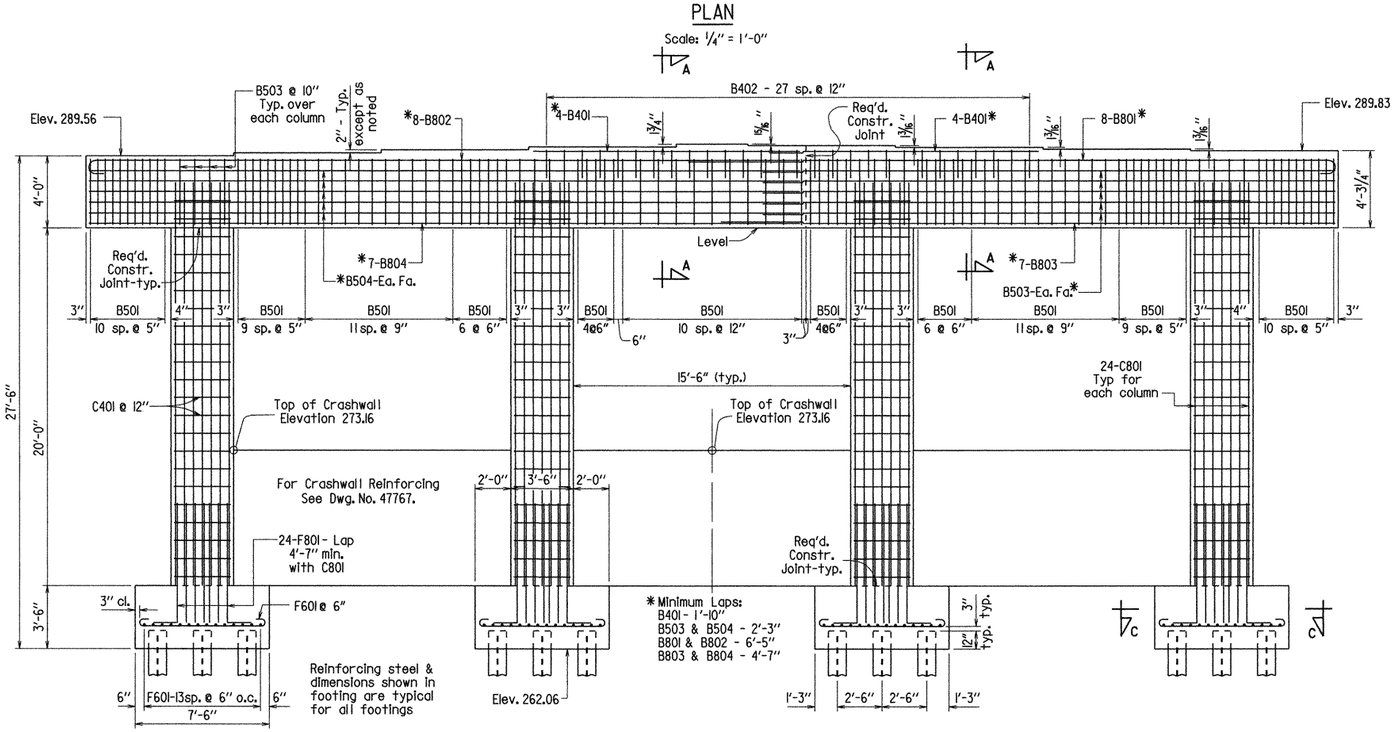
BRIDGE NO. 07053 DRAWING NO. 47765

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
12-6-05				6	ARK.			
				JOB NO.		R60080	371	6609
				①		07053 - BENT 3 - 47766		



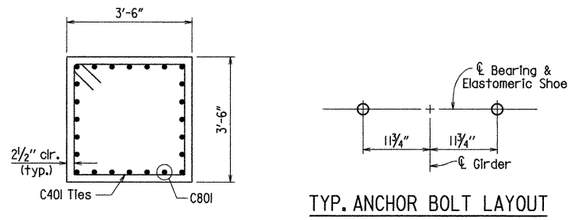
PLAN

Scale: 1/4" = 1'-0"



ELEVATION

Looking Ahead
Scale: 1/4" = 1'-0"

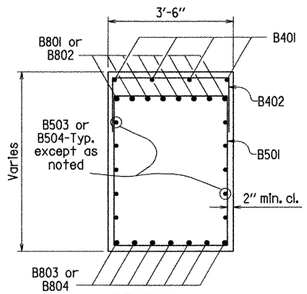


TYP. SECTION THRU COLUMN

Scale: 1/2" = 1'-0"

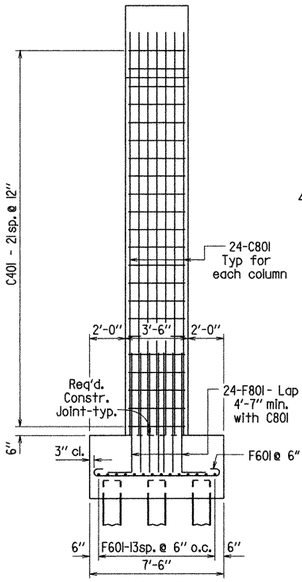
TYP. ANCHOR BOLT LAYOUT

No Scale



SECTION A-A

Scale: 1/2" = 1'-0"



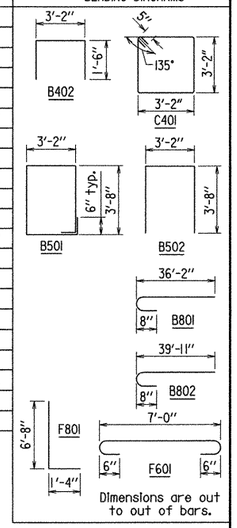
END VIEW

Scale: 1/4" = 1'-0"

BAR LIST-PER BENT

MARK	NO. REQ'D.	LENGTH	P.D.
B401	8	15'-0"	Str.
B402	28	6'-0"	2"
C401	88	13'-2"	2"
B501	97	14'-2"	2 1/2"
B502	16	10'-4"	2 1/2"
B503	10	32'-0"	Str.
B504	10	39'-11"	Str.
F601	112	8'-4"	4 1/2"
C801	96	22'-6"	Str.
F801	96	7'-10"	6"
B801	8	37'-1"	6"
B802	8	40'-10"	6"
B803	7	34'-4"	Str.
B804	7	39'-11"	Str.

BENDING DIAGRAMS



Dimensions are out to out of bars.

⚠ GENERAL NOTES

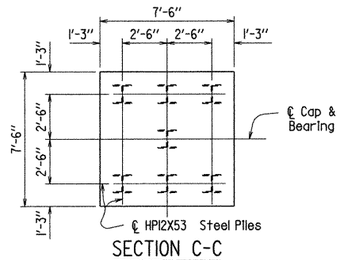
All concrete shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi. All exposed corners to be chamfered 3/4" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi).

If anchor bolts are drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

For Details of Elastomeric Bearings see Dwg. No. 47783.

For additional information see Layout.



SECTION C-C

Scale: 1/4" = 1'-0"

⚠ Removed Arkansas Form Insert from Intermediate bents KDH - 12-6-05

STATE OF ARKANSAS
CHARLES P. BRAND
No. 4337
12/8/05
REGISTERED PROFESSIONAL ENGINEER

BRIDGE ENGINEER

SHEET 1 OF 2
DETAILS OF BENT 3
KIEHL AVENUE
PULASKI COUNTY

ROUTE 67 SEC. 10

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

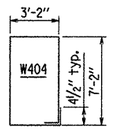
DRAWN BY: JWD DATE: 6-14-05 FILENAME: br60080x3 b3.dgn
CHECKED BY: CAG DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: JWD DATE: 05-05

BRIDGE NO. 07053 DRAWING NO. 47766

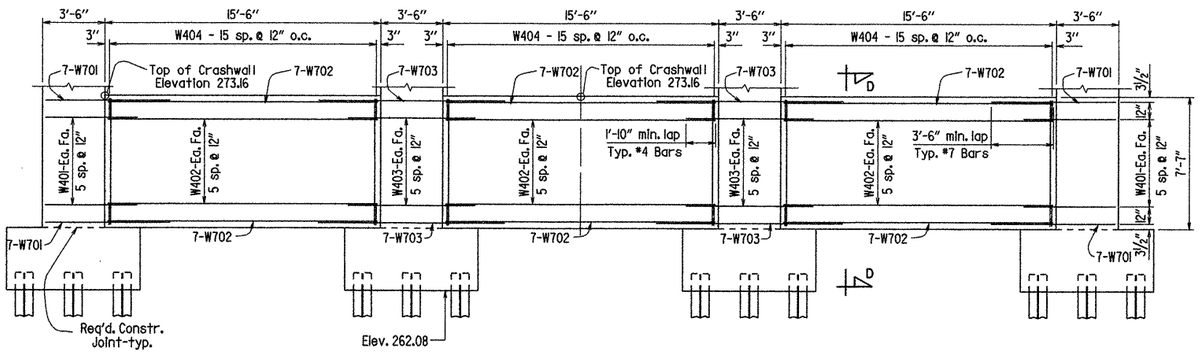
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		
				①		07053 - BENT 3 - 47767		

BAR LIST

MARK	NO. REQ'D.	LENGTH	P.D.	BENDING DIAGRAMS
W401	24	5'-2"	Str.	
W402	36	15'-2"	Str.	
W403	24	7'-6"	Str.	
W404	48	21'-0"	2"	
W701	28	6'-10"	Str.	
W702	42	15'-2"	Str.	
W703	28	10'-6"	Str.	

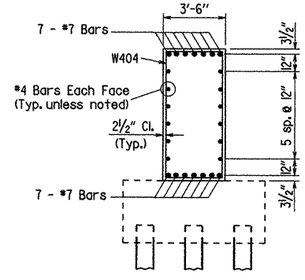


Dimensions are out to out of bars.



CRASHWALL ELEVATION

Looking Ahead
Scale: 1/4" = 1'-0"



SECTION D-D

Scale: 1/4" = 1'-0"

STATE OF ARKANSAS
CHARLES P. BRAND
No. 13337
REGISTERED PROFESSIONAL ENGINEER
6/13/05

BRIDGE ENGINEER

SHEET 2 OF 2
DETAILS OF BENT 3
KIEHL AVENUE
PULASKI COUNTY

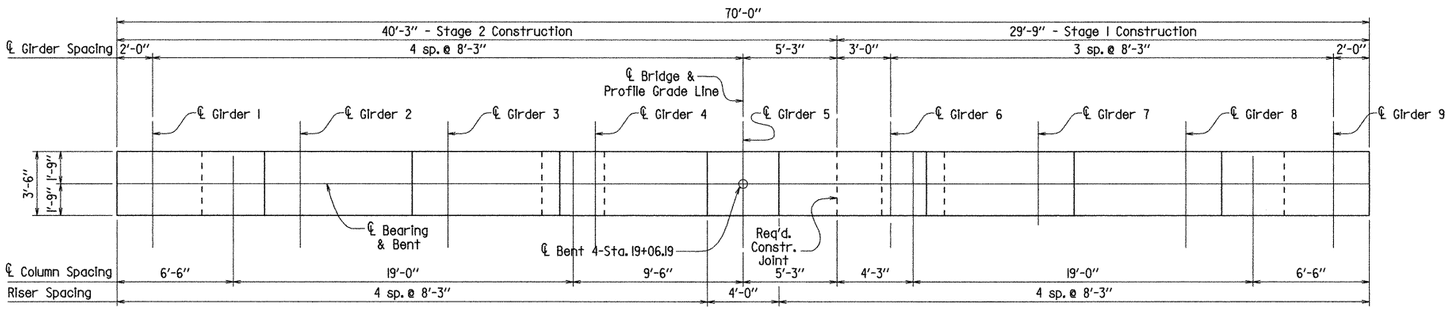
ROUTE 67 SEC. 10

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 6-14-05
CHECKED BY: CAB DATE: 07-05
DESIGNED BY: JWD DATE: 05-05
FILENAME: br60080x3 b3.dgn
SCALE: AS NOTED

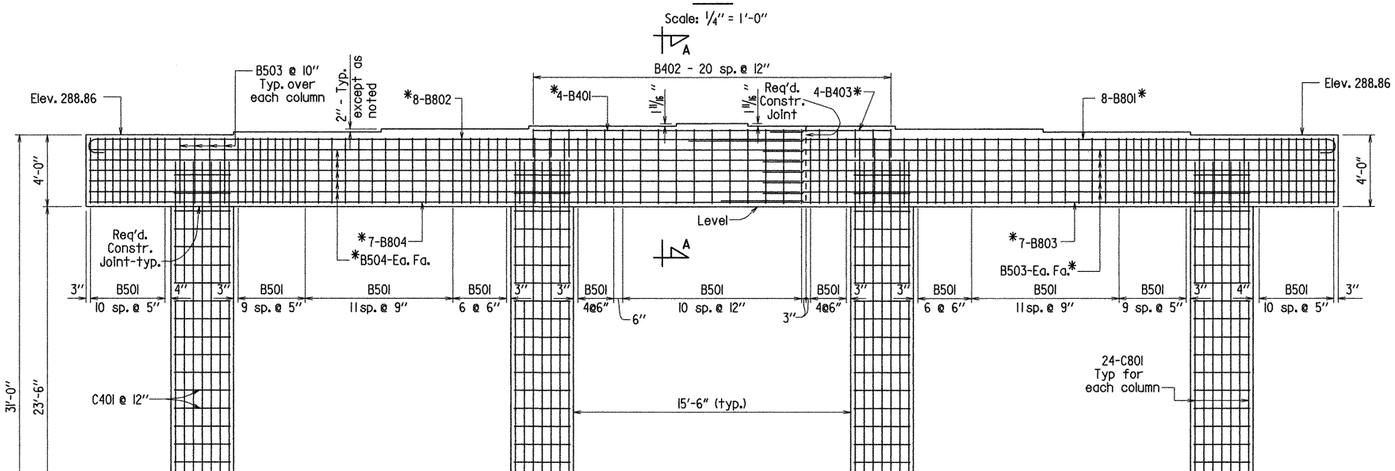
BRIDGE NO. 07053 DRAWING NO. 47767

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
12-6-05				6	ARK.			
				JOB NO.		R60080	373	609
				①		07053 - BENT 4 - 47768		



PLAN

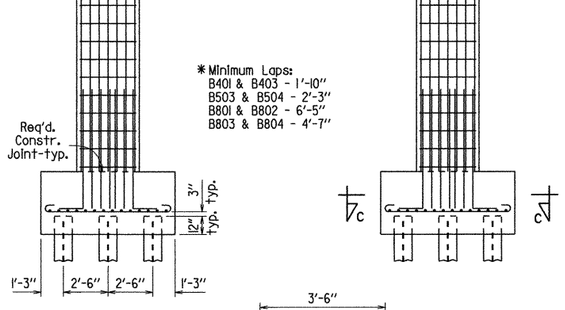
Scale: 1/4" = 1'-0"

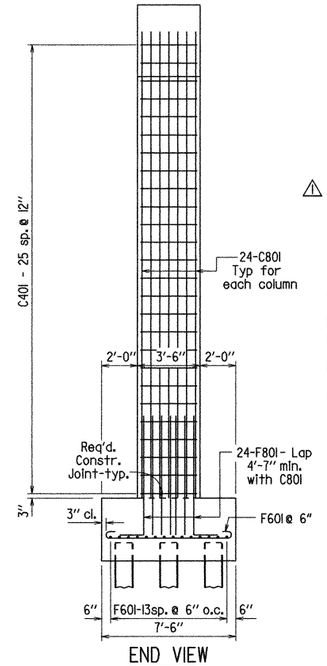


* Minimum Laps:
B401 & B403 - 1'-10"
B503 & B504 - 2'-3"
B801 & B802 - 6'-5"
B803 & B804 - 4'-7"

ELEVATION

Looking Ahead
Scale: 1/4" = 1'-0"





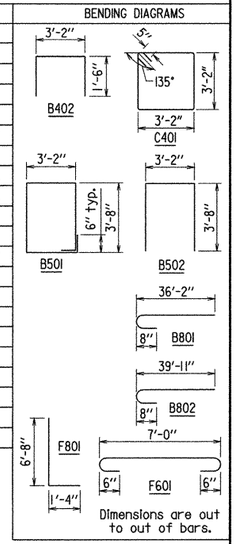
END VIEW

Scale: 1/4" = 1'-0"

BAR LIST-PER BENT

MARK	NO. REQ'D.	LENGTH	P.D.
B401	4	15'-0"	Str.
B402	21	6'-0"	2"
B403	4	6'-9"	Str.
C401	104	13'-2"	2"
B501	97	14'-2"	2 1/2"
B502	16	10'-4"	2 1/2"
B503	10	32'-0"	Str.
B504	10	39'-11"	Str.
F601	112	8'-4"	4 1/2"
C801	96	26'-0"	Str.
F801	96	7'-10"	6"
B801	8	37'-1"	6"
B802	8	40'-10"	6"
B803	7	34'-4"	Str.
B804	7	39'-11"	Str.

BENDING DIAGRAMS



Dimensions are out to out of bars.

⚠ GENERAL NOTES

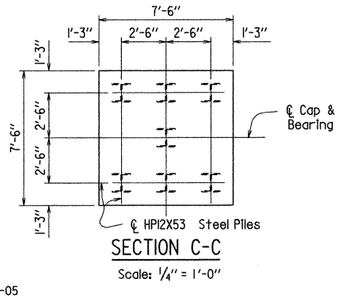
All concrete shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi. All exposed corners to be chamfered 3/4" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi).

If anchor bolts are drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

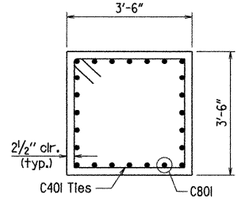
For Details of Elastomeric Bearings see Dwg. No. 47783

For additional information see Layout.



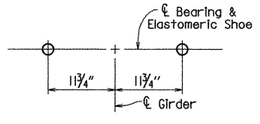
SECTION C-C

Scale: 1/4" = 1'-0"



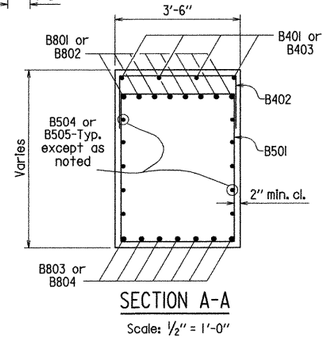
TYP. SECTION THRU COLUMN

Scale: 1/2" = 1'-0"



TYP. ANCHOR BOLT LAYOUT

No Scale



SECTION A-A

Scale: 1/2" = 1'-0"

⚠ Removed Arkansas Form Insert from Intermediate bents KDH - 12-6-05

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13337
12-8-05
CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF BENT 4
KIEHL AVENUE
PULASKI COUNTY

ROUTE 67 SEC. 10

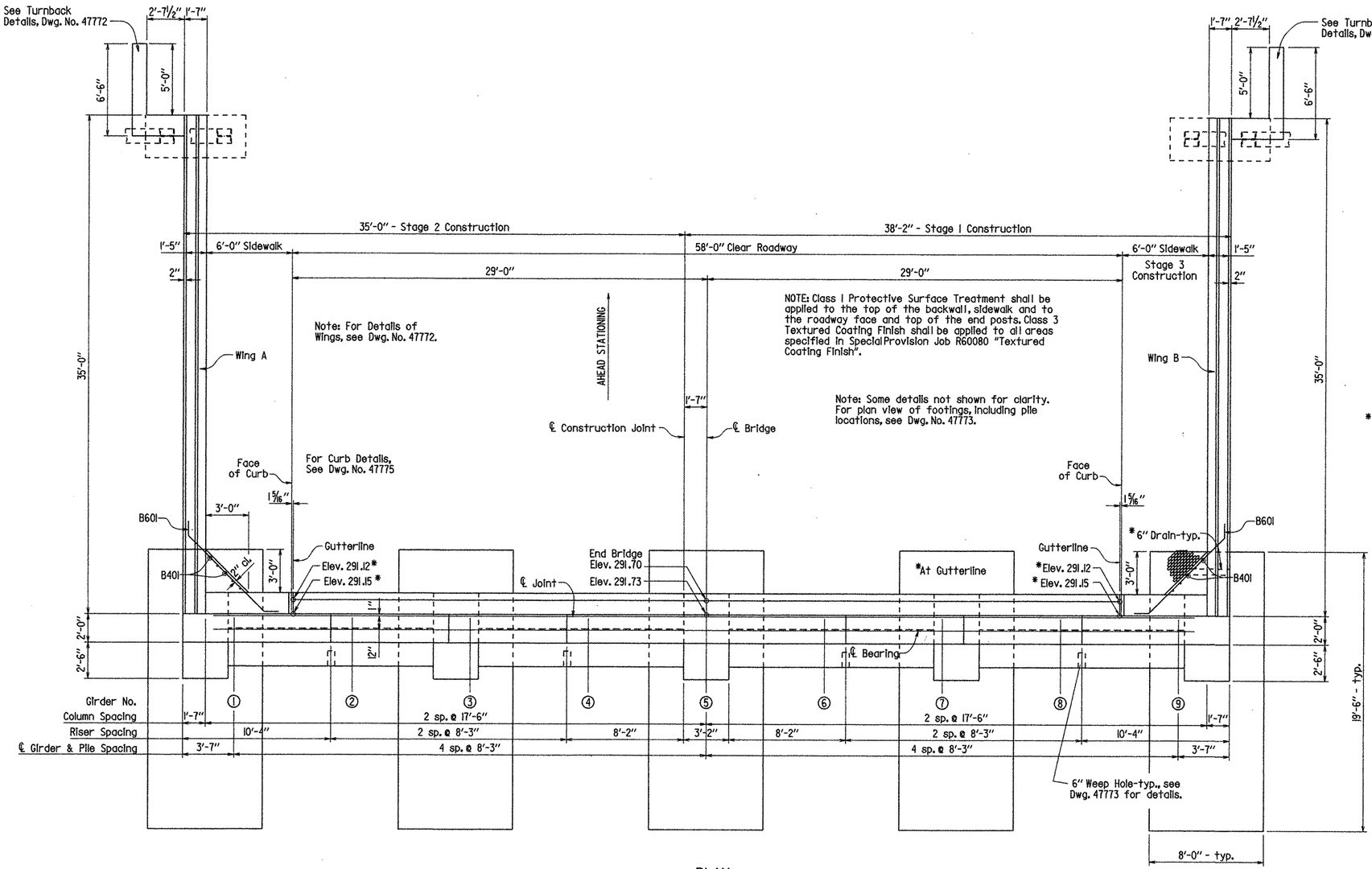
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 6-14-05 FILENAME: br60080x3_b4.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: JWD DATE: 05-05

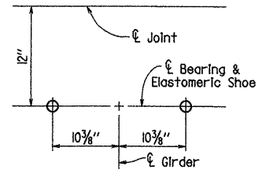
BRIDGE NO. 07053 DRAWING NO. 47768

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.		R60080		
				1	07053 -	BENT 5	- 47769	



PLAN

Scale: 1/4" = 1'-0"



TYP. ANCHOR BOLT LAYOUT

No Scale

* Place 6"ø tile drains approx. 6" above slope. Spread bars as required. Place 6 cu. ft. of socked ¾" crushed rock or gravel at each drain. All work & materials to install drains shall be subsidiary to Class S Concrete-Bridge.

STATE OF ARKANSAS
No. 4337
CHARLES P. BRAND
REGISTERED PROFESSIONAL ENGINEER
8/5/05

BRIDGE ENGINEER

SHEET 1 OF 5
DETAILS OF BENT 5
KIEHL AVENUE

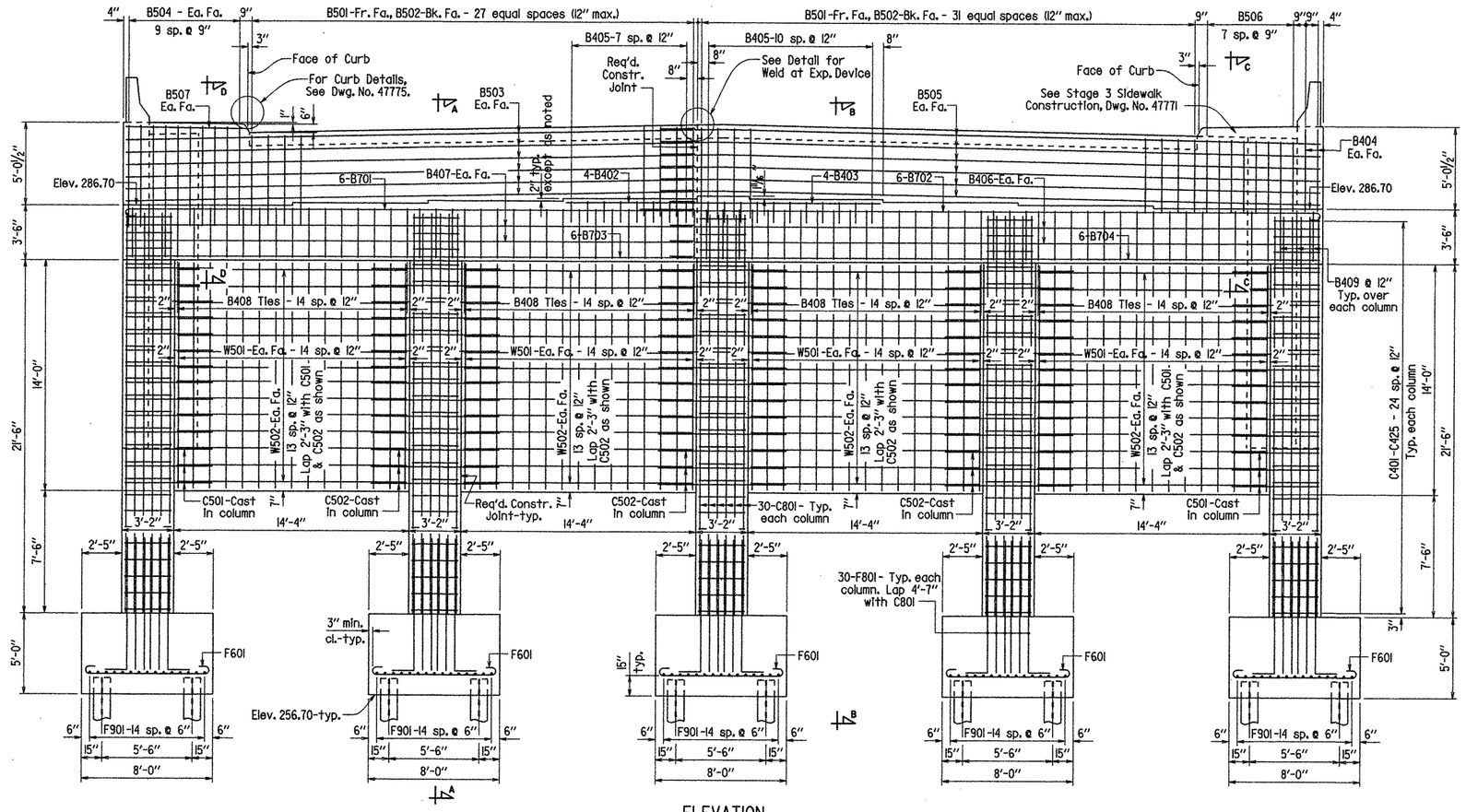
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 7-11-05 FILENAME: br60080x3_b51.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: [signature] DATE: 6-05

BRIDGE NO. 07053 DRAWING NO. 47769

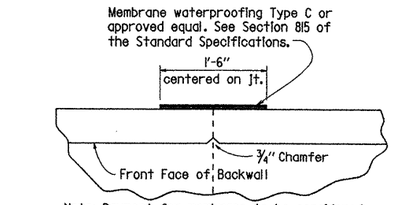
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		
				①	07053 -	BENT 5	- 47770	



ELEVATION

Looking Forward
Scale: ¼" = 1'-0"

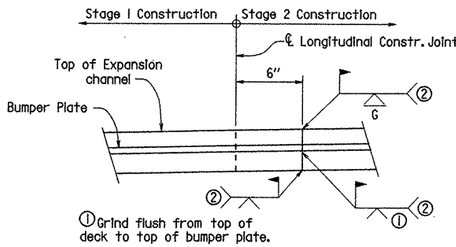
Note: For Section A-A, B-B, C-C, and D-D see Dwg. No. 47771.



Note: Payment for membrane to be considered subsidiary to Class S Concrete-Bridge.

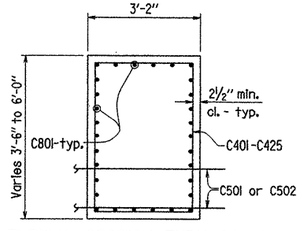
CONSTRUCTION JOINT DETAIL

No Scale



DETAIL OF WELD FOR EXPANSION DEVICE

Looking Back - Bent 5
No Scale



TYPICAL SECTION THRU COLUMN

Scale: ½" = 1'-0"

Note: For location of W723 bars in exterior columns, see details of Wing Elevation on Dwg. No. 47763.

MINIMUM LAP LENGTHS

#4 bars	1'-9"
#5 bars	2'-3"
#7 bars	3'-6"
#8 bars	4'-7"

STATE OF ARKANSAS
CHARLES P. BRAND
No. 8357
REGISTERED PROFESSIONAL ENGINEER
05/05

BRIDGE ENGINEER

SHEET 2 OF 5
DETAILS OF BENT 5
KIEHL AVENUE

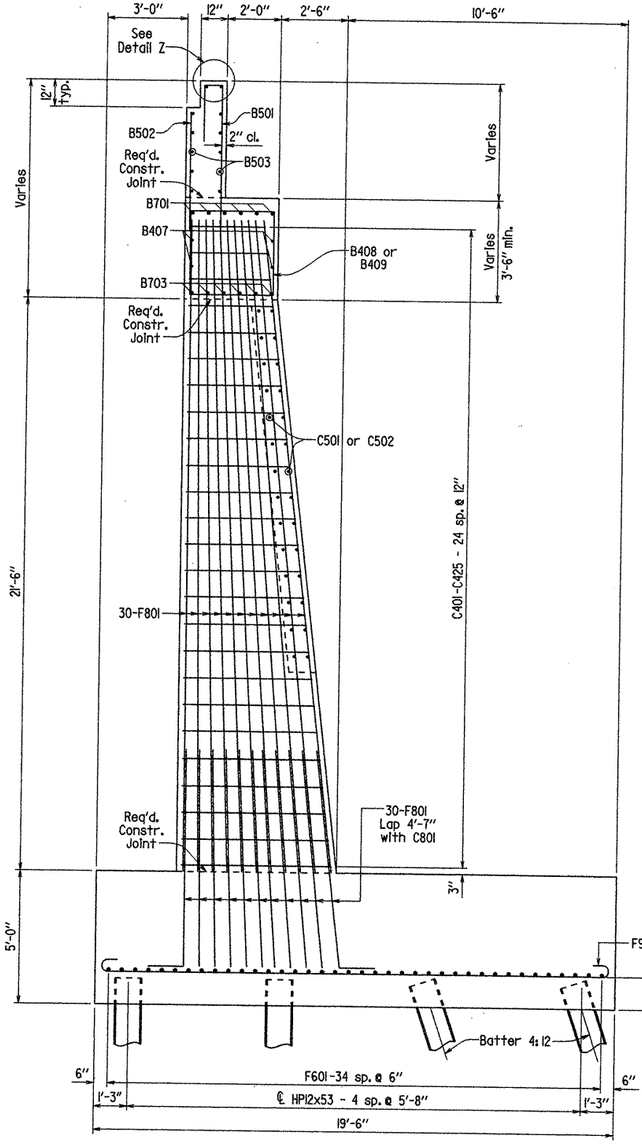
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 7-18-05 FILENAME: br60080x3_b52.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: DATE: 6-05

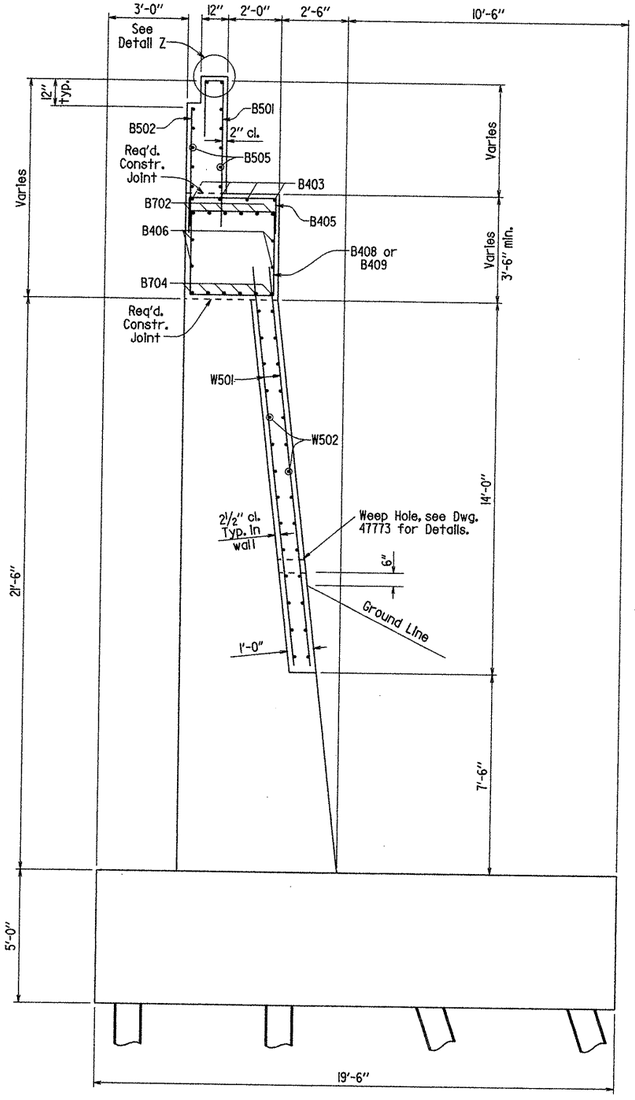
BRIDGE NO. 07053 DRAWING NO. 47770

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.		R60080		
				(1)	07053 -	BENT 5	- 47771	



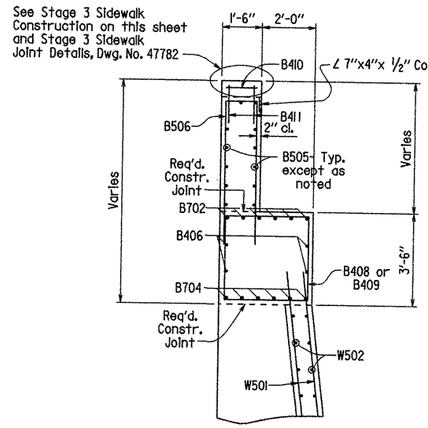
SECTION A-A

Scale: 3/8" = 1'-0"



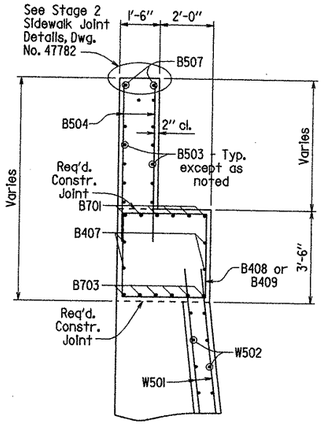
SECTION B-B

Scale: 3/8" = 1'-0"



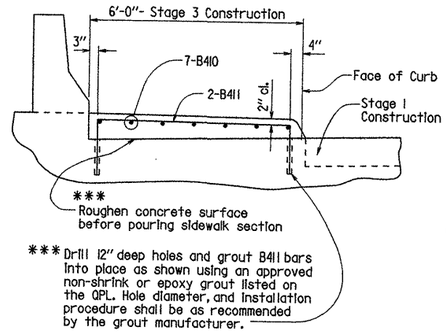
SECTION C-C

Scale: 3/8" = 1'-0"



SECTION D-D

Scale: 3/8" = 1'-0"

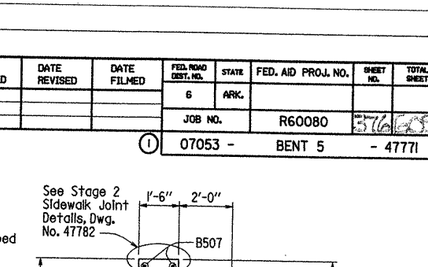


*** Drill 12" deep holes and grout B411 bars into place as shown using an approved non-shrink or epoxy grout listed on the QPL. Hole diameter, and installation procedure shall be as recommended by the grout manufacturer.

*** This work to be completed as part of Stage 3 Construction. Payment for this work will not be paid for directly, but shall be considered subsidiary to the item "Class S(AE) Concrete.

STAGE 3 SIDEWALK CONSTRUCTION

No Scale



Note: For additional joint details, see Dwg. No. 47781.

DETAIL Z

No Scale

STATE OF ARKANSAS
CHARLES P. BRAND
REGISTERED PROFESSIONAL ENGINEER
No. 4337
3/15/07

BRIDGE ENGINEER

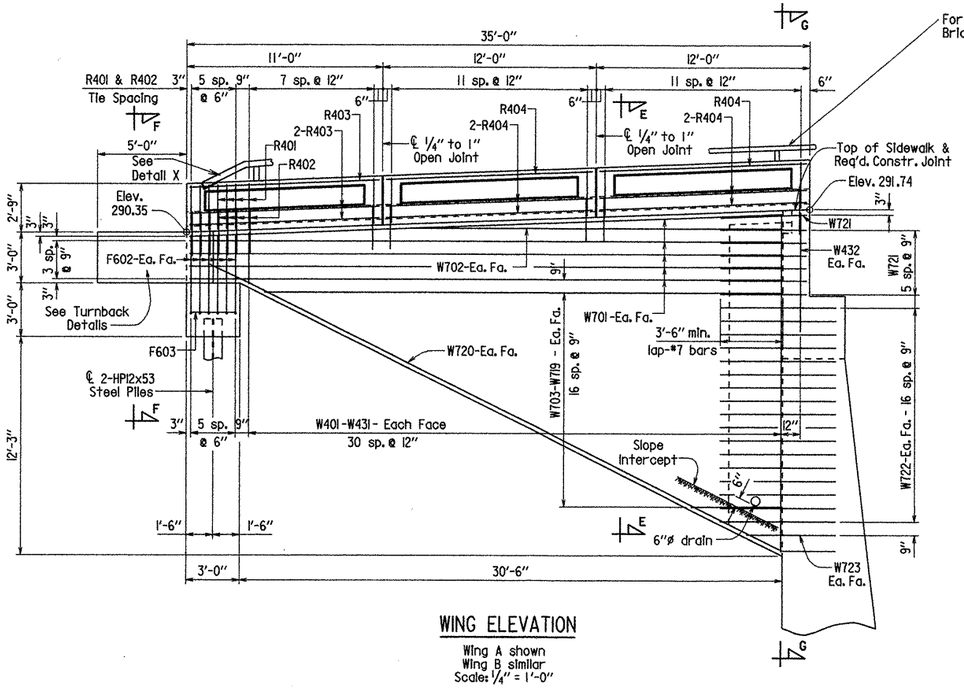
SHEET 3 OF 5
DETAILS OF BENT 5
KIEHL AVENUE
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 7-18-05
CHECKED BY: CAB DATE: 07-05
DESIGNED BY: AFW DATE: 6-05
FILENAME: br-60080x3_b53.dgn
SCALE: AS NOTED

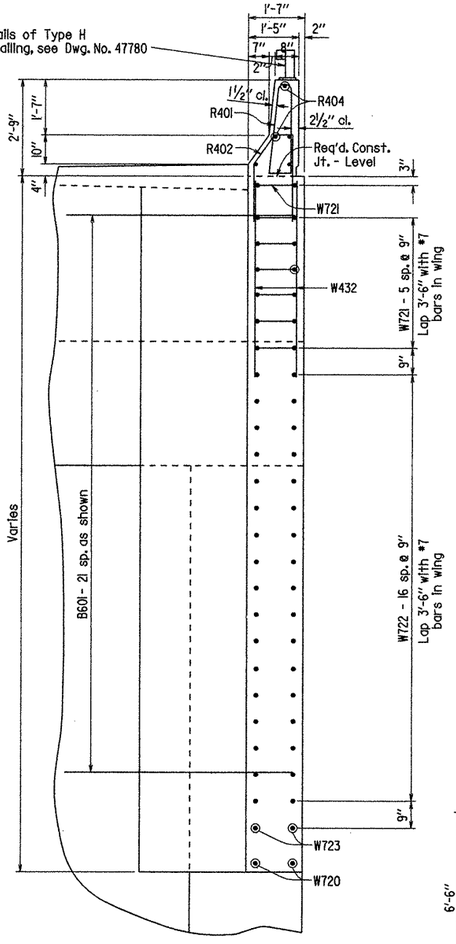
BRIDGE NO. 07053 DRAWING NO. 47771

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.		R60080		
				(1) 07053 -		BENT 5	- 47772	



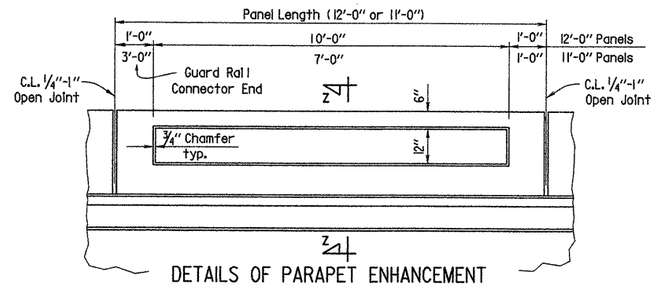
WING ELEVATION

Wing A shown
Wing B similar
Scale: 1/4" = 1'-0"



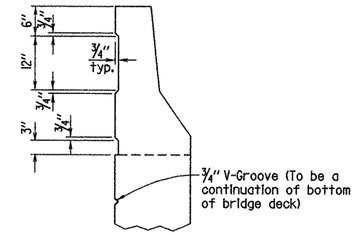
SECTION G-G

Scale: 1/2" = 1'-0"



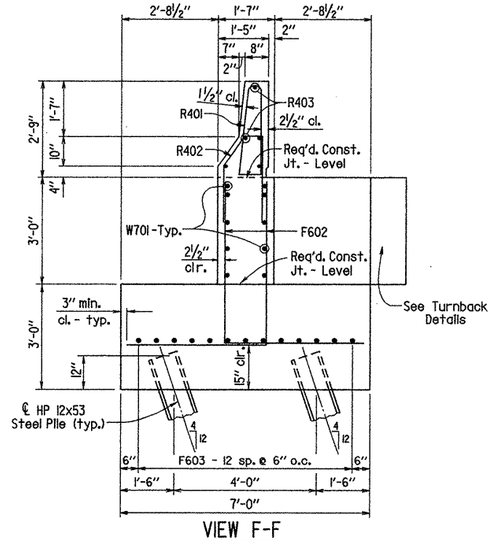
DETAILS OF PARAPET ENHANCEMENT

No Scale



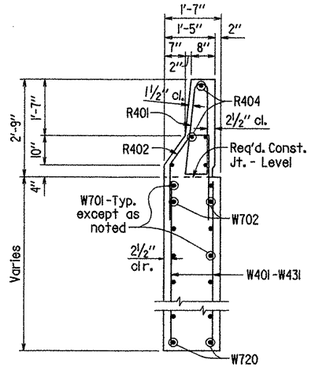
SECTION Z-Z

No Scale



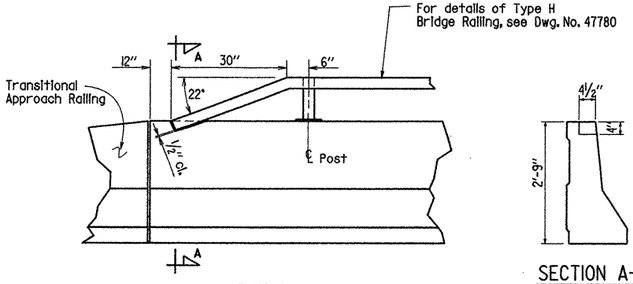
VIEW F-F

Scale: 1/2" = 1'-0"



SECTION E-E

Scale: 1/2" = 1'-0"

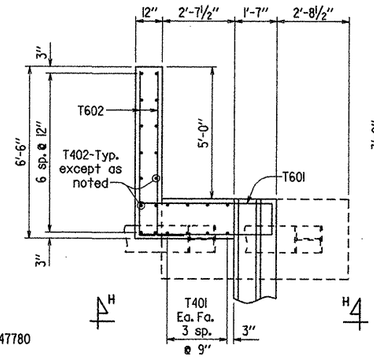


DETAIL X

No Scale

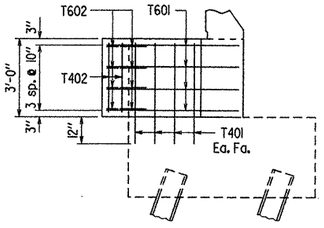
SECTION A-A

No Scale



TURNBACK DETAILS

Scale: 3/8" = 1'-0"



VIEW H-H

Scale: 3/8" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 13137
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 4 OF 5
DETAILS OF BENT 5
KIEHL AVENUE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 7-18-05 FILENAME: br60080x3_b54.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: DATE: 6-05

BRIDGE NO. 07053 DRAWING NO. 47772

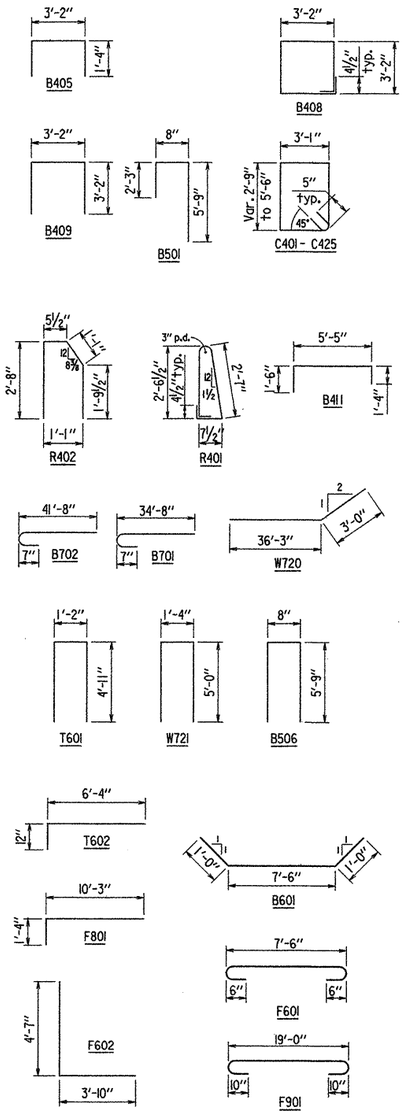
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		
				(1) 07053 -		BENT 5		- 47773

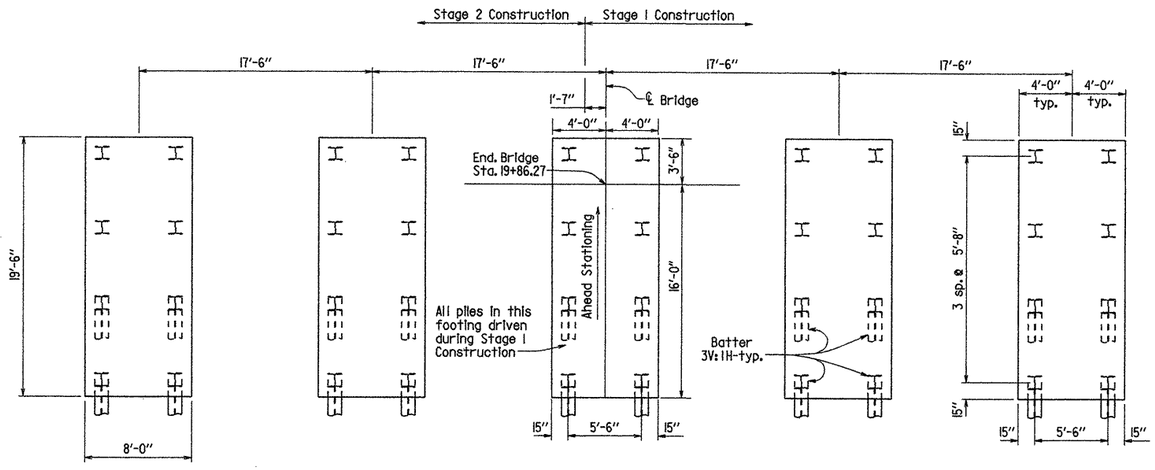
BAR LIST

MARK	NO. REQ'D.	LENGTH	P.D.
B401	10	16'-11"	Str.
B402	4	7'-10"	Str.
B403	4	13'-1"	Str.
B404	4	6'-0"	Str.
B405	19	5'-8"	2"
B406	4	39'-9"	Str.
B407	4	34'-8"	Str.
B408	60	13'-0"	2"
B409	15	9'-4"	2"
B410	7	1'-2"	Str.
B411	2	8'-1"	2"
C401-C425	5 each	Var. 12'-2" to 17'-8"	2"
R401	38	6'-4"	2"
R402	38	5'-10"	2"
R403	5	10'-6"	Str.
R404	10	11'-6"	Str.
W401-W431	4 each	Var. 3'-0" to 19'-4"	Str.
W432	4	6'-10"	Str.
T401	8	3'-10"	Str.
T402	14	2'-8"	Str.
B501	60	8'-6"	3¾"
B502	60	4'-7"	Str.
B503	12	34'-8"	Str.
B504	14	6'-4"	Str.
B505	12	40'-5"	Str.
B506	8	11'-11"	3¾"
B507	2	7'-3"	Str.
C501	56	5'-5"	Str.
C502	84	8'-0"	Str.
W501	120	15'-2"	Str.
W502	112	14'-0"	Str.
B601	44	9'-5"	4½"
F601	190	8'-10"	4½"
F602	24	8'-4"	4½"
F603	26	2'-6"	Str.
T601	8	10'-9"	4½"
T602	16	7'-2"	4½"
B701	6	35'-6"	5¼"
B702	6	42'-6"	5¼"
B703	6	34'-8"	Str.
B704	6	41'-8"	Str.
W701	20	34'-8"	Str.
W702	4	20'-11"	Str.
W703-W719	4 each	Var. 5'-1" to 28'-10"	Str.
W720	4	39'-3"	5¼"
W721	14	11'-0"	5¼"
W722	68	6'-8"	Str.
W723	4	5'-0"	Str.
C801	150	24'-6"	Str.
F801	150	11'-5"	6"
F901	75	21'-6"	9"

BENDING DIAGRAMS

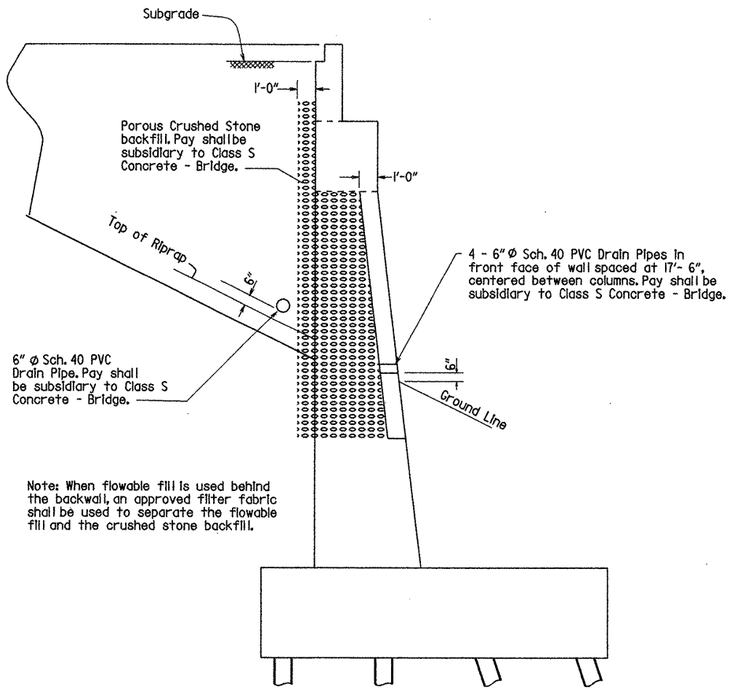
Dimensions are out to out of bars.





PLAN VIEW OF FOOTINGS

No Scale



TYPICAL DRAINAGE DETAILS

No Scale

GENERAL NOTES

All concrete shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi. Concrete shall be poured in the dry and all exposed corners to be chamfered ¾" unless otherwise noted.

Structural steel in abutments shall be AASHTO M270, Gr. 36 and shall be paid for as "Structural Steel in Beam Spans (M270, Gr. 50)". Structural steel shall be cleaned and painted as specified in Section 807.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi.)

Top reinforcing bars in cap shall be properly placed to avoid interference with anchor bolts or sheet metal sleeves.

Backwall shall not be poured above the top of the cap until the deck slab is in place.

For additional information, see layout, dwg. no. 47758.

STATE OF ARKANSAS
CHARLES P. BRAND
REGISTERED PROFESSIONAL ENGINEER
No. 4337
8/3/05

BRIDGE ENGINEER

SHEET 5 OF 5
DETAILS OF BENT 5
KIEHL AVENUE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 7-18-05
CHECKED BY: CPB DATE: 07-05
DESIGNED BY: CPB DATE: 8-05

FILENAME: br60080x3_b55.dgn
SCALE: AS NOTED

BRIDGE NO. 07053 DRAWING NO. 47773

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.		R60080		
				(1)	07053 - 316' CONT. UNIT - 47774			

Note: At Contractor's Option, in lieu of providing bars S501E or S502E, one #5 bar top and bottom may be substituted for each bar. Payment for reinforcing will be based on the weight of bars S501E and S502E. Bars in top and bottom shall be Epoxy Coated.

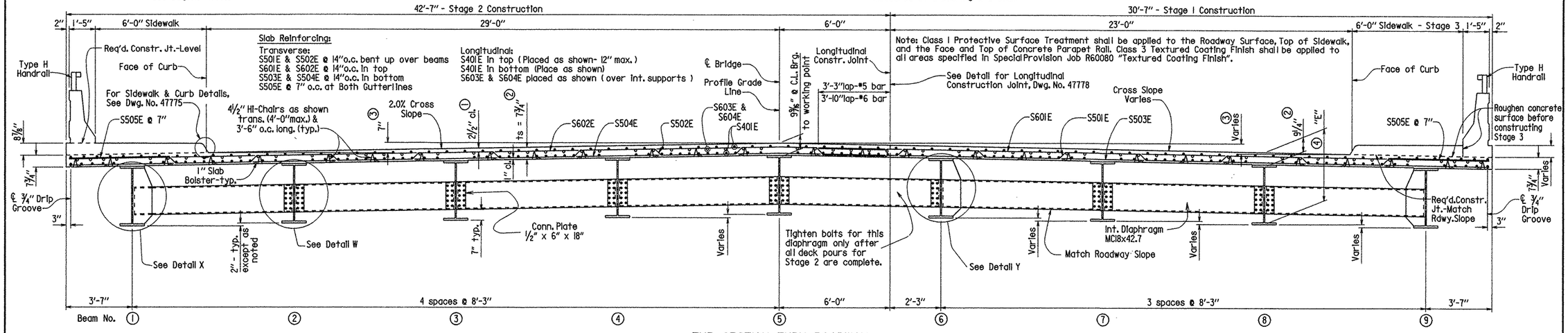
Note: For details of sidewalk, see Dwg. No. 47775.

(1) Tolerance : Minus = 1/4", Plus equal to amount of Slab Thickening used to meet Slab Thickness Tolerance - see Typ. Haunch Detail.

(2) Refer to Typ. Haunch Detail on Dwg. No. 47775.

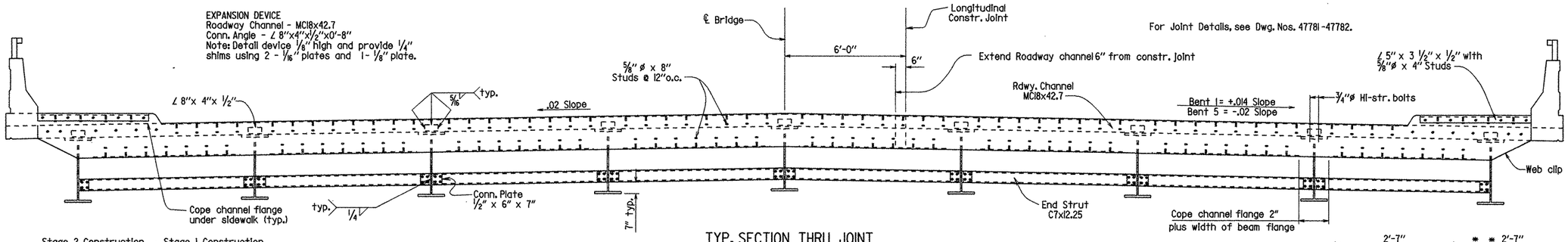
(3) Working Point to Gutterline

(4) "E" = 3'-10 3/16" measured at ℄ Bearing & ℄ Beam



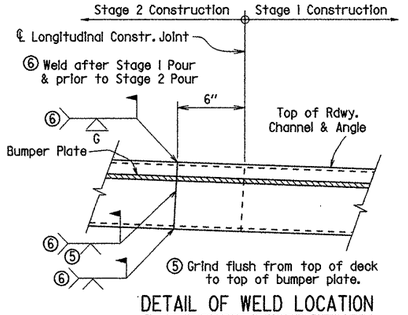
TYP. SECTION THRU ROADWAY

Looking Ahead
Scale: 3/8" = 1'-0"

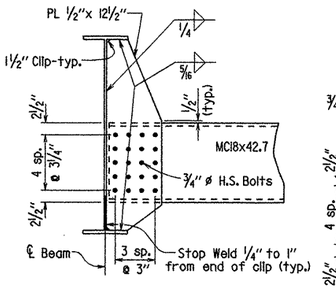


TYP. SECTION THRU JOINT

Looking Ahead - Bent 1
Bent 5 Similar
Scale: 3/8" = 1'-0"



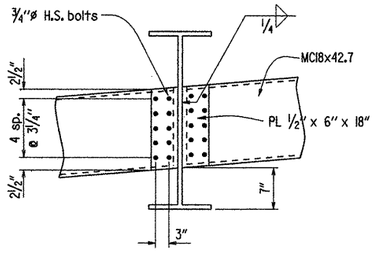
DETAIL OF WELD LOCATION FOR EXPANSION DEVICE



DETAIL X

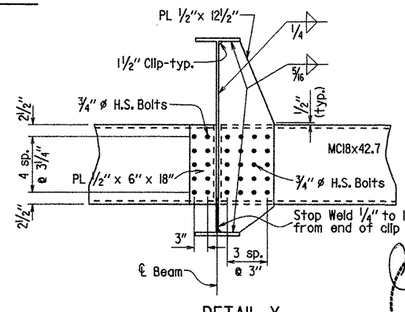
No Scale

Note: Bolts in diaphragm connections shall be properly installed and tightened in accordance with Subsection 807.71 of the Standard Specifications.



DETAIL W

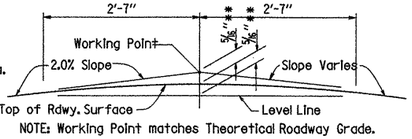
No Scale



DETAIL Y

No Scale

** Shown for 2.0% slopes. This value will decrease in cross-slope transitional area.



NOTE: Working Point matches Theoretical Roadway Grade.

ROUNDING DETAILS FOR PEAKED CROWN

Looking Ahead No Scale

STATE OF ARKANSAS
CHARLES P. BRAND
No. 4937
REGISTERED PROFESSIONAL ENGINEER
6/18/05

BRIDGE ENGINEER

SHEET 1 OF 7
DETAILS OF 316' CONTINUOUS COMPOSITE W-BEAM UNIT
KIEHL AVE.

ROUTE 67 SEC. 10

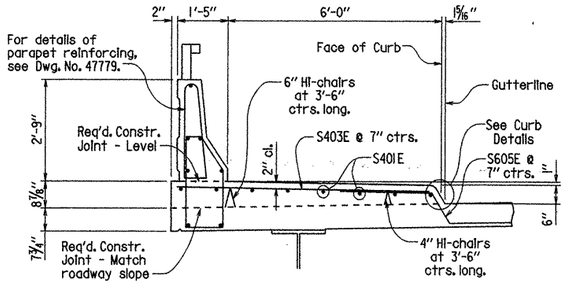
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 6-24-05 FILENAME: br60080x3_sl.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: CAB DATE: 01-05

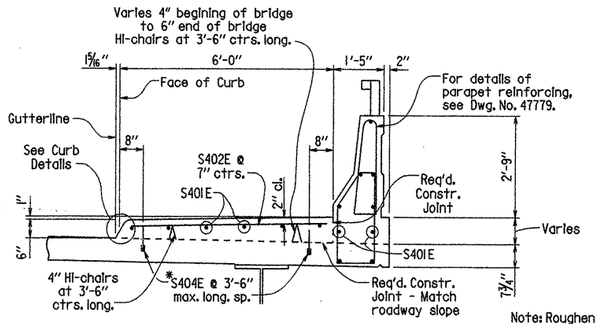
BRIDGE NO. 07053 DRAWING NO. 47774

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.		R60080	2	7
				(1)	07053 - 316' CONT. UNIT - 47775			



STAGE 2 SIDEWALK DETAIL

Scale: 1/2" = 1'-0"

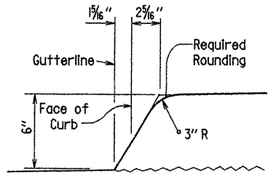


*Grout S404E bars into 4" deep drilled holes. Grout used shall be an approved non-shrink or epoxy grout listed on the QPL. Hole diameter and installation procedure shall be as recommended by the grout manufacturer. Dowels shall be located to avoid damaging deck reinforcing. Payment for grouting and placement shall be considered subsidiary to "Epoxy Coated Reinforcing Steel (Grade60)".

STAGE 3 SIDEWALK DETAIL

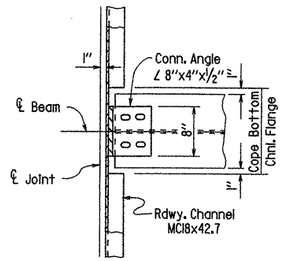
Scale: 1/2" = 1'-0"

Note: Roughen concrete surfaces before constructing Stage 3.



CURB DETAIL

No Scale



CHANNEL CONNECTION DETAIL

No Scale

GENERAL NOTES

All concrete shall be Class S(AE) with a minimum 28 day compressive strength f'c = 4000 psi. Concrete shall be poured in the dry and all exposed corners to be chamfered 3/4" unless otherwise noted.

Concrete in bridge superstructure shall be placed, consolidated, and screeded off for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent.

The concrete deck shall be given a tine finish in accordance with Section 802.19 for Class 5, Tined Bridge Roadway Surface Finish. Movement of the finishing machine across new concrete shall be on planks placed on the surface and shall be prohibited for 72 hours after finishing the pour. Sufficient concrete must be placed ahead of the strike-off to fully load the girder. If a longitudinal strike-off is used on units, a vertical camber adjustment must be made in the strike-off to account for the future dead load deflection due to the parapet railing.

For Stage 1 Construction, a minimum of 72 hours shall elapse between completion of the bridge deck slab and the pouring of the parapet railing. For Stage 2 Construction, a minimum of 72 hours shall elapse between completion of the bridge deck slab and the pouring of the sidewalk, and 72 hours shall elapse between the completion of the sidewalk and pouring of the parapet rail. Any railing pours made before the entire slab has been placed and cured must be approved by the Bridge Engineer.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60. The reinforcing steel is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly, but will be considered subsidiary to the item of "Epoxy Coated Reinforcing Steel (Grade 60)".

Structural steel for beams and splice plates shall be AASHTO M270, Gr. 50 and shall be paid for at the unit price per pound bid for "Structural Steel in Beam Spans (M270, Gr. 50)". All other structural steel shall be AASHTO M270, Gr. 36 unless otherwise noted and shall be paid for at the unit price per pound bid for "Structural Steel in Beam Spans (M270, Gr. 50)". All structural steel shall be cleaned in accordance with Section 807.84 unless noted otherwise. See Drawing Nos. 47783 for cleaning requirements of external load plates and masonry plates on elastomeric bearings.

Beams and field splice plates are considered main load carrying members and shall meet the Longitudinal Charpy V-Notch Test specified in subsection 807.05. This work and material will not be paid for directly but are considered as subsidiary to the item "Structural Steel in Beam Spans (M270, Gr. 50)".

All structural steel except galvanized steel and steel which is completely encased in concrete shall be painted in accordance with subsection 807.75 and Special Provision Job R60080 "Painting Structural Steel". The color of paint shall conform to Federal Standard 595A Color Chip No. 37200, Aluminum.

Drawings show general features of design only. Shop drawings shall be made in accordance with Section 807.04, submitted and approval secured before fabrication is begun. Material specifications and location of shop-welded splices, if any, shall be shown on the shop drawings. No additional payment for welds for these splices will be made.

Structural steel shapes of equal or greater strength may be substituted for shapes shown if prior approval is obtained from the Bridge Engineer. Payment will be made on the basis of shapes shown.

Diaphragms shall be installed as beams are erected. All bolts in diaphragms and field splices shall be installed and tightened in accordance with Section 807.71 prior to pouring the deck, except as noted in Typ. Roadway Section.

All beams shall be blocked in their true position in the shop, in groups specified in Section 807.54 (b) (2). The camber, length of sections, distance between bearings and opening of joints shall be measured with the beams in this position and this information shall become part of the permanent record of this job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All beam dimensions are based on a temperature of 60 degrees F. A tolerance of 1/4" (plus or minus) is allowed for camber.

Beams and flange splice plates for main members shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If the contractor or erector should want to make additional welds, whether temporary or permanent, he shall submit detailed drawings with a formal request to the Bridge Engineer for approval. All welding shall conform to Section 807.26.

Field connections shall be bolted with high-strength bolts. Bolts shall be 3/4" diameter, except as noted, and open holes shall be 15/16", except as noted. Holes for 3/4" diameter bolts may be 15/16" diameter if a washer is supplied for use under both the nut and head of the bolt. Bolt spacing shall be 2 1/2" for 3/4" diameter bolts unless otherwise noted. Bolts shall be placed with its heads on the outside face of the exterior beam and on the bottom of the beam flanges.

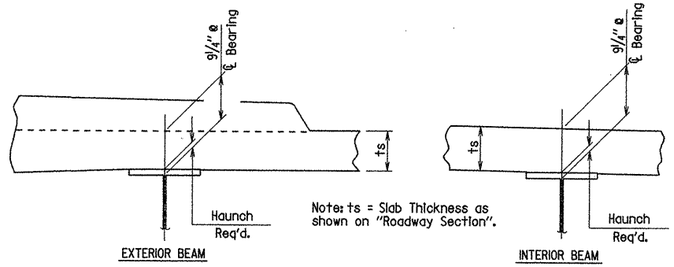
All stud shear connectors shall be granular flux filled, solid fluxed, or equal and shall be automatically end welded in accordance with recommendations of the manufacturer.

Load Distribution

Dead Load:	Girder No.	
To Beam:	1	747 plf + Wt. of Structural Steel
	2 - 4	799 plf + Wt. of Structural Steel
	5	981plf + Wt. of Structural Steel
	6	618 plf + Wt. of Structural Steel
	7 & 8	799 plf + Wt. of Structural Steel
	9	747 plf + Wt. of Structural Steel
To Composite Beam:	1	556 plf **
	2 - 4	357 plf **
	5	357 plf **
	6	357 plf **
	7 & 8	357 plf **
	9	556 plf **

**Includes 155 plf future wearing surface.

Live Load:		
To Composite Beam:	1 & 9	1.361 Wheels + Impact
	2 - 8	1.500 Wheels + Impact



Note: ts = Slab Thickness as shown on "Roadway Section".

Tolerance when removable deck forming is used is +1/2", - 1/4". See Std. Dwg. 1499I for tolerances for permanent steel deck forms. Payment for concrete shall be based on removable deck forming.

TYP. HAUNCH DETAIL

No Scale

Haunch dimension may vary within the following limits to maintain the grade and slab thickness tolerance: Minimum - occurs when top flange contacts bottom reinforcing steel; Maximum - top flange thickness plus 1 3/4". No increase in concrete and structural steel quantities will be made to maintain tolerances.

TABLE FOR WELD

Material Thickness of Thicker Part Joined (Inches)	Minimum Size of Fillet Weld (Inches)	Single Pass Weld Must Be Used
To 3/4" Inclusive	1/4"	
Over 3/4"	5/16"	

NOTE: When a fillet weld size, as shown on the plans, is larger than the minimum, the first pass shall be that specified for minimum size of fillet weld.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
3/3/05
CHARLES P. BRAND

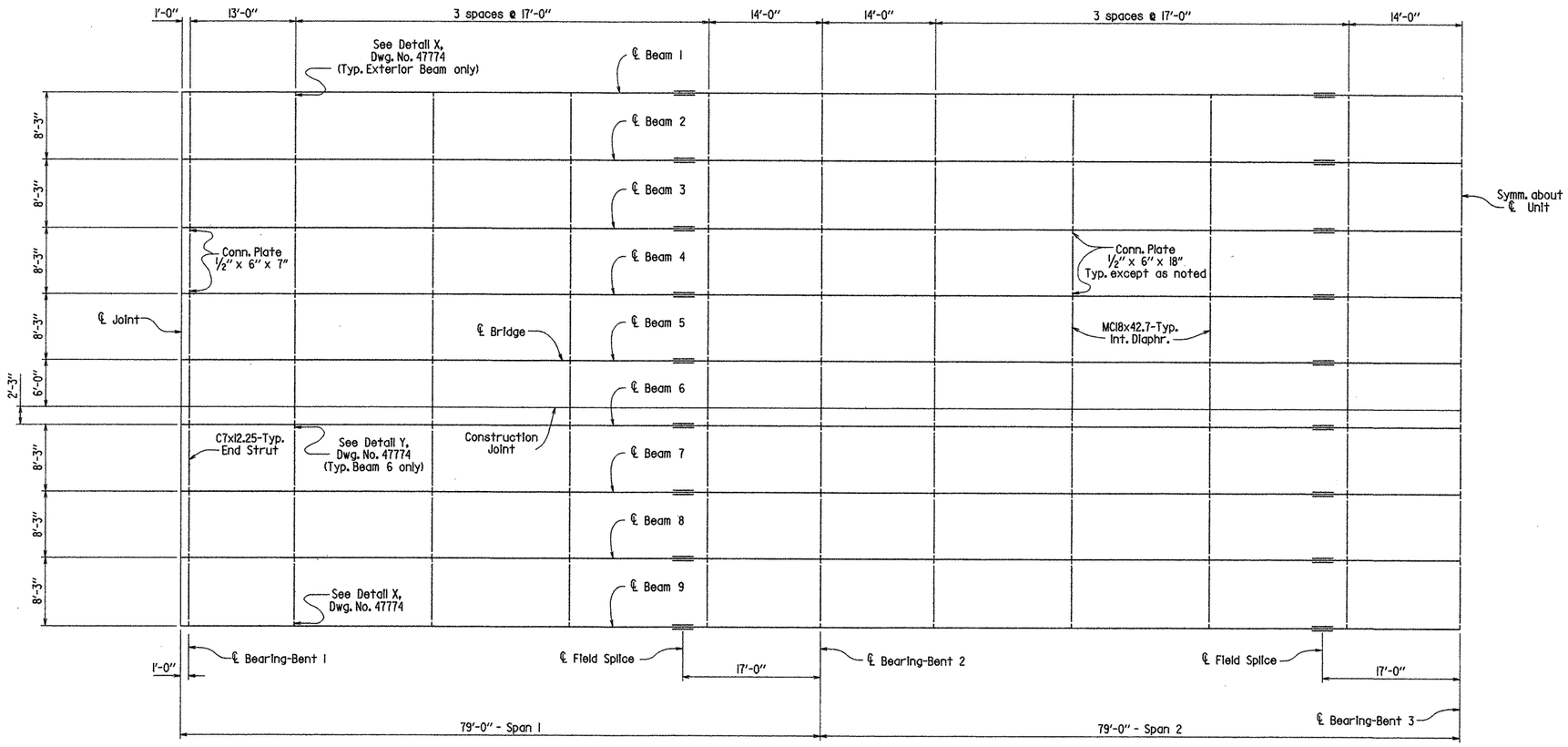
BRIDGE ENGINEER

SHEET 2 OF 7
DETAILS OF 316' CONTINUOUS COMPOSITE W-BEAM UNIT
KIEHL AVE.
ROUTE 67 SEC. 10
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 6-24-05 FILENAME: br60080x3 s2.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: CAB DATE: 01-05

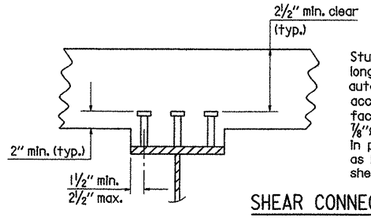
BRIDGE NO. 07053 DRAWING NO. 47775

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.		R60080		
				(1)		07053 - 316' CONT. UNIT - 47776		



HALF FRAMING PLAN

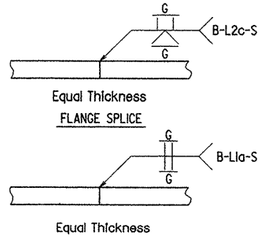
Scale: 1/8" = 1'-0"



Stud Shear Connectors shown shall be 7/8"ø x 4" long, granular flux filled, solid fluxed or equal, and automatically end welded to the girder flange in accordance with the recommendations of the Manufacturer. 3/4"ø studs may be used in place of the 7/8"ø studs shown, at the ratio of 1.361 - 3/4"ø studs in place of one 7/8"ø stud. 7/8"ø studs will be used as basis for measurement of structural steel in shear connectors. Maximum stud spacing = 24".

SHEAR CONNECTOR DETAIL

No Scale



DETAILS OF WELDED SPLICES

No Scale

STATE OF ARKANSAS
CHARLES P. BRAND
No. 4837
9-15-05
REGISTERED PROFESSIONAL ENGINEER
CHARLES P. BRAND

BRIDGE ENGINEER

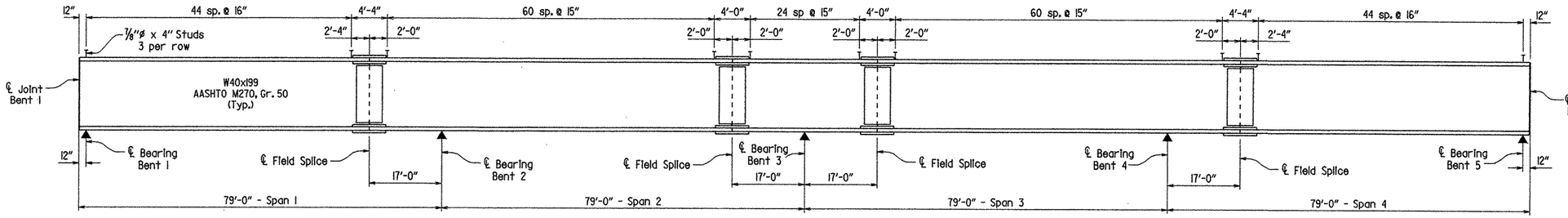
SHEET 3 OF 7
DETAILS OF 316' CONTINUOUS COMPOSITE W-BEAM UNIT
KIEHL AVE.
ROUTE 67 SEC. 10
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 6-27-05
CHECKED BY: CAB DATE: 07-05
DESIGNED BY: CAB DATE: 01-05
FILENAME: br60080x3_s3.dgn
SCALE: AS NOTED

BRIDGE NO. 07053 DRAWING NO. 47776

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.		R60080		
				①	07053 -	316' UNIT	- 47777	

Note: Bolted field splices may be eliminated or shop welded splices may be substituted with the approval of the Bridge Engineer. Payment will be made on the basis of the plan quantities.



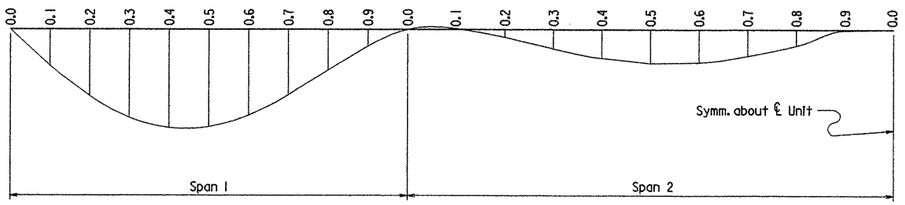
BEAM ELEVATION

No Scale

TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

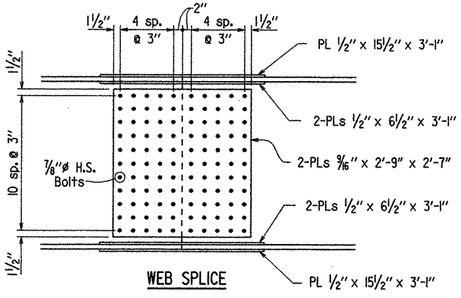
Span	Point of Deflection	Structural Steel						Structural Steel + Slab						Structural Steel + Slab + Parapet + Sidewalk					
		Beam 1	Beams 2 - 4	Beam 5	Beam 6	Beams 7 & 8	Beam 9	Beam 1	Beams 2 - 4	Beam 5	Beam 6	Beams 7 & 8	Beam 9	Beam 1	Beams 2 - 4	Beam 5	Beam 6	Beams 7 & 8	Beam 9
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.1	0.070	0.074	0.074	0.074	0.074	0.070	0.323	0.344	0.406	0.283	0.344	0.323	0.410	0.388	0.450	0.329	0.388	0.410
	0.2	0.130	0.137	0.137	0.137	0.137	0.130	0.599	0.639	0.754	0.525	0.639	0.599	0.762	0.721	0.836	0.610	0.721	0.762
	0.3	0.173	0.182	0.182	0.182	0.182	0.173	0.796	0.849	1.000	0.697	0.849	0.796	1.013	0.958	1.109	0.810	0.958	1.013
	0.4	0.193	0.204	0.204	0.204	0.204	0.193	0.891	0.951	1.121	0.781	0.951	0.891	1.135	1.074	1.244	0.908	1.074	1.135
	0.5	0.191	0.201	0.201	0.201	0.201	0.191	0.880	0.939	1.107	0.771	0.939	0.880	1.123	1.062	1.230	0.897	1.062	1.123
	0.6	0.167	0.176	0.176	0.176	0.176	0.167	0.771	0.822	0.969	0.675	0.822	0.771	0.987	0.931	1.078	0.787	0.931	0.987
	0.7	0.127	0.134	0.134	0.134	0.134	0.127	0.585	0.624	0.735	0.512	0.624	0.585	0.752	0.708	0.819	0.598	0.708	0.752
	0.8	0.078	0.082	0.082	0.082	0.082	0.078	0.358	0.382	0.450	0.314	0.382	0.358	0.464	0.435	0.503	0.369	0.435	0.464
	0.9	0.031	0.032	0.032	0.032	0.032	0.031	0.142	0.151	0.178	0.124	0.151	0.142	0.187	0.173	0.200	0.147	0.173	0.187
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0.1	-0.003	-0.004	-0.004	-0.004	-0.004	-0.003	-0.015	-0.016	-0.019	-0.013	-0.016	-0.015	-0.009	-0.013	-0.016	-0.010	-0.013	-0.009
	0.2	0.012	0.013	0.013	0.013	0.013	0.012	0.055	0.059	0.069	0.048	0.059	0.055	0.085	0.074	0.084	0.063	0.074	0.085
	0.3	0.033	0.035	0.035	0.035	0.035	0.033	0.154	0.165	0.194	0.135	0.165	0.154	0.214	0.195	0.224	0.165	0.195	0.214
	0.4	0.052	0.055	0.055	0.055	0.055	0.052	0.240	0.256	0.302	0.211	0.256	0.240	0.323	0.298	0.344	0.254	0.298	0.323
	0.5	0.062	0.065	0.065	0.065	0.065	0.062	0.286	0.305	0.360	0.251	0.305	0.286	0.381	0.353	0.408	0.300	0.353	0.381
	0.6	0.060	0.064	0.064	0.064	0.064	0.060	0.279	0.298	0.351	0.244	0.298	0.279	0.370	0.344	0.397	0.291	0.344	0.370
	0.7	0.048	0.051	0.051	0.051	0.051	0.048	0.222	0.237	0.279	0.195	0.237	0.222	0.295	0.274	0.315	0.233	0.274	0.295
	0.8	0.029	0.030	0.030	0.030	0.030	0.029	0.133	0.141	0.167	0.116	0.141	0.133	0.179	0.164	0.190	0.140	0.164	0.179
	0.9	0.009	0.010	0.010	0.010	0.010	0.009	0.043	0.046	0.054	0.037	0.046	0.043	0.060	0.055	0.063	0.046	0.055	0.060
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: Table is symmetrical about C.L. Unit

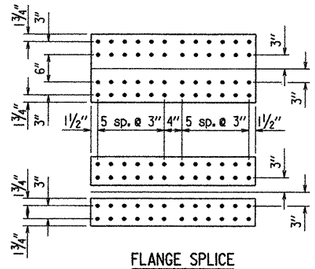


DEAD LOAD DEFLECTION DIAGRAM

Camber for Dead Load Deflection plus Vertical Curve ±1/4" tolerance.
Deflections shown are from a chord from ℄ Bearing to ℄ Bearing.
Vertical Curve Corrections not included. Negative Sign (-) indicates point above Chord.



WEB SPLICE



FLANGE SPLICE

FIELD SPLICE DETAIL

Scale: 3/4" = 1'-0"

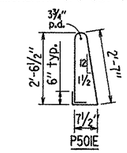
Note: All splice plates shall be AASHTO M270-Grade 50.

BAR LIST

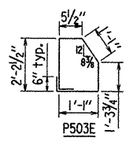
MARK	NO. REQ'D.	LENGTH	P.D.
S401E	1908	37'-5"	Str.
S402E	542	5'-5"	Str.
S403E	542	7'-2"	Str.
S404E	180	8"	Str.
P401E	240	12'-8"	Str.
S501E	270	34'-4"	3"
S502E	270	43'-3"	3"
S503E	271	33'-10"	Str.
S504E	271	42'-3"	Str.
S505E	1082	5'-4"	Str.
P501E	624	6'-9"	2½"
P502E	312	7'-2"	2½"
P503E	312	6'-8"	2½"
S601E	271	34'-5"	Str.
S602E	271	42'-3"	Str.
S603E	144	48'-4"	Str.
S604E	144	31'-4"	Str.
S605E	542	5'-2"	4½"

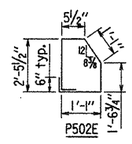
BENDING DIAGRAMS

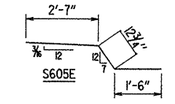
Dimensions are out to out of bars.

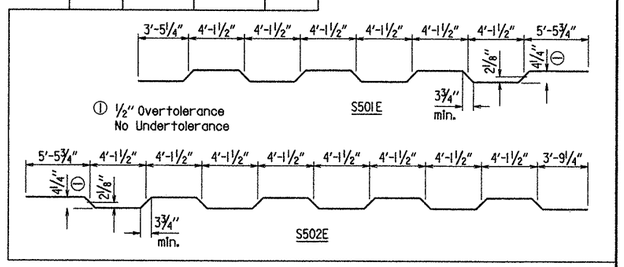


Note: All bars are epoxy coated.









STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4537
8/15/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 4 OF 7
DETAILS OF 316' CONTINUOUS COMPOSITE W-BEAM UNIT
KIEHL AVE.

ROUTE 67 SEC. 10

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 6-30-05
CHECKED BY: CAB DATE: 07-05
DESIGNED BY: CAB DATE: 01-05

FILENAME: br60080x3_s4.dgn
SCALE: AS NOTED

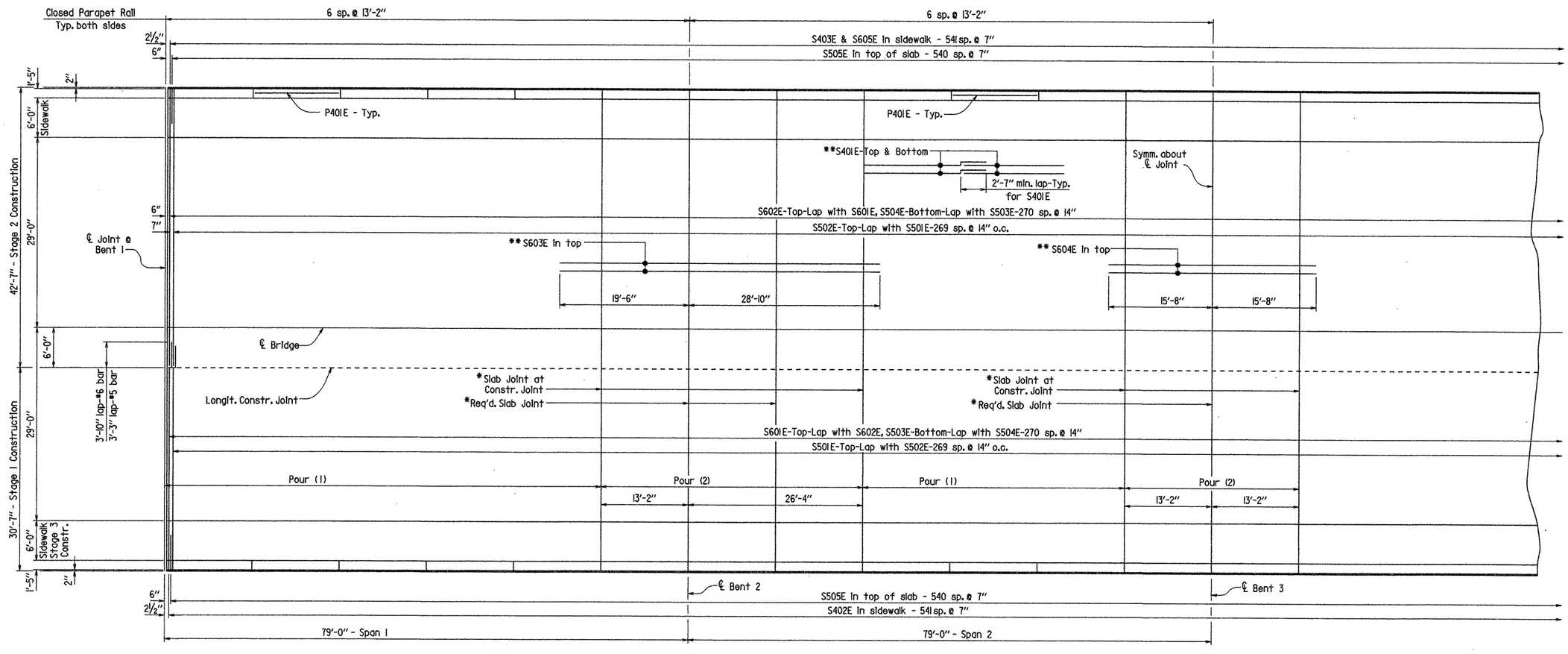
BRIDGE NO. 07053 DRAWING NO. 47777

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.		R60080	28	40

(1) 07053 - 316' CONT. UNIT - 47778

NOTE: Pours with the same number may be placed simultaneously or separately. All Pours (1) must be placed before Pours (2) can be placed. 48 hours shall elapse between the end of a pour and the start of the next pour. 72 hours shall elapse between the end of a pour and the start of an adjacent pour. Any railing pours made before the entire slab unit has been placed must be approved by the Bridge Engineer. The contractor must obtain approval from the Bridge Engineer for any deviations from the pouring sequence.

Concrete in bridge superstructure shall be placed and consolidated for the entire pour before any concrete has taken its initial set. This may require the use of a retarding agent. The contractor must obtain approval from the Bridge Engineer for any deviations from the pouring sequence shown.

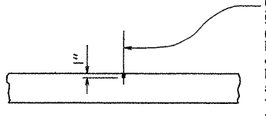


*Align with parapet open joint unless noted otherwise.

**These bars shall be placed as shown in 'Typ. Roadway Section', Dwg. No. 47774

REINFORCING PLAN & DECK POURING SEQUENCE

Scale: ⅛" = 1'-0"



SLAB JOINT DETAIL

No Scale

½" x 1" Type 6 Joint Sealer. See Sections 501.02 (h) and 501.05 (j) of the Standard Specifications. Joint Sealer shall be measured and paid for as Class S (AE) Concrete-Bridge. Slab joints in the deck slab shall extend to the outside edge of the deck slab and shall be installed before the sidewalk is poured. The slab joint in the sidewalk shall extend to the outside of the sidewalk slab and shall be installed before the parpet rail is poured. If slab joints are to be sawed, they shall be sawed as soon as the concrete has sufficiently set to allow sawing of the joint without damage to the slab. The joint sealer shall extend across the deck slab from gutterline to gutterline and across the top of the sidewalk. No joint sealer shall be placed on the deck slab under the sidewalk area.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
05/05/05
CHARLES P. BRAND

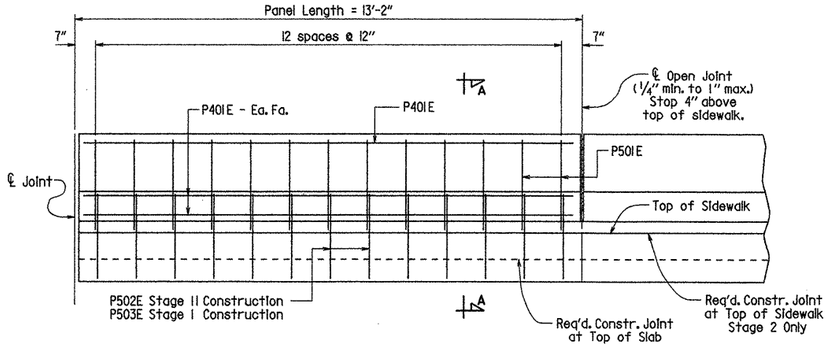
BRIDGE ENGINEER

SHEET 5 OF 7
DETAILS OF 316' CONTINUOUS COMPOSITE W-BEAM UNIT
KIEHL AVE.
ROUTE 67 SEC. 10
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 07-05-05
CHECKED BY: CAB DATE: 07-05
DESIGNED BY: CAB DATE: 01-05
FILENAME: br60080x3_s5.dgn
SCALE: AS NOTED

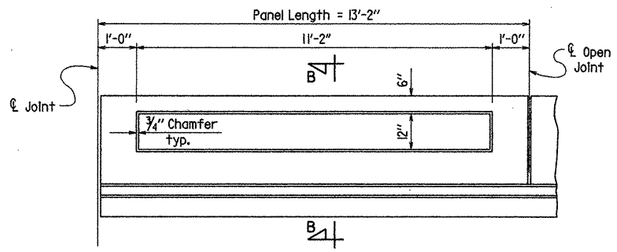
BRIDGE NO. 07053 DRAWING NO. 47778

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.		R60080	6	7
				(1)	07053 -	316' CONT. UNIT -	47779	



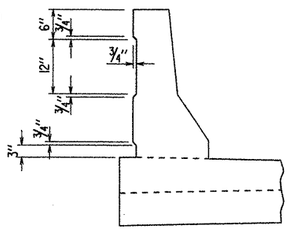
DETAILS OF PARAPET RAILING

Scale : 1/2" = 1'-0"



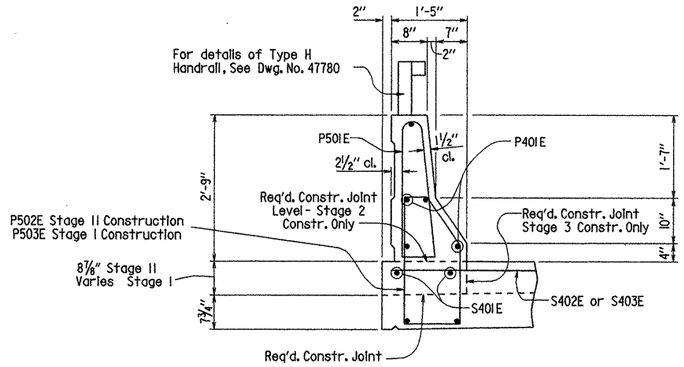
DETAILS OF PARAPET ENHANCEMENT

No Scale



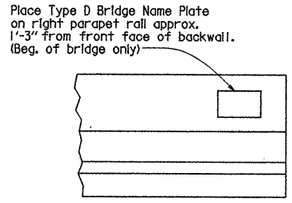
SECTION B-B

No Scale



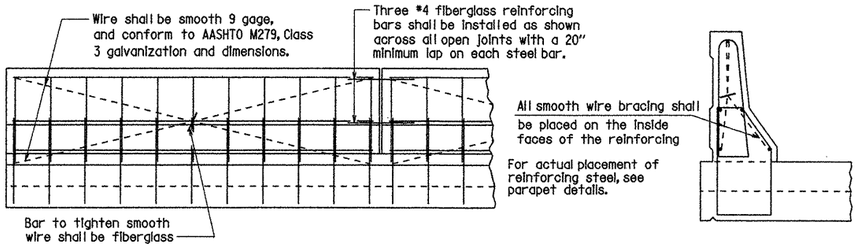
SECTION A-A

Scale : 3/4" = 1'-0"



NAME PLATE DETAIL

No Scale



All panels shall be braced as shown to prevent racking. All open joints shall be sawed as soon as practical to a minimum width of 1/4". To control cracking before sawing all joints must be grooved before the concrete is set. Sawing of the joints must be controlled so it will follow the grooved joint.

The extruded parapet shall conform to the horizontal and vertical lines shown on the plans or as directed by the Engineer and shall present a smooth, uniform appearance and texture.

DETAILS OF OPTIONAL SLIPFORMING OF CONCRETE PARAPET RAIL

No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4387
3/15/05
CHARLES P. BRAND

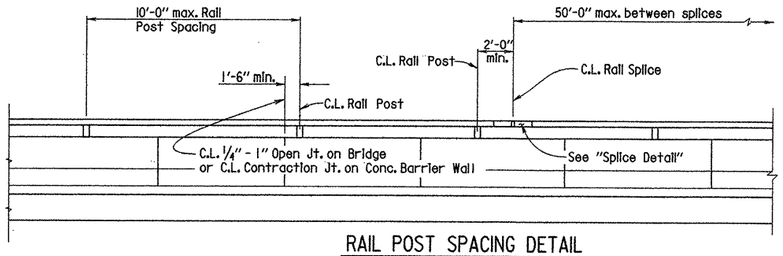
BRIDGE ENGINEER

SHEET 6 OF 7
DETAILS OF 316' CONTINUOUS COMPOSITE W-BEAM UNIT
KIEHL AVE.
ROUTE 67 SEC. 10
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

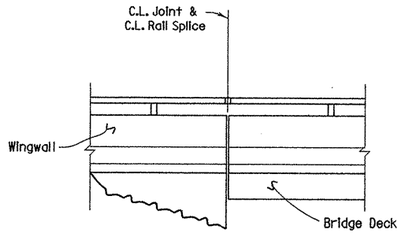
DRAWN BY: JWD DATE: 7-07-05 FILENAME: br60080x3_s6.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: CAB DATE: 01-05

BRIDGE NO. 07053 DRAWING NO. 47779

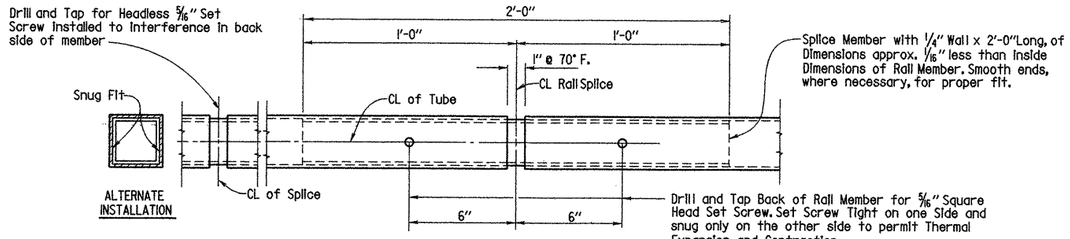
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		
				(1) 07053		TYPE H RAILING		47780



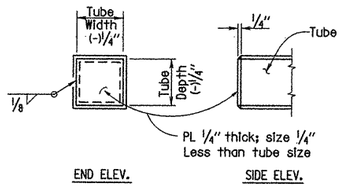
RAIL POST SPACING DETAIL



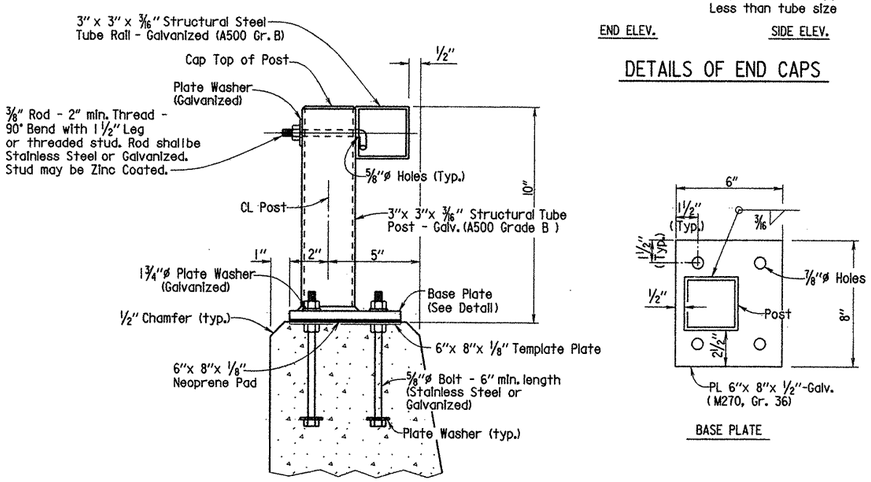
RAIL POST SPACING @ BRIDGE ENDS



SPLICE DETAIL



DETAILS OF END CAPS



BASE PLATE

DETAILS OF TYPE H RAIL
(CAST IN PLACE BOLTS)

NOTES FOR BRIDGE RAILING:

Rail layout shall conform to vertical and horizontal alignment of bridge.

Maximum post spacing = 10'-0"

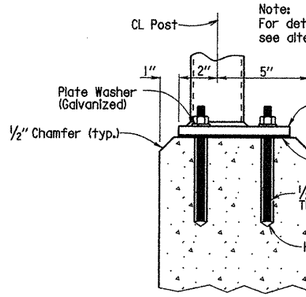
Minimum distance from centerline post to centerline open or contraction joints in parapet = 1'-6".

Rail splices shall be at 50' maximum spacing. Centerline splices shall be located at a maximum of 2 feet from centerline of post. Rail sections shall be fabricated to attach to at least three posts.

Base plates shall not be placed upon areas that are improperly finished, deformed or irregular.

Bridge railing, including posts, fasteners, template plates, and neoprene pad shall be paid for at the contract unit price bid per linear foot for "Metal Bridge Railing (Type H)".

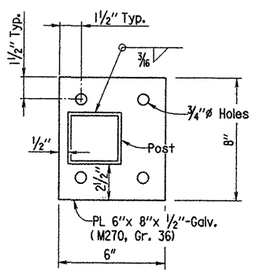
Shop drawings showing details of railing shall be submitted and approval secured before fabrication is begun.



*HILTI HVA Adhesive Anchor System with 4 1/4" embedment or an approved equal.

The Contractor may substitute the HILTI HSE 2421 epoxy adhesive system with 1/2" ø Super HAS threaded rods and 4 1/2" embedment in lieu of the details shown.

The HILTI Adhesive Anchor System shall be installed in accordance with Manufacturer's recommendations.



BASE PLATE

DETAILS OF TYPE H RAIL
(ALTERNATE POST ANCHOR SYSTEM)

MATERIALS:

Tubing, Posts, and Accessories: AASHTO M270, Gr. 36 or ASTM A500-Grade B.

Railing End Caps: AASHTO M270, Grade 36, galvanized.

Steel Rail Members shall be galvanized in accordance with AASHTO M 111 after fabrication.

Cast in place anchor bolts shall be of stainless steel or high strength steel. Stainless steel anchor bolts shall conform to ASTM A193 or A320-Grade B8 with a minimum yield strength of 80,000 psi. High strength steel anchor bolts shall conform to AASHTO M164 or A354-Grade BC galvanized in accordance with AASHTO M232 or M298, Class 40 or 50.

Splice Set Screws: Stainless steel, ASTM Specifications A193 or A320-Grade B8, or AASHTO M270, Grade 36, galvanized.

Nuts: Nuts shall conform to AASHTO M292, Gr. 8 (Stainless steel) or AASHTO M164 galvanized in accordance with AASHTO M232 or M298, Class 40 or 50.

Threads: Threads on bolts, screws, and nuts shall conform to American Standard Coarse Series, Class 2 FIT, ASA Specification B1.1.

Washers shall be of high strength steel conforming to AASHTO M270, Gr. 36, galvanized in accordance with AASHTO M232 or M298, Class 40 or 50, or of stainless steel conforming to ASTM A276 or A167-Type 302.

STATE OF ARKANSAS
Charles P. Brand
REGISTERED PROFESSIONAL ENGINEER
No. 4337
07/13/05
CHARLES P. BRAND

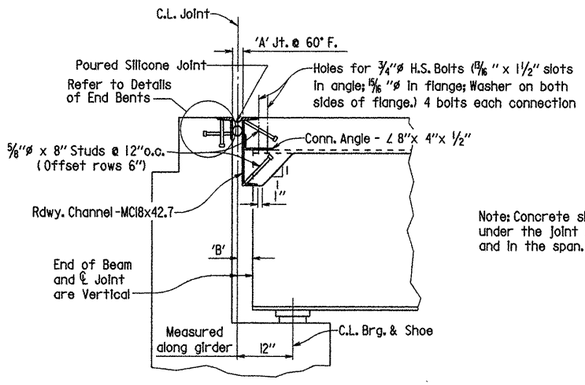
BRIDGE ENGINEER

SHEET 7 OF 7
DETAILS OF 316' CONTINUOUS COMPOSITE W-BEAM UNIT
KIEHL AVE.
ROUTE 67 SEC. 10
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 7/15/05 FILENAME: br60080x3_hr.dgn
CHECKED BY: CWS DATE: 07-05 SCALE: No Scale
DESIGNED BY: STD. DATE:

BRIDGE NO. 07053 DRAWING NO. 47780

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.		R60080		
				①		07053 - JOINTS - 47781		



SECTION THRU JOINT AT BENTS 1 & 5

Scale: ¾" = 1'-0"

Note: Concrete shall be hand packed under the joint armor in the backwall and in the span.

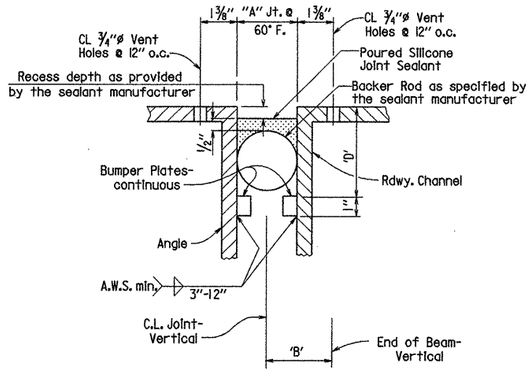
SILICONE JOINT DATA

Bent Number	"A" Width Perpendicular to Joint at 24 Hour Average Temperature* Of:			"B" Perpendicular to Joint at 60°F	Bumper Plate Size	'D'
	40°F	60°F	80°F			
1 & 5	2¼"	2"	1¾"	2¼" ±	1" x ½"	4½"

* The temperature used to set the joint opening shall be the approximate average air temperature during the 24 hour period immediately before the bolts are tightened. The Engineer shall establish the temperature. Interpolation of the table may be necessary.

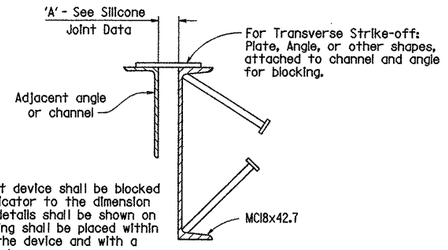
Notes: The temperature limitations recommended by the sealant manufacturer shall be observed.

The sealant shall be installed only when the average 24 hour air temperature is between 40° and 80°F.



DETAIL OF POURED SILICONE JOINT SEAL

No Scale



Note: Each expansion joint device shall be blocked in the Shop by the Fabricator to the dimension shown, and the blocking details shall be shown on the Shop Drawings. Blocking shall be placed within 2 feet of each end of the device and with a maximum spacing of 8 feet.

DETAILS FOR BLOCKING EXPANSION JOINT DEVICE

Scale: 1½" = 1'-0"

EXPANSION DEVICE INSTALLATION AT END BENTS:

The concrete span pour adjacent to joint shall be placed before the end bent backwall is placed. After the end bent backwall forms are in place and the beams erected, the blocked expansion device shall be installed and adjusted for grade. All connection bolts shall be fully tightened prior to placing the deck concrete adjacent to the bent. Immediately prior to pouring the backwall concrete, the blocking shall be removed, the opening adjusted for temperature, and the backwall constructed.

STATE OF ARKANSAS
CHARLES P. BRAND
REGISTERED PROFESSIONAL ENGINEER
No. 13337
8/3/05

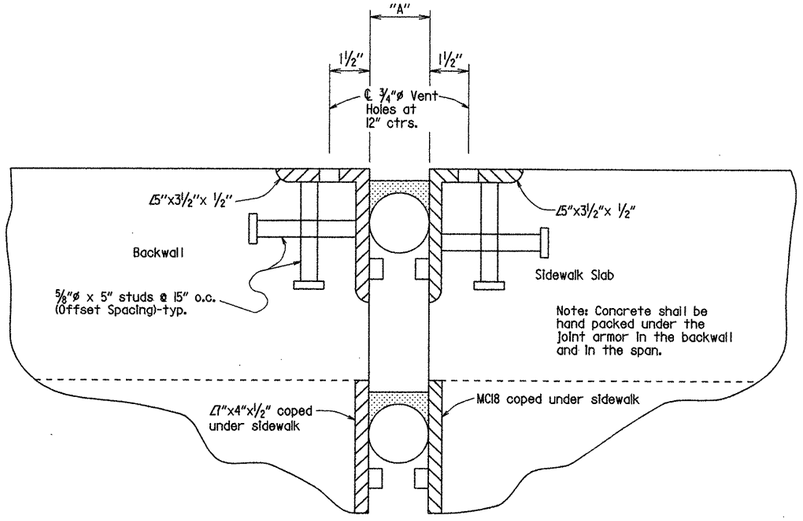
BRIDGE ENGINEER

SHEET 1 OF 2
DETAILS OF JOINTS
KIEHL AVE.
ROUTE 67 SEC. 10
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

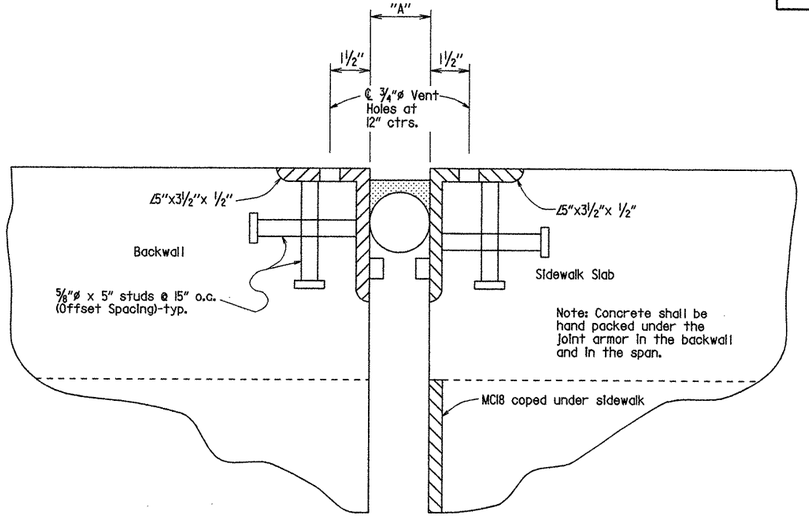
DRAWN BY: JWD DATE: 7-08-05 FILENAME: br60080x3_jtl.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: CAB DATE: 01-05

BRIDGE NO. 07053 DRAWING NO. 47781

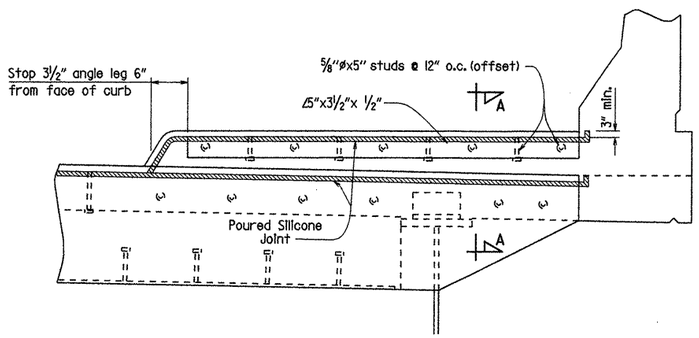
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	38	
				①	07053 -	JOINTS	- 47782	



SECTION A-A

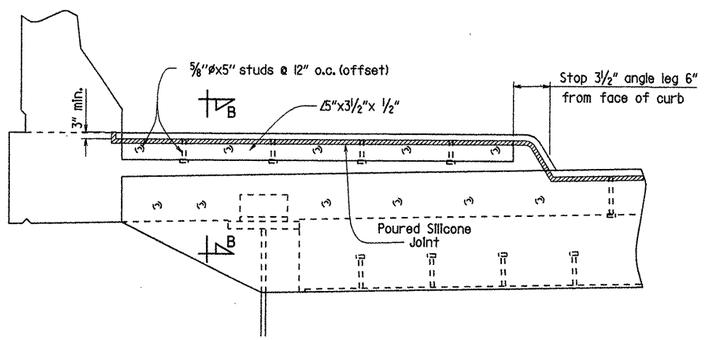


SECTION B-B



SECTION THRU SIDEWALK - STAGE 3

No Scale



SECTION THRU SIDEWALK - STAGE 2

No Scale

SIDEWALK JOINT DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
9/3/05
CHARLES P. BRAND

BRIDGE ENGINEER

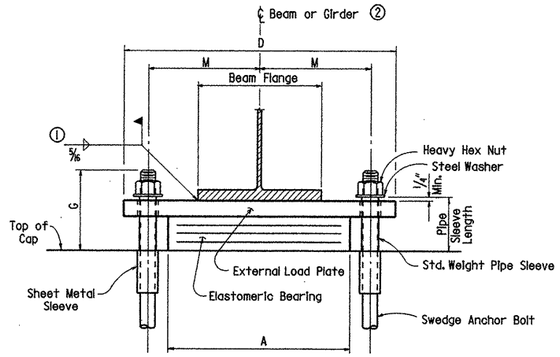
SHEET 2 OF 2
DETAILS OF JOINTS
KIEHL AVE.

ROUTE 67 SEC. 10

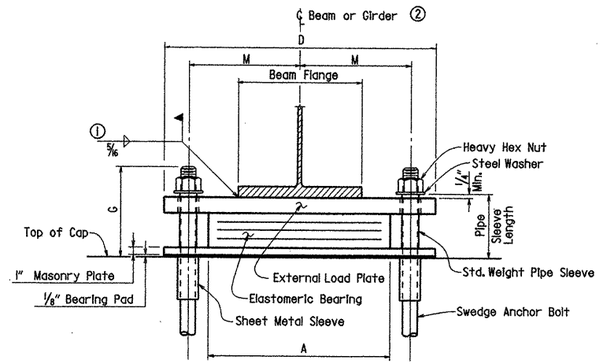
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 7-18-05 FILENAME: br60080x3_jt2.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: CAB DATE: 01-05

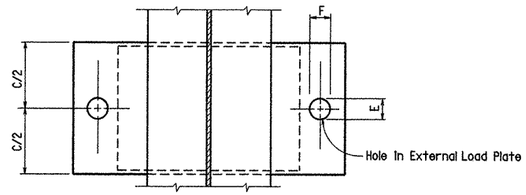
BRIDGE NO. 07053 DRAWING NO. 47782



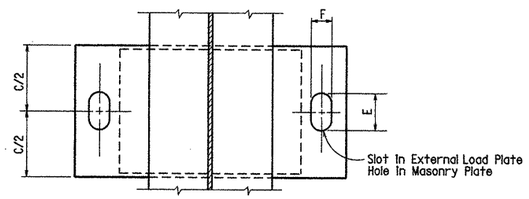
FRONT VIEW - AT BENT NOS. 2, 3, &4



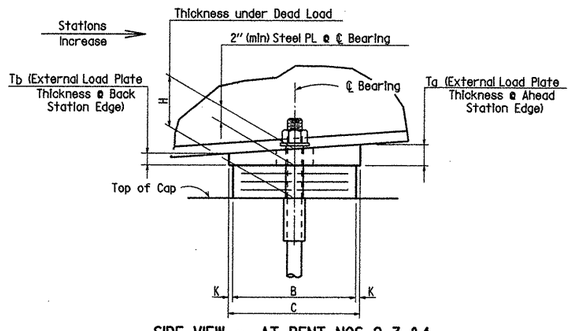
FRONT VIEW - AT BENT NOS. 1&5



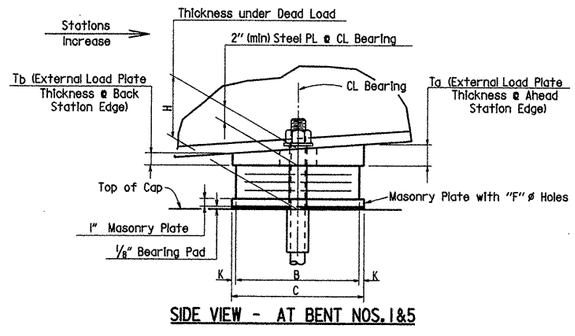
PLAN VIEW - AT BENT NOS. 2, 3, &4



PLAN VIEW - AT BENT NOS. 1&5



SIDE VIEW - AT BENT NOS. 2, 3, &4



SIDE VIEW - AT BENT NOS. 1&5

TABLE OF FABRICATOR VARIABLES

BRIDGE NO.	LOCATION BENT NO(S).	LOCATION BEAM NO.	BEARING TYPE	NO. of BEARINGS EACH BENT	*MAXIMUM DESIGN LOAD (KIPS)	ELASTOMERIC PAD G	ELASTOMERIC PAD H	ELASTOMERIC PAD A	ELASTOMERIC PAD B	ELASTOMERIC PAD N	ELASTOMERIC PAD t_I	ELASTOMERIC PAD t_e	ELASTOMERIC PAD NO. & THICKNESS OF STEEL LAMINAE	ELASTOMERIC PAD T	EXTERNAL LOAD PLATE C	EXTERNAL LOAD PLATE D	EXTERNAL LOAD PLATE E	EXTERNAL LOAD PLATE F	EXTERNAL LOAD PLATE K	EXTERNAL LOAD PLATE M	EXTERNAL LOAD PLATE T_a	EXTERNAL LOAD PLATE T_b	ANCHOR BOLT (ø x L)	ANCHOR BOLT GRADE	PIPE SLEEVE SIZE (ø x L)	SHEET METAL SLEEVE SIZE (ø x L)	STEEL WASHER SIZE (O.D.)
Kiehl Ave.	1	All	Exp.	9	99.00	9 7/16"	6 11/16"	14"	12"	5	1/2"	1/4"	6 @ 0.1046"	3 5/16"	13"	26 1/4"	4 1/16"	2 1/4"	1/2"	10 3/8"	2.229"	1.771"	1 1/2"ø x 28"	55	1 1/2"ø x 6 15/16"	3"ø x 12"	3"
	5	All	Exp.	9	99.00	9 7/16"	6 11/16"	14"	12"	5	1/2"	1/4"	6 @ 0.1046"	3 5/8"	13"	26 1/4"	4 1/16"	2 1/4"	1/2"	10 3/8"	1.771"	2.229"	1 1/2"ø x 28"	55	1 1/2"ø x 6 15/16"	3"ø x 12"	3"
	2	All	Fix	9	204.00	8 3/16"	4 15/16"	18"	14"	4	1/2"	1/4"	5 @ 0.1046"	3"	15"	30"	3 1/8"	3 1/8"	1/2"	11 3/4"	2.133"	1.867"	2"ø x 32"	55	2 1/2"ø x 5 7/16"	4"ø x 12"	3 3/4"
	4	All	Fix	9	204.00	8 3/16"	4 15/16"	18"	14"	4	1/2"	1/4"	5 @ 0.1046"	3"	15"	30"	3 1/8"	3 1/8"	1/2"	11 3/4"	1.867"	2.133"	2"ø x 32"	55	2 1/2"ø x 5 7/16"	4"ø x 12"	3 3/4"
	3	All	Fix	9	179.00	8 3/16"	4 15/16"	18"	13"	4	1/2"	1/4"	5 @ 0.1046"	3"	14"	30"	3 1/8"	3 1/8"	1/2"	11 3/4"	2.000"	2.000"	2"ø x 32"	55	2 1/2"ø x 5 7/16"	4"ø x 12"	3 3/4"

*Maximum Design Load = Service Load

**The dimension "E" does not apply to masonry plates - See "SIDE VIEW - AT BENT NOS. 1& 5.

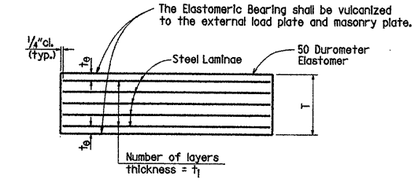
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080		
① 07053		ELASTO. BRGS.		47783

① Care shall be taken to ensure that the external load plate is in full and complete contact with the beam or girder flange before welding begins.

② Centerline Beam or Girder shall align with centerline bearing.

Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40° F and 80° F; and 2) the slots in the external load plate are positioned to center on the anchor bolts; and 3) no horizontal deformation of the elastomeric pad is evident. If welding at other temperatures is required, the Engineer will provide adjustment data.

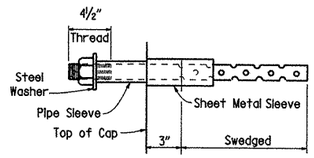


t_e = thickness of elastomer cover on top and bottom of pad

t_I = thickness of elastomer between steel laminae

N = number of elastomer layers of thickness t_I

ELASTOMERIC BEARING



ANCHOR BOLT DETAIL

NOTE: Anchor Bolts may be cast in place or drilled and grouted into place. If Anchor Bolts are to be cast in place, the Galvanized Sheet Metal Sleeves will not be required.

If Anchor Bolts are to be drilled and grouted in place, the Galvanized Sheet Metal Sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of Structural Steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the masonry. Bolts placed in drilled holes shall be accurately set and fixed using a QPL approved epoxy or non-shrink grout that completely fills the holes. Galvanized Sheet Metal Sleeves will not be paid for directly, but will be considered subsidiary to the item "Structural Steel in Beam Spans, (M 270, Gr. 50)."

GENERAL NOTES

Elastomeric Bearings shall conform to Special Provision Job R60080 "Elastomeric Bearings" and Section 808 and shall be paid for at the unit price bid for "Elastomeric Bearings." Long-duration testing of random lot samples specified in subsection 808.05 is not required.

External load plates and masonry plates shall conform to AASHTO M 270, Grade 50. Pipe sleeves shall be ASTM A53, Grade B, and shall be galvanized to conform to AASHTO M 232, Class C or AASHTO M 298, Class 50.

External load plates and masonry plates shall be completely fabricated (including bevel and bolt holes) and shall be cleaned before vulcanizing to the elastomeric bearing. Surfaces in contact with the elastomeric bearing shall be cleaned in accordance with subsection 808.03. Other surfaces shall be blast cleaned in accordance with subsection 807.84(b) and painted according to subsection 807.75. Painting will not be paid for directly but will be considered subsidiary to "Elastomeric Bearings".

Anchor Bolts, Washers and Nuts shall conform to subsection 807.07. The anchor bolt grade of steel shall be as specified in the "Table of Fabricator Variables". Indentations shall be circular with rounded bottoms and staggered as shown in the details.

Pipe Sleeves, Anchor Bolts, Washers and Nuts shall be paid for at the unit price bid for "Structural Steel in Beam Spans (M270, Gr. 50)". External load plates, masonry plates, and 1/8" bearing pads will not be measured or paid for separately but will be considered included in the unit bid price for "Elastomeric Bearings".

Bearings with masonry plates shall be seated in accordance with subsection 807.66.

Tabular Data by : JWD Date: 7-08-05

Checked by : CAS Date: 07-05

Designed by : CAS Date: 01-05

STATE OF ARKANSAS CHARLES P. BRAND No. 4337 REGISTERED PROFESSIONAL ENGINEER 2/15/05

BRIDGE ENGINEER

DETAILS OF ELASTOMERIC BEARINGS KIEHL AVE.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

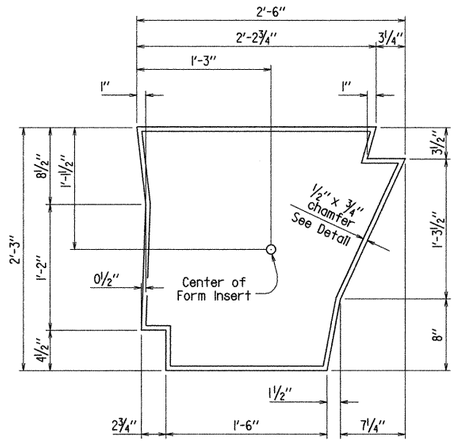
DRAWN BY: CRE DATE: 2-09-05 FILENAME: br60080x3_el.dgn

CHECKED BY: CSL DATE: 2-11-05 SCALE: No Scale

DESIGNED BY: Std. DATE: ——

BRIDGE NO. 07053 DRAWING NO. 47783

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
12-6-05				6	ARK.			
				JOB NO.		R60080	389	6009
				(1) 07052 & 07053		ARK. FORM INSERT		47784



Note: Use form insert on designated bents as noted on layout or as shown on detail drawings.

FORM INSERT DETAILS

Scale: 1½" = 1'-0"

GENERAL NOTES

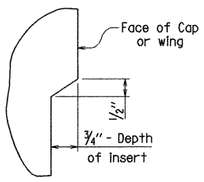
Fabricate form insert as a one piece unit, without the use of splices, joints or glue.

Wash and clean multi-use form inserts before each use.

All work and materials for form inserts shall be included in the unit price bid for Class S Concrete-Bridge.

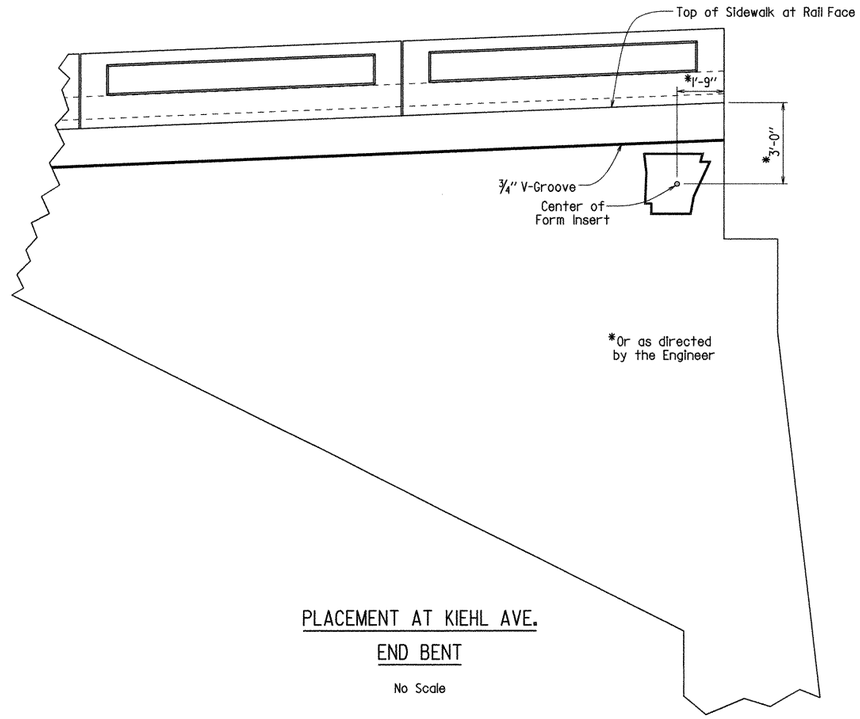
Damaged or worn form inserts shall be replaced at the contractor's expense.

The form inserts shall be approved by the Engineer before its use.



CHAMFER DETAILS

Scale: 1½" = 1'-0"



PLACEMENT AT KIEHL AVE. END BENT

No Scale

⚠ Removed Arkansas Form Insert from Intermediate bents KDH - 12-6-05

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4337 12/8/05 CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF STANDARD STATE OF ARKANSAS FORM INSERT

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: K.W.Y. DATE: 7-19-05 FILENAME: br60080FormInsert.dgn

CHECKED BY: MAH DATE: 12-7-05 SCALE: as noted

DESIGNED BY: _____ DATE: _____

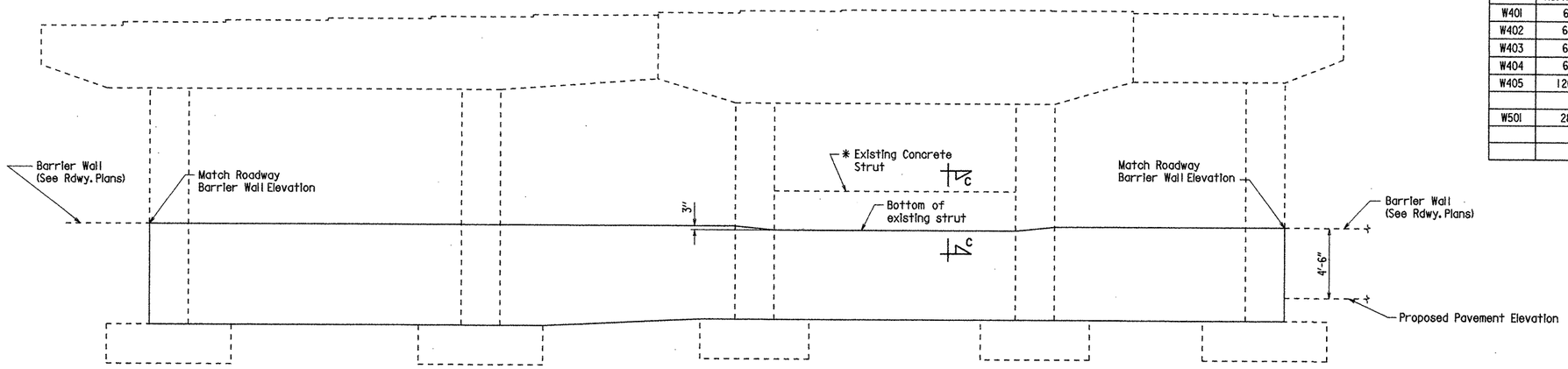
BRIDGE NO. 07052 & 07053 DRAWING NO. 47784

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.		R60080	29	603
				①		03054 - BARRIER WALL - 47449		

BAR LIST

MARK	NO. REQ'D.	LENGTH	P.D.	BENDING DIAGRAMS
W401	6	16'-10"	Str.	
W402	6	14'-4"	Str.	
W403	6	14'-10"	Str.	
W404	6	11'-7"	Str.	
W405	126	10'-10"	2"	3'-0" W405 4'-0"
W501	28	37'-5"	Str.	

Dimensions are out to out of bars.



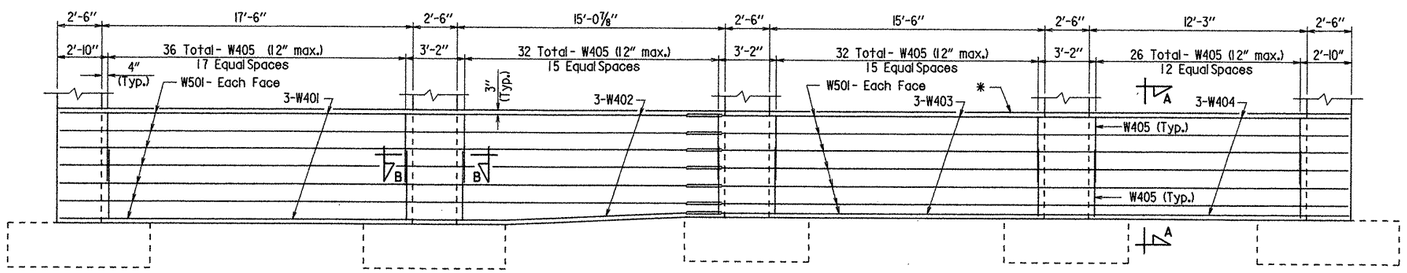
ELEVATION OF EXISTING BENT

Looking East
Scale: 1/4" = 1'-0"

* Lower the top of the barrier wall to the bottom of the existing strut if the barrier wall is higher than the bottom of the strut. Only adjust barrier wall elevation where existing strut interfers.

APPROXIMATE QUANTITIES FOR CRASH WALL

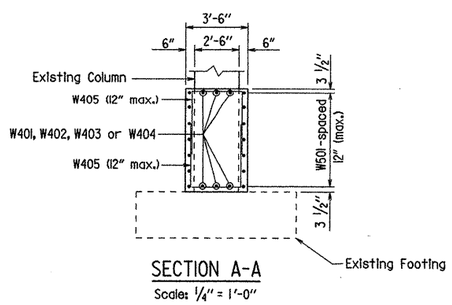
Concrete	Reinforcing Steel
CU. YD.	LB.
50	2240



BARRIER WALL ELEVATION

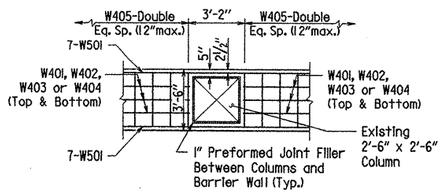
Looking East
Scale: 1/4" = 1'-0"

Minimum Lap:
B405 - 1'-9"
B501- 2'-2"



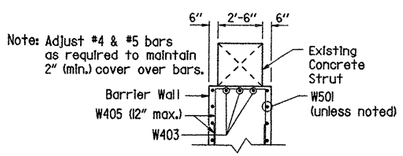
SECTION A-A

Scale: 1/4" = 1'-0"



SECTION B-B

Scale: 1/4" = 1'-0"



SECTION C-C

Scale: 1/4" = 1'-0"

GENERAL NOTES

All concrete shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi. All exposed corners to be chamfered ¾" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi).

Quantities are based on existing plans and are approximate. Exact quantites shall be determined in the field.

The Contractor shall make check measurements in the field and recommend for approval any adjustments necessary to fit the barrier around the existing columns and under the existing concrete strut.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
8/3/05
CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF BARRIER WALL AT McCAIN BLVD. PULASKI COUNTY

ROUTE SEC.

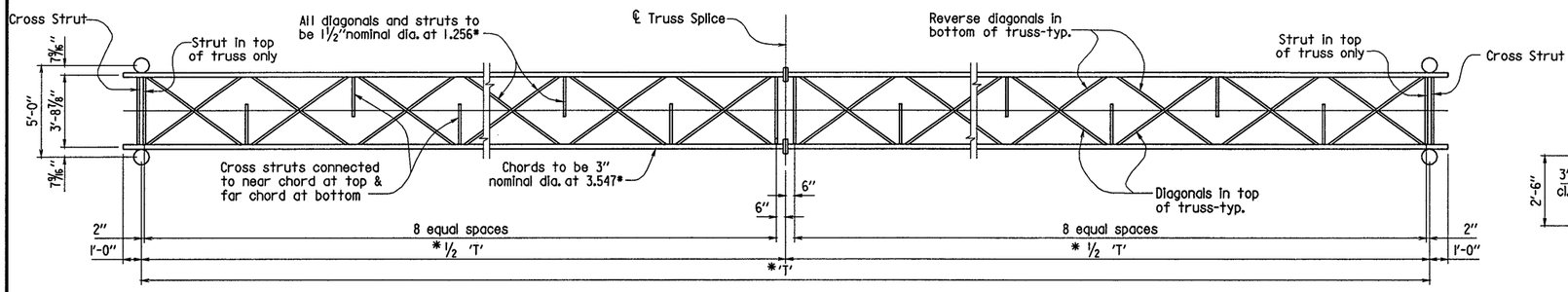
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: MAH DATE: 8-2-05
CHECKED BY: CAB DATE: 8-05
DESIGNED BY: MAH DATE: Aug. 05
FILENAME: br60080x4_b2.dgn
SCALE:

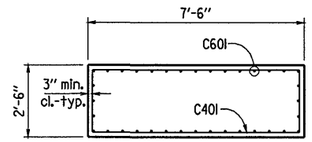
BRIDGE NO. 03054 DRAWING NO. 47449

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.		R60080	2	4
				(1) SEE TABLE		OVERHEAD SIGNS		47785



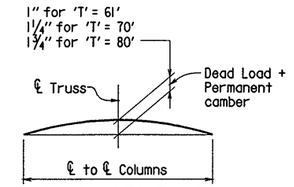
PLAN

Scale: ¼" = 1'-0"



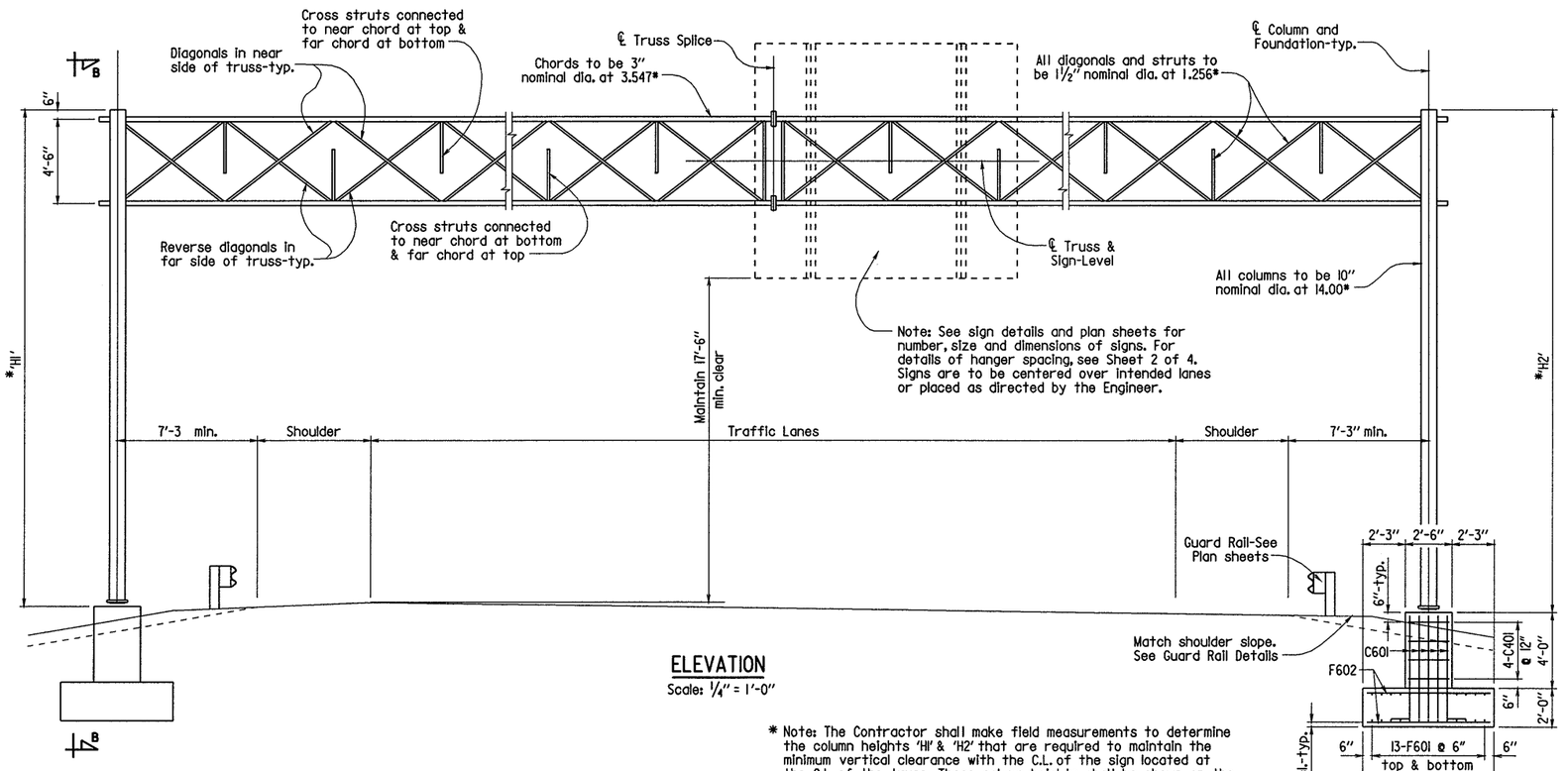
SECTION A-A

Scale: ⅜" = 1'-0"



TRUSS CAMBER DIAGRAM

No Scale



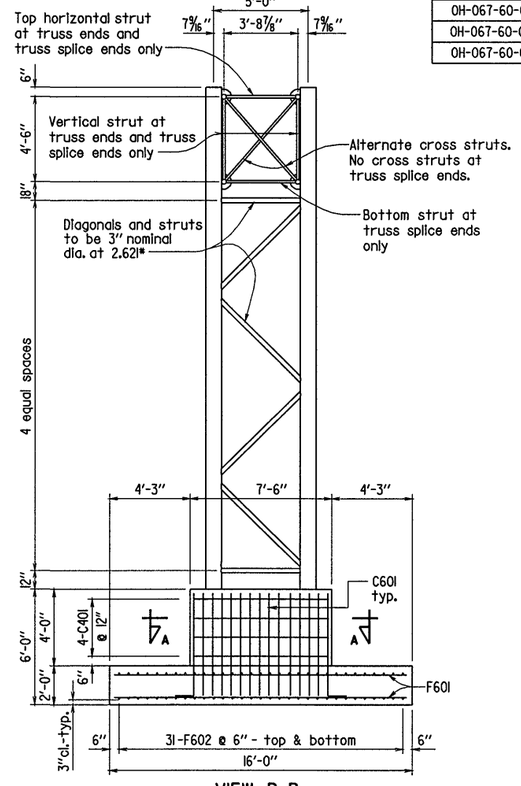
ELEVATION

Scale: ¼" = 1'-0"

* Note: The Contractor shall make field measurements to determine the column heights 'H1' & 'H2' that are required to maintain the minimum vertical clearance with the C.L. of the sign located at the C.L. of the truss. These column heights shall be shown on the shop drawings with a note stating that the contractor has made the required field measurements. If the structure height ('H1' or 'H2') exceeds 30'-0" contact Bridge Division. The Contractor shall also verify that the variable 'T' is sufficient to meet the minimum clearances and to fit the new structure to the existing and/or proposed conditions.

TABLE

Structure No.	*'T' (min.)
0H-067-60-01	68'-9"
0H-067-60-03	62'-6"
0H-067-60-04	62'-6"

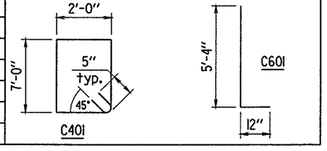


VIEW B-B

Scale: ¼" = 1'-0"

BAR LIST-PER SIGN STRUCTURE

MARK	NO. REQ'D.	LENGTH	P.D.	BENDING DIAGRAMS
C40I	8	18'-6"	3"	Dimensions are out to out of bars.
C60I	72	6'-3"	4½'	
F60I	52	15'-6"	Str.	
F602	124	6'-6"	Str.	



APPROXIMATE QUANTITIES (FOR INFORMATION ONLY)

STRUCTURE NUMBER	CLASS S CONCRETE (cu. yd.)	REINFORCING STEEL (pounds)	EXCAVATION (cu. yd.)
EACH STRUCTURE	22.15	3196	75

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4537
CHARLES P. BRAND
12-15-05

BRIDGE ENGINEER

SHEET 1 OF 4
DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES

ROUTE SEC.

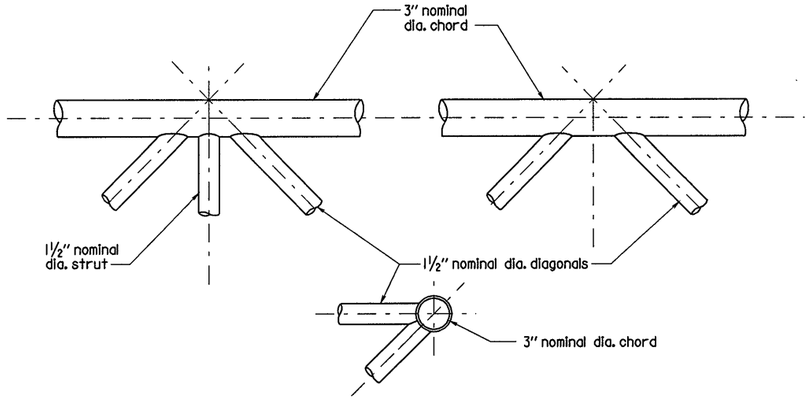
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

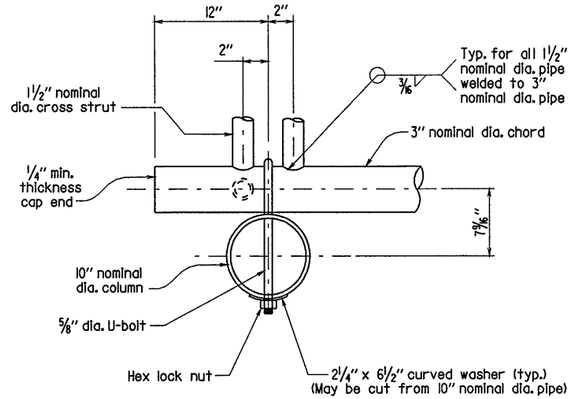
DRAWN BY: KDH DATE: 5-19-05 FILENAME: br60080ohsign_1.dgn
CHECKED BY: KWY DATE: 7-20-05 SCALE: AS NOTED
DESIGNED BY: STD. DATE:

STRUCTURE NO. SEE TABLE DRAWING NO. 47785

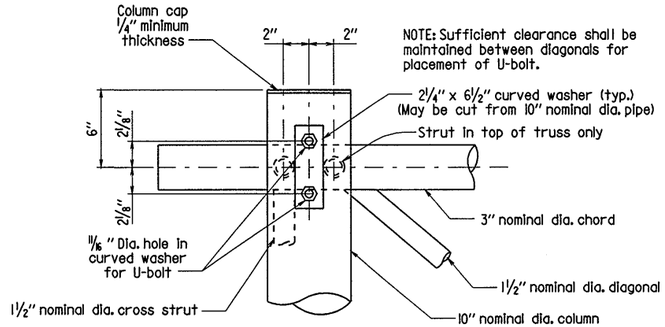
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	2	4
				(1) SEE TABLE		OVERHEAD SIGNS		47786



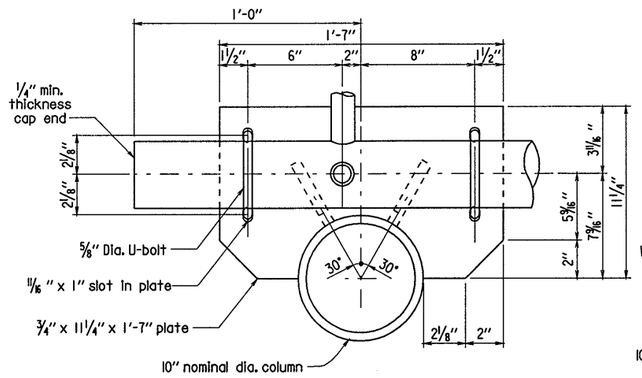
DETAILS OF JOINTS
No Scale



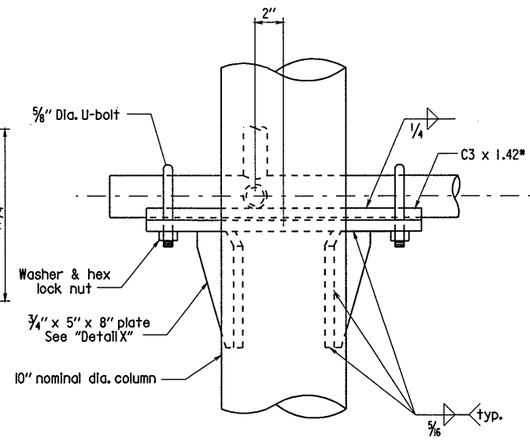
PLAN - TRUSS TOP SUPPORT
No Scale



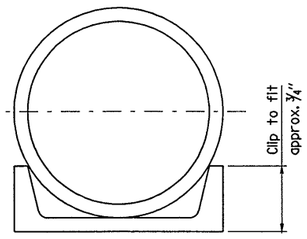
ELEVATION - TRUSS TOP SUPPORT
No Scale



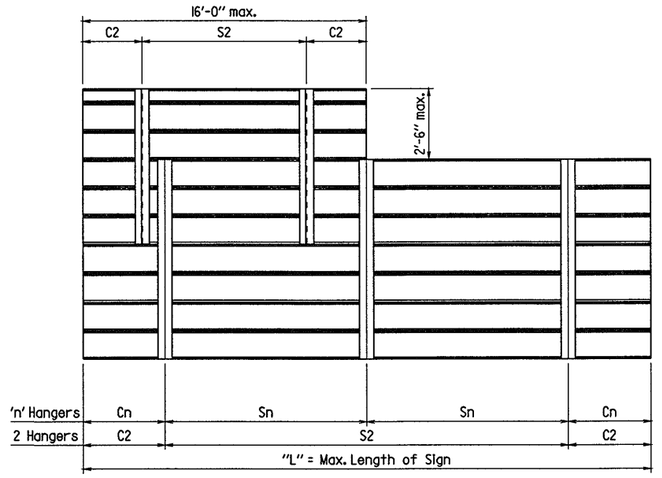
PLAN - TRUSS BOTTOM SUPPORT
No Scale



ELEVATION - TRUSS BOTTOM SUPPORT
No Scale



ENLARGEMENT
No Scale



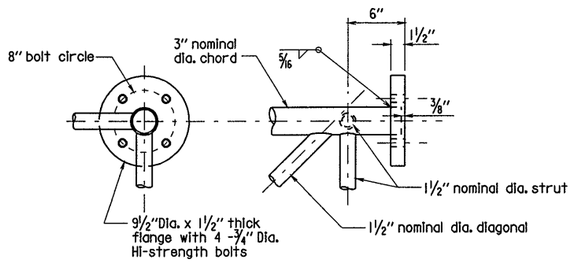
Note: See sign details and plan sheets for number, size and dimensions of signs.

HANGER SPACING DETAILS FOR EXTRUDED PANEL SIGNS
Scale: ⅜" = 1'-0"

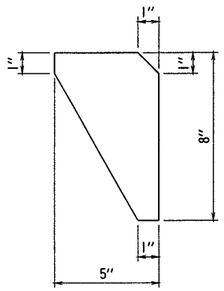
HANGER VARIABLES

Max. Length of Sign = "L"	"n" Hangers	Cantilever Length 'Cn'	Hanger Spacing 'Sn'
15'-0"	2 Hangers	0.21 x 'L'	0.58 x 'L'
30'-0"	3 Hangers	0.145 x 'L'	0.355 x 'L'
45'-0"	4 Hangers	0.107 x 'L'	0.262 x 'L'

Hanger spacing and cantilever length shall be rounded to the nearest inch.



DETAILS OF TRUSS SPLICE
No Scale



DETAIL X
No Scale

TABLE

Structure No.	*'T' (min.)
0H-067-60-01	68'-9"
0H-067-60-03	62'-6"
0H-067-60-04	62'-6"

STATE OF ARKANSAS
CHARLES P. BRAND
No. 4337
REGISTERED PROFESSIONAL ENGINEER
7/25/05
BRIDGE ENGINEER

SHEET 2 OF 4
DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES

ROUTE SEC.

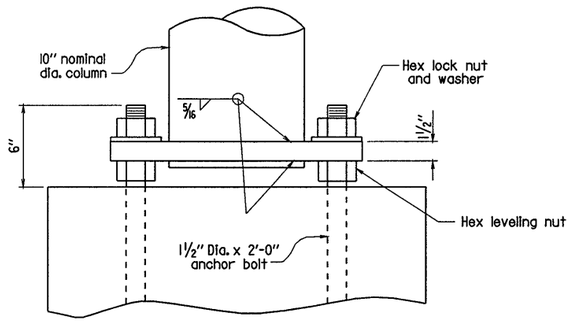
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-19-05
CHECKED BY: KWY DATE: 7-20-05
DESIGNED BY: STD. DATE:
FILENAME: br60080ohsign_2.dgn
SCALE: AS NOTED

STRUCTURE NO. SEE TABLE DRAWING NO. 47786

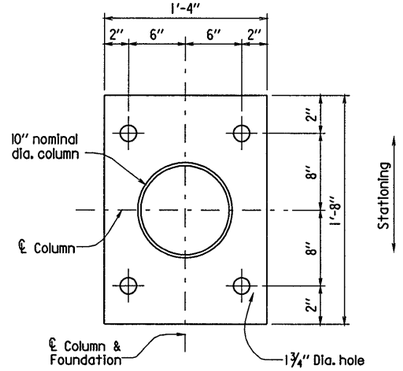
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				8	ARK.			
				JOB NO.		R60080		

(1) SEE TABLE OVERHEAD SIGNS 47787



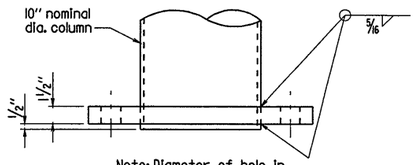
ELEVATION - COLUMN BASE

No Scale



PLAN - COLUMN BASE

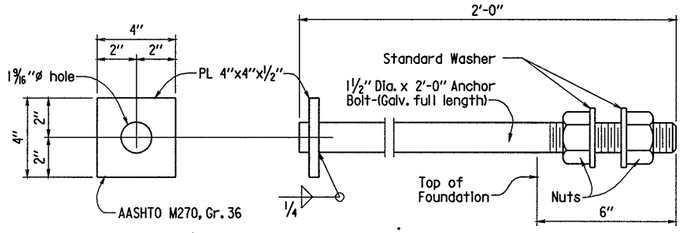
No Scale



Note: Diameter of hole in base plate to be ⅛" larger than column diameter

DETAIL OF COLUMN CONNECTION TO BASE PLATE

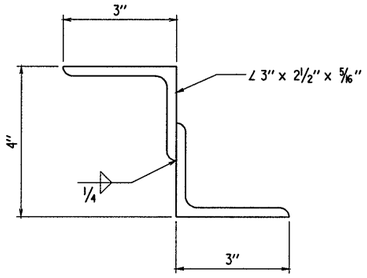
No scale



Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Section 807.07. Nuts for bolts shall be as specified in Section 807.07.

ANCHOR BOLT DETAIL

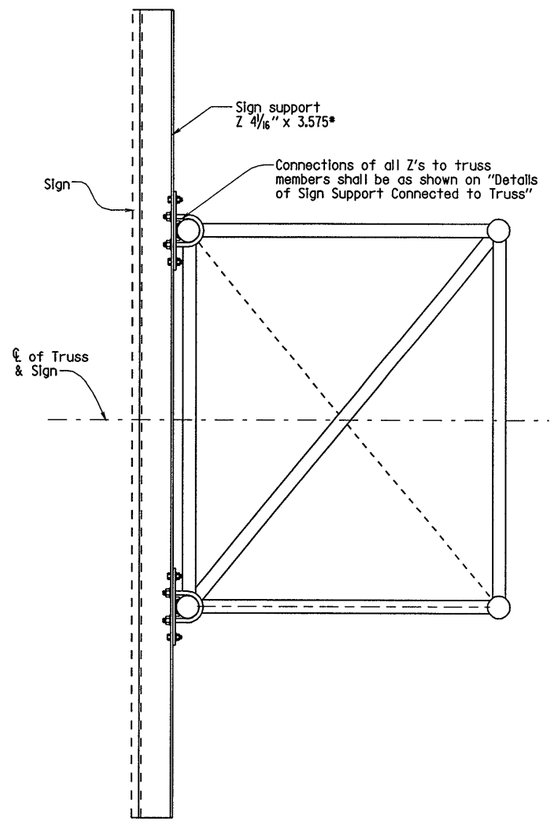
No Scale



NOTE: Structural Z support may be fabricated from angles as shown.

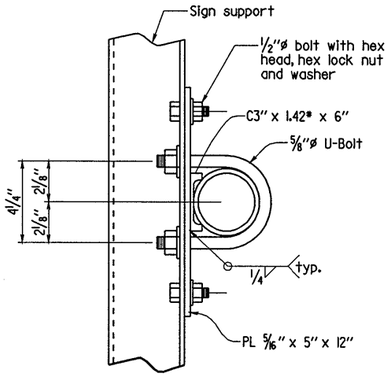
DETAILS OF ALTERNATE Z SUPPORT

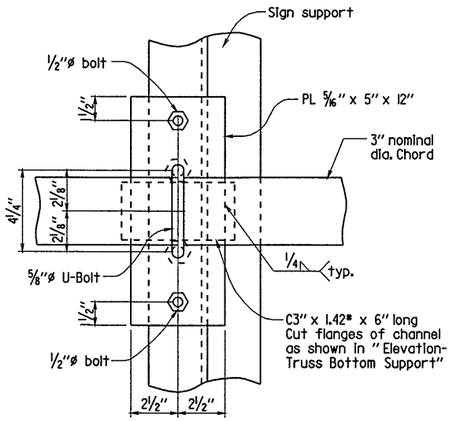
No Scale



SECTION THRU TRUSS

No Scale





DETAILS OF SIGN SUPPORT CONNECTED TO TRUSS

No Scale

TABLE

Structure No.	*'T' (min.)
OH-067-60-01	68'-9"
OH-067-60-03	62'-6"
OH-067-60-04	62'-6"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4367
CHARLES P. BRAND
12/05

BRIDGE ENGINEER

SHEET 3 OF 4
DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-19-05
CHECKED BY: KWY DATE: 7-20-05
DESIGNED BY: STP. DATE:

FILENAME: br60080ohsign_3.dgn
SCALE: AS NOTED

STRUCTURE NO. SEE TABLE DRAWING NO. 47787

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.		R60080	354	643

(1) SEE TABLE OVERHEAD SIGNS 47788

GENERAL NOTES

Construction Specifications: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2003, with applicable Special Provisions and Supplemental Specifications.

Design Specifications: Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, AASHTO 2001 with the 2002 and 2003 Interims.

Basic Wind Speed = 90 m.p.h.

This structure is approved for 800 square feet of sign area. Use of additional sign area must be approved by the Engineer.

If the structure height ('H1' or 'H2') exceeds 30'-0" contact Bridge Division.

FOUNDATION MATERIALS AND STRENGTHS:
Class S Concrete ..... f'c = 4,000 psi
Reinforcing Steel (AASHTO M31 or M53, Grade 60) ..... fy = 60,000 psi

Aluminum sign support members shall comply to the following specifications for aluminum alloy:

Extrusions - Rods, Bars, and Shapes:	ASTM B 221, 6061-T6.
Rolled Shapes:	ASTM B 308, 6061-T6.
Sheet and Plate:	ASTM B 209, 6061-T6.
Pipe:	ASTM B 241, 6061-T6.
Extruded Tubing:	ASTM B 221, 6061-T6.
Chord and Post Caps:	Sand Castings: ASTM B26, 356-T6 or Plate: ASTM B209, 6061-T6.
Bolts:	ASTM B 211, 2024-T4.
Nuts:	ASTM B 211, 6061-T6 or 6262-T9.
Locknuts - Approved Type:	ASTM B 211, 2017-T4.
Washers:	ASTM B 209, Alclad 2024-T4.
Panel Clips, Fittings:	Permanent Mold Castings ASTM B108, A356-T61
Splice Flanges Welded:	ASTM B 209, 6061-T6.
Welding Rods, Electrodes:	ER4043 or ER5556, AWS A5.10, Consumable Electrode Type

Extruded aluminum tubing, not less in diameter and wall thickness than that of the member shown, may be used in lieu of pipe.

For aluminum sign supports, M164 Type I bolts, galvanized according to Subsection 807.06 may be used in lieu of aluminum alloy. Nuts for bolts shall be furnished and galvanized in accordance with Subsection 807.06.

Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Section 807.07. Nuts for bolts shall be as specified in Section 807.07.

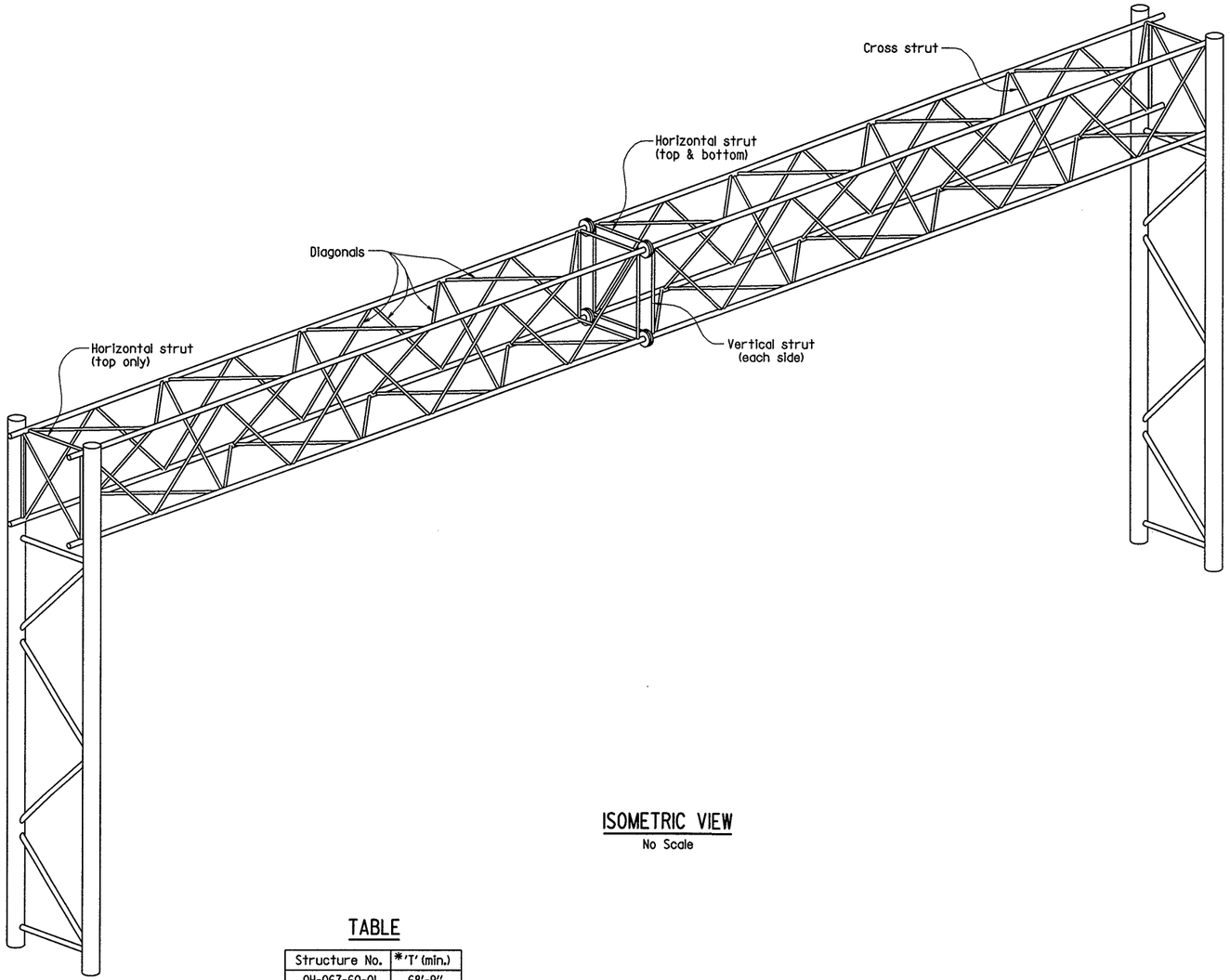
U-bolts and flange splice bolts shall comply with AASHTO M164 Type I, galvanized according to Subsection 807.06. Nuts and washers for AASHTO M164 Type I bolts shall be furnished and galvanized in accordance with subsection 807.06.

Locknuts to be equipped with nylon locking inserts or other approved type locking system. Locknuts to be installed according to manufacturer's recommendations.

All aluminum welds to be consumable electrode type using aluminum alloy ER5556 for material thickness greater than 0.375 inch or ER5556 or ER4043 for material thickness less than or equal to 0.375 inch, as filler material, AWS A5.10, minimum test strength 24,000 psi.

The excavations for the footings shall be back-filled before the structure is attached to the foundations

The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and to fit the new structures to the existing conditions.



ISOMETRIC VIEW
No Scale

TABLE

Structure No.	*'T' (min.)
0H-067-60-01	68'-9"
0H-067-60-03	62'-6"
0H-067-60-04	62'-6"

STATE OF ARKANSAS
CHARLES P. BRAND
No. 4537
REGISTERED PROFESSIONAL ENGINEER
5-20-05

BRIDGE ENGINEER

SHEET 4 OF 4
DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES

ROUTE SEC.

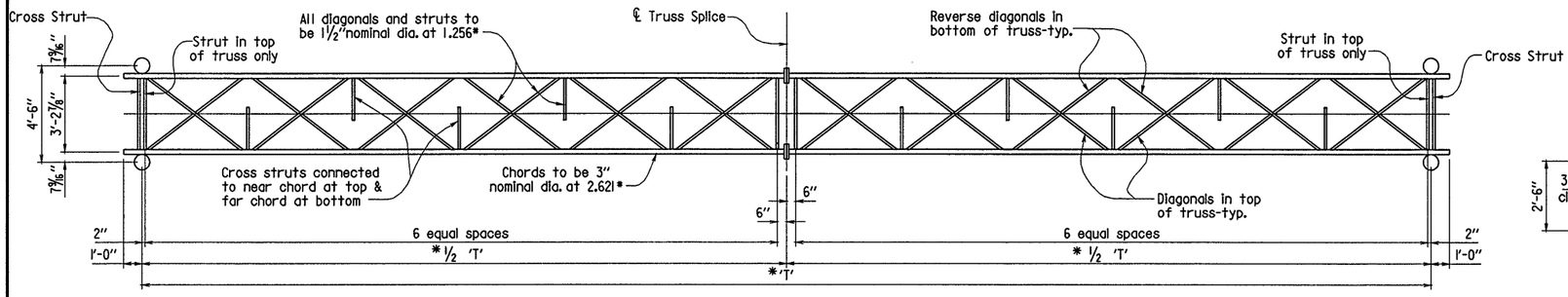
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-19-05 FILENAME: br60080ohsign_4.dgn
CHECKED BY: CWY DATE: 5-20-05 SCALE: AS NOTED
DESIGNED BY: STD. DATE:

STRUCTURE NO. SEE TABLE DRAWING NO. 47788

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.		R60080	35	63

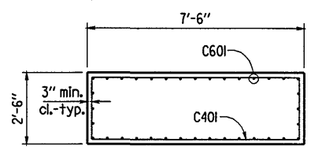
(1) OH-067-60-02 OVERHEAD SIGNS 47789



PLAN

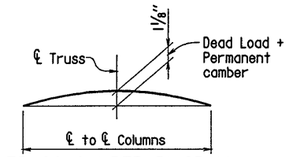
Scale: ¼" = 1'-0"

*'T' = 54'-6"



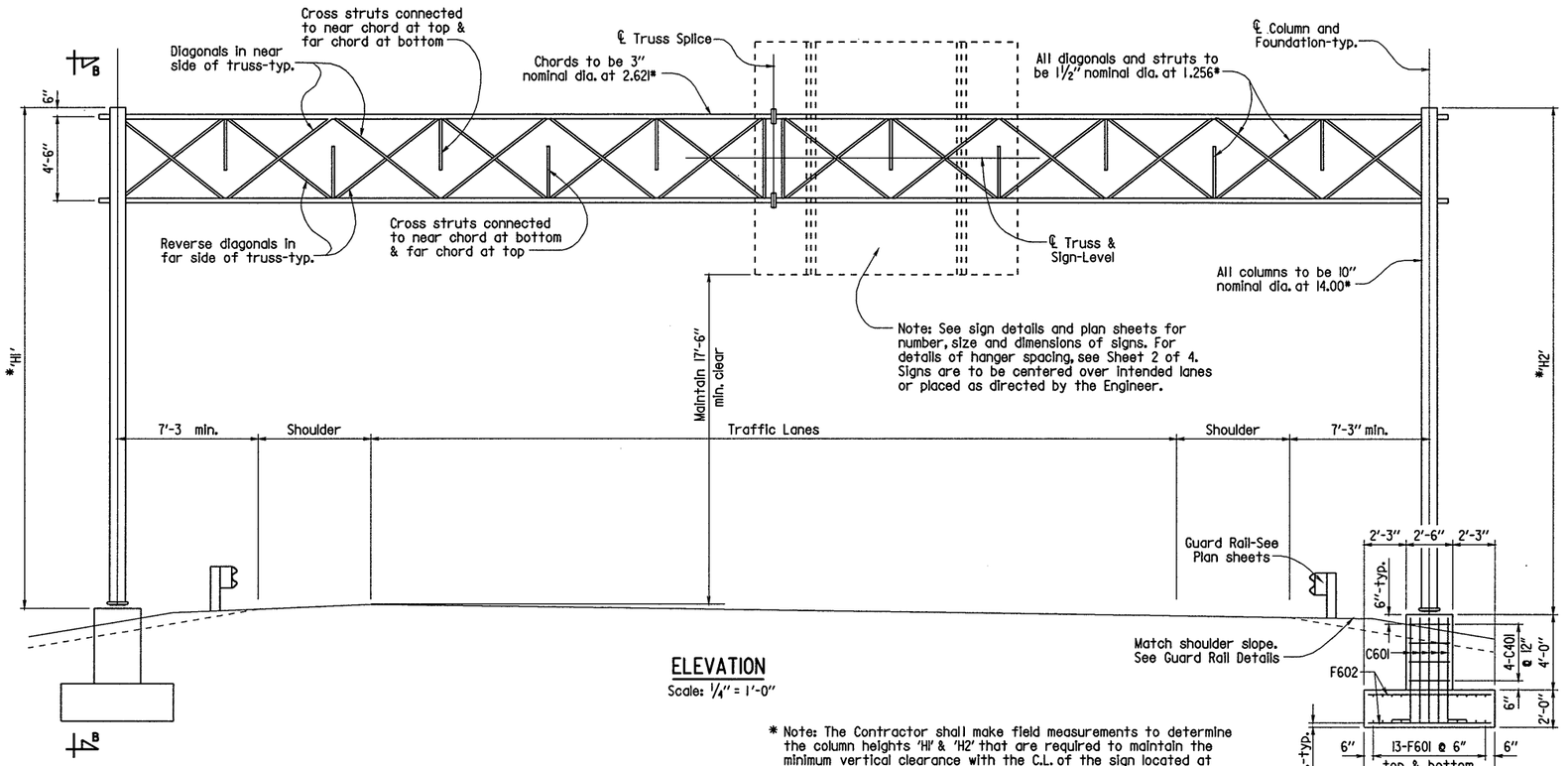
SECTION A-A

Scale: ⅜" = 1'-0"



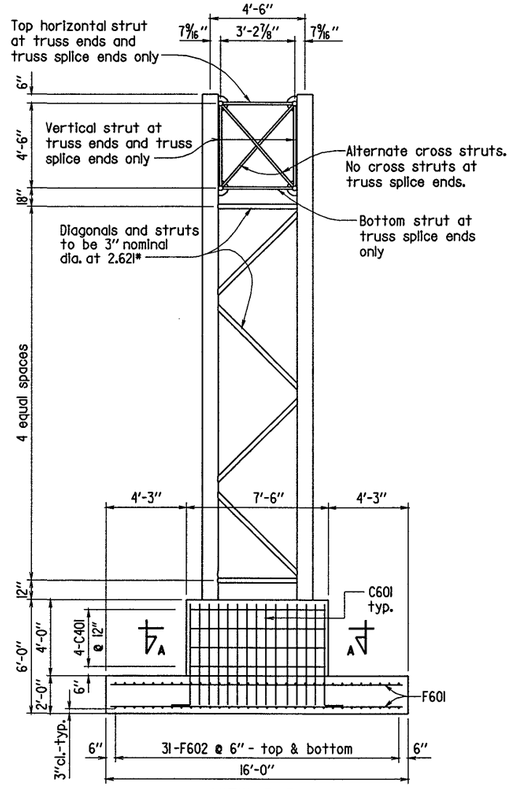
TRUSS CAMBER DIAGRAM

No Scale



ELEVATION

Scale: ¼" = 1'-0"



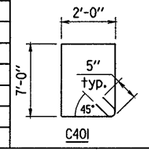
VIEW B-B

Scale: ¼" = 1'-0"

* Note: The Contractor shall make field measurements to determine the column heights 'H1' & 'H2' that are required to maintain the minimum vertical clearance with the C.L. of the sign located at the C.L. of the truss. These column heights shall be shown on the shop drawings with a note stating that the contractor has made the required field measurements. If the structure height ('H1' or 'H2') exceeds 30'-0" contact Bridge Division. The Contractor shall also verify that the variable 'T' is sufficient to meet the minimum clearances and to fit the new structure to the existing and/or proposed conditions.

BAR LIST-PER SIGN STRUCTURE

MARK	NO. REQ'D.	LENGTH	P.D.	BENDING DIAGRAMS
C40I	8	18'-6"	3"	Dimensions are out to out of bars.
C60I	72	6'-3"	4½'	
F60I	52	15'-6"	Str.	
F602	124	6'-6"	Str.	



APPROXIMATE QUANTITIES (FOR INFORMATION ONLY)

STRUCTURE NUMBER	CLASS S CONCRETE (cu. yd.)	REINFORCING STEEL (pounds)	EXCAVATION (cu. yd.)
EACH STRUCTURE	22.15	3196	75

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4337 CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 1 OF 4

DETAILS FOR STANDARD 41' TO 60' OVERHEAD SIGN STRUCTURES

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

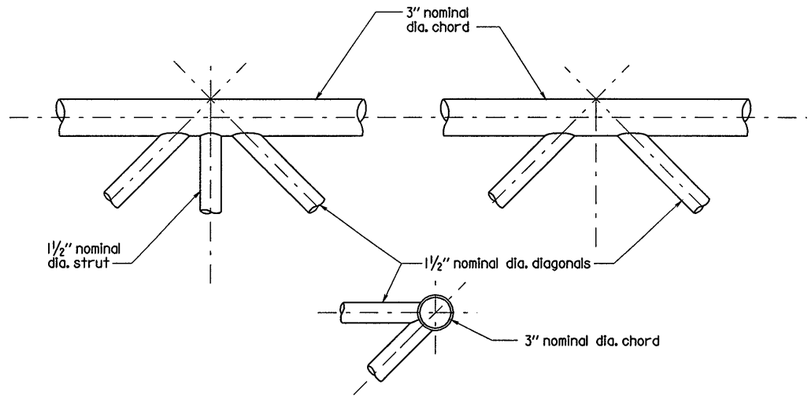
DRAWN BY: KDH DATE: 5-19-05 FILENAME: br60080ohsign_5.dgn

CHECKED BY: KWV DATE: 7-20-05 SCALE: AS NOTED

DESIGNED BY: STD. DATE:

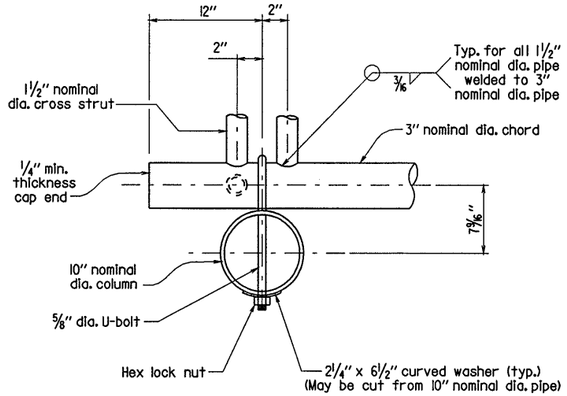
STRUCTURE NO. OH-067-60-02 DRAWING NO. 47789

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.		R60080	32	63
				(1) OH-067-60-02 OVERHEAD SIGNS			47790	



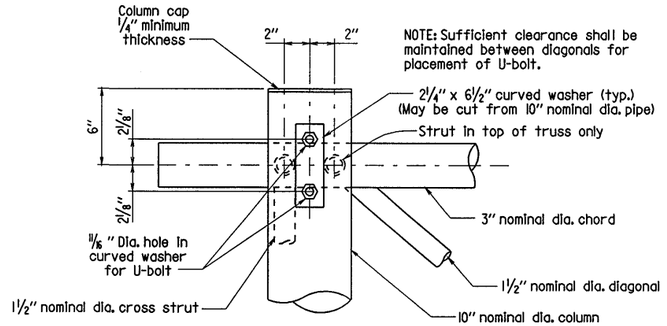
DETAILS OF JOINTS

No Scale



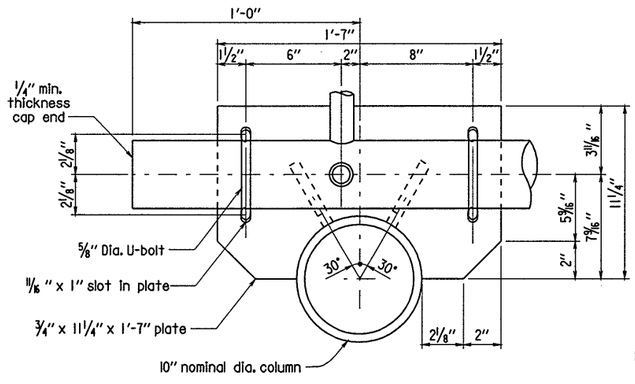
PLAN - TRUSS TOP SUPPORT

No Scale



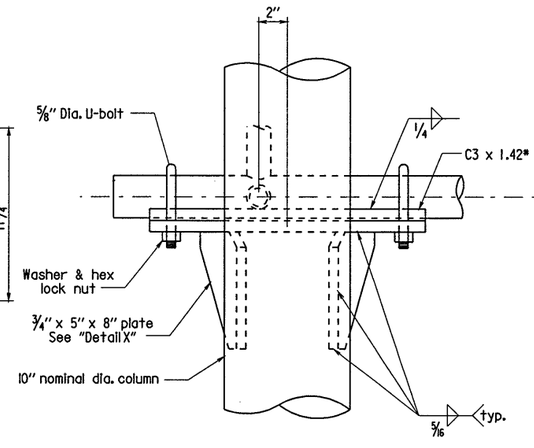
ELEVATION - TRUSS TOP SUPPORT

No Scale



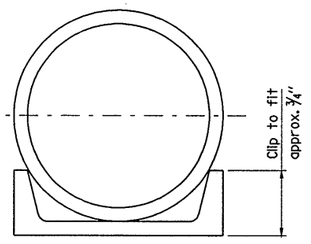
PLAN - TRUSS BOTTOM SUPPORT

No Scale



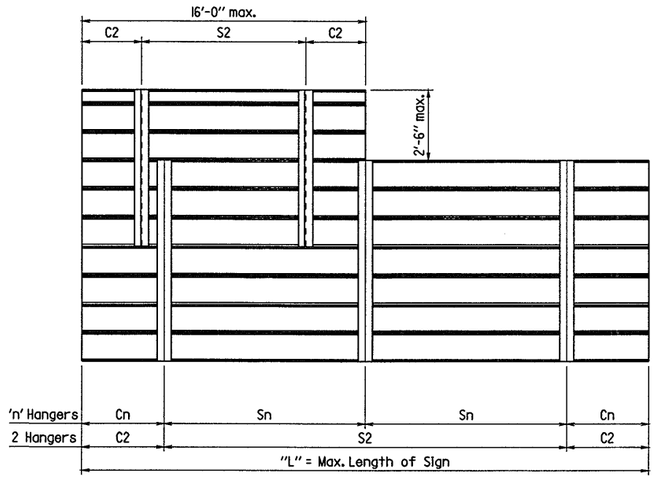
ELEVATION - TRUSS BOTTOM SUPPORT

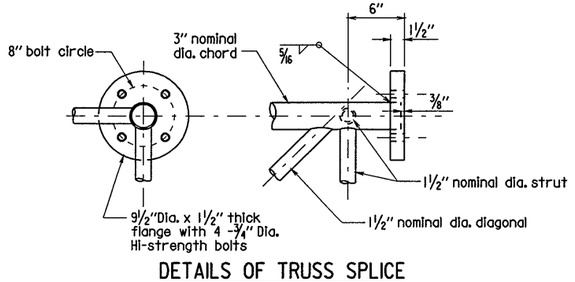
No Scale



ENLARGEMENT

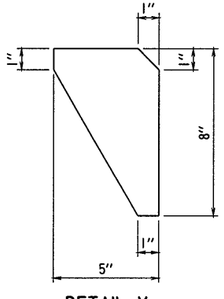
No Scale





DETAILS OF TRUSS SPLICE

No Scale



DETAIL X

No Scale

HANGER VARIABLES

Max. Length of Sign = "L"	"n" Hangers	Cantilever Length 'Cn"	Hanger Spacing 'Sn'
15'-0"	2 Hangers	0.21 x 'L'	0.58 x 'L'
30'-0"	3 Hangers	0.145 x 'L'	0.355 x 'L'
45'-0"	4 Hangers	0.107 x 'L'	0.262 x 'L'

Hanger spacing and cantilever length shall be rounded to the nearest inch.

Note: See sign details and plan sheets for number , size and dimensions of signs.

HANGER SPACING DETAILS FOR EXTRUDED PANEL SIGNS

Scale: ⅜" = 1'-0"

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4337 CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 2 OF 4
DETAILS FOR STANDARD 41' TO 60' OVERHEAD SIGN STRUCTURES

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

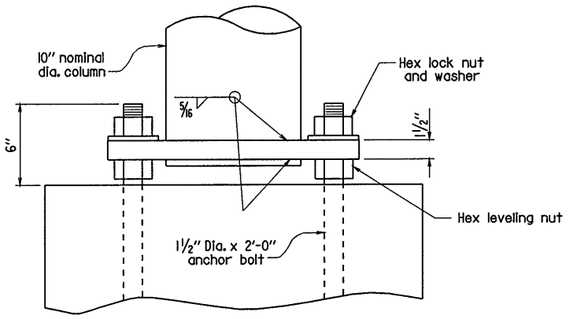
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-19-05 FILENAME: br-60080ohsign_6.dgn
CHECKED BY: KWV DATE: 7-20-05 SCALE: AS NOTED
DESIGNED BY: STD DATE:

STRUCTURE NO. OH-067-60-02 DRAWING NO. 47790

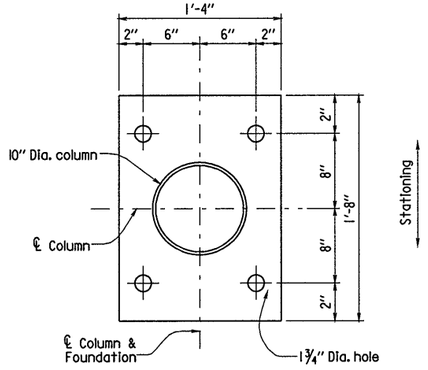
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	39	60

(1) OH-067-60-02 OVERHEAD SIGNS 47791



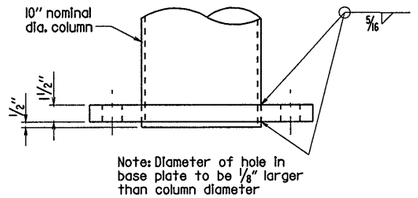
ELEVATION - COLUMN BASE

No Scale



PLAN - COLUMN BASE

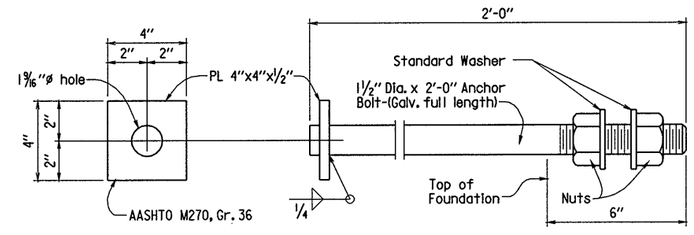
No Scale



Note: Diameter of hole in base plate to be ⅛" larger than column diameter

DETAIL OF COLUMN CONNECTION TO BASE PLATE

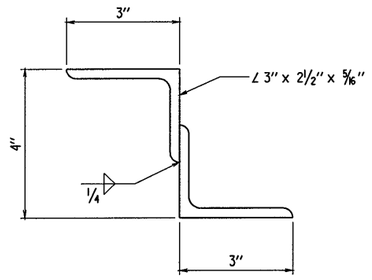
No scale



Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Section 807.07. Nuts for bolts shall be as specified in Section 807.07.

ANCHOR BOLT DETAIL

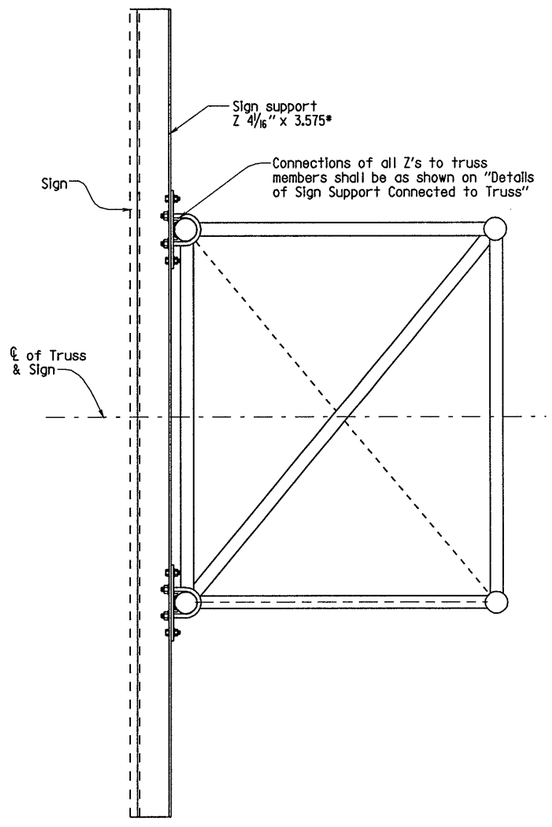
No Scale



NOTE: Structural Z support may be fabricated from angles as shown.

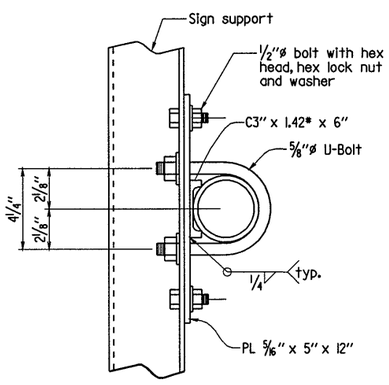
DETAILS OF ALTERNATE Z SUPPORT

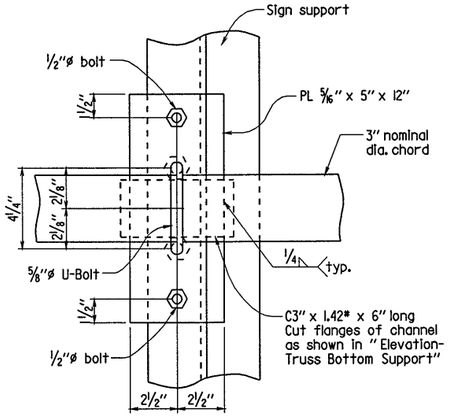
No Scale



SECTION THRU TRUSS

No Scale





DETAILS OF SIGN SUPPORT CONNECTED TO TRUSS

No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES T. BRAND

BRIDGE ENGINEER

SHEET 3 OF 4
DETAILS FOR STANDARD 41' TO 60' OVERHEAD SIGN STRUCTURES

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-19-05
CHECKED BY: RWY DATE: 7-20-05
DESIGNED BY: STD. DATE:
FILENAME: br60080ohsign_7.dgn
SCALE: AS NOTED

STRUCTURE NO. OH-067-60-02 DRAWING NO. 47791

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.		R60080	4	4
				(1) OH-067-60-02 OVERHEAD SIGNS			47792	

GENERAL NOTES

Construction Specifications: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2003, with applicable Special Provisions and Supplemental Specifications.

Design Specifications: Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, AASHTO 2001 with the 2002 and 2003 Interims.

Basic Wind Speed = 90 m.p.h.

This structure is approved for 800 square feet of sign area. Use of additional sign area must be approved by the Engineer.

If the structure height ('H1' or 'H2') exceeds 30'-0" contact Bridge Division.

FOUNDATION MATERIALS AND STRENGTHS:
Class S Concrete ..... f'c = 4,000 psi
Reinforcing Steel (AASHTO M31 or M53, Grade 60) ... fy = 60,000 psi

Aluminum sign support members shall comply to the following specifications for aluminum alloy:

Extrusions - Rods, Bars, and Shapes:	ASTM B 221, 6061-T6.
Rolled Shapes:	ASTM B 308, 6061-T6.
Sheet and Plate:	ASTM B 209, 6061-T6.
Pipe:	ASTM B 241, 6061-T6.
Extruded Tubing:	ASTM B 221, 6061-T6.
Chord and Post Caps:	Sand Castings: ASTM B26, 356-T6 or Plate: ASTM B209, 6061-T6.
Bolts:	ASTM B 211, 2024-T4.
Nuts:	ASTM B 211, 6061-T6 or 6262-T9.
Locknuts - Approved Type:	ASTM B 211, 2017-T4.
Washers:	ASTM B 209, Alclad 2024-T4.
Panel Clips, Fittings:	Permanent Mold Castings ASTM B108, A356-T61
Splice Flanges Welded:	ASTM B 209, 6061-T6.
Welding Rods, Electrodes:	ER4043 or ER5556, AWS A5.10, Consumable Electrode Type

Extruded aluminum tubing, not less in diameter and wall thickness than that of the member shown, may be used in lieu of pipe.

For aluminum sign supports, M164 Type 1 bolts, galvanized according to Subsection 807.06 may be used in lieu of aluminum alloy. Nuts for bolts shall be furnished and galvanized in accordance with Subsection 807.06.

Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Section 807.07. Nuts for bolts shall be as specified in Section 807.07.

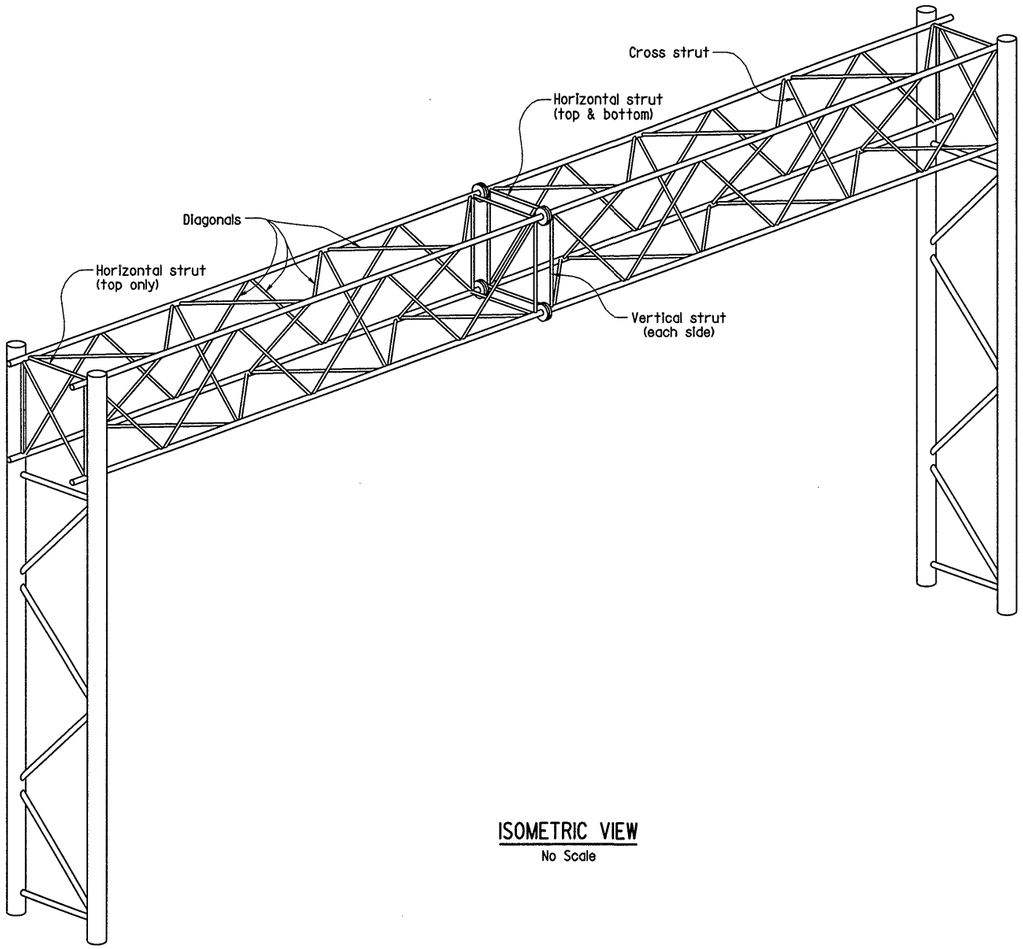
U-bolts and flange splice bolts shall comply with AASHTO M164 Type 1, galvanized according to Subsection 807.06. Nuts and washers for AASHTO M164 Type 1 bolts shall be furnished and galvanized in accordance with subsection 807.06.

Locknuts to be equipped with nylon locking inserts or other approved type locking system. Locknuts to be installed according to manufacturer's recommendations.

All aluminum welds to be consumable electrode type using aluminum alloy ER5556 for material thickness greater than 0.375 inch or ER5556 or ER4043 for material thickness less than or equal to 0.375 inch, as filler material, AWS A5.10, minimum test strength 24,000 psi.

The excavations for the footings shall be back-filled before the structure is attached to the foundations

The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and to fit the new structures to the existing conditions.



ISOMETRIC VIEW
No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
5/19/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 4 OF 4
DETAILS FOR STANDARD 41' TO 60' OVERHEAD SIGN STRUCTURES

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

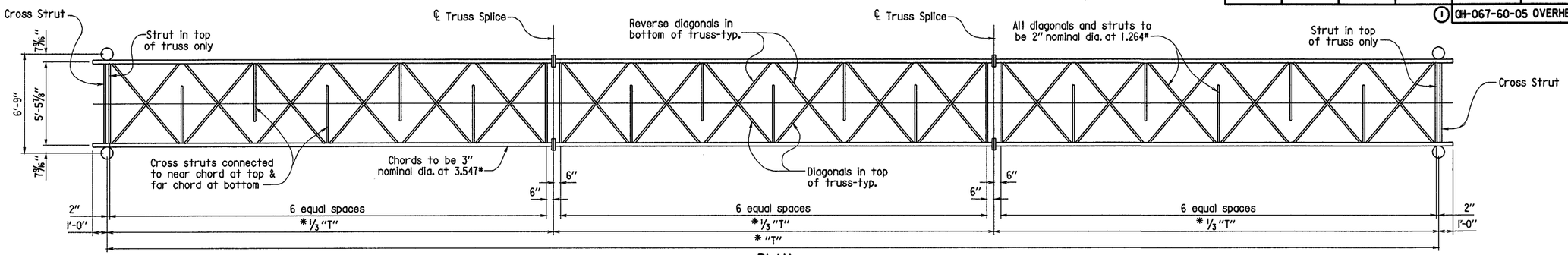
DRAWN BY: KDH DATE: 5-19-05 FILENAME: br60080ohsign_8.dgn
CHECKED BY: KWY DATE: 5-20-05 SCALE: AS NOTED
DESIGNED BY: STD. DATE:

STRUCTURE NO. OH-067-60-02 DRAWING NO. 47792

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

RTE. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	37	603

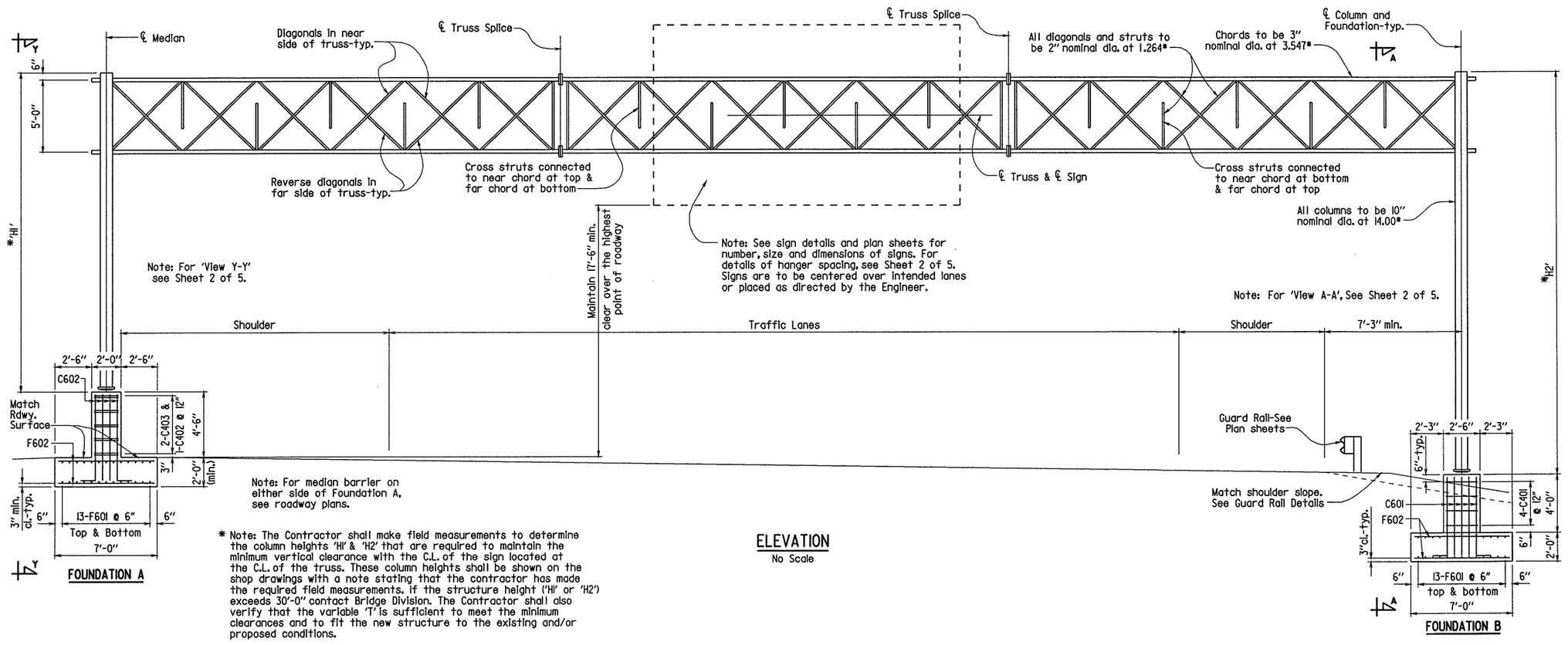
(1) OH-067-60-05 OVERHEAD SIGNS 47793



PLAN

Scale: 1/4" = 1'-0"

*'T' = 85'-3"



FOUNDATION A

FOUNDATION B

Note: For median barrier on either side of Foundation A, see roadway plans.

* Note: The Contractor shall make field measurements to determine the column heights 'H1' & 'H2' that are required to maintain the minimum vertical clearance with the C.L. of the sign located at the C.L. of the truss. These column heights shall be shown on the shop drawings with a note stating that the contractor has made the required field measurements. If the structure height ('H1' or 'H2') exceeds 30'-0" contact Bridge Division. The Contractor shall also verify that the variable 'T' is sufficient to meet the minimum clearances and to fit the new structure to the existing and/or proposed conditions.

ELEVATION

No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 1 OF 5
DETAILS FOR STANDARD 81' TO 100' OVERHEAD SIGN STRUCTURES WITH MEDIAN FOUNDATION

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

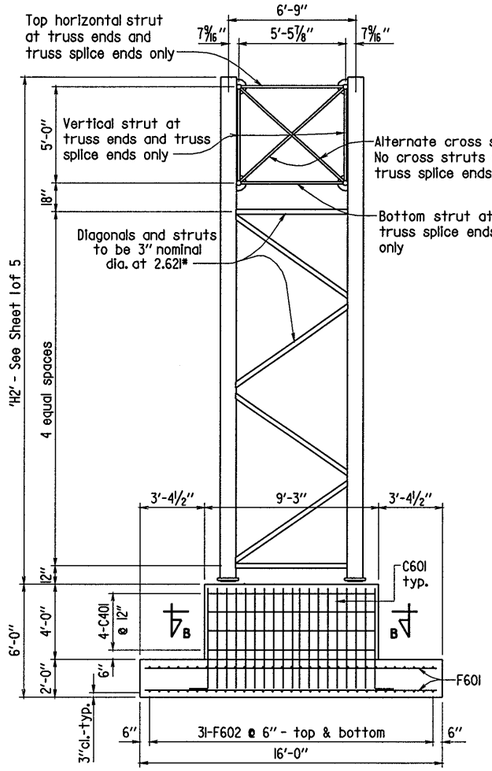
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-19-05
CHECKED BY: CWY DATE: 7-20-05
DESIGNED BY: STO. DATE:
FILENAME: br60080ohmed_1.dgn
SCALE: AS NOTED

STRUCTURE NO. OH-067-60-05 DRAWING NO. 47793

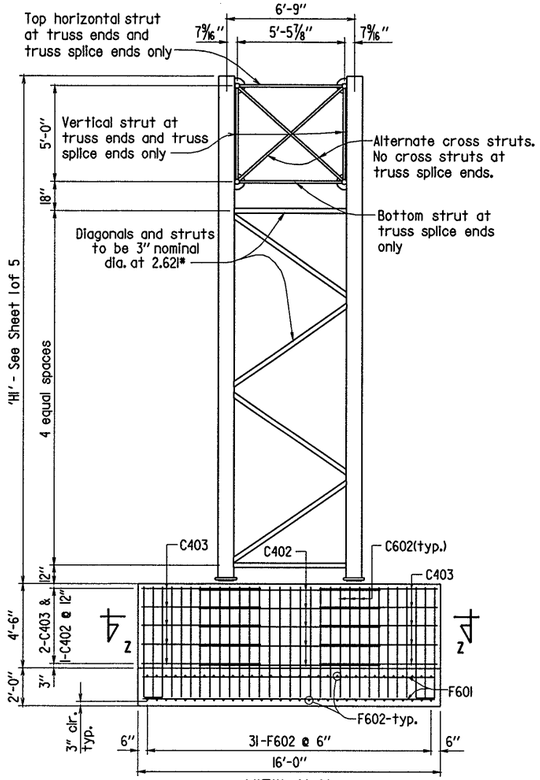
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	400	651

(1) 0H-067-60-05 OVERHEAD SIGNS 47794



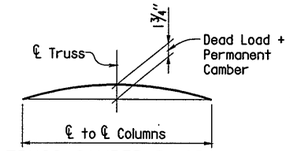
VIEW A-A

Scale: 1/4" = 1'-0"



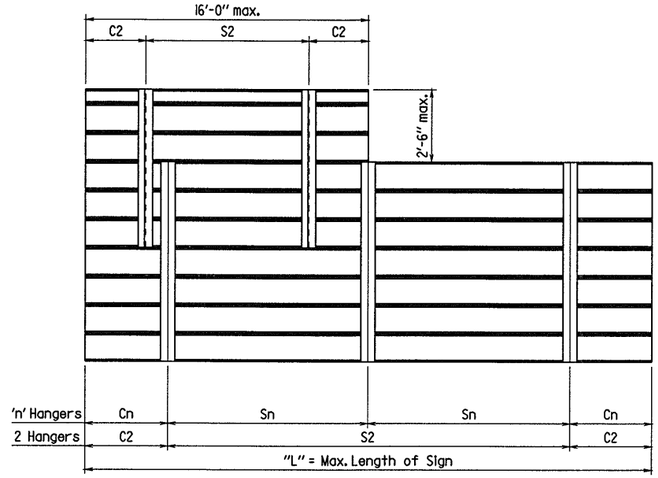
VIEW Y-Y

No Scale



TRUSS CAMBER DIAGRAM

No Scale



Note: See sign details and plan sheets for number, size and dimensions of signs.

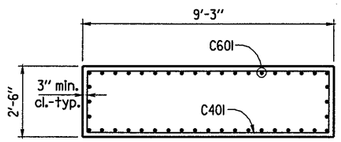
HANGER SPACING DETAILS FOR EXTRUDED PANEL SIGNS

Scale: 3/8" = 1'-0"

HANGER VARIABLES

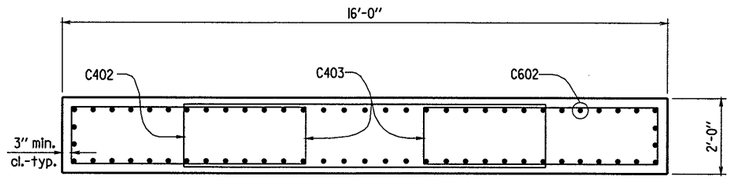
Max. Length of Sign = "L"	"n" Hangers	Cantilever Length 'Cn'	Hanger Spacing 'Sn'
15'-0"	2 Hangers	0.21 x 'L'	0.58 x 'L'
30'-0"	3 Hangers	0.145 x 'L'	0.355 x 'L'
45'-0"	4 Hangers	0.107 x 'L'	0.262 x 'L'

Hanger spacing and cantilever length shall be rounded to the nearest inch.



SECTION B-B

Scale: 3/8" = 1'-0"

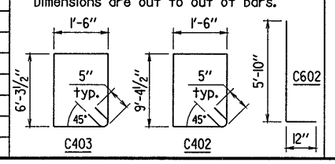


SECTION Z-Z

No Scale

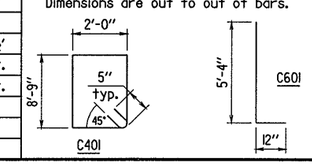
BAR LIST-FOUNDATION A

MARK	NO. REQ'D.	LENGTH	P.D.	BENDING DIAGRAMS
C402	5	22'-3"	3"	Dimensions are out to out of bars.
C403	10	16'-1"	3"	
C602	66	6'-9"	4 1/2"	
F601	26	15'-6"	Str.	
F602	62	6'-6"	Str.	



BAR LIST-FOUNDATION B

MARK	NO. REQ'D.	LENGTH	P.D.	BENDING DIAGRAMS
C401	4	22'-0"	3"	Dimensions are out to out of bars.
C601	44	6'-3"	4 1/2"	
F601	26	15'-6"	Str.	
F602	62	6'-6"	Str.	



APPROXIMATE QUANTITIES (FOR INFORMATION ONLY)

STRUCTURE NUMBER	CLASS S CONCRETE (cu. yd.)	REINFORCING STEEL (pounds)	EXCAVATION (cu. yd.)
FOUNDATION A	13.63	2062	-
FOUNDATION B	11.72	1682	38

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 2 OF 5
DETAILS FOR STANDARD 81' TO 100' OVERHEAD SIGN STRUCTURES WITH MEDIAN FOUNDATION

ROUTE SEC.

