

ARKANSAS DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR STATE HIGHWAY

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100835		1	88

② HWY. 18/CARAWAY RD. INTERS. IMPVTS. (JONESBORO) (S)

HWY. 18/CARAWAY RD. INTERS. IMPVTS. (JONESBORO) (S)

CRAIGHEAD COUNTY
ROUTE 18 SECTION 4

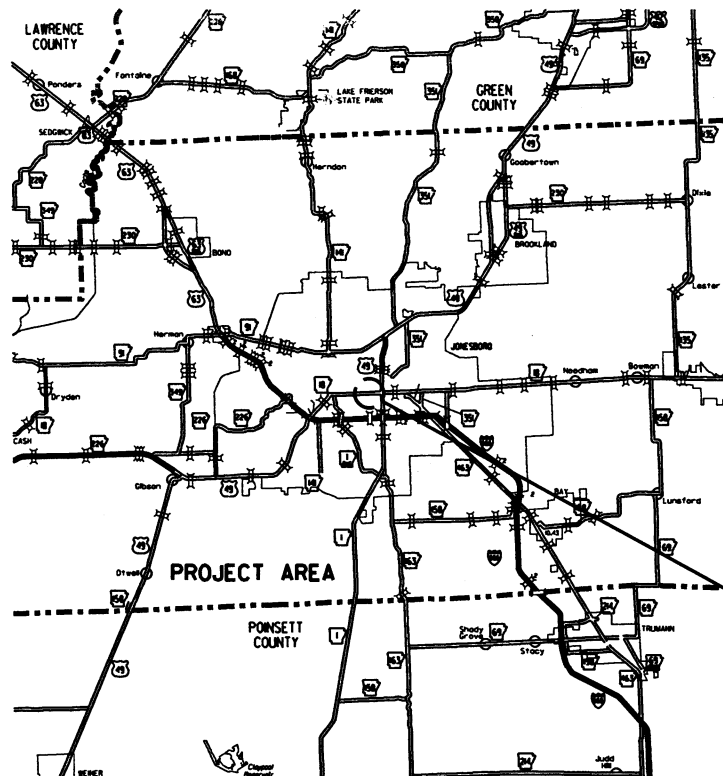
FEDERAL AID PROJ. CMF-9227(57)

JOB 100835

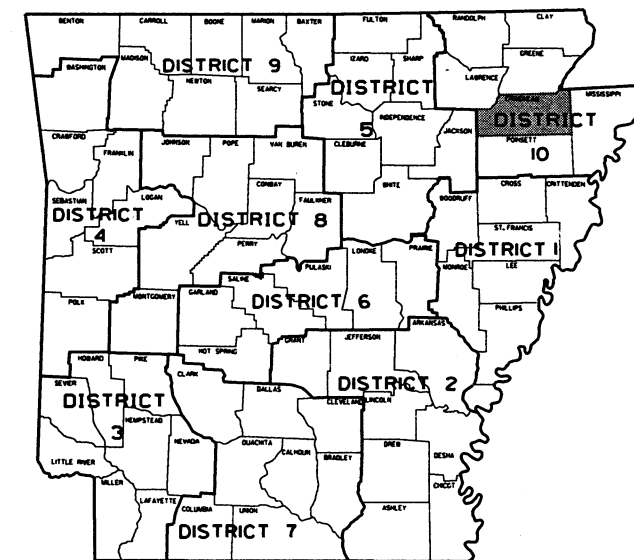
NOT TO SCALE

STA. 129+16.34
END JOB 100835

STA. 218+33.48
END CARAWAY RD.



VICINITY MAP



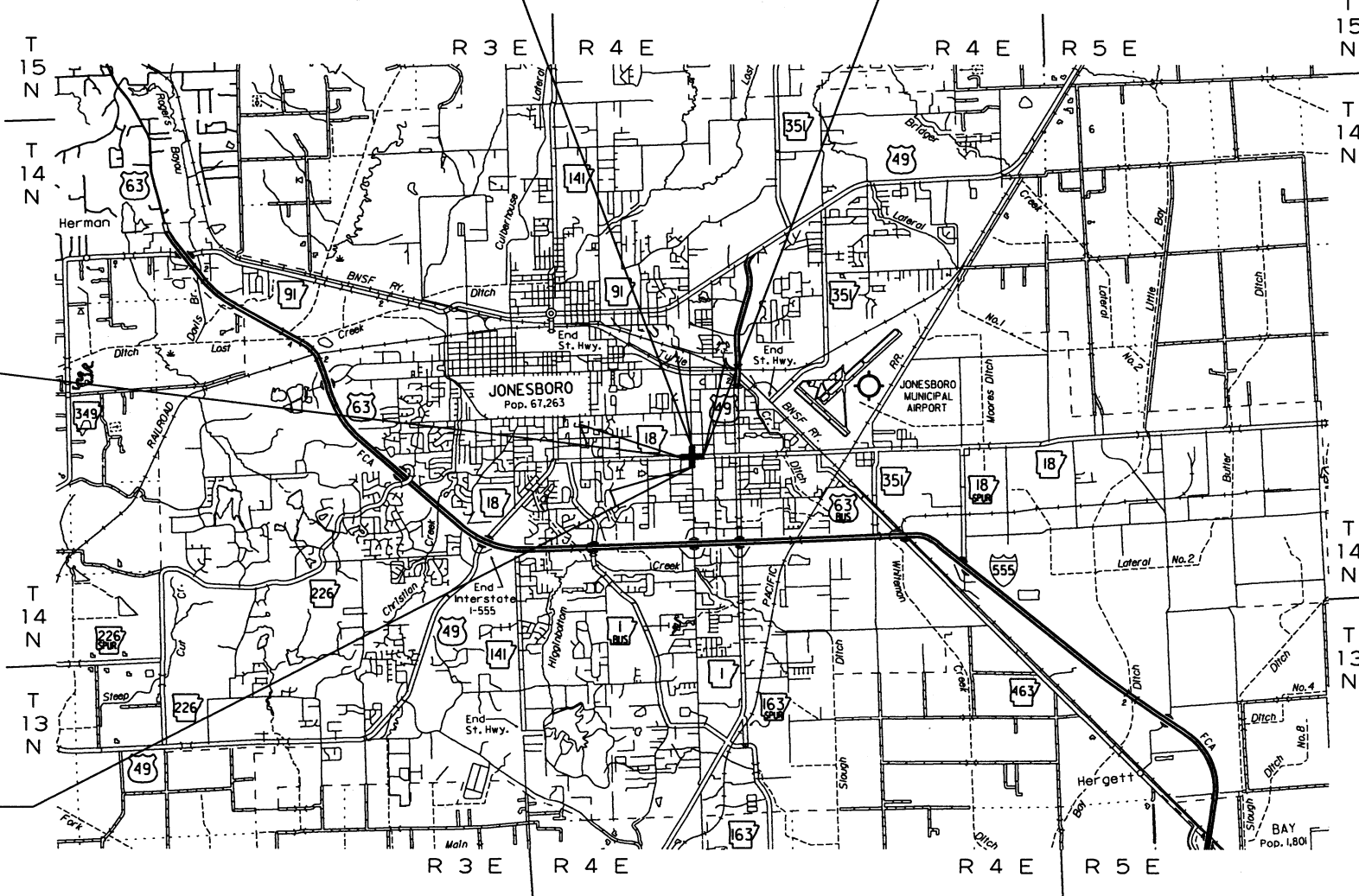
ARK. HWY. DIST. NO. 10

DESIGN TRAFFIC DATA

DESIGN YEAR.....	2038
2018 ADT.....	21000
2038 ADT.....	25000
2038 DHV.....	2750
DIRECTIONAL DISTRIBUTION.....	0.60
TRUCKS.....	1%
DESIGN SPEED.....	40 MPH

STA. 114+49.47
BEGIN JOB 100835
LOG MILE 2.50

STA. 205+46.00
BEGIN CARAWAY RD.



APPROVED



8-23-19

DEPUTY DIRECTOR
AND CHIEF ENGINEER

	BEGIN PROJECT	MID-POINT OF PROJECT	END PROJECT
LATITUDE	N 35°49' 16"	N 35°49' 16"	N 35°49' 16"
LONGITUDE	W 90°40' 50"	W 90°40' 40"	W 90°40' 31"

LENGTH OF PROJECT CALCULATED ALONG C.L.			
GROSS LENGTH OF PROJECT	1466.87	FEET	OR 0.278 MILES
NET ROADWAY	1466.87		0.278 MILES
NET BRIDGES	00.00		0.000 MILES
NET PROJECT	1466.87		0.278 MILES

10/16/2018

R100835.DGN

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12-20-19				6	ARK.			
						JOB NO. 100835	2	88

② INDEX OF SHEETS AND STANDARD DRAWINGS



INDEX OF SHEETS

ROADWAY STANDARD DRAWINGS

SHEET NO.	TITLE
1	TITLE SHEET
2	INDEX OF SHEETS AND STANDARD DRAWINGS
3	GOVERNING SPECIFICATIONS AND GENERAL NOTES
4 - 9	TYPICAL SECTIONS OF IMPROVEMENT
10 - 11	SPECIAL DETAILS
12 - 15	TEMPORARY EROSION CONTROL DETAILS
16 - 22	MAINTENANCE OF TRAFFIC DETAILS
23 - 25	PERMANENT PAVEMENT MARKING DETAILS
26 - 29	QUANTITIES
30	SUMMARY OF QUANTITIES AND REVISIONS
31 - 33	SURVEY CONTROL DETAILS
34 - 41	PLAN AND PROFILE SHEETS
42	SYSTEM MAP
43	TRAFFIC SIGNAL NOTES
44	SUMMARY OF TRAFFIC SIGNAL QUANTITIES
45	PEDESTRIAN PUSH BUTTON PEDESTAL DETAIL
46 - 58	SIGNALIZATION PLAN SHEETS
59 - 88	CROSS SECTIONS

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

DRWG.NO.	TITLE	DATE
CG-1	CURBING DETAILS	11-29-07
DR-1	DETAILS OF DRIVEWAYS & ISLANDS	11-07-19
FES-1	FLARED END SECTION	10-18-96
FES-2	FLARED END SECTION	10-18-96
FPC-9	DETAILS OF DROP INLETS & JUNCTION BOXES	11-16-01
FPC-9E	DETAILS OF DROP INLETS (TYPE C)	08-22-02
FPC-9M	DETAILS OF DROP INLET (TYPE MO)	08-22-02
PCC-1	CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PCM-1	METAL PIPE CULVERT FILL HEIGHTS & BEDDING	02-27-14
PM-1	PAVEMENT MARKING DETAILS	06-01-17
PU-1	DETAILS OF PIPE UNDERDRAIN	12-08-16
SD-1	ANTENNA POLE	11-16-17
SD-5	CONTROLLER CABINET UTILITY DRAWER	09-12-13
SD-6	HEAVY DUTY PULL BOX	11-16-17
SD-7	SPAN WIRE ASSEMBLY WOOD POLE	11-16-17
SD-8	SIGNAL HEAD PLACEMENT	12-08-16
SD-9	SERVICE POINT	11-07-19
SD-11	STEEL POLE WITH MAST ARM	11-16-17
SI-1	DETAILS OF SPECIAL ITEMS	10-25-18
TC-1	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-2	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TC-3	STANDARD TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION	11-07-19
TEC-1	TEMPORARY EROSION CONTROL DEVICES	11-16-17
TEC-3	TEMPORARY EROSION CONTROL DEVICES	11-03-94
WR-1	WHEELCHAIR RAMPS NEW CONSTRUCTION AND ALTERATIONS	11-10-05

GOVERNING SPECIFICATIONS

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

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
12-03-19				6	ARK.			
12-20-19						100835	3	88

2 GOVERNING SPECS. AND GENERAL NOTES



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 - POSTERS AND NOTICES REQUIRED FOR FEDERAL-AID PROJECTS
FHWA-1273	SUPPLEMENT - WAGE RATE DETERMINATION
100-3	CONTRACTOR'S LICENSE
100-4	DEPARTMENT NAME CHANGE
102-2	ISSUANCE OF PROPOSALS
108-1	LIQUIDATED DAMAGES
108-2	WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
110-1	PROTECTION OF WATER QUALITY AND WETLANDS
303-1	AGGREGATE BASE COURSE
306-1	QUALITY CONTROL AND ACCEPTANCE
400-1	TACK COATS
400-4	DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
400-5	PERCENT AIR VOID FOR ACHM MIX DESIGNS
400-6	LIQUID ANTI-STRIP ADDITIVE
410-1	CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
410-2	DEVICES FOR MEASURING DENSITY FOR ROLLING PATTERNS
505-1	PORTLAND CEMENT CONCRETE DRIVEWAY
600-2	INCIDENTAL CONSTRUCTION
603-1	LANE CLOSURE NOTIFICATION
604-1	RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
606-1	PIPE CULVERTS FOR SIDE DRAINS
620-1	MULCH COVER
621-1	FILTER SOCKS
632-1	CONCRETE ISLAND
633-1	CONCRETE WALKS, CONCRETE STEPS, AND HAND RAILING
634-1	CURBING
700-2	TRAFFIC CONTROL FACILITIES
JOB 100835	ACTUATED CONTROLLER
JOB 100835	ANTENNA SUPPORT
JOB 100835	BIDDING REQUIREMENTS AND CONDITIONS
JOB 100835	BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 100835	CABINET DRAWER ASSEMBLY
JOB 100835	CARGO PREFERENCE ACT REQUIREMENTS
JOB 100835	CONCRETE WALKS (TYPE SPECIAL)
JOB 100835	DELAY IN RIGHT OF WAY OCCUPANCY
JOB 100835	DISADVANTAGED BUSINESS ENTERPRISE BIDDER'S RESPONSIBILITIES
JOB 100835	EDGE CARD VIDEO PROCESSOR
JOB 100835	ELECTRICAL CONDUCTORS FOR LUMINAIRES
JOB 100835	ELECTRICAL CONDUCTORS-IN-CONDUIT
JOB 100835	EXTENSION FOR PIPE CULVERTS
JOB 100835	FLEXIBLE BEGINNING OF WORK - CALENDAR DAY CONTRACT
JOB 100835	GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 100835	IP VIDEO DETECTION SYSTEM
JOB 100835	LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
JOB 100835	LED TRAFFIC SIGNAL HEAD
JOB 100835	LUMINAIRE ASSEMBLY (CUTOFF TYPE)
JOB 100835	MANDATORY ELECTRONIC CONTRACT
JOB 100835	MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 100835	PARTNERING REQUIREMENTS
JOB 100835	PROSECUTION AND PROGRESS WITH BID SCHEDULE
JOB 100835	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT
JOB 100835	RETROREFLECTIVE BACKPLATES
JOB 100835	SERVICE POINT ASSEMBLY (TRAFFIC CONTROL DEVICES)
JOB 100835	SHORING FOR CULVERTS
JOB 100835	SITE USE (A+C METHOD) - CALENDAR DAY CONTRACT
JOB 100835	STORM WATER POLLUTION PREVENTION PLAN
JOB 100835	STREET NAME SIGN (MAST ARM MOUNTED)
JOB 100835	SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 100835	SYSTEM LOCAL CONTROLLER
JOB 100835	THERMOPLASTIC PAVEMENT MARKING (YIELD LINE)
JOB 100835	TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)
JOB 100835	UTILITY ADJUSTMENTS
JOB 100835	VALUE ENGINEERING
JOB 100835	VIDEO DETECTOR (COLOR)
JOB 100835	WARM MIX ASPHALT
JOB 100835	WELLHEAD PROTECTION

GENERAL NOTES

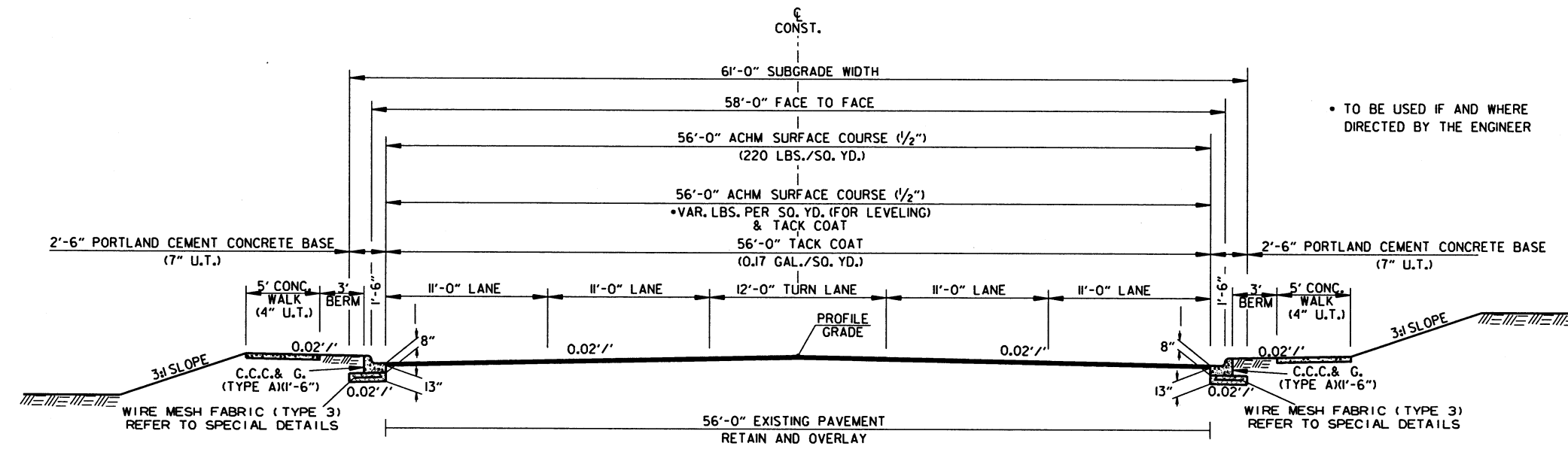
- GRADE LINE DENOTES FINISHED GRADE WHERE SHOWN ON PLANS.
- ALL PIPE LINES, POWER, TELEPHONE, AND TELEGRAPH LINES TO BE MOVED OR LOWERED BY THE RESPECTIVE OWNERS AS PER AGREEMENT WITH SUCH OWNERS.
- ANY EQUIPMENT OR APPURTENANCE THAT INTERFERES WITH THE PROPOSED CONSTRUCTION AND WHICH MAY BE THE PROPERTY OF UTILITY SERVICE ORGANIZATIONS SHALL BE MOVED BY THE OWNERS UNLESS OTHERWISE PROVIDED.
- 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.
- ALL LAND MONUMENTS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 107.12 OF THE STANDARD SPECIFICATIONS.
- ALL TREES THAT DO NOT DIRECTLY INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE SPARED AS DIRECTED BY THE ENGINEER. CARE AND DISCRETION SHALL BE USED TO INSURE THAT ALL TREES NOT TO BE REMOVED SHALL BE HARMED AS LITTLE AS POSSIBLE DURING THE CONSTRUCTION OPERATIONS.
- THE SEQUENCE AS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS IS A GENERAL OUTLINE FOR THE CONSTRUCTION OF THIS PROJECT, AND IN NO WAY IS IT INTENDED TO COVER EVERY ITEM IN THE PROJECT. ITEMS NOT CRITICAL TO THE CONSTRUCTION SEQUENCE MAY BE CONSTRUCTED IN ANY STAGE AS APPROVED BY THE RESIDENT ENGINEER.
- ALL FLEXIBLE BASE AND ASPHALTIC PAVEMENTS REMOVED SHALL BE PAID FOR UNDER THE ITEM NO. 210 - UNCLASSIFIED EXCAVATION.
- 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.

12/20/2019

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				6	ARK.			
JOB NO. 100835							4	88

2 TYPICAL SECTIONS OF IMPROVEMENT



• TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

HWY. 18
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 114+49.47 TO STA. 117+15.00
STA. 126+22.00 TO STA. 129+16.34

NOTES:
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.

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.

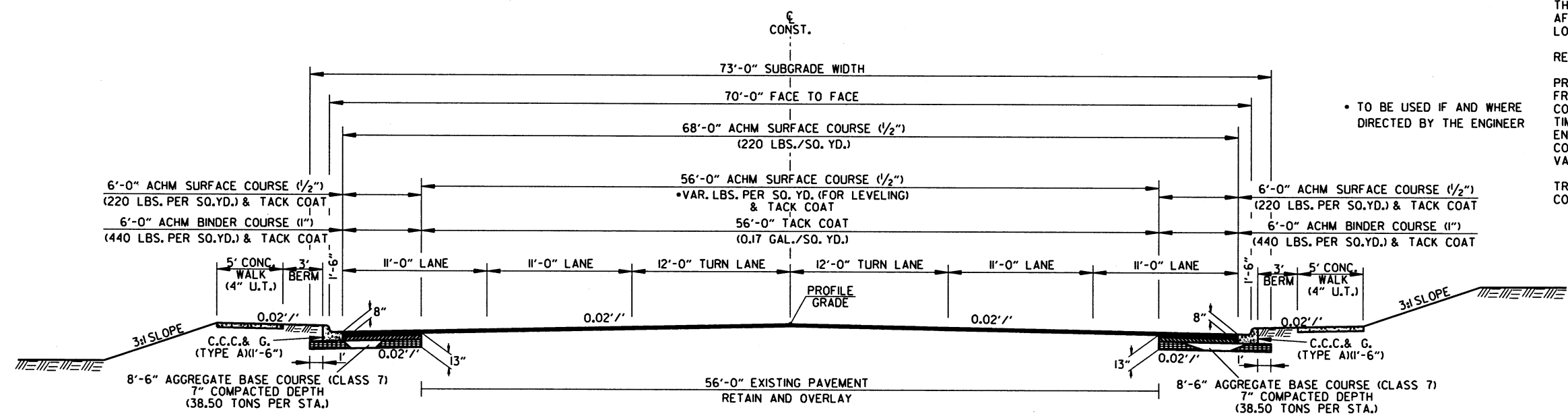
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THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

REFER TO PLAN SHEETS FOR SIDEWALK LOCATIONS.

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

TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.



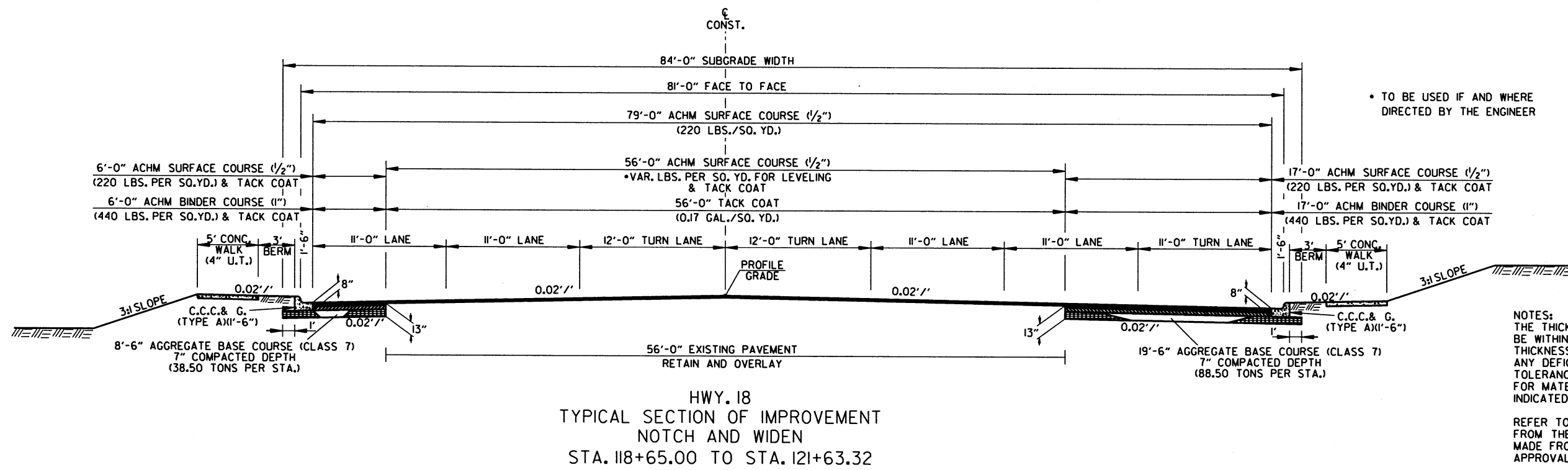
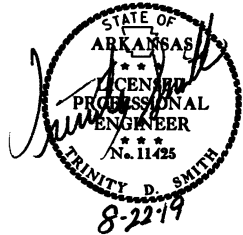
• TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

HWY. 18
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 117+15.00 TO STA. 118+65.00
STA. 124+72.00 TO STA. 126+22.00

10/18/2018 R100835.DGN

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2 TYPICAL SECTIONS OF IMPROVEMENT



HWY. 18
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 118+65.00 TO STA. 121+63.32

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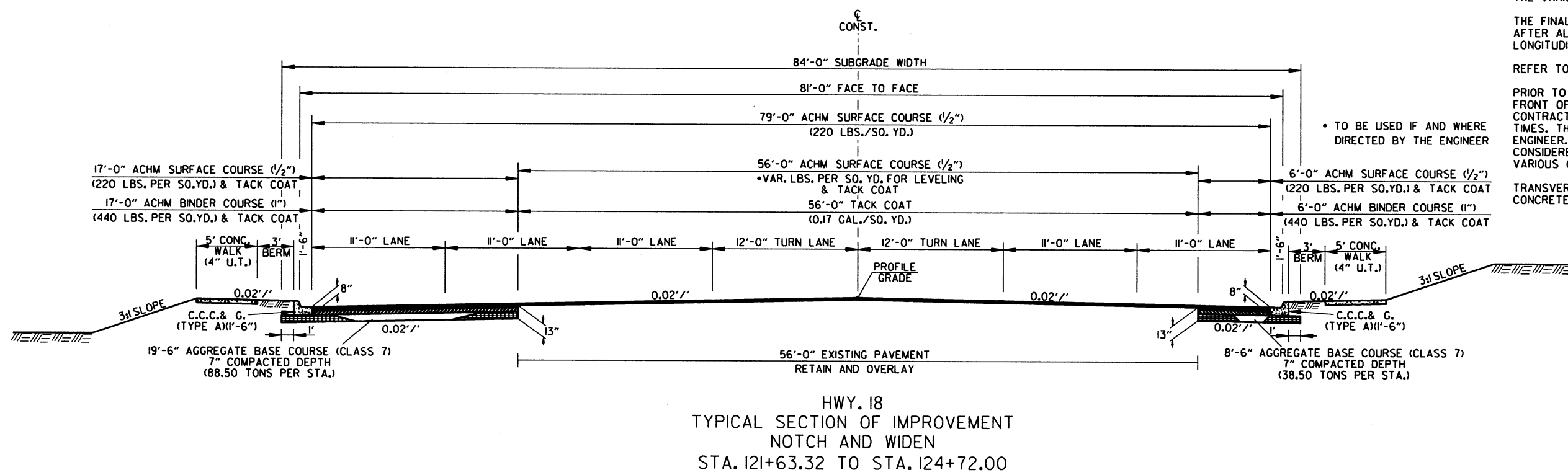
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THE FINAL 2" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

REFER TO PLAN SHEETS FOR SIDEWALK LOCATIONS.

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TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.

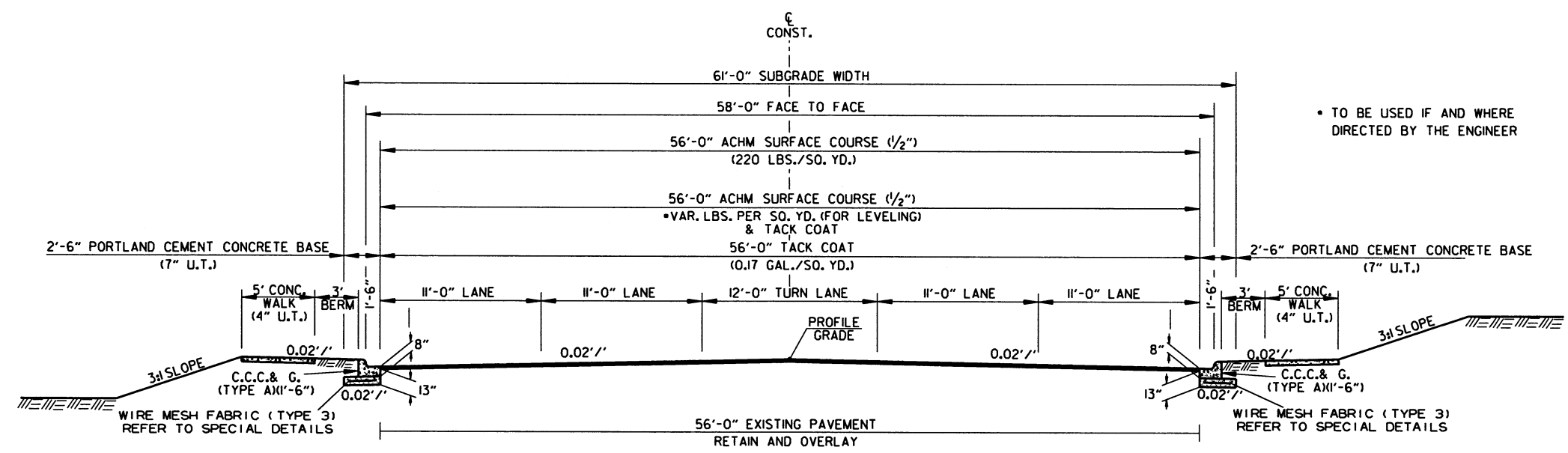
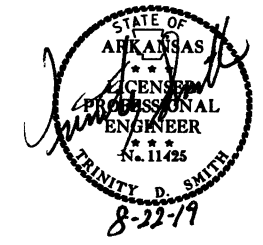


HWY. 18
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 121+63.32 TO STA. 124+72.00

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2 TYPICAL SECTIONS OF IMPROVEMENT



CARAWAY RD.
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 205+46.00 TO STA. 208+06.00

• TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

NOTES:
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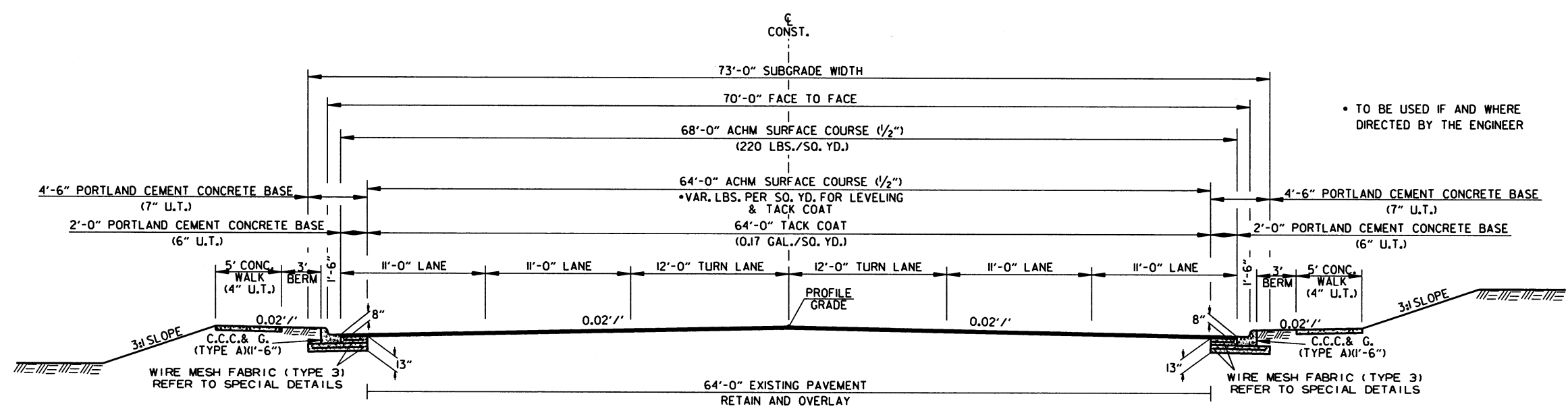
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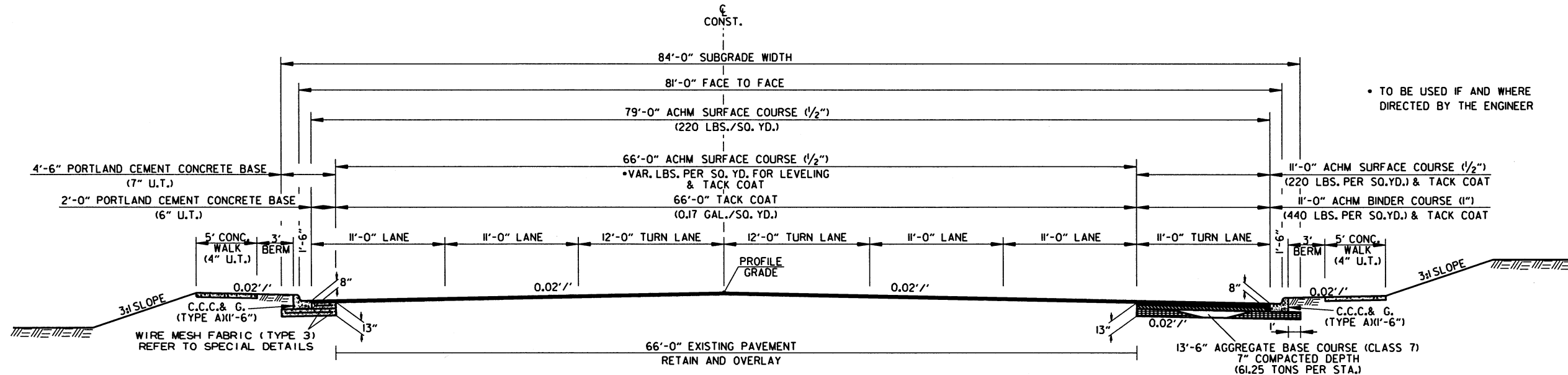
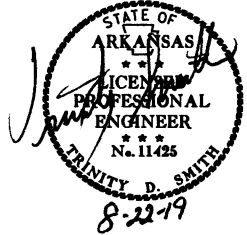
CARAWAY ROAD
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 208+06.00 TO STA. 208+94.00

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• TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

CARAWAY ROAD
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 208+94.00 TO STA. 211+63.09

NOTES:
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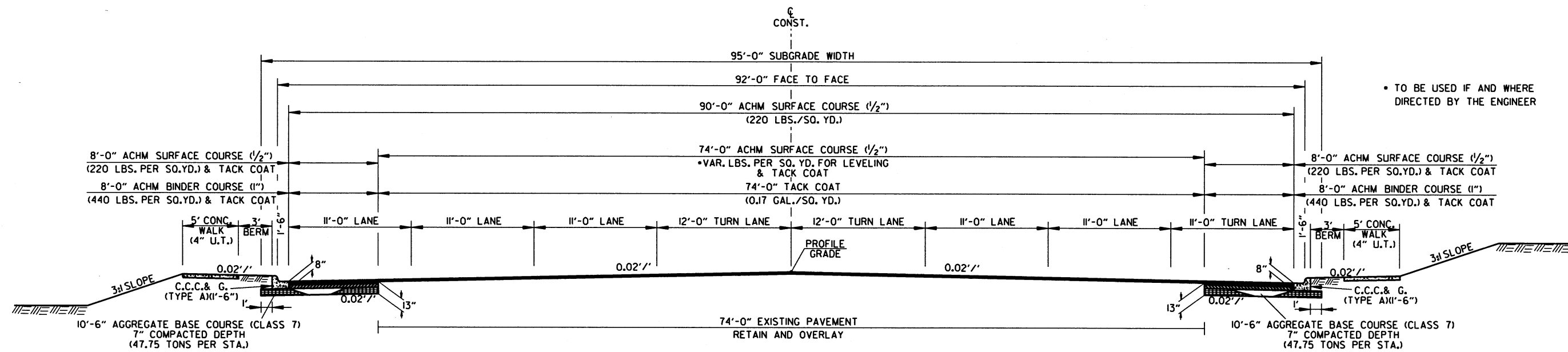
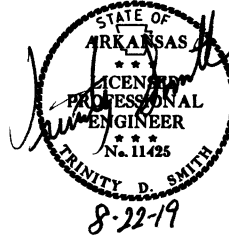
TYPICAL SECTIONS OF IMPROVEMENT

10/18/2018

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2 TYPICAL SECTIONS OF IMPROVEMENT



• TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER

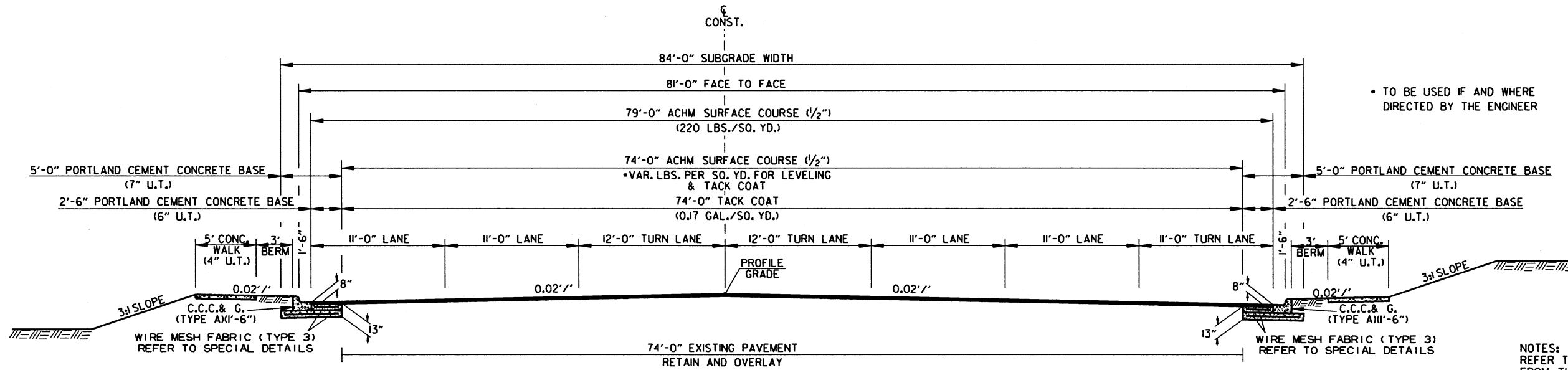
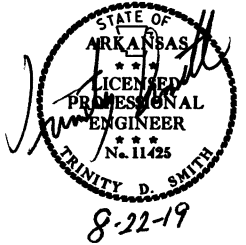
CARAWAY ROAD
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 212+33.09 TO STA. 215+00.00

- NOTES:
- 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.
 - 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.
 - ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS.
 - 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 AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.
 - TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.

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				6	ARK.			
				JOB NO.	100835		9	88

2 TYPICAL SECTIONS OF IMPROVEMENT



CARAWAY ROAD
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 215+00.00 TO STA. 215+91.00

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.

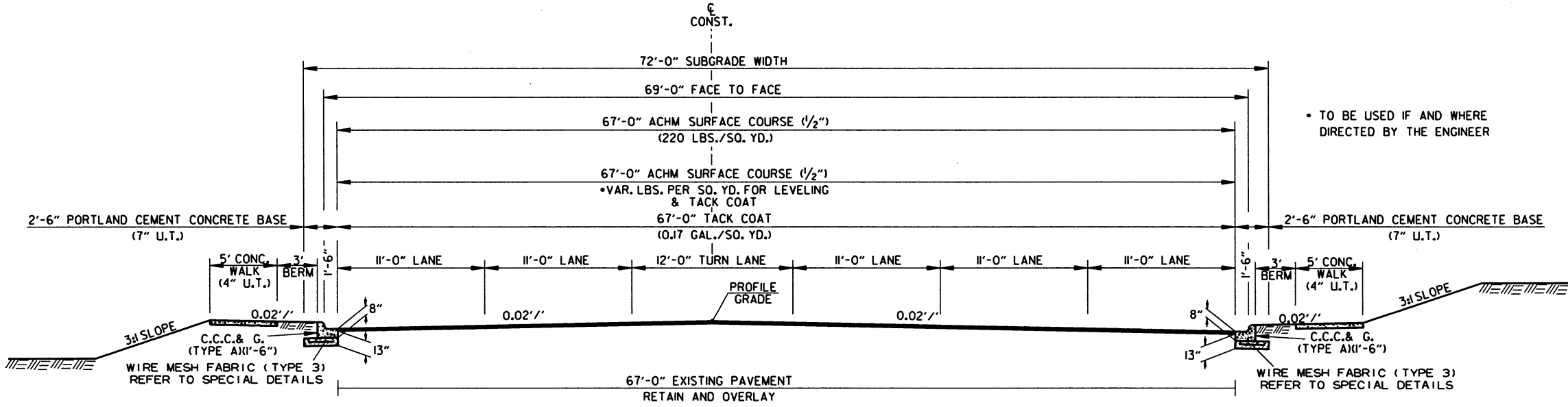
ASPHALT FOR LEVELING OF EXISTING PAVEMENT SHALL BE PLACED ONLY IF AND WHERE DIRECTED BY THE ENGINEER. CALCULATIONS FOR THE AMOUNT OF LEVELING AND/OR LEVELING OPERATIONS SHALL BE PERFORMED BEFORE CONSTRUCTING NOTCH AND WIDENING. CALCULATIONS WILL NOT BE PAID FOR DIRECTLY, BUT PAYMENT WILL BE CONSIDERED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

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 AND GUTTER, THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES. THE METHOD(S) USED SHALL BE APPROVED BY THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

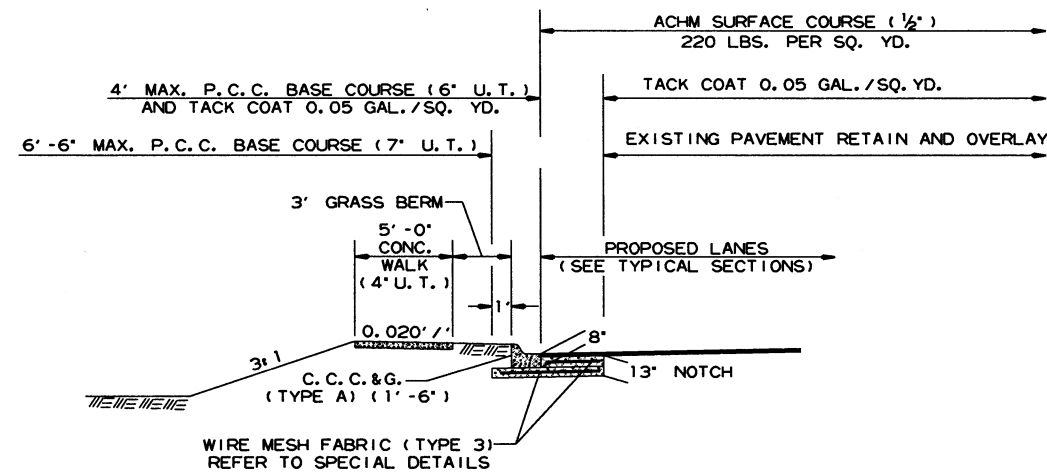
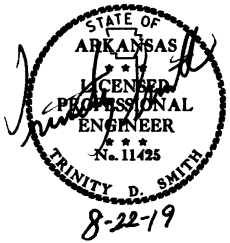
TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE WALKS AT 45' INTERVALS.



