DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	1	270
				(2)	E. JOYCE BLVD.-CITY LIMITS (FAYETTEVILLE) (S)			

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONSTRUCTION PLANS FOR STATE HIGHWAY

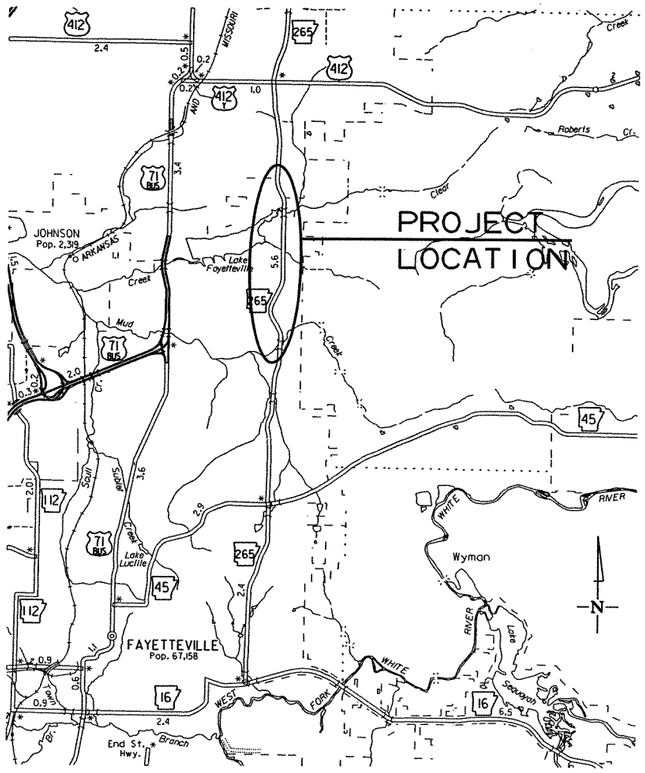
E. JOYCE BLVD.-CITY LIMITS (FAYETTEVILLE) (S)

WASHINGTON COUNTY

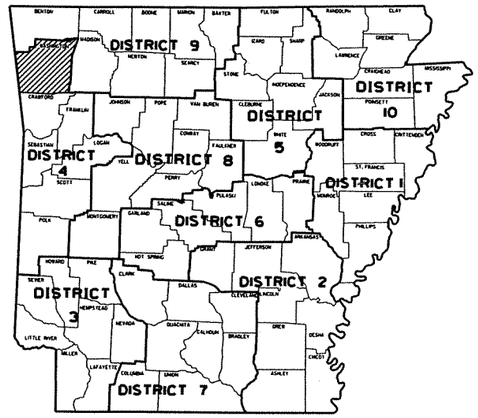
ROUTE 265 SECTION 2

JOB 040518

FED. AID PROJ. STP-9142(27)



VICINITY MAP

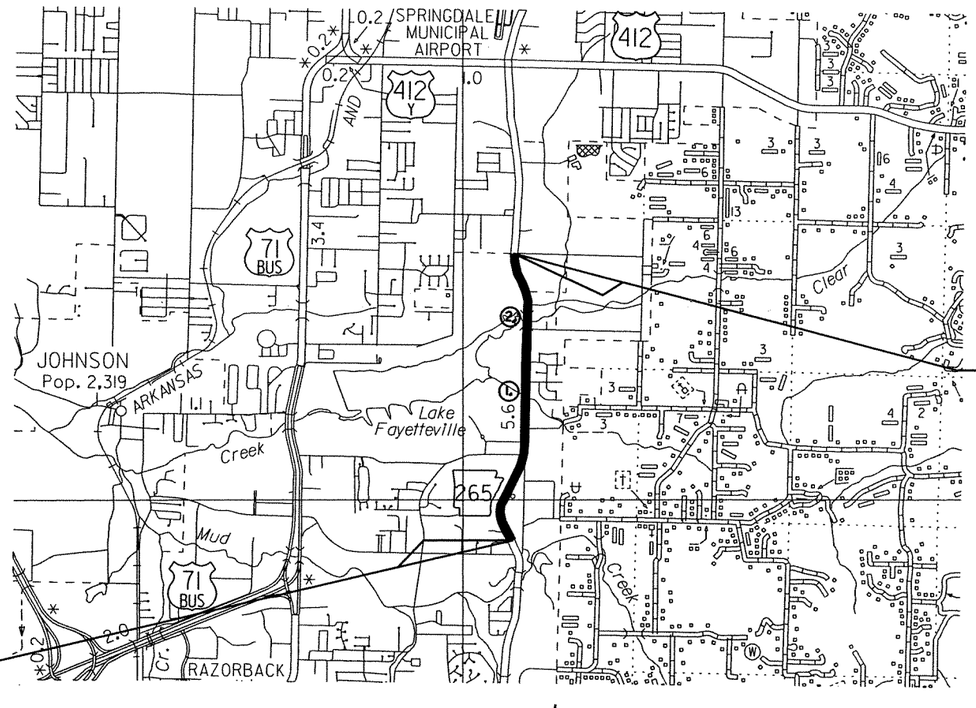


ARK. HWY. DIST. NO. 4

STRUCTURES OVER 20'-0" SPAN

(4) STA. 179+80 CONSTRUCT
QUAD 8' x 5' x 140' R.C. BOX CULVERT
WITH 30° WINGS LT. AND RT.
SPAN WIDTH = 35' - 5"

(2) STA. 204+23.85 BRIDGE END
BRIDGE NO. 07229
CONTINUOUS R.C. SLAB UNIT
84'-8 5/16" TO 72' - 8 3/8"
202' -2" BRIDGE LENGTH
STA. 206+26.17 BRIDGE END



• DESIGN TRAFFIC DATA •

DESIGN YEAR	2032
2012 ADT	18,500
2032 ADT	26,000
2032 DHV	2,860
DIRECTIONAL DISTRIBUTION	60%
TRUCKS	3%
DESIGN SPEED	40 MPH

	BEGIN PROJECT	MID-POINT OF PROJECT	END PROJECT
LATITUDE	N 36° 7' 16.5"	N 36° 8' 5.0"	N 36° 8' 55.6"
LONGITUDE	W 94° 7' 10.1"	W 94° 7' 4.2"	W 94° 7' 8.4"

GROSS LENGTH OF PROJECT		10376.00	FEET	OR	1.965	MILES
NET	" " ROADWAY	10138.26	"	"	1.920	"
NET	" " BRIDGES	237.74	"	"	0.045	"
NET	" " PROJECT	10376.00	"	"	1.965	"

P.E. 040440
NON-PART.

APPROVED

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 3917
FRANK VOZEL

2/7/13
DEPUTY DIRECTOR
AND CHIEF ENGINEER

r040518.dgn
12-8-10

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	2	270

(2) INDEX OF SHEETS AND GOVERNING SPECS.

INDEX OF SHEETS

SHEET NO.	TITLE	BRIDGE NO.	DRWG.NO.	DATE
1	TITLE SHEET			
2	INDEX OF SHEETS AND GOVERNING SPECIFICATIONS			
3	GENERAL NOTES			
4 - 8	TYPICAL SECTIONS OF IMPROVEMENT			
9 - 13H	SPECIAL DETAILS			
14 - 37	TEMPORARY EROSION CONTROL DETAILS			
38 - 66	MAINTENANCE OF TRAFFIC DETAILS			
67 - 74	PERMANENT PAVEMENT MARKING DETAILS			
75 - 85	QUANTITY SHEETS			
86	SCHEDULE OF BRIDGE QUANTITIES	07229	52395	
87 - 88	SUMMARY OF QUANTITIES AND REVISIONS			
89 - 96	SURVEY CONTROL DETAILS			
97 - 121	PLAN AND PROFILE SHEETS			
122	SYSTEM MAP			
123	SUMMARY AND TRAFFIC SIGNAL NOTES			
124 - 137	SIGNALIZATION PLAN SHEETS			
138	OVERHEAD SIGN DETAILS			
139 - 144	SIGNALIZATION DETAILS			
145	LAYOUT OF BRIDGE OVER CLEAR CREEK	07229	52396	
146	SOIL BORINGS & STAGE CONSTRUCTION	07229	52397	
147	DETAILS OF END BENT 1, STAGE 1	07229	52398	
148	DETAILS OF END BENT 1, STAGE 3	07229	52399	
149	DETAILS OF END BENT 6, STAGE 1	07229	52400	
150	DETAILS OF END BENT 6, STAGE 3	07229	52401	
151	COMMON DETAILS OF END BENTS	07229	52402	
152	DETAILS OF INTERMEDIATE BENT NO. 2, STAGE 1	07229	52403	
153	DETAILS OF INTERMEDIATE BENT NO. 2, STAGE 3	07229	52404	
154	DETAILS OF INTERMEDIATE BENT NO. 3, STAGE 1	07229	52405	
155	DETAILS OF INTERMEDIATE BENT NO. 3, STAGE 3	07229	52406	
156	DETAILS OF INTERMEDIATE BENT NO. 4, STAGE 1	07229	52407	
157	DETAILS OF INTERMEDIATE BENT NO. 4, STAGE 3	07229	52408	
158	DETAILS OF INTERMEDIATE BENT NO. 5, STAGE 1	07229	52409	
159	DETAILS OF INTERMEDIATE BENT NO. 5, STAGE 3	07229	52410	
160	DETAILS OF 200'-0" CONTINUOUS R.C. SLAB UNIT (SHEET 1 OF 7)	07229	52411	
161	DETAILS OF 200'-0" CONTINUOUS R.C. SLAB UNIT (SHEET 2 OF 7)	07229	52412	
162	DETAILS OF 200'-0" CONTINUOUS R.C. SLAB UNIT (SHEET 3 OF 7)	07229	52413	
163	DETAILS OF 200'-0" CONTINUOUS R.C. SLAB UNIT (SHEET 4 OF 7)	07229	52414	
164	DETAILS OF 200'-0" CONTINUOUS R.C. SLAB UNIT (SHEET 5 OF 7)	07229	52415	
165	DETAILS OF 200'-0" CONTINUOUS R.C. SLAB UNIT (SHEET 6 OF 7)	07229	52416	
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167	DETAILS OF TRANSITIONAL APPROACH RAILING	07229	52418	
168	EMBANKMENT CONSTRUCTION AND BACKFILL AT BRIDGE ENDS		1888A	4-10-03
169	DETAILS FOR DUMPED RIPRAP AND FILTER BLANKET AND DETAILS FOR COMPUTING EXCAVATION FOR STRUCTURES		1891F	4-10-03
170	DETAILS OF STANDARD TYPE D BRIDGE NAME PLATES		2387	1-10-13
171	DETAILS OF CONCRETE RIPRAP AND MISCELLANEOUS DETAILS OF STEEL PILINGS		14995A	4-10-03
172	CONCRETE DITCH PAVING		CDP-1	11-17-10
173	CURBING DETAILS		CG-1	11-29-07
174	DETAILS OF DRIVEWAYS & ISLANDS		DR-1	11-29-07
175	FLARED END SECTION		FES-1	10-18-96
176	FLARED END SECTION		FES-2	10-18-96
177	DETAILS OF DROP INLETS & JUNCTION BOXES		FPC-9	11-16-01
178	DETAILS OF DROP INLETS (TYPE C)		FPC-9E	8-22-02
179	DETAILS OF DROP INLET (TYPE MO)		FPC-9M	8-22-02
180	DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)		FPC-9S	7-26-12
181	MAILBOX DETAILS		MB-1	11-18-04
182	PRECAST CONCRETE BOX CULVERTS		PBC-1	12-15-11
183	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING		PCC-1	12-15-11
184	METAL PIPE CULVERT FILL HEIGHTS & BEDDING		PCM-1	12-15-11
185	PLASTIC PIPE CULVERT (HIGH DENSITY POLYETHYLENE)		PCP-1	12-15-11
186	PLASTIC PIPE CULVERT (PVC F949)		PCP-2	12-15-11
187	PAVEMENT MARKING DETAILS		PM-1	11-17-10
188	DETAILS OF PIPE UNDERDRAIN		PU-1	4-10-03
189	REINFORCED CONCRETE BOX CULVERT DETAILS		RCB-1	7-26-12
190	EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS		RCB-2	11-20-03
191	METHOD OF EXTENDING EXISTING R.C. BOX CULVERTS		RCB-3	10-12-95
192	TABLES AND METHOD OF SUPERELEVATION FOR ONE-WAY TRAFFIC		SE-1	1-09-87
193	DETAILS OF SPECIAL ITEMS		SI-1	7-26-12
194	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION		TC-1	12-15-11
195	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION		TC-2	3-11-10
196	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION		TC-3	10-15-09
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198	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION-TEMPORARY PRECAST BARRIER		TC-5	10-15-09
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200	TEMPORARY EROSION CONTROL DEVICES		TEC-2	6-02-94
201	TEMPORARY EROSION CONTROL DEVICES		TEC-3	11-03-94
202	CHAIN LINK FENCE		WF-3	11-17-10
203	WIRE FENCE TYPE C AND D		WF-4	8-22-02
204	WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS		WR-1	11-10-05
205	DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS		W-X303-1	5-10-66
206	DETAILS OF STANDARD BARREL SECTIONS FOR REINFORCED CONCRETE BOX CULVERTS		R-230X-01	2-26-64
207 - 270	CROSS SECTIONS			

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

GOVERNING SPECIFICATIONS

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

NUMBER	TITLE
ERRATA	ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273	REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273	SUPPLEMENT - SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES (23 U.S.C. 140)
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - GOALS AND TIMETABLES
FHWA-1273	SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - FEDERAL STANDARDS
FHWA-1273	SUPPLEMENT - TRAINING PROGRAM - JOB 040518
FHWA-1273	SUPPLEMENT - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-2	MANUAL FOR ASSESSING SAFETY HARDWARE (MASH)
102-1	BIDDING REQUIREMENTS AND CONDITIONS
103-1	DETERMINATION OF DBE PARTICIPATION
105-1	CONSTRUCTION CONTROL MARKINGS
105-2	EQUIPMENT AND MATERIAL STORAGE ON BRIDGE STRUCTURES
105-3	CONTROL OF WORK
107-1	WORKER VISIBILITY
108-1	LIQUIDATED DAMAGES
110-1	PROTECTION OF WATER QUALITY AND WETLANDS
303-1	AGGREGATE BASE COURSE
404-1	PRODUCTION VERIFICATION OF ASPHALT CONCRETE HOT MIX
409-1	MINERAL AGGREGATES
410-3	DENSITY TESTING FOR ACHM LEVELING COURSES AND BOND BREAKERS
411-1	ASPHALT CONCRETE COLD PLANT MIX
600-1	WATER FOR VEGETATION
603-1	MAINTENANCE OF TRAFFIC
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
604-2	INSPECTION OF TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
606-1	PIPE CULVERTS FOR SIDE DRAINS
606-2	PIPE CULVERTS
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
718-2	REFLECTORIZED PAINT PAVEMENT MARKINGS
719-2	THERMOPLASTIC PAVEMENT MARKING MATERIAL
723-1	GENERAL REQUIREMENTS FOR SIGNS
804-1	INSTALLATION OF DOWEL BARS AND TIE BARS
JOB 040518	ARCHITECTURAL FINISH
JOB 040518	ASPHALT CONCRETE HOT MIX SURFACE COURSE SURFACE TOLERANCE AND INCENTIVE PAYMENTS
JOB 040518	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 040518	BROADBAND INTERNET SERVICE FOR FIELD OFFICE
JOB 040518	CABINET DRAWER ASSEMBLY
JOB 040518	CAVE DISCOVERY
JOB 040518	CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB 040518	COORDINATION OF WORK
JOB 040518	EDGE CARD VIDEO PROCESSOR
JOB 040518	ELECTRICAL CONDUCTORS FOR LUMINAIRES
JOB 040518	ELECTRICAL CONDUCTORS-IN-CONDUIT
JOB 040518	EXTENSION FOR PIPE CULVERTS
JOB 040518	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 040518	HIGH PERFORMANCE PAVEMENT MARKING
JOB 040518	INTERNET BIDDING
JOB 040518	LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
JOB 040518	LED TRAFFIC SIGNAL HEAD
JOB 040518	LUMINAIRE ASSEMBLY (CUTOFF TYPE)
JOB 040518	MAINTENANCE OF TRAFFIC
JOB 040518	MAINTENANCE OF PEDESTRIAN TRAFFIC
JOB 040518	NESTING SITES OF MIGRATORY BIRDS
JOB 040518	PARTNERING REQUIREMENTS
JOB 040518	RELOCATION OF TRAFFIC SIGNAL HEAD
JOB 040518	REMOVAL AND DISPOSAL OF ASBESTOS-CEMENT WATER LINE
JOB 040518	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT
JOB 040518	SECTION 404 INDIVIDUAL PERMIT REQUIREMENTS
JOB 040518	SERVICE POINT ASSEMBLY
JOB 040518	SHORING
JOB 040518	SILICONE JOINT SEALANT
JOB 040518	SITE USE (A + C METHOD)
JOB 040518	SOIL STABILIZATION
JOB 040518	STORM WATER POLLUTION PREVENTION PLAN
JOB 040518	STREET NAME SIGN (MAST ARM MOUNTED)
JOB 040518	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 040518	SYSTEM LOCAL CONTROLLER
JOB 040518	TEXTURED COATING FINISH
JOB 040518	TRANSITIONAL APPROACH RAILING
JOB 040518	UTILITY ADJUSTMENTS
JOB 040518	VALUE ENGINEERING
JOB 040518	VIDEO DETECTOR (COLOR)
JOB 040518	VIDEO DETECTOR RELOCATION
JOB 040518	VIDEO DETECTOR ROTATION
JOB 040518	WARM MIX ASPHALT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

R040518.DGN 8/18/2011

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(2) GENERAL NOTES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

GENERAL NOTES

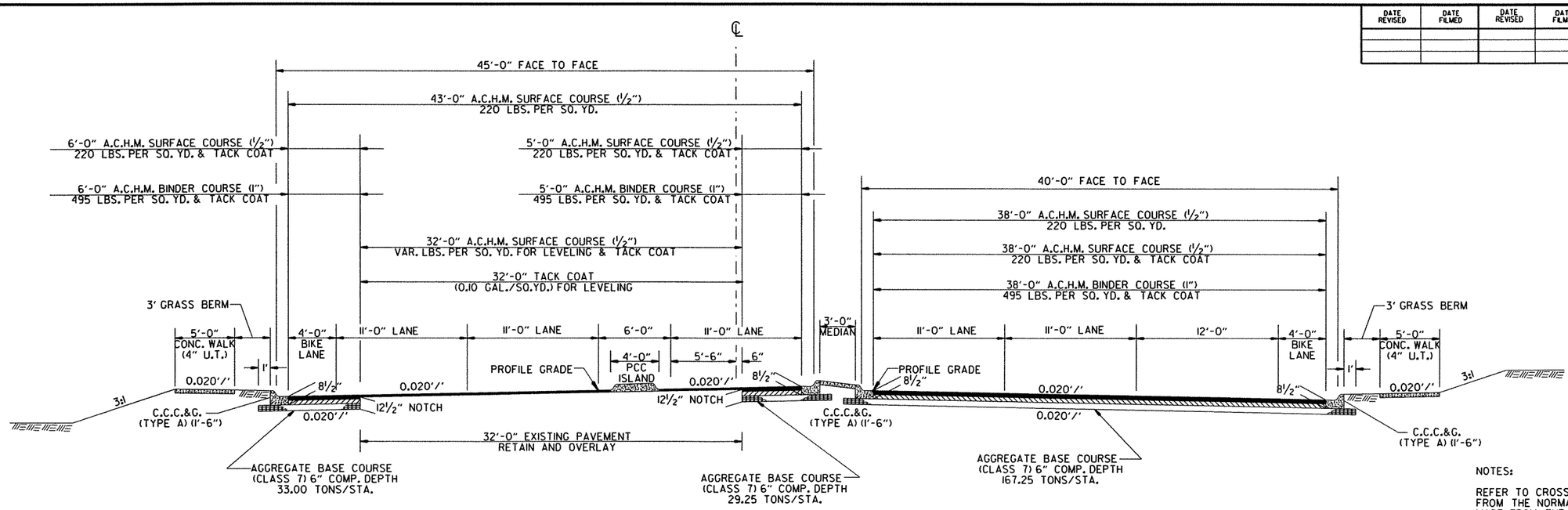
1. GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
2. ALL PIPE LINES, POWER, TELEPHONE AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
3. ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING U. S. MAILBOXES 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.
5. ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
6. ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED IF AND WHERE 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.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FENCE TO CONTROL LIVESTOCK IN AREAS WHERE PASTURES ARE SEVERED. WIRE FENCE MAY BE CONSTRUCTED INITIALLY, OR IN LIEU THEREOF, THE CONTRACTOR AT HIS OWN EXPENSE, MAY ELECT TO PROVIDE TEMPORARY FENCING SUITABLE TO CONTAIN LIVESTOCK.
8. ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
9. THE EXISTING ASPHALT PAVEMENT TO BE REMOVED FROM THE REMAINING PAVEMENT SHALL BE SEPARATED BY SAWING ALONG A NEAT LINE. AFTER SAWING, THE PAVEMENT TO BE REMOVED SHALL BE CAREFULLY REMOVED IN A MANNER THAT WILL NOT DAMAGE THE PAVEMENT THAT IS TO REMAIN. ANY DAMAGE OF THE ASPHALT PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

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(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



HWY. 265 FOUR LANE DIVIDED NOTCH AND WIDEN

NOTE: LEFT TURN LANE SHOWN FOR LT. SIDE. REVERSE FOR LEFT TURN LANE ON RT. SIDE.

NOTES:

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

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 MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

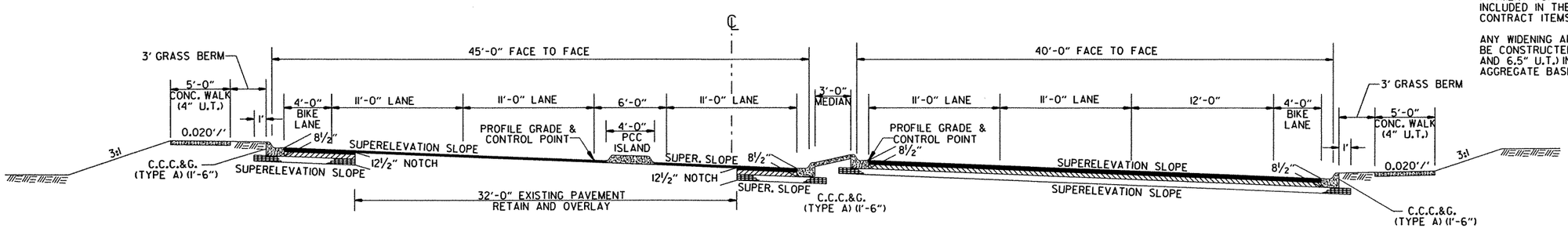
ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING.

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

REFER TO PLAN SHEETS FOR SIDEWALK LOCATIONS.

PRIOR TO AND DURING PLACEMENT OF PAVEMENT IN FRONT OF THE CURB OR CURB AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED IF AND WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

ANY WIDENING AREAS LESS THAN 4' IN WIDTH SHALL BE CONSTRUCTED USING P.C. CONCRETE BASE (6" U.T. AND 6.5" U.T.) INSTEAD OF ACHM SURFACE, BINDER AND AGGREGATE BASE COURSES.



HWY. 265 - FOUR LANE DIVIDED NOTCH AND WIDEN SUPERELEVATION

NOTE: SEE TYPICAL ABOVE FOR PAVEMENT STRUCTURE.

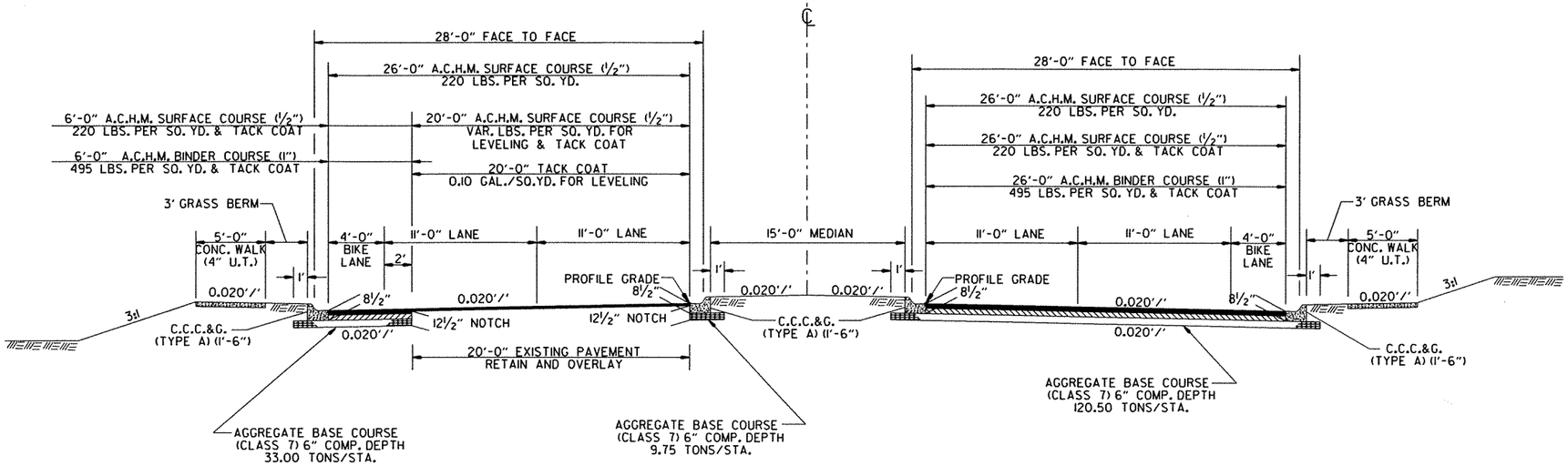
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TYPICAL SECTIONS OF IMPROVEMENT

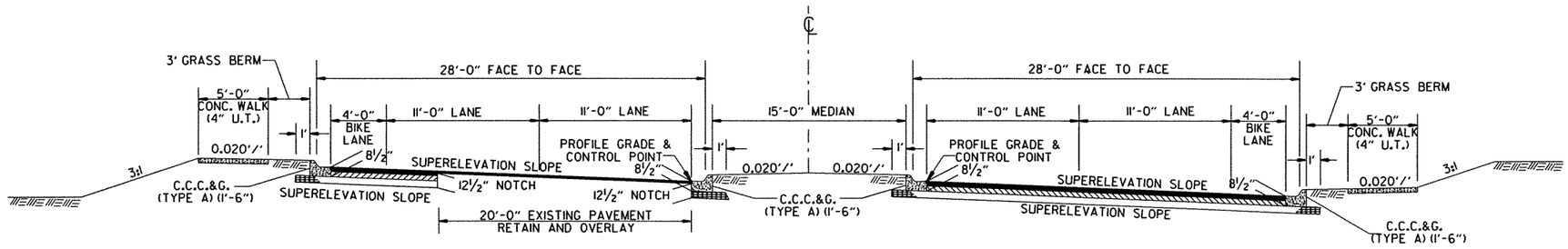
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(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



HWY. 265 4 LANE DIVIDED NOTCH AND WIDEN



HWY. 265 FOUR LANE DIVIDED NOTCH AND WIDEN SUPERELEVATION

NOTE: SEE TYPICAL ABOVE FOR PAVEMENT STRUCTURE.

NOTES:

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

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

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REFER TO PLAN SHEETS FOR SIDEWALK LOCATIONS.

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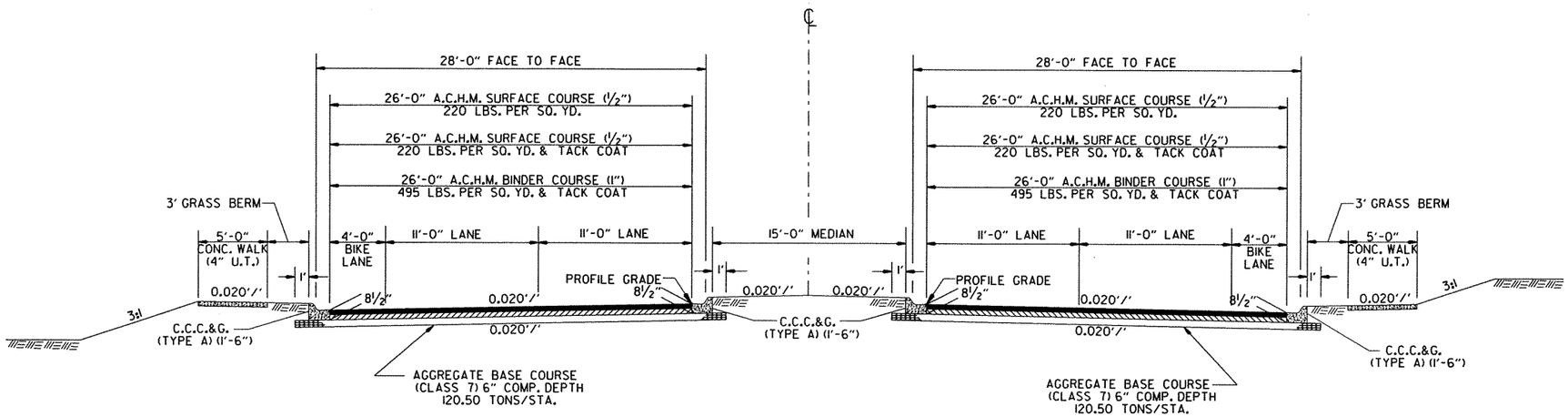
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TYPICAL SECTIONS OF IMPROVEMENT

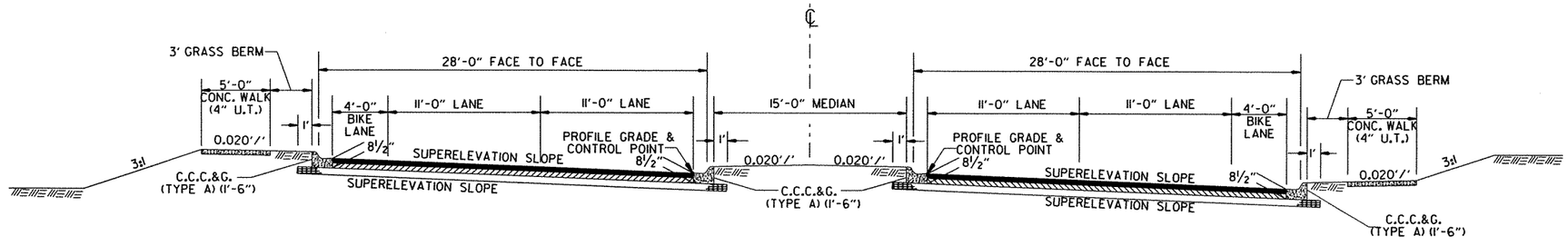
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				6	ARK.			
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(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



HWY. 265 FOUR LANE DIVIDED FULL DEPTH



HWY. 265 FOUR LANE DIVIDED FULL DEPTH SUPERELEVATION

NOTE: SEE TYPICAL ABOVE FOR PAVEMENT STRUCTURE.

NOTES:

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

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 MADE FOR MATERIAL PLACED IN EXCESS OF THE TOLERANCE INDICATED.

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

REFER TO PLAN SHEETS FOR SIDEWALK LOCATIONS.

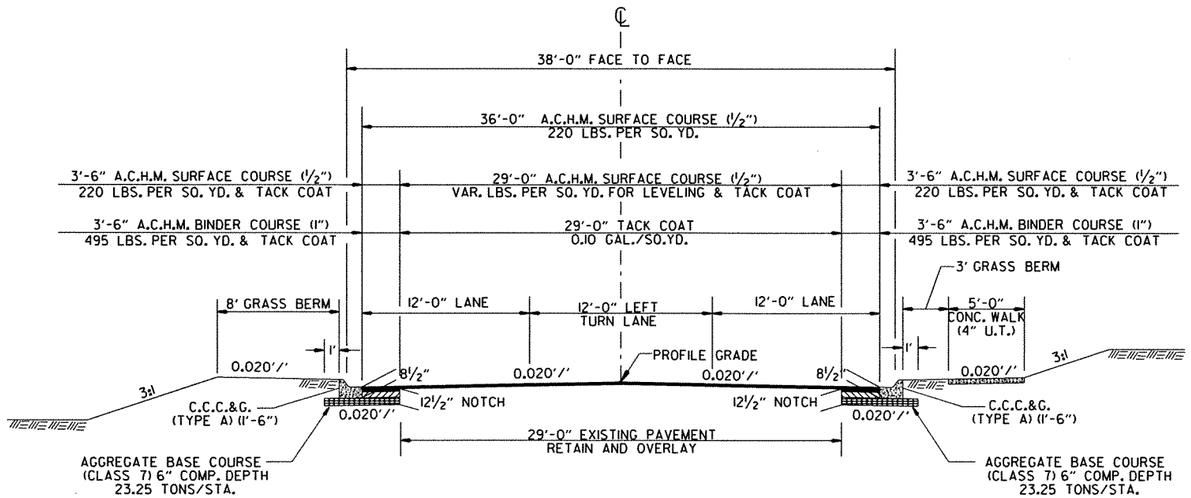
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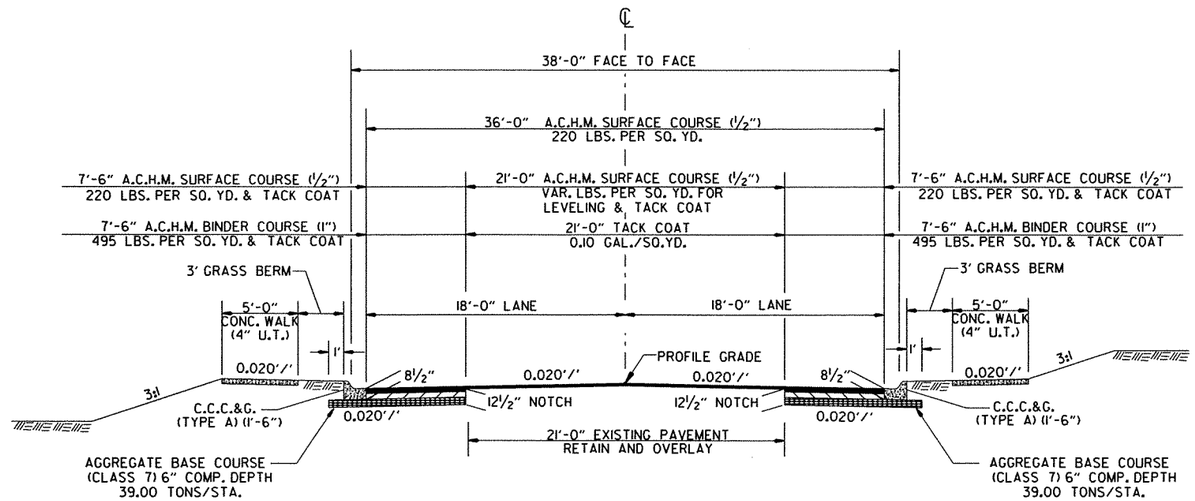
TYPICAL SECTIONS OF IMPROVEMENT

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				JOB NO.		040518	7	270

(2) TYPICAL SECTIONS OF IMPROVEMENT



W. ZION RD. NOTCH AND WIDEN



E. ZION RD. NOTCH AND WIDEN

NOTES:

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ANY WIDENING AREAS LESS THAN 4' IN WIDTH SHALL BE CONSTRUCTED USING P.C. CONCRETE BASE (6" U.T. AND 6.5" U.T.) INSTEAD OF ACHM SURFACE, BINDER AND AGGREGATE BASE COURSES.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH

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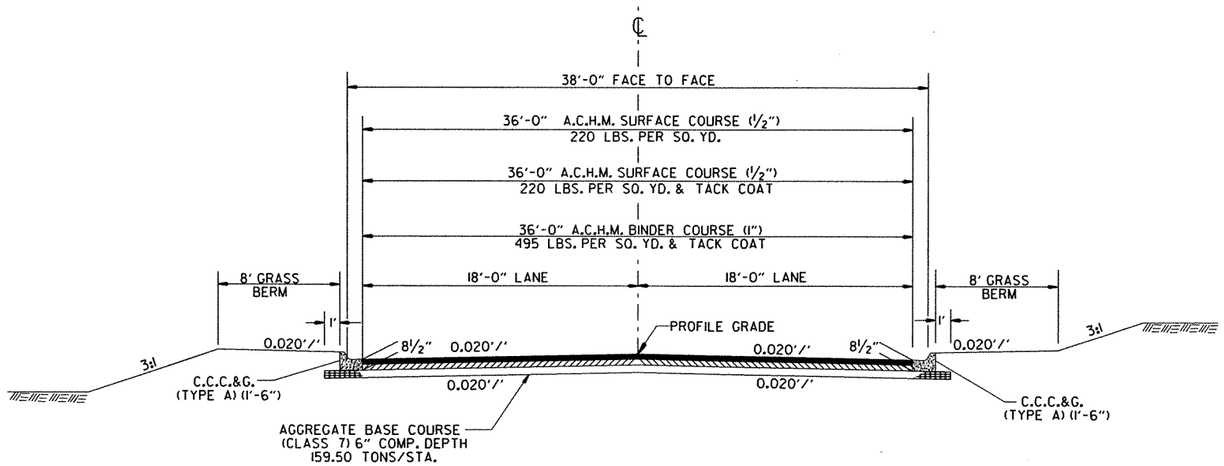
TYPICAL SECTIONS OF IMPROVEMENT

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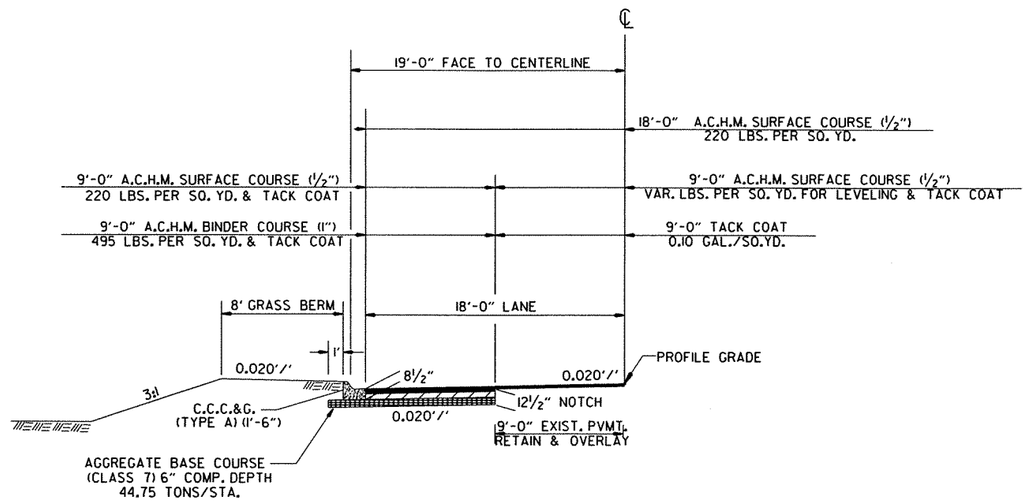
(2) TYPICAL SECTIONS OF IMPROVEMENT

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH

1-4-13



ALBRIGHT RD. FULL DEPTH



IVEY RD. NOTCH, WIDEN AND OVERLAY

NOTES:

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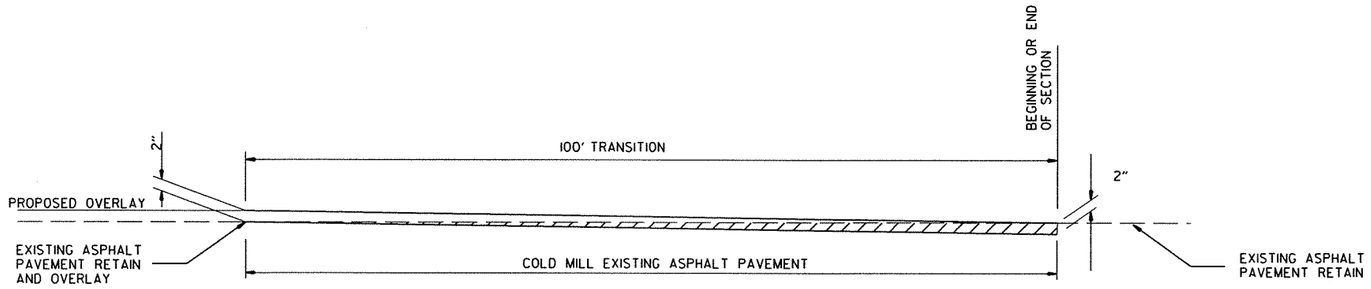
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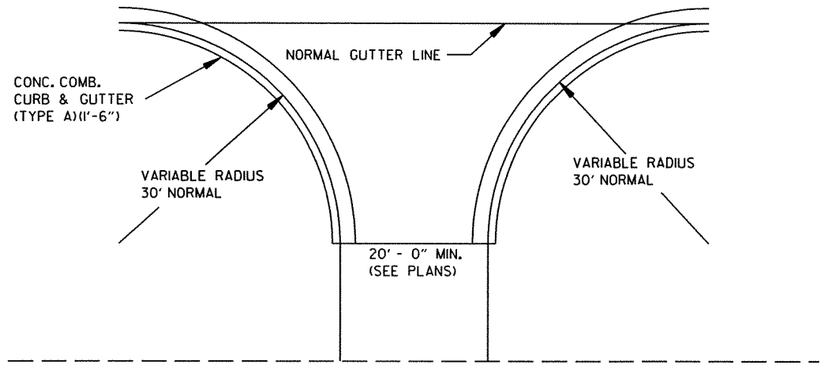
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				(2) SPECIAL DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



DETAIL FOR TRANSITIONS



DETAIL OF TURNOUTS ASPHALT STREETS
CURB & GUTTER SECTION

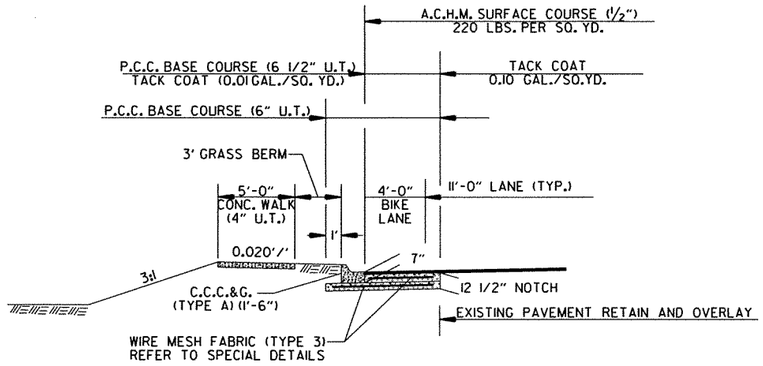
NOTE:
PAVEMENT STRUCTURE TO BE SAME AS MAIN LANES

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8-19-10

SPECIAL DETAILS

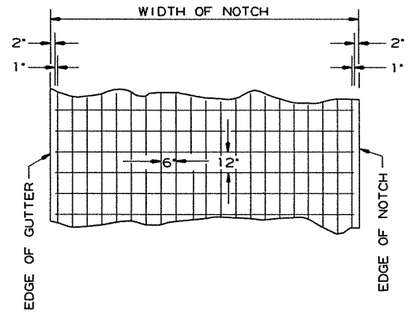
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				(2)	SPECIAL DETAILS			

STATE OF ARKANSAS
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No. 11425
TRINITY D. SMITH
2-4-13



P. C. C. BASE WIDENING DETAIL

P. C. C. BASE WIDENING TO BE USED AS SHOWN ON THE PLANS.

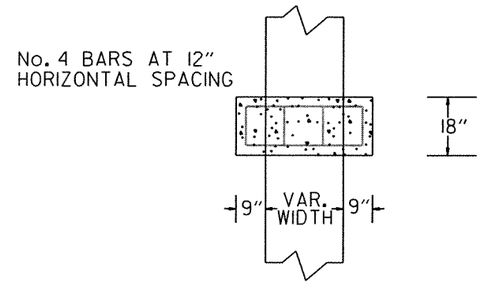


DETAIL OF REINFORCING STEEL FOR PAVEMENT
(WIRE MESH TYPE 3)

6"X 12" MESH FABRIC (TYPE 3) (W5.5 x W2.9) = 4.26 LBS./SQ.YD.

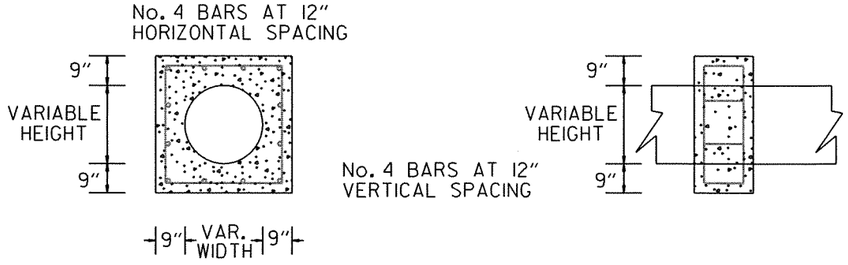
NOTES:

1. LAP MESH FABRIC MIN. 12" LONGITUDINALLY AND MIN. 6" TRANSVERSELY.
2. MESH FABRIC IS NOT REQUIRED WHEN WIDTH OF PORTLAND CEMENT CONCRETE BASE IS LESS THAN 12".
3. MESH FABRIC (TYPE 3) WILL NOT BE PAID FOR DIRECTLY, BUT FULL COMPENSATION THEREFORE WILL BE CONSIDERED INCLUDED IN THE CONTRACT PRICE BID PER SQ. YD. FOR PORTLAND CEMENT CONCRETE BASE (6.5" U.T. AND 6" U.T.).



TOP VIEW

NOTE: MIN 3" CONC. COVER FOR REINF. BARS



FRONT VIEW SIDE VIEW

PIPE EXTENSION
REINFORCED CONCRETE COLLAR DETAIL

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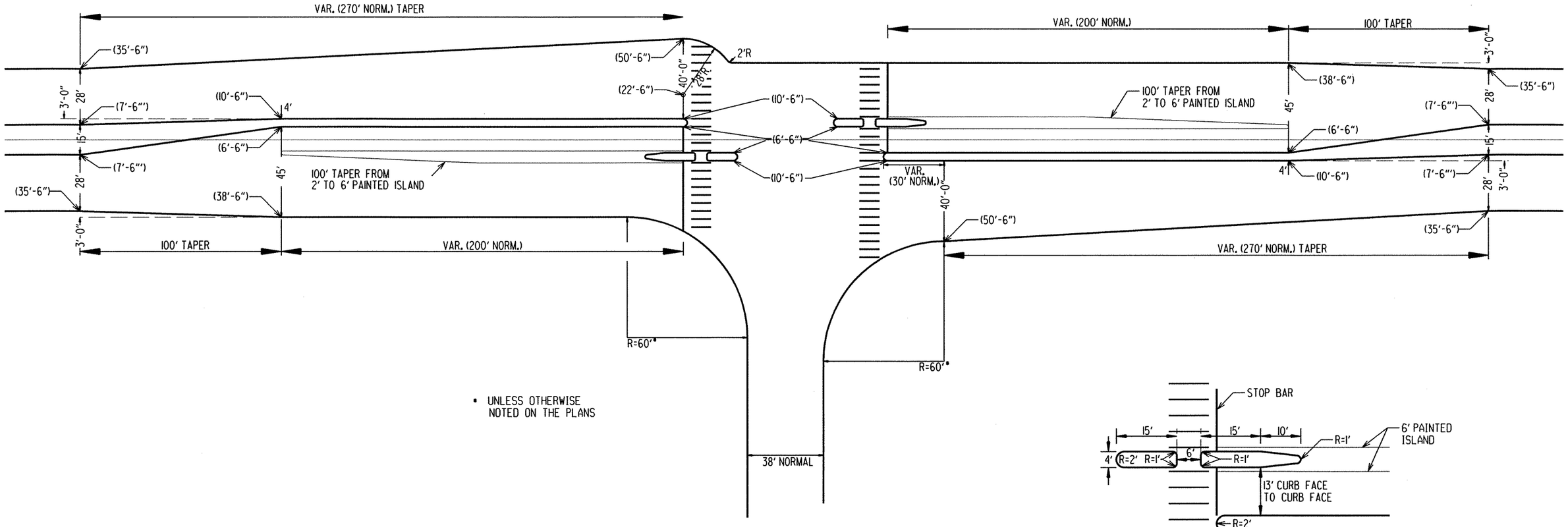
SPECIAL DETAILS

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				(2) SPECIAL DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

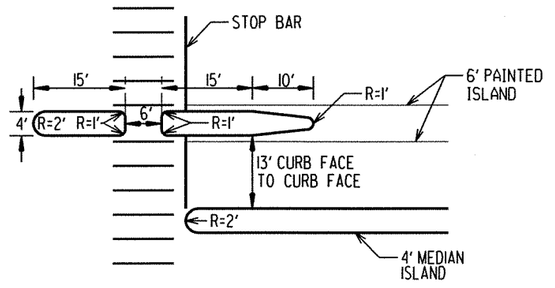
NOTES: DISTANCES SHOWN IN PARENTHESES ( )
ARE FROM C.L. CONST. TO FACE OF CURB.

CROSSWALKS AND STOP BARS SHALL BE
INSTALLED ONLY AT SIGNALIZED INTERSECTIONS.



• UNLESS OTHERWISE
NOTED ON THE PLANS

"T" INTERSECTION DETAILS



PEDESTRIAN REFUGE
ISLAND DETAILS

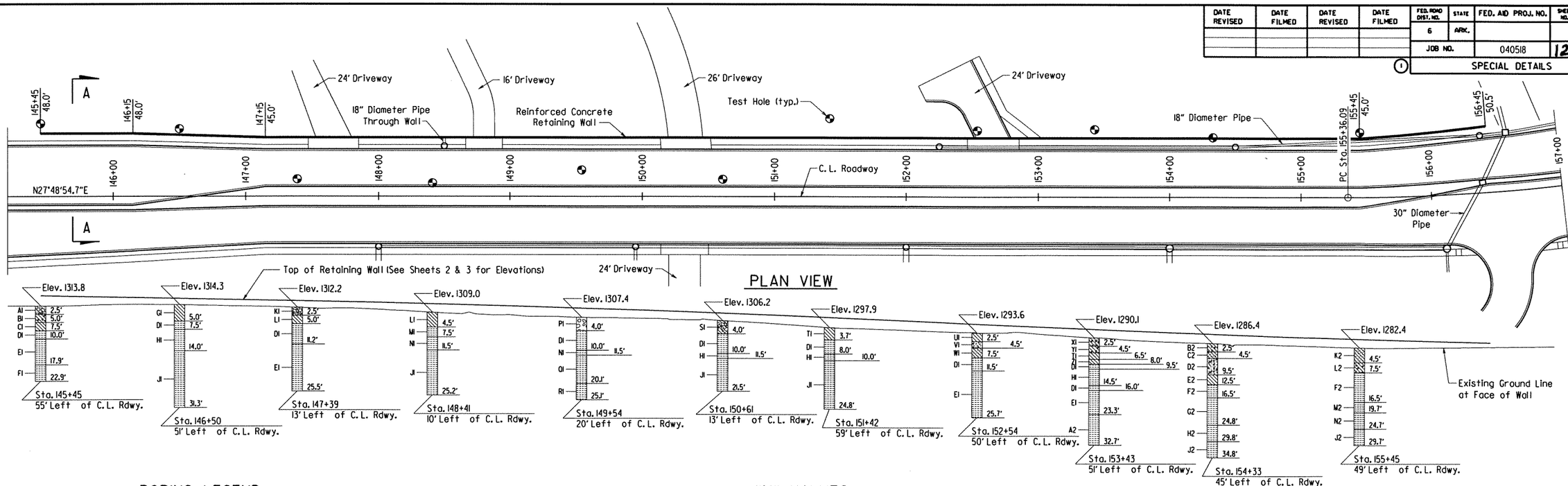
NOTE: PED. REFUGE ISLAND IS TO HAVE AN 8"
THICKNESS WITH A TYPE "C" CURB FACE.

SPECIAL DETAILS

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8-19-10

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(1) SPECIAL DETAILS



BORING LEGEND

AI-Dry, Loose, Brown Sand with Clay, Gravel (Sandstone and Limestone Fragments) and Cobbles
BI-Moist, Stiff, Reddish Brown Clay with Gravel (Chert Fragments)
CI-Moist, Very Stiff, Reddish Brown and Gray Clay with Highly Weathered Shale
DI-SHALE - Brown and Dark Gray, Highly Weathered, Soft
EI-SHALE - Brown and Dark Gray, Laminated, Highly Weathered, Soft, with Slight Dip
FI-SHALE - Brown and Dark Gray, Laminated, Weathered, Soft, with Slight Dip
GI-Moist, Very Stiff to Stiff, Reddish Brown Clay
HI-SHALE - Brown and Dark Gray, Highly Weathered, Medium Hard
JI-SHALE - Brown and Dark Gray, Laminated, Highly Weathered, Medium Hard, with Slight Dip
KI-Moist, Medium Stiff, Reddish Brown Clay with Sand, Gravel (Weathered Shale Fragments) and Cobbles
LI-Moist, Stiff, Reddish Brown Clay
MI-SHALE - Brown and Gray, Highly Weathered, Soft
NI-SHALE - Brown and Gray, Highly Weathered, Medium Hard
PI-Dry, Very Loose, Reddish Brown Cobbles
QI-SHALE - Brown and Gray, Laminated, Highly Weathered, Medium Hard, with Slight Dip
RI-SHALE - Brown and Dark Gray, Laminated, Highly Weathered, Medium Hard, with Slight Dip with Trace of Calcite
SI-Moist, Medium Stiff, Reddish Brown Clay with Gravel (Chert Fragments) and Cobbles
TI-Moist, Medium Stiff, Reddish Brown Clay
UI-Moist, Stiff, Brown Clay
VI-Moist, Medium Dense, Brown Sand with Clay and Gravel (Shale Fragments)
WI-Moist, Stiff, Brown Sandy Clay with Trace of Highly Weathered Shale
XI-Moist, Medium Stiff, Reddish Brown Sandy Clay with Gravel (Sandstone Fragments)
YI-Moist, Medium Stiff, Reddish Brown Clay with Gravel (Chert Fragments)
ZI-Moist, Very Stiff, Brown and Gray Clay with Highly Weathered Shale
A2-SHALE WITH WEATHERED SHALE LAYERS - Dark Gray, Laminated, Medium Hard, with Slight Dip
B2-Moist, Medium Stiff, Reddish Brown Clay with Iron Nodules and Gravel (Sandstone Fragments)
C2-Moist, Medium Stiff, Reddish Brown Sandy Clay with Iron Nodules and some Gravel (Sandstone Fragments)
D2-Moist, Medium Dense, Reddish Brown and Gray Clayey Sand with Gravel (Sandstone Fragments)
E2-Moist, Hard, Reddish Brown and Dark Gray Clay with Highly Weathered Shale
F2-SHALE - Dark Gray, Highly Weathered, Soft
G2-SHALE - Dark Gray, Laminated, Highly Weathered, Soft, with Slight Dip
H2-SHALE - Dark Gray, Laminated, Highly Weathered, Medium Hard, with Slight Dip
J2-SHALE WITH WEATHERED SHALE LAYERS - Dark Gray, Laminated, Highly Weathered, Medium Hard, with Slight Dip
K2-Moist, Soft, Brown and Gray Clay with Sand and Iron Nodules
L2-Moist to Wet, Medium Stiff, Brown and Gray Clay with Gravel (Sandstone Fragments) •
M2-SHALE - Dark Gray, Laminated, Weathered, Soft, with Slight Dip
N2-SHALE - Dark Gray, Laminated, Weathered, Medium Hard, with Slight Dip

"N" VALUES

Sta. 145+45 - 55' Left of C.L. Roadway
1.5- 2.5, N=8
3.0- 4.0, N=9
5.5- 6.5, N=20
8.0- 9.0, N=60

Sta. 146+50 - 51' Left of C.L. Roadway
1.5- 2.5, N=19
3.0- 4.0, N=12
5.5- 6.5, N=15
8.0- 9.0, N=60
10.5- 11.5, N=75
13.0- 14.0, N=94

Sta. 147+39 - 13' Left of C.L. Roadway
1.5- 2.5, N=7
3.0- 4.0, N=10
7.5- 8.5, N=25
10.2- 11.2, N=59

Sta. 148+41 - 10' Left of C.L. Roadway
1.5- 2.5, N=13
5.0- 6.0, N=55
8.0- 8.8, N=99(9")
10.5- 11.5, N=90

Sta. 149+54 - 20' Left of C.L. Roadway
1.5- 2.5, N=4
6.5- 7.5, N=41
8.0- 9.0, N=53
10.5- 11.5, N=72

Sta. 150+61 - 13' Left of C.L. Roadway
1.5- 2.5, N=8
6.5- 7.5, N=23
10.0- 10.4, N=60(5")

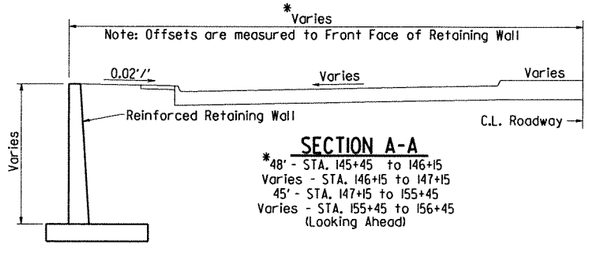
Sta. 151+42 - 59' Left of C.L. Roadway
1.5- 2.5, N=8
6.2- 7.2, N=43
8.5- 9.5, N=97

Sta. 152+54 - 50' Left of C.L. Roadway
1.5- 2.5, N=14
5.0- 6.0, N=14
8.0- 9.0, N=31
10.5- 11.5, N=54

Sta. 153+43 - 51' Left of C.L. Roadway
1.5- 2.5, N=8
3.0- 4.0, N=7
7.0- 8.0, N=18
8.5- 9.5, N=47
10.0- 11.0, N=71
12.5- 13.5, N=68
15.0- 16.0, N=48

Sta. 154+33 - 45' Left of C.L. Roadway
1.5- 2.5, N=8
5.0- 6.0, N=13
10.0- 11.0, N=34
13.0- 14.0, N=50
15.5- 16.5, N=60

Sta. 155+45 - 49' Left of C.L. Roadway
1.5- 2.5, N=4
5.0- 6.0, N=7
10.0- 11.0, N=53
13.0- 14.0, N=47
15.5- 16.5, N=53



SECTION A-A
*48' - STA. 145+45 to 146+15
Varies - STA. 146+15 to 147+15
45' - STA. 147+15 to 155+45
Varies - STA. 155+45 to 156+45
(Looking Ahead)

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportaion Department Standard Specifications for Highway Construction, 2003 Edition, with applicable supplemental specifications and special provisions.

Design Specifications: AASHTO LRFD Bridge Design Specifications, Fifth Edition (2010), with 2010 interim specifications.

SEISMIC ZONE: 1

CONCRETE: All concrete shall be Class "S" with a minimum 28 day compressive strength f'c=3500 psi. Exposed corners to be chamfered ¾" unless otherwise noted.

REINFORCING STEEL: Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60 (fy=60,000 psi).

TEXTURE COATING FINISH: All exposed surfaces of the concrete retaining wall shall be given a Class 3 texture coating finish, as specified in SP Job 040518 "Texture Coating Finish", and in accordance with subsection 802.19(3).

FOOTINGS: Top of footings for retaining walls shall be set 2'-0" below finished ground surface or lower. Footings shall be founded into material desinated as Stiff Clay on the boring legend. Foundations for footings shall be prepared in accordance with Section 801.04 of the Standard Specifications. Rock excavations shall be made to neat lines of the concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting.

BACKFILL: Granular backfill for retaining wall shall consist of Class 7 Aggregate Base Course or other approved material and shall be paid for as Aggregate Base Course (Class 7).

MISC. ITEMS: Geotextile fabric, waterstops, preformed joint material, waterproofing membrane, and the drain pipes shall not be paid for directly, but shall be considered subsidiary to other items of the contract.

BORING LOGS: Boring logs, including laboratory results, may be obtained from the Programs and Contracts Division.

See Sheets 2, 3, and 4 for concrete wall details.

The Engineer shall be notified if changes in footing elevations result in a total wall height greater than 12'-6".

STATE OF ARKANSAS
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No. 7519
CARL I. FUSELIER
4/17/13

SHEET 1 OF 4
DETAILS OF REINFORCED CONCRETE RETAINING WALL
STA. 145+45 TO STA. 156+45

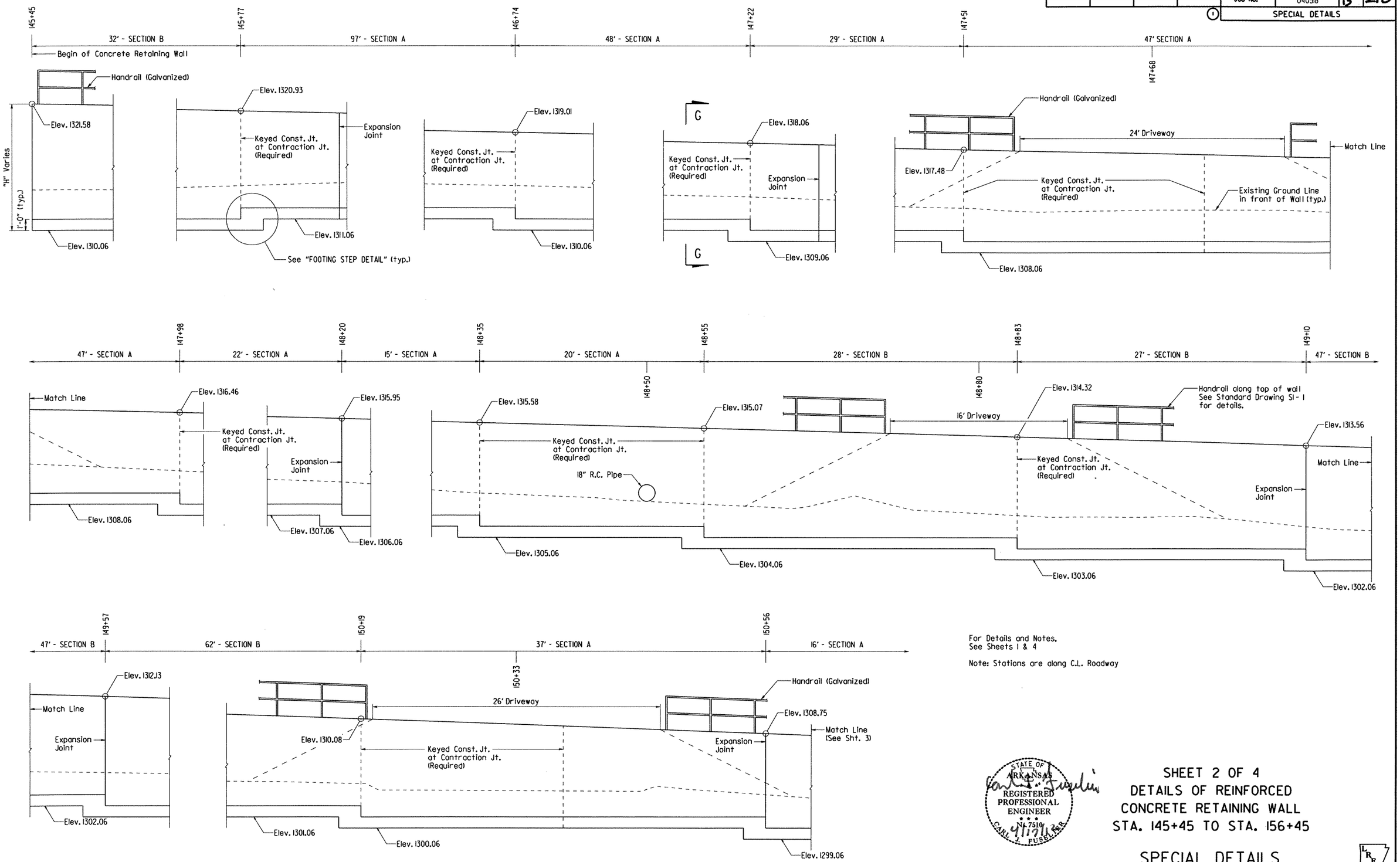
SPECIAL DETAILS

LRFD

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1 SPECIAL DETAILS



For Details and Notes, See Sheets 1 & 4

Note: Stations are along C.L. Roadway

STATE OF ARKANSAS
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CARL J. FUSELIER
4/17/11

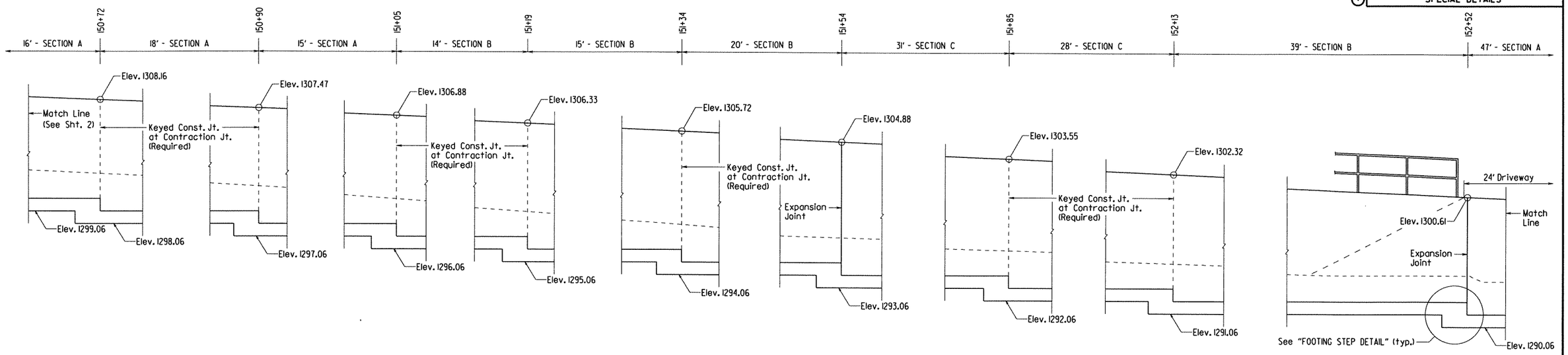
SHEET 2 OF 4
DETAILS OF REINFORCED CONCRETE RETAINING WALL
STA. 145+45 TO STA. 156+45

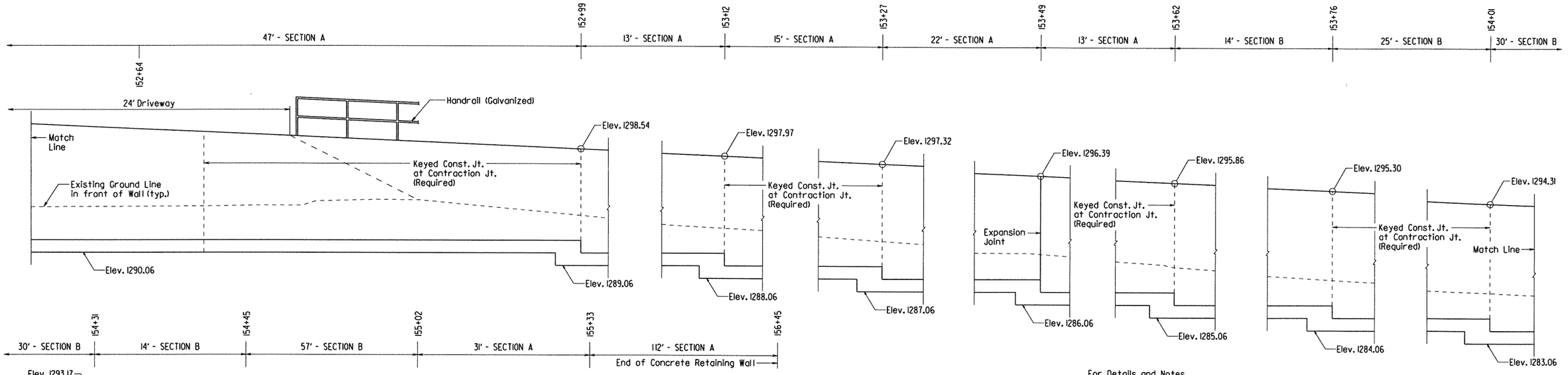
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1 SPECIAL DETAILS





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STATE OF ARKANSAS
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CARL L. FUSELIER
4/12/13

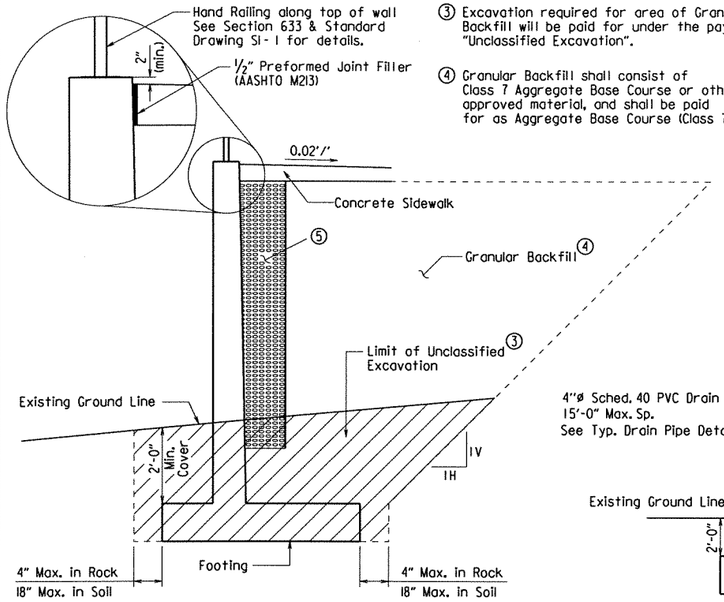
SHEET 3 OF 4
DETAILS OF REINFORCED CONCRETE RETAINING WALL
STA. 145+45 TO STA. 156+45

SPECIAL DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	138	270

① SPECIAL DETAILS



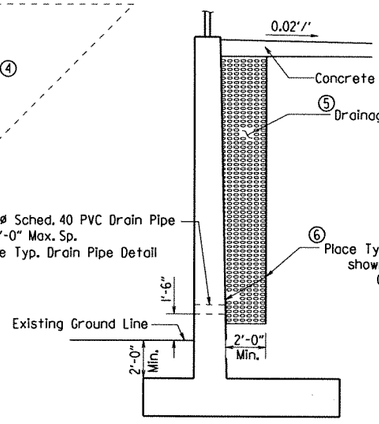
TYPICAL WALL SECTION
N.T.S

③ Excavation required for area of Granular Backfill will be paid for under the pay item "Unclassified Excavation".

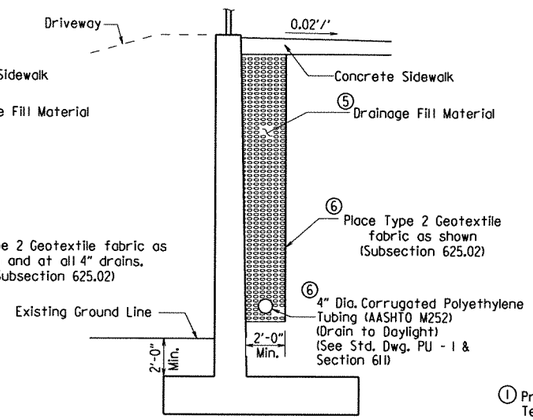
④ Granular Backfill shall consist of Class 7 Aggregate Base Course or other approved material, and shall be paid for as Aggregate Base Course (Class 7).

⑤ Drainage Fill material (Class 3 Mineral Aggregate as specified in subsection 403.01). To be paid for as Aggregate Base Course (Class 7).

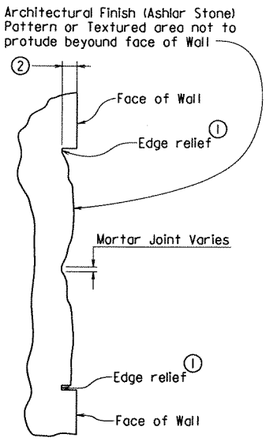
⑥ Geotextile, PVC Drain Pipe, and Polyethylene Tubing will not be paid for directly, but shall be considered subsidiary to Class S Concrete



TYP. DRAINAGE DETAILS
N.T.S



ALT. DRAINAGE DETAILS
N.T.S



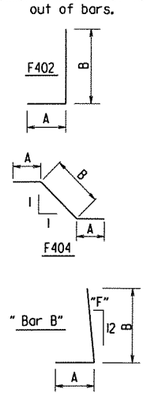
SECTION VIEW
N.T.S.

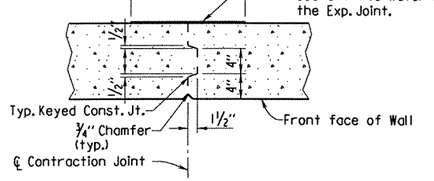
① Provide edge relief around perimeter of Texture. Edge relief dimensions shall match manufactures edge distance.

② Additional concrete required for architectural finish. See SP Job 040518 "Architectural Finish"

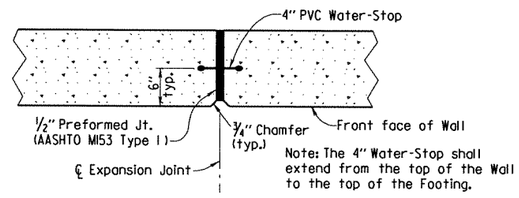
BAR LIST

MARK	LENGTH	A	B	P.D.	BENDING DIAGRAMS
W401	("H"-"D"-3")			Str.	Dimensions are out to out of bars.
W402	AS REQUIRED			Str.	
F401	AS REQUIRED			Str.	
F402	3'-2"	8"	2'-6"	3"	
F403	("B"- 6")			Str.	
F404	5'-9"	1'-6"	2'-9"	3"	
D401	2'-6"			Str.	
D402	3'-9"			Str.	
"Bar A"	("H"-"D"-3")			Str.	
"Bar B"					
#4	4'-2"	8"	3'-6"	3"	
#5	4'-9"	10"	3'-11"	3¾"	
#6	5'-4"	12"	4'-4"	4½"	
"Bar C"	("B"- 6")			Str.	



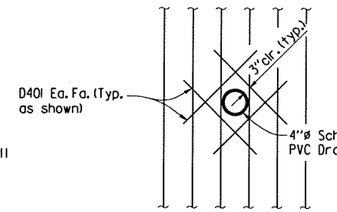


TYPICAL CONTRACTION JOINT DETAIL
N.T.S.
Note: 30'-0" Max Sp. between Contraction Joints. Horizontal reinforcement shall be continuous through Contraction joints.



Note: The 4" Water-Stop shall extend from the top of the Wall to the top of the Footing.

TYPICAL EXPANSION JOINT DETAIL
N.T.S.
Note: 90'-0" Max Sp. between Expansion Joints. Terminate horizontal reinforcement 2" from expansion jt.

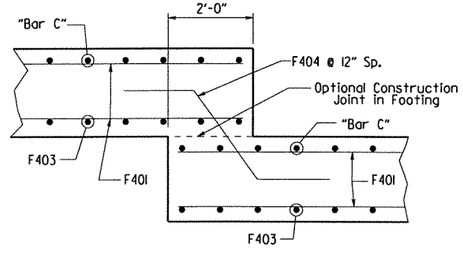


TYPICAL DRAIN PIPE REINFORCING DETAIL
N.T.S

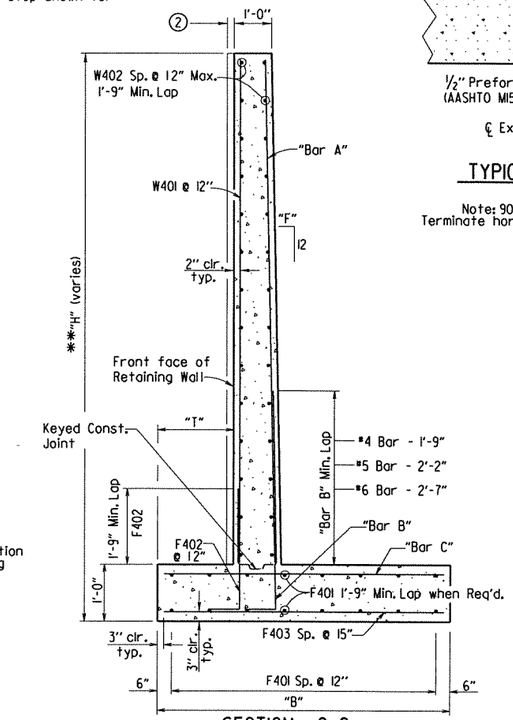
TABLE OF RETAINING WALL VARIABLES

Section	** "H"	"B"	"T"	"Bar A" Size @ Sp.	"Bar B" Size @ Sp.	"Bar C" Size @ Sp.	Batter "F"
"A"	10'-6"	8'-0"	2'-3"	#4 @ 12"	#4 @ 12"	#5 @ 6½"	¼
"B"	11'-6"	8'-6"	2'-3"	#5 @ 14"	#5 @ 14"	#5 @ 5½"	¼
"C"	12'-6"	9'-0"	2'-3"	#6 @ 15"	#6 @ 15"	#6 @ 5½"	¼

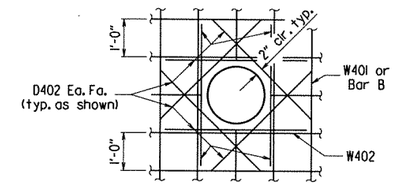
** Design height of the Section. Actual heights may vary in the field.



FOOTING STEP DETAIL
N.T.S.



SECTION G-G
N.T.S



STA. 148+50 18" R.C. PIPE PROTRUSION DETAIL
N.T.S

APPROXIMATE QUANTITIES FOR RETAINING WALL

(FOR INFORMATION ONLY)

Hand Railing	Reinforcing Steel - Roadway (Gr. 60)	Class S Concrete - Roadway	Unclassified Excavation for Structures - Roadway	Architectural Finish	Textured Coating Finish
1,030 ft.	75,570 lbs.	752.2 Cu. Yds.	1,880 Cu. Yds.	9,790 Sq. Ft.	8,690 Sq. Ft.

Tabular Data By: TMG Date: 4/2/2012
Checked By: JCT Date: 4/2/12

Notes:

Wall texture shall be applied to the exposed surfaces of wall in accordance with Special Provision "Architectural Finish" and as shown in the plans. Care shall be taken with form liner handling and installation to insure aesthetic quality of the wall texturing is maintained. Where form liner panels require modification to conform to the location, dimensions and lines shown in the plans, the Contractor shall provide edge relief matching that of the unaltered form liner. Payment for wall texturing shall be in accordance with Special Provision "Architectural Finish".

No adjustments will be made in concrete volume due to the use of "Architectural Finish". Class "S" Concrete shall be measured in accordance with subsection 802.24(a). Care shall be taken in placing concrete to avoid segregation and to eliminate flow lines.

Class 3 Textured Coating Finish shall be applied to wall surfaces as specified in Special Provision "Textured Coating Finish" and in accordance with subsection 802.19(b)(3).

STATE OF ARKANSAS
Carl E. Tuesler
REGISTERED PROFESSIONAL ENGINEER
No. 7510
CARL E. TUESLER
4/12/12

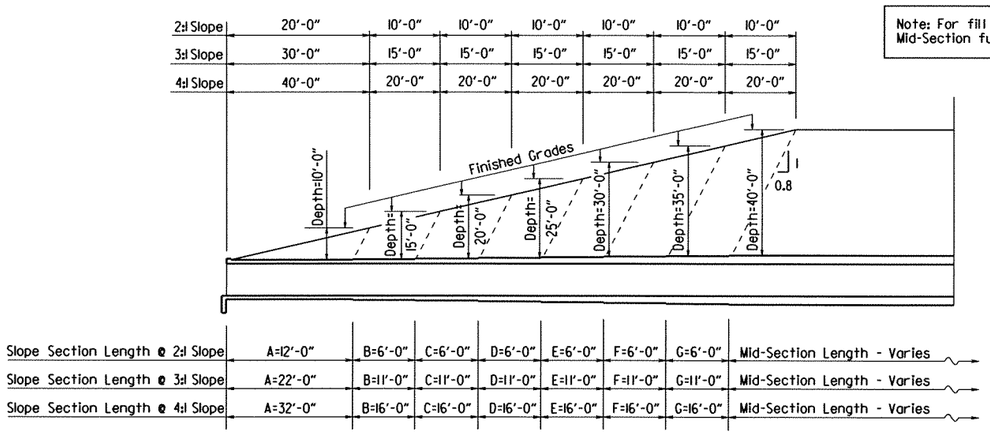
SHEET 4 OF 4
DETAILS OF REINFORCED CONCRETE RETAINING WALL
STA. 145+45 TO STA. 156+45

SPECIAL DETAILS

B040518_RW.dgn

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.		040518	13C	270

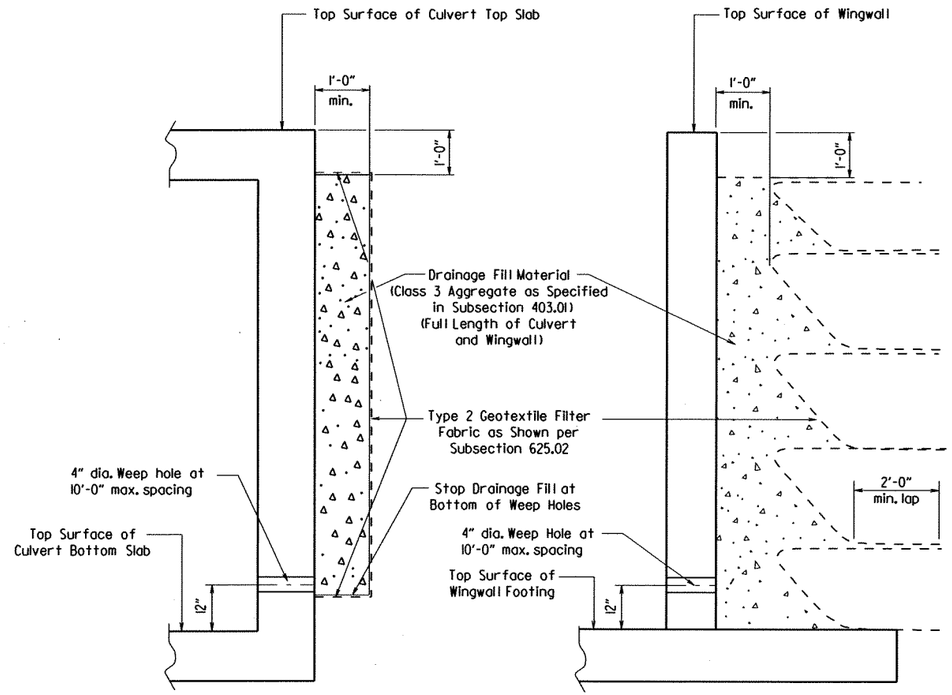
① SPECIAL DETAILS



Note: For fill depths 5' and under, use Mid-Section full length of box culvert.

LONGITUDINAL SECTION LENGTH SCHEDULE FOR VARYING FILL DEPTHS OVER 5'

Lengths for Non-Skewed Boxes



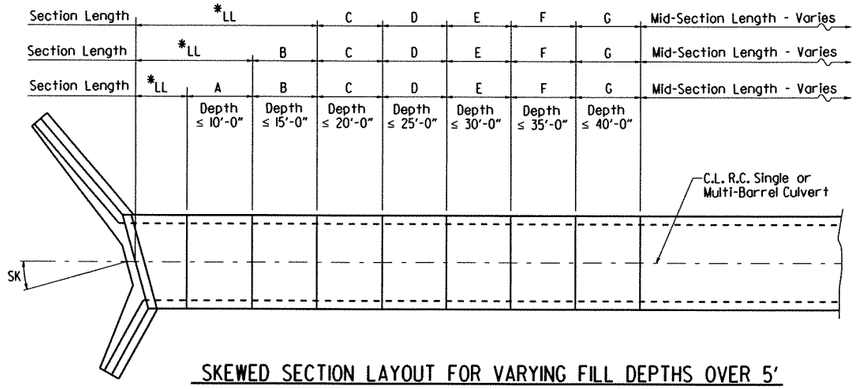
VERTICAL FABRIC ALTERNATE
(Shown for Culvert, Similar for Wingwall)

WRAPPED FABRIC ALTERNATE
(Shown for Wingwall, Similar for Culvert)

For Details of Excavation and Pay Limits, see Standard Drawing RCB-2.

WINGWALL & CULVERT DRAINAGE DETAIL

*LL = Skewed End Section Length - See "Skewed End Section Details" Length LL varies with skew angle, overall box width and fill depth and may eliminate the need for some slope section lengths as shown.



SKEWED SECTION LAYOUT FOR VARYING FILL DEPTHS OVER 5'

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7510
CARL J. PUSEKER
10/5/12

GENERAL NOTES:

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 Specifications unless otherwise noted in the Plans.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, Fifth Edition (2010) with 2010 interim revisions.

LIVE LOADING: HL-93

All concrete shall be Class S with a minimum 28-day compressive strength of 3,500 psi and shall be poured in the dry. All exposed corners to have ¾" chamfers.

Reinforcing Steel shall be AASHTO M 31 or M 53, Grade 60.

Reinforcing Steel Tolerances: the tolerances for reinforcing steel shall meet those listed in 'Manual of Standard Practice' published by Concrete Reinforcing Steel Institute (CRSI) except that the tolerance for truss bars such as Figure 3 on page 7-4 of the CRSI Manual shall be minus zero to plus 1/2 inch.

Excavation and backfilling shall be in accordance with the requirements of Section 801.

Membrane Waterproofing shall conform to the requirements of Section 815 of the Standard Specifications. Membrane Waterproofing shall be Type C and as directed by the Engineer applied to all construction joints in the top slab and the sidewalls of R.C. Box culverts and to the construction joint between wingwalls and R.C. Box culvert walls.

Weep Holes in box culvert walls shall have a maximum horizontal spacing of 10'-0" and shall be spaced to clear all reinforcing steel. The drain opening shall be 4" diameter and shall be placed 12" above the top of the bottom slab.

Weep Holes in wingwalls shall have a maximum horizontal spacing of 10'-0" and shall be spaced to clear all reinforcing steel. There shall be a minimum of two (2) weep holes in each wingwall. The drain opening shall be 4" diameter and shall be placed 12" above the top of the wingwall footing.

Construction Joints between footings and walls shall be made only where shown on the Plans. The maximum length of culvert for which a continuous pour will be permitted is 75 ft. For longer culvert construction, joints shall be provided in slabs and walls at intervals not greater than 50 ft. Joints shall be normal to the centerline of barrel and shall be keyed. Longitudinal reinforcing shall be continuous through joints unless shown otherwise.

Membrane Waterproofing, Weep Holes, Geotextile Filter Fabric, and Drainage Fill Material will not be paid for directly but shall be considered subsidiary to Class S Concrete.

When precast reinforced concrete box culverts are substituted for cast in place box culverts, they shall be manufactured according to ASTM C 1577 and meet the requirements of Special Provision "LRFD Precast Reinforced Concrete Box Culverts".

SHEET 1 OF 4

GENERAL DETAILS OF R.C. BOX CULVERT

GENERAL NOTES & LONGITUDINAL SECTION LENGTH SCHEDULE

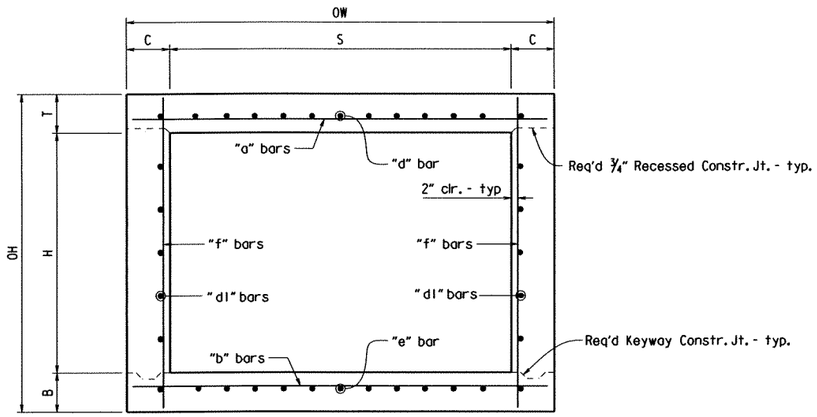
SPECIAL DETAILS

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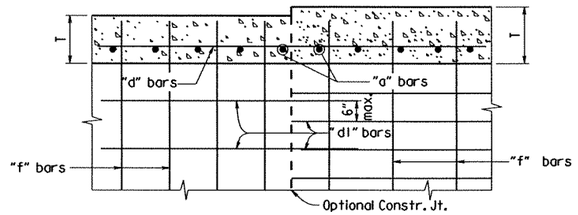
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	13D	270

① SPECIAL DETAILS

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 7510 CARL J. FUSELIER 10/5/12



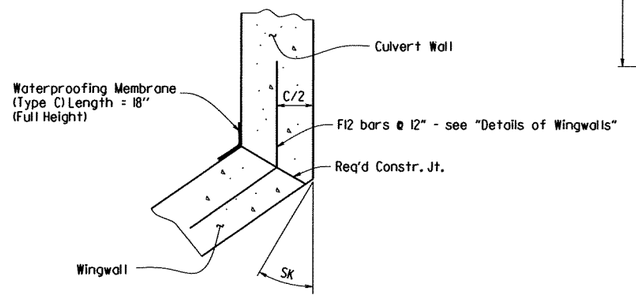
TYPICAL SECTION M-M



Longitudinal Bar Spacing at individual sections shall be maintained, which may result in noncontact bar laps.

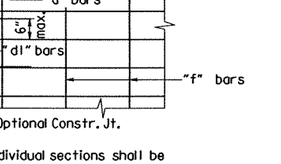
LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS

TOP SLAB SHOWN, BOTTOM SLAB SIMILAR

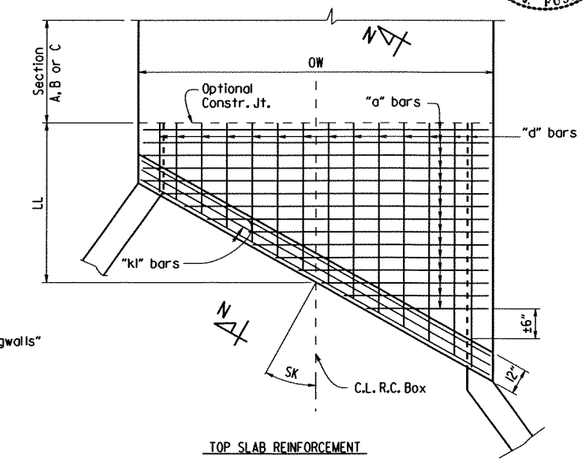


WINGWALL ATTACHMENT

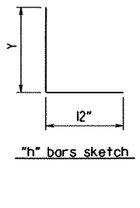
See "Details of Wingwalls" for additional information and wingwall details.



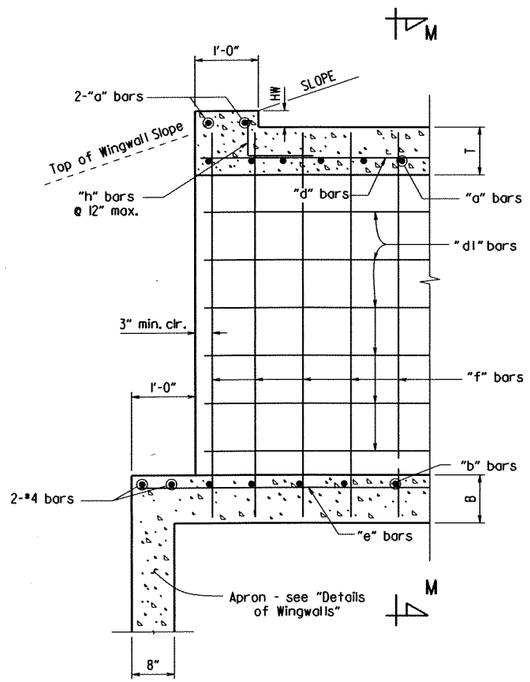
TYPICAL KEYWAY DETAIL



TOP SLAB REINFORCEMENT

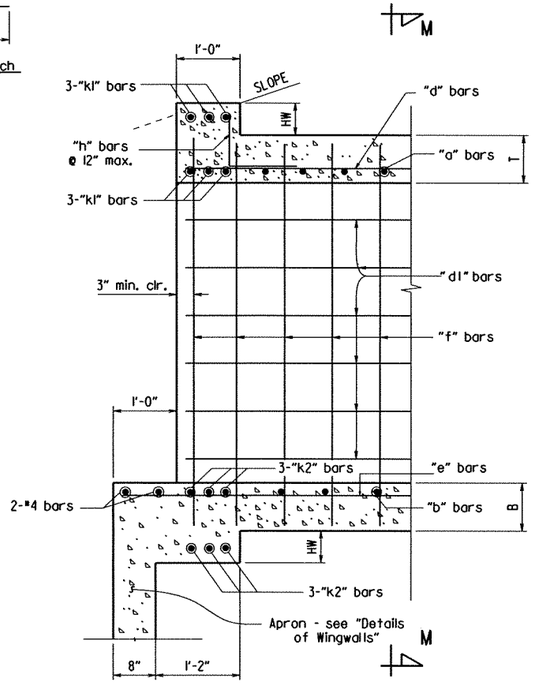


"h" bars sketch



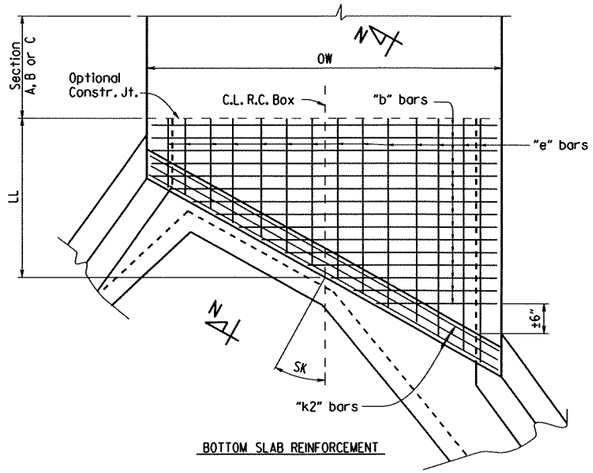
PART LONGITUDINAL SECTION

(Non-Skewed Ends)



PART LONGITUDINAL SECTION N-N

(Skewed Ends)



BOTTOM SLAB REINFORCEMENT

SKEWED END SECTION DETAILS

SHEET 2 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT

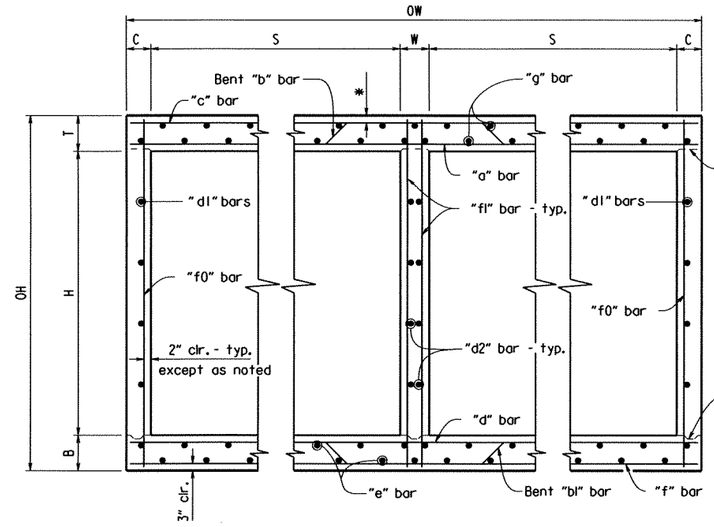
DETAILS OF SINGLE BARREL
R.C. BOX CULVERT

SPECIAL DETAILS

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DATE REVISED	DATE FILMED	REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	13E	270

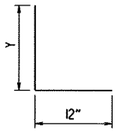
SPECIAL DETAILS



TYPICAL SECTION M-M

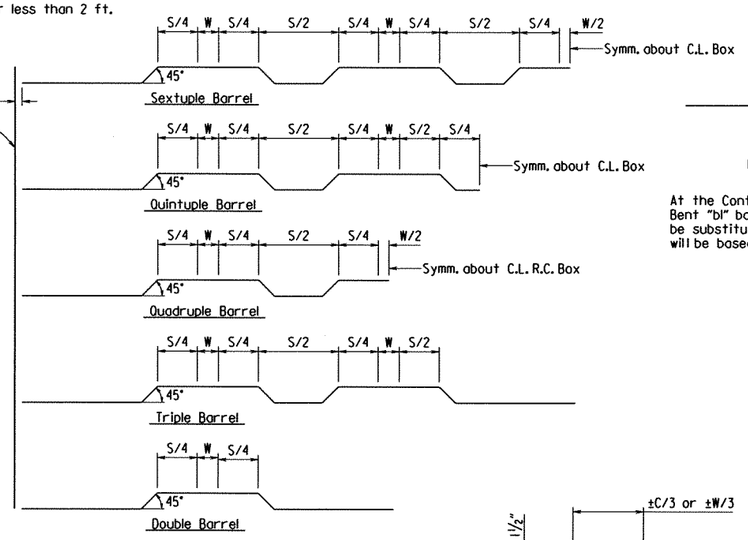
Top Slab
Straight "c" bars shall alternate with Bent "b" bars in top.
Straight "a" bars shall alternate with Bent "b" bars in bottom.

Bottom Slab
Straight "d" bars shall alternate with Bent "bl" bars in top.
Straight "f" bars shall alternate with Bent "bl" bars in bottom.



"h" bars sketch

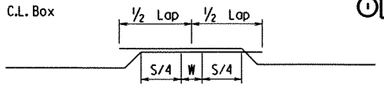
*2" clr. for fill depth (D) greater than 2 ft.
2½" clr. for fill depth (D) equal to or less than 2 ft.



Bent "b" bars or Bent "bl" bars sketch



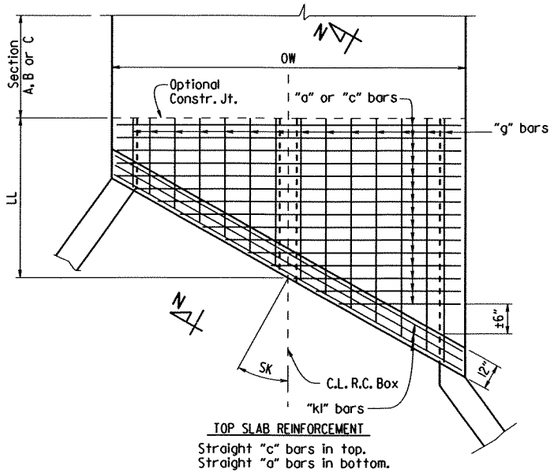
TYPICAL KEYWAY DETAIL



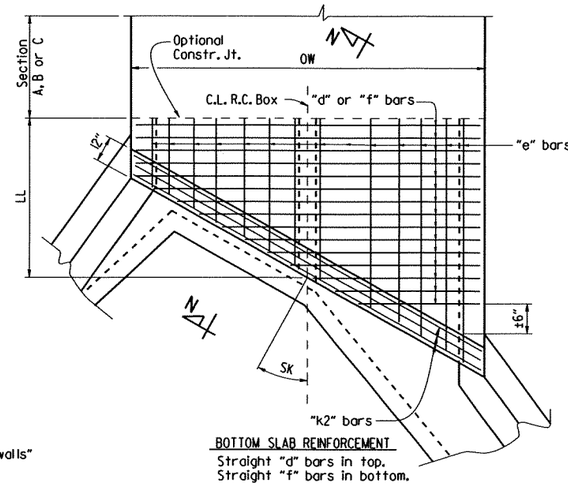
Optional Lap Detail
For Bent "b" bars and Bent "bl" bars

At the Contractor's option in lieu of providing Bent "b" or Bent "bl" bars, one bar top and bottom of equivalent size may be substituted for each bent bar. Payment for the reinforcing will be based on the weight of the "b" or "bl" bar.

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

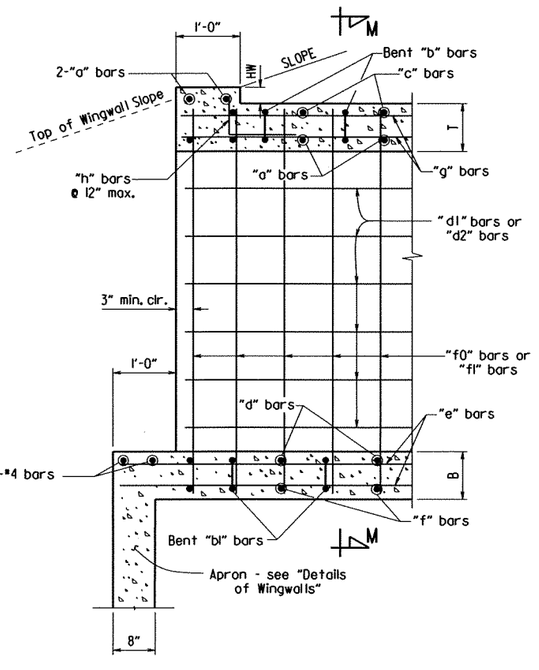


TOP SLAB REINFORCEMENT
Straight "c" bars in top.
Straight "a" bars in bottom.



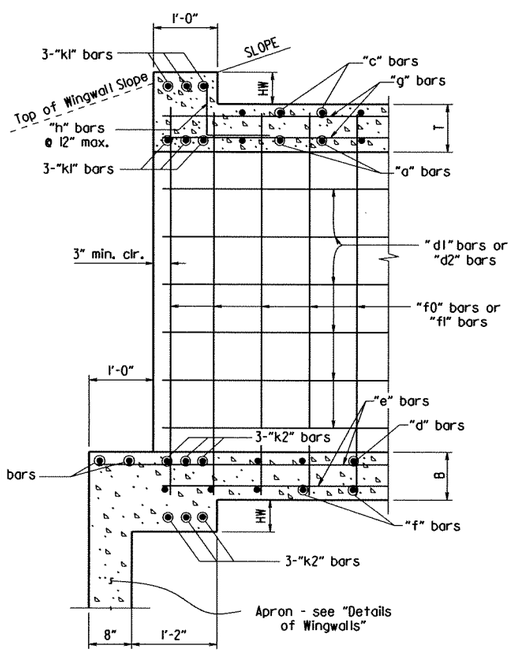
BOTTOM SLAB REINFORCEMENT
Straight "d" bars in top.
Straight "f" bars in bottom.

SKEWED END SECTION DETAILS



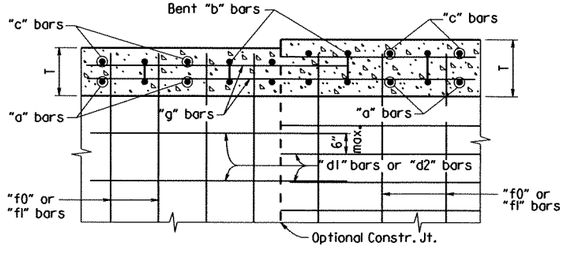
PART LONGITUDINAL SECTION

(Non-Skewed Ends)



PART LONGITUDINAL SECTION N-N

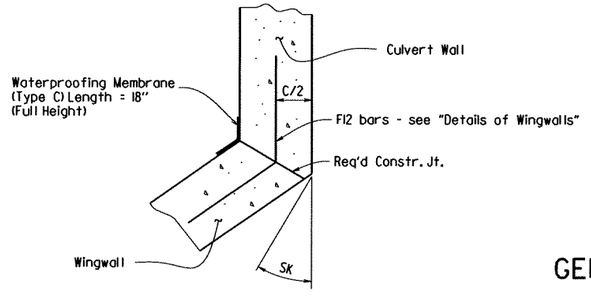
(Skewed Ends)



Longitudinal Bar Spacing at individual sections shall be maintained, which may result in noncontact bar laps.

LONGITUDINAL LAP DETAIL AT CHANGE IN SECTIONS

TOP SLAB SHOWN, BOTTOM SLAB SIMILAR



WINGWALL ATTACHMENT

See "Details of Wingwalls" for additional information and wingwall details.

SHEET 3 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT

DETAILS OF MULTI-BARREL
R.C. BOX CULVERT

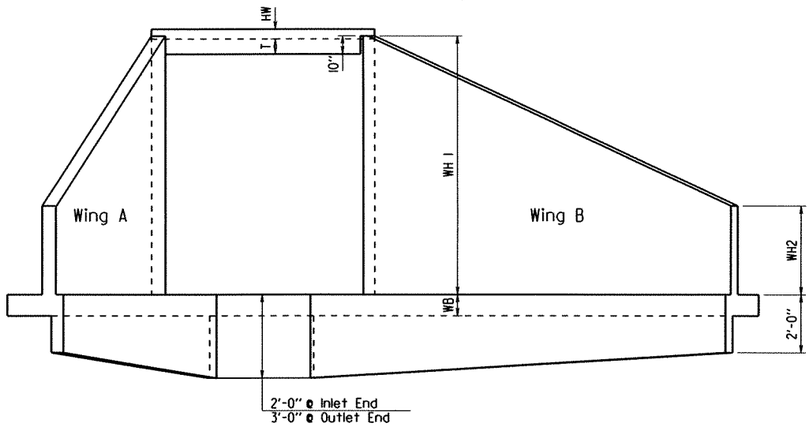
SPECIAL DETAILS

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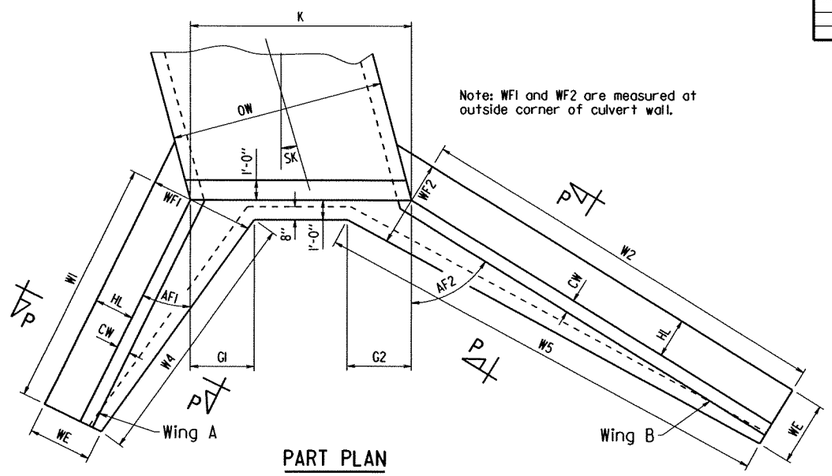
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	13F	270

① SPECIAL DETAILS

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

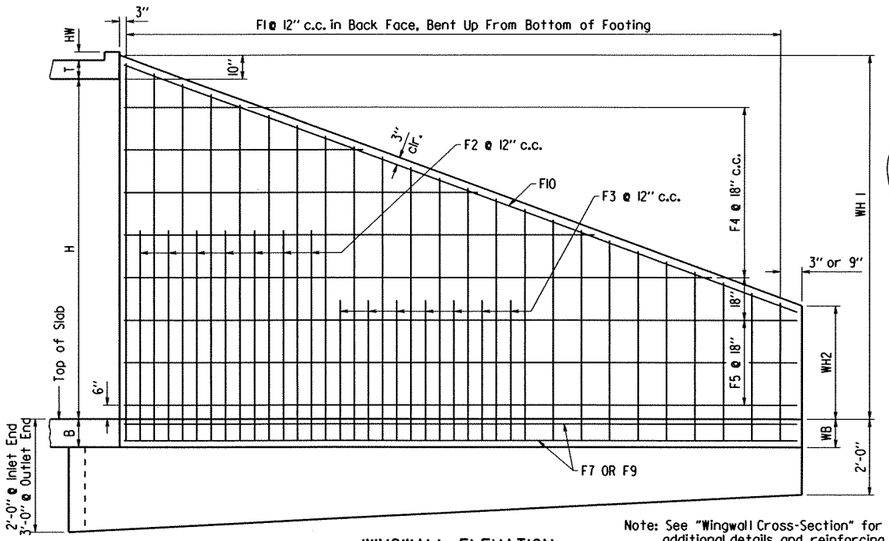


END ELEVATION



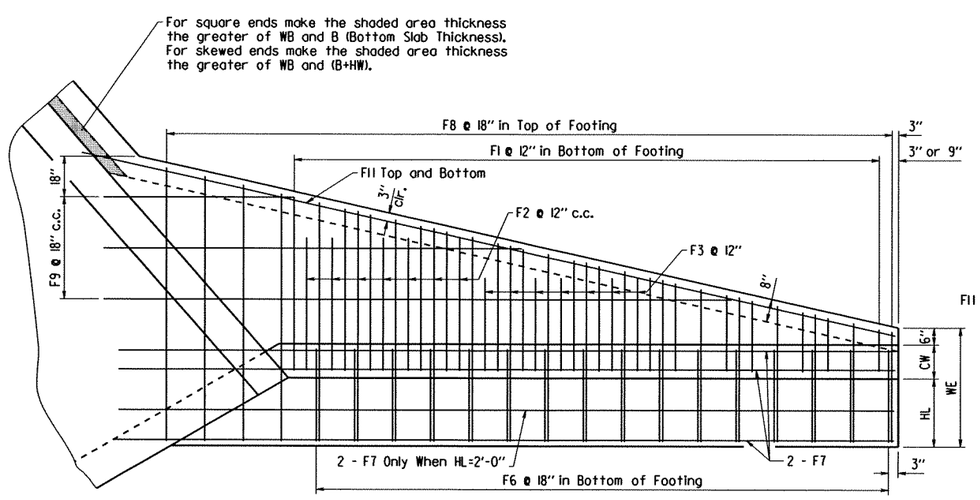
Note: WF1 and WF2 are measured at outside corner of culvert wall.

PART PLAN

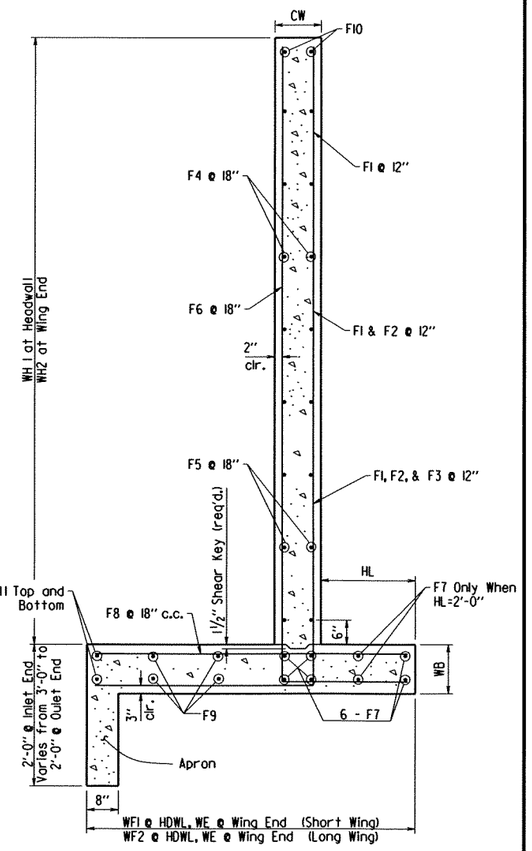


WINGWALL ELEVATION
Showing Back Face Reinforcement

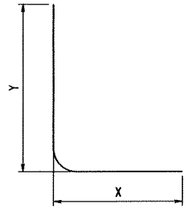
Note: See "Wingwall Cross-Section" for additional details and reinforcing



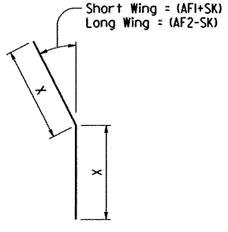
WINGWALL PLAN



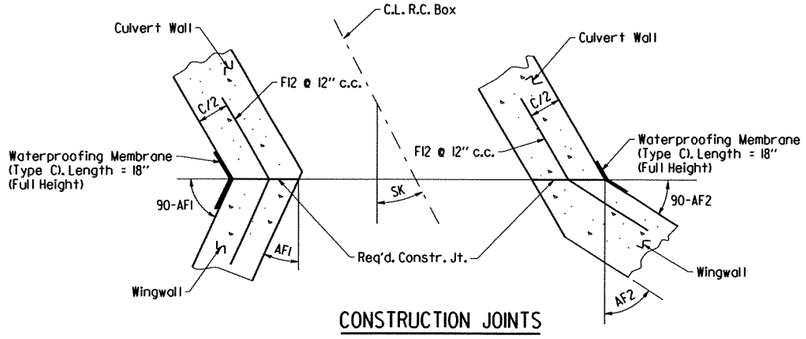
WINGWALL SECTION P-P



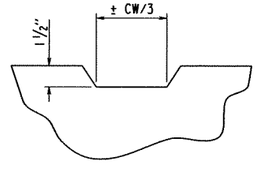
F1, F2, F3, & F6 SKETCH



F12 SKETCH



CONSTRUCTION JOINTS



TYPICAL KEYWAY DETAIL

SHEET 4 OF 4
GENERAL DETAILS OF R.C. BOX CULVERT
DETAILS OF WINGWALLS
SPECIAL DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	136	270

INLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	INSIDE FOOTING DIMENSIONS WING A	INSIDE FOOTING DIMENSIONS WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W4	W5
35'-0"	5'-0"	0'-9"	0'-8"	30	3:1	40'-5"	1'-0"	5'-10"	1'-8"	0	60	2'-2"	2'-9"	3'-3"	1'-8 1/2"	2'-11 3/8"	12'-6"	25'-0"	11'-6 1/8"	27'-0 7/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
INLET	INLET
CU.YD	LBS.
9.65	873

WING	F1 BAR SIZE	F1 MAX. SPACING	F1 NO. REQ'D	F1 LENGTHS VARY	F1 LENGTHS	F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS VARY	F3 LENGTHS	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY	F6 LENGTHS	F7 BAR SIZE	F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS	REINF. STEEL QTY. PER WING (LBS)
WING A	4	12	13	L Min	2'-8"	-	-	-	L	-	-	-	L	-	4	18	4	Min	4	18	2	12'-2"	4	18	9	L Min	3'-3"	4	6	15'-1"	4	18	8	Min	-	-	-	Min	-	4	2	12'-8"	4	2	13'-0"	6	12	5	L 3'-4"	300
				L Max	7'-3"				L	-			L	-				6'-4"								L Max	7'-3"							1'-8"				-									X 1'-8"	
				X Min	0'-9"				X	-			X	-				Max								X Min	1'-4"							Max				Max									
				X Max	1'-4"				X	-			X	-				10'-10"								X Max	1'-4"							2'-2"				-									
				Y Min	2'-0"				Y	-			Y	-												Y Min	2'-0"																				
				Y Max	6'-0"				Y	-			Y	-												Y Max	6'-0"																				
WING B	4	12	25	L Min	2'-8"	-	-	-	L	-	-	-	L	-	4	18	6	Min	4	18	2	24'-8"	4	18	17	L Min	3'-3"	4	6	27'-7"	4	18	19	Min	4	18	2	Min	36'-11"	4	2	24'-10"	4	2	29'-4"	6	12	5	L 3'-4"	573
				L Max	7'-9"				L	-			L	-				3'-10"								L Max	7'-3"							1'-8"				Max									X 1'-8"	
				X Min	0'-9"				X	-			X	-				Max								X Min	1'-4"							Max				36'-11"									
				X Max	1'-10"				X	-			X	-				21'-10"								X Max	1'-4"							2'-10"													
				Y Min	2'-0"				Y	-			Y	-												Y Min	2'-0"																				
				Y Max	6'-0"				Y	-			Y	-												Y Max	6'-0"																				

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

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

TABULAR DATA BY: LJB DATE: 10/5/12
CHECKED BY: mLB DATE: 10/5/12

③ MID-SECTION BAR LAP TABLE

# of Long. Laps Req'd.	SL = Section Length
0	< 40.0 ft
1	>40.0 ft - 78.0 ft
2	>78.0 ft - 116.0 ft
3	>116.0 ft - 154.0 ft
4	>154.0 ft - 192.0 ft
5	>192.0 ft - 230.0 ft
6	>230.0 ft - 268.0 ft
7	>268.0 ft - 306.0 ft
8	>306.0 ft -344.0 ft

This drawing to be used in conjunction with
SHEET 1 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'GENERAL NOTES & LONGITUDINAL SECTION LENGTH SCHEDULE',
SHEET 3 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF MULTI-BARREL R.C. BOX CULVERT',
SHEET 4 OF 4, "GENERAL DETAILS OF R.C. BOX CULVERT", 'DETAILS OF WINGWALLS', and
STANDARD DRAWING RCB-2.
For additional information and outlet sections, see Sheet 2 of 2.

INLET SKEWED END SECTION

| SKEW (DEGREE) | SLOPE | DESIGN FILL DEPTH (FT.) | CLEAR SPAN (FT.) | CLEAR HEIGHT (FT.) | SECTION LENGTH | TOP SLAB THK. | HDWL THK. | BOTTOM SLAB THK. | SIDE WALL THK. | INTERIOR WALL THK. | OVER ALL WIDTH | OVER ALL HEIGHT | TOP SLAB REINFORCING STEEL a SIZE | a SPACING | a LENGTHS VARY | a NO. REQ'D | a LENGTHS | c SIZE | c SPACING | c LENGTHS VARY | c NO. REQ'D | BOTTOM SLAB REINFORCING STEEL d SIZE | d SPACING | d LENGTHS VARY | d NO. REQ'D | f SIZE | f SPACING | f LENGTHS VARY | f NO. REQ'D | SIDE WALL REINFORCING STEEL f0 SIZE | f0 SPACING | f0 NO. REQ'D | f0 LENGTH | INTERIOR WALL REINFORCING STEEL f1 SIZE | f1 SPACING | f1 NO. REQ'D | f1 LENGTH | TOP SLAB DISTRIBUTION REINFORCING STEEL g SIZE | g SPACING | g NO. REQ'D | g LENGTHS VARY | BOTTOM SLAB DISTRIBUTION REINFORCING STEEL e SIZE | e SPACING | e NO. REQ'D | e LENGTHS VARY | SIDE WALL DISTRIBUTION REINFORCING STEEL d1 SIZE | d1 SPACING | d1 NO. REQ'D | d1 LENGTH | INTERIOR WALL DISTRIBUTION REINFORCING STEEL d2 SIZE | d2 SPACING | d2 NO. REQ'D | d2 LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---

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.		040518	13H	270

① SPECIAL DETAILS

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

TABULAR DATA BY: LJB DATE: 10/5/12
CHECKED BY: MCB DATE: 10/5/12

OUTLET WINGWALL TABLE

OVER ALL WIDTH	CLEAR HEIGHT	FOOTING THK.	WING WALL THK.	BOX SKEW (DEG.)	SLOPE	HDWL LENGTH	HEEL	WALL HEIGHT AT HDWL	WALL HEIGHT AT WING END	WINGWALL ANGLE (DEGREE) WING A	WINGWALL ANGLE (DEGREE) WING B	FOOTING WIDTH AT WALL END	WIDTH OF WING FOOTINGS AT HDWL WING A	WIDTH OF WING FOOTINGS AT HDWL WING B	FOOTING DIMENSION PARALLEL WITH HDWL WING A	FOOTING DIMENSION PARALLEL WITH HDWL WING B	LENGTH OF WINGWALLS WING A	LENGTH OF WINGWALLS WING B	INSIDE FOOTING DIMENSIONS WING A	INSIDE FOOTING DIMENSIONS WING B
OW	H	WB	CW	SK	SL	K	HL	WH1	WH2	AF1	AF2	WE	WF1	WF2	G1	G2	W1	W2	W4	W5
35'-0"	5'-0"	0'-9"	0'-8"	30	3:1	40'-5"	1'-0"	5'-10"	1'-8"	0	60	2'-2"	2'-9"	3'-3"	1'-8 1/2"	2'-11 3/8"	12'-6"	25'-0"	11'-6 1/8"	27'-0 7/8"

CLASS "S" CONCRETE (Includes apron)	REINFORCING STEEL (Includes apron and laps if required)
OUTLET	OUTLET
CU.YD	LBS.
11.01	873

WING	BAR SIZE	MAX. SPACING	NO. REQ'D	LENGTHS VARY			F1 LENGTHS	F2 BAR SIZE	F2 SPACING	F2 NO. REQ'D	F2 LENGTHS	F3 BAR SIZE	F3 SPACING	F3 NO. REQ'D	F3 LENGTHS	F4 BAR SIZE	F4 SPACING	F4 NO. REQ'D	F4 LENGTHS VARY	F5 BAR SIZE	F5 SPACING	F5 NO. REQ'D	F5 LENGTHS	F6 BAR SIZE	F6 SPACING	F6 NO. REQ'D	F6 LENGTHS VARY		F7 NO. REQ'D	F7 LENGTHS	F8 BAR SIZE	F8 SPACING	F8 NO. REQ'D	F8 LENGTHS VARY	F9 BAR SIZE	F9 SPACING	F9 NO. REQ'D	F9 LENGTHS VARY	F10 BAR SIZE	F10 NO. REQ'D	F10 LENGTHS	F11 BAR SIZE	F11 NO. REQ'D	F11 LENGTHS	F12 BAR SIZE	F12 SPACING	F12 NO. REQ'D	F12 LENGTHS		REINF. STEEL QTY. PER WING (LBS)
WING A	4	12	13	L	Min	2'-8"										4	18	4	Min	4	18	2	12'-2"	4	18	9	Min		4	6	15'-1"	4	18	8	Min				Min	4	2	12'-8"	4	2	13'-0"	6	12	5	L	3'-4"	300
					Max	7'-3"													6'-4"								Max							1'-8"													
				X	Min	0'-9"		-	-	-	-	-	-	-	-												Max							Max													
					Max	1'-4"																																										
				Y	Min	2'-0"													10'-10"								Min	1'-4"																				
					Max	6'-0"																						2'-0"																				
WING B	4	12	25	L	Min	2'-8"										4	18	6	Min	4	18	2	24'-8"	4	18	17	Min		4	6	27'-7"	4	18	19	Min				Min	4	2	24'-10"	4	2	29'-4"	6	12	5	L	3'-4"	573
					Max	7'-9"													3'-10"								Max							1'-8"													
				X	Min	0'-9"		-	-	-	-	-	-	-	-												Max							Max													
					Max	1'-10"																						2'-0"																				
				Y	Min	2'-0"													21'-10"								Min	1'-4"																				
					Max	6'-0"																						2'-0"																				

Min. Bar Lap Length	
#4	1'-9"
#5	2'-2"
#6	2'-7"
#7	3'-6"
#8	4'-7"

Bar Pin Dia. Table	
#4	3"
#5	3 3/4"
#6	4 1/2"
#7	5 1/4"
#8	6"

① Any Bar Lap Required for the Skewed End Section shall be considered subsidiary to the item "Reinforcing Steel - Roadway (Gr. 60)."

OUTLET SKEWED END SECTION

SKEW (DEGREE)	SLOPE	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	SECTION LENGTH	TOP SLAB THK.	HDWL THK.	BOTTOM SLAB THK.	SIDE WALL THK.	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	TOP SLAB REINFORCING STEEL a SIZE	a SPACING	a LENGTHS VARY	a NO. REQ'D	c SIZE	c SPACING	c LENGTHS VARY	c NO. REQ'D	BOTTOM SLAB REINFORCING STEEL d SIZE	d SPACING	d LENGTHS VARY	d NO. REQ'D	f SIZE	f SPACING	f LENGTHS VARY	f NO. REQ'D	SIDE WALL REINFORCING STEEL f0 SIZE	f0 SPACING	f0 NO. REQ'D	f0 LENGTH	INTERIOR WALL REINFORCING STEEL f1 SIZE	f1 SPACING	f1 NO. REQ'D	f1 LENGTH	TOP SLAB DISTRIBUTION REINFORCING STEEL g SIZE	g SPACING	g NO. REQ'D	g LENGTHS VARY	BOTTOM SLAB DISTRIBUTION REINFORCING STEEL e SIZE	e SPACING	e NO. REQ'D	e LENGTHS VARY	SIDE WALL DISTRIBUTION REINFORCING STEEL d1 SIZE	d1 SPACING	d1 NO. REQ'D	d1 LENGTH	INTERIOR WALL DISTRIBUTION REINFORCING STEEL d2 SIZE	d2 SPACING	d2 NO. REQ'D	d2 LENGTH
SK	SL	D	S	H	LL	T	HW	B	C	W	OW	OH	5	7.5	Max		4	4.5	Max		5	4.5	Max		4	5.5	Max		4	8.5	73	6'-1"	4	12	160	6'-1"	4	12	71	Max	4	12	71	Max	4	12			4	12		
30	3:1	10	8	5	25'-5"	8	3	9	6	8	35'-0"	6'-5"			34'-8"	30			34'-8"	49			34'-8"	49			34'-8"	40										35'-4"					35'-4"			5	LONG	35'-4"			10	LONG	30'-3"
																			Min				Min				Min											Min					Min								MID	25'-3"
															3'-0"				3'-0"				3'-0"				3'-0"											15'-2"					15'-2"			5	SHORT	15'-2"			10	SHORT	20'-2"
															34'-8"	25			34'-8"	41			34'-8"	41			34'-8"	34																								

k1 SIZE	k1 LENGTH	k1 NO. REQ'D	k2 SIZE	k2 LENGTH	k2 NO. REQ'D	h SIZE	h LENGTH	h Y	h NO. REQ'D
4	20'-11"	12	4	20'-11"	12	4	1'-7"	0'-7"	42

CLASS "S" CONCRETE (Includes HDWL) CU. YDS.	① REINFORCING STEEL (GR 60) (Includes HDWL) LBS.
61.58	11191

OUTLET SLOPE SECTION(S)

R.C. BOX SECTION	DESIGN FILL DEPTH (FT.)	CLEAR SPAN (FT.)	CLEAR HEIGHT (FT.)	TOP SLAB THK.	BOTTOM SLAB THK	SIDE WALL THK	INTERIOR WALL THK.	OVER ALL WIDTH	OVER ALL HEIGHT	SECTION LENGTH (FT.)	TOP SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS a SIZE	a L	Bent b SIZE	Bent b L	c SIZE	c L	c SPACING	c NO. REQ'D	BOTTOM SLAB REINFORCING STEEL LENGTH = OW - 4" + BENDS d SIZE	d L	Bent b1 SIZE	Bent b1 L	f SIZE	f L	f SPACING	f NO. REQ'D	SIDE WALL REINFORCING STEEL "f0" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	INTERIOR WALL REINFORCING STEEL "f1" LENGTH = OH - 4" SIZE	SPACING	NO. REQ'D	LENGTH	TOP SLAB DISTRIBUTION REINF. STEEL "g" LENGTH = SL SIZE	SPACING	NO. REQ'D	BOTTOM SLAB DISTRIBUTION REINF. STEEL "e" LENGTH = SL SIZE	SPACING	NO. REQ'D	SIDE WALL DISTRIBUTION REINF. STEEL "d1" LENGTH = SL SIZE	SPACING	NO. REQ'D	INTERIOR WALL DISTRIBUTION REINF. STEEL "d2" LENGTH = SL SIZE	SPACING	NO. REQ'D
D	S	H	T	B	C	W	OW	OH	SL																																									

HDWL THK. HW	ADDITIONAL REINF. FOR HDWL LBS.	"h" BARS SIZE	"h" BARS Y	"h" BARS LENGTH	"h" BARS NO. REQ'D

CLASS "S" CONCRETE CU. YDS. PER LIN. FT.	REINFORCING STEEL (GR. 60) LBS. PER LIN. FT.	② ADTL. REINF. PER LONG. LAP LOCATION (S) LBS.	ADTL. REINF. FOR TRANS. LAP LBS. PER LIN. FT.	ADDITIONAL CONCRETE FOR HDWL CU. YDS.	TOTAL ADTL. REINF. FOR HDWL LBS.

② Bar Lap - Add one long. lap for each Slope Section, and one additional long. lap for Slope Sections greater than 40'-0" in length.

The required number of bars shown is for estimating purpose only. The actual number required shall be determined in field.

Unless otherwise noted, all dimensions are in inches.

SHEET 2 OF 2
DETAILS OF R.C. BOX CULVERT
QUADRUPLE BARREL BOX CULVERT
Sta. 179+80

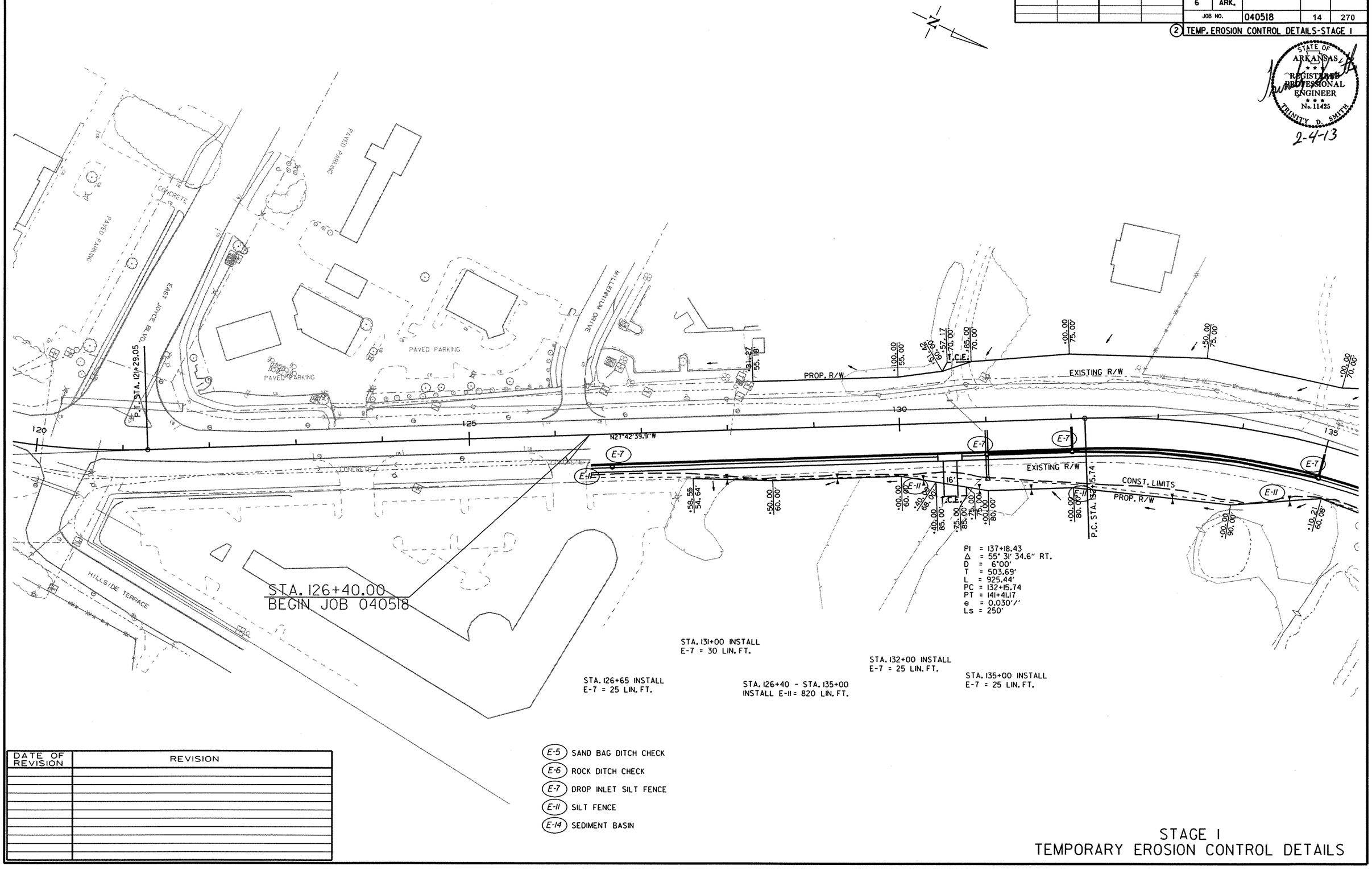
SPECIAL DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	14	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE I

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



DATE OF REVISION	REVISION

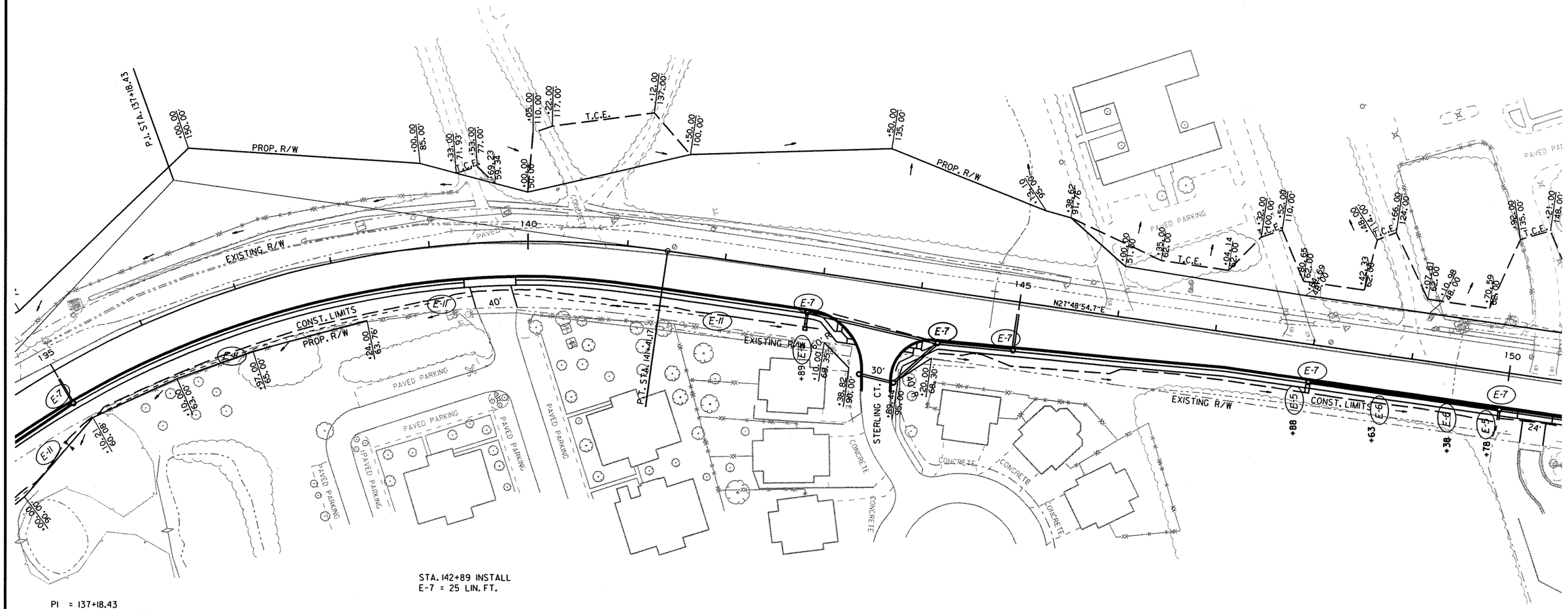
R040518.DGN 8/5/2011

STAGE I
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	15	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE I

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



PI = 137+18.43
Δ = 55° 31' 34.6" RT.
D = 6°00'
T = 503.69'
L = 925.44'
PC = 132+15.74
PT = 141+41.17
e = 0.030'/'
Ls = 250'

DATE OF REVISION	REVISION

STA. 142+89 INSTALL
E-7 = 25 LIN. FT.

STA. 144+24 INSTALL
E-7 = 25 LIN. FT.

STA. 145+00 INSTALL
E-7 = 25 LIN. FT.

STA. 148+00 INSTALL
E-7 = 25 LIN. FT.

STA. 149+95 INSTALL
E-7 = 25 LIN. FT.

STA. 135+00 - STA. 142+00
INSTALL E-11 = 585 LIN. FT.

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

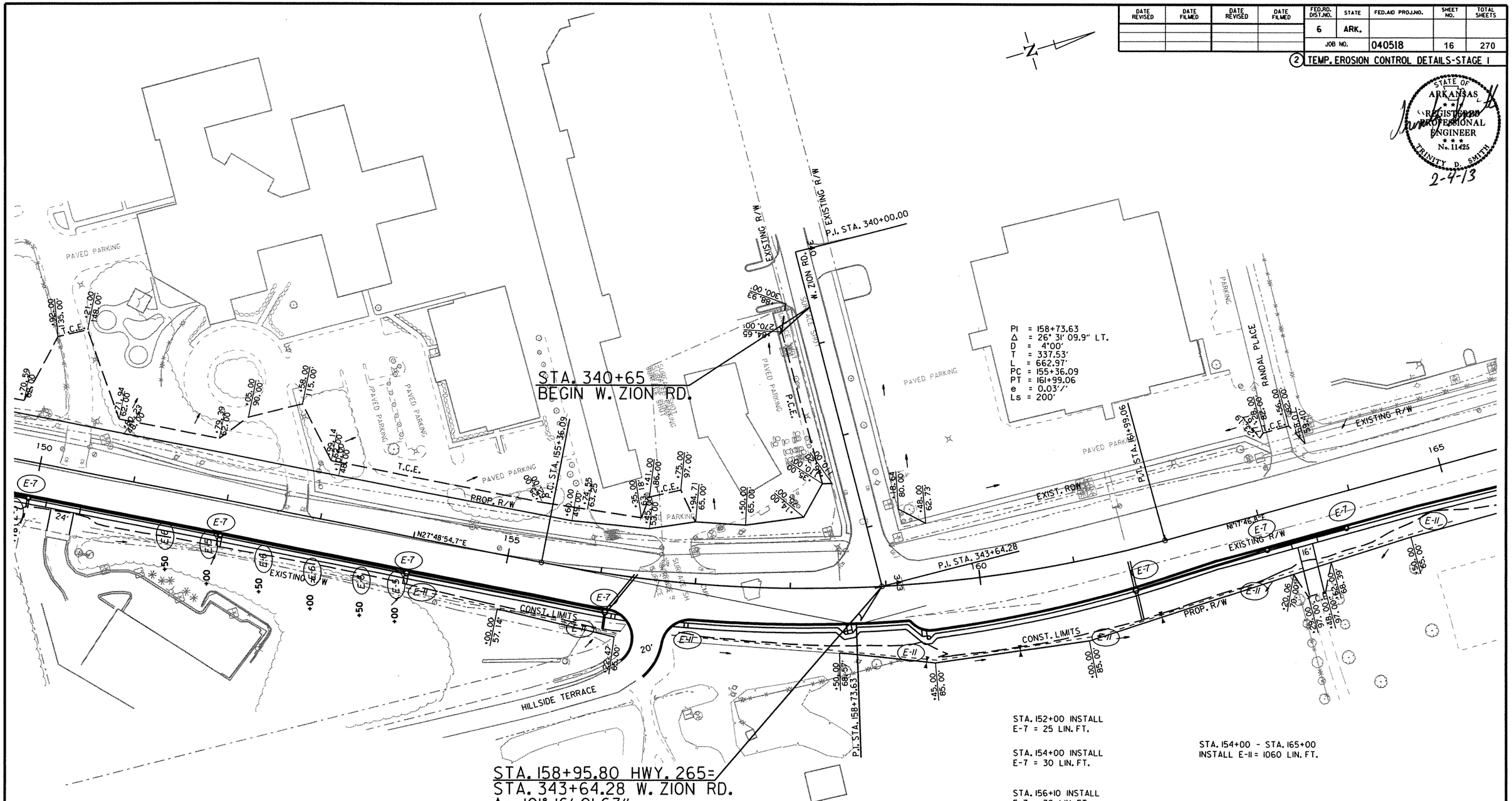
STAGE I
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/5/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	16	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE I

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



STA. 152+00 INSTALL
E-7 = 25 LIN. FT.

STA. 154+00 INSTALL
E-7 = 30 LIN. FT.

STA. 156+10 INSTALL
E-7 = 30 LIN. FT.

STA. 161+57 INSTALL
E-7 = 22 LIN. FT.

STA. 163+00 INSTALL
E-7 = 25 LIN. FT.

STA. 163+87 INSTALL
E-7 = 25 LIN. FT.

STA. 154+00 - STA. 165+00
INSTALL E-11 = 1060 LIN. FT.

DATE OF REVISION	REVISION

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

R040518.DGN 8/5/2011

STAGE I
TEMPORARY EROSION CONTROL DETAILS

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
4-9-2013				6	ARK.			
				JOB NO.		040518	17	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE I

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-9-13

STA. 168+13.16 HWY. 265=
STA. 345+02.59 E. ZION RD.
Δ = 88° 41' 25.66"

STA. 348+30
END E. ZION RD.

P.I. STA. 345+02.59
N17°17'46.8"E

P.I. STA. 178+90.86
Δ = 1° 21' 37.52" RT.

STA. 167+32 INSTALL E-7 = 25 LIN. FT.

STA. 168+96 INSTALL E-7 = 25 LIN. FT.

STA. 171+00 INSTALL E-7 = 25 LIN. FT.

STA. 173+50 INSTALL E-7 = 25 LIN. FT.

STA. 176+50 INSTALL E-7 = 30 LIN. FT.

STA. 178+00 INSTALL E-7 = 30 LIN. FT.

STA. 178+50 INSTALL E-7 = 30 LIN. FT.

STA. 168+39 - STA. 180+00 INSTALL E-11 = 1326 LIN. FT.

R040518.DGN 8/5/2011

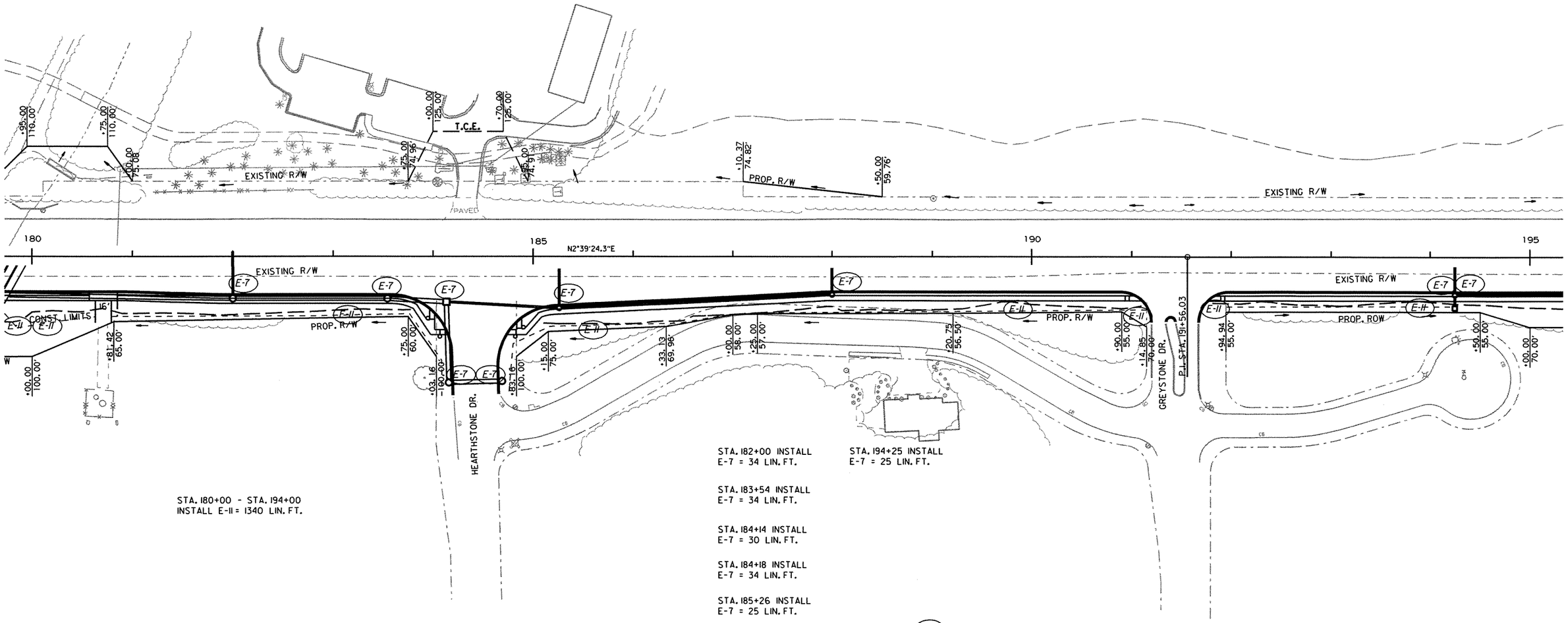
STAGE I
TEMPORARY EROSION CONTROL DETAILS

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.		040518	18	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 1

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



STA. 180+00 - STA. 194+00
INSTALL E-11 = 1340 LIN. FT.

STA. 182+00 INSTALL
E-7 = 34 LIN. FT.

STA. 183+54 INSTALL
E-7 = 34 LIN. FT.

STA. 184+14 INSTALL
E-7 = 30 LIN. FT.

STA. 184+18 INSTALL
E-7 = 34 LIN. FT.

STA. 185+26 INSTALL
E-7 = 25 LIN. FT.

STA. 184+66 INSTALL
E-7 = 25 LIN. FT.

STA. 188+00 INSTALL
E-7 = 25 LIN. FT.

STA. 194+25 INSTALL
E-7 = 22 LIN. FT.

STA. 194+25 INSTALL
E-7 = 25 LIN. FT.

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

STAGE 1
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/5/2011

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.		040518	19	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE I

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 202+98.05 HWY. 265=
STA. 350+00.00 ALBRIGHT RD.
Δ = 90° 00' 00.0"

EXISTING R/W
PROP. R/W
EXISTING R/W
CONST. LIMITS
PROP. R/W
EXISTING R/W
PROP. R/W
P.I. STA. 350+00.00
N2°43'23.6"E
S2°43'23.6"E
P.C.E.
P.I. STA. 353+03.36
S 89°16'36.4" E
T.C.E.
T.C.E.
CONCRETE PAVEMENT
40'

STA. 352+70
END ALBRIGHT RD.

STA. 197+25 INSTALL
E-7 = 25 LIN. FT.

STA. 198+25 INSTALL
E-7 = 25 LIN. FT.

STA. 201+50 INSTALL
E-7 = 30 LIN. FT.

STA. 200+50 - STA. 201+75
INSTALL E-11 = 125 LIN. FT.

STA. 204+24 - STA. 206+26
INSTALL E-11 = 220 LIN. FT.

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

STAGE I
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/8/2011

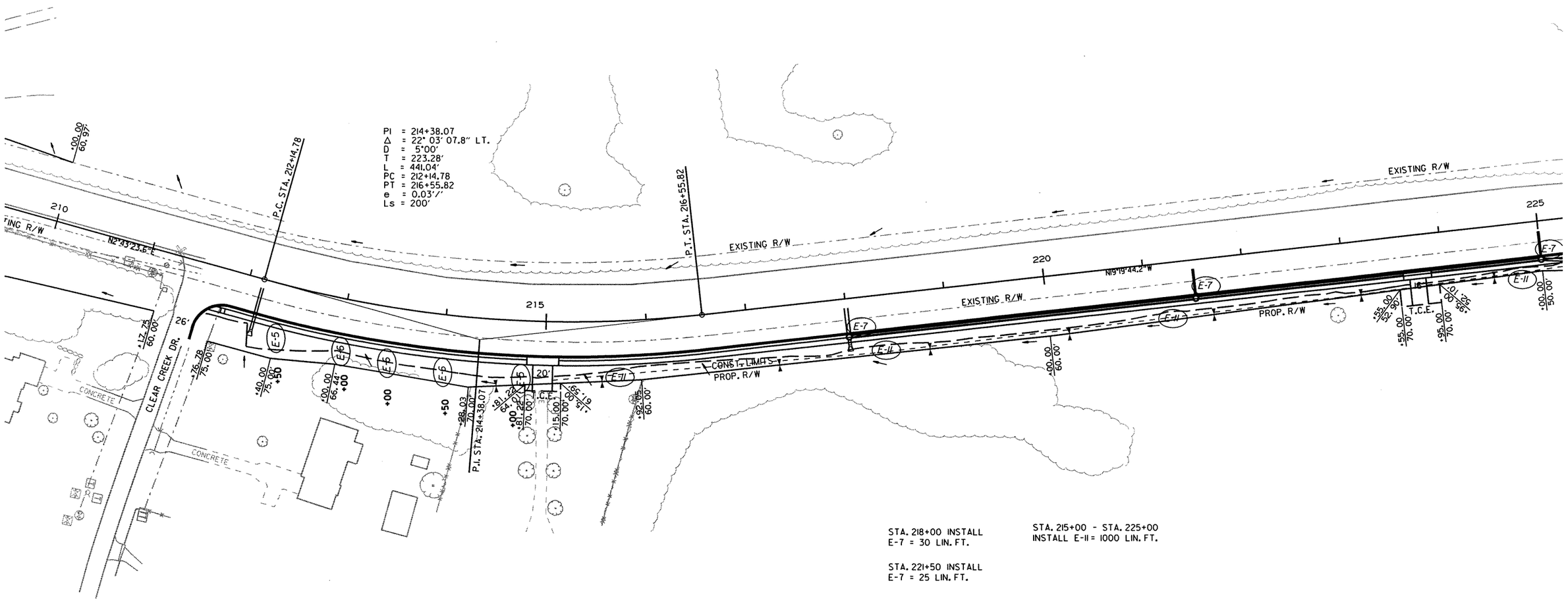
DATE OF REVISION	REVISION

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.		040518	20	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE I

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

PI = 214+38.07
Δ = 22° 03' 07.8" LT.
D = 5°00'
T = 223.28'
L = 441.04'
PC = 212+14.78
PT = 216+55.82
e = 0.03'/'
Ls = 200'



E-5 SAND BAG DITCH CHECK
E-6 ROCK DITCH CHECK
E-7 DROP INLET SILT FENCE
E-11 SILT FENCE
E-14 SEDIMENT BASIN

STA. 218+00 INSTALL
E-7 = 30 LIN. FT.

STA. 221+50 INSTALL
E-7 = 25 LIN. FT.

STA. 225+00 INSTALL
E-7 = 30 LIN. FT.

STA. 215+00 - STA. 225+00
INSTALL E-11 = 1000 LIN. FT.

STAGE I
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/8/2011

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.		040518	21	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE I

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 230+14.01 HWY. 265 =
STA. 25+49.39 IVEY LANE
Δ= 87° 31' 32.61"

STA. 230+16.00
END JOB 040518

P.I. STA. 227+33.86
P.I. STA. 26+08.94
P.I. STA. 23+99.99
P.C. STA. 225+48.18
P.T. STA. 229+13.37
P.C.C. 304.49
T.C.C. 259.59
POE 236+00.00

PROP. R/W
EXISTING R/W
PAVED PARKING
CONCRETE
PARKING
IVEY LN.
PAVED

PI = 227+33.86
Δ = 25° 33' 48.7" RT.
D = 7°00'
T = 185.69'
L = 365.19'
PC = 225+48.18
PT = 229+13.37
e = 0.037'/'
Ls = 250'

STA. 228+00 INSTALL
E-7 = 30 LIN. FT.

STA. 229+40 INSTALL
E-7 = 30 LIN. FT.

STA. 225+00 - STA. 230+00
INSTALL E-11 = 680 LIN. FT.

STA. 22+33
END IVEY LN.

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

STAGE I
TEMPORARY EROSION CONTROL DETAILS

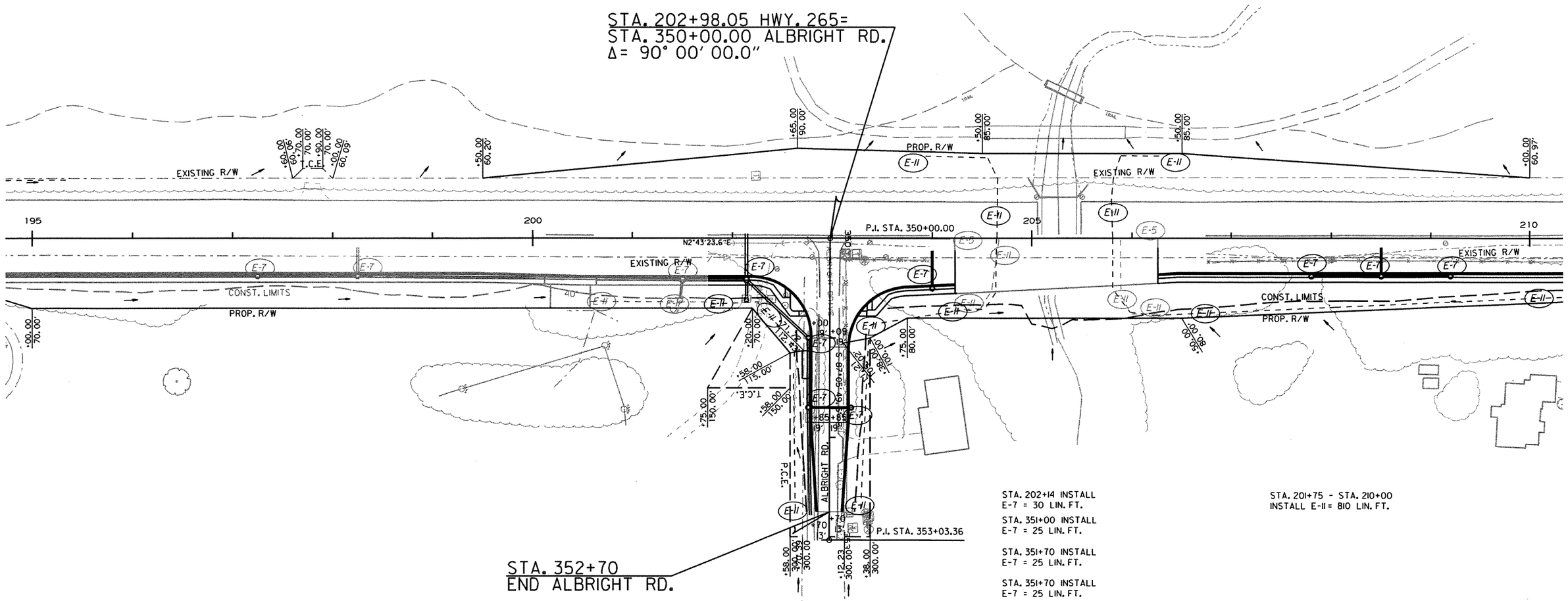
R040518.DGN 8/8/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	22	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 2

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 202+98.05 HWY. 265=
STA. 350+00.00 ALBRIGHT RD.
Δ= 90° 00' 00.0"



STA. 202+14 INSTALL
E-7 = 30 LIN. FT.

STA. 351+00 INSTALL
E-7 = 25 LIN. FT.

STA. 351+70 INSTALL
E-7 = 25 LIN. FT.

STA. 351+70 INSTALL
E-7 = 25 LIN. FT.

STA. 204+00 INSTALL
E-7 = 25 LIN. FT.

STA. 207+80 INSTALL
E-7 = 25 LIN. FT.

STA. 208+50 INSTALL
E-7 = 25 LIN. FT.

STA. 209+20 INSTALL
E-7 = 25 LIN. FT.

STA. 201+75 - STA. 210+00
INSTALL E-11 = 810 LIN. FT.

DATE OF REVISION	REVISION

- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- (E-14) SEDIMENT BASIN

R040518.DGN 8/8/2011

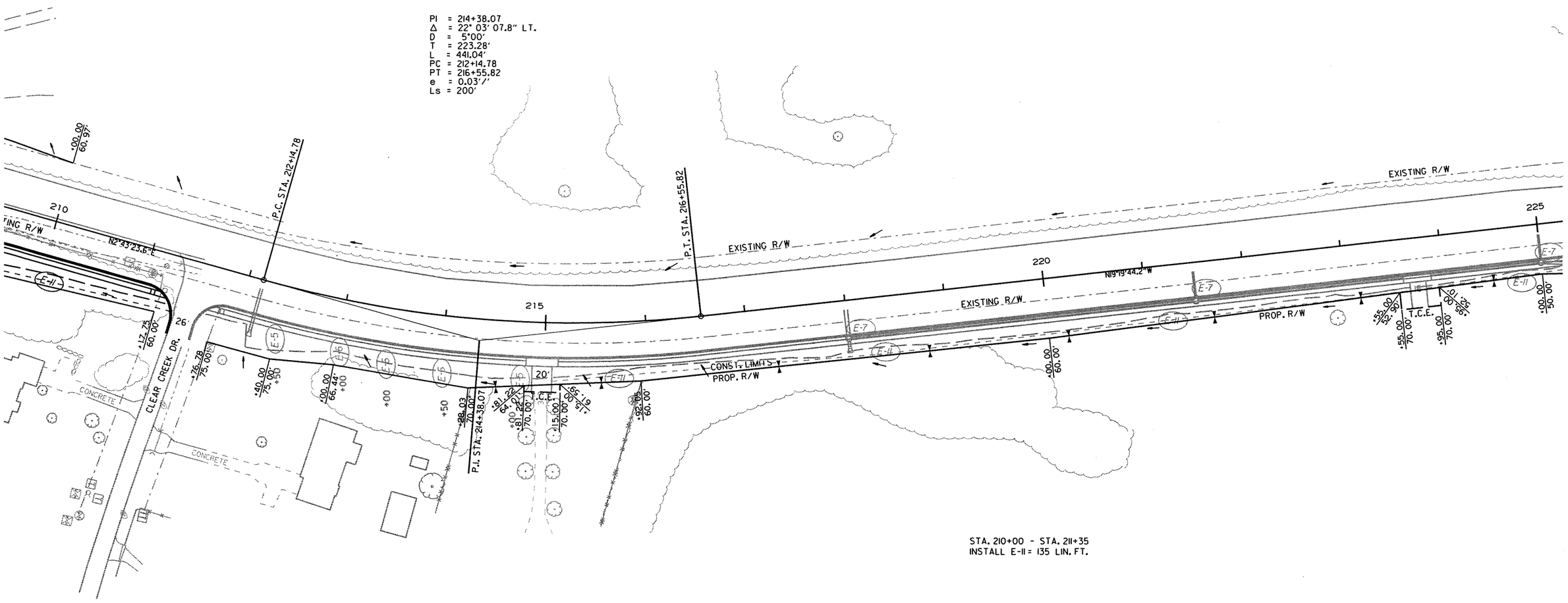
STAGE 2
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	23	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 2

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

PI = 214+38.07
Δ = 22° 03' 07.8" LT.
D = 5°00'
T = 223.28'
L = 441.04'
PC = 212+14.78
PT = 216+55.82
e = 0.03'/'
Ls = 200'



STA. 210+00 - STA. 211+35
INSTALL E-11 = 135 LIN. FT.

DATE OF REVISION	REVISION

- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- (E-14) SEDIMENT BASIN

STAGE 2
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/8/2011

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.		040518	24	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 3

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

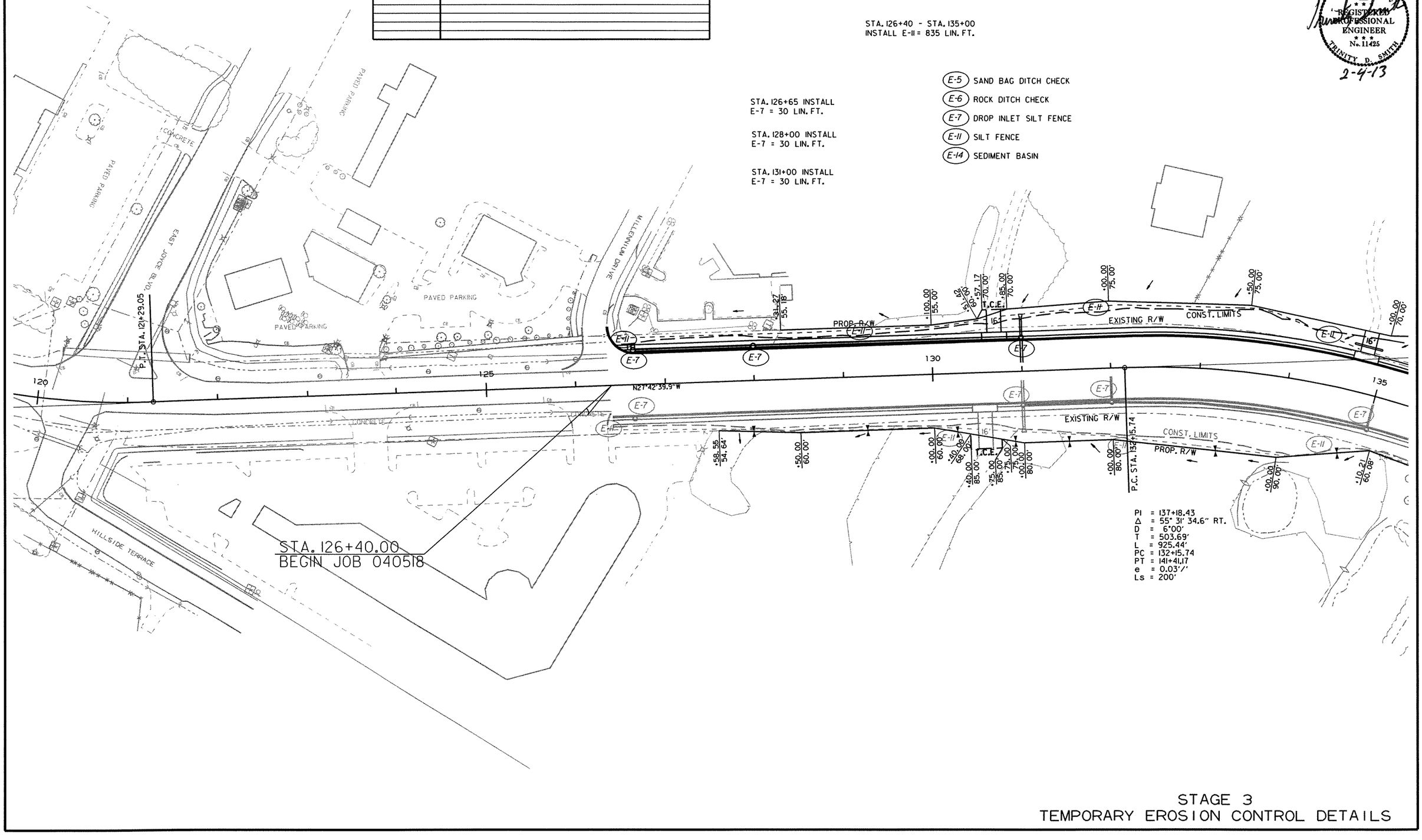
STA. 126+40 - STA. 135+00
INSTALL E-11 = 835 LIN. FT.

STA. 126+65 INSTALL
E-7 = 30 LIN. FT.

STA. 128+00 INSTALL
E-7 = 30 LIN. FT.

STA. 131+00 INSTALL
E-7 = 30 LIN. FT.

- E-5 SAND BAG DITCH CHECK
- E-6 ROCK DITCH CHECK
- E-7 DROP INLET SILT FENCE
- E-11 SILT FENCE
- E-14 SEDIMENT BASIN



PI = 137+18.43
Δ = 55° 31' 34.6" RT.
D = 6°00'
T = 503.69'
L = 925.44'
PC = 132+15.74
PT = 141+41.17
e = 0.03'/'
Ls = 200'

STAGE 3
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/8/2011

DATE OF REVISION	REVISION

STA. 141+50 INSTALL
E-7 = 25 LIN. FT.

STA. 142+89 INSTALL
E-7 = 25 LIN. FT.

STA. 145+00 INSTALL
E-7 = 25 LIN. FT.

STA. 148+50 INSTALL
E-7 = 25 LIN. FT.

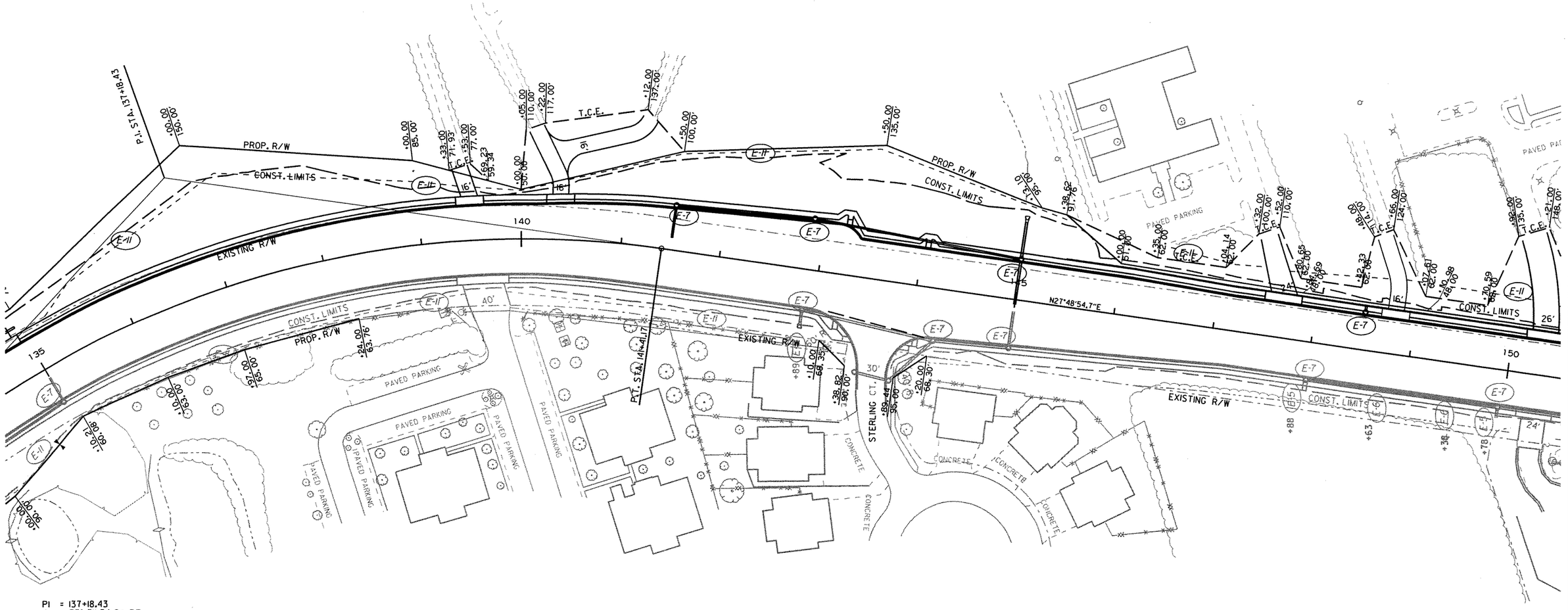
STA. 135+00 - STA. 150+00
INSTALL E-11 = 1470 LIN. FT.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	25	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 3

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13


P.I. STA. 137+18.43
PROP. R/W
CONST. LIMITS
EXISTING R/W
T.C.E.
E-11
E-7
PROP. R/W
CONST. LIMITS
N2°48'54.7"E
PAVED PARKING
CONCRETE
STERLING CT.
P.T. STA. 141+41.17
CONST. LIMITS
PROP. R/W
EXISTING R/W
PAVED PARKING
CONCRETE
CONST. LIMITS
EXISTING R/W
PAVED PARKING
CONCRETE
CONST. LIMITS
PAVED PARKING
T.C.E.
CONST. LIMITS
PAVED PARKING
T.C.E.
CONST. LIMITS
PAVED PARKING
T.C.E.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	26	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 3

DATE OF REVISION	REVISION

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 152+25 INSTALL E-7 = 25 LIN. FT.

STA. 154+50 INSTALL E-7 = 25 LIN. FT.

STA. 156+40 INSTALL E-7 = 25 LIN. FT.

STA. 157+83 INSTALL E-7 = 25 LIN. FT.

STA. 161+57 INSTALL E-7 = 25 LIN. FT.

STA. 163+87 INSTALL E-7 = 25 LIN. FT.

STA. 162+00 INSTALL E-7 = 30 LIN. FT.

STA. 156+60 INSTALL E-7 = 22 LIN. FT.

STA. 150+00 - STA. 165+00
INSTALL E-11 = 1710 LIN. FT.

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

STA. 340+65
BEGIN W. ZION RD.

P.I. STA. 340+00.00

W. ZION RD. C/L

EXISTING R/W

PAVED PARKING

T.C.E.

CONST. LIMITS

PROP. R/W

EXIST. ROW

EXISTING R/W

P.C. STA. 155+36.09

P.I. STA. 158+73.63

P.I. STA. 343+64.28

HILLSIDE TERRACE

RANDAL PLACE

N27°48'54.7"E

N17°46.8"E

PI = 158+73.63
Δ = 26° 31' 09.9" LT.
D = 4°00'
T = 337.53'
L = 662.97'
PC = 155+36.09
PT = 161+99.06
e = 0.03'/'
Ls = 200'

STA. 158+95.80 HWY. 265 =
STA. 343+64.28 W. ZION RD.
Δ = 101° 16' 01.63"

STAGE 3
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/8/2011

DATE OF REVISION	REVISION

STA. 171+00 INSTALL
E-7 = 25 LIN. FT.

STA. 173+50 INSTALL
E-7 = 25 LIN. FT.

STA. 176+50 INSTALL
E-7 = 25 LIN. FT.

STA. 178+00 INSTALL
E-7 = 25 LIN. FT.

STA. 178+50 INSTALL
E-7 = 25 LIN. FT.

STA. 165+00 - STA. 169+84
INSTALL E-11 = 480 LIN. FT.

STA. 176+50 - STA. 180+00
INSTALL E-11 = 335 LIN. FT.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
4-9-2013				6	ARK.			
				JOB NO.		040518	27	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 3

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-9-13

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

STA. 168+13.16 HWY. 265 =
STA. 345+02.59 E. ZION RD.
Δ = 88° 41' 25.66"

STA. 348+30
END E. ZION RD.

STAGE 3
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/8/2011

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.		040518	28	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 3

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 182+00 INSTALL
E-7 = 25 LIN. FT.

STA. 185+26 INSTALL
E-7 = 25 LIN. FT.

STA. 188+00 INSTALL
E-7 = 25 LIN. FT.

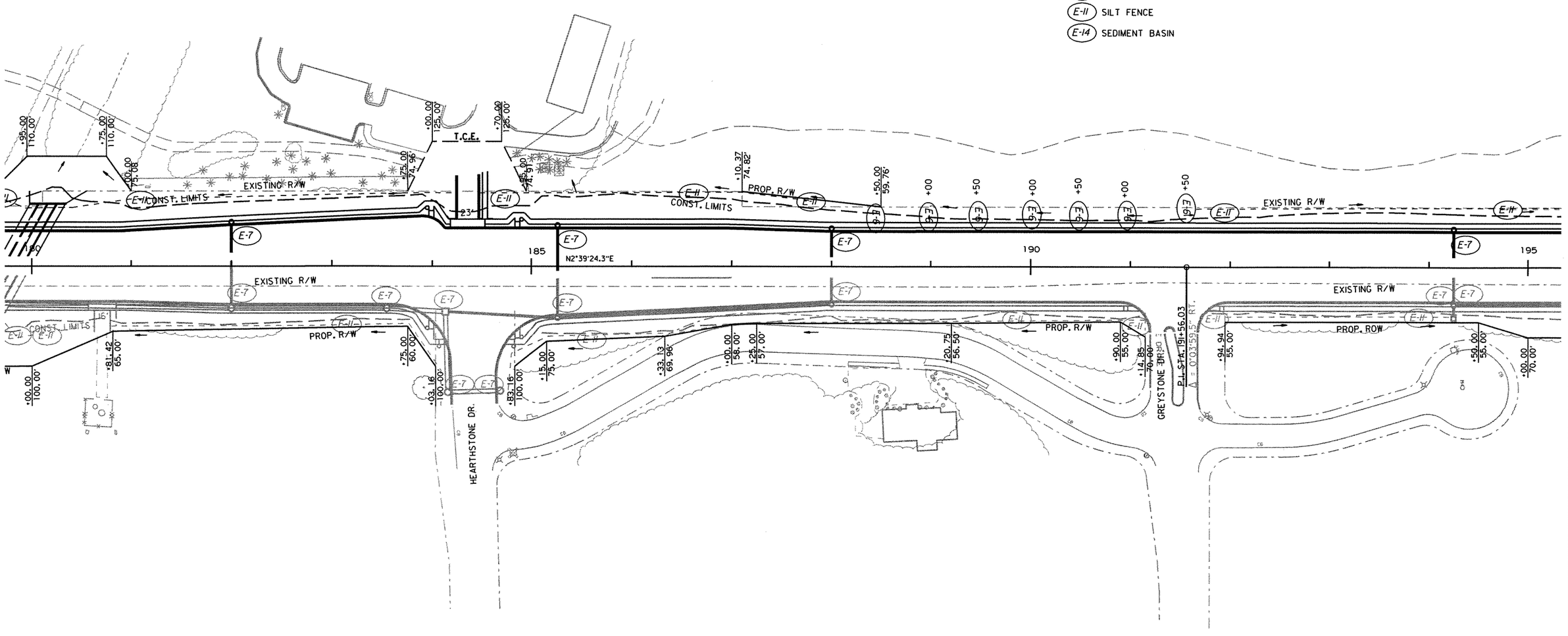
STA. 194+25 INSTALL
E-7 = 25 LIN. FT.

STA. 180+00 - STA. 187+80
INSTALL E-11 = 760 LIN. FT.

STA. 191+60 - STA. 195+00
INSTALL E-11 = 335 LIN. FT.

N

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN



STAGE 3
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/8/2011

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.		040518	29	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 3

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 198+25 INSTALL E-7 = 25 LIN. FT.

STA. 201+50 INSTALL E-7 = 25 LIN. FT.

STA. 202+14 INSTALL E-7 = 30 LIN. FT.

STA. 204+00 INSTALL E-7 = 30 LIN. FT.

STA. 206+40 INSTALL E-7 = 34 LIN. FT.

STA. 207+80 INSTALL E-7 = 34 LIN. FT.

STA. 208+50 INSTALL E-7 = 34 LIN. FT.

STA. 209+20 INSTALL E-7 = 34 LIN. FT.

STA. 195+00 - STA. 210+00 INSTALL E-11 = 1545 LIN. FT.

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

STA. 202+98.05 HWY. 265=
STA. 350+00.00 ALBRIGHT RD.
Δ = 90° 00' 00.0"

EXISTING R/W
PROP. R/W
CONST. LIMITS
T.C.E.
P.C.E.
ALBRIGHT RD.
P.I. STA. 350+00.00
P.I. STA. 353+03.36
N2°43'23.6"E
S 87°06'49.8"E
STA. 352+70
END ALBRIGHT RD.

STAGE 3
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/8/2011

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.		040518	30	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 3

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 212+15 INSTALL
E-7 = 34 LIN. FT.

STA. 215+00 INSTALL
E-7 = 30 LIN. FT.

STA. 218+00 INSTALL
E-7 = 30 LIN. FT.

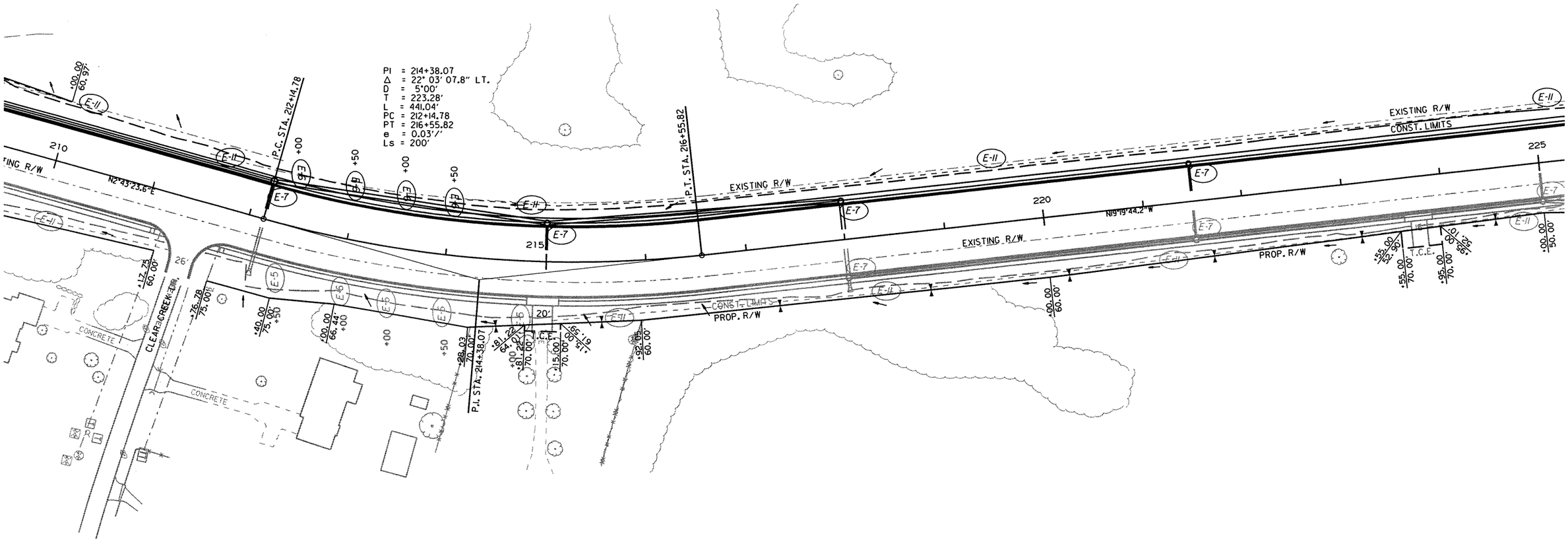
STA. 221+50 INSTALL
E-7 = 25 LIN. FT.

STA. 210+00 - STA. 211+50
INSTALL E-11 = 240 LIN. FT.

STA. 214+00 - STA. 225+00
INSTALL E-11 = 1110 LIN. FT.

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

PI = 214+38.07
Δ = 22° 03' 07.8" LT.
D = 5°00'
T = 223.28'
L = 441.04'
PC = 212+14.78
PT = 216+55.82
e = 0.03'/'
Ls = 200'



STAGE 3
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/8/2011

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.		040518	31	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 3

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
7-2-13

STA. 225+00 - STA. 230+00
INSTALL E-11 = 540 LIN. FT.

- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- (E-14) SEDIMENT BASIN

STA. 230+14.01 HWY. 266 =
STA. 25+49.39 IVEY LANE
Δ= 87° 31' 32.61"

STA. 230+16.00
END JOB 040518

PI = 227+33.86
Δ = 25° 33' 48.7" RT.
D = 7°00'
T = 185.69'
L = 365.19'
PC = 225+48.18
PT = 229+13.37
e = 0.037'/'
Ls = 250'

STA. 22+33
END IVEY LN.