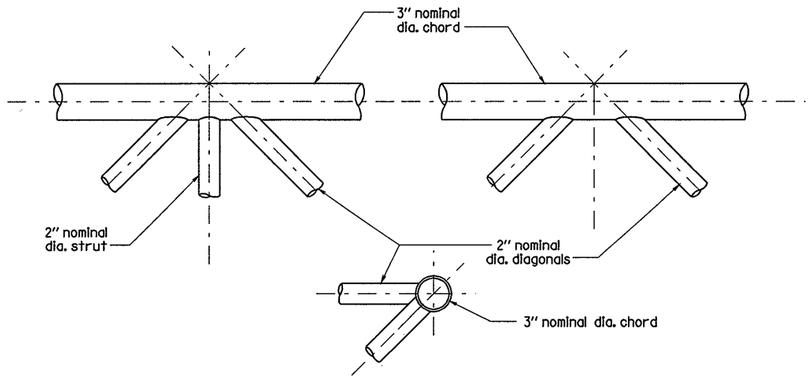
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-19-05 FILENAME: br60080ohmed_2.dgn
CHECKED BY: KWY DATE: 5-20-05 SCALE: AS NOTED
DESIGNED BY: STR DATE:

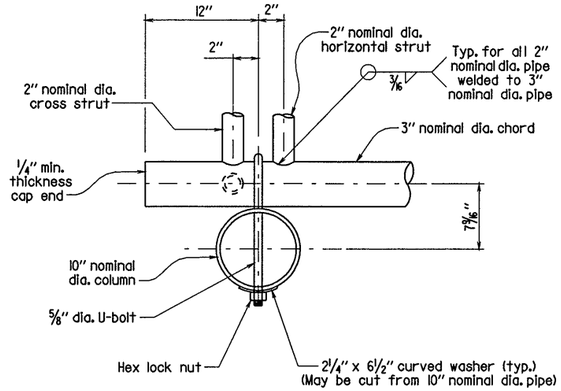
STRUCTURE NO. 0H-067-60-05 DRAWING NO. 47794

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.		R60080	401	405
				(1) OH-067-60-05 OVERHEAD SIGNS				47795



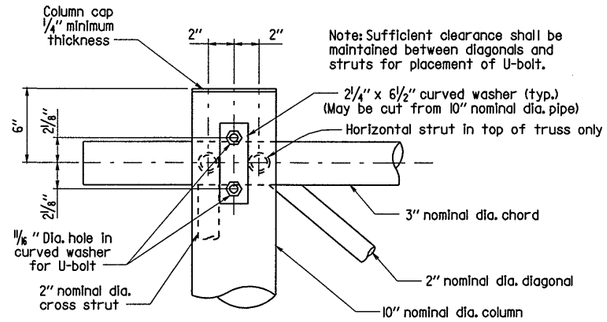
DETAILS OF JOINTS

No Scale



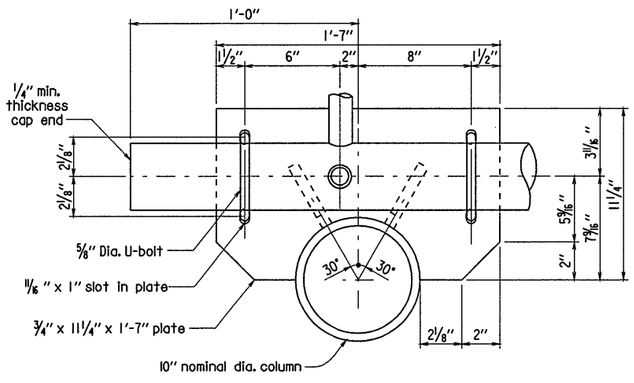
PLAN - TRUSS TOP SUPPORT

No Scale



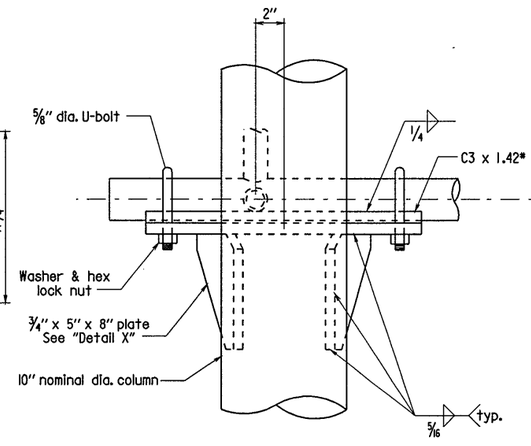
ELEVATION - TRUSS TOP SUPPORT

No Scale



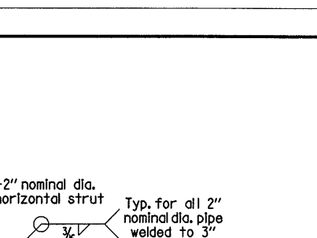
PLAN - TRUSS BOTTOM SUPPORT

No Scale



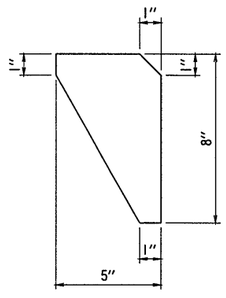
ELEVATION - TRUSS BOTTOM SUPPORT

No Scale



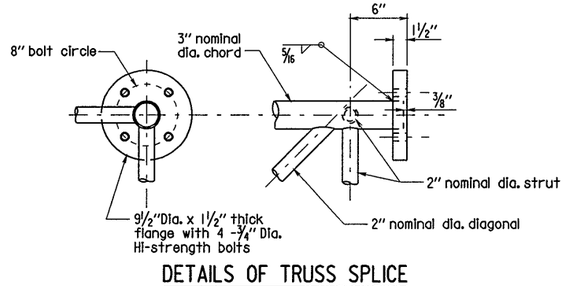
ENLARGEMENT

No Scale



DETAIL X

No Scale



DETAILS OF TRUSS SPLICE

No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 3 OF 5
DETAILS FOR STANDARD 81' TO 100'
OVERHEAD SIGN STRUCTURES
WITH MEDIAN FOUNDATION

ROUTE SEC.

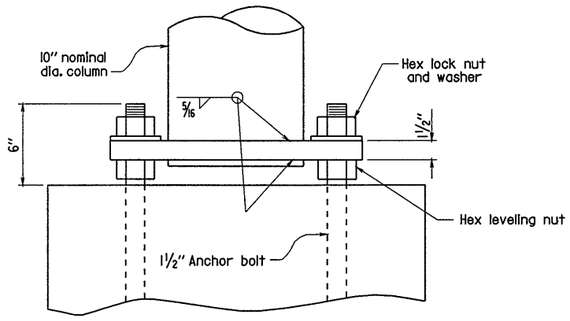
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-19-05 FILENAME: br60080ohmed_3.dgn
CHECKED BY: KWV DATE: 7-20-05 SCALE: AS NOTED
DESIGNED BY: CPB DATE:

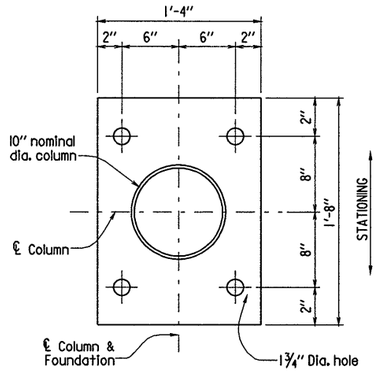
STRUCTURE NO. OH-067-60-05 DRAWING NO. 47795

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.		R60080	AD2609	
				(1) OH-067-60-05 OVERHEAD SIGNS				47796



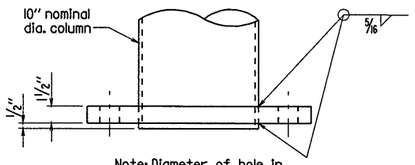
ELEVATION - COLUMN BASE

No Scale



PLAN - COLUMN BASE

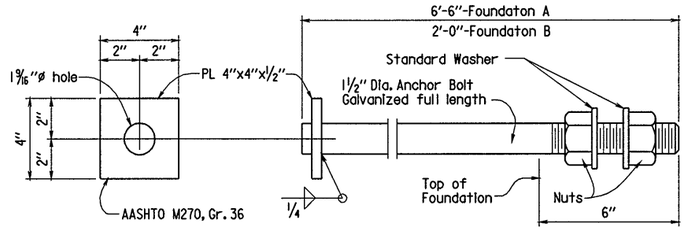
No Scale



Note: Diameter of hole in base plate to be ⅛" larger than column diameter

DETAIL OF COLUMN CONNECTION TO BASE PLATE

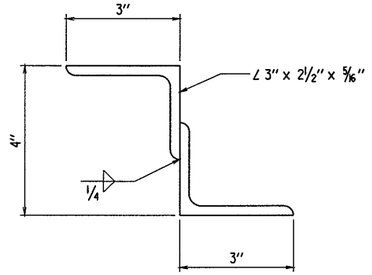
No scale



Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Section 807.07. Nuts for bolts shall be as specified in Section 807.07.

ANCHOR BOLT DETAIL

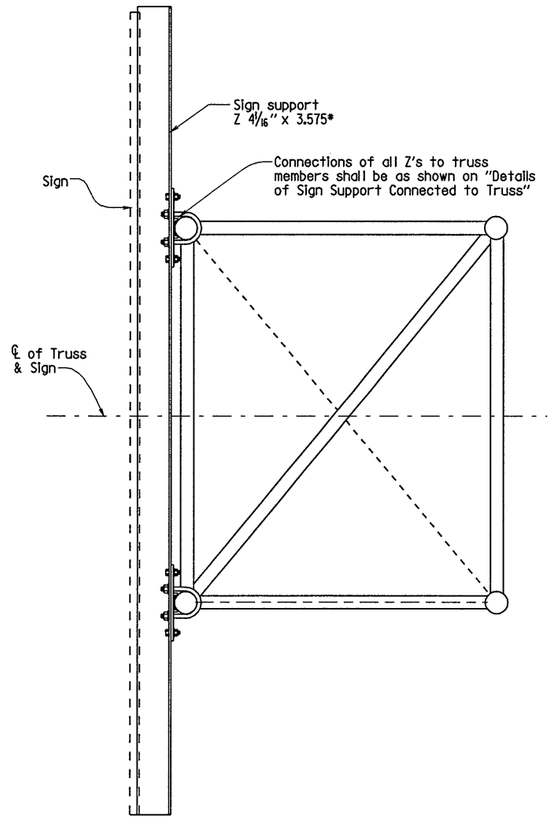
No Scale



NOTE: Structural Z support may be fabricated from angles as shown.

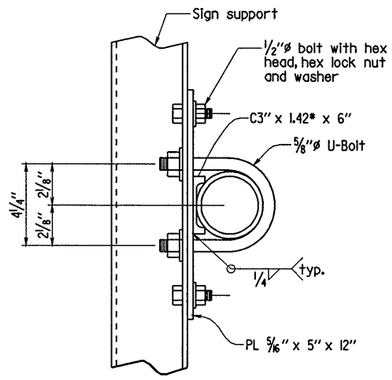
DETAILS OF ALTERNATE Z SUPPORT

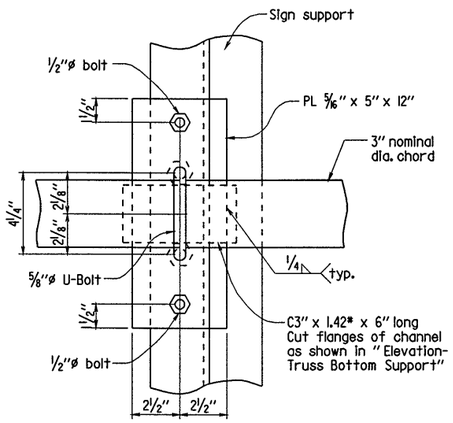
No Scale



SECTION THRU TRUSS

No Scale





DETAILS OF SIGN SUPPORT CONNECTED TO TRUSS

No Scale

STATE OF ARKANSAS
CHARLES P. BRAND
REGISTERED PROFESSIONAL ENGINEER
No. 4937
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 4 OF 5
DETAILS FOR STANDARD 81' TO 100' OVERHEAD SIGN STRUCTURES WITH MEDIAN FOUNDATION

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-19-05
CHECKED BY: KWY DATE: 7-12-05
DESIGNED BY: STD. DATE:
FILENAME: br60080ohmed_4.dgn
SCALE: AS NOTED

STRUCTURE NO. OH-067-60-05 DRAWING NO. 47796

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.		R60080	403	607

(1) OH-067-60-05 OVERHEAD SIGNS 47797

GENERAL NOTES

Construction Specifications: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2003, with applicable Special Provisions and Supplemental Specifications.

Design Specifications: Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, AASHTO 2001 with the 2002 and 2003 Interims.

Basic Wind Speed = 90 m.p.h.

This structure is approved for 800 square feet of sign area. Use of additional sign area must be approved by the Engineer.

If the structure height ('H1' or 'H2') exceeds 30'-0" contact Bridge Division.

FOUNDATION MATERIALS AND STRENGTHS:
Class S Concrete ..... f'c = 4,000 psi
Reinforcing Steel (AASHTO M31 or M53, Grade 60) ..... fy = 60,000 psi

Aluminum sign support members shall comply to the following specifications for aluminum alloy:

Extrusions - Rods, Bars, and Shapes:	ASTM B 221, 6061-T6.
Rolled Shapes:	ASTM B 308, 6061-T6.
Sheet and Plate:	ASTM B 209, 6061-T6.
Pipe:	ASTM B 241, 6061-T6.
Extruded Tubing:	ASTM B 221, 6061-T6.
Chord and Post Caps:	Sand Castings: ASTM B26, 356-T6 or Plate: ASTM B209, 6061-T6.
Bolts:	ASTM B 211, 2024-T4.
Nuts:	ASTM B 211, 6061-T6 or 6262-T9.
Locknuts - Approved Type:	ASTM B 211, 2017-T4.
Washers:	ASTM B 209, Alclad 2024-T4.
Panel Clips, Fittings:	Permanent Mold Castings ASTM B108, A356-T61
Splice Flanges Welded:	ASTM B 209, 6061-T6.
Welding Rods, Electrodes:	ER4043 or ER5556, AWS A5.10, Consumable Electrode Type

Extruded aluminum tubing, not less in diameter and wall thickness than that of the member shown, may be used in lieu of pipe.

For aluminum sign supports, M164 Type 1 bolts, galvanized according to Subsection 807.06 may be used in lieu of aluminum alloy. Nuts for bolts shall be furnished and galvanized in accordance with Subsection 807.06.

Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Section 807.07. Nuts for bolts shall be as specified in Section 807.07.

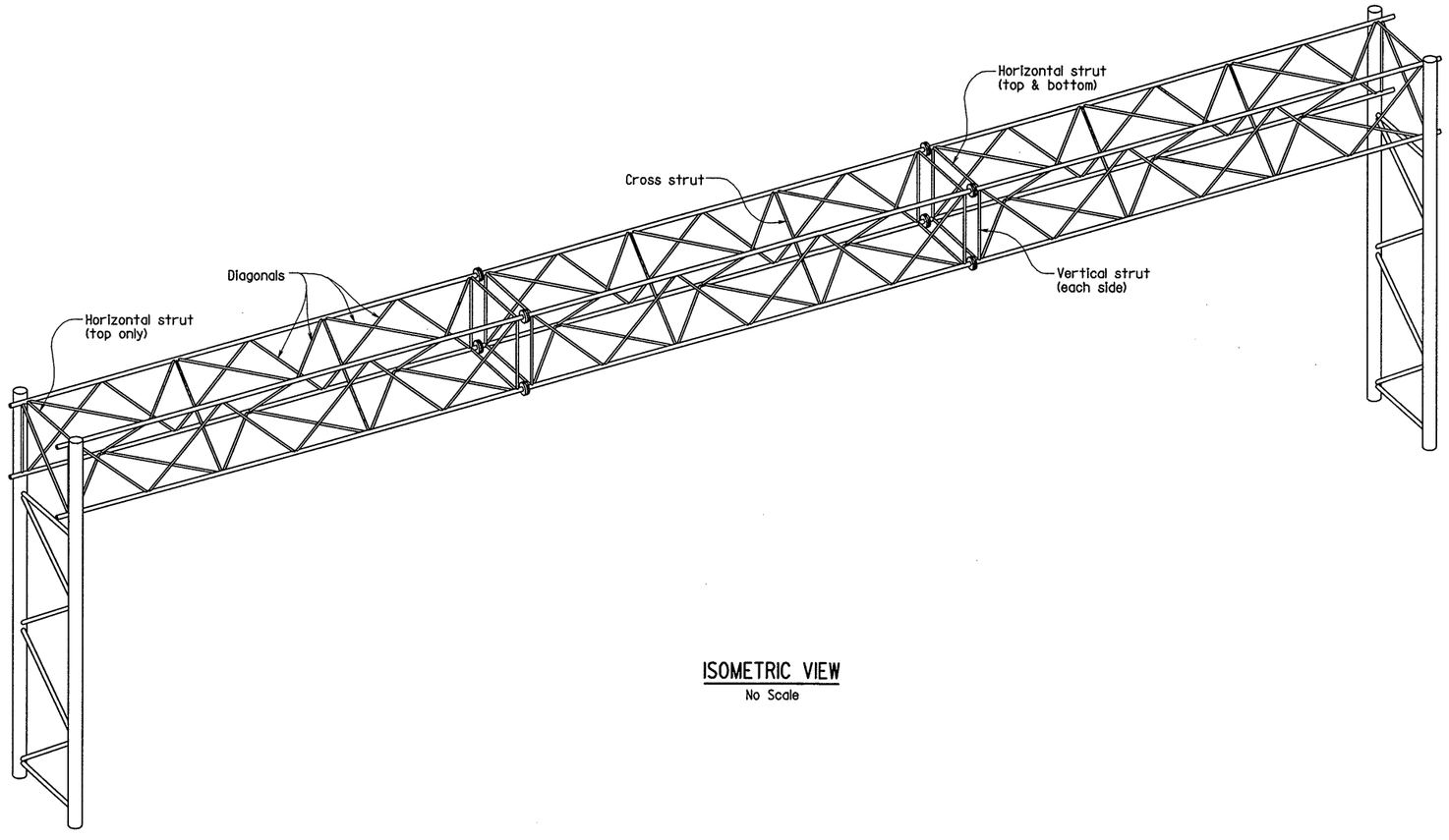
U-bolts and flange splice bolts shall comply with AASHTO M164 Type 1, galvanized according to Subsection 807.06. Nuts and washers for AASHTO M164 Type 1 bolts shall be furnished and galvanized in accordance with subsection 807.06.

Locknuts to be equipped with nylon locking inserts or other approved type locking system. Locknuts to be installed according to manufacturer's recommendations.

All aluminum welds to be consumable electrode type using aluminum alloy ER5556 for material thickness greater than 0.375 inch or ER5556 or ER4043 for material thickness less than or equal to 0.375 inch, as filler material, AWS A5.10, minimum test strength 24,000 psi.

The excavations for the footings shall be back-filled before the structure is attached to the foundations

The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and to fit the new structures to the existing conditions.



ISOMETRIC VIEW
No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 5 OF 5
DETAILS OF 81' TO 100' OVERHEAD SIGN STRUCTURES WITH MEDIAN FOUNDATION

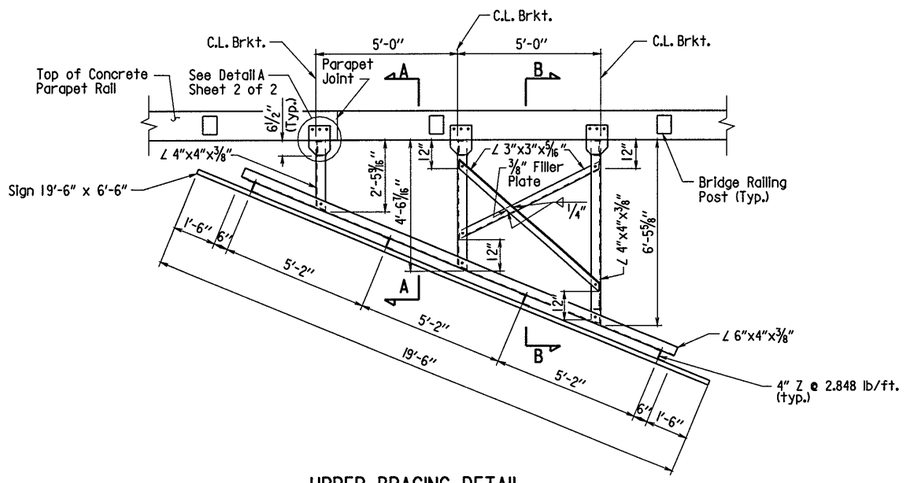
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-19-05 FILENAME: br60080ohmed_5.dgn
CHECKED BY: KWY DATE: 7-20-05 SCALE: AS NOTED
DESIGNED BY: STD. DATE:

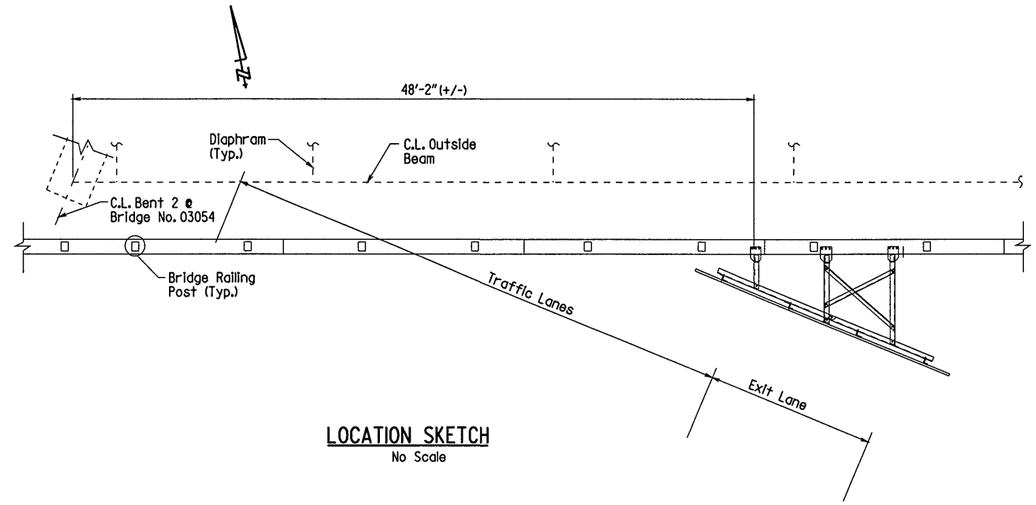
STRUCTURE NO. OH-067-60-05 DRAWING NO. 47797

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.		R60080	104	603
				(1) BM-067-60-06		SIGN DETAILS		47798



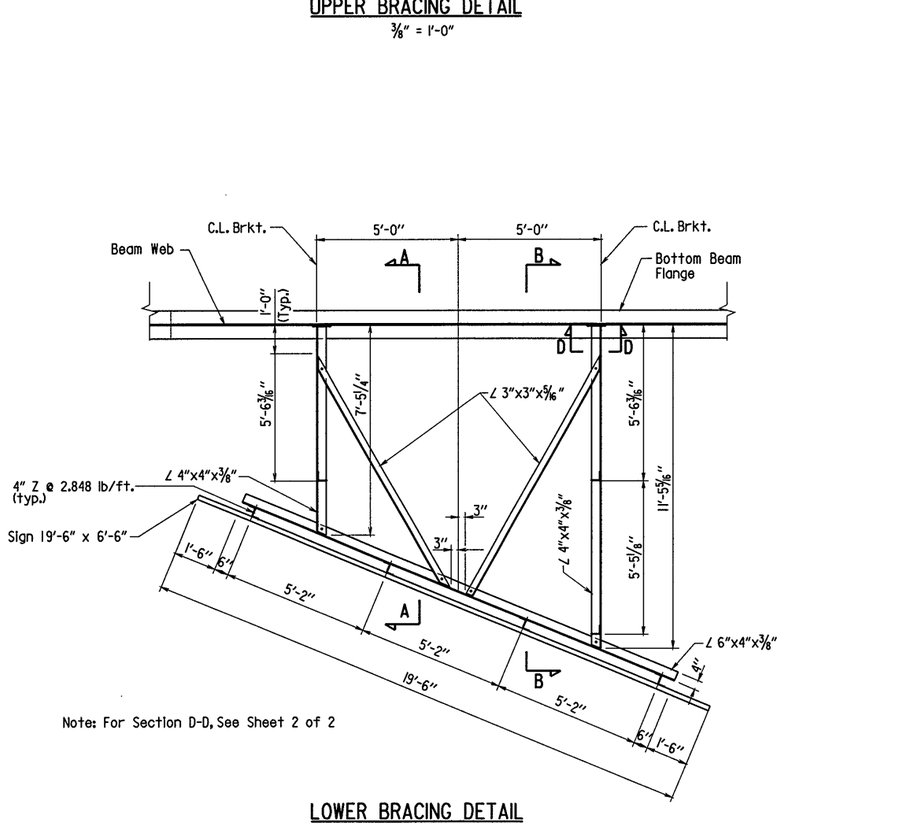
UPPER BRACING DETAIL

⅜" = 1'-0"



LOCATION SKETCH

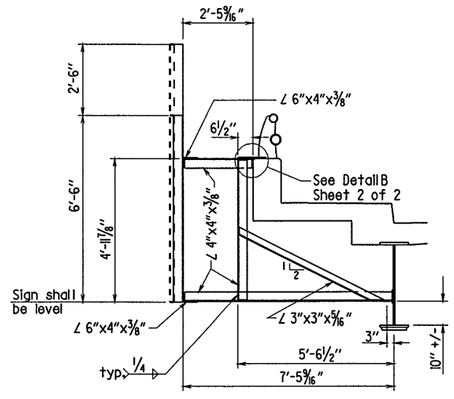
No Scale



Note: For Section D-D, See Sheet 2 of 2

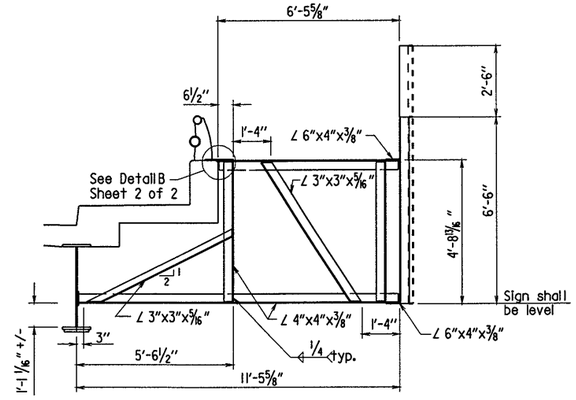
LOWER BRACING DETAIL

⅜" = 1'-0"



SECTION A-A

No Scale



SECTION B-B

No Scale

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND
BRIDGE ENGINEER

SHEET 1 OF 2

DETAILS OF BRIDGE MOUNTED SIGN STRUCTURE

ROUTE 67 SEC. 10

ARKANSAS STATE HIGHWAY COMMISSION

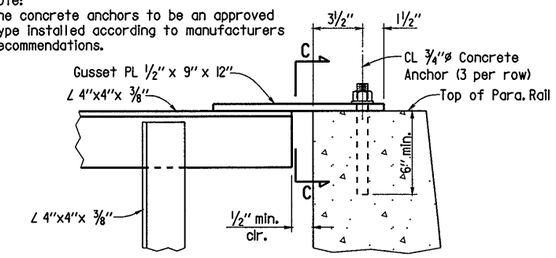
LITTLE ROCK, ARK.

DRAWN BY: MAH DATE: 6-24-05 FILENAME: br60080bmsign.dgn
CHECKED BY: KWW DATE: 7-20-05 SCALE:
DESIGNED BY: STD. DATE:

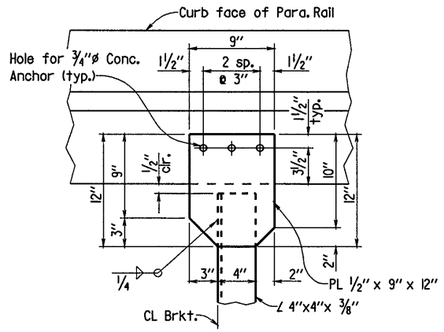
STRUCTURE NO. BM-067-60-06 DRAWING NO. 47798

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.		R60080	405603	
				(1) BM-067-60-06 SIGN DETAILS			47799	

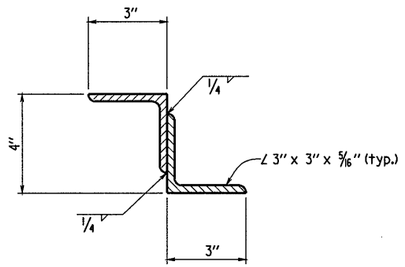
Note:
The concrete anchors to be an approved type installed according to manufacturers recommendations.



DETAIL B
No Scale



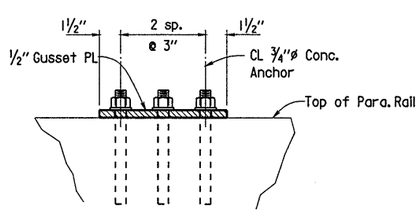
DETAIL A
No Scale



Note: Structural Z Sign Support may be fabricated from angles as shown.

DETAILS OF ALTERNATE Z SIGN SUPPORT
No Scale

SECTION D-D
No Scale



SECTION C-C
No Scale

GENERAL NOTES

Construction Specifications: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2003, with applicable Special Provisions and Supplemental Specifications.

Design Specifications: Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, AASHTO 2001 with the 2002 and 2003 interims.

Basic Wind Speed = 90 m.p.h.

Aluminum sign support members shall comply to the following specifications for aluminum alloy:

Extrusions - Rods, Bars, and Shapes:	ASTM B 221, 6061-T6.
Rolled Shapes:	ASTM B 308, 6061-T6.
Sheet and Plate:	ASTM B 209, 6061-T6.
Bolts:	ASTM B 211, 2024-T4.
Nuts:	ASTM B 211, 6061-T6 or 6262-T9.
Locknuts - Approved Type:	ASTM B 211, 2017-T4.
Washers:	ASTM B 209, Alclad 2024-T4.
Panel Clips, Fittings:	Permanent Mold Castings ASTM B108, A356-T61
Welding Rods, Electrodes:	ER4043 or ER5556, AWS A5.10, Consumable Electrode Type

For aluminum sign supports, M164 Type I bolts, galvanized according to Subsection 807.06 may be used in lieu of aluminum alloy. Nuts for bolts shall be furnished and galvanized in accordance with Subsection 807.06.

Locknuts to be equipped with nylon locking inserts or other approved type locking system. Locknuts to be installed according to manufacturer's recommendations.

All aluminum welds to be consumable electrode type using aluminum alloy ER5556 for material thickness greater than 0.375 inch or ER5556 or ER4043 for material thickness less than or equal to 0.375 inch, as filler material, AWS A5.10, minimum test strength 24,000 psi.

Surfaces of plates in contact with concrete rail or girder web shall be coated with a thick layer of asphaltic paint and allowed to dry before erection. Elastomeric pads ⅛" thick conforming to Section 807.15(b) of the Standard Specifications may be used in lieu of asphaltic paint coating for aluminum plates in contact with girder web or concrete rail.

The Contractor shall make check measurements in the field and make any adjustments necessary to avoid any diaphragms, parapet joints, or hand rail supports of the the bridge. This may include shifting the structure with approval from the Engineer.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4837
CHARLES P. BRAND
7/20/05

BRIDGE ENGINEER

SHEET 2 OF 2

DETAILS OF BRIDGE MOUNTED SIGN STRUCTURES

ROUTE 67 SEC. 10

ARKANSAS STATE HIGHWAY COMMISSION

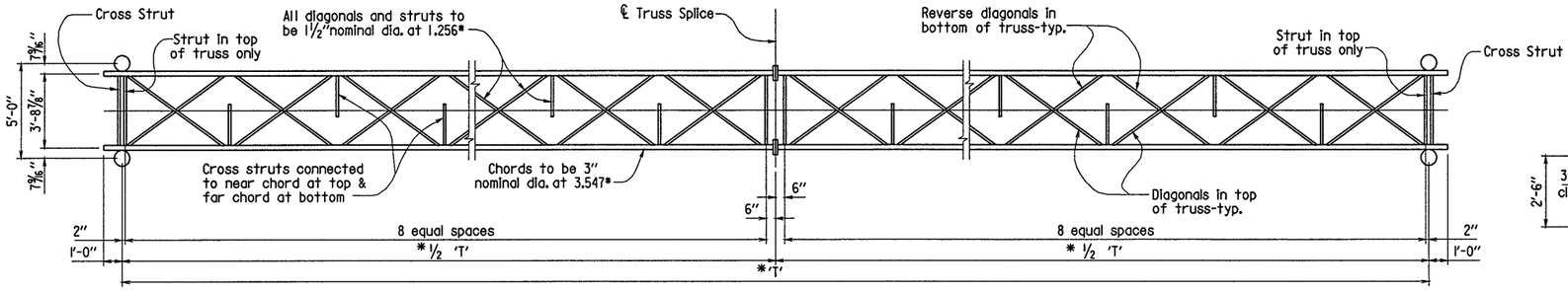
LITTLE ROCK, ARK.

DRAWN BY: MAH DATE: 6-24-05 FILENAME: br60080bmsign.dgn
CHECKED BY: CWY DATE: 7-20-05 SCALE: as noted
DESIGNED BY: STD. DATE:

STR. NO. BM-067-60-06 DRAWING NO. 47799

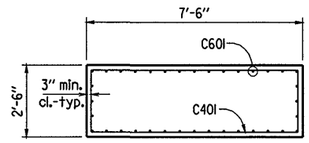
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	406	603

(1) SEE TABLE OVERHEAD SIGNS 47800



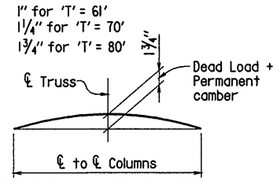
PLAN

Scale: ¼" = 1'-0"



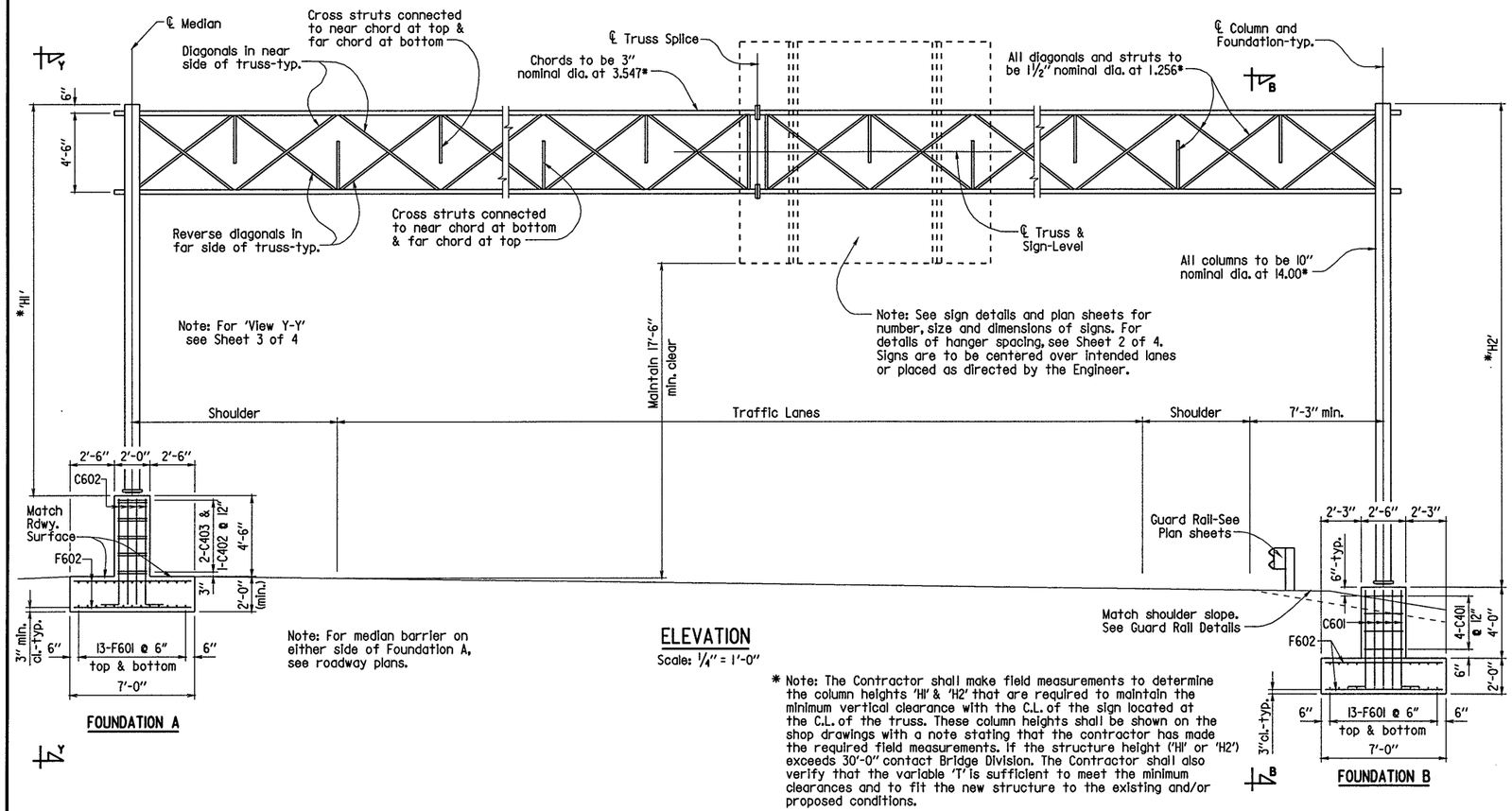
SECTION A-A

Scale: ⅜" = 1'-0"



TRUSS CAMBER DIAGRAM

No Scale



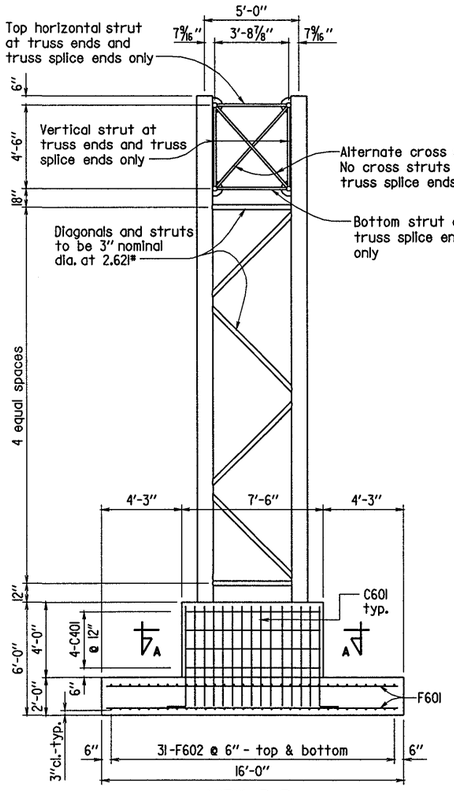
FOUNDATION A

ELEVATION

Scale: ¼" = 1'-0"

FOUNDATION B

* Note: The Contractor shall make field measurements to determine the column heights 'H1' & 'H2' that are required to maintain the minimum vertical clearance with the C.L. of the sign located at the C.L. of the truss. These column heights shall be shown on the shop drawings with a note stating that the contractor has made the required field measurements. If the structure height ('H1' or 'H2') exceeds 30'-0" contact Bridge Division. The Contractor shall also verify that the variable 'T' is sufficient to meet the minimum clearances and to fit the new structure to the existing and/or proposed conditions.



VIEW B-B

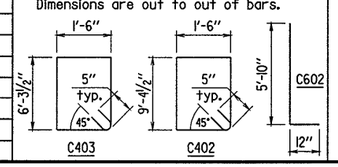
Scale: ¼" = 1'-0"

TABLE

STRUCTURE NO.	'T'
0H-067-60-19	71'-3"
0H-067-60-18	64'-3"
0H-067-60-17	64'-3"
0H-067-60-16	68'-3"
0H-067-60-12	68'-9"
0H-067-60-11	72'-3"
0H-067-60-10	64'-3"
0H-067-60-09	65'-3"
0H-067-60-08	68'-9"
0H-067-60-07	71'-0"
0H-067-60-20	64'-3"

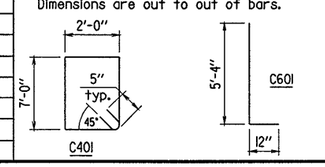
BAR LIST-FOUNDATION A

MARK	NO. REQ'D.	LENGTH	P.D.	BENDING DIAGRAMS
C402	5	22'-3"	3"	Dimensions are out to out of bars.
C403	10	16'-1"	3"	
C602	66	6'-9"	4½"	
F601	26	15'-6"	Str.	
F602	62	6'-6"	Str.	



BAR LIST-FOUNDATION B

MARK	NO. REQ'D.	LENGTH	P.D.	BENDING DIAGRAMS
C401	4	18'-6"	3"	Dimensions are out to out of bars.
C601	36	6'-3"	4½"	
F601	26	15'-6"	Str.	
F602	62	6'-6"	Str.	



APPROXIMATE QUANTITIES (FOR INFORMATION ONLY)

STRUCTURE NUMBER	CLASS S CONCRETE (cu. yd.)	REINFORCING STEEL (pounds)	EXCAVATION (cu. yd.)
FOUNDATION A	13.63	2062	-
FOUNDATION B	11.07	1598	38

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4537
CHARLES P. BRAND
11/20/05

BRIDGE ENGINEER

SHEET 1 OF 4

DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES WITH MEDIAN FOUNDATION

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-18-05
CHECKED BY: RWY DATE: 7-20-05
DESIGNED BY: STD. DATE:

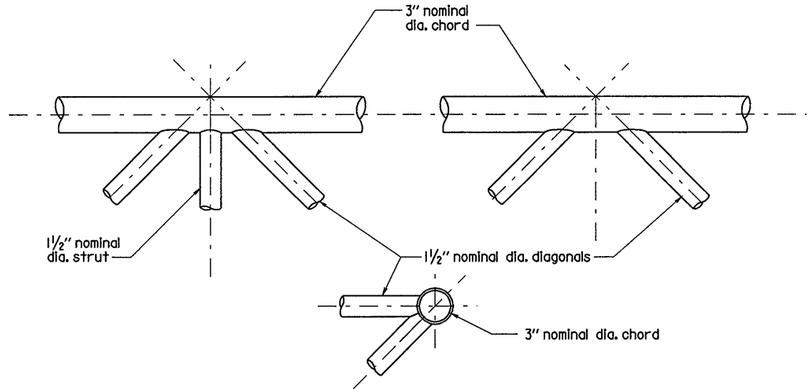
FILENAME: br60080ohmed_6.dgn
SCALE: AS NOTED

STRUCTURE NO. SEE TABLE

DRAWING NO. 47800

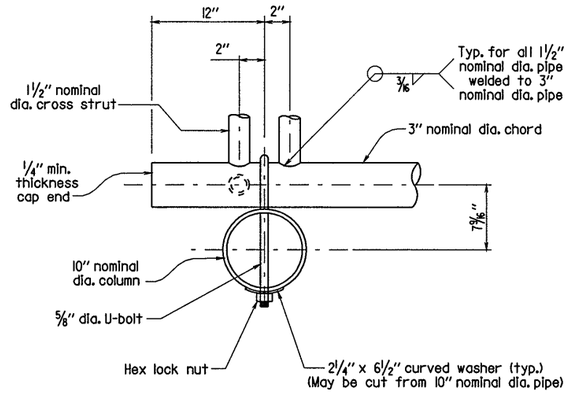
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	407	688

(1) SEE TABLE OVERHEAD SIGNS 47801



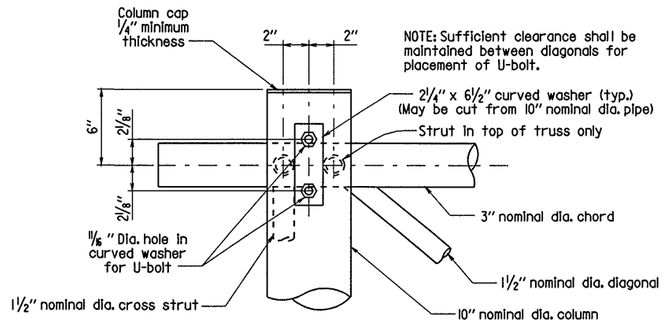
DETAILS OF JOINTS

No Scale



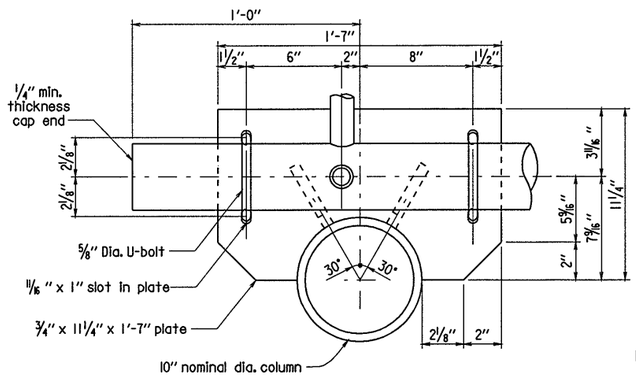
PLAN - TRUSS TOP SUPPORT

No Scale



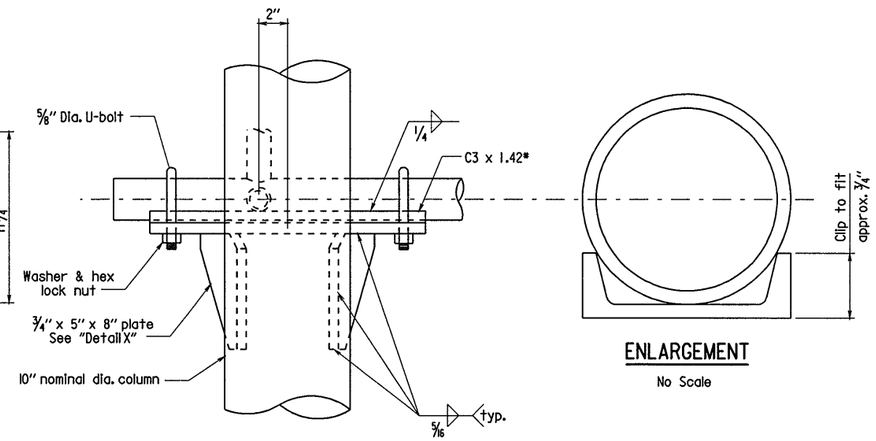
ELEVATION - TRUSS TOP SUPPORT

No Scale



PLAN - TRUSS BOTTOM SUPPORT

No Scale

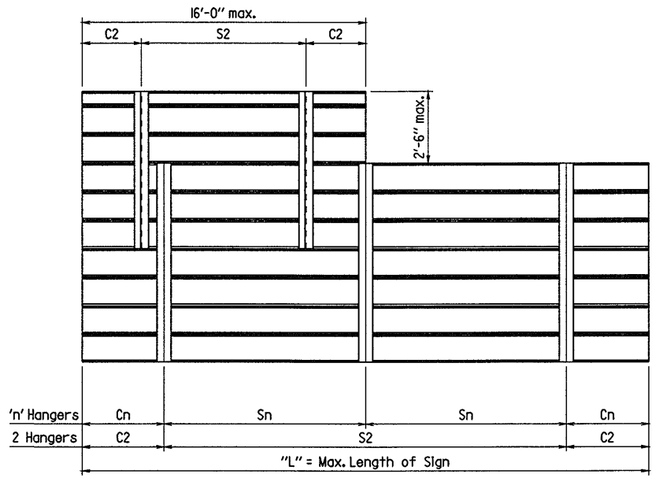


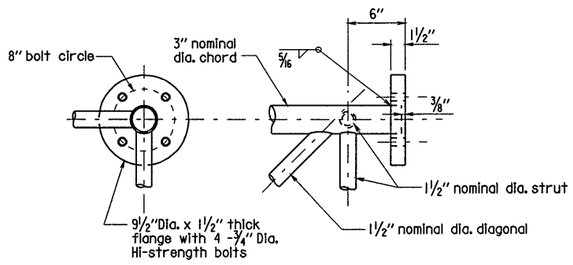
ELEVATION - TRUSS BOTTOM SUPPORT

No Scale

ENLARGEMENT

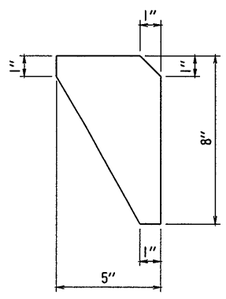
No Scale





DETAILS OF TRUSS SPLICE

No Scale



DETAIL X

No Scale

TABLE

STRUCTURE NO.	'T'
0H-067-60-19	71'-3"
0H-067-60-18	64'-3"
0H-067-60-17	64'-3"
0H-067-60-16	68'-3"
0H-067-60-12	68'-9"
0H-067-60-11	72'-3"
0H-067-60-10	64'-3"
0H-067-60-09	65'-3"
0H-067-60-08	68'-9"
0H-067-60-07	71'-0"
0H-067-60-20	64'-3"

HANGER VARIABLES

Max. Length of Sign = "L"	"n" Hangers	Cantilever Length 'Cn"	Hanger Spacing 'Sn'
15'-0"	2 Hangers	0.21 x 'L'	0.58 x 'L'
30'-0"	3 Hangers	0.145 x 'L'	0.355 x 'L'
45'-0"	4 Hangers	0.107 x 'L'	0.262 x 'L'

Hanger spacing and cantilever length shall be rounded to the nearest inch.

Note: See sign details and plan sheets for number, size and dimensions of signs.

HANGER SPACING DETAILS FOR EXTRUDED PANEL SIGNS

Scale: ⅜" = 1'-0"

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4337 CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 2 OF 4
DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES WITH MEDIAN FOUNDATION

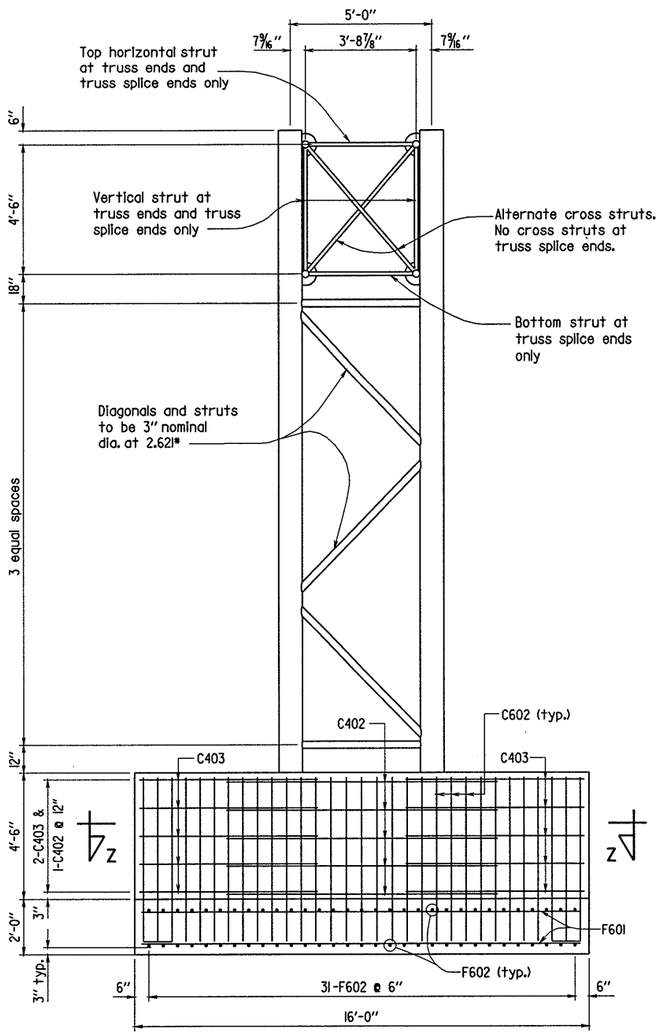
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-18-05 FILENAME: br60080ohmed_7.dgn
CHECKED BY: KW DATE: 7-20-05 SCALE: AS NOTED
DESIGNED BY: STD DATE:

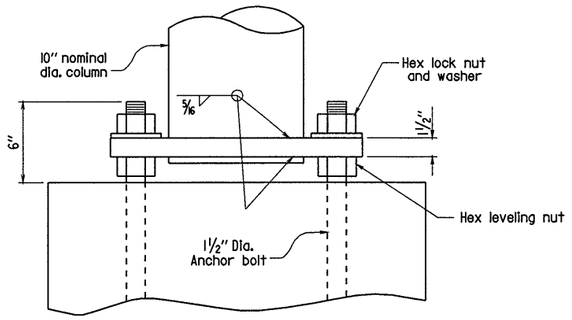
STRUCTURE NO. SEE TABLE DRAWING NO. 47801

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.		R60080	408603	
				(1) SEE TABLE		OVERHEAD SIGNS		47802



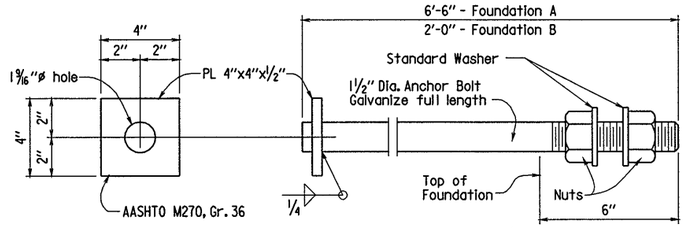
VIEW Y-Y

No Scale



ELEVATION - COLUMN BASE

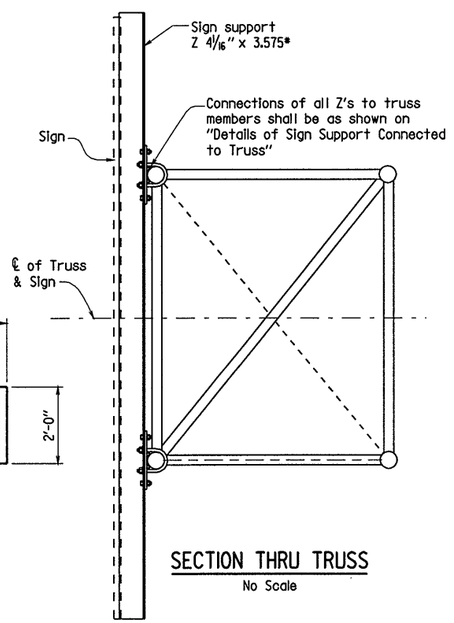
No Scale



Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Section 807.07. Nuts for bolts shall be as specified in Section 807.07.

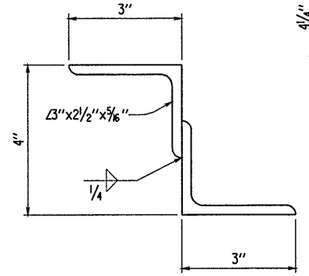
ANCHOR BOLT DETAIL

No Scale



SECTION THRU TRUSS

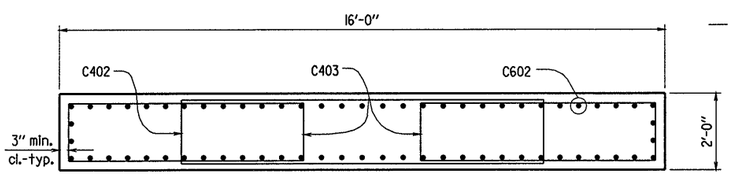
No Scale



NOTE: Structural Z support may be fabricated from angles as shown.

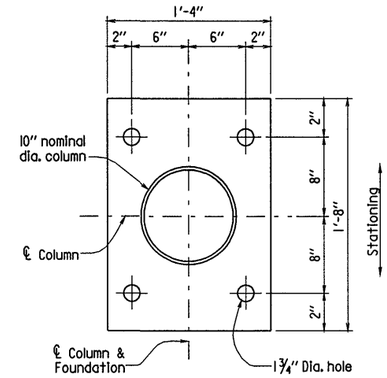
DETAILS OF ALTERNATE Z SUPPORT

No Scale



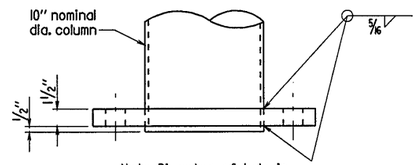
SECTION Z-Z

No Scale



PLAN - COLUMN BASE

No Scale



DETAIL OF COLUMN CONNECTION TO BASE PLATE

No scale

DETAILS OF SIGN SUPPORT CONNECTED TO TRUSS

No Scale

TABLE

STRUCTURE NO.	'T'
OH-067-60-19	71'-3"
OH-067-60-18	64'-3"
OH-067-60-17	64'-3"
OH-067-60-16	68'-3"
OH-067-60-12	68'-9"
OH-067-60-11	72'-3"
OH-067-60-10	64'-3"
OH-067-60-09	65'-3"
OH-067-60-08	68'-9"
OH-067-60-07	71'-0"
OH-067-60-20	64'-3"

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4537 CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 3 OF 4
DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES WITH MEDIAN FOUNDATION

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 5-19-05
CHECKED BY: KWY DATE: 5-20-05
DESIGNED BY: STD DATE:

FILENAME: br60080ohmed_8.dgn
SCALE: AS NOTED

STRUCTURE NO. SEE TABLE

DRAWING NO. 47802

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.		R60080	409	603
				(1) SEE TABLE		OVERHEAD SIGNS		47803

GENERAL NOTES

Construction Specifications: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 2003, with applicable Special Provisions and Supplemental Specifications.

Design Specifications: Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, AASHTO 2001 with the 2002 and 2003 Interims.

Basic Wind Speed = 90 m.p.h.

This structure is approved for 800 square feet of sign area. Use of additional sign area must be approved by the Engineer.

If the structure height ('H1' or 'H2') exceeds 30'-0" contact Bridge Division.

FOUNDATION MATERIALS AND STRENGTHS:
Class S Concrete ..... f'c = 4,000 psi
Reinforcing Steel (AASHTO M31 or M53, Grade 60) ..... fy = 60,000 psi

Aluminum sign support members shall comply to the following specifications for aluminum alloy:

Extrusions - Rods, Bars, and Shapes:	ASTM B 221, 6061-T6.
Rolled Shapes:	ASTM B 308, 6061-T6.
Sheet and Plate:	ASTM B 209, 6061-T6.
Pipe:	ASTM B 241, 6061-T6.
Extruded Tubing:	ASTM B 221, 6061-T6.
Chord and Post Caps:	Sand Castings: ASTM B26, 356-T6 or Plate: ASTM B209, 6061-T6.
Bolts:	ASTM B 211, 2024-T4.
Nuts:	ASTM B 211, 6061-T6 or 6262-T9.
Locknuts - Approved Type:	ASTM B 211, 2017-T4.
Washers:	ASTM B 209, Alclad 2024-T4.
Panel Clips, Fittings:	Permanent Mold Castings ASTM B108, A356-T61
Splice Flanges Welded:	ASTM B 209, 6061-T6.
Welding Rods, Electrodes:	ER4043 or ER5556, AWS A5.10, Consumable Electrode Type

Extruded aluminum tubing, not less in diameter and wall thickness than that of the member shown, may be used in lieu of pipe.

For aluminum sign supports, M164 Type I bolts, galvanized according to Subsection 807.06 may be used in lieu of aluminum alloy. Nuts for bolts shall be furnished and galvanized in accordance with Subsection 807.06.

Anchor bolts shall comply with AASHTO M314, Grade 55, with Supplementary Requirement S1, and galvanized according to Section 807.07. Nuts for bolts shall be as specified in Section 807.07.

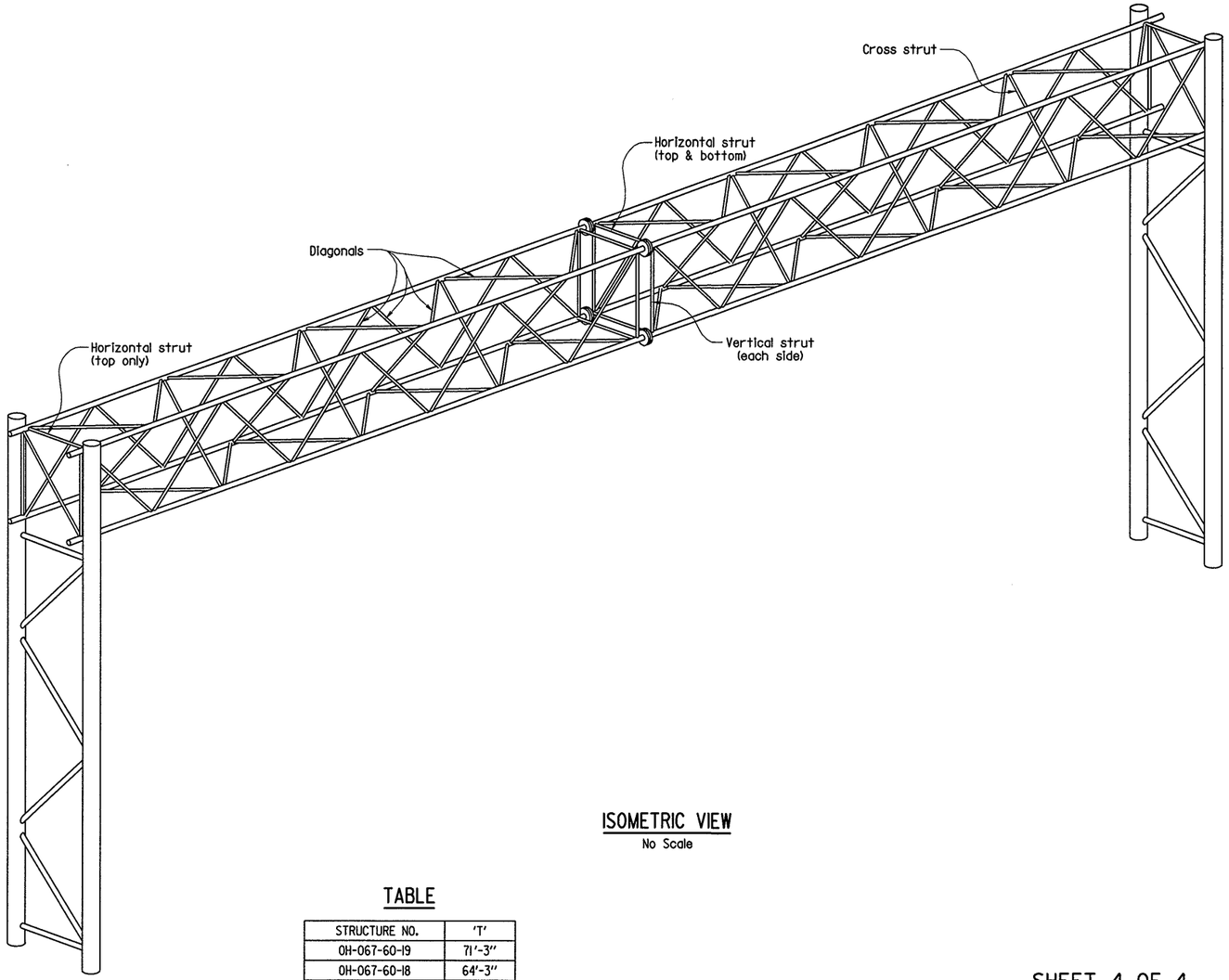
U-bolts and flange splice bolts shall comply with AASHTO M164 Type I, galvanized according to Subsection 807.06. Nuts and washers for AASHTO M164 Type I bolts shall be furnished and galvanized in accordance with subsection 807.06.

Locknuts to be equipped with nylon locking inserts or other approved type locking system. Locknuts to be installed according to manufacturer's recommendations.

All aluminum welds to be consumable electrode type using aluminum alloy ER5556 for material thickness greater than 0.375 inch or ER5556 or ER4043 for material thickness less than or equal to 0.375 inch, as filler material, AWS A5.10, minimum test strength 24,000 psi.

The excavations for the footings shall be back-filled before the structure is attached to the foundations

The Contractor shall make check measurements in the field and make any adjustments necessary to meet the required clearances and to fit the new structures to the existing conditions.



ISOMETRIC VIEW
No Scale

TABLE

STRUCTURE NO.	'T'
OH-067-60-19	71'-3"
OH-067-60-18	64'-3"
OH-067-60-17	64'-3"
OH-067-60-16	68'-3"
OH-067-60-12	68'-9"
OH-067-60-11	72'-3"
OH-067-60-10	64'-3"
OH-067-60-09	65'-3"
OH-067-60-08	68'-9"
OH-067-60-07	71'-0"
OH-067-60-20	64'-3"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4937
CHARLES P. BRAND
7/20/05

BRIDGE ENGINEER

SHEET 4 OF 4
DETAILS FOR STANDARD 61' TO 80' OVERHEAD SIGN STRUCTURES WITH MEDIAN FOUNDATION

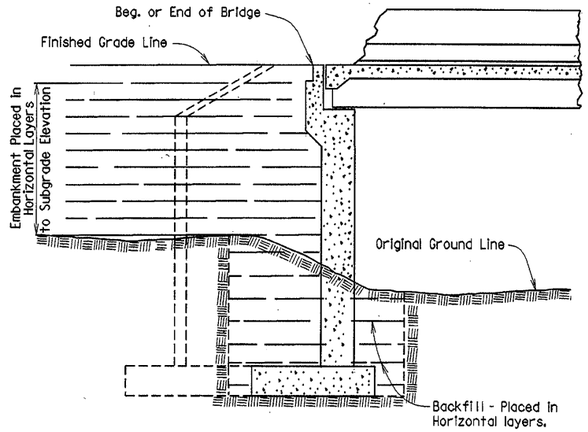
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

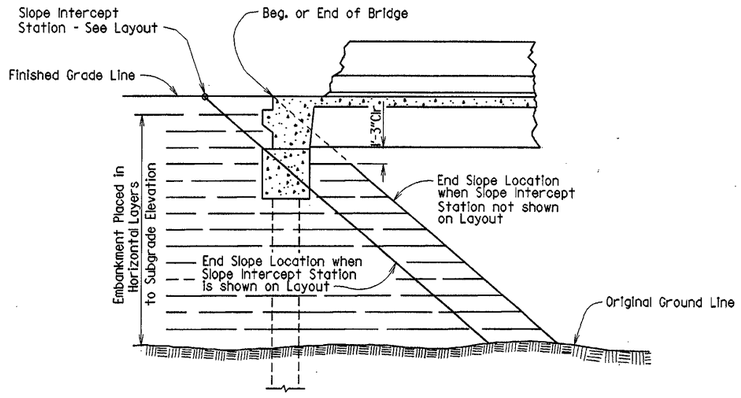
DRAWN BY: KDH DATE: 5-19-05 FILENAME: br60080ohmed_9.dgn
CHECKED BY: KW4 DATE: 7-20-05 SCALE: AS NOTED
DESIGNED BY: STO. DATE:

STRUCTURE NO. SEE TABLE DRAWING NO. 47803

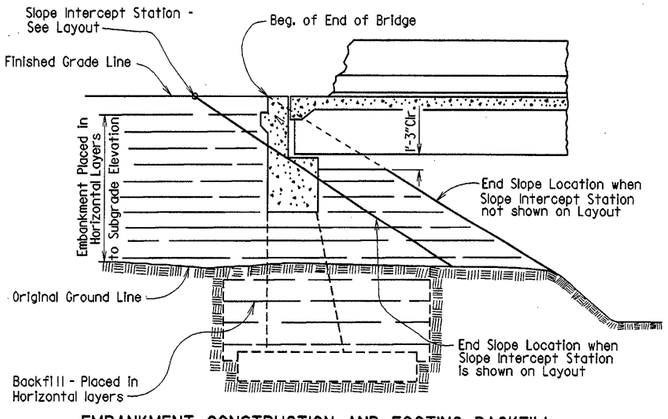
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
04-10-2003				6	ARK.			
				JOB NO.			410	
				EMBANKMENT & BACKFILL			1888A	



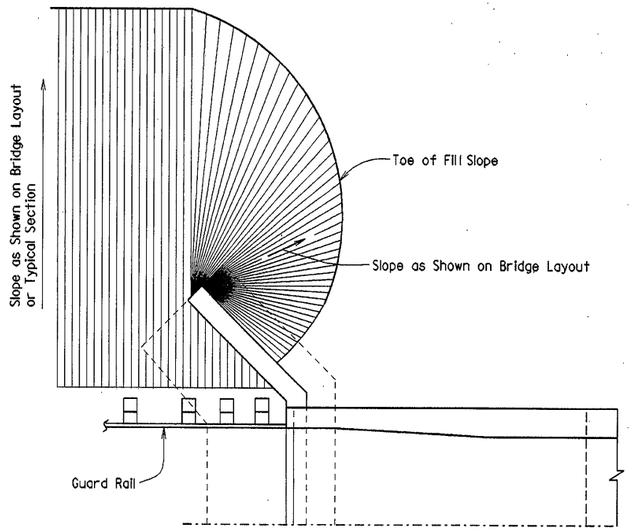
EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL AT VERTICAL WALL ABUTMENTS



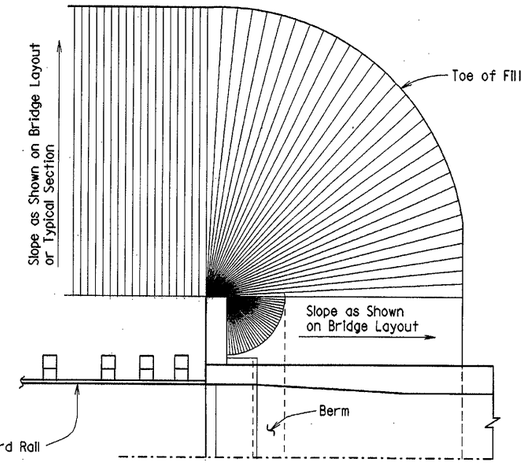
EMBANKMENT CONSTRUCTION AT SPILL-THROUGH PILE END BENTS



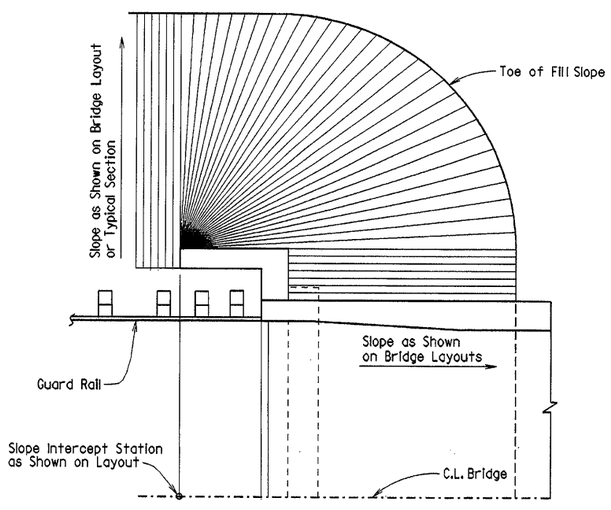
EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL AT SPILL-THROUGH END BENTS



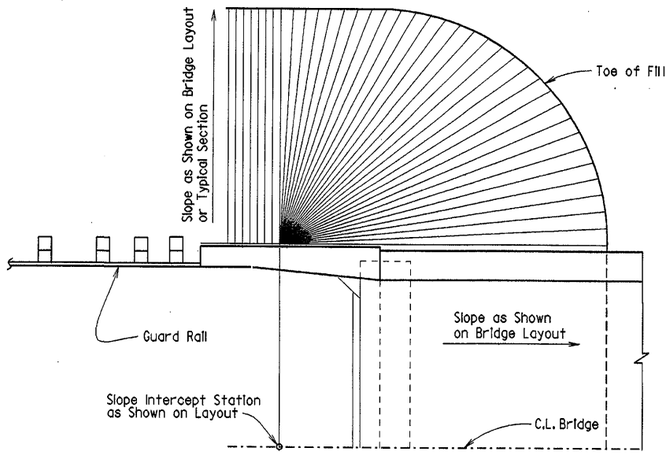
VERTICAL WALL ABUTMENTS



SPILL-THROUGH END BENTS WITH STUB WING



SPILL-THROUGH END BENTS WITH TURNBACK WING



SPILL-THROUGH END BENTS WITH TRANSITION WING

METHOD OF DETERMINING FILL SLOPE LOCATION AT BRIDGE ENDS

GENERAL NOTES

The Bridge End Embankment shall be defined as a section of embankment, not less than 20 feet long adjacent to the bridge end, together with the side slopes and slopes under the bridge end including around the end of wingwalls. Embankment adjacent to structures shall be constructed in 4 inch horizontal layers (loose measure) and compacted by the use of mechanical equipment to the satisfaction of the Engineer. Refer to subsections 210.09, 210.10 and 801.08 of the Specifications for construction requirements.

⚠ Revised and redrawn MJT 04-10-2003
Chk'd. By: CJF 04-10-2003

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND

BRIDGE ENGINEER

EMBANKMENT CONSTRUCTION AND BACKFILL AT BRIDGE ENDS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

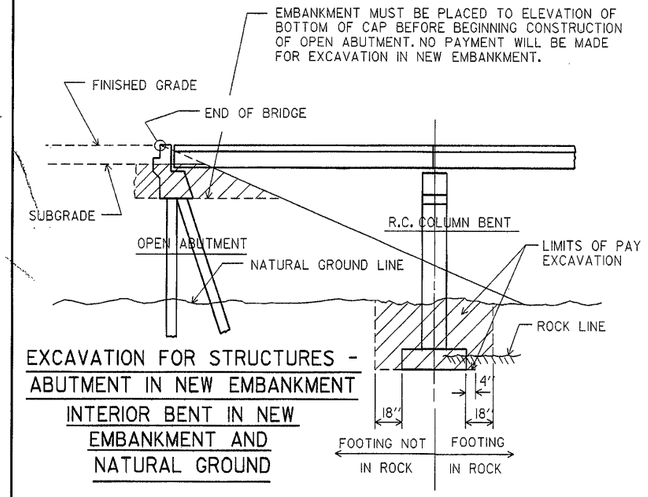
DRAWN BY: MJT DATE: 04-10-2003 FILENAME: BI888A.STD
CHECKED BY: CJF DATE: 04-10-2003 SCALE: NO SCALE
DESIGNED BY: STD. DATE: ——

BRIDGE NO. DRAWING NO. 1888A

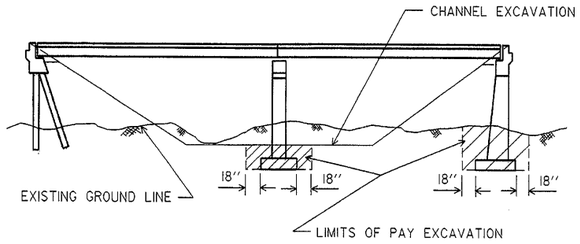
BI888A.STD

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
04-10-2003				6	ARK.			
				JOB NO.				

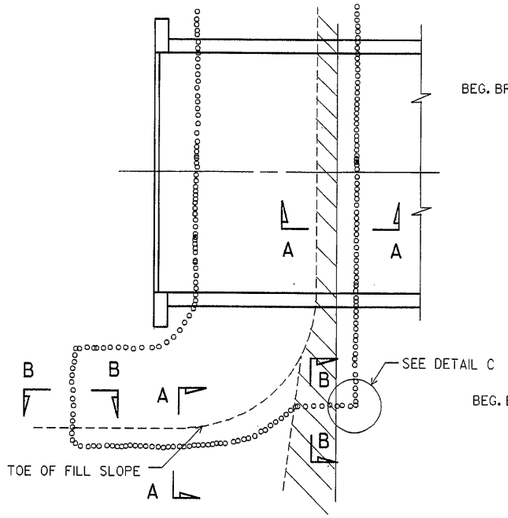
1 RIP. & EXCAV. 1891F



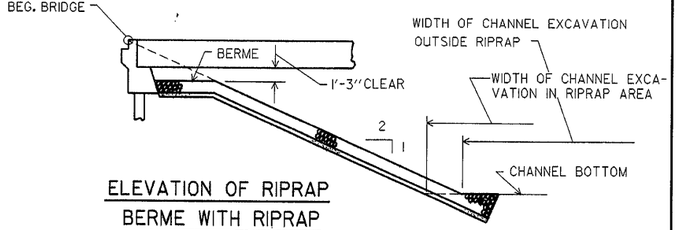
EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NEW EMBANKMENT AND NATURAL GROUND



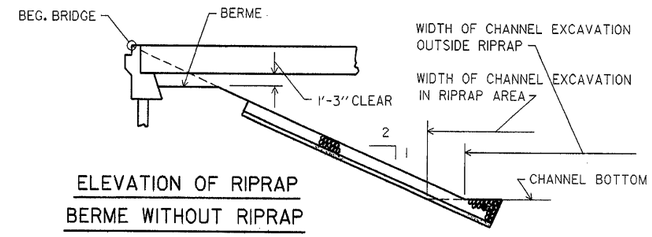
EXCAVATION FOR STRUCTURES - BRIDGE LOCATION WITH DESIGNATED CHANNEL CHANGE



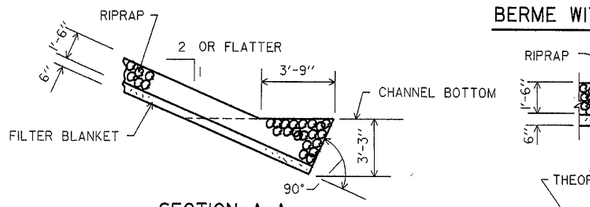
PLAN OF DUMPED RIPRAP



ELEVATION OF RIPRAP BERME WITH RIPRAP



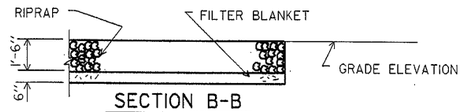
ELEVATION OF RIPRAP BERME WITHOUT RIPRAP



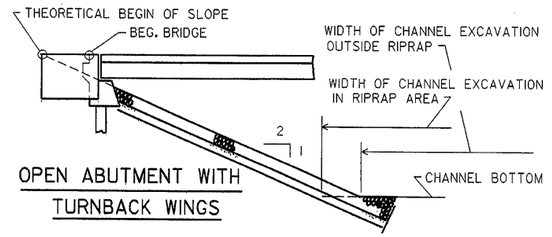
SECTION A-A

(TOE EXCAVATION IN SOIL)

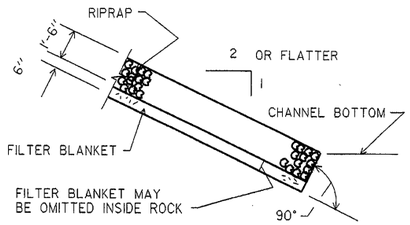
EXCAVATION FOR TOES IS NOT A PAY ITEM



SECTION B-B



OPEN ABUTMENT WITH TURNBACK WINGS



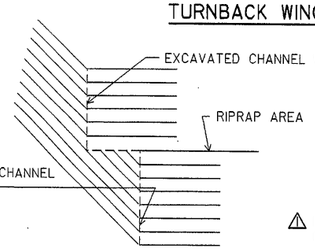
SECTION A-A

(TOE EXCAVATION IN ROCK)

NOTE : USE THIS TYPE OF TOE WHEN ROCK IS ENCOUNTERED WHICH IS IN A STABLE CONDITION.

NOTE : IN LIEU OF AN AGGREGATE FILTER BLANKET, A SYNTHETIC FIBER GEOTEXTILE FABRIC COMPLYING WITH THE REQUIREMENTS OF SUBSECTION 816.02(e) MAY BE USED.

NOTE : DETAILS FOR COMPUTING EXCAVATION FOR STRUCTURES ARE INCLUDED FOR INFORMATION AS TO HOW PLAN QUANTITIES WERE CALCULATED AND FOR USE WHEN ADJUSTING QUANTITIES WHEN CHANGING FOOTING ELEVATION.



DETAIL C

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND

BRIDGE ENGINEER

⚠ Revised and redrawn MJT 04-10-2003
Chk'd. By: CJF 04-10-2003

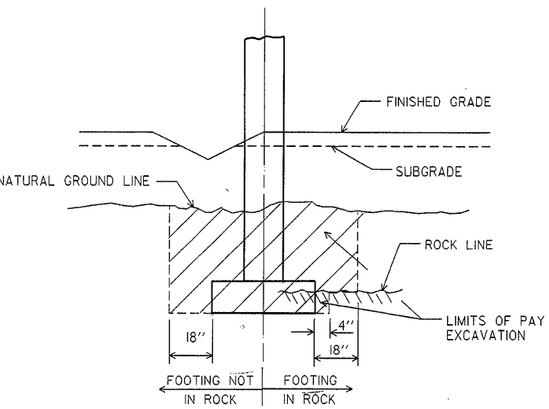
DETAILS FOR DUMPED RIPRAP AND FILTER BLANKET AND DETAILS FOR COMPUTING EXCAVATION FOR STRUCTURES

ROUTE SEC.

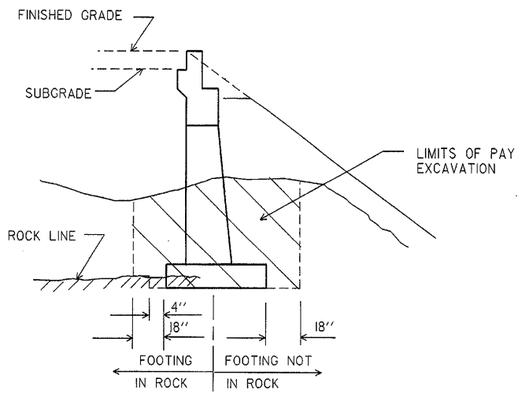
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

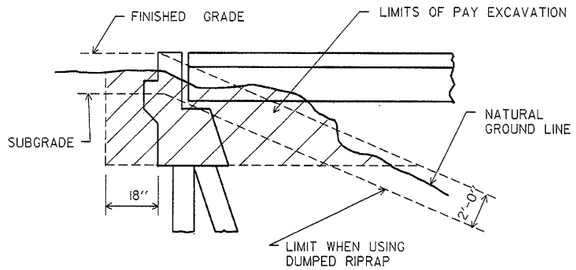
DRAWN BY: MJT DATE: 04-10-2003 FILENAME: B1891F.STD
CHECKED BY: CJF DATE: 04-10-2003 SCALE: NO SCALE
DESIGNED BY: STD. DATE: —
BRIDGE NO. DRAWING NO. 1891F



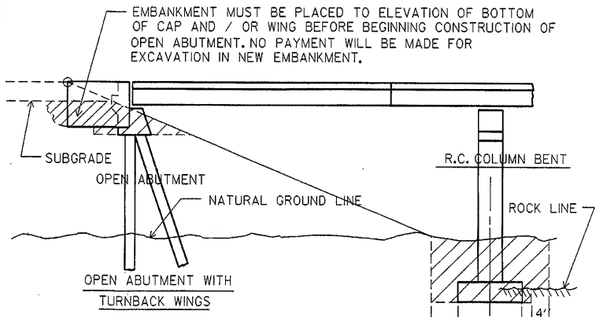
EXCAVATION FOR STRUCTURES - BENT IN ROADWAY FILL SECTION AND NATURAL GROUND



EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND AND NEW EMBANKMENT



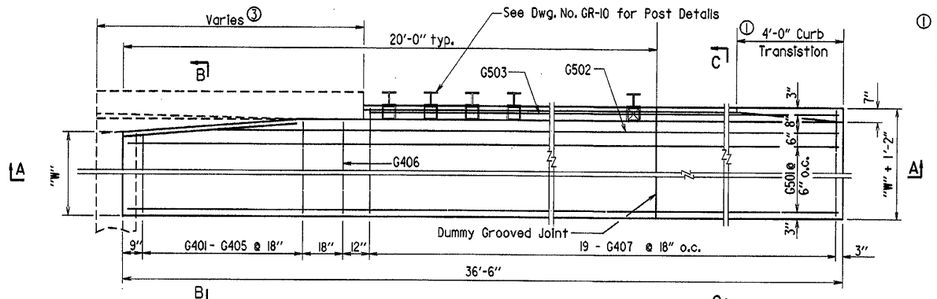
EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND



EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NATURAL GROUND

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4-10-2003				6	ARK.			
				JOB NO.			4/2	

① TYPE C GUTTERS - 2016C

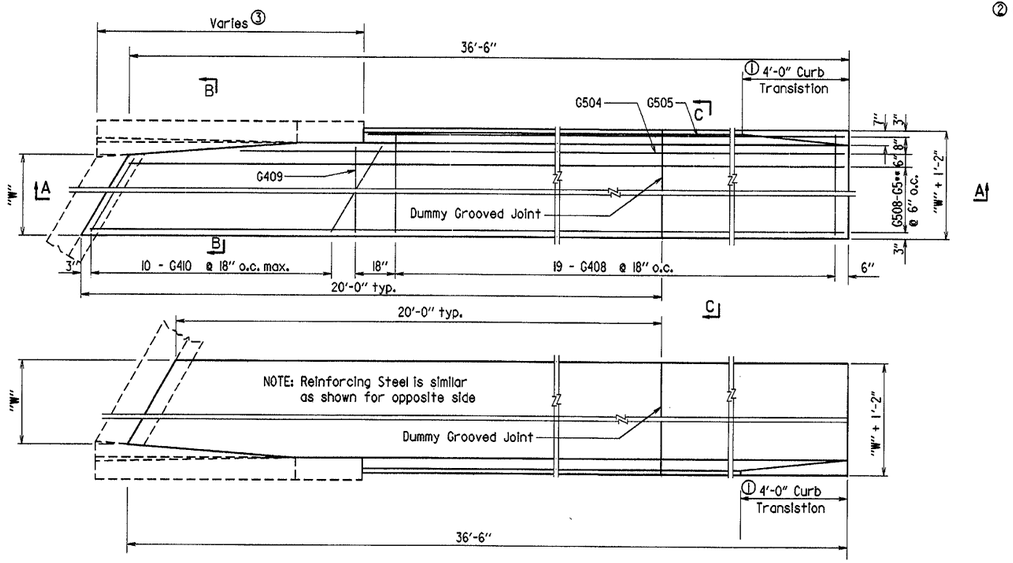


HALF PLAN OF APPROACH GUTTERS FOR SQUARE BRIDGE

① Construct gutter curb with height-transition as shown if drop inlet is not placed at end of gutter.

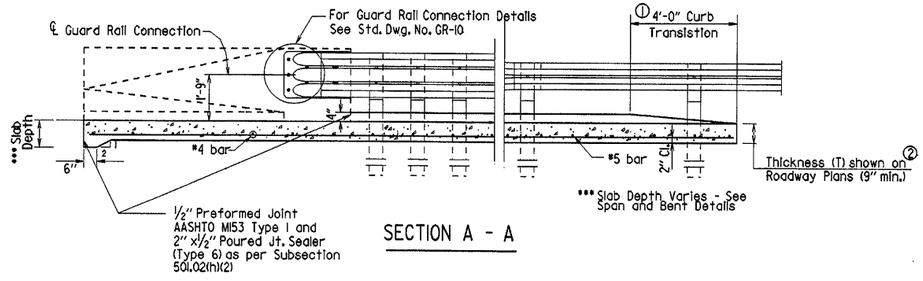
Construct gutter curb full height (no height-transition) if drop inlet is placed at end of gutter. Curb height transition placed on drop inlet. See drop inlet details.

③ Length Varies See End Bt. Details for Actual Length. Quantities Shown are for 10'-0" Transition Rail.

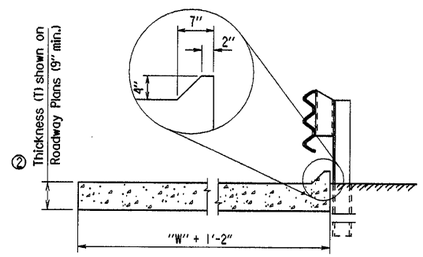


PLAN OF APPROACH GUTTERS FOR SKEWED BRIDGE

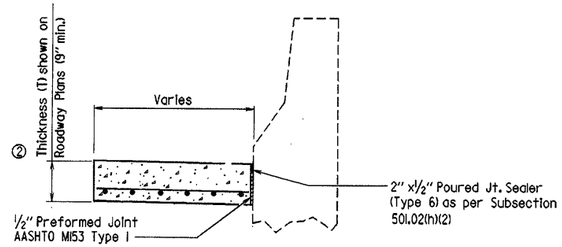
② Thickness shall match Approach Slab Thickness. Thickness shall be 9" if Approach Slab is not used.



SECTION A - A



SECTION C - C
N.T.S.



SECTION B - B
N.T.S.

*** BAR LIST FOR ONE TYPE C GUTTER

Mark	No. Req'd. for Width "W" 4'-0"	6'-0"	8'-0"	10'-0"	Length	Square or Skewed
G401 - G405	1 each	1 each	1 each	1 each	"W"-3" to "W"+3"	Square
G406	1	1	1	1	"W"+3"	Square
G407	19	19	19	19	"W"+ 10"	Square
G408	19	19	19	19	"W"+ 10"	Skewed
G409	1	1	1	1	"W"+3"	Skewed
G410	10	10	10	10	*	Skewed
G501	8	12	16	20	36'-2"	Square
G502	1	1	1	1	31'-8"	Square
G503	1	1	1	1	27'-2"	Square
G504	1	1	1	1	*	Skewed
G505	1	1	1	1	*	Skewed
G508 - G5__ **	1 each	1 each	1 each	1 each	*	Skewed

*** Special bar list required when skew angle exceeds 35° for W = 10'; 40° for W = 8'; 50° for W = 6'; or 60° for W = 4'.

* Bar Lengths vary with Skew.

** G515 for W = 4'
G519 for W = 6'
G523 for W = 8'
G527 for W = 10'

QUANTITIES FOR ONE SQUARE APPROACH GUTTER ③

"W" Width (ft.)	Reinforcing Steel (lbs.)	Concrete (cubic yards) T=9"	T=10"	T=11"	T=12"	T=14½"
4	439	5.19	5.75	6.31	6.88	8.25
6	623	7.24	8.02	8.80	9.59	11.52
8	807	9.28	10.29	11.30	12.32	14.79
10	991	11.33	12.56	13.79	15.03	18.06

GENERAL NOTES

Concrete shall be Class S or Class S(AE) or mixture used for Portland Cement Concrete Pavement.

Reinforcement Steel shall conform to AASHTO M31 or M53, Grade 60 (fy = 60,000 psi).

Approach Gutters will be measured and paid for in accordance with Section 504 of the Standard Specifications.

⚠ Revised and redrawn 4-10-2003. By KDH Ck. By: CJF

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND
BRIDGE ENGINEER

DETAILS OF STANDARD TYPE C APPROACH GUTTERS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 4-10-2003 FILENAME: B2016C.STD
CHECKED BY: CJF DATE: 4-10-2003 SCALE: 3/8" = 1'-0"
DESIGNED BY: STD. DATE:

BRIDGE NO.

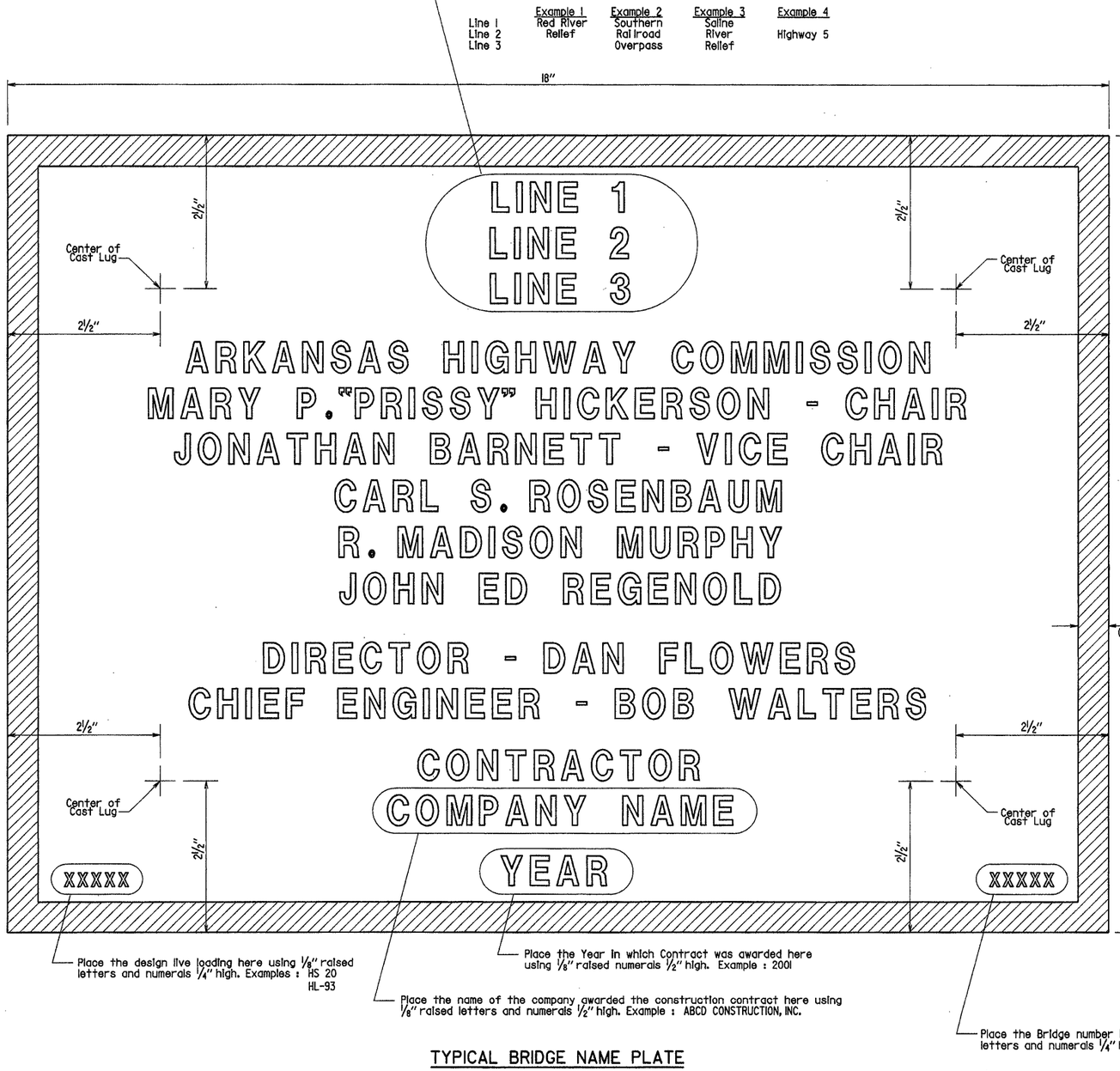
DRAWING NO. 2016C

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
01-09-03	Not Filmed	11-22-04	11-29-04	6	ARK.			
04-10-03	04-10-03	2-17-05					413	
03-04-04	03-04-04			JOB NO.				

(1) NAME PLATE 2387

The name of the bridge as shown on the plans shall be placed on Lines 1 - 3 using 1/8" raised letters and numerals 1/2" high.

	Example 1	Example 2	Example 3	Example 4
Line 1	Red River	Southern	Saline	
Line 2	Relief	Railroad	River	Highway 5
Line 3		Overpass	Relief	



TYPICAL BRIDGE NAME PLATE

GENERAL NOTES

(2) Specifications: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, (2003 Edition) with applicable Supplemental Specifications and Special Provisions.

(3) Name plates shall be cast bronze and shall meet the material requirements as specified in Section 812 of the Standard Specifications.

Body of plate shall be 1/4" thick and shall include four tapering cone lugs 7/8" to 5/8" x 2" long. The border and all lettering shall be raised 1/8" above the face of plate and shall be polished.

All lettering shall be plain gothic, square cut and not tapered.

The number of plates required and the location and name on the plate for each bridge shall be as designated on the plans.

(5) Revised Commission Names 2-17-05 KDH Checked By: CJF

(4) Revised Commission Names 11-22-04 KDH Checked By: CJF

(3) Revised General Notes MJT 03-04-2004
Chk'd. By: CJF 03-04-2004

(2) Revised for 2003 AHTD Construction Specifications. MJT 04-10-2003
Chk'd. By: CJF 04-10-2003

(1) Revised Commission Names & P.E. Stamp 01-09-03 MJT Checked By CJF

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND
BRIDGE ENGINEER

DETAILS OF STANDARD TYPE D BRIDGE NAME PLATE

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

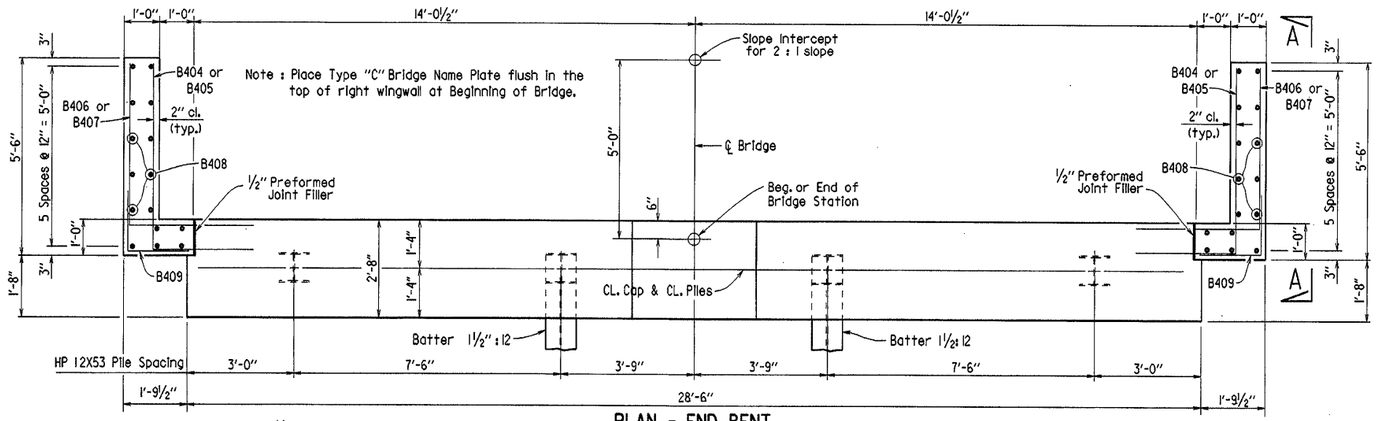
LITTLE ROCK, ARK.

DRAWN BY: MJT DATE: 10-04-01 FILENAME: B2387.STD
CHECKED BY: CPB DATE: 10-04-01 SCALE: 1'-0" = 1'-0" OR AS NOTED
DESIGNED BY: STD. DATE: —

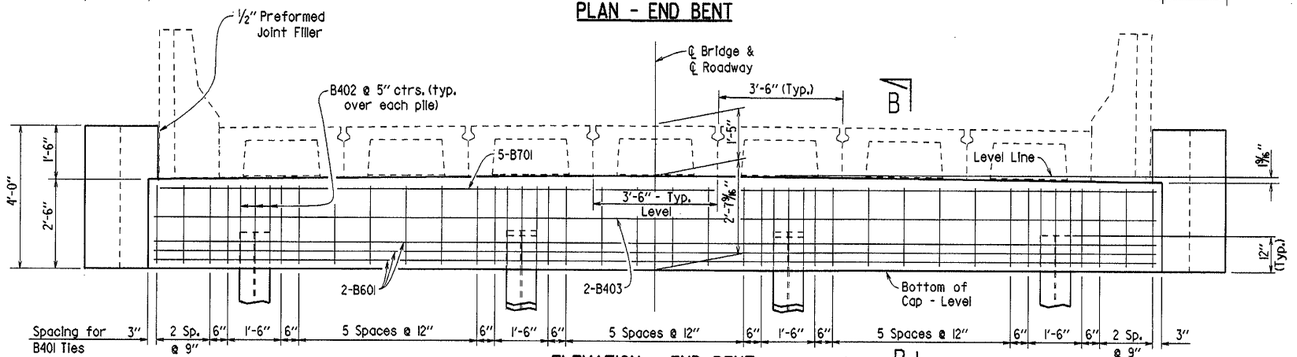
BRIDGE NO. DRAWING NO. 2387

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
11/16/01				6	ARK.			
10-09-03				JOB NO.			474	

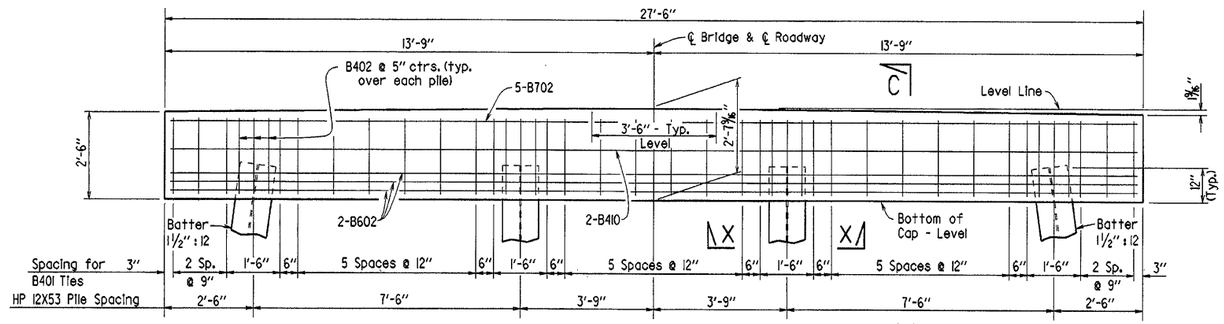
Std. Bents 15202



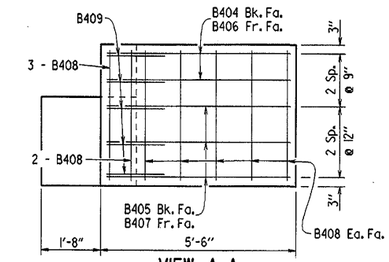
PLAN - END BENT



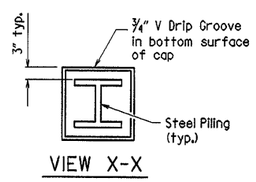
ELEVATION - END BENT



ELEVATION - INTERMEDIATE BENT



VIEW A-A



VIEW X-X

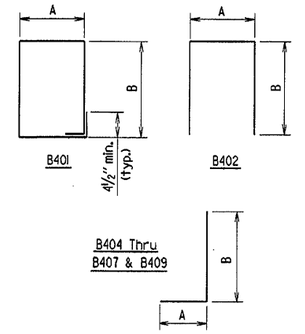
BAR LIST PER BENT

Note: Bars designated with an "E" are to be epoxy coated.

MARK	NO. REQ'D. END BT.	NO. REQ'D. INT. BT.	LENGTH	'A'	'B'	P.D.
B401	32	30	9'-4"	2'-4"	2'-2"	2"
B402	12	12	6'-6"	2'-4"	2'-2"	2"
B403	2	-	28'-2"	-	-	Str.
B404	4	-	6'-1"	5'-2"	1'-10"	Str.
B405	6	-	7'-11"	5'-2"	2'-10"	2"
B406	4	-	6'-1"	4'-6"	1'-8"	2"
B407	6	-	7'-11"	4'-6"	3'-6"	2"
B408	30	-	3'-8"	-	-	Str.
B409	10	-	3'-3"	1'-8"	1'-8"	2"
B410	-	2	27'-2"	-	-	Str.
B601	6	-	28'-2"	-	-	Str.
B602	-	6	27'-2"	-	-	Str.
B701	5	-	28'-2"	-	-	Str.
B702	-	5	27'-2"	-	-	Str.
* S601E S701E	(See Precast Concrete Span Unit Bar List for number required)					

BENDING DIAGRAMS

Dimensions are out to out of bars.



* Payment for these bars is included in pay items for Precast Concrete units

General Notes

2 Design Specifications : AASHTO Standard Specifications for Highway Bridges 2002 edition, and interim specifications.

Live Load : HS20. Method of Design : Load Factor

Seismic Performance Category : A

Piling : HP 12X53 piles in end bents shall be driven to a minimum safe bearing capacity of 55 tons. Piling shall be driven after embankment to bottom of cap is in place. HP 12X53 piles in int. bents shall be driven to a minimum safe bearing capacity of 55 tons.

Concrete : All concrete shall be Class "S" and have a minimum 28 day compressive strength F'c = 3500 psi. All exposed corners shall be chamfered ¾" unless otherwise noted.

Reinforcing Steel : Reinforcing steel shall conform to AASHTO M 31 OR M 53, Grade 60.

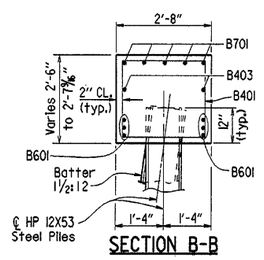
Roofing Felt shall meet or exceed the requirements of ASTM D224 Type I. See Section 802.18 (d). The roofing felt shall be in one piece for the full length of the cap and three layers shall be used. Roofing Felt shall not be paid for directly, but shall be considered subsidiary to the pay items for Precast Concrete Units.

Preformed Joint Filler shall conform to AASHTO M153, Type I and shall not be paid for directly but shall be considered subsidiary to the pay items for Precast Concrete Units.

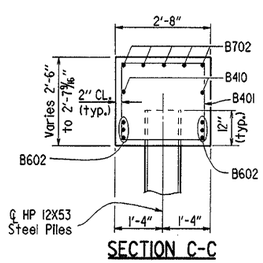
For Details of 19'-0" Precast Spans, See Dwg. No. 15242 & 15230.
For Details of 25'-0" Precast Spans, See Dwg. No. 15241 & 15230.
For Details of 31'-0" Precast Spans, See Dwg. No. 15240 & 15230.
For Details of steel Piles, see Dwg. No. 14995A.

QUANTITIES

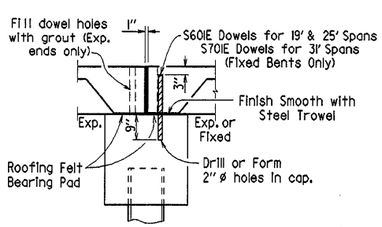
Bent Type	Class "S" Concrete -Bridge	Reinforcing Steel (Gr. 60) -Bridge
End Bt.	9.1 Cu. Yds.	1030 Lbs.
Int. Bt.	7.0 Cu. Yds.	800 Lbs.



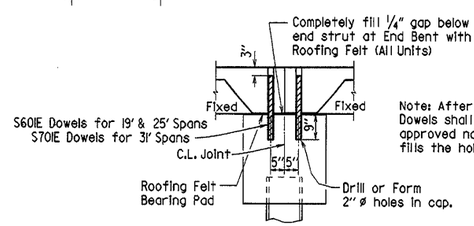
SECTION B-B



SECTION C-C



SECTION AT EXP. JOINT



SECTION AT FIXED BENT

Note: After each unit is in its final position, Dowels shall be grouted in place using a QPL approved non-shrink grout that completely fills the holes.

1 Redrawn and Revised 11-16-2001, JAC Chk'd. By: JGT

2 Revised for current specifications and P.E. stamp 10-09-03 MJT Chk'd. By: JGT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF STANDARD PILE BENTS (STEEL H-PILES) For 19'-0", 25'-0" & 31'-0" PRECAST CONCRETE SPANS-24'-6" RDWY.

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

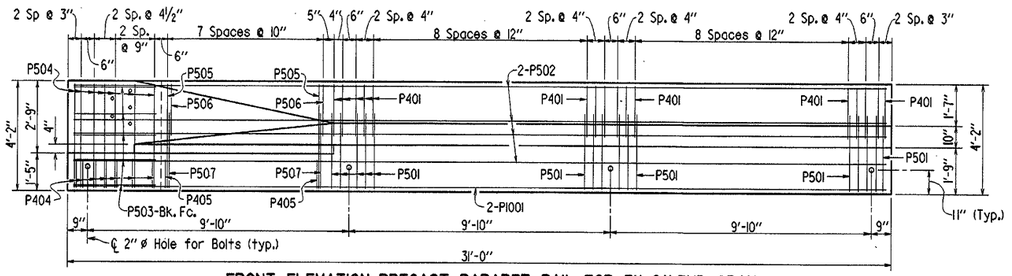
DRAWN BY: JAC DATE: 11-16-2001
CHECKED BY: JGT DATE: 11-16-2001
DESIGNED BY: STD. DATE: -

FILENAME: B15202.STD
SCALE: ½" = 1'-0"

BRIDGE NO. DRAWING NO. 15202

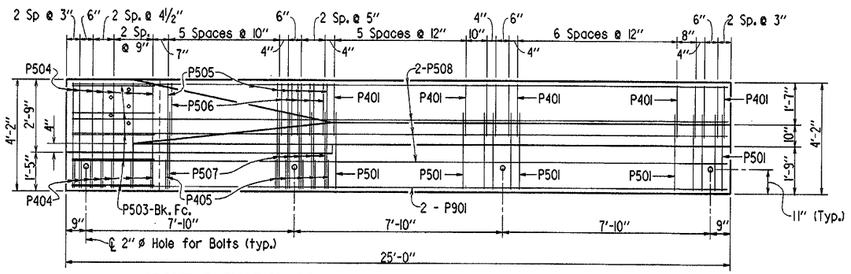
Cap slopes based on 1/4" per foot slope

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4-10-2003				6	ARK.			
				JOB NO.			45	
				①	PRECAST RAIL DETAILS		15230	



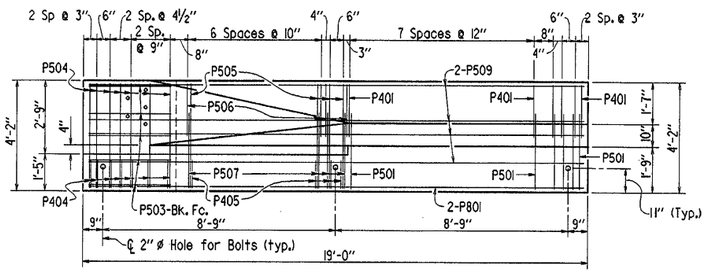
FRONT ELEVATION-PRECAST PARAPET RAIL FOR 31'-0" END SPAN

Scale ⅜" = 1'-0"



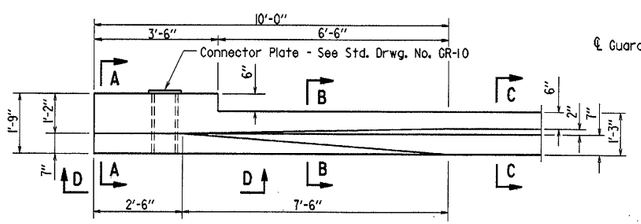
FRONT ELEVATION-PRECAST PARAPET RAIL FOR 25'-0" END SPAN

Scale ⅜" = 1'-0"



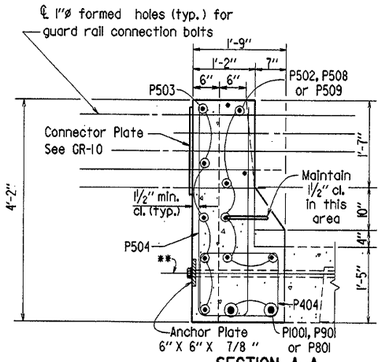
FRONT ELEVATION-PRECAST PARAPET RAIL FOR 19-0" END SPAN

Scale ⅜" = 1'-0"



TYPICAL PLAN OF PRECAST PARAPET RAIL FOR END SPAN

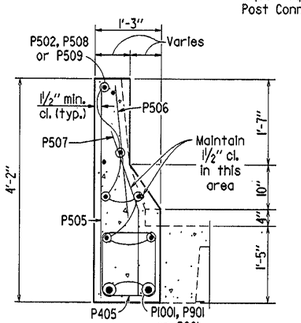
Scale ½" = 1'-0"



SECTION A-A

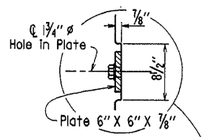
Scale ¾" = 1'-0"

** 1½" ø X 3'-0" Richmond S.C.A.B. or equal required at End Post Connections only.



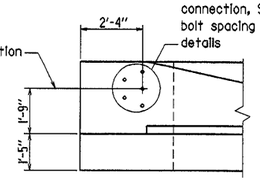
SECTION B-B

Scale ¾" = 1'-0"



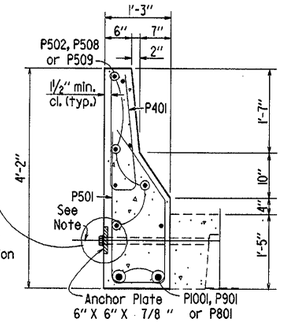
Note :
2" ø Hole for Bolt.
1½" ø X 2'-6" Richmond Screw Anchor & Bolt Assembly or equal is typical for all connections except as shown in SECTION A-A.

5 - 1"ø formed holes for guard rail connection, See Drwg. No. GR-10 for bolt spacing and additional connection details



VIEW D-D

Scale ⅜" = 1'-0"

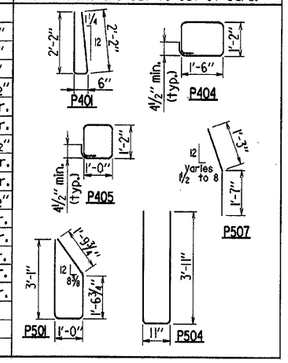


SECTION C-C

Scale ¾" = 1'-0"

BAR LIST FOR PARAPET RAIL UNITS

MARK	NUMBER REQUIRED PER RAIL 19'-0" RAIL	25'-0" RAIL	31'-0" RAIL	LENGTH	PIN DIA.	BENDING DIAGRAMS Dimensions are out to out of bars.
P401	12	20	30	4'-8"	2"	
P404	7	7	7	5'-8"	2"	
P405	9	10	8	4'-8"	2"	
P501	12	20	30	7'-3"	2½"	
P502			8	30'-8"	Str.	
P503	5	5	5	3'-3"	Str.	
P504	7	7	7	8'-6"	2½"	
P505	9	10	8	3'-11"	Str.	
P506	9	10	8	2'-2"	Str.	
P507	9	10	8	2'-10"	2½"	
P508		8		24'-8"	Str.	
P509	8			18'-8"	Str.	
P801	2			18'-8"	Str.	
P901		2		24'-8"	Str.	
P1001			2	30'-8"	Str.	



NOTES

This drawing is to be used with drawing no. 15240, 15241 and/or 15242 of which all three contain details and general notes pertaining to this drawing.

⚠ Revised and redrawn: KDH 4-10-2003
Chkd. By: MAH

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF STANDARD PRECAST PARAPET RAILS FOR 19'-0", 25'-0", & 31'-0" PRECAST END SPANS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

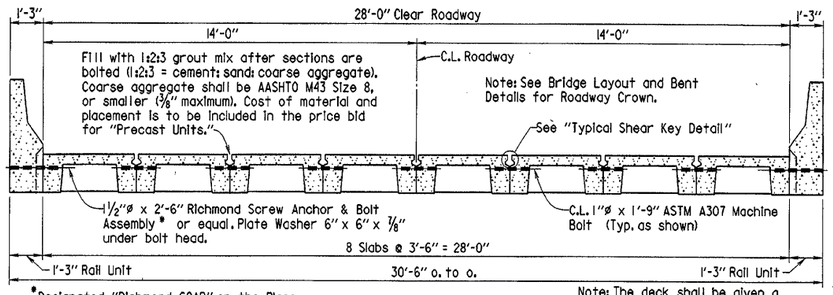
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 4-10-2003 FILENAME: BI5230.STD
CHECKED BY: MAH DATE: 4-10-2003 SCALE: AS SHOWN
DESIGNED BY: STD. DATE: -

BRIDGE NO. DRAWING NO. 15230

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4-10-2003				6	ARK.			
				JOB NO.			416	

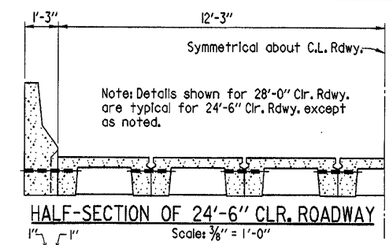
1 — 31' PRECAST SPAN — 15240



*Designated "Richmond SCAB" on the Plans.

CROSS-SECTION OF 28'-0" CLR. RDWY. (SHOWING ASSEMBLY)

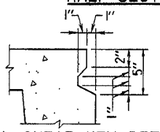
Scale: ⅜" = 1'-0"



HALF-SECTION OF 24'-6" CLR. ROADWAY

Scale: ⅜" = 1'-0"

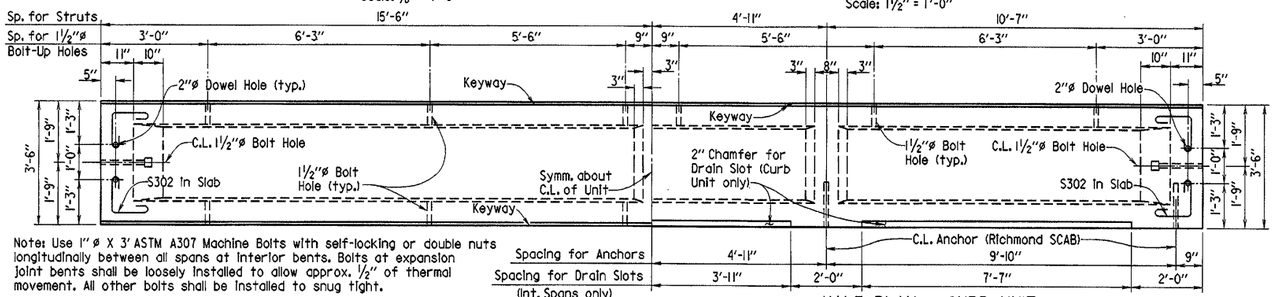
Note: The deck shall be given a fine finish as specified for Class 5 Roadway Surface Finish in subsection 802.19 of the Standard Specifications.



TYPICAL SHEAR KEY DETAIL

Scale: 1½" = 1'-0"

Note: All corners exposed after erection shall have a ½" minimum chamfer. All other corners shall have sufficient chamfer or rounding to prevent breakage during form removal, handling and erection.



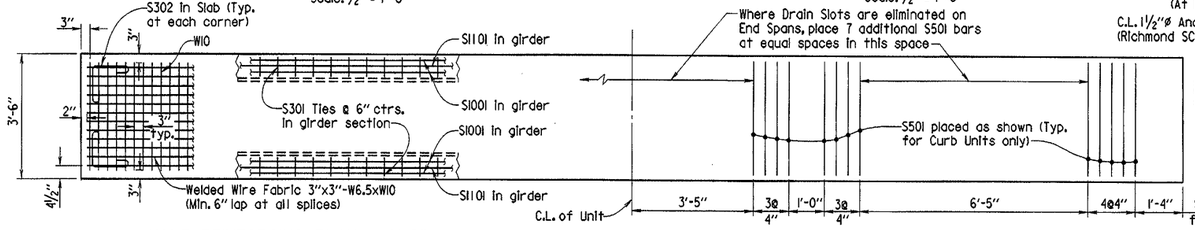
Note: Use 1" ø X 3' ASTM A307 Machine Bolts with self-locking or double nuts longitudinally between all spans at interior bents. Bolts at expansion joint bents shall be loosely installed to allow approx. ½" of thermal movement. All other bolts shall be installed to snug tight.

HALF PLAN - INTERIOR UNIT

Scale: ½" = 1'-0"

HALF PLAN - CURB UNIT

Scale: ½" = 1'-0"

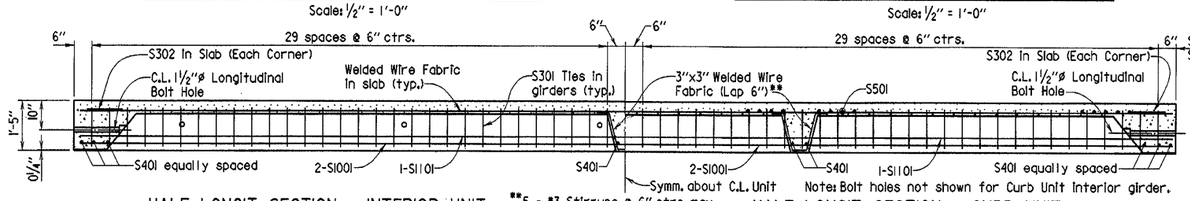


HALF REINFORCING PLAN - CURB & INT. UNITS

Scale: ½" = 1'-0"

HALF REINFORCING PLAN - CURB UNIT ONLY

Scale: ½" = 1'-0"



Note: Bolt holes not shown for Curb Unit interior girder.

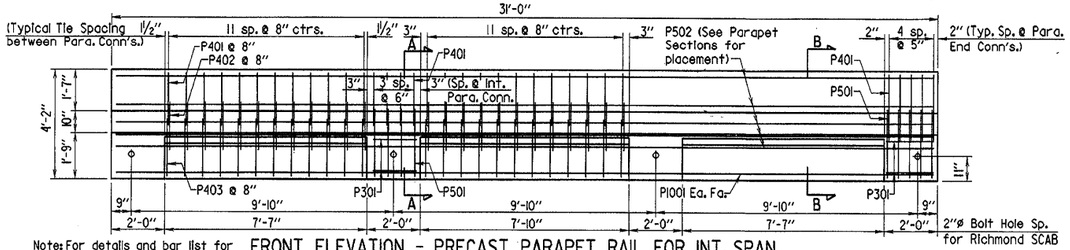
HALF LONGIT. SECTION - INTERIOR UNIT

Scale: ½" = 1'-0"

**5 - #3 Stirrups @ 6" ctrs. may be used in place of wire fabric in strut.

HALF LONGIT. SECTION - CURB UNIT

Scale: ½" = 1'-0"



Note: For details and bar list for Precast Parapet Rail at End Span, see std. drwg. no. 15230.

FRONT ELEVATION - PRECAST PARAPET RAIL FOR INT. SPAN

Scale: ⅜" = 1'-0"

BAR LIST FOR PRECAST BRIDGE COMPONENTS

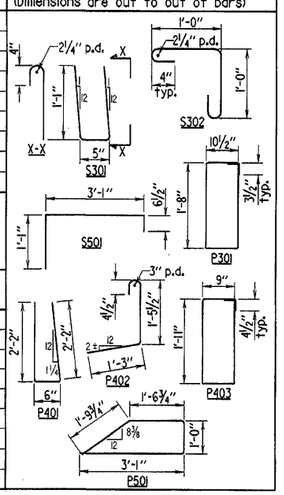
PRECAST SLAB UNIT

Note: Bar designations ending with "E" indicate epoxy coated bars.

MARK	NUMBER REQUIRED CURB UNIT	NUMBER REQUIRED INT. UNIT	LENGTH	P.D.
S301	122	122	3'-3½"	1½"
S302	4	4	2'-9"	1½"
S401	10	8	3'-2"	Str.
S501	26 (A)	-	4'-6"	2½"
S701E	(B)	(B)	1'-11"	Str.
S1001	4	4	30'-8"	Str.
S1101	2	2	30'-8"	Str.

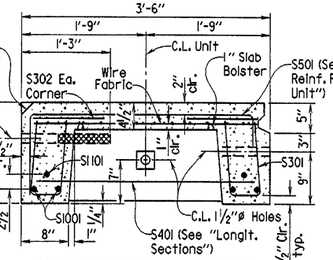
(A) Plus 7 additional for each Drain Slot eliminated
(B) 2 Per Fixed end of each Unit

BENDING DIAGRAMS (Dimensions are out to out of bars)



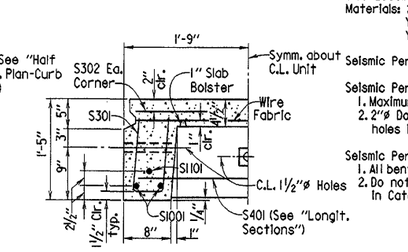
PRECAST PARAPET RAIL UNIT

MARK	NUMBER REQUIRED END SPAN	NUMBER REQUIRED INT. SPAN	LENGTH	P.D.
P301	See Std. Drwg. No. 15230	8	5'-4"	1½"
P401		54	4'-8"	2"
P402		36	3'-1½"	2"
P403		36	5'-8"	2"
P501		18	7'-2"	2½"
P502		9	30'-8"	Str.
P1001		2	30'-8"	Str.



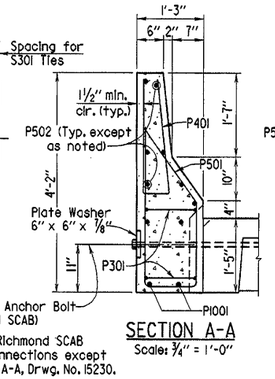
SECTION THRU CURB UNIT

Scale: 1" = 1'-0"



HALF-SECTION THRU INT. UNIT

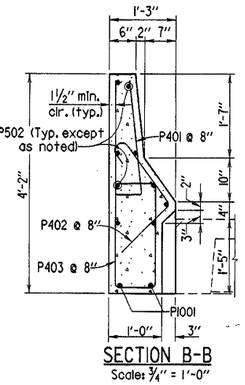
Scale: 1" = 1'-0"



SECTION A-A

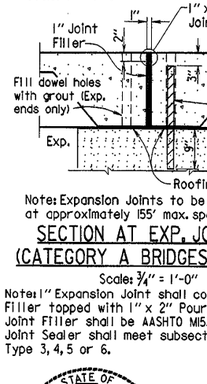
Scale: ¾" = 1'-0"

Note: 1½" x 2'-6" Richmond SCAB typical for all connections except as shown in View A-A, Drwg. No. 15230.



SECTION B-B

Scale: ¾" = 1'-0"

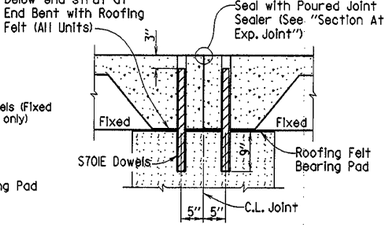


Note: Expansion Joints to be placed at approximately 155' max. spacings.

SECTION AT EXP. JOINT (CATEGORY A BRIDGES ONLY)

Scale: ¾" = 1'-0"

Note: 1" Expansion Joint shall consist of 1" Joint Filler topped with 1" x 2" Poured Joint Sealer. Joint Filler shall be AASHTO M153, Type I. Poured Joint Sealer shall meet subsection 501.02(h) (2), Type 3, 4, 5 or 6.



Note: After each unit is in its final position, S701E Dowels shall be grouted in place using a QPL approved non-shrink grout that completely fills the holes.

SECTION AT FIXED BENT

No Scale

GENERAL NOTES

All Reinforcing steel shall be AASHTO M31 or M53, Grade 60. Wire fabric shall be AASHTO M55 or M221. Reinforcing steel and wire fabric shall be accurately located in the forms and securely held in place by steel wire supports.

Concrete for precast units shall be Class S(AE) except that the coarse aggregate size shall meet AASHTO M43, Size 67 (¾" Max.).

Standard washers shall be provided under head and nut of all bolts in connection with concrete. Bolts shall be A307. All bolts, washers and nuts shall be galvanized to meet AASHTO M232, Class C or M298, Class 50.

Screw Anchor and Bolt Assembly (SCAB) shall be 1½"ø Richmond Screw Anchor or equal, and have a minimum ultimate strength of 65,000 psi in tension. Assembly shall be galvanized to meet AASHTO M232, Class C or M298, Class 50. Plate Washers for SCAB shall be AASHTO M270, Grade 36 and shall be galvanized to meet AASHTO M111.

Camber required for dead load deflection is ⅜". Deviation of more than ¼" in dimension of grade or line will be cause for rejection.

Concrete, reinforcing, wire mesh, bar supports, bolts, nuts, washers, threaded anchors, grout, roofing felt bearing pad and expansion joint fillers are considered subsidiary to the pay items for Precast Concrete Units. Roofing felt shall meet or exceed the requirements of ASTM D224 Type I. See Section 802.18(d). The roofing felt shall be in one piece for the full length of the cap and three layers shall be used.

Ends of adjacent units shall be coated (1/16"±) with asphaltic paint. The coating shall adhere and set firm and its softening point shall not be less than 140°F.

Bid items shall be as follows:
"31' Precast Concrete Curb Units"
"31' Precast Concrete Interior Units"
"31' Precast Parapet Rail Units"

Design Specifications: AASHTO 2002
Method of Design: Load Factor
Live Loading: HS 20, 0.9 Wheels per Unit
Materials: 28 Day compressive strength of Concrete = 4,000 psi
Yield strength of Grade 60 Steel = 60,000 psi
Yield strength of Wire Fabric = 65,000 psi

Seismic Performance Category: A, B or C

Seismic Performance Category A:
1. Maximum spacing between 1 inch Expansion Joints is 155 feet.
2. 2"ø Dowel holes at expansion ends are not required. Grout holes if they exist.

Seismic Performance Category B or C:
1. All bents shall be fixed.
2. Do not use this drawing with bridge lengths that exceed 155 feet in Category B or 93 feet in Category C.

Note: For details and bar list for Precast Parapet Rail at End Span, see std. drwg. no. 15230.

STATE OF ARKANSAS * * * REGISTERED PROFESSIONAL ENGINEER * * * No. 4337 CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF STANDARD 31'-0" PRECAST CONCRETE SPANS 28'-0" & 24'-6" CLEAR ROADWAYS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

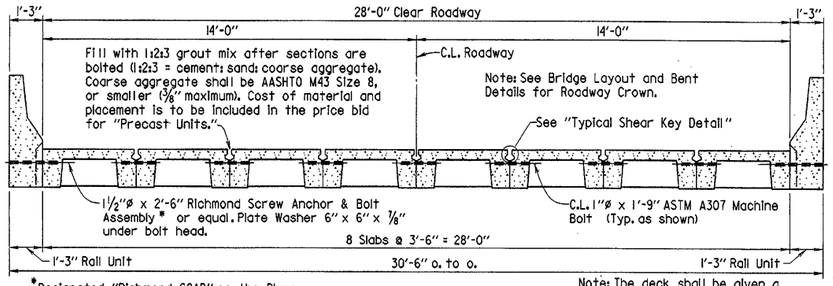
DRAWN BY: KDH DATE: 4-10-2003 FILENAME: BI5240.STD
CHECKED BY: MAH DATE: 4-10-2003 SCALE: As Shown
DESIGNED BY: STD. DATE:

BRIDGE NO. DRAWING NO. 15240

1 Revised and redrawn: KDH 4-10-2003
Chkd. By: MAH

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6-24-94	6-27-94	11-16-2001		6	ARK.			
2-20-97	2-20-97	10-09-03		JOB NO.			417	
01-12-2000	01-12-2000							

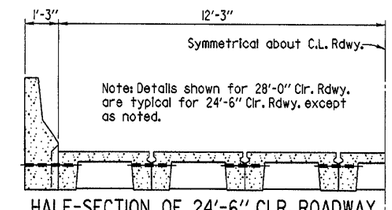
(1) 25' PRECAST SPAN 15241



*Designated "Richmond SCAB" on the Plans.

CROSS-SECTION OF 28'-0" CLR. RDWY. (SHOWING ASSEMBLY)

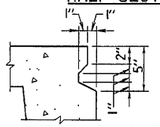
Scale: ⅜" = 1'-0"



HALF-SECTION OF 24'-6" CLR. ROADWAY

Scale: ⅜" = 1'-0"

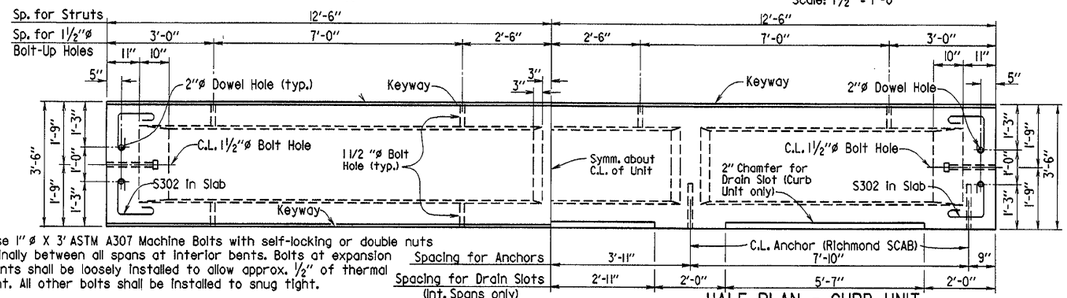
Note: The deck shall be given a tine finish as specified for Class 5 Roadway Surface Finish in subsection 802.19 of the Standard Specifications.



Note: All corners exposed after erection shall have a ½" minimum chamfer. All other corners shall have sufficient chamfer or rounding to prevent breakage during form removal, handling and erection.

TYPICAL SHEAR KEY DETAIL

Scale: 1½" = 1'-0"



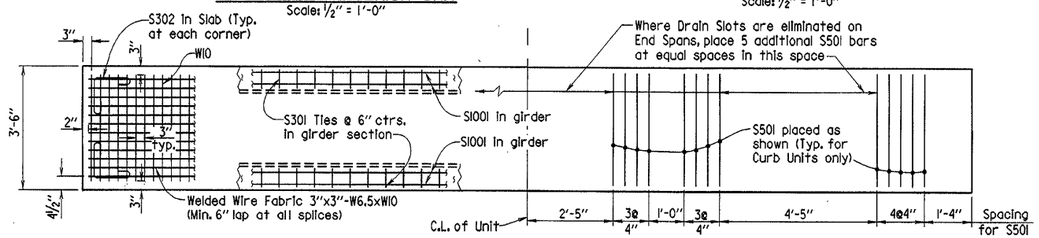
Note: Use 1" ø X 3' ASTM A307 Machine Bolts with self-locking or double nuts longitudinally between all spans at interior bents. Bolts at expansion joint bents shall be loosely installed to allow approx. ½" of thermal movement. All other bolts shall be installed to snug tight.

HALF PLAN - INTERIOR UNIT

Scale: ½" = 1'-0"

HALF PLAN - CURB UNIT

Scale: ½" = 1'-0"

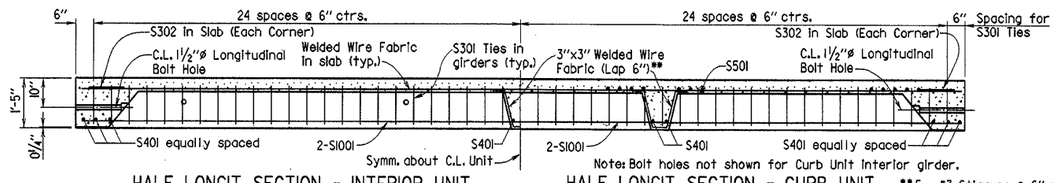


HALF REINFORCING PLAN - CURB & INT. UNITS

Scale: ½" = 1'-0"

HALF REINFORCING PLAN - CURB UNIT ONLY

Scale: ½" = 1'-0"



Note: Bolt holes not shown for Curb Unit interior girder.

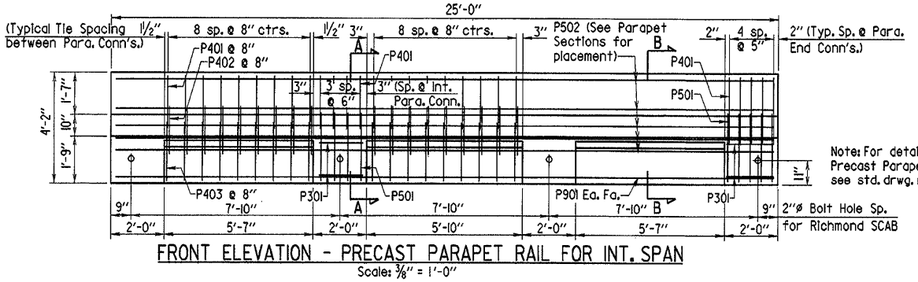
HALF LONGIT. SECTION - INTERIOR UNIT

Scale: ½" = 1'-0"

HALF LONGIT. SECTION - CURB UNIT

Scale: ½" = 1'-0"

**5 - #3 Stirrups @ 6" ctrs. may be used in place of wire fabric in strut.



FRONT ELEVATION - PRECAST PARAPET RAIL FOR INT. SPAN

Scale: ⅜" = 1'-0"

Note: For details and bar list for Precast Parapet Rail at End Span, see std. drwg. no. 15230.

BAR LIST FOR PRECAST BRIDGE COMPONENTS

PRECAST SLAB UNIT

Note: Bars designated with an "E" are to be epoxy coated.

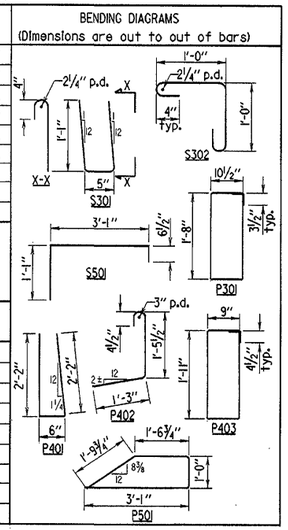
MARK	NUMBER REQUIRED CURB UNIT	NUMBER REQUIRED INT. UNIT	LENGTH	P.D.
S301	98	98	3'-3½"	1½"
S302	4	4	2'-9"	1½"
S401	10	8	3'-2"	Str.
S501	26 (A)	-	4'-6"	2½"
3 S601E	(B)	(B)	1'-11"	Str.
S1001	4	4	24'-8"	Str.

(A) Plus 5 additional for each Drain Slot eliminated
(B) 2 Per Fixed end of each Unit

PRECAST PARAPET RAIL UNIT

MARK	NUMBER REQUIRED END SPAN	NUMBER REQUIRED INT. SPAN	LENGTH	P.D.
P301	See Std. Drwg. No. 15230	8	5'-4"	1½"
P401		45	4'-8"	2"
P402		27	3'-1½"	2"
P403		27	5'-8"	2"
P501		18	7'-2"	2½"
P502		9	24'-8"	Str.
P901		2	24'-8"	Str.

BENDING DIAGRAMS (Dimensions are out to out of bars)



GENERAL NOTES

All Reinforcing steel shall be AASHTO M31 or M53, Grade 60. Wire fabric shall be AASHTO M55 or M221. Reinforcing steel and wire fabric shall be accurately located in the forms and securely held in place by steel wire supports.

Concrete for precast units shall be Class S(AE) except that the coarse aggregate size shall meet AASHTO M43, Size 67 (¾" Max.).

Standard washers shall be provided under head and nut of all bolts in connection with concrete. Bolts shall be A307. All bolts, washers and nuts shall be galvanized to meet AASHTO M232, Class C or M298, Class 50.

Screw Anchor and Bolt Assembly (SCAB) shall be 1½"ø Richmond Screw Anchor or equal, and have a minimum ultimate strength of 65,000 psi in tension. Assembly shall be galvanized to meet AASHTO M232, Class C or M298, Class 50. Plate Washers for SCAB shall be AASHTO M270, Grade 36 and shall be galvanized to meet AASHTO M111.

Camber required for dead load deflection is ¼". Deviation of more than ¼" in dimension of grade or line will be cause for rejection.

2 Concrete, reinforcing, wire mesh, bar supports, bolts, nuts, washers, threaded anchors, grout, roofing felt bearing pad and expansion joint fillers are considered subsidiary to the pay items for the Precast Concrete Units. Roofing felt shall meet or exceed the requirements of ASTM D224 Type I. See Section 802.18(d). The roofing felt shall be in one piece for the full length of the cap and three layers shall be used.

Ends of adjacent units shall be coated (1/16"±) with asphaltic paint. The coating shall adhere and set firm and its softening point shall not be less than 140°F.

Bid items shall be as follows:
"25' Precast Concrete Curb Units"
"25' Precast Concrete Interior Units"
"25' Precast Parapet Rail Units"

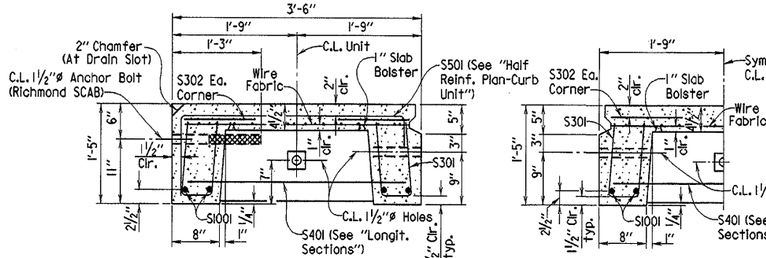
4 Design Specifications: AASHTO 2002
Method of Design: Load Factor
Live Loading: HS 20, 0.9 Wheels per Unit
Materials: 28 Day compressive strength of Concrete = 4,000 psi
Yield strength of Grade 60 Steel = 60,000 psi
Yield strength of Wire Fabric = 65,000 psi

Seismic Performance Category: A, B or C

Seismic Performance Category A:
1. Maximum spacing between 1 inch Expansion Joints is 155 feet.
2. 2"ø Dowel holes at expansion ends are not required. Grout holes if they exist.

Seismic Performance Category B or C:
1. All bents shall be fixed.
2. Do not use this drawing with bridge lengths that exceed 155 feet in Category B or 93 feet in Category C.

Note: For details and bar list for Precast Parapet Rail at End Span, see std. drwg. no. 15230.

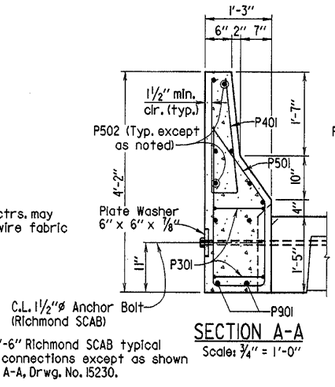


SECTION THRU CURB UNIT

Scale: 1" = 1'-0"

HALF-SECTION THRU INT. UNIT

Scale: 1" = 1'-0"



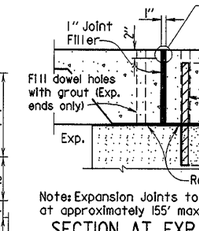
Note: 1½" x 2'-6" Richmond SCAB typical for all connections except as shown in View A-A, Drwg. No. 15230.

SECTION A-A

Scale: ¾" = 1'-0"

SECTION B-B

Scale: ¾" = 1'-0"



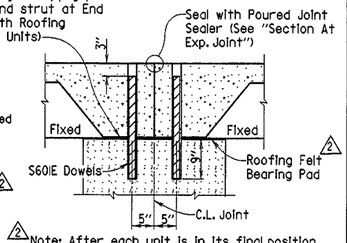
Note: Expansion Joints to be placed at approximately 155' max. spacings.

SECTION AT EXP. JOINT (CATEGORY A BRIDGES ONLY)

Scale: ¾" = 1'-0"

Note: 1" Expansion Joint shall consist of 1" Joint Filler topped with 1" x 2" Poured Joint Sealer. Joint Filler shall be AASHTO M153, Type I, Poured Joint Sealer shall meet subsection 501.02(h) (2), Type 3, 4, 5 or 6.

2 Completely fill ¼" gap below end strut at End Bent with Roofing Felt (All Units)



2 Note: After each unit is in its final position, S601E Dowels shall be grouted in place using a QPL approved non-shrink grout that completely fills the holes.

SECTION AT FIXED BENT

No Scale

4 Revised for current specifications and P.E. stamp 10-09-03 MJT Chk'd. By: JGT

3 Revised S601bars to S601E 11-16-2001, JAC Chk'd. by: JGT

2 Revised type of bearing pad material and grout specifications. 01-12-2000, AMS

1 Revised for 1996 Specs. and Redrawn 02-20-97 MJT Chk'd. By: RLW Date: 1-31-97

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND
BRIDGE ENGINEER

DETAILS OF STANDARD 25'-0" PRECAST CONCRETE SPANS 28'-0" & 24'-6" CLEAR ROADWAYS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

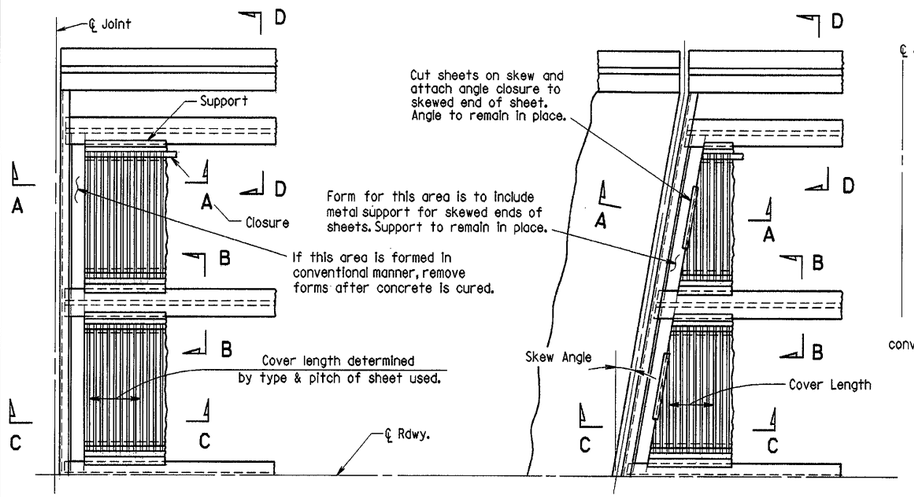
DRAWN BY: MJT DATE: 01-09-97
CHECKED BY: RLW DATE: 01-31-97
DESIGNED BY: STD. DATE: -
SCALE: As Shown

BRIDGE NO. DRAWING NO. 15241

FILENAME: B15240. STD

BI5241.STD

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
11-27-96						6	ARK.			
04-10-2003						JOB NO.			478	
						①	BR. DECK FORMS		14991	

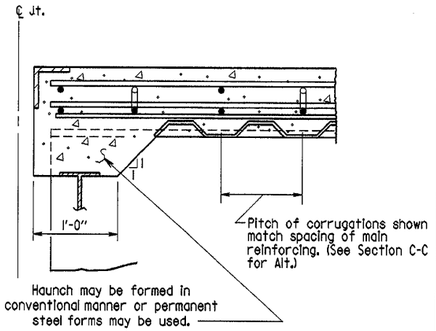


PART PLAN - SQUARE SPAN

3/8" = 1'-0"

PART PLAN - SKEWED SPAN

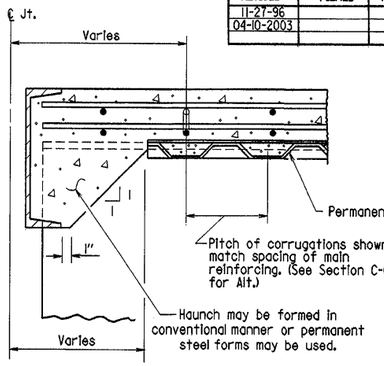
3/8" = 1'-0"



SECTION A-A

N.T.S.

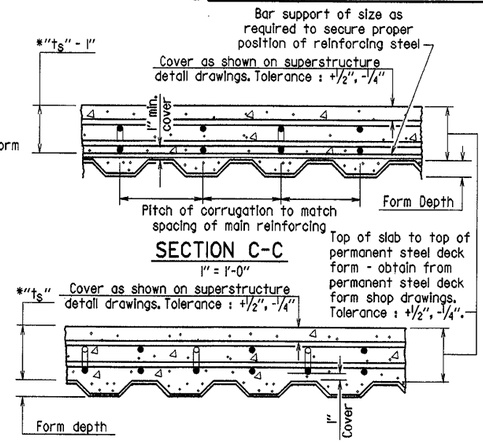
(Angle at end of span)



SECTION A-A

N.T.S.

(Channel at end of span)



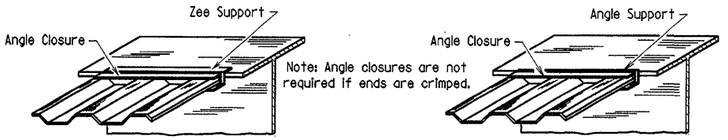
SECTION C-C

1" = 1'-0"

SECTION C-C - ALTERNATE

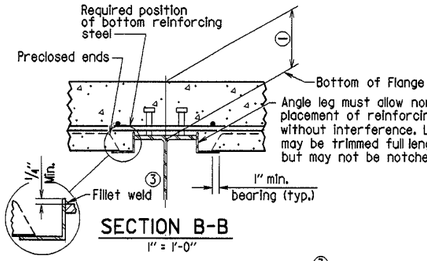
1" = 1'-0"

(Applicable when corrugations do not match spacing of main reinforcement)



SKETCH OF PERMISSIBLE SUPPORTS

N.T.S.

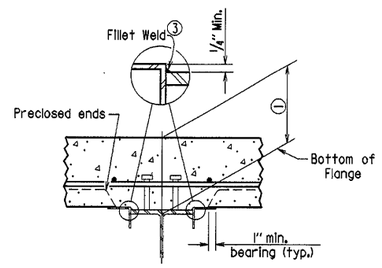


SECTION B-B

1" = 1'-0"

(Showing permissible support for tension flange where shear connectors are used, and for all compression flanges)

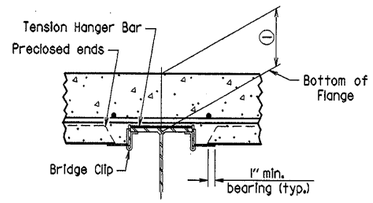
③ Minimum weld: 1/8" x 1" @ 18". More weld may be required; maximum length per weld = 1 1/2" (typ.)



SECTION B-B

1" = 1'-0"

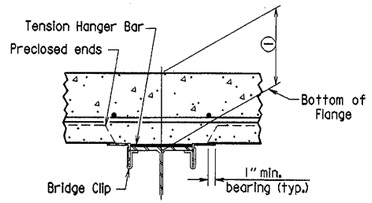
(Showing permissible support for tension flange where shear connectors are used and for all compression flanges)



SECTION B-B

1" = 1'-0"

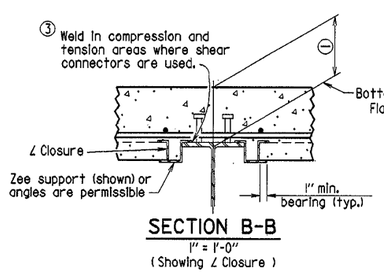
(Showing permissible support for tension flange where shear connectors are not used)



SECTION B-B

1" = 1'-0"

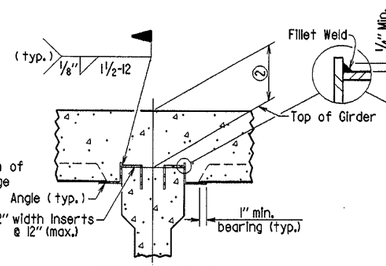
(Showing permissible support for tension flange where shear connectors are not used)



SECTION B-B

1" = 1'-0"

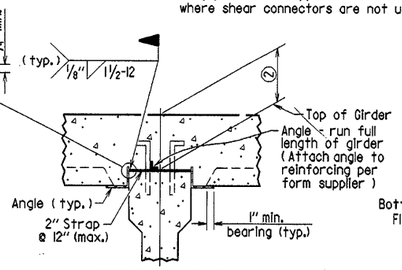
(Showing ∠ Closure)



SECTION B-B (FOR CONCRETE GIRDERS)

1" = 1'-0"

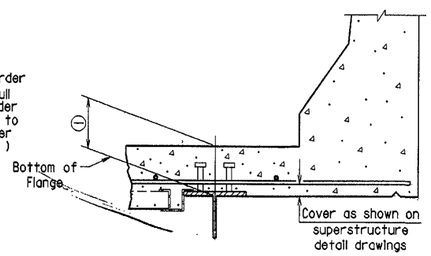
(Showing support by Insert cast in girder)



SECTION B-B (FOR CONCRETE GIRDERS)

1" = 1'-0"

(Showing support by Strap)



SECTION D-D

1" = 1'-0"

Note: Only Bottom Reinforcing is shown.

① Distance from top of slab to bottom of top flange as measured at centerline girder and as shown on superstructure detail drawings. This dimension may vary within the following limits to maintain the grade and slab thickness tolerances : Minimum - occurs when either the top flange or the support angle leg contacts the bottom reinforcing steel; Maximum = t_s + 1 3/4" + flange thickness. See Section C-C for slab thickness tolerance between adjacent girder flanges.

② Distance from top of slab to top of girder as measured at centerline girder and as shown on superstructure detail drawings. This dimension may vary within the following limits to maintain the grade and slab thickness tolerances : Minimum - occurs when either the top of girder or the support angle leg contacts the bottom reinforcing steel; Maximum - value shown on the superstructure detail drawings when removable forms are used. See Section C-C for slab thickness tolerance between adjacent girder flanges.

⚠2 Revised for 2003 AHTD Construction Specifications and CPB Seal. MJT 04-10-2003
Chk'd. By: CJF 04-10-2003

⚠1 Redrawn and revised 11/27/96; MJT

*t_s = slab thickness as shown on superstructure detail drawings.

GENERAL NOTES

Permanent steel deck forms may be used at the Contractor's option and shall be at no additional cost to the Department. Such use may result in changes to the dead load deflection of the girder. Any cost for adjustments due to a change in the dead load deflection will be borne by the Contractor. Payment for deck concrete and structural steel will not be increased due to use of permanent steel deck forms.

Permanent steel deck forms shall conform to subsection 802.14(b) of the Standard Specifications. Detailed plans, including detailed calculations and manufacturer's technical brochure, shall be submitted to and approved by the Bridge Engineer before work of forming the bridge deck is started.

Welding of form supports to the tension flange of steel girders will be permitted only in areas where shear connectors are used. When welding is not allowed, the method of fastening Z or ∠ supports to the flange must be approved by the Bridge Engineer.

Form sheets shall be fastened to supporting members and to each other with galvanized metal screws sufficient in size and number to provide a secure attachment. Alternate methods of attachment must be approved by the Bridge Engineer.

When the pitch of form corrugations match the reinforcing spacing, transversely align form sheets across the bridge to maintain the correct orientation of continuous reinforcing bars in the corrugations.

Bar support rods, when used, shall be sized and spaced to adequately support the bottom reinforcing mat at the required position.

High chairs shall be sized to support the top mat of reinforcing at the proper position. High chairs shall be placed at locations shown on the detail drawings.

⚠2 Specifications: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2003 Edition), with applicable supplemental specifications and special provisions.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4537
CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF PERMISSIBLE TYPE PERMANENT STEEL BRIDGE DECK FORMS FOR STEEL & CONCRETE GIRDER SPANS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

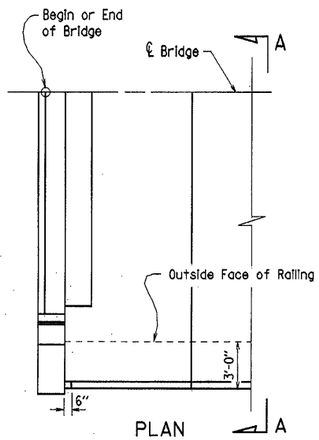
DRAWN BY: MJT DATE: 10-17-96
CHECKED BY: CPB DATE: 10-17-96
DESIGNED BY: STD. DATE: —
SCALE: as noted

BRIDGE NO. DRAWING NO. 14991

B14991.STD

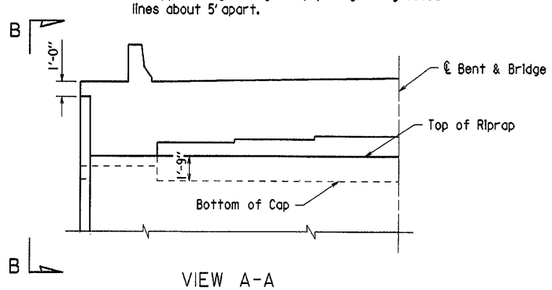
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
04-10-2003				6	ARK.			
				JOB NO.			419	

1 RIPRAP & PILE - 14995A

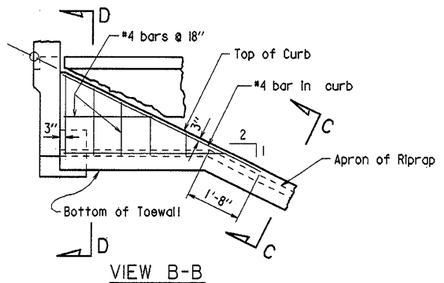


PLAN

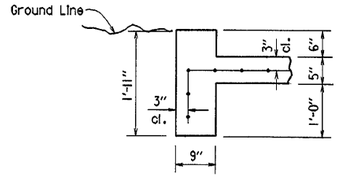
Note:
Sloped surfaces of concrete riprap to be marked off into blocks (construction joints optional) with an approved grooving tool, spacing the grooved lines about 5' apart.



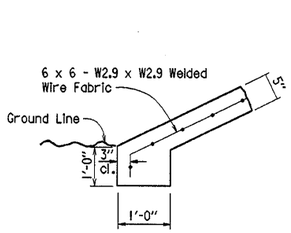
VIEW A-A



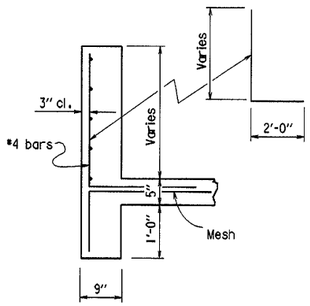
VIEW B-B



SECTION C-C

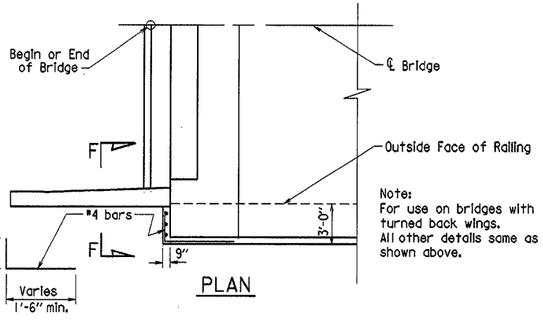


TOE WALL



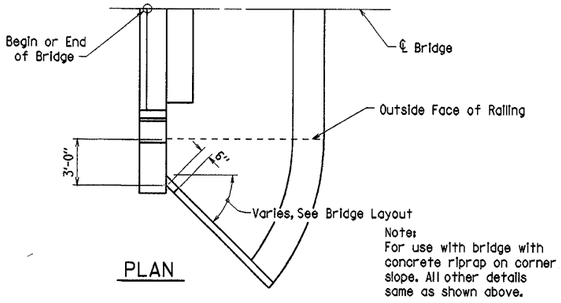
SECTION D-D

DETAILS OF CONCRETE RIPRAP



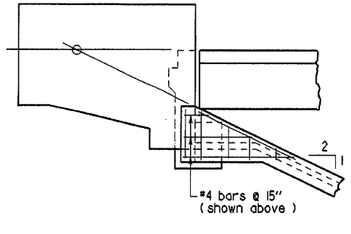
PLAN

Note:
For use on bridges with turned back wings. All other details same as shown above.

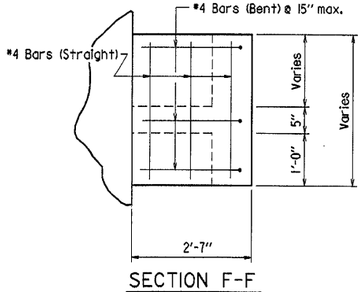


PLAN

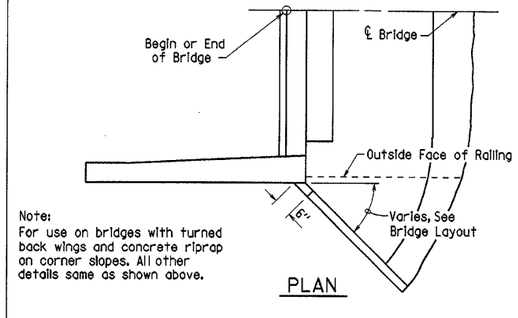
Note:
For use with bridge with concrete riprap on corner slope. All other details same as shown above.



ELEVATION

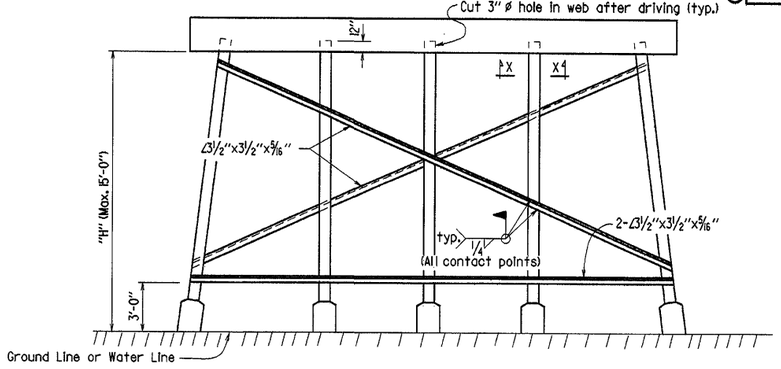


SECTION F-F



Note:
For use on bridges with turned back wings and concrete riprap on corner slopes. All other details same as shown above.

PLAN



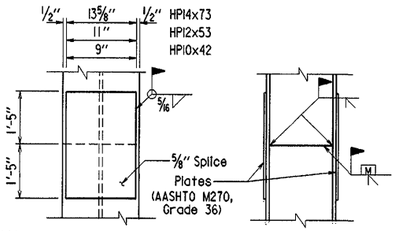
Note:
All bracing shall be cut and welded in the field. Each brace shall be furnished in one piece. Payment shall be made under Item 807.

Omit bottom bracing where "H" is less than 10 ft. Omit all bracing where "H" is less than 5 ft.

Note:
Where required by the bridge layout sheet, pile encasements shall be constructed.

Omit bracing (and V-groove in cap) where pile encasement is extended to bottom of bent cap.

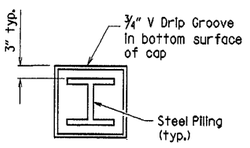
TYPICAL BRACING FOR INT. STEEL PILE BENTS



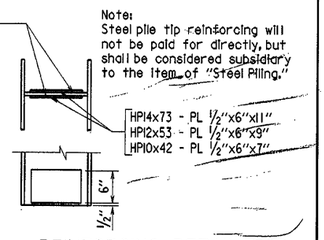
Note:
The contractor may for his own convenience and at this own expense provide as many as three splices per pile for steel bearing piling. Minimum spacing between splices shall be 5 ft.

PILE SPLICE DETAIL

Scale : 1" = 1'-0"

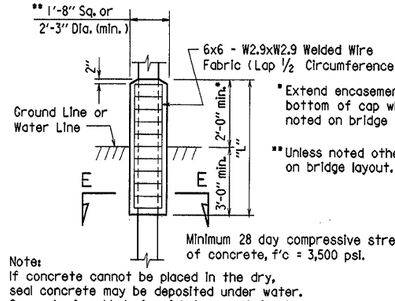


VIEW X-X



REINFORCING DETAIL FOR STEEL PILE TIP

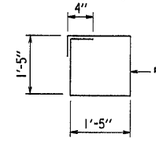
Scale : 1" = 1'-0"

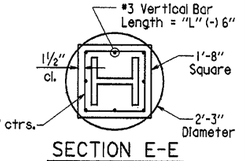


Note:
If concrete cannot be placed in the dry, seal concrete may be deposited under water. Concrete & welded wire fabric or reinforcing in encasements shall be paid for at the contract unit price per linear foot bid for "Pile Encasement."

PILE ENCASEMENT DETAIL

Reinforcing Alternate
#3 Vertical - 8 per encasement
#3 ties @ 12" ctrs.
Yield Strength, fy = 60,000 psi.





SECTION E-E
REINF. ALTERNATE

⚠ Revised and redrawn MJT 04-10-2003
Chk'd. By: CJF 04-10-2003

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND

BRIDGE ENGINEER

DETAILS OF CONCRETE RIPRAP AND MISC. DETAILS OF STEEL PILING

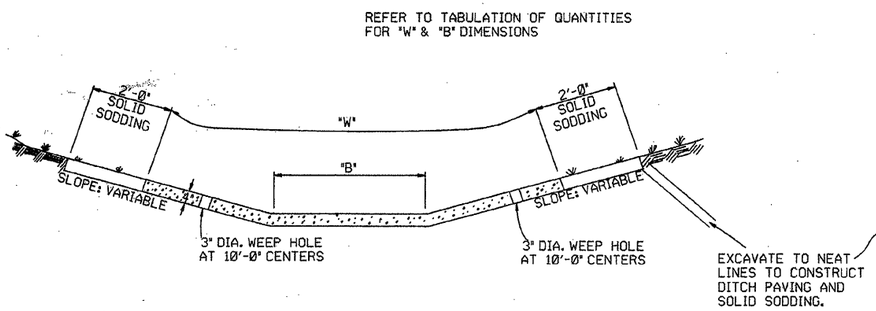
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

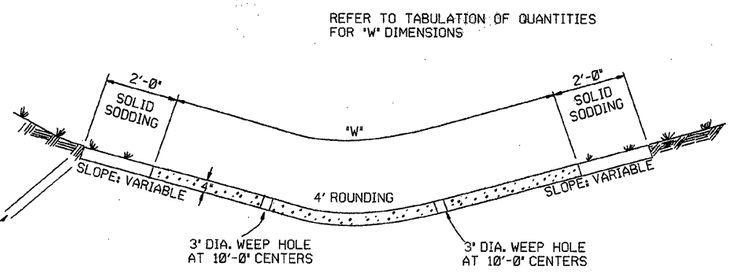
LITTLE ROCK, ARK.

DRAWN BY: MJT DATE: 04-10-2003 FILENAME: BI14995A.STD
CHECKED BY: CJF DATE: 04-10-2003 SCALE: No Scale or As Noted
DESIGNED BY: STD. DATE: —

BRIDGE NO. DRAWING NO. 14995A

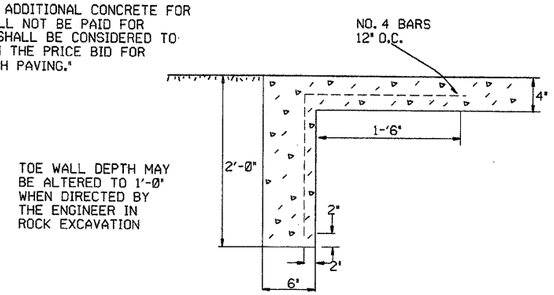


TYPE A



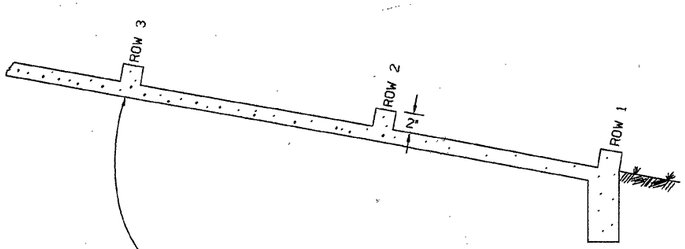
TYPE B

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."



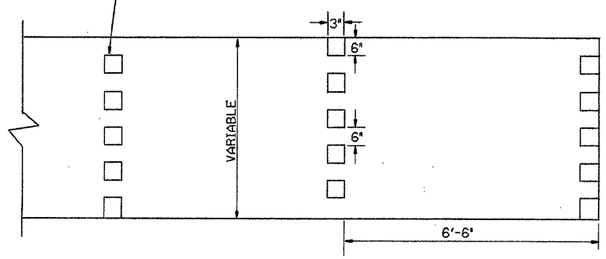
TOE WALL DEPTH MAY BE ALTERED TO 1'-0" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION

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.

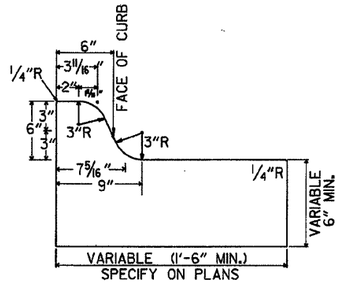
SOLID SOD ALONG DITCH PAVING TO BE PLACED WITHIN 14 DAYS OF DITCH PAVING CONSTRUCTION.

DATE	REVISION	DATE FILM'D
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

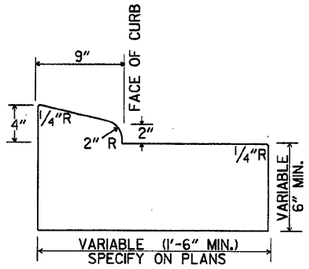
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE DITCH PAVING

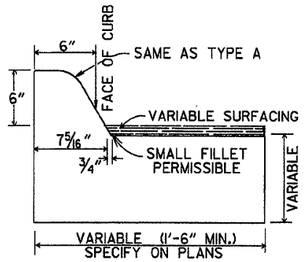
STANDARD DRAWING CDP-1



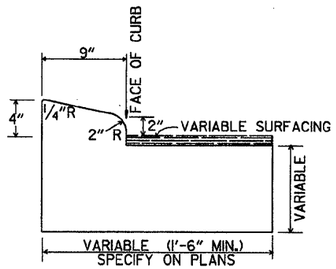
TYPE A



TYPE B-1

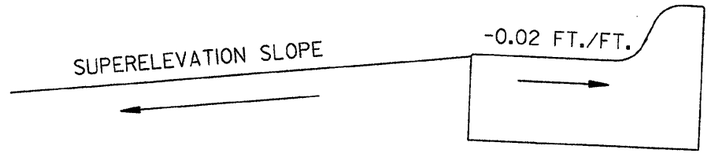


TYPE C

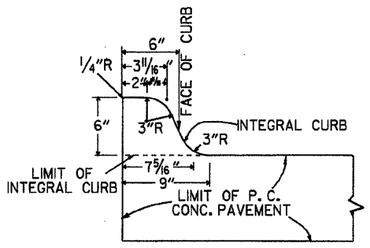


TYPE B-2

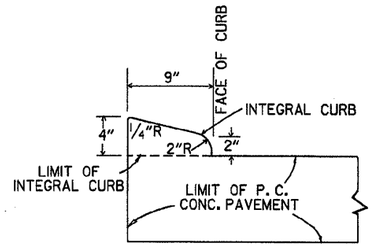
CONCRETE COMBINATION CURB AND GUTTER



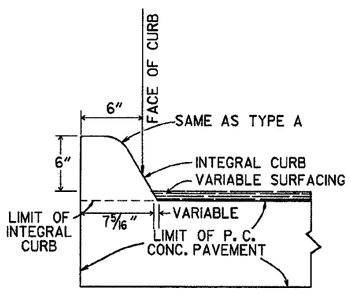
DETAIL OF GUTTER SLOPE ON HIGH SIDE OF SUPERELEVATION



TYPE A

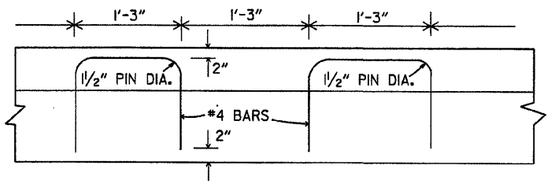


TYPE B

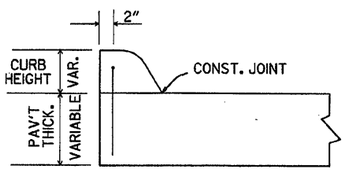


TYPE C

INTEGRAL CURB

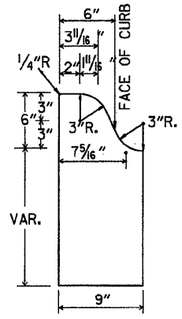


LONGITUDINAL SECTION

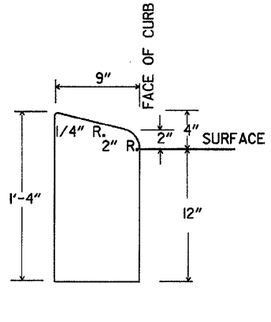


ELEVATION

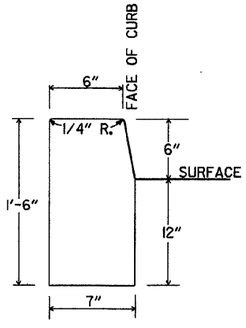
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



TYPE A

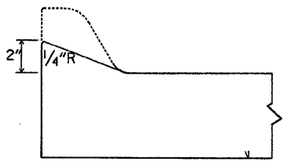


TYPE B



TYPE D

CONCRETE CURB



NOTE: USE MODIFIED CURB AS SPECIFIED ON STD. DR-1. COMPENSATION FOR MODIFIED CURB WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE TYPE OF CURB OR CURB AND GUTTER SPECIFIED.

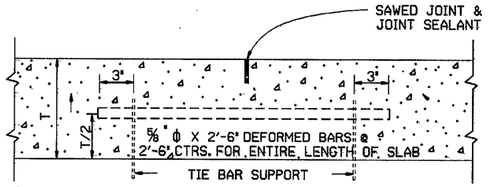
DETAILS OF MODIFIED CURB

DATE	REVISION	DATE FILMED
11-16-01	REVISED CONCRETE CURB TYPE B	
11-18-98	REVISED MODIFIED CURB	
6-2-94	ADDED NOTE TO SPECIAL MODIFIED CURB	
8-5-93	CORRECTED GUTTER SLOPE	8-5-93
10-1-92	ADDED DETAILS OF GUTTER SLOPE	10-1-92
5-24-90	ADDED DETAILS OF MODIFIED CURB	5-24-90
11-30-89	VARIBLE DEPTH TYPE A & B 1	11-30-89
7-15-88	REVISED MODIFIED CURB	630-7-15-88
11-1-73	REVISED MODIFIED CURB	500-11-1-73
10-2-72	REVISED AND REDRAWN	512-10-2-72

ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

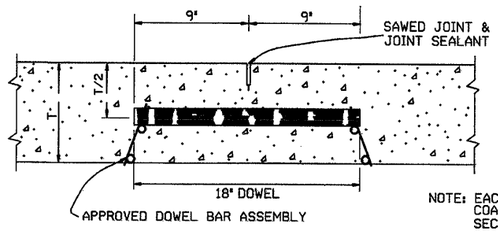
STANDARD DRAWING CG-1



LONGITUDINAL JOINT

NOTE: THE TIE BAR SUPPORT SHOWN ABOVE MAY BE ELIMINATED IF OTHER APPROVED METHODS FOR PLACING AND SUPPORTING THE TIE BARS ARE PROVIDED.

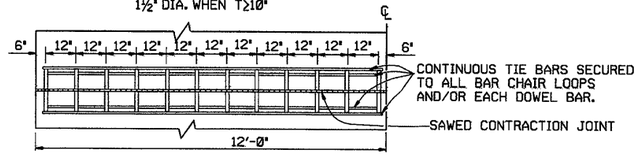
TIE BARS SHALL BE 15' FROM TRANSVERSE JOINTS.



NOTE: EACH DOWEL TO BE COATED ACCORDING TO SECTION 502 OF THE STANDARD SPECIFICATIONS.

ROUND STEEL BAR DOWEL

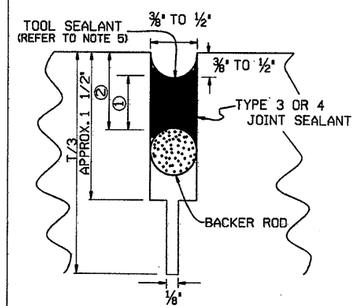
1¼" DIA. WHEN T<10"
1½" DIA. WHEN T≥10"



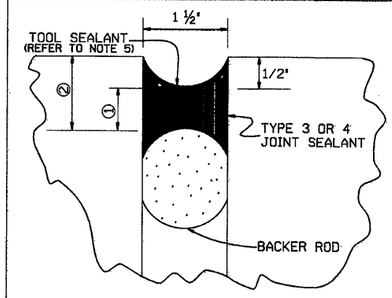
ONE-HALF 24' PAVEMENT
12 DOWELS
PLAN

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

CONTRACTION JOINT DETAILS



DETAIL OF SAWED CONTRACTION JOINT



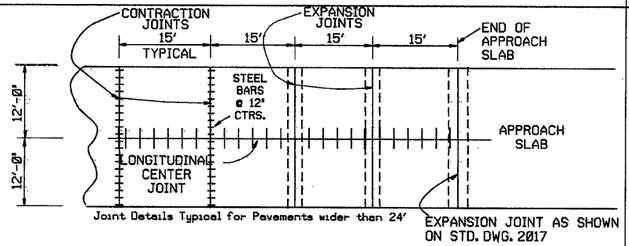
DETAIL OF EXPANSION JOINT

JOINT CONFIGURATION FOR TYPE 3 OR 4 JOINT SEALANT

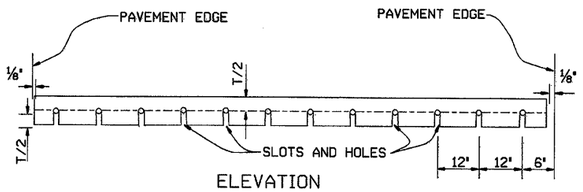
JOINT WIDTH	SEALANT THICKNESS ①	BACKER ROD DIAMETER	BACKER ROD PLACEMENT DEPTH ②
INCHES			
¼	¼	⅜	½
⅜	¼	½	½
½	¼	⅝	½
⅝	¼	¾	½
¾	¾	⅞	¾
1 ½	¾	2	1 ¼

JOINT CONFIGURATION FOR TYPE 5 JOINT SEALANT

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

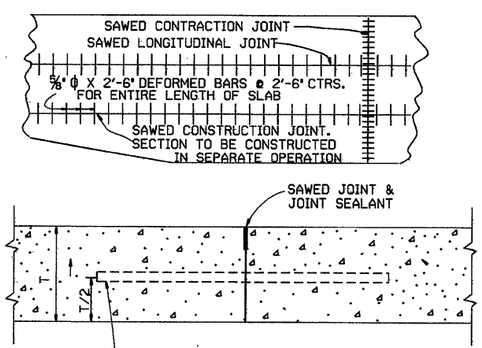


PLAN SHOWING EXPANSION JOINTS AT BRIDGE APPROACH SLABS



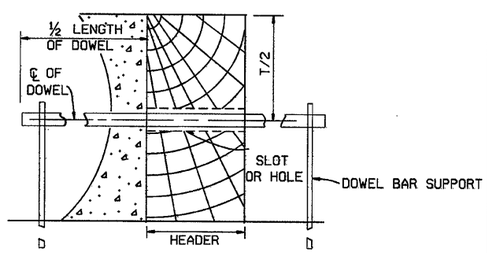
ELEVATION

NOTE: ALL DOWEL BARS SHALL CONFORM TO THE DETAILS FOR CONTRACTION JOINTS.



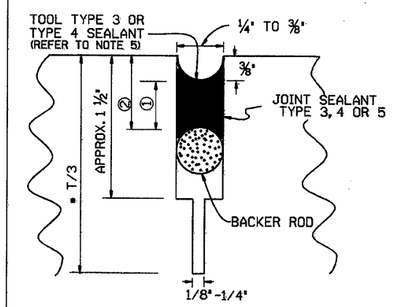
NOTE: TIE BARS SHALL BE 15' FROM TRANSVERSE JOINTS.

LONGITUDINAL CONSTRUCTION JOINT



SECTION

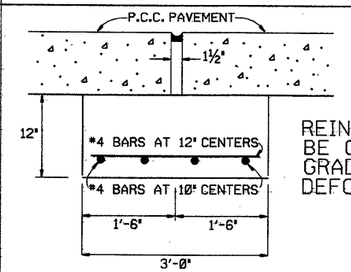
TRANSVERSE CONSTRUCTION JOINT



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

DETAIL OF SAWED LONGITUDINAL JOINT AND LONGITUDINAL CONSTRUCTION JOINT

DATE	REVISION	DATE FILMED
10-9-03	REMOVED TIE BAR COATING & REVISED GENERAL NOTES	10-9-03
11-16-01	ADDED TOOL SEALANT AND NOTE 5; REVISED NOTE 3	
4-26-96	REVISED CONTRACTION JOINT NOTE	
11- 3-94	ADDED NOTE RE: REINF. BARS	
4- 1-93	REVISED DOWEL BARS & GEN. NOTES	4- 1-93
10- 1-92	REVISED DOWEL SPACING	10- 1-92
8- 15-91	ADDED SPAC FOR CONTR JTS & DEL KEYWAY	
05-24-90	REVISED TIE BAR, DOWEL & JOINT SIZE	
01-25-90	ADDED EXPANSION JOINT	01-25-90
11-30-89	CHANGED T/4+1 TO T/3+1	11-30-89
03-23-89	ALTERED SAWED JOINT & ADDED NOTE	512-03-23-89
07-15-88	REVISED AND REDRAWN	632-07-15-88



REINFORCING SHALL BE GRADE 40 OR GRADE 60 DEFORMED BARS.

DETAIL OF JOINT SUPPORT FOR EXPANSION JOINTS

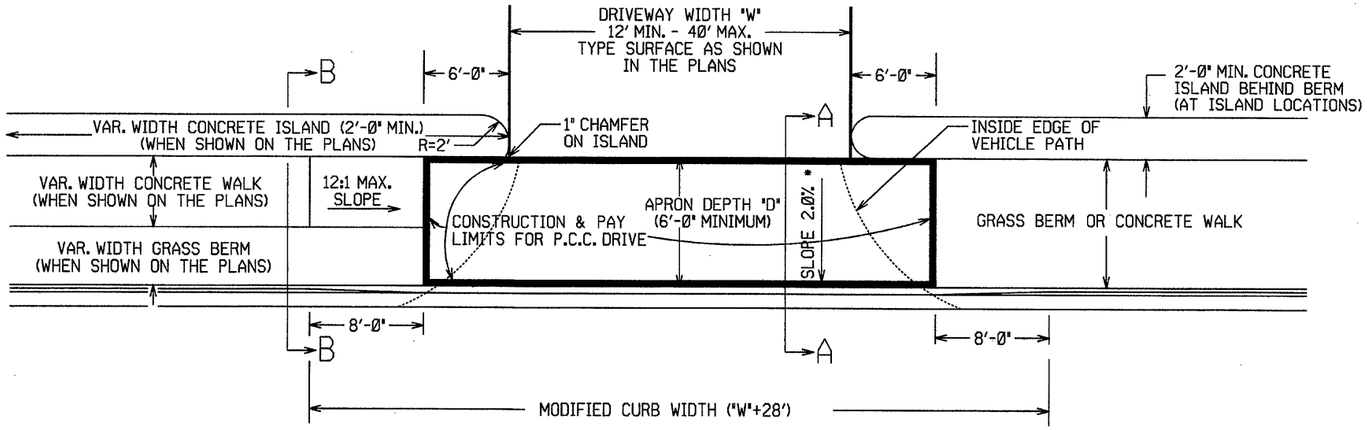
GENERAL NOTES

1. 'T' DENOTES THICKNESS OF SLAB.
2. DOWEL BARS SHALL BE PLACED IN ACCORDANCE WITH THE DIMENSIONS SHOWN. A TOLERANCE OF PLUS OR MINUS ONE INCH WILL BE ALLOWED FOR THE VERTICAL AND LATERAL PLACEMENT AND A TOLERANCE OF PLUS OR MINUS ¼" WILL BE ALLOWED FOR THE TILT AND SKEW. DOWEL BARS SHALL BE FIELD COATED FOR A MINIMUM DISTANCE OF 2" GREATER THAN HALF THE LENGTH OF THE BAR WITH AN APPROVED GREASE AS A BOND BREAKER JUST PRIOR TO PLACEMENT OF CONCRETE.
3. THE EXPANSION JOINT SUPPORT MAY BE CONSTRUCTED WITH CLASS "A", "S" OR PAVING CONCRETE. PAYMENT FOR THE JOINT SUPPORT SHALL BE FOR THE CONTRACT UNIT PRICE BID FOR THE CLASS OF CONCRETE SPECIFIED IN THE PLANS. PAYMENT FOR ALL OTHER WORK AND MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE JOINT SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE ABOVE ITEMS.
4. CONTRACTION JOINTS SHALL BE CONSTRUCTED ON 15' CENTERS.
5. TOOLING NOT REQUIRED FOR SELF-LEVELING SILICONE.
6. UNLESS OTHERWISE SPECIFIED IN THE PLANS, CONCRETE SHOULDERS SHALL BE CONSTRUCTED ACCORDING TO THE DETAILS SHOWN HEREON. CONTRACTION JOINTS SHALL MATCH CONTRACTION JOINTS IN THE LANES.

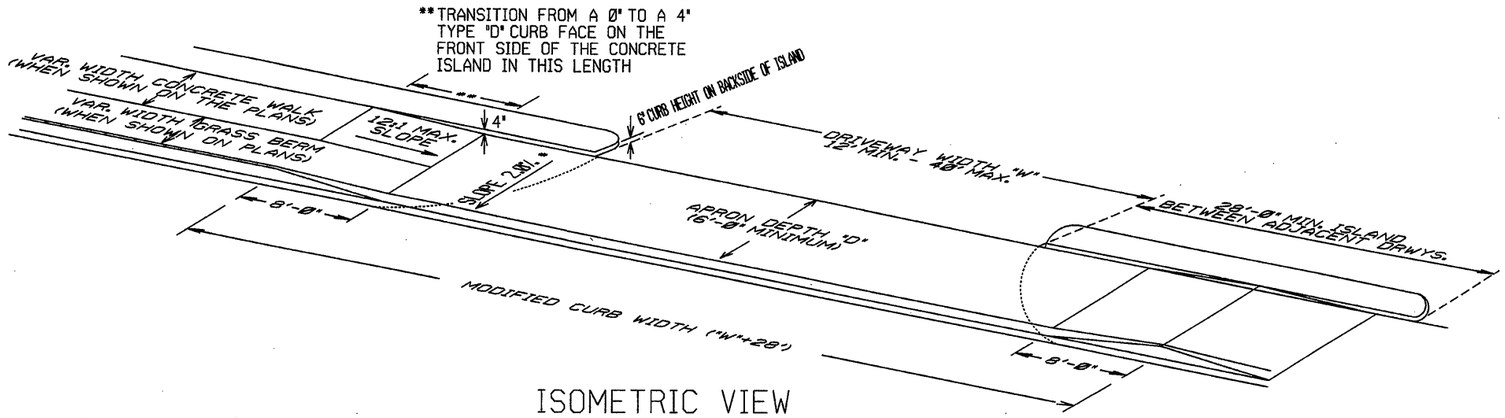
ARKANSAS STATE HIGHWAY COMMISSION

TRANSVERSE & LONGITUDINAL JOINTS FOR CONCRETE PAVEMENT (NON-REINFORCED)

STANDARD DRAWING CPTJ - 6A

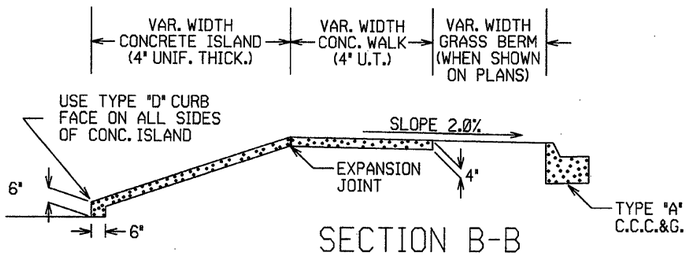


PLAN VIEW

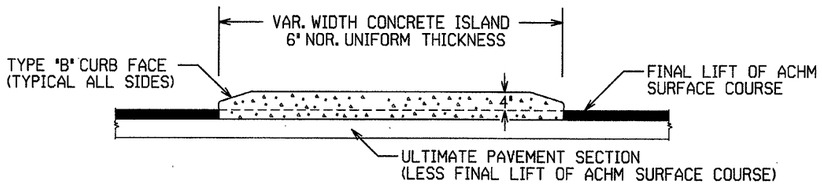


ISOMETRIC VIEW

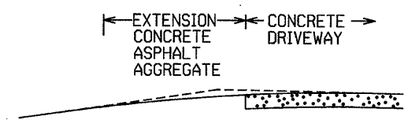
NO DIRECT PAYMENT WILL BE MADE FOR THE CURB FACES SHOWN ON THE ISLAND DETAILS. PAYMENT FOR THE CURB FACE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE ITEM "CONCRETE ISLAND".



SECTION B-B
CURBED ISLAND BEHIND WALK



CURBED ISLAND FOR CHANNELIZATION



EXTENSION TYPICAL SECTIONS

1: CONCRETE - 6" P.C. CONCRETE DRIVEWAY

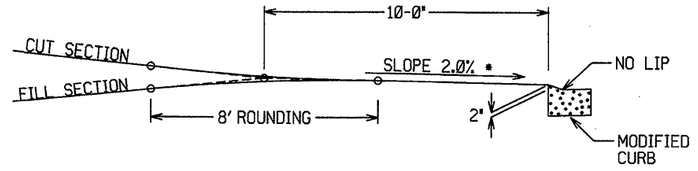
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE.(1") OR
4" ACHM BASE COURSE (1-1/2")

3: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
6" AGGREGATE BASE COURSE

4: AGGREGATE - 6" AGGREGATE BASE COURSE

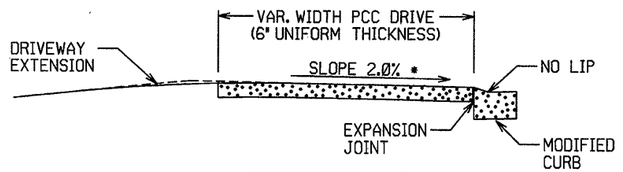
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS



DRIVEWAY VERTICAL ALIGNMENT DETAILS

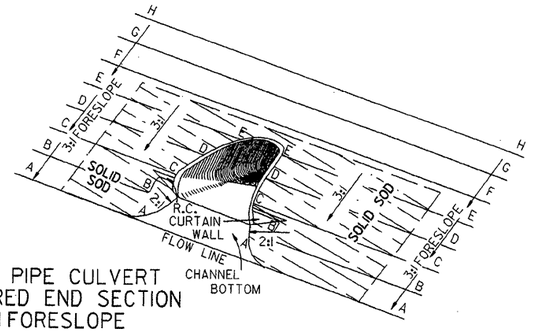
* NOTE: DRIVEWAYS MAY BE SLOPED 2.0% AWAY FROM THE ROADWAY ONLY AT THE LOCATIONS SHOWN IN THE PLANS, OR AS DIRECTED BY THE ENGINEER.



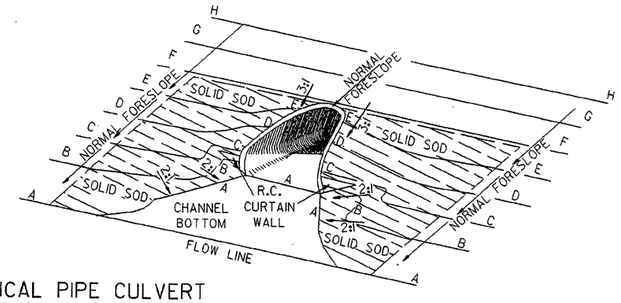
SECTION A-A

DATE REVISED	DATE FILMED	DESCRIPTION
8-22-02		ADDED ISLAND DETAILS & NOTES
3-30-00		REV. MOD. CURB WIDTH & TRANS. NOTE
11-19-98		REVISED NOTES
11-18-98		REDRAWN AND REISSUED

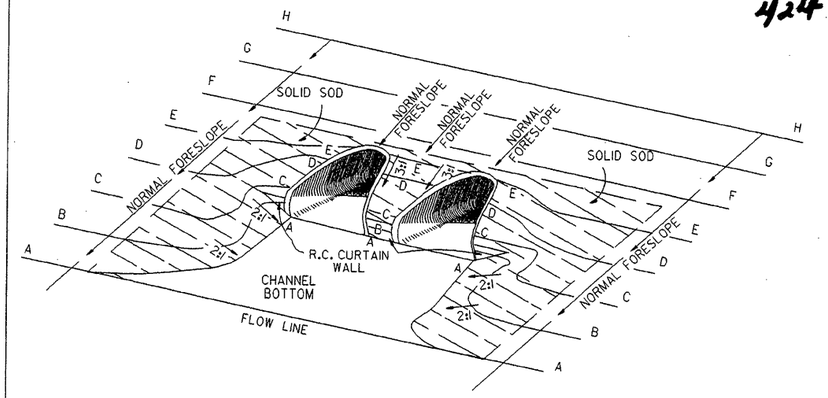
ARKANSAS STATE HIGHWAY COMMISSION
DETAILS OF DRIVEWAYS & ISLANDS
STANDARD DRAWING DR-1



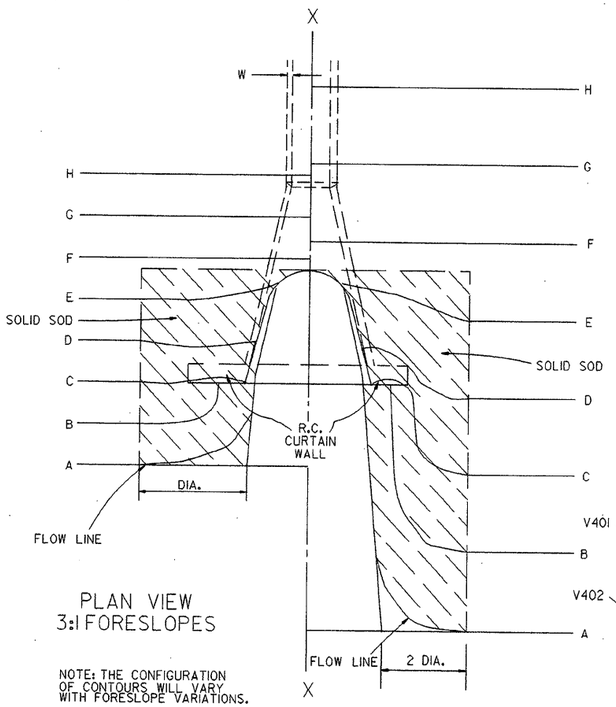
TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& 3:1 FORESLOPE



TYPICAL PIPE CULVERT
WITH FLARED END SECTION
& FLATTENED ADJACENT SLOPES



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



PLAN VIEW
3:1 FORESLOPES

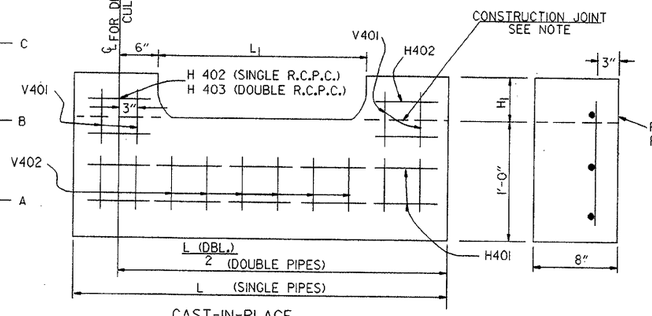
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES

R.C. CURTAIN WALL
DIMENSIONS & QUANTITIES

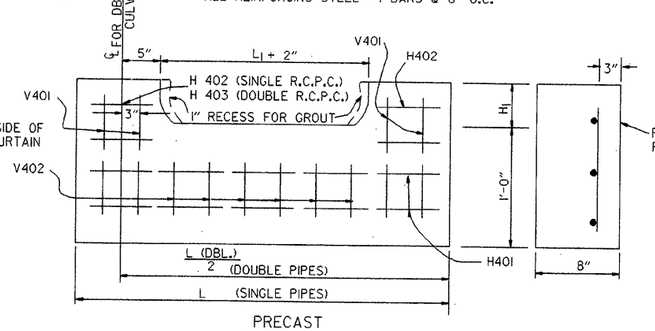
PIPE DIA.	H_1	L_1	L	L (DBL.)/2	SINGLE R.C.P.C. CONC.	SINGLE R.C.P.C. REINF. STEEL	DOUBLE R.C.P.C. CONC.	DOUBLE R.C.P.C. REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	13'-0"	10'-6"	0.58	52.6	0.83	73.9
42"	2'-1½"	7'-3"	15'-6"	12'-0"	0.82	77.1	1.10	100.7
48"	2'-5"	7'-10"	17'-0"	13'-0"	0.98	94.9	1.27	120.4
54"	2'-9½"	8'-5"	18'-6"	14'-0"	1.16	115.8	1.47	143.7
60"	3'-4"	9'-0"	20'-6"	15'-6"	1.47	149.7	1.84	180.3
72"	4'-5"	10'-2"	25'-6"	18'-6"	2.31	232.6	2.73	271.0

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



CAST-IN-PLACE

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



PRECAST

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

R.C. CURTAIN WALL DETAILS

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	V401 L	V401 NO.	V402 L	V402 NO.	DOUBLE R.C. PIPE CULVERT H401 L	H401 NO.	H402 L	H402 NO.	H403 L	H403 NO.	V401 L	V401 NO.	V402 L	V402 NO.
18"	7'-8"	2	1'-11½"	4	1'-7½"	8	8"	8	12'-2"	2	1'-11½"	4	8"	2	1'-7½"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8½"	10	8"	9	14'-8"	2	2'-2"	4	8"	2	1'-8½"	12	8"	18
30"	10'-8"	2	2'-4½"	4	1'-11½"	10	8"	12	17'-8"	2	2'-4½"	4	8"	2	1'-11½"	14	8"	22
36"	12'-8"	2	2'-10"	6	2'-3"	12	8"	14	20'-8"	2	2'-10"	6	8"	3	2'-3"	14	8"	28
42"	15'-2"	2	3'-9½"	8	2'-9½"	16	8"	15	23'-8"	2	3'-9½"	8	8"	4	2'-9½"	18	8"	30
48"	16'-8"	2	4'-3"	10	3'-1"	18	8"	16	25'-8"	2	4'-3"	10	8"	5	3'-1"	20	8"	32
54"	18'-2"	2	4'-8½"	12	3'-5½"	20	8"	17	27'-8"	2	4'-9"	12	8"	6	3'-5½"	22	8"	34
60"	20'-2"	2	5'-5"	14	4'-0"	24	8"	18	30'-8"	2	5'-5"	14	8"	7	4'-0"	26	8"	36
72"	25'-2"	2	7'-4"	18	5'-1"	30	8"	20	36'-8"	2	7'-4"	18	8"	9	5'-1"	33	8"	40

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

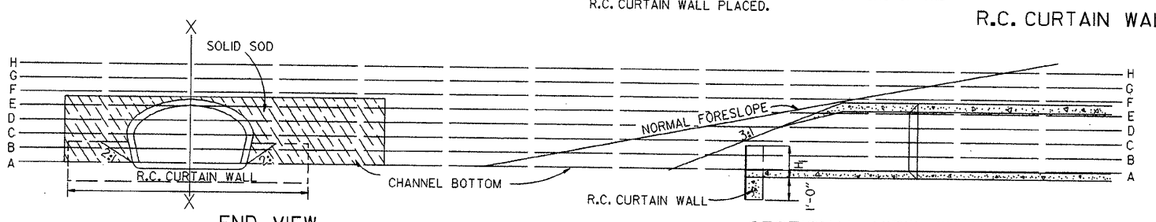
SOLID SODDING

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

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

GENERAL NOTES

1. A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE; FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL, AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾".
3. CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAVING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
4. WELDED WIRE MESH 3 x 3 W/10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.