CARAWAY ROAD
TYPICAL SECTION OF IMPROVEMENT
NOTCH AND WIDEN
STA. 215+91.00 TO STA. 218+33.48

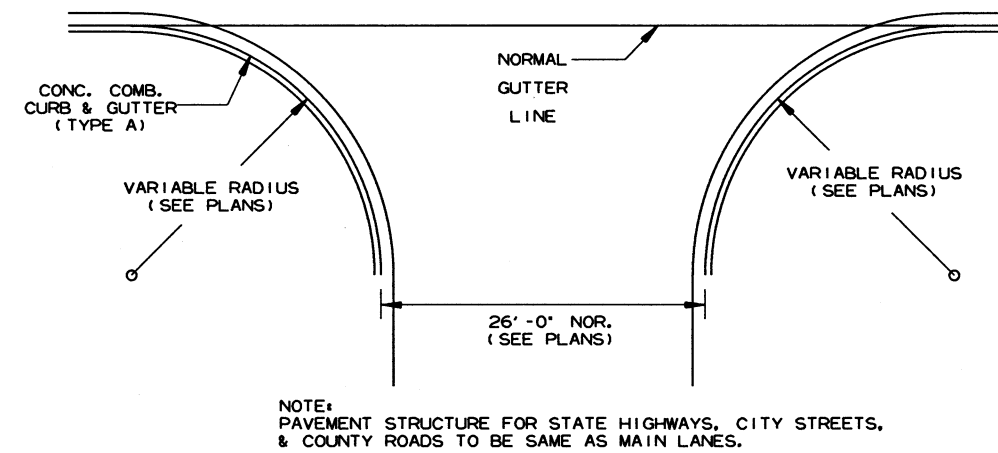
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				6	ARK.			
				JOB NO.	100835		10	88

② SPECIAL DETAILS

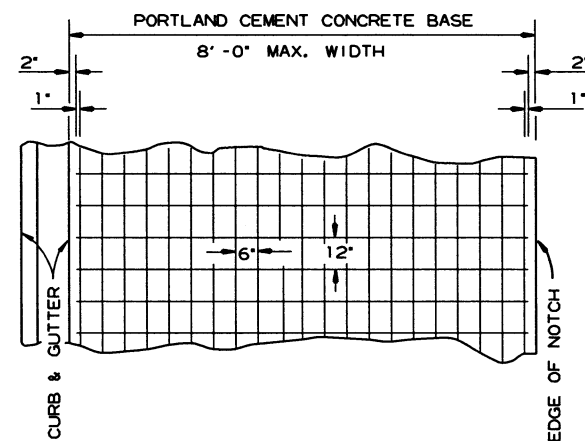


P. C. C. BASE WIDENING DETAIL

P. C. C. BASE WIDENING TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.



DETAIL OF TURNOUTS, ASPHALT STREETS, COUNTY ROADS & STATE HIGHWAYS CURB & GUTTER SECTION

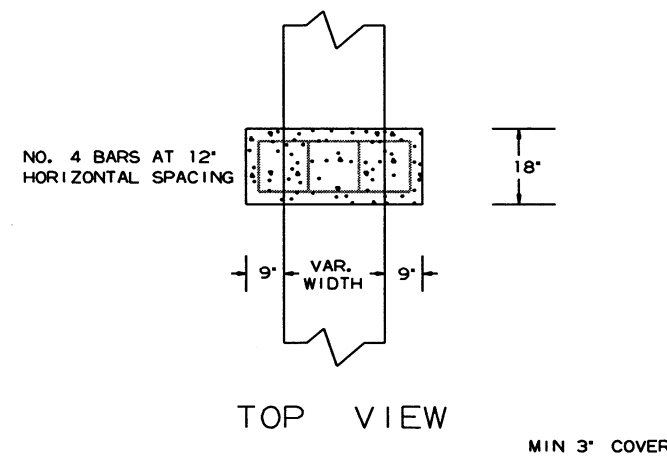


6' X 12' MESH FABRIC (TYPE 3) (W5.5 X W2.9) = 4.26 LBS./SQ. YD.

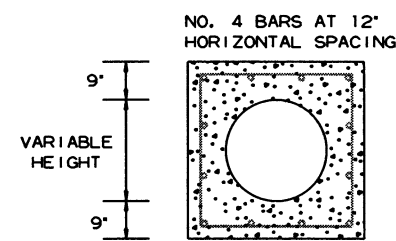
NOTES:

- LAP MESH FABRIC MIN. 12' LONGITUDINALLY AND MIN. 6' TRANSVERSELY.
- MESH FABRIC IS NOT REQUIRED WHEN WIDTH OF PORTLAND CEMENT CONCRETE BASE IS LESS THAN 12'.
- 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 (10' U.T.)

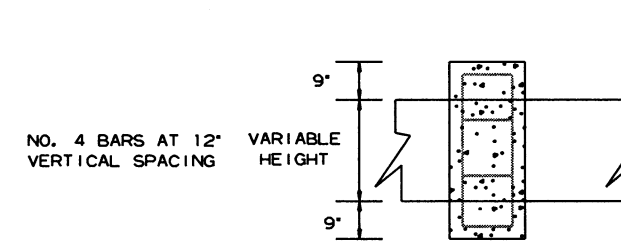
DETAIL OF REINFORCING STEEL FOR PAVEMENT (MESH FABRIC TYPE 3)



TOP VIEW



FRONT VIEW



SIDE VIEW

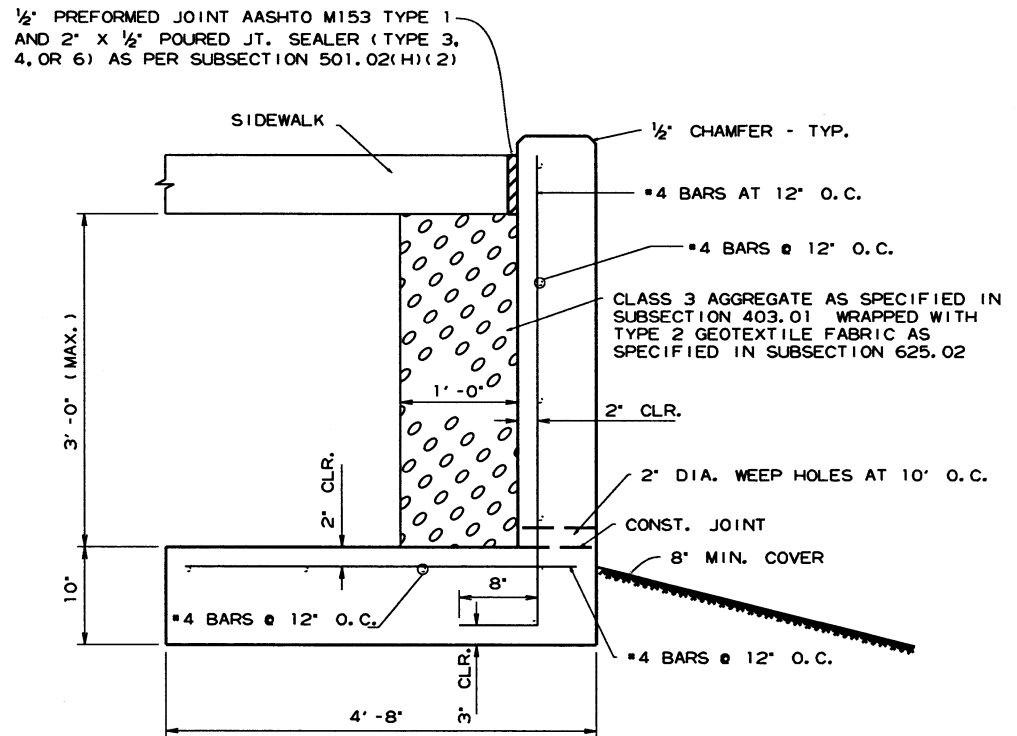
PIPE EXTENSION REINFORCED CONCRETE COLLAR DETAIL

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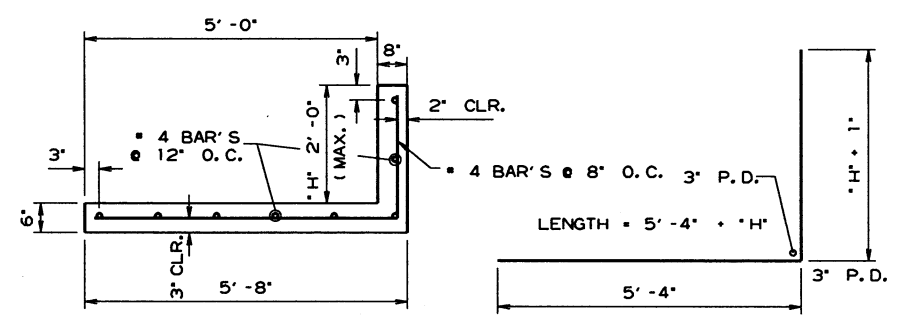
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100835		11	88

② SPECIAL DETAILS

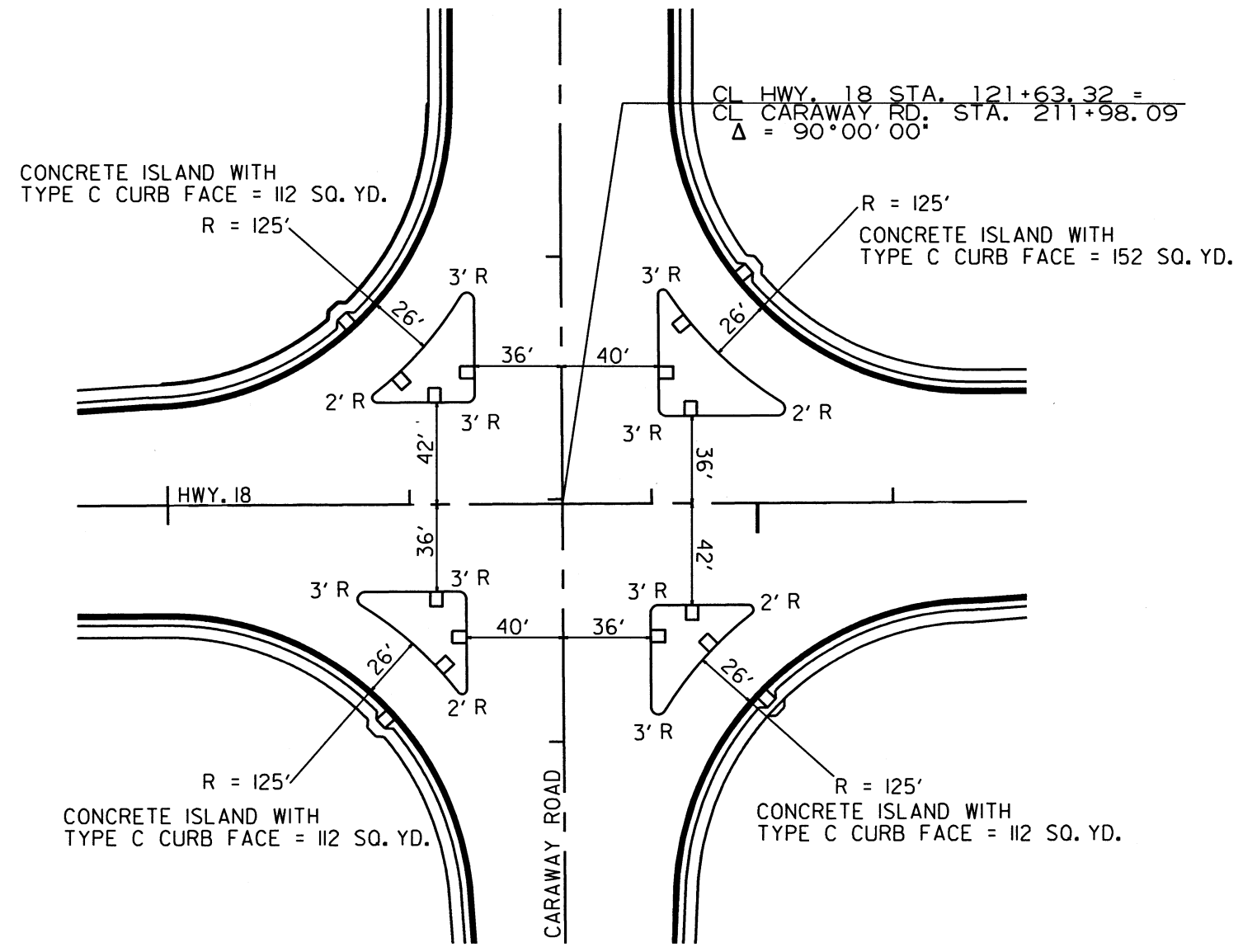


NOTES:
 JOINTS IN THE WALL SHALL MATCH THE TYPE AND SPACING OF THE JOINTS IN THE WALK.
 ALL CONCRETE SHALL BE CLASS S (F' C = 3,500 PSI) AND SHALL BE POURED IN THE DRY.
 REINFORCING STEEL SHALL BE AASHTO M31 OR M53, GRADE 60 (FY = 60,000 PSI).
 PAYMENT FOR THE WEEP HOLES, CLASS 3 AGGREGATE, TYPE 2 GEOTEXTILE FABRIC, PREFORMED JOINT FILLER, POURED JOINT SEALER, REINF. STEEL, AND CONCRETE SHALL BE INCLUDED IN THE UNIT BID PRICE PER SQ. YD. FOR CONCRETE WALKS (TYPE SPECIAL).

CONCRETE WALK (TYPE SPECIAL) DETAIL
 MAX HEIGHT 3' - 0"



CONCRETE WALK (TYPE SPECIAL) DETAILS
 MAX HEIGHT 2' - 0"



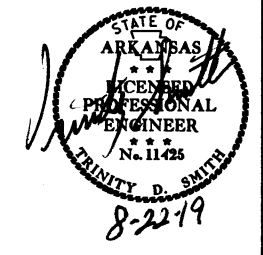
ISLAND DETAILS
 STA. 121+00.00 LT. AND RT.
 STA. 122+40.00 LT. AND RT.

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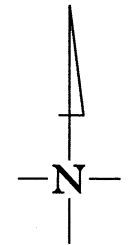
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DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100835		12	88

② TEMPORARY EROSION CONTROL DETAILS

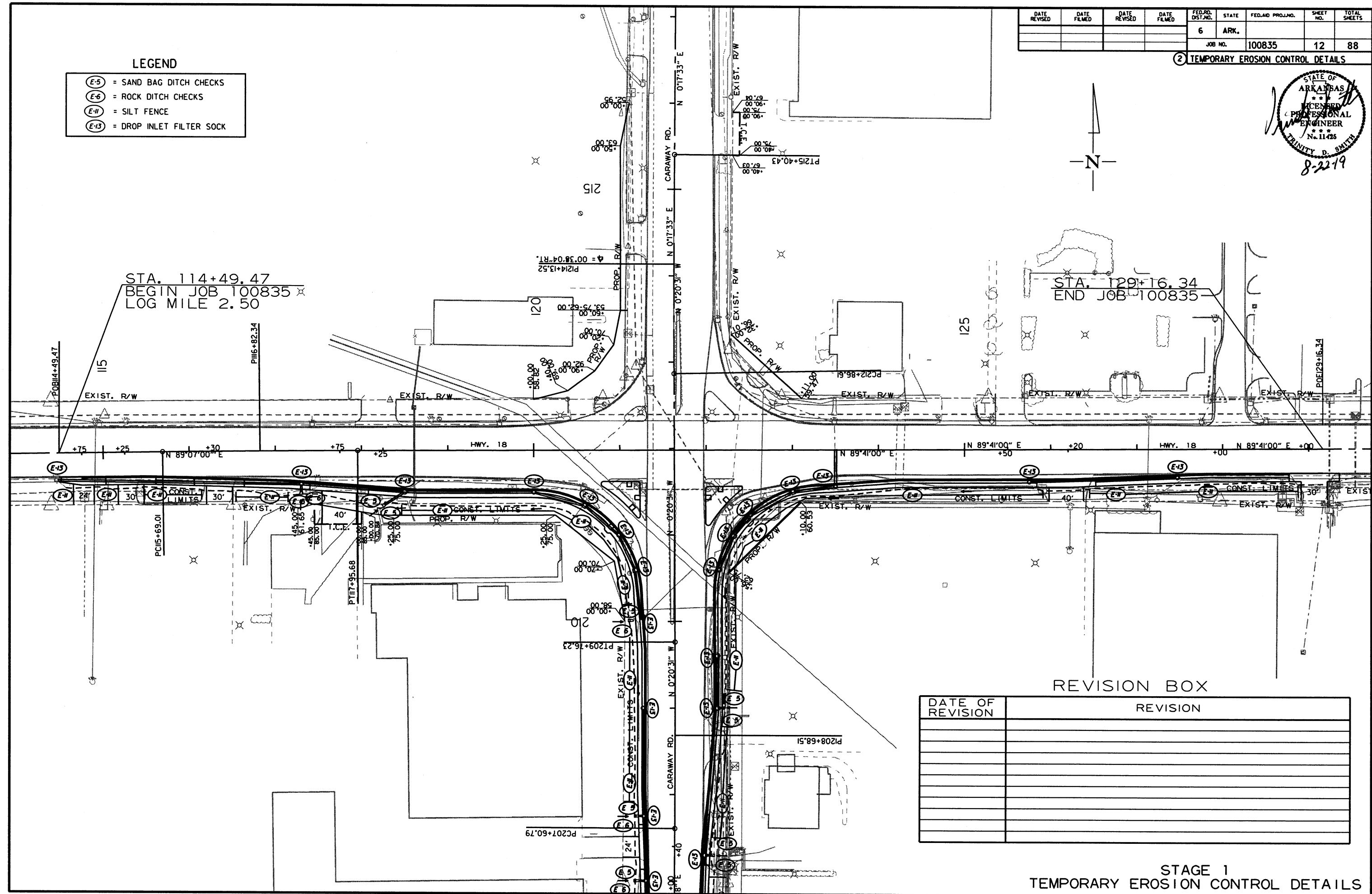


- LEGEND**
- (E-5) = SAND BAG DITCH CHECKS
 - (E-6) = ROCK DITCH CHECKS
 - (E-H) = SILT FENCE
 - (E-13) = DROP INLET FILTER SOCK



STA. 114+49.47
BEGIN JOB 100835
LOG MILE 2.50

STA. 129+16.34
END JOB 100835



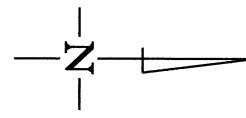
REVISION BOX

DATE OF REVISION	REVISION

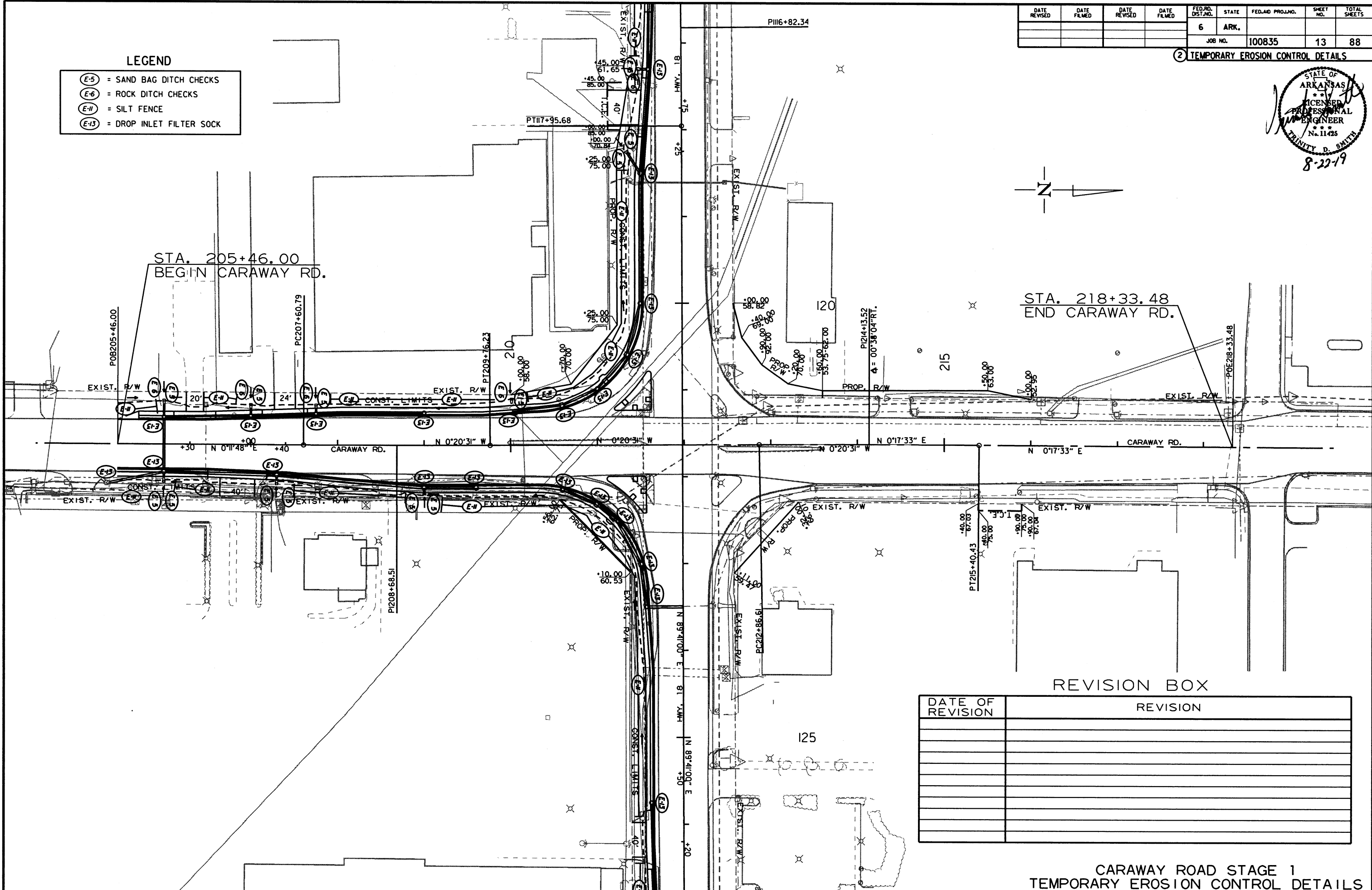
STAGE 1
TEMPORARY EROSION CONTROL DETAILS

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.	100835		13	88

2 TEMPORARY EROSION CONTROL DETAILS



- LEGEND**
- (E-5) = SAND BAG DITCH CHECKS
 - (E-6) = ROCK DITCH CHECKS
 - (E-11) = SILT FENCE
 - (E-13) = DROP INLET FILTER SOCK



REVISION BOX

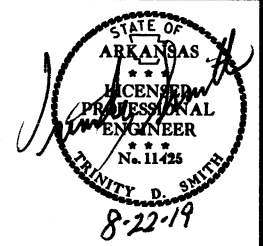
DATE OF REVISION	REVISION

CARAWAY ROAD STAGE 1
TEMPORARY EROSION CONTROL DETAILS

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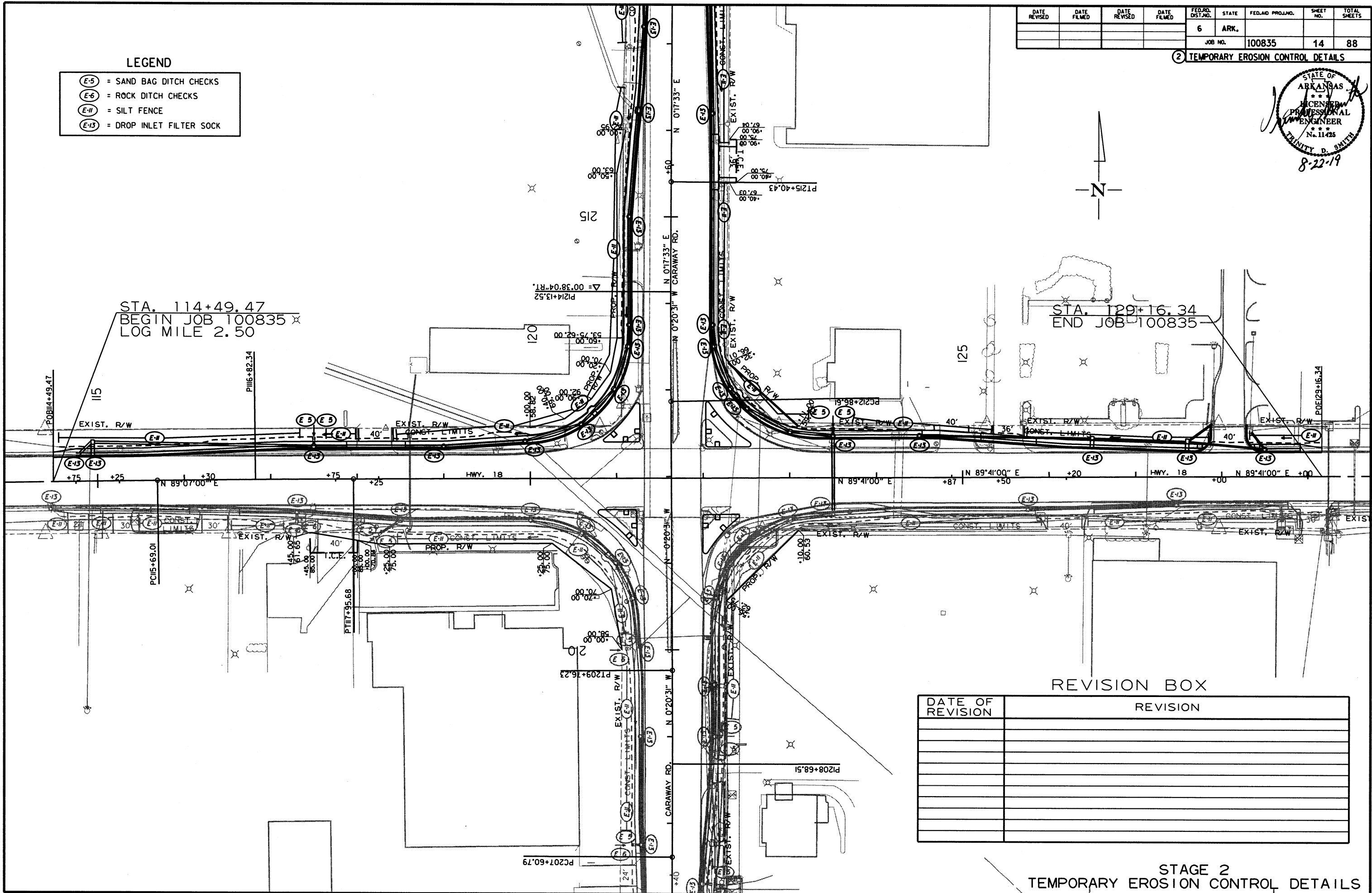
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 100835							14	88

② TEMPORARY EROSION CONTROL DETAILS



LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-H) = SILT FENCE
- (E-13) = DROP INLET FILTER SOCK



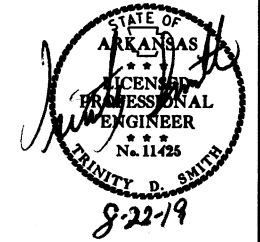
REVISION BOX

DATE OF REVISION	REVISION

STAGE 2
TEMPORARY EROSION CONTROL DETAILS

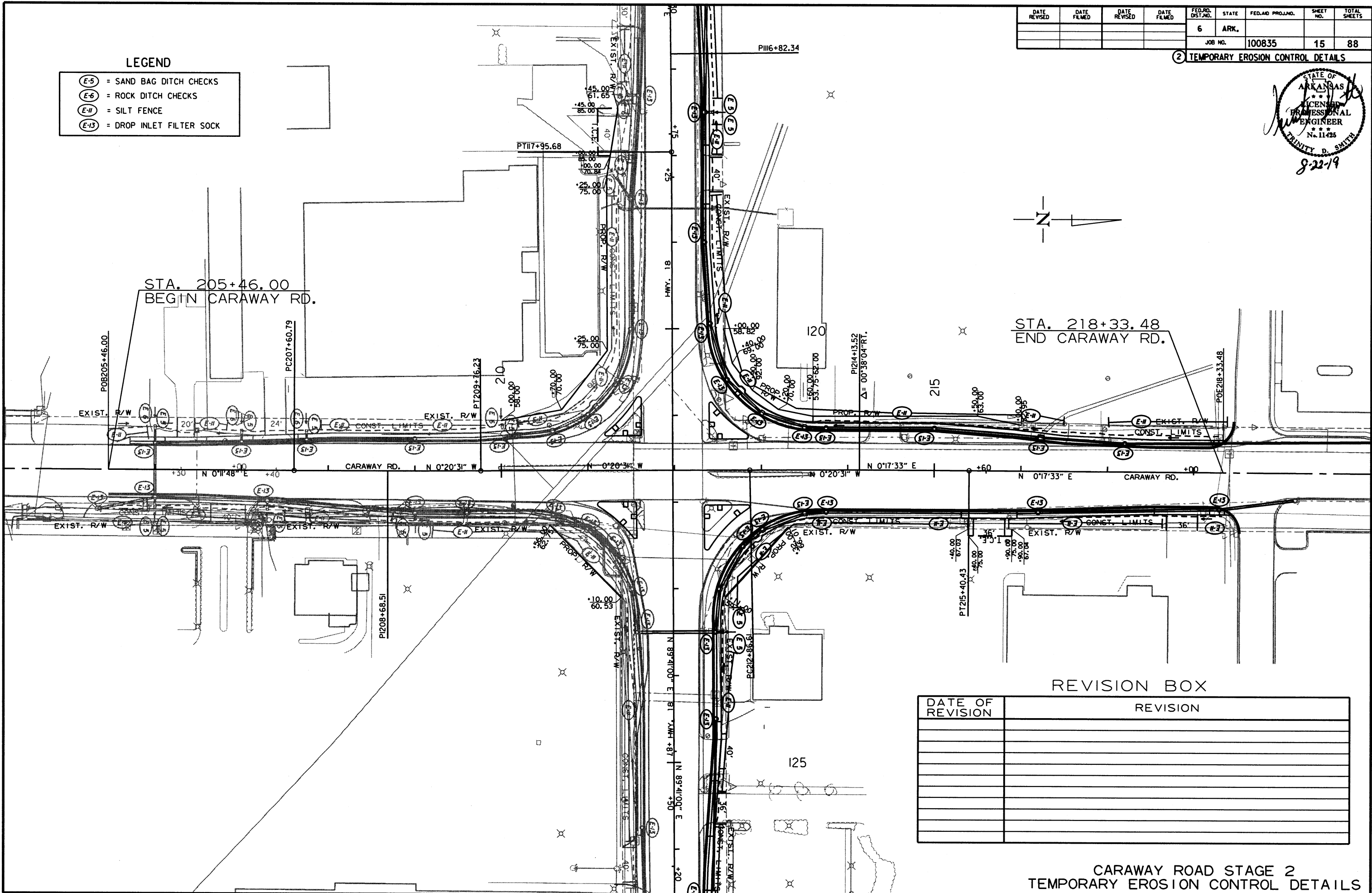
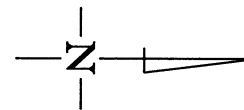
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				6	ARK.			
JOB NO.						100835	15	88

② TEMPORARY EROSION CONTROL DETAILS



LEGEND

- (E-5) = SAND BAG DITCH CHECKS
- (E-6) = ROCK DITCH CHECKS
- (E-H) = SILT FENCE
- (E-13) = DROP INLET FILTER SOCK



STA. 218+33.48
END CARAWAY RD.

STA. 205+46.00
BEGIN CARAWAY RD.

REVISION BOX

DATE OF REVISION	REVISION

CARAWAY ROAD STAGE 2
TEMPORARY EROSION CONTROL DETAILS

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				6	ARK.			
				JOB NO.	100835		16	88

② MAINTENANCE OF TRAFFIC DETAILS



SEQUENCE OF CONSTRUCTION

STAGE 1

INSTALL ADVANCE WARNING SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS. INSTALL END ROAD WORK SIGNS AT THE END OF JOB AS SHOWN ON THE ADVANCE WARNING DETAILS. INSTALL ROAD WORK AHEAD (W20-1) SIGN AS SHOWN ON ADVANCE WARNING DETAILS.

USE VERTICAL PANELS SPACED 50' ON CENTER TO DELINEATE THE WORK ZONE. USE TRAFFIC DRUMS TO DELINEATE DRIVEWAYS AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS.

MAINTAIN TRAFFIC IN EXISTING LANES. MAINTAIN EXISTING TRAFFIC SIGNAL AT CARAWAY ROAD INTERSECTION.

REMOVE CURBED MEDIAN ON CARAWAY RD. FROM STA. 209+96.00 TO STA. 211+60.00. PLACE LEVELING COURSE AS DIRECTED BY THE ENGINEER FOR HWY. 18 AND STAGE 1 CARAWAY RD. PLACE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 1 MAINTENANCE OF TRAFFIC DETAILS. NOTCH AND WIDEN RT. OF EXISTING LANES FOR FULL LENGTH OF JOB AND FROM STA. 205+46.00 TO STA. 211+60.00 LT. AND RT. ON CARAWAY RD.

STAGE 2

RETAIN ADVANCE WARNING SIGNS AT THE LOCATIONS LISTED ON THE ADVANCE WARNING DETAILS. RETAIN END ROAD WORK SIGNS AT THE END OF JOB AS SHOWN ON THE ADVANCE WARNING DETAILS. RETAIN ROAD WORK AHEAD SIGN AS SHOWN ON ADVANCE WARNING DETAILS.

MAINTAIN TRAFFIC IN EXISTING LANES. MAINTAIN EXISTING TRAFFIC SIGNAL AT CARAWAY ROAD INTERSECTION.

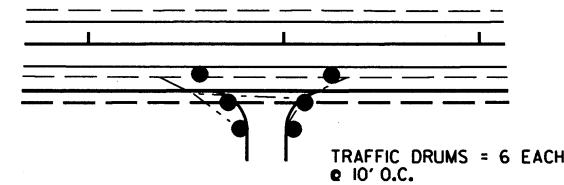
REMOVE CURBED MEDIAN ON CARAWAY RD. FROM STA. 212+38.00 TO STA. 213+62.00. PLACE LEVELING COURSE AS DIRECTED BY THE ENGINEER FOR STAGE 2 CARAWAY RD. PLACE CONSTRUCTION PAVEMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS. NOTCH AND WIDEN LT. OF EXISTING LANES FOR FULL LENGTH OF JOB AND FROM STA. 212+38.00 TO STA. 218+33.48 LT. AND RT. ON CARAWAY RD.

USE VERTICAL PANELS SPACED 50' ON CENTER TO DELINEATE THE WORK ZONE. USE TRAFFIC DRUMS TO DELINEATE DRIVEWAYS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.

STAGE 3

MAINTAIN TRAFFIC IN EXISTING LANES. MAINTAIN EXISTING TRAFFIC SIGNAL AT CARAWAY ROAD INTERSECTION.

CONSTRUCT ISLANDS AS SHOWN ON PLANS. PLACE FINAL LAYER OF ACHM SURFACE COURSE. INSTALL PERMANENT PAVEMENT MARKINGS AS SHOWN IN THE PERMANENT PAVEMENT MARKINGS DETAILS SHEET.

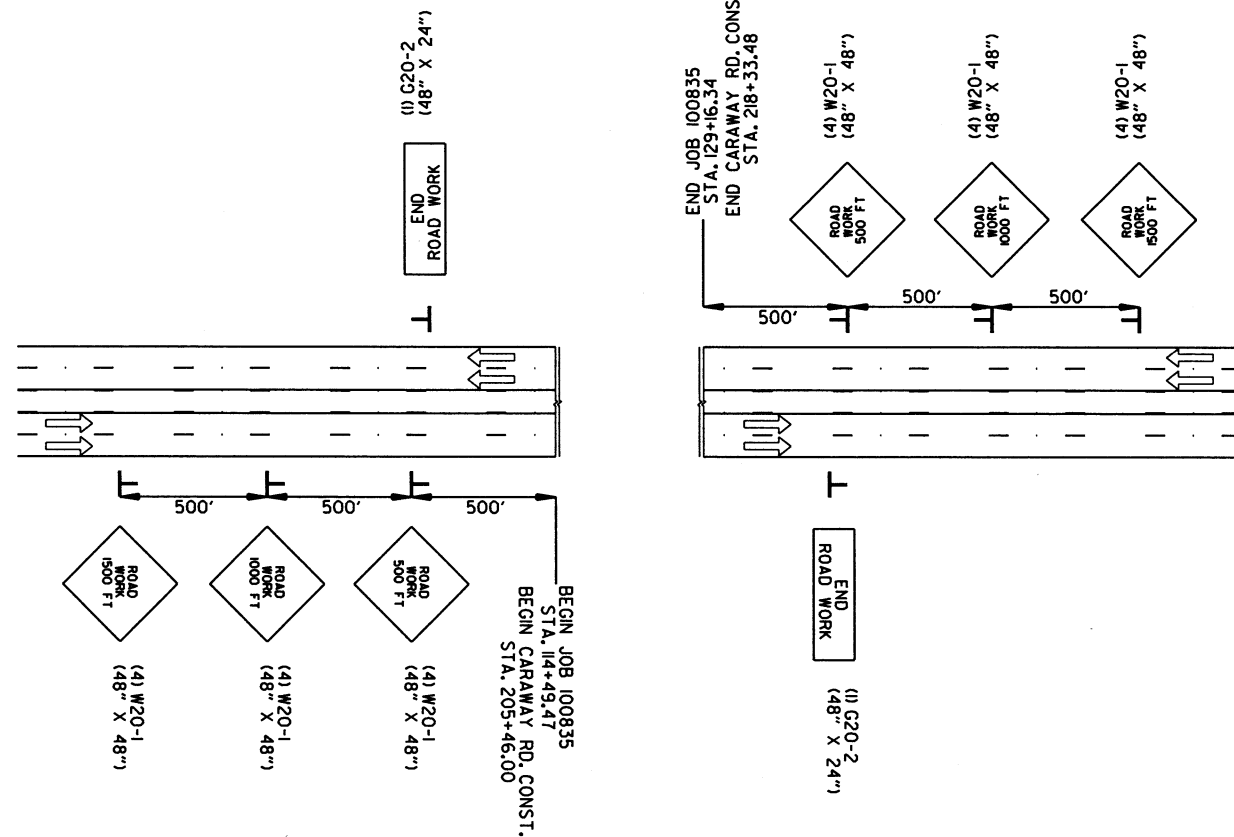


TRAFFIC DRUMS = 6 EACH @ 10' O.C.

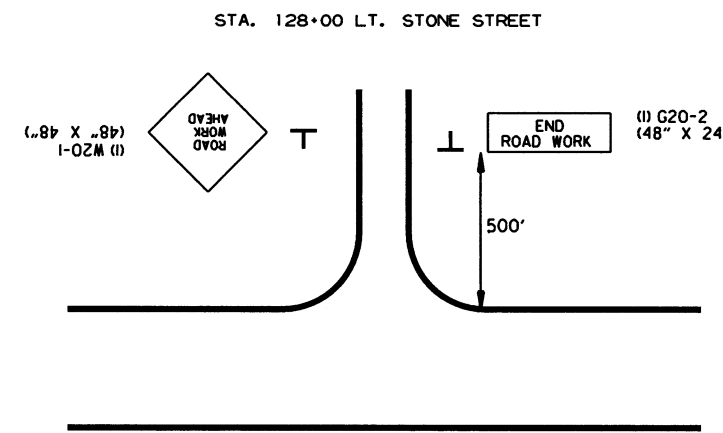
DRIVEWAY/TRAFFIC DRUM DETAIL



(4) W8-1 (30" X 30") IF AND WHERE DIRECTED BY THE ENGINEER



ADVANCE WARNING (ALL STAGES)



ADVANCE WARNING - SIDE ROADS

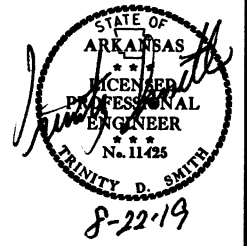
MAINTENANCE OF TRAFFIC NOTES:

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 NUMBER OF VERTICAL PANELS THAT WILL BE PAID FOR. REFER TO SECTION 603.02 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION REQUIREMENTS.