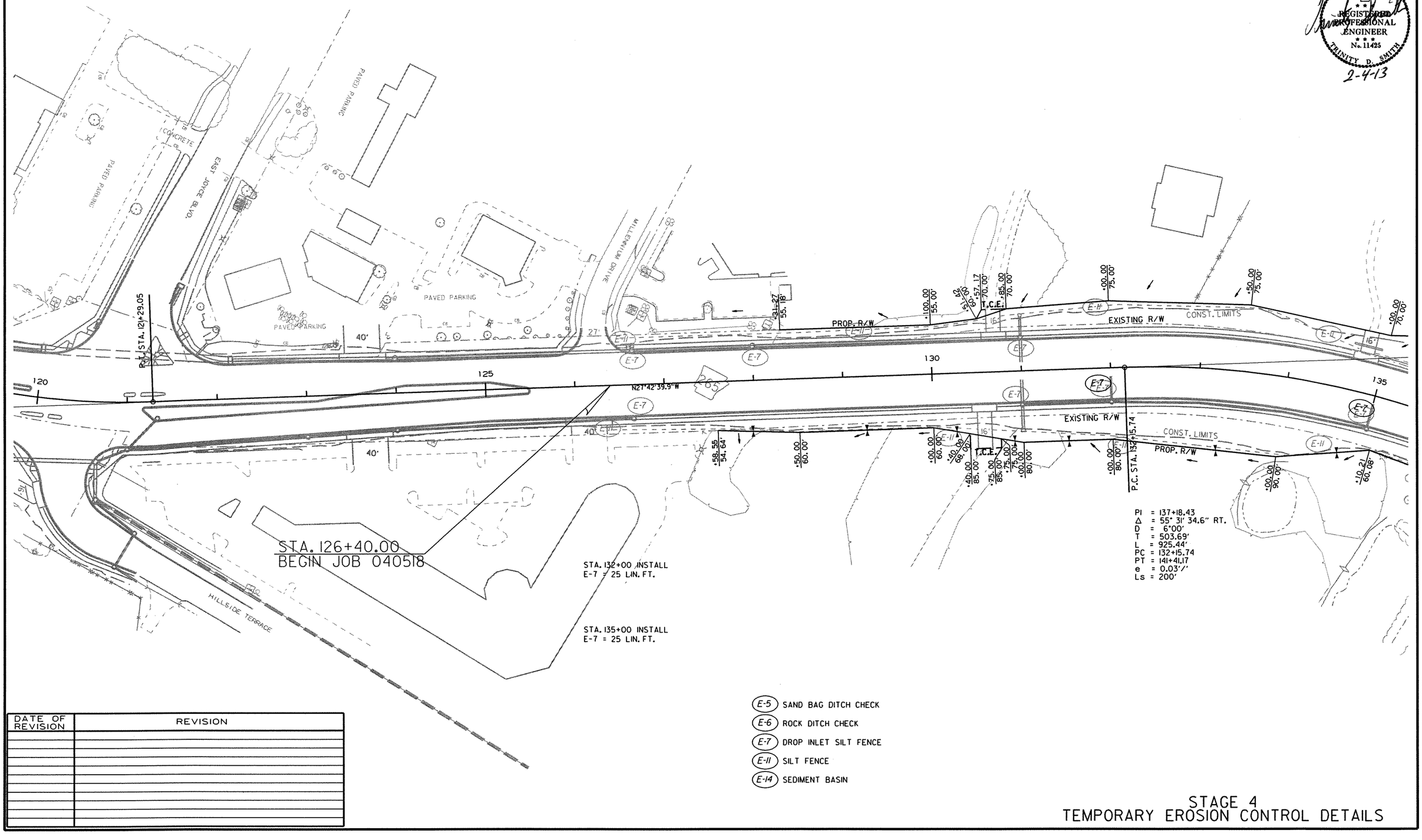
STAGE 3
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/8/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	32	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 4

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



DATE OF REVISION	REVISION

E-5 SAND BAG DITCH CHECK
E-6 ROCK DITCH CHECK
E-7 DROP INLET SILT FENCE
E-11 SILT FENCE
E-14 SEDIMENT BASIN

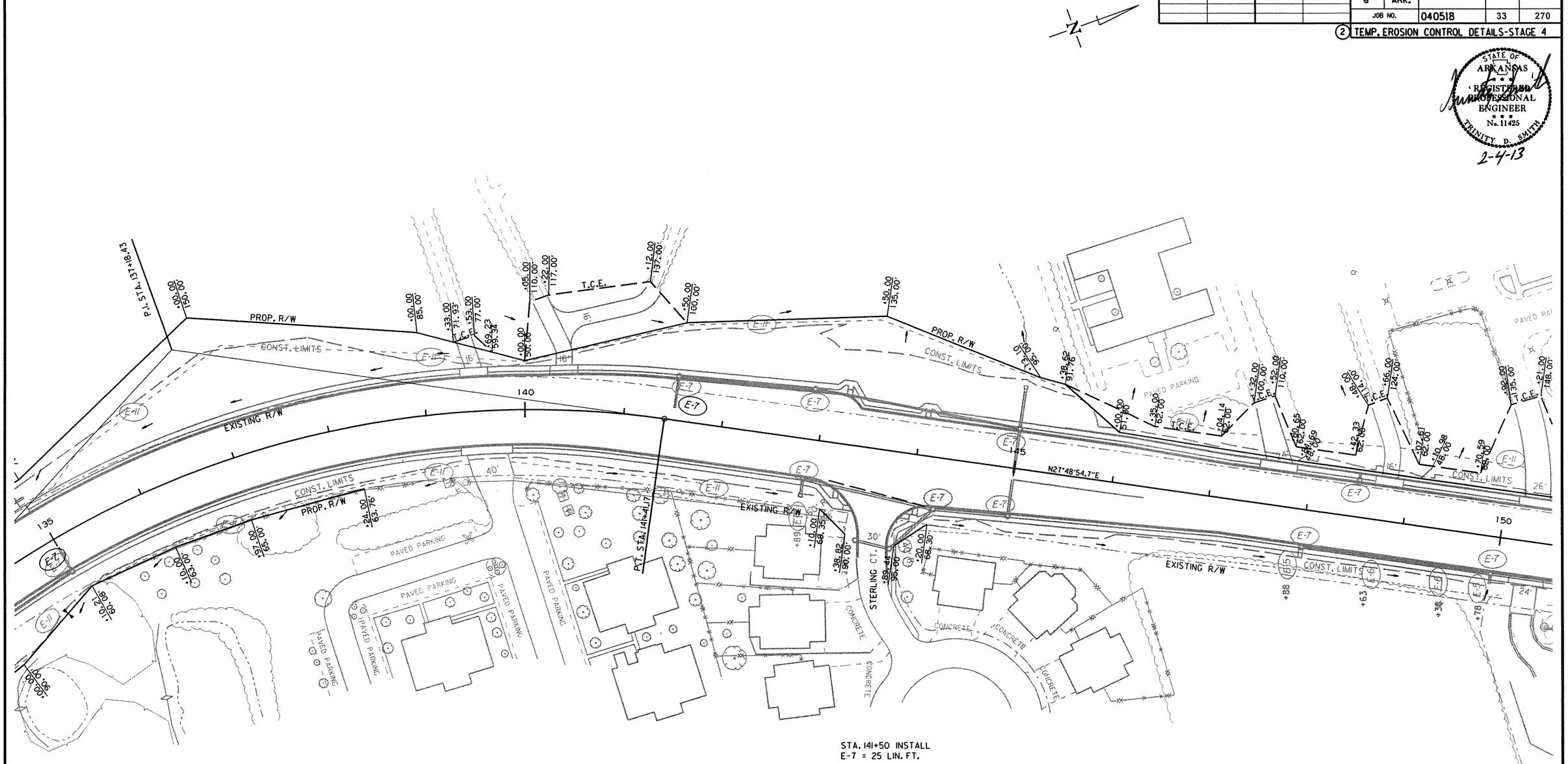
STAGE 4
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/9/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	33	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 4

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



PI = 137+18.43
Δ = 55° 31' 34.6" RT.
D = 6°00'
T = 503.69'
L = 925.44'
PC = 132+15.74
PT = 141+41.17
e = 0.03'/'
Ls = 200'

STA. 141+50 INSTALL
E-7 = 25 LIN. FT.

DATE OF REVISION	REVISION

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

STAGE 4
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/9/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		040518	34	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 4

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 340+00
BEGIN W. ZION RD.

P.I. STA. 340+00.00

W. ZION RD.

EXISTING R/W

PAVED PARKING

T.C.E.

P.C. STA. 155+36.09

PROP. R/W

N27°48'54.7"E

EXISTING R/W

CONST. LIMITS

HILLSIDE TERRACE

P.I. STA. 158+73.63

STA. 158+95.80 HWY. 265=
STA. 343+64.28 W. ZION RD.
Δ = 101° 16' 01.63"

PI = 158+73.63
Δ = 26° 31' 09.9" LT.
D = 4°00'
T = 337.53'
L = 662.97'
PC = 155+36.09
PT = 161+99.06
e = 0.03'/'
Ls = 200'

P.I. STA. 161+99.06

RANDAL PLACE

EXIST. ROW

CONST. LIMITS

N17°46.8'E

EXISTING R/W

P.I. STA. 343+64.28

PROP. R/W

STA. 156+40 INSTALL
E-7 = 16 LIN. FT.

STA. 157+83 INSTALL
E-7 = 16 LIN. FT.

STA. 158+35 INSTALL
E-7 = 16 LIN. FT.

STA. 161+00 INSTALL
E-7 = 16 LIN. FT.

STA. 162+00 INSTALL
E-7 = 25 LIN. FT.

STA. 161+57 INSTALL
E-7 = 16 LIN. FT.

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

DATE OF REVISION	REVISION

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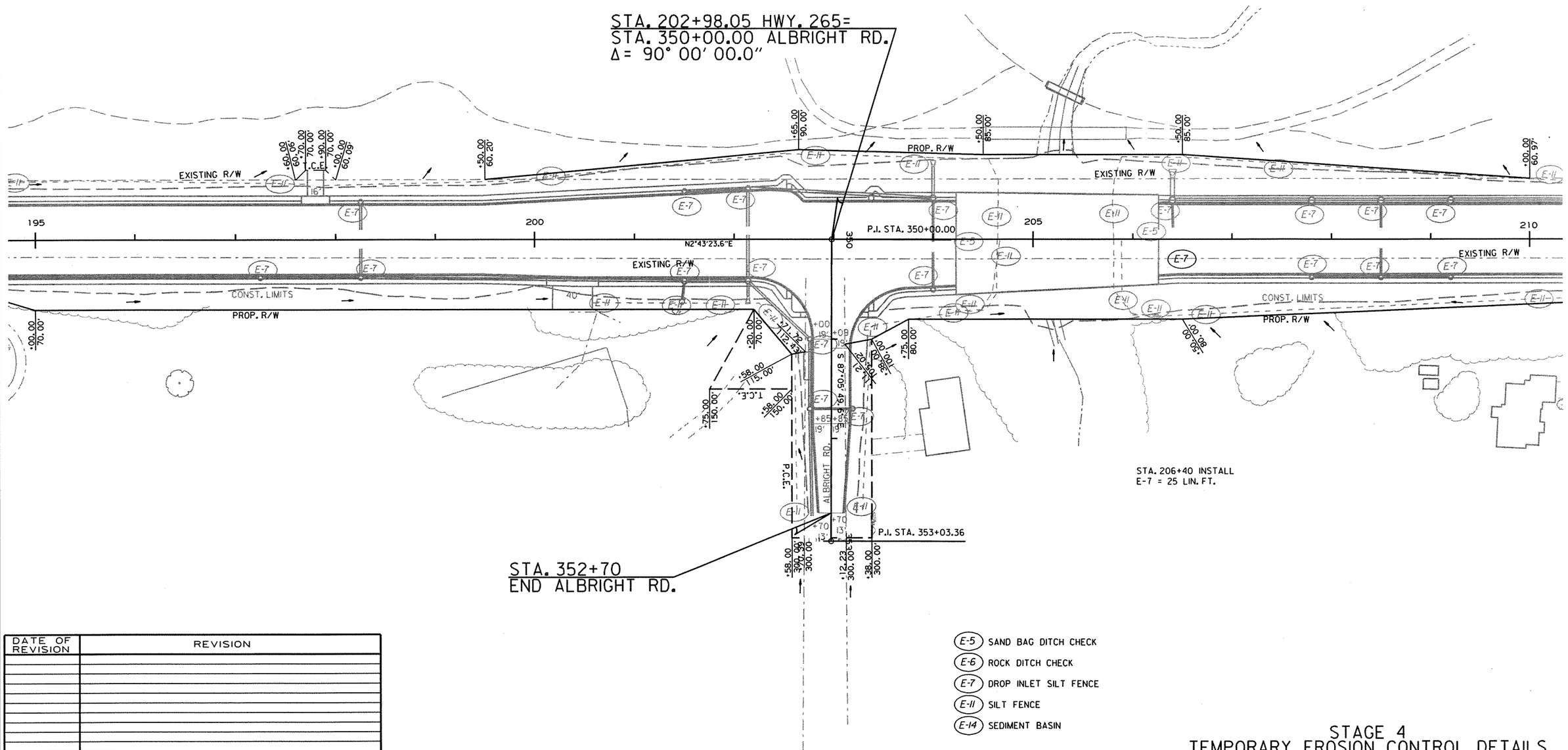
STAGE 4
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	35	270

(2) TEMP. EROSION CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 202+98.05 HWY. 265=
STA. 350+00.00 ALBRIGHT RD.
Δ = 90° 00' 00.0"



DATE OF REVISION	REVISION

- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- (E-14) SEDIMENT BASIN

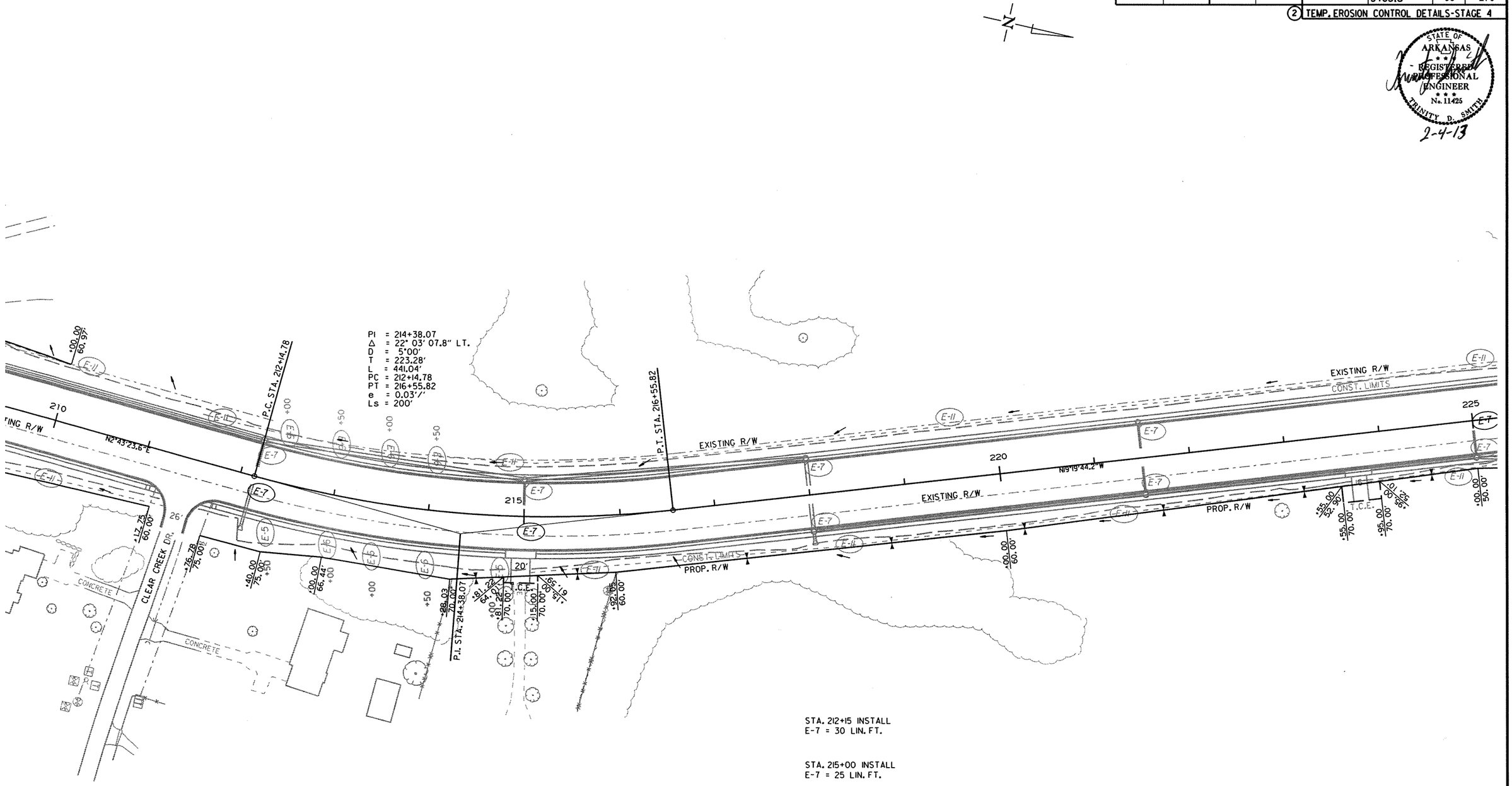
STAGE 4
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/9/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	36	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 4

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



STA. 212+15 INSTALL
E-7 = 30 LIN. FT.

STA. 215+00 INSTALL
E-7 = 25 LIN. FT.

STA. 225+00 INSTALL
E-7 = 25 LIN. FT.

DATE OF REVISION	REVISION

(E-5) SAND BAG DITCH CHECK
(E-6) ROCK DITCH CHECK
(E-7) DROP INLET SILT FENCE
(E-11) SILT FENCE
(E-14) SEDIMENT BASIN

R040518.DGN 8/9/2011

STAGE 4
TEMPORARY EROSION CONTROL DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	37	270

(2) TEMP. EROSION CONTROL DETAILS-STAGE 4

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 230+14.01 HWY. 265=
STA. 25+49.39 IVEY LANE
Δ= 87° 31' 32.61"

STA. 230+16.00
END JOB 040518

PROP. R/W
EXISTING R/W
P.I. STA. 227+33.86
P.I. STA. 26+08.94
N9°19'44.2"W
N6°14'04.6"E
P.C. STA. 225+48.18
P.T. STA. 229+13.37
P.I. STA. 23+99.99
PAVED PARKING
CONCRETE
PARKING
IVEY LN.
EXISTING ROW
150' TAPER
P.O.E. 236+00.00

PI = 227+33.86
Δ = 25° 33' 48.7" RT.
D = 7°00'
T = 185.69'
L = 365.19'
PC = 225+48.18
PT = 229+13.37
e = 0.037'/'
Ls = 250'

STA. 22+33
END IVEY LN.

STA. 228+00 INSTALL
E-7 = 20 LIN. FT.

- (E-5) SAND BAG DITCH CHECK
- (E-6) ROCK DITCH CHECK
- (E-7) DROP INLET SILT FENCE
- (E-11) SILT FENCE
- (E-14) SEDIMENT BASIN

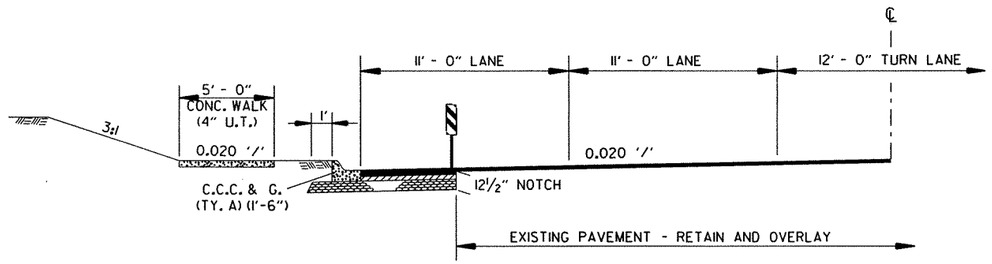
DATE OF REVISION	REVISION

STAGE 4
TEMPORARY EROSION CONTROL DETAILS

R040518.DGN 8/9/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	38	270

(2) MAINTENANCE OF TRAFFIC DETAILS ALL STAGES



NOTE: TYPICAL SHOWN FOR ONE SIDE, OTHER SIDE IS SIMILAR

CURB AND GUTTER WIDENING DETAIL

NOTE: PLACEMENT OF ADVANCE WARNING SIGNS WILL BE SHOWN ON THE MAINTENANCE OF TRAFFIC PLAN SHEETS FOR EACH STAGE OF CONSTRUCTION.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

SEQUENCE OF CONSTRUCTION

STAGE 1

STA. 126+40 TO STA. 175+60:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT R.C. BOX CULVERT.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT RT. SIDE OF BRIDGE. (NO EMBANKMENT
OR ACHM MATERIAL IS TO BE PLACED ABOVE EXISTING
ROAD ELEVATIONS.)

STA. 211+30 TO STA. 230+16:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STAGE 2

STA. 126+40 TO STA. 201+75:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
SET UP DETOUR FOR HWY. 265.
FROM W. ZION RD. TO THE BRIDGE APPROACHES,
ALLOW LOCAL TRAFFIC ONLY.
CLOSE HWY. 265 AND ALBRIGHT RD. AT BRIDGE APPROACHES.

STA. 201+75 TO STA. 211+30:
AFTER HWY. 265 IS CLOSED AND TRAFFIC SHIFTED TO
DETOUR ROUTE, REMOVE EXISTING R.C. BOX CULVERT
AND EXCAVATE CHANNEL. AFTER CHANNEL EXCAVATION
IS COMPLETE, FINISH APPROACHES ON RT. SIDE TO OPEN
2 LANES OF TRAFFIC.

STA. 211+30 TO STA. 230+16:
MAINTAIN LOCAL TRAFFIC ON EXSITING 3 LANES.

STAGE 3

STA. 126+40 TO STA. 175+60:
SHIFT TRAFFIC TO THE RIGHT MAINTAINING 2 LANES OF TRAFFIC.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
MAINTAIN TRAFFIC ON RIGHT SIDE.
COMPLETE R.C. BOX CULVERT.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
CONSTRUCT LEFT SIDE OF BRIDGE AND APPROACHES.

STA. 211+30 TO STA. 230+16:
SHIFT TRAFFIC FROM THE RIGHT SIDE TO THE EXISTING LANES.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STAGE 4

STA. 126+40 TO STA. 230+16:
SPLIT TRAFFIC TO OUTER LANES.
CONSTRUCT MEDIAN STORM SEWER AND COMPLETE MEDIAN.

END OF JOB

STA. 126+40 TO STA. 230+16:
CONSTRUCT FINAL 2" OF SURFACE AND INSTALL
PERMANENT PAVEMENT MARKINGS.

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ALL STAGES
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	39	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE I

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

SEQUENCE OF CONSTRUCTION

STAGE I

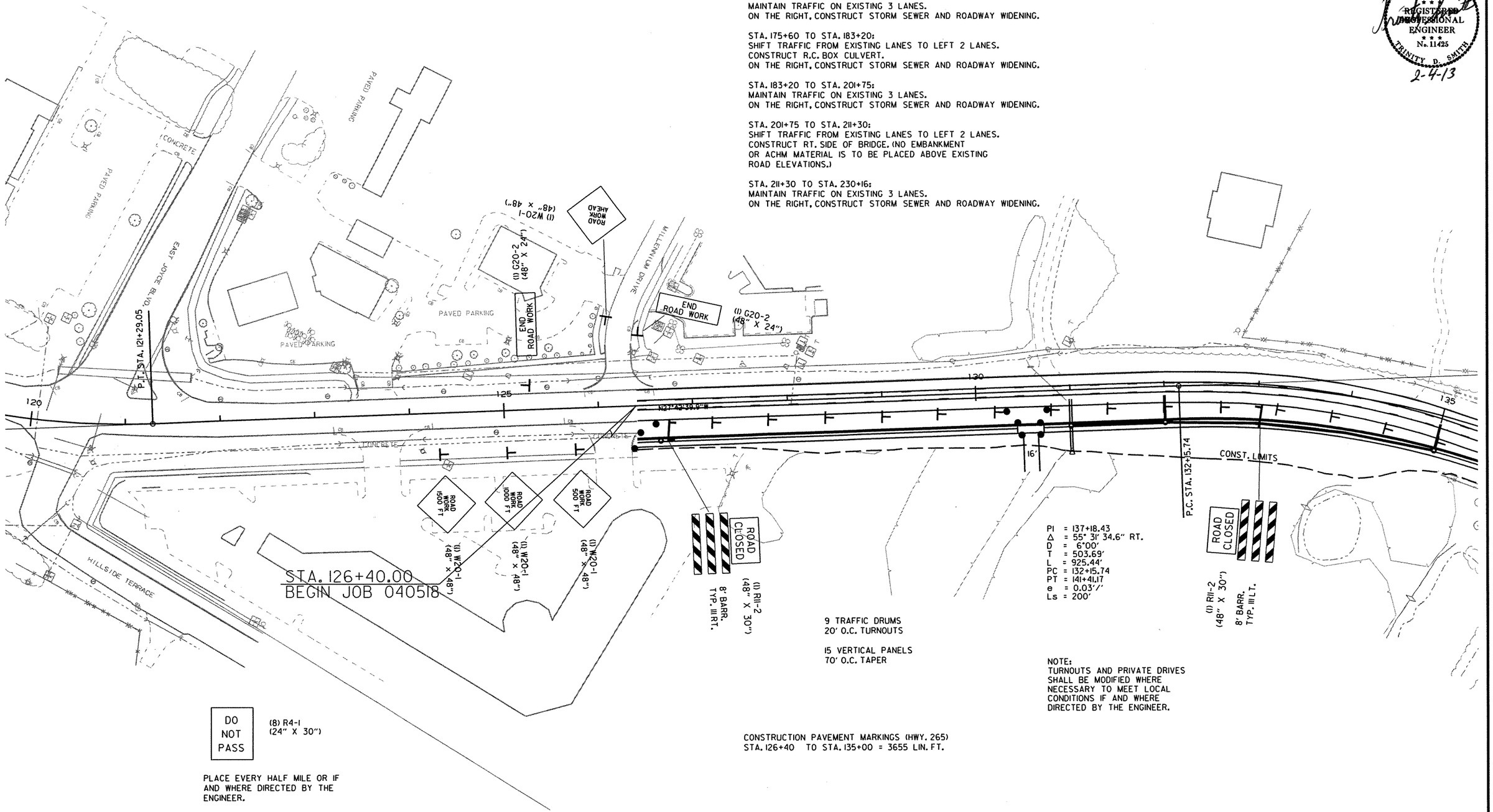
STA. 126+40 TO STA. 175+60:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT R.C. BOX CULVERT.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT RT. SIDE OF BRIDGE. (NO EMBANKMENT
OR ACHM MATERIAL IS TO BE PLACED ABOVE EXISTING
ROAD ELEVATIONS.)

STA. 211+30 TO STA. 230+16:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.



PI = 137+18.43
Δ = 55° 31' 34.6" RT.
D = 6°00'
T = 503.69'
L = 925.44'
PC = 132+15.74
PT = 141+41.17
e = 0.03'/'
Ls = 200'

9 TRAFFIC DRUMS
20' O.C. TURNOUTS

15 VERTICAL PANELS
70' O.C. TAPER

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

DO NOT PASS

(8) R4-1 (24" X 30")

PLACE EVERY HALF MILE OR IF AND WHERE DIRECTED BY THE ENGINEER.

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 126+40 TO STA. 135+00 = 3655 LIN. FT.

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STAGE I
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	40	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE I

SEQUENCE OF CONSTRUCTION

STAGE I

STA. 126+40 TO STA. 175+60:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

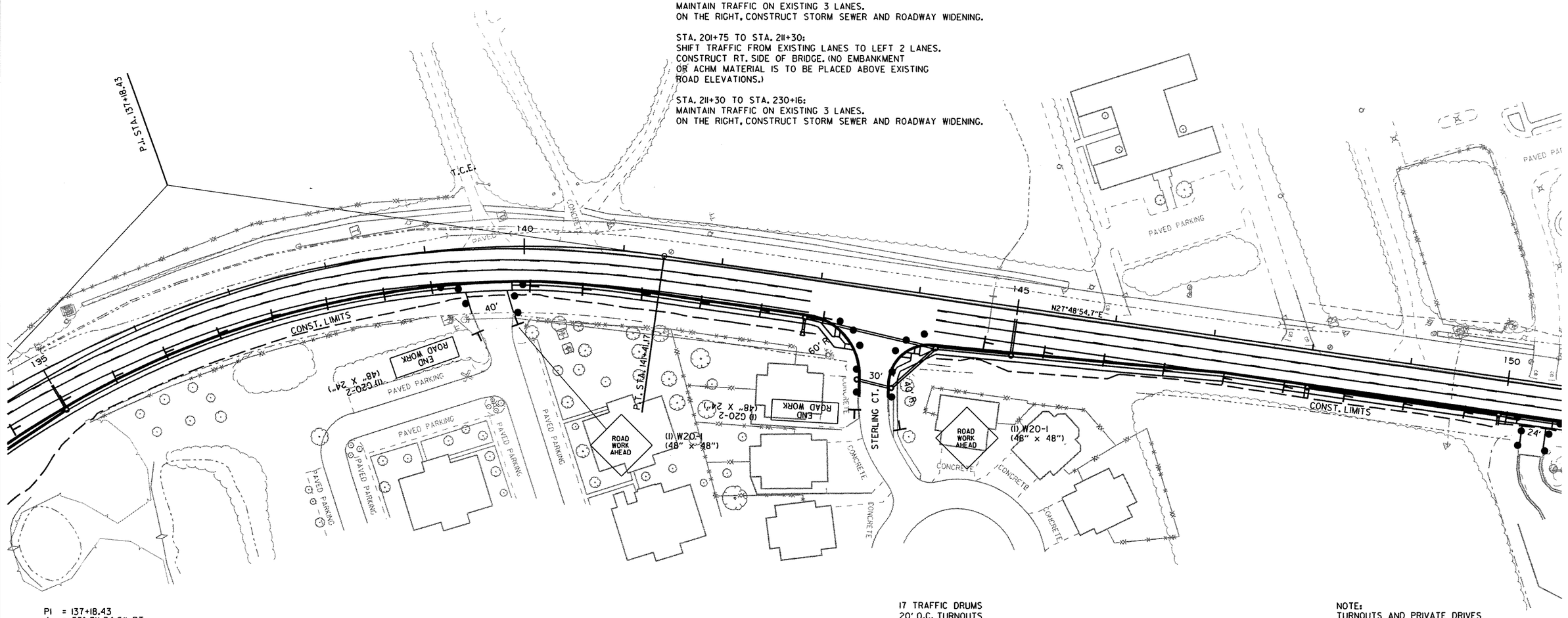
STA. 175+60 TO STA. 183+20:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT R.C. BOX CULVERT.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT RT. SIDE OF BRIDGE. (NO EMBANKMENT OR ACHM MATERIAL IS TO BE PLACED ABOVE EXISTING ROAD ELEVATIONS.)

STA. 211+30 TO STA. 230+16:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



PI = 137+18.43
Δ = 55° 31' 34.6" RT.
D = 6°00'
T = 503.69'
L = 925.44'
PC = 132+15.74
PT = 141+41.17
e = 0.03'/'
Ls = 200'

17 TRAFFIC DRUMS
20' O.C. TURNOUTS

24 VERTICAL PANELS
70' O.C. TAPER

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 135+00 TO STA. 150+00 = 6280 LIN. FT.

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STAGE I
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	41	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE I

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

SEQUENCE OF CONSTRUCTION

STAGE I

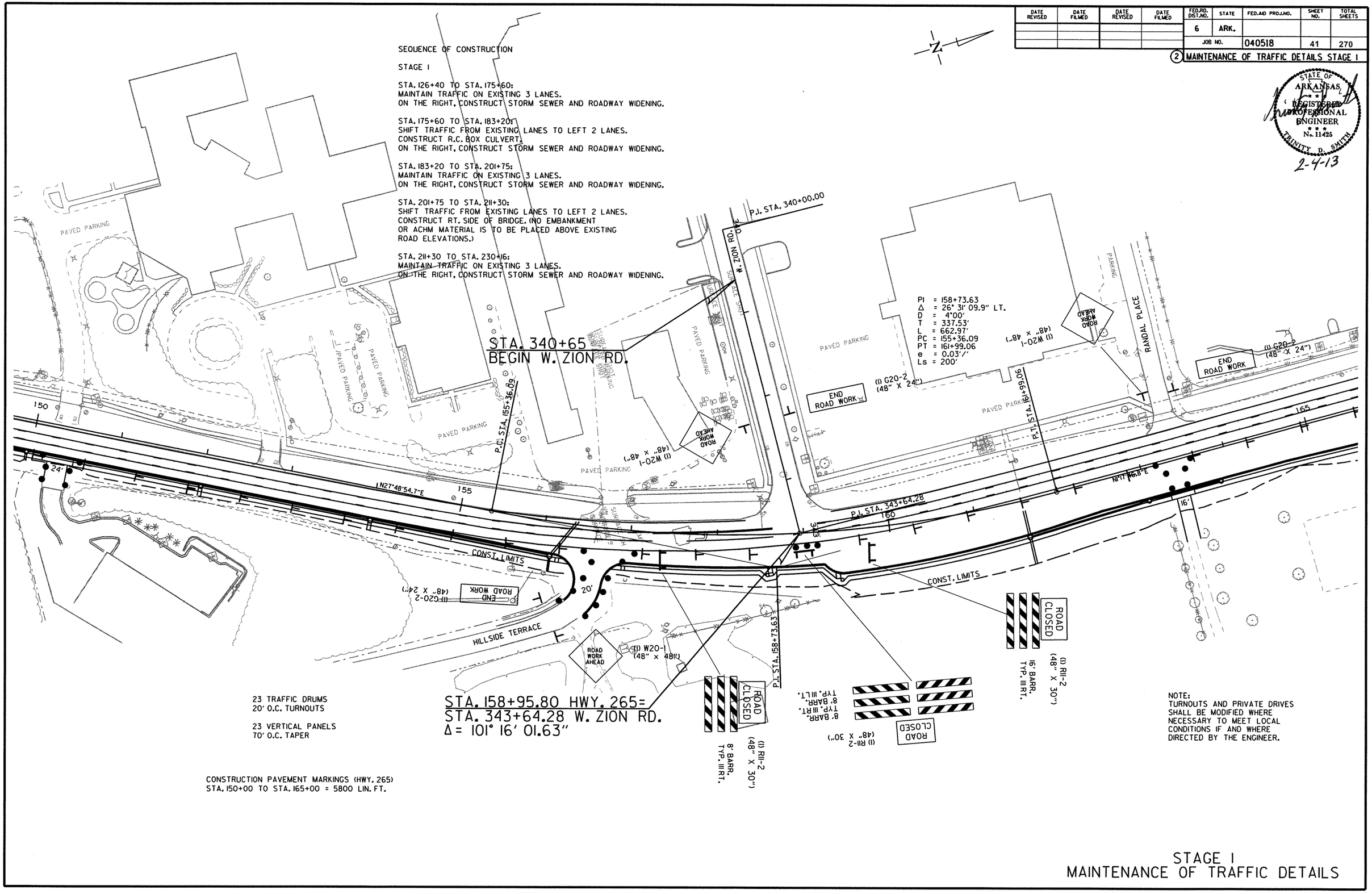
STA. 126+40 TO STA. 175+60:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT R.C. BOX CULVERT.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT RT. SIDE OF BRIDGE. (NO EMBANKMENT OR ACHM MATERIAL IS TO BE PLACED ABOVE EXISTING ROAD ELEVATIONS.)

STA. 211+30 TO STA. 230+16:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.



23 TRAFFIC DRUMS
20' O.C. TURNOUTS

23 VERTICAL PANELS
70' O.C. TAPER

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 150+00 TO STA. 165+00 = 5800 LIN. FT.

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

STAGE I
MAINTENANCE OF TRAFFIC DETAILS

R040518.DGN 8/5/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	42	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE I

SEQUENCE OF CONSTRUCTION

STAGE I

STA. 126+40 TO STA. 175+60:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

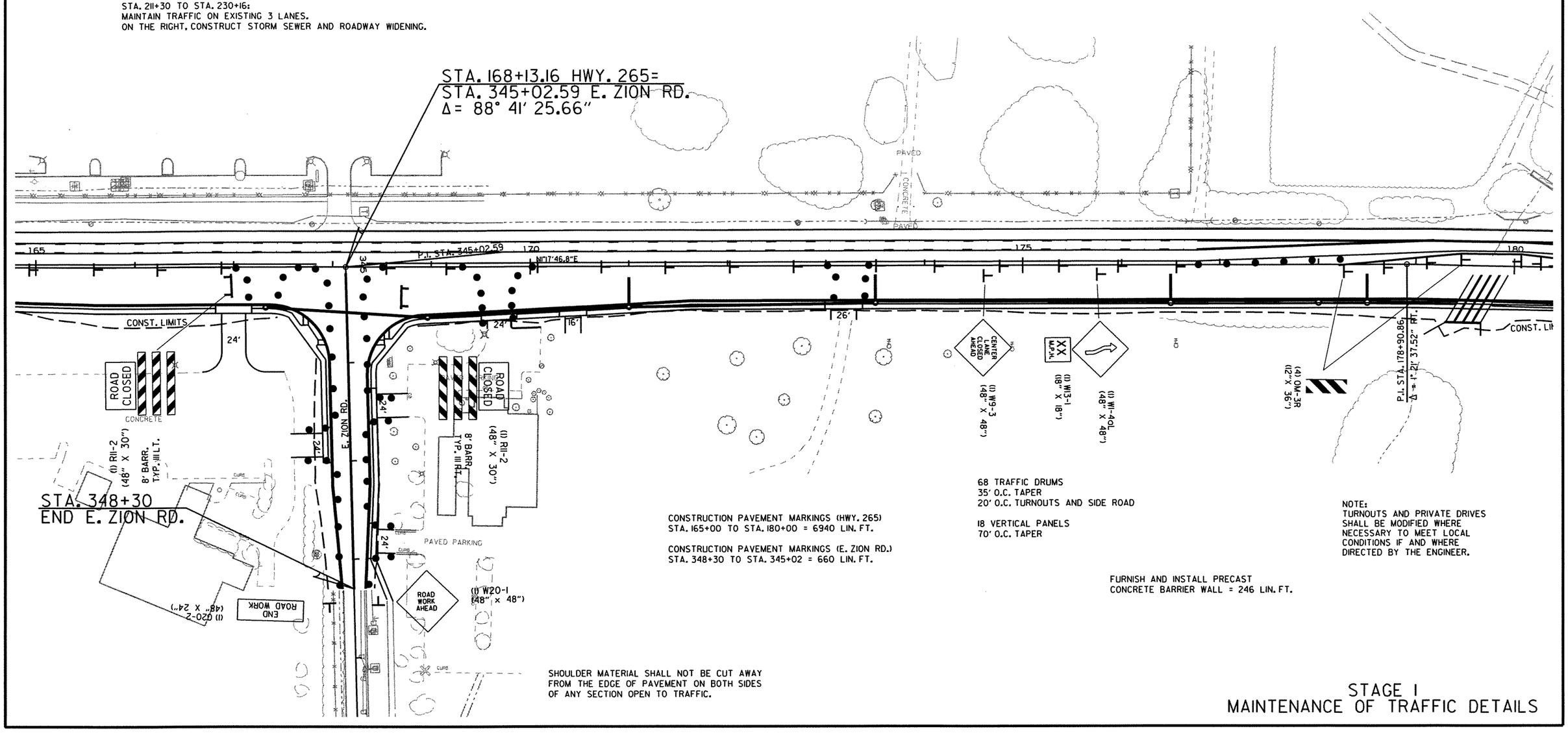
STA. 175+60 TO STA. 183+20:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT R.C. BOX CULVERT.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT RT. SIDE OF BRIDGE. (NO EMBANKMENT
OR ACHM MATERIAL IS TO BE PLACED ABOVE EXISTING
ROAD ELEVATIONS.)

STA. 211+30 TO STA. 230+16:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

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CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 165+00 TO STA. 180+00 = 6940 LIN. FT.

CONSTRUCTION PAVEMENT MARKINGS (E. ZION RD.)
STA. 348+30 TO STA. 345+02 = 660 LIN. FT.

68 TRAFFIC DRUMS
35' O.C. TAPER
20' O.C. TURNOUTS AND SIDE ROAD

18 VERTICAL PANELS
70' O.C. TAPER

FURNISH AND INSTALL PRECAST
CONCRETE BARRIER WALL = 246 LIN. FT.

NOTE:
TURNOUTS AND PRIVATE DRIVES
SHALL BE MODIFIED WHERE
NECESSARY TO MEET LOCAL
CONDITIONS IF AND WHERE
DIRECTED BY THE ENGINEER.

SHOULDER MATERIAL SHALL NOT BE CUT AWAY
FROM THE EDGE OF PAVEMENT ON BOTH SIDES
OF ANY SECTION OPEN TO TRAFFIC.

STAGE I
MAINTENANCE OF TRAFFIC DETAILS

R040518.DGN 8/5/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	43	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE I

SEQUENCE OF CONSTRUCTION

STAGE I

STA. 126+40 TO STA. 175+60:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

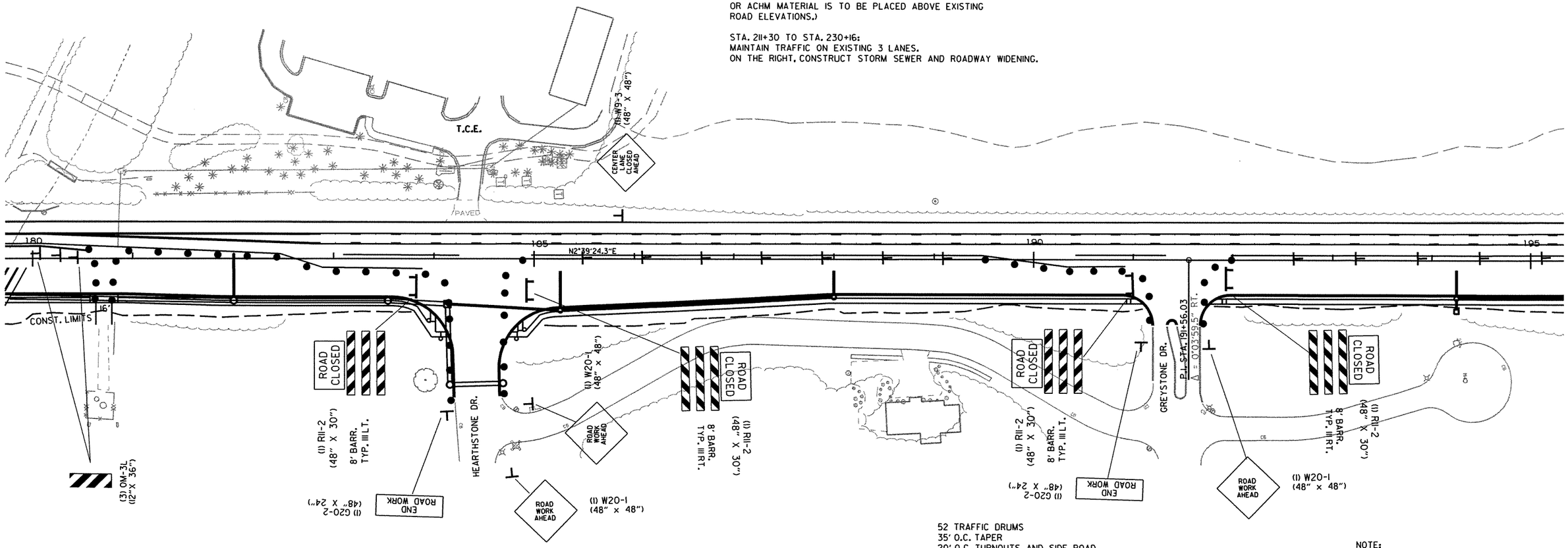
STA. 175+60 TO STA. 183+20:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT R.C. BOX CULVERT.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT RT. SIDE OF BRIDGE. (NO EMBANKMENT OR ACHM MATERIAL IS TO BE PLACED ABOVE EXISTING ROAD ELEVATIONS.)

STA. 211+30 TO STA. 230+16:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

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CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 180+00 TO STA. 195+00 = 7150 LIN. FT.

52 TRAFFIC DRUMS
35' O.C. TAPER
20' O.C. TURNOUTS AND SIDE ROAD

12 VERTICAL PANELS
70' O.C. TAPER

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

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STAGE I
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	44	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE I

SEQUENCE OF CONSTRUCTION

STAGE I

STA. 126+40 TO STA. 175+60:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT R.C. BOX CULVERT.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

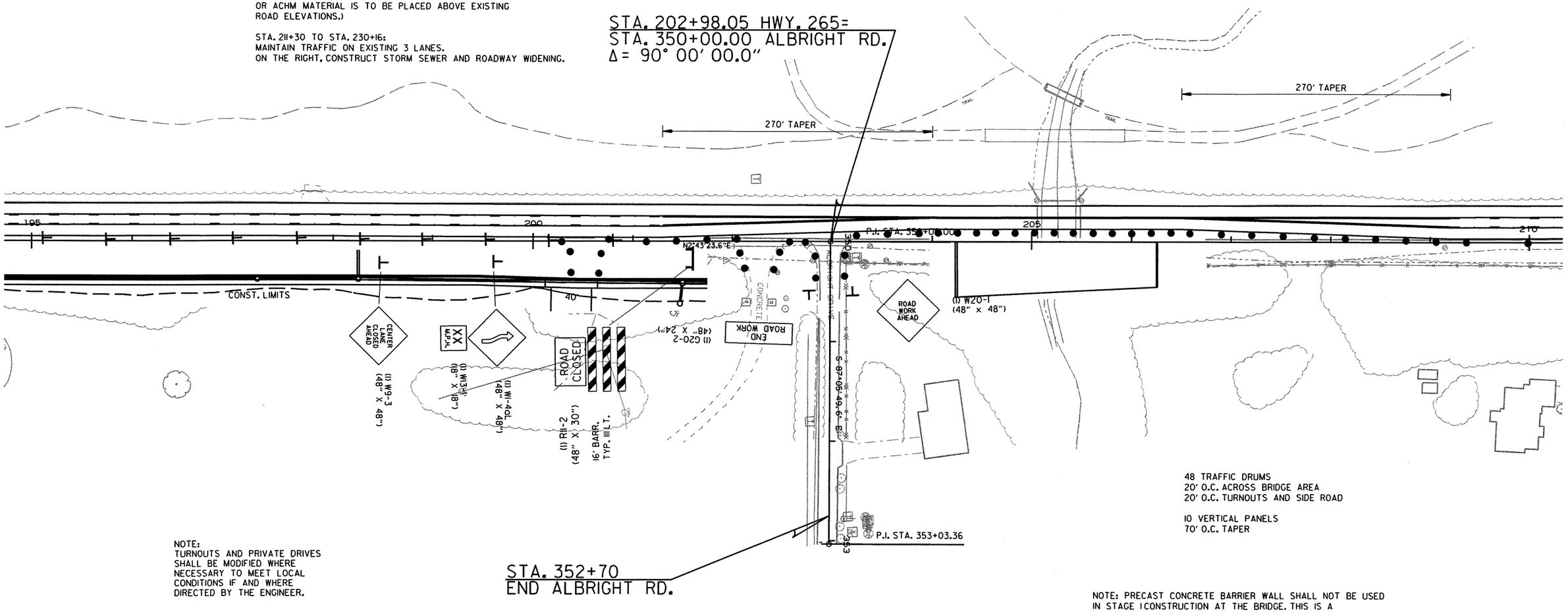
STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT RT. SIDE OF BRIDGE. (NO EMBANKMENT
OR ACHM MATERIAL IS TO BE PLACED ABOVE EXISTING
ROAD ELEVATIONS.)

STA. 211+30 TO STA. 230+16:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

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STA. 202+98.05 HWY. 265=
STA. 350+00.00 ALBRIGHT RD.
Δ = 90° 00' 00.0"



48 TRAFFIC DRUMS
20' O.C. ACROSS BRIDGE AREA
20' O.C. TURNOUTS AND SIDE ROAD

10 VERTICAL PANELS
70' O.C. TAPER

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

STA. 352+70
END ALBRIGHT RD.

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 195+00 TO STA. 210+00 = 7435 LIN. FT.

NOTE: PRECAST CONCRETE BARRIER WALL SHALL NOT BE USED IN STAGE I CONSTRUCTION AT THE BRIDGE. THIS IS A FLOOD AREA, AND OVERTOPPING OF THE EXISTING ROADWAY IS REQUIRED TO PREVENT INCREASED FLOODWATER ELEVATIONS.

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STAGE I
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	45	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE I

SEQUENCE OF CONSTRUCTION

STAGE I

STA. 126+40 TO STA. 175+60:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT R.C. BOX CULVERT.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

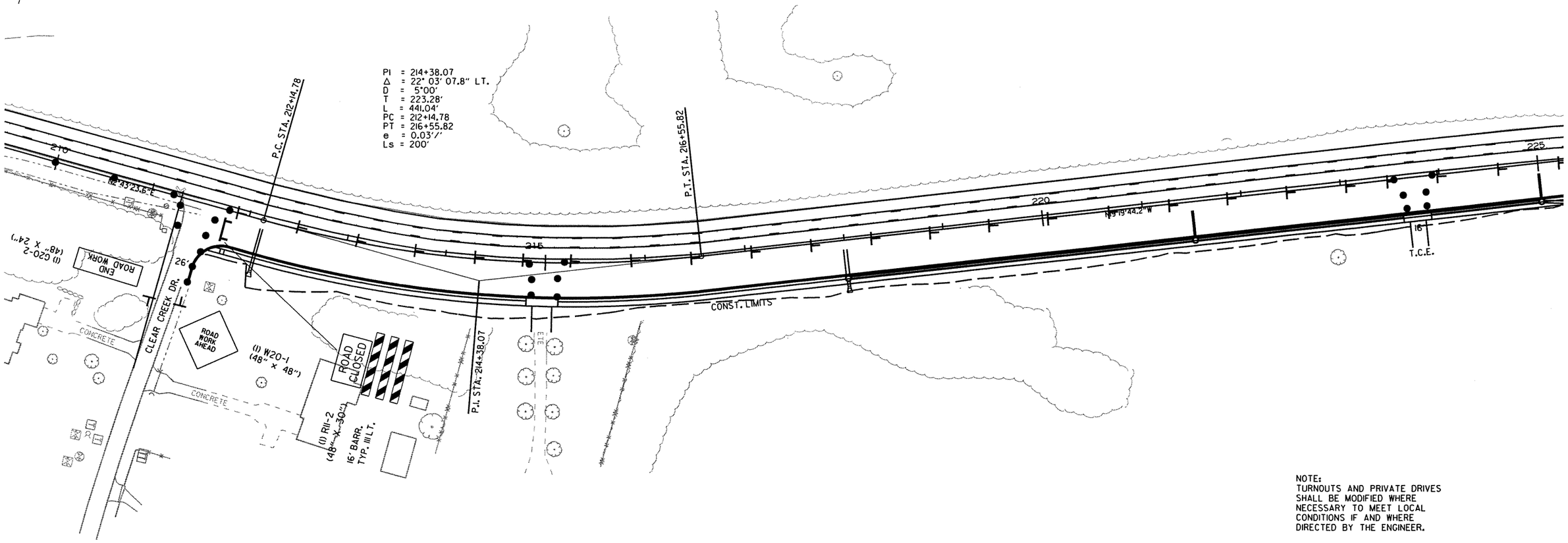
STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT RT. SIDE OF BRIDGE. (NO EMBANKMENT
OR ACHM MATERIAL IS TO BE PLACED ABOVE EXISTING
ROAD ELEVATIONS.)

STA. 211+30 TO STA. 230+16:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

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PI = 214+38.07
Δ = 22° 03' 07.8" LT.
D = 5°00'
T = 223.28'
L = 441.04'
PC = 212+14.78
PT = 216+55.82
e = 0.03'/'
Ls = 200'



NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

23 TRAFFIC DRUMS
35' ROADWAY
20' O.C. TURNOUTS AND SIDE ROAD

24 VERTICAL PANELS
70' O.C. TAPER

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 210+00 TO STA. 225+00 = 6750 LIN. FT.

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STAGE I
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	46	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE I

SEQUENCE OF CONSTRUCTION

STAGE I

STA. 126+40 TO STA. 175+60:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT R.C. BOX CULVERT.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
SHIFT TRAFFIC FROM EXISTING LANES TO LEFT 2 LANES.
CONSTRUCT RT. SIDE OF BRIDGE. (NO EMBANKMENT OR ACHM MATERIAL IS TO BE PLACED ABOVE EXISTING ROAD ELEVATIONS.)

STA. 211+30 TO STA. 230+16:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
ON THE RIGHT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

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STA. 230+14.01 HWY. 265=
STA. 25+49.39 IVEY LANE
Δ= 87° 31' 32.61"

STA. 230+16.00
END JOB 040518

P.I. STA. 227+33.86

P.I. STA. 26+08.94

N5°19'44.2"W

N6°14'04.6"E

P.C. STA. 225+48.18

PI = 227+33.86
Δ = 25° 33' 48.7" RT.
D = 7°00'
T = 185.69'
L = 365.19'
PC = 225+48.18
PT = 229+13.37
e = 0.037'/'
Ls = 250'

P.T. STA. 229+13.37

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

16' BARR. TYP. MILT.

ROAD CLOSED

P.I. STA. 23+99.99

END ROAD WORK

(1) C20-2 (48" X 24")

IVEY LN.

(1) W20-1 (48" X 48") ROAD WORK 500 FT

(1) W20-1 (48" X 48") ROAD WORK 1000 FT

(1) W20-1 (48" X 48") ROAD WORK 500 FT

POE. 236+00.00

CONCRETE

PAVED

PAVED PARKING

PARKING

ROAD WORK AHEAD (1) W20-1 (48" X 48")

END ROAD WORK (1) G20-2 (48" X 24")

STA. 22+33
END IVEY LN.

21 TRAFFIC DRUMS
20' O.C. TURNOUTS AND SIDE ROAD

8 VERTICAL PANELS
70' O.C. TAPER

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 225+00 TO STA. 230+16 = 2325 LIN. FT.

STAGE I
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	47	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 2

STATE OF ARKANSAS
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DON TYSON PARKWAY

HWY. 71B

HWY. 265

W. ZION RD.

ARKANSAS

Lake Fayetteville

Creek

Mud

BUS

DETOUR AHEAD (I) W20-2 (48" X 48")

(I) M4-8 (I) M3-3 (24"X12") (I) MI-5 (MODIFIED) (24"x24") (I) M5-IL (21" X 15")
DETOUR | SOUTH | 265

(I) M4-8 (I) M3-3 (24"X12") (I) MI-5 (MODIFIED) (24"x24")
DETOUR | SOUTH | 265

(I) M4-8 (I) M3-3 (24"X12") (I) MI-5 (MODIFIED) (24"x24") (I) M6-IR (21" X 15")
DETOUR | SOUTH | 265

(I) M4-8 (I) M3-3 (24"X12") (I) MI-5 (MODIFIED) (24"x24") (I) M5-IR (21" X 15")
DETOUR | SOUTH | 265

(I) M4-8 (I) M3-1 (24"X12") (I) MI-5 (MODIFIED) (24"x24") (I) M6-IR (21" X 15")
DETOUR | NORTH | 265

(I) M4-8 (I) M3-1 (24"X12") (I) MI-5 (MODIFIED) (24"x24") (I) M5-IR (21" X 15")
DETOUR | NORTH | 265

(I) M4-8 (I) M3-1 (24"X12") (I) MI-5 (MODIFIED) (24"x24") (I) M6-IL (21" X 15")
DETOUR | NORTH | 265

(I) M4-8 (I) M3-1 (24"X12") (I) MI-5 (MODIFIED) (24"x24") (I) M5-IL (21" X 15")
DETOUR | NORTH | 265

(I) M4-8 (I) M3-1 (24"X12") (I) MI-5 (MODIFIED) (24"x24")
DETOUR | NORTH | 265

(I) M4-8 (I) M3-1 (24"X12") (I) MI-5 (MODIFIED) (24"x24")
DETOUR | NORTH | 265

(I) M4-8 (I) M3-1 (24"X12") (I) MI-5 (MODIFIED) (24"x24")
DETOUR | NORTH | 265

(I) M4-8 (I) M3-3 (24"X12") (I) MI-5 (MODIFIED) (24"x24")
DETOUR | SOUTH | 265

(I) M4-8 (I) M3-3 (24"X12") (I) MI-5 (MODIFIED) (24"x24")
DETOUR | SOUTH | 265

(I) M4-8 (I) M3-3 (24"X12") (I) MI-5 (MODIFIED) (24"x24")
DETOUR | SOUTH | 265

END DETOUR (I) M4-8A (24" X 18")
NORTH (I) M3-1 (24"X12")
265 (I) MI-5 (MODIFIED) (24"x24")

8' BARR. TYP. III LT.

(I) RII-3A (60" X 30") BRIDGE OUT 0.7 MILES AHEAD LOCAL TRAFFIC ONLY

(I) M4-10R (48" X 18") DETOUR

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

(I) RII-2 (48" X 30") ROAD CLOSED

(I) RII-2 (48" X 30") ROAD CLOSED

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

(I) RII-3A (60" X 30") BRIDGE OUT 0.8 MILES AHEAD LOCAL TRAFFIC ONLY

8' BARR. TYP. III LT.

N

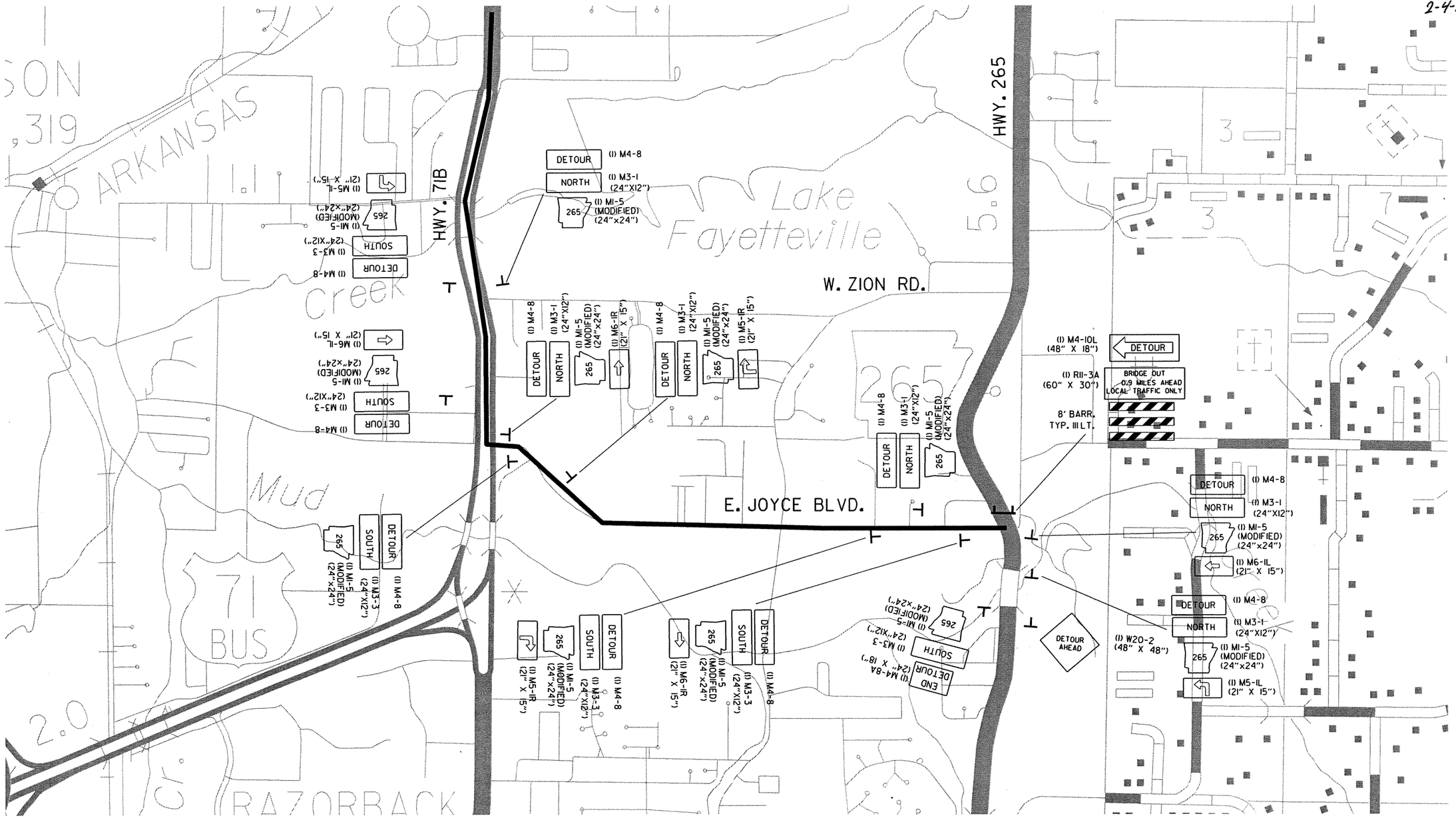
MAINTENANCE OF TRAFFIC STAGE 2
DETOUR MAP

R040518.DGN 8/8/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	47A	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 2

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
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TRINITY D. SMITH
2-4-13



MAINTENANCE OF TRAFFIC STAGE 2
DETOUR MAP

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	48	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 2

SEQUENCE OF CONSTRUCTION

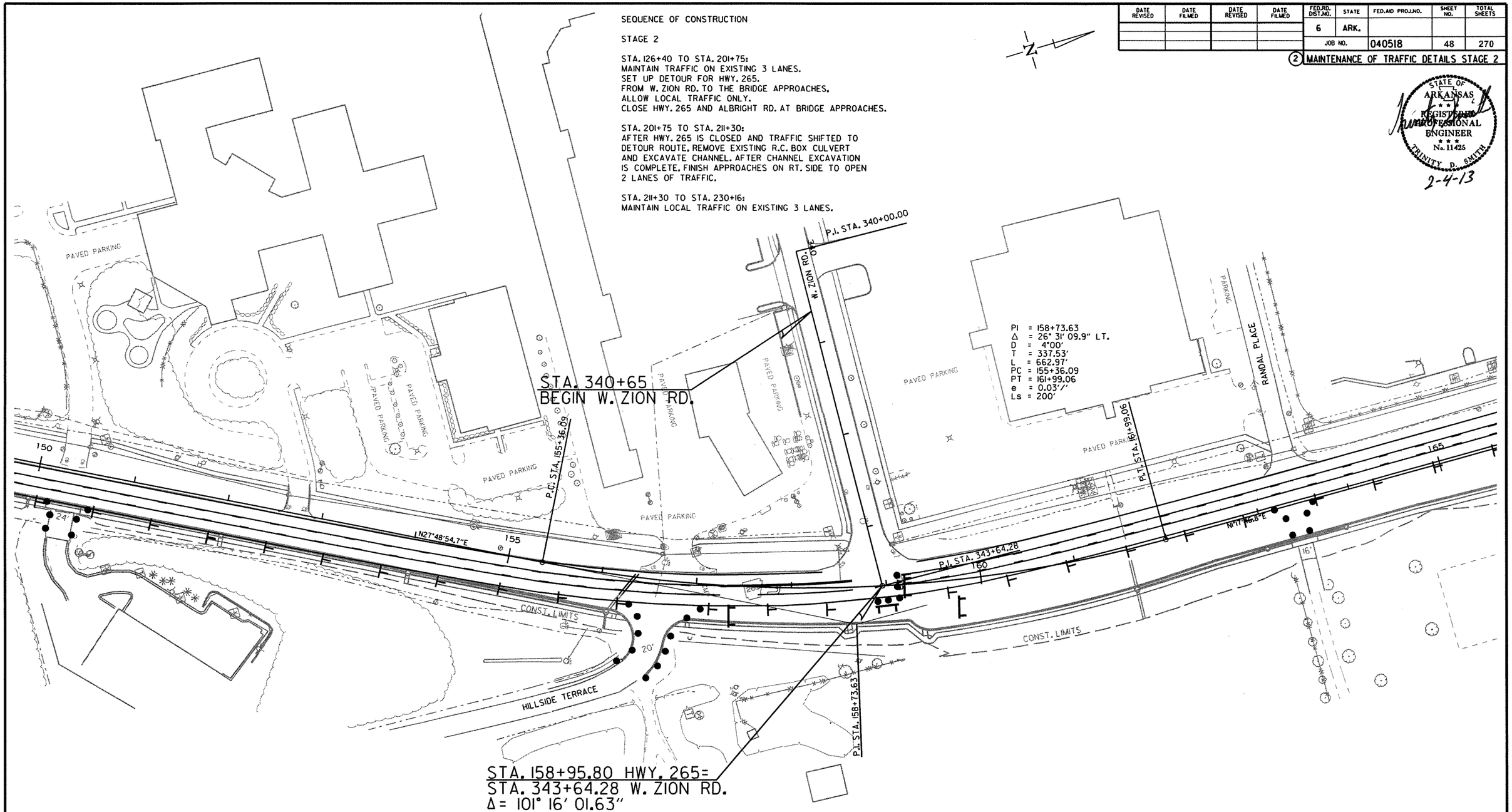
STAGE 2

STA. 126+40 TO STA. 201+75:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
SET UP DETOUR FOR HWY. 265.
FROM W. ZION RD. TO THE BRIDGE APPROACHES,
ALLOW LOCAL TRAFFIC ONLY.
CLOSE HWY. 265 AND ALBRIGHT RD. AT BRIDGE APPROACHES.

STA. 201+75 TO STA. 211+30:
AFTER HWY. 265 IS CLOSED AND TRAFFIC SHIFTED TO DETOUR ROUTE, REMOVE EXISTING R.C. BOX CULVERT AND EXCAVATE CHANNEL. AFTER CHANNEL EXCAVATION IS COMPLETE, FINISH APPROACHES ON RT. SIDE TO OPEN 2 LANES OF TRAFFIC.

STA. 211+30 TO STA. 230+16:
MAINTAIN LOCAL TRAFFIC ON EXISTING 3 LANES.

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STA. 158+95.80 HWY. 265=
STA. 343+64.28 W. ZION RD.
Δ = 101° 16' 01.63"

RETAIN TRAFFIC DRUMS, BARRICADES, VERTICAL PANELS, AND CONSTRUCTION PAVEMENT MARKINGS FROM STAGE 1. REFER TO DETOUR MAP FOR STAGE 2 ADDITIONAL DEVICES.

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

R040518.DGN 8/8/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	49	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 2

STATE OF ARKANSAS
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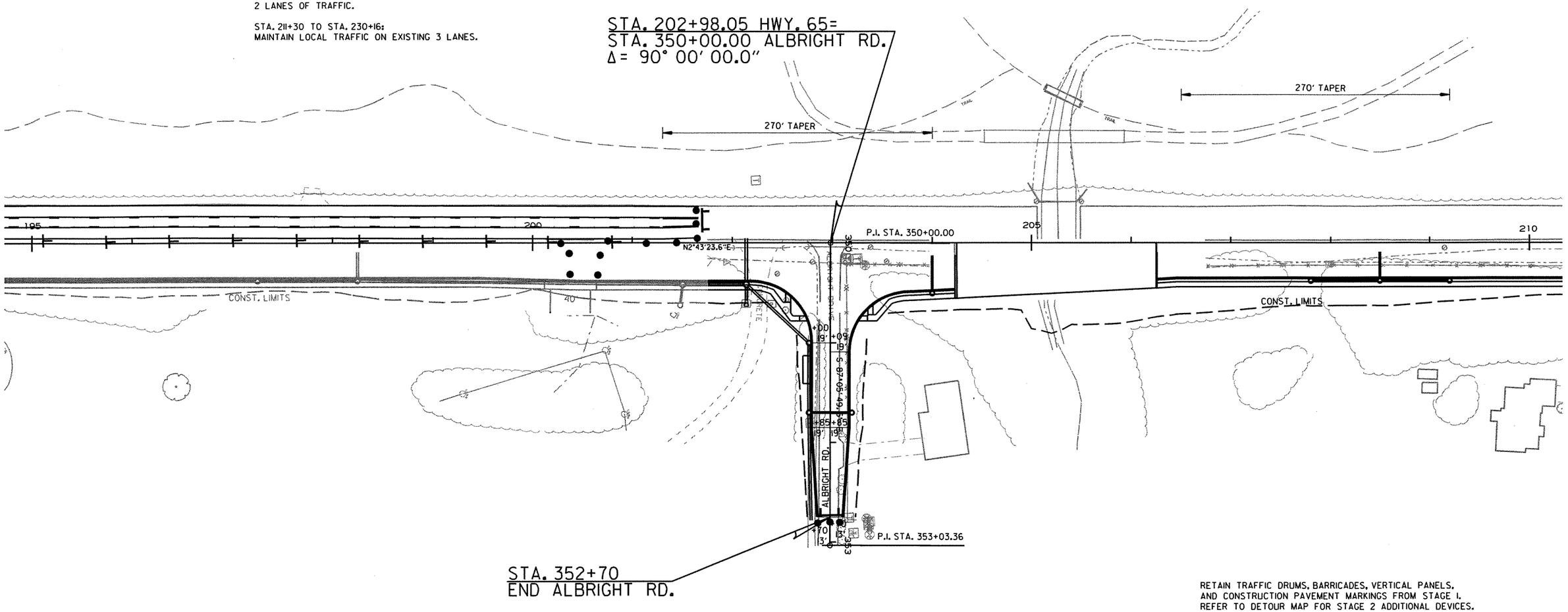
SEQUENCE OF CONSTRUCTION

STAGE 2

STA. 126+40 TO STA. 201+75:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
SET UP DETOUR FOR HWY. 265.
FROM W. ZION RD. TO THE BRIDGE APPROACHES,
ALLOW LOCAL TRAFFIC ONLY.
CLOSE HWY. 265 AND ALBRIGHT RD. AT BRIDGE APPROACHES.

STA. 201+75 TO STA. 211+30:
AFTER HWY. 265 IS CLOSED AND TRAFFIC SHIFTED TO DETOUR ROUTE, REMOVE EXISTING R.C. BOX CULVERT AND EXCAVATE CHANNEL. AFTER CHANNEL EXCAVATION IS COMPLETE, FINISH APPROACHES ON RT. SIDE TO OPEN 2 LANES OF TRAFFIC.

STA. 211+30 TO STA. 230+16:
MAINTAIN LOCAL TRAFFIC ON EXISTING 3 LANES.



RETAIN TRAFFIC DRUMS, BARRICADES, VERTICAL PANELS, AND CONSTRUCTION PAVEMENT MARKINGS FROM STAGE 1. REFER TO DETOUR MAP FOR STAGE 2 ADDITIONAL DEVICES.

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

R040518.DGN 8/8/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	50	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 2

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

SEQUENCE OF CONSTRUCTION

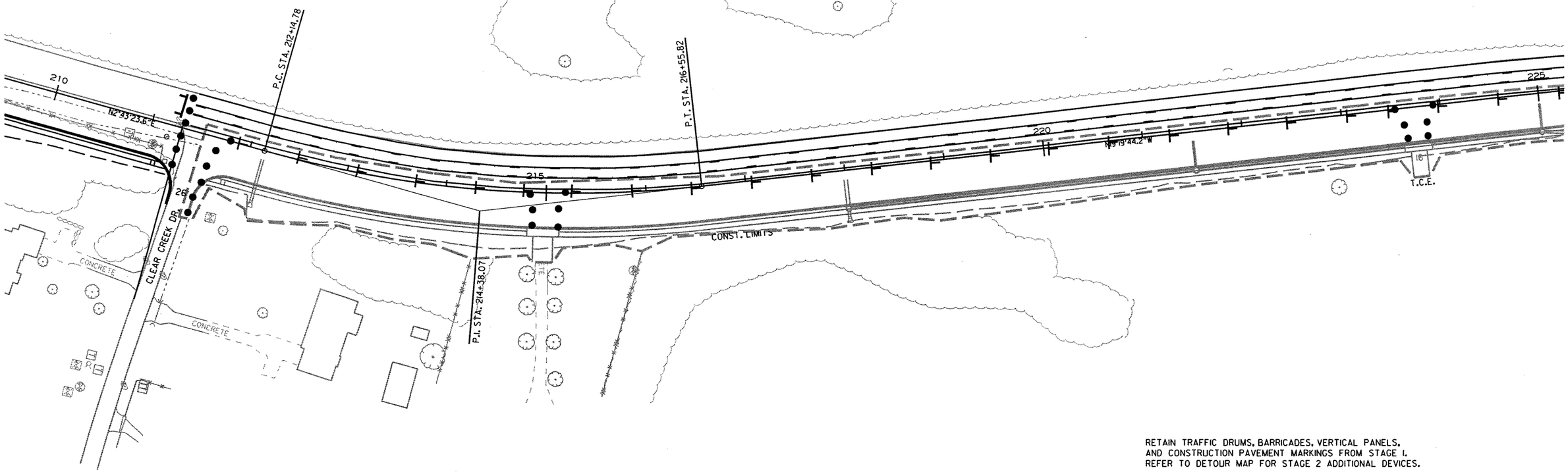
STAGE 2

STA. 126+40 TO STA. 201+75:
MAINTAIN TRAFFIC ON EXISTING 3 LANES.
SET UP DETOUR FOR HWY. 265.
FROM W. ZION RD. TO THE BRIDGE APPROACHES,
ALLOW LOCAL TRAFFIC ONLY.
CLOSE HWY. 265 AND ALBRIGHT RD. AT BRIDGE APPROACHES.

STA. 201+75 TO STA. 211+30:
AFTER HWY. 265 IS CLOSED AND TRAFFIC SHIFTED TO
DETOUR ROUTE, REMOVE EXISTING R.C. BOX CULVERT
AND EXCAVATE CHANNEL. AFTER CHANNEL EXCAVATION
IS COMPLETE, FINISH APPROACHES ON RT. SIDE TO OPEN
2 LANES OF TRAFFIC.

STA. 211+30 TO STA. 230+16:
MAINTAIN LOCAL TRAFFIC ON EXISTING 3 LANES.

PI = 214+38.07
Δ = 22° 03' 07.8" LT.
D = 5°00'
T = 223.28'
L = 441.04'
PC = 212+14.78
PT = 216+55.82
e = 0.03'/'
Ls = 200'



RETAIN TRAFFIC DRUMS, BARRICADES, VERTICAL PANELS,
AND CONSTRUCTION PAVEMENT MARKINGS FROM STAGE 1.
REFER TO DETOUR MAP FOR STAGE 2 ADDITIONAL DEVICES.

STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

R040518.DGN 8/8/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	51	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 3

SEQUENCE OF CONSTRUCTION

STAGE 3

STA. 126+40 TO STA. 175+60:
SHIFT TRAFFIC TO THE RIGHT MAINTAINING 2 LANES OF TRAFFIC.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
MAINTAIN TRAFFIC ON RIGHT SIDE.
COMPLETE R.C. BOX CULVERT.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
CONSTRUCT LEFT SIDE OF BRIDGE AND APPROACHES.

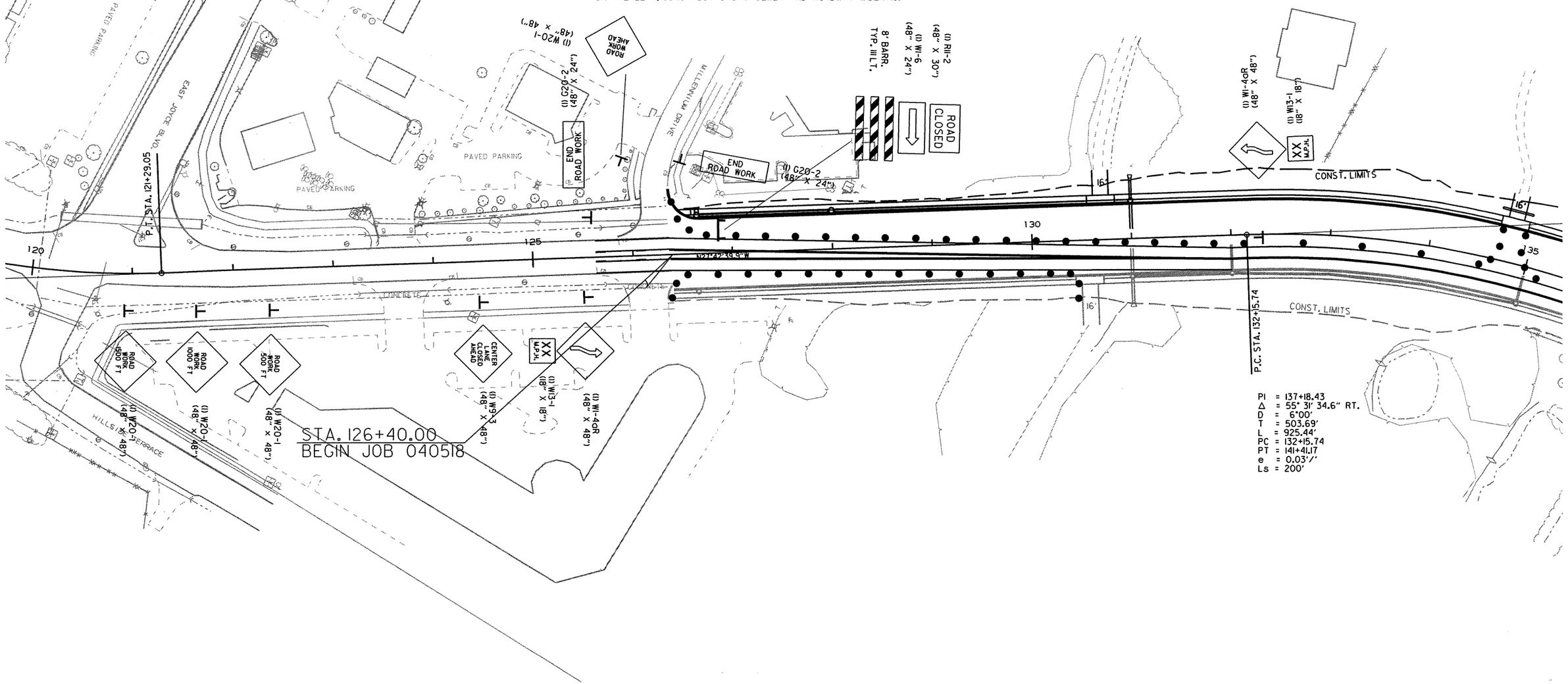
STA. 211+30 TO STA. 230+16:
SHIFT TRAFFIC FROM THE RIGHT SIDE TO THE EXISTING LANES.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

58 TRAFFIC DRUMS
70' O.C. ROADWAY
35' O.C. TAPER
20' O.C. TURNOUTS

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 126+40 TO STA. 135+00 = 4485 LIN. FT.

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY P. SMITH
2-4-13



STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

R040518.DGN 8/8/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	52	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 3

SEQUENCE OF CONSTRUCTION

STAGE 3

STA. 126+40 TO STA. 175+60:
SHIFT TRAFFIC TO THE RIGHT MAINTAINING 2 LANES OF TRAFFIC.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
MAINTAIN TRAFFIC ON RIGHT SIDE.
COMPLETE R.C. BOX CULVERT.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
CONSTRUCT LEFT SIDE OF BRIDGE AND APPROACHES.

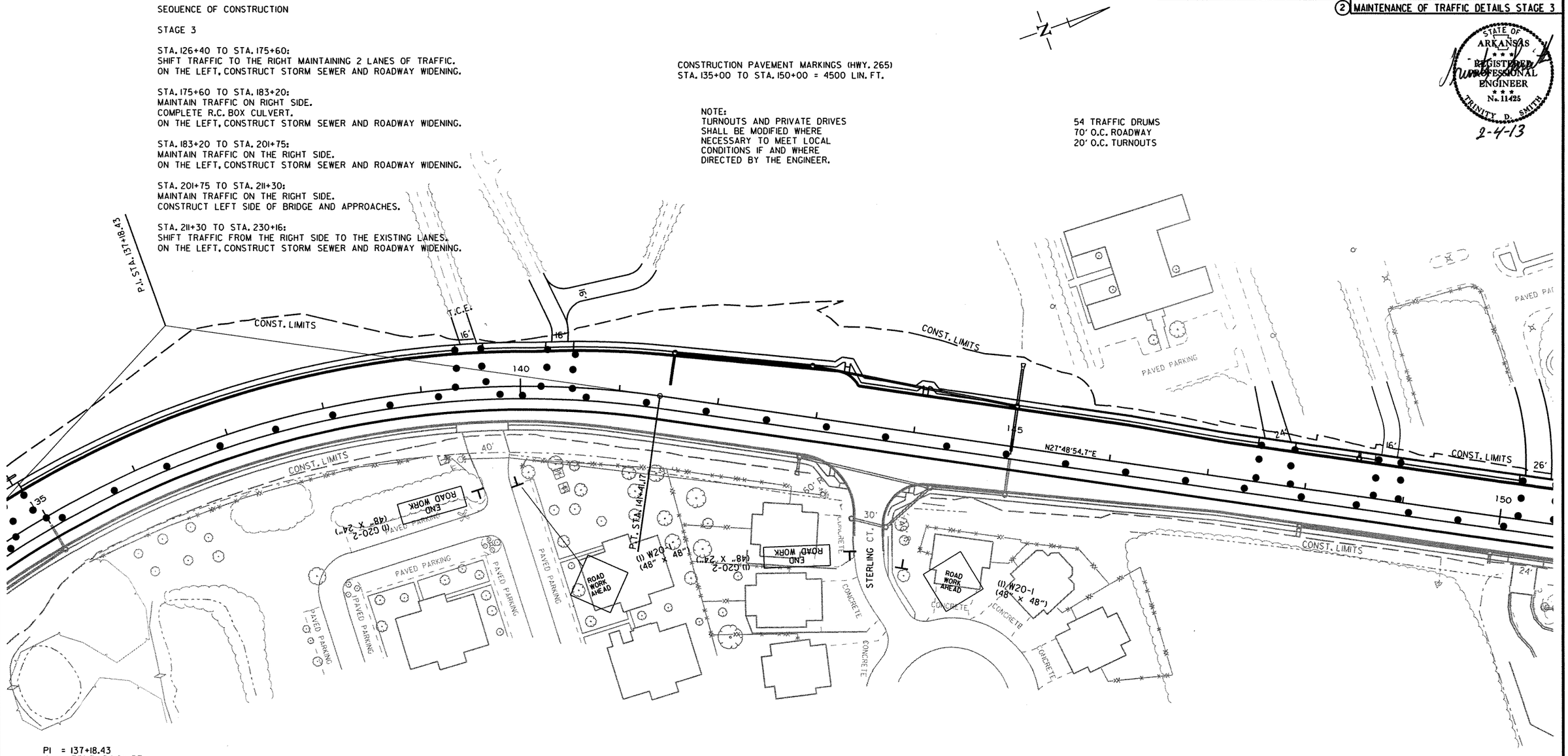
STA. 211+30 TO STA. 230+16:
SHIFT TRAFFIC FROM THE RIGHT SIDE TO THE EXISTING LANES.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 135+00 TO STA. 150+00 = 4500 LIN. FT.

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

54 TRAFFIC DRUMS
70' O.C. ROADWAY
20' O.C. TURNOUTS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



PI = 137+18.43
Δ = 55° 31' 34.6" RT.
D = 6°00'
T = 503.69'
L = 925.44'
PC = 132+15.74
PT = 141+41.17
e = 0.03'/'
Ls = 200'

STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

R040518.DGN 8/8/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	53	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 3

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No. 11425
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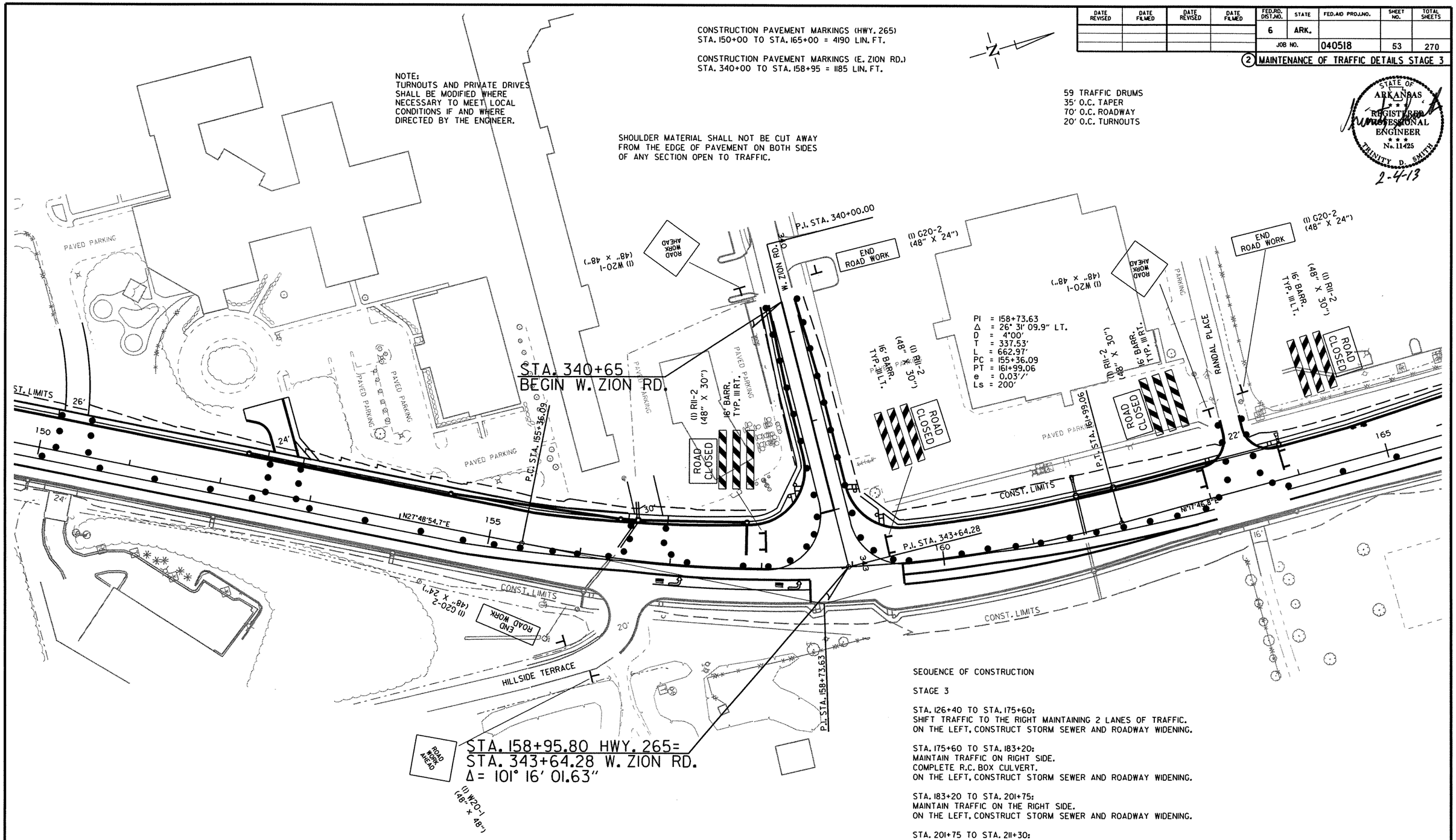
CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 150+00 TO STA. 165+00 = 4190 LIN. FT.

CONSTRUCTION PAVEMENT MARKINGS (E. ZION RD.)
STA. 340+00 TO STA. 158+95 = 1185 LIN. FT.

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

SHOULDER MATERIAL SHALL NOT BE CUT AWAY FROM THE EDGE OF PAVEMENT ON BOTH SIDES OF ANY SECTION OPEN TO TRAFFIC.

59 TRAFFIC DRUMS
35' O.C. TAPER
70' O.C. ROADWAY
20' O.C. TURNOUTS



SEQUENCE OF CONSTRUCTION

STAGE 3

STA. 126+40 TO STA. 175+60:
SHIFT TRAFFIC TO THE RIGHT MAINTAINING 2 LANES OF TRAFFIC.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
MAINTAIN TRAFFIC ON RIGHT SIDE.
COMPLETE R.C. BOX CULVERT.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
CONSTRUCT LEFT SIDE OF BRIDGE AND APPROACHES.

STA. 211+30 TO STA. 230+16:
SHIFT TRAFFIC FROM THE RIGHT SIDE TO THE EXISTING LANES.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

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4-9-2013				6	ARK.			
				JOB NO.		040518	54	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 3

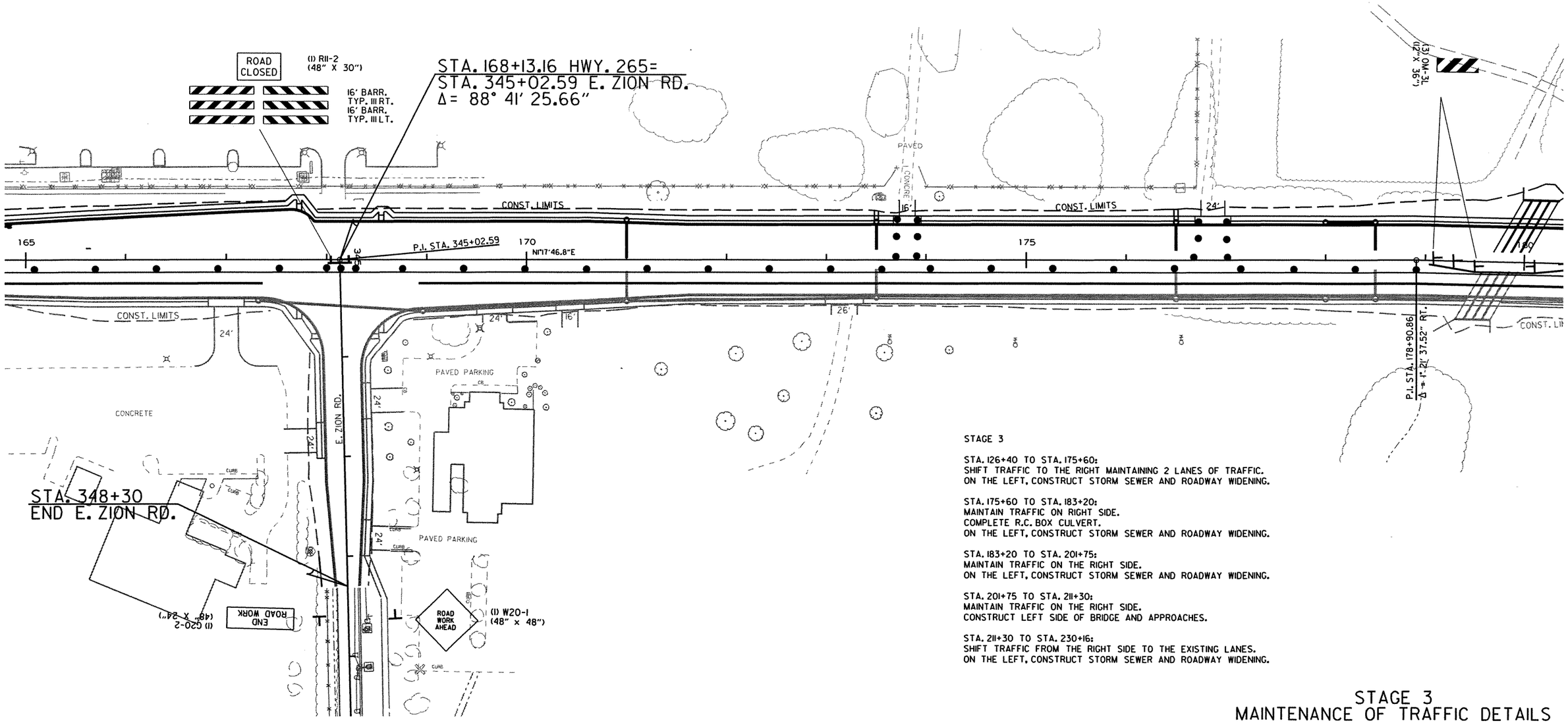
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-9-13

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 165+00 TO STA. 180+00 = 4190 LIN. FT.

40 TRAFFIC DRUMS
70' O.C. ROADWAY
20' O.C. TURNOUTS

RELOCATE PRECAST CONCRETE
BARRIER WALL = 246 LIN. FT.



STAGE 3

STA. 126+40 TO STA. 175+60:
SHIFT TRAFFIC TO THE RIGHT MAINTAINING 2 LANES OF TRAFFIC.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
MAINTAIN TRAFFIC ON RIGHT SIDE.
COMPLETE R.C. BOX CULVERT.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
CONSTRUCT LEFT SIDE OF BRIDGE AND APPROACHES.

STA. 211+30 TO STA. 230+16:
SHIFT TRAFFIC FROM THE RIGHT SIDE TO THE EXISTING LANES.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	55	270

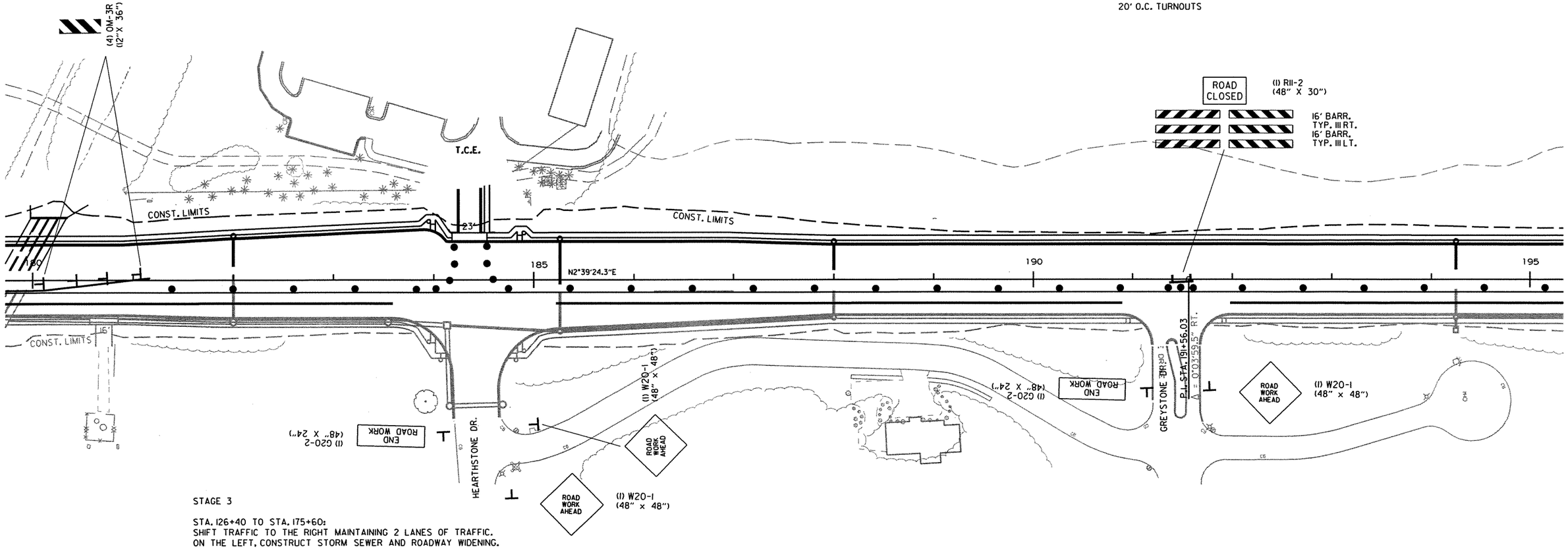
(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 3

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 180+00 TO STA. 195+00 = 3970 LIN. FT.

37 TRAFFIC DRUMS
70' O.C. ROADWAY
20' O.C. TURNOUTS



STAGE 3

STA. 126+40 TO STA. 175+60:
SHIFT TRAFFIC TO THE RIGHT MAINTAINING 2 LANES OF TRAFFIC.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
MAINTAIN TRAFFIC ON RIGHT SIDE.
COMPLETE R.C. BOX CULVERT.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
CONSTRUCT LEFT SIDE OF BRIDGE AND APPROACHES.

STA. 211+30 TO STA. 230+16:
SHIFT TRAFFIC FROM THE RIGHT SIDE TO THE EXISTING LANES.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

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STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	56	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 3

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
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STAGE 3

STA. 126+40 TO STA. 175+60:
SHIFT TRAFFIC TO THE RIGHT MAINTAINING 2 LANES OF TRAFFIC.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
MAINTAIN TRAFFIC ON RIGHT SIDE.
COMPLETE R.C. BOX CULVERT.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
CONSTRUCT LEFT SIDE OF BRIDGE AND APPROACHES.

STA. 211+30 TO STA. 230+16:
SHIFT TRAFFIC FROM THE RIGHT SIDE TO THE EXISTING LANES.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 195+00 TO STA. 210+00 = 4200 LIN. FT.

FURNISH AND INSTALL PRECAST
CONCRETE BARRIER WALL = 386 LIN. FT.

28 TRAFFIC DRUMS
70' O.C. ROADWAY
20' O.C. TURNOUTS

STA. 202+98.05 HWY 265=
STA. 350+00.00 ALBRIGHT RD.
Δ = 90° 00' 00.0"

ROAD CLOSED
(1) R11-2 (48" X 30")
16' BARR. TYP. III RT.
16' BARR. TYP. III LT.
(3) OM-3L (12" X 36")
(3) OM-3R (12" X 36")
(1) W8-1 (30" X 30")
BUMP
16'
195
200
205
210
N2°43'23.6"E
350
P.I. STA. 350+00.00
CONST. LIMITS
40'
+00
19'
+09
19'
S 87°05'49.6"W
+85
19'
+85
19'
ALBRIGHT RD.
+70
13'
+70
13'
353
P.I. STA. 353+03.36
ROAD WORK AHEAD
(1) W20-1 (48" x 48")
BUMP
(1) W8-1 (30" X 30")
END ROAD WORK
(1) G20-2 (48" X 24")
STA. 352+70
END ALBRIGHT RD.

STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

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				6	ARK.			
				JOB NO.		040518	57	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 3

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

STAGE 3

STA. 126+40 TO STA. 175+60:
SHIFT TRAFFIC TO THE RIGHT MAINTAINING 2 LANES OF TRAFFIC.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
MAINTAIN TRAFFIC ON RIGHT SIDE.
COMPLETE R.C. BOX CULVERT.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

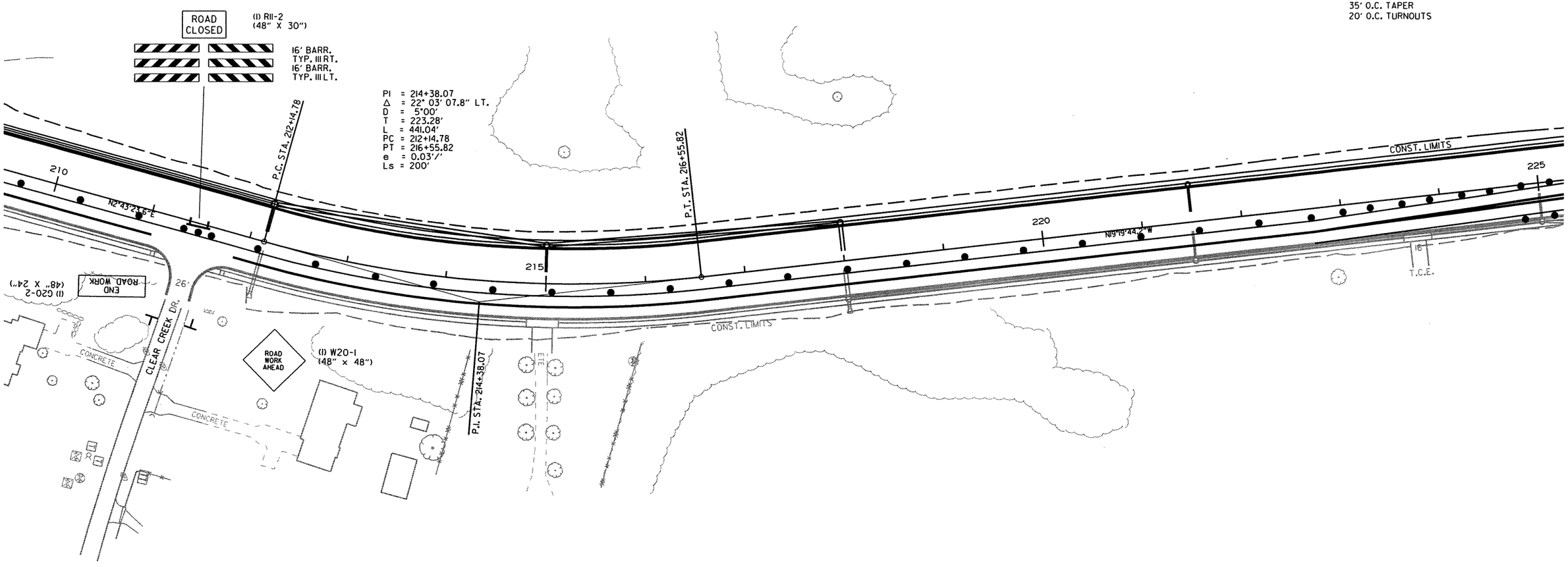
STA. 201+75 TO STA. 211+30:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
CONSTRUCT LEFT SIDE OF BRIDGE AND APPROACHES.

STA. 211+30 TO STA. 230+16:
SHIFT TRAFFIC FROM THE RIGHT SIDE TO THE EXISTING LANES.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
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2-4-13

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 210+00 TO STA. 225+00 = 4850 LIN. FT.

32 TRAFFIC DRUMS
70' O.C. ROADWAY
35' O.C. TAPER
20' O.C. TURNOUTS



STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	58	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 3

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

41 TRAFFIC DRUMS
70' O.C. ROADWAY
35' O.C. TAPER
20' O.C. TURNOUTS

NOTE:
TURNOUTS AND PRIVATE DRIVES SHALL BE MODIFIED WHERE NECESSARY TO MEET LOCAL CONDITIONS IF AND WHERE DIRECTED BY THE ENGINEER.

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 225+00 TO STA. 230+16 = 2620 LIN. FT.

STA. 230+14.01 HWY. 265=
STA. 25+49.39 IVEY LANE
Δ= 87° 31' 32.61"

STA. 230+16.00
END JOB 040518

(1) R11-2 (48" X 30")
16' BARR. TYP. III RT.
ROAD CLOSED

(1) W1-4aL (48" X 48")
(1) W13-1 (18" X 18")
XX M.P.H.
(1) W9-3 (48" X 48")
CENTER LANE CLOSED AHEAD
(1) W20-1 (48" X 48")
ROAD WORK 500 FT
(1) W20-1 (48" X 48")
ROAD WORK 1000 FT
(1) W20-1 (48" X 48")
ROAD WORK 1500 FT

P.I. STA. 227+33.86
N9°19'44.2"W
N6°14'04.6"E
16'
26'
25
24
225
235
P.C. STA. 225+48.18
P.T. STA. 229+13.37
P.I. STA. 23+99.99
P.I. STA. 26+08.94
POE 236+00.00
PAVED
CONCRETE
PAVED PARKING
PARKING
END ROAD WORK
(1) G20-2 (48" X 24")
IVEY LN.
ROAD WORK AHEAD
(1) W20-1 (48" X 48")

PI = 227+33.86
Δ = 25° 33' 48.7" RT.
D = 7°00'
T = 185.69'
L = 365.19'
PC = 225+48.18
PT = 229+13.37
e = 0.037'/'
Ls = 250'

STA. 22+33
END IVEY LN.

STAGE 3

STA. 126+40 TO STA. 175+60:
SHIFT TRAFFIC TO THE RIGHT MAINTAINING 2 LANES OF TRAFFIC.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 175+60 TO STA. 183+20:
MAINTAIN TRAFFIC ON RIGHT SIDE.
COMPLETE R.C. BOX CULVERT.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 183+20 TO STA. 201+75:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STA. 201+75 TO STA. 211+30:
MAINTAIN TRAFFIC ON THE RIGHT SIDE.
CONSTRUCT LEFT SIDE OF BRIDGE AND APPROACHES.

STA. 211+30 TO STA. 230+16:
SHIFT TRAFFIC FROM THE RIGHT SIDE TO THE EXISTING LANES.
ON THE LEFT, CONSTRUCT STORM SEWER AND ROADWAY WIDENING.

STAGE 3
MAINTENANCE OF TRAFFIC DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	59	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 4

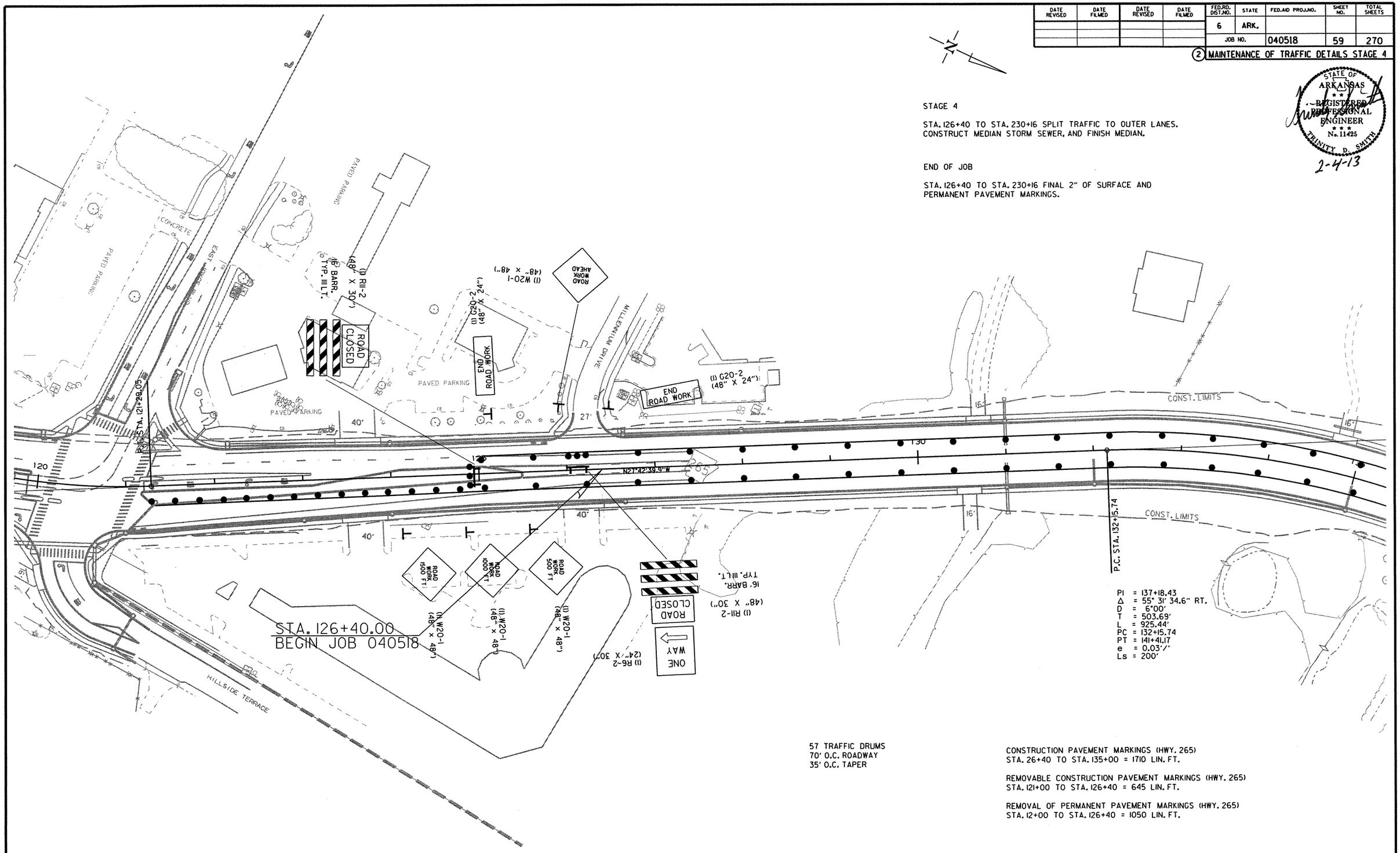
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY P. SMITH
2-4-13

STAGE 4

STA. 126+40 TO STA. 230+16 SPLIT TRAFFIC TO OUTER LANES.
CONSTRUCT MEDIAN STORM SEWER, AND FINISH MEDIAN.

END OF JOB

STA. 126+40 TO STA. 230+16 FINAL 2" OF SURFACE AND
PERMANENT PAVEMENT MARKINGS.



57 TRAFFIC DRUMS
70' O.C. ROADWAY
35' O.C. TAPER

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 26+40 TO STA. 135+00 = 1710 LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 121+00 TO STA. 126+40 = 645 LIN. FT.

REMOVAL OF PERMANENT PAVEMENT MARKINGS (HWY. 265)
STA. 12+00 TO STA. 126+40 = 1050 LIN. FT.

STAGE 4
MAINTENANCE OF TRAFFIC

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	60	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 4

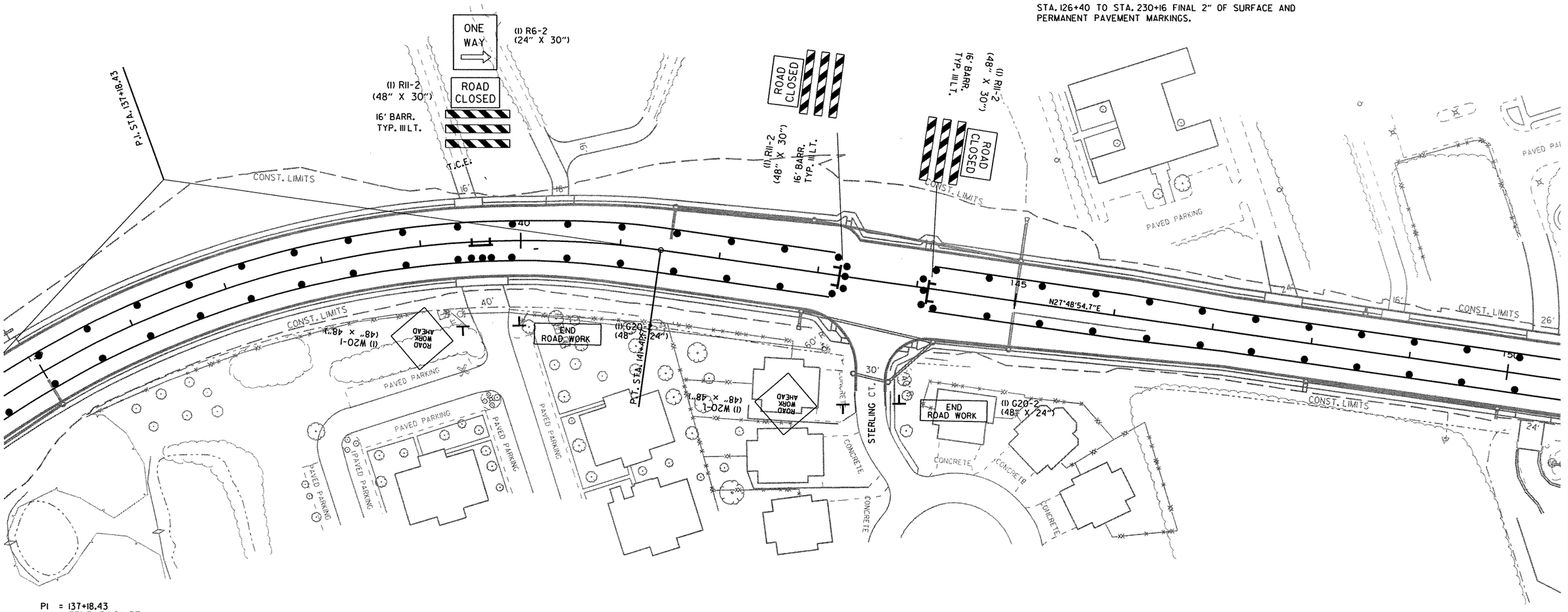
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STAGE 4

STA. 126+40 TO STA. 230+16 SPLIT TRAFFIC TO OUTER LANES.
CONSTRUCT MEDIAN STORM SEWER, AND FINISH MEDIAN.

END OF JOB

STA. 126+40 TO STA. 230+16 FINAL 2" OF SURFACE AND
PERMANENT PAVEMENT MARKINGS.



PI = 137+18.43
Δ = 55° 31' 34.6" RT.
D = 6°00'
T = 503.69'
L = 925.44'
PC = 132+15.74
PT = 141+41.17
e = 0.03'/'
Ls = 200'

63 TRAFFIC DRUMS
70' O.C. ROADWAY
20' O.C. TURNOUT

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 135+00 TO STA. 150+00 = 2800 LIN. FT.

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STAGE 4
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.		040518	61	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 4

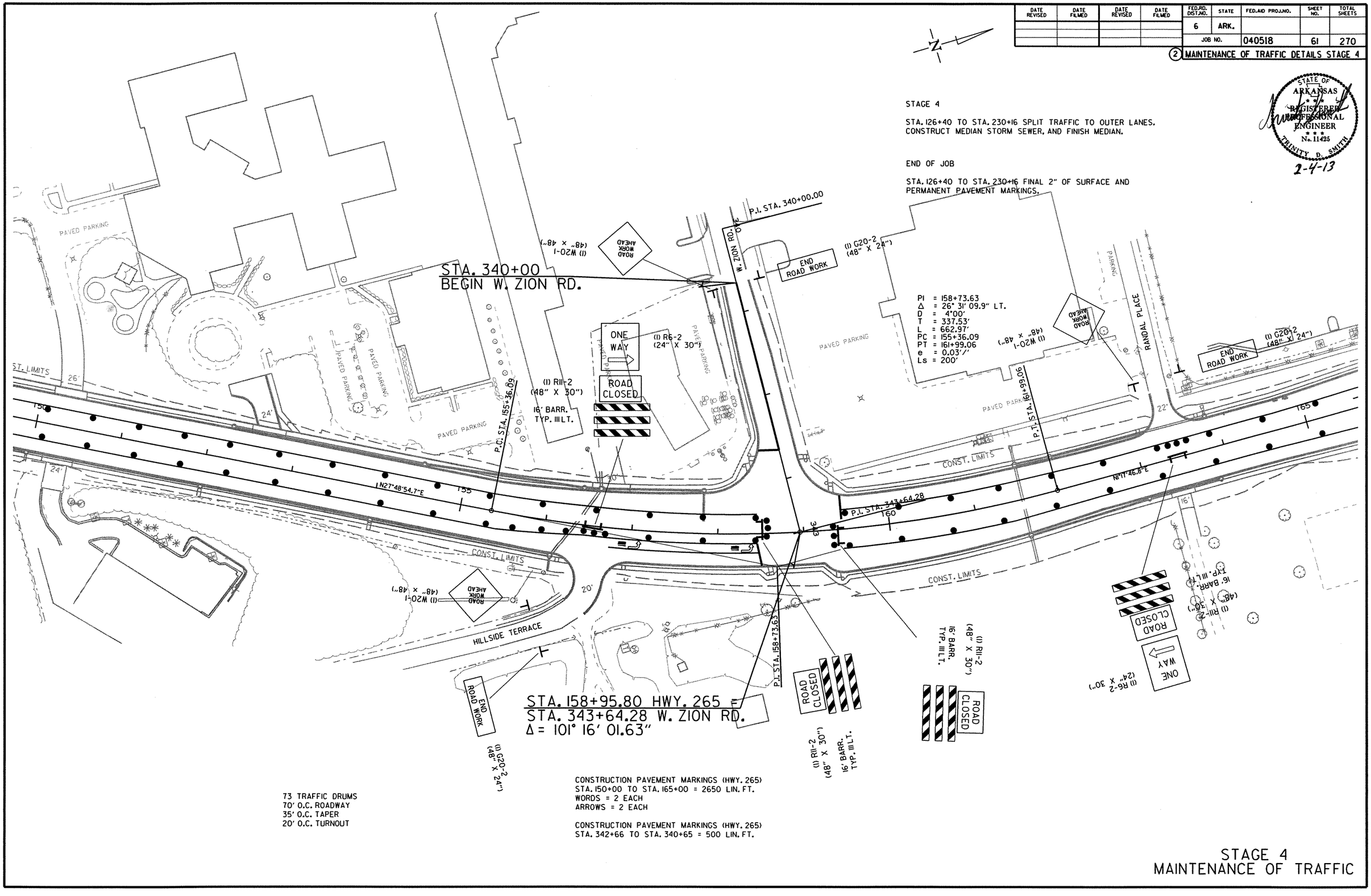
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STAGE 4

STA. 126+40 TO STA. 230+16 SPLIT TRAFFIC TO OUTER LANES. CONSTRUCT MEDIAN STORM SEWER, AND FINISH MEDIAN.

END OF JOB

STA. 126+40 TO STA. 230+16 FINAL 2" OF SURFACE AND PERMANENT PAVEMENT MARKINGS.



73 TRAFFIC DRUMS
70' O.C. ROADWAY
35' O.C. TAPER
20' O.C. TURNOUT

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 150+00 TO STA. 165+00 = 2650 LIN. FT.
WORDS = 2 EACH
ARROWS = 2 EACH

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 342+66 TO STA. 340+65 = 500 LIN. FT.

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STAGE 4
MAINTENANCE OF TRAFFIC

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
4-9-2013				6	ARK.			
				JOB NO.		040518	62	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 4

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH

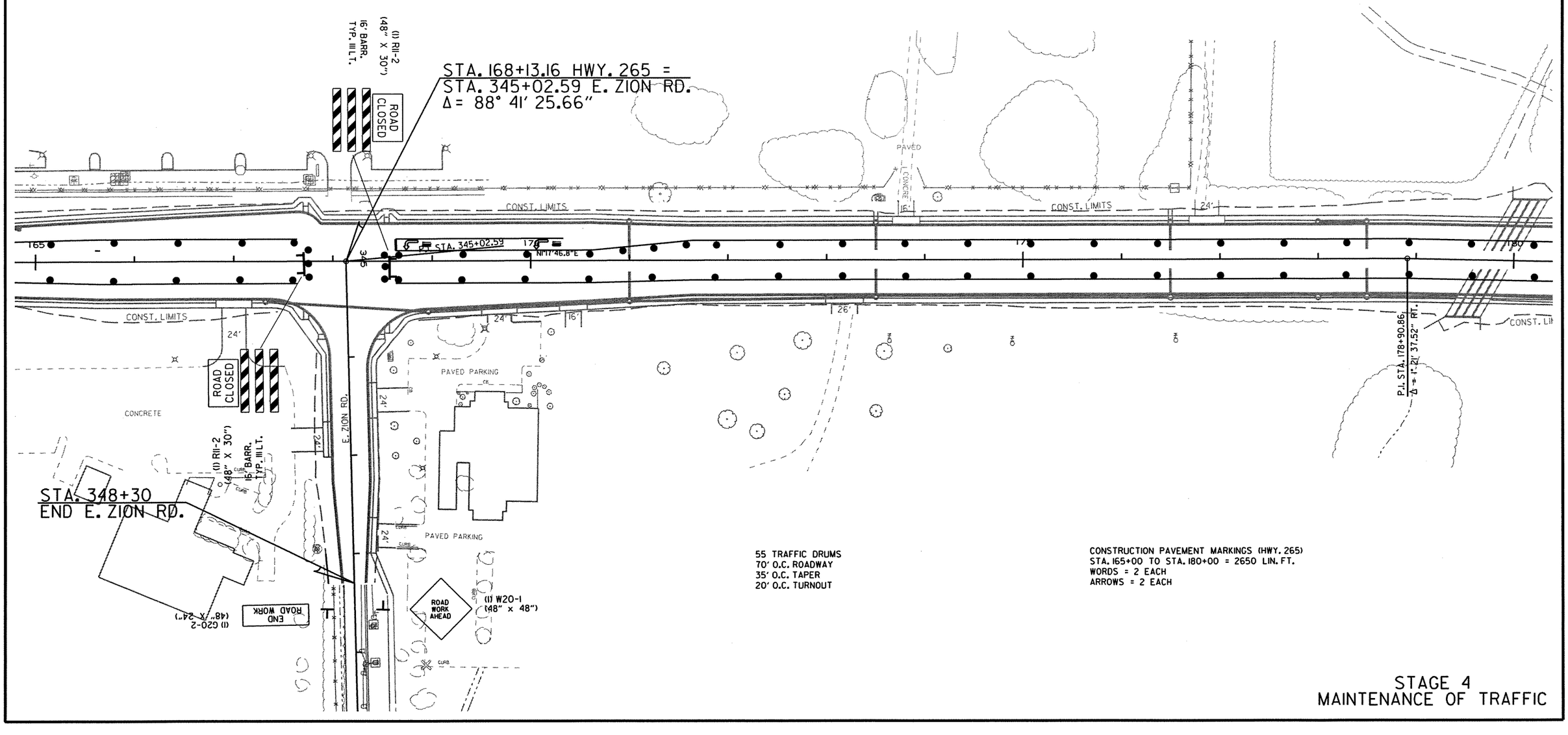
4-9-13

STAGE 4

STA. 126+40 TO STA. 230+16 SPLIT TRAFFIC TO OUTER LANES.
CONSTRUCT MEDIAN STORM SEWER, AND FINISH MEDIAN.

END OF JOB

STA. 126+40 TO STA. 230+16 FINAL 2" OF SURFACE AND
PERMANENT PAVEMENT MARKINGS.



55 TRAFFIC DRUMS
70' O.C. ROADWAY
35' O.C. TAPER
20' O.C. TURNOUT

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 165+00 TO STA. 180+00 = 2650 LIN. FT.
WORDS = 2 EACH
ARROWS = 2 EACH

STAGE 4
MAINTENANCE OF TRAFFIC

R040518.DGN 8/9/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	63	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 4

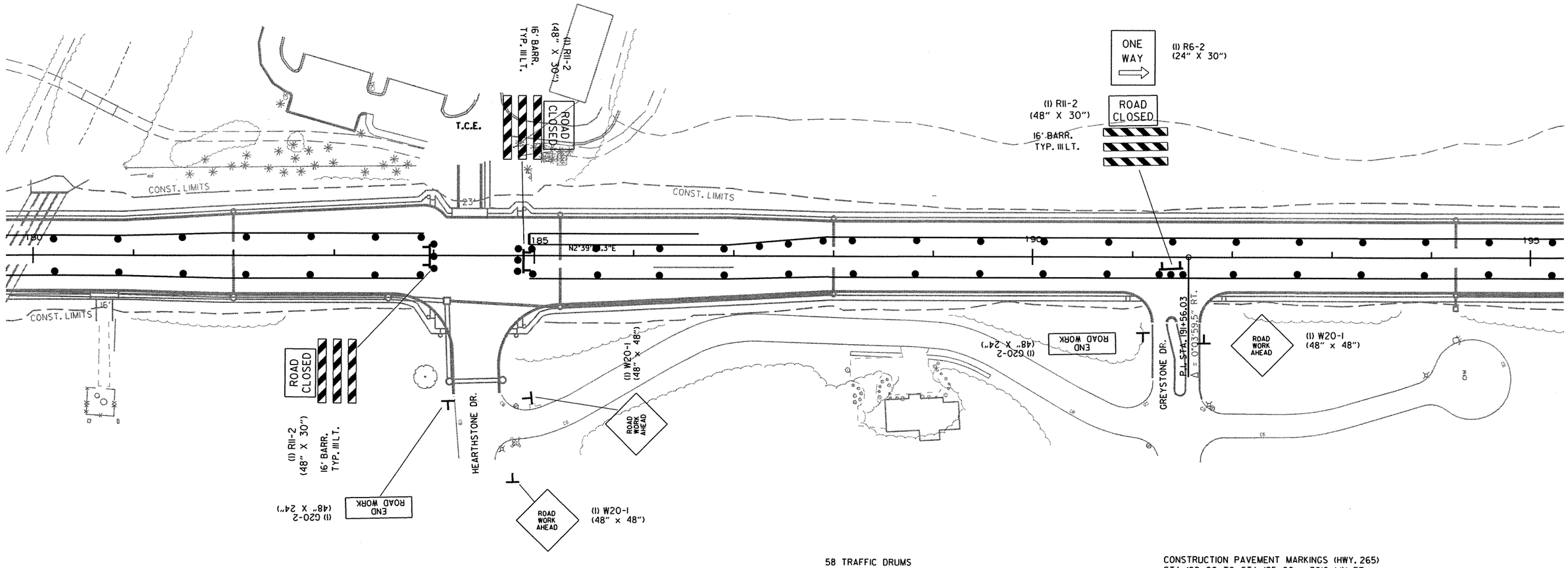
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STAGE 4

STA. 126+40 TO STA. 230+16 SPLIT TRAFFIC TO OUTER LANES.
CONSTRUCT MEDIAN STORM SEWER, AND FINISH MEDIAN.

END OF JOB

STA. 126+40 TO STA. 230+16 FINAL 2" OF SURFACE AND
PERMANENT PAVEMENT MARKINGS.



58 TRAFFIC DRUMS
70' O.C. ROADWAY
35' O.C. TAPER
20' O.C. TURNOUT

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 180+00 TO STA. 195+00 = 3010 LIN. FT.
WORDS = 2 EACH
ARROWS = 2 EACH

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STAGE 4
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.		040518	64	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 4

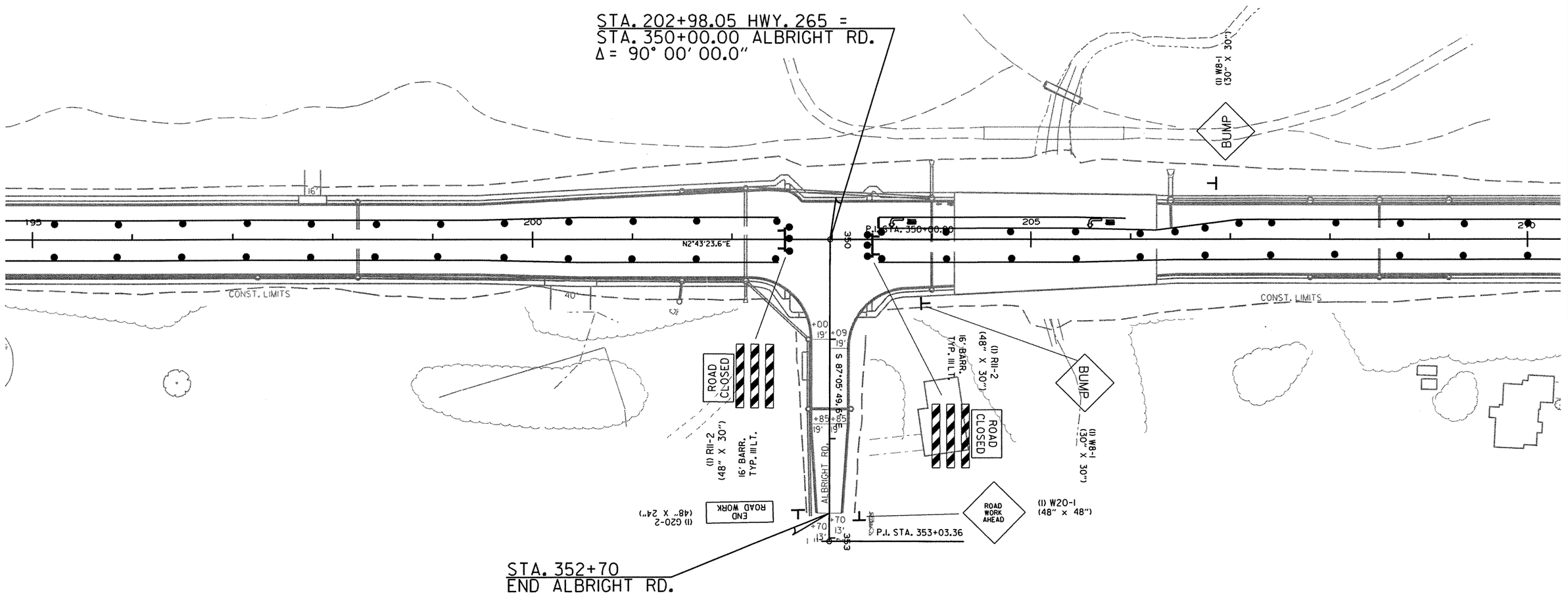
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STAGE 4

STA. 126+40 TO STA. 230+16 SPLIT TRAFFIC TO OUTER LANES.
CONSTRUCT MEDIAN STORM SEWER, AND FINISH MEDIAN.

END OF JOB

STA. 126+40 TO STA. 230+16 FINAL 2" OF SURFACE AND
PERMANENT PAVEMENT MARKINGS.



58 TRAFFIC DRUMS
70' O.C. ROADWAY
35' O.C. TAPER
20' O.C. TURNOUT

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 195+00 TO STA. 210+00 = 2440 LIN. FT.
WORDS = 2 EACH
ARROWS = 2 EACH

STAGE 4
MAINTENANCE OF TRAFFIC

R040518.DGN 8/9/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	65	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 4

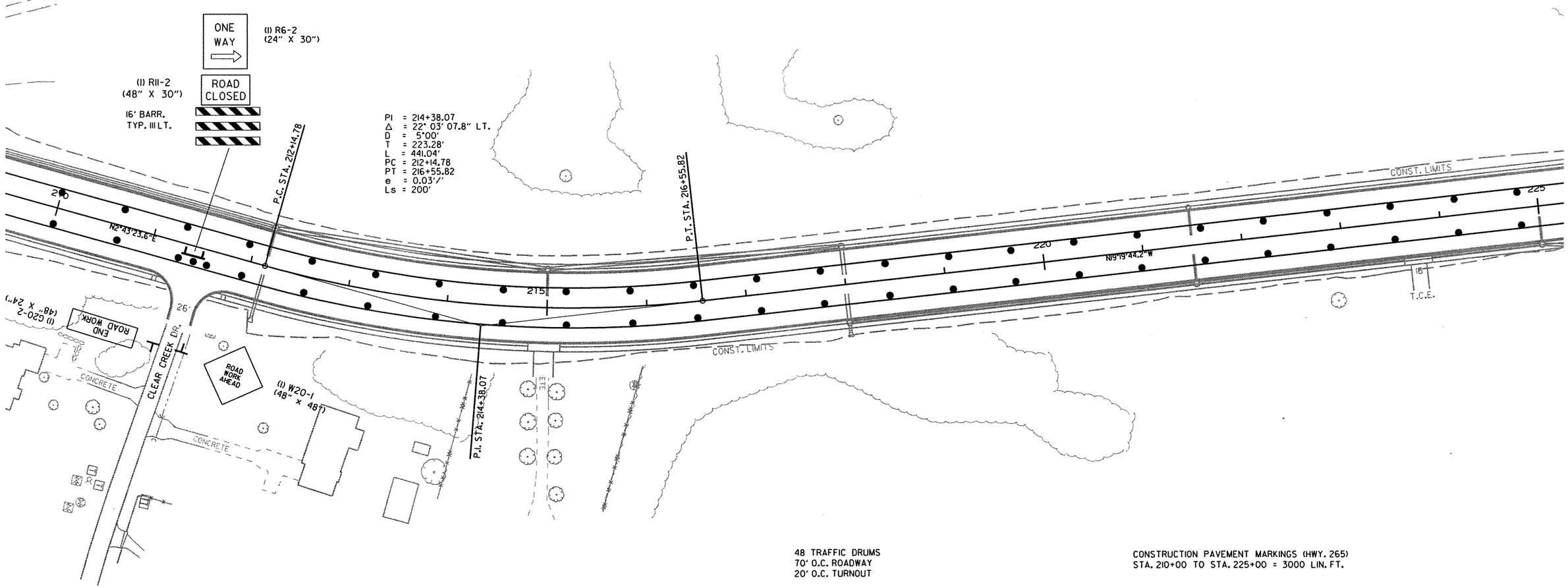
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STAGE 4

STA. 126+40 TO STA. 230+16 SPLIT TRAFFIC TO OUTER LANES.
CONSTRUCT MEDIAN STORM SEWER, AND FINISH MEDIAN.

END OF JOB

STA. 126+40 TO STA. 230+16 FINAL 2" OF SURFACE AND
PERMANENT PAVEMENT MARKINGS.



48 TRAFFIC DRUMS
70' O.C. ROADWAY
20' O.C. TURNOUT

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 210+00 TO STA. 225+00 = 3000 LIN. FT.

STAGE 4
MAINTENANCE OF TRAFFIC

R040518.DGN 8/9/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	66	270

(2) MAINTENANCE OF TRAFFIC DETAILS STAGE 4

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-413

STAGE 4

STA. 126+40 TO STA. 230+16 SPLIT TRAFFIC TO OUTER LANES.
CONSTRUCT MEDIAN STORM SEWER, AND FINISH MEDIAN.

END OF JOB

STA. 126+40 TO STA. 230+16 FINAL 2" OF SURFACE AND
PERMANENT PAVEMENT MARKINGS.

STA. 230+14.01 HWY. 265 =
STA. 25+49.39 IVEY LN.
Δ = 87° 31' 32.61"

STA. 230+16.00
END JOB 040518

P.I. STA. 227+33.86

P.I. STA. 26+08.94

N39°19'44.2"W

N6°14'04.6"E

P.C. STA. 225+48.18

P.T. STA. 229+13.37

PI = 227+33.86
Δ = 25° 33' 48.7" RT.
D = 7°00'
T = 185.69'
L = 365.19'
PC = 225+48.18
PT = 229+13.37
e = 0.037'/'
Ls = 250'

P.I. STA. 23+99.99

300' TAPER

(1) W6-1 (36" x 36")

(1) W20-1 (48" x 48")

ROAD WORK 500 FT

ROAD WORK 1000 FT

ROAD WORK 500 FT

(1) W20-1 (48" x 48")

(1) W20-1 (48" x 48")

ROAD CLOSED

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

16' BARR. TYP. III LT.

PAVED PARKING

EXISTING ROW

IVEY LN.

150' TAPER

ROAD WORK AHEAD

(1) W20-1 (48" x 48")

END ROAD WORK

(1) G20-2 (48" x 24")

END ROAD WORK

(1) G20-2 (48" x 24")

CONCRETE

PARKING

PAVED PARKING

PAVED PARKING

EXISTING ROW

STA. 22+33
END IVEY LN.

19 TRAFFIC DRUMS
70' O.C. ROADWAY
20' O.C. TURNOUT

CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 225+00 TO STA. 229+60 = 925 LIN. FT.

REMOVAL OF PERMANENT PAVEMENT MARKINGS (HWY. 265)
STA. 230+64 TO STA. 233+46 = 1050 LIN. FT.

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS (HWY. 265)
STA. 230+64 TO STA. 237+86 = 1425 LIN. FT.

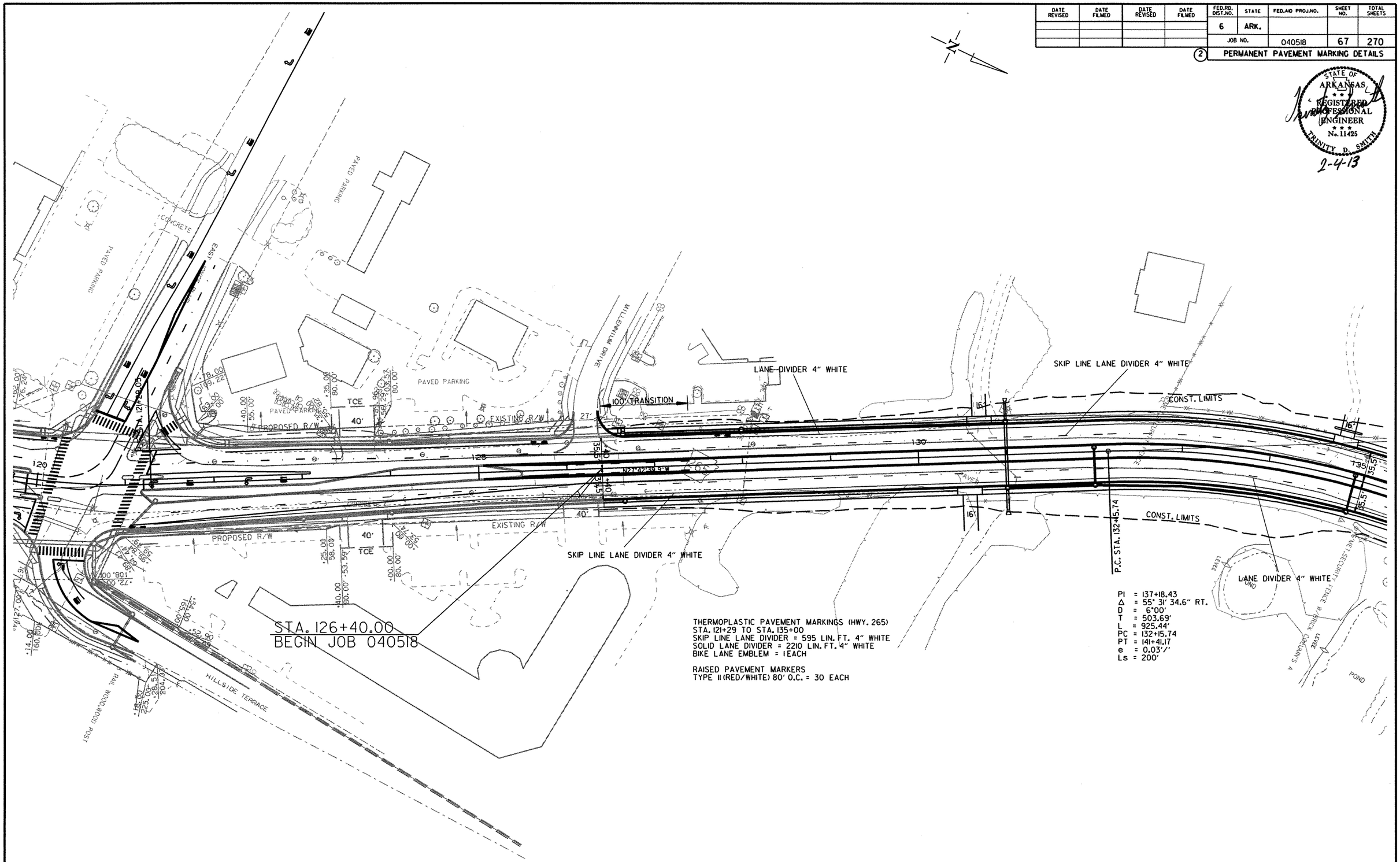
STAGE 4
MAINTENANCE OF TRAFFIC

R040518.DGN 8/9/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	67	270

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
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No. 11425
TRINITY D. SMITH
2-4-13



THERMOPLASTIC PAVEMENT MARKINGS (HWY. 265)
STA. 121+29 TO STA. 135+00
SKIP LINE LANE DIVIDER = 595 LIN. FT. 4" WHITE
SOLID LANE DIVIDER = 2210 LIN. FT. 4" WHITE
BIKE LANE EMBLEM = 1EACH

RAISED PAVEMENT MARKERS
TYPE II (RED/WHITE) 80' O.C. = 30 EACH

PI = 137+18.43
Δ = 55° 31' 34.6" RT.
D = 6°00'
T = 503.69'
L = 925.44'
PC = 132+15.74
PT = 141+41.17
e = 0.03'/'
Ls = 200'

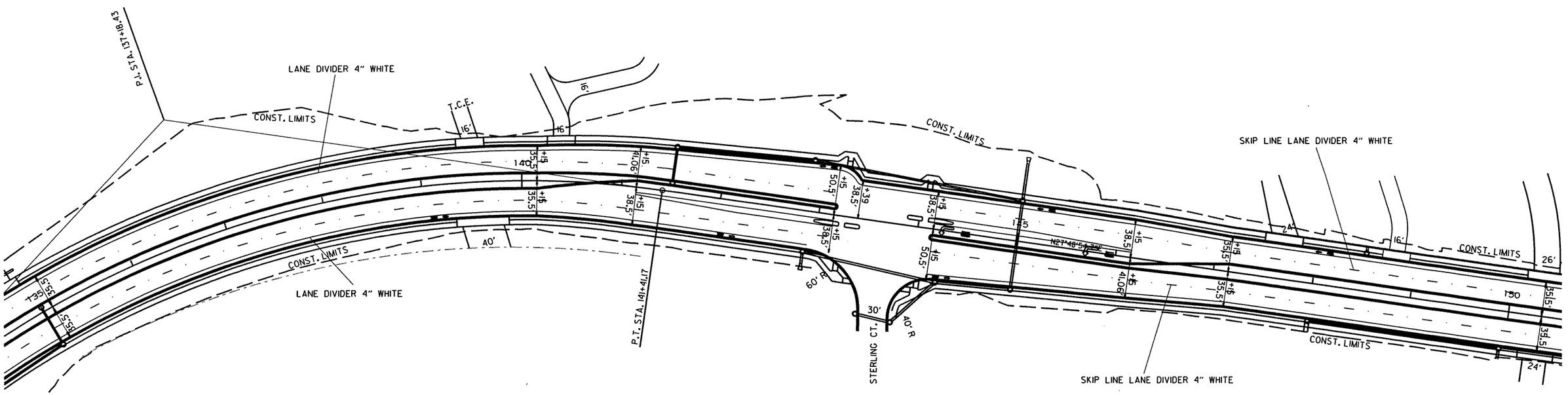
11-15-10 r040518.dgn

PERMANENT PAVEMENT MARKING 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.		040518	68	270

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
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No. 11425
TRINITY D. SMITH
2-4-13



THERMOPLASTIC PAVEMENT MARKINGS (MAIN LANES)
STA. 135+00 TO STA. 150+00
SKIP LINE LANE DIVIDER = 700 LIN. FT. 4" WHITE
SOLID LANE DIVIDER = 3385 LIN. FT. 4" WHITE
WORDS = 2 EACH
ARROWS = 2 EACH
BIKE LANE EMBLEM = 6 EACH

RAISED PAVEMENT MARKERS
TYPE II (RED/WHITE) 80' O.C. = 45 EACH

PI = 137+18.43
Δ = 55° 31' 34.6" RT.
D = 6°00'
T = 503.69'
L = 925.44'
PC = 132+15.74
PT = 141+41.17
e = 0.03'/'
Ls = 200'

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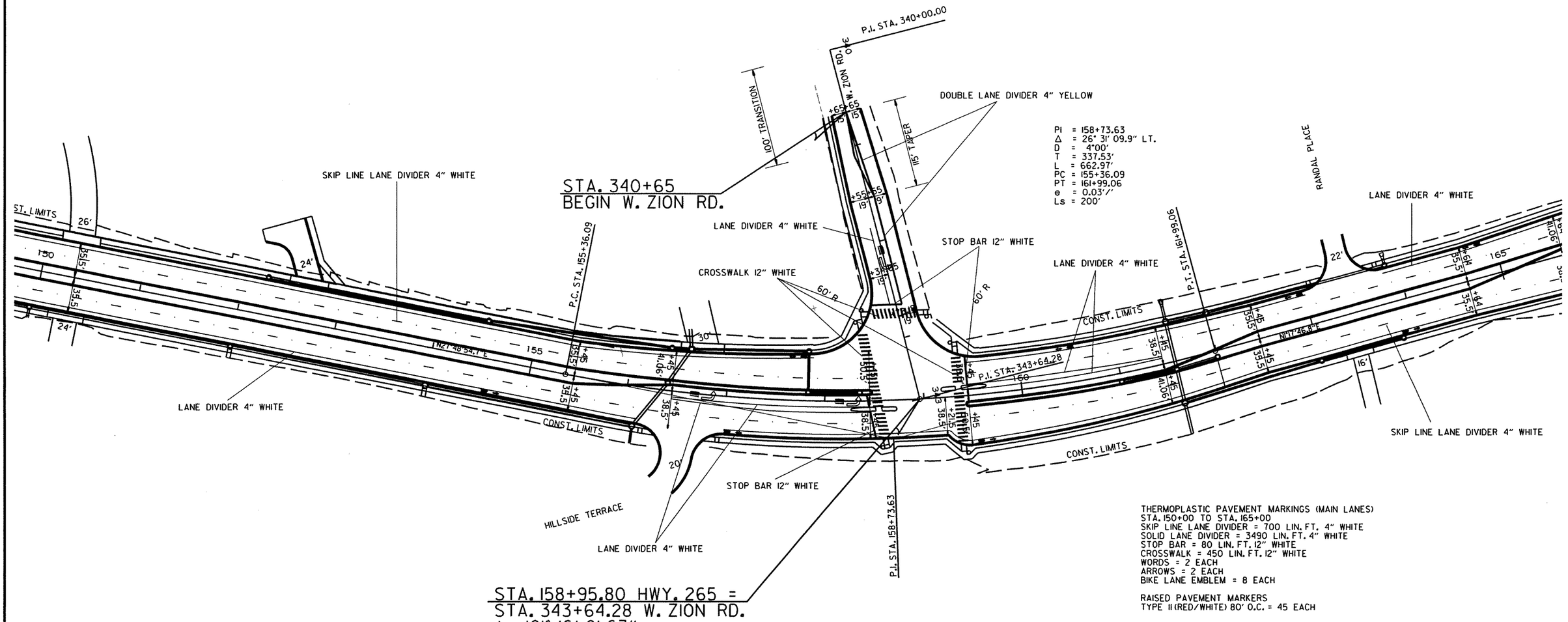
PERMANENT PAVEMENT MARKING DETAILS

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.		040518	69	270

(2) PERMANENT PAVEMENT MARKING DETAILS

STATE OF ARKANSAS
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TRINITY D. SMITH
2-4-13

THERMOPLASTIC PAVEMENT MARKINGS (W. ZION RD.)
STA. 340+65 TO STA. 343+64
DOUBLE SOLID CENTERLINE = 590 LIN. FT. 4" YELLOW
SOLID LANE DIVIDER = 80 LIN. FT. 4" WHITE
STOP BAR = 30 LIN. FT. 12" WHITE
CROSSWALK = 110 LIN. FT. 12" WHITE
WORDS = 1EACH
ARROWS = 1EACH



STA. 158+95.80 HWY. 265 =
STA. 343+64.28 W. ZION RD.
Δ = 101° 16' 01.63"

THERMOPLASTIC PAVEMENT MARKINGS (MAIN LANES)
STA. 150+00 TO STA. 165+00
SKIP LINE LANE DIVIDER = 700 LIN. FT. 4" WHITE
SOLID LANE DIVIDER = 3490 LIN. FT. 4" WHITE
STOP BAR = 80 LIN. FT. 12" WHITE
CROSSWALK = 450 LIN. FT. 12" WHITE
WORDS = 2 EACH
ARROWS = 2 EACH
BIKE LANE EMBLEM = 8 EACH

RAISED PAVEMENT MARKERS
TYPE II (RED/WHITE) 80' O.C. = 45 EACH

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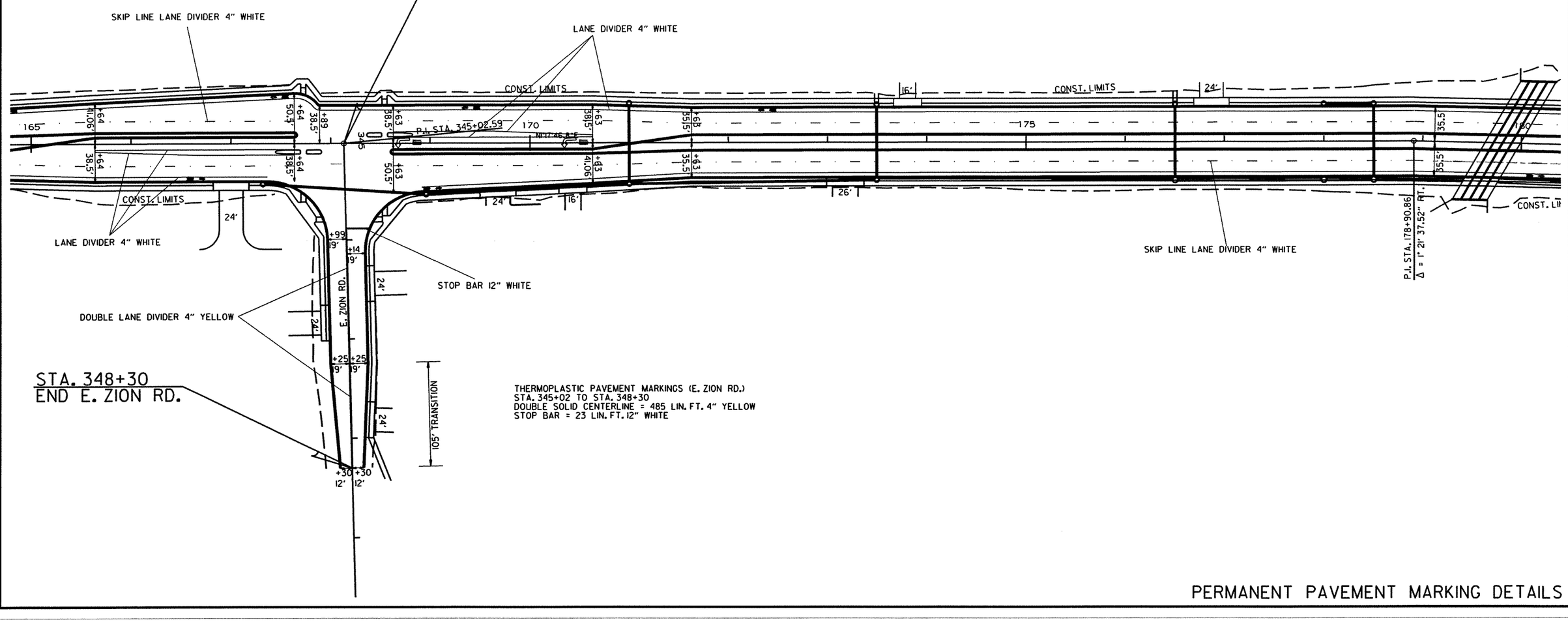
PERMANENT PAVEMENT MARKING DETAILS

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
4-9-2013				6	ARK.			
				JOB NO.		040518	70	270
				(2) PERMANENT PAVEMENT MARKING DETAILS				

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THERMOPLASTIC PAVEMENT MARKINGS (HWY. 265)
STA. 165+00 TO STA. 180+00
SKIP LINE LANE DIVIDER = 700 LIN. FT. 4" WHITE
SOLID LANE DIVIDER = 3650 LIN. FT. 4" WHITE
WORDS = 2 EACH
ARROWS = 2 EACH
BIKE LANE EMBLEM = 5 EACH

RAISED PAVEMENT MARKERS
TYPE II (RED/WHITE) 80' O.C. = 45 EACH



THERMOPLASTIC PAVEMENT MARKINGS (E. ZION RD.)
STA. 345+02 TO STA. 348+30
DOUBLE SOLID CENTERLINE = 485 LIN. FT. 4" YELLOW
STOP BAR = 23 LIN. FT. 12" WHITE

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PERMANENT PAVEMENT MARKING DETAILS

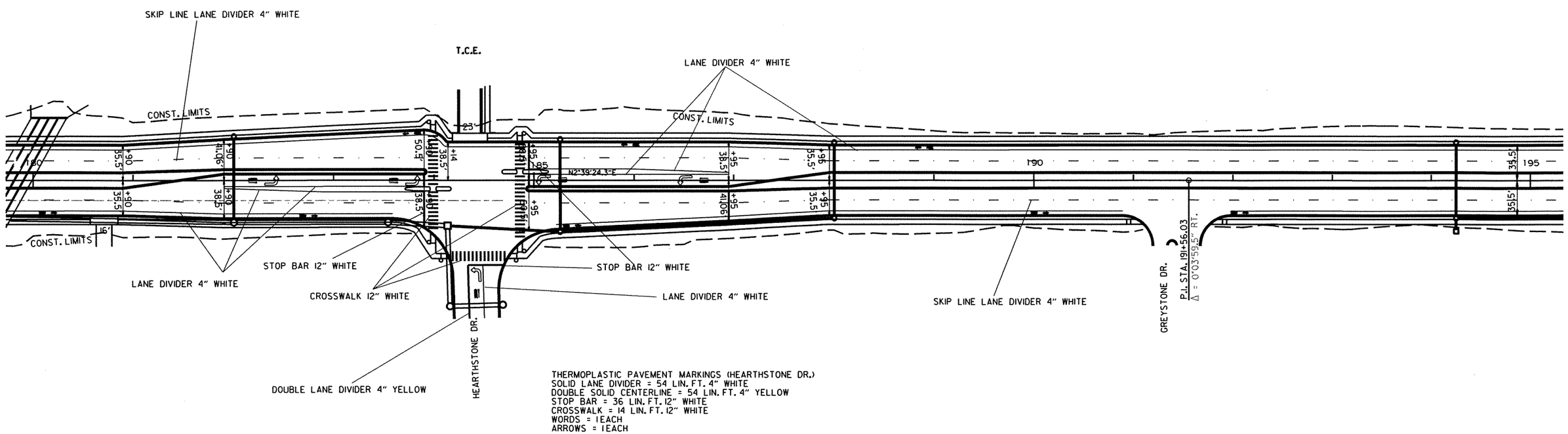
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	71	270

(2) PERMANENT PAVEMENT MARKING DETAILS

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2-4-13

THERMOPLASTIC PAVEMENT MARKINGS (MAIN LANES)
STA. 180+00 TO STA. 195+00
SKIP LINE LANE DIVIDER = 700 LIN. FT. 4" WHITE
SOLID LANE DIVIDER = 3540 LIN. FT. 4" WHITE
STOP BAR = 92 LIN. FT. 12" WHITE
CROSSWALK = 560 LIN. FT. 12" WHITE
WORDS = 4 EACH
ARROWS = 4 EACH
BIKE LANE EMBLEM = 8 EACH

RAISED PAVEMENT MARKERS
TYPE II (RED/WHITE) 80' O.C. = 45 EACH



THERMOPLASTIC PAVEMENT MARKINGS (HEARTHSTONE DR.)
SOLID LANE DIVIDER = 54 LIN. FT. 4" WHITE
DOUBLE SOLID CENTERLINE = 54 LIN. FT. 4" YELLOW
STOP BAR = 36 LIN. FT. 12" WHITE
CROSSWALK = 14 LIN. FT. 12" WHITE
WORDS = 1 EACH
ARROWS = 1 EACH

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PERMANENT PAVEMENT MARKING 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.		040518	72	270

(2) PERMANENT PAVEMENT MARKING DETAILS

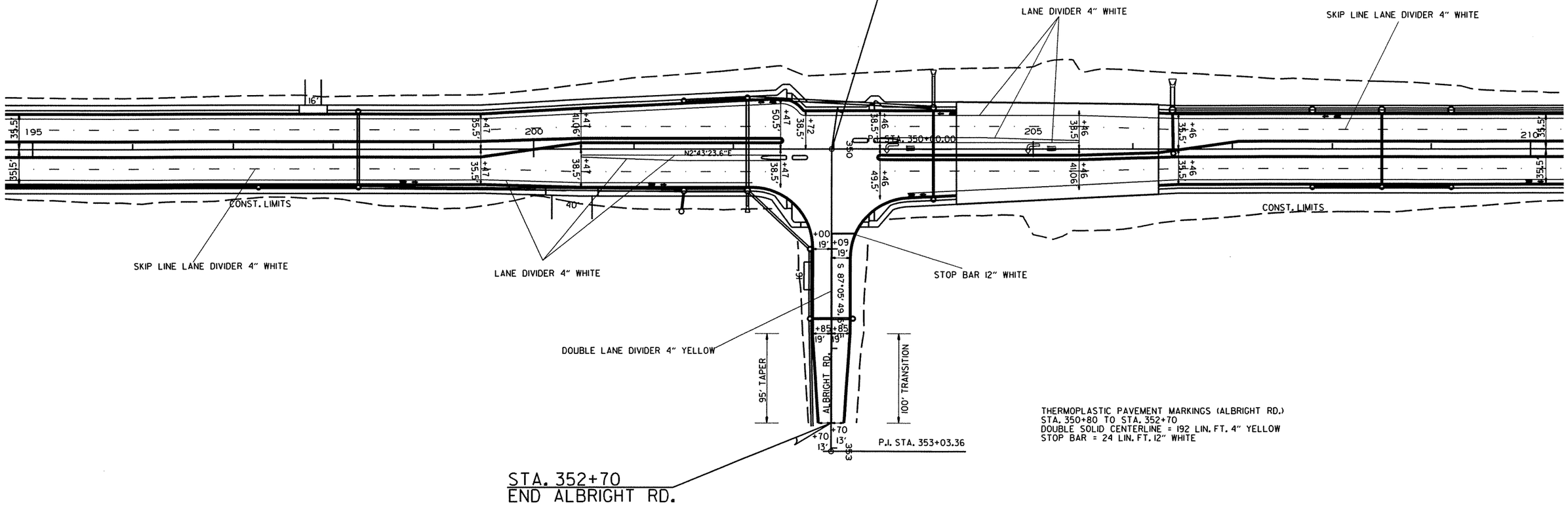
THERMOPLASTIC PAVEMENT MARKINGS (HWY. 265)
STA. 195+00 TO STA. 210+00
SKIP LINE LANE DIVIDER = 600 LIN. FT. 4" WHITE
SOLID LANE DIVIDER = 3650 LIN. FT. 4" WHITE
WORDS = 2 EACH
ARROWS = 2 EACH
BIKE LANE EMBLEM = 7 EACH

HIGH PERFORMANCE PAVEMENT MARKINGS (HWY. 265)
STA. 204+23 TO STA. 206+26
SKIP LINE LANE DIVIDER = 100 LIN. FT. 4" WHITE

RAISED PAVEMENT MARKERS
TYPE II (RED/WHITE) 80 O.C. = 45 EACH

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STA. 202+98.05 HWY. 265 =
STA. 350+00.00 ALBRIGHT RD.
Δ= 90° 00' 00.0"



STA. 352+70
END ALBRIGHT RD.

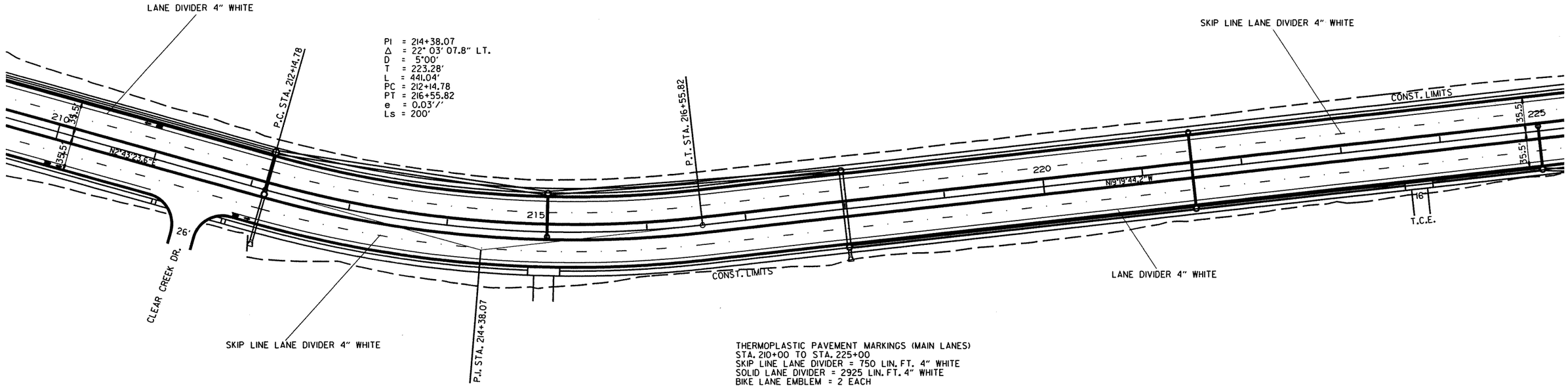
THERMOPLASTIC PAVEMENT MARKINGS (ALBRIGHT RD.)
STA. 350+80 TO STA. 352+70
DOUBLE SOLID CENTERLINE = 192 LIN. FT. 4" YELLOW
STOP BAR = 24 LIN. FT. 12" WHITE

PERMANENT PAVEMENT MARKING DETAILS

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				6	ARK.			
				JOB NO.		040518	73	270
				(2) PERMANENT PAVEMENT MARKING DETAILS				

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PI = 214+38.07
Δ = 22° 03' 07.8" LT.
D = 5°00'
T = 223.28'
L = 441.04'
PC = 212+14.78
PT = 216+55.82
e = 0.03'/'
Ls = 200'

SKIP LINE LANE DIVIDER 4" WHITE

LANE DIVIDER 4" WHITE

THERMOPLASTIC PAVEMENT MARKINGS (MAIN LANES)
STA. 210+00 TO STA. 225+00
SKIP LINE LANE DIVIDER = 750 LIN. FT. 4" WHITE
SOLID LANE DIVIDER = 2925 LIN. FT. 4" WHITE
BIKE LANE EMBLEM = 2 EACH

RAISED PAVEMENT MARKERS
TYPE II (RED/WHITE) 80' O.C. = 38 EACH

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PERMANENT PAVEMENT MARKING 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.		040518	74	270

(2) PERMANENT PAVEMENT MARKING DETAILS

THERMOPLASTIC PAVEMENT MARKINGS (HWY. 265)
STA. 225+00 TO STA. 238+00
SKIP LINE LANE DIVIDER = 430 LIN. FT. 4" WHITE
SOLID LANE DIVIDER = 1650 LIN. FT. 4" WHITE
BIKE LANE EMBLEM = 3 EACH

RAISED PAVEMENT MARKERS
TYPE II (RED/WHITE) 80' O.C. = 32 EACH

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STA. 230+14.01 HWY. 265 =
STA. 25+49.39 IVEY LN.
Δ = 87° 31' 32.61"

STA. 230+16.00
END JOB 040518

SKIP LINE LANE DIVIDER 4" WHITE

100' TRANSITION

300' TAPER

LANE DIVIDER 4" WHITE

SKIP LINE LANE DIVIDER 4" WHITE

P.I. STA. 227+33.86

N19°19'44.2"W

N6°14'04.6"E

N5°14'04.6"E

N5°27'17.5"E

LANE DIVIDER 4" WHITE

PAVED PARKING

P.T. STA. 229+13.37

STOP BAR 12" WHITE

P.C. STA. 225+48.18

PI = 227+33.86
Δ = 25° 33' 48.7" RT.
D = 7°00'
T = 185.69'
L = 365.19'
PC = 225+48.18
PT = 229+13.37
e = 0.037'/'
Ls = 250'

P.I. STA. 23+99.99

150' TAPER

100' TRANSITION

EXISTING ROW

IVEY LN.

PROPOSED ROW

150' TAPER

N6°23'41.4"W

DOUBLE LANE DIVIDER 4" YELLOW

STA. 22+33
END IVEY LN.

EXISTING ROW

THERMOPLASTIC PAVEMENT MARKINGS (IVEY LN.)
STA. 22+33 TO STA. 24+80
DOUBLE SOLID CENTERLINE = 500 LIN. FT. 4" YELLOW
STOP BAR = 25 LIN. FT. 12" WHITE

PAVED PARKING

PARKING

CONCRETE

POE 236+00.00

PAVED

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PERMANENT PAVEMENT MARKING 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.		040518	75	270

(2) QUANTITIES

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH

2-4-13

ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	STAGE 3	STAGE 4	END OF JOB	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		VERTICAL PANELS	TRAFFIC DRUMS	BARRICADES (TYPE III)		FURNISHING & INSTALLING PRECAST CONC. BARRIER	RELOCATING PRECAST CONCRETE BARRIER
													RIGHT	LEFT		
			LIN.FT. - EACH						NO.	SQ. FT.	EACH				LIN.FT.	
W20-1	ROAD WORK 1500 FT.	48"x48"	2		2	2		2	2	32.0						
W20-1	ROAD WORK 1000 FT.	48"x48"	2		2	2		2	2	32.0						
W20-1	ROAD WORK 500 FT.	48"x48"	2		2	2		2	2	32.0						
W20-1	ROAD WORK AHEAD	48"x48"	13		13	13		13	13	208.0						
W20-2	DETOUR AHEAD	48"x48"		2				2	2	32.0						
G20-2	END ROAD WORK	48"x24"	14		14	14		14	14	112.0						
W1-4AR	REVERSE CURVE RT.	48"x48"			2			2	2	32.0						
W1-4AL	REVERSE CURVE LT.	48"x48"	2		1			2	2	32.0						
W13-1	SPEED LIMIT (ADVISORY)	18"x18"	2		3			3	3	6.8						
R11-2	ROAD CLOSED	48"x30"	14	3	9	18		18	18	180.0						
OM-3L	OBJECT MARKER	12"x36"	3		6			6	6	18.0						
OM-3R	OBJECT MARKER	12"x36"	4		8			8	8	24.0						
W1-6	LARGE ARROW	48"x24"			1			1	1	8.0						
R4-1	DO NOT PASS	24"x30"	8		8	8		8	8	40.0						
W8-1	BUMP	30"x30"			2	2		2	2	12.5						
W9-3	CENTER LANE CLOSED AHEAD	48"x48"	2		2			2	2	32.0						
M3-3	SOUTH	24"x12"		13				13	13	26.0						
M3-1	NORTH	24"x12"		13				13	13	26.0						
M4-8A	END DETOUR	24"x18"		2				2	2	6.0						
M4-8	DETOUR	24"x12"		24				24	24	48.0						
M4-10R	DETOUR ARROW	48"x18"		2				2	2	12.0						
M1-5	ARKANSAS HWY 265 (MODIFIED)	24"x24"		26				26	26	104.0						
M5-1R	ADVANCE TURN ARROW, RT	21"x15"		4				4	4	8.8						
M5-1L	ADVANCE TURN ARROW, LT	21"x15"		4				4	4	8.8						
M6-1R	DIRECTIONAL ARROW, RT	21"x15"		4				4	4	8.8						
M6-1L	DIRECTIONAL ARROW, LT	21"x15"		4				4	4	8.8						
R11-3A	BRIDGE OUT, LOCAL TRAFFIC ONLY	60"x30"		3				3	3	37.5						
R6-2	ONE WAY	24"x30"				6		6	6	30.0						
W6-1	DIVIDED HIGHWAY	36"x36"				1		1	1	9.0						
	VERTICAL PANELS		134					134			134					
	TRAFFIC DRUMS		261		349	431		431				431				
	TYPE III BARRICADE-RT. (8')		6					6					48			
	TYPE III BARRICADE-LT. (8')		5	3	1			5						40		
	TYPE III BARRICADE-RT. (16')		1	3	7			7					112			
	TYPE III BARRICADE-LT. (16')		4	3	6	18		18						288		
	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		246		386			632							632	
	RELOCATING PRECAST CONCRETE BARRIER				246			246								246
TOTALS:									1167.0		134	431	160	328	632	246

THE QUANTITY OF VERTICAL PANELS PROVIDED IN THE CONTRACT IS FOR ONE SIDE OF THE ROADWAY FOR THE FULL LENGTH OF THE JOB. THIS IS THE MAXIMUM QUANTITY REQUIRED TO ALLOW THE CONTRACTOR TO NOTCH ONE MILE, BACKFILL TO A POINT WHERE THE VERTICAL DIFFERENTIAL IS 4" OR LESS, AND THEN NOTCH ANOTHER ONE-MILE SECTION. THIS IS THE MAXIMUM NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 1	STAGE 2	STAGE 3	STAGE 4	END OF JOB	REMOVAL OF PERMANENT PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS		REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS	THERMOPLASTIC PAVEMENT MARKINGS					HIGH PERFORMANCE CONTRAST PAVEMENT MARKING
								WORDS	ARROWS		TYPE II (RED/WHITE)	4" WHITE	4" YELLOW	12" WHITE	WORDS	ARROWS	4" WHITE
	LIN.FT. - EACH					LIN.FT.		EACH		LIN. FT.	EACH	LIN.FT.			EACH		LIN.FT.
REMOVAL OF PERMANENT PAVEMENT MARKINGS				2100		2100											
CONSTRUCTION PAVEMENT MARKINGS	46995		34190	19685			100870										
CONSTRUCTION PAVEMENT MARKINGS (WORDS)				8				8									
CONSTRUCTION PAVEMENT MARKINGS (ARROWS)				8					8								
REMOVABLE CONSTRUCTION PAV'T MARKINGS				2070						2070							
RAISED PAVEMENT MARKERS TYPE II (RED/WHITE)					325						325						
THERMOPLASTIC PAVEMENT MARKINGS WHITE (4")					30400							30400					
THERMOPLASTIC PAVEMENT MARKINGS YELLOW (4")					4821								4821				
THERMOPLASTIC PAVEMENT MARKINGS WHITE (12")					1445									1445			
THERMOPLASTIC PAVEMENT MARKINGS (WORDS)					13										13		
THERMOPLASTIC PAVEMENT MARKINGS (ARROWS)					13											13	
HIGH PERFORMANCE CONTRAST PAVEMENT MARKING WHITE 4"					100												100
TOTALS:						2100	100870	8	8	2070	325	30400	4821	1445	13	13	100

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

R040518.DGN 8/15/2011

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.		040518	76	270

(2) QUANTITIES

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH

2-4-13

CLEARING AND GRUBBING

STATION	STATION	LOCATION	CLEARING	GRUBBING
			STATION	
127+00	156+00	HWY. 265	29	29
159+00	165+00	HWY. 265	6	6
169+00	170+00	HWY. 265	1	1
174+00	221+00	HWY. 265	47	47
222+00	230+00	HWY. 265	8	8
340+65	343+00	W. ZION RD.	3	3
346+00	348+30	E. ZION RD.	3	3
350+00	352+70	ALBRIGHT RD.	3	3
22+33	25+00	IVEY LN.	3	3
TOTALS:			103	103

REMOVAL AND DISPOSAL OF CULVERTS AND DROP INLETS

STATION	DESCRIPTION	PIPE CULVERTS	BOX CULVERTS	DROP INLETS
		EACH	EACH	EACH
130+73	24" x 30' C.M., LT. SIDE DRAIN	1		
130+85	24" x 74' R.C., CROSS DRAIN	1		
134+83	36" x 41' PLASTIC, LT. SIDE DRAIN	1		
139+55	18" x 60' C.M., LT. SIDE DRAIN	1		
140+52	18" x 36' C.M., LT. SIDE DRAIN	1		
143+63	18" x 46' C.M., RT. SIDE DRAIN	1		
144+73	24" x 50' R.C., CROSS DRAIN	1		
147+80	18" x 32' C.M., LT. SIDE DRAIN	1		
150+34	24" x 36' R.C., RT. SIDE DRAIN	1		
156+60	24" x 55' R.C. CROSS DRAIN	1		
161+58	24" x 61' R.C. CROSS DRAIN	1		
163+40	18" x 40' C.M., LT. SIDE DRAIN	1		
163+39	24" x 30' C.M., RT. SIDE DRAIN	1		
167+29	18" x 48' C.M., RT. SIDE DRAIN	1		
168+18	18" x 58' C.M., RT. SIDE DRAIN	1		
169+66	18" x 45' R.C., RT. SIDE DRAIN	1		
170+22	18" x 24' C.M., RT. SIDE DRAIN	1		
173+24	18" x 27' C.M., RT. SIDE DRAIN	1		
173+67	24" x 48' C.M., LT. SIDE DRAIN	1		
176+79	24" x 30' C.M., LT. SIDE DRAIN	1		
179+80	DBL 8' x 5'x60' R.C. BOX CULVERT CROSS		1	
180+70	24" x 25' C.M., RT. SIDE DRAIN	1		
184+15	STMH AND 60" x 420' C.M., RT. SIDE	1		1
184+70	STMH AND 48" x 50' R.C., RT. SIDE	1		1
184+69	STMH AND 60" x 78' C.M., RT. SIDE	1		1
184+42	24" x 86' R.C., RT. SIDE DRAIN	1		
194+25	STMH AND 18' x 70' C.M., RT. SIDE	1		1
197+80	18" x 70' C.M., LT. SIDE DRAIN	1		
200+38	18" x 68' R.C., RT. SIDE DRAIN	1		
200+47	18" x 26' C.M., RT. SIDE DRIAN	1		
200+68	18" x 28' C.M., RT. SIDE DRAIN	1		
200+84	18" x 18' C.M., RT SIDE DRAIN	1		
201+41	18" x 57' C.M., RT SIDE DRAIN	1		
202+27	24" x 47' C.M., RT. SIDE DRAIN	1		
202+98	24" x 40' C.M., RT. SIDE DRAIN	1		
205+27	12' x 6' x 45' OPEN TRIPLE R.C., CROSS		1	
211+51	24" x 40' C.M., RT. SIDE DRAIN	1		
215+00	18" x 29' C.M., RT. SIDE DRAIN	1		
223+73	24" x 29' C.M., RT. SIDE DRAIN	1		
227+73	24" x 48' C.M., RT. SIDE DRAIN	1		
228+78	24" x 36' C.M., RT. SIDE DRAIN	1		
230+17	24" x 43' C.M., RT. SIDE DRAIN	1		
230+25	24" x 40' PLASTIC, LT. SIDE DRAIN	1		
TOTALS:		41	2	4

NOTE: QUANTITIES SHOWN ABOVE SHALL INCLUDE REMOVAL & DISPOSAL OF ALL HEADWALLS AND FLARED END SECTIONS IF APPLICABLE.

REMOVAL AND DISPOSAL OF FENCE

STATION	STATION	LOCATION	FENCE	GATES
			LIN. FT.	EACH
127+56	135+10	TYPE B FENCE ON RT.	754	
132+80	135+00	6' MET. SECURITY FENCE ON LT.	256	1
135+00	139+60	6' MET. SECURITY FENCE ON LT.	490	1
149+10	150+12	8' WOOD PRIVACY FENCE ON LT.	150	
159+13	163+20	BARB, MIXED POST, POOR ON RT.	437	
163+47	165+00	2 RAIL WOOD, WOOD POST ON RT.	167	
165+00	167+88	2 RAIL WOOD, WOOD POST ON RT.	313	
170+22	175+50	3 RAIL WOOD, WOOD POST ON RT.	502	
175+50	179+00	5 BARB, MET POST ON RT.	385	
203+14	204+89	3 RAIL WOOD, WOOD POST ON RT.	260	
206+28	211+20	3 RAIL WOOD, WOOD POST ON RT.	503	
211+73	214+87	3 RAIL WOOD, WOOD POST ON RT.	325	
214+30	214+87	WOOD POST CHAINLINK ON RT.	90	
215+09	216+01	3 RAIL WOOD, WOOD POST ON RT.	95	
215+09	216+01	WOOD POST CHAINLINK ON RT.	95	
215+92	216+01	4' CHAINLINK FENCE	28	
216+01	227+50	4 BARB, MIXED POST	1144	1
TOTALS:			5994	3

SOIL LOG

STATION	LOCATION	DEPTH	LIQUID LIMIT	PLASTICITY INDEX	AASHTO CLASSIFICATION	COLOR
		FEET				
123+00	25' RT	5	21	7	A-4 (2)	BROWN
131+00	15' LT	5	44	28	A-7-6 (14)	BROWN
131+00	25' LT	5	34	18	A-6 (8)	BROWN
139+00	15' RT	5	40	23	A-6 (18)	BROWN
139+00	25' RT	5	35	19	A-6 (11)	BROWN
147+00	15' LT	5	69	45	A-7-6 (45)	BROWN
147+00	25' LT	5	40	23	A-6 (14)	BROWN
155+00	15' RT	3.5Z	35	20	A-6 (6)	BROWN
155+00	25' RT	5	36	20	A-6 (8)	BROWN
163+00	15' LT	5	37	20	A-6 (5)	BROWN
163+00	25' LT	5	27	11	A-6(6)	BROWN
171+00	15' RT	5	49	34	A-7-6 (13)	BROWN
171+00	25' RT	3.3Z	39	24	A-6 (9)	BROWN
179+00	15' LT	4.7Z	33	18	A-6 (6)	BROWN
179+00	25' LT	4.7Z	24	11	A-6 (2)	BROWN
187+00	15' RT	5	46	32	A-7-6 (24	BROWN
187+00	25' RT	5	26	9	A-4 (4)	BROWN
195+00	15' LT	5	27	11	A-6 (5)	BROWN
195+00	25' LT	5	31	16	A-6 (8)	BROWN
203+00	15' RT	5	42	27	A-7-6 (14)	BROWN
203+00	25' RT	5	32	21	A-6 (10)	BROWN
211+00	15' LT	5	22	7	A-4 (3)	BROWN
211+00	25' LT	5	24	7	A-4 (2)	BROWN
219+00	15' RT	5	28	13	A-6 (4)	BROWN
219+00	25' RT	5	36	21	A-6 (13)	BROWN
227+00	15' LT	5	27	11	A-6 (5)	BROWN
227+00	25' LT	5	26	10	A-4 (2)	BROWN

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

CONCRETE WALKS

STATION	STATION	LOCATION	LENGTH	CONCRETE WALKS
			LIN.FT.	SQ.YD.
126+59	130+43	HWY. 265 ON RT.	384	213
126+47	126+59	HWY. 265 ON LT.	12	7
126+63	130+56	HWY. 265 ON LT.	393	218
130+71	139+33	HWY. 265 ON RT.	862	479
130+84	134+67	HWY. 265 ON LT.	383	213
134+93	139+37	HWY. 265 ON LT.	444	247
139+64	140+25	HWY. 265 ON LT.	61	34
139+87	142+92	HWY. 265 ON RT.	305	169
145+92	143+33	HWY. 265 RADIUS ON RT.		31
140+52	145+53	HWY. 265 ON LT.	519	288
143+83	144+20	HWY. 265 RADIUS ON RT.		32
144+20	150+14	HWY. 265 ON RT.	594	330
145+85	147+55	HWY. 265 ON LT.	170	94
147+85	148+66	HWY. 265 ON LT.	81	45
148+94	150+14	HWY. 265 ON LT.	120	67
150+50	156+21	HWY. 265 ON RT.	571	317
150+52	152+57	HWY. 265 ON LT.	205	114
152+85	156+59	HWY. 265 ON LT.	374	208
156+94	157+87	HWY. 265 ON LT.	93	52
157+87	158+45	HWY. 265 RADIUS ON LT.	58	57
156+92	163+26	HWY. 265 ON RT.	634	352
159+09	159+60	HWY. 265 RADIUS ON LT.		40
159+60	163+09	HWY. 265 ON LT.	349	194
163+54	166+82	HWY. 265 ON RT.	328	182
167+18	167+36	HWY. 265 ON RT.	18	10
167+36	167+93	HWY. 265 RADIUS ON RT.		58
163+75	173+67	HWY. 265 ON LT.	1013	563
168+28	168+91	HWY. 265 RADIUS ON RT.		48
168+91	169+50	HWY. 265 ON RT.	59	33
169+86	170+29	HWY. 265 ON RT.	43	24
170+57	172+99	HWY. 265 ON RT.	242	134
173+37	180+57	HWY. 265 ON RT.	720	400
173+95	176+69	HWY. 265 ON LT.	274	152
176+97	184+18	HWY. 265 ON LT.	738	410
180+85	183+59	HWY. 265 ON RT.	343	191
183+59	184+06	HWY. 265 RADIUS ON RT.		40
184+53	197+66	HWY. 265 ON LT.	324	180
184+53		DRIVEWAY ON LT.	48	27
184+82	185+22	HWY. 265 RADIUS ON RT.		248
185+22	190+97	HWY. 265 ON RT.	575	319
191+90	200+31	HWY. 265 ON RT.	841	467
197+95	204+25	HWY. 265 ON LT.	637	354
200+64	202+19	HWY. 265 ON RT.	155	86
202+19	202+67	HWY. 265 RADIUS ON RT.		39
203+35	203+74	HWY. 265 RADIUS ON RT.		27
203+74	204+23	HWY. 265 ON RT.	49	27
206+25	226+13	HWY. 265 ON LT.	1988	1104
206+25	211+13	HWY. 265 ON RT.	488	271
211+81	214+82	HWY. 265 ON RT.	301	167
215+13	223+60	HWY. 265 ON RT.	847	471
223+88	228+58	HWY. 265 ON RT.	470	261
226+40	230+16	HWY. 265 ON LT.	384	213
228+98	229+39	HWY. 265 ON RT.	97	54
229+39	229+79	HWY. 265 RADIUS ON RT.		30
340+65	345+35	W. ZION RD ON RT.	470	261
345+99	346+65	E. ZION ROAD ON RT.	66	37
346+13	346+35	E. ZION ROAD ON LT.	22	12
346+63	347+64	E. ZION ROAD ON LT.	101	56
TOTAL:				10757

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QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	77	270

(2) QUANTITIES

REMOVAL AND DISPOSAL ITEMS

STATION	STATION	LOCATION	CURB AND GUTTER	CONCRETE ISLANDS	CONCRETE DRIVEWAYS	WALKS	SIGN FOUNDATIONS	SIGNS	PLANTERS	LUMINAIRE POLE AND FOUNDATION	BRICK COLUMNS	BRICK WALLS	WOODEN BRIDGE	WOODEN POLE	POST	ASBESTOS-CEMENT WATER LINE
			LIN. FT.	SQ. YD.	SQ. YD.	SQ. YD.	EACH	EACH	EACH	EACH	EACH	LIN. FT.	EACH	EACH	EACH	LIN. FT.
126+34	127+56	SIDEWALK ON RT.				85										
130+57		WOOD POST ON LT.													3	
135+11	139+43	SIDEWALK ON RT.				221										
135+63	139+50	SIDEWALK ON LT.				228										
139+10	139+45	CURB ON RT.	37													
139+10	140+20	DRIVEWAY ON RT.			192											
139+32		BRICK COLUMN ON LT.									1					
139+37		ROCK PLANTER ON LT.							1							
139+42		BRICK COLUMN ON LT.									1					
139+56	139+67	BRICK WALL ON LT.										15				
139+87	140+18	CURB ON RT.	42													
139+88	143+50	SIDEWALK ON RT.				197										
140+28	140+97	DRIVEWAY ON LT.			248											
140+56	145+48	SIDEWALK ON LT.				335										
143+21	143+55	CURB ON RT.	89													
143+80	145+23	SIDEWALK ON RT.				115										
143+84	144+07	CURB ON RT.	83													
144+00		LUMINAIRE ON RT.								1						
145+46		STEEL POST ON LT.													1	
145+71	145+85	CURB ON LT.	45													
145+93	146+15	CURB ON LT.	45													
146+00		DRIVEWAY MARKER WOOD ON LT.												2		
146+70		SIGN W/ WOOD PLANTER ON LT.						1								
146+70		SIGN W/ WOOD PLANTER ON LT.							1							
149+22	150+20	SIDEWALK ON LT.				50										
149+96	150+20	CURB ON RT.	49													
149+96	150+67	DRIVEWAY ON RT.			151											
150+20	150+21	CURB ON LT.	36													
150+45	150+67	CURB ON RT.	49													
150+46	150+48	CURB ON LT.	36													
150+46	152+60	SIDEWALK ON LT.				116										
150+50		LUMINAIRE ON LT.								1						
150+65	150+65	CONCRETE SLAB ON LT.			32											
152+00		LUMINAIRE ON RT.								1						
152+58	152+59	CURB ON LT.	26													
152+81	152+85	CURB ON LT.	26													
152+83	156+62	SIDEWALK ON LT.				198										
152+90		SIGN W/ BRICK BASE ON LT.					1	1								
152+92		LUMINAIRE ON LT.								1						
153+32		LUMINAIRE ON LT.								1						
155+76	157+30	DRIVEWAY/PARKING ON LT.			425											
156+22	156+51	CURB ON RT.	43													
156+22	156+53	SIDEWALK ON RT.				17										
156+92	158+66	SIDEWALK ON LT.				131										
157+19		SIGN FOUNDATION ON LT.					1									
157+95		LUMINAIRE ON LT.								1						
158+20		LUMINAIRE ON LT.								1						
158+48	158+50	CURB ON LT.	165													
158+75	159+20	CURB ON LT.	172													
159+44	159+33	SIDEWALK ON LT.				12										
166+79		SIGN (ENCROACHING) ON RT.						1								
167+08	167+49	DRIVEWAY ON RT.			301											
167+25		SIGN ON LT.						1								
168+29	168+31	CURB ON RT.	66													
168+29	169+54	SIDEWALK ON RT.				84										
168+45	168+52	HORIZ. SIDEWALK ON RT.				36										
168+90		SIGN BRICK BASE ON RT.					1	1								
169+33	170+00	DRIVEWAY ON RT.			152											
169+77	170+21	SIDEWALK ON RT.				29										
173+07	172+42	DRIVEWAY ON RT.			155											
173+20		BRICK COLUMN ON RT.									2					
173+65	173+93	DRIVEWAY ON LT.			42											
180+15	180+44	WOOD PEDESTRIAN BRIDGE ON LT.											1			
183+94	184+19	CURB ON RT.	120													
184+31	184+52	ISLAND ON RT.		112												
184+37		SIGN BRICK						1								
184+66	184+87	CURB ON RT.	148													
190+94	191+20	CURB ON RT.	65													
191+33	191+53	ISLAND ON RT.		122												
191+39		SIGN BRICK						1								
191+39		LUMINAIRE ON RT.								1						
191+71	191+68	CURB ON RT.	50													
202+00	202+52	DRIVEWAY ON RT.			205											
202+25		BRICK COLUMNS LIGHTED ON RT.									2					
211+50		BRICK COLUMNS ON RT.									2					
211+75		LUMINAIRE ON RT.								1						
214+90	215+11	DRIVEWAY ON RT.			103											
215+00		BRICK COLUMNS ON RT.									2					
223+61	223+84	DRIVEWAY ON RT.			28											
227+72	228+65	SIDEWALK ON RT.				48										
228+45	228+65	CURB ON RT.	45													
229+09	228+91	CURB ON RT.	47													
139+60	140+39	SIDEWALK ON LT.				53										
211+00	230+16	ASBESTOS-CEMENT WATER LINE														1916
TOTALS:			1484	234	2034	1955	3	7	2	9	10	15	1	2	4	1916

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

R040518.DGN 8/15/2011

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
4-9-2013				6	ARK.			
				JOB NO.		040518	78	270

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-9-13

CONCRETE DITCH PAVING

STATION	STATION	LOCATION	LENGTH	"W"	CONC. DITCH PAVING (TYPE B)	SOLID SODDING	WATER
			LIN. FT.	FEET	SQ. YD.	SQ. YD.	M. GAL.
151+00	154+00	265 ON RT.	300.00	6	200.00	133.33	1.68
212+15	215+00	265 ON RT.	285.00	6	190.00	126.67	1.60
170+43	173+50	265 ON LT.	307.00	6	204.67	136.44	1.72
174+00	176+50	265 ON LT.	250.00	6	166.67	111.11	1.40
188+00	191+46	265 ON LT.	346.00	6	230.67	153.78	1.94
212+15	214+00	265 ON LT.	185.00	6	123.33	82.22	1.04
TOTALS:					1115.34	743.55	9.38

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

EROSION CONTROL MATTING

STATION	STATION	LOCATION	LENGTH	CLASS 3
			LIN. FT.	SQ. YD.
147+00	149+95	265 RT. SIDE	295.0	262.2
TOTAL:				262.2

NOTE: AVERAGE WIDTH = 8'-0"

BENCH MARKS

STATION	LOCATION	BENCH MARKS
		EACH
180+15	HEADWALL, RC BOX ON LT	1
206+25	BRIDGE END ON RT.	1
TOTAL:		2

NOTE: SHOWN FOR INFORMATION ONLY. BENCH MARKS SHALL BE FURNISHED AND PLACED BY STATE FORCES.

EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT	* SOIL STABILIZATION
			CU. YD.		TON
ENTIRE	PROJECT	STAGE 1-MAIN LANES	8215	22841	
ENTIRE	PROJECT	STAGE 2-MAIN LANES	19	7394	
		STAGE 3-MAIN LANES	4795	31634	
ENTIRE	PROJECT	STAGE 4-MEDIAN	617	7037	
ENTIRE	PROJECT	APPROACHES	250	2090	
143+63		STERLING CT.		30	
152+64		ADDITIONAL FOR SIDEWALK		100	
156+56		HILLSIDE TERRACE		35	
158+72		W. ZION RD.	50	197	
163+42		RANDAL PLACE		45	
168+15		E. ZION RD.	345	19	
184+43		HEARTHSTONE DR.		140	
191+44		GREYSTONE DR.	20		
202+98		ALBRIGHT RD.	77	220	
211+46		CLEAR CREEK DR.		30	
230+18		IVEY LN.	353	48	
180+00		CHANNEL CHANGE	1412	582	
204+23	206+26	CHANNEL CHANGE	2016		
* ENTIRE	PROJECT	UNDERCUT AND BACKFILL	2000	2000	
* ENTIRE	PROJECT	TO BE USED IF AND WHERE			200
		DIRECTED BY THE ENGINEER			
TOTALS:			20169	74442	200

* QUANTITY ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

EROSION CONTROL

STATION	STATION	LOCATION	PERMANENT EROSION CONTROL						TEMPORARY EROSION CONTROL									
			SEEDING	LIME	MULCH COVER	WATER	SECOND SEEDING APPLICATION	SOLID SODDING	TEMPORARY SEEDING	MULCH COVER	WATER	SAND BAG DITCH CHECKS (E-5)	ROCK DITCH CHECKS (E-6)	DROP INLET SILT FENCE (E-7)	SILT FENCE (E-11)	SEDIMENT BASIN (E-14)	OBLITERATION OF SEDIMENT BASIN	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	SQ.YD.	ACRE	ACRE	M.GAL.	BAG	CU.YD.	LIN.FT.	LIN.FT.	CU.YD.	CU.YD.	CU. YD.
ENTIRE	PROJECT	STAGE 1	2.38	4.76	2.38	283.2	2.38	3207				198	30	1056	7156			319
ENTIRE	PROJECT	STAGE 2	0.27	0.54	0.27	30.7	0.27	252						205	940			42
ENTIRE	PROJECT	STAGE 3	3.39	6.78	3.39	389.4	3.39	3458				44	60	982	9360			383
ENTIRE	PROJECT	STAGE 4				149.8		11888						305				11
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.									34.00	34.00	693.6	110	30	100	1000	150	150	191
TOTALS:			6.04	12.08	6.04	853.1	6.04	18805	34.00	34.00	693.6	352	120	2648	18456	150	150	946

BASIS OF ESTIMATE:
LIME .....2 TONS / ACRE OF SEEDING
WATER.....102.0 M.G. / ACRE OF SEEDING.
WATER.....20.4 M.G. / ACRE OF TEMPORARY SEEDING.
WATER.....12.6 GAL. / SQ. YD. OF SOLID SODDING.
SAND BAG DITCH CHECKS.....22 BAGS / LOCATION
ROCK DITCH CHECKS.....3 CU.YD./LOCATION

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

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

R040518.DGN 8/15/2011

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.		040518	79	270

(2) QUANTITIES

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH

2-4-13

CONCRETE COMBINATION CURB AND GUTTER

STATION	STATION	LOCATION	(TYPE A) (1' 6")
			LIN. FT.
126+37	126+67	265 IN RADIUS ON LT.	48
126+67	157+88	265 ON LT.	3121
157+88	158+49	265 IN RADIUS ON LT.	108
340+65	342+34	W. ZION ON RT.	169
340+65	342+78	W. ZION ON LT.	213
158+97	159+61	265 IN RADIUS ON LT.	1356
159+61	163+01	265 ON LT.	340
163+01	163+32	265 IN RADIUS ON LT.	62
163+52	163+83	265 IN RADIUS ON LT.	62
163+83	204+25	265 ON LT.	4042
206+25	230+16	265 ON LT.	2391
126+40	142+92	265 ON RT.	1652
142+92	143+55	265 IN RADIUS ON RT.	70
143+85	144+22	265 IN RADIUS ON RT.	85
144+22	156+13	265 ON RT.	1191
156+13	156+33	265 IN RADIUS ON RT.	69
156+55	157+00	265 IN RADIUS ON RT.	45
157+00	167+36	265 ON RT.	1036
167+36	167+97	265 IN RADIUS ON RT.	93
345+99	348+30	E. ZION ON RT.	231
346+14	348+30	E. ZION ON LT.	216
168+34	168+92	265 IN RADIUS ON RT.	94
168+92	183+59	265 ON RT.	1467
183+59	184+21	265 IN RADIUS ON RT.	135
184+24		DRIVEWAY ON LT.	46
184+48		DRIVEWAY ON LT.	46
184+64	185+22	265 IN RADIUS ON RT.	120
185+22	190+89	265 ON RT.	567
190+89	191+20	265 IN RADIUS ON RT.	48
191+67	191+97	265 IN RADIUS ON RT.	48
191+97	202+19	265 ON RT.	1022
202+19	202+80	265 IN RADIUS ON RT.	95
203+15	203+74	265 IN RADIUS ON RT.	91
203+74	204+25	265 ON RT.	51
206+25	211+05	265 ON RT.	480
211+05	211+36	265 IN RADIUS ON RT.	58
211+58	211+89	265 IN RADIUS ON RT.	61
211+89	229+39	265 ON RT.	1750
229+39	230+00	265 IN RADIUS ON RT.	92
22+33	24+54	IVEY LN. ON LT.	221
125+05	143+18	265 MEDIAN	3630
144+12	158+48	265 MEDIAN	1436
159+42	167+67	265 MEDIAN	5744
168+60	183+93	265 MEDIAN	3066
184+92	202+50	265 MEDIAN	3516
203+43	229+63	265 MEDIAN	5240
TOTAL:			45724

WHEELCHAIR RAMPS

STATION	LOCATION	TYPE 2	TYPE 3
		SQ.YD.	
126+61	HWY. 265 ON LT.		5.0
143+24	HWY. 265 ON LT.		3.8
143+31	HWY. 265 ON RT.	8.5	
144+02	HWY. 265 ON RT.	8.8	
144+08	HWY. 265 ON LT.		3.4
156+20	HWY. 265 ON RT.		5.2
156+92	HWY. 265 ON RT.		5.2
158+39	HWY. 265 ON LT.	9.0	
158+61	HWY. 265 ON RT.		4.1
159+22	HWY. 265 ON LT.	8.5	
159+36	HWY. 265 ON RT.		4.0
163+07	HWY. 265 ON LT.		5.2
163+77	HWY. 265 ON LT.		6.4
167+73	HWY. 265 ON LT.		3.7
167+81	HWY. 265 ON RT.	8.1	
168+51	HWY. 265 ON RT.	8.9	
168+55	HWY. 265 ON LT.		3.0
183+99	HWY. 265 ON LT.		3.4
184+04	HWY. 265 ON RT.	8.9	
184+80	HWY. 265 ON RT.	9.0	
184+86	HWY. 265 ON LT.		3.4
190+96	HWY. 265 ON RT.		5.4
191+92	HWY. 265 ON RT.		5.5
202+56	HWY. 265 ON LT.		3.8
202+61	HWY. 265 ON RT.	8.5	
203+35	HWY. 265 ON RT.	8.9	
203+38	HWY. 265 ON LT.		3.3
211+11	HWY. 265 ON RT.		5.5
211+83	HWY. 265 ON RT.		5.4
229+69	HWY. 265 ON LT.		3.8
229+75	HWY. 265 ON RT.	8.8	
TOTALS:		95.9	88.5

CONCRETE ISLAND

STATION	LOCATION	CURB FACE TYPE	CONCRETE ISLAND
			SQ.YD.
142+15	HWY. 265 MEDIAN	N/A	47
143+09	HWY. 265 PEDESTRIAN ISLAND	C	10
143+33	HWY. 265 PEDESTRIAN ISLAND	C	7
143+96	HWY. 265 PEDESTRIAN ISLAND	C	6
144+20	HWY. 265 PEDESTRIAN ISLAND	C	10
145+26	HWY. 265 MEDIAN	N/A	67
157+56	HWY. 265 MEDIAN	N/A	65
158+40	HWY. 265 PEDESTRIAN ISLAND	C	9
158+64	HWY. 265 PEDESTRIAN ISLAND	C	6
159+25	HWY. 265 PEDESTRIAN ISLAND	C	6
159+50	HWY. 265 PEDESTRIAN ISLAND	C	10
160+50	HWY. 265 MEDIAN	N/A	67
166+63	HWY. 265 MEDIAN	N/A	67
167+59	HWY. 265 PEDESTRIAN ISLAND	C	10
167+83	HWY. 265 PEDESTRIAN ISLAND	C	7
168+44	HWY. 265 PEDESTRIAN ISLAND	C	6
168+68	HWY. 265 PEDESTRIAN ISLAND	C	10
169+75	HWY. 265 MEDIAN	N/A	68
182+80	HWY. 265 MEDIAN	N/A	64
183+84	HWY. 265 PEDESTRIAN ISLAND	C	10
184+09	HWY. 265 PEDESTRIAN ISLAND	C	6
184+76	HWY. 265 PEDESTRIAN ISLAND	C	6
185+01	HWY. 265 PEDESTRIAN ISLAND	C	10
186+05	HWY. 265 MEDIAN	N/A	67
201+38	HWY. 265 MEDIAN	N/A	66
202+42	HWY. 265 PEDESTRIAN ISLAND	C	10
202+66	HWY. 265 PEDESTRIAN ISLAND	C	6
202+26	HWY. 265 PEDESTRIAN ISLAND	C	6
203+51	HWY. 265 PEDESTRIAN ISLAND	C	10
204+60	HWY. 265 MEDIAN	N/A	66
228+48	HWY. 265 MEDIAN	N/A	70
229+55	HWY. 265 PEDESTRIAN ISLAND	C	10
229+79	HWY. 265 PEDESTRIAN ISLAND	C	7
TOTAL:			892

CONCRETE CURB

STATION	STATION	LOCATION	(TYPE A)
			LIN. FT.
184+14	184+24	DRIVEWAY ON LT.	11
1846+47	184+61	DRIVEWAY ON LT.	8
TOTAL:			19

4" PIPE UNDERDRAIN

STATION	STATION	LOCATIONS	4" PIPE UNDERDRAINS
			LIN.FT.
* ENTIRE PROJECT TO BE USED IF AND			5800
WHERE DIRECTED BY THE ENGINEER			
TOTAL:			5800

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

UNDERDRAINS SHALL BE STUBBED INTO THE PROPOSED DROP INLET IF AND WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR THIS TO BE INCLUDED IN THE UNIT PRICE BID FOR 4" PIPE UNDERDRAIN.

FENCING

STATION	STATION	LOCATION	WIRE FENCE (TYPE D)	WIRE FENCE (TYPE D-1)	* 4' CHAIN LINK FENCE
			LIN. FT.		
127+56	135+10	HIGHWAY 265 RT. SIDE	754		
159+13	163+20	HIGHWAY 265 RT. SIDE	423		
175+48	179+00	HIGHWAY 265 RT. SIDE		352	
214+30	214+87	HIGHWAY 265 RT. SIDE			50
215+09	216+01	HIGHWAY 265 RT. SIDE			90
216+01	227+50	HIGHWAY 265 RT. SIDE	1131		
TOTALS:			2308	352	140

* DENOTES ALTERNATE BID ITEM.

PAVEMENT REPAIR OVER CULVERTS (CONCRETE)

STATION	LOCATION	WIDTH	LENGTH	CU.YD.
		FEET		
131+00	HWY. 265	9.08	34	11.4
132+00	HWY. 265	7.92	22	6.5
135+00	HWY. 265	7.92	26	7.6
145+00	HWY. 265	7.92	34	10.0
156+27	HWY. 265	9.08	33	11.1
228+00	HWY. 265	7.92	20	5.9
TOTAL:				52.5

AVG. DEPTH = 1'-0"

MAILBOXES

LOCATION	MAILBOXES	MAILBOX SUPPORTS (SINGLE)	MAILBOX SUPPORTS (DOUBLE)
	EACH		
ENTIRE PROJECT	8	6	1
TOTALS:	8	6	1

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU.YD.
ENTIRE PROJECT TO BE USED IF	
AND WHERE DIRECTED BY THE	300
ENGINEER	
TOTAL:	300

NOTE: QUANTITIES ARE ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

R040518.DGN 8/15/2011

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
4-9-2013				6	ARK.			
				JOB NO.		040518	80	270

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-9-13

DRIVEWAYS & TURNOUTS

STATION	SIDE	LOCATION	WIDTH	**MODIFIED CURB		PORTLAND CEMENT CONCRETE DRIVEWAY	ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG64-22)		AGGREGATE BASE COURSE (CLASS 7)	SIDE DRAINS
										21"X15"
			FEET	STATION	STATION	SQ. YD.	SQ. YD.	TON	TON	LIN. FT.
130+57	RT	HWY. 265 DRIVEWAY	16	130+35	130+79	24.90	73.6	8.1	30.1	
130+70	LT	HWY. 265 DRIVEWAY	16	130+48	130+92	24.90	46.0	5.1	18.8	
134+80	LT	HWY. 265 DRIVEWAY	16	134+58	135+02	24.90	45.0	5.0	18.4	32
139+45	LT	HWY. 265 DRIVEWAY	16	139+23	139+67	24.90	55.1	6.1	22.5	
139+66	RT	HWY. 265 DRIVEWAY	40	139+32	140+00	170.60				
140+38	LT	HWY. 265 DRIVEWAY	16	140+16	140+60	152.70				
140+38	LT	DRIVEWAY CONNECTION	16				183.4	20.2	74.9	
147+68	LT	HWY. 265 DRIVEWAY	18	147+45	147+91	26.70	123.5	13.6	50.4	
148+80	LT	HWY. 265 DRIVEWAY	16	148+58	149+02	24.90	134.6	14.8	55.0	
150+33	RT	HWY. 265 DRIVEWAY	24	150+07	150+59	32.00	63.4	7.0	25.9	
150+33	LT	HWY. 265 DRIVEWAY	26	150+06	150+60	33.80	281.6	31.0	115.0	
152+64	LT	HWY. 265 DRIVEWAY	24	152+38	152+90	32.00	252.6	27.8	103.1	
167+00	RT	HWY. 265 DRIVEWAY	24	166+74	167+26	192.00				
169+68	RT	HWY. 265 DRIVEWAY	24	169+42	169+94	55.60				
170+43	RT	HWY. 265 DRIVEWAY	16	170+21	170+65	24.90	32.2	3.5	13.1	
173+18	RT	HWY. 265 DRIVEWAY	26	172+91	173+45	33.80	32.1	3.5	13.1	
173+81	LT	HWY. 265 DRIVEWAY	16	173+59	174+03	24.90	28.4	3.1	11.6	
176+87	LT	HWY. 265 DRIVEWAY	24	176+61	177+13	32.00	41.9	4.6	17.1	
180+71	RT	HWY. 265 DRIVEWAY	16	180+49	180+93	24.90	39.1	4.3	16.0	
184+36	LT	HWY. 265 DRIVEWAY	23	184+11	184+62	31.10	112.4	12.4	45.9	
197+80	LT	HWY. 265 DRIVEWAY	16	197+58	198+02	24.90	46.2	5.1	18.9	
200+48	RT	HWY. 265 DRIVEWAY	40	200+14	200+82	46.20	102.2	11.2	41.7	
351+27	RT	ALBRIGHT RD. DRIVEWAY	16	351+05	351+49	24.90				
214+97	RT	HWY. 265 DRIVEWAY	20	214+73	215+21	85.70				
223+74	RT	HWY. 265 DRIVEWAY	16	223+52	223+96	70.90				
226+26	LT	HWY. 265 DRIVEWAY	16	226+04	226+48	24.90	63.9	7.0	26.1	
228+73	RT	HWY. 265 DRIVEWAY	26	228+46	229+00	33.80	31.8	3.5	13.0	
156+70	LT	HWY. 265 DRIVEWAY	30	156+41	156+99	179.90				
163+40	RT	HWY. 265 DRIVEWAY	16	163+18	163+62		118.9	13.1	48.6	
346+81	RT	E. ZION RD. DRIVEWAY	24	346+55	347+07	141.30				
346+44	LT	E. ZION RD. DRIVEWAY	24	346+18	346+70	114.60				
347+80	LT	E. ZION RD. DRIVEWAY	24	347+54	348+06	82.00				
* ENTIRE PROJECT TEMPORARY DRIVES									300.0	
TOTALS:						**1820.60**	**1907.9**	**210.0**	**1079.2**	**32**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.3% MIN. AGGR.....5.7% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22

THE CONTRACTOR, WITH THE APPROVAL OF THE ENGINEER, WILL BE ALLOWED TO SUBSTITUTE A HIGHER PERFORMANCE GRADE ASPHALT SURFACE COURSE FOR DRIVEWAYS AND MINOR SIDE STREET CONSTRUCTION AT NO ADDITIONAL COST TO THE DEPARTMENT.

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

** FOR INFORMATION ONLY

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

R040518.DGN 8/15/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	81	270

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STRUCTURES OVER 20' - 0" SPAN

STATION	DESCRIPTION	SPAN	HEIGHT	LENGTH	CLASS S CONCRETE-ROADWAY	REINF. STEEL-ROADWAY (GRADE 60)	UNCL.EXC. FOR STR.-ROADWAY	SOLID SODDING	WATER	STD. DWG. NOS.
		LIN. FT.			CU.YD.	POUND	CU.YD.	SQ.YD.	M.GAL	
179+80	CONSTRUCT QUAD RC BOX CULVERT	8	5	140	371.21	61239	162	52	0.66	SPECIAL DETAILS
TOTALS:					371.21	61239	162	52	0.66	

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

STRUCTURES (BOX 1 OF 2)

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT (CLASS III) 18"	(CLASS III) 24"	(CLASS III) 30"	(CLASS III) 48"	(CLASS IV) 18"	(CLASS IV) 30"	(CLASS V) 18"	(CLASS V) 24"	(CLASS V) 30"	(CLASS V) 42"	SIDE DRAIN 12"	PIPE CULVERT STORM DRAIN ALTERNATES 1 & 2 18"	24"	30"	42"	48"	FLARED END SECTIONS FOR R.C. PIPE CULVERTS 18"	24"	30"	42"	48"	DROP INLETS TYPE C	TYPE MO	EXT. 4'	EXT. 8'	JUNCTION BOX (TYPE E)	JUNCTION BOX (TYPE ST)	YARD DRAINS	SOLID SODDING	WATER	STD. DWG. NOS.
		LIN. FT.																EACH									EACH			SQ.YD.	M.GAL	
126+65	DROP INLET ON RT																						1		1							FPC-9M, FPC-9E
126+65	DROP INLET ON LT																						1	1								FPC-9M, FPC-9E
128+00	DROP INLET ON LT														130								1	1								FPC-9M, FPC-9E, PCC-1, PCM-1
131+00	DROP INLET ON LT		19												296				1				1							8	0.10	FPC-9M, FPC-9E, PCC-1, PCM-1, FES -1, FES-2
131+00	DROP INLET ON RT			94																1			1							13	0.16	FPC-9M, FPC-9E, PCC-1, PCM-1, FES -1, FES-2
132+00	DROP INLET IN MEDIAN							39															1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
132+00	DROP INLET ON RT												96										1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
135+00	DROP INLET IN MEDIAN							39															1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
135+00	DROP INLET ON RT												285										1	1								FPC-9M, FPC-9E, PCC-1, PCM-1
141+50	DROP INLET IN MEDIAN							33															1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
141+50	TYPE ST. JUNCTION BOX ON LT												135															1				FPC-9S, PCC-1, PCM-1
142+89	DROP INLET ON RT		142																1				1		1					8	0.10	FPC-9M, FPC-9E, PCC-1, PCM-1, FES -1, FES-2
142+89	DROP INLET ON LT	207																					1	1								FPC-9M, FPC-9E, PCC-1, PCM-1
143+50	DROP INLET ON RT		10																				1		1							FPC-9M, FPC-9E, PCC-1, PCM-2
143+50	DROP INLET ON RT													56									1		1							FPC-9M, FPC-9E, PCC-1, PCM-3
144+24	DROP INLET ON RT													72									1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
145+00	DROP INLET ON RT								86														1	1								FPC-9M, FPC-9E, PCC-1, PCM-1
145+00	DROP INLET ON LT		48																1				1	1						8	0.10	FPC-9M, FPC-9E, PCC-1, PCM-1, FES -1, FES-2
148+00	DROP INLET ON RT												191										1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
148+50	DROP INLET ON LT	5																					1		1					5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES -1, FES-2
149+95	DROP INLET ON RT		5											201					1				1	1						8	0.10	FPC-9M, FPC-9E, PCC-1, PCM-1, FES -1, FES-2
152+00	DROP INLET ON RT													196									1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
152+25	DROP INLET ON LT												221										1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
154+00	DROP INLET ON RT														207								1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
154+50	DROP INLET ON LT												182										1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
156+10	DROP INLET ON RT	9								52								1					1							5	0.06	FPC-9M, FPC-9E, PCC-1, PCM-1, FES -1, FES-2
156+40	DROP INLET IN MEDIAN									38													1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
156+40	DROP INLET ON LT												16										1	1								FPC-9M, FPC-9E, PCC-1, PCM-1
156+60	TYPE ST. JUNCTION BOX ON LT																											1				FPC-9S
157+83	JUNCTION BOX IN MEDIAN							38																				1				FPC-9M, FPC-9E, PCC-1, PCM-1
157+83	DROP INLET ON LT												115						1				1	1						8	0.10	FPC-9M, FPC-9E, PCC-1, PCM-1, FES -1, FES-2
158+35	DROP INLET IN MEDIAN	48																					1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
161+00	DROP INLET IN MEDIAN	54																					1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
161+57	TYPE E JUNCTION BOX ON RT			20																1							1					FPC-9D, PCC-1, PCM-1, FES-1, FES-2
161+57	DROP INLET ON LT		14							45													1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
161+57	DROP INLET IN MEDIAN									32					37								1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
162+00	DROP INLET IN MEDIAN	39																					1	1								FPC-9M, FPC-9E, PCC-1, PCM-1
162+00	DROP INLET ON LT																						1	1								FPC-9M, FPC-9E
163+00	DROP INLET ON RT												140										1									FPC-9M, FPC-9E, PCC-1, PCM-1
163+87	DROP INLET ON RT												83										1	1								FPC-9M, FPC-9E, PCC-1, PCM-1
163+87	DROP INLET ON LT		188																1				1	1						8	0.10	FPC-9M, FPC-9E, PCC-1, PCM-1, FES -1, FES-2
167+32	DROP INLET ON RT	160																					1	1								FPC-9M, FPC-9E, PCC-1, PCM-1
168+96	DROP INLET ON RT												200										1									FPC-9M, FPC-9E, PCC-1, PCM-1
171+00	DROP INLET ON RT												246										1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
171+00	DROP INLET ON LT							77															1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
173+50	DROP INLET ON RT												296										1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
173+50	DROP INLET ON LT							72															1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
176+50	DROP INLET ON RT														145								1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
176+50	DROP INLET ON LT							72															1		1							FPC-9M, FPC-9E, PCC-1, PCM-1
178+00	DROP INLET ON RT														45								1	1								FPC-9M, FPC-9E, PCC-1, PCM-1
178+00	DROP INLET ON LT	46																					1	1								FPC-9M, FPC-9E, PCC-1, PCM-1
178+50	DROP INLET ON RT																						1	1								FPC-9M, FPC-9E
178+50	DROP INLET ON LT	72																					1	1								FPC-9M, FPC-9E, PCC-1, PCM-1
SUBTOTALS:		640	426	114				370	86	167			2206	525	860			1	6	2			5	44	22	22	1	3		71	0.88	

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

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.

R040518.DGN 8/15/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	82	270

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STRUCTURES (BOX 2 OF 2)

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT (CLASS III) 18"	24"	30"	48"	(CLASS IV) 18"	30"	(CLASS V) 18"	24"	30"	42"	SIDE DRAIN 12"	PIPE CULVERT STORM DRAIN ALTERNATES 1 & 2 18"	24"	30"	42"	48"	FLARED END SECTIONS FOR R.C. PIPE CULVERTS 18"	24"	30"	42"	48"	DROP INLETS TYPE C	TYPE MO	EXT. 4'	EXT. 8'	JUNCTION BOX (TYPE E)	(TYPE ST)	YARD DRAINS	SOLID SODDING	WATER	STD. DWG. NOS.
		LIN. FT.																EACH									EACH			SQ.YD.	M.GAL	
182+00	DROP INLET ON RT				220																			1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
182+00	DROP INLET ON LT					81																		1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
183+54	DROP INLET ON RT																148							1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
184+14	TYPE ST. JUNCTION BOX ON RT				54																							1			FPC-9S, PCC-1, PCM-1
184+18	DROP INLET ON RT				75																			1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
184+66	DROP INLET ON RT				47																			1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
185+26	DROP INLET ON RT	108																						1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
185+26	DROP INLET ON LT	89																						1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
188+00	DROP INLET ON RT												270											1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
188+00	DROP INLET ON LT							72																1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
194+25	TYPE E JUNCTION BOX ON RT																										1				FPC-9D
194+25	DROP INLET ON RT												296											1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
194+25	DROP INLET ON LT							72																1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
197+25	DROP INLET ON RT												96											1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
198+25	DROP INLET ON RT													321										1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
198+25	DROP INLET ON LT								72															1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
201+50	DROP INLET ON RT														59									1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
201+50	JUNCTION BOX ON RT																										1				FPC-9D
201+50	DROP INLET ON LT												60											1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
202+14	DROP INLET ON RT		14	88															1					1	1					8	0.10	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
202+14	DROP INLET ON LT			182																				1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
204+00	DROP INLET ON RT							87																1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
204+00	DROP INLET ON LT			36																1				1	1					13	0.16	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
206+40	DROP INLET ON LT				20																	1		1						29	0.37	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
206+40	DROP INLET IN MEDIAN							30																1								FPC-9M, FPC-9E, PCC-1, PCM-1
207+80	DROP INLET ON RT												66											1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
207+80	DROP INLET ON LT																134							1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
208+50	DROP INLET ON RT							72					66											1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
208+50	DROP INLET ON LT																64							1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
209+20	DROP INLET ON RT																							1	1						FPC-9M, FPC-9E
209+20	DROP INLET ON LT																64							1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
212+15	DROP INLET IN MEDIAN					83														1				1		1				13	0.16	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
212+15	DROP INLET ON LT																289							1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
215+00	DROP INLET IN MEDIAN	39																						1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
215+00	DROP INLET ON LT															269								1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
218+00	DROP INLET ON RT			6						72											1			1		1				23	0.29	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
218+00	DROP INLET ON LT															289								1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
221+50	DROP INLET ON RT														345									1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
221+50	DROP INLET ON LT							72																1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
225+00	DROP INLET ON RT														345									1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
225+00	DROP INLET IN MEDIAN							39																1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
228+00	DROP INLET ON RT														281									1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
228+00	DROP INLET IN MEDIAN							46																1			1				FPC-9M, FPC-9E, PCC-1, PCM-1
229+40	DROP INLET ON RT														124									1		1					FPC-9M, FPC-9E, PCC-1, PCM-1
351+00	DROP INLET ON RT (ALBRIGHT)													81										1							FPC-9M, FPC-9E, PCC-1, PCM-1
351+70	DROP INLET ON RT (ALBRIGHT)		106											66					1					1	1					8	0.10	FPC-9M, FPC-9E, PCC-1, PCM-1, FES-1, FES-2
351+70	DROP INLET ON LT (ALBRIGHT)							39																1	1						FPC-9M, FPC-9E, PCC-1, PCM-1
ENTIRE PROJECT IF AND WHERE DIRECTED BY THE ENGINEER											1200																	12			FPC-9D, PCC-1, PCM-1
SUBTOTALS BOX 1 OF 2:		**640**	**426**	**114**				**370**	**86**	**167**			**2206**	**525**	**860**			**1**	**6**	**2**			**5**	**44**	**22**	**22**	**1**	**3**		**71**	**0.88**	
SUBTOTALS BOX 2 OF 2:		**236**	**120**	**312**	**416**	**81**	**83**	**529**	**72**		**72**	**1200**	**854**	**468**	**1154**	**558**	**699**		**2**	**2**	**1**	**1**	**1**	**43**	**18**	**23**	**2**	**1**	**12**	**94**	**1.18**	
TOTALS:		**876**	**546**	**426**	**416**	**81**	**83**	**899**	**158**	**167**	**72**	**1200**	**3060**	**993**	**2014**	**558**	**699**	**1**	**8**	**4**	**1**	**1**	**6**	**87**	**40**	**45**	**3**	**4**	**12**	**165**	**2.06**	

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

NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.

R040518.DGN 8/15/2011

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
4-9-2013				6	ARK.			
				JOB NO.		040518	83	270

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-9-13

CONCRETE BASE

STATION	STATION	LOCATION	LENGTH	TACK COAT 0.1 GAL. PER SQ. YD.			PORTLAND CEMENT CONCRETE BASE			
				AVG. WID.	SQ. YD.	GAL.	AVG. WID.	6.5" U.T.	AVG. WID.	6" U.T.
			FEET	FEET			FEET	SQ. YD.	FEET	SQ. YD.
135+10	138+87	NOTCH AND WIDEN ON RT.	377.0	4.0	167.6	16.8	6.5	272.3	4.0	167.6
138+87	140+15	NOTCH AND WIDEN ON RT.	128.0				2.5	35.6		
140+15	141+15	NOTCH AND WIDEN ON RT.	100.0				2.5	27.8		
141+15	143+15	NOTCH AND WIDEN ON RT.	200.0	0.8	17.8	1.8	3.3	73.3	0.8	17.8
143+15	144+15	MEDIAN CROSSING		VAR.	94.4	9.4	VAR.	94.4	VAR.	94.4
143+65		STERLING CT.		VAR.	319.9	32.0	VAR.	369.7	VAR.	319.9
144+15	146+15	NOTCH AND WIDEN ON LT.	200.0	8.5	188.9	18.9	11.0	244.4	8.5	188.9
146+15	147+15	NOTCH AND WIDEN ON RT.	100.0	2.0	22.2	2.2	4.5	50.0	2.0	22.2
147+15	154+52	NOTCH AND WIDEN ON RT.	737.0				2.5	204.7		
154+52	155+45	NOTCH AND WIDEN ON RT.	93.0	1.5	15.5	1.6	4.0	41.3	1.5	15.5
155+45	156+13	NOTCH AND WIDEN ON RT.	68.0	5.8	43.8	4.4	8.3	62.7	5.8	43.8
160+75	161+45	NOTCH AND WIDEN ON LT.	70.0	2.7	21.0	2.1	5.2	40.4	2.7	21.0
161+45	162+00	NOTCH AND WIDEN ON LT.	55.0	0.7	4.3	0.4	3.2	19.6	0.7	4.3
167+36	168+92	E. ZION RD. INTERSECTION	156.0	VAR.	82.8	8.3	VAR.	127.2	VAR.	82.8
164+64	165+64	NOTCH AND WIDEN ON LT.	100.0	2.0	22.2	2.2	5.5	61.1	2.0	22.2
165+64	167+36	NOTCH AND WIDEN ON LT.	172.0	8.0	152.9	15.3	10.5	200.7	8.0	152.9
168+92	170+63	NOTCH AND WIDEN ON LT.	171.0	1.3	24.7	2.5	3.8	72.2	1.3	24.7
170+63	171+63	NOTCH AND WIDEN ON LT.	100.0	0.5	5.6	0.6	3.0	33.3	0.5	5.6
180+90	181+90	NOTCH AND WIDEN ON LT.	100.0	1.5	16.7	1.7	4.0	44.4	1.5	16.7
181+90	183+58	NOTCH AND WIDEN ON LT.	168.0	7.1	132.5	13.3	9.6	179.2	7.1	132.5
183+58	185+22	HEARTHSTONE DR. INTERSECTION	164.0	VAR.	72.3	7.2	VAR.	118.9	VAR.	72.3
185+22	186+95	NOTCH AND WIDEN ON LT.	173.0	0.8	15.4	1.5	3.3	63.4	0.8	15.4
186+95	187+95	NOTCH AND WIDEN ON LT.	100.0	0.4	4.4	0.4	2.9	32.2	0.4	4.4
SIDE ROADS										
340+65	341+55	W. ZION RD. NOTCH AND WIDEN	90.0	3.0	30.0	3.0	8.0	80.0	3.0	30.0
341+55	342+35	W. ZION RD. NOTCH AND WIDEN	80.0	3.0	26.7	2.7	8.0	71.1	3.0	26.7
347+25	348+30	E. ZION RD. NOTCH AND WIDEN	105.0	7.8	91.0	9.1	12.8	149.3	7.8	91.0
* ENTIRE	PROJECT	IF AND WHERE DIRECTED BY THE ENGINEER						500.0		500.0
TOTALS:						157.4		3269.2		2072.6

* QUANTITY ESTIMATED
SEE SECTION 104.03 OF THE STD. SPECS.

ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC

LOCATION	TON	TACK COAT GALLON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	50	100
TOTALS:	50	100

NOTE: QUANTITIES ARE ESTIMATED.
SEE SECTION 104.03 OF THE STD. SPECS.

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	200
TOTAL:	200

NOTE: QUANTITY IS ESTIMATED
SEE SECTION 104.03 OF THE STD. SPECS.

HAND RAILING

STATION	STATION	LOCATION	HAND RAILING
			LIN. FT.
145+45	156+45	HWY. 265 ON LT.	1030
TOTAL:			1030

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH	COLD MILLING ASPHALT PAVEMENT
			FEET	SQ. YD.
126+40	127+40	MAIN LANES	33	366.67
229+16	230+16	MAIN LANES	33	366.67
22+32	25+31	IVEY LN. 2" DEPTH	10	332.22
340+00	341+00	W. ZION RD.	30	333.33
348+30	349+35	E. ZION RD.	24	280.00
TOTAL:				1678.89

NOTE: AVERAGE MILLING DEPTH 1".

RETAINING WALLS

STATION	STATION	LOCATION	CLASS S CONCRETE-ROADWAY	REINF. STEEL-ROADWAY (GRADE 60)	UNCL.EXC. FOR STR.-ROADWAY	ARCHITECTURAL FINISH	TEXTURED COATING FINISH	AGGREGATE BASE COURSE (CLASS 7)
			CU. YDS.	POUNDS	CU. YDS.	SQ. FT.	SQ. YD.	TONS
145+45	156+45	HWY. 265 ON LT.	752.20	75570	1880	9790	8690	5830
TOTALS:			752.20	75570	1880	9790	8690	5830

R040518.DGN 8/15/2011

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.		040518	84	270

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

BASE AND SURFACING (BOX 1 OF 2)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")			
				TON / STATION	TON	TOTAL WID.	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22
			FEET			FEET				FEET			TON	FEET			TON
MAIN LANES																	
126+40	127+40	100' TRANSITION RT.	100.0	88.47	88.5	43.8	486.7	0.03	14.6	17.8	197.8	495.0	49.0	43.8	486.7	220.0	53.5
126+40	127+40	100' TRANSITION LT.	100.0	87.50	87.5	43.5	483.3	0.03	14.5	17.5	194.4	495.0	48.1	43.5	483.3	220.0	53.2
127+40	131+90	NOTCH AND WIDEN ON RT.	450.0	86.22	388.0	43.2	2160.0	0.03	64.8	17.2	860.0	495.0	212.9	43.2	2160.0	220.0	237.6
127+40	131+90	NOTCH AND WIDEN ON LT.	450.0	89.21	401.4	44.0	2200.0	0.03	66.0	17.9	895.0	495.0	221.5	44.0	2200.0	220.0	242.0
131+90	136+67	NOTCH AND WIDEN ON RT.	477.0	60.00	286.2	36.4	1929.2	0.03	57.9	10.4	551.2	495.0	136.4	36.4	1929.2	220.0	212.2
131+90	134+86	NOTCH AND WIDEN ON LT.	296.0	105.00	310.8	48.2	1585.2	0.03	47.6	22.2	730.1	495.0	180.7	48.2	1585.2	220.0	174.4
135+10	138+87	NOTCH AND WIDEN ON RT.	377.0	9.72	36.6	22.0	921.6	0.03	27.6					26.0	1089.1	220.0	119.8
138+87	140+15	NOTCH AND WIDEN ON RT.	128.0	9.72	12.4	26.0	369.8	0.03	11.1					26.0	369.8	220.0	40.7
134+86	140+15	FULL DEPTH ON LT.	529.0	120.56	637.8	52.0	3056.4	0.03	91.7	26.0	1528.2	495.0	378.2	52.0	3056.4	220.0	336.2
140+15	141+15	NOTCH AND WIDEN ON RT.	100.0	29.17	29.2	39.5	438.9	0.03	13.2	5.0	55.6	495.0	13.8	39.5	438.9	220.0	48.3
140+15	141+15	FULL DEPTH ON LT.	100.0	125.42	125.4	54.5	605.6	0.03	18.2	27.3	303.3	495.0	75.1	54.5	605.6	220.0	66.6
141+15	143+15	NOTCH AND WIDEN ON RT.	200.0	43.94	87.9	51.1	1135.6	0.03	34.1	8.8	195.6	495.0	48.4	51.1	1135.6	220.0	124.9
141+15	143+15	FULL DEPTH ON LT.	200.0	148.75	297.5	66.5	1477.8	0.03	44.3	33.3	740.0	495.0	183.2	66.5	1477.8	220.0	162.6
143+15	144+15	MEDIAN CROSSING		VAR.	172.4	VAR.	1300.6	0.03	39.0	VAR.	463.8	495.0	114.8	VAR.	1300.6	220.0	143.1
143+65		STERLING CT.												VAR.	319.9	220.0	35.2
144+15	146+15	NOTCH AND WIDEN ON LT.	200.0	106.32	212.6	24.8	551.1	0.03	16.5					33.3	740.0	220.0	81.4
144+15	146+15	FULL DEPTH ON RT.	200.0	186.67	373.3	86.0	1911.1	0.03	57.3	43.0	955.6	495.0	236.5	86.0	1911.1	220.0	210.2
146+15	147+15	NOTCH AND WIDEN ON RT.	100.0	19.72	19.7	25.3	281.1	0.03	8.4					27.3	303.3	220.0	33.4
146+15	147+15	FULL DEPTH ON LT.	100.0	151.67	151.7	68.4	760.0	0.03	22.8	34.5	383.3	495.0	94.9	68.4	760.0	220.0	83.6
147+15	154+52	NOTCH AND WIDEN ON RT.	737.0	9.72	71.6	26.0	2129.1	0.03	63.9					26.0	2129.1	220.0	234.2
154+52	155+45	NOTCH AND WIDEN ON RT.	93.0	9.72	9.0	24.5	253.2	0.03	7.6					26.0	268.7	220.0	29.6
155+45	156+13	NOTCH AND WIDEN ON RT.	68.0	9.72	6.6	26.3	198.7	0.03	6.0					32.0	241.8	220.0	26.6
147+15	155+45	FULL DEPTH ON LT.	830.0	120.55	1000.6	52.0	4795.6	0.03	143.9	26.0	2397.8	495.0	593.5	52.0	4795.6	220.0	527.5
155+45	156+45	FULL DEPTH ON LT.	100.0	125.42	125.4	54.5	605.6	0.03	18.2	27.3	303.3	495.0	75.1	54.5	605.6	220.0	66.6
156+45	157+00	FULL DEPTH ON LT.	55.0	135.33	74.4	59.6	364.2	0.03	10.9	29.8	182.1	495.0	45.1	59.6	364.2	220.0	40.1
157+00	157+88	NOTCH AND WIDEN ON RT.	88.0	63.19	55.6	59.3	579.8	0.03	17.4	16.3	159.4	495.0	39.5	59.3	579.8	220.0	63.8
157+00	157+88	NOTCH AND WIDEN ON LT.	88.0	138.41	121.8	63.7	622.8	0.03	18.7	30.6	299.2	495.0	74.1	63.7	622.8	220.0	68.5
156+13	157+00	HILLSIDE TERRACE INTERSECTION		VAR.	146.2	VAR.	994.0	0.03	29.8	VAR.	350.0	495.0	86.6	VAR.	994.0	220.0	109.3
157+88	159+60	W. ZION RD. INTERSECTION		VAR.	396.7	VAR.	3100.3	0.03	93.0	VAR.	988.2	495.0	244.6	VAR.	3100.3	220.0	341.0
159+60	160+75	NOTCH AND WIDEN ON LT.	115.0	186.86	214.9	53.3	681.1	0.03	20.4	10.3	131.6	495.0	32.6	43.1	550.7	220.0	60.6
160+75	161+45	NOTCH AND WIDEN ON LT.	70.0	35.58	24.9	47.2	367.1	0.03	11.0	6.7	52.1	495.0	12.9	47.2	367.1	220.0	40.4
161+45	162+00	NOTCH AND WIDEN ON LT.	55.0	24.89	13.7	37.8	231.0	0.03	6.9	3.9	23.8	495.0	5.9	37.8	231.0	220.0	25.4
159+60	161+45	FULL DEPTH ON RT.	185.0	140.00	259.0	62.0	1274.4	0.03	38.2	31.0	637.2	495.0	157.7	62.0	1274.4	220.0	140.2
161+45	162+45	FULL DEPTH ON RT.	100.0	125.81	125.8	54.7	607.8	0.03	18.2	27.4	304.4	495.0	75.3	54.7	607.8	220.0	66.9
162+45	164+64	FULL DEPTH ON RT.	219.0	120.56	264.0	52.0	1265.3	0.03	38.0	26.0	632.7	495.0	156.6	52.0	1265.3	220.0	139.2
162+45	163+01	NOTCH AND WIDEN ON LT.	56.0	19.44	10.9	26.0	161.8	0.03	4.9					26.0	161.8	220.0	17.8
163+83	164+64	NOTCH AND WIDEN ON LT.	81.0	19.44	15.7	26.0	234.0	0.03	7.0					26.0	234.0	220.0	25.7
163+01	163+83	RANDAL PLACE INTERSECTION	82.0	VAR.	68.9	VAR.	520.4	0.03	15.6	VAR.	138.6	495.0	34.3	VAR.	520.4	220.0	57.2
167+36	168+92	E. ZION RD. INTERSECTION	156.0	VAR.	318.6	VAR.	2578.7	0.03	77.4	VAR.	827.4	495.0	204.8	VAR.	1834.0	220.0	201.7
164+64	165+64	NOTCH AND WIDEN ON RT.	100.0	9.72	9.7	25.3	281.1	0.03	8.4					27.3	303.3	220.0	33.4
165+64	167+36	NOTCH AND WIDEN ON RT.	172.0	175.00	301.0	83.1	1588.1	0.03	47.6	40.0	764.4	495.0	189.2	43.1	823.7	220.0	90.6
165+64	167+36	NOTCH AND WIDEN ON LT.	172.0	9.72	16.7	24.6	470.1	0.03	14.1					32.6	623.0	220.0	68.5
168+92	170+63	FULL DEPTH ON RT.	171.0	146.22	250.0	65.2	1238.8	0.03	37.2	32.6	619.4	495.0	153.3	65.2	1238.8	220.0	136.3
168+92	170+63	NOTCH AND WIDEN ON LT.	171.0	41.61	71.2	50.0	950.0	0.03	28.5	8.2	155.8	495.0	38.6	51.2	972.8	220.0	107.0
170+63	171+63	FULL DEPTH ON RT.	100.0	231.39	231.4	109.0	1211.1	0.03	36.3	54.5	605.6	495.0	149.9	109.0	1211.1	220.0	133.2
170+63	171+63	NOTCH AND WIDEN ON LT.	100.0	25.86	25.9	38.2	424.4	0.03	12.7	4.2	46.7	495.0	11.6	38.6	428.9	220.0	47.2
171+63	180+90	FULL DEPTH ON RT.	927.0	120.56	1117.6	52.0	5356.0	0.03	160.7	26.0	2678.0	495.0	662.8	52.0	5356.0	220.0	589.2
171+63	180+90	NOTCH AND WIDEN ON LT.	927.0	19.44	180.2	26.0	2678.0	0.03	80.3					26.0	2678.0	220.0	294.6
180+90	181+90	NOTCH AND WIDEN ON RT.	100.0	149.72	149.7	68.2	757.8	0.03	22.7	33.5	372.2	495.0	92.1	68.2	757.8	220.0	83.4
180+90	181+90	NOTCH AND WIDEN ON LT.	100.0	9.72	9.7	25.8	286.7	0.03	8.6					27.3	303.3	220.0	33.4
181+90	183+58	NOTCH AND WIDEN ON RT.	168.0	179.47	301.5	84.4	1575.5	0.03	47.3	41.2	769.1	495.0	190.4	84.4	1575.5	220.0	173.3
181+90	183+58	NOTCH AND WIDEN ON LT.	168.0	9.72	16.3	25.5	476.0	0.03	14.3					32.6	608.5	220.0	66.9
183+58	185+22	HEARTHSTONE INTERSECTION	164.0	VAR.	549.0	VAR.	3507.5	0.03	105.2	VAR.	1459.4	495.0	361.2	VAR.	3579.8	220.0	393.8
190+89	191+98	GREYSTONE DR. INTERSECTION	109.0	VAR.	200.7	VAR.	1023.3	0.03	30.7	VAR.	511.6	495.0	126.6	VAR.	1023.3	220.0	112.6
185+22	186+95	FULL DEPTH ON RT.	173.0	146.42	253.3	65.3	1255.2	0.03	37.7	32.7	628.6	495.0	155.6	65.3	1255.2	220.0	138.1
185+22	186+95	NOTCH AND WIDEN ON RT.	173.0	43.17	74.7	50.9	978.4	0.03	29.4	8.6	165.3	495.0	40.9	51.7	993.8	220.0	109.3
186+95	187+95	FULL DEPTH ON RT.	100.0	125.42	125.4	54.5	605.6	0.03	18.2	27.3	303.3	495.0	75.1	54.5	605.6	220.0	66.6
186+95	187+95	NOTCH AND WIDEN ON LT.	100.0	27.03	27.0	38.6	428.9	0.03	12.9	4.5	50.0	495.0	12.4	39.0	433.3	220.0	47.7
187+95	190+89	FULL DEPTH ON RT.	294.0	120.56	354.4	52.0	1698.7	0.03	51.0	26.0	849.3	495.0	210.2	52.0	1698.7	220.0	186.9
191+98	199+47	FULL DEPTH ON RT.	749.0	120.56	903.0	52.0	4327.6	0.03	129.8	26.0	2163.8	495.0	535.5	52.0	4327.6	220.0	476.0
187+95	194+00	FULL DEPTH ON RT.	605.0	120.56	729.4	52.0	3495.6	0.03	104.9	26.0	1747.8	495.0	432.6	52.0	3495.6	220.0	384.5
194+00	199+47	NOTCH AND WIDEN ON LT.	547.0	19.44	106.3									26.0	1580.2	220.0	173.8
199+47	200+47	NOTCH AND WIDEN ON RT.	100.0	149.33	149.3	68.0	755.6	0.03	22.7	33.4	371.1	495.0	91.8	68.0	755.6	220.0	83.1
199+47	200+47	FULL DEPTH ON LT.	100.0	125.22	125.2	54.4	604.4	0.03	18.1	27.2	302.2	495.0	74.8	54.4	604.4	220.0	66.5
200+47	202+19	NOTCH AND WIDEN ON RT.	172.0	180.06	309.7	84.9	1622.5	0.03	48.7	41.3	789.3	495.0	195.4	84.9	1622.5	220.0	178.5
200+47	202+19	FULL DEPTH ON LT.	172.0	145.83	250.8	65.0	1242.2	0.03	37.3	32.5	621.1	495.0	153.7	65.0	1242.2	220.0	136.6
203+74	204+25	FULL DEPTH ON RT.	51.0	157.11	80.1	70.4	398.9	0.03	12.0	35.4	200.6	495.0	49.6	70.4	398.9	220.0	43.9
203+74	204+25	FULL DEPTH ON LT.	51.0	186.67	95.2	86.0	487.3	0.03	14.6	43.0	243.7	495.0	60.3	86.0	487.3	220.0	53.6
206+25	206+46	FULL DEPTH ON LT.	21.0	161.58	33.9	73.1	170.6	0.03	5.1	36.6	85.4	495.0	21.1	73.1	170.6	220.0	18.8
206+46	207+06	FULL DEPTH ON LT.	60.0	137.47	82.5	60.7	404.7	0.03	12.1	30.4	202.7	495.0	50.2	60.7	404.7	220.0	44.5
206+46	211+05	FULL DEPTH ON RT.	459.0	120.56	553.4	52.0	2652.0	0.03	79.6	26.0	1326.0	495.0	328.2	52.0	2652.0	220.0	291.7
207+06	213+00	FULL DEPTH ON LT.	594.0	120.56	716.1	52.0	3432.0	0.03	103.0	26.0	1716.0	495.0	424.7	52.0	3432.0	220.0	377.5
213+00	225+34	NOTCH AND WIDEN ON LT.	1234.0			26.0	3564.9	0.03	106.9					26.0	3564.9	220.0	392.1
202+19	203+74	ALBRIGHT RD. INTERSECTION	155.0	VAR.	699.7	VAR.	3727.1	0.03	111.8	VAR.	1863.5	495.0	461.2	VAR.	3727.1	220.0	410.0
211+05	211+89	CLEAR CREEK RD. INTERSECTION	84.0	VAR.	158.4	VAR.	7892.3	0.03	236.8	VAR.	394.6	495.0	97.7	VAR.	7892.3	220.0	868.2
211+89	226+60	FULL DEPTH ON RT.	1471.0	120.56	1773.4	52.0	8499.1	0.03	255.0	26.0	4249.6	495.0	1051.8	52.0	8499.1	220.0	934.9
225+34	226+60	NOTCH AND WIDEN ON LT.	126.0	9.72	12.2	22.3	312.2	0.03	9.4					26.0	364.0	220.0	40.0
226+60	227+60	NOTCH AND WIDEN ON RT.	100.0	217.00	217.0	110.7	1230.0	0.03	36.9	50.8	564.4	495.0	139.7	110.7	1230.0	220.0	135.3
226+60	227+60	NOTCH AND WIDEN ON LT.	100.0	70.78	70.8	40.6	451.1	0.03	13.5	13.2	146.7	495.0	36.3	40.6	451.1	220.0	49.6
227+60	229+39	NOTCH AND WIDEN ON RT.	179.0	105.19	188.3	65.2	1296.8	0.03	38.9	22.1	439.5	495.0	108.8	54.3	1080.0	220.0	118.8
229+39	230+16	IVEY LN. INTERSECTION	77.0	VAR.	188.2	VAR.	1565.0	0.03	47.0	VAR.	474.8	495.0	117.5	1565.0	13389.4	220.0	1472.8
SUBTOTALS BOX 1 OF 2:					18751.5				3544.5		43363.2		10732.9		130942.8		14403.9

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.3% MIN. AGGR.....5.7% ASPHALT BINDER
ACHM BINDER COURSE (1").....95% MIN. AGGR.....5% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

R040518.DGN 8/15/2011

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.		040518	85	270

(2) QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

BASE AND SURFACING (BOX 2 OF 2)

STATION	STATION	LOCATION	LENGTH	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT				ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")			
				TON / STATION	TON	TOTAL WID.	SQ.YD.	GALLONS / SQ.YD.	GALLON	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 70-22	AVG. WID.	SQ.YD.	POUND / SQ.YD.	PG 76-22
			FEET			FEET				FEET			TON	FEET			TON
SIDE ROADS																	
340+65	341+55	W. ZION RD. NOTCH AND WIDEN	90.0											31.8	318.0	220.0	35.0
341+55	342+35	W. ZION RD. NOTCH AND WIDEN	80.0											35.8	318.2	220.0	35.0
346+14	347+25	E. ZION RD. NOTCH AND WIDEN	111.0	69.57	77.2	48.7	600.6	0.03	18.0	12.9	159.1	495.0	39.4	48.7	600.6	220.0	66.1
347+25	348+30	E. ZION RD. NOTCH AND WIDEN	105.0											66.0	770.0	220.0	84.7
351+09	351+85	ALBRIGHT RD. FULL DEPTH	76.0	159.44	121.2	72.0	608.0	0.03	18.2	36.0	304.0	495.0	75.2	72.0	608.0	220.0	66.9
351+85	352+70	ALBRIGHT RD. FULL DEPTH	85.0	136.11	115.7	60.0	566.7	0.03	17.0	30.0	283.3	495.0	70.1	60.0	566.7	220.0	62.3
22+33	23+84	IVEY LN. NOTCH AND WIDEN ON RT.	151.0	36.56	55.2	18.4	308.7	0.03	9.3	4.4	73.8	495.0	18.3	18.4	308.7	220.0	34.0
23+84	24+54	IVEY LN. NOTCH AND WIDEN ON RT.	70.0	43.09	30.2	27.1	210.8	0.03	6.3	8.9	69.2	495.0	17.1	27.1	210.8	220.0	23.2
ADDITIONAL FOR LEVELING																	
126+40	159+00	HWY. 265	3260.0			VAR.		0.10	1825.0							VAR.	2007.7
159+00	188+00	HWY. 265	2900.0			VAR.		0.10	3520.0							VAR.	3872.9
193+00	199+00	HWY. 265	600.0			VAR.		0.10	185.4							VAR.	203.9
213+00	230+16	HWY. 265	1716.0			VAR.		0.10	649.0							VAR.	714.8
340+65	342+35	W. ZION RD.	170.0			VAR.		0.10	245.0							VAR.	270.2
346+14	348+30	E. ZION RD.	216.0			VAR.		0.10	66.0							VAR.	74.0
22+33	24+54	IVEY LN.	221.0			VAR.		0.10	20.0							VAR.	22.0
ADDITIONAL FOR MAINTENANCE OF TRAFFIC																	
159+45	162+27	WIDENING ON LT.	282.0	VAR.	126.9	VAR.	331.4	0.03	9.9	VAR.	156.7	495.0	38.8	VAR.	394.1	220.0	43.4
223+35	229+60	WIDENING ON LT.	625.0	VAR.	304.6	VAR.	830.0	0.03	24.9	VAR.	415.0	495.0	102.7	VAR.	1246.7	220.0	137.1
SUBTOTALS BOX 1 OF 2:					18751.5				3544.5		43363.2		10732.9		130942.8		14403.9
SUBTOTALS BOX 2 OF 2:					831.0				6614.0		1461.1		361.6		5341.8		7753.2
TOTALS:					**19582.5**				**10158.5**		**44824.3**		**11094.5**		**136284.6**		**22157.1**

BASIS OF ESTIMATE:
ACHM SURFACE COURSE (1/2").....94.3% MIN. AGGR.....5.7% ASPHALT BINDER
ACHM BINDER COURSE (1").....95% MIN. AGGR.....5% ASPHALT BINDER
MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
MAXIMUM NUMBER OF GYRATIONS = 205 FOR PG 76-22

R040518.DGN 8/15/2011

QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		040518	86	270
① 07229		QUANTITIES	52395	

SCHEDULE OF BRIDGE QUANTITIES-JOB 040518

BRIDGE NO.	CODE NO.	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NO.	801	802	802	803	SSI 804	SSI 804	805	805	805	805	806	807	812	816	816	SP JOB 040518	SP JOB 040518	SP JOB 040518
				ITEM	UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE	CLASS S CONCRETE-BRIDGE	CLASS S(AE) CONCRETE-BRIDGE	CLASS 1 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL-BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	① STEEL ③ PILING (HP12X53)	② STEEL ③ PILING (HP14X73)	PILE ENCASEMENT	PREBORING	METAL BRIDGE RAILING (TYPE H)	STRUCTURAL STEEL IN BEAM SPANS (M270, GRADE 36)	BRIDGE NAME PLATE (TYPE D)	DUMPED RIPRAP	FILTER BLANKET	SHORING	SILICONE JOINT SEALANT	TRANSITIONAL APPROACH RAILING
				UNIT	CU. YD.	CU. YD.	CU. YD.	GAL.	LB.	LB.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LB.	EACH	CU. YD.	SQ. YD.	LUMP SUM	LIN. FT.	EACH
07229	X020	CLEAR CREEK	END BENT 1		5	51.02		0.2	6,280	10	320					1,840	1	215	450			2
			INT. BENT 2			39.45			4,449	401		320	128	168								
			INT. BENT 3			38.44			4,271	397		300	144	177								
			INT. BENT 4			37.61			4,197	389		300	139	182								
			INT. BENT 5			36.08			4,070	377		300	103	174								
			END BENT 6		41	44.30		0.2	5,603	10	300					1,612		170	360			2
			200' CONT. R.C. SLAB UNIT				1,580.00	43.9		261,946					388	4,348					192	
			SITE NO. 1																	1		
			TOTALS FOR JOB NO. 040581		46	246.90	1,580.00	44.3	28,870	263,530	620	1,220	514	701	388	7,800	1	385	810	1	192	4

① THESE STEEL PILES ARE REQUIRED TO HAVE APPROVED DRIVING POINTS WHICH WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "STEEL PILING (HP 12 X 53)"

② THESE STEEL PILES ARE REQUIRED TO HAVE APPROVED DRIVING POINTS WHICH WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "STEEL PILING (HP 14X 73)"

③ ALL PILING TO BE AASHTO M270 GR 50.

JIM TRIBO
DESIGN SECTION SUPERVISOR

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL L. FUSELIER

BRIDGE ENGINEER

SCHEDULE OF BRIDGE QUANTITIES
BRIDGE OVER CLEAR CREEK
E. JOYCE BLVD.-CITY LIMITS (FAYETTEVILLE)(S)
WASHINGTON COUNTY

ROUTE 265 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: L J B DATE: 8/10/11
CHECKED BY: TMG DATE: 8/30/11
DESIGNED BY: DATE:
FILENAME: B040518_ql.dgn
SCALE: No Scale

BRIDGE NO. 07229 DRAWING NO. 52395

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
4-9-2013				6	ARK.			
				JOB NO.		040518	87	270

(2) SUMMARY OF QUANTITIES

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-9-13

SUMMARY OF QUANTITIES (BOX 1 OF 3)

ITEM NUMBER	ITEM		QUANTITY	UNIT
201	CLEARING		103	STATION
201	GRUBBING		103	STATION
202	REMOVAL AND DISPOSAL OF CURB AND GUTTER		1484	LIN. FT.
202	REMOVAL AND DISPOSAL OF FENCE		5994	LIN. FT.
202	REMOVAL AND DISPOSAL OF GATES		3	EACH
202	REMOVAL AND DISPOSAL OF POSTS		4	EACH
202	REMOVAL AND DISPOSAL OF BRICK WALLS		15	LIN. FT.
202	REMOVAL AND DISPOSAL OF CONCRETE ISLANDS		234	SQ. YD.
202	REMOVAL AND DISPOSAL OF CONCRETE DRIVEWAYS		2034	SQ. YD.
202	REMOVAL AND DISPOSAL OF WALKS		1955	SQ. YD.
202	REMOVAL AND DISPOSAL OF SIGN FOUNDATIONS		3	EACH
202	REMOVAL AND DISPOSAL OF DROP INLETS		4	EACH
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS		41	EACH
202	REMOVAL AND DISPOSAL OF BOX CULVERTS		2	EACH
202	REMOVAL AND DISPOSAL OF WOOD POLE		2	EACH
202	REMOVAL AND DISPOSAL OF LUMINAIRE POLE AND FOUNDATION		9	EACH
202	REMOVAL AND DISPOSAL OF BRICK COLUMNS		10	EACH
202	REMOVAL AND DISPOSAL OF SIGNS		7	EACH
202	REMOVAL AND DISPOSAL OF PLANTERS		2	EACH
202	REMOVAL AND DISPOSAL OF WOODEN BRIDGES		1	EACH
SP	REMOVAL AND DISPOSAL OF ASBESTOS-CEMENT WATER LINE		1916	LIN. FT.
210	UNCLASSIFIED EXCAVATION		20169	CU. YD.
210	COMPACTED EMBANKMENT		74442	CU. YD.
SP & 210	SOIL STABILIZATION		200	TON
SS & 303	AGGREGATE BASE COURSE (CLASS 7)		26492	TON
309	PORTLAND CEMENT CONCRETE BASE (6" UNIFORM THICKNESS)		2073	SQ. YD.
309	PORTLAND CEMENT CONCRETE BASE (6 1/2" UNIFORM THICKNESS)		3269	SQ. YD.
401	TACK COAT		10416	GAL.
SP, SS, & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")		10540	TON
SP, SS, & 406	ASPHALT BINDER (PG 70-22) IN ACHM BINDER COURSE (1")		555	TON
SP, SS, & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")		21092	TON
SP, SS, & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")		12	TON
SP, SS, & 407	ASPHALT BINDER (PG 76-22) IN ACHM SURFACE COURSE (1/2")		1263	TON
412	COLD MILLING ASPHALT PAVEMENT		1679	SQ. YD.
SP, SS, & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC		50	TON
SP, SS, & 415	ACHM PATCHING OF EXISTING ROADWAY		200	TON
505	PORTLAND CEMENT CONCRETE DRIVEWAY		1820.60	SQ. YD.
601	MOBILIZATION		1.00	LUMP SUM
SP & 602	FURNISHING FIELD OFFICE		1	EACH
SP, SS, & 603	MAINTENANCE OF TRAFFIC		1.00	LUMP SUM
SS & 604	SIGNS		1167	SQ. FT.
SS & 604	BARRICADES		488	LIN. FT.
SS & 604	TRAFFIC DRUMS		431	EACH
SS & 604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER		632	LIN. FT.
SS & 604	RELOCATING PRECAST CONCRETE BARRIER		246	LIN. FT.
SS & 604	CONSTRUCTION PAVEMENT MARKINGS		100870	LIN. FT.
SS & 604	CONSTRUCTION PAVEMENT MARKINGS (WORDS)		8	EACH
SS & 604	CONSTRUCTION PAVEMENT MARKINGS (ARROWS)		8	EACH
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS		2070	LIN. FT.
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS		2100	LIN. FT.
SS & 604	VERTICAL PANELS		134	EACH
605	CONCRETE DITCH PAVING (TYPE B)		1115	SQ. YD.
SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		876	LIN. FT.
* SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	3060	LIN. FT.
* 606	18" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	3060	LIN. FT.
SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV)		81	LIN. FT.
SS & 606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS V)		899	LIN. FT.
SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		546	LIN. FT.
* SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	993	LIN. FT.
* 606	24" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	993	LIN. FT.
SS & 606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS V)		158	LIN. FT.
SS & 606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		426	LIN. FT.
* SS & 606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	2014	LIN. FT.
* 606	30" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	2014	LIN. FT.
SS & 606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS IV)		83	LIN. FT.
SS & 606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS V)		167	LIN. FT.
* SS & 606	42" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	558	LIN. FT.
* 606	42" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	558	LIN. FT.
SS & 606	42" REINFORCED CONCRETE PIPE CULVERTS (CLASS V)		72	LIN. FT.
SS & 606	48" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)		416	LIN. FT.
* SS & 606	48" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	(ALTERNATE NO. 1)	699	LIN. FT.
* 606	48" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE	(ALTERNATE NO. 2)	699	LIN. FT.
SS & 606	12" SIDE DRAIN		1200	LIN. FT.
SS & 606	21" X 15" SIDE DRAIN		32	LIN. FT.
606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		1	EACH
606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		8	EACH
606	30" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		4	EACH
606	42" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		1	EACH
606	48" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS		1	EACH
606	SELECTED PIPE BEDDING		300	CU. YD.
609	DROP INLETS (TYPE C)		6	EACH
609	DROP INLETS (TYPE MO)		87	EACH
609	JUNCTION BOXES (TYPE E)		3	EACH
609	JUNCTION BOXES (TYPE ST)		4	EACH
609	DROP INLET EXTENSIONS (4')		40	EACH
609	DROP INLET EXTENSIONS (8')		45	EACH
609	YARD DRAINS		12	EACH
611	4" PIPE UNDERDRAINS		5800	LIN. FT.
615	PAVEMENT REPAIR OVER CULVERTS (CONCRETE)		52.5	CU. YD.

*ALTERNATE BID ITEMS

SUMMARY OF QUANTITIES (BOX 2 OF 3)

ITEM NUMBER	ITEM		QUANTITY	UNIT
619	WIRE FENCE (TYPE D)		2308	LIN. FT.
619	WIRE FENCE (TYPE D-1)		352	LIN. FT.
* 619	4' STEEL CHAIN LINK FENCE	(ALTERNATE NO. 1)	140	LIN. FT.
* 619	4' ALUMINUM CHAIN LINK FENCE	(ALTERNATE NO. 2)	140	LIN. FT.
620	LIME		12	TON
620	SEEDING		6.04	ACRE
620	MULCH COVER		40.04	ACRE
SS & 620	WATER		1558.8	M.GAL.
621	TEMPORARY SEEDING		34.00	ACRE
621	SILT FENCE		18456	LIN. FT.
621	SAND BAG DITCH CHECKS		352	BAG
621	DROP INLET SILT FENCE		2648	LIN. FT.
621	SEDIMENT BASIN		150	CU. YD.
621	OBLITERATION OF SEDIMENT BASIN		150	CU. YD.
621	SEDIMENT REMOVAL AND DISPOSAL		946	CU. YD.
621	ROCK DITCH CHECKS		120	CU. YD.
623	SECOND SEEDING APPLICATION		6.04	ACRE
624	SOLID SODDING		19766	SQ. YD.
626	EROSION CONTROL MATTING (CLASS 3)		262	SQ. YD.
632	CONCRETE ISLAND		892	SQ. YD.
633	CONCRETE WALKS		10757	SQ. YD.
633	HAND RAILING		1030	LIN. FT.
634	CONCRETE CURB (TYPE A)		19	LIN. FT.
634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6")		45724	LIN. FT.
635	ROADWAY CONSTRUCTION CONTROL		1.00	LUMP SUM
637	MAILBOXES		8	EACH
637	MAILBOX SUPPORTS (SINGLE)		6	EACH
637	MAILBOX SUPPORTS (DOUBLE)		1	EACH
641	WHEELCHAIR RAMPS (TYPE 2)		96	SQ. YD.
641	WHEELCHAIR RAMPS (TYPE 3)		89	SQ. YD.
SP & 701	SYSTEM LOCAL CONTROLLER TS 2-TYPE 2 (8 PHASES)		2	EACH
703	FLASHING BEACON CONTROLLER		1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (1 SECTION, 1 WAY)		2	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)		26	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)		4	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED		12	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)		3319	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)		508	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)		1039	LIN. FT.
709	GALVANIZED STEEL CONDUIT (1.25")		60	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")		20	LIN. FT.
710	NON-METALLIC CONDUIT (1.25")		60	LIN. FT.
710	NON-METALLIC CONDUIT (2")		60	LIN. FT.
710	NON-METALLIC CONDUIT (3")		889	LIN. FT.
SS & 711	CONCRETE PULL BOX (TYPE 1 HD)		5	EACH
SS & 711	CONCRETE PULL BOX (TYPE 2 HD)		10	EACH
713	SPAN WIRE ASSEMBLY		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (26')		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (34')		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (50')		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (52')		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (58')		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (62')		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (64')		1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (70')		1	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION		4	EACH
SS & 719	THERMOPLASTIC PAVEMENT MARKING WHITE (4")		30400	LIN. FT.
SS & 719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")		1445	LIN. FT.
SS & 719	THERMOPLASTIC PAVEMENT MARKING YELLOW (4")		4821	LIN. FT.
SS & 719	THERMOPLASTIC PAVEMENT MARKING (WORDS)		13	EACH
SS & 719	THERMOPLASTIC PAVEMENT MARKING (ARROWS)		13	EACH
* SS & 719	INVERTED PROFILE THERMOPLASTIC CONTRAST PAVEMENT MARKING WHITE (4")	(ALTERNATE NO. 1)	100	LIN. FT.
* SP	HIGH PERFORMANCE CONTRAST MARKING TAPE WHITE (4")	(ALTERNATE NO. 2)	100	LIN. FT.
721	RAISED PAVEMENT MARKERS (TYPE II)		325	EACH

*ALTERNATE BID ITEMS

R040518.DGN 8/15/2011

SUMMARY OF QUANTITIES

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
3-25-2013				6	ARK.			
4-9-2013				JOB NO.		040518	88	270

(2) SUMMARY OF QUANTITIES AND REVISIONS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
4-9-13

SUMMARY OF QUANTITIES (BOX 3 OF 3)

ITEM NUMBER	ITEM	QUANTITY	UNIT
SS & 726	STANDARD SIGN	16	SQ. FT.
733	VIDEO CABLE	2559	LIN. FT.
SP & 733	VIDEO DETECTOR (CLR)	16	EACH
SP & 733	VEHICLE DETECTOR RACK (20 CHANNEL)	2	EACH
SP & 733	VIDEO EDGE CARD EXTENDER	4	EACH
733	VIDEO MONITOR (CLR)	2	EACH
SP & 733	VIDEO PROCESSOR, EDGE CARD (2 CAMERA)	7	EACH
SP & 733	VIDEO DETECTOR RELOCATION	5	EACH
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY	1880	CU. YD.
802	CLASS S CONCRETE - ROADWAY	752.20	CU. YD.
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	75570	POUND
SP	ANTENNA CABLE (TYPE 6)	140	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	1371	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., EGC)	1128	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., EGC)	345	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	60	LIN. FT.
SP	LOCAL RADIO WITH ANTENNA	2	EACH
SP	LUMINAIRE ASSEMBLY	7	EACH
SP	RELOCATION OF TRAFFIC SIGNAL HEAD	8	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1.00	LUMP SUM
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	3	EACH
SP	18" STREET NAME SIGN	7	EACH
SP	VIDEO DETECTOR ROTATION	1	EACH
SP	ARCHITECTURAL FINISH	9790	SQ. FT.
SP	TEXTURED COATING FINISH	8690	SQ. YD.
	STRUCTURES OVER 20' SPAN		
636	BRIDGE CONSTRUCTION CONTROL	1.00	LUMP SUM
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY	162	CU. YD.
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE	46	CU. YD.
802	CLASS S CONCRETE - ROADWAY	371.21	CU. YD.
802	CLASS S CONCRETE - BRIDGE	246.90	CU. YD.
802	CLASS S(AE) CONCRETE - BRIDGE	1580.00	CU. YD.
803	CLASS 1 PROTECTIVE SURFACE TREATMENT	44.3	GAL.
SS & 804	REINFORCING STEEL-ROADWAY (GRADE 60)	61239	POUND
SS & 804	REINFORCING STEEL-BRIDGE (GRADE 60)	28870	POUND
SS & 804	EPOXY COATED REINFORCING STEEL (GRADE 60)	263530	POUND
805	STEEL PILING (HP 12X53)	620	LIN. FT.
805	STEEL PILING (HP 14X73)	1220	LIN. FT.
805	PREBORING	701	LIN. FT.
805	PILE ENCASEMENT	514	LIN. FT.
806	METAL BRIDGE RAILING (TYPE H)	388	LIN. FT.
807	STRUCTURAL STEEL IN BEAM SPANS (M270-GR36)	7800	POUND
812	BRIDGE NAME PLATE (TYPE D)	1	EACH
816	FILTER BLANKET	810	SQ. YD.
816	DUMPED RIPRAP	385	CU. YD.
SP	SHORING (SITE NO. 1)	1.00	LUMP SUM
SP	SILICONE JOINT SEALANT	192	LIN. FT.
SP	TRANSITIONAL APPROACH RAILING	4	EACH

REVISION BOX

DATE	REVISION	SHEET NUMBER
3/25/2013	CHANGED POURING SEQUENCE	88 & 161
4/9/2013	REVISED QUANTITIES FOR COMPACTED EMBANKMENT, AGGREGATE BASE COURSE (CLASS 7), PORTLAND CEMENT CONCRETE DRIVEWAY, MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2"), HAND RAILING, UNCLASSIFIED EXCAVATION FOR STRUCTURES-ROADWAY, REINFORCING STEEL-ROADWAY (GRADE 60), ARCHITECTURAL FINISH, AND TEXTURED COATING FINISH, REVISED DETAIL FOR DRIVEWAY AND T.C.E. AT STA. 176+87	17, 27, 54, 62, 70, 78, 80, 83, 87, 88, 107, & 237

R040518.DGN 8/15/2011

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	89	270

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

COORDINATES

ARKANSAS STATE PLANE, NORTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND.

NAME	NORTHING	EASTING	ELEVATION	PREFERENCE	des
1	644216.5807	685622.1471	1405.5031	SU	CAP/REBAR RT SH
2	645273.4278	685659.5870	1380.6598	SU	CAP\REBAR RT SH
3	646948.4251	685595.4032	1396.9722	SU	CAP/REBAR LT SH
4	647792.3868	685695.6749	1401.5784	SU	CAP\REBAR LT SH
5	648470.8660	685668.7950	1380.0250	SU	CAP\REBAR LT SH
6	649729.1265	685748.3746	1334.6784	SU	CAP/REBAR RT SH
7	650750.7247	685605.3193	1284.6645	SU	CAP/REBAR LT SH
8	651311.3048	685922.2293	1283.5595	SU	CAP\REBAR RT SH
9	652689.3058	686050.0984	1255.7446	SU	CAP/REBAR LT SH
10	654146.7832	686256.7816	1266.7649	SU	CAP/REBAR LT SH
11	654960.3097	686566.9294	1284.5916	SU	CAP/REBAR RT SH
12	656187.9888	686618.4505	1243.0225	SU	CAP\REBAR LT SH
13	657009.4378	686767.3014	1250.6790	SU	CAP\REBAR RT SH
14	657943.2692	686199.8619	1278.3876	SU	CAP/REBAR LT SH
15	658643.6852	686051.9565	1330.9231	SU	CAP\REBAR LT SH
16	659549.9636	686475.1787	1313.6071	SU	CAP\REBAR LT SH
17	660402.9109	686935.6528	1283.5865	SU	CAP\REBAR RT SH
18	661383.9005	686942.0604	1287.2372	SU	CAP/REBAR LT BANK
19	662123.9329	687013.7735	1255.9102	SU	CAP/REBAR RT SH
20	663083.9066	687005.7349	1254.3598	SU	CAP/REBAR LT SH
21	663730.1142	687089.8636	1293.2731	SU	CAP/REBAR RT SH
22	665129.4717	687103.4013	1247.1964	SU	CAP/REBAR LT SH
23	666109.9301	687158.2813	1261.5094	SU	CAP\REBAR RT SH
24	667220.5023	686754.2961	1293.7395	SU	CAP/REBAR LT SH
25	668376.4599	686889.4788	1323.8159	SU	CAP/REBAR RT SH
100	687290.3114	685979.6694	1348.9671	GPS	NGS BM G309
101	687292.3817	687917.7109	1386.0543	GPS	AHTD GPS G309A
102	660532.8248	687020.9746	1279.1723	GPS	AHTD GPS 720041
103	660597.4218	685661.6387	1273.1930	GPS	AHTD GPS 720041A
104	674121.1836	687467.8548	1349.7581	GPS	AHTD GPS 720040
105	674130.0457	690067.2511	1352.0685	GPS	AHTD GPS720040A
106	645336.2636	686711.1367	1430.6697	GPS	AHTD GPS 720014
107	645174.2429	685080.1048	1413.7370	GPS	CAP/REBAR LT SH HWY 45
108	697165.1198	688896.2073	1389.1029	GPS	AHTD GPS 040054
109	698849.7281	688757.5701	1381.1200	GPS	AHTD GPS 040054A
601	645255.7284	686225.2058	1399.9933	VPT	
602	645109.0133	684488.8769	1422.7221	VPT	
603	647845.9932	684904.7979	1379.2472	VPT	
604	647817.1581	686504.2568	1351.6667	VPT	
605	649941.6071	685214.0727	1300.1935	VPT	
606	649620.5734	686425.4200	1313.8206	VPT	
607	653059.6458	686934.6642	1309.2008	VPT	
608	653561.6739	685393.7355	1248.5545	VPT	
609	655319.5331	685622.0474	1240.0944	VPT	
610	656102.9956	687272.6773	1250.2342	VPT	
611	659470.7233	685764.2598	1302.3548	VPT	
612	659170.3407	686911.3885	1385.0916	VPT	
613	661055.8615	685785.9358	1265.7565	VPT	
614	661512.0570	687407.1955	1275.8918	VPT	
615	663084.8176	687831.3870	1269.5725	VPT	
616	662636.7201	685828.5818	1246.1788	VPT	
617	665728.4180	687673.8092	1250.8476	VPT	
618	667661.7203	686401.4940	1314.0044	VPT	
619	667907.0019	687649.1117	1322.7080	VPT	
620	670426.9576	686279.8638	1321.9334	VPT	
621	670660.2693	687824.9232	1296.1512	VPT	
622	674171.4503	686219.8041	1331.3392	VPT	
623	673772.4282	688120.0420	1343.4214	VPT	
624	676493.0860	688576.6269	1357.1215	VPT	
625	677697.1070	687522.9121	1343.2330	VPT	
626	680728.4302	687089.6394	1337.3371	VPT	
627	680608.7266	689035.7203	1354.6581	VPT	
628	683976.2724	687254.0157	1341.6591	VPT	
629	683298.6135	688746.3171	1358.2995	VPT	
630	687281.7854	687074.6525	1366.0275	VPT	
631	686807.3443	689075.6069	1398.8722	VPT	
632	691030.1268	688155.1638	1388.8976	VPT	
633	689912.0611	689206.9569	1415.1701	VPT	
701	645069.4843	685564.3780	1385.3083	HPT	PICKED CPS CONCRETE SEAM
702	647860.5641	685815.1326	1405.3935	HPT	
703	650654.8427	685752.8203	1292.1979	HPT	
704	652594.2841	686081.8792	1255.6842	HPT	
705	655575.3133	686393.2916	1258.3386	HPT	
706	658731.2892	686212.0083	1334.1357	HPT	
707	661412.5026	686991.2956	1286.4537	HPT	PICKED CPS END STRIPE
708	663100.7220	687233.9776	1255.4890	HPT	
709	665752.0423	687167.4824	1250.8401	HPT	PICKED CPS END STRIPE
710	667336.8792	686813.4844	1296.6237	HPT	
711	670660.6910	687060.7256	1313.2901	HPT	
712	674054.8434	686803.5516	1335.2680	HPT	
713	676506.0940	687584.1876	1351.0969	HPT	
714	680636.5356	688012.0564	1342.5755	HPT	
715	682450.8706	687972.7586	1352.0840	HPT	
716	686845.6526	687906.3527	1384.5482	HPT	
717	690704.6887	688894.1241	1405.0202	HPT	
769	691744.9210	689171.3768	1420.1466	HPT	
900	644408.2371	685634.0965	1398.7172	BM	SQ CUT HDWL RT CL
901	645759.5598	685607.5975	1375.1746	BM	SQ. CUT SW COR. CON. CB
902	646939.7810	685600.2292	1396.2064	BM	SQ. CUT CNTR. HW LT OF CL
903	647875.6154	685706.2280	1402.3125	BM	SQ. CUT CON. BASE OF PT RT
904	649515.5841	685756.6110	1334.2116	BM	SQ. CUT CNTR. HW RT
905	651022.4939	685761.8847	1281.1314	BM	SQ. CUT CNTR. HW RT
906	651775.9613	686058.9876	1273.2855	BM	SQ. CUT EDGE CB ON BR.
907	652598.1247	686035.7579	1255.4036	BM	SQ. CUT END HW LT CL
908	653541.0868	686156.7454	1255.0484	BM	CH SQ CENTER HW
909	654705.9378	686444.2304	1282.3376	BM	CHISELED SQ. ON CURB LT
910	656087.1494	686594.9681	1242.7612	BM	SQ. CUT NW END OF HW. LT
911	657059.3680	686720.0433	1253.1322	BM	CHISELED SQ. CUT. BASE OF PT
912	657917.9721	686214.2392	1275.2719	BM	SQ. CUT CNTR. HW LT
913	659155.4721	686322.9503	1323.5735	BM	SQ. CUT IN BACK OF CB RT
914	660283.6153	686901.9020	1285.4844	BM	SQ. CUT IN HW RT
915	661457.3572	687024.2104	1285.5362	BM	SQ. CUT BACK OF CURB
916	662607.0818	687029.1409	1248.3370	BM	ALUMINUM CAP, SET IN
917	663797.2029	687090.5975	1293.5250	BM	SQ. CUT BACK OF CURB
918	665153.3406	687102.1981	1247.1217	BM	CHISELED SQ. CENTER HW LT
919	666207.9885	687164.4689	1263.8764	BM	CAP/REBAR RT BANK
920	667451.6845	686805.8557	1298.9372	BM	SQ. CUT BACK OF CURB RT
921	668880.4521	686947.8513	1322.2330	BM	SQ CUT HDWL RT C\L
922	671505.7503	686909.6192	1306.3537	BM	SQ CUT IN HW RT OF CL
923	674150.2719	686792.4532	1336.1319	BM	SQ CUT IN PA BASE
924	677045.1009	687632.3292	1348.0902	BM	SQ CUT IN CA RIGHT OF C\L
925	679248.5360	687812.8903	1331.5916	BM	SQ CUT IN SW CORNER OF BR
926	680533.0648	687852.2858	1340.0685	BM	SQ CUT IN PA AT EMMA AV
927	683261.4502	688011.1563	1351.6032	BM	SQ CUT BASE OF SIGNAL PL
928	686350.5077	687821.3708	1372.7909	BM	SQ CUT IN CB RIGHT OF C\L
1101	645824.0452	685542.5132	1372.9644	TV	NBC LT SH
1102	646486.4927	685632.2132	1379.0571	TV	NBC RT SH
1103	647380.9424	685675.3666	1403.2652	TV	NBC RT SH
1104	649013.9798	685734.8005	1345.7090	TV	NBC RT SH
1105	650172.4408	685695.2193	1309.7597	TV	NBC RT SH
1106	650991.4908	685767.9786	1282.0359	TV	NBC RT BANK
1107	651755.3856	686011.8895	1273.2444	TV	NBC RT SH, AT INT
1108	651981.9237	686019.2851	1267.9606	TV	NBC RT SH
1109	652131.6788	686026.7705	1264.9282	TV	NBC RT SH
1110	652289.9308	686047.3854	1260.2850	TV	NBC RT SH
1111	653132.2746	686103.8964	1253.3916	TV	NBC LT SH
1112	653281.5242	686123.6448	1253.7038	TV	NBC LT SH
1113	653656.1027	686216.2538	1256.3221	TV	NBC RT SH
1114	654320.0720	686367.9104	1272.4628	TV	NBC RT DITCH
1115	654654.3029	686476.2975	1281.4685	TV	NBC RT SH
1116	655488.1408	686602.2555	1267.7984	TV	NBC RT SH
1117	655955.4195	686639.6449	1243.1205	TV	NBC RT SH
1118	656408.6551	686715.7624	1242.9683	TV	NBC RT SH
1119	657666.0335	686409.2624	1264.4026	TV	NBC RT DITCH
1120	659162.8289	686342.8104	1324.9247	TV	NBC RT BANK
1121	662629.8502	687027.9471	1249.1223	TV	NBC RT SH
1122	663491.1120	687080.2344	1280.1556	TV	NBC RT SH
1123	664133.8485	687109.6462	1283.0675	TV	NBC RT BANK
1124	664577.8506	687134.3444	1263.2559	TV	NBC RT BANK
1125	666410.9373	687067.9295	1269.4739	TV	NBC RT SH
1126	666940.9168	686884.4132	1285.9908	TV	NBC RT SH
1127	667494.7950	686808.0927	1297.2215	TV	NBC RT DITCH
1128	652554.2047	686023.5932	1255.3723	TV	NBC LT SH
1129	654083.5336	686235.0595	1264.5286	TV	NBC LT SH

USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT.
A PROJECT CAF OF 0.9999386648 HAS BEEN USED TO COMPUTE THE ABOVE COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME 040440G1.CTL
HORIZONTAL DATUM: NAD 83 (1997)
VERTICAL DATUM: NAVD 88
REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL
IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED.
REFERENCE POINTS HAVE BEEN ESTABLISHED BY RESECTION.
REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL.

BASIS OF BEARINGS
GRID NORTH BASED ON GPS CONTROL AT POINT NUMBER 25,
ARKANSAS STATE PLANE GRID COORDINATES NORTH ZONE,
NORTHING 668335.4649, EASTING 686847.3483.
CONVERGENCE ANGLE 1°13'58.04" RIGHT
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.
NORTH ARROW SYMBOL/BEARING STATEMENT

Note for north arrow
BEARINGS ARE GRID

HWY. 265
SURVEY CONTROL DETAILS

r040518.dgn
11-15-10

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	90	270
				(2) SURVEY CONTROL DETAILS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

HWY. 265

POINT NO.	TYPE	STATION	NORTHING	EASTING
8000	POB	0+00.66	645163.1061	685616.8246
8001	PC	2+01.97	645361.7913	685584.3797
8003	PT	4+34.78	645593.7733	685570.3766
8054	PC	61+15.34	651208.8535	685869.4147
8056	PT	65+17.78	651589.3138	685987.6080
8057	PC	68+79.80	651950.7807	686007.6435
8059	PT	73+75.55	652443.9639	686056.4466
8060	PC	77+18.43	652783.4008	686104.9376
8062	PT	78+39.81	652903.7345	686120.8294
8063	PC	88+50.89	653907.4488	686242.5818
8065	PT	90+92.08	654142.0776	686296.5178
8066	PC	96+51.86	654671.4359	686478.5421
8068	PT	101+39.57	655147.7853	686576.8451
8069	PC	111+45.29	656150.6194	686653.0342
8071	PT	113+35.06	656337.1746	686686.0554
8072	PC	115+08.45	656504.0722	686733.0646
8074	PT	121+29.05	657106.6019	686669.8403
8075	PC	132+15.74	658068.6502	686164.5162
8077	PT	141+41.17	658958.2956	686165.3245
8078	PC	155+36.09	660192.0416	686816.2231
8080	PT	161+99.06	660828.0219	686981.3593
8081	PI	178+90.86	662519.3808	687019.6330
8082	PI	191+56.03	663783.1900	687078.2766
8083	PC	212+14.78	665839.6207	687176.0906
8085	PT	216+55.82	666273.3524	687112.7940
8086	PC	225+48.18	667115.4059	686817.4335
8088	PT	229+13.37	667475.2158	686776.1383

WEST ZION

POINT NO.	TYPE	STATION	NORTHING	EASTING
8090	POB	340+00.00	660541.5459	686578.5510
8091	POE	343+64.28	660527.8171	686942.5738

EAST ZION

POINT NO.	TYPE	STATION	NORTHING	EASTING
8092	POB	345+00.00	661441.9633	686992.6574
8093	POE	350+10.19	661442.0830	687502.8474

ALBRIGHT

POINT NO.	TYPE	STATION	NORTHING	EASTING
8094	POB	346+40.69	661441.9963	687133.3523
8095	POE	349+43.67	661442.0674	687436.3230

IVEY LN

POINT NO.	TYPE	STATION	NORTHING	EASTING
8096	POB	20+00.00	667540.3062	687335.3445
8097	PI	23+99.99	667565.4579	686936.1439
8098	POE	26+08.94	667579.1615	686727.6427

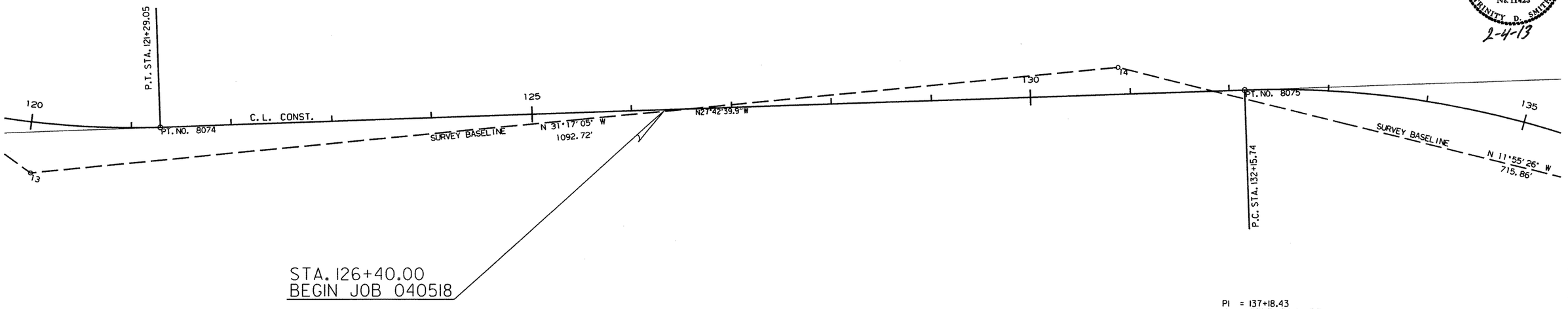
11-15-10 r040518.dgn

HWY. 265
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.		040518	91	270

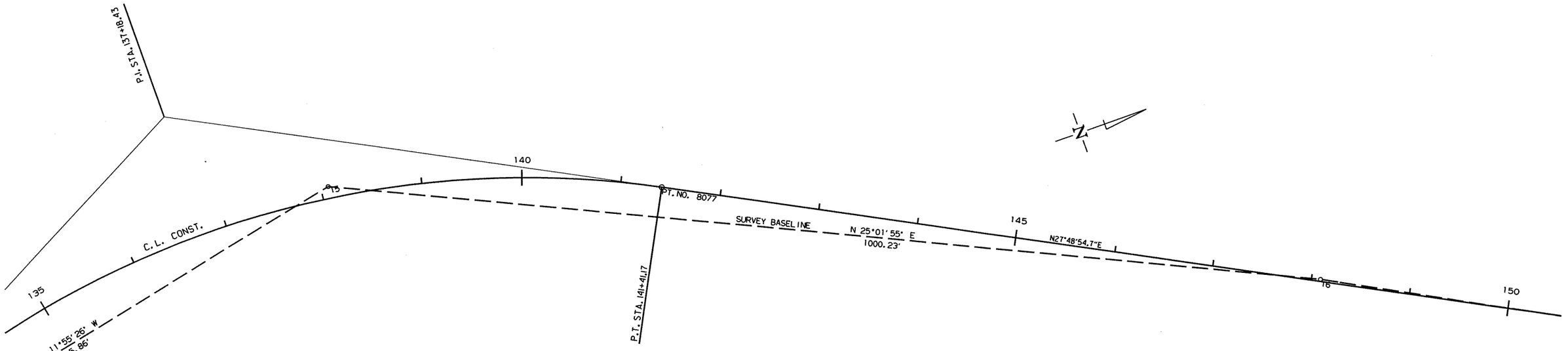
(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



STA. 126+40.00
BEGIN JOB 040518

PI = 137+18.43
Δ = 55° 31' 34.6" RT.
D = 6°00'
T = 503.69'
L = 925.44'
PC = 132+15.74
PT = 141+41.17
e = 0.035'/'
Ls = 250'



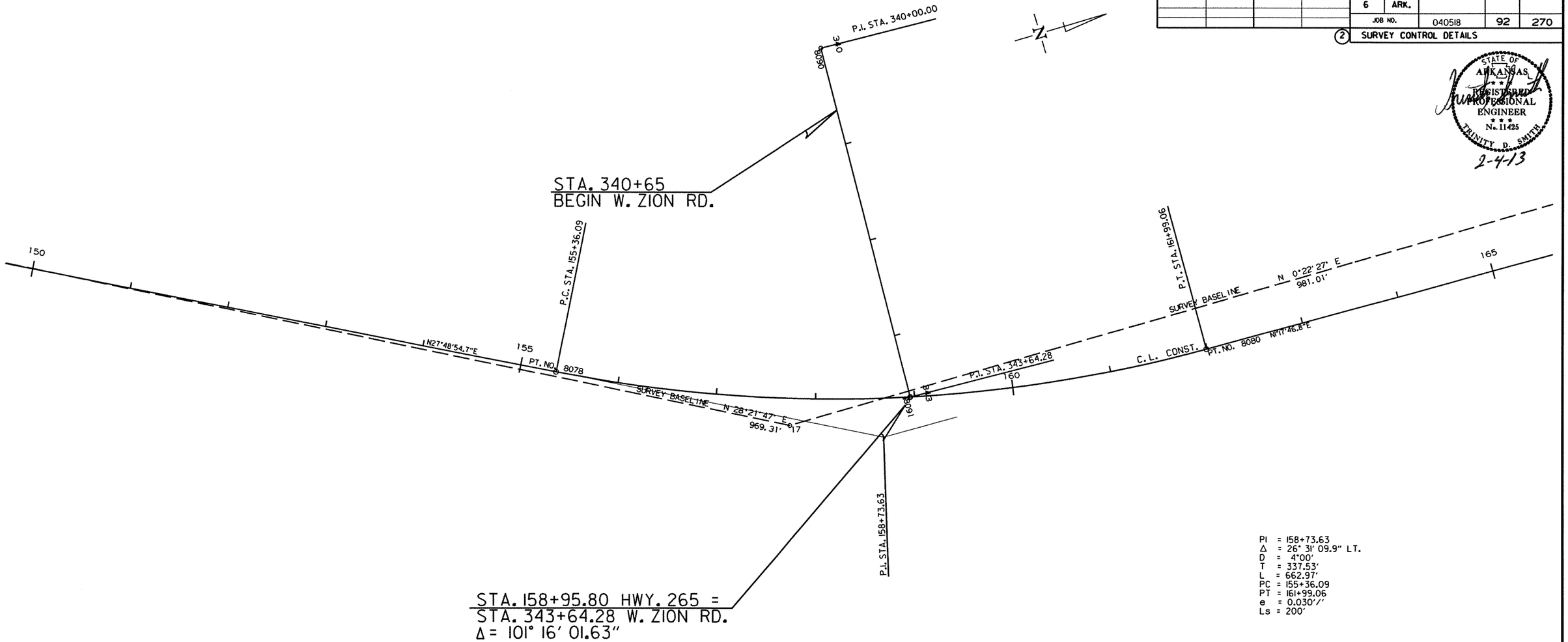
PI = 137+18.43
Δ = 55° 31' 34.6" RT.
D = 6°00'
T = 503.69'
L = 925.44'
PC = 132+15.74
PT = 141+41.17
e = 0.035'/'
Ls = 250'

HWY. 265
SURVEY CONTROL DETAILS

11-15-10 r040518.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.		040518	92	270
				(2)	SURVEY CONTROL DETAILS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



PI = 158+73.63
Δ = 26° 31' 09.9" LT.
D = 4°00'
T = 337.53'
L = 662.97'
PC = 155+36.09
PT = 161+99.06
e = 0.030'/'
Ls = 200'

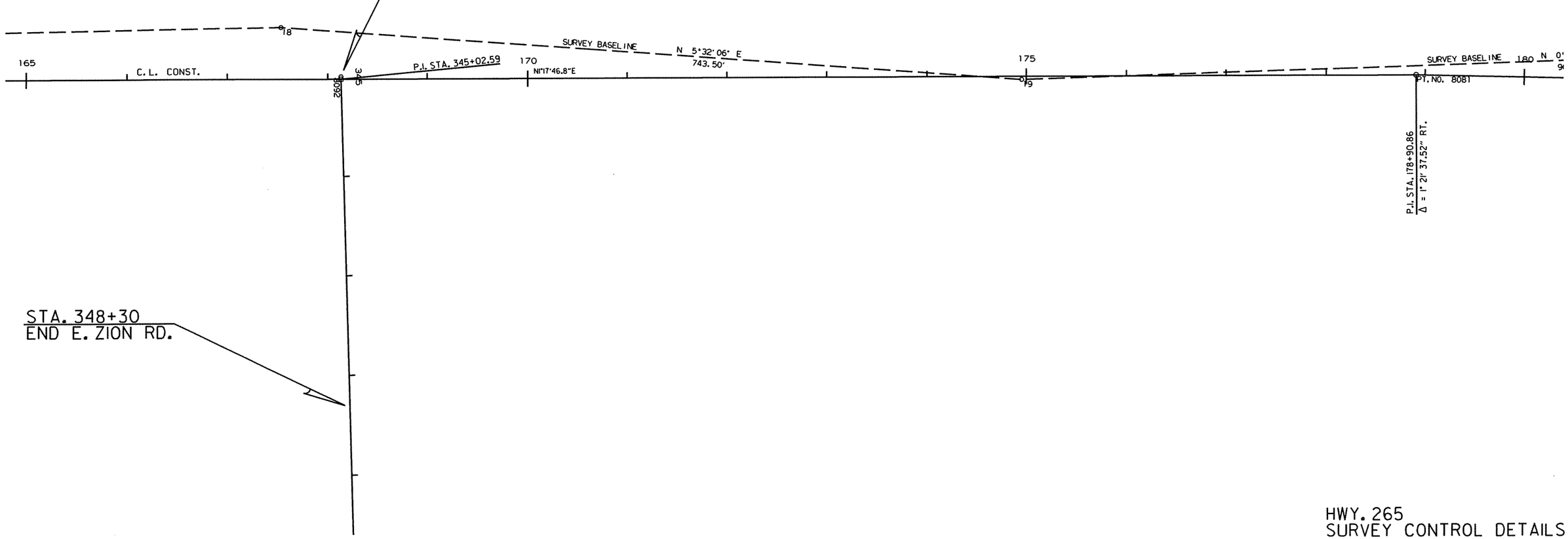
HWY. 265
SURVEY CONTROL DETAILS

11-15-10 r040518.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.		040518	93	270

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



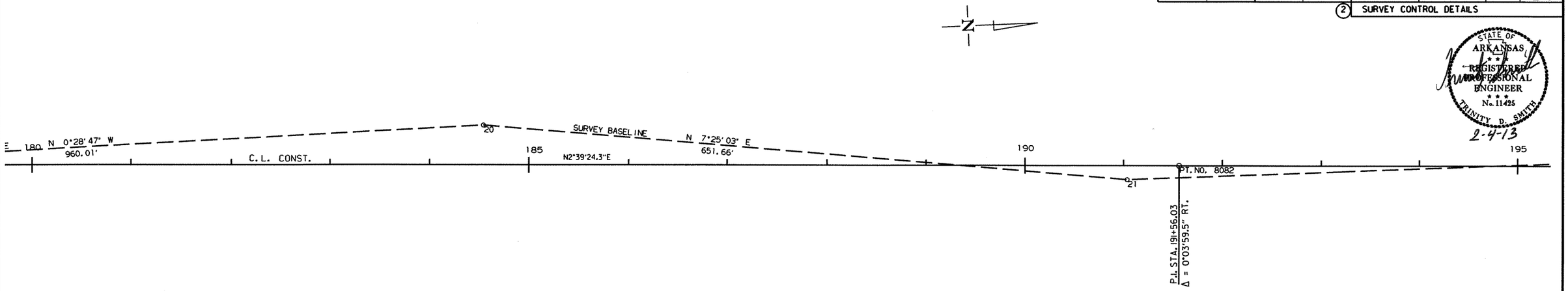
HWY. 265
SURVEY CONTROL DETAILS

11-15-10 r040518.dgn

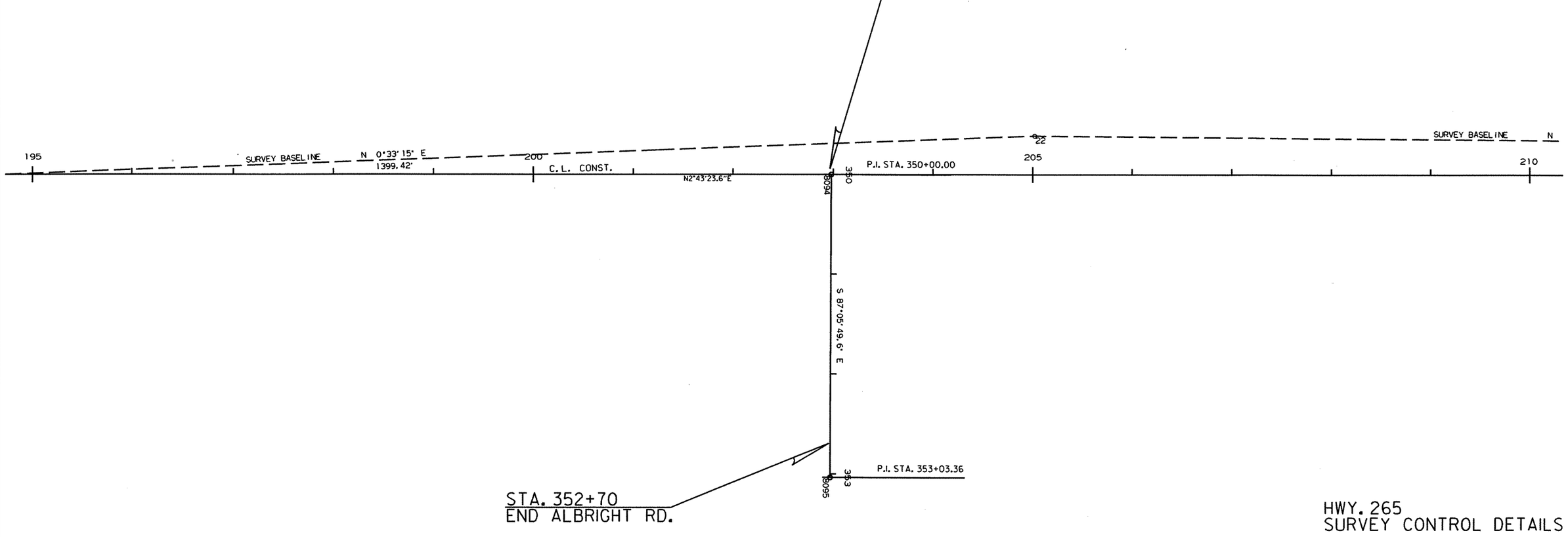
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	94	270

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



STA. 202+98.05 HWY. 265 =
STA. 350+00.00 ALBRIGHT RD.
Δ= 90° 00' 00.0"



STA. 352+70
END ALBRIGHT RD.

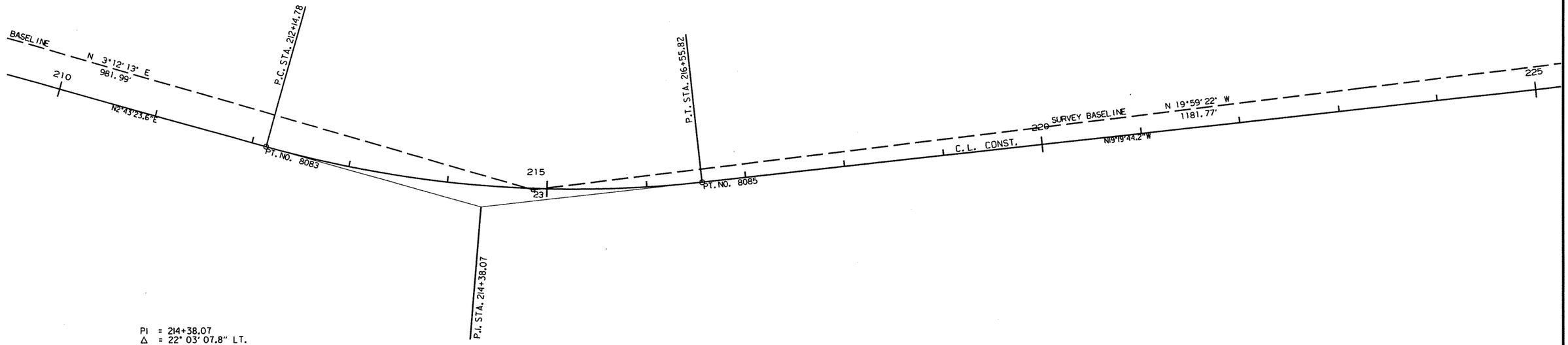
HWY. 265
SURVEY CONTROL DETAILS

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11-15-10

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	95	270

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



PI = 214+38.07
Δ = 22° 03' 07.8" LT.
D = 5°00'
T = 223.28'
L = 441.04'
PC = 212+14.78
PT = 216+55.82
e = 0.030'/'
Ls = 200'

11-15-10 r-040518.dgn

HWY. 265
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.		040518	96	270

(2) SURVEY CONTROL DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 230+14.01 HWY. 265 =
STA. 25+49.39 IVEY LN.
Δ= 87° 31' 32.61"

STA. 230+16.00
END JOB 040518

P.I. STA. 227+33.86

PT. NO. 8086

N19°19'44.2"W

N6°14'04.6"E

PT. NO. 8088

C.L. CONST.

SURVEY BASELINE N 6°40'12" E 1163.84'

N6°14'04.6"E

POE 236+00.00

PT. NO.

P.C. STA. 225+48.18

PI = 227+33.86
Δ = 25° 33' 48.7" RT.
D = 7°00'
T = 185.69'
L = 365.19'
PC = 225+48.18
PT = 229+13.37
e = 0.037'/'
Ls = 250'

P.T. STA. 229+13.37

P.I. STA. 26+08.94

8098

8097

P.I. STA. 23+99.99

P.I. STA. 23+99.99

STA. 22+33
END IVEY LN.

HWY. 265
SURVEY CONTROL DETAILS

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	97	270
				(2) PLAN SHEET				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 126+65 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& OPENING IN BACK
CONNECT TO EXISTING 36" STORM SEWERON LT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 4' 10"

STA. 126+55 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.1 SQ. YDS.

STA. 130+73 IN PLACE
24"x30' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE

STA. 131+00 - CONSTRUCT
D.I. ON LT.
& 24" x 19' R.C. STUB INLET
WITH FES.
& 30" x 296' PIPE OUTLET
CONNECT TO D.I. @ STA. 128+00 LT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 10' 10"

STA. 134+83 IN PLACE
36"x41' PLASTIC PIPE CULVERT
LT. SIDE DRAIN
REMOVE

STA. 132+00 - CONSTRUCT
D.I. IN MEDIAN ON LT. WITH 8' EXTENSION
& 18" x 39' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 132+00 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 7"

STA. 128+00 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 30" x 130' PIPE OUTLET
CONNECT TO D.I. @ STA. 126+65 LT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 5' 10"

STA. 130+70 CONSTRUCT
APPROACH ON LT. = 20 CU. YDS.

STA. 134+80 INSTALL
22" x 15" x 32' ARCH PIPE
LT. SIDE DRAIN
CONSTRUCT APPROACH = 25 CU. YDS.

STA. 135+00 - CONSTRUCT
D.I. IN MEDIAN ON LT. WITH 8' EXTENSION
& 18" x 39' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 135+00 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 5"

STA. 126+40.00
BEGIN JOB 040518
LOG MILE = 4.730

STA. 130+57 CONSTRUCT
APPROACH ON RT. = 85 CU. YDS.

PI = 137+18.43
Δ = 55° 31' 34.6" RT.
D = 6°00'
T = 503.69'
L = 925.44'
PC = 132+15.74
PT = 141+41.17
e = 0.035'/'
Ls = 250'

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	LIN. FT.	EACH
127+56	135+10	RT.	754	
132+80	135+00	LT.	256	1 GATE

STA. 126+65 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
CONNECT TO EXISTING 18" STORM SEWER
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 0"

STA. 131+00 - CONSTRUCT
D.I. ON RT.
& 30" x 22' R.C. STUB INLET
WITH FES.
& 30" x 70' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 131+00 LT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 9' 4"

STA. 132+00 - CONSTRUCT
D.I. ON RT.
& 18" x 96' PIPE OUTLET
CONNECT TO D.I. @ STA. 131+00 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 4"

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
127+56	135+10	RT.	D	754

STA. 130+85 IN PLACE
24"x74' R.C. PIPE CULVERT
CROSS DRAIN
REMOVE

STA. 135+00 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 18" x 285' PIPE OUTLET
CONNECT TO D.I. @ STA. 132+00 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 7"

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11-15-10

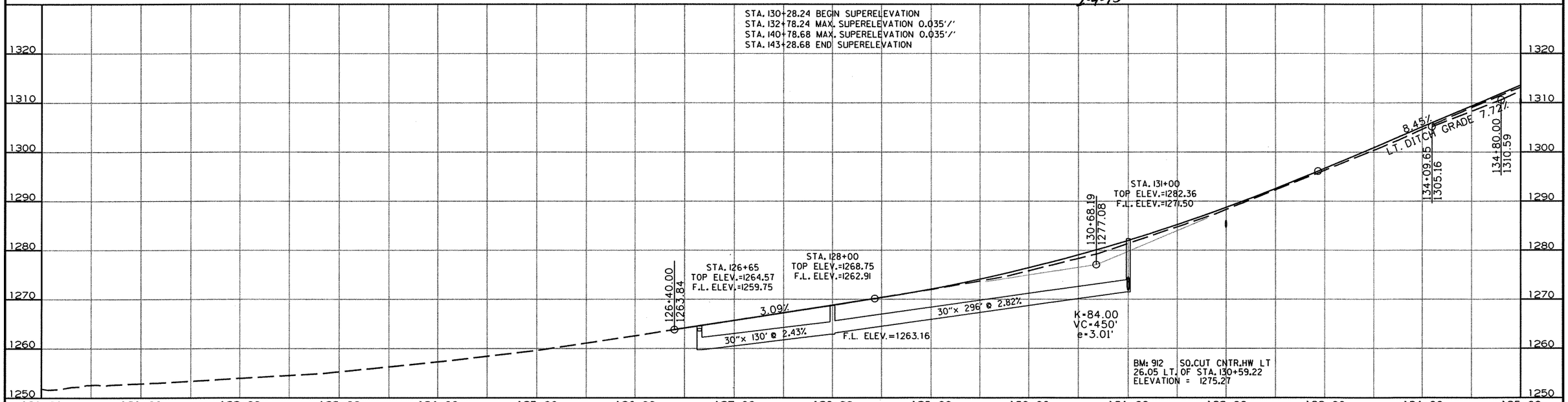
HWY. 265

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	98	270
				(2) PROFILE SHEETS				

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REGISTERED PROFESSIONAL ENGINEER
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1-29-13

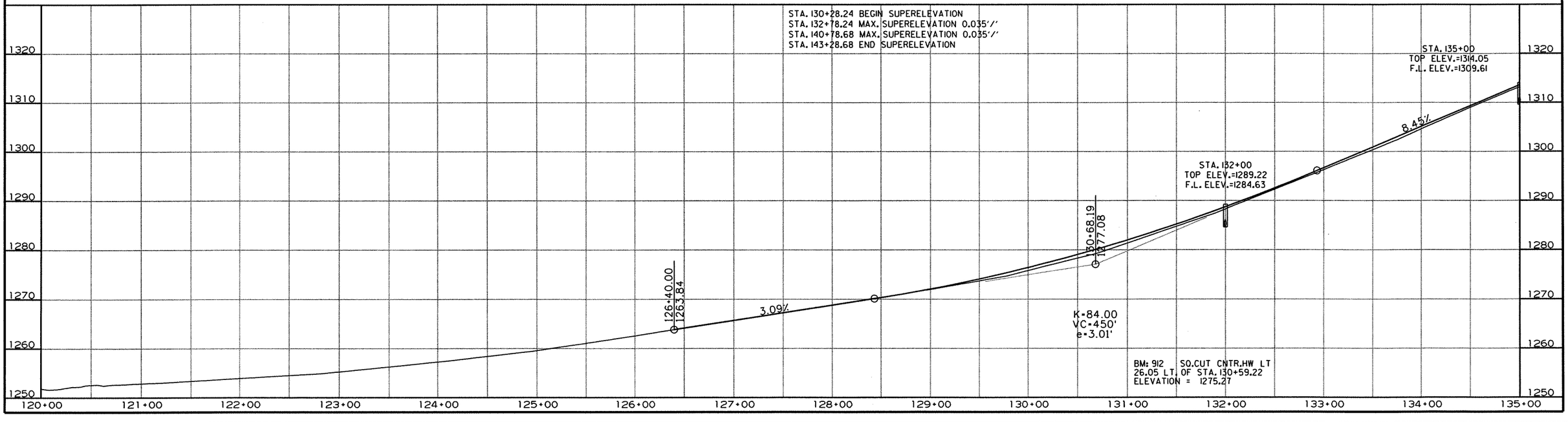
NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

HWY. 265 LT. SIDE STORM SEWER



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

HWY. 265 MEDIAN STORM SEWER



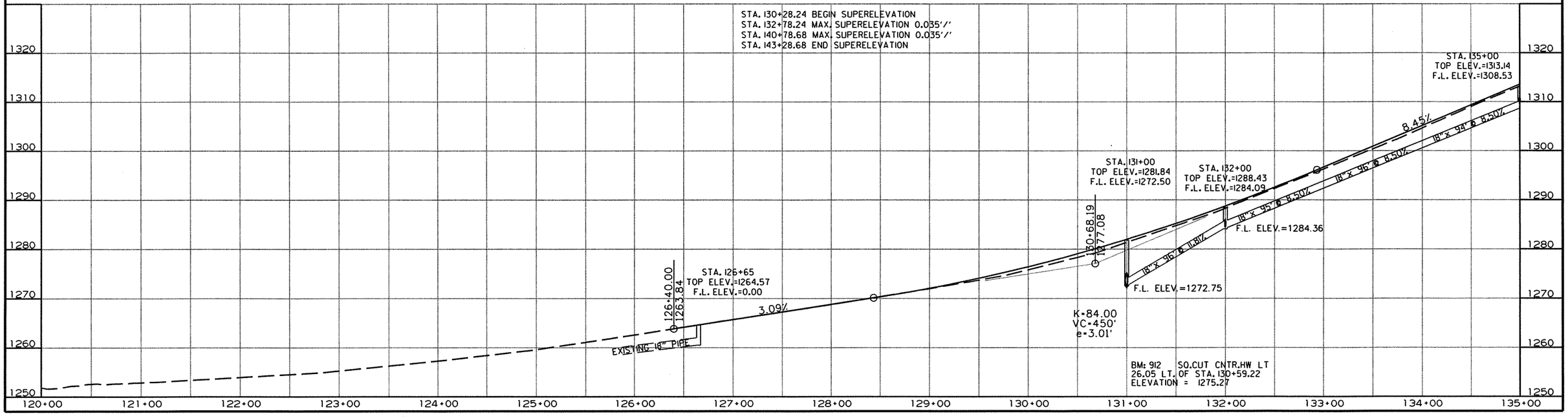
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11-15-10

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	99	270
				(2) PROFILE SHEETS				

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

HWY. 265 RT. SIDE STORM SEWER



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

STA. 139+55 IN PLACE
18" x 60' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE

STA. 140+52 IN PLACE
18" x 36' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE

STA. 143+23 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 3.5 SQ. YDS.

STA. 144+06 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 3.2 SQ. YDS.

REMOVAL OF FENCE

STA.	STA.	LIN. FT.	SIDE	GATE
135+00	139+60	490	LT.	1 EACH
149+10	150+12	150	LT.	

STA. 140+38 CONSTRUCT
APPROACH ON LT. = 15 CU. YDS.
AND CONSTRUCT CONNECTION
APPROACH ON LT. = 15 CU. YDS.

STA. 139+45 CONSTRUCT
APPROACH ON LT. = 20 CU. YDS. UNCLASSIFIED EXCAVATION

STA. 141+50 - CONSTRUCT
JUNCTION BOX ON LT.
& 18" x 135' PIPE CULVERT
CONNECT TO D.I. @ STA. 142+89 LT.
TYPE ST = 4' x 4'
H = 5' 5"

STA. 142+89 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 18" x 207' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 145+00 LT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 5' 6"

STA. 145+00 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 24" x 48" R.C. STUB OUTLET
WITH FES.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 8' 1"

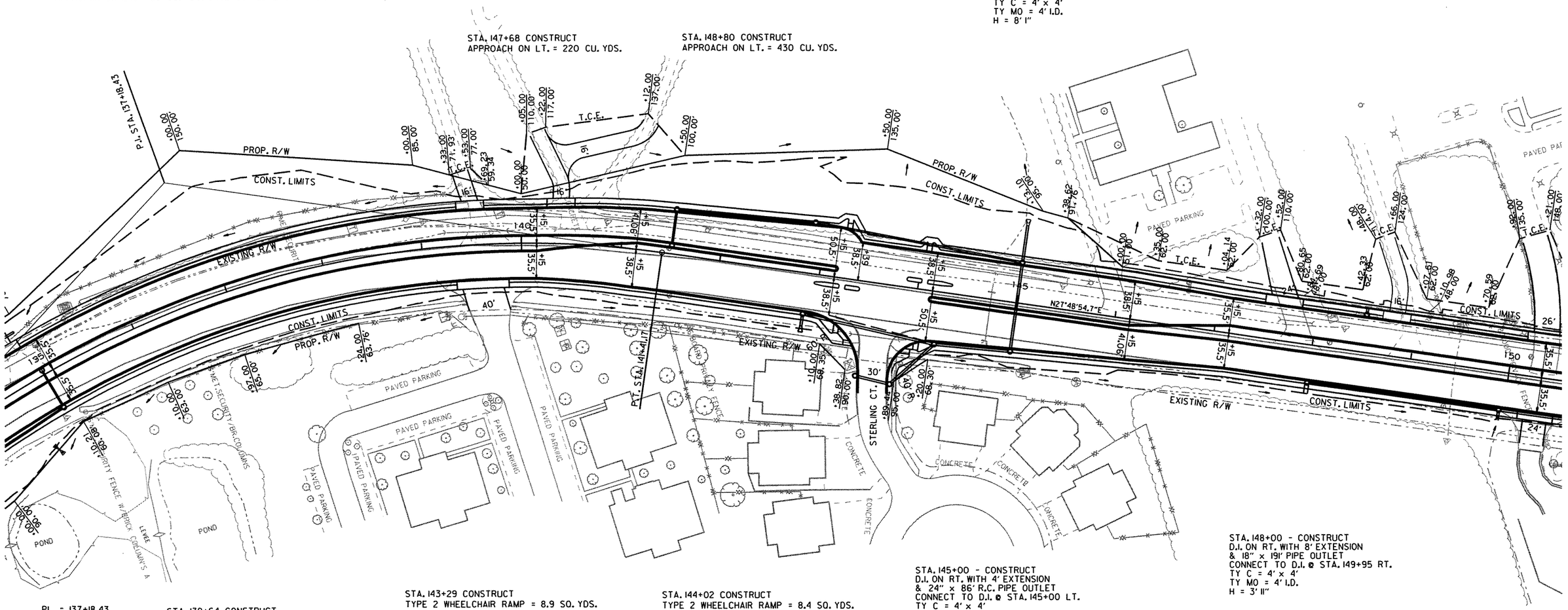
STA. 147+80 IN PLACE
18" x 32' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE

STA. 148+50 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 18" x 5' R.C. STUB OUTLET
WITH FES.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 4"

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STA. 147+68 CONSTRUCT
APPROACH ON LT. = 220 CU. YDS.

STA. 148+80 CONSTRUCT
APPROACH ON LT. = 430 CU. YDS.

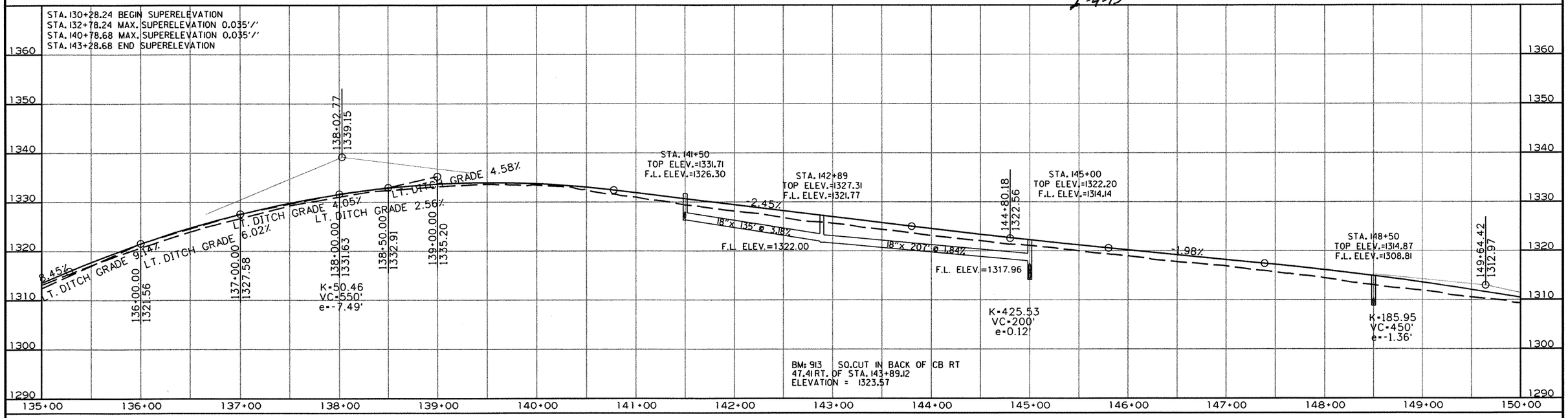

PI STA. 137+18.43
PROP. R/W
CONST. LIMITS
EXISTING R/W
T.C.E.
PAVED PARKING
PAVED PARKING
PAVED PARKING

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	101	270
				(2)	PROFILE SHEETS			

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REGISTERED PROFESSIONAL ENGINEER
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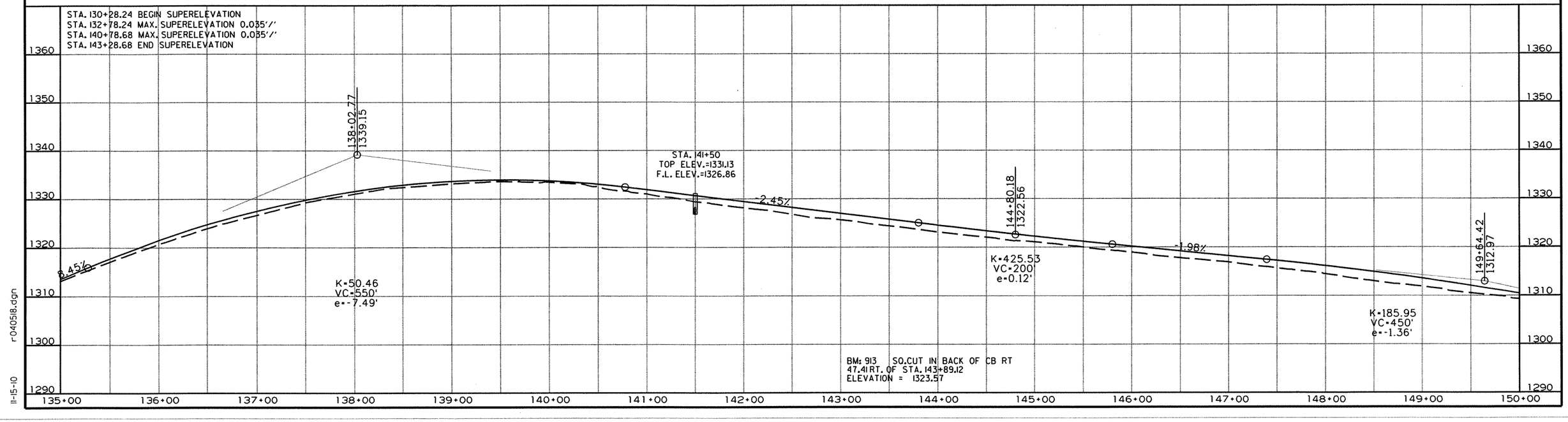
NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

HWY. 265 LT. SIDE STORM SEWER



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

HWY. 265 MEDIAN STORM SEWER



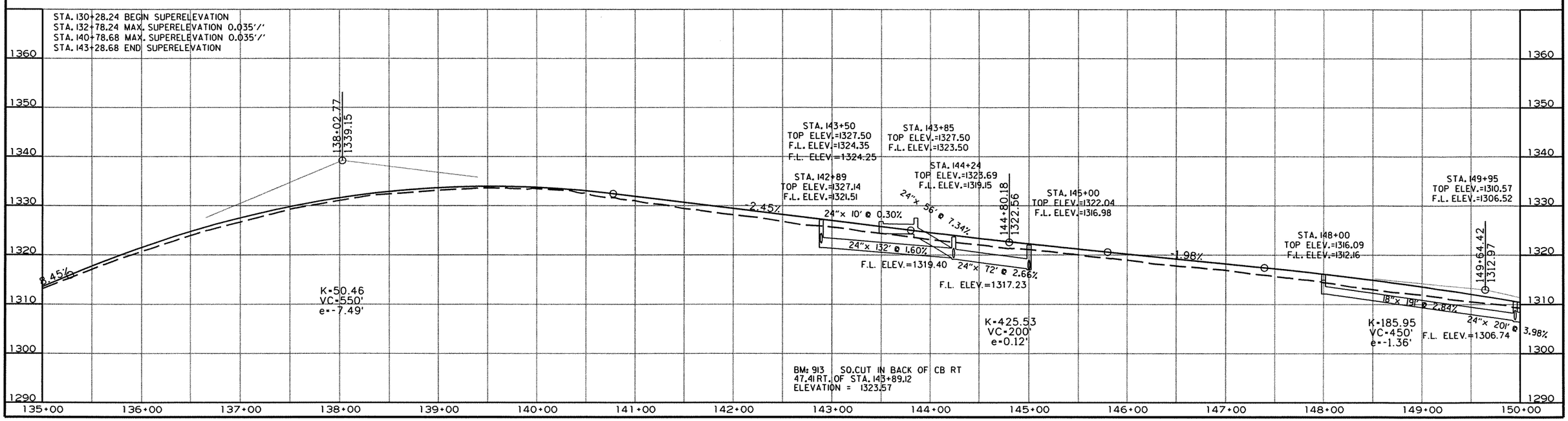
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11-15-10

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	102	270
				(2) PROFILE SHEETS				

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

HWY. 265 RT. SIDE STORM SEWER



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				6	ARK.			
				JOB NO.		040518	103	270
				(2) PLAN SHEET				

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STA. 152+25 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 18" x 22' PIPE OUTLET
CONNECT TO D.I. @ STA. 154+50 LT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 3"

STA. 154+50 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 18" x 182' PIPE OUTLET
CONNECT TO D.I. @ STA. 156+40 LT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 3' 10"

STA. 156+40 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 18" x 16' PIPE OUTLET
CONNECT TO J.B. @ STA. 156+60 LT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 5' 3"

STA. 156+60 - CONSTRUCT
JUNCTION BOX ON LT.
CONNECT TO EXISTING 30" PIPE CULVERT
TYPE ST = 4' x 4'
H = 7' 8"

STA. 157+83 - CONSTRUCT
D.I. ON LT.
& 18" x 115' PIPE OUTLET
CONNECT TO J.B. @ STA. 156+60 LT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 3"

STA. 161+57 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 24" x 14' R.C. STUB INLET
(CLASS III) (TYPE 3 BEDDING)
WITH FES.
& 30" x 45' PIPE OUTLET
(TYPE V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 161+57 IN MEDIAN
TY C = 4' x 4'
TY MO = 5' I.D.
H = 6' 4"

STA. 161+57 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 30" x 32' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO J.B. @ STA. 161+57 RT.
TY C = 4' x 3'
H = 7' 6"

STA. 163+87 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 24" x 5" R.C. STUB INLET
WITH FES.
& 24" x 183' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 162+00 LT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 6' 5"

STA. 163+12 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.3 SQ. YDS.

STA. 163+72 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.2 SQ. YDS.

STA. 150+33 CONSTRUCT
APPROACH ON LT. = 525 CU. YDS.

STA. 156+70 CONSTRUCT
APPROACH ON LT. = 120 CU. YDS.

STA. 152+64 CONSTRUCT
APPROACH ON LT. = 340 CU. YDS.
ADDITIONAL FOR SIDEWALK = 100 CU. YDS.

STA. 158+37 CONSTRUCT
TYPE 2 WHEELCHAIR RAMP = 8.4 SQ. YDS.

STA. 159+23 CONSTRUCT
TYPE 2 WHEELCHAIR RAMP = 7.6 SQ. YDS.

STA. 340+65
BEGIN W. ZION RD.

P.I. STA. 340+00.00

STA. 162+00 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 30" x 37' PIPE OUTLET
CONNECT TO D.I. @ STA. 161+57 LT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 5' 10"

PI = 158+73.63
Δ = 26° 31' 09.9" LT.
D = 4°00'
T = 337.53'
L = 662.97'
PC = 155+36.09
PT = 161+99.06
e = 0.030'/'
Ls = 200'

STA. 163+40 IN PLACE
18" x 40' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE

STA. 158+95.80 HWY. 265 =
STA. 343+64.28 W. ZION RD.
Δ = 101° 16' 01.63"

P.I. STA. 343+64.28

P.I. STA. 158+73.63

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	LIN. FT.
159+13	163+20	RT.	437
163+47	165+00	RT.	167

STA. 150+33 CONSTRUCT
APPROACH ON RT.

STA. 152+00 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 24" x 196' PIPE OUTLET
CONNECT TO D.I. @ STA. 154+00 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 3"

STA. 154+00 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 30" x 207' PIPE OUTLET
CONNECT TO D.I. @ STA. 156+10 RT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 4' 2"

STA. 156+10 - CONSTRUCT
D.I. ON RT.
& 18" x 9' R.C. STUB INLET
(CLASS III) (TYPE 3 BEDDING)
WITH FES.
& 30" x 38' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 156+40 IN MEDIAN
TY C = 4' x 4'
TY MO = 4' I.D.
H = 5' 5"

STA. 156+40 - CONSTRUCT
D.I. IN MEDIAN ON LT. WITH 4' EXTENSION
& 30" x 38' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 156+60 LT.
TY C = 4' x 3'
H = 5' 0"

STA. 156+22 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.0 SQ. YDS.

STA. 156+89 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.5 SQ. YDS.

STA. 150+34 IN PLACE
24" x 72' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 156+60 IN PLACE
24" x 55' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 159+36 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 3.8 SQ. YDS.

STA. 161+00 - CONSTRUCT
D.I. IN MEDIAN ON RT. WITH 4' EXTENSION
& 18" x 54' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 161+57 IN MEDIAN
TY C = 4 x 3'
H = 3' 4"

STA. 157+83 - CONSTRUCT
JUNCTION BOX IN MEDIAN ON LT.
& 18" x 38' PIPE OUTLET
(CLASS III) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 157+83 LT.
TYPE ST = 4' x 3'
H = 4' 8"

STA. 158+35 - CONSTRUCT
D.I. IN MEDIAN ON LT. WITH 4' EXTENSION
& 18" x 48' R.C. PIPE OUTLET
CONNECT TO J.B. @ STA. 157+83 IN MEDIAN
TY C = 4' x 3'
H = 3' 6"

STA. 163+39 IN PLACE
24" x 30' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 161+57 - CONSTRUCT
JUNCTION BOX ON RT.
& 30" x 20' STUB IN
WITH FES
CONNECT TO D.I. @ STA. 161+57 IN MEDIAN
TYPE E = 4' x 4'
H = 8' 7"

STA. 162+00 - CONSTRUCT
D.I. IN MEDIAN ON RT. WITH 4' EXTENSION
& 18' x 39' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 161+57 IN MEDIAN
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 0"

STA. 158+60 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 3.6 SQ. YDS.

STA. 163+00 - CONSTRUCT
D.I. ON RT.
& 18" x 140' PIPE OUTLET
CONNECT TO D.I. @ STA. 161+57 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 5"

STA. 163+87 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 18" x 83' PIPE OUTLET
CONNECT TO D.I. @ STA. 163+00 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 11"

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
159+13	163+20	RT	D	423

STA. 163+40 CONSTRUCT
APPROACH ON RT. = 88 CU. YDS.

HILLSIDE TERRACE

BEAR MARKER POST POOR

EXISTING R/W

PROP. R/W

CONST. LIMITS

EXIST. ROW

T.C.E.

P.C.E.

PAVED PARKING

RANDAL PLACE

W. ZION RD.

100' TRANSITION

115' TAPER

N17°48'54"E

N17°46'8"E

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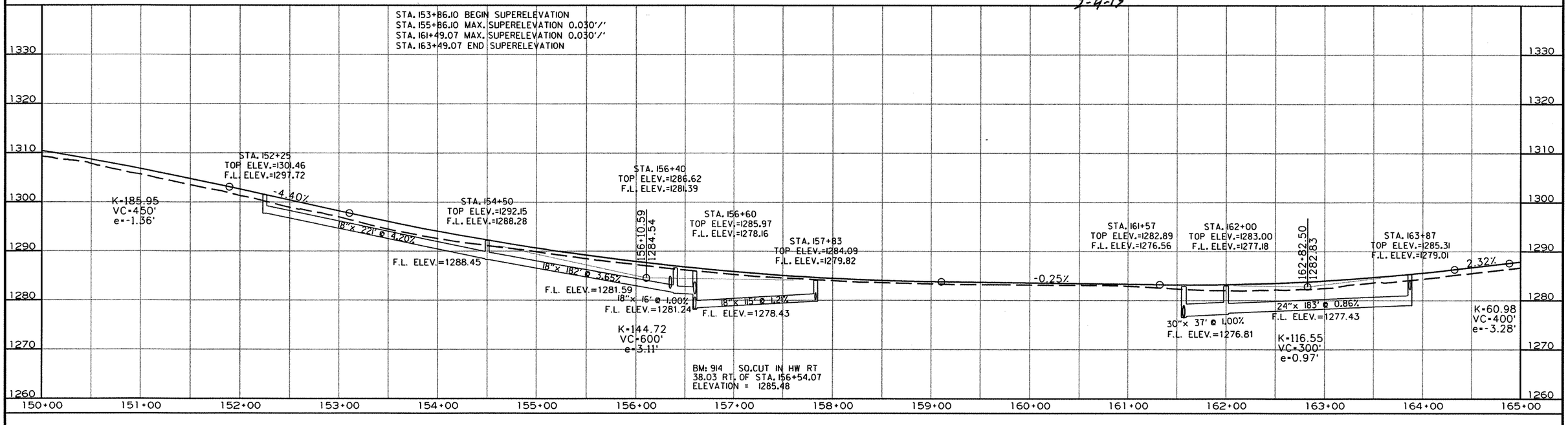
HWY. 265

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	104	270
				(2)	PROFILE SHEETS			

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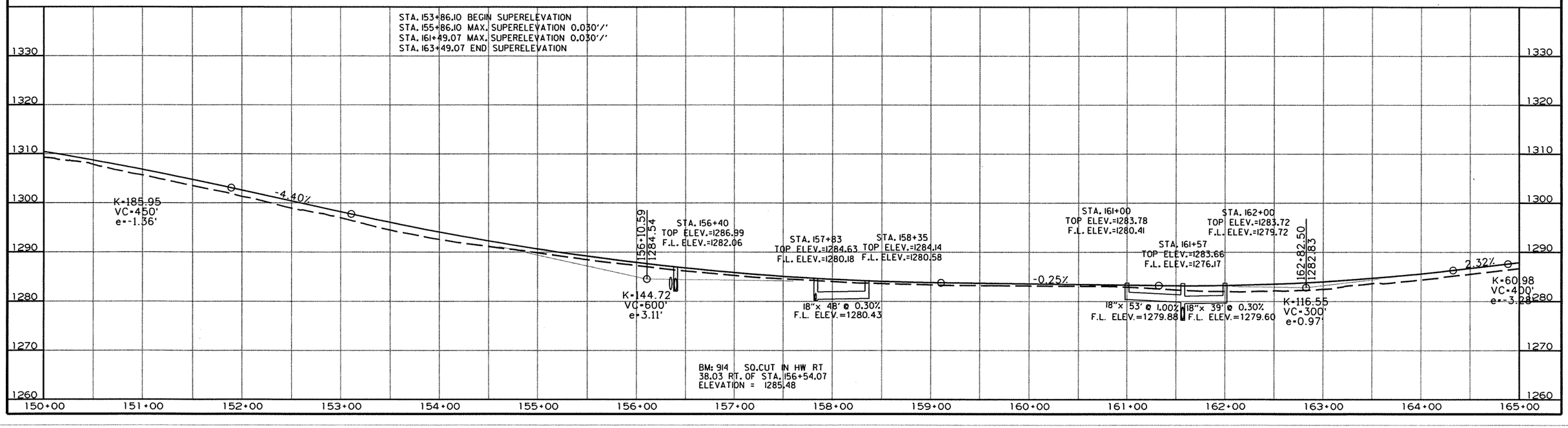
NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

HWY. 265 LT. SIDE STORM SEWER



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

HWY. 265 MEDIAN STORM SEWER



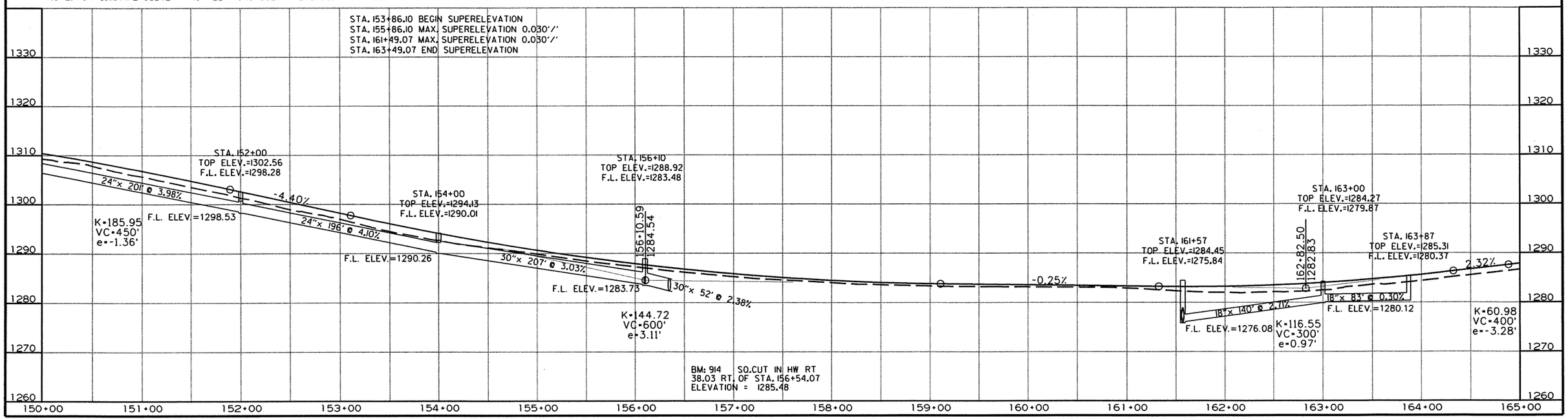
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11-15-10

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	105	270
				(2) PROFILE SHEETS				

STATE OF ARKANSAS
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TRINITY D. SMITH
2-4-13

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

HWY. 265 RT. SIDE STORM SEWER



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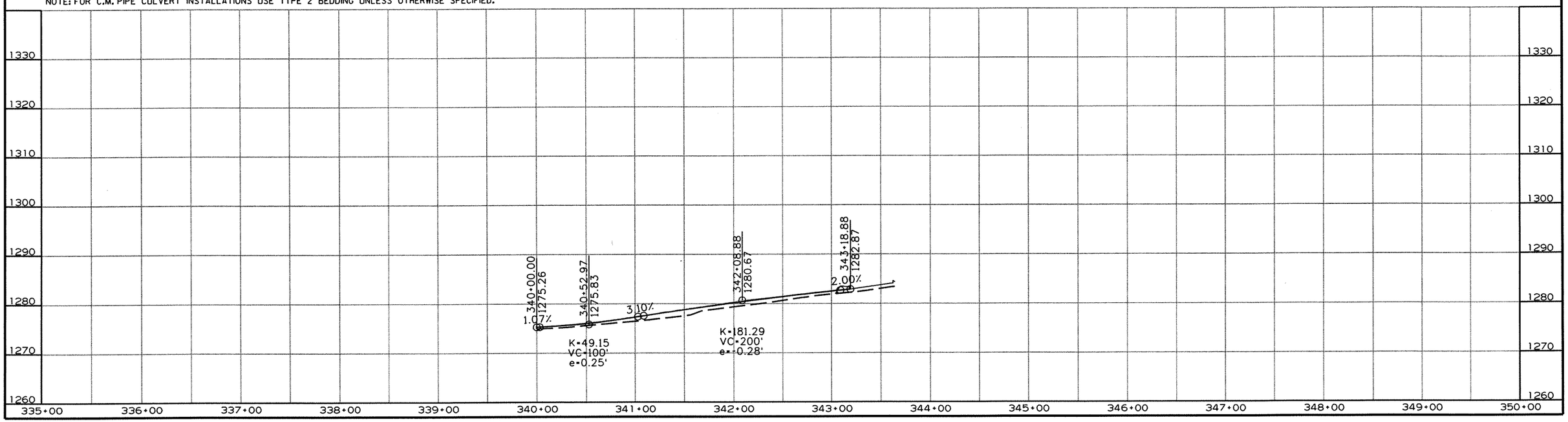
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	106	270

(2) PROFILE SHEETS

STATE OF ARKANSAS
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NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

WEST ZION RD.



r040518.dgn
11-15-10

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
4-9-2013				6	ARK.			
				JOB NO.		040518	107	270

(2) PLAN SHEET

STATE OF ARKANSAS
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STA. 167+73 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 3.8 SQ. YD.

STA. 168+54 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 3.3 SQ. YD.

REMOVAL AND DISPOSAL OF FENCE

STA.	STA.	SIDE	LIN. FT.
165+00	167+88	RT.	313
170+22	179+00	RT.	887

STA. 171+00 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 18" x 77' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 171+00 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 0"

STA. 173+67 IN PLACE
24" x 48' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE

STA. 173+81 CONSTRUCT
APPROACH ON LT. = 5 CU. YDS.

STA. 173+50 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 18" x 72' R.C. PIPE OUTLET
(CLASS III) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 173+50 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 0"

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
175+48	179+00	RT.	D	352

STA. 176+87 CONSTRUCT
APPROACH ON LT = 10 CU. YDS.

STA. 176+50 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 18" x 72' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 176+50 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 6"

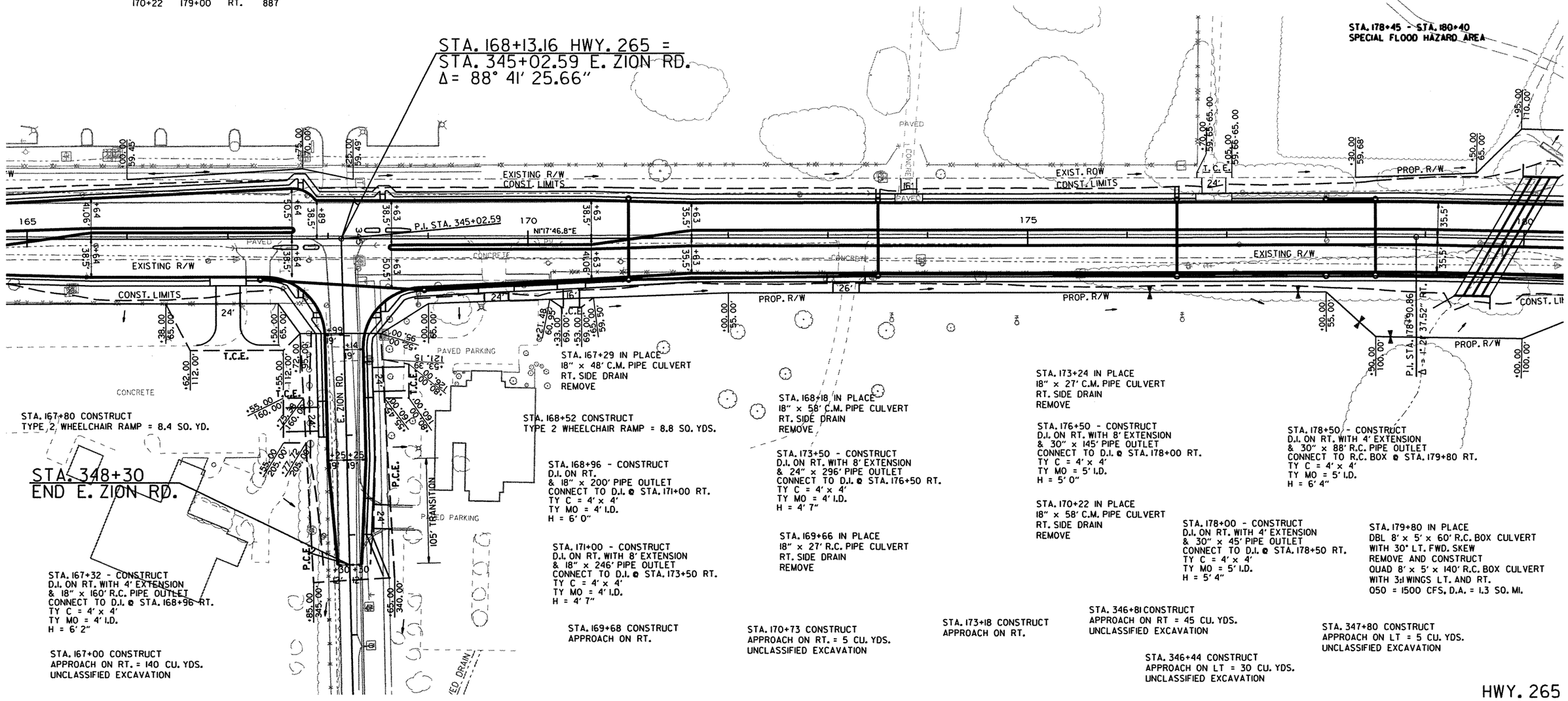
STA. 176+79 IN PLACE
24" x 30' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE

STA. 178+50 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 18" x 72' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 178+50 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 5' 11"

STA. 178+00 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 18" x 46' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 478+00 RT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 3' 8"

STA. 168+13.16 HWY. 265 =
STA. 345+02.59 E. ZION RD.
Δ = 88° 41' 25.66"

STA. 178+45 - STA. 180+40
SPECIAL FLOOD HAZARD AREA



STA. 167+80 CONSTRUCT
TYPE 2 WHEELCHAIR RAMP = 8.4 SQ. YD.

STA. 348+30
END E. ZION RD.

STA. 167+32 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 18" x 160' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 168+96 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 6' 2"

STA. 167+00 CONSTRUCT
APPROACH ON RT. = 140 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 167+29 IN PLACE
18" x 48' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 168+52 CONSTRUCT
TYPE 2 WHEELCHAIR RAMP = 8.8 SQ. YDS.

STA. 168+96 - CONSTRUCT
D.I. ON RT.
& 18" x 200' PIPE OUTLET
CONNECT TO D.I. @ STA. 171+00 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 6' 0"

STA. 171+00 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 18" x 246' PIPE OUTLET
CONNECT TO D.I. @ STA. 173+50 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 7"

STA. 169+68 CONSTRUCT
APPROACH ON RT.

STA. 168+18 IN PLACE
18" x 58' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 173+50 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 24" x 296' PIPE OUTLET
CONNECT TO D.I. @ STA. 176+50 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 7"

STA. 169+66 IN PLACE
18" x 27' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 170+73 CONSTRUCT
APPROACH ON RT. = 5 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 173+24 IN PLACE
18" x 27' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 176+50 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 30" x 145' PIPE OUTLET
CONNECT TO D.I. @ STA. 178+00 RT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 5' 0"

STA. 170+22 IN PLACE
18" x 58' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 173+18 CONSTRUCT
APPROACH ON RT.

STA. 346+81 CONSTRUCT
APPROACH ON RT = 45 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 346+44 CONSTRUCT
APPROACH ON LT = 30 CU. YDS.
UNCLASSIFIED EXCAVATION

STA. 178+50 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 30" x 88' R.C. PIPE OUTLET
CONNECT TO R.C. BOX @ STA. 179+80 RT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 6' 4"

STA. 178+00 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 30" x 45' PIPE OUTLET
CONNECT TO D.I. @ STA. 178+50 RT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 5' 4"

STA. 179+80 IN PLACE
DBL 8' x 5' x 60' R.C. BOX CULVERT
WITH 30° LT. FWD. SKEW
REMOVE AND CONSTRUCT
QUAD 8' x 5' x 140' R.C. BOX CULVERT
WITH 3:1 WINGS LT. AND RT.
Q50 = 1500 CFS, D.A. = 1.3 SQ. MI.

STA. 347+80 CONSTRUCT
APPROACH ON LT = 5 CU. YDS.
UNCLASSIFIED EXCAVATION

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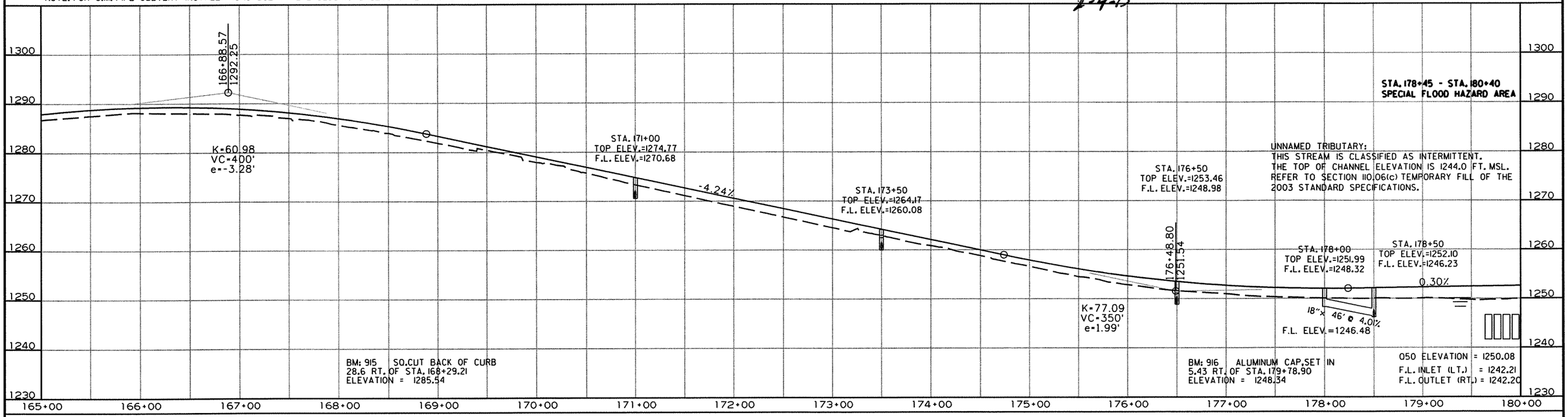
HWY. 265

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	108	270
				(2)	PROFILE SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-7-13

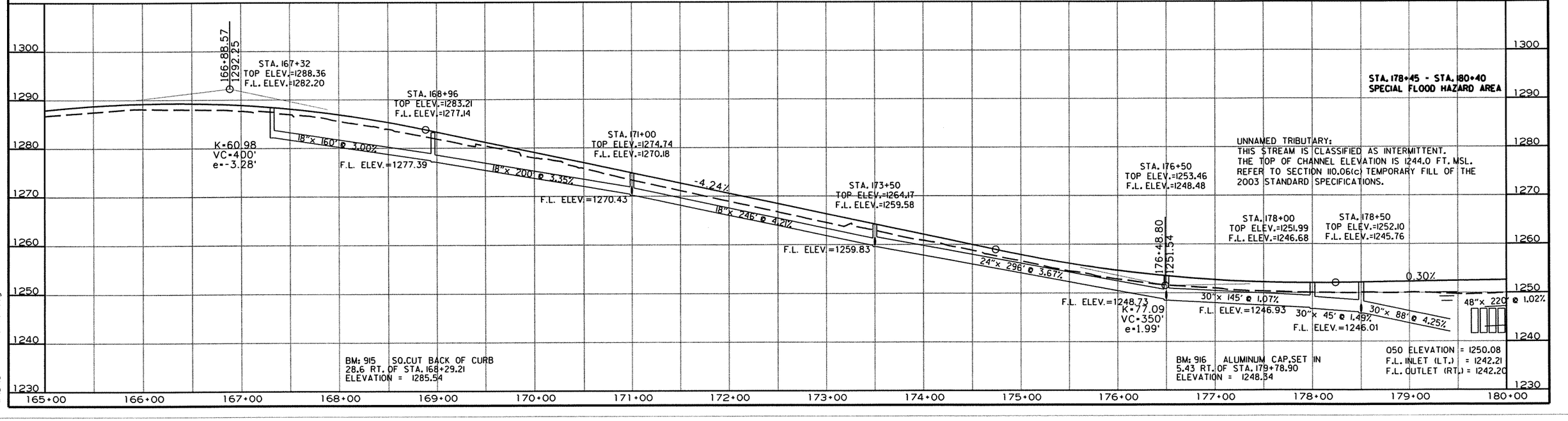
NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

HWY. 265 LT. SIDE STORM SEWER



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

HWY. 265 RT. SIDE STORM SEWER



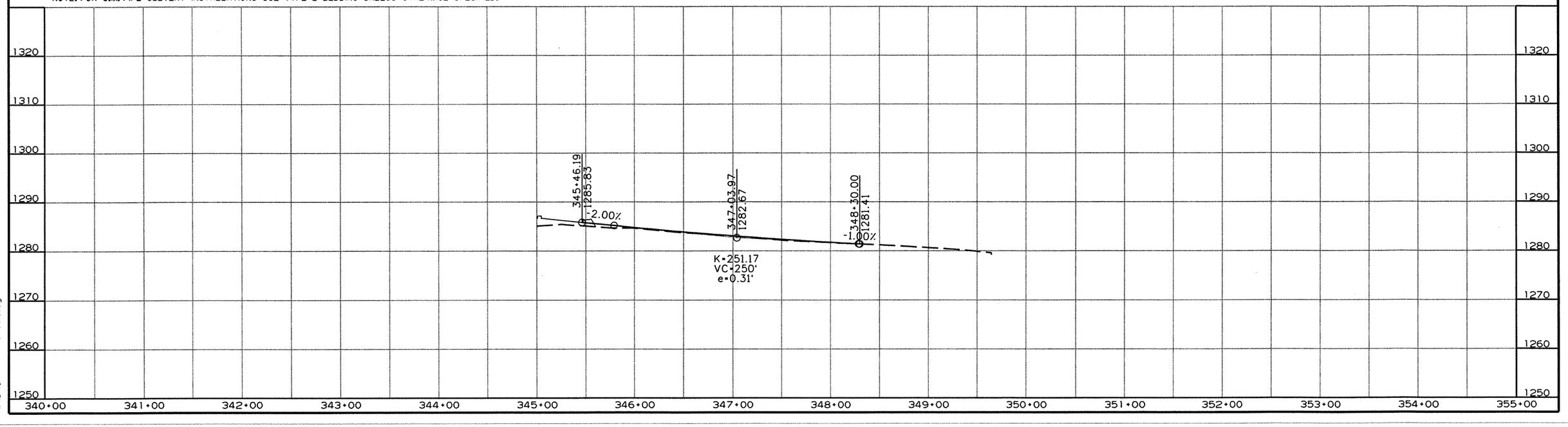
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11-15-10

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	109	270
				(2) PROFILE SHEETS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

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

EAST ZION RD.



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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	110	270
				(2) PLAN SHEET				

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STA. 182+00 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 18" x 81' R.C. PIPE OUTLET
(CLASS IV) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 182+00 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 5' 3"

STA. 185+26 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 18" x 89' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 185+26 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 5' 11"

STA. 188+00 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 18" x 72' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 188+00 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 0"

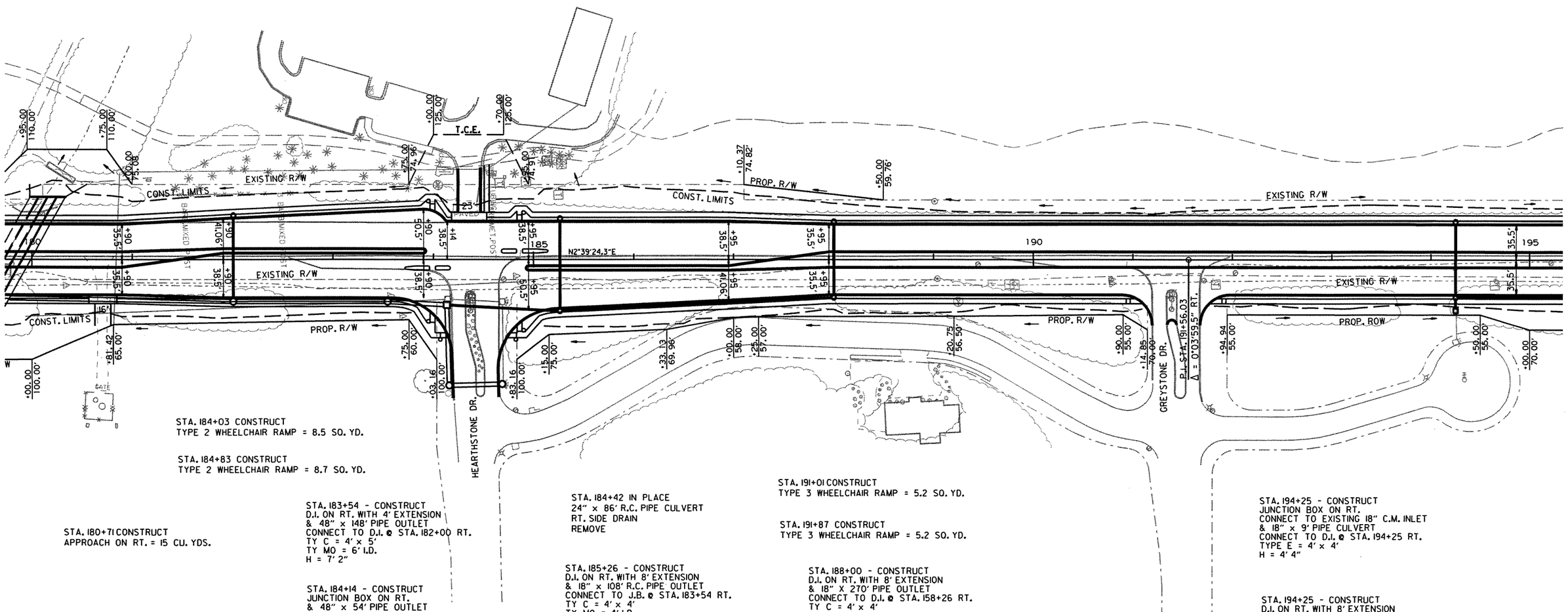
STA. 184+37 IN PLACE
12" x 50' PLASTIC PIPE CULVERT
LT. SIDE DRAIN
REMOVE

STA. 183+99 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 3.9 SQ. YD.

STA. 184+85 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 3.3 SQ. YD.

STA. 194+25 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 18" x 72' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 194+25 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 3' 7"

STA. 184+36 CONSTRUCT
APPROACH ON LT = 50 CU. YDS.



STA. 184+03 CONSTRUCT
TYPE 2 WHEELCHAIR RAMP = 8.5 SQ. YD.

STA. 184+83 CONSTRUCT
TYPE 2 WHEELCHAIR RAMP = 8.7 SQ. YD.

STA. 180+71 CONSTRUCT
APPROACH ON RT. = 15 CU. YDS.

STA. 183+54 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 48" x 148' PIPE OUTLET
CONNECT TO D.I. @ STA. 182+00 RT.
TY C = 4' x 5'
TY MO = 6' I.D.
H = 7' 2"

STA. 184+14 - CONSTRUCT
JUNCTION BOX ON RT.
& 48" x 54' PIPE OUTLET
CONNECT TO D.I. @ STA. 183+54 RT.
TYPE ST = 6' x 6'
H = 6' 11"

STA. 184+18 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 48" x 75' R.C. PIPE OUTLET
CONNECT TO J.B. @ STA. 183+54 RT.
TY C = 5' x 5'
TY MO = 6' I.D.
H = 5' 9"

STA. 182+00 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 48" x 220' R.C. PIPE OUTLET
CONNECT TO R.C. BOX @ STA. 179+80 RT.
TY C = 5' x 5'
TY MO = 6' I.D.
H = 7' 11"

STA. 184+42 IN PLACE
24" x 86' R.C. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 185+26 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 18" x 108' R.C. PIPE OUTLET
CONNECT TO J.B. @ STA. 183+54 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 6' 6"

STA. 184+66 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 48" x 47' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 184+18 RT.
TY C = 5' x 5'
TY MO = 6' I.D.
H = 5' 3"

STA. 191+01 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.2 SQ. YD.

STA. 191+87 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.2 SQ. YD.

STA. 188+00 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 18" X 270' PIPE OUTLET
CONNECT TO D.I. @ STA. 158+26 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 5' 4"

STA. 194+25 - CONSTRUCT
JUNCTION BOX ON RT.
CONNECT TO EXISTING 18" C.M. INLET
& 18" x 9' PIPE CULVERT
CONNECT TO D.I. @ STA. 194+25 RT.
TYPE E = 4' x 4'
H = 4' 4"

STA. 194+25 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 18" x 296' PIPE OUTLET
CONNECT TO D.I. @ STA. 197+25 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 1"

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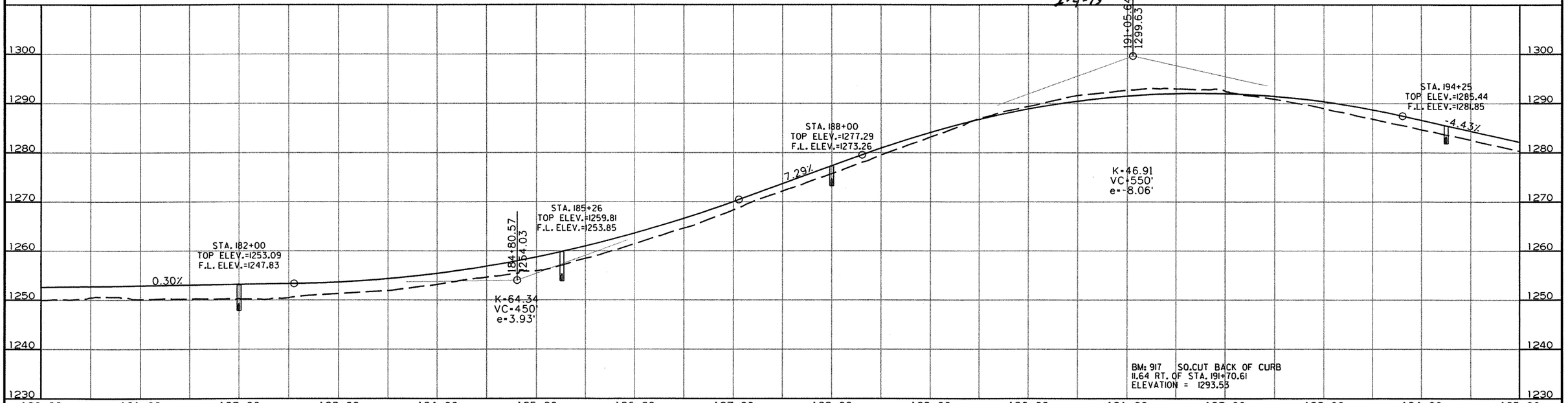
HWY. 265

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	111	270
				(2) PROFILE SHEETS				

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REGISTERED PROFESSIONAL ENGINEER
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TRINITY D. SMITH
1-2-13

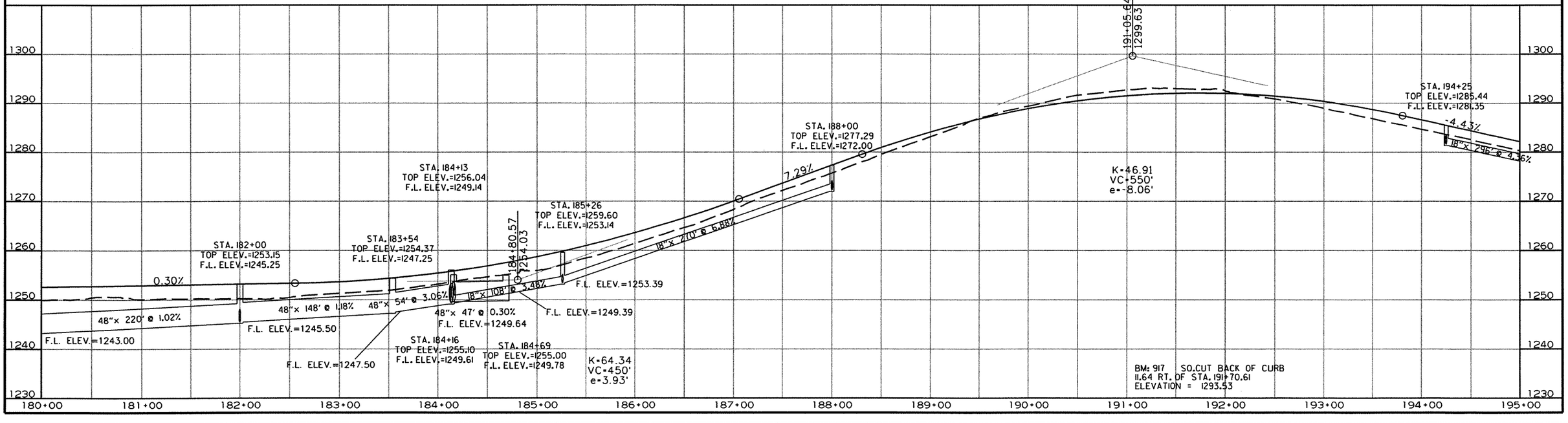
NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

HWY. 265 LT. SIDE STORM SEWER



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

HWY. 265 RT. SIDE STORM SEWER



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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	112	270
				(2) PLAN SHEET				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
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STA. 197+80 IN PLACE
24" x 40' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE

STA. 198+25 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 24" x 72' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 198+25 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 0"

STA. 201+50 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 18" x 60' PIPE OUTLET
CONNECT TO D.I. @ STA. 202+14 LT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 6' 3"

STA. 197+80 CONSTRUCT
APPROACH ON LT = 20 CU. YDS.

STA. 202+55 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 3.8 SQ. YD.

STA. 203+37 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 3.3 SQ. YD.

STA. 202+14 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 30" x 182' PIPE OUTLET
CONNECT TO D.I. @ STA. 204+00 LT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 10' 2"

STA. 204+00 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 30" x 36' R.C. STUB OUTLET
WITH FES.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 11' 0"

STA. 206+40 - CONSTRUCT
D.I. ON LT.
& 48" x 20' R.C. STUB OUTLET
WITH FES.
TY C = 5' x 5'
TY MO = 6' I.D.
H = 10' 2"

STA. 208+50 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 48" x 64' PIPE OUTLET
CONNECT TO D.I. @ STA. 207+80 LT.
TY C = 5' x 5'
TY MO = 6' I.D.
H = 7' 0"

STA. 205+27 IN PLACE
12' x 6' x 45' OPEN TRIPLE R.C. BOX CULVERT
CROSS DRAIN
REMOVE

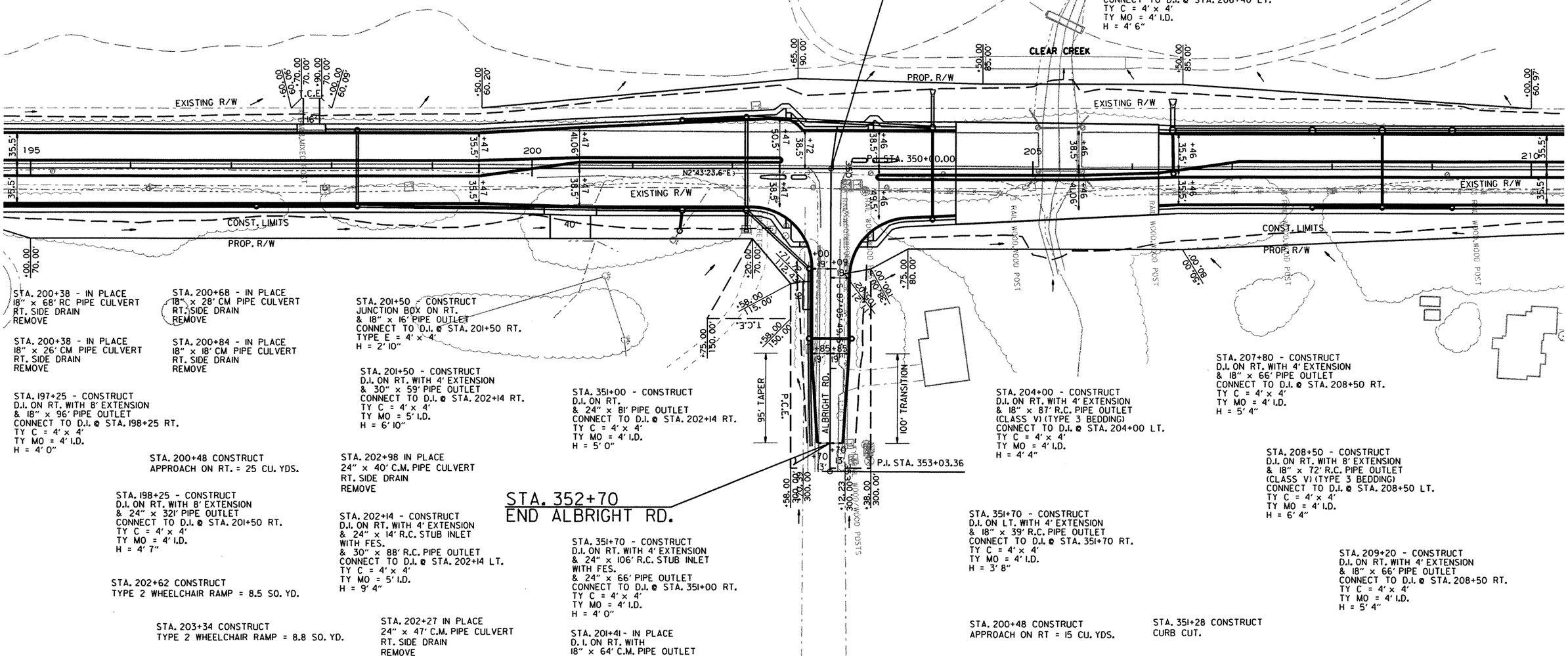
STA. 202+98.05 HWY. 265 =
STA. 350+00.00 ALBRIGHT RD.
Δ = 90° 00' 00.0"

STA. 207+80 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 48" x 134' PIPE OUTLET
CONNECT TO D.I. @ STA. 206+40 LT.
TY C = 5' x 5'
TY MO = 6' I.D.
H = 7' 10"

STA. 209+20 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 48" x 64' PIPE OUTLET
CONNECT TO D.I. @ STA. 208+50 LT.
TY C = 5' x 5'
TY MO = 6' I.D.
H = 6' 6"

STA. 206+40 - CONSTRUCT
D.I. IN MEDIAN ON RT.
& 18" x 30' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 206+40 LT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 6"

STA. 199+85 - STA. 210+75
SPECIAL FLOOD HAZARD AREA



STA. 200+38 - IN PLACE
18" x 68' RC PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 200+68 - IN PLACE
18" x 28' CM PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 201+50 - CONSTRUCT
JUNCTION BOX ON RT.
& 18" x 16' PIPE OUTLET
CONNECT TO D.I. @ STA. 201+50 RT.
TYPE E = 4' x 4'
H = 2' 10"

STA. 200+38 - IN PLACE
18" x 26' CM PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 200+84 - IN PLACE
18" x 18' CM PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 201+50 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 30" x 59' PIPE OUTLET
CONNECT TO D.I. @ STA. 202+14 RT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 6' 10"

STA. 351+00 - CONSTRUCT
D.I. ON RT.
& 24" x 81' PIPE OUTLET
CONNECT TO D.I. @ STA. 202+14 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 5' 0"

STA. 204+00 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 18" x 87' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 204+00 LT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 4"

STA. 207+80 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 18" x 66' PIPE OUTLET
CONNECT TO D.I. @ STA. 208+50 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 5' 4"

STA. 197+25 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 18" x 96' PIPE OUTLET
CONNECT TO D.I. @ STA. 198+25 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 0"

STA. 200+48 CONSTRUCT
APPROACH ON RT. = 25 CU. YDS.

STA. 202+98 IN PLACE
24" x 40' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 352+70
END ALBRIGHT RD.

STA. 208+50 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 18" x 72' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 208+50 LT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 6' 4"

STA. 198+25 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 24" x 321' PIPE OUTLET
CONNECT TO D.I. @ STA. 201+50 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 7"

STA. 202+14 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 24" x 14' R.C. STUB INLET
WITH FES.
& 30" x 88' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 202+14 LT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 9' 4"

STA. 351+70 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 24" x 106' R.C. STUB INLET
WITH FES.
& 24" x 66' PIPE OUTLET
CONNECT TO D.I. @ STA. 351+00 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 0"

STA. 351+70 - CONSTRUCT
D.I. ON LT. WITH 4' EXTENSION
& 18" x 39' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 351+70 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 3' 8"

STA. 209+20 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 18" x 66' PIPE OUTLET
CONNECT TO D.I. @ STA. 208+50 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 5' 4"

STA. 202+62 CONSTRUCT
TYPE 2 WHEELCHAIR RAMP = 8.5 SQ. YD.

STA. 203+34 CONSTRUCT
TYPE 2 WHEELCHAIR RAMP = 8.8 SQ. YD.

STA. 202+27 IN PLACE
24" x 47' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 201+41 - IN PLACE
D. I. ON RT. WITH
18" x 64' C.M. PIPE OUTLET
RETAIN D. I. AND REMOVE
57' OF C.M. PIPE OUTLET

STA. 200+48 CONSTRUCT
APPROACH ON RT = 15 CU. YDS.

STA. 351+28 CONSTRUCT
CURB CUT.