END VIEW

SECTIONAL VIEW "X-X"

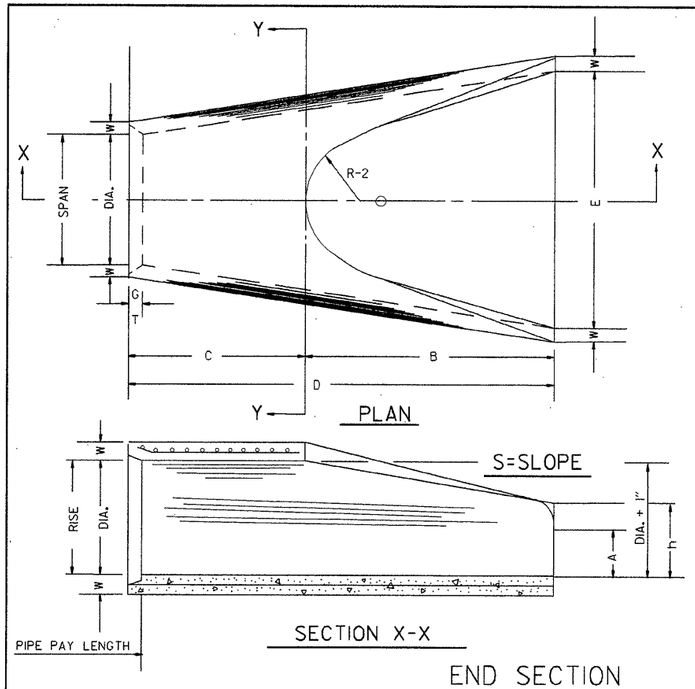
DATE	REVISION	FILMED
10-18-96	ADDED NOTE TO SOLID SODDING	10-18-96
10-12-95	CORRECTED SPELLING	
11- 3-94	ADDED GENERAL NOTE NO. 4	
8-15-91	REV. CURTAIN WALL QUANT. STEEL SCH. & SOLID SOD QUANT.	
3-2-81	ALLOW PRECAST IN 2 OR MORE PIECES CHAMFER EDGES	
5-15-80	ADDED PRECAST WALL & GENERAL NOTES	
10-2-72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

ARKANSAS STATE HIGHWAY COMMISSION

FLARED END SECTION

STANDARD DRAWING FES-1

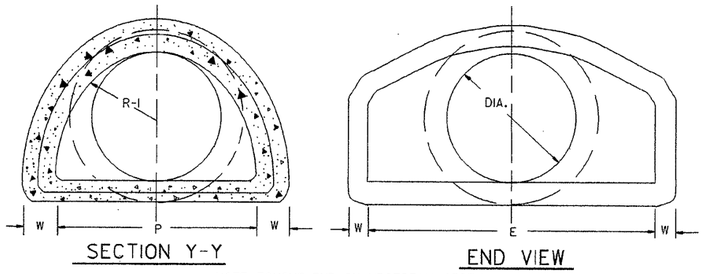
425



END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS

TABLE OF DIMENSIONS

DIA.	WALL	A	B	C	D	E	S	DIA. + 1"	P	R-1	R-2	G-T	WT.	h
18"	2½"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3:1	19"	29"	15½"	12"	2"	1000	1'-0½"
24"	3"	9½"	3'-7½"	2'-6"	6'-1½"	4'-0"	3:1	25"	33¾16"	16¹³⁄₁₆"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7¾"	6'-1¾"	5'-0"	3:1	31"	37"	18½"	15"	3¼"	1940	1'-4⅝"
36"	4"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	6'-0"	3:1	37"	47¹³⁄₁₆"	24⅝"	20"	3½"	4100	1'-8"
42"	4½"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53⅛"	27½"	22"	3½"	5380	2'-2½"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56½"	28½"	22"	3½"	6550	2'-6"
54"	5½"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65½"	33⅛"	24"	4"	8750	2'-10½"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72½"	36¹¹⁄₁₆"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77¹³⁄₁₆"	38¹⁵⁄₁₆"	24"	5"	13250	4'-6"

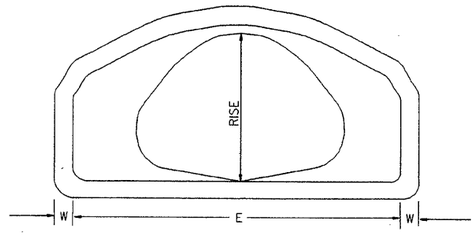


NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

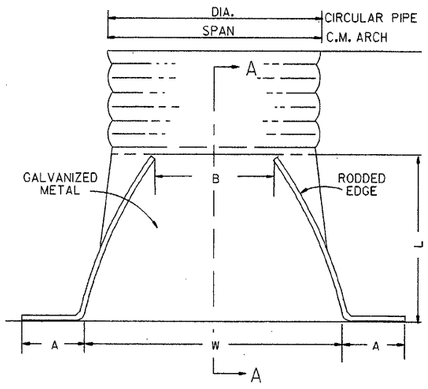
ARCH PIPE

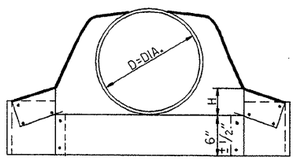
EQUIV. DIA.	• SPAN AASHTO M 206	• SPAN AHD NOMINAL	• RISE AASHTO M 206	• RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
INCHES														
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1½"	2½:1
18	22	22	13½	14	2½"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32⅛"	13"	2½"	2½:1
21	26	26	15½	16	2¾"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34⅛"	14"	2½"	2½:1
24	28½	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36¹³⁄₁₆"	15"	2½"	2½:1
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47¹³⁄₁₆"	20"	3"	2½:1
36	43¾	44	26⅝	27	4"	10½"	4'-0"	2'-1½"	6'-1½"	6'-6"	54⅝"	22"	3½"	2½:1
42	51⅛	51	31⅜	31	4½"	11½"	4'-7"	1-10¼"	6'-5¼"	7'-2"	59½"	23"	3¾"	2½:1
48	58½	59	36	36	5"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	7'-10"	70⅝"	24"	4¼"	2½:1
54	65	65	40	40	5½"	1'-7"	5'-3"	2'-11"	8'-2"	8'-6"	72¹⁄₁₆"	24"	4¾"	2¼:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77⅛"	24"	5"	2¼:1

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



END VIEW
CONCRETE ARCH PIPE

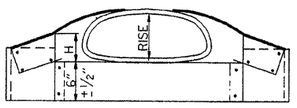




CIRCULAR PIPE

CIRCULAR PIPE

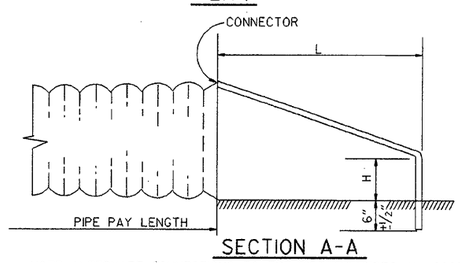
D. DIA.	GAUGE	A 1" ±	B. MAX.	H 1" ±	L 1½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½:1
15	16	7	8	6	26	30	2½:1
18	16	8	10	6	31	36	2½:1
21	16	9	12	6	36	42	2½:1
24	16	10	13	6	41	48	2½:1
30	14	12	16	8	51	60	2½:1
36	14	14	19	9	60	72	2½:1
42	12	16	22	11	69	84	2½:1
48	12	18	27	12	78	90	2½:1
54	12	18	30	12	84	102	2:1
60	12	18	33	12	87	114	1¾:1
66	12	18	36	12	87	120	1½:1
72	12	18	39	12	87	126	1 1/3:1



C.M. ARCH PIPE

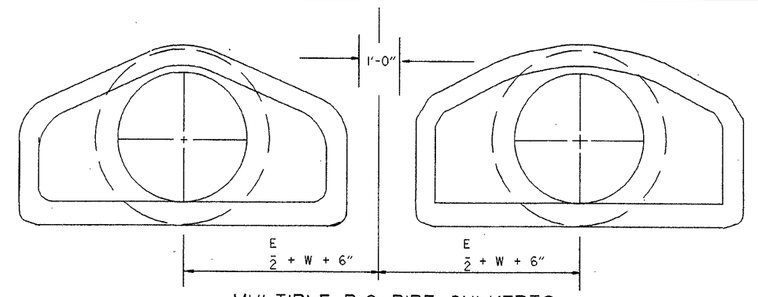
C.M. ARCH PIPE

EQUIV. DIA.	SPAN	RISE	A 1" ±	B MAX.	H 1" ±	L 1½" ±	W 2" ±	S	GAUGE
	INCHES								
15"	17	13	7	9	6	19	30	2½:1	16
18"	21	15	7	10	6	23	36	2½:1	16
21"	24	18	8	12	6	28	42	2½:1	16
24"	28	20	9	14	6	32	48	2½:1	16
30"	35	24	10	16	6	39	60	2½:1	14
36"	42	29	12	18	8	46	75	2½:1	14
42"	49	33	13	21	9	53	85	2½:1	12
48"	57	38	18	26	12	63	90	2½:1	12
54"	64	43	18	30	12	70	102	2¼:1	12
60"	71	47	18	33	12	77	114	2¼:1	12

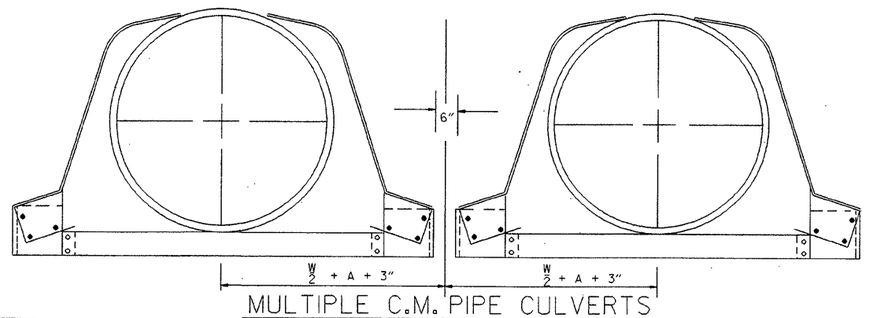


NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS



MULTIPLE R.C. PIPE CULVERTS



MULTIPLE C.M. PIPE CULVERTS

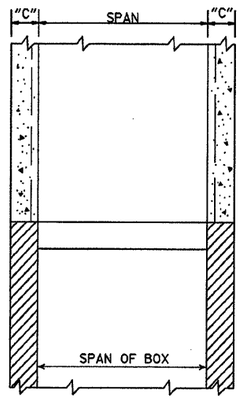
DATE	REVISION	FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	10-18-96
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75
12-5-74	REMOVED NOTE RE REINF. FOR R.C. F.E.S.	500-12-5-74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

ARKANSAS STATE HIGHWAY COMMISION

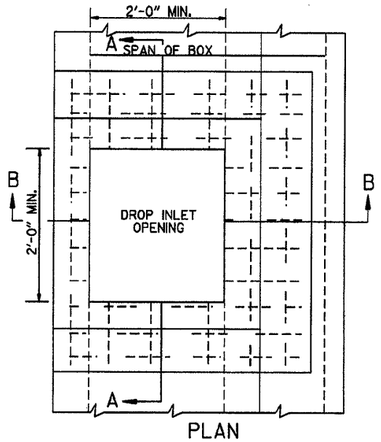
FLARED END SECTION

STANDARD DRAWING FES-2

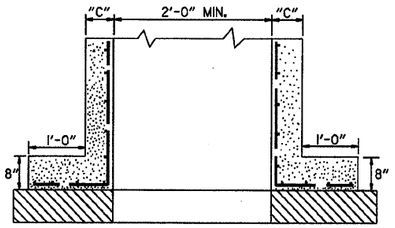
stdfes2.dgn



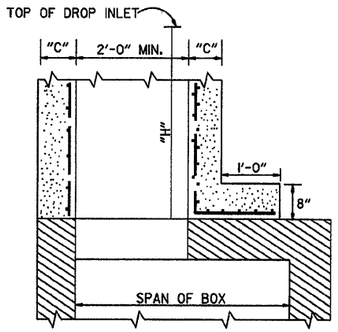
SECTION B-B



PLAN

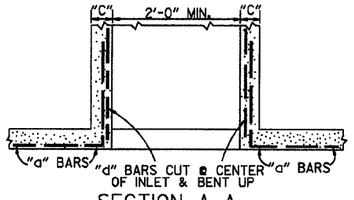


SECTION A-A

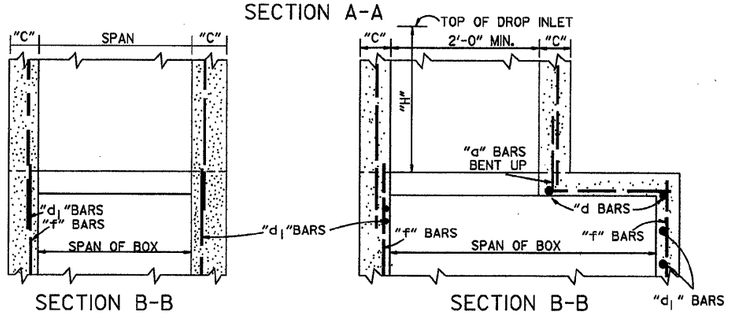


SECTION B-B

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



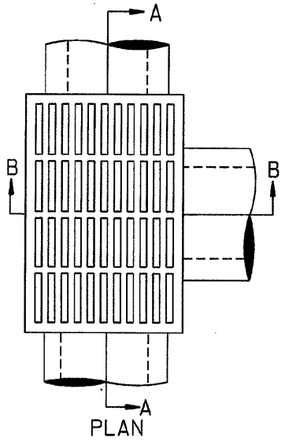
SECTION A-A



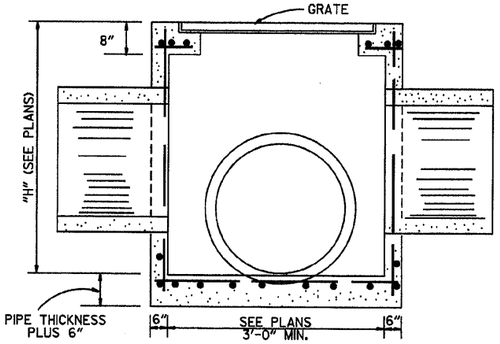
SECTION B-B SECTION B-B

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

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

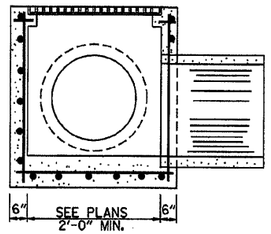


PLAN



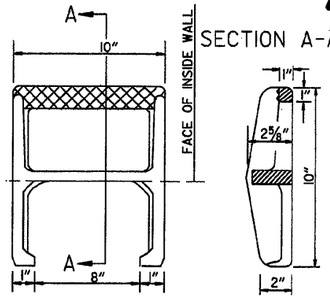
SECTION A-A

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE DROP INLET TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.



SECTION B-B

DROP INLET (TYPE E)

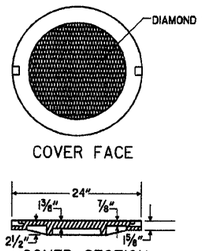


APPROX. WEIGHT = 11 LBS. (CAST IRON)

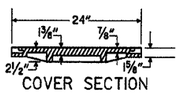
PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

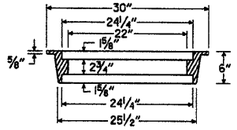
DETAIL OF STEP FOR DROP INLET



COVER FACE



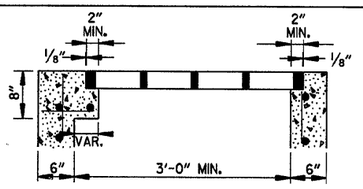
COVER SECTION



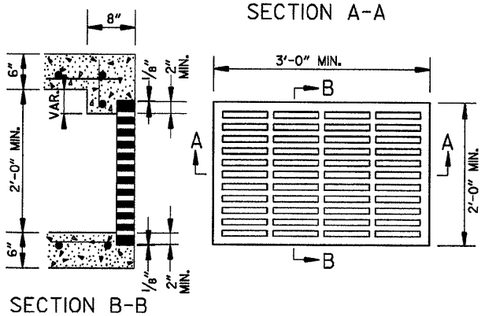
RING SECTION

APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



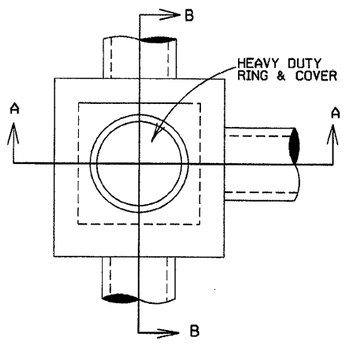
SECTION A-A



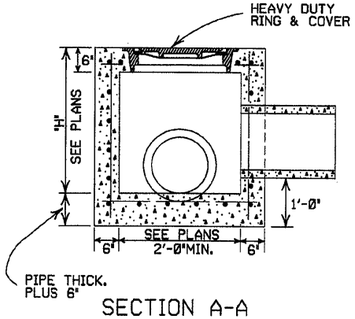
SECTION B-B

APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

GRATE FOR TYPE E DROP INLET

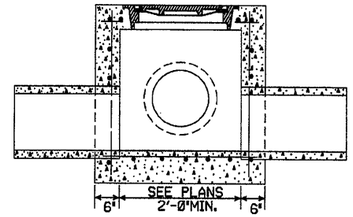


PLAN



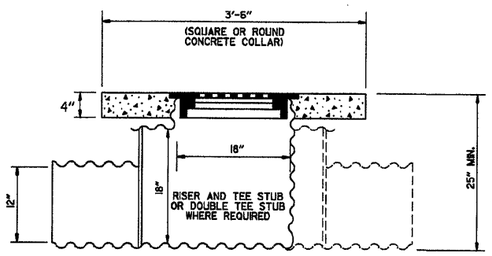
SECTION A-A

NOTE: REINF. BARS TO BE #4 BARS ON 6" CTRS. WITH 1½" MIN. COVER. THIS TYPE JUNCTION BOX TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.

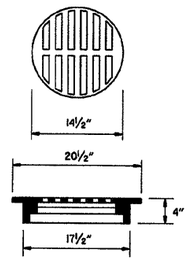


SECTION B-B

JUNCTION BOX (TYPE E)



NOTE: CONCRETE COLLAR TO BE CAST IN PLACE. 12" PIPE CULVERTS TO BE MEASURED AND PAID FOR AS " 12" SIDE DRAIN ".



USE NEENAH R-5901-C OR EQUIVALENT BICYCLE SAFE FRAME AND GRATE

DETAIL OF YARD DRAIN

GENERAL NOTES:

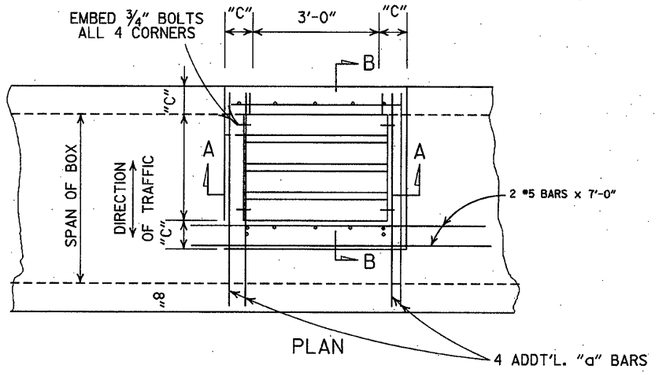
1. ALL EXPOSED CORNERS SHALL BE ¾" CHAMFERED.
2. STEPS SHALL BE INSTALLED ON 16" CENTERS ON ALL INLETS 4'-0" HIGH OR OVER, OR AS APPROVED BY THE ENGINEER.
3. EXPANSION JOINT MATERIAL SHALL BE ¾" PREFORMED FIBER.
4. GRATE OR GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B. GRATE MAY BE USED WITHOUT FRAME.
5. GRATE AND FRAME SHALL NOT BE PAINTED.
6. GRATE SHALL BE BICYCLE SAFE.
7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
8. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
9. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
10. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

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

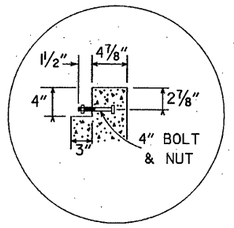
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS & JUNCTION BOXES

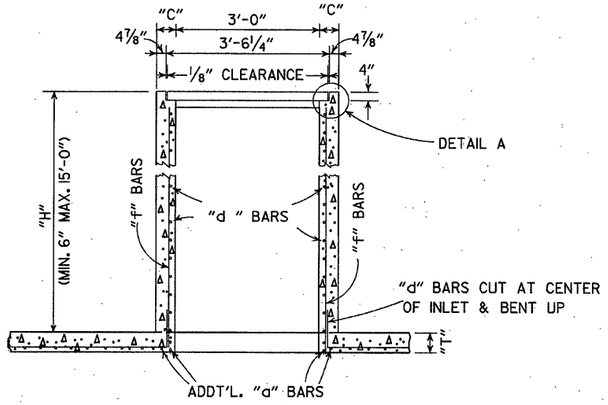
STANDARD DRAWING FPC-9



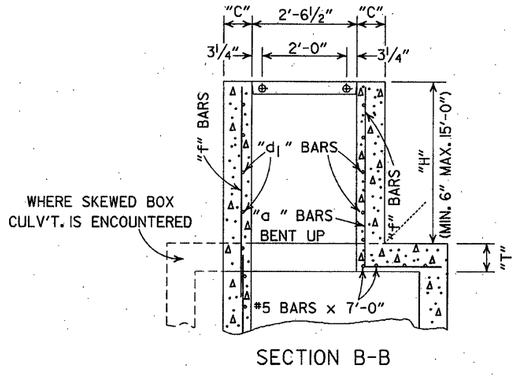
PLAN



DETAIL A



SECTION A-A

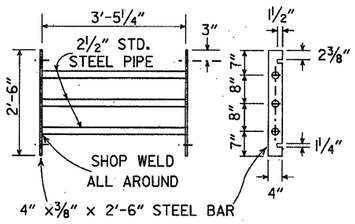


SECTION B-B

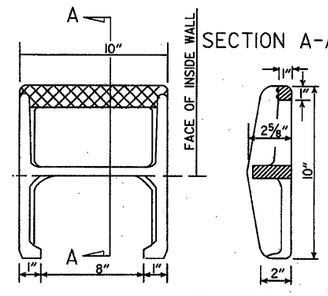
NOTE: ADDT'L.REINF. STEEL TO BE INCLUDED IN UNIT PRICE BID PER TYPE "TM" D.I.

DIMENSIONS & REINF. BARS FOR D.I. TO BE THE SAME AS THOSE SHOWN ON APPLICABLE STD. BARREL DRAWING FOR R.C. BOX CULVERTS.

DROP INLET TYPE "TM" FOR REINFORCED CONC. BOX CULVERTS



GRATE DETAIL



APPROX. WEIGHT = 11 LBS. (CAST IRON)

PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET

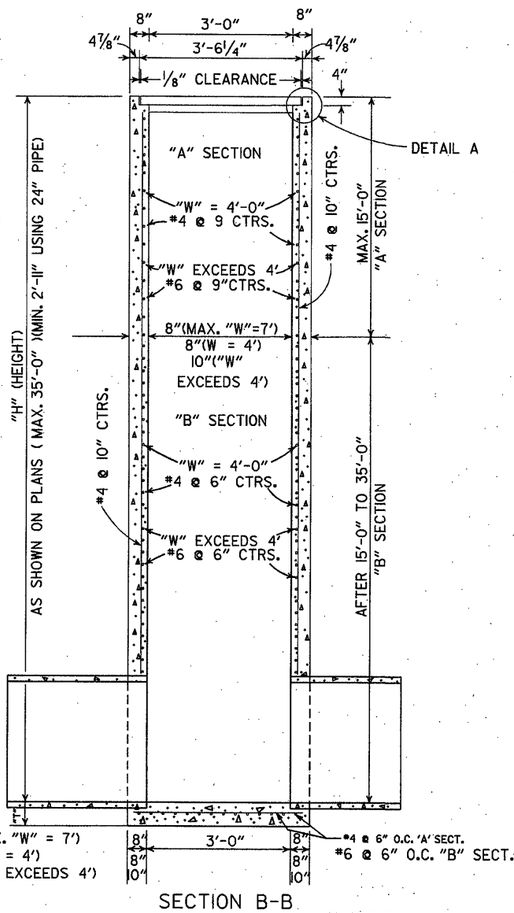
GENERAL NOTES:

1. STEEL PIPE FOR GRATES AND BOLTS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 807. BOLTS SHALL CONFORM TO ONE OF THE FOLLOWING: ASTM A193, GRADE B8 CLASS 1 OR 2, ASTM A307 OR AASHTO M 164.
2. STEEL PIPE FOR GRATES SHALL BE "STANDARD WEIGHT" PIPE CONFORMING TO ASTM A53 NATIONAL STANDARD PIPE.
3. BOLTS, NUTS, WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232 OR AASHTO M 298, CLASS 40 OR 50.
4. ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER.
5. ALL #4 AND #5 REINFORCING BARS TO HAVE 1½" COVER. LARGER SIZES TO HAVE 2" COVER.
6. THE COMPLETE PIPE GRATE SHALL BE PAINTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

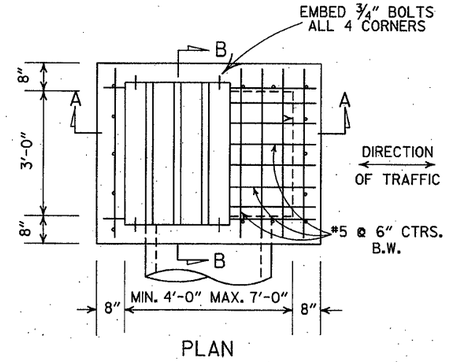
TABLE OF "W" DIMENSIONS

I.D. PIPE	SKEW OF CROSS DRAIN		
	STRAIGHT	30°	45°
	"W"	"W"	"W"
24"	4'-0"	4'-0"	4'-0"
30"	4'-0"	4'-0"	4'-5"
36"	4'-0"	4'-3"	5'-3"
42"	4'-3"	4'-11"	6'-1"
48"	4'-10"	5'-7"	6'-11"

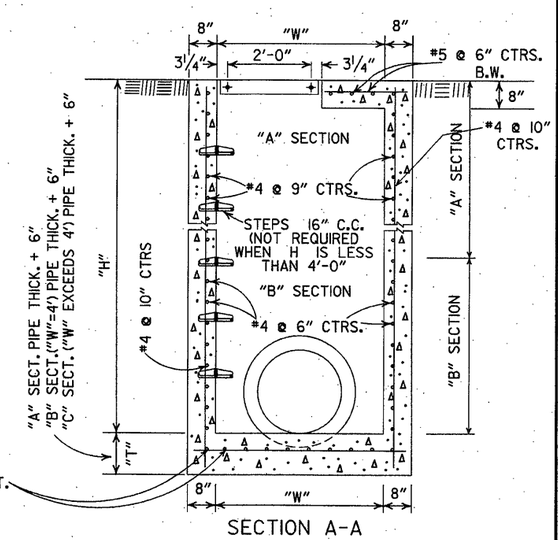
NOTE: DIMENSIONS SHOWN ABOVE ARE FOR PIPES INTERSECTING DROP INLET ON ONE SIDE ONLY. FOR SKEWED PIPES INTERSECTING BOTH SIDES OF DROP INLET, "W" WILL NEED TO BE INCREASED OR AXIS OF INTERSECTING PIPES WILL NEED TO BE SHIFTED.



SECTION B-B



PLAN



SECTION A-A

DROP INLET(TYPE RM)

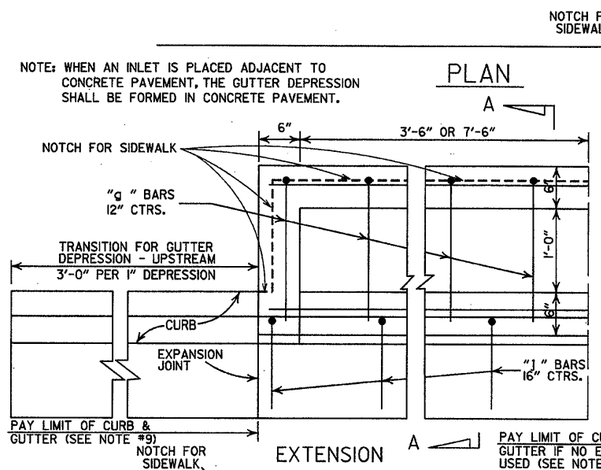
8-22-02	ADDED & REVISED DIMENSION TO SECTION A-A	
1-12-00	CORRECTED DIMENSION ON SECTION B-B	
11-06-97	ADDED DIMENSION TO SECTION A-A	
10-18-96	REVISED ASTM REF. TO AASHTO AND ADDED NOTE TO TABLE OF "W" DIMENSIONS	
10-1-92	ADDED DIRECTION OF TRAFFIC	10-1-92
8-15-91	ADDED NOTE ABOUT PAINTING OF GRATE	8-15-91
11-30-89	ALTERED DETAIL A	11-30-89
7-15-88	REVISED STEP DETAIL,TM & RM D.I. & GRATE DETAIL	719-7-15-88
10-2-72	REVISED AND REDRAWN	542-10-2-72
REVISED		DATE FILMED

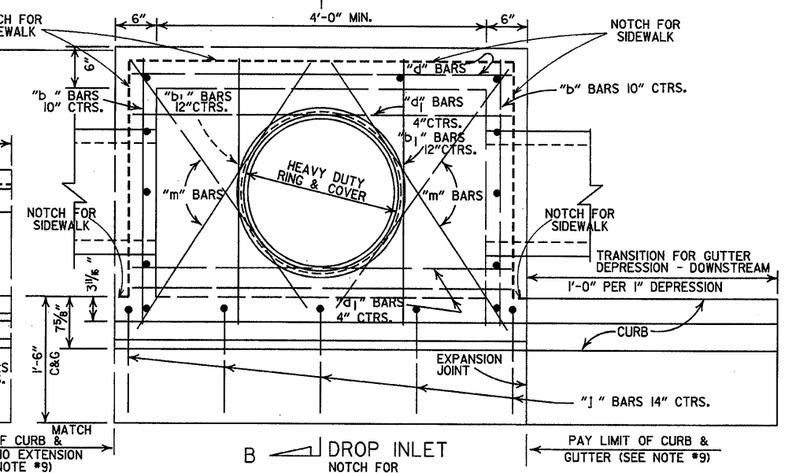
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS

STANDARD DRAWING FPC-9D

NOTE: WHEN AN INLET IS PLACED ADJACENT TO CONCRETE PAVEMENT, THE GUTTER DEPRESSION SHALL BE FORMED IN CONCRETE PAVEMENT.





4'-0" LENGTH DROP INLET

PIPE SIZE	MIN. WIDTH	HEIGHT 5'-0" CLASS A CONC.	HEIGHT 5'-0" REINF. STEEL	PLUS OR MINUS PER LIN. FT. OF HEIGHT CLASS A CONC.	PLUS OR MINUS PER LIN. FT. OF HEIGHT REINF. STEEL
		CU. YDS.	POUNDS	CU. YDS.	POUNDS
18"	2'-6"	1.77	156	0.28	22
24"	2'-6"	1.79	156	0.28	22
30"	3'-2"	2.39	205	0.30	26
36"	3'-8"	2.63	236	0.32	28
42"	4'-4"	2.95	250	0.34	30
48"	4'-10"	3.21	265	0.36	32

NOTE: QUANTITIES ARE APPROXIMATE AND ARE SHOWN FOR BIDDER INFORMATION ONLY.

DROP INLET EXTENSION

4'-0" CLASS A CONC.	4'-0" REINF. STEEL	8'-0" CLASS A CONC.	8'-0" REINF. STEEL
CU. YDS.	POUNDS	CU. YDS.	POUNDS
0.58	38	0.87	72

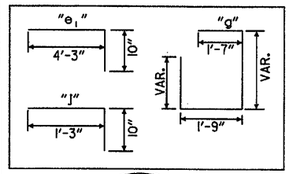
DEDUCT FROM QUANTITY COMPUTED FOR EACH EXTENSION ADDED.

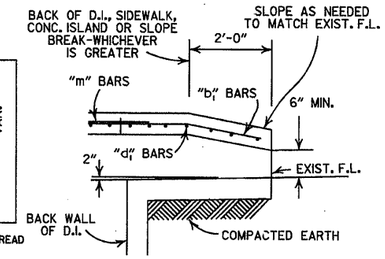
0.04	3		

DEDUCT FROM QUANTITY COMPUTED FOR EACH PIPE ENTERING INLET

INSIDE DIA. PIPE	CLASS A CONC.	REINF. STEEL
INCHES	CU. YDS.	POUNDS
18	0.05	2
24	0.09	3
30	0.13	4
42	0.24	8

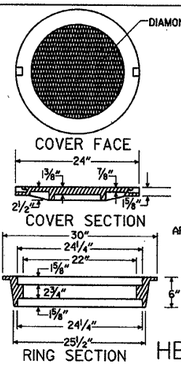
BAR DIAMETER





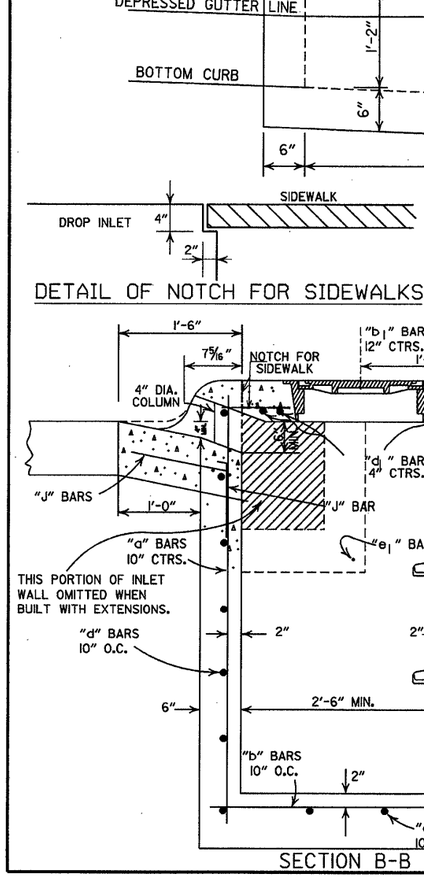
BACK OPENING

WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE C).

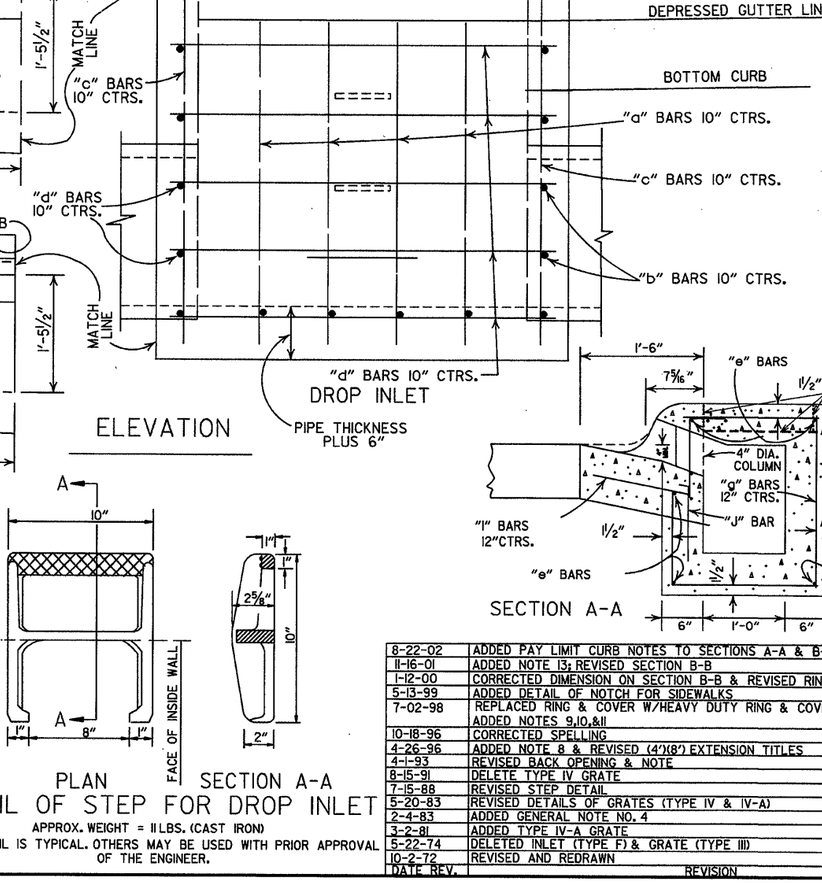


APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



DETAIL OF NOTCH FOR SIDEWALKS



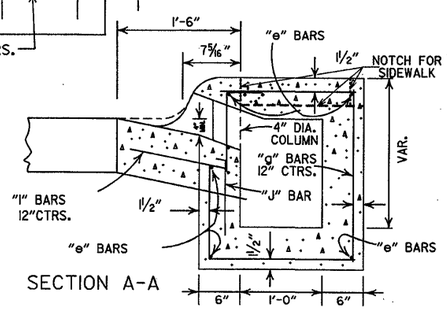
SECTION B-B

PLAN SECTION A-A

DETAIL OF STEP FOR DROP INLET

APPROX. WEIGHT = 11 LBS. (CAST IRON)

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.



SECTION A-A

GENERAL NOTES:

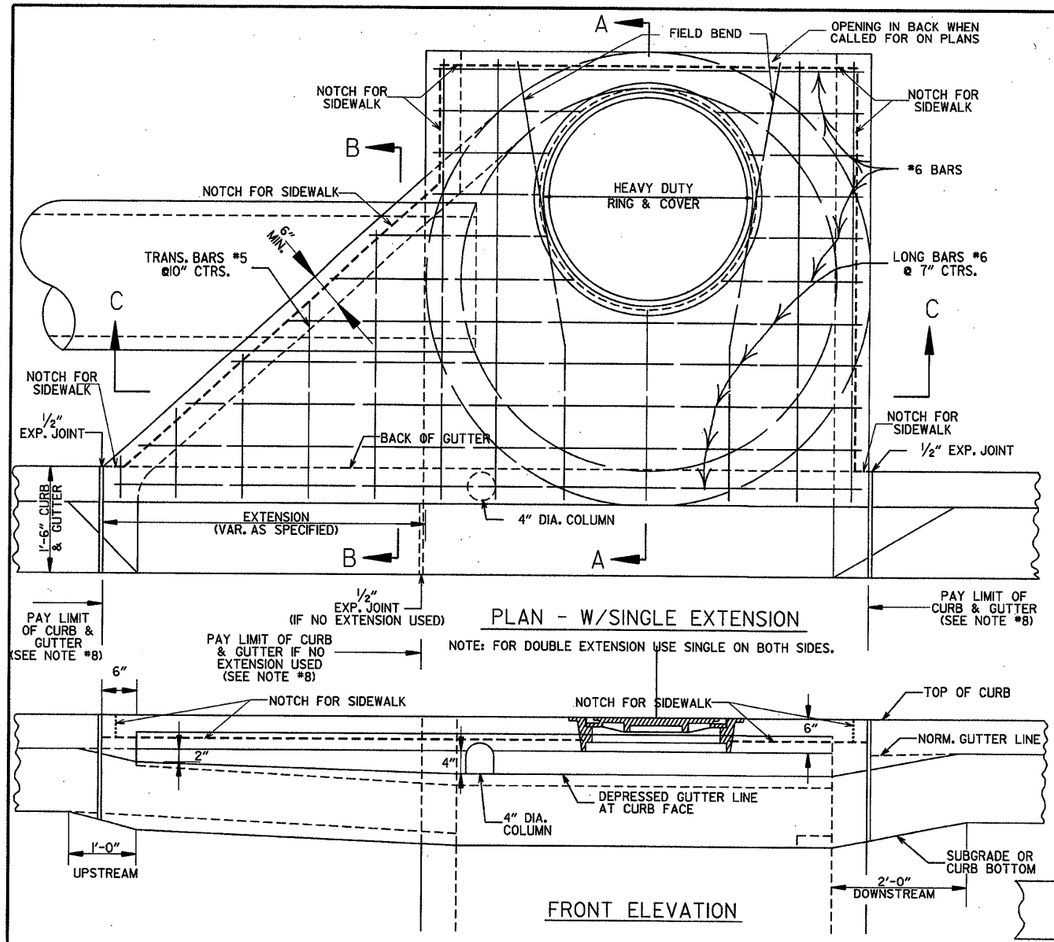
1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
2. STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OF AS APPROVED BY THE ENGINEER.
3. ALL REINF. BARS SHALL BE #4 AND HAVE 1 1/2" COVER.
4. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
5. THIS DROP INLET MAY BE CONSTRUCTED ON NEW OR EXISTING R.C. BOX CULVERT AS SHOWN ON F.P.C.-9.
6. WHEN PLANS CALL FOR DROP INLET OVER 10'-0" HIGH, FLOOR AND WALLS SHALL BE CONSTRUCTED AS SHOWN FOR TYPE "RM" DROP INLET (F.P.C.-9D).
7. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
8. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
9. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
10. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
11. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
12. 4"x2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
13. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

DATE REV.	REVISION	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13; REVISED SECTION B-B	
1-12-00	CORRECTED DIMENSION ON SECTION B-B & REVISED RING & COVER	
5-13-99	ADDED DETAIL OF NOTCH FOR SIDEWALKS	
7-02-98	REPLACED RING & COVER W/HEAVY DUTY RING & COVER ADDED NOTES 9,10,&11	
10-18-96	CORRECTED SPELLING	
4-26-96	ADDED NOTE 8 & REVISED (4')(8") EXTENSION TITLES	10-18-96
4-1-93	REVISED BACK OPENING & NOTE	
8-15-91	DELETE TYPE IV GRATE	
7-15-88	REVISED STEP DETAIL	
5-20-83	REVISED DETAILS OF GRATES (TYPE IV & IV-A)	
2-4-83	ADDED GENERAL NOTE NO. 4	
3-2-81	ADDED TYPE IV-A GRATE	
5-22-74	DELETED INLET (TYPE F) & GRATE (TYPE III)	
10-2-72	REVISED AND REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLETS (TYPE C)

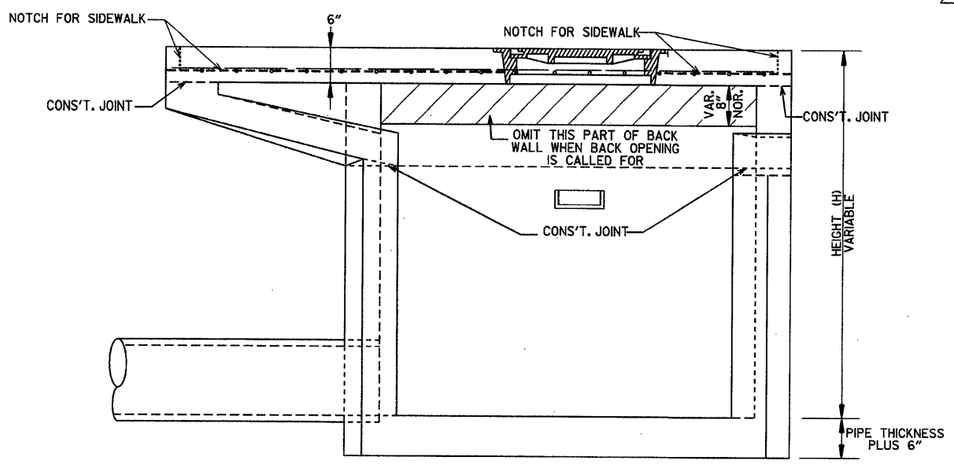
STANDARD DRAWING FPC-9E



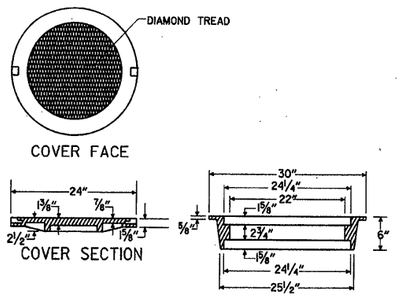
PLAN - W/SINGLE EXTENSION

NOTE: FOR DOUBLE EXTENSION USE SINGLE ON BOTH SIDES.

FRONT ELEVATION



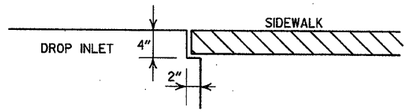
SECTION C-C



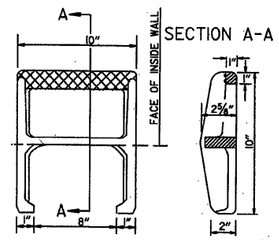
APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER

1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.



DETAIL OF NOTCH FOR SIDEWALKS

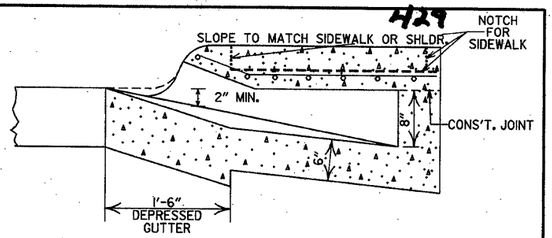


APPROX. WEIGHT = 11 LBS. (CAST IRON)

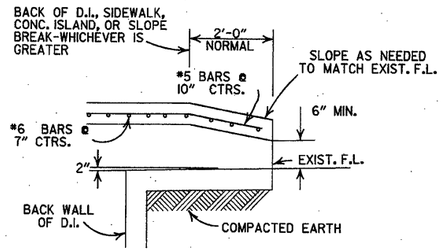
PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET



SECTION B-B

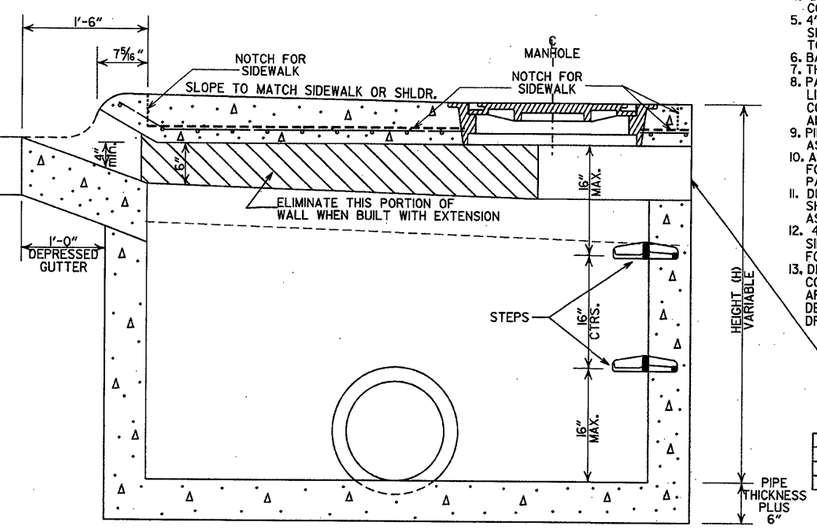


BACK OPENING

WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE MO).

GENERAL NOTES:

1. ALL EXPOSED CORNERS TO HAVE ¾" CHAMFER.
2. STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OR AS DIRECTED BY THE ENGINEER.
3. ALL REINFORCING BARS SHALL BE GRADE 60 AND HAVE MIN. 1½" COVER.
4. DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
5. 4" DIA. COLUMNS SPACED AT MAX. 4'-0" INTERVALS SHALL BE INSTALLED ALONG INLET AND EXTENSION TO SUPPORT TOP.
6. BASE AND INLET WALLS SHALL BE CAST MONOLITHICALLY.
7. THE THROAT SHALL BE CAST INTEGRALLY WITH THE GUTTER.
8. PAYMENT FOR CURB AND/OR CURB AND GUTTER WITHIN THE LIMITS OF DROP INLETS AND DROP INLET EXTENSIONS SHALL BE CONSIDERED INCLUDED IN PAYMENT MADE FOR DROP INLETS AND/OR DROP INLET EXTENSIONS.
9. PIPES MAY ENTER DROP INLET FROM ANY ANGLE OR ELEVATION AS MAY BE APPROVED BY THE ENGINEER.
10. APPROPRIATE SIZE TYPE C DROP INLETS MAY BE SUBSTITUTED FOR TYPE MO DROP INLETS AS APPROVED BY THE ENGINEER. PAYMENT TO BE AS DROP INLET (TYPE MO).
11. DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
12. 4"x2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
13. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.



SECTION A-A

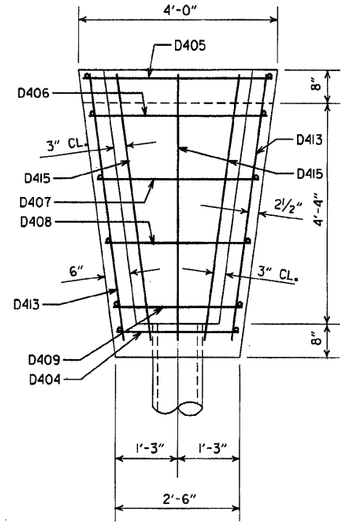
DIA. OF D.I.	DIA. OF OUTLET PIPE	MINIMUM WALL THICKNESS CAST IN PLACE	MINIMUM WALL THICKNESS PRECAST
4' I.D.	12" THRU 27"	6"	5"
5' I.D.	30" THRU 42"	8"	6"
6' I.D.	48" THRU 54"	8"	7"

DATE	REVISIONS	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13	
1-12-00	REVISED HEAVY DUTY RING & COVER	
5-13-99	ADDED NOTCH DETAIL FOR SIDEWALKS	
7-02-98	REP. NOTE 8, REAL PLAN DET. REV. PICTURE FOR NEW RING & COVER, ADDED HEAVY DUTY RING & COVER AND DETAIL OF STEP FOR DROP INLET	
4-26-96	ADDED NOTE 11 & BOX OPENING DIMENSION	
10-27-95	CORRECTED *6 BAR SPACING	
7-20-95	CORRECTED DIAMETER OF D.I. IN BOX	
7-2-95	TYPE C TO MO (OPEN BACK DETAIL)	
11-7-94	REVISED GENERAL NOTES	11-3-94
4-1-93	REV. BACK OPEN. DETAIL & NOTE	4-1-93
8-15-91	REVISED NOTES 11,12 & ADDED BK.OPEN DETAIL	8-15-91
11-30-89	ADDED NOTE NO. 12	11-30-89
4-23-89	ADDED NOTE & MINIMUM WALL THICKNESS	513-4-23-89
7-15-88	ADDED EXTEND NOTE TO SECTION A-A	639-7-15-88
1-14-87	MODIFIED WALL THICKNESS	783-1-19-87
6-12-87	ISSUED	4-6-87

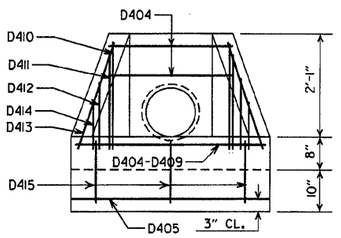
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLET (TYPE MO)

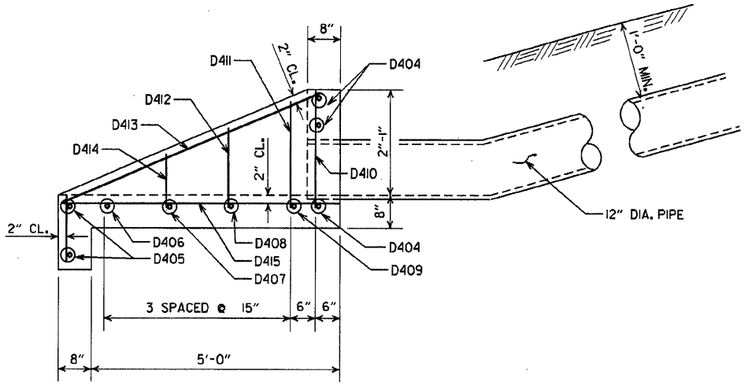
STANDARD DRAWING FPC-9M



PLAN



FRONT ELEVATION

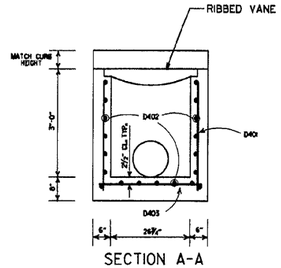


SIDE ELEVATION
CONCRETE SPILLWAY

DETAILS OF CONCRETE SPILLWAY (TYPE A)

BAR LIST (CONCRETE SPILLWAY)

MARK	NO. REQ'D.	LENGTH	BENDING DIAGRAM
D404	3	2'-2"	
D405	2	3'-8"	
D406	1	3'-5"	
D407	1	3'-1"	
D408	1	2'-9"	
D409	1	2'-5"	
D410	2	2'-5"	
D411	2	2'-2"	
D412	2	1'-9"	
D413	2	5'-6"	
D414	2	1'-2"	
D415	3	6'-5"	5'-4", 1'-2", 2" P.D., D415

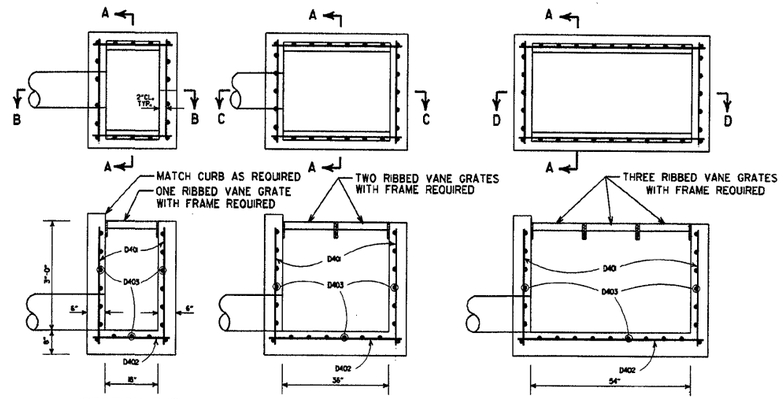


SECTION A-A

BAR LIST (DROP INLET)

MARK	TYPE N-1		TYPE N-2		TYPE N-3	
	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH
D401	20	3'-0"	26	3'-0"	32	3'-0"
D402	19	2'-2"	19	3'-8"	19	5'-2"
D403	17	2'-11"	20	2'-11"	23	2'-11"

ALL BARS #4 @ 6" SPACING



SECTION B-B
DETAILS OF DROP INLET (TYPE N-1)

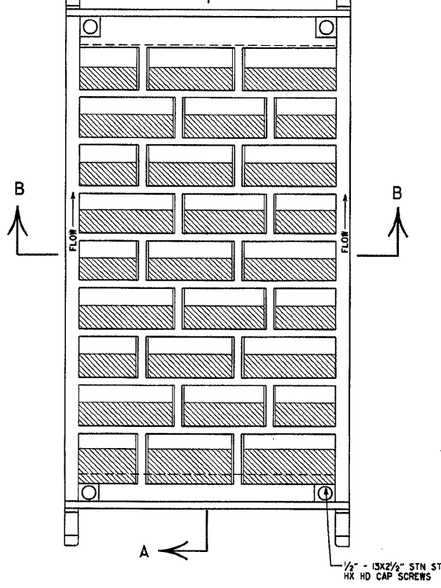
SECTION C-C
DETAILS OF DROP INLET (TYPE N-2)

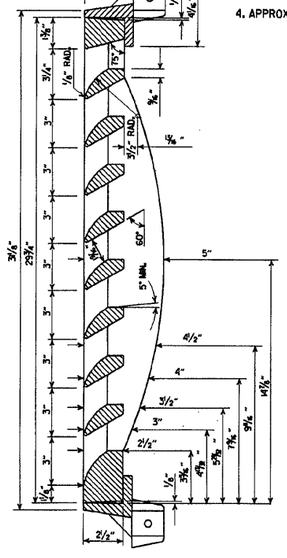
SECTION D-D
DETAILS OF DROP INLET (TYPE N-3)

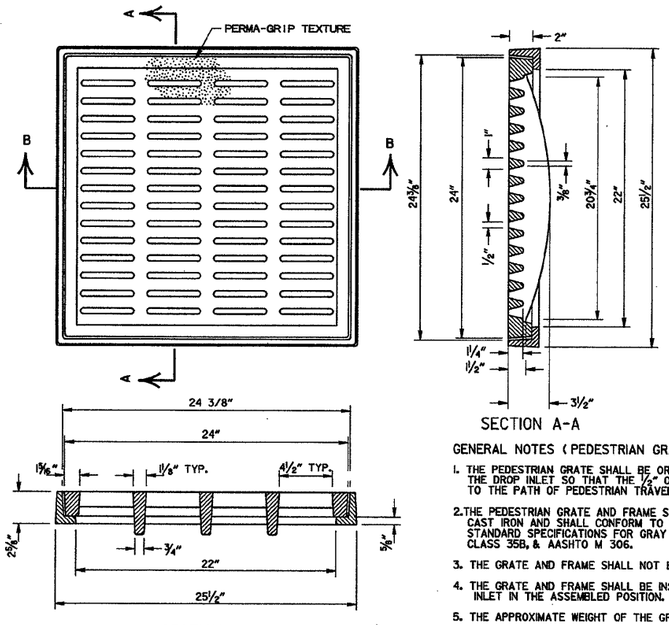
DETAILS OF DROP INLET

GENERAL NOTES (GRATE & FRAME)

1. RIBBED VANE GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105 CLASS 35B & AASHTO M 306.
2. GRATE AND FRAME SHALL NOT BE PAINTED.
3. GRATE AND FRAME SHALL BE INSTALLED IN DROP INLET IN ASSEMBLED POSITION.
4. APPROXIMATE WEIGHT OF GRATE SHALL BE 170 LBS.




4⅝"
1⅛"
¼"
⅝"
3¼"
1⅛" RAD.
15°
⅝"
3½" RAD.
1⅛"
3"
3"
3



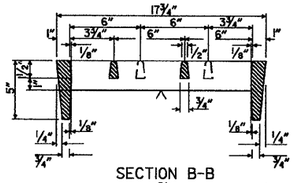
SECTION A-A

SECTION B-B

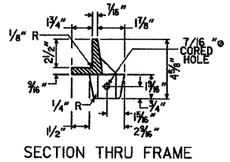
GENERAL NOTES (PEDESTRIAN GRATE & FRAME)

1. THE PEDESTRIAN GRATE SHALL BE ORIENTED IN THE TOP OF THE DROP INLET SO THAT THE ½" OPENINGS ARE PERPENDICULAR TO THE PATH OF PEDESTRIAN TRAVEL.
2. THE PEDESTRIAN GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
3. THE GRATE AND FRAME SHALL NOT BE PAINTED.
4. THE GRATE AND FRAME SHALL BE INSTALLED IN THE DROP INLET IN THE ASSEMBLED POSITION.
5. THE APPROXIMATE WEIGHT OF THE GRATE AND FRAME SHALL BE 211LBS.
6. THE MINIMUM WATERWAY OPENING SHALL BE 122 SQ. IN.

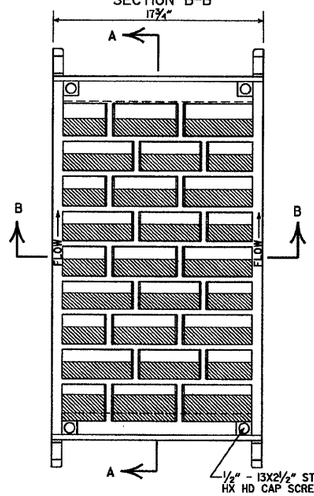
DETAILS OF PEDESTRIAN GRATE AND FRAME

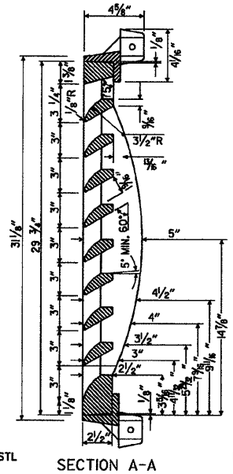


SECTION B-B



SECTION THRU FRAME



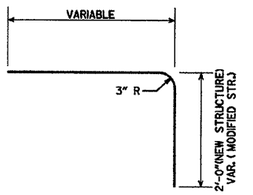


SECTION A-A

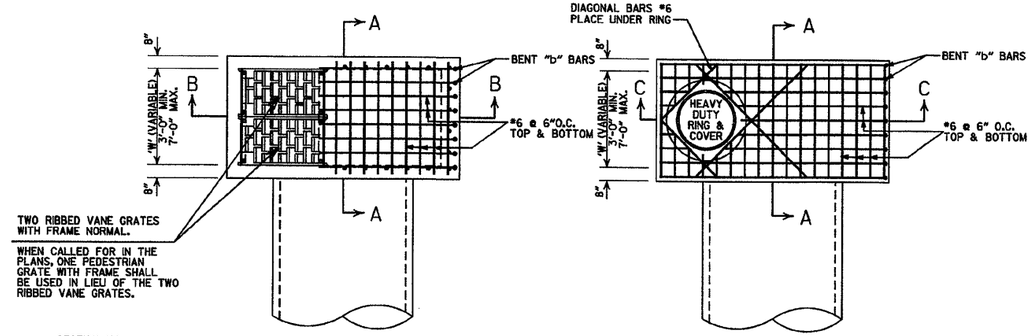
DETAILS OF RIBBED VANE GRATE AND FRAME

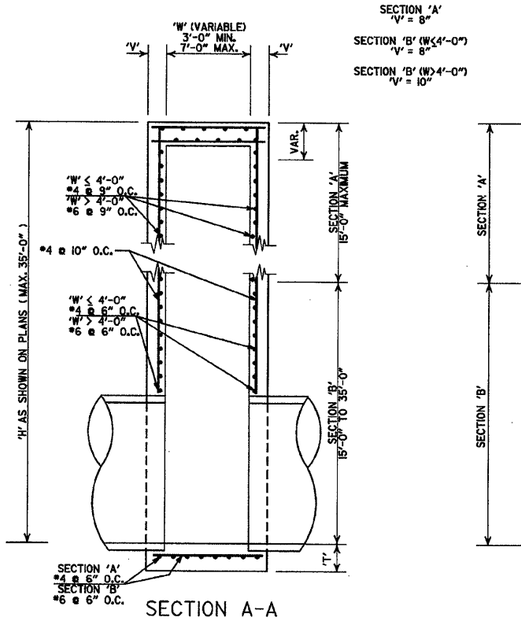
GENERAL NOTES (RIBBED VANE GRATE & FRAME)

1. RIBBED VANE GRATE AND FRAME SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. GRATE AND FRAME SHALL NOT BE PAINTED.
3. GRATE AND FRAME SHALL BE INSTALLED IN DROP INLET IN ASSEMBLED POSITION.
4. APPROXIMATE WEIGHT OF GRATE SHALL BE 170 LBS.



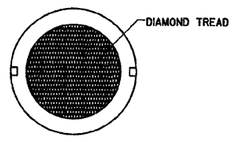
DETAIL OF BENT "b" BAR



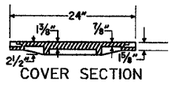


SECTION A-A

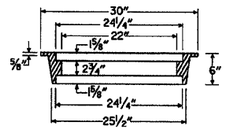
DETAILS OF DROP INLET (TYPE ST)



COVER FACE



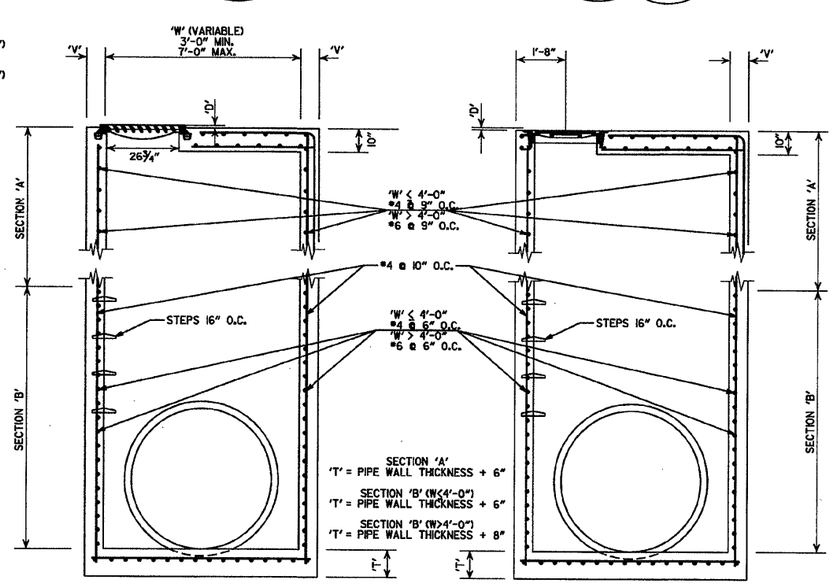
COVER SECTION



RING SECTION

HEAVY DUTY RING & COVER

APPROXIMATE TOTAL WEIGHT = 333 LBS.



SECTION B-B

SECTION C-C

DETAILS OF JUNCTION BOX (TYPE ST)

GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)

1. THE 'D' DIMENSION SHALL MATCH THE FINAL LIFT OF ACHM SURFACE COURSE SHOWN IN THE PLANS WHEN ASPHALT PAVING SURROUNDS THE GRATE OR RING COVER, AND SHALL BE 0" AT OTHER INSTALLATIONS.
2. THE STEPS SHALL BE OMITTED WHERE 'H' IS LESS THAN 4'-0".
3. ALL EXPOSED CORNERS ARE TO HAVE A ¾" CHAMFER.
4. ALL #4 & #5 REINFORCING BARS ARE TO HAVE A MIN. 1½" COVER. ALL LARGER SIZE BARS ARE TO HAVE A 2" MIN. COVER.

GENERAL NOTES (HEAVY DUTY RING & COVER):

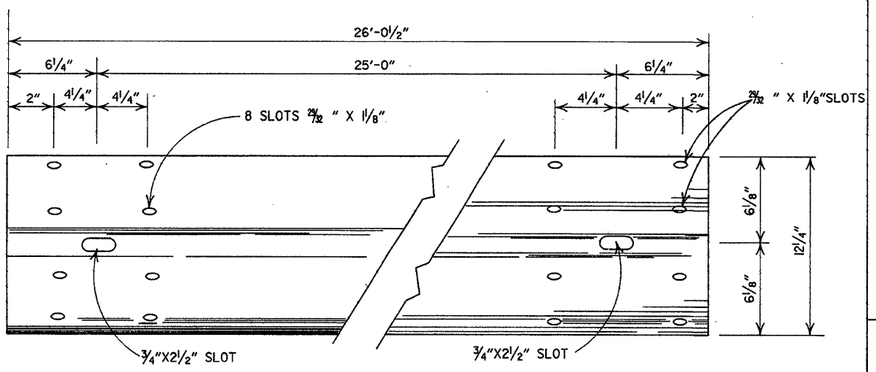
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B, & AASHTO M 306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
4. DIMENSIONS SHOWN FOR RING AND COVER ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR CASTINGS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR CASTING DESIGNS MAY BE MADE BY REFERRING TO PREVIOUSLY APPROVED DRAWINGS.

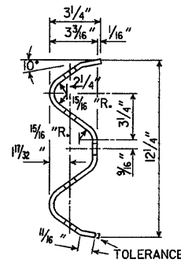
DATE REVISED	DATE FILMED	DESCRIPTION
11-16-01		ADDED NOTE 4
1-12-00		REVISED HEAVY DUTY RING & COVER
5-13-99		ADDED PEDESTRIAN FRAME & GRATE
7-02-98		REMOVED NOTE 5, REV. DIMENSIONS, ADDED HEAVY DUTY RING & COVER ADDED AASHTO REF. REVISED GRATE
10-18-96		REVISED ASTM REF. TO AASHTO
10-1-92		REVISED & REISSUED
8-15-91	8-15-91	REVISED & REISSUED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)

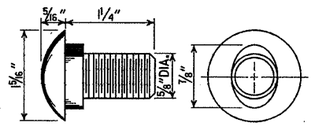
STANDARD DRAWING FPC-9S



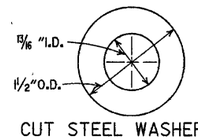


DETAILS OF
W-BEAM GUARD RAIL

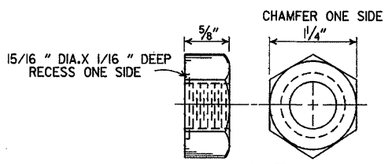
RAIL SECTION OF CLOSELY SIMILAR DIMENSIONS AND COMPARABLE STRENGTH MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.



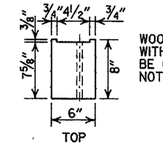
SPLICE BOLT
POST BOLT - SAME EXCEPT LENGTH



CUT STEEL WASHER

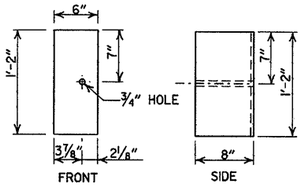


NUT



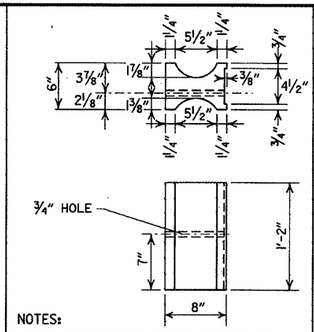
TOP

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



FRONT SIDE

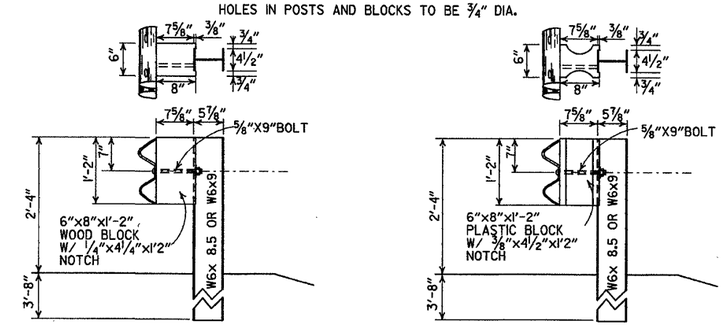
WOOD BLOCKOUT
(W-BEAM)



NOTES:
1. SIMILAR SHAPED PLASTIC BLOCKOUTS MAY BE USED AS LONG AS THEY MEET NCHRP-350 TEST LEVEL 3 SPECIFICATIONS.
2. DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

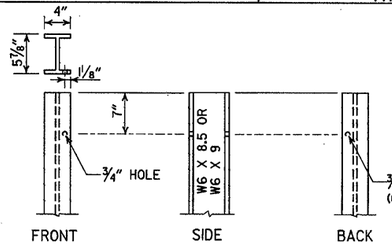
PLASTIC BLOCKOUT
(W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.



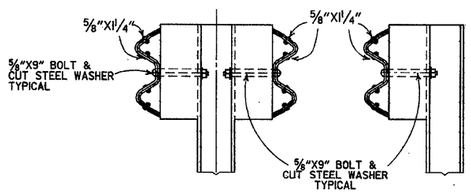
WOOD BLOCKOUT CONNECTIONS PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF STEEL LINE POST CONNECTIONS
(W-BEAM)



FRONT SIDE BACK

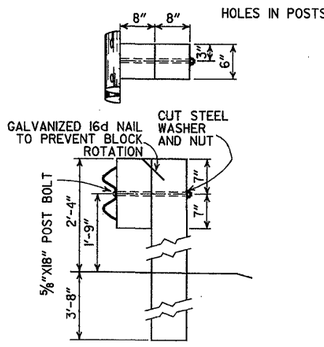
STEEL POST



TYPE "B" TYPE "A"

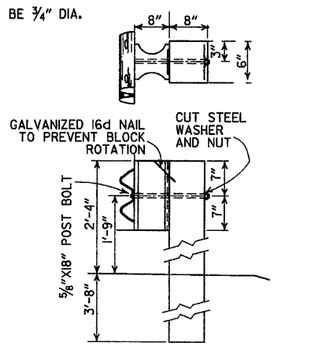
DETAILS OF STEEL LINE POST CONNECTIONS
(W-BEAM)

HOLES IN POSTS AND BLOCKS TO BE ¾" DIA.



POSTS AND BLOCKS TO BE ROUGH SAWN 6"X8" WITH A TOLERANCE OF + OR - ¼".

WOOD BLOCKOUT CONNECTIONS



PLASTIC BLOCKOUT CONNECTIONS

DETAILS OF WOOD LINE POST CONNECTIONS
(W-BEAM)

-GENERAL NOTES-

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

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

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

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

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

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

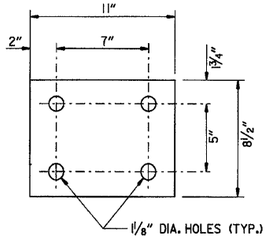
CONTRACTOR SHALL HAVE THE OPTION OF USING WOOD BLOCKOUTS FOR W-BEAM GUARD RAIL OR PLASTIC BLOCKOUTS, AS LONG AS BLOCKOUT USED MEETS NCHRP-350 TEST LEVEL 3 SPECIFICATIONS FOR W-BEAM GUARD RAIL.

DATE	REVISION	DATE FILM
4-10-03	REVISED GENERAL NOTES	
8-22-02	REVISED DIMENSION ON WOOD & PLASTIC BLOCKOUT CONNECTIONS & ON STEEL POST	
11-16-01	REVISED WOOD BLOCKOUT & DETAILS OF WOOD LINE POST CONNECTIONS	
3-30-00	REMOVED GUARD RAIL AT BRIDGE ENDS	
1-12-00	ADDED PLASTIC BLOCKOUT	
8-12-98	REV. BLOCKOUTS TO WOOD, DELETED CONC. POST & REV. GENERAL NOTE, DELETED DET. OF GUARD RAIL REPLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK, & ADDED DETAILS OF STEEL LINE POST CONN. REMOVED BACK-UP PLATE. REVISED HOLES IN STEEL POLES	
4-3-97	REMOVED "LAP IN DIRECTION OF TRAFFIC" NOTE & PLACED ARROWS ON WASHERS	
10-18-96	REVISED WOOD POST NOTE	
6-2-94	ADDED ALT. STEEL POST SIZE	
8-5-93	REVISED STEEL POST SIZE	8-5-93
10-1-92	REDRAWN & REVISED	10-1-92
8-15-91	REVISED WASHER NOTE	8-15-91
8-2-90	REV. GEN. NOTE & DEPHT OF ANC. POST IN ROCK	8-2-90
7-15-88	REVISED SECTION 3 & GENERAL NOTES	
3-4-88	REV. ANCHOR POST, ELEV. NOTES & POST IN ROCK	780-3-4-88
10-30-87	REVISED WOOD LINE POST DETAIL	546-10-30-87
10-9-87	REDRAWN & REVISED	802-10-9-87

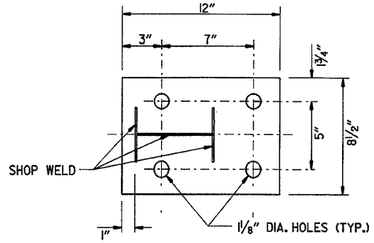
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-8

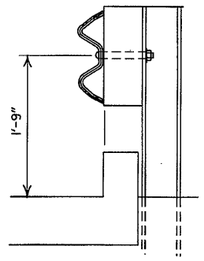


WASHER PLATE

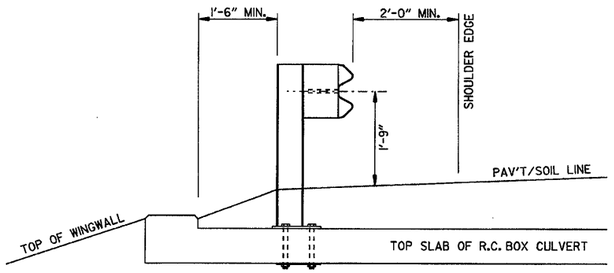


BASE PLATE

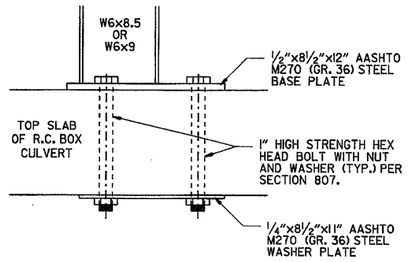
Note: Bolts, nuts, washers and plates shall be galvanized in accordance with Section 807 of the Standard Specifications.



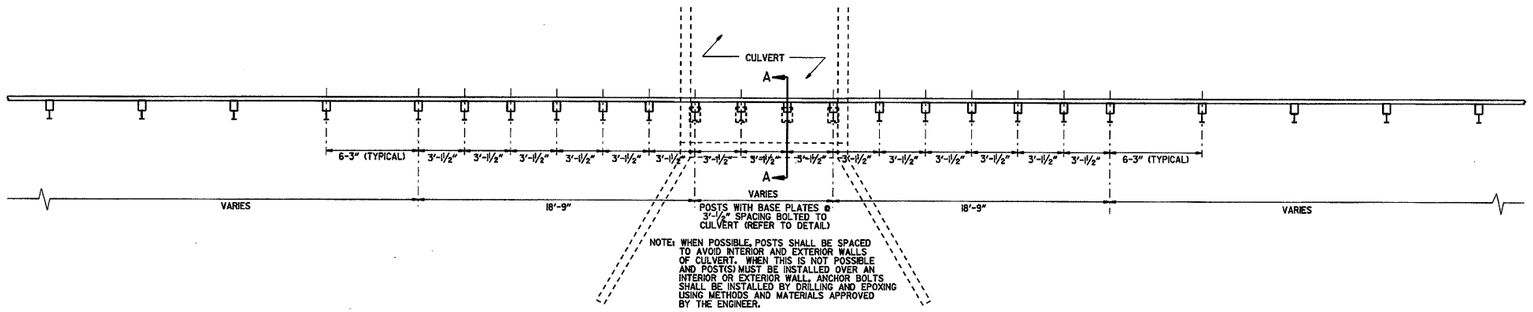
DETAIL OF GUARD RAIL PLACEMENT BEHIND CURB (W-BEAM)



SECTION A-A



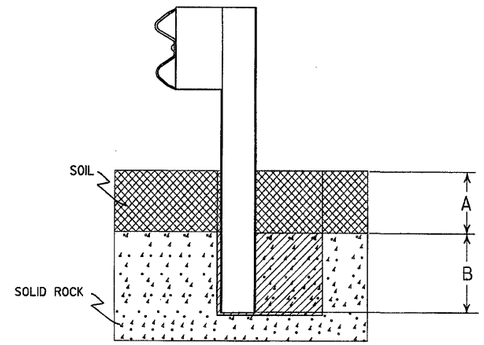
DETAIL OF CONNECTION



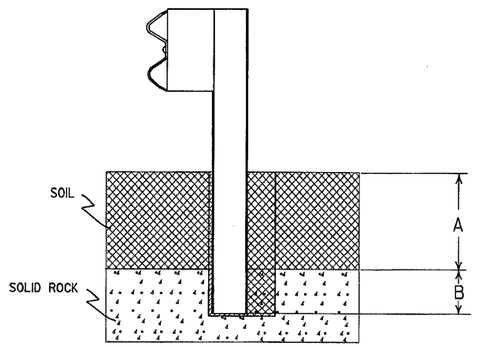
PLAN LAYOUT OF TYPE A GUARD RAIL AT LOW-FILL CULVERTS

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

Case 1

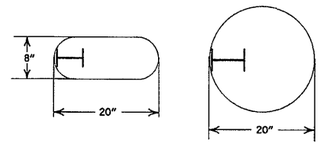


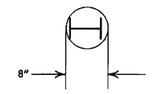
Case 2



Plan View Steel Posts

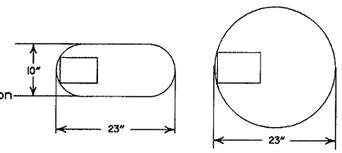
Either hole configuration acceptable

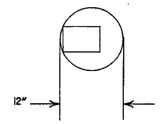




Plan View Wood Posts

Either hole configuration acceptable





Notes: For overlying soil depths (A) ranging from 0 to 18", the depth of required drilling (B) is equal to 24".

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

Zone B:
Backfill hole in 6" lifts with material meeting the requirements of Section 802.02(c) - Alternate gradation. Compact to 95% maximum dry density per ASTM D-698.

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

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

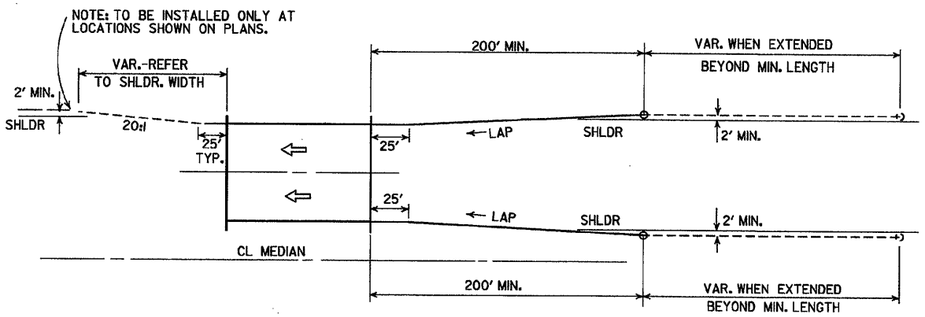
DETAIL OF POST PLACEMENT IN SOLID ROCK (W-BEAM)

DATE	REVISION	DATE FILM
11-18-04	REVISED POST PLACEMENT IN ROCK & CULVERT CONNECTION DETAILS. ADDED DETAIL FOR GUARD RAIL PLACEMENT AT LOW-FILL CULVERTS	
3-30-00	REMOVED CONCRETE INSERT ANCHOR	
8-12-98	CHANGED STEEL SPACER BLOCK TO WOOD BLOCKOUT, ADD. DET. OF GUARD RAIL CONNECTION TO R.C. BOX CULV'T. DELETED DET. OF STEEL LINE POST CONN.& ADDED DET. OF GUARD RAIL PLACE. BEHIND CURB & DET. OF POST PLACE. IN SOLID ROCK	
4-3-96	PLACED ARROWS AT CUT STEEL WASHERS	4-3-96
10-18-96	REV. ASTM REF. TO AASHTO	
11-22-95	ADDED OPTIONAL HOLES	
6-2-94	REVISED ALTERNATE POST SIZE	
8-5-93	REVISED STEEL POST SIZE	
10-1-92	REDRAWN & REVISED	10-1-92
8-2-90	DEL. WASHER ON ANCHOR ASSEMBLY	8-2-90
7-15-88	CONFORMED TO 1988 SPECS	
3-4-88	REVISED ANCHOR NOTE	
10-30-87	REVISED ANCHOR ASSEMBLY	712-10-30-87
10-30-87	REVISED PLACEMENT BEHIND CURB	547-10-30-87
10-9-87	REDRAWN & REVISED	803-10-9-87

ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

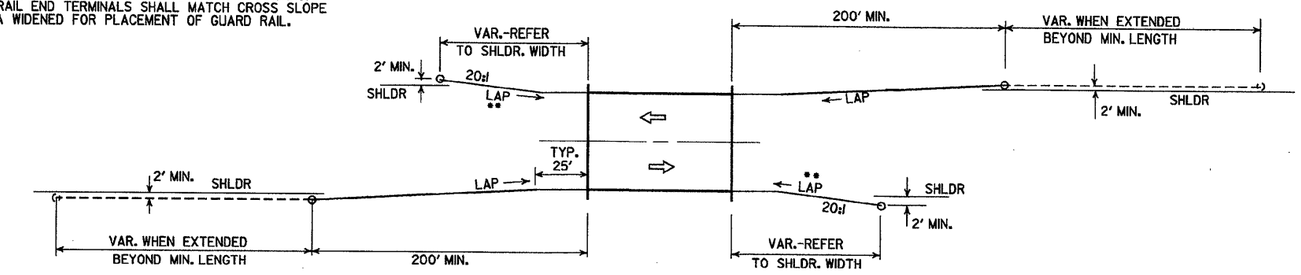
STANDARD DRAWING GR-8A



ONE-WAY TRAFFIC

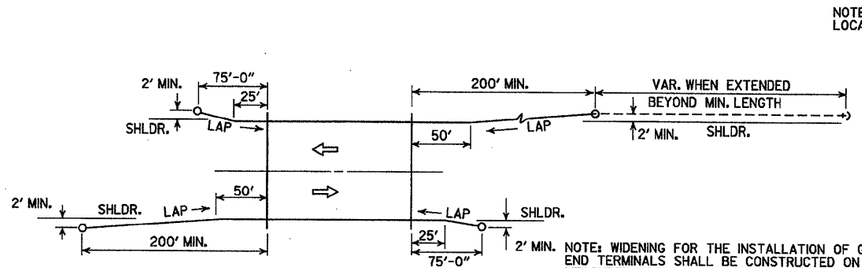
NOTE: WIDENING FOR THE INSTALLATION OF GUARD RAIL END TERMINALS SHALL BE CONSTRUCTED ON A 6:1 TAPER MEASURED FROM THE OUTSIDE EDGE OF SHOULDER TO A POINT 10' AHEAD OF THE APPROACH END OR 10' BEHIND THE OFF END OF GUARD RAIL END TERMINALS. CROSS SLOPE OF WIDENED AREA FOR INSTALLATION OF GUARD RAIL END TERMINALS SHALL MATCH CROSS SLOPE OF AREA WIDENED FOR PLACEMENT OF GUARD RAIL.

**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

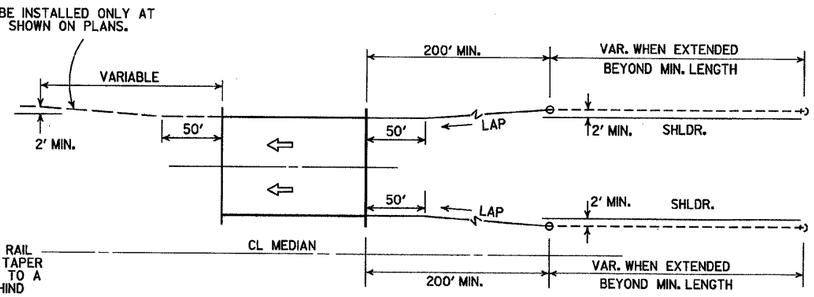
METHODS OF INSTALLATION OF GUARD RAIL AT LESS THAN FULL SHOULDER WIDTH BRIDGES USING GUARD RAIL TERMINAL (TYPE 2)



TWO-WAY TRAFFIC

NOTE: WIDENING FOR THE INSTALLATION OF GUARD RAIL END TERMINALS SHALL BE CONSTRUCTED ON A 6:1 TAPER MEASURED FROM THE OUTSIDE EDGE OF SHOULDER TO A POINT 10' AHEAD OF THE APPROACH END OR 10' BEHIND THE OFF END OF GUARD RAIL END TERMINALS. CROSS SLOPE OF WIDENED AREA FOR INSTALLATION OF GUARD RAIL END TERMINALS SHALL MATCH CROSS SLOPE OF AREA WIDENED FOR PLACEMENT OF GUARD RAIL.

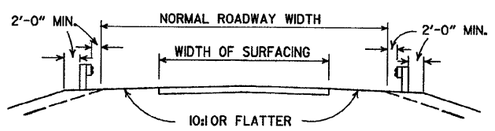
NOTE: TO BE INSTALLED ONLY AT LOCATIONS SHOWN ON PLANS.



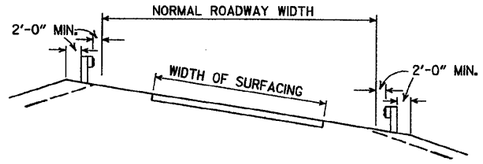
ONE-WAY TRAFFIC

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

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



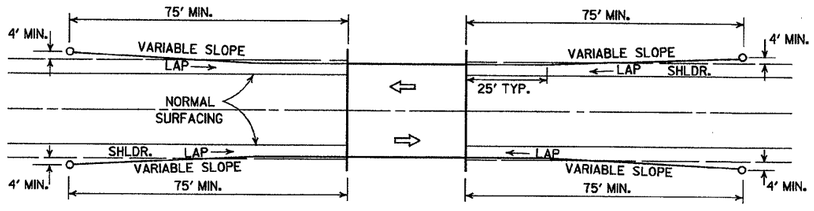
SECTION ON TANGENT



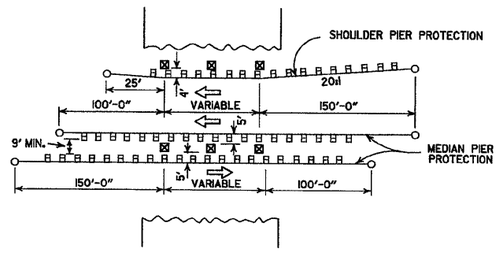
SECTION ON CURVE

DETAILS SHOWING POSITION OF GUARD RAIL ON HIGHWAY

NOTE: WIDENING FOR THE INSTALLATION OF GUARD RAIL END TERMINALS SHALL BE CONSTRUCTED ON A 6:1 TAPER MEASURED FROM THE OUTSIDE EDGE OF SHOULDER TO A POINT 10' AHEAD OF THE APPROACH END OR 10' BEHIND THE OFF END OF GUARD RAIL END TERMINALS. CROSS SLOPE OF WIDENED AREA FOR INSTALLATION OF GUARD RAIL END TERMINALS SHALL MATCH CROSS SLOPE OF AREA WIDENED FOR PLACEMENT OF GUARD RAIL.



METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERMINAL (TYPE 1) (FULL SHOULDER WIDTH OR LESS BRIDGES)



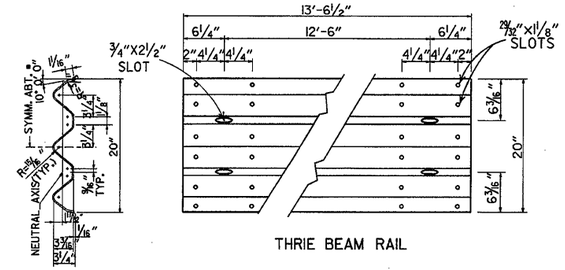
METHOD OF INSTALLATION OF GUARD RAIL AT FIXED OBSTACLE

11-16-01	DELETED NOTE-METHOD OF INSTALLATION OF GUARD RAIL USING GUARD RAIL TERM. (TY. 1)	
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	
	DATE REVISION	DATE FILM

ARKANSAS STATE HIGHWAY COMMISSION

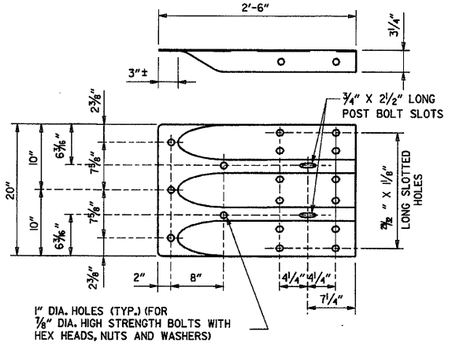
GUARD RAIL DETAILS

STANDARD DRAWING GR-9



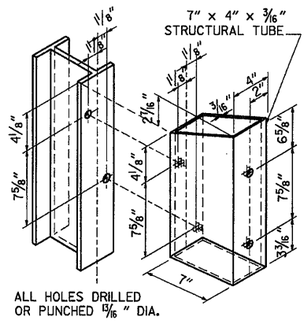
SECTION THRU THRIE BEAM RAIL

THRIE BEAM RAIL



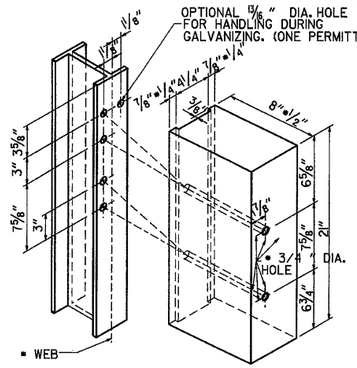
1" DIA. HOLES (TYP.) (FOR ⅞" DIA. HIGH STRENGTH BOLTS WITH HEX HEADS, NUTS AND WASHERS)

SPECIAL END SHOE



ALL HOLES DRILLED OR PUNCHED 13/16" DIA.

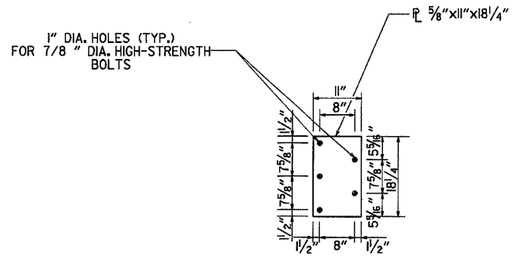
STRUCTURAL STEEL TUBING BLOCKOUT DETAIL



ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED

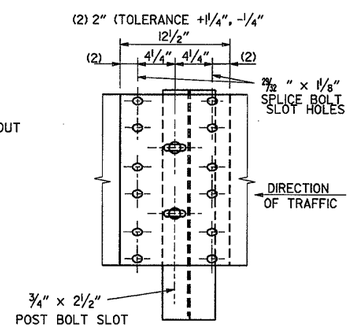
FOR STEEL POST & WOOD BLOCKOUTS HOLE PUNCHING DETAIL

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

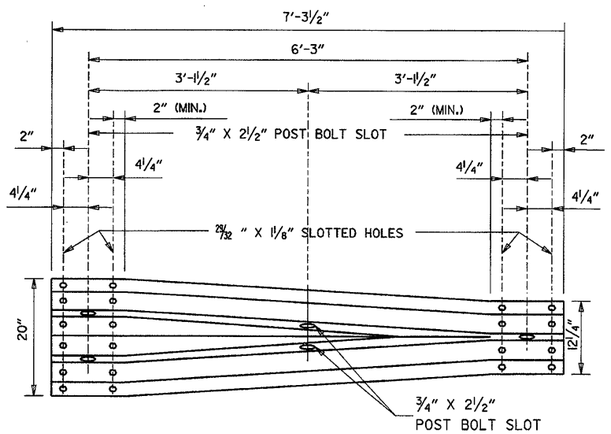


CONNECTOR PLATE

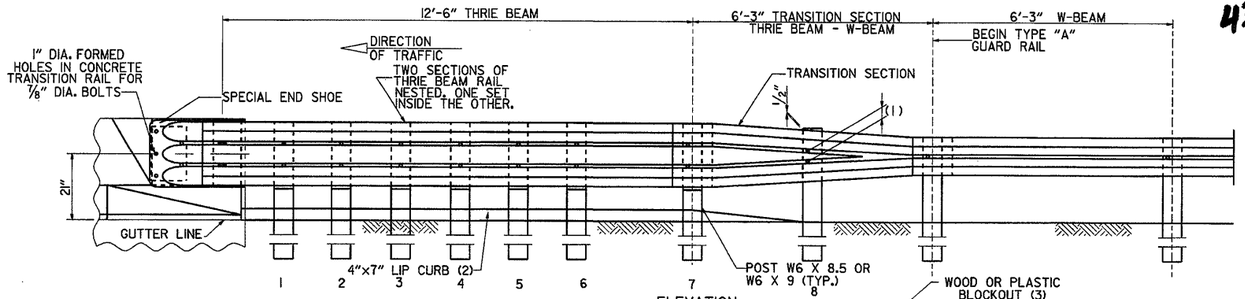
CONNECTOR PLATE SHALL BE AASHTO M270, GR. 36 AND SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING SHALL CONFORM TO SUBSECTION 807.19 OF THE STANDARD SPECIFICATIONS. CONNECTOR PLATE TO BE BOLTED TO SPECIAL END SHOE USING ⅞" DIA. HIGH STRENGTH BOLTS, WITH THE HEADS PLACED ON THE TRAFFIC FACE. WASHERS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



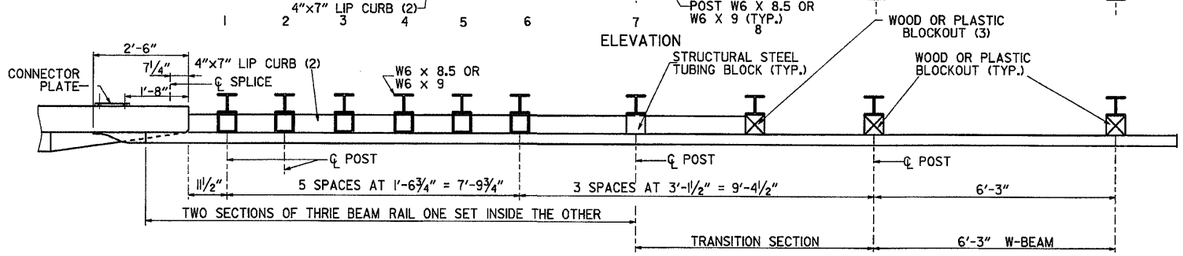
THRIE BEAM RAIL SPLICE AT POST



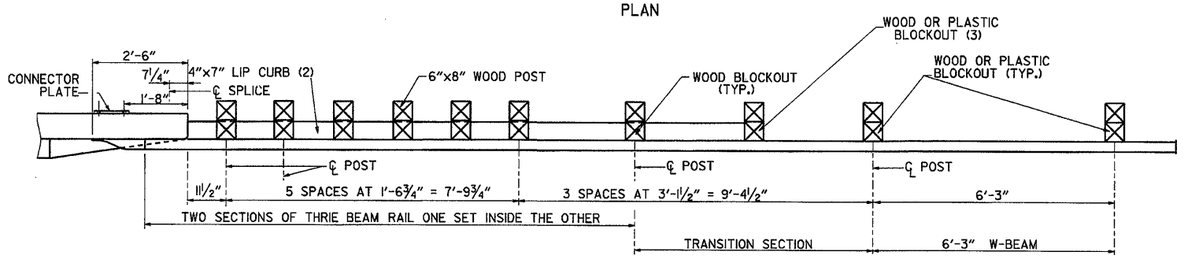
TRANSITION SECTION



ELEVATION



PLAN



PLAN

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

THRIE BEAM GUARD RAIL CONNECTION AT BRIDGE ENDS

GENERAL NOTES:

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

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

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

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

WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7 f (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.

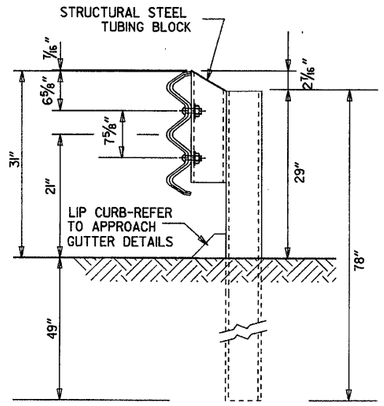
THRIE BEAM POSTS SHALL BE SAME MATERIAL AS W-BEAM POSTS FOR ENTIRE JOB.

DATE	REVISION	DATE FILM
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	

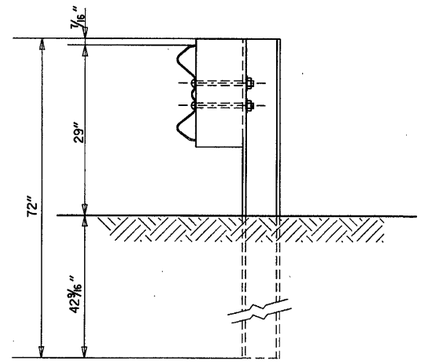
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

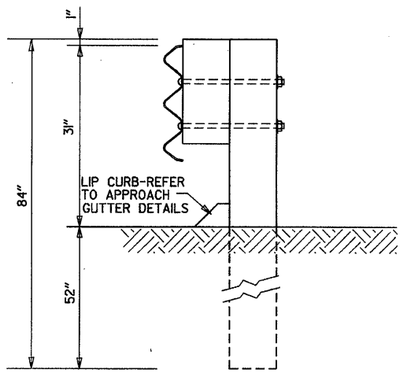
STANDARD DRAWING GR-10



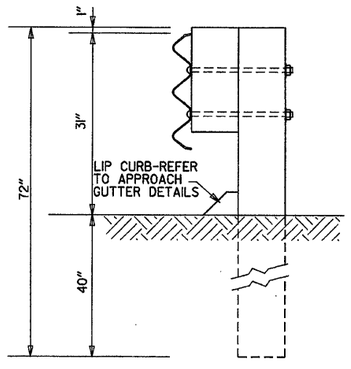
THRIE BEAM RAIL WITH STEEL TUBING BLOCKOUT
AND STEEL POST
POSTS 1-7



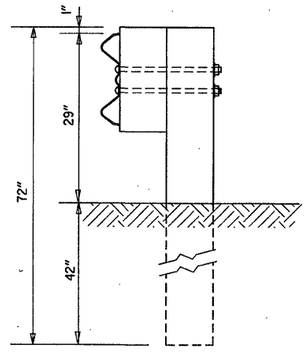
W-BEAM TO THRIE BEAM TRANSITION RAIL
WITH WOOD OR PLASTIC BLOCKOUT AND STEEL POST
POST 8



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



THRIE BEAM RAIL
WITH WOOD BLOCKOUT & WOOD POST
POST 7



W-BEAM - THRIE BEAM
TRANSITION WITH
WOOD BLOCKOUT & WOOD POST
POST 8

GENERAL NOTES:

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

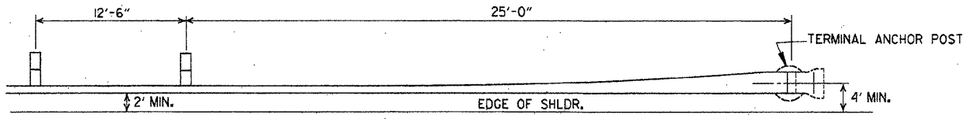
WOOD POSTS & WOOD BLOCKS SHALL BE EITHER DENSE NO. 1 STRUCTURAL OR BETTER 9.7f (1400 f) OR NO. 1 1350 f SOUTHERN PINE.

DATE	REVISION	DATE FILM
8-22-02	REVISED LIP CURB NOTE	
3-30-00	DRAWN & ISSUED	

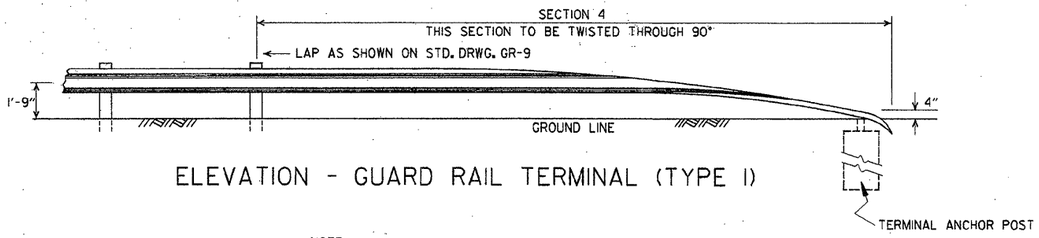
ARKANSAS STATE HIGHWAY COMMISSION

GUARD RAIL DETAILS

STANDARD DRAWING GR-10A

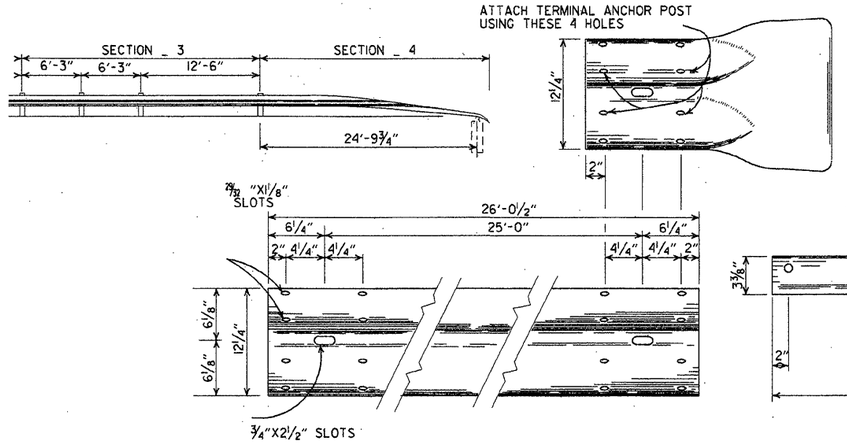


PLAN - GUARD RAIL TERMINAL (TYPE I)



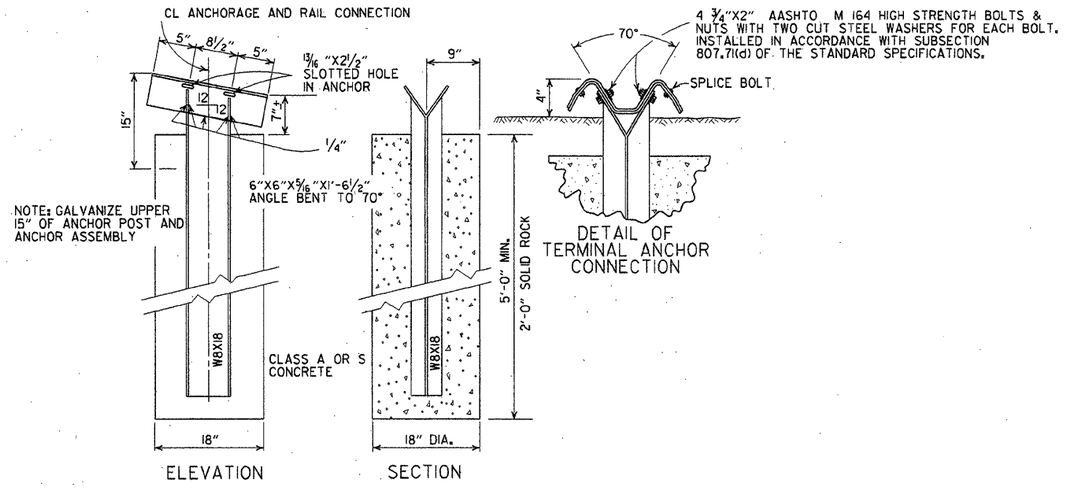
ELEVATION - GUARD RAIL TERMINAL (TYPE I)

NOTE:
SECTIONS 3 AND 4 OF GUARD RAIL TERMINAL SHALL BE PAID FOR AT THE PRICE BID PER LINEAR FOOT OF THE TYPE OF GUARD RAIL SPECIFIED.



SECTION 4

TERMINAL SECTION



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

DETAIL OF TERMINAL ANCHOR POST (TYPE I)

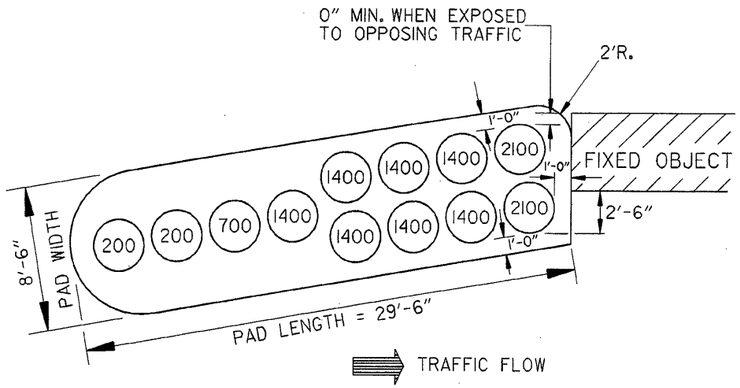
MICROFILMED
JUN 03 1997

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

ARKANSAS STATE HIGHWAY COMMISSION

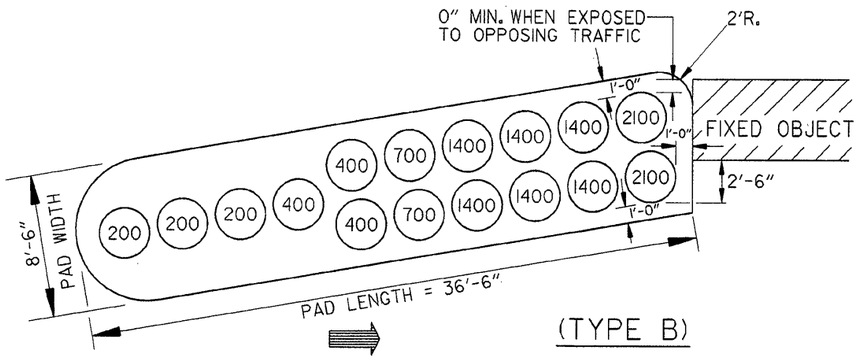
GUARD RAIL DETAILS

STANDARD DRAWING GRT-1



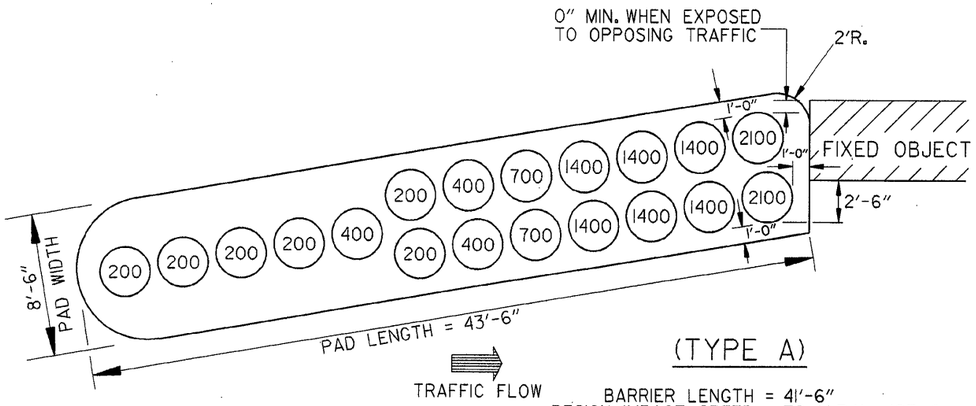
(TYPE C)

BARRIER LENGTH = 27'-6"
DESIGN IMPACT SPEED = 50 M.P.H.= 73.3 fps



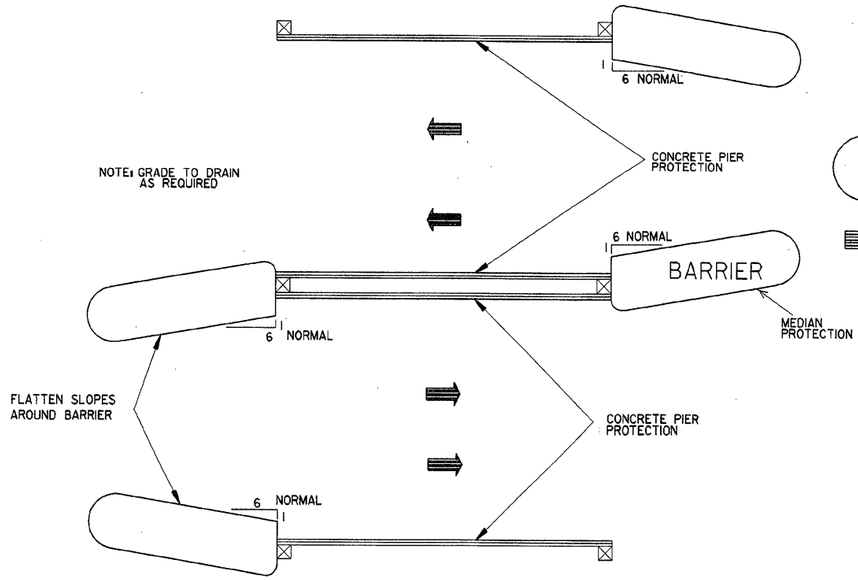
(TYPE B)

BARRIER LENGTH = 34'-6"
DESIGN IMPACT SPEED = 60 M.P.H.= 88 fps

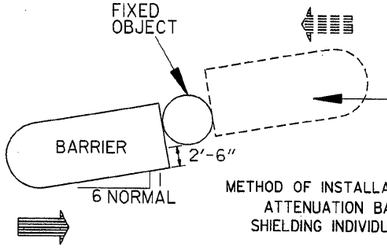


(TYPE A)

BARRIER LENGTH = 41'-6"
DESIGN IMPACT SPEED = 70 M.P.H.= 103 fps



METHOD OF INSTALLATION OF IMPACT ATTENUATION BARRIER FOR PIER PROTECTION



METHOD OF INSTALLATION OF IMPACT ATTENUATION BARRIER FOR SHIELDING INDIVIDUAL HAZARDS

GENERAL NOTES

1. DIMENSIONS SHOWN ARE TO TOP OF PLASTIC MODULES.
2. SPACING BETWEEN PLASTIC MODULES SHALL NOT EXCEED 6" AT THE TOP.
3. PLASTIC MODULES SHALL MEET THE REQUIREMENTS OF NCHRP-350.

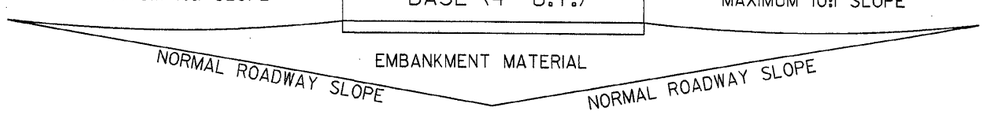
APPROXIMATE QUANTITIES PER PAD

TYPE	ALTERNATE #1		ALTERNATE #2
	AGGR. BASE COURSE	A.C.H.M. SURFACE COURSE	P.C.CONC. BASE (4"U.T.)
	TONS	TONS	SQ.YDS.
A	9.7	4.6	41.6
B	8.1	3.8	34.9
C	6.6	3.1	28.3

NOTE: APPROXIMATE QUANTITIES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. PAYMENT TO BE INCLUDED IN UNIT PRICE BID FOR IMPACT ATTENUATION BARRIER.

ALTERNATE #1
AVG. 8'-6" A.C.H.M. SURF. COURSE(1/2")
220 LBS. PER SQ. YD. &
AGGREGATE BASE COURSE
(4" COMPACTED DEPTH)

OR ALTERNATE #2
AVG. 8'-6" PORTLAND CEMENT CONCRETE BASE (4" U.T.)



DETAIL OF BARRIER PAD

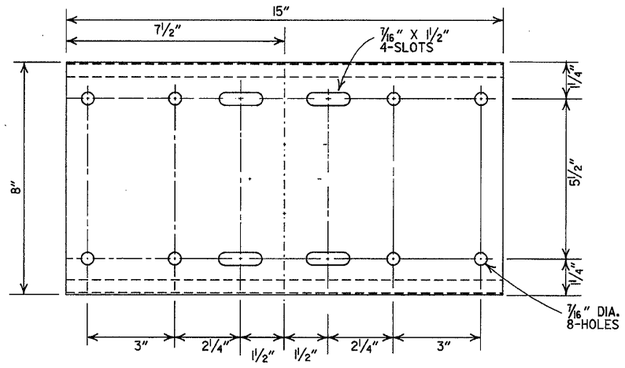
NOTE: BARRIER PAD TO BE SKEWED TOWARD ONCOMING TRAFFIC A MAXIMUM OF 6:1 WITH 6:1 BEING NORMAL

DATE	REVISION	DATE FILMED
11-19-98	REVISED FIXED OBJECT	11-19-98
11-18-98	REV. NOTES & TYPE A MOD. WTS.	
10-18-96	REDRAWN	
7-15-88	CONFORMED TO 1988 SPECS	
7-29-87	REDRAWN	

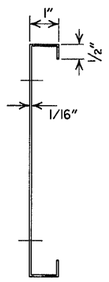
ARKANSAS STATE HIGHWAY COMMISSION

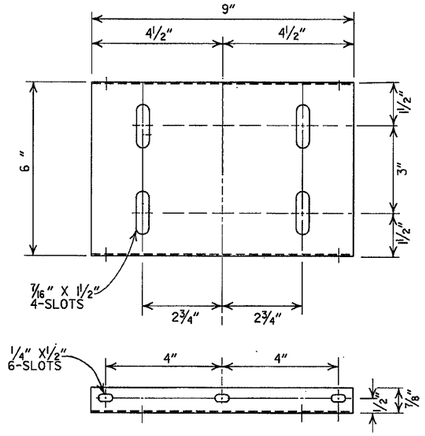
IMPACT ATTENUATION BARRIER

STANDARD DRAWING IB-1

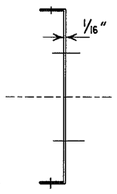


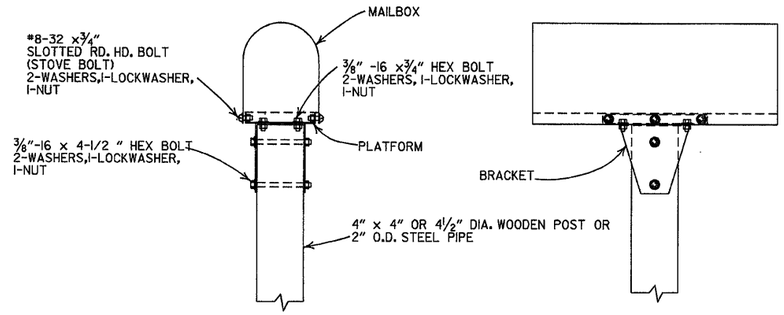
SHELF



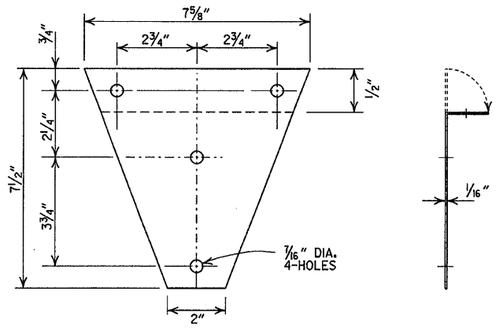


PLATFORM

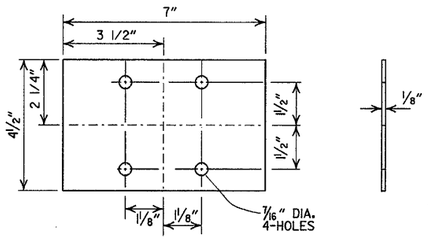




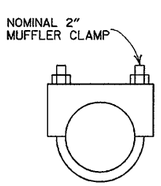
SINGLE INSTALLATION



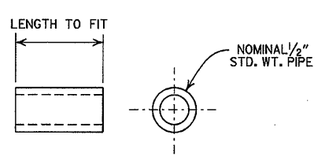
BRACKET



ANTI-TWIST PLATE



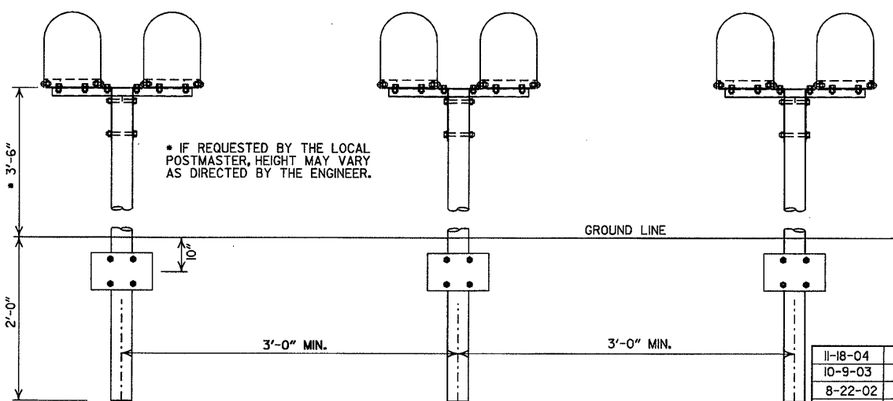
CLAMP



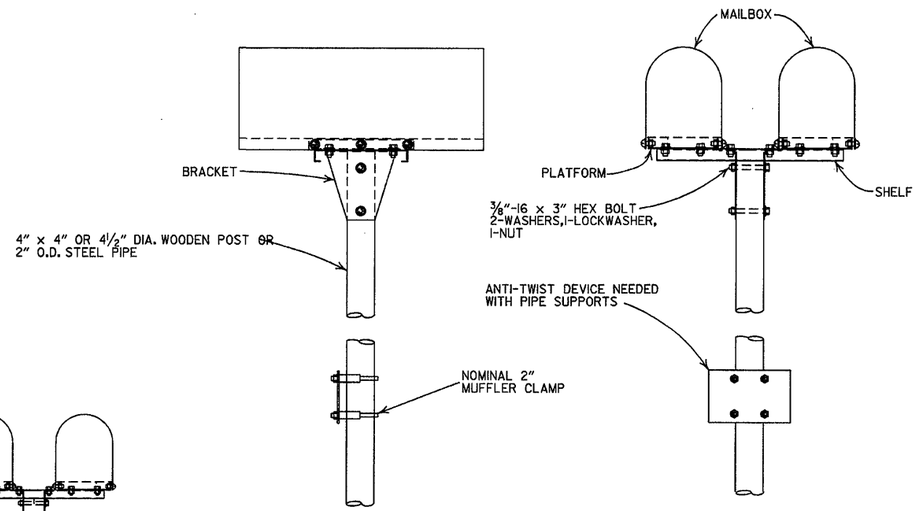
SPACER

GENERAL NOTES

1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED WOOD MAY BE USED WITH WOODEN POSTS. THE WOODEN SHELF, BRACKET & PLATFORM SHALL BE A MINIMUM OF ¾" THICK AND SHALL BE ASSEMBLED WITH BOLTS OF THE APPROPRIATE LENGTH WITH SIX 8 X¾" FLATHEAD WOOD SCREWS USED TO ATTACH THE MAILBOX TO THE PLATFORM.
4. THE MAILBOX SHELF AND PLATFORM THAT IS SHOWN IS FOR STANDARD SIZE MAILBOXES. THE SHELF AND PLATFORM SIZE SHALL BE MODIFIED TO FIT MAILBOXES OF A DIFFERENT SIZE.
5. METAL PIPE FOR MAILBOX SUPPORT SHALL BE 2" OUTSIDE DIAMETER STEEL WITH A WALL THICKNESS OF 0.145" AND A WEIGHT OF 2.72 LBS PER FT. OUTSIDE DIAMETER AND WEIGHT SHALL HAVE A TOLERANCE OF +/- 5% ACCORDING TO AASHTO M 181.
6. MAILBOX SUPPORT SYSTEM DIFFERING FROM THOSE SHOWN MAY BE USED, PROVIDED THEY ARE ON THE AHTD QUALIFIED PRODUCTS LIST FOR MAILBOX SUPPORTS.



SPACING FOR MULTIPLE POST INSTALLATION



DOUBLE INSTALLATION

DATE	FILMED	REVISION
11-18-04		REVISED NOTES
10-9-03		REVISED NOTE 6
8-22-02		REVISED NOTE 6
10-18-96		CORRECTED AASHTO
10-1-92		CORRECTED SPELLING
9-26-91		NEW PHONE NUMBER
8-15-91		ADDED NOTE
11-30-89		ADJUSTED HEIGHT & ADDED NOTE
2-16-89		DELETED SLOTS FROM SHELF & PLTF
11-17-88	10-1-92	ADJUSTED DIMENSIONS OF STEEL POSTS
7-15-88	120-7-15-88	ISSUED

ARKANSAS STATE HIGHWAY COMMISSION

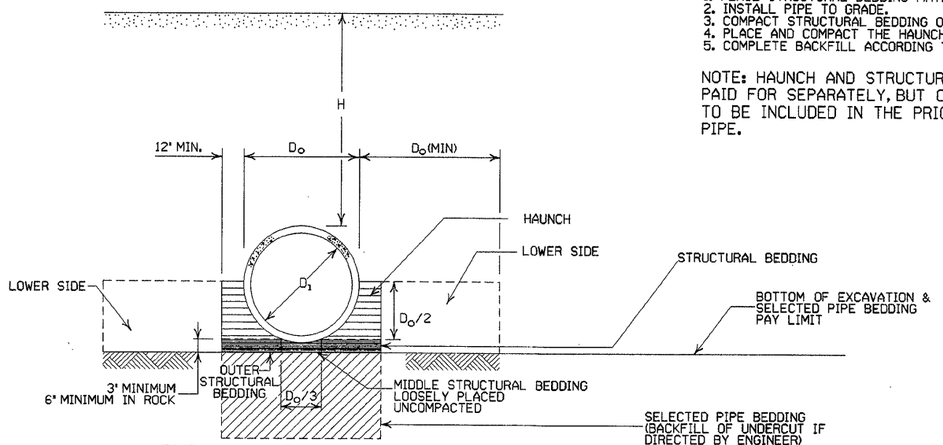
MAILBOX DETAILS

STANDARD DRAWING MB-1

CONSTRUCTION SEQUENCE

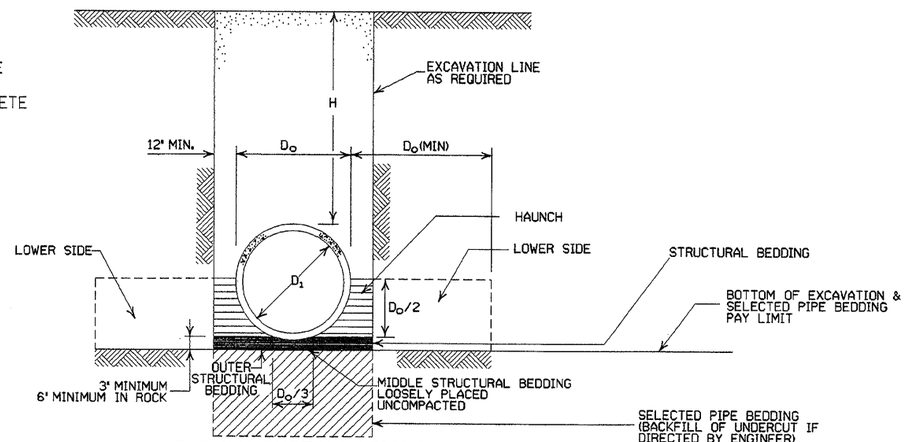
1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SPECIFICATIONS.

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



EMBANKMENT INSTALLATIONS

1. MATERIAL IN THE LOWER SIDE, HAUNCH, AND OUTER STRUCTURAL BEDDING SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.



TRENCH INSTALLATIONS

1. MATERIAL IN THE HAUNCH AND OUTER STRUCTURAL BEDDING SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. FOR TRENCHES WITH WALLS OF NATURAL SOIL, THE DENSITY OF THE SOIL IN THE LOWER SIDE ZONE SHALL BE AS FIRM AS THE 95% DENSITY REQUIRED FOR THE HAUNCH. IF THE EXISTING SOIL DOES NOT MEET THIS CRITERIA, IT SHALL BE REMOVED AND RECOMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OF MATERIAL USED.

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.*	*SPAN		* RISE	
	AASHTO M 206	AHD NOMINAL	AASHTO M 206	AHD NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13½	14
21	26	26	15½	16
24	28½	29	18	18
30	36¼	36	22½	23
36	43¾	44	26⅞	27
42	51⅛	51	31⅛	31
48	58½	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	77½	77
108	138	138	87⅛	87
120	154	154	96⅞	97
132	168¾	169	106½	107

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

INSTALLATION TYPE	* MATERIAL REQUIREMENTS FOR HAUNCH AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 5 OR CLASS 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-3) OR TYPE 1 INSTALLATION MATERIAL
TYPE 3	AASHTO CLASSIFICATION A-1 THRU A-6 SOIL OR TYPE 1 OR 2 INSTALLATION MATERIAL

* MATERIALS SHALL NOT INCLUDE ORGANIC MATERIALS OR STONES LARGER THAN 3 INCHES.

MAXIMUM HEIGHT OF FILL OVER R.C. PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE		
	CLASS III	CLASS IV	CLASS V
	FEET		
TYPE 1	21	32	50
TYPE 2	17	27	41
TYPE 3	13	20	32

NOTE: IF FILL HEIGHT EXCEEDS 50 FEET, A SPECIAL DESIGN CONCRETE PIPE WILL BE REQUIRED USING TYPE 1 INSTALLATION.

GENERAL NOTES

1. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
2. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
4. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE.
5. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
6. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
7. NOT MORE THAN ONE LIFTING HOLE MAY BE PROVIDED IN CONCRETE PIPE TO FACILITATE HANDLING. HOLE MAY BE CAST IN PLACE, CUT INTO THE FRESH CONCRETE AFTER FORMS ARE REMOVED, OR DRILLED. THE HOLE SHALL NOT BE MORE THAN TWO INCHES IN DIAMETER OR TWO INCHES SQUARE. CUTTING OR DISPLACEMENT OF REINFORCEMENT WILL NOT BE PERMITTED. SPALLED AREAS AROUND THE HOLE SHALL BE REPAIRED IN A WORKMANLIKE MANNER. LIFTING HOLE SHALL BE FILLED WITH MORTAR, CONCRETE, OR OTHER METHOD AS APPROVED BY THE ENGINEER.
8. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS 'STRUCTURAL BEDDING' ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS 'SELECTED PIPE BEDDING.'
9. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS THE HAUNCH), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF 'SELECTED PIPE BACKFILL.'

- LEGEND -

D_1 = NORMAL INSIDE DIAMETER OF PIPE
D_o = OUTSIDE DIAMETER OF PIPE
H = FILL COVER HEIGHT OVER PIPE (FEET)
MIN. = MINIMUM
▨ = UNDISTURBED SOIL

DATE	REVISION	DATE FILMED
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

CORRUGATED STEEL PIPE (ROUND) H-20 LOADING

PIPE DIAMETER (INCHES)	MINUMUM COVER TOP OF PIPE TO TOP OF SUBGRADE (INCHES)	MAX. FILL HEIGHT ABOVE TOP OF PIPE (FEET)							
		METAL THICKNESS IN INCHES							
		0.064	0.079	0.109		0.138		0.168	
				ROUND	ELONG.	ROUND	ELONG.	ROUND	ELONG.
		2⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL							
12	12	84	91						
15	12	67	73						
18	12	56	61						
24	12	42	46	59					
30	12	34	36	47					
36•	12		30	39		41			
42•	12		43	46	67	48	70	50	73
48•	12		37	45	58	46	61	47	64
		3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION•• RIVETED, WELDED, HELICAL, OR BOLTED							
36	12	48	60	78	88	89	111	101	131
42	12	41	51	64	72	71	90	79	102
48	12	36	45	57	64	61	77	66	85
54	12	32	40	52	59	55	71	59	79
60•	12	29	36	49	53	51	64	54	71
66	12	26	33	47		49	58	51	64
72•	12	24	30	44		47	53	49	59
78	12		28	41		46	49	47	54
84•	12		26	38		45		46	51
90	12		24	35		43		45	
96•	12		22	33		40		44	
102	24			31		38		42	
108•	24			30		35		39	
114	24			28		34		37	
120•	24			27		32		35	

• MAX. FILL CAN BE INCREASED IN THESE DIAMETER PIPES BY USING THE NEXT LARGER CORRUGATION. REFER TO 'CORRUGATED METAL PIPE', REVISED 1970, PUBLISHED BY U.S. DEPARTMENT OF TRANSPORTATION, F.H.W.A., B.P.R.

•• WHERE THE STANDARD 2 ⅔'× ½' CORRUGATION AND GAUGE IS SPECIFIED FOR A GIVEN DIAMETER A 3' × 1' OR 5' × 1' CORRUGATION PIPE OF THE SAME DIAMETER MAY BE SUBSTITUTED, PROVIDING IT IS GAUGED FOR A FILL HEIGHT CONDITION EQUAL TO OR GREATER THAN THE MAXIMUM FILL HEIGHT CONDITION FOR THE SPECIFIED GAGE AND CORRUGATION

CORRUGATED ALUMINUM PIPE (ROUND) H-20 LOADING

PIPE DIAMETER (INCHES)	MINUMUM COVER TOP OF PIPE TO TOP OF SUBGRADE (INCHES)	MAX. FILL HEIGHT ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS IN INCHES				
		0.060	0.075	0.105	0.135	0.164
		2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL				
12	12	45	45			
18	12	30	30	52		
24	12	22	22	39	41	
30	12	18	18	31	32	34
36	12		15	26	27	28
42	12		26	43	43	44
48	12			40	41	43
54	12			35	37	38
60	12				33	34
66	12				30	31
72	12					29

EQUIVALENT METAL THICKNESSES AND GAUGES

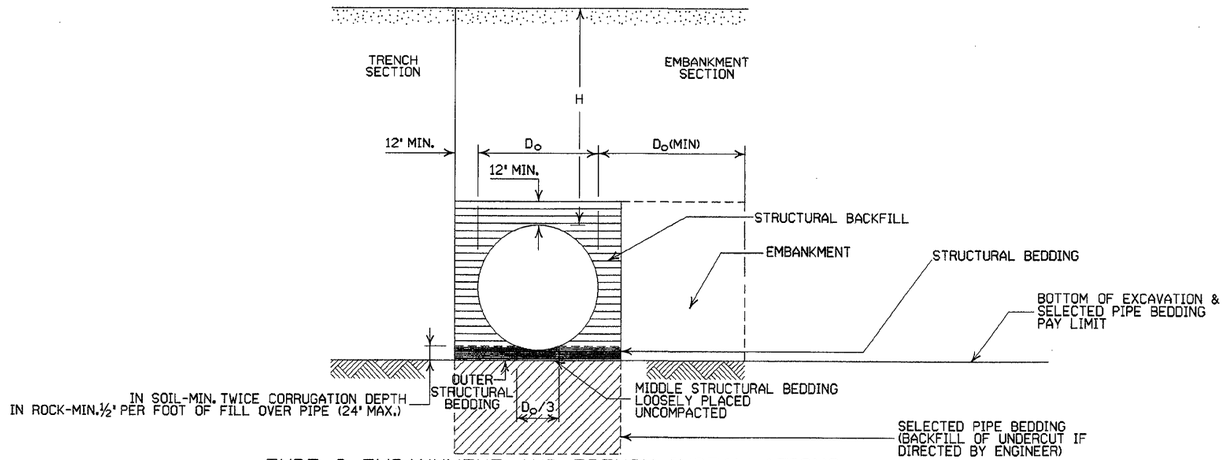
METAL THICKNESS IN INCHES			GAUGE NUMBER
STEEL			
ZINC COATED	UNCOATED	ALUMINUM	
0.064	0.0598	0.060	16
0.079	0.0747	0.075	14
0.109	0.1046	0.105	12
0.138	0.1345	0.135	10
0.168	0.1644	0.164	8
0.188	0.1838		7
0.218	0.2145		5
0.249	0.2451		3
0.280	0.2758		1

CORRUGATED METAL PIPE ARCHES (H - 20 LOADING)

EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINUMUM CORNER RADIUS (INCHES)	MIN. COVER TOP OF PIPE TO TOP OF SUBGRADE FOR 2 TONS PER SQ. FT. (INCHES)	STEEL			ALUMINUM		
				MINIMUM THICKNESS REQUIRED INCHES	MAX. FILL HEIGHTS ABOVE TOP OF PIPE(IN FT.) FOR THE FOLLOWING CORNER BEARING PRESSURE IN TONS PER SQ. FT.		MINIMUM THICKNESS REQUIRED INCHES	MAX. FILL HEIGHTS ABOVE TOP OF PIPE(IN FT.) FOR THE FOLLOWING CORNER BEARING PRESSURE IN TONS PER SQ. FT.	
					2 TONS	3 TONS[1]		2 TONS	3 TONS[1]
			2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL				2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL		
15	17×13	3	12	0.064	13	15+	0.060	15	
18	21×15	3	12	0.064	12	15+	0.060	14	
21	24×18	3	12	0.064	10	15+	0.060	12	15+
24	28×20	3	12	0.064	10	15	0.060	10	15+
30	35×24	3	12	0.079	9	14	0.075	9	14
36	42×29	3½	12	0.079	9	13	0.075	9	13
42	49×33	4	12	0.079	8	12	0.105	8	12
48	57×38	5	12	0.109	8	12	0.135	8	12
54	64×43	6	12	0.109	8	12	0.135	8	12
60	71×47	7	12	0.138	8	12	0.164	8	12
66	77×52	8	12	0.168	8	12	0.164	8	12
72	83×57	9	12	0.168	9	13			
			3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION•• RIVETED, WELDED, OR HELICAL						
36	40×31	5	12	0.079	15	15+			
42	46×36	6	12	0.079	15	15+			
48	53×41	7	12	0.079	15	15+			
54	60×46	8	12	0.079	15	15+			
60	66×51	9	12	0.079	15	15+			
66	73×55	12	12	0.079	15	15+			
72	81×59	14	18	0.079	15	15+			
78	87×63	14	18	0.079	14	15+			
84	95×67	16	18	0.109	13	15+			
90	103×71	16	24	0.109	12	15+			
96	112×75	18	24	0.109	11	15+			
102	117×79	18	24	0.109	10	15			
108	128×83	18	24	0.138	9	14			

1 WHERE BEARING PRESSURE EXCEEDING 2 TONS PER SQUARE FOOT IS REQUIRED FOR GIVEN FILL HEIGHTS, THE FOUNDATION MATERIAL SHALL BE INVESTIGATED TO DETERMINE THE BEARING CAPACITY.

•• WHERE THE STANDARD 2 ⅔' × ½' CORRUGATION AND GAUGE IS SPECIFIED FOR A GIVEN DIAMETER, A 3' × 1' OR 5' × 1' CORRUGATION PIPE OF THE SAME DIAMETER MAY BE SUBSTITUTED, PROVIDING IT IS GAUGED FOR A FILL HEIGHT CONDITION EQUAL TO OR GREATER THAN THE MAXIMUM FILL HEIGHT CONDITION FOR THE SPECIFIED GAUGE AND CORRUGATION.



TYPE 2 EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. COMPLETE STRUCTURAL BACKFILL OPERATION BY WORKING FROM SIDE TO SIDE OF THE PIPE. THE SIDE TO SIDE STRUCTURAL BACKFILL DIFFERENTIAL SHALL NOT EXCEED 24 INCHES OR 1/3 THE SIZE OF THE PIPE, WHICHEVER IS LESS.

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 2	•SELECTED MATERIALS (CLASS SM-1, SM-2 OR SM-3)

• AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) MAY BE USED IN LIEU OF SELECTED MATERIAL

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

GENERAL NOTES

1. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
2. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
4. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE.
5. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
6. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
7. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS 'STRUCTURAL BEDDING' ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS 'SELECTED PIPE BEDDING.'
8. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF 'SELECTED PIPE BACKFILL.'

- LEGEND -

D_o = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM
= STRUCTURAL BACKFILL MATERIAL
= UNDISTURBED SOIL
ELONG. = ELONGATED
EQUIV. DIA. = EQUIVALENT DIAMETER
H = FILL COVER HEIGHT OVER PIPE (FEET)

DATE	REVISION	DATE FILMED
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

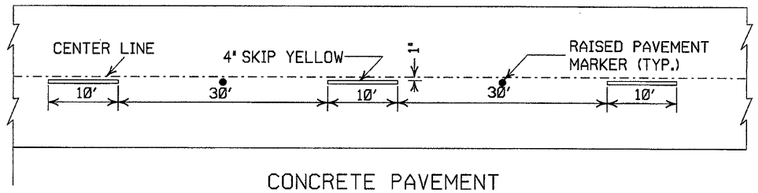
ARKANSAS STATE HIGHWAY COMMISSION

METAL PIPE CULVERT FILL HEIGHTS & BEDDING

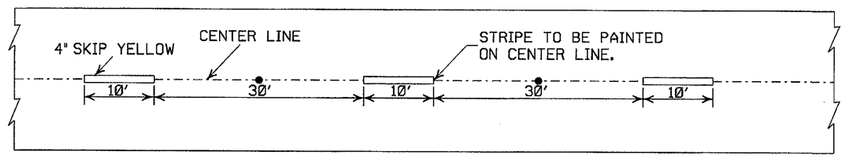
STANDARD DRAWING PCM-1

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.

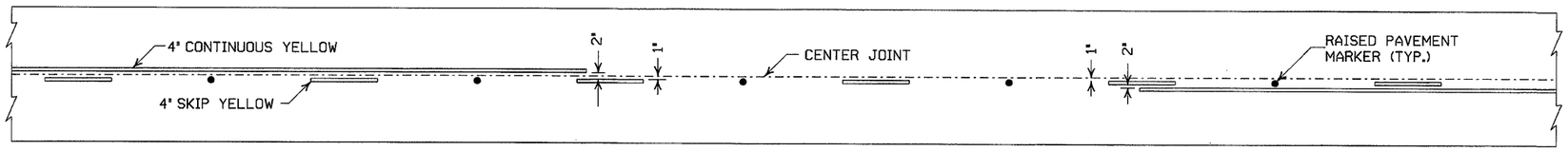


CONCRETE PAVEMENT

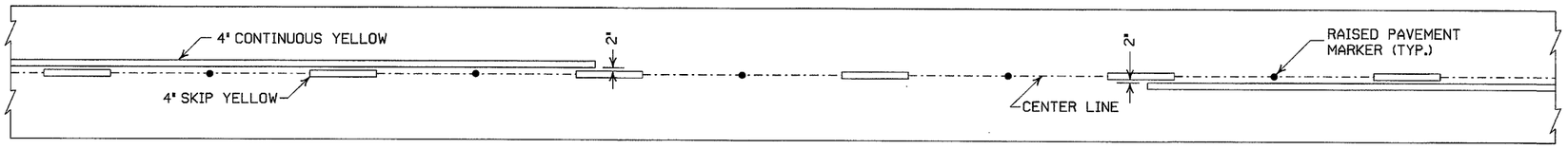


ASPHALT PAVEMENT

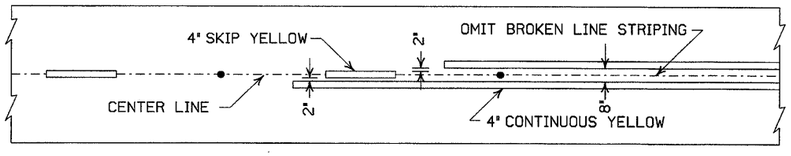
BROKEN LINE STRIPING



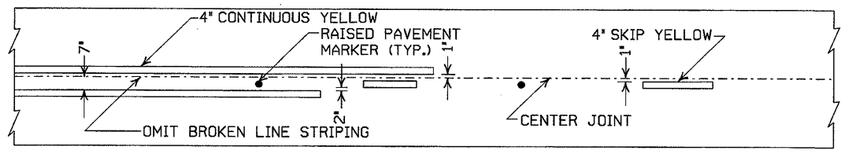
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

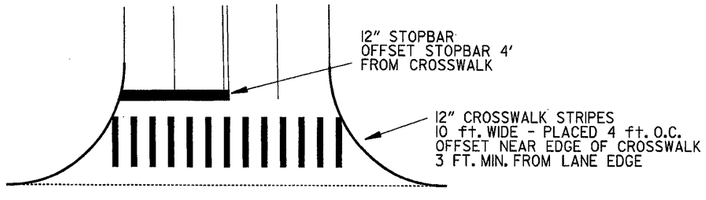


ASPHALT PAVEMENT



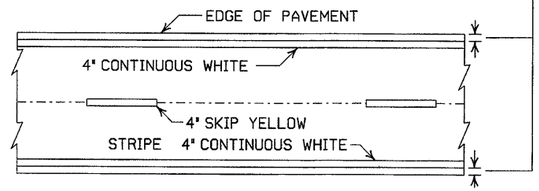
CONCRETE PAVEMENT

STRIPING AT ADJACENT NO PASSING LANES

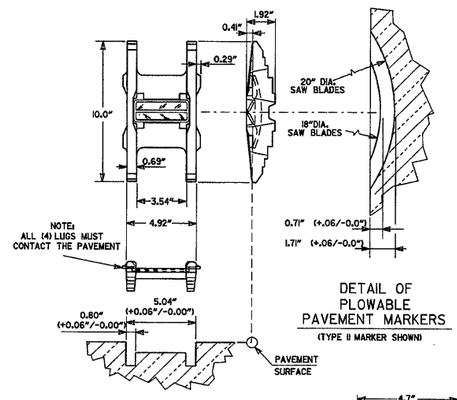


CROSSWALK AND STOPBAR DETAILS

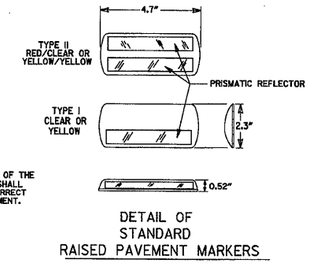
2" FOR ASPHALT OR CONCRETE PAVEMENT
6" FOR BITUMINOUS SURFACE TREATMENT



PAVEMENT EDGE LINE MARKING



DETAIL OF PLOWABLE PAVEMENT MARKERS
(TYPE II MARKER SHOWN)



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

DATE	REVISION	FILMED
11-18-04	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)

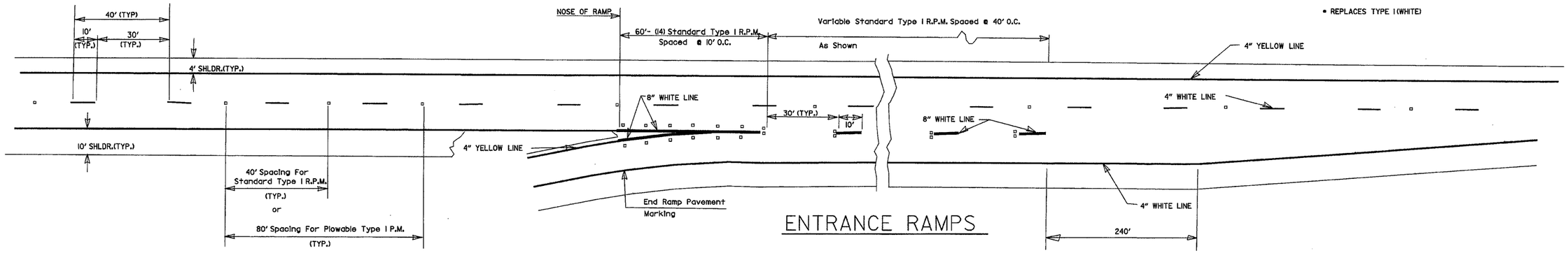
ENTRANCE RAMP

8" WHITE = 220 LIN. FT.
RAISED PAVEMENT MARKERS TYPE I (WHITE) = 34 EACH

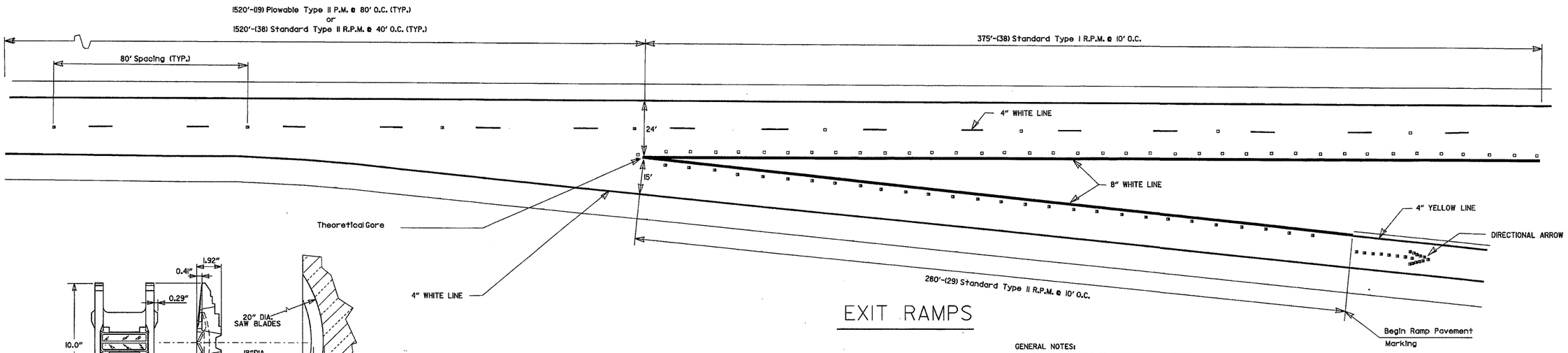
EXIT RAMP

4" WHITE = 280 LIN. FT.
8" WHITE = 655 LIN. FT.
RAISED PAVEMENT MARKERS TYPE I (WHITE) = 38 EACH
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED) = 48 EACH
PLOWABLE PAVEMENT MARKERS TYPE II (WHITE/RED) = 19 EACH •

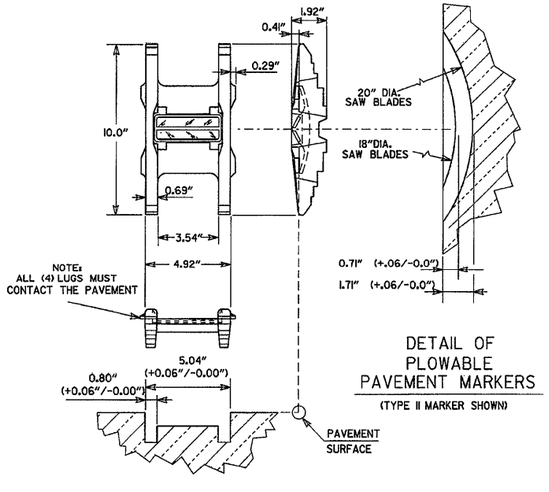
• REPLACES TYPE I (WHITE)



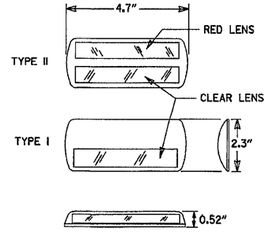
ENTRANCE RAMPS



EXIT RAMPS

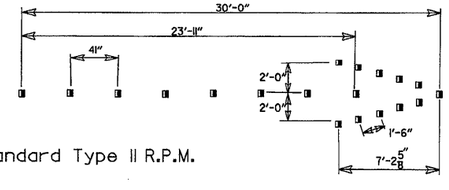


DETAIL OF PLOWABLE PAVEMENT MARKERS
(TYPE II MARKER SHOWN)



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

DATE	REVISION	FILMED
11-18-04	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

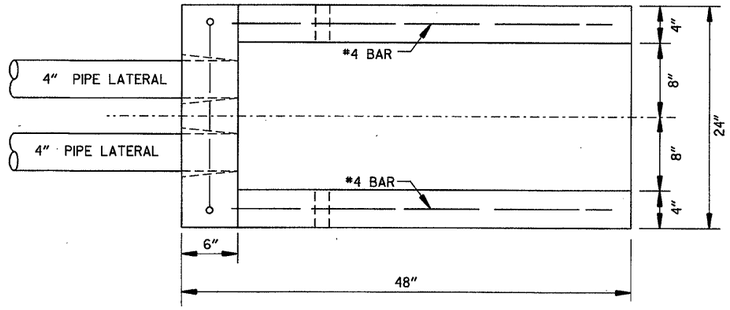
STANDARD DRAWING PM-2

4444

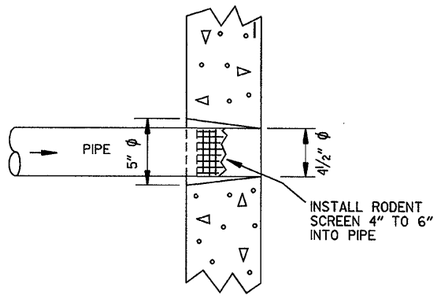
NOTE:
1. GRANULAR BACKFILL TO BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

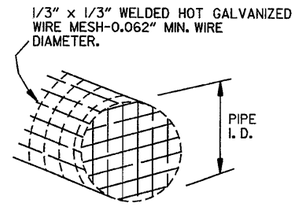
3. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



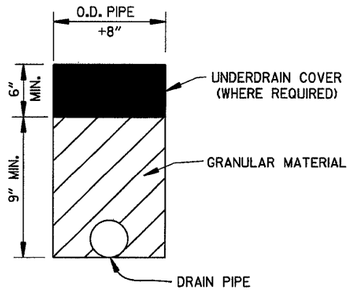
PLAN VIEW

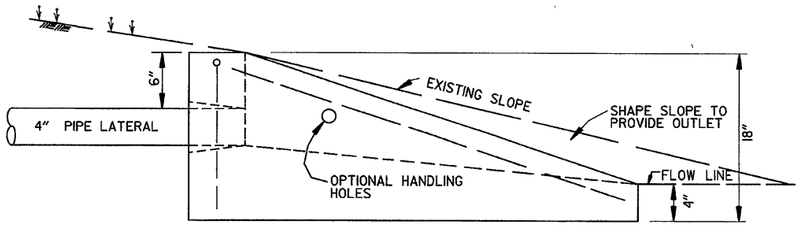


DETAIL OF HOLE FOR 4" PIPE

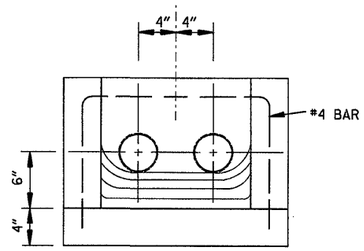


DETAIL OF RODENT SCREEN

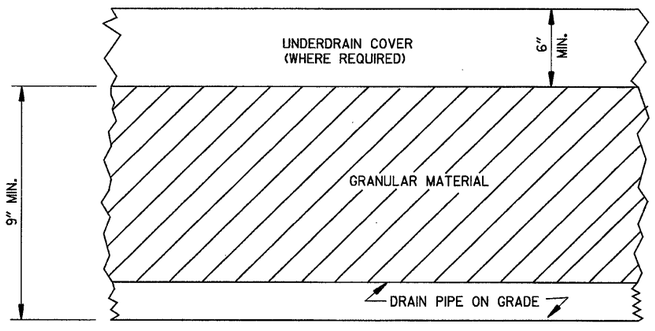




SIDE VIEW

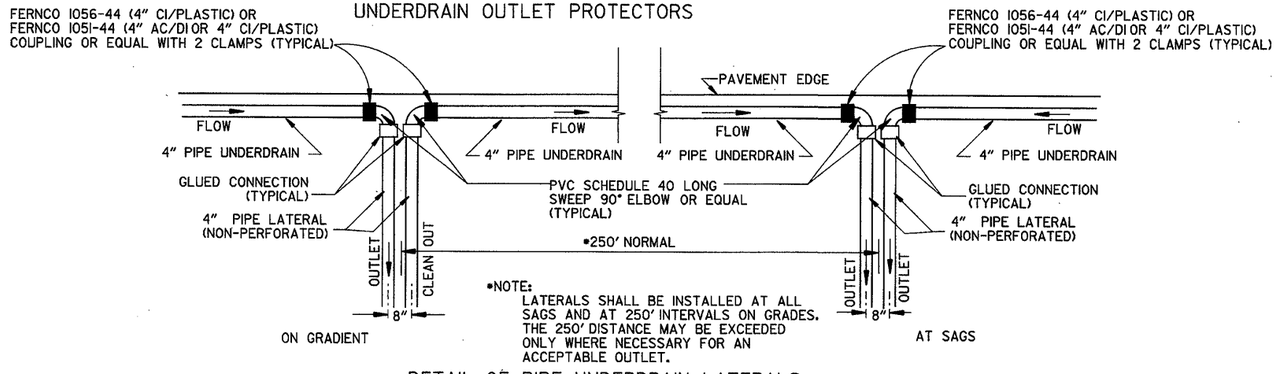


FRONT VIEW



DETAILS OF PIPE UNDERDRAIN

UNDERDRAIN OUTLET PROTECTORS



DETAIL OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE

NOTE: PVC PIPE FOR LATERALS SHALL MEET THE REQUIREMENTS OF ASTM D 1785 (LATEST REVISION) FOR SCHEDULE 40 PIPE.

4-10-03	REVISED NOTE 3	
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS	
11-18-98	REVISED NOTE	
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC	
4-26-96	ADDED LATERAL NOTE; 5½" TO 5"	
11-22-95	REVISED LATERALS	
7-20-95	REVISED LATERALS & ADDED NOTE	
11- 3-94	REVISED FOR DUAL LATERALS	11- 3-94
10- 1-92	SUBSTITUTED GEOTEXTILE	10- 1-92
8-15-91	ADDED POLYEDTHYLENE PIPE	8-15-91
11- 8-90	DELETED ALTERNATE NOTE	11- 8-90
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	11-30-89
7-15-88	ISSUED P.L.M.	647-7-15-88
DATE	REVISION	DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1

7-20-95 INSTD.PUI

SUPERELEVATION TABLE FOR ONE - WAY TRAFFIC

DEGREE OF CURVE	30 MPH e	30 MPH Ls (FT) MINIMUM	30 MPH Ls (FT) DESIRABLE	40 MPH e	40 MPH Ls (FT) MINIMUM	40 MPH Ls (FT) DESIRABLE	50 MPH e	50 MPH Ls (FT) MINIMUM	50 MPH Ls (FT) DESIRABLE	55 MPH e	55 MPH Ls (FT) MINIMUM	55 MPH Ls (FT) DESIRABLE	60 MPH e	60 MPH Ls (FT) MINIMUM	60 MPH Ls (FT) DESIRABLE	65 MPH e	65 MPH Ls (FT) MINIMUM	65 MPH Ls (FT) DESIRABLE	70 MPH e	70 MPH Ls (FT) MINIMUM	70 MPH Ls (FT) DESIRABLE
0° 15′	N. C.			N. C.			N. C.			N. C.			N. C.			N. C.			N. C.		
0° 30′	N. C.			N. C.			N. C.			N. C.			N. C.			N. C.			N. C.		
0° 45′	N. C.			N. C.			R. C.			0.022			0.023			0.025			0.028		
1° 00′	N. C.			N. C.			0.021			0.026			0.030			0.033			0.037		
1° 15′	N. C.			R. C.			0.026			0.032			0.037			0.041			0.046		
1° 30′	N. C.			0.021			0.031			0.037			0.043			0.048			0.054		
1° 45′	N. C.			0.025			0.036			0.043			0.049			0.055			0.062		
2° 00′	R. C.			0.028	175		0.040			0.048			0.055			0.062			0.070		
2° 15′	R. C.			0.031			0.045			0.053			0.061			0.069	265		0.078	300	
2° 30′	0.021			0.034			0.049			0.058			0.067			0.075	280		0.085	315	400
2° 45′	0.023			0.037			0.053			0.063			0.072			0.081	300		0.091	335	
3° 00′	0.025			0.040			0.057			0.067	230		0.077	260		0.087	315		0.096	350	
3° 15′	0.027	150		0.043			0.061			0.072	245		0.082	275		0.090	325		0.098	360	450
3° 30′	0.029			0.046			0.065	205		0.076	255		0.086	285		0.095	340		0.100	360	
3° 45′	0.031		250	0.049			0.069	215		0.080	265		0.090	295	400	0.097	345	400			
4° 00′	0.033			0.051			0.072	225		0.083	270		0.093	305		0.099	350				
4° 30′	0.037			0.056			0.078	240		0.087	280		0.096	315							
5° 00′	0.040			0.061			0.083	250		0.091	295	400	0.098	320							
5° 30′	0.043			0.066	185		0.088	260		0.094	300										
6° 00′	0.046			0.070	190		0.092	270		0.096	305										
6° 30′	0.050			0.074	200		0.095	280	350	0.100	315										
7° 00′	0.053			0.078	210		0.098	285													
7° 30′	0.056			0.081	215		0.099	290													
8° 00′	0.058			0.084	220	300	0.100	290													
8° 30′	0.061			0.087	225																
9° 00′	0.063			0.089	230																
10° 00′	0.068	160		0.094	235																
11° 00′	0.072	170		0.097	250																
12° 00′	0.076	175		0.099	250																
13° 00′	0.080	180		0.100	250																
14° 00′	0.083	190																			
15° 00′	0.086	195																			
16° 00′	0.089	200																			
17° 00′	0.091	200																			
18° 00′	0.093	205																			
19° 00′	0.095	210																			
20° 00′	0.097	215	300																		
21° 00′	0.098	215																			
22° 00′	0.099	215																			
23° 00′	0.099	215																			
24° 00′	0.100	220																			

D MAX = 24° 45′ | D MAX = 13° 15′ | D MAX = 8° 15′ | D MAX = 6° 30′ | D MAX = 5° 15′ | D MAX = 4° 15′ | D MAX = 3° 30′

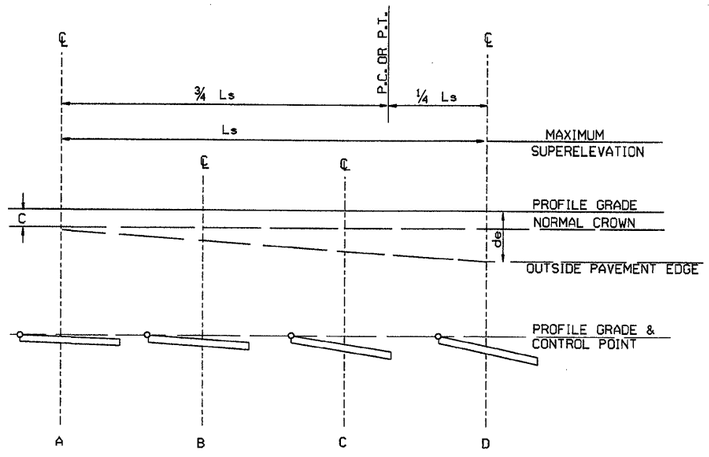
GENERAL NOTES

1. ON PAVEMENT WITH ONE-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE PROFILE GRADE POINT.
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR Ls MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. MINIMUM Ls VALUES MAY BE USED FOR RAMPS; DESIRABLE VALUES SHALL APPLY TO MAIN LANES.
5. DIVIDED PAVEMENTS WIDER THAN 4 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLOWS:

6 LANE DIVIDED---------+20%
8 LANE DIVIDED---------+50%

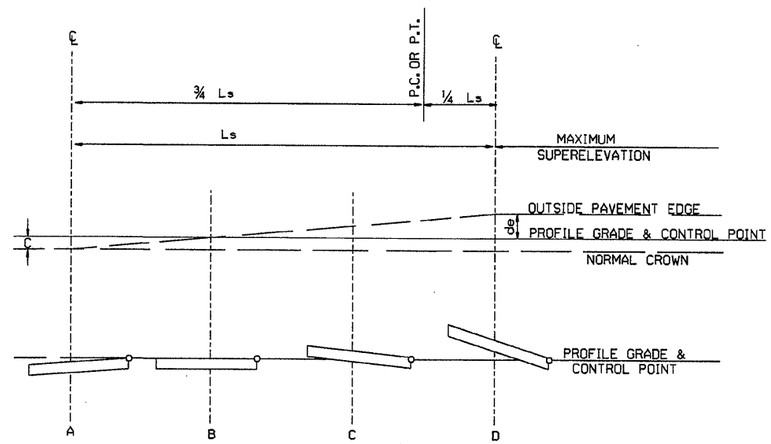
ABBREVIATIONS

NC - NORMAL CROWN
RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
S - SUPERELEVATION
L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
d - WIDTH OF PAVEMENT
e - MAXIMUM RATE OF SUPERELEVATION (FT. PER FT.)
Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
C - NORMAL CROWN (FT.)



ONE-WAY TRAFFIC
INSIDE LANE

SUPERELEVATION FORMULA = $S = -\frac{L(de-C)}{Ls} - C$



ONE-WAY TRAFFIC
OUTSIDE LANE

SUPERELEVATION FORMULA = $S = +\frac{L(de+C)}{Ls} - C$

DATE	REVISION	DATE FILMED
01-09-87	ISSUED	578-1-15-87

ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC

STANDARD DRAWING SE-1

SUPERELEVATION TABLE FOR TWO - WAY TRAFFIC

DEGREE OF CURVE	30 MPH e	30 MPH Ls (FT) MINIMUM	30 MPH Ls (FT) DESIRABLE	40 MPH e	40 MPH Ls (FT) MINIMUM	40 MPH Ls (FT) DESIRABLE	50 MPH e	50 MPH Ls (FT) MINIMUM	50 MPH Ls (FT) DESIRABLE	55 MPH e	55 MPH Ls (FT) MINIMUM	55 MPH Ls (FT) DESIRABLE	60 MPH e	60 MPH Ls (FT) MINIMUM	60 MPH Ls (FT) DESIRABLE	70 MPH e	70 MPH Ls (FT) MINIMUM	70 MPH Ls (FT) DESIRABLE
0° 15'	N.C.			N.C.			N.C.			N.C.			N.C.			N.C.		
0° 30'	N.C.			N.C.			R.C.			N.C.			N.C.			N.C.		
0° 45'	N.C.			N.C.			0.021			R.C.			0.023			0.028		
1° 00'	N.C.			R.C.			0.026			0.022			0.030			0.037		
1° 15'	N.C.			0.021			0.031			0.026			0.037			0.046		
1° 30'	N.C.			0.025	175		0.036	200		0.032	225		0.043	250		0.054	275	300
1° 45'	N.C.			0.028			0.040			0.037			0.049			0.062		
2° 00'	R.C.			0.031			0.045			0.043			0.055			0.070		
2° 15'	R.C.			0.034			0.049		250	0.048		300	0.061		300	0.078	300	
2° 45'	0.021			0.037			0.053			0.053			0.067			0.085	315	350
3° 00'	0.023			0.040			0.057			0.058			0.072			0.091	335	
3° 15'	0.027	150		0.043			0.061			0.063			0.077	260		0.096	350	
3° 30'	0.029			0.046			0.065	205		0.067	230		0.082	275		0.098	360	400
3° 45'	0.031		200	0.049			0.069	215		0.072	245		0.086	285		0.100	360	
4° 00'	0.033			0.051			0.072	225		0.076	255		0.090	295	350			
4° 30'	0.037			0.056			0.078	240		0.080	265		0.093	305				
5° 00'	0.040			0.061			0.083	250		0.083	270		0.096	315				
5° 30'	0.043			0.066	185		0.088	260		0.087	280		0.098	320				
6° 00'	0.046			0.070	190		0.092	270		0.091	295	350						
6° 30'	0.050			0.074	200		0.095	280		0.094	300							
7° 00'	0.053			0.078	210		0.098	285	300	0.096	305							
7° 30'	0.056			0.081	215		0.099	290		0.100	315							
8° 00'	0.058			0.084	220		0.100	290										
8° 30'	0.061			0.087	225	250												
9° 00'	0.063			0.089	230													
10° 00'	0.068	160		0.094	235													
11° 00'	0.072	170		0.097	250													
12° 00'	0.076	175		0.099	250													
13° 00'	0.080	180		0.100	250													
14° 00'	0.083	190																
15° 00'	0.086	195																
16° 00'	0.089	200																
17° 00'	0.091	200																
18° 00'	0.093	205																
19° 00'	0.095	210																
20° 00'	0.097	215	250															
21° 00'	0.098	215																
22° 00'	0.099	215																
23° 00'	0.099	215																
24° 00'	0.100	220																

D MAX = 24° 45'

D MAX = 13° 45'

D MAX = 8° 15'

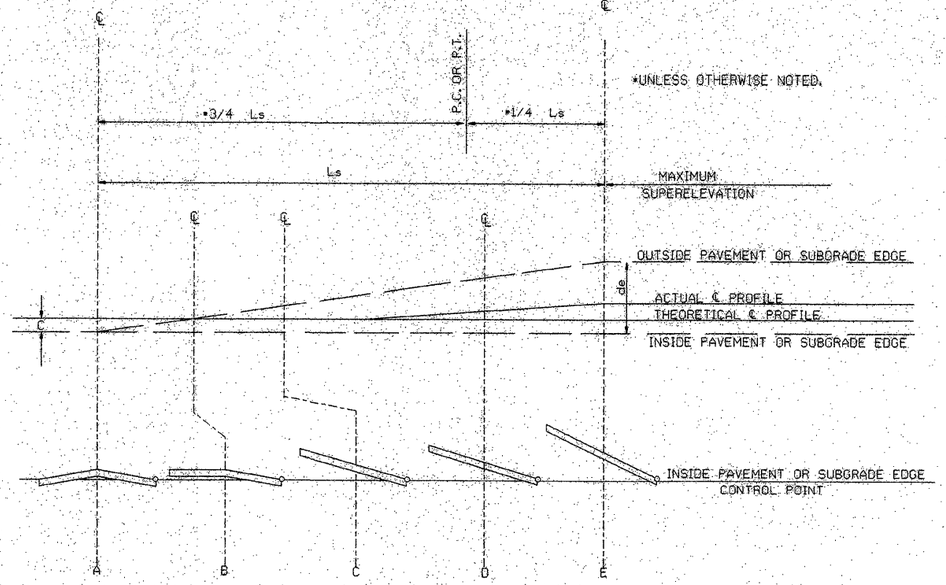
D MAX = 6° 30'

D MAX = 5° 15'

D MAX = 3° 30'

ABBREVIATIONS

NC - NORMAL CROWN
RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
e - RATE OF SUPERELEVATION (FT. PER FT.)
Ls - LENGTH OF SUPERELEVATION TRANSITION (FT.)
L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
d - WIDTH OF PAVEMENT (FT.) OR WIDTH OF SUBGRADE (FT.)
C - NORMAL CROWN (FT.)



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND INNER SUBGRADE POINT OR INNER PAVEMENT EDGE

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

SUPERELEVATION FORMULA = $\frac{Lde}{Ls}$

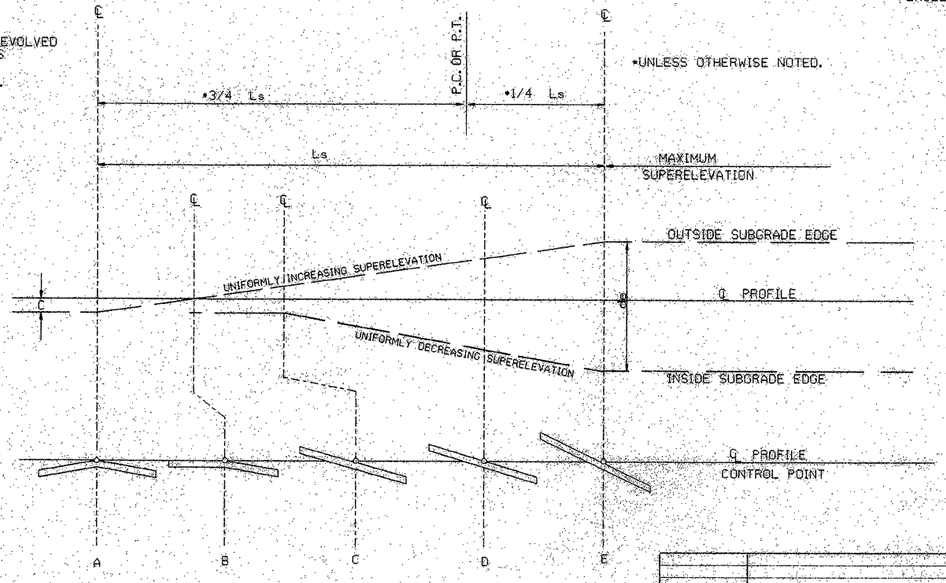
GENERAL NOTES

1. ON PAVEMENT WITH TWO-WAY TRAFFIC, THE SUPERELEVATION SHALL BE REVOLVED ON THE INSIDE PAVEMENT EDGE UNLESS OTHERWISE NOTED ON THE PLANS
2. SUPERELEVATION VALUES SHOWN ON THE CROSS SECTIONS ARE VALUES (+) OR (-) TO BE ADDED TO OR SUBTRACTED FROM THE POINT OF CONTROL.
3. LENGTHS FOR L MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. PAVEMENTS WIDER THAN 2 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLLOWS:

3 LANE UNDIVIDED	+20%
4 LANE UNDIVIDED	+50%
5 LANE UNDIVIDED	+80%
6 LANE UNDIVIDED	+100%

NOTE: MAINTAIN NORMAL CROWN ON INSIDE UNTIL SUPERELEVATION EXCEEDS 2C.

RATE OF SUPERELEVATION SHALL BE COMPUTED ON STRAIGHT LINE METHOD USING APPLICABLE Ls.



STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND CENTER LINE

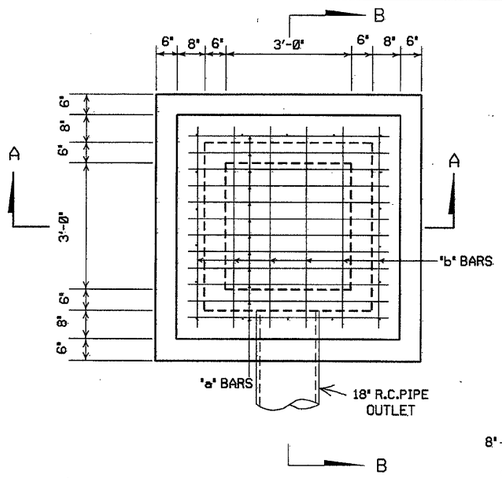
DATE	REVISION	DATE FILMED
10-18-96	ADDED FORMULA	10-18-96
01-09-87	ISSUED	534-1-9-87

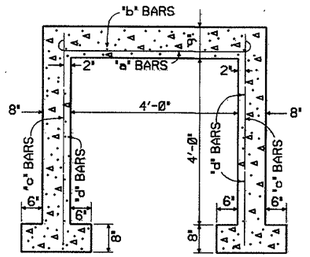
ARKANSAS STATE HIGHWAY COMMISSION

TABLES AND METHOD OF SUPERELEVATION FOR TWO-WAY TRAFFIC

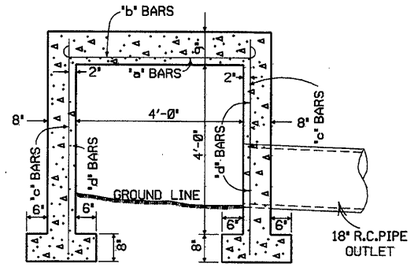
STANDARD DRAWING SE-2

FILE SE2SE2.DGN





SEC A-A

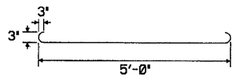


SEC B-B

STEEL SCHEDULE

BARS	NUMBER	LENGTH	SPACING
'a'	11	5'-9"	5"
'b'	6	5'-0"	10"
'c'	16	5'-1"	12"
'd'	16	5'-0"	12"

ALL STEEL TO BE #4 BARS



QUANTITIES

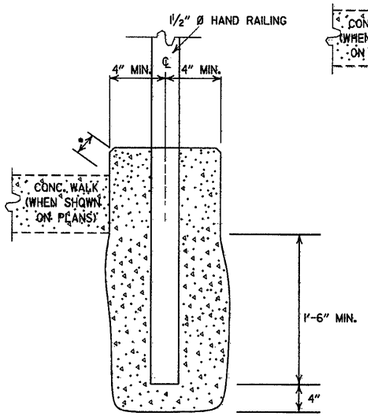
CONCRETE 3.40 CU. YDS.
REINFORCING STEEL 170 LB.

GENERAL NOTE:

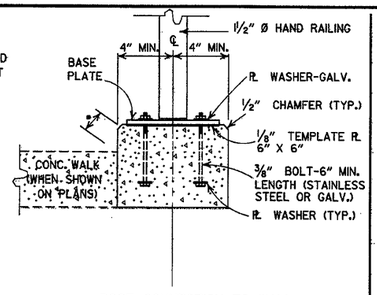
THE PAY ITEM FOR REINFORCED CONCRETE SPRING BOXES SHALL BE FOR THE QUANTITTIES OF CONCRETE OF THE CLASS SPECIFIED, REINFORCING STEEL, EXCAVATION FOR STRUCTURES AND 18" R.C. PIPE CULVERT.

REINFORCED CONCRETE SPRING BOX

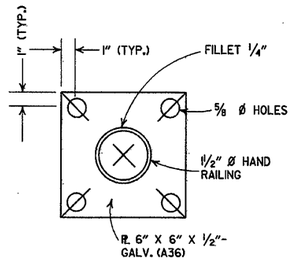
* A 2" MIN. HIGH CURB IS REQUIRED WHEN CONCRETE WALK IS ADJACENT TO THE HAND RAILING. PAYMENT FOR CURB SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR CONCRETE WALKS.



DETAIL OF HAND RAILING SET IN CONCRETE

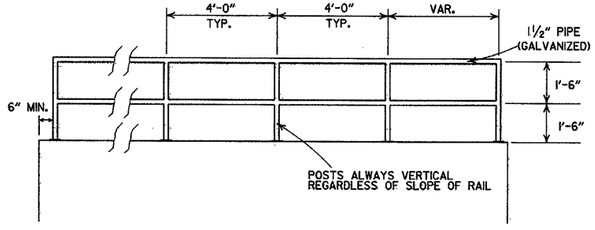


POST CONNECTION TO WALL

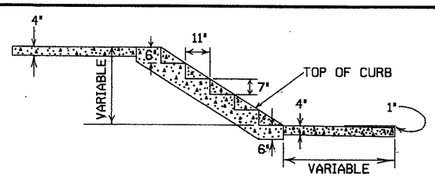


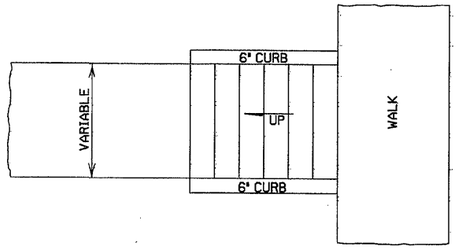
BASE PLATE

POST CONNECTION DETAILS



HAND RAILING DETAILS

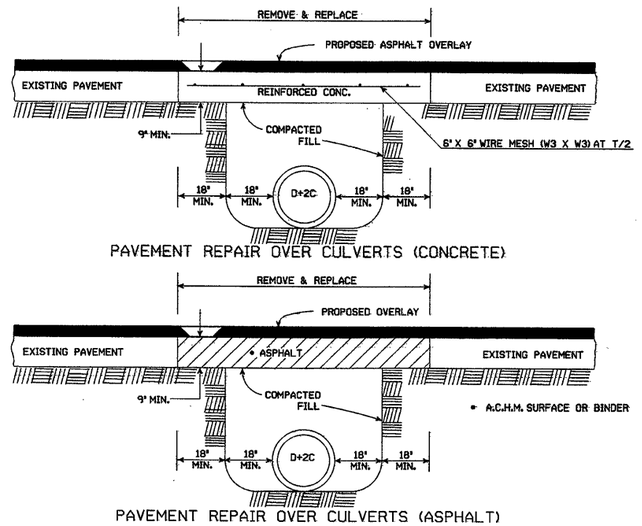




GENERAL NOTES

1. RISE AND TREAD DIMENSIONS OF STEPS MAY BE VARIED AS DIRECTED BY THE ENGINEER, HOWEVER, TREAD WIDTHS SHALL BE 11" MIN. ALL STEPS IN A FLIGHT SHALL HAVE CONSISTENT TREAD & RISER DIMENSIONS.
2. TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.

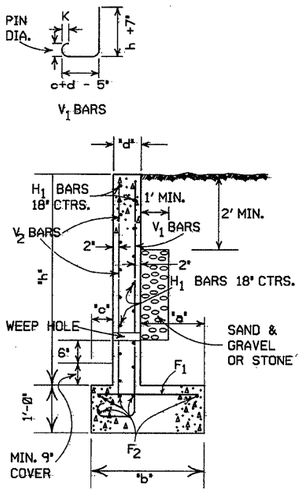
DETAILS OF CONCRETE STEPS & WALKS



PAVEMENT REPAIR OVER CULVERTS (CONCRETE)

PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS



BENDING DIAGRAM

BAR SIZE	K	PIN DIA.
#4	4½"	2½"
#5	5"	3"

STEEL SCHEDULE

'a'	'd'	'h'	'a'	'b'	V_1 BARS SIZE	V_1 BARS SPACING	F_1 BARS SIZE	F_1 BARS SPACING	H_1 * 4 BARS SPAC.	V_2 * 4 BARS SPAC.	F_2 * 4 BARS NO. REQ'D.
8"	8"	1'-0"	8"	2'-0"	#4	12"	#4	18"	18"	18"	5
8"	8"	2'-0"	8"	2'-0"	#4	12"	#4	18"	18"	18"	5
8"	8"	3'-0"	8"	2'-0"	#4	12"	#4	18"	18"	18"	5
8"	8"	4'-0"	1'-2"	2'-6"	#4	12"	#4	12"	18"	18"	5
8"	8"	5'-0"	1'-8"	3'-0"	#4	9"	#4	9"	18"	18"	5
8"	8"	6'-0"	2'-2"	3'-6"	#4	6"	#4	6"	18"	18"	6
12"	8"	7'-0"	2'-4"	4'-0"	#4	8"	#4	8"	18"	18"	6
12"	8"	8'-0"	2'-10"	4'-6"	#4	6"	#4	6"	18"	18"	6
15"	10"	9'-0"	2'-11"	5'-0"	#4	5"	#4	5"	18"	18"	6
17"	10"	10'-0"	3'-3"	5'-6"	#5	6"	#5	6"	18"	18"	7

GENERAL NOTES

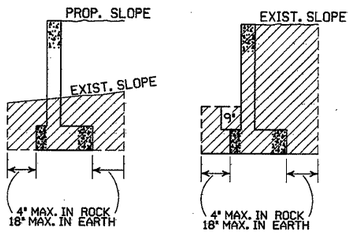
THE PAY ITEM FOR THE CONSTRUCTION OF REINFORCED CONCRETE RETAINING WALL SHALL BE FOR THE QUANTITIES OF CONCRETE OF THE CLASS SPECIFIED, REINFORCING STEEL AND EXCAVATION FOR STRUCTURES.

SAND AND GRAVEL FOR STONE (CONTINUOUS) TO BE PLACED 1'-0" IN WIDTH AND 1'-0" IN HEIGHT AS A SUBSIDIARY ITEM TO THE VARIOUS PAY ITEMS.

3" WEEP HOLES (MAX. SPACING 10'-0"CTRS.) TO BE PLACED WHERE SPECIFIED BY THE ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO PLACE CONTRACTION JOINTS ON 20' CENTERS AND EXPANSION JOINTS ON 60' CENTERS.

ALL EXPOSED EDGES TO BE CHAMFERED ¾".

REINFORCED CONCRETE RETAINING WALL



NOTE: HATCHED AREA DENOTES MAX. LIMITS OF EXCAVATION FOR STRUCTURES FOR RETAINING WALL.

DATE	REVISION	
10-9-03	REVISED PIPE RAILING DETAILS TO HAND RAILING DETAILS	10-9-03
4-10-03	REVISED RETAINING WALL DRAWING	
8-22-02	ADDED HAND RAILING DETAIL	
11-16-01	REVISED PVMT REPAIR OVER CULVERTS (CONC); CORRECTED SPELLING IN GENERAL NOTES	
11-18-98	ADDED GENERAL NOTES TO CONCRETE STEPS & WALKS	
7-02-98	ENLARGED PIPE	
4-03-97	ADDED NOTE TO STEEL BAR SCHED.	
10-18-96	CORRECTED SPELLING	
4-26-96	ADD WEEP HOLE;REV. JOINT SPACING IN RET. WALL	
6-2-94	CHANGED CONST. TO CONTRACTION JOINT	
10-1-92	CHANGED MESH FABRIC TO WIRE MESH	10-1-92
8-15-91	DELETED HDWL MODIFICATION DETAIL	8-15-91
11-8-90	DELETED COLD MIX FROM CULV'T. REPAIR	11-8-90
11-30-89	REV. RETAINING WALL STEEL SCHEDULE	11-30-89
11-17-88	V, BARS BEHIND ARROW	665-11-17-88
7-15-88	REV. PAVEMENT REPAIR	649-7-15-88
	ADDED HDWL. MODS, DEL. PIPE UNDERDRAINS	
11-1-84	REV. TRENCH FOR PIPE UNDERDRAIN	510-11-1-84
1-4-83	ELIMINATED CONC. CLASS & ADDED CHAMFER NOTE	682-1-4-83
3-2-81	SPELLING OF "UNDERDRAIN"	721-3-2-81
4-20-79	REV. UNDERDRAIN DET.& PAVEMENT REPAIR	674-4-20-79
2-2-76	12"MIN. GRAN. MAT'L. OVER PIPE	919-2-2-76
4-10-75	REM. SPECS. FOR GRAN. MAT'L.	568-4-10-75-853
5-22-74	GRANULAR MAT'L. TO BE SB-3	567-5-22-74-740
10-2-72	REVISED AND REDRAWN	564-10-16-72

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF SPECIAL ITEMS

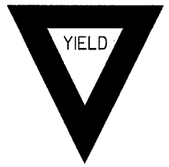
STANDARD DRAWING SI - 1

448

R1-1

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

R1-2

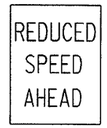


STD. 36"X36"X36"
EXPWY. 48"X48"X48"
FWY. 60"X60"X60"

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"

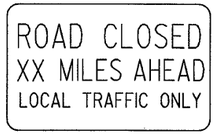
R5-1

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

RII-2

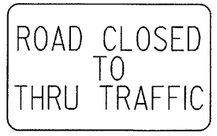
48"X30"

RII-3A



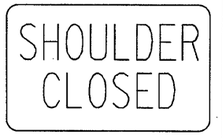
60"X30"

RII-4



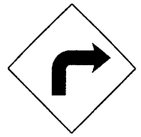
60"X30"

RSP-1



48"X30"

WI-1



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

WI-2

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

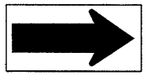
WI-3

STD. 48"X48"

WI-4a

STD. 48"X48"

WI-6

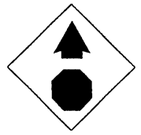


STD. 48"X24"
SPECIAL 60"X30"

WI-8

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

W3-1a

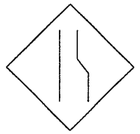


STD. 36"X36"
SPECIAL 48"X48"

W3-2a

STD. 36"X36"
SPECIAL 48"X48"

W4-2



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

W5-1

STD. 36"X36"
SPECIAL 48"X48"

W6-3

EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7

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

W9-2

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

WI3-1

STD. 24"X24"

W20-1

STD. 48"X48"

W20-2

STD. 48"X48"

W20-3

STD. 48"X48"

W20-4

STD. 48"X48"

W20-5

STD. 48"X48"

W20-7a

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

W21-2

STD. 30"X30"
SPECIAL 36"X36"

W21-5

STD. 30"X30"
SPECIAL 36"X36"

WI-4b

STD. 48"X48"

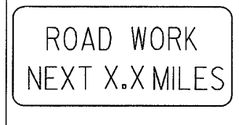
W8-11

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

W8-9a

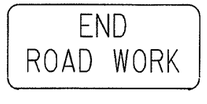
STD. 36"X36"
FWY. 48"X48"

G20-1



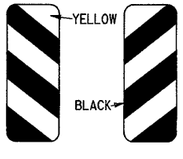
60"X24"

G20-2A



48"X24"

OM-3L OM-3R



12"X36"

M4-9

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

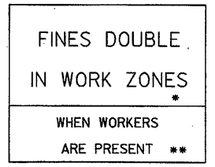
M4-10

48"X18"

R56-1

STD. 18"X18"

R55-1



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.

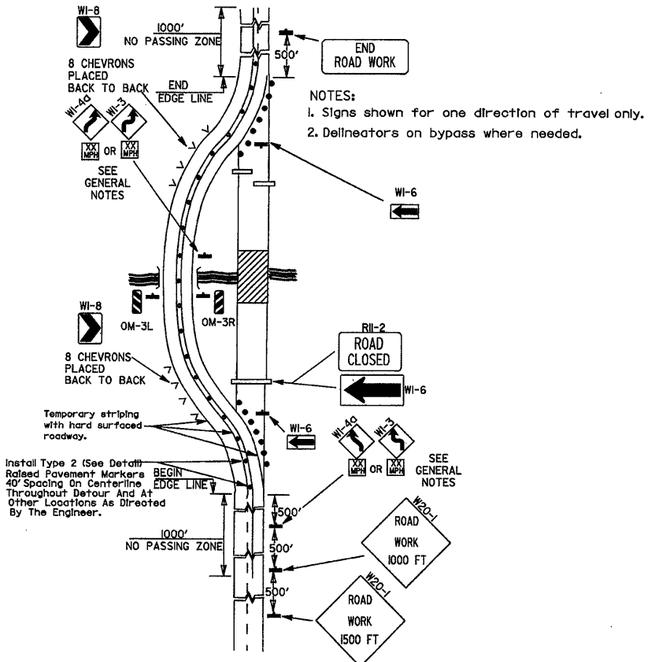
•NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 IS REQUIRED FOR ALL PROJECTS.

DATE	REVISION	FILMED
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

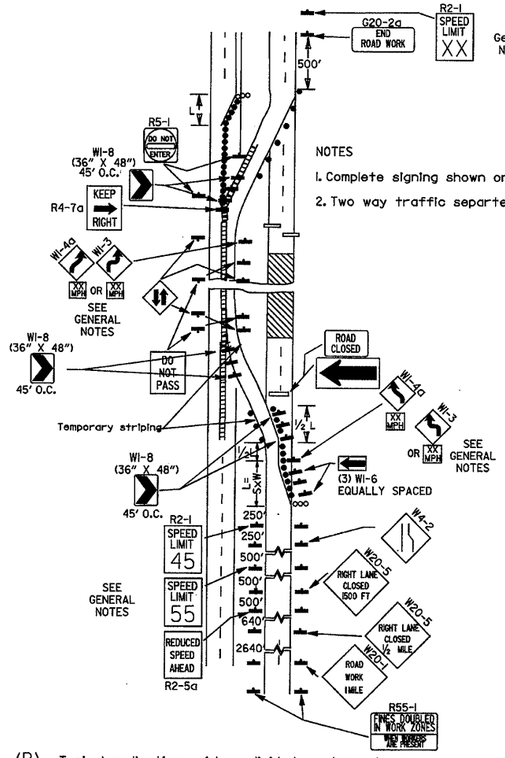
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



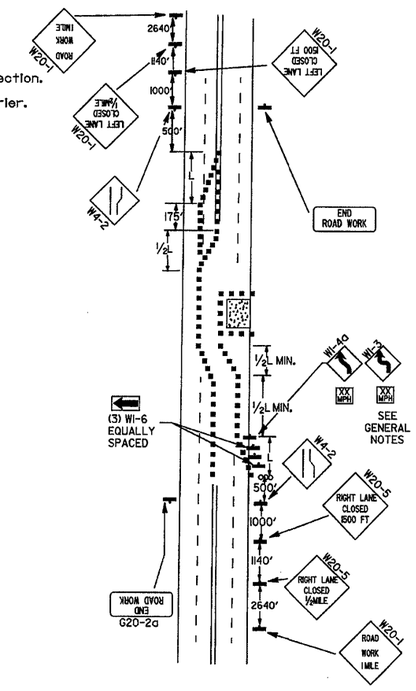
NOTES:
1. Signs shown for one direction of travel only.
2. Delineators on bypass where needed.

(A) Typical application of traffic control devices on a 2-lane highway where the entire roadway is closed and a bypass detour is provided.

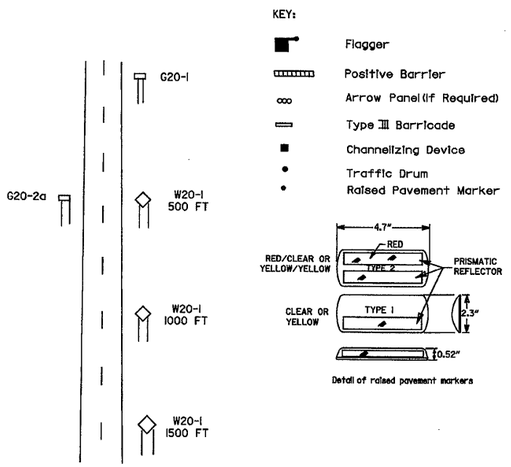


NOTES
1. Complete signing shown only in crossover direction.
2. Two way traffic separted with positive barrier.

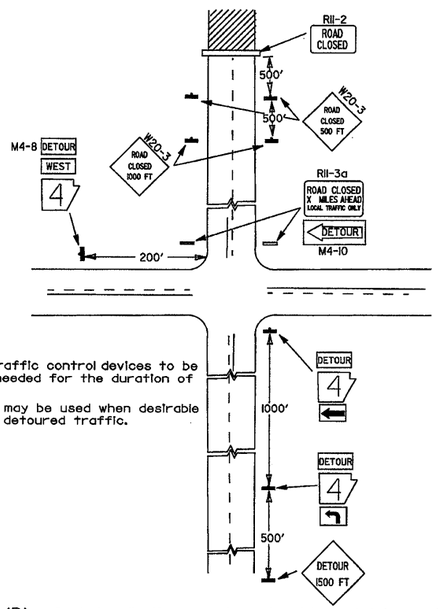
(B) Typical application - 4-lane divided roadway where one roadway is closed.



(C) Typical application - 4-lane undivided roadway where half of the roadway is closed.

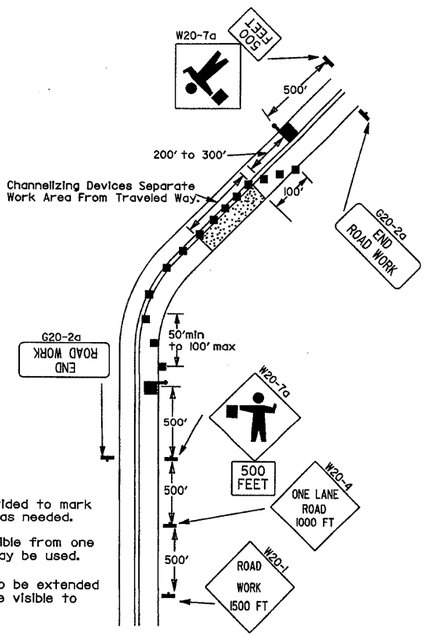


Typical advance warning sign placement



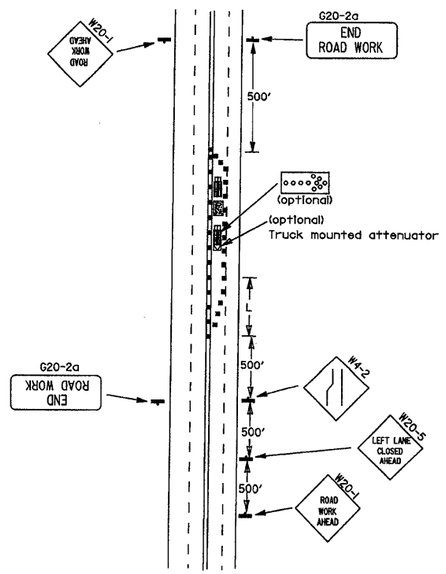
NOTES:
1. Regulatory traffic control devices to be modified as needed for the duration of the detour.
2. Street names may be used when desirable for directing detoured traffic.

(D) Typical application - roadway closed beyond detour point.



NOTES:
1. Flood lights should be provided to mark flagger stations at night as needed.
2. If entire work area is visible from one station, a single flagger may be used.
3. Channelizing devices are to be extended to a point where they are visible to approaching traffic.

(E) Typical application of traffic control devices on 2-lane highway where one lane is closed and flagging is provided.



(F) Typical application - 4-lane undivided roadway with inside lane closed.

Taper formulae:

$L = SxW$ for speeds of 45mph or more.

$L = \frac{WS^2}{60}$ for speeds of 40mph or less.

Where:

L= Minimum length of taper.

S= Numerical value of posted speed limit prior to work or 85th percentile speed.

W= Width of offset.

GENERAL NOTES:

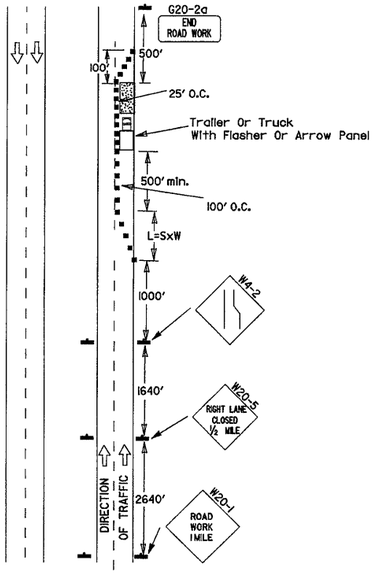
1. Advisory speed posted on WI-3 or WI-4a curve warning signs to be determined at site. Use WI-4a when speed is greater than 30mph and WI-3 when 30mph or less.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph,the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional R2-1 45 mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph,the R2-1(45) shall be omitted. Additional R2-1 55 mph speed limit signs shall be installed at a maximum of 1 mile intervals. At the end of the work area a R2-1(xx) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit, or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.

DATE	REVISION	FILMED
11-18-04	ADDED GENERAL NOTE	
10-18-96	ADDED R55-1	
4-26-96	CORRECTED (a) BEHIND G20-2	
6-8-95	CORRECTED SIGN IDENT. ON WI-4A	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	

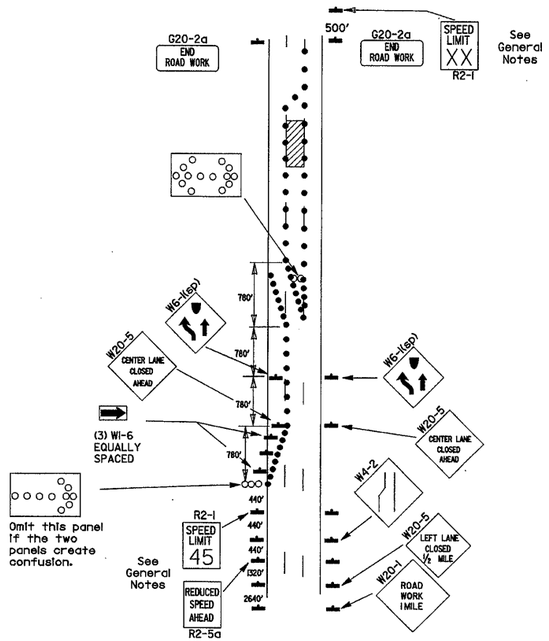
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

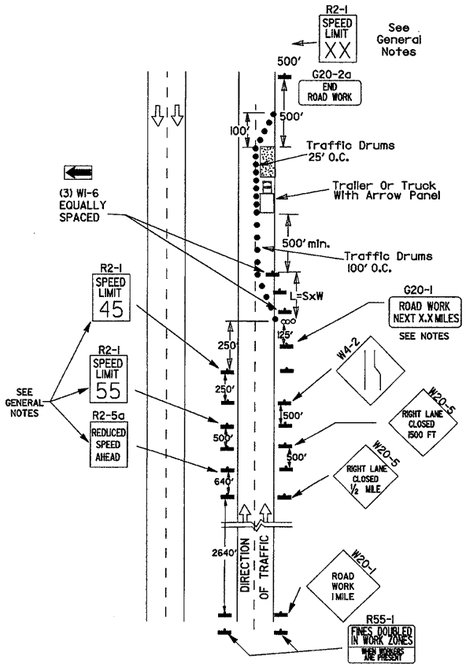
STANDARD DRAWING TC-2



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



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



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

KEY:

ooo Arrow Panel (If Required)

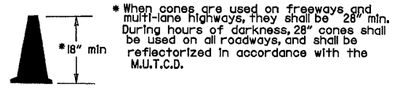
■ Channelizing Device

● Traffic drum

GENERAL NOTES:

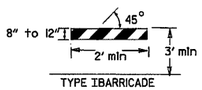
1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional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

Channelizing devices



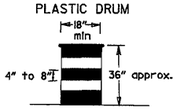
* When cones are used on freeways and multi-lane highways, they shall be 28" min. During hours of darkness, 28" cones shall be used on all roadways, and shall be reflectorized in accordance with the M.U.T.C.D.

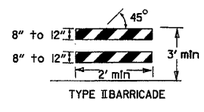
CONES



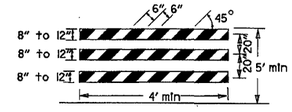
TYPE I BARRICADE

PLASTIC DRUM



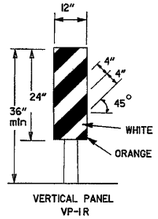


TYPE II BARRICADE



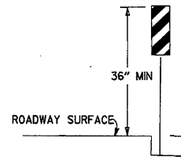
TYPE III BARRICADE

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



VERTICAL PANEL
VP-1R

VERTICAL PANEL PLACEMENT



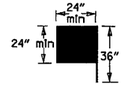
TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

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

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

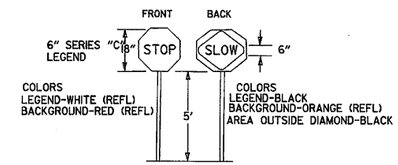
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.

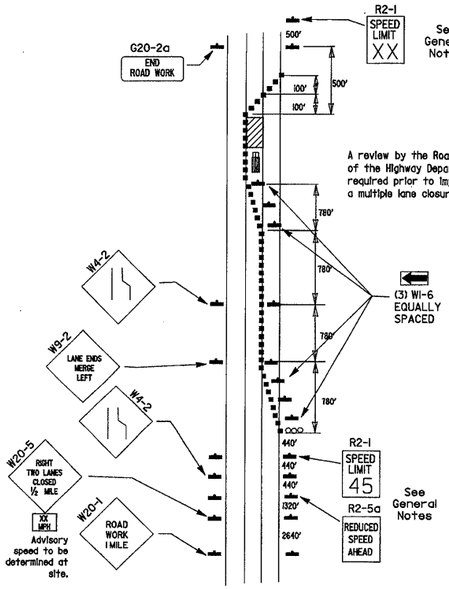
FLAG



Flag shall be of good grade red material

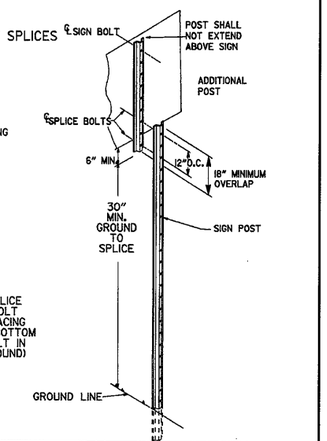
STOP SLOW PADDLE





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

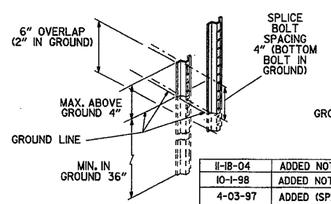
DETAIL OF SPLICES



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

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

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



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

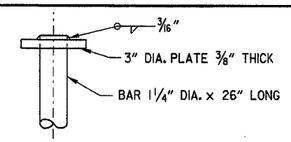
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

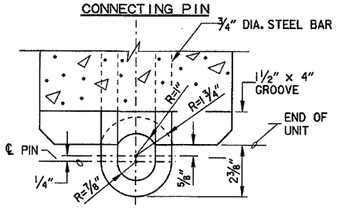
STANDARD DRAWING TC-3

REINFORCING BAR TABLE PER BARRIER UNIT

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

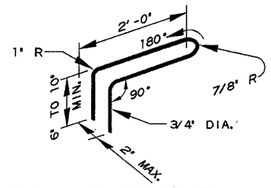


CONNECTING PIN

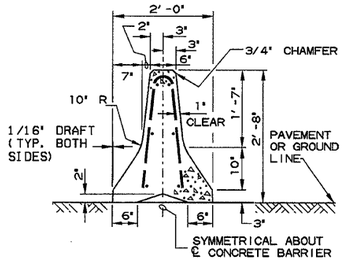


SECTION E-E

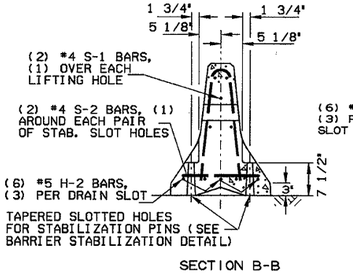
CONNECTION DETAILS



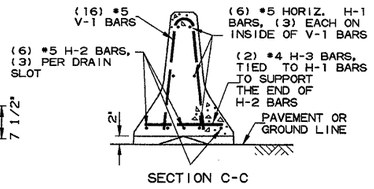
CONNECTION LOOP



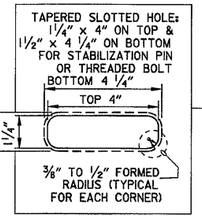
SECTION A-A

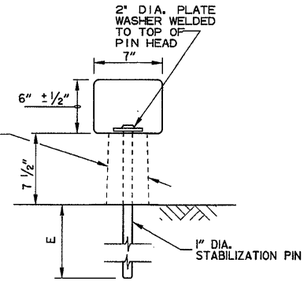


SECTION B-B



SECTION C-C

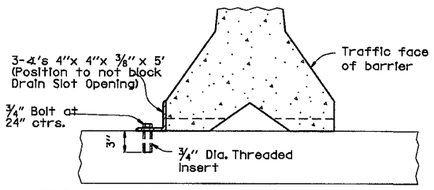




BARRIER STABILIZATION DETAIL

ROADWAY SECTION

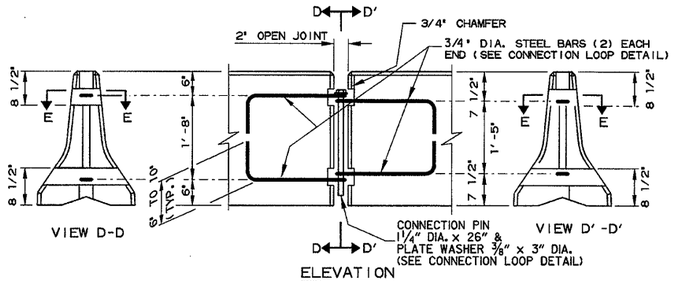
(E) 4" - Concrete Pavement
8" - Asphalt Pavement
12" - Shoulder Areas



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

BARRIER STABILIZATION DETAIL

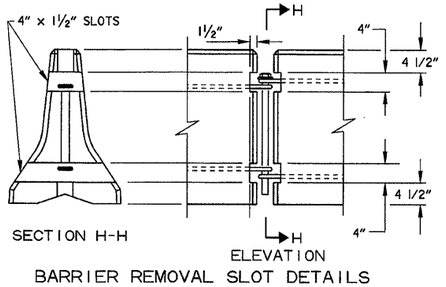
BRIDGE DECKS



VIEW D-D

VIEW D'-D'

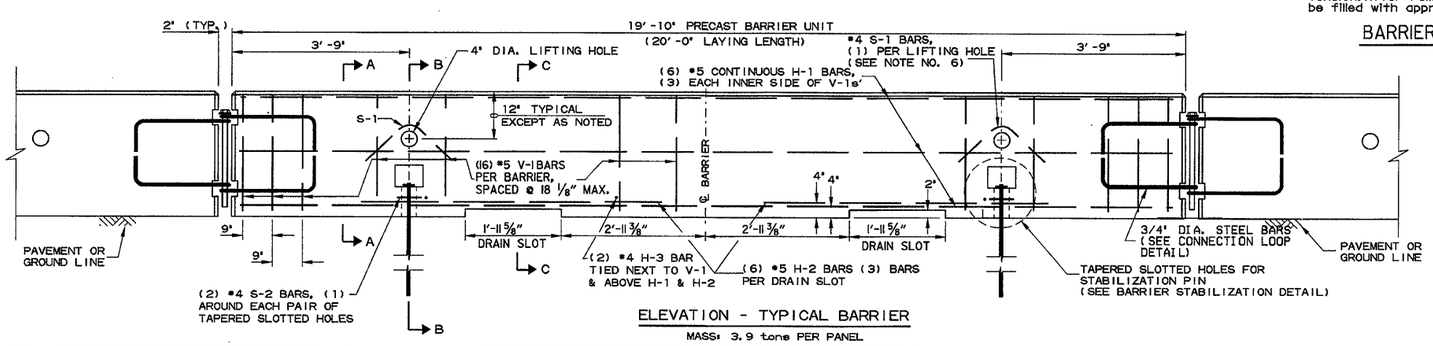
ELEVATION



SECTION H-H

ELEVATION

BARRIER REMOVAL SLOT DETAILS



ELEVATION - TYPICAL BARRIER

MASS: 3.9 tons PER PANEL

General Notes

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

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

In applications where barrier wall is within 6 feet of a traffic lane, additional delineators shall be placed on the barrier at 10' spacing approximately one (1) foot from the top of the barrier. Delineators shall be on the AHTD Qualified Products List for Construction Concrete Barrier Markers.

Delineator color shall be in accordance with the Manual on Uniform Traffic Control Devices.

Payment for delineators shall be considered included in the price bid per Lin. Ft. for "Furnishing and Installing Precast Concrete Barrier".

The contractor shall certify to the Engineer that the material and the design used in the precast barrier units meets the requirements as shown on this standard drawing.

(3) Other Precast Concrete Barriers that have been crash tested and approved by the Federal Highway Administration to meet the requirements of NCHRP-350 test level 3 will be accepted in lieu of the barrier shown. The Contractor shall furnish a certification of NCHRP Report 350 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 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.

(7) Temporary precast barrier that was manufactured prior to Jan. 30, 2002 in accordance with Standard Drawing TC-4 (Rev. 11-18-98) will be allowed on projects until Jan. 1, 2006.