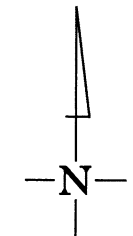
ADVANCE WARNING
MAINTENANCE OF TRAFFIC DETAILS

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				6	ARK.			
JOB NO. 100835							17	88

② MAINTENANCE OF TRAFFIC DETAILS

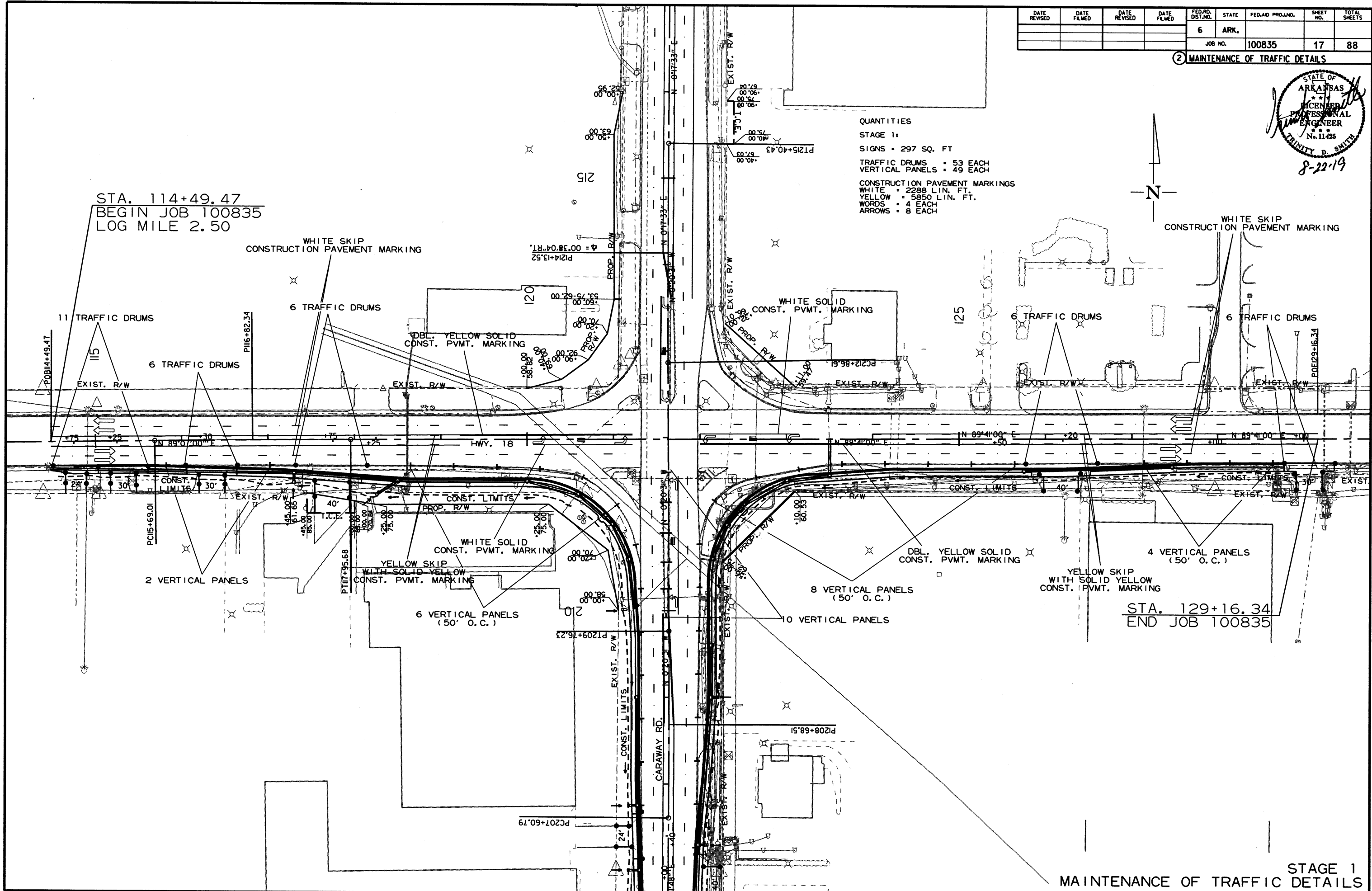


QUANTITIES
 STAGE 1:
 SIGNS = 297 SQ. FT
 TRAFFIC DRUMS = 53 EACH
 VERTICAL PANELS = 49 EACH
 CONSTRUCTION PAVEMENT MARKINGS
 WHITE = 2288 LIN. FT.
 YELLOW = 5850 LIN. FT.
 WORDS = 4 EACH
 ARROWS = 8 EACH



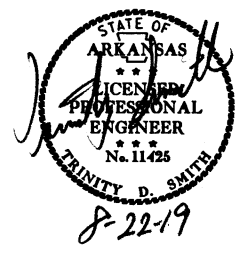
STA. 114+49.47
 BEGIN JOB 100835
 LOG MILE 2.50

STA. 129+16.34
 END JOB 100835

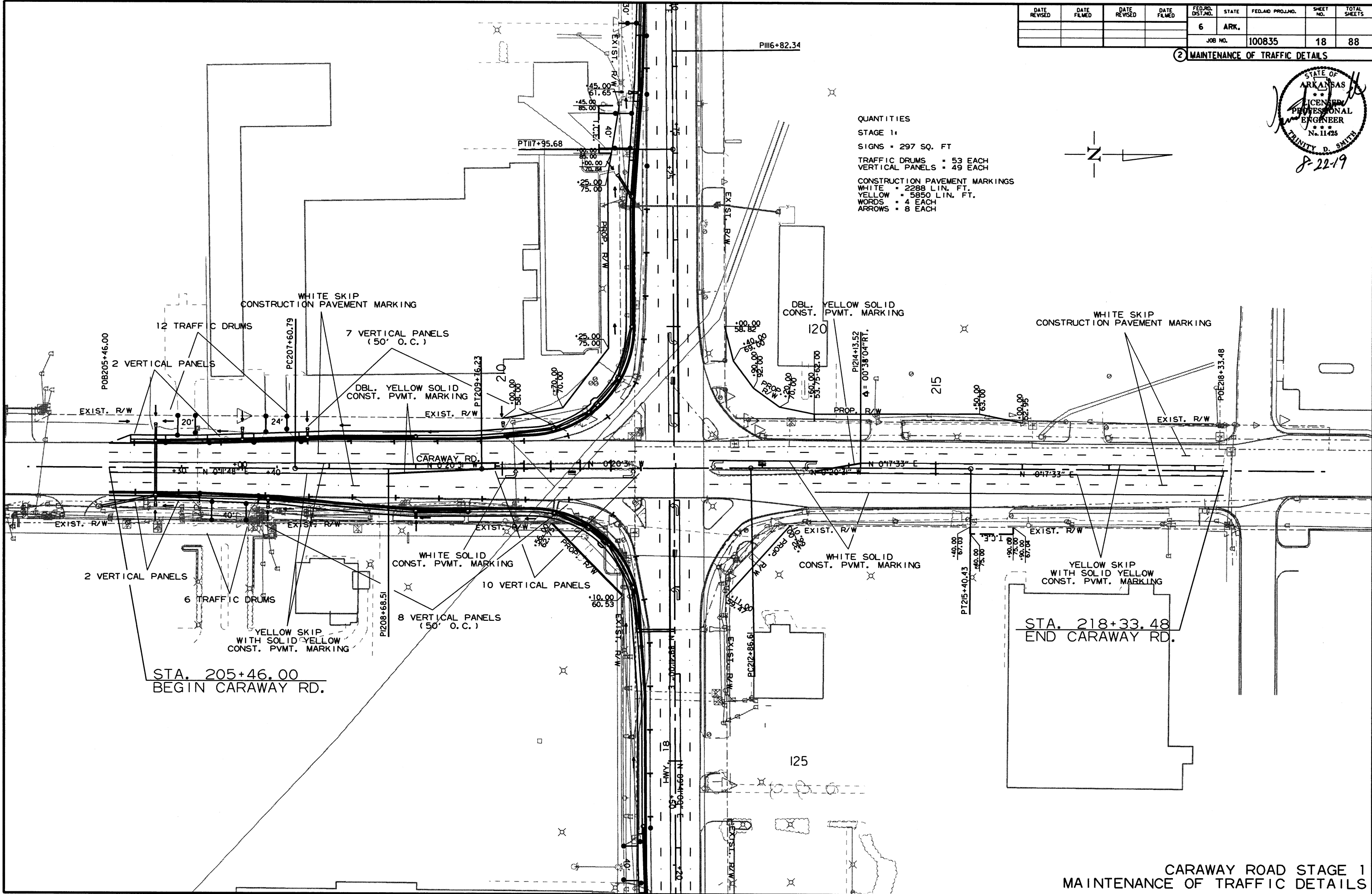
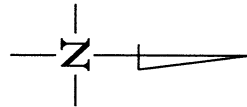


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		18	88

② MAINTENANCE OF TRAFFIC DETAILS



QUANTITIES
 STAGE 1:
 SIGNS = 297 SQ. FT
 TRAFFIC DRUMS = 53 EACH
 VERTICAL PANELS = 49 EACH
 CONSTRUCTION PAVEMENT MARKINGS
 WHITE = 2288 LIN. FT.
 YELLOW = 5850 LIN. FT.
 WORDS = 4 EACH
 ARROWS = 8 EACH

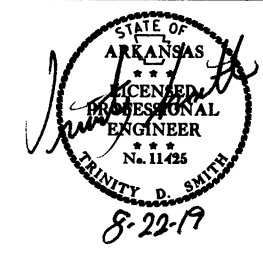


CARAWAY ROAD STAGE 1
 MAINTENANCE OF TRAFFIC DETAILS

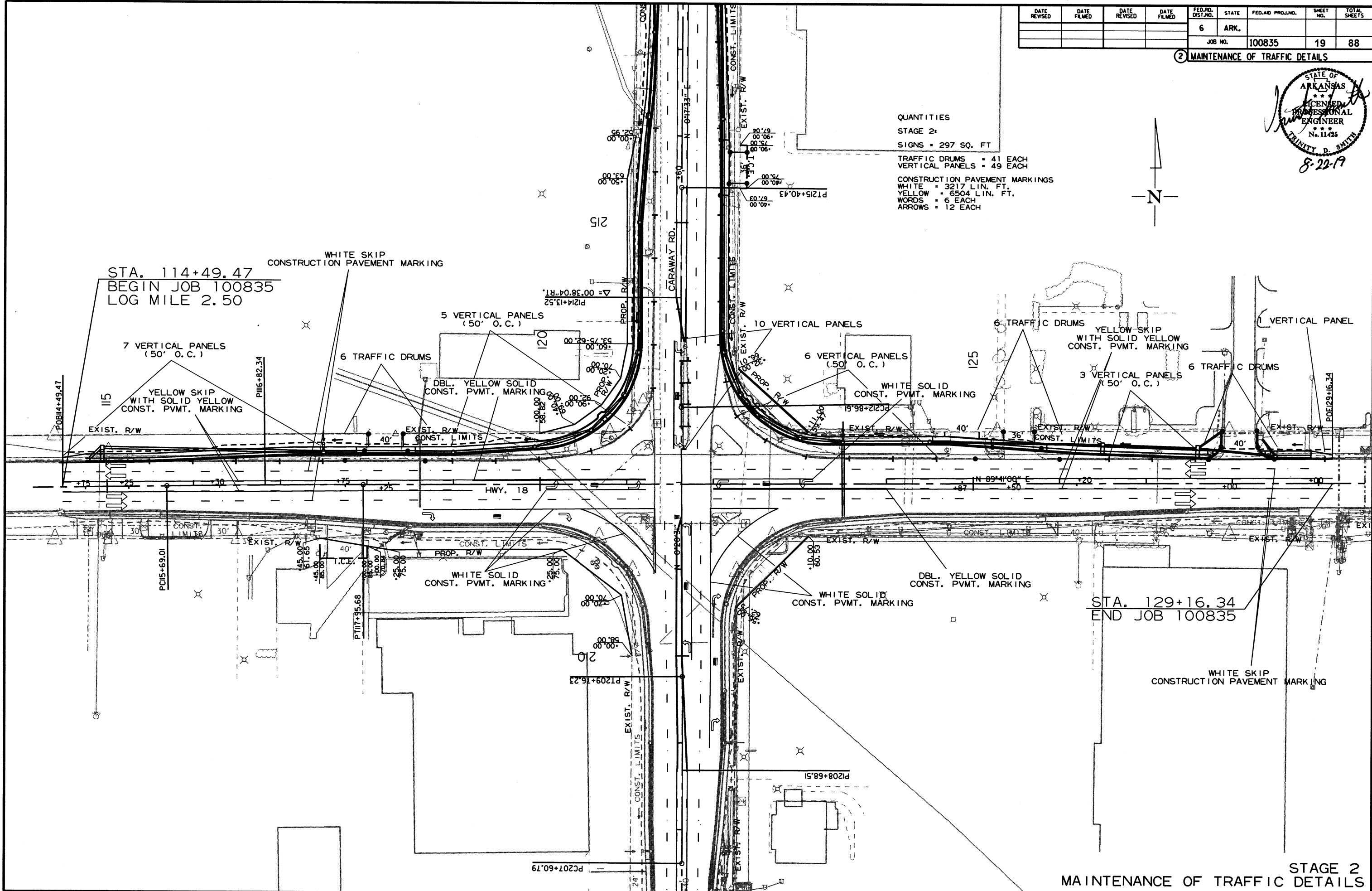
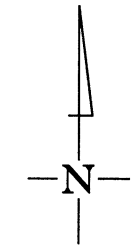
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		19	88

② MAINTENANCE OF TRAFFIC DETAILS



QUANTITIES
 STAGE 2:
 SIGNS = 297 SQ. FT.
 TRAFFIC DRUMS = 41 EACH
 VERTICAL PANELS = 49 EACH
 CONSTRUCTION PAVEMENT MARKINGS
 WHITE = 3217 LIN. FT.
 YELLOW = 6504 LIN. FT.
 WORDS = 6 EACH
 ARROWS = 12 EACH



STA. 114+49.47
 BEGIN JOB 100835
 LOG MILE 2.50

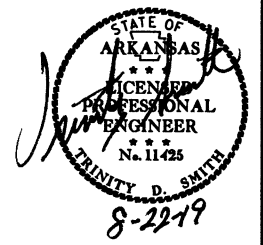
STA. 129+16.34
 END JOB 100835

STAGE 2
 MAINTENANCE OF TRAFFIC DETAILS

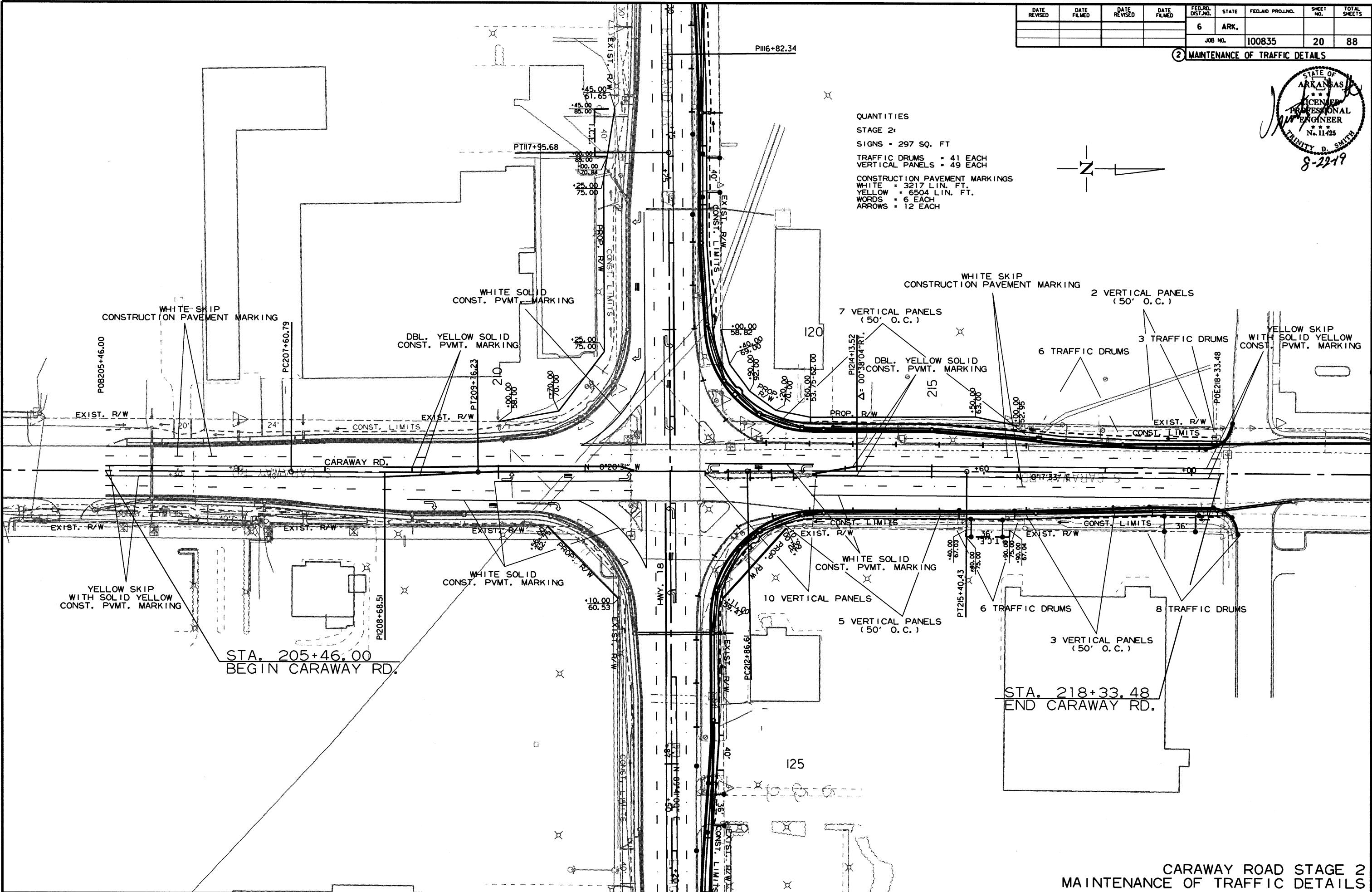
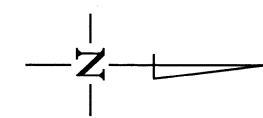
8/9/2019 R100835.DGN

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.	100835		20	88

② MAINTENANCE OF TRAFFIC DETAILS



QUANTITIES
 STAGE 2:
 SIGNS = 297 SQ. FT
 TRAFFIC DRUMS = 41 EACH
 VERTICAL PANELS = 49 EACH
 CONSTRUCTION PAVEMENT MARKINGS
 WHITE = 3217 LIN. FT.
 YELLOW = 6504 LIN. FT.
 WORDS = 6 EACH
 ARROWS = 12 EACH



WHITE SKIP CONSTRUCTION PAVEMENT MARKING

WHITE SOLID CONST. PVMT. MARKING

DBL. YELLOW SOLID CONST. PVMT. MARKING

WHITE SKIP CONSTRUCTION PAVEMENT MARKING
 2 VERTICAL PANELS (50' O.C.)

7 VERTICAL PANELS (50' O.C.)

DBL. YELLOW SOLID CONST. PVMT. MARKING

6 TRAFFIC DRUMS

3 TRAFFIC DRUMS

YELLOW SKIP WITH SOLID YELLOW CONST. PVMT. MARKING

YELLOW SKIP WITH SOLID YELLOW CONST. PVMT. MARKING

WHITE SOLID CONST. PVMT. MARKING

10 VERTICAL PANELS

5 VERTICAL PANELS (50' O.C.)

6 TRAFFIC DRUMS

8 TRAFFIC DRUMS

3 VERTICAL PANELS (50' O.C.)

STA. 205+46.00
 BEGIN CARAWAY RD.

STA. 218+33.48
 END CARAWAY RD.

CARAWAY ROAD STAGE 2
 MAINTENANCE OF TRAFFIC DETAILS

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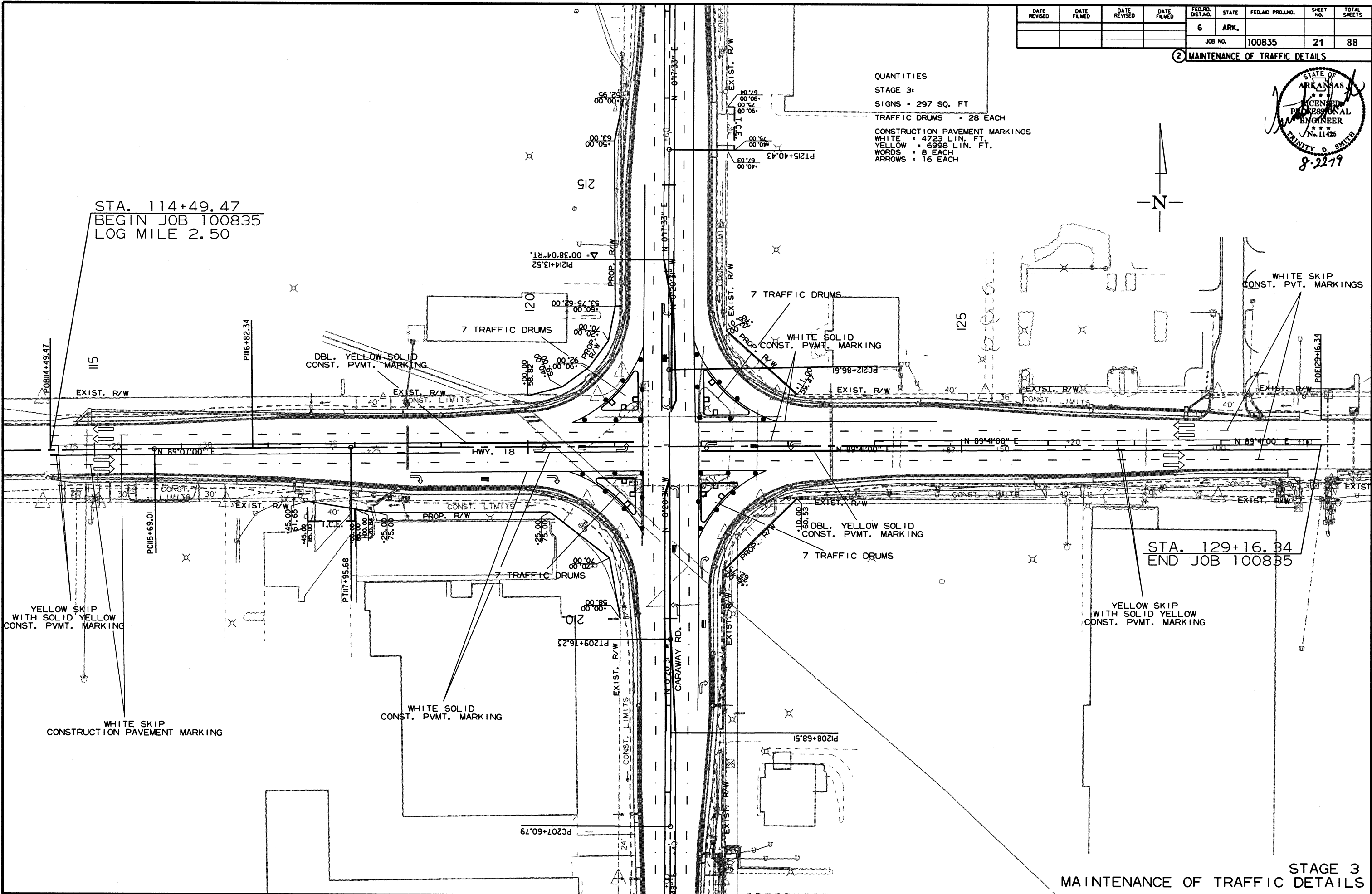
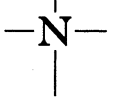
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100835		21	88

② MAINTENANCE OF TRAFFIC DETAILS



QUANTITIES
 STAGE 3:
 SIGNS = 297 SQ. FT
 TRAFFIC DRUMS = 28 EACH
 CONSTRUCTION PAVEMENT MARKINGS
 WHITE = 4723 LIN. FT.
 YELLOW = 6998 LIN. FT.
 WORDS = 8 EACH
 ARROWS = 16 EACH

STA. 114+49.47
 BEGIN JOB 100835
 LOG MILE 2.50



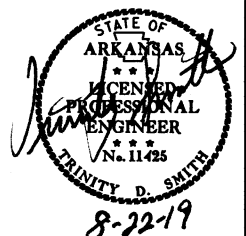
STA. 129+16.34
 END JOB 100835

STAGE 3
 MAINTENANCE OF TRAFFIC DETAILS

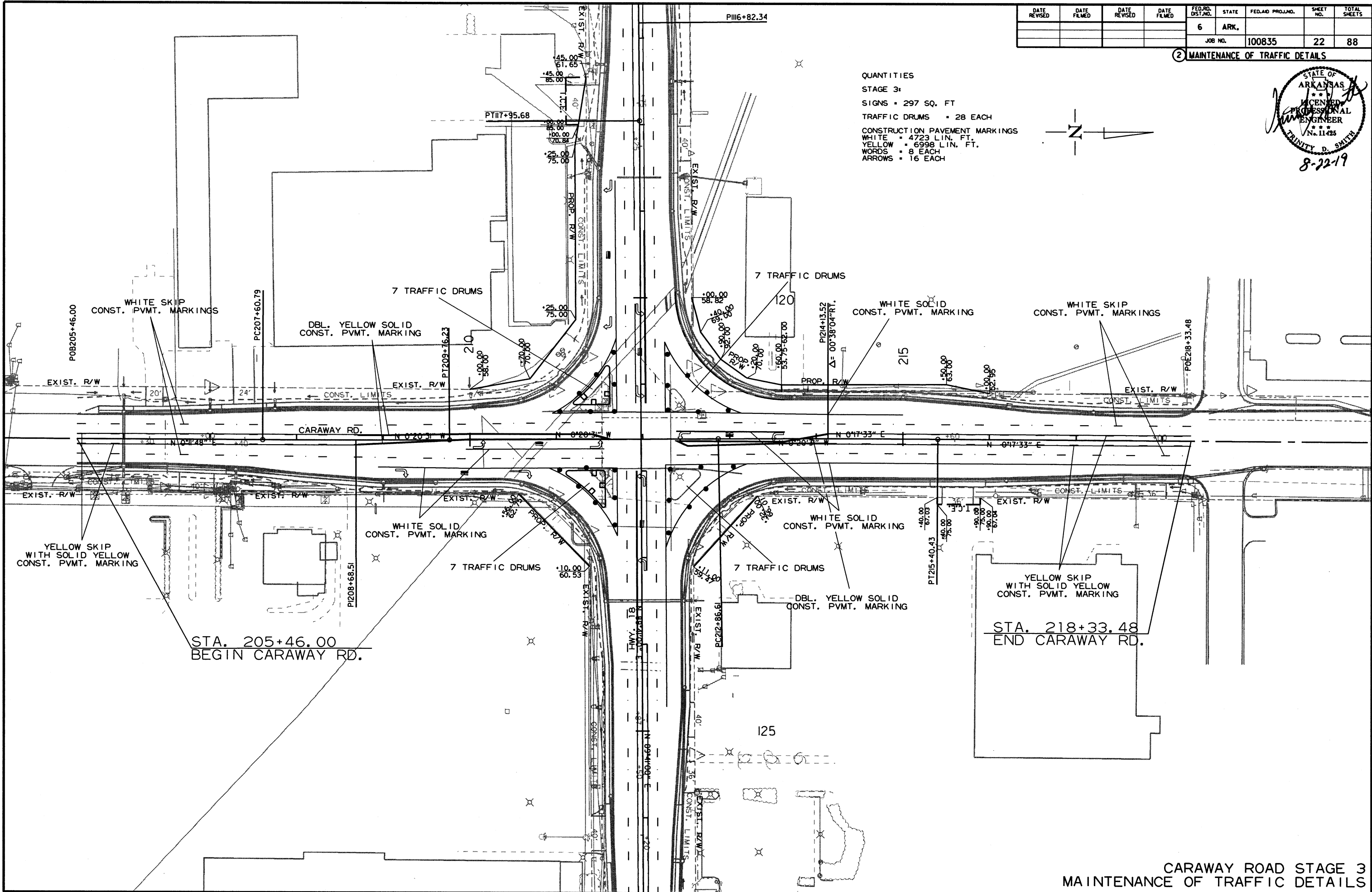
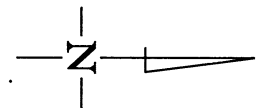
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DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		22	88
				JOB NO.		100835		

② MAINTENANCE OF TRAFFIC DETAILS



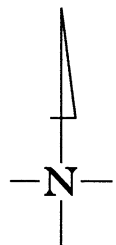
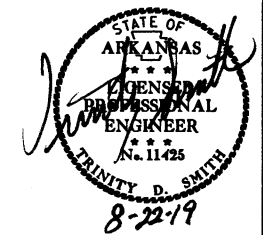
QUANTITIES
 STAGE 3:
 SIGNS = 297 SQ. FT
 TRAFFIC DRUMS = 28 EACH
 CONSTRUCTION PAVEMENT MARKINGS
 WHITE = 4723 LIN. FT.
 YELLOW = 6998 LIN. FT.
 WORDS = 8 EACH
 ARROWS = 16 EACH



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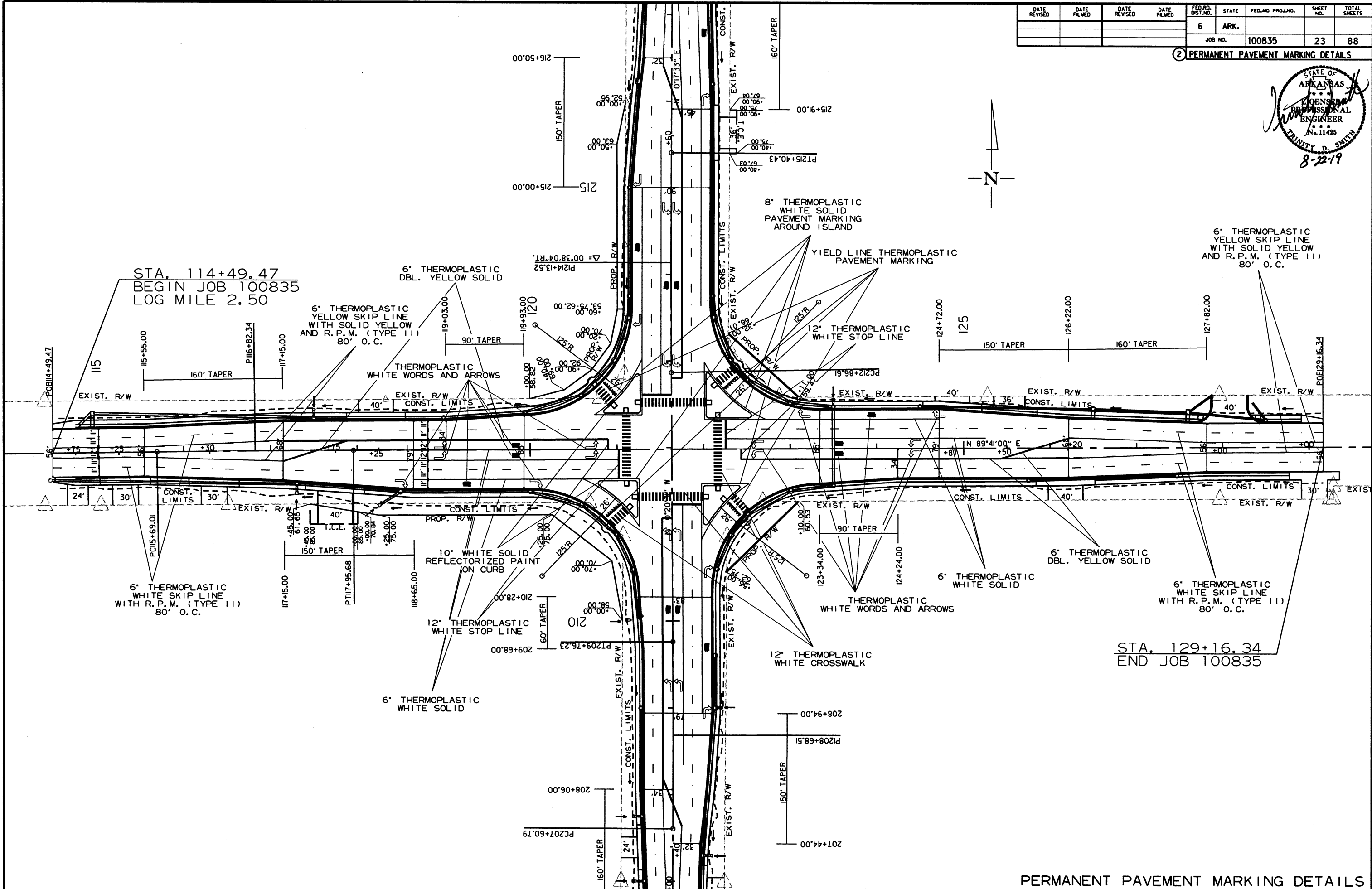
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				6	ARK.			
				JOB NO.	100835		23	88

PERMANENT PAVEMENT MARKING DETAILS



STA. 114+49.47
BEGIN JOB 100835
LOG MILE 2.50

STA. 129+16.34
END JOB 100835

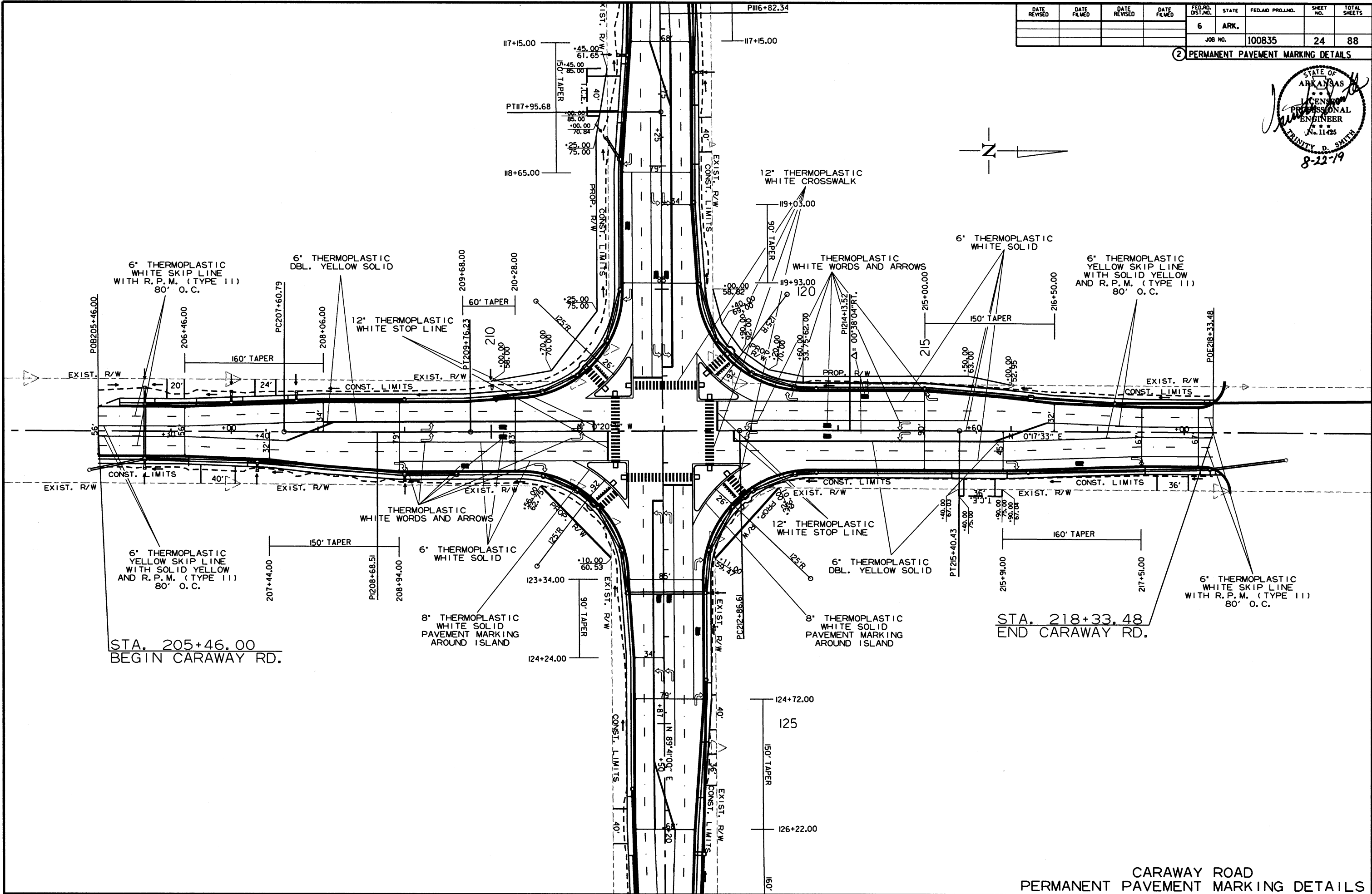
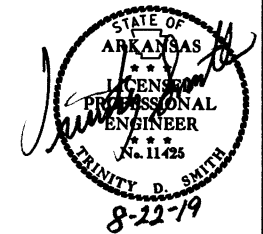


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DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100835		24	88

② PERMANENT PAVEMENT MARKING DETAILS



STA. 205+46.00
BEGIN CARAWAY RD.

STA. 218+33.48
END CARAWAY RD.

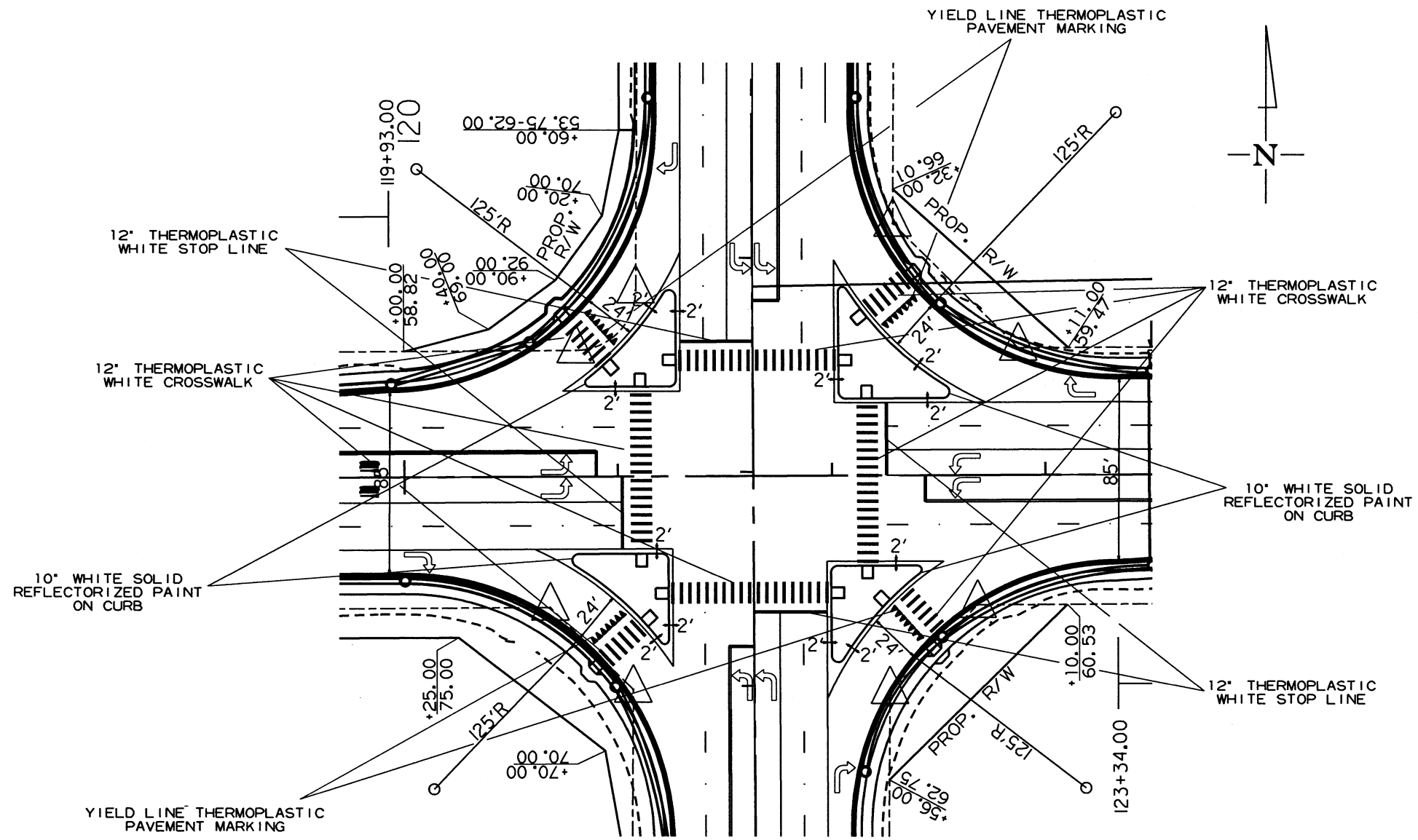
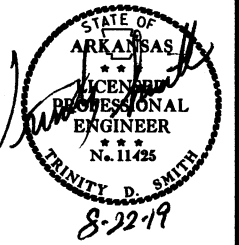
CARAWAY ROAD
PERMANENT PAVEMENT MARKING DETAILS

8/9/2019

R100835.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.	100835		25	88

② PERMANENT PAVEMENT MARKING DETAILS



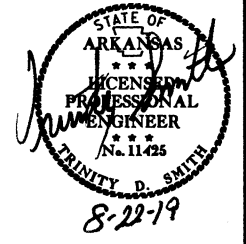
CONCRETE ISLANDS
 STA. 121+00.00 LT. AND RT.
 STA. 122+40.00 LT. AND RT.