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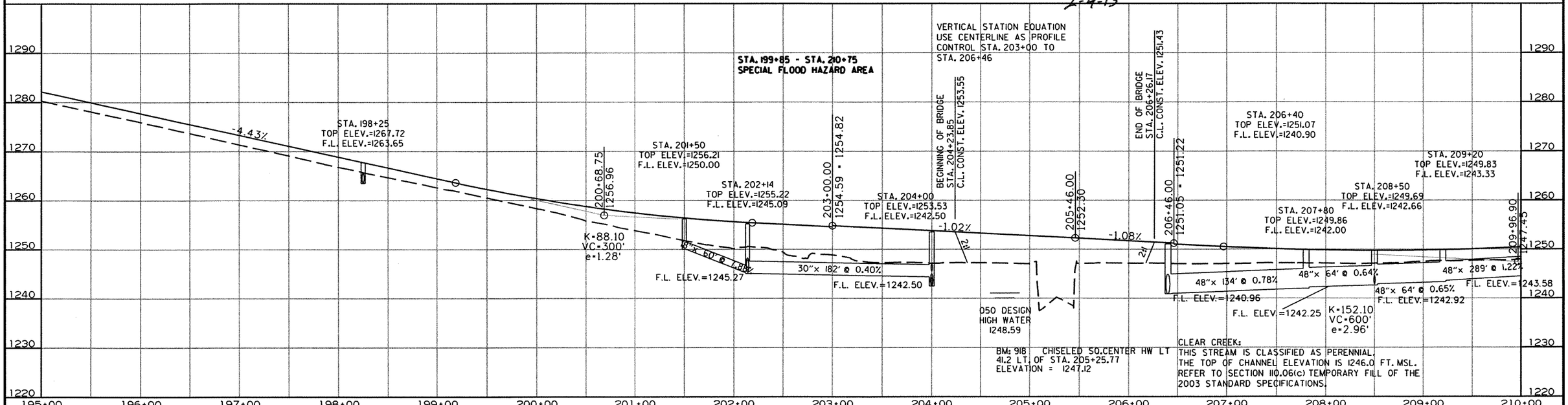
HWY. 265

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	113	270
				(2)	PROFILE SHEETS			

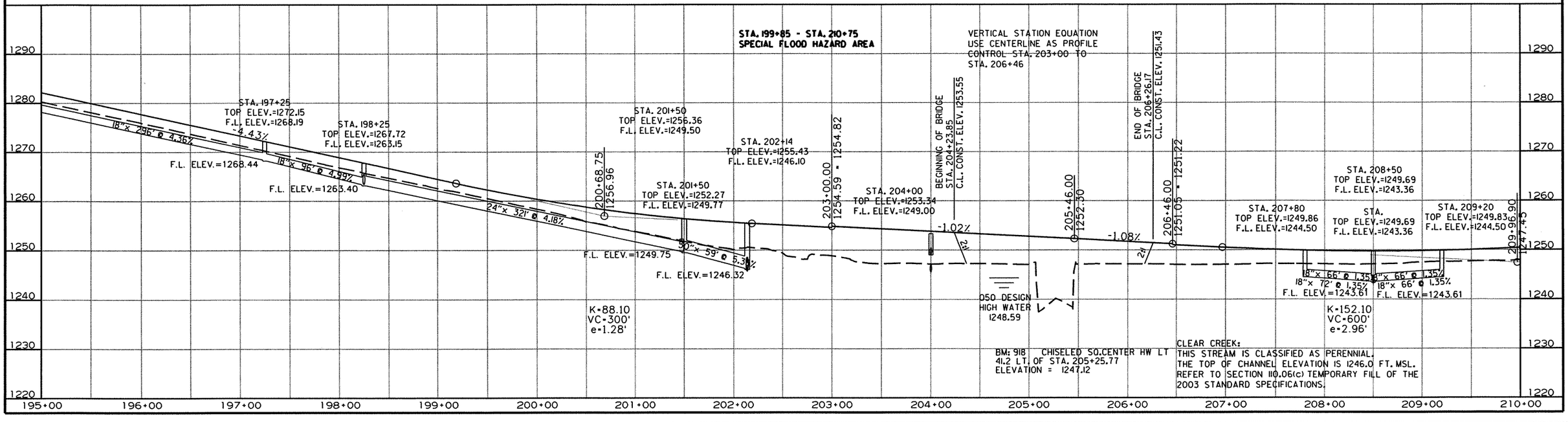
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

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

HWY. 265 LT. SIDE STORM SEWER



HWY. 265 RT. SIDE STORM SEWER



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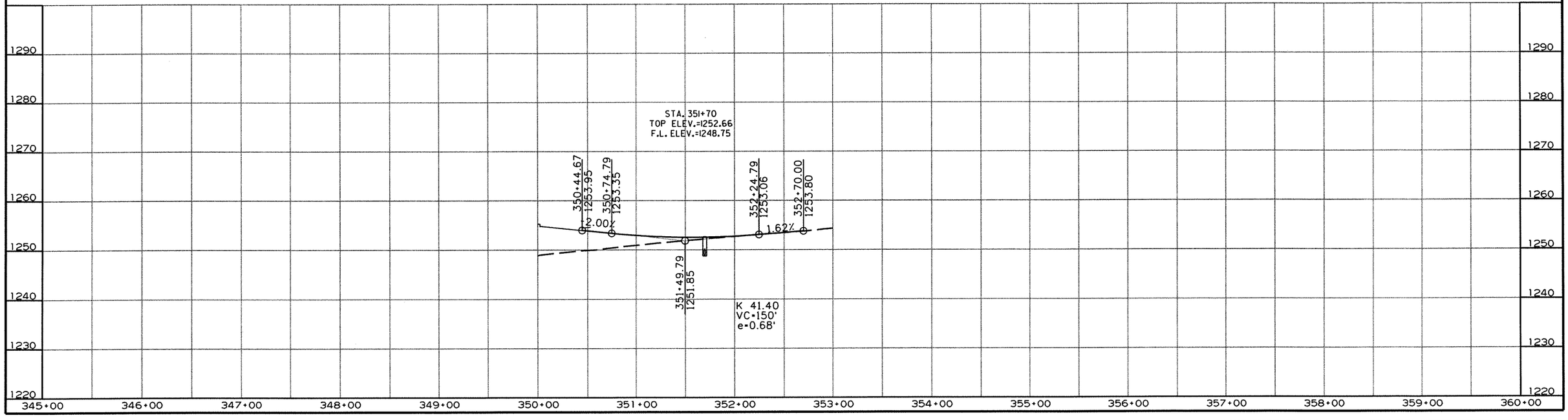
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	114	270

(2) PROFILE SHEETS

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No. 11425
TRINITY D. SMITH
2-4-13

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

ALBRIGHT DR. STORM SEWER LT.



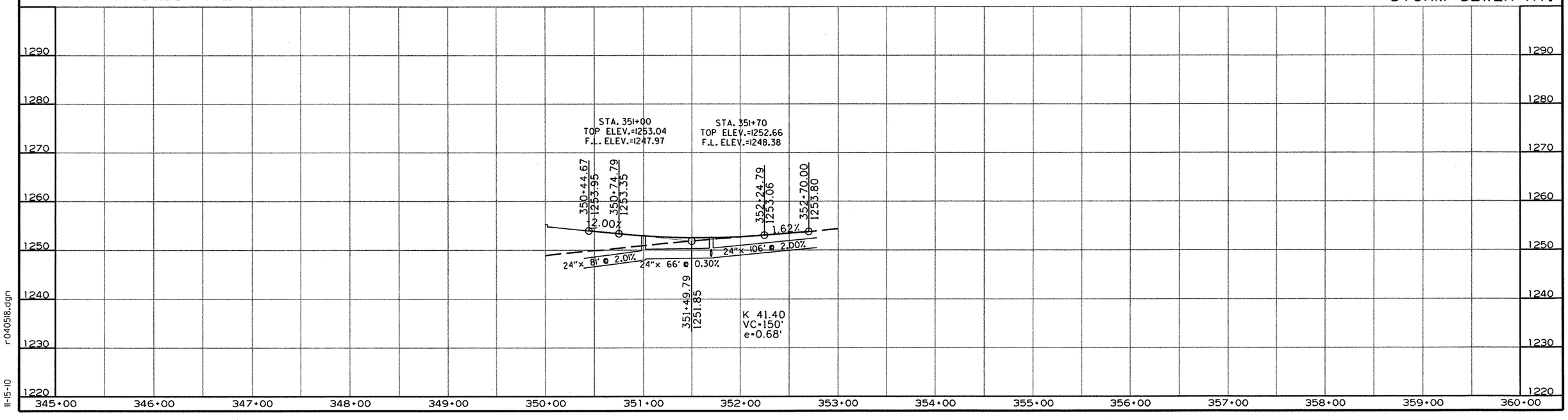
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11-15-10

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	115	270
				(2) PROFILE SHEETS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

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

ALBRIGHT DR.
STORM SEWER RT.



r040518.dgn
11-15-10

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	116	270
				(2) PLAN SHEET				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 212+15 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 48" x 289' PIPE OUTLET
CONNECT TO D.I. @ STA. 209+20 LT.
TY C = 5' x 5'
TY MO = 6' I.D.
H = 6' 3"

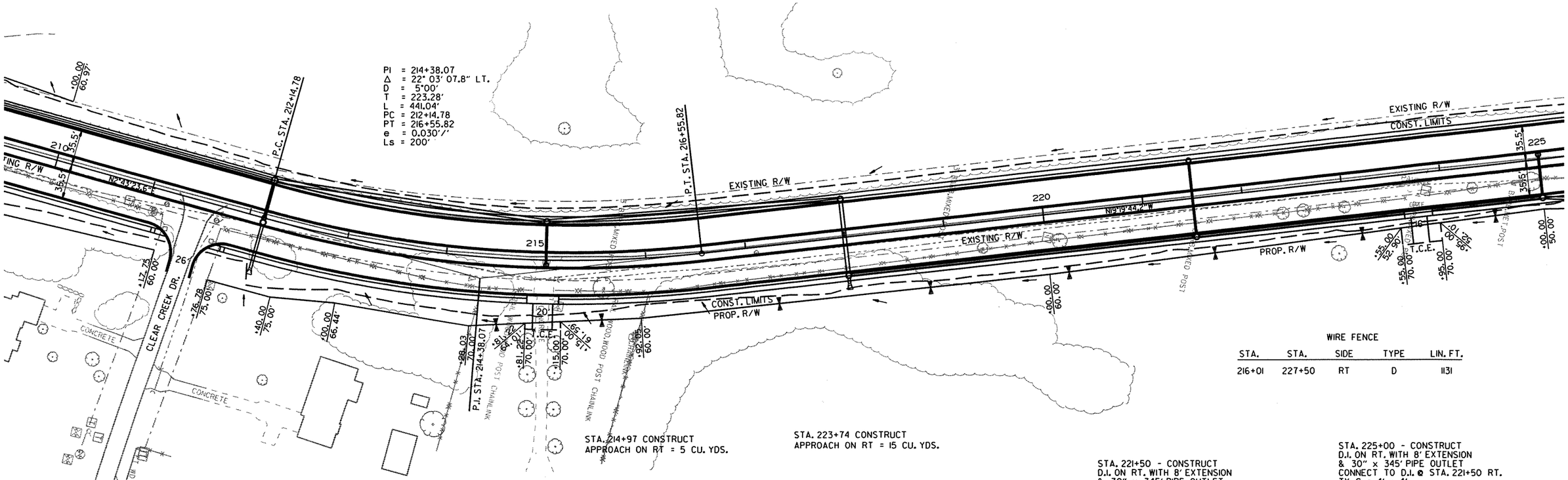
STA. 215+00 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 42" x 269' PIPE OUTLET
CONNECT TO D.I. @ STA. 212+15 LT.
TY C = 5' x 5'
TY MO = 5' I.D.
H = 6' 2"

STA. 218+00 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 42" x 289' PIPE OUTLET
CONNECT TO D.I. @ STA. 215+00 LT.
TY C = 5' x 5'
TY MO = 5' I.D.
H = 7' 2"

STA. 221+50 - CONSTRUCT
D.I. ON LT. WITH 8' EXTENSION
& 18" x 72' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 221+50 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 4' 0"

STA. 225+00 - CONSTRUCT
D.I. IN MEDIAN ON LT. WITH 8' EXTENSION
& 18" x 39' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 225+00 RT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 3' 8"

PI = 214+38.07
Δ = 22° 03' 07.8" LT.
D = 5°00'
T = 223.28'
L = 441.04'
PC = 212+14.78
PT = 216+55.82
e = 0.030'/'
Ls = 200'



STA. 214+97 CONSTRUCT
APPROACH ON RT = 5 CU. YDS.

STA. 223+74 CONSTRUCT
APPROACH ON RT = 15 CU. YDS.

WIRE FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
216+01	227+50	RT	D	1131

STA. 212+15 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 30" x 45' R.C. STUB INLET
WITH FES.
& 30" x 38' R.C. PIPE OUTLET
(CLASS IV) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 212+15 RT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 6' 3"

STA. 215+00 - CONSTRUCT
D.I. IN MEDIAN ON RT. WITH 8' EXTENSION
& 18" x 39' R.C. PIPE OUTLET
CONNECT TO D.I. @ STA. 215+00 LT.
TY C = 4' x 4'
TY MO = 4' I.D.
H = 5' 6"

STA. 218+00 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 30" x 6' R.C. STUB INLET
WITH FES.
& 42" x 72' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 218+00 LT.
TY C = 5' x 5'
TY MO = 5' I.D.
H = 6' 0"

STA. 221+50 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 30" x 345' PIPE OUTLET
CONNECT TO D.I. @ STA. 218+00 RT.
TY C = 5' x 5'
TY MO = 5' I.D.
H = 4' 10"

STA. 225+00 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& 30" x 345' PIPE OUTLET
CONNECT TO D.I. @ STA. 221+50 RT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 4' 6"

CHAIN LINK FENCE

STA.	STA.	SIDE	TYPE	LIN. FT.
214+30	214+87	RT	4'	50
215+09	216+01	RT	4'	90

STA. 211+16 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.3 SQ. YDS.

STA. 211+78 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 5.3 SQ. YDS.

STA. 211+51 IN PLACE
24" x 40' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 215+00 IN PLACE
18" x 29' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 223+73 IN PLACE
24" x 29' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

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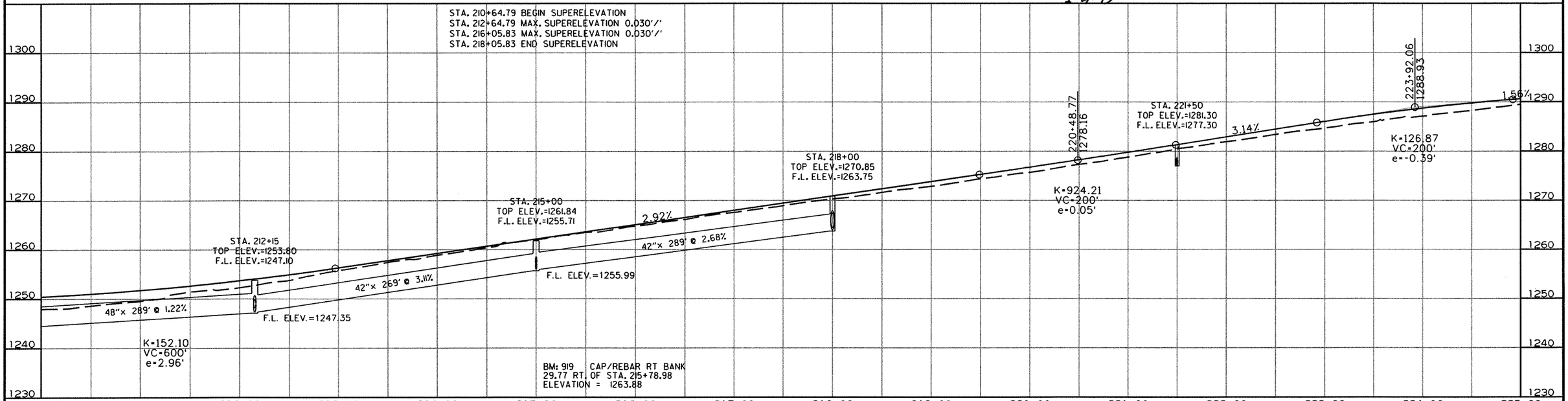
HWY. 265

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	117	270
				(2)	PROFILE SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
9-27-13

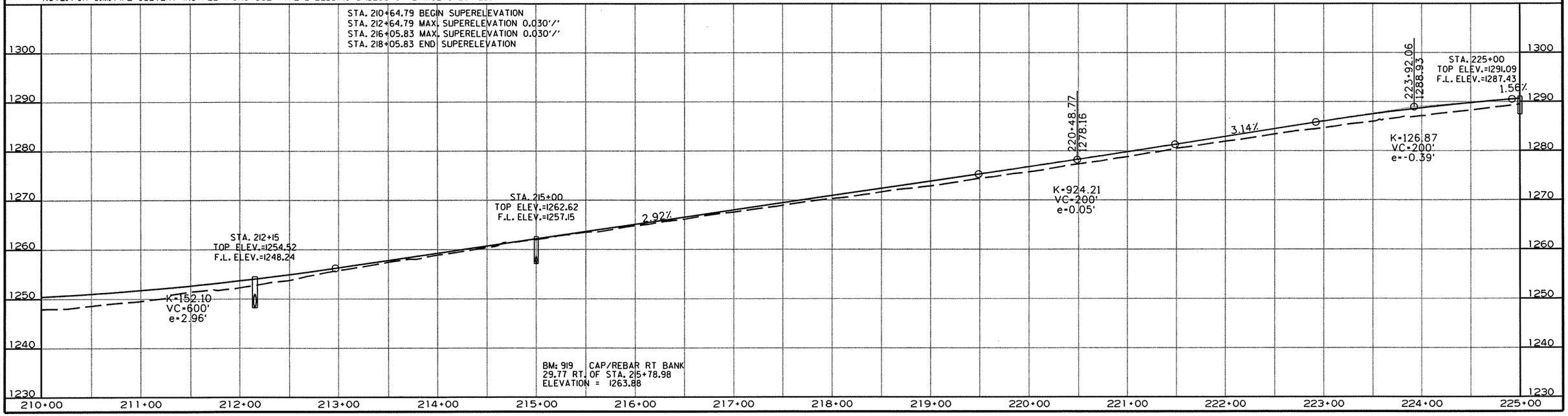
NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

HWY. 265 LT. SIDE STORM SEWER



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

HWY. 265 MEDIAN STORM SEWER



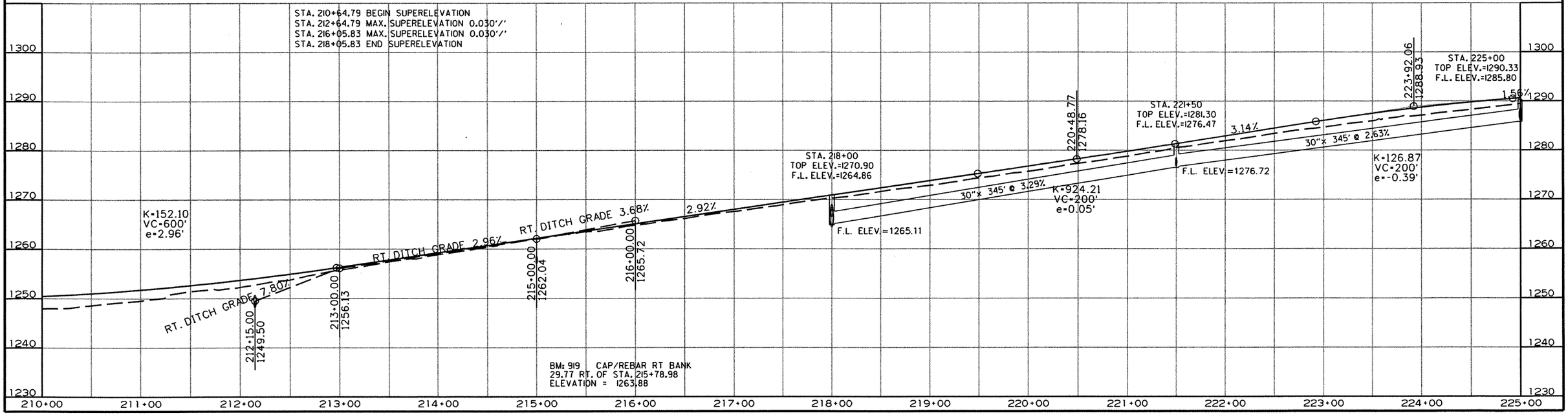
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11-15-10

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				6	ARK.			
				JOB NO.		040518	118	270
				(2) PROFILE SHEETS				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

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NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

HWY. 265 RT. SIDE STORM SEWER



r040518.dgn
11-15-10

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				6	ARK.			
				JOB NO.		040518	119	270
				(2) PLAN SHEET				

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STA. 228+00 - CONSTRUCT
D.I. IN MEDIAN ON LT. WITH 8' EXTENSION
& 18" x 46' R.C. PIPE OUTLET
(CLASS V) (TYPE 3 BEDDING)
CONNECT TO D.I. @ STA. 228+00 RT.
TY C = 4' x 3'
H = 3' 8"

STA. 230+25 IN PLACE
24" x 40' C.M. PIPE CULVERT
LT. SIDE DRAIN
REMOVE

STA. 229+68 CONSTRUCT
TYPE 3 WHEELCHAIR RAMP = 3.8 SQ. YD.

STA. 226+26 CONSTRUCT
APPROACH ON LT = 25 CU. YDS.

STA. 230+14.01 HWY. 265 =
STA. 25+49.39 IVEY LN.
Δ= 87° 31' 32.61"

STA. 230+16.00
END JOB 040518

100' TRANSITION

300' TAPER

P.I. STA. 227+33.86

PROP. R/W

EXISTING R/W

N9°19'44.2"W

N6°14'04.6"E

N5°14'04.6"E

N5°37'17.5"E

PAVED

CONCRETE

PAVED PARKING

PARKING

GATE

P.C. STA. 225+48.18

P.T. STA. 229+13.37

P.I. STA. 23+99.99

PI = 227+33.86
Δ = 25° 33' 48.7" RT.
D = 7°00'
T = 185.69'
L = 365.19'
PC = 225+48.18
PT = 229+13.37
e = 0.037'/'
Ls = 250'

IVEY LN.

EXISTING ROW

PROPOSED ROW

150' TAPER

100' TRANSITION

T.C.E.

STA. 22+33
END IVEY LN.

STA. 228+00 - CONSTRUCT
D.I. ON RT. WITH 4' EXTENSION
& 30" x 28' PIPE OUTLET
CONNECT TO D.I. @ STA. 552+00 RT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 4' 3"

STA. 229+40 - CONSTRUCT
D.I. ON RT. WITH 8' EXTENSION
& OPENING IN BACK
& 30" x 124' PIPE OUTLET
CONNECT TO D.I. @ STA. 228+00 RT.
TY C = 4' x 4'
TY MO = 5' I.D.
H = 4' 6"

STA. 229+76 CONSTRUCT
TYPE 2 WHEELCHAIR RAMP = 8.6 SQ. YD.

STA. 227+73 IN PLACE
24" x 48' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 228+78 IN PLACE
24" x 36' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 230+17 IN PLACE
24" x 43' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 228+73 CONSTRUCT
APPROACH ON RT.

STA. 228+78 IN PLACE
24" x 36' C.M. PIPE CULVERT
RT. SIDE DRAIN
REMOVE

STA. 230+00 IN PLACE
JUNCTION BOX WITH 30' R.C. PIPE CULVERT
REMOVE AND EXTEND 30" PIPE TO DROP INLET ON RT.
WITH 30" x 61' R.C. PIPE CULVERT

HWY. 265

11-15-10 r040518.dgn

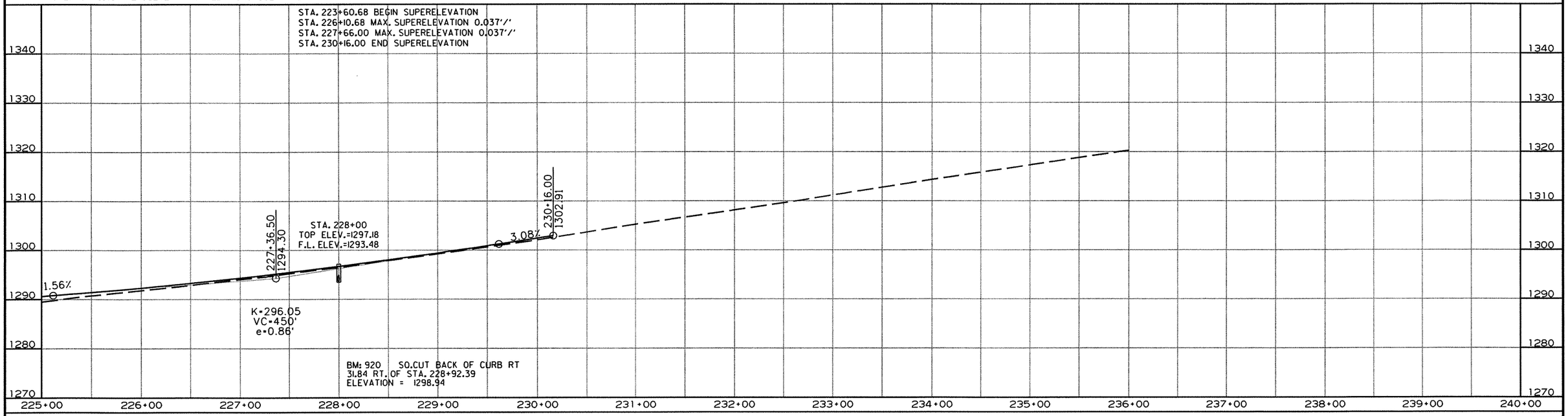
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				6	ARK.			
				JOB NO.		040518	120	270

(2) PROFILE SHEETS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TIMOTHY D. SMITH
1-4-13

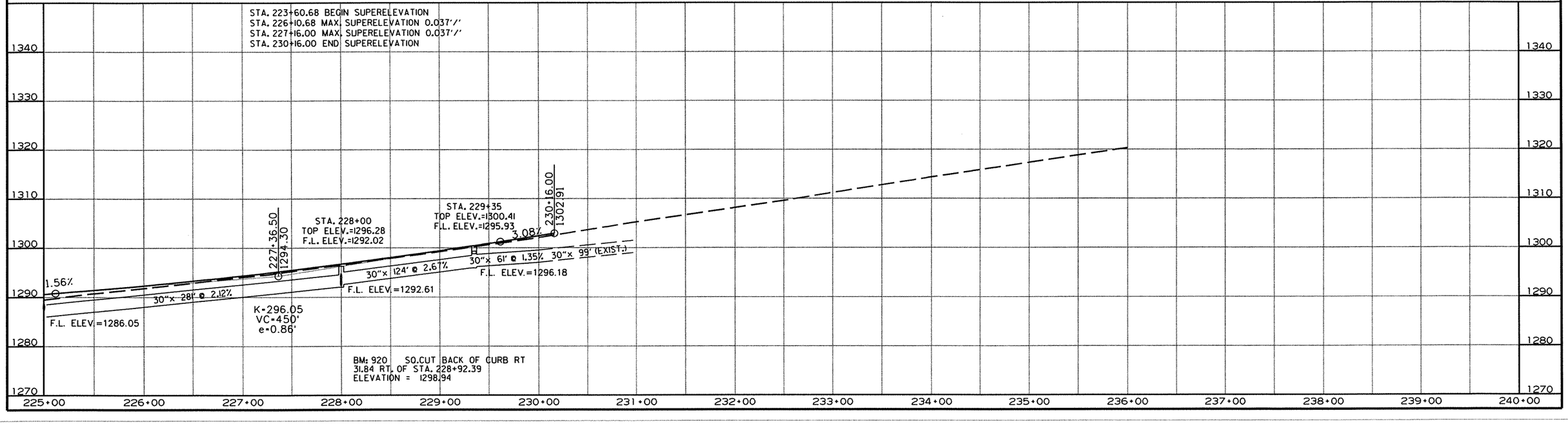
NOTE: FOR R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED.
NOTE: FOR C.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

HWY. 265 MEDIAN STORM SEWER



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

HWY. 265 RT. SIDE STORM SEWER



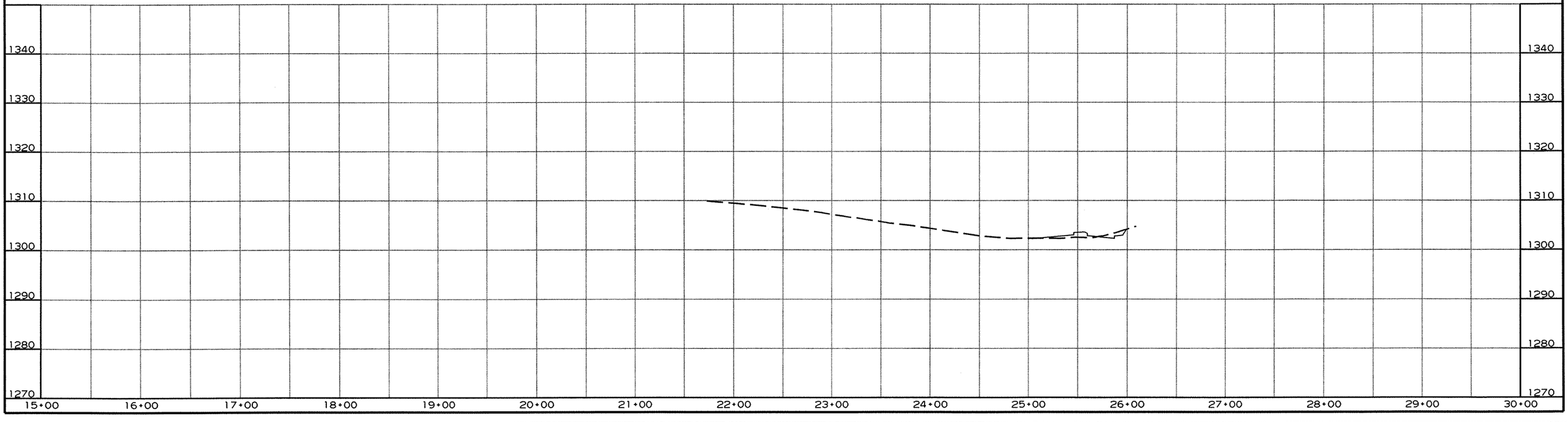
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				6	ARK.			
				JOB NO.		040518	121	270
				(2)	PROFILE SHEETS			

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

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

IVEY LN.



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11-15-10

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				6	ARK.			
				JOB NO.		040518	122	270

(2) SYSTEM MAP

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

163° 02' 39"

ANTENNA ORIENTATION
HWY. 265 (CROSSOVER RD.) AT HEARTHSTONE DR.

161° 28' 41"

ANTENNA ORIENTATION
HWY. 265 (CROSSOVER RD.) AT ZION RD.

FAYETTEVILLE

MASTER ANTENNA
LOCATED ON MT. SEQUOYAH

DATE: 09-14-12 FILE NAME: t040518_job.dgn

LOCATION:	E. JOYCE BLVD. - CITY LIMITS (FAYETTEVILLE)(S)				
CITY:	FAYETTEVILLE				
COUNTY:	WASHINGTON				
DISTRICT:	4	SCALE:	N/A	DRAWN BY:	GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	123	270

(2) SUMMARY AND TRAFFIC SIGNAL NOTES

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. IF THE SERVICE POINT IS OVER 10 FEET FROM THE CONTROLLER, 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 CITY'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 SHALL HAVE 16 LOAD BAYS 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 OPERATIONS 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 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. SEE PAVEMENT MARKING PLAN SHEETS.
11. FOUNDATION FOR ALL POLES SHALL BE EXTENDED IF NECESSARY TO ACCOMMODATE THE REQUIREMENTS FOR SIGNAL HEAD CLEARANCE ABOVE ROADWAY ONLY AT LOCATIONS WHERE THE GROUND ELEVATION AT THE POLE IS BELOW THE ELEVATION OF THE ROADWAY (SEE NOTES ON SPECIAL DETAILS). PAYMENT WILL BE INCLUDED IN SECTION 714, AHTD STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
12. ALL BOXES SHALL BE (TYPE 2) UNLESS OTHERWISE INDICATED. ALL CONDUIT SHALL BE 3" DIAMETER UNLESS SPECIFIED ON PLANS.
13. CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.
14. LUMINAIRE ASSEMBLIES SHALL BE OF THE FULL CUTOFF TYPE.
15. HARDWARE INPUTS MAY BE DETERMINED BY SUPPLIER. EACH DETECTOR OUTPUT SHALL INPUT THE CONTROLLER THROUGH A SEPARATE INPUT UNLESS OTHERWISE NOTED AND BE PROGRAMMED TO ACTUATE THE ASSOCIATED PHASE. COMBINATION (COMB.) DETECTORS SHALL ALSO BE PROGRAMMED TO PROVIDE VEHICLE COUNT/OCCUPANCY DATA.
16. THE LOCAL RADIO WITH ANTENNA SHALL BE COMPATIBLE WITH THE EXISTING MDS 9710 FIXED FREQUENCY RADIOS AND CLOSED LOOP COORDINATION SYSTEM IN THE CITY.
17. TO DETERMINE UTILITY CLEARANCES ABOVE THE TRAFFIC SIGNAL POLE, REFER TO THE POLE SCHEDULE FOR VERTICAL SHAFT HEIGHT. WHERE THE POLE SCHEDULE INDICATES THAT A LUMINAIRE ARM WILL BE USED, 38 FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE LUMINAIRE ARM. WHERE THE POLE SCHEDULE INDICATES A TRAFFIC SIGNAL POLE WITHOUT A LUMINAIRE ARM, A HEIGHT OF 21' SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE TRAFFIC SIGNAL MAST ARM. AN ADDITIONAL 6 FEET SHOULD BE USED DIRECTLY ABOVE "VIDEO DETECTOR" AT LOCATIONS SHOWN ON THE SIGNAL PLANS.
18. THE DESIRABLE MINIMUM DISTANCE FROM THE FACE OF ROADWAY CURB OR SHOULDER EDGE TO THE FACE OF NON-BREAKAWAY POLE OR OBSTRUCTION IS 6 FEET. REFER TO TRAFFIC SIGNAL PLANS FOR SPECIFIC LOCATION OF POLES, CONTROLLER AND ANY OTHER NON-BREAKAWAY OBSTRUCTIONS. REFER TO "DESIGN PARAMETERS, MINIMUM CLEAR ZONE DISTANCE" FOR MINIMUM DISTANCE FROM THE EDGE OF TRAVELED WAY TO THE FACE OF A NON-BREAKAWAY POLE OR OBSTRUCTION. TRAFFIC SIGNAL POLES OR ANY OTHER NON-BREAKAWAY OBSTRUCTION SHALL NOT BE INSTALLED WITHIN THE CLEAR ZONE.
19. AS DETERMINED BY THE ENGINEER, FOUNDATION EMBEDMENT MAY BE DECREASED BY A MAXIMUM OF TWO FEET IF COMPETENT ROCK IS ENCOUNTERED PRIOR TO ACHIEVING PLAN EMBEDMENT AND AT LEAST HALF OF THE REMAINING PLAN EMBEDMENT LENGTH IS KEYED INTO COMPETENT ROCK.
20. CONNECTION OF TRAFFIC SIGNAL DISPLAY TO FIELD WIRING SHALL UTILIZE AN APPROVED TERMINAL STRIP BEHIND HAND-HOLE COVER AT BASE OF POLE. TERMINAL STRIP SHALL PROVIDE PROTECTION TO PREVENT EXPOSURE TO THE PUBLIC IN THE EVENT THAT POLE COVER IS MISSING. PAYMENT FOR TERMINAL STRIPS SHALL BE INCLUDED IN ITEM 714-TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION.
21. CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO ISMA STANDARDS.
22. ONE VIDEO PROGRAMMING MODULE SHALL BE PROVIDED FOR AIMING AND SETUP OF DETECTORS IF THE VIDEO SYSTEM CANNOT BE ADJUSTED THROUGH HARDWARE AND SOFTWARE PROVIDED BY ITEMS WITHIN THE JOB.
23. TRAFFIC SIGNAL CONTRACTOR MUST NOTIFY RESIDENT ENGINEER OR ASSIGNED DEPARTMENT PROJECT INSPECTOR EACH DAY PRIOR TO SIGNAL RELATED WORK. NO WORK ON TRAFFIC SIGNALS WILL BE ALLOWED OR APPROVED WITHOUT THIS PRIOR NOTIFICATION.
24. ALL STEEL POLES SHALL BE DESIGNED TO MEET THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.
25. TOMAR MODEL m913 STROBECOM DETECTOR CABLE SHALL BE FURNISHED BY THE CITY OF FAYETTEVILLE TRAFFIC SIGNAL DEPARTMENT AND INSTALLED BY THE CONTRACTOR AS SHOWN ON THE PLANS. INSTALLATION OF THE CABLE SHALL BE PAID FOR UNDER ITEM 733, VIDEO CABLE.
26. VIDEO DETECTORS SHALL HAVE ELECTRICALLY OPERATED ZOOM LENS.
27. DOOR PANEL TEST SWITCHES SHALL PLACE CALL TO CONTROLLER FOR THE LABELED PHASING.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

JOB 040518 TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	HWY. 265 & ZION RD.	HWY. 265 & HEARTHSTONE DR.	WARNING BEACON	QUANTITY	UNIT
SP&701	SYSTEM LOCAL CONTROLLER TS 2-TYPE 2 (8 PHASES)	1	1		2	EACH
703	FLASHING BEACON CONTROLLER			1	1	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (1 SECTION, 1 WAY)			2	2	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	16	10		26	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	2	2		4	EACH
SP&707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	6	6		12	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1777	1432	110	3319	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	239	269		508	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	446	593		1039	LIN. FT.
709	GALVANIZED STEEL CONDUIT (1.25")	20	20	20	60	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	20			20	LIN. FT.
710	NON-METALLIC CONDUIT (1.25")	20	20	20	60	LIN. FT.
710	NON-METALLIC CONDUIT (2")	20	20	20	60	LIN. FT.
710	NON-METALLIC CONDUIT (3")	446	443		889	LIN. FT.
SS&711	CONCRETE PULL BOX (TYPE 1HD)	3	1	1	5	EACH
SS&711	CONCRETE PULL BOX (TYPE 2 HD)	5	5		10	EACH
713	SPAN WIRE ASSEMBLY	1			1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (26')		1		1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (34')			1	1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (50')		1		1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (52')	1			1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (58')		1		1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (62')	1			1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (64')	1			1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (70')		1		1	EACH
SS&715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	4			4	EACH
SS&726	STANDARD SIGN			16	16	SQ. FT.
733	VIDEO CABLE	1227	1332		2559	LIN. FT.
SP&733	VIDEO DETECTOR (CLR)	10	6		16	EACH
SP&733	VEHICLE DETECTOR RACK (20 CHANNEL)	1	1		2	EACH
SP&733	VIDEO EDGE CARD EXTENDER	2	2		4	EACH
733	VIDEO MONITOR (CLR)	1	1		2	EACH
SP&733	VIDEO PROCESSOR, EDGE CARD (2 CAMERA)	•4	3		7	EACH
SP&733	VIDEO DETECTOR RELOCATION	5			5	EACH
SP	VIDEO DETECTOR ROTATION	1			1	EACH
SP	ANTENNA CABLE (TYPE 6)	70	70		140	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	587	784		1371	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., EGC)	610	498	20	1128	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., EGC)	145	200		345	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	20	20	20	60	LIN. FT.
SP	LOCAL RADIO WITH ANTENNA	1	1		2	EACH
SP	LUMINAIRE ASSEMBLY	3	4		7	EACH
SP	RELOCATION OF TRAFFIC SIGNAL HEAD	8			8	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1.00			1.00	LUMP SUM
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	1	1	3	EACH
SP	18" STREET NAME SIGN	3	4		7	EACH

• QUANTITIES SHALL INCLUDE ONE SPARE VIDEO PROCESSOR, EDGE CARD (2 CAMERA).

DATE: 09-14-12 FILE NAME: t040518.job.dgn

LOCATION: E. JOYCE BLVD. - CITY LIMITS (FAYETTEVILLE)(S)
CITY: FAYETTEVILLE
COUNTY: WASHINGTON
DISTRICT: 4 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	124	270

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

STAGE 1 TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
SP&701	SYSTEM LOCAL CONTROLLER TS 2-TYPE 2 (8 PHASES)	1	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1WAY)	6	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1WAY)	1	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1777	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	239	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	446	LIN. FT.
709	GALVANIZED STEEL CONDUIT (1.25")	20	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	20	LIN. FT.
710	NON-METALLIC CONDUIT (1.25")	20	LIN. FT.
710	NON-METALLIC CONDUIT (2")	20	LIN. FT.
710	NON-METALLIC CONDUIT (3")	446	LIN. FT.
SS&711	CONCRETE PULL BOX (TYPE 1HD)	3	EACH
SS&711	CONCRETE PULL BOX (TYPE 2 HD)	5	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (52')	1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (62')	1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (64')	1	EACH
SS&715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	4	EACH
733	VIDEO MONITOR (CLR)	1	EACH
733	VIDEO CABLE	1227	LIN. FT.
SP&733	VIDEO DETECTOR (CLR)	5	EACH
SP&733	VEHICLE DETECTOR RACK (20 CHANNEL)	1	EACH
SP&733	VIDEO EDGE CARD EXTENDER	2	EACH
• SP&733	VIDEO PROCESSOR, EDGE CARD (2 CAMERA)	4	EACH
SP	ANTENNA CABLE (TYPE 6)	70	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	587	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., EGC)	145	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., EGC)	610	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	20	LIN. FT.
SP	LOCAL RADIO WITH ANTENNA	1	EACH
SP	LUMINAIRE ASSEMBLY	3	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.34	LUMP SUM
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH

• QUANTITIES SHALL INCLUDE ONE SPARE VIDEO PROCESSOR, EDGE CARD (2 CAMERA).

STAGE 1
THE EXISTING TRAFFIC SIGNAL INSTALLATION SHALL REMAIN IN OPERATION UNTIL STAGE 1 TRAFFIC SIGNAL IS COMPLETED AND IN OPERATION (REFER TO PERMANENT TRAFFIC SIGNAL PLANS).
PERMANENT TRAFFIC SIGNAL INSTALLATION SHALL BE PLACED INTO OPERATION DURING STAGE 1 EXCEPT FOR THE PERMANENT TRAFFIC SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, VIDEO DETECTORS AND STREET NAME SIGNS.
INSTALL TEMPORARY TRAFFIC SIGNAL HEADS, VIDEO DETECTORS AND ESTABLISH VIDEO ZONES.
MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE STAGE 1 AND STAGE 2 TRAFFIC SIGNAL PLANS.
(REFER TO MAINTENANCE OF TRAFFIC DETAILS).

STAGE 3 TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
SP&706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1WAY)	2	EACH
713	SPAN WIRE ASSEMBLY	1	EACH
SP	RELOCATION OF TRAFFIC SIGNAL HEAD	3	EACH
SP&733	VIDEO DETECTOR RELOCATION	3	EACH
SP	VIDEO DETECTOR ROTATION	1	EACH

STAGE 3
INSTALL A SPAN WIRE CONNECTING POLES "A" AND "G" AND ATTACH NEW TRAFFIC SIGNAL HEADS 6 AND 7.
RELOCATE VIDEO DETECTORS AND SIGNAL HEADS 1, 2 AND 3 AND BAG ALL CONFLICTING SIGNAL HEADS.
MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE STAGE 3 TRAFFIC SIGNAL PLAN.
(REFER TO MAINTENANCE OF TRAFFIC DETAILS).

STAGE 4 TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
SP	RELOCATION OF TRAFFIC SIGNAL HEAD	5	EACH
SP&733	VIDEO DETECTOR RELOCATION	2	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.33	LUMP SUM

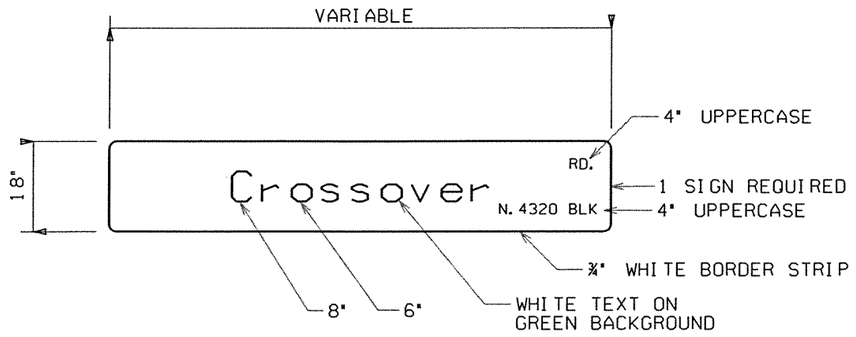
STAGE 4
RELOCATE VIDEO DETECTORS AND SIGNAL HEADS.
MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE STAGE 4 TRAFFIC SIGNAL PLAN.
REMOVE SPAN WIRE CONNECTING POLES A AND G.
(REFER TO MAINTENANCE OF TRAFFIC DETAILS).

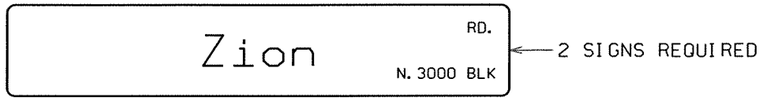
PERMANENT TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
SP&706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1WAY)	8	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1WAY)	1	EACH
SP&707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	6	EACH
SP&733	VIDEO DETECTOR (CLR)	5	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.33	LUMP SUM
SP	18" STREET NAME SIGN	3	EACH

PERMANENT TRAFFIC SIGNAL
TEMPORARY TRAFFIC SIGNAL HEADS AND VIDEO DETECTORS.
INSTALL ALL NEW PERMANENT TRAFFIC SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND VIDEO DETECTORS.
ESTABLISH VIDEO ZONES AS SHOWN ON THE PERMANENT TRAFFIC SIGNAL PLAN AND INSTALL STREET NAME SIGNS.
(REFER TO PERMANENT PAVEMENT MARKING DETAILS).

OVERHEAD STREET NAME MARKER STANDARD MAST ARM MOUNTED





NOTES:
1. REFLECTIVE SHEETING SHALL COMPLY WITH ASTM 4956 TYPE 8 OR 9 REFLECTIVE 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.

3. WHEN CROSSROAD HAS TWO NAMES, THE SIGN FOR THE CROSSROAD TO THE LEFT MAY BE INSTALLED ON THE BACKSIDE OF THE MAST ARM OF THE NEARSIDE LEFT POLE.
SEE STD. DETAIL SHEET FOR MORE INFORMATION FOR MOUNTING ON MAST ARM ASSEMBLY.

4. THE CLEARVIEW 5-W-R FONT SHALL BE USED FOR ALL LETTERS.

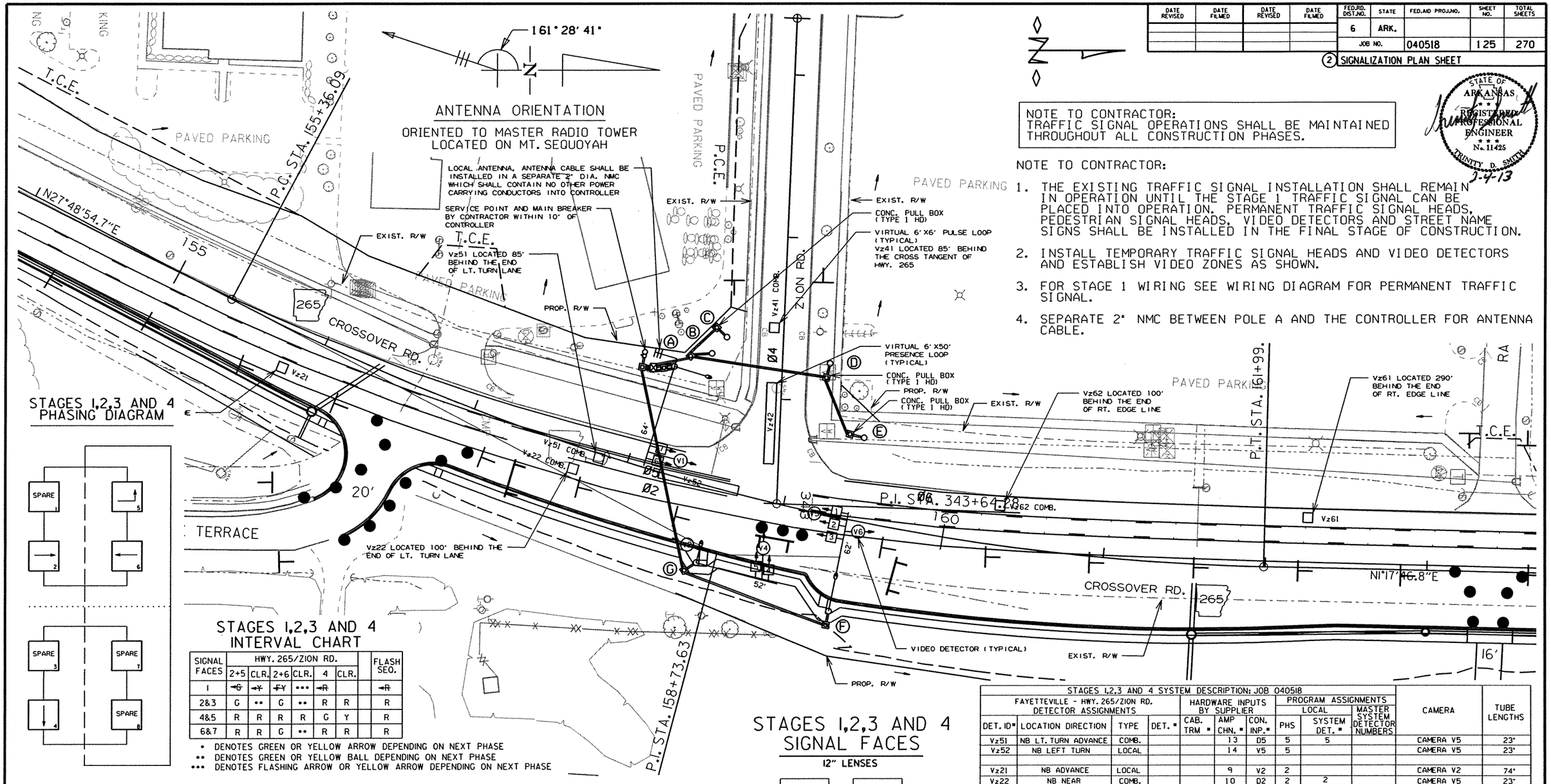
DATE: 09-14-12 FILE NAME: t040518.01.dgn

LOCATION: HWY. 265 (CROSSOVER)/ZION RD.
CITY: FAYETTEVILLE
COUNTY: WASHINGTON
DISTRICT: 4 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	125	270

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
1-4-13



NOTE TO CONTRACTOR:
TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.

NOTE TO CONTRACTOR:

1. THE EXISTING TRAFFIC SIGNAL INSTALLATION SHALL REMAIN IN OPERATION UNTIL THE STAGE 1 TRAFFIC SIGNAL CAN BE PLACED INTO OPERATION. PERMANENT TRAFFIC SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, VIDEO DETECTORS AND STREET NAME SIGNS SHALL BE INSTALLED IN THE FINAL STAGE OF CONSTRUCTION.
2. INSTALL TEMPORARY TRAFFIC SIGNAL HEADS AND VIDEO DETECTORS AND ESTABLISH VIDEO ZONES AS SHOWN.
3. FOR STAGE 1 WIRING SEE WIRING DIAGRAM FOR PERMANENT TRAFFIC SIGNAL.
4. SEPARATE 2" NMC BETWEEN POLE A AND THE CONTROLLER FOR ANTENNA CABLE.

STAGES 1,2,3 AND 4 PHASING DIAGRAM

STAGES 1,2,3 AND 4 INTERVAL CHART

SIGNAL FACES	HWY. 265/ZION RD. 2+5	CLR.	2+6	CLR.	4	CLR.		FLASH SEQ.
1	~~G~~	~~Y~~	~~FY~~	•••	~~R~~			~~R~~
2&3	G	••	G	••	R	R		R
4&5	R	R	R	R	G	Y		R
6&7	R	R	G	••	R	R		R

• DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
•• DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
••• DENOTES FLASHING ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

HWY. 265 (CROSSOVER RD.)/ZION RD. POLE DIMENSIONS

POLE	MAST ARM	•MAST ARM ANGLE	VERT. SHAFT	LUM. ARM	•LUM. ANGLE
A	64'	180°	35'	20'	90°
B	N/A	N/A	15'	N/A	N/A
C	N/A	N/A	15'	N/A	N/A
D	N/A	N/A	15'	N/A	N/A
E	N/A	N/A	15'	N/A	N/A
F	62'	180°	35'	20'	180°
G	52'	270°	35'	10'	180°

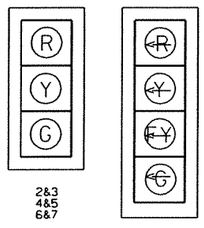
ANGLE MEASURED CLOCKWISE FROM HAND HOLE.

HWY. 265 (CROSSOVER RD.)/ZION RD. POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 265 - STA. 158+10.25	65' LT.	686858.07, 660464.22
B	HWY. 265 - STA. 158+33.10	79' LT.	686850.03, 660487.40
C	HWY. 265 - STA. 158+39.43	92' LT.	686839.97, 660496.60
D	HWY. 265 - STA. 159+08.13	92' LT.	686856.20, 660560.33
E	HWY. 265 - STA. 159+40.27	51' LT.	686902.18, 660581.53
F	HWY. 265 -STA. 159+40.24	57' RT.	687008.64, 660559.96
G	HWY. 265 - STA. 158+56.96	47' RT.	686978.80, 660477.93

STAGES 1,2,3 AND 4 SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISIONS FOR DETAILS ON NEW REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS

STAGES 1,2,3 AND 4 SYSTEM DESCRIPTION: JOB 040518

FAYETTEVILLE - HWY. 265/ZION RD. DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS LOCAL		MASTER SYSTEM DETECTOR NUMBERS	CAMERA	TUBE LENGTHS
DET. ID*	LOCATION DIRECTION	TYPE	DET. *	CAB. TRM *	AMP CHN. *	CON. INP.*	PHS	SYSTEM DET. *			
Vz51	NB LT. TURN ADVANCE	COMB.			13	D5	5	5		CAMERA V5	23'
Vz52	NB LEFT TURN	LOCAL			14	V5	5			CAMERA V5	23'
Vz21	NB ADVANCE	LOCAL			9	V2	2			CAMERA V2	74'
Vz22	NB NEAR	COMB.			10	D2	2	2		CAMERA V5	23'
Vz41	EB ADVANCE	SYSTEM			17	D4	4	4		CAMERA V4	23'
Vz42	EB TURN	LOCAL			18	V4	4			CAMERA V4	23'
Vz61	SB ADVANCE	LOCAL			5	V6	6			CAMERA V6	74'
Vz62	SB NEAR	COMB.			6	D6	6	6		CAMERA V1	74'
				SPARE 3, 4, 8, 12, 15 & 16							

NOTE: "AMP CHN" REFERS TO THE DETECTOR RACK OUTPUT POSITION. THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

SCALE IN FEET
0 30 60 120

STAGE 1 AND 2 TRAFFIC SIGNAL

LOCATION: HWY. 265 (CROSSOVER RD.)/ZION RD.
CITY: FAYETTEVILLE
COUNTY: WASHINGTON
DISTRICT: 4 SCALE: 1"=60' DRAWN BY: GWE

DATE: 09-14-12 FILE NAME: t040518_01.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.		040518	126	270

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

T.C.E.
PAVED PARKING
P.C.E. STA. 155+36.09
N27°48'54.7"E
155
265
CROSSOVER RD.
30'
EXIST. R/W
PROP. R/W
LOCAL ANTENNA, ANTENNA CABLE SHALL BE INSTALLED IN A SEPARATE 2" DIA. NMC WHICH SHALL CONTAIN NO OTHER POWER CARRYING CONDUCTORS INTO CONTROLLER
SERVICE POINT AND MAIN BREAKER BY CONTRACTOR WITHIN 10' OF CONTROLLER
Vz51 LOCATED 85' BEHIND THE END OF LT. TURN LANE
Vz21 LOCATED 290' BEHIND THE END OF LT. TURN LANE
Vz22 LOCATED 100' BEHIND THE END OF LT. TURN LANE
HILLSIDE TERRACE
20'
Vz51 COMB.
Vz22 COMB.
Ø5
Ø2
Ø4
Vz41 COMB.
ZION RD.
Vz42
VIRTUAL 6'X6' PULSE LOOP (TYPICAL) Vz41 LOCATED 85' BEHIND THE CROSS TANGENT OF HWY. 265
VIRTUAL 6'X50' PRESENCE LOOP (TYPICAL)
CONC. PULL BOX (TYPE 1 HD)
PROP. R/W
CONC. PULL BOX (TYPE 1 HD)
EXIST. R/W
Vz62 LOCATED 100' BEHIND THE END OF RT. EDGE LINE
Vz61 LOCATED 290' BEHIND THE END OF RT. EDGE LINE
P.I. STA. 343+64.28
160
Ø6
Vz62 COMB.
P.I. STA. 161+99.06
RANDAL PLACE
22'
62'
52'
N1°17'46.8"E
Vz61
CROSSOVER RD. 265
VIDEO DETECTOR (TYPICAL)
EXIST. R/W
PROP. R/W
16'
P.I. STA. 158+73.63
T.C.E.

NOTE TO CONTRACTOR:

1. ALL SPAN WIRE SHALL BE WITH TETHER (SEE DETAIL)
2. VIDEO DETECTOR "V1, V5 AND V6" SHALL BE RELOCATED AS SHOWN.
3. SIGNAL HEADS 1, 2 AND 3 SHALL BE RELOCATED AS SHOWN.
4. SIGNAL HEADS 6 AND 7 SHALL BE ATTACHED TO SPAN WIRE AS SHOWN.
5. ALL OTHER SIGNAL HEADS AND VIDEO DETECTORS SHALL REMAIN IN PLACE AS SHOWN.
6. VIDEO DETECTOR V2 SHALL BE ROTATED TO NEW VIDEO ZONE.

STAGE 3 TRAFFIC SIGNAL

SCALE IN FEET
0 30 60 120

DATE: 09-14-12 FILE NAME: t040518_01.dgn

LOCATION:	HWY. 265 (CROSSOVER RD.)/ZION RD.				
CITY:	FAYETTEVILLE				
COUNTY:	WASHINGTON				
DISTRICT:	4	SCALE:	1"=60'	DRAWN BY:	GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	127	270

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-7-13

T.C.E.
PAVED PARKING
P.C. STA. 155+36.09
N21°48'54.1"E
155
265
CROSSOVER RD.
30'
LOCAL ANTENNA, ANTENNA CABLE SHALL BE INSTALLED IN A SEPARATE 2" DIA. NMC WHICH SHALL CONTAIN NO OTHER POWER CARRYING CONDUCTORS INTO CONTROLLER
SERVICE POINT AND MAIN BREAKER BY CONTRACTOR WITHIN 10' OF CONTROLLER
EXIST. R/W
Vz51 LOCATED 85' BEHIND STOP LINE
PROP. R/W
Vz21 LOCATED 290' BEHIND STOP LINE
Vz51 COMB.
Vz22 COMB.
20'
HILLSIDE TERRACE
Vz22 LOCATED 100' BEHIND STOP LINE
P.I. STA. 158+73.63
P.C.E.
PAVED PARKING
Vz41 COMB.
EXIST. R/W
VIRTUAL 6'X6' PULSE LOOP (TYPICAL) Vz41 LOCATED 85' BEHIND THE CROSS TANGENT OF HWY. 265
ZION RD.
Vz42
VIRTUAL 6'X50' PRESENCE LOOP (TYPICAL)
PROP. R/W
EXIST. R/W
Vz62 LOCATED 100' BEHIND STOP LINE
P.I. STA. 343+64.28
Vz62 COMB.
160
Vz61 LOCATED 290' BEHIND STOP LINE
Vz61
P.T. STA. 161+99.06
PAVED PARKING
RANDAL PLACE
T.C.E.
22'
N1°17'46.8"E
CROSSOVER RD.
265
VIDEO DETECTOR (TYPICAL)
EXIST. R/W
PROP. R/W
16'
T.C.E.
52'

NOTE TO CONTRACTOR:

1. REMOVE ALL SPAN WIRE.
2. VIDEO DETECTOR "V1 AND V6" SHALL BE RELOCATED AS SHOWN.
3. SIGNAL HEADS 1, 2, 3, 6 AND 7 SHALL BE RELOCATED AS SHOWN.
4. ALL OTHER SIGNAL HEADS AND VIDEO DETECTORS SHALL REMAIN IN PLACE AS SHOWN.

STAGE 4 TRAFFIC SIGNAL

SCALE IN FEET
0 30 60 120

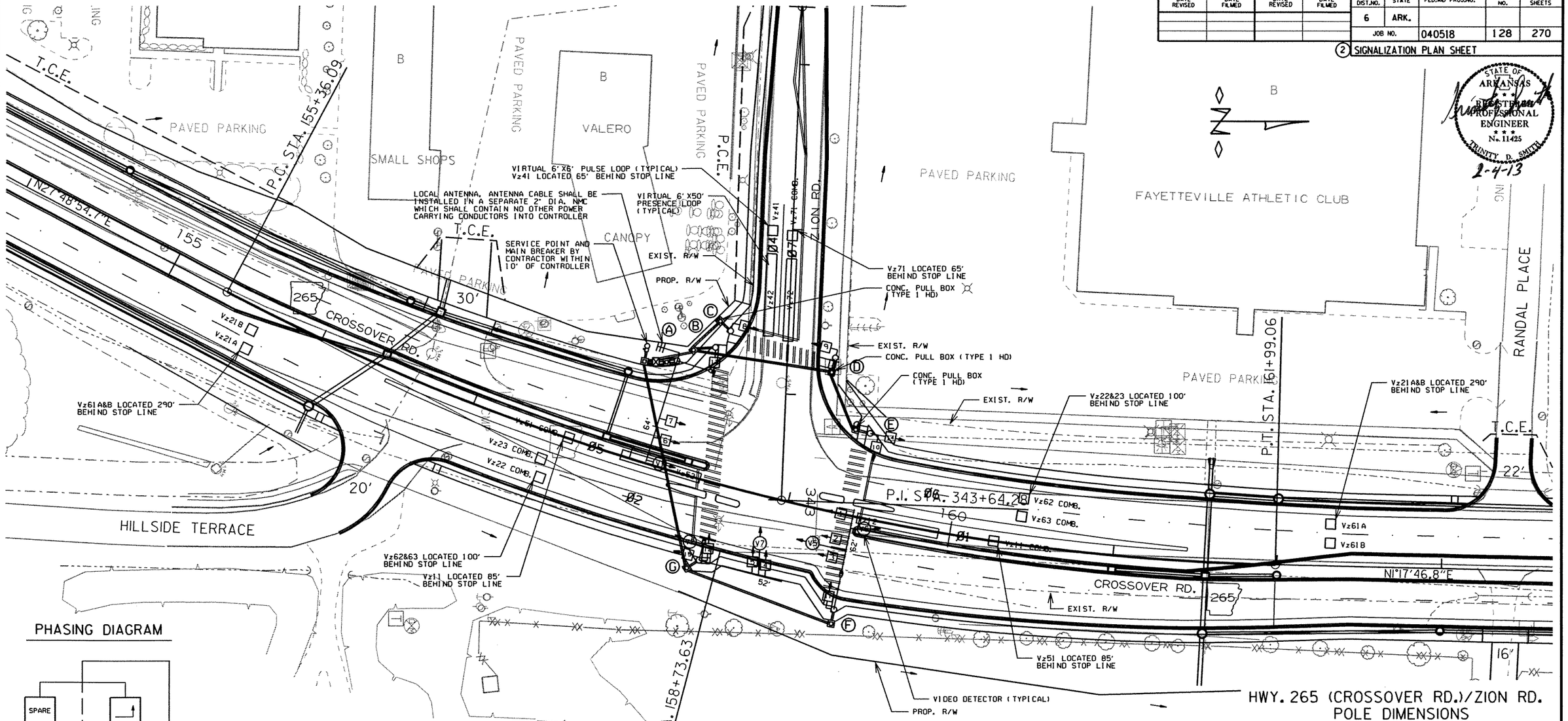
DATE: 09-14-12 FILE NAME: t040518_01.dgn

LOCATION:	HWY. 265 (CROSSOVER RD.)/ZION RD.		
CITY:	FAYETTEVILLE		
COUNTY:	WASHINGTON		
DISTRICT:	4	SCALE: 1"=60'	DRAWN BY: GWE

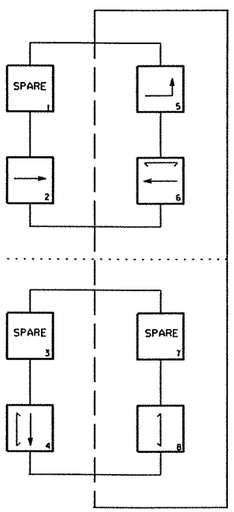
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	128	270

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH
2-4-13

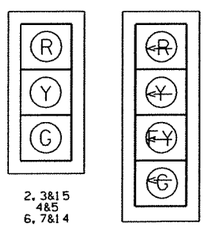


PHASING DIAGRAM

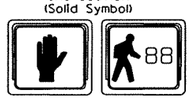


SIGNAL FACES

12" LENSES



One Section (Solid Symbol)



8&9
10&11
12&13

NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISIONS FOR DETAILS ON NEW REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS

HWY. 265 (CROSSOVER RD.)/ZION RD. POLE DIMENSIONS

POLE	MAST ARM	•MAST ARM ANGLE	VERT. SHAFT	LUM. ARM	•LUM. ANGLE
A	64'	180°	35'	20'	90°
B	N/A	N/A	15'	N/A	N/A
C	N/A	N/A	15'	N/A	N/A
D	N/A	N/A	15'	N/A	N/A
E	N/A	N/A	15'	N/A	N/A
F	62'	180°	35'	20'	180°
G	52'	270°	35'	10'	180°

ANGLE MEASURED CLOCKWISE FROM HAND HOLE.

SCALE IN FEET
0 30 60 120

DATE: 09-14-12 FILE NAME: t04518_01.dgn

PERMANENT TRAFFIC SIGNAL

LOCATION: HWY. 265 (CROSSOVER RD.)/ZION RD.
CITY: FAYETTEVILLE
COUNTY: WASHINGTON
DISTRICT: 4 SCALE: 1"=60' DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	129	270

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH 2-4-13

HWY. 265 (CROSSOVER RD.)/ZION RD.

POLE LOCATIONS

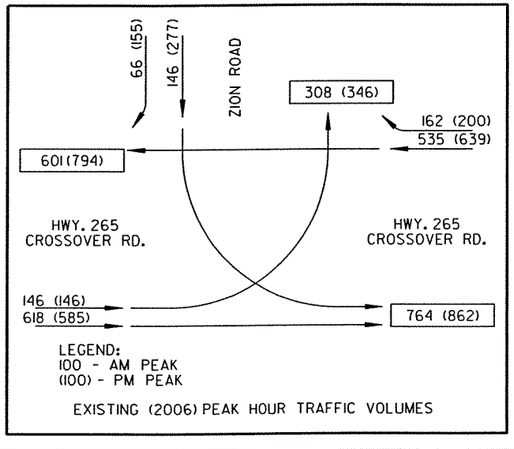
POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 265 - STA. 158+10.25	65' LT.	686858.07, 660464.22
B	HWY. 265 - STA. 158+33.10	79' LT.	686850.03, 660487.40
C	HWY. 265 - STA. 158+39.43	92' LT.	686839.97, 660496.60
D	HWY. 265 - STA. 159+08.13	92' LT.	686856.20, 660560.33
E	HWY. 265 - STA. 159+40.27	51' LT.	686902.18, 660581.53
F	HWY. 265 -STA. 159+40.24	57' RT.	687008.64, 660559.96
G	HWY. 265 - STA. 158+56.96	47' RT.	686978.80, 660477.93

ANTENNA ORIENTATION

ORIENTED TO MASTER RADIO TOWER LOCATED ON MT. SEQUOYAH

161° 28' 41"

TRAFFIC FLOW DIAGRAM



DESIGN PARAMETERS

POSTED SPEED LIMIT:
25 MPH WEST APPROACH
45 MPH NORTH AND SOUTH APPROACH
NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP BARS SHOWN ON PAVEMENT MARKING PLAN. SEE SEPARATE SHEET.

MINIMUM CLEAR ZONE DISTANCE
CONTROLLER - 1.5' FROM HWY. 265
POLE A-J - 1.5' FROM HWY. 265

SCALE IN FEET
0 20 40 80

DATE: 09-14-12 FILE NAME: t040518_01.dgn

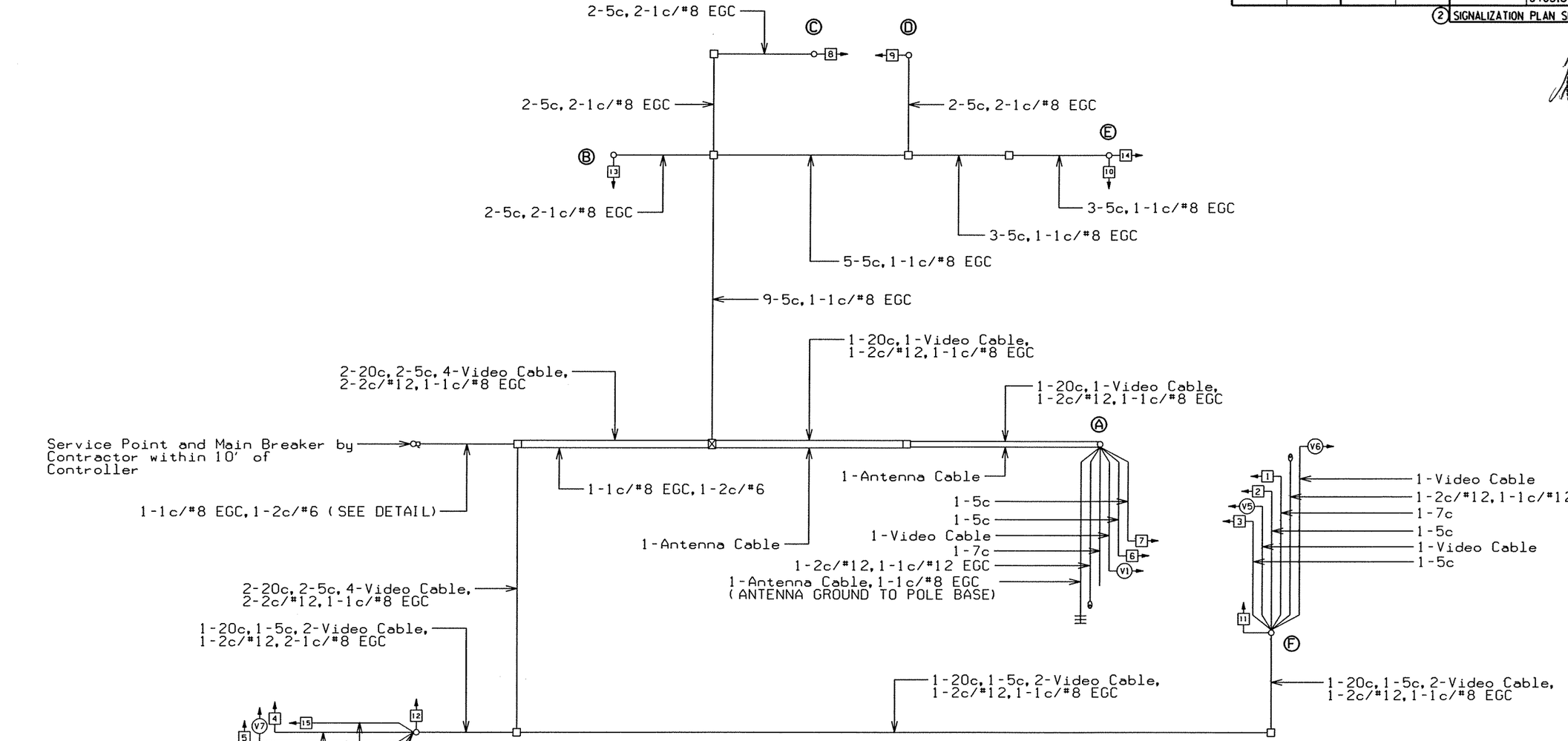
PERMANENT TRAFFIC SIGNAL

LOCATION: HWY. 265 (CROSSOVER RD.)/ZION RD.
CITY: FAYETTEVILLE
COUNTY: WASHINGTON
DISTRICT: 4 SCALE: 1"=40' DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	130	270

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



WIRING DIAGRAM

NOTES TO CONTRACTOR:

1. ONE SEPARATE 1-5c IS RUN TO EACH POLE FOR THE PEDESTRIAN PUSH BUTTON.
2. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
3. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.

PERMANENT TRAFFIC SIGNAL

LOCATION: HWY. 265 (CROSSOVER RD.)/ZION RD.
CITY: FAYETTEVILLE
COUNTY: WASHINGTON
DISTRICT: 4 SCALE: N/A DRAWN BY: GWE

DATE: 09-14-12 FILE NAME: t040518.01.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.		040518	131	270

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

DETECTOR SYSTEM DESCRIPTION: JOB 040518

FAYETTEVILLE - HWY. 265/ZION RD. DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTOR NUMBERS		
DET. ID*	LOCATION DIRECTION	TYPE	DET. *	CAB. TRM *	AMP CHN. *	CON. INP.*	PHS	SYSTEM DET. *			
Vz11	SB LEFT TURN FAR	COMB.			1	V9	1	1		CAMERA V1	74'
Vz12	SB LEFT TURN	LOCAL			2	V1	1			CAMERA V1	74'
Vz21A&B	NB ADVANCE	LOCAL			9	V2	2			CAMERA V2	74'
Vz22	NB INSIDE NEAR	COMB.			10	V10	2	2		CAMERA V5	74'
Vz23	NB OUTSIDE NEAR	COMB.			11	V11	2	4		CAMERA V5	74'
Vz41	EB RT. ADVANCE	LOCAL			17	V12	4			CAMERA V7	74'
Vz42	EB RT. TURN	LOCAL			18	V12	4			CAMERA V7	74'
Vz51	NB LEFT TURN FAR	COMB.			13	V13	5	5		CAMERA V5	74'
Vz52	NB LEFT TURN	LOCAL			14	V5	5			CAMERA V5	74'
Vz61A&B	SB ADVANCE	LOCAL			5	V6	6			CAMERA V6	74'
Vz62	SB INSIDE NEAR	COMB.			6	V14	6	6		CAMERA V1	74'
Vz63	SB OUTSIDE NEAR	COMB.			7	V16	6	8		CAMERA V1	74'
Vz71	EB LEFT TURN FAR	COMB.			19	V15	7	7		CAMERA V7	74'
Vz72	EB LEFT TURN	LOCAL			20	V7	7			CAMERA V7	74'
PB2A&B	ZION RD. N. LEG	PED.				P2	2				
PB4A&B	HWY. 265 S. LEG	PED.				P4	4				
PB8A&B	HWY. 265 N. LEG	PED.				P8	8				
					SPARE 3, 4, 8, 15&16						

NOTE:
"AMP CHN#" REFERS TO THE DETECTOR RACK OUTPUT POSITION AND IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

INTERVAL CHART

SIGNAL FACES	HWY. 265/ZION RD. 1+6	CLR.	2+6	CLR.	4+8	CLR.		FLASH SEQ.
1	~~G~~	•	~~FY~~	•••	~~R~~	~~R~~		~~R~~
2,3&15	G	••	G	••	R	R		R
4&5	R	R	R	R	G	••		R
6,7&14	R	R	G	••	R	R		R
8&9	DW	DW	FDW	DW	DW	DW		BLK
10&11	DW	DW	W	FDW	W	FDW		BLK
12&13	DW	DW	DW	DW	W	FDW		BLK

• DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
•• DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
••• DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

PERMANENT TRAFFIC SIGNAL

LOCATION: HWY. 265 (CROSSOVER RD.)/ZION RD.
CITY: FAYETTEVILLE
COUNTY: WASHINGTON
DISTRICT: 4 SCALE: N/A DRAWN BY: GWE

DATE: 09-14-12 FILE NAME: t040518_01.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.		040518	132	270

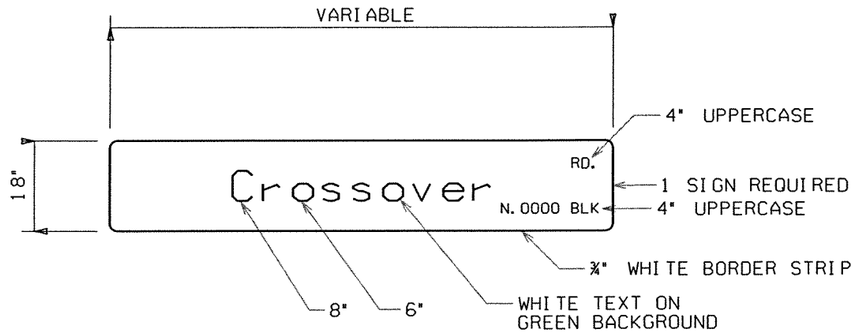
(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

PERMANENT TRAFFIC SIGNAL QUANTITIES

ITEM NO.	ITEM	QUANTITY	UNIT
SP&701	SYSTEM LOCAL CONTROLLER TS 2-TYPE 2 (8 PHASES)	1	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	10	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (4 SECTION, 1 WAY)	2	EACH
SP&707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	6	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	1432	LIN. FT.
708	TRAFFIC SIGNAL CABLE (7C/14 A.W.G.)	269	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	593	LIN. FT.
709	GALVANIZED STEEL CONDUIT (1.25")	20	LIN. FT.
710	NON-METALLIC CONDUIT (1.25")	20	LIN. FT.
710	NON-METALLIC CONDUIT (2")	20	LIN. FT.
710	NON-METALLIC CONDUIT (3")	443	LIN. FT.
SS&711	CONCRETE PULL BOX (TYPE 1HD)	1	EACH
SS&711	CONCRETE PULL BOX (TYPE 2 HD)	5	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (26')	1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (50')	1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (58')	1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (70')	1	EACH
733	VIDEO CABLE	1332	LIN. FT.
SP&733	VIDEO DETECTOR (CLR)	6	EACH
SP&733	VEHICLE DETECTOR RACK (20 CHANNEL)	1	EACH
733	VIDEO MONITOR (CLR)	1	EACH
SP&733	VIDEO PROCESSOR, EDGE CARD (2 CAMERA)	3	EACH
SP&733	VIDEO EDGE CARD EXTENDER	2	EACH
SP	ANTENNA CABLE (TYPE 6)	70	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	784	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., EGC)	498	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., EGC)	200	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	20	LIN. FT.
SP	LOCAL RADIO WITH ANTENNA	1	EACH
SP	LUMINAIRE ASSEMBLY	4	EACH
SP	18" STREET NAME SIGN	4	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH

OVERHEAD STREET NAME MARKER STANDARD MAST ARM MOUNTED





NOTES:

1. REFLECTIVE SHEETING SHALL COMPLY WITH ASTM 4956 TYPE 8 OR 9 REFLECTIVE 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.

3. WHEN CROSSROAD HAS TWO NAMES, THE SIGN FOR THE CROSSROAD TO THE LEFT MAY BE INSTALLED ON THE BACKSIDE OF THE MAST ARM OF THE NEARSIDE LEFT POLE.
SEE STD. DETAIL SHEET FOR MORE INFORMATION FOR MOUNTING ON MAST ARM ASSEMBLY.

4. THE CLEARVIEW 5-W-R FONT SHALL BE USED FOR ALL LETTERS.

DATE: 10-04-12 FILE NAME: t040518_02.dgn

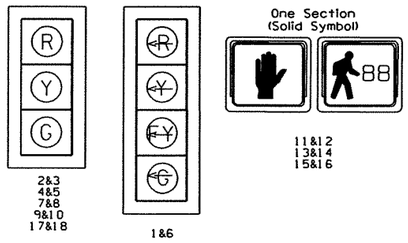
LOCATION: HWY. 265 (CROSSOVER RD.)/HEARTHSTONE DR.
CITY: FAYETTEVILLE
COUNTY: WASHINGTON
DISTRICT: 4 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	133	270

(2) SIGNALIZATION PLAN SHEET

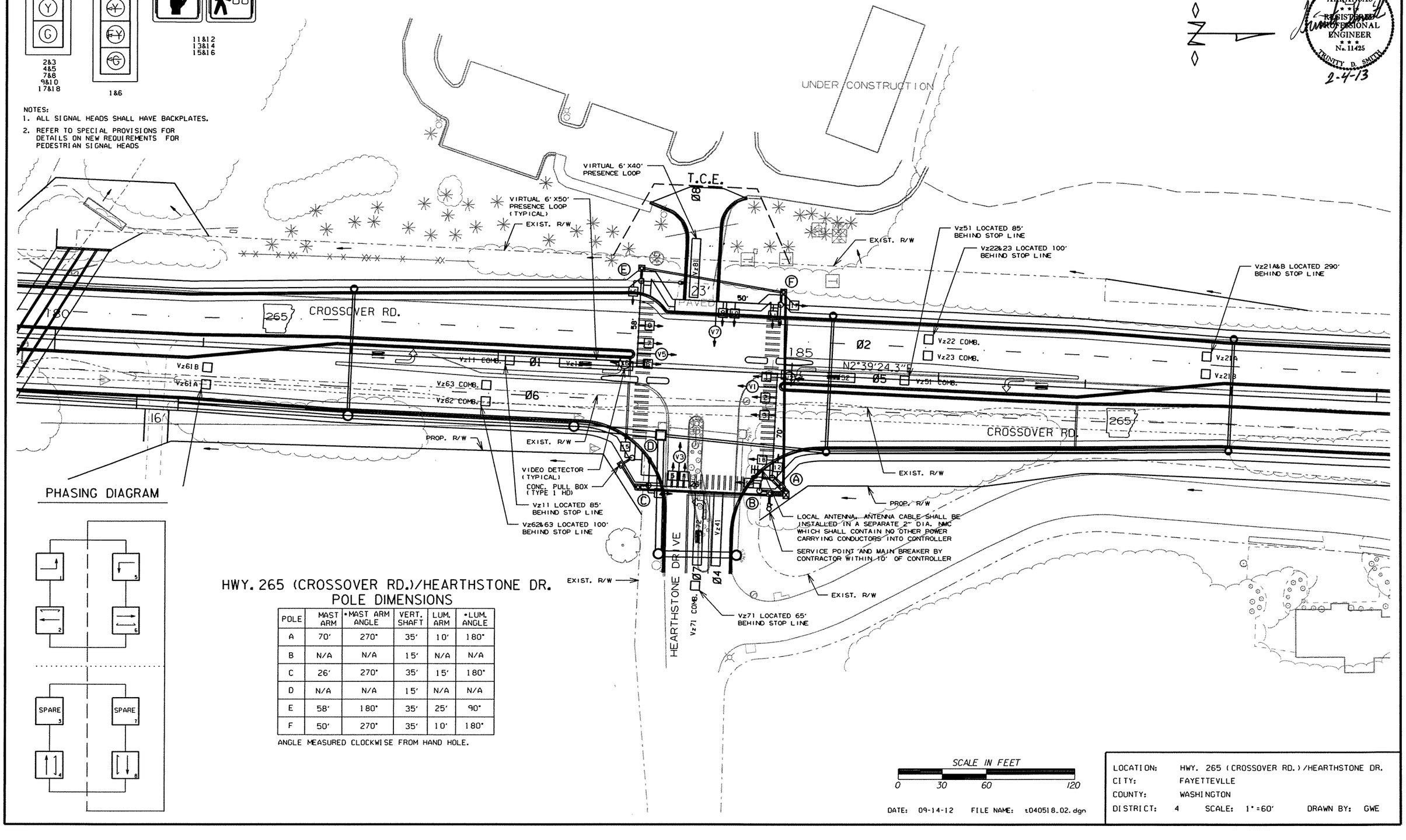
SIGNAL FACES

12" LENSES



NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISIONS FOR DETAILS ON NEW REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



PHASING DIAGRAM

HWY. 265 (CROSSOVER RD.)/HEARTHSTONE DR. POLE DIMENSIONS

POLE	MAST ARM	•MAST ARM ANGLE	VERT. SHAFT	LUM. ARM	•LUM. ANGLE
A	70'	270°	35'	10'	180°
B	N/A	N/A	15'	N/A	N/A
C	26'	270°	35'	15'	180°
D	N/A	N/A	15'	N/A	N/A
E	58'	180°	35'	25'	90°
F	50'	270°	35'	10'	180°

ANGLE MEASURED CLOCKWISE FROM HAND HOLE.

SCALE IN FEET
0 30 60 120

DATE: 09-14-12 FILE NAME: t040518_02.dgn

LOCATION: HWY. 265 (CROSSOVER RD.)/HEARTHSTONE DR.
CITY: FAYETTEVLLE
COUNTY: WASHINGTON
DISTRICT: 4 SCALE: 1"=60' DRAWN BY: GWE

HWY. 265 (CROSSOVER RD.)/HEARTHSTONE DR.
POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 265 - STA. 184+90.26	70' RT.	687117.99, 663114.86
B	HWY. 265 - STA. 184+82.15	80' RT.	687126.85, 663106.34
C	HWY. 265 - STA. 184+06.88	80' RT.	687123.33, 663031.01
D	HWY. 265 - STA. 183+94.75	62' RT.	687104.52, 663019.87
E	HWY. 265 - STA. 183+94.77	58' LT.	686984.62, 663025.46
F	HWY. 265 - STA. 184+90.17	46' LT.	687000.71, 663120.22

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

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

UNDER CONSTRI

163° 02' 39"

ANTENNA ORIENTATION

ORIENTED TO MASTER RADIO TOWER LOCATED ON MT. SEQUOYAH

VIRTUAL 6' X40' PRESENCE LOOP

T.C.E.

VIRTUAL 6' X50' PRESENCE LOOP (TYPICAL)

EXIST. R/W

Vz81

Vz51 LOCATED 85' BEHIND STOP LINE

Vz22&23 LOCATED 100' BEHIND STOP LINE

Vz22 COMB.

Vz23 COMB.

Vz51 COMB.

265

CROSSOVER RD.

23' PAVED

50'

58'

70'

185

N2°39'24.3"E

Ø1 Ø2 Ø4 Ø5 Ø6 Ø7 Ø8

Vz11 COMB.

Vz63 COMB.

Vz62 COMB.

Vz71 COMB.

Vz41

Vz72

PROP. R/W

EXIST. R/W

VIDEO DETECTOR (TYPICAL)

CONC. PULL BOX (TYPE 1 HD)

Vz11 LOCATED 85' BEHIND STOP LINE

Vz62&63 LOCATED 100' BEHIND STOP LINE

Vz71 LOCATED 65' BEHIND STOP LINE

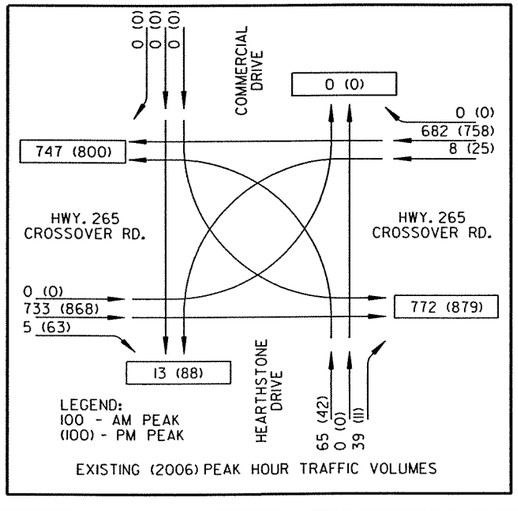
HEARTHSTONE DRIVE

LOCAL ANTENNA, ANTENNA CABLE SHALL BE INSTALLED IN A SEPARATE 2" DIA. NMC WHICH SHALL CONTAIN NO OTHER POWER CARRYING CONDUCTORS INTO CONTROLLER

SERVICE POINT AND MAIN BREAKER BY CONTRACTOR WITHIN 10' OF CONTROLLER

SCALE IN FEET
0 20 40 80

TRAFFIC FLOW DIAGRAM



EXISTING (2006) PEAK HOUR TRAFFIC VOLUMES

DESIGN PARAMETERS

POSTED SPEED LIMIT:
25 MPH WEST APPROACH
45 MPH NORTH AND SOUTH APPROACH
NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
YES SIGHT DISTANCE RESTRICTIONS

LOCATION OF STOP BARS SHOWN ON PAVEMENT MARKING PLAN. SEE SEPARATE SHEET.

MINIMUM CLEAR ZONE DISTANCE
CONTROLLER - 1.5 FEET FROM HWY. 265
POLE A - 11.5 FEET FROM HWY. 265

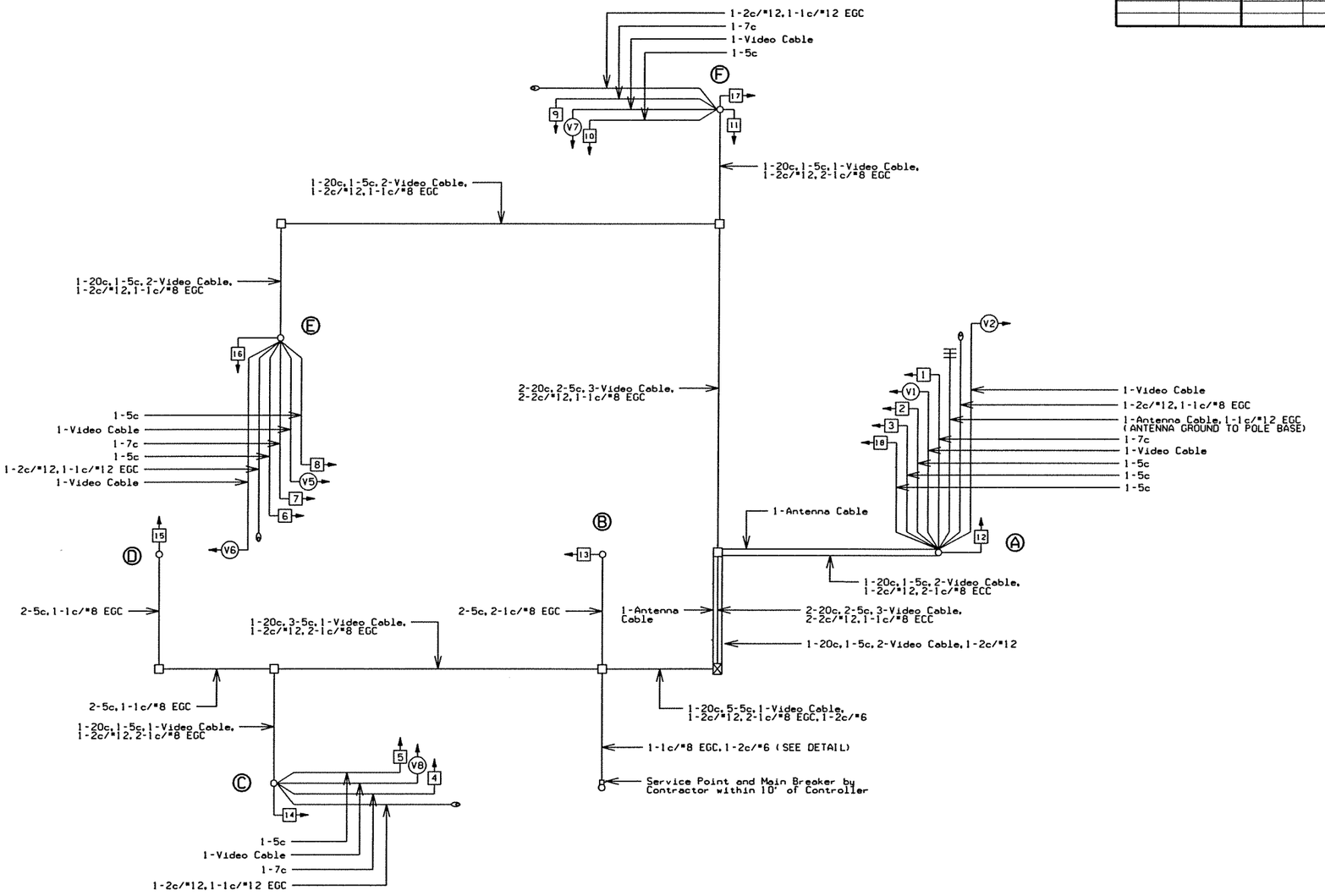
LOCATION: HWY. 265 (CROSSOVER RD.)/HEARTHSTONE DR.
CITY: FAYETTEVILLE
COUNTY: WASHINGTON
DISTRICT: 4 SCALE: 1"=40' DRAWN BY: GWE

DATE: 09-14-12 FILE NAME: t040518_02.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.		040518	135	270

(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13



WIRING DIAGRAM

NOTES TO CONTRACTOR:

1. ONE SEPARATE 1-5c IS RUN TO EACH POLE FOR THE PEDESTRIAN PUSH BUTTON.
2. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
3. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.

DATE: 10-04-12 FILE NAME: t040518_02.dgn

LOCATION: HWY. 265 (CROSSOVER RD.)/HEARTHSTONE DR.
CITY: FAYETTEVILLE
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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(2) SIGNALIZATION PLAN SHEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

DETECTOR SYSTEM DESCRIPTION: JOB 040518

FAYETTEVILLE - HWY.285/HEARTHSTONE DR. DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
							LOCAL		MASTER SYSTEM DETECTOR NUMBERS		
DET. ID*	LOCATION DIRECTION	TYPE	DET. *	CAB. TRM *	AMP CHN. *	CON. INP.*	PHS	SYSTEM DET. *			
Vz11	SB LEFT TURN FAR	COMB.			1	V9	1	1		CAMERA V1	74'
Vz12	SB LEFT TURN	LOCAL			2	V1	1			CAMERA V1	74'
Vz21A&B	NB ADVANCE	LOCAL			9	V2	2			CAMERA V2	74'
Vz22	NB INSIDE NEAR	COMB.			10	V10	2	2		CAMERA V5	74'
Vz23	NB OUTSIDE NEAR	COMB.			11	V12	2	4		CAMERA V5	74'
Vz41	EB ADVANCE	LOCAL			17	V4	4			CAMERA V7	74'
Vz51	NB LEFT TURN FAR	COMB.			13	V13	5	5		CAMERA V5	74'
Vz52	NB LEFT TURN	LOCAL			14	V5	5			CAMERA V5	74'
Vz61A&B	SB ADVANCE	LOCAL			5	V6	6			CAMERA V6	74'
Vz62	SB INSIDE NEAR	COMB.			6	V14	6	6		CAMERA V1	74'
Vz63	SB OUTSIDE NEAR	COMB.			7	V16	6	8		CAMERA V1	74'
Vz71	EB LEFT TURN FAR	COMB.			18	V15	7	7		CAMERA V7	74'
Vz72	EB LEFT TURN	LOCAL			19	V7	7			CAMERA V7	74'
Vz81	WB NEAR	LOCAL			20	V8	8			CAMERA V3	74'
PB2A&B	WEST LEG	PED.				P2	2				
PB4A&B	HWY. 265 N. LEG	PED.				P4	4				
PB6A&B	HEARTHSTONE E. LEG	PED.				P6	6				
PB8A&B	HWY. 265 S. LEG	PED.				P8	8				
					SPARE 3,4,8,12,15&16						

NOTE:
"AMP CHN" REFERS TO THE DETECTOR RACK OUTPUT POSITION AND IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.

CONTROLLER INPUT ABBREVIATIONS:
V = VEHICLE INPUT
D = SYSTEM OR AUXILIARY INPUT
P = PEDESTRIAN INPUT

INTERVAL CHART

SIGNAL FACES	HWY. 265 (CROSSOVER RD.)/HEARTHSTONE DR.										FLASH SEQ.
	1+5	CLR.	1+6	CLR.	2+5	CLR.	2+6	CLR.	4+8	CLR.	
1	~~G~~	•	~~G~~	•	~~FY~~	•••	~~FY~~	•••	~~R~~	~~R~~	~~R~~
2,3&18	R	R	G	••	R	R	G	••	R	R	R
4&5	R	R	R	R	R	R	R	R	G	••	R
6	~~G~~	•	~~FY~~	•••	~~G~~	•	~~FY~~	•••	~~R~~	~~R~~	~~R~~
7,8&17	R	R	R	R	G	••	G	••	R	R	R
9&10	R	R	R	R	R	R	R	R	G	••	R
11&12	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	BLK
13&14	DW	DW	W	FDW	DW	DW	W	FDW	DW	DW	BLK
15&16	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	BLK

• DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
•• DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE
••• DENOTES FLASHING YELLOW ARROW OR YELLOW ARROW DEPENDING ON NEXT PHASE

DATE: 09-14-12 FILE NAME: t040518_02.dgn

LOCATION: HWY. 265 (CROSSOVER RD.)/HEARTHSTONE DR.
CITY: FAYETTEVILLE
COUNTY: WASHINGTON
DISTRICT: 4 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	137	270

(2) SIGNALIZATION PLAN SHEET

HWY. 265 (CROSSOVER RD.)/HEARTHSTONE DR. SOUTHBOUND WARNING BEACON 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)
A	34'	270 DEGREES	21'-0"	NA	NA

ANGLE MEASURED CLOCKWISE FROM HAND HOLE.

HWY. 265 (CROSSOVER RD.)/HEARTHSTONE DR. POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET
A	HWY. 265 - STA. 194+34.51	57' LT.

ANGLE MEASURED CLOCKWISE FROM HAND HOLE.

WARNING BEACON QUANTITIES

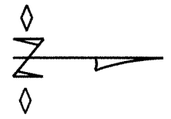
ITEM NO.	ITEM	QUANTITY	UNIT
703	FLASHING BEACON CONTROLLER	1	EACH
SP&706	TRAFFIC SIGNAL HEAD, LED, (1 SECTION, 1 WAY)	2	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	110	LIN. FT.
709	GALVANIZED STEEL CONDUIT (1.25")	20	LIN. FT.
710	NON-METALLIC CONDUIT (1.25")	20	LIN. FT.
710	NON-METALLIC CONDUIT (2")	20	LIN. FT.
SS&711	CONCRETE PULL BOX (TYPE 1HD)	1	EACH
SS&714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (34')	1	EACH
SS&726	STANDARD SIGN	16	SQ. FT.
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., EGC)	20	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	20	LIN. FT.

SIGNAL FACES

12" LENSES



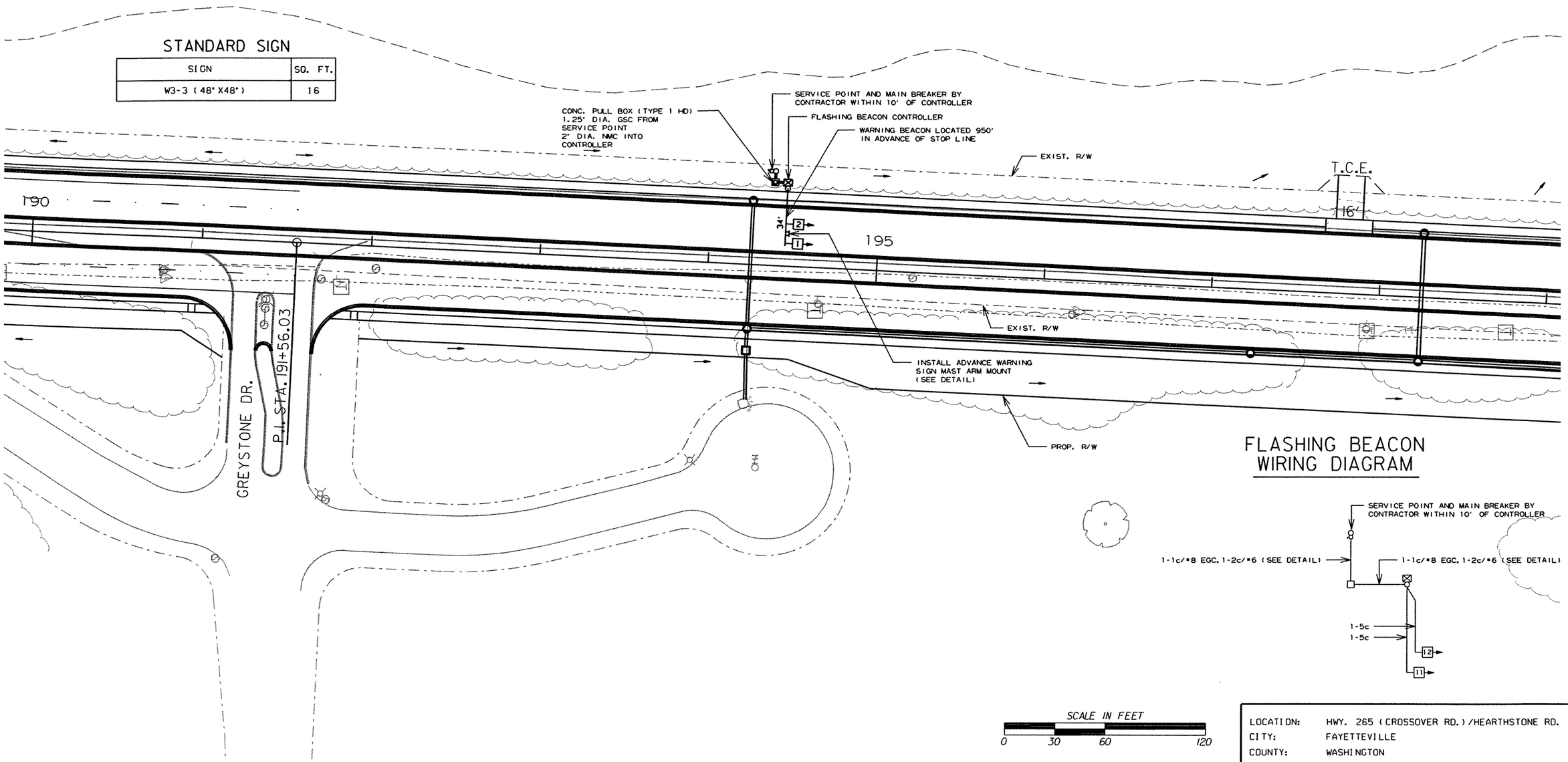
1&2



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2-4-13

STANDARD SIGN

SIGN	SQ. FT.
W3-3 (48"X48")	16



FLASHING BEACON WIRING DIAGRAM

SCALE IN FEET

0 30 60 120

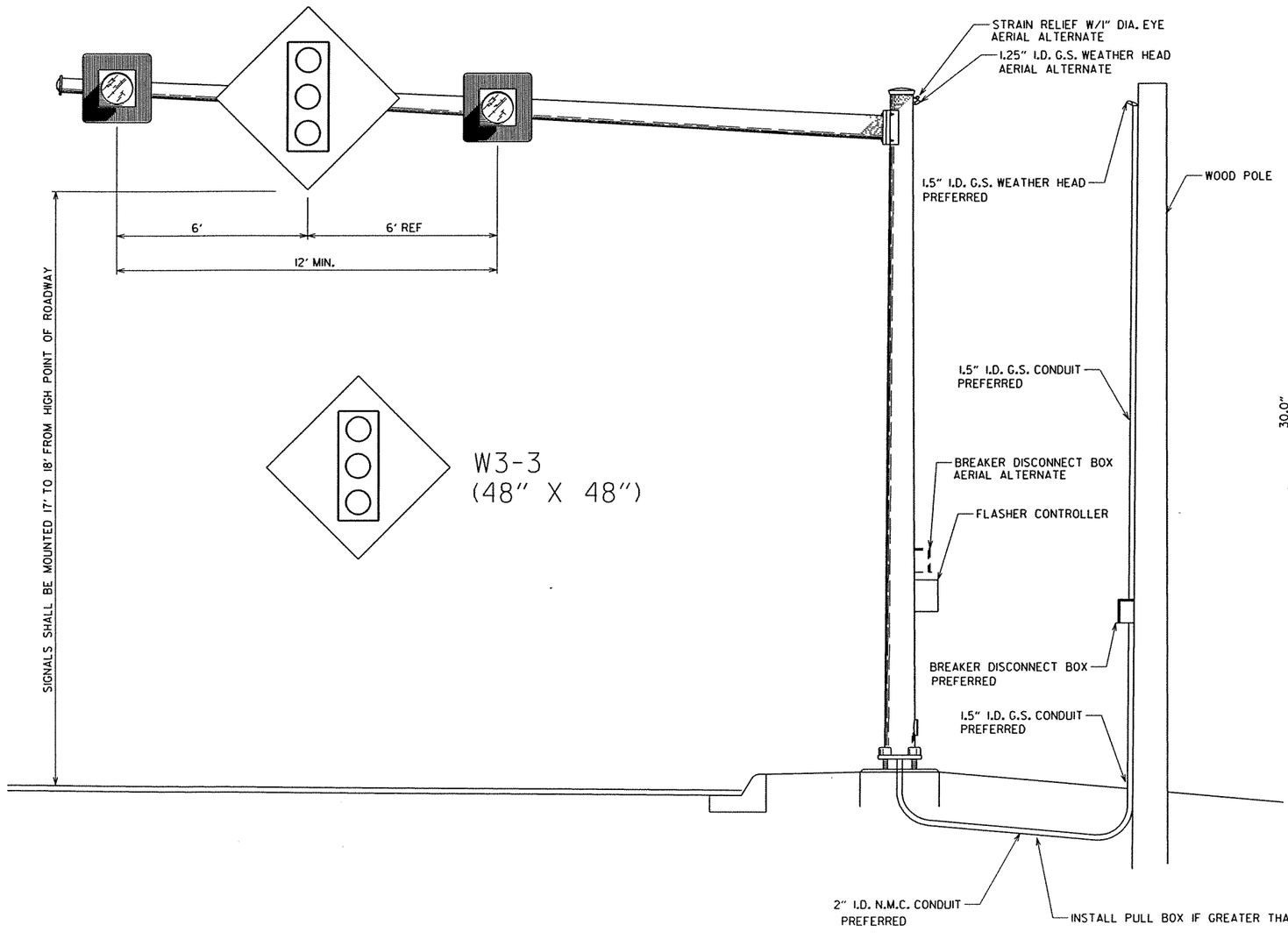
DATE: 10-04-12 FILE NAME: t040518.02.dgn

LOCATION: HWY. 265 (CROSSOVER RD.)/HEARTHSTONE RD.
CITY: FAYETTEVILLE
COUNTY: WASHINGTON
DISTRICT: 4 SCALE: 1"=60' DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	138	270

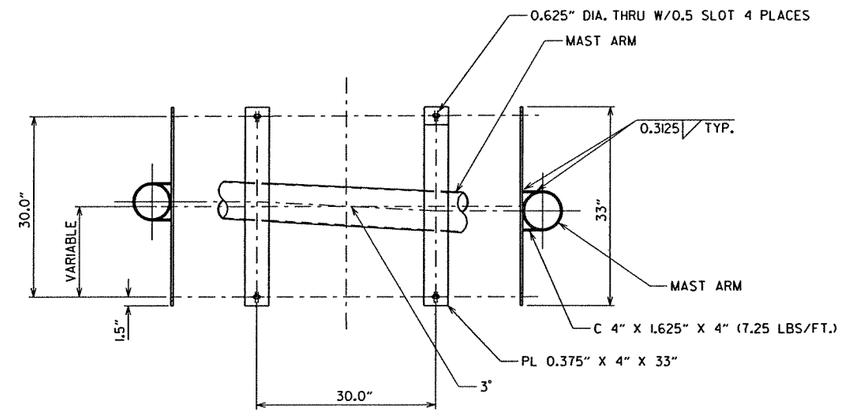
(2) OVERHEAD SIGN DETAILS

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NOTES

1. THE SIGN MOUNTING BRACKET SHALL BE SUBSIDIARY TO THE PAY ITEM - TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION.
2. MAST ARM, POLE, HARDWARE, AND MOUNTING BRACKET SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 714.
3. A COMMERCIALLY MANUFACTURED MOUNTING PLATE OR BRACKET MAY BE SUBMITTED FOR APPROVAL IN LIEU OF THE MOUNTING PLATE SHOWN.
4. EACH SIGNAL HEAD SHALL HAVE A SEPARATE 5 CONDUCTOR SIGNAL CABLE.



MOUNTING BRACKET

N.T.S.

OVERHEAD SIGN MOUNTING DETAILS

N.T.S.

DATE	REVISION	DATE FILM
4-17-08	MINOR REVISIONS	
6-21-06	REVISED	
4-14-03	REVISED	
7-14-95	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

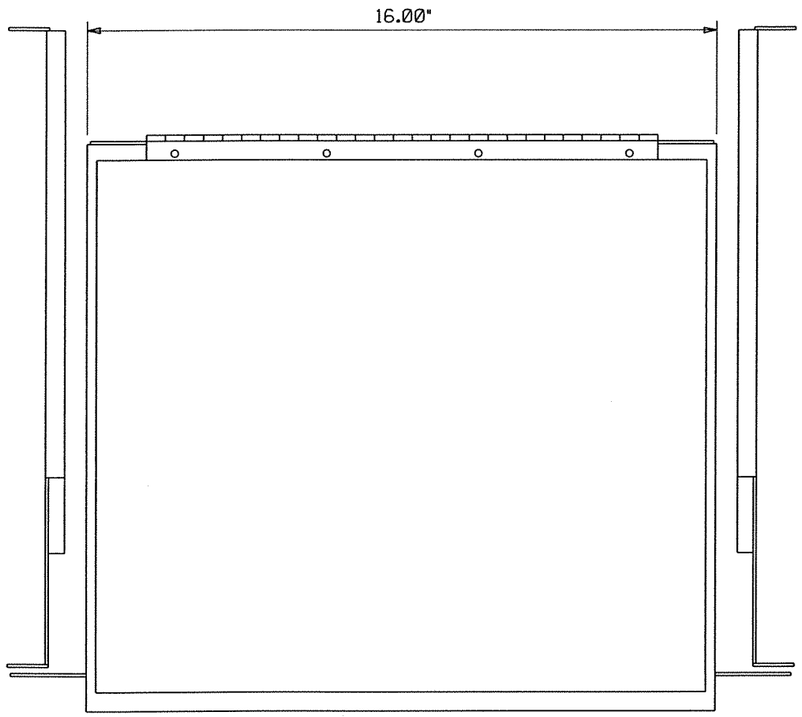
OVERHEAD SIGN DETAILS
(Overhead Sign Mounted on Steel Pole With Mast Arm)

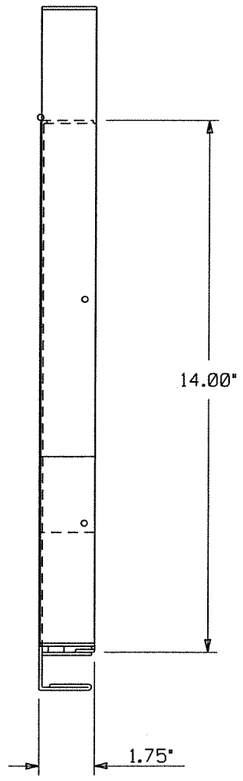
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	139	270

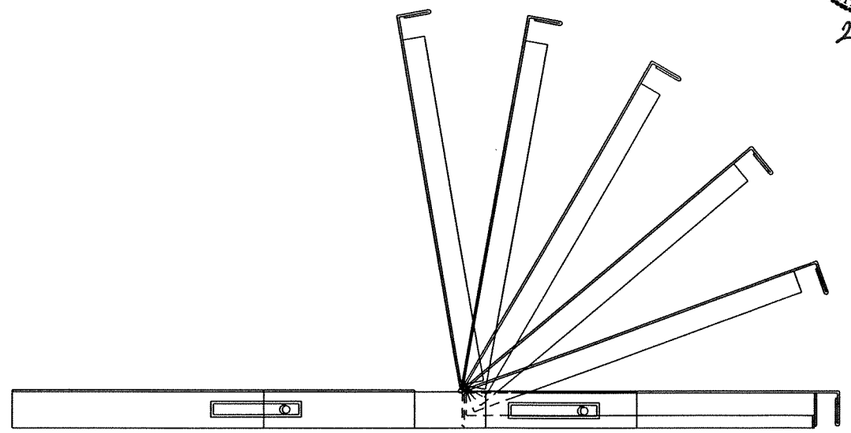
(2) SIGNALIZATION DETAILS

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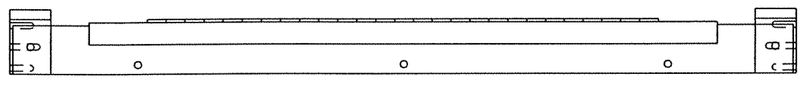
DRAWER PLAN VIEW



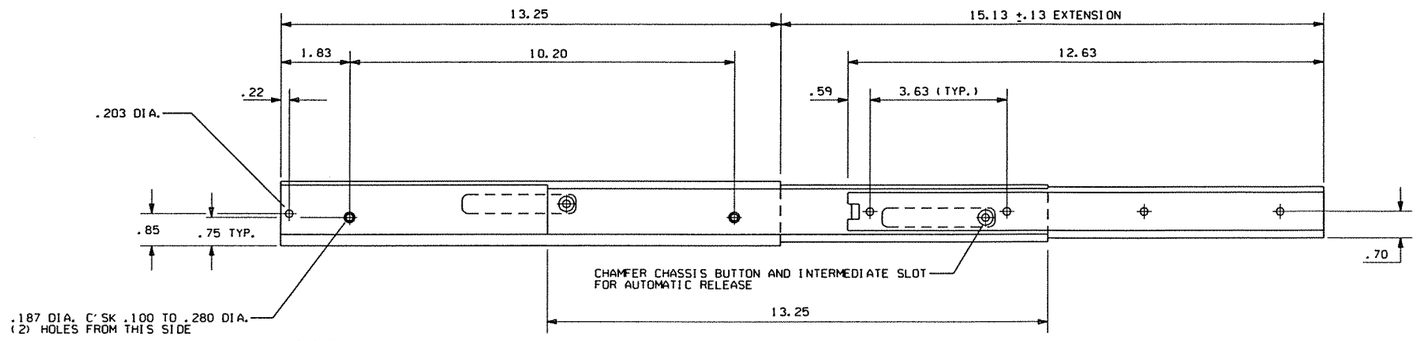




NOTES:
1. RIGHT HAND SLIDE SHOWN, LEFT SLIDE OPPOSITE.
2. GENERAL DEVICES (CC3002-99-0102) OR EQUAL AND CONTAINS (1) RIGHT HAND SLIDE ASSEMBLY, (1) LEFT HAND SLIDE ASSEMBLY.
3. ALL HARDWARE NECESSARY TO FASTEN SLIDE ASSEMBLY TO UNDERSIDE OF CONTROLLER SHELF SHALL BE INCLUDED.



FRONT VIEW



RIGHT SIDE ASSEMBLY

6-15-05	ISSUED	
DATE	REVISION	DATE FILM

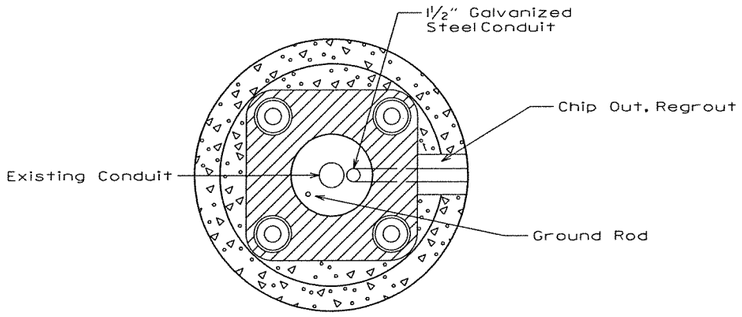
ARKANSAS STATE HIGHWAY COMMISSION

SIGNALIZATION DETAIL
(Controller Cabinet Utility Drawer)

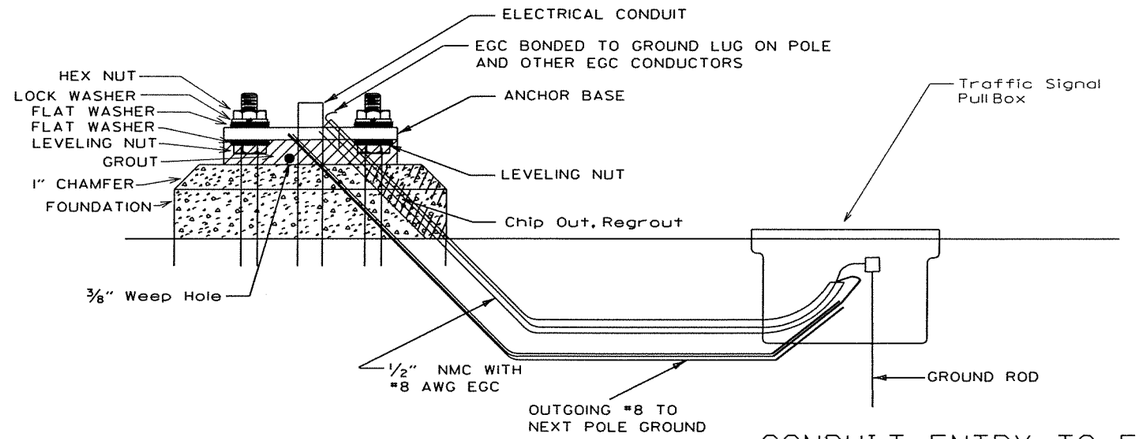
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	140	270

(2) SIGNALIZATION DETAILS

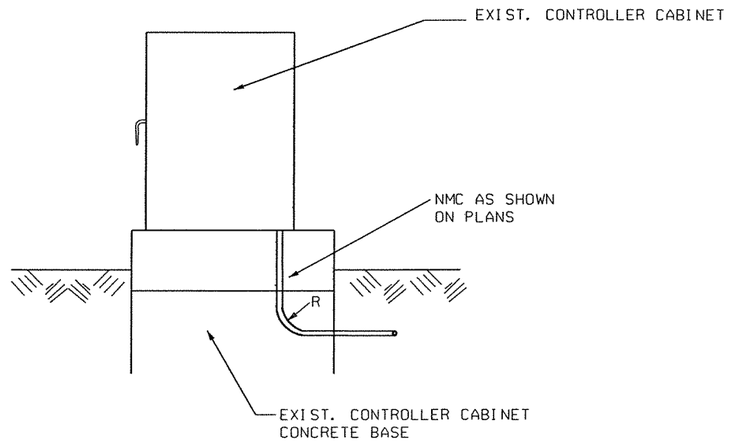
CONDUIT ENTRY TO EXISTING POLE BASE



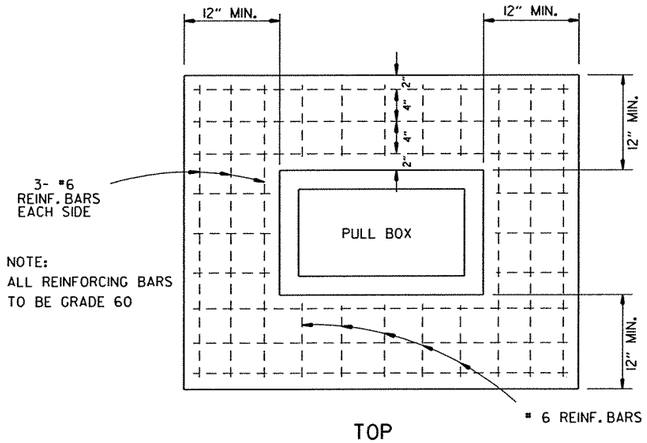
ANCHOR BASE



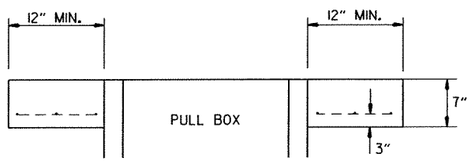
CONDUIT ENTRY TO EXISTING CONTROLLER CABINET



NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

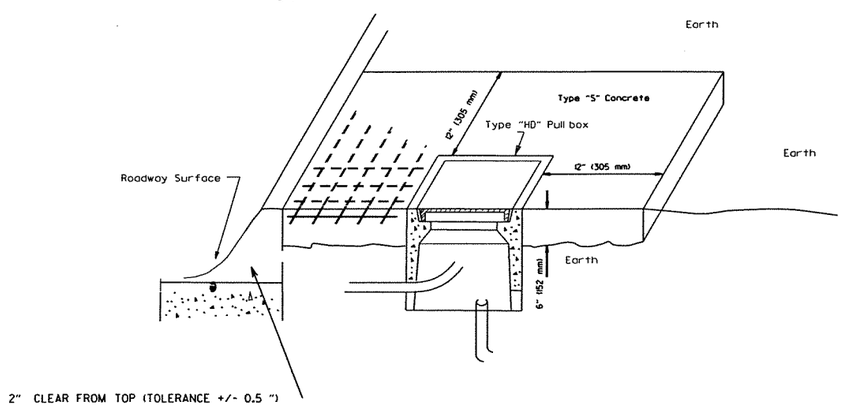


TOP



ELEVATION

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." Three #6 reinforcing bars in the apron on all sides of the pull box is required in concrete.

DATE	REVISION	DATE FILM
5-21-09	REVISED GROUNDING	
7-31-08	ADDED & REVISED CONDUIT ENTRY	
6-23-04	REVISED CLEARANCE AT CURB ENTRY	
1-4-02	ADDED REINFORCING TO BOX APRON	
7-2-01	REVISED	
12-27-99	REVISED NOTES	
11-18-98	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

SIGNALIZATION DETAIL
(Heavy Duty Pull Box)

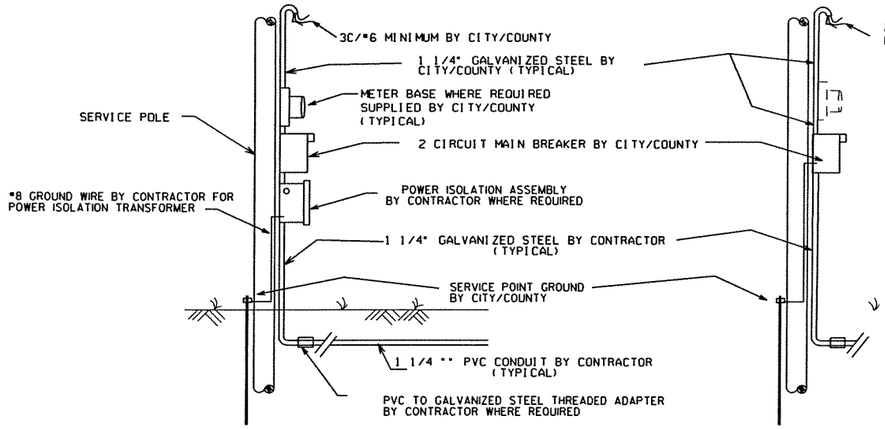
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	141	270

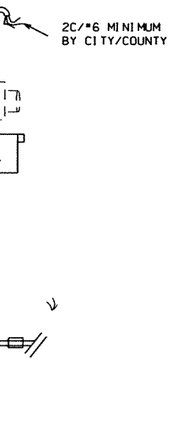
(2) SIGNALIZATION DETAILS

MAIN BREAKER NOT NEAR CONTROLLER CABINET SECONDARY REQUIRED

WITH POWER ISOLATION ASSEMBLY

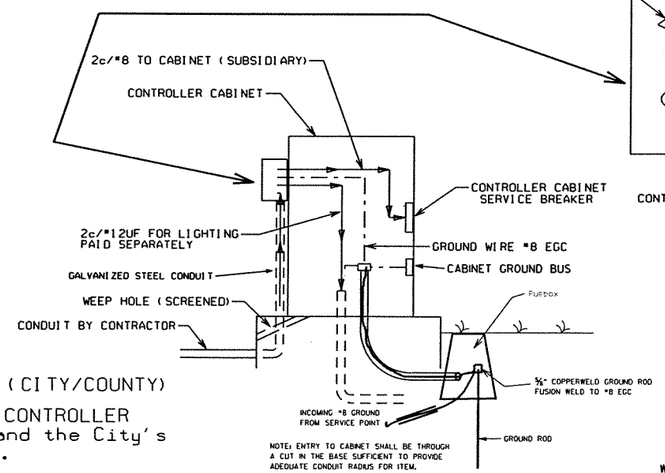


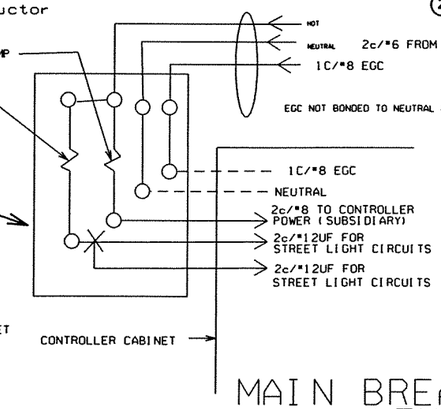
WITHOUT POWER ISOLATION ASSEMBLY



Ground Rod-A 10' x ⅝" ground rod shall be installed in the pull box for each pole and the controller. Payment for the ground rod and ½" NMC shall be included in Item 701. The pull box and conductor box shall be paid for separately.

SECONDARY BREAKER BY CONTRACTOR (SUBSIDIARY)





MAIN BREAKER WIRING (TYPICAL)

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 11425 TRINITY D. SMITH 2-4-13

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.

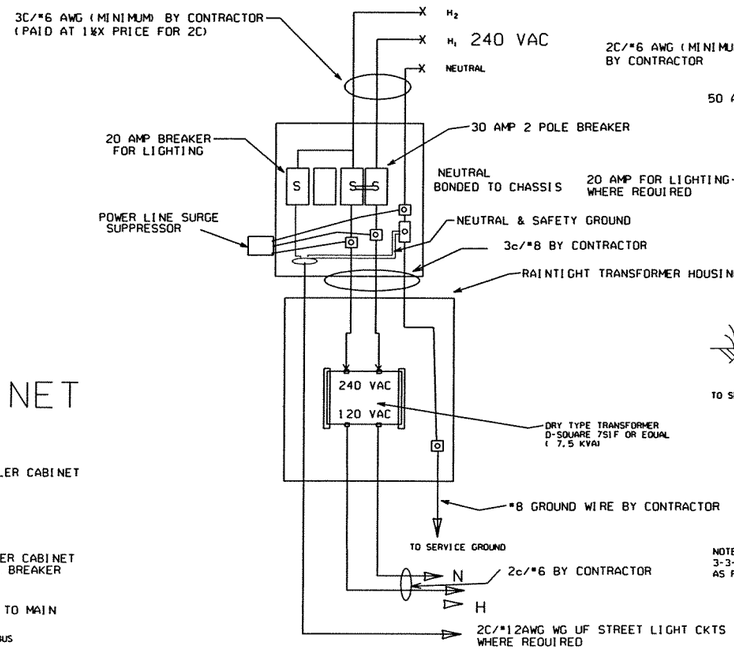
1. ALL SITUATIONS: Electrical service shall be provided by the City/County to a service pole with external raintight breaker (MAIN BREAKER) at a mutually acceptable point within the right-of-way. Service point includes galvanized steel conduit to a point 18" below ground line, two circuit main breaker, 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.

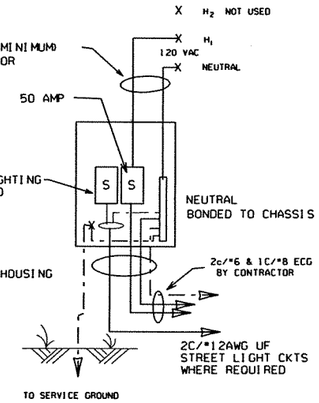
3. MAIN BREAKER NEAR CONTROLLER CABINET: All components of the service point with the exception of the wire and wiring above the Main Breaker is furnished and installed by the Contractor. Wiring from Main Breaker including connection to the utility, is the responsibility of the City/County. If meter 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

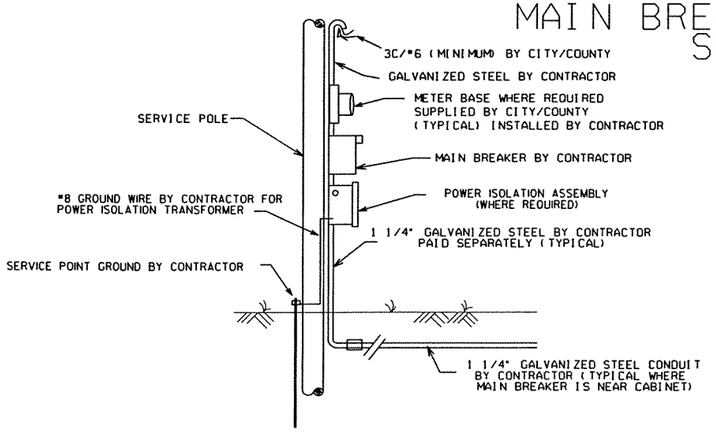


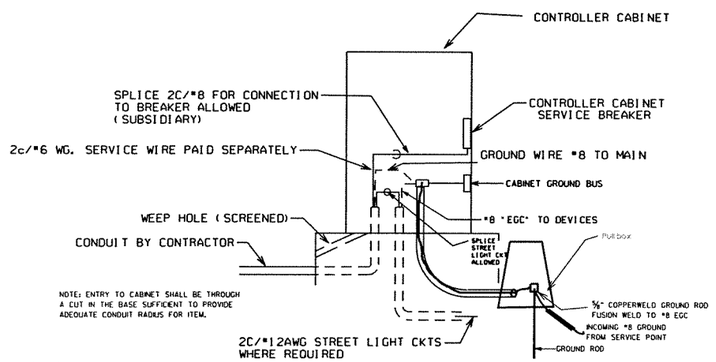
WITHOUT POWER ISOLATION ASSEMBLY
2 CIRCUIT MAIN BREAKER



NOTE: ELECTRICAL GROUND CONDUCTOR (EGG) 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





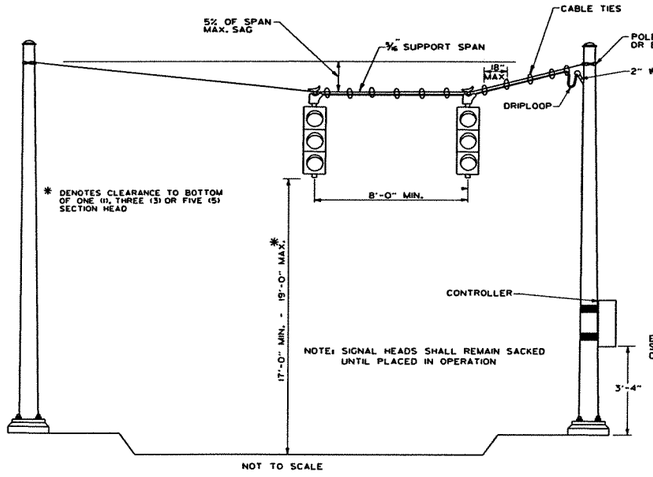
DATE	REVISION	DATE FILM
5-21-09	REVISED GROUNDING	
7-31-08	REVISED GROUNDING	
3-3-03	ADDED EGC NOTE	
9-26-01	REVISED	
12-27-99	REVISED	
7-28-99	REVISED	
2-5-99	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

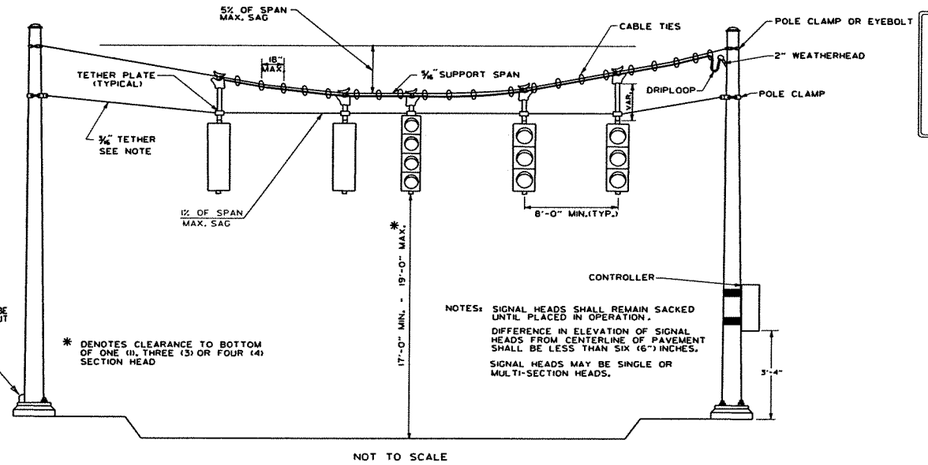
SIGNALIZATION DETAIL (Service Point)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	142	270

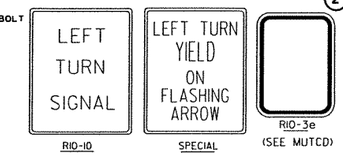
(2) SIGNALIZATION DETAILS

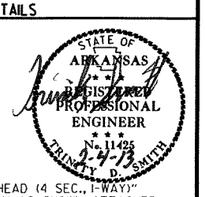


TYPICAL SPAN WIRE ASSEMBLY



TYPICAL SPAN WIRE ASSEMBLY WITH TETHER





NOTES:
EACH ITEM "TRAFFIC SIGNAL HEAD (4 SEC., 1-WAY)" SHALL INCLUDE A SPECIAL SIGN AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD UNLESS REMOVED WITHIN SIGNAL PLAN NOTES.

SIGN BLANK SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209, ALLOY 5052-H38) WITH A THICKNESS OF 0.100 INCH.

SIGN FACE SHALL BE CONSTRUCTED OF HIGH INTENSITY SHEETING (TYPE III) WITH SILKSCREEN LEGEND AND BORDER.

EACH ITEM "TRAFFIC SIGNAL HEAD (3 SEC., 1-WAY)", TO BE USED AS A LEFT TURN INDICATION ONLY, SHALL INCLUDE A SIGN (RIO-10) AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD.

TETHER STRAND SHALL BE EITHER 5#32" OR 3#16" HIGH FATIGUE STAINLESS STEEL AIRCRAFT CABLE IN 7/19 CONFIGURATION, MIL-W-83420 CERTIFIED, WITH A MINIMUM STRENGTH OF 2400 LB.

SIGNAL OPERATION NOTES:

FLASHING OPERATION - PRIOR TO NORMAL OPERATION, SIGNAL SHALL BE FLASHED FOR A PERIOD OF 3 TO 5 WORK DAYS. SIGNAL SHALL BE PLACED IN OPERATION ONLY ON A REGULAR WORK DAY, EXCEPT FRIDAY.

THE CONTRACTOR MAY BE REQUIRED TO ALTER THE FLASHING DISPLAY DURING THE TEMPORARY FLASH PERIOD. AT THE TIME THE 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.

FOUNDATION NOTES

1. ALL REINFORCING STEEL SHALL BE GRADE 40 MINIMUM.
2. SPAN WIRE POLES WITH A 9" OR 10" POLE BASE SHALL USE FOUNDATIONS THAT ARE 30" IN DIA. AND 9'-0" IN DEPTH. VERTICAL REINFORCING SHALL BE 12-#7 @ 102". HORIZONTAL REINFORCING STEEL SHALL BE 13-#4 @ 8.333" O.C.
3. SPAN WIRE POLES WITH AN 11", 12" OR 13" POLE BASE SHALL USE FOUNDATIONS THAT ARE 30" IN DIA. AND 12'-0" IN DEPTH. VERTICAL REINFORCING STEEL SHALL BE 12-#7 @ 138". HORIZONTAL REINFORCING STEEL SHALL BE 17-#4 @ 8.5" O.C.
4. ALL PED POLES SHALL USE FOUNDATIONS THAT ARE 30" IN DIAMETER AND 7'-0" IN DEPTH. VERTICAL REINFORCING STEEL SHALL BE 12-#7 @ 78". HORIZONTAL REINFORCING STEEL SHALL BE 10-#4 @ 8.44" O.C.

NOTES: SPAN WIRE POLES SHALL BE MOUNTED A MINIMUM OF 4' BEHIND CURB OR SHOULDER.

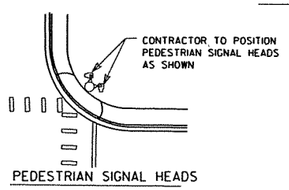
OCTAGONAL POLES AND ARMS MEETING THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS CAN BE INSTALLED IN LIEU OF ROUND POLES AND ARMS. ALL POLES AND ARMS IN A JOB MUST BE OF THE SAME SHAPE.

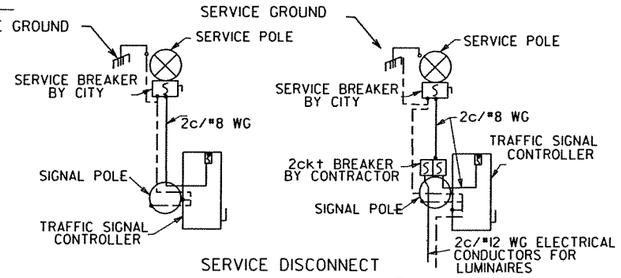
SPAN WIRE ASSEMBLIES WILL REQUIRE TETHER UNLESS OTHERWISE NOTED ON PLAN SHEETS.

CABLE TIES SHALL BE SUITABLE FOR OUTSIDE USE (BLACK).

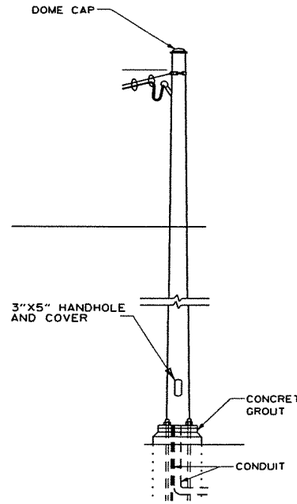
THE ANCHOR BOLTS AND SWEEPING "L" CONDUIT SHALL BE PLACED IN THE FOUNDATION IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE FOUND ROD SHALL EXTEND A MINIMUM OF 8' BELOW CABINET FOUNDATION.

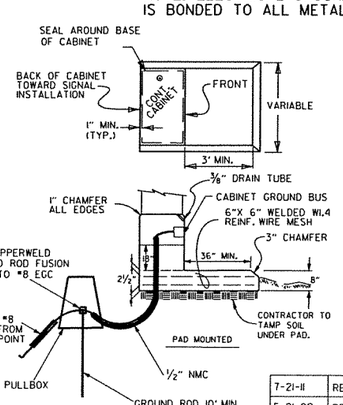
THE CONTROLLER POWER SUPPLY GROUND BUSS SHALL BE BONDED TO THE FOUNDATION GROUND ROD WITH A #8 AWG SOLID COPPER WIRE. ON EXISTING FOUNDATIONS WITH NO GROUND ROD, CONTRACTOR SHALL INSTALL A 10' x 5/8" COPPERWELD GROUND ROD.



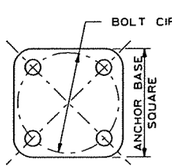


NOTE: ELECTRICAL GROUND CONDUCTOR IS BONDED TO ALL METAL ENCLOSURES

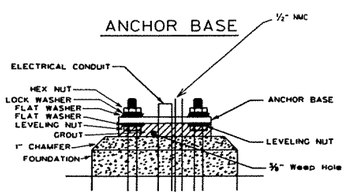


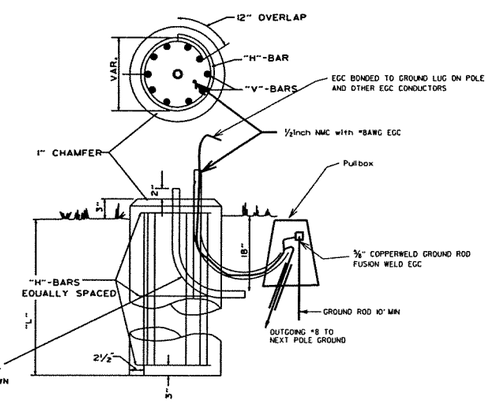


CONCRETE BASE MOUNTED CABINET DETAILS



ANCHOR BASE





TYPICAL FOUNDATION DETAILS

GROUND ROD - A 10' X 5/8" GROUND ROD SHALL BE INSTALLED IN THE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND 1/2" NMC SHALL BE INCLUDED IN ITEM 713 FOR SIGNAL POLES AND ITEM 701 FOR THE CONTROLLER. THE PULL BOX AND EGC CONDUCTOR SHALL BE PAID FOR SEPARATELY.

ALL CONCRETE SHALL BE CLASS "S" WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH F'c=3500 PSI. CONCRETE SHALL BE POURED IN THE DRY AND ALL EXPOSED CORNERS CHAMFERED 3/4" UNLESS NOTED OTHERWISE.

ALL REINFORCING STEEL SHALL CONFORM TO AASHTO M31 OR M53, GRADE 40 (YIELD STRENGTH=40,000 PSI).

SPAN WIRE ASSEMBLY WITH SPAN WIRE SUPPORT POLE

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, CABINET ORIENTATION SHALL BE SUCH THAT THE BACK OF THE CABINET IS PARALLEL TO THE STREET AND POSITIONED TO ALLOW VISIBILITY OF THE SIGNAL DISPLAY WHILE OBSERVING THE CONTROLLER FRONT PANEL.

MINIMUM STRUCTURAL REQUIREMENTS:
DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.

USE FATIGUE CATEGORY II.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2003 EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

BASE WIND SPEED: 90 MPH

STEEL MEMBERS CONSIDERED MAIN LOAD CARRYING MEMBERS WITH THICKNESS GREATER THAN 1/2" SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST SPECIFIED IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS.

DATE	REVISION	DATE FILM
7-21-11	REVISED PEDESTRIAN SIGN & GROUNDING	
5-21-09	REVISED GROUNDING	
9-10-08	REV. STEEL AIRCRAFT CABLE CONFIGURATION NOTE	
7-31-08	REVISED GROUNDING	
4-18-08	REVISED AASHTO NOTES	
4-17-08	REVISED TO 2001 AASHTO STANDARDS	
10-12-04	REV. CABINET ORIENTATION & SIGNAL OPERATION	
5-22-02	REVISED	
12-27-99	REVISED	
11-18-98	REVISION TO NOTES	
11-21-95	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

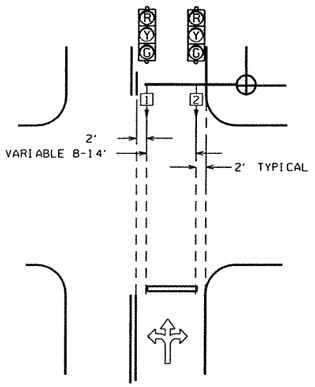
SIGNALIZATION DETAIL
(Span Wire Assembly Steel Pole)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	143	270

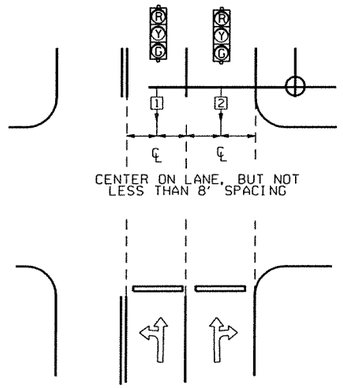
(2) SIGNALIZATION DETAILS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

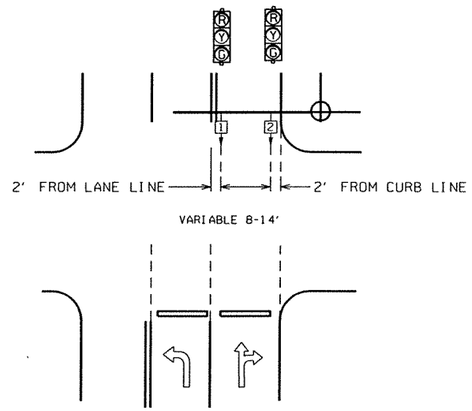
(A)



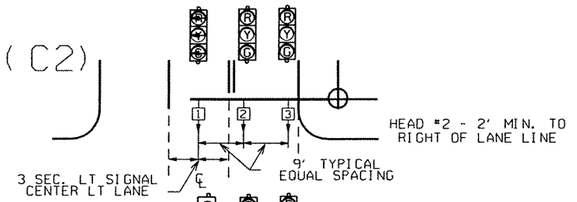
(B)



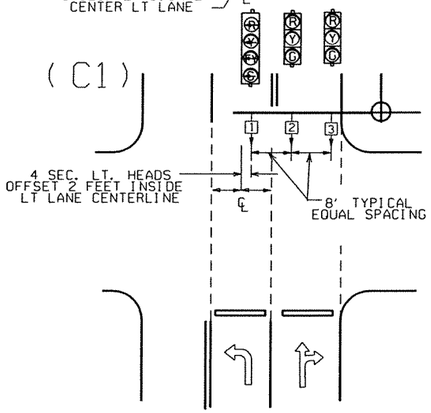
(C)



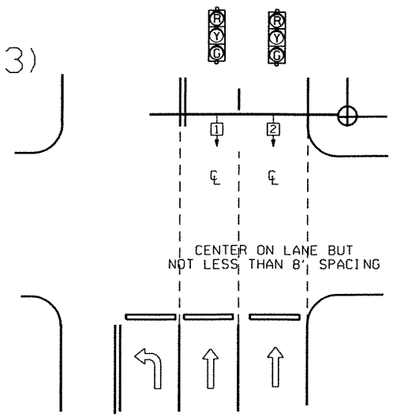
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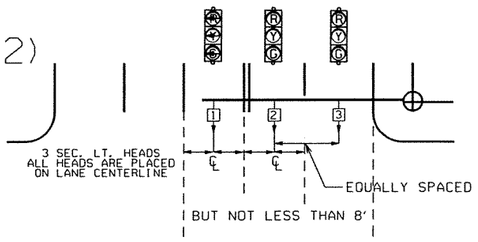
(C1)



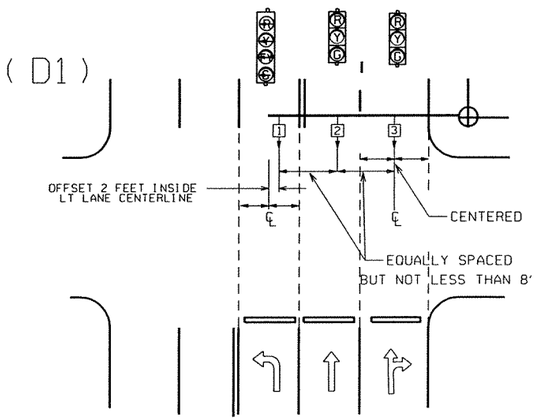
(C3)



(D2)

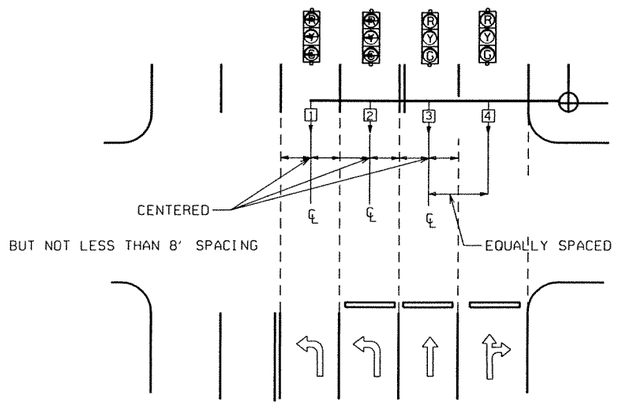


(D1)



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. FOUR 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 ON CENTER, MEASURED HORIZONTALLY PERPENDICULAR TO THE APPROACH.

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.

6. MAXIMUM MOUNTING HEIGHT OF SIGNAL FACES LOCATED BETWEEN 40 FEET AND 53 FEET FROM STOP BAR SHALL BE IN ACCORDANCE WITH FIGURE 4D-1 OF 2009 MUTCD.

DATE	REVISION	DATE FILM
3-11-10	2009 MUTCD	
12-9-99	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

SIGNALIZATION DETAIL
(Signal Head Placement)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	144	270

(2) SIGNALIZATION DETAILS

NOTES. PED AND TRAFFIC SIGNAL HEAD SIGNS: EACH ITEM 'TRAFFIC SIGNAL HEAD (4 SEC., 1-WAY)' SHALL INCLUDE A SPECIAL SIGN AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD UNLESS REMOVED WITHIN THE SIGNAL PLAN NOTES.

EACH ITEM 'TRAFFIC SIGNAL HEAD (3 SEC., 1-WAY)' TO BE USED AS A LEFT TURN INDICATION ONLY SHALL INCLUDE A SIGN (R10-10) AS SHOWN, ATTACHED TO THE MAST ARM OR SPAN ASSEMBLY 12" TO THE RIGHT OF THE SIGNAL HEAD.

EACH PEDESTRIAN PUSHBUTTON SHALL HAVE ONE R10-3E 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:
DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.

USE FATIGUE CATEGORY I FOR ALL STRUCTURES ON ROUTES WHERE THE SPEED LIMIT IS 65 MPH AND GREATER AT THE STRUCTURE LOCATION AND ON ROUTES WHERE SPEED LIMIT IS GREATER THAN 45 MPH WITH AN ARM 60' OR LONGER.

USE FATIGUE CATEGORY II FOR STRUCTURES ON ROUTES WITH A SPEED LIMIT LESS THAN 65 MPH AND GREATER THAN 45 MPH WITH ARMS LESS THAN 60' AND ROUTES WITH SPEED LIMITS OF 45 MPH AND LESS WITH AN ARM 60' OR LONGER.

USE FATIGUE CATEGORY III FOR ALL STRUCTURES WHERE SPEED LIMIT IS 45 MPH AND LESS AND ARMS LESS THAN 60'.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2003 EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

BASE WIND SPEED: 90 MPH.

STEEL MEMBERS CONSIDERED MAIN LOAD CARRYING MEMBERS WITH A THICKNESS GREATER THAN 1/2" SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TEST SPECIFIED IN SUBSECTION 807.05 OF THE STANDARD SPECIFICATIONS.

DEAD LOAD: AS A MINIMUM, DESIGN SHALL BE BASED ON THE FIXED ATTACHMENTS SHOWN BELOW OR AS MODIFIED IN THE PLANS.

ALL SIGNAL HEADS TO BE ONE WAY, 12 INCH, AND HAVE 5 IN. BACK PLATES:

HEADS AT END OF ARM - ONE 4 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) * VARIABLE 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.

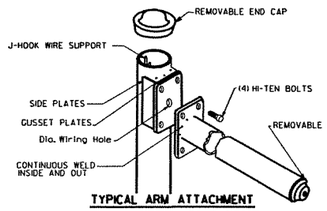
4. POLE/MAST ARM CAP -- POLE AND MAST ARMS CAPS SHALL BE PROVIDED, FABRICATED OF EITHER STEEL OR CAST ALUMINUM.

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. A VACUUM FORMED ABS COVER IS AN ACCEPTABLE ALTERNATE TO STEEL. POLES GREATER THAN 21 FT. IN HEIGHT (FOR ROADWAY LUMINAIRE ATTACHMENT) SHALL INCLUDE A HAND HOLD WITHIN 12 INCHES OF MAST ARM(S) ATTACHMENT(S).

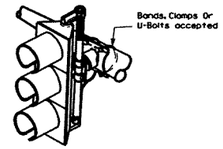
6. POLE/MAST ARM TAPER AND SLOPE - AVERAGE TAPER OF SIGNAL ARMS AND POLE SHALL BE 0.125 TO 0.15 INCHES PER FT.

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.

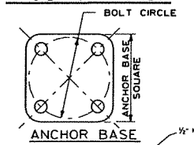
7. NUT COVERS - EACH POLE SHALL INCLUDE A BOLT DOWN NUT COVER FOR EACH ANCHOR BOLT.



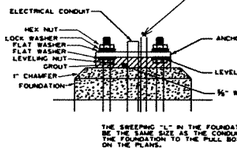
TYPICAL ARM ATTACHMENT

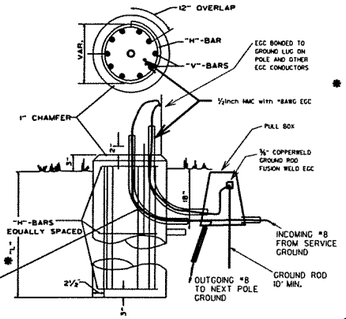


NOTE: THE SIGNAL SHALL BE CONNECTED TO THE MAST ARM BY BRACKETING AS DIRECTED BY THE ENGINEER.



ANCHOR BASE



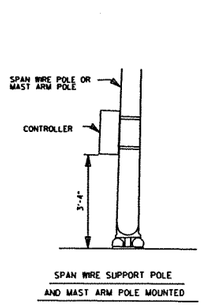


THE GROUND ROD SHALL BE FUSION WELDED TO A 1C/#8 A.W.G. SOLID COPPER GROUND WIRE. ATTACHMENT TO THE PRIMARY GROUND MAY BE BY AN APPROVED CLAMP. THE ROD IS TO BE LOCATED IN THE CONCRETE PULL BOX.

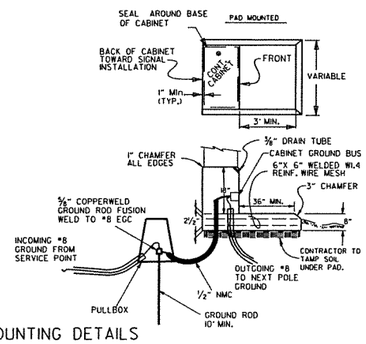
TYPICAL FOUNDATION DETAILS

POLE FOUNDATION MINIMUM DIMENSIONS AND STEEL REINFORCING. ALL REINFORCING STEEL SHALL BE GRADE 40 MIN.

ARM LENGTH	FDN. DIAMETER	DEPTH "L" *	STEEL VERT.	STEEL HORZ.	STEEL O/C.
PED	30"	7'-0"	12-#7 (6'-6")	10-#4	8.44"
2' to 12'	30"	10'-6"	12-#7 (10'-0")	15-#4	8.42"
over 12' to 20'	30"	11'-6"	12-#7 (11'-0")	16-#4	8.66"
over 20' to 35'	36"	12'-6"	13-#8 (12'-0")	17-#4	8.88"
over 35' to 50'	36"	13'-6"	13-#8 (13'-0")	19-#4	8.56"
over 50' to 72'	42"	14'-6"	18-#8 (14'-0")	20-#4	8.74"
Twins to 20'	30"	16'-0"	12-#6 (15'-6")	22-#4	8.76"
Twins over 20' to 44'	36"	16'-0"	13-#8 (15'-6")	22-#4	8.76"
Twins over 44' to 50'	42"	16'-0"	18-#8 (15'-6")	22-#4	8.76"
Twins over 50' to 72'	42"	16'-6"	18-#8 (16'-0")	23-#4	8.64"



SPAN WIRE SUPPORT POLE AND MAST ARM POLE MOUNTED



CONTROLLER CABINET MOUNTING DETAILS

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, CABINET ORIENTATION SHALL BE SUCH THAT THE BACK OF THE CABINET IS PARALLEL TO THE STREET AND POSITIONED TO ALLOW VISIBILITY OF THE SIGNAL DISPLAY WHILE OBSERVING THE CONTROLLER FRONT PANEL.

8. GROUND ROD - A 10' X 5/8" GROUND ROD SHALL BE INSTALLED IN THE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND 1/2" NMC SHALL BE INCLUDED IN ITEM 714 FOR SIGNAL POLES AND ITEM 701 FOR THE CONTROLLER. THE PULL BOX AND CONDUCTOR BOX SHALL BE PAID FOR SEPARATELY.

9. POLE BASE/FOUNDATION - ANCHOR BOLTS SHALL INCLUDE AS A MINIMUM, ONE LEVELING NUT, TWO FLAT WASHERS, ONE LOCK WASHER, AND ONE HEX. NUT. PERIMETER OF ANCHOR BASE SHALL BE GROUTED WITH A 1/4" 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.

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 WORK DAY, EXCEPT FRIDAY.

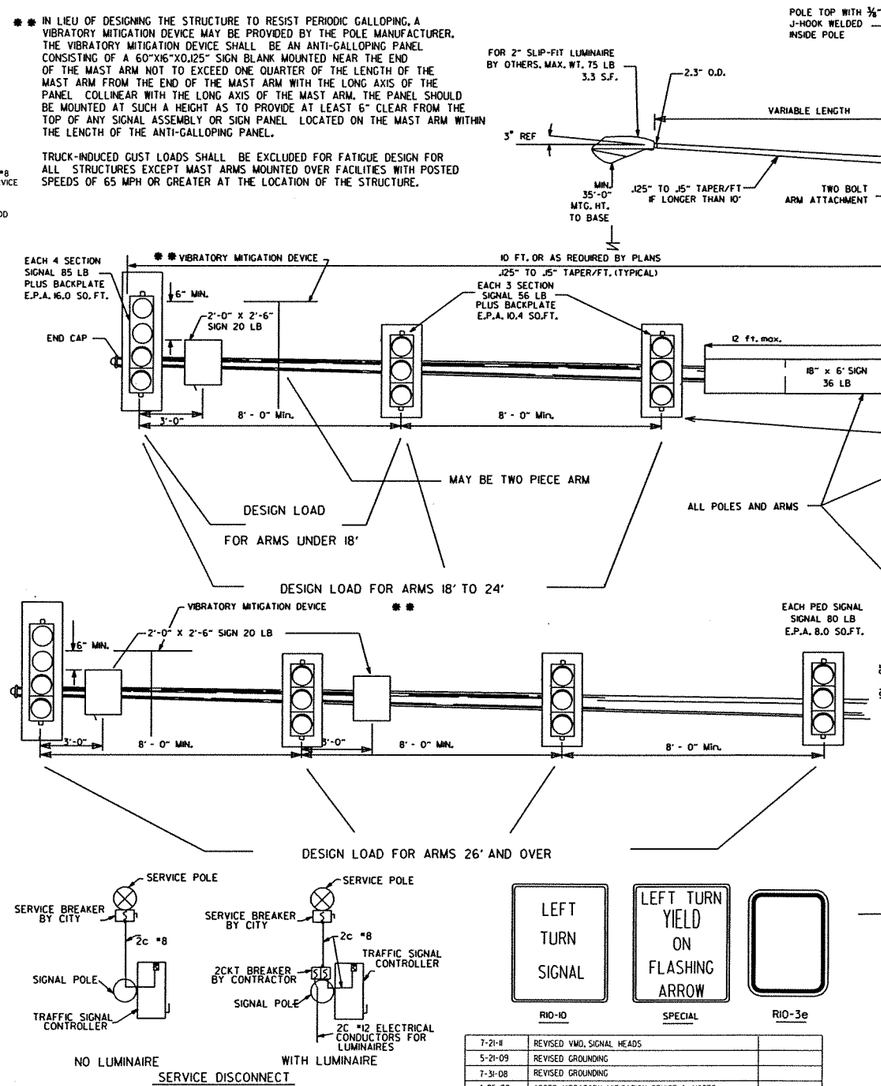
THE CONTRACTOR MAY BE REQUIRED TO ALTER THE FLASHING DISPLAY DURING THE TEMPORARY FLASH PERIOD, AT THE TIME INTERSECTION IS PLACED IN PERMANENT OPERATION, THE FLASH SEQUENCE SHALL THEN BE RETURNED TO THAT INDICATED ON THE PLAN SHEETS. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THESE ALTERATIONS IN FLASH SEQUENCE.

SPECIAL NOTE: 90 MPH WIND ZONE DESIGN, SEE NOTE 3. MINIMUM STRUCTURAL REQUIREMENTS.

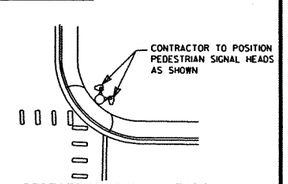
* WHEN THE GROUND ELEVATION AT THE POLE IS LOWER THAN THE ROADWAY ELEVATION, THE LENGTH OF FOUNDATION ABOVE THE GROUND MAY BE INCREASED TO PROVIDE THE REQUIRED SIGNAL HEAD CLEARANCE ABOVE THE ROADWAY. WHEN THE REQUIRED LENGTH OF FOUNDATION ABOVE THE GROUND IS 18" OR LESS, NO INCREASE IN DEPTH "L" WILL BE REQUIRED. WHEN THE REQUIRED LENGTH OF FOUNDATION ABOVE THE GROUND IS 5'-6" OR LESS, INCREASE DEPTH "L" BY 1'-0". FOR LENGTHS GREATER THAN 5'-6", DEPTH "L" SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER. LONGITUDINAL REINFORCING, AS SHOWN IN THE TABLE, SHALL BE PROVIDED FOR THE LENGTH OF THE EXTENDED SHAFT AND #4 TIES SHALL BE PROVIDED AT A SPACING NOT TO EXCEED 9" ON CENTERS. PAYMENT WILL BE IN ACCORDANCE WITH SECTION 714 OF THE STANDARD SPECIFICATIONS.

** IN LIEU OF DESIGNING THE STRUCTURE TO RESIST PERIODIC GALLOPING, A VIBRATORY MITIGATION DEVICE MAY BE PROVIDED BY THE POLE MANUFACTURER. THE VIBRATORY MITIGATION DEVICE SHALL BE AN ANTI-GALLOPING PANEL CONSISTING OF A 60"X16"X0.125" SIGN BLANK MOUNTED NEAR THE END OF THE MAST ARM NOT TO EXCEED ONE QUARTER OF THE LENGTH OF THE MAST ARM FROM THE END OF THE MAST ARM WITH THE LONG AXIS OF THE PANEL COLLINEAR WITH THE LONG AXIS OF THE MAST ARM. THE PANEL SHOULD BE MOUNTED AT SUCH A HEIGHT AS TO PROVIDE AT LEAST 6" CLEAR FROM THE TOP OF ANY SIGNAL ASSEMBLY OR SIGN PANEL LOCATED ON THE MAST ARM WITHIN THE LENGTH OF THE ANTI-GALLOPING PANEL.

TRUCK-INDUCED GUST LOADS SHALL BE EXCLUDED FOR FATIGUE DESIGN FOR ALL STRUCTURES EXCEPT MAST ARMS MOUNTED OVER FACILITIES WITH POSTED SPEEDS OF 65 MPH OR GREATER AT THE LOCATION OF THE STRUCTURE.



SERVICE DISCONNECT



PEDESTRIAN SIGNAL HEADS

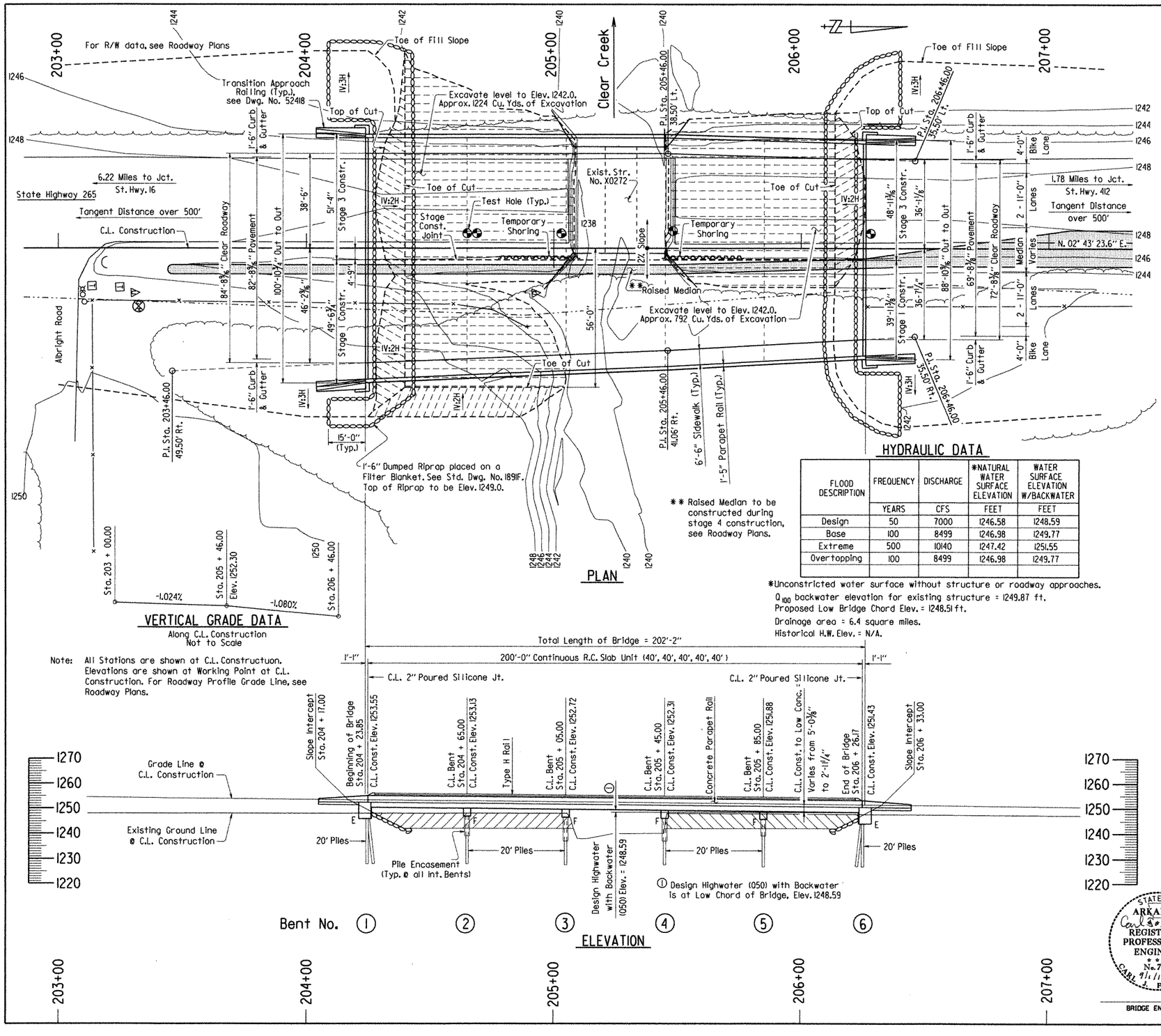
DATE	REVISION	DATE FILM
7-21-11	REVISED VMO, SIGNAL HEADS	
5-21-09	REVISED GROUNDING	
7-31-08	REVISED GROUNDING	
4-25-08	ADDED VIBRATORY MITIGATION DEVICE & NOTES	
4-18-08	REVISED AASHTO NOTES	
4-17-08	REVISED TO 2001 AASHTO STANDARDS	
10-12-04	REVISED CABINET ORIENTATION	
6-23-04	REVISED	
5-11-04	REV. NOTE 3/AASHTO REQUIREMENTS	
6-8-01	REV. NOTES & POLE MAST ARM SLOPE	
4-11-01	REVISED POLE TAPERS	
4-25-00	REV. NOTES & SIGNAL HEAD PLACEMENT	
11-22-99	REVISED FOUNDATION DETAILS	
11-17-98	REVISED DETAILS AND NOTES	
11-21-95	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

SIGNALIZATION DETAILS (Steel Pole With Mast Arm)

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 11425
TRINITY D. SMITH
2-4-13

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.		040518	145	270
				① 07229		LAYOUT		52396



HYDRAULIC DATA

FLOOD DESCRIPTION	FREQUENCY	DISCHARGE	*NATURAL WATER SURFACE ELEVATION	WATER SURFACE ELEVATION W/BACKWATER
	YEARS	CFS	FEET	FEET
Design	50	7000	1246.58	1248.59
Base	100	8499	1246.98	1249.77
Extreme	500	10140	1247.42	1251.55
Overtopping	100	8499	1246.98	1249.77

*Unconstricted water surface without structure or roadway approaches.
Q_{100} backwater elevation for existing structure = 1249.87 ft.
Proposed Low Bridge Chord Elev. = 1248.51 ft.
Drainage area = 6.4 square miles.
Historical H.W. Elev. = N/A.

GENERAL NOTES

BENCH MARK: BM: 918 Chisled Sq. Center HW LT, 41.2' LT. of Sta. 205 + 25.77, Elev. 1247.12.

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 in the plans, Section and subsection numbers refer to the Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications Fifth Edition (2010), with 2010 interim specifications.

LIVE LOADING: HL93 METHOD OF DESIGN: LRFD

SEISMIC ZONE: 1

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)	f'c = 4,000 psi
Class S Concrete (substructure)	f'c = 3,5000 psi
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)	fy = 60,000 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 in bents no. 1 & 6 shall be HP 12 X 53 piles and shall be driven with an approved air, steam or diesel hammer to a minimum safe bearing capacity of 50 tons per pile and driven into material designated as limestone on the boring legend. All piling in bents no. 2 - 5 shall be HP 14 X 73 piles and shall be driven with an approved air, steam, or dieselhammer to a minimum safe bearing capacity of 95 tons per pile and driven into material designated as 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. Piling in end bents shall be driven after embankment to bottom of cap is in place. On all piles the contractor shall use approved steel H-Pile driving points.

PREBORING: All piling in Bents 2 thru 5 shall be prebored a minimum of 3' into Limestone. After driving, prebored holes in rock shall be backfilled with Class S Concrete to top of rock. All remaining void spaces shall be backfilled as specified in subsection 805.08.

Prebored holes shall have a minimum diameter of 20". The Contractor shall be responsible for keeping prebored holes free of debris prior to backfilling, which may require the use of temporary casings or other methods. Preboring, backfill and any required casings shall not be paid for separately but shall be considered subsidiary to the item "Preboring".

PILE ENCASEMENT: Pile encasements shall be 27" ø and shall extend from the bottom of cap to Elevation 1239.0 for Bents 2 & 5, and to elevation 1237.0 for Bents 3 & 4. See Dwg. No. 14995A. Corrugated metal pipe shall not be used as encasement.

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. Sidewalk and Median shall be given a Class 6, Broomed Finish.

DETAIL DRAWINGS:

	DRAWING NO.
End Bents	52398 - 52402
Intermediate Bents	52403 - 52410
200'-0" Cont. R.C. Slab unit	52411 - 52417
Transition Approach Railing	52418
Steel Piling & Pile Encasement	14995A

TEMPORARY SHORING: Temporary shoring shall be required for Stage 1 Construction. See SP Job 040518 "Shoring".

EXISTING STRUCTURE: Existing structure No. X0272 (log mile 6.22) is 44' wide and 38' long and consists a three barrel concrete box culvert with concrete wingwalls. The existing structure is located approximately 20 feet West of the proposed centerline alignment.

REMOVAL AND SALVAGE: The existing structure shall be removed in accordance with Section 202. All material from the existing structure shall become the property of the Contractor.

MAINTENANCE OF TRAFFIC: For Maintenance of Traffic, see Roadway Plans.

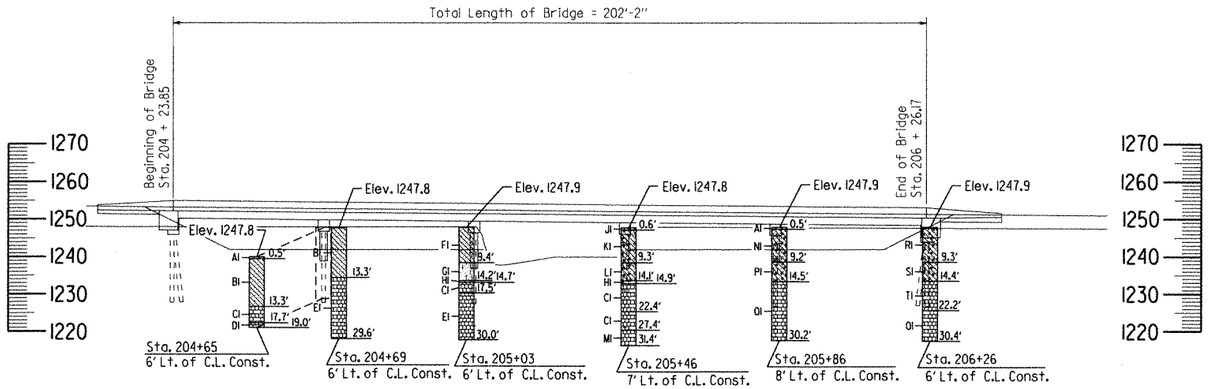
STATE OF ARKANSAS
Carl J. Fuselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
CARL J. FUSELIER 9/1/11
BRIDGE ENGINEER

LAYOUT OF BRIDGE OVER CLEAR CREEK
E. JOYCE BLVD.-CITY LIMITS (FAYETTEVILLE) (S)
WASHINGTON COUNTY
ROUTE 265 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MJT DATE: 03/23/11 FILENAME: B040518X1.LI.DGN
CHECKED BY: TMG DATE: 9/1/11 SCALE: 1" = 20'-0"
DESIGNED BY: DBS DATE: 1/27/11

BRIDGE NO. 07229 DRAWING NO. 52396

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.		040518	146	270
				(1) 07229	SOIL BORINGS & STAGE CONST.		52397	



ELEVATION

BORING LEGEND

Al-Asphalt Pavement (0 - 0.5')
Bl-Moist, Soft, Brown Sandy Clay with some Limestone Fragments
Cl-Hard, Gray Fractured Limestone
Dl-Hard, Gray Limestone
El-Hard, Gray Limestone
Fl-Moist, Medium Stiff, Brown Sandy Clay with some Limestone Fragments
Gl-Wet, Very Loose, Silty Sand with some Limestone Fragments
Hl-Wet, Very Dense, Gray Sand with Limestone Fragments
Jl-Asphalt Pavement (0 - 0.6')
Kl-Moist, Medium Stiff, Reddish Brown Gravelly (Cherty Limestone Fragments) Clay with Sand
Ll-Moist, Soft, Reddish Brown to Brown Gravelly (Chert Fragments) Clay with Sand
Ml-Hard, Gray Limestone with some Fractured Seams
Nl-Moist, Stiff, Brown Gravelly (Cherty Limestone Fragments) Clay with Sand
Pl-Wet, Stiff, Brown Gravelly (Cherty Limestone Fragments) Clay with Sand
Ql-Hard, Gray Fractured Limestone with some Chert Seams
Rl-Moist, Very Stiff, Reddish Brown Gravelly (Cherty Limestone Fragments) Clay with Sand
Sl-Wet, Medium Stiff, Brown Gravelly (Cherty Limestone Fragments) Clay with Sand
Tl-Hard, Gray Fractured Cherty Limestone

"N" VALUES

Sta. 204+65 - 6' Lt. of C.L. Constr.
4.5- 5.5, N=4
9.5- 10.5, N=4

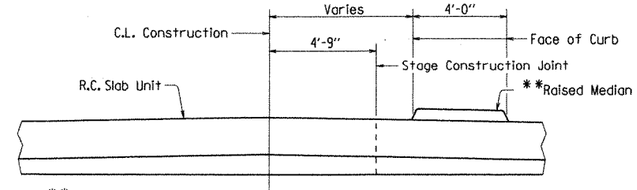
Sta. 204+69 - 6' Lt. of C.L. Constr.

Sta. 205+03 - 6' Lt. of C.L. Constr.
4.9- 5.9, N=8
9.9- 10.9, N=2
14.4- 14.7, N=60(4")

Sta. 205+46 - 7' Lt. of C.L. Constr.
4.8- 5.8, N=8
9.8- 10.8, N=4
14.8- 15.0, N=60(2")

Sta. 205+86 - 8' Lt. of C.L. Constr.
5.0- 6.0, N=12
10.0- 11.0, N=9
14.5- 14.6, N=60(1")

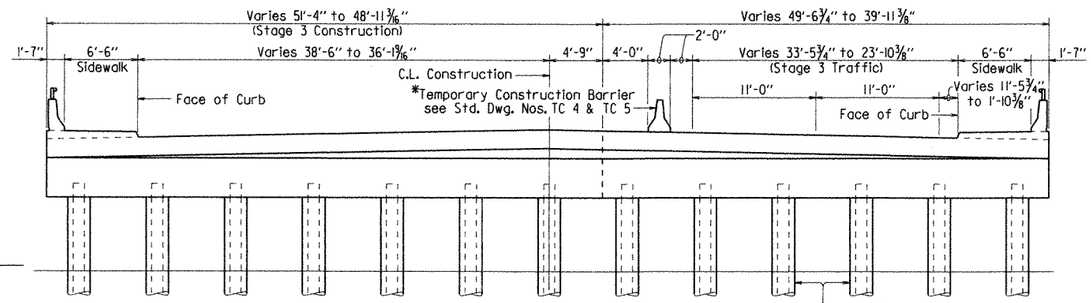
Sta. 206+26 - 6' Lt. of C.L. Constr.
4.9- 5.9, N=24
9.9- 10.9, N=8
14.4- 14.7, N=60(4")



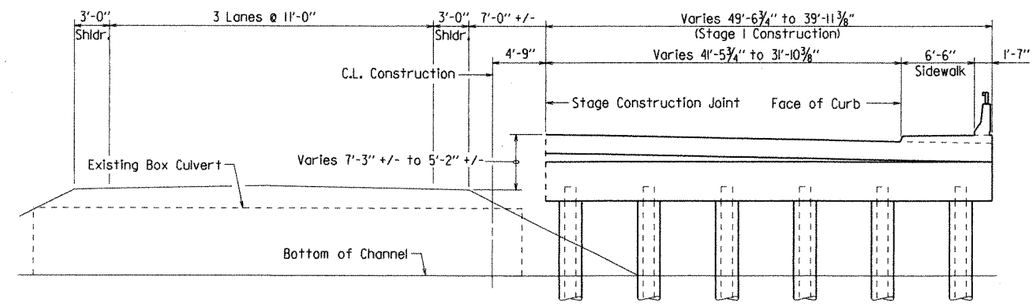
**Note: For additional information, see Roadway Plans, end bent details, and span details.

STAGE 4 CONSTRUCTION
LOOKING AHEAD
NOT TO SCALE

*Note: Bolts for barrier stabilization are not required.



STAGE 3 CONSTRUCTION
LOOKING AHEAD
NOT TO SCALE



Note: Portions of existing culvert may require removal for Stage 1 Construction.

STAGE 1 CONSTRUCTION
LOOKING AHEAD
NOT TO SCALE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7510
7/1/11
CARL J. FUSELIER

BRIDGE ENGINEER

SOIL BORINGS & STAGE CONSTRUCTION
CLEAR CREEK
E. JOYCE BLVD.-CITY LIMITS (FAYETTEVILLE) (S)
WASHINGTON COUNTY
ROUTE 265 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MJT DATE: 03/23/11
CHECKED BY: TMG DATE: 8/30/11
DESIGNED BY: DBS DATE: 1/27/11
FILENAME: B040518X1_L1.DGN
SCALE: 1" = 20'-0"

BRIDGE NO. 07229 DRAWING NO. 52397

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.		040518	147	270
				① 07299		END BENT 1		52398

Note: Class I Protective surface Treatment shall be applied to the Roadway Face and Top of End Bent Rail, Top of Sidewalk, and to the Top of the Backwall.

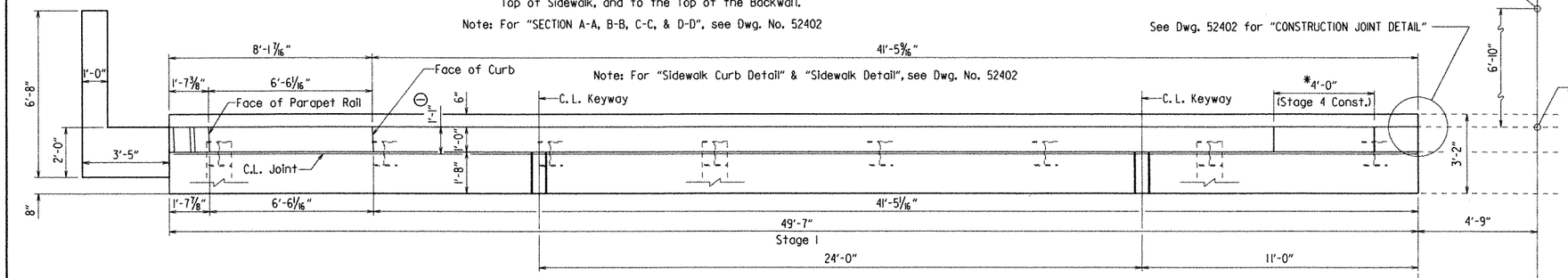
Note: For "SECTION A-A, B-B, C-C, & D-D", see Dwg. No. 52402

① Beginning of Bridge to C. L. Joint

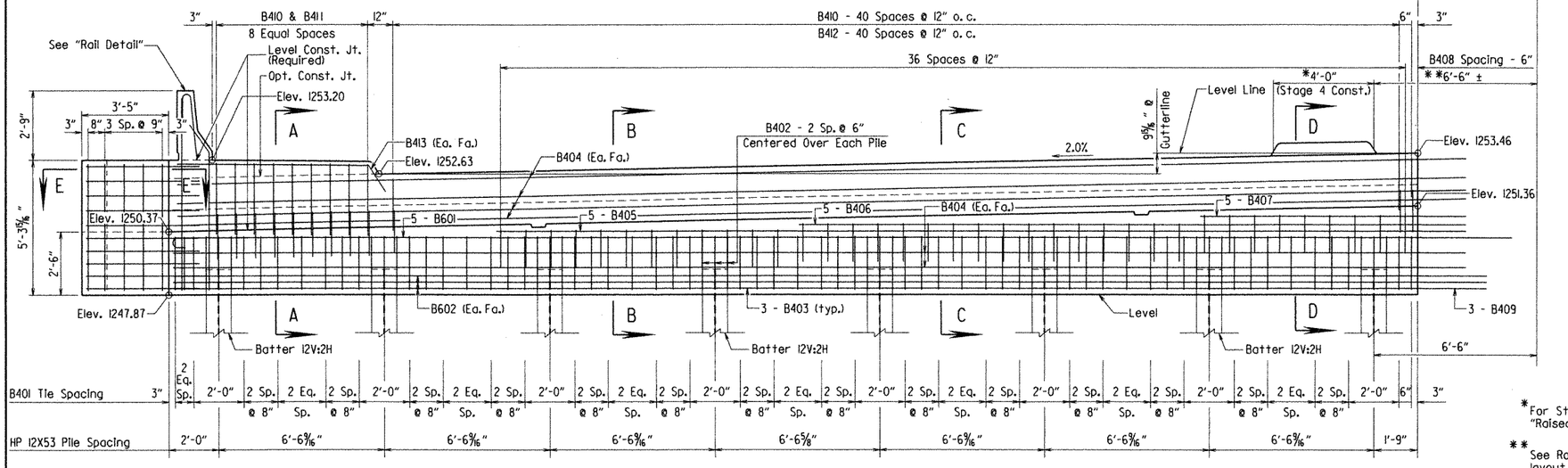
Working Point for 1V:2H Slope

See Dwg. 52402 for "CONSTRUCTION JOINT DETAIL"

Note: For "Sidewalk Curb Detail" & "Sidewalk Detail", see Dwg. No. 52402



PLAN



ELEVATION
LOOKING BACK

*For Stage 4 Construction, see "Raised Median Detail" Dwg. No. 52402.