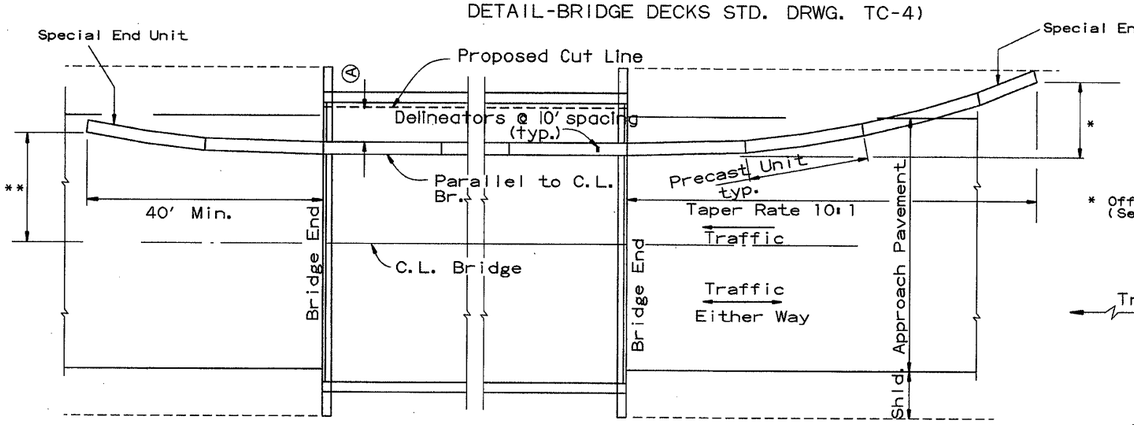
DATE	REVISION	FILMED
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

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)

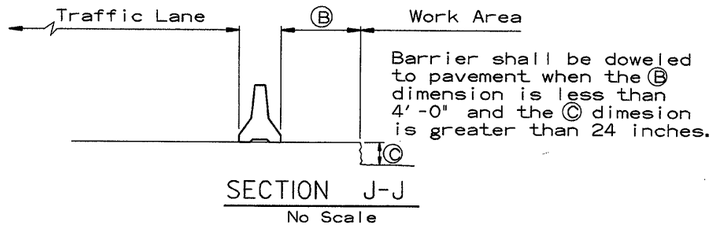


BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

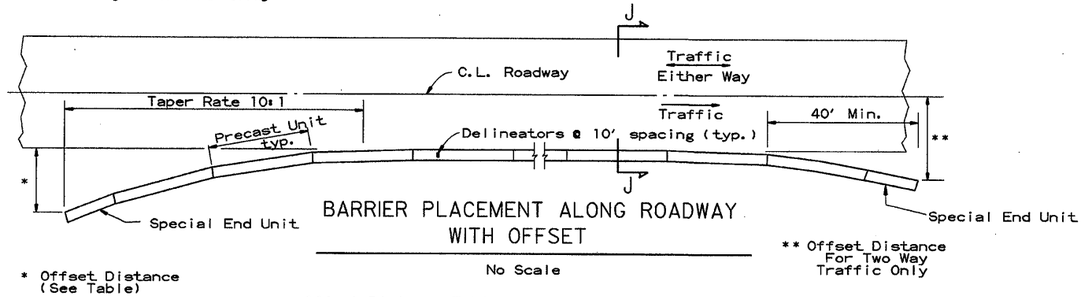
** Offset Distance for Two Way Traffic Only

* Offset Distance (See Table)



SECTION J-J

No Scale



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

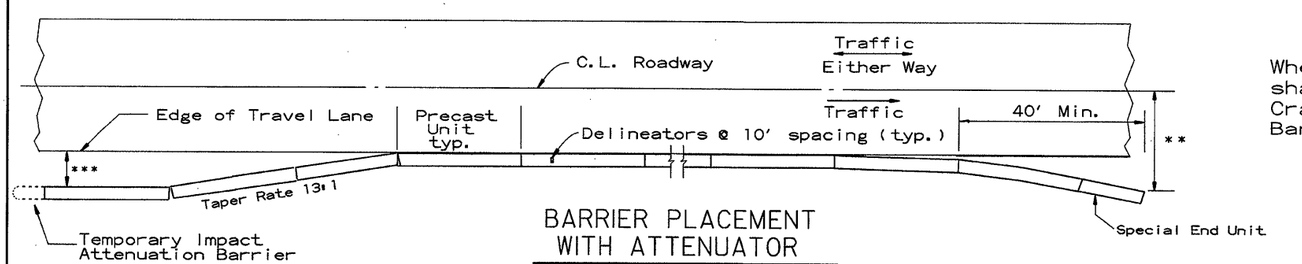
** Offset Distance For Two Way Traffic Only

* Offset Distance (See Table)

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.

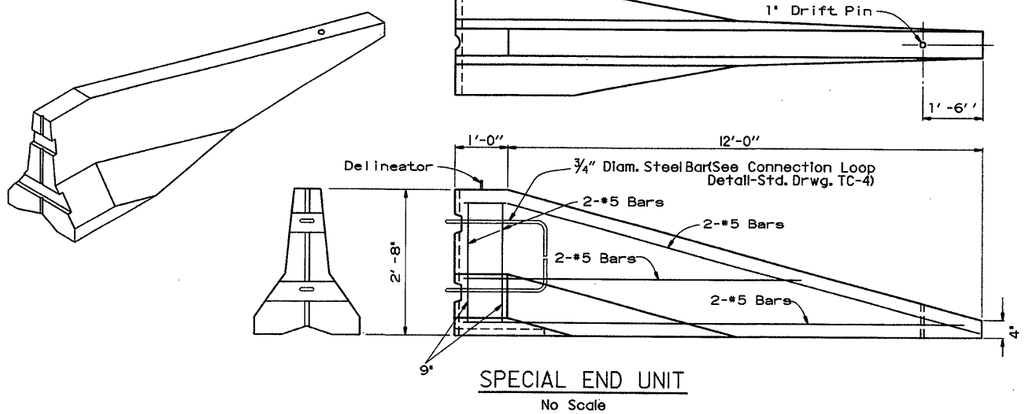


BARRIER PLACEMENT WITH ATTENUATOR

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 approved Crash Cushion. Payment for Crash Cushions shall be made under the item of "Temporary Impact Attenuation Barrier."

DATE	REVISION	FILMED
8-22-02	ISSUED NEW DRAWING	

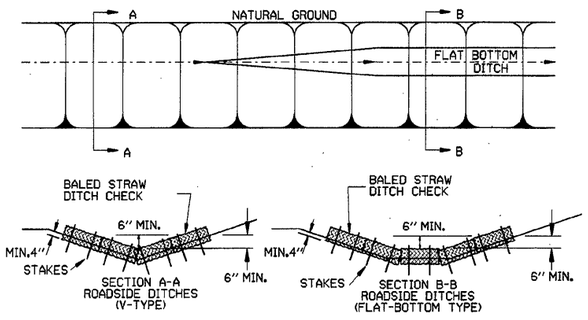
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

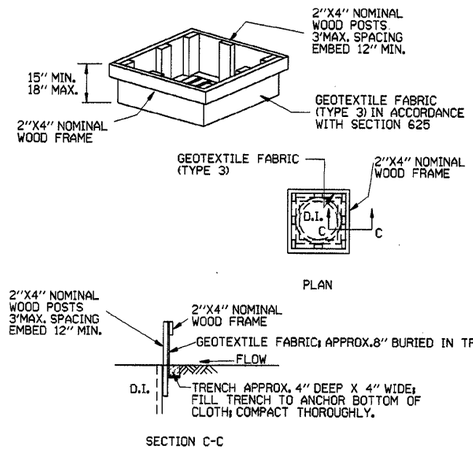
STANDARD DRAWING TC-5

GENERAL NOTES

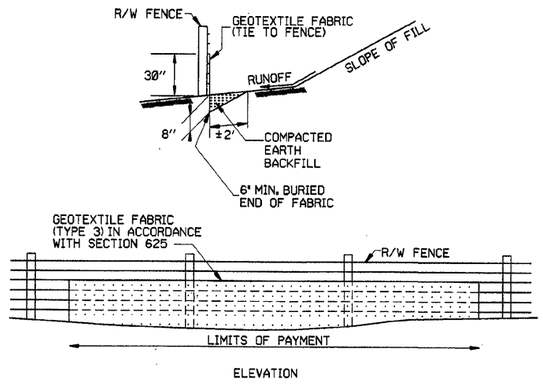
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.
2. STRAW BALES SHALL BE KEYED INTO SOIL A MINIMUM OF 4' AND NO GAPS SHALL BE LEFT BETWEEN BALES.



BALED STRAW DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



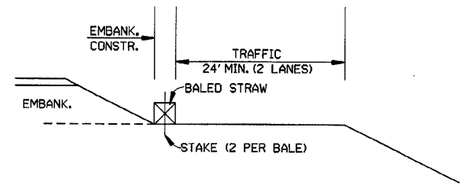
SILT FENCE ON R/W FENCE (E-4)

GENERAL NOTES

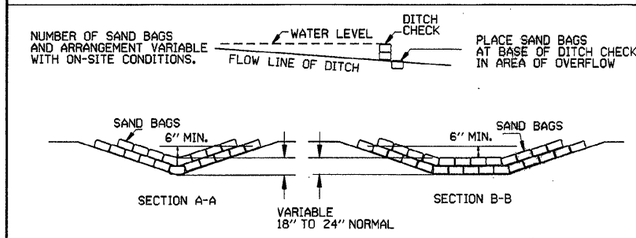
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

GENERAL NOTES

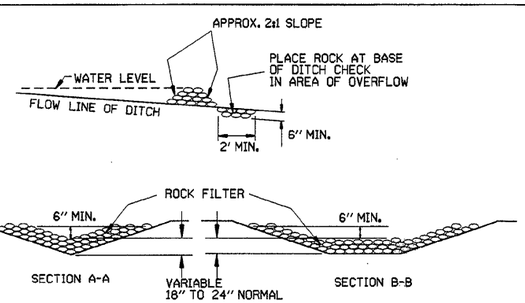
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.
2. NO GAPS SHALL BE LEFT BETWEEN BALES.
3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED 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.



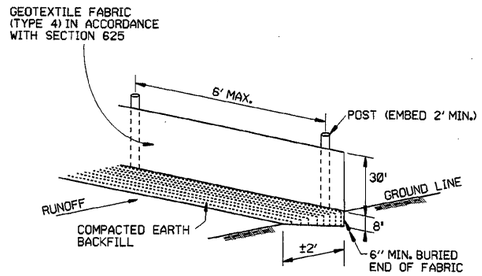
BALED STRAW FILTER BARRIER (E-2)



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
11-18-98	ADDED NOTES	11-18-98
7-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
7-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
7-15-94	Rev. E-4 & E-11 Min. 13" Buried End of Fabric	
6-2-94	Revised E-1,4,7, & 11; Deleted E-2 & 3	6-2-94
4-1-93	REDRAWN	
10-1-92	REDRAWN	
8-2-76	ISSUED R.D.M.	298-7-28-76

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

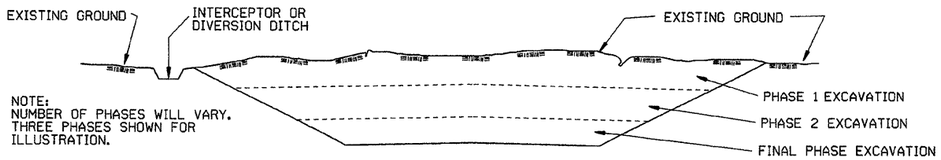
STANDARD DRAWING TEC-1

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES , DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION



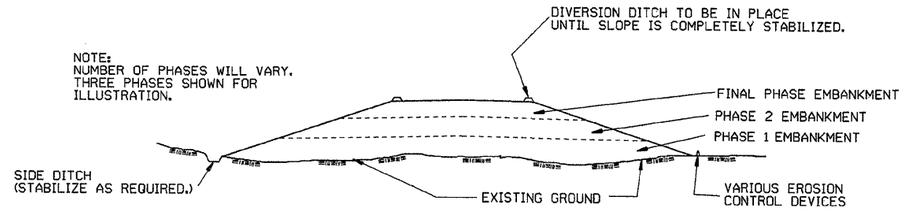
GENERAL NOTE

ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES. CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

EMBANKMENT



GENERAL NOTE

ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

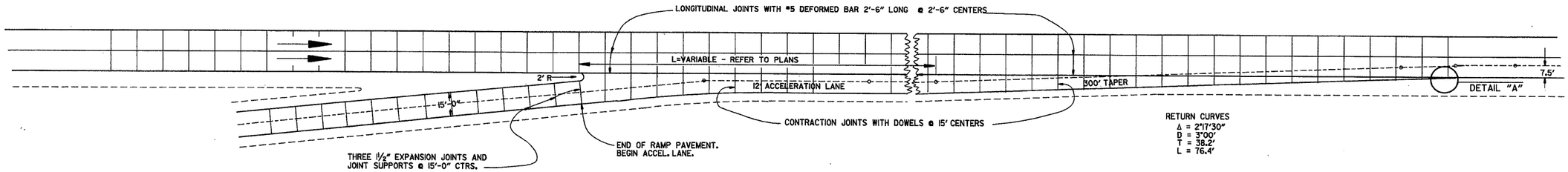
DATE	REVISION	FILMED
11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

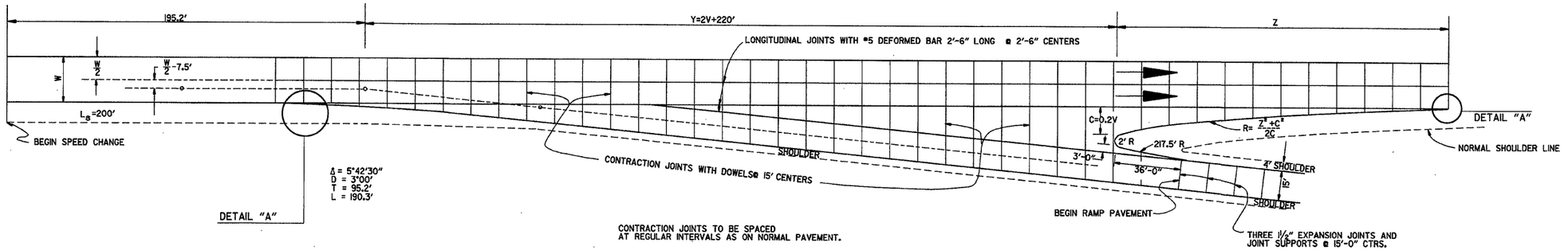
STANDARD DRAWING TEC-3

455



ENTRANCE RAMP

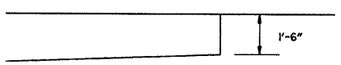
NOTE: JOINT SPACING ON THE MAIN LANES SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO THESE JOINT LAYOUTS. THE MAIN LANE JOINT SPACING MAY BE REDUCED TO A 12' MINIMUM.



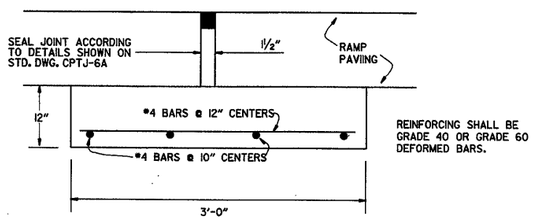
EXIT RAMP

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

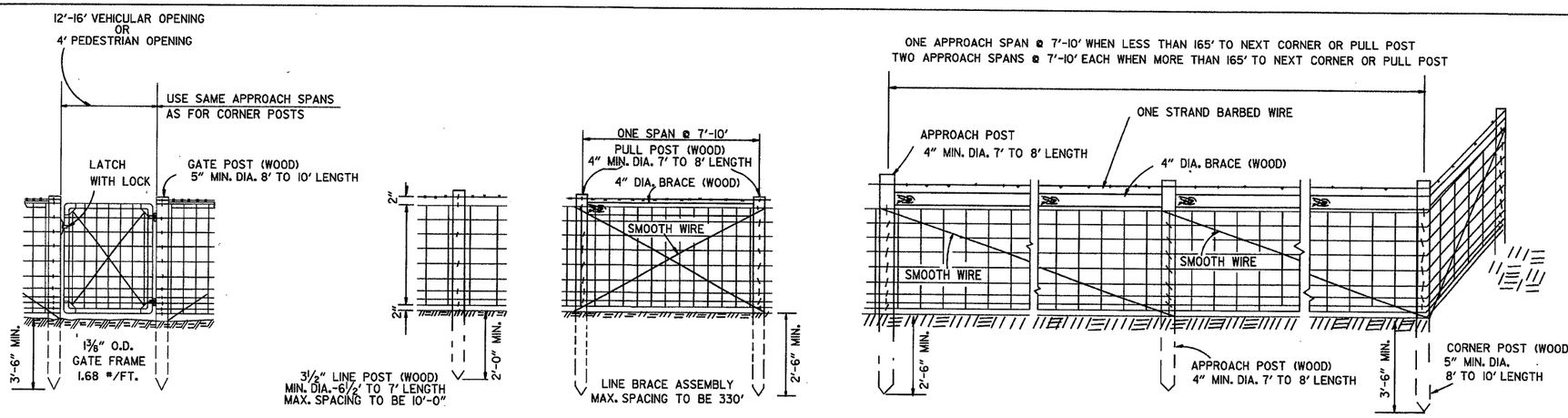
NOTE: THE EXPANSION JOINTS SHALL BE MEASURED AND PAID FOR AS P.C.C. PAVEMENT (RAMP THICKNESS). WHEN RAMP PAVING IS ASPHALT, EXPANSION JOINT IS NOT REQUIRED.
THE JOINT SUPPORT MAY BE CONSTRUCTED WITH CLASS "A", "S", OR PAVING CONCRETE. PAYMENT FOR THE JOINT SUPPORT SHALL BE FOR THE CONTRACT UNIT PRICE 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

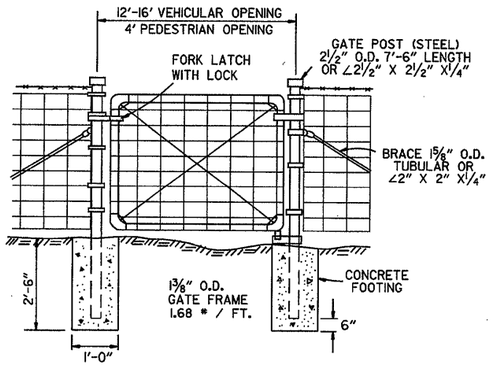
DETAILS OF STANDARD TURNOUT FOR ENTRANCE & EXIT RAMPS (NON-REINFORCED)

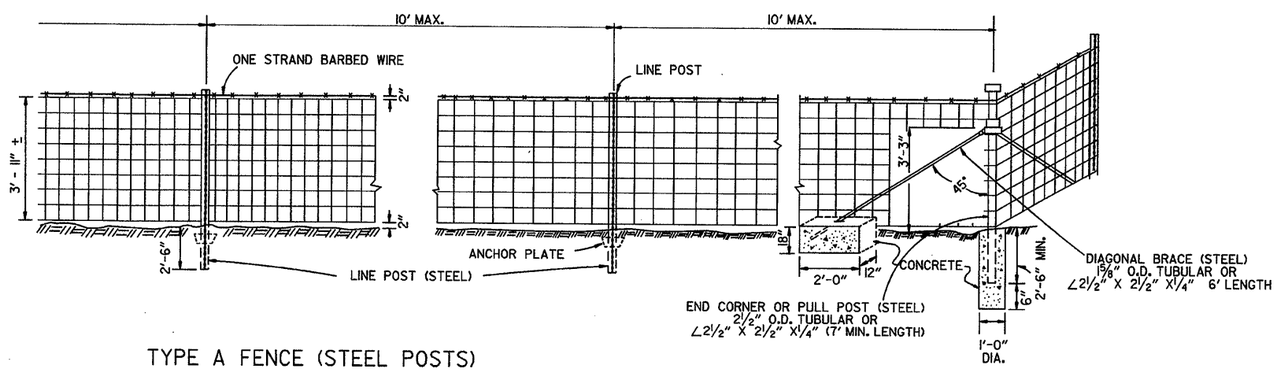
STANDARD DRAWING TR-1A



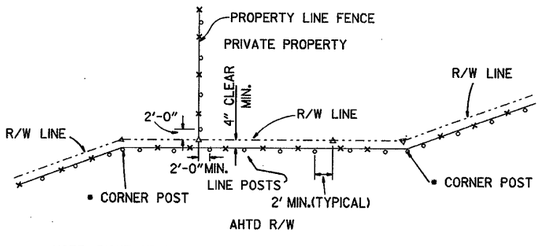
NOTE: STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.

TYPE A FENCE (WOOD POSTS)





TYPE A FENCE (STEEL POSTS)

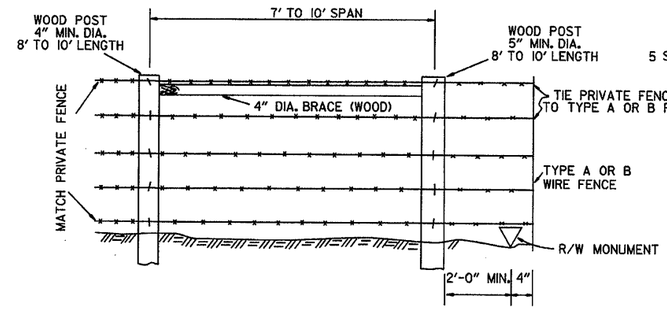


•NOTE: RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY FENCE CONSTRUCTION. CORNER POSTS SHALL BE CONSTRUCTED 2' FROM THE RIGHT-OF-WAY MONUMENT OR AS DIRECTED BY THE ENGINEER.

△ - R/W MONUMENTS

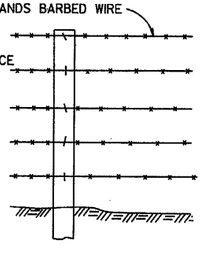
○ - FENCE POSTS

RIGHT-OF-WAY FENCE LOCATION



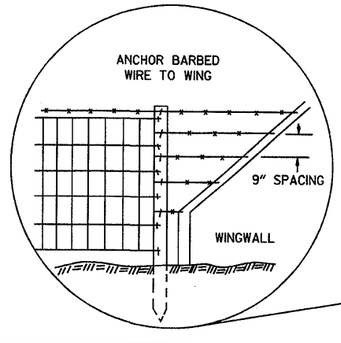
WHERE EXISTING PRIVATE FENCE CONSISTS OF STEEL POSTS, USE END POST ASSEMBLY AS SHOWN WITH TYPE A FENCE OR OTHER END POST ASSEMBLY AS APPROVED BY THE ENGINEER.

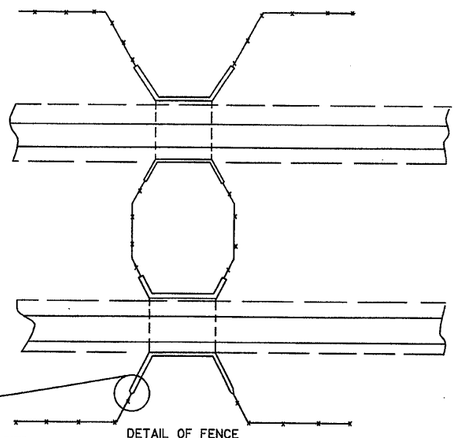
PRIVATE FENCE TERMINAL INSTALLATION



SPACING AND SIZE OF POSTS FOR TYPE B FENCE SHALL BE THE SAME AS TYPE A FENCE.

TYPE B FENCE





DETAIL OF FENCE CONSTRUCTION AT LARGE CULVERTS (5' IN HEIGHT AND OVER)

GENERAL NOTES:

STEEL LINE POSTS SHALL BE GALVANIZED, 7 FT. IN LENGTH.

TUBULAR END, CORNER, PULL, OR DIAGONAL BRACES MUST CONFORM TO THE DIMENSIONS AND WEIGHTS SPECIFIED ON STANDARD DRAWING WF-3 (CHAIN LINK).

THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF WOOD LINE POSTS OF 7' LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.

GATE HINGES AND LATCHES WITH LOCKS TO BE OF A TYPE APPROVED BY THE ENGINEER. DRIVEWAY GATES, EITHER SINGLE 12' OR 16' OR DOUBLE 6' TO 8' OPENINGS OF THE SAME TYPE AS THE PEDESTRIAN GATE, SHALL BE INSTALLED ON THE RIGHT SIDE OF EACH THROUGH LANE ROAD AT LARGE CULVERTS OR BRIDGE CROSS FENCE FOR USE BY MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER.

AT STREAM CROSSINGS THE FENCE SHALL NOT BE CONSTRUCTED ACROSS LARGE STREAMS. WHERE CLEARANCE IS SUFFICIENT FROM THE TOP OF BANK TO THE BRIDGE STRUCTURE, A CROSS CONNECTION SHALL BE CONSTRUCTED BETWEEN THE FENCE ON EACH SIDE OF THE ROAD. WHERE THE CLEARANCE IS NOT SUFFIEICNT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO THE BRIDGE ABUTMENTS OR CULVERT WINGWALLS.

SPLICE FOR WOVEN WIRE BETWEEN PULL POST SHALL BE BY THE "WESTERN UNION METHOD" AS DESCRIBED AS FOLLOWS: THE VERTICAL WIRES FOR EACH END OF THE FENCE FABRIC SHALL BE PLACED SIDE BY SIDE AND THE PROJECTING HORIZONTAL WIRES SHALL BE WRAPPED A MINIMUM OF 4 TIMES AROUND THE HORIZONTAL WIRES OF THE FIRST WEB.

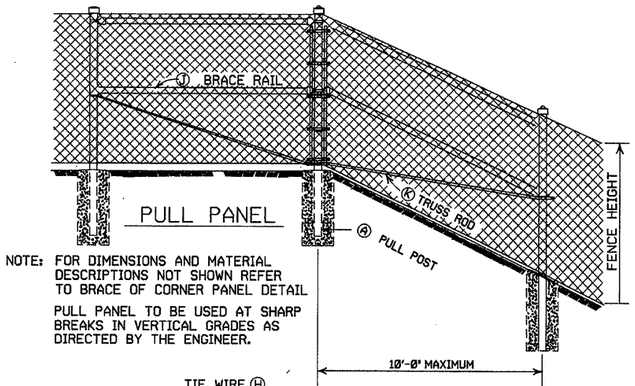
SPLICE FOR BARBED WIRE BETWEEN PULL POST ASSEMBLY SHALL BE BY THE "EYE METHOD": AS DESCRIBED AS FOLLOWS: THE ENDS OF THE BARBED WIRE SHALL BE BENT TO FORM A LOOP. THE LOOPS SHALL BE CONNECTED, AFTER THE LOOPS ARE CONNECTED THE ENDS OF THE WIRE SHALL BE WRAPPED AROUND THE PROJECTING WIRE A MINIMUM OF 4 TIMES FOR EACH WIRE LOOP.

DATE	REVISION	DATE FILMED
8-22-02	REVISED GENERAL NOTES	
10-18-96	REVISED ASTM REF. TO AASHTO	
11-22-95	REVISED R-O-W LOCATION DETAIL	
6-2-94	ADDED CORNER POST NOTE	6-2-94
8-5-93	REVISED R-O-W LOCATION DETAIL	8-5-93
10-1-92	ADDED STAPLE NOTE	
8-2-90	REV'D PULL POST LENGTH	
11-30-89	DELETED CLASS CONC.	
7-15-88	ADDED SPLICE NOTES	
7-15-88	ADDED HEIGHT DIMENSION	
4-3-87	REVISED VARIOUS NOTES	
	AND GENERAL NOTES	
11-1-84	MAX. POST SPACING	
1-4-83	MIN. DIA. LINE POST	
10-2-72	REVISED & REDRAWN	

ARKANSAS STATE HIGHWAY COMMISSION

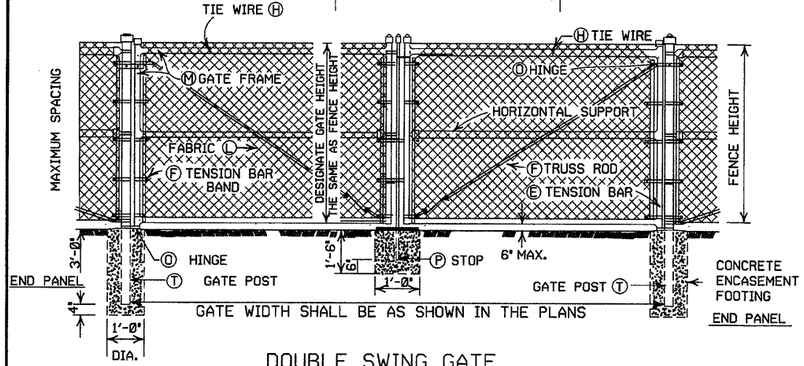
WIRE FENCE
TYPE A AND B

STANDARD DRAWING WF-1



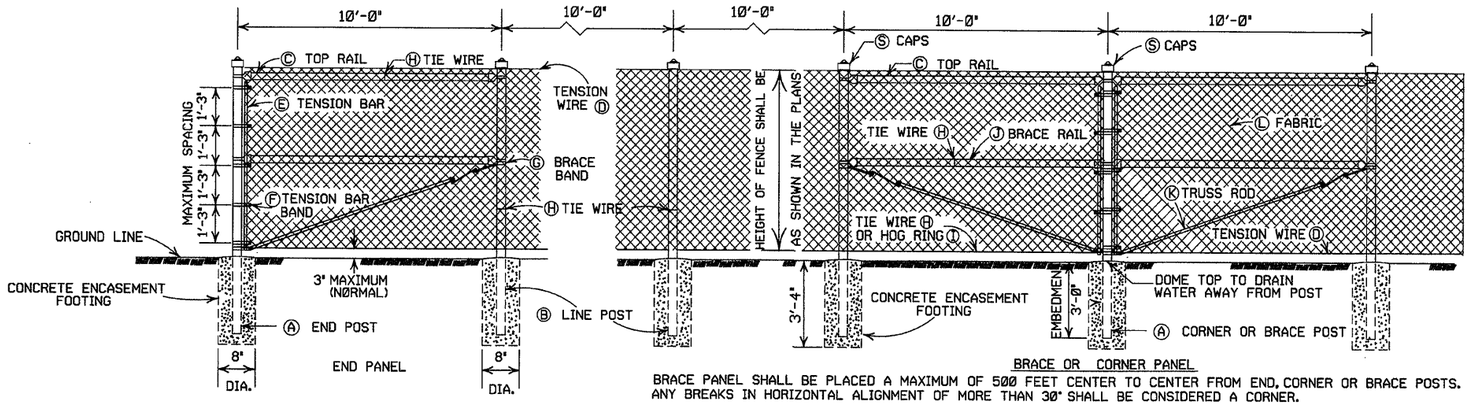
NOTE: FOR DIMENSIONS AND MATERIAL DESCRIPTIONS NOT SHOWN REFER TO BRACE OF CORNER PANEL DETAIL

PULL PANEL TO BE USED AT SHARP BREAKS IN VERTICAL GRADES AS DIRECTED BY THE ENGINEER.



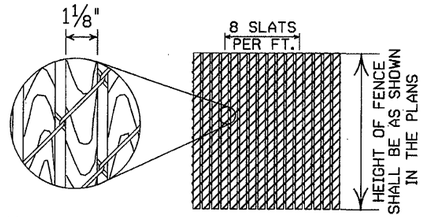
DOUBLE SWING GATE

POST SPACING DETAIL



BRACE OR CORNER PANEL

BRACE PANEL SHALL BE PLACED A MAXIMUM OF 500 FEET CENTER TO CENTER FROM END, CORNER OR BRACE POSTS. ANY BREAKS IN HORIZONTAL ALIGNMENT OF MORE THAN 30° SHALL BE CONSIDERED A CORNER.



1⅛" X ¼" REDWOOD SLATS(LENGTH TO MATCH HEIGHT OF FENCE)

DETAIL OF REDWOOD SLAT INSTALLATION

(WHERE APPLICABLE)

HEIGHT OF FENCE FABRIC	Ⓐ END, PULL CORNER OR BRACE POST	Ⓑ LINE POSTS SIZE	Ⓑ LINE POSTS TIE SPACING	Ⓒ TOP RAIL SIZE	Ⓒ TOP RAIL TIE SPACING	Ⓒ TOP RAIL MIN. LENGTH	Ⓓ TENSION WIRE SIZE	Ⓓ TENSION WIRE TIE SPACING	Ⓔ TENSION BAR SIZE	Ⓔ TENSION BAR LENGTH
6' AND LESS	2½" O.D.	2" O.D.	1 TIE EVERY 1'-2" OF FABRIC HEIGHT	1⅝" O.D.	1 TIE EVERY 2'-0"	10'-0"	7 GAUGE COIL SPRING WIRE	1 TIE EVERY 1'-0"	MIN. OF ⅜" X ¾"	MIN. OF 2" LESS THAN FABRIC HEIGHT
OVER 6' TO 12' INCL.	3 " O.D.	2½" O.D.								

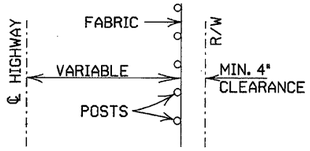
HEIGHT OF FENCE FABRIC	Ⓕ TENSION BAR BAND SIZE	Ⓕ BOLT SIZE	Ⓕ SPACING	Ⓖ BRACE BAND SIZE	Ⓖ BOLT SIZE
6' AND LESS	MIN. OF ¾" X 0.074	⅝" X 1¼"	1 BAND AT TOP AND BOTTOM 15" MAX. INTERVAL BETWEEN BANDS	MIN. OF ¾" X 0.105	⅝" X 1¼"
OVER 6' TO 12' INCL.					

HEIGHT OF FENCE FABRIC	Ⓗ TIE WIRE	Ⓘ HOG RING	Ⓙ BRACE RAIL SIZE	Ⓙ BRACE RAIL TIE SPACING	Ⓚ TRUSS ROD	Ⓛ FABRIC SIZE	Ⓛ FABRIC MESH	Ⓛ FABRIC SELVAGE	Ⓜ GATE FRAME SIZE	Ⓜ GATE FRAME TIE SPACING	Ⓝ HORIZONTAL SUPPORT SIZE	Ⓝ HORIZONTAL SUPPORT TIE SPACING	Ⓞ HINGE TYPE 180° SWING	Ⓣ GATE POST GATE WIDTH 12' AND LESS	Ⓣ GATE POST GATE WIDTH OVER 12' TO 24' INCL.
6' AND LESS	MIN. OF 12 GA. STEEL OR 9 GA. ALUM.	SAME GAUGE AS FABRIC	1⅝" O.D.	1 TIE EVERY 2'-0"	MIN. OF ⅝" ROUND WITH TIGHTNERS AND FITTINGS	9 GA.	2"	KNUCK -ING AND/OR TWIST -ING	2" O.D.	1 TIE EVERY 1'-0"	2" O.D.	1 TIE EVERY 1'-0"	OFFSET	3" O.D.	4" O.D.
OVER 6' TO 12' INCL.														4" O.D.	

NOTE: POST SIZES SHOWN ARE FOR STEEL. WHERE ALUMINUM IS PROVIDED, LINE POSTS SHALL HAVE AN OUT SIDE DIAMETER OF 2½" FOR FENCE HEIGHT OF 6' AND LESS, AN OUTSIDE DIAMETER OF 3" FOR FENCE HEIGHT OF 6' TO 12'. END, PULL, CORNER OR BRACE POSTS SHALL HAVE AN OUTSIDE DIAMETER OF 3" FOR FENCE HEIGHT OF 6' AND LESS; AN OUTSIDE DIAMETER OF 3½" FOR FENCE HEIGHTS OF 6' TO 12'. GATE POSTS WHERE GATE WIDTH IS 12' AND LESS SHALL HAVE AN OUTSIDE DIAMETER OF 3½" FOR FENCE HEIGHT OF 6' AND LESS. ALUMINUM TENSION WIRE SHALL BE Ø.192" IN DIAMETER. MINIMUM THICKNESS OF MATERIAL FROM WHICH EXPANSION SLEEVES SHALL BE MADE WILL BE Ø.078". POSTS AND RAILS MAY HAVE ANY CROSS-SECTIONAL SHAPE THAT WILL MEET THE SPECIFICATIONS.

OTHER DETAILS APPLY TO BOTH STEEL AND ALUMINUM FENCE.

ALL MISCELLANEOUS FITTINGS AND HARDWARE SHALL MEET THE REQUIREMENTS AND PRODUCTION TOLERANCES AS SET FORTH IN THE SPECIFICATIONS.
9 GAUGE ALUMINUM WIRE SHALL BE ACCEPTABLE FOR TIEING FABRIC TO TUBULAR AND ROLL FORMED MEMBERS OF STEEL FENCE.



INSTALLATION MAY BE MODIFIED AS SHOWN IN THE PLANS

TYPICAL INSTALLATION DIAGRAM

GENERAL NOTES:

(D) TENSION WIRE: SHALL BE SECURED TO ALL TERMINAL, PULL, BRACE OR CORNER POSTS WITH TENSION BAR BANDS.

(J) BRACE RAIL: BRACE RAILS SHALL BE PROVIDED AT ALL TERMINAL, PULL, BRACE OR CORNER POSTS HALFWAY BETWEEN THE TOP RAIL AND GROUND LEVEL WHEN TOPRAIL IS SPECIFIED AND TWELVE INCHES (12") DOWN FROM TOP OF FABRIC WHEN TOP TENSION WIRE IS SPECIFIED. BRACE RAIL SHALL EXTEND FROM SUCH POST TO THE FIRST ADJACENT LINE POST.

(L) FABRIC: SHALL CONFORM TO THE SPECIFICATIONS.

(M) GATE FRAMES: SHALL BE CONSTRUCTED OF TUBULAR MEMBERS ASSEMBLED BY USE OF HEAVY PRESSED STEEL, MALLEABLE FITTINGS OR BY WELDING. ALL GATES SHALL HAVE ONE HORIZONTAL SUPPORT EXTENDING THE WIDTH OF THE GATE AT THE MIDPOINTS OF VERTICAL FRAME MEMBERS. THE COMPLETE FRAME SHALL BE RIGID AND HAVE AMPLE STRENGTH TO BE FREE FROM SAG AND TWIST.

(O) HINGES: SHALL BE OF HEAVY PATTERN, OF ADEQUATE STRENGTH FOR GATE, AND WITH LARGE BEARING SURFACES FOR CLAMPING IN POSITION. THE HINGE SHALL BE OF THE PROPER TYPE TO ALLOW FOR THE DESIGNATED DEGREE OF SWING. THE HINGE SHALL NOT TWIST OR TURN UNDER THE ACTION OF THE GATE. THE GATES SHALL BE CAPABLE OF BEING OPENED AND CLOSED EASILY BY ONE PERSON.

(P) LATCHES AND STOPS: SHALL BE PROVIDED FOR ALL GATES. GATES SHALL HAVE A DROP BAR LATCH. LATCHES SHALL BE ARRANGED FOR LOCKING. THE STOP FOR DROP BAR LATCHES SHALL BE SET IN CONCRETE AND ENGAGE THE PLUNGER OF THE BAR LATCH.

(S) CAPS: ALL POSTS, EXCEPT ROLL FORMED POSTS AND "T" POSTS SHALL BE CAPPED OVER THE EXTERIOR OF THE POST, AND SHALL CONFORM TO ASTM F626.

CONCRETE REQUIRED FOR THE EMBEDMENT OF ALL POSTS SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR CHAIN LINK FENCE.

POSTS SHALL BE SPACED EQUIDISTANT ON A MAXIMUM OF 10' CENTERS.

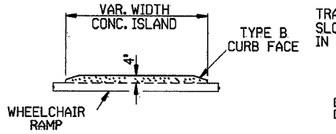
EXCAVATION FOR POSTS: IN OTHER THAN ROCK SHALL BE OF THE DIMENSIONS INDICATED. IF ROCK IS ENCOUNTERED BEFORE REACHING THE REQUIRED DEPTH, THE EXCAVATION SHALL BE CONTINUED TO THE DEPTH INDICATED OR 1'-6" INTO THE ROCK, WHICHEVER IS LESS, AND SHALL BE A MINIMUM OF 8 INCHES IN DIAMETER.

DATE	REVISION	FILMED
8-22-02	REVISED NOTES, REMOVED TABLE, & REMOVED FENCE ALTERNATE	
4-3-97	REVISED BRACE RAIL NOTE	
10-18-96	REVISED AASHTO & ASTM REF.	
11- 3-94	REVISED NOTE (L)	
10-1-92	DELETED ALTERNATE POST	10-1-92
8-15-91	DELETED ROLL FORMED POST DETAIL & ADDED NOTE	8-15-91 8-15-91
11-30-89	DELETED CLASS CONCRETE	11-30-89
11-17-88	REVISED O.D. SIZES	668-11-17-88
10-30-87	GENERAL REVISIONS	548-10-30-87
4-20-79	REVISED TOP RAIL & TENSION WIRE	695-4-20-79
10-2-72	REVISED AND REDRAWN	530-10-2-72

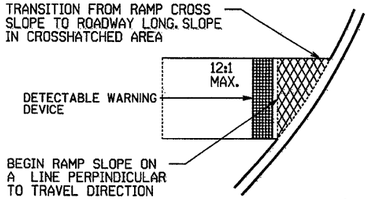
ARKANSAS STATE HIGHWAY COMMISSION

CHAIN LINK FENCE

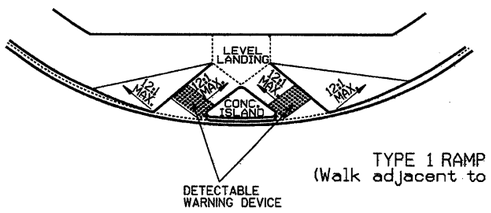
STANDARD DRAWING WF-3



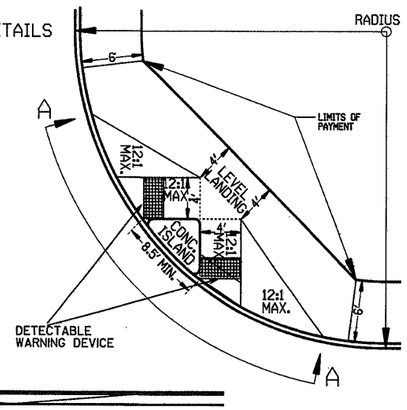
CONCRETE ISLAND DETAIL



SLOPE TRANSITION DETAILS



TYPE 1 RAMP
(Walk adjacent to curb)

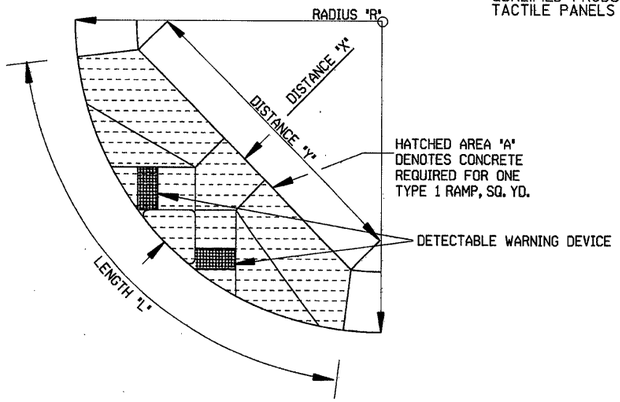


SECTION A-A

NOTE: THE SHADED AREAS DENOTE THE AREA TO BE TEXTURED AS DESCRIBED IN THE GENERAL NOTES.

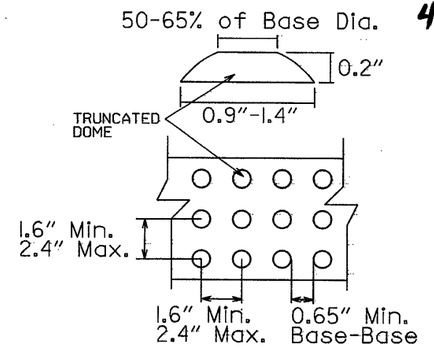
TYPE 1 RAMP DIMENSIONS AND QUANTITIES

RADIUS "R" FEET	DISTANCE "X" FEET	DISTANCE "Y" FEET	LENGTH "L" FEET	RAMP AREA "A" SQ. YD.
15	11.67	18.82	32.18	26.21
20	11.52	22.28	35.46	30.07
25	11.43	26.60	38.77	33.80
30	11.37	30.26	40.93	36.90
35	11.33	33.51	43.11	39.77
40	11.30	36.45	45.26	42.45
45	11.27	39.16	47.34	44.97
50	11.25	41.69	49.36	47.35
55	11.24	44.07	51.31	49.63
60	11.22	46.33	53.21	51.80



GENERAL NOTES FOR DETECTABLE WARNING DEVICES

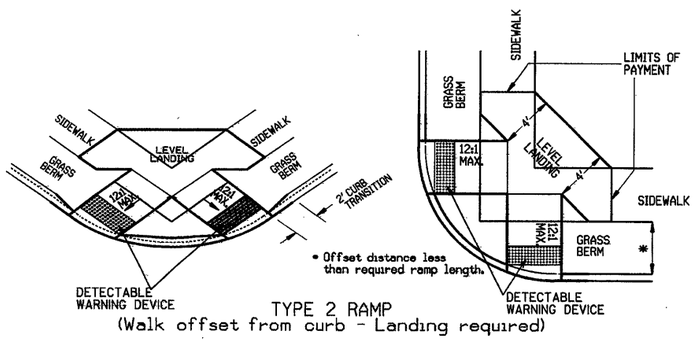
THE DETECTABLE WARNING DEVICE SHALL BE LOCATED SO THAT THE NEAREST EDGE OF THE DEVICE IS 6 TO 8 INCHES FROM THE FACE OF THE CURB.
TRUNCATED DOMES IN THE DETECTABLE WARNING SURFACE SHALL MEET THE REQUIREMENTS OF THE GEOMETRIC CONFIGURATION SHOWN.
DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
DETECTABLE WARNING DEVICE SHALL BE 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
DETECTABLE WARNING DEVICE SHALL BE ON THE AHTD QUALIFIED PRODUCTS LIST FOR CAST-IN-PLACE TACTILE PANELS (ADA DETECTABLE WARNING).



DETECTABLE WARNING DEVICE DETAIL

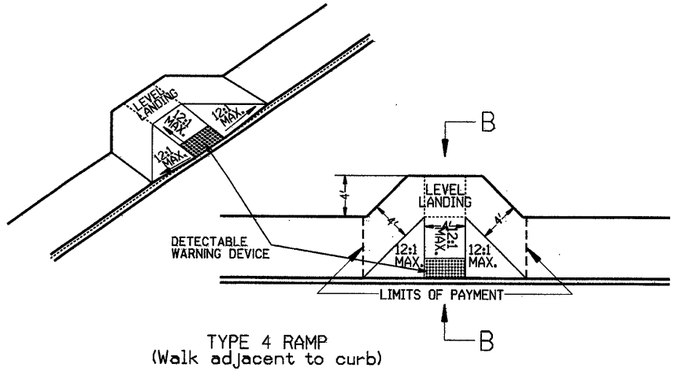
GENERAL NOTES:

IN NEW CONSTRUCTION, UNLESS OTHERWISE INDICATED ON THE PLANS, WHEELCHAIR RAMPS ARE TO BE PROVIDED AT ALL CORNERS OF CURBED STREET INTERSECTIONS AND MID-BLOCK CROSSWALK LOCATIONS.
IN ALTERATIONS WHEELCHAIR RAMPS ARE TO BE PROVIDED AT CURBED STREET INTERSECTIONS WITH PEDESTRIAN TRAFFIC AND MID-BLOCK CROSSWALK LOCATIONS.
THE LENGTH OF THE RAMP SHALL BE SUCH THAT THE SLOPE DOES NOT EXCEED 12:1. THE SURFACE TEXTURE OF THE RAMP SHALL CONFORM TO A CLASS 6 FINISH ACCORDING TO SECTION 802.19.
THE NORMAL GUTTER GRADE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP.
ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
THE MINIMUM THICKNESS OF THE RAMP, WALK, & LANDING SHALL BE 4".
THE MINIMUM WIDTH OF THE RAMPS SHALL BE THE EXISTING WALK WIDTH OR 36", WHICHEVER IS GREATER.
RAMPS SHALL BE MODIFIED AS NECESSARY TO INSURE THAT THEY ARE PARALLEL TO A LINE DRAWN FROM THE CENTER OF ONE RAMP TO THE CENTER OF THE RAMP ON THE OPPOSITE SIDE OF THE INTERSECTION.
THE DIMENSIONS AND QUANTITIES SHOWN ON THIS DRAWING ARE FOR A 90° INTERSECTION ONLY. DIMENSIONS AND QUANTITIES FOR SKEWED INTERSECTIONS WILL VARY, AND ARE TO BE DETERMINED BY THE ENGINEER.

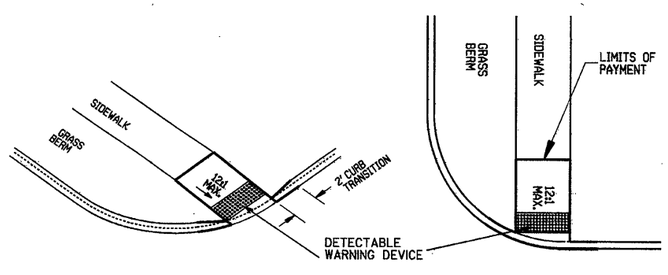


TYPE 2 RAMP
(Walk offset from curb - Landing required)

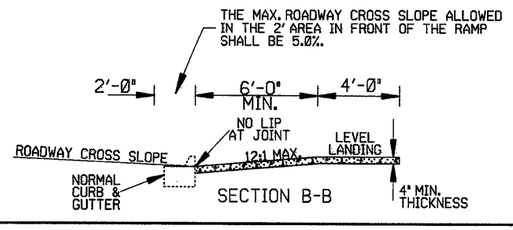
NOTE:
THE CROSS SLOPE OF THE RAMPS, LEVEL LANDINGS, AND SIDEWALKS SHALL NOT EXCEED 2.0% UNLESS REQUIRED TO MATCH STREET LONGTITUDINAL GRADE.



TYPE 4 RAMP
(Walk adjacent to curb)



TYPE 3 RAMP
(Walk offset from curb - Landing not required)



SECTION B-B

RAMP SELECTION CRITERIA

FIRST CHOICE	TYPE 1	CORNER LOCATIONS WITH THE WALK ADJACENT TO THE CURB (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 2	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE INSUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 3	CORNER LOCATIONS WITH THE WALK OFFSET FROM THE CURB A DISTANCE SUFFICIENT TO ALLOW THE REQUIRED RAMP SLOPE (BOTH NEW CONSTRUCTION AND ALTERATIONS).
	TYPE 4	TANGENT LOCATIONS (BOTH NEW CONSTRUCTION AND ALTERATIONS).
SECOND CHOICE	TYPE 5	TANGENT LOCATIONS (ALTERATIONS ONLY).
THIRD CHOICE	TYPE 6	CORNER LOCATIONS (ALTERATIONS ONLY). THIS RAMP MAY BE USED ONLY IF THE TYPE 5 RAMPS CANNOT BE PLACED AT THE ENDS OF THE RADIUS.
FOURTH CHOICE		IF SITE CONSTRAINTS PREVENT THE CONSTRUCTION OF ANY OF THE TYPES LISTED, THEN AND ONLY THEN CAN THE 12:1 MAX. SLOPE ON THE RAMP BE EXCEEDED TO PROVIDE ACCESS TO THE STREET LEVEL (ALTERATIONS ONLY). THE SLOPE CAN BE STEEPENED TO A 10:1 MAX. FOR A MAX. LENGTH OF 5' OR A 8:1 MAX. FOR A MAX. LENGTH OF 2'. SLOPES STEEPER THAN 8:1 ARE NOT ALLOWED UNDER ANY CIRCUMSTANCES.

NOTE: IN ALTERATIONS, THE SELECTION OF THE TYPE OF WHEELCHAIR RAMP TO BE CONSTRUCTED SHALL BE BASED ON THE AMOUNT OF RIGHT-OF-WAY AVAILABLE, AND ON THE PRESENCE OF OTHER SITE CONSTRAINTS (UTILITIES, BUILDINGS, ETC.). THE TABLE ABOVE LISTS THE ORDER IN WHICH THE RAMPS ARE TO BE CONSIDERED.

AN ALTERATION IS DEFINED AS A PROJECT THAT CHANGES OR AFFECTS THE USE OF A PEDESTRIAN PATHWAY (OVERLAYS, SIGNALIZATION PROJECTS, ETC.) BUT DOES NOT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY. ALL PROJECTS THAT REQUIRE THE PURCHASE OF ADDITIONAL RIGHT-OF-WAY WILL USUALLY BE CONSIDERED NEW CONSTRUCTION FOR THE PURPOSES OF THE CHART ABOVE.

DATE	REVISION	DATE FILM
10-9-03	REVISED GENERAL NOTES & ADDED NOTE.	10-9-03
4-10-03	REVISED DETECTABLE WARNING DEVICE DETAIL	
8-22-02	ADDED DETECTABLE WARNING DEVICES DETAILS	
3-30-00	ADD SLOPE TRANS. & REV. ISLAND DIMENSIONS	
11-18-98	REVISED NOTES	
8-12-98	REVISED TEXTURE	
7-02-98	REDRAWN & REISSUED	
10-18-96	CORRECTED DIMENSIONS	10-18-96
5-24-90	FROM 8:1 TO 12:1 MAX. SLOPES	5-24-90
7-15-88	ADJUSTED MAX. SLOPE	662-7-15-88
7-14-88	INCLUD. "CONC. ISLD." IN PAY ITEM	------
6-02-76	ISSUED-P.H.D.	299-7-28-76

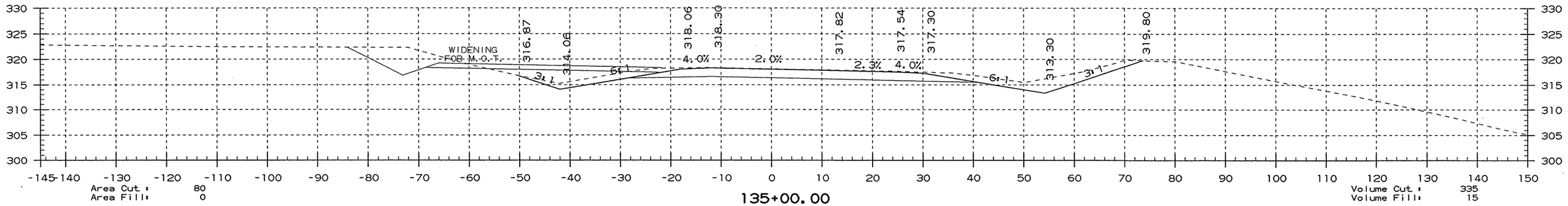
ARKANSAS STATE HIGHWAY COMMISSION

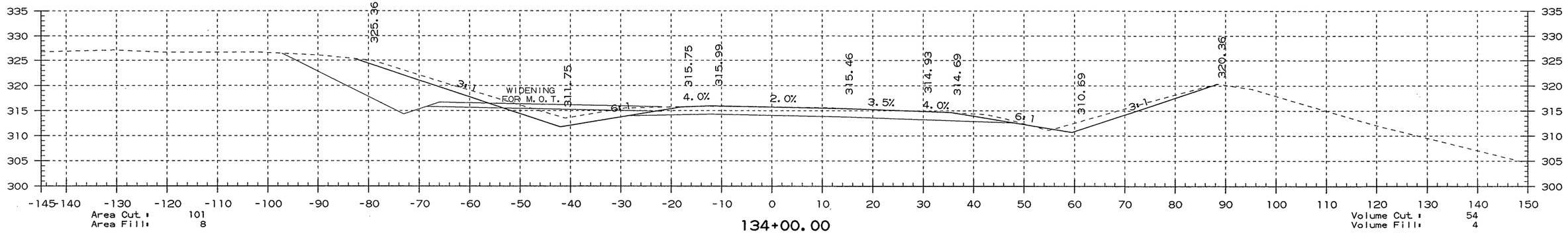
WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS

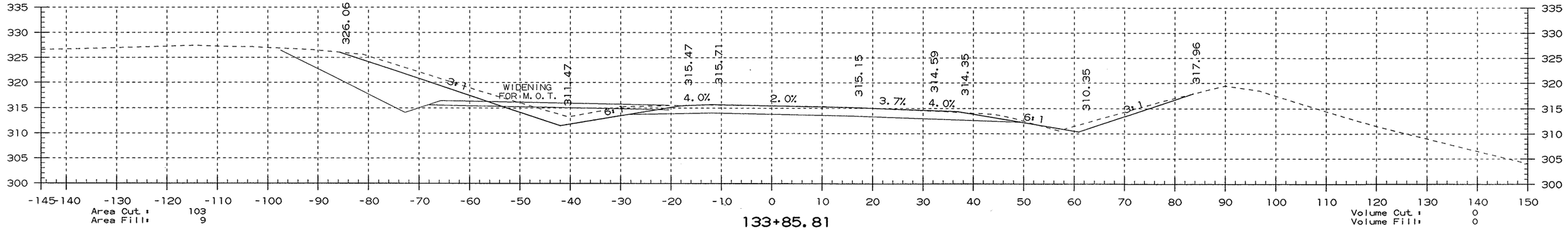
STANDARD DRAWING WR-1

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	459	603

(2) CROSS SECTIONS





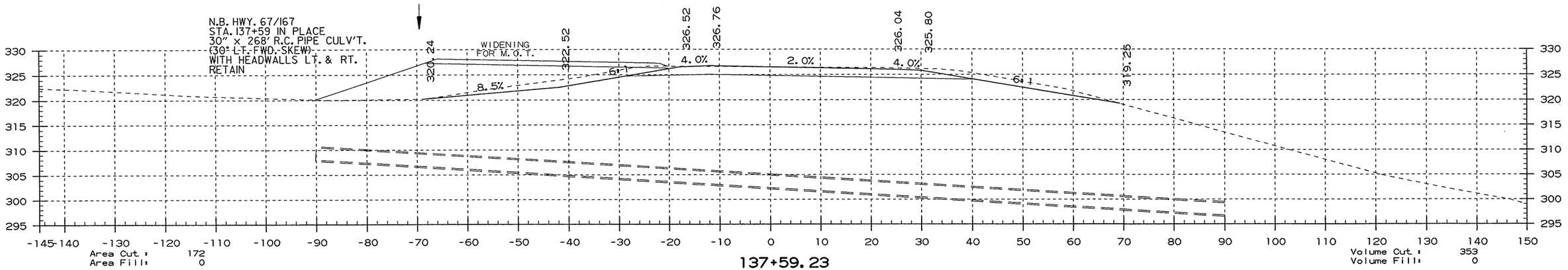


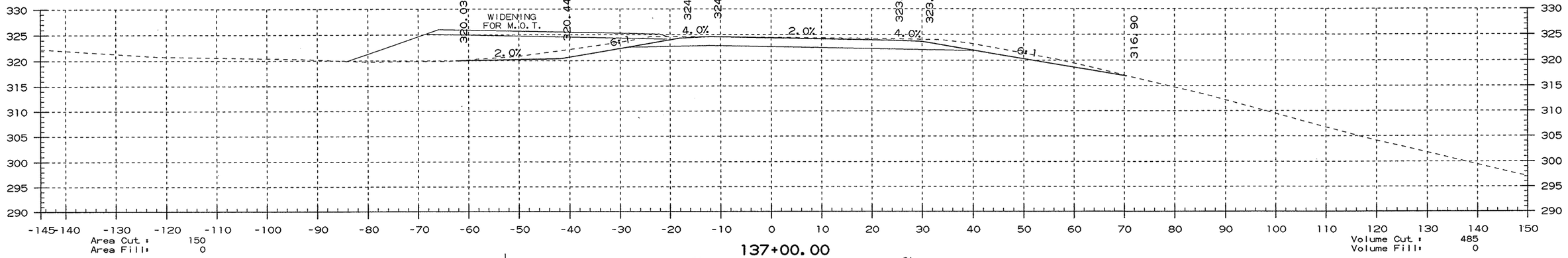
HWY. 67/167 NORTHBOUND MAIN LANES

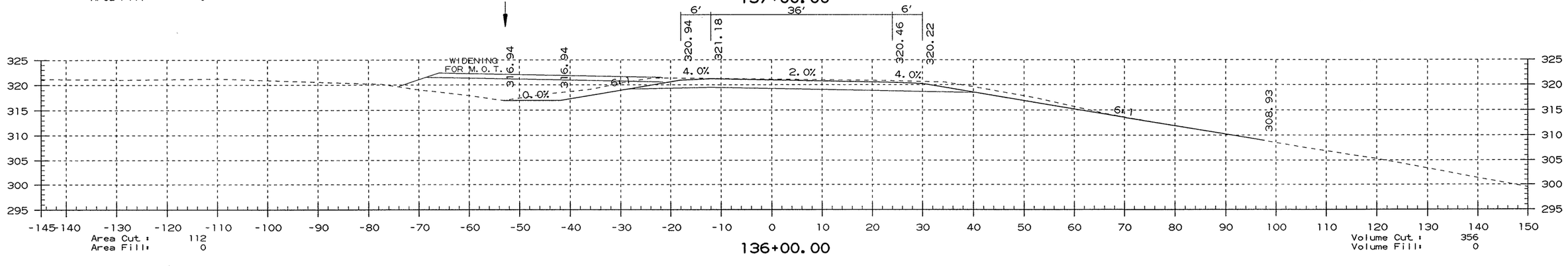
03-07-2005 RR60080.CRSI

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	460	603

(2) CROSS SECTIONS





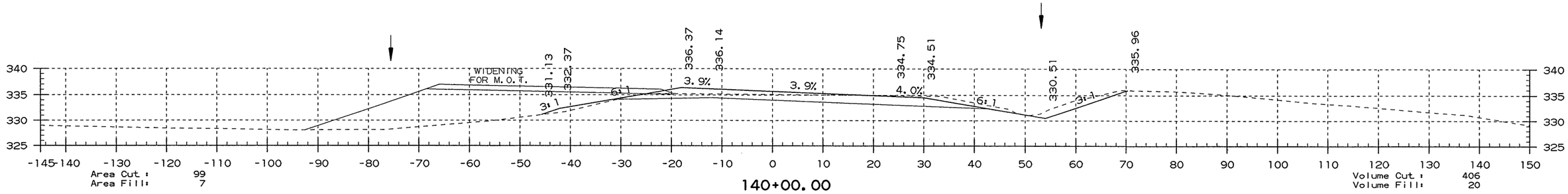


03-07-2005 RR60080.CRSI

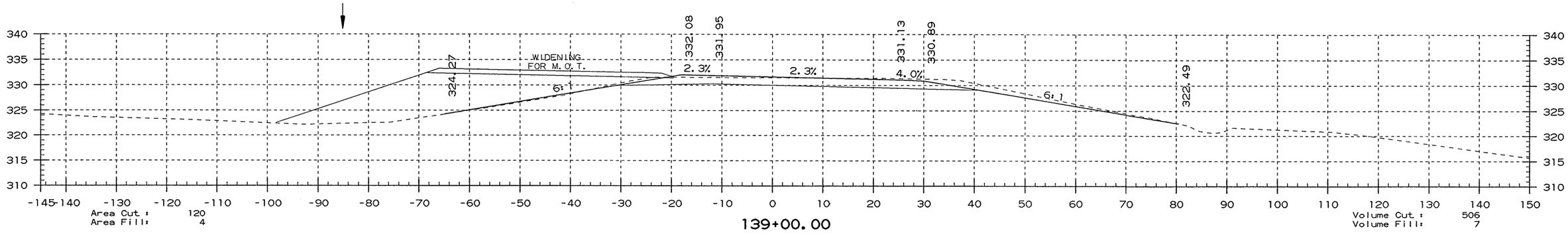
HWY. 67/167 NORTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	46	609

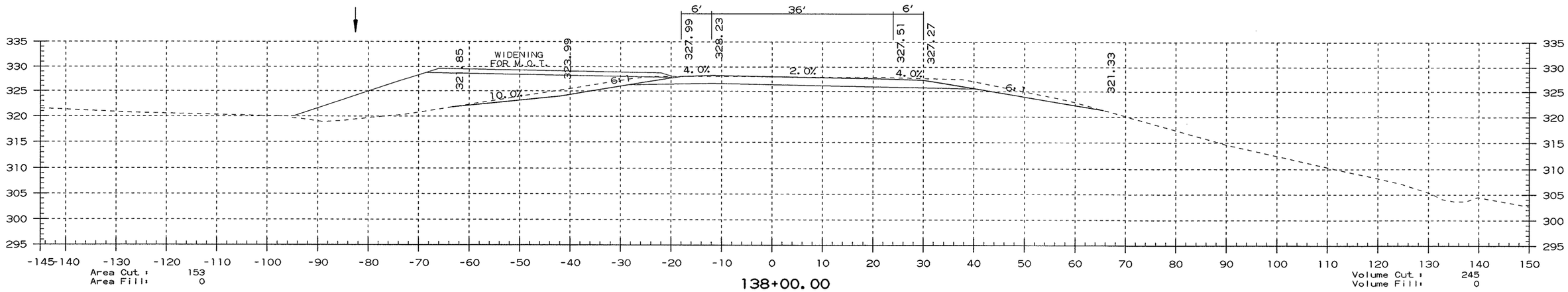
(2) CROSS SECTIONS



140+00.00



139+00.00



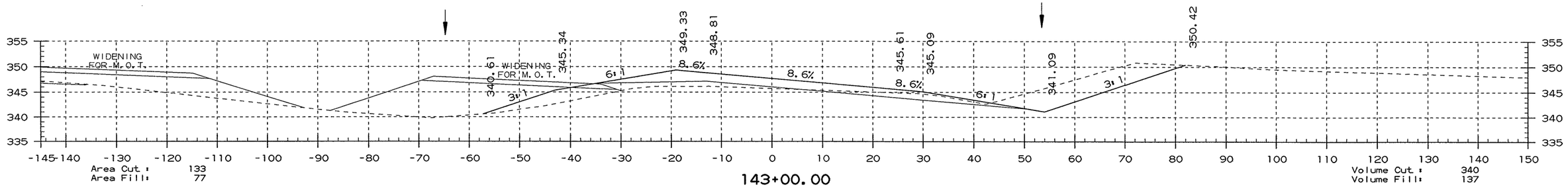
138+00.00

03-07-2005 RR60080.CRSI

HWY. 67/167 NORTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	462	602

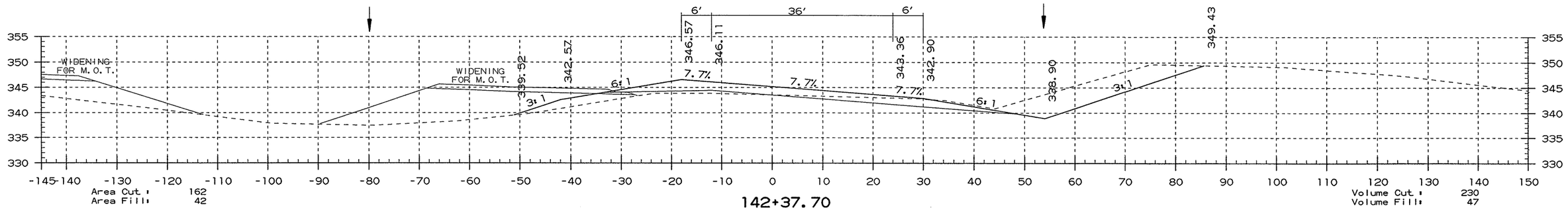
(2) CROSS SECTIONS



Area Cut : 133
Area Fill: 77

Volume Cut : 340
Volume Fill: 137

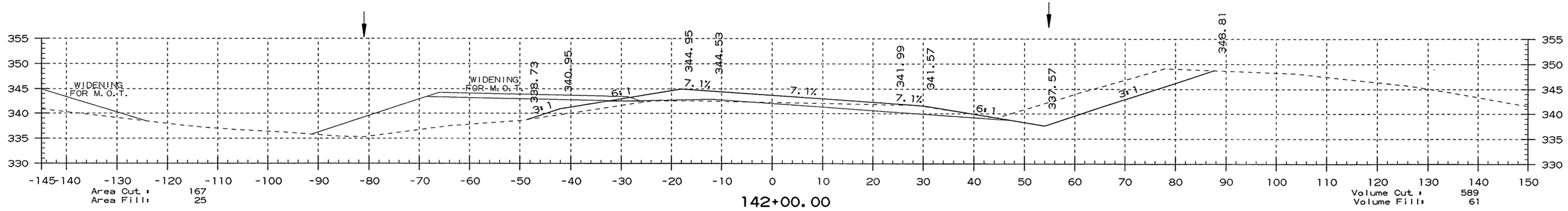
143+00.00



Area Cut : 162
Area Fill: 42

Volume Cut : 230
Volume Fill: 47

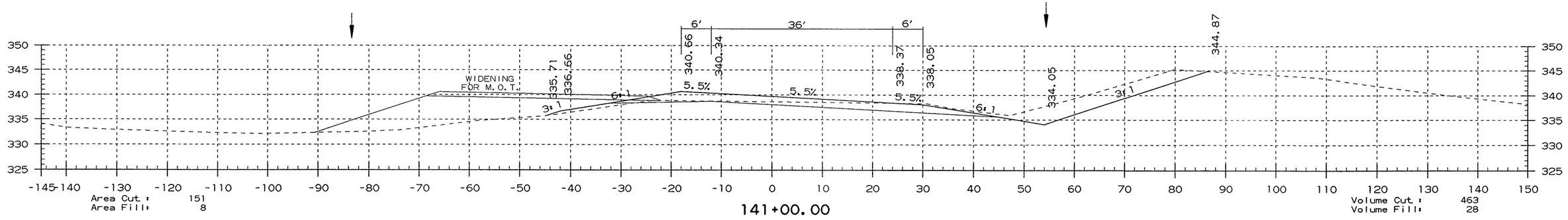
142+37.70



Area Cut : 167
Area Fill: 25

Volume Cut : 589
Volume Fill: 61

142+00.00



Area Cut : 151
Area Fill: 8

Volume Cut : 463
Volume Fill: 28

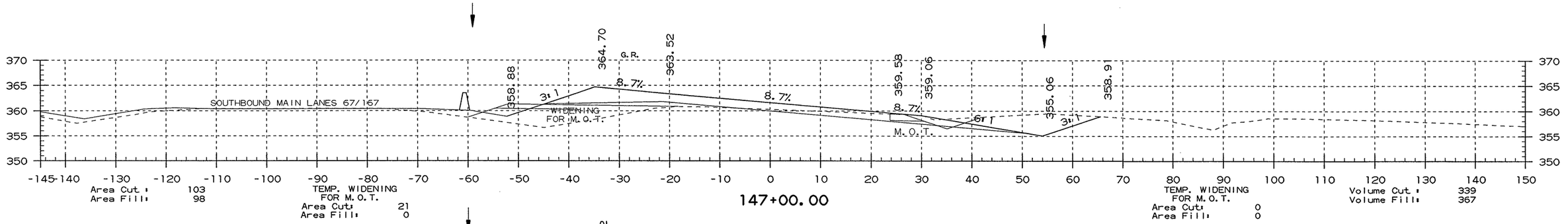
141+00.00

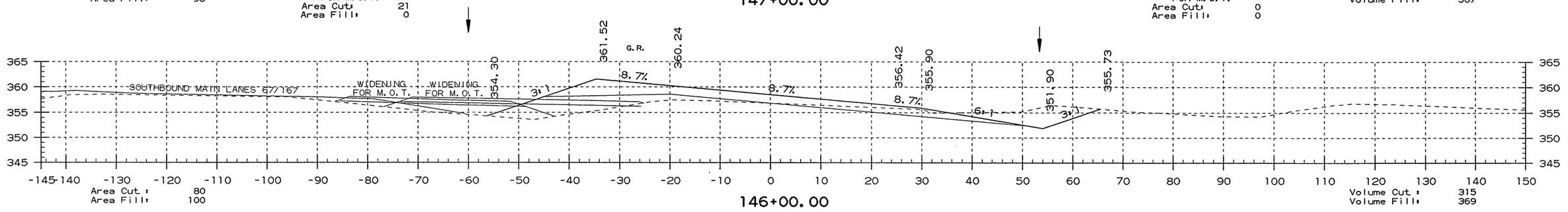
03-07-2005 RR60080.CRSI

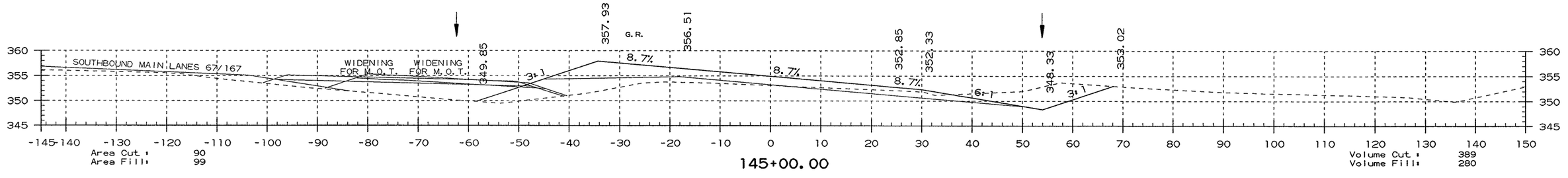
HWY. 67/167 NORTHBOUND MAIN LANES

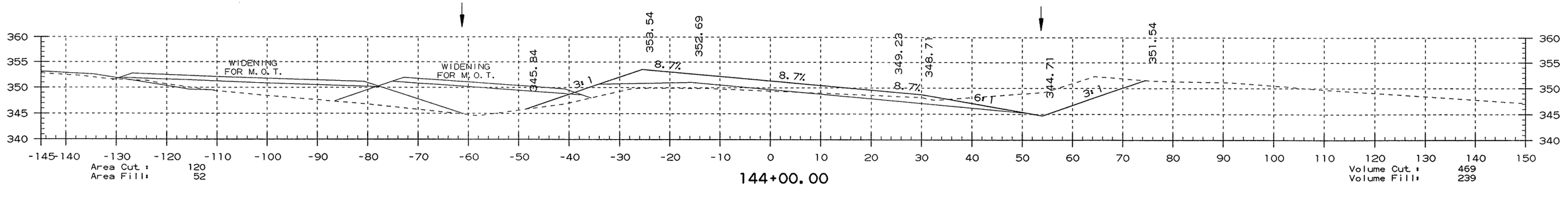
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	463	609

(2) CROSS SECTIONS







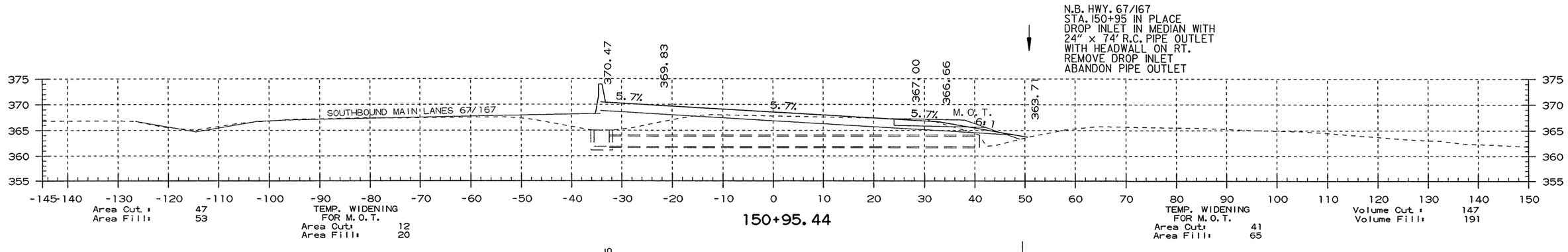


03-07-2005 RR60080.CRSI

HWY. 67/167 NORTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	464	609

(2) CROSS SECTIONS



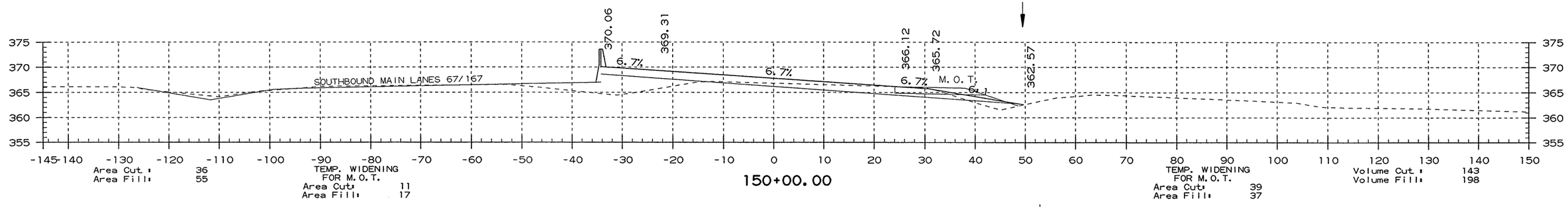
Area Cut: 47
Area Fill: 53

TEMP. WIDENING FOR M.O.T.
Area Cut: 12
Area Fill: 20

150+95.44

TEMP. WIDENING FOR M.O.T.
Area Cut: 41
Area Fill: 65

Volume Cut: 147
Volume Fill: 191



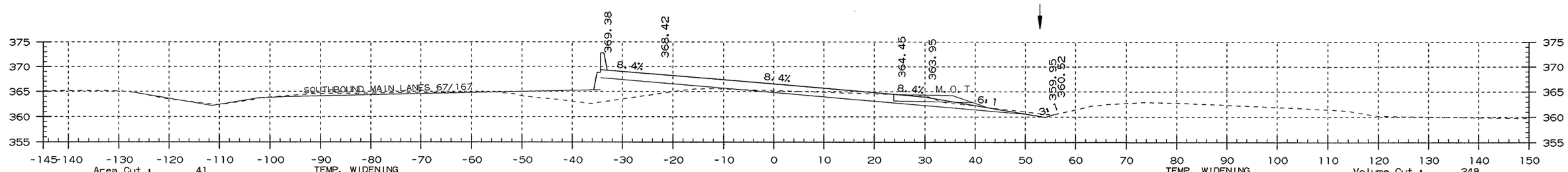
Area Cut: 36
Area Fill: 55

TEMP. WIDENING FOR M.O.T.
Area Cut: 11
Area Fill: 17

150+00.00

TEMP. WIDENING FOR M.O.T.
Area Cut: 39
Area Fill: 37

Volume Cut: 143
Volume Fill: 198



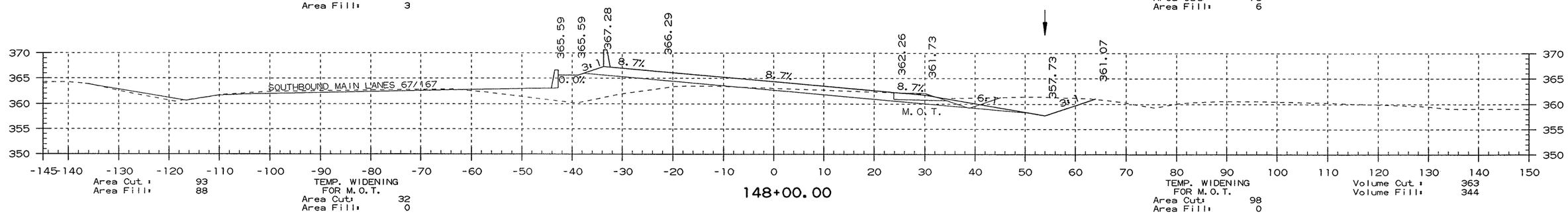
Area Cut: 41
Area Fill: 52

TEMP. WIDENING FOR M.O.T.
Area Cut: 10
Area Fill: 3

149+00.00

TEMP. WIDENING FOR M.O.T.
Area Cut: 78
Area Fill: 6

Volume Cut: 248
Volume Fill: 259



Area Cut: 93
Area Fill: 88

TEMP. WIDENING FOR M.O.T.
Area Cut: 32
Area Fill: 0

148+00.00

TEMP. WIDENING FOR M.O.T.
Area Cut: 98
Area Fill: 0

Volume Cut: 363
Volume Fill: 344

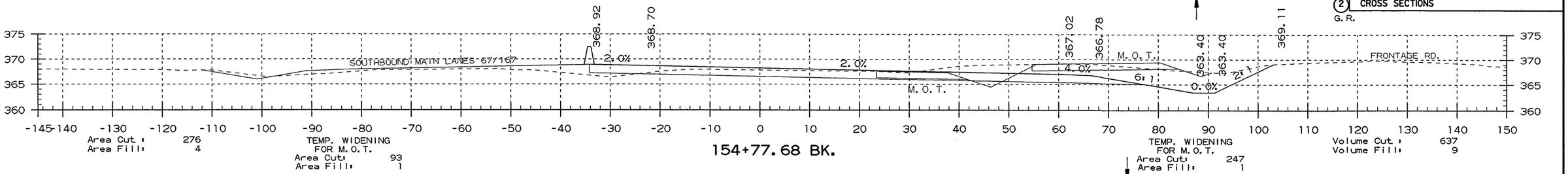
03-07-2005 RR60080.CRSI

HWY. 67/167 NORTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	465	609

(2) CROSS SECTIONS

G. R.



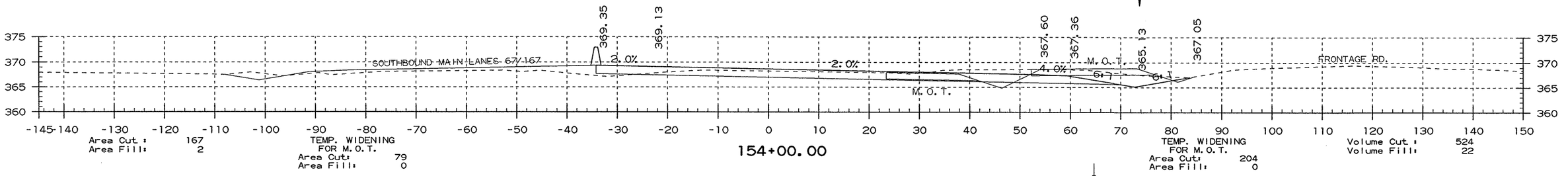
Area Cut : 276
Area Fill: 4

TEMP. WIDENING FOR M.O.T.
Area Cut: 93
Area Fill: 1

154+77.68 BK.

TEMP. WIDENING FOR M.O.T.
Area Cut: 247
Area Fill: 1

Volume Cut : 637
Volume Fill: 9



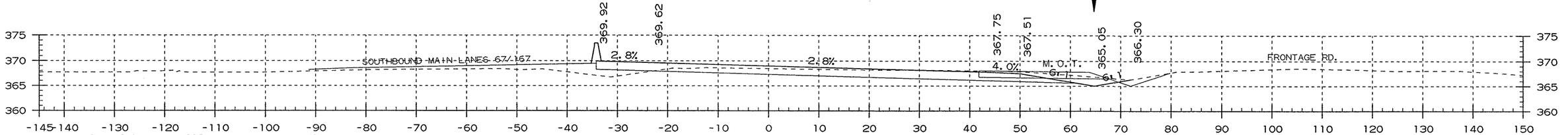
Area Cut : 167
Area Fill: 2

TEMP. WIDENING FOR M.O.T.
Area Cut: 79
Area Fill: 0

154+00.00

TEMP. WIDENING FOR M.O.T.
Area Cut: 204
Area Fill: 0

Volume Cut : 524
Volume Fill: 22



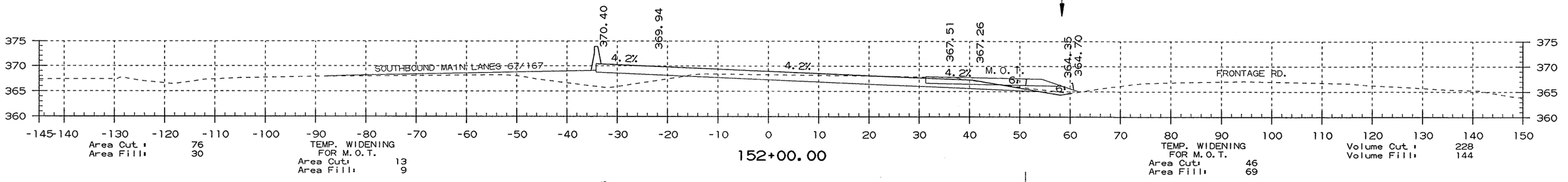
Area Cut : 116
Area Fill: 10

TEMP. WIDENING FOR M.O.T.
Area Cut: 31
Area Fill: 0

153+00.00

TEMP. WIDENING FOR M.O.T.
Area Cut: 81
Area Fill: 17

Volume Cut : 356
Volume Fill: 74



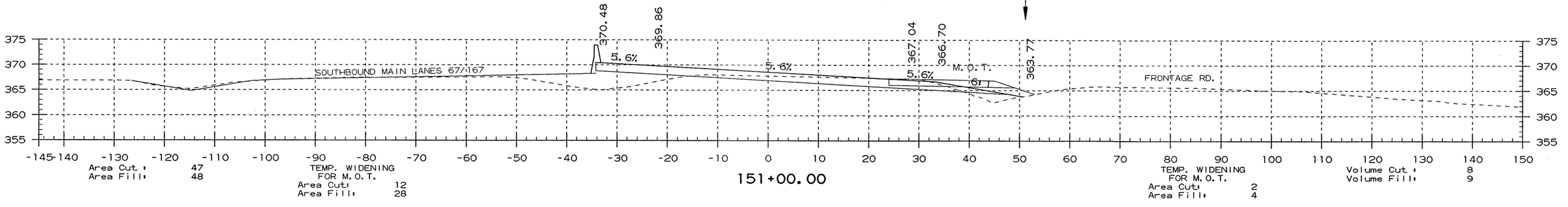
Area Cut : 76
Area Fill: 30

TEMP. WIDENING FOR M.O.T.
Area Cut: 13
Area Fill: 9

152+00.00

TEMP. WIDENING FOR M.O.T.
Area Cut: 46
Area Fill: 69

Volume Cut : 228
Volume Fill: 144



Area Cut : 47
Area Fill: 48

TEMP. WIDENING FOR M.O.T.
Area Cut: 12
Area Fill: 28

151+00.00

TEMP. WIDENING FOR M.O.T.
Area Cut: 2
Area Fill: 4

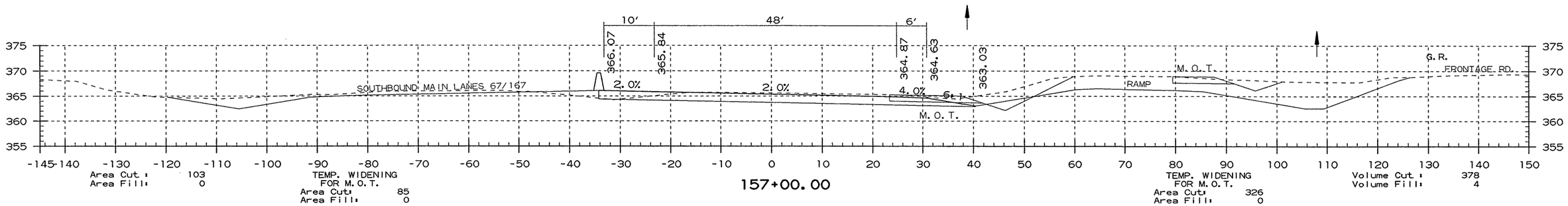
Volume Cut : 8
Volume Fill: 9

03-07-2005 RR60080.CRSI

HWY. 67/167 NORTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	466	609

(2) CROSS SECTIONS



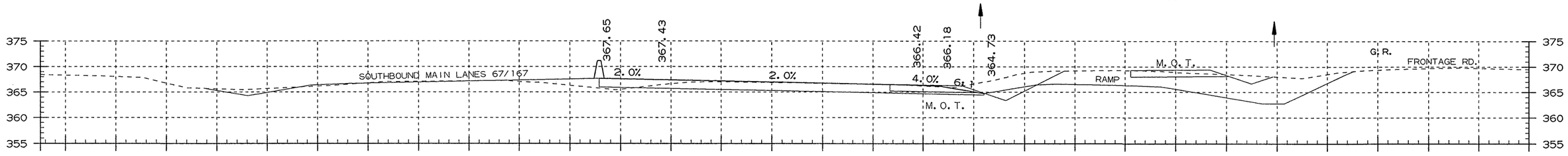
Area Cut : 103
Area Fill: 0

TEMP. WIDENING FOR M.O.T.
Area Cut: 85
Area Fill: 0

157+00.00

TEMP. WIDENING FOR M.O.T.
Area Cut: 326
Area Fill: 0

Volume Cut : 378
Volume Fill: 4



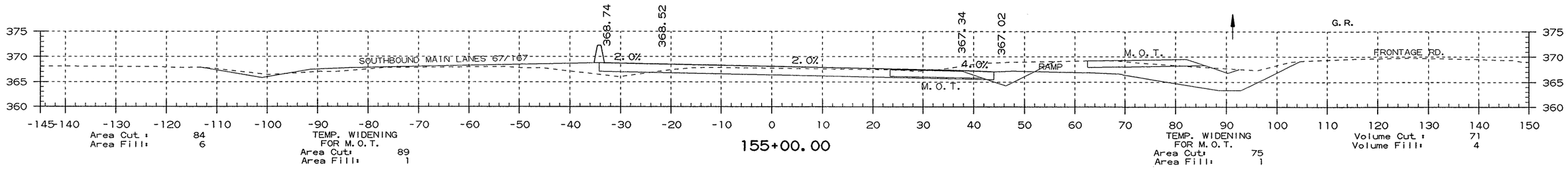
Area Cut : 101
Area Fill: 2

TEMP. WIDENING FOR M.O.T.
Area Cut: 91
Area Fill: 0

156+00.00

TEMP. WIDENING FOR M.O.T.
Area Cut: 333
Area Fill: 2

Volume Cut : 343
Volume Fill: 15



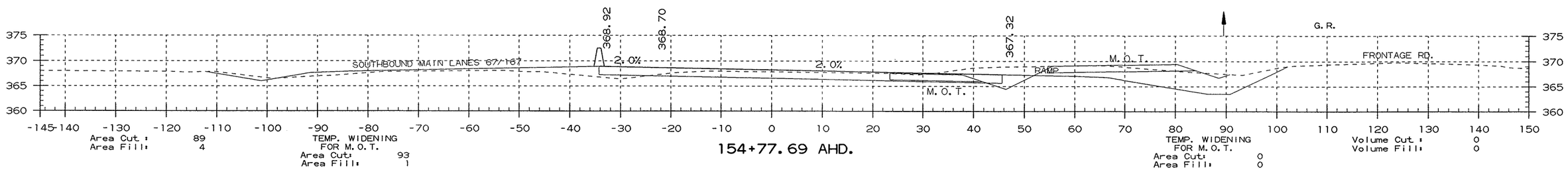
Area Cut : 84
Area Fill: 6

TEMP. WIDENING FOR M.O.T.
Area Cut: 89
Area Fill: 1

155+00.00

TEMP. WIDENING FOR M.O.T.
Area Cut: 75
Area Fill: 1

Volume Cut : 71
Volume Fill: 4



Area Cut : 89
Area Fill: 4

TEMP. WIDENING FOR M.O.T.
Area Cut: 93
Area Fill: 1

154+77.69 AHD.

TEMP. WIDENING FOR M.O.T.
Area Cut: 0
Area Fill: 0

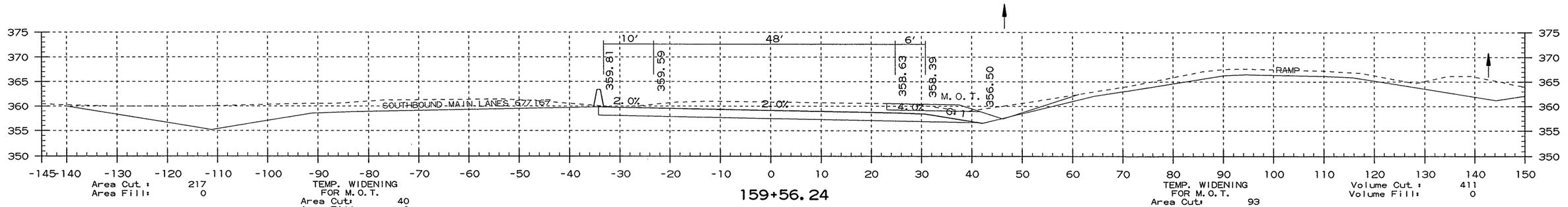
Volume Cut : 0
Volume Fill: 0

03-07-2005 RR60080.CRSI

HWY. 67/167 NORTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	167	609

(2) CROSS SECTIONS



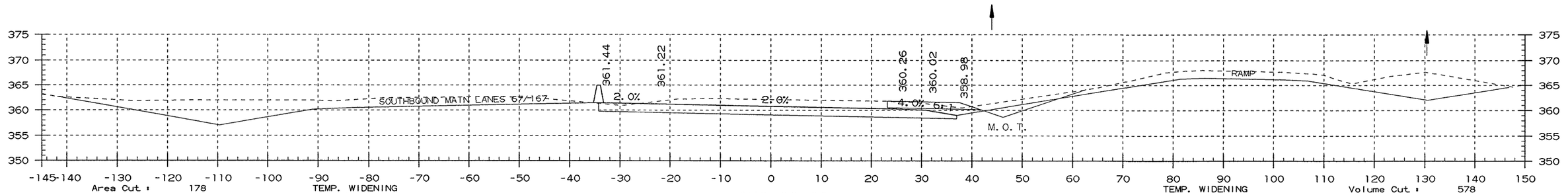
Area Cut : 217
Area Fill: 0

TEMP. WIDENING FOR M.O.T.
Area Cut: 40
Area Fill: 0

159+56.24

TEMP. WIDENING FOR M.O.T.
Area Cut: 93
Area Fill: 0

Volume Cut : 411
Volume Fill: 0



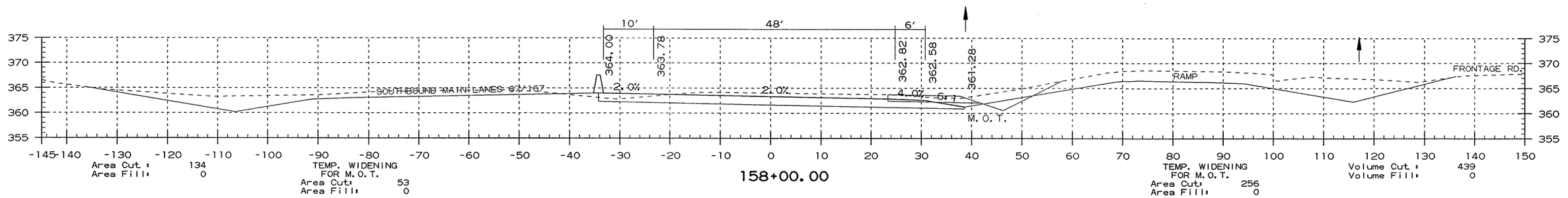
Area Cut : 178
Area Fill: 0

TEMP. WIDENING FOR M.O.T.
Area Cut: 49
Area Fill: 0

159+00.00

TEMP. WIDENING FOR M.O.T.
Area Cut: 189
Area Fill: 0

Volume Cut : 578
Volume Fill: 0



Area Cut : 134
Area Fill: 0

TEMP. WIDENING FOR M.O.T.
Area Cut: 53
Area Fill: 0

158+00.00

TEMP. WIDENING FOR M.O.T.
Area Cut: 256
Area Fill: 0

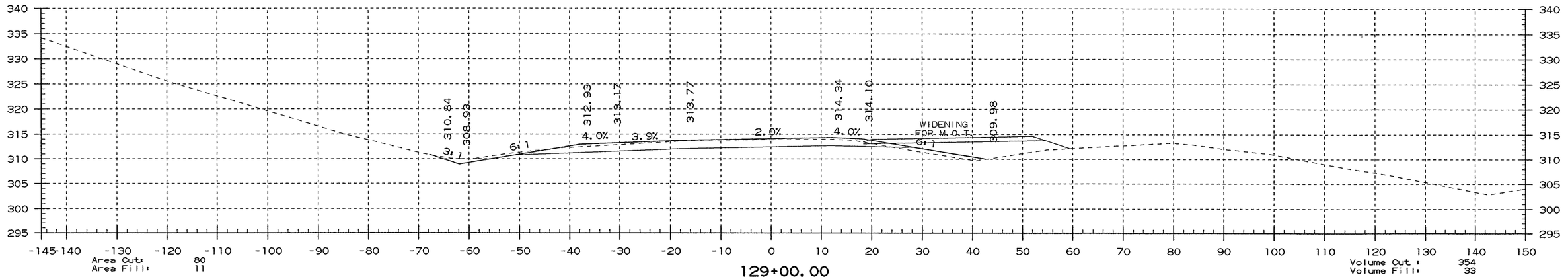
Volume Cut : 439
Volume Fill: 0

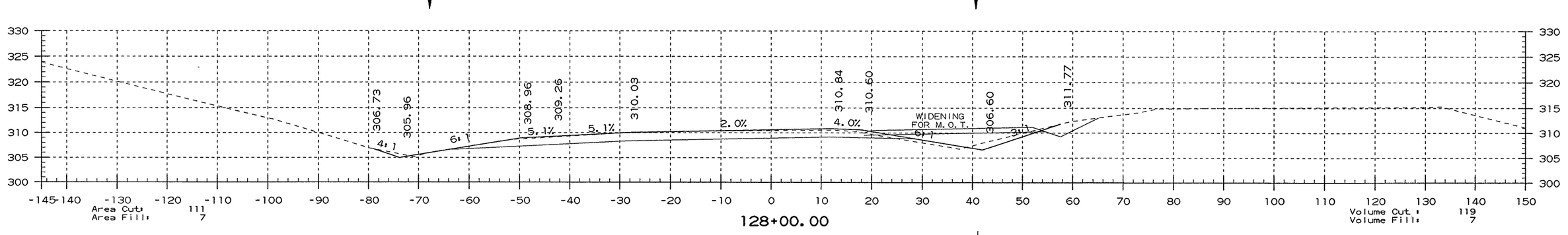
03-07-2005 RR60080.CRSI

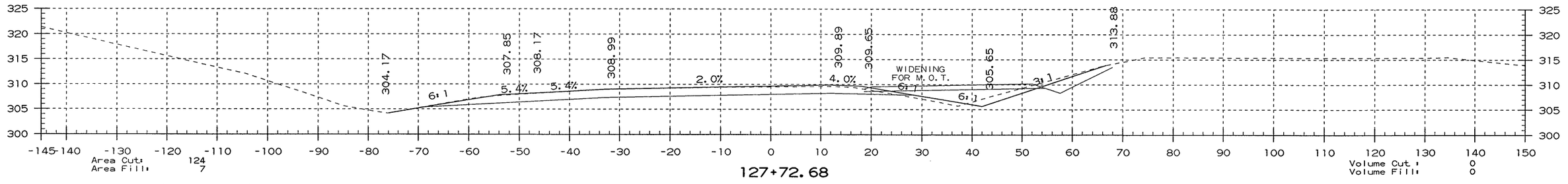
HWY. 67/167 NORTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	16	60

(2) CROSS SECTIONS





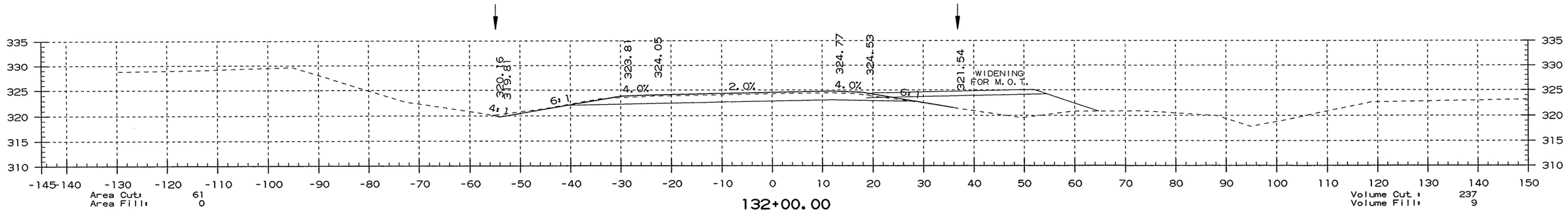


03-07-2005 RR60080.CRSI

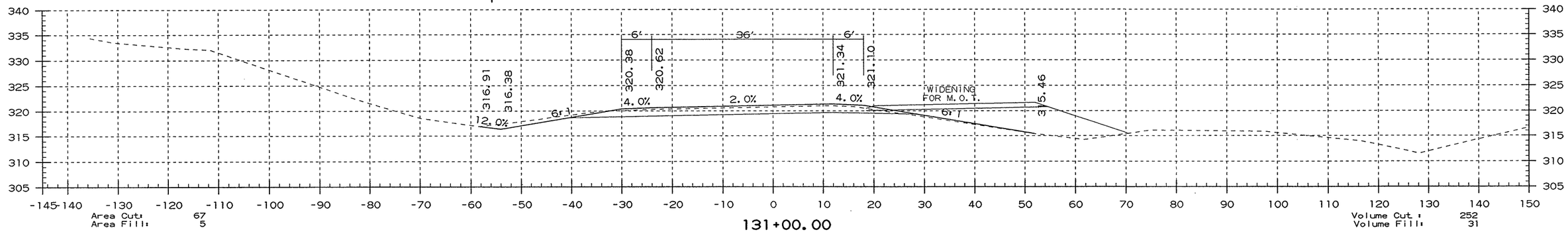
HWY. 67/167 SOUTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	469	603

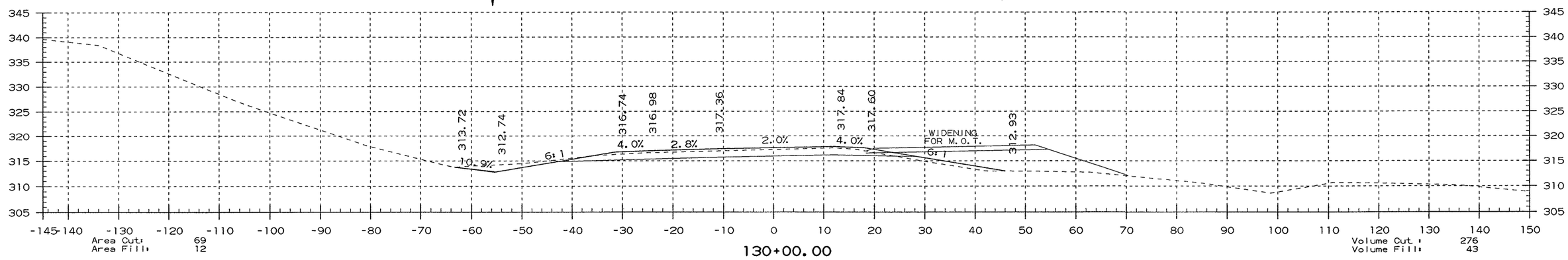
(2) CROSS SECTIONS



132+00.00



131+00.00



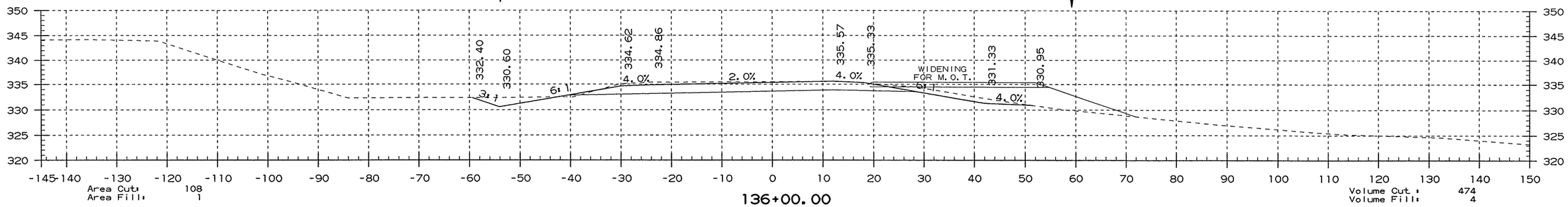
130+00.00

03-07-2005 RR60080.CRSI

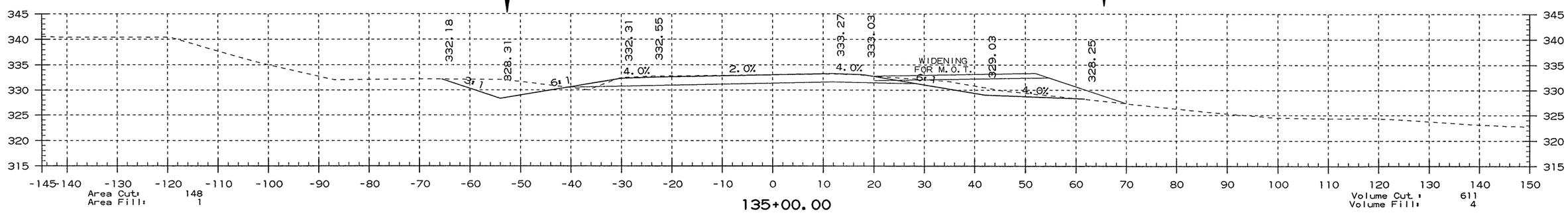
HWY. 67/167 SOUTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	470	609

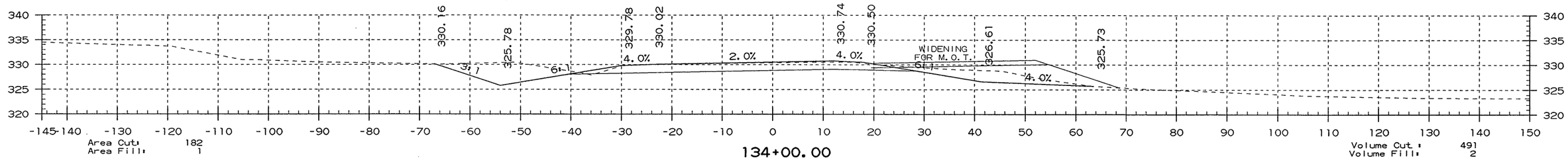
(2) CROSS SECTIONS



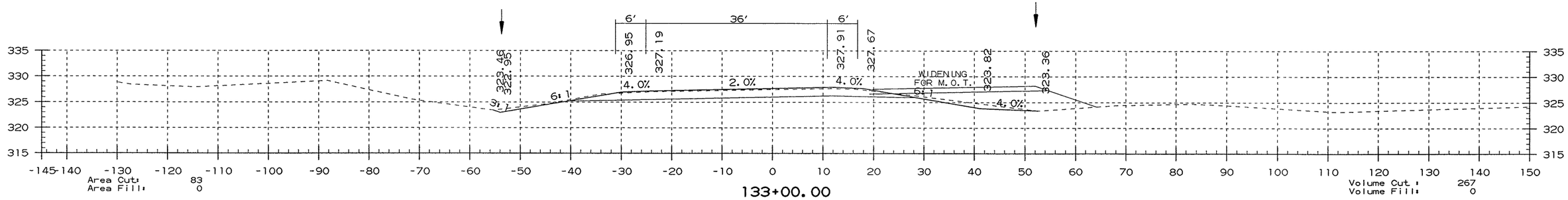
136+00.00



135+00.00



134+00.00



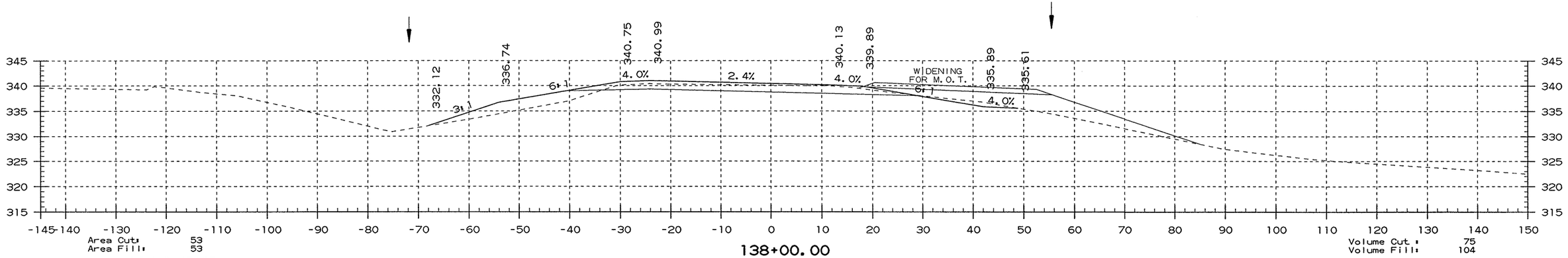
133+00.00

03-07-2005 RR60080.CRSI

HWY. 67/167 SOUTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	471	603

(2) CROSS SECTIONS

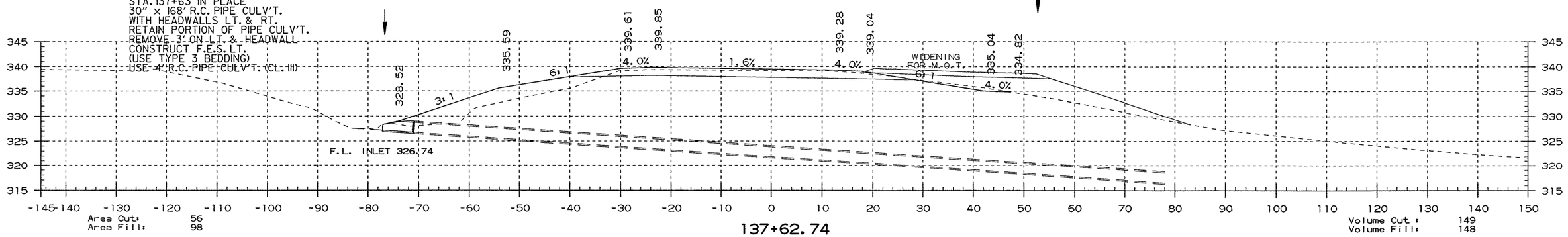


Area Cut: 53
Area Fill: 53

S.B. HWY. 67/167
STA. 137+63 IN PLACE
30" x 168' R.C. PIPE CULV'T.
WITH HEADWALLS LT. & RT.
RETAIN PORTION OF PIPE CULV'T.
REMOVE 3' ON LT. & HEADWALL
CONSTRUCT F.E.S. LT.
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T. (CL. III)

138+00.00

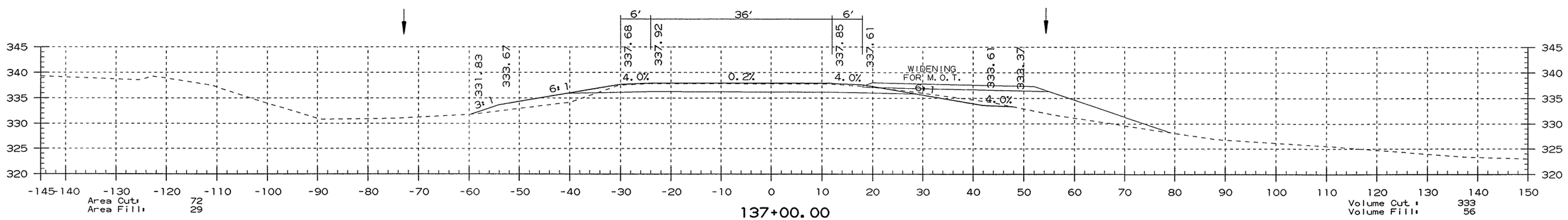
Volume Cut: 75
Volume Fill: 104



Area Cut: 56
Area Fill: 98

137+62.74

Volume Cut: 149
Volume Fill: 148



Area Cut: 72
Area Fill: 29

137+00.00

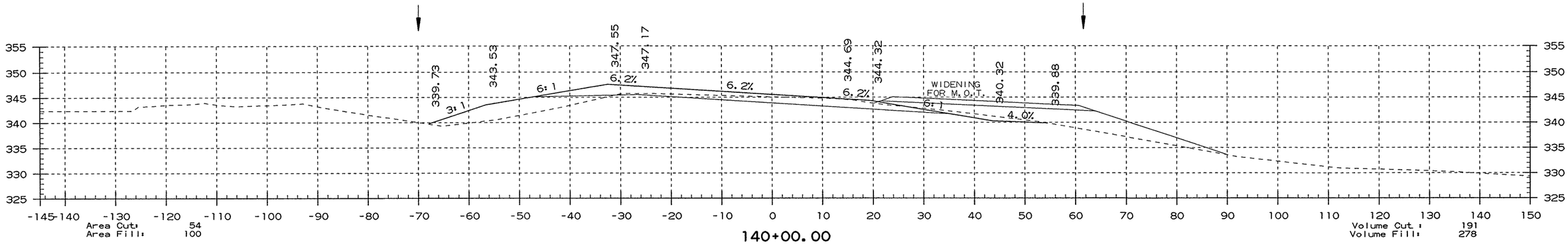
Volume Cut: 333
Volume Fill: 56

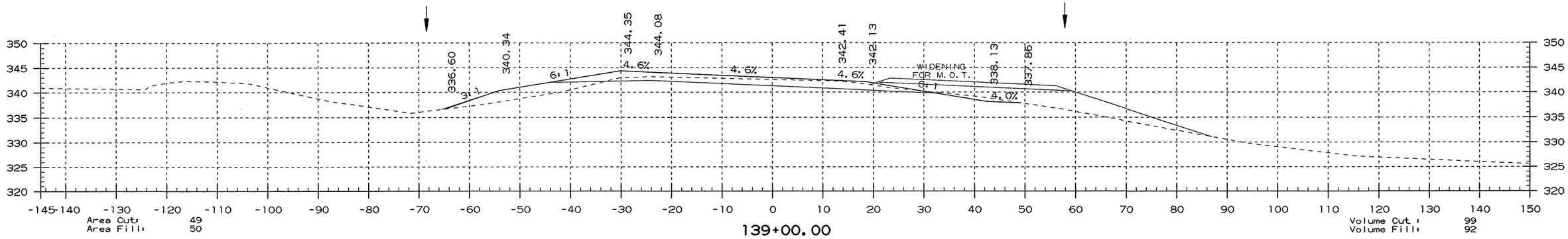
03-07-2005 RR60080.CRSI

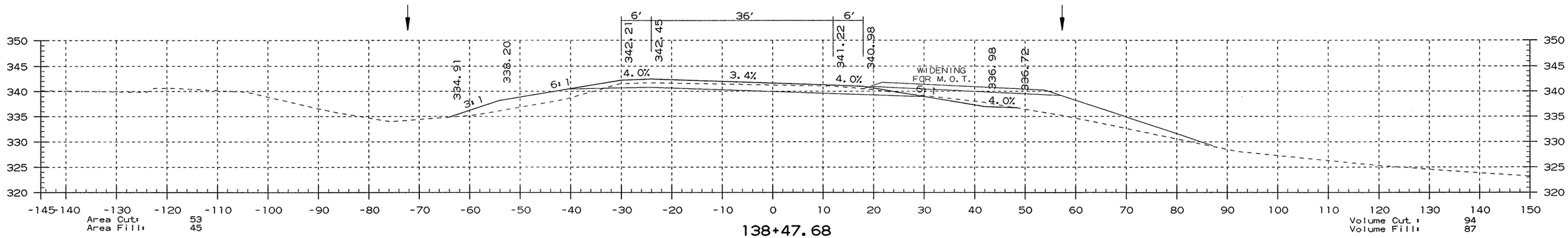
HWY. 67/167 SOUTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	472	609

(2) CROSS SECTIONS





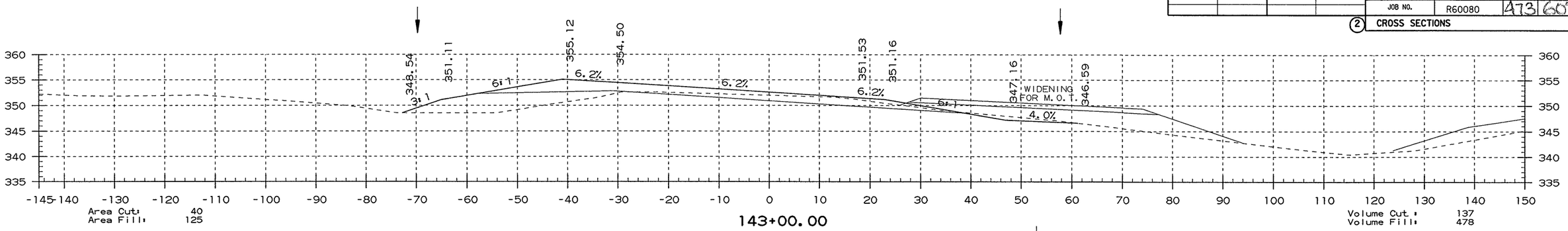


03-07-2005 RR60080.CRSI

HWY. 67/167 SOUTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	473	609

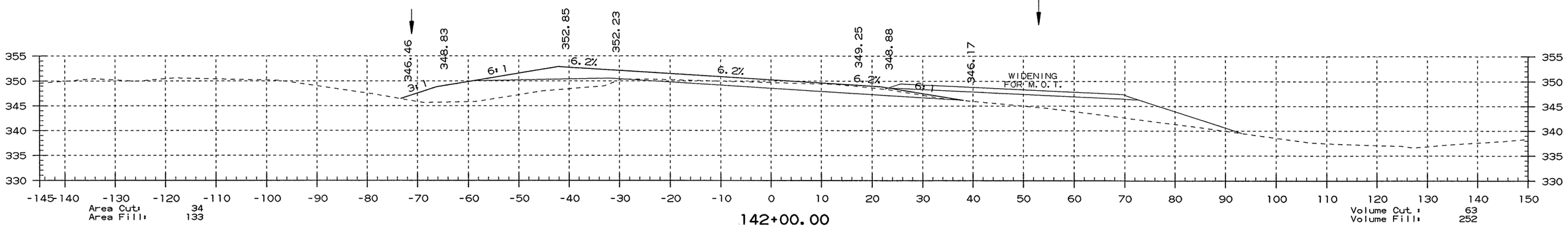
(2) CROSS SECTIONS



Area Cut: 40
Area Fill: 125

143+00.00

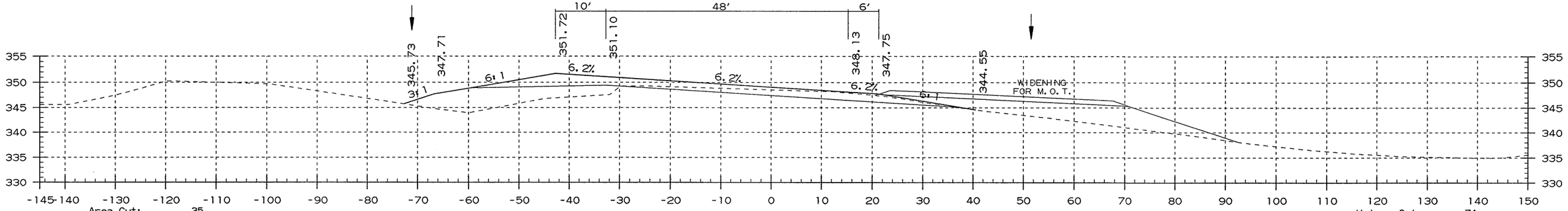
Volume Cut: 137
Volume Fill: 478



Area Cut: 34
Area Fill: 133

142+00.00

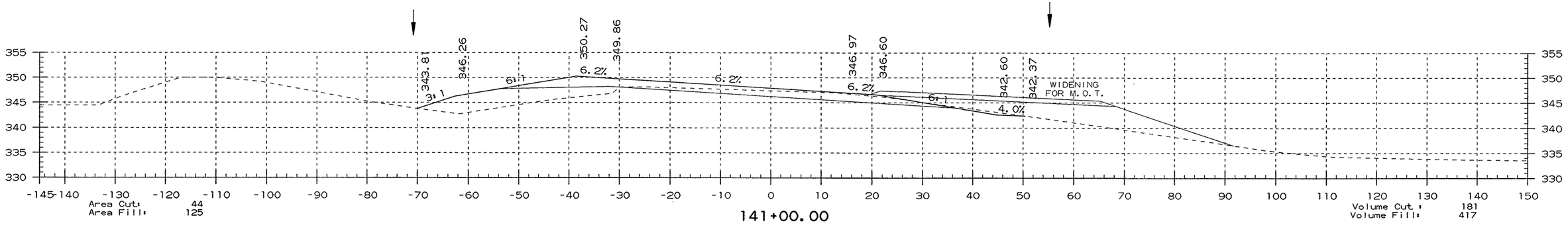
Volume Cut: 63
Volume Fill: 252



Area Cut: 35
Area Fill: 144

141+50.79

Volume Cut: 74
Volume Fill: 253



Area Cut: 44
Area Fill: 125

141+00.00

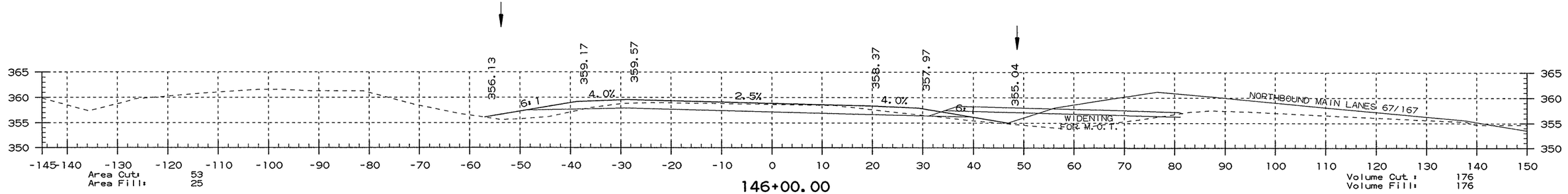
Volume Cut: 181
Volume Fill: 417

03-07-2005 RR60080.CRSI

HWY. 67/167 SOUTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	474	609

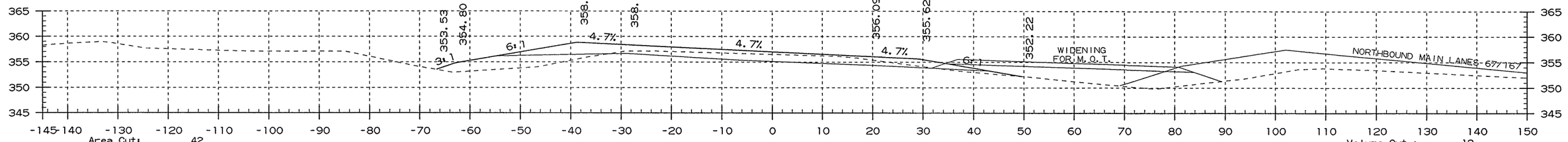
(2) CROSS SECTIONS



Area Cut: 53
Area Fill: 25

Volume Cut : 176
Volume Fill: 176

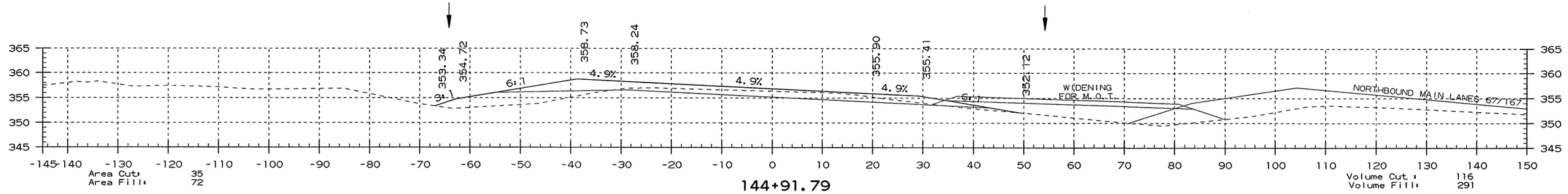
146+00.00



Area Cut: 42
Area Fill: 70

Volume Cut : 12
Volume Fill: 22

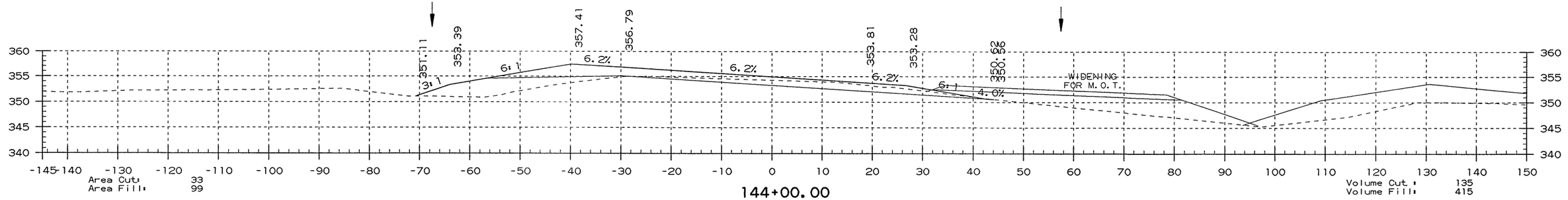
145+00.00



Area Cut: 35
Area Fill: 72

Volume Cut : 116
Volume Fill: 291

144+91.79



Area Cut: 33
Area Fill: 99

Volume Cut : 135
Volume Fill: 415

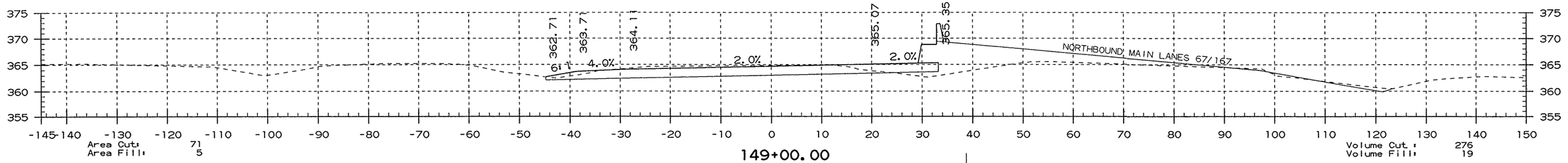
144+00.00

03-07-2005 RR60080.CRSI

HWY. 67/167 SOUTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	475	603

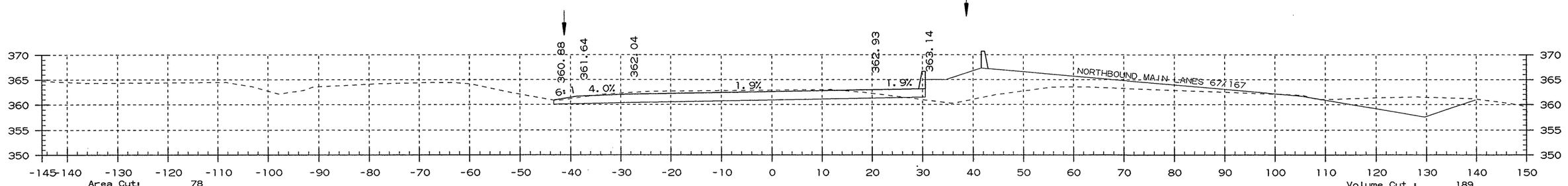
(2) CROSS SECTIONS



Area Cut: 71
Area Fill: 5

Volume Cut : 276
Volume Fill: 19

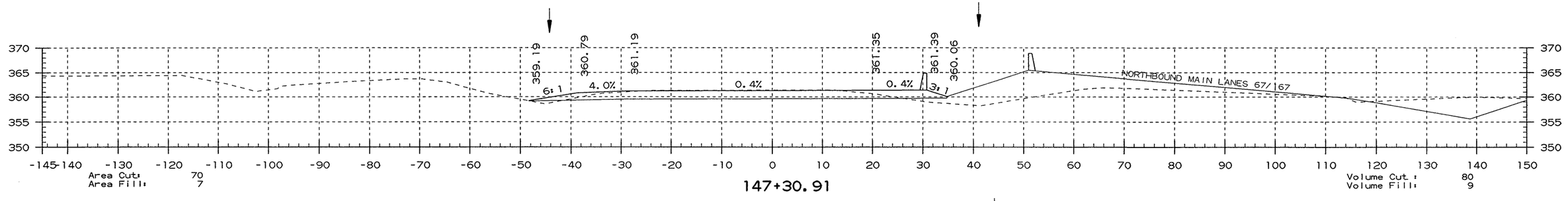
149+00.00



Area Cut: 78
Area Fill: 5

Volume Cut : 189
Volume Fill: 15

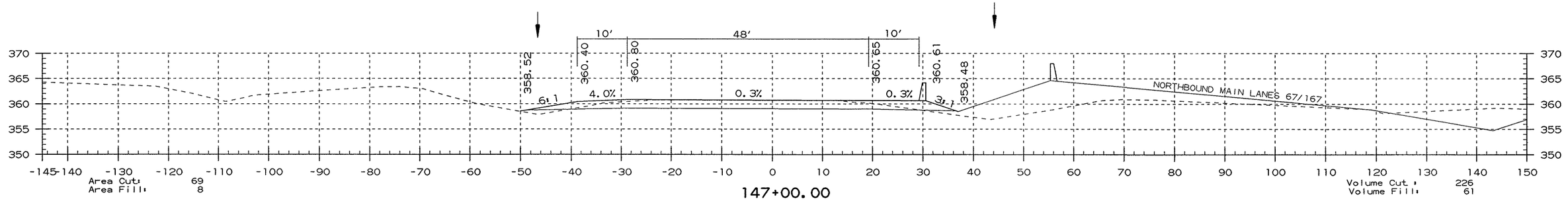
148+00.00



Area Cut: 70
Area Fill: 7

Volume Cut : 80
Volume Fill: 9

147+30.91



Area Cut: 69
Area Fill: 8

Volume Cut : 226
Volume Fill: 61

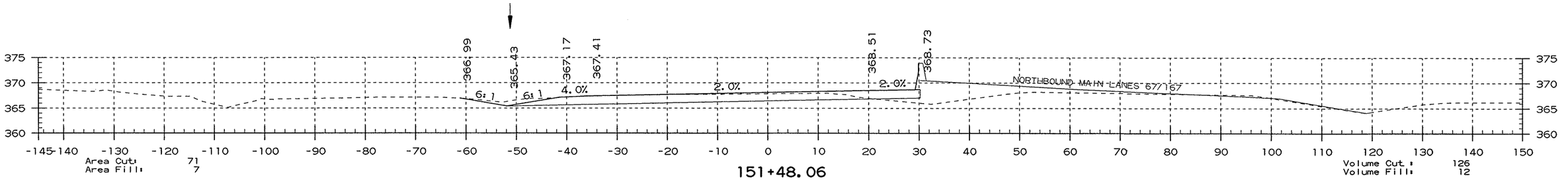
147+00.00

HWY. 67/167 SOUTHBOUND MAIN LANES

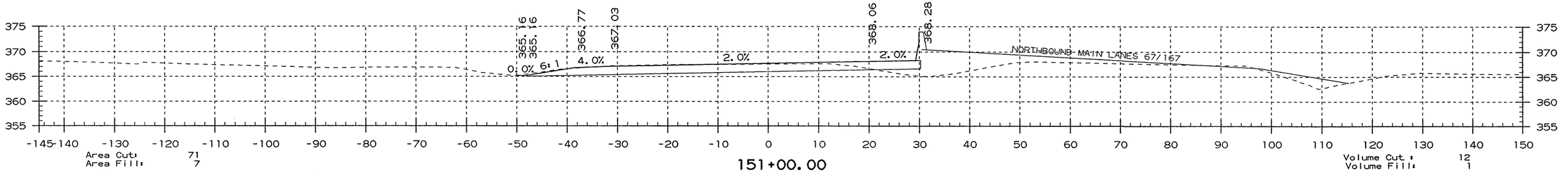
03-07-2005 RR60080.CRSI

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	476	605

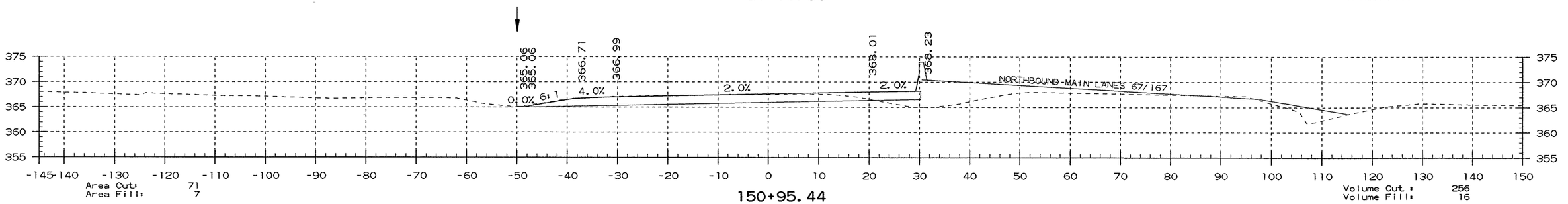
(2) CROSS SECTIONS



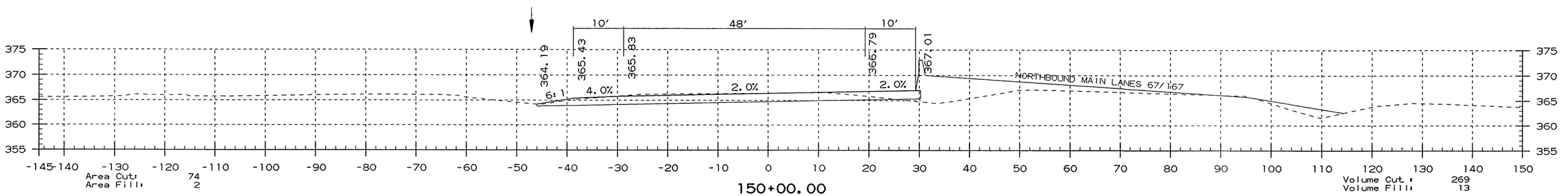
151+48.06



151+00.00



150+95.44



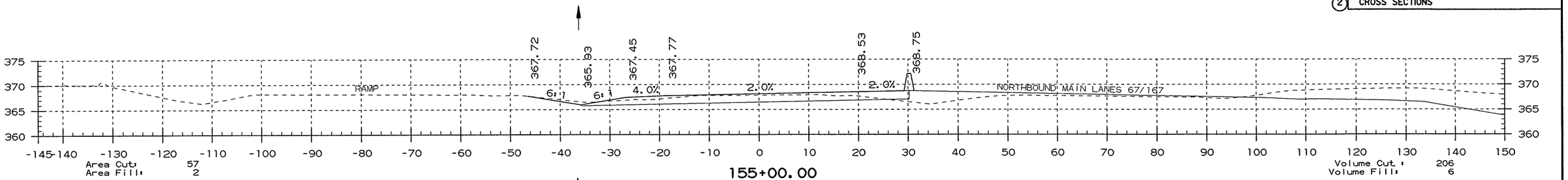
150+00.00

03-07-2005 RR60080.CRSI

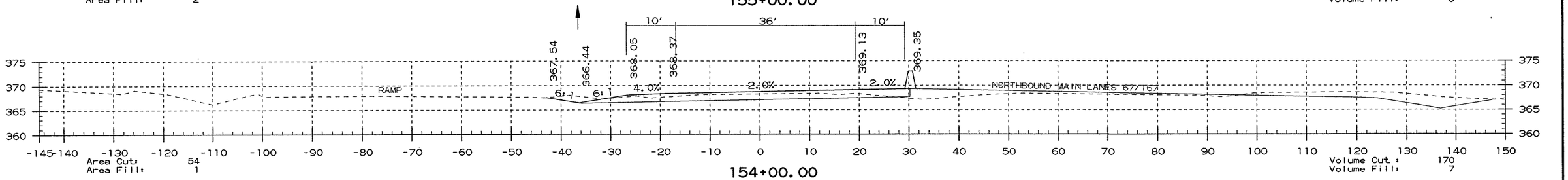
HWY. 67/167 SOUTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	47	69

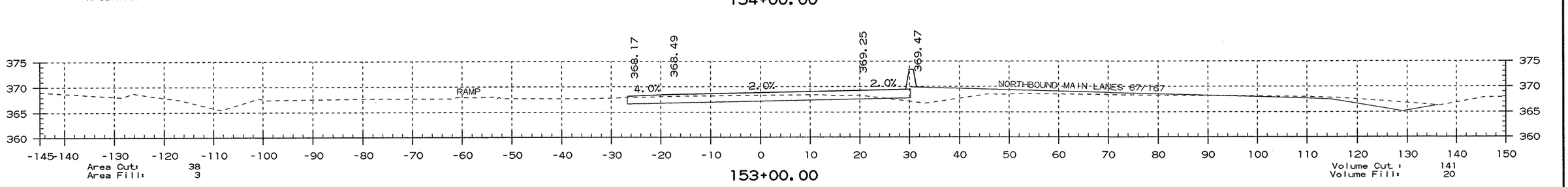
(2) CROSS SECTIONS



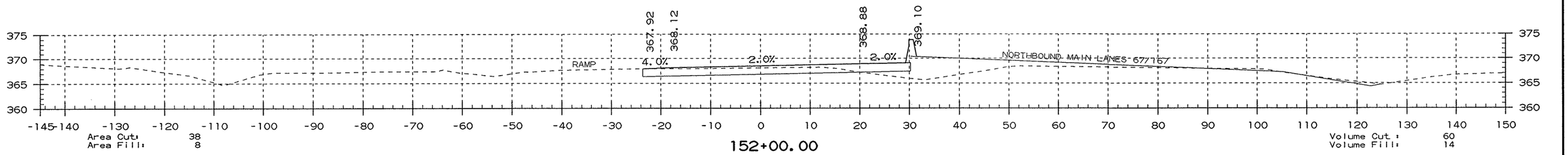
155+00.00



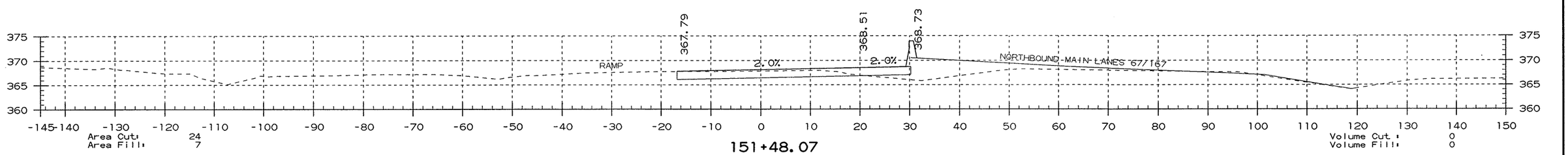
154+00.00



153+00.00



152+00.00



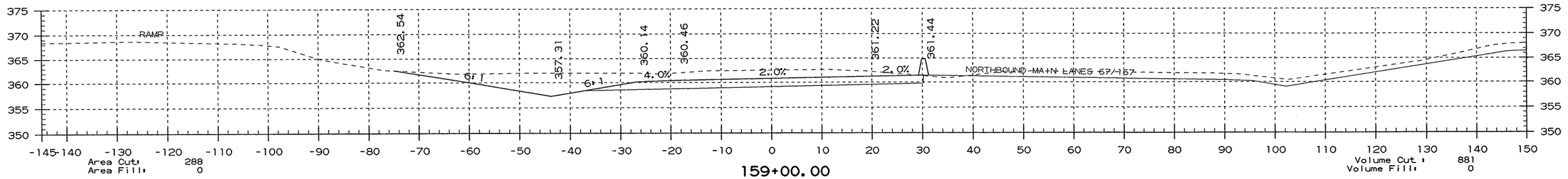
151+48.07

03-07-2005 RR60080.CRSI

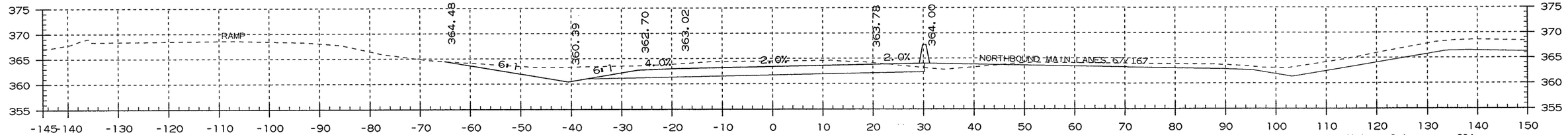
HWY. 67/167 SOUTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	18	609

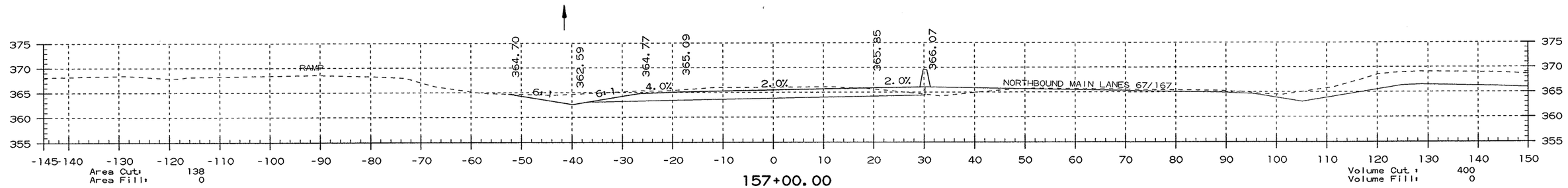
(2) CROSS SECTIONS



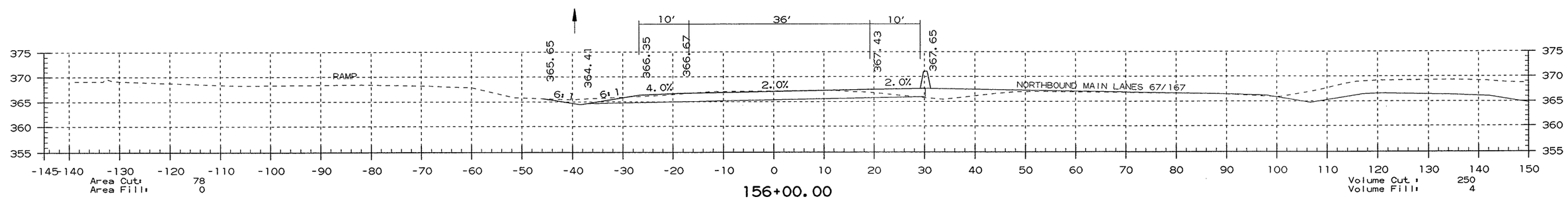
159+00.00



158+00.00



157+00.00



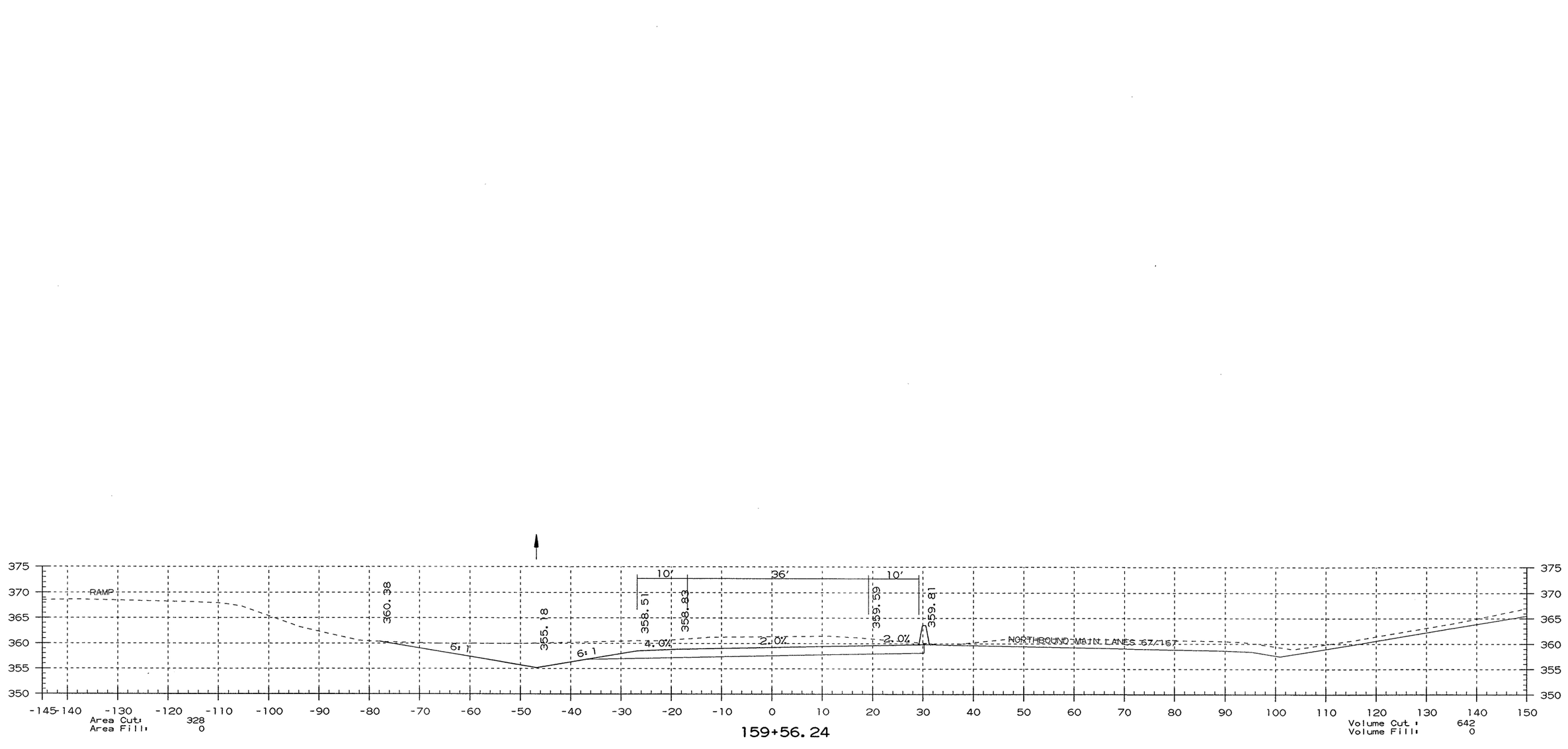
156+00.00

03-07-2005 RR60080.CRSI

HWY. 67/167 SOUTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	479	603

(2) CROSS SECTIONS



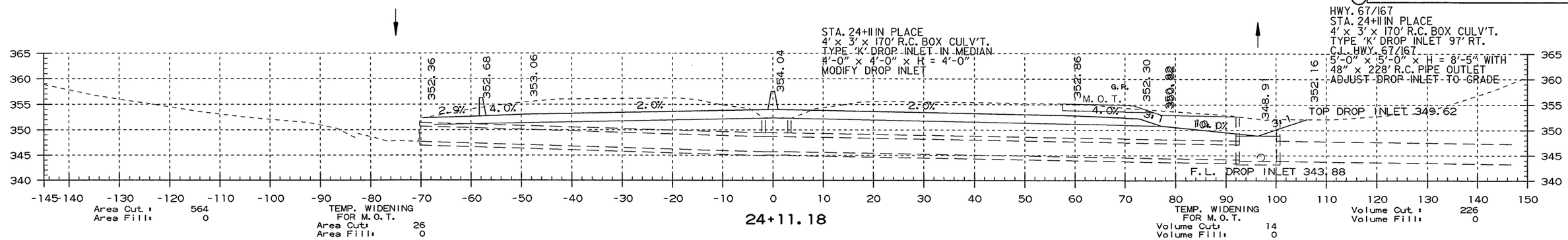
159+56.24

03-07-2005 RR60080.CRSI

HWY. 67/167 SOUTHBOUND MAIN LANES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	490	609

(2) CROSS SECTIONS

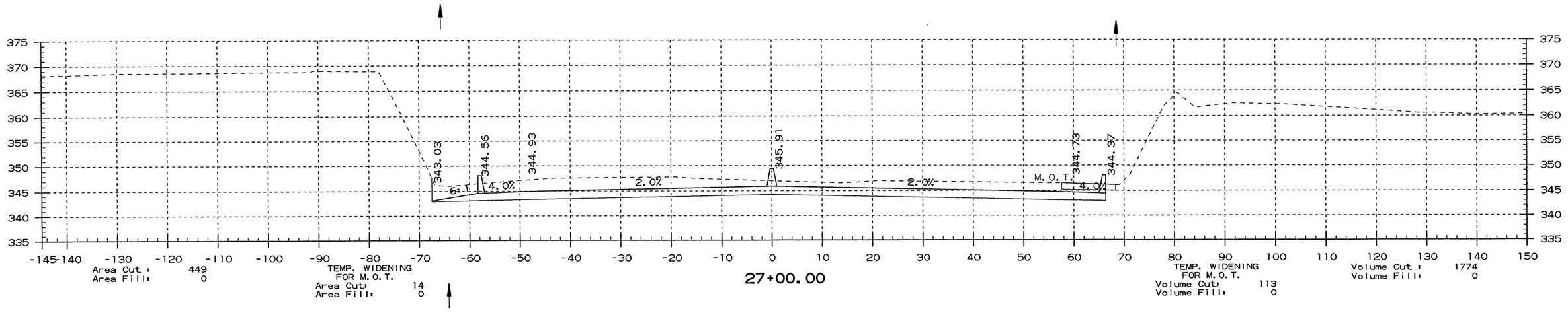


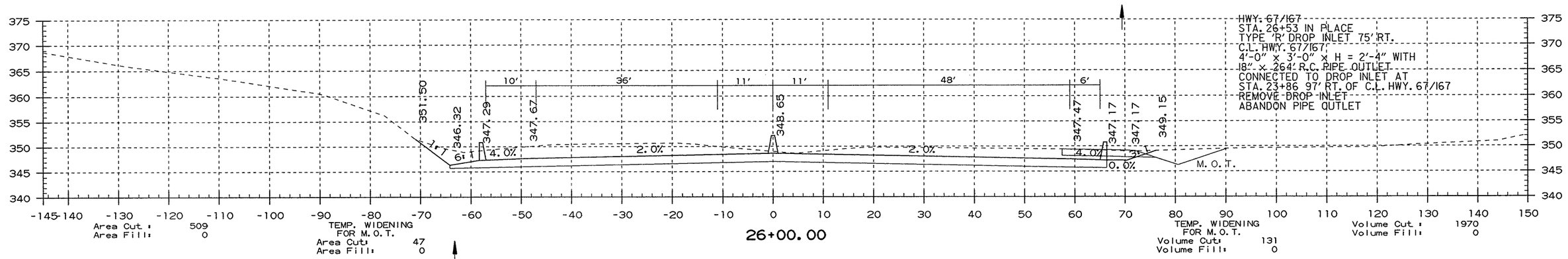
03-07-2005 RR60080.CRSI

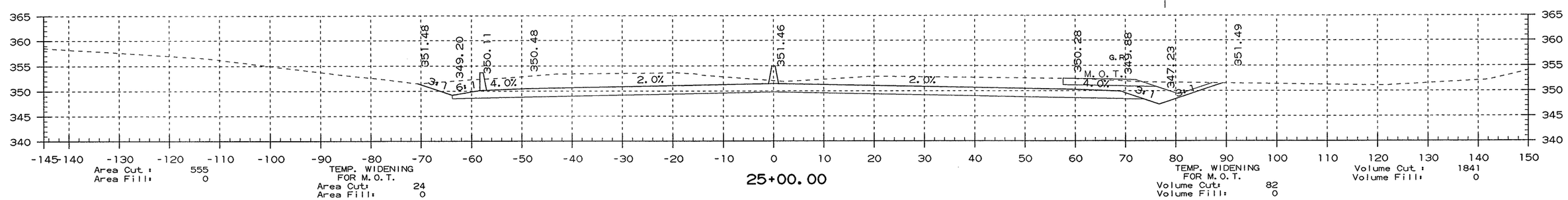
MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	481	609

(2) CROSS SECTIONS





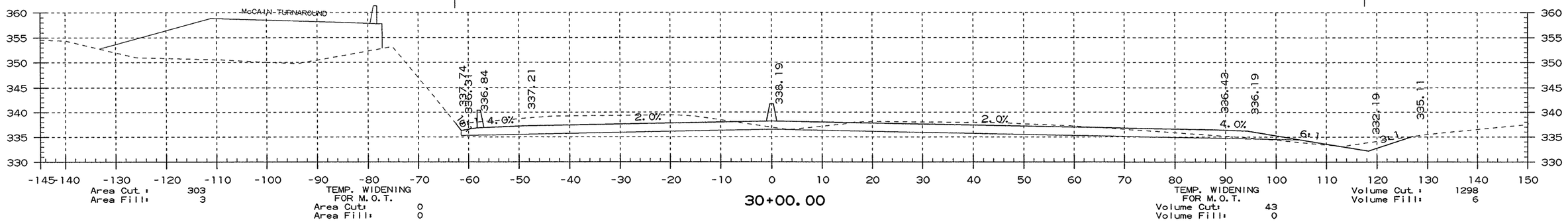


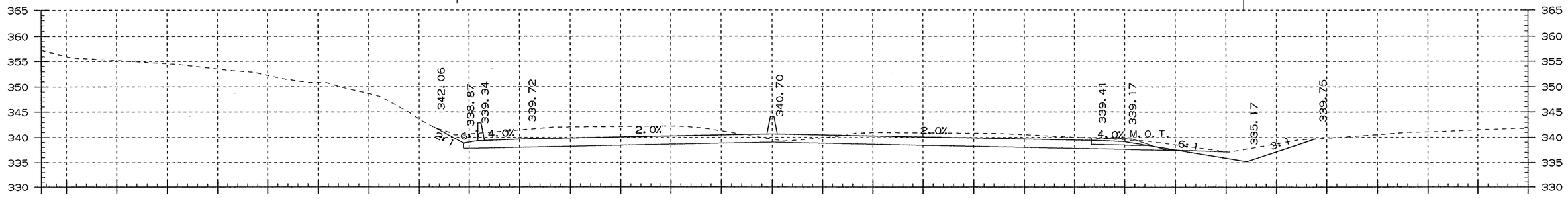
03-07-2005 RR60080.CRSI

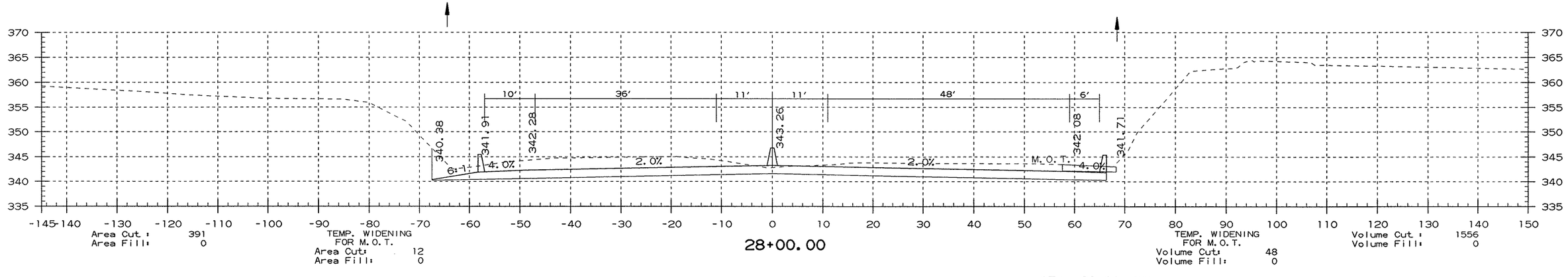
MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	482	609

(2) CROSS SECTIONS







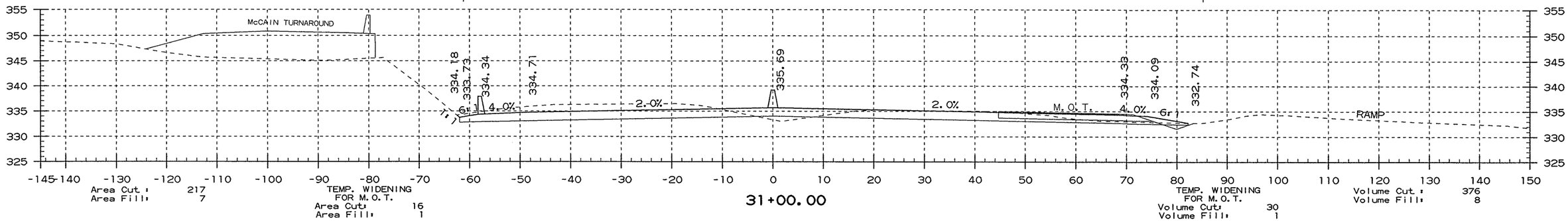
STA. 28+00 END
BARRIER WALL RT.

03-07-2005 RR60080.CRSI

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	183	609

(2) CROSS SECTIONS



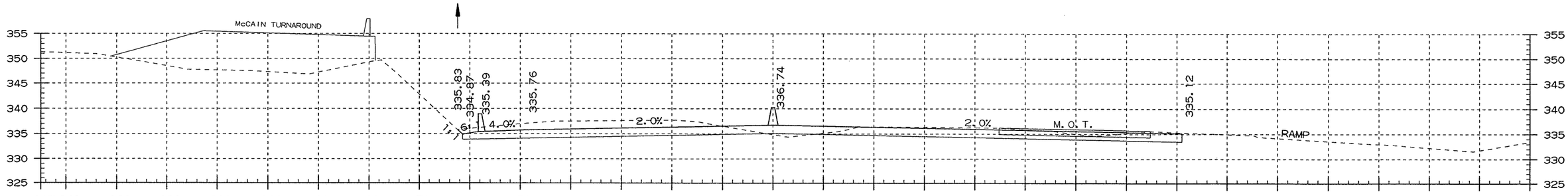
Area Cut : 217
Area Fill: 7

TEMP. WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 1

31+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 30
Volume Fill: 1

Volume Cut : 376
Volume Fill: 8



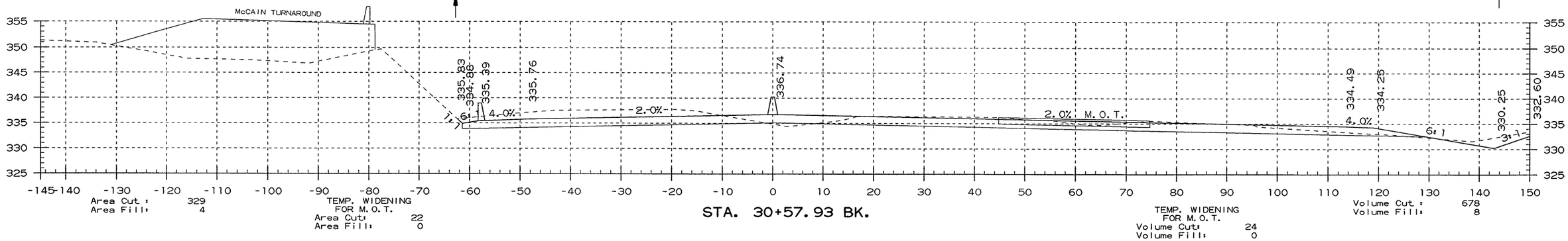
Area Cut : 266
Area Fill: 6

TEMP. WIDENING FOR M.O.T.
Area Cut: 22
Area Fill: 0

STA. 30+57.93 AHD.

TEMP. WIDENING FOR M.O.T.
Volume Cut: 0
Volume Fill: 0

Volume Cut : 0
Volume Fill: 0



Area Cut : 329
Area Fill: 4

TEMP. WIDENING FOR M.O.T.
Area Cut: 22
Area Fill: 0

STA. 30+57.93 BK.

TEMP. WIDENING FOR M.O.T.
Volume Cut: 24
Volume Fill: 0

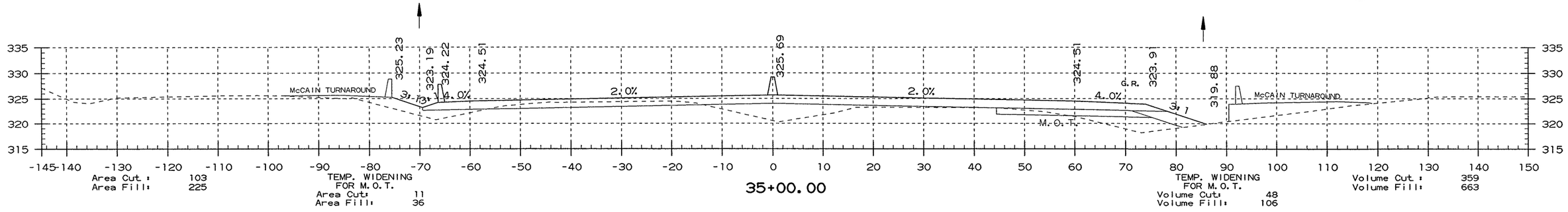
Volume Cut : 678
Volume Fill: 8

03-07-2005 RR60080.CRSI

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	484	609

(2) CROSS SECTIONS



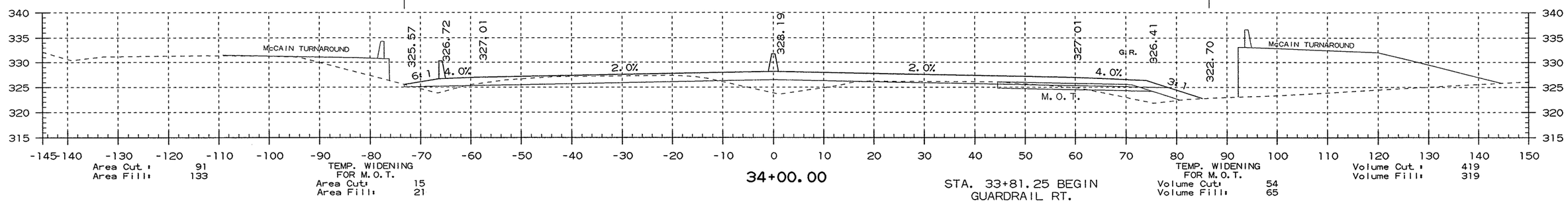
Area Cut : 103
Area Fill: 225

TEMP. WIDENING FOR M.O.T.
Area Cut: 11
Area Fill: 36

35+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 48
Volume Fill: 106

Volume Cut : 359
Volume Fill: 663



Area Cut : 91
Area Fill: 133

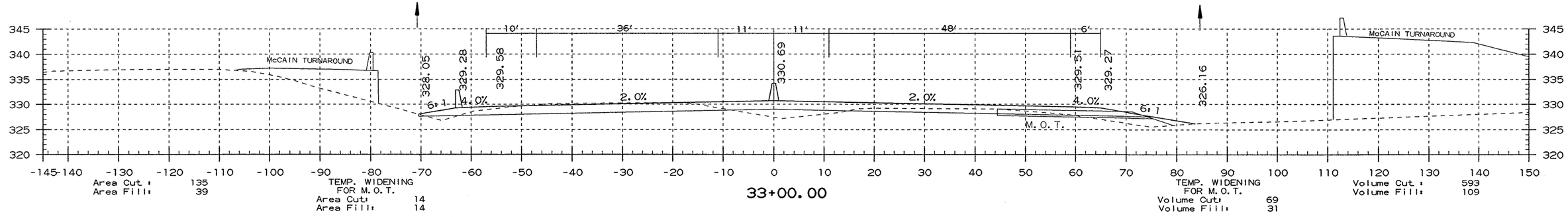
TEMP. WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 21

34+00.00

STA. 33+81.25 BEGIN GUARDRAIL RT.

TEMP. WIDENING FOR M.O.T.
Volume Cut: 54
Volume Fill: 65

Volume Cut : 419
Volume Fill: 319



10' 36' 11' 11' 48' 6'

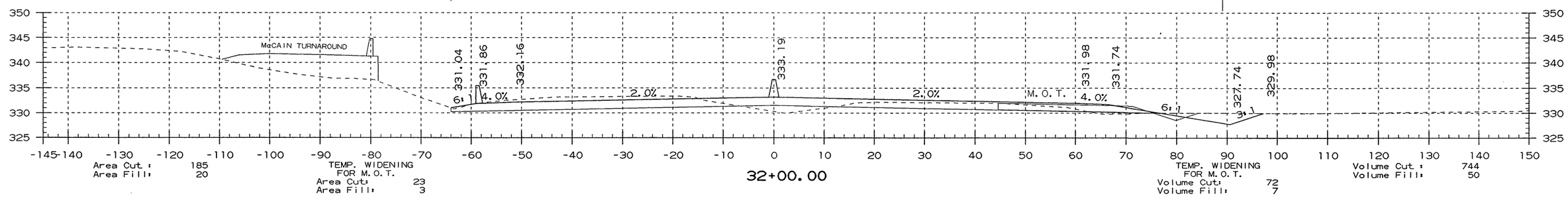
Area Cut : 135
Area Fill: 39

TEMP. WIDENING FOR M.O.T.
Area Cut: 14
Area Fill: 14

33+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 69
Volume Fill: 31

Volume Cut : 593
Volume Fill: 109



Area Cut : 185
Area Fill: 20

TEMP. WIDENING FOR M.O.T.
Area Cut: 23
Area Fill: 3

32+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 72
Volume Fill: 7

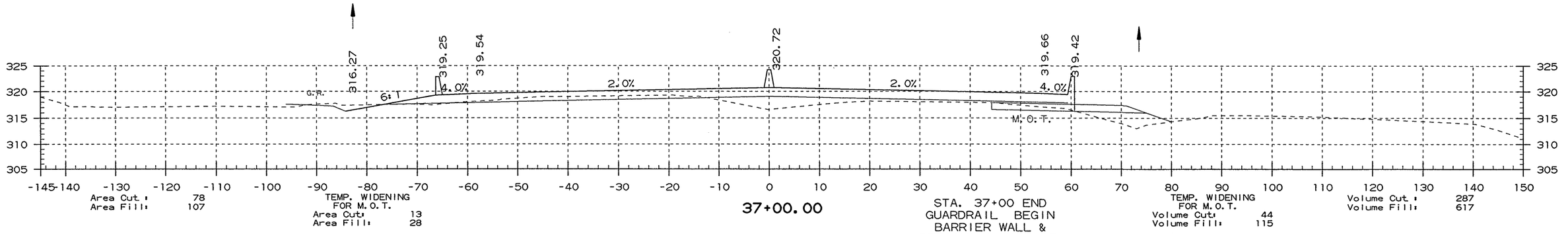
Volume Cut : 744
Volume Fill: 50

03-07-2005 RR60080.CRSI

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	495	609

(2) CROSS SECTIONS



Area Cut : 78
Area Fill: 107

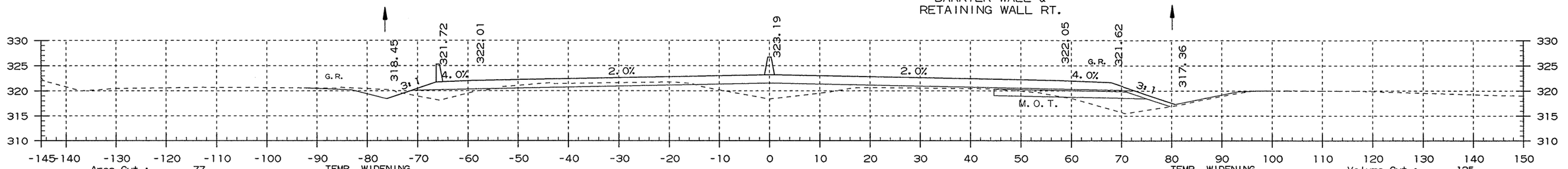
TEMP. WIDENING FOR M.O.T.
Area Cut: 13
Area Fill: 28

37+00.00

STA. 37+00 END GUARDRAIL BEGIN BARRIER WALL & RETAINING WALL RT.

TEMP. WIDENING FOR M.O.T.
Volume Cut: 44
Volume Fill: 115

Volume Cut : 287
Volume Fill: 617



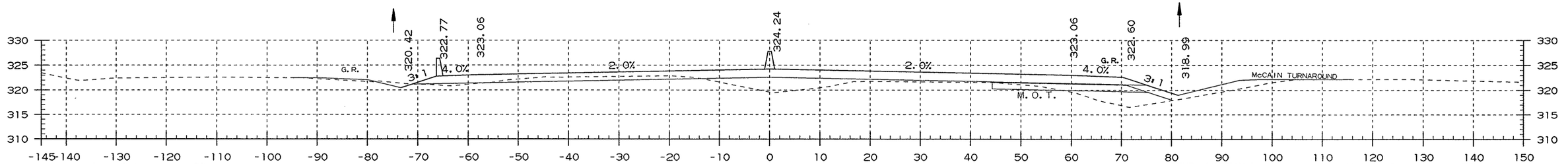
Area Cut : 77
Area Fill: 226

TEMP. WIDENING FOR M.O.T.
Area Cut: 11
Area Fill: 34

36+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 17
Volume Fill: 56

Volume Cut : 125
Volume Fill: 343



Area Cut : 83
Area Fill: 214

TEMP. WIDENING FOR M.O.T.
Area Cut: 11
Area Fill: 38

35+57.94

TEMP. WIDENING FOR M.O.T.
Volume Cut: 9
Volume Fill: 34

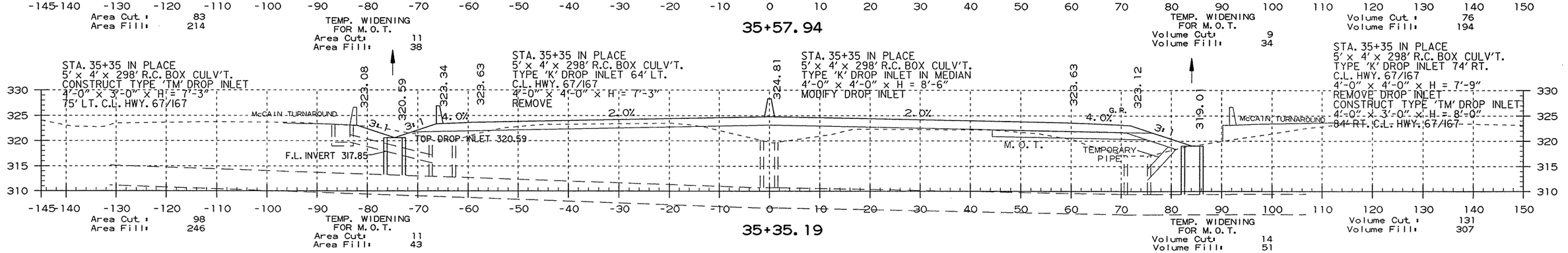
Volume Cut : 76
Volume Fill: 194

STA. 35+35 IN PLACE
5' x 4' x 298' R.C. BOX CULV'T.
CONSTRUCT TYPE 'TM' DROP INLET
4'-0" x 3'-0" x H = 7'-3"
75' LT. C.L. HWY. 67/167

STA. 35+35 IN PLACE
5' x 4' x 298' R.C. BOX CULV'T.
TYPE 'K' DROP INLET 64' LT.
C.L. HWY. 67/167
4'-0" x 4'-0" x H = 7'-3"
REMOVE

STA. 35+35 IN PLACE
5' x 4' x 298' R.C. BOX CULV'T.
TYPE 'K' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 8'-6"
MODIFY DROP INLET

STA. 35+35 IN PLACE
5' x 4' x 298' R.C. BOX CULV'T.
TYPE 'K' DROP INLET 74' RT.
C.L. HWY. 67/167
4'-0" x 4'-0" x H = 7'-9"
REMOVE DROP INLET
CONSTRUCT TYPE 'TM' DROP INLET
4'-0" x 3'-0" x H = 8'-0"
84' RT. C.L. HWY. 67/167



Area Cut : 98
Area Fill: 246

TEMP. WIDENING FOR M.O.T.
Area Cut: 11
Area Fill: 43

35+35.19

TEMP. WIDENING FOR M.O.T.
Volume Cut: 14
Volume Fill: 51

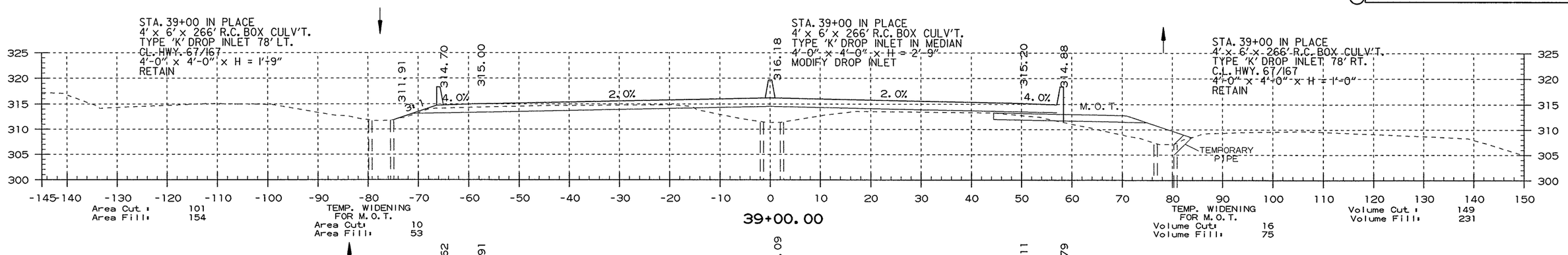
Volume Cut : 131
Volume Fill: 307

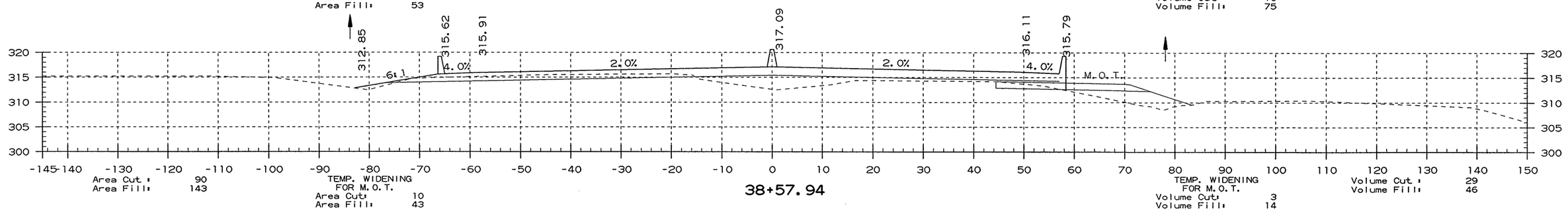
03-07-2005 RR60080.CRSI

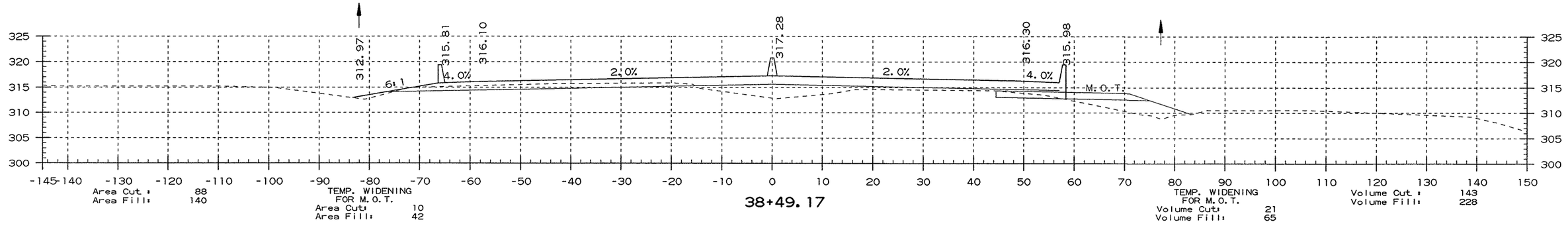
MAIN LANES HWY. 67/167

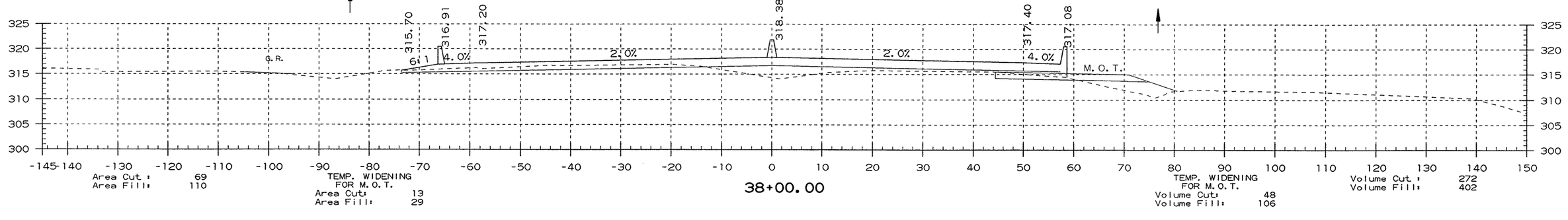
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	486	609

(2) CROSS SECTIONS







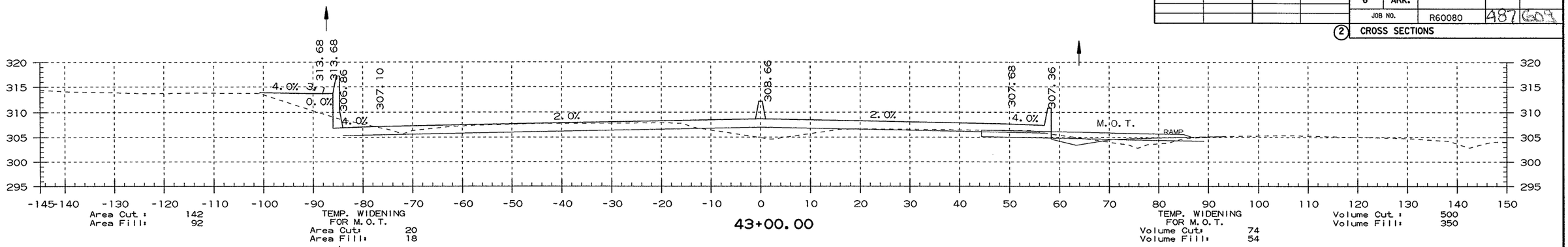


03-07-2005 RR60080.CRSI

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	487	609

(2) CROSS SECTIONS



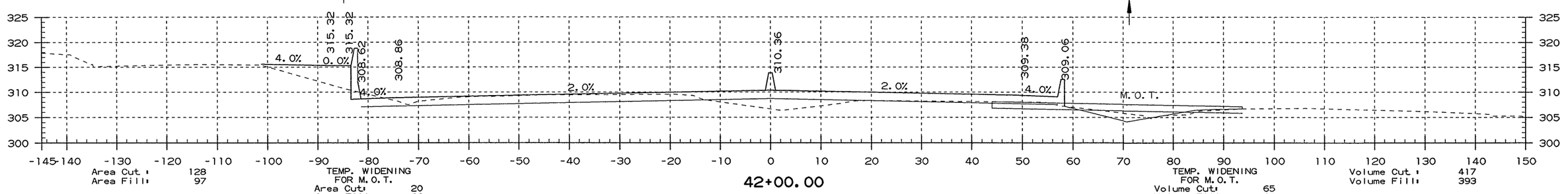
Area Cut : 142
Area Fill: 92

TEMP. WIDENING FOR M.O.T.
Area Cut: 20
Area Fill: 18

43+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 74
Volume Fill: 54

Volume Cut : 500
Volume Fill: 350



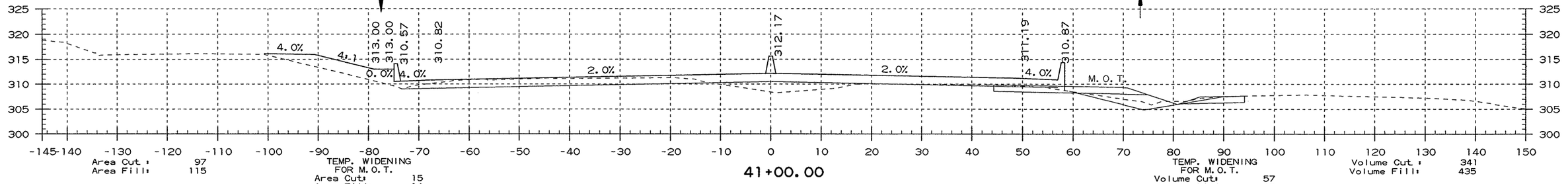
Area Cut : 128
Area Fill: 97

TEMP. WIDENING FOR M.O.T.
Area Cut: 20
Area Fill: 11

42+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 65
Volume Fill: 46

Volume Cut : 417
Volume Fill: 393



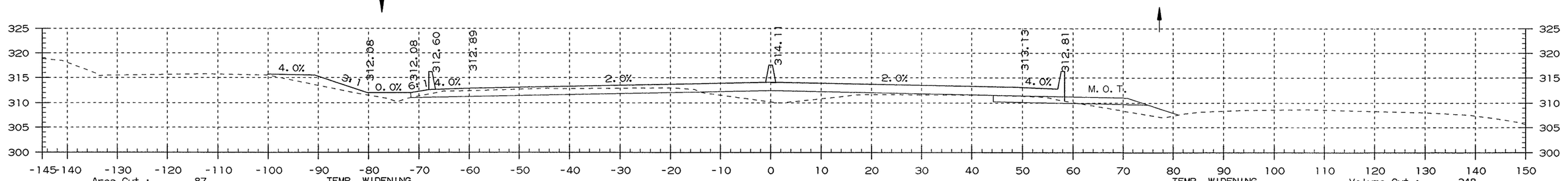
Area Cut : 97
Area Fill: 115

TEMP. WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 14

41+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 57
Volume Fill: 67

Volume Cut : 341
Volume Fill: 435



Area Cut : 87
Area Fill: 120

TEMP. WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 22

40+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 48
Volume Fill: 139

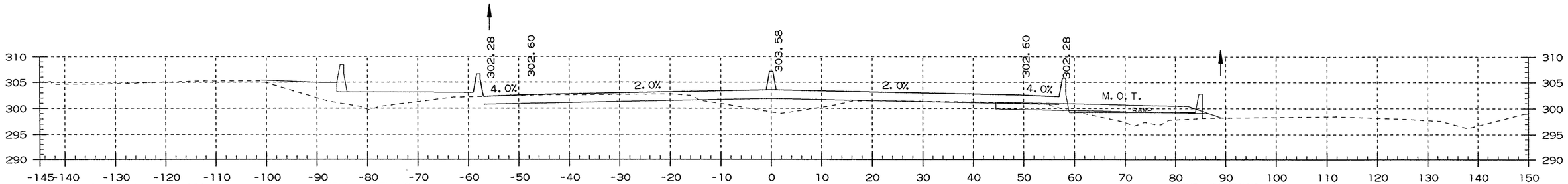
Volume Cut : 348
Volume Fill: 507

03-07-2005 RR60080.CRSI

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	138	603

(2) CROSS SECTIONS



Area Cut : 104
Area Fill: 101

TEMP. WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 38

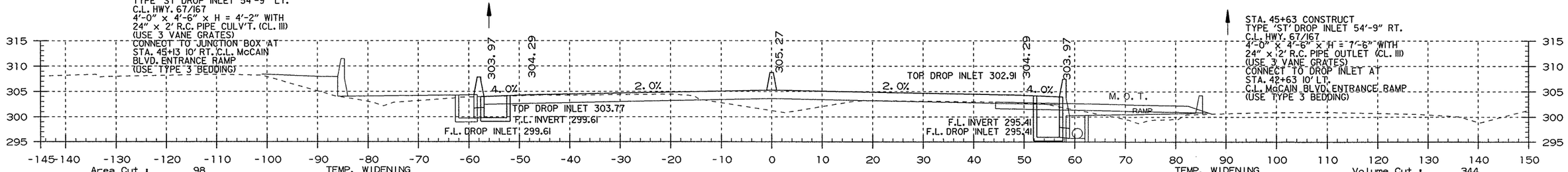
46+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 57
Volume Fill: 124

Volume Cut : 374
Volume Fill: 350

STA. 45+12 CONSTRUCT
TYPE 'ST' DROP INLET 54'-9" LT.
C.L. HWY. 67/167
4'-0" x 4'-6" x H = 4'-2" WITH
24" x 2' R.C. PIPE CULV'T. (CL. III)
(USE 3 VANE GRATES)
CONNECT TO JUNCTION BOX AT
STA. 45+13.10' RT. C.L. McCAIN
BLVD. ENTRANCE RAMP
(USE TYPE 3 BEDDING)

STA. 45+63 CONSTRUCT
TYPE 'ST' DROP INLET 54'-9" RT.
C.L. HWY. 67/167
4'-0" x 4'-6" x H = 7'-6" WITH
24" x 2' R.C. PIPE OUTLET (CL. III)
(USE 3 VANE GRATES)
CONNECT TO DROP INLET AT
STA. 42+63 10' LT.
C.L. McCAIN BLVD. ENTRANCE RAMP
(USE TYPE 3 BEDDING)



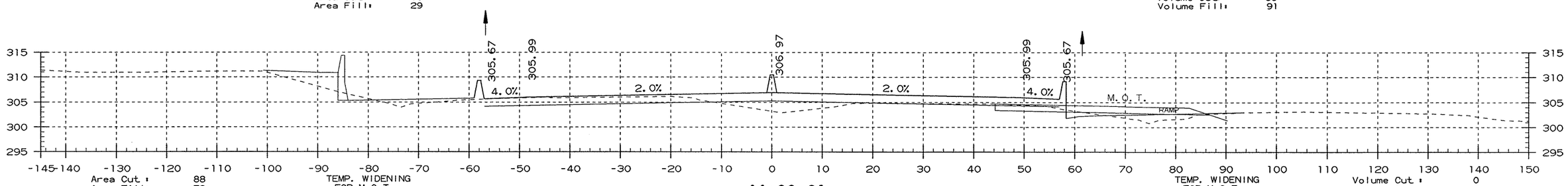
Area Cut : 98
Area Fill: 88

TEMP. WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 29

45+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 59
Volume Fill: 91

Volume Cut : 344
Volume Fill: 298



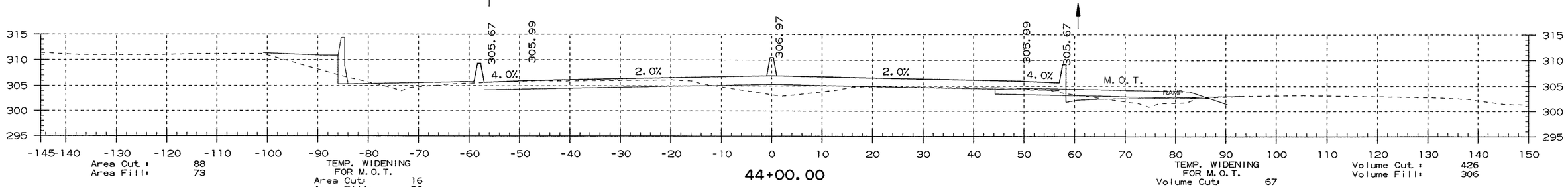
Area Cut : 88
Area Fill: 73

TEMP. WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 20

44+00.01

TEMP. WIDENING FOR M.O.T.
Volume Cut: 0
Volume Fill: 0

Volume Cut : 0
Volume Fill: 0



Area Cut : 88
Area Fill: 73

TEMP. WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 20

44+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 67
Volume Fill: 70

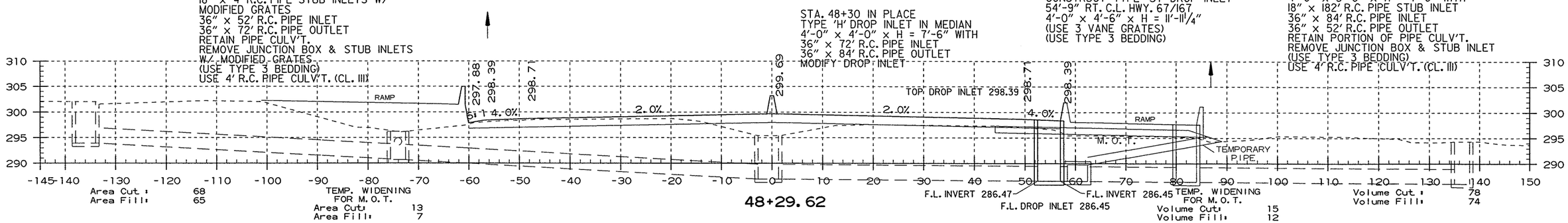
Volume Cut : 426
Volume Fill: 306

03-07-2005 RR60080.CRSI

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	483	609

(2) CROSS SECTIONS

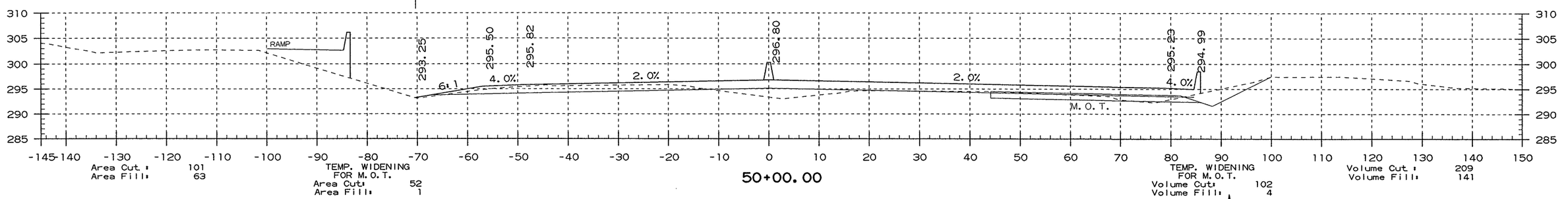


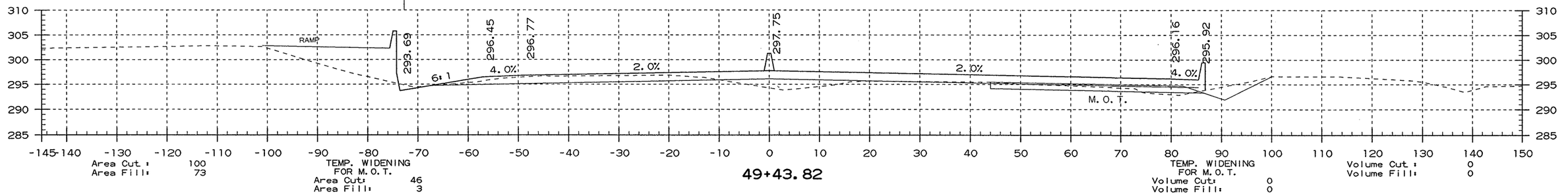
03-07-2005 RR60080.CRSI

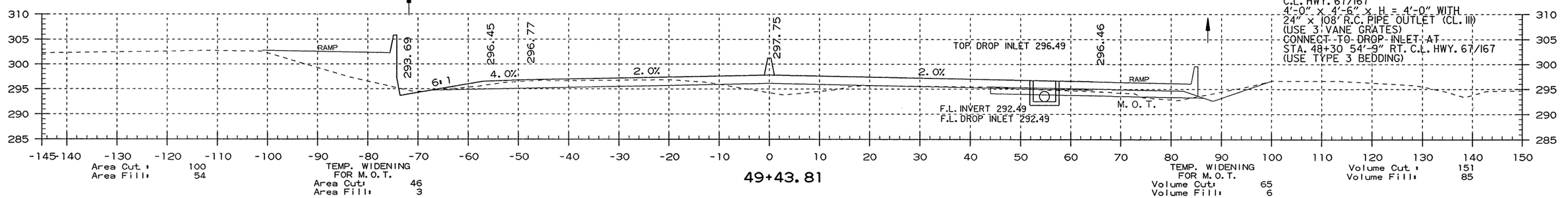
MAIN LANES HWY. 67/167

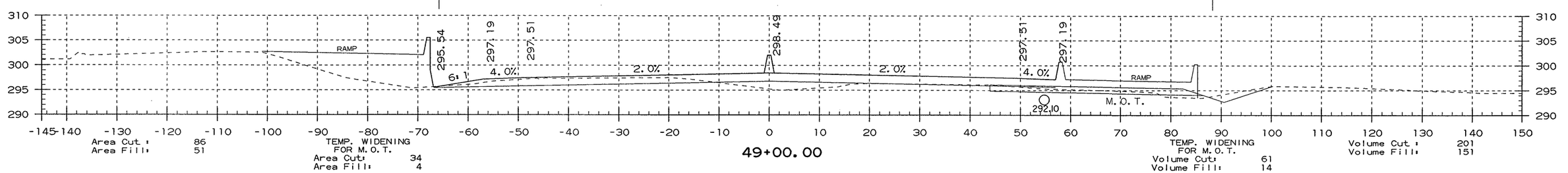
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R60080		43	60

(2) CROSS SECTIONS







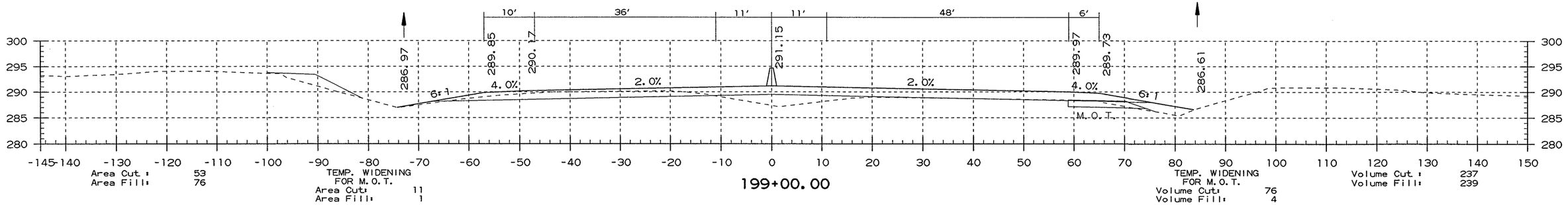


03-07-2005 RR60080.CRSI

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	491	609

(2) CROSS SECTIONS



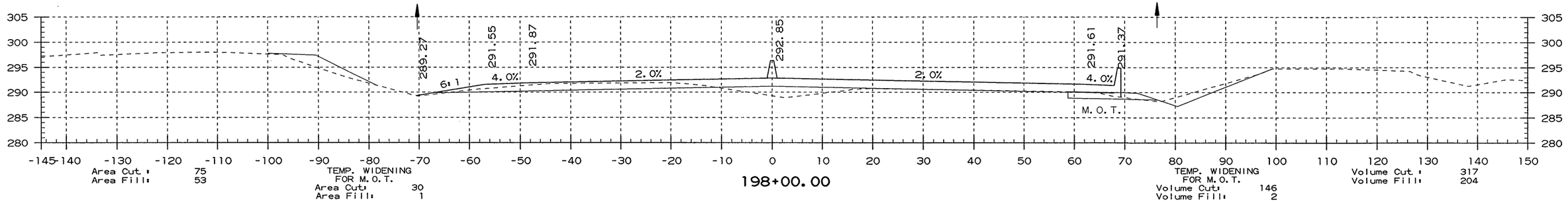
Area Cut : 53
Area Fill: 76

TEMP. WIDENING FOR M.O.T.
Area Cut: 11
Area Fill: 1

199+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 76
Volume Fill: 4

Volume Cut : 237
Volume Fill: 239



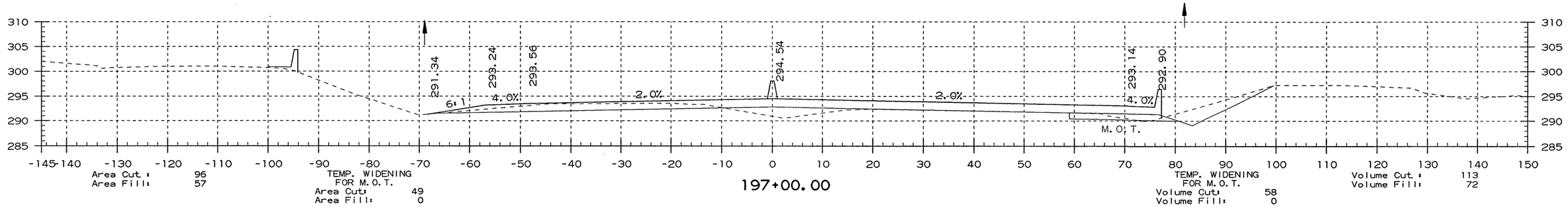
Area Cut : 75
Area Fill: 53

TEMP. WIDENING FOR M.O.T.
Area Cut: 30
Area Fill: 1

198+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 146
Volume Fill: 2

Volume Cut : 317
Volume Fill: 204



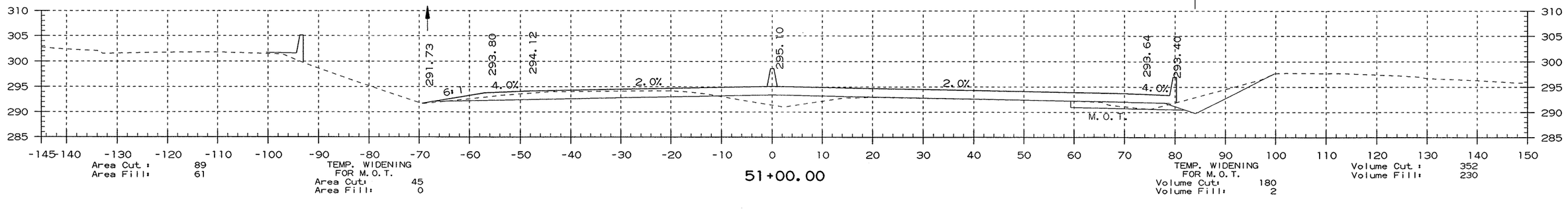
Area Cut : 96
Area Fill: 57

TEMP. WIDENING FOR M.O.T.
Area Cut: 49
Area Fill: 0

197+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 58
Volume Fill: 0

Volume Cut : 113
Volume Fill: 72



Area Cut : 89
Area Fill: 61

TEMP. WIDENING FOR M.O.T.
Area Cut: 45
Area Fill: 0

51+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 180
Volume Fill: 2

Volume Cut : 352
Volume Fill: 230

03-07-2005 RR60080.CRSI

MAIN LANES HWY. 67/167

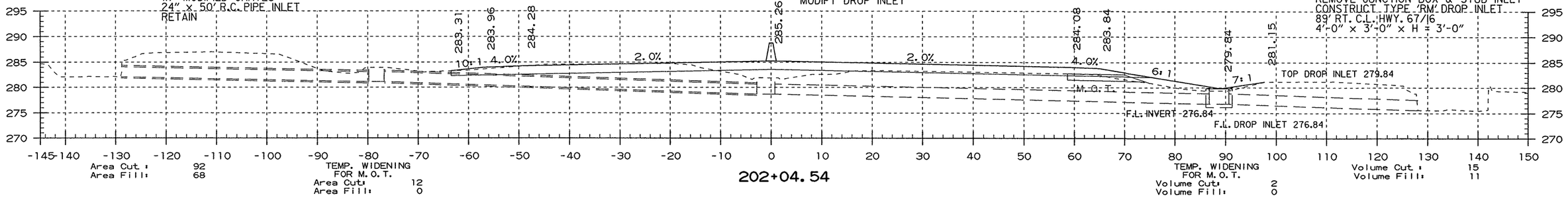
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	192	603

(2) CROSS SECTIONS

STA. 202+05 IN PLACE
TYPE 'E' JUNCTION BOX 78' LT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
24" x 50' R.C. PIPE INLET
RETAIN

STA. 202+05 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
24" x 74' R.C. PIPE INLET
24" x 86' R.C. PIPE OUTLET
MODIFY DROP INLET

STA. 202+05 IN PLACE
TYPE 'E' JUNCTION BOX 88' RT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
24" x 38' R.C. PIPE OUTLET
REMOVE JUNCTION BOX & STUB INLET
CONSTRUCT TYPE 'RM' DROP INLET
89' RT. C.L. HWY. 67/16
4'-0" x 3'-0" x H = 3'-0"



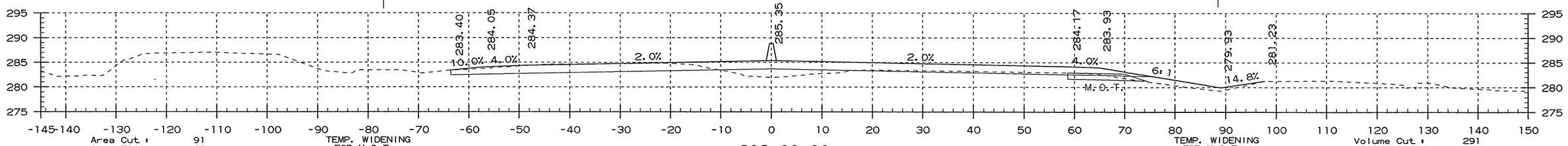
Area Cut : 92
Area Fill: 68

TEMP. WIDENING FOR M.O.T.
Area Cut: 12
Area Fill: 0

202+04.54

TEMP. WIDENING FOR M.O.T.
Volume Cut: 2
Volume Fill: 0

Volume Cut : 15
Volume Fill: 11



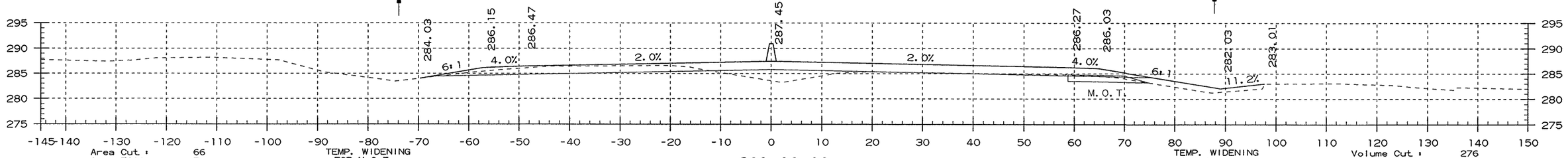
Area Cut : 91
Area Fill: 65

TEMP. WIDENING FOR M.O.T.
Area Cut: 12
Area Fill: 0

202+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 48
Volume Fill: 0

Volume Cut : 291
Volume Fill: 265



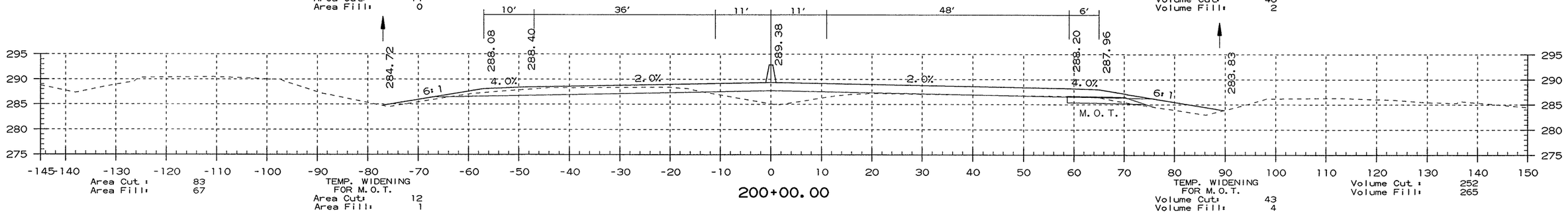
Area Cut : 66
Area Fill: 78

TEMP. WIDENING FOR M.O.T.
Area Cut: 14
Area Fill: 0

201+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 48
Volume Fill: 2

Volume Cut : 276
Volume Fill: 269



Area Cut : 83
Area Fill: 67

TEMP. WIDENING FOR M.O.T.
Area Cut: 12
Area Fill: 1

200+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 43
Volume Fill: 4

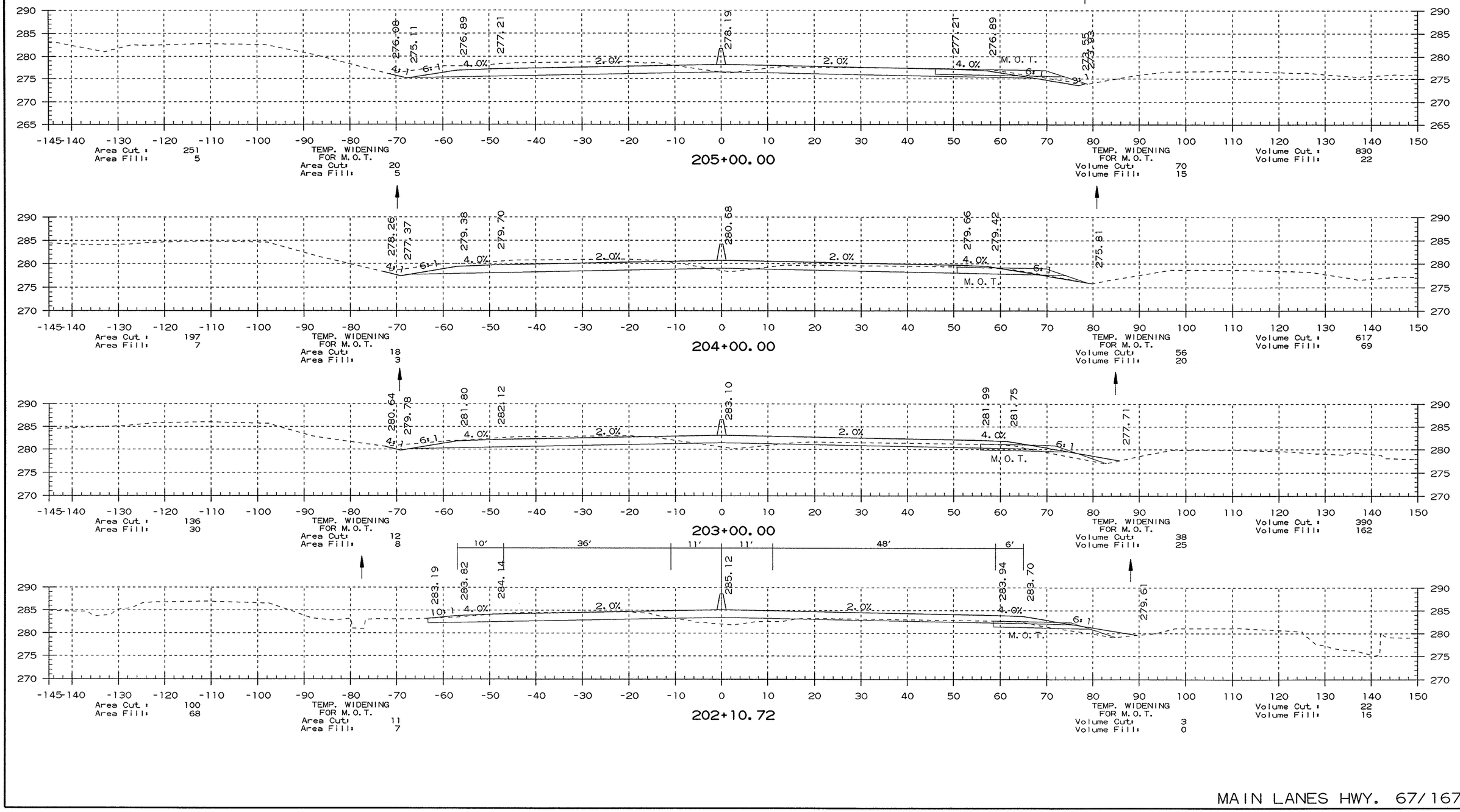
Volume Cut : 252
Volume Fill: 265

03-07-2005 RR60080.CRSI

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	193	609

(2) CROSS SECTIONS

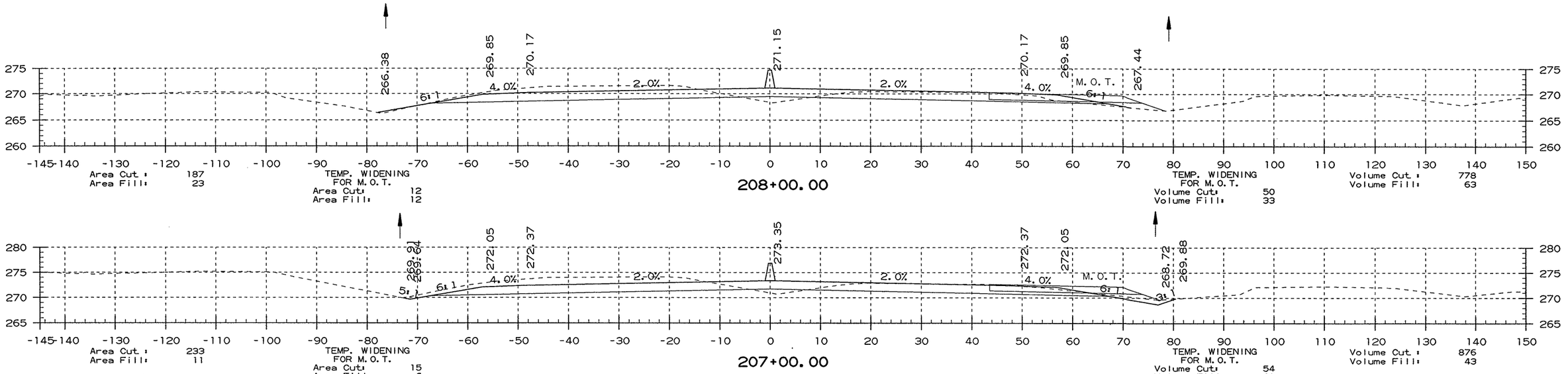


03-07-2005 RR60080.CRSI

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		

(2) CROSS SECTIONS



Area Cut : 187
Area Fill: 23

TEMP. WIDENING FOR M.O.T.
Area Cut: 12
Area Fill: 12

208+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 50
Volume Fill: 33

Volume Cut : 778
Volume Fill: 63

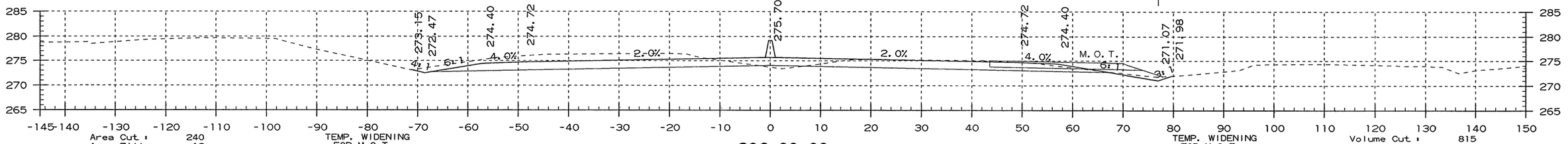
Area Cut : 233
Area Fill: 11

TEMP. WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 6

207+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 54
Volume Fill: 28

Volume Cut : 876
Volume Fill: 43



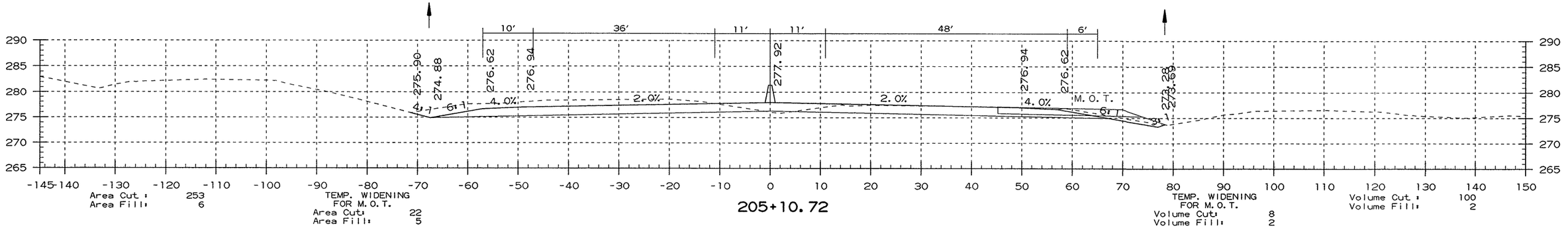
Area Cut : 240
Area Fill: 12

TEMP. WIDENING FOR M.O.T.
Area Cut: 14
Area Fill: 9

206+00.00

TEMP. WIDENING FOR M.O.T.
Volume Cut: 60
Volume Fill: 23

Volume Cut : 815
Volume Fill: 30



Area Cut : 253
Area Fill: 6

TEMP. WIDENING FOR M.O.T.
Area Cut: 22
Area Fill: 5

205+10.72

TEMP. WIDENING FOR M.O.T.
Volume Cut: 8
Volume Fill: 2

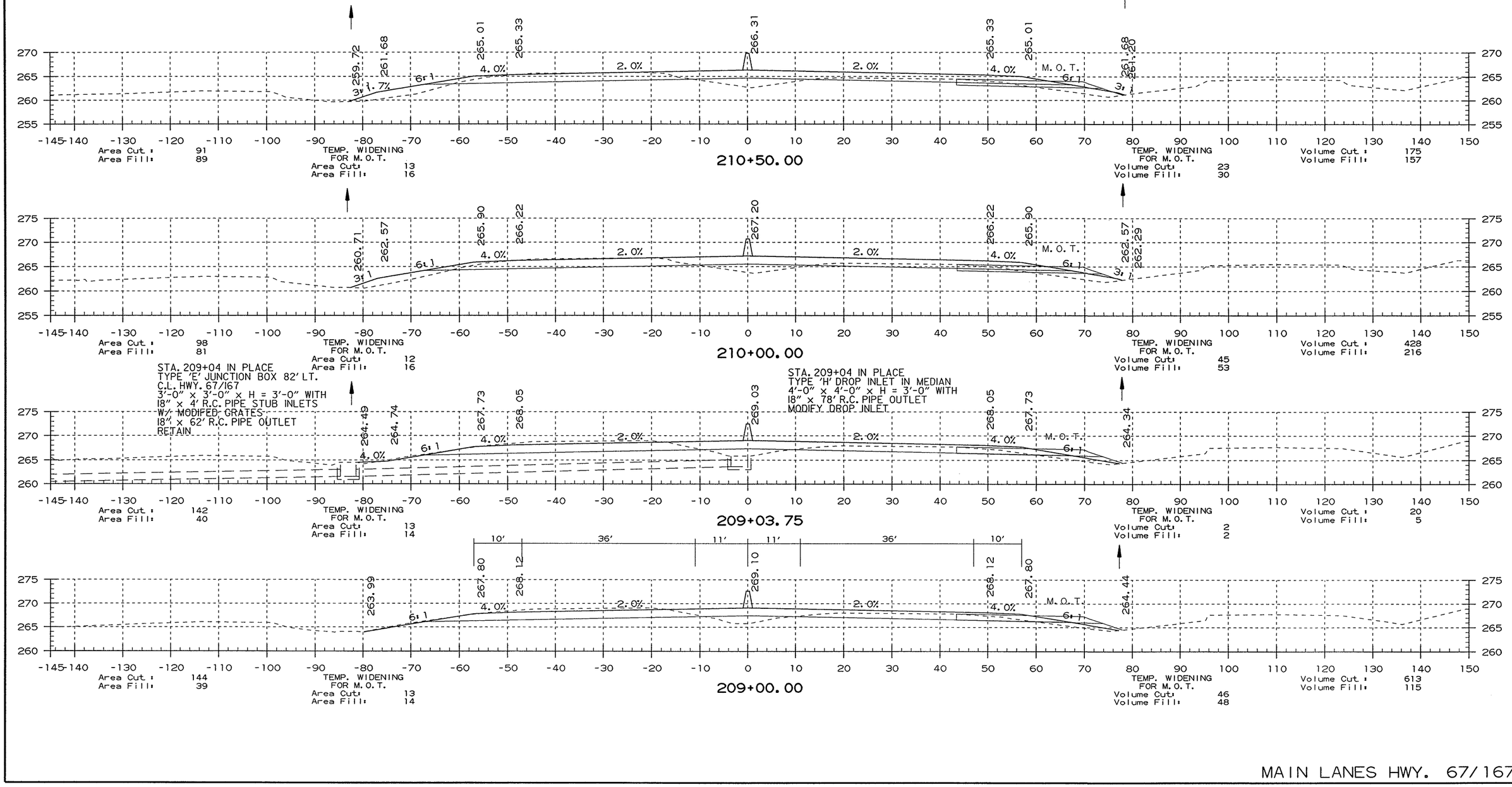
Volume Cut : 100
Volume Fill: 2

03-07-2005 RR60080.CRSI

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	15	16

(2) CROSS SECTIONS

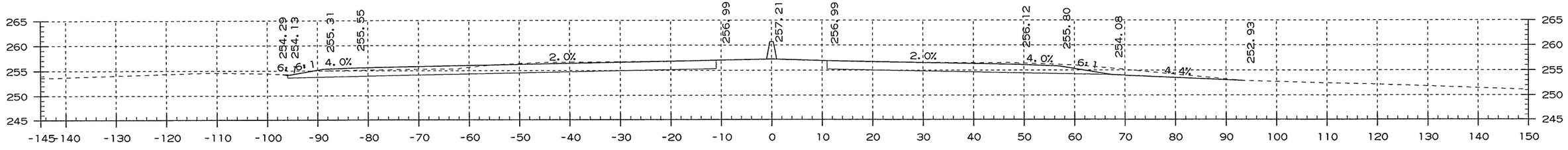


03-07-2005 RR60080.CRSI

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	496	609

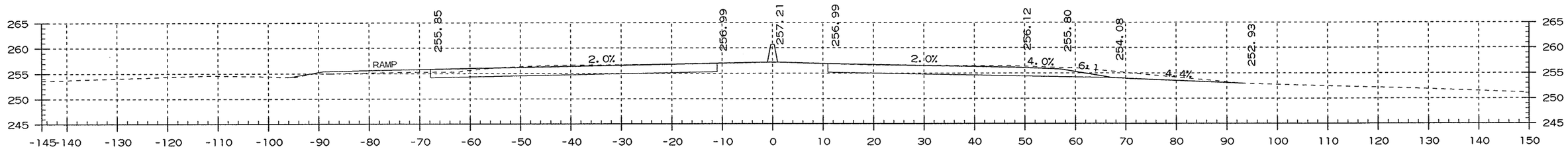
(2) CROSS SECTIONS



Area Cut : 247
Area Fill: 0

NOSE STA. 297+53.48 AHD.