10/18/2018

R100835.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
							JOB NO.	100835
							26	88

② QUANTITIES



ADVANCE WARNING SIGNS AND DEVICES

SIGN NUMBER	DESCRIPTION	SIGN SIZE	STAGE 1	STAGE 2	STAGE 3	MAXIMUM NUMBER REQUIRED	TOTAL SIGNS REQUIRED		VERTICAL PANELS	TRAFFIC DRUMS
							NO.	SQ. FT.		
			LIN. FT. - EACH							
W20-1	ROAD WORK 1500 FT.	48"x48"	4	4	4	4	4	64.0		
W20-1	ROAD WORK 1000 FT.	48"x48"	4	4	4	4	4	64.0		
W20-1	ROAD WORK 500 FT.	48"x48"	4	4	4	4	4	64.0		
W20-1	ROAD WORK AHEAD	48"x48"	1	1	1	1	1	16.0		
G20-2	END ROAD WORK	48"x24"	5	5	5	5	5	40.0		
W8-1	BUMP	30"x30"	4	4		4	4	25.0		
	VERTICAL PANELS		49	49		49			49	
	TRAFFIC DRUMS		53	41	28	53				53
TOTALS:								273.0	49	53

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

CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

DESCRIPTION	STAGE 1	STAGE 2	STAGE 3	END OF JOB	CONSTRUCTION PAVEMENT MARKINGS	CONSTRUCTION PAVEMENT MARKINGS	RAISED PAVEMENT MARKERS		THERMOPLASTIC PAVEMENT MARKING						REFLECTORIZED PAINT PAVEMENT MARKING			
							WORDS	ARROWS	TYPE II (WHITE/RED)	TYPE II (YEL/YEL)	6"		8"	12"	YIELD LINE	WORDS	ARROWS	10" WHITE
											WHITE	YELLOW						
	LIN. FT. - EACH				LIN. FT.	EACH		LIN. FT.						LIN. FT.				
CONSTRUCTION PAVEMENT MARKINGS	8138	9721	11721		29580													
CONSTRUCTION PAVEMENT MARKINGS (WORDS)	4	6	8			18												
CONSTRUCTION PAVEMENT MARKINGS (ARROWS)	8	12	16			36												
RAISED PAVEMENT MARKERS TYPE II (WHITE/RED)				64			64											
RAISED PAVEMENT MARKERS TYPE II (YEL/YEL)				28			28											
THERMOPLASTIC PAVEMENT MARKING WHITE (6")				4897			4897											
THERMOPLASTIC PAVEMENT MARKING YELLOW (6")				4350				4350										
THERMOPLASTIC PAVEMENT MARKING WHITE (8")				856					856									
THERMOPLASTIC PAVEMENT MARKING WHITE (12")				1178						1178								
THERMOPLASTIC PAVEMENT MARKING (YIELD LINE)				80							80							
THERMOPLASTIC PAVEMENT MARKING (WORDS)				13								13						
THERMOPLASTIC PAVEMENT MARKING (ARROWS)				26									26					
REFLECTORIZED PAINT PAVEMENT MARKING WHITE (10")				622												622		
TOTALS:					29580	18	36	64	28	4897	4350	856	1178	80	13	26	622	

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

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	ROCK DITCH CHECKS	DROP INLET FILTER SOCK (12")	SILT FENCE	*SEDIMENT REMOVAL & DISPOSAL
			ACRE	TON	ACRE	M.GAL.	ACRE	SQ.YD.	ACRE	ACRE	M.GAL.	(E-5) BAG	(E-6) CU.YD.	(E-13) LIN. FT.	(E-11) LIN. FT.	CU. YD.
ENTIRE PROJECT	STAGE 1		0.26	0.52	0.26	35.5	0.26	710	1.00	1.00	20.4	286	15	720	1860	114
ENTIRE PROJECT	STAGE 2		0.11	0.22	0.11	20.3	0.11	718	0.80	0.80	16.3	88		690	2225	112
*ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.			0.10	0.20	0.10	14.7	0.10	357	0.45	0.45	9.2	94	4	353	1021	57
TOTALS:			0.47	0.94	0.47	70.5	0.47	1785	2.25	2.25	45.9	468	19	1763	5106	283

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
FILTER SOCKS 30 LIN. FT. / LOCATION

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

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

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QUANTITIES

REMOVAL AND DISPOSAL OF ITEMS

STATION	STATION	LOCATION	CURB	CURB AND GUTTER	RETAINING WALLS	CONCRETE ISLANDS	WALKS	SIGN FOUNDATIONS	SIGNS	PLANTERS
			LIN. FT.	LIN. FT.	LIN. FT.	SQ. YD.	SQ. YD.	EACH	EACH	EACH
114+75	120+81	LT. OF MAIN LANES		606						
114+75	120+85	RT. OF MAIN LANES		610						
114+75	117+93	LT. OF MAIN LANES					177			
114+93	115+06	RT. OF MAIN LANES					7			
115+40	116+16	RT. OF MAIN LANES					42			
116+54	117+52	RT. OF MAIN LANES					54			
116+64		RT. OF MAIN LANES								
117+96	120+85	RT. OF MAIN LANES					161			
118+23		RT. OF MAIN LANES								
118+43	120+44	LT. OF MAIN LANES					112			
118+91		LT. OF MAIN LANES								
119+65		LT. OF MAIN LANES								
120+40		LT. OF MAIN LANES								
120+60		RT. OF MAIN LANES								
120+65		RT. OF MAIN LANES								
120+71	120+81	LT. OF MAIN LANES					6			
120+74		LT. OF MAIN LANES								
120+82		LT. OF MAIN LANES								
121+20		LT. OF MAIN LANES				39				
121+20		RT. OF MAIN LANES				111				
122+03		RT. OF MAIN LANES								
122+15		LT. OF MAIN LANES				91				
122+15		RT. OF MAIN LANES				50				
122+28	125+88	RT. OF MAIN LANES					200			
122+28	125+97	RT. OF MAIN LANES		369						
122+41	124+73	LT. OF MAIN LANES					129			
122+41	127+88	LT. OF MAIN LANES		547						
122+46		RT. OF MAIN LANES								
123+69		RT. OF MAIN LANES								
124+69		LT. OF MAIN LANES								
125+16	125+36	LT. OF MAIN LANES					11			
125+73	127+87	LT. OF MAIN LANES					119			
126+38	128+91	RT. OF MAIN LANES		253						
126+50	128+82	RT. OF MAIN LANES					129			
128+28	128+91	LT. OF MAIN LANES		63						
128+33	128+91	LT. OF MAIN LANES					32			
205+46	211+35	RT. OF CARAWAY ROAD	589							
206+80		LT. OF CARAWAY ROAD								
209+96	211+60	CARAWAY ROAD MEDIAN				86				
210+14		RT. OF CARAWAY ROAD								
210+55		LT. OF CARAWAY ROAD								
210+65		RT. OF CARAWAY ROAD								
210+70		RT. OF CARAWAY ROAD								
210+95		RT. OF CARAWAY ROAD								
211+20		RT. OF CARAWAY ROAD			50			2	1	
212+38	213+62	CARAWAY ROAD MEDIAN				62				
212+45	218+47	LT. OF CARAWAY ROAD	602							
212+63	213+32	RT. OF CARAWAY ROAD			150					
212+80		RT. OF CARAWAY ROAD								
212+84		LT. OF CARAWAY ROAD								
212+85		RT. OF CARAWAY ROAD						1	1	1
212+93		RT. OF CARAWAY ROAD								
212+95		RT. OF CARAWAY ROAD						1	1	
212+95	215+41	RT. OF CARAWAY ROAD					137			
212+95	218+54	RT. OF CARAWAY ROAD		559						
213+56		CARAWAY ROAD MEDIAN								
214+24		LT. OF CARAWAY ROAD								
214+62		LT. OF CARAWAY ROAD								
215+30		RT. OF CARAWAY ROAD						1		
215+37		RT. OF CARAWAY ROAD								
215+85	217+70	RT. OF CARAWAY ROAD					103			
215+88		RT. OF CARAWAY ROAD								
216+50		LT. OF CARAWAY ROAD								
216+97		LT. OF CARAWAY ROAD								
218+05	218+54	RT. OF CARAWAY ROAD					27			
TOTALS:			1191	3007	200	439	1446	5	3	1

CONCRETE COMBINATION CURB AND GUTTER AND CONCRETE CURB

STATION	STATION	LOCATION	CONCRETE COMBINATION CURB AND GUTTER	CONCRETE CURB
			TYPE A (1'-6") LIN. FT.	TYPE E (1'-0") LIN. FT.
114+50	120+69	LT. OF MAIN LANES	619	
114+50	120+84	RT. OF MAIN LANES	634	
122+26	123+10	RT. OF MAIN LANES		117
122+29	123+11	LT. OF MAIN LANES		111
122+41	127+88	LT. OF MAIN LANES	547	
128+28	129+16	LT. OF MAIN LANES	88	
122+53	129+16	RT. OF MAIN LANES	663	
205+46	211+12	RT. OF CARAWAY ROAD	566	
205+46	211+04	LT. OF CARAWAY ROAD	558	
212+79	218+47	LT. OF CARAWAY ROAD	568	
212+95	218+54	RT. OF CARAWAY ROAD	559	
TOTALS:			4802	228

4" PIPE UNDERDRAIN

STATION	STATION	LOCATIONS	4" PIPE UNDERDRAINS	UNDERDRAIN OUTLET PROTECTORS
			LIN. FT.	EACH
ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER			1342	6
TOTALS:			1342	6

NOTE: QUANTITY 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.

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 QUANTITIES

SELECTED PIPE BEDDING

LOCATION	SELECTED PIPE BEDDING
	CU. YD.
ENTIRE PROJECT TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	
	400
TOTAL:	400

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

WHEELCHAIR RAMPS

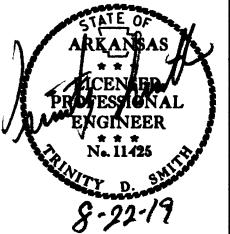
STATION	LOCATION	TYPE 3
		SQ. YD.
120+69	MAIN LANES - LT.	3.3
120+84	MAIN LANES - RT.	3.3
122+41	MAIN LANES - LT.	3.3
122+53	MAIN LANES - RT.	3.3
127+80	MAIN LANES - LT.	5.0
128+35	MAIN LANES - LT.	5.0
218+35	CARAWAY ROAD - LT.	5.6
218+45	CARAWAY ROAD - RT.	5.5
TOTAL:		34.3

CONCRETE ISLAND

STATION	LOCATION	CURB FACE TYPE	CONCRETE ISLAND
			SQ. YD.
121+00	HWY. 18 LT.	C	112
121+00	HWY. 18 RT.	C	112
122+40	HWY. 18 LT.	C	152
122+40	HWY. 18 RT.	C	112
TOTAL:			488

CONCRETE WALKS

STATION	STATION	LOCATION	LENGTH	CONCRETE WALKS	CONCRETE WALKS (TYPE SPECIAL)
			LIN. FT.	SQ. YD.	SQ. YD.
114+50	117+91	LT. OF MAIN LANES	341	189	
114+49	114+96	RT. OF MAIN LANES	47	26	
115+54	116+01	RT. OF MAIN LANES	47	26	
116+59	117+41	RT. OF MAIN LANES	82	46	
118+09	120+84	RT. OF MAIN LANES	275	153	
118+59	120+69	LT. OF MAIN LANES	210	117	
120+00	120+69	LT. OF MAIN LANES	75		6
122+41	124+53	LT. OF MAIN LANES	212	118	
122+53	125+86	RT. OF MAIN LANES	333	185	
125+82	127+66	LT. OF MAIN LANES	184	102	
126+54	128+71	RT. OF MAIN LANES	217	121	
128+34	129+16	LT. OF MAIN LANES	82	46	
205+46	206+66	RT. OF CARAWAY ROAD	120	67	
205+46	206+06	LT. OF CARAWAY ROAD	60	33	
206+54	207+14	LT. OF CARAWAY ROAD	60	33	
207+34	211+12	RT. OF CARAWAY ROAD	378	210	
207+66	211+04	LT. OF CARAWAY ROAD	338	188	
212+79	213+64	LT. OF CARAWAY ROAD	92		7
212+79	216+43	LT. OF CARAWAY ROAD	364	202	
212+95	215+28	RT. OF CARAWAY ROAD	233	129	
215+92	217+68	RT. OF CARAWAY ROAD	176	98	
217+07	218+37	LT. OF CARAWAY ROAD	130	72	
218+32	218+44	RT. OF CARAWAY ROAD	12	7	
TOTALS:				2168	13



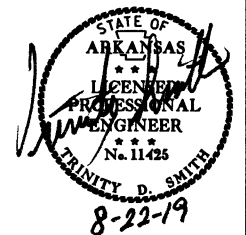
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QUANTITIES

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. PROJ. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100835	28	88	

2 QUANTITIES



STRUCTURES

STATION	DESCRIPTION	REINFORCED CONCRETE PIPE CULVERT		SIDE DRAIN	PIPE CULVERT STORM DRAIN ALTERNATES 1 & 2			FLARED END SECTIONS FOR R.C. PIPE CULVERTS		DROP INLETS				JUNCT. BOXES (TYPE E)	YARD DRAINS	MODIFYING DROP INLETS	DROP INLETS ADJUSTED TO GRADE	SOLID SODDING	WATER	STD. DWG. NOS.		
		(CLASS III)			(CLASS IV)	12"	18"	24"	30"	18"	24"	TYPE									EXT.	
		18"	24"		30"							C	C SPECIAL									MO
		LIN. FT.		EACH			EACH				EACH			EACH		SQ. YD.	M. GAL.					
114+45	CONSTRUCT PIPE OUTLET ON RT. AND ADJUST DROP INLET TO GRADE						280												PCC-1, PCM-1			
114+75	CONSTRUCT JUNCTION BOX ON LT. W/ PIPE OUTLET						20												FPC-9, PCC-1, PCM-1			
114+95	CONSTRUCT DROP INLET ON LT. W/ PIPE OUTLET						252												FPC-9E, PCC-1, PCM-1, SPECIAL DETAIL			
117+30	CONSTRUCT DROP INLET ON RT. W/ PIPE INLET W/ FES AND PIPE OUTLET		4				116												FES-1, FES-2, FPC-9E, FPC-9M, PCC-1, PCM-1			
117+50	CONSTRUCT DROP INLET ON LT. W/ PIPE INLET W/ FES AND PIPE OUTLET	2					146		1										FES-1, FES-2, FPC-9E, FPC-9M, PCC-1, PCM-2			
118+50	CONSTRUCT DROP INLET ON RT. W/ PIPE INLET W/ FES AND PIPE OUTLET		28				146			1									FES-1, FES-2, FPC-9E, FPC-9M, PCC-1, PCM-2			
119+00	CONSTRUCT DROP INLET ON LT. W/ EXT. W/ PIPE OUTLET						90												FPC-9E, FPC-9M, PCC-1, PCM-2			
119+94	CONSTRUCT DROP INLET ON LT. ON EXISTING R.C. BOX CULVERT																		FPC-9, FPC-9E, FPC-9M			
120+00	CONSTRUCT DROP INLET ON RT. W/ PIPE OUTLET						58												FPC-9E, FPC-9M, PCC-1, PCM-2			
120+60	CONSTRUCT DROP INLET ON LT. W/ PIPE OUTLET						64												FPC-9E, FPC-9M, PCC-1, PCM-2			
120+60	CONSTRUCT JUNCTION BOX ON RT. W/ PIPE OUTLET						48												FPC-9, PCC-1, PCM-2			
123+00	CONSTRUCT JUNCTION BOX ON LT. W/ PIPE OUTLET																		FPC-9, PCC-1, PCM-2			
123+00	CONSTRUCT JUNCTION BOX ON RT. W/ PIPE OUTLET																		FPC-9, PCC-1, PCM-2			
123+50	CONSTRUCT DROP INLET ON LT. W/ PIPE INLET W/ FES AND PIPE OUTLET	2		88						1									FES-1, FES-2, FPC-9E, FPC-9M, PCC-1			
123+50	CONSTRUCT DROP INLET ON RT. W/ PIPE OUTLET																		FPC-9E, FPC-9M, PCC-1, PCM-2			
124+50	CONSTRUCT DROP INLET ON LT. W/ PIPE OUTLET						196												FPC-9E, FPC-9M, PCC-1, PCM-2			
125+75	CONSTRUCT DROP INLET ON RT. W/ PIPE OUTLET						168												FPC-9E, FPC-9M, PCC-1, PCM-2			
126+50	CONSTRUCT DROP INLET ON LT. W/ PIPE OUTLET						106												FPC-9E, PCC-1, PCM-2, SPECIAL DETAIL			
127+47	MODIFY DROP INLET ON RT.														1				FPC-9M			
127+60	CONSTRUCT DROP INLET ON LT. W/ PIPE INLET AND PIPE OUTLET																		FPC-9E, PCC-1, PCM-2, SPECIAL DETAIL			
128+50	ADJUST EXISTING DROP INLET TO GRADE ON LT.																		FPC-9M			
205+30	CONSTRUCT PIPE OUTLET ON RT. AND ADJUST DROP INLET TO GRADE						60												FPC-9M, PCC-1, PCM-1			
206+00	CONSTRUCT DROP INLET ON LT. W/ PIPE INLET W/ FES AND PIPE OUTLET	10	60							1									FES-1, FES-2, FPC-9E, FPC-9M, PCC-1			
206+00	CONSTRUCT DROP INLET ON RT. W/ PIPE INLET W/ FES AND PIPE OUTLET	10						126	1										FES-1, FES-2, FPC-9E, FPC-9M, PCC-1, PCM-1			
207+00	CONSTRUCT DROP INLET ON LT. W/ PIPE INLET W/ FES AND PIPE OUTLET	4						96	1										FES-1, FES-2, FPC-9E, FPC-9M, PCC-1, PCM-1			
207+30	CONSTRUCT DROP INLET ON RT. W/ PIPE INLET W/ FES AND PIPE OUTLET	2						166	1										FES-1, FES-2, FPC-9E, FPC-9M, PCC-1, PCM-1			
207+75	CONSTRUCT DROP INLET ON LT. W/ PIPE INLET W/ FES AND PIPE OUTLET	2					72			1									FES-1, FES-2, FPC-9E, FPC-9M, PCC-1, PCM-1			
209+00	CONSTRUCT DROP INLET ON LT. W/ PIPE OUTLET						120												FPC-9E, FPC-9M, PCC-1, PCM-2			
209+00	CONSTRUCT DROP INLET ON RT. W/ PIPE INLET W/ FES AND PIPE OUTLET	4						56	1										FES-1, FES-2, FPC-9E, FPC-9M, PCC-1, PCM-1			
209+60	MODIFY DROP INLET ON RT.														1				FPC-9M			
210+00	CONSTRUCT DROP INLET ON LT. W/ PIPE INLET W/ FES AND PIPE OUTLET	10								1									FES-1, FES-2, FPC-9E, FPC-9M, PCC-1			
210+60	CONSTRUCT JUNCTION BOX ON LT. W/ PIPE OUTLET						58												FPC-9, PCC-1, PCM-1			
210+60	MODIFY DROP INLET ON RT.														1				FPC-9M			
211+00	CONSTRUCT DROP INLET ON LT. W/ PIPE OUTLET						40												FPC-9E, FPC-9M, PCC-1, PCM-2			
211+00	CONSTRUCT JUNCTION BOX ON RT. W/ PIPE OUTLET							40											PFPC-9, PCC-1, PCM-1			
211+24	CONSTRUCT DROP INLET ON RT. W/ PIPE OUTLET							26											FPC-9E, FPC-9M, PCC-1, PCM-2			
212+77	CONSTRUCT DROP INLET ON RT. W/ PIPE OUTLET							52											FPC-9E, FPC-9M, PCC-1, PCM-2			
213+00	CONSTRUCT JUNCTION BOX ON LT. W/ PIPE OUTLET						50												FPC-9, PCC-1, PCM-1			
213+00	CONSTRUCT JUNCTION BOX ON RT. W/ PIPE OUTLET							24											FPC-9, PCC-1, PCM-1			
213+50	CONSTRUCT JUNCTION BOX ON LT. W/ PIPE OUTLET						50												FPC-9, PCC-1, PCM-1			
213+50	CONSTRUCT JUNCTION BOX ON RT. W/ PIPE OUTLET							50											FPC-9, PCC-1, PCM-1			
213+75	CONSTRUCT DROP INLET ON LT. W/ PIPE OUTLET						22												FPC-9E, FPC-9M, PCC-1, PCM-2			
213+75	CONSTRUCT DROP INLET ON RT. W/ PIPE OUTLET						22												FPC-9E, FPC-9M, PCC-1, PCM-2			
215+00	CONSTRUCT DROP INLET ON LT. W/ PIPE OUTLET						122												FPC-9E, FPC-9M, PCC-1, PCM-2			
216+20	CONSTRUCT DROP INLET ON LT. W/ PIPE OUTLET						116												FPC-9E, FPC-9M, PCC-1, PCM-2			
216+20	CONSTRUCT DROP INLET ON RT. W/ PIPE OUTLET						240												FPC-9E, FPC-9M, PCC-1, PCM-2			
217+20	CONSTRUCT DROP INLET ON LT. W/ PIPE OUTLET						92												FPC-9E, FPC-9M, PCC-1, PCM-2			
218+30	CONSTRUCT DROP INLET ON RT. W/ PIPE OUTLET						206												FPC-9E, FPC-9M, PCC-1, PCM-2			
219+20	CONSTRUCT PIPE OUTLET ON RT. AND ADJUST DROP INLET TO GRADE						84												FPC-9E, FPC-9M, PCC-1, PCM-2			
*ENTIRE PROJECT TO BE USED AS DIRECTED BY THE ENGINEER							600												PCC-1, PCM-1			
TOTALS:		46	92	88	600	876	1732	1342	9	2	1	3	29	1	10	6	3	4	61	0.74		

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

SOIL LOG

STATION	LATITUDE			LONGITUDE			LOCATION	DEPTH FEET	LIQUID LIMIT	PLASTICITY INDEX	AASHTO CLASSIFICATION	COLOR
	DEG	MIN	SEC	DEG	MIN	SEC						
118+00	35	49	16.10	90	40	44.60	24 RT	0-5	37	17	A-6(12)	BROWN
125+00	35	49	16.60	90	40	36.20	24 LT	0-5	32	15	A-6(13)	BROWN
210+00	35	49	13.80	90	40	40.00	24 RT	0-5	28	12	A-6(6)	BROWN
214+00	35	49	18.30	90	40	40.60	24 LT	0-5	40	26	A-6(22)	BROWN
214+00	35	49	18.30	90	40	40.80	42 LT	0-5	24	13	A-6(4)	RD/BR

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.

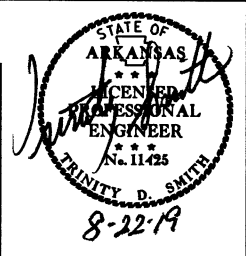
EARTHWORK

STATION	STATION	LOCATION / DESCRIPTION	UNCLASSIFIED EXCAVATION	COMPACTED EMBANKMENT
			CU. YD.	
ENTIRE	PROJECT	STAGE 1-MAIN LANES	794	306
ENTIRE	PROJECT	STAGE 2-MAIN LANES	381	711
ENTIRE	PROJECT	APPROACHES	55	160
ENTIRE	PROJECT	STAGE 1-CARAWAY ROAD	995	416
ENTIRE	PROJECT	STAGE 2-CARAWAY ROAD	560	309
TOTALS:			2785	1902

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

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100835		29	88

2 QUANTITIES



STATION	STATION	LOCATION	LENGTH FEET	AGGREGATE BASE COURSE (CLASS 7)		TACK COAT						ACHM BINDER COURSE (1")				ACHM SURFACE COURSE (1/2")										
				TON / STATION	TON	(0.05 GAL. PER SQ. YD.)			(0.17 GAL. PER SQ. YD.)			TOTAL GALLONS	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 64-22 TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 70-22 TON	AVG. WID. FEET	SQ.YD.	POUND / SQ.YD.	PG 70-22 TON	TOTAL PG 70-22 TON	
						AVG. WIDTH FEET	SQ.YD.	GALLON	AVG. WIDTH FEET	SQ.YD.	GALLON															
MAIN LANES																										
114+49.47	115+55.00	NOTCH AND WIDEN - MAIN LANES	105.53																							
115+55.00	117+15.00	NOTCH AND WIDEN - ADDITIONAL LANE TRANS. - MAIN LANES	160.00																							
117+15.00	118+65.00	NOTCH AND WIDEN - ADDITIONAL LANE TRANS. - MAIN LANES	150.00	VAR.	153.00	35.00	583.33	29.17	56.00	933.33	158.67	187.84	11.63	11.63												
118+65.00	119+03.00	NOTCH AND WIDEN - MAIN LANES	38.00	127.00	48.26	46.00	194.22	9.71	56.00	236.44	40.19	49.90	23.00	23.00												
119+03.00	119+93.00	NOTCH AND WIDEN - TRANSITION - MAIN LANES	90.00	VAR.	126.68	52.00	520.00	26.00	56.00	560.00	95.20	121.20	26.00	26.00												
119+93.00	123+34.00	NOTCH AND WIDEN - MAIN LANES	341.00	VAR.	913.00	108.00	4092.00	204.60	56.00	2121.78	360.70	565.30	54.00	54.00												
123+34.00	124+24.00	NOTCH AND WIDEN - TRANSITION - MAIN LANES	90.00	VAR.	126.68	52.00	520.00	26.00	56.00	560.00	95.20	121.20	26.00	26.00												
124+24.00	124+72.00	NOTCH AND WIDEN - MAIN LANES	48.00	127.00	60.96	46.00	245.33	12.27	56.00	298.67	50.77	63.04	23.00	23.00												
124+72.00	126+22.00	NOTCH AND WIDEN - LANE DROP TRANS. - MAIN LANES	150.00	VAR.	153.00	35.00	583.33	29.17	56.00	933.33	158.67	187.84	17.50	17.50												
126+22.00	127+82.00	NOTCH AND WIDEN - LANE DROP TRANS. - MAIN LANES	160.00						56.00	995.56	169.25	169.25														
127+82.00	129+16.34	NOTCH AND WIDEN - MAIN LANES	134.34						56.00	835.89	142.10	142.10														
ADDITIONAL FOR LEVELING																										
114+84.47	127+79.50	MAIN LANES	1295.03			56.00	8057.96	402.90																		
206+21.00	211+32.73	CARAWAY ROAD	511.73			63.00	3582.11	179.11																		
213+11.00	217+39.00	CARAWAY ROAD	428.00			72.00	3424.00	171.20																		
TOTALS:							2374.50			24659.74	1233.01	18324.45	3115.15	4348.16		4876.72	1072.88	19940.79	1207.65		23423.95	2576.62	3784.27			

BASIS OF ESTIMATE:
 ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% ASPHALT BINDER
 ACHM BINDER COURSE (1").....95.9% MIN. AGGR.....4.1% ASPHALT BINDER
 MAXIMUM NUMBER OF GYRATIONS = 115 FOR PG 64-22
 MAXIMUM NUMBER OF GYRATIONS = 160 FOR PG 70-22
 TACK COAT QUANTITIES WERE CALCULATED USING THE EMULSIFIED ASPHALT RATES. REFER TO SS-400-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.

CONCRETE BASE

STATION	STATION	LOCATION	LENGTH FEET	PORTLAND CEMENT CONCRETE BASE			
				AVG. WID. (6" U.T.) FEET	6" U.T. SQ. YD.	AVG. WID. (7" U.T.) FEET	7" U.T. SQ. YD.
114+49.47	115+55.00	NOTCH AND WIDEN - MAIN LANES	105.53			5.00	58.63
115+55.00	117+15.00	NOTCH AND WIDEN - ADDITIONAL LANE TRANS. - MAIN LANES	160.00	6.00	106.67	11.00	195.56
126+22.00	127+82.00	NOTCH AND WIDEN - LANE DROP TRANS. - MAIN LANES	160.00	6.00	106.67	11.00	195.56
127+82.00	129+16.34	NOTCH AND WIDEN - MAIN LANES	134.34			5.00	74.63
205+46.00	206+46.00	NOTCH AND WIDEN - CARAWAY ROAD	100.00			5.00	55.56
206+46.00	208+06.00	NOTCH AND WIDEN - ADDITIONAL LANE TRANS. - CARAWAY ROAD	160.00	2.25	40.00	4.75	84.44
208+06.00	208+94.00	NOTCH AND WIDEN - ADDITIONAL LANE TRANS. - CARAWAY ROAD LT.	88.00	2.00	19.56	4.50	44.00
209+96.00	211+60.00	MEDIAN - CARAWAY ROAD	164.00	5.33	97.12		
212+38.00	213+62.00	MEDIAN - CARAWAY ROAD	124.00	4.75	65.44		
213+50.00	216+35.00	NOTCH AND WIDEN - CARAWAY ROAD RT.	285.00			2.50	79.17
216+35.00	217+51.00	NOTCH AND WIDEN - LANE DROP TRANS. - CARAWAY ROAD	116.00	2.00	25.78	7.00	90.22
217+51.00	218+33.48	NOTCH AND WIDEN - CARAWAY ROAD	82.48			5.00	45.82
TOTALS:						461.24	923.59

COLD MILLING ASPHALT PAVEMENT

STATION	STATION	LOCATION	AVG. WIDTH FEET	COLD MILLING ASPHALT PAVEMENT SQ. YD.
114+49.47	114+84.47	MAIN LANES	56.00	217.78
127+79.50	129+16.34	MAIN LANES	56.00	851.45
205+46.00	206+21.00	CARAWAY ROAD	56.00	466.67
211+32.73	211+63.00	CARAWAY ROAD	66.00	222.64
212+33.09	213+11.00	CARAWAY ROAD	70.00	605.97
217+39.00	218+33.48	CARAWAY ROAD	65.00	682.36
TOTAL:				3046.87

NOTE: AVERAGE MILLING DEPTH 2".

**PAVEMENT REPAIR OVER
CULVERTS (CONCRETE)**

STATION	LOCATION	WIDTH FEET	LENGTH FEET	CU.YD.
123+50	MAIN LANES	9.08	85	38.1
206+00	CARAWAY ROAD	8.50	56	23.5
TOTAL:				61.6

AVG. DEPTH = 16"

DRIVEWAYS & TURNOUTS

STATION	SIDE	LOCATION	WIDTH FEET	**MODIFIED CURB		PORTLAND CEMENT CONCRETE DRIVEWAY SQ. YD.	ACHM SURFACE COURSE (1/2") 220 LBS. PER SQ. YD. (PG 64-22)			AGGREGATE BASE COURSE (CLASS 7) TON	STANDARD DRAWINGS
				STATION	STATION		SQ. YD.	SQ. YD.	TON		
114+75	RT	MAIN LANES	24	114+49	115+01	46.22	61.33	6.75	25.04	DR-1	
115+25	RT	MAIN LANES	30	114+96	115+54	51.56	76.67	8.43	31.31	DR-1	
116+30	RT	MAIN LANES	30	116+01	116+59	51.56	70.00	7.70	28.58	DR-1	
117+75	RT	MAIN LANES	40	117+41	118+09	60.44	168.89	18.58	68.96	DR-1	
118+25	LT	MAIN LANES	40	117+91	118+59	60.44	66.67	7.33	27.22	DR-1	
124+87	LT	MAIN LANES	40	124+53	125+21	60.44	31.11	3.42	12.70	DR-1	
125+50	LT	MAIN LANES	36	125+18	125+82	56.89	52.00	5.72	21.23	DR-1	
126+20	RT	MAIN LANES	40	125+86	126+54	60.44	75.56	8.31	30.85	DR-1	
128+00	LT	MAIN LANES - STONE STREET	40	127+66	128+34	60.44	53.33	5.87	21.78	DR-1	
129+00	RT	MAIN LANES	30	128+71	129+29	51.56	86.67	9.53	35.39	DR-1	
206+30	LT	CARAWAY ROAD	20	206+06	206+54	42.67	51.11	5.62	20.87	DR-1	
207+00	RT	CARAWAY ROAD	40	206+66	207+34	60.44	97.78	10.76	39.93	DR-1	
207+40	LT	CARAWAY ROAD	24	207+14	207+66	46.22	53.33	5.87	21.78	DR-1	
215+60	RT	CARAWAY ROAD	36	215+28	215+92	56.89	84.00	9.24	34.30	DR-1	
218+00	RT	CARAWAY ROAD	36	217+68	218+32	56.89	76.00	8.36	31.03	DR-1	
* ENTIRE PROJECT TEMPORARY DRIVES											
TOTALS:						823.10	1104.45	121.49	600.97		

BASIS OF ESTIMATE:
 ACHM SURFACE COURSE (1/2").....94.8% MIN. AGGR.....5.2% 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.

** FOR INFORMATION ONLY

ACHM PATCHING OF EXISTING ROADWAY

DESCRIPTION	TON
ENTIRE PROJECT - TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER	15
TOTAL:	15

NOTE: 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	15	30
TOTALS:	15	30

BASIS OF ESTIMATE:
 ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC.....25 TON/MILE
 TACK COAT FOR MAINTENANCE OF TRAFFIC.....50 GAL./MILE
 NOTE: QUANTITY ESTIMATED.
 SEE SECTION 104.03 OF THE STD. SPECS.

8/9/2019 R100835.DGN

QUANTITIES

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
202	REMOVAL AND DISPOSAL OF CURB	1191	LN. FT.
202	REMOVAL AND DISPOSAL OF CURB AND GUTTER	3007	LN. FT.
202	REMOVAL AND DISPOSAL OF RETAINING WALLS	200	LN. FT.
202	REMOVAL AND DISPOSAL OF CONCRETE ISLANDS	439	SQ. YD.
202	REMOVAL AND DISPOSAL OF WALKS	1446	SQ. YD.
202	REMOVAL AND DISPOSAL OF SIGN FOUNDATIONS	5	EACH
202	REMOVAL AND DISPOSAL OF DROP INLETS	25	EACH
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS	3	EACH
202	REMOVAL AND DISPOSAL OF SIGNS	30	EACH
202	REMOVAL AND DISPOSAL OF PLANTERS	1	EACH
210	UNCLASSIFIED EXCAVATION	2785	CU. YD.
210	COMPACTED EMBANKMENT	1902	CU. YD.
SS & 303	AGGREGATE BASE COURSE (CLASS 7)	2975	TON
309	PORTLAND CEMENT CONCRETE BASE (6" UNIFORM THICKNESS)	481	SQ. YD.
309	PORTLAND CEMENT CONCRETE BASE (7" UNIFORM THICKNESS)	924	SQ. YD.
SS & 401	TACK COAT	4378	GAL.
SP SS & 406	MINERAL AGGREGATE IN ACHM BINDER COURSE (1")	1029	TON
SP SS & 406	ASPHALT BINDER (PG 64-22) IN ACHM BINDER COURSE (1")	44	TON
SP SS & 407	MINERAL AGGREGATE IN ACHM SURFACE COURSE (1/2")	3703	TON
SP SS & 407	ASPHALT BINDER (PG 64-22) IN ACHM SURFACE COURSE (1/2")	6	TON
SP SS & 407	ASPHALT BINDER (PG 70-22) IN ACHM SURFACE COURSE (1/2")	197	TON
412	COLD MILLING ASPHALT PAVEMENT	3047	SQ. YD.
SP SS & 414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC	15	TON
SP SS & 415	ACHM PATCHING OF EXISTING ROADWAY	15	TON
SS & 505	PORTLAND CEMENT CONCRETE DRIVEWAY	823.10	SQ. YD.
601	MOBILIZATION	1.00	LUMP SUM
SS & 603	MAINTENANCE OF TRAFFIC	1.00	LUMP SUM
SP SS & 604	TRAFFIC DRUMS	273	SQ. FT.
SP SS & 604	CONSTRUCTION PAVEMENT MARKINGS (WORDS)	53	EACH
604	CONSTRUCTION PAVEMENT MARKINGS (WORDS)	29580	LN. FT.
604	CONSTRUCTION PAVEMENT MARKINGS (ARROWS)	18	EACH
SP SS & 604	VERTICAL PANELS	36	EACH
606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	49	EACH
606	18" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	46	LN. FT.
606	18" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 1)	876	LN. FT.
606	18" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	92	LN. FT.
606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	1732	LN. FT.
606	24" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	1732	LN. FT.
606	24" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 1)	1342	LN. FT.
606	24" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	1342	LN. FT.
606	30" REINFORCED CONCRETE PIPE CULVERTS (CLASS III)	88	LN. FT.
606	30" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 1)	600	LN. FT.
606	30" SMOOTH LINED POLYMER PRECOATED METALLIC COATED CORRUGATED STEEL PIPE (ALTERNATE NO. 2)	9	EACH
606	12" SIDE DRAIN	2	EACH
606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	400	CU. YD.
606	24" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	1	EACH
606	SELECTED PIPE BEDDING	3	EACH
SS & 609	DROP INLETS (TYPE C)	1	EACH
SS & 609	DROP INLETS (TYPE C SPECIAL)	3	EACH
SS & 609	DROP INLETS (TYPE MO)	29	EACH
SS & 609	JUNCTION BOXES (TYPE E)	10	EACH
SS & 609	DROP INLET EXTENSIONS (4')	1	EACH
SS & 609	YARD DRAINS	6	EACH
610	DROP INLETS ADJUSTED TO GRADE	4	EACH
SS & 611	4" PIPE UNDERDRAINS	1342	LN. FT.
SS & 611	UNDERDRAIN OUTLET PROTECTORS	6	EACH
615	PAVEMENT REPAIR OVER CULVERTS (CONCRETE)	61.6	CU. YD.
620	LIME	1	TON
620	SEEDING	0.47	ACRE
SS & 620	MULCH COVER	2.72	ACRE
620	WATER	117.1	M. GAL.
621	TEMPORARY SEEDING	2.25	ACRE
621	SILT FENCE	5106	LN. FT.
621	SAND BAG DITCH CHECKS	468	BAG
621	SEDIMENT REMOVAL AND DISPOSAL	283	CU. YD.
621	ROCK DITCH CHECKS	19	CU. YD.
SS & 621	FLTER SOCK (12")	1763	LN. FT.
623	SECOND SEEDING APPLICATION	0.47	ACRE
624	SOLID SODDING	1846	SQ. YD.
SS & 632	CONCRETE ISLAND	488	SQ. YD.
SS & 633	CONCRETE WALKS	2168	SQ. YD.
SP SS & 633	CONCRETE WALKS (TYPE SPECIAL)	13	SQ. YD.
SS & 634	CONCRETE CURB (TYPE E)	228	LN. FT.
SS & 634	CONCRETE COMBINATION CURB AND GUTTER (TYPE A) (1' 6")	4802	LN. FT.
635	ROADWAY CONSTRUCTION CONTROL	1.00	LUMP SUM
640	MODIFYING DROP INLETS	3	EACH
641	WHEEL CHAIR RAMPS (TYPE 3)	34	SQ. YD.
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	2	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	2	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	140	LN. FT.
SP	ANTENNA SUPPORT (SHOE BASE, 60 HT.)	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (2 SECTION, 1 WAY)	28	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	8	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	7006	LN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	759	LN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	765	LN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	250	LN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRE	30	LN. FT.
709	GALVANIZED STEEL CONDUIT (2")	959	LN. FT.
710	NON-METALLIC CONDUIT (3")	60	LN. FT.
710	NON-METALLIC CONDUIT (2")	70	LN. FT.
711	CONCRETE PULL BOX (TYPE 2)	30	LN. FT.
711	CONCRETE PULL BOX (TYPE 2 HD)	828	LN. FT.
SS & 713	SPAN WIRE ASSEMBLY	4	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56')	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (58')	2	EACH
SP	LUMINAIRE ASSEMBLY	2	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	4	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	8	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1	EACH
716	TREATED WOOD POLE (CLASS 2, 45')	1	EACH
718	REFLECTORIZED PAINT PAVEMENT MARKING WHITE (10")	1.00	LUMP SUM
719	THERMOPLASTIC PAVEMENT MARKING WHITE (6")	4	EACH
719	THERMOPLASTIC PAVEMENT MARKING WHITE (8")	622	LN. FT.
719	THERMOPLASTIC PAVEMENT MARKING WHITE (12")	4897	LN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (6")	856	LN. FT.
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (12")	1178	LN. FT.
SP & 719	THERMOPLASTIC PAVEMENT MARKING (YELLOW) (6")	4350	LN. FT.
719	THERMOPLASTIC PAVEMENT MARKING (YELLOW LINE)	80	LN. FT.
719	THERMOPLASTIC PAVEMENT MARKING (WORDS)	13	EACH
721	RAISED PAVEMENT MARKERS (ARROWS)	26	EACH
SP	18" STREET NAME SIGN	92	EACH
SP & 733	VIDEO DETECTOR (CLR)	4	EACH
SP & 733	VIDEO DETECTOR (P)	8	EACH
733	VIDEO CABLE	4	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	1894	LN. FT.
SP & 733	VIDEO PROCESSOR, EDGE CARD (2 CAMERA)	2190	LN. FT.
SP & 733	VEHICLE DETECTOR RACK (16 CHANNEL)	4	EACH
SP & 733	CENTRAL CONTROL UNIT (6 CHANNEL)	2	EACH
SP & 733	VIDEO PROCESSOR, EDGE CARD IP (2 CAMERA)	2	EACH
SP	NET-SUBSCRIBER RADIO (5.8 GHZ, 32 MBPS)	5	EACH

* DENOTES ALTERNATE BID ITEMS

REVISIONS

DATE	REVISION	SHEET NUMBER
11-20-19	REVISED "DELAY IN RIGHT OF WAY OCCUPANCY" SPECIAL PROVISION	30
12-03-19	REVISED "UTILITY ADJUSTMENTS" SPECIAL PROVISION. ADDED "603-1 LANE CLOSURE NOTIFICATION" SUPPLEMENTAL SPECIFICATION	3, 30
12-12-19	REVISED MAINTENANCE OF TRAFFIC PAY ITEM TO "SS & 609"	30
12-20-19	REVISED "SITE USE (A+C METHOD) - CALENDAR DAY CONTRACT" SPECIAL PROVISION	2, 3, 30
12-20-19	REVISED ROADWAY STANDARD DRAWINGS. ADDED "TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES (MASH)" SPECIAL PROVISION	2, 3, 30

SUMMARY OF QUANTITIES AND REVISIONS

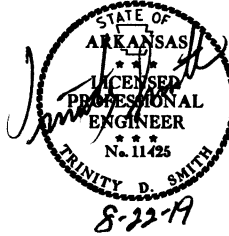
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11-20-19		12-20-19		6	ARK.			
12-03-19								
12-12-19								
				JOB NO.	100835		30	88

2 SUMMARY OF QUANTITIES AND REVISIONS



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100835		31	88

2 SURVEY CONTROL DETAILS



SURVEY CONTROL COORDINATES

Project Name: s100835
 Date: 12/29/2016
 Coordinate System: ARKANSAS STATE PLANE - NORTH ZONE BASED ON GPS CONTROL, 160040 - 160040A
 PROJECTED TO GROUND.
 Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
1	543212.7130	1704445.6818	271.773	CTL	STD AHTD MON. STAMPED PN: 1
2	543681.8280	1704457.2956	272.869	CTL	STD AHTD MON. STAMPED PN: 2
3	544162.3734	1704460.4999	273.261	CTL	STD AHTD MON. STAMPED PN: 3
4	544330.3741	1704355.6926	275.096	CTL	STD AHTD MON. STAMPED PN: 4
5	544937.2757	1704342.3667	279.120	CTL	STD AHTD MON. STAMPED PN: 5
6	546241.6777	1704445.6888	286.927	CTL	STD AHTD MON. STAMPED PN: 6
7	544167.7121	1702350.4066	311.049	CTL	STD AHTD MON. STAMPED PN: 7
8	544255.2411	1703076.6036	288.115	CTL	STD AHTD MON. STAMPED PN: 8
9	544271.0480	1703738.5321	277.999	CTL	STD AHTD MON. STAMPED PN: 9
10	544277.8291	1705072.9010	273.115	CTL	STD AHTD MON. STAMPED PN: 10
11	544277.4322	1705661.0725	270.401	CTL	STD AHTD MON. STAMPED PN: 11
12	544202.7396	1706434.7658	267.460	CTL	STD AHTD MON. STAMPED PN: 12
100	542588.3837	1704340.6836	271.132	GPS	AHTD GPS MON 160040
101	545423.5900	1704360.1989	282.610	GPS	AHTD GPS MON 160040A
900	542693.6817	1704341.6297	271.347	TBM	SQ CUT CNTR OF CATCH BASIN
901	543623.7637	1704447.5640	272.966	TBM	SQ CUT CNTR OF CATCH BASIN
902	545441.3676	1704368.7605	283.151	TBM	SQ CUT BASE OF SIGNAL POLE
903	544242.3179	1702633.1920	300.166	TBM	SQ CUT CNTR OF CATCH BASIN
904	544257.3053	1703499.7997	282.579	TBM	SQ CUT CNTR OF CATCH BASIN
905	544279.6712	1705688.4424	270.873	TBM	SQ CUT BASE OF SIGNAL POLE
906	544209.7984	1706539.9680	266.672	TBM	SQ CUT BACK OF CATCH BASIN
997	544229.6796	1699535.1087	333.410	BM	NGS BM G 332 SS ROD 18 JONESBORO
998	544236.9097	1701567.5766	305.650	BM	NGS BM H 332 SS ROD 18 JONESBORO
999	544288.6523	1704240.6897	274.686	BM	NGS BM J 332 SS ROD 18 JONESBORO

HWY. 18

POINT NO.	TYPE	STATION	NORTHING	EASTING
8000	POB	100+00.00	544204.5730	1702237.2560
8001	PC	115+69.01	544228.7616	1703806.0800
8003	PT	117+95.68	544231.1352	1704032.7333
8004	PC	132+73.88	544239.3050	1705510.9154
8006	PT	133+33.88	544239.5580	1705570.9149
8007	POE	138+65.00	544241.1030	1706102.0330

CARAWAY RD.