**See Roadway plans regarding layout of Raised Median.

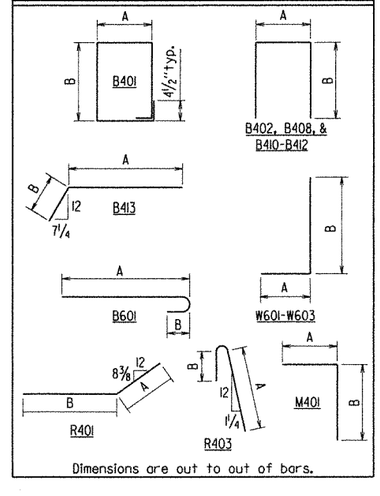
Note: M401E bars shall be epoxy coated and shall be measured and paid for as "Epoxy Coated Reinforcing Steel (Grade 60)."

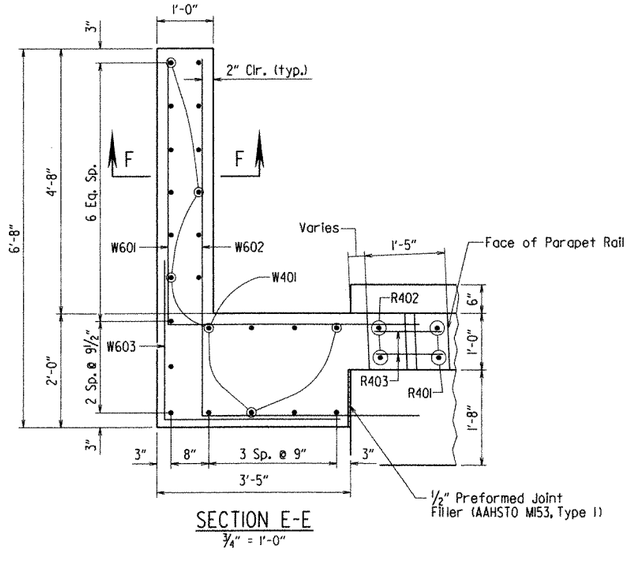
Lap Splice Lengths
#4 Bars = 1'-9"
#6 Bars = 3'-7" (Top)
2'-7" (Bottom)

BAR LIST - STAGE I

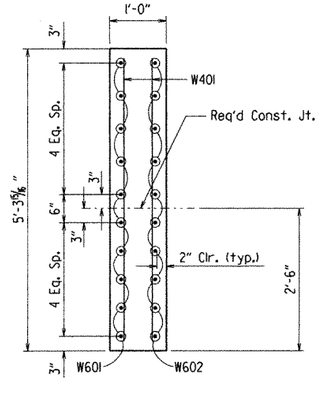
MARK	NO. REQ'D.	LENGTH	"A"	"B"	P.D.
B401	54	10'-4"	2'-10"	2'-2"	2"
B402	24	7'-0"	2'-10"	2'-2"	2"
B403	21	5'-6"	-	-	Str.
B404	12	51'-4"	-	-	Str.
B405	5	38'-7"	-	-	Str.
B406	5	26'-7"	-	-	Str.
B407	5	10'-7"	-	-	Str.
B408	37	5'-8"	2'-10"	1'-6"	2"
B409	3	3'-0"	-	-	Str.
B410	51	4'-8"	1'-2"	1'-10"	2"
B411	9	5'-2"	8"	2'-4"	2"
B412	42	4'-2"	8"	1'-10"	2"
B413	2	9'-0"	7'-7"	1'-6"	2"
W401	23	5'-0"	-	-	Str.
B601	5	53'-10"	53'-2"	6"	4½"
B602	6	52'-2"	-	-	Str.
W601	10	9'-4"	4'-9"	4'-9"	4½"
W602	10	10'-1"	6'-4"	3'-11"	4½"
W603	10	8'-1"	3'-6"	4'-9"	4½"
R401	2	6'-5"	1'-2"	5'-3"	2"
R402	2	7'-9"	-	-	Str.
R403	2	3'-11"	2'-6"	1'-0"	3"
R404	5	8"	-	-	Str.
M401E	4	2'-10"	2'-0"	9½"	2"

BENDING DIAGRAMS

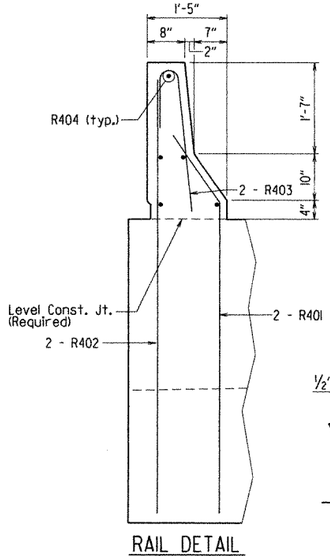




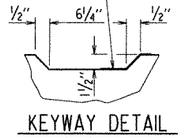
SECTION E-E
¾" = 1'-0"



SECTION F-F
¾" = 1'-0"



RAIL DETAIL
¾" = 1'-0"



KEYWAY DETAIL
No Scale

⅛" Thick Bearing Pad glued to cap. See Span Details for additional details and notes.

GENERAL NOTES

All Concrete shall be Class "S" and shall be poured in the dry with a min. 28-day compression strength f'c = 3500 psi. All exposed corners to be chamfered ¾" unless otherwise noted.

All Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

Concrete in Backwall shall not be poured before all deck span concrete has been poured.

For additional information, See Layout.

STATE OF ARKANSAS
Carl J. Fuselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL J. FUSELIER

BRIDGE ENGINEER

DETAILS OF END BENT 1
STAGE I

ROUTE 265 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TMC	DATE: 7/18/2011	FILENAME:	B040518X1_B1.DGN
CHECKED BY: BEF	DATE: 8/17/11	SCALE:	⅜" = 1'-0"
DESIGNED BY: TMC	DATE: 5/11		OR AS NOTED

BRIDGE NO. 07229 DRAWING NO. 52398

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.		040518	148	270
				① 07229		END BENT 1	52399	

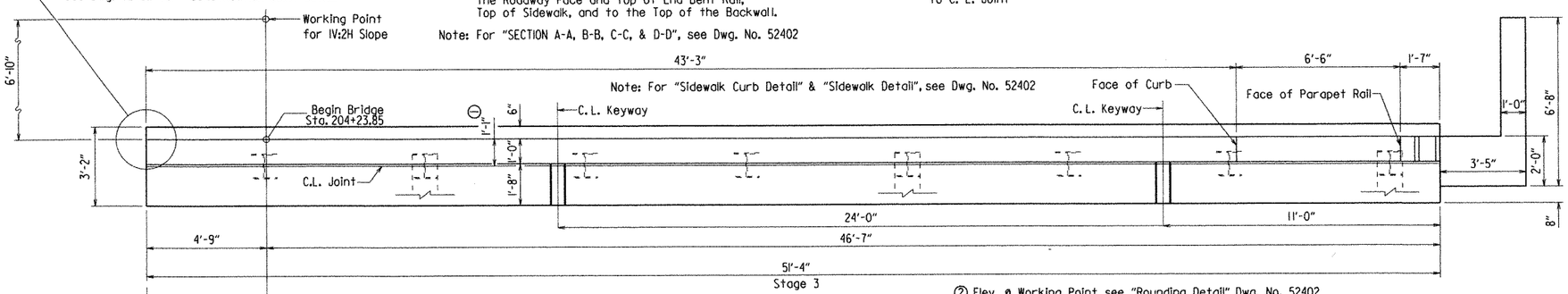
See Dwg. 52402 for "CONSTRUCTION JOINT DETAIL"

Working Point for 1V:2H Slope

Note: Class I Protective surface Treatment shall be applied to the Roadway Face and Top of End Bent Rail, Top of Sidewalk, and to the Top of the Backwall.

Note: For "SECTION A-A, B-B, C-C, & D-D", see Dwg. No. 52402

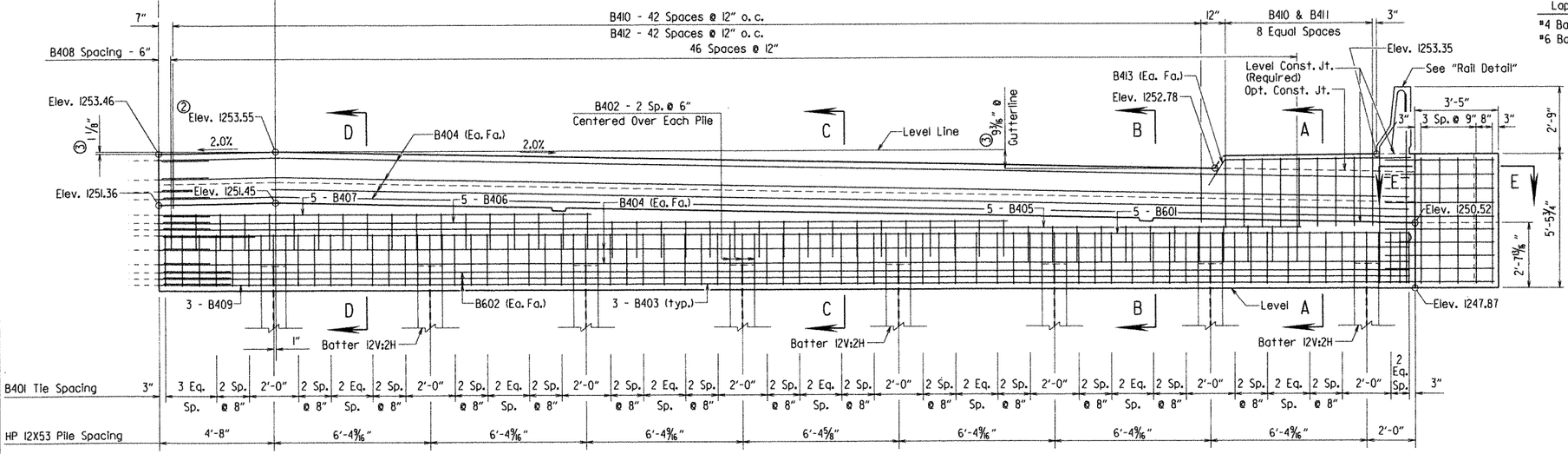
① Beginning of Bridge to C. L. Joint



PLAN

② Elev. @ Working Point, see "Rounding Detail" Dwg. No. 52402

③ To Working Point



ELEVATION

LOOKING BACK

Lap Splice Lengths

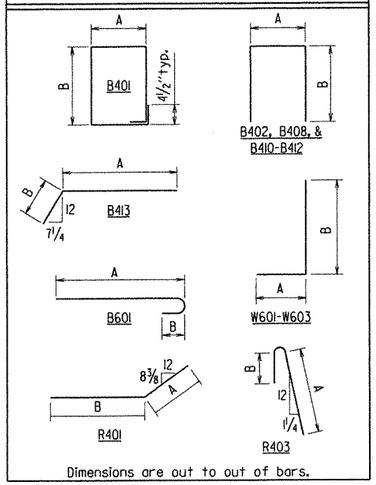
#4 Bars = 1'-9"

#6 Bars = 3'-7" (Top)
2'-7" (Bottom)

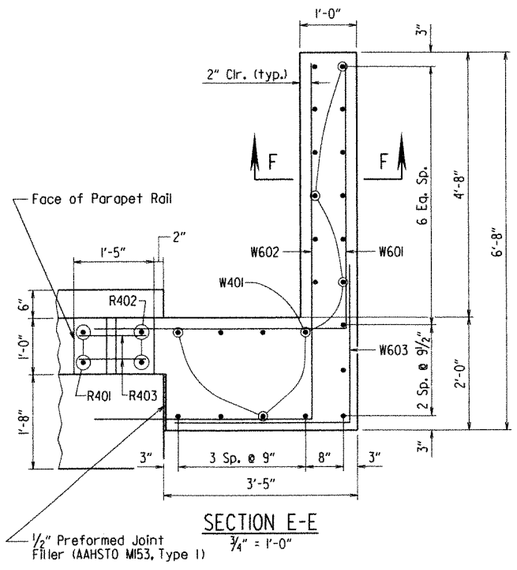
BAR LIST - STAGE 3

MARK	NO. REQ'D.	LENGTH	"A"	"B"	P.D.
B401	58	10'-4"	2'-10"	2'-2"	2"
B402	24	7'-0"	2'-10"	2'-2"	2"
B403	21	5'-4"	-	-	Str.
B404	12	51'-0"	-	-	Str.
B405	5	48'-6"	-	-	Str.
B406	5	34'-6"	-	-	Str.
B407	5	17'-6"	-	-	Str.
B408	47	5'-8"	2'-10"	1'-6"	2"
B409	3	4'-0"	-	-	Str.
B410	52	4'-8"	1'-2"	1'-11"	2"
B411	9	5'-2"	8"	2'-4"	2"
B412	42	4'-2"	8"	1'-10"	2"
B413	2	9'-0"	7'-7"	1'-6"	2"
W401	23	5'-0"	-	-	Str.
B601	5	51'-8"	51'-0"	6"	4 1/2"
B602	6	51'-0"	-	-	Str.
W601	10	9'-4"	4'-9"	4'-9"	4 1/2"
W602	10	10'-1"	6'-4"	3'-11"	4 1/2"
W603	10	8'-1"	3'-6"	4'-9"	4 1/2"
R401	2	6'-6"	1'-2"	5'-4"	2"
R402	2	7'-10"	-	-	Str.
R403	2	3'-11"	2'-6"	1'-0"	3"
R404	5	8"	-	-	Str.

BENDING DIAGRAMS



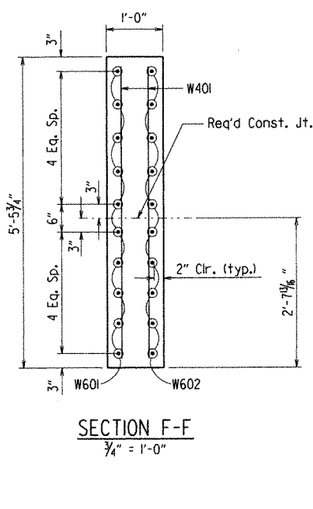
Dimensions are out to out of bars.



SECTION E-E

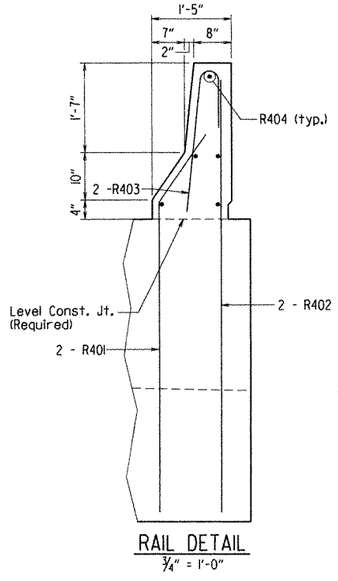
3/4" = 1'-0"

1/2" Preformed Joint Filler (AAHSTO M153, Type I)



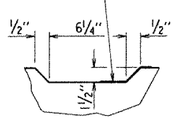
SECTION F-F

3/4" = 1'-0"



RAIL DETAIL

3/4" = 1'-0"



KEYWAY DETAIL

No Scale

1/8" Thick Bearing Pad glued to cap. See Span Details for additional details and notes.

GENERAL NOTES

All Concrete shall be Class "S" and shall be poured in the dry with a min. 28-day compression strength f'c = 3500 psi. All exposed corners to be chamfered 3/4" unless otherwise noted.

All Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

Concrete in Backwall shall not be poured before all deck span concrete has been poured.

For additional information, See Layout.

STATE OF ARKANSAS
Carl J. Fuselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
7/1/11
CARL J. FUSELIER

BRIDGE ENGINEER

DETAILS OF END BENT 1
STAGE 3

ROUTE 265 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

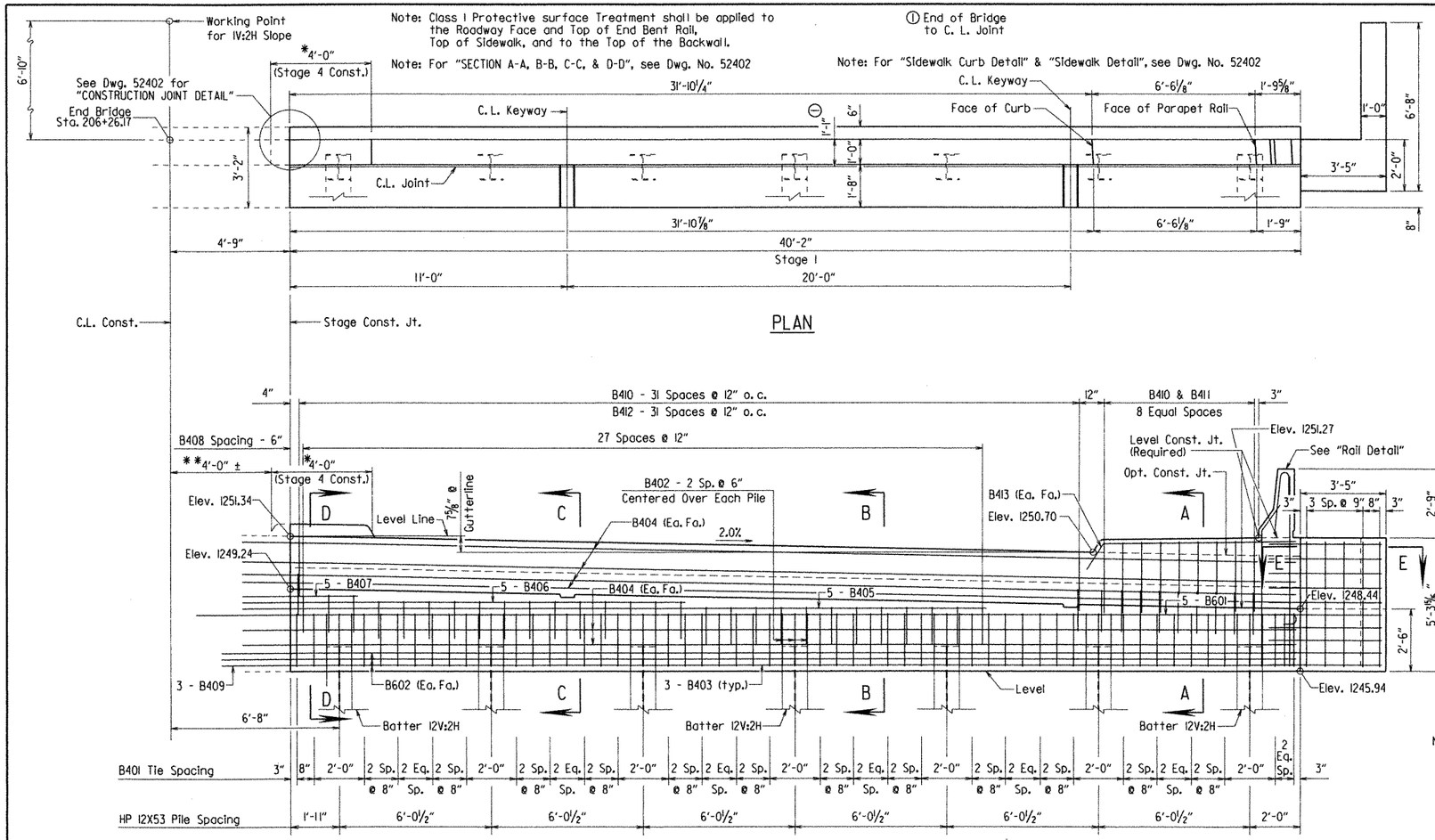
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CHECKED BY: BEF DATE: 8/17/11 SCALE: 3/8" = 1'-0"

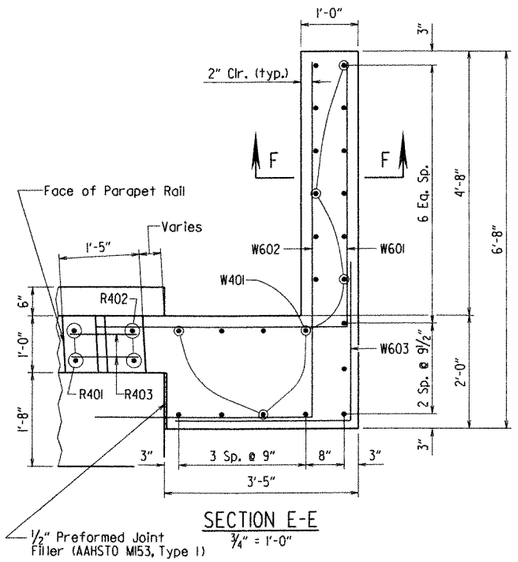
DESIGNED BY: TMG DATE: 5/11 OR AS NOTED

BRIDGE NO. 07229 DRAWING NO. 52399

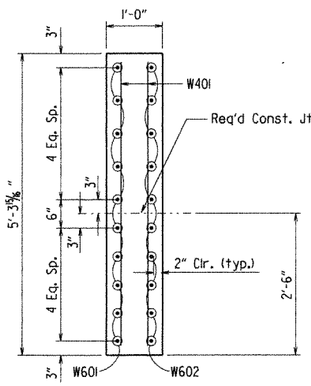
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				6	ARK.			
				JOB NO.		040518	149	270
				①	07229	END BENT 6		52400



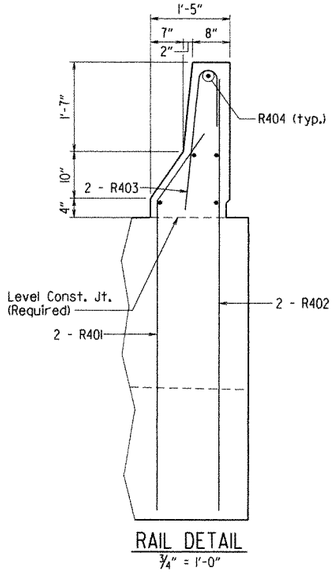
ELEVATION
LOOKING AHEAD



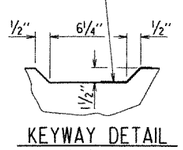
SECTION E-E
¾" = 1'-0"



SECTION F-F
¾" = 1'-0"



RAIL DETAIL
¾" = 1'-0"



KEYWAY DETAIL
No Scale

⅛" Thick Bearing Pad glued to cap. See Span Details for additional details and notes.

Lap Splice Lengths
*#4 Bars = 1'-9"
*#6 Bars = 3'-7" (Top)
2'-7" (Bottom)

*For Stage 4 Construction, see "Raised Median Detail" Dwg. No. 52402.

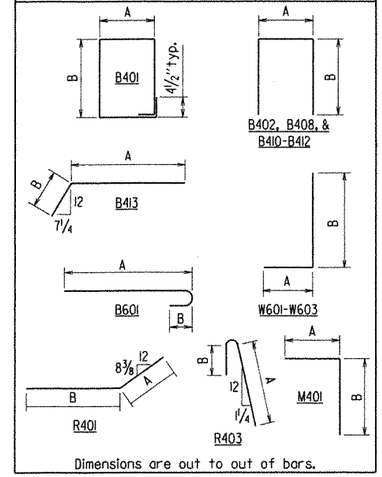
**See Roadway plans regarding layout of Raised Median.

Note: M401E bars shall be epoxy coated and shall be measured and paid for as "Epoxy Coated Reinforcing Steel (Grade 60)."

BAR LIST - STAGE I

MARK	NO. REQ'D.	LENGTH	"A"	"B"	P.D.
B401	47	10'-4"	2'-10"	2'-2"	2"
B402	21	7'-0"	2'-10"	2'-2"	2"
B403	18	5'-0"	-	-	Str.
B404	12	41'-11"	-	-	Str.
B405	5	29'-7"	-	-	Str.
B406	5	17'-7"	-	-	Str.
B407	5	4'-7"	-	-	Str.
B408	28	5'-8"	2'-10"	1'-6"	2"
B409	3	3'-2"	-	-	Str.
B410	41	4'-8"	1'-2"	1'-10"	2"
B411	9	5'-2"	8"	2'-4"	2"
B412	32	4'-2"	8"	1'-10"	2"
B413	2	9'-0"	7'-7"	1'-6"	2"
W401	23	5'-0"	-	-	Str.
B601	5	44'-5"	43'-9"	6"	4½"
B602	6	42'-9"	-	-	Str.
W601	10	9'-4"	4'-9"	4'-9"	4½"
W602	10	10'-1"	6'-4"	3'-11"	4½"
W603	10	8'-1"	3'-6"	4'-9"	4½"
R401	2	6'-5"	1'-2"	5'-3"	2"
R402	2	7'-9"	-	-	Str.
R403	2	3'-11"	2'-6"	1'-0"	3"
R404	5	8"	-	-	Str.
M401E	4	2'-10"	2'-0"	9½"	2"

BENDING DIAGRAMS



Dimensions are out to out of bars.

GENERAL NOTES

All Concrete shall be Class "S" and shall be poured in the dry with a min. 28-day compression strength f'c = 3500 psi. All exposed corners to be chamfered ¾" unless otherwise noted.

All Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

Concrete in Backwall shall not be poured before all deck span concrete has been poured.

For additional information, See Layout.

STATE OF ARKANSAS
Carl F. Fuselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL F. FUSELIER
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DETAILS OF END BENT 6
STAGE I

ROUTE 265 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TMG DATE: 7/18/2011
CHECKED BY: BEF DATE: 8/17/11
DESIGNED BY: TMG DATE: 5/11
FILENAME: B040518X1_BL.DGN
SCALE: ⅜" = 1'-0" OR AS NOTED

BRIDGE NO. 07229 DRAWING NO. 52400

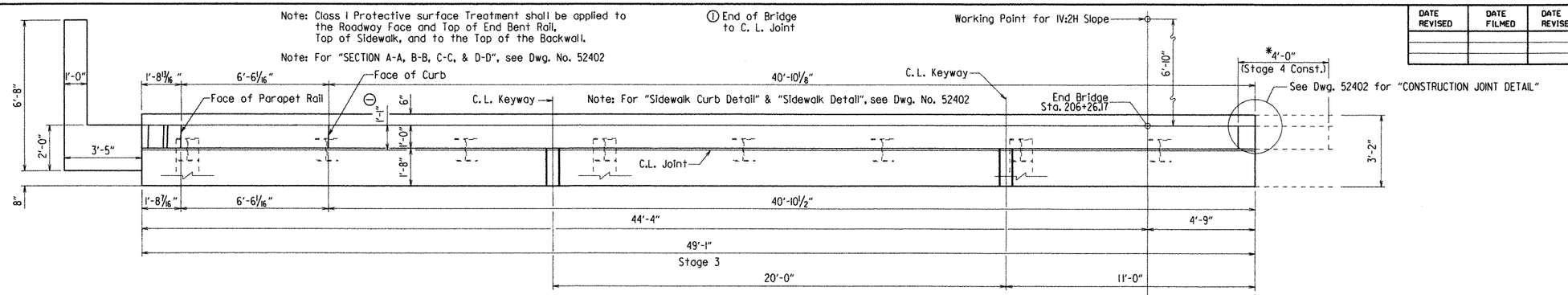
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		040518	150	270
① 07229		END BENT 6		52401

Note: Class I Protective surface Treatment shall be applied to the Roadway Face and Top of End Bent Rail, Top of Sidewalk, and to the Top of the Backwall.

Note: For "SECTION A-A, B-B, C-C, & D-D", see Dwg. No. 52402

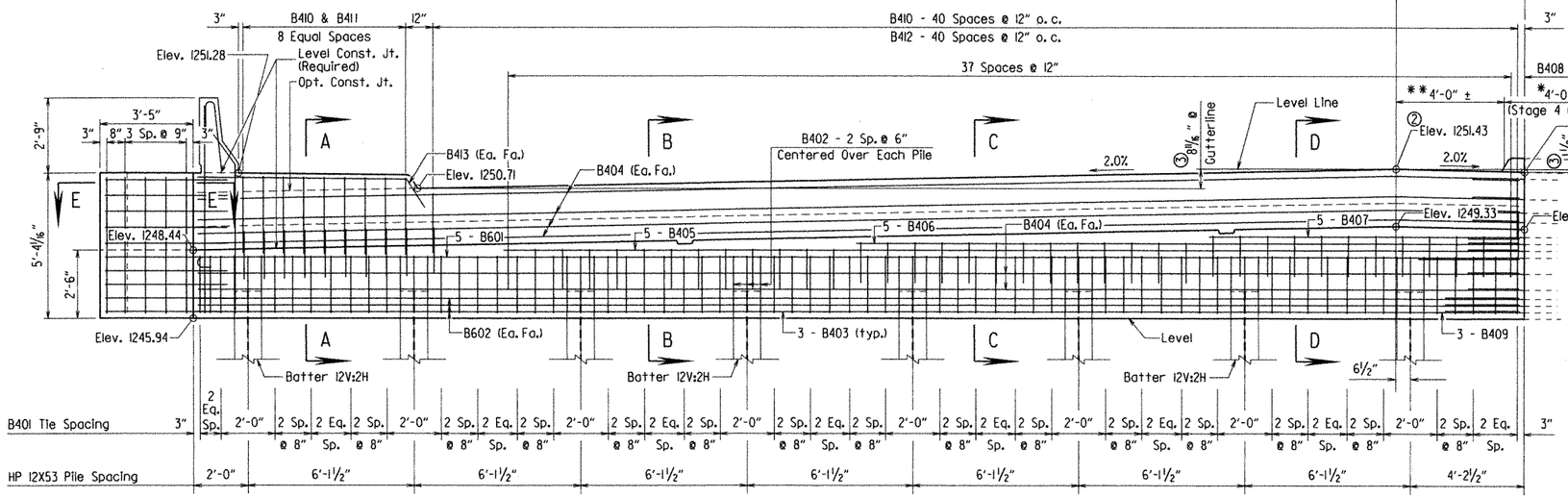
① End of Bridge to C. L. Joint



PLAN

② Elev. @ Working Point, see "Rounding Detail" Dwg. No. 52402

③ To Working Point



* For Stage 4 Construction, see "Raised Median Detail" Dwg. No. 52402.

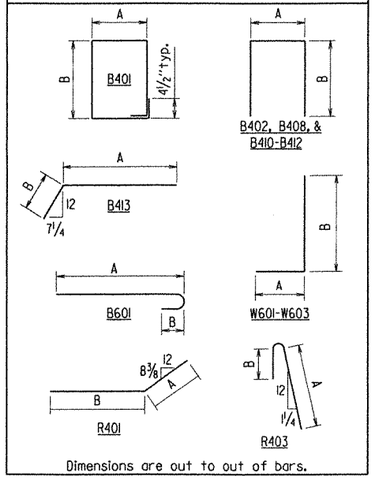
** See Roadway plans regarding layout of Raised Median.

Lap Splice Lengths
#4 Bars = 1'-9"
#6 Bars = 3'-7" (Top)
2'-7" (Bottom)

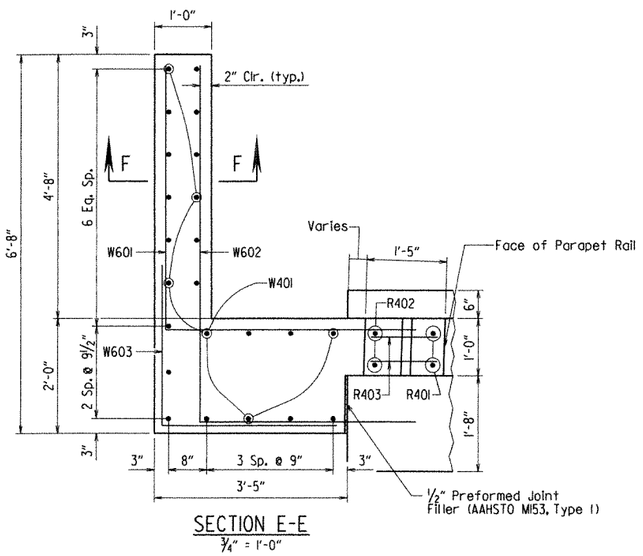
BAR LIST - STAGE 3

MARK	NO. REQ'D.	LENGTH	"A"	"B"	P.D.
B401	57	10'-4"	2'-10"	2'-2"	2"
B402	24	7'-0"	2'-10"	2'-2"	2"
B403	21	5'-1"	-	-	Str.
B404	12	48'-9"	-	-	Str.
B405	5	37'-6"	-	-	Str.
B406	5	24'-6"	-	-	Str.
B407	5	11'-6"	-	-	Str.
B408	38	5'-8"	2'-10"	1'-6"	2"
B409	3	3'-6"	-	-	Str.
B410	50	4'-8"	1'-2"	1'-10"	2"
B411	9	5'-2"	8"	2'-4"	2"
B412	42	4'-2"	8"	1'-10"	2"
B413	2	9'-0"	7'-7"	1'-6"	2"
W401	23	5'-0"	-	-	Str.
B601	5	49'-5"	48'-9"	6"	4 1/2"
B602	6	48'-9"	-	-	Str.
W601	10	9'-4"	4'-9"	4'-9"	4 1/2"
W602	10	10'-1"	6'-4"	3'-11"	4 1/2"
W603	10	8'-1"	3'-6"	4'-9"	4 1/2"
R401	2	6'-5"	1'-2"	5'-3"	2"
R402	2	7'-9"	-	-	Str.
R403	2	3'-11"	2'-6"	1'-0"	3"
R404	5	8"	-	-	Str.

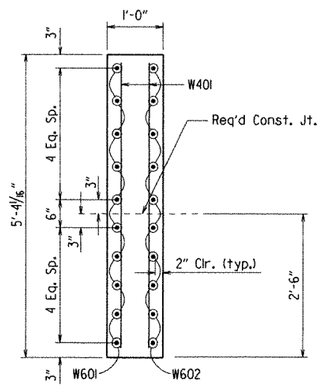
BENDING DIAGRAMS



Dimensions are out to out of bars.

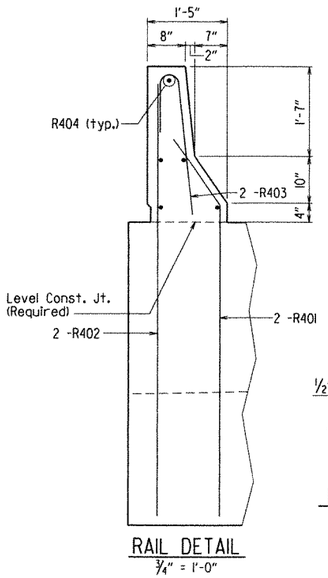


SECTION E-E
3/4" = 1'-0"

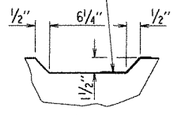


ELEVATION
LOOKING AHEAD

SECTION F-F
3/4" = 1'-0"



RAIL DETAIL
3/4" = 1'-0"



KEYWAY DETAIL
No Scale

1/8" Thick Bearing Pad glued to cap. See Span Details for additional details and notes.

GENERAL NOTES

All Concrete shall be Class "S" and shall be poured in the dry with a min. 28-day compression strength f'c = 3500 psi. All exposed corners to be chamfered 3/4" unless otherwise noted.

All Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

Concrete in Backwall shall not be poured before all deck span concrete has been poured.

For additional information, See Layout.

STATE OF ARKANSAS
Carl Lee Puselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL PUSELIER

BRIDGE ENGINEER

DETAILS OF END BENT 6
STAGE 3

ROUTE 265 SEC. 2

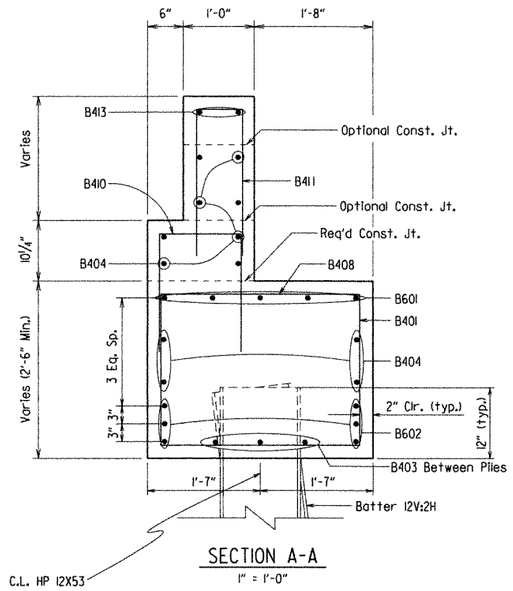
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

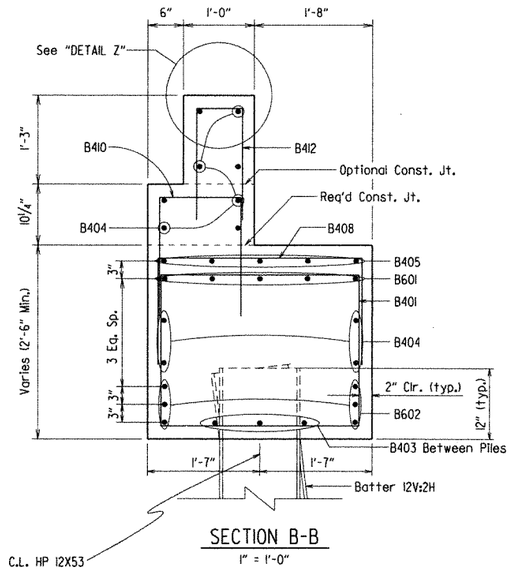
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CHECKED BY: BEF	DATE: 8/17/11	SCALE: 3/8" = 1'-0"	
DESIGNED BY: TMG	DATE: 5/11	OR AS NOTED	

BRIDGE NO. 07229 DRAWING NO. 52401

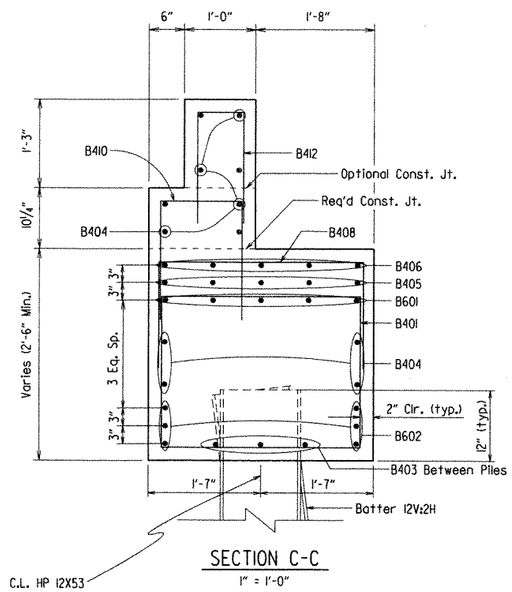
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	51	270
				(1) 07229		COMMON END BENT DETAILS		52402



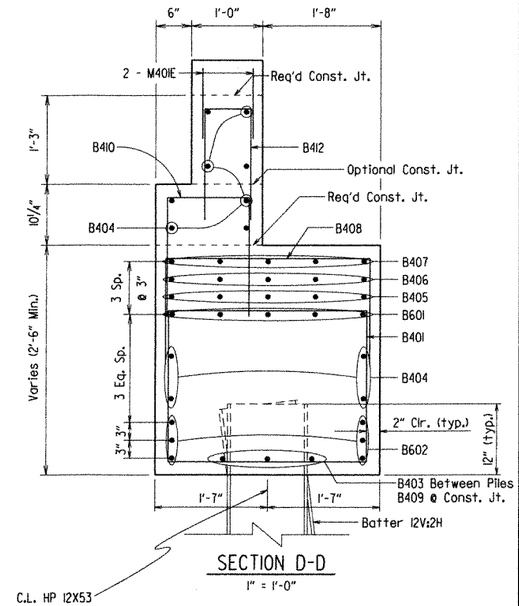
SECTION A-A
1" = 1'-0"



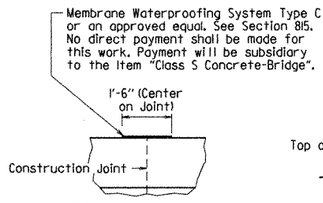
SECTION B-B
1" = 1'-0"



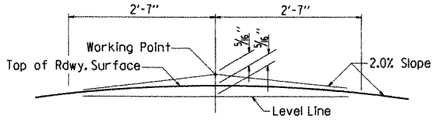
SECTION C-C
1" = 1'-0"



SECTION D-D
1" = 1'-0"

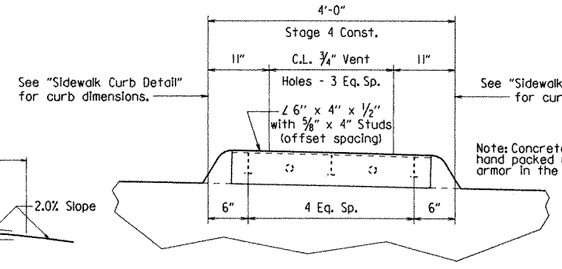


CONSTRUCTION JOINT DETAIL
Not to Scale

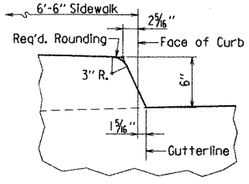


NOTE: Working Point matches Theoretical Roadway Grade.

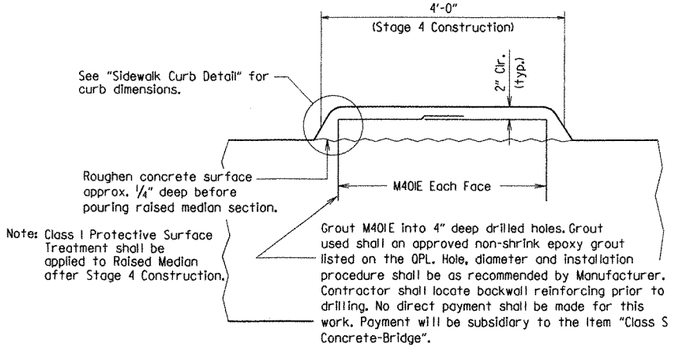
ROUNDING DETAIL
No Scale



RAISED MEDIAN DETAIL AT JOINT
Not to Scale

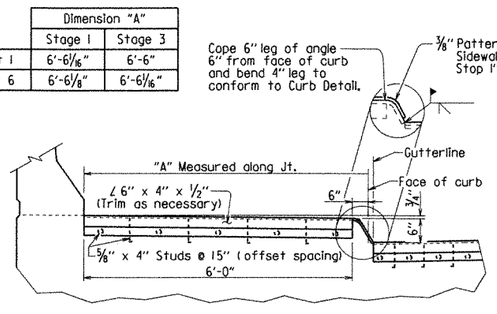


SIDEWALK CURB DETAIL
Not to Scale



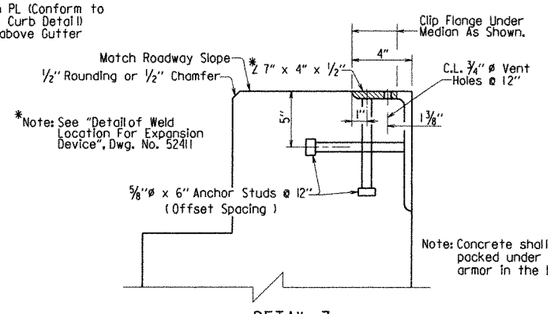
RAISED MEDIAN DETAIL
Not to Scale

	Dimension "A"	
	Stage 1	Stage 3
Bent 1	6'-6 1/16"	6'-6"
Bent 6	6'-6 1/8"	6'-6 1/16"

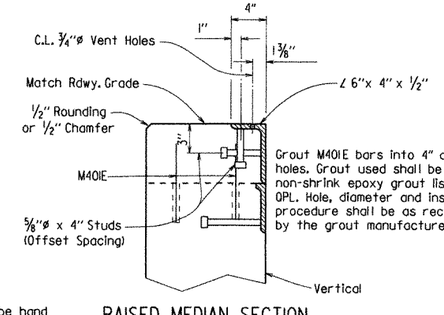


SIDEWALK DETAIL
Not to Scale

Note: Concrete shall be hand packed under the joint armor in the sidewalk. See Dwg. No. 52416 for additional details.



DETAIL Z
Not to Scale
For additional Joint Details, See Dwg. No. 52416.



RAISED MEDIAN SECTION
No Scale

STATE OF ARKANSAS
Carl J. Fuselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL J. FUSELIER

BRIDGE ENGINEER

GENERAL NOTES

All Concrete shall be Class "S" and shall be poured in the dry with a min. 28-day compression strength f'c = 3500 psi. All exposed corners to be chamfered ¾" unless otherwise noted.

All Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

For additional information, See Layout.

COMMON DETAILS OF END BENTS

ROUTE 265 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

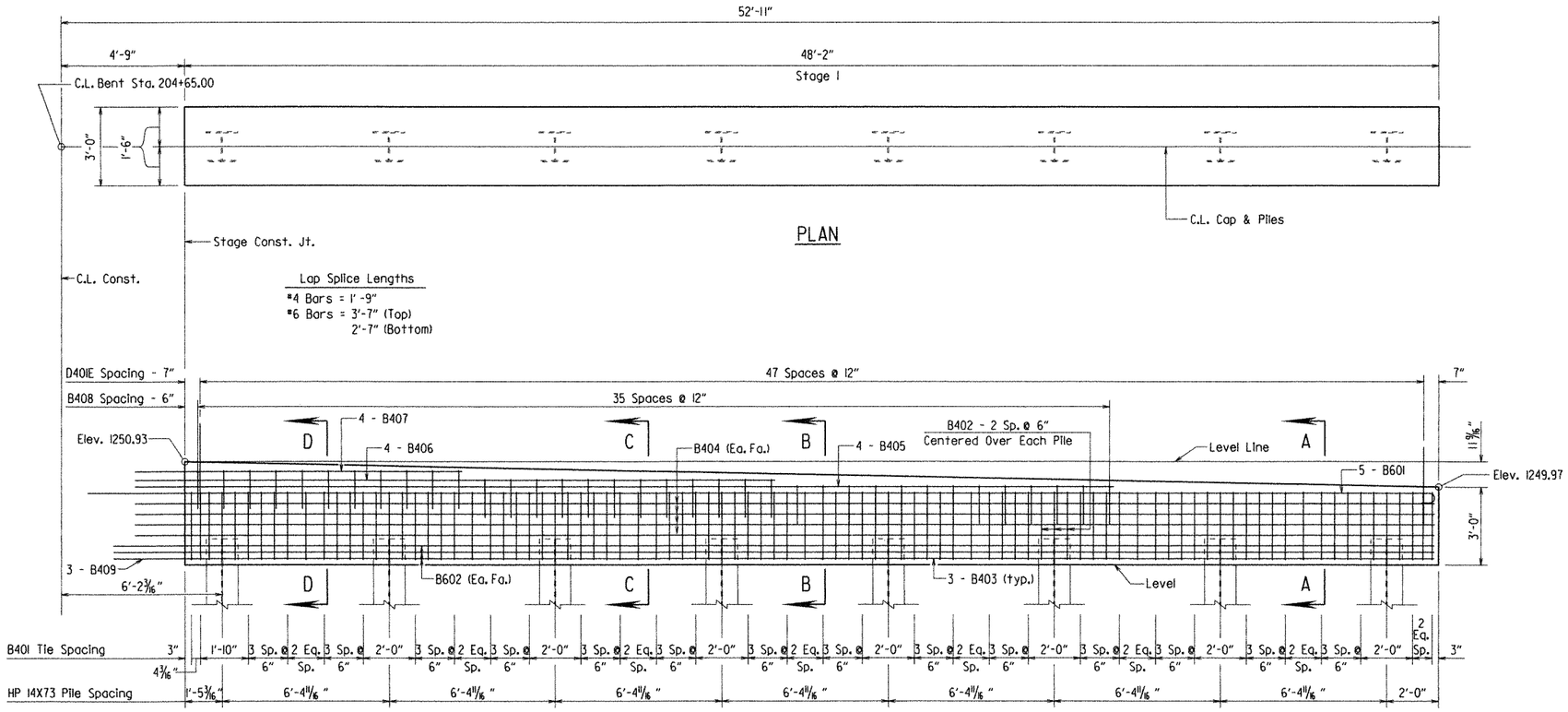
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CHECKED BY: JGT DATE: 8/12/11 SCALE: AS NOTED

DESIGNED BY: TMG DATE: 5/11

BRIDGE NO. 07229 DRAWING NO. 52402

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.		040518	152	270
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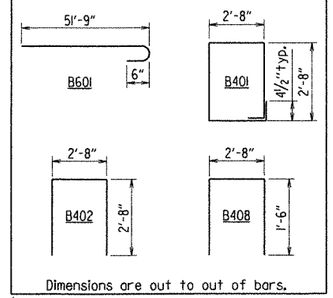


ELEVATION
LOOKING AHEAD

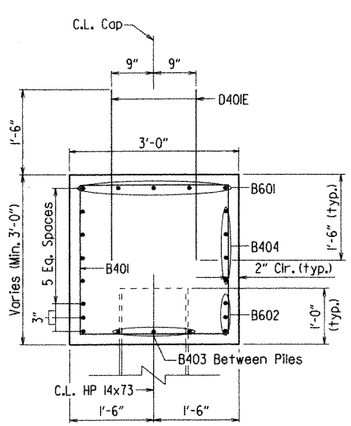
BAR LIST - STAGE I

MARK	NO. REQ'D.	LENGTH	P.D.
B401	68	11'-0"	2"
B402	24	7'-10"	2"
B403	21	5'-2"	Str.
B404	8	49'-11"	Str.
B405	4	37'-7"	Str.
B406	4	24'-7"	Str.
B407	4	12'-7"	Str.
B408	36	5'-6"	2"
B409	3	2'-8"	Str.
*D401E	96	3'-0"	Str.
B601	5	52'-5"	4 1/2"
B602	6	50'-9"	Str.

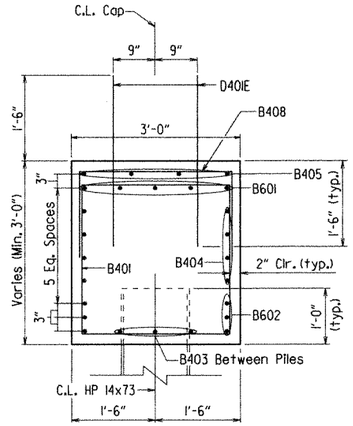
BENDING DIAGRAMS



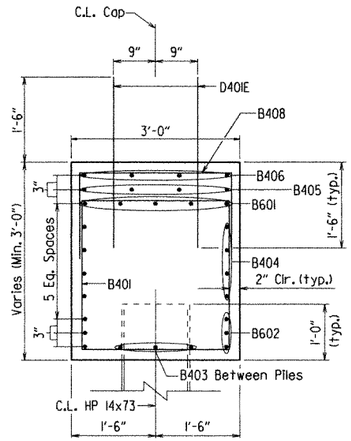
*D401E bars shall be epoxy coated and shall be measured and paid for as "Epoxy Coated Reinforcing Steel (Grade 60)."



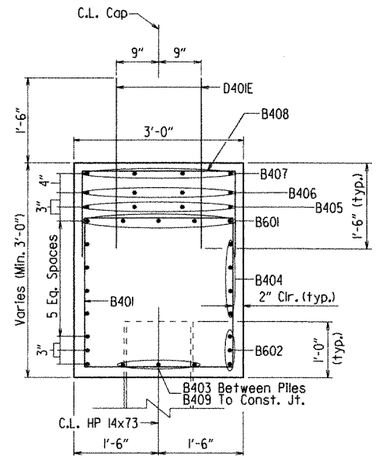
SECTION A-A
3/4" = 1'-0"



SECTION B-B
3/4" = 1'-0"



SECTION C-C
3/4" = 1'-0"



SECTION D-D
3/4" = 1'-0"

GENERAL NOTES

All Concrete shall be Class "S" and shall be poured in the dry with a min. 28-day compression strength f'c = 3500 psi. All exposed corners to be chamfered 3/4" unless otherwise noted.

All Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

For details of pile encasement, see dwg. no. 14995A.

For additional information, See Layout.

STATE OF ARKANSAS
Carl J. Fusselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL J. FUSSELIER

BRIDGE ENGINEER

DETAILS OF INTERMEDIATE BENT NO. 2
STAGE I

ROUTE 265 SEC. 2

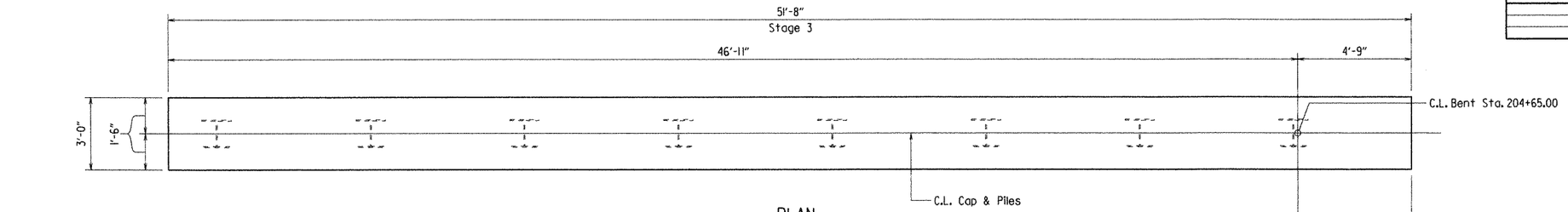
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TMG DATE: 6/2/2011 FILENAME: B040518XI_BI.DGN
CHECKED BY: BEF DATE: 8/17/11 SCALE: 3/8" = 1'-0"
DESIGNED BY: TMG DATE: 5/11 OR AS NOTED

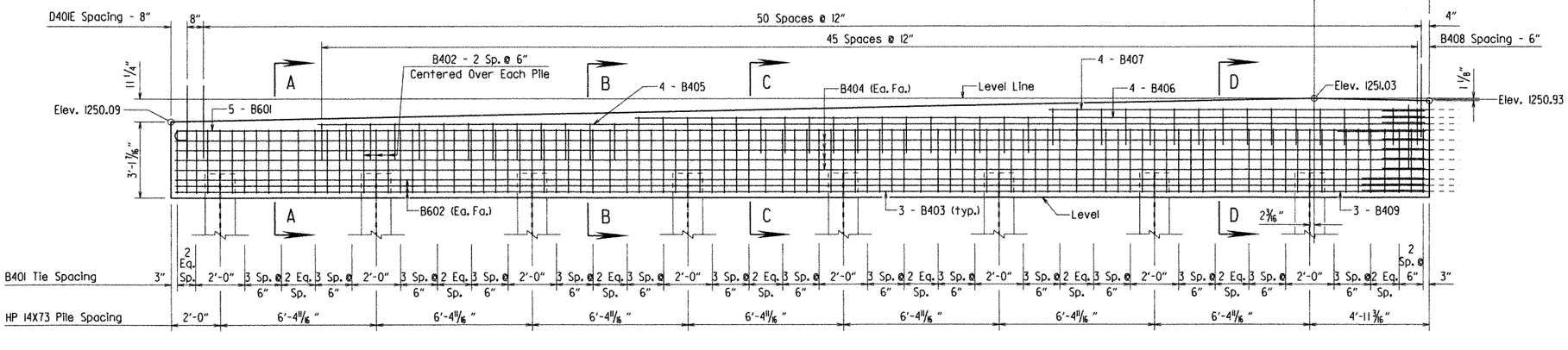
BRIDGE NO. 07229 DRAWING NO. 52403

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.		040518	153	270
				(1) 07229		INT. BENT 2		52404



PLAN

Lap Splice Lengths
#4 Bars = 1'-9"
#6 Bars = 3'-7" (Top)
2'-7" (Bottom)

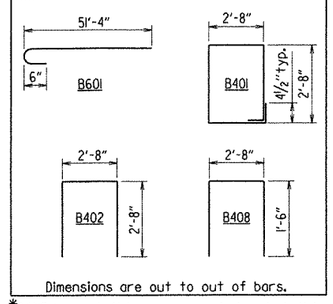


ELEVATION
LOOKING AHEAD

BAR LIST - STAGE 3

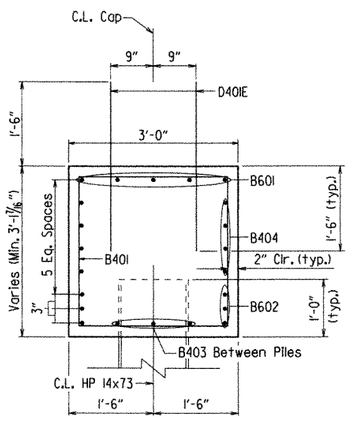
MARK	NO. REQ'D.	LENGTH	P.D.
B401	74	11'-0"	2"
B402	24	7'-10"	2"
B403	21	5'-2"	Str.
B404	8	51'-4"	Str.
B405	4	45'-6"	Str.
B406	4	32'-6"	Str.
B407	4	15'-6"	Str.
B408	46	5'-6"	2"
B409	3	4'-2"	Str.
*D401E	104	3'-0"	Str.
B601	5	52'-0"	4 1/2"
B602	6	51'-4"	Str.

BENDING DIAGRAMS

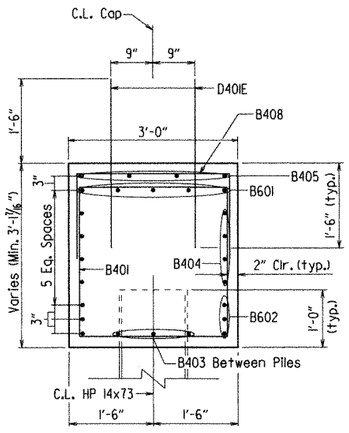


Dimensions are out to out of bars.

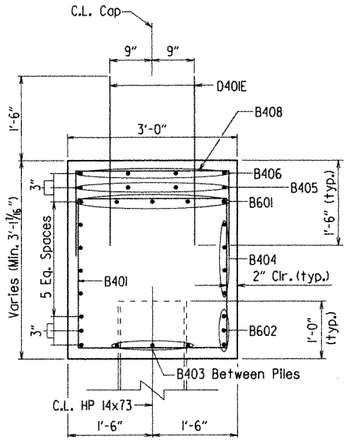
*D401E bars shall be epoxy coated and shall be measured and paid for as "Epoxy Coated Reinforcing Steel (Grade 60)."



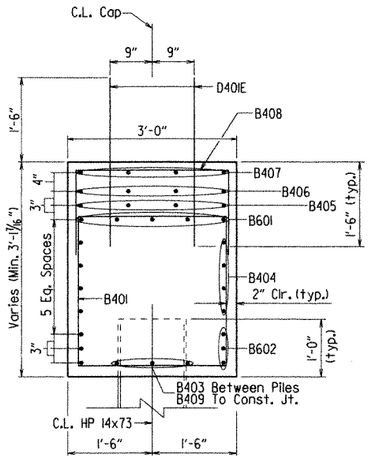
SECTION A-A
3/4" = 1'-0"



SECTION B-B
3/4" = 1'-0"



SECTION C-C
3/4" = 1'-0"



SECTION D-D
3/4" = 1'-0"

STATE OF ARKANSAS
Carl J. Fuselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL J. FUSELIER

BRIDGE ENGINEER

GENERAL NOTES

All Concrete shall be Class "S" and shall be poured in the dry with a min. 28-day compression strength f'c = 3500 psi. All exposed corners to be chamfered 3/4" unless otherwise noted.

All Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

For details of pile encasement, see dwg. no. 14995A.

For additional information, See Layout.

DETAILS OF INTERMEDIATE BENT NO. 2 STAGE 3

ROUTE 265 SEC. 2

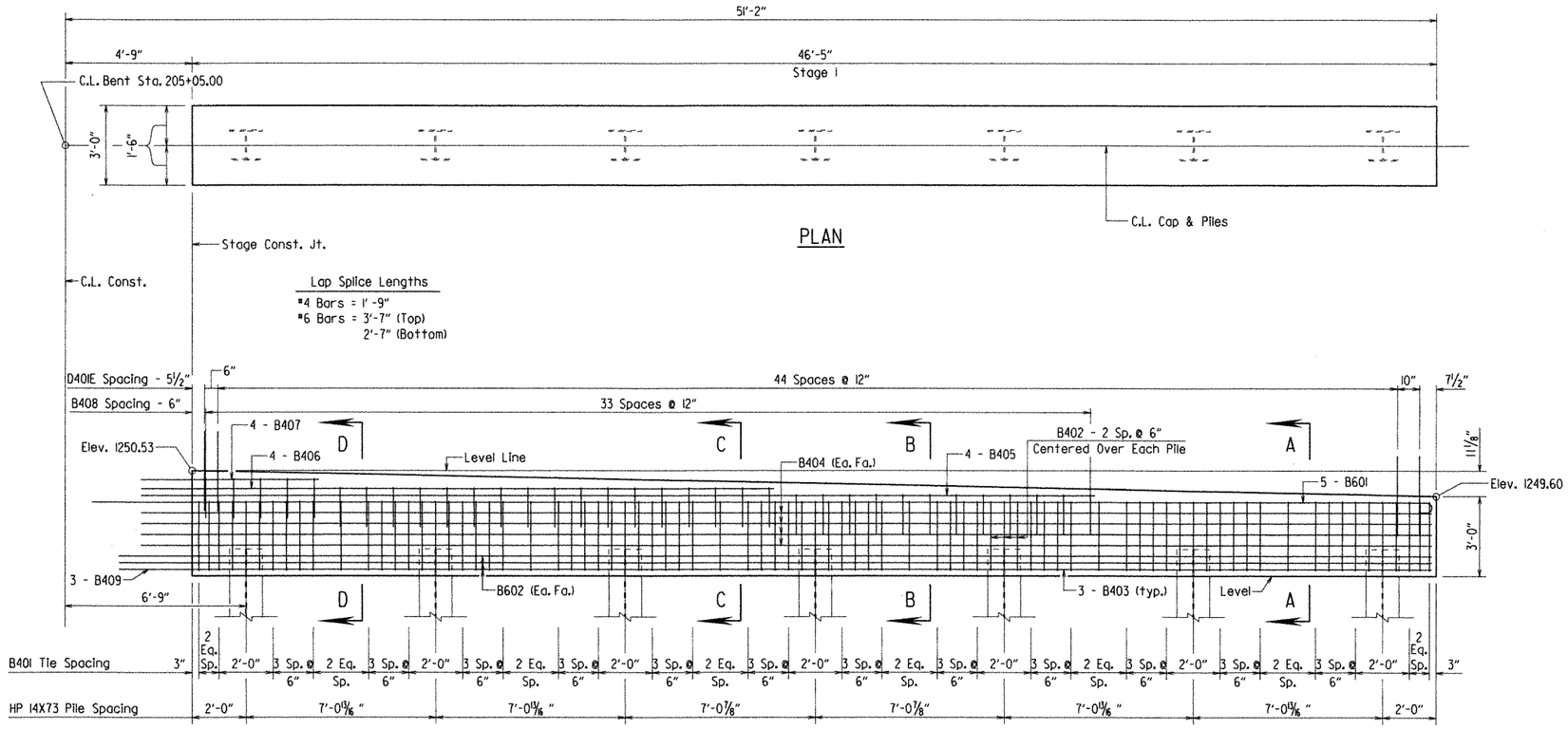
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TMG DATE: 6/2/2011 FILENAME: B040518XI_BI.DGN
CHECKED BY: BEF DATE: 9/7/11 SCALE: 3/8" = 1'-0"
DESIGNED BY: TMG DATE: 5/11 OR AS NOTED

BRIDGE NO. 07229 DRAWING NO. 52404

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.		040518	154	270
				①	07229	INT. BENT 3		52405



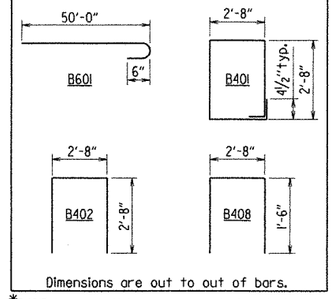
PLAN

ELEVATION
LOOKING AHEAD

BAR LIST - STAGE I

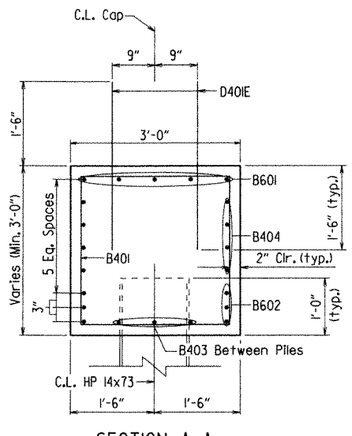
MARK	NO. REQ'D.	LENGTH	P.D.
B401	60	11'-0"	2"
B402	21	7'-10"	2"
B403	18	5'-11"	Str.
B404	8	48'-2"	Str.
B405	4	35'-7"	Str.
B406	4	23'-7"	Str.
B407	4	6'-7"	Str.
B408	34	5'-6"	2"
B409	3	3'-2"	Str.
*D401E	94	3'-0"	Str.
B601	5	50'-8"	4½"
B602	6	49'-0"	Str.

BENDING DIAGRAMS

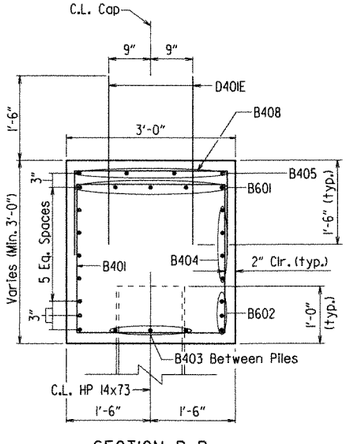


Dimensions are out to out of bars.

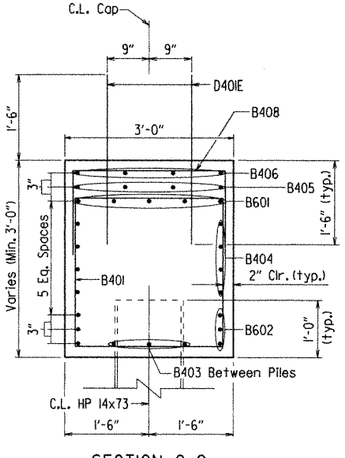
*D401E bars shall be epoxy coated and shall be measured and paid for as "Epoxy Coated Reinforcing Steel (Grade 60)."



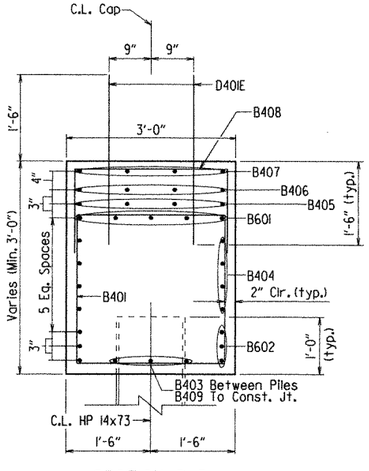
SECTION A-A
¾" = 1'-0"



SECTION B-B
¾" = 1'-0"



SECTION C-C
¾" = 1'-0"



SECTION D-D
¾" = 1'-0"

GENERAL NOTES

All Concrete shall be Class "S" and shall be poured in the dry with a min. 28-day compression strength f'c = 3500 psi. All exposed corners to be chamfered ¾" unless otherwise noted.

All Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

For details of pile encasement, see dwg. no. 14995A.

For additional information, See Layout.

STATE OF ARKANSAS
Carl J. Fusselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
7/1/11
CARL J. FUSSELIER

BRIDGE ENGINEER

DETAILS OF INTERMEDIATE BENT NO. 3 STAGE I

ROUTE 265 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

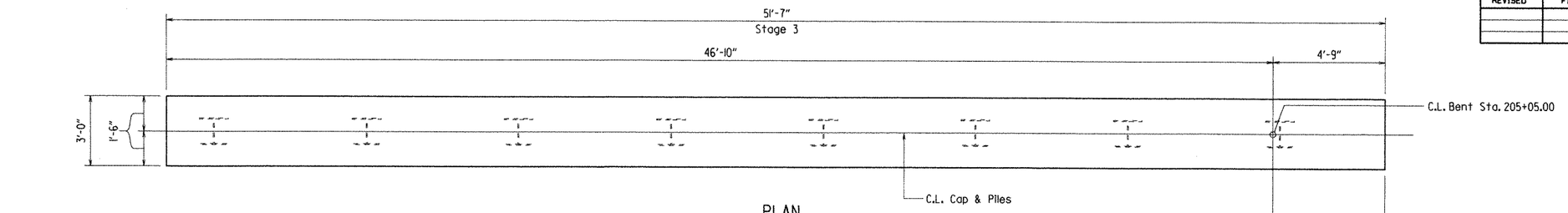
DRAWN BY: TMG DATE: 6/3/2011 FILENAME: B040518XI_BI.DGN

CHECKED BY: BEF DATE: 6/7/11 SCALE: ⅜" = 1'-0" OR AS NOTED

DESIGNED BY: TMG DATE: 5/11

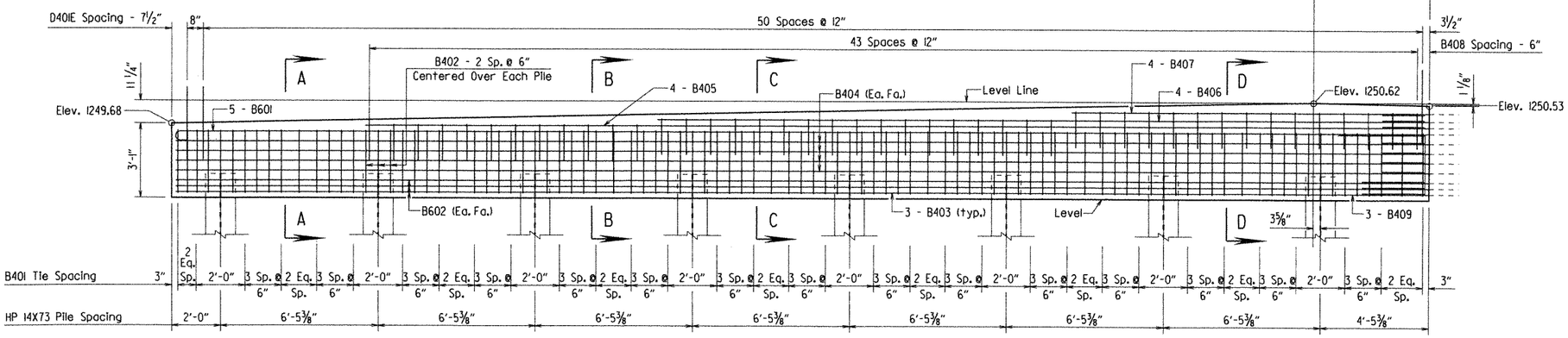
BRIDGE NO. 07229 DRAWING NO. 52405

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.		040518	155	270
				①	07229	INT. BENT 3	52406	



PLAN

Lap Splice Lengths
*4 Bars = 1'-9"
*6 Bars = 3'-7" (Top)
2'-7" (Bottom)

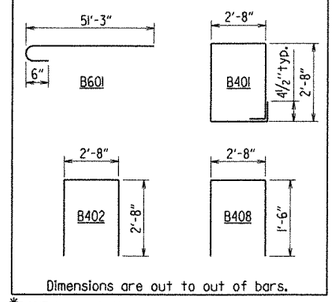


ELEVATION
LOOKING AHEAD

BAR LIST - STAGE 3

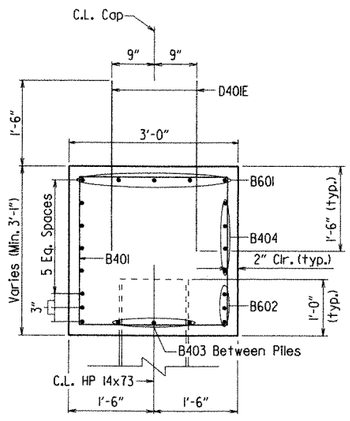
MARK	NO. REQ'D.	LENGTH	P.D.
B401	72	11'-0"	2"
B402	24	7'-10"	2"
B403	21	5'-3"	Str.
B404	8	51'-3"	Str.
B405	4	43'-6"	Str.
B406	4	31'-6"	Str.
B407	4	14'-6"	Str.
B408	44	5'-6"	2"
B409	3	3'-9"	Str.
*D401E	104	3'-0"	Str.
B601	5	51'-11"	4½"
B602	6	51'-3"	Str.

BENDING DIAGRAMS

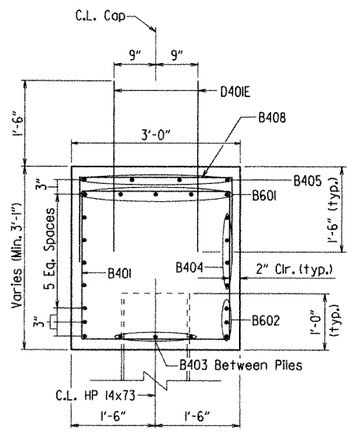


Dimensions are out to out of bars.

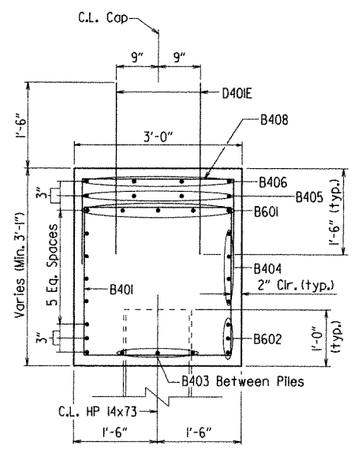
*D401E bars shall be epoxy coated and shall be measured and paid for as "Epoxy Coated Reinforcing Steel (Grade 60)."



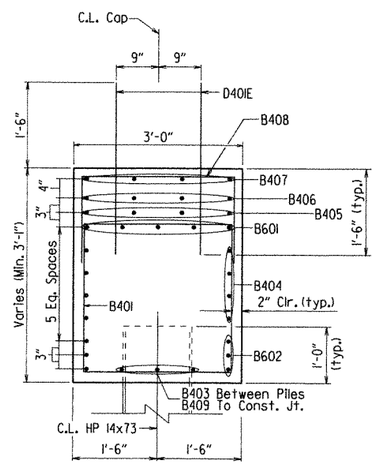
SECTION A-A
¾" = 1'-0"



SECTION B-B
¾" = 1'-0"



SECTION C-C
¾" = 1'-0"



SECTION D-D
¾" = 1'-0"

GENERAL NOTES

All Concrete shall be Class "S" and shall be poured in the dry with a min. 28-day compression strength f'c = 3500 psi. All exposed corners to be chamfered ¾" unless otherwise noted.

All Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

For details of pile encasement, see dwg. no. 14995A.

For additional information, See Layout.

STATE OF ARKANSAS
No. 7510
REGISTERED PROFESSIONAL ENGINEER
9/1/11
CARL J. FUSELIER

BRIDGE ENGINEER

DETAILS OF INTERMEDIATE BENT NO. 3
STAGE 3

ROUTE 265 SEC. 2

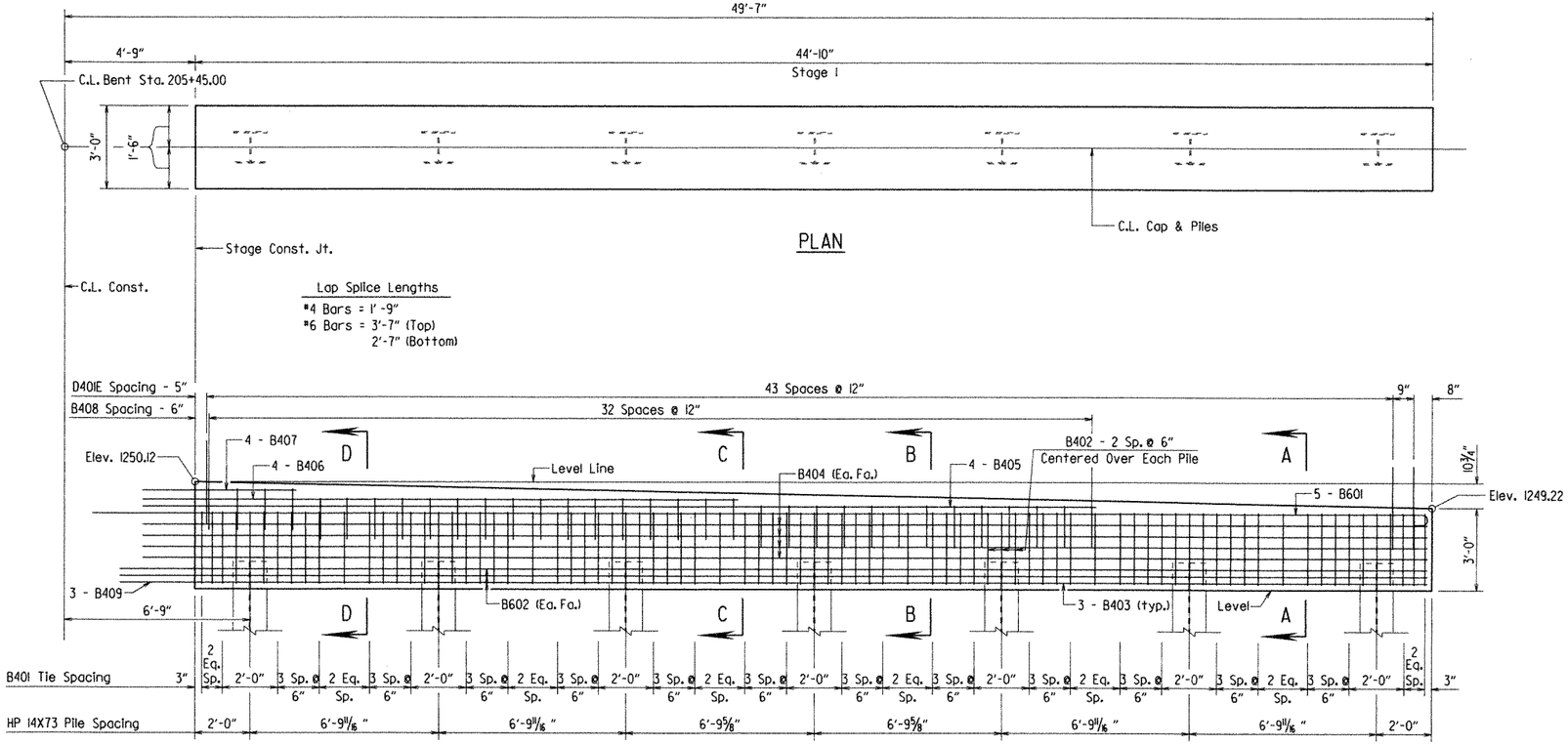
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TMG DATE: 6/3/2011
CHECKED BY: BEF DATE: 6/7/11
DESIGNED BY: TMG DATE: 5/11
FILENAME: B040518XI_BLDGN
SCALE: ⅜" = 1'-0" OR AS NOTED

BRIDGE NO. 07229 DRAWING NO. 52406

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.		040518		156270
				①	07229	INT. BENT 4		52407

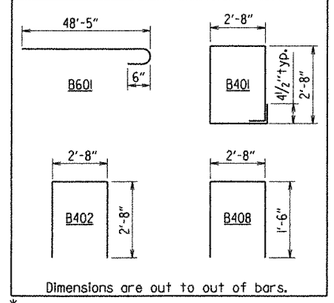


ELEVATION
LOOKING AHEAD

BAR LIST - STAGE I

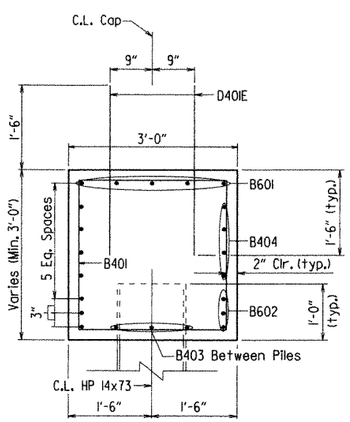
MARK	NO. REQ'D.	LENGTH	P.D.
B401	60	11'-0"	2"
B402	21	7'-10"	2"
B403	18	5'-8"	Str.
B404	8	46'-7"	Str.
B405	4	34'-7"	Str.
B406	4	21'-7"	Str.
B407	4	5'-7"	Str.
B408	33	5'-6"	2"
B409	3	3'-2"	Str.
*D401E	90	3'-0"	Str.
B601	5	49'-1"	4½"
B602	6	47'-5"	Str.

BENDING DIAGRAMS

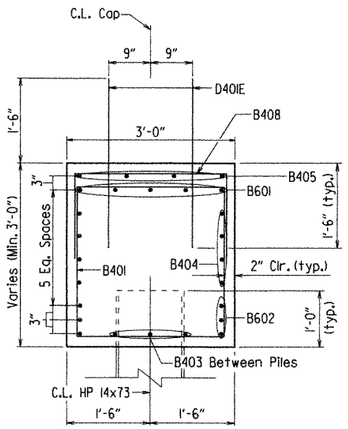


Dimensions are out to out of bars.

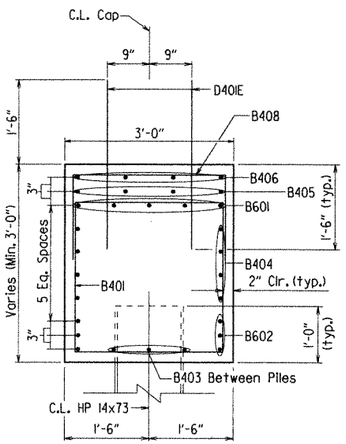
*D401E bars shall be epoxy coated and shall be measured and paid for as "Epoxy Coated Reinforcing Steel (Grade 60)."



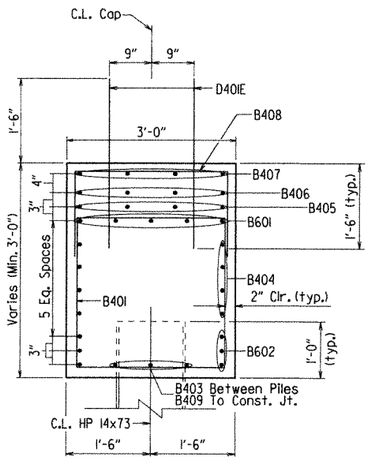
SECTION A-A
¾" = 1'-0"



SECTION B-B
¾" = 1'-0"



SECTION C-C
¾" = 1'-0"



SECTION D-D
¾" = 1'-0"

GENERAL NOTES

All Concrete shall be Class "S" and shall be poured in the dry with a min. 28-day compression strength f'c = 3500 psi. All exposed corners to be chamfered ¾" unless otherwise noted.

All Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

For details of pile encasement, see dwg. no. 14995A.

For additional information, See Layout.

STATE OF ARKANSAS
Carl J. Fuselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL J. FUSELIER

BRIDGE ENGINEER

DETAILS OF INTERMEDIATE BENT NO. 4
STAGE I

ROUTE 265 SEC. 2

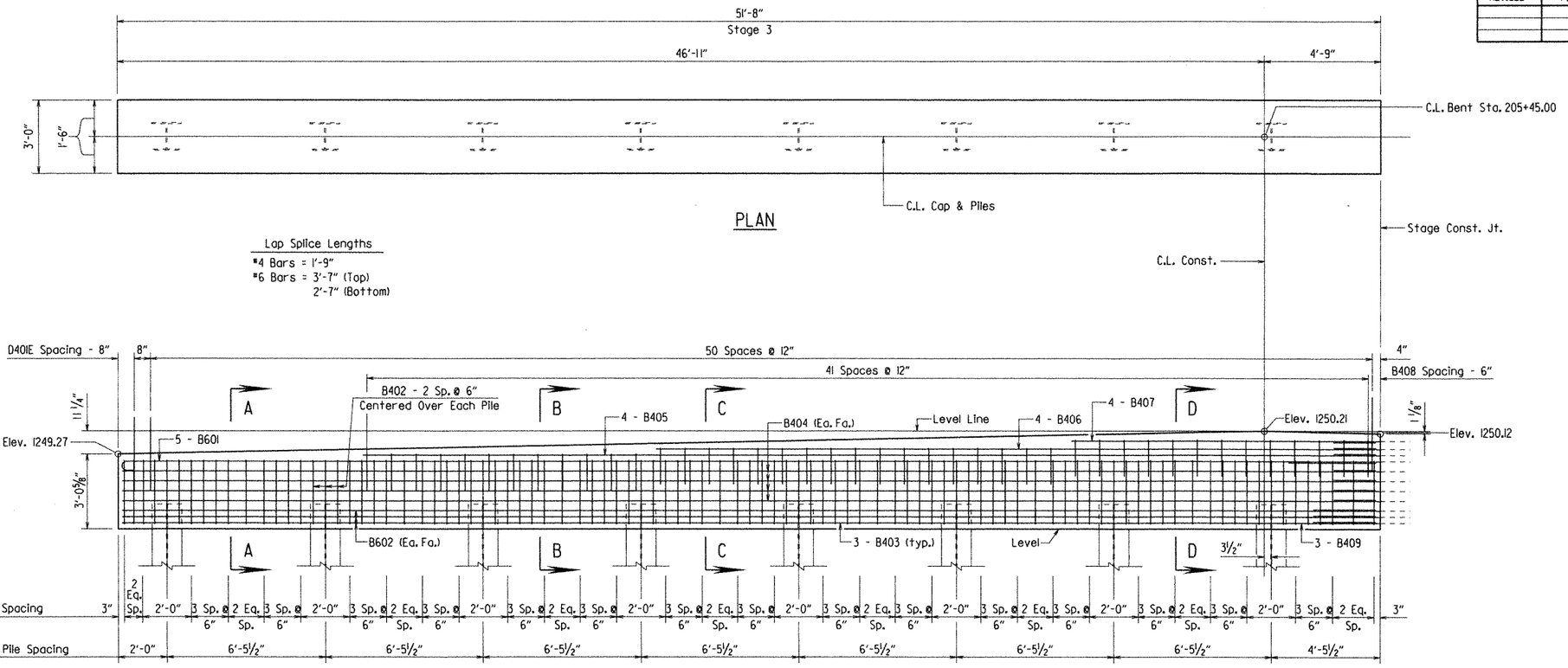
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TMG DATE: 6/3/2011
CHECKED BY: BEF DATE: 8/17/11
DESIGNED BY: TMG DATE: 5/11
FILENAME: B040518XL_BI.DGN
SCALE: ⅜" = 1'-0" OR AS NOTED

BRIDGE NO. 07229 DRAWING NO. 52407

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.		040518	157	270
				(1) 07229		INT. BENT 4		52408

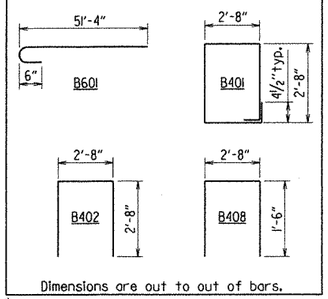


ELEVATION
LOOKING AHEAD

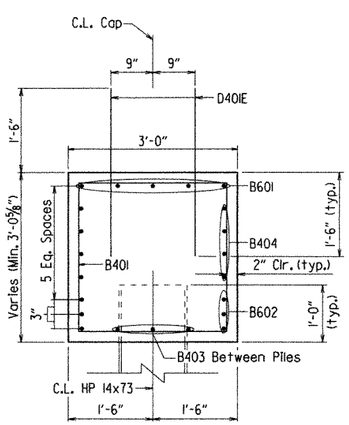
BAR LIST - STAGE 3

MARK	NO. REQ'D.	LENGTH	P.D.
B401	72	11'-0"	2"
B402	24	7'-10"	2"
B403	21	5'-3"	Str.
B404	8	51'-4"	Str.
B405	4	41'-6"	Str.
B406	4	29'-6"	Str.
B407	4	12'-6"	Str.
B408	42	5'-6"	2"
B409	3	3'-9"	Str.
*D401E	104	3'-0"	Str.
B601	5	52'-0"	4 1/2"
B602	6	51'-4"	Str.

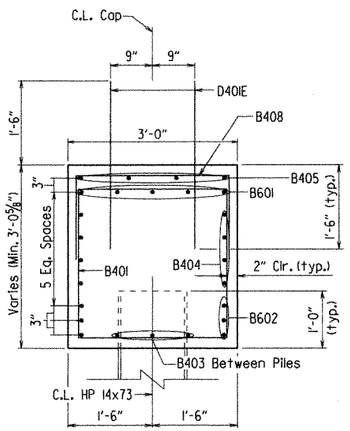
BENDING DIAGRAMS



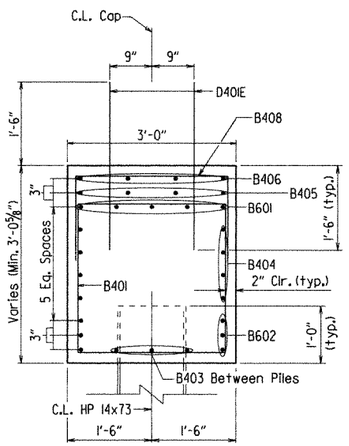
*D401E bars shall be epoxy coated and shall be measured and paid for as "Epoxy Coated Reinforcing Steel (Grade 60)."



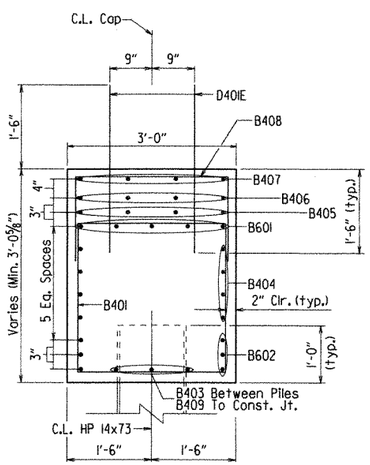
SECTION A-A
3/4" = 1'-0"



SECTION B-B
3/4" = 1'-0"



SECTION C-C
3/4" = 1'-0"



SECTION D-D
3/4" = 1'-0"

GENERAL NOTES

All Concrete shall be Class "S" and shall be poured in the dry with a min. 28-day compression strength f'c = 3500 psi. All exposed corners to be chamfered 3/4" unless otherwise noted.

All Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

For details of pile encasement, see dwg. no. 14995A.

For additional information, See Layout.

STATE OF ARKANSAS
Carl J. Fuselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL J. FUSELIER

BRIDGE ENGINEER

DETAILS OF INTERMEDIATE BENT NO. 4
STAGE 3

ROUTE 265 SEC. 2

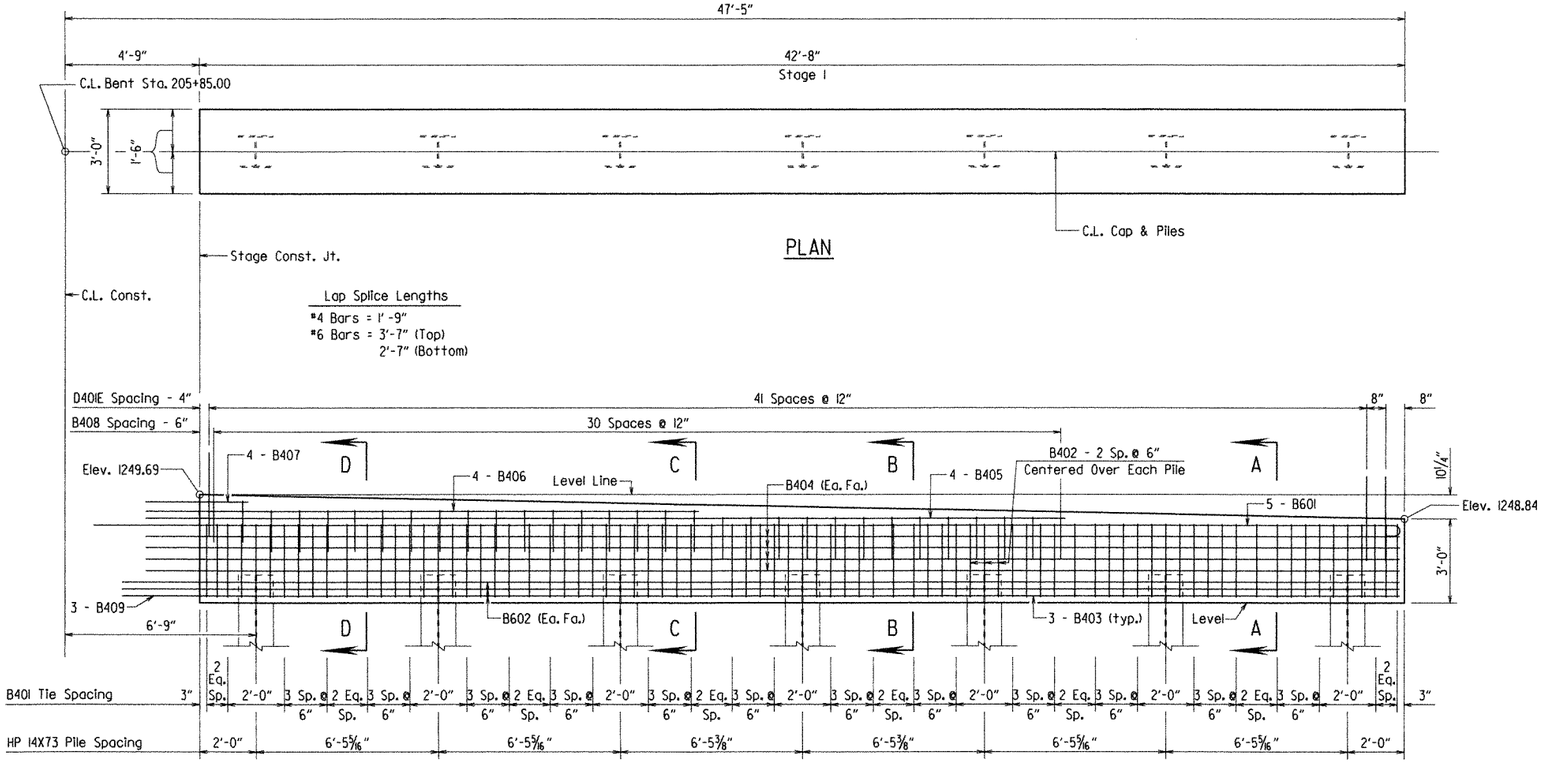
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TMG DATE: 6/3/2011
CHECKED BY: BEF DATE: 8/17/11
DESIGNED BY: TMG DATE: 5/11
FILENAME: B040518XI_BI.DGN
SCALE: 3/8" = 1'-0" OR AS NOTED

BRIDGE NO. 07229 DRAWING NO. 52408

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.		040518	158	270
				① 07229		INT. BENT 5	52409	



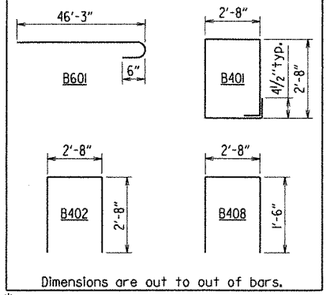
PLAN

ELEVATION
LOOKING AHEAD

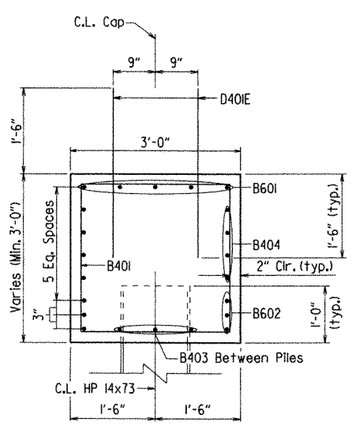
BAR LIST - STAGE I

MARK	NO. REQ'D.	LENGTH	P.D.
B401	60	11'-0"	2"
B402	21	7'-10"	2"
B403	18	5'-3"	Str.
B404	8	44'-5"	Str.
B405	4	32'-7"	Str.
B406	4	19'-7"	Str.
B407	4	3'-7"	Str.
B408	31	5'-6"	2"
B409	3	3'-2"	Str.
*D401E	86	3'-0"	Str.
B601	5	46'-11"	4 1/2"
B602	6	45'-3"	Str.

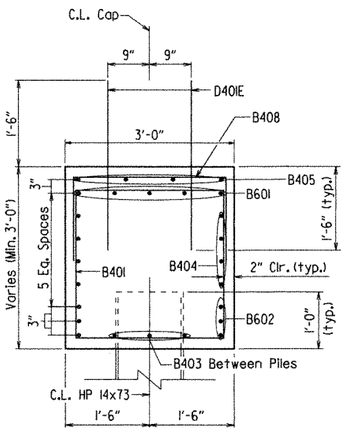
BENDING DIAGRAMS



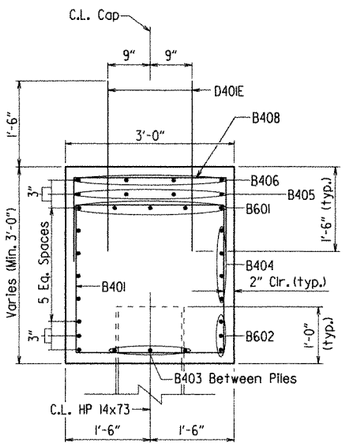
*D401E bars shall be epoxy coated and shall be measured and paid for as "Epoxy Coated Reinforcing Steel (Grade 60)."



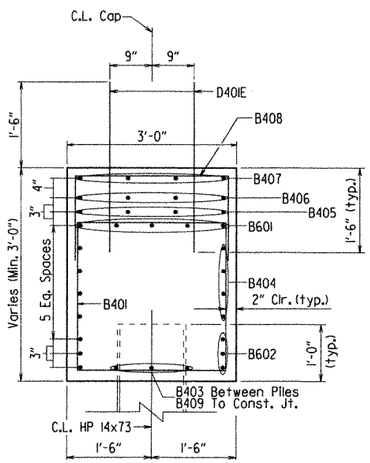
SECTION A-A
3/4" = 1'-0"



SECTION B-B
3/4" = 1'-0"



SECTION C-C
3/4" = 1'-0"



SECTION D-D
3/4" = 1'-0"

STATE OF ARKANSAS
Carl J. Fuselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL J. FUSELIER

BRIDGE ENGINEER

GENERAL NOTES

All Concrete shall be Class "S" and shall be poured in the dry with a min. 28-day compression strength f'c = 3500 psi. All exposed corners to be chamfered 3/4" unless otherwise noted.

All Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

For details of pile encasement, see dwg. no. 14995A.

For additional information, See Layout.

DETAILS OF INTERMEDIATE BENT NO. 5
STAGE I

ROUTE 265 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

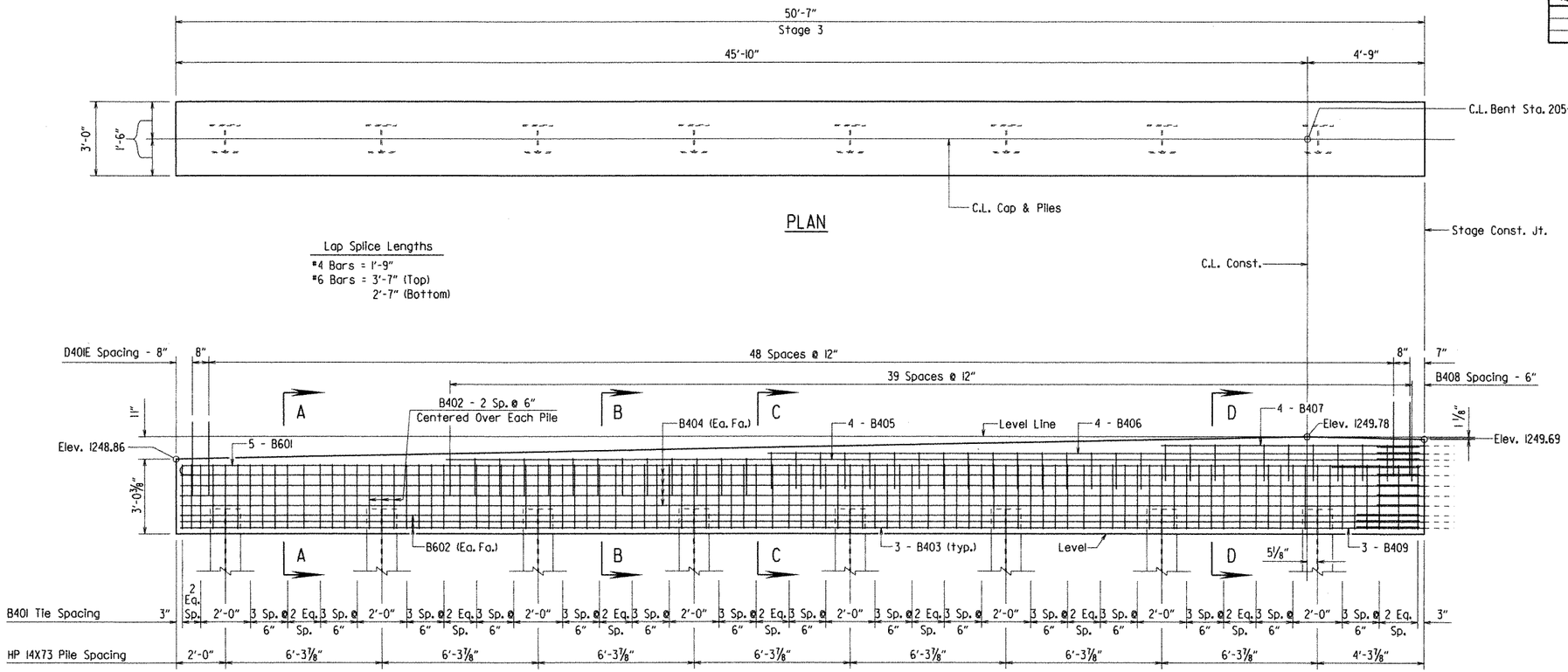
LITTLE ROCK, ARK.

DRAWN BY: TMG DATE: 6/3/2011
CHECKED BY: BEF DATE: 8/17/11
DESIGNED BY: TMG DATE: 5/11

FILENAME: B040518X1_B1.DGN
SCALE: 3/8" = 1'-0" OR AS NOTED

BRIDGE NO. 07229 DRAWING NO. 52409

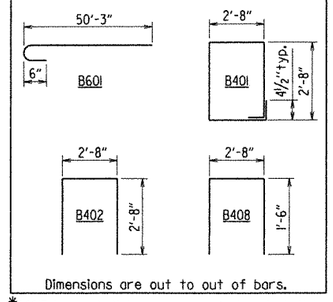
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	159	270
				(1)	07229	INT. BENT 5		52410



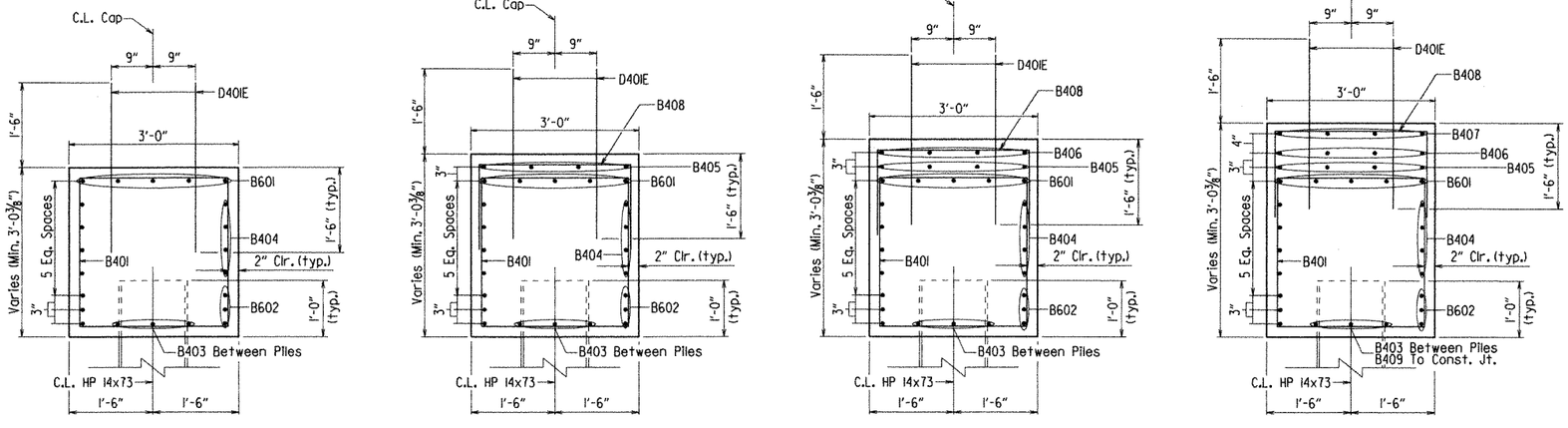
BAR LIST - STAGE 3

MARK	NO. REQ'D.	LENGTH	P.D.
B401	72	11'-0"	2"
B402	24	7'-10"	2"
B403	21	5'-2"	Str.
B404	8	50'-3"	Str.
B405	4	39'-6"	Str.
B406	4	26'-6"	Str.
B407	4	10'-6"	Str.
B408	40	5'-6"	2"
B409	3	3'-7"	Str.
*D401E	102	3'-0"	Str.
B601	5	50'-11"	4 1/2"
B602	6	50'-3"	Str.

BENDING DIAGRAMS



*D401E bars shall be epoxy coated and shall be measured and paid for as "Epoxy Coated Reinforcing Steel (Grade 60)."



GENERAL NOTES

All Concrete shall be Class "S" and shall be poured in the dry with a min. 28-day compression strength f'c = 3500 psi. All exposed corners to be chamfered 3/4" unless otherwise noted.

All Reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

For details of pile encasement, see dwg. no. 14995A.

For additional information, See Layout.

STATE OF ARKANSAS
Carl E. Fuselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL E. FUSELIER

BRIDGE ENGINEER

DETAILS OF INTERMEDIATE BENT NO. 5
STAGE 3

ROUTE 265 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: TMG DATE: 6/3/2011 FILENAME: B040518X1_BI.DGN
CHECKED BY: BEF DATE: 8/17/11 SCALE: 3/8" = 1'-0"
DESIGNED BY: TMG DATE: 5/11 OR AS NOTED

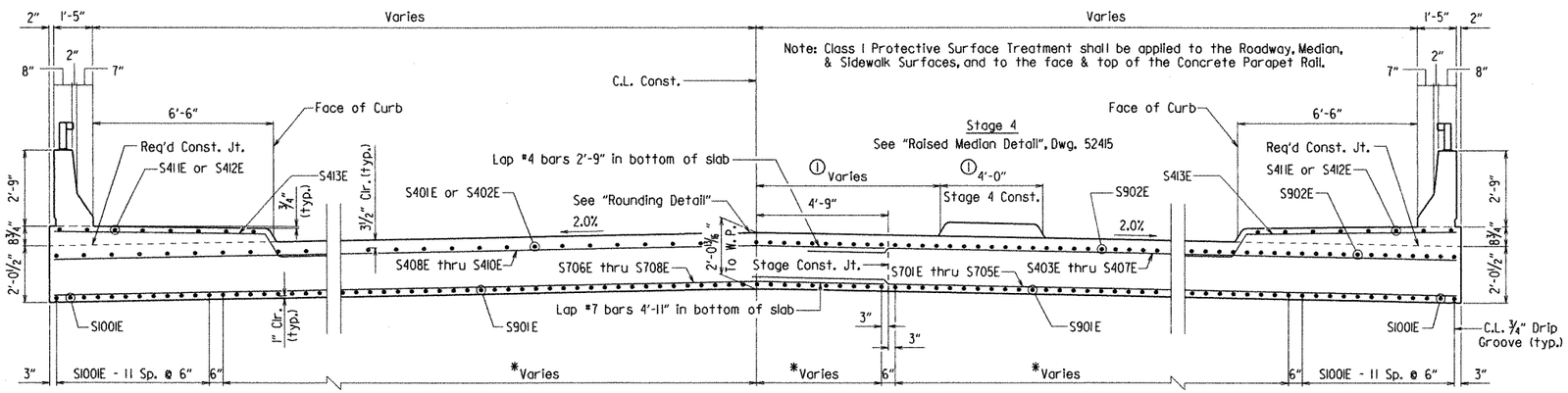
BRIDGE NO. 07229 DRAWING NO. 52410

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.		040518	160	270
				① 07229		R.C. SLAB UNIT		52411

Stage 3 Shown, Stage 1 Similar

Stage 1 Shown, Stage 3 Similar

Note: Class I Protective Surface Treatment shall be applied to the Roadway, Median, & Sidewalk Surfaces, and to the face & top of the Concrete Parapet Rail.



TYP. SECTION THROUGH ROADWAY @ MID-SPAN

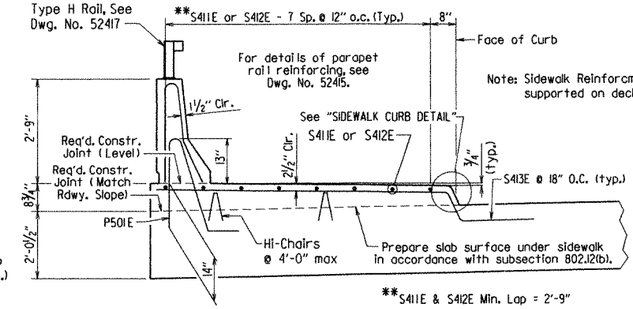
Looking Ahead

TYP. SECTION THROUGH ROADWAY @ INT. BENTS

Looking Ahead

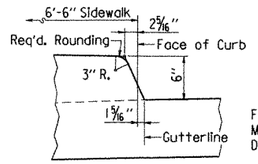
*For rebar spacing and placement, see Dwg. Nos. 52413 - 52414

① See Roadway Plans for Location and width of Median.



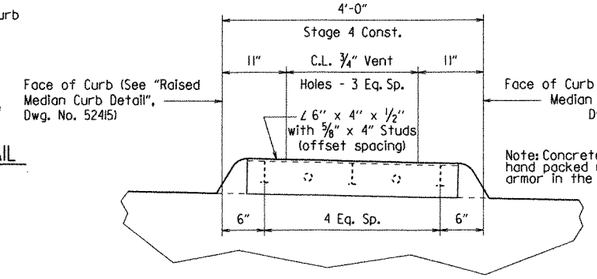
SIDEWALK DETAIL

Not to Scale



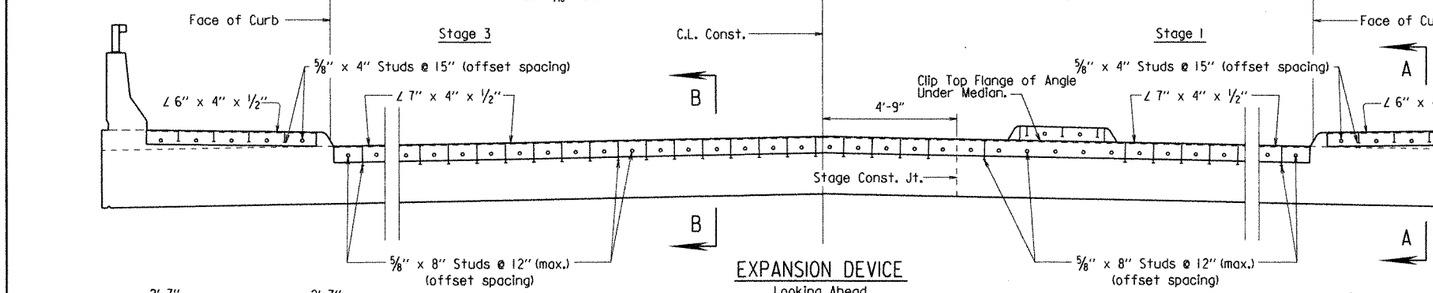
SIDEWALK CURB DETAIL

Not to Scale



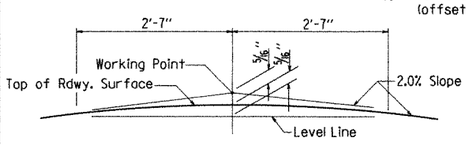
RAISED MEDIAN DETAIL AT JOINT

Not to Scale



EXPANSION DEVICE

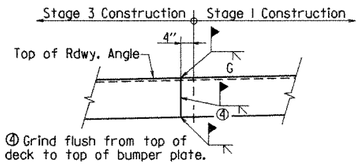
Looking Ahead



Note: Working Point matches Theoretical Roadway Grade.

ROUNDING DETAIL

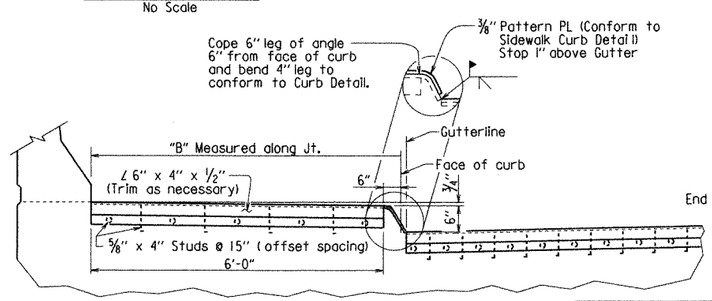
No Scale



④ Grind flush from top of deck to top of bumper plate.

DETAIL OF WELD LOCATION FOR EXPANSION DEVICE

Looking Ahead
Not to Scale

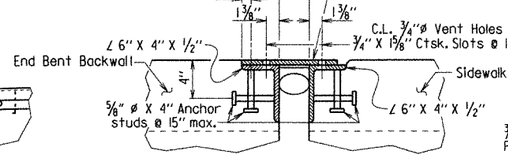


SIDEWALK JOINT DETAIL

Not to Scale

Note: Concrete shall be hand packed under the joint armor in the sidewalk. See Dwg. No. 52416 for additional details.

	Dimension "B"	
	Stage 1	Stage 3
Bent 1	6'-6 1/16"	6'-6"
Bent 6	6'-6 1/8"	6'-6 1/16"

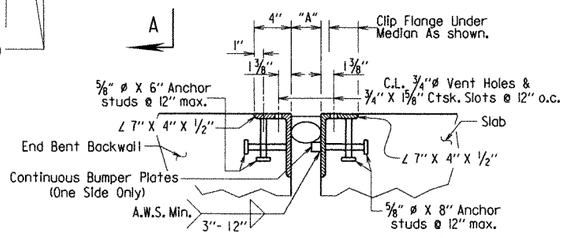


Note: Concrete shall be hand packed under the joint armor in the sidewalk.

SECTION A-A

Not to Scale

Note: See Dwg. No. 52416 for additional joint details.



Note: Concrete shall be hand packed under the joint armor in the slab.

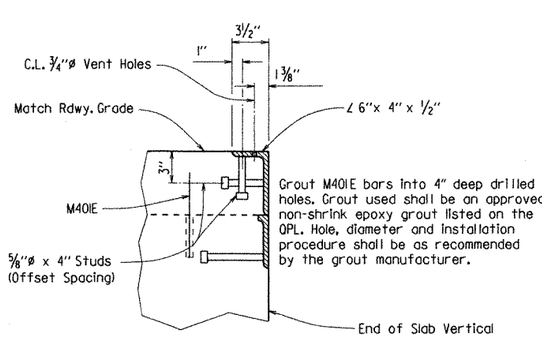
SECTION B-B

Not to Scale

Note: See Dwg. No. 52416 for additional joint details.

The surfaces of the ⅜" pattern PL, ∠ 7" X 4" X½", and ∠ 6" X 4" X ½" not 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 shall be considered subsidiary to "Structural Steel in Beam Spans (M270, Gr. 36)". Pattern Plate shall be A36 or as approved by the Engineer and shall be paid for as "Structural Steel in Beam Spans (M270. Gr. 36)".

¾" X 1⅝" Ctsk. Slots in ⅜" Pattern Plates. Tap 4" leg of angle for ⅝" ø Flat head Cap Screws @ 12" o.c. Install Screws in the Shop and ship as a unit. Remove screws on one side after erection is complete.



RAISED MEDIAN SECTION

No Scale

STATE OF ARKANSAS
Carl J. Fuselier
No. 7510
REGISTERED PROFESSIONAL ENGINEER
CARL J. FUSELIER
9/1/11

BRIDGE ENGINEER

SHEET 1 OF 7
DETAILS OF 200'-0" CONTINUOUS R.C. SLAB UNIT CLEAR CREEK

ROUTE 265 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

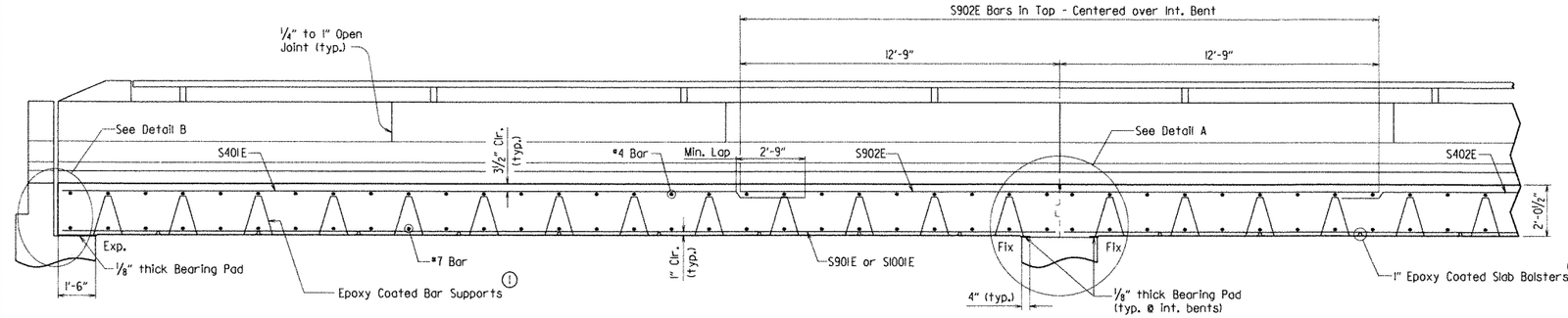
LITTLE ROCK, ARK.

DRAWN BY: TMG DATE: 8/9/2011 FILENAME: B040518X1_SL.DGN
CHECKED BY: JGT DATE: 8/15/11 SCALE: ⅜" = 1'-0" OR AS NOTED
DESIGNED BY: TMG DATE: 5/11

BRIDGE NO. 07229 DRAWING NO. 52411

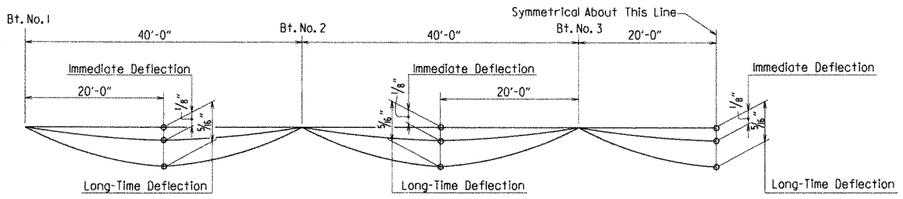
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
3-25-2013			

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		040518	161	270
① 07229		R.C. SLAB UNIT		52412



① Size and spacing shall be sufficient to support reinforcing under all construction activities without deforming.

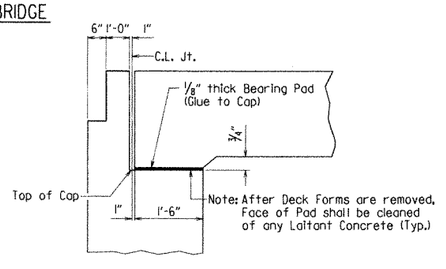
LONGITUDINAL SECTION ALONG C.L. BRIDGE



DEAD LOAD DEFLECTION DIAGRAM

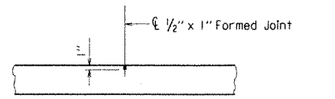
No Scale

Deflections shown are from a chord from C.L. bent to C.L. bent. Vertical alignment corrections are not included. Tolerance + 1/4" for camber and vertical alignment.



DETAIL B

Not to Scale



Use 1/2" x 1" Type 3, 4, or 6 Joint Sealer. See subsections 501.02 (h) and 501.05 (j). Backer Rod filler will not be required. Joint sealer shall be measured and paid for as Class S(AE) Concrete-Bridge. This joint shall be formed.

LONGITUDINAL CONSTRUCTION JOINT DETAIL

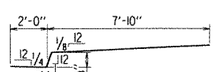
Not to Scale

BAR LIST ②

MARK	NUMBER REQUIRED STAGE 1	NUMBER REQUIRED STAGE 3	LENGTH	P.D.
S401E	93	103	29'-9"	Str.
S402E	140	156	20'-0"	Str.
S403E	27	-	50'-6" to 52'-1"	Str.
S404E	27	-	48'-9" to 50'-5"	Str.
S405E	27	-	47'-1" to 48'-9"	Str.
S406E	27	-	44'-11" to 47'-0"	Str.
S407E	27	-	42'-8" to 44'-11"	Str.
S408E	-	81	51'-0"	Str.
S409E	-	27	49'-11" to 51'-1"	Str.
S410E	-	27	48'-8" to 49'-10"	Str.
S411E	16	16	41'-3"	Str.
S412E	24	24	42'-9"	Str.
S413E	135	135	10'-8"	3"
S701E	27	-	52'-8" to 54'-3"	Str.
S702E	27	-	50'-11" to 52'-7"	Str.
S703E	27	-	49'-3" to 50'-11"	Str.
S704E	27	-	47'-1" to 49'-3"	Str.
S705E	27	-	44'-10" to 47'-1"	Str.
S706E	-	81	51'-0"	Str.
S707E	-	27	49'-11" to 51'-1"	Str.
S708E	-	27	48'-8" to 49'-10"	Str.
S901E	402	453	39'-8"	Str.
S902E	367	411	25'-6"	Str.
S1001E	60	60	39'-8"	Str.

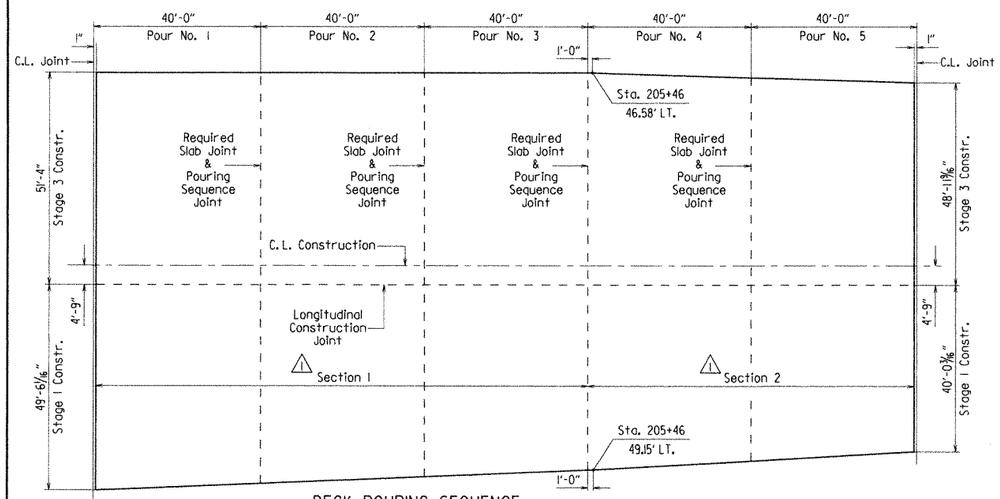
BENDING DIAGRAMS
(Dimensions are out to out of bars.)

Note: Bar designations with "E" suffix are Epoxy Coated



② See Dwg. No. 52415 for Parapet and Median Barlist.

Notes: For each stage of construction, the Contractor shall pour the slab unit in sections according to the pouring sequence shown. No part of the falsework for the entire section shall be removed until all of the concrete in that section of the bridge slab has been placed and cured. Falsework for span 3 shall remain in place until after section 2 is placed and cured. All pours shall begin at one end of the bridge and proceed in sequence to the other end of the bridge. 72 hours shall elapse between the end of a pour and the start of the next pour for each stage of construction. Concrete in the bridge superstructure shall be placed and consolidated for the entire pour before any concrete has taken its initial set. No railing or sidewalk pours shall be made before the entire bridge slab for each stage has been poured. No railing pours shall be placed before all sidewalk pours for each stage has been placed. 72 hours shall elapse between the end of deck pour 5 and the start of a sidewalk pour. 72 hours shall elapse between the end of a sidewalk pour and the start of a parapet railing pour. The Contractor must obtain approval from the Engineer for any deviation from the pouring sequence shown and for any railing and sidewalk pours made before the entire bridge slab for each stage has been poured.

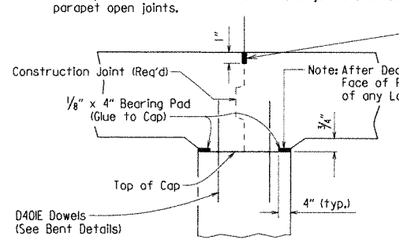


DECK POURING SEQUENCE

Not to Scale

Notes: ~~For each stage of construction, the Contractor shall pour the slab unit in sections according to the pouring sequence shown.~~ ~~No part of the falsework for the entire unit shall be removed until all of the concrete in the complete bridge deck slab has been placed and cured. All pours shall begin at one end of the bridge and proceed in sequence to the other end of the bridge.~~ 72 hours shall elapse between the ~~end of a pour~~ and the start of the next ~~pour for each~~ stage of construction. Concrete in the bridge superstructure shall be placed and consolidated ~~for the entire pour~~ before any concrete has taken its initial set. ~~No railing or sidewalk pours shall be made before the entire bridge slab for~~ each stage has been poured. No railing pours shall be placed before all sidewalk pours ~~for each stage~~ has been placed. 72 hours ~~shall elapse~~ between the end of deck pour 5 and the start of a sidewalk ~~pour. 72~~ hours shall elapse between the end of a sidewalk pour and ~~the start~~ of a parapet railing pour. ~~The Contractor must~~ obtain approval from the Engineer for any deviation from the pouring sequence shown ~~and~~ for any railing and ~~sidewalk~~ pours made before the entire bridge slab for each stage has been poured.

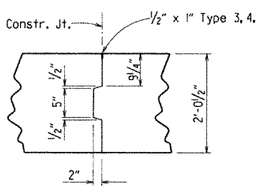
Use Type 3, 4, or 6 Joint Sealer. See subsections 501.02 (h) and 501.05 (j). Backer Rod filler will not be required. Joint Sealer shall be measured and paid for as Class S(AE) Concrete-Bridge. Slab joints shall extend to the outside edge of the deck slab, and across the top of sidewalk and raised median area. Slab joints shall be installed before the sidewalk and parapet railings are 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. No joint sealer shall be placed on the deck slab under the sidewalk or median areas. The joint sealer shall extend across the deck slab and across the top of the sidewalk and median. Slab joints shall align with parapet open joints.



Note: Joint to be cleaned by sandblasting or other approved method before pouring joint sealer.

DETAIL A

Not to Scale



DECK SLAB CONSTR. JT. DETAIL

Not to Scale

⚠ Revised pouring sequence note TMG - 3/25/2013

STATE OF ARKANSAS
CARL J. PUSELLER
REGISTERED PROFESSIONAL ENGINEER
No. 7510
3/26/13

BRIDGE ENGINEER

SHEET 2 OF 7
DETAILS OF 200'-0" CONTINUOUS R.C. SLAB UNIT CLEAR CREEK

ROUTE 265 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

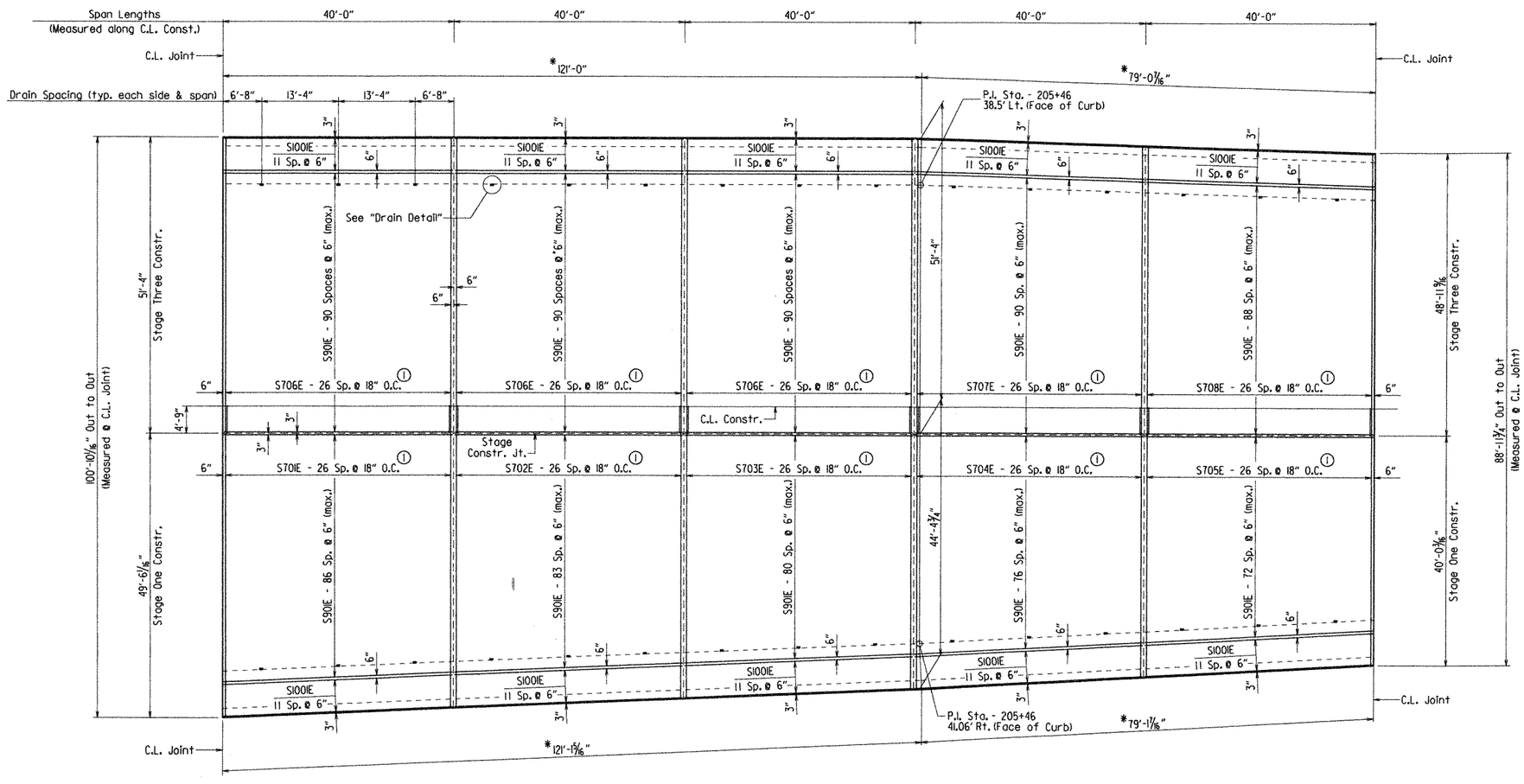
LITTLE ROCK, ARK.

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CHECKED BY: JGT DATE: 8/16/11 SCALE: 3/8" = 1'-0" OR AS NOTED
DESIGNED BY: TMG DATE: 4/11

BRIDGE NO. 07229 DRAWING NO. 52412

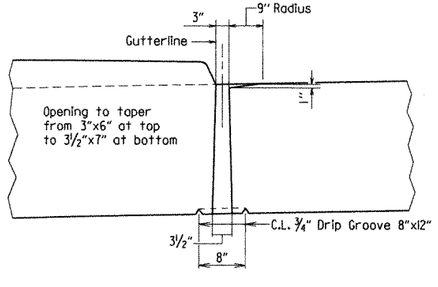
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				6	ARK.			
				JOB NO.		040518	L62	270
				(1) 07229		R.C. SLAB UNITS		52413

(1) Lap #7 Bars 4'-11"



REINFORCING PLAN - BOTTOM OF SLAB

*Measured along outside slab edge



DRAIN DETAIL

Note: Spread bars as required to clear drains.

STATE OF ARKANSAS
Carl T. Russelier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL T. RUSSELIER

BRIDGE ENGINEER

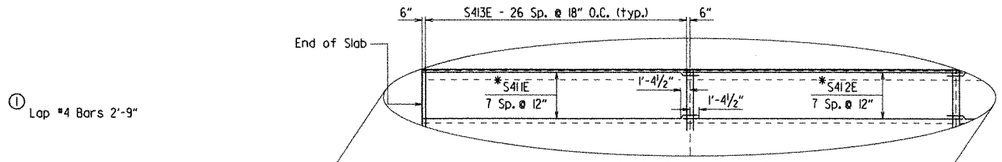
SHEET 3 OF 7
DETAILS OF 200'-0" CONTINUOUS
R. C. SLAB UNIT
CLEAR CREAK
ROUTE 265 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TMG DATE: 8/9/2011 FILENAME: B040518X1_SI.DGN
CHECKED BY: JGT DATE: 8/15/11 SCALE: 1/32" = 1'-0"
DESIGNED BY: TMG DATE: 4/11

BRIDGE NO. 07229 DRAWING NO. 52413

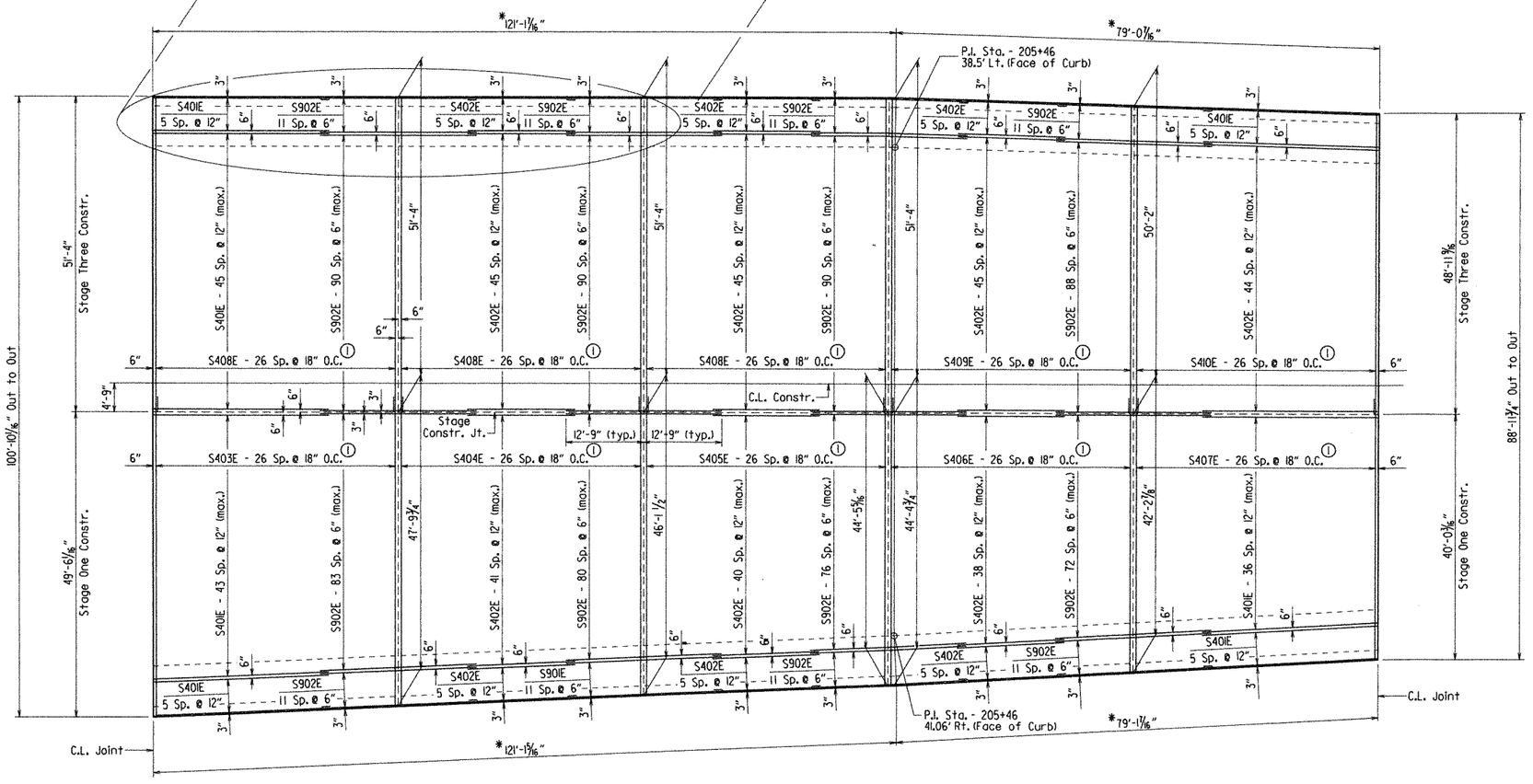
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	163	270
				①	07229	R.C. SLAB UNITS		52414

① Lap #4 Bars 2'-9"



SIDEWALK REINFORCING

*For additional sidewalk reinforcing details see, "Sidewalk Detail" on Dwg. No. 52411



REINFORCING PLAN - TOP OF SLAB

*Measured along outside slab edge

Note: For placement of deck drains, see, Dwg. No. 52413

STATE OF ARKANSAS
Carl J. Fuselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL J. FUSELIER
BRIDGE ENGINEER

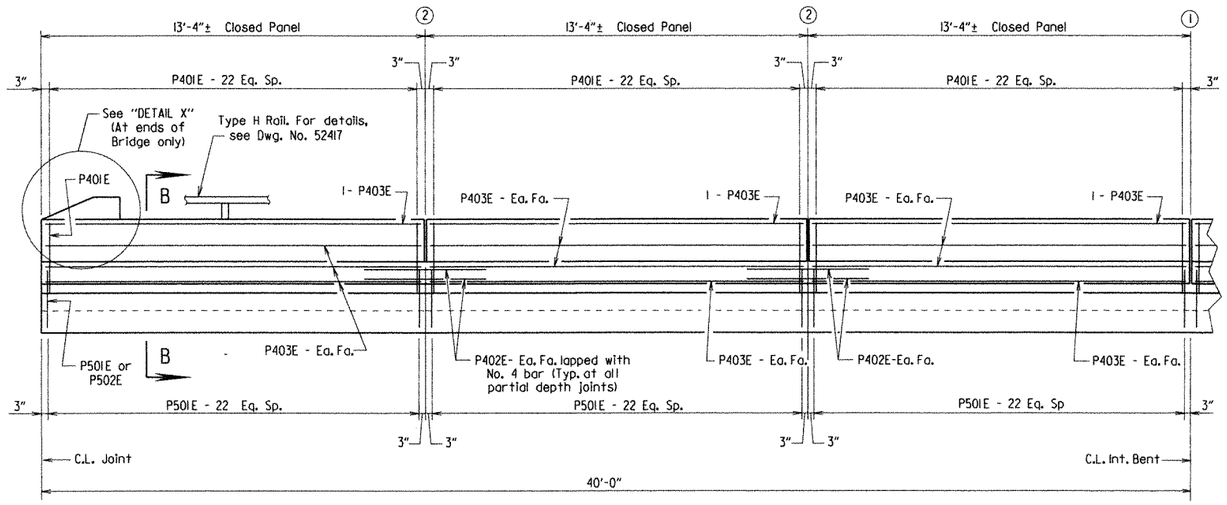
SHEET 4 OF 7
DETAILS OF 200'-0" CONTINUOUS
R. C. SLAB UNIT
CLEAR CREEK
ROUTE 265 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TMG DATE: 8/9/2011 FILENAME: B040518XI_SI.DGN
CHECKED BY: JGT DATE: 8/15/11 SCALE: ½" = 1'-0"
DESIGNED BY: TMG DATE: 4/11
BRIDGE NO. 07229 DRAWING NO. 52414

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.		040518	164	270
				① 07229		R.C. SLAB UNIT		52415

① C.L. Full-Depth Parapet Joint (¼" to 1" max.) Stop 4" from top of sidewalk.

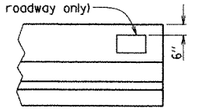
② C.L. Partial-Depth Parapet Joint (¼" to 1" max.) Stop 1'-2" from top of sidewalk.



DETAILS OF PARAPET RAIL

Not to Scale

Place Type D Bridge Name Plate on front face of span rail approx. 2'-0" from beginning of bridge (Right side of roadway only)

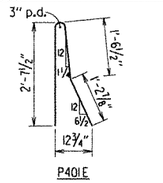


NAME PLATE DETAIL

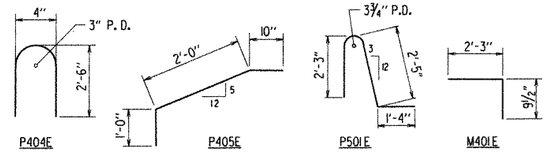
No Scale

BAR LIST

MARK	NUMBER REQUIRED STAGE 1	STAGE 3	STAGE 4	LENGTH	P.D.	BENDING DIAGRAMS (Dimensions are out to out of bars.)
P401E	345	345	-	5'-6"	2"	
P402E	40	40	-	5'-0"	Str.	
P403E	105	105	-	13'-0"	Str.	
P404E	6	6	-	5'-2"	3"	
P405E	2	2	-	3'-10"	2"	
P501E	345	345	-	6'-0"	2½"	
M401E	-	-	268	3'-0"	2"	
M402E	-	-	8	41'-3"	Str.	
M403E	-	-	12	42'-9"	Str.	

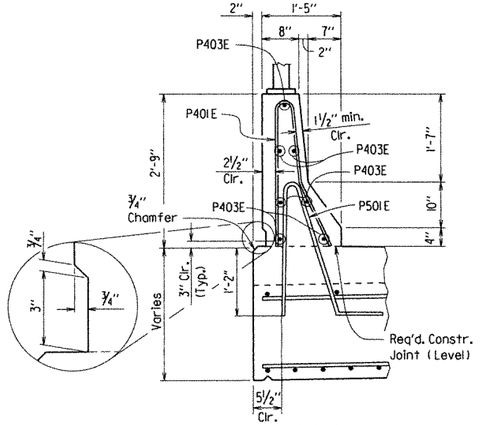


P401E



P404E P405E P501E M401E

Note: Bar designations with "E" suffix are epoxy coated.



SECTION B-B

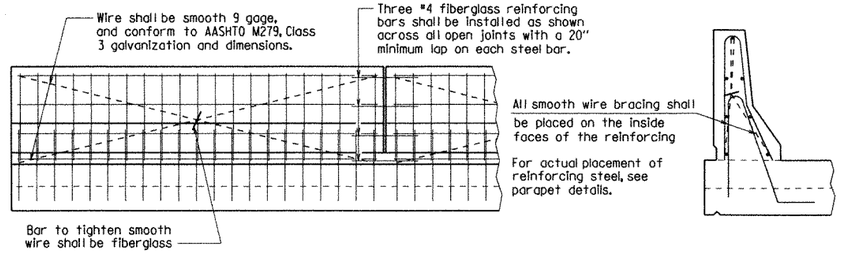
Not to Scale

Wire shall be smooth 9 gage, and conform to AASHTO M279, Class 3 galvanization and dimensions.

Three #4 fiberglass reinforcing bars shall be installed as shown across all open joints with a 20" minimum lap on each steel bar.

All smooth wire bracing shall be placed on the inside faces of the reinforcing

For actual placement of reinforcing steel, see parapet details.



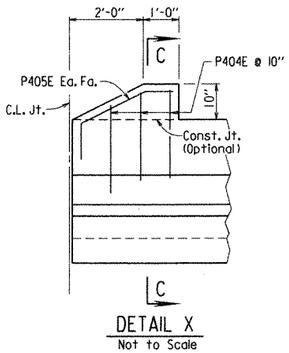
Bar to tighten smooth wire shall be fiberglass

All panels shall be braced as required to prevent racking. All open joints shall be sawed as soon as practicalto a minimum width of ¼". To control cracking before sawing all joints must be grooved before the concrete is set. Sawing of the joints must be controlled so it will follow the grooved joint.

The extruded parapet shall conform to the horizontal and vertical lines shown on the plans or as directed by the Engineer and shall present a smooth, uniform appearance and texture. Exposed surfaces may be given a light brush finish or a Class 3, Textured Coating Finish, in place of Class 2, Rubbed Finish.

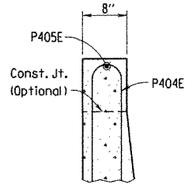
DETAILS OF OPTIONAL SLIPFORMING OF CONCRETE PARAPET RAIL

No to Scale



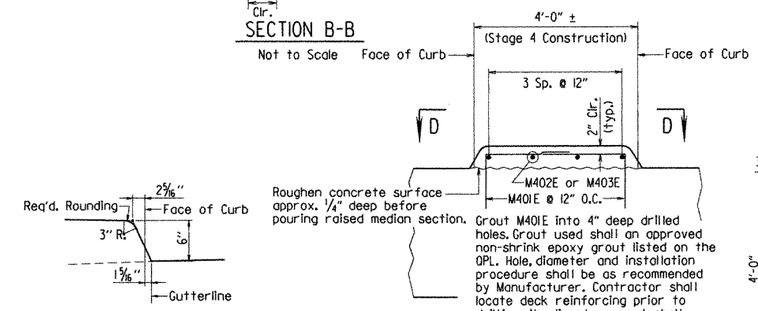
DETAIL X

Not to Scale



SECTION C-C

Not to Scale

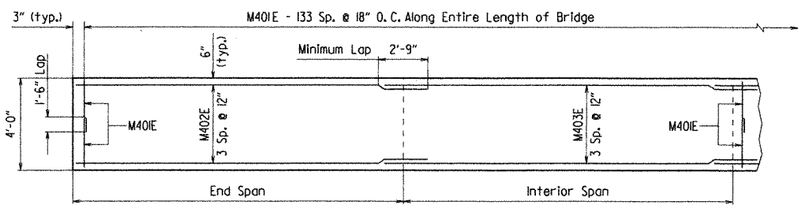


RAISED MEDIAN DETAIL

Not to Scale

RAISED MEDIAN CURB DETAIL

Not to Scale



VIEW D-D

Not to Scale

STATE OF ARKANSAS
Carl J. Fusellier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL J. FUSELLIER

BRIDGE ENGINEER

SHEET 5 OF 7
DETAILS OF 200'-0" CONTINUOUS R.C. SLAB UNIT
CLEAR CREEK
ROUTE 265 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TMG DATE: 8/9/11
CHECKED BY: JGT DATE: 8/15/11
DESIGNED BY: TMG DATE: 4/11
FILENAME: B040518XL_SL.DGN
SCALE: AS NOTED

BRIDGE NO. 07229 DRAWING NO. 52415

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.		040518	165	270
				1 07229		R.C. SLAB UNIT		52416

GENERAL NOTES

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 in the plans Section and Subsection refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications Fifth Ed. (2010), with 2010 interim Specifications.

LIVE LOADING: HL-93

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. 36)	Fy = 36,000 psi

CONCRETE: Concrete shall be poured in the dry and all exposed corners are to be chamfered ¾" unless otherwise noted. All concrete shall be Class S(AE) Concrete with a minimum 28 Day Compressive strength of f'c = 4,000 psi.

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 between curbs shall be given a tine finish in accordance with subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish. Sidewalks and median shall be given a Class 6 Broomed 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.

BEARING PAD: The 1/8" bearing pad shall be an unreinforced pad meeting the requirements of Section 808, or shall be nylon reinforced neoprene meeting the requirements of subsection 807.20. The pad shall be furnished in one piece for the required width and full length of the bearing and glued to the bent cap with an adhesive approved by the Engineer. Pad and adhesive will not be paid for directly, but will be considered subsidiary to the item "Class S(AE) Concrete".

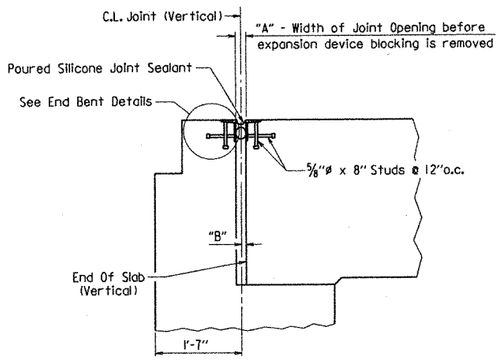
REINFORCING STEEL: All reinforcing steel shall conform to AASHTO M31 or M53, Gr. 60. The reinforcing steel is to be accurately located in the forms and firmly held in place by steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly, but will be considered subsidiary to the item "Epoxy Coated Reinforcing Steel – Bridge (Gr. 60)".

STRUCTURAL STEEL: All structural steel shall be AASHTO M270, Gr. 36 unless otherwise noted and shall be paid for as "Structural Steel in Beam Spans (M270, Gr. 36)". All exposed surfaces shall be cleaned in accordance with subsection 807.84(e) unless otherwise noted.

Drawings show general features of design only. Shop drawings shall be made in accordance with the specifications, submitted and approval secured before fabrication is begun.

Requests for substitution of structural steel shapes shown with shapes of greater size must be submitted by the Contractor to the Engineer for approval. Steels of equal or greater strengths will be accepted only when shown on the approved shop drawings. Payment will be based on the basis of shapes and materials shown in the plans, and no additional compensation will be made for any adjustments due to substitutions.

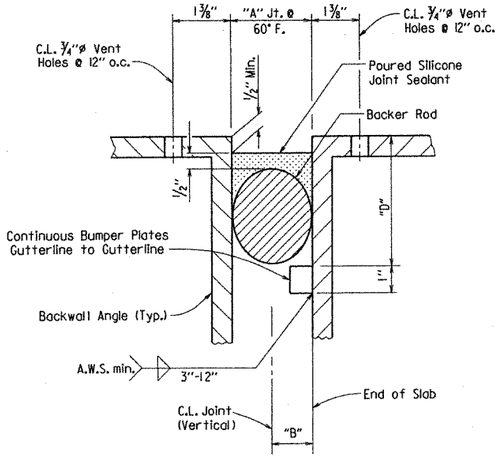
All welding that is done during the fabrication of the structural steel, including temporary welds, shall be detailed on the shop drawings with detailed drawings shall be submitted to the Engineer for approval. If additional welds are required, whether permanent or temporary, a formal request with detailed drawings shall be submitted to the Engineer for approval; however, additional welds used for attaching false work support devices or screed rail supports to the structural steel that do not exceed the limitations of subsection 802.13 will not require approval prior to construction. All welding shall conform to subsection 807.26.



SECTION THRU JOINT AT END BENTS

Not to Scale

Note: Concrete shall be hand packed under the joint armor in the backwall and in the span.



Note: Backer rods shall be extended beyond length of poured joint in Stage I so that the two pieces can be properly joined together prior to installing sealant for Stage 3. Manufacturer's recommendations shall be followed to prevent sealant from "running out of the joint" during stage construction.

DETAIL OF POURED SILICONE JOINT

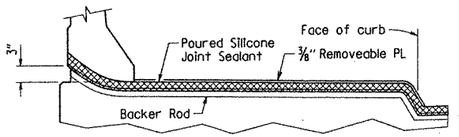
Not to Scale

SILICONE JOINT DATA

"A" Width Perpendicular to Joint at 24 Hour Average Temperature* Of:			"B" Perpendicular to Joint at 60°F	"D"	Bumper Plate Size
40°F	60°F	80°F			
2 1/8"	2"	1 7/8"	1" +/-	5 1/2"	1" X 1"

*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.

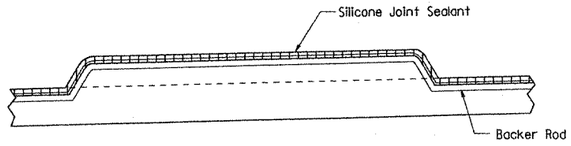
Note: The temperature limitations recommended by the sealant manufacturer shall be observed.



JOINT SEAL PLACEMENT AT SIDEWALK & PARAPET

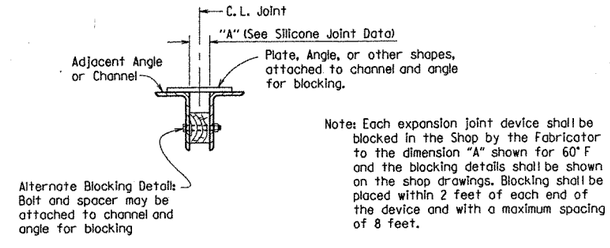
Not to Scale

Note: Install seal in slab joint and parapet joint with damming procedure as recommended by the manufacturer. The sealant shall be recessed to prevent damage and be allowed to cure prior to removal of the outer damming material.



JOINT SEAL PLACEMENT AT RAISED MEDIAN

Not to Scale



Note: Each expansion joint device shall be blocked in the Shop by the Fabricator to the dimension "A" shown for 60° F 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

No Scale

STATE OF ARKANSAS
Carl P. Pusbellier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL PUSBELLIER

BRIDGE ENGINEER

SHEET 6 OF 7

DETAILS OF 200'-0" CONTINUOUS R. C. SLAB UNIT

CLEAR CREAK

ROUTE 265 SEC. 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

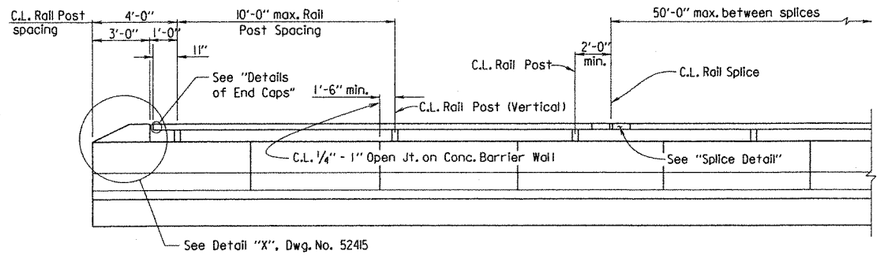
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CHECKED BY: JGT DATE: 9/15/11 SCALE: AS NOTED

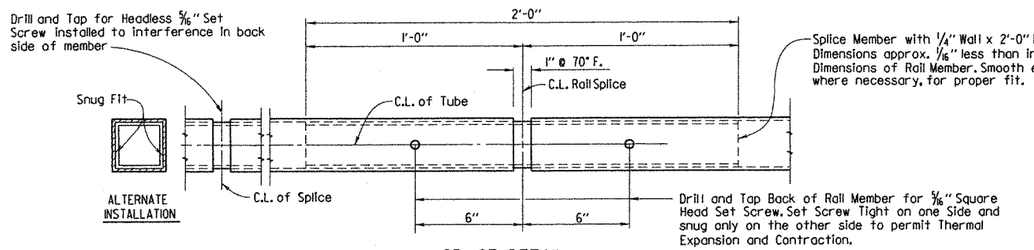
DESIGNED BY: TMG DATE: 9/11

BRIDGE NO. 07229 DRAWING NO. 52416

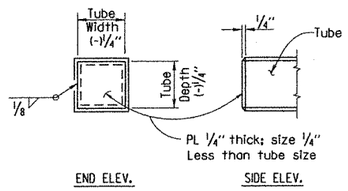
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	166	270
				(1) 07229		R.C. SLAB UNIT	52417	



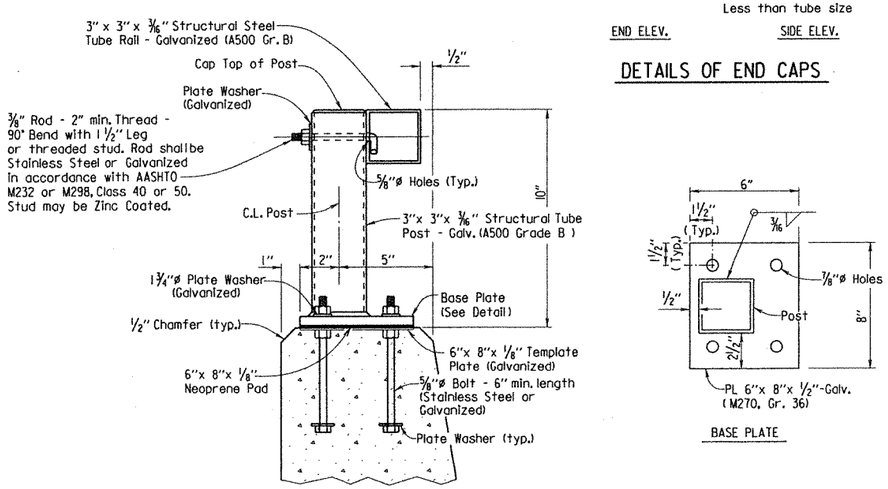
RAIL POST SPACING DETAIL



SPLICE DETAIL



DETAILS OF END CAPS



DETAILS OF POST ANCHOR SYSTEM
(CAST IN PLACE BOLTS)

NOTES FOR BRIDGE RAILING:

Rail layout shall conform to vertical and horizontal alignment of bridge.

Maximum post spacing = 10'-0"

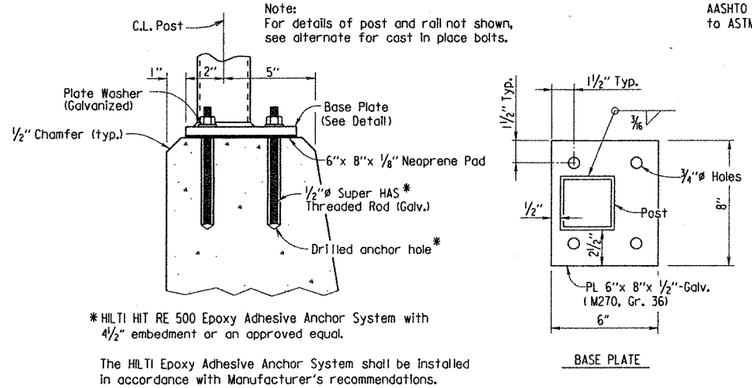
Minimum distance from centerline post to centerline open or contraction joints in parapet = 1'-6".

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 HIT RE 500 Epoxy Adhesive Anchor System with 4 1/2" embedment or an approved equal.

The HILTI Epoxy Adhesive Anchor System shall be installed in accordance with Manufacturer's recommendations.

DETAILS OF ALTERNATE POST ANCHOR SYSTEM
(EPOXY ADHESIVE ANCHORS)

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 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 conform to AASHTO M293, 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
Carl J. Puselli
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL J. PUSELLIER

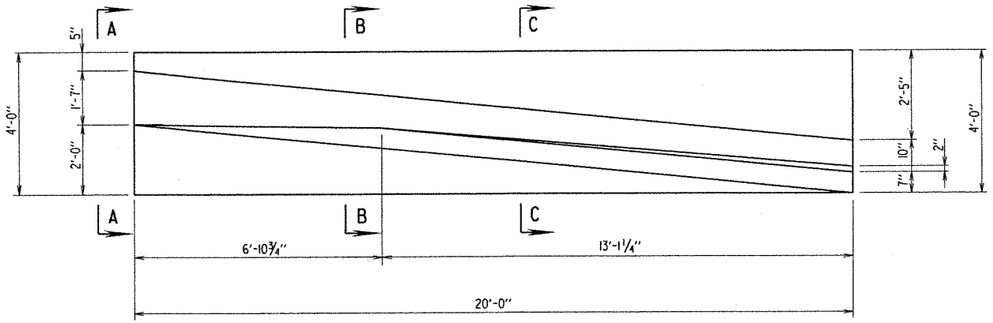
BRIDGE ENGINEER

SHEET 7 OF 7
DETAILS OF 200'-0" CONTINUOUS
R.C. SLAB UNIT
CLEAR CREEK
ROUTE 265 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

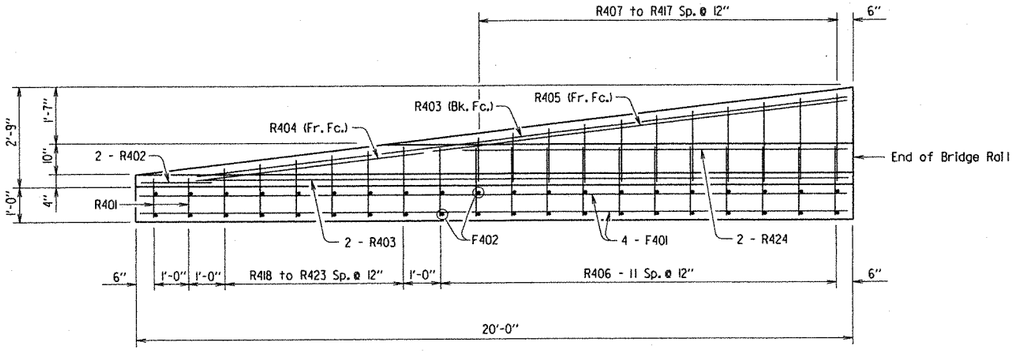
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CHECKED BY: JGT DATE: 8/16/11 SCALE: NO SCALE
DESIGNED BY: TMG DATE: 4/11

BRIDGE NO. 07229 DRAWING NO. 52417

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.		040518	167	270
				(1) 07229		TRANSITIONAL RAILING		52418



PLAN - TRANSITIONAL APPROACH RAILING



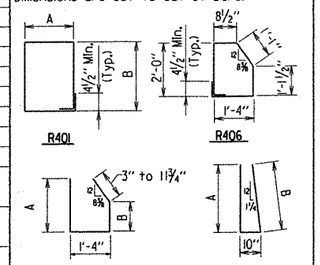
ELEVATION - TRANSITIONAL APPROACH RAILING

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	5'-2"	1'-4"	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'-7"			2"
R407 to R417	1 Each	3'-2" to 5'-7"	1'-3" to 2'-5½"	1'-3" to 2'-5½"	2"
R418 to R423		3'-11" to 5'-3"	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)	BOILED LINSEED OIL
4.39 Cu. Yds.	388 Lbs.	0.2 Gal.

Notes :

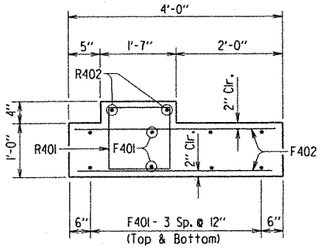
Adjacent Railing is opposite hand to Railing shown.

All Concrete shall be Class "S" and be poured in the dry. All exposed corners to be chamfered ¾" unless otherwise noted.

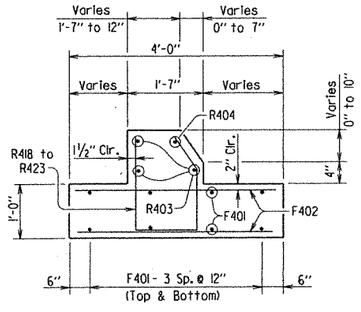
All Reinforcing Steel shall conform to AASHTO M31 or M53, Grade 60.

Class I Protective Surface Treatment shall be applied to the roadway surface, front face and top of the Transitional Approach Railing.

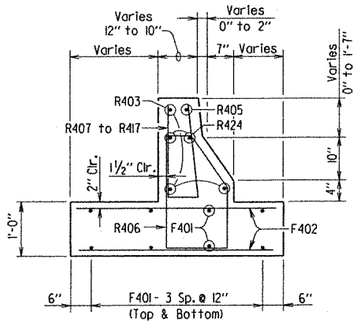
Transitional Approach Railing shall be paid for at the contract unit price bid per each for "Transitional Approach Railing." See SP Job No. 040518 "Transitional Approach Railing."



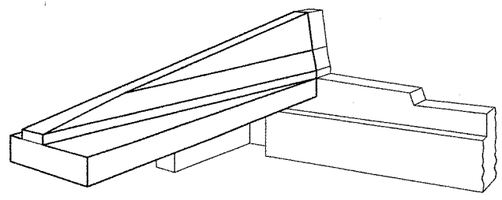
VIEW A-A
Scale : ¾" = 1'-0"



SECTION B-B
Scale : ¾" = 1'-0"



SECTION C-C
Scale : ¾" = 1'-0"



PICTORIAL OF TRANSITIONAL APPROACH RAILING
No Scale

STATE OF ARKANSAS
Carl L. Fuselier
REGISTERED PROFESSIONAL ENGINEER
No. 7510
9/1/11
CARL L. FUSELIER

BRIDGE ENGINEER

DETAILS OF TRANSITIONAL APPROACH RAILING CLEAR CREEK WASHINGTON COUNTY

ROUTE 265 SEC. 2

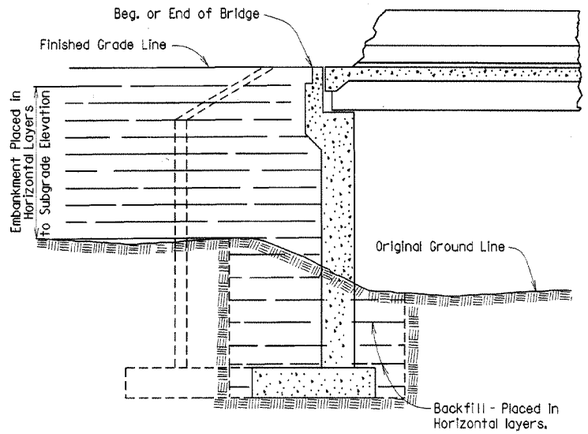
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

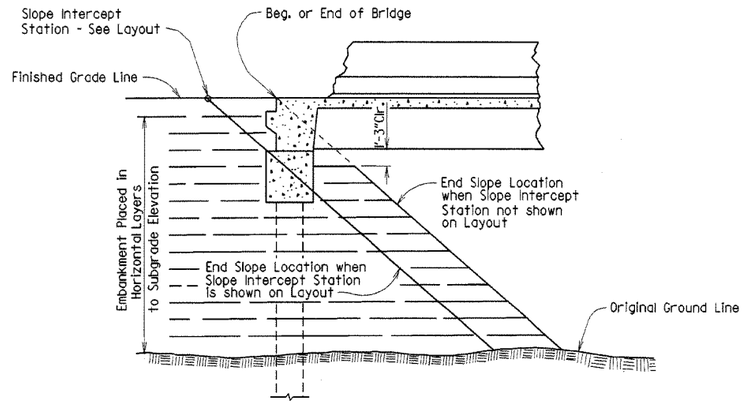
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DESIGNED BY: STD DATE:

BRIDGE NO. 07299 DRAWING NO. 52418

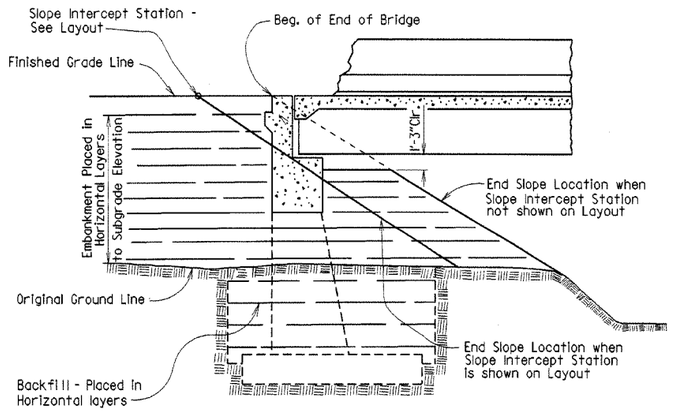
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
04-10-2003				6	ARK.		168	
				JOB NO.				
				①	EMBANKMENT & BACKFILL		1888A	



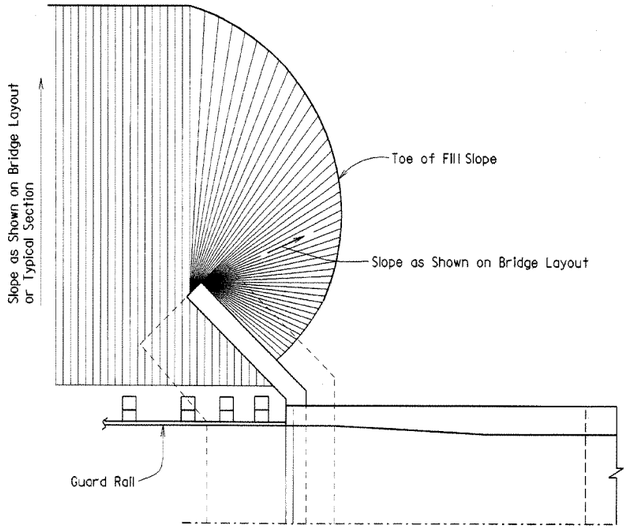
EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL AT VERTICAL WALL ABUTMENTS



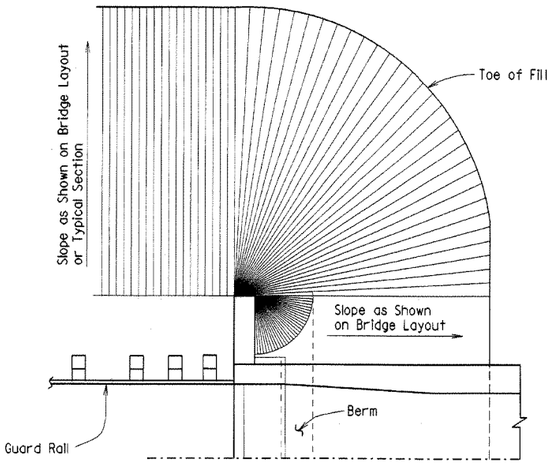
EMBANKMENT CONSTRUCTION AT SPILL-THROUGH PILE END BENTS



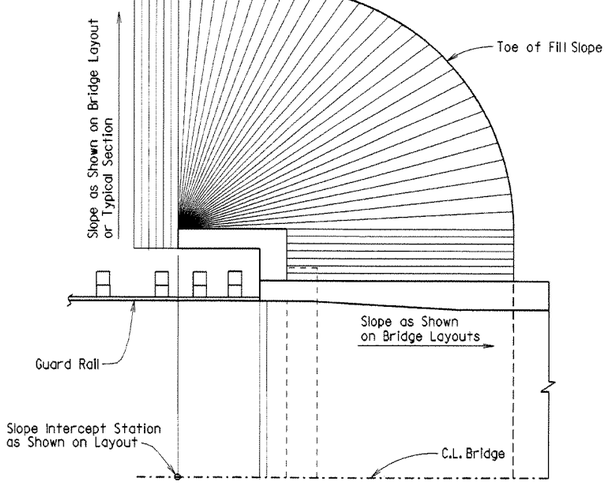
EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL AT SPILL-THROUGH END BENTS



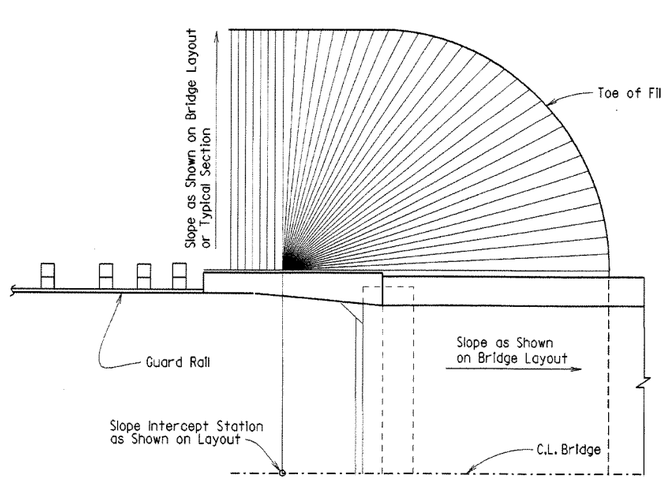
VERTICAL WALL ABUTMENTS



SPILL-THROUGH END BENTS WITH STUB WING



SPILL-THROUGH END BENTS WITH TURNBACK WING



SPILL-THROUGH END BENTS WITH TRANSITION WING

METHOD OF DETERMINING FILL SLOPE LOCATION AT BRIDGE ENDS

GENERAL NOTES

The Bridge End Embankment shall be defined as a section of embankment, not less than 20 feet long adjacent to the bridge end, together with the side slopes and slopes under the bridge end including around the end of wingwalls. Embankment adjacent to structures shall be constructed in 4 inch horizontal layers (loose measure) and compacted by the use of mechanical equipment to the satisfaction of the Engineer. Refer to subsections 210.09, 210.10 and 801.08 of the Specifications for construction requirements.

⚠ Revised and redrawn MJT 04-10-2003
Chk'd. By: CJF 04-10-2003

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4537
CHARLES P. BRAND

BRIDGE ENGINEER

EMBANKMENT CONSTRUCTION AND BACKFILL AT BRIDGE ENDS

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

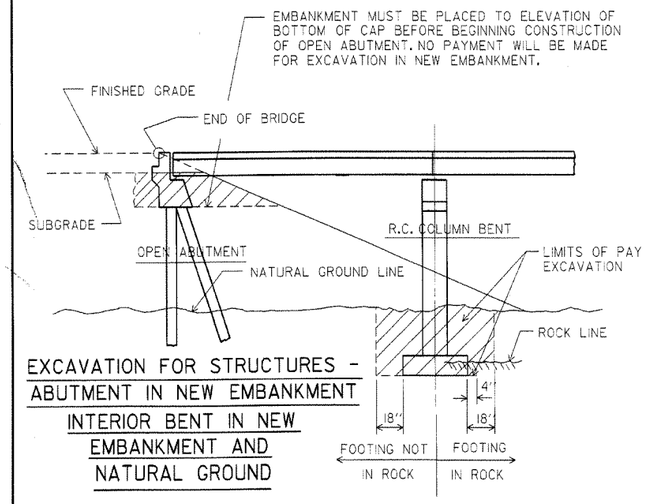
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BRIDGE NO. DRAWING NO. 1888A

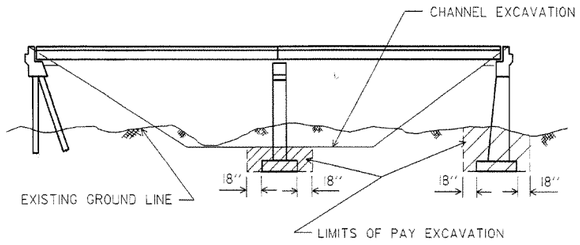
BI888A.STD

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.		169	
				JOB NO.				

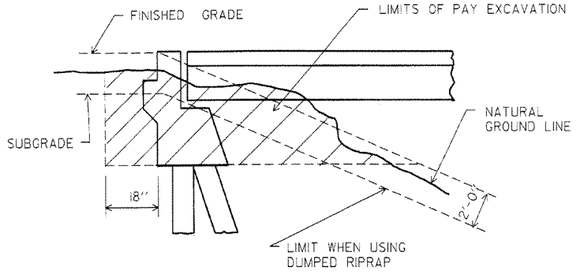
(1) RIP. & EXCAV. 1891F



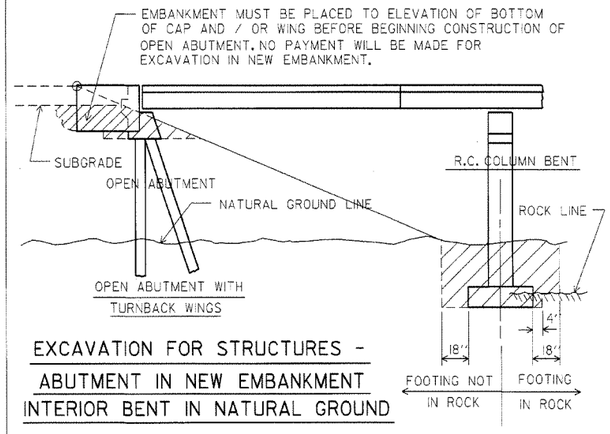
EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NEW EMBANKMENT AND NATURAL GROUND



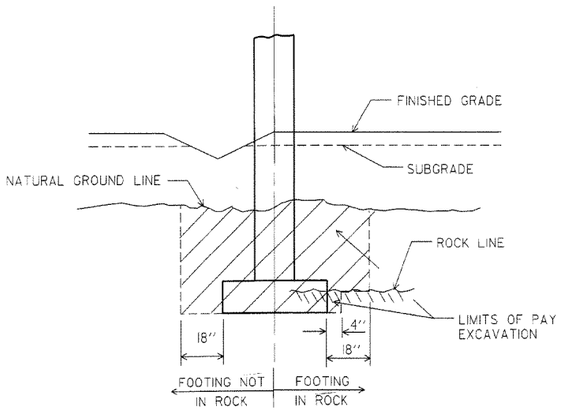
EXCAVATION FOR STRUCTURES - BRIDGE LOCATION WITH DESIGNATED CHANNEL CHANGE



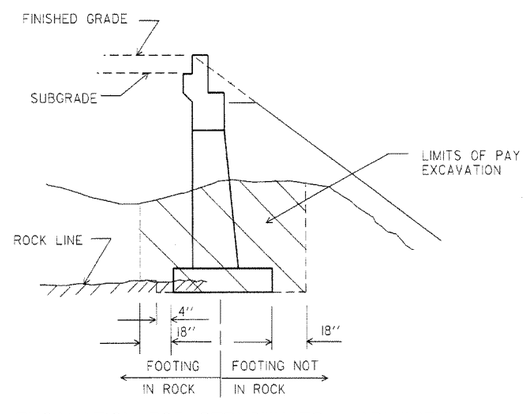
EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND



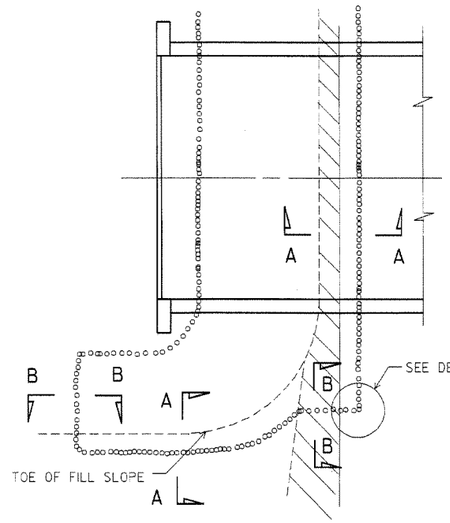
EXCAVATION FOR STRUCTURES - ABUTMENT IN NEW EMBANKMENT INTERIOR BENT IN NATURAL GROUND



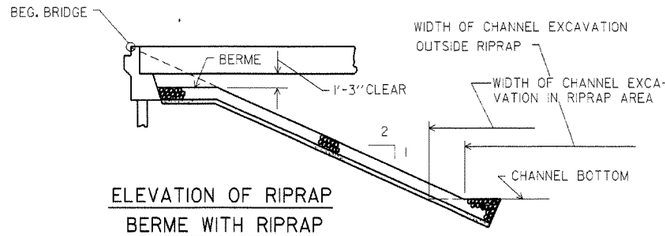
EXCAVATION FOR STRUCTURES - BENT IN ROADWAY FILL SECTION AND NATURAL GROUND



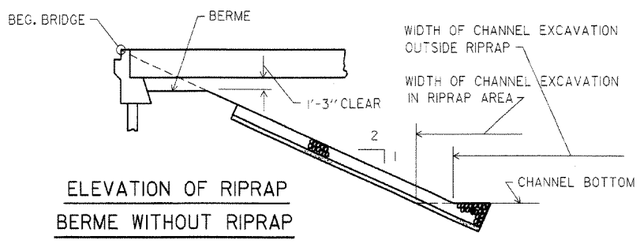
EXCAVATION FOR STRUCTURES - ABUTMENT IN NATURAL GROUND AND NEW EMBANKMENT



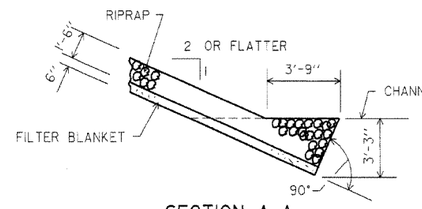
PLAN OF DUMPED RIPRAP



ELEVATION OF RIPRAP BERME WITH RIPRAP

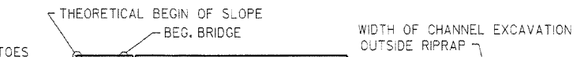


ELEVATION OF RIPRAP BERME WITHOUT RIPRAP

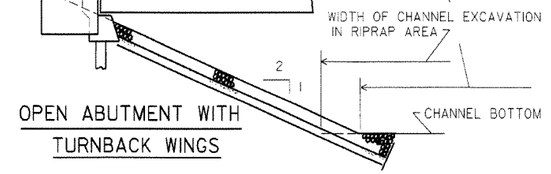


SECTION A-A

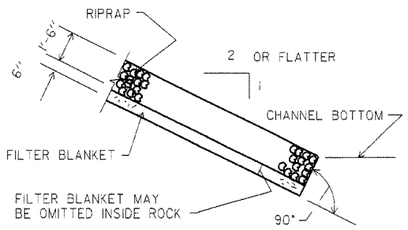
(TOE EXCAVATION IN SOIL)



SECTION B-B

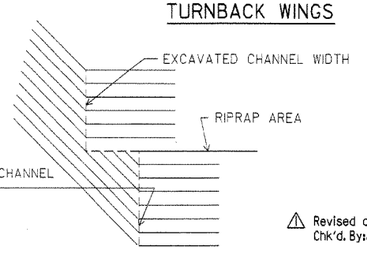


OPEN ABUTMENT WITH TURNBACK WINGS



SECTION A-A

(TOE EXCAVATION IN ROCK)



DETAIL C

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.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4537
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

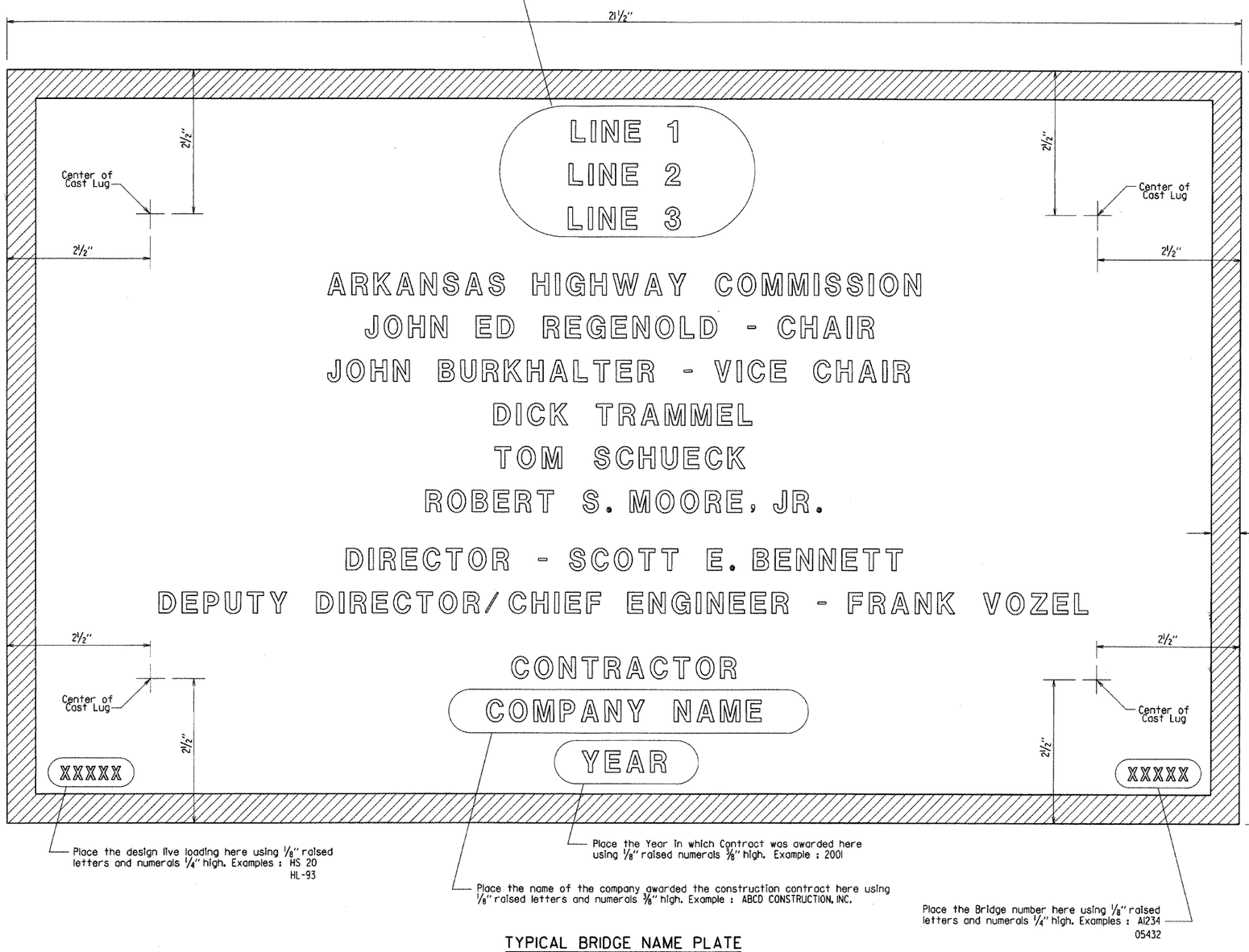
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED
9-8-11			
1-3-13			
1-10-13			

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	ARK.		170	
JOB NO.				