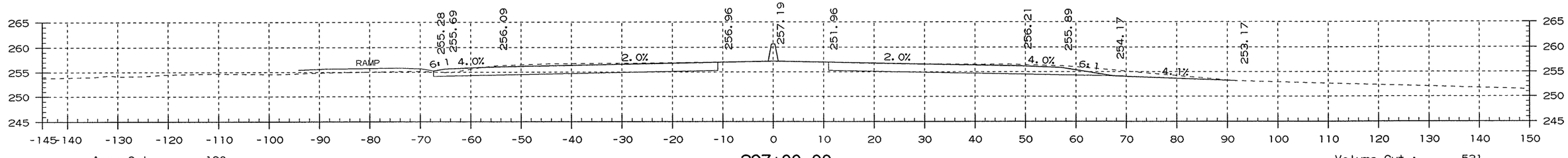
Volume Cut : 0
Volume Fill: 0



Area Cut : 214
Area Fill: 0

NOSE STA. 297+53.47 BK.

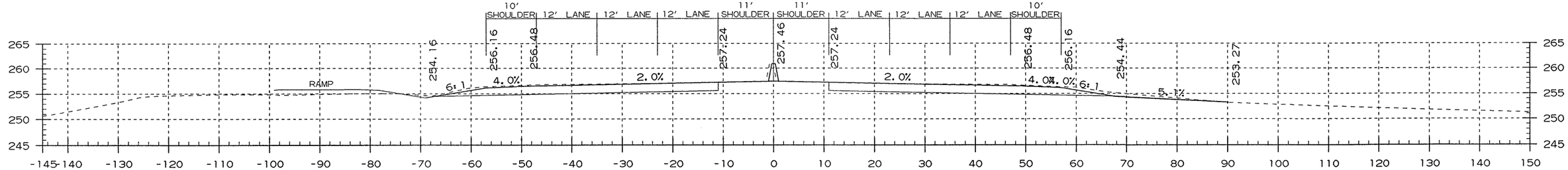
Volume Cut : 400
Volume Fill: 0



Area Cut : 190
Area Fill: 0

297+00.00

Volume Cut : 531
Volume Fill: 1



Area Cut : 178
Area Fill: 0

296+22.09

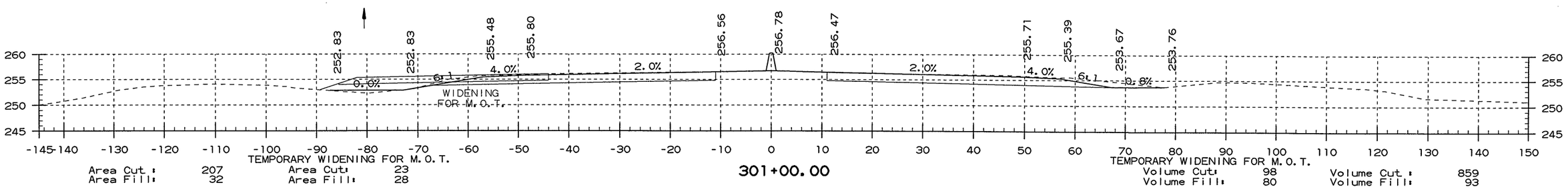
Volume Cut : 0
Volume Fill: 0

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	4 of 7	609

(2) CROSS SECTIONS



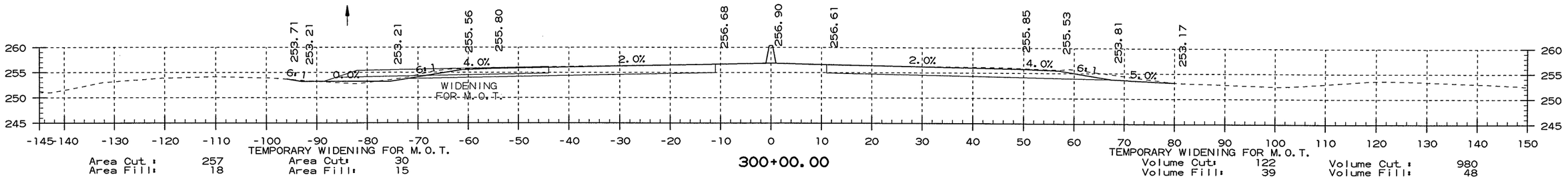
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 207
Area Fill: 32

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 23
Area Fill: 28

301+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 98
Volume Fill: 80

Volume Cut: 859
Volume Fill: 93



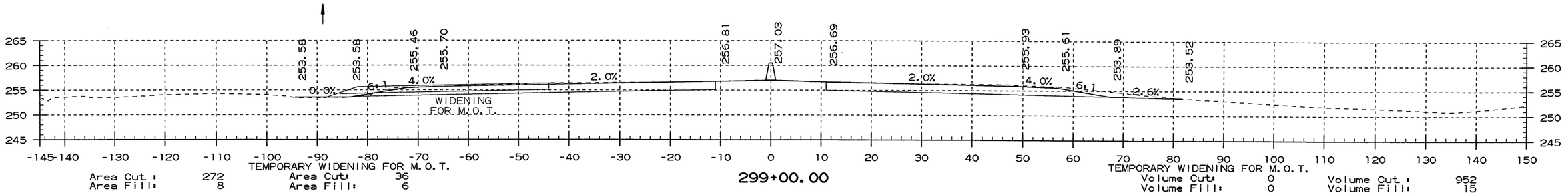
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 257
Area Fill: 18

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 30
Area Fill: 15

300+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 122
Volume Fill: 39

Volume Cut: 980
Volume Fill: 48



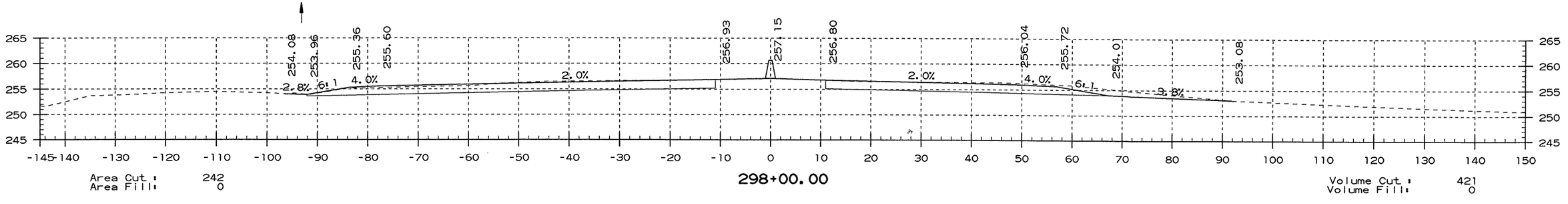
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 272
Area Fill: 8

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 36
Area Fill: 6

299+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 0
Volume Fill: 0

Volume Cut: 952
Volume Fill: 15



Area Cut: 242
Area Fill: 0

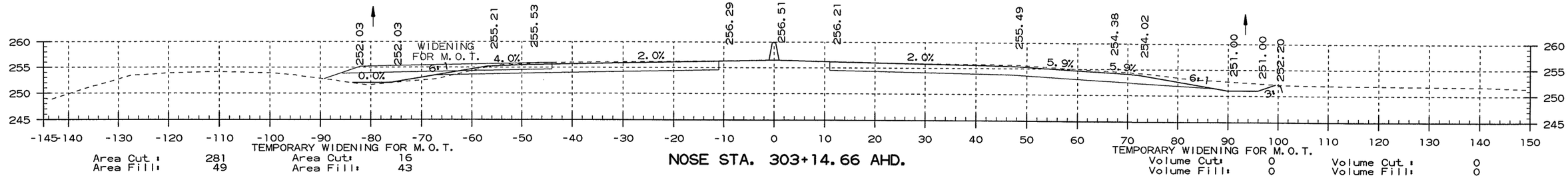
298+00.00

Volume Cut: 421
Volume Fill: 0

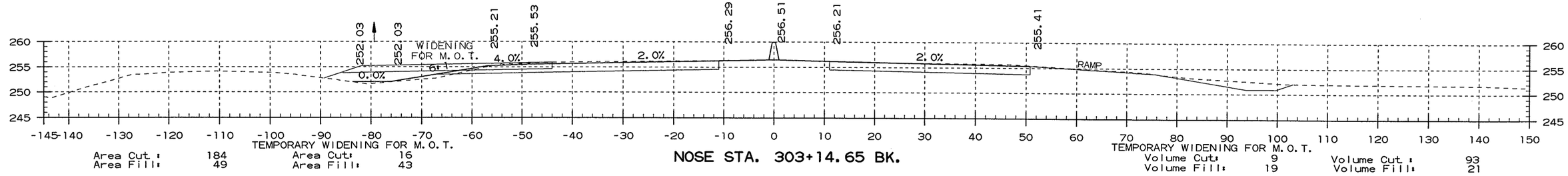
03-01-2005 RR60080.CRS2

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	498	609

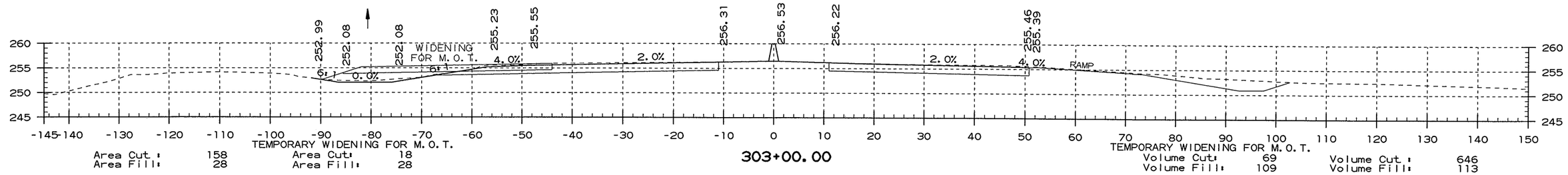
(2) CROSS SECTIONS



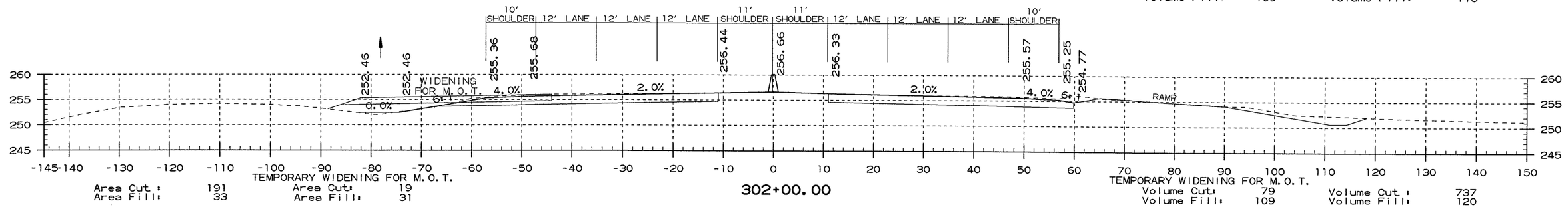
NOSE STA. 303+14.66 AHD.



NOSE STA. 303+14.65 BK.



303+00.00



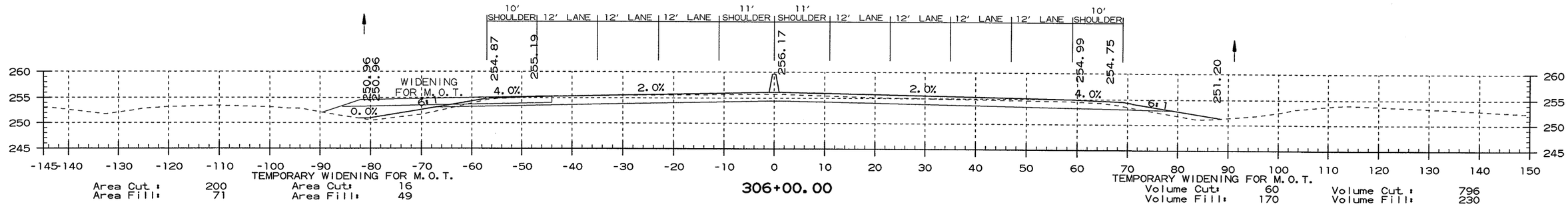
302+00.00

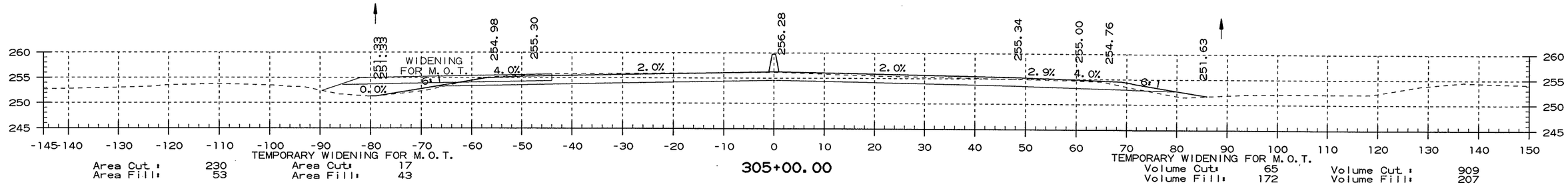
03-01-2005 RR60080.CRS2

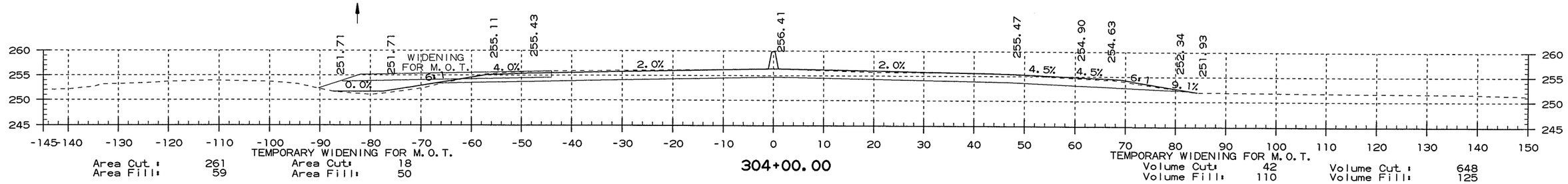
MAIN LANES HWY. 67/167

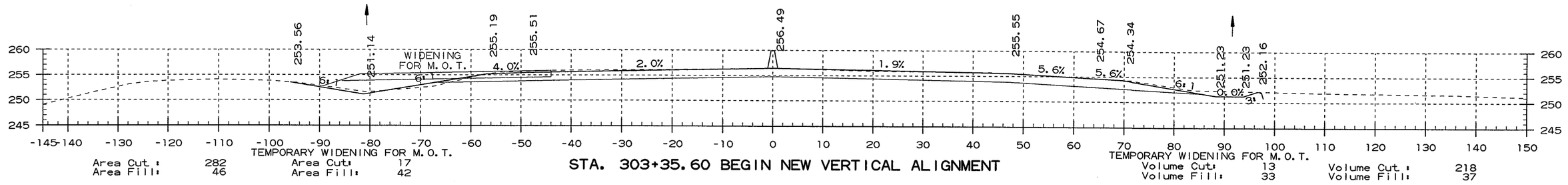
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	4SA	6SA

(2) CROSS SECTIONS







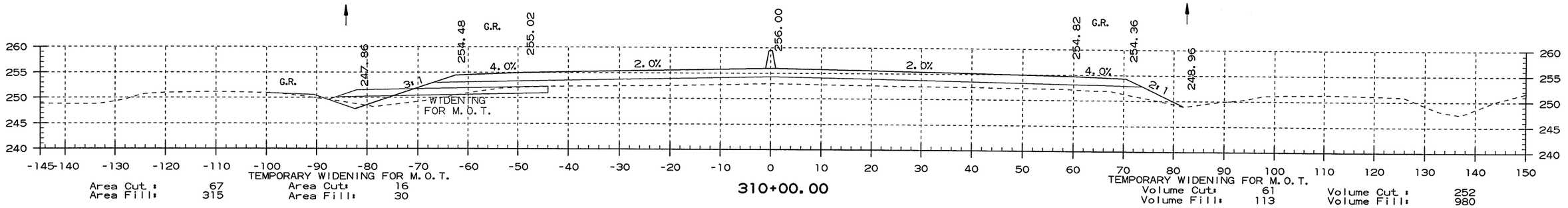


03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	500	603

(2) CROSS SECTIONS



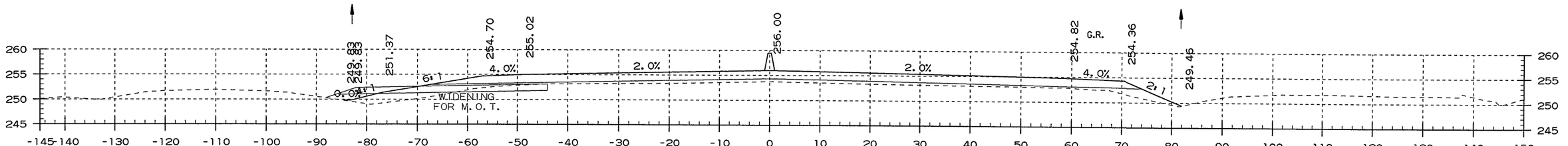
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 67
Area Fill: 315

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 30

310+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 61
Volume Fill: 113

Volume Cut: 252
Volume Fill: 980



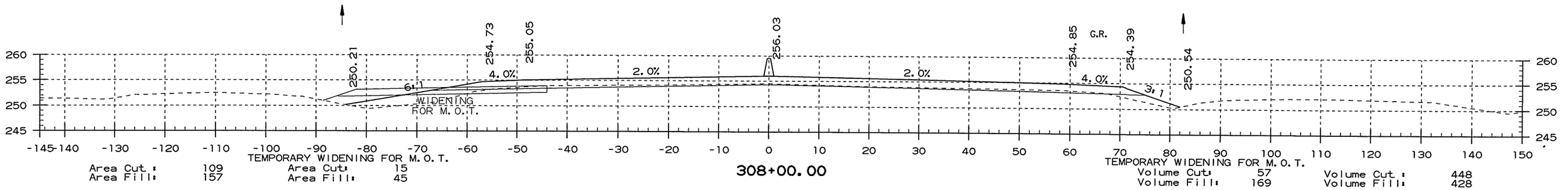
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 69
Area Fill: 214

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 17
Area Fill: 31

309+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 59
Volume Fill: 141

Volume Cut: 330
Volume Fill: 687



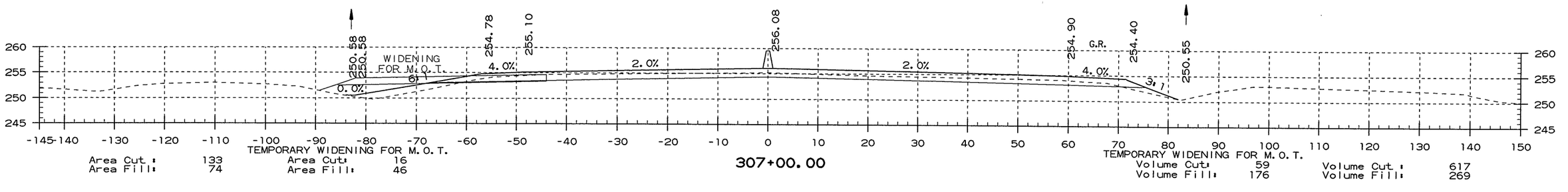
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 109
Area Fill: 157

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 45

308+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 57
Volume Fill: 169

Volume Cut: 448
Volume Fill: 428



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 133
Area Fill: 74

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 46

307+00.00

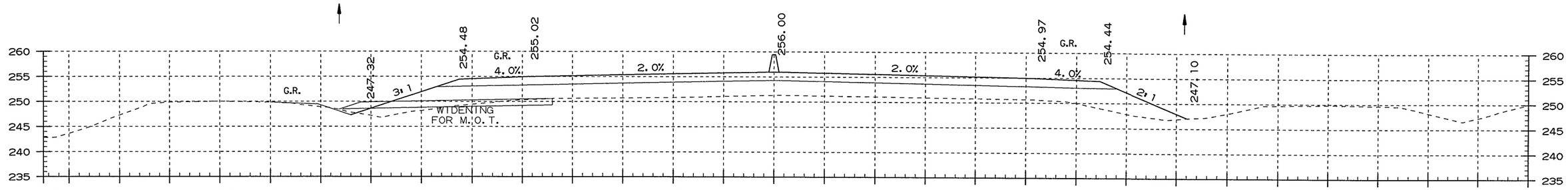
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 59
Volume Fill: 176

Volume Cut: 617
Volume Fill: 269

03-01-2005 RR60080.CRS2

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	501	609

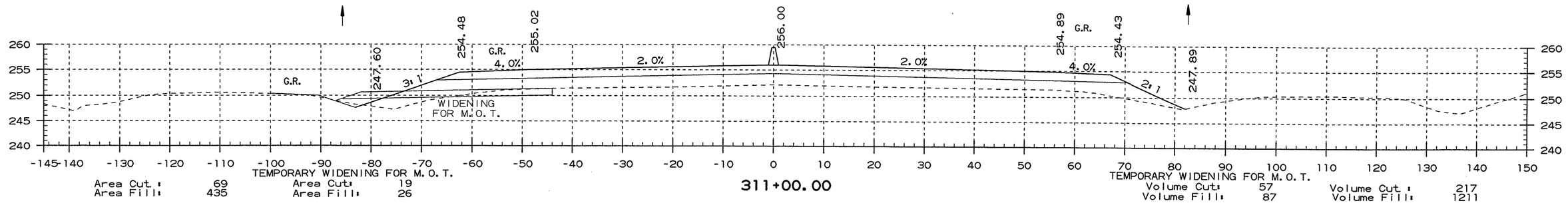
(2) CROSS SECTIONS



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 57 Area Cut: 17
Area Fill: 566 Area Fill: 19

312+00.00

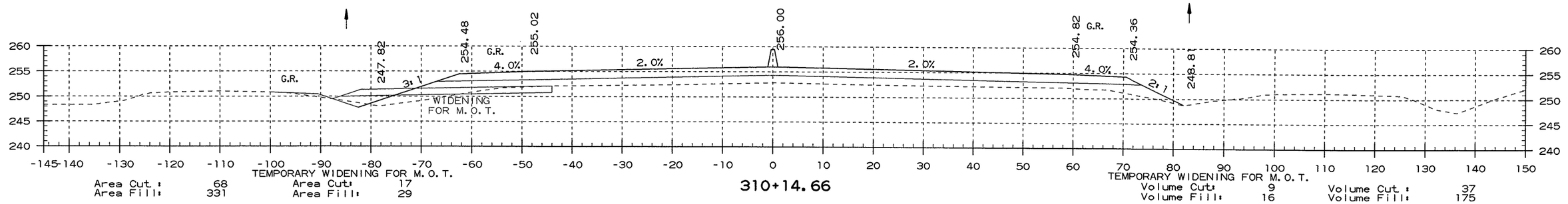
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 67 Volume Cut : 233
Volume Fill: 83 Volume Fill: 1854



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 69 Area Cut: 19
Area Fill: 435 Area Fill: 26

311+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 57 Volume Cut : 217
Volume Fill: 87 Volume Fill: 1211



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 68 Area Cut: 17
Area Fill: 331 Area Fill: 29

310+14.66

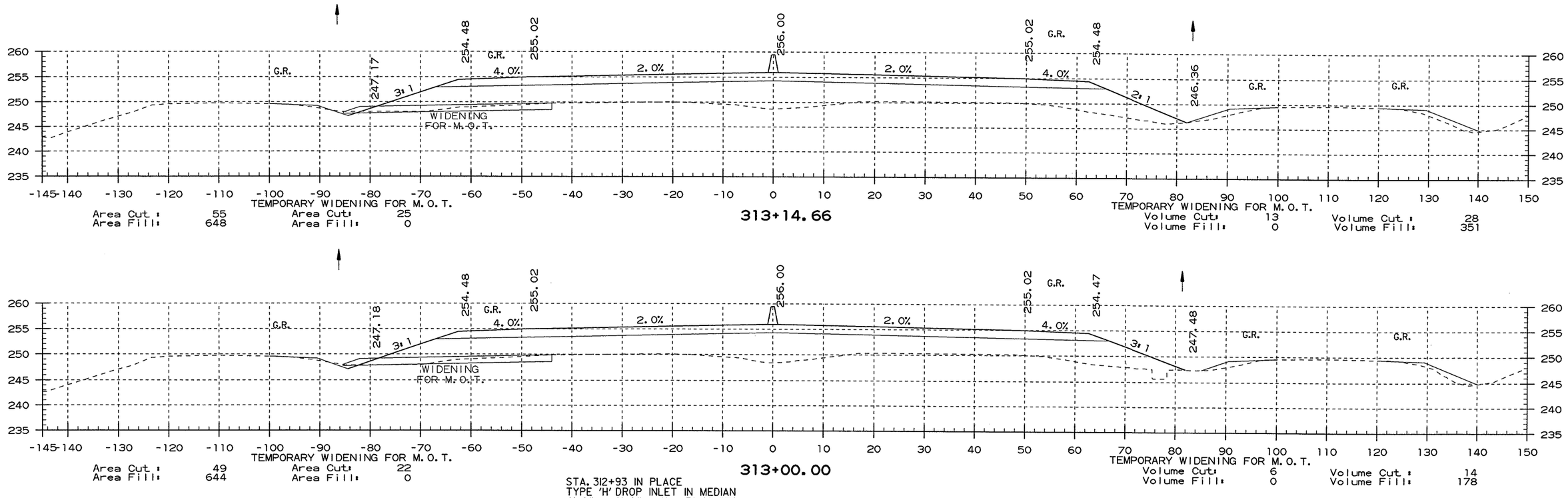
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 9 Volume Cut : 37
Volume Fill: 16 Volume Fill: 175

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	502	609

(2) CROSS SECTIONS



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 55
Area Fill: 648

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 25
Area Fill: 0

313+14.66

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 13
Volume Fill: 0

Volume Cut: 28
Volume Fill: 351

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 49
Area Fill: 644

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 22
Area Fill: 0

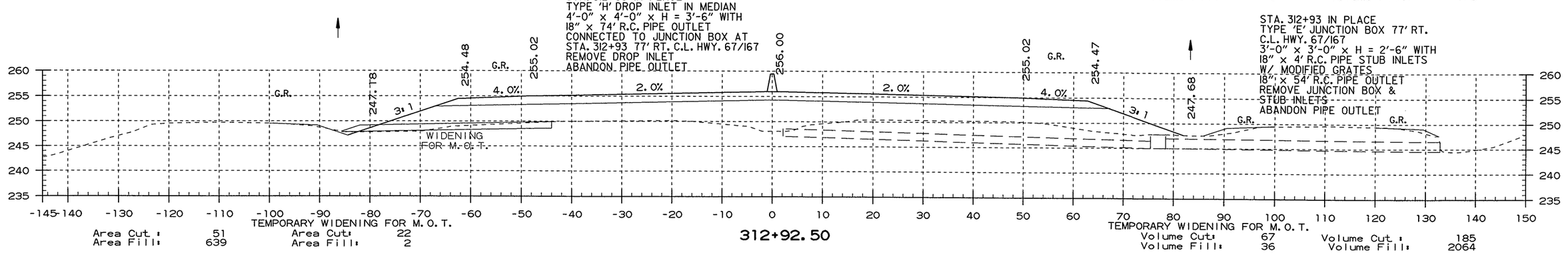
313+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 6
Volume Fill: 0

Volume Cut: 14
Volume Fill: 178

STA. 312+93 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
18" x 74' R.C. PIPE OUTLET
CONNECTED TO JUNCTION BOX AT
STA. 312+93 77' RT. C.L. HWY. 67/167
REMOVE DROP INLET
ABANDON PIPE OUTLET

STA. 312+93 IN PLACE
TYPE 'E' JUNCTION BOX 77' RT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 2'-6" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
18" x 54' R.C. PIPE OUTLET
REMOVE JUNCTION BOX &
STUB INLETS
ABANDON PIPE OUTLET



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 51
Area Fill: 639

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 22
Area Fill: 2

312+92.50

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 67
Volume Fill: 36

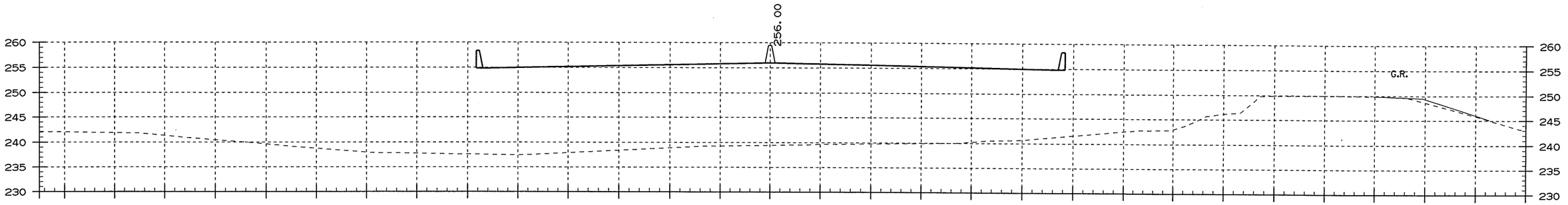
Volume Cut: 185
Volume Fill: 2064

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	503	609

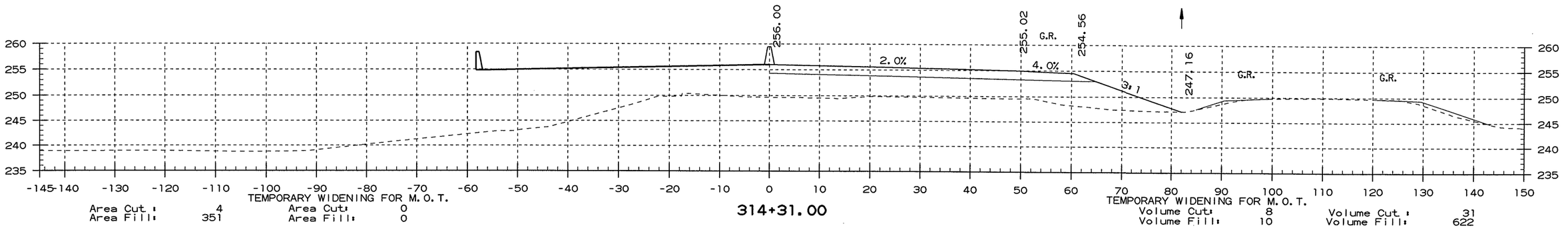
(2) CROSS SECTIONS



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 0 Area Cut: 0
Area Fill: 0 Area Fill: 0

315+00.00

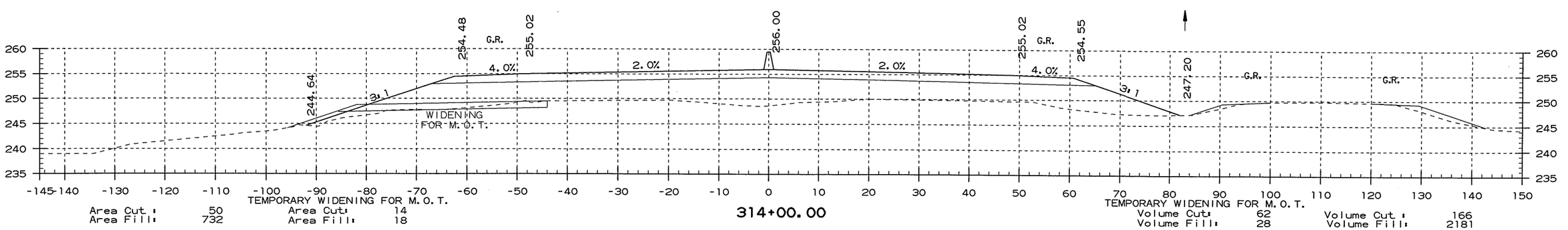
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 0 Volume Cut : 10
Volume Fill: 0 Volume Fill: 489



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 4 Area Cut: 0
Area Fill: 351 Area Fill: 0

314+31.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 8 Volume Cut : 31
Volume Fill: 10 Volume Fill: 622



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 50 Area Cut: 14
Area Fill: 732 Area Fill: 18

314+00.00

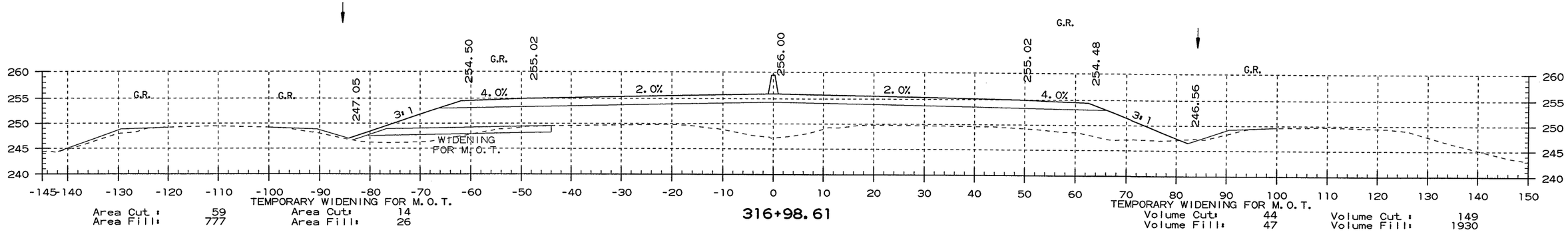
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 62 Volume Cut : 166
Volume Fill: 28 Volume Fill: 2181

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	594	609

(2) CROSS SECTIONS



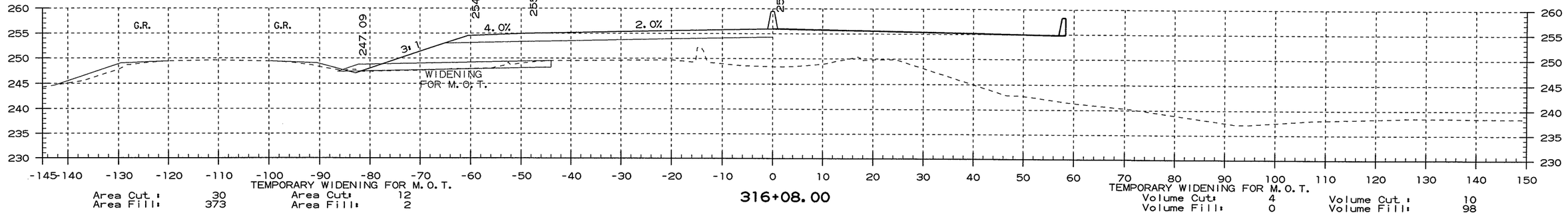
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 59
Area Fill: 777

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 14
Area Fill: 26

316+98.61

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 44
Volume Fill: 47

Volume Cut : 149
Volume Fill: 1930



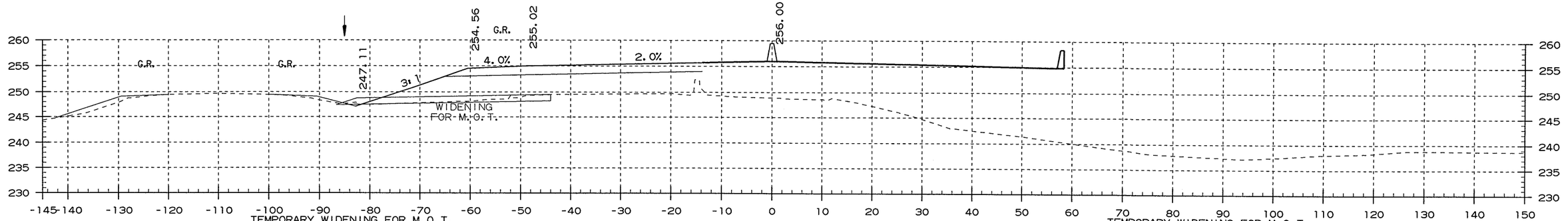
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 30
Area Fill: 373

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 12
Area Fill: 2

316+08.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 4
Volume Fill: 0

Volume Cut : 10
Volume Fill: 98



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 36
Area Fill: 290

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 0

316+00.00

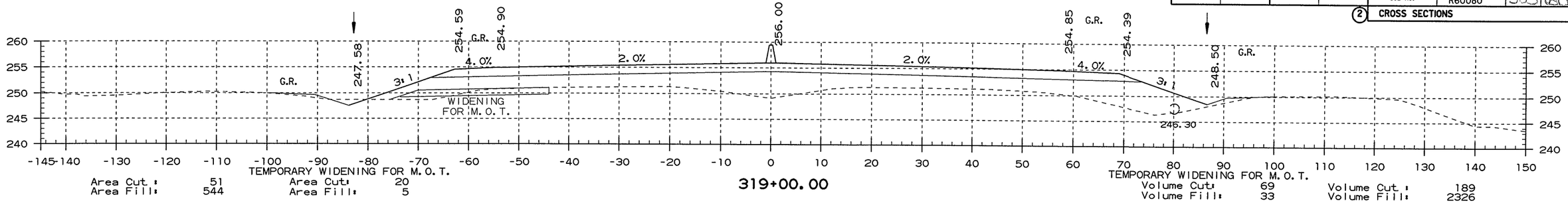
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 30
Volume Fill: 0

Volume Cut : 74
Volume Fill: 596

03-01-2005 RR60080.CRS2

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	505	609

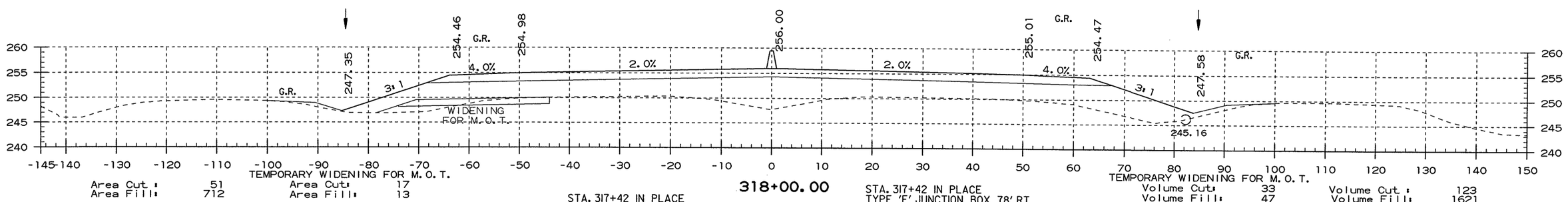
(2) CROSS SECTIONS



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 51 Area Cut: 20
Area Fill: 544 Area Fill: 5

319+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 69 Volume Cut : 189
Volume Fill: 33 Volume Fill: 2326



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 51 Area Cut: 17
Area Fill: 712 Area Fill: 13

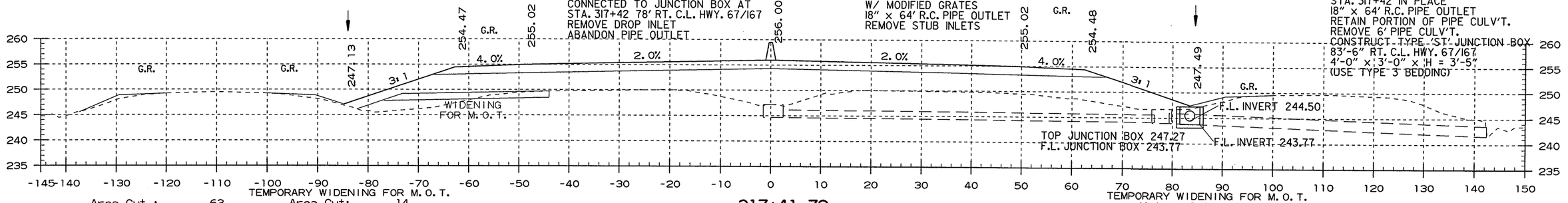
318+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 33 Volume Cut : 123
Volume Fill: 47 Volume Fill: 1621

STA. 317+42 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 2'-6" WITH
18" x 74' R.C. PIPE OUTLET
CONNECTED TO JUNCTION BOX AT
STA. 317+42 78' RT. C.L. HWY. 67/167
REMOVE DROP INLET
ABANDON PIPE OUTLET

STA. 317+42 IN PLACE
TYPE 'E' JUNCTION BOX 78' RT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 2'-6" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
18" x 64' R.C. PIPE OUTLET
REMOVE STUB INLETS

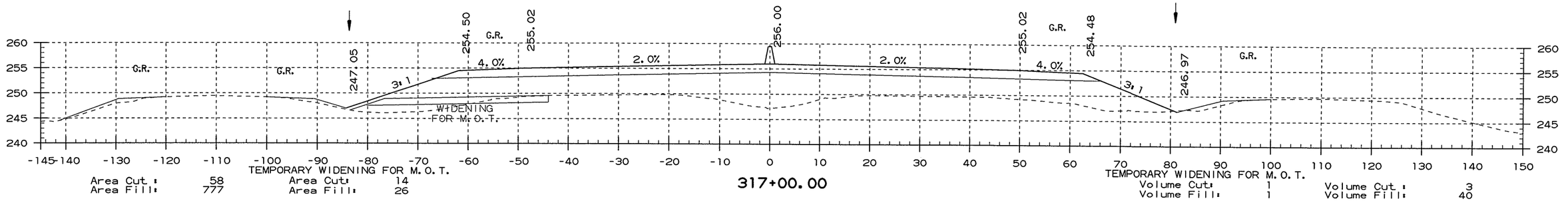
STA. 317+42 IN PLACE
18" x 64' R.C. PIPE OUTLET
RETAIN PORTION OF PIPE CULV'T.
REMOVE 6' PIPE CULV'T.
CONSTRUCT TYPE 'ST' JUNCTION BOX
83'-6" RT. C.L. HWY. 67/167
4'-0" x 3'-0" x H = 3'-5"
(USE TYPE 3 BEDDING)



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 63 Area Cut: 14
Area Fill: 790 Area Fill: 31

317+41.72

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 22 Volume Cut : 93
Volume Fill: 44 Volume Fill: 1211



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 58 Area Cut: 14
Area Fill: 777 Area Fill: 26

317+00.00

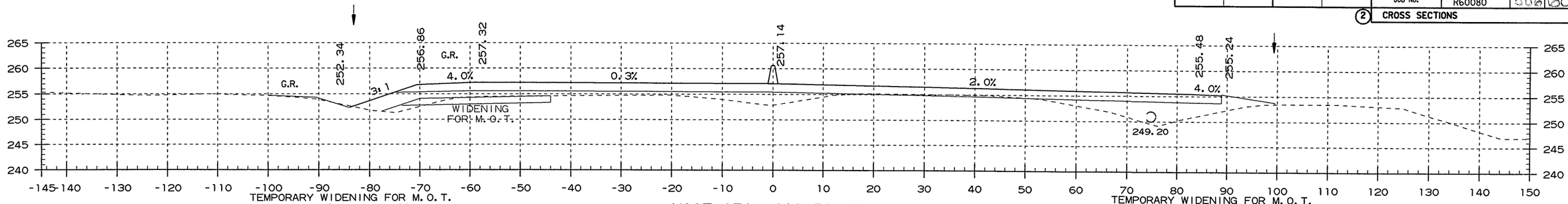
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 1 Volume Cut : 3
Volume Fill: 1 Volume Fill: 40

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	506	609

(2) CROSS SECTIONS



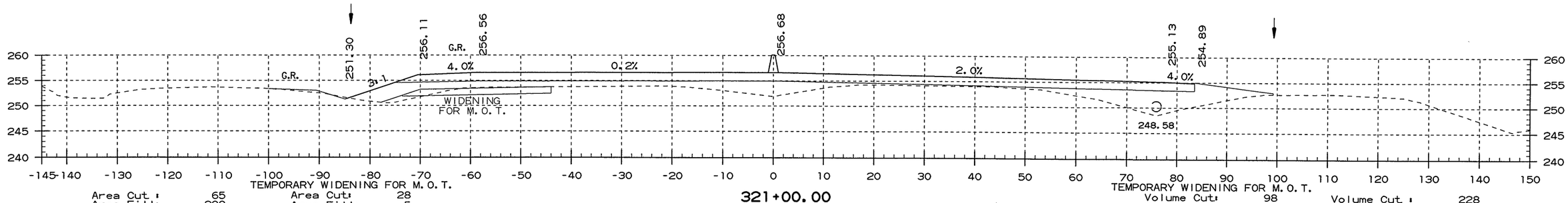
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 73
Area Fill: 267

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 28
Area Fill: 6

NOSE STA. 321+53.98 BK.

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 56
Volume Fill: 11

Volume Cut: 138
Volume Fill: 566



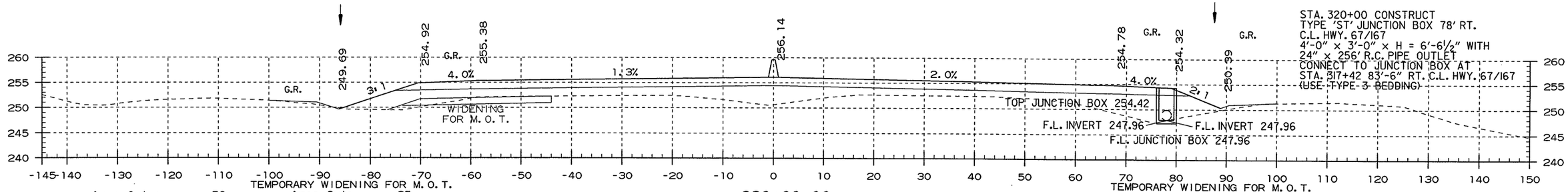
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 65
Area Fill: 299

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 28
Area Fill: 5

321+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 98
Volume Fill: 17

Volume Cut: 228
Volume Fill: 1357



STA. 320+00 CONSTRUCT
TYPE 'ST' JUNCTION BOX 78' RT.
C.L. HWY. 67/167
4'-0" x 3'-0" x H = 6'-6½" WITH
24" x 256' R.C. PIPE OUTLET
CONNECT TO JUNCTION BOX AT
STA. 317+42 83'-6" RT. C.L. HWY. 67/167
(USE TYPE 3 BEDDING)

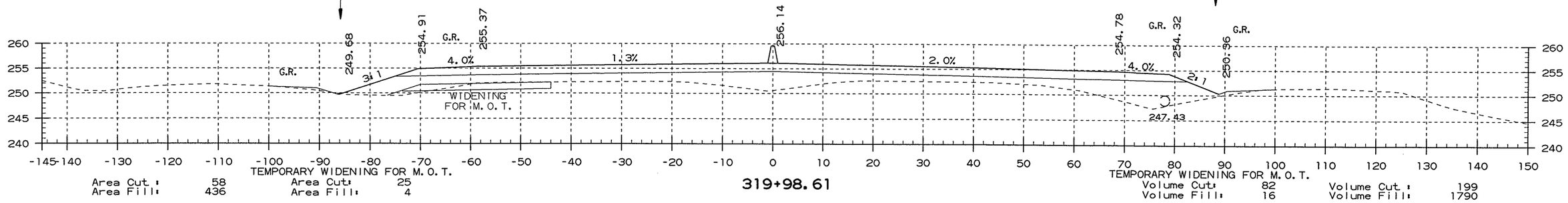
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 58
Area Fill: 434

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 25
Area Fill: 4

320+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 1
Volume Fill: 0

Volume Cut: 3
Volume Fill: 22



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 58
Area Fill: 436

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 25
Area Fill: 4

319+98.61

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 82
Volume Fill: 16

Volume Cut: 199
Volume Fill: 1790

03-01-2005 RR60080.CRS2

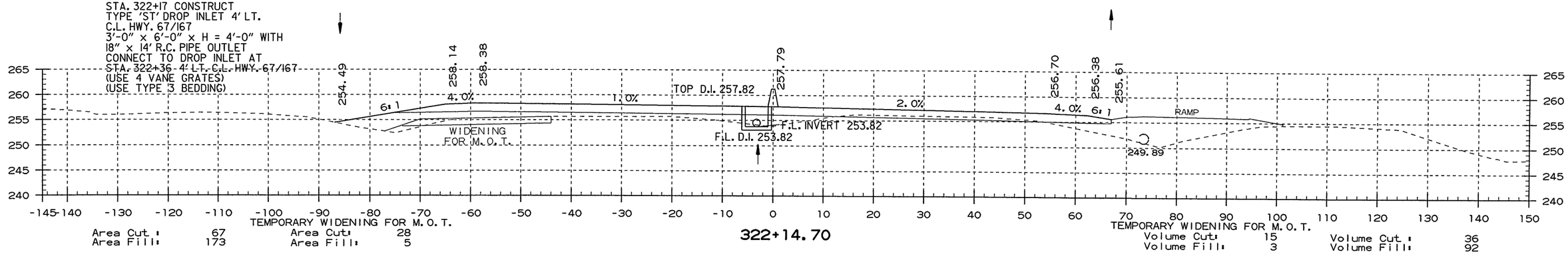
MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	507	609

(2) CROSS SECTIONS

STA. 322+36 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-0" WITH
18" x 20' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 322+61 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

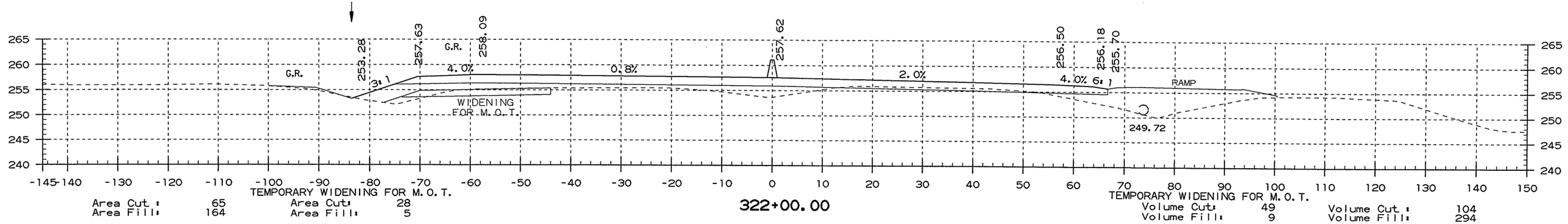
STA. 322+17 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-0" WITH
18" x 14' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 322+36 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 67 Area Cut: 28
Area Fill: 173 Area Fill: 5

322+14.70

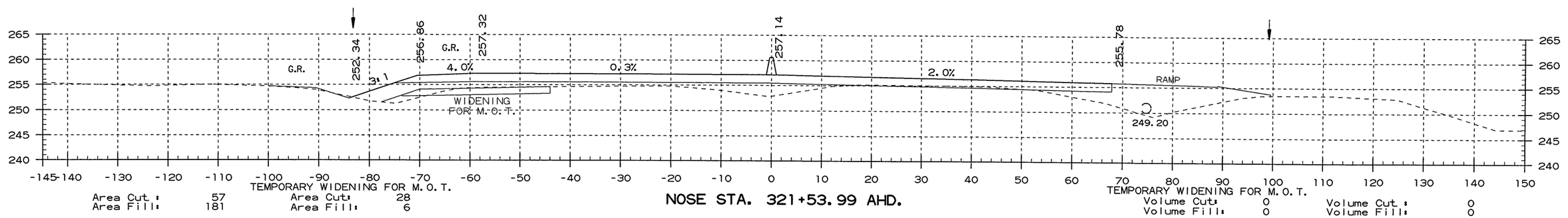
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 15 Volume Cut: 36
Volume Fill: 3 Volume Fill: 92



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 65 Area Cut: 28
Area Fill: 164 Area Fill: 5

322+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 49 Volume Cut: 104
Volume Fill: 9 Volume Fill: 294



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 57 Area Cut: 28
Area Fill: 181 Area Fill: 6

NOSE STA. 321+53.99 AHD.

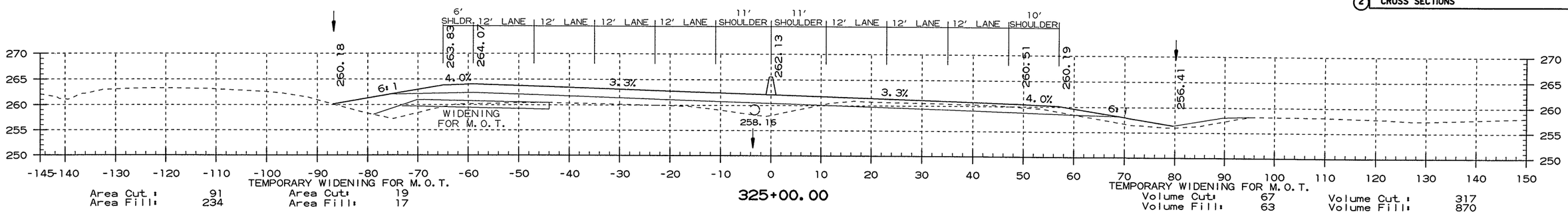
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 0 Volume Cut: 0
Volume Fill: 0 Volume Fill: 0

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	508	609

(2) CROSS SECTIONS



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 91
Area Fill: 234

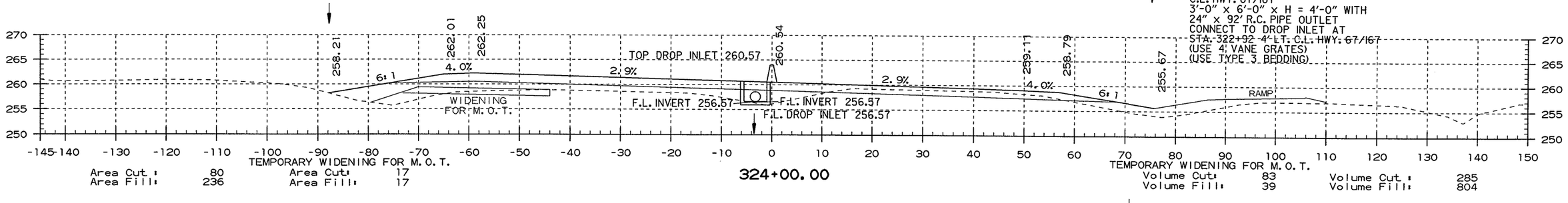
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 19
Area Fill: 17

325+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 67
Volume Fill: 63

Volume Cut: 317
Volume Fill: 870

STA. 324+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-0" WITH
24" x 92' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 322+92 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)



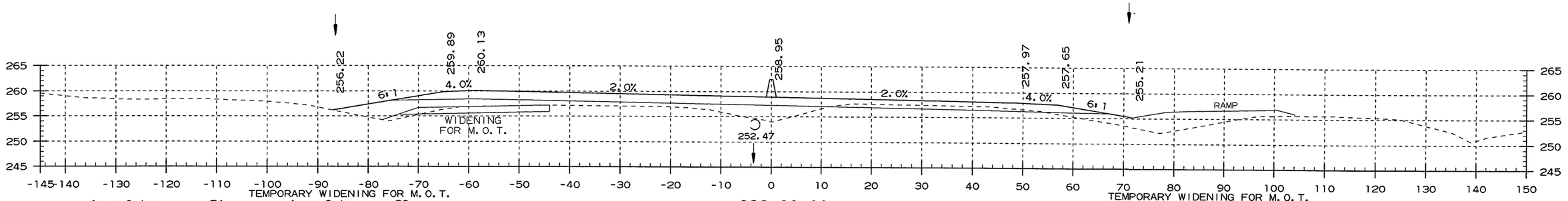
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 80
Area Fill: 236

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 17
Area Fill: 17

324+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 83
Volume Fill: 39

Volume Cut: 285
Volume Fill: 804



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 74
Area Fill: 198

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 28
Area Fill: 4

323+00.00

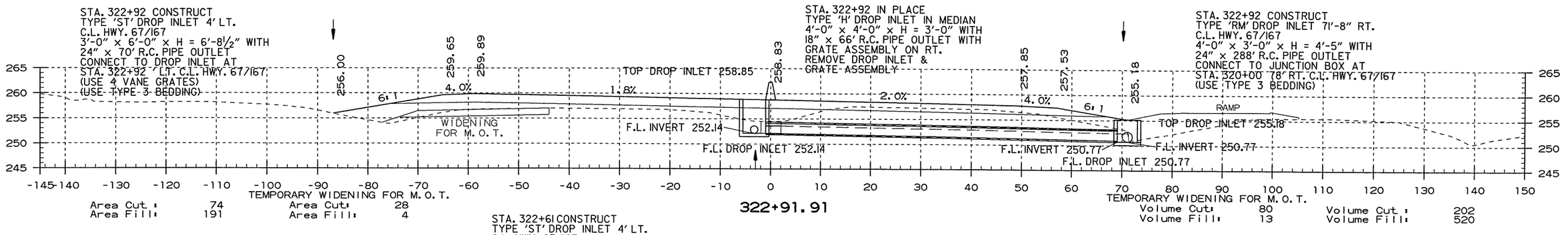
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 8
Volume Fill: 1

Volume Cut: 22
Volume Fill: 58

STA. 322+92 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 6'-8½" WITH
24" x 70' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 322+92 ' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

STA. 322+92 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-0" WITH
18" x 66' R.C. PIPE OUTLET WITH
GRATE ASSEMBLY ON RT.
REMOVE DROP INLET &
GRATE ASSEMBLY

STA. 322+92 CONSTRUCT
TYPE 'RM' DROP INLET 71'-8" RT.
C.L. HWY. 67/167
4'-0" x 3'-0" x H = 4'-5" WITH
24" x 288' R.C. PIPE OUTLET
CONNECT TO JUNCTION BOX AT
STA. 320+00 78' RT. C.L. HWY. 67/167
(USE TYPE 3 BEDDING)



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 74
Area Fill: 191

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 28
Area Fill: 4

322+91.91

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 80
Volume Fill: 13

Volume Cut: 202
Volume Fill: 520

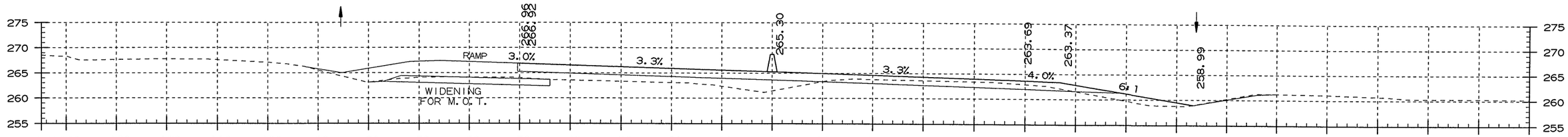
STA. 322+61 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-0" WITH
18" x 26' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 322+92 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	59	60

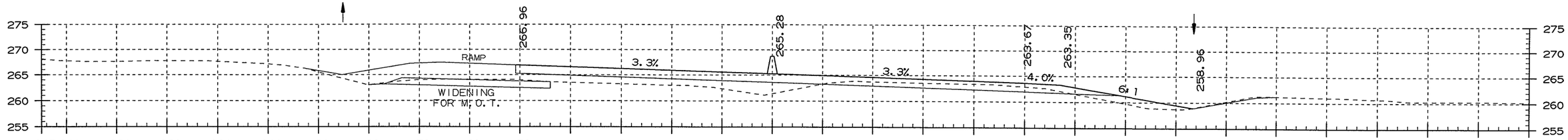
(2) CROSS SECTIONS



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 104 Area Cut: 37
Area Fill: 122 Area Fill: 0

327+00.00

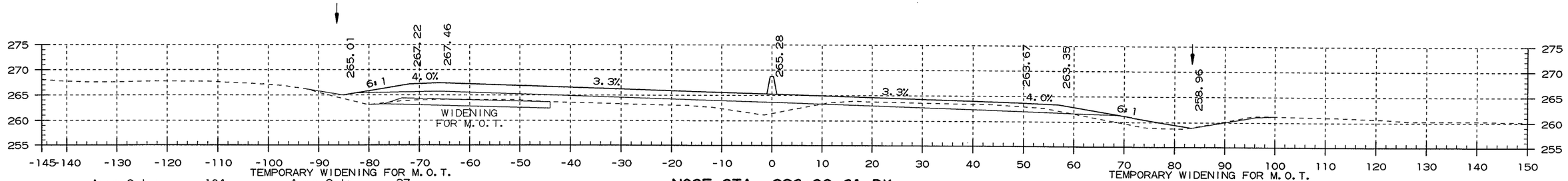
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 2 Volume Cut: 5
Volume Fill: 0 Volume Fill: 6



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 104 Area Cut: 37
Area Fill: 124 Area Fill: 0

NOSE STA. 326+98.62 AHD.

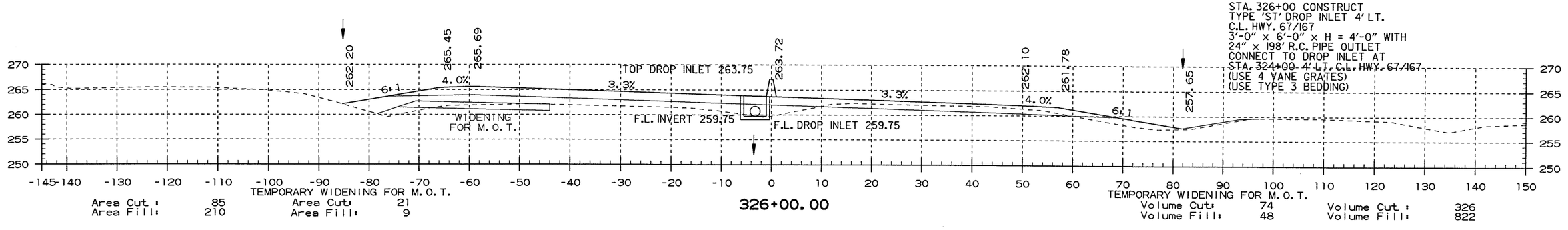
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 0 Volume Cut: 0
Volume Fill: 0 Volume Fill: 0



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 104 Area Cut: 37
Area Fill: 179 Area Fill: 0

NOSE STA. 326+98.61 BK.

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 106 Volume Cut: 345
Volume Fill: 16 Volume Fill: 710



STA. 326+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-0" WITH
24" x 198' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 324+00 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 85 Area Cut: 21
Area Fill: 210 Area Fill: 9

326+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 74 Volume Cut: 326
Volume Fill: 48 Volume Fill: 822

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

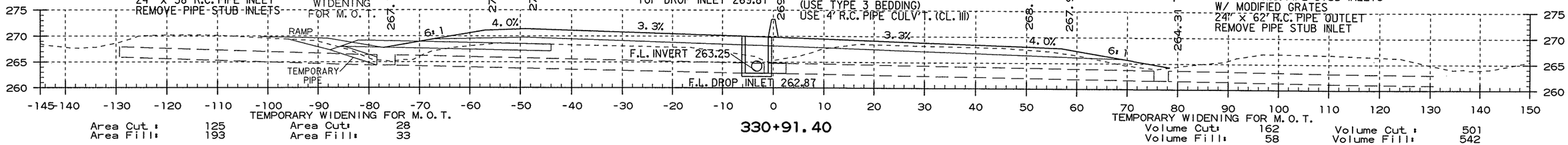
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	510	609

(2) CROSS SECTIONS

STA. 330+91 IN PLACE
TYPE 'E' JUNCTION BOX 77' LT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
24" x 58' R.C. PIPE INLET
REMOVE PIPE STUB INLETS

STA. 390+91 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
24" x 58' R.C. PIPE INLET
24" x 84' R.C. PIPE OUTLET
RETAIN PORTION OF PIPE CULV'T.
REMOVE 4' R.C. PIPE CULV'T.
REMOVE DROP INLET
CONSTRUCT TYPE 'ST' JUNCTION BOX
4' LT. C.L. HWY. 67/167
3'-0" x 6'-0" x H = 7'-0"
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T. (CL. III)

STA. 330+91 IN PLACE
TYPE 'E' JUNCTION BOX 77' RT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
24" x 62' R.C. PIPE OUTLET
REMOVE PIPE STUB INLET



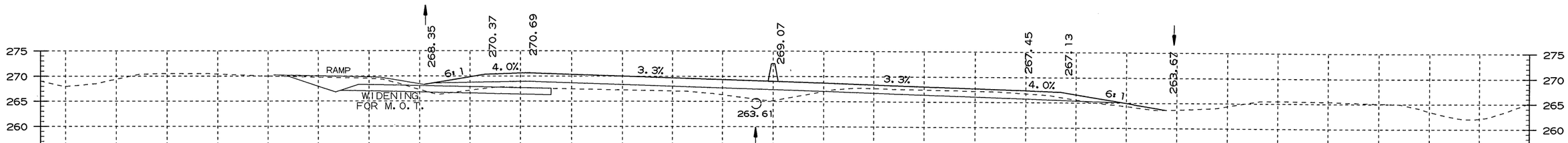
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 125
Area Fill: 193

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 28
Area Fill: 33

330+91.40

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 162
Volume Fill: 58

Volume Cut: 501
Volume Fill: 542



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 171
Area Fill: 127

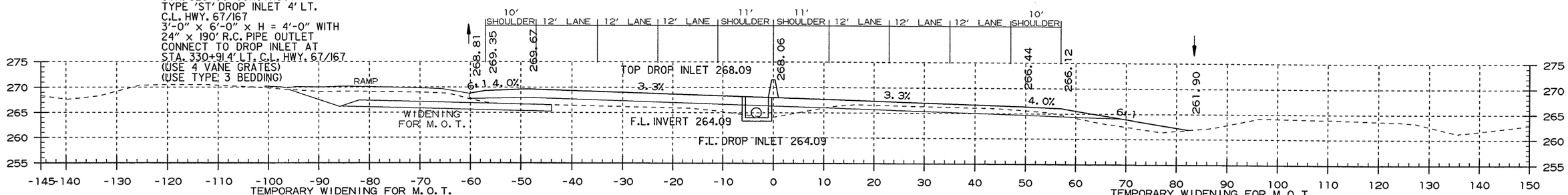
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 68
Area Fill: 1

330+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 337
Volume Fill: 2

Volume Cut: 793
Volume Fill: 409

STA. 329+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-0" WITH
24" x 190' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 330+91.4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)



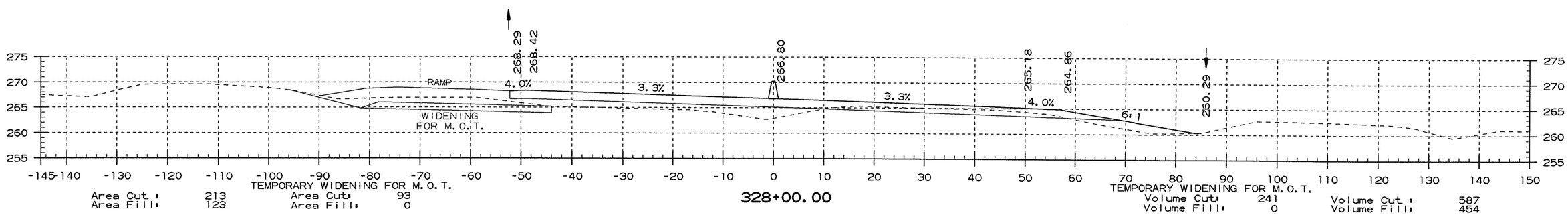
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 257
Area Fill: 127

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 114
Area Fill: 0

329+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 383
Volume Fill: 0

Volume Cut: 870
Volume Fill: 463



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 213
Area Fill: 123

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 93
Area Fill: 0

328+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 241
Volume Fill: 0

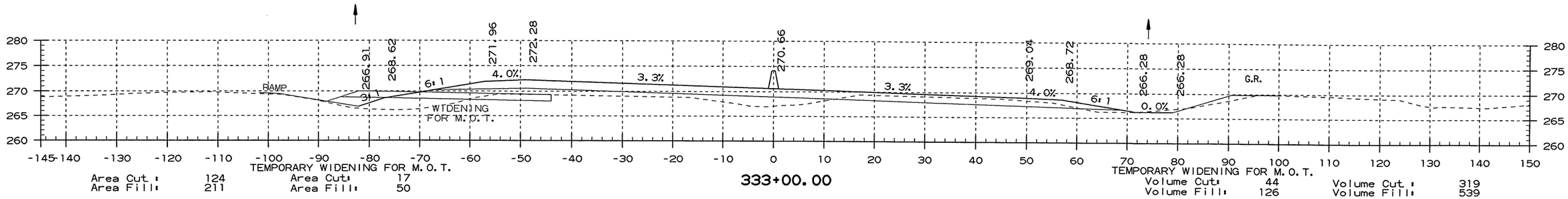
Volume Cut: 587
Volume Fill: 454

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	511	609

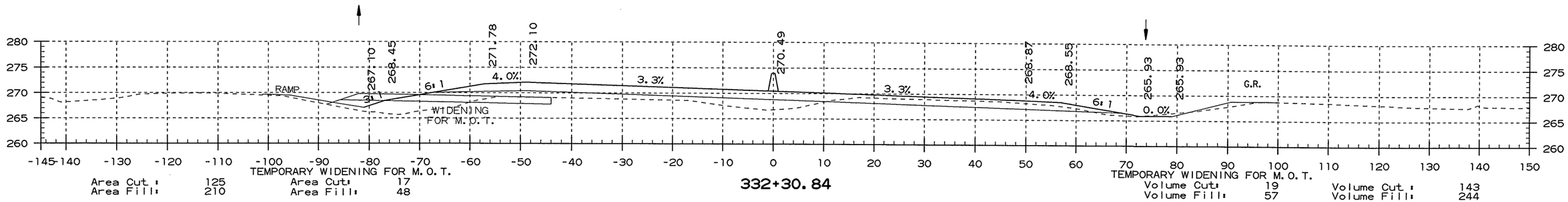
(2) CROSS SECTIONS



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 124
Area Fill: 211
Area Cut: 17
Area Fill: 50

333+00.00

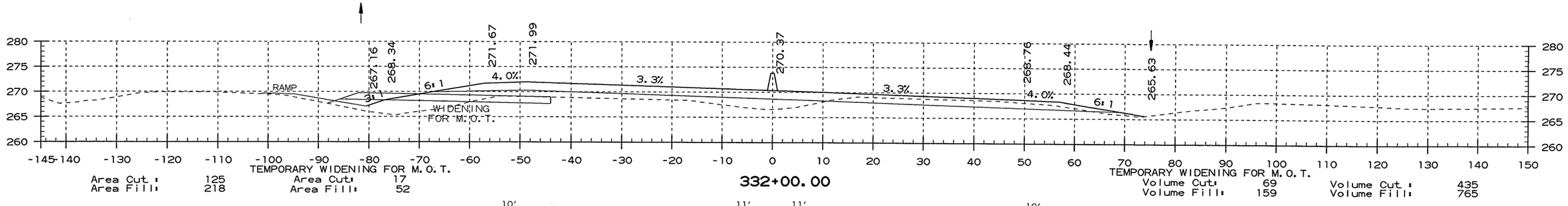
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 44
Volume Fill: 126
Volume Cut : 319
Volume Fill: 539



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 125
Area Fill: 210
Area Cut: 17
Area Fill: 48

332+30.84

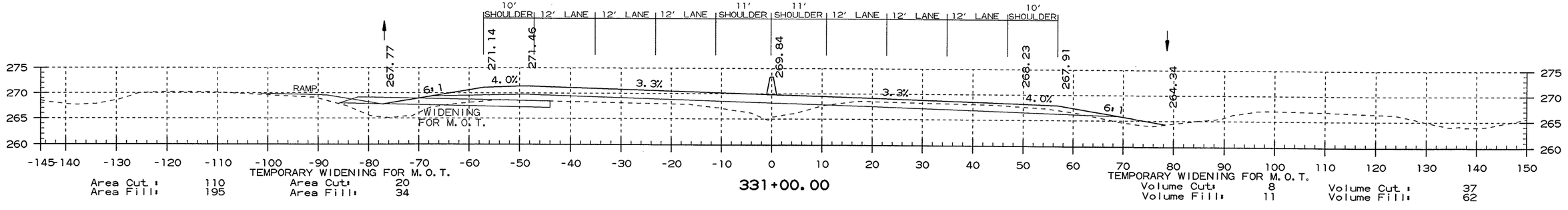
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 19
Volume Fill: 57
Volume Cut : 143
Volume Fill: 244



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 125
Area Fill: 218
Area Cut: 17
Area Fill: 52

332+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 69
Volume Fill: 159
Volume Cut : 435
Volume Fill: 765



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 110
Area Fill: 195
Area Cut: 20
Area Fill: 34

331+00.00

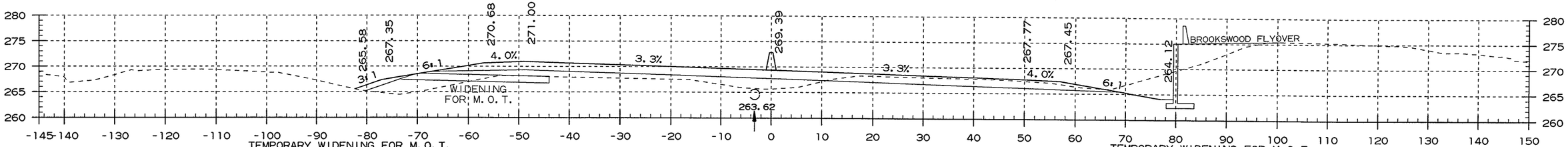
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 8
Volume Fill: 11
Volume Cut : 37
Volume Fill: 62

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	512	603

(2) CROSS SECTIONS



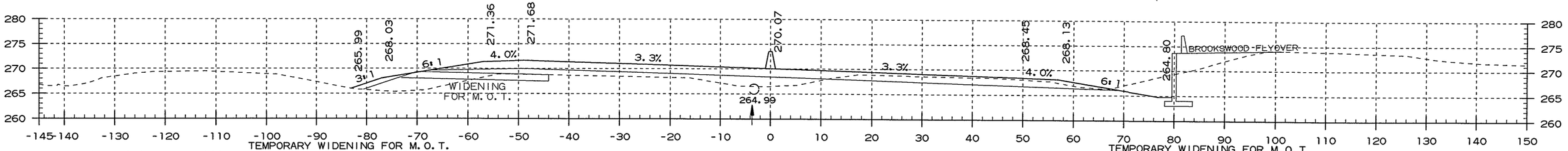
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 139
Area Fill: 193

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 31

337+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 59
Volume Fill: 120

Volume Cut: 500
Volume Fill: 720



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 131
Area Fill: 196

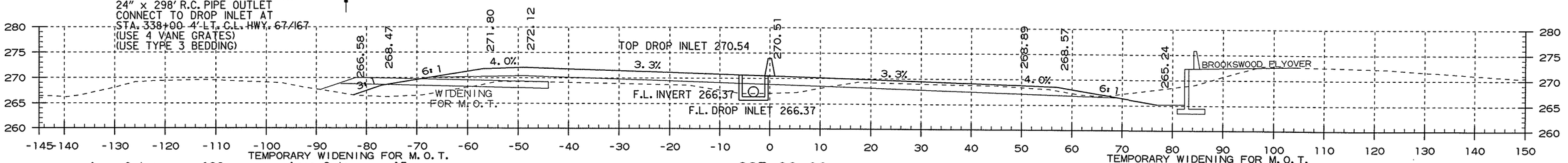
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 34

336+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 57
Volume Fill: 152

Volume Cut: 494
Volume Fill: 733

STA. 335+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-2" WITH
24" x 298' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. ~~338+00 4' LT. C.L. HWY. 67/167~~
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)



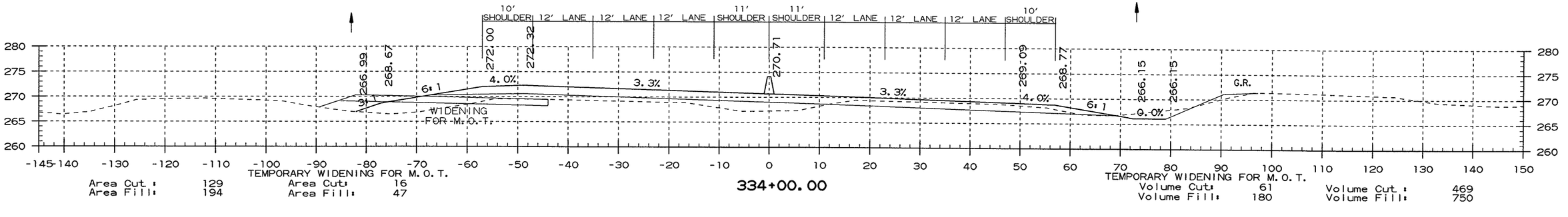
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 136
Area Fill: 200

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 48

335+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 57
Volume Fill: 176

Volume Cut: 491
Volume Fill: 730



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 129
Area Fill: 194

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 47

334+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 61
Volume Fill: 180

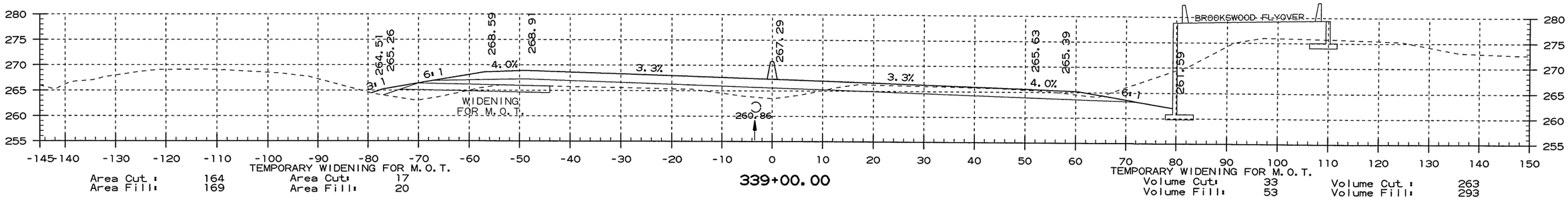
Volume Cut: 469
Volume Fill: 750

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	13	603

(2) CROSS SECTIONS



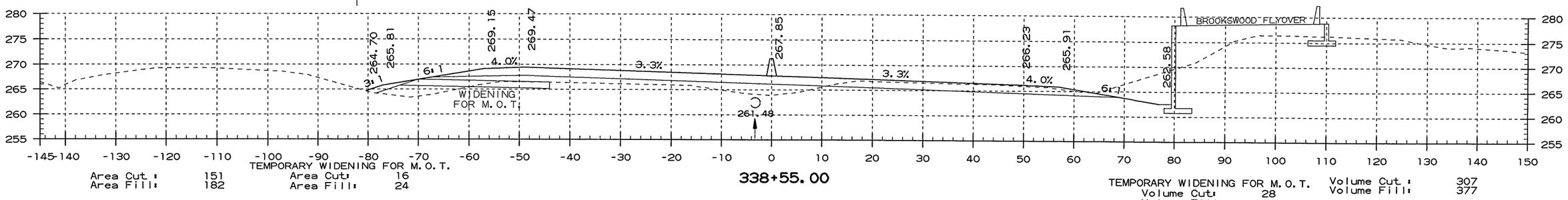
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 164
Area Fill: 169

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 17
Area Fill: 20

339+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 33
Volume Fill: 53

Volume Cut : 263
Volume Fill: 293



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 151
Area Fill: 182

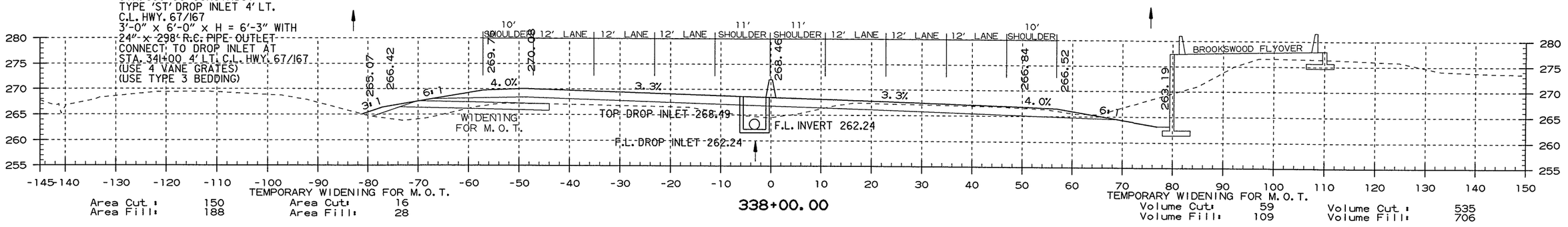
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 24

338+55.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 28
Volume Fill: 37

Volume Cut : 307
Volume Fill: 377

STA. 338+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 6'-3" WITH
24"ø x 298' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 341+00 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 150
Area Fill: 188

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 28

338+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 59
Volume Fill: 109

Volume Cut : 535
Volume Fill: 706

03-01-2005 RR60080.CRS2

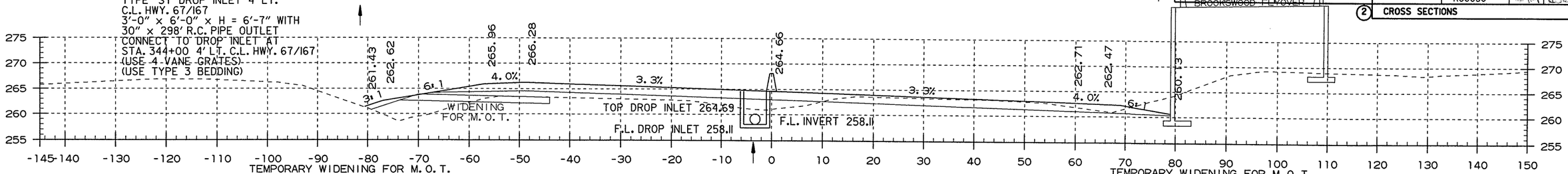
MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	54	607

BROOKSWOOD FLYOVER

(2) CROSS SECTIONS

STA. 341+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 6'-7" WITH
30" x 298' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 344+00 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)

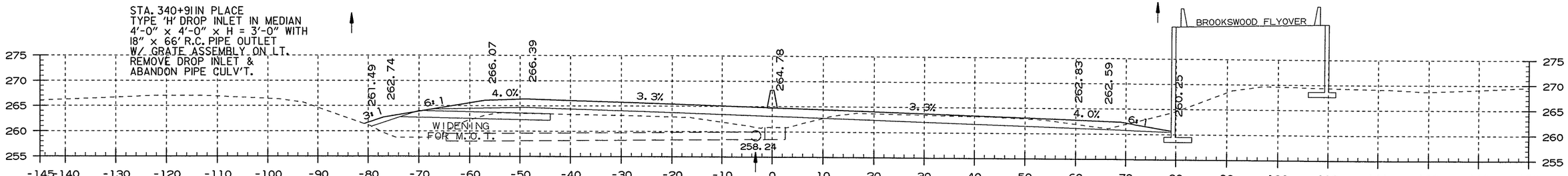


TEMPORARY WIDENING FOR M.O.T.
Area Cut: 154 Area Cut: 17
Area Fill: 206 Area Fill: 41

341+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 5 Volume Cut: 53
Volume Fill: 16 Volume Fill: 73

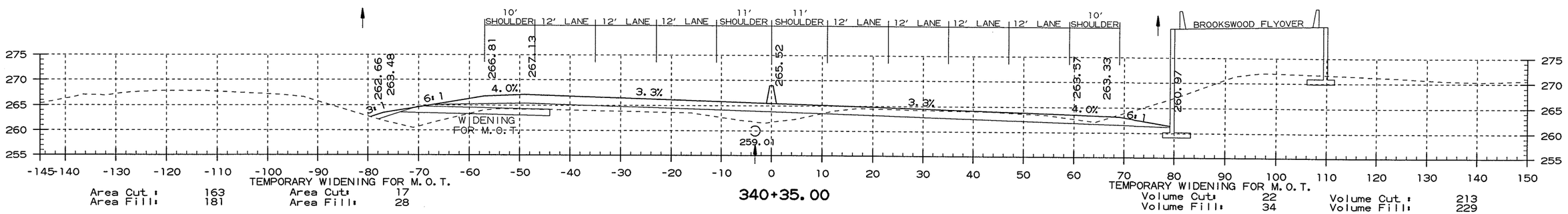
STA. 340+91 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-0" WITH
18" x 66' R.C. PIPE OUTLET
W/ GRATE ASSEMBLY ON LT.
REMOVE DROP INLET &
ABANDON PIPE CULV'T.



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 168 Area Cut: 16
Area Fill: 237 Area Fill: 54

340+91.14

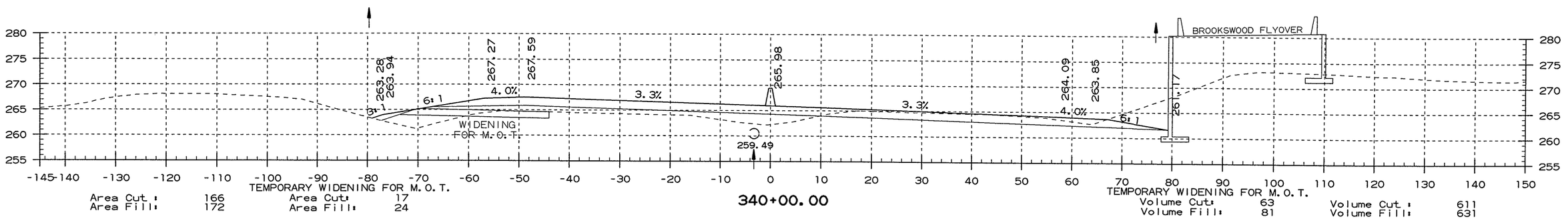
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 34 Volume Cut: 344
Volume Fill: 85 Volume Fill: 435



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 163 Area Cut: 17
Area Fill: 181 Area Fill: 28

340+35.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 22 Volume Cut: 213
Volume Fill: 34 Volume Fill: 229



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 166 Area Cut: 17
Area Fill: 172 Area Fill: 24

340+00.00

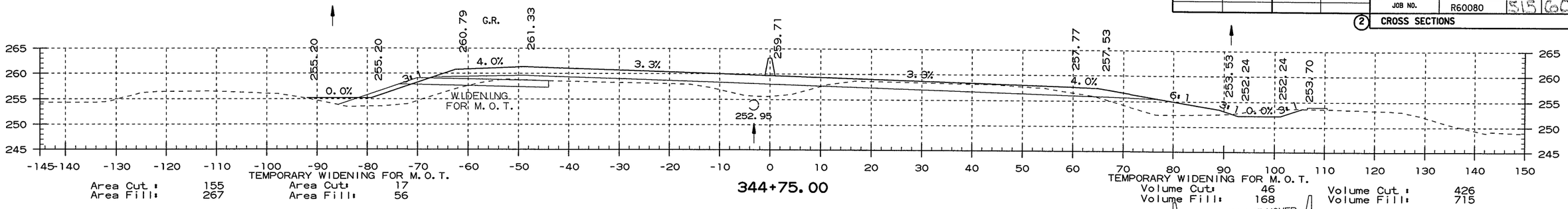
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 63 Volume Cut: 611
Volume Fill: 81 Volume Fill: 631

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	515	609

(2) CROSS SECTIONS

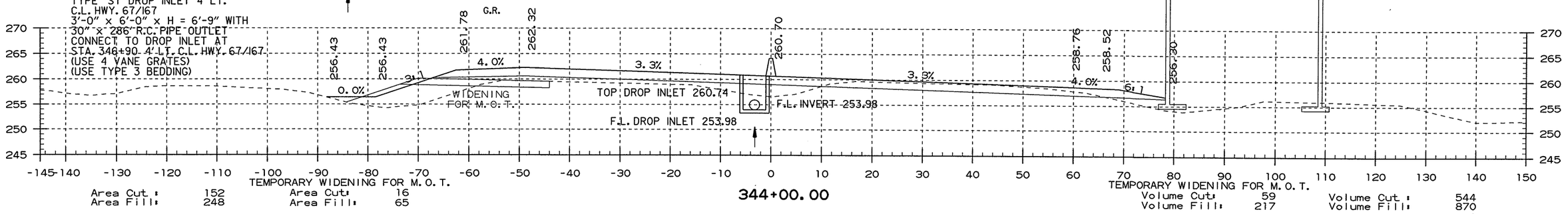


TEMPORARY WIDENING FOR M.O.T.
Area Cut: 155 Area Cut: 17
Area Fill: 267 Area Fill: 56

344+75.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 46 Volume Cut: 426
Volume Fill: 168 Volume Fill: 715

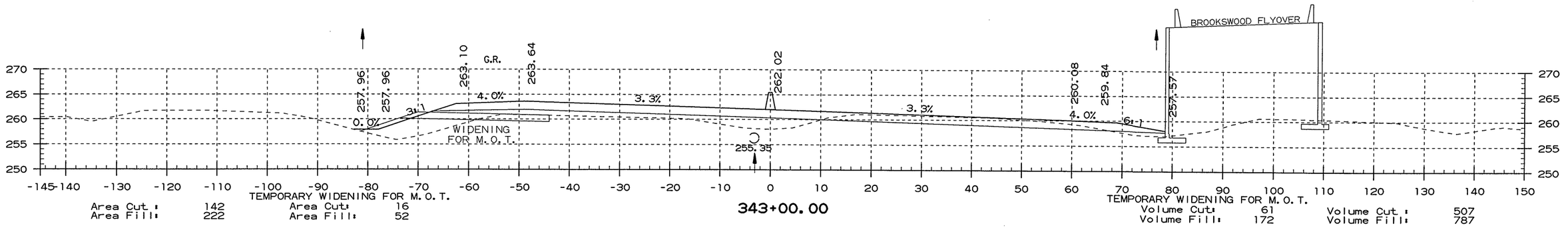
STA. 344+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 6'-9" WITH
30" x 286' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 346+90. 4' LT. C.L. HWY. 67/167.
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 152 Area Cut: 16
Area Fill: 248 Area Fill: 65

344+00.00

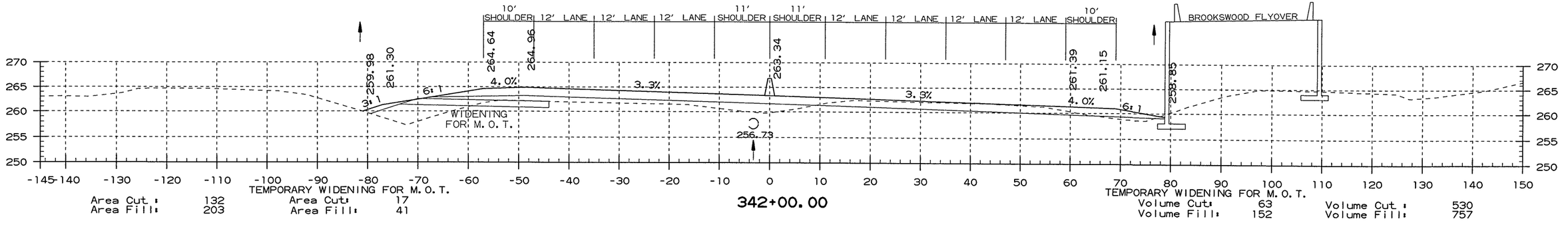
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 59 Volume Cut: 544
Volume Fill: 217 Volume Fill: 870



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 142 Area Cut: 16
Area Fill: 222 Area Fill: 52

343+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 61 Volume Cut: 507
Volume Fill: 172 Volume Fill: 787



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 132 Area Cut: 17
Area Fill: 203 Area Fill: 41

342+00.00

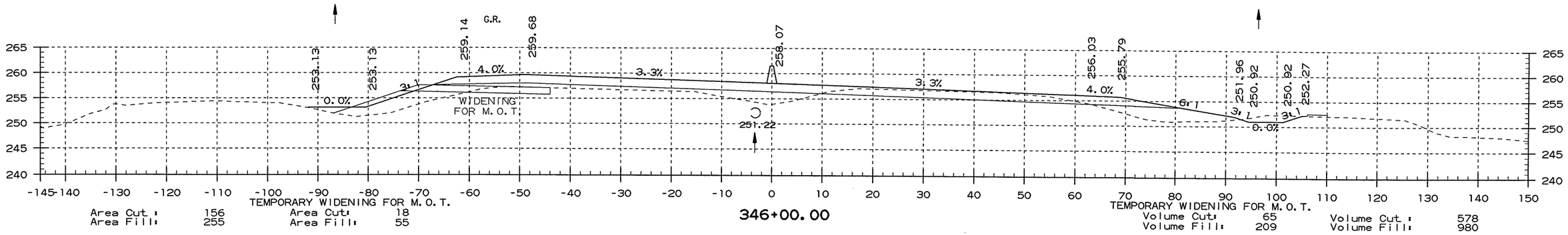
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 63 Volume Cut: 530
Volume Fill: 152 Volume Fill: 757

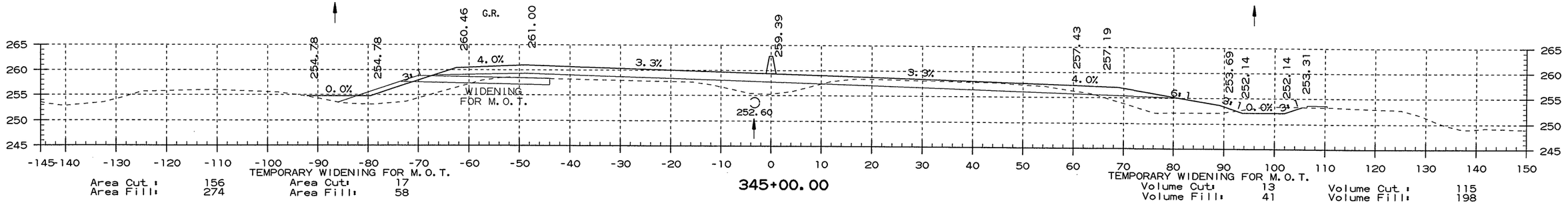
03-01-2005 RR60080.CRS2

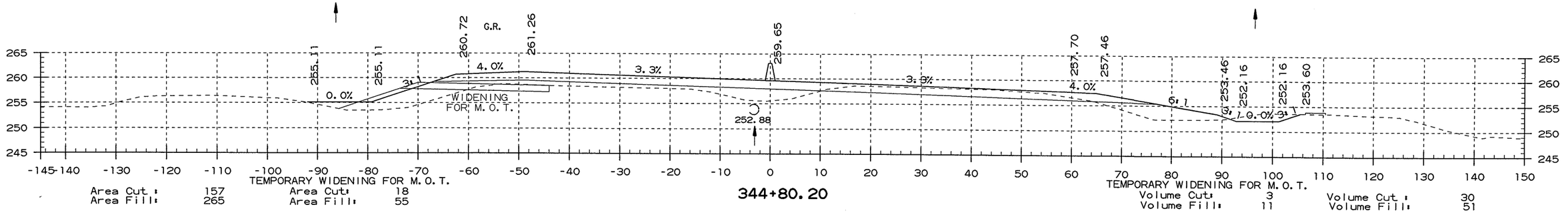
MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	516	653

(2) CROSS SECTIONS





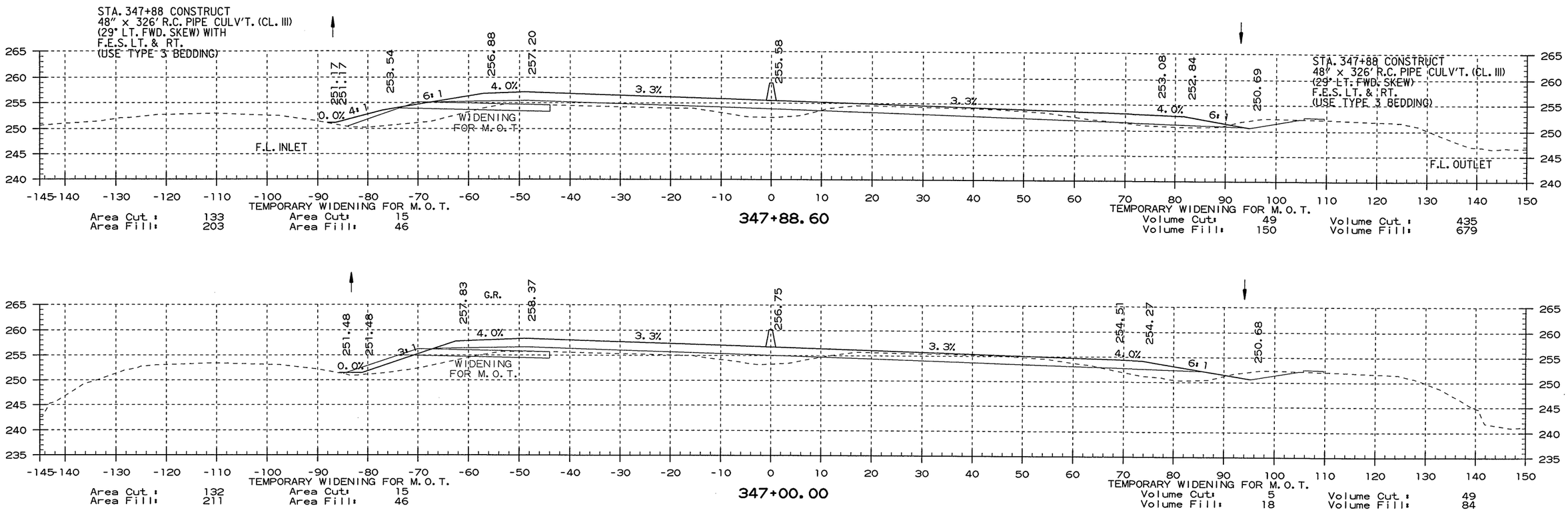


03-01-2005 RR60080.CR52

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	517	609

(2) CROSS SECTIONS



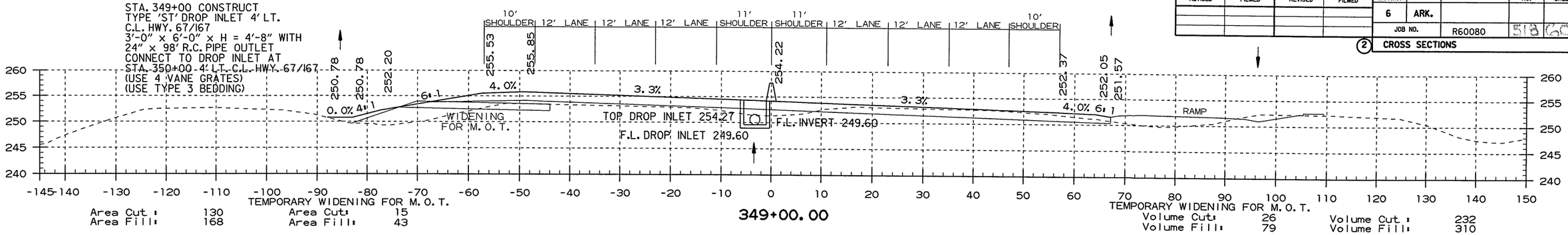
03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	51	60

(2) CROSS SECTIONS

STA. 349+00 CONSTRUCT
TYPE 'ST' DROP INLET 4' LT.
C.L. HWY. 67/167
3'-0" x 6'-0" x H = 4'-8" WITH
24" x 98' R.C. PIPE OUTLET
CONNECT TO DROP INLET AT
STA. 350+00 4' LT. C.L. HWY. 67/167
(USE 4 VANE GRATES)
(USE TYPE 3 BEDDING)



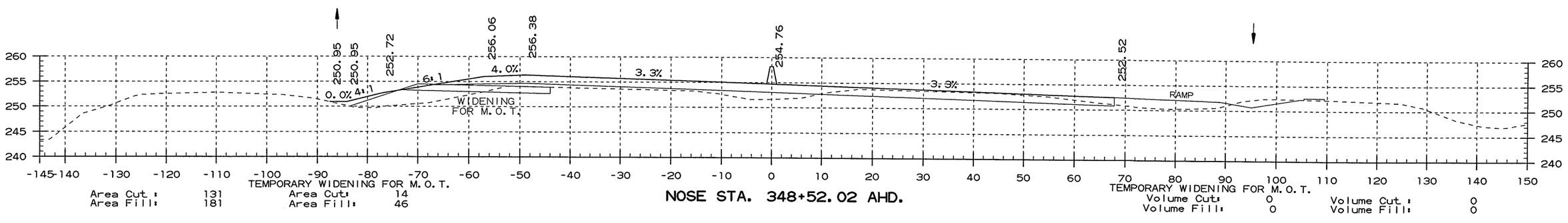
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 130
Area Fill: 168

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 43

349+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 26
Volume Fill: 79

Volume Cut : 232
Volume Fill: 310



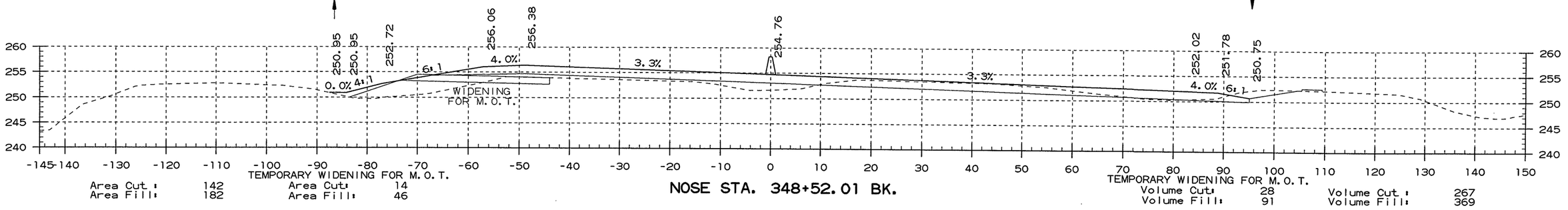
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 131
Area Fill: 181

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 14
Area Fill: 46

NOSE STA. 348+52.02 AHD.

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 0
Volume Fill: 0

Volume Cut : 0
Volume Fill: 0



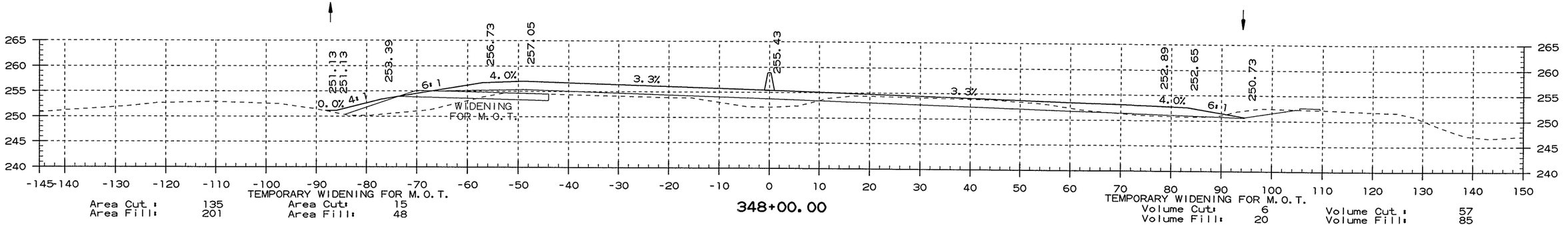
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 142
Area Fill: 182

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 14
Area Fill: 46

NOSE STA. 348+52.01 BK.

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 28
Volume Fill: 91

Volume Cut : 267
Volume Fill: 369



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 135
Area Fill: 201

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 48

348+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 6
Volume Fill: 20

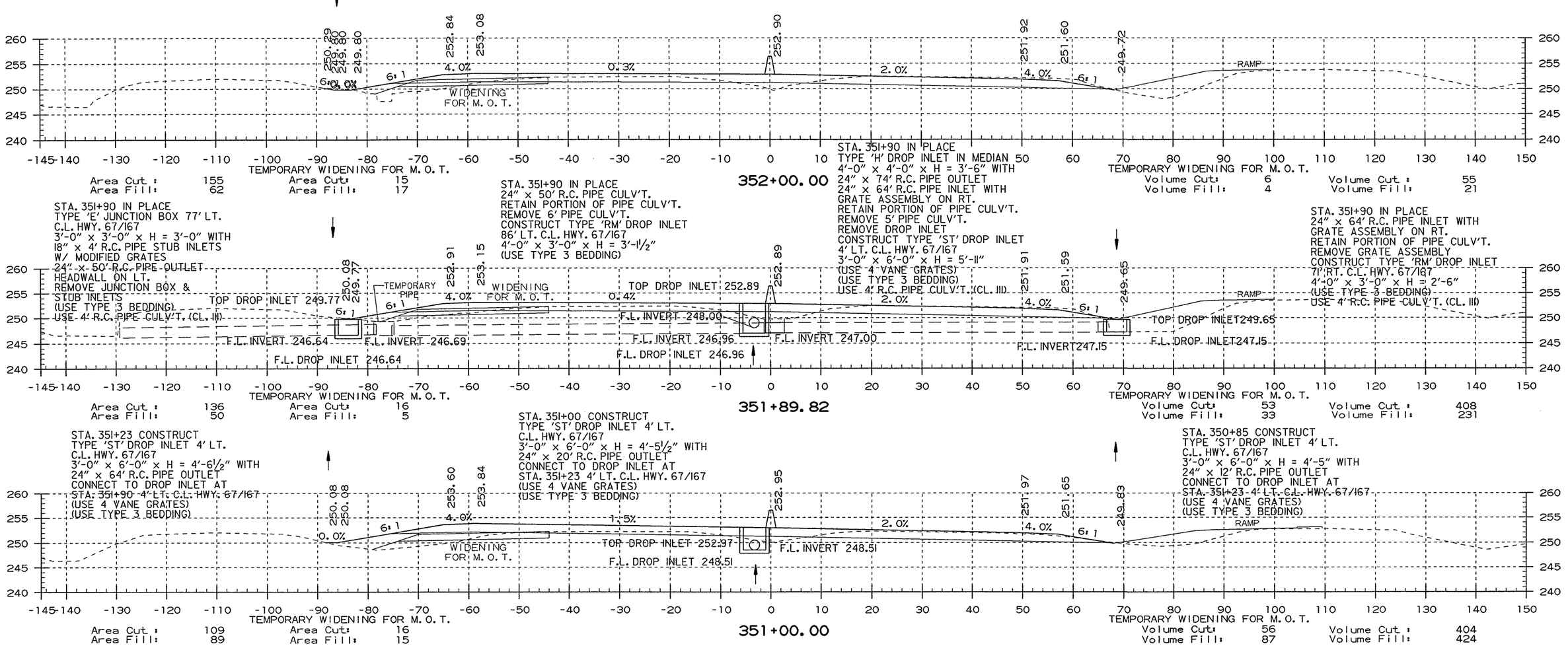
Volume Cut : 57
Volume Fill: 85

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	519	609

(2) CROSS SECTIONS



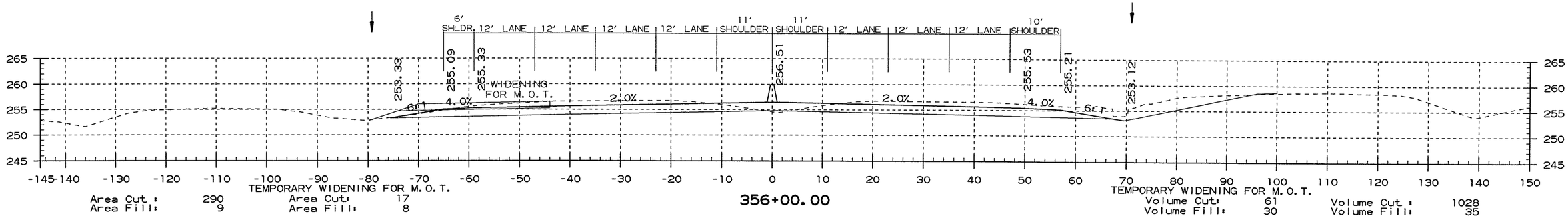
TEMPORARY WIDENING FOR M.O.T.									
Area Cut :	155	Area Cut:	15	Volume Cut:	6	Volume Cut :	55		
Area Fill:	62	Area Fill:	17	Volume Fill:	4	Volume Fill:	21		
Area Cut :	136	Area Cut:	16	Volume Cut:	53	Volume Cut :	408		
Area Fill:	50	Area Fill:	5	Volume Fill:	33	Volume Fill:	231		
Area Cut :	109	Area Cut:	16	Volume Cut:	56	Volume Cut :	404		
Area Fill:	89	Area Fill:	15	Volume Fill:	87	Volume Fill:	424		
Area Cut :	109	Area Cut:	14	Volume Cut:	54	Volume Cut :	443		
Area Fill:	140	Area Fill:	32	Volume Fill:	139	Volume Fill:	570		

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	520	609

(2) CROSS SECTIONS

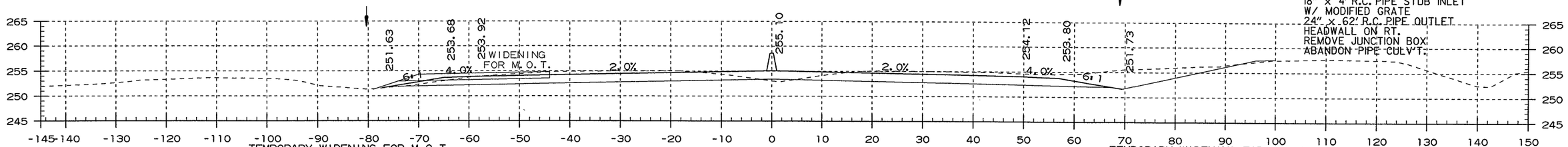


TEMPORARY WIDENING FOR M.O.T.
Area Cut: 290 Area Cut: 17
Area Fill: 9 Area Fill: 8

356+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 61 Volume Cut: 1028
Volume Fill: 30 Volume Fill: 35

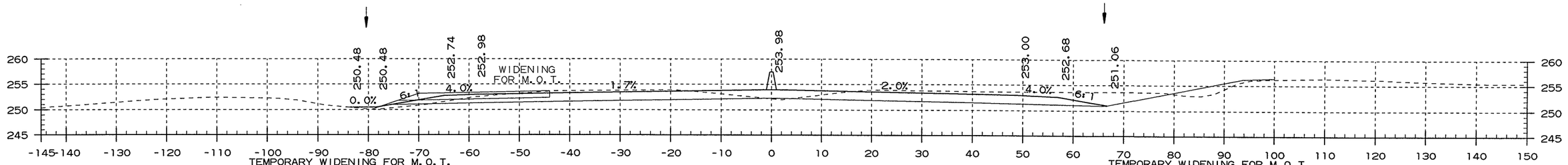
LANDER RD.
STA. 355+42 IN PLACE
TYPE 'E' JUNCTION BOX LT.
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLET
W/ MODIFIED GRATE
24" x 62' R.C. PIPE OUTLET
HEADWALL ON RT.
REMOVE JUNCTION BOX
ABANDON PIPE CULV'T.



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 265 Area Cut: 16
Area Fill: 10 Area Fill: 8

355+00.00

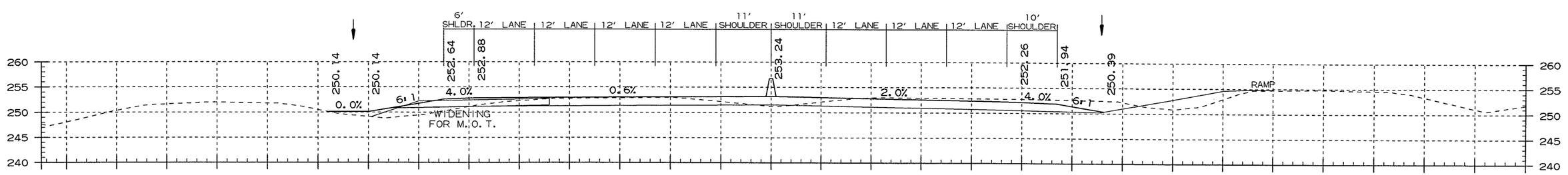
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 54 Volume Cut: 924
Volume Fill: 37 Volume Fill: 52



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 234 Area Cut: 13
Area Fill: 18 Area Fill: 12

354+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 48 Volume Cut: 802
Volume Fill: 59 Volume Fill: 124



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 199 Area Cut: 13
Area Fill: 49 Area Fill: 20

353+00.00

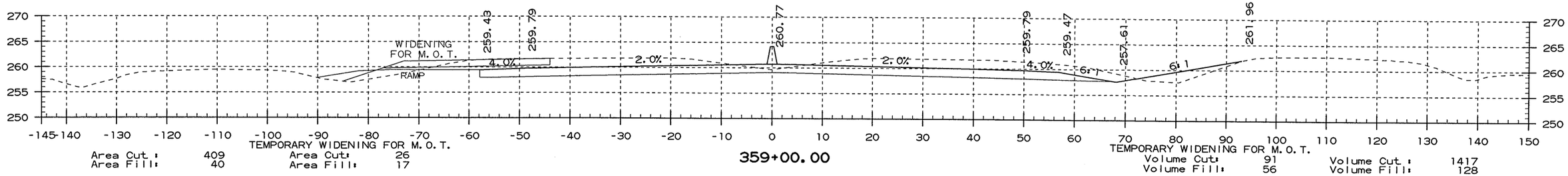
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 52 Volume Cut: 656
Volume Fill: 69 Volume Fill: 206

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	521	609

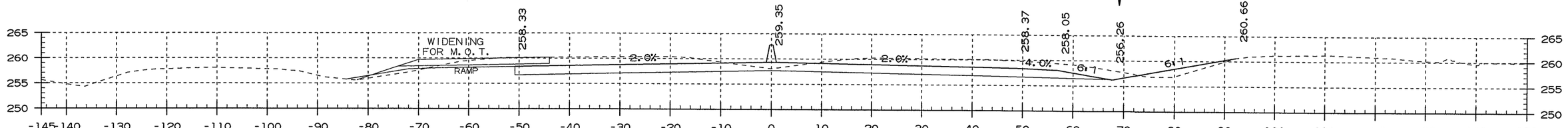
(2) CROSS SECTIONS



Area Cut : 409 Area Cut: 26
Area Fill: 40 Area Fill: 17

359+00.00

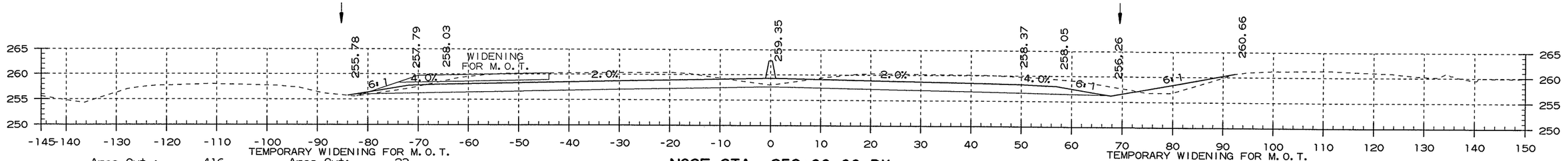
Volume Cut: 91 Volume Cut : 1417
Volume Fill: 56 Volume Fill: 128



Area Cut : 356 Area Cut: 23
Area Fill: 29 Area Fill: 13

NOSE STA. 358+00.01 AHD.

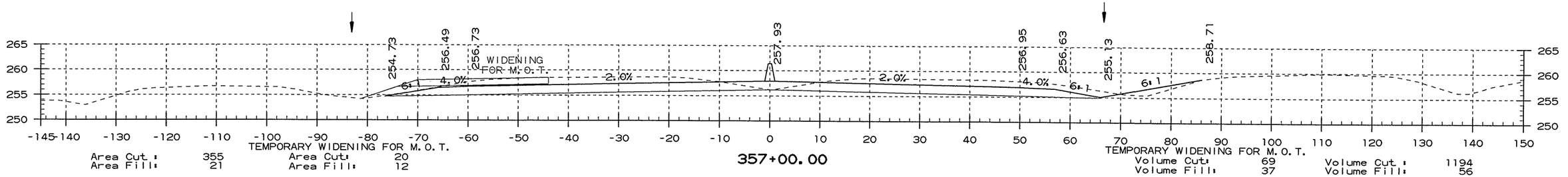
Volume Cut: 0 Volume Cut : 0
Volume Fill: 0 Volume Fill: 0



Area Cut : 416 Area Cut: 23
Area Fill: 30 Area Fill: 13

NOSE STA. 358+00.00 BK.

Volume Cut: 80 Volume Cut : 1428
Volume Fill: 46 Volume Fill: 94



Area Cut : 355 Area Cut: 20
Area Fill: 21 Area Fill: 12

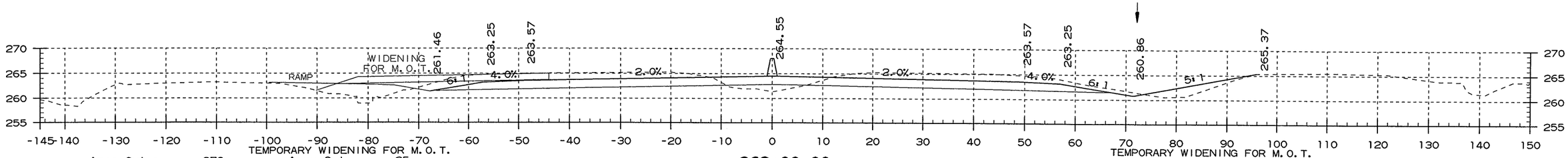
357+00.00

Volume Cut: 69 Volume Cut : 1194
Volume Fill: 37 Volume Fill: 56

03-01-2005 RR60080.CRS2

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	527	609

(2) CROSS SECTIONS



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 379
Area Fill: 82

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 25
Area Fill: 47

362+00.00

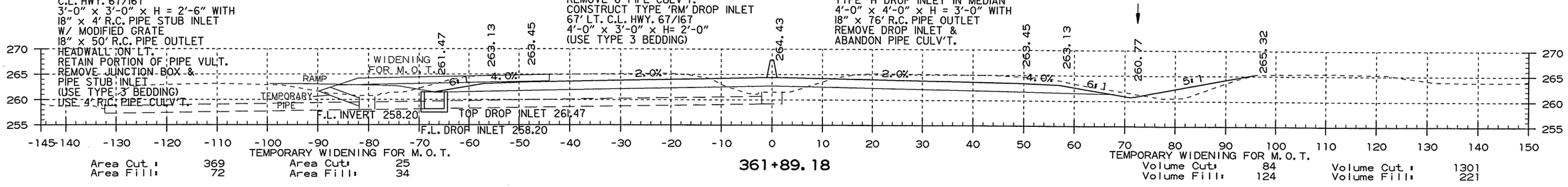
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 10
Volume Fill: 16

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 150
Volume Fill: 31

STA. 361+89 IN PLACE
TYPE 'E' JUNCTION BOX 80' LT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 2'-6" WITH
18" x 4' R.C. PIPE STUB INLET
W/ MODIFIED GRATE
18" x 50' R.C. PIPE OUTLET
HEADWALL ON LT.
RETAIN PORTION OF PIPE VULT.
REMOVE JUNCTION BOX &
PIPE STUB INLET
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T.

STA. 361+89 IN PLACE
18" x 76' R.C. PIPE OUTLET
RETAIN PORTION OF PIPE CULV'T.
REMOVE 6' PIPE CULV'T.
CONSTRUCT TYPE 'RM' DROP INLET
67' LT. C.L. HWY. 67/167
4'-0" x 3'-0" x H= 2'-0"
(USE TYPE 3 BEDDING)

STA. 361+89 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-0" WITH
18" x 76' R.C. PIPE OUTLET
REMOVE DROP INLET &
ABANDON PIPE CULV'T.



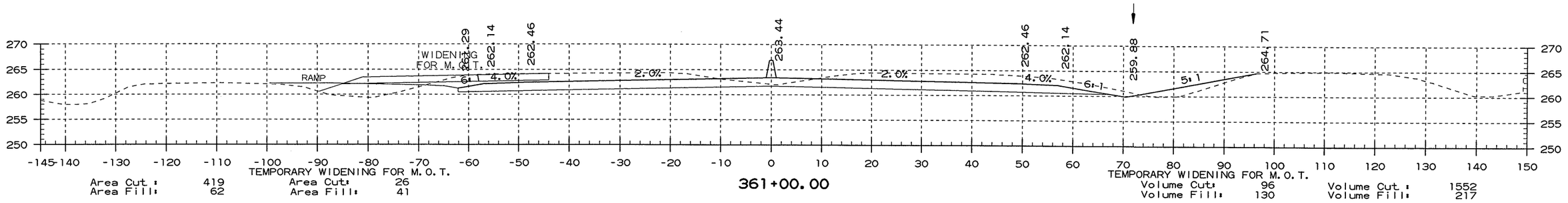
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 369
Area Fill: 72

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 25
Area Fill: 34

361+89.18

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 84
Volume Fill: 124

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 1301
Volume Fill: 221



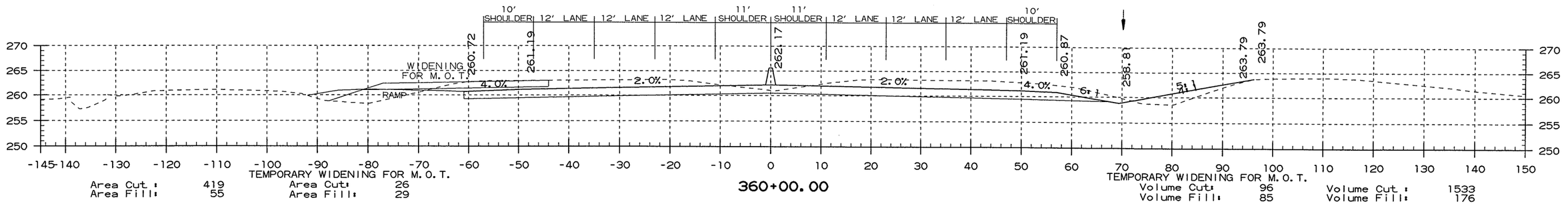
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 419
Area Fill: 62

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 26
Area Fill: 41

361+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 96
Volume Fill: 130

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 1552
Volume Fill: 217



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 419
Area Fill: 55

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 26
Area Fill: 29

360+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 96
Volume Fill: 85

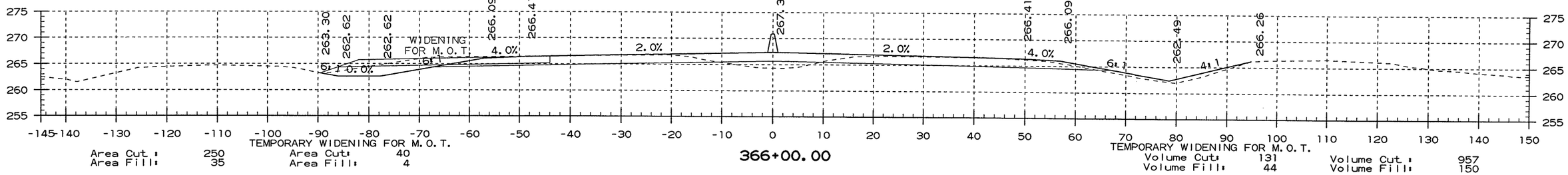
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 1533
Volume Fill: 176

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	523	604

(2) CROSS SECTIONS



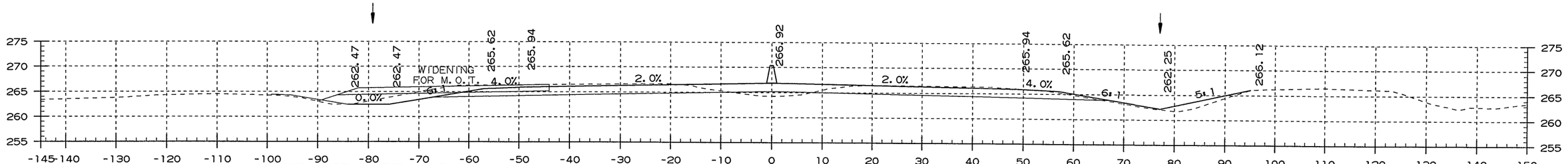
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 250
Area Fill: 35

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 40
Area Fill: 4

366+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 131
Volume Fill: 44

TEMPORARY WIDENING FOR M.O.T.
Volume Cut : 957
Volume Fill: 150



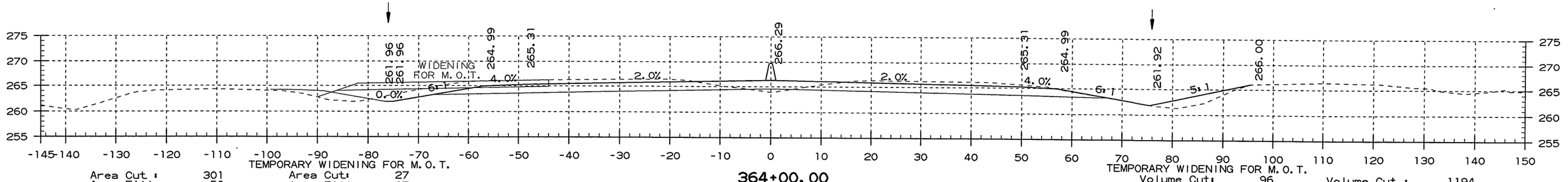
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 267
Area Fill: 46

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 31
Area Fill: 20

365+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 107
Volume Fill: 87

TEMPORARY WIDENING FOR M.O.T.
Volume Cut : 1052
Volume Fill: 178



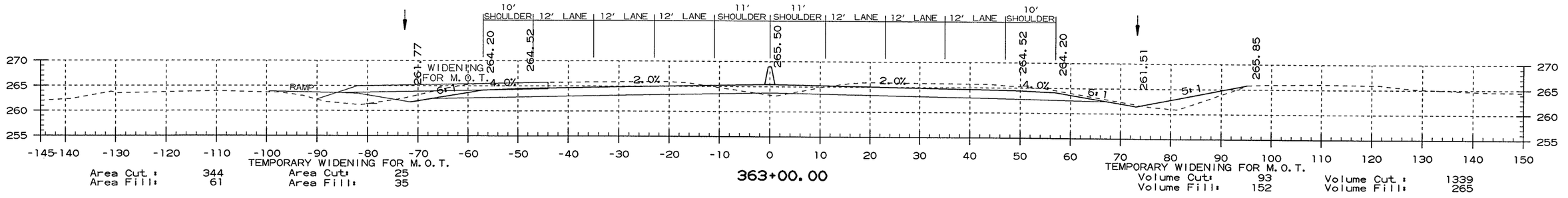
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 301
Area Fill: 50

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 27
Area Fill: 27

364+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 96
Volume Fill: 115

TEMPORARY WIDENING FOR M.O.T.
Volume Cut : 1194
Volume Fill: 206



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 344
Area Fill: 61

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 25
Area Fill: 35

363+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 93
Volume Fill: 152

TEMPORARY WIDENING FOR M.O.T.
Volume Cut : 1339
Volume Fill: 265

03-01-2005 RR60080.CRS2

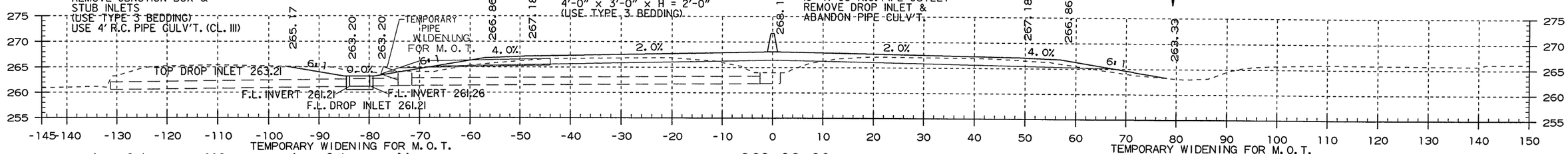
MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	524	668
				(2)	CROSS SECTIONS			

STA. 369+93 IN PLACE
TYPE 'E' JUNCTION BOX 73' LT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 2'-6" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
18" x 56' R.C. PIPE OUTLET
HEADWALL ON LT.
REMOVE JUNCTION BOX &
STUB INLETS
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T. (CL. III)

STA. 369+93 IN PLACE
18" x 56' R.C. PIPE OUTLET
RETAIN PORTION OF PIPE CULV'T.
REMOVE 6' PIPE CULV'T.
CONSTRUCT TYPE 'RM' DROP INLET
82' LT. C.L. HWY. 67/167
4'-0" x 3'-0" x H = 2'-0"
(USE TYPE 3 BEDDING)

STA. 369+93 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-0" WITH
18" x 68' R.C. PIPE OUTLET
REMOVE DROP INLET &
ABANDON PIPE CULV'T.



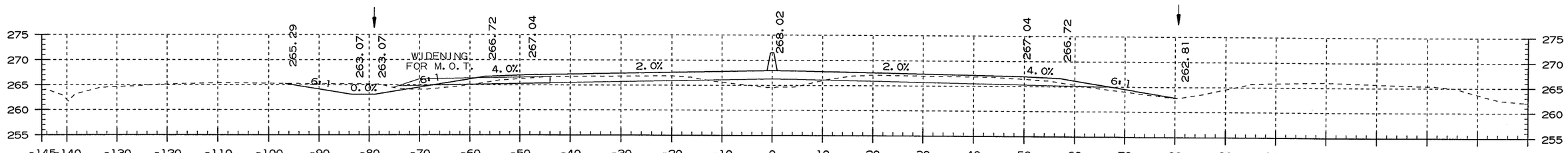
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 113
Area Fill: 51

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 14
Area Fill: 8

369+93.28

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 47
Volume Fill: 28

Volume Cut: 427
Volume Fill: 164



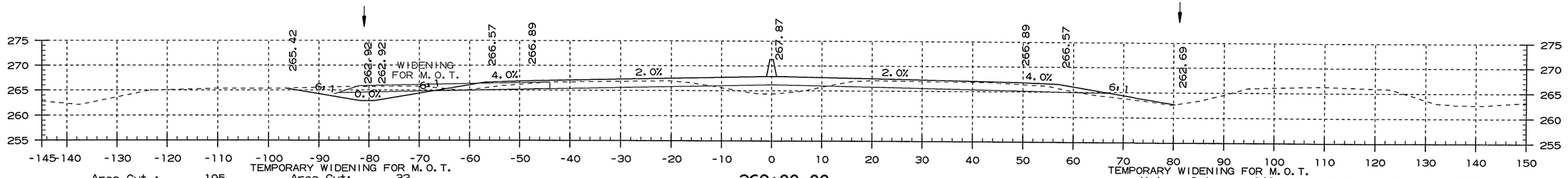
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 134
Area Fill: 44

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 13
Area Fill: 8

369+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 83
Volume Fill: 15

Volume Cut: 609
Volume Fill: 141



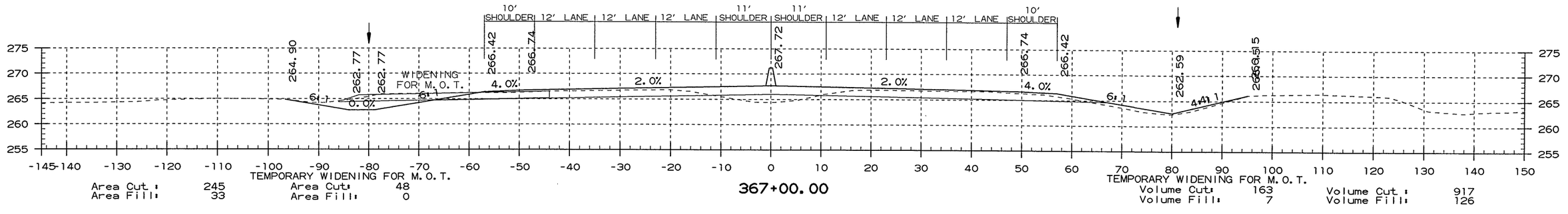
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 195
Area Fill: 32

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 32
Area Fill: 0

368+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 148
Volume Fill: 0

Volume Cut: 815
Volume Fill: 120



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 245
Area Fill: 33

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 48
Area Fill: 0

367+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 163
Volume Fill: 7

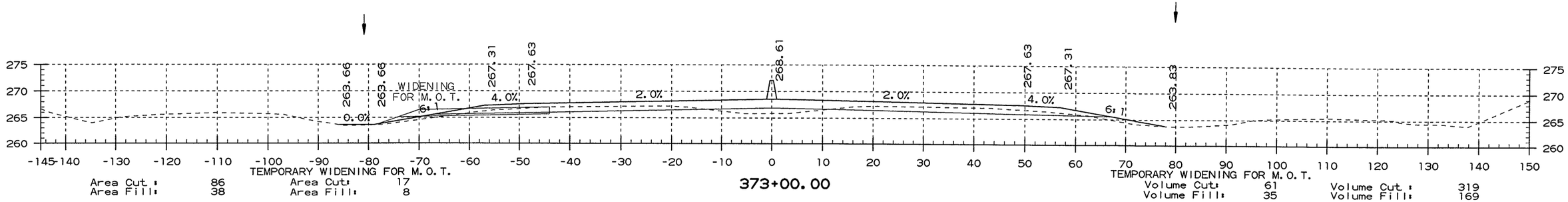
Volume Cut: 917
Volume Fill: 126

03-01-2005 RR60080.CR52

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	525	609

(2) CROSS SECTIONS



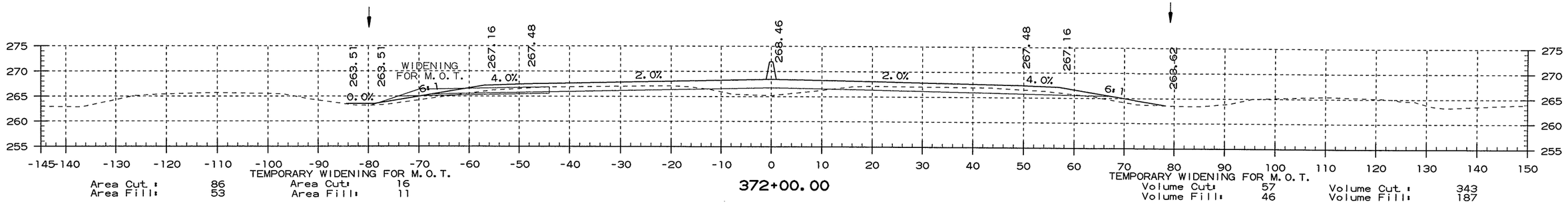
TEMPORARY WIDENING FOR M.O.T.

Area Cut :	86	Area Cut:	17
Area Fill:	38	Area Fill:	8

373+00.00

TEMPORARY WIDENING FOR M.O.T.

Volume Cut:	61	Volume Cut :	319
Volume Fill:	35	Volume Fill:	169



TEMPORARY WIDENING FOR M.O.T.

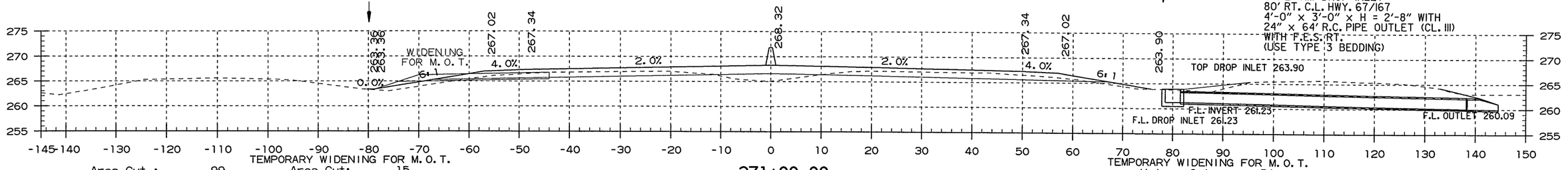
Area Cut :	86	Area Cut:	16
Area Fill:	53	Area Fill:	11

372+00.00

TEMPORARY WIDENING FOR M.O.T.

Volume Cut:	57	Volume Cut :	343
Volume Fill:	46	Volume Fill:	187

STA. 371+00 CONSTRUCT
TYPE 'RM' DROP INLET
80' RT. C.L. HWY. 67/167
4'-0" x 3'-0" x H = 2'-8" WITH
24" x 64' R.C. PIPE OUTLET (CL. III)
WITH F.E.S. RT.
(USE TYPE 3 BEDDING)



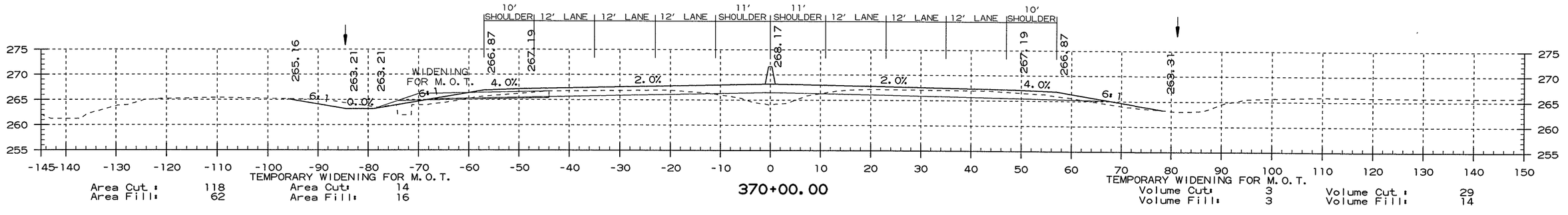
TEMPORARY WIDENING FOR M.O.T.

Area Cut :	99	Area Cut:	15
Area Fill:	48	Area Fill:	14

371+00.00

TEMPORARY WIDENING FOR M.O.T.

Volume Cut:	54	Volume Cut :	402
Volume Fill:	56	Volume Fill:	204



TEMPORARY WIDENING FOR M.O.T.

Area Cut :	118	Area Cut:	14
Area Fill:	62	Area Fill:	16

370+00.00

TEMPORARY WIDENING FOR M.O.T.

Volume Cut:	3	Volume Cut :	29
Volume Fill:	3	Volume Fill:	14

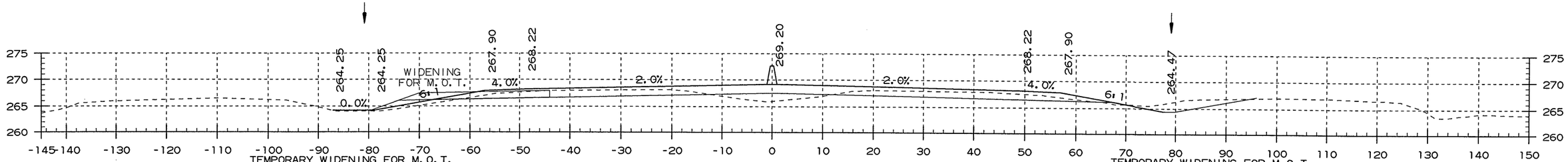
03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	526	604

(2) CROSS SECTIONS



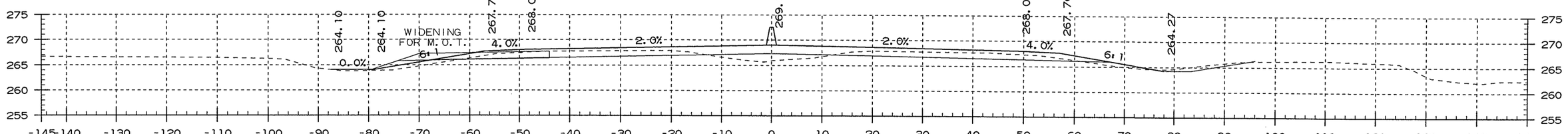
TEMPORARY WIDENING FOR M.O.T.

Area Cut : 116 Area Cut: 16
Area Fill: 44 Area Fill: 14

377+00.00

TEMPORARY WIDENING FOR M.O.T.

Volume Cut: 59 Volume Cut : 415
Volume Fill: 54 Volume Fill: 183



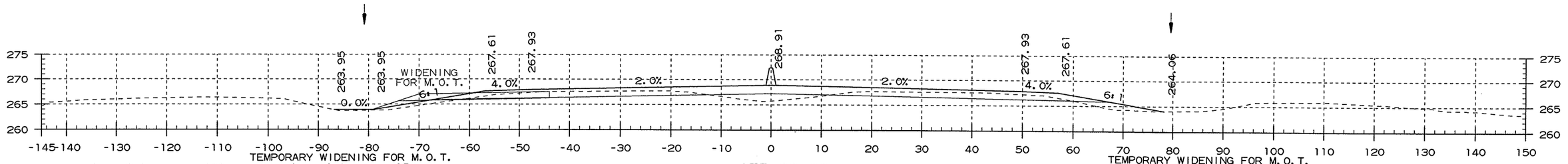
TEMPORARY WIDENING FOR M.O.T.

Area Cut : 108 Area Cut: 16
Area Fill: 55 Area Fill: 15

376+00.00

TEMPORARY WIDENING FOR M.O.T.

Volume Cut: 57 Volume Cut : 385
Volume Fill: 52 Volume Fill: 206



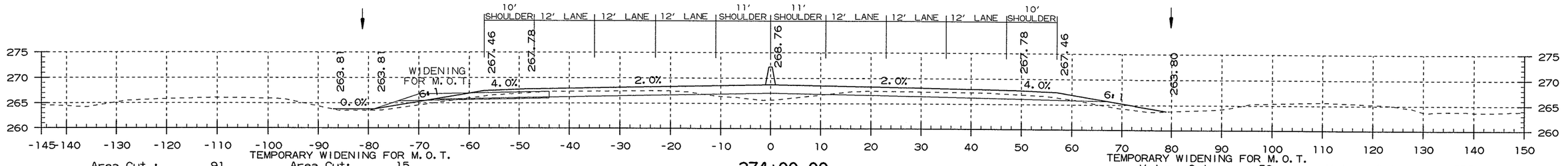
TEMPORARY WIDENING FOR M.O.T.

Area Cut : 100 Area Cut: 15
Area Fill: 56 Area Fill: 13

375+00.00

TEMPORARY WIDENING FOR M.O.T.

Volume Cut: 56 Volume Cut : 354
Volume Fill: 46 Volume Fill: 202



TEMPORARY WIDENING FOR M.O.T.

Area Cut : 91 Area Cut: 15
Area Fill: 53 Area Fill: 12

374+00.00

TEMPORARY WIDENING FOR M.O.T.

Volume Cut: 59 Volume Cut : 328
Volume Fill: 37 Volume Fill: 169

03-01-2005 RR60080.CRS2

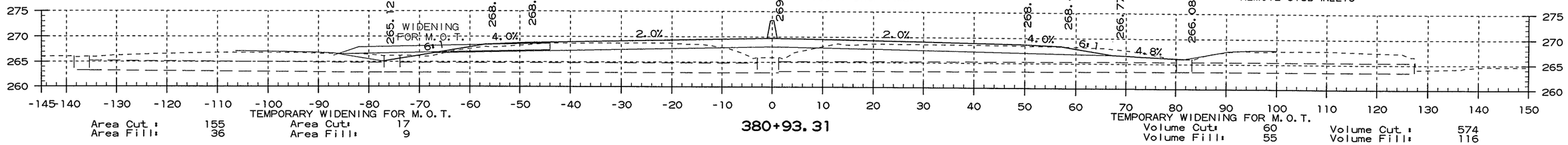
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	527	603

(2) CROSS SECTIONS

STA. 380+93 IN PLACE
TYPE 'E' JUNCTION BOX 76' LT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
24" x 58' R.C. PIPE OUTLET
REMOVE STUB INLETS

STA. 380+93 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
24" x 70' R.C. PIPE OUTLET
24" x 78' R.C. PIPE INLET
MODIFY DROP INLET

STA. 380+93 IN PLACE
TYPE 'E' JUNCTION BOX 82' RT.
C.L. HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
24" x 44' R.C. PIPE INLET
HEADWALL ON RT.
REMOVE STUB INLETS



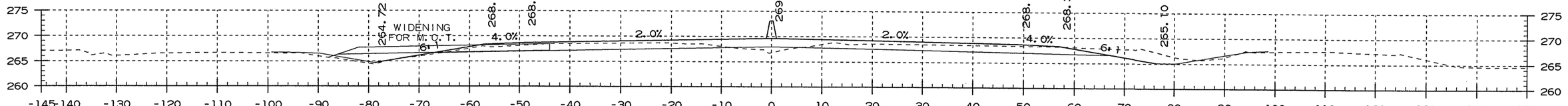
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 155
Area Fill: 36

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 17
Area Fill: 9

380+93.31

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 60
Volume Fill: 55

Volume Cut : 574
Volume Fill: 116



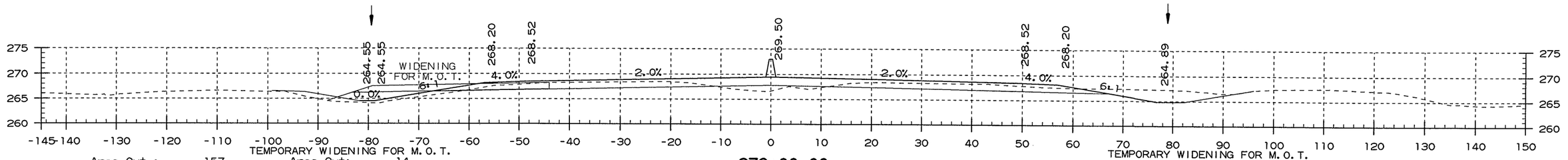
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 177
Area Fill: 31

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 18
Area Fill: 23

380+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 59
Volume Fill: 104

Volume Cut : 619
Volume Fill: 161



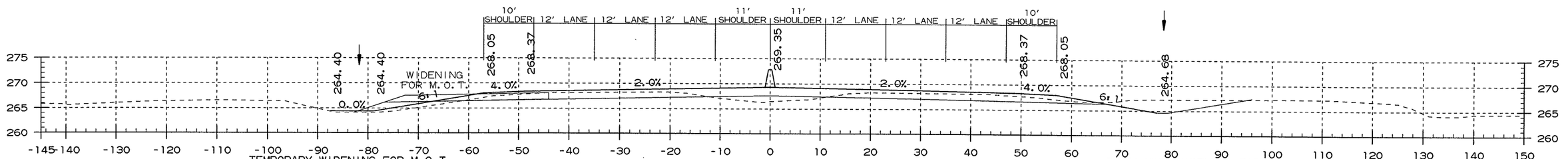
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 157
Area Fill: 56

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 14
Area Fill: 33

379+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 54
Volume Fill: 102

Volume Cut : 546
Volume Fill: 196



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 138
Area Fill: 50

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 22

378+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 57
Volume Fill: 67

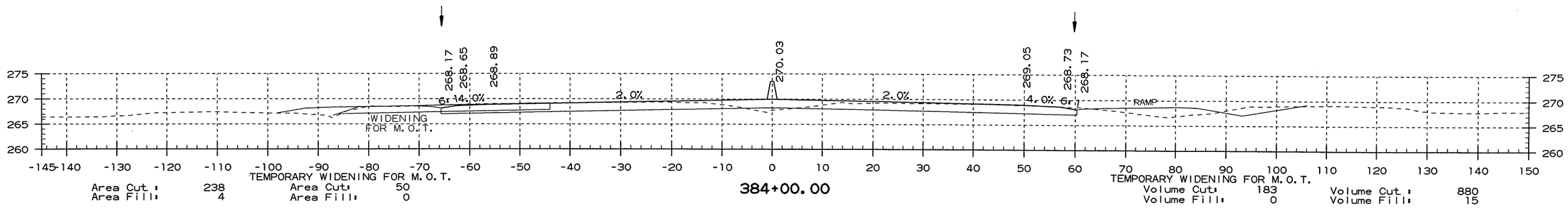
Volume Cut : 470
Volume Fill: 174

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	528	609

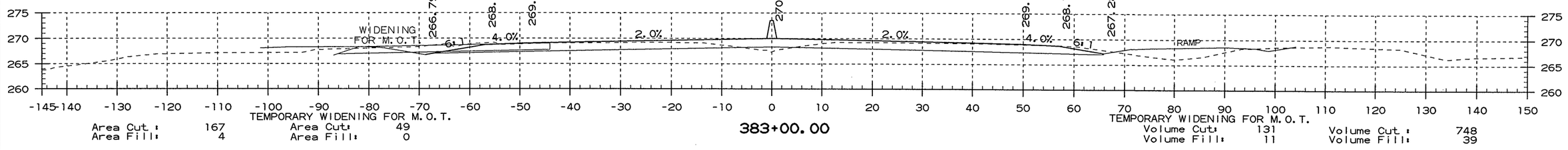
(2) CROSS SECTIONS



Area Cut : 238 Area Cut: 50
Area Fill: 4 Area Fill: 0

384+00.00

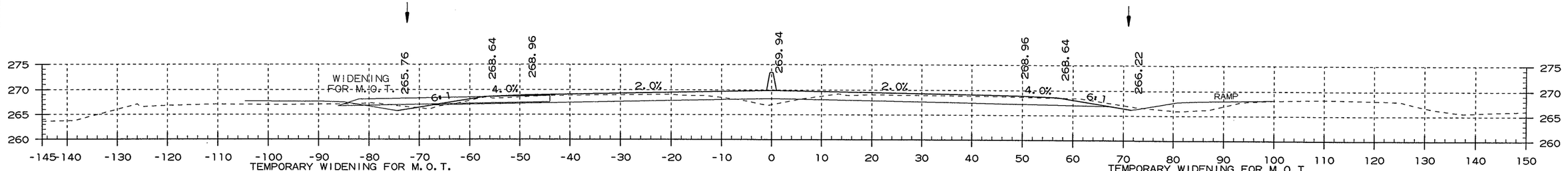
Volume Cut: 183 Volume Cut : 880
Volume Fill: 0 Volume Fill: 15



Area Cut : 167 Area Cut: 49
Area Fill: 4 Area Fill: 0

383+00.00

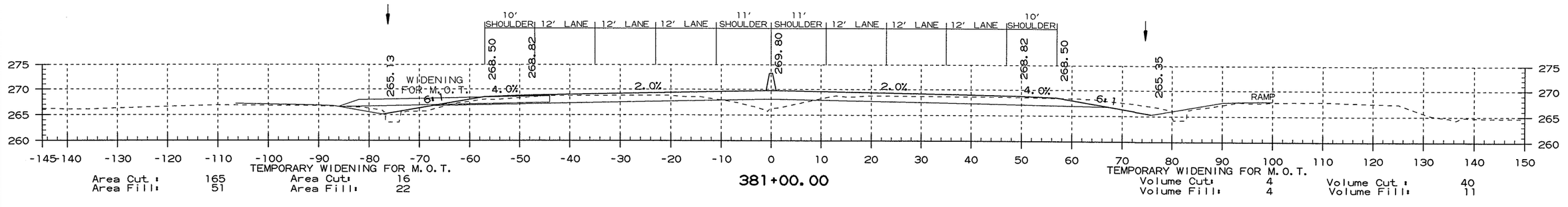
Volume Cut: 131 Volume Cut : 748
Volume Fill: 11 Volume Fill: 39



Area Cut : 167 Area Cut: 22
Area Fill: 17 Area Fill: 6

382+00.00

Volume Cut: 70 Volume Cut : 615
Volume Fill: 52 Volume Fill: 126



Area Cut : 165 Area Cut: 16
Area Fill: 51 Area Fill: 22

381+00.00

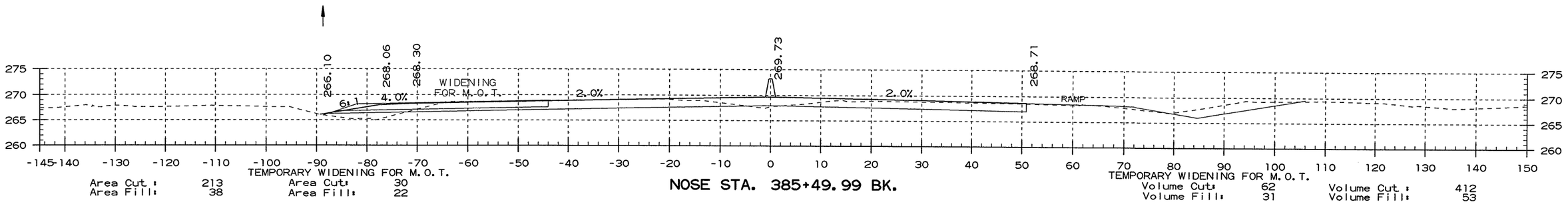
Volume Cut: 4 Volume Cut : 40
Volume Fill: 4 Volume Fill: 11

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		

(2) CROSS SECTIONS



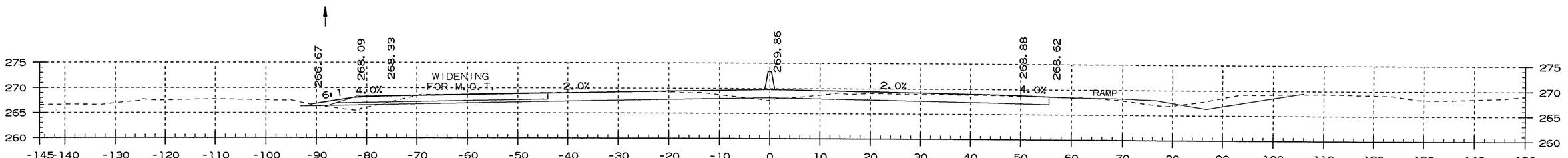
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 213
Area Fill: 38

Area Cut: 30
Area Fill: 22

NOSE STA. 385+49.99 BK.

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 62
Volume Fill: 31

Volume Cut : 412
Volume Fill: 53



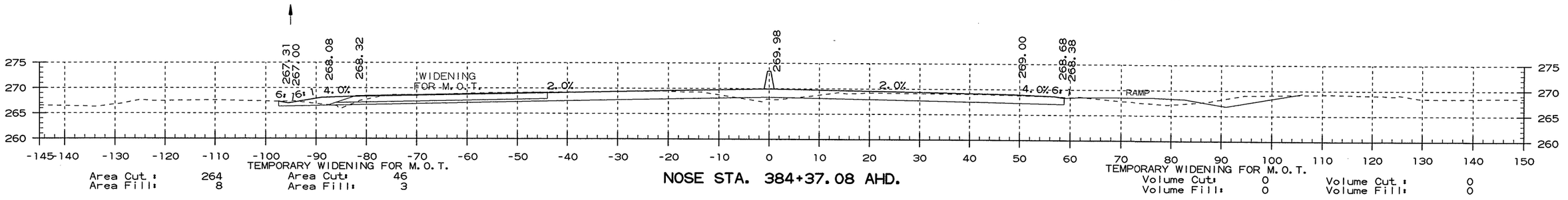
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 232
Area Fill: 19

Area Cut: 37
Area Fill: 11

385+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 97
Volume Fill: 16

Volume Cut : 578
Volume Fill: 31



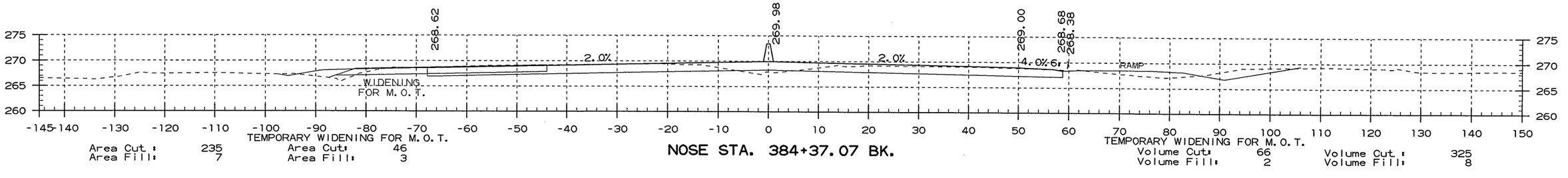
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 264
Area Fill: 8

Area Cut: 46
Area Fill: 3

NOSE STA. 384+37.08 AHD.

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 0
Volume Fill: 0

Volume Cut : 0
Volume Fill: 0



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 235
Area Fill: 7

Area Cut: 46
Area Fill: 3

NOSE STA. 384+37.07 BK.

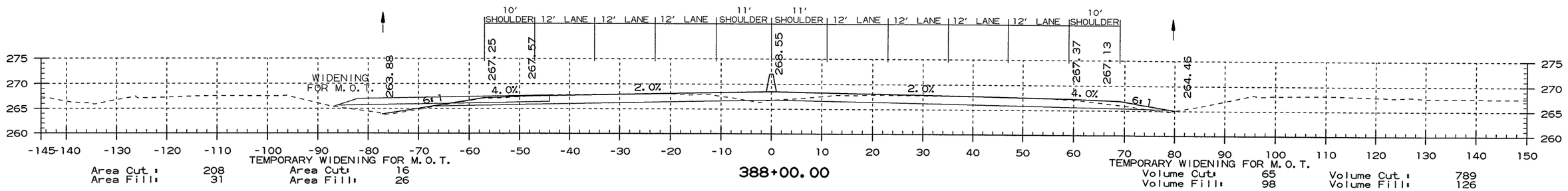
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 66
Volume Fill: 2

Volume Cut : 325
Volume Fill: 8

03-01-2005 RR60080.CRS2

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	530	653

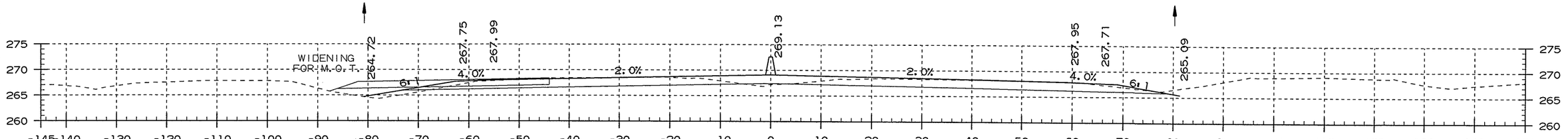
(2) CROSS SECTIONS



Area Cut : 208 Area Cut: 16
Area Fill: 31 Area Fill: 26

388+00.00

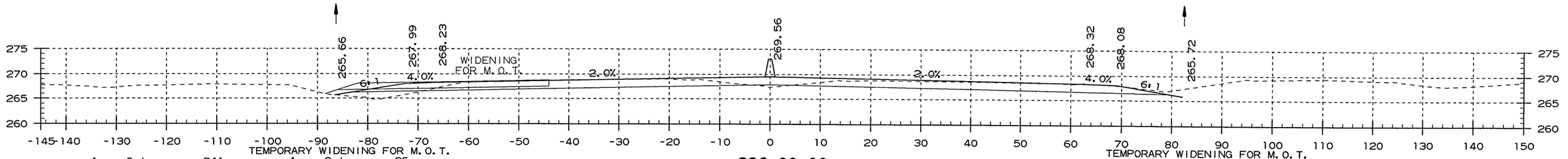
Volume Cut: 65 Volume Cut : 789
Volume Fill: 98 Volume Fill: 126



Area Cut : 218 Area Cut: 19
Area Fill: 37 Area Fill: 27

387+00.00

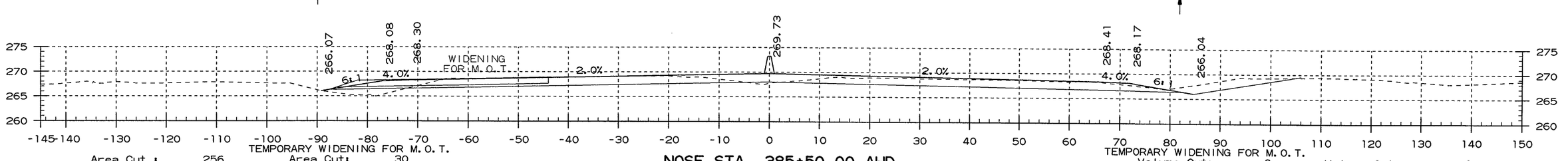
Volume Cut: 81 Volume Cut : 850
Volume Fill: 98 Volume Fill: 148



Area Cut : 241 Area Cut: 25
Area Fill: 43 Area Fill: 26

386+00.00

Volume Cut: 51 Volume Cut : 460
Volume Fill: 44 Volume Fill: 75



Area Cut : 256 Area Cut: 30
Area Fill: 38 Area Fill: 22

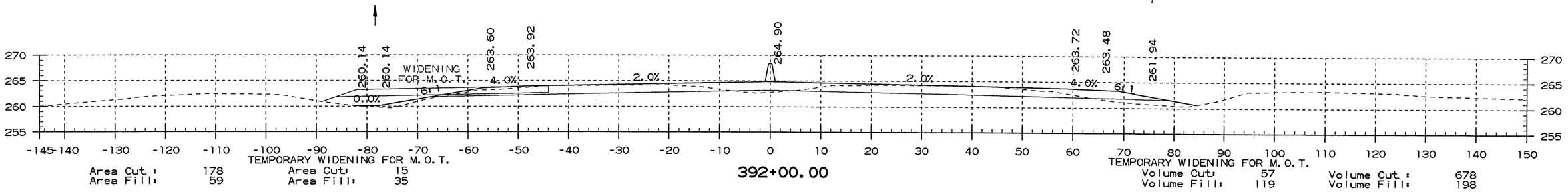
NOSE STA. 385+50.00 AHD.

Volume Cut: 0 Volume Cut : 0
Volume Fill: 0 Volume Fill: 0

03-01-2005 RR60080.CRS2

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	531	609

(2) CROSS SECTIONS



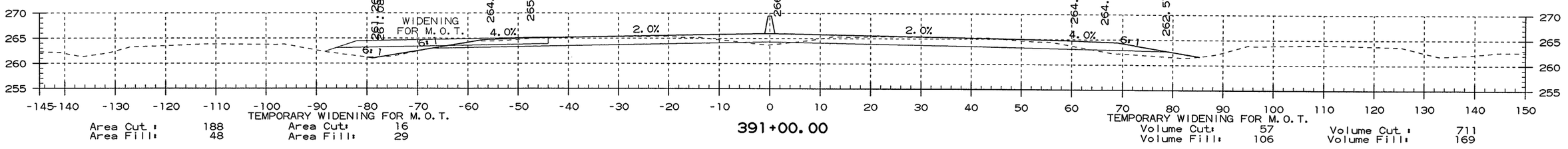
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 178
Area Fill: 59

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 35

392+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 57
Volume Fill: 119

Volume Cut : 678
Volume Fill: 198



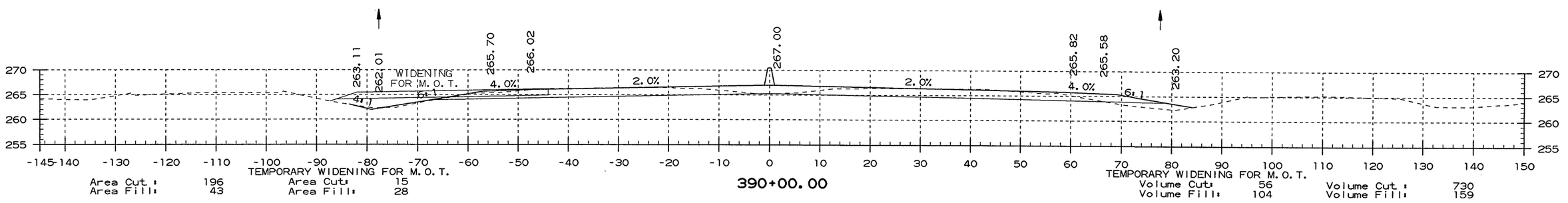
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 188
Area Fill: 48

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 29

391+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 57
Volume Fill: 106

Volume Cut : 711
Volume Fill: 169



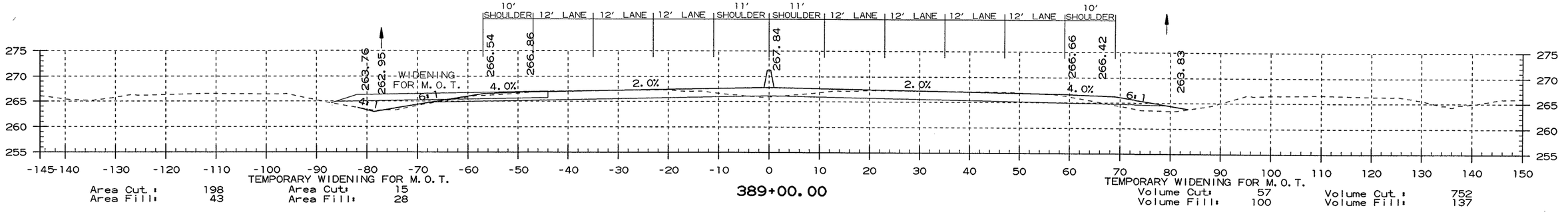
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 196
Area Fill: 43

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 28

390+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 56
Volume Fill: 104

Volume Cut : 730
Volume Fill: 159



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 198
Area Fill: 43

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 28

389+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 57
Volume Fill: 100

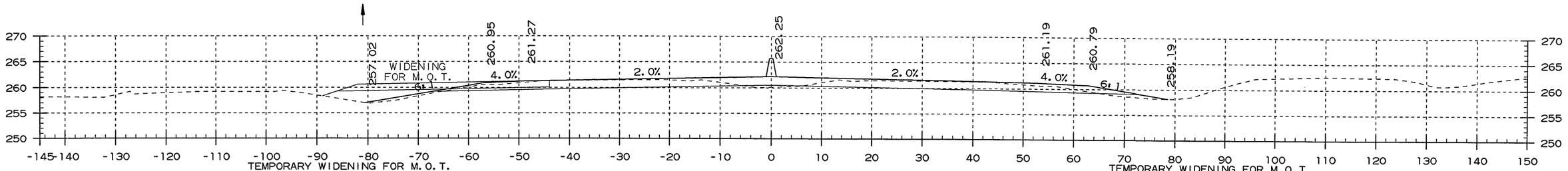
Volume Cut : 752
Volume Fill: 137

03-01-2005 R60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	232	401

(2) CROSS SECTIONS



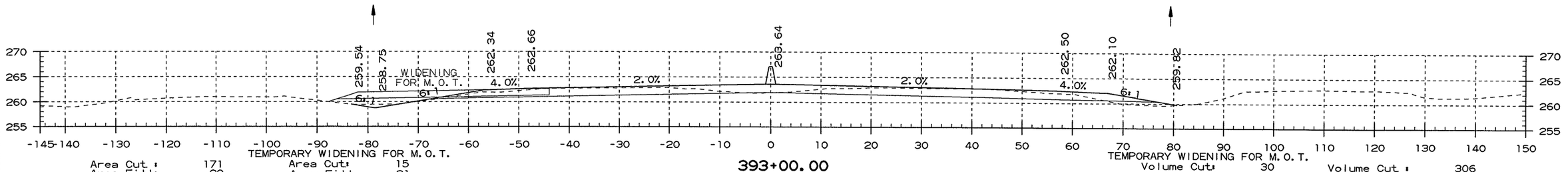
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 182
Area Fill: 52

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 14
Area Fill: 38

394+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 54
Volume Fill: 106

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 654
Volume Fill: 150



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 171
Area Fill: 29

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 21

393+00.00

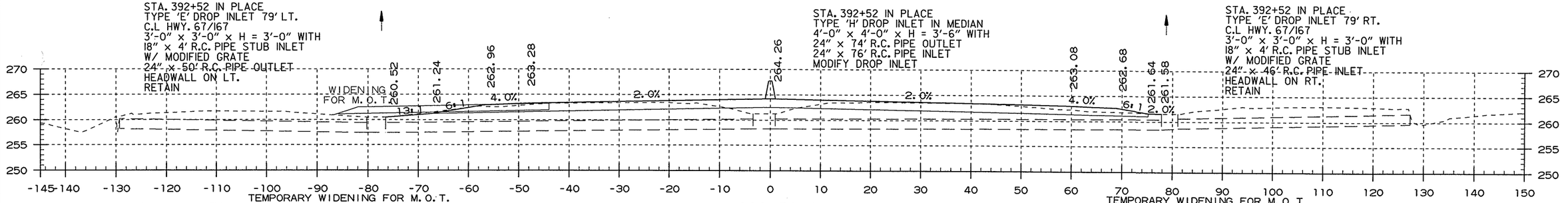
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 30
Volume Fill: 28

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 306
Volume Fill: 45

STA. 392+52 IN PLACE
TYPE 'E' DROP INLET 79' LT.
C.L HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLET
W/ MODIFIED GRATE
24" x 50' R.C. PIPE OUTLET
HEADWALL ON LT.
RETAIN

STA. 392+52 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
24" x 74' R.C. PIPE OUTLET
24" x 76' R.C. PIPE INLET
MODIFY DROP INLET

STA. 392+52 IN PLACE
TYPE 'E' DROP INLET 79' RT.
C.L HWY. 67/167
3'-0" x 3'-0" x H = 3'-0" WITH
18" x 4' R.C. PIPE STUB INLET
W/ MODIFIED GRATE
24" x 46' R.C. PIPE INLET
HEADWALL ON RT.
RETAIN



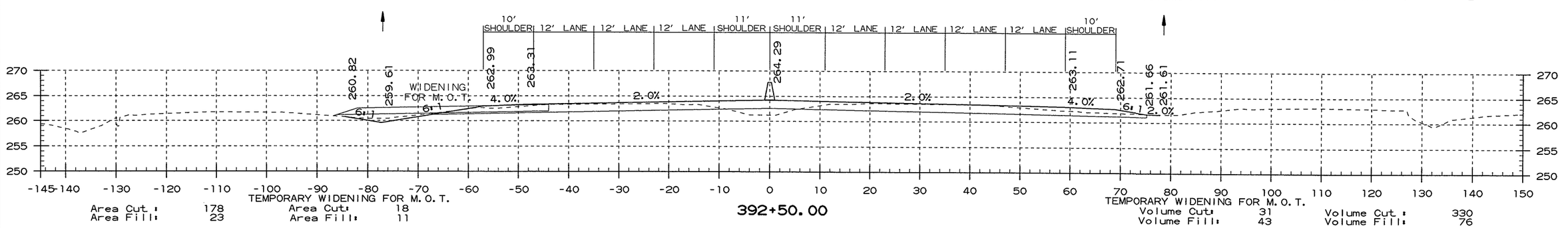
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 174
Area Fill: 22

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 19
Area Fill: 10

392+52.03

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 1
Volume Fill: 1

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 13
Volume Fill: 2



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 178
Area Fill: 23

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 18
Area Fill: 11

392+50.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 31
Volume Fill: 43

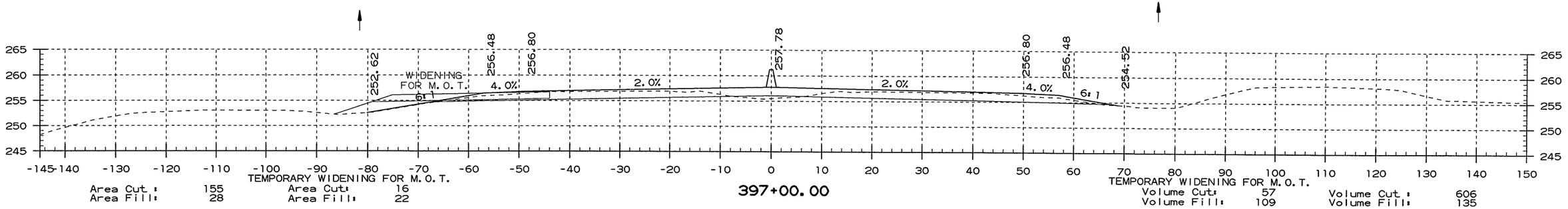
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 330
Volume Fill: 76

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	53	609

(2) CROSS SECTIONS



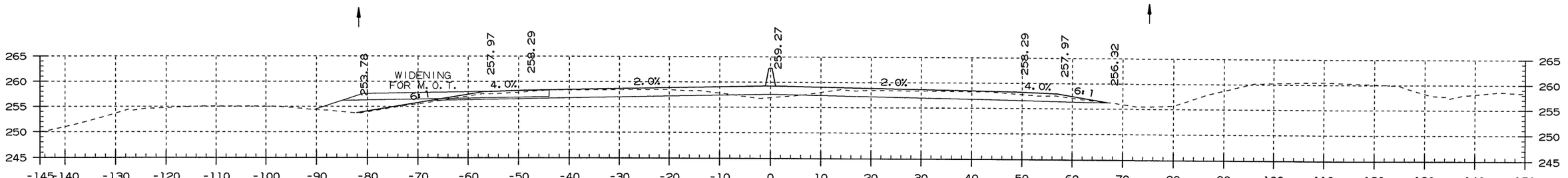
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 155
Area Fill: 28

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 22

397+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 57
Volume Fill: 109

TEMPORARY WIDENING FOR M.O.T.
Volume Cut : 606
Volume Fill: 135



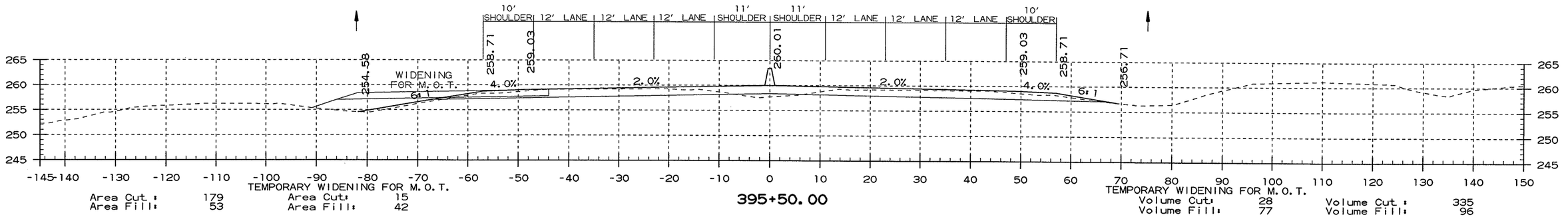
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 172
Area Fill: 45

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 37

396+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 28
Volume Fill: 73

TEMPORARY WIDENING FOR M.O.T.
Volume Cut : 325
Volume Fill: 91



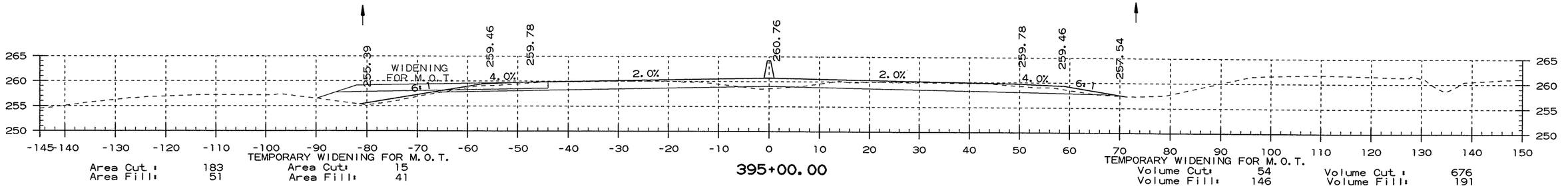
TEMPORARY WIDENING FOR M.O.T.
Area Cut : 179
Area Fill: 53

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 42

395+50.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 28
Volume Fill: 77

TEMPORARY WIDENING FOR M.O.T.
Volume Cut : 335
Volume Fill: 96



TEMPORARY WIDENING FOR M.O.T.
Area Cut : 183
Area Fill: 51

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 41

395+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 54
Volume Fill: 146

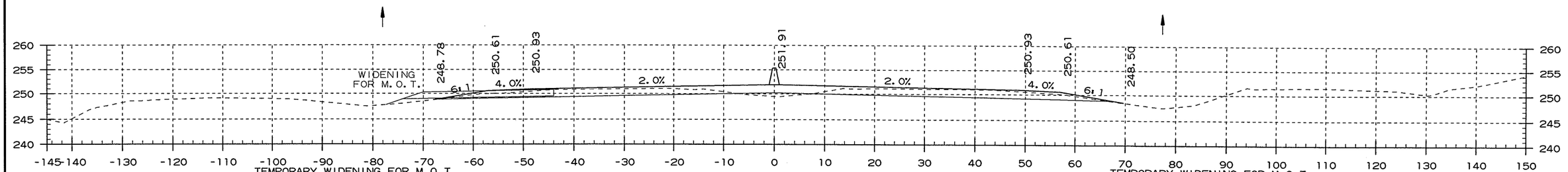
TEMPORARY WIDENING FOR M.O.T.
Volume Cut : 676
Volume Fill: 191

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	E24	609

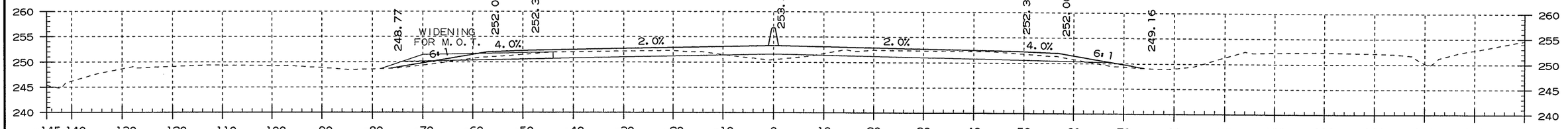
(2) CROSS SECTIONS



Area Cut : 141 Area Cut: 16
Area Fill: 11 Area Fill: 5

401+00.00

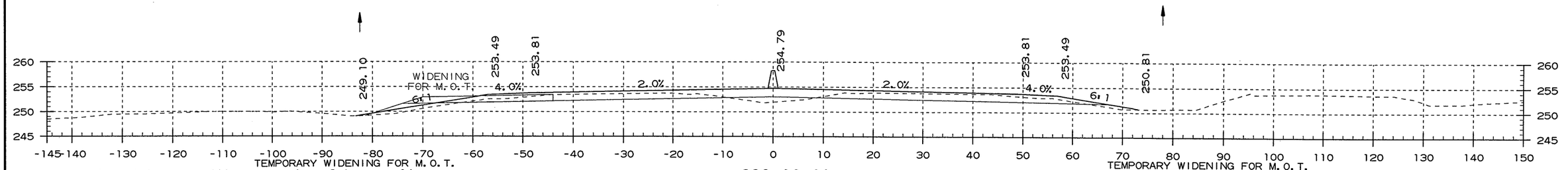
Volume Cut: 56 Volume Cut : 476
Volume Fill: 26 Volume Fill: 72



Area Cut : 116 Area Cut: 14
Area Fill: 28 Area Fill: 9

400+00.00

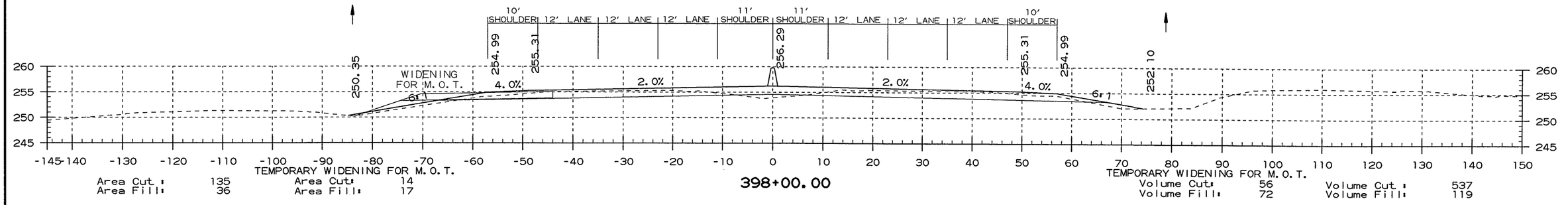
Volume Cut: 52 Volume Cut : 443
Volume Fill: 48 Volume Fill: 133



Area Cut : 123 Area Cut: 14
Area Fill: 44 Area Fill: 17

399+00.00

Volume Cut: 52 Volume Cut : 478
Volume Fill: 63 Volume Fill: 148



Area Cut : 135 Area Cut: 14
Area Fill: 36 Area Fill: 17

398+00.00

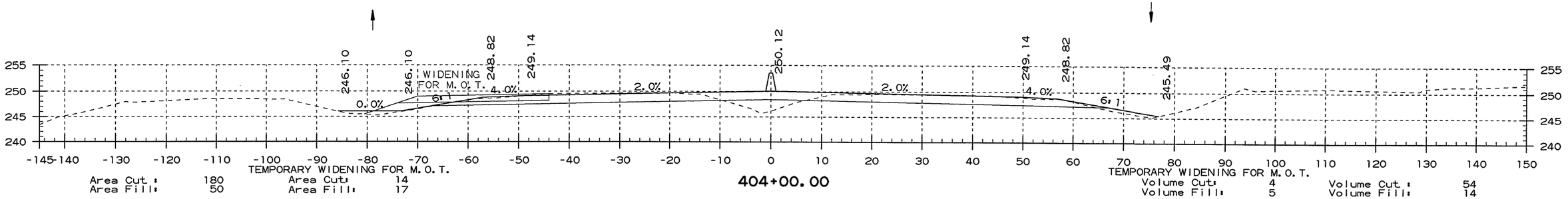
Volume Cut: 56 Volume Cut : 537
Volume Fill: 72 Volume Fill: 119

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	595	601

(2) CROSS SECTIONS



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 180
Area Fill: 50

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 14
Area Fill: 17

404+00.00

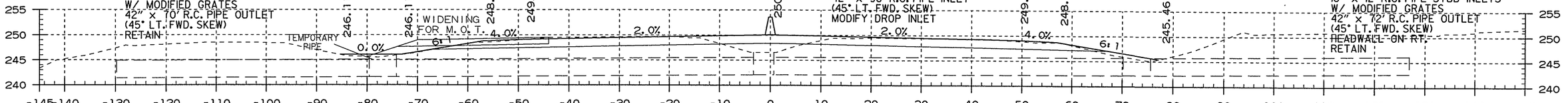
TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 4
Volume Fill: 5

Volume Cut: 54
Volume Fill: 14

STA. 403+92 IN PLACE
TYPE 'E' JUNCTION BOX 77' LT.
C.L. HWY. 67/167
5'-0" x 3'-0" x H = 4'-6" WITH
18" x 12' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
42" x 70' R.C. PIPE OUTLET
(45° LT. FWD. SKEW)
RETAIN

STA. 403+92 IN PLACE
TYPE 'H' DROP INLET IN MEDIAN
4'-0" x 4'-0" x H = 3'-6" WITH
42" x 102' R.C. PIPE OUTLET
(45° LT. FWD. SKEW)
42" x 98' R.C. PIPE INLET
(45° LT. FWD. SKEW)
MODIFY DROP INLET

STA. 403+92 IN PLACE
TYPE 'E' JUNCTION BOX 73' RT.
C.L. HWY. 67/167
5'-0" x 3'-0" x H = 4'-6" WITH
18" x 12' R.C. PIPE STUB INLETS
W/ MODIFIED GRATES
42" x 72' R.C. PIPE OUTLET
(45° LT. FWD. SKEW)
HEADWALL ON RT.
RETAIN



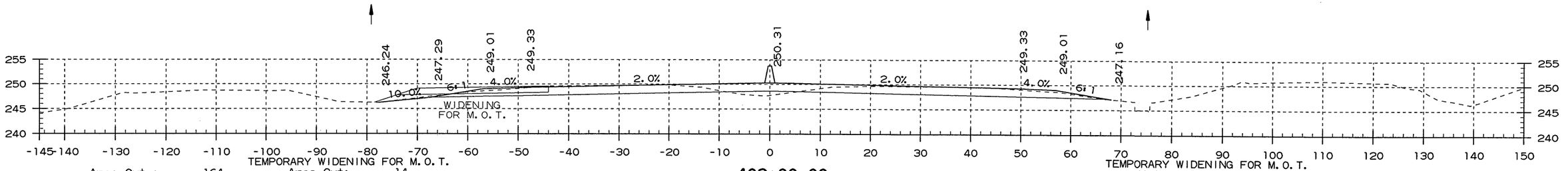
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 178
Area Fill: 46

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 14
Area Fill: 16

403+91.88

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 48
Volume Fill: 41

Volume Cut: 582
Volume Fill: 105



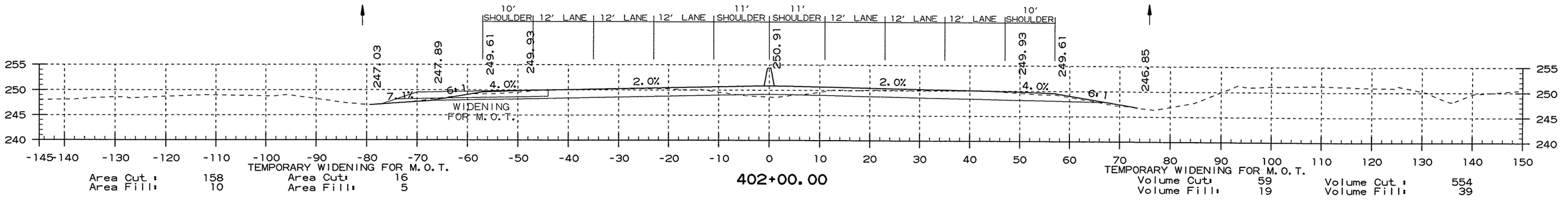
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 164
Area Fill: 16

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 14
Area Fill: 8

403+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 56
Volume Fill: 24

Volume Cut: 596
Volume Fill: 48



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 158
Area Fill: 10

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 5

402+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 59
Volume Fill: 19

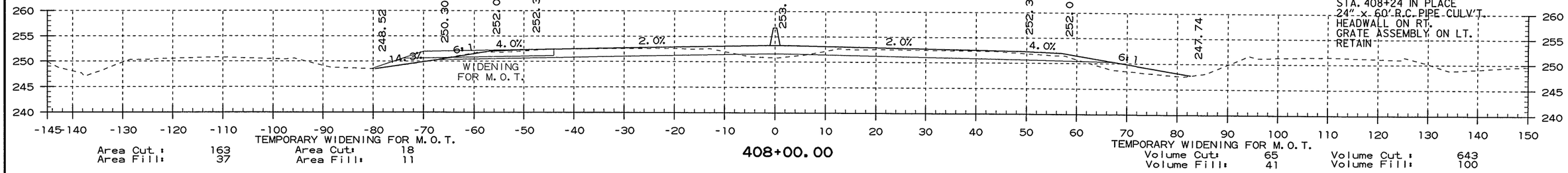
Volume Cut: 554
Volume Fill: 39

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	536	603

(2) CROSS SECTIONS



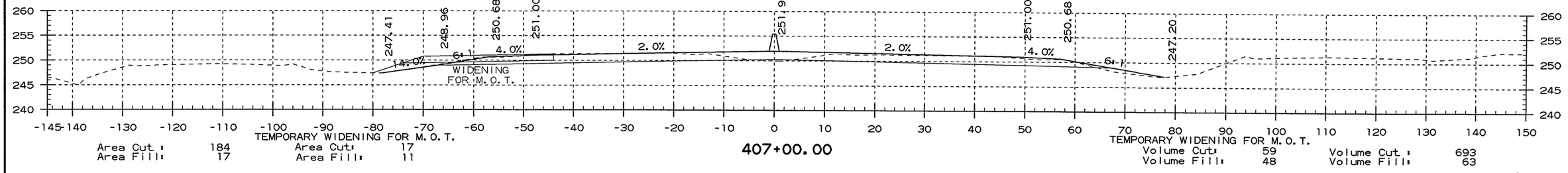
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 163
Area Fill: 37

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 18
Area Fill: 11

408+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 65
Volume Fill: 41

Volume Cut: 643
Volume Fill: 100



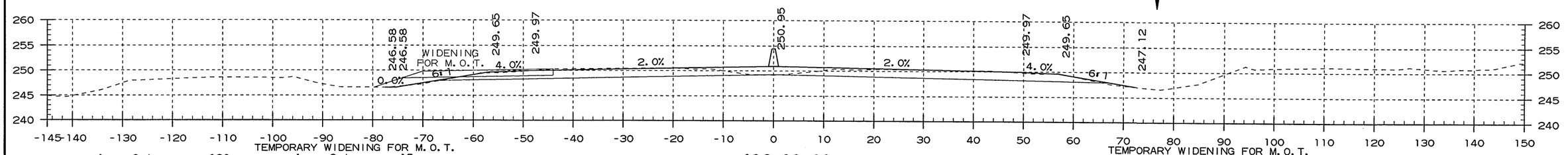
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 184
Area Fill: 17

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 17
Area Fill: 11

407+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 59
Volume Fill: 48

Volume Cut: 693
Volume Fill: 63



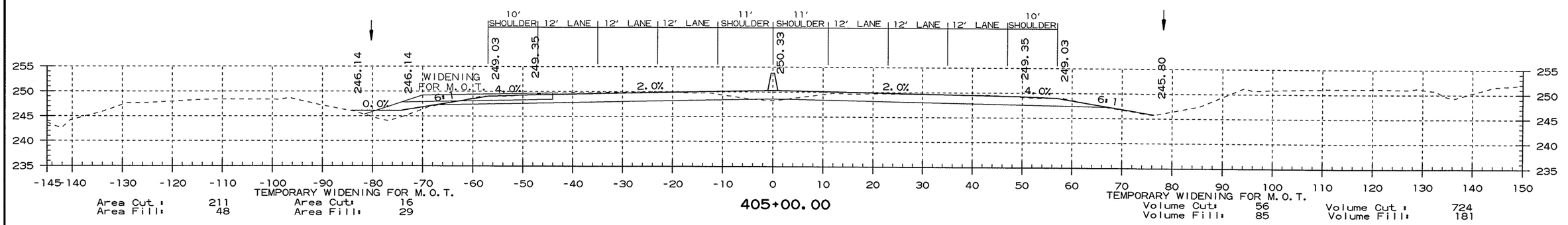
TEMPORARY WIDENING FOR M.O.T.
Area Cut: 190
Area Fill: 17

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 15
Area Fill: 15

406+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 57
Volume Fill: 81

Volume Cut: 743
Volume Fill: 120



TEMPORARY WIDENING FOR M.O.T.
Area Cut: 211
Area Fill: 48

TEMPORARY WIDENING FOR M.O.T.
Area Cut: 16
Area Fill: 29

405+00.00

TEMPORARY WIDENING FOR M.O.T.
Volume Cut: 56
Volume Fill: 85

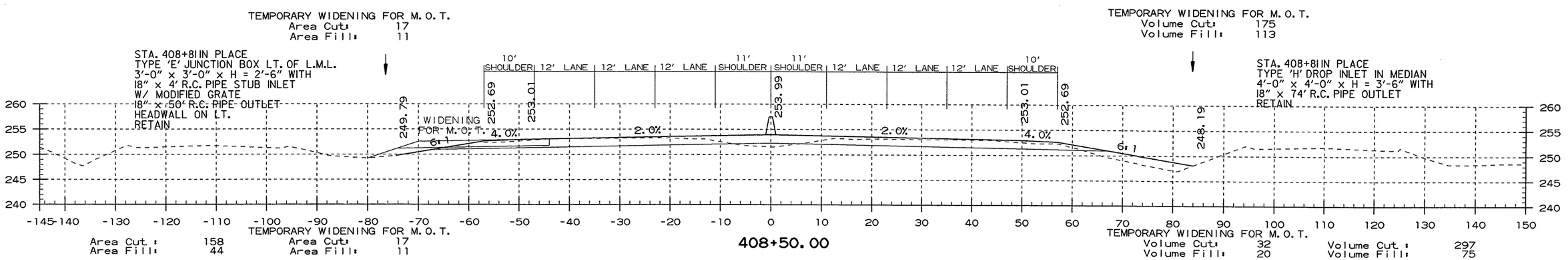
Volume Cut: 724
Volume Fill: 181

03-01-2005 RR60080.CRS2

MAIN LANES HWY. 67/167

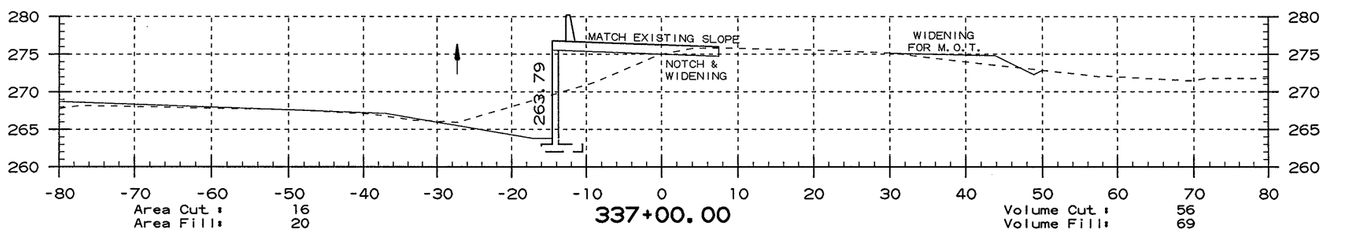
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	83	89

(2) CROSS SECTIONS



03-01-2005 RR60080.CRS2

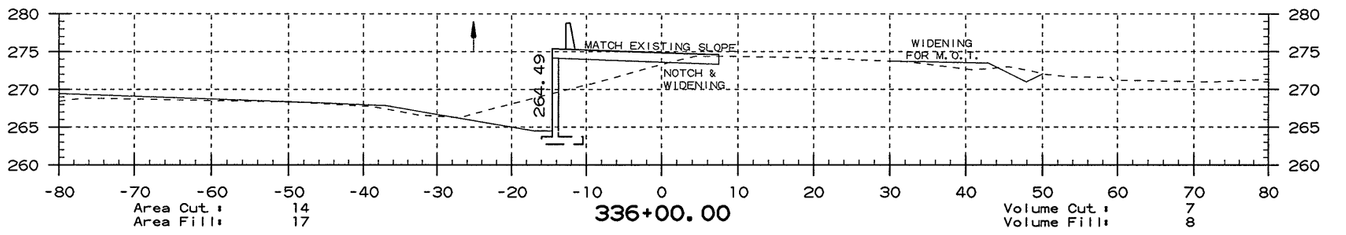
MAIN LANES HWY. 67/167



Area Cut : 16
Area Fill: 20

337+00.00

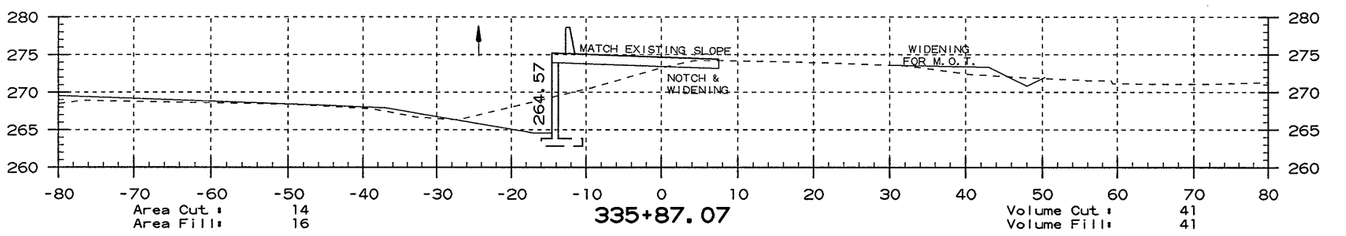
Volume Cut : 56
Volume Fill: 69



Area Cut : 14
Area Fill: 17

336+00.00

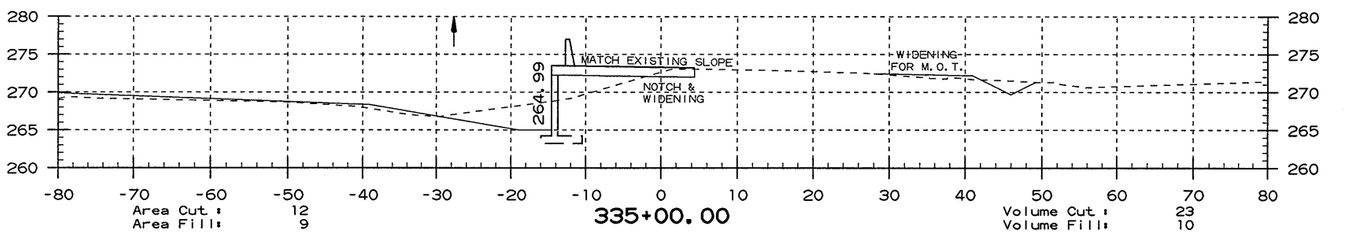
Volume Cut : 7
Volume Fill: 8



Area Cut : 14
Area Fill: 16

335+87.07

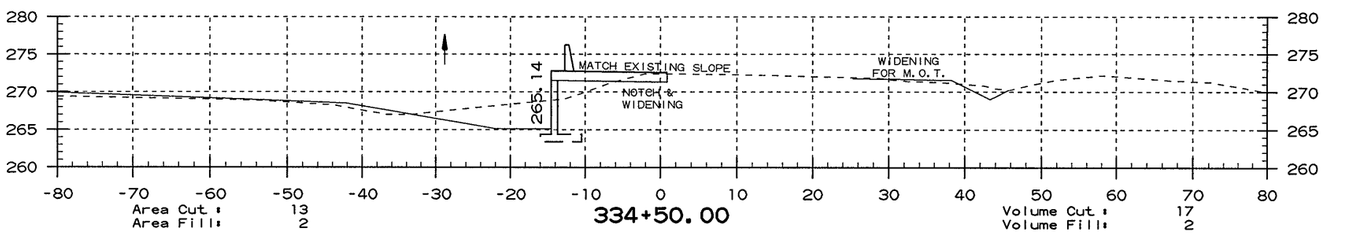
Volume Cut : 41
Volume Fill: 41



Area Cut : 12
Area Fill: 9

335+00.00

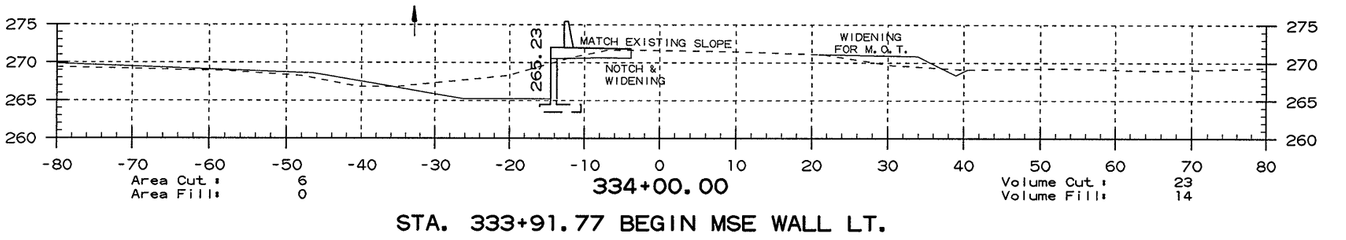
Volume Cut : 23
Volume Fill: 10



Area Cut : 13
Area Fill: 2

334+50.00

Volume Cut : 17
Volume Fill: 2

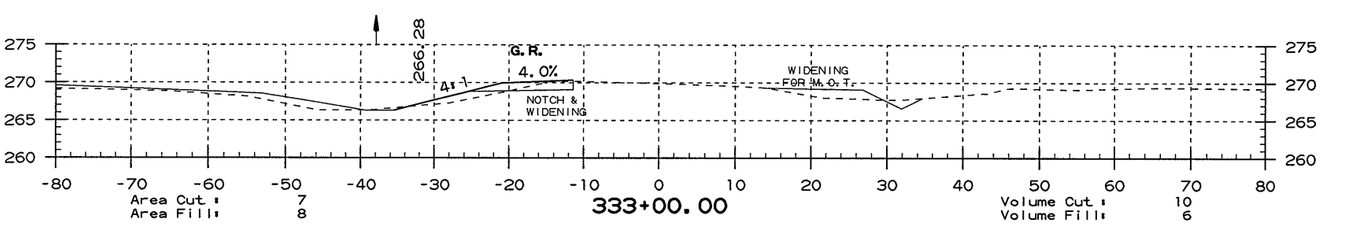


Area Cut : 6
Area Fill: 0

334+00.00

Volume Cut : 23
Volume Fill: 14

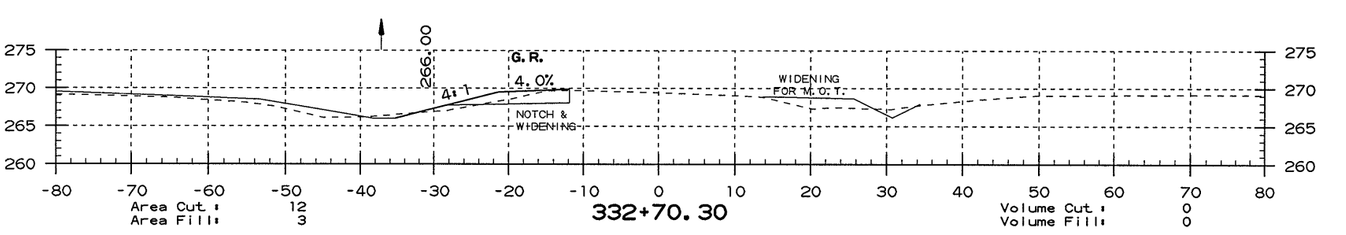
STA. 333+91.77 BEGIN MSE WALL LT.