POINT NO.	TYPE	STATION	NORTHING	EASTING
8008	POB	200+00.00	543035.0835	1704399.3613
8009	PC	207+60.79	543795.8681	1704401.9711
8011	PT	209+76.23	544011.3086	1704401.6976
8012	PC	212+86.61	544321.6841	1704399.8446
8014	PT	215+40.43	544575.4976	1704399.7348
8015	POE	220+76.92	545111.9879	1704402.4735

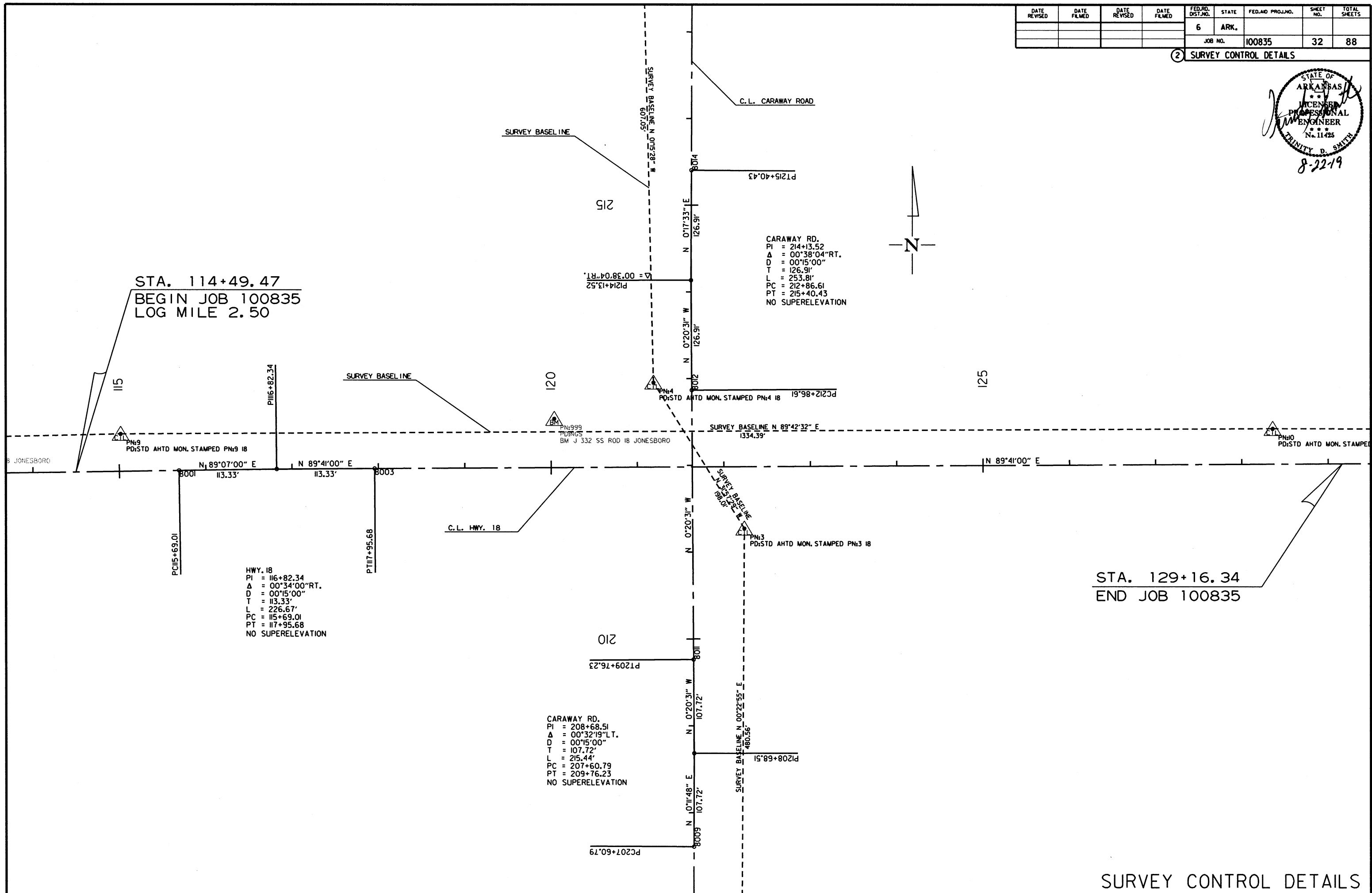
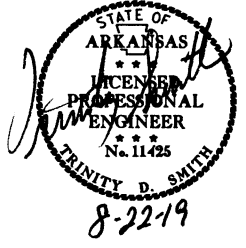
*Note - Rebar and Cap - Standard - 5/8" Rebar with 2" Aluminum Cap stamped
 *(standard markings common to all caps), or as indicated
 (other markings indicated in the point description of the individual point).
 ALL DISTANCES ARE GROUND.
 USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT.
 A PROJECT CAF OF .9999311390 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
 THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
 GRID DISTANCE = GROUND DISTANCE X CAF.
 GRID COORDINATES ARE STORED UNDER FILE NAME s100835g.i.CTL
 HORIZONTAL DATUM: NAD 83 (1997)
 VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE
 AT A SPECIFIC POINT.

REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL
 IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED.
 REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL

BASIS OF BEARING:
 ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE
 DETERMINED FROM GPS CONTROL POINTS: 160040 - 160040A
 CONVERGENCE ANGLE: 00-46-10 RIGHT AT PN: 3 LT: 35-49-16N LG: 090-40-40W
 GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100835		32	88

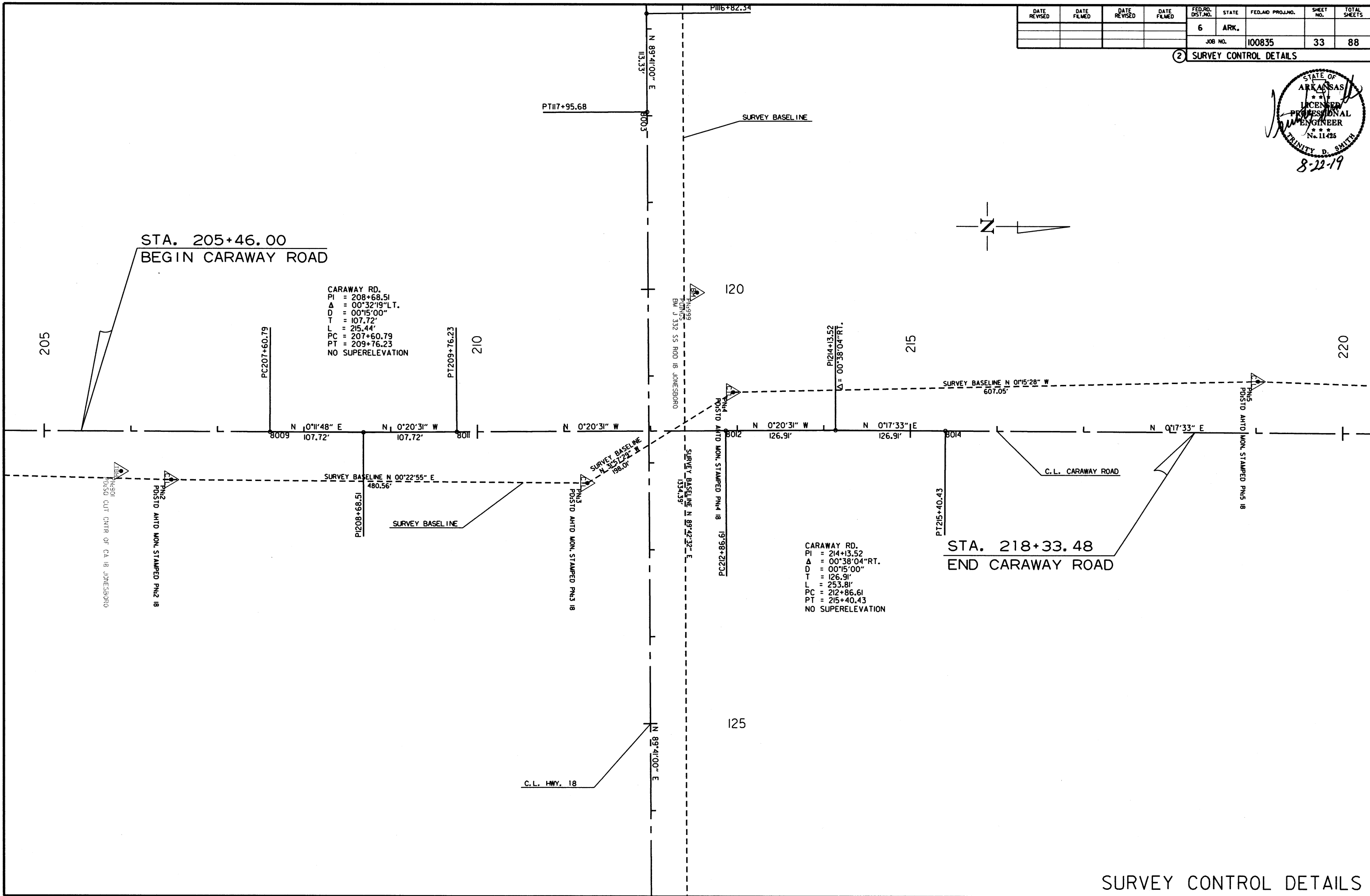
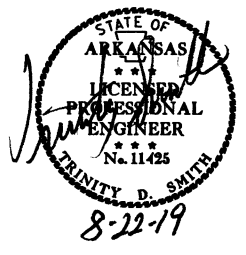
2 SURVEY CONTROL DETAILS



10/18/2018
R100835.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.	100835		33	88

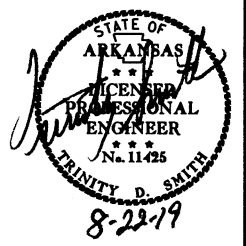
2 SURVEY CONTROL DETAILS



10/18/2018
R100835.DGN

DATE REVISION	DATE FILMED	DATE REVISION	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 100835						34	88	

PLAN AND PROFILE SHEETS



PIER ONE

STA. 122+29 CONSTRUCT TYPE E CURB ON LT. = 111 LIN. FT.
 STA. 122+41 CONSTRUCT TYPE 3 WHEELCHAIR RAMP ON LT. = 3.3 SO. YDS.
 STA. 123+00 CONSTRUCT JUNCTION BOX ON RT. AND 30" X 52" PIPE OUTLET CONNECT TO DROP INLET @ STA. 211+24 RT. CARAWAY RD. JUNCTION BOX H = 6'-0" TYPE E JUNCTION BOX = 4' X 3' 30" R.C. PIPE (CLASS III TYPE 3) = 52 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 52 LIN. FT.

STA. 123+50 IN PLACE DROP INLET ON LT. AND 30" X 63" OUTLET REMOVE
 STA. 123+50 CONSTRUCT DROP INLET ON LT. AND 18" X 2' PIPE INLET W/F.E.S. CONNECT TO DROP INLET @ STA. 123+50 RT. DROP INLET H = 5'-6" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 18" R.C. PIPE (CLASS III TYPE 3) = 2 LIN. FT. 18" F.E.S. = 1 EACH 30" R.C. PIPE (CLASS IV TYPE 3) = 88 LIN. FT.

STA. 124+50 CONSTRUCT DROP INLET ON LT. AND 18" X 196" PIPE OUTLET CONNECT TO DROP INLET @ STA. 126+50 LT. DROP INLET H = 3'-10" TYPE MO INLET = 4' X 3' 18" R.C. PIPE (CLASS III TYPE 3) = 196 LIN. FT. 18" SLPCCS PIPE (TYPE 2) = 196 LIN. FT.

STA. 124+87 CONSTRUCT APPROACH ON LT. = 5 CU. YD. UNC. EXC.

STA. 122+26 CONSTRUCT TYPE E CURB ON RT. = 117 LIN. FT.

STA. 122+53 CONSTRUCT TYPE 3 WHEELCHAIR RAMP ON RT. = 3.3 SO. YDS.

STA. 123+00 CONSTRUCT JUNCTION BOX ON LT. AND 30" X 48" PIPE OUTLET CONNECT TO DROP INLET @ STA. 123+50 LT. JUNCTION BOX H = 5'-5" TYPE E JUNCTION BOX = 4' X 3' 30" R.C. PIPE (CLASS III TYPE 3) = 48 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 48 LIN. FT.

STA. 123+50 CONSTRUCT DROP INLET ON RT. AND 30" X 48" PIPE OUTLET CONNECT TO JUNCTION BOX @ STA. 123+00 RT. DROP INLET H = 5'-11" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 30" R.C. PIPE (CLASS III TYPE 3) = 48 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 48 LIN. FT.

STA. 123+50 IN PLACE DROP INLET ON RT. AND 30" X 124" OUTLET REMOVE

STA. 120+00 CONSTRUCT TYPE SPECIAL SIDEWALK = 75 LIN. FT.

STA. 120+40 IN PLACE DBL. 5' X 6' R.C. BOX CULVERT ON 45° RT. FWD. SKEW RETAIN

STA. 120+60 CONSTRUCT DROP INLET ON LT. AND 24" X 64" PIPE OUTLET CONNECT TO EXISTING BOX CULVERT @ 119+94 LT. DROP INLET H = 4'-9" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 24" R.C. PIPE (CLASS III TYPE 3) = 64 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 64 LIN. FT.

STA. 120+69 CONSTRUCT TYPE 3 WHEELCHAIR RAMP ON LT. = 3.3 SO. YDS.

STA. 117+50 CONSTRUCT DROP INLET ON LT. AND 18" X 2' PIPE INLET W/F.E.S. AND 30" X 146" PIPE OUTLET CONNECT TO DROP INLET @ STA. 119+00 LT. DROP INLET H = 4'-4" TYPE MO INLET = 5' DIA. TYPE C INLET = 4' X 4' 18" R.C. PIPE (CLASS III TYPE 3) = 2 LIN. FT. 18" F.E.S. = 1 EACH 30" R.C. PIPE (CLASS III TYPE 3) = 146 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 146 LIN. FT.

STA. 118+25 CONSTRUCT APPROACH ON LT. = 5 CU. YD.

STA. 119+00 CONSTRUCT DROP INLET ON LT. W/4' EXTENSION AND 30" X 90" PIPE OUTLET CONNECT TO EXISTING BOX CULVERT @ STA. 119+94 LT. DROP INLET H = 4'-5" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 30" R.C. PIPE (CLASS III TYPE 3) = 90 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 90 LIN. FT.

STA. 119+60 IN PLACE DROP INLET ON LT. AND 30" X 20" OUTLET REMOVE

STA. 119+94 IN PLACE R.C. BOX CULVERT RETAIN AND CONSTRUCT DROP INLET ON LT. ON EXISTING BOX CULVERT TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3'

HWY. 18
 PI = 116+82.34
 Δ = 00°34'00" RT.
 D = 00°15'00"
 T = 113.33'
 L = 226.67'
 PC = 115+69.01
 PT = 117+95.68
 NO SUPERELEVATION

STA. 114+75 CONSTRUCT JUNCTION BOX ON LT. AND 30" X 20' R.C. PIPE OUTLET CONNECT TO DROP INLET @ STA. 114+95 LT. JUNCTION BOX H = 6'-1" TYPE E = 4' X 5' 30" R.C. PIPE (CLASS III TYPE 3) = 20 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 20 LIN. FT.

STA. 114+75 IN PLACE 30" X 228" R.C. PIPE CUT 18" AND TIE INTO JUNCTION BOX AT STA. 114+75 LT.

STA. 114+95 IN PLACE DROP INLET ON LT. AND 30" X 244" OUTLET REMOVE OUTLET AND DROP INLET AND CONSTRUCT DROP INLET ON LT. AND 30" X 252" PIPE OUTLET CONNECT TO DROP INLET @ STA. 117+50 LT. DROP INLET H = 6'-0" TYPE C SPECIAL INLET = 4' X 5' DROP INLET L = 12'-6" 30" R.C. PIPE (CLASS III TYPE 3) = 252 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 252 LIN. FT.

STA. 117+45 IN PLACE DROP INLET ON LT. AND 18" X 8' INLET W/F.E.S. AND 30" X 214" OUTLET REMOVE

STA. 114+49.47
 BEGIN JOB 100835
 LOG MILE 2.50

STA. 114+45 IN PLACE DROP INLET ON RT. AND 18" X 4' INLET W/F.E.S. AND 24" X 300" OUTLET RETAIN DROP INLET AND INLET W/F.E.S. REMOVE OUTLET AND CONSTRUCT 24" X 280" PIPE OUTLET CONNECT TO DROP INLET @ STA. 117+30 RT. 24" R.C. PIPE (CLASS III TYPE 3) = 280 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 280 LIN. FT.

STA. 114+75 CONSTRUCT APPROACH ON RT. = 5 CU. YD.

STA. 115+25 CONSTRUCT APPROACH ON RT. = 5 CU. YD.

STA. 116+30 CONSTRUCT APPROACH ON RT. = 5 CU. YD.

STA. 117+30 CONSTRUCT DROP INLET ON RT. AND 24" X 4' PIPE INLET W/F.E.S. AND 24" X 116" PIPE OUTLET CONNECT TO DROP INLET @ STA. 118+50 RT. DROP INLET H = 4'-7" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 24" R.C. PIPE (CLASS III TYPE 3) = 4 LIN. FT. 24" F.E.S. = 1 EACH 24" R.C. PIPE (CLASS III TYPE 3) = 116 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 116 LIN. FT.

STA. 117+45 IN PLACE DROP INLET ON RT. AND 24" X 4' INLET W/F.E.S. AND 18" X 304" OUTLET REMOVE

STA. 117+75 CONSTRUCT APPROACH ON RT. = 5 CU. YD.

STA. 118+50 CONSTRUCT DROP INLET ON RT. AND 24" X 28' PIPE INLET W/F.E.S. AND 24" X 146" PIPE OUTLET CONNECT TO DROP INLET @ STA. 120+00 RT. DROP INLET H = 5'-4" TYPE MO INLET = 5' DIA. TYPE C INLET = 4' X 4' 24" R.C. PIPE (CLASS III TYPE 3) = 28 LIN. FT. 24" F.E.S. = 1 EACH 24" R.C. PIPE (CLASS III TYPE 3) = 146 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 146 LIN. FT.

STA. 118+50 IN PLACE 24" X 56" R.C. PIPE ON 55° LT. FWD. SKEW FROM EXISTING DRAIN @ STA. 118+25 RT. REMOVE

STA. 120+00 CONSTRUCT DROP INLET ON RT. AND 24" X 58" PIPE OUTLET CONNECT TO JUNCTION BOX @ STA. 120+60 RT. DROP INLET H = 5'-4" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 24" R.C. PIPE (CLASS III TYPE 3) = 58 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 58 LIN. FT.

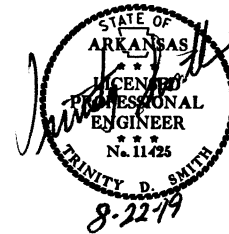
STA. 120+60 IN PLACE DROP INLET ON RT. AND 18" X 14" INLET FROM YARD DRAIN REMOVE AND CONSTRUCT JUNCTION BOX ON RT. AND 24" X 48" PIPE OUTLET CONNECT TO DROP INLET @ STA. 211+00 LT. CARAWAY RD. JUNCTION BOX H = 6'-3" TYPE E JUNCTION BOX = 4' X 3' 24" R.C. PIPE (CLASS III TYPE 3) = 48 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 48 LIN. FT.

STA. 120+84 CONSTRUCT TYPE 3 WHEELCHAIR RAMP ON RT. = 3.3 SO. YDS.

8/9/2019

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HWY. 18

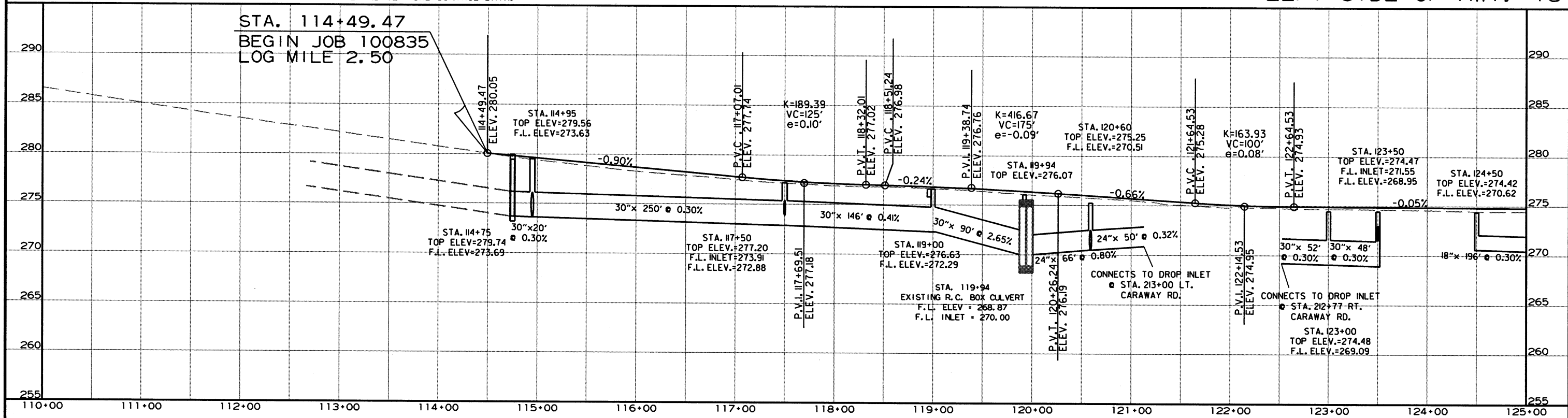


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		35	88

2 PLAN AND PROFILE SHEETS

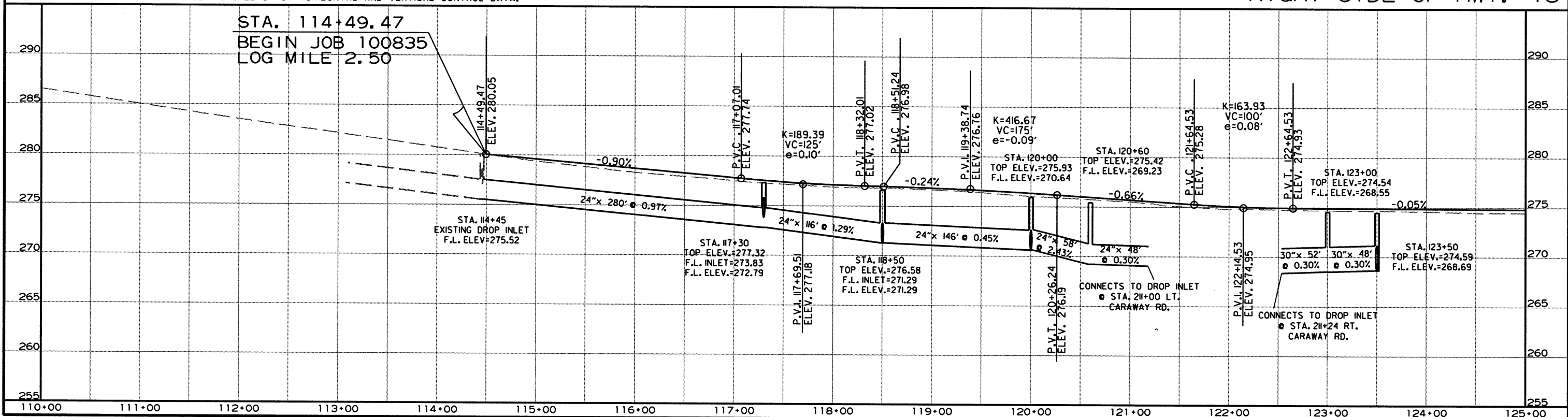
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

LEFT SIDE OF HWY. 18



REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

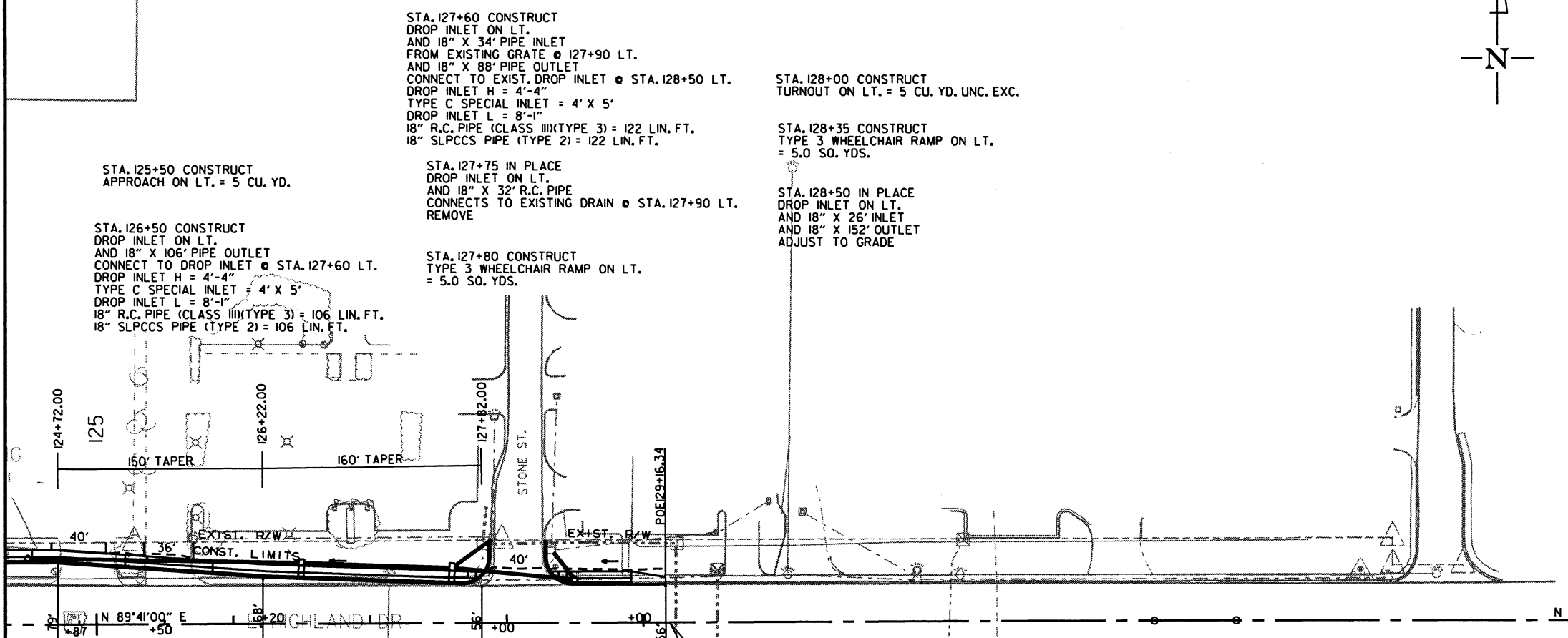
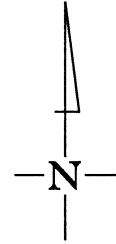
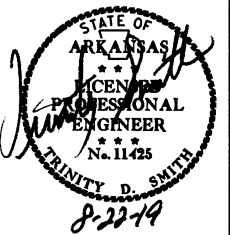
RIGHT SIDE OF HWY. 18



7/23/2019 R100835.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.							100835	36	88

② PLAN AND PROFILE SHEETS



STA. 127+60 CONSTRUCT
 DROP INLET ON LT.
 AND 18" X 34' PIPE INLET
 FROM EXISTING GRATE @ 127+90 LT.
 AND 18" X 88' PIPE OUTLET
 CONNECT TO EXIST. DROP INLET @ STA. 128+50 LT.
 DROP INLET H = 4'-4"
 TYPE C SPECIAL INLET = 4' X 5'
 DROP INLET L = 8'-1"
 18" R.C. PIPE (CLASS III TYPE 3) = 122 LIN. FT.
 18" SLPCCS PIPE (TYPE 2) = 122 LIN. FT.

STA. 128+00 CONSTRUCT
 TURNOUT ON LT. = 5 CU. YD. UNC. EXC.

STA. 128+35 CONSTRUCT
 TYPE 3 WHEELCHAIR RAMP ON LT.
 = 5.0 SQ. YDS.

STA. 128+50 IN PLACE
 DROP INLET ON LT.
 AND 18" X 26' INLET
 AND 18" X 152' OUTLET
 ADJUST TO GRADE

STA. 125+50 CONSTRUCT
 APPROACH ON LT. = 5 CU. YD.

STA. 127+75 IN PLACE
 DROP INLET ON LT.
 AND 18" X 32' R.C. PIPE
 CONNECTS TO EXISTING DRAIN @ STA. 127+90 LT.
 REMOVE

STA. 127+80 CONSTRUCT
 TYPE 3 WHEELCHAIR RAMP ON LT.
 = 5.0 SQ. YDS.

STA. 126+50 CONSTRUCT
 DROP INLET ON LT.
 AND 18" X 106' PIPE OUTLET
 CONNECT TO DROP INLET @ STA. 127+60 LT.
 DROP INLET H = 4'-4"
 TYPE C SPECIAL INLET = 4' X 5'
 DROP INLET L = 8'-1"
 18" R.C. PIPE (CLASS III TYPE 3) = 106 LIN. FT.
 18" SLPCCS PIPE (TYPE 2) = 106 LIN. FT.

STA. 125+75 CONSTRUCT
 DROP INLET ON RT.
 AND 18" X 168' PIPE OUTLET
 CONNECT TO EXISTING DROP INLET @ STA. 127+47 RT.
 DROP INLET H = 3'-9"
 TYPE M0 INLET = 4' DIA.
 TYPE C INLET = 4' X 3'
 18" R.C. PIPE (CLASS III TYPE 3) = 168 LIN. FT.
 18" SLPCCS PIPE (TYPE 2) = 168 LIN. FT.

STA. 127+47 IN PLACE
 DROP INLET ON RT.
 AND 18" X 352" OUTLET
 ADJUST TO GRADE
 USE TYPE M0 INLET

STA. 129+00 CONSTRUCT
 APPROACH ON RT. = 5 CU. YD.

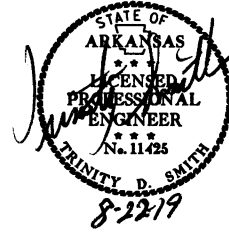
STA. 126+20 CONSTRUCT
 APPROACH ON RT. = 5 CU. YD.

STA. 129+16.34
 END JOB 100835

K
 BIG K
 K-MART

8/9/2019

R100835.DGN

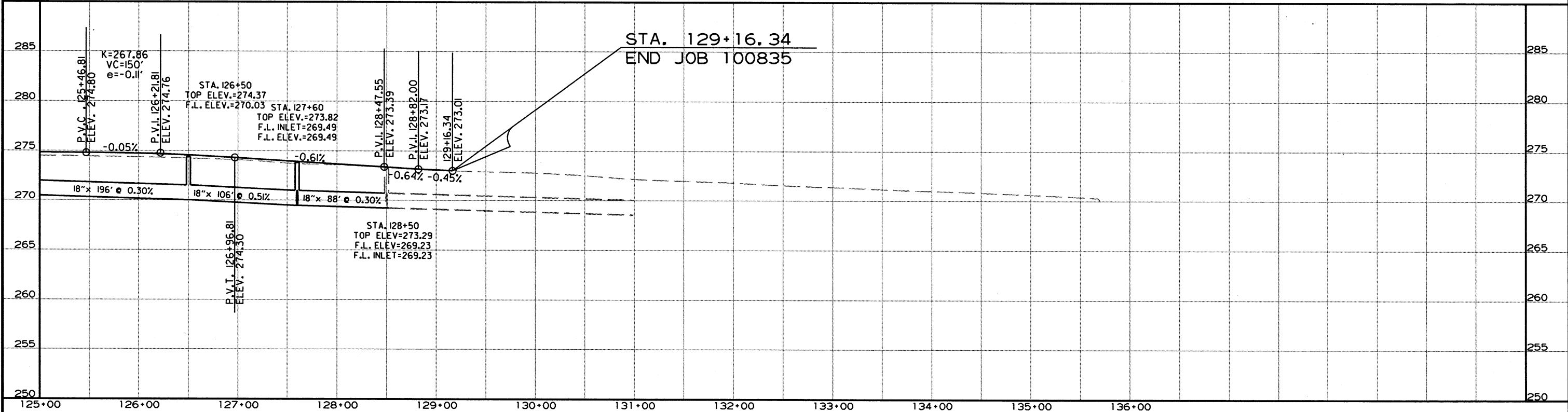


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100835		37	88

② PLAN AND PROFILE SHEETS

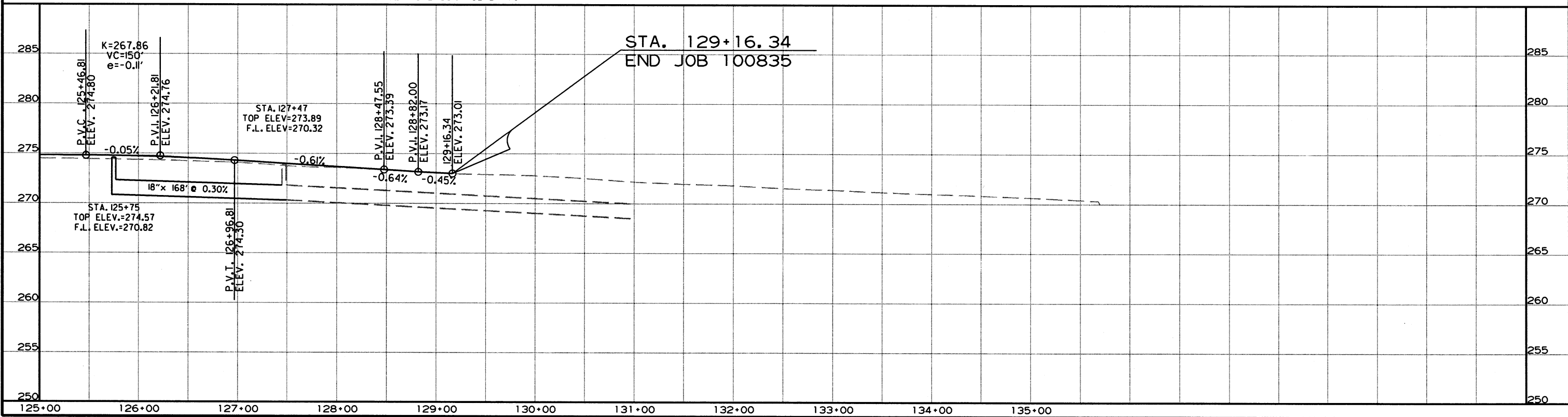
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

LEFT SIDE OF HWY. 18



REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

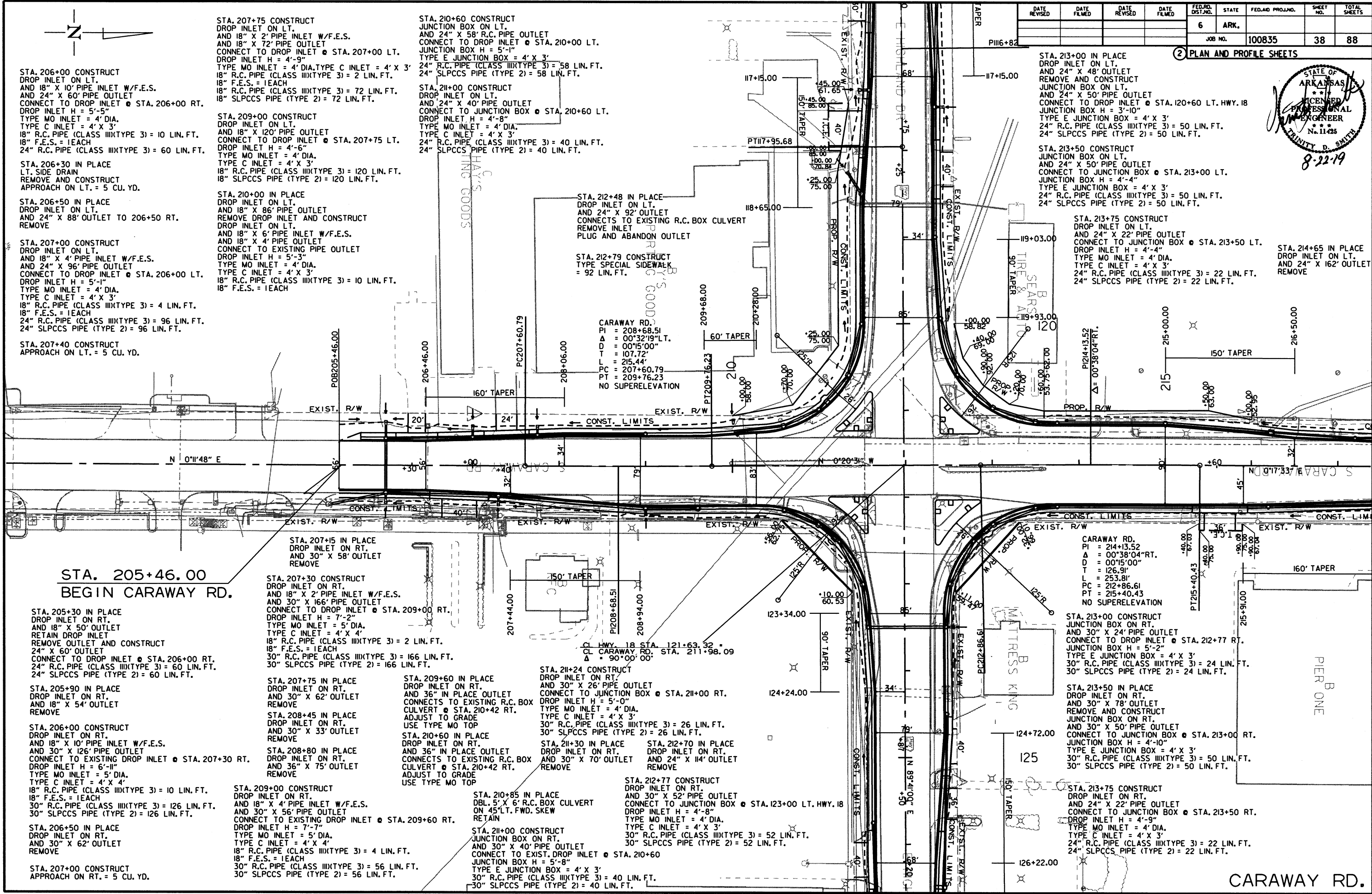
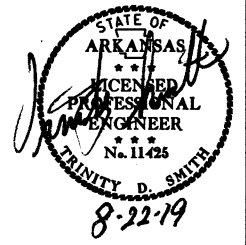
RIGHT SIDE OF HWY. 18



8/2/2019 R100835.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.	100835		38	88

2 PLAN AND PROFILE SHEETS



STA. 206+00 CONSTRUCT DROP INLET ON LT. AND 18" X 10' PIPE INLET W/F.E.S. AND 24" X 60' PIPE OUTLET CONNECT TO DROP INLET @ STA. 206+00 RT. DROP INLET H = 5'-5" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 18" R.C. PIPE (CLASS III TYPE 3) = 10 LIN. FT. 18" F.E.S. = 1EAACH 24" R.C. PIPE (CLASS III TYPE 3) = 60 LIN. FT.