(1) NAME PLATE 2387

The name of the bridge as shown on the plans shall be placed on Lines 1 - 3 using 1/8" raised letters and numerals 3/8" high.

	Example 1	Example 2	Example 3	Example 4
Line 1	Red River	Southern	Saline	
Line 2	Relief	Railroad	River	Highway 5
Line 3		Overpass	Relief	



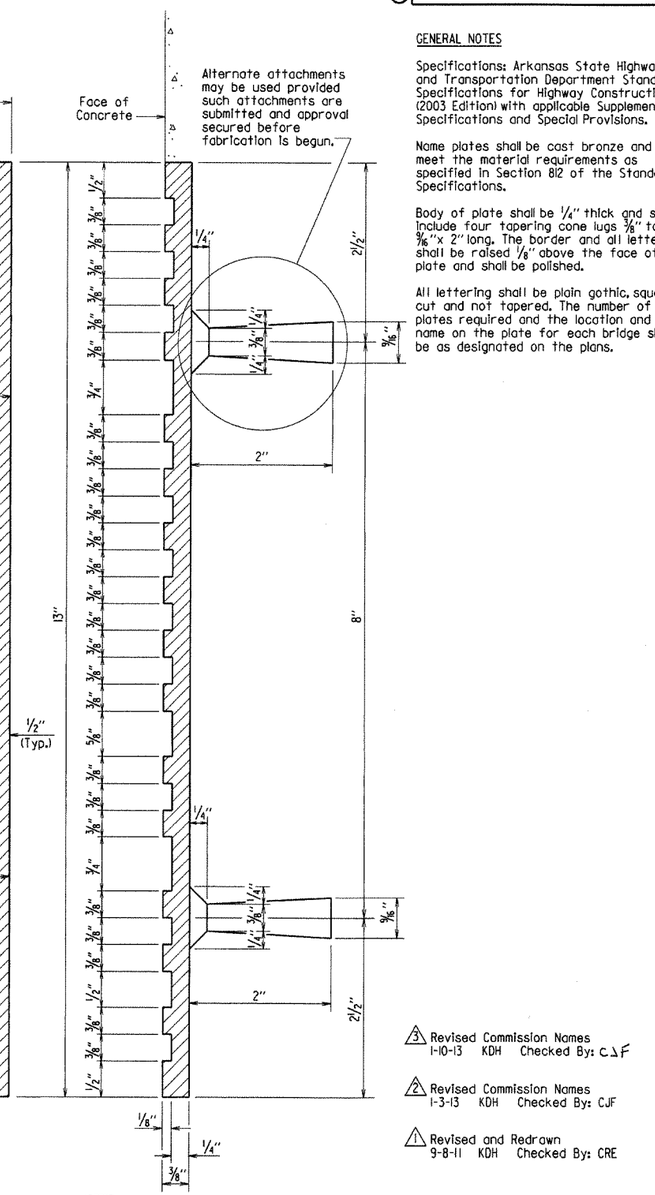
Place the design live loading here using 1/8" raised letters and numerals 1/4" high. Examples : HS 20
HL-93

Place the name of the company awarded the construction contract here using 1/8" raised letters and numerals 3/8" high. Example : ABCD CONSTRUCTION, INC.

Place the Year in which Contract was awarded here using 1/8" raised numerals 3/8" high. Example : 2001

Place the Bridge number here using 1/8" raised letters and numerals 1/4" high. Examples : A1234
05432

TYPICAL BRIDGE NAME PLATE



GENERAL NOTES

Specifications: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, (2003 Edition) with applicable Supplemental Specifications and Special Provisions.

Name plates shall be cast bronze and shall meet the material requirements as specified in Section 812 of the Standard Specifications.

Body of plate shall be 1/4" thick and shall include four tapering cone lugs 3/8" to 9/16" x 2" long. The border and all lettering shall be raised 1/8" above the face of plate and shall be polished.

All lettering shall be plain gothic, square cut and not tapered. The number of plates required and the location and name on the plate for each bridge shall be as designated on the plans.

3 Revised Commission Names 1-10-13 KDH Checked By: CJF

2 Revised Commission Names 1-3-13 KDH Checked By: CJF

1 Revised and Redrawn 9-8-11 KDH Checked By: CRE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 7510
CARL J. PUSELLIER
BRIDGE ENGINEER

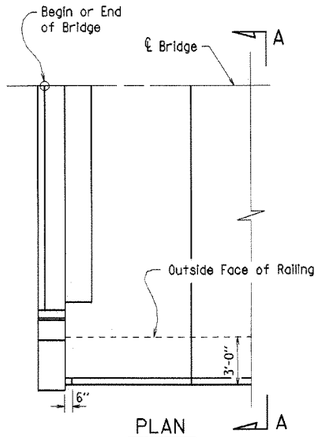
DETAILS OF STANDARD TYPE D
BRIDGE NAME PLATE
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

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CHECKED BY: CRE DATE: 9-8-11 SCALE: 1'-0" = 1'-0"
DESIGNED BY: STD. DATE: — OR AS NOTED
BRIDGE NO. DRAWING NO. 2387

PRINT DATE: 1/18/2013

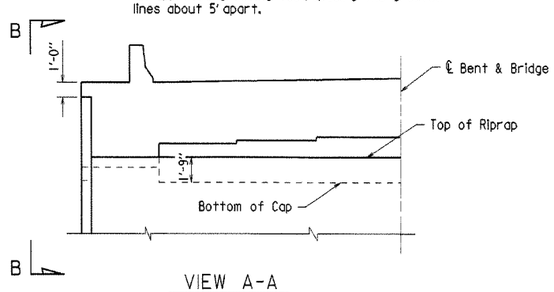
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
04-10-2003				6	ARK.		171	
				JOB NO.				

(1) RIPRAP & PILE - 14995A

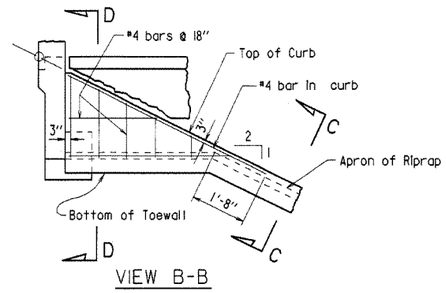


PLAN

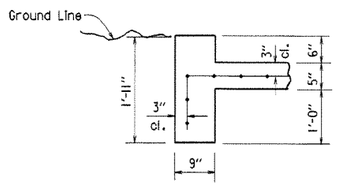
Note:
Sloped surfaces of concrete riprap to be marked off into blocks (construction joints optional) with an approved grooving tool, spacing the grooved lines about 5' apart.



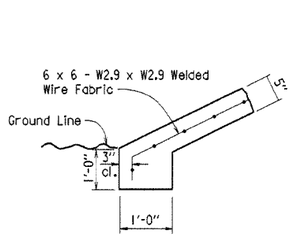
VIEW A-A



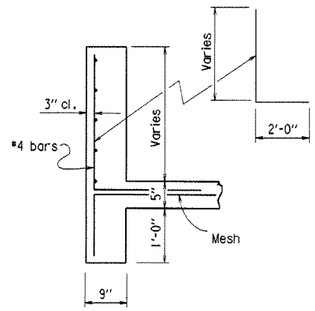
VIEW B-B



SECTION C-C

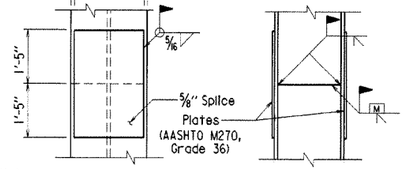


TOE WALL



SECTION D-D

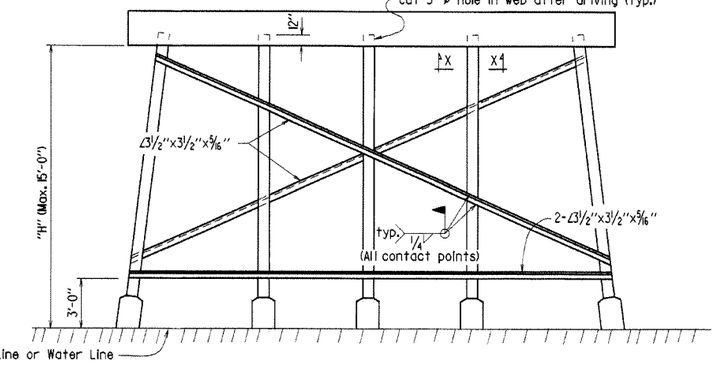
DETAILS OF CONCRETE RIPRAP



Note:
The contractor may for his own convenience and at this own expense provide as many as three splices per pile for steel bearing piling. Minimum spacing between splices shall be 5 ft.

PILE SPLICE DETAIL

Scale : 1" = 1'-0"



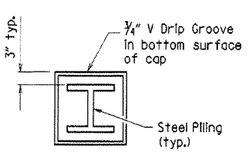
Note:
All bracing shall be cut and welded in the field. Each brace shall be furnished in one piece. Payment shall be made under Item 807.

Omit bottom bracing where "H" is less than 10 ft. Omit all bracing where "H" is less than 5 ft.

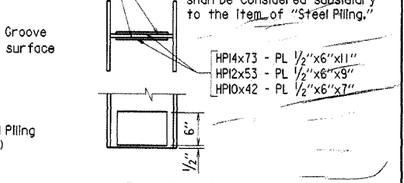
Note:
Where required by the bridge layout sheet, pile encasements shall be constructed.

Omit bracing (and V-groove in cap) where pile encasement is extended to bottom of bent cap.

TYPICAL BRACING FOR INT. STEEL PILE BENTS

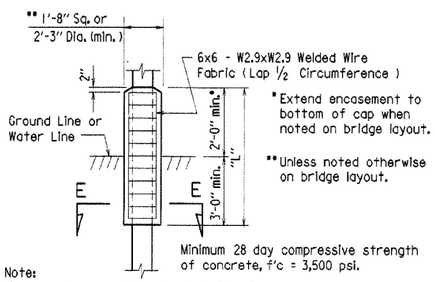


VIEW X-X



REINFORCING DETAIL FOR STEEL PILE TIP

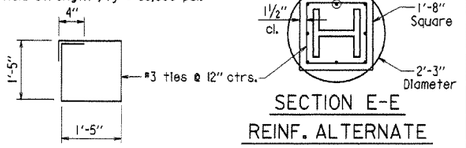
Scale : 1" = 1'-0"



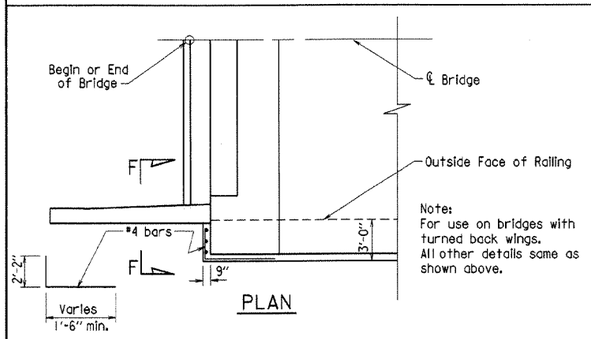
Note:
If concrete cannot be placed in the dry, seal concrete may be deposited under water. Concrete & welded wire fabric or reinforcing in encasements shall be paid for at the contract unit price per linear foot bid for "Pile Encasement."

PILE ENCASEMENT DETAIL

Reinforcing Alternate
#3 Vertical - 8 per encasement
#3 ties @ 12" ctrs.
Yield Strength , fy = 60,000 psi.

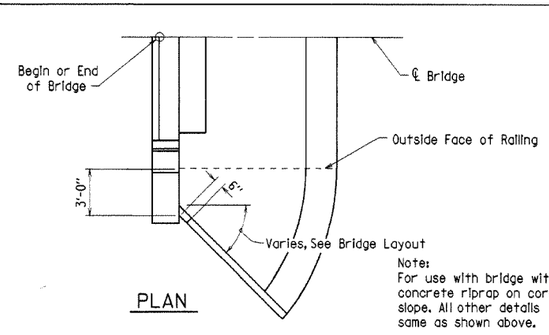


SECTION E-E
REINF. ALTERNATE



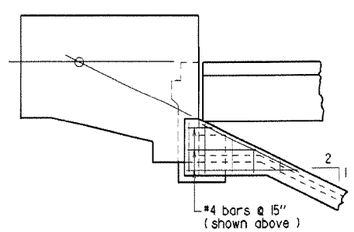
PLAN

Note:
For use on bridges with turned back wings. All other details same as shown above.

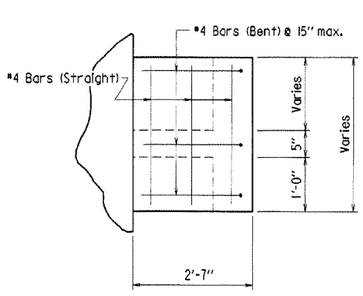


PLAN

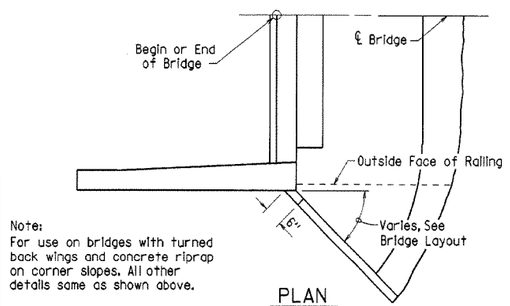
Note:
For use with bridge with concrete riprap on corner slope. All other details same as shown above.



ELEVATION



SECTION F-F



PLAN

Note:
For use on bridges with turned back wings and concrete riprap on corner slopes. All other details same as shown above.

⚠1 Revised and redrawn MJT 04-10-2003
Chk'd. By: CJF 04-10-2003

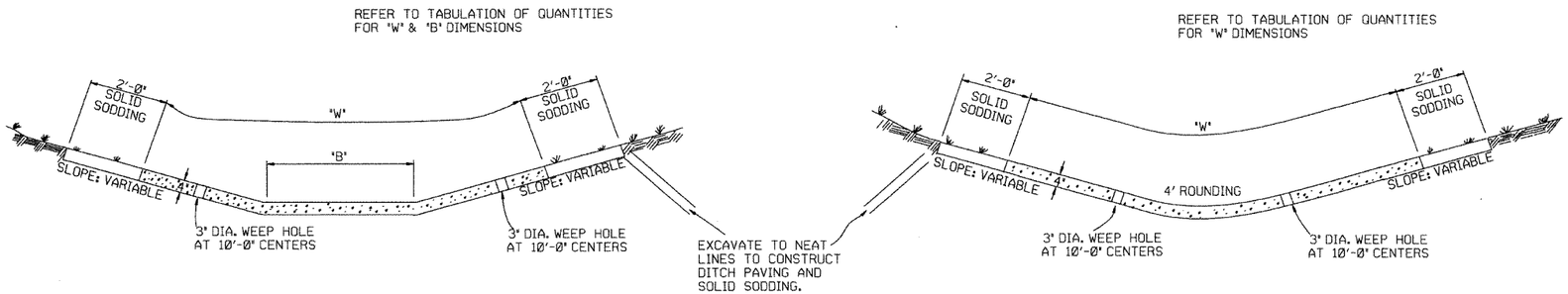
DETAILS OF CONCRETE RIPRAP
AND MISC. DETAILS OF STEEL PILING

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 4337
CHARLES P. BRAND
BRIDGE ENGINEER

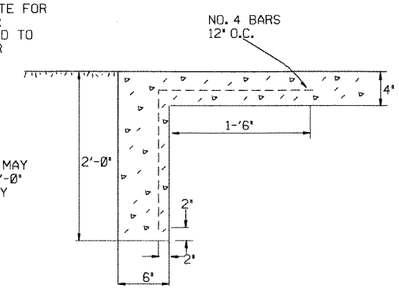
DRAWN BY: MJT DATE: 04-10-2003 FILENAME: B14995A.STD
CHECKED BY: CJF DATE: 04-10-2003 SCALE: No Scale or As Noted
DESIGNED BY: STD. DATE: —
BRIDGE NO. DRAWING NO. 14995A



TYPE A

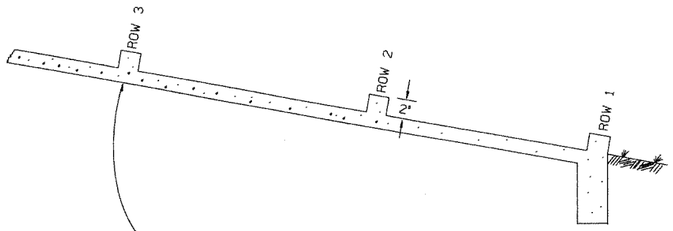
TYPE B

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.'



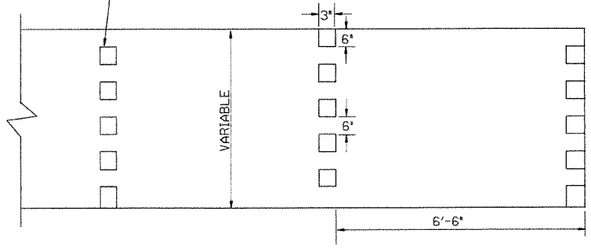
TOE WALL DEPTH MAY BE ALTERED TO 1'-Ø" WHEN DIRECTED BY THE ENGINEER IN ROCK EXCAVATION

TOE WALL DETAIL FOR CONCRETE DITCH PAVING



NUMBER OF ELEMENTS PER ROW VARIES WITH WIDTH OF PAVING SPECIFIED

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



ENERGY DISSIPATORS
(NO SCALE)

GENERAL NOTES:

THE FULL WIDTH OF EACH SECTION SHALL BE POURED MONOLITHICALLY.

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

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

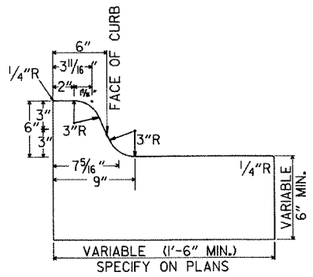
1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 45' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

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

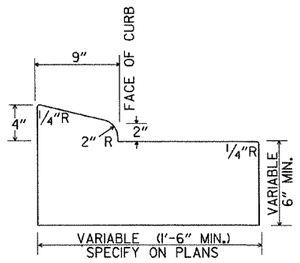
ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE DITCH PAVING

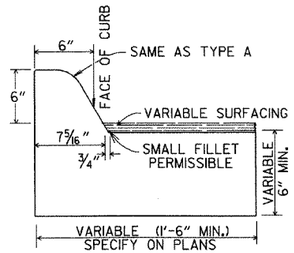
STANDARD DRAWING CDP-1



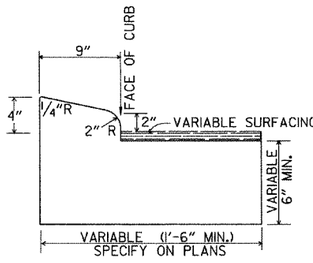
TYPE A



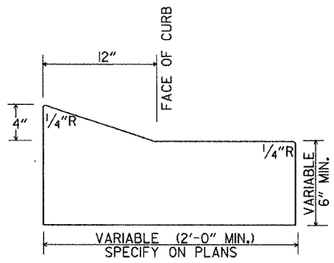
TYPE B-1



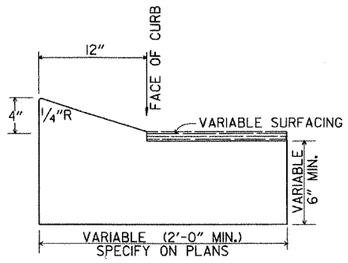
TYPE C



TYPE B-2

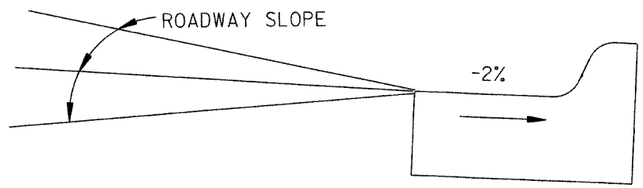


TYPE E-1



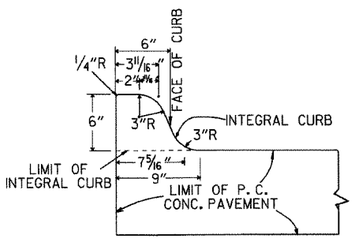
TYPE E-2

CONCRETE COMBINATION CURB AND GUTTER

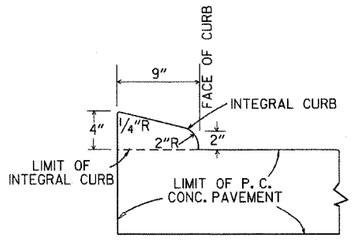


DETAIL OF GUTTER SLOPE

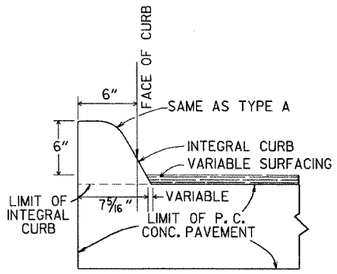
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

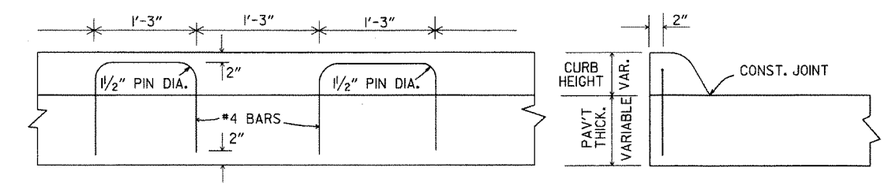


TYPE B

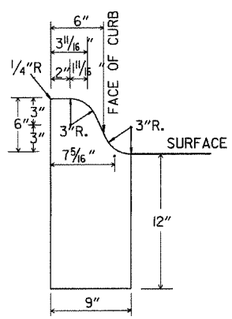


TYPE C

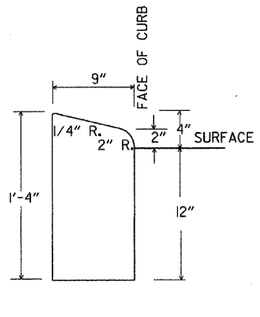
INTEGRAL CURB



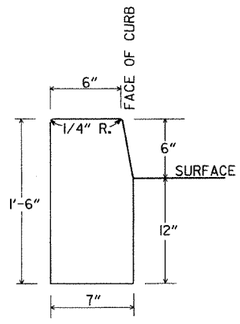
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



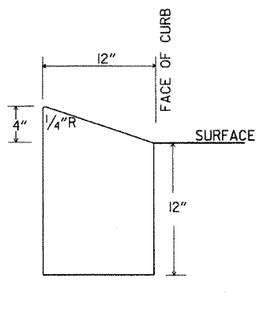
TYPE A



TYPE B

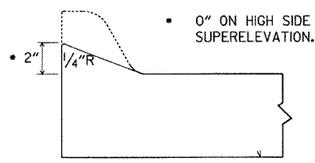


TYPE D



TYPE E

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.

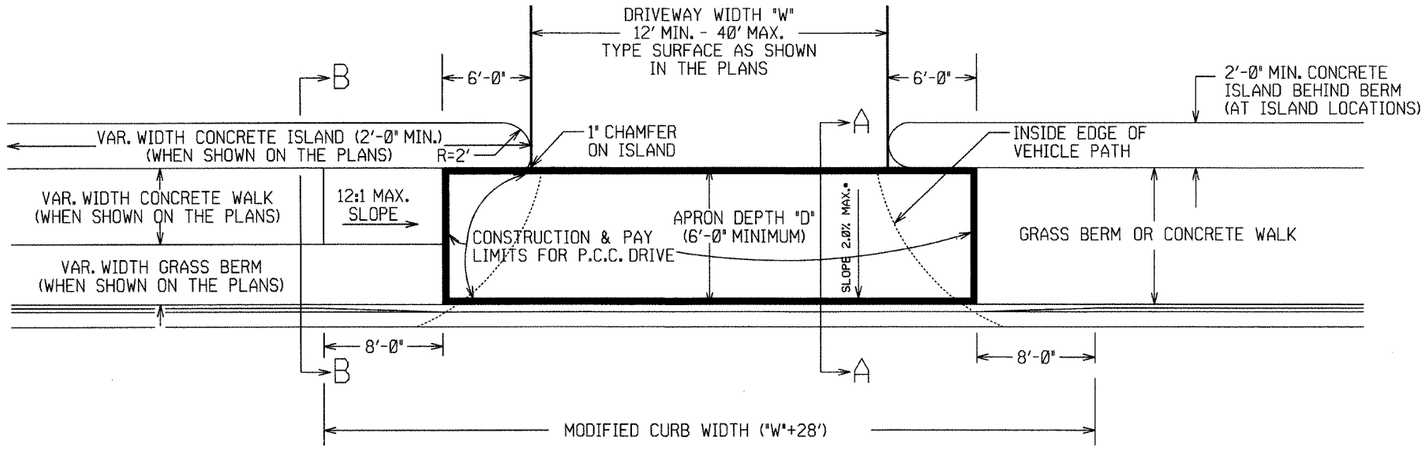
DETAILS OF MODIFIED CURB

DATE	REVISION	DATE FILMED
11-29-07	REVISED GUTTER SLOPE & MODIFIED CURB DETAILS	
11-10-05	ADDED DETAILS OF TYPE E CURBS	
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	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

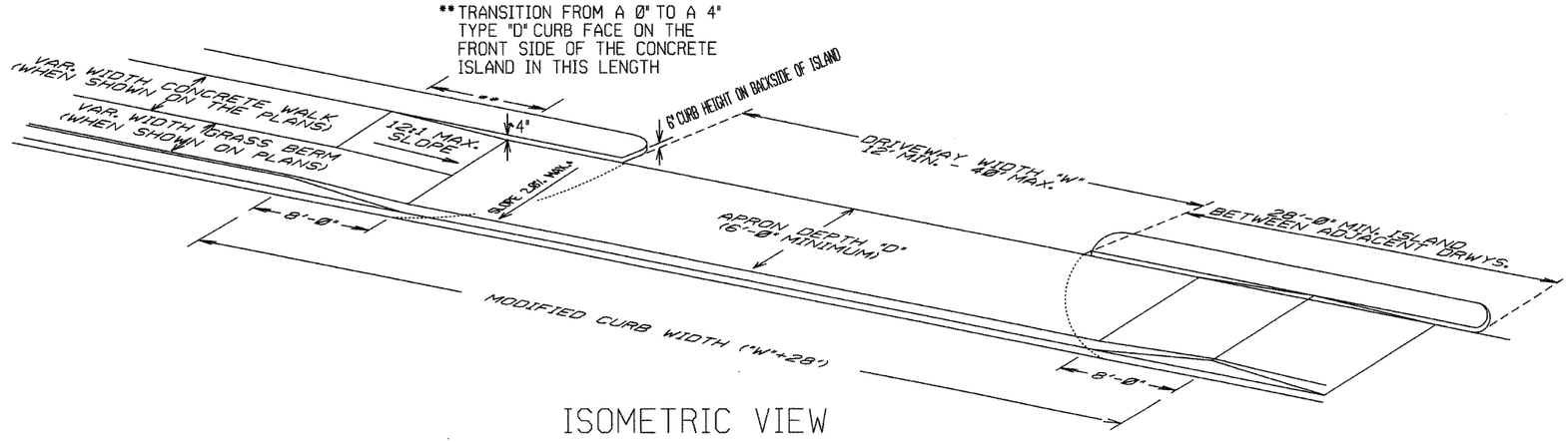
ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

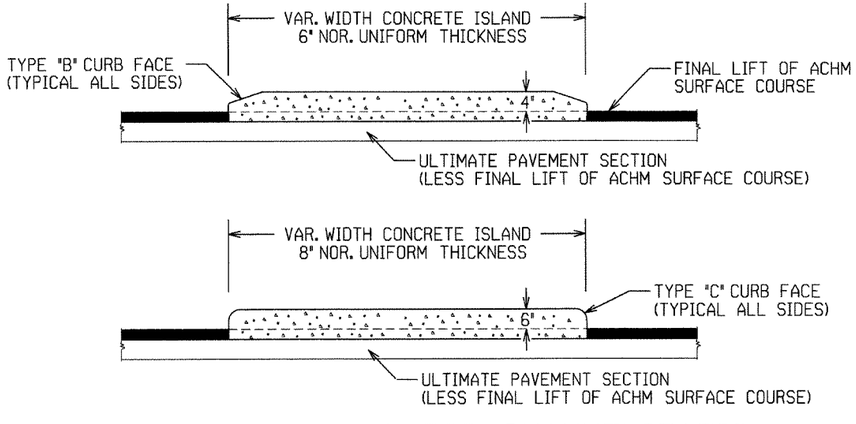
STANDARD DRAWING CG-1



PLAN VIEW

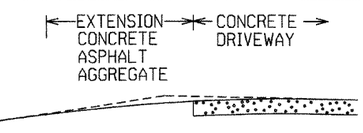


ISOMETRIC VIEW



CURBED ISLANDS FOR CHANNELIZATION

REFER TO PLANS FOR TYPE OF CURB FACE TO BE USED. 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".



EXTENSION TYPICAL SECTIONS

1: CONCRETE - 6" P.C. CONCRETE DRIVEWAY

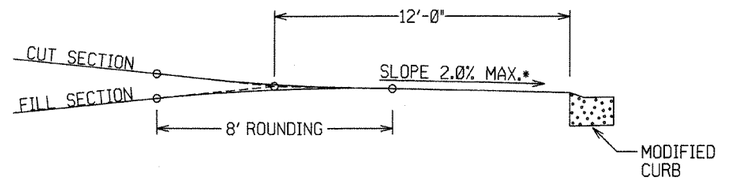
2: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
4" ACHM BINDER COURSE.(1") OR
4" ACHM BASE COURSE (1-1/2")

3: ASPHALT - 2" ACHM SURFACE COURSE (1/2")
7" AGGREGATE BASE COURSE

4: AGGREGATE - 6" AGGREGATE BASE COURSE

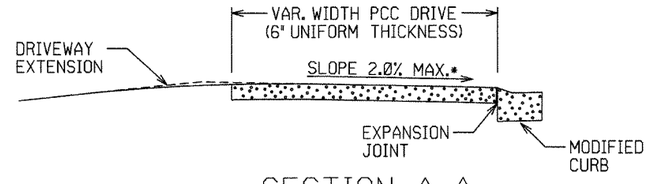
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

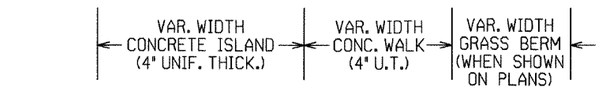


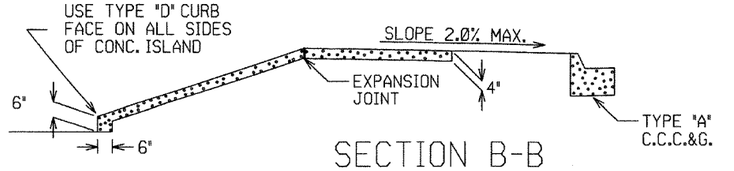
DRIVEWAY VERTICAL ALIGNMENT DETAILS

* NOTE: DRIVEWAYS MAY NOT BE SLOPED AWAY FROM THE ROADWAY UNLESS APPROVED BY THE ENGINEER.



SECTION A-A

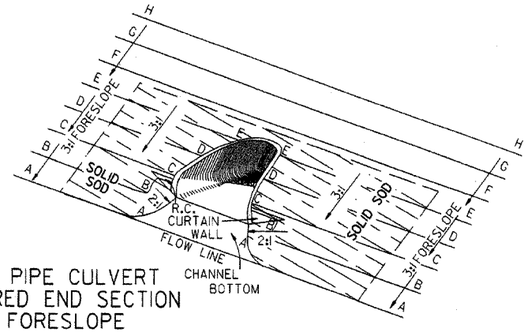




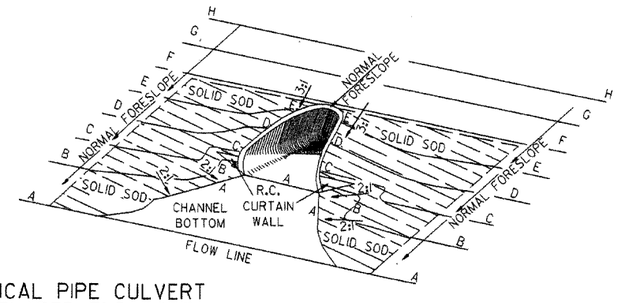
SECTION B-B
CURBED ISLAND BEHIND WALK

DATE REV	DATE FILMED	DESCRIPTION
11-29-07		ADDED CHANNELIZATION ISLAND WITH TYPE C CURB FACE & REVISED DRIVEWAY SLOPE NOTE & VERTICAL ALIGNMENT DETAIL
11-10-05		REV. APRON SLOPE & DEPTH OF AGG. BASE.
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

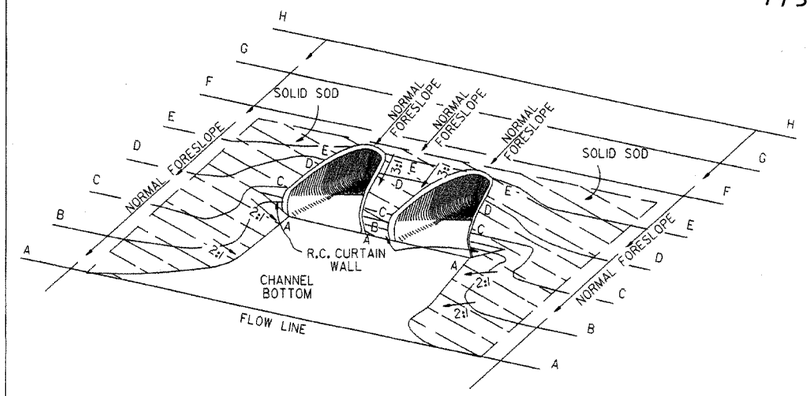
ARKANSAS STATE HIGHWAY COMMISSION
DETAILS OF DRIVEWAYS & ISLANDS
STANDARD DRAWING DR-1



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

R.C. CURTAIN WALL
DIMENSIONS & QUANTITIES

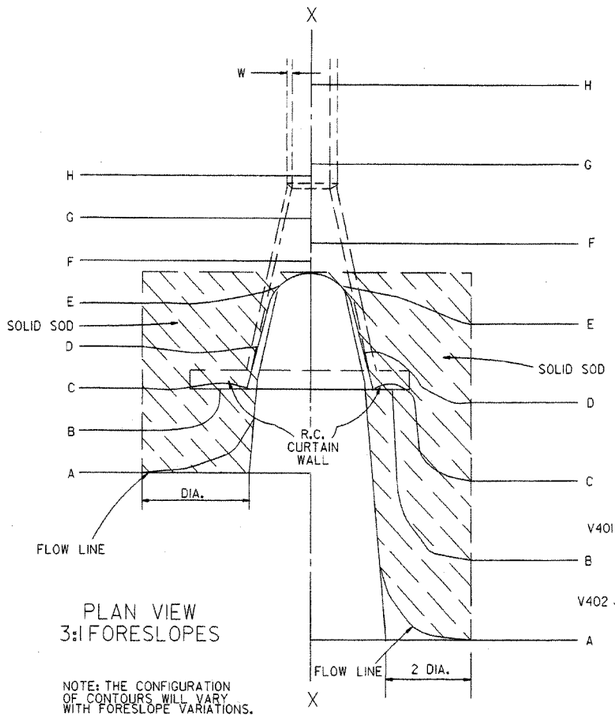
PIPE DIA.	H_1	L_1	L	L (DBL.)/2	SINGLE R.C.P.C. CONC. CU. YDS.	SINGLE R.C.P.C. REINF. STEEL LBS.	DOUBLE R.C.P.C. CONC. CU. YDS.	DOUBLE R.C.P.C. REINF. STEEL LBS.
18"	11½"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0½"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3½"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"	6'-8"	13'-0"	10'-6"	0.58	52.6	0.83	73.9
42"	2'-1½"	7'-3"	15'-6"	12'-0"	0.82	77.1	1.10	100.7
48"	2'-5"	7'-10"	17'-0"	13'-0"	0.98	94.9	1.27	120.4
54"	2'-9½"	8'-5"	18'-6"	14'-0"	1.16	115.8	1.47	143.7
60"	3'-4"	9'-0"	20'-6"	15'-6"	1.47	149.7	1.84	180.3
72"	4'-5"	10'-2"	25'-6"	18'-6"	2.31	232.6	2.73	271.0

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

REINFORCING STEEL SCHEDULE

PIPE DIA.	SINGLE R.C. PIPE CULVERT H401 L	NO.	H402 L	NO.	V401 L	NO.	V402 L	NO.	DOUBLE R.C. PIPE CULVERT H401 L	NO.	H402 L	NO.	H403 L	NO.	V401 L	NO.	V402 L	NO.
18"	7'-8"	2	1'-11½"	4	1'-7½"	8	8"	8	12'-2"	2	1'-11½"	4	8"	2	1'-7½"	10	8"	14
24"	9'-2"	2	2'-2"	4	1'-8½"	10	8"	9	14'-8"	2	2'-2"	4	8"	2	1'-8½"	12	8"	18
30"	10'-8"	2	2'-4½"	4	1'-11½"	10	8"	12	17'-8"	2	2'-4½"	4	8"	2	1'-11½"	14	8"	22
36"	12'-8"	2	2'-10"	6	2'-3"	12	8"	14	20'-8"	2	2'-10"	6	8"	3	2'-3"	14	8"	28
42"	15'-2"	2	3'-9½"	8	2'-9½"	16	8"	15	23'-8"	2	3'-9½"	8	8"	4	2'-9½"	18	8"	30
48"	16'-8"	2	4'-3"	10	3'-1"	18	8"	16	25'-8"	2	4'-3"	10	8"	5	3'-1"	20	8"	32
54"	18'-2"	2	4'-8½"	12	3'-5½"	20	8"	17	27'-8"	2	4'-9"	12	8"	6	3'-5½"	22	8"	34
60"	20'-2"	2	5'-5"	14	4'-0"	24	8"	18	30'-8"	2	5'-5"	14	8"	7	4'-0"	26	8"	36
72"	25'-2"	2	7'-4"	18	5'-1"	30	8"	20	36'-8"	2	7'-4"	18	8"	9	5'-1"	33	8"	40

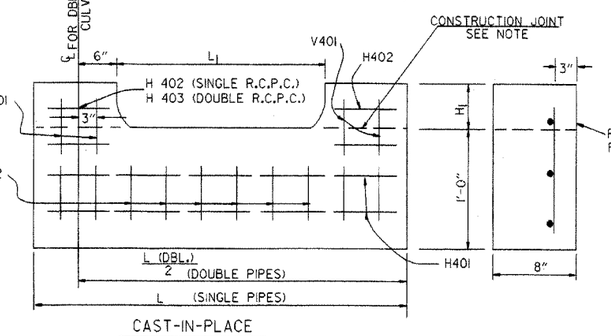
ALL REINFORCING STEEL #4 BARS @ 6" O.C.



PLAN VIEW
3:1 FORESLOPES

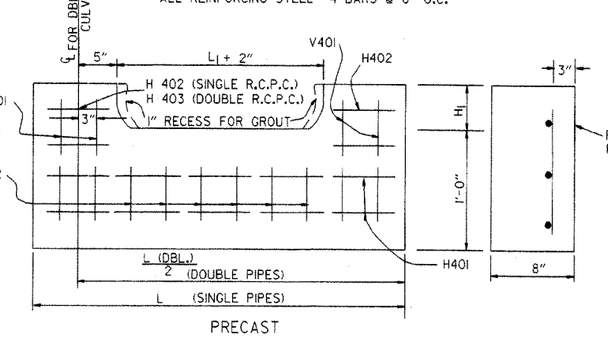
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW
FLATTENED FORESLOPES



CAST-IN-PLACE

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



PRECAST

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

R.C. CURTAIN WALL DETAILS

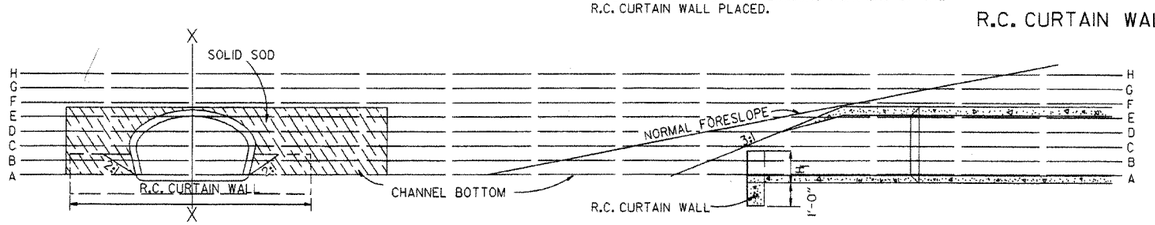
SOLID SODDING

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"	35	57	85	37	59	87
60"	45	62	104	48	65	107
72"	64	92	156	67	95	159

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

GENERAL NOTES

1. A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE; FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL, AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
2. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾".
3. CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAVING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
4. WELDED WIRE MESH 3 x 3 W10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.



END VIEW

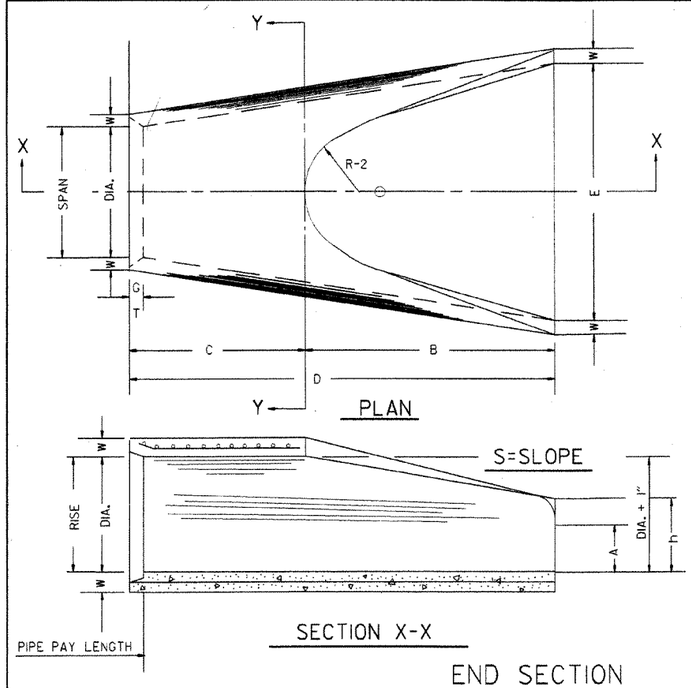
SECTIONAL VIEW "X-X"

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

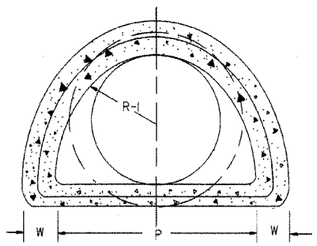
STANDARD DRAWING FES-1



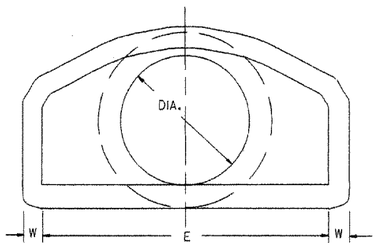
END SECTION
FOR REINFORCED CONCRETE PIPE CULVERTS

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"	33 3/16"	16 13/16"	14"	2½"	1600	1'-1½"
30"	3½"	1'-0"	4'-6"	1'-7¾"	6'-1¾"	5'-0"	3:1	31"	37"	18½"	15"	3¼"	1940	1'-4⅝"
36"	4"	1'-3"	5'-3"	2'-10¾"	8'-1¾"	6'-0"	3:1	37"	47 13/16"	24 5/16"	20"	3½"	4100	1'-8"
42"	4½"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	43"	53⅜"	27½"	22"	3½"	5380	2'-2½"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3:1	49"	56½"	28½"	22"	3½"	6550	2'-6"
54"	5½"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3:1	55"	65½"	33⅛"	24"	4"	8750	2'-10½"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3:1	61"	72½"	36 1/16"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3:1	73"	77 3/16"	38 5/16"	24"	5"	13250	4'-6"



SECTION Y-Y



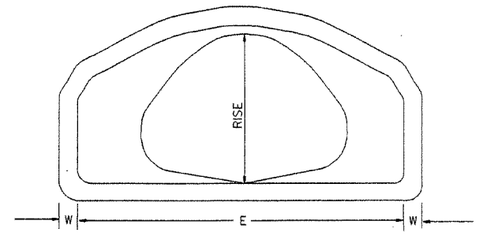
END VIEW

NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

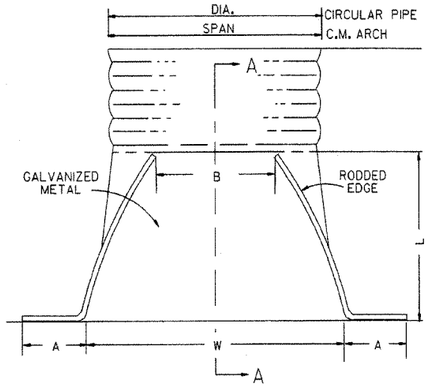
ARCH PIPE

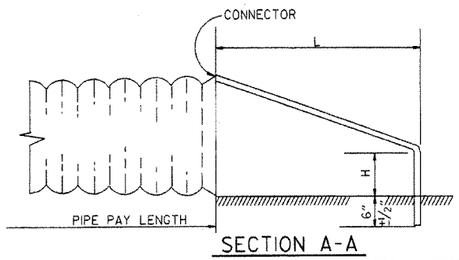
EQUIV. DIA.	• SPAN AASHTO M 206	• SPAN AHD NOMINAL	• RISE AASHTO M 206	• RISE AHD NOMINAL	W	A	B	C	D	E	P	R2	G-T	S
	INCHES													
15	18	18	11	11	2"	4"	2'-0"	4'-0"	6'-0"	3'-0"	29"	12"	1½"	2½:1
18	22	22	13½	14	2½"	5"	2'-0"	4'-1"	6'-1"	3'-6"	32⅛"	13"	2½"	2½:1
21	26	26	15½	16	2¾"	7"	2'-3"	3'-10"	6'-1"	4'-0"	34⅛"	14"	2½"	2½:1
24	28½	29	18	18	3"	9"	2'-3"	3'-10"	6'-1"	5'-0"	36 1/16"	15"	2½"	2½:1
30	36¼	36	22½	23	3½"	10"	3'-1"	3'-0½"	6'-1½"	6'-0"	47 1/16"	20"	3"	2½:1
36	43¾	44	26⅝	27	4"	10½"	4'-0"	2'-1½"	6'-1½"	6'-6"	54⅜"	22"	3½"	2½:1
42	51⅛	51	31⅝	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"	72 1/16"	24"	4¾"	2¼:1
60	73	73	45	45	6"	1'-10"	5'-6"	2'-8"	8'-2"	9'-0"	77 1/16"	24"	5"	2¼:1

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

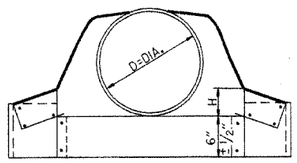


END VIEW
CONCRETE ARCH PIPE

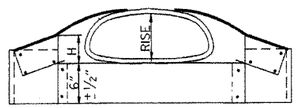




NOTE: ALTERNATE CONNECTIONS TO THE PIPE CULVERTS, IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICES, MAY BE MADE SUBJECT TO THE APPROVAL OF THE ENGINEER.



CIRCULAR PIPE



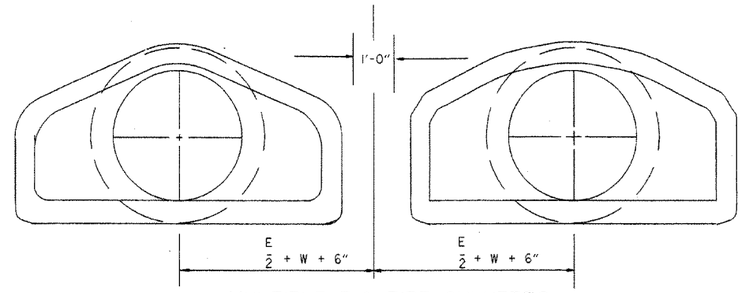
C.M. ARCH PIPE

CIRCULAR PIPE

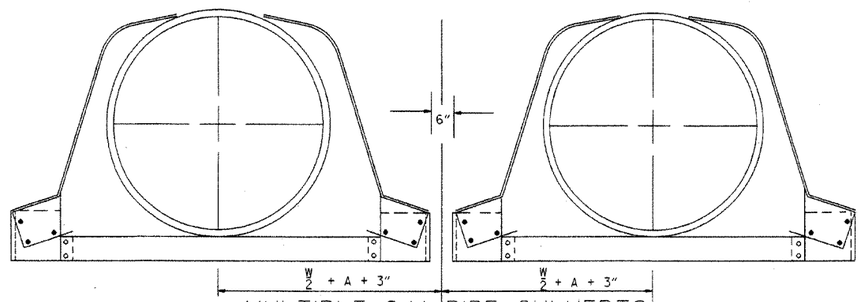
D. DIA.	GAUGE	A 1" ±	B MAX.	H 1" ±	L 1½" ±	W 2" ±	S
		INCHES					
12	16	6	6	6	21	24	2½:1
15	16	7	8	6	26	30	2½:1
18	16	8	10	6	31	36	2½:1
21	16	9	12	6	36	42	2½:1
24	16	10	13	6	41	48	2½:1
30	14	12	16	8	51	60	2½:1
36	14	14	19	9	60	72	2½:1
42	12	16	22	11	69	84	2½:1
48	12	18	27	12	78	90	2½:1
54	12	18	30	12	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

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	2½:1	12
60"	71	47	18	33	12	77	114	2¼:1	12



MULTIPLE R.C. PIPE CULVERTS



MULTIPLE C.M. PIPE CULVERTS

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS

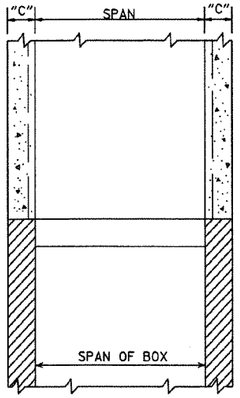
DATE	REVISION	FILMED
10-18-96	REVISED ASTM REF. TO AASHTO	16-18-96
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75
12-5-74	REMOVED NOTE RE REINF. FOR R.C. F.E.S.	500-12-5-74
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

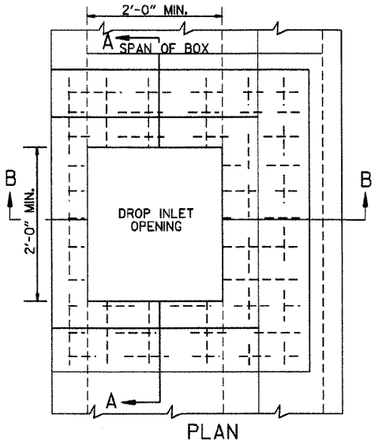
FLARED END SECTION

STANDARD DRAWING FES-2

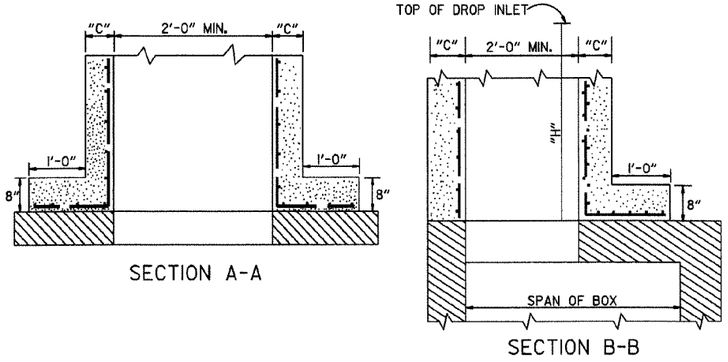
stdfes2.dgn



SECTION B-B



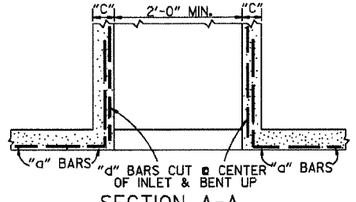
PLAN



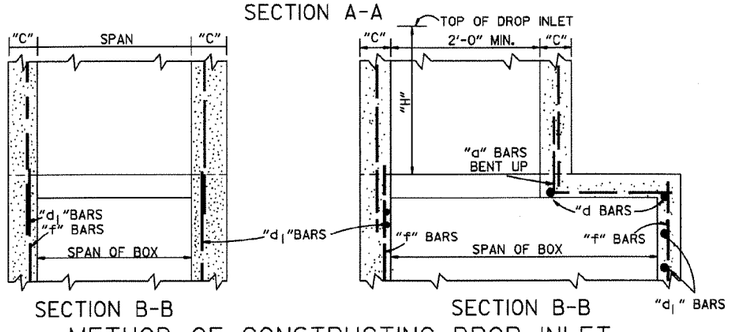
SECTION A-A

SECTION B-B

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



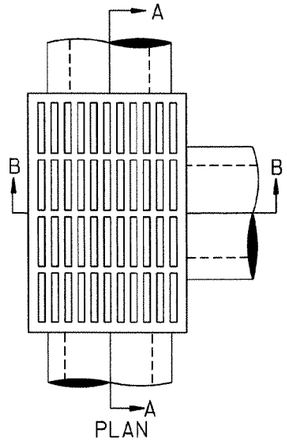
SECTION A-A



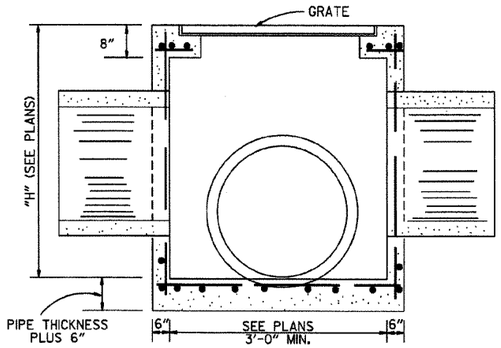
SECTION B-B SECTION B-B

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.

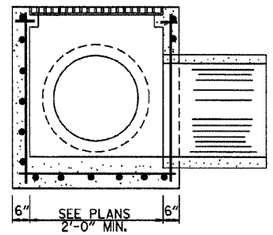


PLAN



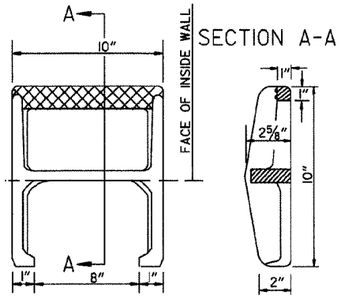
SECTION A-A

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)



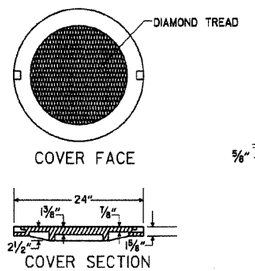
SECTION A-A

APPROX. WEIGHT = 11 LBS. (CAST IRON)

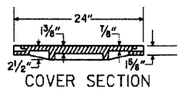
PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

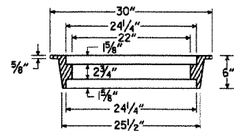
DETAIL OF STEP FOR DROP INLET



COVER FACE



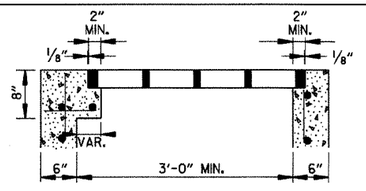
COVER SECTION



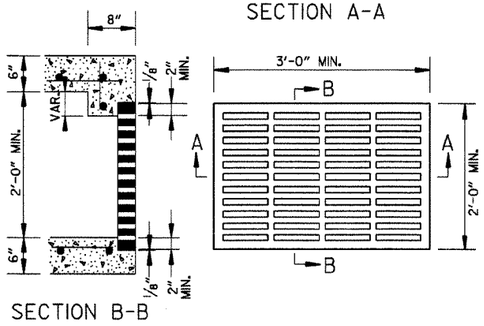
RING SECTION

APPROXIMATE TOTAL WEIGHT = 333 LBS.

HEAVY DUTY RING & COVER



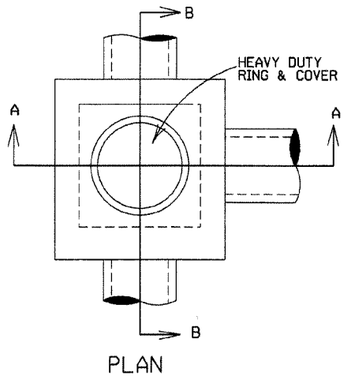
SECTION A-A



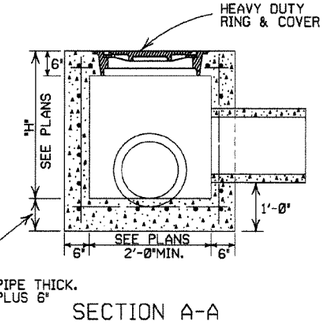
SECTION B-B

APPROXIMATE MINIMUM WATERWAY OPENING = 260 SQ. IN.

GRATE FOR TYPE E DROP INLET

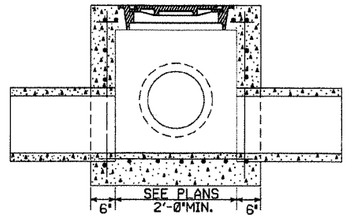


PLAN



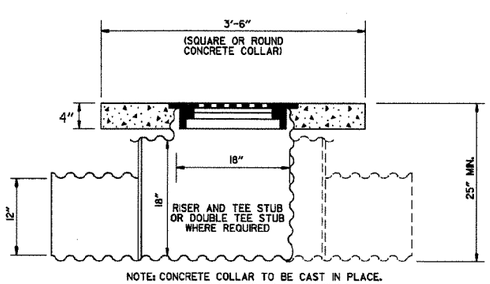
SECTION A-A

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.

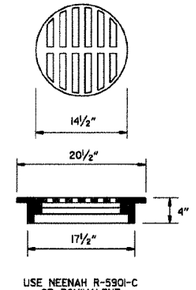


SECTION B-B

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

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

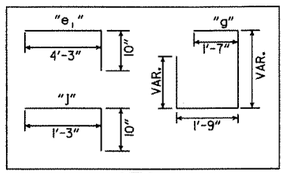
NOTE: QUANTITIES ARE APPROXIMATE AND ARE SHOWN FOR BIDDER INFORMATION ONLY.

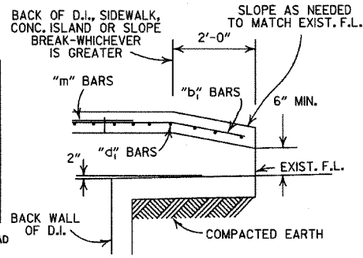
DROP INLET EXTENSION

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

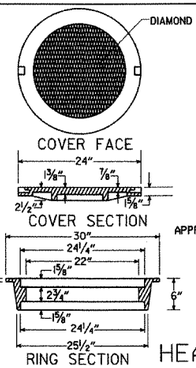
BAR DIAMETER





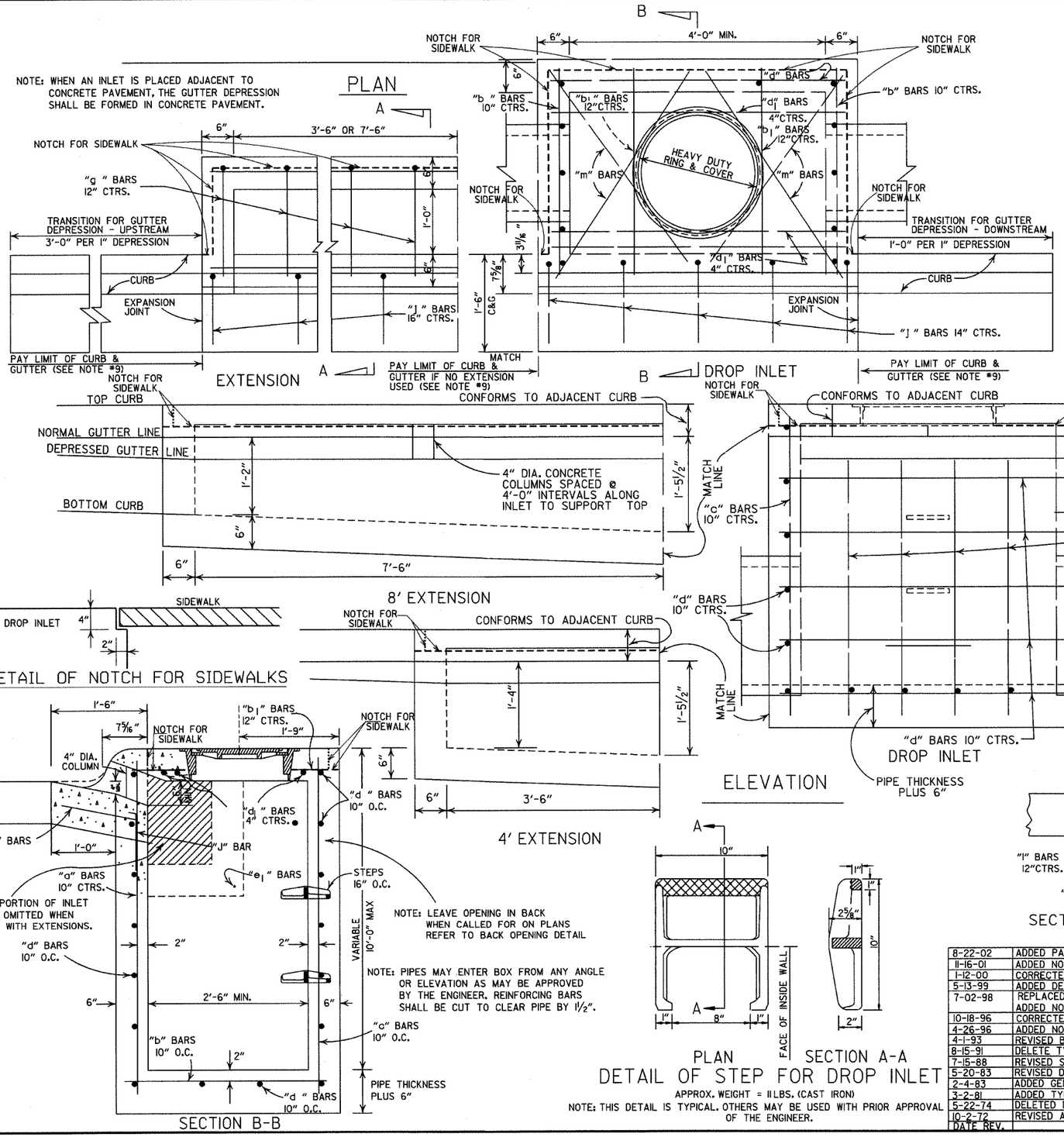
BACK OPENING

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



GENERAL NOTES:

1. ALL EXPOSED CORNERS TO HAVE ¾" 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 1½" 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.

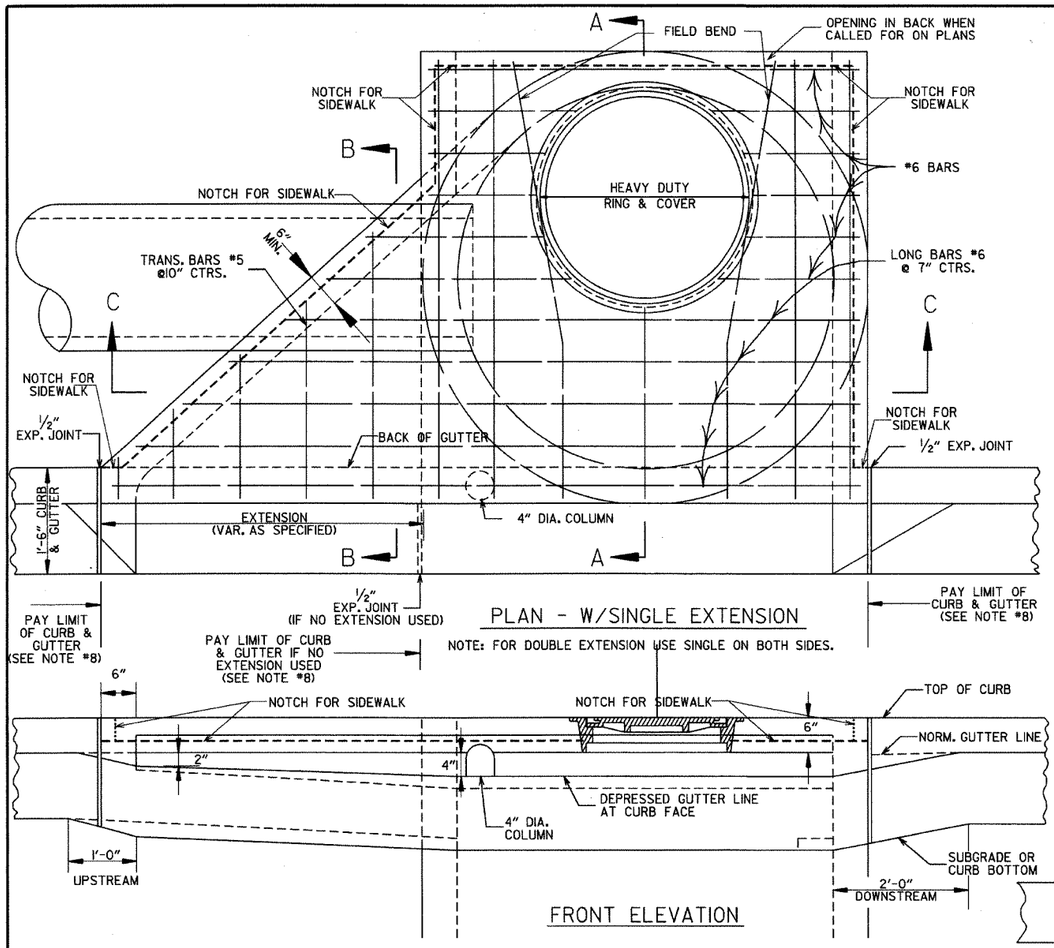
DATE REV.	REVISION	DATE FILMED
8-22-02	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B	
11-16-01	ADDED NOTE 13; REVISED SECTION B-B	
1-12-00	CORRECTED DIMENSION ON SECTION B-B & REVISED RING & COVER	
5-13-99	ADDED DETAIL OF NOTCH FOR SIDEWALKS	
7-02-98	REPLACED RING & COVER W/HEAVY DUTY RING & COVER 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)

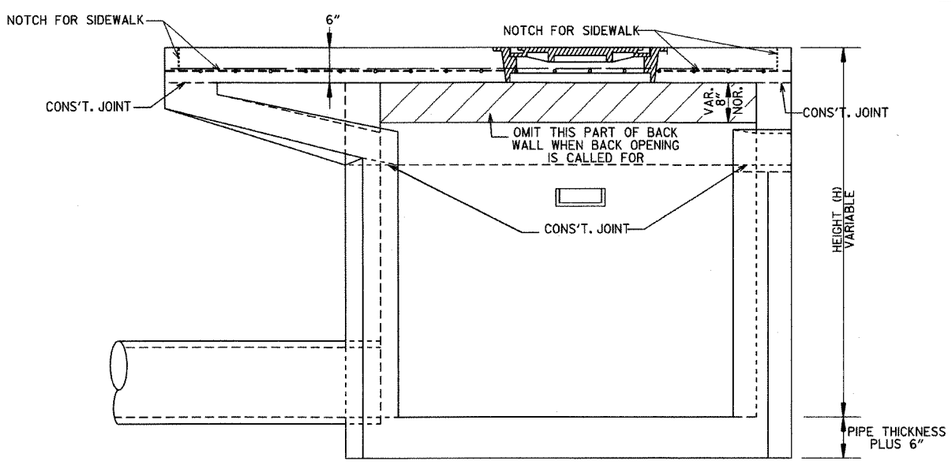
STANDARD DRAWING FPC-9E



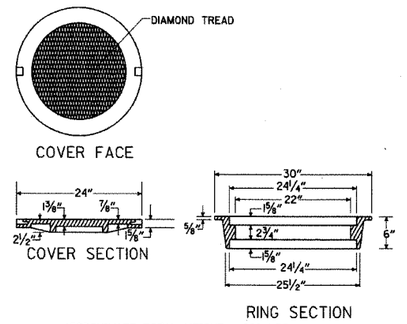
PLAN - W/SINGLE EXTENSION

NOTE: FOR DOUBLE EXTENSION USE SINGLE ON BOTH SIDES.

FRONT ELEVATION



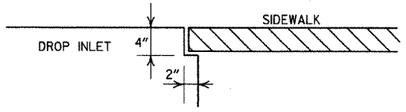
SECTION C-C



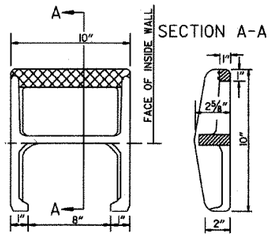
APPROXIMATE TOTAL WEIGHT = 333 LBS.

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

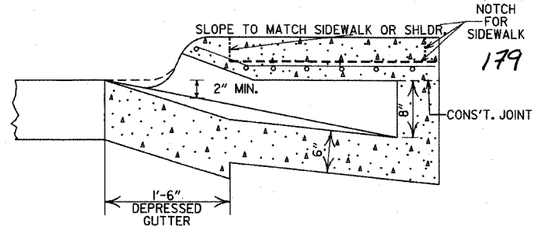


APPROX. WEIGHT = 11 LBS. (CAST IRON)

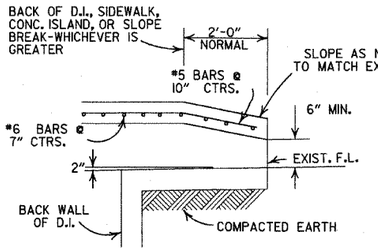
PLAN

NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

DETAIL OF STEP FOR DROP INLET

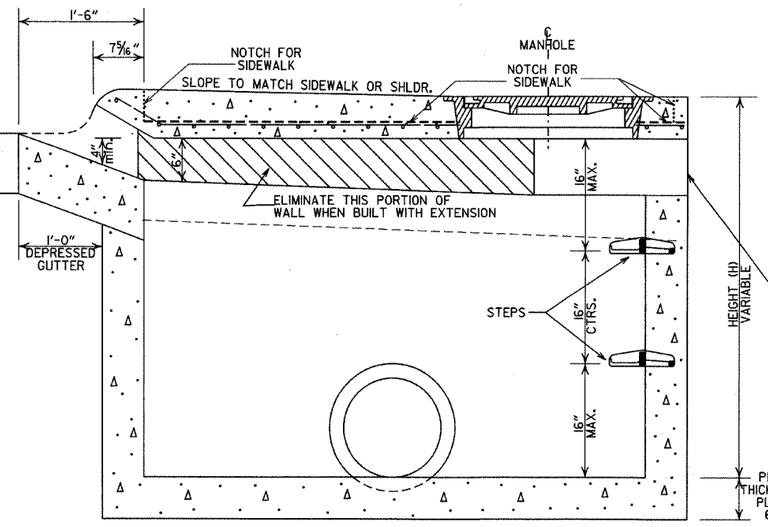


SECTION B-B



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).



SECTION A-A

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.

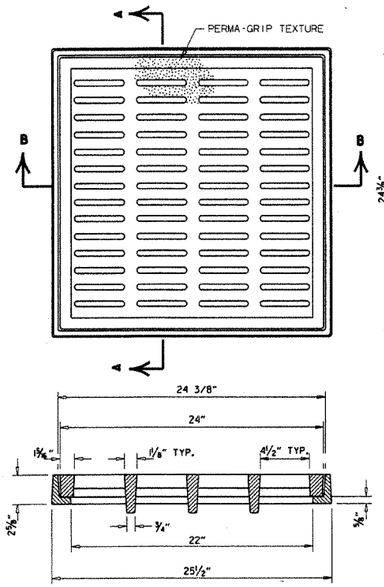
DIA. OF D.I.	DIA. OF OUTLET PIPE	MINIMUM WALL THICKNESS CAST IN PLACE	MINIMUM WALL THICKNESS PRECAST
4' I.D.	12" THRU 27"	6"	5"
5' I.D.	30" THRU 42"	8"	6"
6' I.D.	48" THRU 54"	8"	7"

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. NOT. 8, REM. 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 & ADJ. OPENING DIMENSION	
10-12-95	CORRECTED *6 BAR SPACING	
7-20-95	CORRECTED DIAMETER OF D.I. IN BOX	
7-23-95	TYPE C TO MO (OPEN BACK DETAIL)	
4-1-94	REVISED GENERAL NOTES	11-3-94
4-1-93	REV. BACK OPEN DETAIL & NOTE	4-1-93
8-15-91	REVISED NOTES 1&2 & ADDED BK.OPEN DETAIL	8-15-91
11-30-89	ADDED NOTE NO. 12	11-30-89
3-23-89	ADDED NOTE & MINIMUM WALL THICKNESS	513-3-23-89
7-15-88	ADDED EXTEND NOTE TO SECTION A-A	639-7-15-88
1-12-87	MODIFIED WALL THICKNESS	785-1-12-87
6-12-87	ISSUED	4-6-12-87

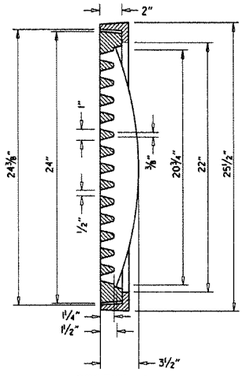
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLET (TYPE MO)

STANDARD DRAWING FPC-9M



SECTION B-B

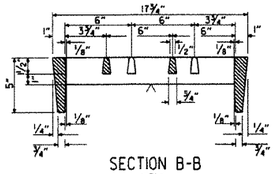


SECTION A-A

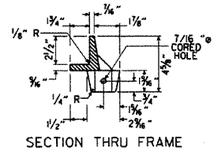
GENERAL NOTES (PEDESTRIAN GRATE & FRAME)

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.

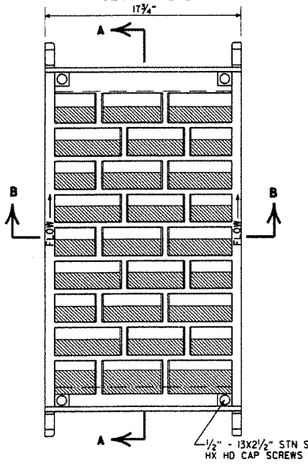
DETAILS OF PEDESTRIAN GRATE AND FRAME

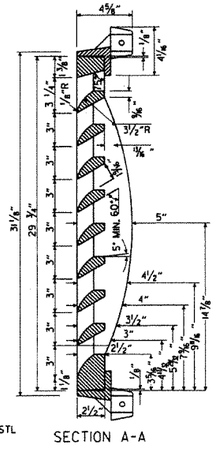


SECTION B-B



SECTION THRU FRAME



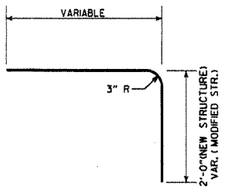


SECTION A-A

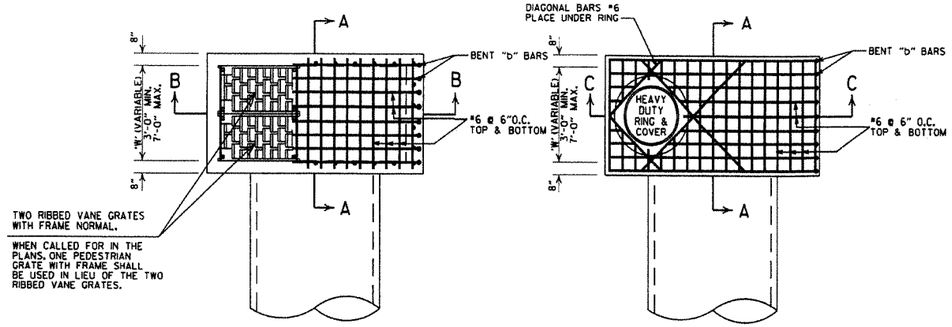
DETAILS OF RIBBED VANE GRATE AND FRAME

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.



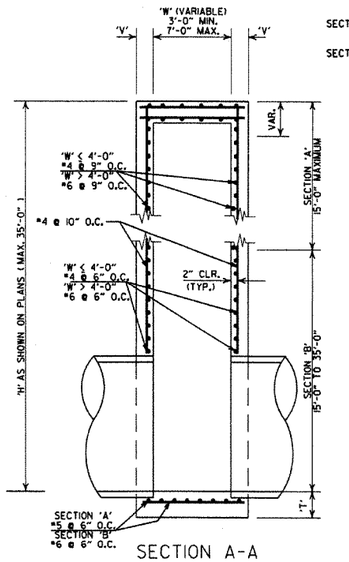
DETAIL OF BENT "b" BAR



SECTION 'A'
'V' = 8"

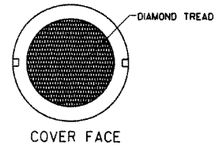
SECTION 'B' (W<4'-0")
'V' = 8"

SECTION 'B' (W>4'-0")
'V' = 10"

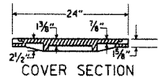


SECTION A-A

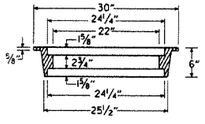
DETAILS OF DROP INLET (TYPE ST)



COVER FACE



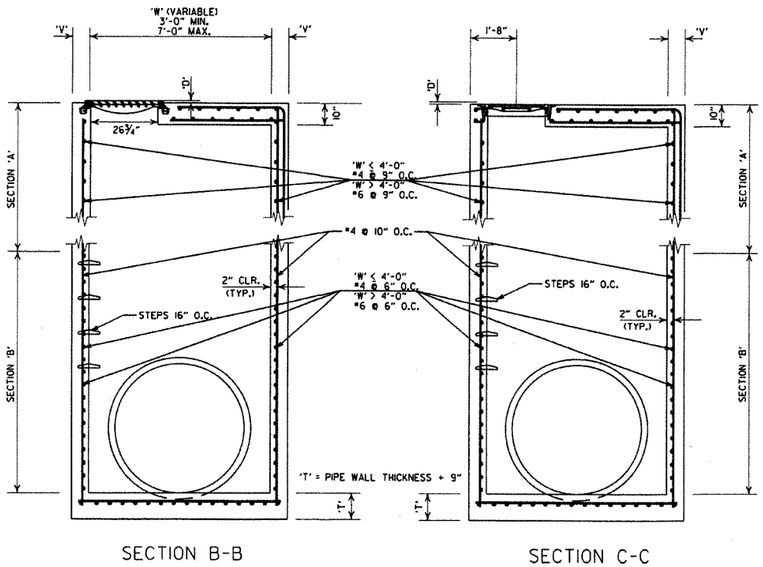
COVER SECTION



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.

GENERAL NOTES (HEAVY DUTY RING & COVER):

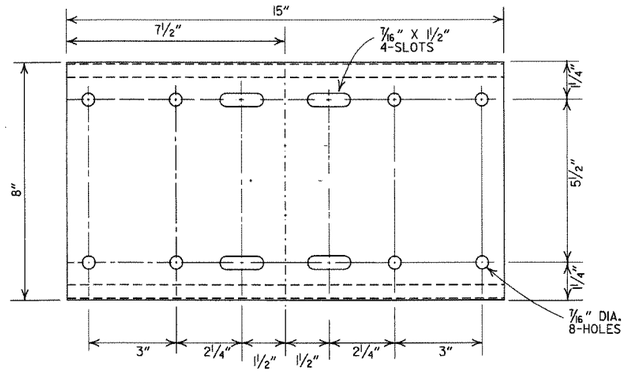
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M 105, CLASS 35B. & AASHTO M 306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE 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
7-26-12		REMOVED NOTE 4, REVISED 'T', REVISED BOTTOM SLAB REBAR FOR SECTION 'A', SHOWED REBAR CLEARANCE IN SECTIONS
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

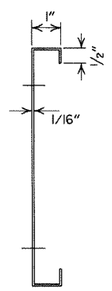
ARKANSAS STATE HIGHWAY COMMISSION

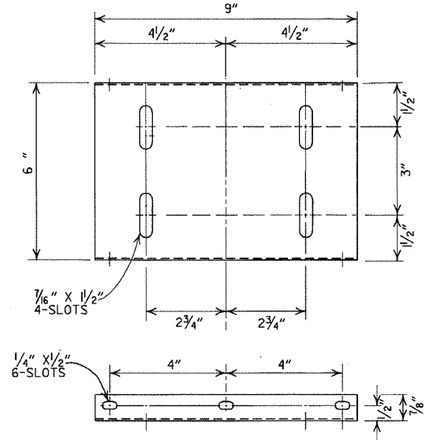
DETAILS OF DROP INLET & JUNCTION BOX (TYPE ST)

STANDARD DRAWING FPC-9S

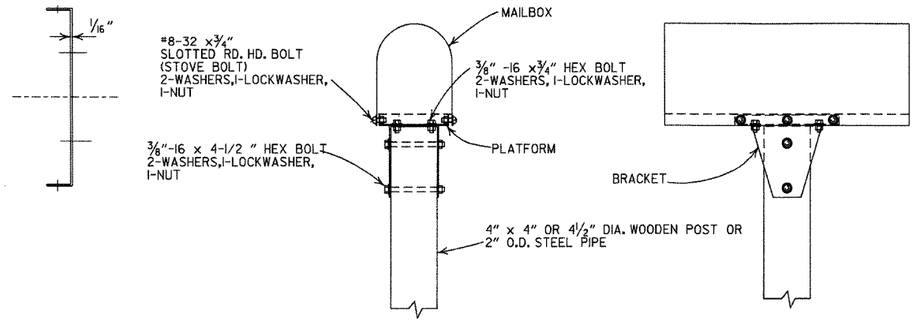


SHELF

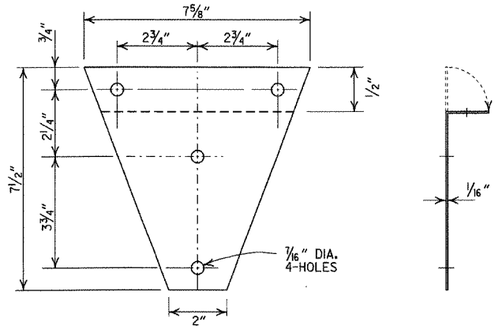




PLATFORM



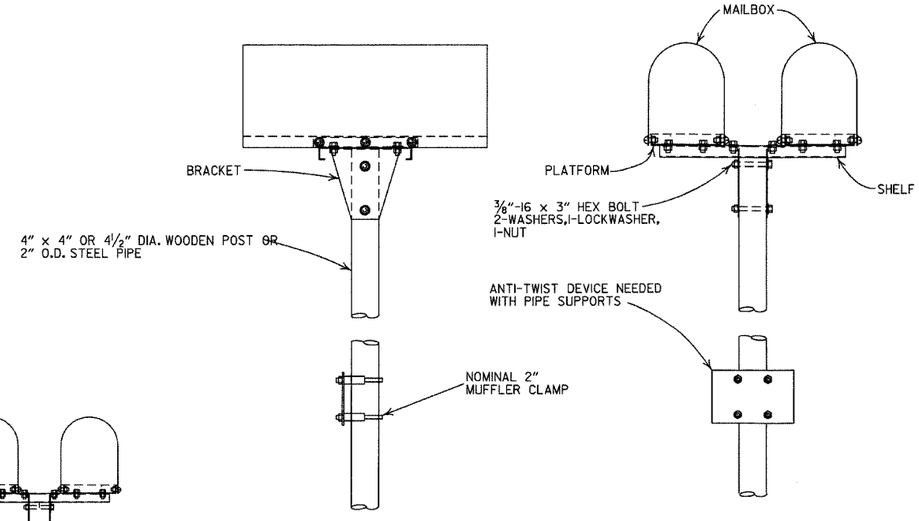
SINGLE INSTALLATION



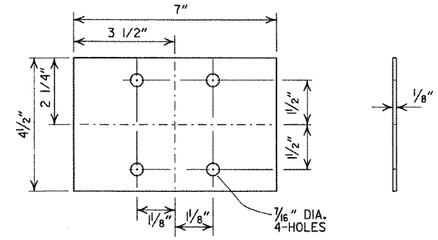
BRACKET

GENERAL NOTES

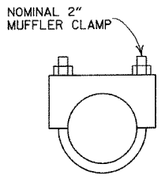
1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE GALVANIZED OR PAINTED STEEL, HOWEVER TREATED 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.



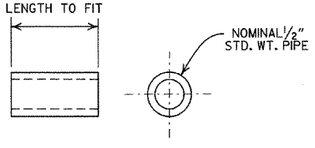
DOUBLE INSTALLATION



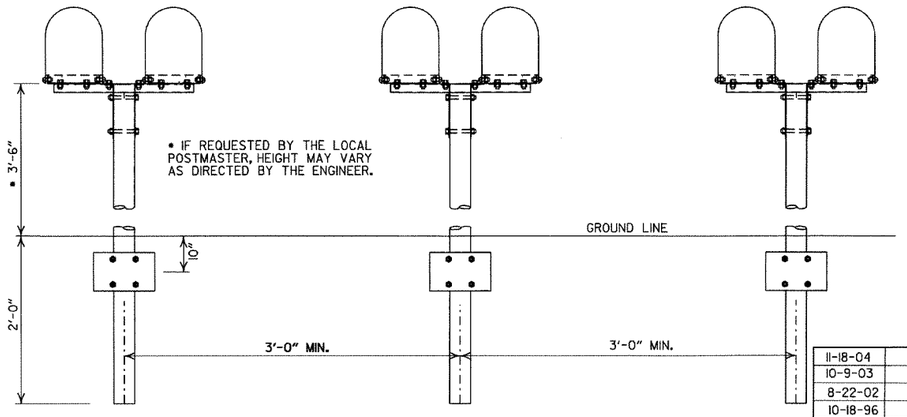
ANTI-TWIST PLATE



CLAMP



SPACER



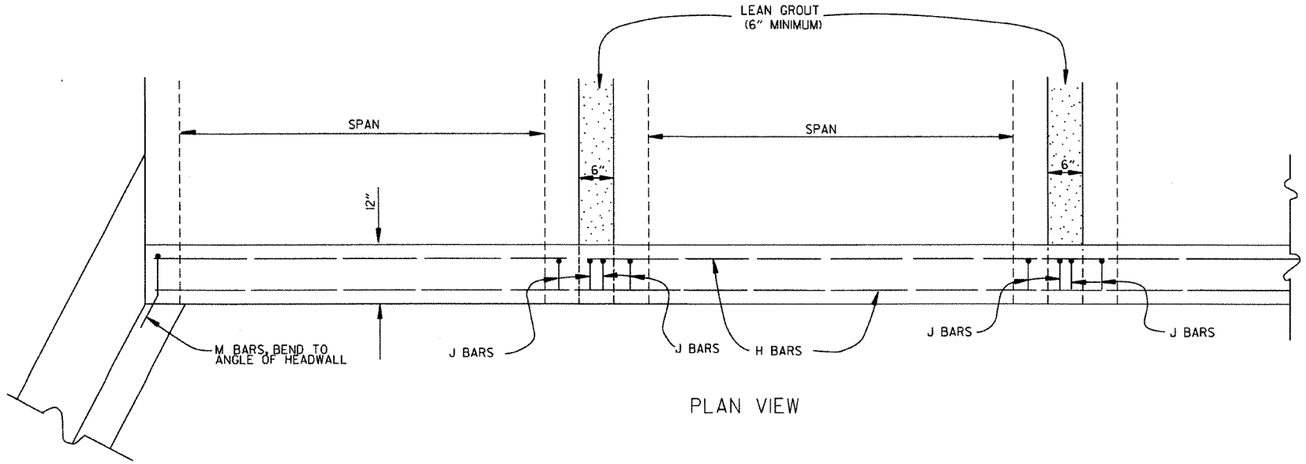
SPACING FOR MULTIPLE POST INSTALLATION

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	20-7-15-88	ISSUED

ARKANSAS STATE HIGHWAY COMMISSION

MAILBOX DETAILS

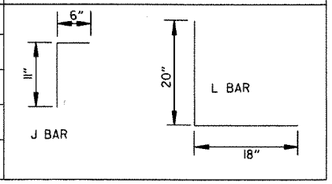
STANDARD DRAWING MB-1



PLAN VIEW

BAR LIST

BAR	NO.	SIZE	LENGTH	BAR BENDING DIAGRAM
H	2	#4	•	
I	•	#4	•	
J	•	#4	1'-5"	
L	•	#4	3'-2"	
M	•	#4	1'-8"	



• NOTE: LENGTH AND NUMBER OF BARS VARIES WITH SIZE OF CULVERT

GENERAL NOTES

WINGS, CURTAIN WALLS AND APRONS SHALL BE TIED TO THE PRECAST CULVERT SECTION BY CASTING BARS IN CULVERT END SECTIONS AS SHOWN OR BY DOWELING AND GROUTING. J BARS AND M BARS SHALL BE EMBEDDED A MINIMUM OF 10" IN PRECAST BOX.

WINGS, FOOTINGS, APRONS AND CURTAIN WALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE WING DRAWING, STEEL AND CONCRETE QUANTITIES WILL BE ADJUSTED TO FIT THE IN-PLACE WIDTH & HEIGHT OF THE PRECAST CONCRETE BOX CULVERTS.

ALL EXPOSED CORNERS TO HAVE ¾" CHAMFERS.

WINGWALLS AND FOOTINGS MAY BE ADJUSTED IN THE FIELD AS DIRECTED BY THE ENGINEER.

ALL CONCRETE, REINFORCING STEEL, LEAN GROUT, MEMBRANE WATERPROOFING, DRAINAGE FILL MATERIAL, GEOTEXTILE FILTER FABRIC, LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR INSTALLING PRECAST BOX CULVERTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID FOR THE ITEMS AS SPECIFIED IN SECTION 607 OF THE STANDARD SPECIFICATIONS.

LEAN GROUT SHALL CONSIST OF A SAND CEMENT MIXTURE MEETING THE FOLLOWING REQUIREMENTS:
PORTLAND CEMENT SHALL BE TYPE I AND SHALL MEET THE REQUIREMENTS OF AASHTO M 85.
SAND SHALL MEET THE REQUIREMENTS OF FINE AGGREGATE AS SPECIFIED IN SECTION 802.02 OF THE STANDARD SPECIFICATIONS.
THE SAND CEMENT MIXTURE SHALL CONSIST OF NOT LESS THAN 1.5 SACKS OF PORTLAND CEMENT PER TON OF MATERIAL MIXTURE.
THE MIXTURE SHALL CONTAIN SUFFICIENT WATER TO HYDRATE THE CEMENTS. THE SAND CEMENT MIXTURE SHALL BE PLACED IN MAXIMUM 8 INCH THICK LIFTS, LOOSE MEASURE, AND THOROUGHLY RODDED AND TAMPED AROUND BOX TO THOROUGHLY FILL ALL VOIDS.

MEMBRANE WATERPROOFING CONFORMING TO THE REQUIREMENTS OF SECTION 815 OF THE STANDARD SPECIFICATIONS SHALL BE APPLIED TO ALL BOX CULVERT JOINTS.

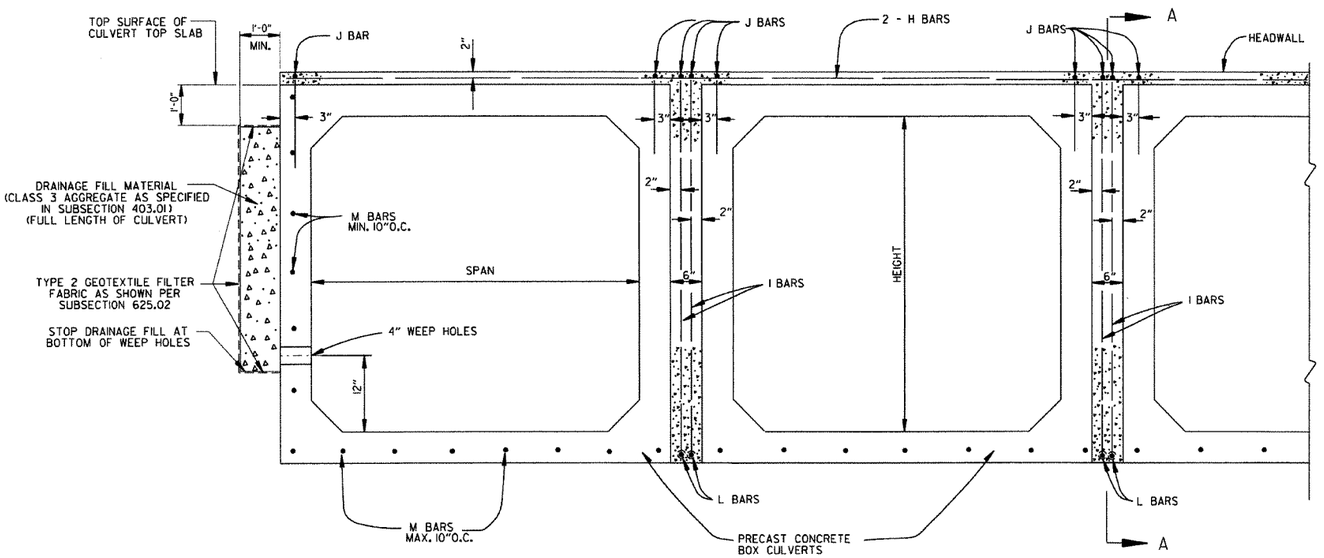
THE MEMBRANE WATERPROOFING WILL BE REQUIRED ON THE TOP EXTERNAL JOINT AND SHALL EXTEND 1 FOOT DOWN THE SIDES OF THE CULVERT.

IN OUTER BARRELS, ONE WEEP HOLE IS REQUIRED IN EXTERIOR WALLS OF EACH PRECAST CULVERT SECTION. WEEP HOLES SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" IN THE ASSEMBLED CULVERT AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE BOTTOM SLAB.

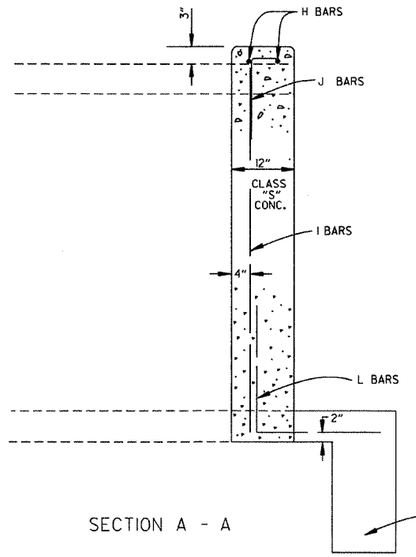
DRAINAGE FILL MATERIAL WITH GEOTEXTILE FABRIC IS REQUIRED AT THE EXTERIOR WALLS OF THE ASSEMBLED CULVERT, SEE DETAILS ON THIS DRAWING.

MINIMUM WIDTH SHALL BE 12" (6" ON EACH SIDE OF JOINT). ON MULTIPLE BARREL CULVERTS, MEMBRANE WATERPROOFING SHALL BE APPLIED TO EACH BARREL AS DESCRIBED ABOVE.

WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR WILL BE ALLOWED TO SUBSTITUTE, AT NO ADDITIONAL COST TO THE DEPARTMENT, FLOWABLE SELECT MATERIAL CONFORMING TO SECTION 206 OF THE STANDARD SPECIFICATIONS IN LIEU OF LEAN GROUT.



END VIEW



SECTION A - A

DATE	REVISION	DATE FILMED
12-15-11	ADDED NOTE & DTLS FOR WEEP HOLE AND DRAINAGE FILL	
10-15-09	ADDED GENERAL NOTE	
11-10-05	REVISED SPACING OF "M" BARS	
4-10-03	REVISED GENERAL NOTES	
10-18-96	CORRECTED AASHTO REF.	
10-1-92	ADDED NOTE FOR MEMBRANE WATERPROOFING	
8-15-91	ADDED NOTE FOR LEAN GROUT	
11- 8-90	REVISED FOR 1991 SPECS	
11-30-89	ISSUED; JABE	

ARKANSAS STATE HIGHWAY COMMISSION

PRECAST CONCRETE BOX CULVERTS

STANDARD DRAWING PBC-1

REINFORCED CONCRETE ARCH PIPE DIMENSIONS

EQUIV. DIA.	SPAN		RISE	
	AASHTO M 206	AHTD NOMINAL	AASHTO M 206	AHTD NOMINAL
INCHES	INCHES			
15	18	18	11	11
18	22	22	13½	14
21	26	26	15½	16
24	28½	29	18	18
30	36¼	36	22½	23
36	43⅜	44	26⅝	27
42	51⅛	51	31 5/16	31
48	58½	59	36	36
54	65	65	40	40
60	73	73	45	45
72	88	88	54	54
84	102	102	62	62
90	115	115	72	72
96	122	122	77½	77
108	138	138	87⅛	87
120	154	154	96⅞	97
132	168¾	169	106½	107

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

REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE DIMENSIONS

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

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

CONSTRUCTION SEQUENCE

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

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

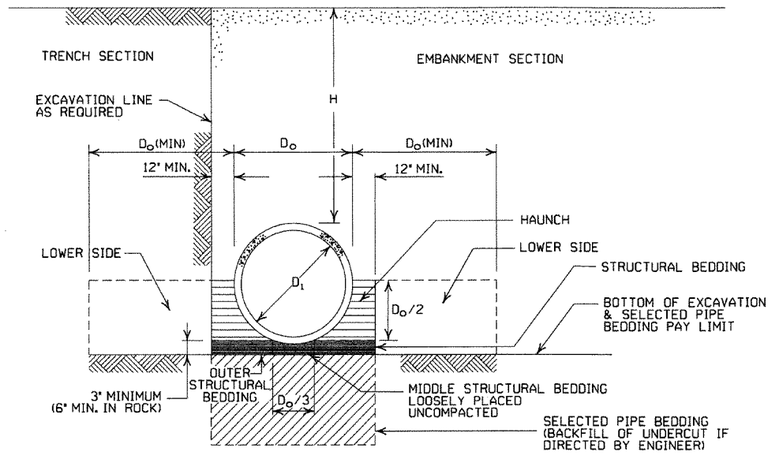
- LEGEND -

D_i = NORMAL INSIDE DIAMETER OF PIPE
D_o = OUTSIDE DIAMETER OF PIPE
H = FILL COVER HEIGHT OVER PIPE (FEET)
MIN. = MINIMUM
▨ = UNDISTURBED SOIL

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR HAUNCH AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 5 OR CLASS 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL*
TYPE 3**	AASHTO CLASSIFICATION A-1 THRU A-6 SOIL OR TYPE 1 OR 2 INSTALLATION MATERIAL

* SM-3 WILL NOT BE ALLOWED.

** MATERIALS SHALL NOT INCLUDE ORGANIC MATERIALS OR STONES LARGER THAN 3 INCHES.



EMBANKMENT AND TRENCH INSTALLATIONS

1. MATERIAL IN THE HAUNCH AND OUTER STRUCTURAL BEDDING SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. FOR TRENCHES WITH WALLS OF NATURAL SOIL, THE DENSITY OF THE SOIL IN THE LOWER SIDE ZONE SHALL BE AS FIRM AS THE 95% DENSITY REQUIRED FOR THE HAUNCH. IF THE EXISTING SOIL DOES NOT MEET THIS CRITERIA, IT SHALL BE REMOVED AND RECOMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OF MATERIAL USED.
3. FOR EMBANKMENTS, THE MATERIAL IN THE LOWER SIDE ZONE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

GENERAL NOTES

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2003 EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. CONCRETE PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. ALL PIPE SHALL CONFORM TO SECTION 606. CIRCULAR R.C. PIPE CULVERTS SHALL CONFORM TO AASHTO M170, R.C. ARCH PIPE CULVERTS SHALL CONFORM TO AASHTO M206 AND HORIZONTAL ELLIPTICAL PIPE CULVERTS SHALL CONFORM TO AASHTO M207.
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. NOT MORE THAN ONE LIFTING HOLE MAY BE PROVIDED IN CONCRETE PIPE TO FACILITATE HANDLING. HOLE MAY BE CAST IN PLACE, CUT INTO THE FRESH CONCRETE AFTER FORMS ARE REMOVED, OR DRILLED. THE HOLE SHALL NOT BE MORE THAN TWO INCHES IN DIAMETER OR TWO INCHES SQUARE. CUTTING OR DISPLACEMENT OF REINFORCEMENT WILL NOT BE PERMITTED. SPALLED AREAS AROUND THE HOLE SHALL BE REPAIRED IN A WORKMANLIKE MANNER. LIFTING HOLE SHALL BE FILLED WITH MORTAR, CONCRETE, OR OTHER METHOD AS APPROVED BY THE ENGINEER.
9. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
10. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS THE HAUNCH), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

MINIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
INSTALLATION TYPE	TYPE 1 OR 2	TYPE 3	ALL	ALL
PIPE ID (IN.)	FEET			
12-15	2	2.5	2	1
18-24	2.5	3	2	1
27-33	3	4	2	1
36-42	3.5	5	2	1
48	4.5	5.5	2	1
54-60	5	7	2	1
66-78	6	8	2	1
84-108	7.5	8	2	1

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER CIRCULAR R.C. PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE		
	CLASS III	CLASS IV	CLASS V
	FEET		
TYPE 1	21	32	50
TYPE 2	16	25	39
TYPE 3	12	20	30

NOTE: IF FILL HEIGHT EXCEEDS 50 FEET, A SPECIAL DESIGN CONCRETE PIPE WILL BE REQUIRED USING TYPE 1 INSTALLATION.

MINIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2 OR TYPE 3	2.5	1.5

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

NOTE: FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM OF 12" OF PAVEMENT AND/OR BASE.

MAXIMUM HEIGHT OF FILL "H" OVER R.C. ARCH & HORIZONTAL ELLIPTICAL PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE	
	CLASS III	CLASS IV
	FEET	
TYPE 2	13	21
TYPE 3	10	16

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

DATE	REVISION	DATE FILMED
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS	
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1

CORRUGATED STEEL PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS (INCHES)				
		0.064	0.079	0.109	0.138	0.168
2⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM						
12	1	84	91			
15	1	67	73			
18	1	56	61			
24	1	42	46	59		
30	2	34	36	47		
36	2		30	39	41	
42	2		43	67	70	73
48	2		37	58	61	64
② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, BOLTED, OR HELICAL LOCK-SEAM						
36	1	48	60	88	111	118
42	1	41	51	72	90	102
48	1	36	45	64	77	85
54	2	32	40	59	71	79
60	2	29	36	53	64	71
66	2	26	33	47	58	64
72	2	24	30	44	53	59
78	2		28	41	49	54
84	2		26	38	45	51
90	2		24	35	43	45
96	2		22	33	40	44
102	2			31	38	42
108	2			30	35	39
114	2			28	34	37
120	2			27	32	35

CORRUGATED ALUMINUM PIPE (ROUND)

PIPE DIAMETER (INCHES)	① MINUMUM COVER TOP OF PIPE TO TOP OF GROUND "H" (FEET)	MAX. FILL HEIGHT "H" ABOVE TOP OF PIPE (FEET)				
		METAL THICKNESS IN INCHES				
		0.060	0.075	0.105	0.135	0.164
		2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM				
12	1	45	45			
18	2	30	30	52		
24	2	22	22	39	41	
30	2		18	31	32	34
36	2.5		15	26	27	28
42	2			43	43	44
48	2			40	41	43
54	2			35	37	38
60	2				33	34
66	2					31
72	2					29

CORRUGATED METAL PIPE ARCHES

EQUIV. DIA. (INCHES)	PIPE DIMENSION SPAN X RISE (INCHES)	MINUMUM CORNER RADIUS (INCHES)	STEEL				ALUMINUM		
			MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	MAX. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1		MIN. THICKNESS REQUIRED INCHES	① MIN. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1	MAX. HEIGHT OF FILL, "H" (FT.) INSTALLATION TYPE 1
			2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM				2 ⅔ INCH BY ½ INCH CORRUGATION RIVETED OR HELICAL LOCK-SEAM		
15	17x13	3	0.064	2	15		0.060	2	15
18	21x15	3	0.064	2	15		0.060	2	15
21	24x18	3	0.064	2.25	15		0.060	2.25	15
24	28x20	3	0.064	2.5	15		0.075	2.5	15
30	35x24	3	0.079	3	12		0.075	3	12
36	42x29	3½	0.079	3	12		0.105	3	12
42	49x33	4	0.079	3	12		0.105	3	12
48	57x38	5	0.109	3	13		0.135	3	13
54	64x43	6	0.109	3	14		0.135	3	14
60	71x47	7	0.138	3	15		0.164	3	15
66	77x52	8	0.168	3	15				
72	83x57	9	0.168	3	15				
			② 3 INCH BY 1 INCH OR 5 INCH BY 1 INCH CORRUGATION RIVETED, WELDED, OR HELICAL LOCK-SEAM						
				INSTALLATION TYPE 2	INSTALLATION TYPE 1	INSTALLATION TYPE 2	INSTALLATION TYPE 1		
36	40x31	5	0.079	3	2	12	15		
42	46x36	6	0.079	3	2	13	15		
48	53x41	7	0.079	3	2	13	15		
54	60x46	8	0.079	3	2	13	15		
60	66x51	9	0.079	3	2	13	15		
66	73x55	12	0.079	3	2	15	15		
72	81x59	14	0.079	3	2	15	15		
78	87x63	14	0.079	3	2	15	15		
84	95x67	16	0.109	3	2	15	15		
90	103x71	16	0.109	3	2	15	15		
96	112x75	18	0.109	3	2	15	15		
102	117x79	18	0.109	3	2	15	15		
108	128x83	18	0.138	3	2	15	15		

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE. DO NOT COMPACT.
2. INSTALL PIPE TO GRADE.
3. COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. COMPLETE STRUCTURAL BACKFILL OPERATION BY WORKING FROM SIDE TO SIDE OF THE PIPE. THE SIDE TO SIDE STRUCTURAL BACKFILL DIFFERENTIAL SHALL NOT EXCEED 24 INCHES OR 1/3 THE SIZE OF THE PIPE, WHICHEVER IS LESS.

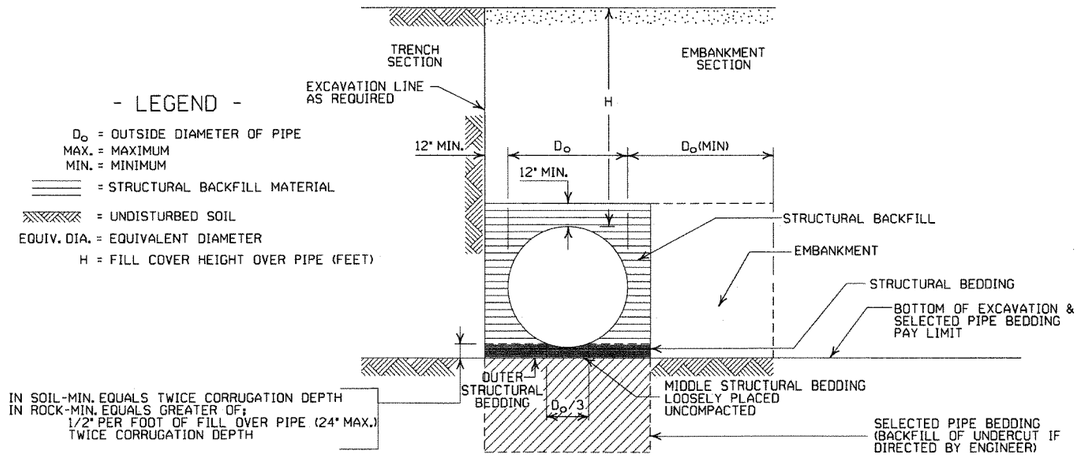
NOTE: STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF METAL PIPE.

INSTALLATION TYPE	MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 1	AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7)
TYPE 2	SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4) OR TYPE 1 INSTALLATION MATERIAL ③

③ SM-3 WILL NOT BE ALLOWED.

EQUIVALENT METAL THICKNESSES AND GAUGES

METAL THICKNESS IN INCHES			GAUGE NUMBER
STEEL			
ZINC COATED	UNCOATED	ALUMINUM	
0.064	0.0598	0.060	16
0.079	0.0747	0.075	14
0.109	0.1046	0.105	12
0.138	0.1345	0.135	10
0.168	0.1644	0.164	8



EMBANKMENT AND TRENCH INSTALLATIONS

1. STRUCTURAL BACKFILL, EMBANKMENT, AND OUTER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.
2. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE (ROUND).
3. INSTALALTION TYPE 1 SHALL BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 2⅔" X ½" CORRUGATION.
4. INSTALLATION TYPE 1 OR 2 MAY BE USED FOR CORRUGATED STEEL OR ALUMINUM PIPE ARCHES WITH 3" X 1" OR 5" X 1" CORRUGATION.

GENERAL NOTES

1. METAL PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2003 EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS. UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. METAL PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. METAL PIPE CULVERT MATERIALS AND INSTALLATIONS SHALL CONFORM TO SECTION 606 AND JOB SPECIAL PROVISION "METAL PIPE".
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
9. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED AS STRUCTURAL BACKFILL), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE. IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

① FOR MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

② WHERE THE STANDARD 2 2/3"x ½" CORRUGATION AND GAUGE IS SPECIFIED FOR A GIVEN DIAMETER, A PIPE OF THE SAME DIAMETER WITH A 3" x 1" OR 5" x 1" CORRUGATION MAY BE SUBSTITUTED, PROVIDING IT IS GAUGED FOR A FILL HEIGHT CONDITION EQUAL TO OR GREATER THAN THE MAXIMUM FILL HEIGHT CONDITION FOR THE SPECIFIED GAUGE AND CORRUGATION.

DATE	REVISION	DATE FILMED
12-15-11	REVISED FOR LRFD DESIGN SPECS	
3-30-00	REVISED INSTALLATIONS	
11-06-97	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

METAL PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCM-1

INSTALLATION TYPE	•• MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 2	•SELECTED MATERIALS (CLASS SM-1, SM-2 OR SM-4)

• AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) MAY BE USED IN LIEU OF SELECTED MATERIAL.

SM3 WILL NOT BE ALLOWED.

•• STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

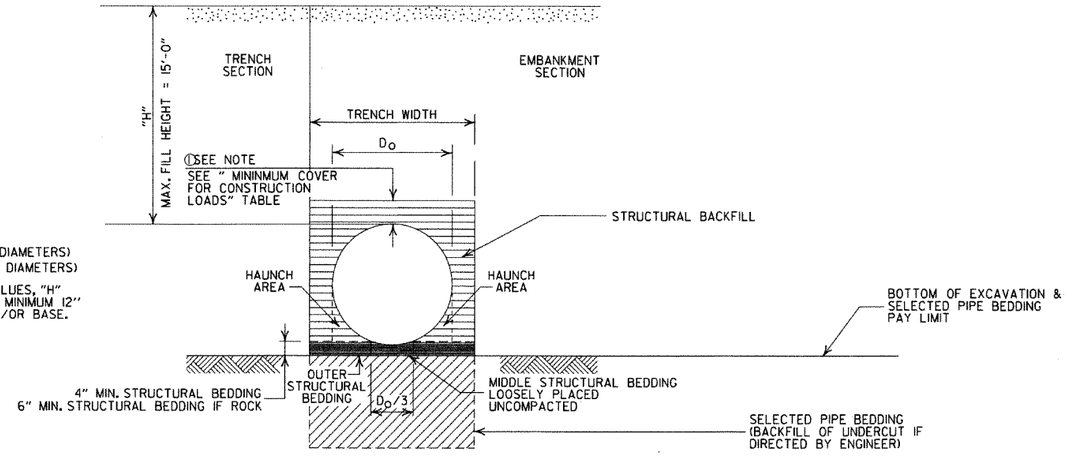
STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF HDPE PIPE.

MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

PIPE DIAMETER	TRENCH WIDTH (FEET) "H" < 10'-0"	TRENCH WIDTH (FEET) "H" >OR= 10'-0"
18"	4'-6"	4'-6"
24"	5'-0"	6'-0"
30"	5'-6"	7'-6"
36"	6'-0"	9'-0"
42"	7'-0"	10'-6"
48"	8'-0"	12'-0"

①NOTE:
18" MIN. (18" - 30" DIAMETERS)
24" MIN. (36" - 48" DIAMETERS)

MINIMUM COVER VALUES, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.



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.

MULTIPLE INSTALLATION OF HIGH DENSITY POLYETHYLENE PIPES

PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"
42"	3'-6"
48"	4'-0"

MINIMUM COVER FOR CONSTRUCTION LOADS

PIPE DIAMETER	② MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS 18.0-50.0 (KIPS)	50.0-75.0 (KIPS)	75.0-110.0 (KIPS)	110.0-175.0 (KIPS)
36" OR LESS	2'-0"	2'-6"	3'-0"	3'-0"
42" OR GREATER	3'-0"	3'-0"	3'-6"	4'-0"

②MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.

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. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

GENERAL NOTES

1. PIPE SHALL CONFORM TO AASHTO M294, TYPE S. INSTALLATION SHALL CONFROM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICIATIONS FOR HIGHWAY CONSTRUCTION, 2003 EDITION.
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. 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.
5. 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."
6. 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."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. HIGH DENSITY POLYETHYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR HDPE PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

- LEGEND -

H = FILL HEIGHT (FT.)
D = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM

= STRUCTURAL BACKFILL MATERIAL

= UNDISTURBED SOIL

DATE	REVISION	DATE FILMED
12-15-11	REVISED GENERAL NOTES & MINIMUM COVER NOTE	
11-17-10	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

PLASTIC PIPE CULVERT (HIGH DENSITY POLYETHYLENE)

STANDARD DRAWING PCP-1

INSTALLATION TYPE	•• MATERIAL REQUIREMENTS FOR STRUCTURAL BACKFILL AND STRUCTURAL BEDDING
TYPE 2	•SELECTED MATERIALS (CLASS SM-1, SM-2, OR SM-4)

• AGGREGATE BASE COURSE (CLASS 4, 5, 6, OR 7) MAY BE USED IN LIEU OF SELECTED MATERIAL.

SM3 WILL NOT BE ALLOWED.

•• STRUCTURAL BEDDING MATERIAL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1INCH. STRUCTURAL BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, STONES LARGER THAN 1.50 INCH IN GREATEST DIMENSION, OR FROZEN LUMPS.

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 PVC PIPE.

MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

PIPE DIAMETER	TRENCH WIDTH (FEET)	
	"H" < 10'-0"	"H" >OR= 10'-0"
18"	4'-6"	4'-6"
24"	5'-0"	6'-0"
30"	5'-6"	7'-6"
36"	6'-0"	9'-0"

MULTIPLE INSTALLATION OF PVC PIPES

PIPE DIAMETER	CLEAR DISTANCE BETWEEN PIPES
18"	1'-6"
24"	2'-0"
30"	2'-6"
36"	3'-0"

MAXIMUM FILL HEIGHT BASED ON STRUCTURAL BACKFILL

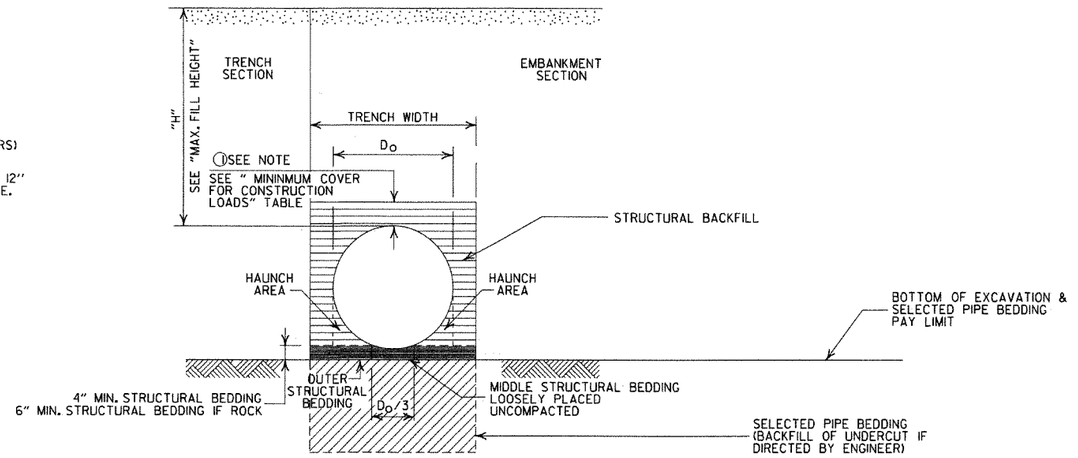
PIPE DIAMETER	"H"
18"	45'-0"
24"	45'-0"
30"	40'-0"
36"	40'-0"

① NOTE:
12" MIN. (18" - 36" DIAMETERS)
MINIMUM COVER VALUE, "H" SHALL INCLUDE A MINIMUM 12" OF PAVEMENT AND/OR BASE.

MINIMUM COVER FOR CONSTRUCTION LOADS

PIPE DIAMETER	② MIN. COVER (FEET) FOR INDICATED CONSTRUCTION LOADS			
	18.0-50.0 (KIPS)	50.0-75.0 (KIPS)	75.0-110.0 (KIPS)	110.0-175.0 (KIPS)
18" THRU 36"	2'-0"	2'-6"	3'-0"	3'-0"

②MINIMUM COVER SHALL BE MEASURED FROM TOP OF PIPE TO TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE. THE SURFACE SHALL BE MAINTAINED.



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. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8". THE LAYERS SHALL BE BROUGHT UP EVENLY AND SIMULTANEOUSLY TO THE ELEVATION OF THE MINIMUM COVER.
5. PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINTS, WEIGHTING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.

GENERAL NOTES

1. PIPE SHALL CONFORM TO ASTM F949, CELL CLASS 12454. INSTALLATION SHALL CONFROM TO JOB SPECIAL PROVISION "PLASTIC PIPE" AND SECTION 606 OF THE STANDARD SPECIFICIATIONS FOR HIGHWAY CONSTRUCTION, 2003 EDITION.
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT HAUNCHING AND OTHER BACKFILL MATERIAL.
4. 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.
5. 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."
6. 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."
7. FOR PIPE TYPES THAT ARE NOT SMOOTH ON THE OUTSIDE (CORRUGATED OR PROFILE WALLS), BACKFILL GRADATIONS SHOULD BE SELECTED THAT WILL PERMIT THE FILLING OF THE CORRUGATION OR PROFILE VALLEY.
8. PVC PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR PVC PIPE SHALL MEET THE REQUIREMENTS FOR SOIL TIGHTNESS AS SPECIFIED IN AASHTO SECTION 26.4.2.4 AND 30.4.2 "AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

- LEGEND -

H = FILL HEIGHT (FT.)
D_O = OUTSIDE DIAMETER OF PIPE
MAX. = MAXIMUM
MIN. = MINIMUM

= STRUCTURAL BACKFILL MATERIAL

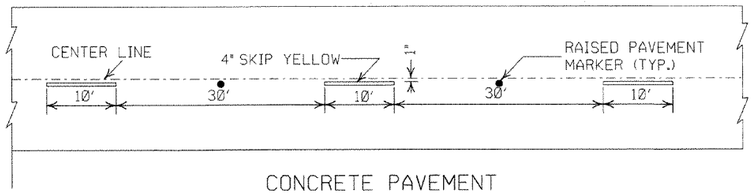
= UNDISTURBED SOIL

DATE	REVISION	DATE FILMED
12-15-11	REV GENERAL NOTES & MINIMUM COVER NOTE; DELETED SM3 MATERIAL	
11-17-10	ISSUED	

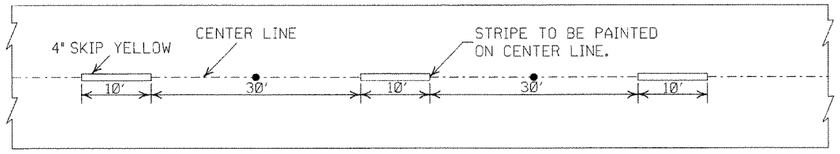
ARKANSAS STATE HIGHWAY COMMISSION

PLASTIC PIPE CULVERT (PVC F949)

STANDARD DRAWING PCP-2

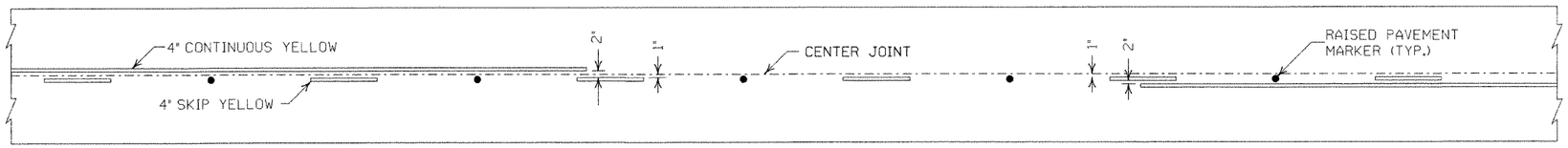


CONCRETE PAVEMENT

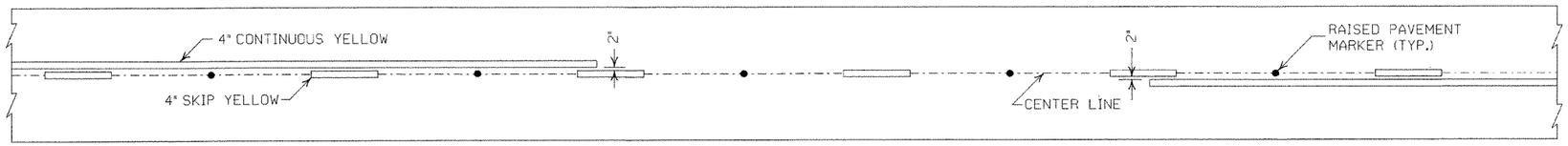


ASPHALT PAVEMENT

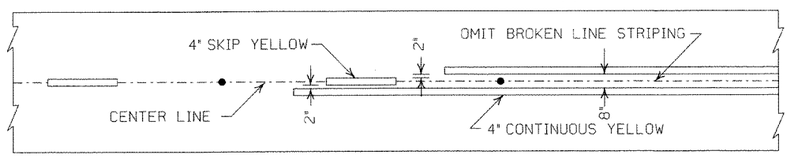
BROKEN LINE STRIPING



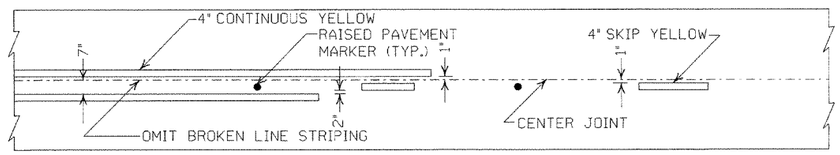
SOLID LINE STRIPING ON CONCRETE PAVEMENT



SOLID LINE STRIPING ON ASPHALT PAVEMENT

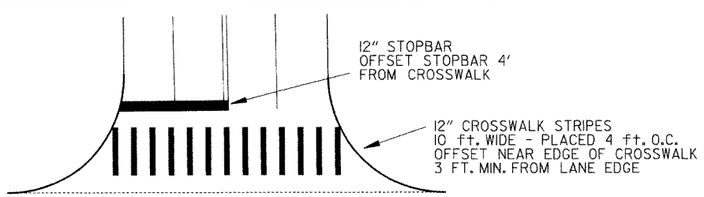


ASPHALT PAVEMENT



CONCRETE PAVEMENT

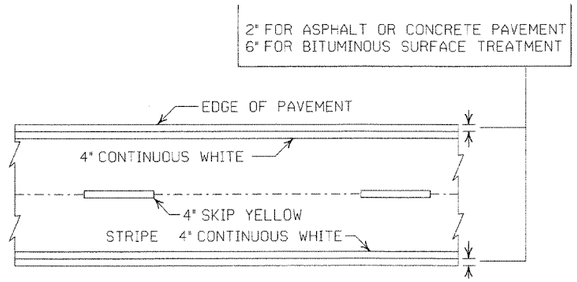
STRIPING AT ADJACENT NO PASSING LANES



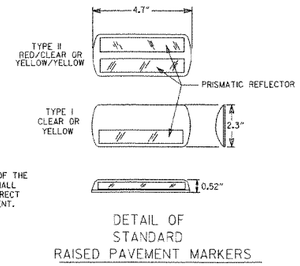
CROSSWALK AND STOPBAR DETAILS

NOTES:

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



PAVEMENT EDGE LINE MARKING



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

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

GENERAL NOTES:

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

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

NOTE:

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

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

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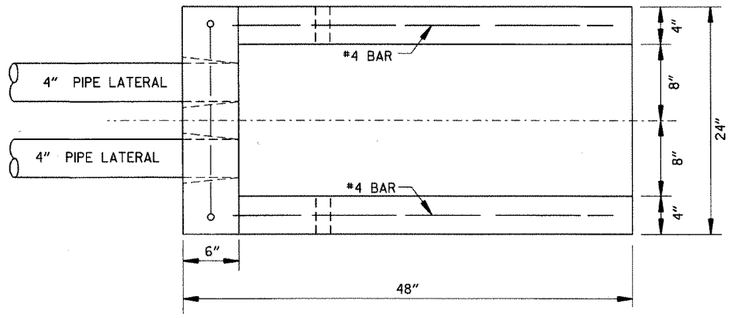
PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

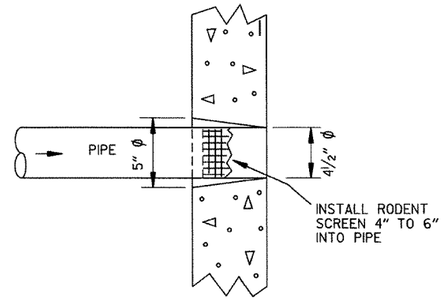
NOTE:
1. GRANULAR BACKFILL TO BE SUBSIDIARY TO PIPE UNDERDRAIN.

2. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.

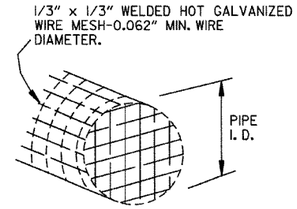
3. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC. LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



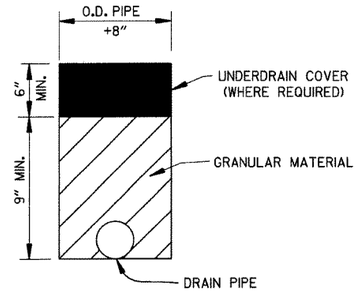
PLAN VIEW

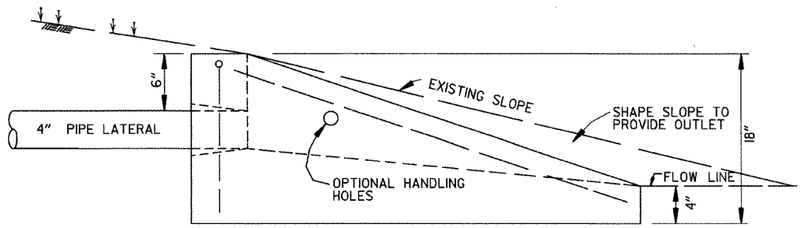


DETAIL OF HOLE FOR 4" PIPE

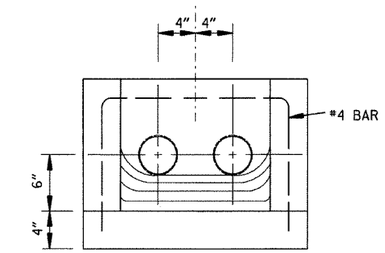


DETAIL OF RODENT SCREEN

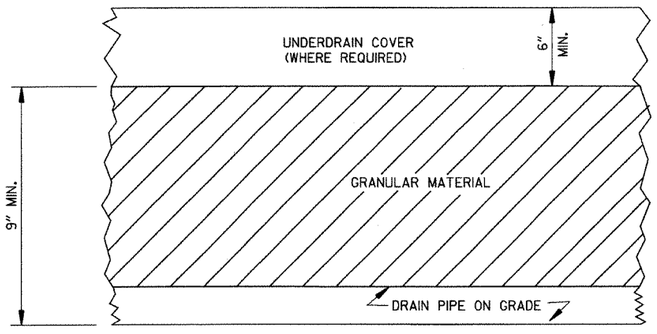




SIDE VIEW

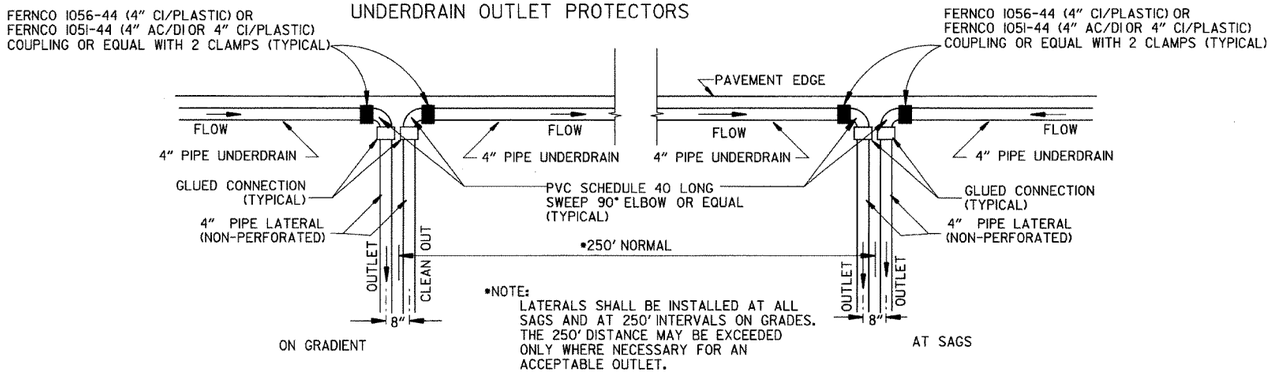


FRONT VIEW



DETAILS OF PIPE UNDERDRAIN

UNDERDRAIN OUTLET PROTECTORS



DETAIL OF PIPE UNDERDRAIN LATERALS WHEN PLACED ALONG PAVEMENT EDGE

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

DATE	REVISION	DATE FILMED
4-10-03	REVISED NOTE 3	
1-12-00	REVISED DETAIL OF UNDERDRAIN LATERALS	
11-18-98	REVISED NOTE	
10-18-96	REVISED MIN. DEPTH & GEOTEXTILE FABRIC	
4-26-96	ADDED LATERAL NOTE; 5½" TO 5"	
11-22-95	REVISED LATERALS	
7-20-95	REVISED LATERALS & ADDED NOTE	
11- 3-94	REVISED FOR DUAL LATERALS	11- 3-94
10- 1-92	SUBSTITUTED GEOTEXTILE	10- 1-92
8-15-91	ADDED POLYEDTHYLENE PIPE	8-15-91
11- 8-90	DELETED ALTERNATE NOTE	11- 8-90
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	11-30-89
7-15-88	ISSUED P.L.M.	647-7-15-88

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DETAILS OF PIPE UNDERDRAIN

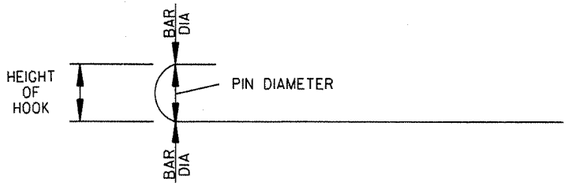
STANDARD DRAWING PU-1

7-20-95 INSTD.PUI

STEEL FABRICATION: REINFORCING STEEL FABRICATION SHALL CONFORM TO THE DIMENSIONS LISTED IN THE TABLE BELOW:

BAR SIZE	PIN DIAMETER	HOOK EXTENSION "K"
3	2¼"	4"
4	3 "	4½"
5	3¾"	5"
6	4½"	6"
7	5¼"	7"
8	6"	8"

IF THE OVERALL HEIGHT OF THE HOOK (SEE DIAGRAM BELOW) FOR A "b", "b1", "b2" or "b3" BENT BAR IS GREATER THAN THE CORRESPONDING TOP OR BOTTOM SLAB THICKNESS, LESS 2¾ INCHES, EACH BENT BAR SHALL BE REPLACED WITH ONE HOOKED BAR AND ONE STRAIGHT BAR, USING LENGTHS AS SHOWN IN THE TABLE BELOW. THE TWO BARS SHALL BE THE SAME DIAMETER AS, AND PLACED AT THE SAME SPACING AS, THE "b", "b1", "b2" OR "b3" BENT BARS THEY REPLACE.



NOTE: DIMENSIONS OF BARS ARE MEASURED OUT TO OUT OF BARS.

OVERALL HEIGHT OF HOOKED BAR DIAGRAM

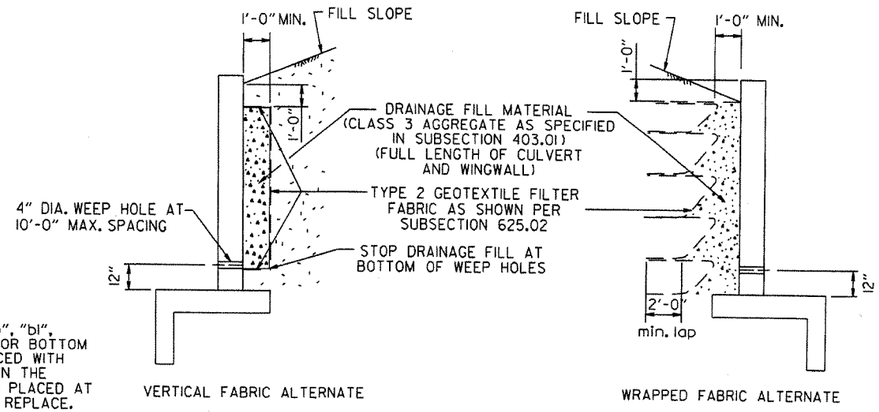
THE HOOKED BARS SHALL BE PLACED IN THE BOTTOM OF THE TOP SLAB AND THE TOP OF THE BOTTOM SLAB. THE STRAIGHT BARS SHALL BE PLACED IN THE TOP OF THE TOP SLAB AND THE BOTTOM OF THE BOTTOM SLAB. SEE TABLE BELOW FOR LENGTHS OF REPLACEMENT HOOKED AND STRAIGHT BARS.

FOR SKEWED CULVERTS, THE REPLACEMENT STRAIGHT BAR MAY HAVE TO BE CUT IN FIELD TO FIT.

REPLACEMENT BAR LENGTHS TABLE

BAR SIZE: "b", "b1", "b2" OR "b3"	LENGTH OF HOOKED BAR	LENGTH OF STRAIGHT BAR
#4	L + 1' - 0"	SEE "c" BAR LENGTH
#5	L + 1' - 2"	SEE "c" BAR LENGTH
#6	L + 1' - 4"	SEE "c" BAR LENGTH
#7	L + 1' - 8"	SEE "c" BAR LENGTH
#8	L + 1' - 10"	SEE "c" BAR LENGTH
#9	L + 2' - 6"	SEE "c" BAR LENGTH

L = "OW" - 3 INCHES



WINGWALL & CULVERT DRAINAGE DETAIL

REINFORCED CONCRETE BOX CULVERT GENERAL NOTES

CONCRETE SHALL BE CLASS S WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3500 PSI.

REINFORCING STEEL SHALL BE AASHTO M 31 OR M 53, GRADE 60.

CONSTRUCTION AND MATERIALS FOR WINGWALL & CULVERT DRAINAGE, INCLUDING WEEP HOLES AND GRANULAR MATERIAL, SHALL BE SUBSIDIARY TO THE BID ITEM, "CLASS S CONCRETE".

MEMBRANE WATERPROOFING SHALL CONFORM TO THE REQUIREMENTS OF SECTION 815 OF THE STANDARD SPECIFICATIONS.

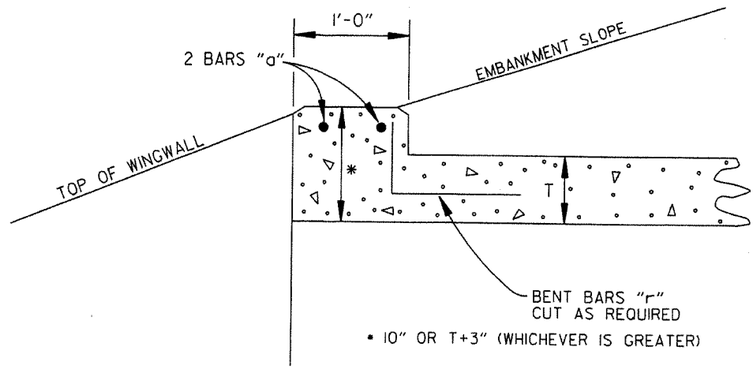
MEMBRANE WATERPROOFING SHALL BE APPLIED TO ALL CONSTRUCTION JOINTS IN THE TOP SLAB AND THE SIDEWALLS OF R.C. BOX CULVERTS AS DIRECTED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THIS ITEM, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS BID FOR THE R.C. BOX CULVERT.

REINFORCING STEEL TOLERANCES: THE TOLERANCES FOR REINFORCING STEEL SHALL MEET THOSE LISTED IN "MANUAL OF STANDARD PRACTICE" PUBLISHED BY CONCRETE REINFORCING STEEL INSTITUTE (CRSI) EXCEPT THAT THE TOLERANCE FOR TRUSS BARS SUCH AS FIGURE 3 ON PAGE 7-4 OF THE CRSI MANUAL SHALL BE MINUS ZERO TO PLUS ½ INCH.

WEEP HOLES IN BOX CULVERT WALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE BOTTOM SLAB.

WEEP HOLES IN WINGWALLS SHALL HAVE A MAXIMUM HORIZONTAL SPACING OF 10'-0" AND SHALL BE SPACED TO CLEAR ALL REINFORCING STEEL. THERE SHALL BE A MINIMUM OF TWO (2) WEEP HOLES IN EACH WINGWALL. THE DRAIN OPENING SHALL BE 4" DIAMETER AND SHALL BE PLACED 12" ABOVE THE TOP OF THE WINGWALL FOOTING.

THE REQUIREMENTS SHOWN ON THIS DRAWING SHALL SUPERCEDE THE CORRESPONDING REQUIREMENTS ON ALL REINFORCED CONCRETE BOX CULVERT STANDARD DRAWINGS.



NOTE: FOR ALL SKEWED R.C. BOX CULVERTS THE LENGTH "K" OF THE MODIFIED HEADWALL SHALL BE EQUAL TO THE ROADWAY LENGTH "RL". THE ENDS OF THE HEADWALL SHALL BE CONSTRUCTED PARALLEL TO THE SKEW ANGLE OF THE BOX CULVERT.

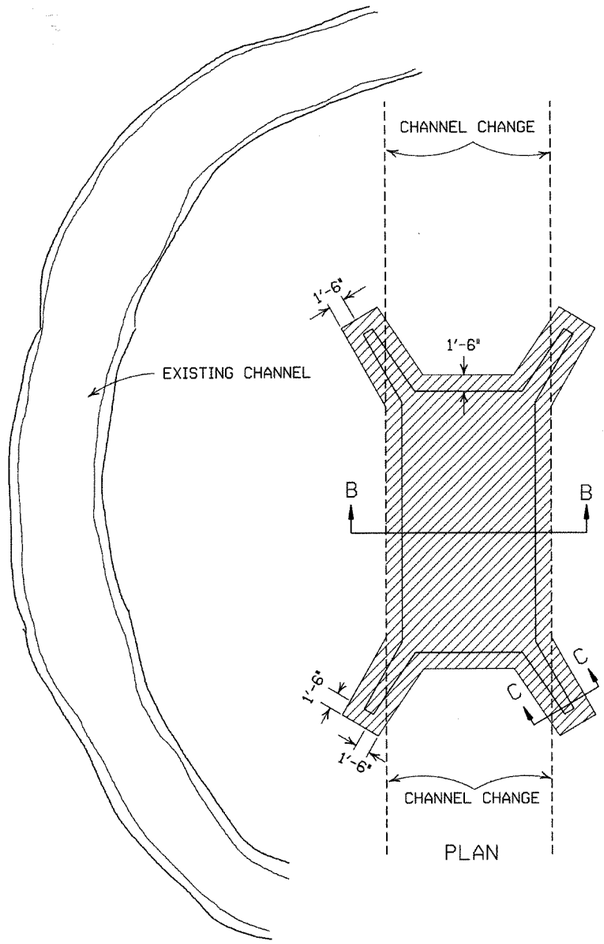
R.C. BOX CULVERT HEADWALL MODIFICATIONS

DATE	REVISION	DATE FILMED
7/26/12	REV. DRAINAGE FILL MATERIAL & DETAIL	
12/15/11	REQUIRE WEEP HOLES IN BOX CULVERT WALLS	
5-25-06	REV. GEN. NOTES AND DETAILS FOR WEEP HOLES; BAR DIAGRAM	
11-16-01	ADDED WINGWALL DRAINAGE DETAIL/EDITED GEN. NOTES	
10-18-96	REV. ASTM REF. TO AASHTO & ADDED BAR DIAGRAM	
10-12-95	MOVED SOLID SODDING DETAIL TO RCB-2	
6-2-94	ADDED SOLID SODDING PLAN DETAIL	
8-5-93	REVISED PIN DIAMETER TO SPECS.	
8-15-91	DRAWN AND ISSUED	

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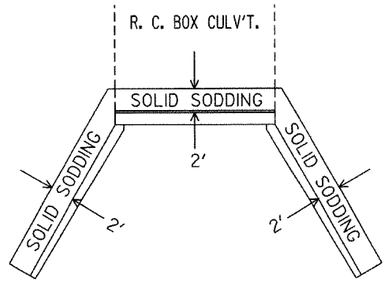
REINFORCED CONCRETE BOX CULVERT DETAILS

STANDARD DRAWING RCB-1



PLAN

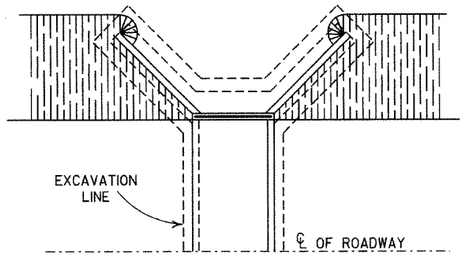
SOLID SODDING



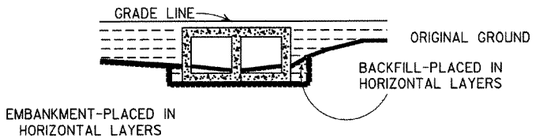
PLAN

PARTIAL SECTION SHOWING SOLID SODDING AT HEADWALLS AND WING WALLS

NOTE: LENGTH MEASURED ALONG THE CENTER OF 2' STRIP OF SOLID SODDING.

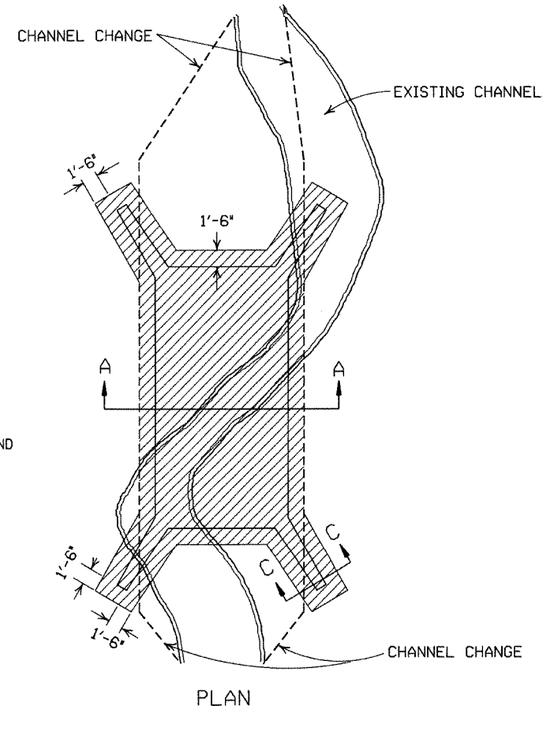


PLAN

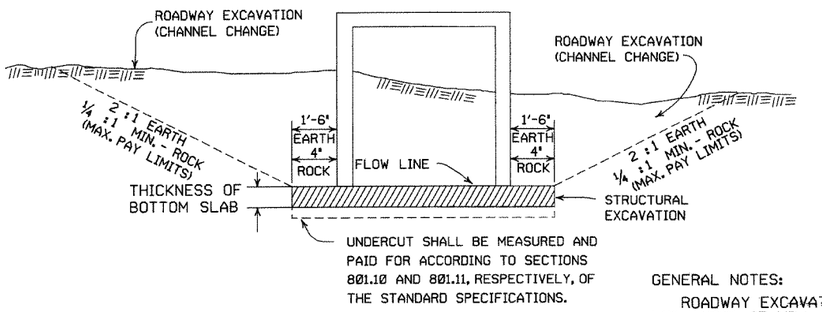


LONGITUDINAL SECTION

BACKFILL DETAILS FOR BOX CULVERT

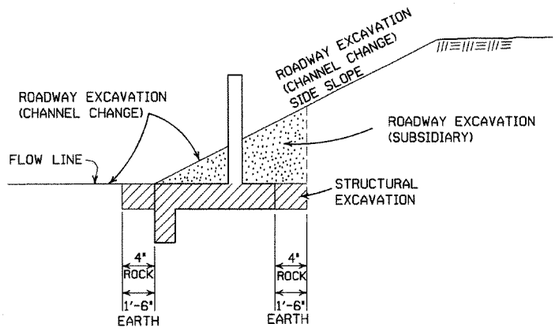


PLAN

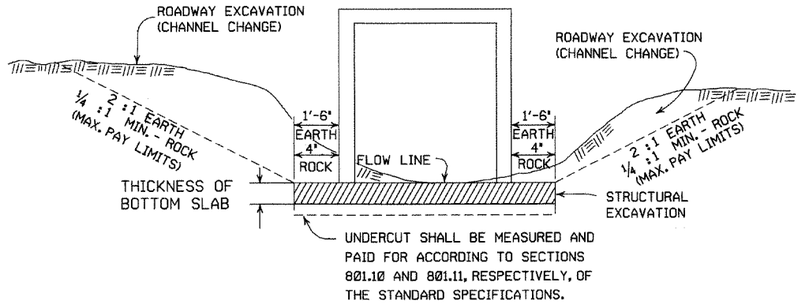


SECTION B-B

DETAILS FOR NEW CHANNELS



SECTION C-C



SECTION A-A

DETAILS THROUGH EXISTING CHANNELS

GENERAL NOTES:

ROADWAY EXCAVATION (CHANNEL CHANGE) WILL BE PAID FOR AT R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS ACTUALLY CUT AND WILL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS ABOVE THE FLOW LINE. ROADWAY EXCAVATION (CHANNEL CHANGE) SHALL BE MEASURED BY CROSS SECTIONS AND VOLUMES COMPUTED BY AVERAGE END AREA METHOD. ALL CHANNEL CHANGES SHALL BE BROUGHT TO GRADE PRIOR TO MAKING ANY EXCAVATION FOR STRUCTURES.

EXCAVATION FOR STRUCTURES WILL BE PAID FOR AT ALL R.C. BOX CULVERT LOCATIONS. IT WILL BE PAID TO THE LIMITS SHOWN AND SHALL BE CONFINED TO THAT PORTION OF THE INDICATED AREA THAT IS BELOW THE CHANNEL FLOW LINE.

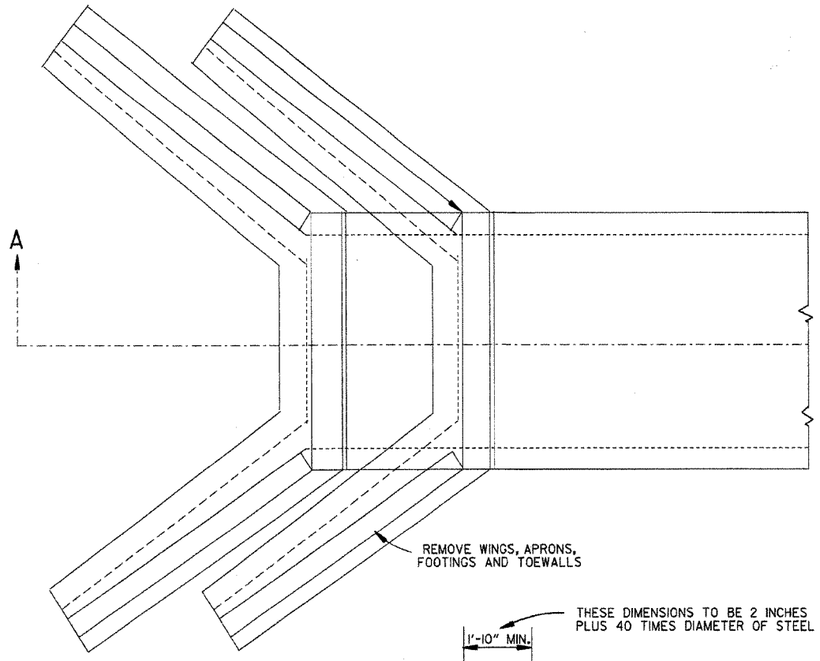
ROADWAY EXCAVATION SHOWN IN SECTION C-C ABOVE AS SUBSIDIARY WILL NOT BE MEASURED OR PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION.

DATE	REVISION	FILMED
11-20-03	REVISED SECTION A-A NOTE	
8-22-02	REVISED SECTION B-B NOTE	
10-12-95	COMBINED 1891B AND 1888A	
1-4-83	REVISED GENERAL NOTES AND ADDED MAXIMUM PAY LIMIT NOTES.	674-1-4-83
2-2-76	EXCAV. PAY LIMITS	917-2-2-76
10-2-72	REVISED AND REDRAWN	564-10-16-72

ARKANSAS STATE HIGHWAY COMMISSION

EXCAVATION PAY LIMITS, BACKFILL, & SOLID SODDING FOR BOX CULVERTS

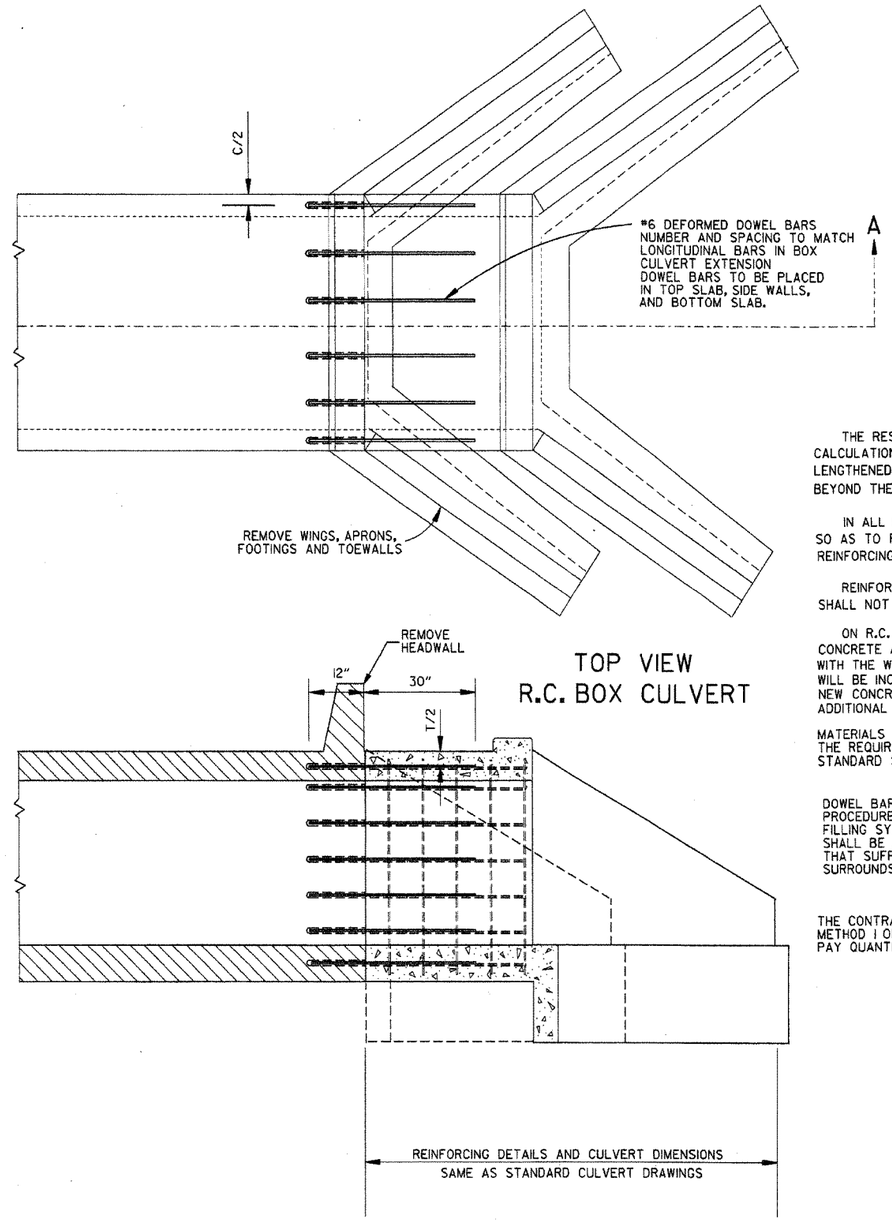
STANDARD DRAWING RCB-2



TOP VIEW
R.C. BOX CULVERT

SECTION A-A

METHOD 1



TOP VIEW
R.C. BOX CULVERT

SECTION A-A

METHOD 2

GENERAL NOTES

	USE FOR METHOD
THE RESIDENT ENGINEER WILL MAKE INDIVIDUAL CALCULATIONS OF QUANTITIES FOR EACH STRUCTURE LENGTHENED, MAKING NO ALLOWANCE FOR OVERBREAKAGE BEYOND THE LINES INDICATED.	1
IN ALL INSTANCES CONCRETE SHALL BE REMOVED SO AS TO PERMIT FULL 40 DIAMETER SPLICE OF REINFORCING STEEL.	1
REINFORCING STEEL REMOVED FROM EXISTING STRUCTURE SHALL NOT BE REUSED IN CONSTRUCTING EXTENSION.	1&2
ON R.C. BOX CULVERTS THAT HAVE AN EXISTING CONCRETE APRON; THE CONCRETE APRON SHALL BE REMOVED WITH THE WINGS. THE COST OF REMOVING ALL OLD CONCRETE WILL BE INCLUDED IN THE PRICE BID PER CUBIC YARD FOR NEW CONCRETE OF THE CLASS SPECIFIED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.	1&2
MATERIALS FOR SECURING DOWEL BARS SHALL MEET THE REQUIREMENTS OF SECTION 507.02 OF THE STANDARD SPECIFICATIONS.	2
DOWEL BARS SHALL BE INSTALLED AS FOLLOWS: THE DRILLING PROCEDURE SHALL BE APPROVED BY THE ENGINEER, THE FILLING SYSTEM SHALL BE APPROVED BY THE ENGINEER, AND SHALL BE AN INJECTION-TYPE SYSTEM WHICH WILL INSURE THAT SUFFICIENT MATERIAL IS INJECTED SO IT COMPLETELY SURROUNDS THE BARS AND FILLS THE HOLES.	2
THE CONTRACTOR SHALL HAVE THE OPTION OF USING EITHER METHOD 1 OR METHOD 2. REGARDLESS OF WHICH METHOD IS USED, PAY QUANTITIES WILL BE CALCULATED BASED ON METHOD 1.	1&2

NOTE:
NO PART OF THIS STANDARD IS TO BE USED FOR ANY DETAILS RELATIVE TO NEW CONSTRUCTION.

SEE STANDARD DRAWING LISTED IN TABULATION OF STRUCTURES FOR ALL NEW CONSTRUCTION DETAILS.

DATE	REVISION	DATE FILM
10-12-95	CHANGED DRAWING # FROM 144-A	
4-1-93	ADDED GENERAL NOTE	
10-1-92	ADDED ALT. METHOD OF EXTENSION	
11-30-89	REDRAWN	
1-4-83	ELIMINATED CONCRETE CLASS	
12-20-56	RETRACED	

ARKANSAS STATE HIGHWAY COMMISSION

METHOD OF EXTENDING EXISTING R.C. BOX CULVERTS

STANDARD DRAWING RCB-3

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	250		0.037	275	
1° 15′	N. C.			R. C.			0.026			0.032			0.037			0.041		350	0.046		350
1° 30′	N. C.			0.021			0.031	200		0.037	225		0.043	250		0.048			0.054		
1° 45′	N. C.			0.025	175		0.036			0.043		350	0.049		350	0.055			0.062		
2° 00′	R. C.			0.028			0.040			0.048			0.055			0.062			0.070		
2° 15′	R. C.			0.031			0.045		300	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	400	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	150		0.040		250	0.057			0.067	230		0.077	260		0.087	315		0.096	350	
3° 15′	0.027			0.043			0.061			0.072	245		0.082	275		0.090	325		0.098	360	450
3° 30′	0.029			0.046			0.065	205		0.076	255		0.086	285		0.095	340	400	0.100	360	
3° 45′	0.031			0.049			0.069	215		0.080	265		0.090	295	400	0.097	345				
4° 00′	0.033			0.051			0.072	225		0.083	270		0.093	305		0.099	350				
4° 30′	0.037			0.056			0.078	240		0.087	280		0.096	315							
5° 00′	0.040			0.061			0.083	250		0.091	295	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′

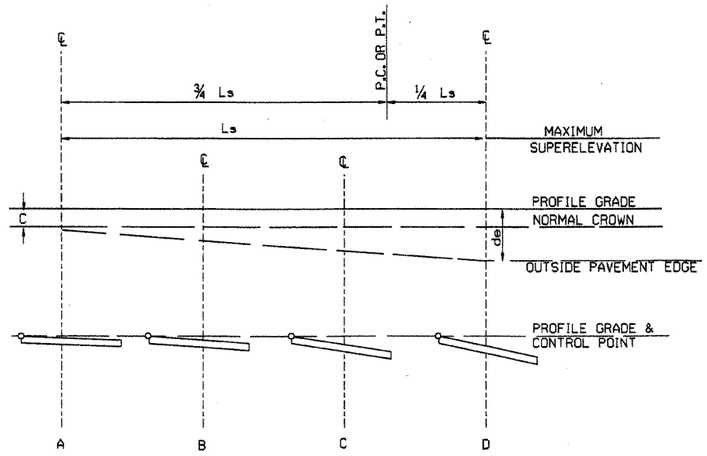
GENERAL NOTES

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 L_s MAY BE ROUNDED IN MULTIPLES OF 25 FT. OR 50 FT. TO PERMIT SIMPLER CALCULATIONS.
4. MINIMUM L_s VALUES MAY BE USED FOR RAMPS; DESIRABLE VALUES SHALL APPLY TO MAIN LANES.
5. DIVIDED PAVEMENTS WIDER THAN 4 LANES SHALL HAVE ADDITIONAL TRANSITION LENGTHS AS FOLOWS;

6 LANE DIVIDED---------+20%
8 LANE DIVIDED---------+50%

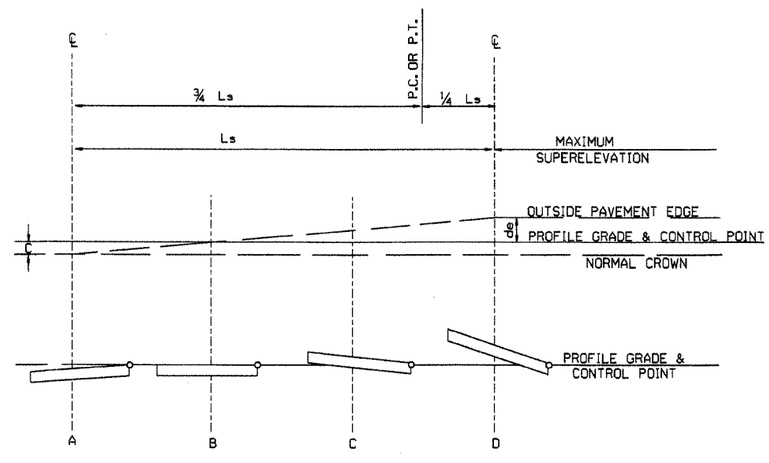
ABBREVIATIONS

NC - NORMAL CROWN
RC - REVERSE CROWN, SUPERELEVATION AT NORMAL CROWN SLOPE
S - SUPERELEVATION
L - DISTANCE FROM BEGINNING OF SUPERELEVATION TRANSITION TO ANY POINT (FT.)
d - WIDTH OF PAVEMENT
e - MAXIMUM RATE OF SUPERELEVATION (FT. PER FT.)
L_s - LENGTH OF SUPERELEVATION TRANSITION (FT.)
C - NORMAL CROWN (FT.)



ONE-WAY TRAFFIC
INSIDE LANE

SUPERELEVATION FORMULA = $S = -\frac{L(de-C)}{L_s} - C$



ONE-WAY TRAFFIC
OUTSIDE LANE

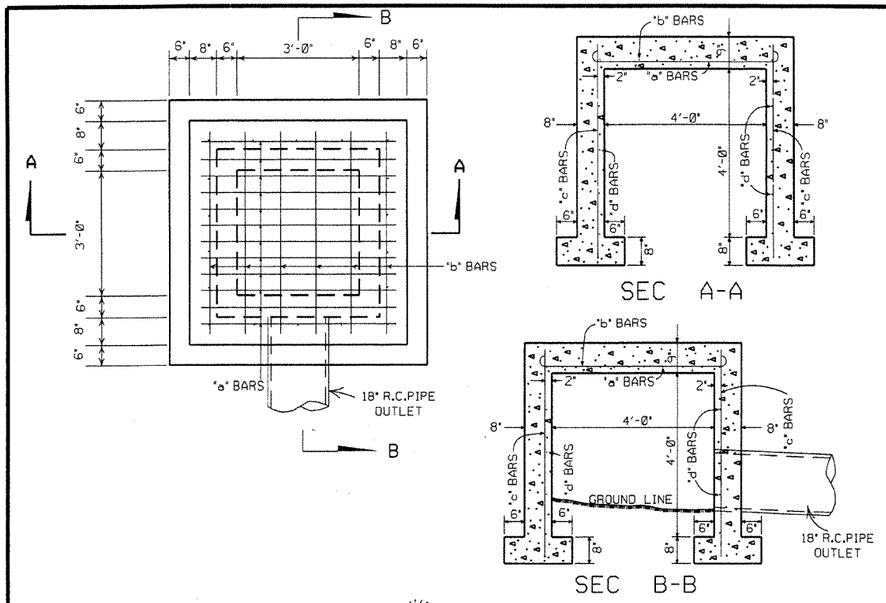
SUPERELEVATION FORMULA = $S = +\frac{L(de+C)}{L_s} - C$

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

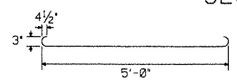
STANDARD DRAWING SE-1



STEEL SCHEDULE

BARS	NUMBER	LENGTH	SPACING
"a"	11	6'-0"	5"
"b"	6	6'-0"	10"
"c"	16	5'-1"	12"
"d"	16	5'-0"	12"

ALL STEEL TO BE #4 BARS



"a" & "b" BARS

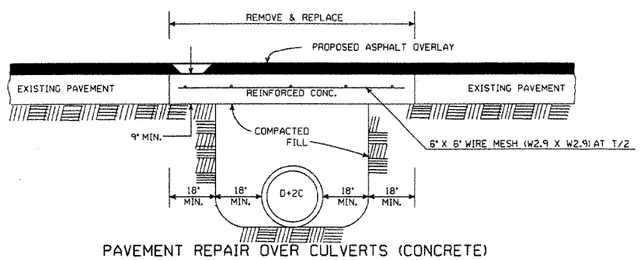
QUANTITIES

CONCRETE 3.40 CU. YDS.
REINFORCING STEEL 176 LB.

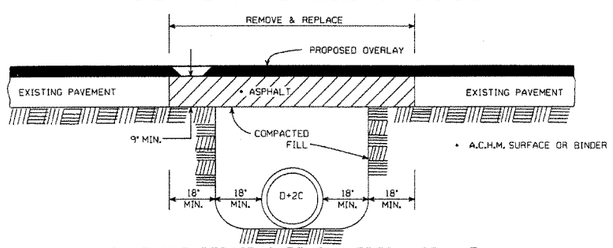
GENERAL NOTE:

THE PAY ITEMS FOR REINFORCED CONCRETE SPRING BOXES SHALL BE FOR THE QUANTITIES OF CONCRETE OF THE CLASS SPECIFIED. REINFORCING STEEL, EXCAVATION FOR STRUCTURES AND 18" R.C. PIPE CULVERT.

REINFORCED CONCRETE SPRING BOX



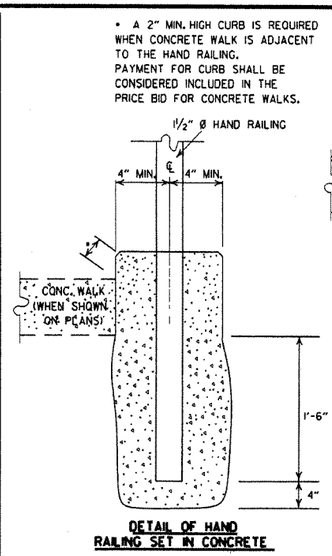
PAVEMENT REPAIR OVER CULVERTS (CONCRETE)



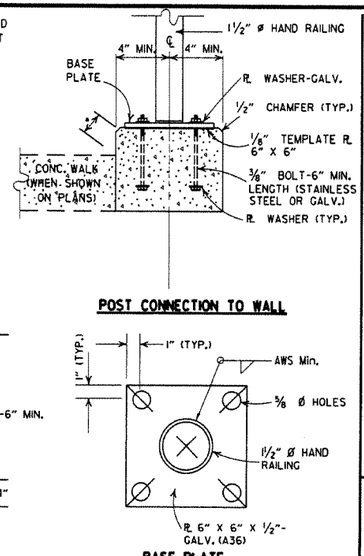
PAVEMENT REPAIR OVER CULVERTS (ASPHALT)

DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS

* 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.



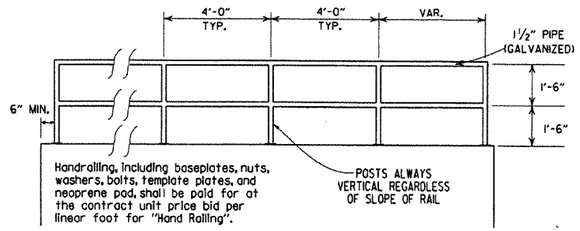
DETAIL OF HAND RAILING SET IN CONCRETE



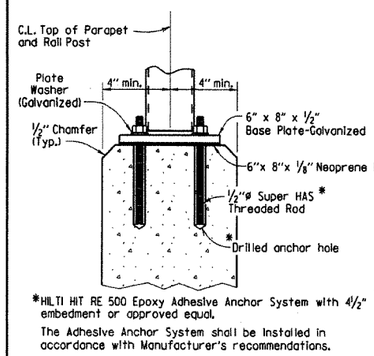
POST CONNECTION TO WALL

BASE PLATE

POST CONNECTION DETAILS



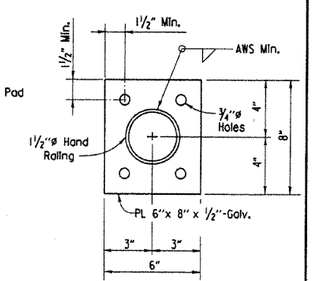
Hand railing shall conform to Section 633.



*HILTI HIT RE 500 Epoxy Adhesive Anchor System with 4½" embedment or approved equal.

The Adhesive Anchor System shall be installed in accordance with Manufacturer's recommendations.

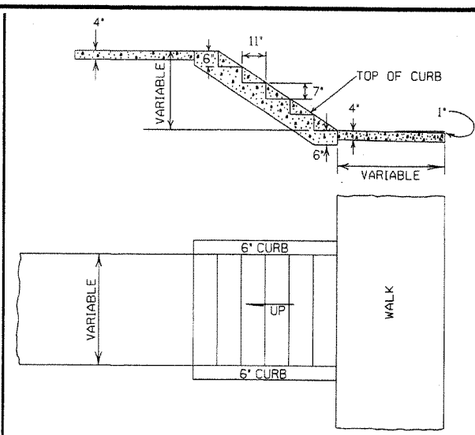
POST CONNECTION TO WALL



BASE PLATE

DETAILS OF ALTERNATE POST ANCHOR SYSTEM
(EPOXY ADHESIVE ANCHORS)

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. 1" TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.

DETAILS OF CONCRETE STEPS & WALKS

DATE	REVISION	DATE FILMED
7-26-12	REMOVED RETAINING WALL DETAILS & REVISED HAND RAILING DETAILS	
4-17-08	REV. JOINT & FOOTING STEP DETAILS	
11-29-07	REVISED RETAINING WALL DRAINAGE	
5-25-06	REVISED PVMT REPAIR OVER CULVERTS (CONC); REVISED REINFORCED CONC SPRING BOX	
10-9-03	REVISED PIPE RAILING DETAILS TO HAND RAILING DETAILS	
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

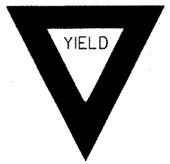
STANDARD DRAWING SI - 1

R1-1



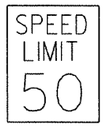
STANDARD 30"X30"
EXPRESSWAY 36"X36"
SPECIAL 48"X48"

R1-2



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

R2-1



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

R2-5A



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

R2-5C



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

R4-1



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

R4-2



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

R5-1



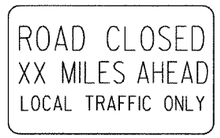
STD. 30"X30"
EXPWY. 36"X36"
SPECIAL 48"X48"

R11-2



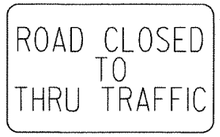
48"X30"

R11-3A



60"X30"

R11-4



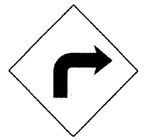
60"X30"

RSP-1



48"X30"

W1-1



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

W1-2



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

W1-3



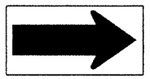
STD. 48"X48"

W1-4



STD. 48"X48"

W1-6



STD. 48"X24"
SPECIAL 60"X30"

W1-8



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

W3-1



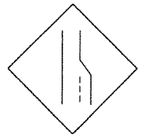
STD. 36"X36"
SPECIAL 48"X48"

W3-2



STD. 36"X36"
SPECIAL 48"X48"

W4-2



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

W5-1



STD. 36"X36"
SPECIAL 48"X48"

W6-3



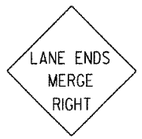
EXPWY. 36"X36"
SPECIAL 48"X48"

W8-7



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

W9-2



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

W13-1



STD. 24"X24"

W20-1



STD. 48"X48"

W20-2



STD. 48"X48"

W20-3



STD. 48"X48"

W20-4



STD. 48"X48"

W20-5



STD. 48"X48"

W20-7a



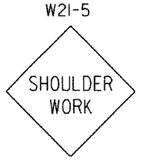
STD. 36"X36"
FWY. 48"X48"

W21-2



STD. 30"X30"
SPECIAL 36"X36"

W21-5



STD. 30"X30"
SPECIAL 36"X36"

W24-1



STD. 36"X36"

W1-4b



STD. 48"X48"

R56-1



STD. 18"X18"

W8-11



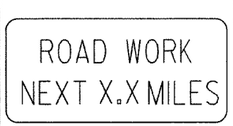
STD. 36"X36"
FWY. 48"X48"

W8-9



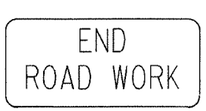
STD. 36"X36"
FWY. 48"X48"

G20-1



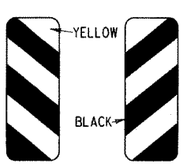
60"X24"

G20-2



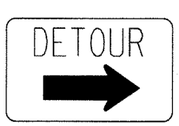
48"X24"

OM-3L OM-3R



12"X36"

M4-9



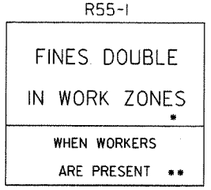
STD. 30"X24"
SPECIAL 48"X36"
SPECIAL 60"X48"

M4-10



48"X18"

R55-1



36"X60"

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

ADVANCE DISTANCES
(XXXX)

500 FT	½ MILE
1000 FT	¾ MILE
1500 FT	1 MILE AHEAD

GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.
2. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER.
3. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED.
- 4. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE.
- 5. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3.
6. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE.
7. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE, EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS.
8. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS.
9. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT.
10. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN.

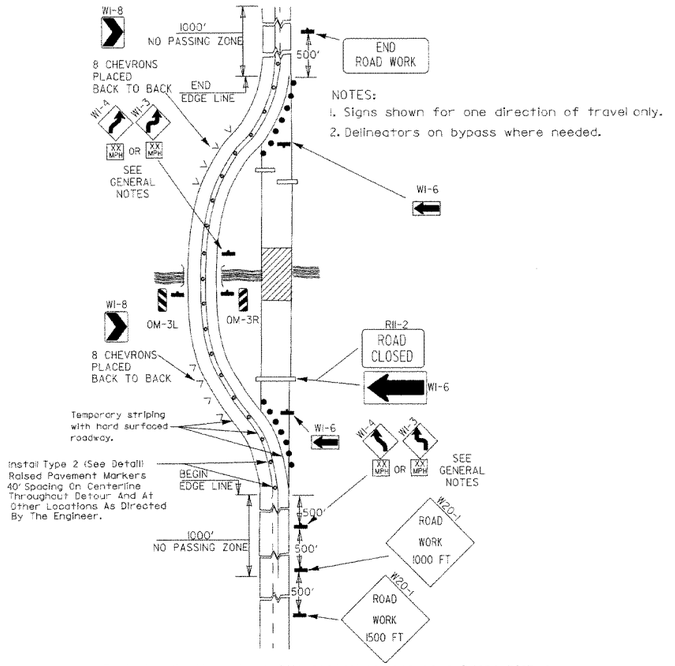
- NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF NCHRP-350 OR MANUAL FOR ASSESSING SAFETY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

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

ARKANSAS STATE HIGHWAY COMMISSION

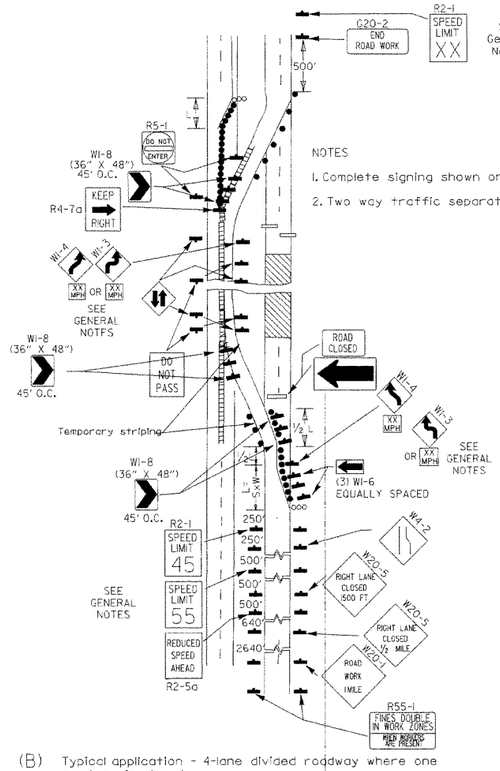
STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

STANDARD DRAWING TC-1



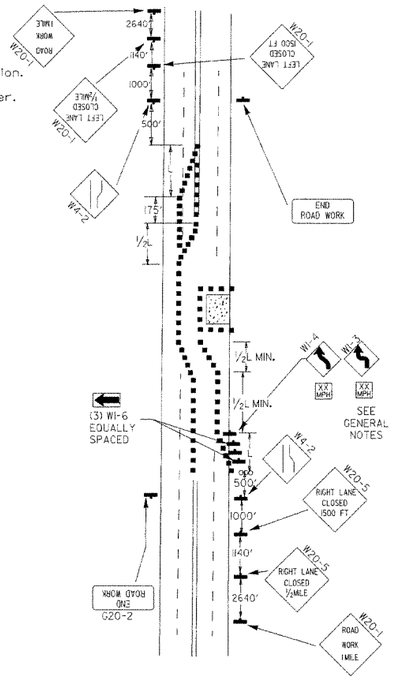
NOTES:
1. Signs shown for one direction of travel only.
2. Delineators on bypass where needed.