Area Cut : 7
Area Fill: 8

333+00.00

Volume Cut : 10
Volume Fill: 6



Area Cut : 12
Area Fill: 3

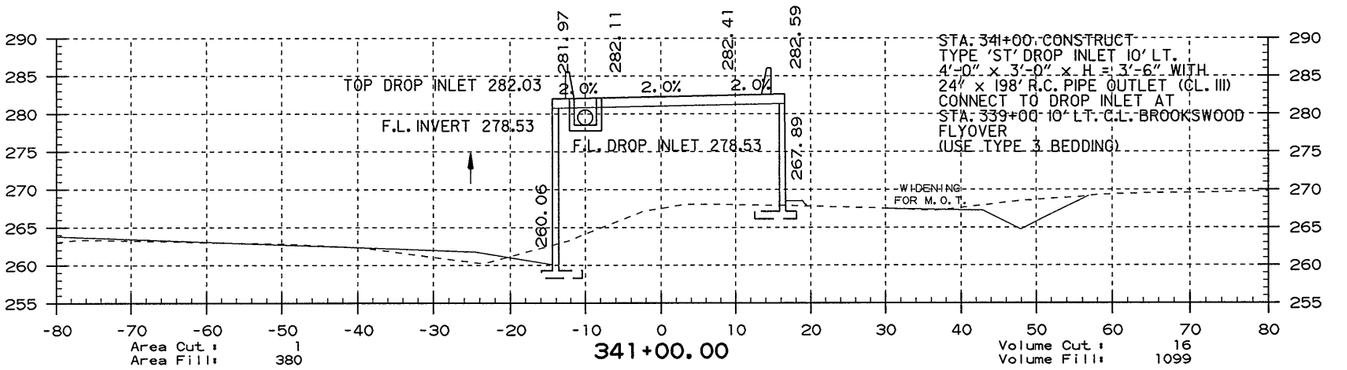
332+70.30

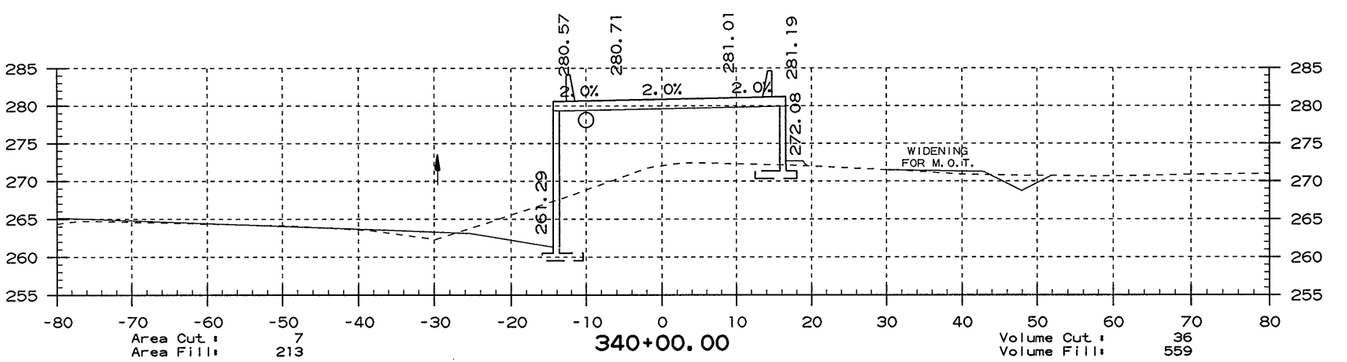
Volume Cut : 0
Volume Fill: 0

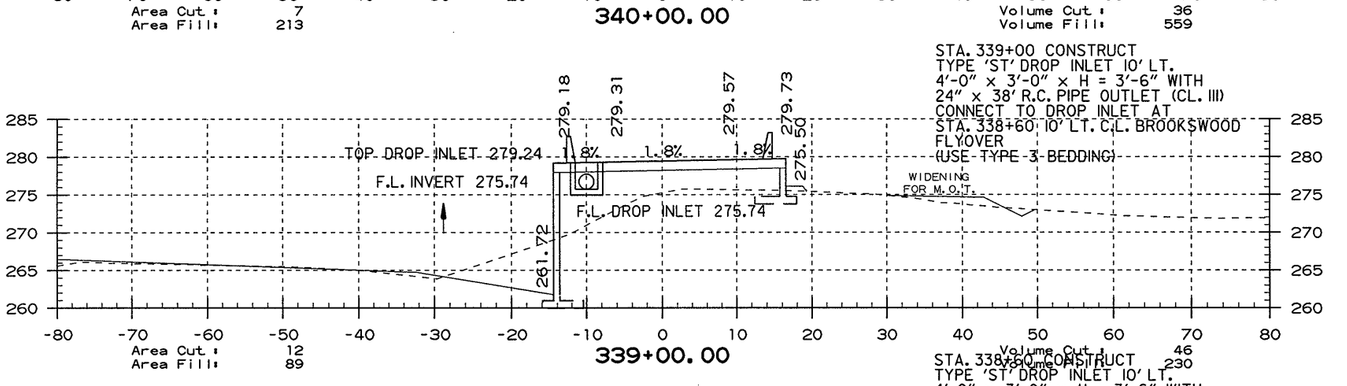
BROOKSWOOD FLYOVER

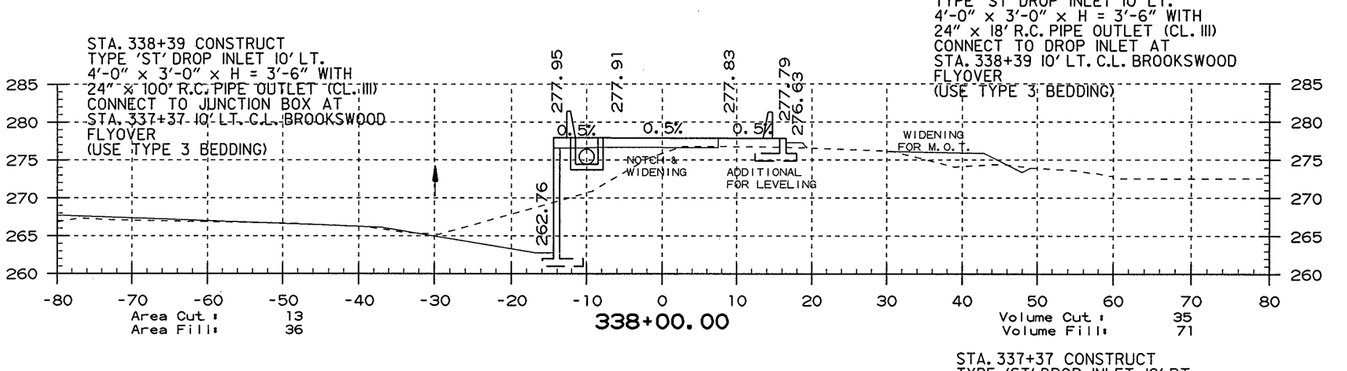
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO. R60080				

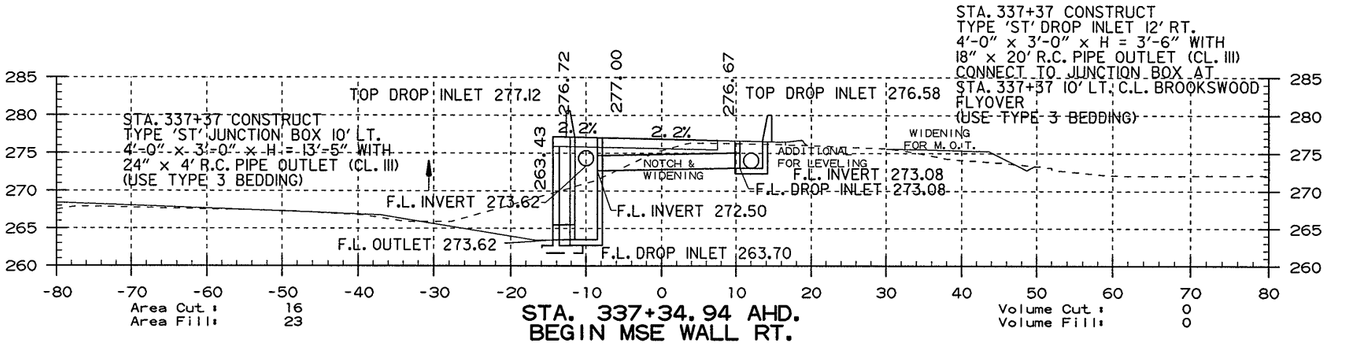
(2) CROSS SECTIONS

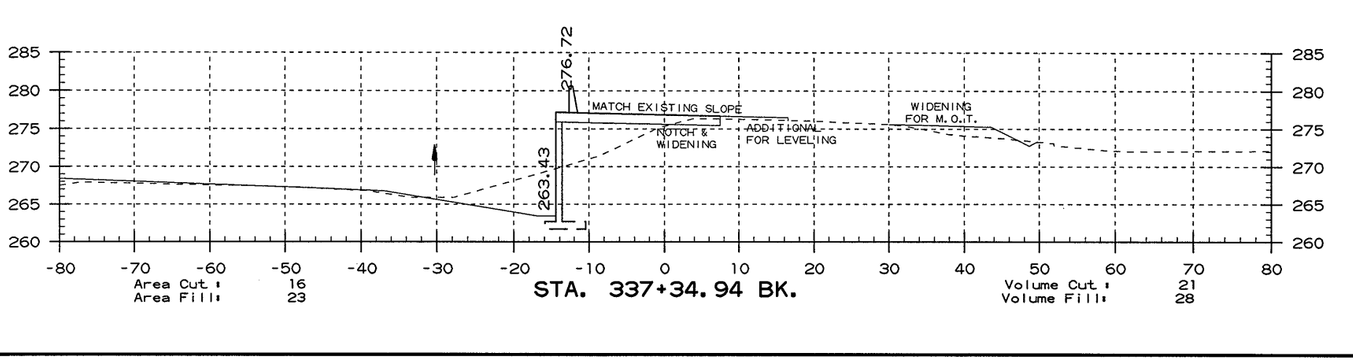








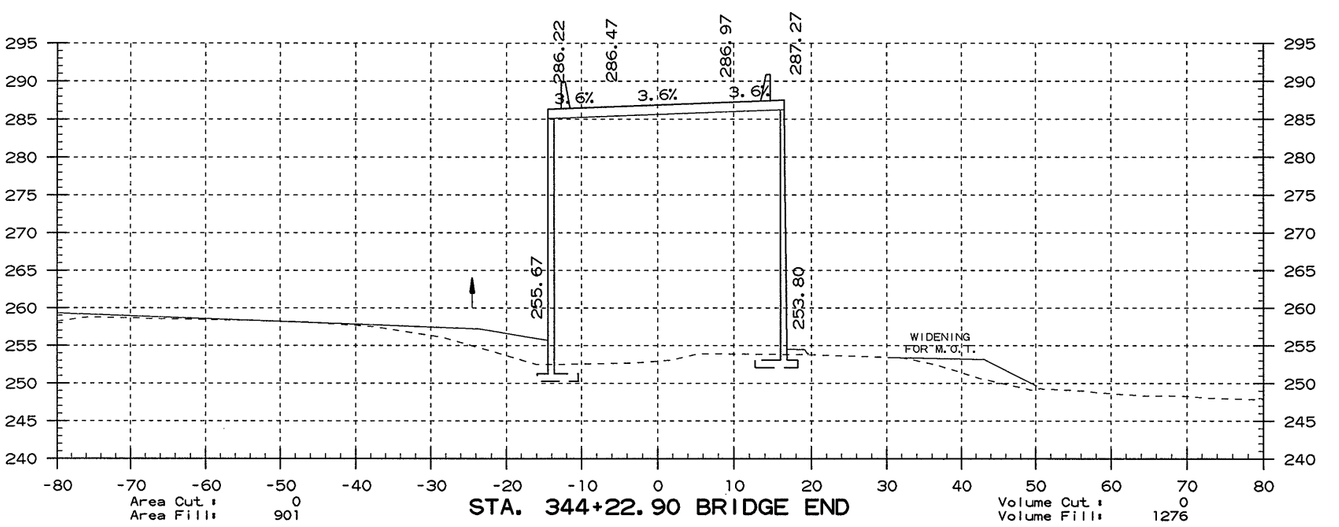




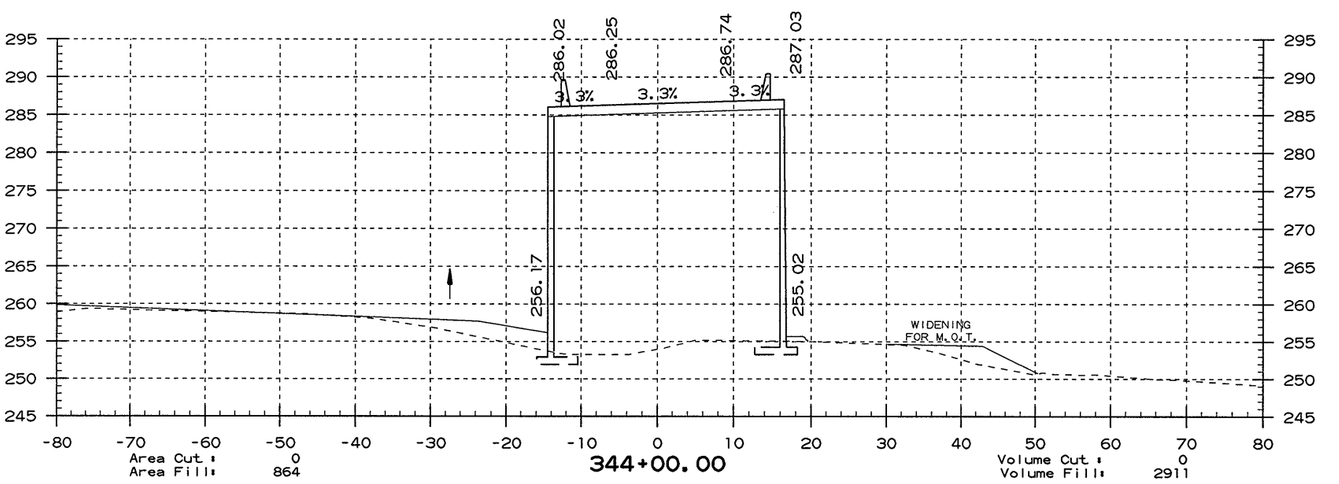
BROOKSWOOD FLYOVER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO. R60080				

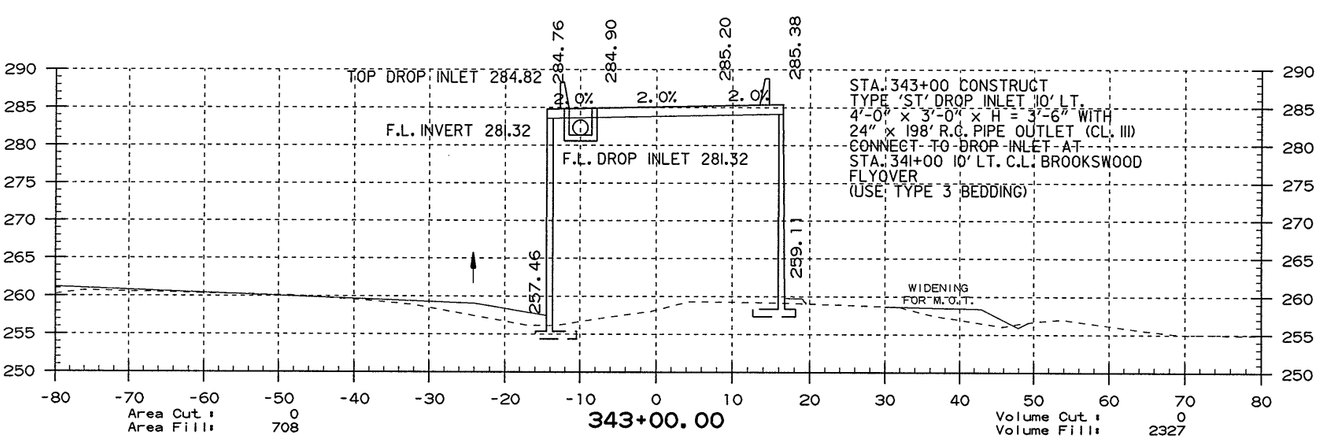
2 CROSS SECTIONS



STA. 344+22.90 BRIDGE END

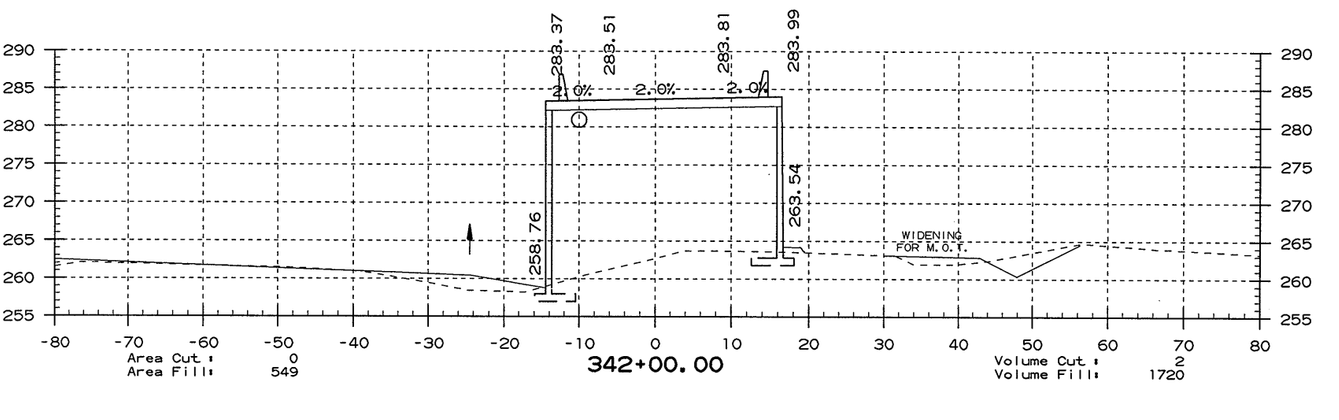


344+00.00



STA. 343+00 CONSTRUCT TYPE 'ST' DROP INLET 10' LT. 4'-0" x 3'-0" x H = 3'-6" WITH 24" x 198' R.C. PIPE OUTLET (CL. III) CONNECT TO DROP INLET AT STA. 341+00 10' LT. C.L. BROOKSWOOD FLYOVER (USE TYPE 3 BEDDING)

343+00.00

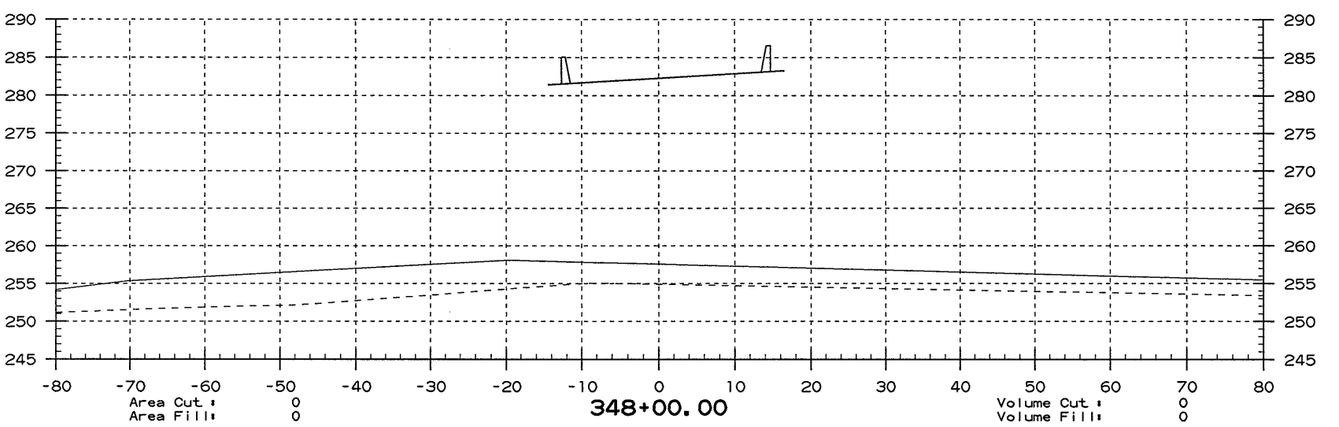


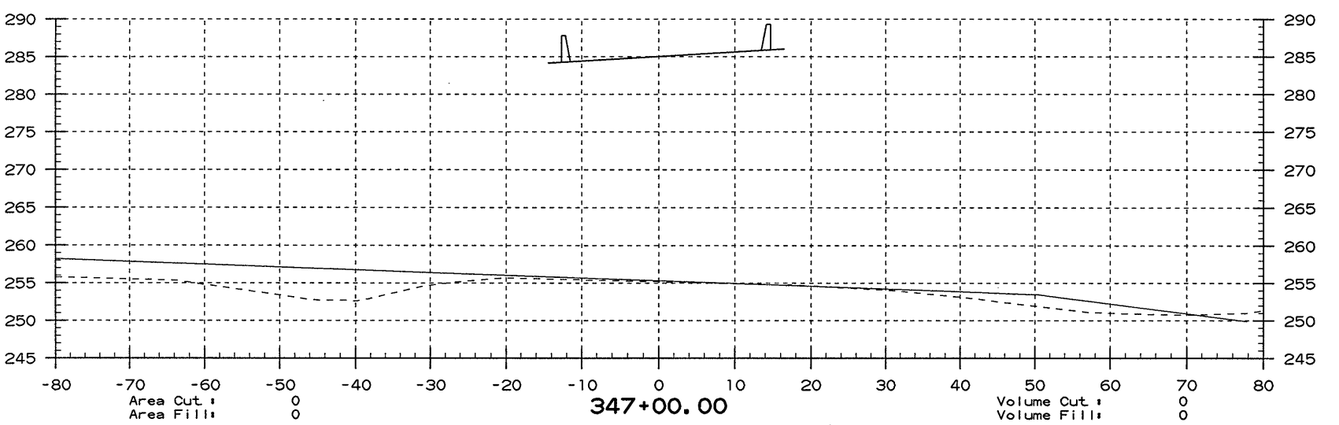
342+00.00

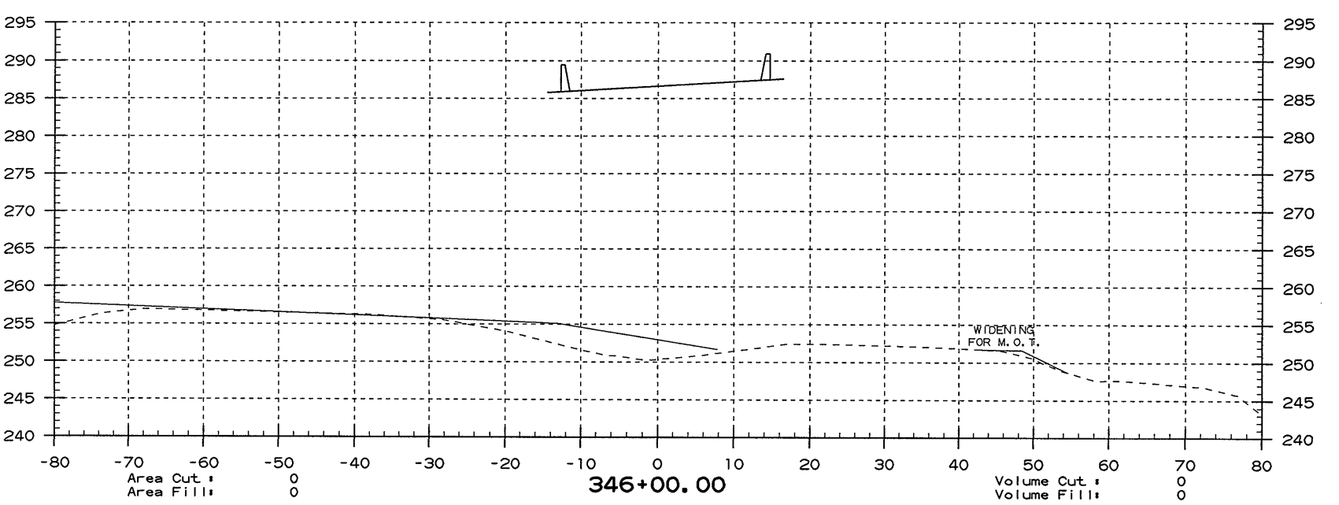
BROOKSWOOD FLYOVER

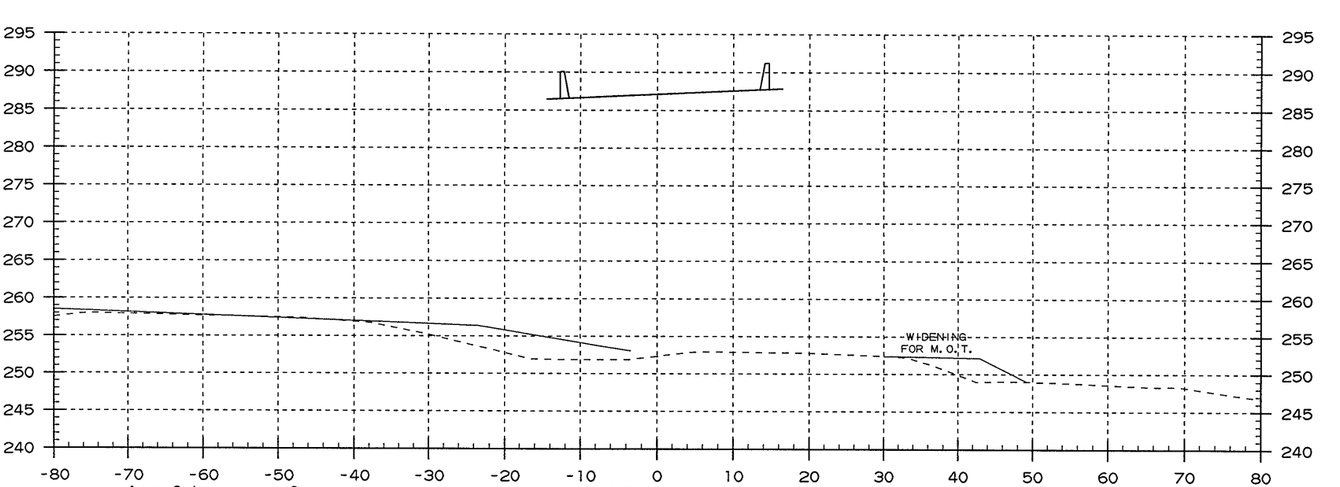
	DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
					6	ARK.	R60080	10	10

(2) CROSS SECTIONS









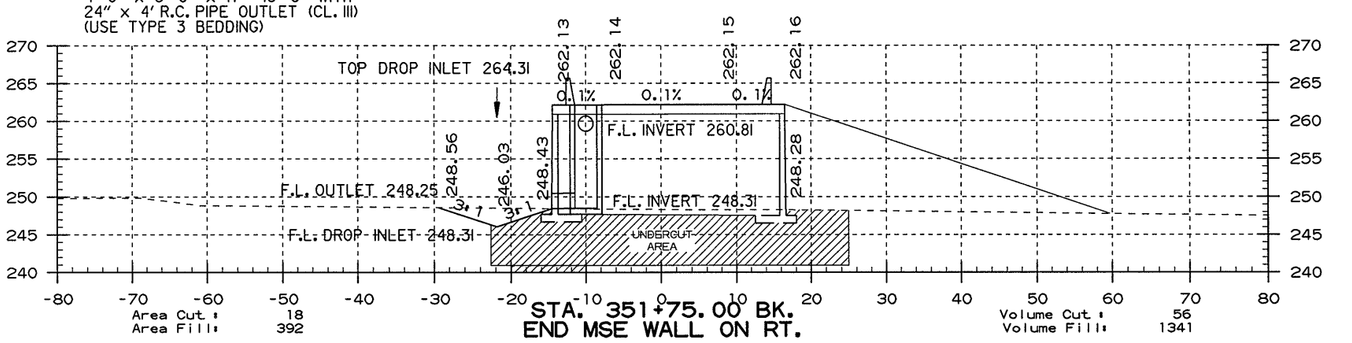
BROOKSWOOD FLYOVER

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		34	63

JOB NO. R60080

(2) CROSS SECTIONS

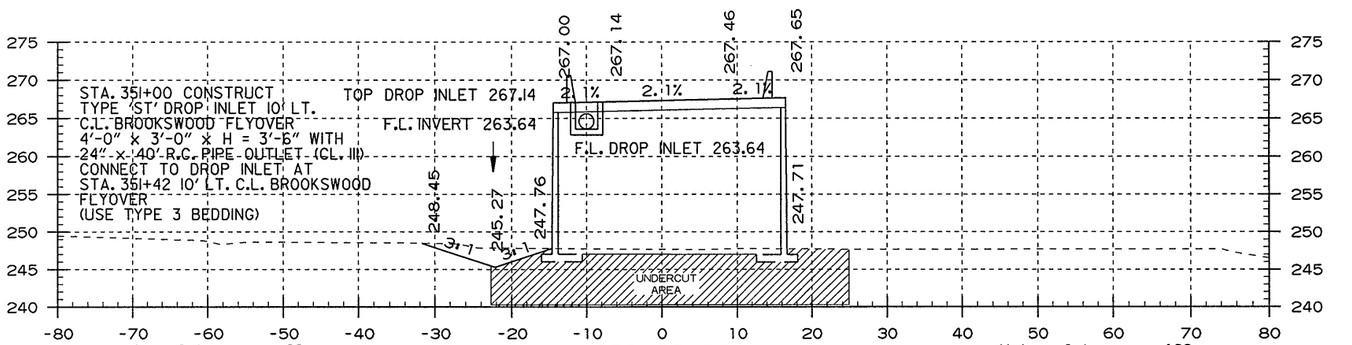
STA. 351+42 CONSTRUCT
TYPE 'ST' DROP INLET 10' LT.
C.L. BROOKSWOOD FLYOVER
4'-0" x 3'-0" x H = 16'-0" WITH
24" x 4' R.C. PIPE OUTLET (CL. III)
(USE TYPE 3 BEDDING)



STA. 351+75.00 BK.
END MSE WALL ON RT.

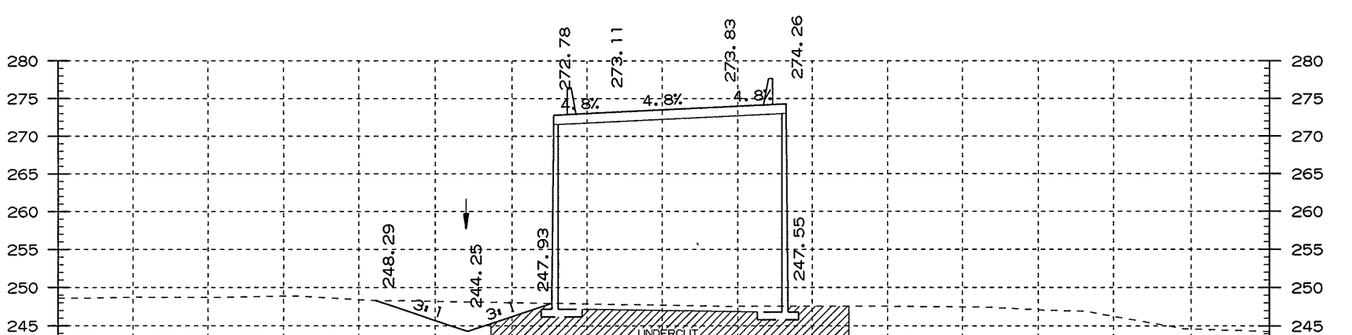
Area Cut : 18
Area Fill: 392
Volume Cut : 56
Volume Fill: 1341

STA. 351+00 CONSTRUCT
TYPE 'ST' DROP INLET 10' LT.
C.L. BROOKSWOOD FLYOVER
4'-0" x 3'-0" x H = 3'-6" WITH
24" x 40' R.C. PIPE OUTLET (CL. III)
CONNECT TO DROP INLET AT
STA. 351+42 10' LT. C.L. BROOKSWOOD
FLYOVER
(USE TYPE 3 BEDDING)



351+00.00

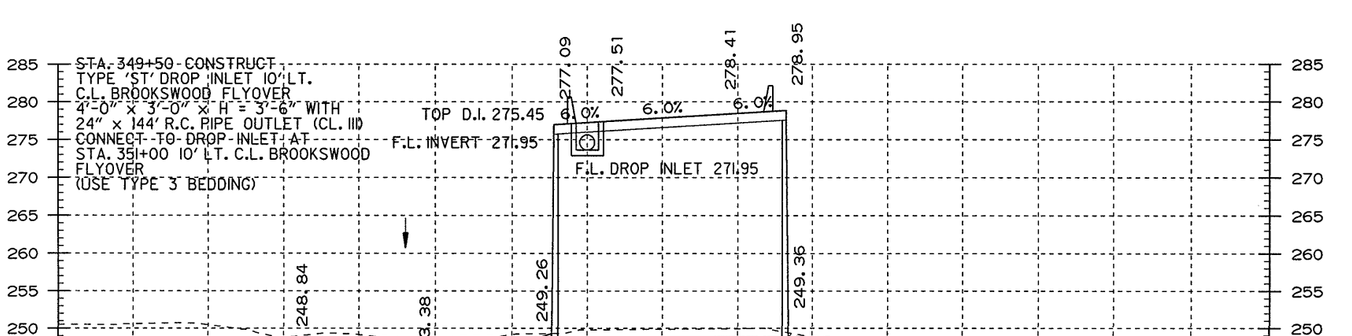
Area Cut : 22
Area Fill: 574
Volume Cut : 123
Volume Fill: 2487



350+00.00

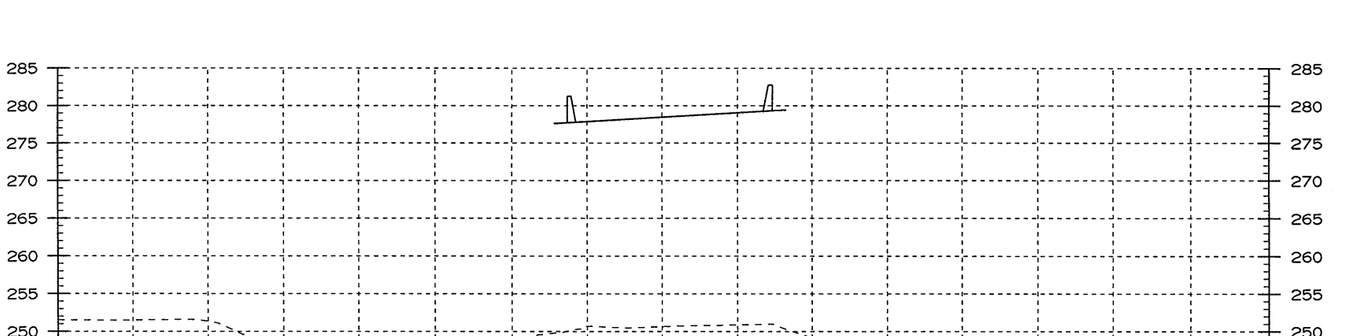
Area Cut : 44
Area Fill: 769
Volume Cut : 212
Volume Fill: 2563

STA. 349+50 CONSTRUCT
TYPE 'ST' DROP INLET 10' LT.
C.L. BROOKSWOOD FLYOVER
4'-0" x 3'-0" x H = 3'-6" WITH
24" x 144' R.C. PIPE OUTLET (CL. III)
CONNECT TO DROP INLET AT
STA. 351+00 10' LT. C.L. BROOKSWOOD
FLYOVER
(USE TYPE 3 BEDDING)



STA. 349+11.15 BRIDGE END

Area Cut : 89
Area Fill: 840
Volume Cut : 23
Volume Fill: 218



349+00.00

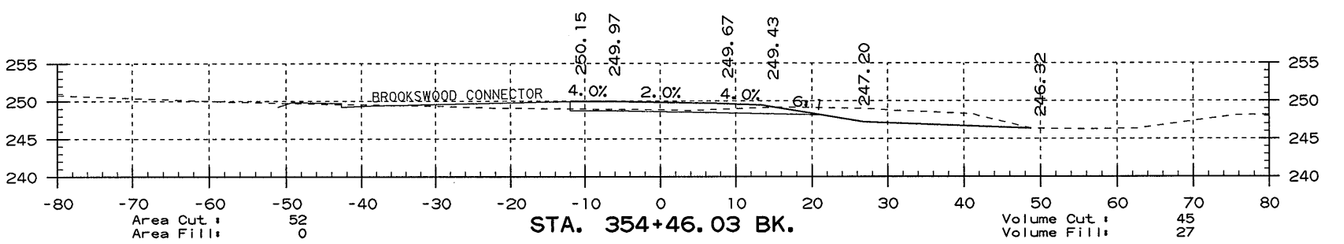
Area Cut : 0
Area Fill: 0
Volume Cut : 0
Volume Fill: 0

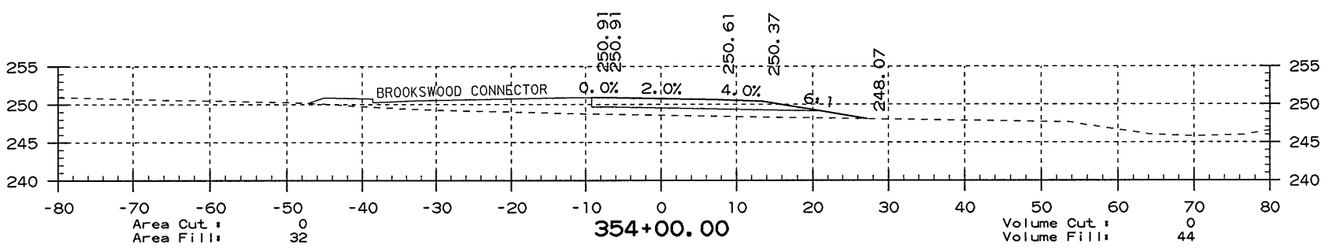
BROOKSWOOD FLYOVER

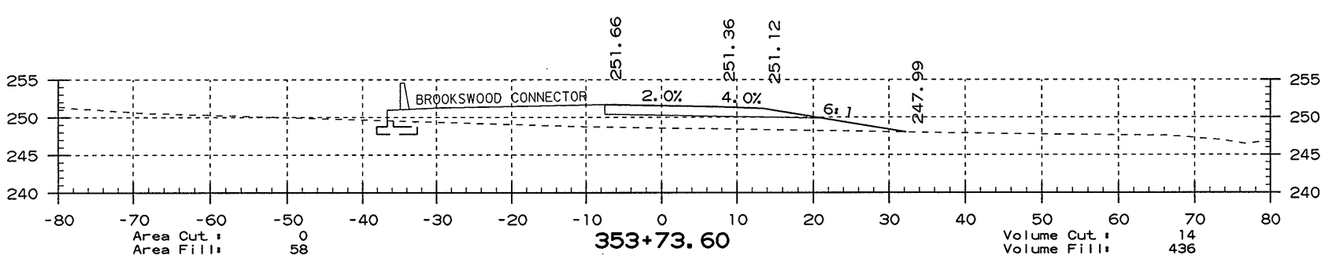
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.AID DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		5.17	6.01

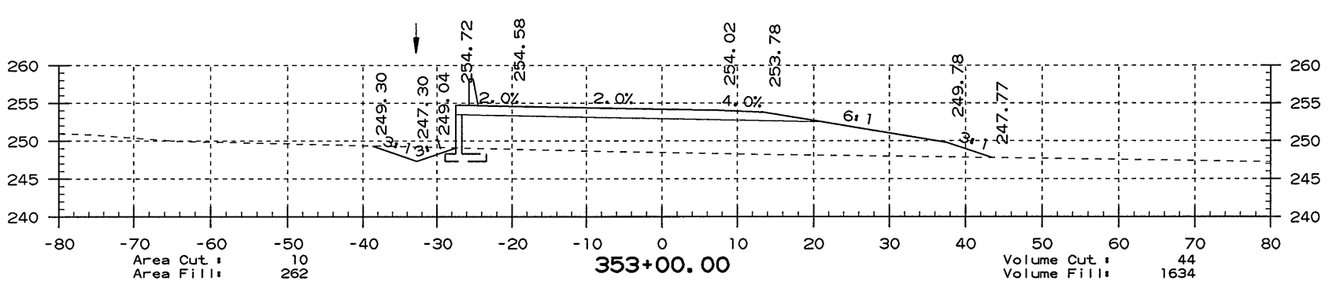
(2) CROSS SECTIONS

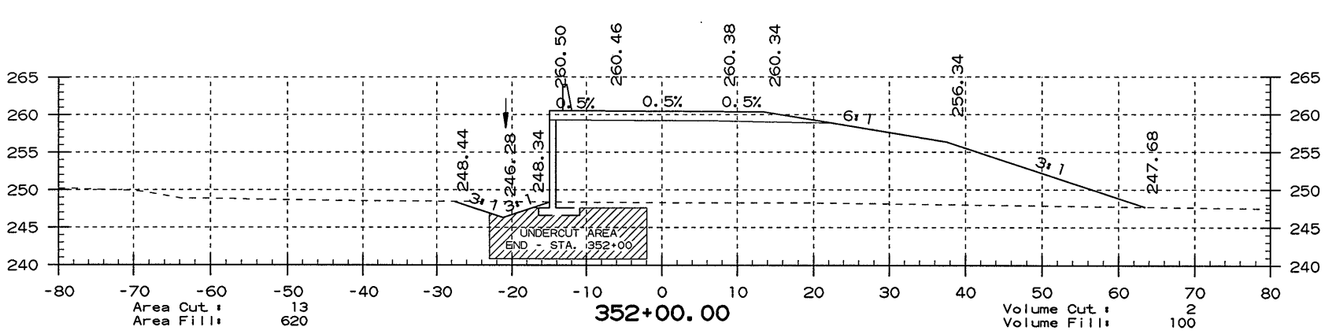
JOB NO. R60080

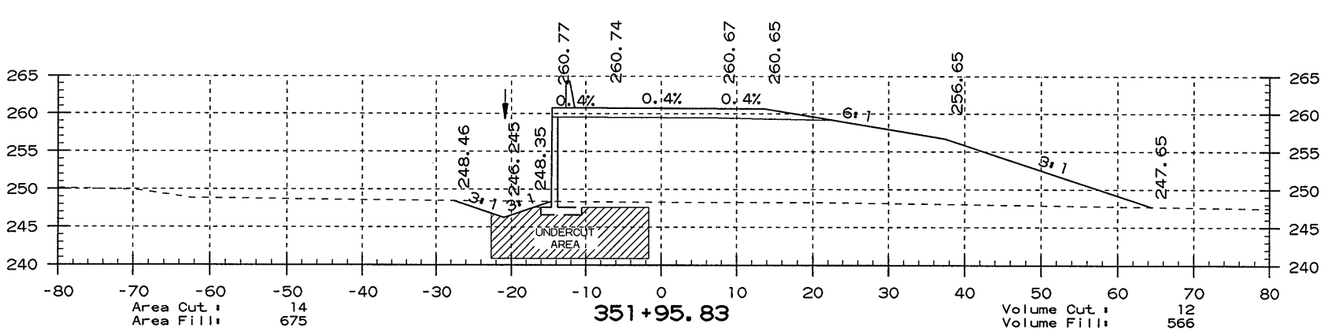


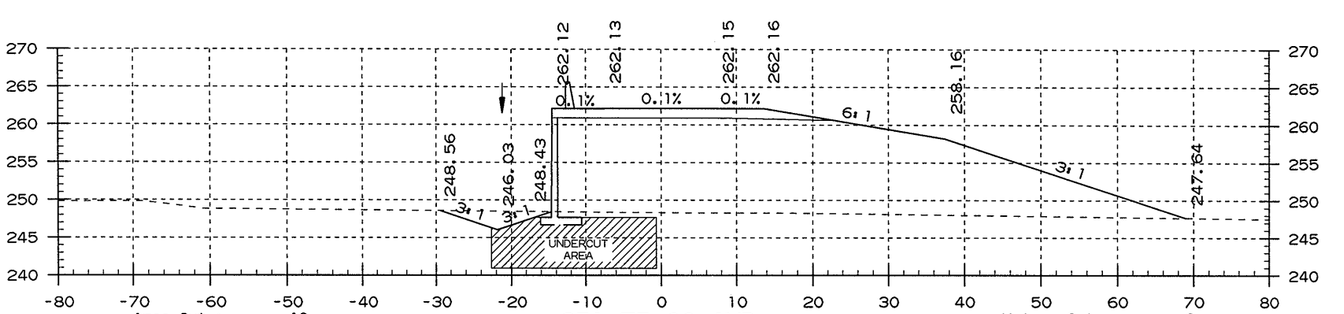








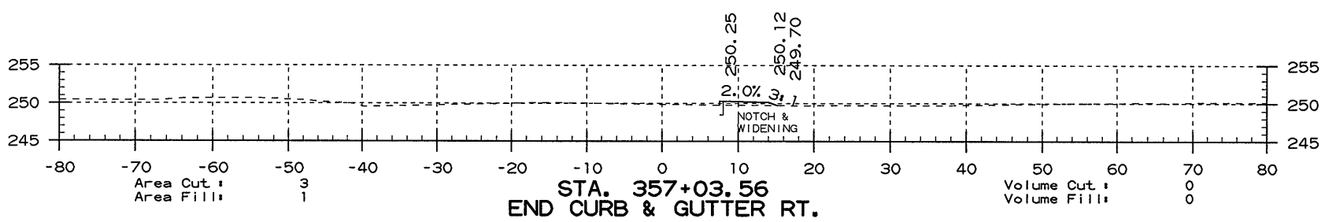




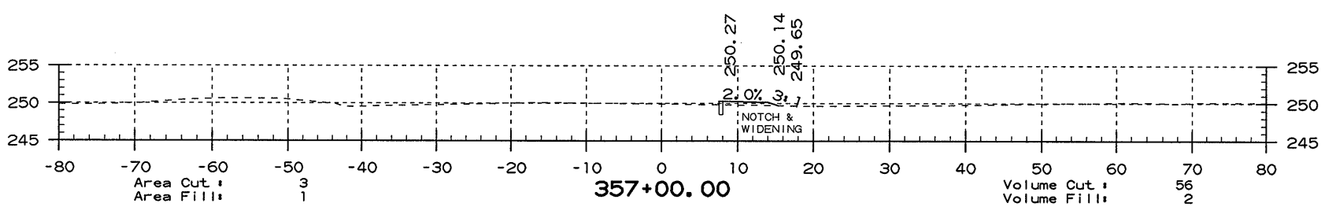
BROOKSWOOD FLYOVER

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	R60080	54	60

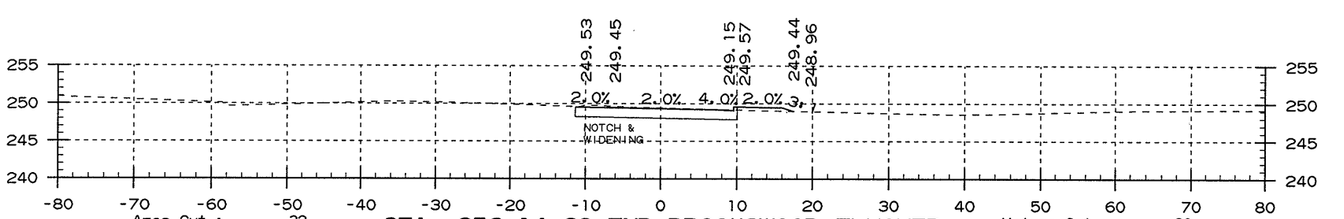
(2) CROSS SECTIONS



STA. 357+03.56
END CURB & GUTTER RT.

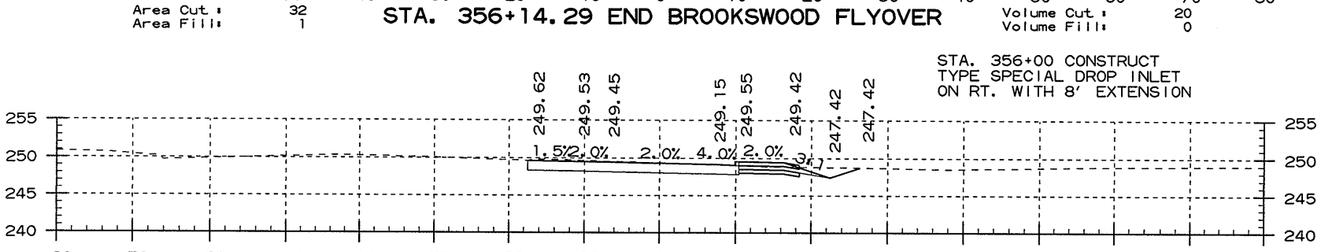


357+00.00

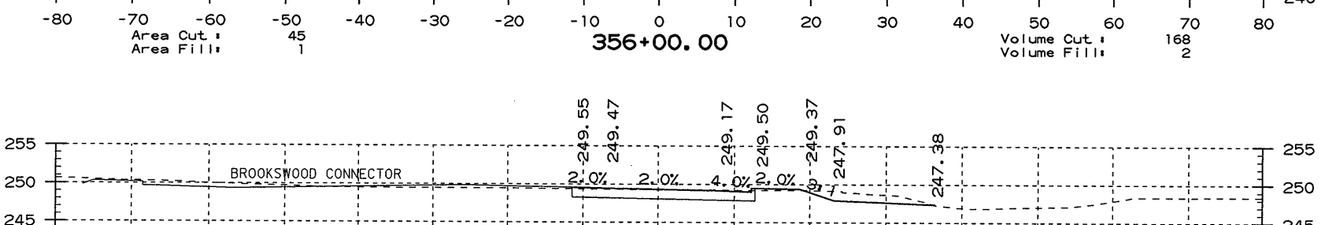


STA. 356+14.29 END BROOKSWOOD FLYOVER

STA. 356+00 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT. WITH 8' EXTENSION

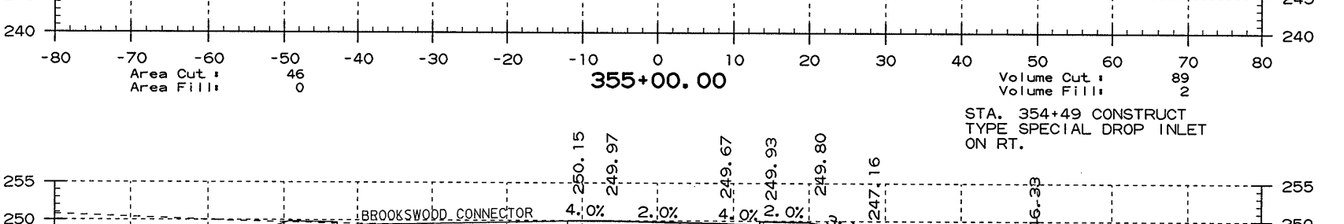


356+00.00



355+00.00

STA. 354+49 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT.

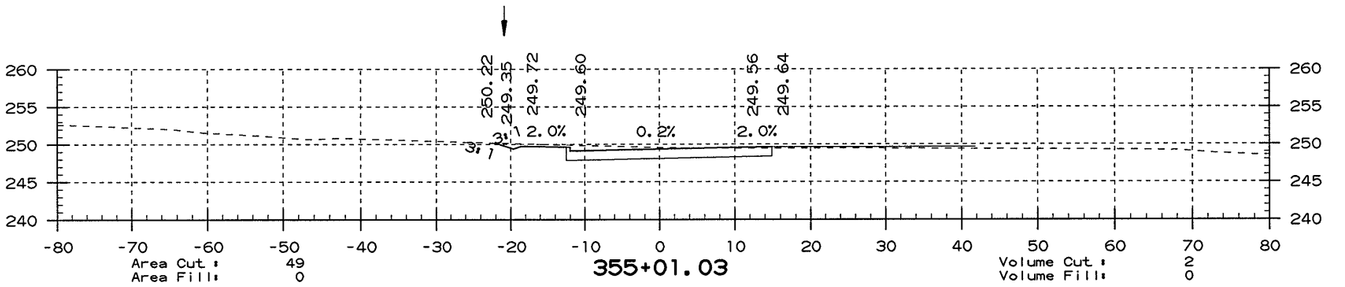


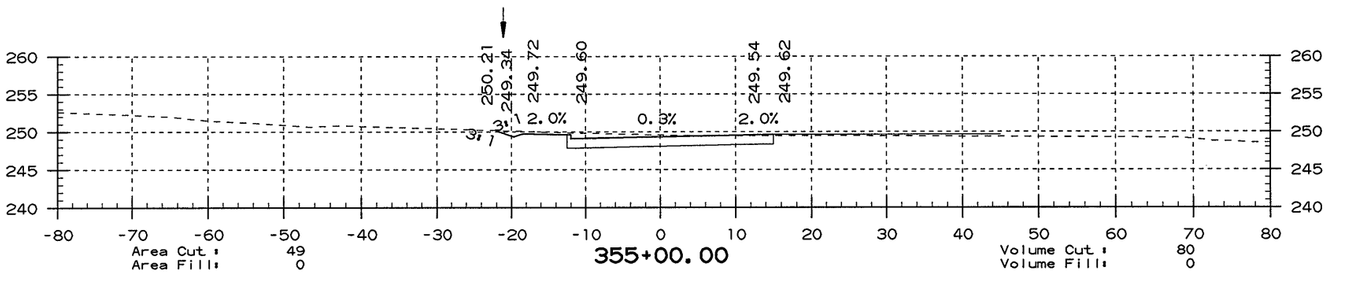
STA. 354+46.03 AHD.
BEGIN CURB & GUTTER RT.

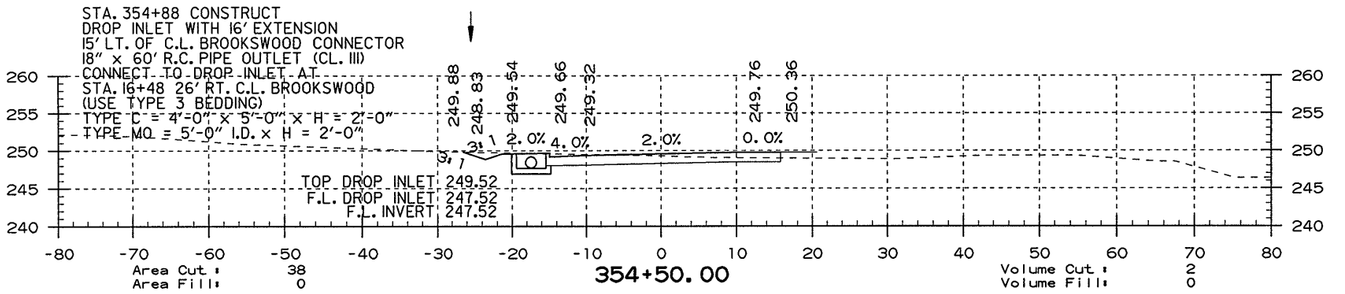
BROOKSWOOD FLYOVER

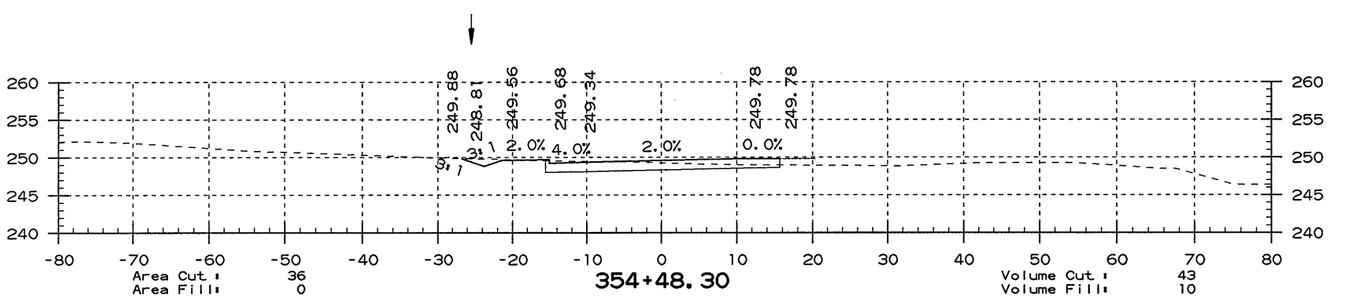
DATE REVISED	
DATE FILMED	
DATE REVISED	
DATE FILMED	
FED.AID DIST.NO.	6
STATE	ARK.
FED.AID PROJ.NO.	
SHEET NO.	44
TOTAL SHEETS	64
JOB NO.	R60080

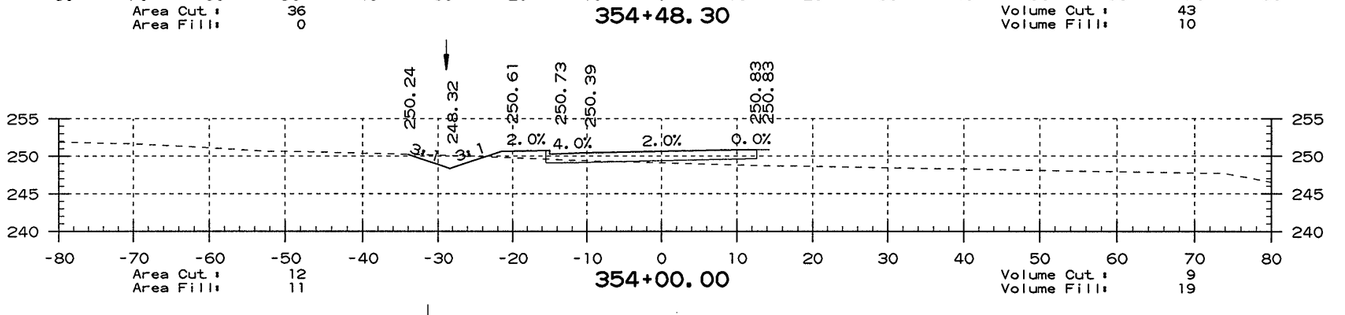
(2) CROSS SECTIONS

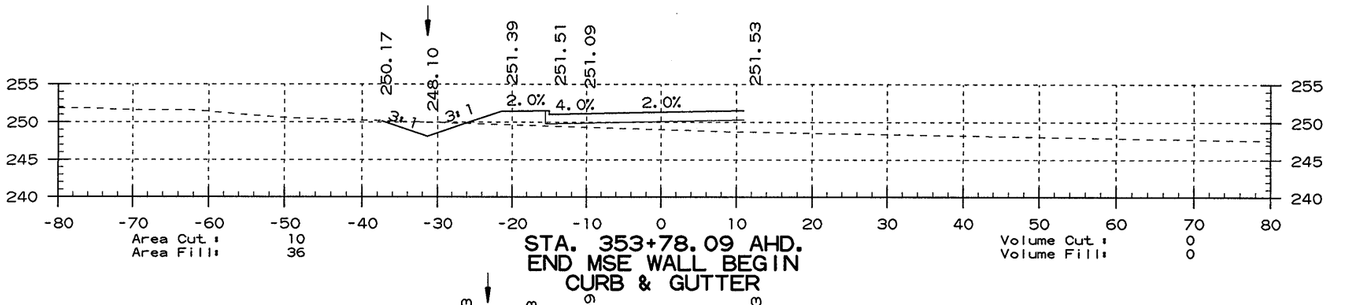


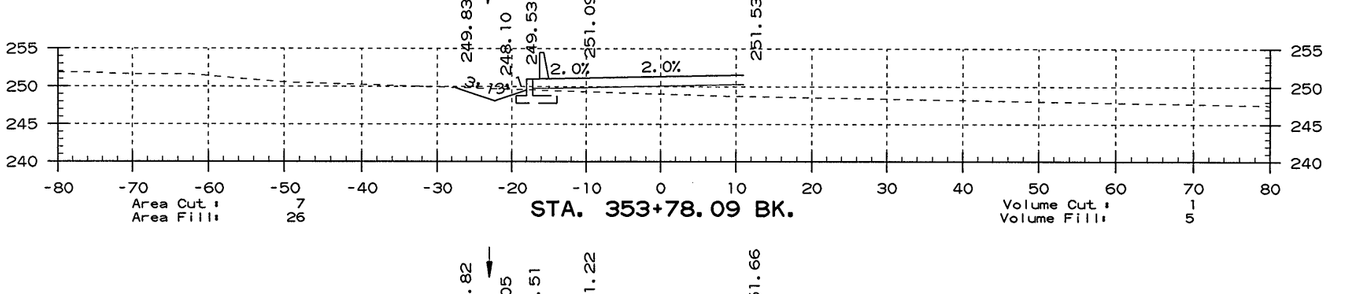


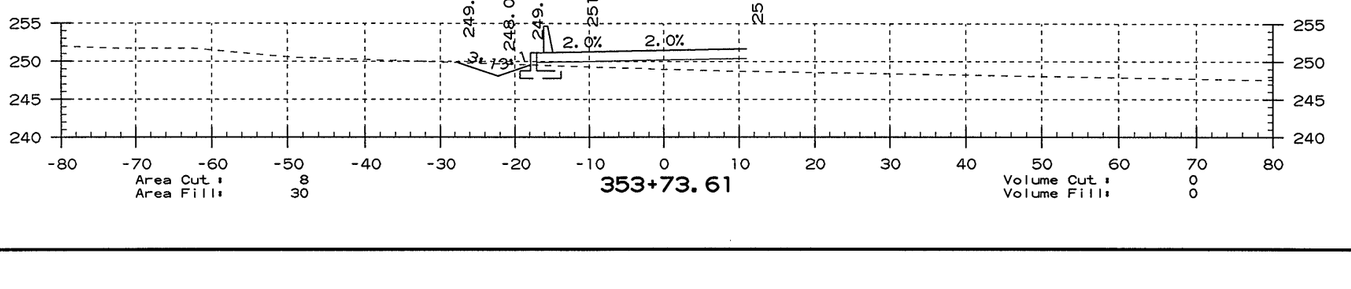












BROOKSWOOD CONNECTOR

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

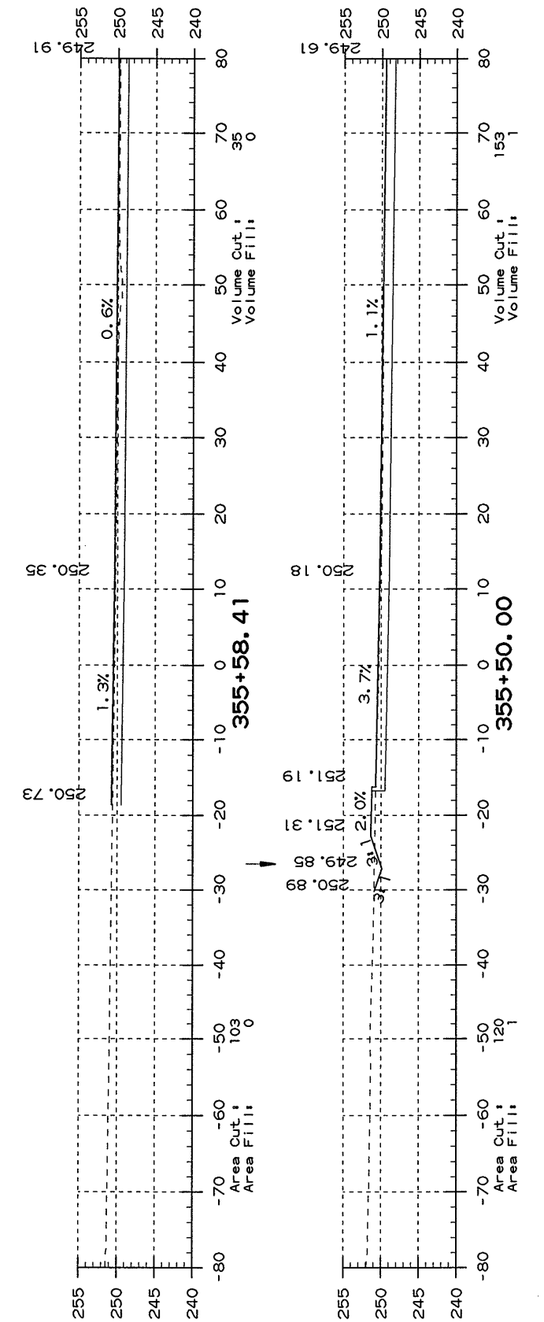
(2) CROSS SECTIONS

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

JOB NO. R60080

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	5A6	603

(2) CROSS SECTIONS

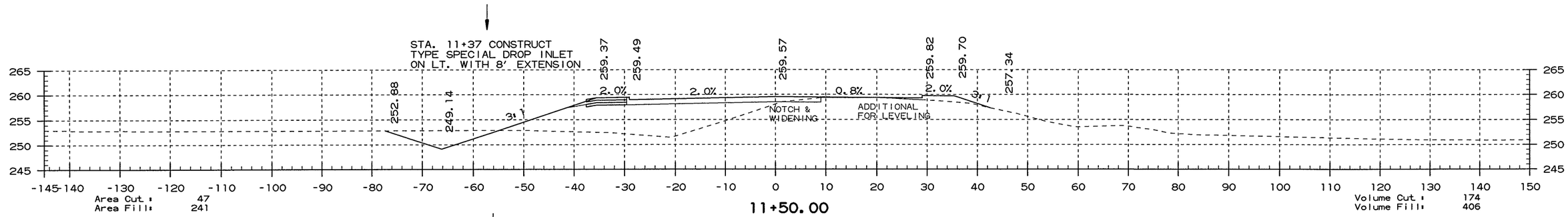


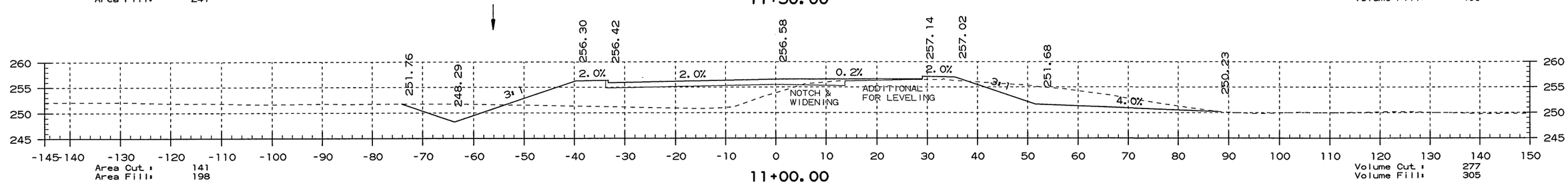
BROOKSWOOD CONNECTOR

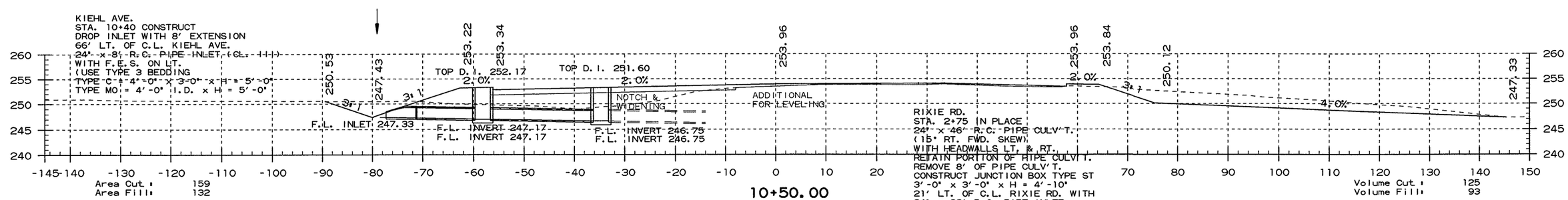
02-25-2005 RR60080.CRS4

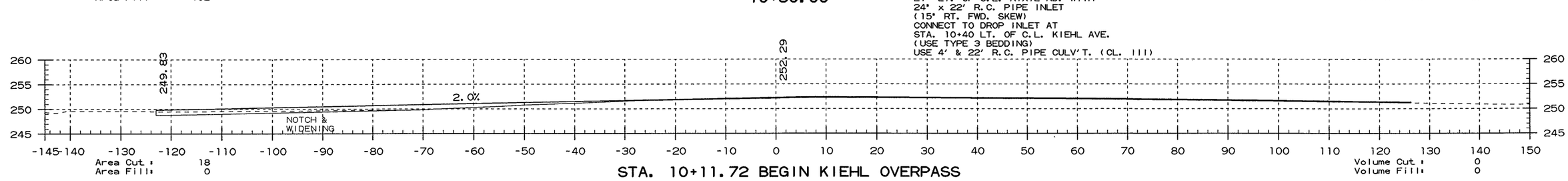
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	54	65

(2) CROSS SECTIONS







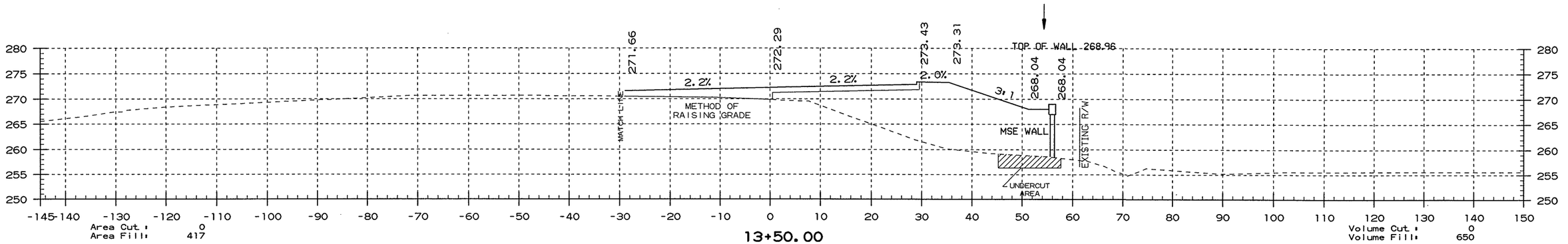


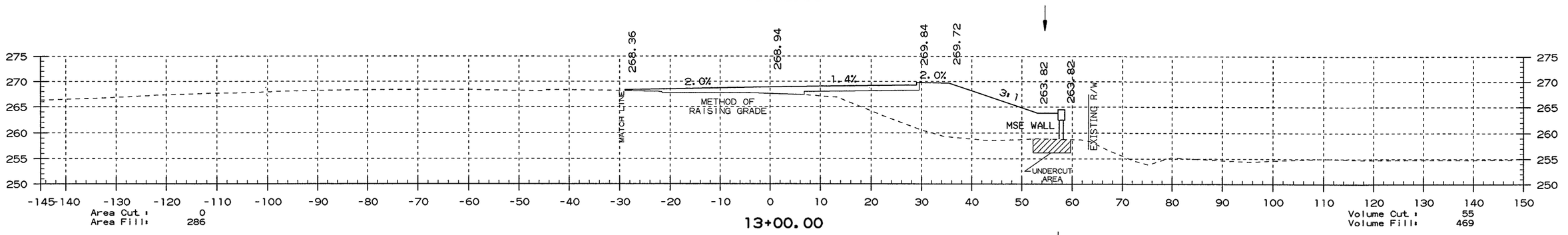
KIEHL AVE.

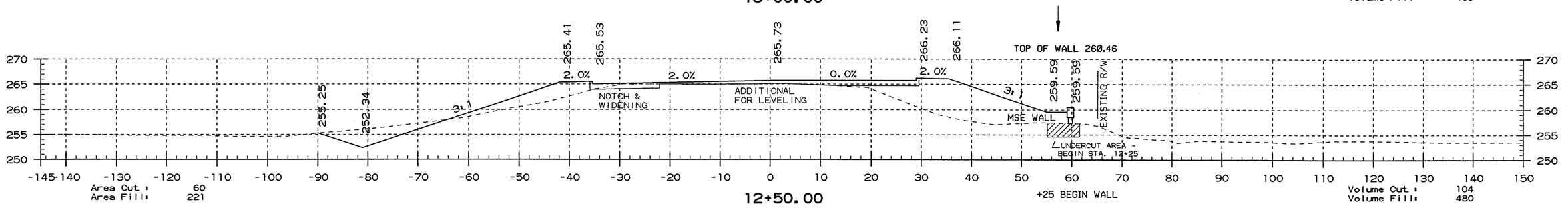
02-25-2005 RR60080.CRS4

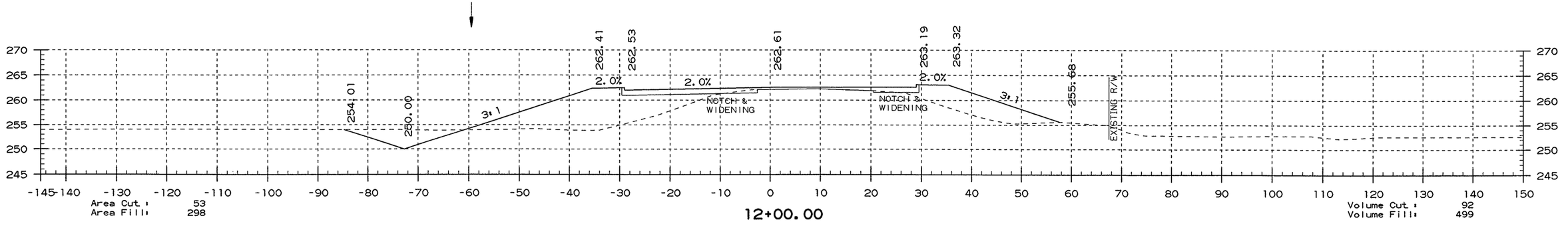
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	548	603

(2) CROSS SECTIONS









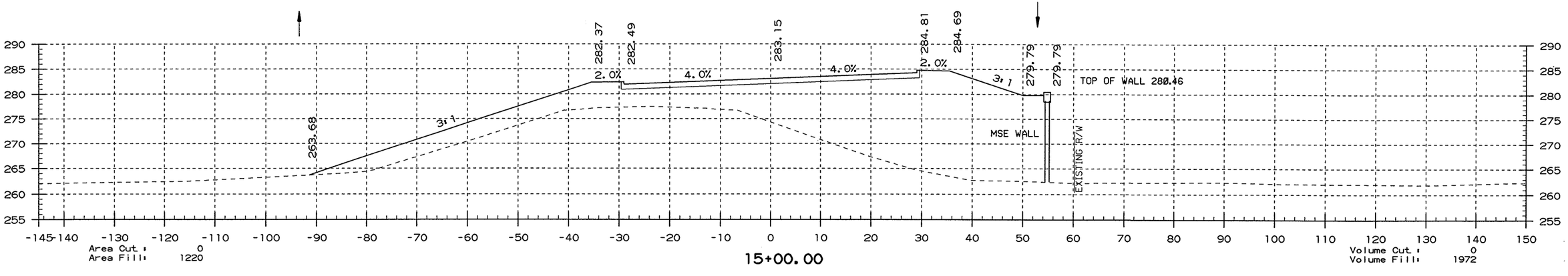
02-25-2005 RR60080.CRS4

KIEHL AVE.

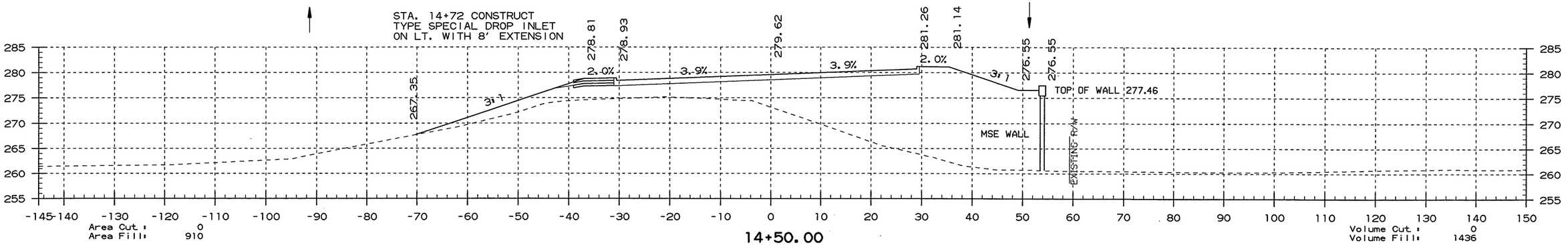
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	59	60

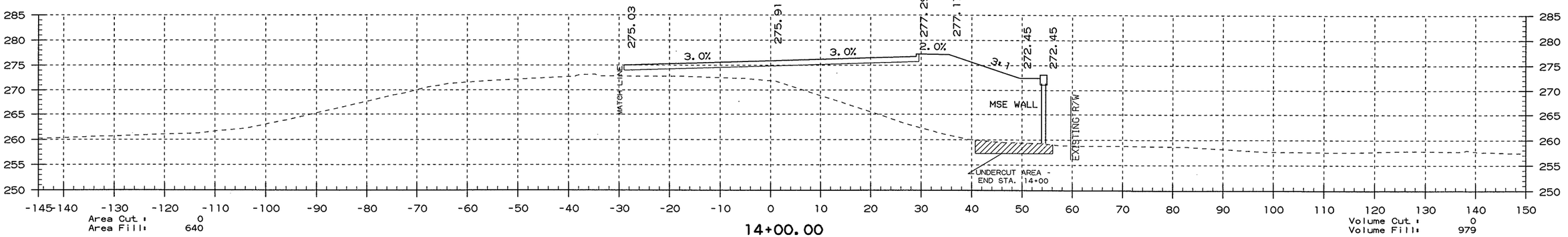
(2) CROSS SECTIONS



15+00.00



14+50.00



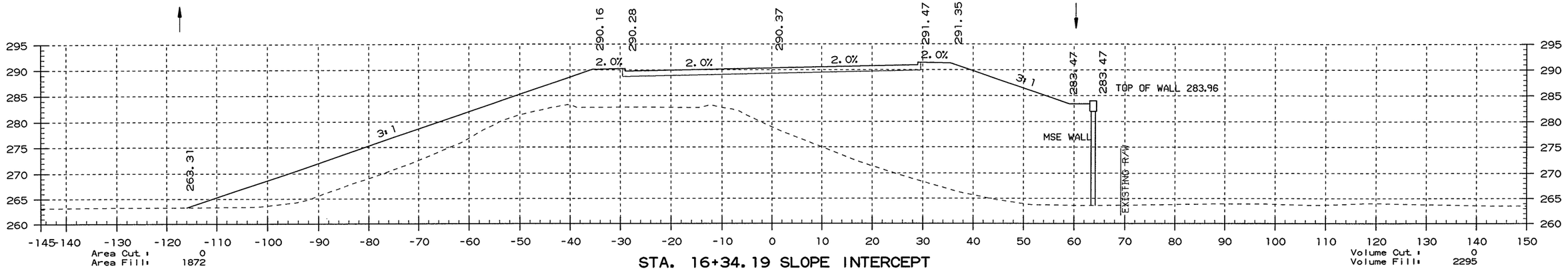
14+00.00

02-25-2005 RR60080.CRS4

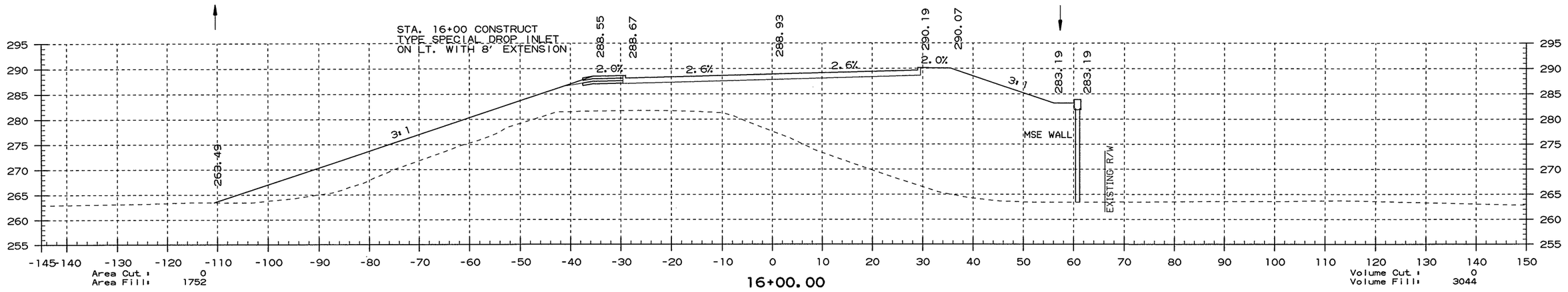
KIEHL AVE.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	550	659

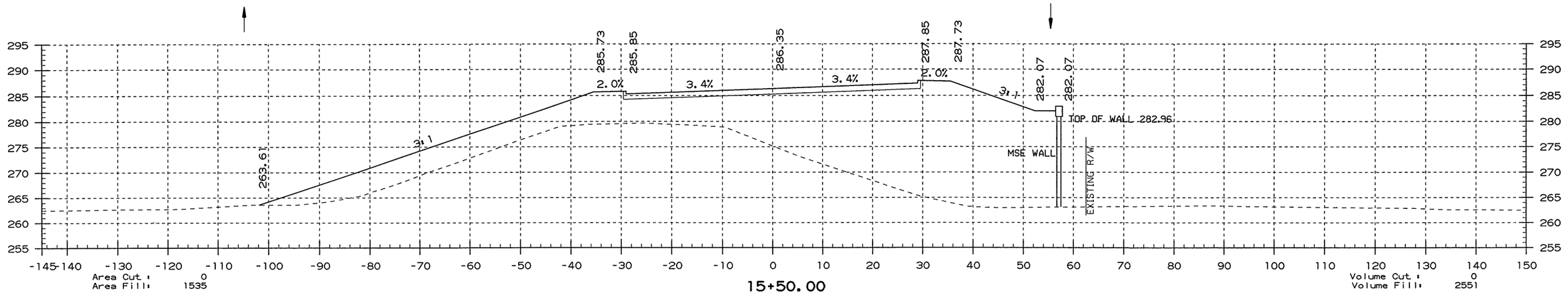
(2) CROSS SECTIONS



STA. 16+34.19 SLOPE INTERCEPT



16+00.00



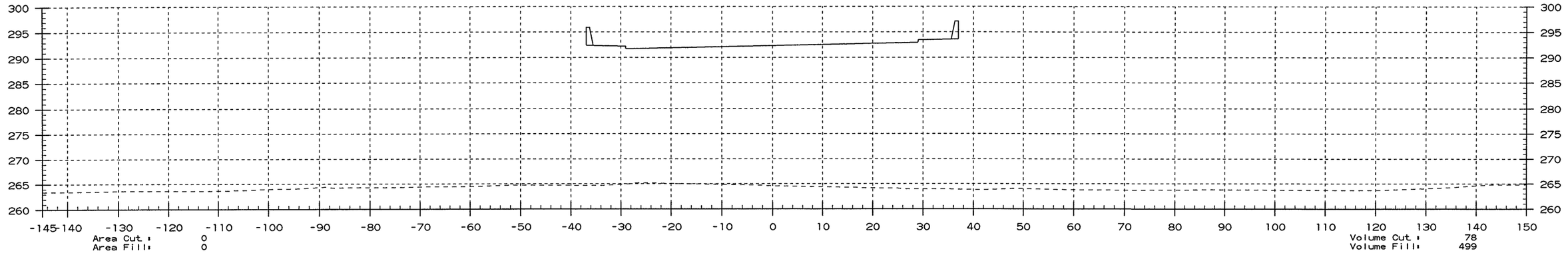
15+50.00

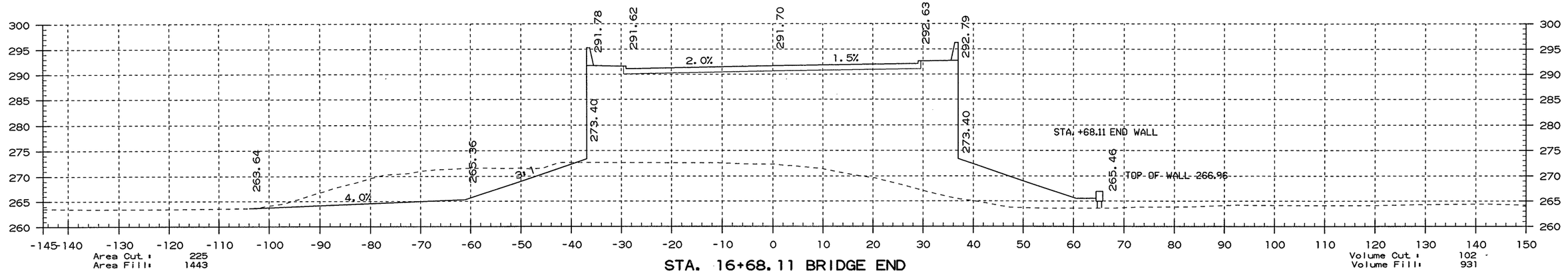
KIEHL AVE.

02-25-2005 RR60080.CRS4

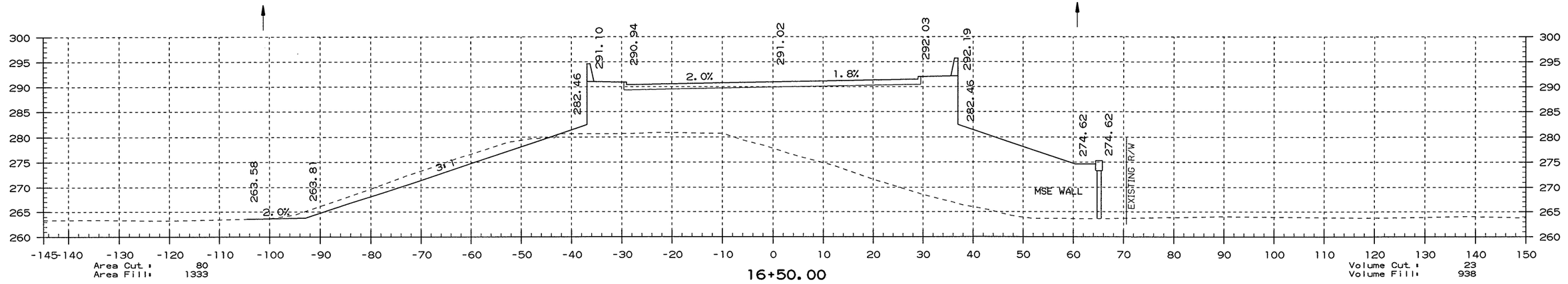
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	53	60

(2) CROSS SECTIONS





STA. 16+68.11 BRIDGE END



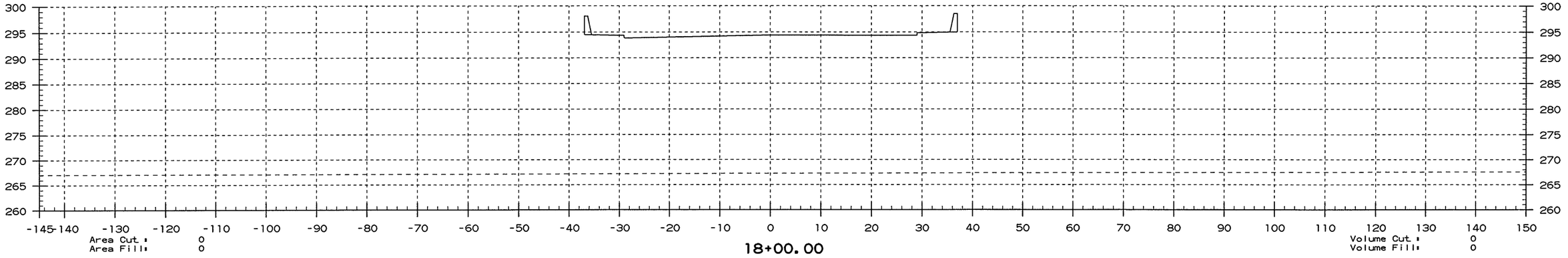
16+50.00

KIEHL AVE.

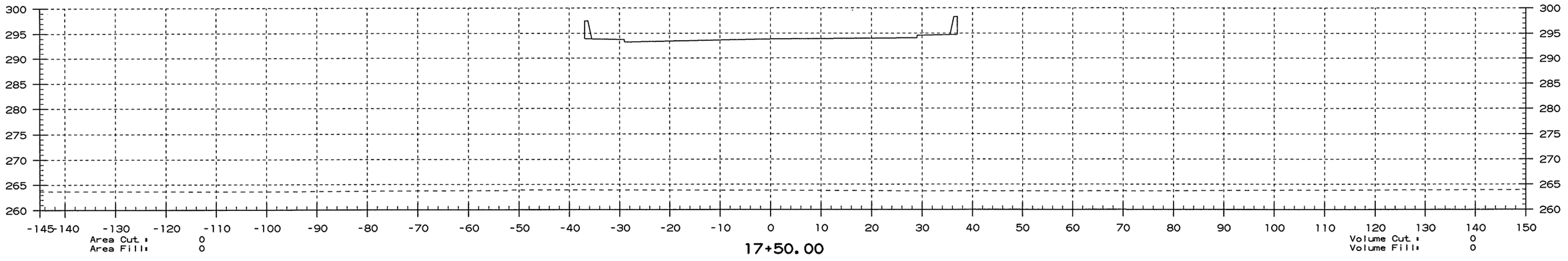
02-25-2005 RR60080.CRS4

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	5X2	603

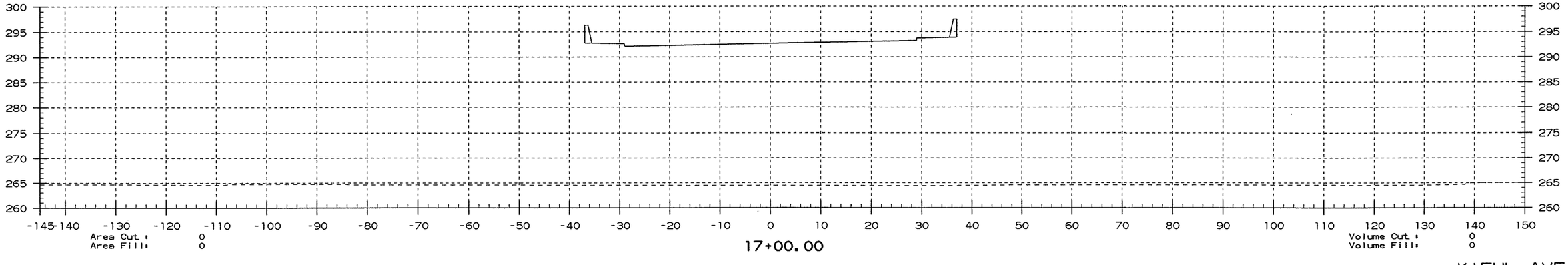
(2) CROSS SECTIONS



18+00.00



17+50.00



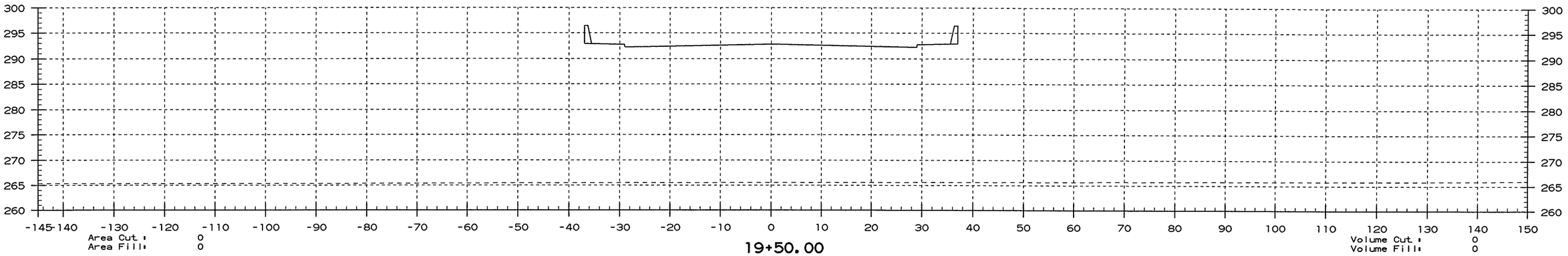
17+00.00

KIEHL AVE.

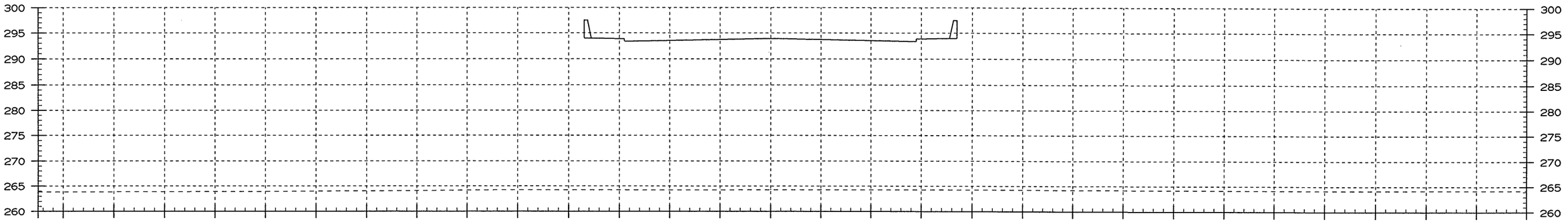
02-25-2005 RR60080.CRS4

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		

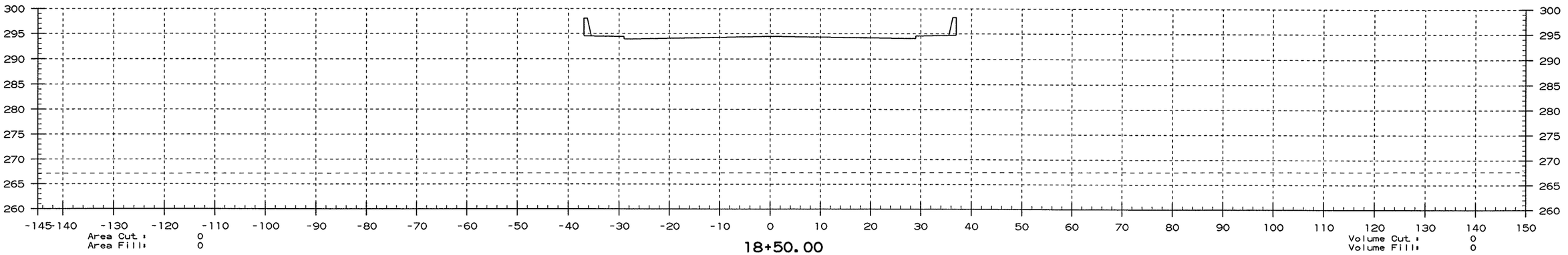
(2) CROSS SECTIONS



19+50.00



19+00.00



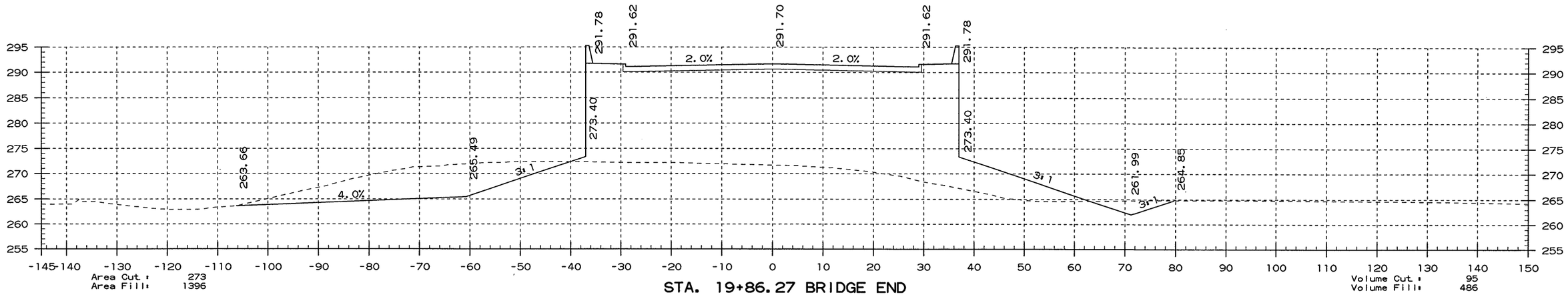
18+50.00

KIEHL AVE.

02-25-2005 RR60080.CRS4

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		

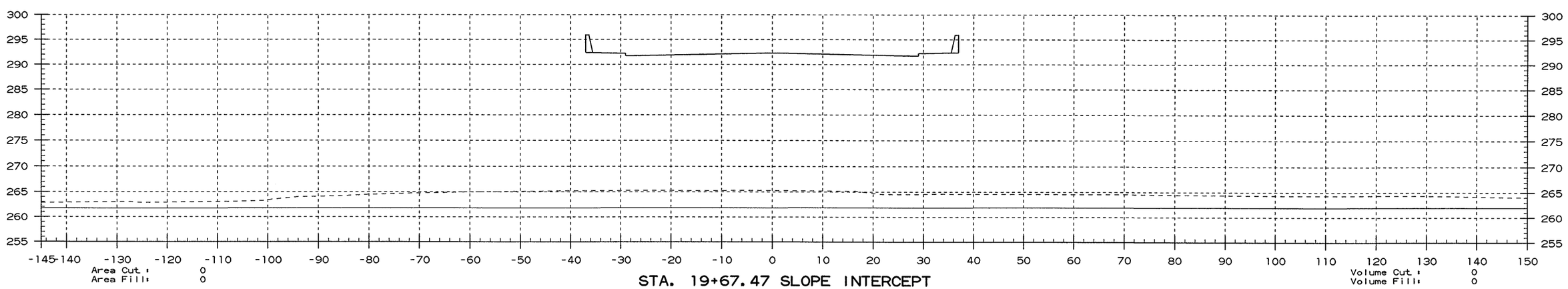
(2) CROSS SECTIONS



Area Cut : 273
Area Fill: 1396

Volume Cut : 95
Volume Fill: 486

STA. 19+86.27 BRIDGE END



Area Cut : 0
Area Fill: 0

Volume Cut : 0
Volume Fill: 0

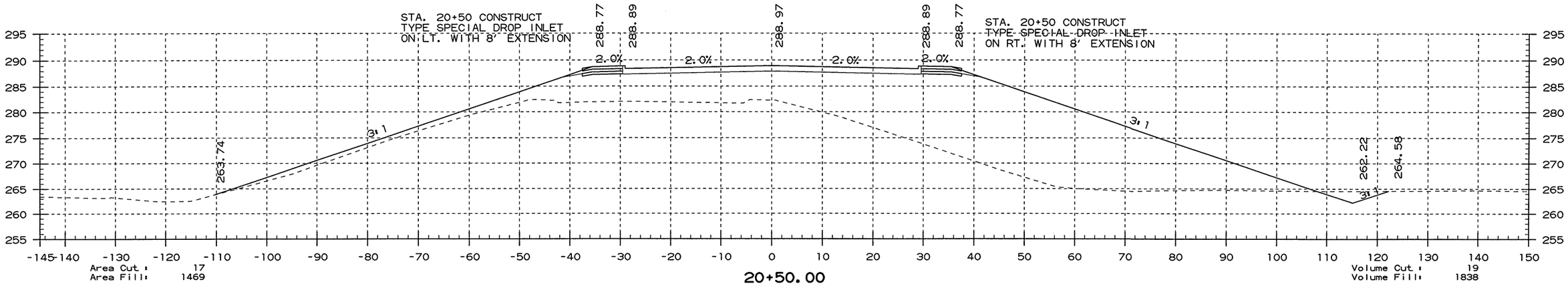
STA. 19+67.47 SLOPE INTERCEPT

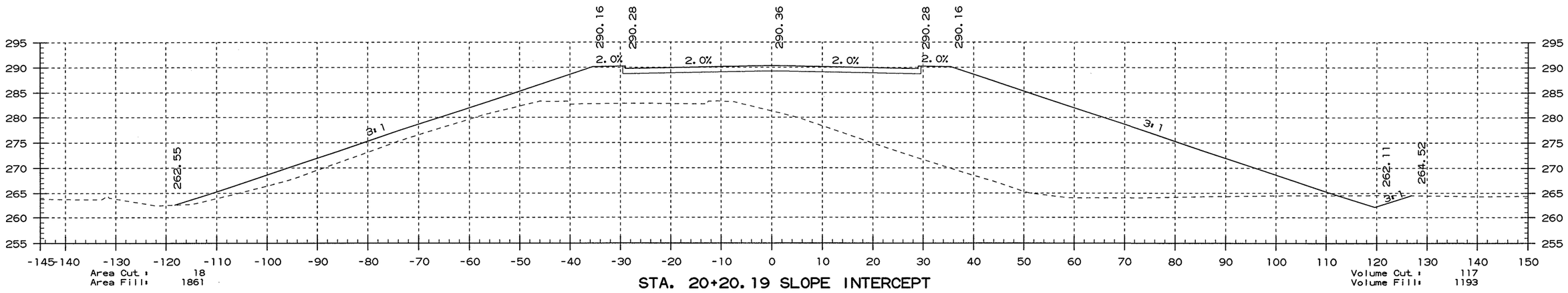
02-25-2005 RR60080.CRS4

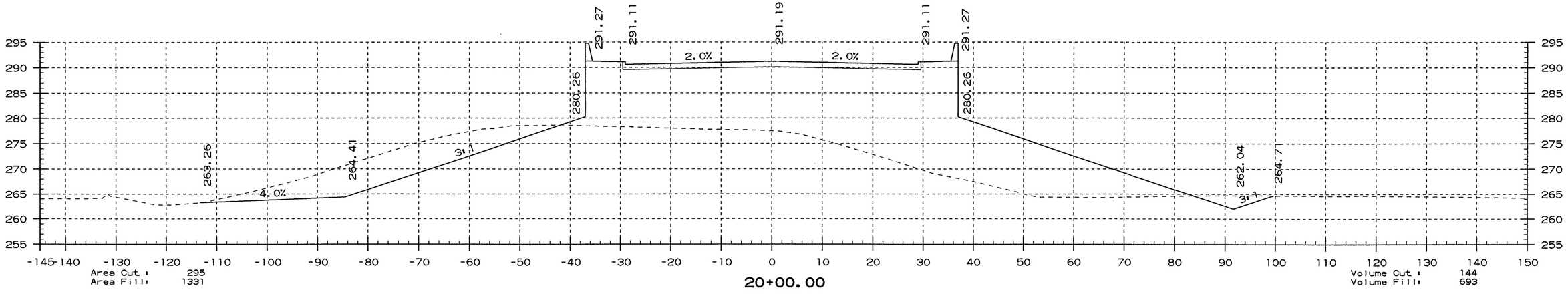
KIEHL AVE.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		

(2) CROSS SECTIONS





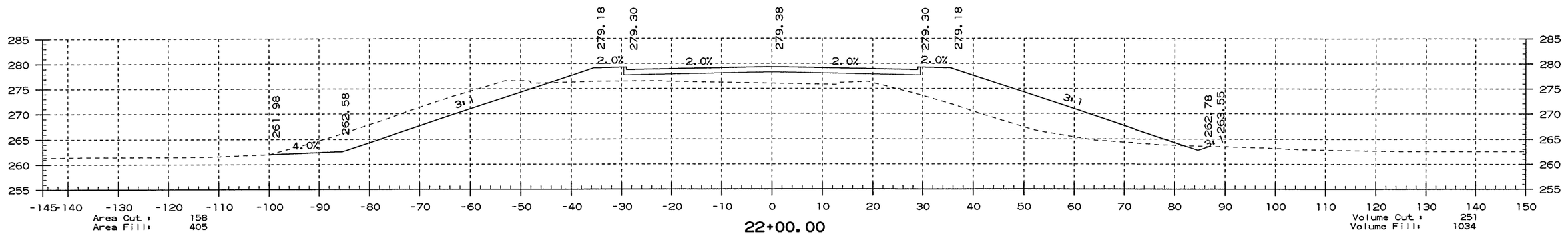


KIEHL AVE.

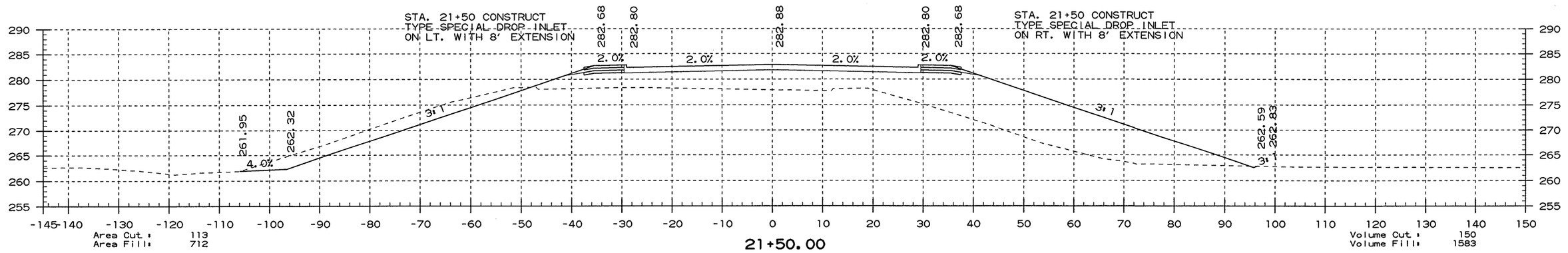
02-25-2005 RR60080.CRS4

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	5	6

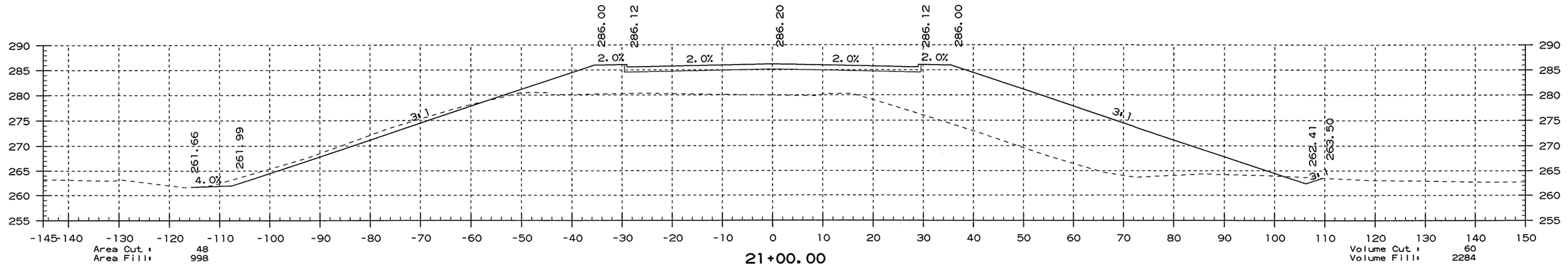
(2) CROSS SECTIONS



22+00.00



21+50.00



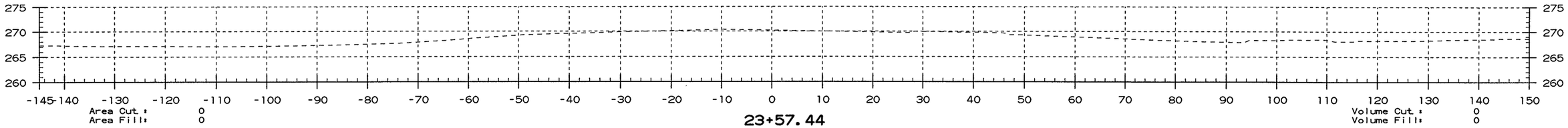
21+00.00

KIEHL AVE.

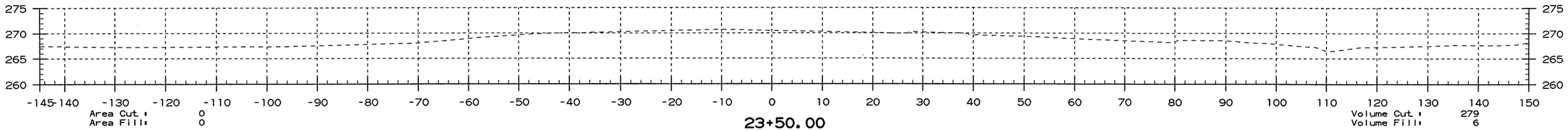
02-25-2005 RR60080.CRS4

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R60080			

(2) CROSS SECTIONS

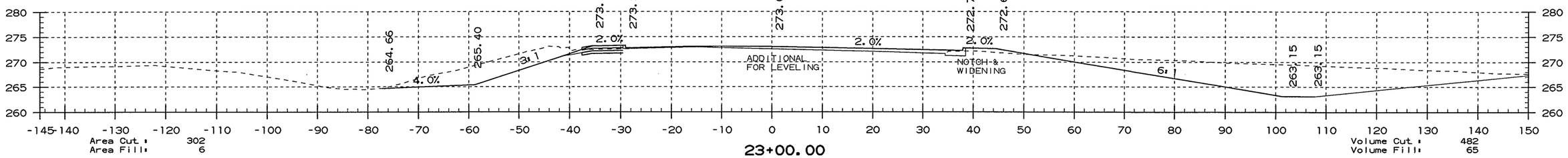


23+57.44



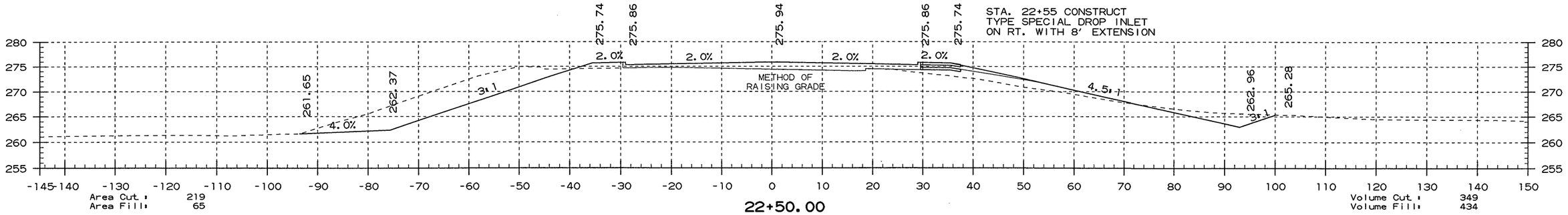
23+50.00

STA. 23+00 CONSTRUCT
TYPE SPECIAL DROP INLET
ON LT. WITH 8' EXTENSION



23+00.00

STA. 22+55 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT. WITH 8' EXTENSION

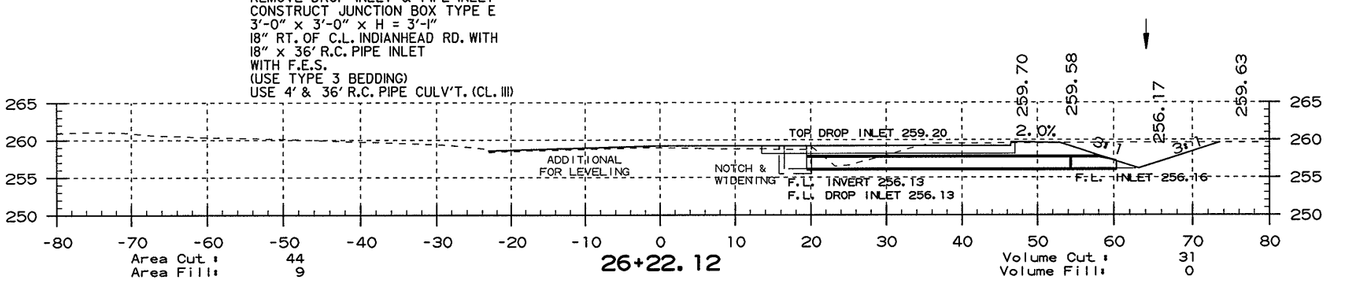


22+50.00

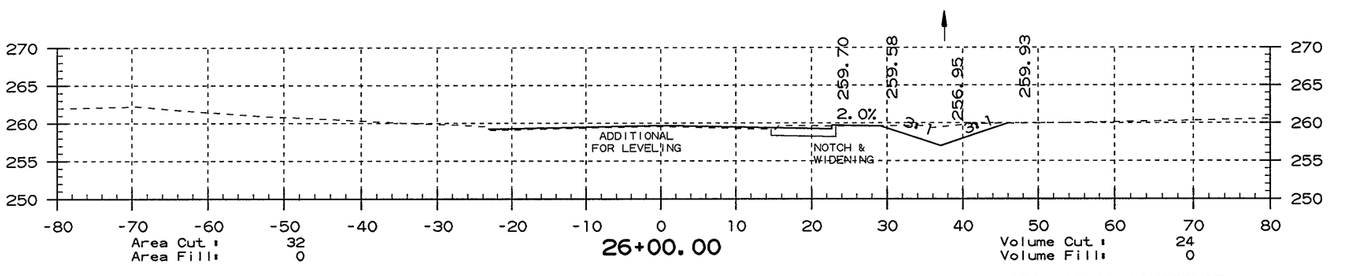
KIEHL AVE.

02-25-2005 RR60080.CRS4

STA. 26+22 IN PLACE
DROP INLET WITH
15" x 4' R.C. PIPE INLET W/ F.E.S. &
15" x 60' R.C. PIPE OUTLET
REMOVE DROP INLET & PIPE INLET
CONSTRUCT JUNCTION BOX TYPE E
3'-0" x 3'-0" x H = 3'-1"
18" RT. OF C.L. INDIANHEAD RD. WITH
18" x 36' R.C. PIPE INLET
WITH F.E.S.
(USE TYPE 3 BEDDING)
USE 4' & 36' R.C. PIPE CULV'T. (CL. III)

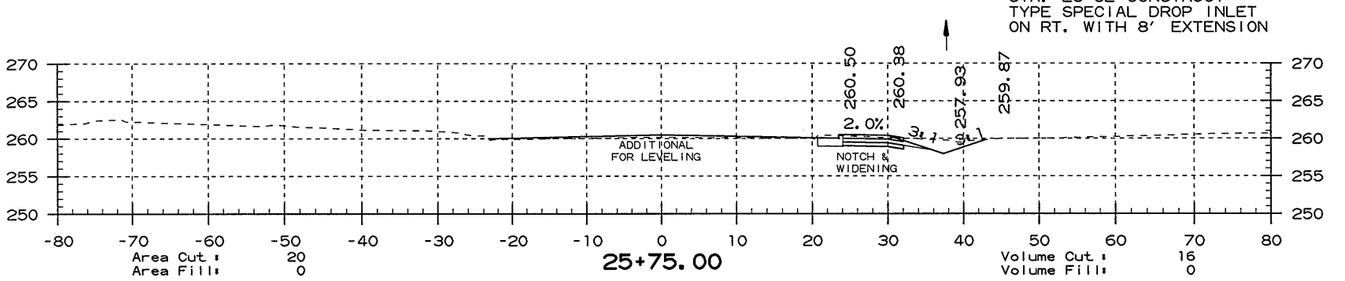


Area Cut : 44
Area Fill: 9
26+22.12
Volume Cut : 31
Volume Fill: 0

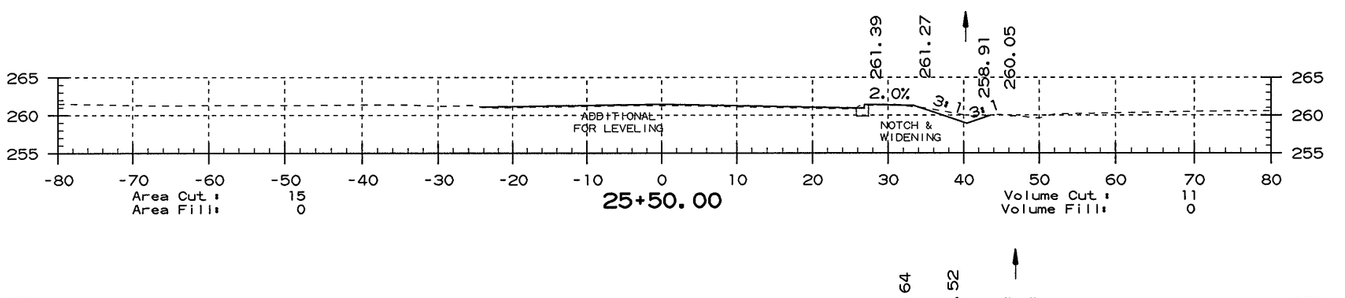


Area Cut : 32
Area Fill: 0
26+00.00
Volume Cut : 24
Volume Fill: 0

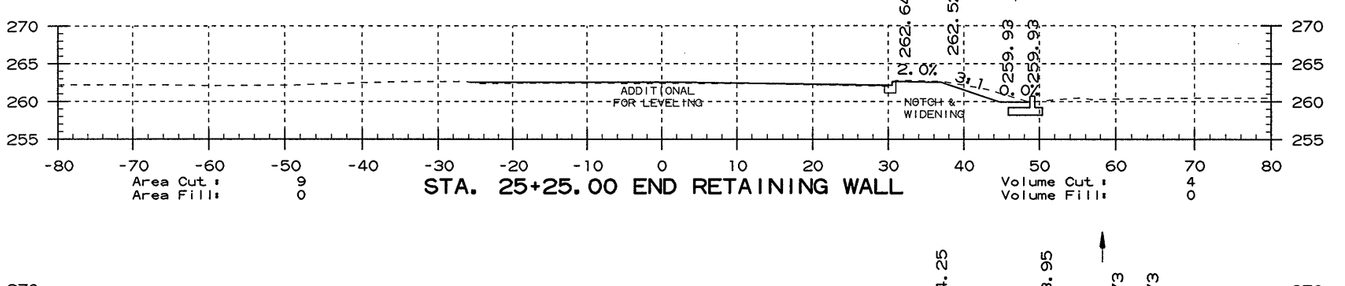
STA. 25+82 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT. WITH 8' EXTENSION



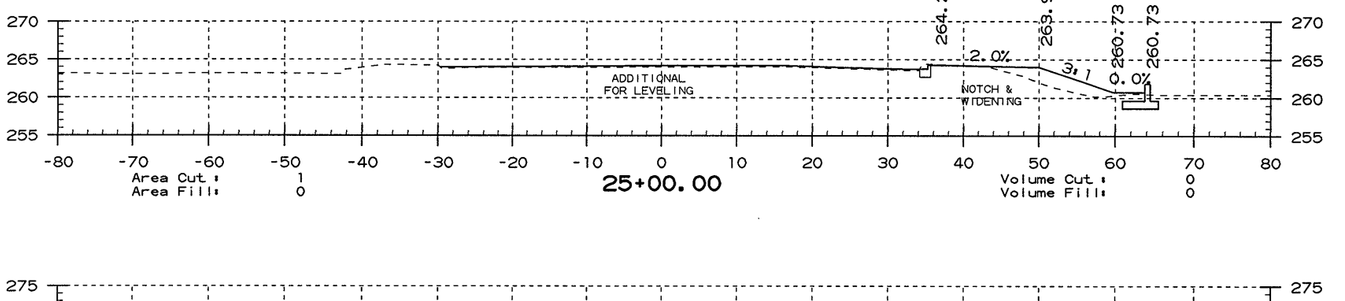
Area Cut : 20
Area Fill: 0
25+75.00
Volume Cut : 16
Volume Fill: 0



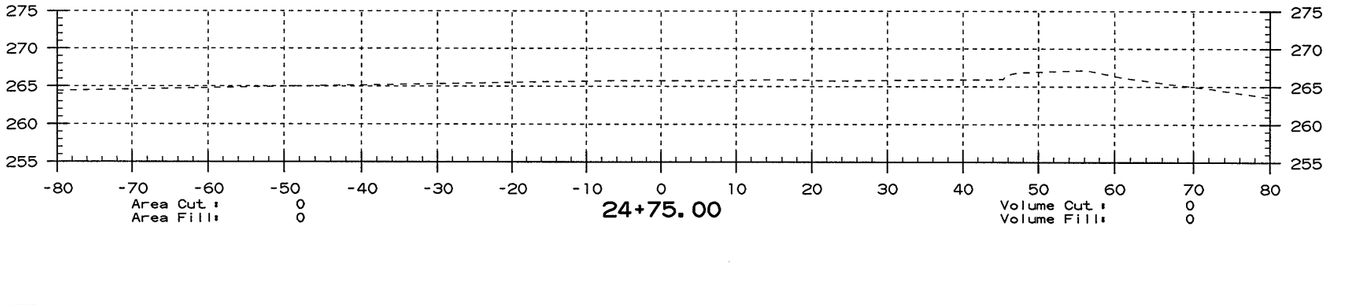
Area Cut : 15
Area Fill: 0
25+50.00
Volume Cut : 11
Volume Fill: 0



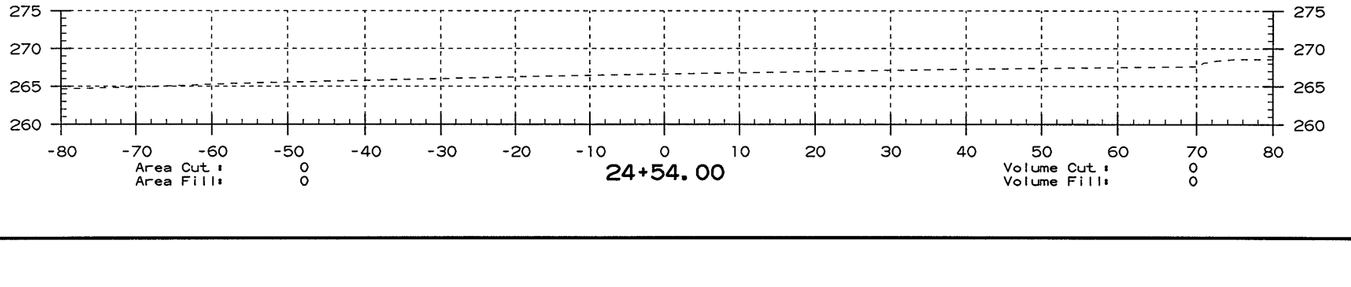
Area Cut : 9
Area Fill: 0
STA. 25+25.00 END RETAINING WALL
Volume Cut : 4
Volume Fill: 0



Area Cut : 1
Area Fill: 0
25+00.00
Volume Cut : 0
Volume Fill: 0



Area Cut : 0
Area Fill: 0
24+75.00
Volume Cut : 0
Volume Fill: 0



Area Cut : 0
Area Fill: 0
24+54.00
Volume Cut : 0
Volume Fill: 0

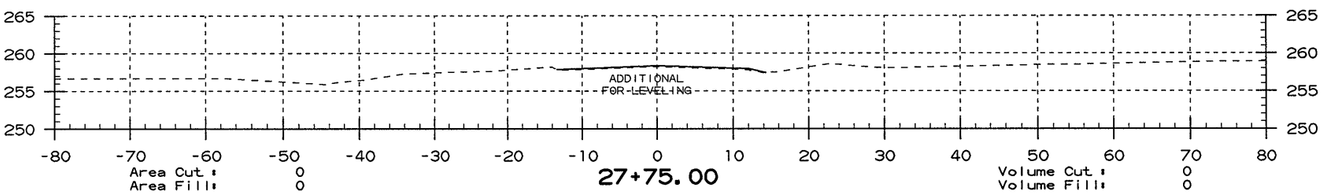
INDIANHEAD DRIVE

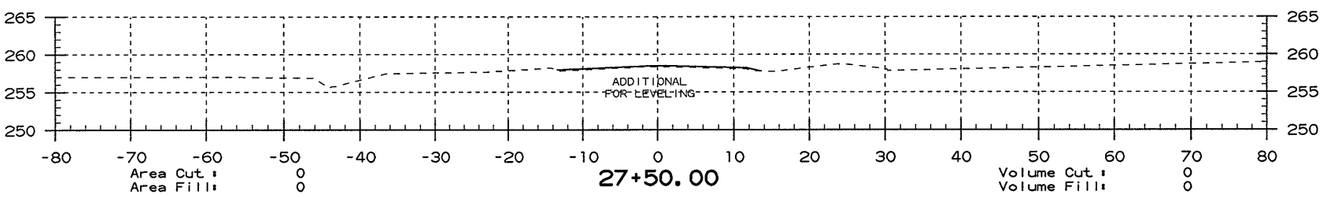
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED

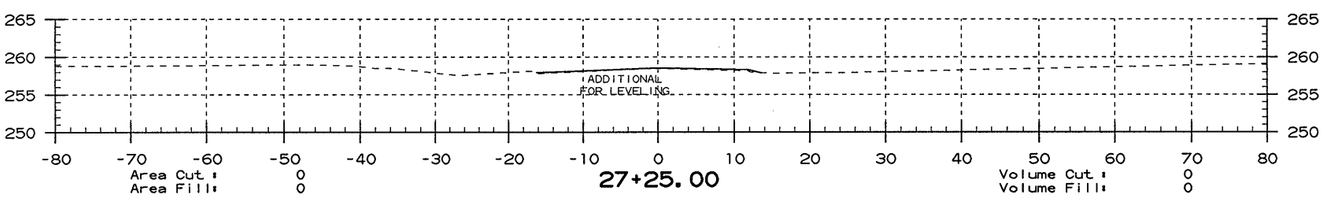
(2) CROSS SECTIONS

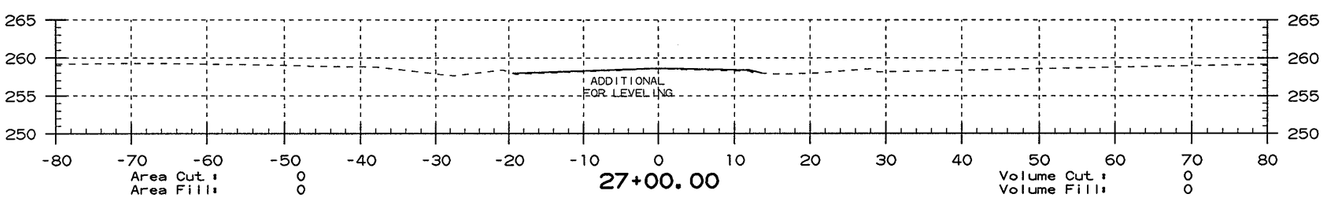
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			

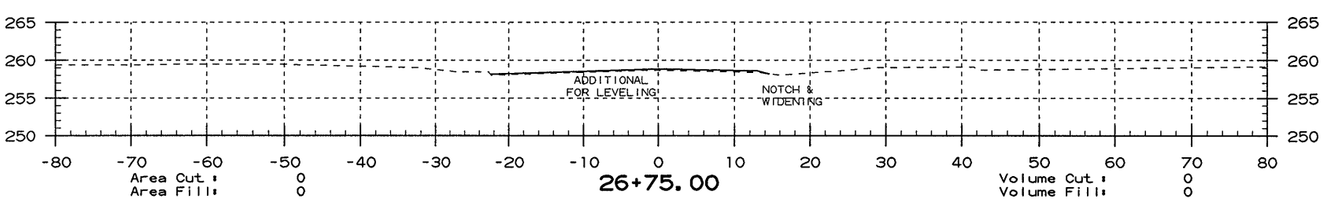
JOB NO. R60080

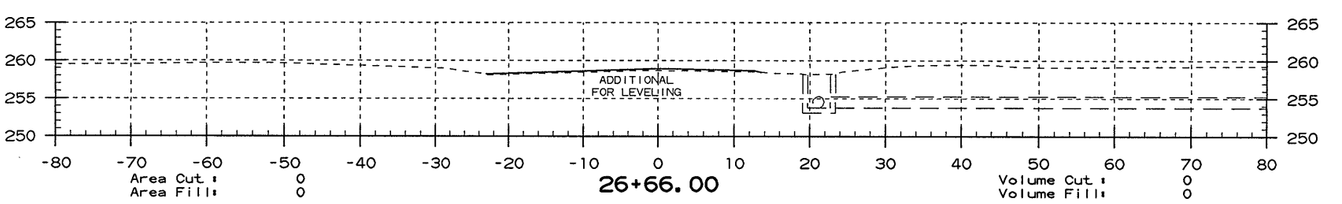


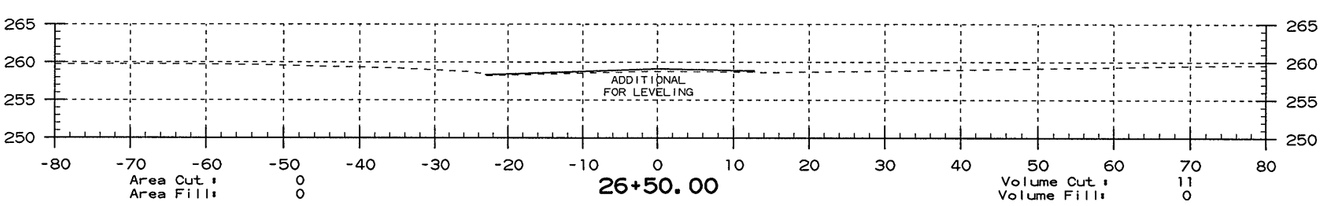


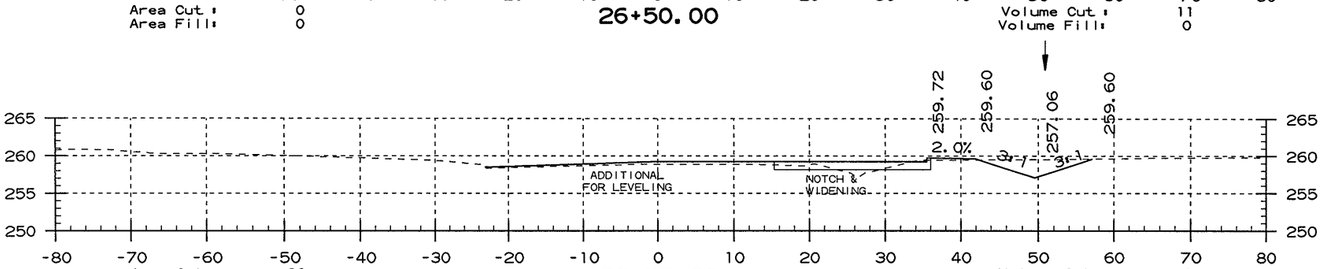












INDIANHEAD DRIVE

						DATE REVISED	
						DATE FILMED	
						DATE REVISED	
						DATE FILMED	
						FED.AID DIST.NO.	6
						STATE	ARK.
						FED.AID PROJ.NO.	
						JOB NO.	R60080
						SHEET NO.	
						TOTAL SHEETS	

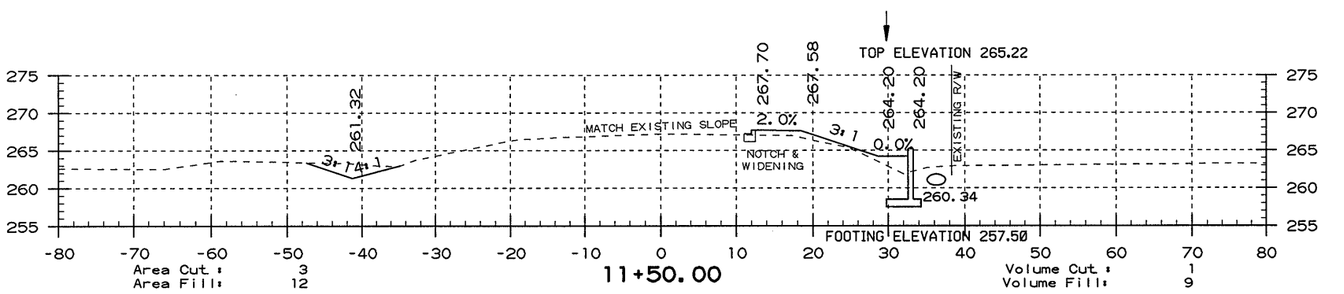
2 CROSS SECTIONS

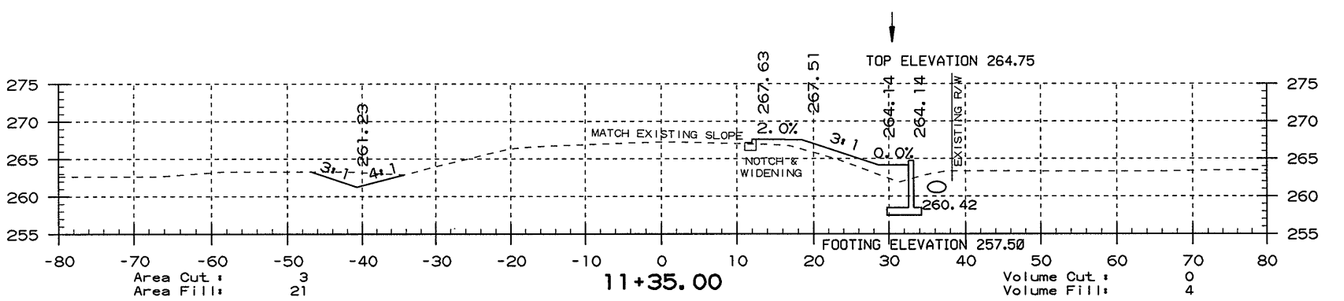
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	560	603

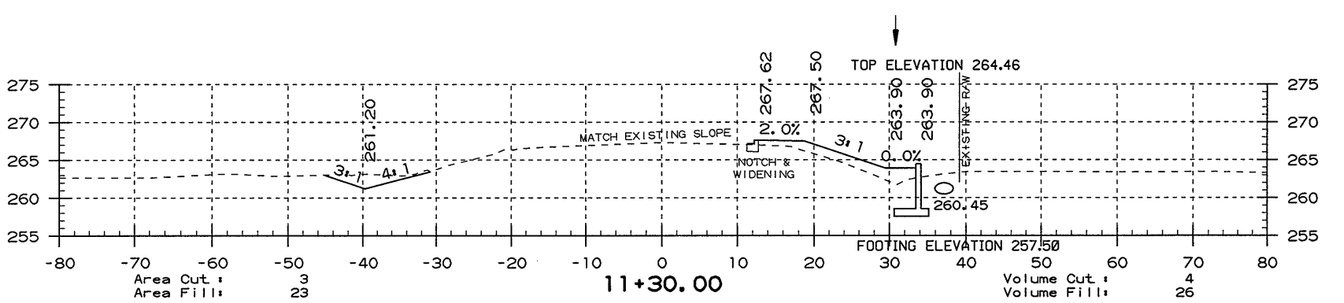
(2) CROSS SECTIONS

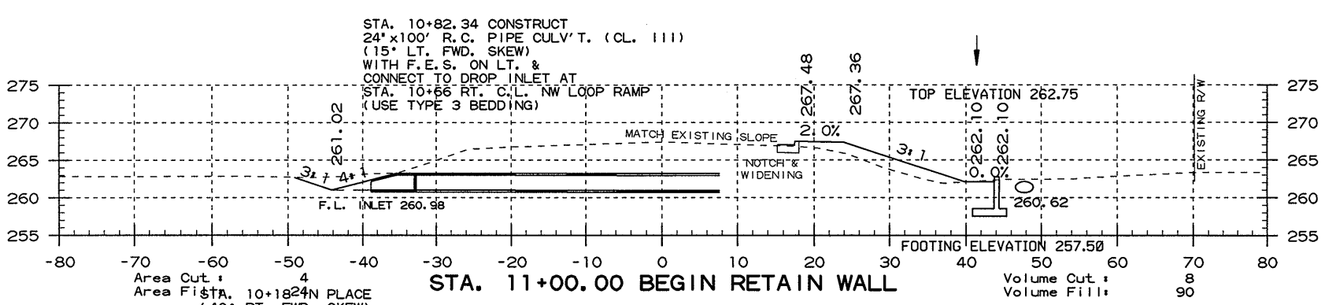
INDIANHEAD DRIVE

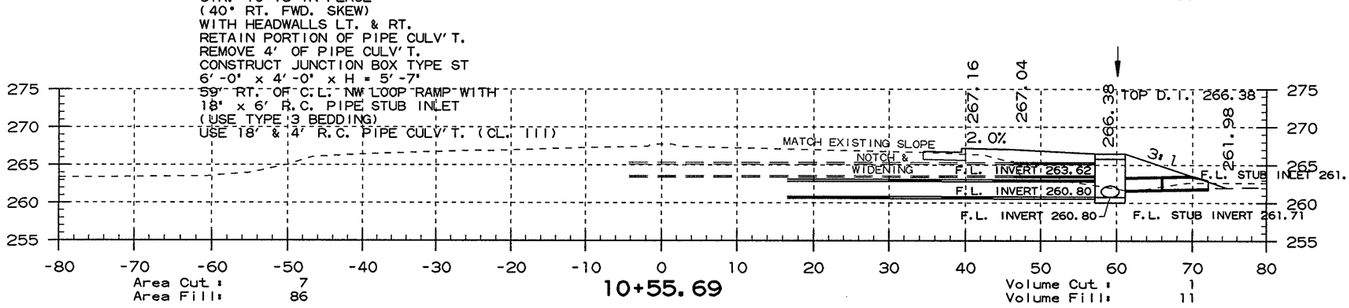
02-25-2005 RR60080.CRS4

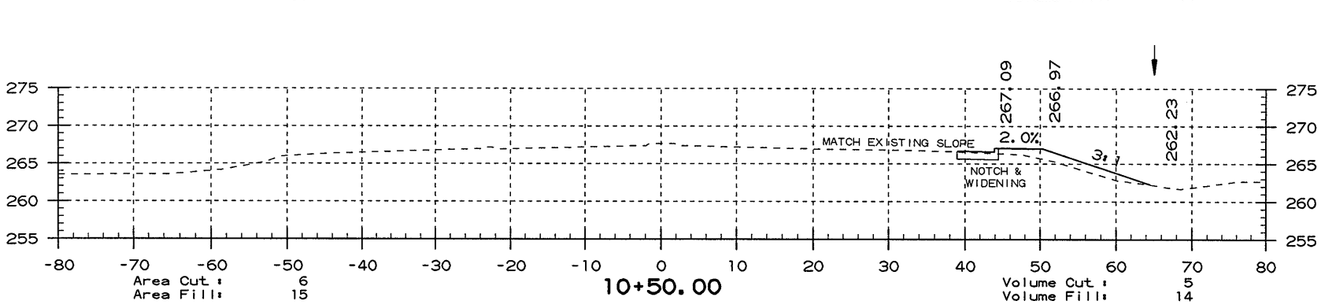


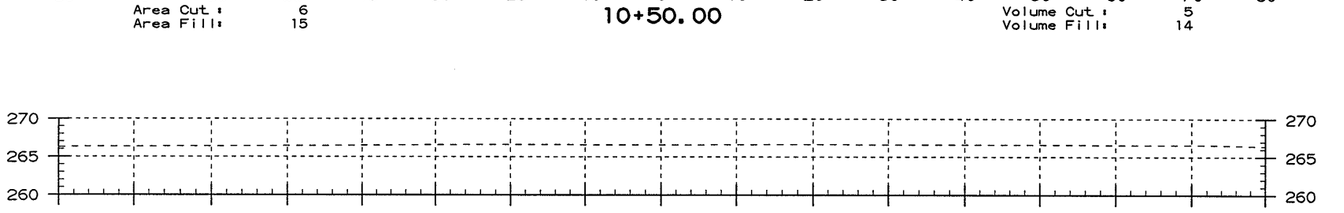










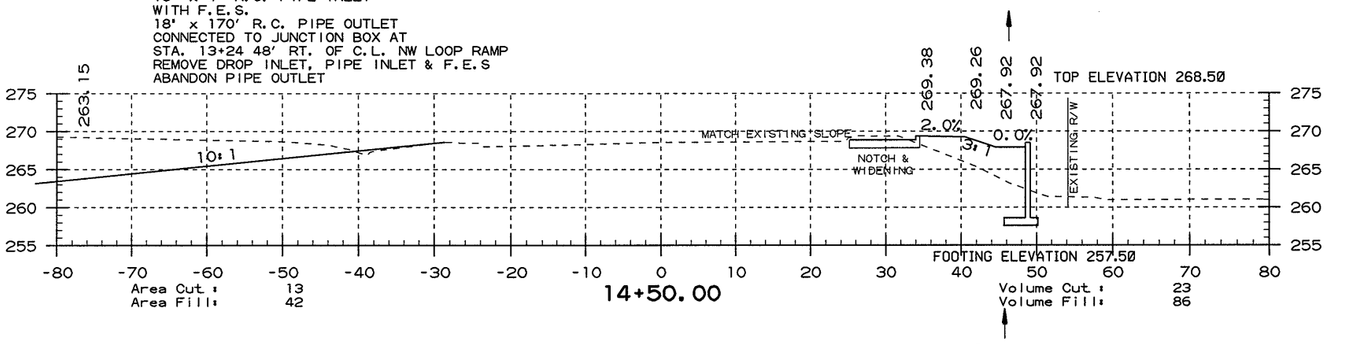


NW RAMP

DATE REVISED	
DATE FILMED	
DATE REVISED	
DATE FILMED	
FED.RD. DIST.NO.	6
STATE	ARK.
FED.AID PROJ.NO.	
SHEET NO.	2
TOTAL SHEETS	
JOB NO.	R60080

CROSS SECTIONS

STA. 14+75 IN PLACE
DROP INLET WITH
18' x 4' R.C. PIPE INLET
WITH F.E.S.
18' x 170' R.C. PIPE OUTLET
CONNECTED TO JUNCTION BOX AT
STA. 13+24 48' RT. OF C.L. NW LOOP RAMP
REMOVE DROP INLET, PIPE INLET & F.E.S
ABANDON PIPE OUTLET

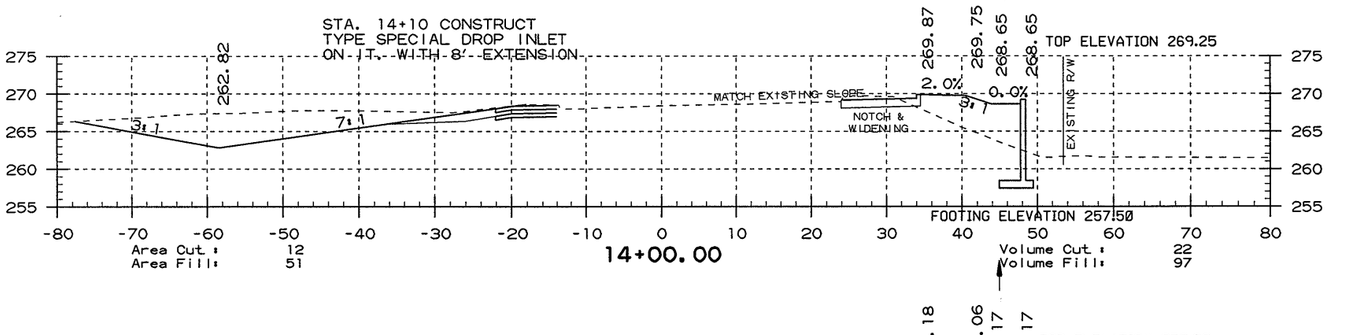


Area Cut : 13
Area Fill: 42

14+50.00

Volume Cut : 23
Volume Fill: 86

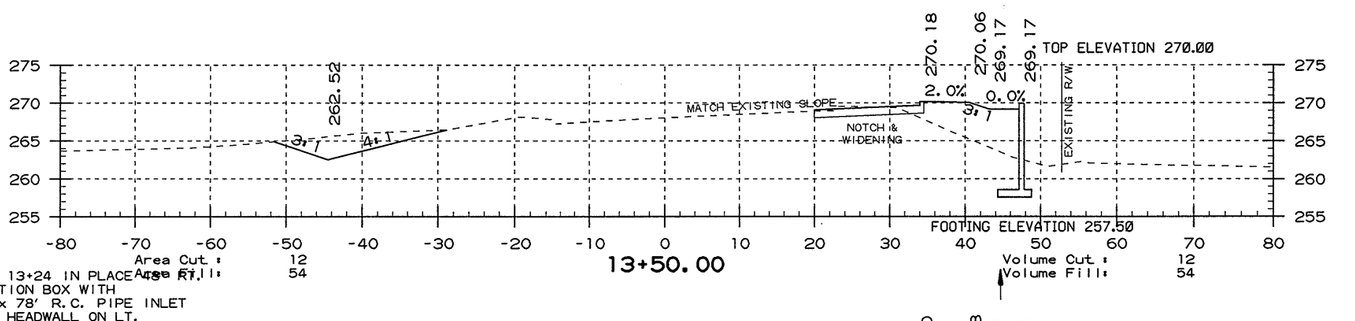
STA. 14+10 CONSTRUCT
TYPE SPECIAL DROP INLET
ON - / T. WITH 8' EXTENSION



Area Cut : 12
Area Fill: 51

14+00.00

Volume Cut : 22
Volume Fill: 97

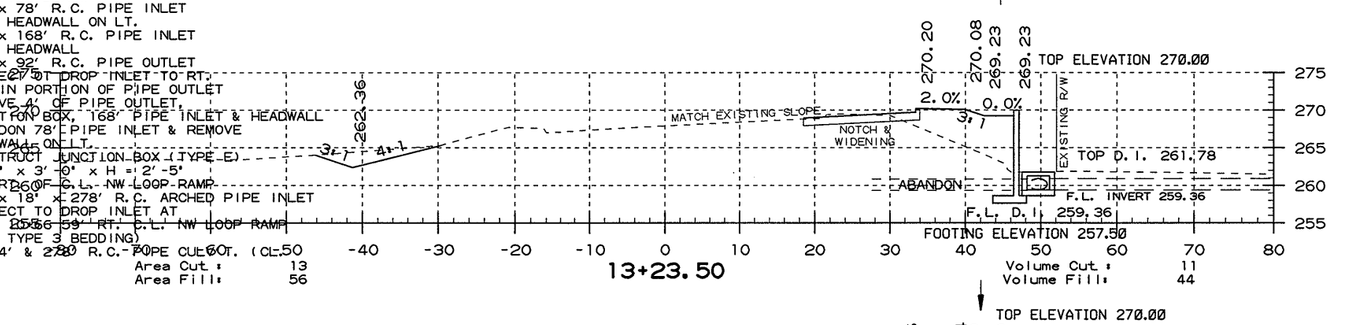


Area Cut : 12
Area Fill: 54

13+50.00

Volume Cut : 12
Volume Fill: 54

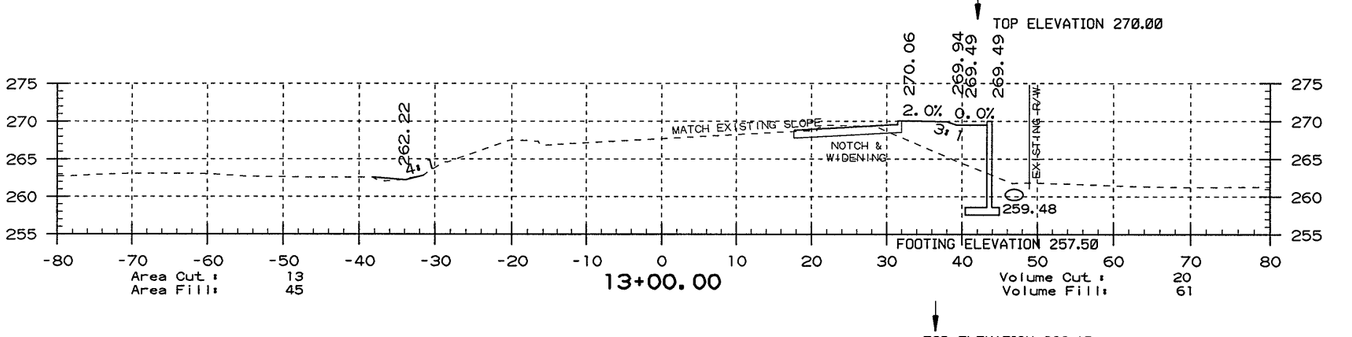
STA. 13+24 IN PLACE
JUNCTION BOX WITH
18' x 78' R.C. PIPE INLET
WITH HEADWALL ON LT.
18' x 168' R.C. PIPE INLET
WITH HEADWALL
15' x 92' R.C. PIPE OUTLET
CONNECT TO DROP INLET TO RT.
RETAIN PORTION OF PIPE OUTLET
REMOVE 4' OF PIPE OUTLET,
JUNCTION BOX, 168' PIPE INLET & HEADWALL
ABANDON 78' PIPE INLET & REMOVE
HEADWALL ON LT.
CONSTRUCT JUNCTION BOX (TYPE E)
3'-0" x 3'-0" x H = 2'-5"
49' RT. OF C.L. NW LOOP RAMP
29' x 18' x 278' R.C. ARCHED PIPE INLET
CONNECT TO DROP INLET AT
STA. 2556 59' RT. C.L. NW LOOP RAMP
(USE TYPE 3 BEDDING)
USE 4' & 2[illegible] R.C. PIPE CULVERT. (CL 50 III)



Area Cut : 13
Area Fill: 56

13+23.50

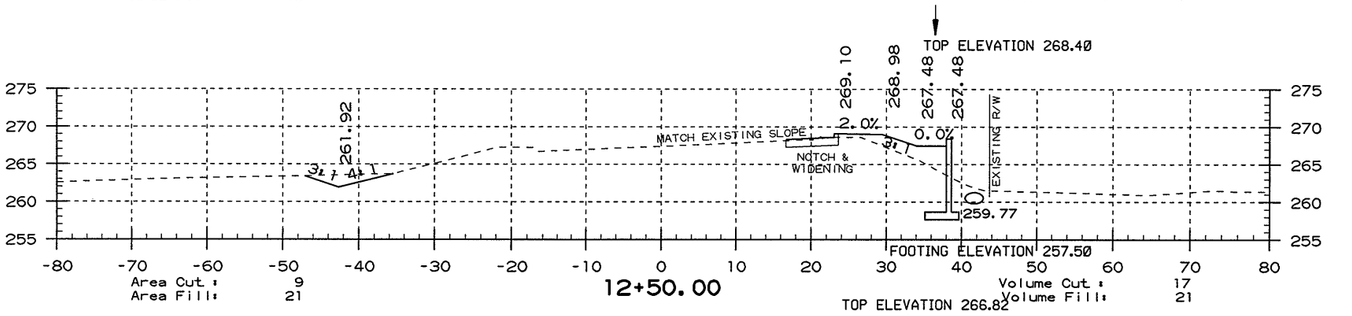
Volume Cut : 11
Volume Fill: 44



Area Cut : 13
Area Fill: 45

13+00.00

Volume Cut : 20
Volume Fill: 61



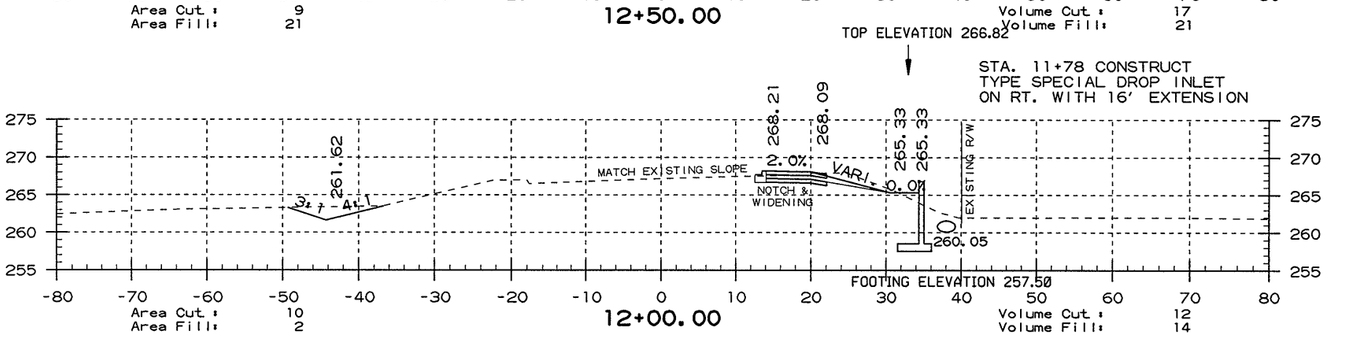
Area Cut : 9
Area Fill: 21

12+50.00

Volume Cut : 17
Volume Fill: 21

TOP ELEVATION 266.82

STA. 11+78 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT. WITH 16' EXTENSION



Area Cut : 10
Area Fill: 2

12+00.00

Volume Cut : 12
Volume Fill: 14

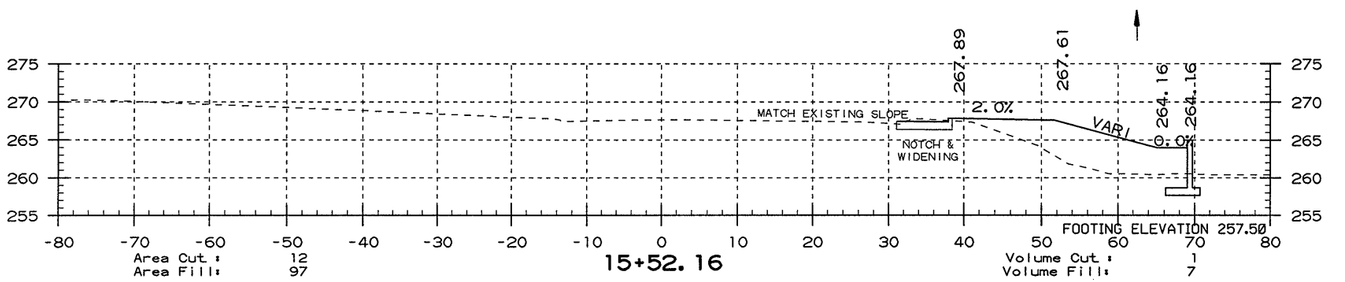
NW RAMP

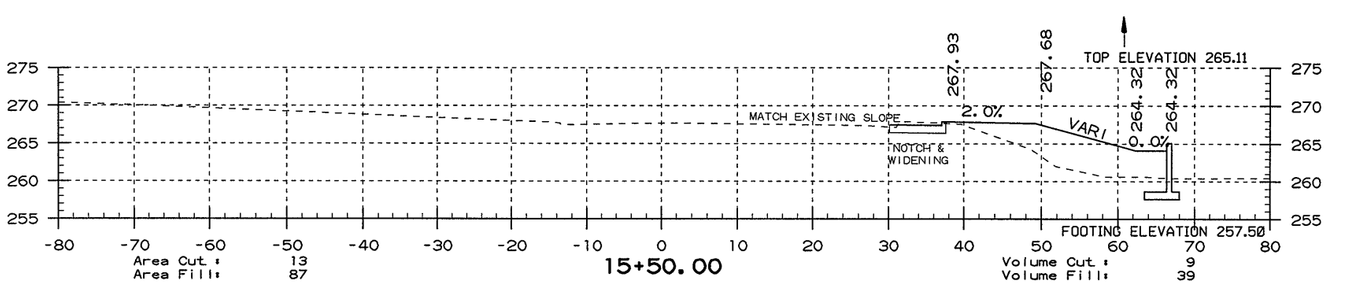
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED

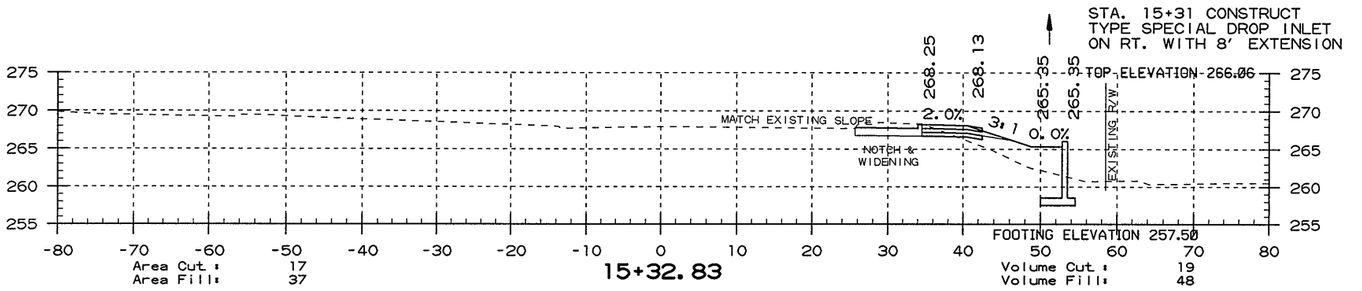
(2) CROSS SECTIONS

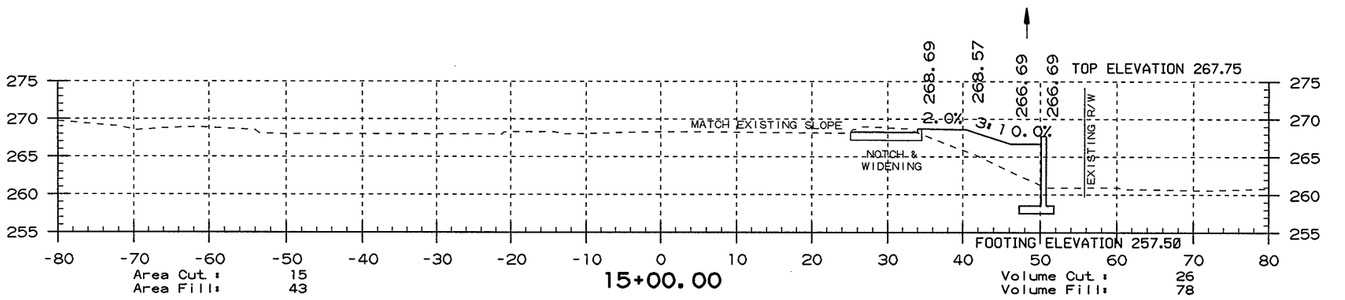
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			

JOB NO. R60080



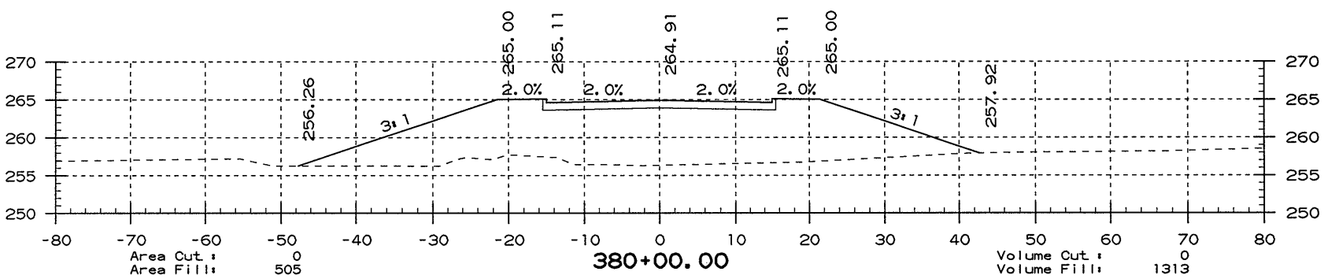






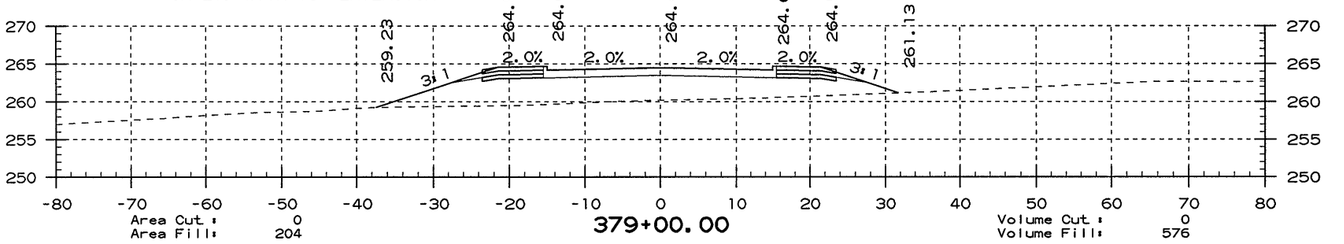
NW RAMP

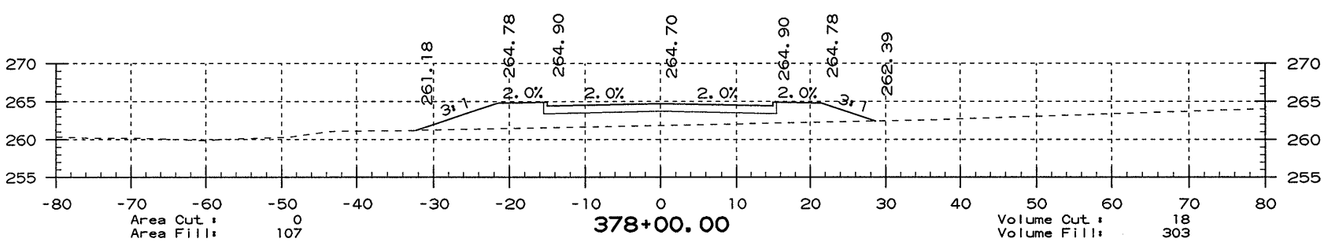
	DATE REVISED	DATE PLANED	DATE REVISED	DATE PLANED	FED.RD. DIV.NO.
					6
(2) CROSS SECTIONS					STATE ARK.
					FED.AID PROJ.NO. R60080
					SHEET NO. 5
					TOTAL SHEETS 6



STA. 378+84 CONSTRUCT
TYPE SPECIAL DROP INLET
ON LT. WITH 16' EXTENSION

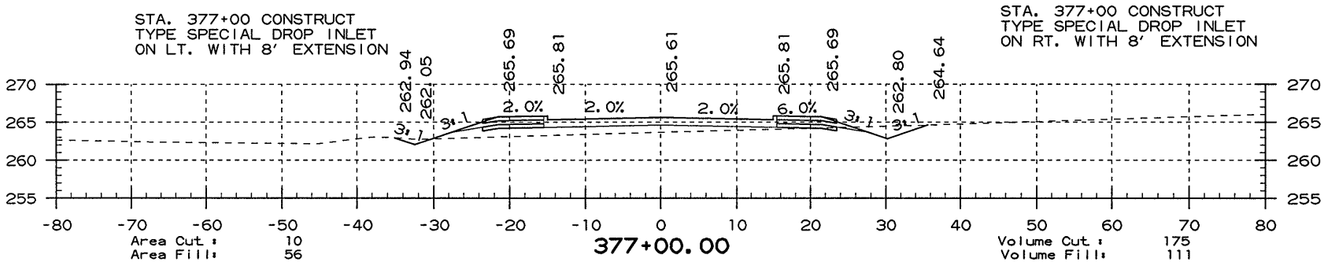
STA. 378+84 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT. WITH 16' EXTENSION

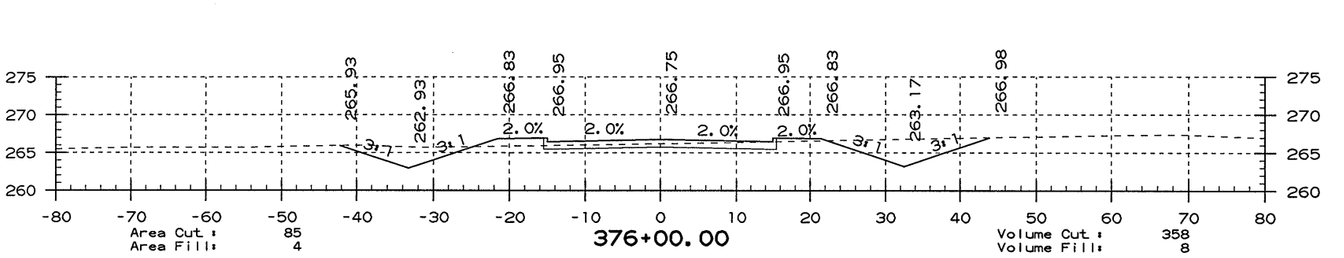


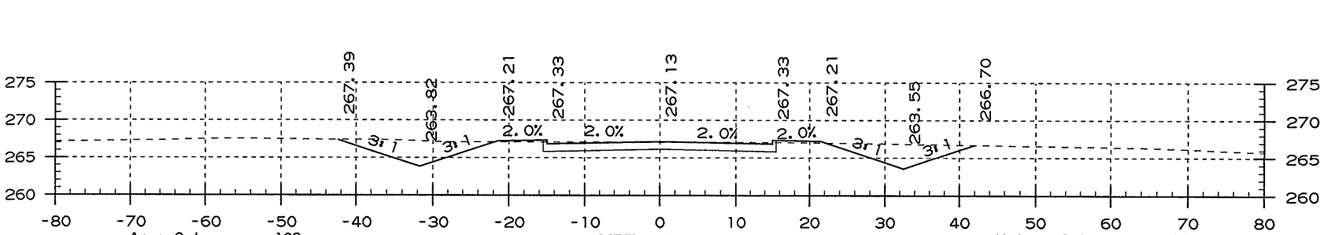


STA. 377+00 CONSTRUCT
TYPE SPECIAL DROP INLET
ON LT. WITH 8' EXTENSION

STA. 377+00 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT. WITH 8' EXTENSION

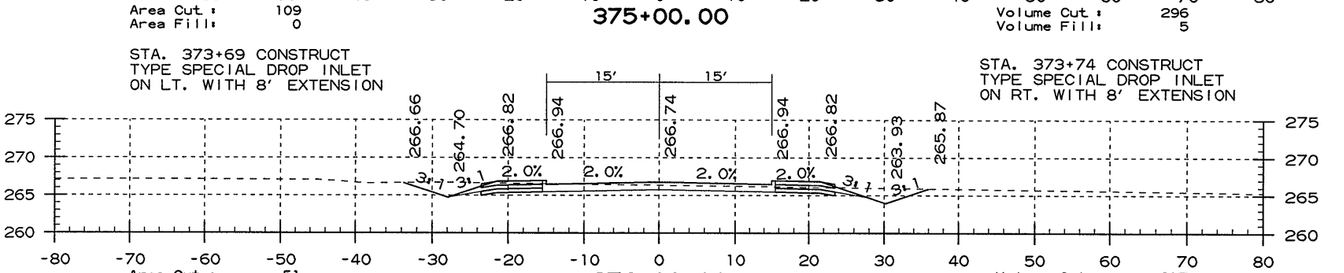


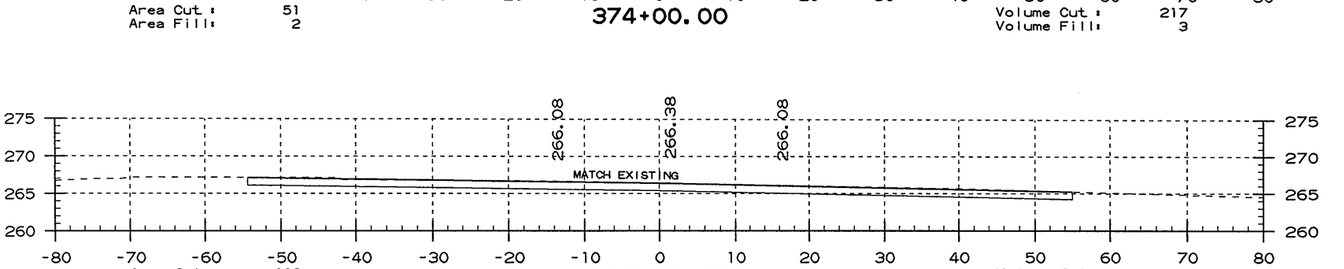




STA. 373+69 CONSTRUCT
TYPE SPECIAL DROP INLET
ON LT. WITH 8' EXTENSION

STA. 373+74 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT. WITH 8' EXTENSION





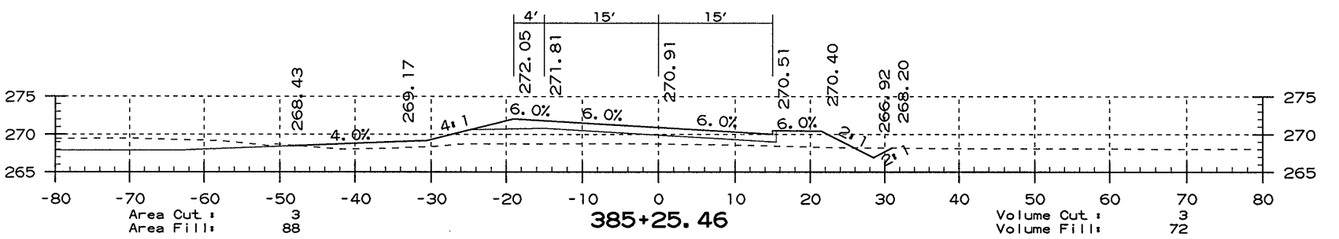
LANDERS CONNECTOR

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.AID. DIST.NO.
				6

STATE	FED.AID PROJ.NO.
ARK.	

JOB NO.	SHEET NO.	TOTAL SHEETS
R60080		

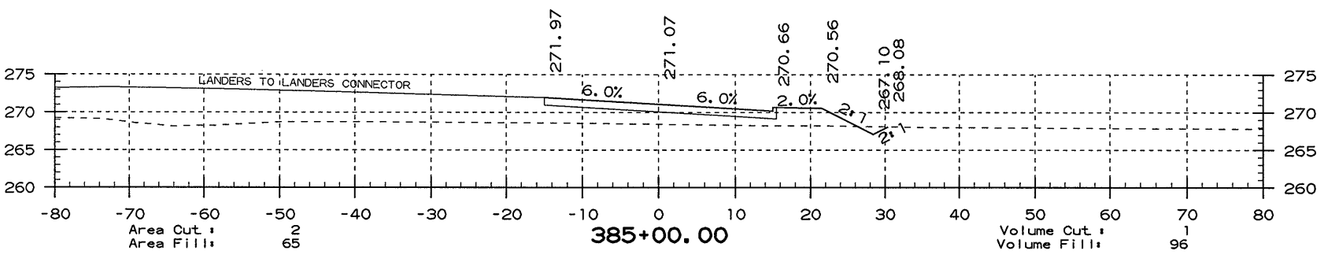
(2) CROSS SECTIONS



Area Cut : 3
Area Fill: 88

385+25.46

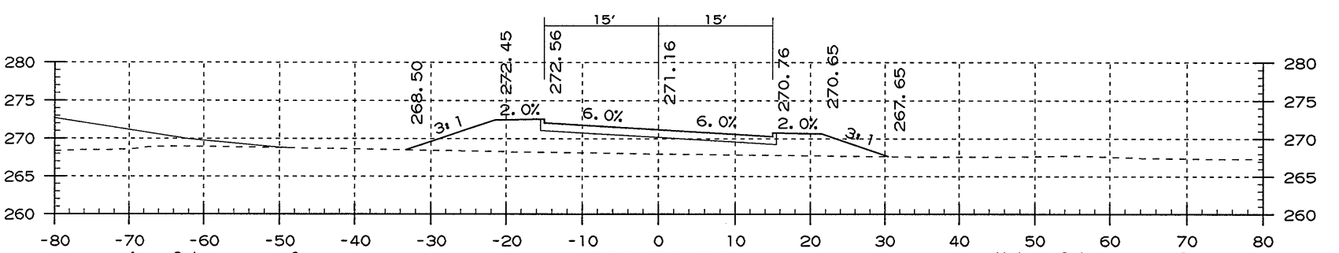
Volume Cut : 3
Volume Fill: 72



Area Cut : 2
Area Fill: 65

385+00.00

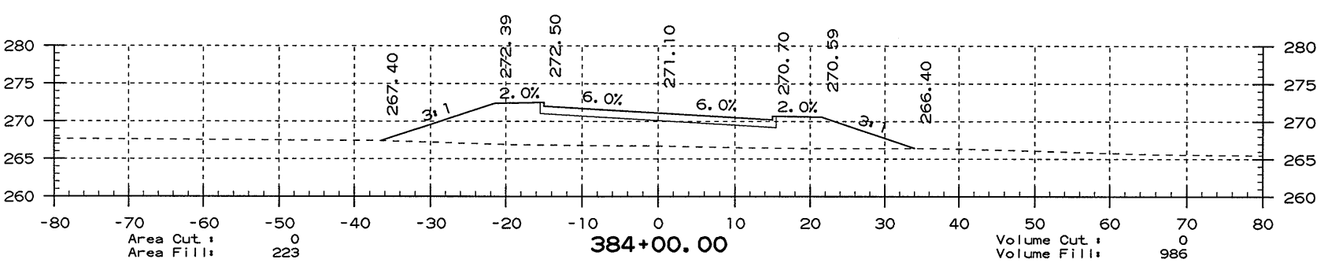
Volume Cut : 1
Volume Fill: 96



Area Cut : 0
Area Fill: 139

384+74.54

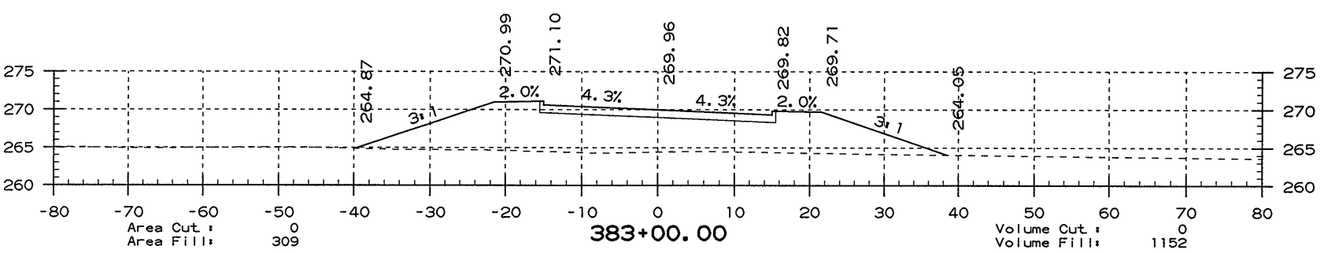
Volume Cut : 0
Volume Fill: 500



Area Cut : 0
Area Fill: 223

384+00.00

Volume Cut : 0
Volume Fill: 986

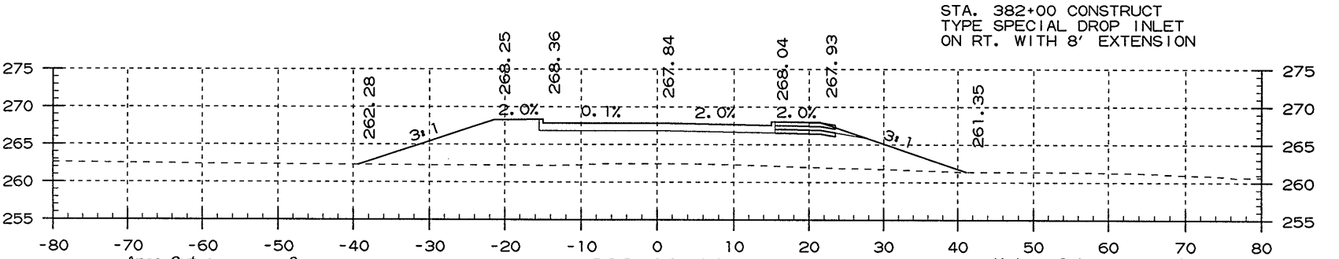


Area Cut : 0
Area Fill: 309

383+00.00

Volume Cut : 0
Volume Fill: 1152

STA. 382+00 CONSTRUCT
TYPE SPECIAL DROP INLET
ON RT. WITH 8' EXTENSION

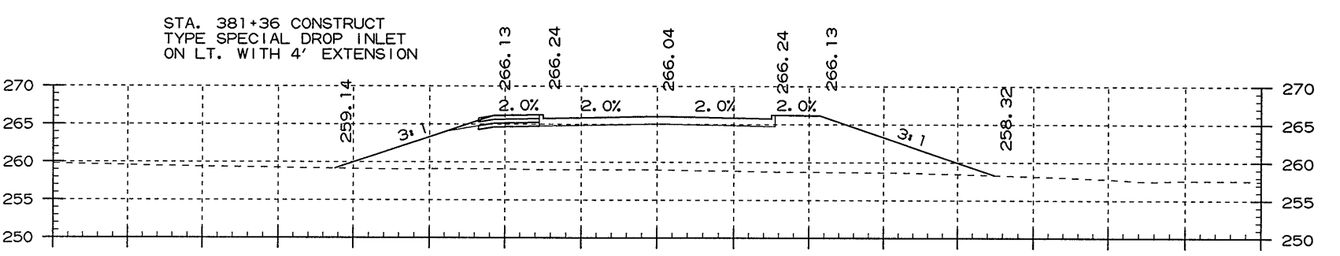


Area Cut : 0
Area Fill: 313

382+00.00

Volume Cut : 0
Volume Fill: 1362

STA. 381+36 CONSTRUCT
TYPE SPECIAL DROP INLET
ON LT. WITH 4' EXTENSION

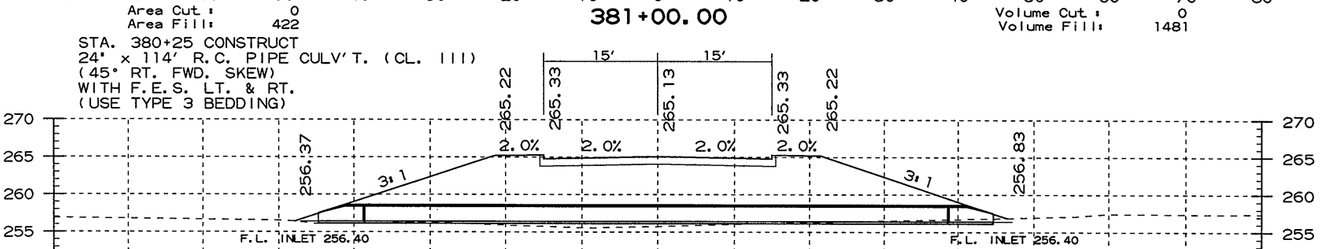


Area Cut : 0
Area Fill: 422

381+00.00

Volume Cut : 0
Volume Fill: 1481

STA. 380+25 CONSTRUCT
24' x 114' R.C. PIPE CULV'T. (CL. III)
(45° RT. FWD. SKEW)
WITH F.E.S. LT. & RT.
(USE TYPE 3 BEDDING)



Area Cut : 0
Area Fill: 588

380+25.00

Volume Cut : 0
Volume Fill: 422

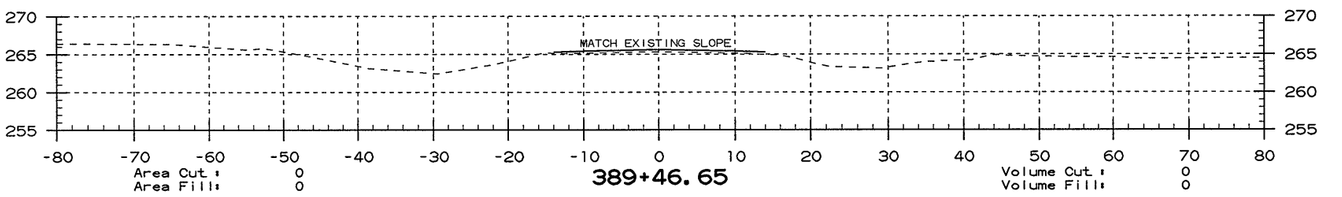
LANDERS CONNECTOR

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	R60080	5	5

JOB NO.

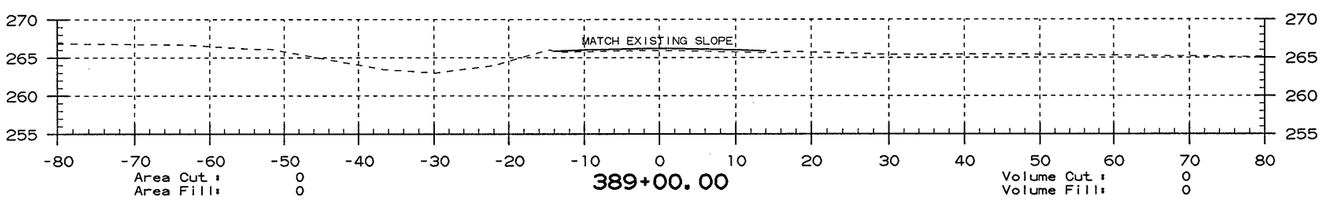
(2) CROSS SECTIONS



Area Cut : 0
Area Fill: 0

389+46.65

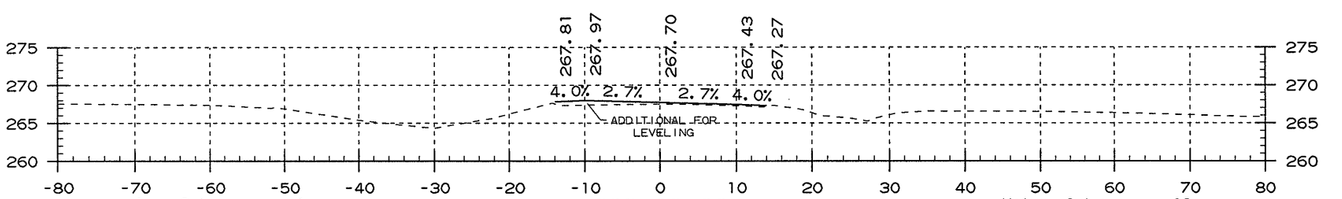
Volume Cut : 0
Volume Fill: 0



Area Cut : 0
Area Fill: 0

389+00.00

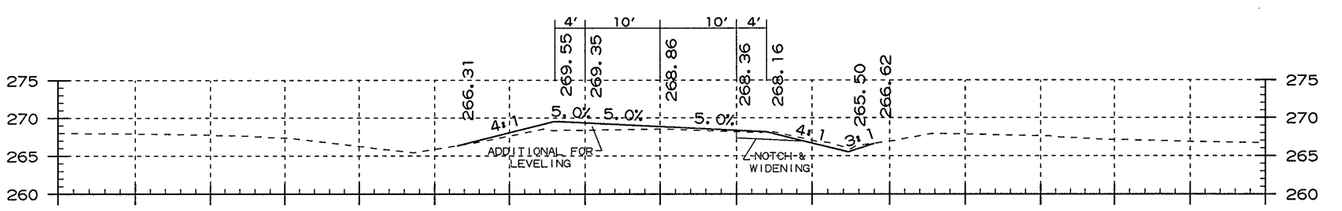
Volume Cut : 0
Volume Fill: 0



Area Cut : 0
Area Fill: 0

388+00.00

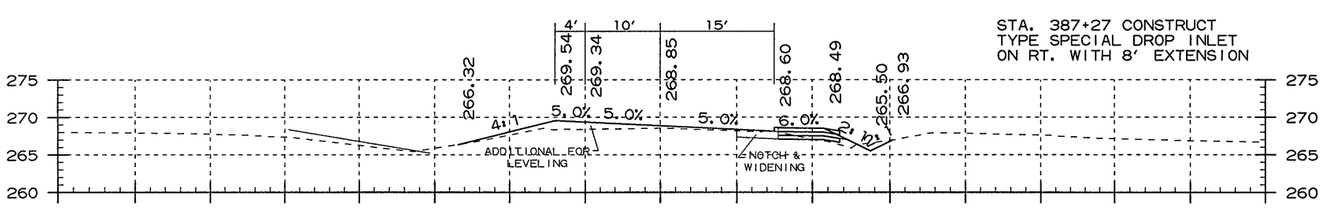
Volume Cut : 18
Volume Fill: 8



Area Cut : 14
Area Fill: 6

387+29.01 AHD. END NOTCH & WIDENING

Volume Cut : 0
Volume Fill: 0

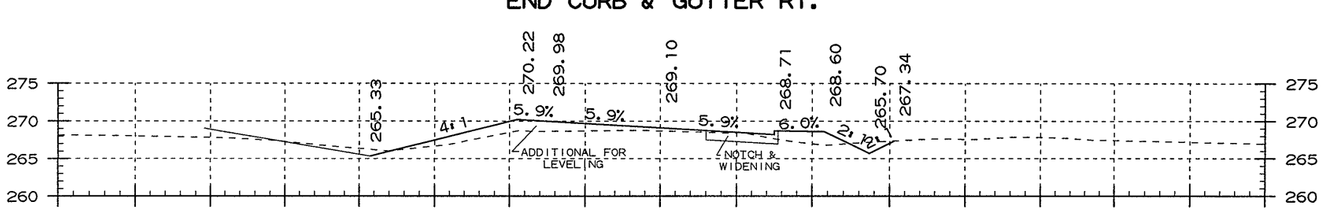


STA. 387+27 CONSTRUCT TYPE SPECIAL DROP INLET ON RT. WITH 8' EXTENSION

Area Cut : 11
Area Fill: 19

387+29.00 BK. END CURB & GUTTER RT.