STA. 206+30 IN PLACE LT. SIDE DRAIN REMOVE AND CONSTRUCT APPROACH ON LT. = 5 CU. YD.

STA. 206+50 IN PLACE DROP INLET ON LT. AND 24" X 88' OUTLET TO 206+50 RT. REMOVE

STA. 207+00 CONSTRUCT DROP INLET ON LT. AND 18" X 4' PIPE INLET W/F.E.S. AND 24" X 96' PIPE OUTLET CONNECT TO DROP INLET @ STA. 206+00 LT. DROP INLET H = 5'-1" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 18" R.C. PIPE (CLASS III TYPE 3) = 4 LIN. FT. 18" F.E.S. = 1EAACH 24" R.C. PIPE (CLASS III TYPE 3) = 96 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 96 LIN. FT.

STA. 207+40 CONSTRUCT APPROACH ON LT. = 5 CU. YD.

STA. 207+75 CONSTRUCT DROP INLET ON LT. AND 18" X 2' PIPE INLET W/F.E.S. AND 18" X 72' PIPE OUTLET CONNECT TO DROP INLET @ STA. 207+00 LT. DROP INLET H = 4'-9" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 18" R.C. PIPE (CLASS III TYPE 3) = 2 LIN. FT. 18" F.E.S. = 1EAACH 18" R.C. PIPE (CLASS III TYPE 3) = 72 LIN. FT. 18" SLPCCS PIPE (TYPE 2) = 72 LIN. FT.

STA. 209+00 CONSTRUCT DROP INLET ON LT. AND 18" X 120' PIPE OUTLET CONNECT TO DROP INLET @ STA. 207+75 LT. DROP INLET H = 4'-6" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 18" R.C. PIPE (CLASS III TYPE 3) = 120 LIN. FT. 18" SLPCCS PIPE (TYPE 2) = 120 LIN. FT.

STA. 210+60 CONSTRUCT JUNCTION BOX ON LT. AND 24" X 58' R.C. PIPE OUTLET CONNECT TO DROP INLET @ STA. 210+00 LT. JUNCTION BOX H = 5'-1" TYPE E JUNCTION BOX = 4' X 3' 24" R.C. PIPE (CLASS III TYPE 3) = 58 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 58 LIN. FT.

STA. 211+00 CONSTRUCT DROP INLET ON LT. AND 24" X 40' PIPE OUTLET CONNECT TO JUNCTION BOX @ STA. 210+60 LT. DROP INLET H = 4'-8" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 24" R.C. PIPE (CLASS III TYPE 3) = 40 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 40 LIN. FT.

STA. 212+48 IN PLACE DROP INLET ON LT. AND 24" X 92' OUTLET CONNECTS TO EXISTING R.C. BOX CULVERT REMOVE INLET PLUG AND ABANDON OUTLET

STA. 212+79 CONSTRUCT TYPE SPECIAL SIDEWALK = 92 LIN. FT.

CARAWAY RD.
 PI = 208+68.51
 Δ = 00°32'19" LT.
 D = 00°15'00"
 T = 107.72'
 L = 215.44'
 PC = 207+60.79
 PT = 209+76.23
 NO SUPERELEVATION

STA. 213+00 IN PLACE DROP INLET ON LT. AND 24" X 48' OUTLET REMOVE AND CONSTRUCT JUNCTION BOX ON LT. AND 24" X 50' PIPE OUTLET CONNECT TO DROP INLET @ STA. 120+60 LT. HWY. 18 JUNCTION BOX H = 3'-10" TYPE E JUNCTION BOX = 4' X 3' 24" R.C. PIPE (CLASS III TYPE 3) = 50 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 50 LIN. FT.

STA. 213+50 CONSTRUCT JUNCTION BOX ON LT. AND 24" X 50' PIPE OUTLET CONNECT TO JUNCTION BOX @ STA. 213+00 LT. JUNCTION BOX H = 4'-4" TYPE E JUNCTION BOX = 4' X 3' 24" R.C. PIPE (CLASS III TYPE 3) = 50 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 50 LIN. FT.

STA. 213+75 CONSTRUCT DROP INLET ON LT. AND 24" X 22' PIPE OUTLET CONNECT TO JUNCTION BOX @ STA. 213+50 LT. DROP INLET H = 4'-4" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 24" R.C. PIPE (CLASS III TYPE 3) = 22 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 22 LIN. FT.

STA. 214+65 IN PLACE DROP INLET ON LT. AND 24" X 162' OUTLET REMOVE

STA. 205+46.00 BEGIN CARAWAY RD.

STA. 205+30 IN PLACE DROP INLET ON RT. AND 18" X 50' OUTLET RETAIN DROP INLET REMOVE OUTLET AND CONSTRUCT 24" X 60' OUTLET CONNECT TO DROP INLET @ STA. 206+00 RT. 24" R.C. PIPE (CLASS III TYPE 3) = 60 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 60 LIN. FT.

STA. 205+90 IN PLACE DROP INLET ON RT. AND 18" X 54' OUTLET REMOVE

STA. 206+00 CONSTRUCT DROP INLET ON RT. AND 18" X 10' PIPE INLET W/F.E.S. AND 30" X 126' PIPE OUTLET CONNECT TO EXISTING DROP INLET @ STA. 207+30 RT. DROP INLET H = 6'-11" TYPE MO INLET = 5' DIA. TYPE C INLET = 4' X 4' 18" R.C. PIPE (CLASS III TYPE 3) = 10 LIN. FT. 18" F.E.S. = 1EAACH 30" R.C. PIPE (CLASS III TYPE 3) = 126 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 126 LIN. FT.

STA. 207+50 IN PLACE DROP INLET ON RT. AND 30" X 62' OUTLET REMOVE

STA. 207+00 CONSTRUCT APPROACH ON RT. = 5 CU. YD.

STA. 207+15 IN PLACE DROP INLET ON RT. AND 30" X 58' OUTLET REMOVE

STA. 207+30 CONSTRUCT DROP INLET ON RT. AND 18" X 2' PIPE INLET W/F.E.S. AND 30" X 166' PIPE OUTLET CONNECT TO DROP INLET @ STA. 209+00 RT. DROP INLET H = 7'-2" TYPE MO INLET = 5' DIA. TYPE C INLET = 4' X 4' 18" R.C. PIPE (CLASS III TYPE 3) = 2 LIN. FT. 18" F.E.S. = 1EAACH 30" R.C. PIPE (CLASS III TYPE 3) = 166 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 166 LIN. FT.

STA. 207+75 IN PLACE DROP INLET ON RT. AND 30" X 62' OUTLET REMOVE

STA. 208+45 IN PLACE DROP INLET ON RT. AND 30" X 33' OUTLET REMOVE

STA. 208+80 IN PLACE DROP INLET ON RT. AND 36" X 75' OUTLET REMOVE

STA. 209+00 CONSTRUCT DROP INLET ON RT. AND 18" X 4' PIPE INLET W/F.E.S. AND 30" X 56' PIPE OUTLET CONNECT TO EXISTING DROP INLET @ STA. 209+60 RT. DROP INLET H = 7'-7" TYPE MO INLET = 5' DIA. TYPE C INLET = 4' X 4' 18" R.C. PIPE (CLASS III TYPE 3) = 4 LIN. FT. 18" F.E.S. = 1EAACH 30" R.C. PIPE (CLASS III TYPE 3) = 56 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 56 LIN. FT.

STA. 209+60 IN PLACE DROP INLET ON RT. AND 36" IN PLACE OUTLET CONNECTS TO EXISTING R.C. BOX CULVERT @ STA. 210+42 RT. ADJUST TO GRADE USE TYPE MO TOP

STA. 210+60 IN PLACE DROP INLET ON RT. AND 36" IN PLACE OUTLET CONNECTS TO EXISTING R.C. BOX CULVERT @ STA. 210+42 RT. ADJUST TO GRADE USE TYPE MO TOP

STA. 211+24 CONSTRUCT DROP INLET ON RT. AND 30" X 26' PIPE OUTLET CONNECT TO JUNCTION BOX @ STA. 211+00 RT. DROP INLET H = 5'-0" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 30" R.C. PIPE (CLASS III TYPE 3) = 26 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 26 LIN. FT.

STA. 211+30 IN PLACE DROP INLET ON RT. AND 30" X 70' OUTLET REMOVE

STA. 212+70 IN PLACE DROP INLET ON RT. AND 30" X 114' OUTLET REMOVE

STA. 212+77 CONSTRUCT DROP INLET ON RT. AND 30" X 52' PIPE OUTLET CONNECT TO JUNCTION BOX @ STA. 123+00 LT. HWY. 18 DROP INLET H = 4'-8" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 30" R.C. PIPE (CLASS III TYPE 3) = 52 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 52 LIN. FT.

STA. 210+85 IN PLACE DBL. 5" X 6' R.C. BOX CULVERT ON 45' LT. FWD. SKEW RETAIN

STA. 211+00 CONSTRUCT JUNCTION BOX ON RT. AND 30" X 40' PIPE OUTLET CONNECT TO EXIST. DROP INLET @ STA. 210+60 JUNCTION BOX H = 5'-8" TYPE E JUNCTION BOX = 4' X 3' 30" R.C. PIPE (CLASS III TYPE 3) = 40 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 40 LIN. FT.

CARAWAY RD.
 PI = 214+13.52
 Δ = 00°38'04" RT.
 D = 00°15'00"
 T = 126.91'
 L = 253.81'
 PC = 212+86.61
 PT = 215+40.43
 NO SUPERELEVATION

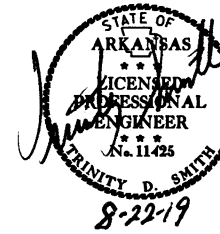
STA. 213+00 CONSTRUCT JUNCTION BOX ON RT. AND 30" X 24' PIPE OUTLET CONNECT TO DROP INLET @ STA. 212+77 RT. JUNCTION BOX H = 5'-2" TYPE E JUNCTION BOX = 4' X 3' 30" R.C. PIPE (CLASS III TYPE 3) = 24 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 24 LIN. FT.

STA. 213+50 IN PLACE DROP INLET ON RT. AND 30" X 78' OUTLET REMOVE AND CONSTRUCT JUNCTION BOX ON RT. AND 30" X 50' PIPE OUTLET CONNECT TO JUNCTION BOX @ STA. 213+00 RT. JUNCTION BOX H = 4'-10" TYPE E JUNCTION BOX = 4' X 3' 30" R.C. PIPE (CLASS III TYPE 3) = 50 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 50 LIN. FT.

STA. 213+75 CONSTRUCT DROP INLET ON RT. AND 24" X 22' PIPE OUTLET CONNECT TO JUNCTION BOX @ STA. 213+50 RT. DROP INLET H = 4'-9" TYPE MO INLET = 4' DIA. TYPE C INLET = 4' X 3' 24" R.C. PIPE (CLASS III TYPE 3) = 22 LIN. FT. 24" SLPCCS PIPE (TYPE 2) = 22 LIN. FT.

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CARAWAY RD.

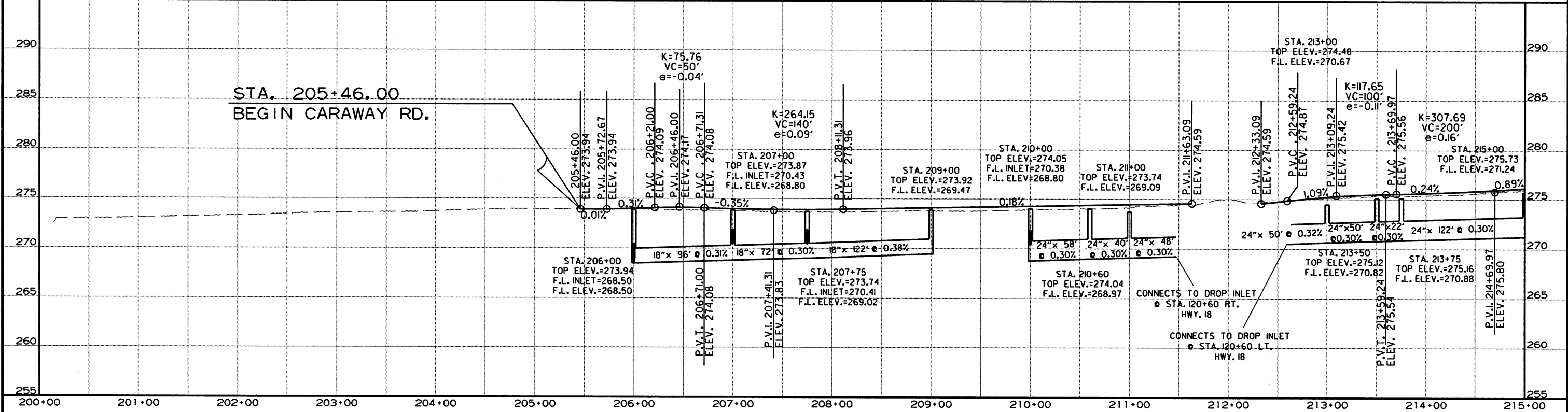


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		39	88

2 PLAN AND PROFILE SHEETS

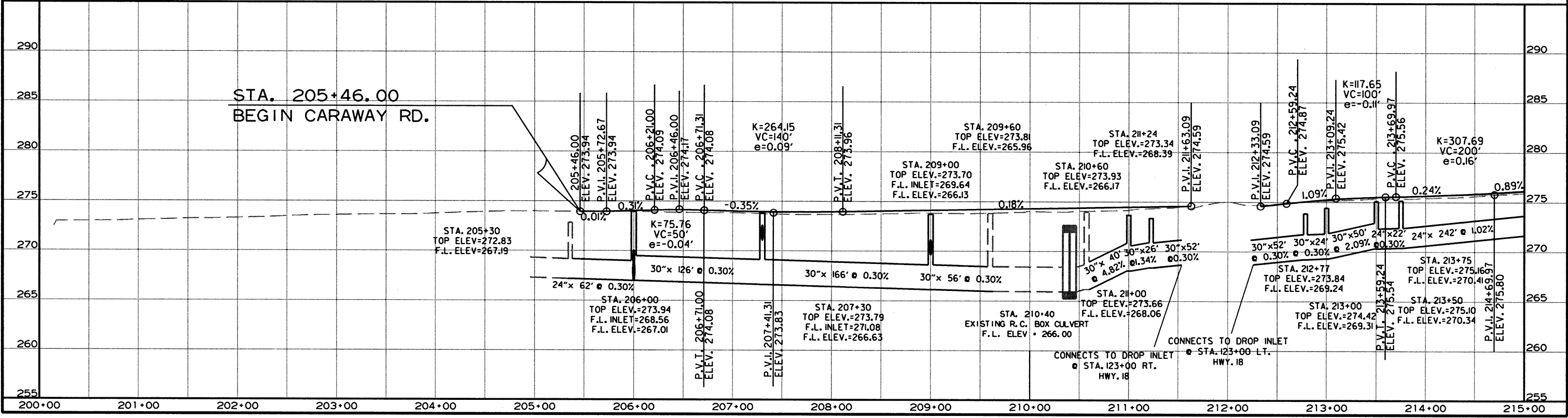
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

LEFT SIDE OF CARAWAY RD.



REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

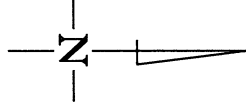
RIGHT SIDE OF CARAWAY RD.



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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. 100835	40 88

② PLAN AND PROFILE SHEETS



STA. 215+00 CONSTRUCT
 DROP INLET ON LT.
 AND 24" X 122' PIPE OUTLET
 CONNECT TO DROP INLET @ STA. 213+75 LT.
 DROP INLET H = 4'-6"
 TYPE MO INLET = 4' DIA.
 TYPE C INLET = 4' X 3'
 24" R.C. PIPE (CLASS III)(TYPE 3) = 122 LIN. FT.
 24" SLPCCS PIPE (TYPE 2) = 122 LIN. FT.

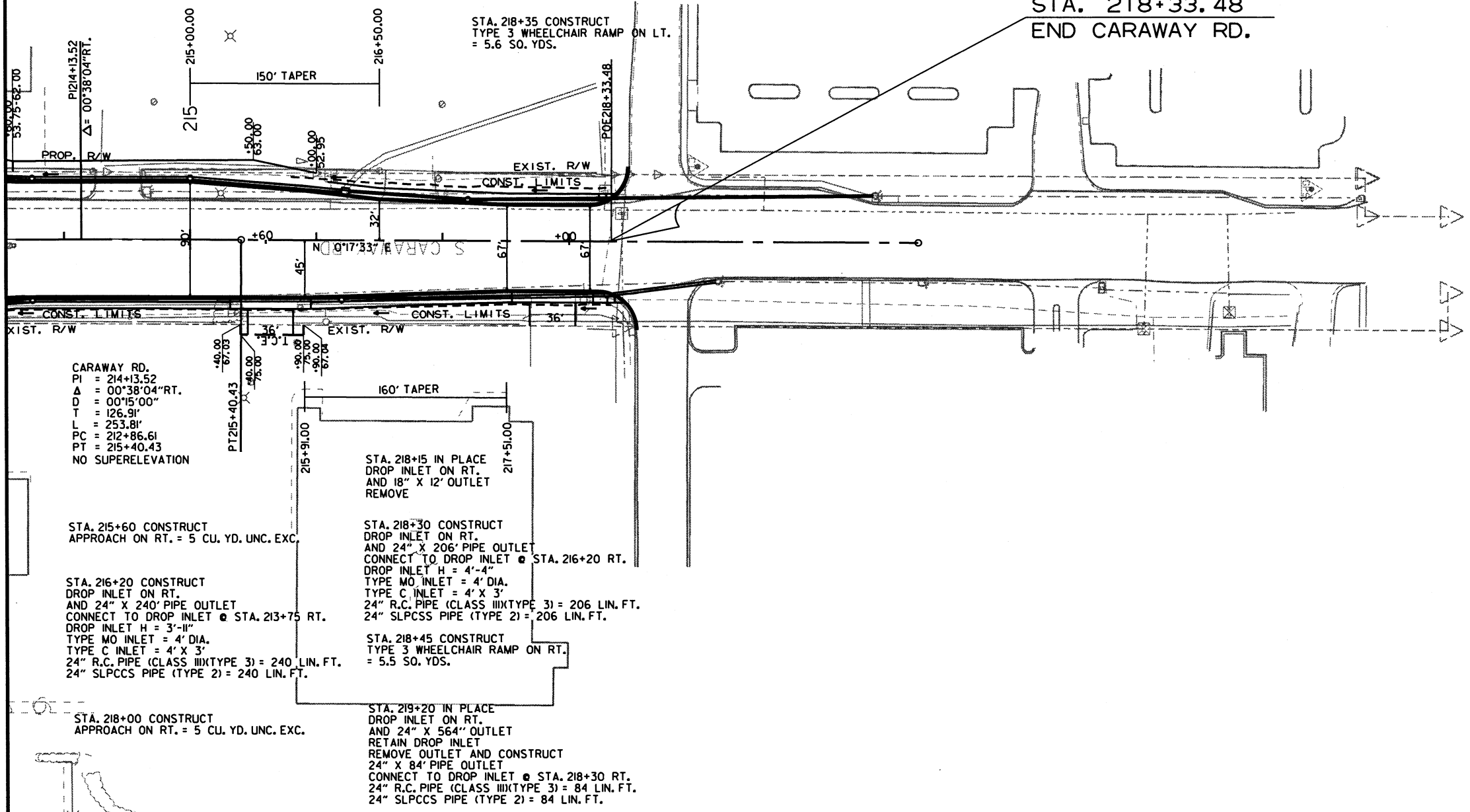
STA. 217+00 IN PLACE
 DROP INLET ON LT.
 AND 18" X 74' OUTLET
 REMOVE

STA. 216+20 IN PLACE
 DROP INLET ON LT.
 AND 24" X 152' PIPE OUTLET
 AND R.C. BOX CULVERT INLET
 REMOVE DROP INLET AND PIPE OUTLET
 RETAIN BOX CULVERT AND CONSTRUCT
 DROP INLET ON LT.
 AND 24" X 116' PIPE OUTLET
 CONNECT TO DROP INLET @ STA. 215+00 LT.
 DROP INLET H = 5'-4"
 TYPE C INLET = 6' X 5'
 24" R.C. PIPE (CLASS III)(TYPE 3) = 116 LIN. FT.
 24" SLPCCS PIPE (TYPE 2) = 116 LIN. FT.

STA. 217+20 CONSTRUCT
 DROP INLET ON LT.
 AND 18" X 92' PIPE OUTLET
 CONNECT TO DROP INLET @ STA. 216+20 LT.
 AND 18" IN PLACE PIPE INLET
 RETAIN INLET AND CONNECT
 DROP INLET H = 5'-11"
 TYPE MO INLET = 4' DIA.
 TYPE C INLET = 4' X 3'
 18" R.C. PIPE (CLASS III)(TYPE 3) = 92 LIN. FT.
 18" SLPCCS PIPE (TYPE 2) = 92 LIN. FT.

STA. 218+35 CONSTRUCT
 TYPE 3 WHEELCHAIR RAMP ON LT.
 = 5.6 SQ. YDS.

STA. 218+33.48
 END CARAWAY RD.



CARAWAY RD.
 PI = 214+13.52
 A = 00°38'04" RT.
 D = 00°15'00"
 T = 126.91'
 L = 253.81'
 PC = 212+86.61
 PT = 215+40.43
 NO SUPERELEVATION

STA. 215+60 CONSTRUCT
 APPROACH ON RT. = 5 CU. YD. UNC. EXC.

STA. 216+20 CONSTRUCT
 DROP INLET ON RT.
 AND 24" X 240' PIPE OUTLET
 CONNECT TO DROP INLET @ STA. 213+75 RT.
 DROP INLET H = 3'-11"
 TYPE MO INLET = 4' DIA.
 TYPE C INLET = 4' X 3'
 24" R.C. PIPE (CLASS III)(TYPE 3) = 240 LIN. FT.
 24" SLPCCS PIPE (TYPE 2) = 240 LIN. FT.

STA. 218+00 CONSTRUCT
 APPROACH ON RT. = 5 CU. YD. UNC. EXC.

STA. 218+15 IN PLACE
 DROP INLET ON RT.
 AND 18" X 12' OUTLET
 REMOVE

STA. 218+30 CONSTRUCT
 DROP INLET ON RT.
 AND 24" X 206' PIPE OUTLET
 CONNECT TO DROP INLET @ STA. 216+20 RT.
 DROP INLET H = 4'-4"
 TYPE MO INLET = 4' DIA.
 TYPE C INLET = 4' X 3'
 24" R.C. PIPE (CLASS III)(TYPE 3) = 206 LIN. FT.
 24" SLPCCS PIPE (TYPE 2) = 206 LIN. FT.

STA. 218+45 CONSTRUCT
 TYPE 3 WHEELCHAIR RAMP ON RT.
 = 5.5 SQ. YDS.

STA. 219+20 IN PLACE
 DROP INLET ON RT.
 AND 24" X 564' OUTLET
 RETAIN DROP INLET
 REMOVE OUTLET AND CONSTRUCT
 24" X 84' PIPE OUTLET
 CONNECT TO DROP INLET @ STA. 218+30 RT.
 24" R.C. PIPE (CLASS III)(TYPE 3) = 84 LIN. FT.
 24" SLPCCS PIPE (TYPE 2) = 84 LIN. FT.

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CARAWAY RD.

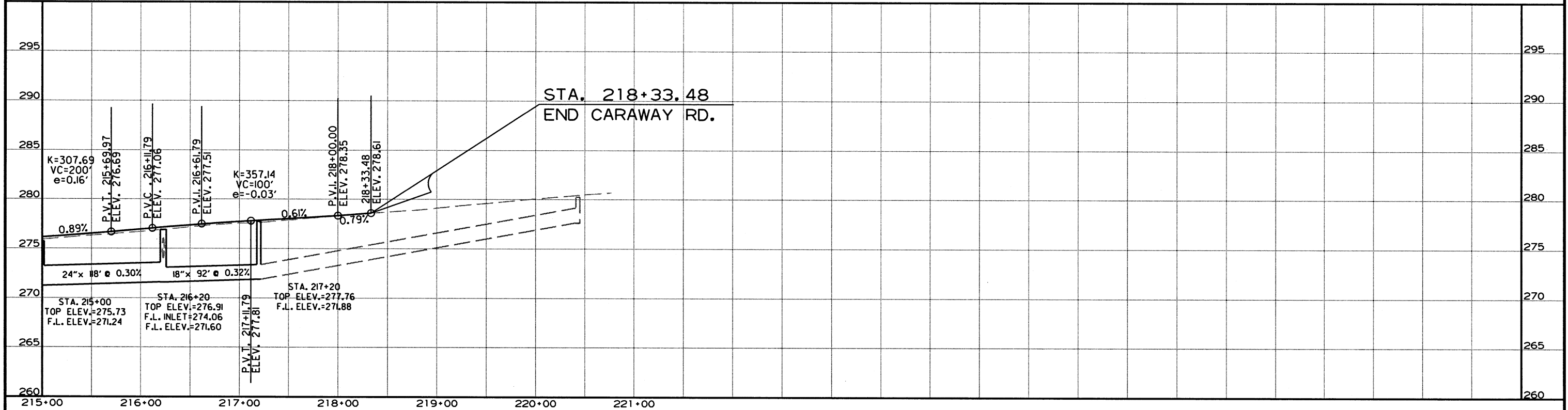
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		41	88



2 PLAN AND PROFILE SHEETS

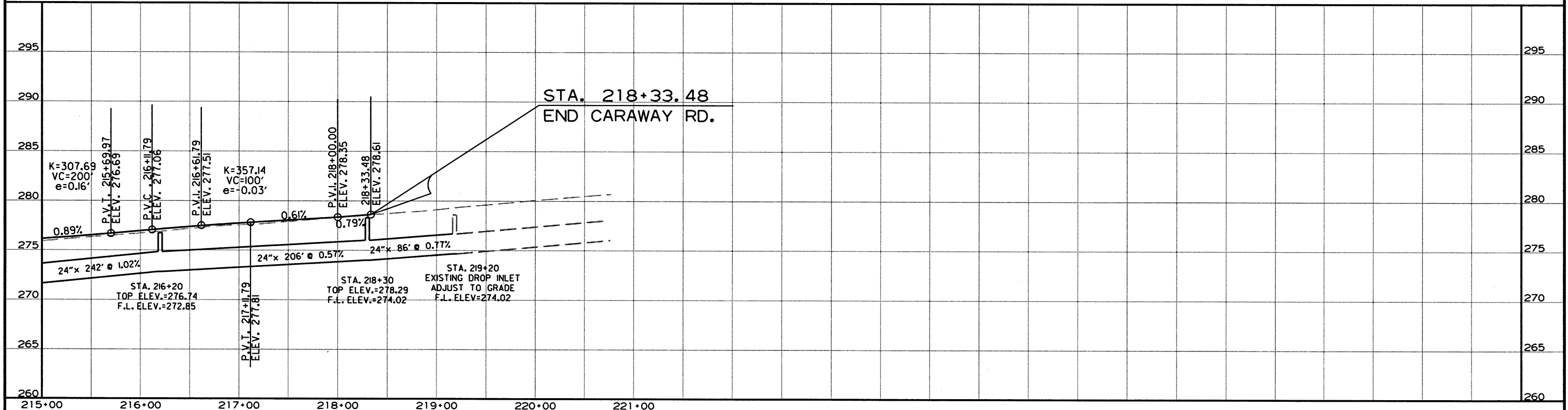
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

LEFT SIDE OF CARAWAY RD.



REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

RIGHT SIDE OF CARAWAY RD.

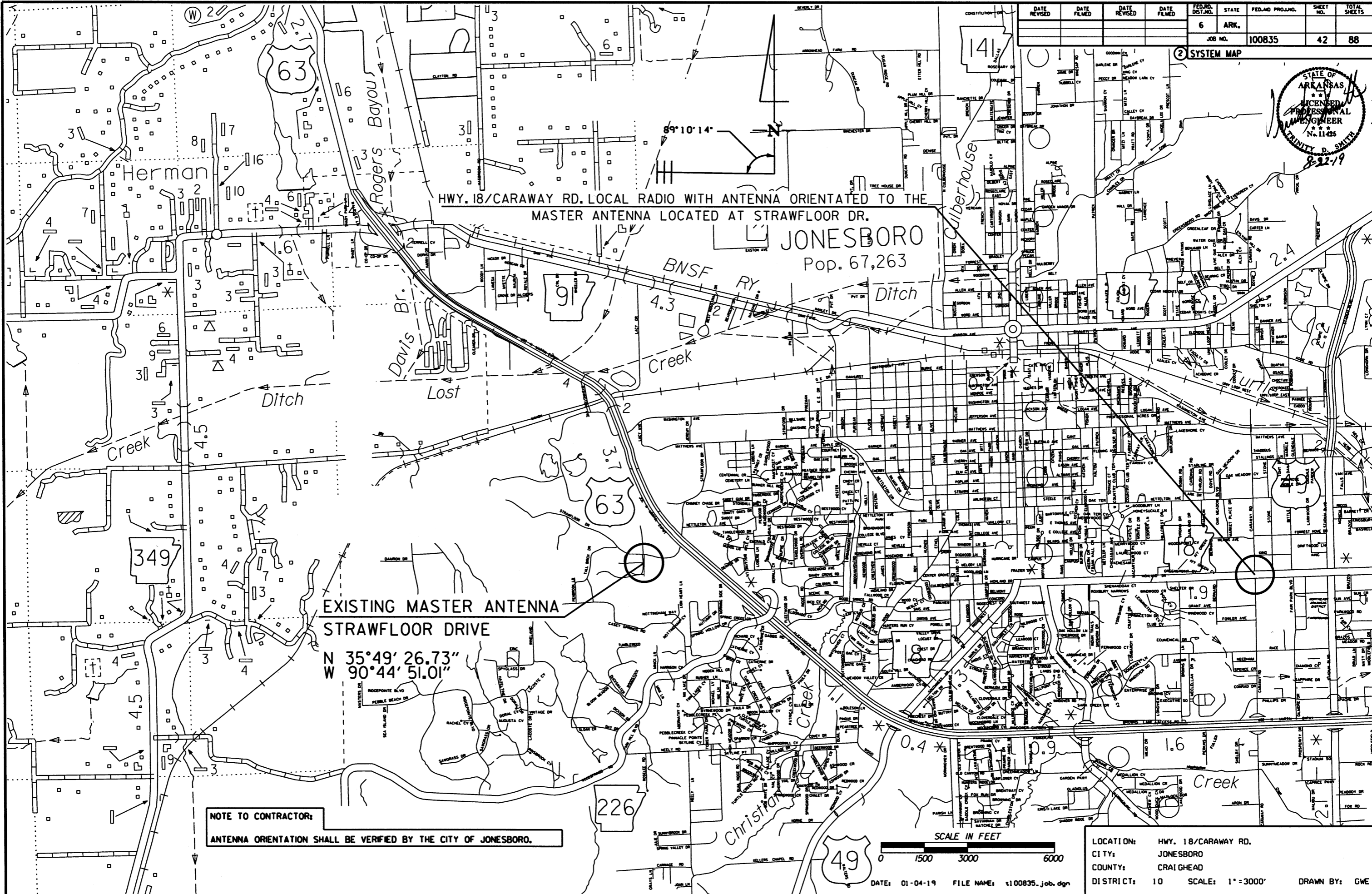
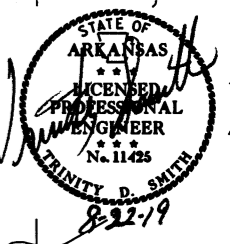


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				6	ARK.			
JOB NO. 100835							42	88

2 SYSTEM MAP



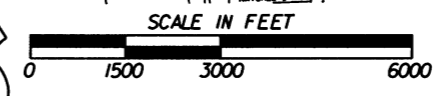
HWY. 18/CARAWAY RD. LOCAL RADIO WITH ANTENNA ORIENTATED TO THE MASTER ANTENNA LOCATED AT STRAWFLOOR DR.

JONESBORO
Pop. 67,263

EXISTING MASTER ANTENNA
STRAWFLOOR DRIVE

N 35°49' 26.73"
W 90°44' 51.01"

NOTE TO CONTRACTOR:
ANTENNA ORIENTATION SHALL BE VERIFIED BY THE CITY OF JONESBORO.



SCALE IN FEET
DATE: 01-04-19 FILE NAME: t100835_job.dgn

LOCATION: HWY. 18/CARAWAY RD.
CITY: JONESBORO
COUNTY: CRAIGHEAD
DISTRICT: 10 SCALE: 1" = 3000' DRAWN BY: GWE

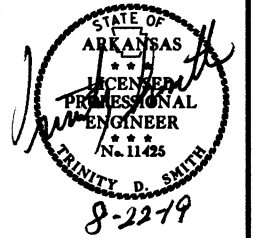
DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 100835	43	88

② TRAFFIC SIGNAL NOTES

TRAFFIC SIGNAL NOTES:

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2017) NATIONAL ELECTRICAL CODE, NFPA 101 (CURRENT EDITION) LIFE SAFETY CODE, STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.
- EXTEND GREEN EQUIPMENT GROUNDING CONDUCTOR (E.G.C.) FROM GROUND BAR AT MAIN BREAKER TO CONTROL PANEL AND TO FIRST POLE. SOLIDLY BOND E.G.C. 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.
- ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAIN-TIGHT 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 A.W.G. USE RATED, WITH GROUND TYPICAL), AND PERFORM WIRING TO TAP INTO THE CITY'S/ COUNTY'S MAIN BREAKER AS PART OF THIS CONTRACT. CONDUIT IS PAID FOR AS A SEPARATE ITEM OF THIS CONTRACT. TWO CIRCUIT BREAKERS, CONSIDERED SUBSIDIARY TO THE CONTROL EQUIPMENT, ARE NEEDED WHERE STREET LIGHTING IS INCLUDED. AS PART OF THE SIGNAL INSTALLATION, STREET LIGHTING CIRCUIT (2c#12 A.W.G. 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.
- CONTRACTOR SHALL CONNECT A SEPARATE NEUTRAL FOR EACH LOAD SWITCH REPRESENTED ON EACH SIGNAL POLE.
- TRAFFIC CONTROLLER CABINET AND LAYOUT SHALL BE SUCH THAT IT IS NOT NECESSARY TO SHUT DOWN POWER OR REMOVE LOAD SWITCHES IN ORDER TO EASILY TEST OR MODIFY DETECTOR INPUTS TO THE CONTROLLER.
- CONTROLLER CABINET SHALL BE WIRED SUCH THAT DURING FLASH OPERATIONS POWER TO THE LOAD SWITCHES CANNOT BACKFEED TO LOAD SWITCH POWER BUSS.
- ALL PARTS OF THIS INSTALLATION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, STANDARD DRAWINGS AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
- CONDUIT INSTALLED UNDER ROADWAY SURFACES SHALL BE INSTALLED BY PUSHING OR BORING METHODS. IF THE ENGINEER DETERMINES THIS IS NOT FEASIBLE, THEN A TRENCHING METHOD AS SHOWN IN THE STANDARD DRAWINGS MAY BE USED.
- TRAFFIC SIGNAL POLES SHALL BE GALVANIZED. BACKPLATES SHALL BE SUPPLIED FOR ALL SIGNAL HEADS.
- PAVEMENT MARKING SHOWN FOR REFERENCE ONLY. SEE PERMANENT PAVEMENT MARKING DETAILS.
- 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 STANDARD DRAWING). PAYMENT WILL BE INCLUDED IN SECTION 714 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.
- ALL CONCRETE PULL BOXES SHALL BE (TYPE 2 HD) UNLESS OTHERWISE INDICATED. ALL CONDUIT SHALL BE THREE (3") INCH DIAMETER UNLESS SPECIFIED ON PLANS.
- CONTRACTOR SHALL NOTIFY ALL EXISTING UTILITY OWNERS BEFORE BEGINNING WORK ON THIS PROJECT.
- LUMINAIRE ASSEMBLIES SHALL BE OF THE FULL CUTOFF TYPE.
- 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.
- THE LOCAL RADIO WITH ANTENNA SHALL BE COMPATIBLE WITH THE EXISTING CLOSED LOOP COORDINATION SYSTEM IN THE CITY/COUNTY.

- 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, THIRTY-EIGHT (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 TWENTY-ONE (21') FEET SHOULD BE USED TO DETERMINE UTILITY CLEARANCE ABOVE THE TRAFFIC SIGNAL MAST ARM. AN ADDITIONAL SIX (6') FEET SHOULD BE USED DIRECTLY ABOVE "VIDEO DETECTOR" AT LOCATIONS SHOWN ON THE SIGNAL PLANS.
- THE DESIRABLE MINIMUM DISTANCE FROM THE FACE OF ROADWAY CURB OR SHOULDER EDGE TO THE FACE OF NON-BREAKAWAY POLE OR OBSTRUCTION IS SIX (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.
- 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.
- 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 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.
- CONTROLLER CABINET LAYOUT AND ORIENTATION SHALL CONFORM TO IMSA STANDARDS.
- 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.
- TRAFFIC SIGNAL CONTRACTOR SHALL NOTIFY THE 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.
- 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.
- DOOR PANEL TEST PUSH BUTTONS SHALL ACTUATE INDICATED PHASES. DETECTOR ASSIGNMENTS AND/OR SIDE PANEL JUMPERS MAY REQUIRE MODIFICATION.
- ALL SYSTEM DETECTOR RACKS AND ASSOCIATED EQUIPMENT SHALL BE PROTECTED BY THE MAIN CONTROLLER CABINET POWER SURGE PROTECTION.
- IN PULL BOXES, POLE BASES, JUNCTION BOXES AND CONTROLLER CABINETS, THE DIRECTION OF EACH CABLE RUN SHALL BE INDICATED BY ATTACHING A PERMANENT TAG OF RIGID PLASTIC OR NON-FERROUS METAL TO THE CONDUIT. TAGS SHALL BE EMBOSSED, STAMPED OR ENGRAVED WITH LETTERS 1/4" OR GREATER IN HEIGHT AND SECURED TO THE CONDUIT WITH NYLON OR PLASTIC TIES. IN INSTANCES WHERE THE CONDUIT OR CONDUIT ENTRANCES ARE NOT VISIBLE OR ACCESSIBLE, A DIRECTION TAG SHALL BE ATTACHED TO EACH CABLE.
- THE CONTRACTOR SHALL PERFORM ALL WORK POSSIBLE THAT WILL MINIMIZE THE TIME THAT THE TRAFFIC SIGNAL IS OUT OF OPERATION. IF, IN THE OPINION OF THE ENGINEER, TRAFFIC CONDITIONS WARRANT THE CONTRACTOR SHALL PROVIDE FLAGMEN TO DIRECT TRAFFIC WHILE THE TRAFFIC SIGNAL IS OUT OF OPERATION.
- ALL NON-CONDUIT RUNS SHALL HAVE BELL RING FITTINGS INSTALLED ON THE TERMINATING ENDS OF THE CONDUIT. THIS INCLUDES PULL BOXES, POLE BASES, AND TRAFFIC SIGNAL CABINETS.