(A) Typical application of traffic control devices on a 2-lane highway where the entire roadway is closed and a bypass detour is provided.

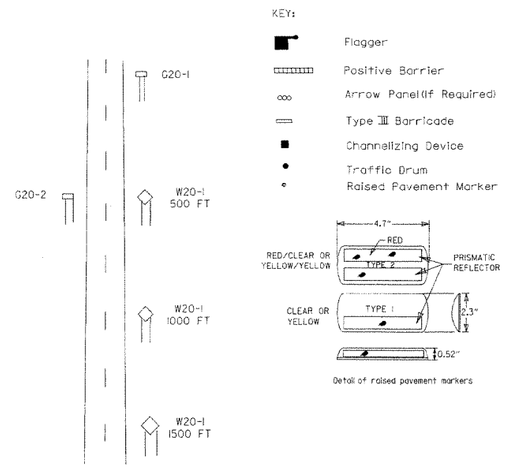


NOTES
1. Complete signing shown only in crossover direction.
2. Two way traffic separated with positive barrier.

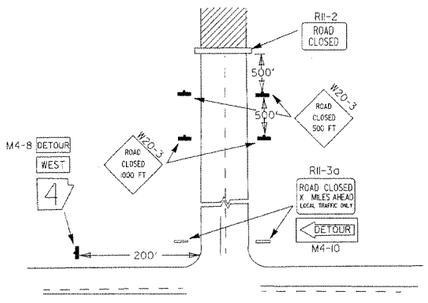
(B) Typical application - 4-lane divided roadway where one roadway is closed.



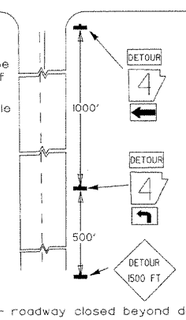
(C) Typical application - 4-lane undivided roadway where half of the roadway is closed.



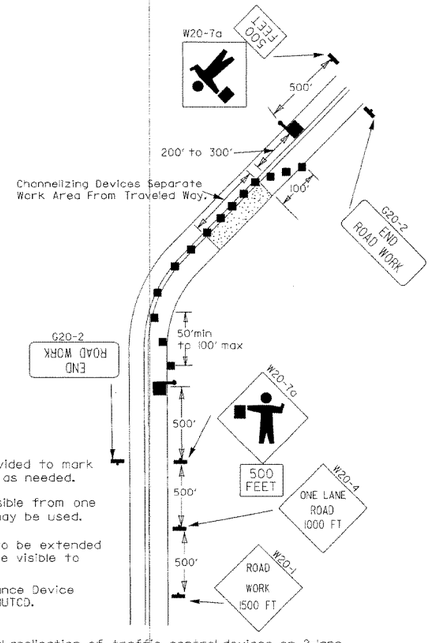
Typical advance warning sign placement



NOTES:
1. Regulatory traffic control devices to be modified as needed for the duration of the detour.
2. Street names may be used when desirable for directing detoured traffic.

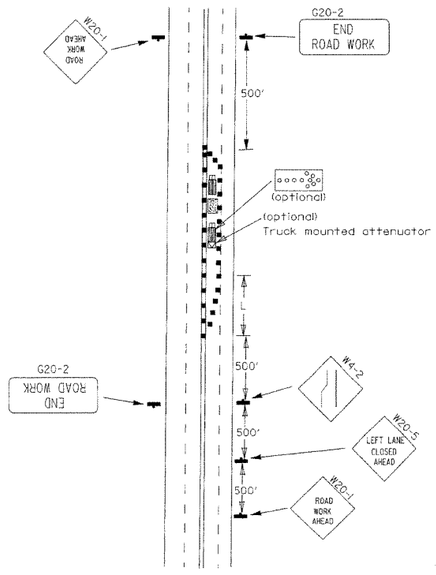


(D) Typical application - roadway closed beyond detour point.



NOTES:
1. Flood lights should be provided to mark flagger stations at night as needed.
2. If entire work area is visible from one station, a single flagger may be used.
3. Channelizing devices are to be extended to a point where they are visible to approaching traffic.
4. Automated Flagger Assistance Device (AFAD) optional. Refer to MUTCD.

(E) Typical application of traffic control devices on 2-lane highway where one lane is closed and flagging is provided.



(F) Typical application - 4-lane undivided roadway with inside lane closed.

Taper formulae:

L=SxW for speeds of 45mph or more.

$L = \frac{WS^2}{60}$ for speeds of 40mph or less.

Where:
L= Minimum length of taper.
S= Numerical value of posted speed limit prior to work or 85th percentile speed.
W= Width of offset.

GENERAL NOTES:

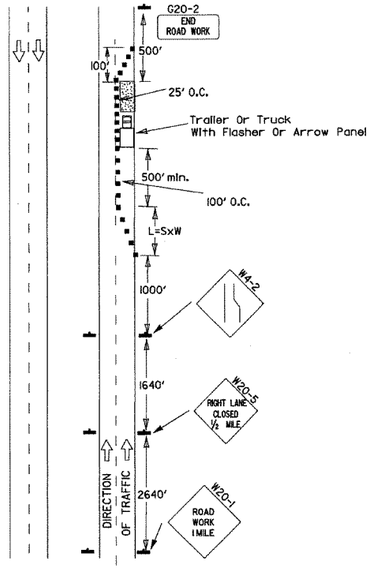
1. Advisory speed posted on W1-3 or W1-4 curve warning signs to be determined at site. Use W1-4 when speed is greater than 30mph and W1-3 when 30mph or less.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional R2-1 45mph speed limit signs shall be installed at a maximum of 1mile intervals. At the end of the work area a R2-1(xx) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(45) shall be omitted. Additional R2-1 55mph speed limit signs shall be installed at a maximum of 1mile intervals. At the end of the work area a R2-1(xx) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit, or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.

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

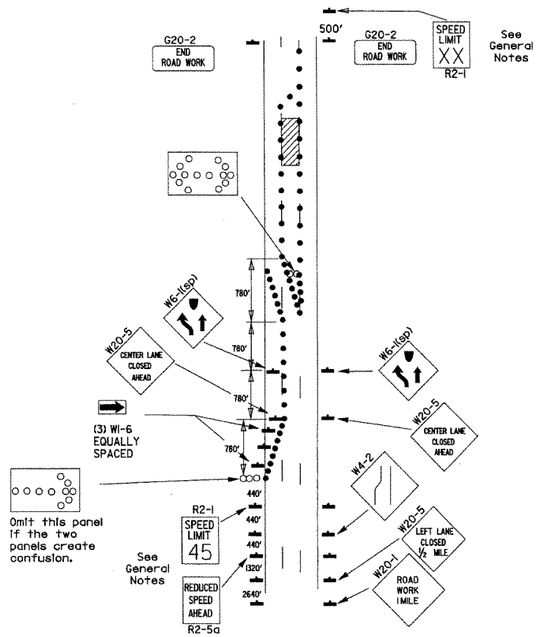
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

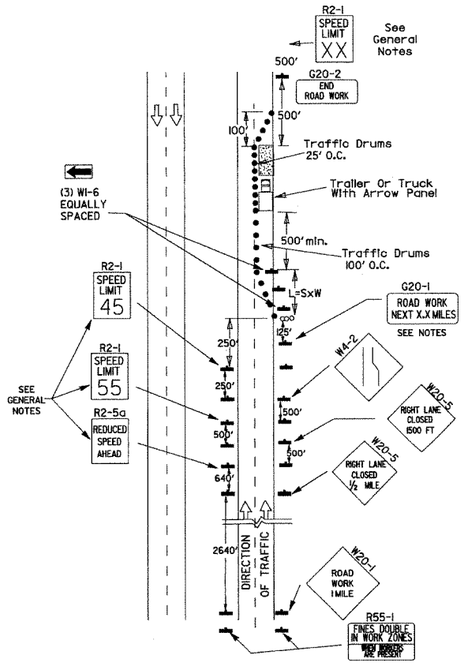
STANDARD DRAWING TC-2



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



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



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

KEY:

○○○ Arrow Panel (If Required)

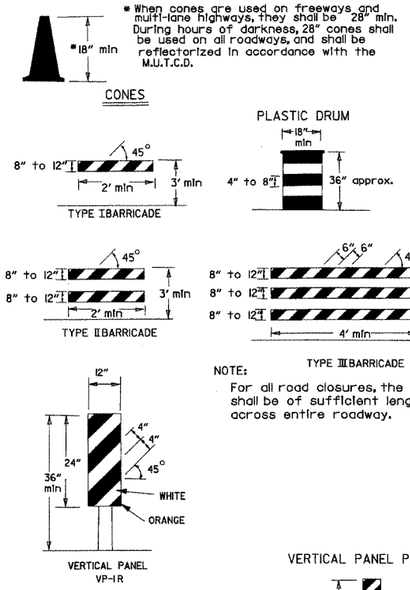
■ Channelizing Device

● Traffic drum

GENERAL NOTES:

1. A speed limit reduction may be implemented ONLY when designated in the plan or when recommended by the Roadway Design Division.
2. When the existing speed limit is 55mph and the plans require a speed limit of 45mph, the R2-1(55) shall be omitted and the R2-5A shall be installed at that location. Additional R2-145mph speed limit signs shall be installed at a maximum of 1mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
3. When the existing speed limit is 65mph and the plans require a speed limit of 55mph, the R2-1(45) shall be omitted. Additional R2-155mph speed limit signs shall be installed at a maximum of 1mile intervals. At the end of the work area a R2-1(XX) shall be installed to match original speed limit.
4. The maximum spacing between channelizing devices in a taper should be approximately equal in feet to the speed limit. Beyond the taper, maximum spacing shall be two times the speed limit or as directed by the Engineer.
5. Warning lights and/or flags may be mounted to signs or channelizing devices at night as needed.
6. Pavement markings no longer applicable which might create confusion in the minds of vehicle operators shall be removed or obliterated as soon as practicable.
7. The G20-1 sign will be required on jobs of over two miles in length. When the lane closure is not at the beginning of the project, the G20-1 sign shall be erected 125' in advance of the job limit. Additional W20-1 (1 MILE) signs are not required in advance of lane closures that begin inside the project limits.
8. Flaggers shall use STOP/SLOW paddles for controlling traffic through work zones. Flags may be used only for emergency situations.
9. All plastic drums and cones shall meet the requirements of NCHRP-350 or Manual For Assessing Safety Hardware (MASH).
10. Trailer mounted devices such as arrow panels and portable changeable message signs shall be delineated by affixing conspicuity material in a continuous line on the face of the trailer. When placed on or adjacent to the shoulder and not behind a positive barrier, these devices shall be delineated by placing five (5) traffic drums, equally spaced along the traffic side of the device.

Channelizing devices

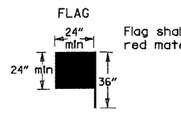


TRAFFIC CONTROL DEVICES
FOR
VERTICAL PAVEMENT DIFFERENTIALS

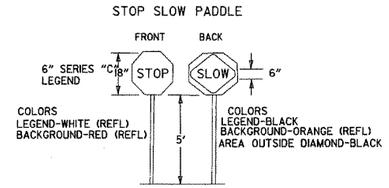
VERTICAL DIFFERENTIAL	LOCATIONS	TRAFFIC CONTROL
1" to 3"	Centerline, lane lines	W8-11
1" to 3"	Edge of shoulder	W8-9
Greater than 3"	Lane lines	Standard lane closure required
Greater than 3"	Edge of traveled lane	*RSP-1 and vertical panels, drums or concrete barrier
Greater than 3"	Edge of shoulder	*Vertical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

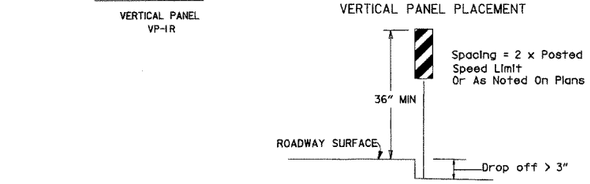
* When shown on the plans concrete barrier will be used.

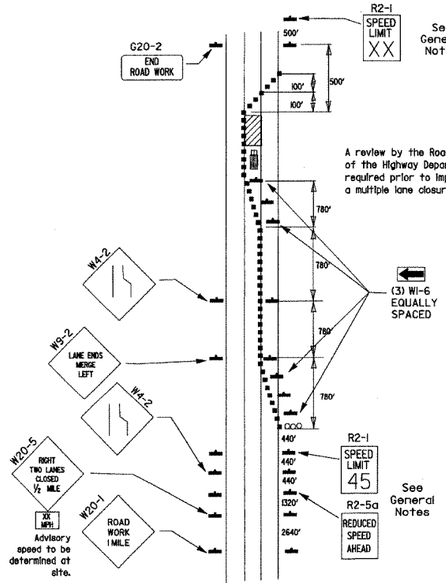
When the shoulder area is used as part of the traveled lane and there is insufficient width to place drums on the remaining shoulder width, then vertical panels shall be used.



Flag shall be of good grade red material





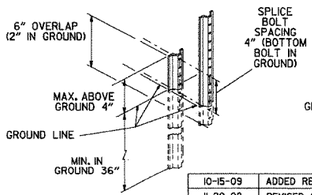


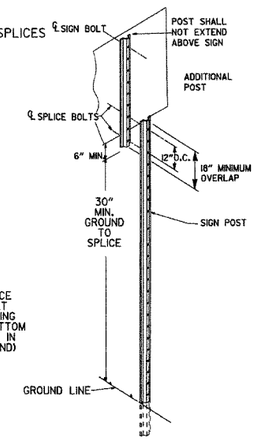
(D) Typical application - closing multiple lanes of a multilane highway.

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

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

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





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

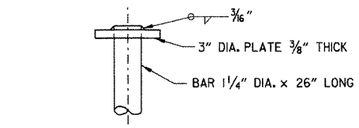
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION

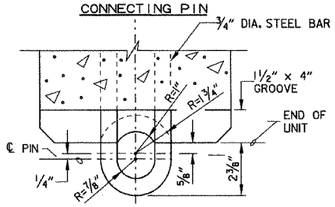
STANDARD DRAWING TC-3

REINFORCING BAR TABLE PER BARRIER UNIT

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

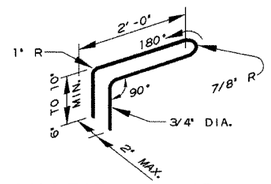


CONNECTING PIN

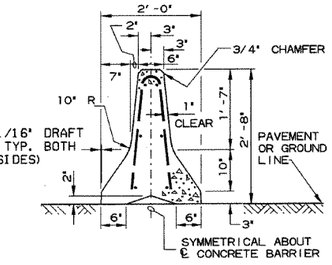


SECTION E-E

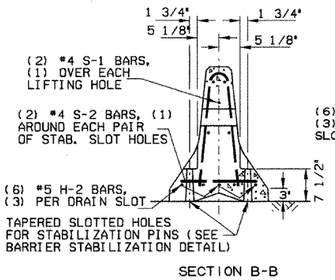
CONNECTION DETAILS



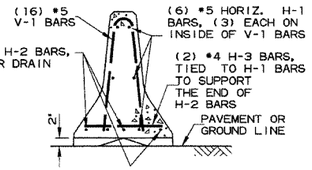
CONNECTION LOOP



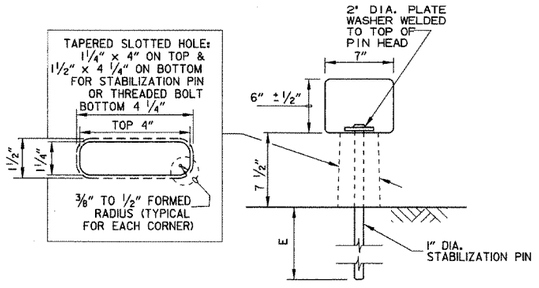
SECTION A-A



SECTION B-B



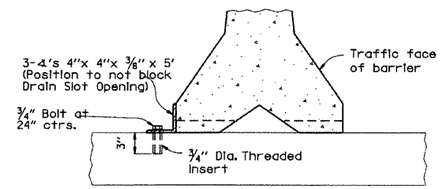
SECTION C-C



BARRIER STABILIZATION DETAIL

ROADWAY SECTION

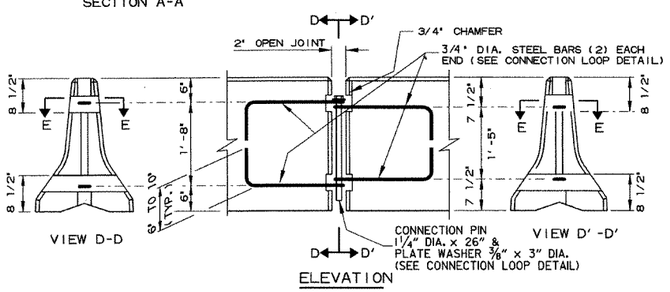
(E) 4" - Concrete Pavement
8" - Asphalt Pavement
12" - Shoulder Areas



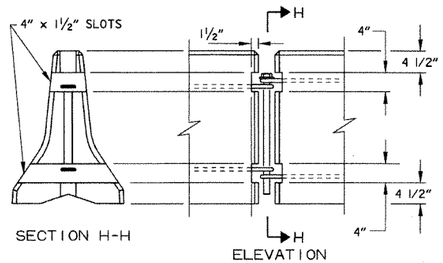
NOTE: 3/4" Threaded Inserts shall be cast in place for all new bridge decks and drilled and grouted for existing bridge decks to be retained. Inserts shall have a minimum ultimate load capacity of 8000 lbs. in tension. After removal of barrier, bolts, and angles, the inserts shall be filled with approved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

BARRIER STABILIZATION DETAIL

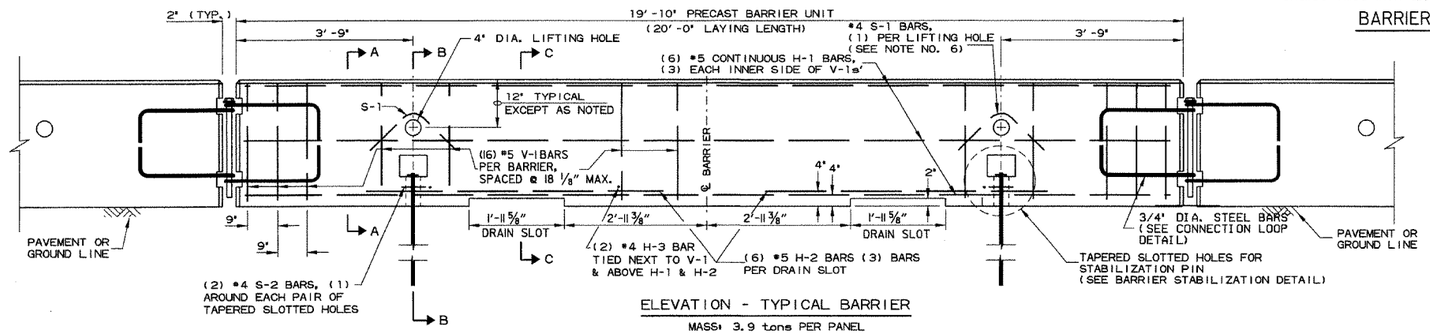
BRIDGE DECKS



ELEVATION



BARRIER REMOVAL SLOT DETAILS



ELEVATION - TYPICAL BARRIER

MASS: 3.9 tons PER PANEL

General Notes

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

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

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

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

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

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

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

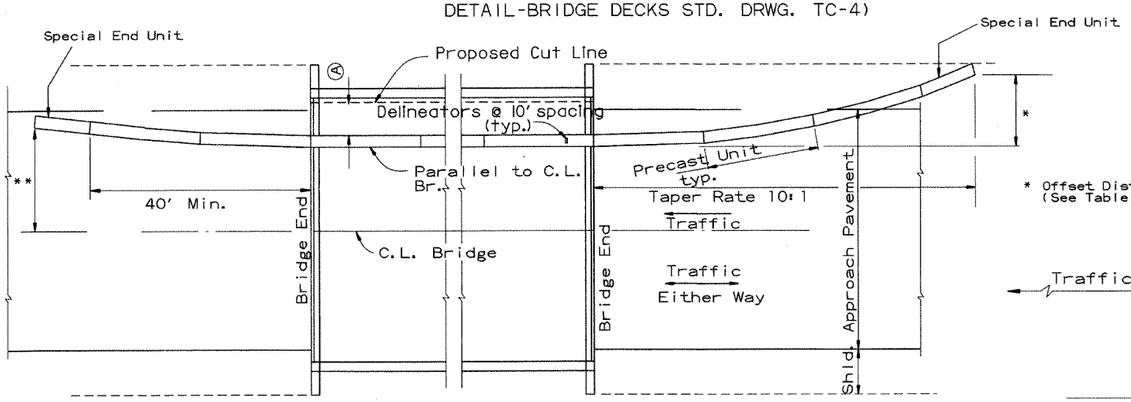
DATE	REVISION	FILMED
10-15-09	ADDED REFERENCE TO MASH	
8-5-09	REV. NOTE 3 CONCERNING DRAIN SLOTS	
11-29-07	REVISED NOTE 3	
5-25-06	DELETED GENERAL NOTE 7	
11-18-04	REVISED BARRIER STABILIZATION DETAIL BRIDGE DECKS	
4-10-03	REVISED GENERAL NOTE 2	
8-22-02	ISSUED NEW DRAWING	

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

STANDARD DRAWING TC-4

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

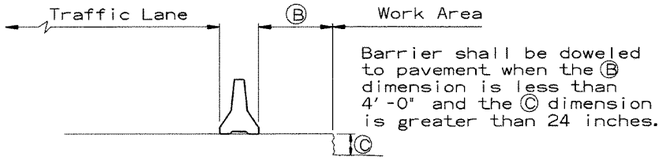


BARRIER PLACEMENT ALONG BRIDGE WITH OFFSET

No Scale

** Offset Distance for Two Way Traffic Only

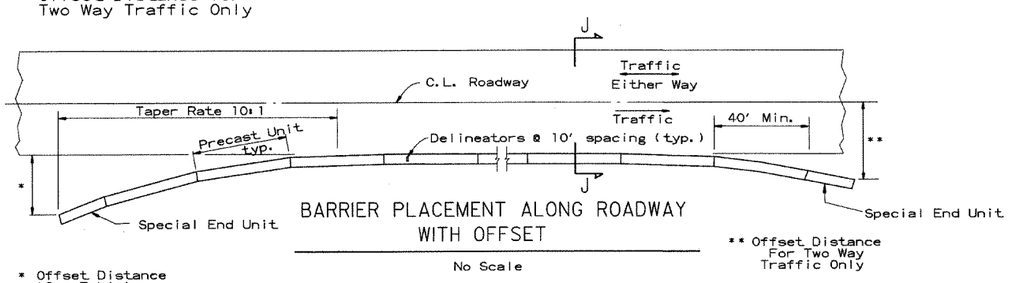
* Offset Distance (See Table)



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

SECTION J-J

No Scale



BARRIER PLACEMENT ALONG ROADWAY WITH OFFSET

No Scale

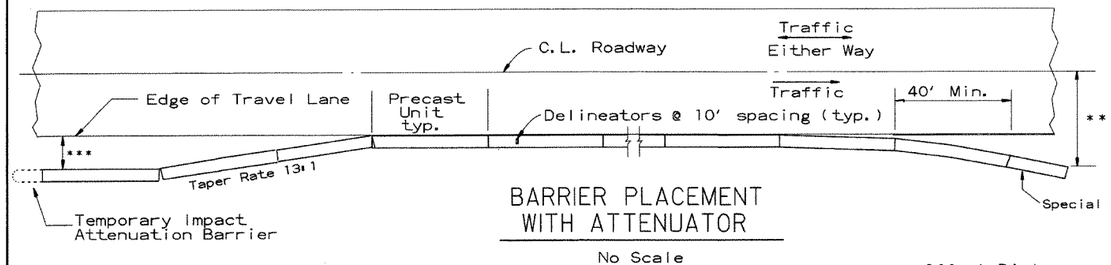
** Offset Distance For Two Way Traffic Only

* 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.

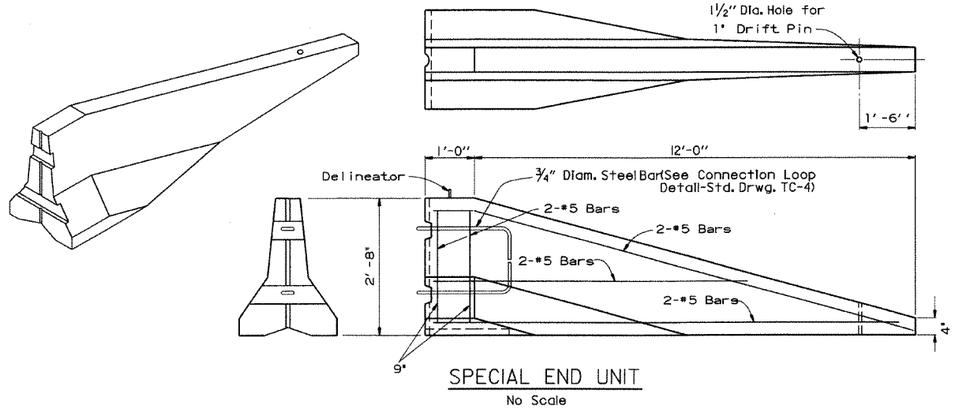


BARRIER PLACEMENT WITH ATTENUATOR

No Scale

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

** Offset Distance For Two Way Traffic Only



SPECIAL END UNIT

No Scale

General Notes

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

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

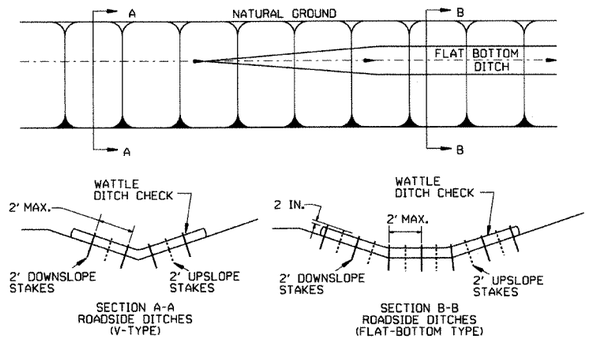
ARKANSAS STATE HIGHWAY COMMISSION

STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION - TEMPORARY PRECAST BARRIER

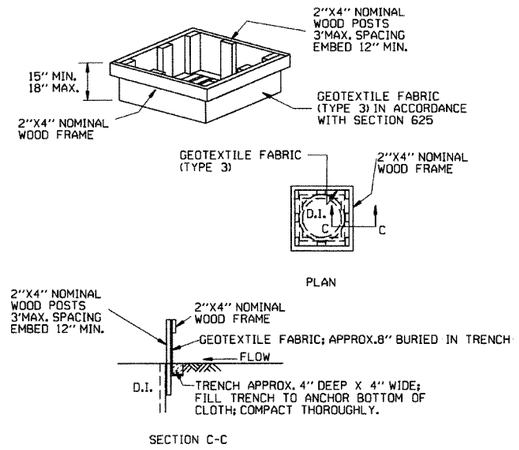
STANDARD DRAWING TC-5

GENERAL NOTES

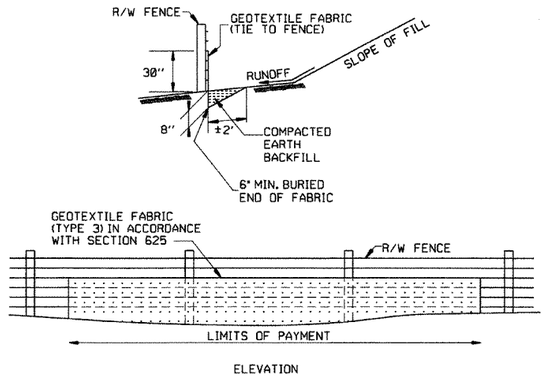
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.



WATTLE DITCH CHECK (E-1)



DROP INLET SILT FENCE (E-7)



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

GENERAL NOTES

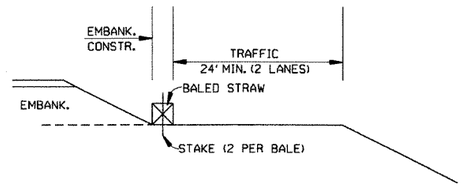
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST, OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

GENERAL NOTES

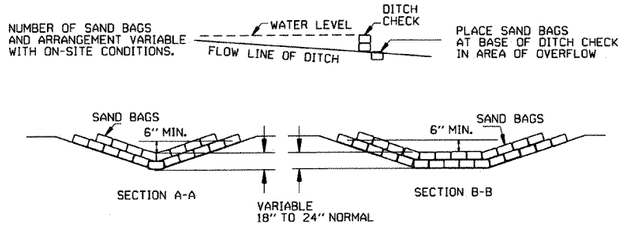
1. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES. THE BALES SHALL BE A MINIMUM OF 30 INCHES IN LENGTH.

2. NO GAPS SHALL BE LEFT BETWEEN BALES.

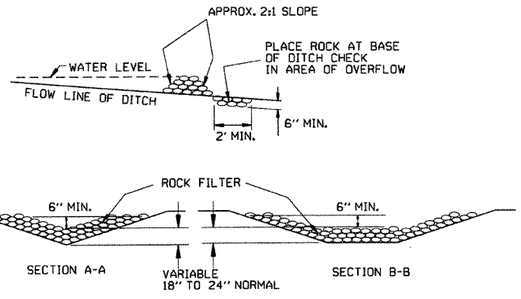
3. BALED STRAW FILTER BARRIERS COMPLETED AND ACCEPTED WILL BE MEASURED BY THE BALE IN PLACE AS AUTHORIZED BY THE ENGINEER AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER BALE FOR BALED STRAW DITCH CHECKS.



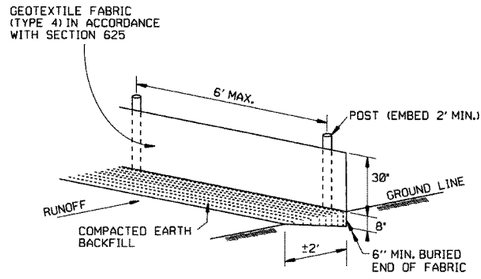
BALED STRAW FILTER BARRIER (E-2)



SAND BAG DITCH CHECK (E-5)



ROCK DITCH CHECK (E-6)



SILT FENCE (E-11)

GENERAL NOTES

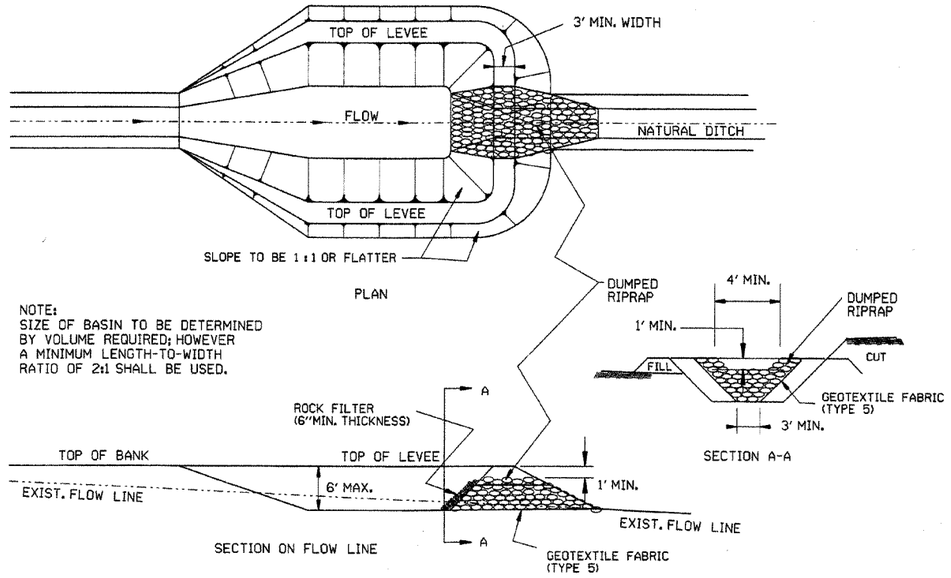
GEOTEXTILE FABRIC SHALL BE SPLICED TOGETHER WITH A SEWN SEAM ONLY AT A SUPPORT POST OR TWO SECTIONS OF FENCE MAY BE OVERLAPPED INSTEAD. PAYMENT OF ADDITIONAL MATERIAL FOR OVERLAP WILL NOT BE MADE.

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

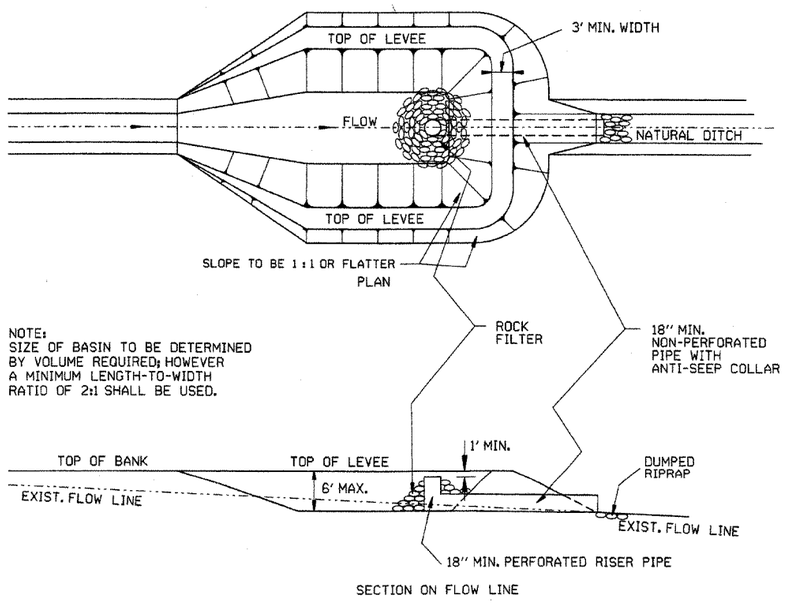
ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

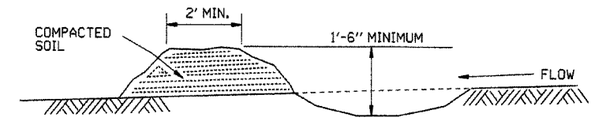
STANDARD DRAWING TEC-1



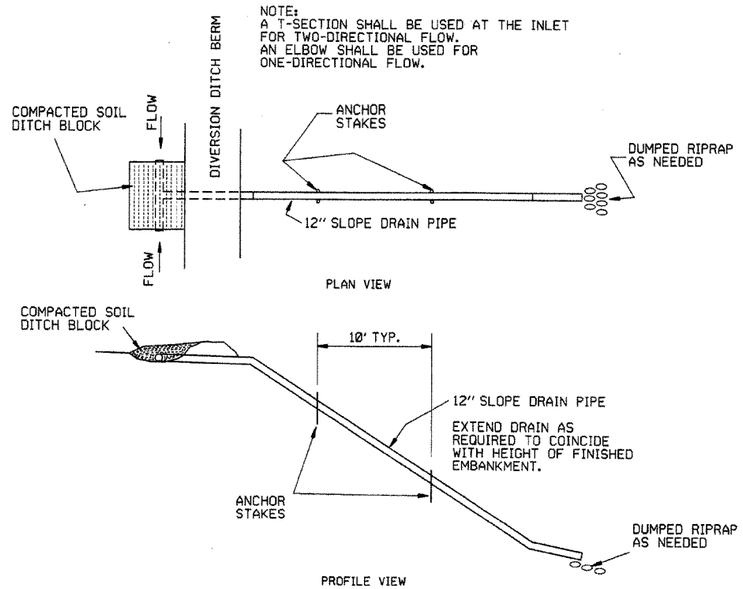
SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)



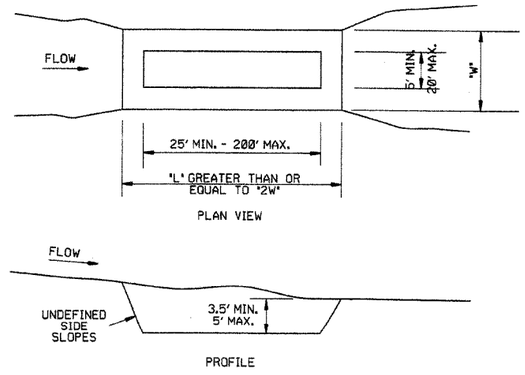
SEDIMENT BASIN WITH PIPE OUTLET (E-10)



DIVERSION DITCH (E-8)



SLOPE DRAIN (E-12)



SEDIMENT BASIN (E-14)

DATE	REVISION	FILMED
6-2-94	Revised E-8 & E-12; Added E-14 & Deleted E-13	
4-1-93	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION

TEMPORARY EROSION CONTROL DEVICES

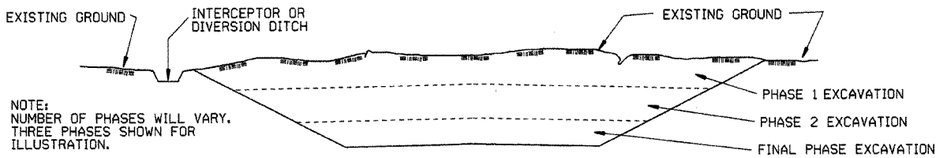
STANDARD DRAWING TEC-2

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES , DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION



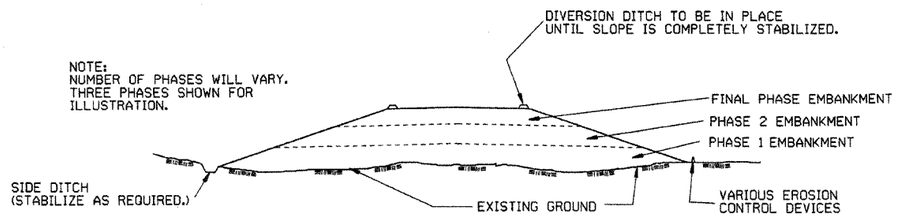
GENERAL NOTE

ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

1. EXCAVATE AND STABILIZE INTERCEPTOR AND/OR DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING.
4. PERFORM FINAL PHASE OF EXCAVATION. PLACE PERMANENT OR TEMPORARY SEEDING. STABILIZE DITCHES. CONSTRUCT DITCH CHECKS, DIVERSION DITCHES, SEDIMENT BASINS, OR OTHER EROSION CONTROL DEVICES AS REQUIRED.

EMBANKMENT



GENERAL NOTE

ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

CONSTRUCTION SEQUENCE

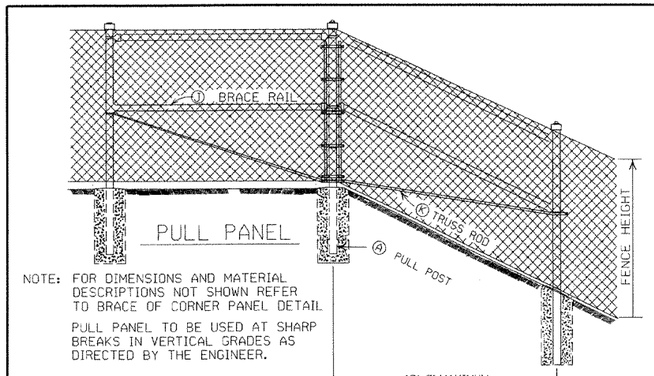
1. CONSTRUCT DIVERSION DITCHES, DITCH CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PROVIDE DIVERSION DITCHES AND SLOPE DRAINS IF EMBANKMENT CONSTRUCTION IS TO BE TEMPORARILY ABANDONED FOR A PERIOD OF GREATER THAN 21 DAYS.
4. PLACE FINAL PHASE OF EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING. PLACE DIVERSION DITCHES AND SLOPE DRAINS AND MAINTAIN UNTIL ENTIRE SLOPE IS STABILIZED.

11-03-94	CORRECTED SPELLING	
6-2-94	Drawn & Issued	6-2-94
DATE	REVISION	FILMED

ARKANSAS STATE HIGHWAY COMMISSION

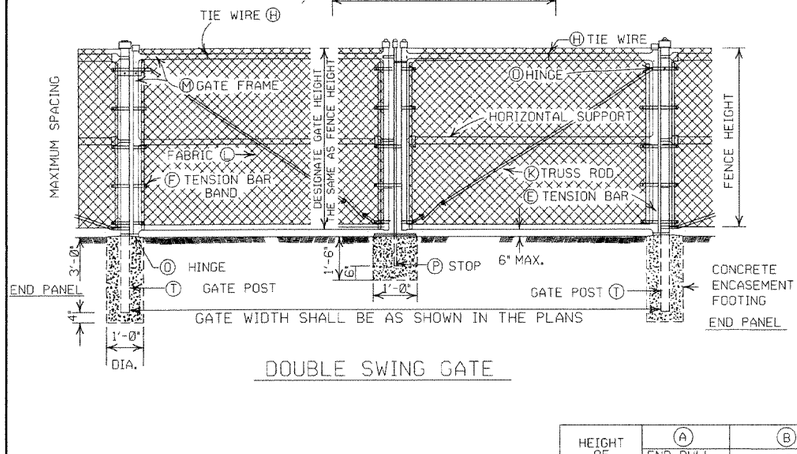
TEMPORARY EROSION CONTROL DEVICES

STANDARD DRAWING TEC-3



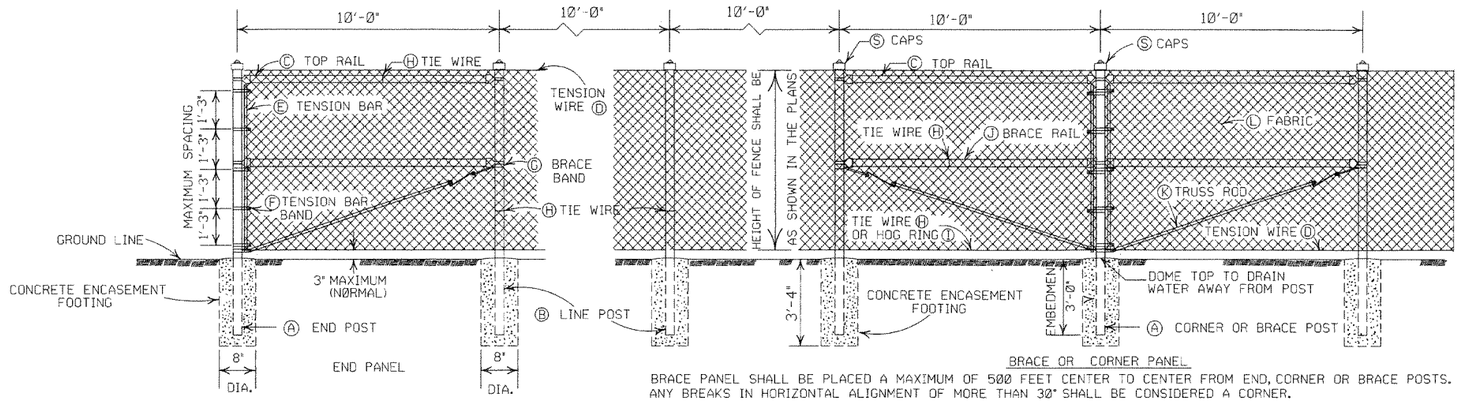
NOTE: FOR DIMENSIONS AND MATERIAL DESCRIPTIONS NOT SHOWN REFER TO BRACE OF CORNER PANEL DETAIL

PULL PANEL TO BE USED AT SHARP BREAKS IN VERTICAL GRADES AS DIRECTED BY THE ENGINEER.



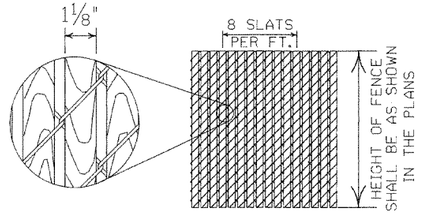
DOUBLE SWING GATE

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)

GENERAL NOTES:

(C) CHAIN LINK FENCE BEING PLACED ON PRIVATE PROPERTY SHALL INCLUDE A TOP RAIL. ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE BID PER LIN. FT. OF CHAIN LINK FENCE.

(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.

(D) 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.

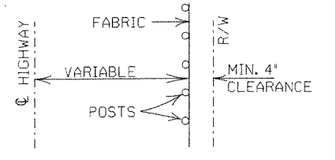
HEIGHT OF FENCE FABRIC	(A) END, PULL CORNER OR BRACE POST	(B) LINE POSTS SIZE	(B) LINE POSTS TIE SPACING	(C) TOP RAIL SIZE	(C) TOP RAIL TIE SPACING	(C) TOP RAIL MIN. LENGTH	(D) TENSION WIRE SIZE	(D) TENSION WIRE TIE SPACING	(E) TENSION BAR SIZE	(E) TENSION BAR LENGTH	(F) TENSION BAR BAND SIZE	(F) TENSION BAR BAND BOLT SIZE	(F) TENSION BAR BAND SPACING	(G) BRACE BAND SIZE	(G) BRACE BAND BOLT SIZE
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	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.	3" O.D.	2½" O.D.													

HEIGHT OF FENCE FABRIC	(H) TIE WIRE	(I) HOG RING	(J) BRACE RAIL SIZE	(J) BRACE RAIL TIE SPACING	(K) TRUSS ROD	(L) FABRIC SIZE	(L) FABRIC MESH	(L) FABRIC SELVAGE	(M) GATE FRAME SIZE	(M) GATE FRAME TIE SPACING	(N) HORIZONTAL SUPPORT SIZE	(N) HORIZONTAL SUPPORT TIE SPACING	(O) HINGE TYPE 180° SWING	(T) GATE POST GATE WIDTH 12' AND LESS	(T) 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 ⅜" 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 0.192" IN DIAMETER. MINIMUM THICKNESS OF MATERIAL FROM WHICH EXPANSION SLEEVES SHALL BE MADE WILL BE 0.078". 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

POSTS AND RAILS

SIZE O.D.	GRADE 1 AND ALUMINUM ALLOY O.D. INCHES	WALL THICKNESS	LBS. PER LINEAR FT. STEEL	LBS. PER LINEAR FT. ALUMINUM	GRADE 2 O.D. INCHES	WALL THICKNESS	LBS. PER LINEAR FT.
1⅝	1.660	0.140	2.27	0.786	1.660	0.111	1.84
2	1.900	0.145	2.72	0.940	1.900	0.120	2.28
2½	2.375	0.154	3.65	1.264	2.375	0.130	3.11
3	2.875	0.203	5.79	2.004	2.875	0.160	4.64
3½	3.500	0.216	7.58	2.621	3.500	0.160	5.71
4	4.000	0.226	9.11	3.151	4.000	0.160	6.56

TOLERANCES ON DIMENSIONS AND WEIGHTS ACCORDING TO AASHTO M 181

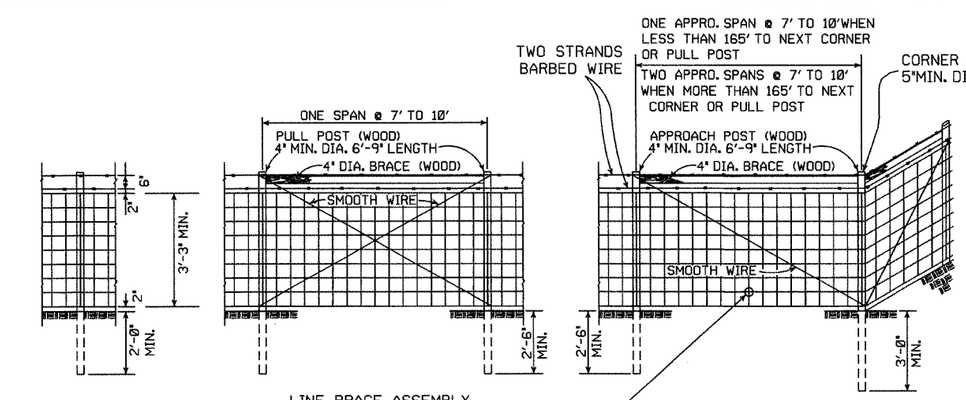
DATE	REVISION	FILMED
11-17-10	REVISED TRUSS ROD	
12-10-09	REVISED POSTS & RAILS TABLE	
5-21-09	ADDED TABLE & GEN. NOTE (C)	
8-22-02	REVISED NOTES, REMOVED TABLE, & REMOVED FENCE ALTERNATE	
4-3-97	REVISED BRACE RAIL NOTE	
10-18-96	REVISED AASHTO & ASTM REF.	
11-3-94	REVISED NOTE (L)	
10-1-92	DELETED ALTERNATE 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

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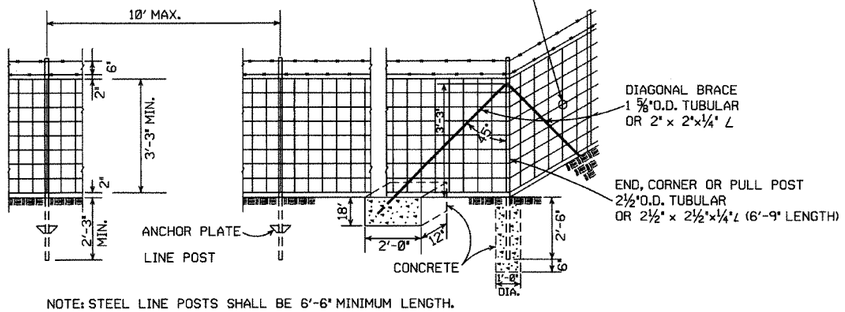
CHAIN LINK FENCE

STANDARD DRAWING WF-3

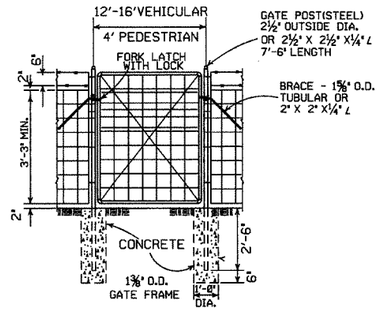
TYPE C FENCE (WOOD POSTS)

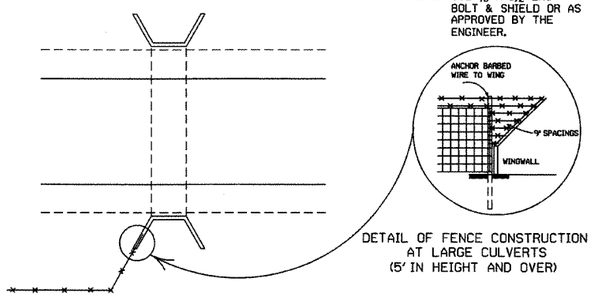


OTHER APPROVED TIES
WILL BE PERMITTED



NOTE: STEEL LINE POSTS SHALL BE 6'-6" MINIMUM LENGTH.





DETAIL OF FENCE CONSTRUCTION
AT LARGE CULVERTS
(5' IN HEIGHT AND OVER)

GENERAL NOTES:

STEEL LINE POSTS SHALL BE PAINTED OR GALVANIZED.
TUBULAR END, CORNER, PULL, OR DIAGONAL BRACES MUST CONFORM TO THE DIMENSIONS AND WEIGHTS SPECIFIED ON STANDARD DRAWING WF-3 (CHAIN LINK). APPROVED ALTERNATES ARE ACCEPTABLE.
AN ACCEPTABLE TOLERANCE IN LENGTH OF TUBULAR OR WOODEN POSTS SHALL BE - 1" TO +2".
TUBULAR POSTS MUST BE PAINTED OR GALVANIZED.

THE CONTRACTOR SHALL FURNISH AT LEAST 25% OF TIMBER LINE POSTS OF 7 FOOT LENGTHS IN ORDER TO PROVIDE SUFFICIENT SET IN SOFT GROUND OR SMALL DEPRESSIONS.

DRIVEWAY GATES, EITHER SINGLE 12' TO 16' OR DOUBLE 6' TO 8' OPENING OF THE SAME TYPE AS THE PEDESTRIAN GATE, SHALL BE INSTALLED ON THE RIGHT SIDE OF EACH THROUGH LANE ROAD AT LARGE CULVERTS OR BRIDGE CROSS FENCE, FOR USE OF MAINTENANCE EQUIPMENT. LOCATION OF GATES TO BE SHOWN ON PLANS OR AS DESIGNATED BY THE ENGINEER.

AT STREAM CROSSINGS, THE FENCE SHALL NOT BE CONSTRUCTED ACROSS LARGE STREAMS. WHERE CLEARANCE IS SUFFICIENT FROM THE TOP OF THE BANK TO THE BRIDGE STRUCTURE A CROSS CONNECTION SHALL BE CONSTRUCTED BETWEEN THE FENCE ON EACH SIDE OF THE ROAD. WHERE THE CLEARANCE IS NOT SUFFICIENT, THE FENCE SHALL BE TERMINATED WITH CROSS CONNECTIONS AND END POSTS ADJACENT TO BRIDGE ABUTMENTS OR CULVERT WINGWALLS.

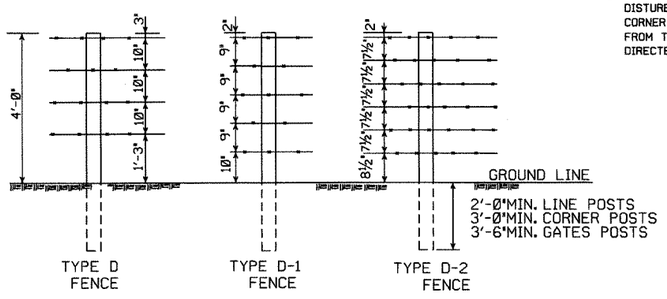
SPLICE FOR BARBED WIRE BETWEEN PULL POST ASSEMBLY SHALL BE BY THE "EYE METHOD" AS DESCRIBED AS FOLLOWS: THE ENDS OF THE BARBED WIRE SHALL BE BENT TO FORM A LOOP. THE LOOPS SHALL BE CONNECTED. AFTER THE LOOPS ARE CONNECTED THE ENDS OF THE WIRE SHALL BE WRAPPED AROUND THE PROJECTING WIRES A MINIMUM OF 4 TIMES FOR EACH WIRE LOOP.

SPLICE FOR WOVEN WIRE BETWEEN PULL POST SHALL BE BY THE "WESTERN UNION METHOD" AS DESCRIBED AS FOLLOWS: THE VERTICAL WIRES FOR EACH END OF THE FENCE FABRIC SHALL BE PLACED SIDE BY SIDE AND THE PROJECTING HORIZONTAL WIRES SHALL BE WRAPPED A MINIMUM OF 4 TIMES AROUND THE HORIZONTAL WIRES OF THE FIRST WEB.

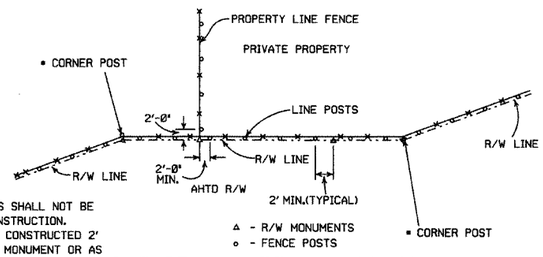
STAPLE AT LEAST TOP, BOTTOM AND ALTERNATE WIRES OF WOVEN FABRIC FOR WOOD LINE POSTS.

TYPE C FENCE (STEEL POSTS)

4 STRANDS BARBED WIRE (D)
5 STRANDS BARBED WIRE (D-1)
6 STRANDS BARBED WIRE (D-2)

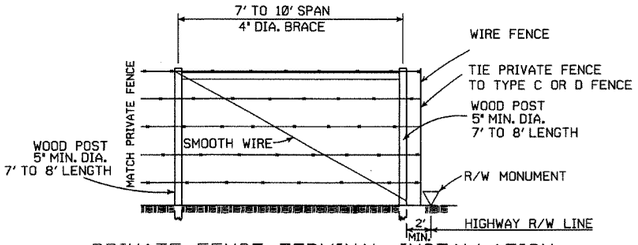


NOTE: SPACING AND SIZE (EXCEPT LENGTH) OF POSTS, APPROACH SPANS, PULL POST ASSEMBLIES, AND CORNER BRACING FOR TYPE D FENCE SHALL CONFORM TO TYPE C FENCE. USE GALVANIZED STAPLES ON WOOD POSTS AND APPROVED FASTENERS ON STEEL POSTS.



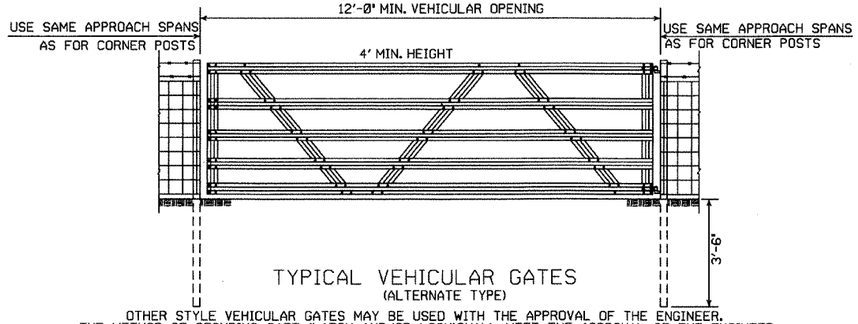
• NOTE: RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY FENCE CONSTRUCTION. CORNER POSTS SHALL BE CONSTRUCTED 2' FROM THE RIGHT-OF-WAY MONUMENT OR AS DIRECTED BY THE ENGINEER.

RIGHT-OF-WAY FENCE LOCATION



PRIVATE FENCE TERMINAL INSTALLATION

WHERE EXISTING FENCE CONSISTS OF STEEL POSTS, USE END POST ASSEMBLY AS SHOWN IN TYPE C FENCE OR OTHER END POST ASSEMBLY AS APPROVED BY THE ENGINEER.



TYPICAL VEHICULAR GATES
(ALTERNATE TYPE)

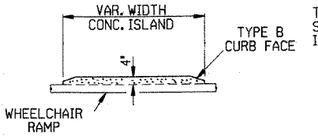
OTHER STYLE VEHICULAR GATES MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
THE METHOD OF SECURING GATE (LATCH AND/OR LOCK) SHALL MEET THE APPROVAL OF THE ENGINEER.

DATE	REVISION	FILMED
8-22-02	REVISED GENERAL NOTES	
10-18-96	REVISED AASHTO	
11-22-95	REVISED R-O-W LOCATION DETAIL	
6-2-94	REVISED BARB WIRE AND ADDED CORNER POST NOTES	6-2-94
8-5-93	REVISED R/W INSTALLATION FENCE	8-5-93
10-1-92	ADDED STAPLE NOTE	10-1-92
8-15-91	ADDED TYPE D-2 FENCE	8-15-91
11-30-89	DELETED CLASS CONCRETE	11-30-89
7-15-88	ADDED SPLICE NOTE	700-7-15-88
10-30-87	GENERAL REVISIONS	549-10-30-87
11-1-84	MAX. POST SPACING MIN. WIRE GAUGE	507-11-1-84
1-4-83	MIN. DIA. LINE POST	648-1-4-83
3-2-81	TOLERANCE FOR POST LENGTH	722-3-2-81
12-1-72	ADDED D-1 & FENCE INSTALLATION	564-12-1-72
10-2-72	REVISED AND REDRAWN	540-10-2-72

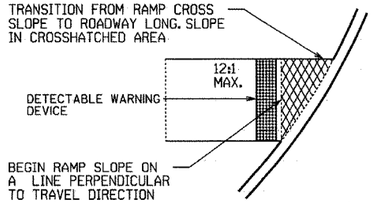
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WIRE FENCE
TYPE C AND D

STANDARD DRAWING WF-4



CONCRETE ISLAND DETAIL



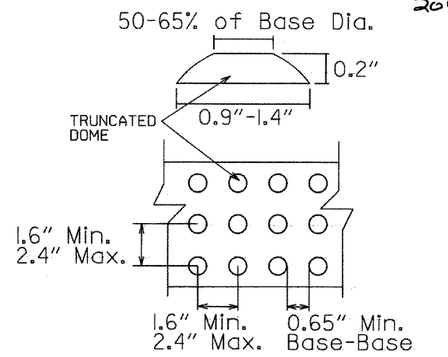
SLOPE TRANSITION DETAILS

TYPE 1 RAMP DIMENSIONS AND QUANTITIES

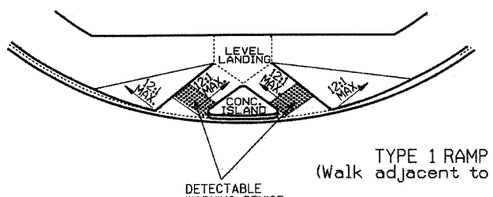
RADIUS "R" FEET	DISTANCE "X" FEET	DISTANCE "Y" FEET	LENGTH "L" FEET	RAMP AREA "A" SQ. YD.
15	11.67	18.82	32.18	26.21
20	11.52	22.28	35.46	30.07
25	11.43	26.60	38.77	33.80
30	11.37	30.26	40.93	36.90
35	11.33	33.51	43.11	39.77
40	11.30	36.45	45.26	42.45
45	11.27	39.16	47.34	44.97
50	11.25	41.69	49.36	47.35
55	11.24	44.07	51.31	49.63
60	11.22	46.33	53.21	51.80

GENERAL NOTES FOR DETECTABLE WARNING DEVICES

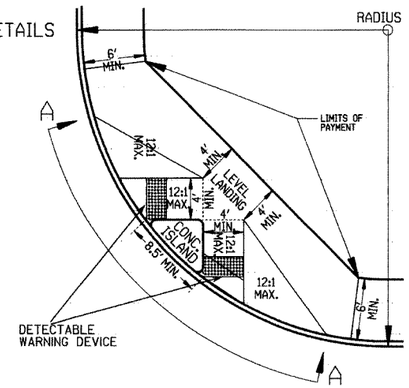
THE DETECTABLE WARNING DEVICE SHALL BE LOCATED SO THAT THE NEAREST EDGE OF THE DEVICE IS 6 TO 8 INCHES FROM THE FACE OF THE CURB.
TRUNCATED DOMES IN THE DETECTABLE WARNING SURFACE SHALL MEET THE REQUIREMENTS OF THE GEOMETRIC CONFIGURATION SHOWN.
DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT 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).

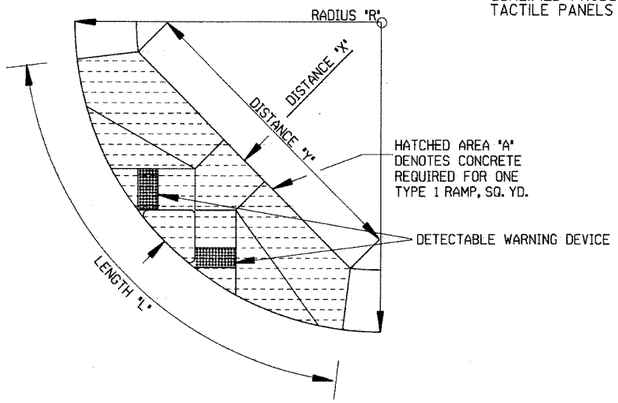


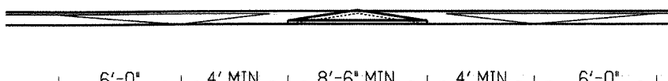
DETECTABLE WARNING DEVICE DETAIL



TYPE 1 RAMP
(Walk adjacent to curb)





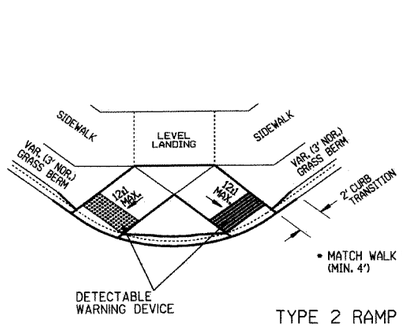


SECTION A-A

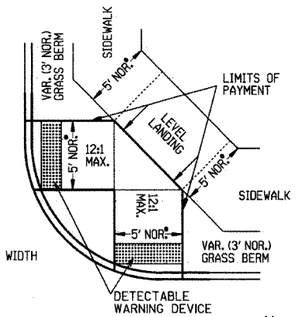
NOTE:
THE CROSS SLOPE OF THE RAMPS, LEVEL LANDINGS, AND SIDEWALKS SHALL NOT EXCEED 2.0% UNLESS REQUIRED TO MATCH STREET LONGTITUDINAL GRADE.

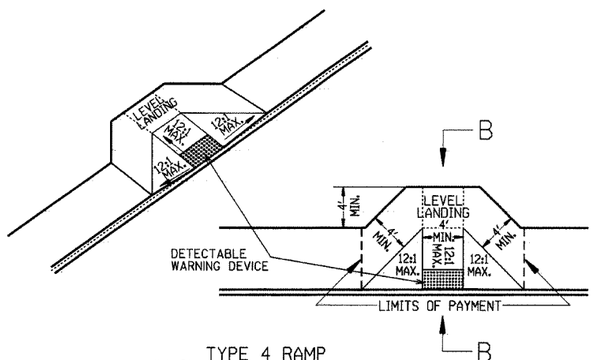
GENERAL NOTES:

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 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.

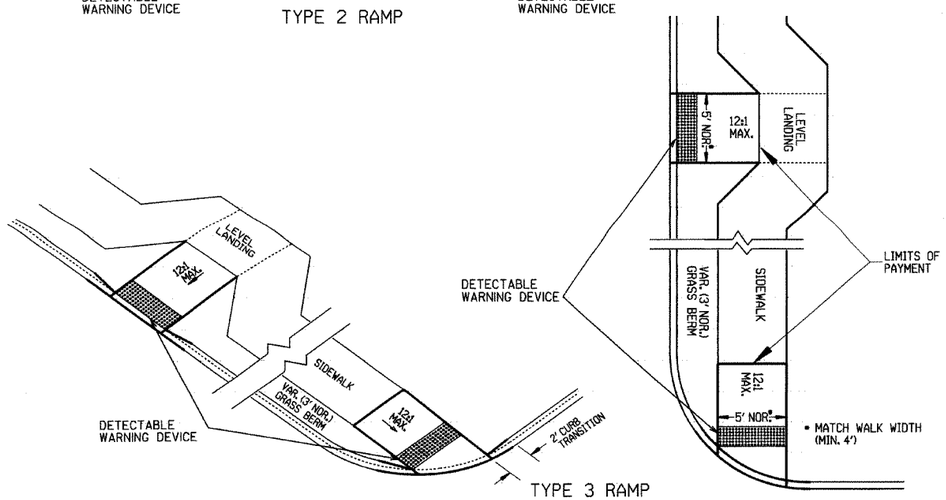


TYPE 2 RAMP

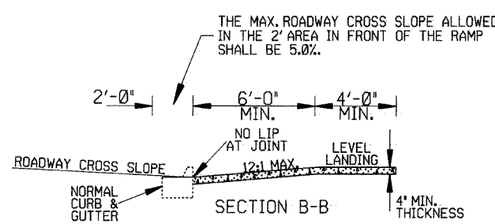




TYPE 4 RAMP
(Walk adjacent to curb)



TYPE 3 RAMP



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
11-10-05	REVISED TO NEW SIDEWALK POLICY	
10-9-03	REVISED GEN. NOTES & ADDED NOTE	
4-10-03	REV. DETECTABLE WARNING DEVICES	
8-22-02	ADD DETECTABLE WARNING DEVICES	
3-30-00	ADD. SLOPE TRANS. & REV. ISL. DIMS.	
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	FROM8:1TO12:1MAX.SLOPES	5-24-90
7-15-88	ADJUSTED MAX. SLOPE	652-7-15-88
7-14-88	INCLUD."CONC. ISLD."IN PAY ITEM	------
6-02-76	ISSUED-P.H.D.	299-7-28-76

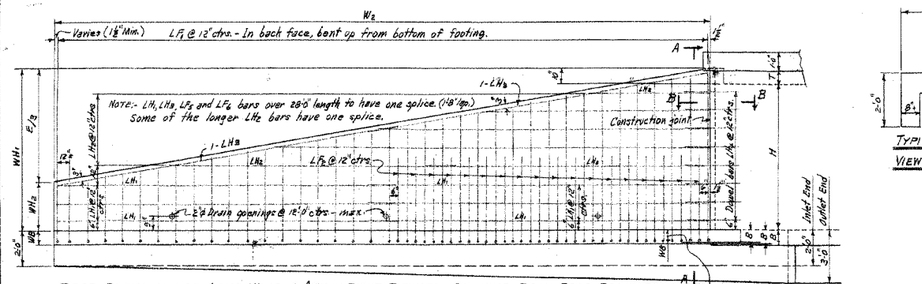
ARKANSAS STATE HIGHWAY COMMISSION

WHEELCHAIR RAMPS
NEW CONSTRUCTION
AND ALTERATIONS

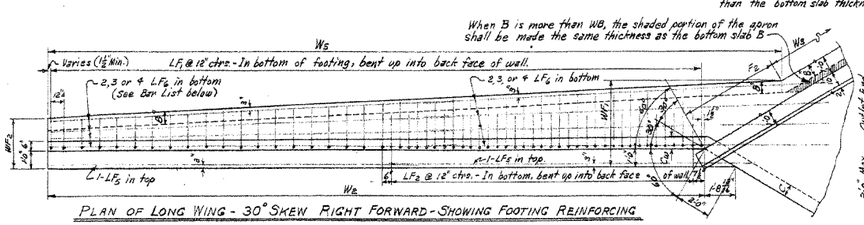
STANDARD DRAWING WR-1

Reshot 3-8-93

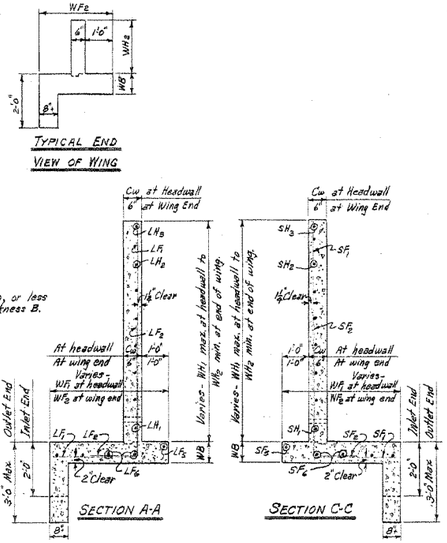
FED. ROAD typ.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.			205	
JOB No.					

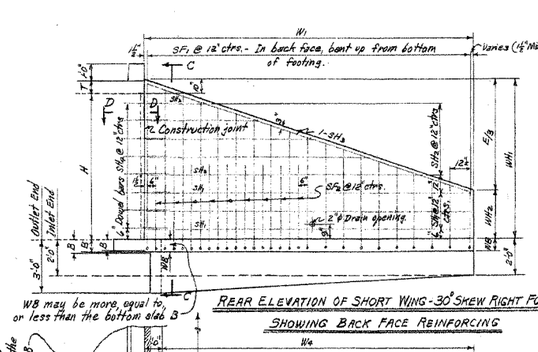


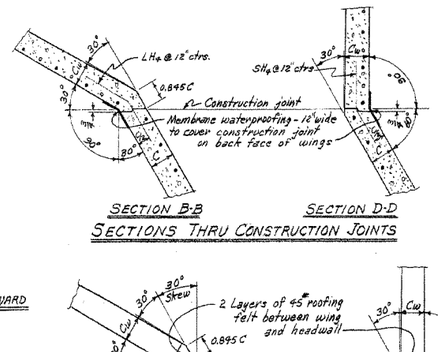
REAR ELEVATION OF LONG WING - 30° SKEW RIGHT FORWARD - SHOWING BACK FACE REINFORCING



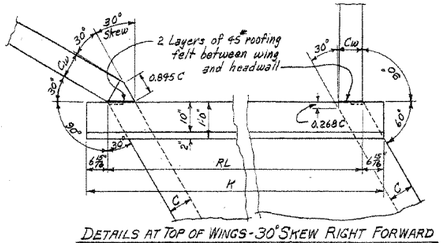
PLAN OF LONG WING - 30° SKEW RIGHT FORWARD - SHOWING FOOTING REINFORCING







NOTE:- Payment for membrane waterproofing and roofing felt to be included in the price bid for Class S Concrete.



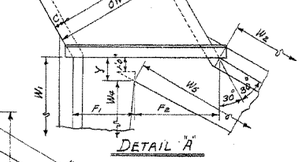
REGULAR WING DIMENSIONS - 3:1 SLOPES

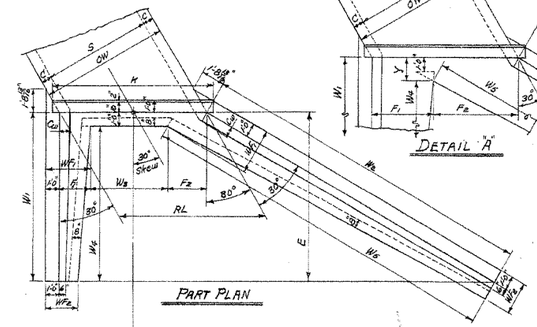
CLEAR HEIGHT OF BOX	THICKNESS OF WING FOOTING	THICKNESS OF WING AT HEAD = C	WINGWALL HEIGHTS AT HEADWALL	WINGWALL HEIGHTS AT END OF WING	WIDTHS OF WING FOOTINGS AT HEADWALL	WIDTHS OF WING FOOTINGS AT END OF WING	FOOTING DIMENSION PARALLEL WITH HEADWALL SHORT WING	FOOTING DIMENSION PARALLEL WITH HEADWALL LONG WING	PERPENDICULAR FROM HEAD TO END OF WING	LENGTHS OF WINGWALLS SHORT WING	LENGTHS OF WINGWALLS LONG WING	INSIDE FOOTING DIMENSION SHORT WING	INSIDE FOOTING DIMENSION LONG WING	* QUANTITY PER WING CLASS S CONCRETE INLET END SHORT WING	INLET END LONG WING	OUTLET END SHORT WING	OUTLET END LONG WING
H	WB	Cw	WH1	WH2	WF1	WF2	F1	F2	E	W1	W2	W3	W5	Cu.Yd.	Cu.Yd.	Cu.Yd.	Cu.Yd.
2'	7"	6"	2'-10	0'-8	2'-6"	2'-0"	1'-6"	0'-11½"	6'-6"	6'-6"	13'-0"	5'-6"	19'-3⅜"	0.752	1.599	0.836	1.717
3'	7"	6"	3'-10"	1'-0"	2'-8"	2'-1⅝"	1'-8"	1'-7⅛"	9'-6"	8'-6"	17'-0"	7'-6"	17'-10⅜"	1.130	2.340	1.239	2.565
4'	7"	6"	4'-10"	1'-4"	3'-0"	2'-3"	2'-0"	2'-3⅛"	10'-6"	10'-6"	21'-0"	9'-6"	22'-5⅛"	1.577	3.270	1.711	3.552
5'	7"	6"	5'-10"	1'-8"	3'-4"	2'-6½"	2'-4"	2'-11⅛"	12'-6"	12'-6"	25'-0"	11'-6"	27'-10⅛"	2.093	4.341	2.252	4.680
		7"	5'-10"	1'-8"	3'-6"	2'-6½"	2'-4"	2'-11⅛"	12'-6"	12'-6"	25'-0"	11'-6"	27'-10⅛"	2.179	4.524	2.337	4.862
◎ 6'	8"	7"	6'-10"	2'-0"	3'-8"	2'-6"	2'-8"	3'-2⅝"	14'-6"	14'-6"	29'-0"	13'-6"	31'-7⅛"	2.908	6.024	3.092	6.419
		7½"	6'-10"	2'-0"	3'-8"	2'-6"	2'-8"	3'-2⅝"	14'-6"	14'-6"	29'-0"	13'-6"	31'-7⅛"	2.964	6.147	3.150	6.543
		8"	6'-10"	2'-0"	3'-8"	2'-6"	2'-8"	3'-2⅝"	14'-6"	14'-6"	29'-0"	13'-6"	31'-7⅛"	3.025	6.272	3.208	6.667
◎ 7'	8½"	7½"	7'-10	2'-4"	4'-2"	2'-7½"	3'-2"	4'-7⅛"	16'-6"	16'-6"	33'-0"	15'-6"	36'-5⅜"	3.811	7.895	4.018	8.350
		8"	7'-10"	2'-4"	4'-2"	2'-7½"	3'-2"	4'-7⅛"	16'-6"	16'-6"	33'-0"	15'-6"	36'-5⅜"	3.887	8.057	4.095	8.512
◎ 8'	9"	8"	8'-10"	2'-8"	4'-8"	2'-9"	3'-8"	5'-7⅛"	18'-6"	18'-6"	37'-0"	17'-6"	41'-4⅛"	4.876	10.097	5.107	10.612

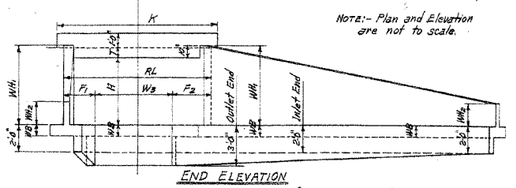
* Quantity per wing does not include headwall or that portion of apron or toewall for the length W_3.
◎ See Table 'A' for special values of F_1 & F_2 and W_4 & W_5 for Single 4'x6', 5'x7' and 6'x8' Box Culverts.

TABLE "A" - DIMENSIONS FOR DETAIL "A"

S	H	F1	F2	W3	Y	W4	W5
4'	6'	2'-7⅞"	3'-3⅝"	0"	1'-1⅞"	13'-6⅛"	31'-3½"
5'	7'	3'-1⅝"	4'-1"	0"	1'-3⅜"	15'-2⅝"	35'-10⅜"
6'	8'	3'-7⅞"	4'-10⅝"	0"	1'-6⅝"	17'-1⅛"	40'-6"







Note:- Plan and Elevation are not to scale.

SINGLE BARREL CULVERT - 30° SKEW RIGHT FORWARD
Details of Culvert with 30° Skew Left Forward is reversed, see Drawing No. W-X.30.

TYPICAL WING DETAILS

NOTE:- For remainder of General Plans and Elevations of Single, Double, Triple, Quadruple and Quintuple Span Culverts, see Std. Drawing No. W-X.30. For values of RL, K and W_3 for each box, see above Std. also.

MEMBRANE:- A membrane waterproofing 12" wide, consisting of three moppings of waterproofing asphalt and two alternate layers of treated cotton fabric shall be applied to the back face of wing to cover the construction joints of wings.

QUANTITIES

CLEAR SPAN	CLEAR HEIGHT	THICKNESS OF WING AT HEADWALL	THICKNESS OF WING FOOTING	REINFORCING STEEL - FOR 4 WINGS	CLASS S CONCRETE - 4 WINGS HEADWALLS, WINGWALLS, FOOTINGS, TOEWALLS AND APRONS: SINGLE BARREL CULVERT	DOUBLE BARREL CULVERT	TRIPLE BARREL CULVERT	QUADRUPLE BARREL CULVERT	QUINTUPLE BARREL CULVERT
S	H	Cw	WB	LB	Cu.Yd.	Cu.Yd.	Cu.Yd.	Cu.Yd.	Cu.Yd.
4'	2'	6"	7"	144	5.80	6.90	8.01	9.12	10.23
	3'	6"	7"	213	8.08	9.18	10.29	11.40	12.51
	4'	6"	7"	327	10.78	11.88	12.99	14.10	15.21
	5'	6"	7"	460	13.90	15.00	16.11	17.22	18.32
	6'	7"	8"	762	18.85	19.99	21.13	22.27	23.41
5'	3'	6"	7"	218	8.33	9.47	11.01	12.36	13.70
	4'	6"	7"	327	11.03	12.36	13.71	15.06	16.40
	5'	6"	7"	460	14.14	15.98	16.83	18.17	19.52
	6'	7"	8"	762	19.11	20.98	21.86	23.24	24.62
	7'	7⅞	8½	1074	24.61	26.84	28.75	30.76	32.76
6'	3'	6"	7"	218	8.87	10.17	11.73	13.33	14.92
	4'	6"	7"	327	11.27	12.86	14.43	16.03	17.62
	5'	6"	7"	460	14.38	15.98	17.55	19.15	20.73
	6'	7"	8"	762	19.35	20.98	22.59	24.21	25.83
	7'	7⅞	8½	1074	24.79	26.94	28.08	29.72	31.38
	8'	8"	9"	1870	31.15	32.87	34.51	36.17	37.83
7'	4'	6"	7"	327	11.52	13.37	15.19	17.05	18.85
	5'	6"	7"	460	14.68	16.99	18.31	20.16	21.97
	6'	7"	8"	762	19.61	21.98	23.32	25.20	27.04
	7'	7⅞	8½	1074	25.05	26.94	28.82	30.71	32.59
	8'	8"	9"	1870	31.47	33.37	35.25	37.16	39.05
8'	4'	6"	7"	327	11.77	13.89	15.97	18.09	20.12
	5'	7"	7"	460	15.46	17.60	19.70	21.83	23.89
	6'	7"	8"	762	19.86	21.98	24.05	26.17	28.20
	7'	7⅞	8½	1074	25.30	27.46	29.58	31.73	33.81
	8'	8"	9"	1870	31.72	33.88	36.00	38.16	40.27
9'	5'	7"	7"	460	15.72	18.13	20.47	22.87	25.15
	6'	7⅞	8"	762	20.50	22.93	25.29	27.71	30.01
	7'	7⅞	8½	1074	25.55	27.98	30.34	32.76	35.07
	8'	8"	9"	1870	31.97	34.39	36.76	39.18	41.49
10'	5'	7"	7"	460	15.98	18.65	21.25	23.80	26.92
	6'	7⅞	8"	762	20.76	23.45	26.07	28.64	31.28
	7'	7⅞	8½	1074	25.81	28.50	31.12	33.70	36.34
	8'	8"	9"	1870	32.22	34.91	37.54	40.12	42.76
11'	6'	8"	8"	762	21.39	24.38	27.25	30.11	——
	7'	8"	8½	1074	26.55	29.53	32.41	35.27	——
	8'	8"	9"	1870	32.97	35.95	38.83	41.19	——
12'	6'	8"	8"	762	21.66	24.93	28.05	31.20	——
	7'	8"	8½	1074	26.81	30.08	33.21	36.36	——
	8'	8"	9"	1870	32.73	35.99	39.13	42.28	——

* For reinforcing steel in Headwalls and Aprons, see Drawing Nos. of Barrel Sections listed below.

GENERAL NOTES:-
CONCRETE:- All concrete to be Class S, and shall be poured in the dry. All exposed corners to have ¾" chamfers.
REINFORCING STEEL:- Reinforcing steel to be deformed bars of intermediate or hard grade.
CONSTRUCTION JOINTS:- Construction joints between wingwall, footings and sidewalls shall be only where shown on plans.
SPECIFICATIONS:- Arkansas State Highway Commission Standard Specifications for Highway Construction and applicable Special Provisions.
UNIT STRESSES:-
Class S Concrete (n=10) 1200#/□"
Reinforcing Steel 20,000#/□"

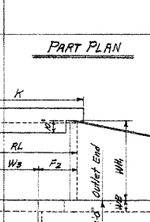
NOTE:-
This drawing to be used in conjunction with Standard Barrel Sections, Drawing Nos.-

SINGLES	DOUBLES	TRIPLES	QUADRUPLES	QUINTUPLES
R-130X-0	R-230X-01	R-330X-01	R-430X-01	R-530X-01
	R-230X-02	R-330X-02	R-430X-02	R-530X-02
R-130X-1	R-230X-1	R-330X-1	R-430X-1	R-530X-1
	R-230X-2	R-330X-2		

BAR LIST FOR ONE SHORT AND ONE LONG WING - 2 EACH REQUIRED

CLEAR HEIGHT	WING LOCATION	SF1 & LF1 BENT: In bottom of footing, bent up into back face of wing. One bar (or two bars) of each length: SIZE	SPACING	No. REQ'D	LENGTHS VARY MAX.	X MAX.	Y MAX.	X MIN.	Y MIN.	SF2 & LF2 BENT: In bottom of footing, bent up into back face of wing. Alt. with F1 bars: SIZE	SPACING	No. REQ'D	LENGTH	X	Y	SF3 & LF3 STRAIGHT: Longitudinal in top of wing footing heel: SIZE	No. REQ'D	LENGTH	SF4 & LF4 STRAIGHT: Longitudinal in bottom of wing footing toe: SIZE	No. REQ'D	LENGTH	SH1 & LH1 STRAIGHT: Horizontal in back face of wing: SIZE	SPACING	No. REQ'D	LENGTH	SH2 & LH2 STRAIGHT: Horizontal in back face of wing. One bar of each length: SIZE	SPACING	No. REQ'D	LENGTHS VARY MAX.	LENGTHS VARY MIN.	SH3 & LH3 STRAIGHT: In back face of wing at top - on slope: SIZE	No. REQ'D	LENGTH	SH4 & LH4 BENT: Dowels thru construction joint at headwall: SIZE	SPACING	No. REQ'D	LENGTH	X
H	SHORT OR LONG																																									
2'	Short	#3	12"	7	1'-7"	3'-11"	0'-8"	1'-0"	3'-0"	#3	12"	1	9'-0"	#3	2	#3	1	8'-0"	#4	1	6'-3"	#3	12"	1	6'-3"	#3	12"	1	—	3'-8"	#3	1	6'-7"	#3	12"	2	2'-8"	1'-9"
	Long	#3	12"	14	1'-5"	3'-11"	0'-8"	1'-0"	6'-8"	#3	12"	1	15'-6"	#3	2	15'-6"	#3	2	6'-3"	#3	2	6'-3"	#3	12"	1	12'-11"	#3	12"	2	6'-4"	#3	1	12'-11"	#3	12"	2	"	"
3'	Short	#3	12"	9	2'-1"	5'-3"	0'-10"	1'-4"	4'-0"	#3	12"	1	11'-0"	#3	2	10'-0"	#3	2	8'-3"	#3	2	8'-3"	#3	12"	2	6'-3"	#3	12"	1	—	4'-3"	#3	1	9'-8"	#3	12"	3	"	"
	Long	#3	12"	18	1'-11"	5'-3"	0'-10"	1'-4"	8'-0"	#3	12"	1	19'-6"	#3	2	20'-2"	#3	2	8'-3"	#3	2	8'-3"	#3	12"	2	12'-6"	6'-6"	#3	1	16'-11"	#3	12"	3	"	"
4'	Short	#3	12"	13	2'-4"	6'-7"	0'-11"	1'-8"	5'-0"	#3	12"	1	13'-0"	#3	3	15'-0"	#3	3	10'-3"	#3	2	9'-3"	#3	12"	3	9'-3"	3'-5"	#3	1	10'-9"	#3	12"	4	"	"
	Long	#3	12"	22	2'-0"	6'-6"	0'-11"	1'-7"	8'-0"	#3	12"	1	23'-6"	#3	3	24'-10"	#3	3	10'-3"	#3	2	9'-3"	#3	12"	3	18'-6"	6'-6"	#3	1	21'-0"	#3	12"	4	"	"
5'	Short	#3	12"	13	2'-11"	7'-11"	1'-0"	2'-0"	6'-0"	#3	12"	3	3'-6"	1'-1"	2'-6"	#3	1	15'-0"	#3	3	14'-0"	#3	12"	3	9'-3"	3'-5"	#3	1	12'-1"	#3	12"	5	"	"
	Long	#3	12"	26	2'-9"	7'-10"	1'-0"	1'-11"	10'-0"	#3	12"	6	3'-6"	1'-1"	2'-6"	#3	1	27'-6"	#3	6	15'-7"	#3	12"	2	24'-8"	#3	12"	3	18'-6"	6'-6"	#3	1	25'-1"	#3	12"	5	"	"
6'	Short	#4	12"	15	3'-6"	9'-6"	1'-2"	2'-4"	7'-0"	#3	12"	3	4'-6"	1'-4"	3'-2"	#3	2	17'-0"	#3	3	16'-0"	#3	12"	4	12'-3"	3'-5"	#3	1	15'-0"	#3	12"	6	"	"
	Long	#4	12"	30	3'-4"	9'-3"	1'-2"	2'-3"	7'-1"	#3	12"	6	4'-6"	1'-4"	3'-2"	#3	2	16'-8"	#3	6	18'-0"	#3	12"	4	15'-2"	4'-6"	#3	2	26'-6"	6'-6"	#3	2	15'-5"	#3	12"	6	2'-8"	1'-9"
7'	Short	#4	12"	17	3'-11"	10'-10"	1'-3"	2'-10"	8'-0"	#4	12"	6	5'-6"	1'-7"	4'-0"	#4	1	19'-0"	#4	4	18'-0"	#4	12"	5	15'-3"	3'-3"	#4	1	17'-1"	#4	12"	7	3'-6"	1'-3"
	Long	#4	12"	34	3'-9"	10'-8"	1'-3"	2'-8"	8'-1"	#4	12"	12	5'-6"	1'-7"	4'-0"	#4	2	18'-8"	#4	8	20'-4"	#4	12"	5	30'-6"	6'-6"	#4	2	17'-5"	#4	12"	7	"	"
8'	Short	#4	12"	19	4'-6"	12'-5"	1'-5"	3'-4"	9'-2"	#4	12"	9	6'-6"	1'-10"	4'-9"	#4	1	21'-0"	#4	4	20'-0"	#4	12"	6	19'-2"	4'-6"	#4	2	19'-4"	#4	12"	8	3'-6"	1'-3"
	Long	#4	12"	38	4'-6"	12'-3"	1'-5"	3'-3"	9'-2"	#4	12"	18	6'-6"	1'-10"	4'-9"	#4	2	20'-8"	#4	8	22'-3"	#4	12"	6	19'-2"	4'-6"	#4	2	19'-6"	#4	12"	8	3'-6"	1'-3"

BAR BENDING DIAGRAM



QUANTITY: REINFORCING STEEL PER WING - LBS.	SHORT WING	LONG WING
	29.7	45.6
	37.0	69.5
	56.2	107.2
	78.0	152.2
	127.8	253.1
	267.0	989.8
	312.9	622.3

NOTE:- Bars for short wing shall be marked with prefix letter 'S', while those for long wing shall be marked with letter 'L'.
* Length without splice. Bars over 28'-0" length may be spliced. (1'-6" lap.)

REVISIONS:- Membrane Added. 5-10-66 W.C.H.

Designed By:- W.C.H. 5-13-63 Checked By:- 12/65 8-19-63
Drawn By:- W.C.H. 7-26-63 Checked By:- DMT 7-15-64
Quantities By:- W.C.H. 1-1-64 Checked By:- DMT 7-15-64

ARKANSAS STATE HIGHWAY COMMISSION
DETAILS OF STANDARD WINGS FOR REINFORCED CONCRETE BOX CULVERTS 30° SKEW

4', 5', 6', 7', 8', 9', 10', 11' & 12' SPANS — 3:1 SLOPES
SINGLES, DOUBLES, TRIPLES, QUADRUPLES & QUINTUPLES — ALL DEPTHS OF COVER FOR H = 8'-0" OR LESS

STANDARD DRAWING NO. W-X303-1

FED. ROAD No.	STATE	FED. AID PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
6	ARK.			206	
JOB No.					

BAR LIST FOR BARREL SECTION 60'-0" IN LENGTH - TWO 30° SKEWED ENDS

DEPTH OF COVER	CLEAR SPANS	CLEAR HEIGHT	'a' bars STRAIGHT In Top and Bottom Slab of Barrel. SIZE	SPACING	No. REQ'D	LENGTH	'a1' bars STRAIGHT In Top and Bottom Slab of Barrel (Four of each Length) SIZE	SPACING	No. REQ'D	LENGTH
D	S	H								
0'-0" TO 5'-0" MAXIMUM	2 @ 4	2'	#5	12"	112	9'-5"	#5	12"	14	7'-8"
		3'			112	9'-5"			14	"
		4'			112	9'-5"			14	"
		5'			112	9'-5"			14	"
		6'			112	9'-5"			14	7'-11"
	2 @ 5	3'	#6	12"	110	11'-5"	#5	12"	20	9'-8"
		4'			110	11'-5"			20	"
		5'			110	11'-5"			20	9'-11"
		6'			110	11'-8"			20	10'-1"
		7'			110	11'-10"			20	10'-1"
	2 @ 6	3'	#6	11"	118	13'-5"	#5	11"	24	11'-10"
		4'			118	13'-5"			24	"
		5'			118	13'-5"			24	"
		6'			118	13'-8"			28	12'-1"
		7'			118	13'-10"			28	12'-3"
		8'			118	13'-11"			28	12'-5"
	2 @ 7	4'	#6	12"	106	15'-5"	#5	12"	28	13'-8"
		5'			106	15'-5"			28	"
		6'			106	15'-8"			28	13'-11"
		7'			106	15'-10"			28	14'-1"
		8'			106	15'-11"			28	14'-3"
		9'			106	16'-2"			28	14'-5"
	2 @ 8	4'	#6	11"	112	17'-5"	#5	11"	36	15'-10"
		5'			112	17'-8"			36	16'-1"
		6'			112	17'-8"			36	"
		7'			112	17'-10"			36	16'-3"
		8'			112	17'-11"			36	16'-6"
		9'			112	18'-2"			36	16'-7"
		10'			112	18'-5"			53	19'-10"

DEPTH OF COVER	CLEAR SPANS	CLEAR HEIGHT	'b' bars BENT - See Diagrams below. In Bottom of Top Slab bent up over Division Wall - hooked. Alternate with 'a' and 'c' bars. SIZE	SPACING	No. REQ'D	LENGTH	X	Y	Z	'b1' bars BENT - See Diagrams below. In Bottom of Top Slab - one end hooked (2 of Each Length) Alternate with 'a1' and 'c1' bars. SIZE	SPACING	No. REQ'D	LENGTH MAX.	LENGTH MIN.	L MAX.	L MIN.
D	S	H															
0'-0" TO 5'-0" MAXIMUM	2 @ 4	2'	#5	12"	54	10'-6"	0'-5"	2'-2½"	3'-6"	#5	12"	6	9'-2"	3'-6"	8'-6"	3'-0"
		3'			54	10'-6"	"	"	"			6	"	"	"	"
		4'			54	10'-6"	"	"	"			6	"	"	"	"
		5'			54	10'-6"	"	"	"			6	"	"	"	"
		6'			54	10'-9"	0'-8"	2'-3½"	3'-5"			6	9'-5"	3'-9"	8'-9"	3'-3"
	2 @ 5	3'	#5	12"	53	12'-7"	0'-3½"	2'-7½"	4'-1"	#5	12"	10	11'-2"	4'-0"	10'-6"	3'-6"
		4'			53	12'-7"	"	"	"			10	"	"	"	"
		5'			53	12'-7"	"	"	"			10	"	"	"	"
		6'			53	12'-10"	"	2-2½"	4'-2"			10	11'-5"	4'-3"	10'-9"	3'-9"
		7'			53	13'-0"	0'-3½"	2'-9½"	4'-2½"			10	11'-7"	4'-5"	10'-11"	3'-11"
	2 @ 6	3'	#5	11"	56	14'-7"	0'-4"	3'-0½"	4'-10"	#5	11"	14	13'-6"	3'-7"	12'-7"	3'-1"
		4'			56	14'-7"	"	"	"			14	"	"	"	"
		5'			56	14'-7"	"	"	"			14	"	"	"	"
		6'			56	14'-10"	"	3-2½"	4'-11"			14	13'-7"	3'-10"	12'-10"	3'-4"
		7'			56	15'-0"	"	3-2½"	4'-11"			14	13'-9"	4'-0"	13'-0"	3'-6"
		8'			56	15'-1"	0'-5"	"	5'-0"			14	13'-10"	4'-1"	13'-1"	3'-7"
	2 @ 7	4'	#5	11"	50	16'-8"	0'-6½"	3'-5"	5'-7"	#5	11"	16	15'-4"	4'-7"	14'-6"	4'-0"
		5'			50	"	"	"	"			16	"	"	"	"
		6'			50	17'-0"	"	3'-6"	5'-8"			16	15'-5"	3'-1"	14'-9"	2'-6"
		7'			50	17'-2"	"	3'-7"	5'-8½"			16	15'-9"	3'-8"	14'-11"	2'-8"
		8'			50	17'-3"	"	"	5'-9"			16	15'-10"	3'-6"	15'-0"	2'-9"
		9'			50	17'-6"	0'-6½"	3'-8"	5'-10"			16	16'-1"	3'-7"	15'-3"	3'-0"
	2 @ 8	4'	#6	11"	54	18'-10"	0'-5"	3'-10"	6'-4"	#6	11"	18	17'-6"	4'-6"	16'-7"	3'-11"
		5'			54	19'-1"	"	3'-11"	6'-5"			20	17'-9"	3'-2"	16'-10"	2'-7"
		6'			54	19'-1"	"	"	"			20	"	"	"	"
		7'			54	19'-4"	"	"	6'-6"			20	17'-11"	3'-4"	17'-0"	2'-9"
		8'			54	19'-6"	0'-5½"	4'-0"	6'-6½"			20	18'-0"	3'-5"	17'-1"	2'-10"
		9'			53	19'-7"	"	4'-1"	6'-7"			20	18'-3"	3'-8"	17'-4"	3'-1"
		10'			53	19'-10"	0'-5"	4'-2"	6'-8"			20	18'-6"	3'-11"	17'-7"	3'-4"

DEPTH OF COVER	CLEAR SPANS	CLEAR HEIGHT	'b2' bars BENT - See Diagrams below. In Top of Bottom Slab - bent down into Division Wall - hooked. Alternate with 'a' and 'c' bars. SIZE	SPACING	No. REQ'D	LENGTH	X	Y	Z	'b3' bars BENT - See Diagrams below. In Top of Bottom Slab - some bent down under Division Wall - one end hooked (2 of Each Length) Alternate with 'a1' and 'c1' bars. SIZE	SPACING	No. REQ'D	LENGTH MAX.	LENGTH MIN.	L MAX.	L MIN.
D	S	H															
0'-0" TO 5'-0" MAXIMUM	2 @ 4	2'	#5	12"	56	10'-6"	0'-5"	2'-3½"	3'-6"	#5	12"	6	9'-2"	3'-6"	8'-6"	3'-0"
		3'			56	10'-6"	"	"	"			6	"	"	"	"
		4'			56	10'-6"	"	"	"			6	"	"	"	"
		5'			56	10'-6"	"	"	"			6	"	"	"	"
		6'			56	10'-8"	0'-8½"	2'-6½"	3'-5"			6	9'-5"	3'-9"	8'-9"	3'-3"
	2 @ 5	3'	#5	12"	55	12'-6"	0'-5"	2'-8½"	4'-1"	#5	12"	10	11'-2"	4'-0"	10'-6"	3'-6"
		4'			55	12'-6"	"	"	"			10	"	"	"	"
		5'			55	12'-9"	"	2-2½"	4'-2"			10	11'-5"	4'-3"	10'-9"	3'-9"
		6'			55	12'-11"	0'-3½"	2'-10½"	4'-2½"			10	11'-7"	4'-5"	10'-11"	3'-11"
		7'			55	13'-1"	0'-4½"	3'-0½"	4'-3½"			10	11'-10"	4'-7"	11'-1"	4'-0"
	2 @ 6	3'	#5	11"	58	14'-7"	0'-4"	3'-0½"	4'-10"	#5	11"	14	13'-6"	3'-7"	12'-7"	3'-1"
		4'			58	14'-7"	"	"	"			14	"	"	"	"
		5'			58	14'-7"	"	"	"			14	"	"	"	"
		6'			58	14'-10"	"	3-2½"	4'-11"			14	13'-7"	3'-10"	12'-10"	3'-4"
		7'			58	15'-0"	"	3-2½"	4'-11"			14	13'-9"	4'-0"	13'-0"	3'-6"
		8'			58	15'-1"	0'-5"	"	5'-0"			14	13'-10"	4'-1"	13'-1"	3'-7"
	2 @ 7	4'	#5	11"	52	16'-8"	0'-6½"	3'-5"	5'-7"	#5	11"	16	15'-4"	4'-7"	14'-6"	4'-0"
		5'			52	"	"	"	"			16	"	"	"	"
		6'			52	17'-0"	"	3'-6"	5'-8"			16	15'-5"	3'-1"	14'-9"	2'-6"
		7'			52	17'-2"	"	3'-7"	5'-8½"			16	15'-9"	3'-8"	14'-11"	2'-8"
		8'			52	17'-3"	"	"	5'-9"			16	15'-10"	3'-6"	15'-0"	2'-9"
		9'			52	17'-6"	0'-6½"	3'-8"	5'-10"			16	16'-1"	3'-7"	15'-3"	3'-0"
	2 @ 8	4'	#6	11"	56	18'-10"	0'-5"	3'-10"	6'-4"	#6	11"	18	17'-6"	4'-6"	16'-7"	3'-11"
		5'			56	19'-1"	"	3'-11"	6'-5"			20	17'-9"	3'-2"	16'-10"	2'-7"
		6'			56	"	"	"	"			20	"	"	"	"
		7'			56	19'-4"	"	"	6'-6"			20	17'-11"	3'-4"	17'-0"	2'-9"
		8'			56	19'-6"	"	4'-0"	6'-6½"			20	18'-0"	3'-5"	17'-1"	2'-10"
		9'			55	19'-7"	"	4'-1"	6'-7"			20	18'-3"	3'-8"	17'-4"	3'-1"
		10'			55	19'-10"	0'-5"	4'-2"	6'-8"			20	18'-6"	3'-11"	17'-7"	3'-4"

DEPTH OF COVER	CLEAR SPANS	CLEAR HEIGHT	'c' bars STRAIGHT In Top and Bottom Slab of Barrel Alternate with 'b' and 'b2' bars. SIZE	SPACING	No. REQ'D	LENGTH	'c1' bars STRAIGHT In Top and Bottom Slab of Barrel Alt. with b & b2 bars. (Four of each Length). SIZE	SPACING	No. REQ'D	LENGTH MAX.	LENGTH MIN.
D	S	H									
0'-0" TO 5'-0" MAXIMUM	2 @ 4	2'	#5	12"	116	4'-8"	#5	12"	4	3'-7"	—
		3'			116	4'-8"			4	"	—
		4'			116	4'-8"			4	"	—
		5'			116	4'-8"			4	"	—
		6'			116	4'-9"			4	3'-8"	—
	2 @ 5	3'	#5	12"	114	5'-8"	#5	12"	8	5'-1"	3'-4"
		4'			114	5'-8"			8	"	"
		5'			114	5'-9"			8	5'-3"	3'-6"
		6'			114	5'-10"			8	5'-4"	3'-7"
		7'			114	5'-10"			8	"	"
	2 @ 6	3'	#5	11"	126	6'-8"	#5	11"	8	5'-4"	3'-9"
		4'			126	6'-8"			8	"	"
		5'			126	6'-9"			8	5'-7"	4'-0"
		6'			126	6'-10"			8	5'-8"	4'-1"
		7'			126	6'-10"			8	"	"
	2 @ 7	4'	#5	11"	114	7'-8"	#5	11"	12	6'-4"	2'-10"
		5'			114	7'-8"			12	"	"
		6'			114	7'-9"			12	6'-6"	3'-0"
		7'			114	7'-10"			12	6'-7"	3'-1"
		8'			114	7'-10"			12	6'-8"	3'-2"
		9'			114	7'-11"			12	6'-9"	3'-3"
	2 @ 8	4'	#6	11"	120	8'-8"	#6	11"	16	8'-4"	3'-7"
		5'			120	8'-9"			16	"	"
		6'			120	8'-9"			16	8'-7"	3'-8"
		7'			120	8'-10"			16	"	"
		8'			120	8'-10"			16	8'-8"	3'-9"
		9'			120	8'-11"			16	8'-9"	3'-10"
		10'			124	9'-0"			16	7'-5"	2'-8"

DEPTH OF COVER	CLEAR SPANS	CLEAR HEIGHT	'd' bars STRAIGHT Longitudinal in Top Slab of Barrel SIZE	SPACING	No. REQ'D	LENGTH	'd1' bars STRAIGHT Longitudinal in Sidewalls and Division Wall. SIZE	SPACING	No. REQ'D	LENGTH	'e' bars STRAIGHT Longitudinal in Bottom Slab of Barrel. SIZE	SPACING	No. REQ'D	LENGTH
D	S	H												
0'-0" TO 5'-0" MAXIMUM	2 @ 4	2'	#5	12"	16		#4	12"	8		#4	12"	18	
		3'			16				12				18	
		4'			16				16				18	
		5'			16				20				18	
		6'			16				24				18	
	2 @ 5	3'	#5	12"	16		#4	12"	12		#4	12"	18	
		4'			16				16				18	
		5'			16				20				18	
		6'			16				24				18	
		7'			16				28				18	
	2 @ 6	3'	#5	11"	18		#4	12"	12		#4	12"	18	
		4'			18				16				18	
		5'			18				20				18	
		6'			18				24				18	
		7'			18				28				18	
		8'			18				32				18	
	2 @ 7	4'	#5	11"	20		#4	12"	16		#4	12"	20	
		5'			20				20				20	
		6'			20				24				20	
		7'			20				28				20	
		8'			20				32				20	
		9'			20				36				20	
	2 @ 8	4'	#5	12"	22		#4	12"	16		#4	12"	22	
		5'			22				20				22	
		6'			22				24				22	
		7'			22				28				22	
		8'			22				32				22	
		9'			22				36				22	
		10'			22				40				22	

DEPTH OF COVER	CLEAR SPANS	CLEAR HEIGHT	'f' bars STRAIGHT Verticals in Sidewalls and Division Wall SIZE	SPACING	No. REQ'D	LENGTH	'k' bars STRAIGHT In Bottom of Headwalls SIZE	No. REQ'D	LENGTH	'k2' bars STRAIGHT In Top of Headwalls and Aprons (2 Each) SIZE	No. REQ'D	LENGTH
D	S	H										
0'-0" TO 5'-0" MAXIMUM	2 @ 4	2'	#4	12"	240	2'-10"	#5	6	10'-11"	#5	8	12'-0"
		3'			240	3'-5"		6	"		8	"
		4'			240	4'-1"		6	"		8	"
		5'			240	4'-10"		6	"		8	"
		6'			240	5'-6"		6	11'-2"		8	12'-4"
	2 @ 5	3'	#4	12"	240	3'-11"	#5	6	13'-8"		8	14'-4"
		4'			240	4'-11"		6	"		8	"
		5'			240	5'-11"		6	"		8	"
		6'			240	6'-11"		6	13'-6"		8	14'-2"
		7'			240	7'-11"		6	13'-8"		8	14'-10"
	2 @ 6	3'	#4	12"	240	5'-1"	#6	6	15'-6"		8	16'-8"
		4'			240	5'-10"		6	"		8	"
		5'			240	6'-10"		6	15'-9"		8	16'-11"
		6'			240	7'-10"		6	16'-0"		8	17'-2"
		7'			240	8'-10"		6	16'-1"		8	17'-3"
		8'			240	9'-10"		6	16'-3"		8	17'-5"
	2 @ 7	4'	#4	12"	240	5'-7"	#6	6	17'-10"		8	19'-0"
		5'			240	6'-7"		6	"		8	"
		6'			240	7'-7"		6	18'-1"		8	19'-5"
		7'			240	8'-7"		6	18'-3"		8	19'-6"
		8'			240	9'-7"		6	18'-5"		8	19'-8"
		9'			240	10'-7"		6	18'-6"		8	19'-10"
	2 @ 8	4'	#5	12"	240	5'-7"	#6	6	19'-10"		8	21'-2"
		5'			240	6'-7"		6	20'-1"		8	21'-5"
		6'			240	7'-7"		6	20'-5"		8	21'-9"
		7'			240	8'-7"		6	"		8	"
		8'			240	9'-7"		6	20'-7"		8	21'-9"
		9'			240	10'-7"		6	20'-8"		8	21'-10"
		10'			288	9'-2"		6	21'-0"		8	22'-2"
	2 @ 8	4'	#5	12"	240	10'-4"		6	21'-3"		8	22'-5"
		5'			240	11'-2"		6	21'-5"		8	22'-7"
		6'			240	11'-11"		6	21'-6"		8	22'-8"
		7'			240	12'-8"		6	21'-7"		8	22'-9"
		8'			240	13'-5"		6	21'-8"		8	22'-10"
		9'			240	14'-2"		6	21'-9"		8	22'-11"
		10'			240	14'-11"		6	21'-10"		8	23'-0"

BAR SIZE	PIN DIAM.	K	ADD FOR 2 HOOKS	BENDING DIAGRAM FOR BARS 'b' AND 'b2'
#5	2⅝"	4⅛"	0'-11⅝"	Pin diam. Z X Y X Z
#6	3"	5"	1'-2"	

BAR SIZE	PIN DIAM.	K	ADD FOR 1 HOOK	BENDING DIAGRAM FOR BARS 'b1' AND 'b3'.
#5	2⅝"	4⅛"	0'-5⅜"	Pin diameter; Min. 16K; 3K Max.; Less than Z
#6	3"	5"	0'-7"	

NOTE:- Dimensions are to centers of bars (b, b1, b2, & b3). The X, Y & Z values for 'b' bars are same as for 'b' bars and for 'b3' bars same as for 'b2' bars.

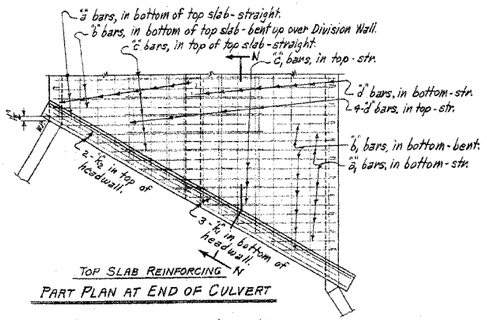
SPAN	SIZE	SPACING	No. REQ'D	LENGTH	X
4'	#4	12"c	24	2'-5"	1'-2½"
5'	#5	12"c	28	2'-6"	1'-3"
6'	#4	12"c	32	2'-7"	1'-3½"
7'	#4	12"c	36	2'-8"	1'-4"
8'	#4	12"c	42	2'-9"	1'-4½"

Dowel bars 'k' in Two Headwalls. X, Z, 1/2

These bars are in the skewed portion of barrel only. The length of 'a' and 'c' bars and overall length L of 'b' and 'b2' bars vary by 1'-9" for 12" spacing and 1'-3" for 11" spacing.

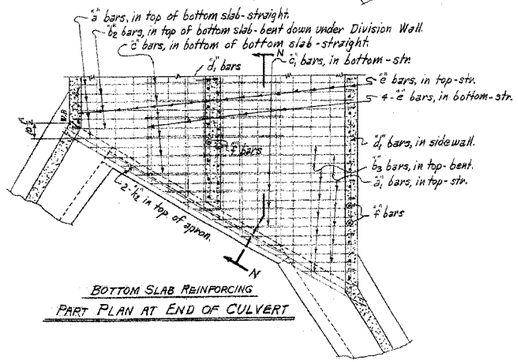
In the regular portion of the barrel begin and end with a set of 'a' & 'c' bars. If the spacing is such that the last set of bars would be 'b' & 'b2' bars, use a set of 'a' & 'c' bars instead.

NOTE:- For Details of Standard Wings and bar lists, see Drawing No. W-X302-1 or W-X302-2; W-X303-1 or W-X303-2, and W-X304-1 or W-X304-2. Also W-X30.



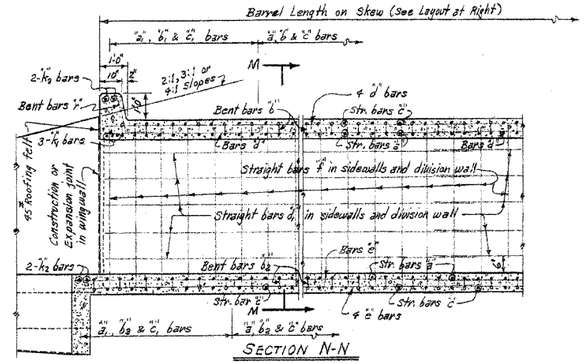
TOP SLAB REINFORCING

PART PLAN AT END OF CULVERT

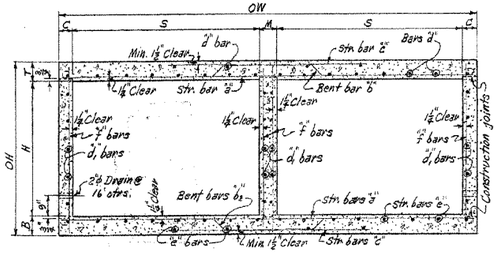


BOTTOM SLAB REINFORCING

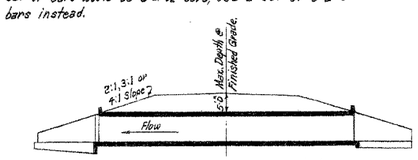
PART PLAN AT END OF CULVERT



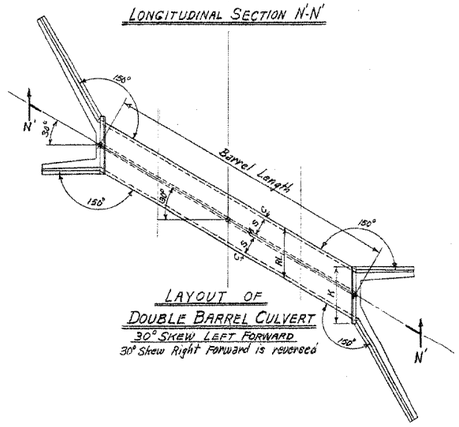
SECTION N-N



TYPICAL SECTION M-M



LONGITUDINAL SECTION N-N'



LAYOUT OF DOUBLE BARREL CULVERT

30° SKEW LEFT FORWARD

30° Skew Right Forward is reversed

BARREL DIMENSIONS

MAX. DESIGN DEPTH OF COVER	CLEAR SPANS	CLEAR HEIGHT	SQ. FT. OPENING	OVERALL WIDTH	THICKNESS OF TOP SLAB	THICKNESS OF SIDEWALLS OR DIVISION WALL	THICKNESS OF BOTTOM SLAB	OVERALL HEIGHT	ROAD WAY LENGTH	LENGTH OF HEADWALLS
D	S	H	A	OW	T	C	M	B	OH	RL	K
5'-0"	2 @ 4	2'	16	9'-8"	6½"	8"	6'	8½"	3'-0½"	11'-2"	12'-3½"
		3'	24	9'-8"		8"			4'-0½"	"	"
		4'	32	9'-8"		8"			5'-0½"	"	"
		5'	40	9'-8"		8"			6'-0½"	"	"
		6'	48	9'-11"		8"			7'-0½"	11'-5½"	12'-7½"
	2 @ 5	3'	30	11'-8"	7"	8"			4'-1½"	13'-5½"	14'-7½"
		4'	40	11'-8"		8"			5'-1½"	"	"
		5'	50	11'-8"		8"			6'-1½"	"	"
		6'	60	11'-11"		8"			7'-1½"	13'-8½"	14'-11"
		7'	70	12'-1"		8"			8'-1½"	13'-11½"	15'-1½"
	2 @ 6	3'	36	13'-8"	7½"	8"	6½"		4'-3"	15'-3½"	16'-11½"
		4'	48	13'-8"		8"			5'-3"	"	"
		5'	60	13'-8"		8"			6'-3"	"	"
		6'	72	13'-11"		9"			7'-3"	14'-0½"	17'-2½"
		7'	84	14'-1"		9"			8'-3"	14'-2½"	17'-5"
		8'	96	14'-2"		10"			9'-3"	16'-4½"	17'-6½"
	2 @ 7	4'	56	15'-8"	8"	8"	7½"		5'-6"	18'-1½"	19'-3"
		5'	70	15'-8"		8"			6'-6"	"	"
		6'	84	15'-11"		9"			7'-6"	18'-3½"	19'-6½"
		7'	98	16'-1"		9"			8'-6"	18'-6½"	19'-9½"
		8'	112	16'-2"		10"			9'-6"	18'-8"	19'-9½"
		9'	126	16'-5"		10"			10'-6"	19'-0½"	20'-1½"
	2 @ 8	4'	64	17'-8"	8½"	8"	8½"		5'-6"	20'-6½"	21'-6½"
		5'	80	17'-11"		9"			6'-6"	20'-9½"	21'-10"
		6'	96	17'-11"		9"			7'-6"	20'-9½"	21'-10"
		7'	112	18'-1"		10"			8'-6"	20'-11½"	22'-1½"
		8'	128	18'-2"		10"			9'-6"	21'-0½"	22'-2½"
		9'	144	18'-5"		11"			10'-6"	21'-3½"	22'-5"
		10'	160	18'-8"		12"			11'-6"	21'-6½"	22'-8½"

QUANTITIES

REINFORCING STEEL			
CLASS S CONC. CLASS S CONC.	TOTAL FOR 60'-0" LENGTH OF BARREL	PER LIN. FT. OF BARREL	ADDITIONAL PER LAP
CU.YD.	LB.	LB.	LB.
0.926	5523	88.15	92.71
0.558	5846	93.99	96.05
0.620	6170	98.84	99.39
0.682	6493	104.18	102.73
0.808	6897	110.74	106.07
0.671	7818	123.34	121.19
0.733	8192	128.68	124.53
0.785	8465	134.03	127.87
0.922	8899	140.83	131.21
1.044	9291	147.34	134.55
0.818	9398	148.50	136.34
0.880	9721	153.85	139.68
0.941	10044	159.19	143.02
1.070	10,996	166.20	146.36
1.192	10903	172.74	149.70
1.238	11,598	183.36	153.04
1.021	11,081	178.15	154.83
1.082	11,405	183.99	158.17
1.212	12,069	190.59	161.51
1.338	12,929	197.19	164.85
1.440	13,084	207.89	168.19
1.416	14,198	226.25	171.53
1.174	13,251	210.37	171.71
1.235	13,731	217.63	175.05
1.366	15,054	232.97	178.39
1.483	15,902	239.68	181.73
1.595	15,131	240.67	185.07
1.772	16,154	256.08	188.41
1.967	16,993	271.07	191.75

* For quantities in wings see Standard Wing Drawings listed below. Total steel quantities listed above include one lap of longitudinal bars.

GENERAL NOTES

CONCRETE:- All concrete to be Class S, and shall be poured in the dry. All exposed corners to have ¾" chamfers.

REINFORCING STEEL:- Reinforcing to be deformed bars of intermediate or hard grade.

BAR LAP:- In computing the quantities of steel from the tables add one lap for each add'l 33'-0" length of barrel over 32'-0". Lap longitudinal bars 30 diam. min.

CONSTRUCTION JOINTS:- Construction joints between wingwalls, sidewalls, division wall and slabs shall be only where shown on plans.

SPECIFICATIONS:- Arkansas State Highway Commission Standard Specifications for Highway Construction and applicable Special Provisions.

DESIGN LIVE LOAD

H20-S16 LOADING A.A.S.H.O. 1961

AND

SPECIAL MILITARY LOADING

Two 24,000 Lb. Axles @ 4'-0" ctrs.

UNIT STRESSES:-

Class S Concrete (n=10) 1200 lbs/sq in

Reinforcing Steel 20,000 lbs/sq in

NOTE:- This drawing to be used in conjunction with Standard Wing Drawing Nos. W-X302-1 or W-X302-2, W-X303-1 or W-X303-2, and W-X304-1 or W-X304-2. Also W-X30.

CLASS S CONCRETE

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF STANDARD BARREL SECTIONS FOR REINFORCED CONCRETE BOX CULVERTS

30° SKEW

4', 5', 6', 7' AND 8' SPANS 2:1, 3:1 OR 4:1 SLOPES

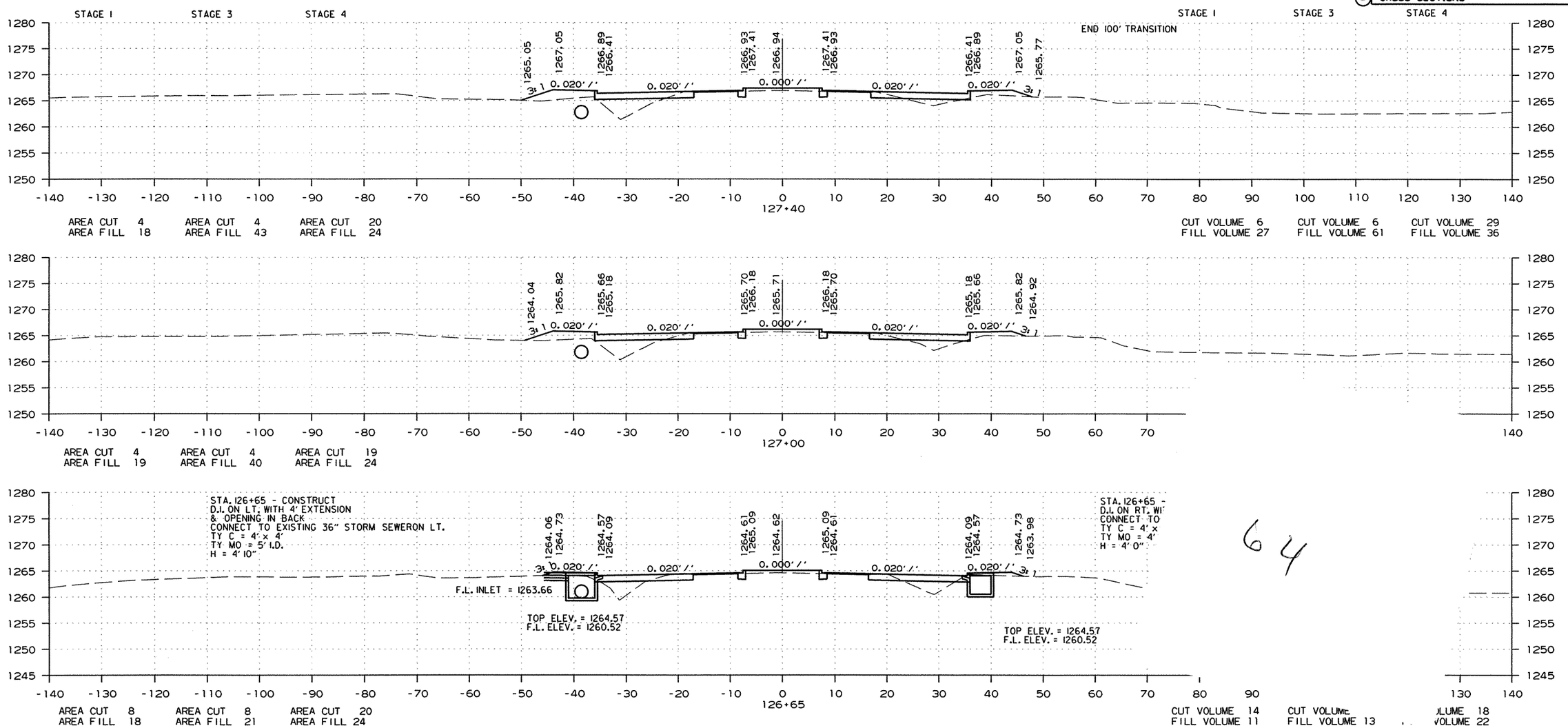
DOUBLES UNDER 5'-0" COVER

STANDARD DRAWING No. R-230X-01

Designed by:- W.C.H. 1-12-63.
Drawn by:- W.C.H. 2-26-64
Quantities by:- W.C.H. 4-3-64

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	207	270

(2) CROSS SECTIONS



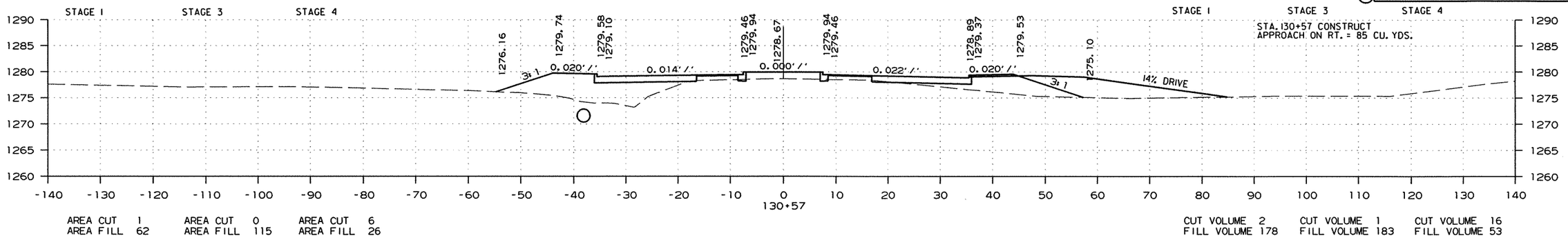
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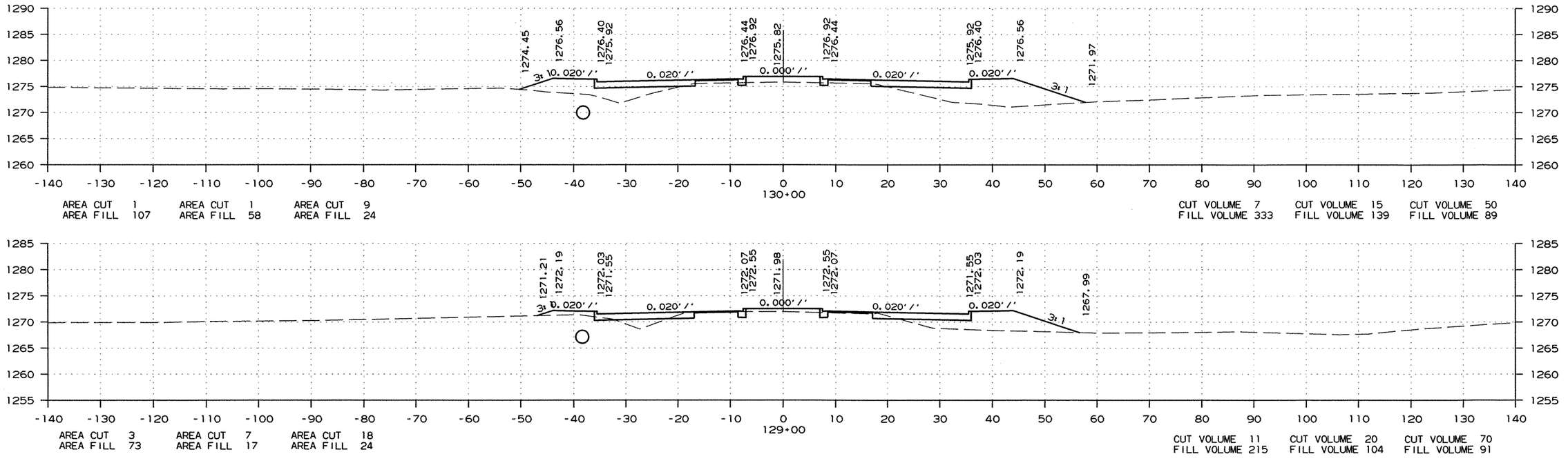
r040518.dgn 12/20/2010

STA. 126+40 TO STA. 127+40

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	208	270

(2) CROSS SECTIONS



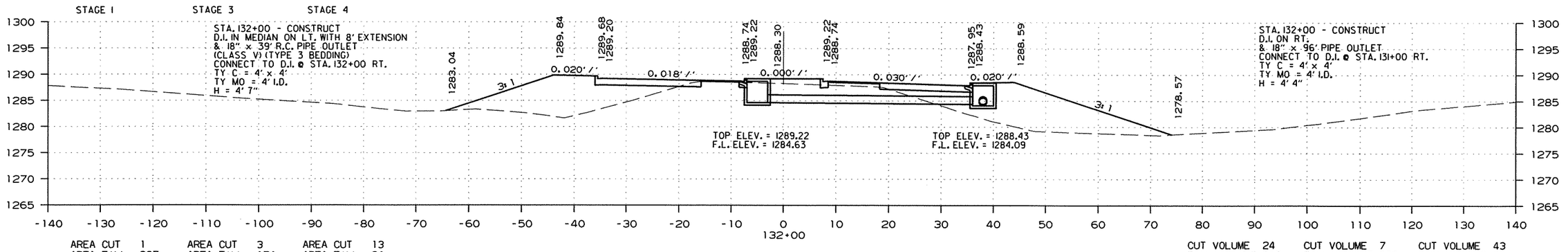


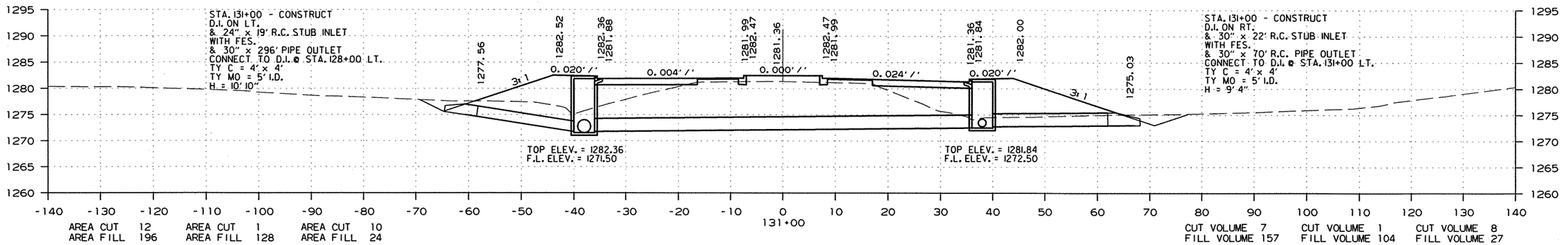
STA. 128+00 TO STA. 130+57

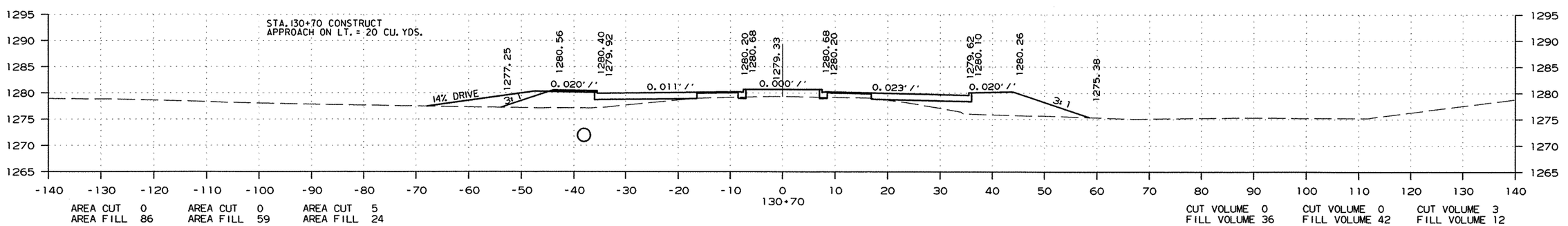
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	209	270

(2) CROSS SECTIONS





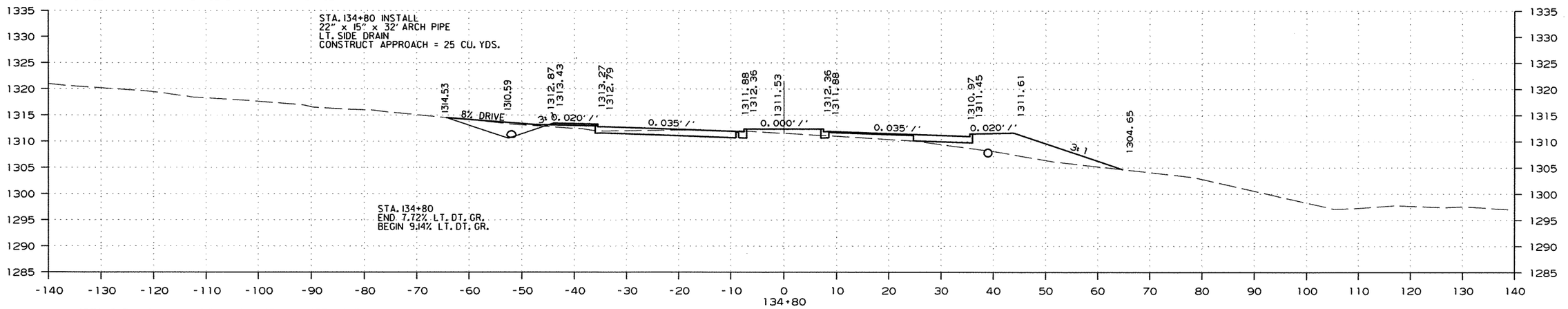


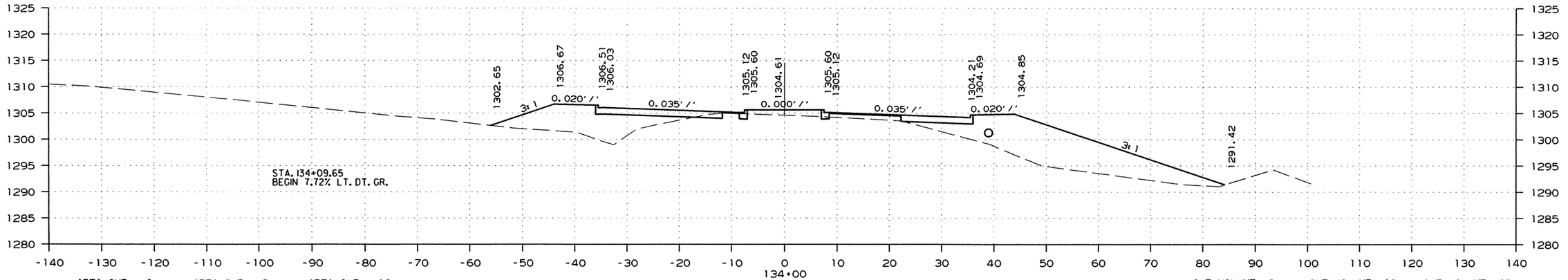
STA. 130+70 TO STA. 132+00

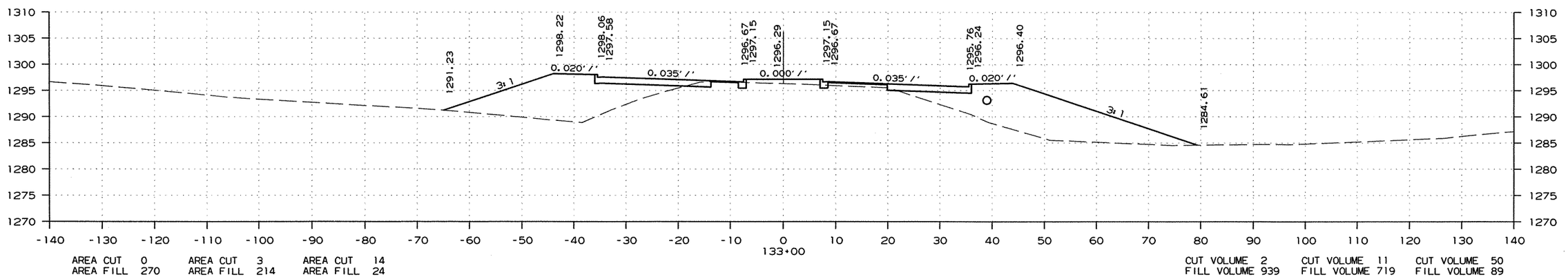
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	210	270

(2) CROSS SECTIONS





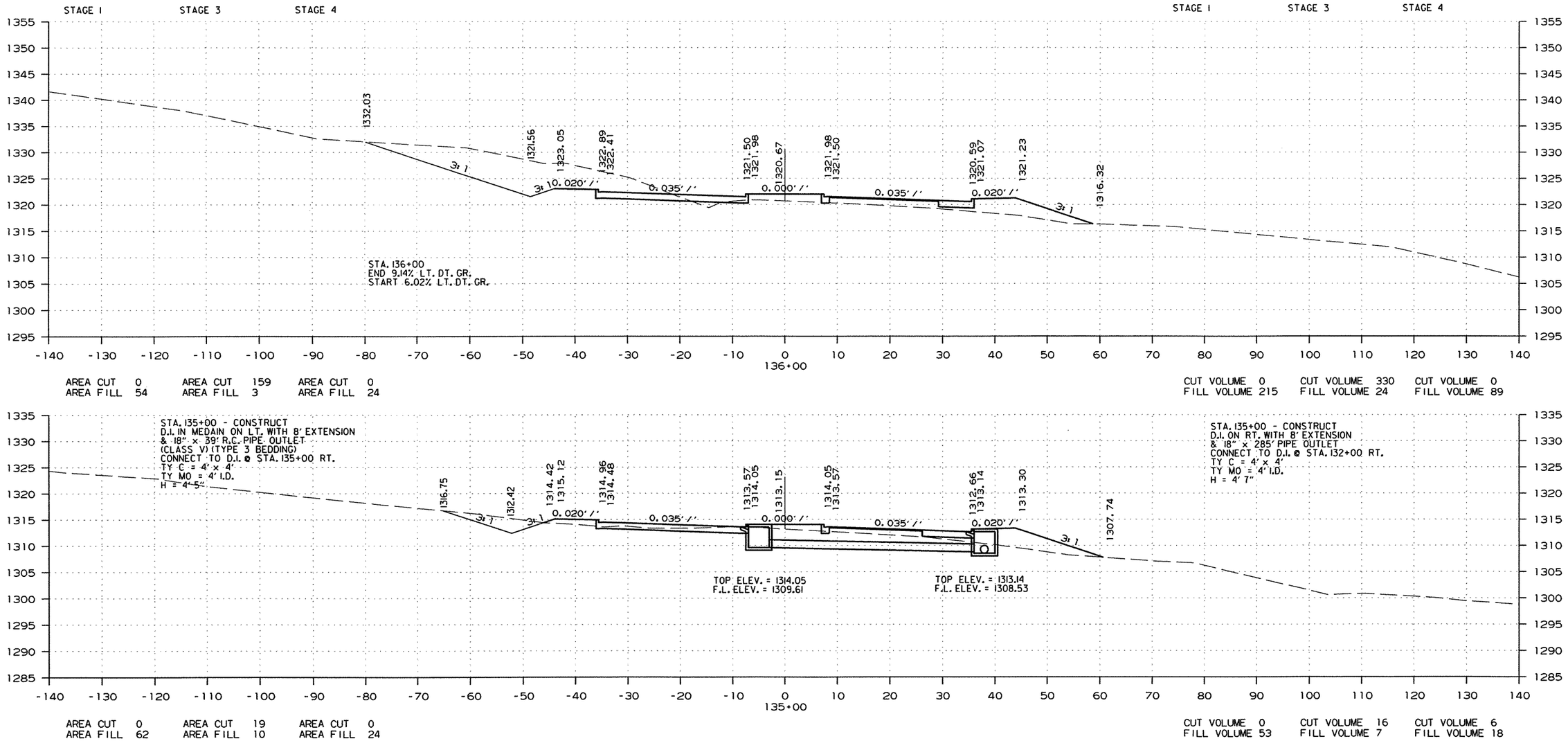


STA. 133+00 TO STA. 134+80

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	211	270

(2) CROSS SECTIONS



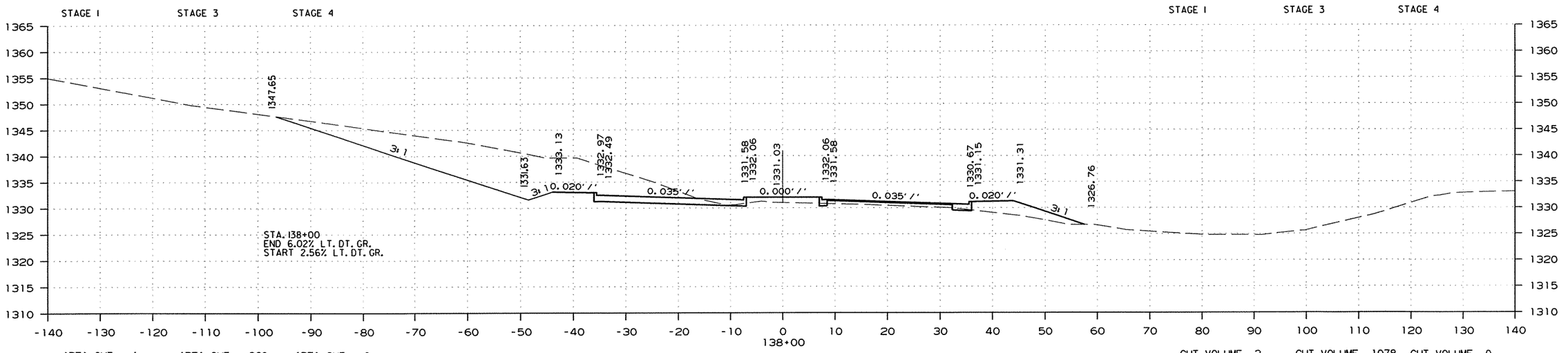
STA. 135+00 TO STA. 136+00

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	212	270

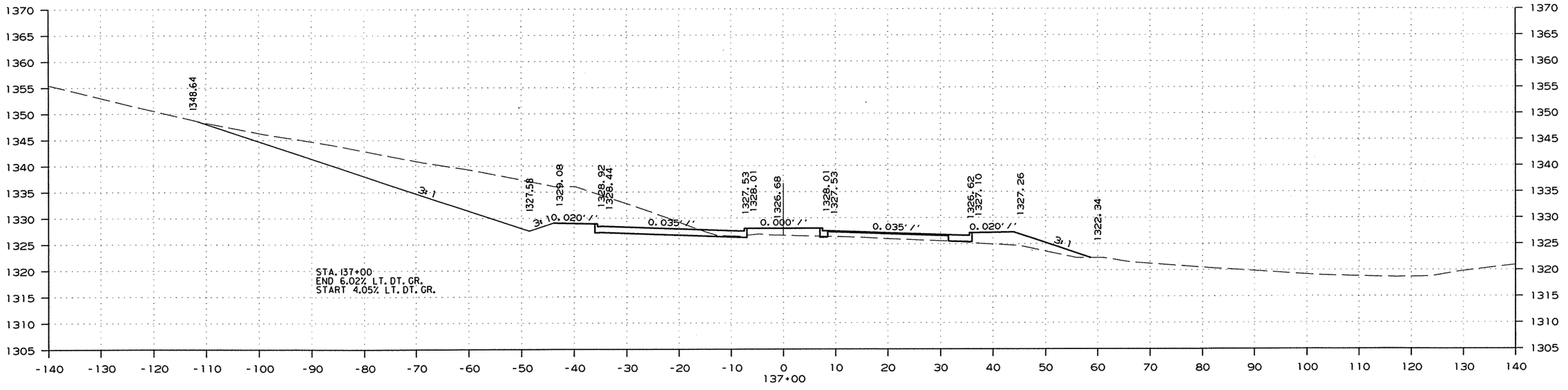
(2) CROSS SECTIONS

STA. 138+50
END 2.56% LT. DT. GR.
START 4.58% LT. DT. GR.



AREA CUT 1 AREA CUT 269 AREA CUT 0
AREA FILL 38 AREA FILL 0 AREA FILL 24

CUT VOLUME 2 CUT VOLUME 1078 CUT VOLUME 0
FILL VOLUME 144 FILL VOLUME 0 FILL VOLUME 89



AREA CUT 0 AREA CUT 313 AREA CUT 0
AREA FILL 40 AREA FILL 0 AREA FILL 24

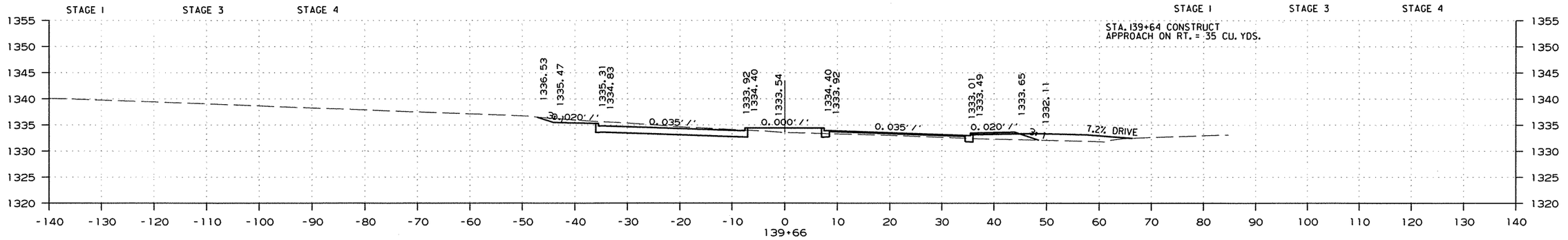
CUT VOLUME 0 CUT VOLUME 874 CUT VOLUME 0
FILL VOLUME 174 FILL VOLUME 6 FILL VOLUME 89

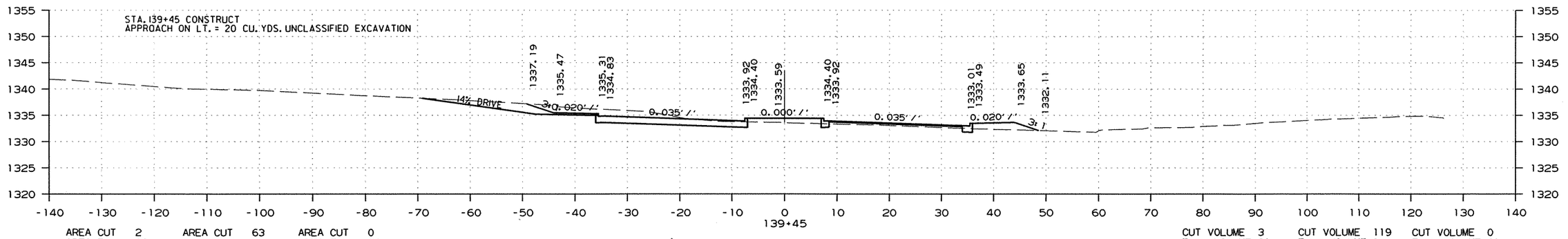
STA. 137+00 TO STA. 138+00

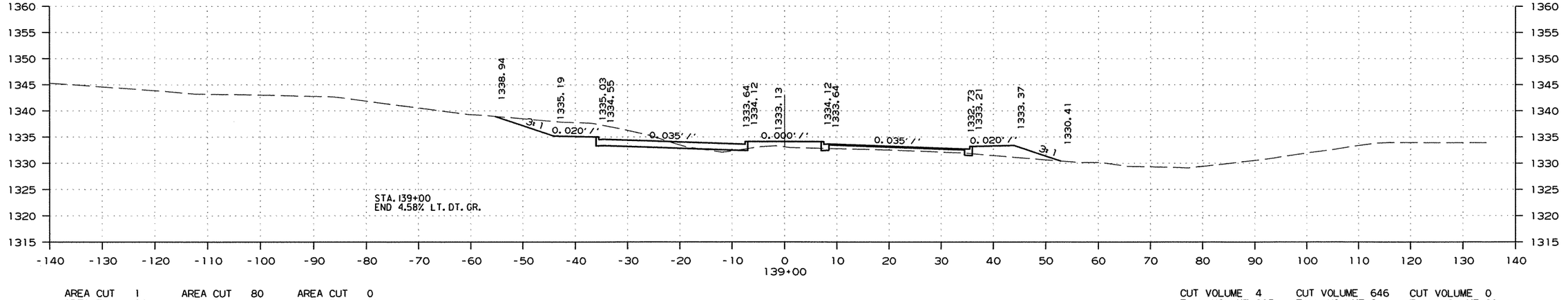
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	213	270

(2) CROSS SECTIONS





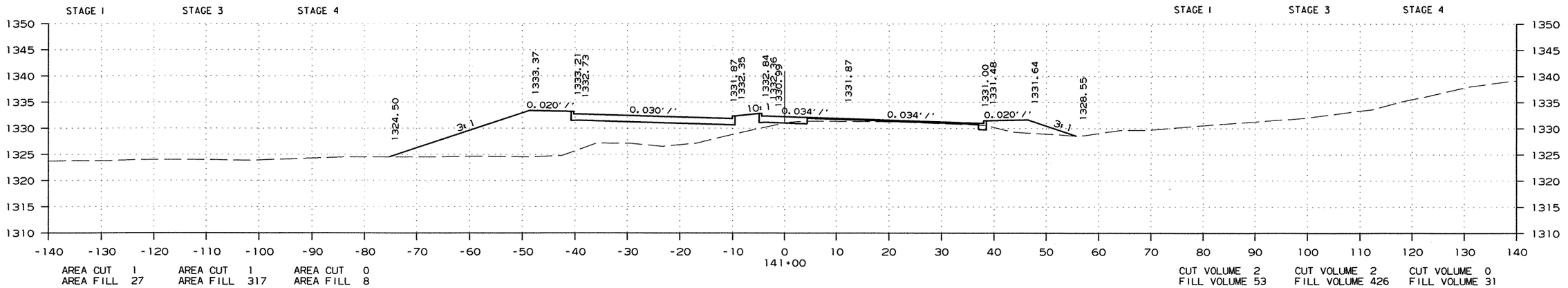


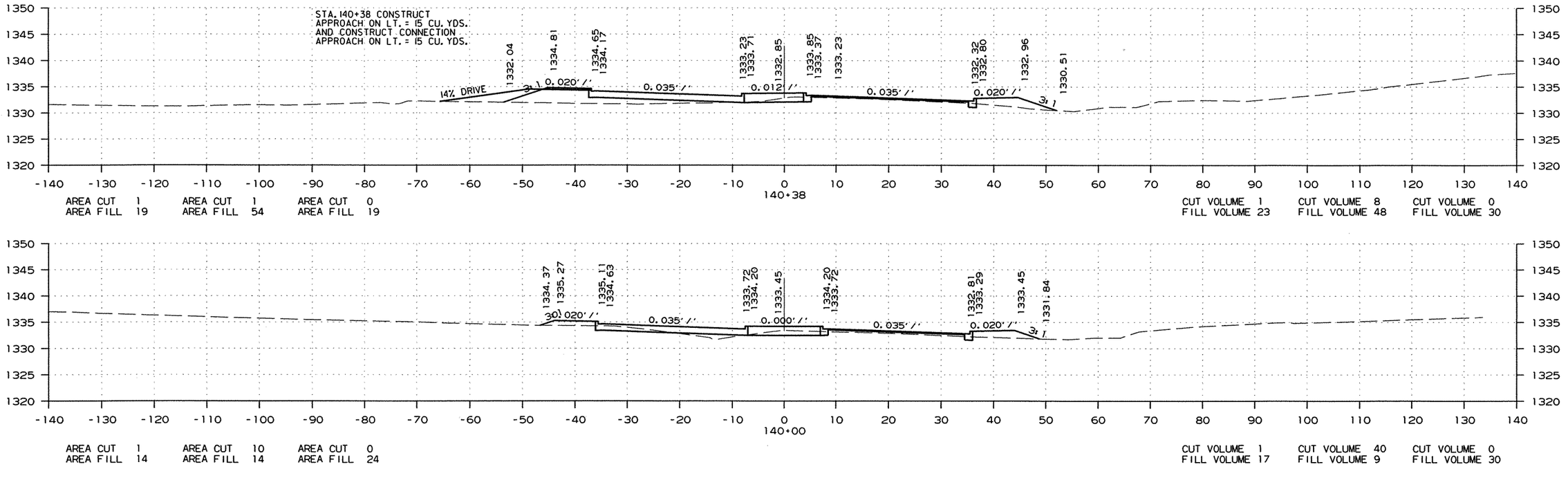
STA. 139+00 TO STA. 139+66

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		040518	214	270

(2) CROSS SECTIONS



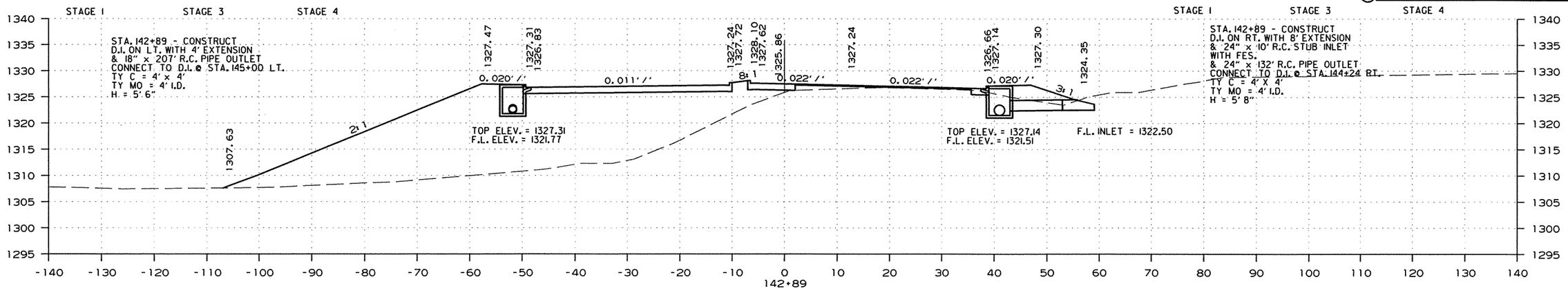


STA. 140+00 TO STA. 141+00

r040518.dgn 12/20/2010

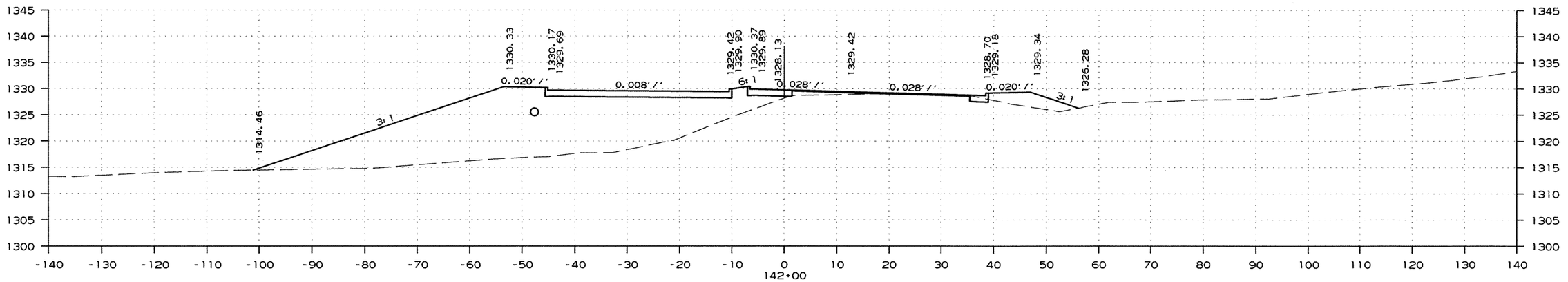
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	215	270

(2) CROSS SECTIONS



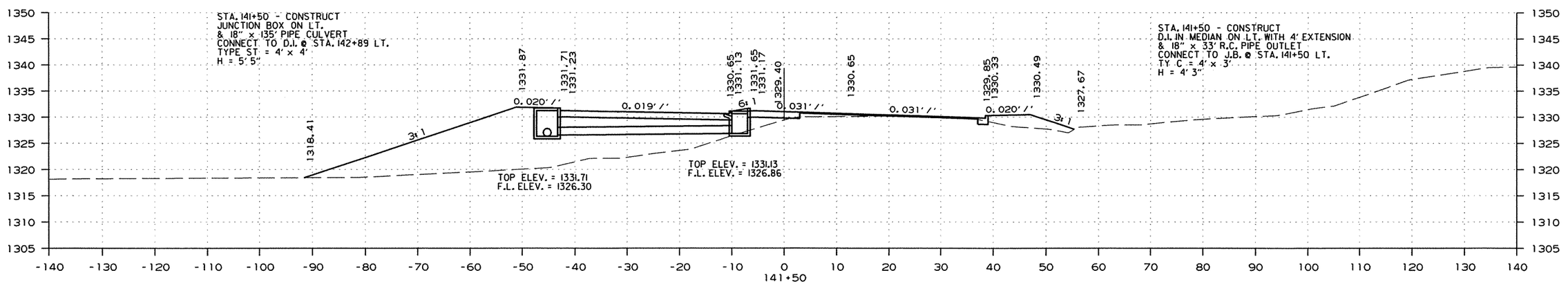
AREA CUT 2 AREA FILL 34 | AREA CUT 0 AREA FILL 1044 | AREA CUT 0 AREA FILL 5

CUT VOLUME 8 FILL VOLUME 109 | CUT VOLUME 0 FILL VOLUME 3011 | CUT VOLUME 0 FILL VOLUME 16



AREA CUT 3 AREA FILL 32 | AREA CUT 0 AREA FILL 783 | AREA CUT 0 AREA FILL 5

CUT VOLUME 4 FILL VOLUME 56 | CUT VOLUME 0 FILL VOLUME 1253 | CUT VOLUME 0 FILL VOLUME 9



AREA CUT 1 AREA FILL 29 | AREA CUT 0 AREA FILL 570 | AREA CUT 0 AREA FILL 5

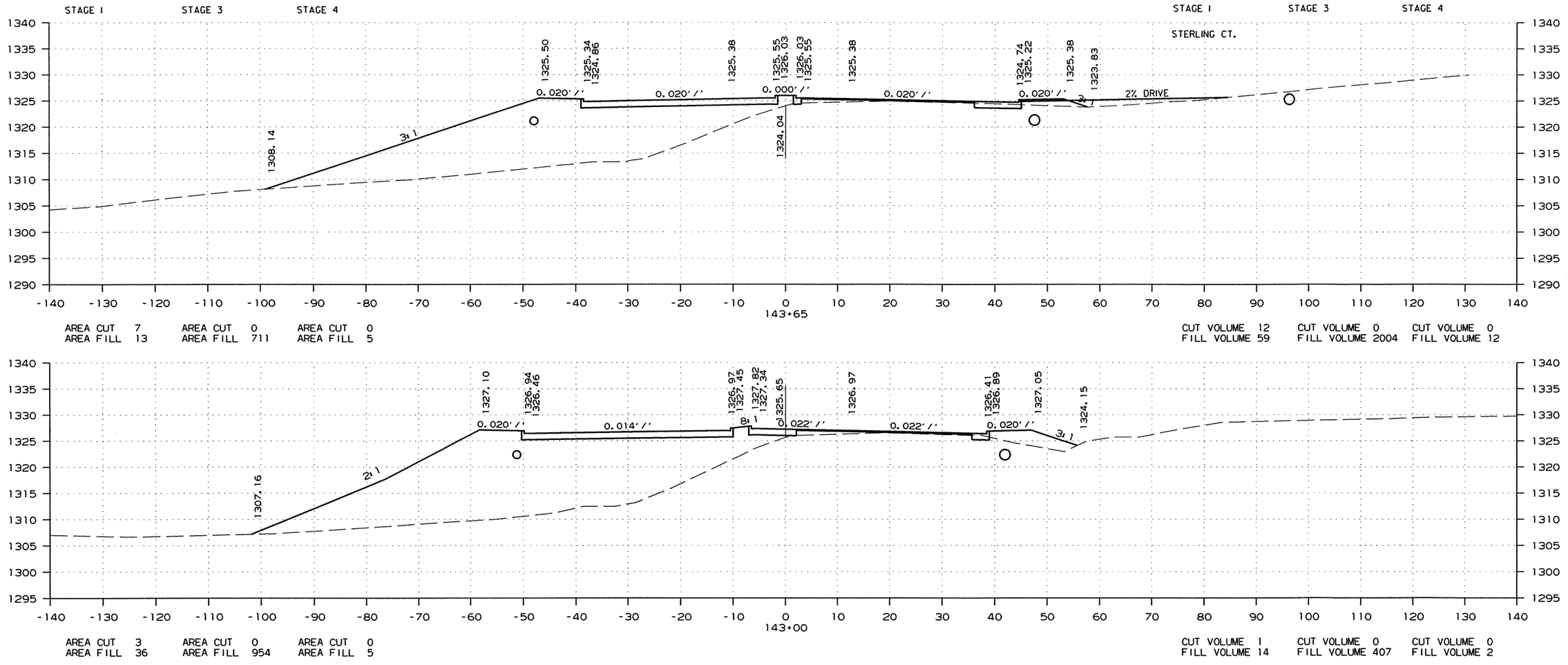
CUT VOLUME 2 FILL VOLUME 52 | CUT VOLUME 1 FILL VOLUME 821 | CUT VOLUME 0 FILL VOLUME 12

STA. 141+50 TO STA. 142+89

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	216	270

(2) CROSS SECTIONS

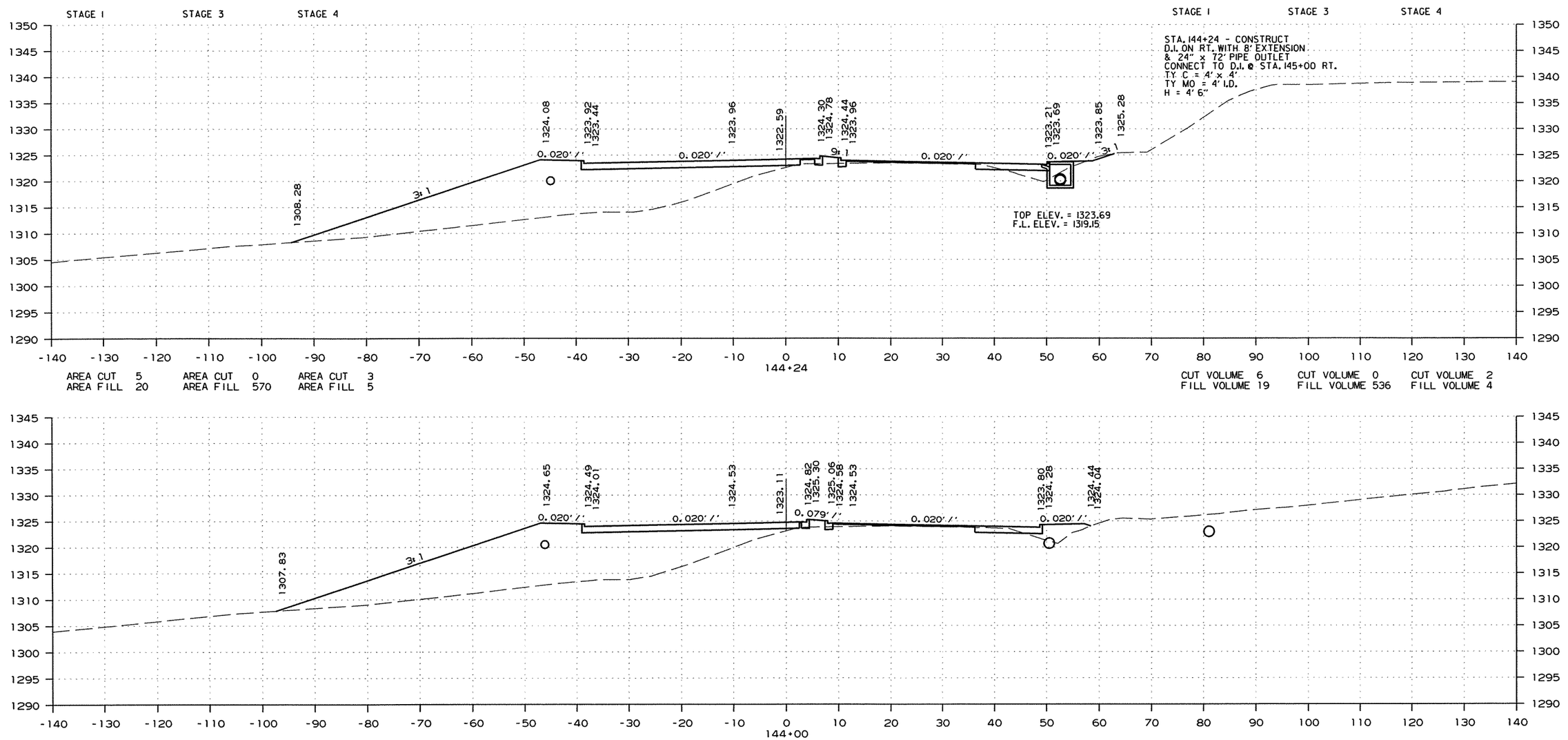


STA. 143+00 TO STA. 143+65

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	217	270

(2) CROSS SECTIONS

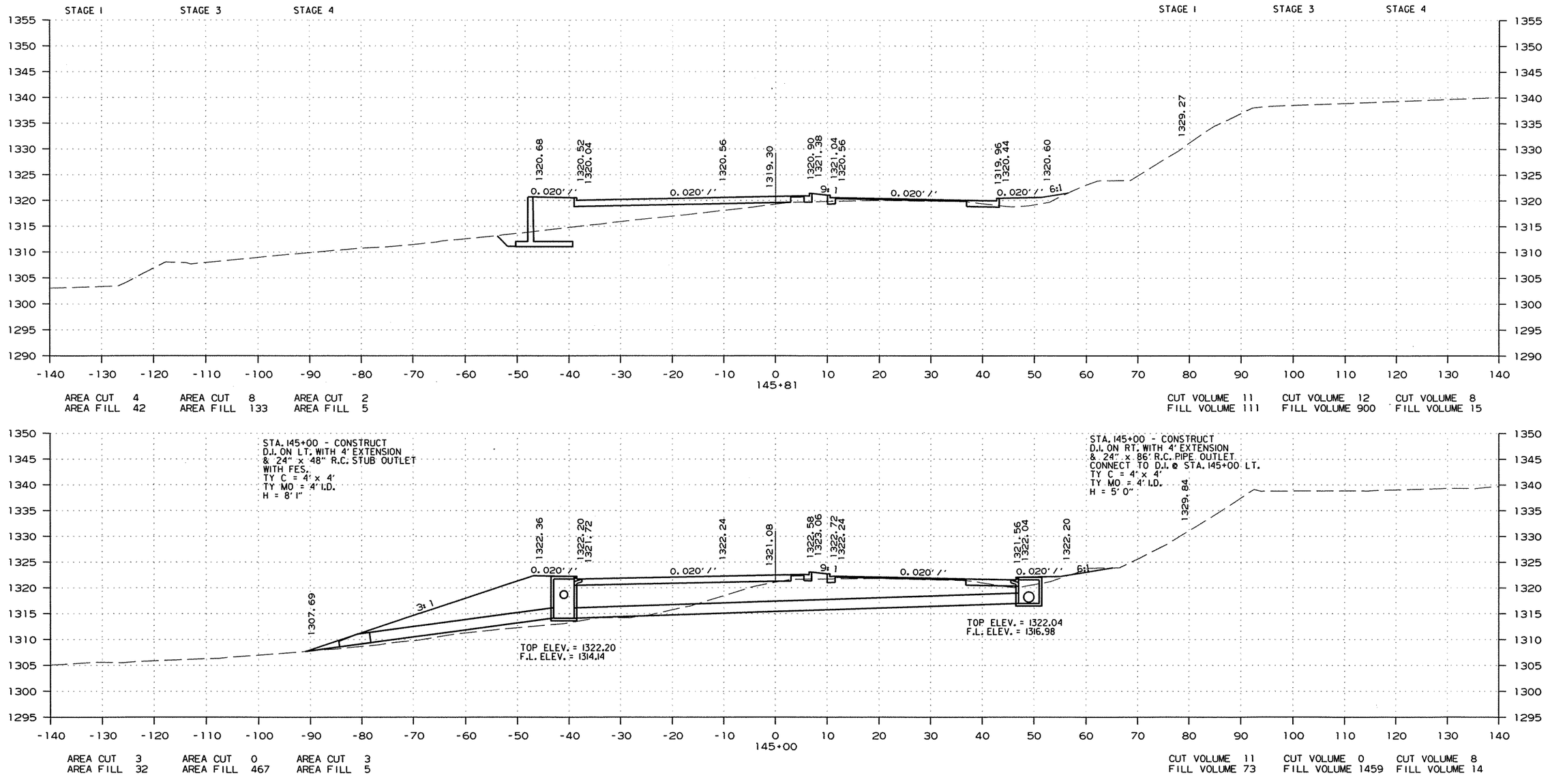


STA. 144+00 TO STA. 144+24

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	218	270

(2) CROSS SECTIONS

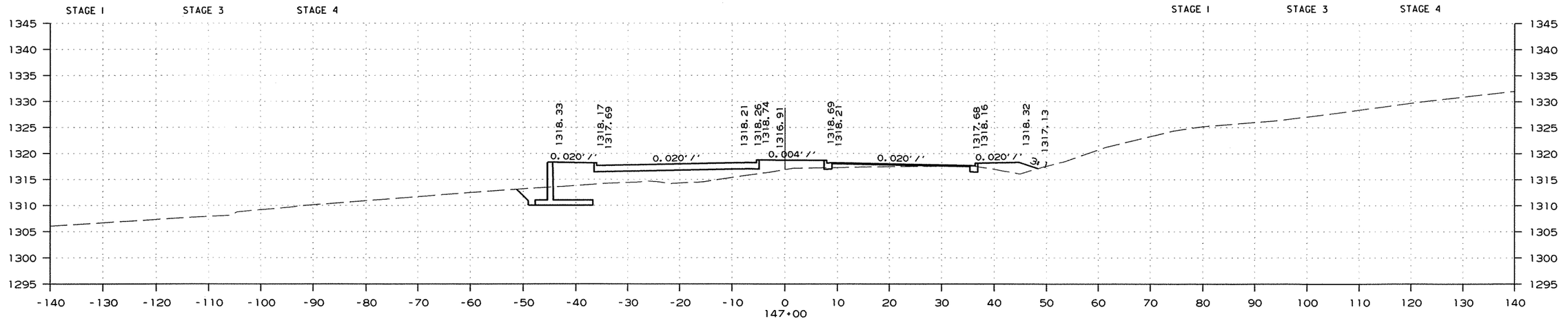


STA. 145+00 TO STA. 145+81

r040518.dgn 12/20/2010

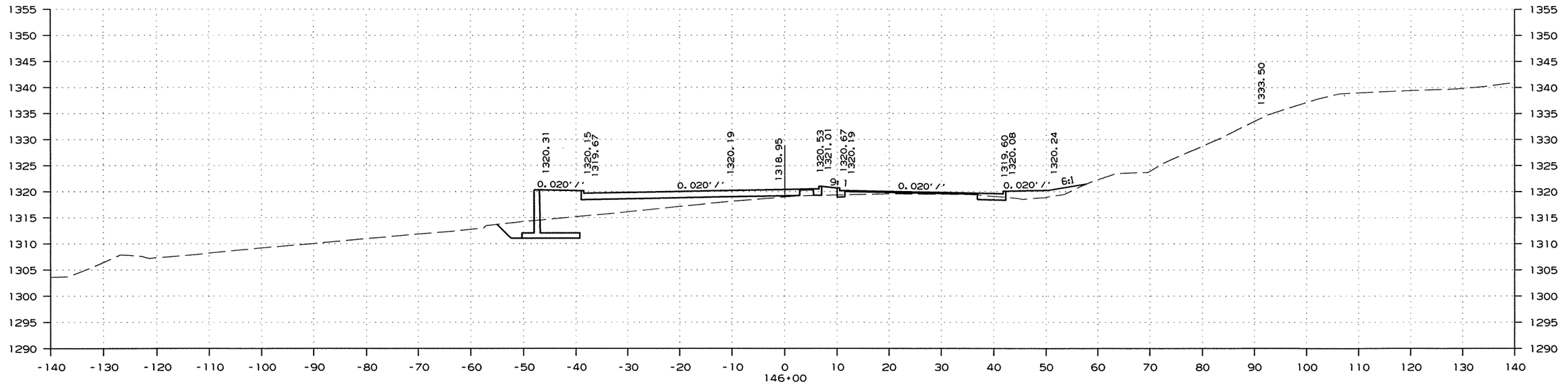
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	219	270

(2) CROSS SECTIONS



AREA CUT 2 AREA FILL 16
AREA CUT 8 AREA FILL 106
AREA CUT 0 AREA FILL 21

CUT VOLUME 11 FILL VOLUME 135
CUT VOLUME 37
CUT VOLUME 2 FILL VOLUME 48



AREA CUT 4 AREA FILL 57
AREA CUT 12 AREA FILL 111
AREA CUT 1 AREA FILL 5

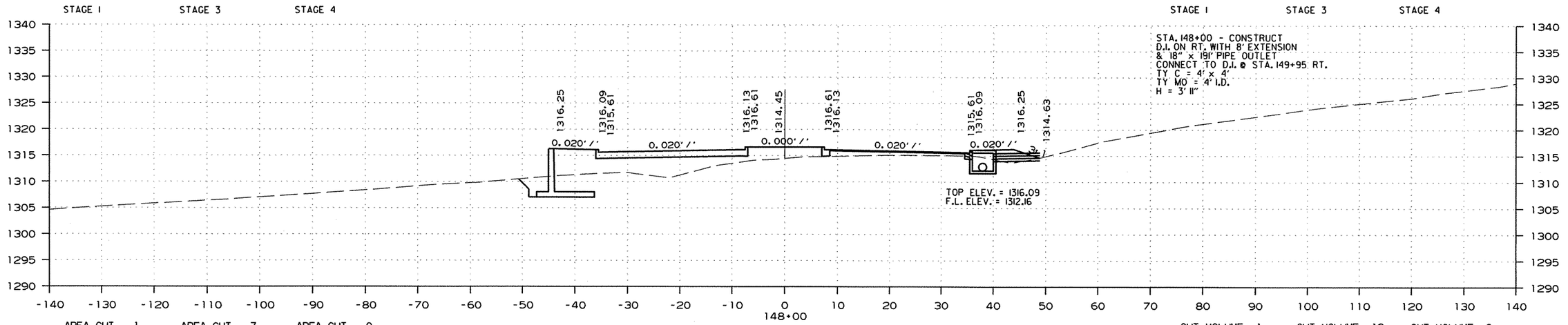
CUT VOLUME 3 FILL VOLUME 35
CUT VOLUME 7 FILL VOLUME 86
CUT VOLUME 1 FILL VOLUME 4

STA. 146+00 TO STA. 147+00

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	220	270

(2) CROSS SECTIONS

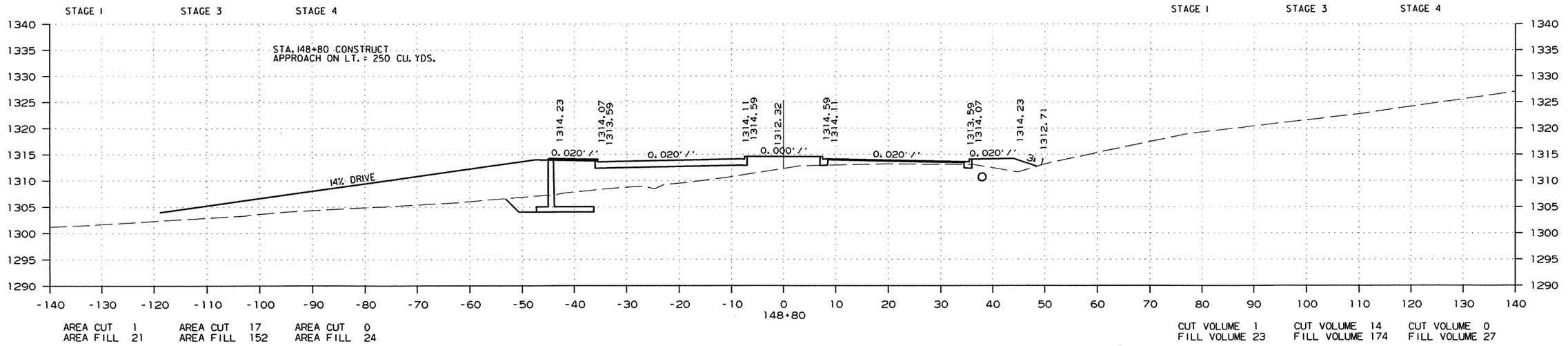


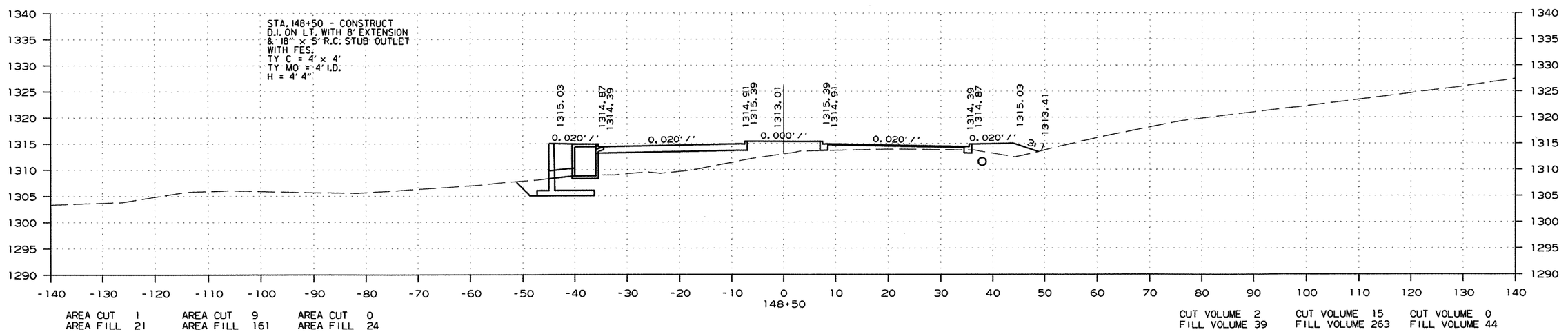
r040518.dgn 12/20/2010

STA. 147+68 TO STA. 148+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	221	270