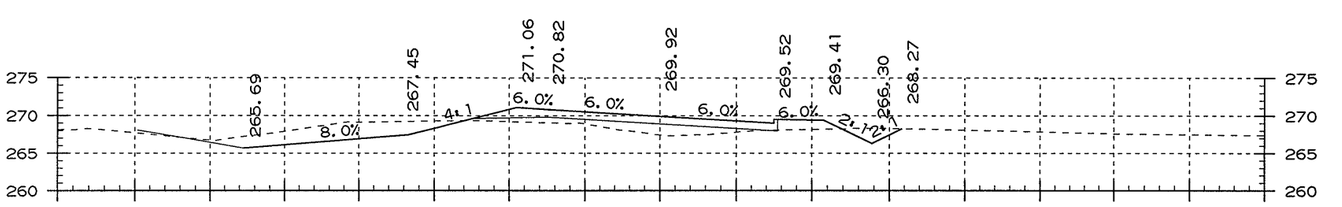
Volume Cut : 16
Volume Fill: 26



Area Cut : 18
Area Fill: 29

387+00.00

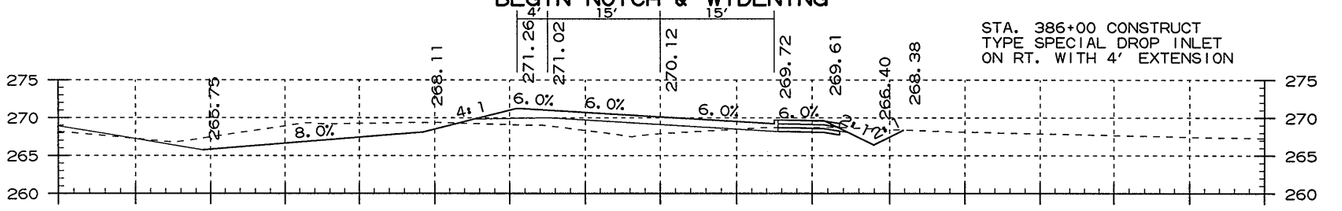
Volume Cut : 120
Volume Fill: 105



Area Cut : 58
Area Fill: 37

386+13.91 END FULL DEPTH CONSTRUCTION BEGIN NOTCH & WIDENING

Volume Cut : 33
Volume Fill: 20



STA. 386+00 CONSTRUCT TYPE SPECIAL DROP INLET ON RT. WITH 4' EXTENSION

Area Cut : 70
Area Fill: 40

386+00.00

Volume Cut : 101
Volume Fill: 177

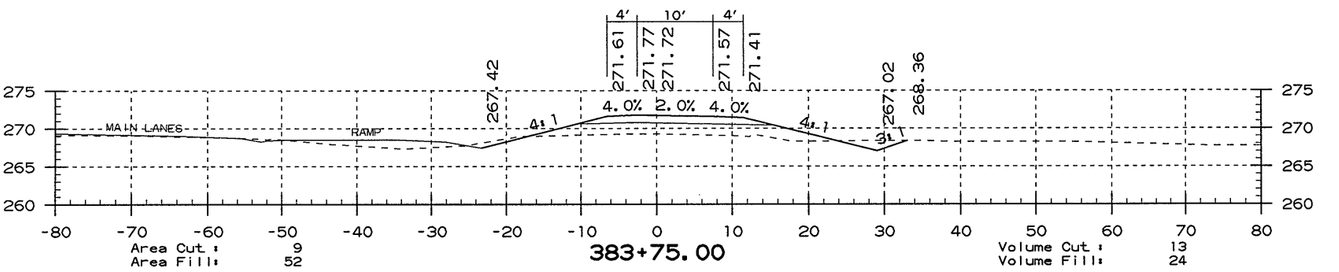
LANDERS CONNECTOR

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED

2 CROSS SECTIONS

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

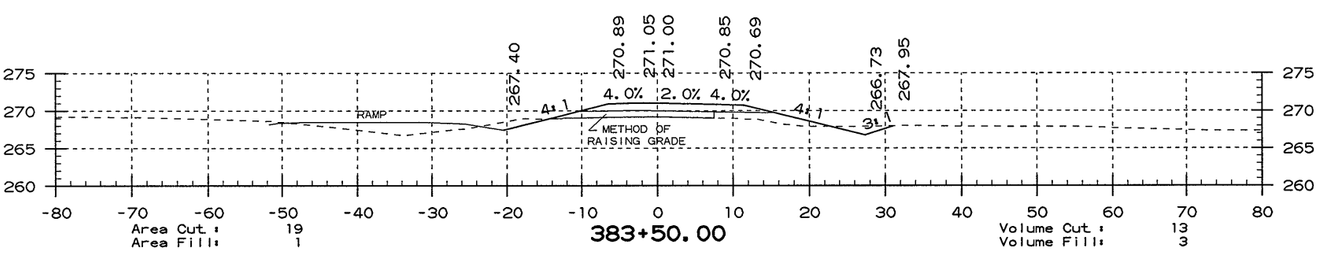
JOB NO. R60080



Area Cut : 9
Area Fill: 52

383+75.00

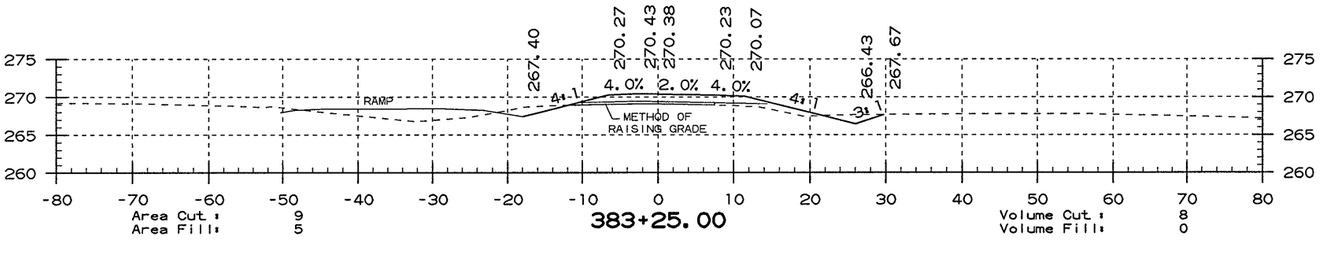
Volume Cut : 13
Volume Fill: 24



Area Cut : 19
Area Fill: 1

383+50.00

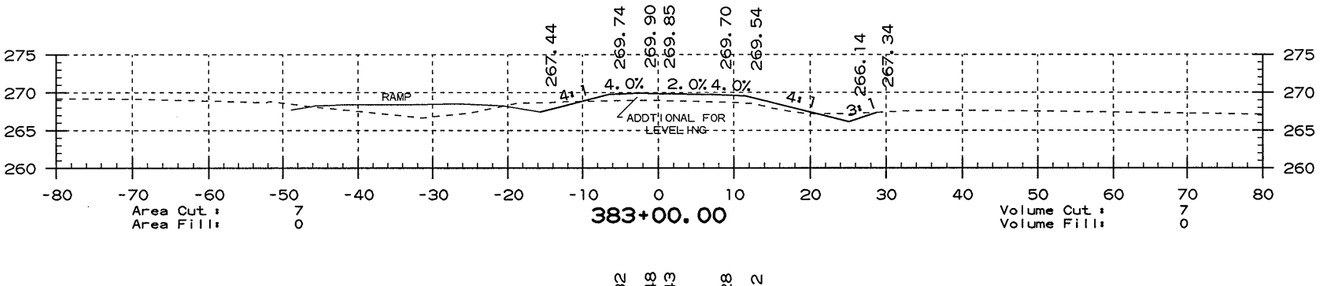
Volume Cut : 13
Volume Fill: 3



Area Cut : 9
Area Fill: 5

383+25.00

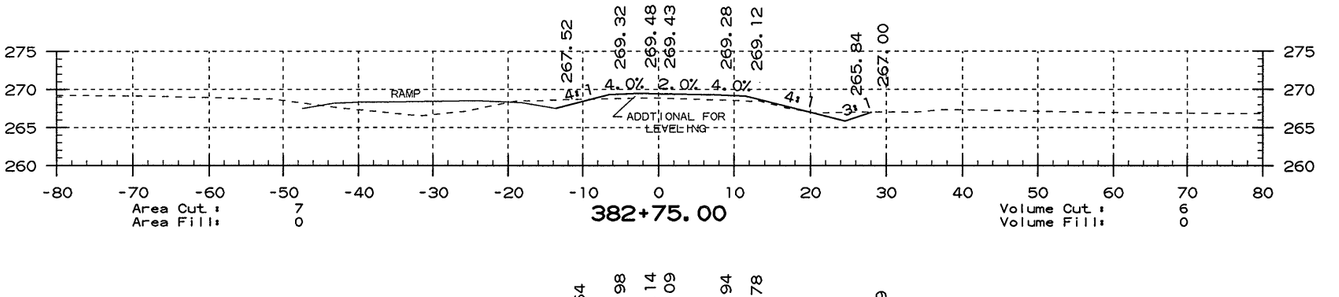
Volume Cut : 8
Volume Fill: 0



Area Cut : 7
Area Fill: 0

383+00.00

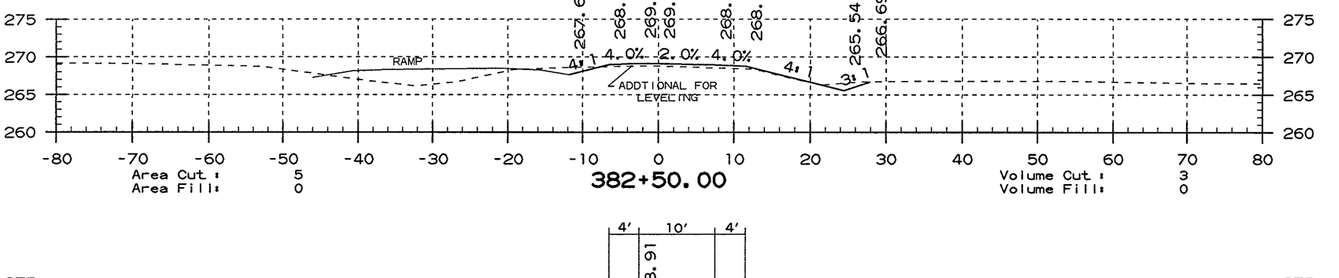
Volume Cut : 7
Volume Fill: 0



Area Cut : 7
Area Fill: 0

382+75.00

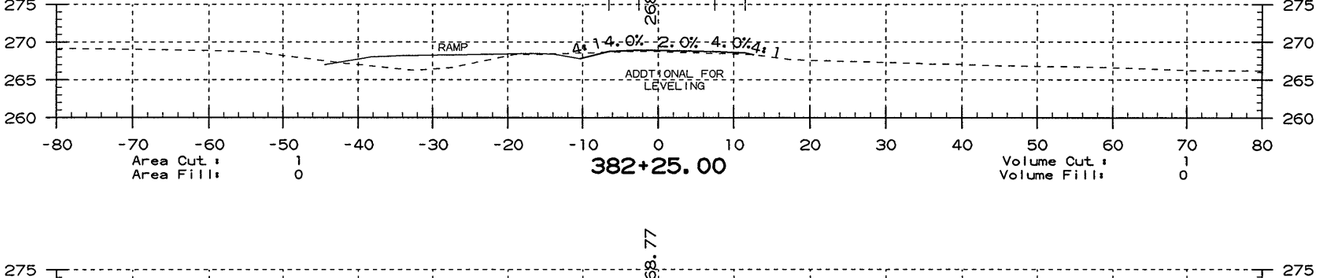
Volume Cut : 6
Volume Fill: 0



Area Cut : 5
Area Fill: 0

382+50.00

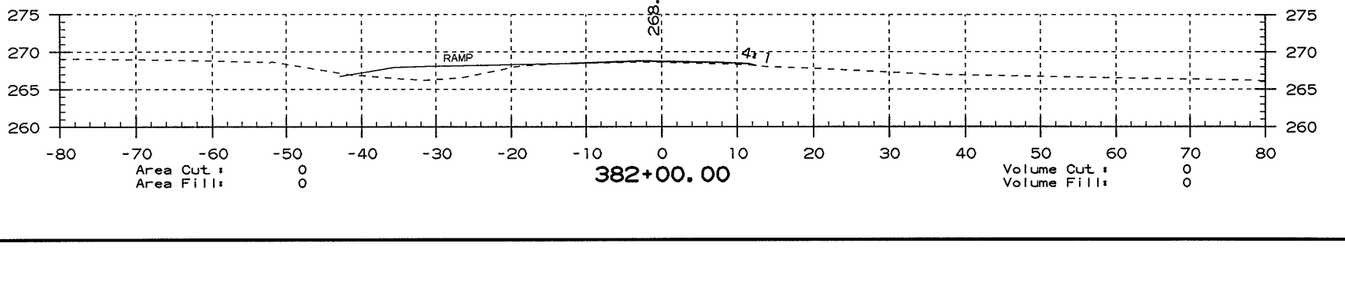
Volume Cut : 3
Volume Fill: 0



Area Cut : 1
Area Fill: 0

382+25.00

Volume Cut : 1
Volume Fill: 0



Area Cut : 0
Area Fill: 0

382+00.00

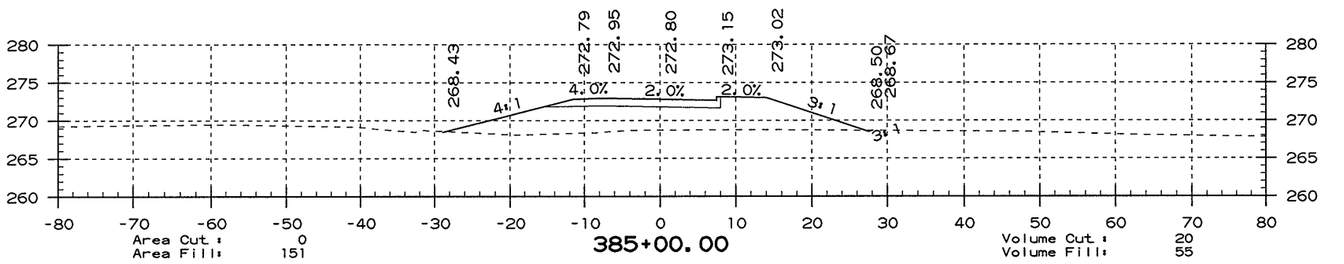
Volume Cut : 0
Volume Fill: 0

LANDERS TO LANDERS CONNECTOR

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.ROAD DIST.NO.
				6

JOB NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
R60080	ARK.		5 of 5	

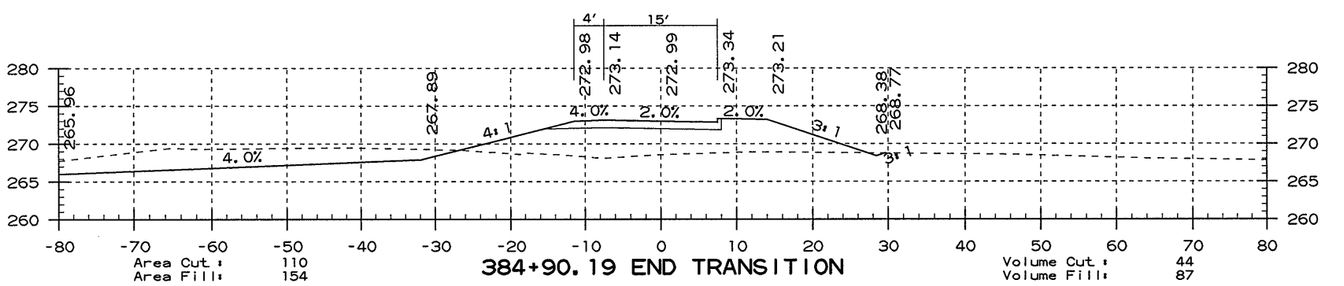
(2) CROSS SECTIONS



Area Cut : 0
Area Fill: 151

385+00.00

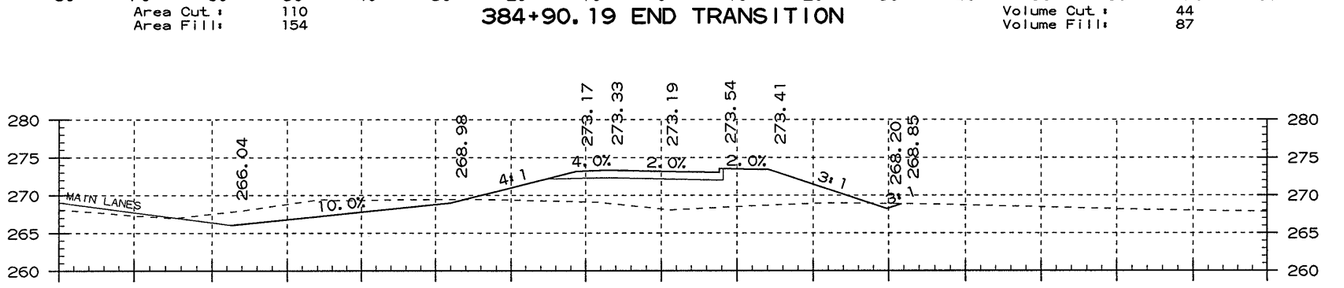
Volume Cut : 20
Volume Fill: 55



Area Cut : 110
Area Fill: 154

384+90.19 END TRANSITION

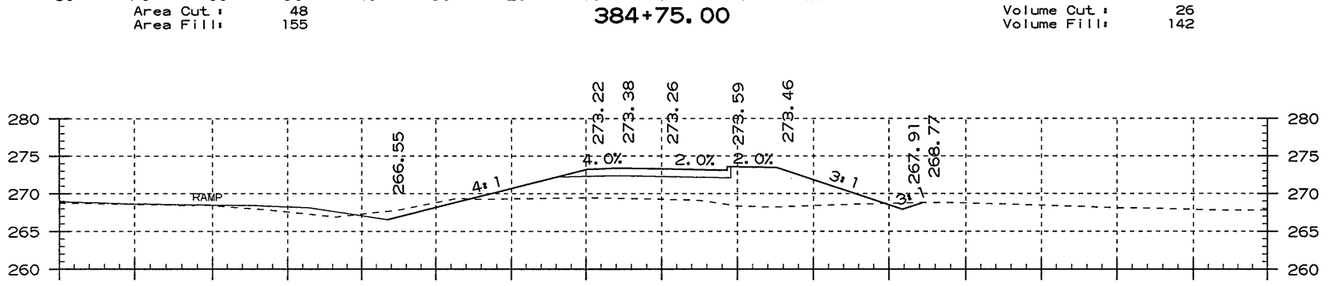
Volume Cut : 44
Volume Fill: 87



Area Cut : 48
Area Fill: 155

384+75.00

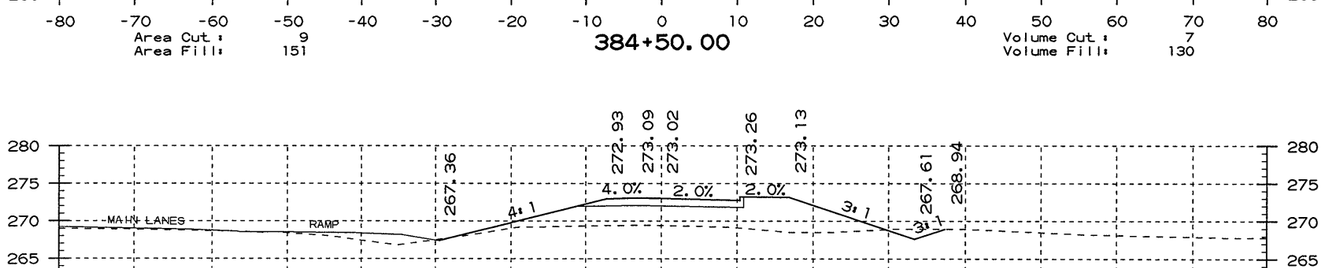
Volume Cut : 26
Volume Fill: 142



Area Cut : 9
Area Fill: 151

384+50.00

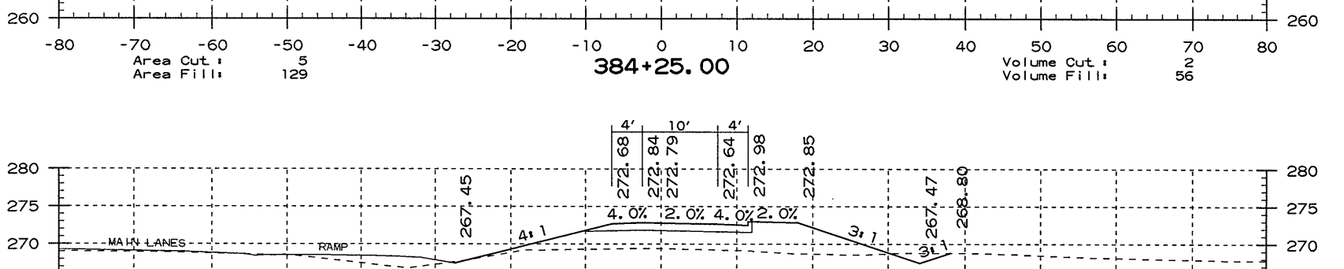
Volume Cut : 7
Volume Fill: 130



Area Cut : 5
Area Fill: 129

384+25.00

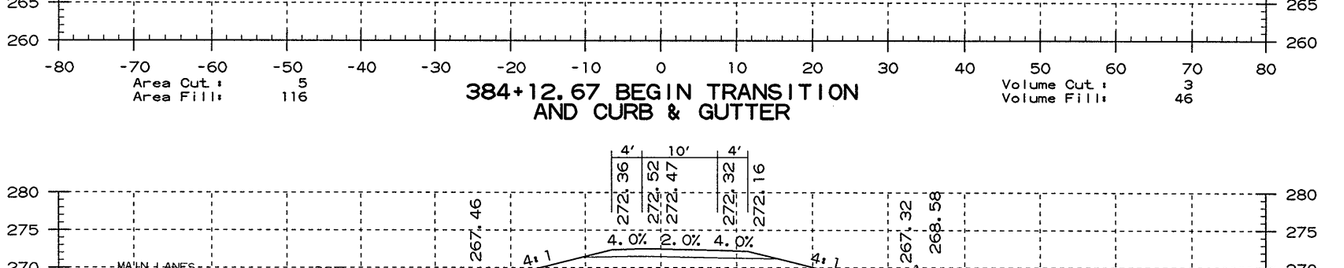
Volume Cut : 2
Volume Fill: 56



Area Cut : 5
Area Fill: 116

384+12.67 BEGIN TRANSITION AND CURB & GUTTER

Volume Cut : 3
Volume Fill: 46



Area Cut : 6
Area Fill: 80

384+00.00

Volume Cut : 7
Volume Fill: 61

LANDERS TO LANDERS CONNECTOR

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.
				6
				STATE
				ARK.
				FED.AID PROJ.NO.
				R60080
				SHEET NO.
				TOTAL SHEETS

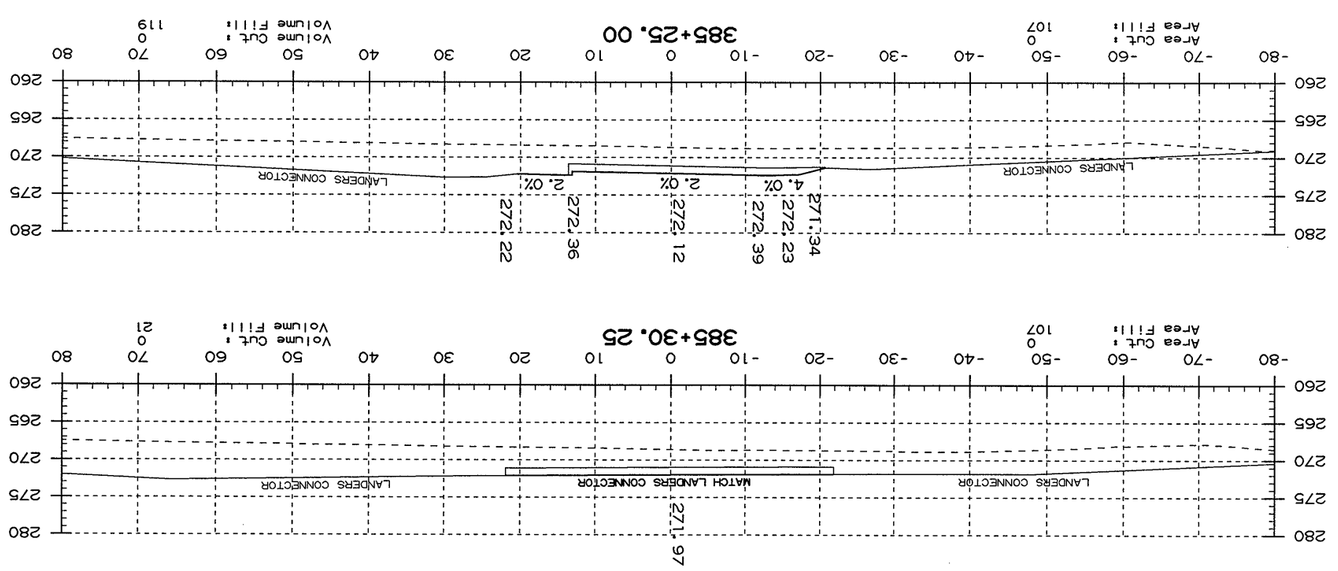
(2) CROSS SECTIONS

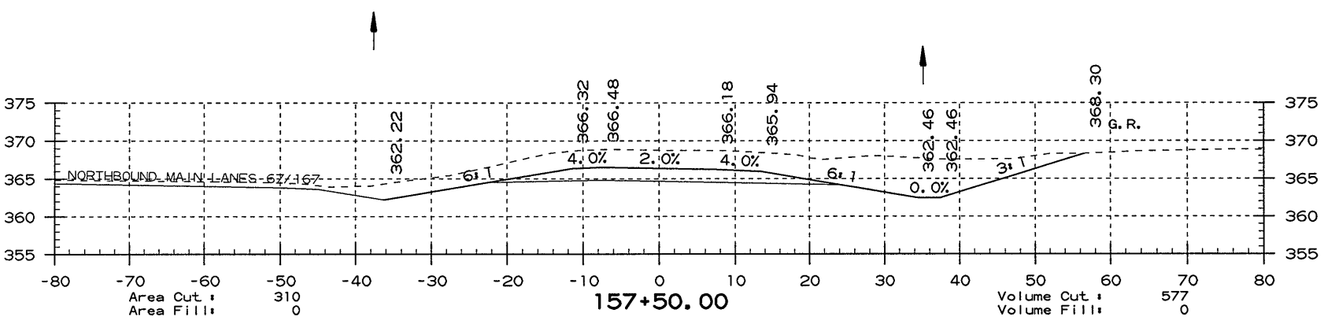
DATE ROADED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		

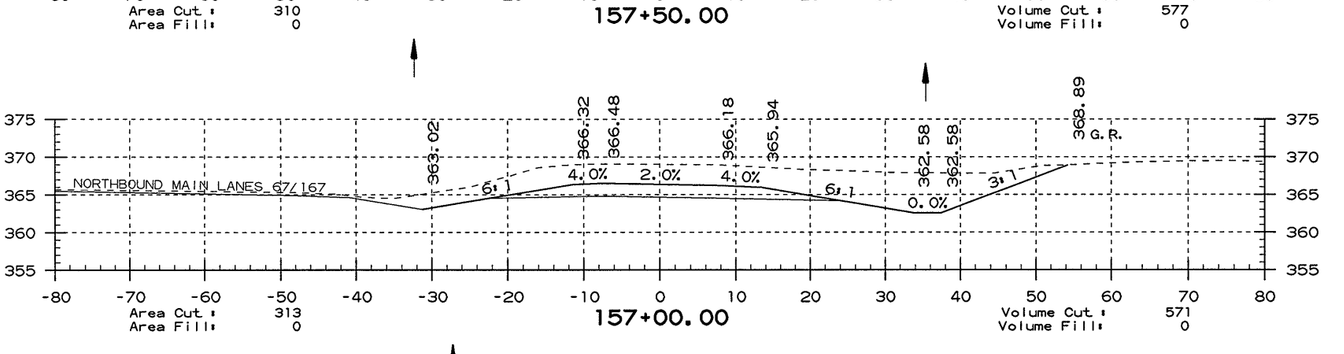
CROSS SECTIONS

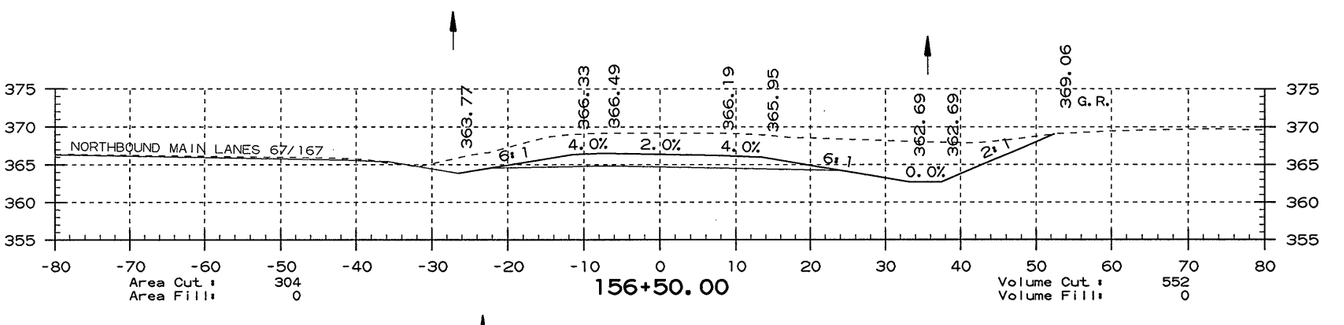
(2)

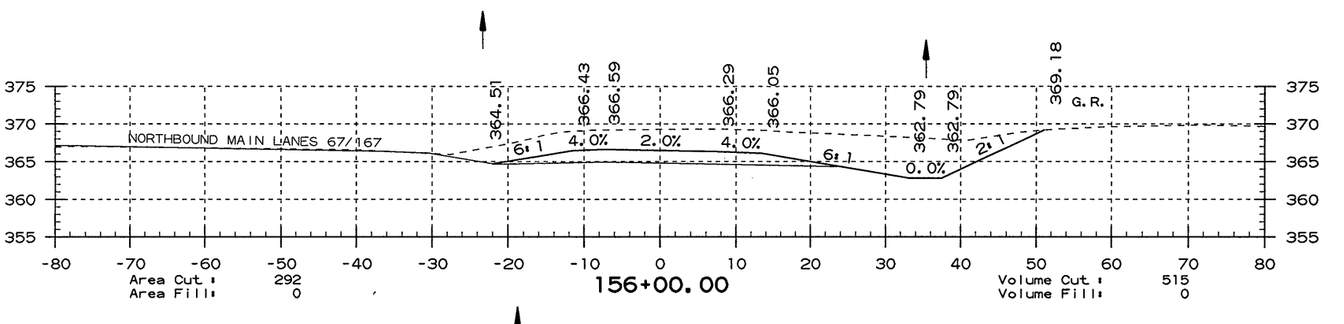
LANDERS TO LANDERS CONNECTOR

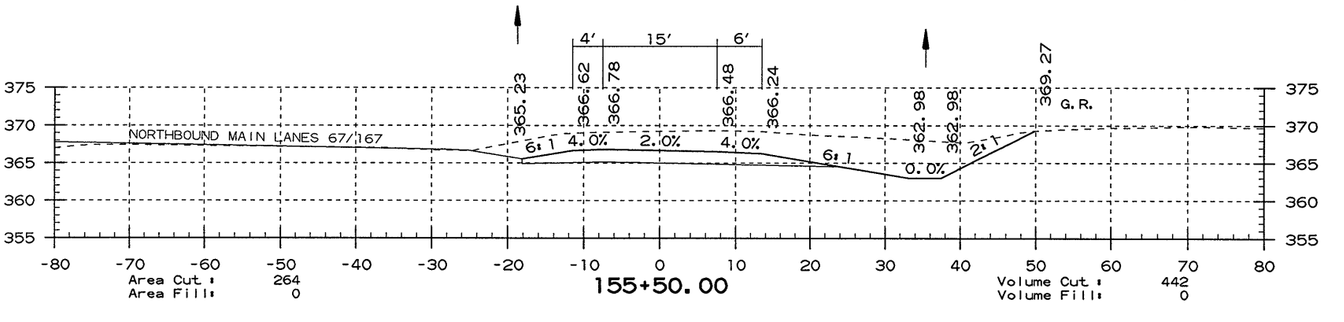


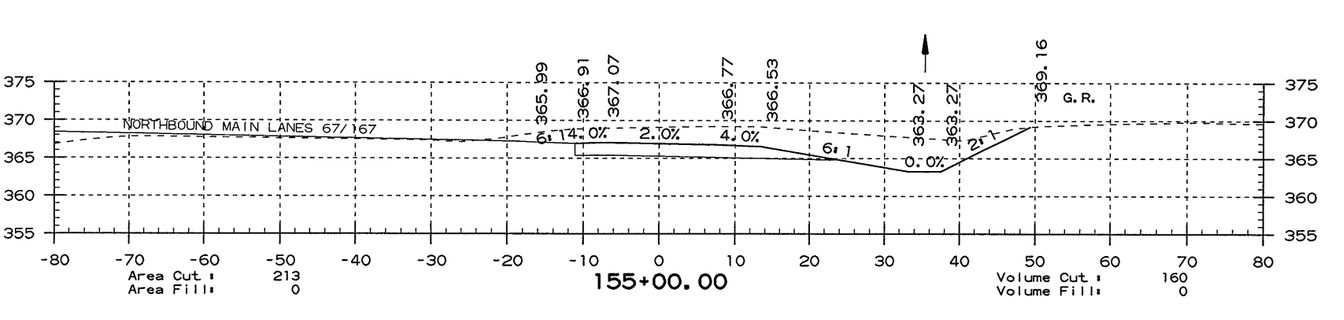


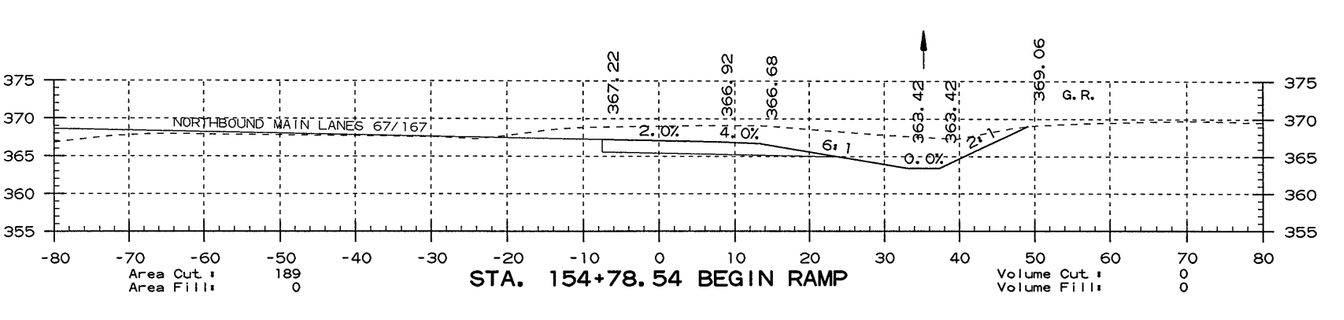










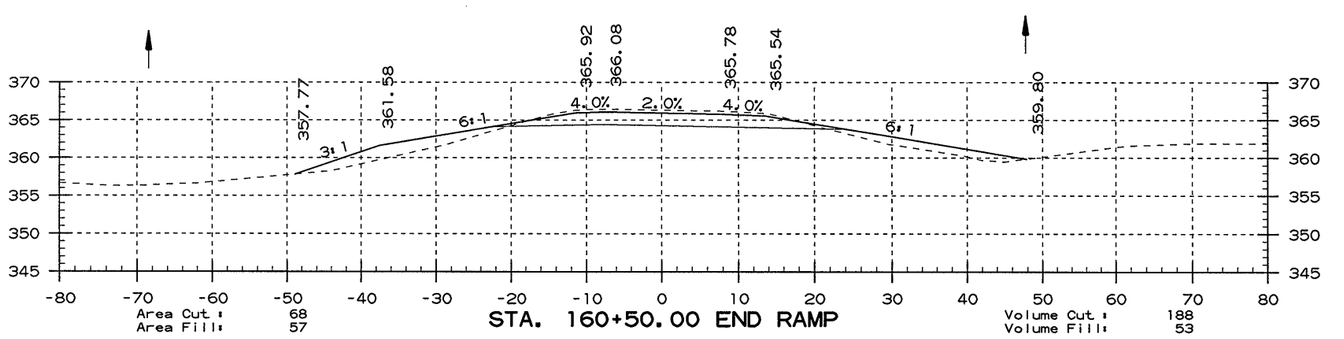


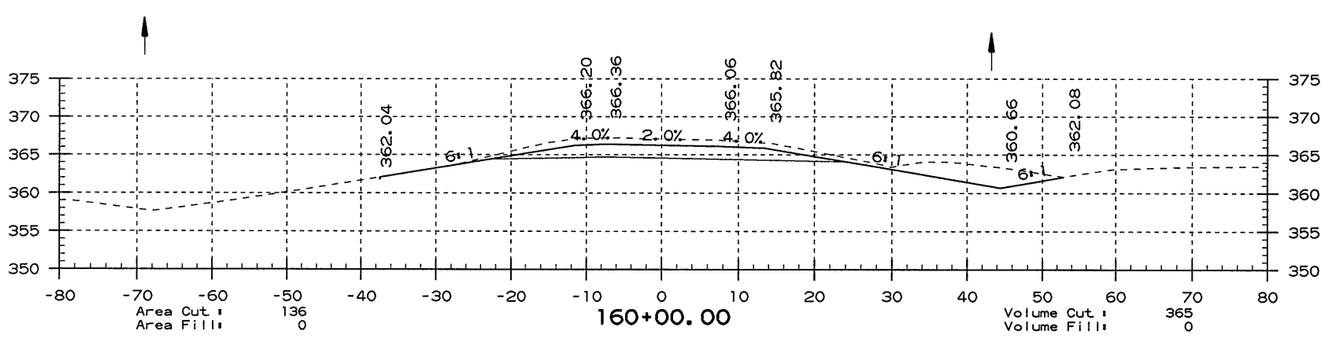
McCAIN BLVD. EASTBOUND EXIT

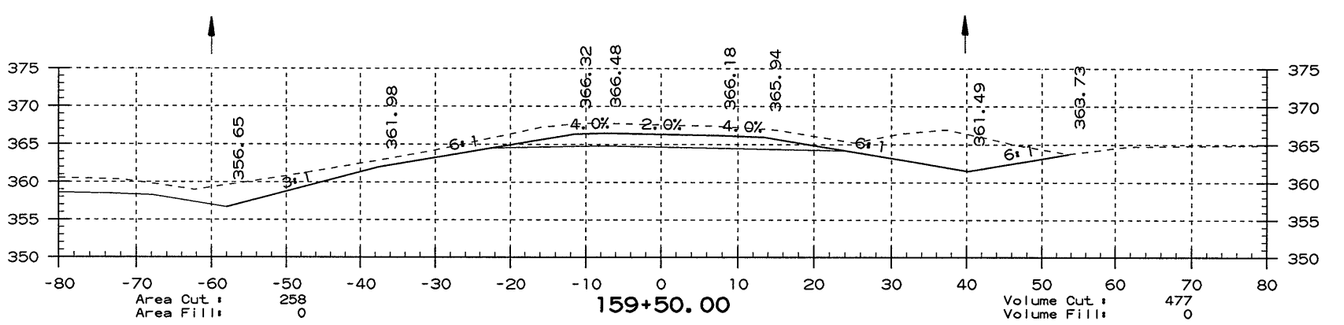
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		5	10

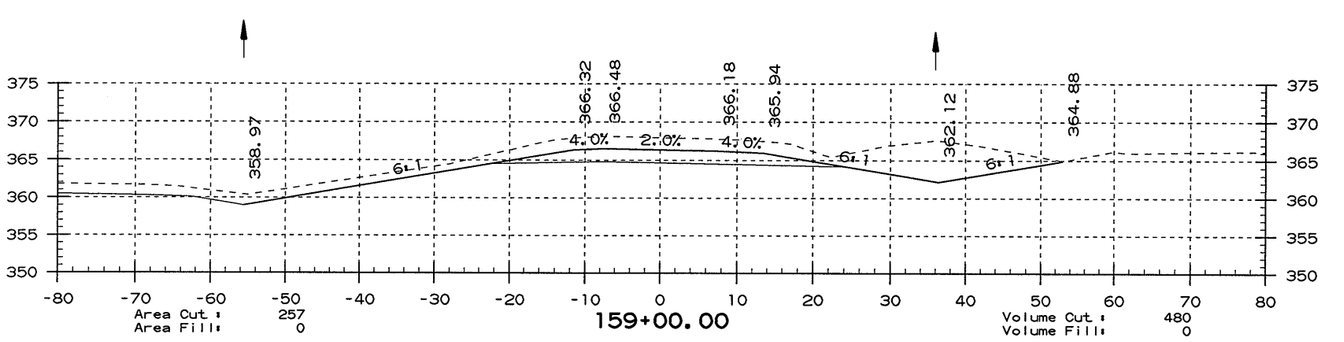
JOB NO. R60080

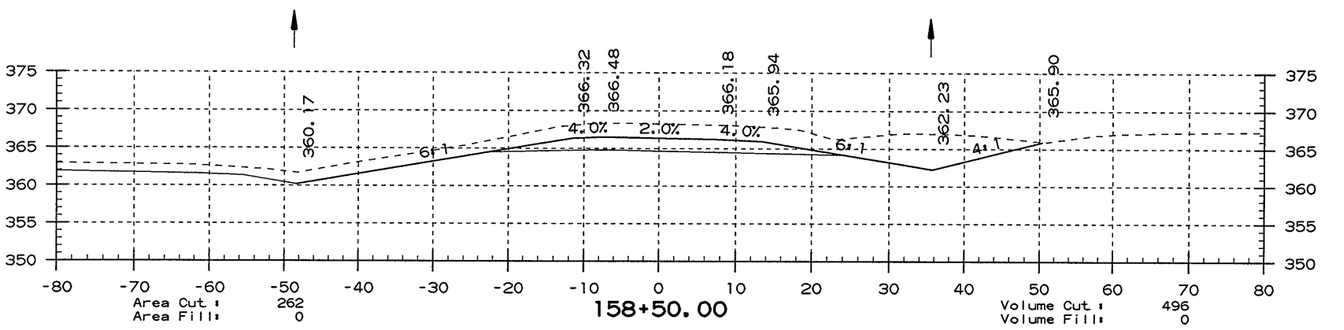
(2) CROSS SECTIONS

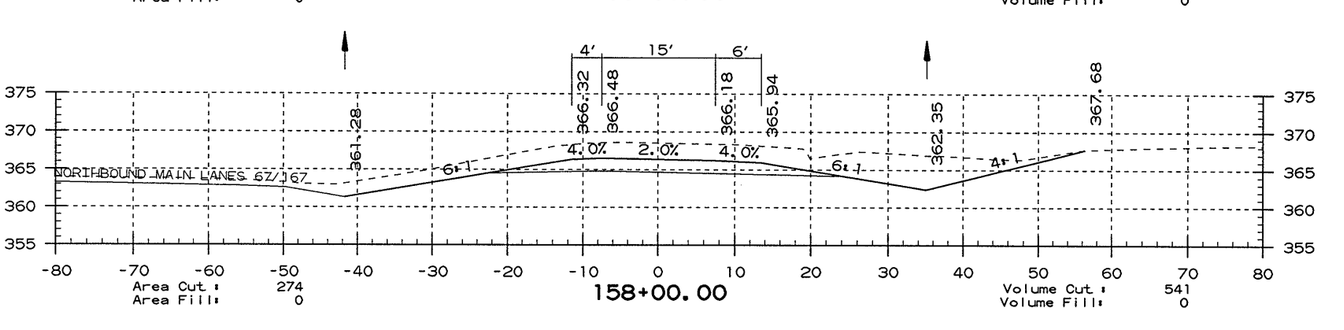








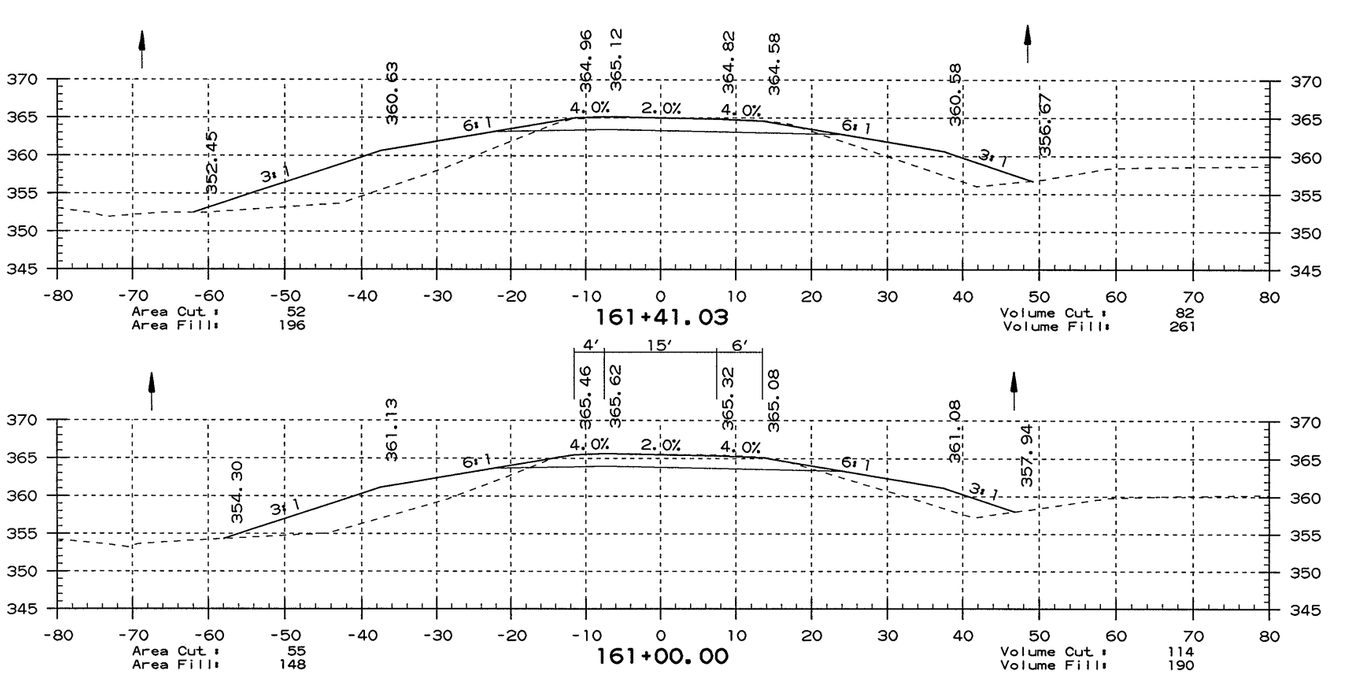




McCAIN BLVD. EASTBOUND EXIT

PLATE REVISED	
DATE FILMED	
DATE REVISED	
DATE FILMED	
FED.ROAD DIST.NO.	6
STATE	ARK.
FED.AID PROJ.NO.	R60080
SHEET NO.	5
TOTAL SHEETS	11

(2) CROSS SECTIONS

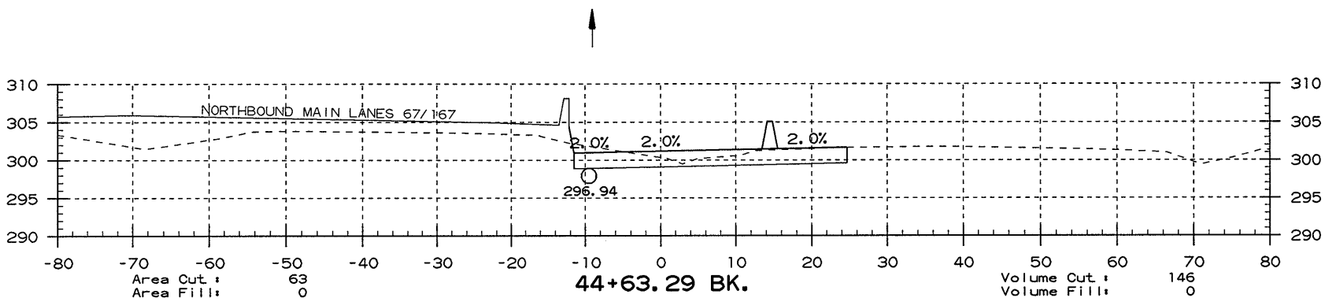


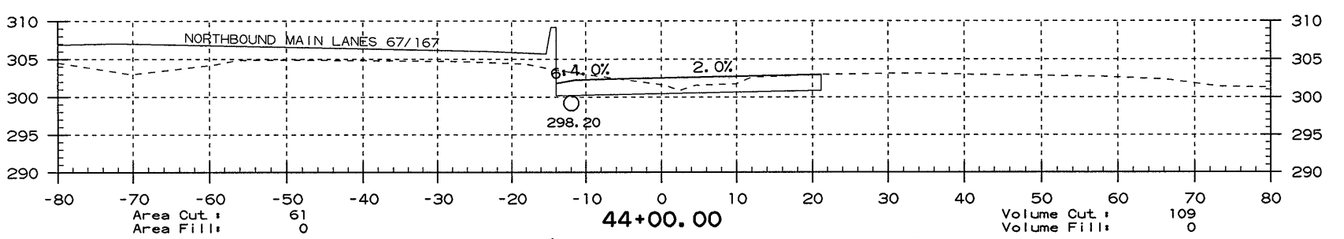
McCAIN BLVD. EASTBOUND EXIT

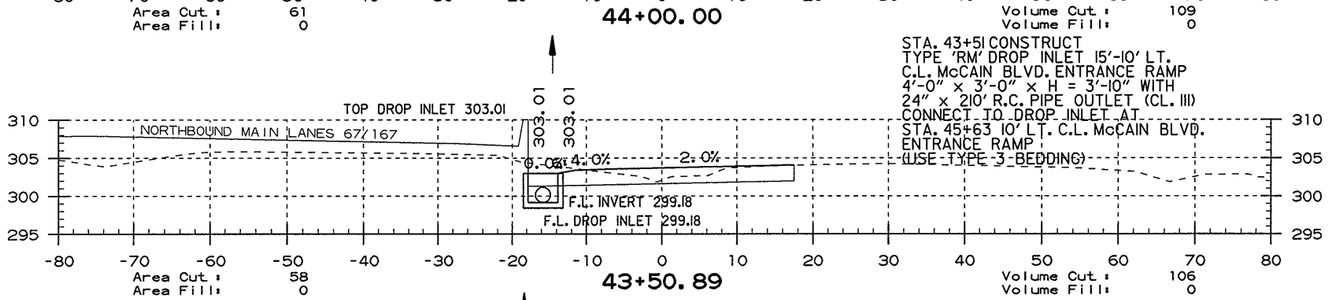
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

(2) CROSS SECTIONS

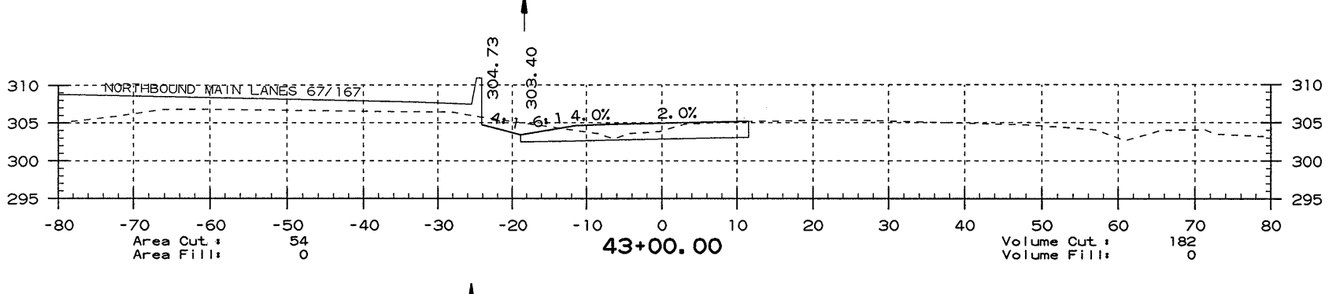
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO. R60080			5	7

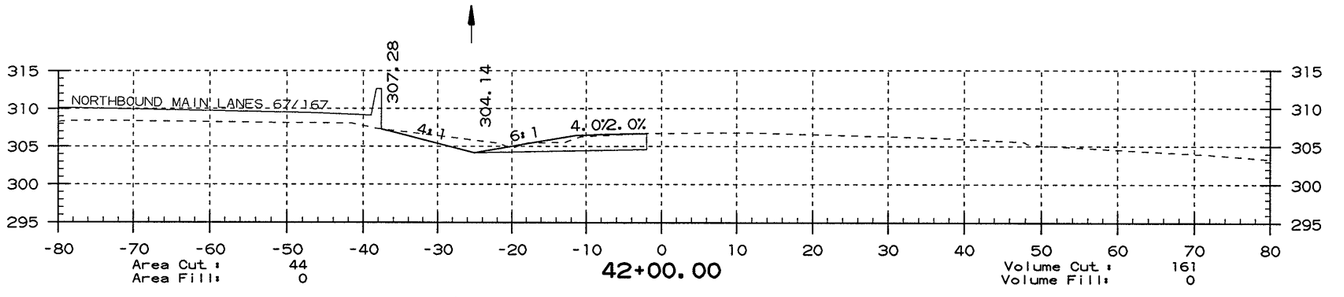


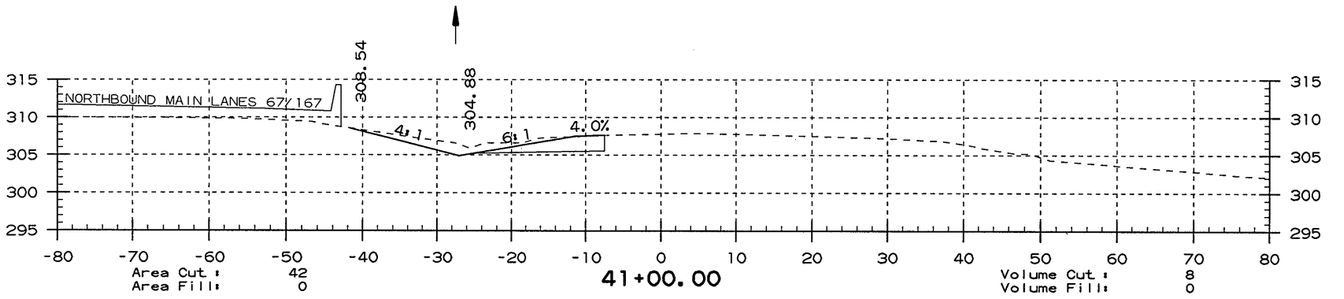


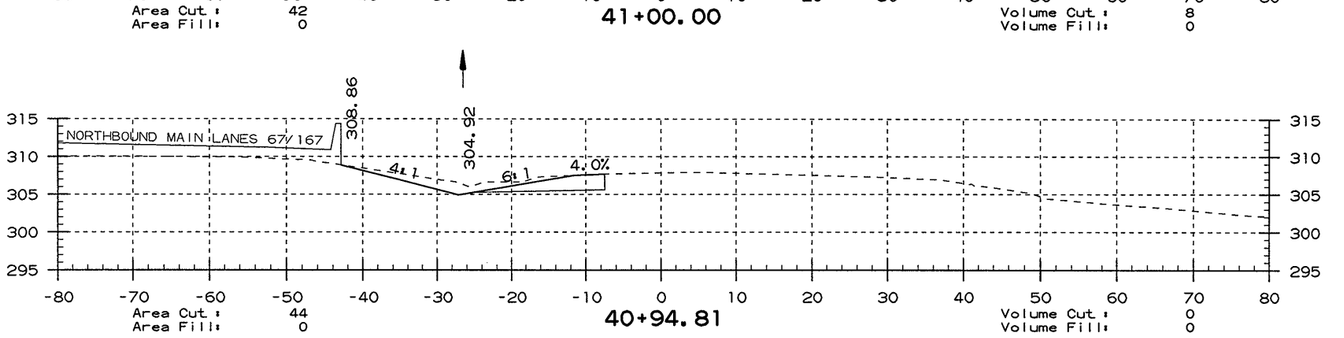


STA. 43+51 CONSTRUCT
TYPE 'RM' DROP INLET 15'-10' LT.
C.L. McCAIN BLVD. ENTRANCE RAMP
4'-0" x 3'-0" x H = 3'-10" WITH
24" x 210' R.C. PIPE OUTLET (CL. III)
CONNECT TO DROP INLET AT
STA. 45+63 10' LT. C.L. McCAIN BLVD.
ENTRANCE RAMP
(USE TYPE 3 BEDDING)









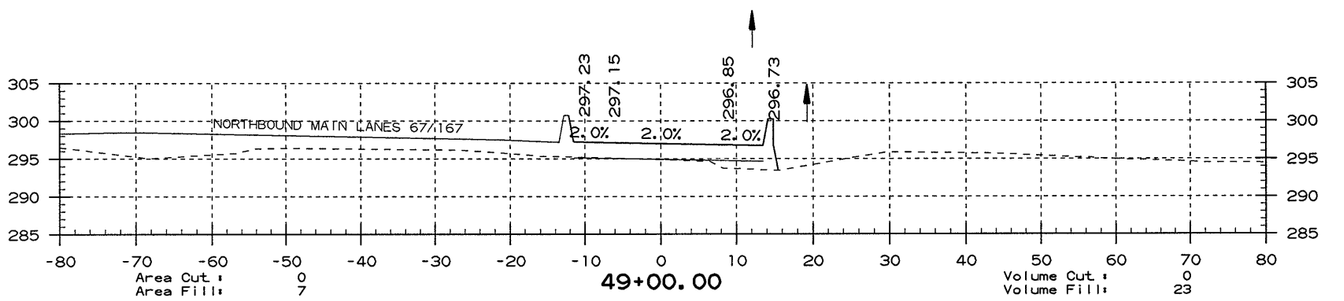
McCAIN BLVD. ENTRANCE NORTHBOUND

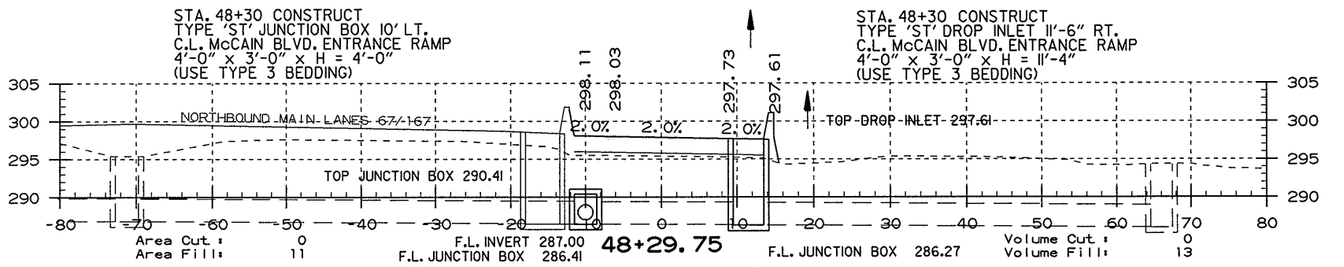
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

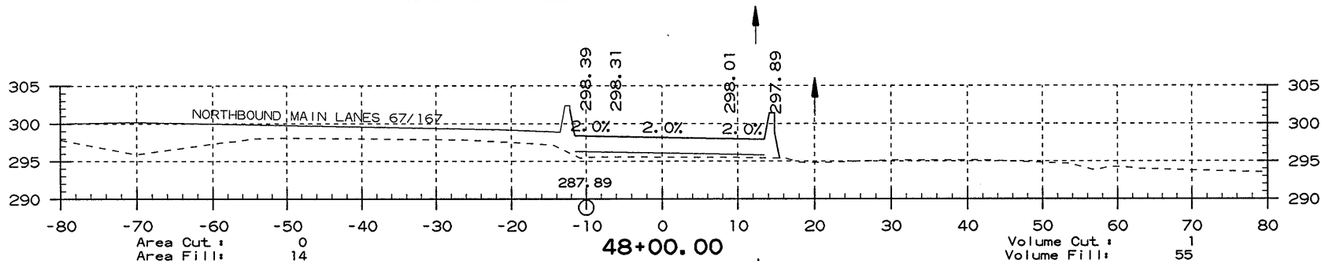
(2) CROSS SECTIONS

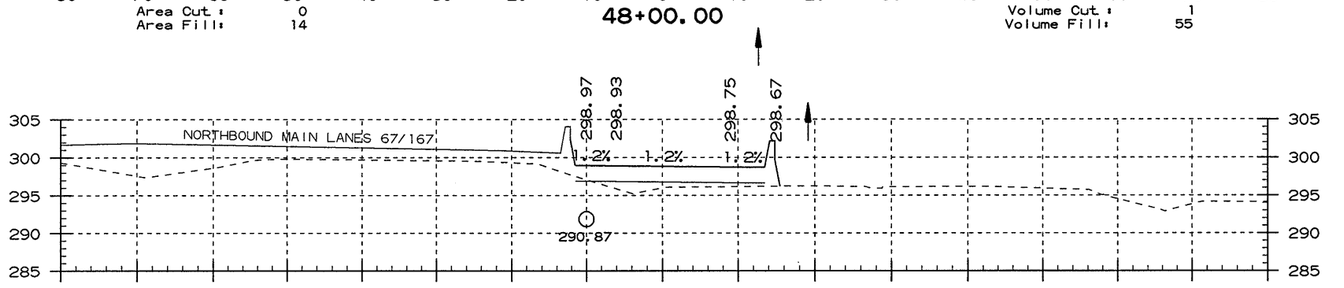
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			

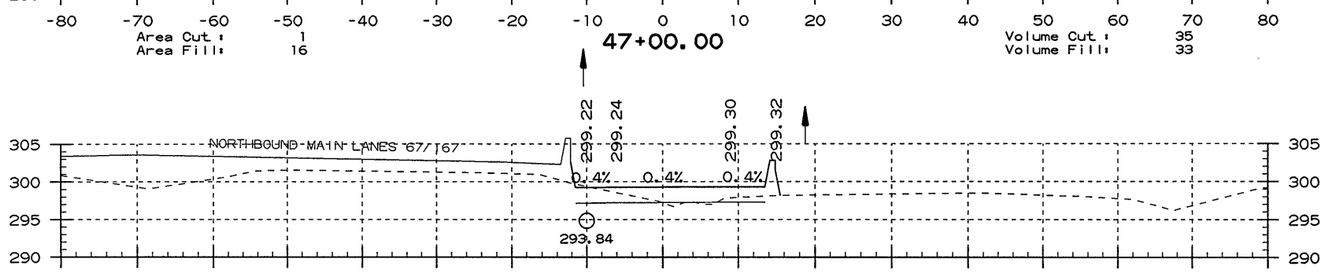
JOB NO. R60080

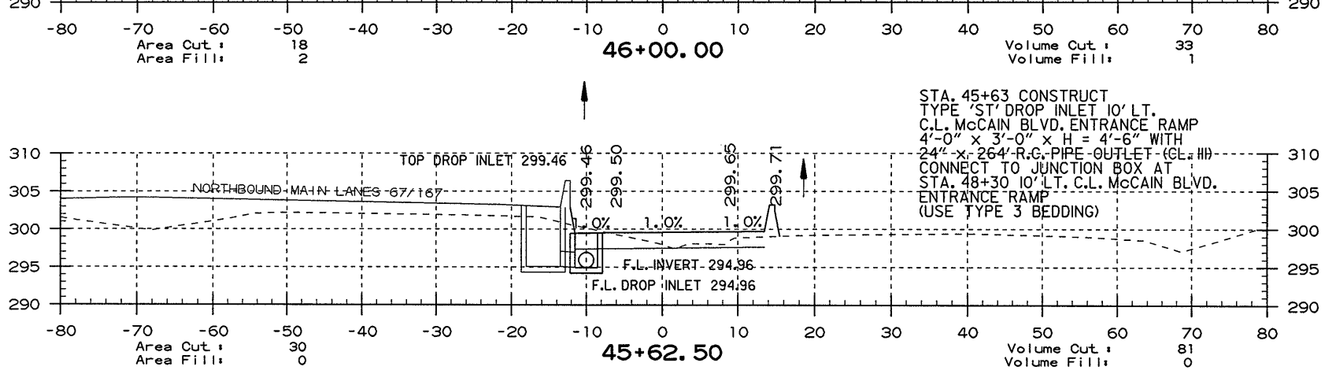


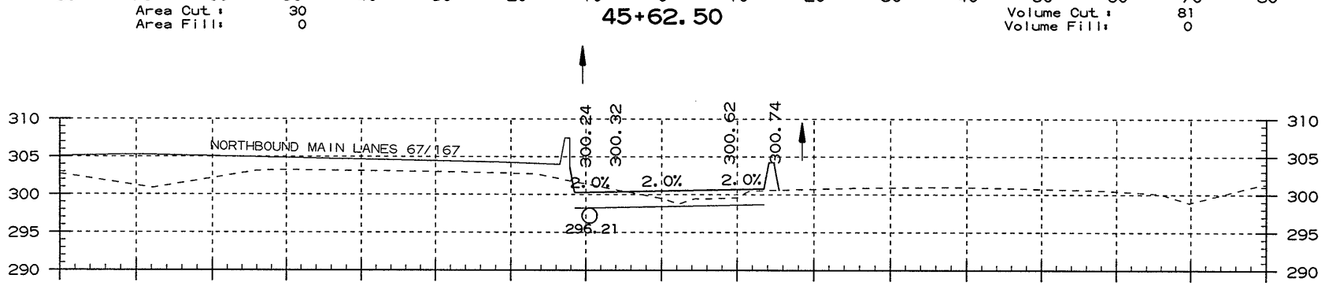


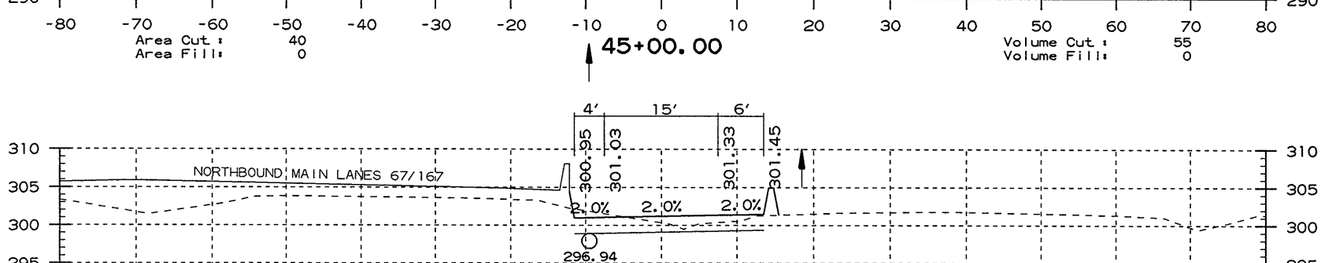












McCAIN BLVD. ENTRANCE NORTHBOUND

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	R60080	5	14

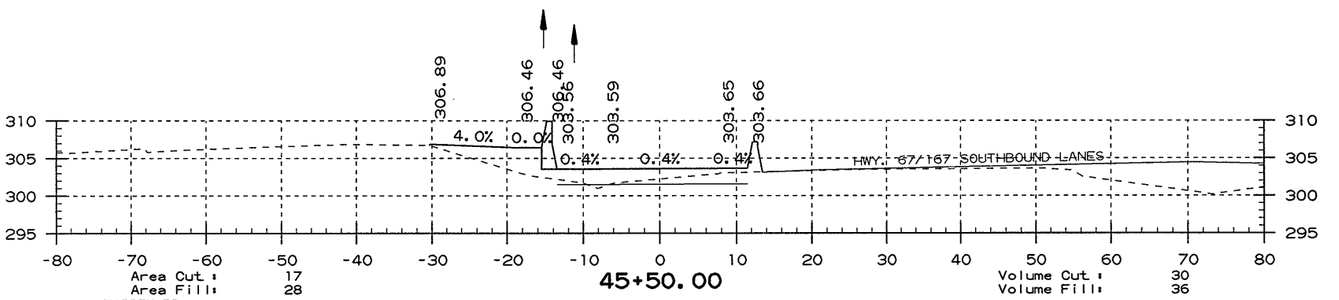
(2) CROSS SECTIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	575	609

(2) CROSS SECTIONS

McCAIN BLVD. ENTRANCE NORTHBOUND

03-07-2005 RR60080.CRSI



Area Cut : 17
Area Fill: 28

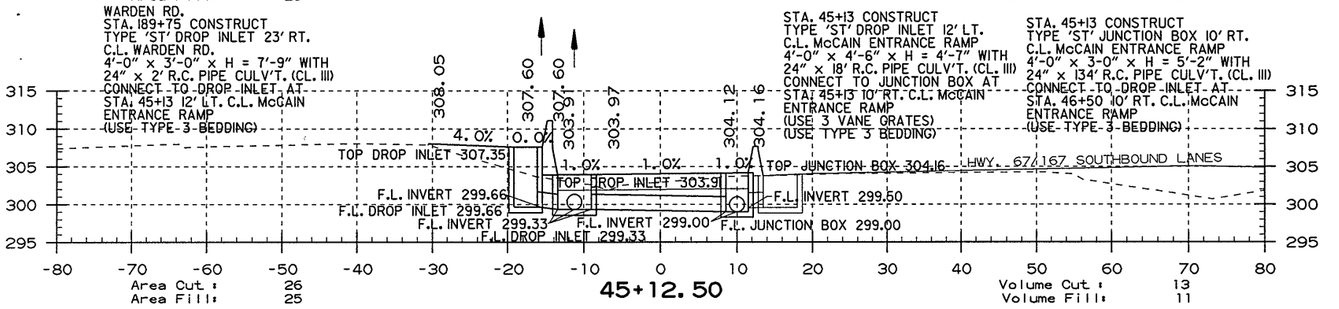
45+50.00

Volume Cut : 30
Volume Fill: 36

WARDEN RD.
STA. 189+75 CONSTRUCT
TYPE 'ST' DROP INLET 23' RT.
C.L. WARDEN RD.
4'-0" x 3'-0" x H = 7'-9" WITH
24" x 2' R.C. PIPE CULV'T. (CL. III)
CONNECT TO DROP INLET AT
STA. 45+13 12' LT. C.L. McCAIN
ENTRANCE RAMP
(USE TYPE 3 BEDDING)

STA. 45+13 CONSTRUCT
TYPE 'ST' DROP INLET 12' LT.
C.L. McCAIN ENTRANCE RAMP
4'-0" x 4'-6" x H = 4'-7" WITH
24" x 18' R.C. PIPE CULV'T. (CL. III)
CONNECT TO JUNCTION BOX AT
STA. 45+13 10' RT. C.L. McCAIN
ENTRANCE RAMP
(USE 3 VANE GRATES)
(USE TYPE 3 BEDDING)

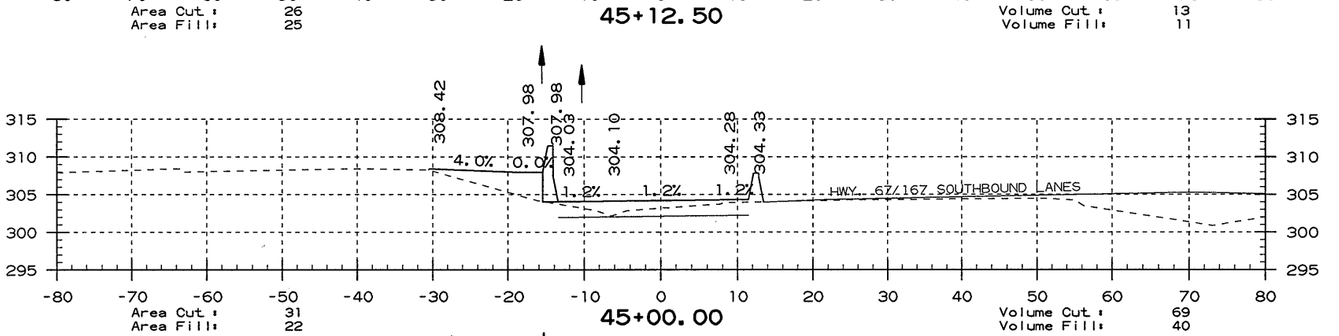
STA. 45+13 CONSTRUCT
TYPE 'ST' JUNCTION BOX 10' RT.
C.L. McCAIN ENTRANCE RAMP
4'-0" x 3'-0" x H = 5'-2" WITH
24" x 134' R.C. PIPE CULV'T. (CL. III)
CONNECT TO DROP INLET AT
STA. 46+50 10' RT. C.L. McCAIN
ENTRANCE RAMP
(USE TYPE 3 BEDDING)



Area Cut : 26
Area Fill: 25

45+12.50

Volume Cut : 13
Volume Fill: 11

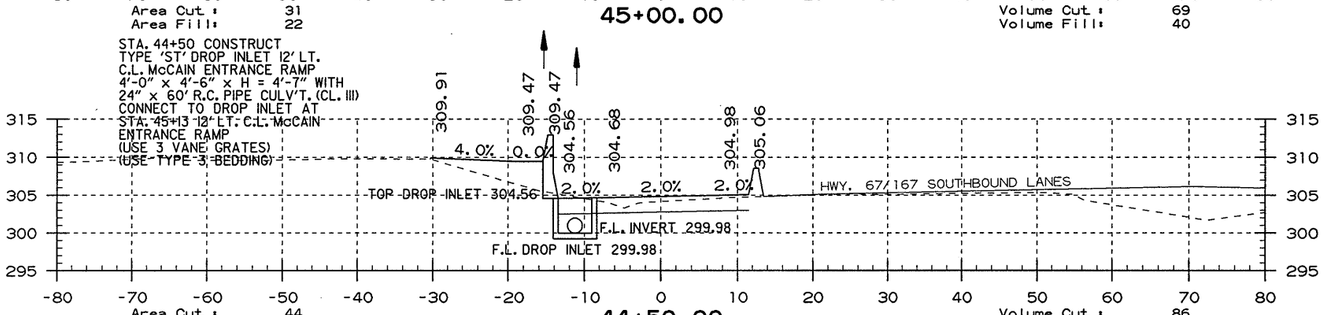


Area Cut : 31
Area Fill: 22

45+00.00

Volume Cut : 69
Volume Fill: 40

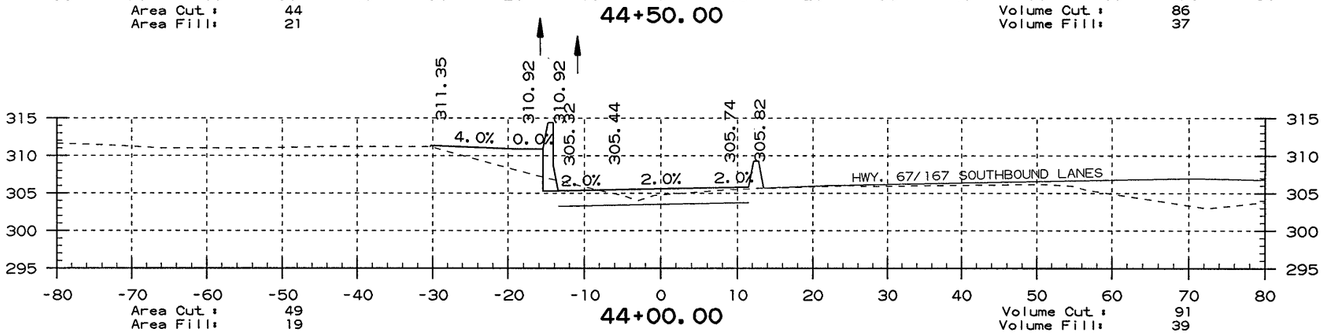
STA. 44+50 CONSTRUCT
TYPE 'ST' DROP INLET 12' LT.
C.L. McCAIN ENTRANCE RAMP
4'-0" x 4'-6" x H = 4'-7" WITH
24" x 60' R.C. PIPE CULV'T. (CL. III)
CONNECT TO DROP INLET AT
STA. 45+13 12' LT. C.L. McCAIN
ENTRANCE RAMP
(USE 3 VANE GRATES)
(USE TYPE 3 BEDDING)



Area Cut : 44
Area Fill: 21

44+50.00

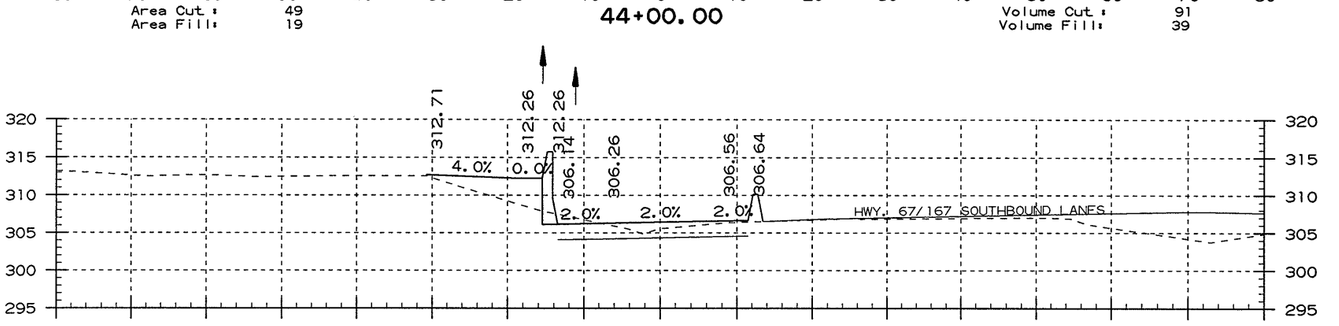
Volume Cut : 86
Volume Fill: 37



Area Cut : 49
Area Fill: 19

44+00.00

Volume Cut : 91
Volume Fill: 39

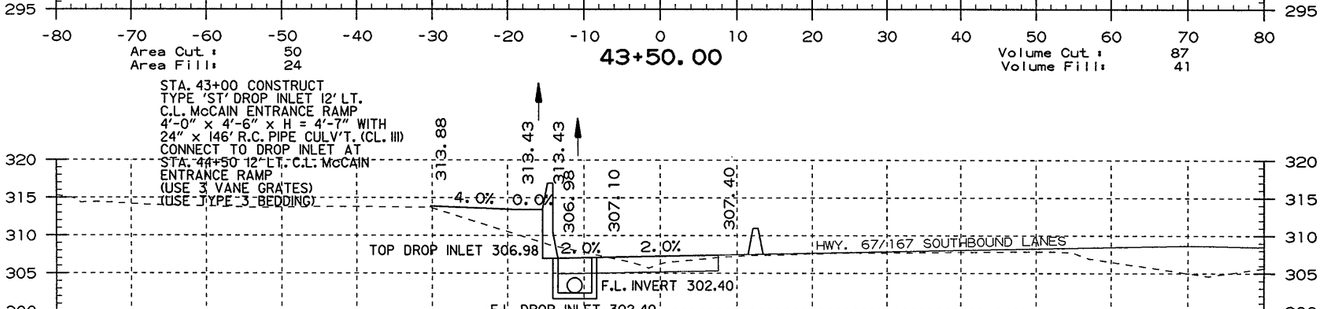


Area Cut : 50
Area Fill: 24

43+50.00

Volume Cut : 87
Volume Fill: 41

STA. 43+00 CONSTRUCT
TYPE 'ST' DROP INLET 12' LT.
C.L. McCAIN ENTRANCE RAMP
4'-0" x 4'-6" x H = 4'-7" WITH
24" x 146' R.C. PIPE CULV'T. (CL. III)
CONNECT TO DROP INLET AT
STA. 44+50 12' LT. C.L. McCAIN
ENTRANCE RAMP
(USE 3 VANE GRATES)
(USE TYPE 3 BEDDING)



Area Cut : 45
Area Fill: 21

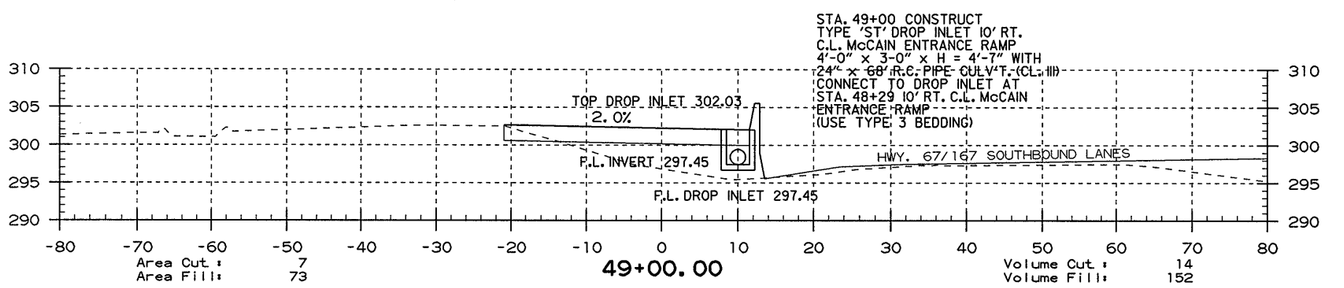
STA. 43+00.63 BEGIN RAMP

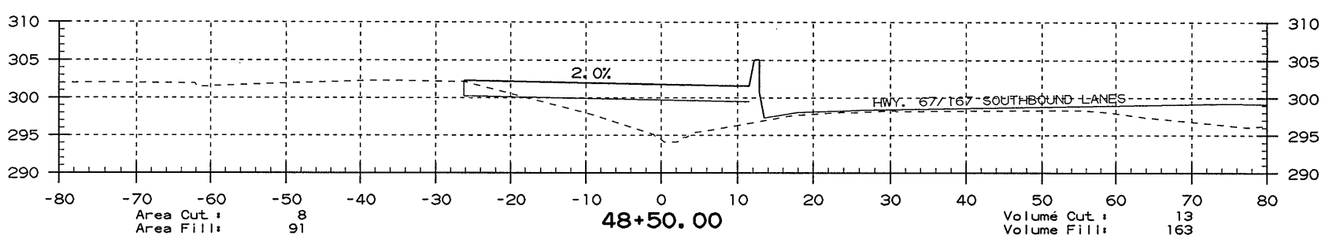
Volume Cut : 0
Volume Fill: 0

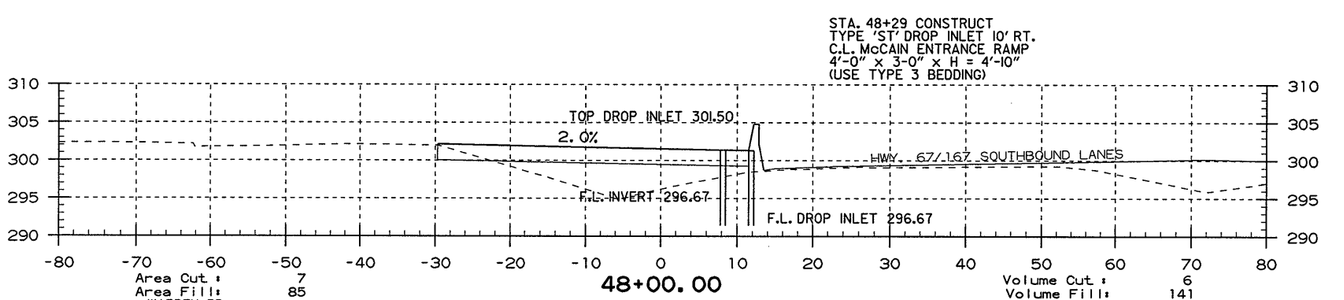
McCAIN BLVD. ENTRANCE SOUTHBOUND

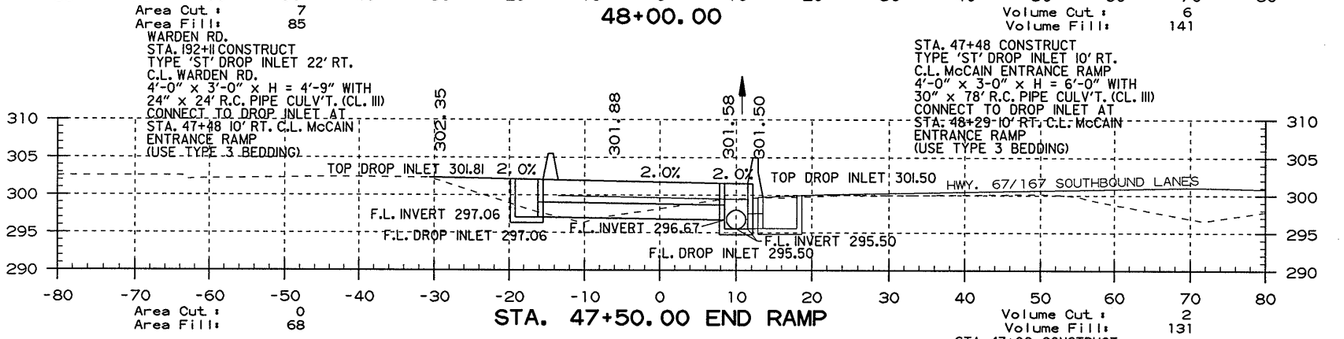
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.
				6
				STATE
				ARK.
				FED.AID PROJ.NO.
				R60080
				SHEET NO.
				TOTAL SHEETS

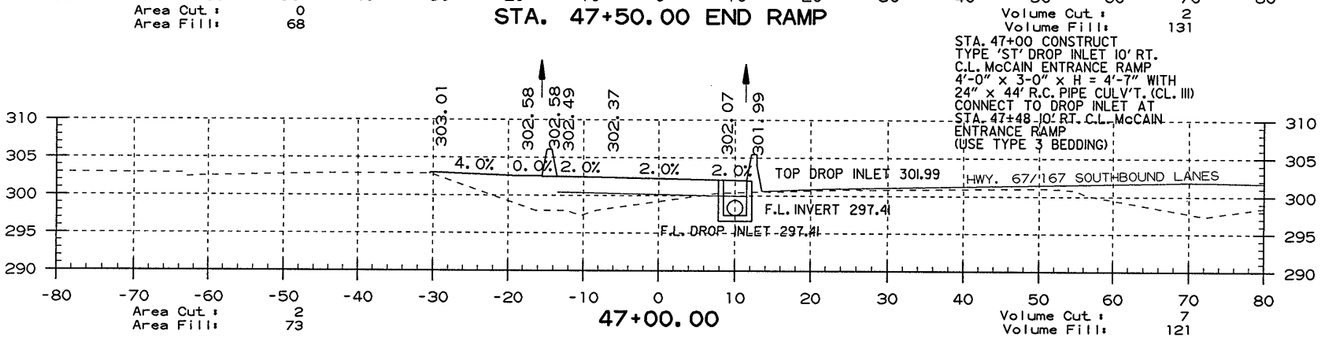
2 CROSS SECTIONS

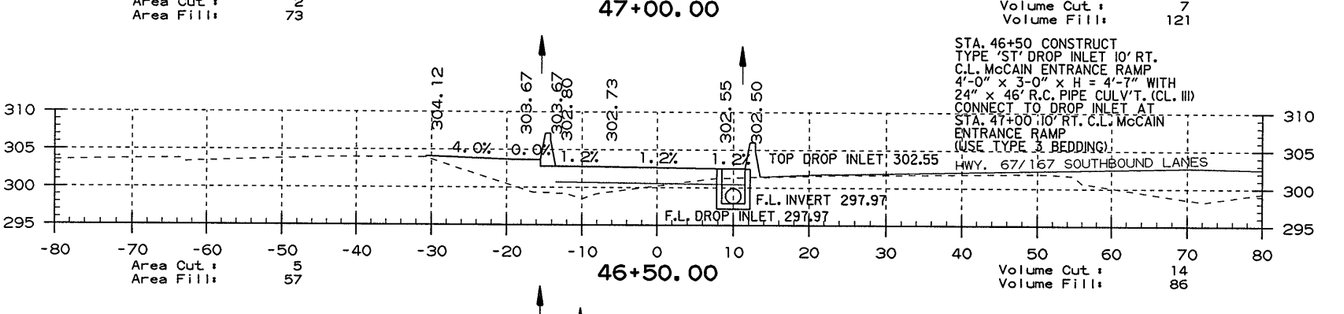


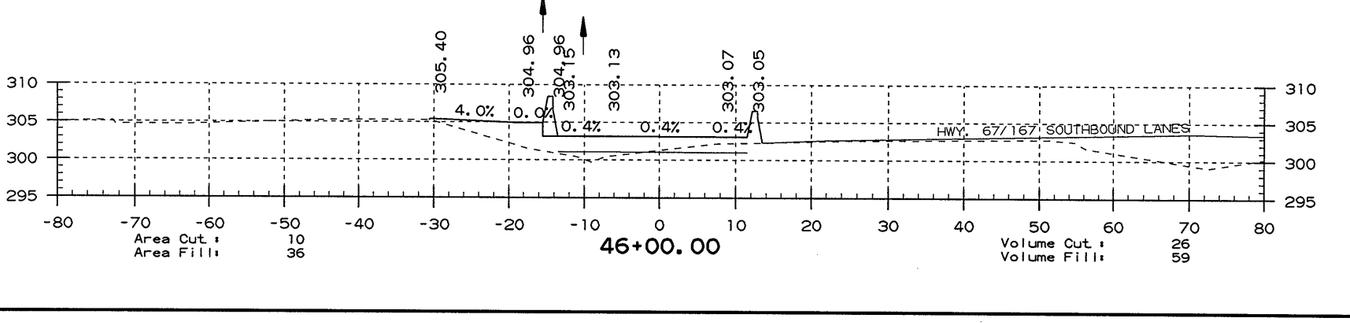












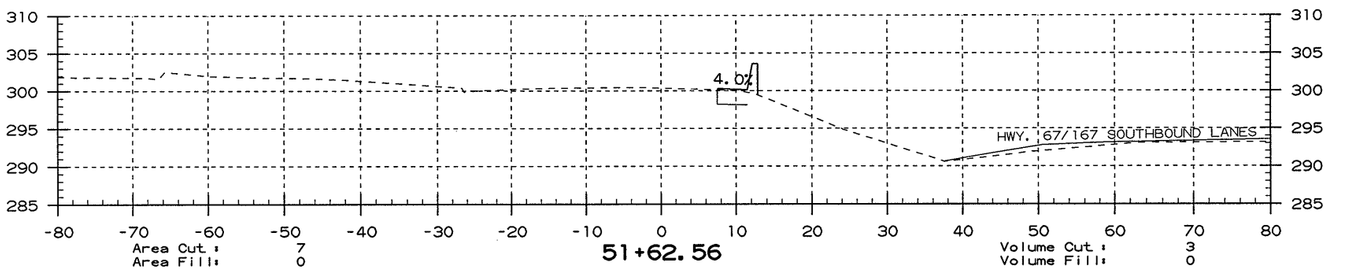
McCAIN BLVD. ENTRANCE SOUTHBOUND

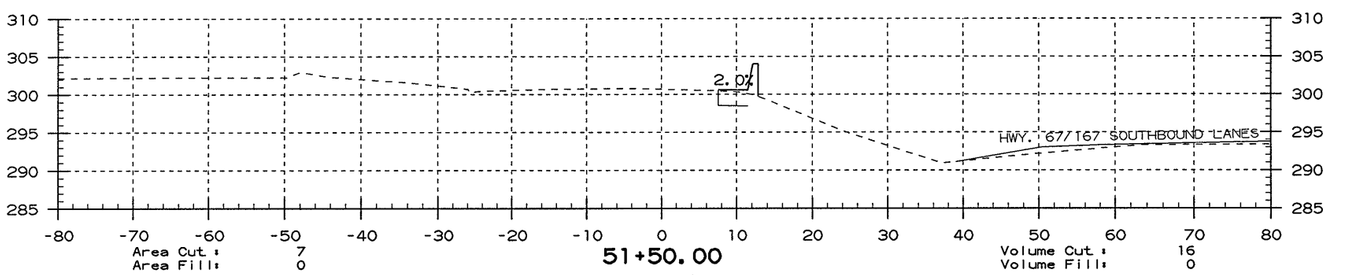
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

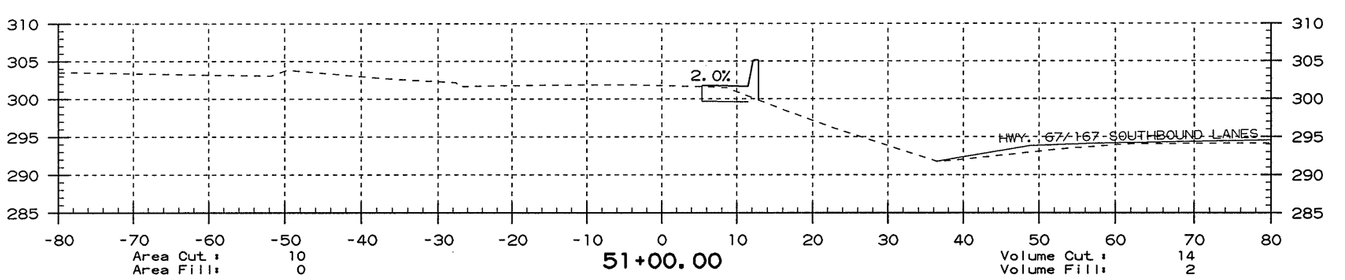
FED.RD. DESIGN.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			

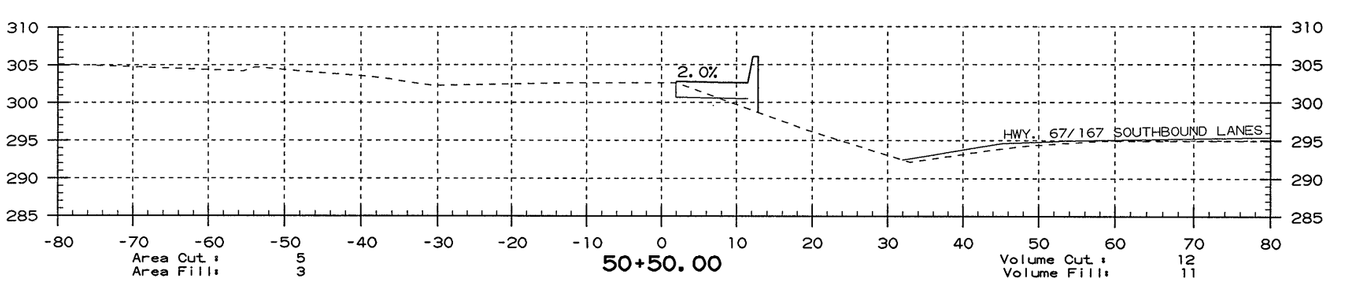
JOB NO. R60080

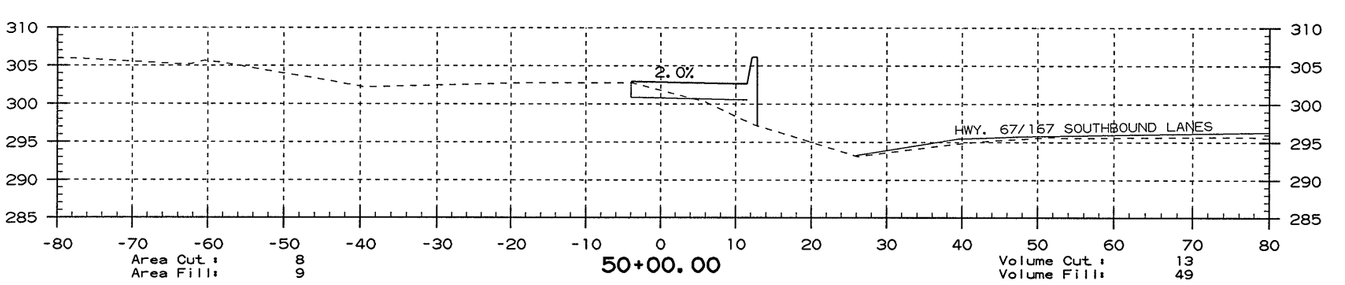
(2) CROSS SECTIONS

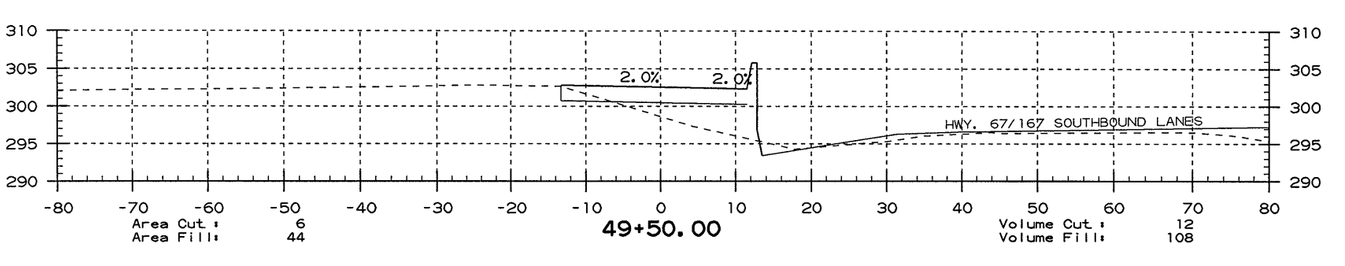












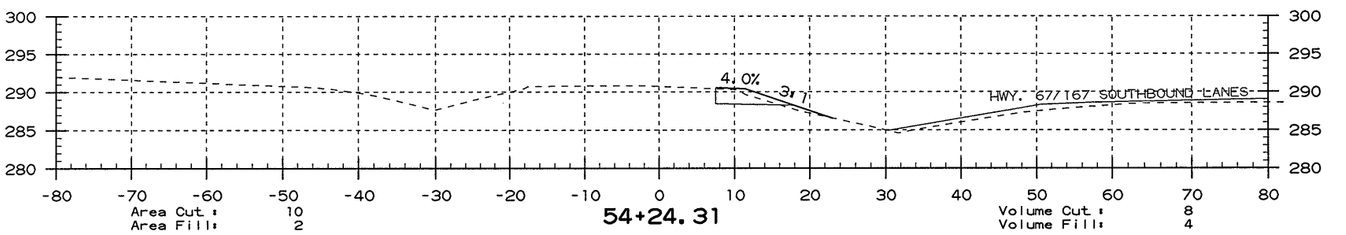
McCAIN BLVD. ENTRANCE SOUTHBOUND

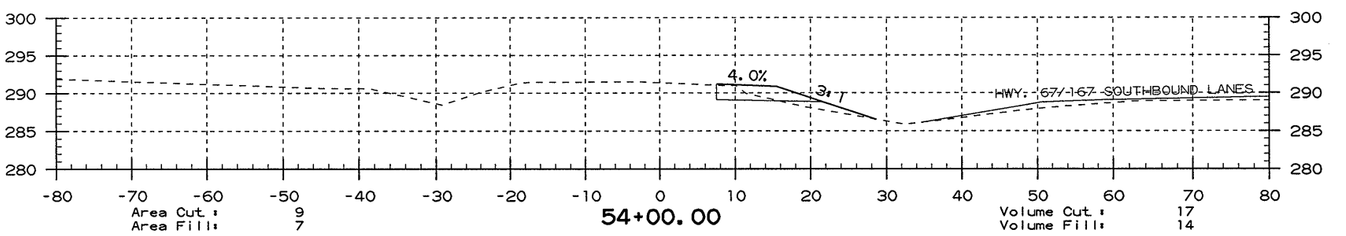
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED

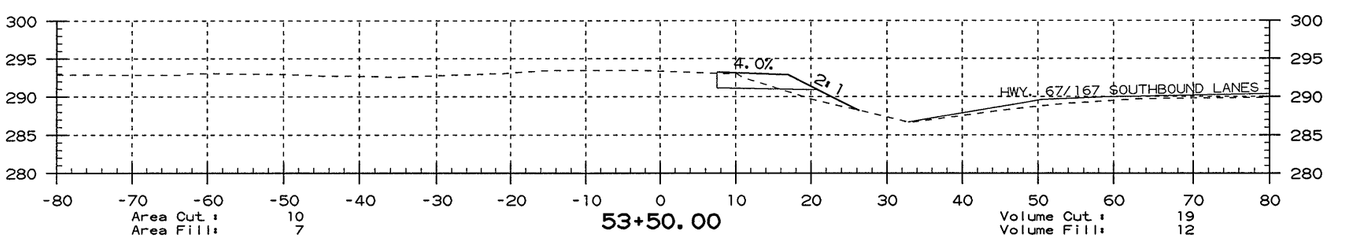
(2) CROSS SECTIONS

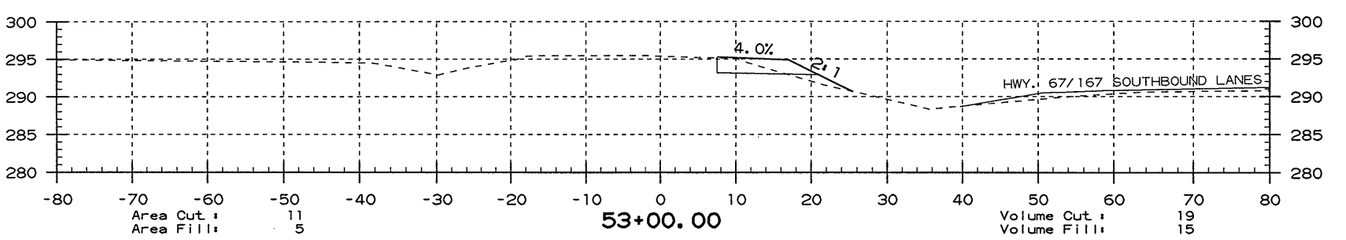
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			

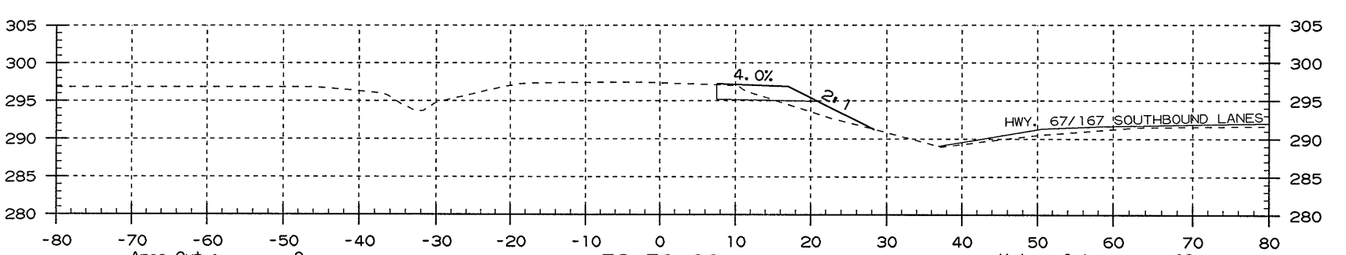
JOB NO. R60080

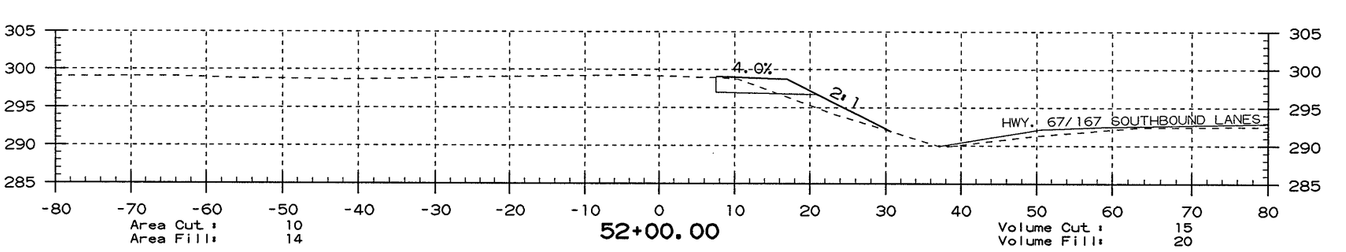


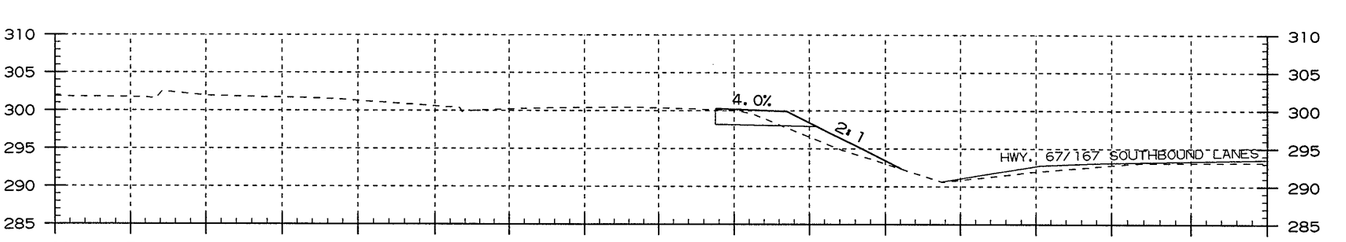










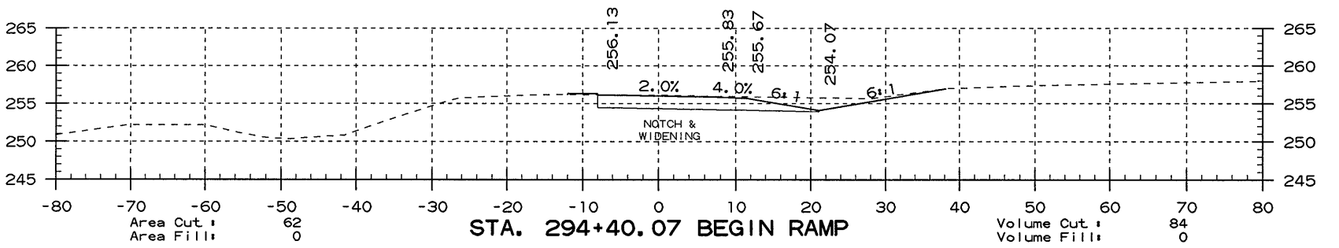


McCAIN BLVD. ENTRANCE SOUTHBOUND

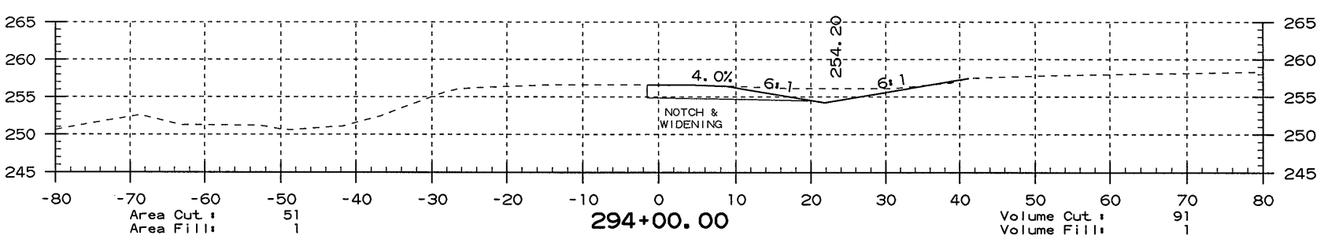
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

(2) CROSS SECTIONS

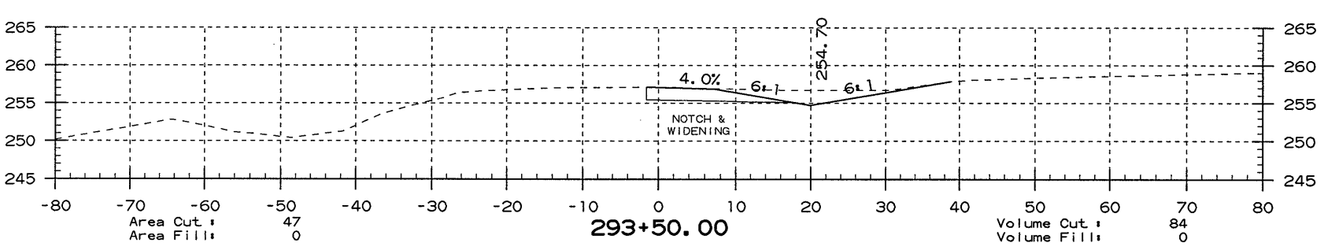
JOB NO.	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
R60080	6	ARK.		59	60



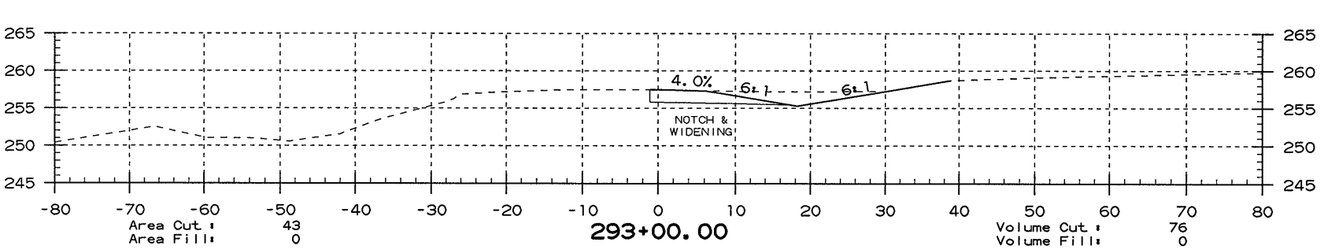
STA. 294+40.07 BEGIN RAMP



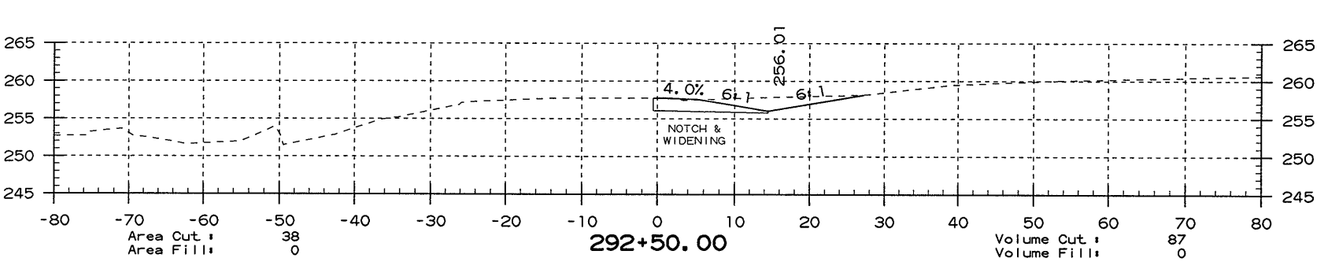
294+00.00



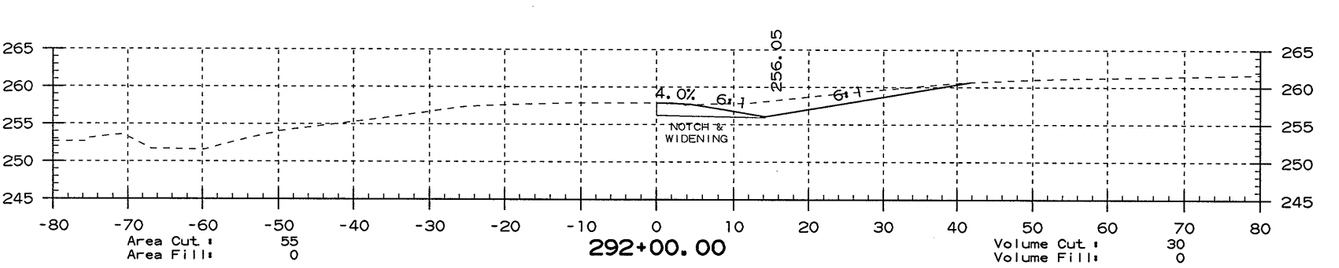
293+50.00



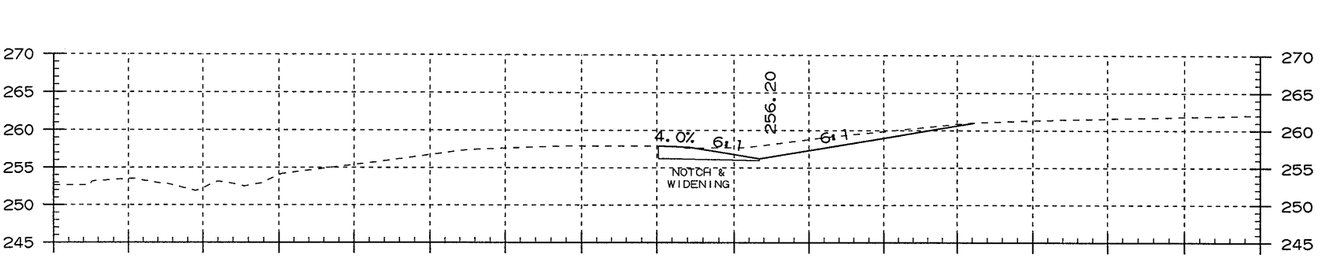
293+00.00



292+50.00



292+00.00



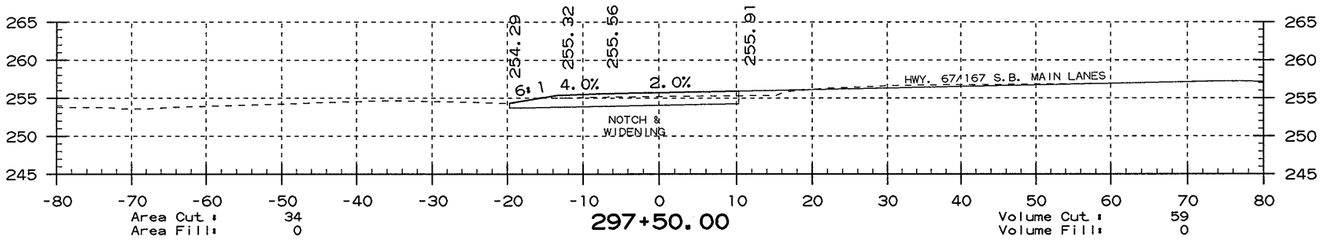
291+85.07

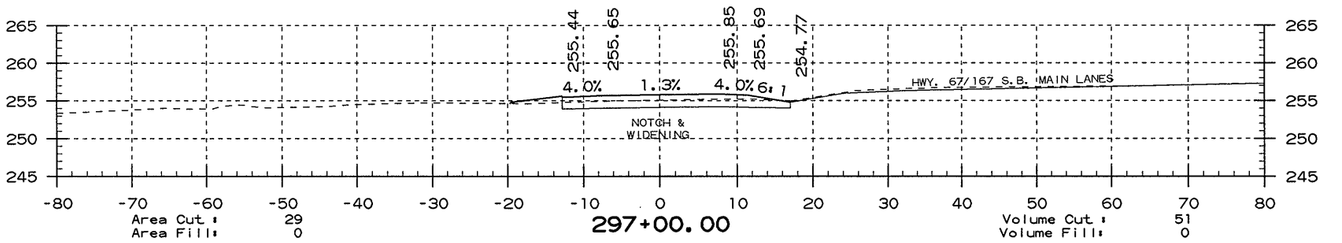
WILDWOOD EXIT RAMP

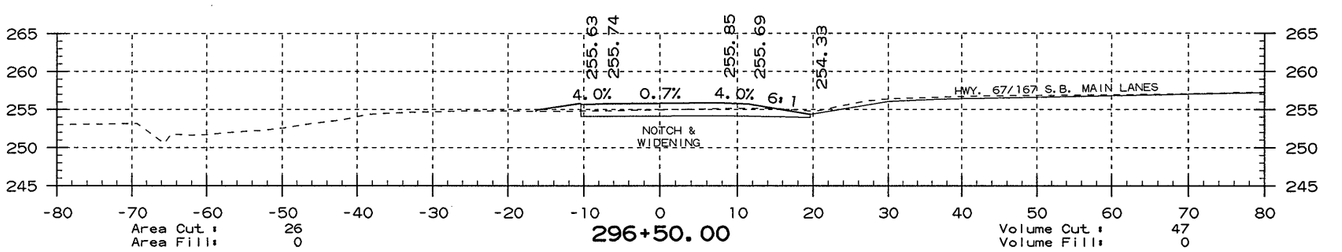
					DATE REVISED	
					DATE FILMED	
					DATE REVISED	
					DATE FILMED	
					FED.ROD. DIST.NO.	6
					STATE	ARK.
					FED.AID PROJ.NO.	
					SHEET NO.	
					TOTAL SHEETS	

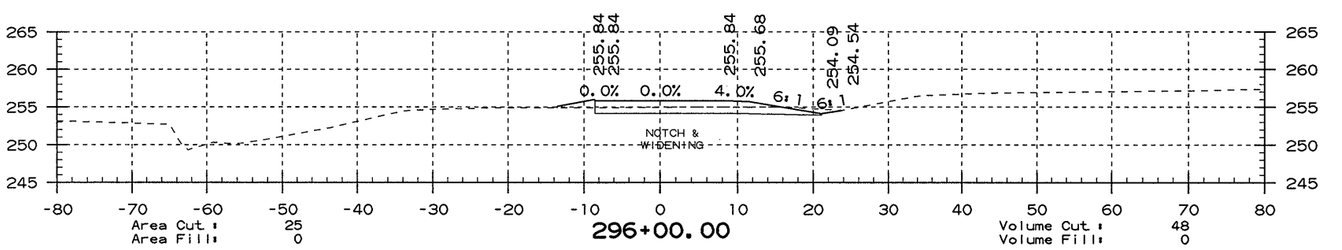
JOB NO. R60080

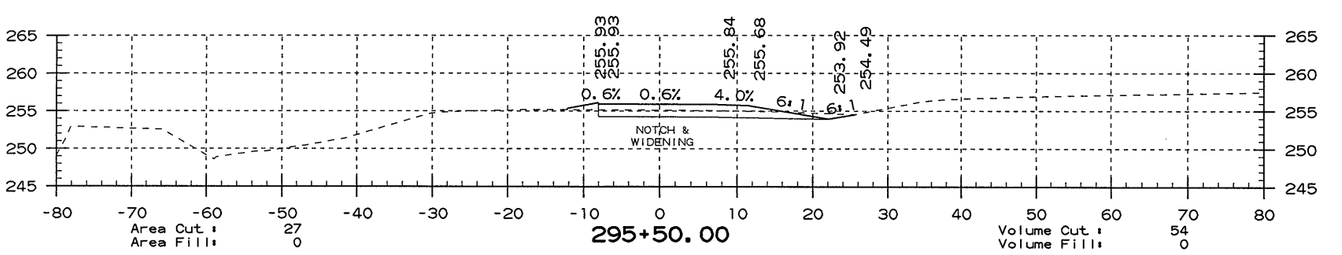
(2) CROSS SECTIONS



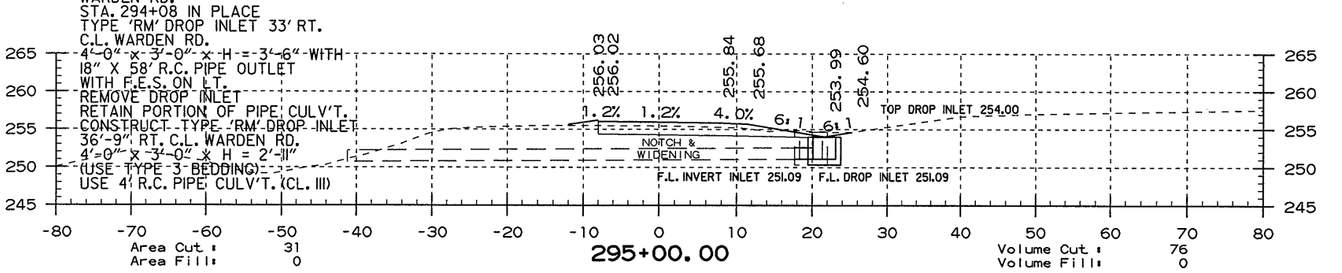


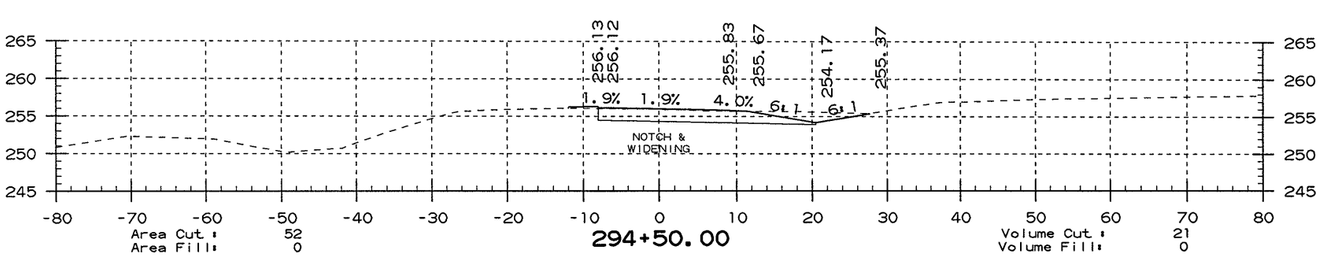






WARDEN RD.
STA. 294+08 IN PLACE
TYPE 'RM' DROP INLET 33' RT.
C.L. WARDEN RD.
4'-0" x 3'-0" x H = 3'-6" WITH
18" X 58' R.C. PIPE OUTLET
WITH F.E.S. ON LT.
REMOVE DROP INLET
RETAIN PORTION OF PIPE CULV'T.
CONSTRUCT TYPE 'RM' DROP INLET
36'-9" RT. C.L. WARDEN RD.
4'-0" x 3'-0" x H = 2'-11"
(USE TYPE 3 BEDDING)
USE 4' R.C. PIPE CULV'T. (CL. III)





WILDWOOD EXIT RAMP

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

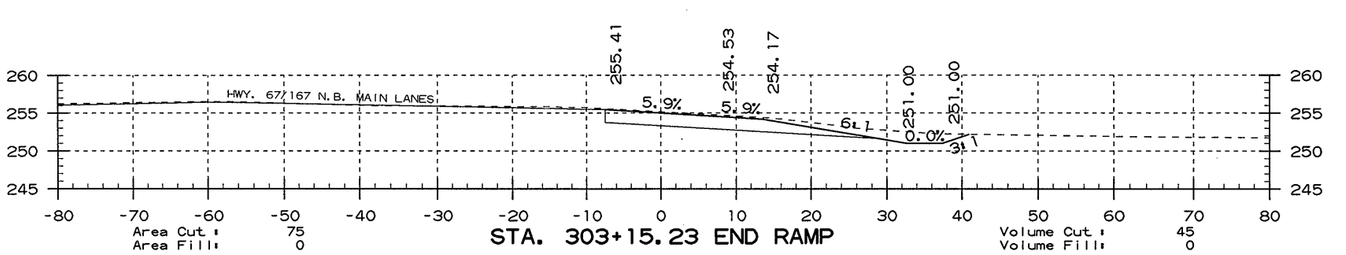
(2) CROSS SECTIONS

JOB NO. R60080

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	582	609

(2) CROSS SECTIONS

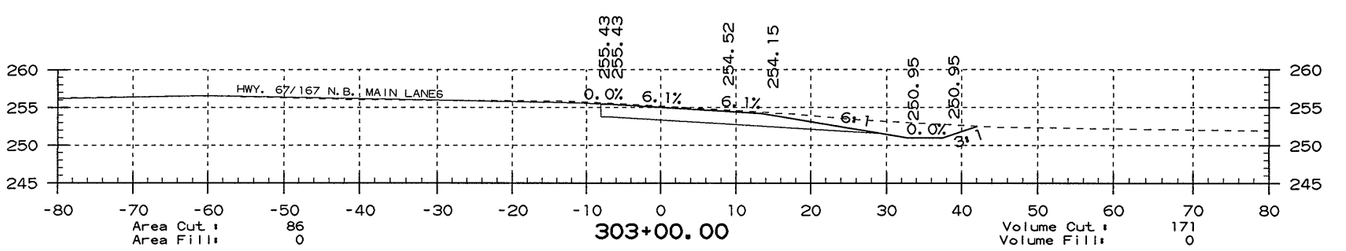
03-01-2005 RR60080.CRS3



Area Cut : 75
Area Fill: 0

STA. 303+15.23 END RAMP

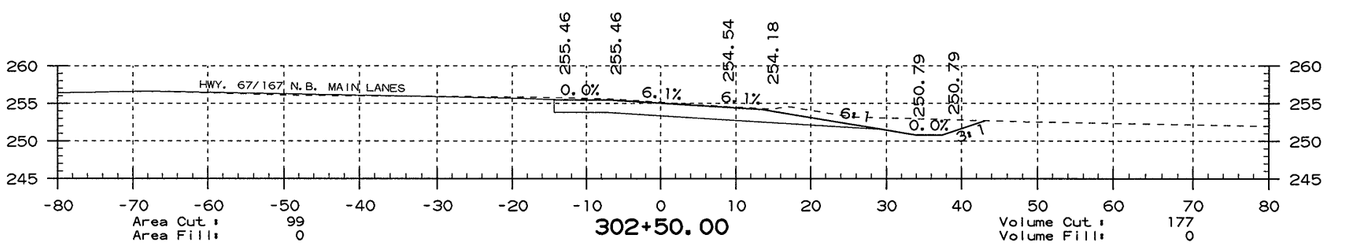
Volume Cut : 45
Volume Fill: 0



Area Cut : 86
Area Fill: 0

303+00.00

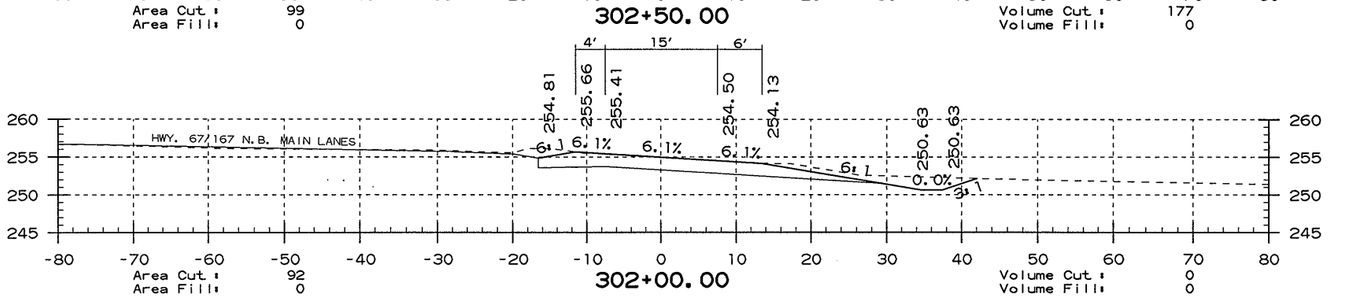
Volume Cut : 171
Volume Fill: 0



Area Cut : 99
Area Fill: 0

302+50.00

Volume Cut : 177
Volume Fill: 0



Area Cut : 92
Area Fill: 0

302+00.00

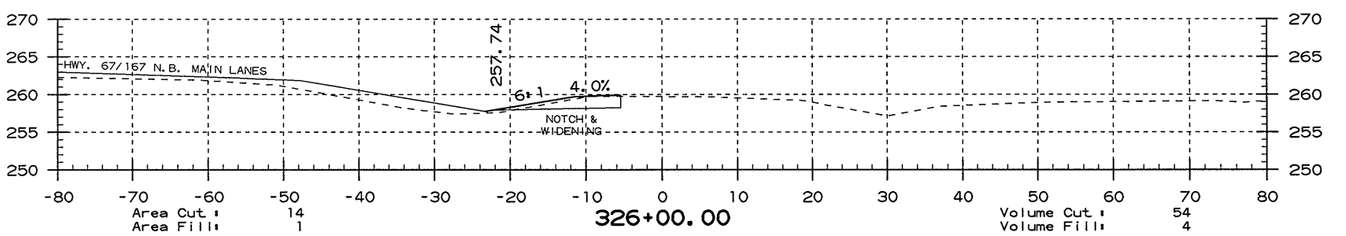
Volume Cut : 0
Volume Fill: 0

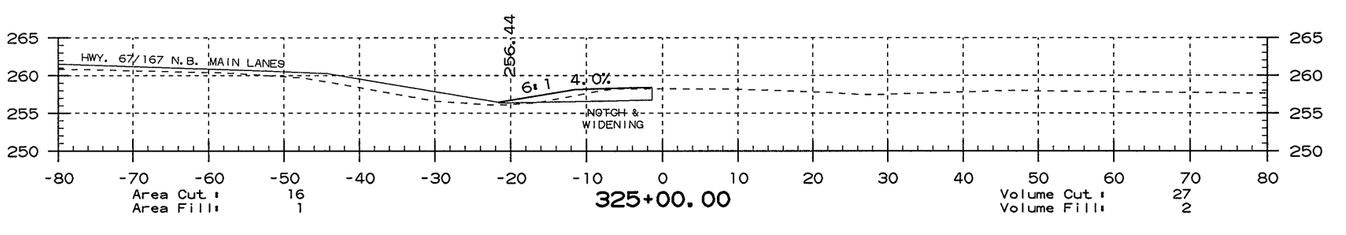
WILDWOOD ENTRANCE RAMP

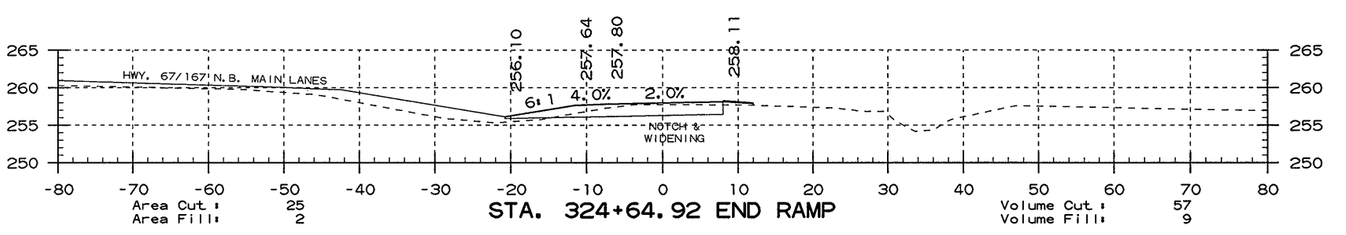
(2) CROSS SECTIONS

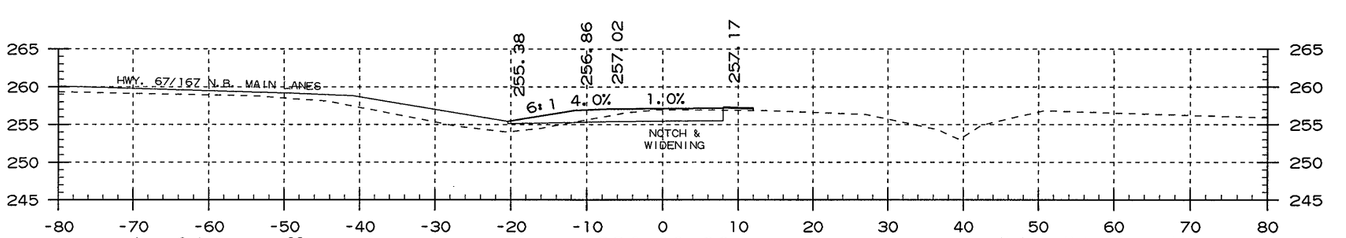
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.
				6

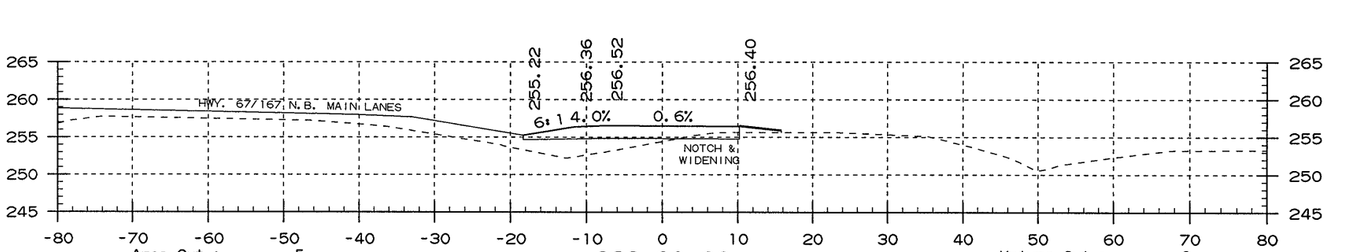
JOB NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
R60080	ARK.		33	605

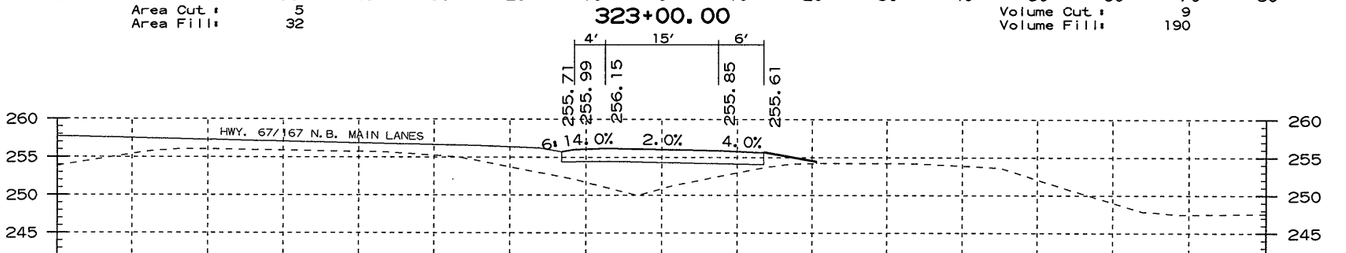


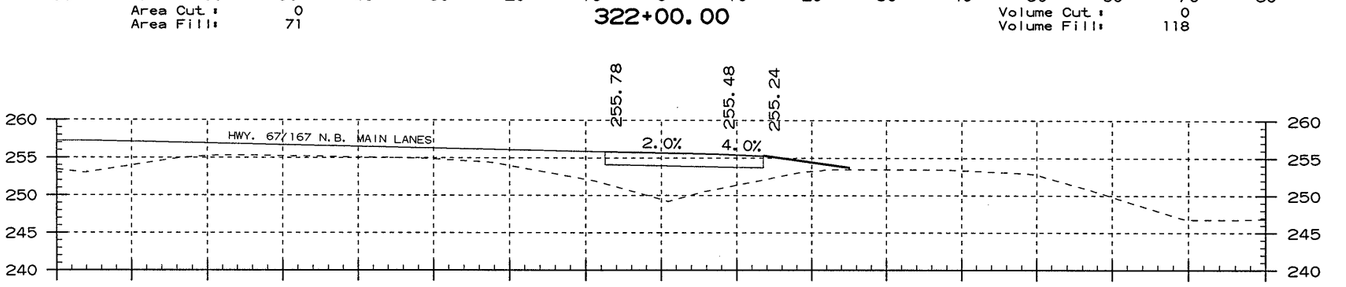












BROOKSWOOD EXIT RAMP

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.
				6

JOB NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
R60080	ARK.		5A	6A

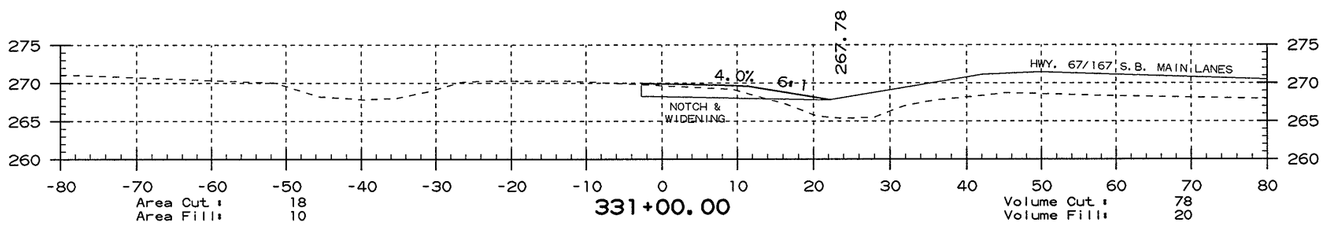
(2) CROSS SECTIONS

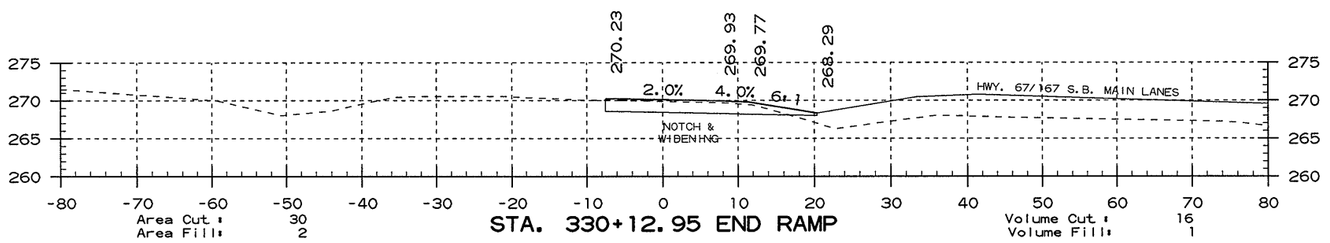
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	525	609

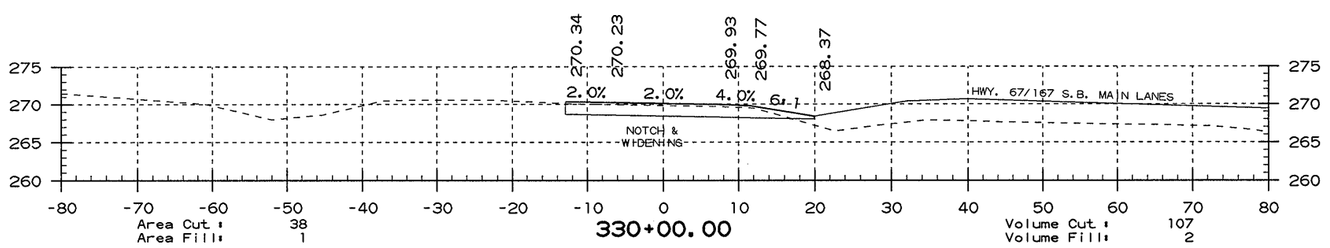
(2) CROSS SECTIONS

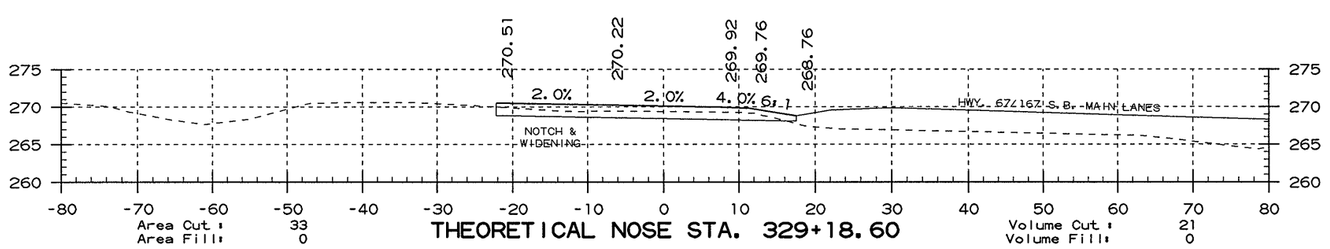
BROOKSWOOD EXIT RAMP

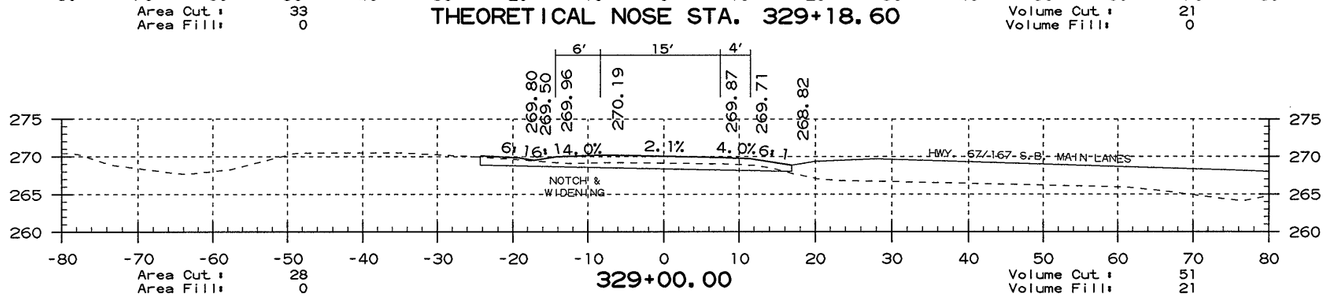
03-01-2005 RR60080.CRS3

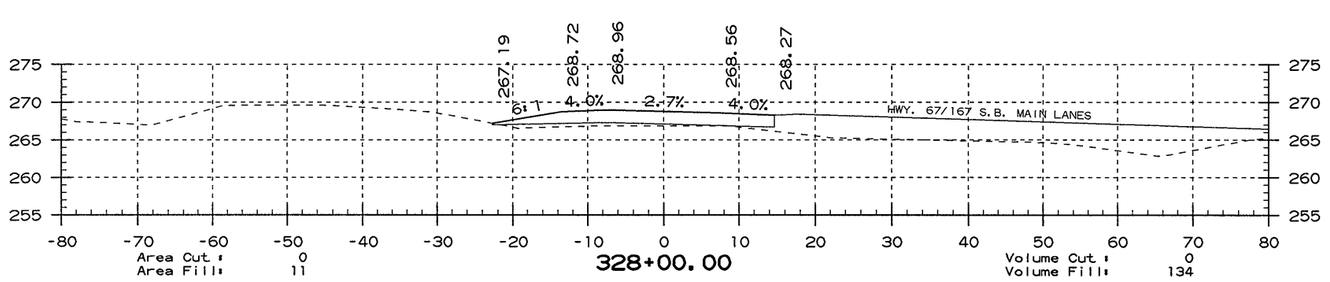


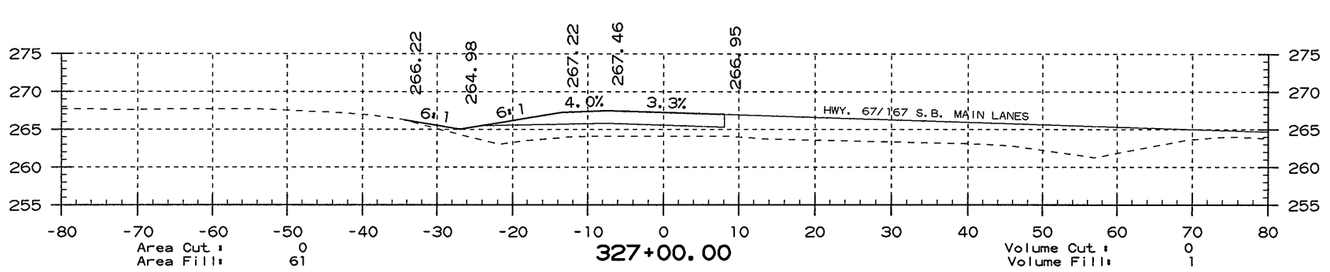


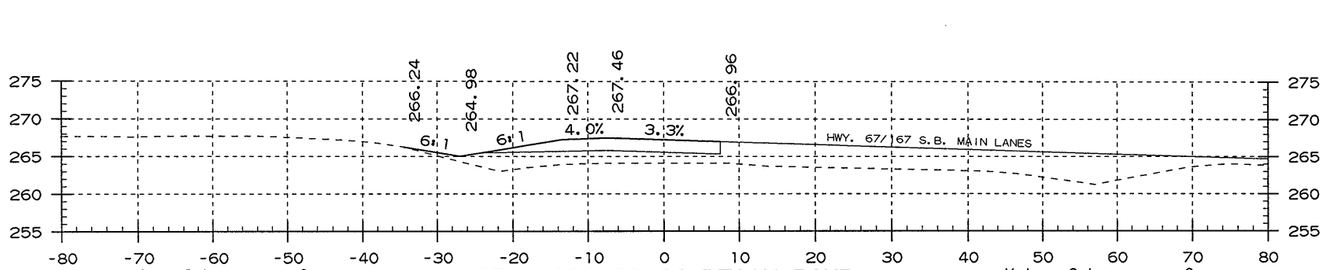










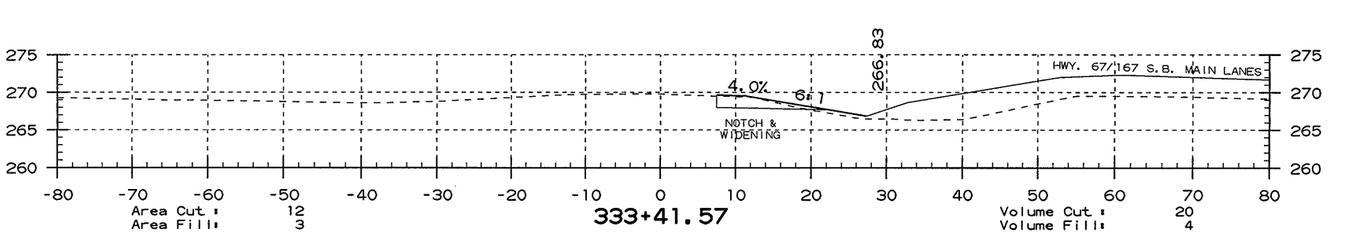


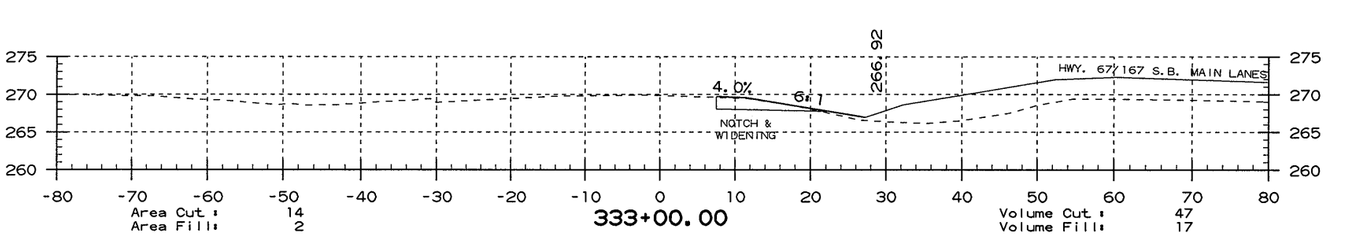
BROOKSWOOD ENTRANCE RAMP

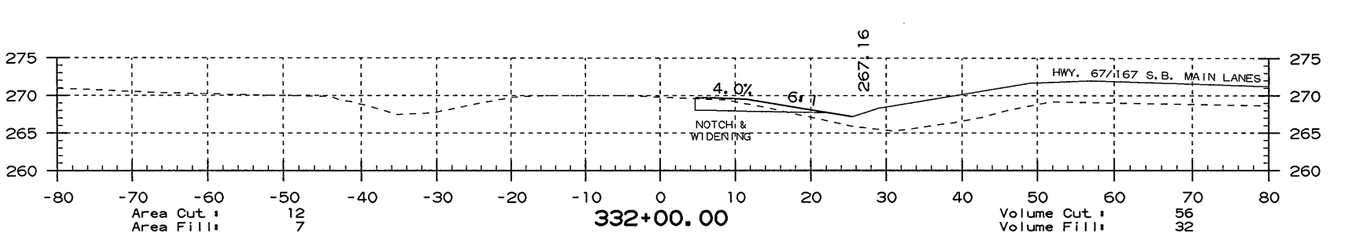
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.ROAD DIST.NO.
				6

JOB NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
R60080	ARK.			

2 CROSS SECTIONS





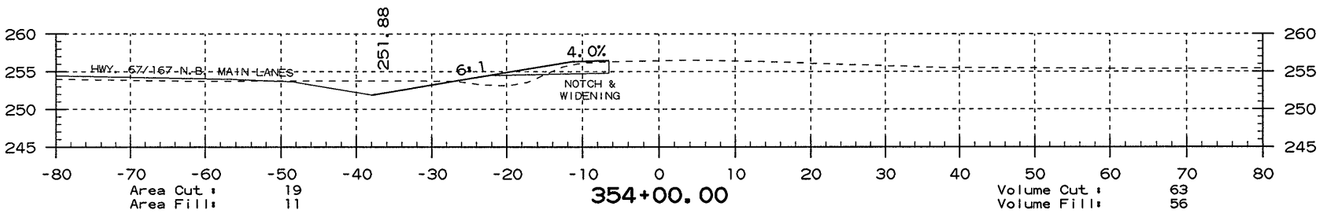


BROOKSWOOD ENTRANCE RAMP

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.	STATE	FED.AID PROJECT	SHEET NO.	TOTAL SHEETS
				6	ARK.			

JOB NO. R60080

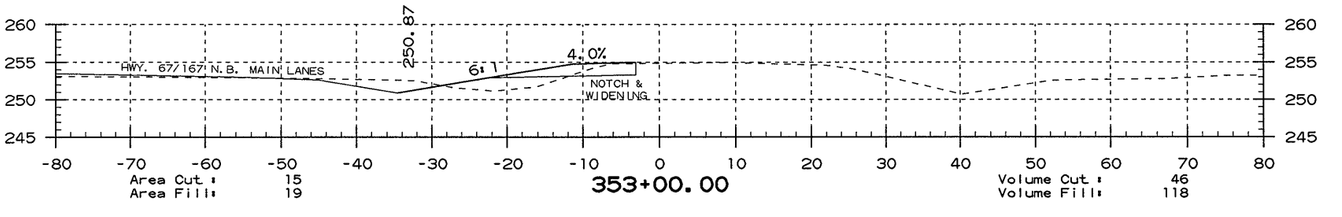
(2) CROSS SECTIONS



Area Cut : 19
Area Fill: 11

354+00.00

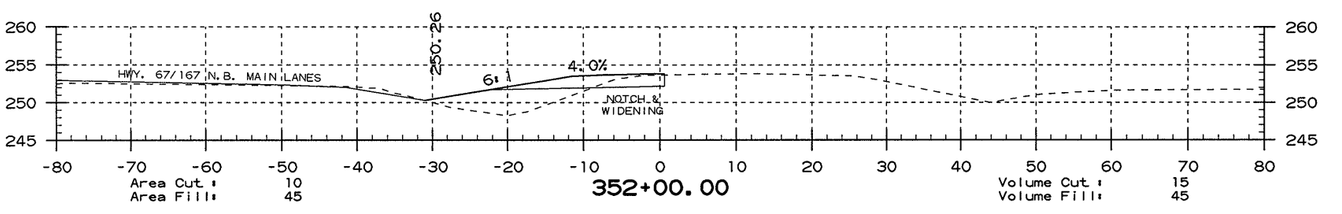
Volume Cut : 63
Volume Fill: 56



Area Cut : 15
Area Fill: 19

353+00.00

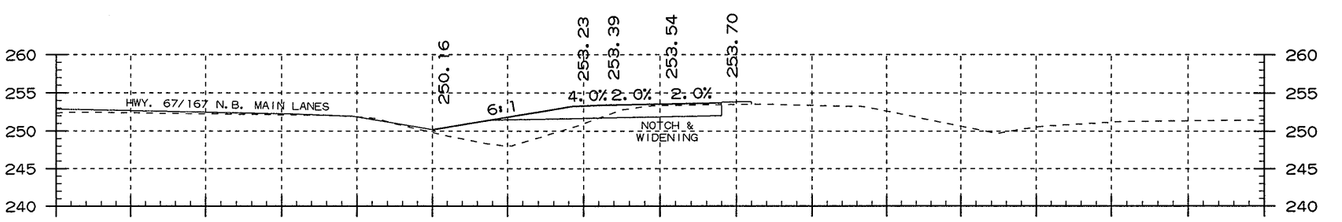
Volume Cut : 46
Volume Fill: 118



Area Cut : 10
Area Fill: 45

352+00.00

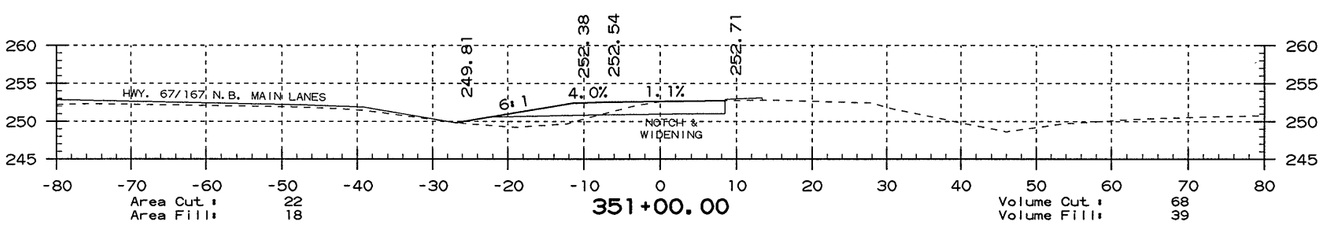
Volume Cut : 15
Volume Fill: 45



Area Cut : 19
Area Fill: 44

STA. 351+72.97 END RAMP

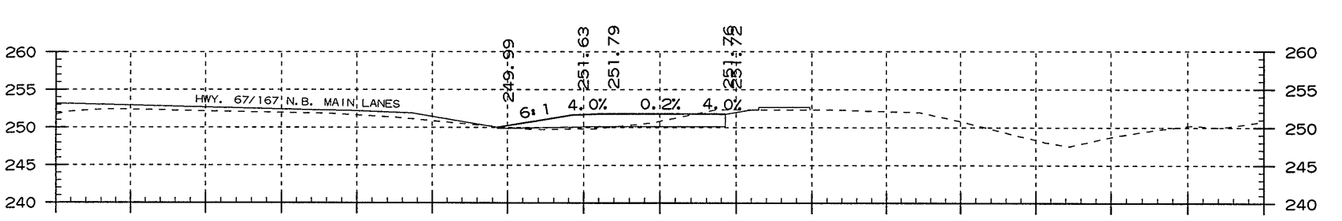
Volume Cut : 55
Volume Fill: 84



Area Cut : 22
Area Fill: 18

351+00.00

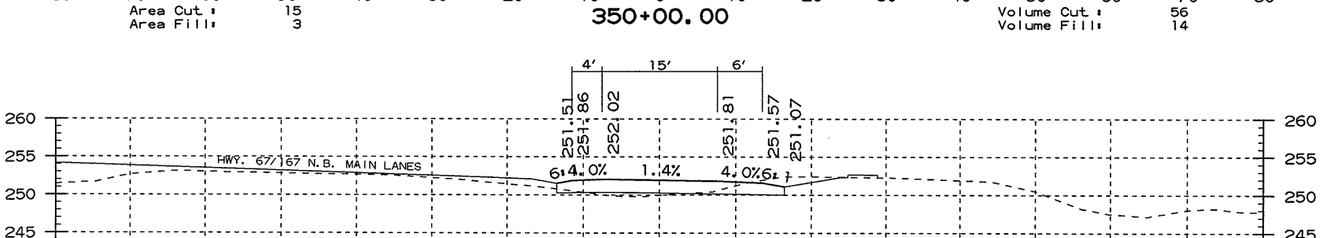
Volume Cut : 68
Volume Fill: 39



Area Cut : 15
Area Fill: 3

350+00.00

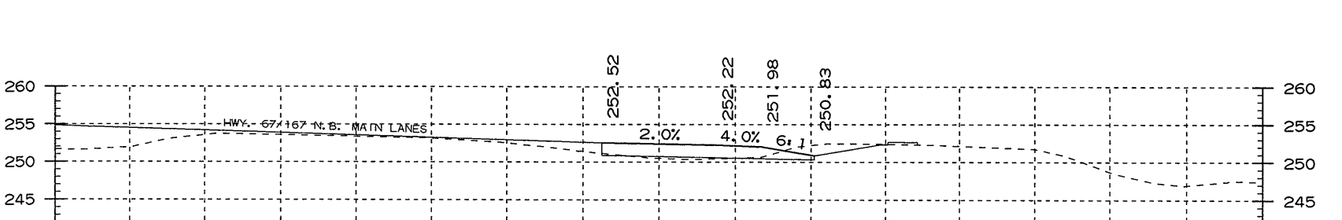
Volume Cut : 56
Volume Fill: 14



Area Cut : 15
Area Fill: 5

349+00.00

Volume Cut : 23
Volume Fill: 7



Area Cut : 9
Area Fill: 3

STA. 348+48.28 BEGIN RAMP

Volume Cut : 0
Volume Fill: 0

KIEHL EXIT RAMP

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

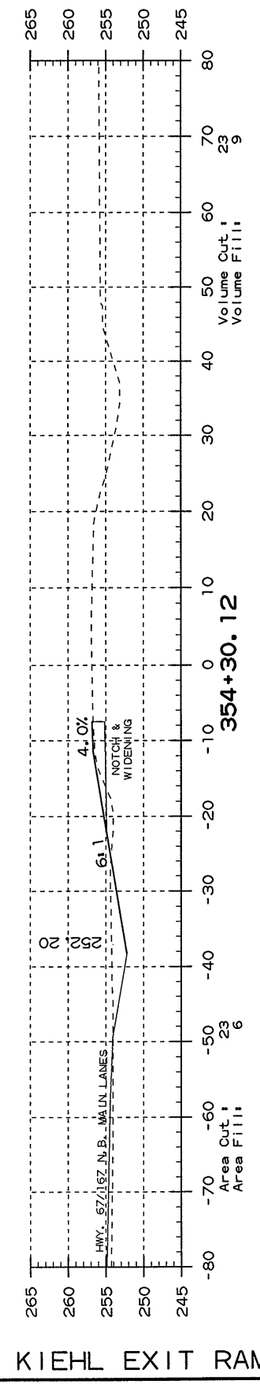
JOB NO. R60080

(2) CROSS SECTIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

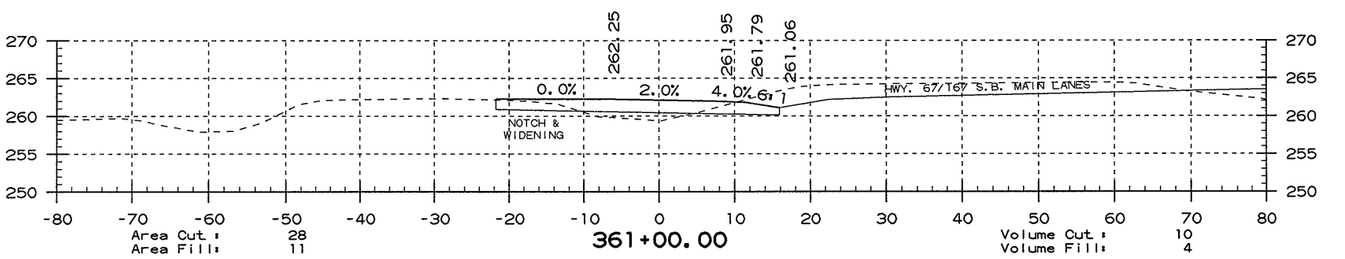
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		R60080	83	609

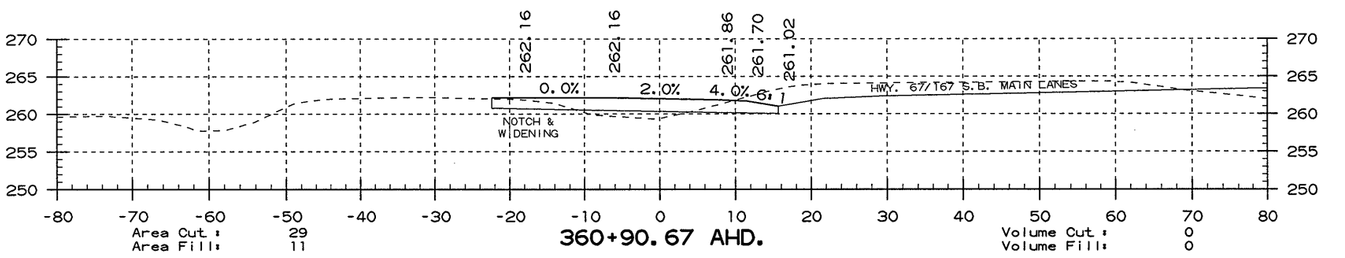
(2) CROSS SECTIONS

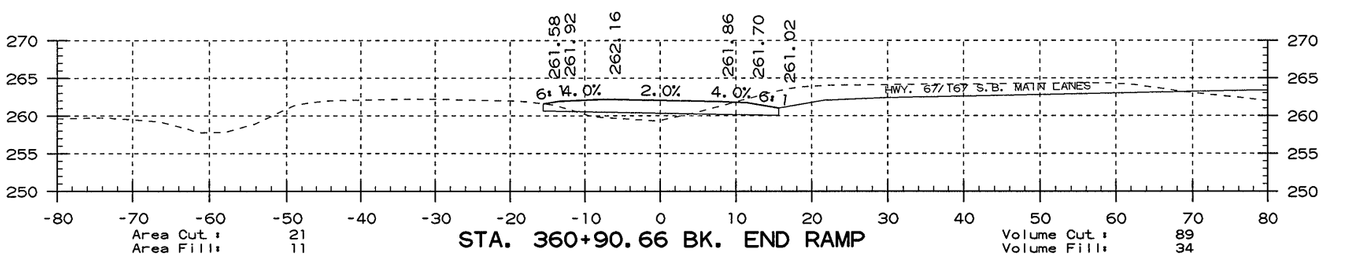


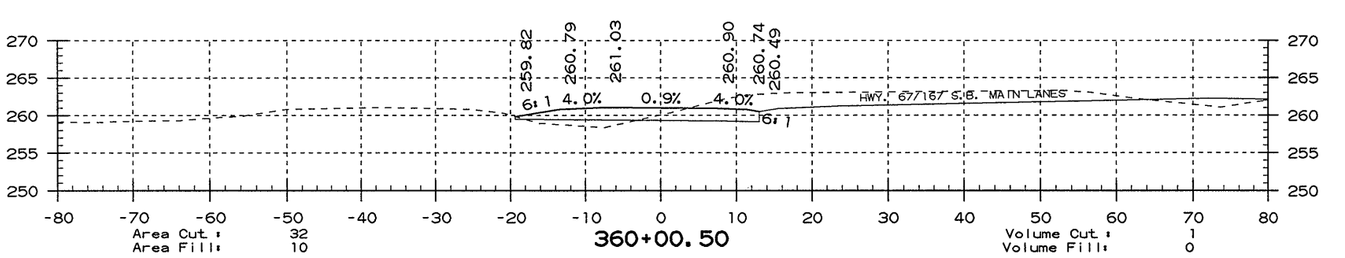
KIEHL EXIT RAMP

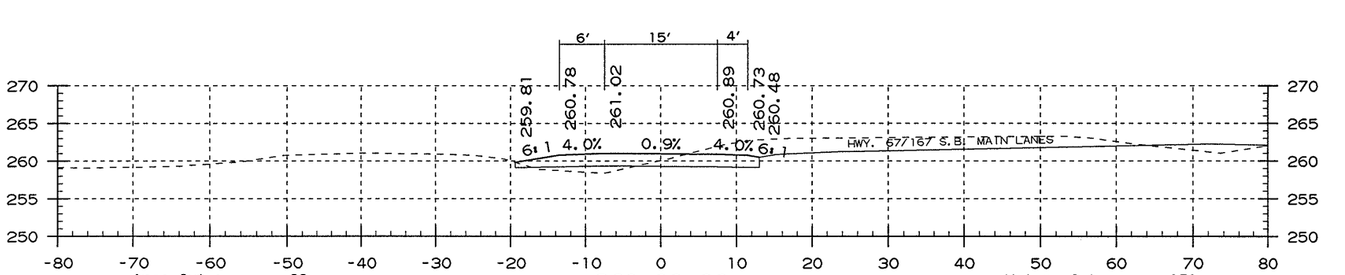
03-01-2005 RR60080.CRS3

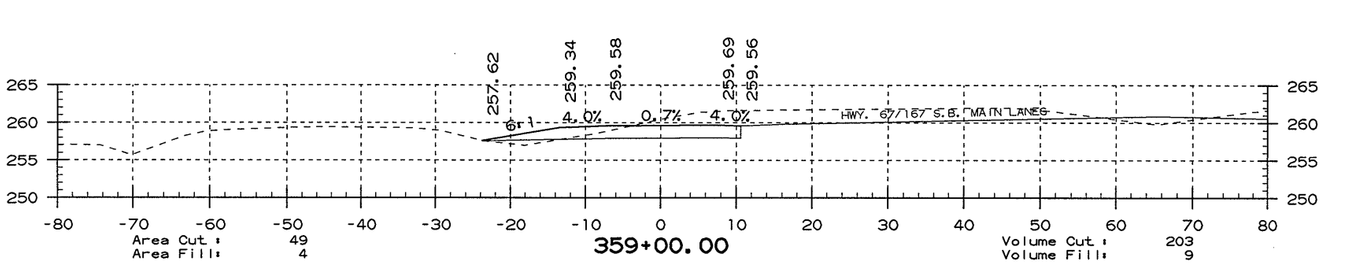


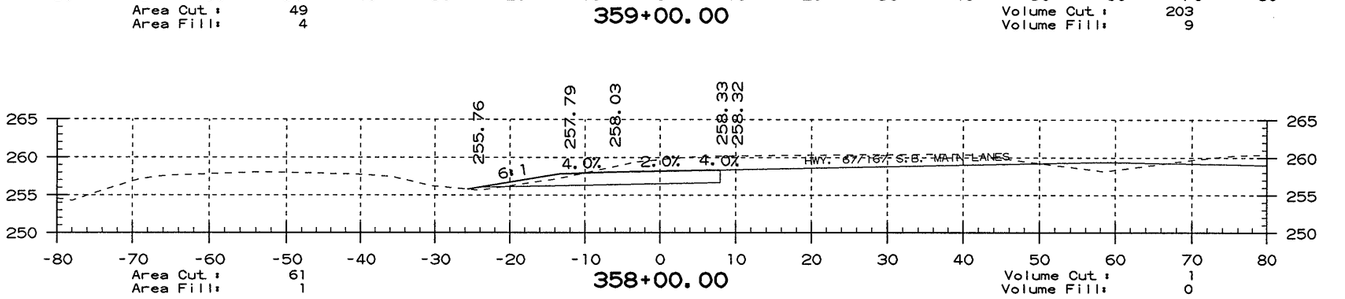


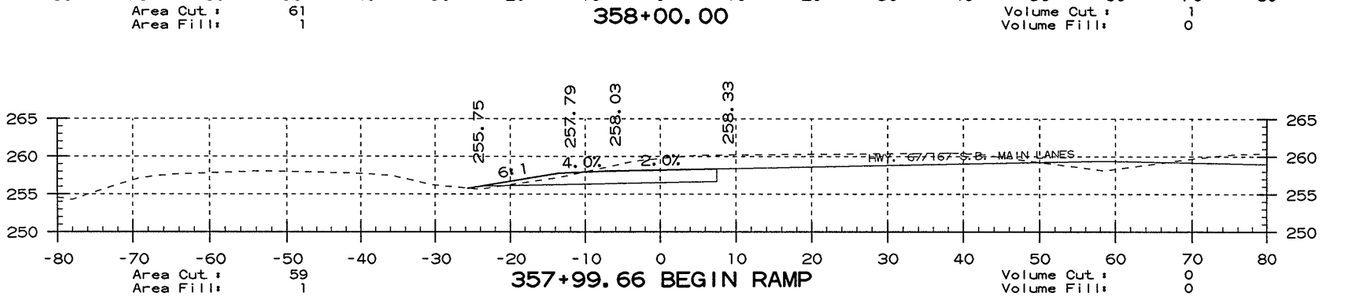








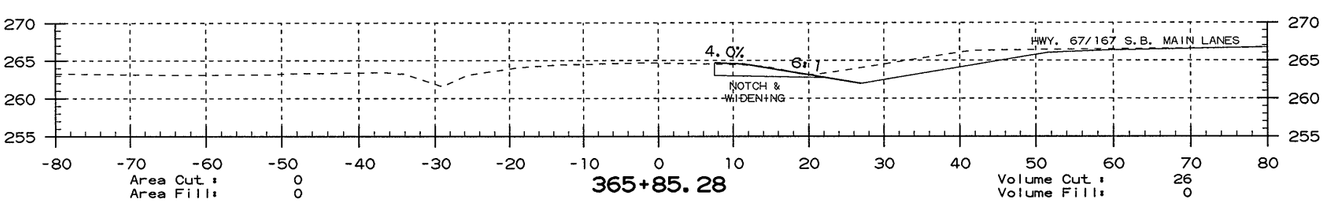


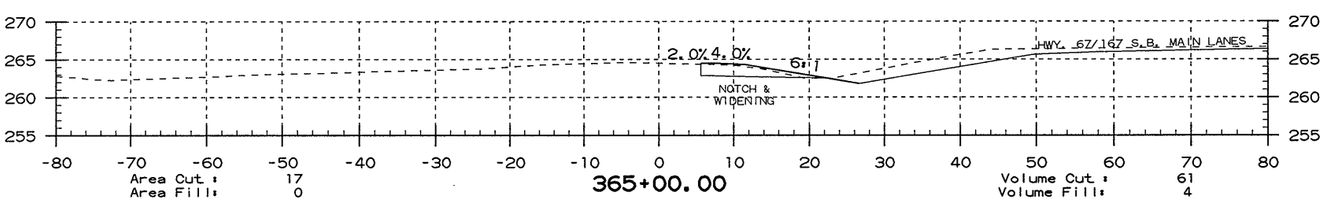


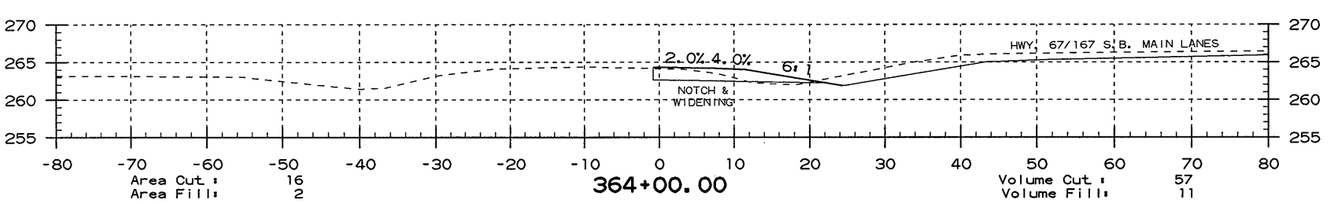
KIEHL ENTRANCE RAMP

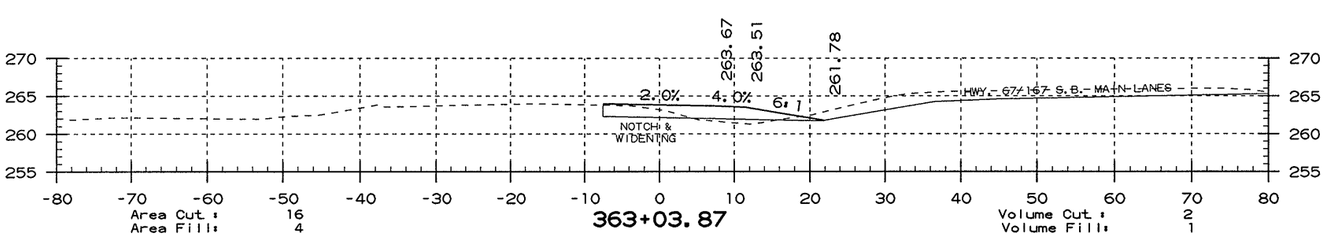
PLATE REVISED	
DATE FILMED	
DATE REVISED	
DATE FILMED	
FED.ROD. DIST.NO.	6
STATE	ARK.
FED.AID PROJ.NO.	R60080
SHEET NO.	2
TOTAL SHEETS	

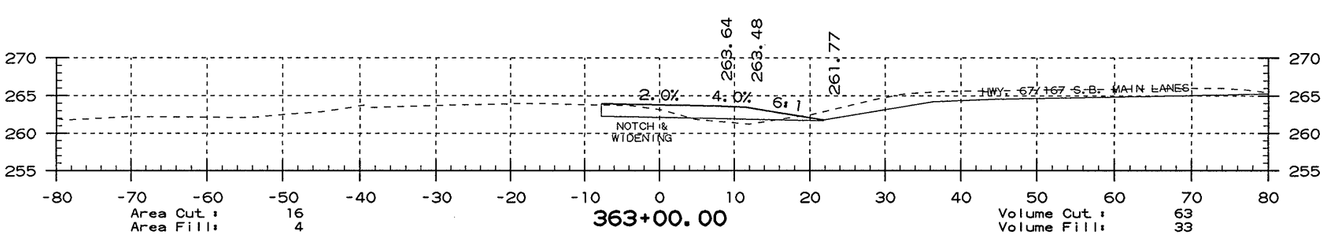
CROSS SECTIONS

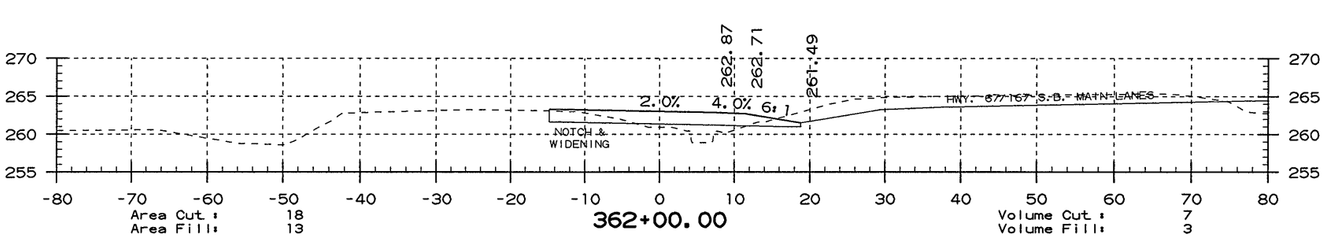


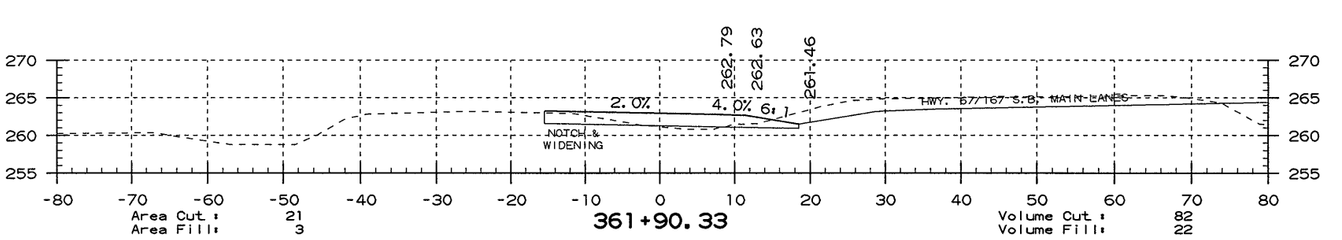










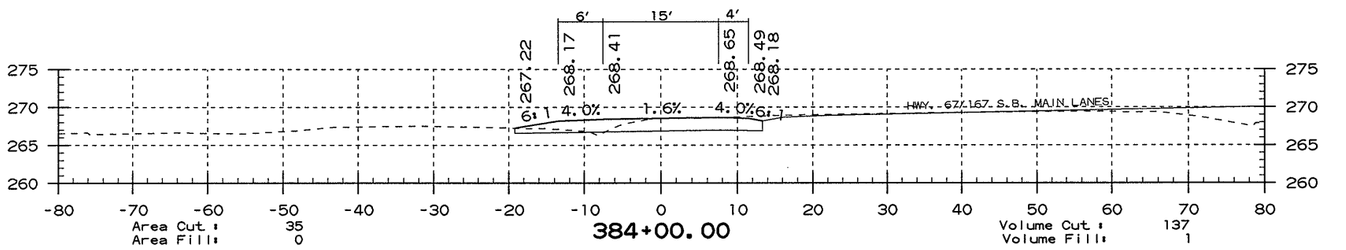


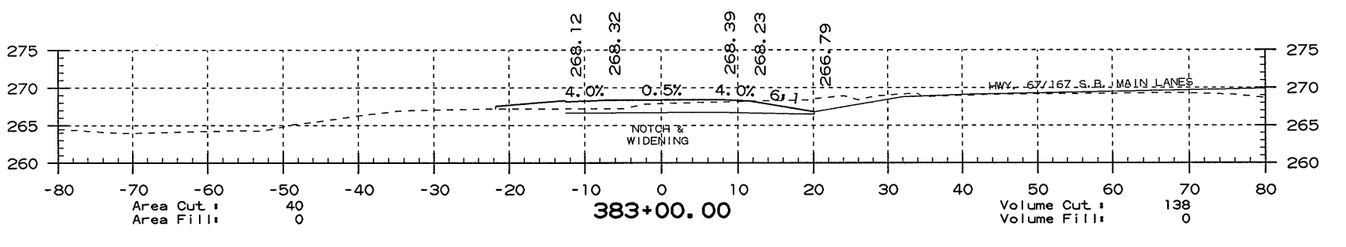
KIEHL ENTRANCE RAMP

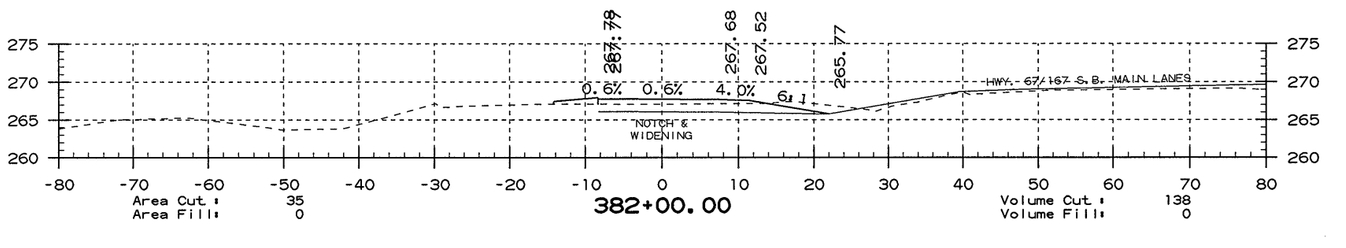
	DATE REVISED	DATE FILED	DATE REVISED	DATE FILED

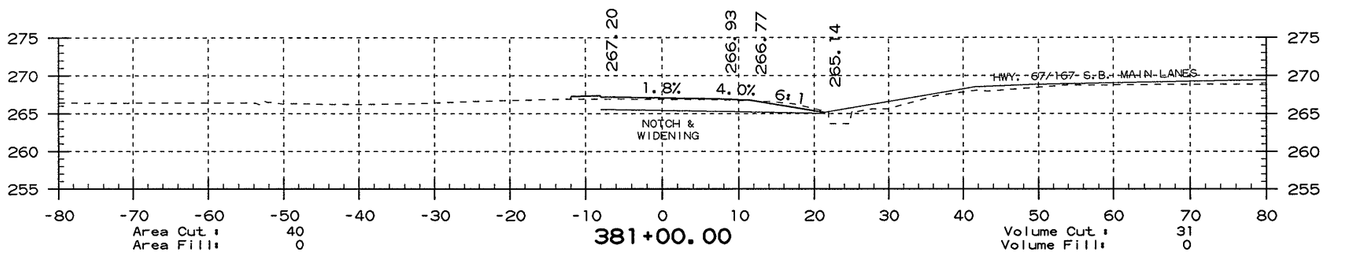
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO. R60080				

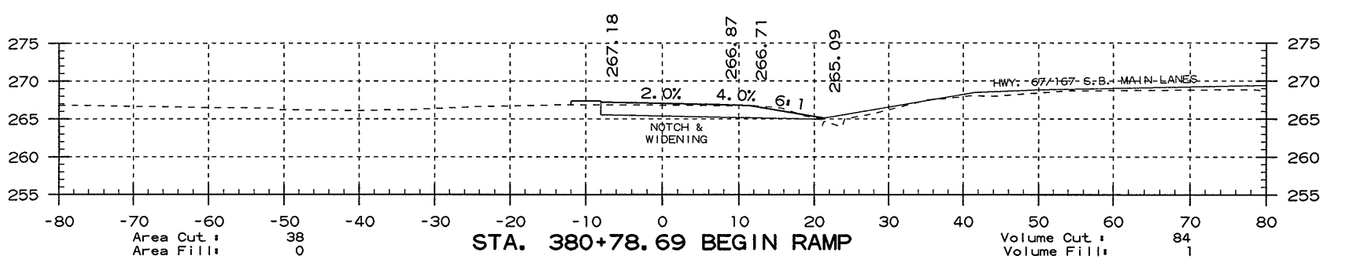
(2) CROSS SECTIONS

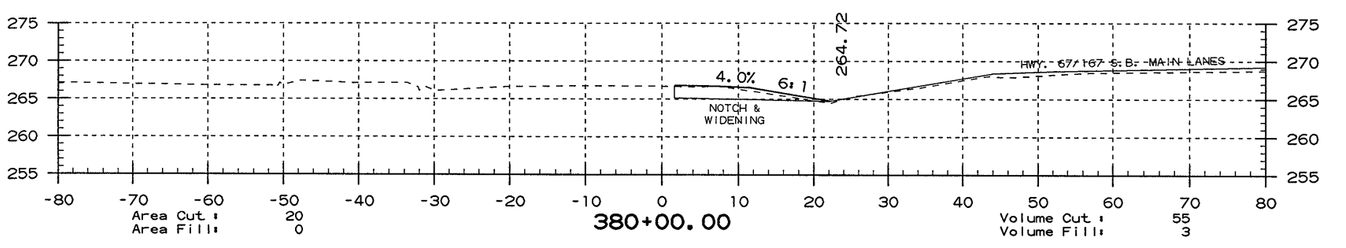


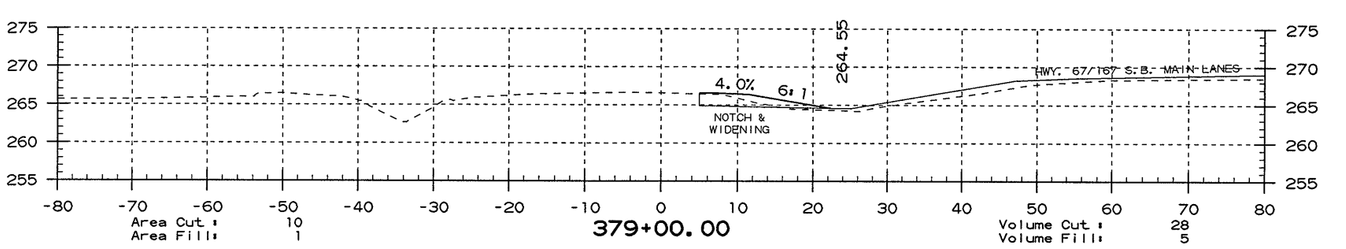


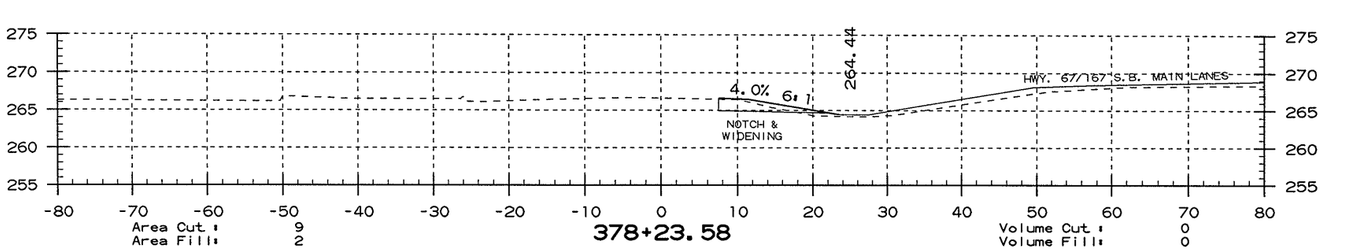












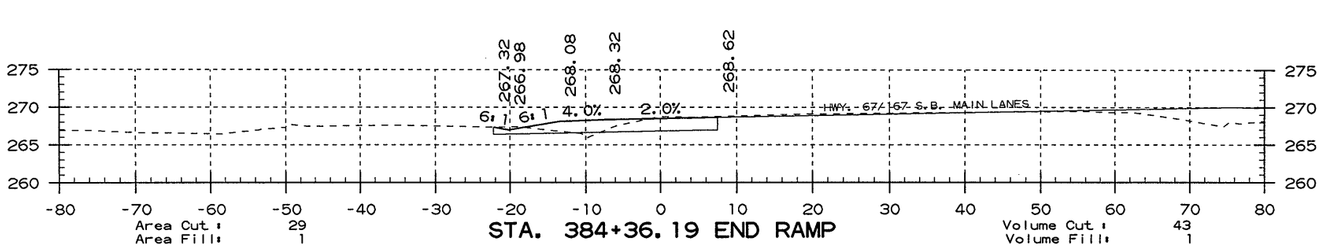
KIEHL EXIT RAMP

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		2	2

JOB NO. R60080

(2) CROSS SECTIONS

KIEHL EXIT RAMP

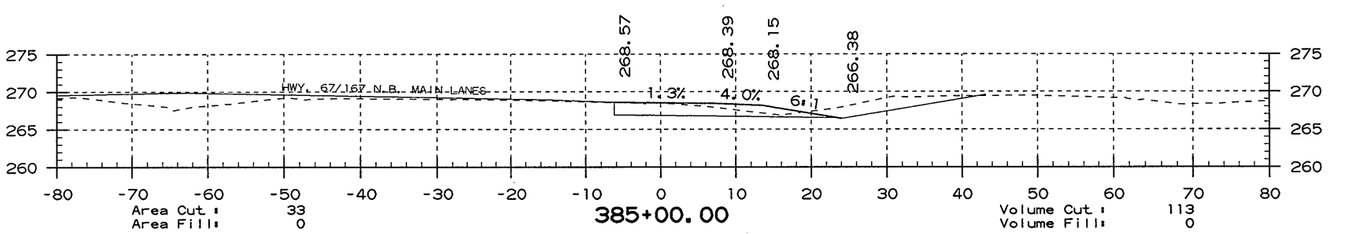


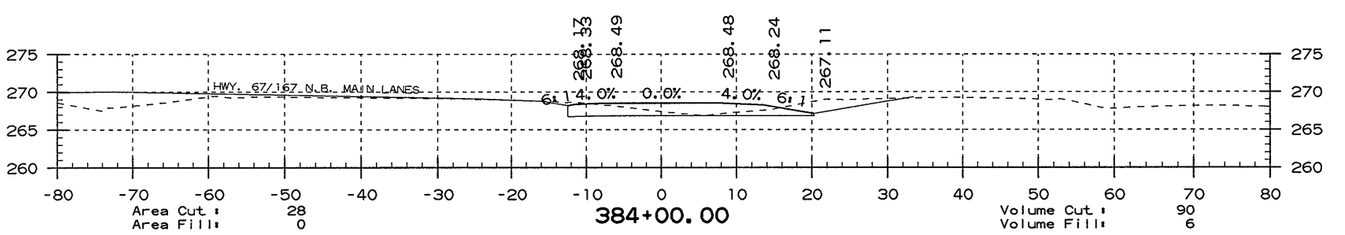
STA. 384+36.19 END RAMP

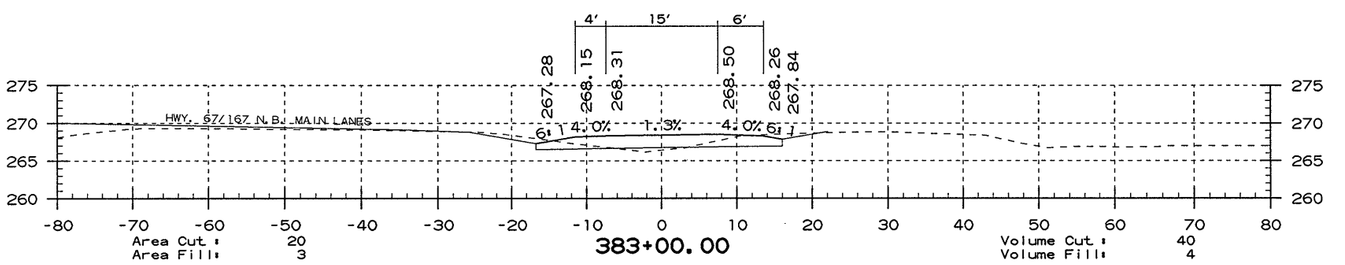
(2) CROSS SECTIONS

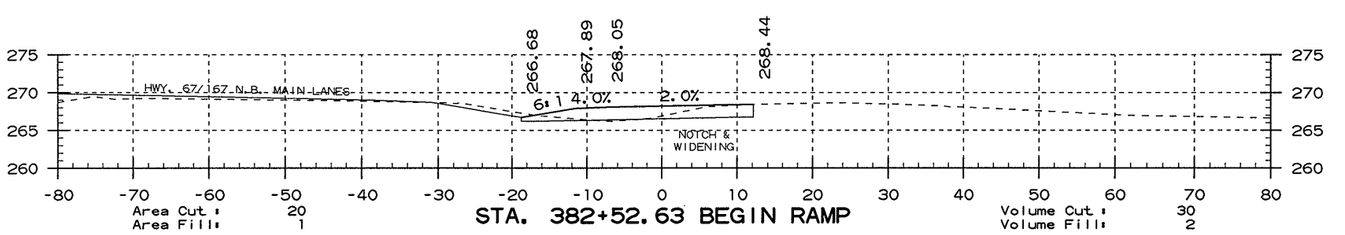
FED.RD. DIST.NO.	6
STATE	ARK.
FED.AID PROJ.NO.	R60080
SHEET NO.	
TOTAL SHEETS	

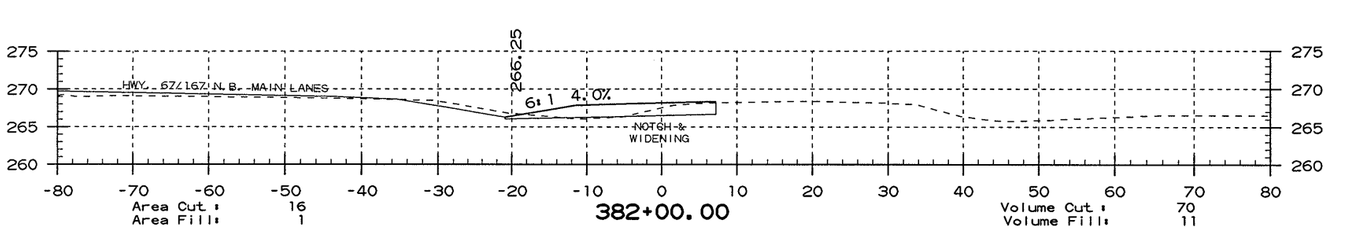
DATE PLANED
DATE REVISED
DATE PLANED
DATE REVISED

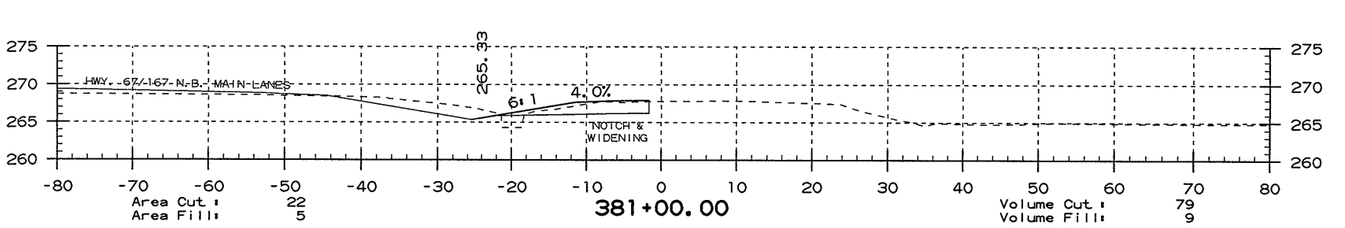


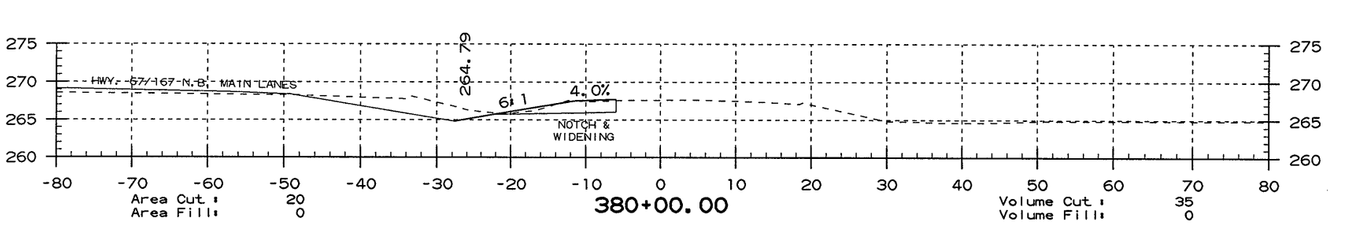


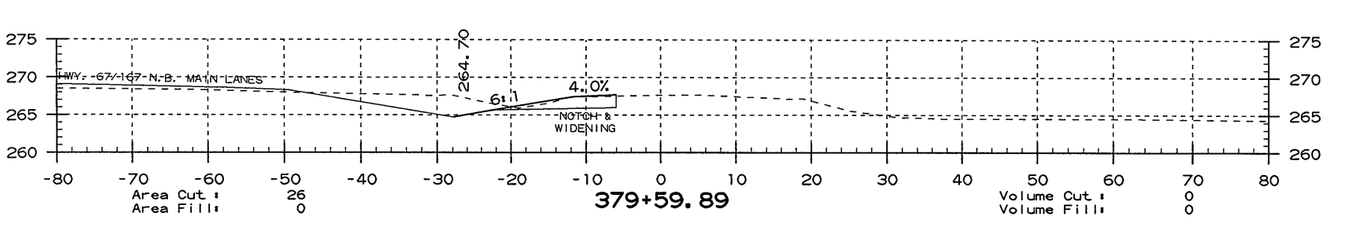












KIEHL ENTRANCE RAMP

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.
				6

STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
ARK.	R60080	2A	209

JOB NO.

(2) CROSS SECTIONS

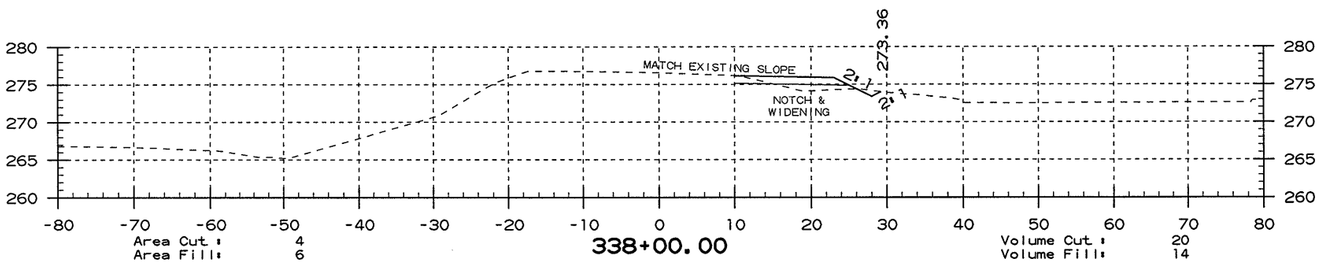
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	535	609

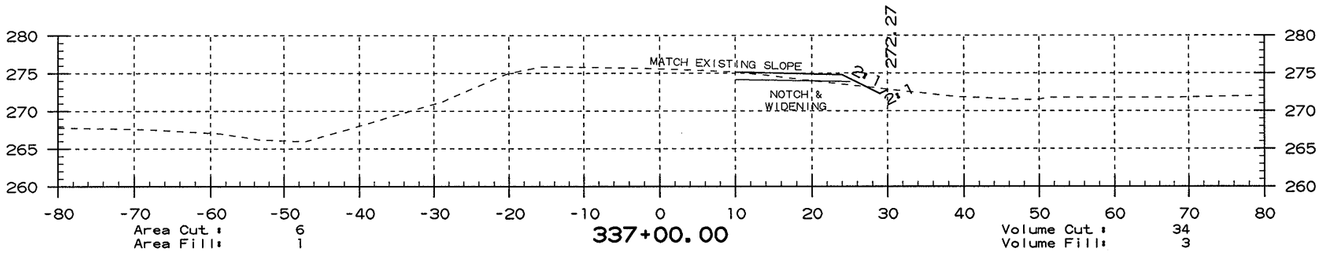
(2) CROSS SECTIONS

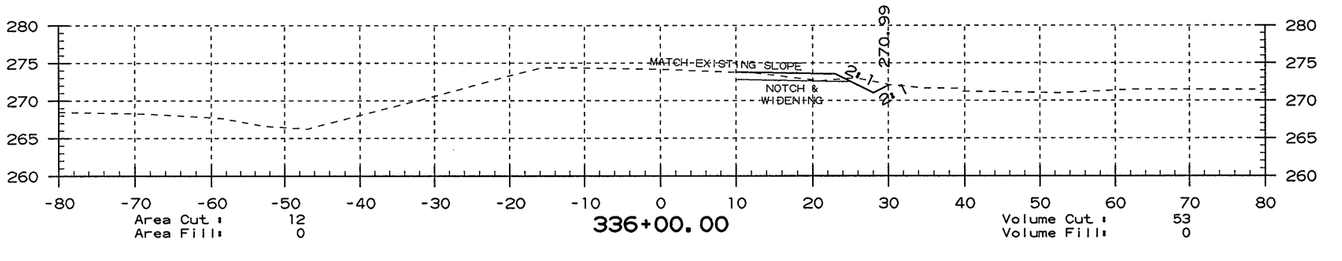
STA. 385+50.44 END RAMP

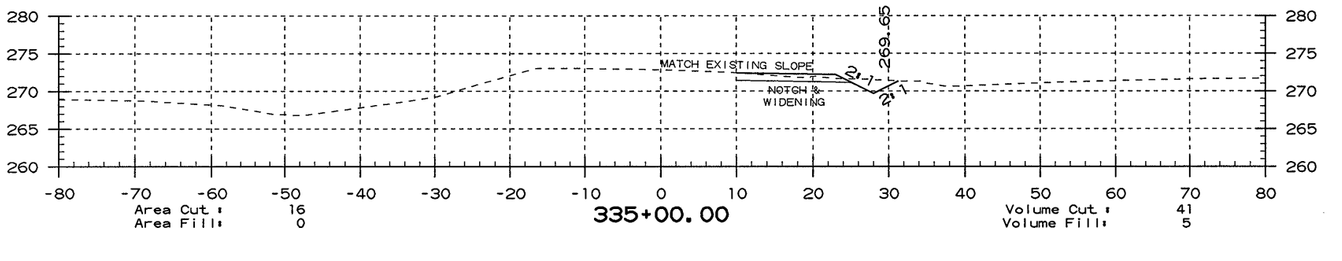
KIEHL ENTRANCE RAMP

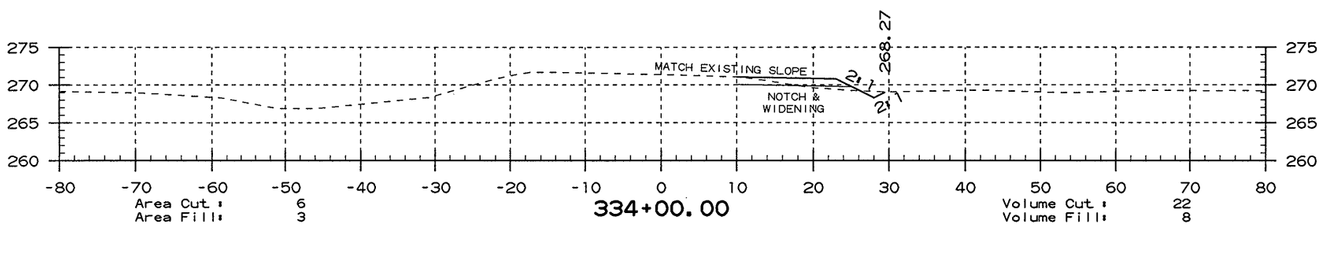
03-01-2005 RR60080.CRS3

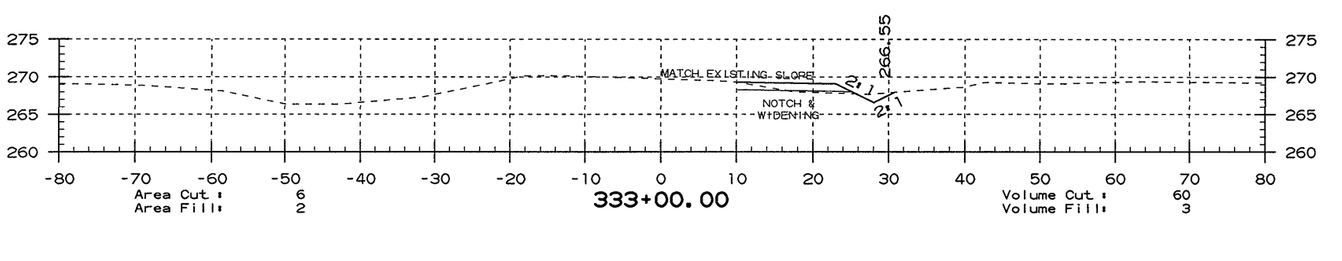


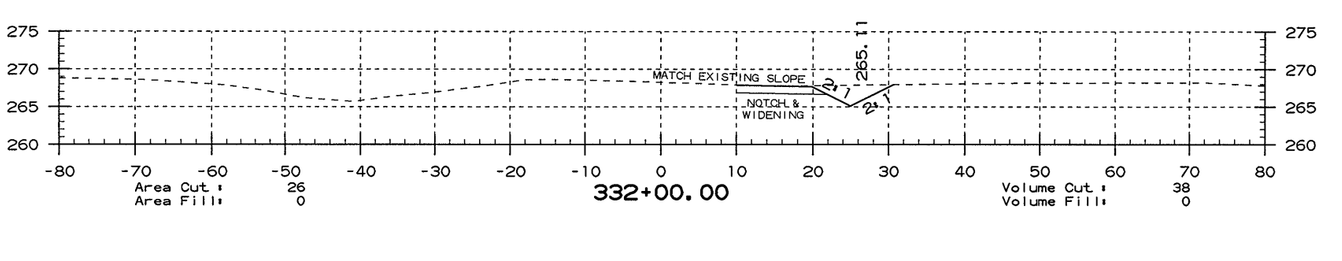


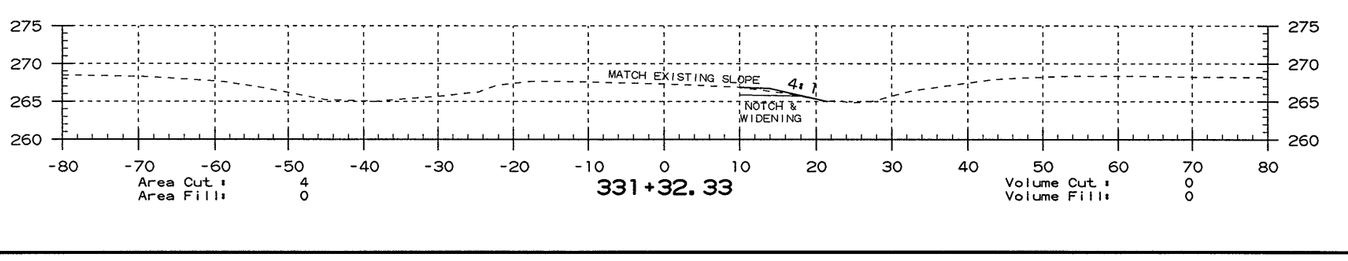










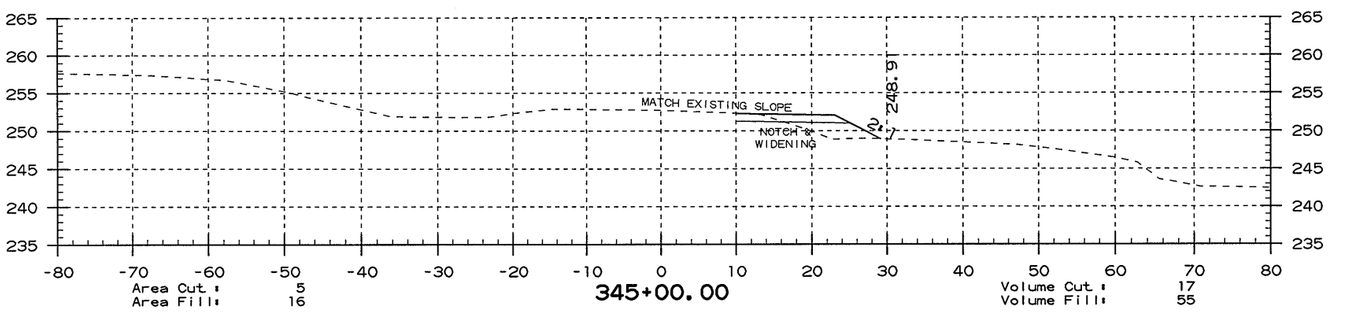


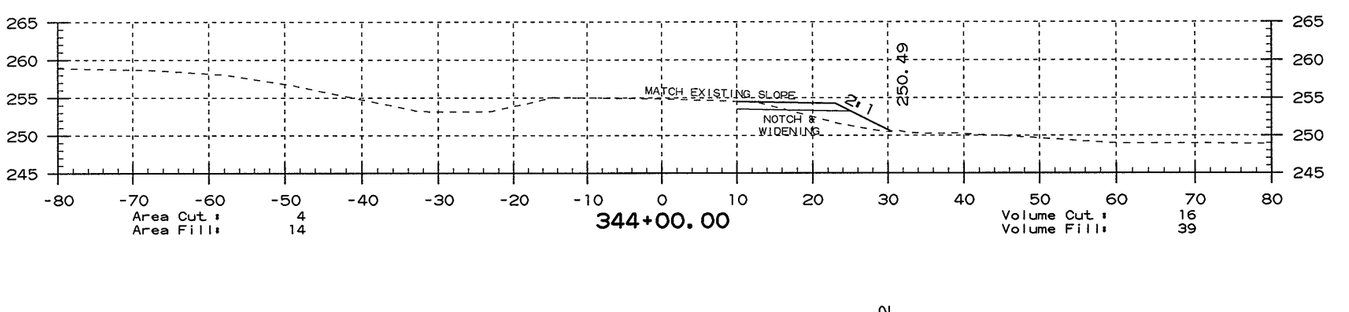
WIDENING FOR M. O. T.
LANDERS RD.

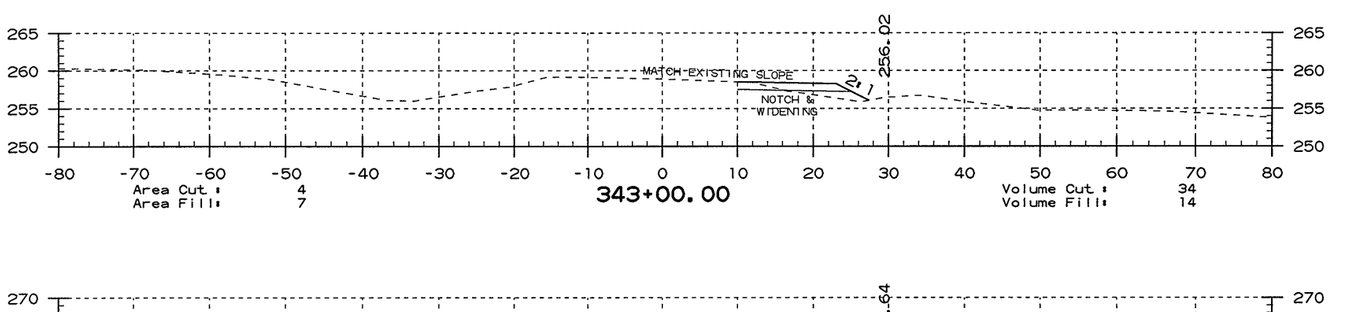
							DATE REVISED	
							DATE FILED	
							DATE REVISED	
							DATE FILED	
							FED.RD. DIST.NO.	6
							STATE	ARK.
							FED.AID PROJ.NO.	R60080
							SHEET NO.	2
							TOTAL SHEETS	

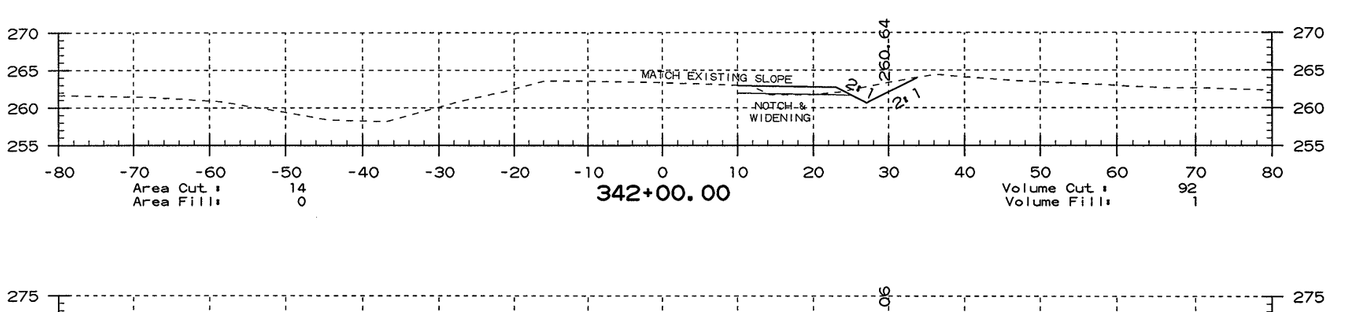
JOB NO.

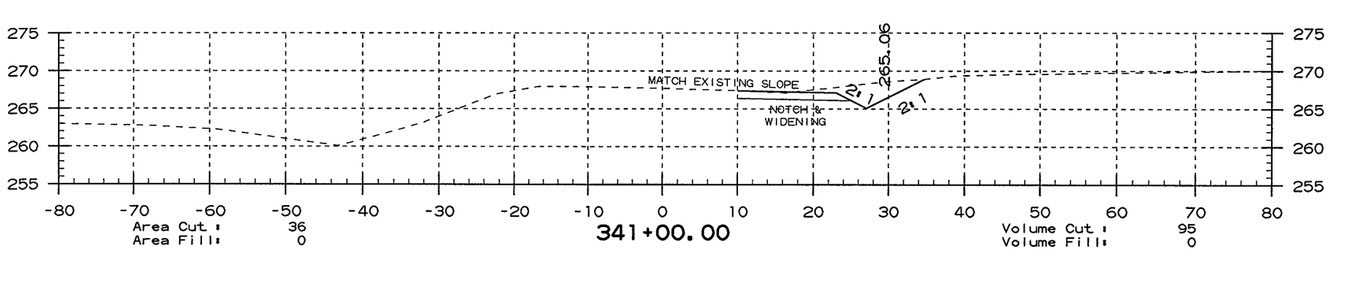
CROSS SECTIONS

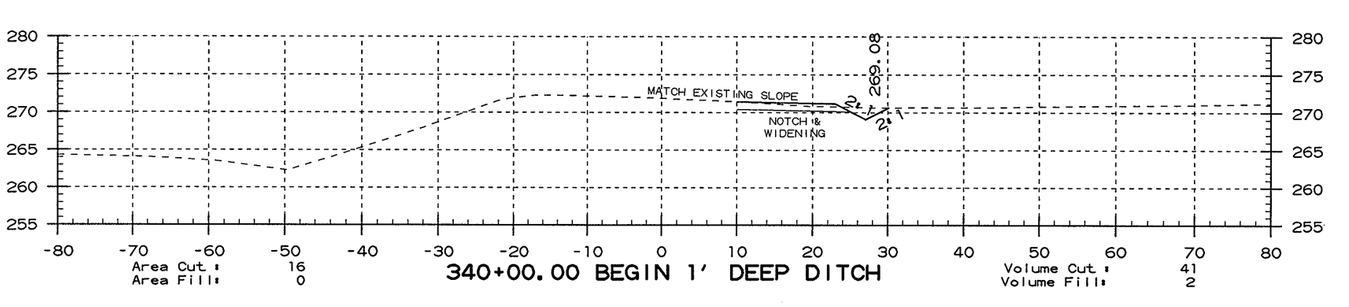


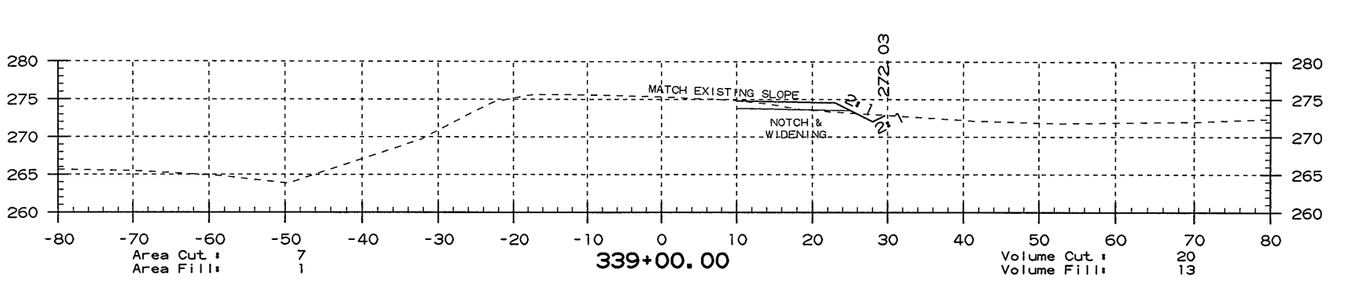












WIDENING FOR M. O. T.
LANDERS RD.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

(2) CROSS SECTIONS

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

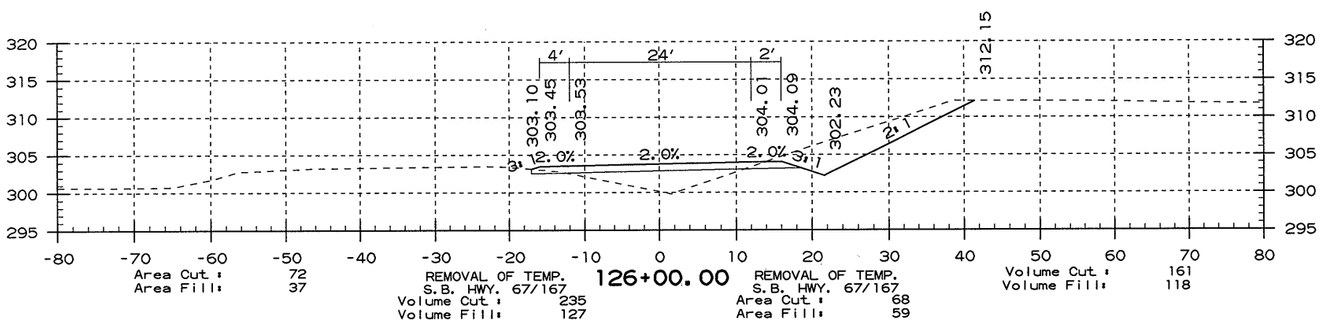
JOB NO. R60080

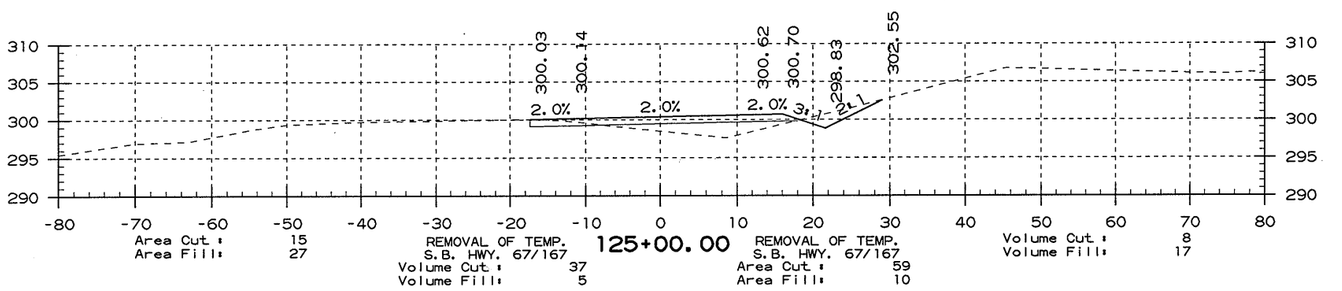
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	53	60

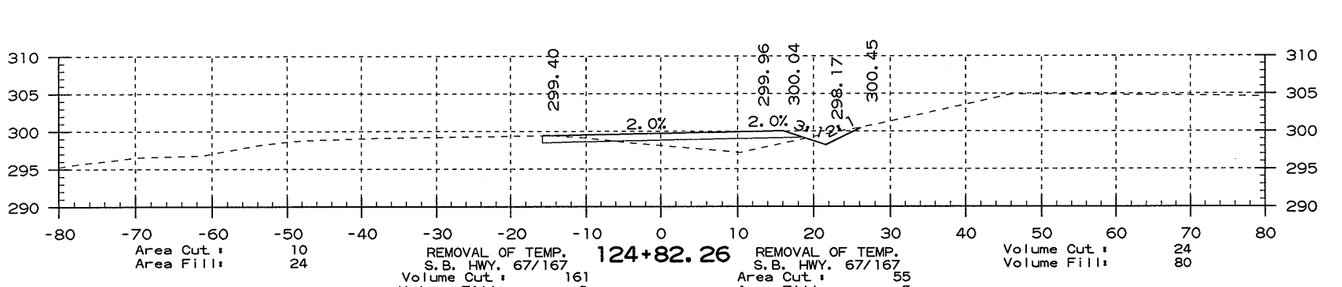
(2) CROSS SECTIONS

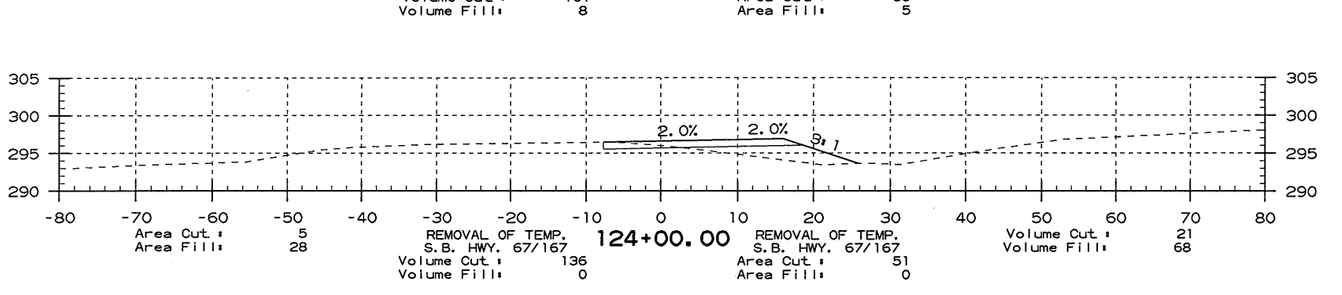
WIDENING FOR M. O. T.
LANDERS RD.