LOCATION: HWY. 18/CARAWAY RD.
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: N/A DRAWN BY: GWE

DATE: 08-22-19 FILE NAME: t100835_job.dgn

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	100835	44 88

② SUMMARY OF TRAFFIC SIGNAL QUANTITIES



SUMMARY OF TRAFFIC SIGNAL QUANTITIES

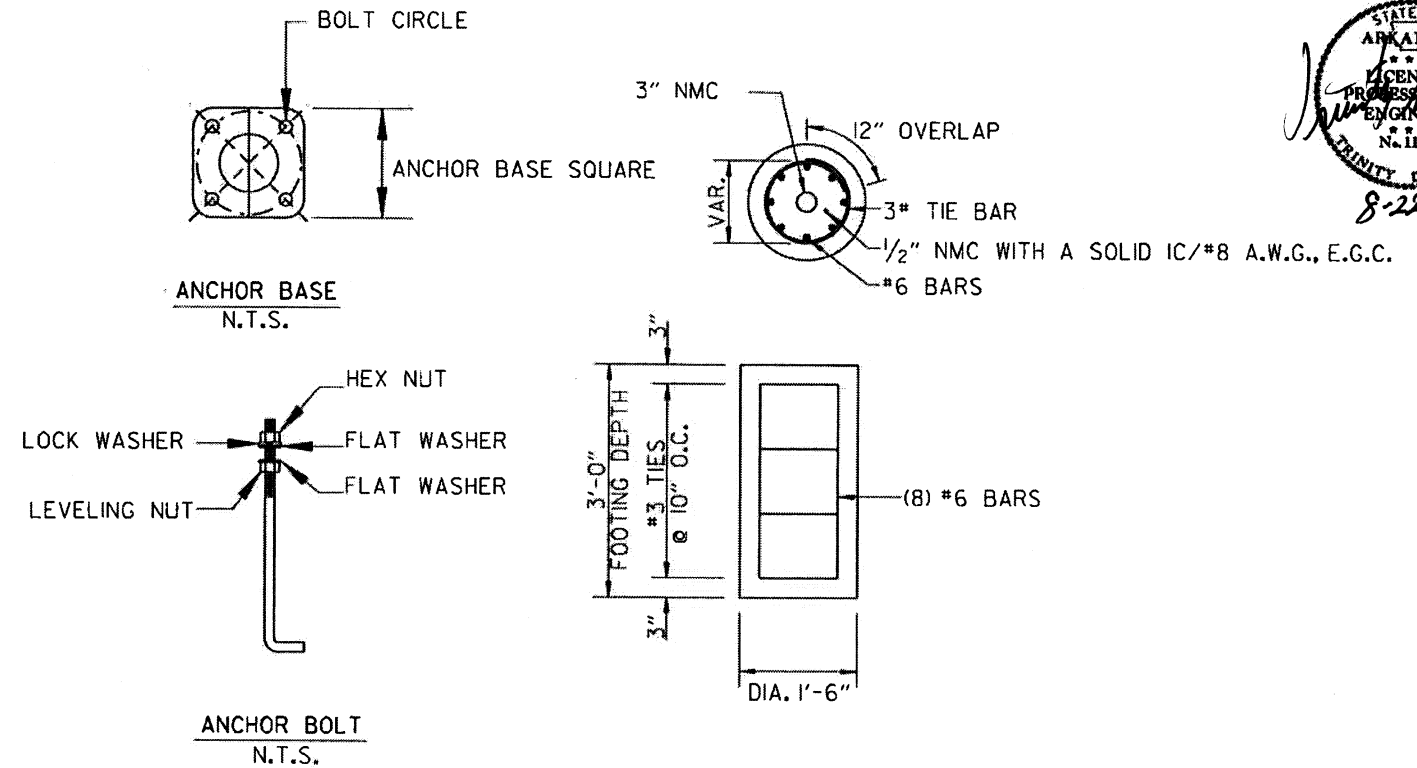
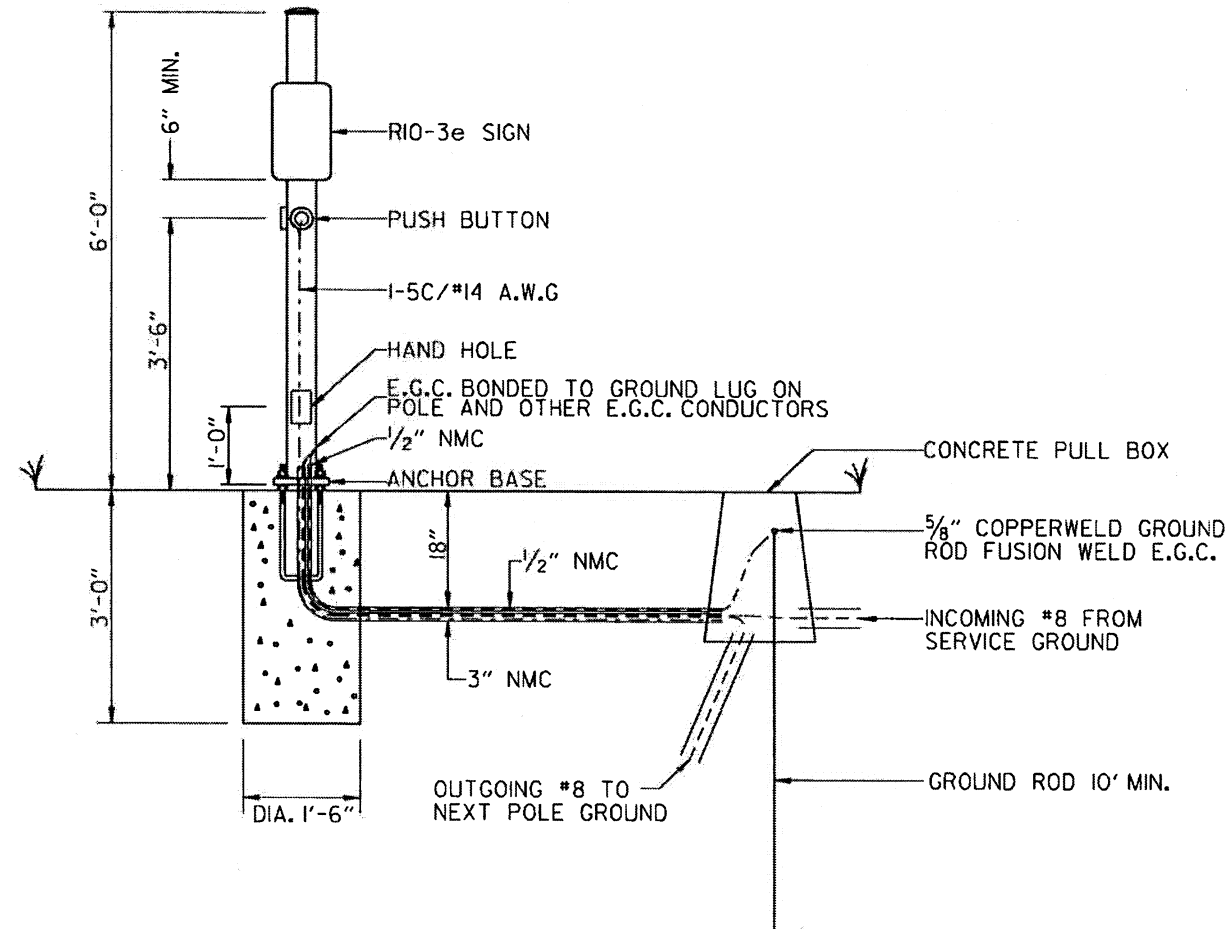
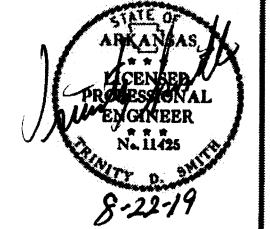
ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	2	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	2	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	140	LIN. FT.
SP	ANTENNA SUPPORT (SHOE BASE, 50' HT.)	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	28	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	8	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	7006	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	759	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	765	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	250	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	30	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	959	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	60	LIN. FT.
709	GALVANIZED STEEL CONDUIT (3")	70	LIN. FT.
710	NON-METALLIC CONDUIT (2")	30	LIN. FT.
710	NON-METALLIC CONDUIT (3")	828	LIN. FT.
711	CONCRETE PULL BOX (TYPE 2)	4	EACH
711	CONCRETE PULL BOX (TYPE 2 HD)	2	EACH
SS & 713	SPAN WIRE ASSEMBLY	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56')	2	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (58')	2	EACH
SP	LUMINAIRE ASSEMBLY	4	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	8	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	1.00	LUMP SUM
716	TREATED WOOD POLE (CLASS 2, 45')	4	EACH
SP	18" STREET NAME SIGN	4	EACH
* SP & 733	VIDEO DETECTOR (CLR)	8	EACH
SP & 733	VIDEO DETECTOR (IP)	9	EACH
733	VIDEO CABLE	1894	LIN. FT.
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	2190	LIN. FT.
* SP & 733	VIDEO PROCESSOR, EDGE CARD (2 CAMERA)	4	EACH
SP & 733	VEHICLE DETECTOR RACK (16 CHANNEL)	2	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	2	EACH
SP & 733	VIDEO PROCESSOR, EDGE CARD IP (2 CAMERA)	5	EACH
SP	NET-SUBSCRIBER RADIO (5.8 GHZ, 32 MBPS)	2	EACH

* ONE SPARE VIDEO DETECTOR (IP) AND ONE SPARE VIDEO PROCESSOR, EDGE CARD IP (2 CAMERA) SHALL BE SUPPLIED.

LOCATION: HWY. 18/CARAWAY RD.
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 100835	45	88

2 PEDESTRIAN PUSH BUTTON PEDESTAL DETAIL



PEDESTRIAN PUSH BUTTON PEDESTAL DETAIL

NOTES:

EACH PEDESTRIAN PUSH BUTTON SHALL HAVE ONE RIO-3E SIGN ATTACHED TO THE POLE ABOVE THE BUTTON. ALL SIGNS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 723 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

ALL SIGN BLANKS SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209, ALLOY 5052-H38) WITH THICKNESS OF 0.100 INCH.

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.

CONSTRUCTION SPECIFICATIONS:
STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION) WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

POLE CAP - POLE CAPS SHALL BE PROVIDED, FABRICATED OF EITHER STEEL OR CAST ALUMINUM.

HAND HOLE - HAND HOLES SHALL BE 3 IN. X 5 IN. 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.

NUT COVERS - EACH POLE SHALL INCLUDE A BOLT DOWN NUT COVER FOR EACH ANCHOR BOLT.

GROUND ROD - A 10' X 5/8" GROUND ROD SHALL BE INSTALLED IN THE CONCRETE 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 CONCRETE PULL BOX AND CONDUCTOR BOX SHALL BE PAID SEPARATELY.

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.

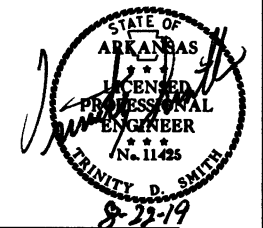
CONCRETE - ALL CONCRETE POLE FOUNDATION SHALL BE CLASS "S" OR GREATER.

DATE: 10-04-18 FILE NAME: t100835 Job.dgn

LOCATION: HWY. 18/CARAWAY RD.
CITY: JONESBORO
COUNTY: CRAIGHEAD
DISTRICT: 10 SCALE: N/A DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 100835	46	88

② SIGNALIZATION PLAN SHEET



STAGE 1 TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	1	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	1	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	40	LIN. FT.
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	12	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	3603	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	30	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (2C/6 A.W.G.)	30	LIN. FT.
709	GALVANIZED STEEL CONDUIT (2")	60	LIN. FT.
709	GALVANIZED STEEL CONDUIT (3")	70	LIN. FT.
710	NON-METALLIC CONDUIT (2")	30	LIN. FT.
711	CONCRETE PULL BOX (TYPE 2 HD)	1	EACH
SS & 713	SPAN WIRE ASSEMBLY	1	EACH
SP	SERVICE POINT ASSEMBLY (2 CIRCUITS)	1	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.50	LUMP SUM
716	TREATED WOOD POLE (CLASS 2, 45')	4	EACH
SP & 733	VIDEO DETECTOR (CLR)	8	EACH
733	VIDEO CABLE	1894	LIN. FT.
733	VIDEO MONITOR (CLR)	1	EACH
SP & 733	VIDEO PROCESSOR, EDGE CARD (2 CAMERA)	4	EACH
SP & 733	VEHICLE DETECTOR RACK (16 CHANNEL)	1	EACH
SP	NET-SUBSCRIBER RADIO (5.8 GHZ, 32 MBPS)	1	EACH

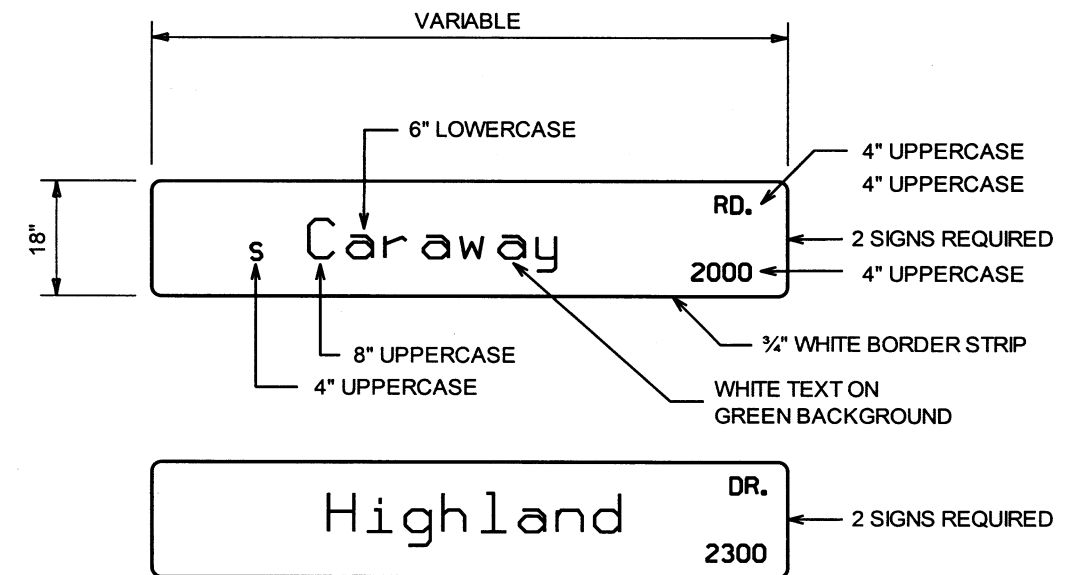
STAGE 1
 INSTALL ALL TEMPORARY TRAFFIC SIGNAL EQUIPMENT, INCLUDING THE PERMANENT SERVICE POINT ASSEMBLY (2 CIRCUITS) WITH ALL ASSOCIATED ITEMS AS SHOWN ON THE STAGE 1 TEMPORARY TRAFFIC SIGNAL PLANS AND REMOVE ALL EXISTING TRAFFIC SIGNAL EQUIPMENT.
 MAINTAIN THIS TRAFFIC SIGNAL CONFIGURATION AS SHOWN ON THE TEMPORARY TRAFFIC SIGNAL PLANS FOR STAGES 1, 2, AND 3. (REFER TO MAINTENANCE OF TRAFFIC DETAILS.)

TRAFFIC SIGNAL QUANTITIES

ITEM NUMBER	ITEM	QUANTITY	UNIT
SP & 701	SYSTEM LOCAL CONTROLLER TS2-TYPE 2, E-NET (8 PHASES)	1	EACH
SP	ETHERNET SWITCH, T100 HARDENED (8-PORT)	1	EACH
SP	E-NET CABLE (EXTERIOR CAT 5E)	100	LIN. FT.
SP	ANTENNA SUPPORT (SHOE BASE, 50' HT.)	1	EACH
SP & 706	TRAFFIC SIGNAL HEAD, LED, (3 SECTION, 1 WAY)	16	EACH
SP & 707	COUNTDOWN PEDESTRIAN SIGNAL HEAD, LED	8	EACH
708	TRAFFIC SIGNAL CABLE (5C/14 A.W.G.)	3403	LIN. FT.
708	TRAFFIC SIGNAL CABLE (20C/14 A.W.G.)	759	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/8 A.W.G., E.G.C.)	735	LIN. FT.
SP	ELECTRICAL CONDUCTORS-IN-CONDUIT (1C/12 A.W.G., E.G.C.)	250	LIN. FT.
SP	ELECTRICAL CONDUCTORS FOR LUMINAIRES	959	LIN. FT.
710	NON-METALLIC CONDUIT (3")	828	LIN. FT.
711	CONCRETE PULL BOX (TYPE 2)	4	EACH
711	CONCRETE PULL BOX (TYPE 2 HD)	1	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (56')	2	EACH
SS & 714	TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION (58')	2	EACH
SP	LUMINAIRE ASSEMBLY	4	EACH
SS & 715	TRAFFIC SIGNAL PEDESTAL POLE WITH FOUNDATION	8	EACH
SP	REMOVAL OF TRAFFIC SIGNAL EQUIPMENT	0.50	LUMP SUM
SP	18" STREET NAME SIGN	4	EACH
SP & 733	VIDEO DETECTOR (IP)	9	EACH
SP & 733	VIDEO CABLE (EXTERIOR CAT 5E)	2190	LIN. FT.
733	VIDEO MONITOR (CLR)	1	EACH
SP & 733	VEHICLE DETECTOR RACK (16 CHANNEL)	1	EACH
SP & 733	CENTRAL CONTROL UNIT (8 CHANNEL)	2	EACH
SP & 733	VIDEO PROCESSOR, EDGE CARD IP (2 CAMERA)	5	EACH
SP	NET-SUBSCRIBER RADIO (5.8 GHZ, 32 MBPS)	1	EACH

* ONE SPARE VIDEO DETECTOR (IP) AND ONE SPARE VIDEO PROCESSOR, EDGE CARD IP (2 CAMERA) SHALL BE SUPPLIED.
 PERMANENT TRAFFIC SIGNAL:
 THE TEMPORARY TRAFFIC SIGNAL INSTALLATION FOR STAGES 1, 2, AND 3 SHALL REMAIN IN OPERATION UNTIL THE PERMANENT TRAFFIC SIGNAL IS COMPLETED AND OPERATIONAL. INSTALL THE PERMANENT TRAFFIC SIGNAL, MAINTAIN THE SERVICE POINT ASSEMBLY (2 CIRCUITS) WITH ALL ASSOCIATED EQUIPMENT THAT WAS INSTALLED IN THE STAGE 1 TEMPORARY TRAFFIC SIGNAL PLANS, AND REMOVE THE TEMPORARY TRAFFIC SIGNAL COMPONENTS THAT WERE INSTALLED ON THE STAGE 1 TEMPORARY TRAFFIC SIGNAL PLANS.
 (REFER TO PERMANENT TRAFFIC SIGNAL PLANS.)

OVERHEAD STREET NAME
 MARKER STANDARD
 MAST ARM MOUNTED



NOTES:

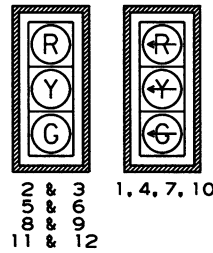
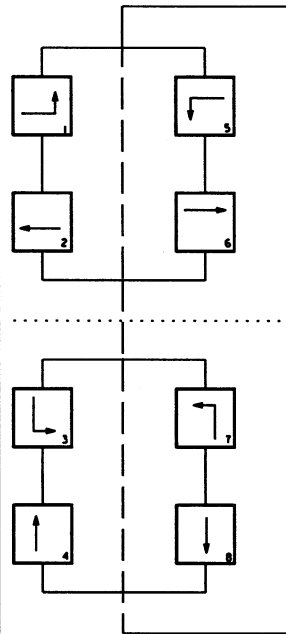
- REFLECTIVE SHEETING SHALL COMPLY WITH ASTM 4956 TYPE 8 OR 9 REFLECTIVE SHEETING. SHEETING AND LEGEND SHALL BE APPLIED IN SUCH A MANNER TO PROVIDE WRINKLE AND BUBBLE FREE SURFACES. APPLICATION OF SHEETING IS CAUSE FOR REJECTION OF MATERIALS DUE TO WORKMANSHIP.
- ALUMINUM SIGN BLANK SHALL BE ALLOY 6061-T6 OR 5052-H38. THE ALUMINUM SIGN SHALL BE ALSO ALODIZED. 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/ COUNTY.
- WHEN CROSSROAD HAS TWO NAMES, THE SIGN FOR THE CROSSROAD TO THE LEFT MAY BE INSTALLED ON THE BACKSIDE OF THE MAST ARM ON THE NEARSIDE LEFT POLE. SEE STANDARD DRAWING SHEET FOR MORE INFORMATION FOR MOUNTING ON MAST ARM ASSEMBLY.
- THE SERIES C 2000 STANDARD ALPHABET SHALL BE USED FOR ALL LETTERS.

LOCATION: HWY. 18/CARAWAY RD.
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: N/A DRAWN BY: GWE

PHASING DIAGRAM

SIGNAL FACES

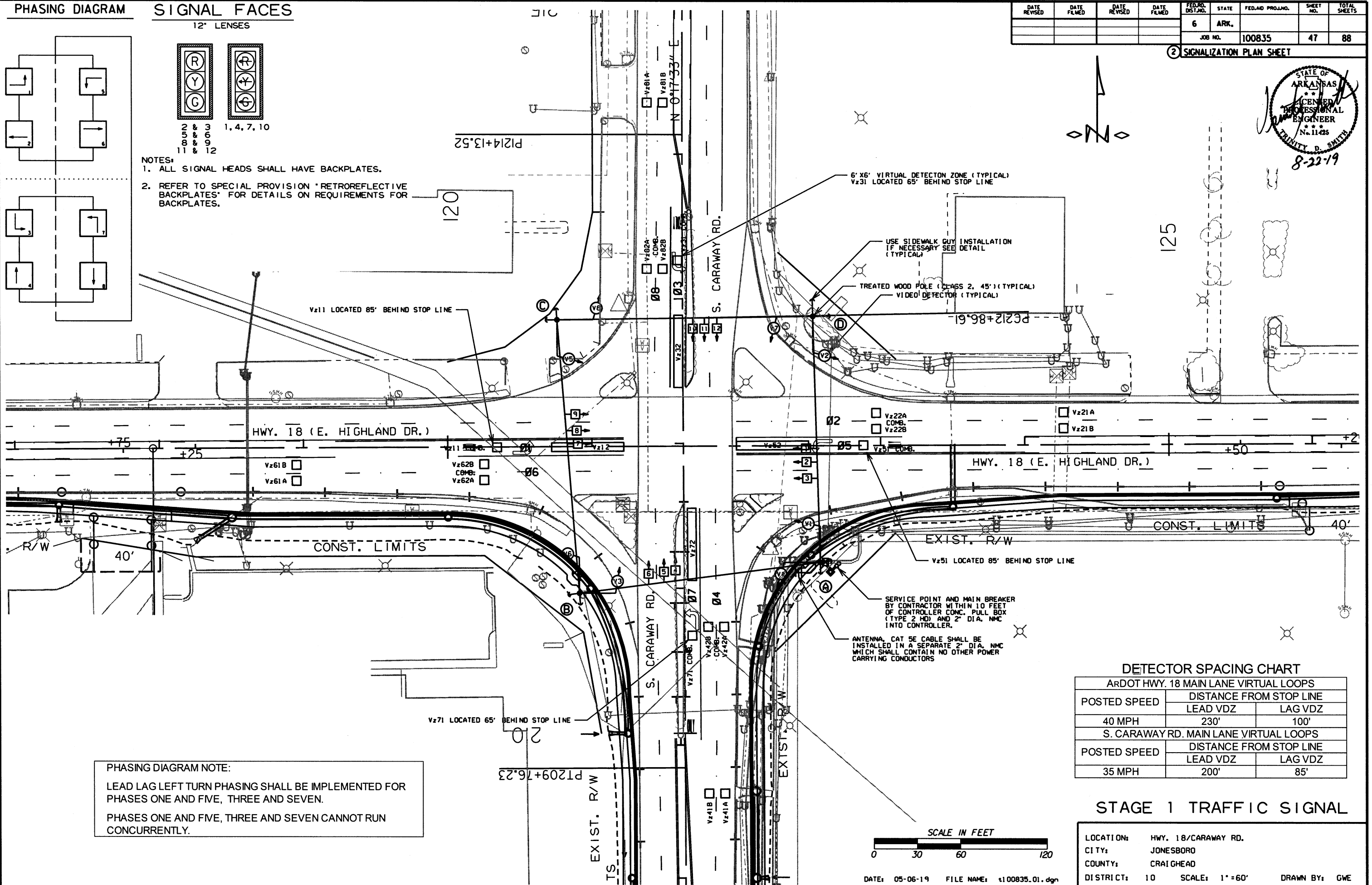
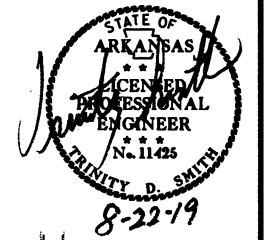
12" LENSES



- NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
 2. REFER TO SPECIAL PROVISION 'RETROREFLECTIVE BACKPLATES' FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		47	88

2 SIGNALIZATION PLAN SHEET



PHASING DIAGRAM NOTE:
 LEAD LAG LEFT TURN PHASING SHALL BE IMPLEMENTED FOR PHASES ONE AND FIVE, THREE AND SEVEN.
 PHASES ONE AND FIVE, THREE AND SEVEN CANNOT RUN CONCURRENTLY.

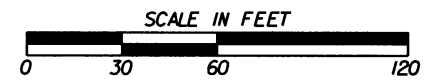
DETECTOR SPACING CHART

ARDOT HWY. 18 MAIN LANE VIRTUAL LOOPS

POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'

S. CARAWAY RD. MAIN LANE VIRTUAL LOOPS

POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	200'	85'



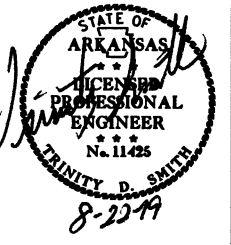
DATE: 05-06-19 FILE NAME: t100835.01.dgn

STAGE 1 TRAFFIC SIGNAL

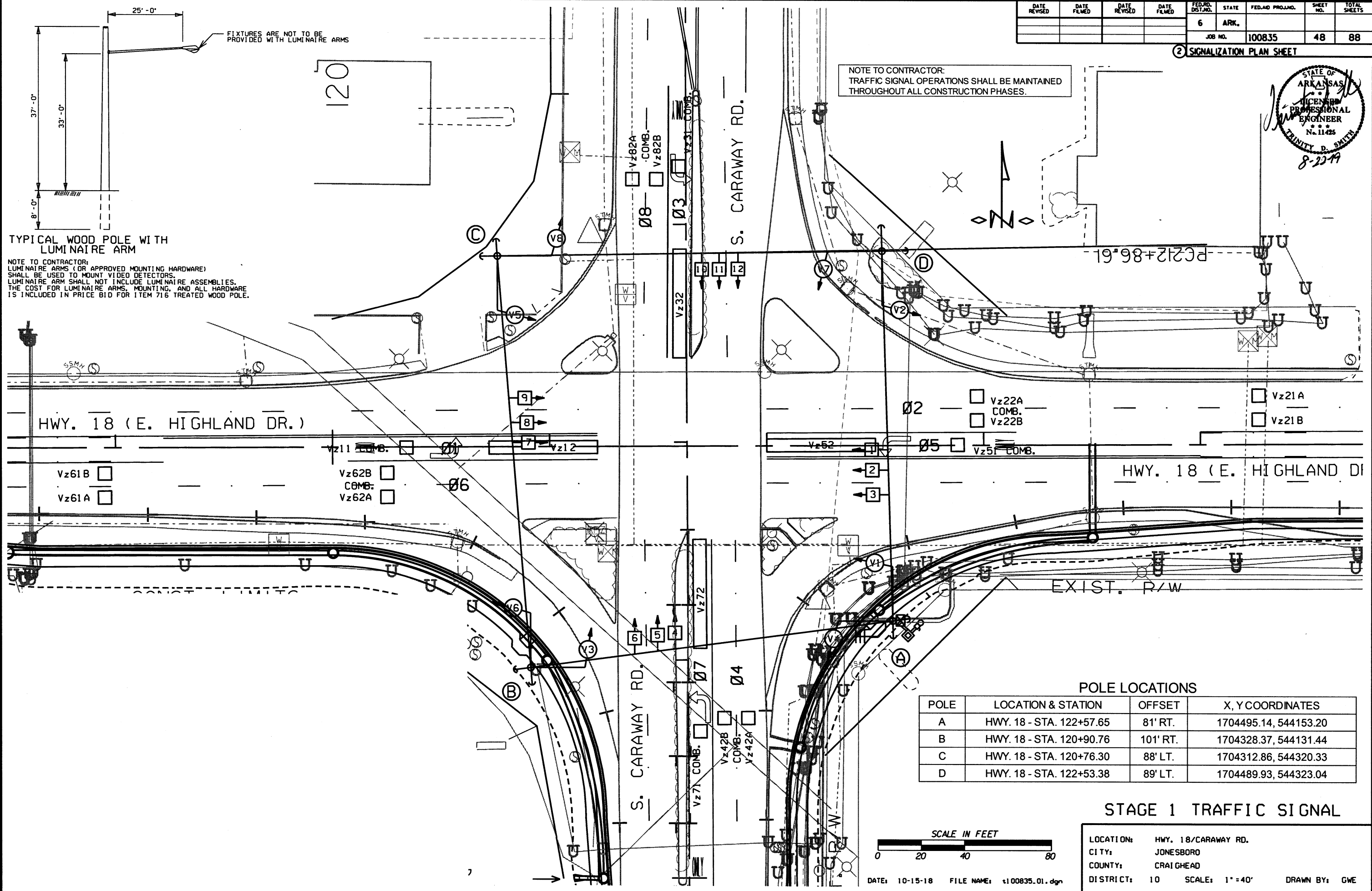
LOCATION: HWY. 18/CARAWAY RD.
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: 1" = 60' DRAWN BY: GWE

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		48	88
JOB NO. 100835								

2 SIGNALIZATION PLAN SHEET



NOTE TO CONTRACTOR:
TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED
THROUGHOUT ALL CONSTRUCTION PHASES.

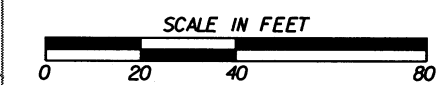


POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 18 - STA. 122+57.65	81' RT.	1704495.14, 544153.20
B	HWY. 18 - STA. 120+90.76	101' RT.	1704328.37, 544131.44
C	HWY. 18 - STA. 120+76.30	88' LT.	1704312.86, 544320.33
D	HWY. 18 - STA. 122+53.38	89' LT.	1704489.93, 544323.04

STAGE 1 TRAFFIC SIGNAL

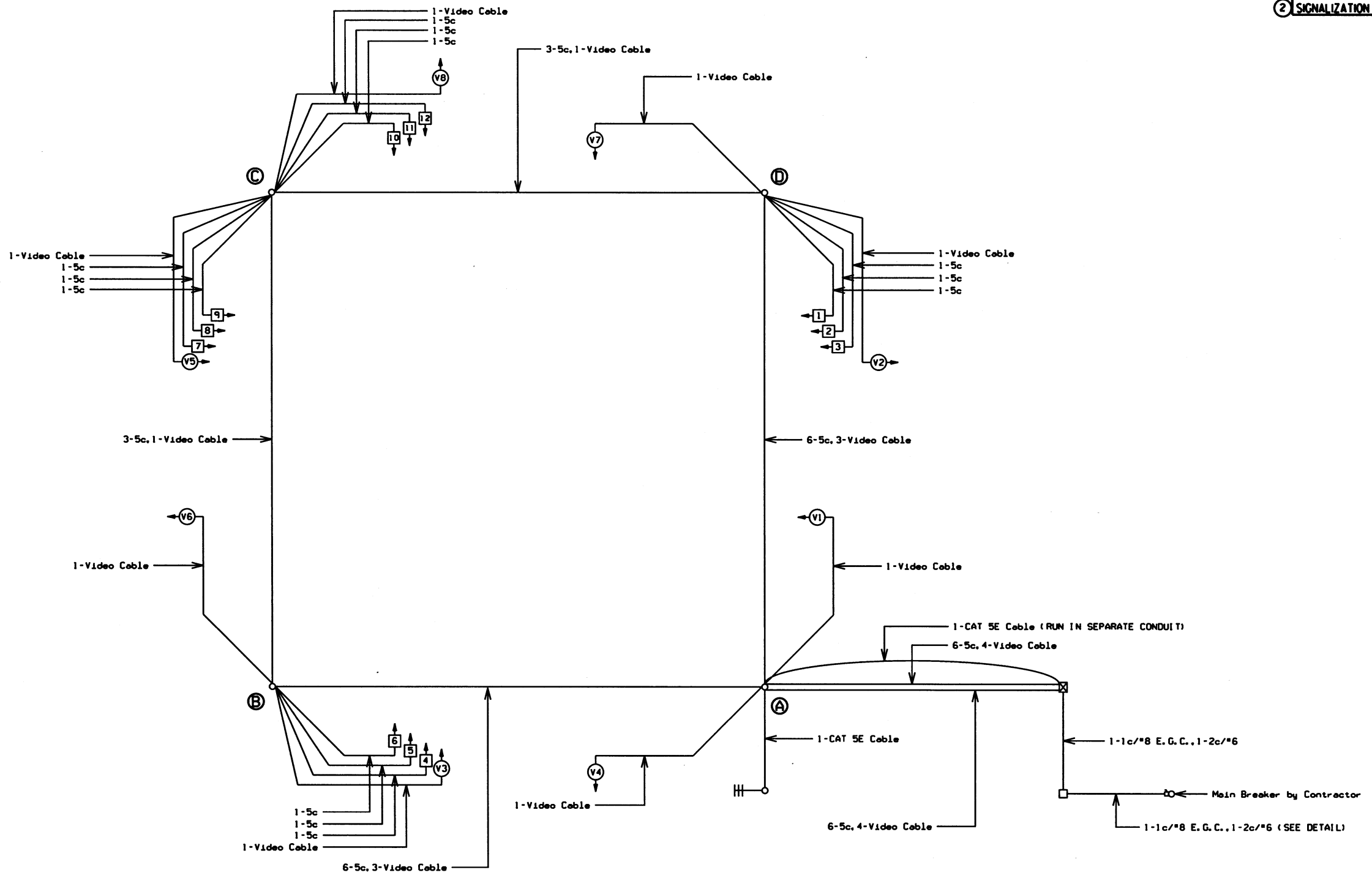
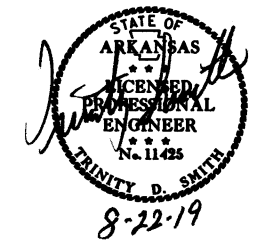
LOCATION: HWY. 18/CARAWAY RD.
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: 1" = 40' DRAWN BY: GWE



DATE: 10-15-18 FILE NAME: t100835.01.dgn

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 100835							49	88

2 SIGNALIZATION PLAN SHEET



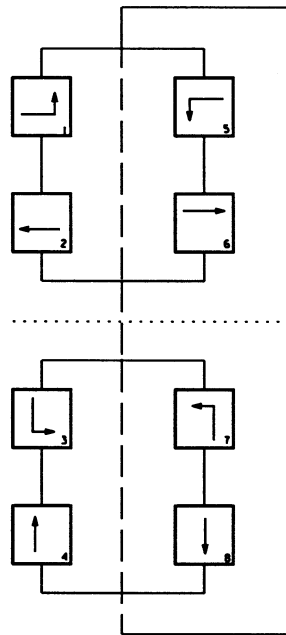
STAGE 1, 2, AND 3 TEMPORARY WIRING DIAGRAM

- NOTES TO CONTRACTOR:
1. ALL DETECTOR RACK CHANNELS, INCLUDING UNUSED, SHALL BE BROUGHT TO TERMINAL STRIP IN DETECTOR AREA OF CABINET.
 2. THE LOCAL GOVERNMENT SHALL BE RESPONSIBLE FOR PROVIDING POWER TO THE SERVICE POINT.

LOCATION:	HWY. 18/CARAWAY RD.
CITY:	JONESBORO
COUNTY:	CRAIGHEAD
DISTRICT:	10
SCALE:	N/A
DRAWN BY:	GWE

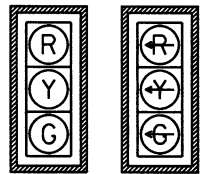
DATE: 10-15-18 FILE NAME: t100835.01.dgn

PHASING DIAGRAM



SIGNAL FACES

12" LENSES



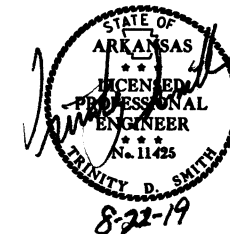
2 & 3
6 & 9
11 & 12
1, 4, 7, 10

NOTES:

1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION 'RETROREFLECTIVE BACKPLATES' FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
							JOB NO. 100835	50 88

② SIGNALIZATION PLAN SHEET



STAGE 1, 2, AND 3 DETECTOR CHART

JONESBORO - HWY. 18/CARAWAY RD. DETECTOR SYSTEM DESCRIPTION: JOB 100835											
DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
DET. ID #	LOCATION DIRECTION	TPYE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #	MASTER SYSTEM DETECTOR NUMBERS		
Vz11	EB LEFT TURN FAR	COMB.			1	V9	1	1		CAMERA V1	23"
Vz12	EB LEFT TURN	LOCAL			2	V1	1			CAMERA V1	23"
Vz21 A&B	WB ADVANCE	LOCAL			5	V2	2			CAMERA V2	23"
Vz22 A&B	WB NEAR	COMB.			6	V10	2	2		CAMERA V5	23"
Vz31	SB LEFT TURN FAR	COMB.			9	V11	3	3		CAMERA V3	23"
Vz32	SB LEFT TURN	LOCAL			10	V3	3			CAMERA V3	23"
Vz41 A&B	NB ADVANCE	LOCAL			13	V4	4			CAMERA V4	23"
Vz42 A&B	NB NEAR	COMB.			14	V12	4	4		CAMERA V7	23"
Vz51	WB LEFT TURN FAR	COMB.			7	V13	5	5		CAMERA V5	23"
Vz52	WB LEFT TURN	LOCAL			8	V5	5			CAMERA V5	23"
Vz61 A&B	EB ADVANCE	LOCAL			3	V6	6			CAMERA V6	23"
Vz62 A&B	EB NEAR	COMB.			4	V14	6	6		CAMERA V1	23"
Vz71	NB LEFT TURN FAR	COMB.			15	V15	7	7		CAMERA V7	23"
Vz72	NB LEFT TURN	LOCAL			16	V7	7			CAMERA V7	23"
Vz81 A&B	SB ADVANCE	LOCAL			11	V8	8			CAMERA V8	23"
Vz82 A&B	SB NEAR	COMB.			12	V16	8	8		CAMERA V3	23"
										SPARE	

CONTROLLER INPUT ABBREVIATIONS:

- V = VEHICLE INPUT
- D = SYSTEM OR AUXILIARY INPUT
- P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION. THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE. EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

INTERVAL CHART

SIGNAL FACES	HWY. 18/CARAWAY RD.											FLASH SEQ.
	1+6	CLR.	2+5	CLR.	2+6	CLR.	3+8	CLR.	4+7	CLR.	4+8	
1	⬅	•	➡	➡	➡	➡	➡	➡	➡	➡	➡	➡
2&3	G	••	R	R	G	••	R	R	R	R	R	R
4	➡	➡	➡	➡	➡	➡	⬅	•	➡	➡	➡	➡
5&6	R	R	R	R	R	R	G	••	R	R	G	••
7	➡	➡	⬅	•	➡	➡	➡	➡	➡	➡	➡	➡
8&9	R	R	G	••	G	••	R	R	R	R	R	R
10	➡	➡	➡	➡	➡	➡	➡	➡	⬅	•	➡	➡
11&12	R	R	R	R	R	R	R	R	R	G	••	G

- DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
- DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE

PHASING DIAGRAM NOTE:

LEAD LAG LEFT TURN PHASING SHALL BE IMPLEMENTED FOR PHASES ONE AND FIVE, THREE AND SEVEN.