(2) CROSS SECTIONS



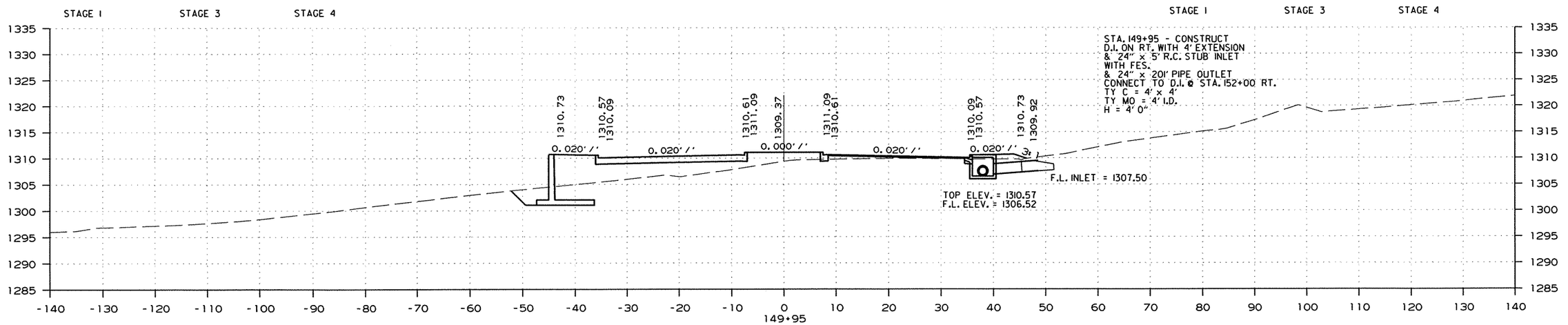


STA. 148+50 TO STA. 148+80

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	222	270

(2) CROSS SECTIONS

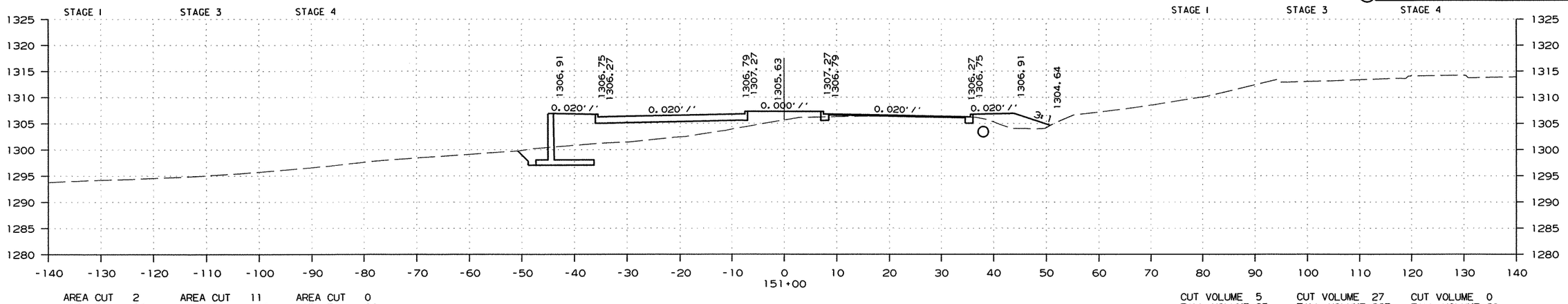


STA. 149+00 TO STA. 149+95

r040518.dgn 12/20/2010

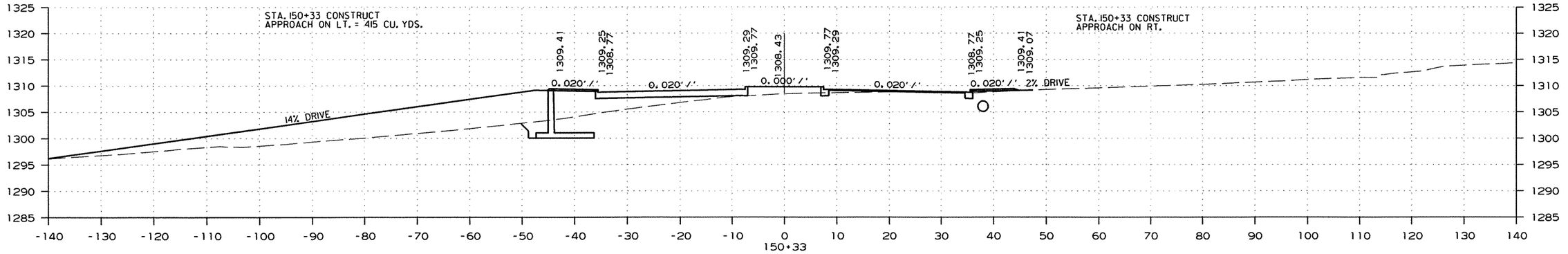
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	223	270

(2) CROSS SECTIONS



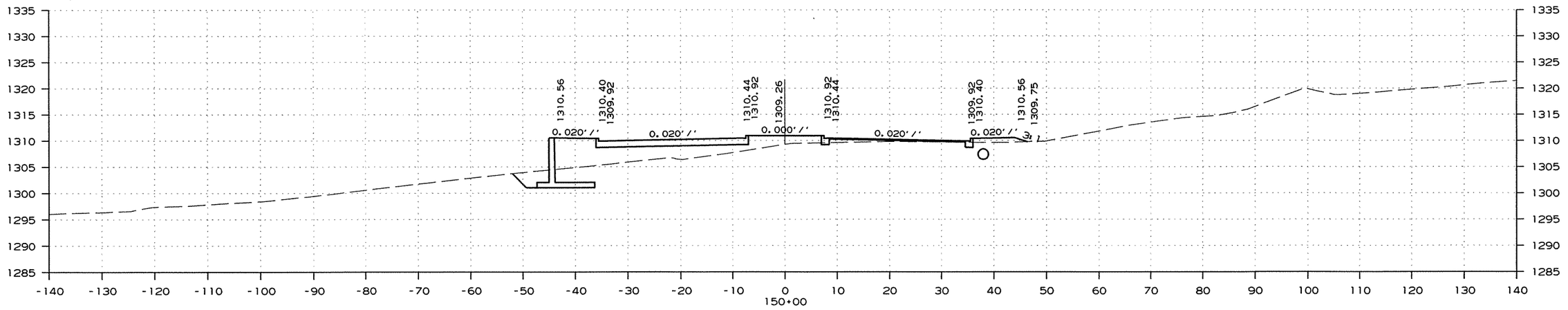
AREA CUT 2 AREA FILL 24 | AREA CUT 11 AREA FILL 136 | AREA CUT 0 AREA FILL 24

CUT VOLUME 5 FILL VOLUME 35 | CUT VOLUME 27 FILL VOLUME 267 | CUT VOLUME 0 FILL VOLUME 60



AREA CUT 2 AREA FILL 4 | AREA CUT 11 AREA FILL 79 | AREA CUT 0 AREA FILL 24

CUT VOLUME 2 FILL VOLUME 7 | CUT VOLUME 16 FILL VOLUME 120 | CUT VOLUME 0 FILL VOLUME 29



AREA CUT 1 AREA FILL 8 | AREA CUT 15 AREA FILL 118 | AREA CUT 0 AREA FILL 24

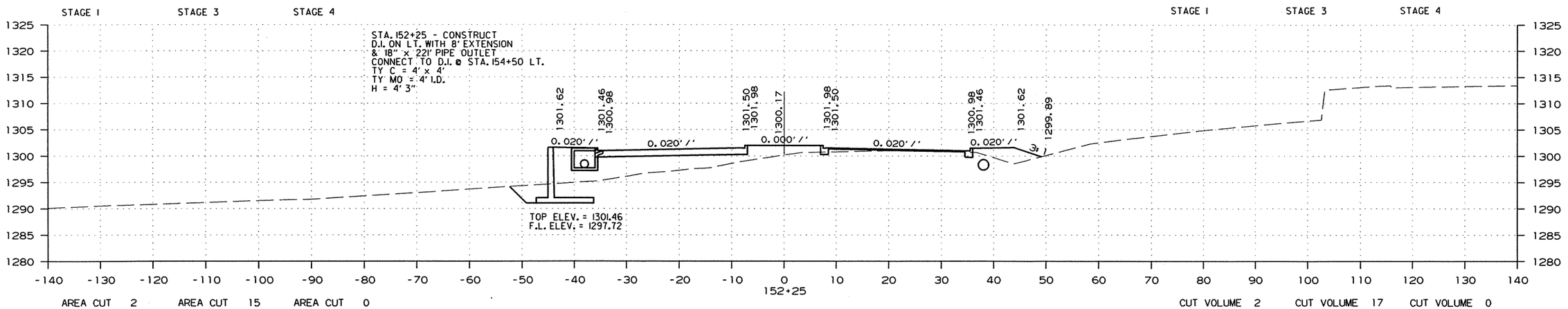
CUT VOLUME 0 FILL VOLUME 1 | CUT VOLUME 3 FILL VOLUME 22 | CUT VOLUME 0 FILL VOLUME 4

STA. 150+00 TO STA. 151+00

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	224	270

(2) CROSS SECTIONS

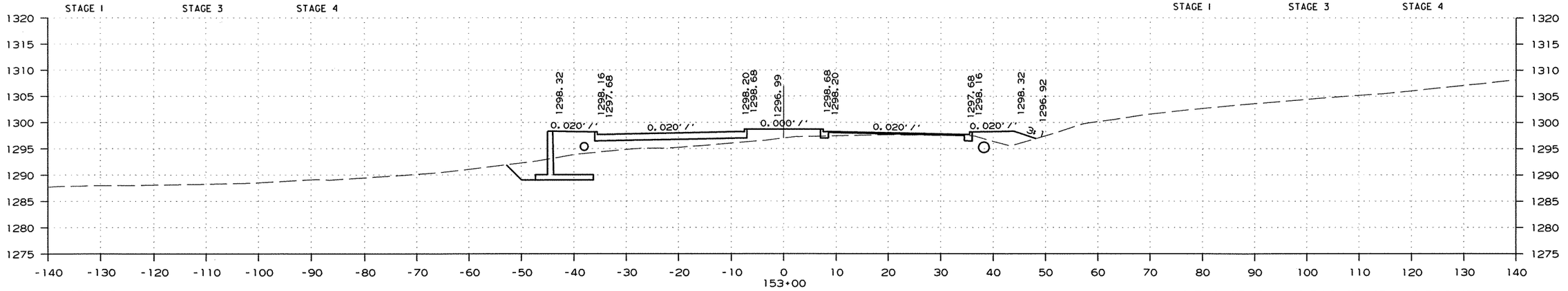


STA. 152+00 TO STA. 152+25

r040518.dgn 12/20/2010

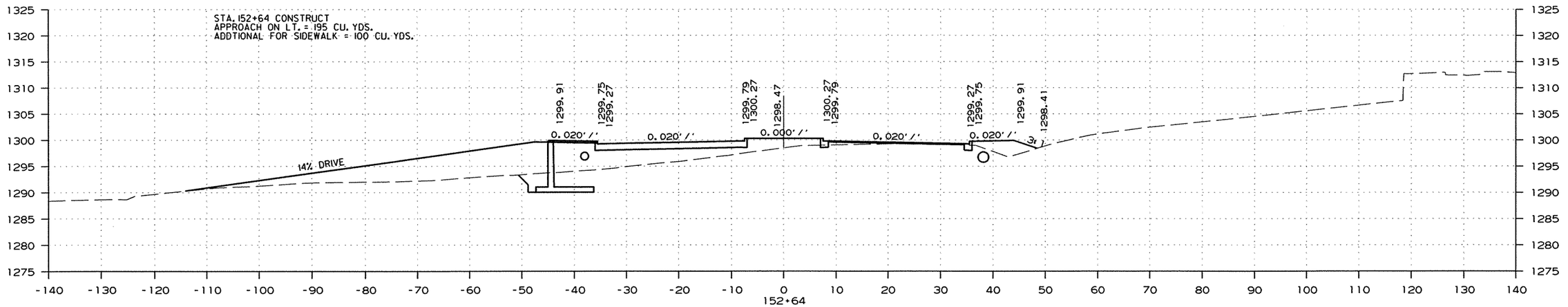
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	225	270

(2) CROSS SECTIONS



AREA CUT 2 AREA CUT 18 AREA CUT 0
AREA FILL 20 AREA FILL 80 AREA FILL 24

CUT VOLUME 2 CUT VOLUME 17 CUT VOLUME 0
FILL VOLUME 28 FILL VOLUME 135 FILL VOLUME 32



AREA CUT 1 AREA CUT 8 AREA CUT 0
AREA FILL 22 AREA FILL 123 AREA FILL 24

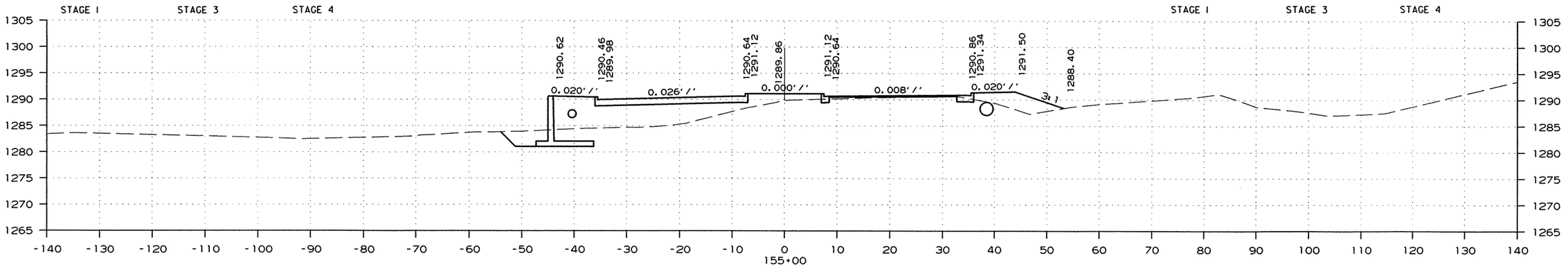
CUT VOLUME 2 CUT VOLUME 17 CUT VOLUME 0
FILL VOLUME 33 FILL VOLUME 190 FILL VOLUME 35

STA. 152+64 TO STA. 153+00

r040518.dgn 12/20/2010

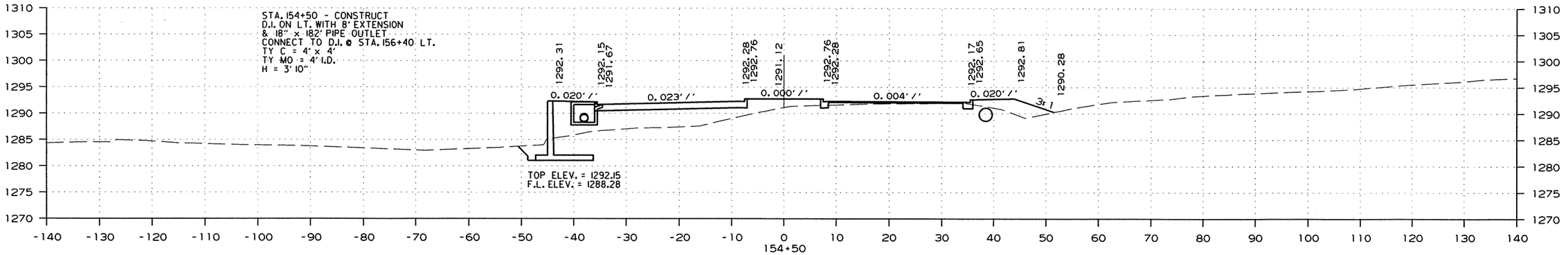
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	226	270

(2) CROSS SECTIONS



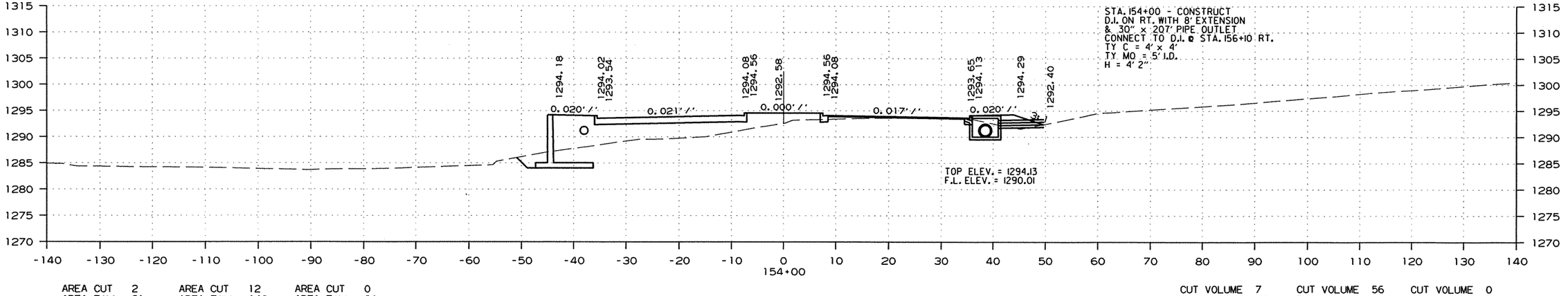
AREA CUT 2 AREA FILL 37 | AREA CUT 25 AREA FILL 151 | AREA CUT 0 AREA FILL 25

CUT VOLUME 4 FILL VOLUME 60 | CUT VOLUME 32 FILL VOLUME 272 | CUT VOLUME 0 FILL VOLUME 46



AREA CUT 2 AREA FILL 28 | AREA CUT 10 AREA FILL 143 | AREA CUT 0 AREA FILL 25

CUT VOLUME 4 FILL VOLUME 45 | CUT VOLUME 20 FILL VOLUME 262 | CUT VOLUME 0 FILL VOLUME 45



AREA CUT 2 AREA FILL 21 | AREA CUT 12 AREA FILL 140 | AREA CUT 0 AREA FILL 24

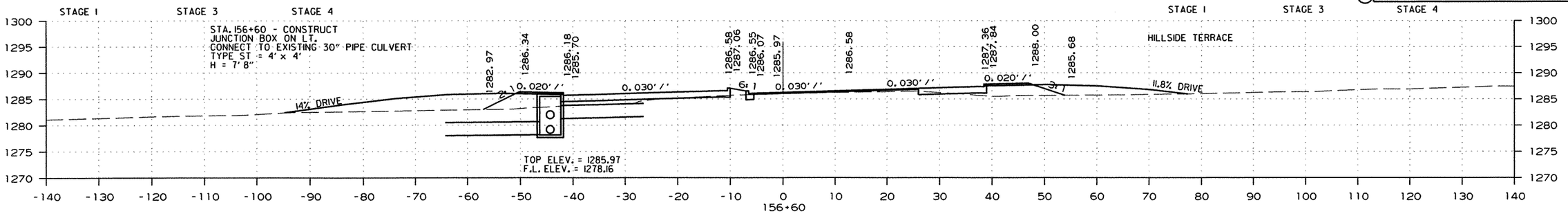
CUT VOLUME 7 FILL VOLUME 76 | CUT VOLUME 56 FILL VOLUME 480 | CUT VOLUME 0 FILL VOLUME 89

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STA. 154+00 TO STA. 155+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	227	270

(2) CROSS SECTIONS

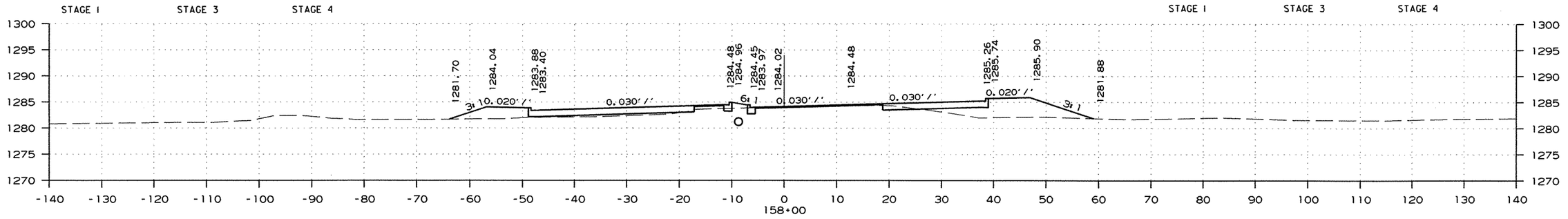


STA. 156+00 TO STA. 156+60

r040518.dgn 12/20/2010

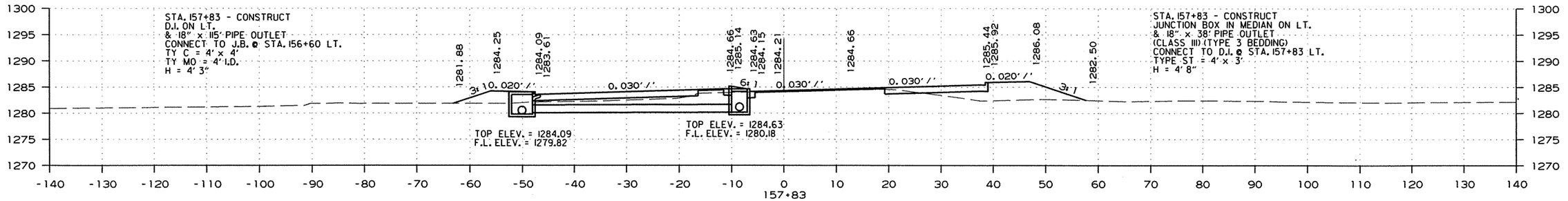
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	228	270

(2) CROSS SECTIONS



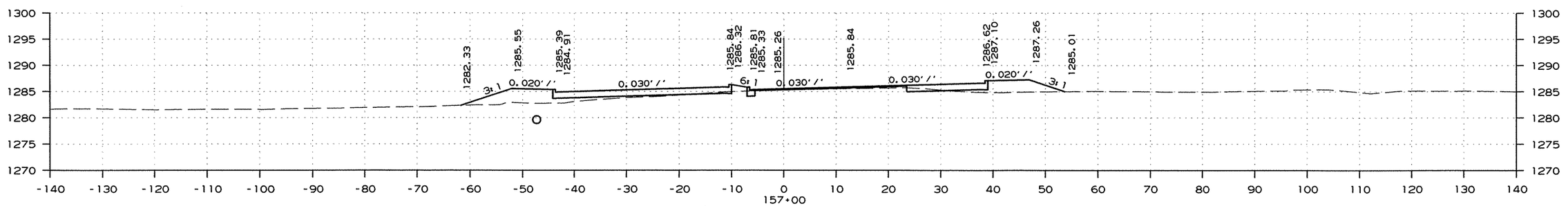
AREA CUT 4 AREA CUT 0 AREA CUT 5
AREA FILL 66 AREA FILL 32 AREA FILL 5

CUT VOLUME 3 CUT VOLUME 0 CUT VOLUME 3
FILL VOLUME 39 FILL VOLUME 22 FILL VOLUME 3



AREA CUT 4 AREA CUT 0 AREA CUT 5
AREA FILL 59 AREA FILL 37 AREA FILL 5

CUT VOLUME 11 CUT VOLUME 8 CUT VOLUME 8
FILL VOLUME 135 FILL VOLUME 126 FILL VOLUME 15



AREA CUT 3 AREA CUT 5 AREA CUT 0
AREA FILL 29 AREA FILL 45 AREA FILL 5

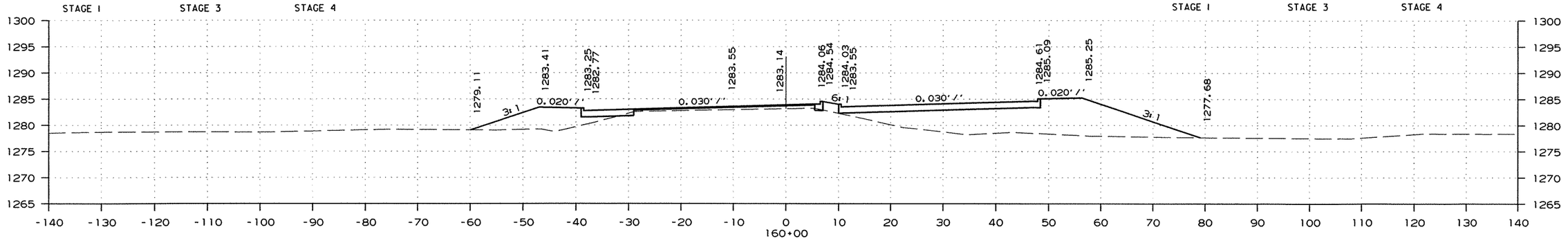
CUT VOLUME 4 CUT VOLUME 7 CUT VOLUME 0
FILL VOLUME 43 FILL VOLUME 67 FILL VOLUME 7

r040518.dgn 12/20/2010

STA. 157+00 TO STA. 158+00

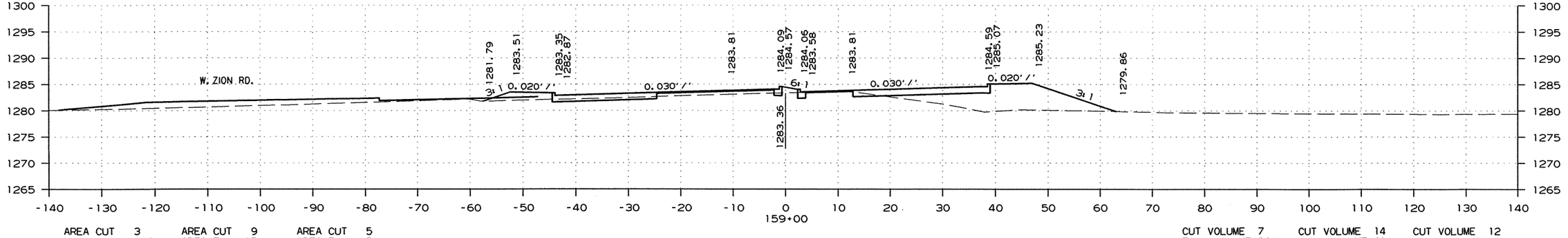
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	229	270

(2) CROSS SECTIONS



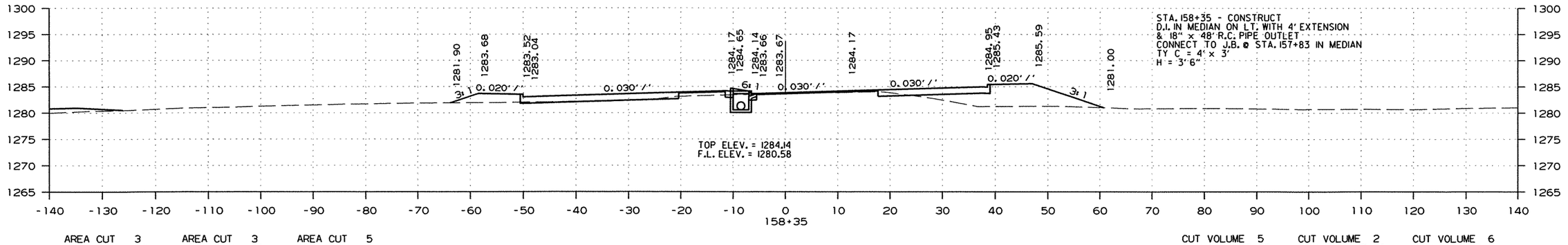
AREA CUT 0 AREA FILL 265 | AREA CUT 1 AREA FILL 66 | AREA CUT 0 AREA FILL 5

CUT VOLUME 6 FILL VOLUME 706 | CUT VOLUME 19 FILL VOLUME 150 | CUT VOLUME 9 FILL VOLUME 19



AREA CUT 3 AREA FILL 116 | AREA CUT 9 AREA FILL 15 | AREA CUT 5 AREA FILL 5

CUT VOLUME 7 FILL VOLUME 240 | CUT VOLUME 14 FILL VOLUME 40 | CUT VOLUME 12 FILL VOLUME 12



AREA CUT 3 AREA FILL 83 | AREA CUT 3 AREA FILL 18 | AREA CUT 5 AREA FILL 5

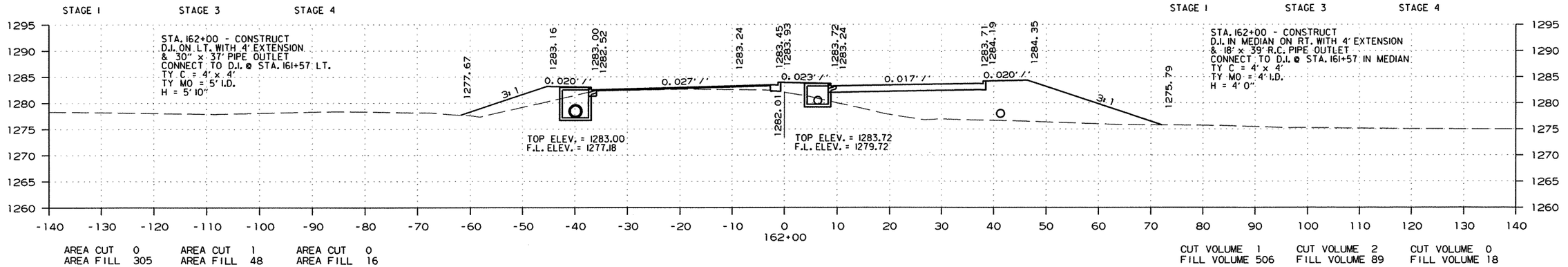
CUT VOLUME 5 FILL VOLUME 97 | CUT VOLUME 2 FILL VOLUME 32 | CUT VOLUME 6 FILL VOLUME 6

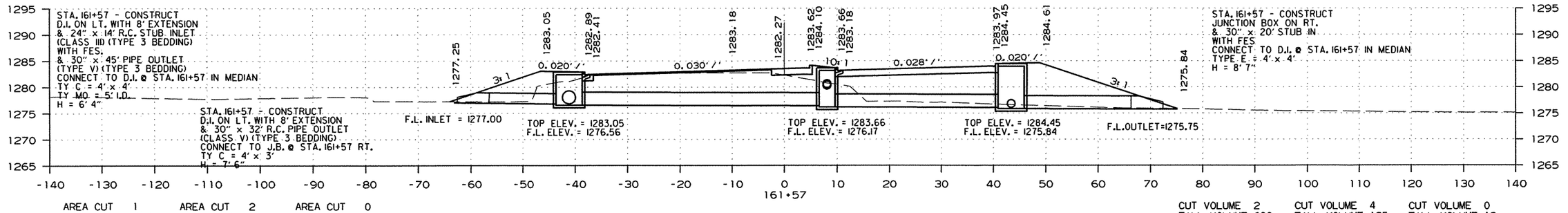
STA. 158+35 TO STA. 160+00

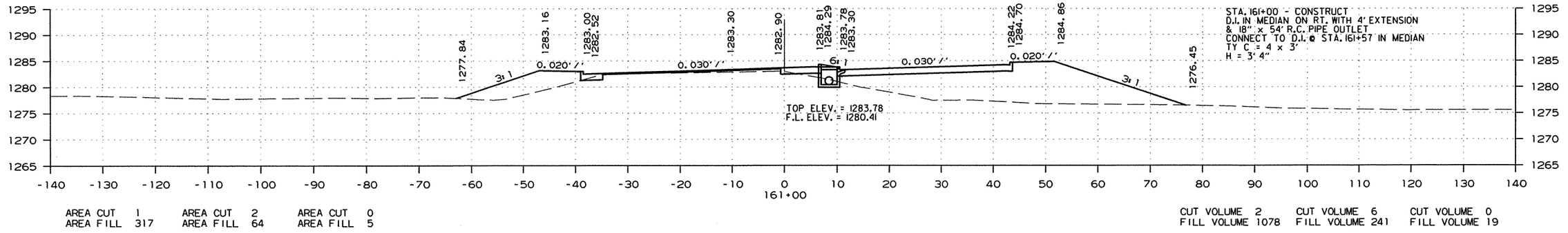
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	230	270

(2) CROSS SECTIONS







STA. 161+00 TO STA. 162+00

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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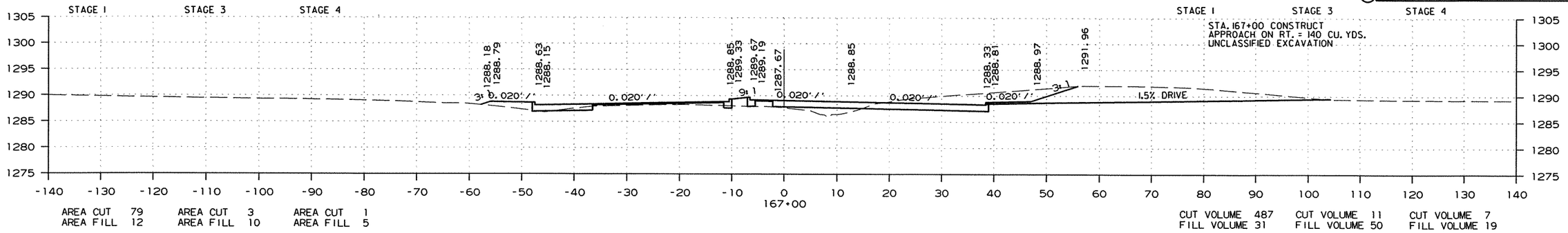
(2) CROSS SECTIONS

STA. 163+00 TO STA. 163+87

r040518.dgn 12/20/2010

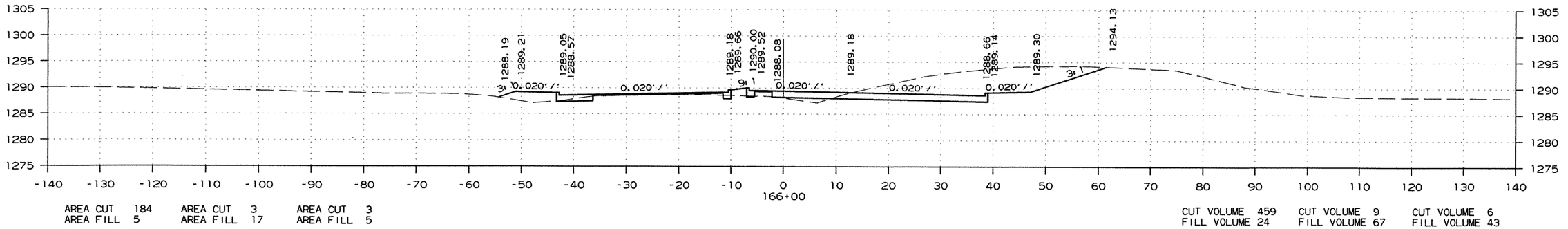
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	232	270

(2) CROSS SECTIONS



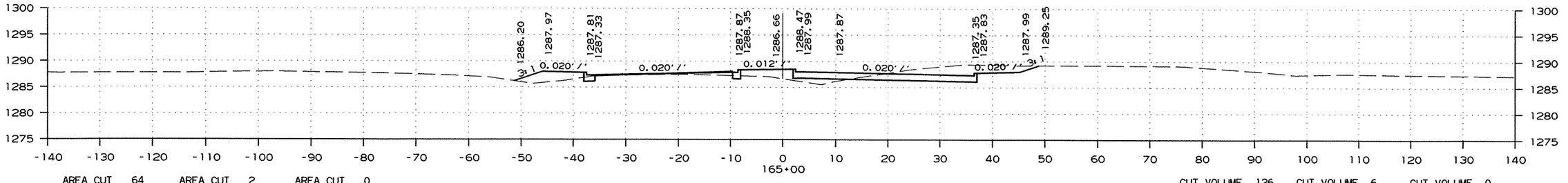
AREA CUT 79 AREA CUT 3 AREA CUT 1
AREA FILL 12 AREA FILL 10 AREA FILL 5

CUT VOLUME 487 CUT VOLUME 11 CUT VOLUME 7
FILL VOLUME 31 FILL VOLUME 50 FILL VOLUME 19



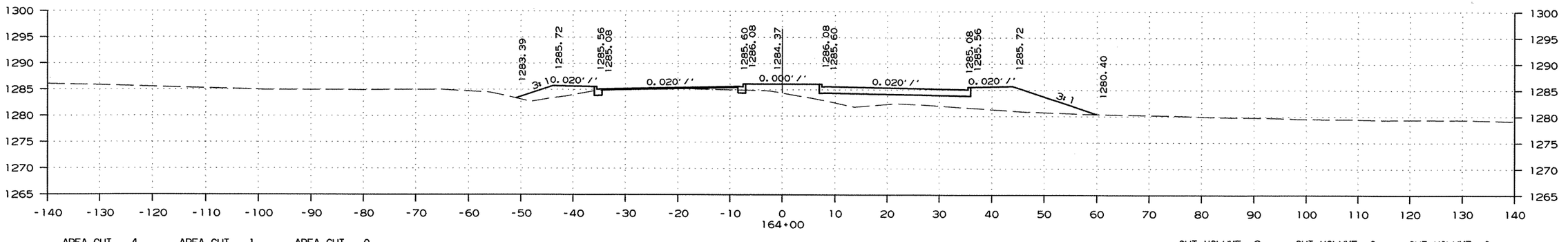
AREA CUT 184 AREA CUT 3 AREA CUT 3
AREA FILL 5 AREA FILL 17 AREA FILL 5

CUT VOLUME 459 CUT VOLUME 9 CUT VOLUME 6
FILL VOLUME 24 FILL VOLUME 67 FILL VOLUME 43



AREA CUT 64 AREA CUT 2 AREA CUT 0
AREA FILL 8 AREA FILL 19 AREA FILL 18

CUT VOLUME 126 CUT VOLUME 6 CUT VOLUME 0
FILL VOLUME 265 FILL VOLUME 80 FILL VOLUME 78



AREA CUT 4 AREA CUT 1 AREA CUT 0
AREA FILL 135 AREA FILL 24 AREA FILL 24

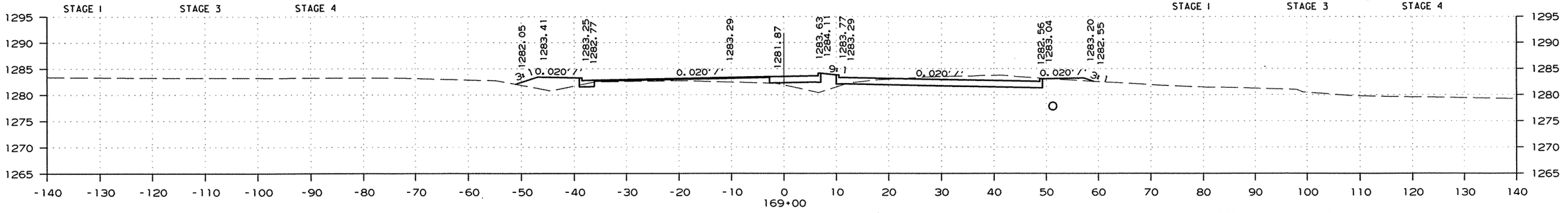
CUT VOLUME 2 CUT VOLUME 0 CUT VOLUME 0
FILL VOLUME 68 FILL VOLUME 13 FILL VOLUME 12

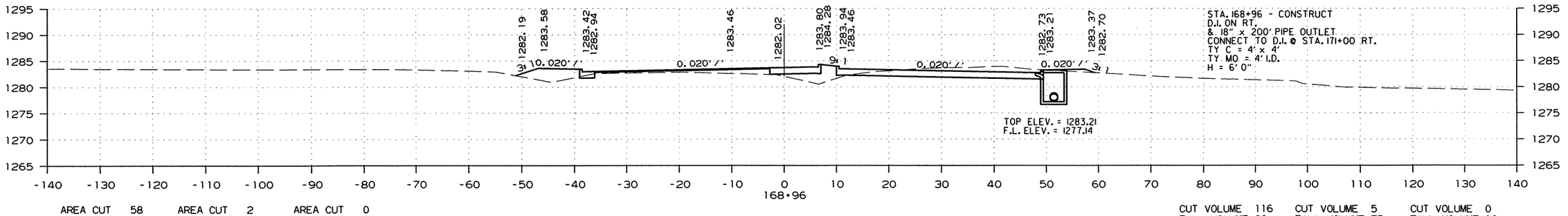
STA. 164+00 TO STA. 167+00

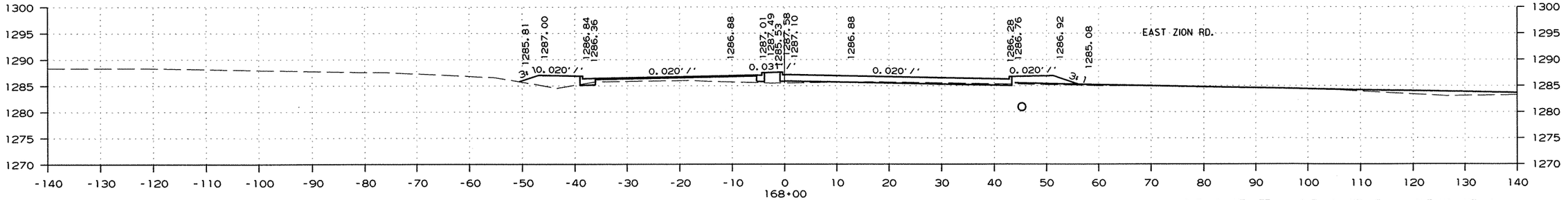
r040518.dgn 12/20/2010

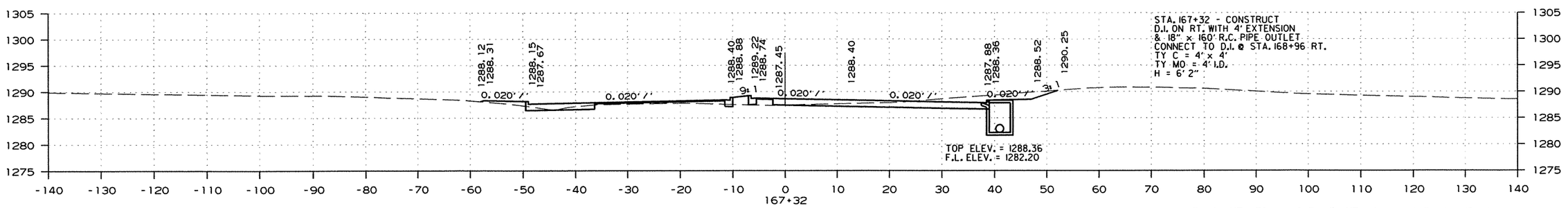
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	233	270

(2) CROSS SECTIONS







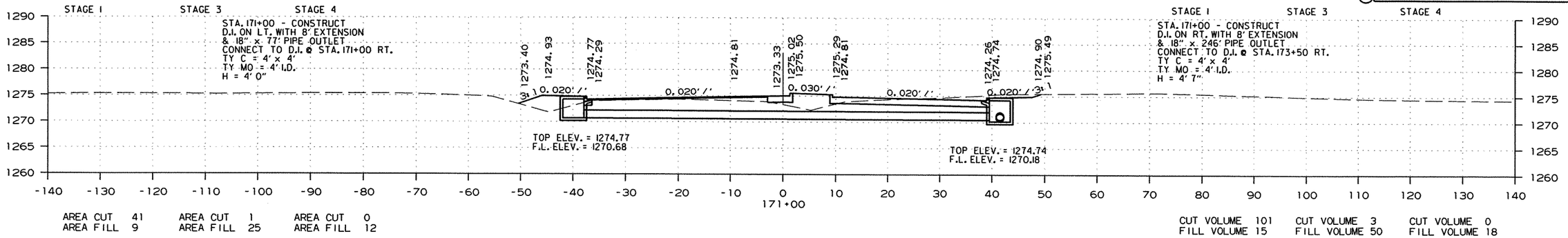


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STA. 167+32 TO STA. 169+00

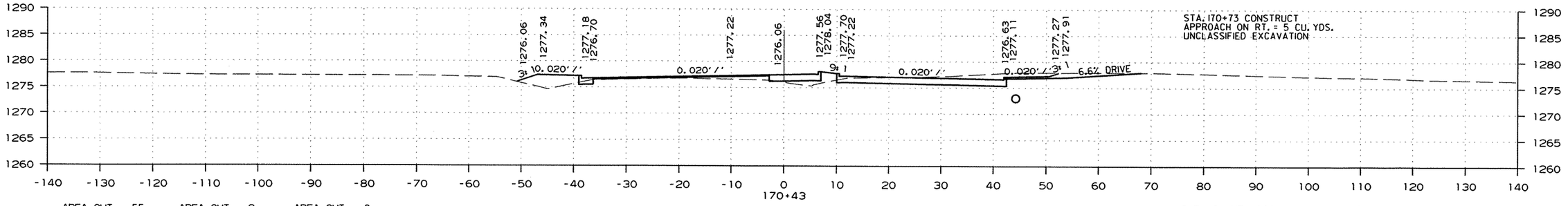
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	234	270

(2) CROSS SECTIONS



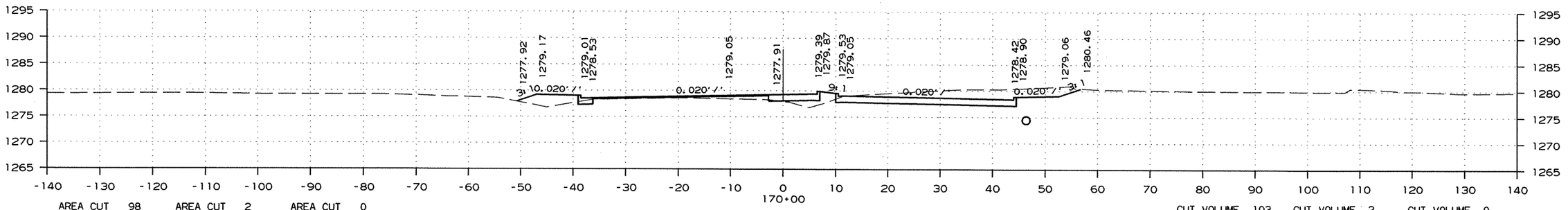
AREA CUT 41 AREA CUT 1 AREA CUT 0
AREA FILL 9 AREA FILL 25 AREA FILL 12

CUT VOLUME 101 CUT VOLUME 3 CUT VOLUME 0
FILL VOLUME 15 FILL VOLUME 50 FILL VOLUME 18



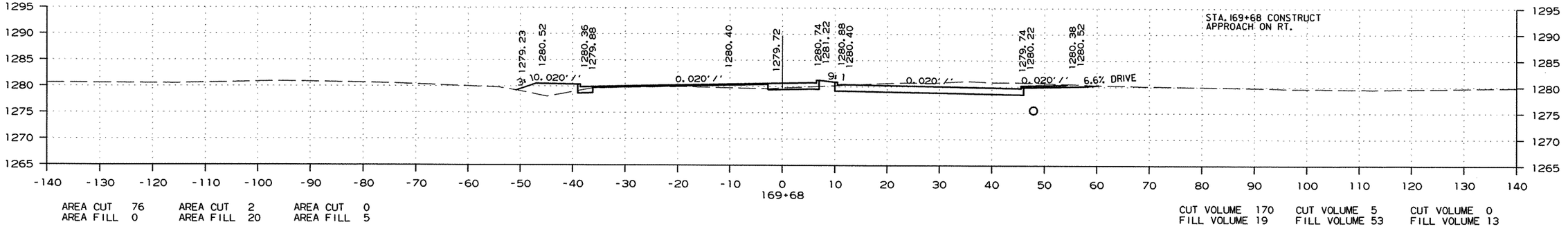
AREA CUT 55 AREA CUT 2 AREA CUT 0
AREA FILL 5 AREA FILL 22 AREA FILL 5

CUT VOLUME 122 CUT VOLUME 3 CUT VOLUME 0
FILL VOLUME 9 FILL VOLUME 33 FILL VOLUME 8



AREA CUT 98 AREA CUT 2 AREA CUT 0
AREA FILL 6 AREA FILL 19 AREA FILL 5

CUT VOLUME 103 CUT VOLUME 2 CUT VOLUME 0
FILL VOLUME 4 FILL VOLUME 23 FILL VOLUME 6



AREA CUT 76 AREA CUT 2 AREA CUT 0
AREA FILL 0 AREA FILL 20 AREA FILL 5

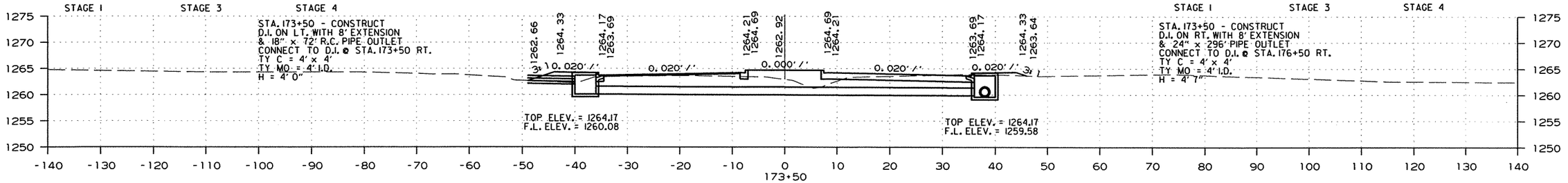
CUT VOLUME 170 CUT VOLUME 5 CUT VOLUME 0
FILL VOLUME 19 FILL VOLUME 53 FILL VOLUME 13

STA. 169+68 TO STA. 171+00

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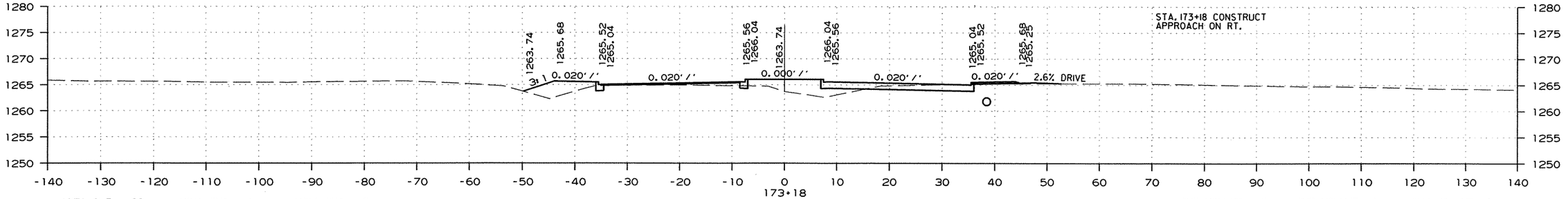
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	235	270

(2) CROSS SECTIONS



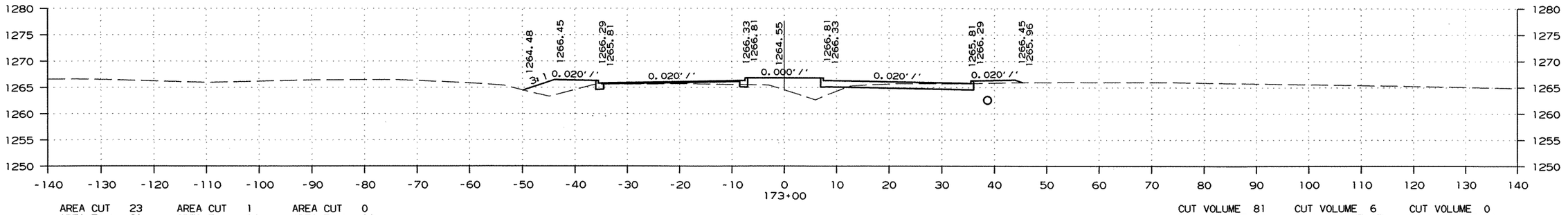
AREA CUT 26 AREA CUT 1 AREA CUT 0
AREA FILL 14 AREA FILL 19 AREA FILL 25

CUT VOLUME 28 CUT VOLUME 1 CUT VOLUME 0
FILL VOLUME 20 FILL VOLUME 26 FILL VOLUME 29



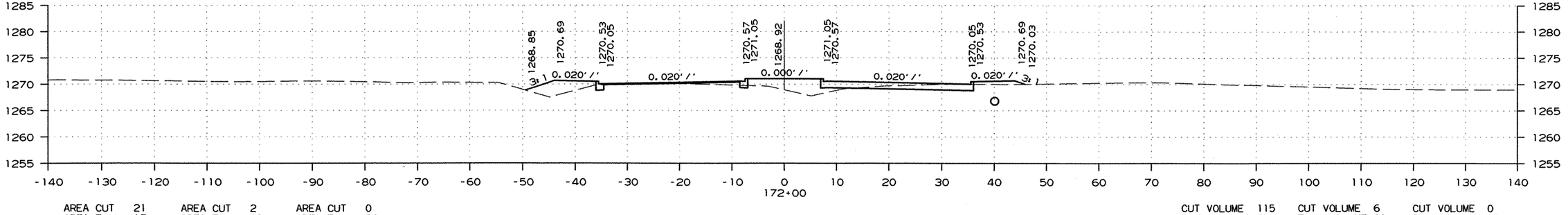
AREA CUT 22 AREA CUT 1 AREA CUT 0
AREA FILL 20 AREA FILL 25 AREA FILL 24

CUT VOLUME 15 CUT VOLUME 1 CUT VOLUME 0
FILL VOLUME 14 FILL VOLUME 16 FILL VOLUME 16



AREA CUT 23 AREA CUT 1 AREA CUT 0
AREA FILL 21 AREA FILL 24 AREA FILL 24

CUT VOLUME 81 CUT VOLUME 6 CUT VOLUME 0
FILL VOLUME 70 FILL VOLUME 87 FILL VOLUME 89



AREA CUT 21 AREA CUT 2 AREA CUT 0
AREA FILL 17 AREA FILL 23 AREA FILL 24

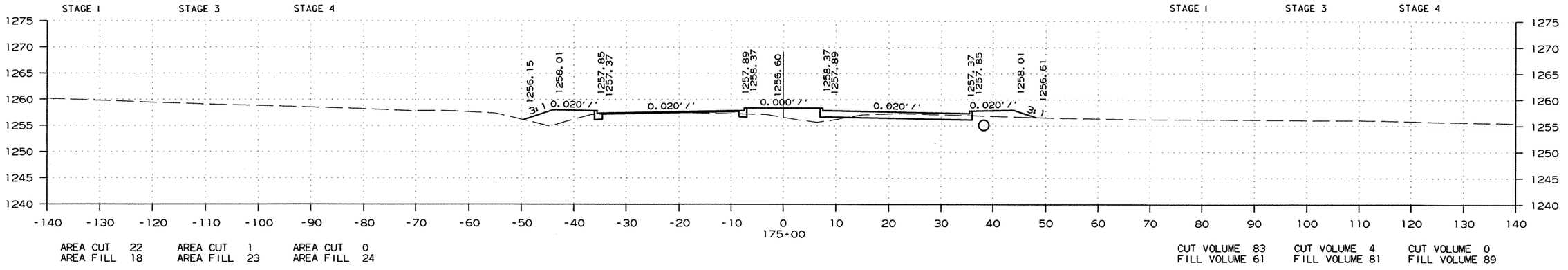
CUT VOLUME 115 CUT VOLUME 6 CUT VOLUME 0
FILL VOLUME 48 FILL VOLUME 89 FILL VOLUME 67

STA. 172+00 TO STA. 173+50

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	236	270

(2) CROSS SECTIONS

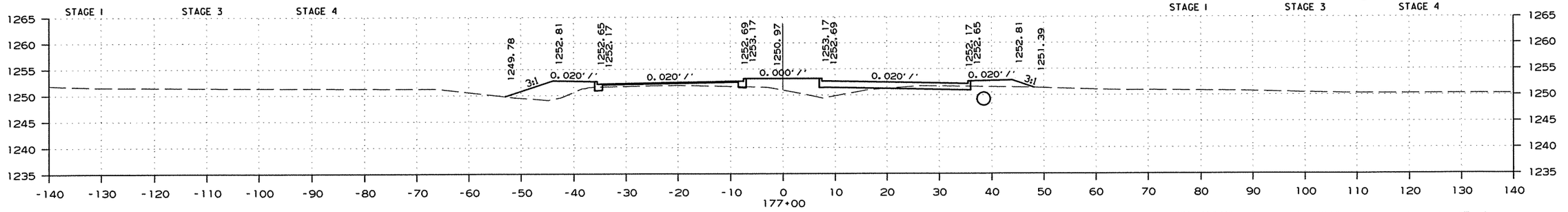


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STA. 173+81 TO STA. 175+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
4-9-2013				6	ARK.			
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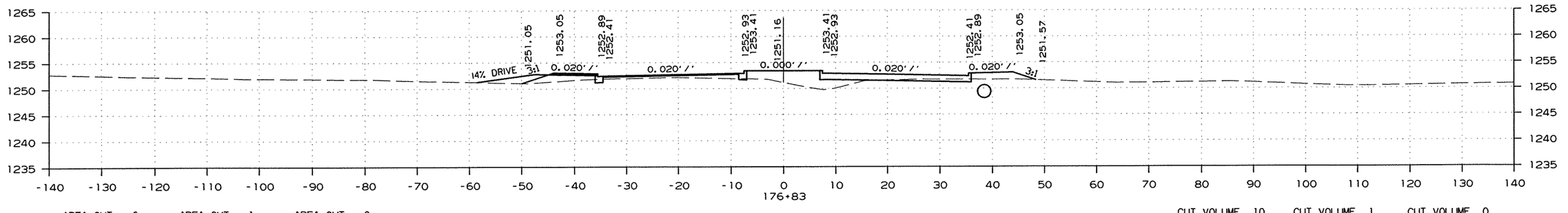
(2) CROSS SECTIONS



AREA CUT 8 AREA CUT 1 AREA CUT 0
AREA FILL 33 AREA FILL 35 AREA FILL 24

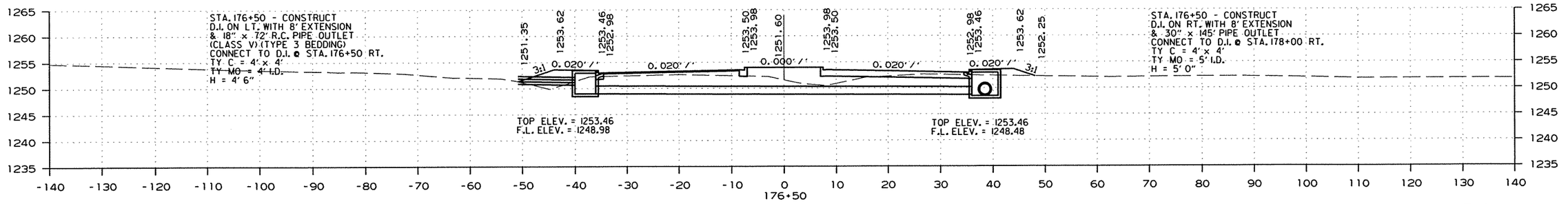
STA. 176+87 CONSTRUCT
APPROACH ON LT = 10 CU. YDS.

CUT VOLUME 4 CUT VOLUME 1 CUT VOLUME 0
FILL VOLUME 21 FILL VOLUME 16 FILL VOLUME 15



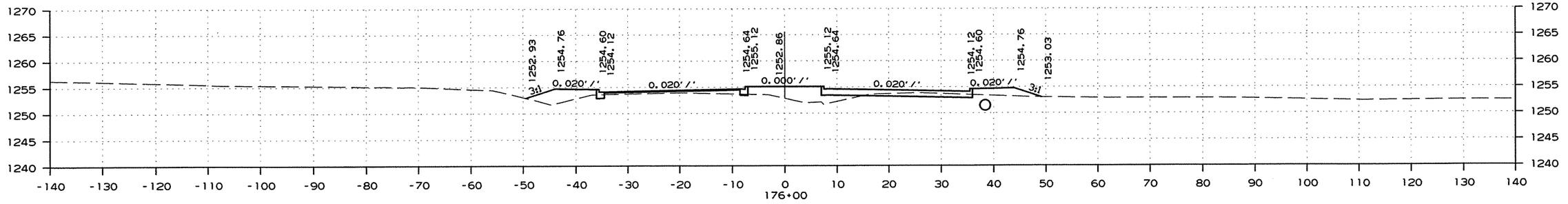
AREA CUT 6 AREA CUT 1 AREA CUT 0
AREA FILL 33 AREA FILL 16 AREA FILL 24

CUT VOLUME 10 CUT VOLUME 1 CUT VOLUME 0
FILL VOLUME 39 FILL VOLUME 29 FILL VOLUME 29



AREA CUT 10 AREA CUT 1 AREA CUT 0
AREA FILL 31 AREA FILL 31 AREA FILL 24

CUT VOLUME 21 CUT VOLUME 2 CUT VOLUME 0
FILL VOLUME 57 FILL VOLUME 52 FILL VOLUME 44



AREA CUT 13 AREA CUT 1 AREA CUT 0
AREA FILL 31 AREA FILL 25 AREA FILL 24

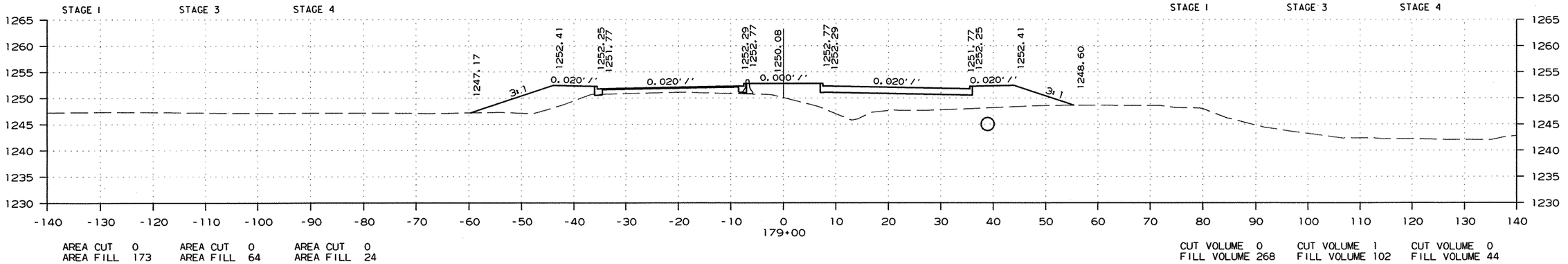
CUT VOLUME 65 CUT VOLUME 4 CUT VOLUME 0
FILL VOLUME 91 FILL VOLUME 89 FILL VOLUME 89

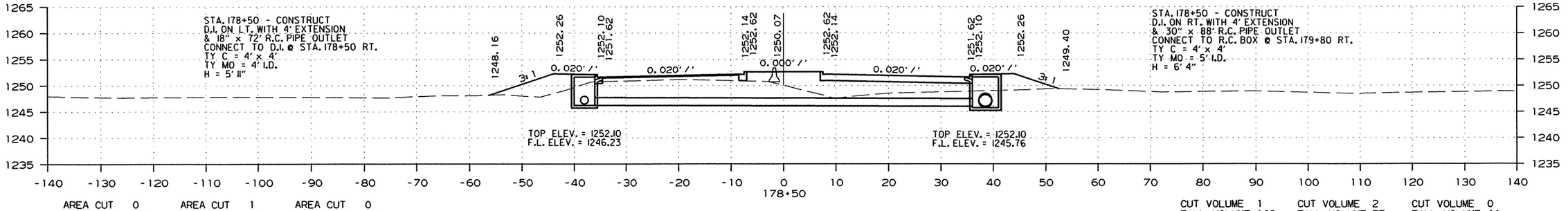
STA. 176+00 TO STA. 177+00

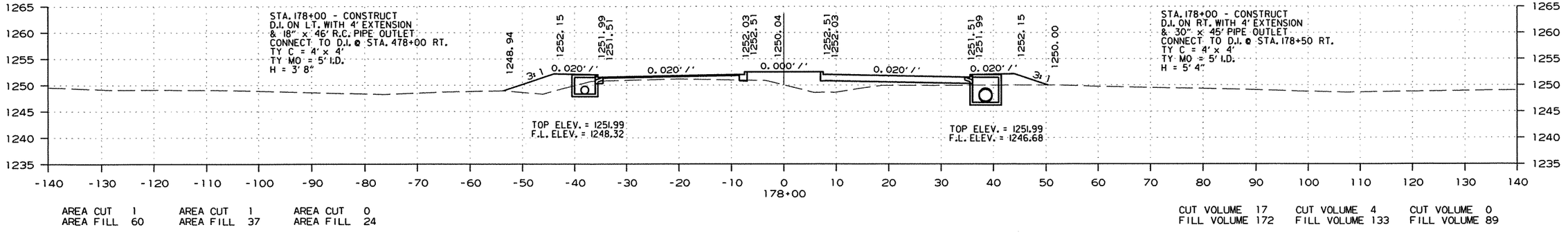
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	238	270

(2) CROSS SECTIONS





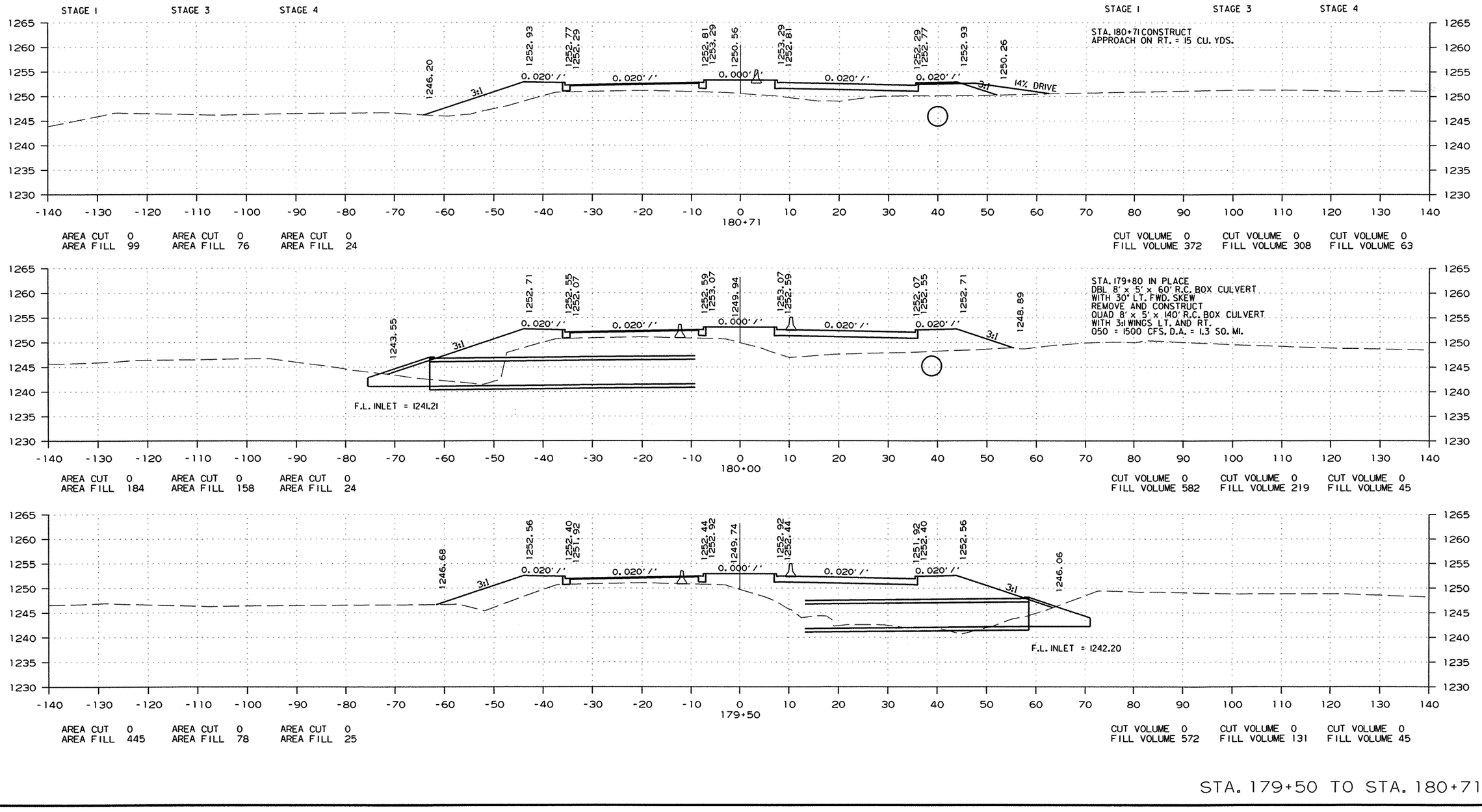


STA. 178+00 TO STA. 179+00

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	239	270

(2) CROSS SECTIONS

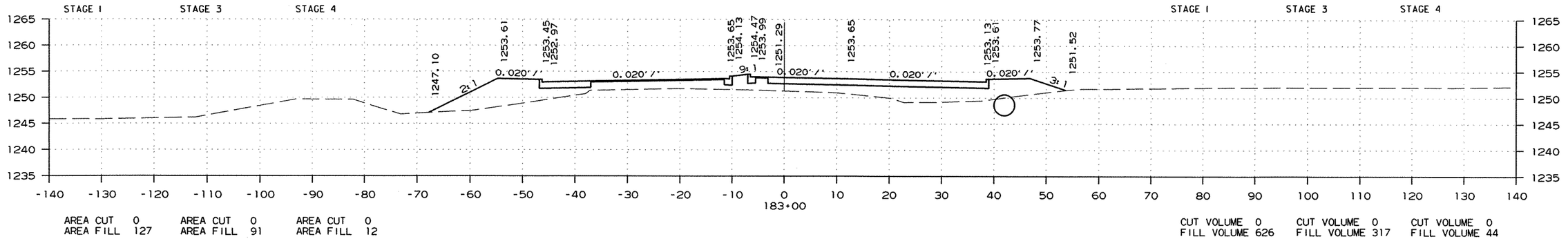


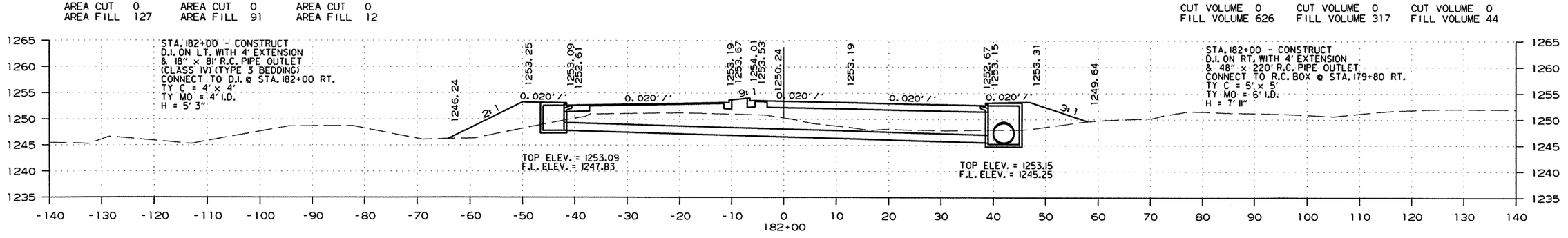
STA. 179+50 TO STA. 180+71

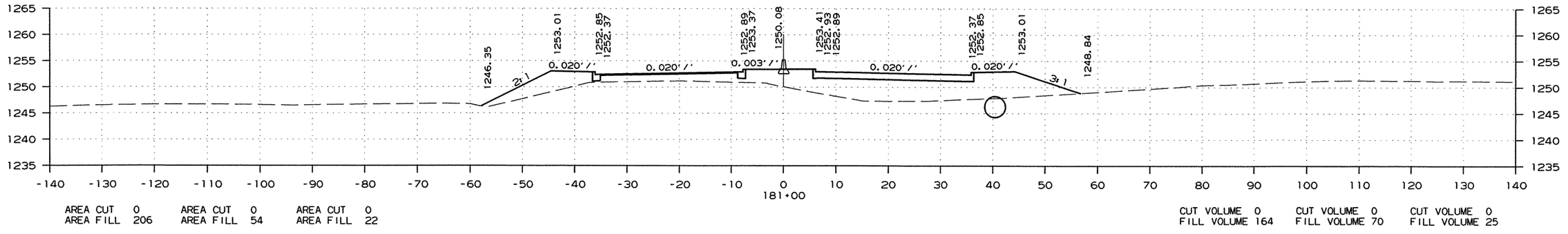
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	240	270

(2) CROSS SECTIONS





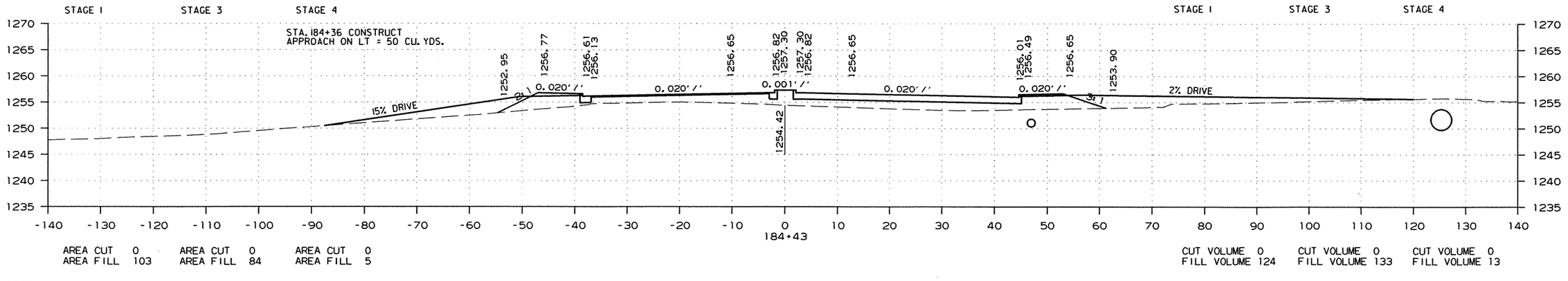


r040518.dgn 12/20/2010

STA. 181+00 TO STA. 183+00

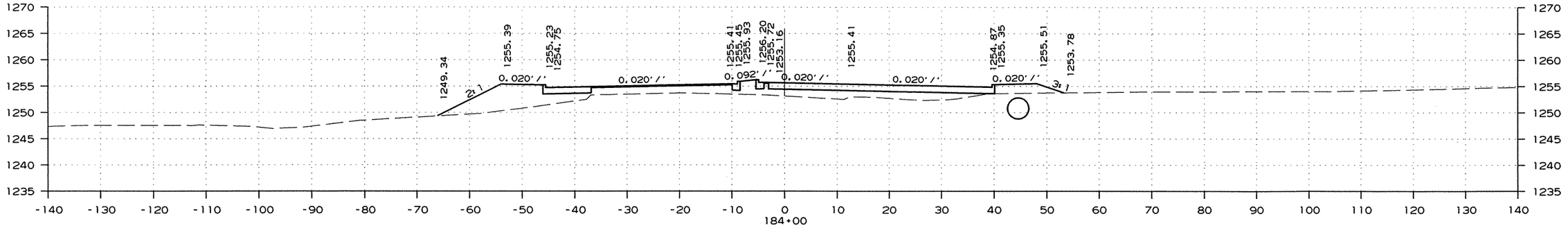
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	241	270

(2) CROSS SECTIONS



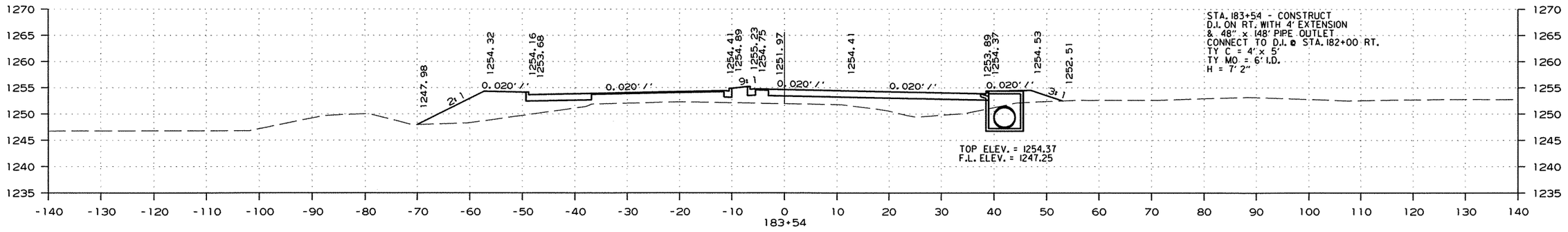
AREA CUT 0 AREA CUT 0 AREA CUT 0
AREA FILL 103 AREA FILL 84 AREA FILL 5

CUT VOLUME 0 CUT VOLUME 0 CUT VOLUME 0
FILL VOLUME 124 FILL VOLUME 133 FILL VOLUME 13



AREA CUT 0 AREA CUT 0 AREA CUT 0
AREA FILL 53 AREA FILL 83 AREA FILL 11

CUT VOLUME 0 CUT VOLUME 0 CUT VOLUME 0
FILL VOLUME 147 FILL VOLUME 156 FILL VOLUME 20



AREA CUT 0 AREA CUT 0 AREA CUT 0
AREA FILL 120 AREA FILL 100 AREA FILL 12

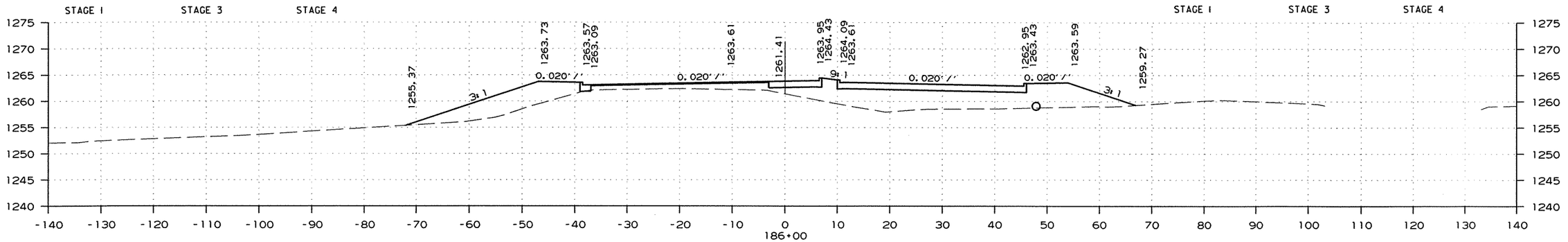
CUT VOLUME 0 CUT VOLUME 0 CUT VOLUME 0
FILL VOLUME 247 FILL VOLUME 191 FILL VOLUME 24

STA. 183+54 TO STA. 184+43

r040518.dgn 12/20/2010

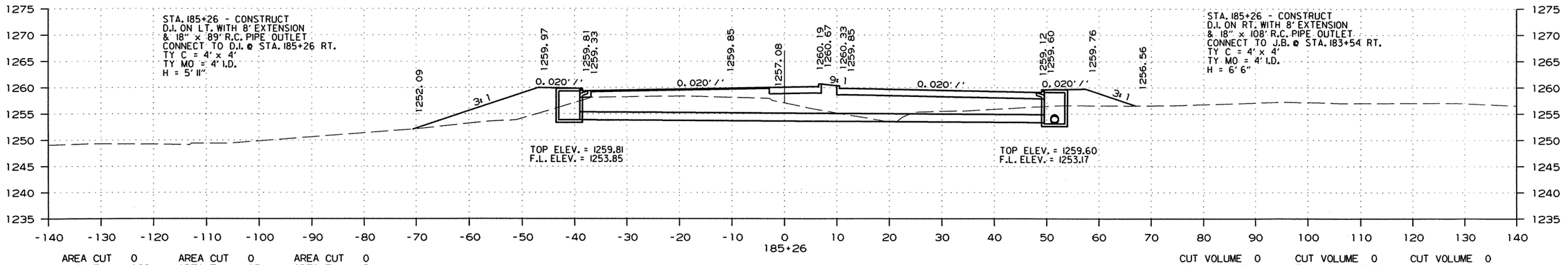
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	242	270

(2) CROSS SECTIONS



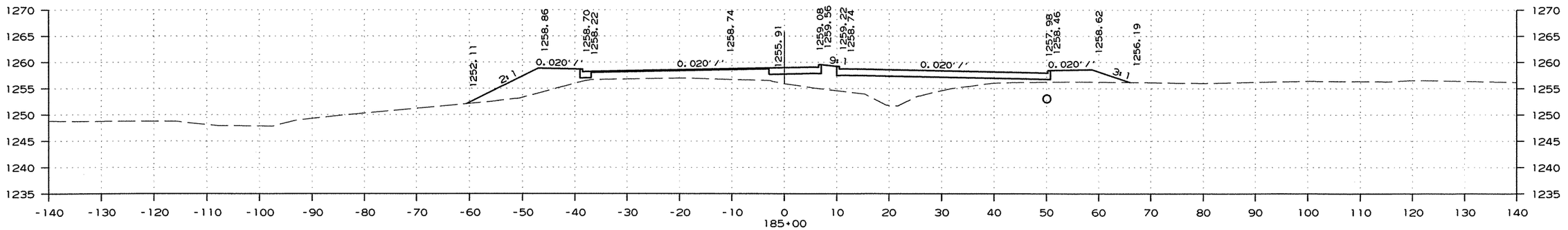
AREA CUT 0 AREA FILL 218 | AREA CUT 0 AREA FILL 95 | AREA CUT 0 AREA FILL 5

CUT VOLUME 0 FILL VOLUME 563 | CUT VOLUME 0 FILL VOLUME 264 | CUT VOLUME 0 FILL VOLUME 14



AREA CUT 0 AREA FILL 193 | AREA CUT 0 AREA FILL 95 | AREA CUT 0 AREA FILL 5

CUT VOLUME 0 FILL VOLUME 169 | CUT VOLUME 0 FILL VOLUME 77 | CUT VOLUME 0 FILL VOLUME 5



AREA CUT 0 AREA FILL 158 | AREA CUT 0 AREA FILL 65 | AREA CUT 0 AREA FILL 5

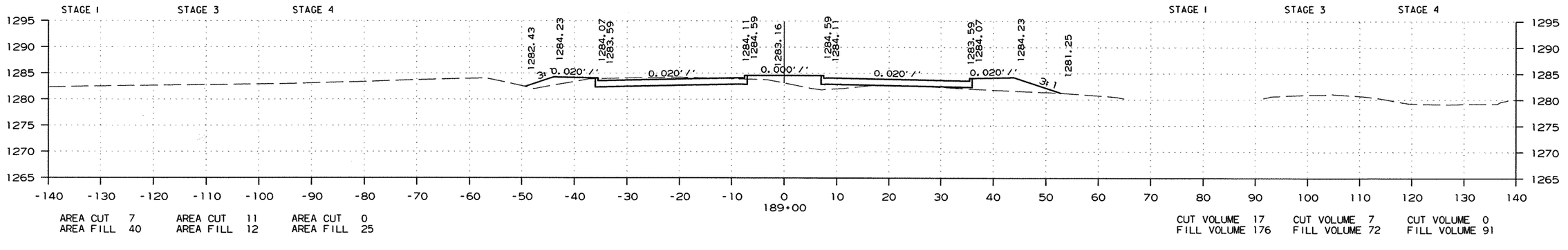
CUT VOLUME 0 FILL VOLUME 276 | CUT VOLUME 0 FILL VOLUME 157 | CUT VOLUME 0 FILL VOLUME 11

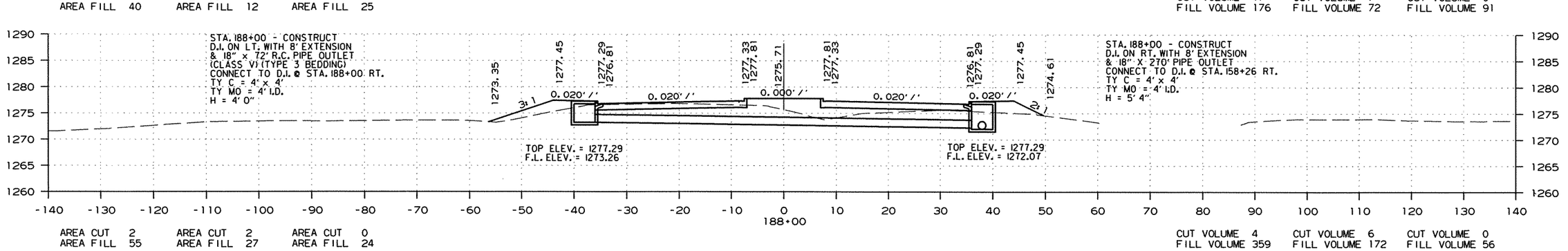
STA. 185+00 TO STA. 186+00

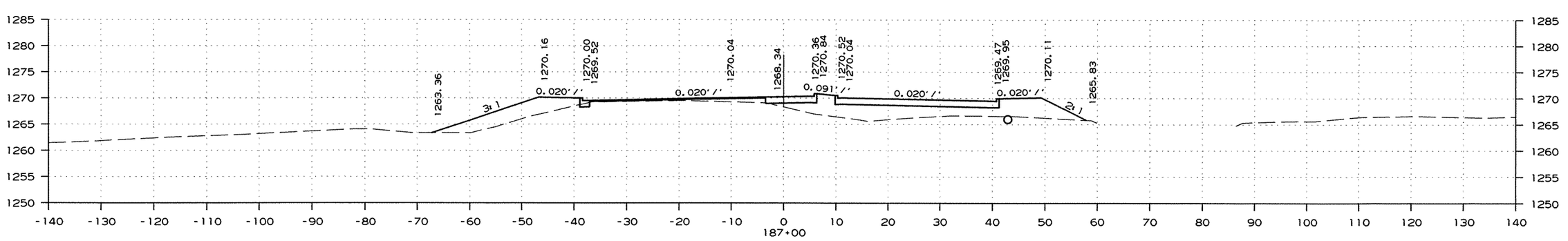
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	243	270

(2) CROSS SECTIONS





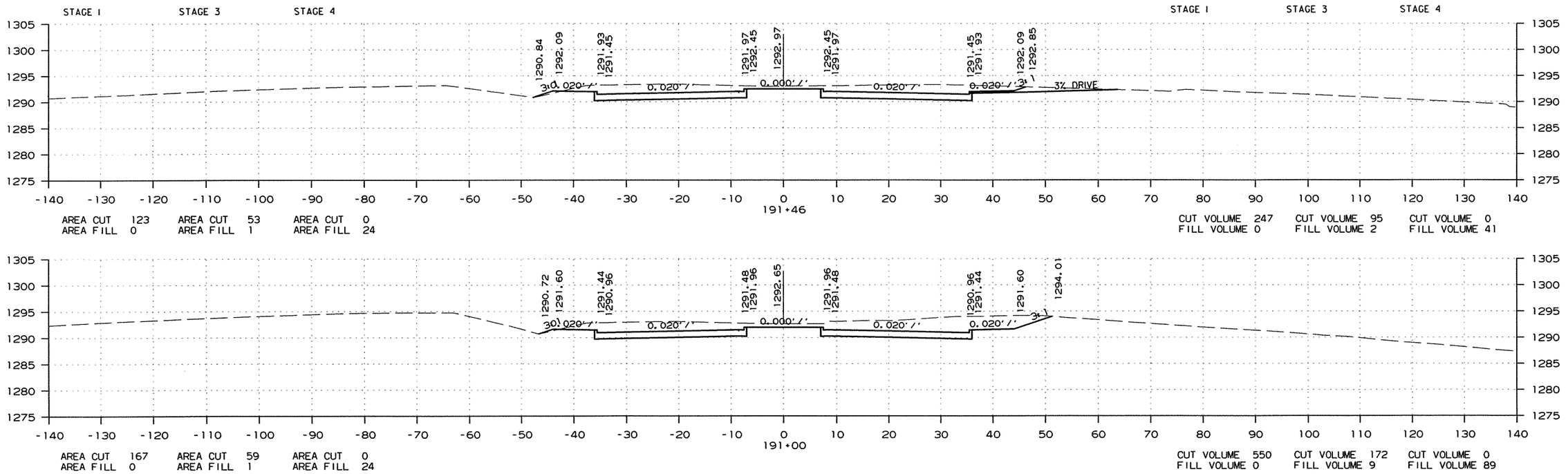


STA. 187+00 TO STA. 189+00

r040518.dgn 12/20/2010

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				JOB NO.		040518	244	270

(2) CROSS SECTIONS

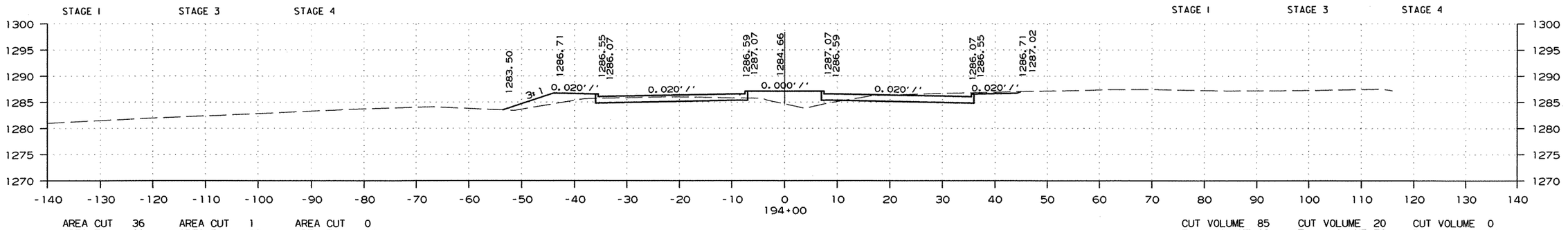


STA. 190+00 TO STA. 191+46

r040518.dgn 12/20/2010

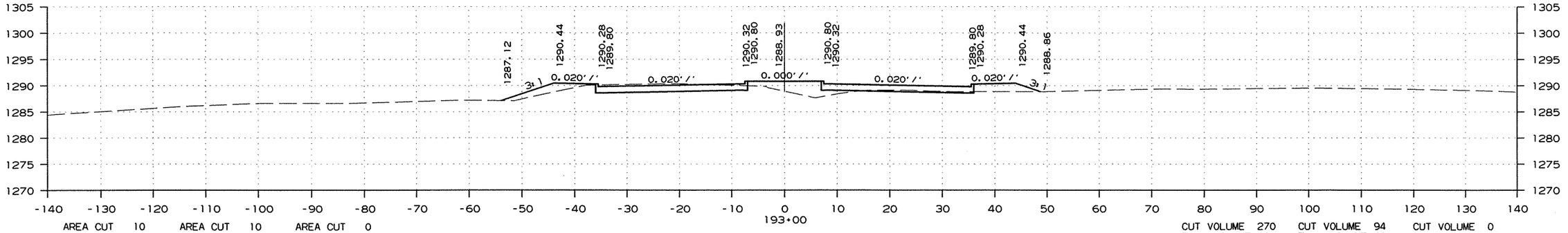
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	245	270

(2) CROSS SECTIONS



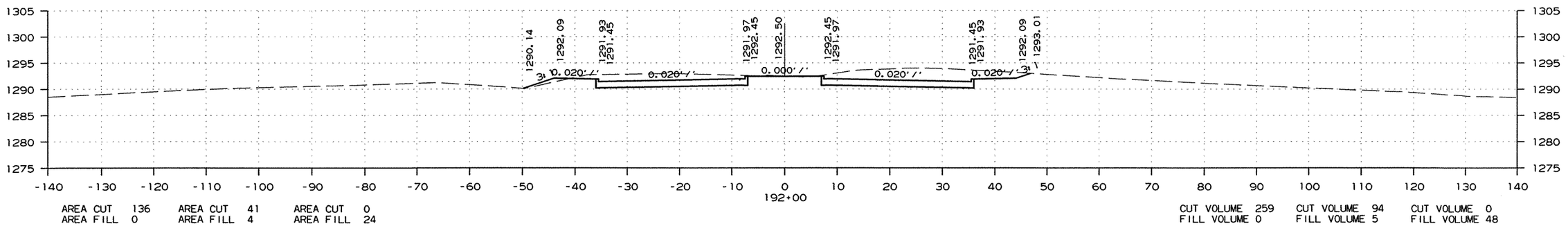
AREA CUT 36 AREA CUT 1 AREA CUT 0
AREA FILL 11 AREA FILL 23 AREA FILL 24

CUT VOLUME 85 CUT VOLUME 20 CUT VOLUME 0
FILL VOLUME 69 FILL VOLUME 76 FILL VOLUME 89



AREA CUT 10 AREA CUT 10 AREA CUT 0
AREA FILL 26 AREA FILL 18 AREA FILL 24

CUT VOLUME 270 CUT VOLUME 94 CUT VOLUME 0
FILL VOLUME 48 FILL VOLUME 41 FILL VOLUME 89



AREA CUT 136 AREA CUT 41 AREA CUT 0
AREA FILL 0 AREA FILL 4 AREA FILL 24

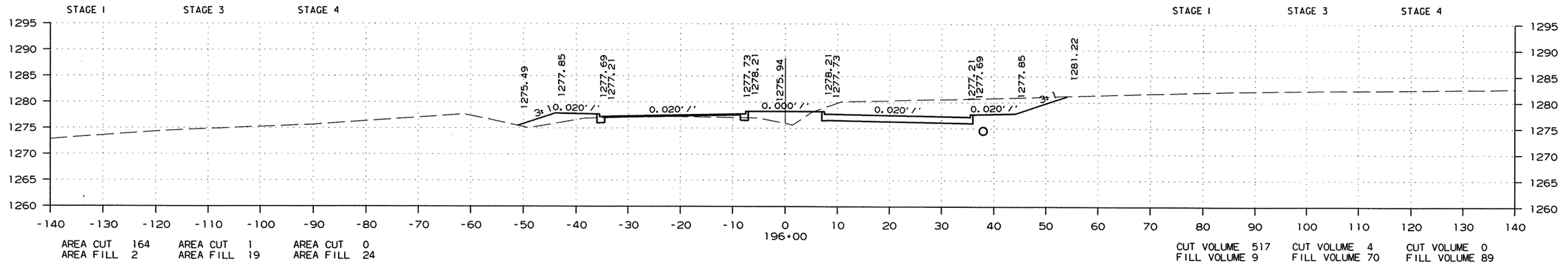
CUT VOLUME 259 CUT VOLUME 94 CUT VOLUME 0
FILL VOLUME 0 FILL VOLUME 5 FILL VOLUME 48

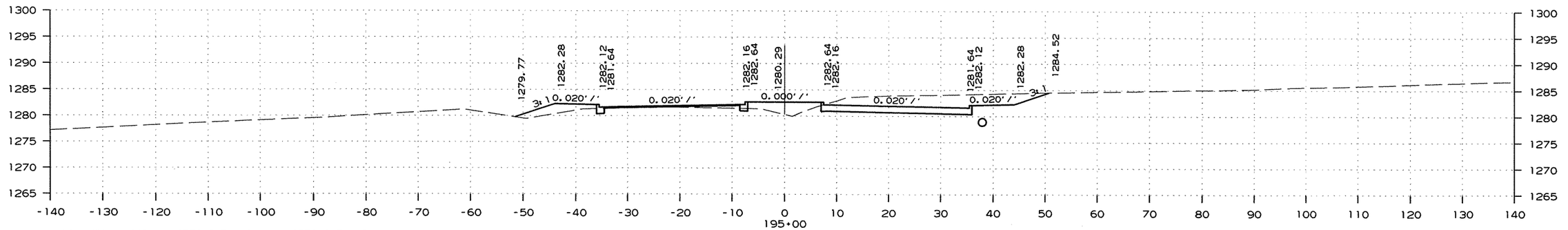
STA. 192+00 TO STA. 194+00

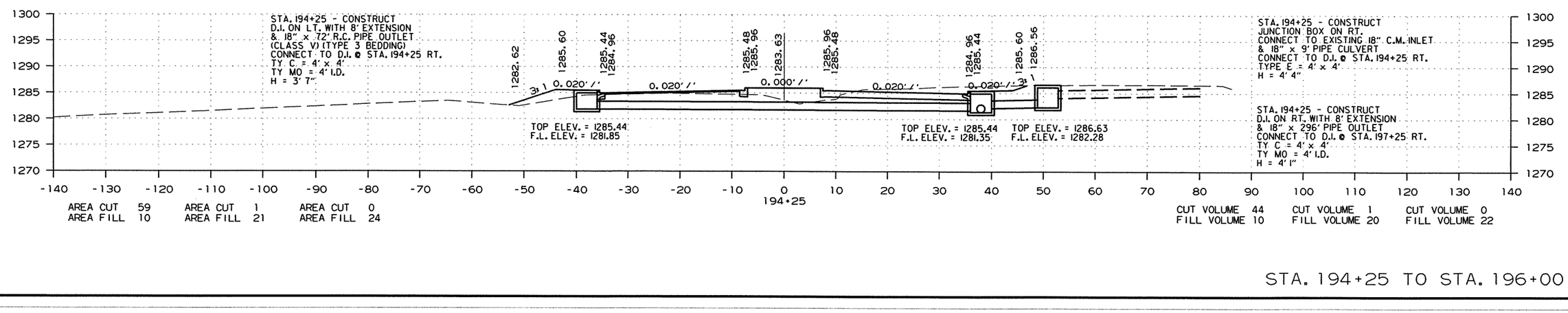
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	246	270

(2) CROSS SECTIONS





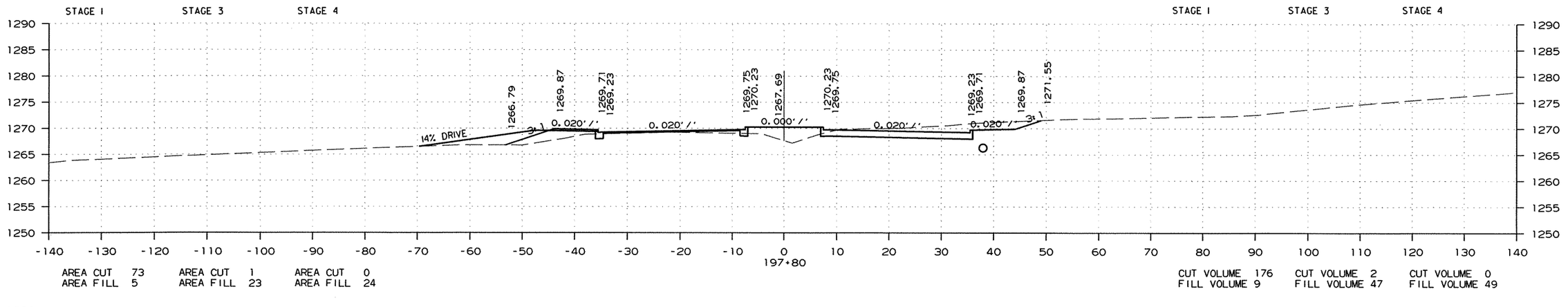


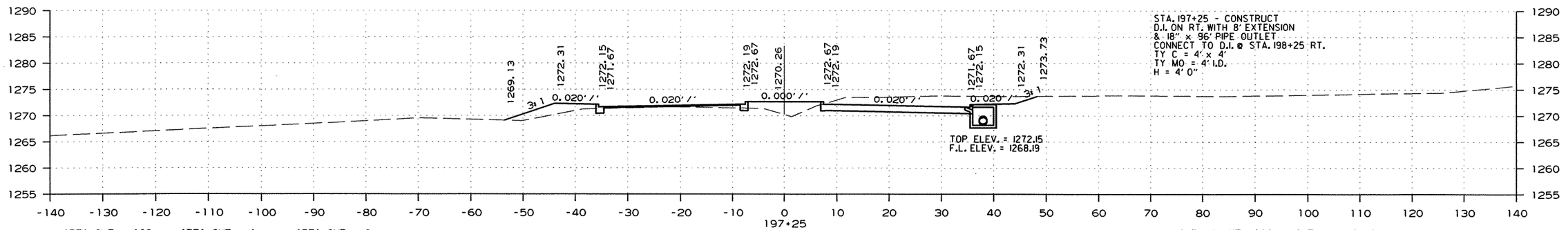
r040518.dgn 12/20/2010

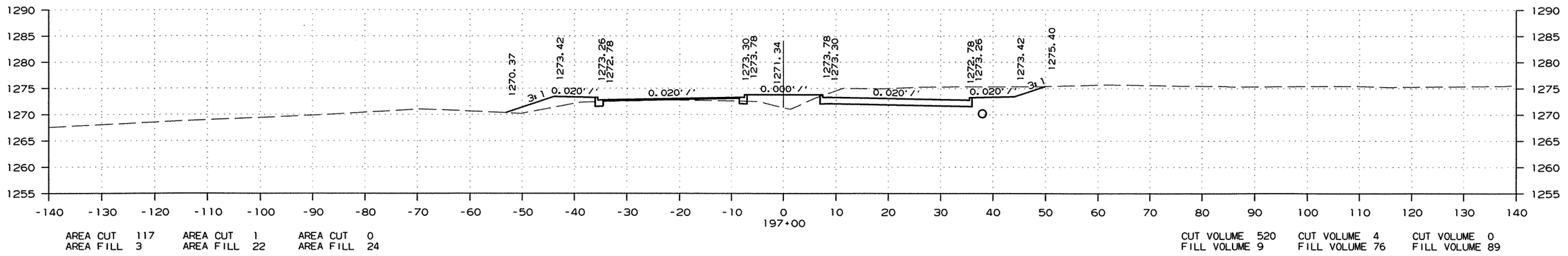
STA. 194+25 TO STA. 196+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	247	270

(2) CROSS SECTIONS





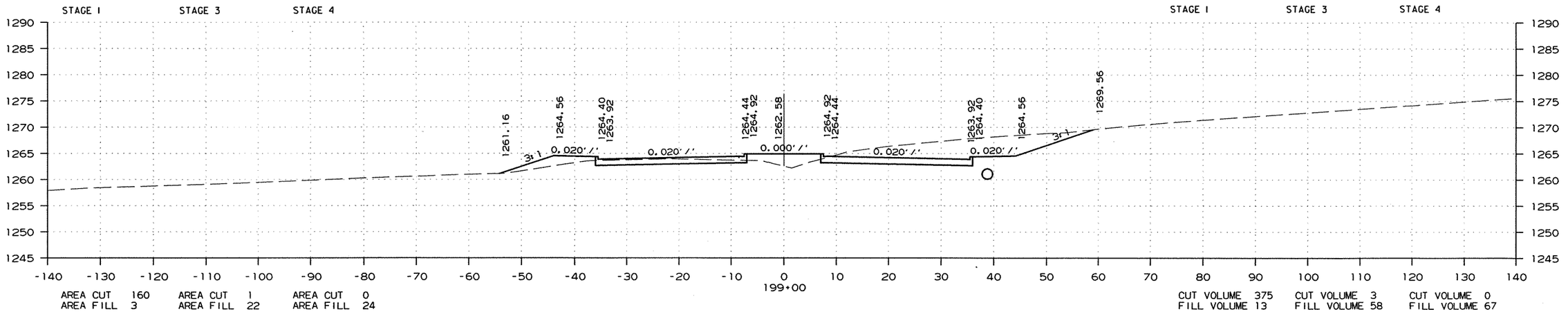


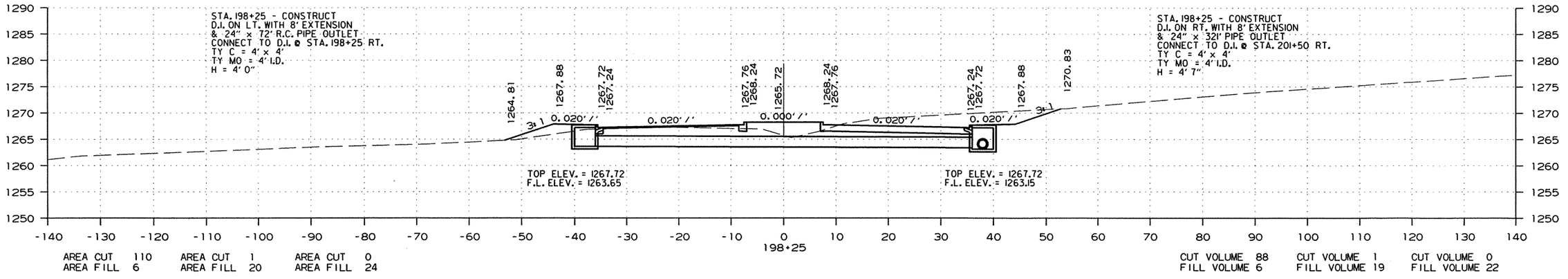
STA. 197+00 TO STA. 197+80

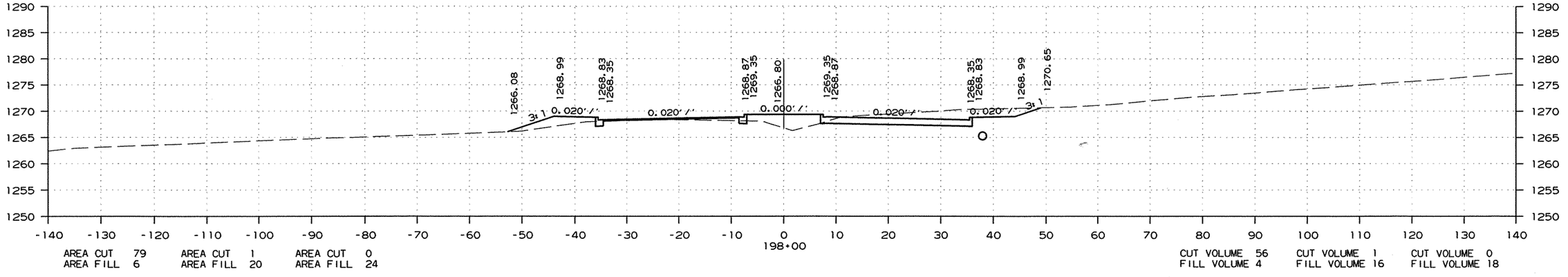
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	248	270

(2) CROSS SECTIONS





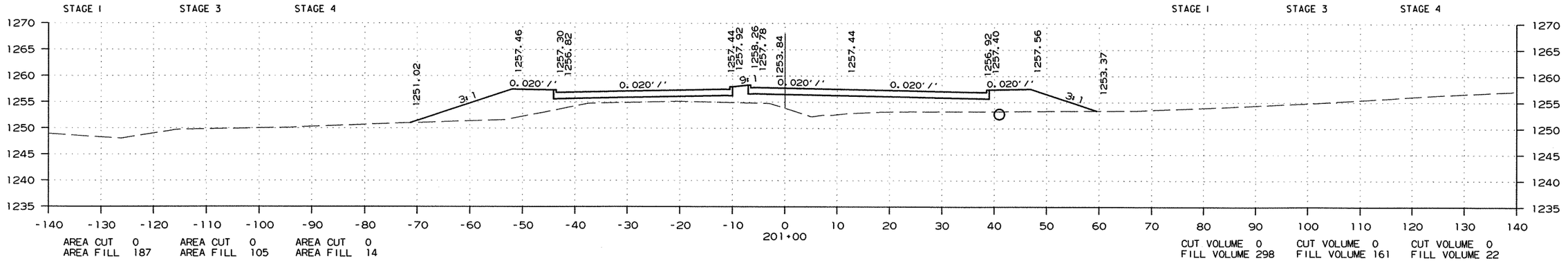


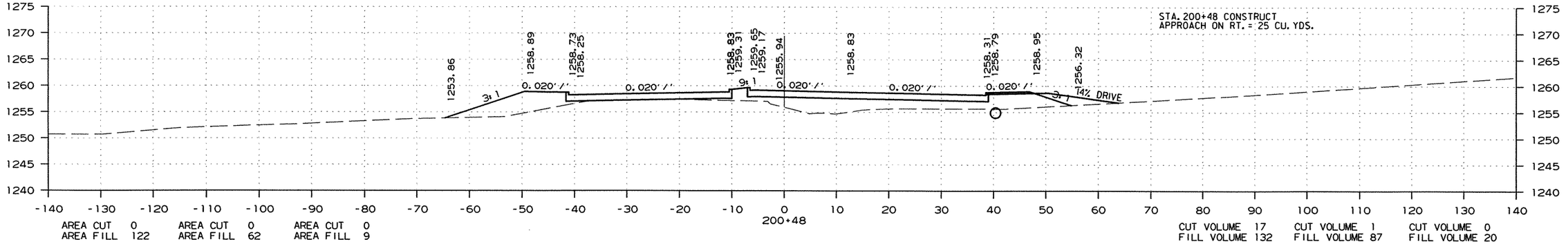
STA. 198+00 TO STA. 199+00

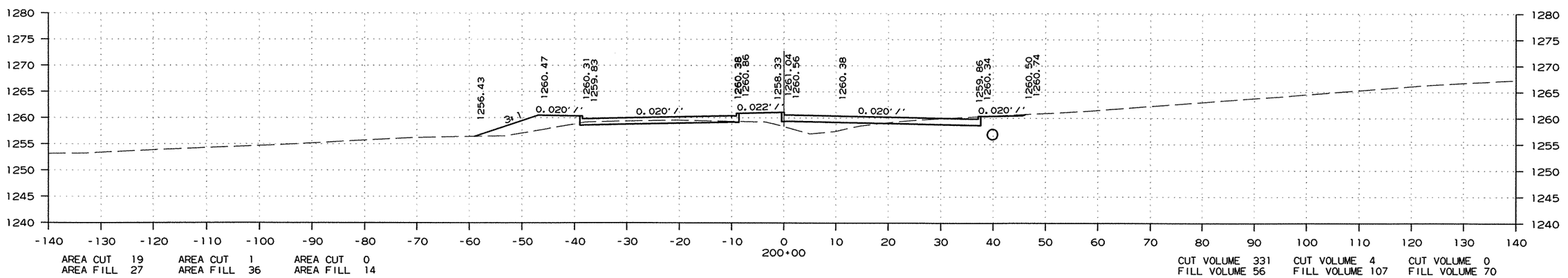
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	249	270

(2) CROSS SECTIONS





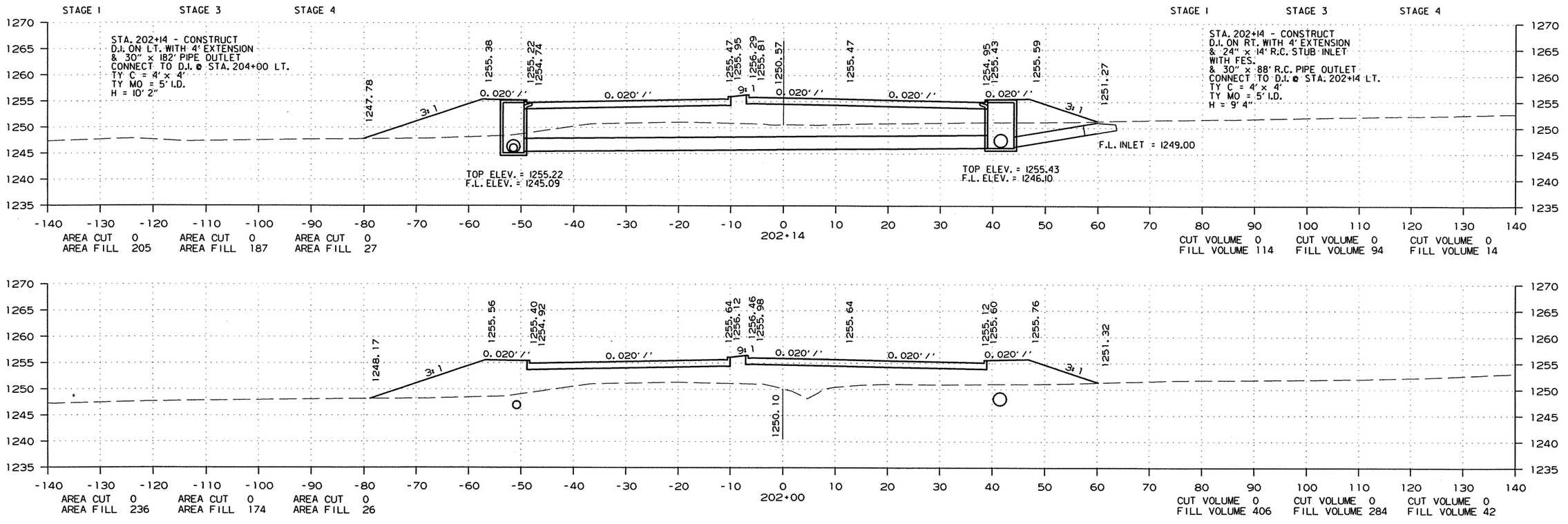


STA. 200+00 TO STA. 201+00

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	250	270

(2) CROSS SECTIONS

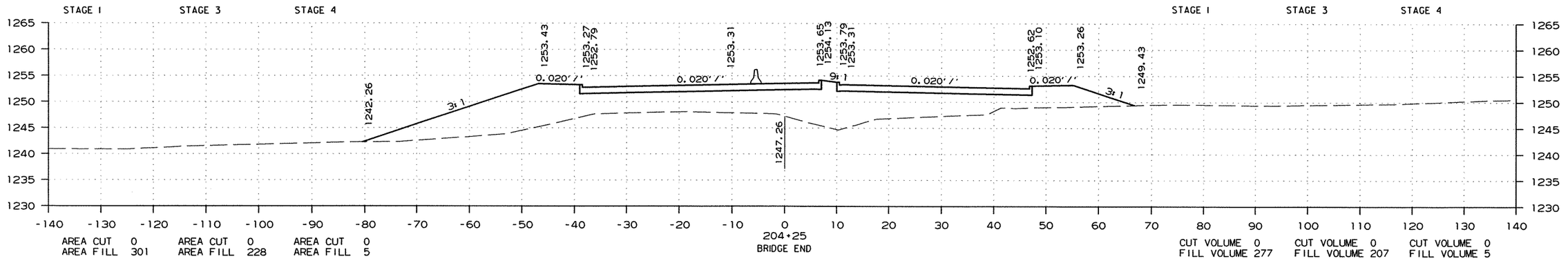


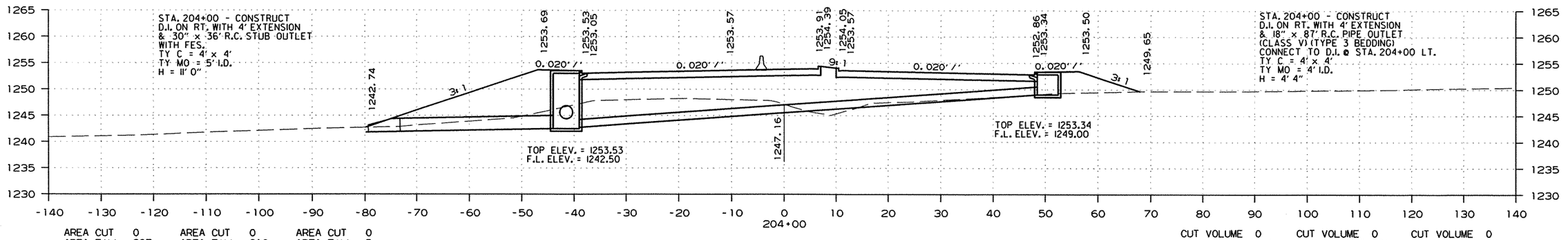
STA. 201+50 TO STA. 202+14

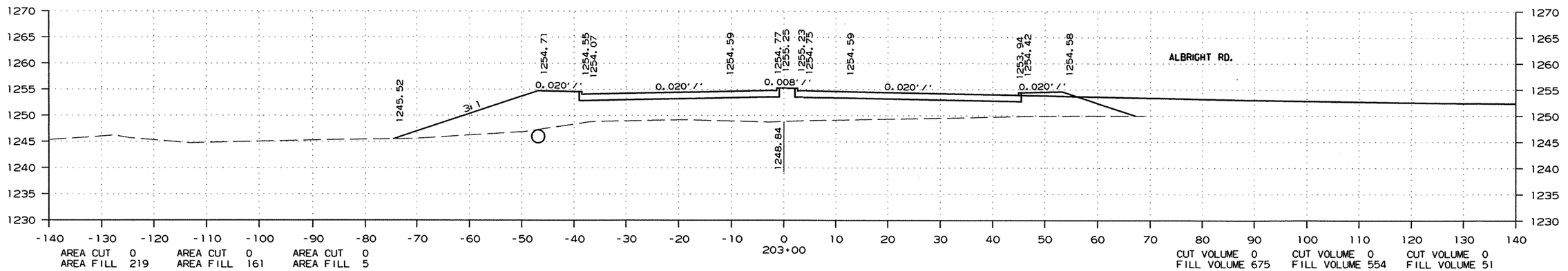
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	251	270

(2) CROSS SECTIONS





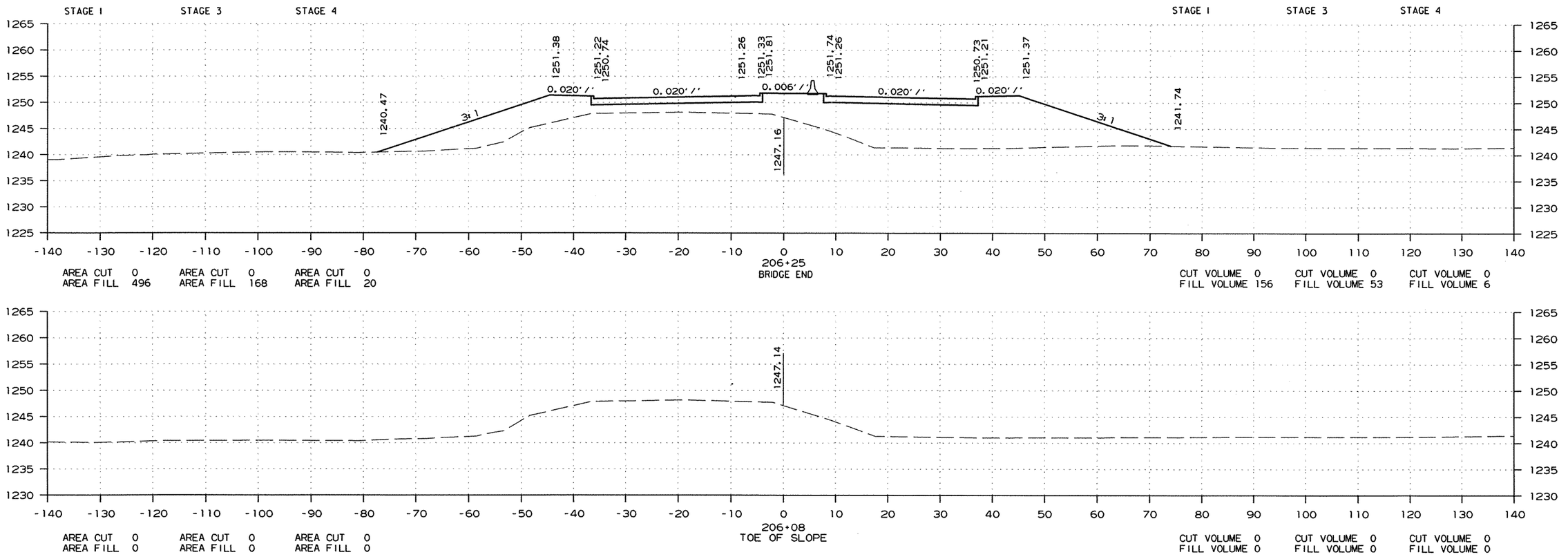


r040518.dgn 12/20/2010

STA. 203+00 TO STA. 204+25

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	252	270

(2) CROSS SECTIONS

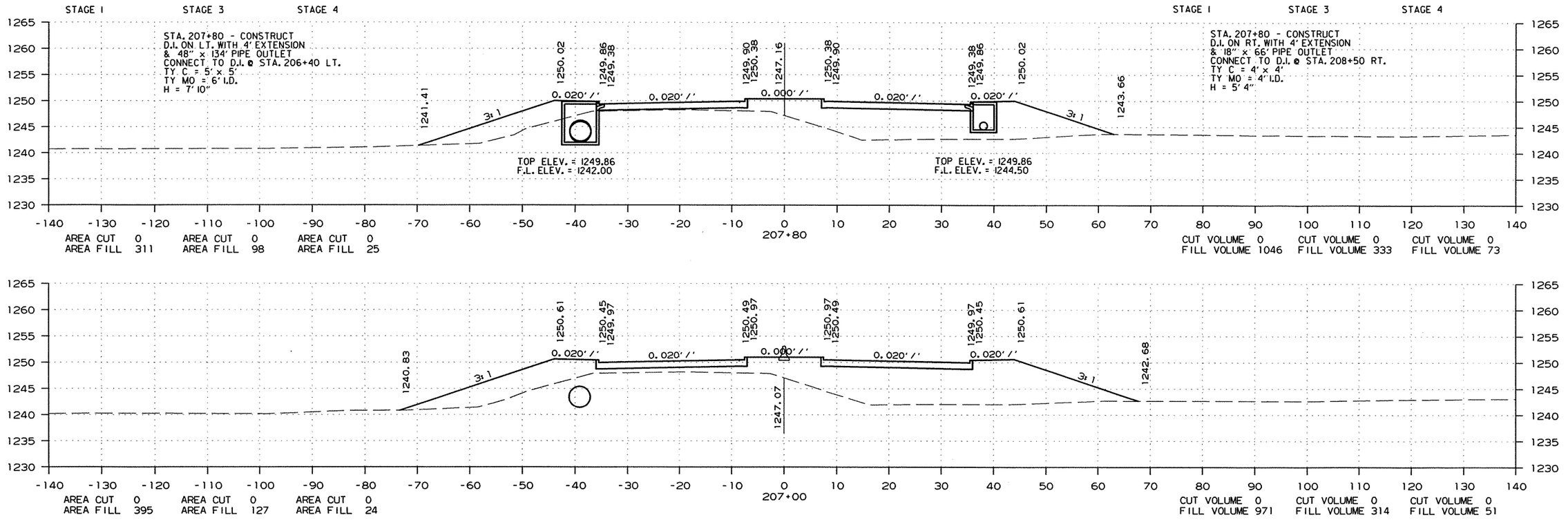


r040518.dgn 12/20/2010

STA. 204+45 TO STA. 206+25

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
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(2) CROSS SECTIONS

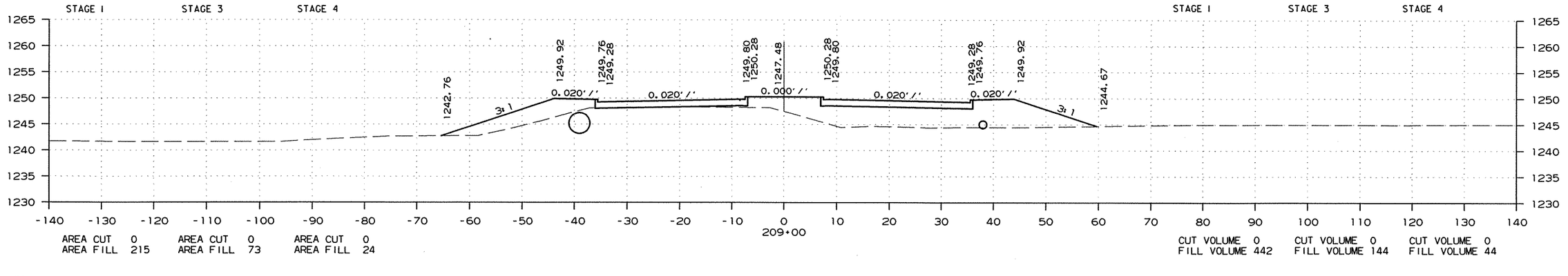


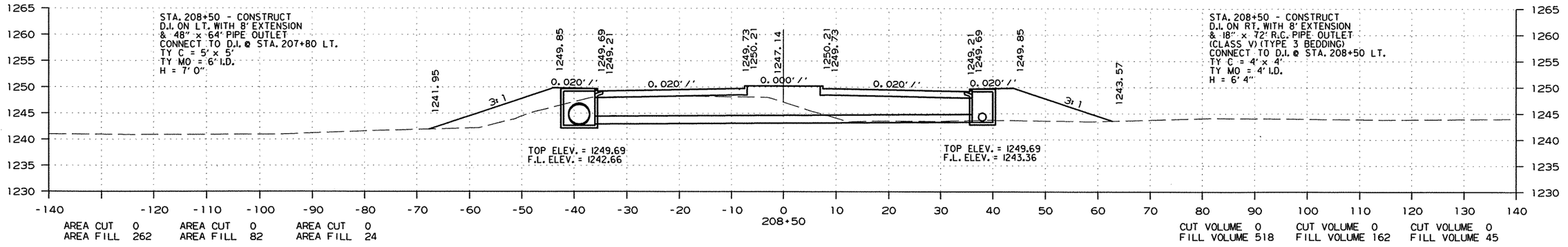
STA. 206+40 TO STA. 207+80

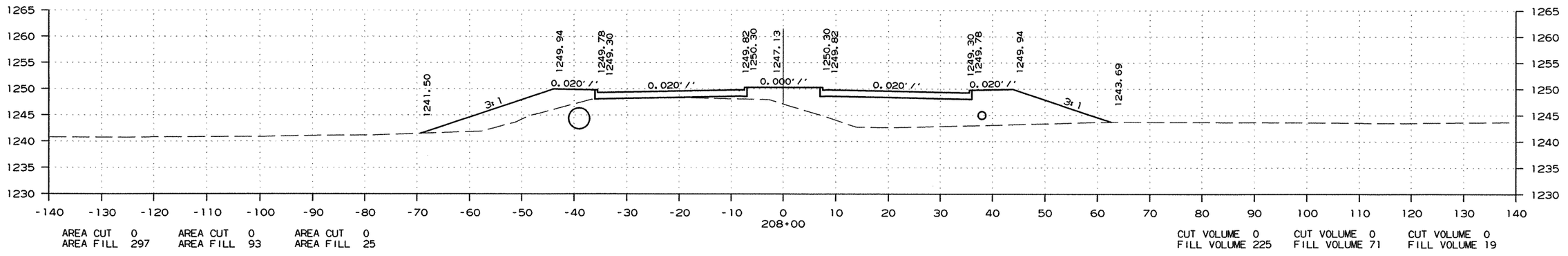
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	254	270

(2) CROSS SECTIONS





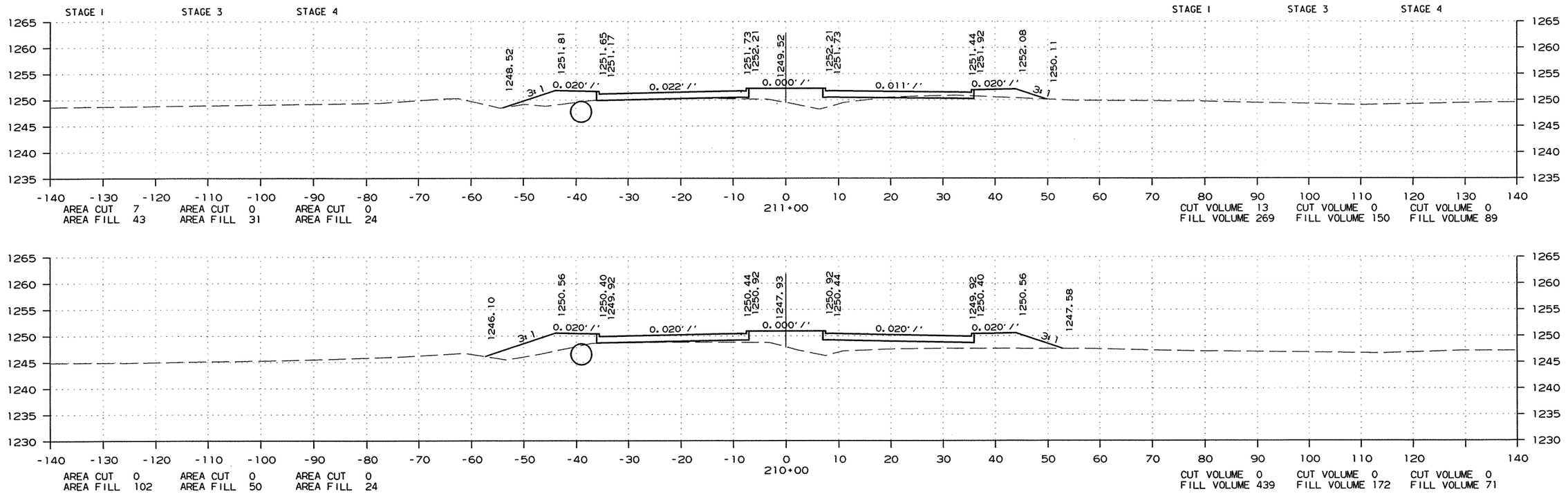


STA. 208+00 TO STA. 209+00

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	255	270

(2) CROSS SECTIONS

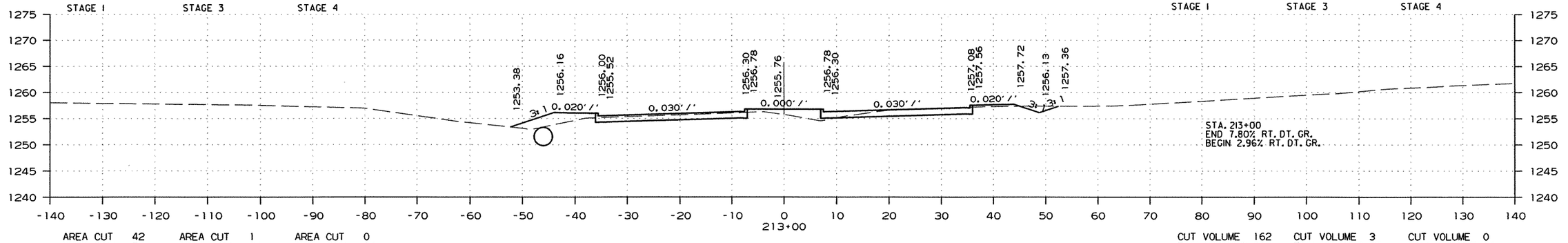


STA. 209+20 TO STA. 211+00

r040518.dgn 12/20/2010

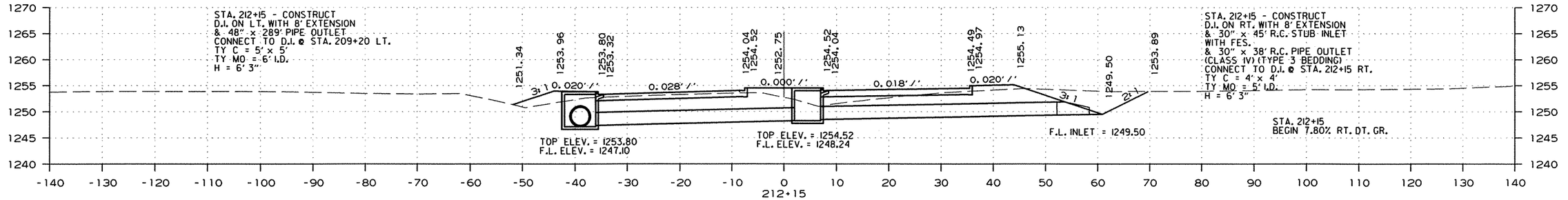
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	256	270

(2) CROSS SECTIONS



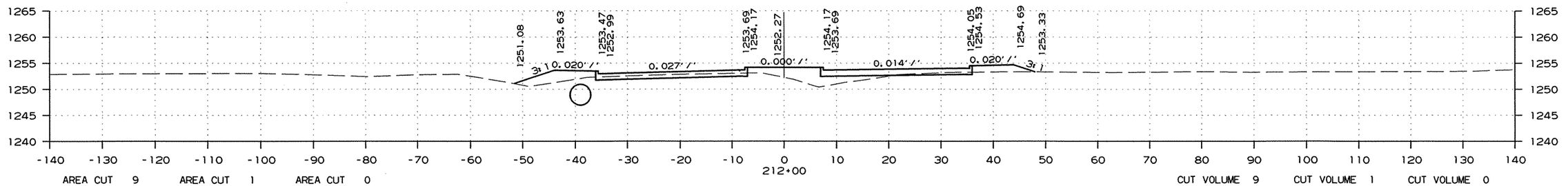
AREA CUT 42 AREA FILL 5 | AREA CUT 1 AREA FILL 24 | AREA CUT 0 AREA FILL 24

CUT VOLUME 162 FILL VOLUME 54 | CUT VOLUME 3 FILL VOLUME 77 | CUT VOLUME 0 FILL VOLUME 76



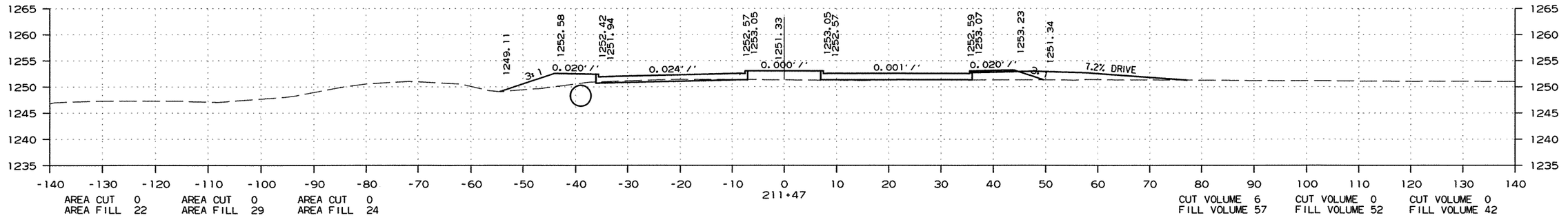
AREA CUT 61 AREA FILL 29 | AREA CUT 1 AREA FILL 25 | AREA CUT 0 AREA FILL 24

CUT VOLUME 19 FILL VOLUME 18 | CUT VOLUME 1 FILL VOLUME 14 | CUT VOLUME 0 FILL VOLUME 13



AREA CUT 9 AREA FILL 35 | AREA CUT 1 AREA FILL 26 | AREA CUT 0 AREA FILL 24

CUT VOLUME 9 FILL VOLUME 56 | CUT VOLUME 1 FILL VOLUME 54 | CUT VOLUME 0 FILL VOLUME 47



AREA CUT 0 AREA FILL 22 | AREA CUT 0 AREA FILL 29 | AREA CUT 0 AREA FILL 24

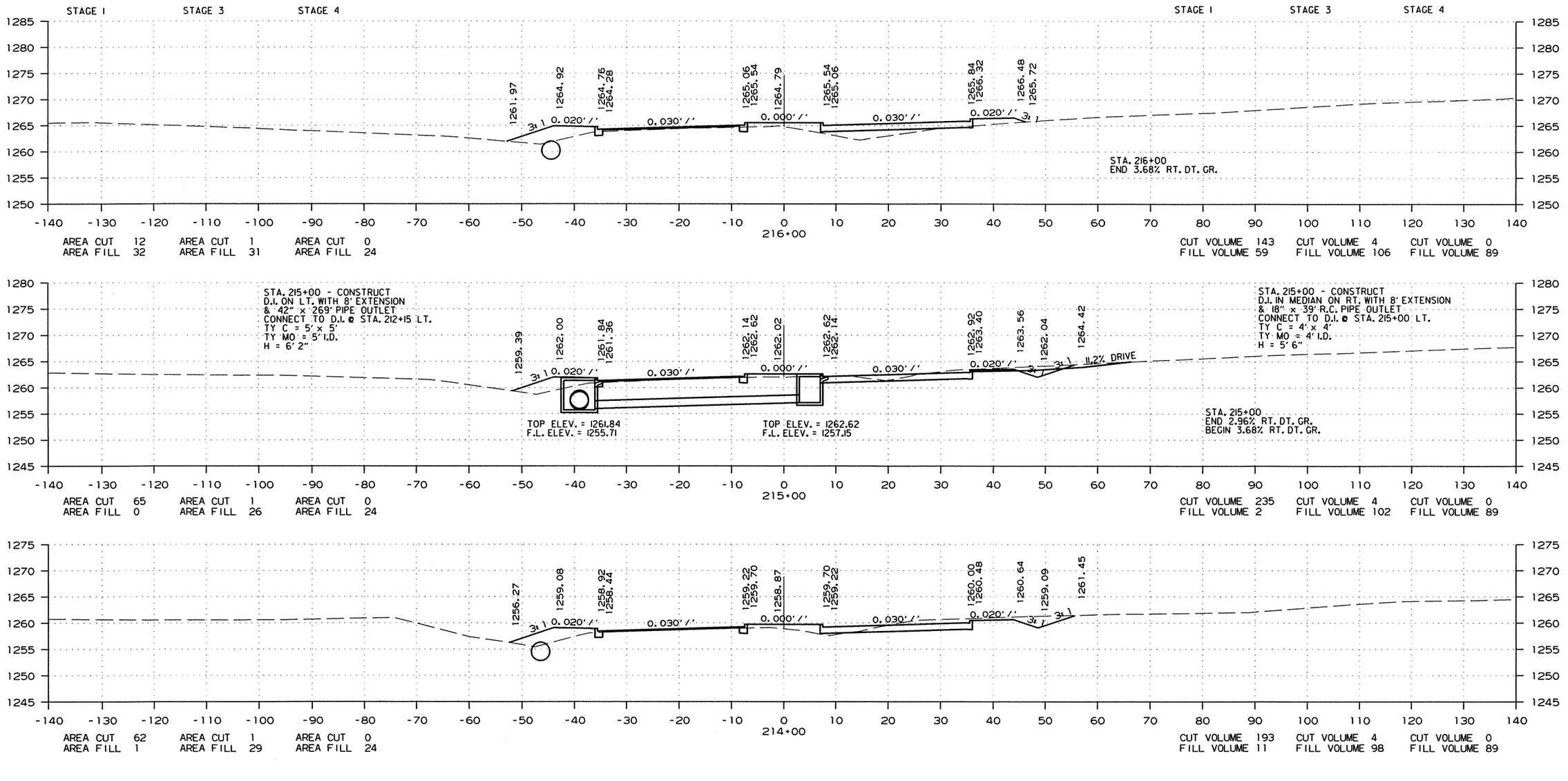
CUT VOLUME 6 FILL VOLUME 57 | CUT VOLUME 0 FILL VOLUME 52 | CUT VOLUME 0 FILL VOLUME 42

STA. 211+47 TO STA. 213+00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
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(2) CROSS SECTIONS

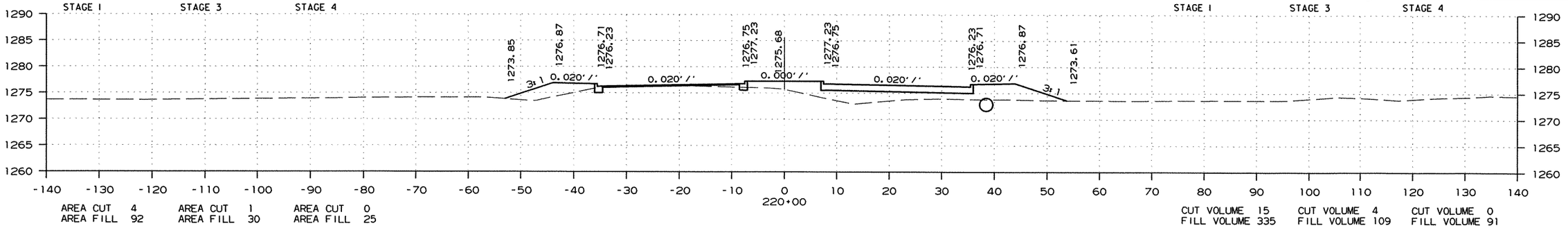


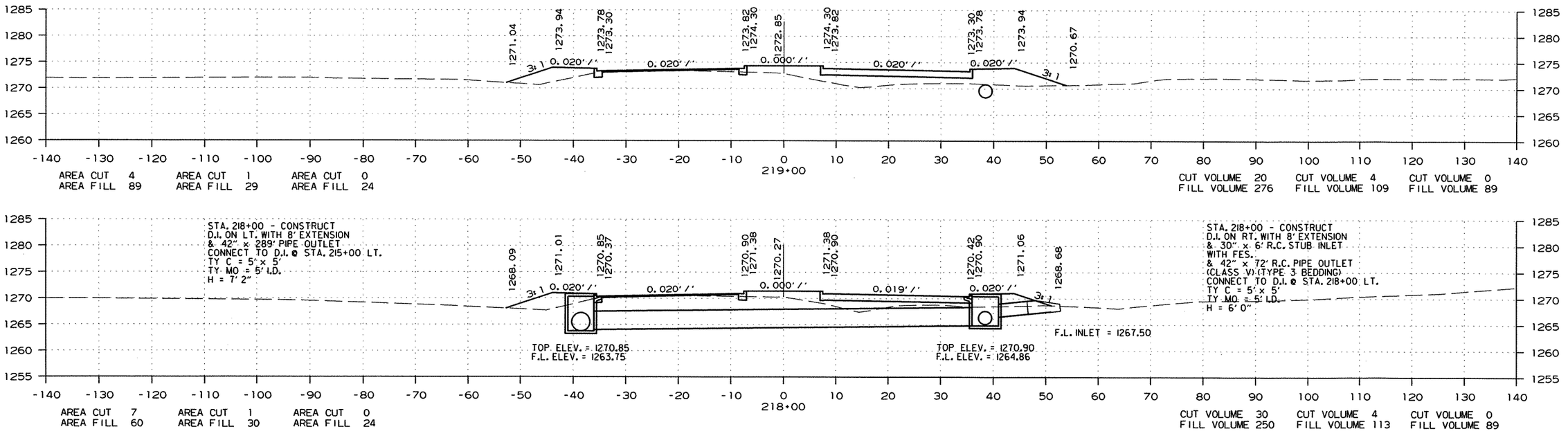
r040518.dgn 12/20/2010

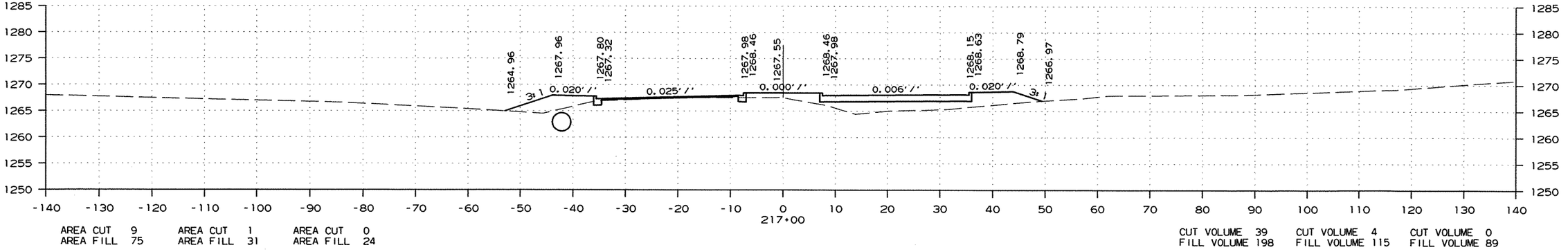
STA. 214+00 TO STA. 216+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		040518	258	270

(2) CROSS SECTIONS





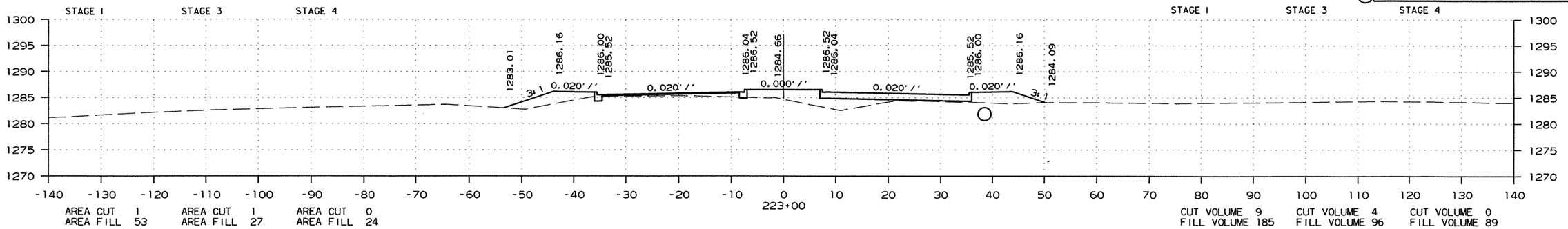


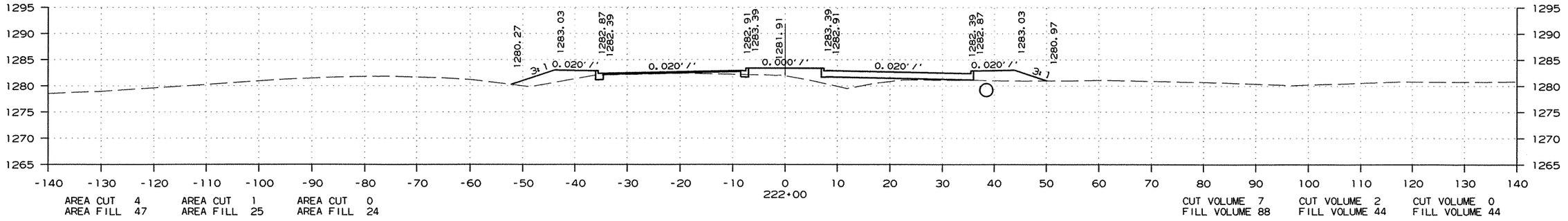
STA. 217+00 TO STA. 220+00

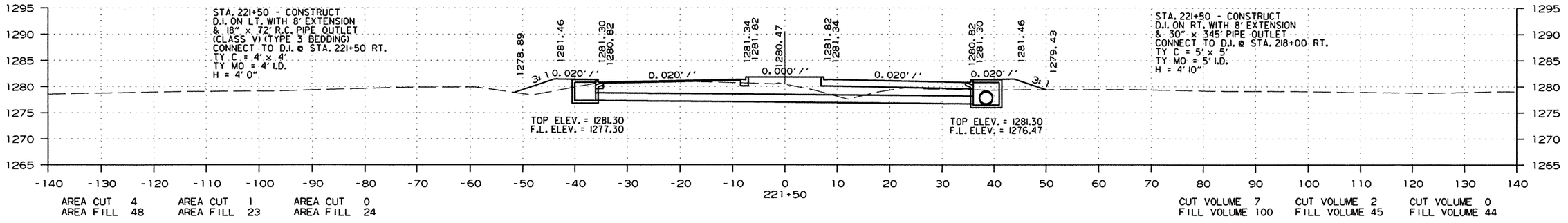
r040518.dgn 12/20/2010

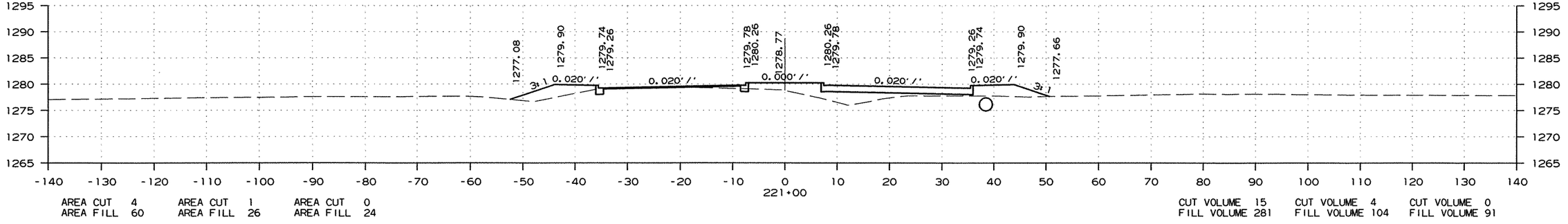
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		040518	259	270

(2) CROSS SECTIONS







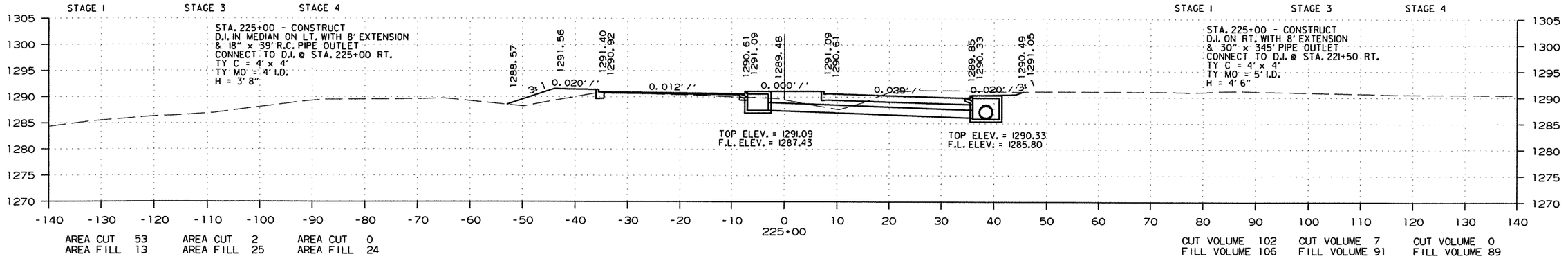


STA. 221+00 TO STA. 223+00

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		040518	260	270

(2) CROSS SECTIONS

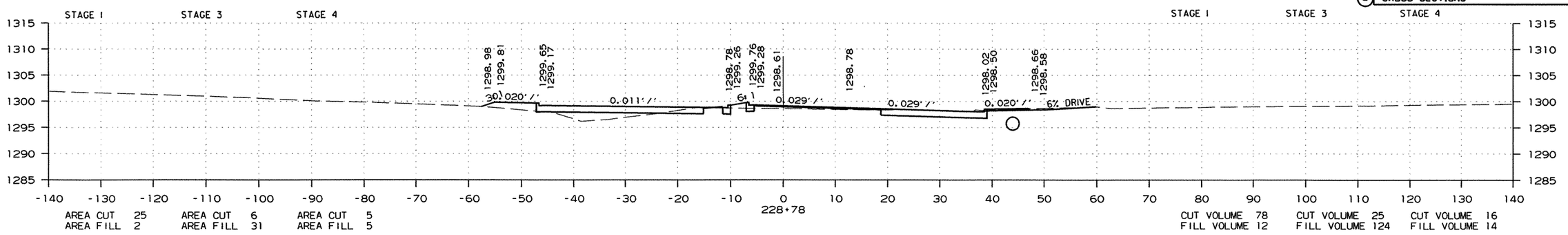


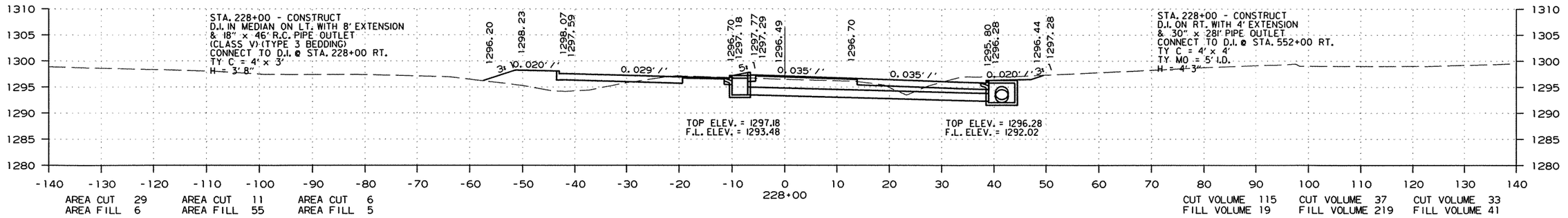
STA. 223+74 TO STA. 225+00

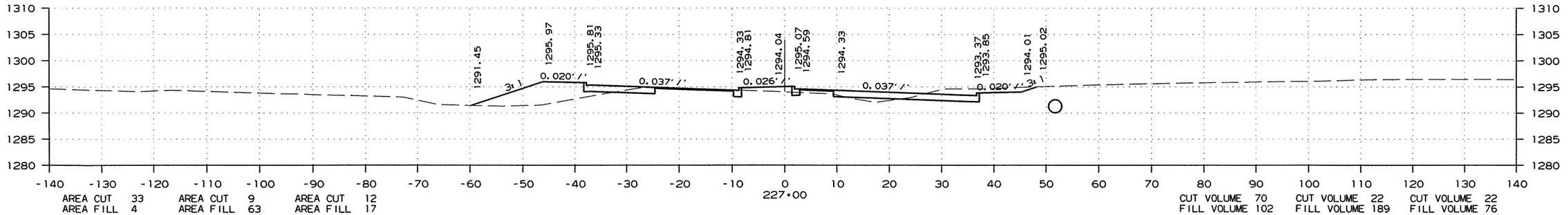
r040518.dgn 12/20/2010

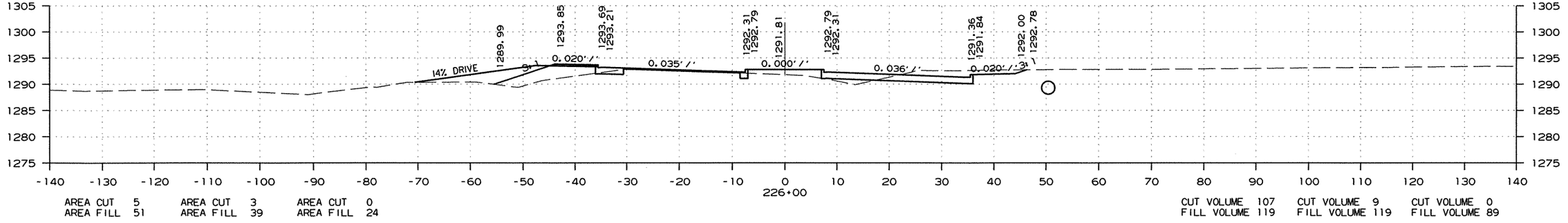
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	261	270

(2) CROSS SECTIONS







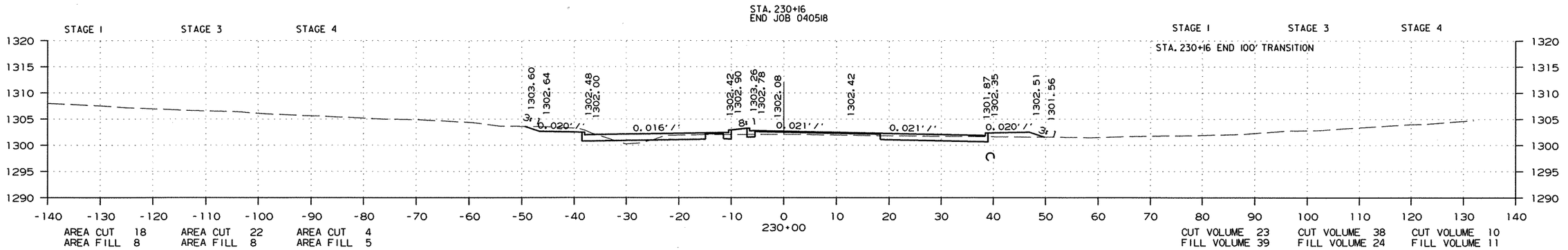


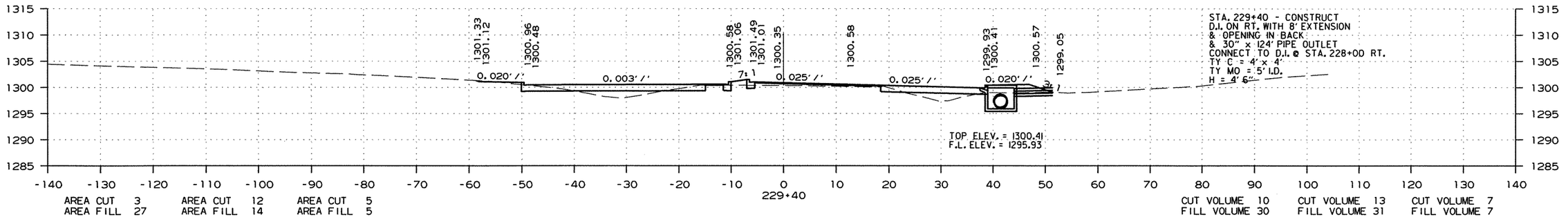
STA. 226+00 TO STA. 228+78

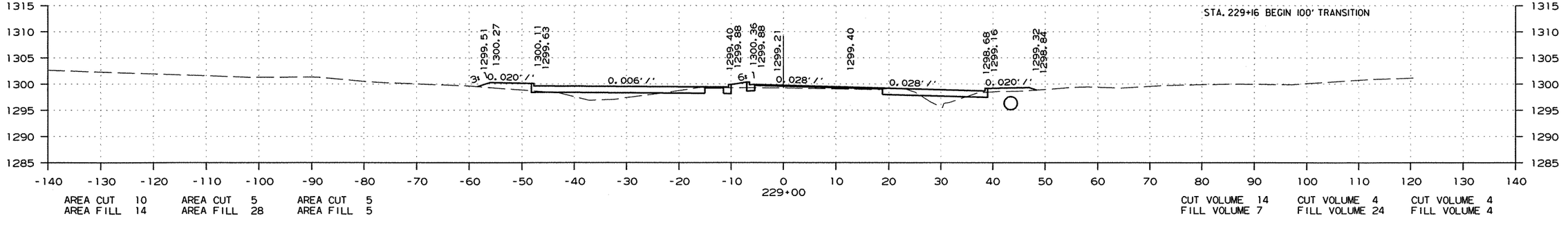
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		040518	262	270

(2) CROSS SECTIONS





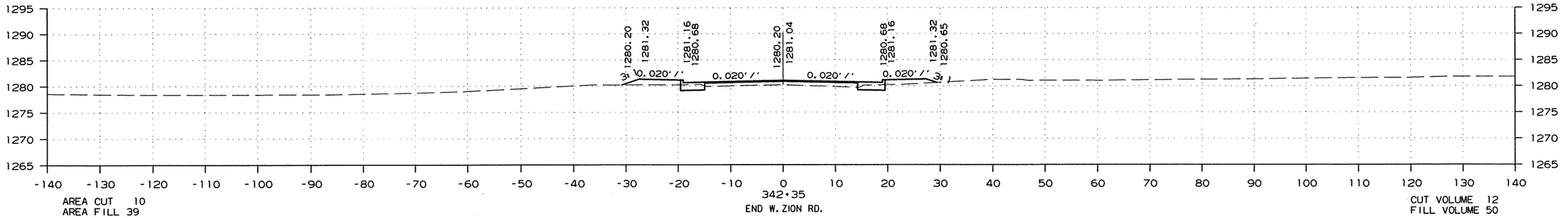


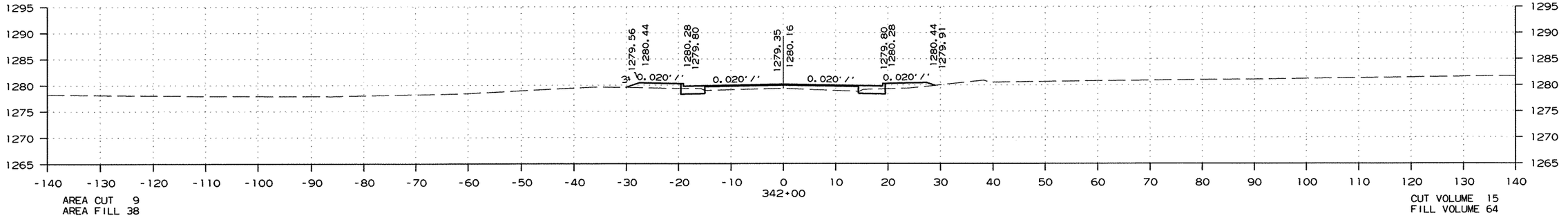
STA. 229+00 TO STA. 230+00

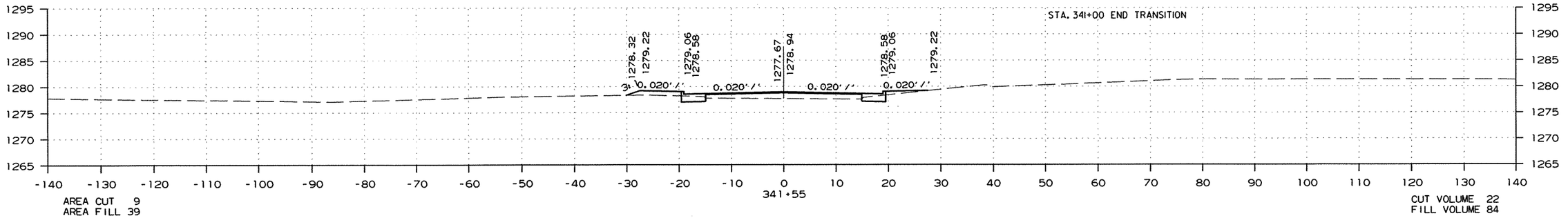
r040518.dgn 12/20/2010

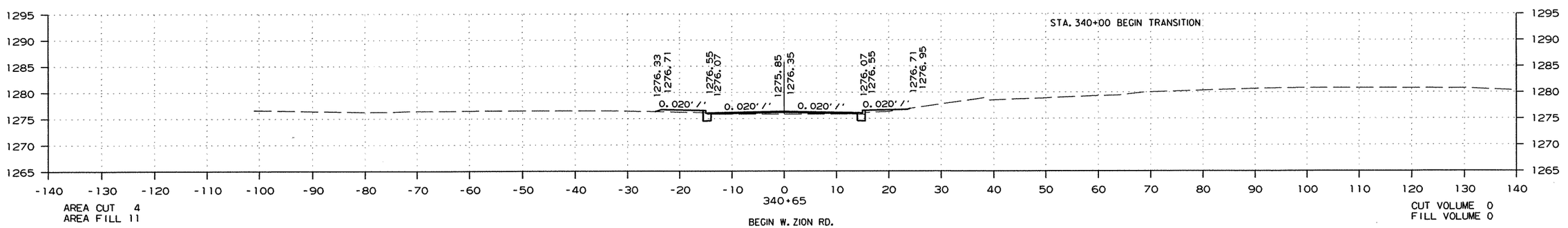
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	263	270

(2) CROSS SECTIONS







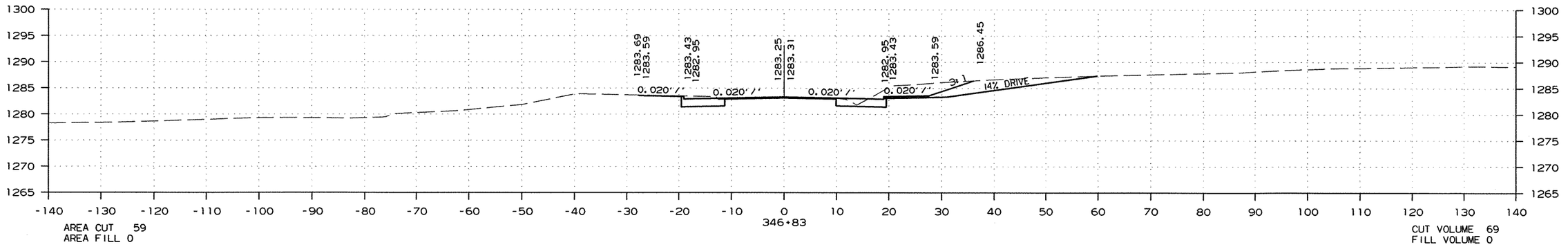


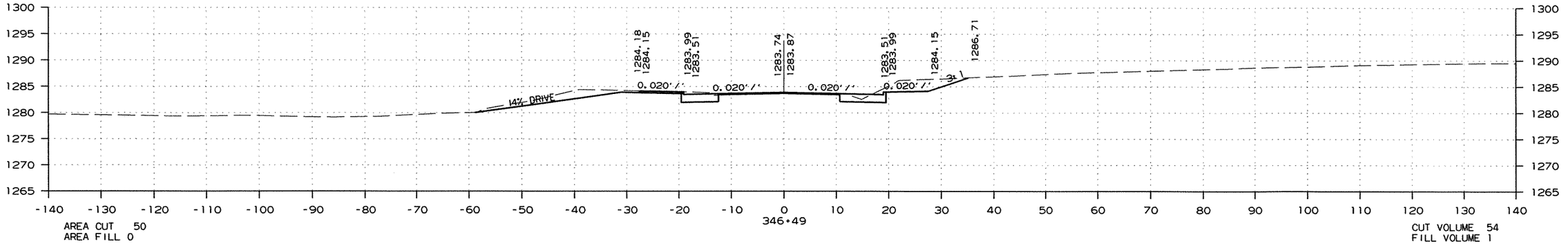
r040518.dgn 12/20/2010

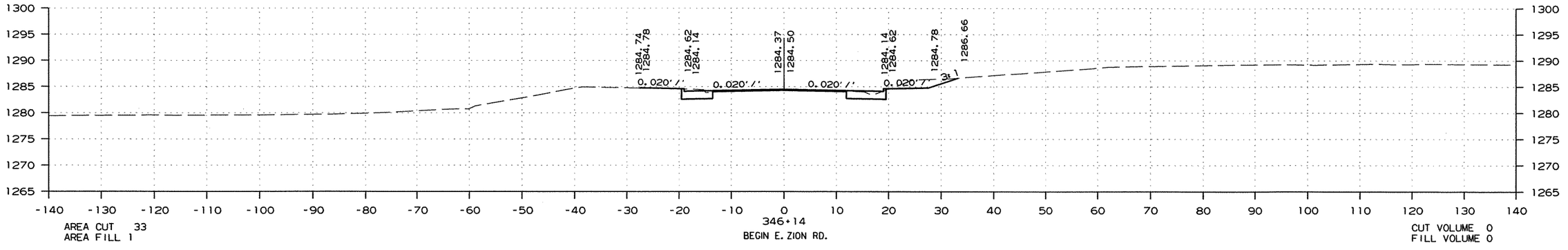
STA. 340+65 TO STA. 342+35

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	264	270

(2) CROSS SECTIONS





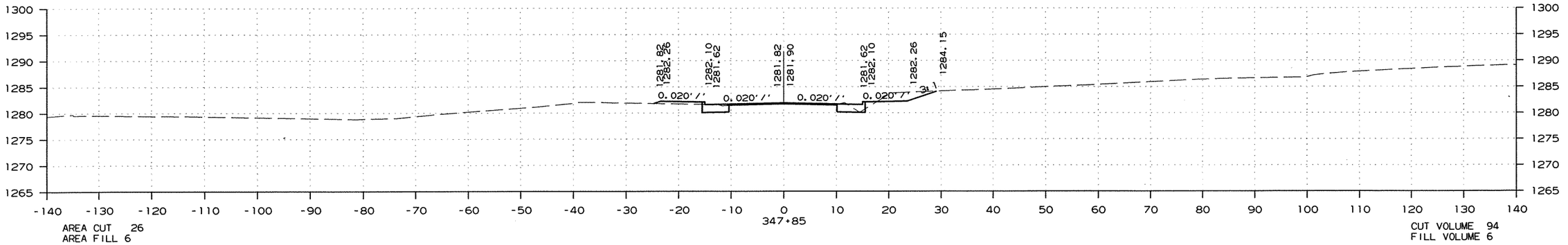


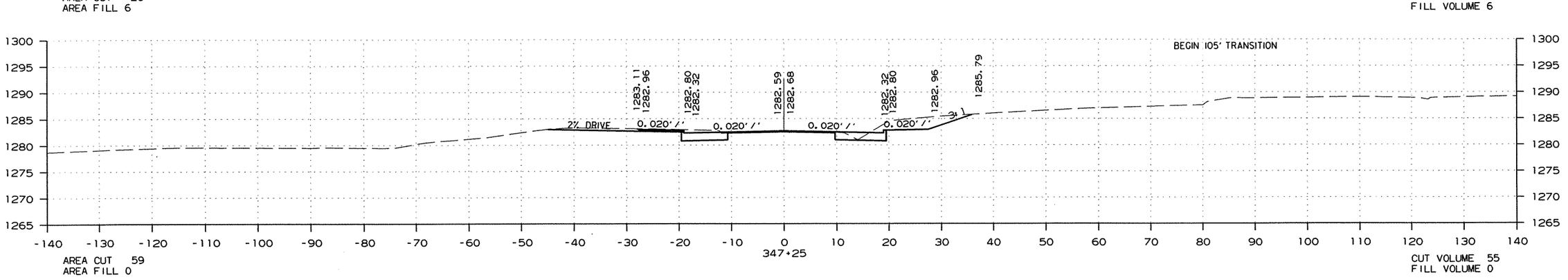
STA. 346+14 TO STA. 346+83

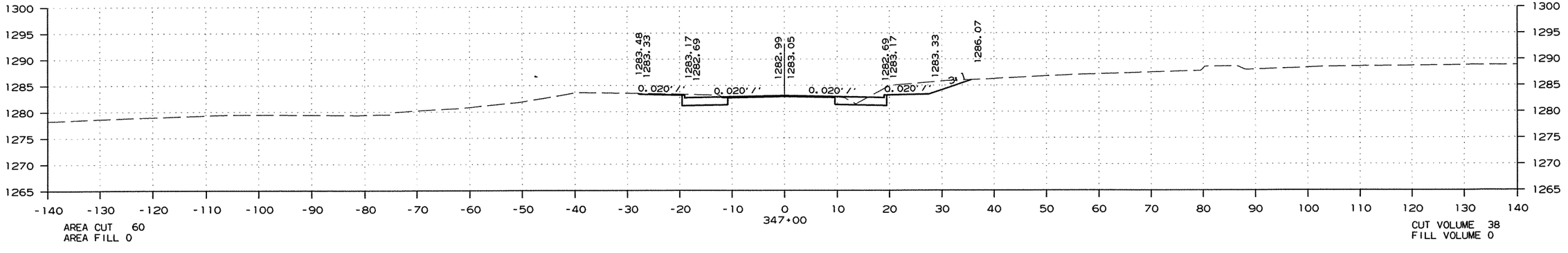
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	265	270

(2) CROSS SECTIONS





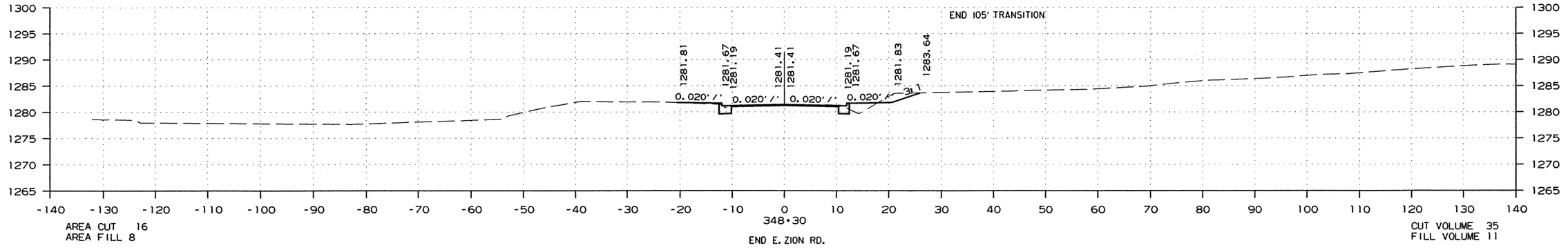


STA. 347+00 TO STA. 347+85

r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	266	270

(2) CROSS SECTIONS

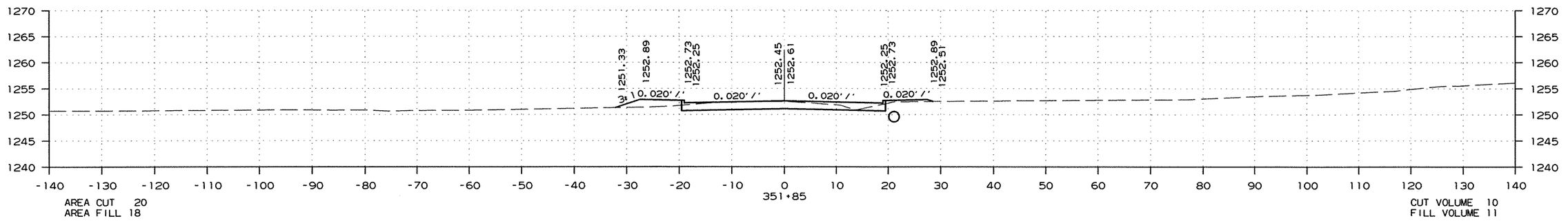


STA. 348+30 TO STA. 348+30

r040518.dgn 12/20/2010

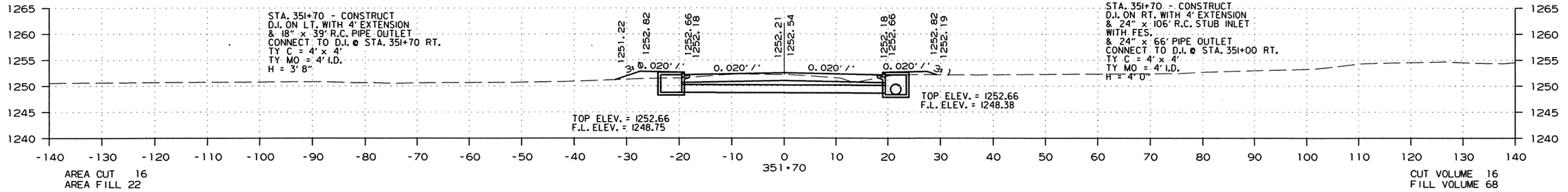
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	267	270

(2) CROSS SECTIONS



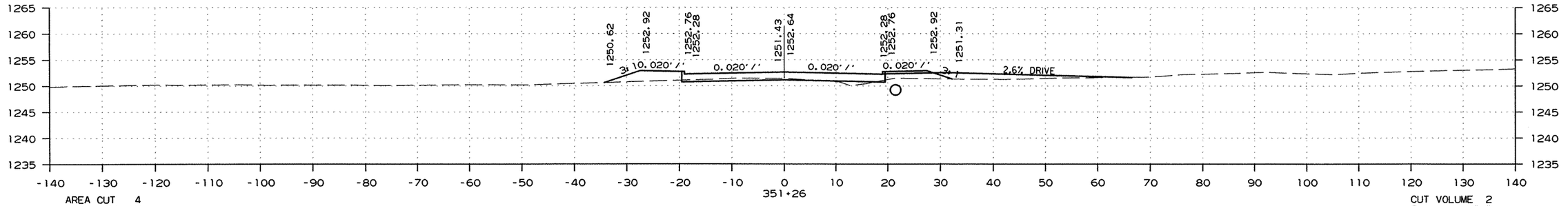
AREA CUT 20
AREA FILL 18

CUT VOLUME 10
FILL VOLUME 11



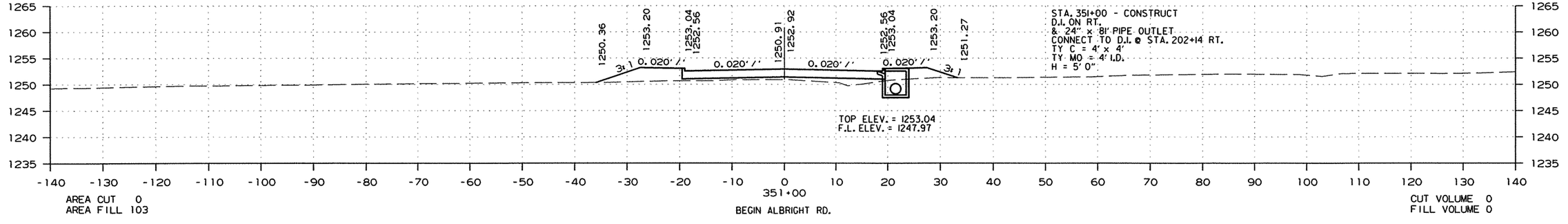
AREA CUT 16
AREA FILL 22

CUT VOLUME 16
FILL VOLUME 68



AREA CUT 4
AREA FILL 62

CUT VOLUME 2
FILL VOLUME 79



AREA CUT 0
AREA FILL 103

BEGIN ALBRIGHT RD.

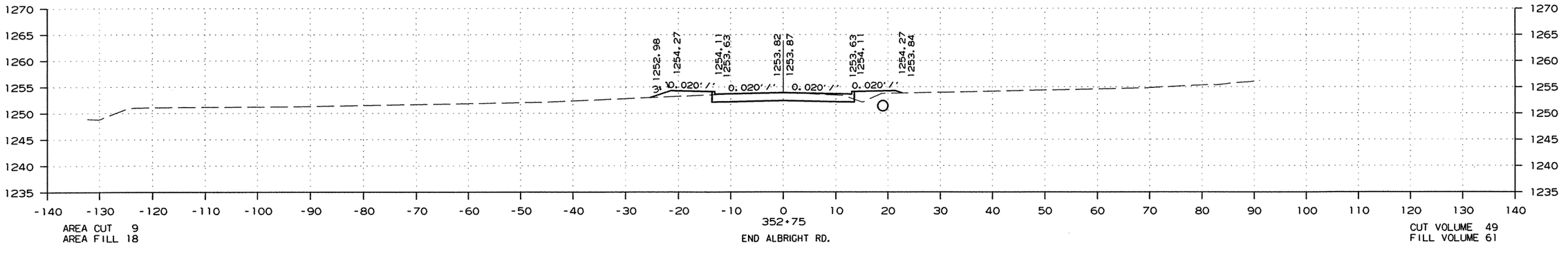
CUT VOLUME 0
FILL VOLUME 0

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STA. 351+00 TO STA. 351+85

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	268	270

(2) CROSS SECTIONS

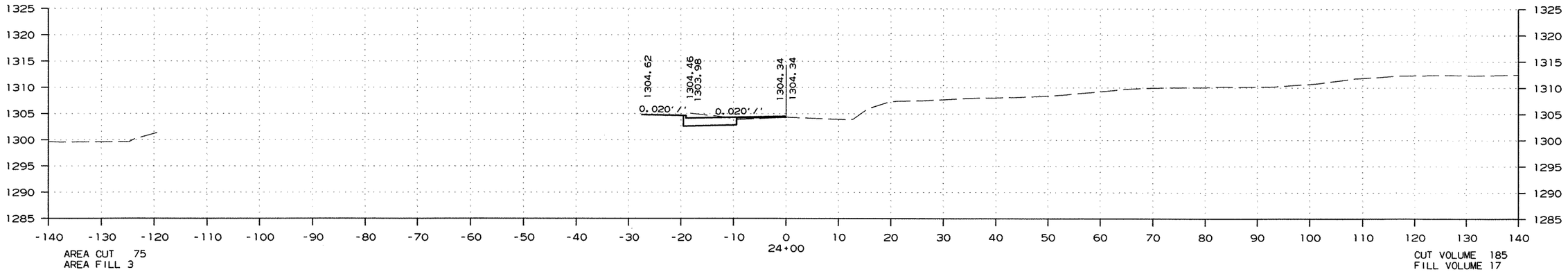


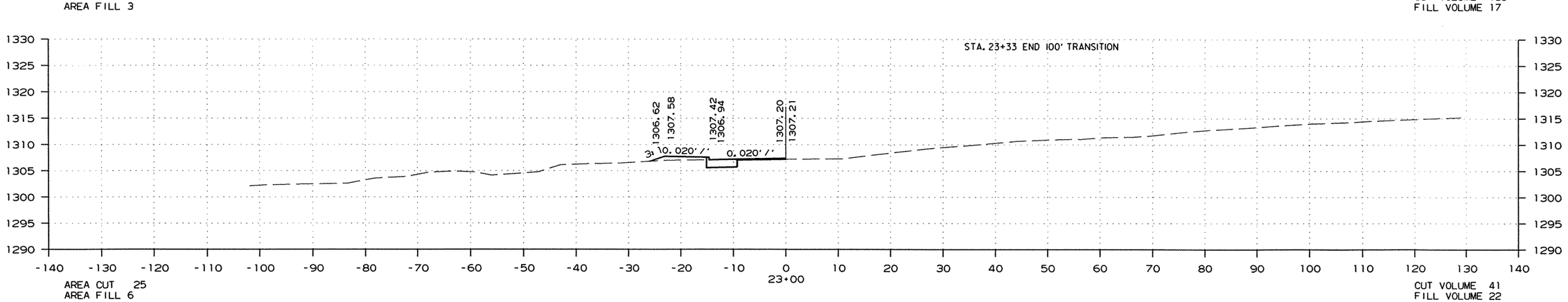
STA. 352+75 TO STA. 352+75

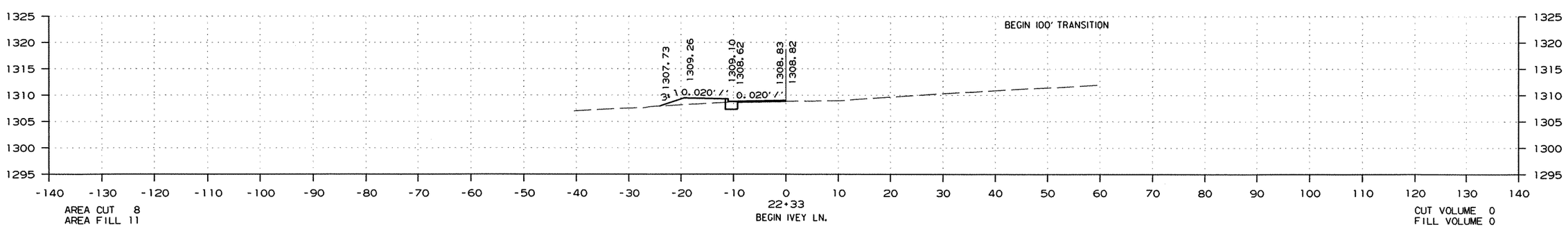
r040518.dgn 12/20/2010

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		040518	269	270

(2) CROSS SECTIONS







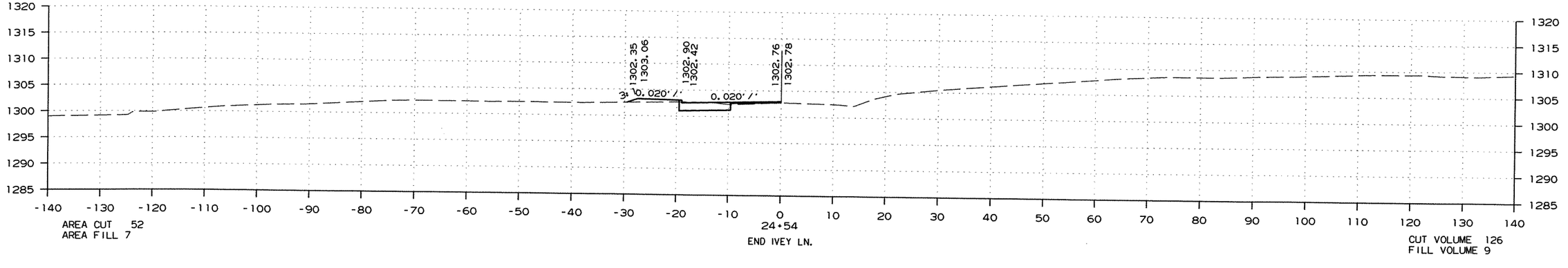
STA. 22+33 TO STA. 24+00

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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED

FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
6	ARK.			
JOB NO.		040518	270	270

(2) CROSS SECTIONS



STA. 24+54 TO STA. 24+54

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