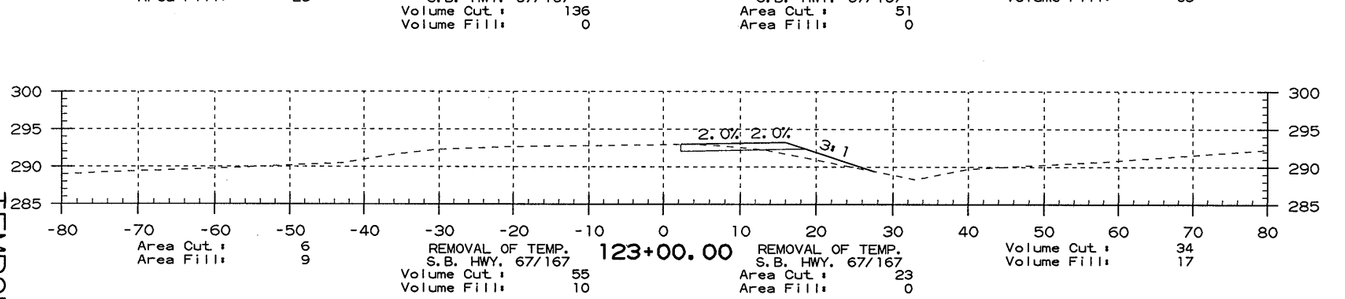
02-25-2005 RR60080.CRS4

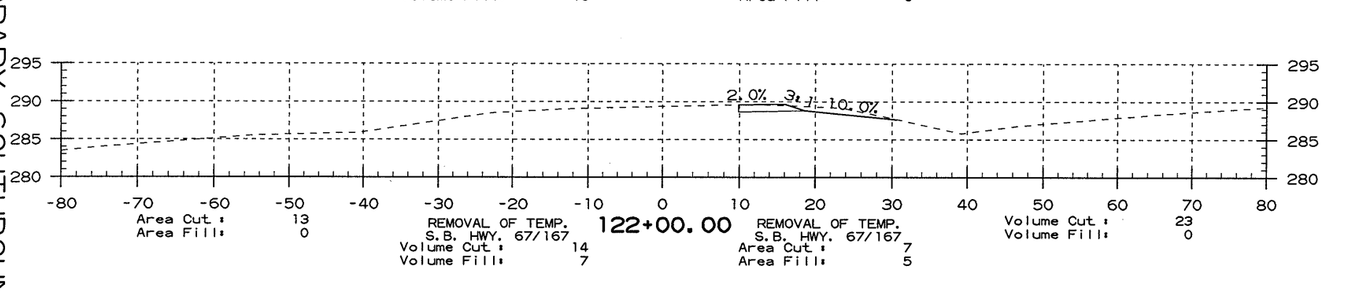


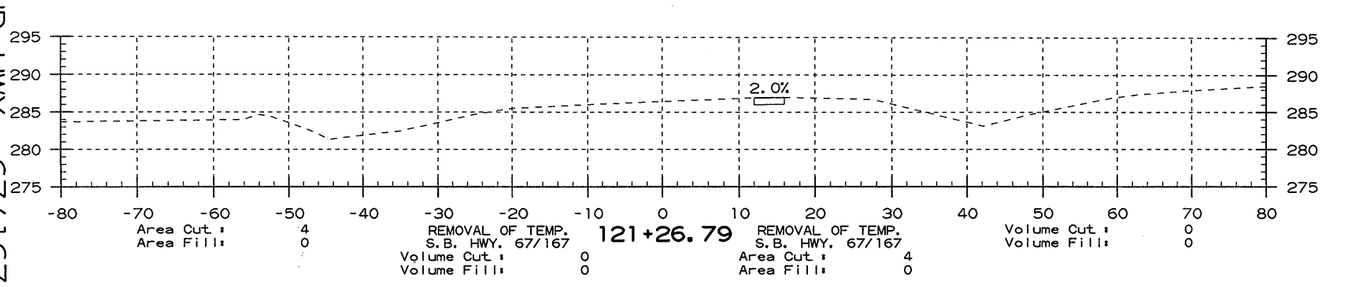








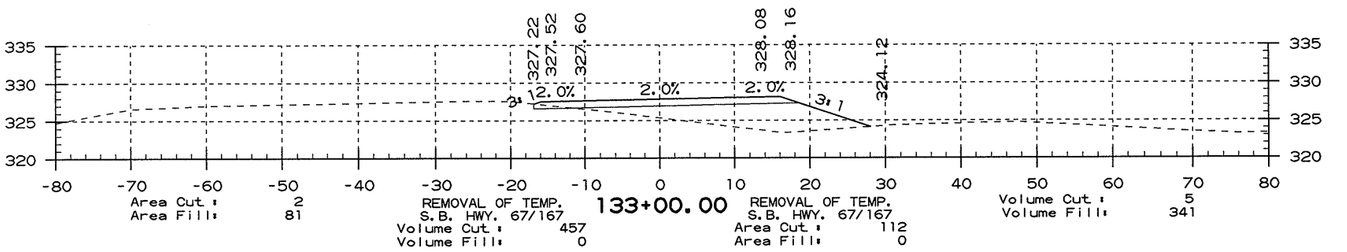




TEMPORARY SOUTHBOUND HWY. 67/167
FOR MAINTENANCE OF TRAFFIC

2 CROSS SECTIONS

JOB NO.	R60080
FED.RD. DIST.NO.	6
STATE	ARK.
FED.AID PROJ.NO.	
SHEET NO.	
TOTAL SHEETS	
DATE FILMED	
DATE REVISED	
DATE FILMED	
DATE REVISED	



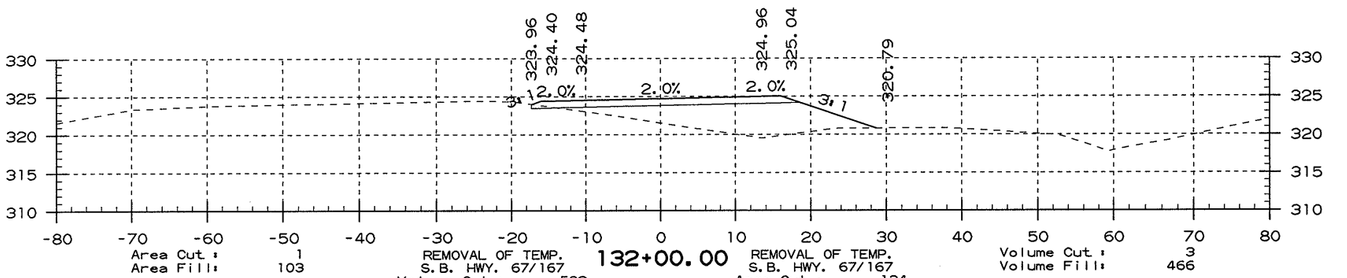
Area Cut : 2
Area Fill: 81

REMOVAL OF TEMP.
S.B. HWY. 67/167
Volume Cut : 457
Volume Fill: 0

133+00.00

REMOVAL OF TEMP.
S.B. HWY. 67/167
Area Cut : 112
Area Fill: 0

Volume Cut : 5
Volume Fill: 341



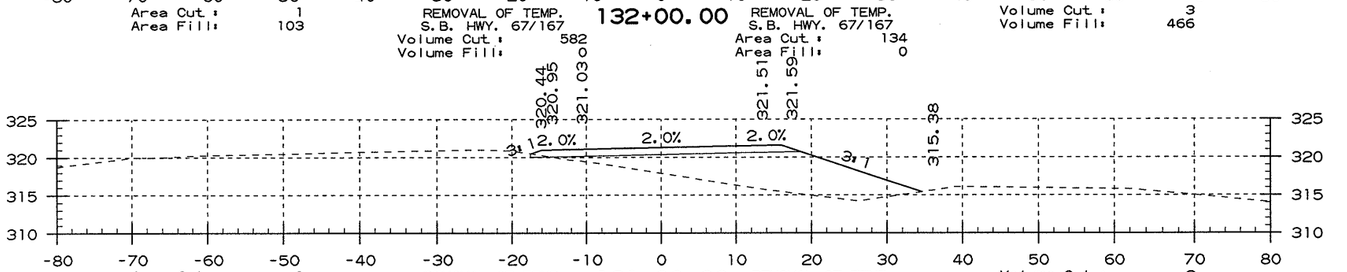
Area Cut : 1
Area Fill: 103

REMOVAL OF TEMP.
S.B. HWY. 67/167
Volume Cut : 582
Volume Fill: 0

132+00.00

REMOVAL OF TEMP.
S.B. HWY. 67/167
Area Cut : 134
Area Fill: 0

Volume Cut : 3
Volume Fill: 466



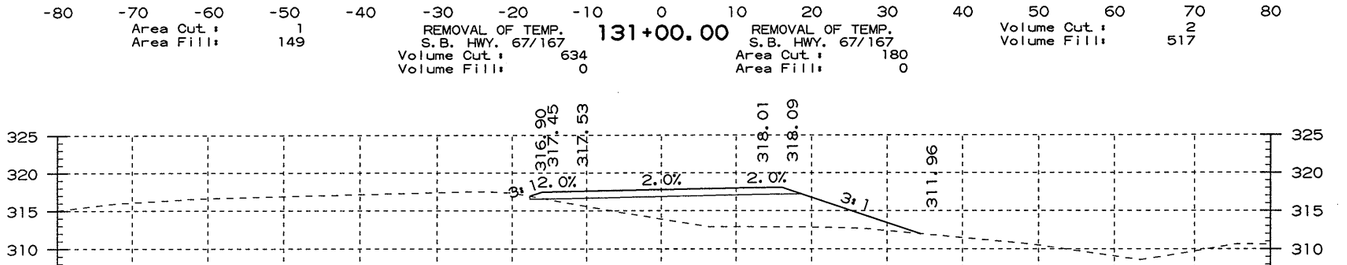
Area Cut : 1
Area Fill: 149

REMOVAL OF TEMP.
S.B. HWY. 67/167
Volume Cut : 634
Volume Fill: 0

131+00.00

REMOVAL OF TEMP.
S.B. HWY. 67/167
Area Cut : 180
Area Fill: 0

Volume Cut : 2
Volume Fill: 517



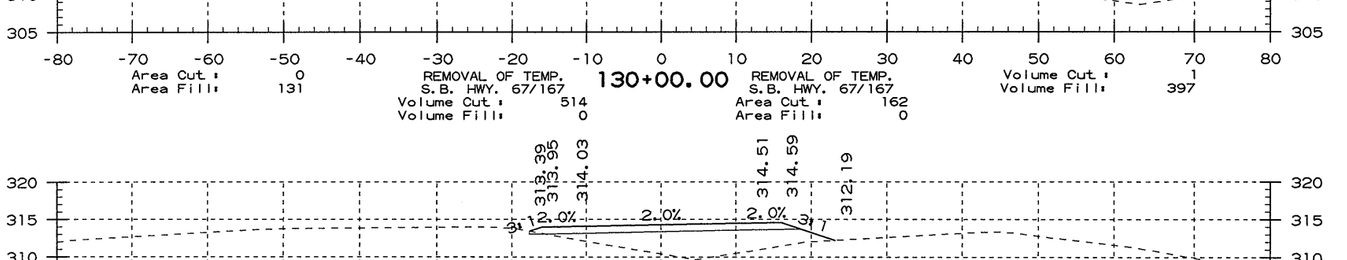
Area Cut : 0
Area Fill: 131

REMOVAL OF TEMP.
S.B. HWY. 67/167
Volume Cut : 514
Volume Fill: 0

130+00.00

REMOVAL OF TEMP.
S.B. HWY. 67/167
Area Cut : 162
Area Fill: 0

Volume Cut : 1
Volume Fill: 397



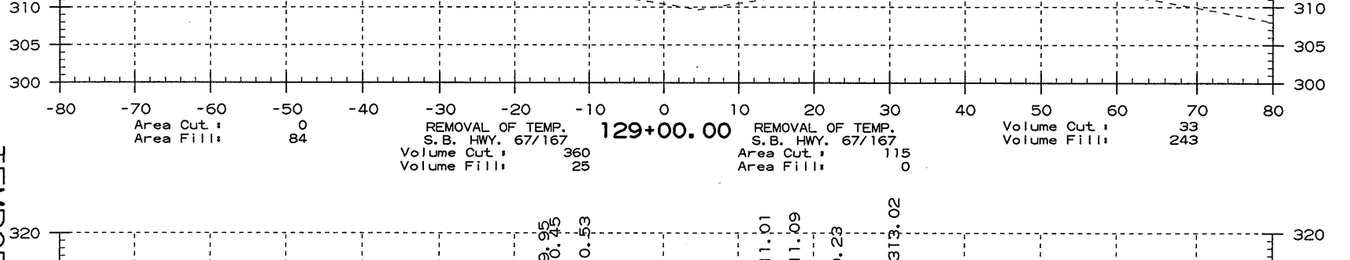
Area Cut : 0
Area Fill: 84

REMOVAL OF TEMP.
S.B. HWY. 67/167
Volume Cut : 360
Volume Fill: 25

129+00.00

REMOVAL OF TEMP.
S.B. HWY. 67/167
Area Cut : 115
Area Fill: 0

Volume Cut : 33
Volume Fill: 243



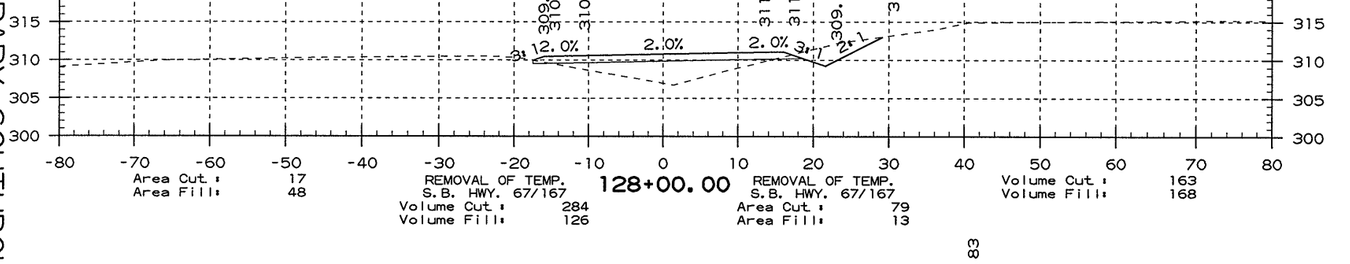
Area Cut : 17
Area Fill: 48

REMOVAL OF TEMP.
S.B. HWY. 67/167
Volume Cut : 284
Volume Fill: 126

128+00.00

REMOVAL OF TEMP.
S.B. HWY. 67/167
Area Cut : 79
Area Fill: 13

Volume Cut : 163
Volume Fill: 168



Area Cut : 71
Area Fill: 43

REMOVAL OF TEMP.
S.B. HWY. 67/167
Volume Cut : 264
Volume Fill: 210

127+00.00

REMOVAL OF TEMP.
S.B. HWY. 67/167
Area Cut : 74
Area Fill: 55

Volume Cut : 264
Volume Fill: 148

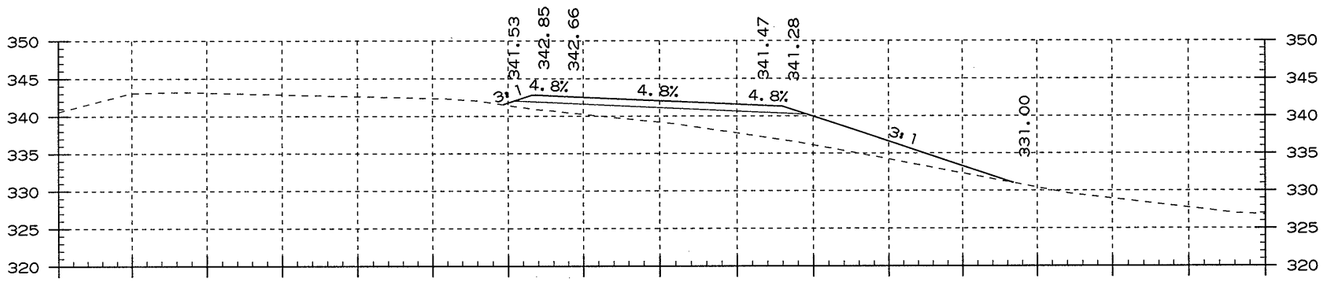
TEMPORARY SOUTHBOUND HWY. 67/167
FOR MAINTENANCE OF TRAFFIC

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.		6D	69

JOB NO. R60080

(2) CROSS SECTIONS



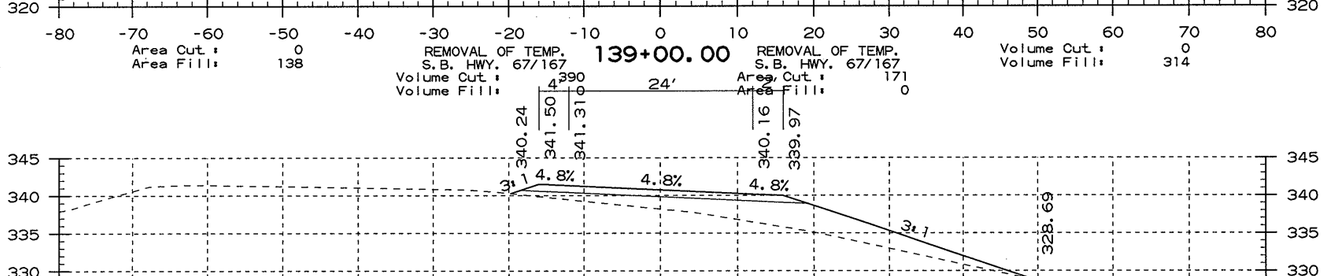
Area Cut : 0
Area Fill: 138

REMOVAL OF TEMP.
S.B. HWY. 67/167
Volume Cut : 390
Volume Fill: 0

139+00.00

REMOVAL OF TEMP.
S.B. HWY. 67/167
Area Cut : 171
Area Fill: 0

Volume Cut : 0
Volume Fill: 314



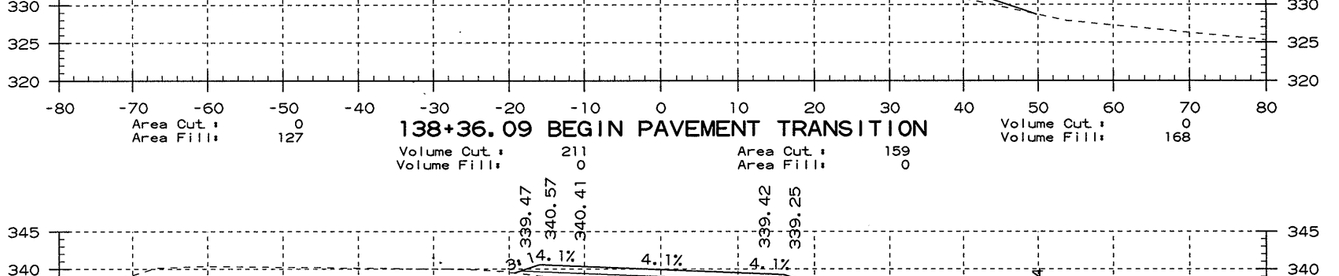
Area Cut : 0
Area Fill: 127

138+36.09 BEGIN PAVEMENT TRANSITION

Volume Cut : 211
Volume Fill: 0

Area Cut : 159
Area Fill: 0

Volume Cut : 0
Volume Fill: 168



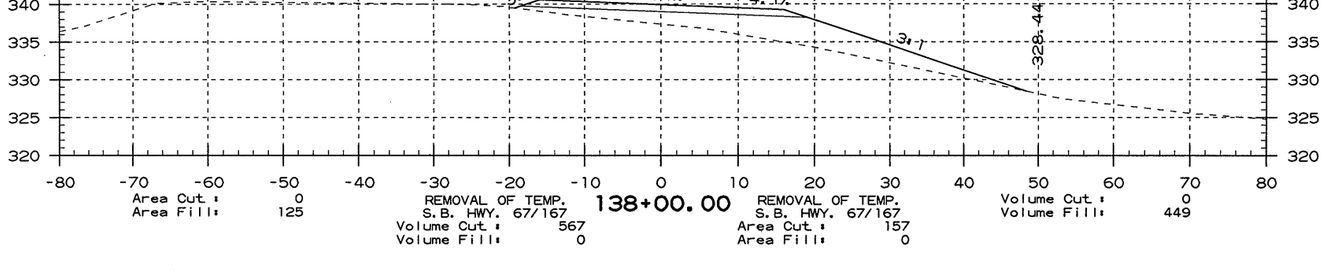
Area Cut : 0
Area Fill: 125

REMOVAL OF TEMP.
S.B. HWY. 67/167
Volume Cut : 567
Volume Fill: 0

138+00.00

REMOVAL OF TEMP.
S.B. HWY. 67/167
Area Cut : 157
Area Fill: 0

Volume Cut : 0
Volume Fill: 449



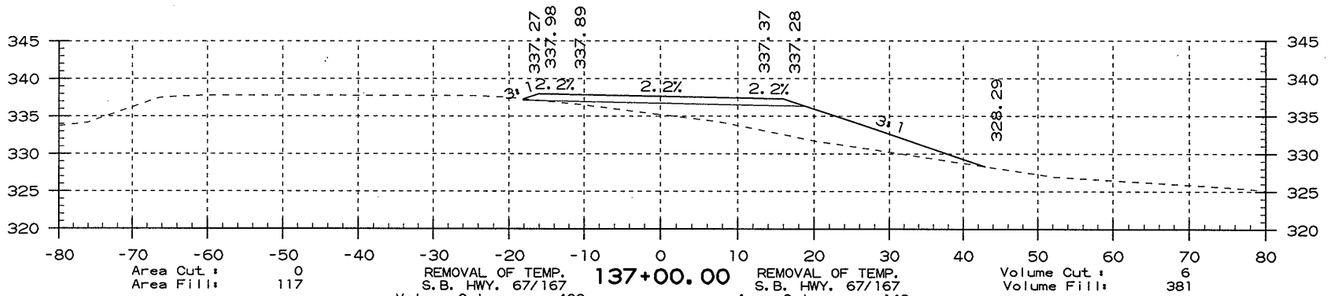
Area Cut : 0
Area Fill: 117

REMOVAL OF TEMP.
S.B. HWY. 67/167
Volume Cut : 498
Volume Fill: 0

137+00.00

REMOVAL OF TEMP.
S.B. HWY. 67/167
Area Cut : 149
Area Fill: 0

Volume Cut : 6
Volume Fill: 381



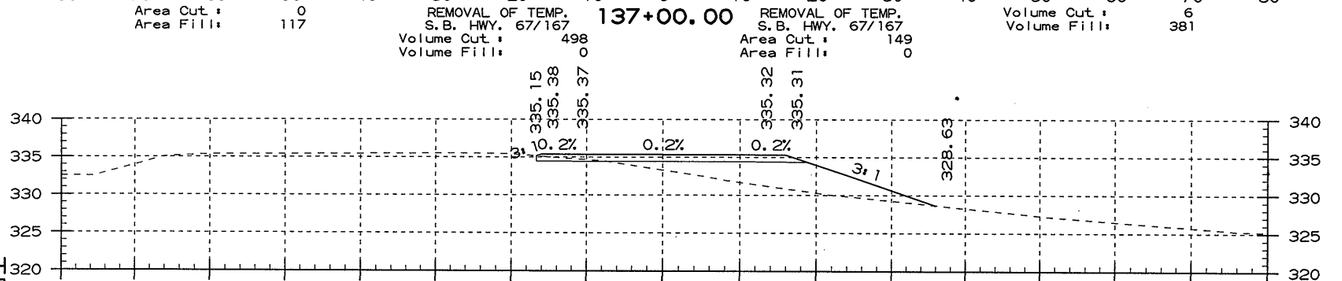
Area Cut : 3
Area Fill: 88

REMOVAL OF TEMP.
S.B. HWY. 67/167
Volume Cut : 407
Volume Fill: 0

136+00.00

REMOVAL OF TEMP.
S.B. HWY. 67/167
Area Cut : 120
Area Fill: 0

Volume Cut : 15
Volume Fill: 292



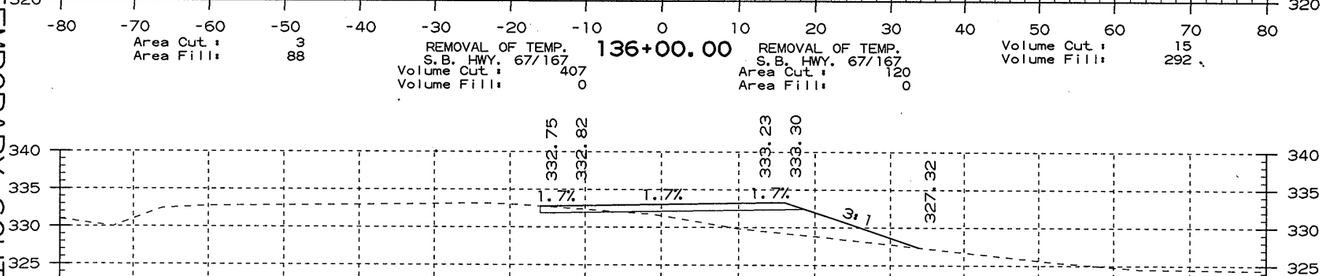
Area Cut : 5
Area Fill: 70

REMOVAL OF TEMP.
S.B. HWY. 67/167
Volume Cut : 345
Volume Fill: 0

135+00.00

REMOVAL OF TEMP.
S.B. HWY. 67/167
Area Cut : 100
Area Fill: 0

Volume Cut : 14
Volume Fill: 231



Area Cut : 3
Area Fill: 55

REMOVAL OF TEMP.
S.B. HWY. 67/167
Volume Cut : 368
Volume Fill: 0

134+00.00

REMOVAL OF TEMP.
S.B. HWY. 67/167
Area Cut : 86
Area Fill: 0

Volume Cut : 8
Volume Fill: 252

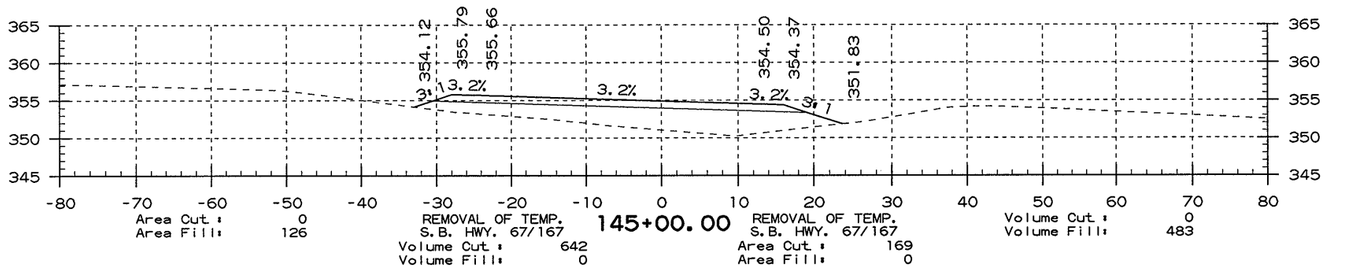
TEMPORARY SOUTHBOUND HWY. 67/167
FOR MAINTENANCE OF TRAFFIC

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED

(2) CROSS SECTIONS

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.		8	8

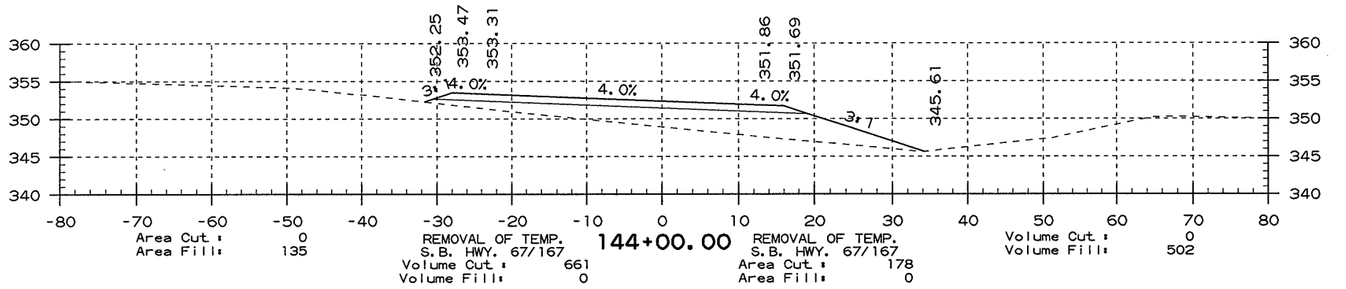
JOB NO. R60080



Area Cut : 0
Area Fill: 126
REMOVAL OF TEMP. S.B. HWY. 67/167
Volume Cut : 642
Volume Fill: 0

145+00.00

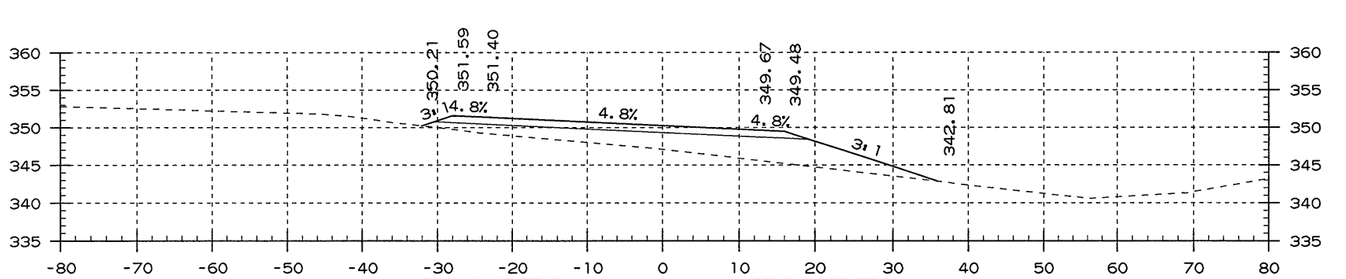
REMOVAL OF TEMP. S.B. HWY. 67/167
Area Cut : 169
Area Fill: 0
Volume Cut : 0
Volume Fill: 483



Area Cut : 0
Area Fill: 135
REMOVAL OF TEMP. S.B. HWY. 67/167
Volume Cut : 661
Volume Fill: 0

144+00.00

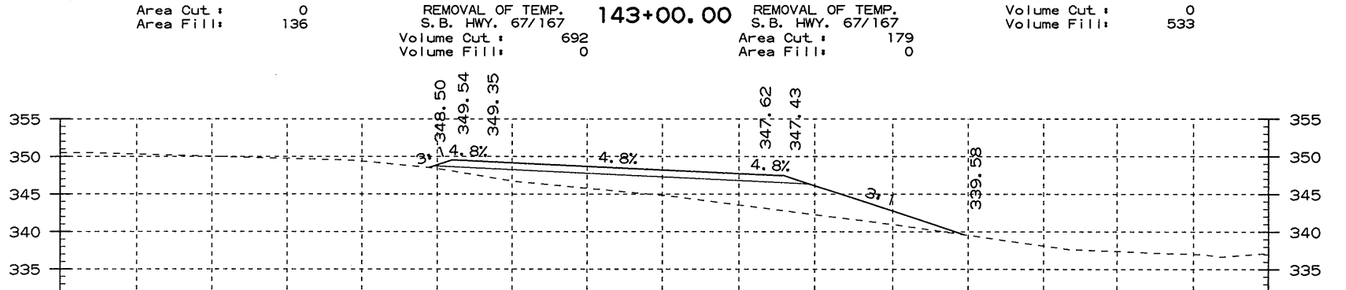
REMOVAL OF TEMP. S.B. HWY. 67/167
Area Cut : 178
Area Fill: 0
Volume Cut : 0
Volume Fill: 502



Area Cut : 0
Area Fill: 136
REMOVAL OF TEMP. S.B. HWY. 67/167
Volume Cut : 692
Volume Fill: 0

143+00.00

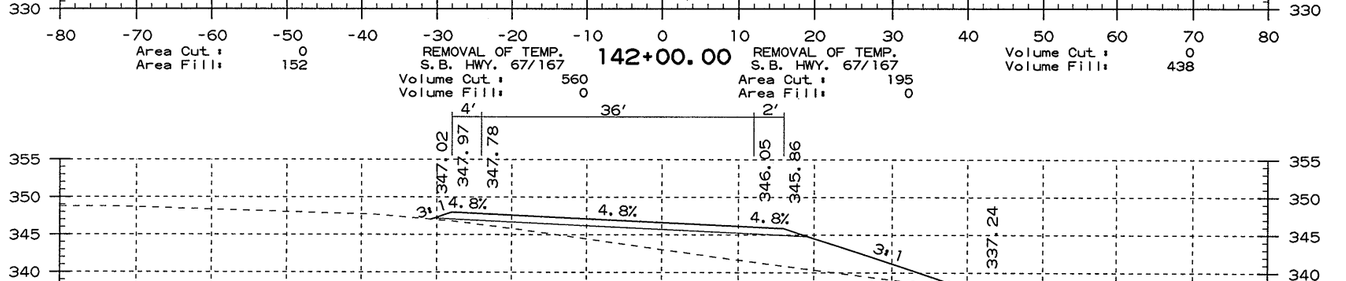
REMOVAL OF TEMP. S.B. HWY. 67/167
Area Cut : 179
Area Fill: 0
Volume Cut : 0
Volume Fill: 533



Area Cut : 0
Area Fill: 152
REMOVAL OF TEMP. S.B. HWY. 67/167
Volume Cut : 560
Volume Fill: 0

142+00.00

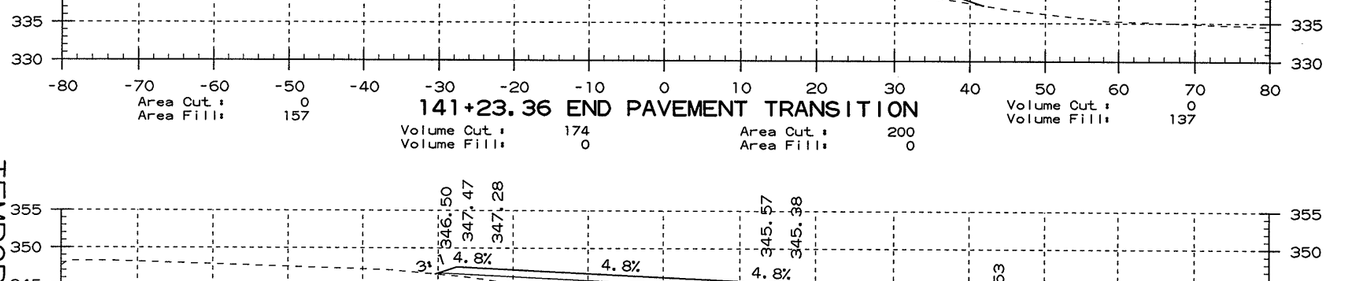
REMOVAL OF TEMP. S.B. HWY. 67/167
Area Cut : 195
Area Fill: 0
Volume Cut : 0
Volume Fill: 438



Area Cut : 0
Area Fill: 157
REMOVAL OF TEMP. S.B. HWY. 67/167
Volume Cut : 174
Volume Fill: 0

141+23.36 END PAVEMENT TRANSITION

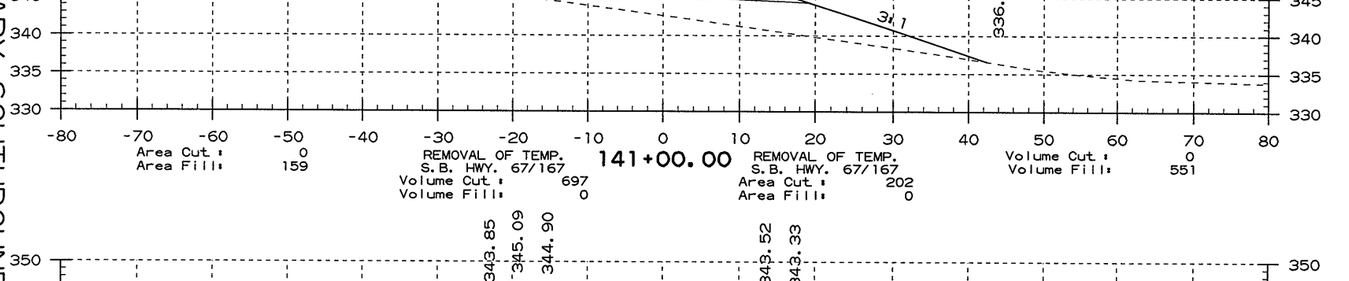
REMOVAL OF TEMP. S.B. HWY. 67/167
Area Cut : 200
Area Fill: 0
Volume Cut : 0
Volume Fill: 137



Area Cut : 0
Area Fill: 159
REMOVAL OF TEMP. S.B. HWY. 67/167
Volume Cut : 697
Volume Fill: 0

141+00.00

REMOVAL OF TEMP. S.B. HWY. 67/167
Area Cut : 202
Area Fill: 0
Volume Cut : 0
Volume Fill: 551



Area Cut : 0
Area Fill: 139
REMOVAL OF TEMP. S.B. HWY. 67/167
Volume Cut : 640
Volume Fill: 0

140+00.00

REMOVAL OF TEMP. S.B. HWY. 67/167
Area Cut : 175
Area Fill: 0
Volume Cut : 0
Volume Fill: 513

TEMPORARY SOUTHBOUND HWY. 67/167
FOR MAINTENANCE OF TRAFFIC

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

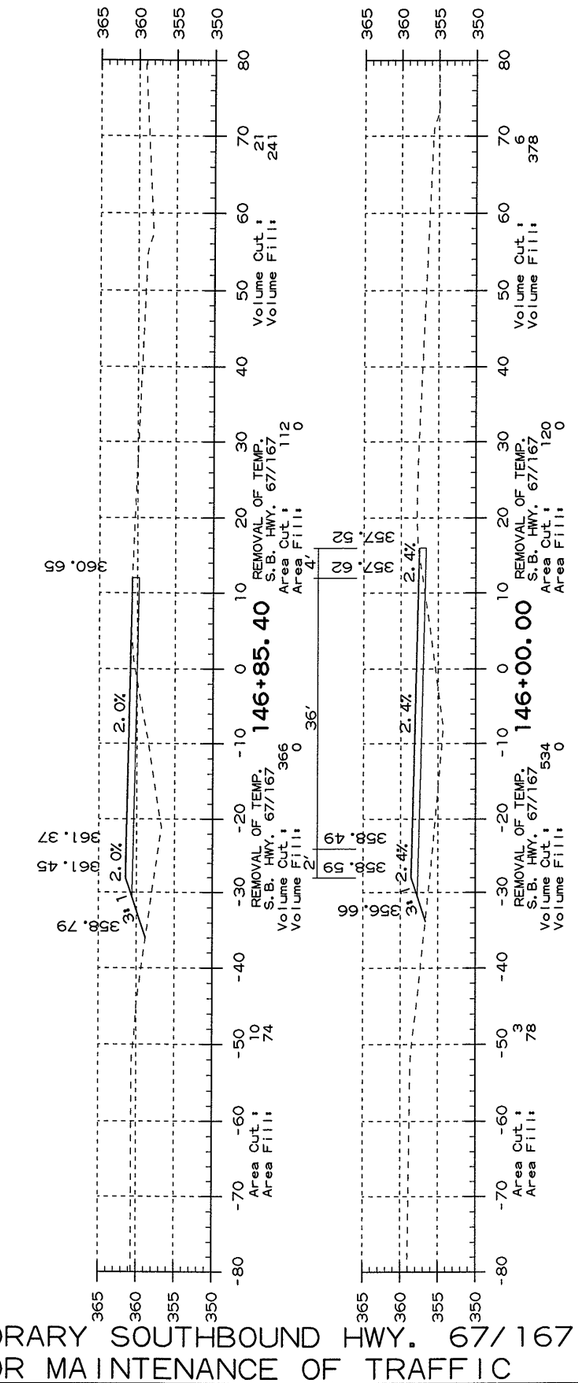
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			

JOB NO. R60080

(2) CROSS SECTIONS

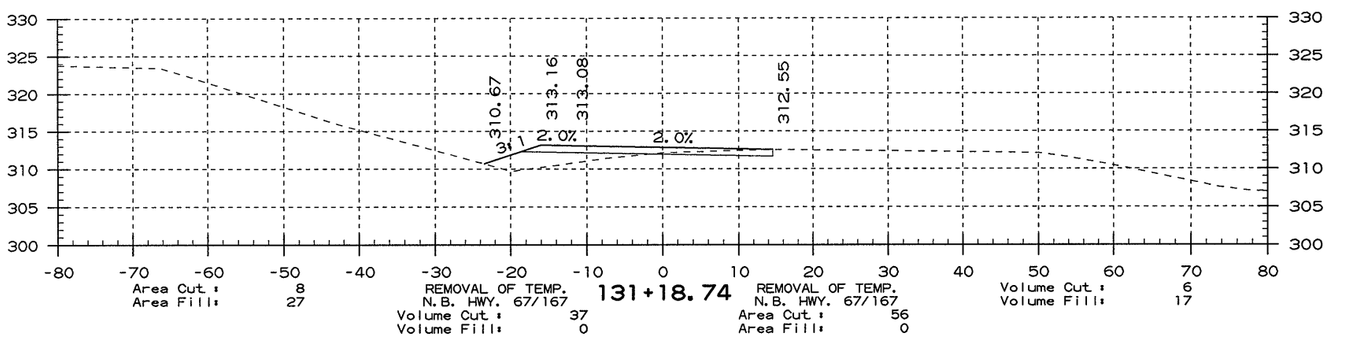
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R60080		503	509

(2) CROSS SECTIONS



TEMPORARY SOUTHBOUND HWY. 67/167
FOR MAINTENANCE OF TRAFFIC

07-19-2005 RR60080.CRSS



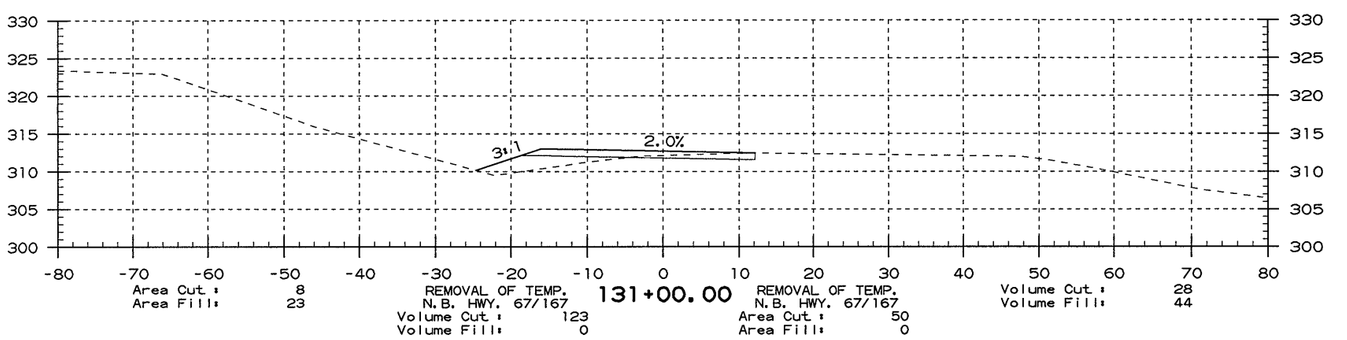
Area Cut : 8
Area Fill: 27

REMOVAL OF TEMP.
N.B. HWY. 67/167
Volume Cut : 37
Volume Fill: 0

131+18.74

REMOVAL OF TEMP.
N.B. HWY. 67/167
Area Cut : 56
Area Fill: 0

Volume Cut : 6
Volume Fill: 17



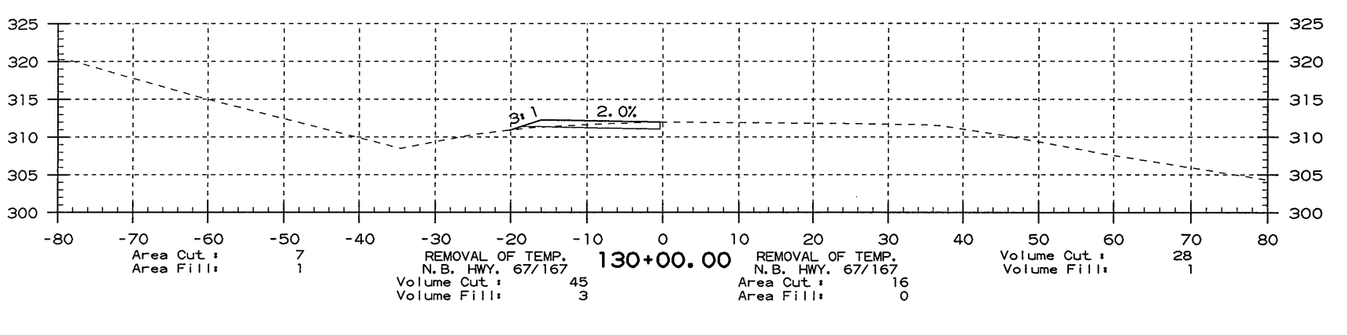
Area Cut : 8
Area Fill: 23

REMOVAL OF TEMP.
N.B. HWY. 67/167
Volume Cut : 123
Volume Fill: 0

131+00.00

REMOVAL OF TEMP.
N.B. HWY. 67/167
Area Cut : 50
Area Fill: 0

Volume Cut : 28
Volume Fill: 44



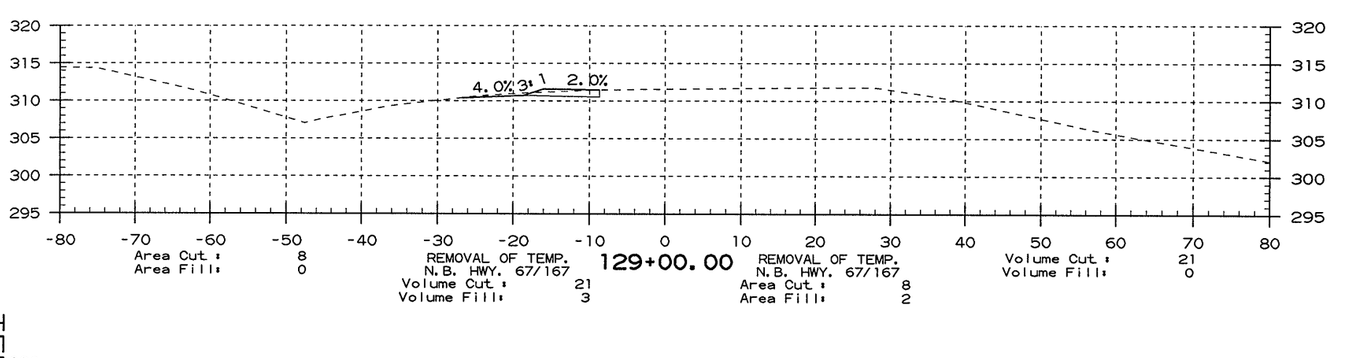
Area Cut : 7
Area Fill: 1

REMOVAL OF TEMP.
N.B. HWY. 67/167
Volume Cut : 45
Volume Fill: 3

130+00.00

REMOVAL OF TEMP.
N.B. HWY. 67/167
Area Cut : 16
Area Fill: 0

Volume Cut : 28
Volume Fill: 1



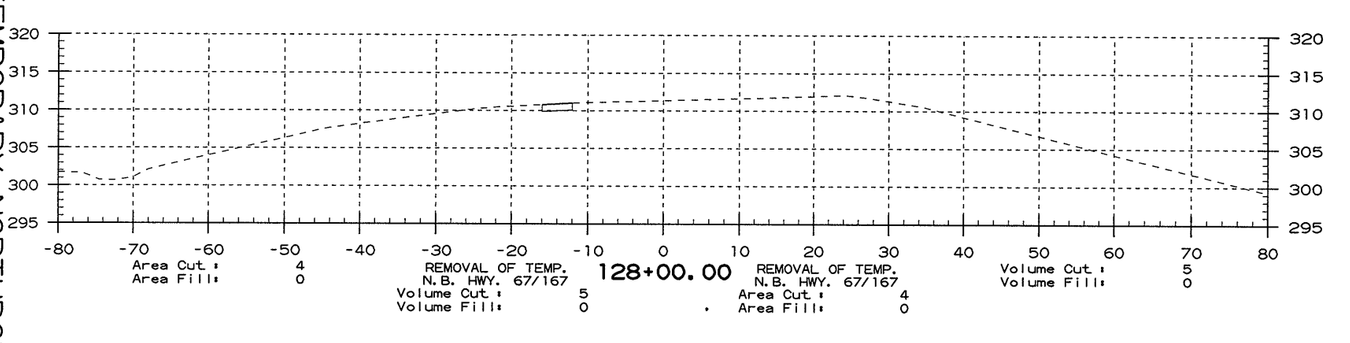
Area Cut : 8
Area Fill: 0

REMOVAL OF TEMP.
N.B. HWY. 67/167
Volume Cut : 21
Volume Fill: 3

129+00.00

REMOVAL OF TEMP.
N.B. HWY. 67/167
Area Cut : 8
Area Fill: 2

Volume Cut : 21
Volume Fill: 0



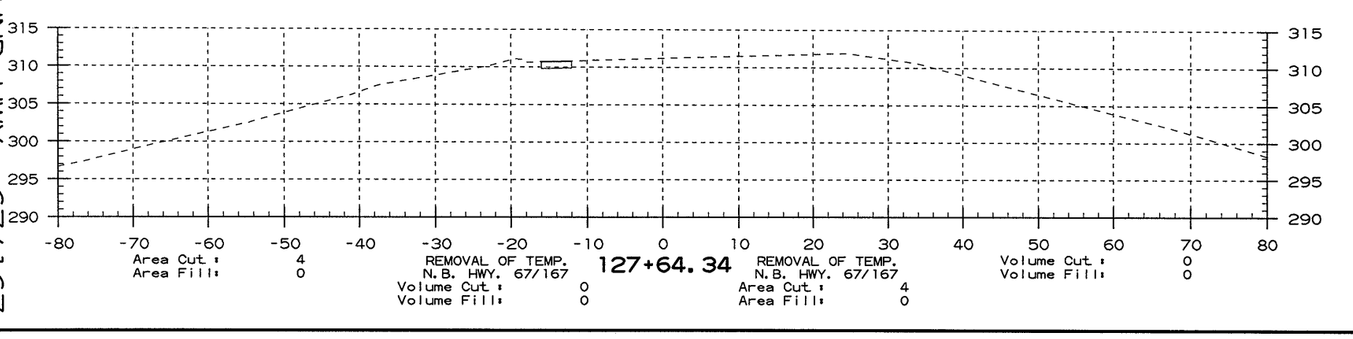
Area Cut : 4
Area Fill: 0

REMOVAL OF TEMP.
N.B. HWY. 67/167
Volume Cut : 5
Volume Fill: 0

128+00.00

REMOVAL OF TEMP.
N.B. HWY. 67/167
Area Cut : 4
Area Fill: 0

Volume Cut : 5
Volume Fill: 0



Area Cut : 4
Area Fill: 0

REMOVAL OF TEMP.
N.B. HWY. 67/167
Volume Cut : 0
Volume Fill: 0

127+64.34

REMOVAL OF TEMP.
N.B. HWY. 67/167
Area Cut : 4
Area Fill: 0

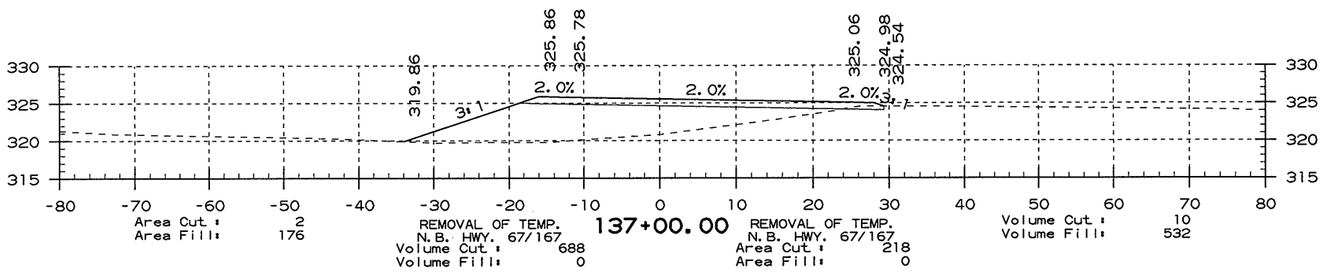
Volume Cut : 0
Volume Fill: 0

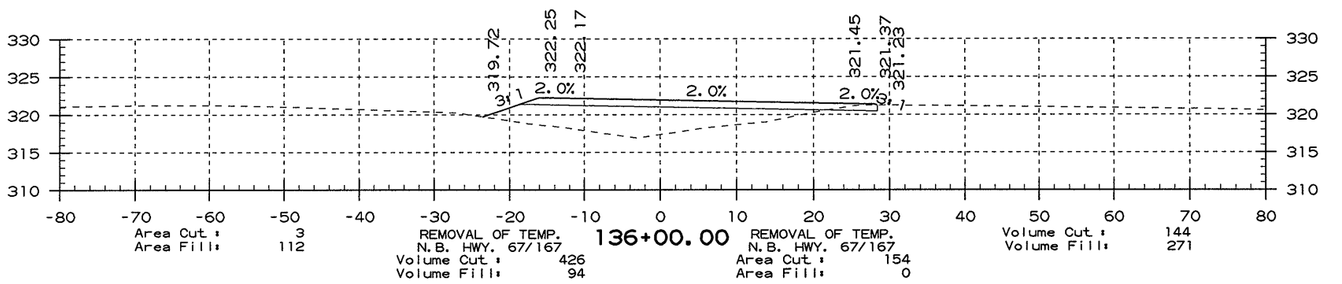
TEMPORARY NORTHBOUND HWY. 67/167
FOR MAINTENANCE OF TRAFFIC

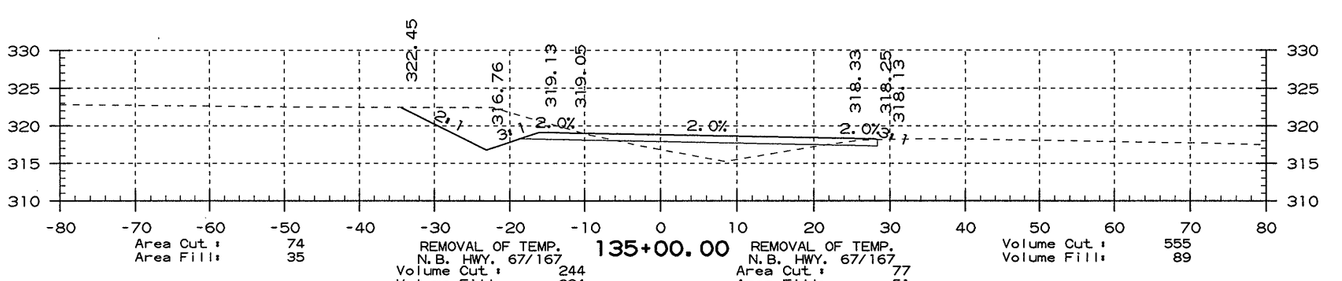
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED.RD. DIST.NO.
				6

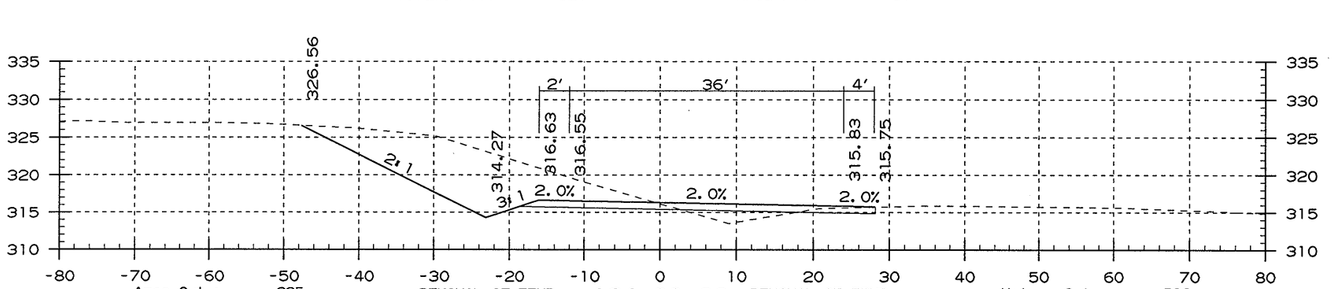
JOB NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
R60080	ARK.		004	009

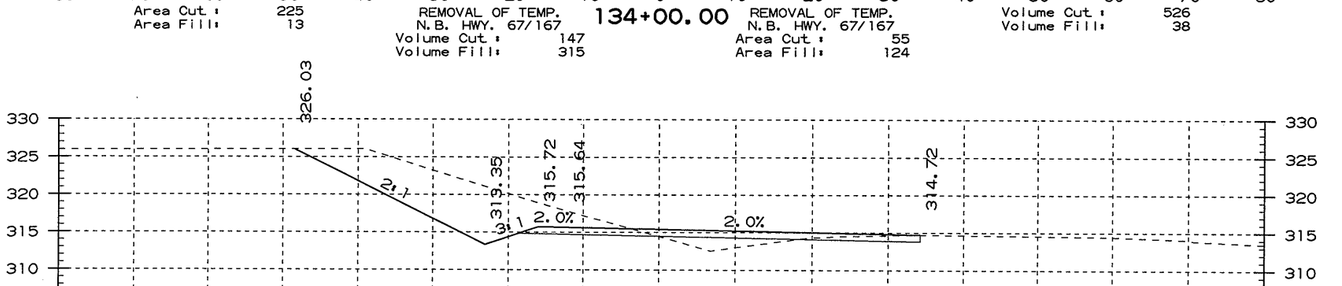
(2) CROSS SECTIONS

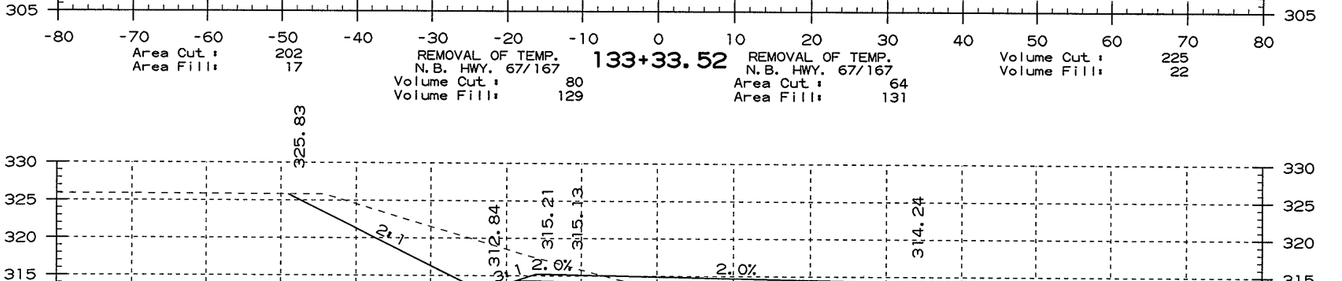


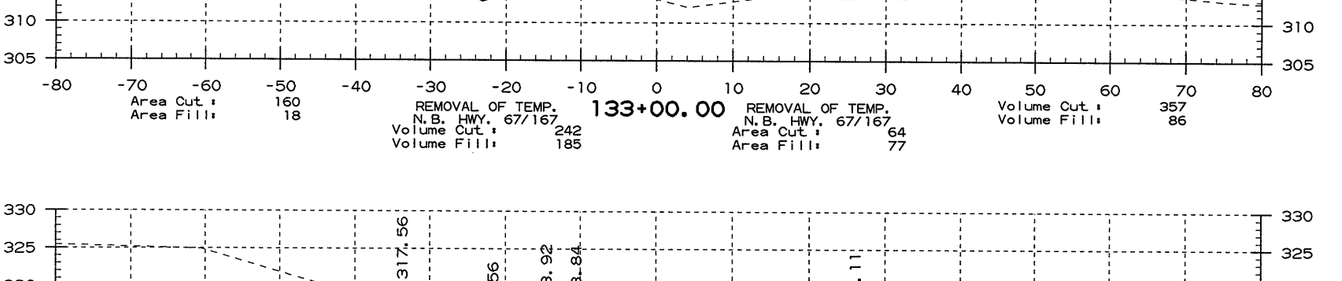








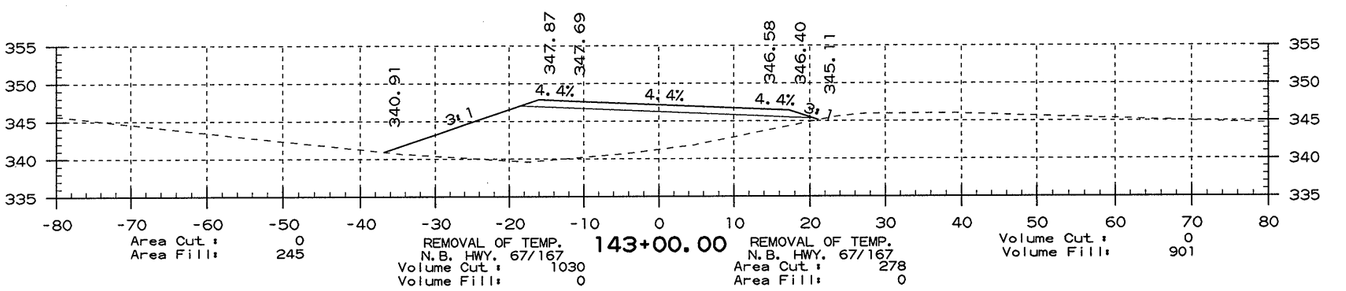


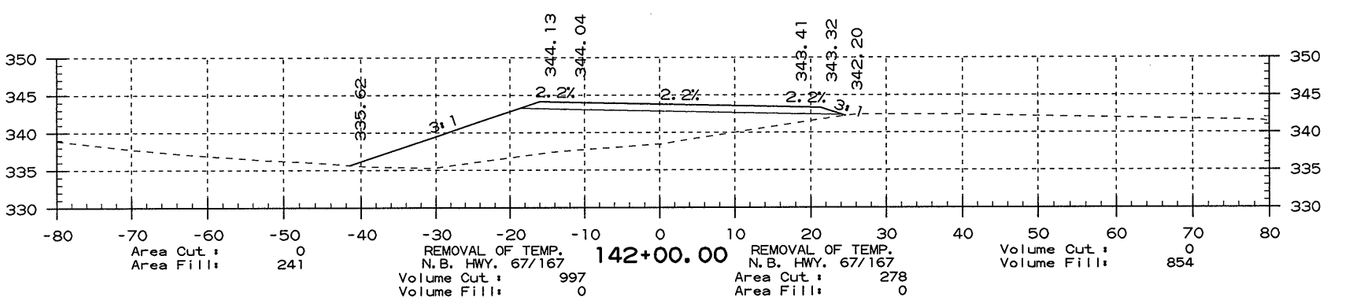


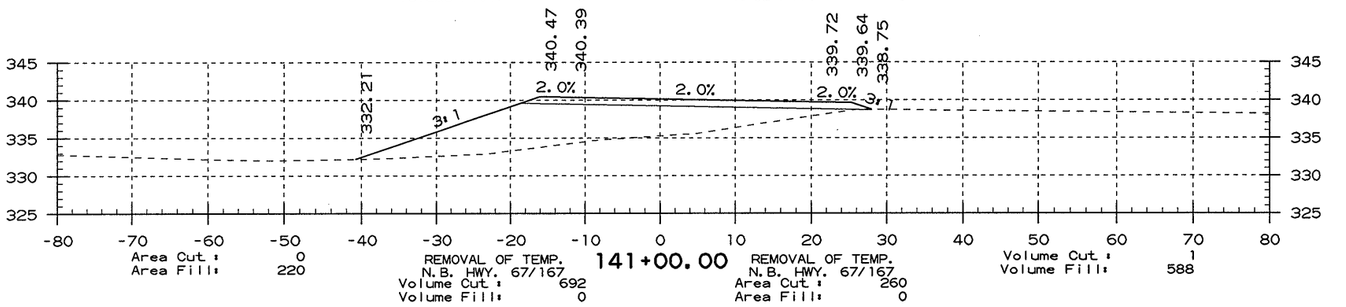
TEMPORARY NORTHBOUND HWY. 67/167
FOR MAINTENANCE OF TRAFFIC

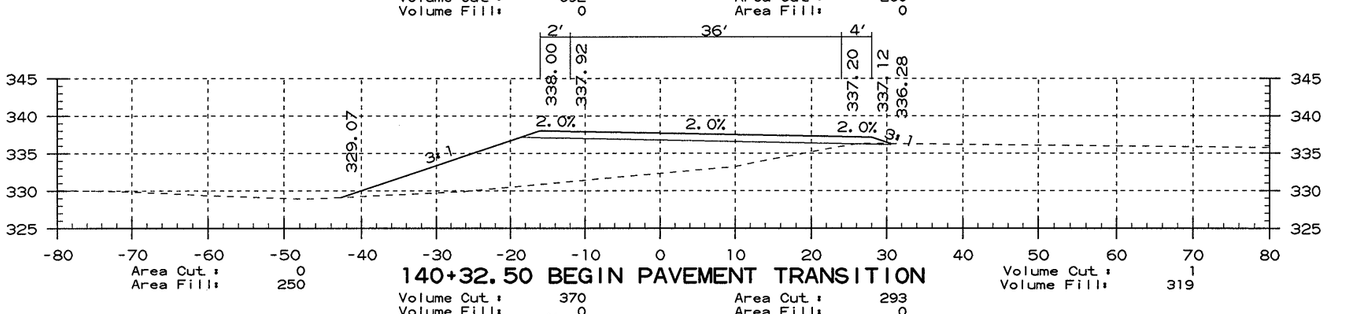
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	R60080	2	5

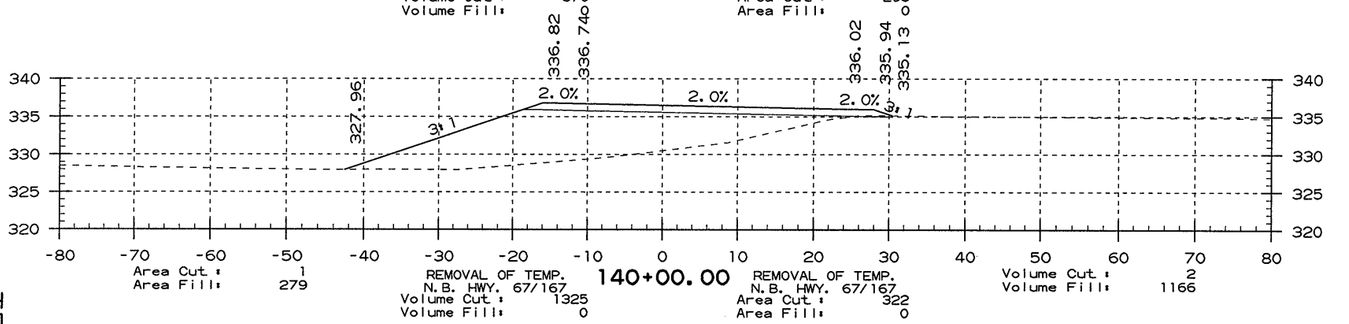
(2) CROSS SECTIONS

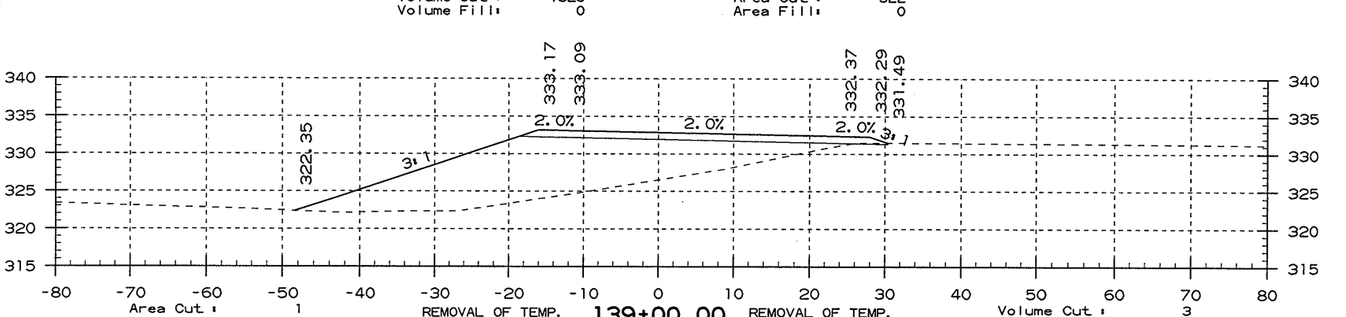


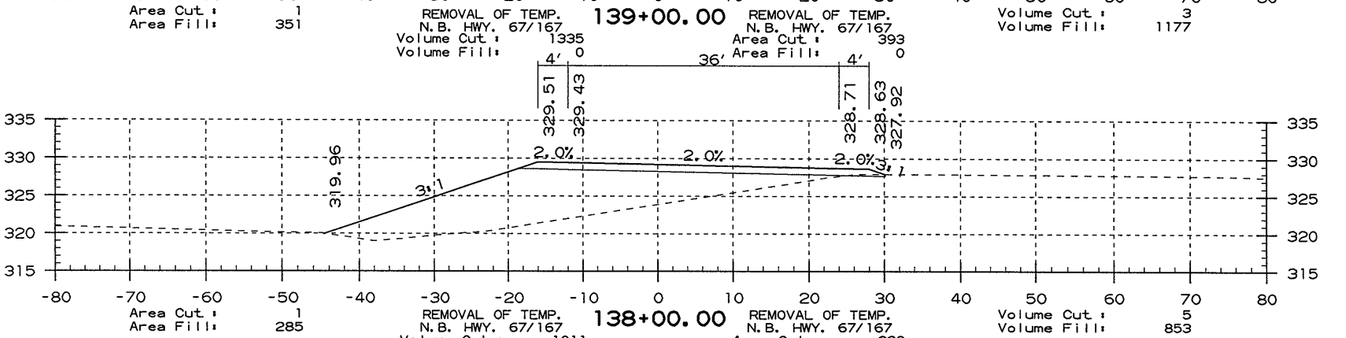












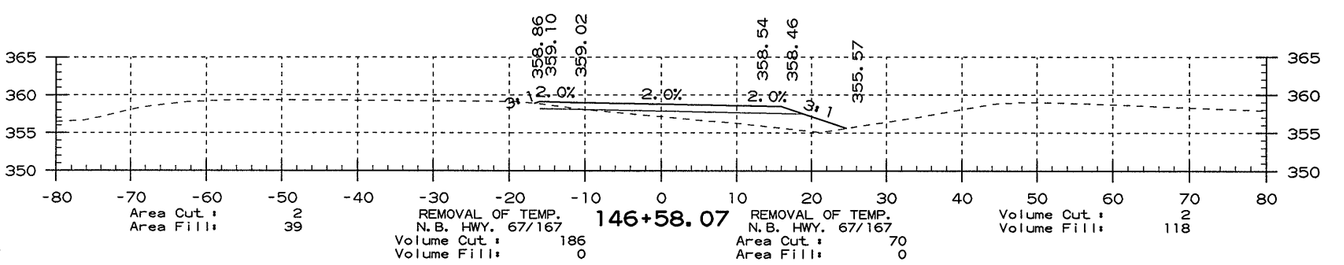
TEMPORARY NORTHBOUND HWY. 67/167
FOR MAINTENANCE OF TRAFFIC

	DATE REVISED	DATE FILED	DATE REVISED	DATE FILED

2 CROSS SECTIONS

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

JOB NO. R60080



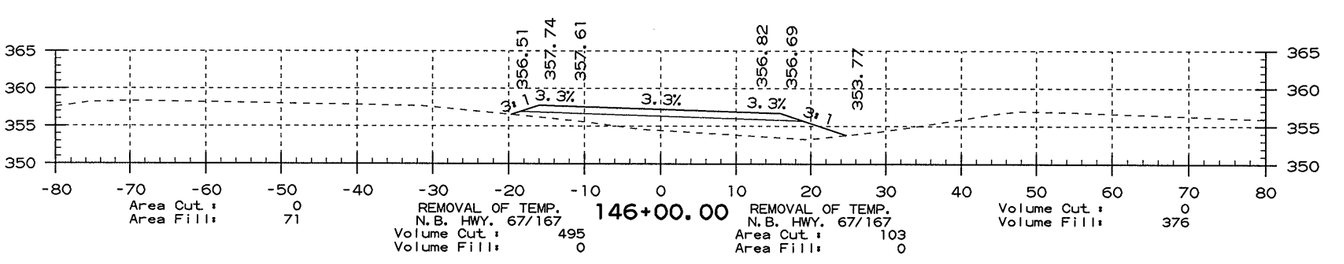
Area Cut : 2
Area Fill: 39

REMOVAL OF TEMP.
N.B. HWY. 67/167
Volume Cut : 186
Volume Fill: 0

146+58.07

REMOVAL OF TEMP.
N.B. HWY. 67/167
Area Cut : 70
Area Fill: 0

Volume Cut : 2
Volume Fill: 118



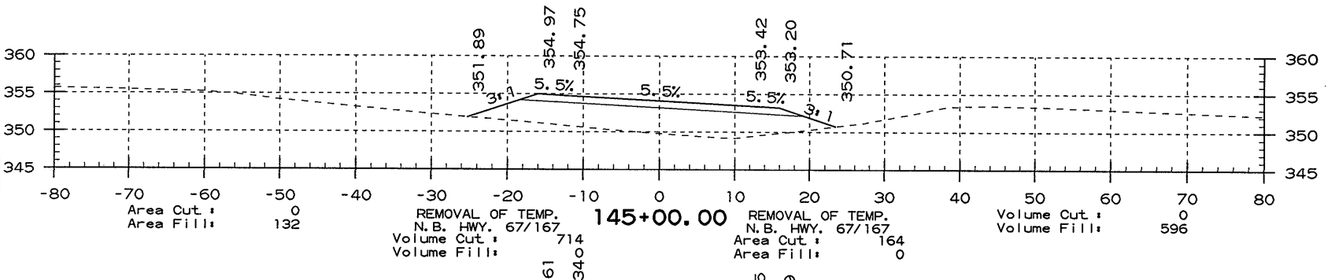
Area Cut : 0
Area Fill: 71

REMOVAL OF TEMP.
N.B. HWY. 67/167
Volume Cut : 495
Volume Fill: 0

146+00.00

REMOVAL OF TEMP.
N.B. HWY. 67/167
Area Cut : 103
Area Fill: 0

Volume Cut : 0
Volume Fill: 376



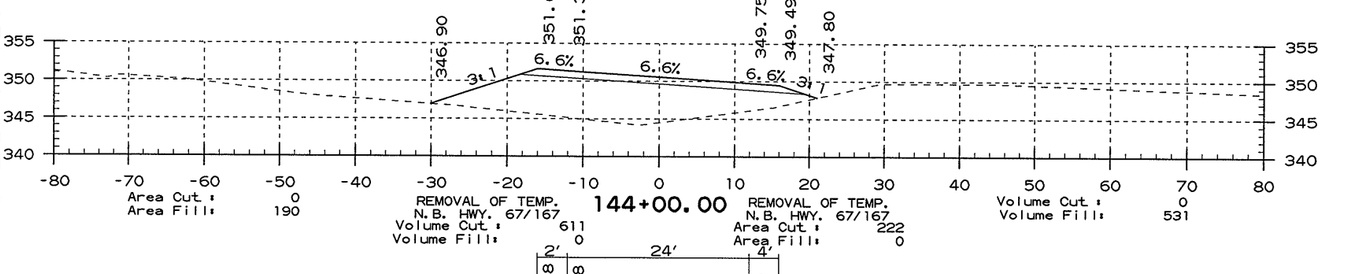
Area Cut : 0
Area Fill: 132

REMOVAL OF TEMP.
N.B. HWY. 67/167
Volume Cut : 714
Volume Fill: 0

145+00.00

REMOVAL OF TEMP.
N.B. HWY. 67/167
Area Cut : 164
Area Fill: 0

Volume Cut : 0
Volume Fill: 596



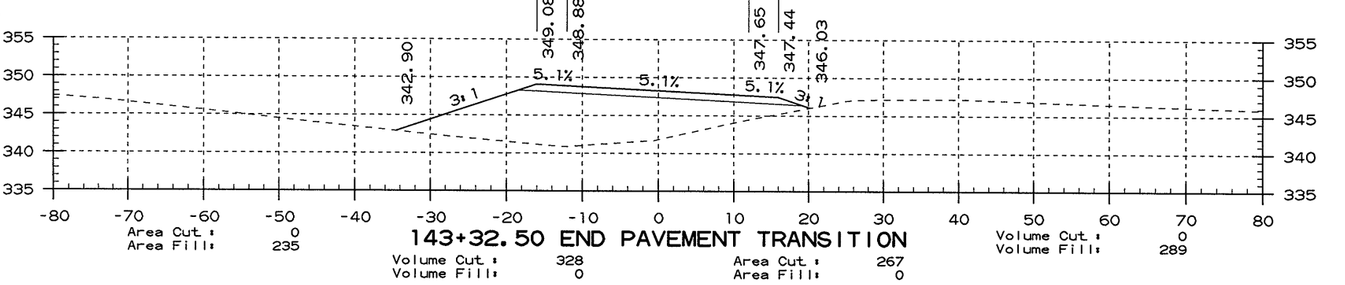
Area Cut : 0
Area Fill: 190

REMOVAL OF TEMP.
N.B. HWY. 67/167
Volume Cut : 611
Volume Fill: 0

144+00.00

REMOVAL OF TEMP.
N.B. HWY. 67/167
Area Cut : 222
Area Fill: 0

Volume Cut : 0
Volume Fill: 531



Area Cut : 0
Area Fill: 235

143+32.50 END PAVEMENT TRANSITION

Volume Cut : 328
Volume Fill: 0

Area Cut : 267
Area Fill: 0

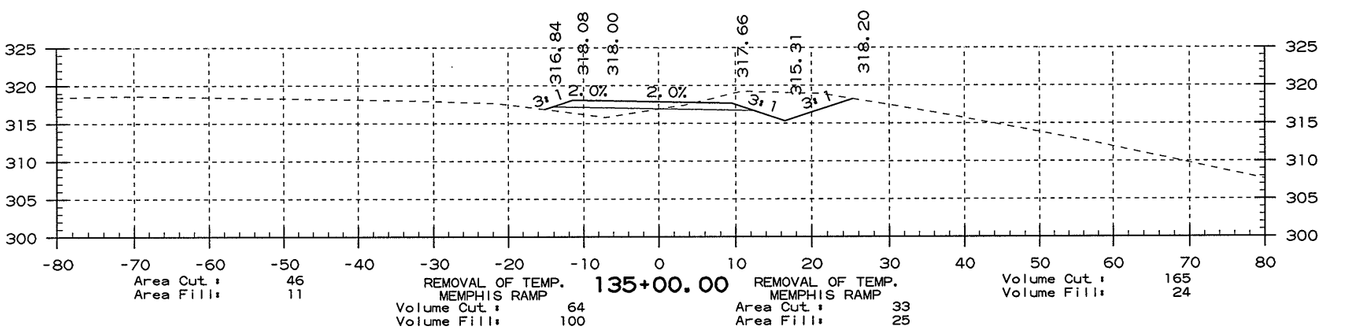
Volume Cut : 0
Volume Fill: 289

TEMPORARY NORTHBOUND HWY. 67/167
FOR MAINTENANCE OF TRAFFIC

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

JOB NO. R60080

(2) CROSS SECTIONS



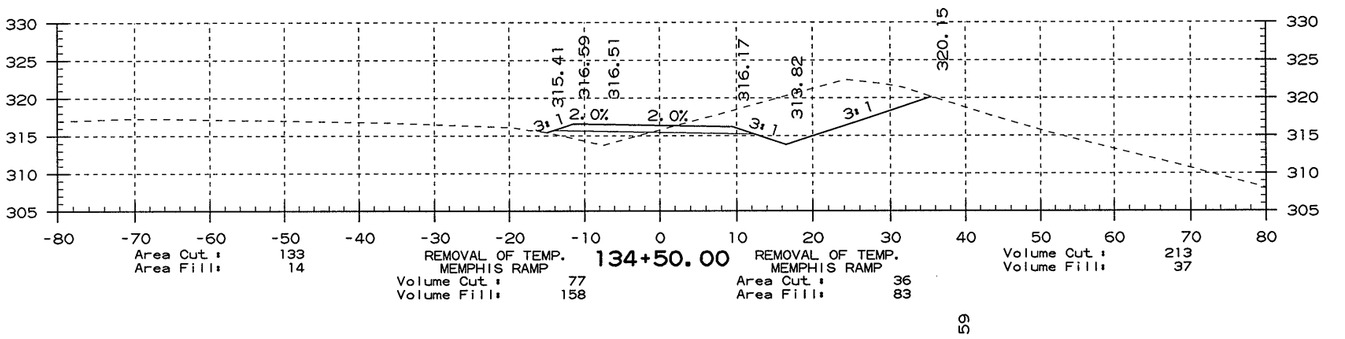
Area Cut : 46
Area Fill: 11

REMOVAL OF TEMP. MEMPHIS RAMP
Volume Cut : 64
Volume Fill: 100

135+00.00

REMOVAL OF TEMP. MEMPHIS RAMP
Area Cut : 33
Area Fill: 25

Volume Cut : 165
Volume Fill: 24



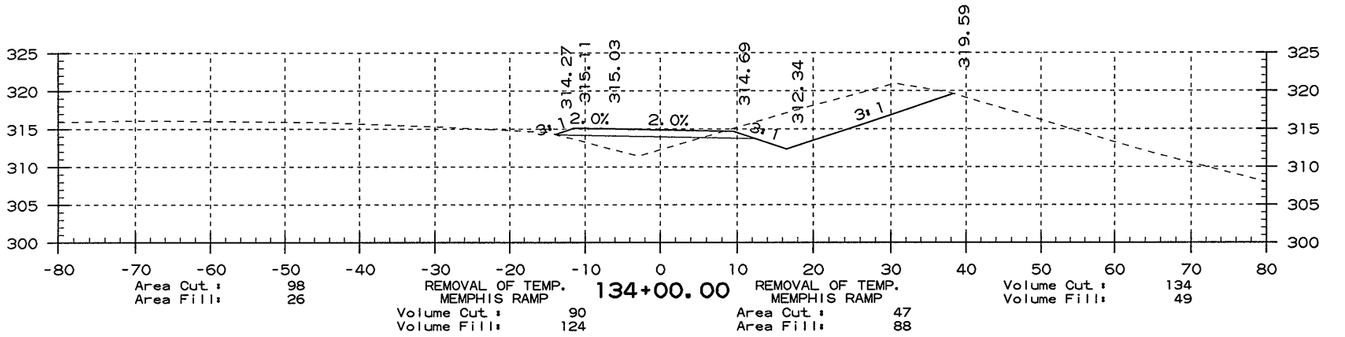
Area Cut : 133
Area Fill: 14

REMOVAL OF TEMP. MEMPHIS RAMP
Volume Cut : 77
Volume Fill: 158

134+50.00

REMOVAL OF TEMP. MEMPHIS RAMP
Area Cut : 36
Area Fill: 83

Volume Cut : 213
Volume Fill: 37



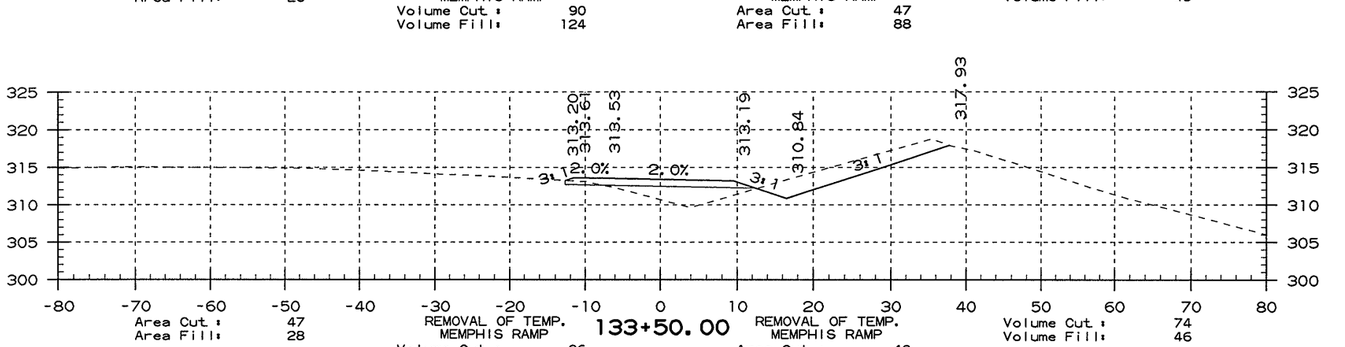
Area Cut : 98
Area Fill: 26

REMOVAL OF TEMP. MEMPHIS RAMP
Volume Cut : 90
Volume Fill: 124

134+00.00

REMOVAL OF TEMP. MEMPHIS RAMP
Area Cut : 47
Area Fill: 88

Volume Cut : 134
Volume Fill: 49



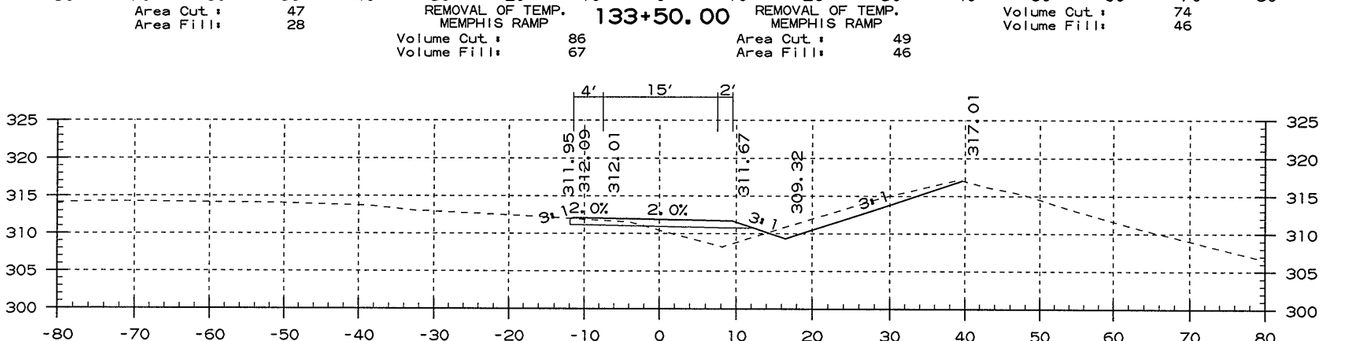
Area Cut : 47
Area Fill: 28

REMOVAL OF TEMP. MEMPHIS RAMP
Volume Cut : 86
Volume Fill: 67

133+50.00

REMOVAL OF TEMP. MEMPHIS RAMP
Area Cut : 49
Area Fill: 46

Volume Cut : 74
Volume Fill: 46



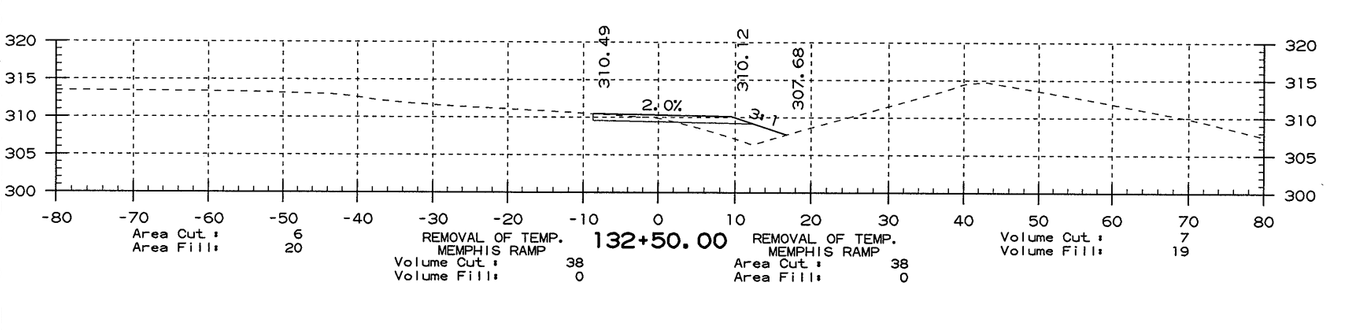
Area Cut : 32
Area Fill: 22

REMOVAL OF TEMP. MEMPHIS RAMP
Volume Cut : 75
Volume Fill: 25

133+00.00

REMOVAL OF TEMP. MEMPHIS RAMP
Area Cut : 43
Area Fill: 27

Volume Cut : 36
Volume Fill: 39



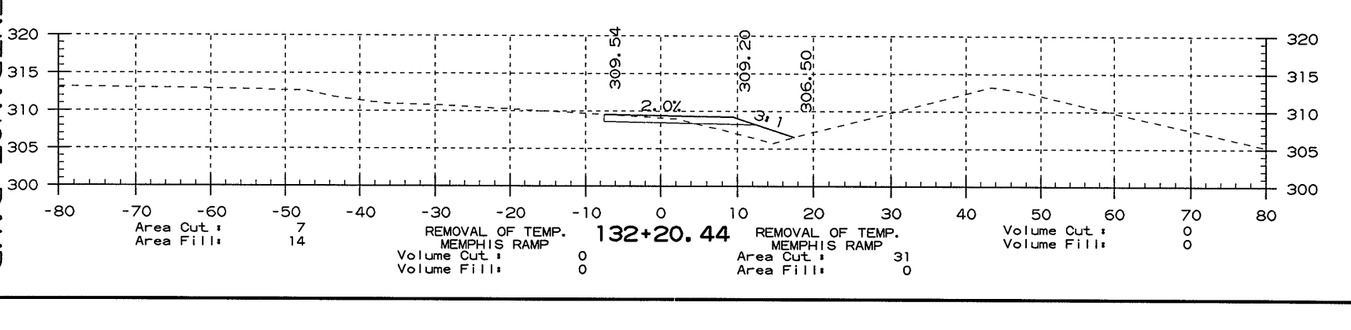
Area Cut : 6
Area Fill: 20

REMOVAL OF TEMP. MEMPHIS RAMP
Volume Cut : 38
Volume Fill: 0

132+50.00

REMOVAL OF TEMP. MEMPHIS RAMP
Area Cut : 38
Area Fill: 0

Volume Cut : 7
Volume Fill: 19



Area Cut : 7
Area Fill: 14

REMOVAL OF TEMP. MEMPHIS RAMP
Volume Cut : 0
Volume Fill: 0

132+20.44

REMOVAL OF TEMP. MEMPHIS RAMP
Area Cut : 31
Area Fill: 0

Volume Cut : 0
Volume Fill: 0

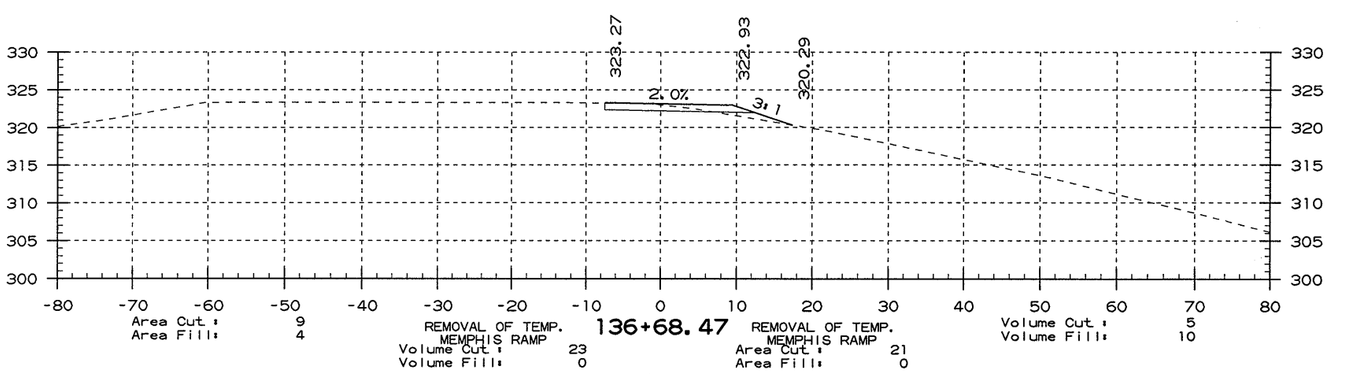
TEMPORARY MEMPHIS ENTRANCE RAMP FOR MAINTENANCE OF TRAFFIC

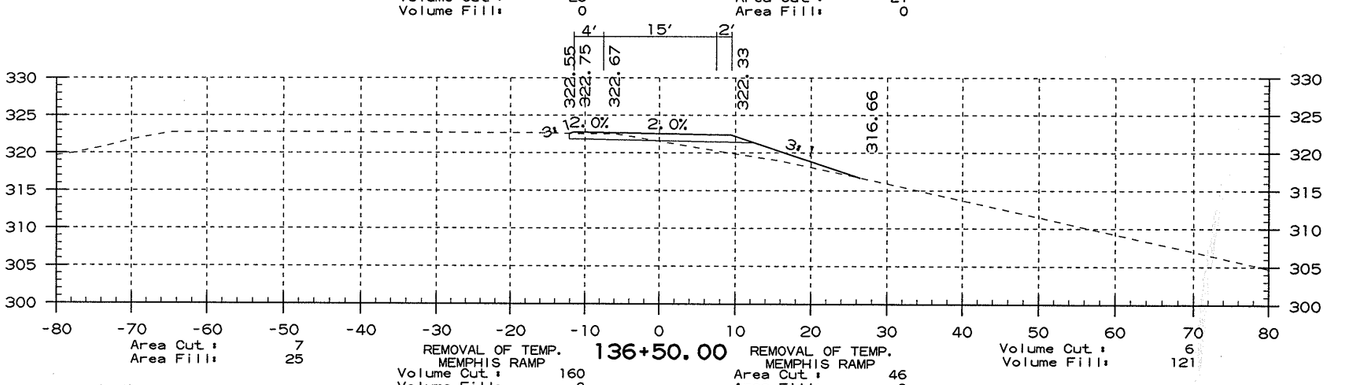
(2) CROSS SECTIONS

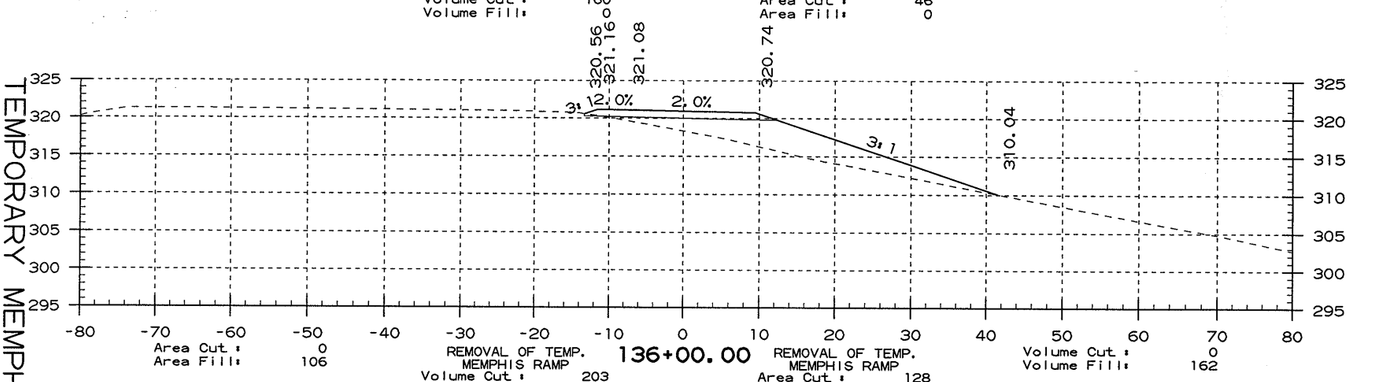
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED

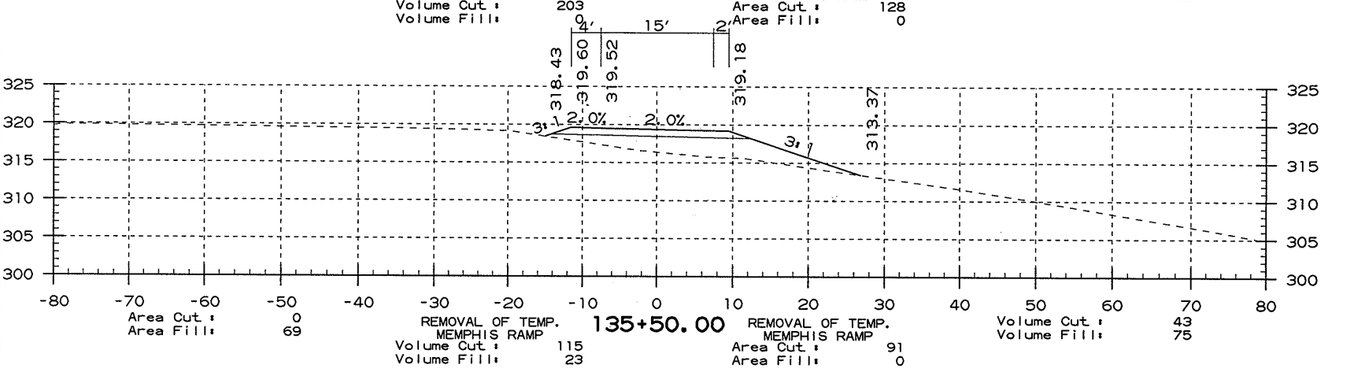
FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.	R60080	203	203

JOB NO.









TEMPORARY MEMPHIS ENTRANCE RAMP FOR MAINTENANCE OF TRAFFIC

DATE REVISED	
DATE FILMED	
DATE REVISED	
DATE FILMED	
FED.RD. DIST.NO.	6
STATE	ARK.
FED.AID PROJ.NO.	R60080
SHEET NO.	60
TOTAL SHEETS	60

(2) CROSS SECTIONS

JOB NO.

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.		R60080	196	609

(1) 07051, 07052 & 07053 QUANT. 47711

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. R60080

BRIDGE NO.	CODE NO.	BRIDGE NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NO.	205	603	801	802	802	803	804	804	805	805	805	805	806	807	807	807
				ITEM	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO.)	TEMPORARY BRIDGE STRUCTURE (24' ROADWAY WIDTH)	UNCLASSIFIED EXCAVATION FOR STRUCTURES -BRIDGE	CLASS S CONCRETE -BRIDGE	CLASS S(AE) CONCRETE -BRIDGE	CLASS I PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL -BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	STEEL PILING (HP 12 x 53)	STEEL PILING (HP 14 x 73)	PILE ENCASEMENT	PREBORING	METAL BRIDGE RAILING (TYPE H)	STRUCTURAL STEEL IN BEAM SPANS (M270, GR. 50W)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270, GR. 50)	STRUCTURAL STEEL IN BEAM SPANS (M270, GR. 50)
				UNIT	LUMP SUM	LIN. FT.	CU. YD.	CU. YD.	CU. YD.	GAL.	LB.	LB.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LB.	LB.	LB.
07051	X071	WOODRUFF CREEK	BENT NO. 1					81.45		0.5	8010		560					2773		
			BENT NOS. 2 THRU 5					148.10			17570		2240		756					
			BENT NO. 6					81.45		0.5	8010		560					2773		
			175'-0" CONT. COMP. W-BEAM UNIT						557.90	49.3		145060						289224		
			EXISTING BRIDGE NO. 03057 (SITE NO. 1)		1															
			EXISTING BRIDGE NO. A3057 (SITE NO. 2)		1															
			TOTAL FOR BRIDGE NO. 07051			150		311.0	557.9	50.3	33590	145060	3360		756			294770		
07052	X171	BROOKSWOOD FLYOVER	BENT NO. 1					24.48		0.1	3481		320			73			579	
			BENT NO. 2				167	129.37			20594		1050							
			BENT NO. 3				156	152.77			20950			990						
			BENT NO. 4					26.18		0.1	3685		560			92			579	
			490'-0" CONT. COMP. PLATE GIRDER UNIT						441.90	36.2		129160							947892	
			TOTAL FOR BRIDGE NO. 07052				323	332.8	441.9	36.4	48710	129160	1930	990		165			949050	
07053	X171	KIEHL AVENUE	BENT NO. 1					345.40		0.7	41539		2760							1510
			BENT NO. 2				16	112.34			16698		1960							
			BENT NO. 3				18	150.68			19081		1960							
			BENT NO. 4				17	110.47			16536		1960							
			BENT NO. 5					342.71		0.7	41236		2980							1510
			316'-0" CONT. COMP. W-BEAM UNIT						725.10	54.6		165270					768			671690
			EXISTING BRIDGE NO. 03058 (SITE NO. 3)		1															
			TOTAL FOR BRIDGE NO. 07053				51	1061.6	725.1	56.0	135090	165270	11620				768			674710
			TOTAL FOR JOB R60080			150	374	1705.4	1724.9	142.7	217390	439490	16910	990	756	165	768	294770	949050	674710

ROSS WYLIE
DESIGN SECTION SUPERVISOR

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
5/18/05
CHARLES P. BRAND
BRIDGE ENGINEER

SHEET 1 OF 2
SCHEDULE OF BRIDGE QUANTITIES
I-40 - McCAIN BLVD.
& WILDWOOD - KIEHL AVE. (F)
PULASKI COUNTY
ROUTE 67 SEC. 10
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MAH DATE: 5-14-05 FILENAME: br60080_ql.dgn
CHECKED BY: CAB DATE: 8-05 SCALE: no scale
DESIGNED BY: DATE:

BRIDGE NO. 07051, 07052 & 07053 DRAWING NO. 47711

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.		R60080	197	609

(1) 07051, 07052 & 07053 QUANT. 47712

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. R60080

BRIDGE NO.	CODE NO.	BRIDGE NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NO.	807	SP & 808	812	816	816	816	SP JOB R60080	SP JOB R60080
				ITEM	PAINTING STRUCTURAL STEEL **	ELASTOMERIC BEARINGS	BRIDGE NAME PLATE (TYPE D)	FILTER BLANKET	DUMPED RIPRAP	CONCRETE RIPRAP	SILICONE JOINT SEALANT	TRANSITIONAL APPROACH RAILING
				UNIT	TON	CU. IN.	EA.	SQ. YD.	CU. YD.	CU. YD.	LIN. FT.	EACH
07051	X071	WOODRUFF CREEK	BENT NO. 1					512	256			
			BENT NOS. 2 THRU 5									
			BENT NO. 6					512	256			
			175'-0" CONT. COMP. W-BEAM UNIT				1				264	
			EXISTING BRIDGE NO. 03057 (SITE NO. 1)									
			EXISTING BRIDGE NO. A3057 (SITE NO. 2)									
			TOTAL FOR BRIDGE NO. 07051				1	1024	512		264	
07052	X171	BROOKSWOOD FLYOVER	BENT NO. 1		0.3					6		
			BENT NO. 2									
			BENT NO. 3									
			BENT NO. 4		0.3					5		
			490'-0" CONT. COMP. PLATE GIRDER UNIT		473.9	43917.0	1				51	
			TOTAL FOR BRIDGE NO. 07052		474.5	43917	1			11	51	
07053	X171	KIEHL AVENUE	BENT NO. 1		0.8					69		2
			BENT NO. 2									
			BENT NO. 3									
			BENT NO. 4									
			BENT NO. 5		0.8					133		2
			316'-0" CONT. COMP. W-BEAM UNIT		335.9	30888.0	1				153	
			EXISTING BRIDGE NO. 03058 (SITE NO. 3)									
			TOTAL FOR BRIDGE NO. 07053		337.5	30888	1			202	153	4
			TOTAL FOR JOB R60080		812.0	74805	3	1024	512	213	468	4

** The color of the paint shall conform to Federal Standard 595A Color Chip No. 37200, Aluminum.

ROSS WYLIE
DESIGN SECTION SUPERVISOR

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4537
10/18/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 2 OF 2
SCHEDULE OF BRIDGE QUANTITIES
I-40 - McCAIN BLVD.
& WILDWOOD - KIEHL AVE. (F)
PULASKI COUNTY
ROUTE 67 SEC. 10
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MAH DATE: 7-14-05 FILENAME: br60080_ql.dgn
CHECKED BY: CAB DATE: 8-05 SCALE: no scale
DESIGNED BY: DATE:

BRIDGE NOS. 07051, 07052 & 07053 DRAWING NO. 47712

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.		R60080	2A1	608

(1) 07052 - GEN. NOTES-LAYOUT - 47737

GENERAL NOTES

BENCH MARK: Chiseled square in drop inlet, 24.59' right of C.L. Lane. Sta. 346+49.37, Elev. 249.13.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 2003 edition, with applicable supplemental specifications and special provisions. Unless otherwise noted, section and subsection numbers in the plans refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, (2002 edition), and AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges (2003 edition).

LIVE LOADING: HS20 METHOD OF DESIGN: Load Factor
SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)	f'c = 4,000 psi.
Class S Concrete (substructure)	f'c = 3,500 psi.
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)	fy = 60,000 psi.
Structural Steel (AASHTO M270, Gr. 50)	Fy = 50,000 psi.
Structural Steel (AASHTO M270, Gr. 36)	Fy = 36,000 psi.

BORING LOGS: Boring logs may be obtained from the Programs and Contracts Division.

STEEL PILING: Piling in Bents 1, 2 and 4 shall be HP 12x53 and shall be driven with an approved air, steam or diesel hammer to a minimum safe bearing capacity of 70 tons per pile and into material designated as hard sandstone on the boring legend. Piling in Bent 3 shall be HP 14x73 and shall be driven with an approved air, steam or diesel hammer to a minimum safe bearing capacity of 90 tons per pile and into material designated as hard sandstone on the boring legend. Lengths of piling shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with the standard specifications. Piles in end bents to be driven after embankment to bottom of cap is in place. On all piles the Contractor shall use approved steel H-Pile driving points. Actual pile lengths to be determined in the field.

Pile casing are required for all piling in the end bent cap of Bent Nos 1 & 4. Casing shall be installed prior to or during embankment construction and shall extend from the prebored elevations to bottom of cap. Pile casing material shall be of sufficient strength to retain its original form free from harmful distortions after compaction of the fill material surrounding it. The minimum inside diameter of the casing shall be 18". Piling shall be driven through the open casings after embankment to bottom of cap is in place. After driving is completed, the pile casings shall be backfilled with Class "S" Concrete in a single continuous operation to completely fill voids. Pile casings and concrete backfill will not be paid for directly, but shall be considered subsidiary to the item "Steel Piling".

PREBORING: Piles at Bent 1 and Bent 4 shall be prebored to minimize driving impact to the existing and relocated sewer lines. Bent 1 shall be prebored to an elevation of 234.50 and Bent 4 shall be prebored to an elevation of 237.50. Preboring for such piles will be paid for at the unit price bid for "Preboring".

At all other locations, preboring for the Contractor's convenience must be approved by the Engineer, and shall be at no cost to the Department.

FOOTINGS: The top of footings for bents 2 & 3 shall be set a minimum of 2'-0" below the top of the finished ground. Foundations for footings shall be prepared in accordance with Section 801.04 and shall be backfilled in accordance with Section 801.08.

BRIDGE DECK: The concrete bridge deck shall be given a tine finish as specified for final finishing in subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

TEXTURED COATING FINISH: Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in SP Job R60080"Textured Coating Finish" and in accordance with subsection 802.19. Textured Coating Finish shall not be applied on surfaces where Class 1 Protective Surface Treatment is applied.

PAINTING STRUCTURAL STEEL: Paint shall conform to Federal Standard 595A, Color Chip No. 37200, Aluminum.

FORM INSERT: State of Arkansas form insert to be used at each end of cap at interior bents, see Dwg. No. 47784.

DETAIL DRAWINGS:	DRAWING NO.
End Bents	47738, 47739, 47742 & 47743
Intermediate Bents	47740 & 47741
490'-0" Continuous Composite Plate Girder Unit	47744-47752
Elastomeric Bearings	47753-47755
Details of Permissible Permanent Deck Forms	47756
Steel Piling	14995A

BORING LEGEND

A1-Moist, Stiff, Gray and Brown Sandy Clay with some Organic Matter
B1-Moist, Stiff, Gray and Brown Sandy Clay
C1-Moist, Stiff, Gray and Brown Clay with some Sand
D1-Moist, Very Stiff, Gray Clay with Sand Lenses
E1-Moist, Dense, Gray Sand with Clay Seams
F1-Moist, Hard, Gray Clay with some Sand
G1-Moist, Hard, Dark Gray Clay with Lignite Seams
H1-Moist, Dense, Dark Gray Sand with Lignite
J1-Moist, Hard, Dark Gray Sandy Clay with Lignite
K1-Hard, Gray Sandstone
L1-Moist, Soft, Brown and Gray Sandy Clay
M1-Moist, Medium Stiff, Gray Sandy Clay with Traces of Organic Matter
N1-Moist, Stiff, Brown and Gray Sandy clay
P1-Moist, Medium Dense, Dark Gray Sand with Clay Seams and some Organic Matter
Q1-Wet, Medium Dense, Dark Gray Sand with Clay Seams and Traces of Gravel
R1-Moist, Hard, Dark Gray Sandy Clay with Traces of Gravel
S1-Moist, Hard, Dark Gray Lignitic Clay
T1-Moist, Very Stiff, Dark Gray Clay with Traces of Lignite
U1-Moist, Very Hard, Dark Gray Sandy Clay
V1-Wet, Very Dense, Dark Gray Sand
W1-Hard, Gray Sandstone
X1-Moist, Medium Stiff, Reddish Brown and Gray Sandy Clay
Y1-Moist, Very Soft, Brown and Gray Clay with Sand
Z1-Moist, Stiff, Brown and Gray Clay with Sand Seams
A2-Moist, Stiff, Brown and Gray to Brown Sandy Clay
B2-Wet, Stiff, Gray Clay with Sand Seams
C2-Wet, Medium Dense, Dark Gray Sand with Lignite
D2-Moist, Very Stiff, Dark Gray Sandy Clay with Lignite
E2-Moist, Very Dense, Dark Gray Sand with Clay Seams and Lignite
F2-Moist, Very Hard, Dark Gray Sandy Clay with Lignite
G2-Very Dense, Gray Poorly-Cemented Sand
H2-Hard, Dark Gray Shale
J2-Moist, Soft, Brown and Gray Sandy, Silty Clay
K2-Moist, Stiff, Brown Clay with some Sand
L2-Moist, Medium Stiff, Gray and Brown Clay
M2-Moist, Stiff, Brown and Gray Sandy Clay
N2-Wet, Medium Dense, Brown Sand
P2-Moist, Stiff, Dark Gray Clay
Q2-Moist, Very Stiff, Dark Gray Lignitic Clay
R2-Moist, Dense, Gray Sand with Lignite and some Clay Seams
S2-Moist, Very Dense, Gray Sand with some Cemented Sand Seams
T2-Moist, Dense, Gray Sand
U2-Moist, Very Dense, Gray Sand with Cemented Sand Seams

"N" VALUES

Sta. 344+34 - 10' Left of ℄ Lane - Brookswood
4.7- 5.7, N=7
9.7- 10.7, N=10
15.5- 16.5, N=11
20.5- 21.5, N=18
25.5- 26.5, N=22
30.5- 31.5, N=33
35.5- 36.5, N=38
40.5- 41.5, N=36
45.5- 46.5, N=50
50.5- 51.5, N=44
55.0- 55.0, N=60(0.1'')

Sta. 345+54 - 6' Left of ℄ Lane - Brookswood
4.5- 5.5, N=4
9.5- 10.5, N=7
15.5- 16.5, N=11
20.5- 21.5, N=10
25.5- 26.5, N=17
27.2- 28.2, N=13
30.5- 31.5, N=34
35.5- 36.5, N=51
40.5- 41.5, N=19
45.5- 45.8, N=60(4'')
50.5- 51.2, N=91(8'')

Sta. 347+43 - ℄ Lane - Brookswood
4.4- 5.4, N=8
9.4- 10.4, N=0
15.5- 16.5, N=9
20.5- 21.5, N=12
25.5- 26.5, N=9
30.5- 31.5, N=11
35.5- 36.5, N=21
40.5- 41.5, N=28
45.5- 46.5, N=91
50.5- 51.5, N=73
55.0- 55.2, N=60(3'')

Sta. 349+24 - 40' Right of ℄ Lane - Brookswood
4.4- 5.4, N=3
9.4- 10.4, N=10
15.5- 16.5, N=7
20.5- 21.5, N=13
25.5- 26.5, N=11
30.5- 31.5, N=11
35.5- 36.5, N=19
40.5- 41.5, N=40
45.0- 45.2, N=60(2'')
50.0- 50.1, N=60(1'')
55.0- 55.0, N=60(0.1'')
60.0- 60.2, N=60(3'')

STATE OF ARKANSAS
Not Valid
REGISTERED PROFESSIONAL ENGINEER
No. 13377
2/15/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 2 OF 2
LAYOUT OF BROOKSWOOD FLYOVER
OVER U.S. HWY. 67/167
I-40 - McCAIN BLVD. &
WILDWOOD-KIEHL AVE. (F)
PULASKI COUNTY

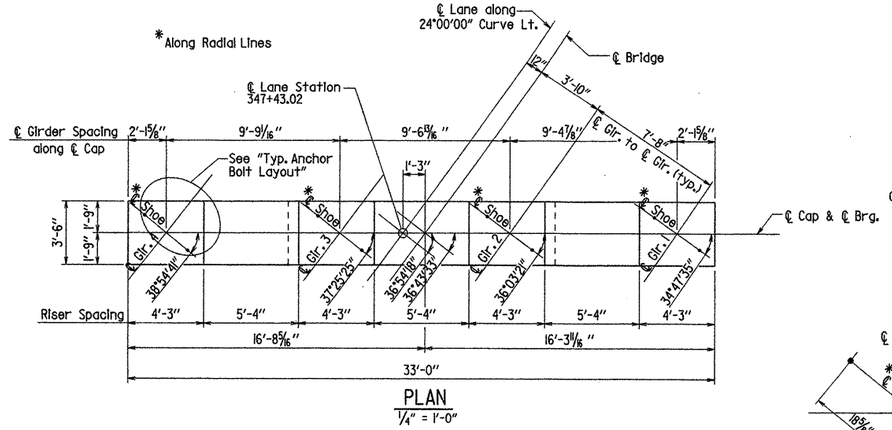
ROUTE 67 SEC. 10

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

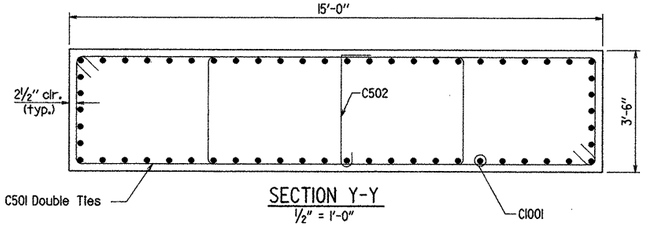
DRAWN BY: KDH DATE: 3-14-05 FILENAME: br60080x2_not.dgn
CHECKED BY: MAH DATE: 7-27-05 SCALE: NONE
DESIGNED BY: KWY DATE: 11-04

BRIDGE NO. 07052 DRAWING NO. 47737

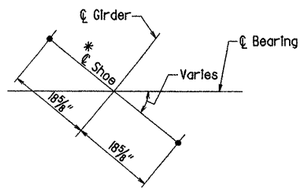
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	34	609
				07052		BENT 3		47741



PLAN
1/4" = 1'-0"



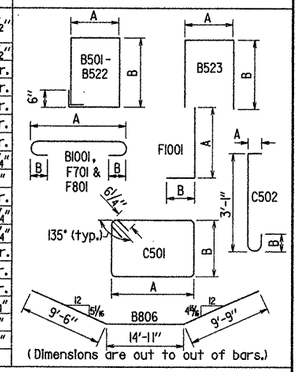
SECTION Y-Y
½" = 1'-0"

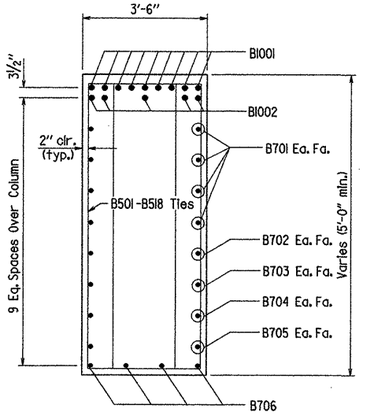


TYPICAL ANCHOR BOLT LAYOUT
No Scale

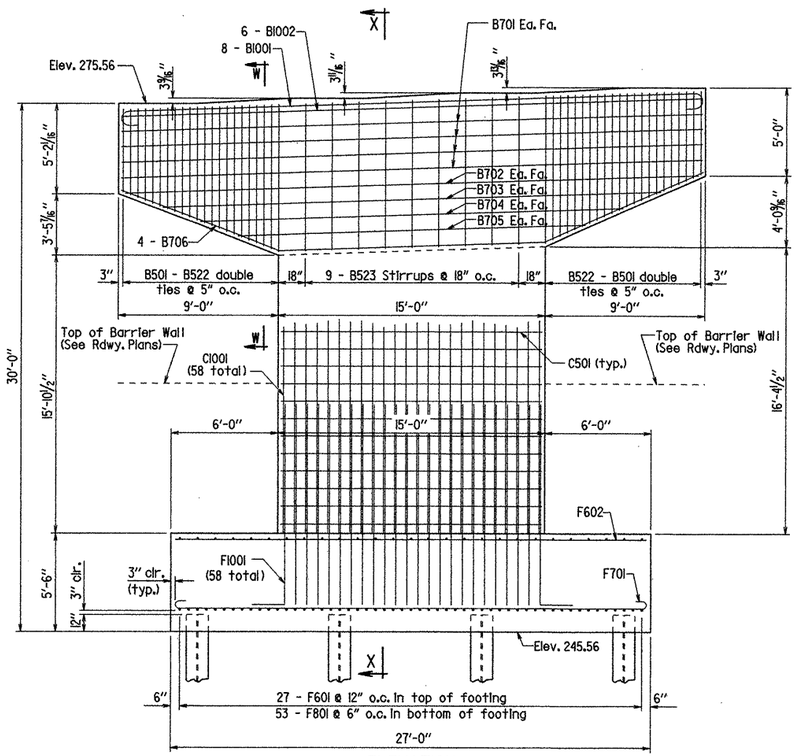
BAR LIST

Mark	No. Req'd.	Length	A	B	Pin Dia.	Bending Diagrams
B501 - B522	4 ea.	14'-11" - 22'-1"	2'-5½"	4'-9" - 8'-4"	2½"	
B523	9	19'-10"	3'-2"	8'-5"	2½"	
B701	8	32'-8"			Str.	
B702	2	32'-3"			Str.	
B703	2	28'-0"			Str.	
B704	2	23'-9"			Str.	
B705	2	19'-7"			Str.	
B706	4	34'-2"			5¼"	
B1001	9	35'-6"	32'-8"	11½"	10"	
B1002	5	32'-8"			Str.	
C501	42	28'-7"	10'-10½"	3'-1"	3¾"	
C502	21	4'-5"	10"	5"	3¾"	
C1001	58	20'-9"			Str.	
F601	27	15'-6"			Str.	
F602	16	26'-6"			Str.	
F701	31	28'-2"	26'-6"	7"	5¼"	
F801	53	17'-4"	15'-6"	8"	6"	
F1001	58	14'-11"	13'-5"	1'-10"	10"	

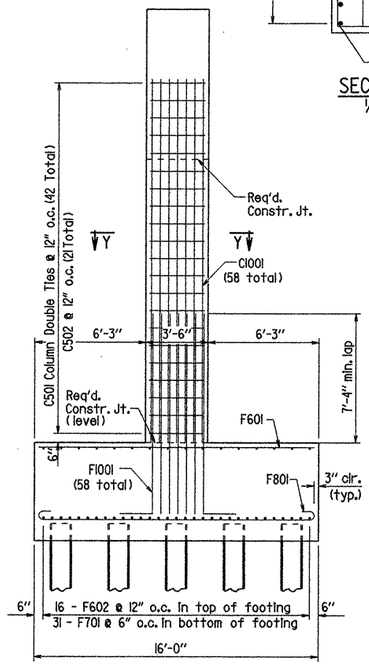




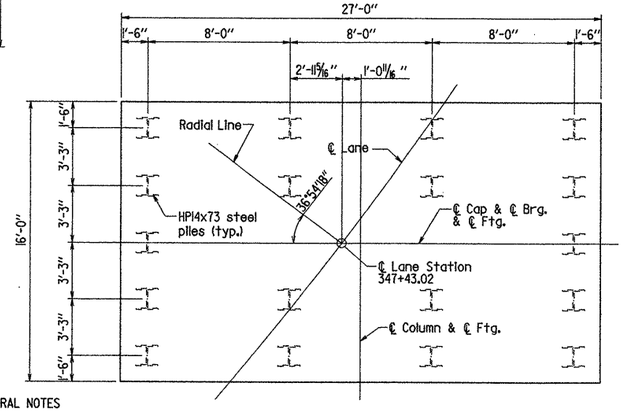
SECTION W-W
½" = 1'-0"



ELEVATION
Looking Ahead
1/4" = 1'-0"



SECTION X-X
1/4" = 1'-0"



PLAN OF FOOTING
1/4" = 1'-0"

GENERAL NOTES

All concrete shall be Class "S" and shall be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60. If anchor bolts are drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

For additional information see Layout.

For Details of Elastomeric Bearings see Dwg. No. 47754.

For State of Arkansas Form Insert details see Dwg. No. 47784.

STATE OF ARKANSAS
CHARLES P. BRAND
REGISTERED PROFESSIONAL ENGINEER
No. 4587
9/5/05

BRIDGE ENGINEER

DETAILS OF BENT 3
BROOKSWOOD FLYOVER
PULASKI COUNTY
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: K.W.Y. DATE: 6-13-05 FILENAME: br60080x2_b3.dgn
CHECKED BY: MAH DATE: 8-30-05 SCALE: as noted
DESIGNED BY: K.W.Y DATE: 9-05

BRIDGE NO. 07052 DRAWING NO. 47741

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.		R60080		

(1) 07053 ~ GEN. NOTES-LAYOUT ~ 47758

GENERAL NOTES

BENCH MARK: GPS Point 60039A AZ on rod & cap, 8.30' left of C.L. Bridge Sta. 16+34.52, Elev. 282.80.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 2003 edition, with applicable supplemental specifications and special provisions. Unless otherwise noted, section and subsection numbers in the plans refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, 2002 edition.

LIVE LOADING: HS20 METHOD OF DESIGN: Load Factor
SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)	f'c = 4,000 psi.
Class S Concrete (substructure)	f'c = 3,500 psi.
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)	fy = 60,000 psi.
Structural Steel (AASHTO M270, Gr. 50)	Fy = 50,000 psi.
Structural Steel (AASHTO M270, Gr. 36)	Fy = 36,000 psi.

BORING LOGS: Boring logs may be obtained from the Programs and Contracts Division.

STEEL PILING: All piling shall be HP 12X53 and shall be driven with an approved air, steam or diesel hammer to a minimum safe bearing capacity of 70 tons per pile and into material designated as dense to very dense sand or medium hard weathered shale on the boring legend. Piles in end & intermediate bent footings shall be driven to a minimum penetration of 10 feet below the bottom of the footing. Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. On all piles the Contractor shall use approved steel H-Pile driving points.

FOOTINGS: Footings shall have a minimum cover above top of footings of 2'-0". Foundations for footings shall be prepared in accordance with Section 801.04 and shall be backfilled in accordance with Section 801.08.

TEMPORARY SHORING: Temporary shoring will be required to complete excavation while maintaining traffic on the existing bridge. Payments for these items shall be included in SP Job R60080 "Shoring Bridge No. 07053".

BRIDGE DECK: The concrete bridge deck shall be given a tine finish as specified for final finishing in subsection 802.19 for Class S Tined Bridge Roadway Surface Finish.

PAINTING STRUCTURAL STEEL: Paint shall conform to Federal Standard 595A, Color Chip No. 37200, Aluminum.

TEXTURED COATING FINISH: Class 3 Textured Coating Finish shall be applied to bridge surfaces as specified in SP Job R60080"Textured Coating Finish" and in accordance with subsection 802.19. Textured Coating Finish shall not be applied on surfaces where Class I Protective Surface Treatment is applied.

FORM INSERT: State of Arkansas form insert to be used at abutment wingwalls (4 locations), and each end of cap at interior bents, see Dwg. No. 47784.

DETAIL DRAWINGS:	DRAWING NO(S).
Stage Construction Sequence	47759
Transitional Approach Railing	47759A
End Bents	47760- 47764, 47769 - 47773
Intermediate Bents	47765 - 47768
316'-0" Continuous Composite W-Beam Unit	47774 - 47780
Elastomeric Bearings	47783
Details of Joints	47781 & 47782
Steel Piling	14995A

EXISTING BRIDGE: The existing bridge No. 03058 (Route 176, Sec. 2, log mile 2.89) is 31.3' wide and 366' long and consists of a steel multi-beam superstructure supported by a concrete substructure. The existing bridge is located at the proposed site of the new bridge.

REMOVAL AND SALVAGE: After Stage I of the new bridge is open to traffic, the existing bridge (No. 03058) shall be removed in accordance with section 205. All material from the existing bridge shall become the property of the contractor.

BORING LEGEND

A1-Moist, Stiff, Brown and Gray Sandy Clay
B1-Moist, Very Stiff, Reddish Brown and Gray Sandy Clay
C1-Moist, Stiff, Reddish Brown Clay
D1-Moist, Stiff, Reddish Brown and Gray Clay
E1-Moist, Very Stiff, Brown and Gray Clay with some Sand
F1-Moist, Very Stiff, Brown and Gray Clay
G1-Moist, Medium Stiff, Brown and Gray Clay
H1-Wet, Medium Dense, Brown Clayey Sand
J1-Wet, Medium Dense, Gray Sand with clay Seams and Traces of Gravel
K1-Moist, Very Dense, Gray Sand with Traces of Lignite
L1-Wet, Medium Dense, Dark Gray Sand with Black Lignite
M1-Moist, Dense, Dark Gray Sand with Black Lignite
N1-Moist, Very Dense, Dark Gray Sand with Black Lignite
P1-Medium Hard, Dark Gray Weathered Shale
Q1-Hard, Dark Gray Shale
R1-Moist, Medium Stiff, Brown and Gray Sandy Clay
S1-Moist, Stiff, Reddish Brown Sandy Clay
T1-Wet, Soft, Reddish Brown Clay
U1-Moist, Very Stiff, Brown and Gray Sandy Clay
V1-Moist, Very Stiff, Reddish Brown and Gray Clay
W1-Moist, Stiff, Brown and Gray Clay
X1-Moist, Very Stiff, Gray Sandy Clay
Y1-Moist, Very Stiff, Gray and Brown Clay with Gravel
Z1-Moist, Medium Dense, Gray Clayey Sand with Traces of Gravel
A2-Moist, Dense, Gray Sand with Black Lignite
B2-Moist, Very Dense, Gray Sand with Black Lignite
C2-Moist, Very Hard, Gray Clay with Sand Lenses and Traces of Lignite
D2-Moist, Very Dense, Dark Gray Sand with some Thin Cemented Sand Seams
E2-Medium Hard, Dark Gray Highly Weathered Shale with some Thin Gray Cemented Sand Seams
F2-Moist, Medium Stiff, Brown and Gray Clay with Sand
G2-Moist, Very Stiff, Reddish Brown and Gray Clay with Sand
H2-Moist, Stiff, Reddish Brown Clay with some Sand
J2-Moist, Stiff, Brown Sandy Clay
K2-Wet, Loose, Gray and Brown Sand with Clay Seams
L2-Moist, Medium Stiff, Gray Clay with Sand
M2-Wet, Very Stiff, Brown Clay with Sand and some Gravel
N2-Moist, Stiff, Brown Clay with Sand and Gravel
P2-Moist, Hard, Dark Gray Sandy Clay with Traces of Gravel
Q2-Moist, Very Dense, Dark Gray Sand with Clay Seams and Traces of Gravel
R2-Very Dense, Dark Gray Poorly-Cemented Sand
S2-Very Dense, Dark Gray Cemented Sand
T2-Moist, Stiff, Reddish Brown and Gray Sandy Clay
U2-Moist, Medium Stiff, Reddish Brown Clay with Traces of Sand
V2-Moist, Medium Stiff, Reddish Brown Clay with some Sand Seams
W2-Moist, Very Stiff, Brown Clay with Sand Seams
X2-Moist, Stiff to Medium Stiff, Brown and Gray Sandy Clay
Y2-Moist, Medium Dense, Brown Clayey Sand
Z2-Wet, Hard, Brown and Gray Sandy Clay with Gravel
A3-Hard, Brown and Gray Sandstone
B3-Wet, Very Dense, Dark Gray Sand with Black Lignite and some Clay
C3-Hard, Dark Gray Shale with some Weathered Shale Seams
D3-Moist, Stiff, Brown and Gray Clay with Sand Seams
E3-Moist, Soft, Brown and Gray Clay with some Sand Seams
F3-Moist, Very Stiff, Reddish Brown and Gray Clay with Sand Lenses
G3-Wet, Soft, Brown and Gray Sandy, Silty Clay
H3-Moist, Very Stiff, Brown Sandy Clay
J3-Moist, Stiff to Very Stiff, Reddish Brown and Gray Sandy Clay
K3-Moist, Stiff, Gray Sandy Clay
L3-Moist, Hard, Brown and Gray Sandy Clay with Gravel
M3-Wet, Very Stiff, Brown and Gray Sandy Clay with Gravel
N3-Moist, Medium Dense, Dark Gray Sand with Clay Seams and Black Lignite

"N" VALUES

Sta. 16+95 - ℄ Kiehl Ave.
4.0- 5.0, N=15
9.0- 10.0, N=24
15.5- 16.5, N=11
20.5- 21.5, N=9
25.5- 26.5, N=12
30.5- 31.5, N=17
35.5- 36.5, N=15
40.5- 41.5, N=16
45.5- 46.5, N=7
50.5- 51.5, N=12
55.5- 56.5, N=17
60.5- 61.5, N=11
65.5- 66.5, N=69
70.5- 71.5, N=27
75.5- 76.5, N=44
80.0- 80.1, N=60(1'')
85.0- 85.4, N=60(5'')
90.0- 90.0, N=60(0.25'')

Sta. 17+50 - ℄ Kiehl Ave.
4.5- 5.5, N=22
9.5- 10.5, N=13
15.5- 16.5, N=10
20.5- 21.5, N=3
25.5- 26.5, N=7
30.5- 31.5, N=18
35.5- 36.5, N=17
40.5- 41.5, N=14
45.5- 46.5, N=12
50.5- 51.5, N=9
55.5- 56.5, N=21
60.5- 61.5, N=27
65.5- 66.5, N=21
70.5- 71.5, N=36
75.5- 75.8, N=60(4'')
80.0- 80.3, N=60(4'')
85.0- 85.1, N=60(1'')
90.0- 90.2, N=60(3'')
95.0- 95.2, N=60(2'')

Sta. 18+24 - ℄ Kiehl Ave.
4.3- 5.3, N=6
9.3- 10.3, N=22
15.5- 16.5, N=12
20.5- 21.5, N=9
25.5- 26.5, N=10
30.5- 31.5, N=12
35.5- 36.5, N=13
40.5- 41.5, N=14
45.5- 46.5, N=8
50.5- 51.5, N=5
55.5- 56.5, N=11
60.5- 61.5, N=16
65.5- 66.5, N=15
70.5- 71.5, N=32
75.5- 76.5, N=56
80.0- 80.2, N=60(3'')
85.0- 85.0, N=60(0.1'')
90.0- 90.0, N=60(0.1'')

Sta. 19+10 - ℄ Kiehl Ave.
4.5- 5.5, N=26
9.5- 10.5, N=13
15.5- 16.5, N=7
20.5- 21.5, N=8
25.5- 26.5, N=12
30.5- 31.5, N=24
35.5- 36.5, N=15
40.5- 41.5, N=7
45.5- 46.5, N=18
50.5- 51.5, N=23
55.5- 56.5, N=19
60.5- 61.1, N=30(7'')
65.5- 66.5, N=23
70.5- 71.5, N=53
75.5- 75.8, N=60(4'')

Sta. 20+34 - ℄ Kiehl Ave.
4.5- 5.5, N=8
9.5- 10.5, N=15
15.5- 16.5, N=9
20.5- 21.5, N=4
26.5- 27.5, N=21
30.5- 31.5, N=11
35.5- 36.5, N=13
40.5- 41.5, N=4
45.5- 46.5, N=19
50.5- 51.5, N=10
55.5- 56.5, N=15
60.5- 61.5, N=16
65.5- 66.5, N=12
70.5- 71.5, N=22
75.5- 76.5, N=34
80.5- 81.5, N=18
85.5- 86.5, N=22
90.5- 90.8, N=60(4'')
95.5- 95.8, N=60(3'')
100.0-100.2, N=60(2'')

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4887
8/3/05
CHARLES P. BRAND

BRIDGE ENGINEER

SHEET 2 OF 2
LAYOUT OF KIEHL AVENUE BRIDGE
OVER U.S. HWY. 67/167
I-40 - McCAIN BLVD. &
WILDWOOD-KIEHL AVE. (F)
PULASKI COUNTY

ROUTE 67 SEC. 10

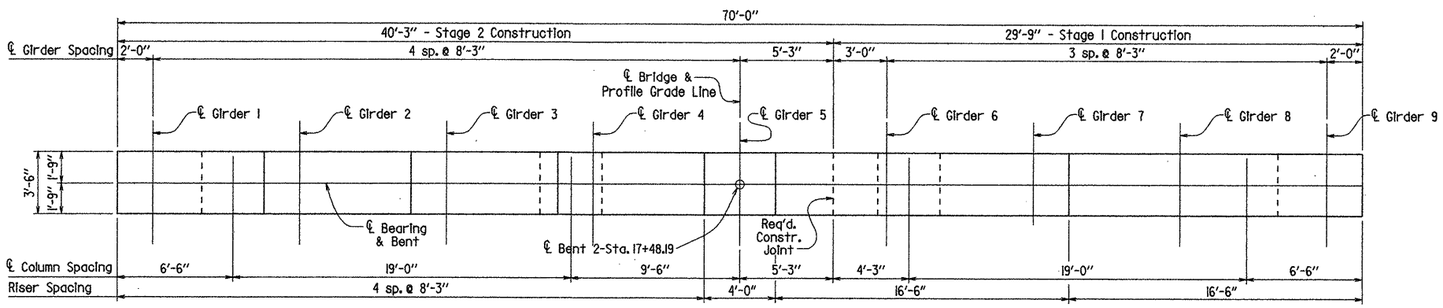
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: KDH DATE: 1-21-05
CHECKED BY: KWY DATE: 8-2-05
DESIGNED BY: CAB DATE: 01-05

FILENAME: br60080x3_not.dgn
SCALE: NONE

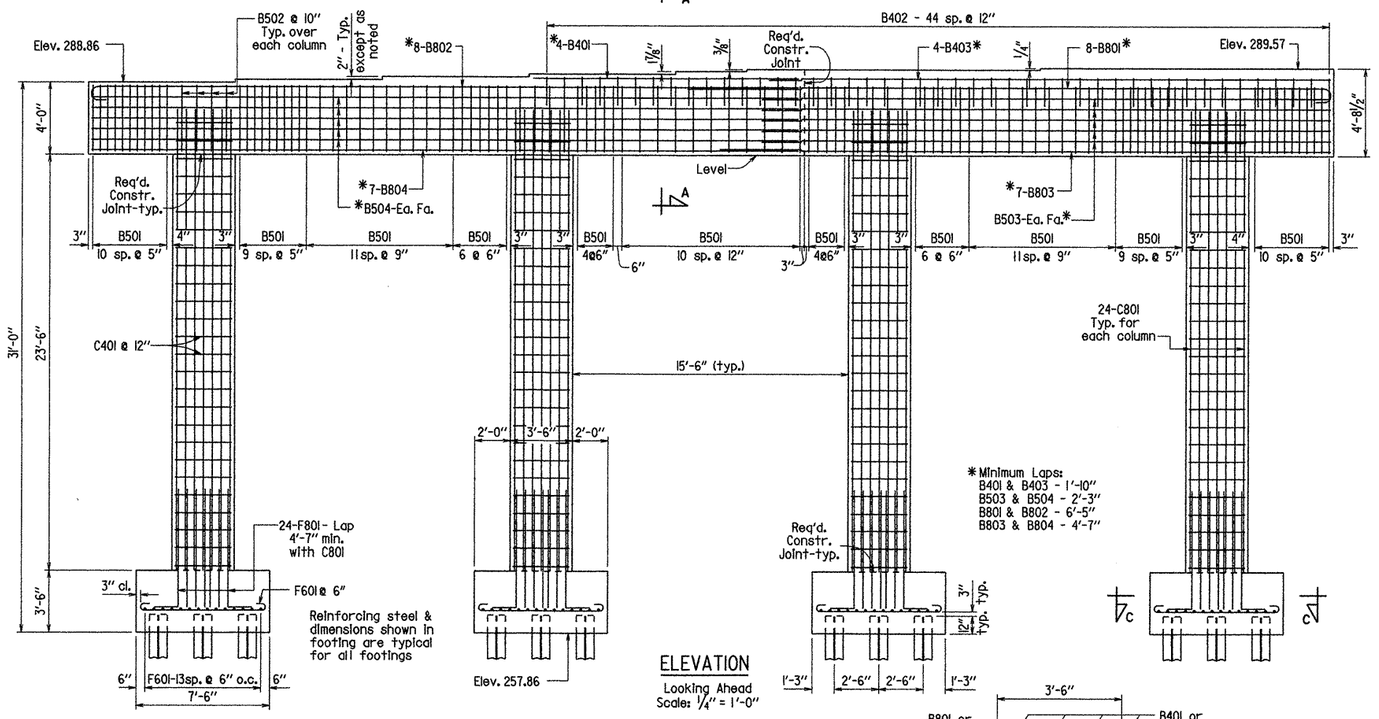
BRIDGE NO. 07053 DRAWING NO. 47758

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.		R60080		
				①	07053 - BENT 2 - 47765			



PLAN

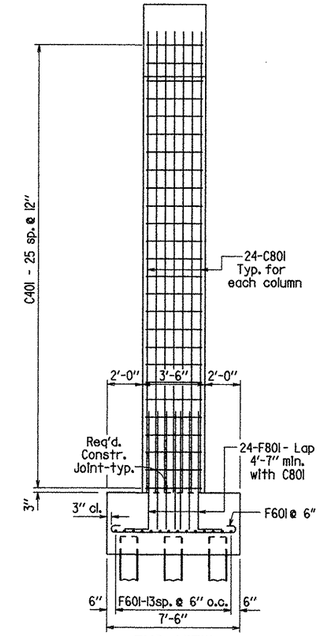
Scale: 1/4" = 1'-0"



*Minimum Laps:
B401 & B403 - 1'-10"
B503 & B504 - 2'-3"
B801 & B802 - 6'-5"
B803 & B804 - 4'-7"

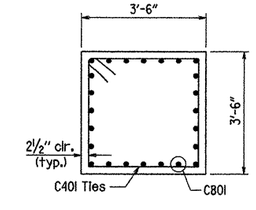
ELEVATION

Looking Ahead
Scale: 1/4" = 1'-0"



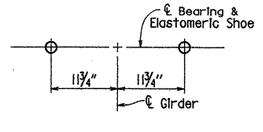
END VIEW

Scale: 1/4" = 1'-0"



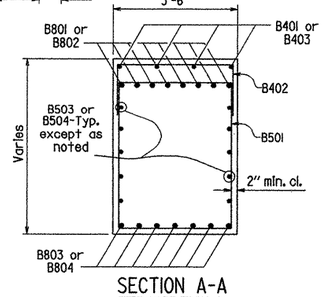
TYP. SECTION THRU COLUMN

Scale: 1/2" = 1'-0"



TYP. ANCHOR BOLT LAYOUT

No Scale



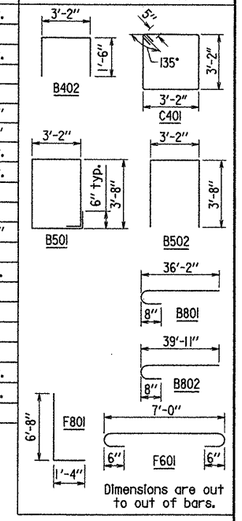
SECTION A-A

Scale: 1/2" = 1'-0"

BAR LIST-PER BENT

MARK	NO. REQ'D.	LENGTH	P.D.
B401	4	15'-0"	Str.
B402	45	6'-0"	2"
B403	4	31'-7"	Str.
C401	104	13'-2"	2"
B501	97	14'-2"	2 1/2"
B502	16	10'-4"	2 1/2"
B503	10	32'-0"	Str.
B504	10	39'-11"	Str.
F601	112	8'-4"	4 1/2"
C801	96	26'-0"	Str.
F801	96	7'-10"	6"
B801	8	37'-1"	6"
B802	8	40'-10"	6"
B803	7	34'-4"	Str.
B804	7	39'-11"	Str.

BENDING DIAGRAMS



GENERAL NOTES

All concrete shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi. All exposed corners to be chamfered 3/4" unless otherwise noted.

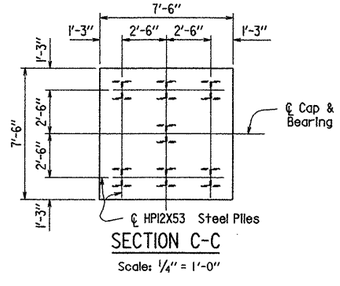
All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi).

If anchor bolts are drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

For Details of Elastomeric Bearings see Dwg. No. 47783

For additional information see Layout.

For State of Arkansas Form Insert details see Dwg. No. 47784.



SECTION C-C

Scale: 1/4" = 1'-0"

STATE OF ARKANSAS
CHARLES P. BRAND
No. 4337
REGISTERED PROFESSIONAL ENGINEER
8/3/05

BRIDGE ENGINEER

DETAILS OF BENT 2
KIEHL AVENUE
PULASKI COUNTY

ROUTE 67 SEC. 10

ARKANSAS STATE HIGHWAY COMMISSION

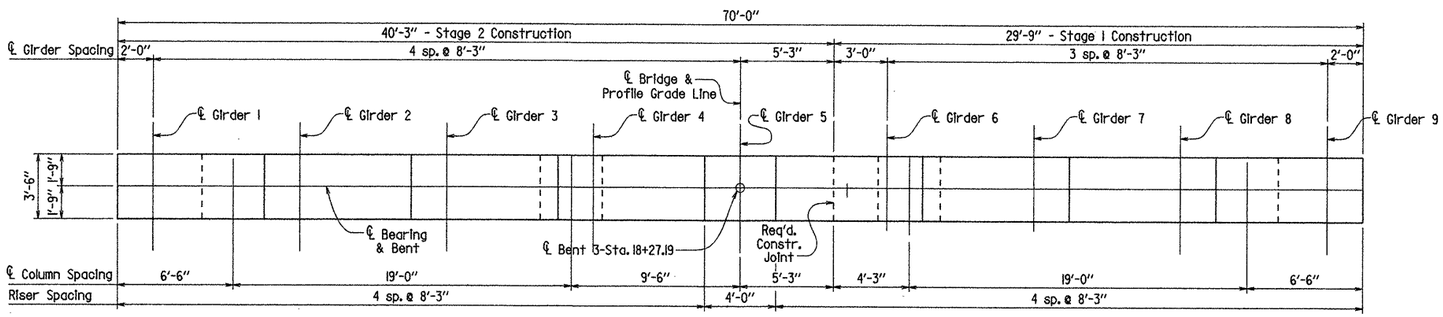
LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 6-14-05 FILENAME: br60080x3_b2.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: JWD DATE: 05-05

BRIDGE NO. 07053 DRAWING NO. 47765

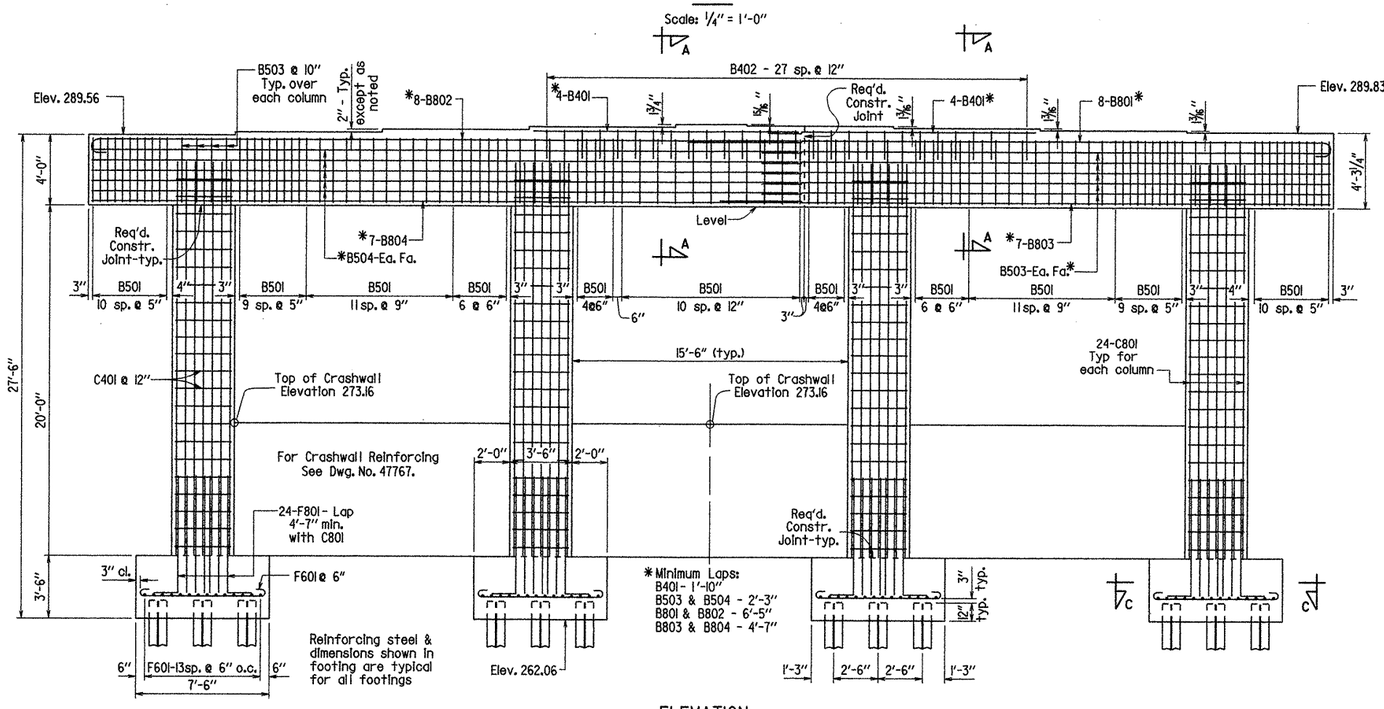
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080	371	603

(1) 07053 - BENT 3 - 47766



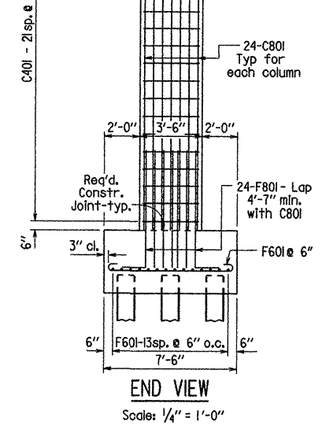
PLAN

Scale: 1/4" = 1'-0"



ELEVATION

Looking Ahead
Scale: 1/4" = 1'-0"



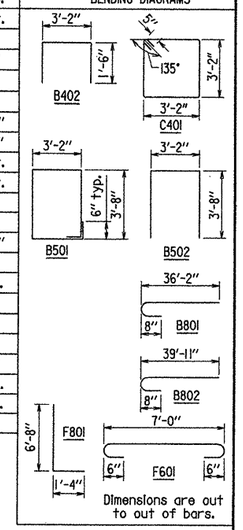
END VIEW

Scale: 1/4" = 1'-0"

BAR LIST-PER BENT

MARK	NO. REQ'D.	LENGTH	P.D.
B401	8	15'-0"	Str.
B402	28	6'-0"	2"
C401	88	13'-2"	2"
B501	97	14'-2"	2 1/2"
B502	16	10'-4"	2 1/2"
B503	10	32'-0"	Str.
B504	10	39'-11"	Str.
F601	112	8'-4"	4 1/2"
C801	96	22'-6"	Str.
F801	96	7'-10"	6"
B801	8	37'-1"	6"
B802	8	40'-10"	6"
B803	7	34'-4"	Str.
B804	7	39'-11"	Str.

BENDING DIAGRAMS



GENERAL NOTES

All concrete shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi. All exposed corners to be chamfered 3/4" unless otherwise noted.

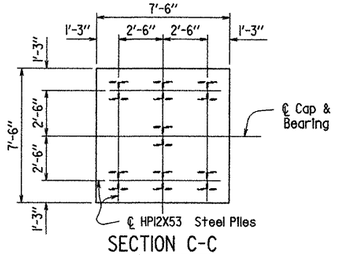
All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi).

If anchor bolts are drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

For Details of Elastomeric Bearings see Dwg. No. 47783.

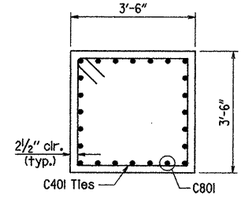
For additional information see Layout.

For State of Arkansas Form Insert details see Dwg. No. 47784.



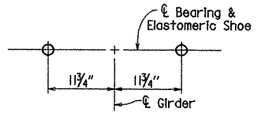
SECTION C-C

Scale: 1/4" = 1'-0"



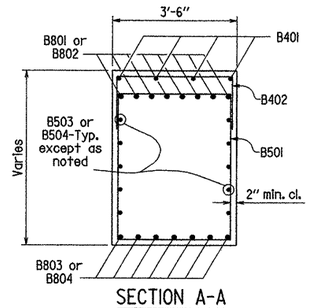
TYP. SECTION THRU COLUMN

Scale: 1/2" = 1'-0"



TYP. ANCHOR BOLT LAYOUT

No Scale



SECTION A-A

Scale: 1/2" = 1'-0"

STATE OF ARKANSAS 8776 REGISTERED PROFESSIONAL ENGINEER No. 8776 23/05 CHARLES P. BRAND

BRIDGE ENGINEER

GENERAL NOTES

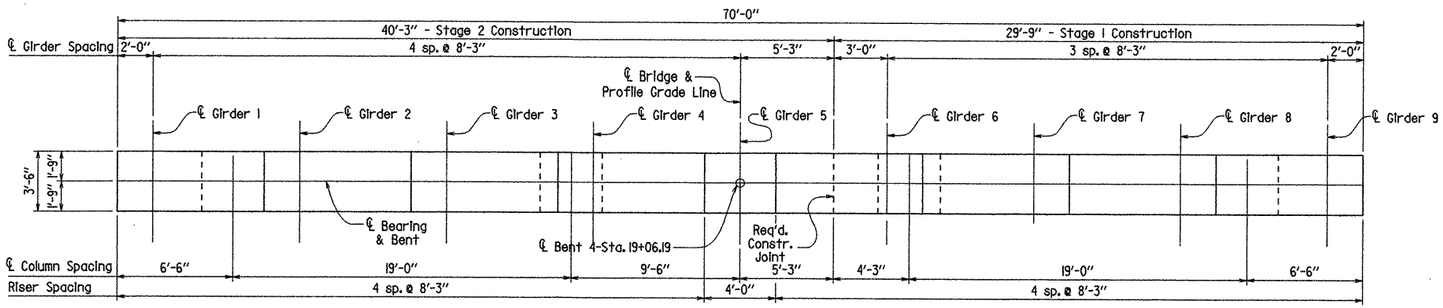
SHEET 1 OF 2
DETAILS OF BENT 3
KIEHL AVENUE
PULASKI COUNTY
ROUTE 67 SEC. 10

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 6-14-05
CHECKED BY: CAB DATE: 07-05
DESIGNED BY: JWD DATE: 05-05
FILENAME: br60080x3 b3.dgn
SCALE: AS NOTED

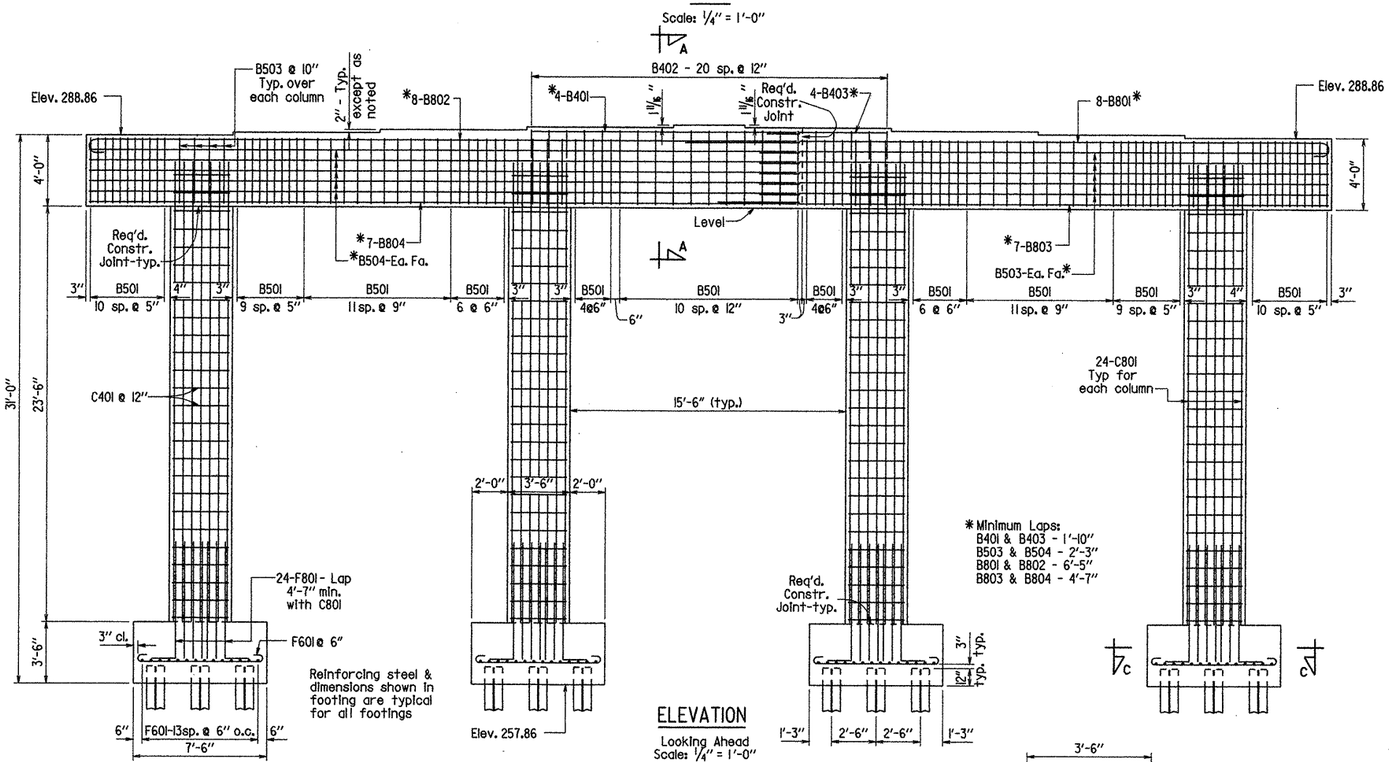
BRIDGE NO. 07053 DRAWING NO. 47766

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.		R60080		
				①		07053 - BENT 4 - 47768		



PLAN

Scale: 1/4" = 1'-0"

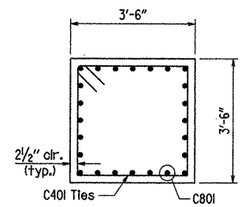


ELEVATION

Looking Ahead
Scale: 1/4" = 1'-0"

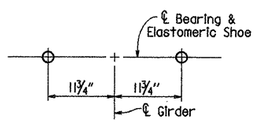
END VIEW

Scale: 1/4" = 1'-0"



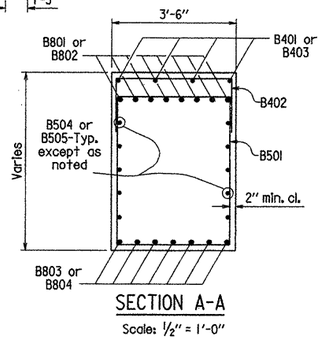
TYP. SECTION THRU COLUMN

Scale: 1/2" = 1'-0"



TYP. ANCHOR BOLT LAYOUT

No Scale



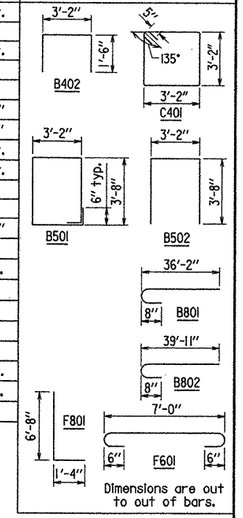
SECTION A-A

Scale: 1/2" = 1'-0"

BAR LIST-PER BENT

MARK	NO. REQ'D.	LENGTH	P.D.
B401	4	15'-0"	Str.
B402	21	6'-0"	2"
B403	4	6'-9"	Str.
C401	104	13'-2"	2"
B501	97	14'-2"	2 1/2"
B502	16	10'-4"	2 1/2"
B503	10	32'-0"	Str.
B504	10	39'-11"	Str.
F601	112	8'-4"	4 1/2"
C801	96	26'-0"	Str.
F801	96	7'-10"	6"
B801	8	37'-1"	6"
B802	8	40'-10"	6"
B803	7	34'-4"	Str.
B804	7	39'-11"	Str.

BENDING DIAGRAMS



Dimensions are out to out of bars.

GENERAL NOTES

All concrete shall be Class "S" with a minimum 28 day compressive strength f'c = 3,500 psi. All exposed corners to be chamfered 3/4" unless otherwise noted.

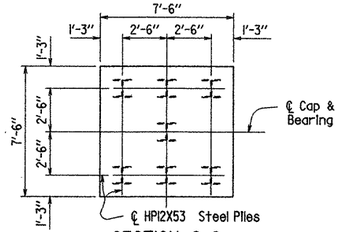
All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (yield strength = 60,000 psi).

If anchor bolts are drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

For Details of Elastomeric Bearings see Dwg. No. 47783

For additional information see Layout.

For State of Arkansas Form Insert details see Dwg. No. 47784



SECTION C-C

Scale: 1/4" = 1'-0"

STATE OF ARKANSAS
CHARLES P. BRAND
No. 4537
REGISTERED PROFESSIONAL ENGINEER
3/31/05

BRIDGE ENGINEER

DETAILS OF BENT 4
KIEHL AVENUE
PULASKI COUNTY

ROUTE 67 SEC. 10

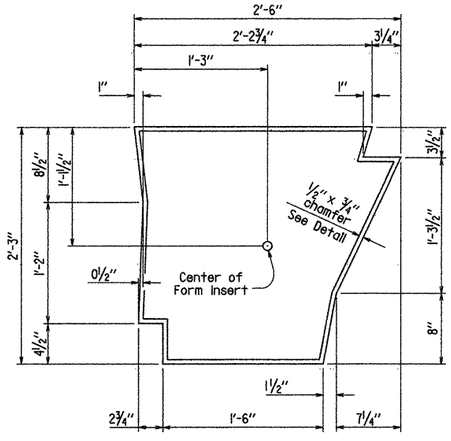
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 6-14-05 FILENAME: br60080x3_b4.dgn
CHECKED BY: CAB DATE: 07-05 SCALE: AS NOTED
DESIGNED BY: JWD DATE: 05-05

BRIDGE NO. 07053 DRAWING NO. 47768

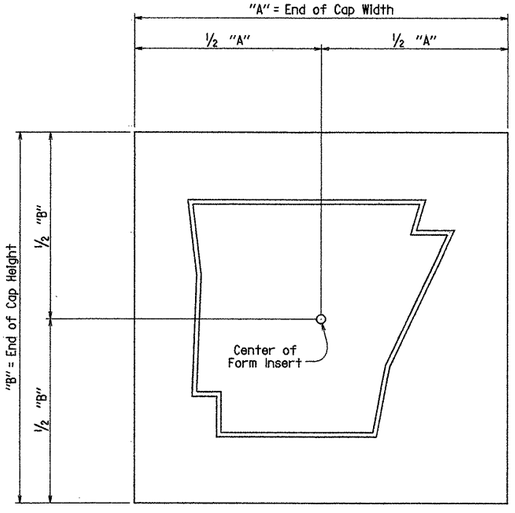
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R60080		
				(1) 07052 & 07053		ARK. FORM INSERT		47784



Note: Use form insert on designated bents as noted on layout or as shown on detail drawings.

FORM INSERT DETAILS

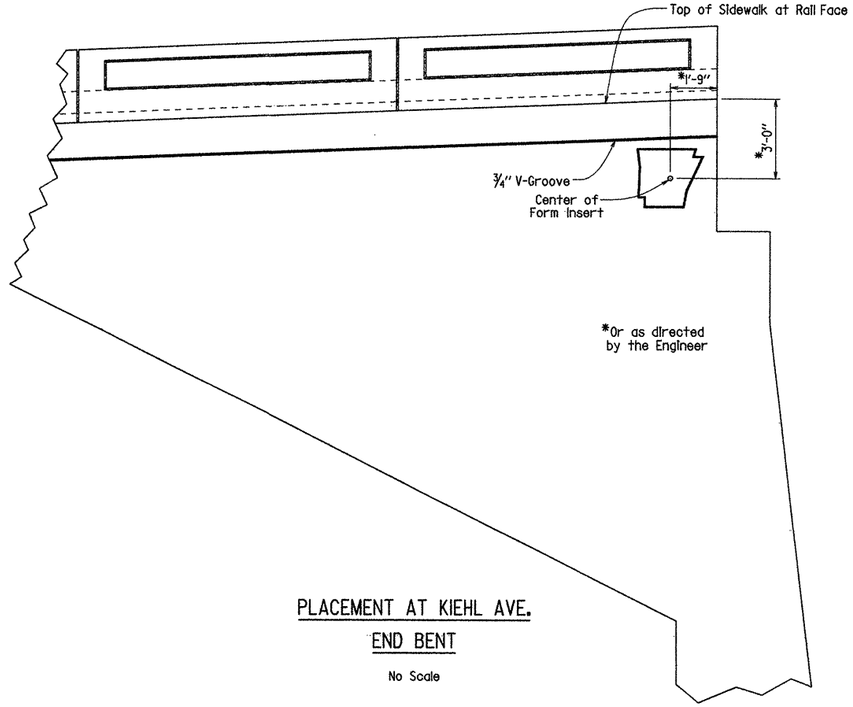
Scale: 1½" = 1'-0"



PLACEMENT AT END OF CAP

INTERMEDIATE BENT

Scale: 1½" = 1'-0"



PLACEMENT AT KIEHL AVE.

END BENT

No Scale

GENERAL NOTES

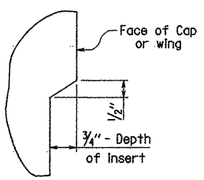
Fabricate form insert as a one piece unit, without the use of splices, joints or glue.

Wash and clean multi-use form inserts before each use.

All work and materials for form inserts shall be included in the unit price bid for Class S Concrete-Bridge.

Damaged or worn form inserts shall be replaced at the contractor's expense.

The form inserts shall be approved by the Engineer before its use.



CHAMFER DETAILS

Scale: 1½" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9315 07
CHARLES P. BRANDT

BRIDGE ENGINEER

DETAILS OF STANDARD STATE OF ARKANSAS FORM INSERT

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: K.W.Y. DATE: 7-19-05 FILENAME: br60080Forminsert.dgn

CHECKED BY: MAH DATE: 7.27.05 SCALE: as noted

DESIGNED BY: S.T.D. DATE:

BRIDGE NO. 07052 & 07053 DRAWING NO. 47784

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
09-15-2005				6	ARK.			
09-19-2005				JOB NO.		R60080	198	609

(2) SUMMARY OF QUANTITIES & REVISIONS

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNITS
202	REMOVAL AND DISPOSAL OF APPROACH GUTTERS	8	EACH
202	REMOVAL AND DISPOSAL OF APPROACH SLAB AND GUTTERS	4	EACH
202	REMOVAL AND DISPOSAL OF BUILDINGS	8	EACH
202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS	124	SQ. YD.
202	REMOVAL AND DISPOSAL OF CONCRETE ISLANDS	642	SQ. YD.
202	REMOVAL AND DISPOSAL OF CONCRETE MEDIAN BARRIER	522	LIN. FT.
202	REMOVAL AND DISPOSAL OF CURB	1936	LIN. FT.
202	REMOVAL AND DISPOSAL OF CURB AND GUTTER	1551	LIN. FT.
202	REMOVAL AND DISPOSAL OF DROP INLETS	19	EACH
202	REMOVAL AND DISPOSAL OF FENCE	3123	LIN. FT.
202	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER	13	EACH
202	REMOVAL AND DISPOSAL OF JUNCTION BOXES	8	EACH
202	REMOVAL AND DISPOSAL OF PARAPET WALLS	150	LIN. FT.
202	REMOVAL AND DISPOSAL OF PIER PROTECTION	186	LIN. FT.
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS	36	EACH
202	REMOVAL AND DISPOSAL OF PRECAST CONCRETE BARRIER	1310	LIN. FT.
202	REMOVAL AND DISPOSAL OF SIGNS	6	EACH
202	REMOVAL AND DISPOSAL OF STEEL GRATE ASSEMBLIES	3	EACH
202	REMOVAL AND DISPOSAL OF WALKS	31	SQ. YD.
SP & 202	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT	107294	SQ. YD.
206	FLOWABLE SELECT MATERIAL	72	CU. YD.
210	UNCLASSIFIED EXCAVATION	186592	CU. YD.
210	COMPACTED EMBANKMENT	163225	CU. YD.
SP & 210	SOIL STABILIZATION	1000	TON
215	TRENCHING AND SHOULDER PREPARATION	135	STATION
302	SELECTED MATERIAL (CLASS SM-1)	3744	CU. YD.
303	AGGREGATE BASE COURSE (CLASS 7)	70784	TON
308	AGGREGATE IN CEMENT STABILIZED CRUSHED STONE BASE COURSE	71598	TON
308	CEMENT IN CEMENT STABILIZED CRUSHED STONE BASE COURSE	4570	TON
308	PROCESSING CEMENT STABILIZED CRUSHED STONE BASE COURSE	219152	SQ. YD.
401	TACK COAT	27414	GALLON
SS & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")	10519	TON
SS & 405	ASPHALT BINDER (PG70-22) IN ACHM BASE COURSE (1 1/2")	416	TON
SS & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")	61533	TON
SS & 406	ASPHALT BINDER (PG64-22) IN ACHM BINDER COURSE (1")	342	TON
SS & 406	ASPHALT BINDER (PG70-22) IN ACHM BINDER COURSE (1")	2490	TON
SS & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	33148	TON
SS & 407	ASPHALT BINDER (PG64-22) IN ACHM SURFACE COURSE (1/2")	316	TON
SS & 407	ASPHALT BINDER (PG70-22) IN ACHM SURFACE COURSE (1/2")	1431	TON
SS & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (3/8")	11451	TON
SS & 407	ASPHALT BINDER (PG64-22) IN ACHM SURFACE COURSE (3/8")	603	TON
412	COLD MILLING ASPHALT PAVEMENT	36500	SQ. YD.
414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC	200	TON
501	PORTLAND CEMENT CONCRETE PAVEMENT (13" UNIFORM THICKNESS)	210330	SQ. YD.
504	APPROACH SLABS	398.00	CU. YD.
504	APPROACH GUTTERS (TYPE C)	72.24	CU. YD.
504	APPROACH GUTTERS (TYPE PT)	80.28	CU. YD.
504	APPROACH GUTTERS (TYPE SPECIAL 1)	114.60	CU. YD.
505	PORTLAND CEMENT CONCRETE DRIVEWAY	56.01	SQ. YD.
506	PORTLAND CEMENT CONCRETE CORRUGATION	353	SQ. YD.
601	MOBILIZATION	1.00	LUMP SUM
602	FURNISHING FIELD OFFICE	1	EACH
SP & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
603	TRAFFIC CONTROL SUPERVISOR	1.00	LUMP SUM
603	18" TEMPORARY CULVERT	2868	LIN. FT.
603	18" x 11" TEMPORARY CULVERT	92	LIN. FT.
SS & 604	SIGNS	5510	SQ. FT.
SS & 604	VERTICAL PANELS	31	EACH
SS & 604	TRAFFIC DRUMS	1008	EACH
SS & 604	BARRICADES	584	LIN. FT.
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	52000	LIN. FT.
604	RELOCATING PRECAST CONCRETE BARRIER	73705	LIN. FT.
SP,SS & 604	CONSTRUCTION PAVEMENT MARKINGS	137995	LIN. FT.
SS & 604	CONSTRUCTION PAVEMENT MARKINGS (ARROWS)	9	EACH
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	81380	LIN. FT.
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	18933	LIN. FT.
SP & 604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	214499	LIN. FT.
604	ADVANCE WARNING ARROW PANEL	40	DAY
SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN	99	WEEK
605	CONCRETE DITCH PAVING (TYPE A)	516	SQ. YD.
605	CONCRETE DITCH PAVING (TYPE B)	1173	SQ. YD.
606	12" ZINC COATED (GALVANIZED) CORRUGATED STEEL PIPE CULVERTS (16 GAUGE)	70	LIN. FT.
606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	232	LIN. FT.
606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	3900	LIN. FT.
606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	666	LIN. FT.
606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	8	LIN. FT.
606	48" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	326	LIN. FT.
606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	3	EACH
606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	4	EACH
606	30" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	1	EACH
606	48" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	2	EACH
606	29" x 18" REINFORCED CONCRETE ARCH PIPE CULVERTS (CLASS III)	278	LIN. FT.
SS & 606	18" SIDE DRAIN	90	LIN. FT.
606	SELECTED PIPE BEDDING	500	CU. YD.
606	SELECTED PIPE BACKFILL	500	CU. YD.
609	DROP INLETS (TYPE N2)	2	EACH
609	DROP INLETS (TYPE NO)	4	EACH
609	DROP INLETS (TYPE RM)	8	EACH
609	DROP INLETS (TYPE ST)	45	EACH
609	DROP INLETS (TYPE TM)	4	EACH
609	DROP INLETS (TYPE SPECIAL)	18	EACH
609	DROP INLET EXTENSIONS (4')	2	EACH
609	DROP INLET EXTENSIONS (8')	23	EACH
609	JUNCTION BOXES (TYPE ST)	5	EACH
609	JUNCTION BOXES (TYPE E)	3	EACH
610	DROP INLETS ADJUSTED TO GRADE	2	EACH
611	4" PIPE UNDERDRAINS	7350	LIN. FT.
611	UNDERDRAIN OUTLET PROTECTORS	21	EACH
614	CONCRETE SPILLWAY (TYPE A)	2	EACH
615	PAVEMENT REPAIR OVER CULVERTS (ASPHALT)	44	TON
617	GUARDRAIL (TYPE A)	9550	LIN. FT.
617	TERMINAL ANCHOR POSTS (TYPE 1)	27	EACH
617	GUARDRAIL TERMINAL (TYPE 2)	38	EACH
617	THRIE BEAM GUARDRAIL TERMINAL	19	EACH
• 619	5' STEEL CHAIN LINK FENCE - (ALTERNATE NO. 1)	1526	LIN. FT.
• 619	5' ALUMINUM CHAIN LINK FENCE - (ALTERNATE NO. 2)	1526	LIN. FT.
• 619	10' STEEL CHAIN LINK FENCE - (ALTERNATE NO. 1)	160	LIN. FT.
• 619	10' ALUMINUM CHAIN LINK FENCE - (ALTERNATE NO. 2)	160	LIN. FT.
620	LIME	99	TON
620	SEEDING	44.98	ACRE
620	MULCH COVER	112.46	ACRE
SS & 620	WATER	5977.0	M. GAL.
621	TEMPORARY SEEDING	67.48	ACRE
621	SILT FENCE	18340	LIN. FT.
621	SAND BAG DITCH CHECKS	294	BAG
621	DROP INLET SILT FENCE	2172	LIN. FT.
621	ROCK DITCH CHECKS	328	CU. YD.
621	SEDIMENT REMOVAL AND DISPOSAL	920	CU. YD.
623	SECOND SEEDING APPLICATION	44.98	ACRE
624	SOLID SODDING	906	SQ. YD.
631	CONCRETE BARRIER WALL (MEDIAN TYPE A)	16066	LIN. FT.
631	CONCRETE BARRIER WALL (MEDIAN TYPE B)	170	LIN. FT.
631	CONCRETE BARRIER WALL (MEDIAN TYPE C)	326	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE A)	2101	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE B)	540	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE C)	1168	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE D)	187	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE E)	2021	LIN. FT.
631	CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL)	2439	LIN. FT.
632	CONCRETE ISLAND	3572	SQ. YD.
633	CONCRETE WALKS	1463	SQ. YD.
633	HAND RAILING	363	LIN. FT.
634	INTEGRAL CURB (TYPE A)	702	LIN. FT.
634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A)(1'6")	6655	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
637	MAILBOX SUPPORTS (SINGLE)	2	EACH
637	MAILBOXES	2	EACH

SUMMARY OF QUANTITIES - CONTINUED

ITEM NUMBER	ITEM	QUANTITY	UNITS
640	MODIFYING DROP INLETS	9	EACH
641	WHEELCHAIR RAMPS (TYPE 1)	107	SQ. YD.
641	WHEELCHAIR RAMPS (TYPE 4)	46	SQ. YD.
SP & 701	ACTUATED CONTROLLER TS1 (8 PHASES)	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	11	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, LENS RETROFIT (3 SECTION, 1 WAY)	10	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, LENS RETROFIT (5 SECTION, 1 WAY)	3	EACH
SP & 707	PEDESTRIAN SIGNAL HEAD, LED	8	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1442	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	138	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12C/14 A.W.G.)	175	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	215	LIN. FT.
709	GALVANIZED STEEL CONDUIT (1.25")	15	LIN. FT.
710	NON-METALLIC CONDUIT (1.25")	10	LIN. FT.
710	NON-METALLIC CONDUIT (2")	506	LIN. FT.
710	NON-METALLIC CONDUIT (3")	232	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	8	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (10')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (20')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (22')	2	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (36')	1	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	4	EACH
SS & 718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (10')	1653	LIN. FT.
SS & 718	REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (10')	781	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING WHITE (4')	41294	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING WHITE (8')	16410	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING WHITE (12')	1169	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING WHITE (24')	110	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING YELLOW (4')	35691	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING YELLOW (8')	533	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	22	EACH
SSk 719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	22	EACH
SP & 719	PROFILED THERMOPLASTIC PAVEMENT MARKING WHITE (4")	83452	LIN. FT.
SP & 719	PROFILED THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	35024	LIN. FT.
720	PERMANENT PAVEMENT MARKING TAPE (WHITE,4",TYPE 3)	1110	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE I)	3796	EACH
721	RAISED PAVEMENT MARKERS (TYPE II)	585	EACH
722	PLOWABLE PAVEMENT MARKER (I)	1182	EACH
722	PLOWABLE PAVEMENT MARKER (II)	89	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-01)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-02)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-03)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-04)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-05)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (BM-067-60-06)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-07)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-08)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-09)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-10)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-11)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-12)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-16)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-17)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-18)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-19)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-20)	1	EACH
725	GUIDE SIGN - ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)	2279	SQ. FT.
725	GUIDE SIGN - OVERHEAD MOUNTED (DEMOUNTABLE LEGEND)	5931	SQ. FT.
727	EXIT NUMBER PANEL (TYPE A)	355	SQ. FT.
727	EXIT NUMBER PANEL (TYPE B)	60	SQ. FT.
727	EXIT NUMBER PANEL (TYPE C)	55	SQ. FT.
730	BREAKAWAY SIGN SUPPORT (TYPE G-1)	12156	POUND
731	IMPACT ATTENUATION BARRIER (TYPE A)	1	EACH
732	CRASH CUSHION	2	EACH
733	VIDEO DETECTOR	16	EACH
733	VIDEO PROCESSOR (4 CHANNEL)	2	EACH
733	VIDEO PROCESSOR (6 CHANNEL)	1	EACH
733	VIDEO CABLE	2335	LIN. FT.
733	VIDEO MONITOR (B/W)	1	EACH
SP & 733	VIDEO DETECTOR RELOCATION	1	EACH
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES - ROADWAY	754	CU. YD.
802	CLASS S CONCRETE - ROADWAY	372.85	CU. YD.
804	REINFORCING STEEL - ROADWAY (GRADE 60)	90399	POUND
804	EPOXY COATED REINFORCING STEEL (GRADE 60)	1084	POUND
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	147	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., EGC)	450	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., EGC)	2305	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	189	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT, ALUMINUM (3C/0 A.W.G., W/G)	400	LIN. FT.
SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE	17843	LIN. FT.
SP	HIGH PERFORMANCE CONTRAST MARKING TAPE YELLOW	7883	LIN. FT.
SP	LUMINAIRE ASSEMBLY	1	EACH
SP	LUMINAIRE POLE RELOCATION	3	EACH
SP	REMOVAL AND DISPOSAL OF BRIDGE MOUNTED SIGN STRUCTURE	2	EACH
SP	REMOVAL AND DISPOSAL OF GUARDRAIL	4275	LIN. FT.
SP	REMOVAL AND DISPOSAL OF OVERHEAD SIGN STRUCTURE	6	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1.00	LUMP SUM
SP	RETAINING WALL	51224	SQ. FT.
SP	SCARIFYING CONCRETE PAVEMENT	1066	SQ. YD.
SP	TEXTURE WALL TREATMENT	215	SQ. FT.
SP	TEMPORARY IMPACT ATTENUATION BARRIER	7	EACH
SP	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)	7	EACH
SP	TEMPORARY RELOCATION OF EXISTING SIGNS	11	EACH
SP	VIDEO DETECTOR ROTATION	5	EACH
	STRUCTURES OVER 20'-0" SPAN		
205	REMOVAL OF EXISTING BRIDGE STRUCTURES (SITE NO. 1)	1.00	LUMP SUM
205	REMOVAL OF EXISTING BRIDGE STRUCTURES (SITE NO. 2)	1.00	LUMP SUM
205	REMOVAL OF EXISTING BRIDGE STRUCTURES (SITE NO. 3)	1.00	LUMP SUM
603	TEMPORARY BRIDGE STRUCTURE (24' ROADWAY WIDTH)	150	LIN. FT.
636	BRIDGE CONSTRUCTION CONTROL	1.00	LUMP SUM
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	374	CU. YD.
802	CLASS S CONCRETE - BRIDGE	1705.40	CU. YD.
802	CLASS S(AE) CONCRETE - BRIDGE	1724.9	CU. YD.
803	CLASS 1 PROTECTIVE SURFACE TREATMENT	142.7	GALLON
804	REINFORCING STEEL - BRIDGE (GRADE 60)	217390	POUND
804	EPOXY COATED REINFORCING STEEL (GRADE 60)	439490	POUND
805	STEEL PILING (HP 12 x 53)	1690	LIN. FT.
805	STEEL PILING (HP 14 x 73)	990	LIN. FT.
805	PILE ENCASEMENT	756	LIN. FT.
805	PREBORING	165	LIN. FT.
806	METAL BRIDGE RAILING (TYPE H)	768	LIN. FT.
807	STRUCTURAL STEEL IN BEAM SPANS (M270-GR50W)	294770	POUND
807	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GR50)	949050	POUND
807	STRUCTURAL STEEL IN BEAM SPANS (M270-GR50)	674710	POUND
807	PAINTING STRUCTURAL STEEL	812	TON
SP & 808	ELASTOMERIC BEARINGS	74805	CU. IN.
812	BRIDGE NAME PLATE (TYPE D)	3	EACH
816	FILTER BLANKET	1024	SQ. YD.
816	DUMPED RIPRAP	512	CU. YD.
816	CONCRETE RIPRAP	213	CU. YD.
SP	SILICONE JOINT SEALANT	468	LIN. FT.
SP	TRANSITIONAL APPROACH RAILING	4	EACH

• DENOTES ALTERNATE BID ITEM.

STATE OF ARKANSAS
CHARLES D. CLEMENTS
REGISTERED PROFESSIONAL ENGINEER
No. 9775
9-19-05

REVISIONS

DATE	REVISION	SHEET NUMBER
09-15-2005	REVISED CONCRETE BARRIER WALL LIMITS ON McCAIN N.B. ENTRANCE RAMP	31, 187 & 198
09-19-2005	MINOR REVISIONS IN PAVEMENT MARKING QUANTITIES AND SPELLING CORRECTIONS	118, 150, 151, 152, 153, 173, 175, 179, 180, 181 & 198

09-19-2005 RR60080.001

SUMMARY OF QUANTITIES & REVISIONS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
09-15-2005				6	ARK.			
09-19-2005				JOB NO.		R60080	198	609
10-04-2005								

(2) SUMMARY OF QUANTITIES & REVISIONS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 17945
CHARLES D. CLEMENTS
10-4-05

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNITS
202	REMOVAL AND DISPOSAL OF APPROACH GUTTERS	8	EACH
202	REMOVAL AND DISPOSAL OF APPROACH SLAB AND GUTTERS	4	EACH
202	REMOVAL AND DISPOSAL OF BUILDINGS	8	EACH
202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS	124	SQ. YD.
202	REMOVAL AND DISPOSAL OF CONCRETE ISLANDS	642	SQ. YD.
202	REMOVAL AND DISPOSAL OF CONCRETE MEDIAN BARRIER	622	LIN. FT.
202	REMOVAL AND DISPOSAL OF CURB	1936	LIN. FT.
202	REMOVAL AND DISPOSAL OF CURB AND GUTTER	1551	LIN. FT.
202	REMOVAL AND DISPOSAL OF DROP INLETS	19	EACH
202	REMOVAL AND DISPOSAL OF FENCE	3123	LIN. FT.
202	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER	13	EACH
202	REMOVAL AND DISPOSAL OF JUNCTION BOXES	8	EACH
202	REMOVAL AND DISPOSAL OF PARAPET WALLS	150	LIN. FT.
202	REMOVAL AND DISPOSAL OF PIER PROTECTION	186	LIN. FT.
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS	36	EACH
202	REMOVAL AND DISPOSAL OF PRECAST CONCRETE BARRIER	1310	LIN. FT.
202	REMOVAL AND DISPOSAL OF SIGNS	6	EACH
202	REMOVAL AND DISPOSAL OF STEEL GRATE ASSEMBLIES	3	EACH
202	REMOVAL AND DISPOSAL OF WALKS	31	SQ. YD.
SP & 202	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT	107294	SQ. YD.
206	FLOWABLE SELECT MATERIAL	72	CU. YD.
210	UNCLASSIFIED EXCAVATION	186692	CU. YD.
210	COMPACTED EMBANKMENT	163225	CU. YD.
SP & 210	SOIL STABILIZATION	1000	TON
215	TRENCHING AND SHOULDER PREPARATION	135	STATION
302	SELECTED MATERIAL (CLASS SM-1)	9744	CU. YD.
303	AGGREGATE BASE COURSE (CLASS 7)	70784	TON
308	AGGREGATE IN CEMENT STABILIZED CRUSHED STONE BASE COURSE	71598	TON
308	CEMENT IN CEMENT STABILIZED CRUSHED STONE BASE COURSE	4570	TON
308	PROCESSING CEMENT STABILIZED CRUSHED STONE BASE COURSE	219152	SQ. YD.
401	TACK COAT	27414	GALLON
SS & 405	MINERAL AGGREGATE IN ACHM BASE COURSE (1 1/2")	10519	TON
SS & 405	ASPHALT BINDER (PG70-22) IN ACHM BASE COURSE (1 1/2")	416	TON
SS & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")	61533	TON
SS & 406	ASPHALT BINDER (PG64-22) IN ACHM BINDER COURSE (1")	342	TON
SS & 406	ASPHALT BINDER (PG70-22) IN ACHM BINDER COURSE (1")	2494	TON
SS & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	33148	TON
SS & 407	ASPHALT BINDER (PG64-22) IN ACHM SURFACE COURSE (1/2")	316	TON
SS & 407	ASPHALT BINDER (PG70-22) IN ACHM SURFACE COURSE (1/2")	1431	TON
SS & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (3/8")	11451	TON
SS & 407	ASPHALT BINDER (PG64-22) IN ACHM SURFACE COURSE (3/8")	603	TON
412	COLD MILLING ASPHALT PAVEMENT	36500	SQ. YD.
414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC	200	TON
501	PORTLAND CEMENT CONCRETE PAVEMENT (13" UNIFORM THICKNESS)	210330	SQ. YD.
504	APPROACH SLABS	398.00	CU. YD.
504	APPROACH GUTTERS (TYPE C)	72.24	CU. YD.
504	APPROACH GUTTERS (TYPE PT)	80.28	CU. YD.
504	APPROACH GUTTERS (TYPE SPECIAL 1)	114.60	CU. YD.
505	PORTLAND CEMENT CONCRETE DRIVEWAY	56.01	SQ. YD.
506	PORTLAND CEMENT CONCRETE CORRUGATION	353	SQ. YD.
601	MOBILIZATION	1.00	LUMP SUM
602	FURNISHING FIELD OFFICE	1	EACH
SP & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
603	TRAFFIC CONTROL SUPERVISOR	1.00	LUMP SUM
603	18" TEMPORARY CULVERT	2868	LIN. FT.
603	18" x 11" TEMPORARY CULVERT	92	LIN. FT.
SS & 604	SIGNS	5510	SQ. FT.
SS & 604	VERTICAL PANELS	31	EACH
SS & 604	TRAFFIC DRUMS	1008	EACH
SS & 604	BARRICADES	584	LIN. FT.
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	52000	LIN. FT.
604	RELOCATING PRECAST CONCRETE BARRIER	73706	LIN. FT.
SP, SS & 604	CONSTRUCTION PAVEMENT MARKINGS	137995	LIN. FT.
SS & 604	CONSTRUCTION PAVEMENT MARKINGS (ARROWS)	9	EACH
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	81380	LIN. FT.
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	18933	LIN. FT.
SP & 604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	214499	LIN. FT.
604	ADVANCE WARNING ARROW PANEL	40	DAY
SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN	99	WEEK
605	CONCRETE DITCH PAVING (TYPE A)	516	SQ. YD.
605	CONCRETE DITCH PAVING (TYPE B)	1173	SQ. YD.
606	12" ZINC COATED (GALVANIZED) CORRUGATED STEEL PIPE CULVERTS (16 GAUGE)	70	LIN. FT.
606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	232	LIN. FT.
606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	3900	LIN. FT.
606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	666	LIN. FT.
606	36" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	8	LIN. FT.
606	48" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	326	LIN. FT.
606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	3	EACH
606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	4	EACH
606	30" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	1	EACH
606	48" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	2	EACH
606	29" x 18" REINFORCED CONCRETE ARCH PIPE CULVERTS (CLASS III)	278	LIN. FT.
SS & 606	18" SIDE DRAIN	90	LIN. FT.
606	SELECTED PIPE BEDDING	500	CU. YD.
606	SELECTED PIPE BACKFILL	500	CU. YD.
609	DROP INLETS (TYPE N2)	2	EACH
609	DROP INLETS (TYPE MO)	4	EACH
609	DROP INLETS (TYPE RM)	8	EACH
609	DROP INLETS (TYPE ST)	45	EACH
609	DROP INLETS (TYPE TM)	4	EACH
609	DROP INLETS (TYPE SPECIAL)	18	EACH
609	DROP INLET EXTENSIONS (4')	2	EACH
609	DROP INLET EXTENSIONS (8')	23	EACH
609	JUNCTION BOXES (TYPE ST)	5	EACH
609	JUNCTION BOXES (TYPE E)	3	EACH
610	DROP INLETS ADJUSTED TO GRADE	2	EACH
611	4" PIPE UNDERDRAINS	7350	LIN. FT.
611	UNDERDRAIN OUTLET PROTECTORS	21	EACH
614	CONCRETE SPILLWAY (TYPE A)	2	EACH
615	PAVEMENT REPAIR OVER CULVERTS (ASPHALT)	44	TON
617	GUARDRAIL (TYPE A)	9550	LIN. FT.
617	TERMINAL ANCHOR POSTS (TYPE 1)	27	EACH
617	GUARDRAIL TERMINAL (TYPE 2)	38	EACH
617	THRIE BEAM GUARDRAIL TERMINAL	19	EACH
619	8' STEEL CHAIN LINK FENCE * (ALTERNATE NO. 1)	1526	LIN. FT.
619	8' ALUMINUM CHAIN LINK FENCE * (ALTERNATE NO. 2)	1526	LIN. FT.
619	10' STEEL CHAIN LINK FENCE * (ALTERNATE NO. 1)	160	LIN. FT.
619	10' ALUMINUM CHAIN LINK FENCE * (ALTERNATE NO. 2)	160	LIN. FT.
620	LIME	89	TON
620	SEEDING	44.98	ACRE
620	MULCH COVER	112.46	ACRE
SS & 620	WATER	5977.0	M. GAL.
621	TEMPORARY SEEDING	67.48	ACRE
621	SILT FENCE	18340	LIN. FT.
621	SAND BAG DITCH CHECKS	294	BAG
621	DROP INLET SILT FENCE	2172	LIN. FT.
621	ROCK DITCH CHECKS	328	CU. YD.
621	SEDIMENT REMOVAL AND DISPOSAL	920	CU. YD.
623	SECOND SEEDING APPLICATION	44.98	ACRE
624	SOLID SODDING	906	SQ. YD.
631	CONCRETE BARRIER WALL (MEDIAN TYPE A)	16066	LIN. FT.
631	CONCRETE BARRIER WALL (MEDIAN TYPE B)	170	LIN. FT.
631	CONCRETE BARRIER WALL (MEDIAN TYPE C)	326	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE A)	2101	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE B)	540	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE C)	1168	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE D)	187	LIN. FT.
SP & 631	CONCRETE BARRIER WALL (SIDE TYPE E)	2021	LIN. FT.
631	CONCRETE BARRIER WALL (PARAPET TYPE SPECIAL)	2439	LIN. FT.
632	CONCRETE ISLAND	3672	SQ. YD.
633	CONCRETE WALKS	1463	SQ. YD.
633	HAND RAILING	363	LIN. FT.
634	INTEGRAL CURB (TYPE A)	702	LIN. FT.
634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A)(1'6")	6658	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
637	MAILBOX SUPPORTS (SINGLE)	2	EACH
637	MAILBOXES	2	EACH

SUMMARY OF QUANTITIES - CONTINUED

ITEM NUMBER	ITEM	QUANTITY	UNITS
640	MODIFYING DROP INLETS	9	EACH
641	WHEELCHAIR RAMPS (TYPE 1)	107	SQ. YD.
641	WHEELCHAIR RAMPS (TYPE 4)	46	SQ. YD.
SP & 701	ACTUATED CONTROLLER TS1 (8 PHASES)	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	11	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, LENS RETROFIT (3 SECTION, 1 WAY)	10	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, LENS RETROFIT (5 SECTION, 1 WAY)	3	EACH
SP & 707	PEDESTRIAN SIGNAL HEAD, LED	8	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1442	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	138	LIN. FT.
708	TRAFFIC SIGNAL CABLE (12C/14 A.W.G.)	175	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	215	LIN. FT.
709	GALVANIZED STEEL CONDUIT (1.25")	15	LIN. FT.
710	NON-METALLIC CONDUIT (1.25")	10	LIN. FT.
710	NON-METALLIC CONDUIT (2")	506	LIN. FT.
710	NON-METALLIC CONDUIT (3")	232	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)	8	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (10')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (20')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (22')	2	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (36')	1	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	4	EACH
SS & 718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (10')	1653	LIN. FT.
SS & 718	REFLECTORIZED PAINT PAVEMENT MARKING YELLOW (10')	781	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING WHITE (4')	41294	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING WHITE (8')	16410	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING WHITE (12')	1169	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING WHITE (24')	110	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING YELLOW (4')	35691	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING YELLOW (8')	533	LIN. FT.
SSk 719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	22	EACH
SSk 719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)	22	EACH
SP & 719	PROFILED THERMOPLASTIC PAVEMENT MARKING WHITE (4")	83457	LIN. FT.
SP & 719	PROFILED THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	35024	LIN. FT.
720	PERMANENT PAVEMENT MARKING TAPE (WHITE,4",TYPE 3)	1110	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE I)	3798	EACH
721	RAISED PAVEMENT MARKERS (TYPE II)	585	EACH
722	PLOWABLE PAVEMENT MARKER (I)	1182	EACH
722	PLOWABLE PAVEMENT MARKER (II)	89	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-01)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-02)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-03)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-04)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-05)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-06)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-07)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-08)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-09)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-10)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-11)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-12)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-16)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-17)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-18)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-19)	1	EACH
SP & 724	OVERHEAD SIGN STRUCTURE (OH-067-60-20)	1	EACH
725	GUIDE SIGN - ROADSIDE MOUNTED (DEMOUNTABLE LEGEND)	2279	SQ. FT.
725	GUIDE SIGN - OVERHEAD MOUNTED (DEMOUNTABLE LEGEND)	5931	SQ. FT.
727	EXIT NUMBER PANEL (TYPE A)	355	SQ. FT.
727	EXIT NUMBER PANEL (TYPE B)	60	SQ. FT.
727	EXIT NUMBER PANEL (TYPE C)	55	SQ. FT.
730	BREAKAWAY SIGN SUPPORT (TYPE G-1)	12156	POUND
731	IMPACT ATTENUATION BARRIER (TYPE A)	1	EACH
732	CRASH CUSHION	2	EACH
733	VIDEO DETECTOR	16	EACH
733	VIDEO PROCESSOR (4 CHANNEL)	2	EACH
733	VIDEO PROCESSOR (6 CHANNEL)	1	EACH
733	VIDEO CABLE	2335	LIN. FT.
733	VIDEO MONITOR (B/W)	1	EACH
SP & 733	VIDEO DETECTOR RELOCATION	1	EACH
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES - ROADWAY	754	CU. YD.
802	CLASS S CONCRETE - ROADWAY	372.85	CU. YD.
804	REINFORCING STEEL - ROADWAY (GRADE 60)	90399	POUND
804	EPOXY COATED REINFORCING STEEL (GRADE 60)	1084	POUND
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	147	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (10/12 A.W.G., EGC)	455	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (10/8 A.W.G., EGC)	2305	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (20/6 A.W.G.)	189	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT, ALUMINUM (30/0 A.W.G., W/G)	400	LIN. FT.
SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE	17843	LIN. FT.
SP	HIGH PERFORMANCE CONTRAST MARKING TAPE YELLOW	7883	LIN. FT.
SP	LUMINAIRE ASSEMBLY	1	EACH
SP	LUMINAIRE POLE RELOCATION	3	EACH
SP	REMOVAL AND DISPOSAL OF BRIDGE MOUNTED SIGN STRUCTURE	2	EACH
SP	REMOVAL AND DISPOSAL OF GUARDRAIL	4275	LIN. FT.
SP	REMOVAL AND DISPOSAL OF OVERHEAD SIGN STRUCTURE	6	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1.00	LUMP SUM
SP	RETAINING WALL	51224	SQ. FT.
SP	SCARIFYING CONCRETE PAVEMENT	1066	SQ. YD.
SP	TEXTURE WALL TREATMENT	815	SQ. FT.
SP	TEMPORARY IMPACT ATTENUATION BARRIER	7	EACH
SP	TEMPORARY IMPACT ATTENUATION BARRIER (REPAIR)	7	EACH
SP	TEMPORARY RELOCATION OF EXISTING SIGNS	11	EACH
SP	VIDEO DETECTOR ROTATION	5	EACH
	STRUCTURES OVER 20'-0" SPAN		
	STRUCTURES OVER 20'-0" SPAN		
205	REMOVAL OF EXISTING BRIDGE STRUCTURES (SITE NO. 1)	1.00	LUMP SUM
205	REMOVAL OF EXISTING BRIDGE STRUCTURES (SITE NO. 2)	1.00	LUMP SUM
205	REMOVAL OF EXISTING BRIDGE STRUCTURES (SITE NO. 3)	1.00	LUMP SUM
603	TEMPORARY BRIDGE STRUCTURE (24' ROADWAY WIDTH)	150	LIN. FT.
636	BRIDGE CONSTRUCTION CONTROL	1.00	LUMP SUM
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	974	CU. YD.
802	CLASS S CONCRETE - BRIDGE	1705.40	CU. YD.
802	CLASS S(AE) CONCRETE - BRIDGE	1724.5	CU. YD.
803	CLASS 1 PROTECTIVE SURFACE TREATMENT	142.7	GALLON
804	REINFORCING STEEL - BRIDGE (GRADE 60)	217390	POUND
804	EPOXY COATED REINFORCING STEEL (GRADE 60)	439490	POUND
805	STEEL PILING (HP 12 x 53)	16910	LIN. FT.
805	STEEL PILING (HP 14 x 73)	990	LIN. FT.
805	PILE ENCASEMENT	756	LIN. FT.
805	PREBORING	165	LIN. FT.
806	METAL BRIDGE RAILING (TYPE M)	768	LIN. FT.
807	STRUCTURAL STEEL IN BEAM SPANS (M270-GR50W)	29470	POUND
807	STRUCTURAL STEEL IN PLATE GIRDER SPANS (M270-GR50)	949050	POUND
807	STRUCTURAL STEEL IN BEAM SPANS (M270-GR50)	674710	POUND
807	PAINTING STRUCTURAL STEEL	812	TON
SP & 808	ELASTOMERIC BEARINGS	74805	CU. IN.
812	BRIDGE NAME PLATE (TYPE D)	2	EACH
816	FILTER BLANKET	1024	SQ. YD.
816	DUMPED RIPRAP	512	CU. YD.
816	CONCRETE RIPRAP	213	CU. YD.
SP	SILICONE JOINT SEALANT	468	LIN. FT.
SP	TRANSITIONAL APPROACH RAILING	4	EACH

* DENOTES ALTERNATE BID ITEM.

REVISIONS

DATE	REVISION	SHEET NUMBER
09-15-2005	REVISED CONCRETE BARRIER WALL LIMITS ON McCAIN N.B. ENTRANCE RAMP	31, 187 & 198
09-19-2005	MINOR REVISIONS IN PAVEMENT MARKING QUANTITIES AND SPELLING CORRECTIONS	118, 150, 151, 152, 153, 173, 175, 179, 180, 181 & 198
10-04-2005	NAME PLATE REVISED TO BROOKWOOD	196, 197 & 198

09-19-2005 RR60080.001

SUMMARY OF QUANTITIES & REVISIONS