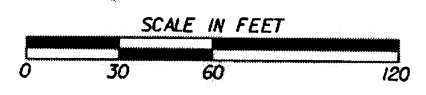
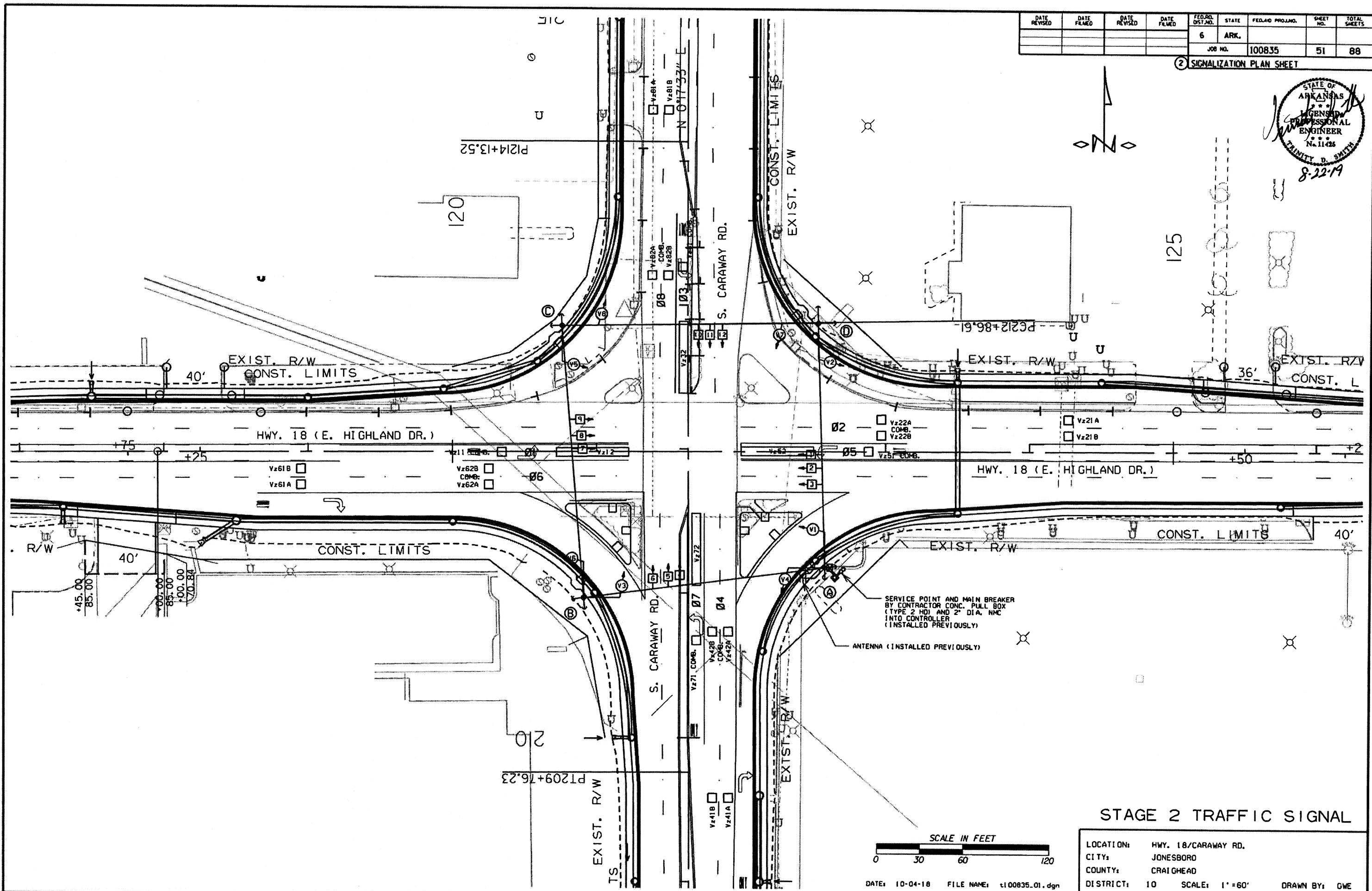
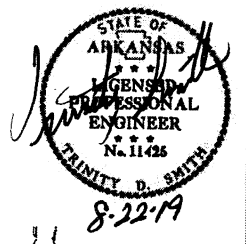
PHASES ONE AND FIVE, THREE AND SEVEN CANNOT RUN CONCURRENTLY.

STAGES 1, 2, AND 3 TRAFFIC SIGNAL CHARTS

LOCATION:	HWY. 18/CARAWAY RD.
CITY:	JONESBORO
COUNTY:	CRAIGHEAD
DISTRICT:	10
SCALE:	N/A
DRAWN BY:	GWE

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 100835							51	88

2 SIGNALIZATION PLAN SHEET



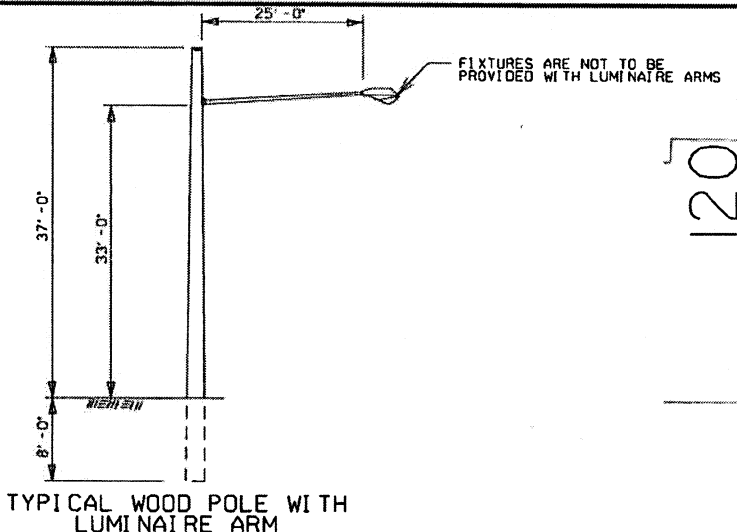
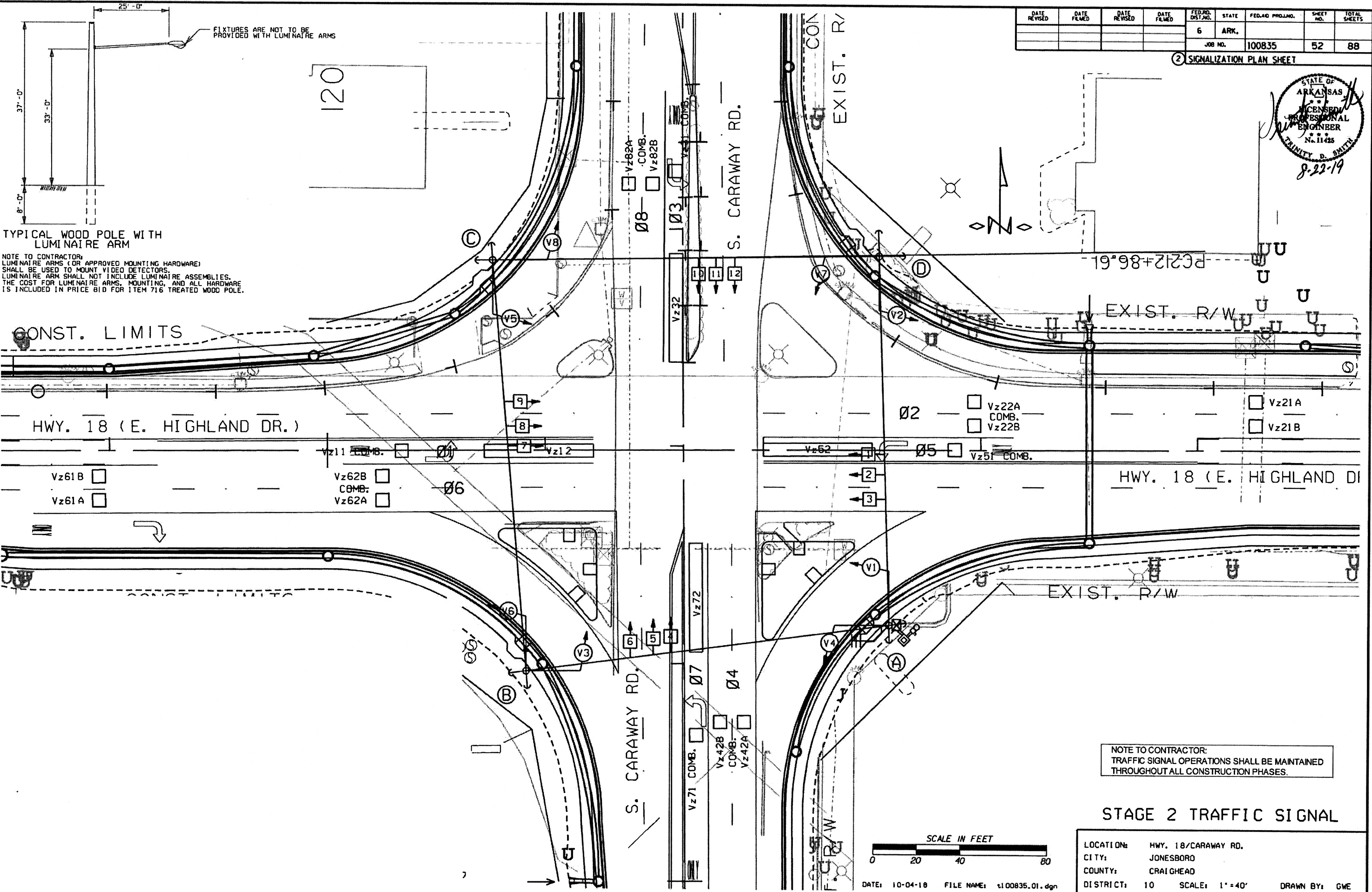
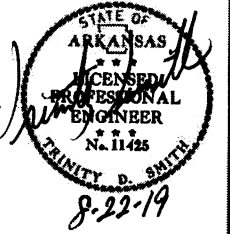
DATE: 10-04-18 FILE NAME: t100835-01.dgn

STAGE 2 TRAFFIC SIGNAL

LOCATION: HWY. 18/CARAWAY RD.
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 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.		52	88
JOB NO. 100835								

② SIGNALIZATION PLAN SHEET



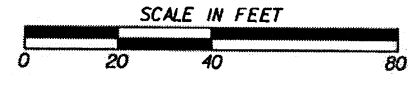
TYPICAL WOOD POLE WITH LUMINAIRE ARM
 NOTE TO CONTRACTOR:
 LUMINAIRE ARMS (OR APPROVED MOUNTING HARDWARE) SHALL BE USED TO MOUNT VIDEO DETECTORS.
 LUMINAIRE ARM SHALL NOT INCLUDE LUMINAIRE ASSEMBLIES.
 THE COST FOR LUMINAIRE ARMS, MOUNTING, AND ALL HARDWARE IS INCLUDED IN PRICE BID FOR ITEM 716 TREATED WOOD POLE.

CONST. LIMITS

HWY. 18 (E. HIGHLAND DR.)

- Vz61B
- Vz61A

- Vz62B
- COMB.
- Vz62A



DATE: 10-04-18 FILE NAME: t100835.01.dgn

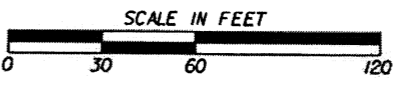
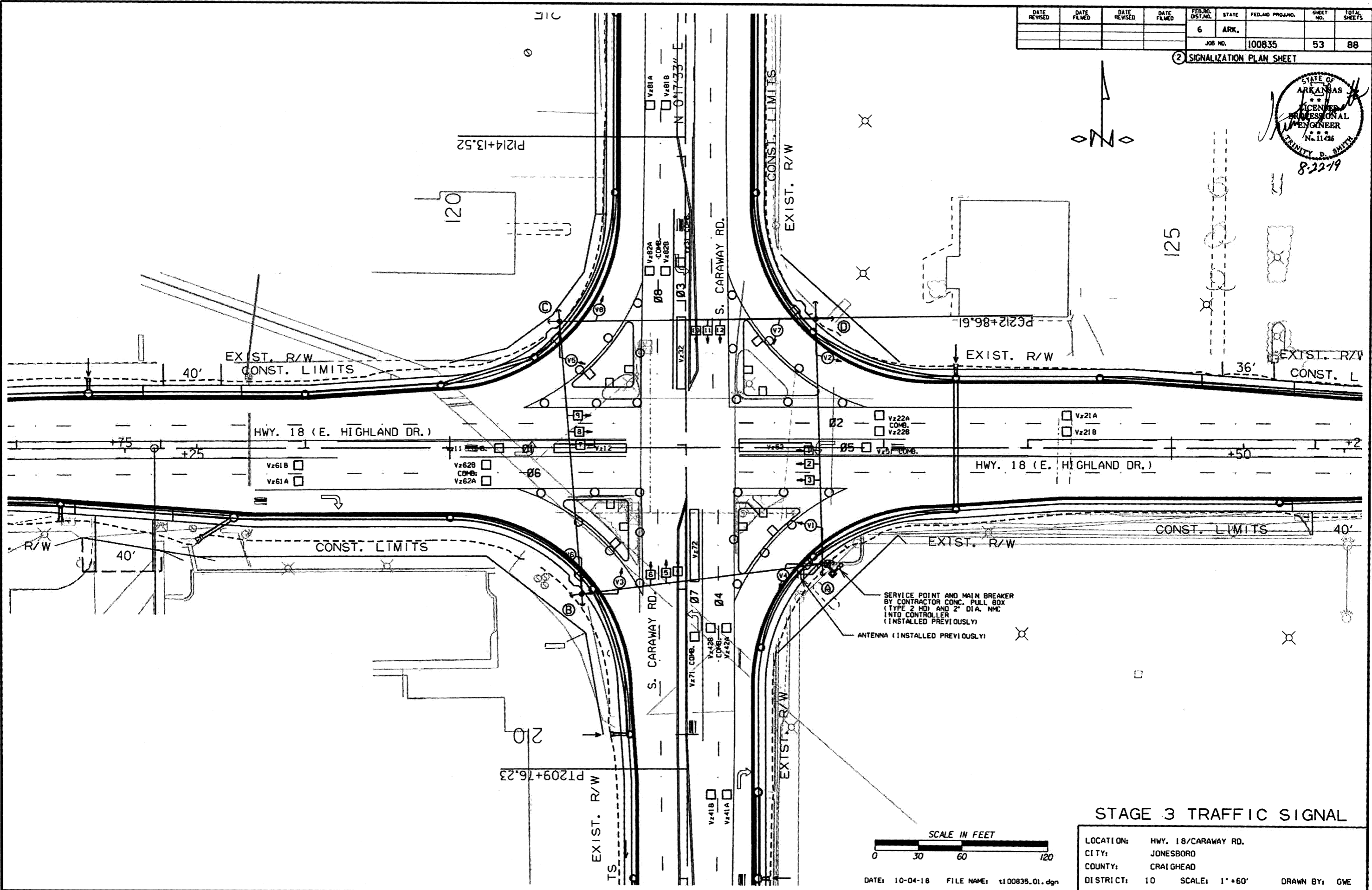
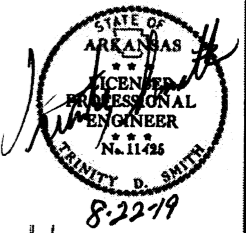
NOTE TO CONTRACTOR:
 TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.

STAGE 2 TRAFFIC SIGNAL

LOCATION: HWY. 18/CARAWAY RD.
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: 1" = 40' DRAWN BY: GWE

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		53	88

2 SIGNALIZATION PLAN SHEET



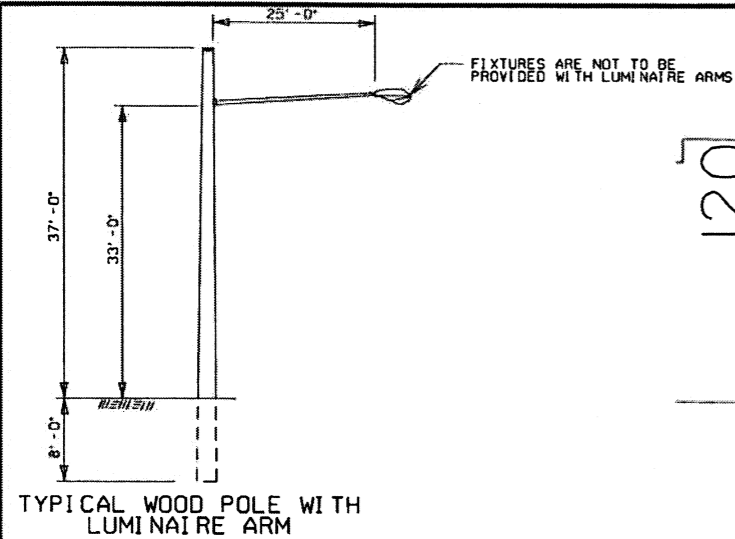
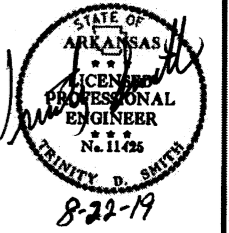
DATE: 10-04-18 FILE NAME: t100835.01.dgn

STAGE 3 TRAFFIC SIGNAL

LOCATION: HWY. 18/CARAWAY RD.
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 SCALE: 1"=60' DRAWN BY: GWE

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. PROJ. DIST. NO.	STATE	FED. PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO.						100835	54	88

2 SIGNALIZATION PLAN SHEET



TYPICAL WOOD POLE WITH LUMINAIRE ARM

NOTE TO CONTRACTOR:
LUMINAIRE ARMS (OR APPROVED MOUNTING HARDWARE) SHALL BE USED TO MOUNT VIDEO DETECTORS. LUMINAIRE ARM SHALL NOT INCLUDE LUMINAIRE ASSEMBLIES. THE COST FOR LUMINAIRE ARMS, MOUNTING, AND ALL HARDWARE IS INCLUDED IN PRICE BID FOR ITEM 716 TREATED WOOD POLE.

CONST. LIMITS

HWY. 18 (E. HIGHLAND DR.)

- Vz61B
- Vz61A

- Vz62B
- COMB.
- Vz62A

Ø6

- Vz82A
- COMB.
- Vz82B

Ø8

Vz32

Vz72

- Vz42B
- COMB.
- Vz42A

Ø4

- Vz22A
- COMB.
- Vz22B

Ø2

- Vz51
- COMB.

Ø5

- Vz21A
- Vz21B

HWY. 18 (E. HIGHLAND DR.)

EXIST. R/W

S. CARAWAY RD.

S. CARAWAY RD.

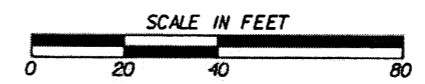
EXIST. R/W

EXIST. R/W

NOTE TO CONTRACTOR:
TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.

STAGE 3 TRAFFIC SIGNAL

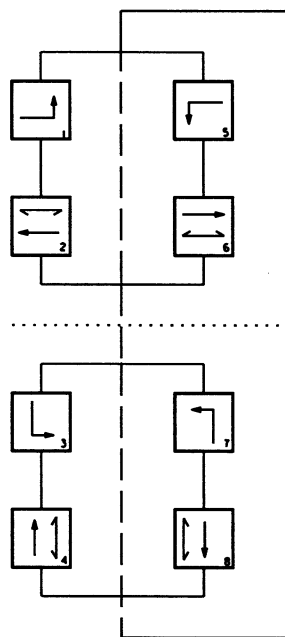
LOCATION: HWY. 18/CARAWAY RD.
CITY: JONESBORO
COUNTY: CRAIGHEAD
DISTRICT: 10 SCALE: 1" = 40' DRAWN BY: GWE



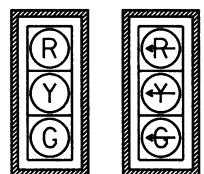
DATE: 10-04-18 FILE NAME: t100835.01.dgn

PHASING DIAGRAM

SIGNAL FACES



12" LENSES



ONE SECTION (SOLID SYMBOL)



17 & 18
19 & 20
21 & 22
23 & 24

3 & 4 1 & 2
7 & 8 5 & 6
11 & 12 9 & 10
15 & 16 13 & 14

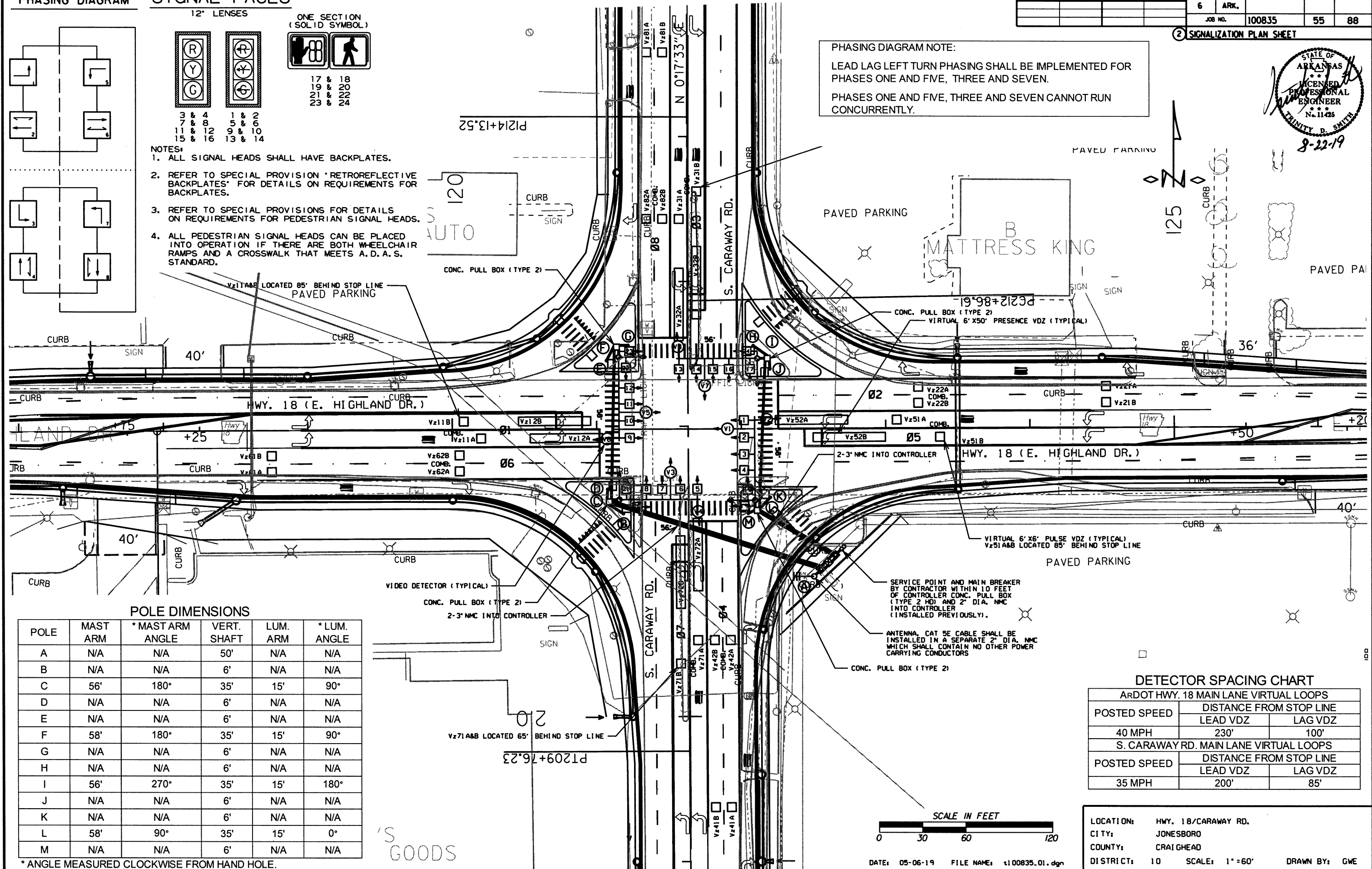
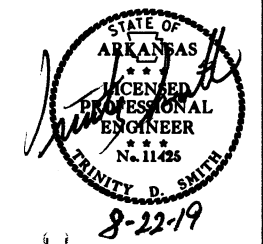
NOTES:

1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
2. REFER TO SPECIAL PROVISION 'RETROREFLECTIVE BACKPLATES' FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEETS A. D. A. S. STANDARD.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100835		55	88

2 SIGNALIZATION PLAN SHEET

PHASING DIAGRAM NOTE:
LEAD LAG LEFT TURN PHASING SHALL BE IMPLEMENTED FOR PHASES ONE AND FIVE, THREE AND SEVEN.
PHASES ONE AND FIVE, THREE AND SEVEN CANNOT RUN CONCURRENTLY.



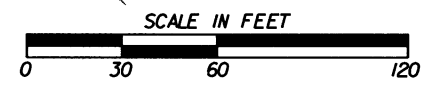
POLE DIMENSIONS

POLE	MAST ARM	*MAST ARM ANGLE	VERT. SHAFT	LUM. ARM	*LUM. ANGLE
A	N/A	N/A	50'	N/A	N/A
B	N/A	N/A	6'	N/A	N/A
C	56'	180°	35'	15'	90°
D	N/A	N/A	6'	N/A	N/A
E	N/A	N/A	6'	N/A	N/A
F	58'	180°	35'	15'	90°
G	N/A	N/A	6'	N/A	N/A
H	N/A	N/A	6'	N/A	N/A
I	56'	270°	35'	15'	180°
J	N/A	N/A	6'	N/A	N/A
K	N/A	N/A	6'	N/A	N/A
L	58'	90°	35'	15'	0°
M	N/A	N/A	6'	N/A	N/A

* ANGLE MEASURED CLOCKWISE FROM HAND HOLE.

DETECTOR SPACING CHART

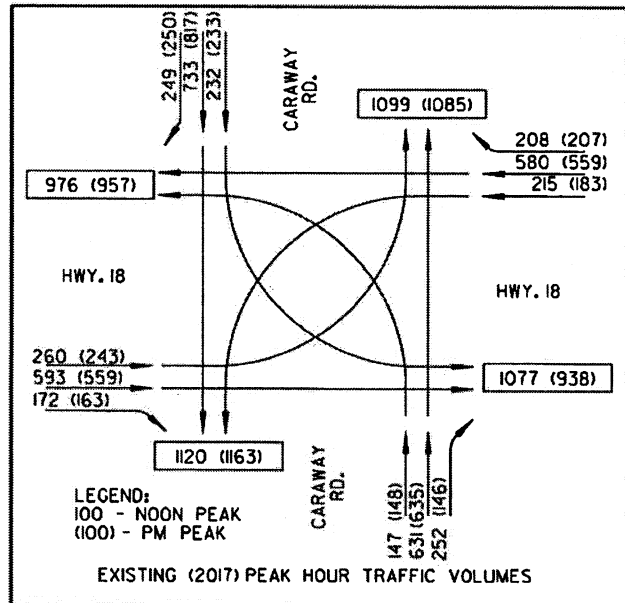
ARDOT HWY. 18 MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
40 MPH	230'	100'
S. CARAWAY RD. MAIN LANE VIRTUAL LOOPS		
POSTED SPEED	DISTANCE FROM STOP LINE	
	LEAD VDZ	LAG VDZ
35 MPH	200'	85'



DATE: 05-06-19 FILE NAME: t100835.01.dgn

LOCATION: HWY. 18/CARAWAY RD.
CITY: JONESBORO
COUNTY: CRAIGHEAD
DISTRICT: 10 SCALE: 1"=60' DRAWN BY: GWE

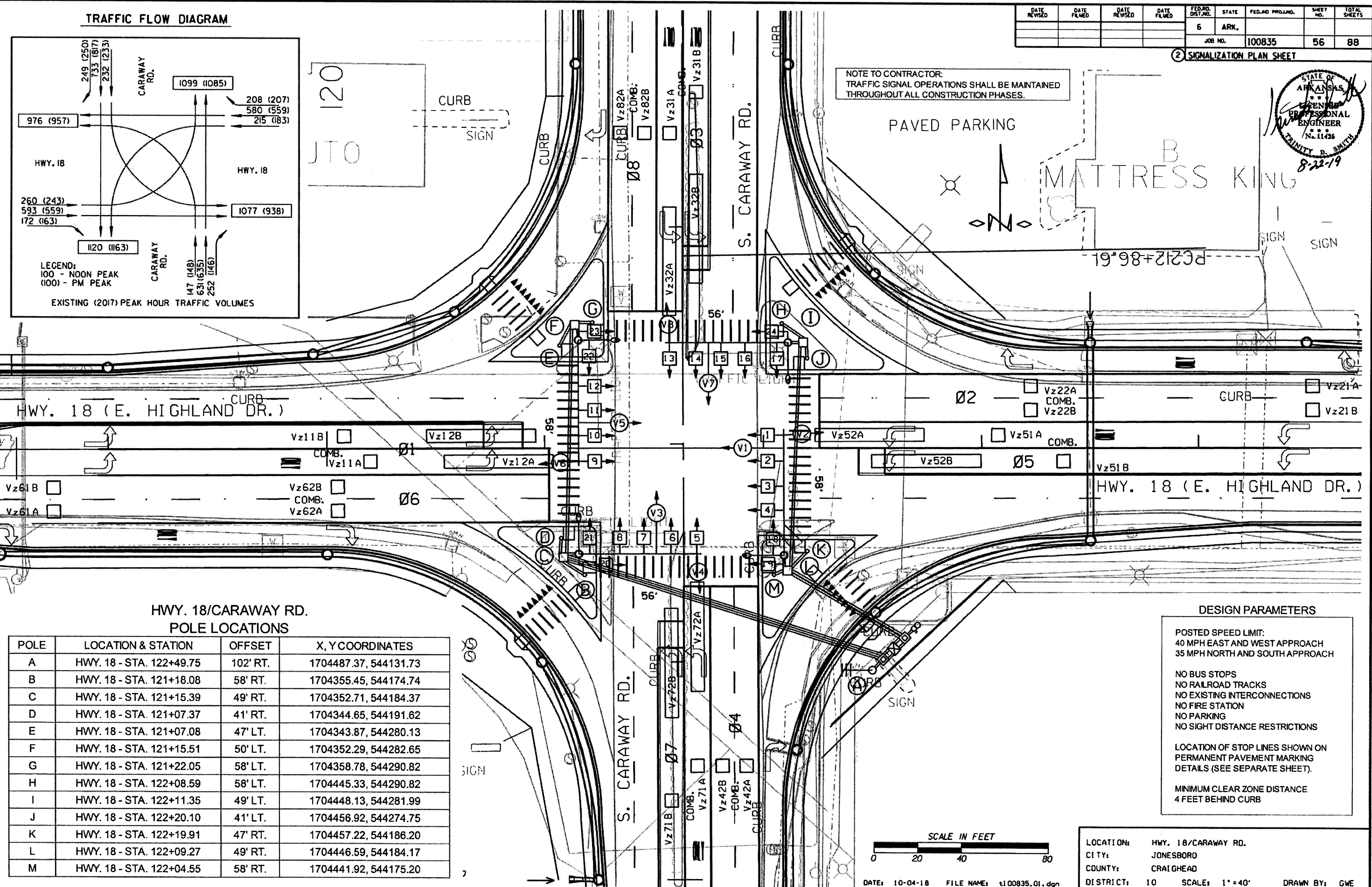
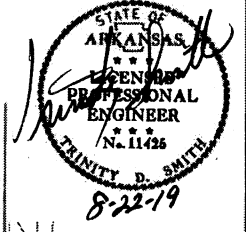
TRAFFIC FLOW DIAGRAM



DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. DIST. NO.	STATE	FED. PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	100835	56	88

2 SIGNALIZATION PLAN SHEET

NOTE TO CONTRACTOR:
TRAFFIC SIGNAL OPERATIONS SHALL BE MAINTAINED THROUGHOUT ALL CONSTRUCTION PHASES.



HWY. 18/CARAWAY RD. POLE LOCATIONS

POLE	LOCATION & STATION	OFFSET	X, Y COORDINATES
A	HWY. 18 - STA. 122+49.75	102' RT.	1704487.37, 544131.73
B	HWY. 18 - STA. 121+18.08	58' RT.	1704355.45, 544174.74
C	HWY. 18 - STA. 121+15.39	49' RT.	1704352.71, 544184.37
D	HWY. 18 - STA. 121+07.37	41' RT.	1704344.65, 544191.62
E	HWY. 18 - STA. 121+07.08	47' LT.	1704343.87, 544280.13
F	HWY. 18 - STA. 121+15.51	50' LT.	1704352.29, 544282.65
G	HWY. 18 - STA. 121+22.05	58' LT.	1704358.78, 544290.82
H	HWY. 18 - STA. 122+08.59	58' LT.	1704445.33, 544290.82
I	HWY. 18 - STA. 122+11.35	49' LT.	1704448.13, 544281.99
J	HWY. 18 - STA. 122+20.10	41' LT.	1704456.92, 544274.75
K	HWY. 18 - STA. 122+19.91	47' RT.	1704457.22, 544186.20
L	HWY. 18 - STA. 122+09.27	49' RT.	1704446.59, 544184.17
M	HWY. 18 - STA. 122+04.55	58' RT.	1704441.92, 544175.20

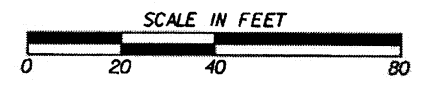
DESIGN PARAMETERS

POSTED SPEED LIMIT:
40 MPH EAST AND WEST APPROACH
35 MPH NORTH AND SOUTH APPROACH

NO BUS STOPS
NO RAILROAD TRACKS
NO EXISTING INTERCONNECTIONS
NO FIRE STATION
NO PARKING
NO SIGHT DISTANCE RESTRICTIONS

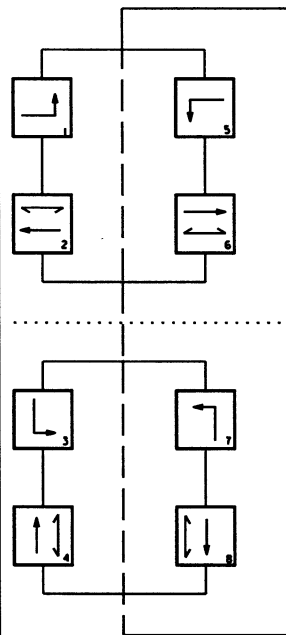
LOCATION OF STOP LINES SHOWN ON PERMANENT PAVEMENT MARKING DETAILS (SEE SEPARATE SHEET).

MINIMUM CLEAR ZONE DISTANCE
4 FEET BEHIND CURB

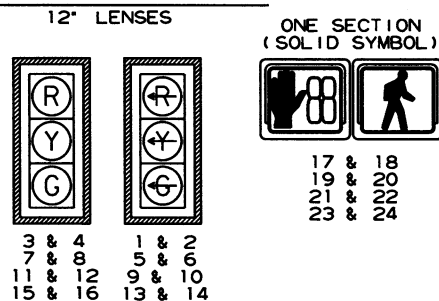


LOCATION: HWY. 18/CARAWAY RD.
CITY: JONESBORO
COUNTY: CRAIGHEAD
DISTRICT: 10 SCALE: 1" = 40' DRAWN BY: GWE

PHASING DIAGRAM



SIGNAL FACES



- NOTES:
1. ALL SIGNAL HEADS SHALL HAVE BACKPLATES.
 2. REFER TO SPECIAL PROVISION "RETROREFLECTIVE BACKPLATES" FOR DETAILS ON REQUIREMENTS FOR BACKPLATES.
 3. REFER TO SPECIAL PROVISIONS FOR DETAILS ON REQUIREMENTS FOR PEDESTRIAN SIGNAL HEADS.
 4. ALL PEDESTRIAN SIGNAL HEADS CAN BE PLACED INTO OPERATION IF THERE ARE BOTH WHEELCHAIR RAMPS AND A CROSSWALK THAT MEETS A. D. A. S. STANDARD.

DETECTOR CHART

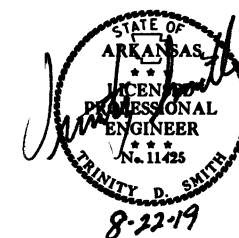
DETECTOR SYSTEM DESCRIPTION: JOB 100835											
JONESBORO - HWY. 18/CARAWAY RD. DETECTOR ASSIGNMENTS				HARDWARE INPUTS BY SUPPLIER			PROGRAM ASSIGNMENTS			COMMENTS	TUBE LENGTHS
DET. ID #	LOCATION DIRECTION	TPYE	DET. #	CAB. TRM. #	AMP CHN. #	CON. IMP. #	PHS	SYSTEM DET. #	MASTER SYSTEM DETECTOR NUMBERS		
Vz11A&B	EB LEFT TURN FAR	COMB.			1	V9	1	1		CAMERA V1	37"
Vz12A&B	EB LEFT TURN	LOCAL			2	V1	1			CAMERA V1	37"
Vz21 A&B	WB ADVANCE	LOCAL			5	V2	2			CAMERA V2	74"
Vz22 A&B	WB NEAR	COMB.			6	V10	2	2		CAMERA V5	46"
Vz31A&B	SB LEFT TURN FAR	COMB.			9	V11	3	3		CAMERA V3	37"
Vz32A&B	SB LEFT TURN	LOCAL			10	V3	3			CAMERA V3	37"
Vz41 A&B	NB ADVANCE	LOCAL			13	V4	4			CAMERA V4	37"
Vz42 A&B	NB NEAR	COMB.			14	V12	4	4		CAMERA V7	37"
Vz51A&B	WB LEFT TURN FAR	COMB.			7	V13	5	5		CAMERA V5	46"
Vz52A&B	WB LEFT TURN	LOCAL			8	V5	5			CAMERA V5	46"
Vz61 A&B	EB ADVANCE	LOCAL			3	V6	6			CAMERA V6	74"
Vz62 A&B	EB NEAR	COMB.			4	V14	6	6		CAMERA V1	37"
Vz71A&B	NB LEFT TURN FAR	COMB.			15	V15	7	7		CAMERA V7	37"
Vz72A&B	NB LEFT TURN	LOCAL			16	V7	7			CAMERA V7	37"
Vz81 A&B	SB ADVANCE	LOCAL			11	V8	8			CAMERA V8	37"
Vz82 A&B	SB NEAR	COMB.			12	V16	8	8		CAMERA V3	37"
PB2 A&B	CARAWAY RD. N. LEG	PED.				P2	2				
PB4 A&B	HWY. 18 E. LEG	PED.				P4	4				
PB6 A&B	CARAWAY RD. S. LEG	PED.				P6	6				
PB8 A&B	HWY. 18 W. LEG	PED.				P8	8				
										SPARE	

CONTROLLER INPUT ABBREVIATIONS:
 V = VEHICLE INPUT
 D = SYSTEM OR AUXILIARY INPUT
 P = PEDESTRIAN INPUT

NOTE: "AMP CHN =" REFERS TO THE RACK OUTPUT POSITION.
 THIS IS WIRED TO CONTROLLER INPUT DETECTOR NUMBER WHICH IS PROGRAMMED TO ACTUATE THE DESIGNATED PHASE.
 EXAMPLE: V9 = SYSTEM DETECTOR 1, V10 = SYSTEM DETECTOR 2

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. PROJ. NO.	STATE	FED. PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						100835	58	88

2 SIGNALIZATION PLAN SHEET



INTERVAL CHART

SIGNAL FACES	HWY. 18/CARAWAY RD.										FLASH SEQ.	
	1+6	CLR.	2+5	CLR.	2+6	CLR.	3+8	CLR.	4+7	CLR.		4+8
1&2	←	•	→	→	→	→	→	→	→	→	→	→
3&4	G	••	R	R	G	••	R	R	R	R	R	R
5&6	→	→	→	→	→	→	→	→	→	→	→	→
7&8	R	R	R	R	R	G	••	R	R	G	••	R
9&10	→	→	←	•	→	→	→	→	→	→	→	→
11&12	R	R	G	••	G	••	R	R	R	R	R	R
13&14	→	→	→	→	→	→	→	→	→	→	→	→
15&16	R	R	R	R	R	R	R	R	G	••	G	••
17&18	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	W	FDW
19&20	W	FDW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW
21&22	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	W	FDW
23&24	DW	DW	W	FDW	W	FDW	DW	DW	DW	DW	DW	DW

- DENOTES GREEN OR YELLOW ARROW DEPENDING ON NEXT PHASE
- DENOTES GREEN OR YELLOW BALL DEPENDING ON NEXT PHASE

PHASING DIAGRAM NOTE:

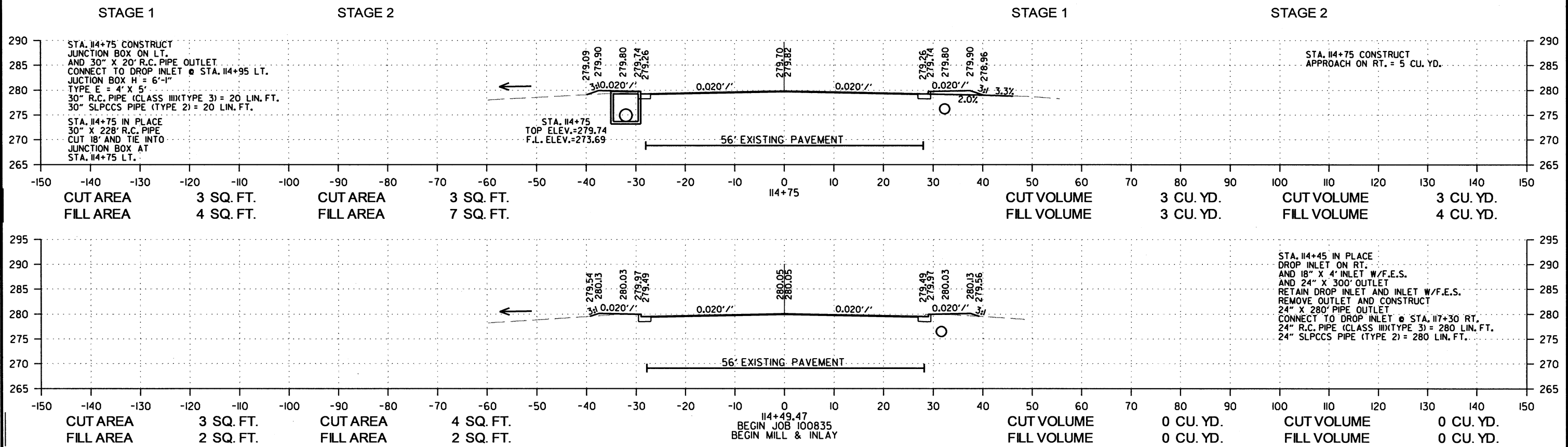
LEAD LAG LEFT TURN PHASING SHALL BE IMPLEMENTED FOR PHASES ONE AND FIVE, THREE AND SEVEN.

PHASES ONE AND FIVE, THREE AND SEVEN CANNOT RUN CONCURRENTLY.

LOCATION: HWY. 18/CARAWAY RD.
 CITY: JONESBORO
 COUNTY: CRAIGHEAD
 DISTRICT: 10 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.						100835	59	88

② CROSS SECTIONS

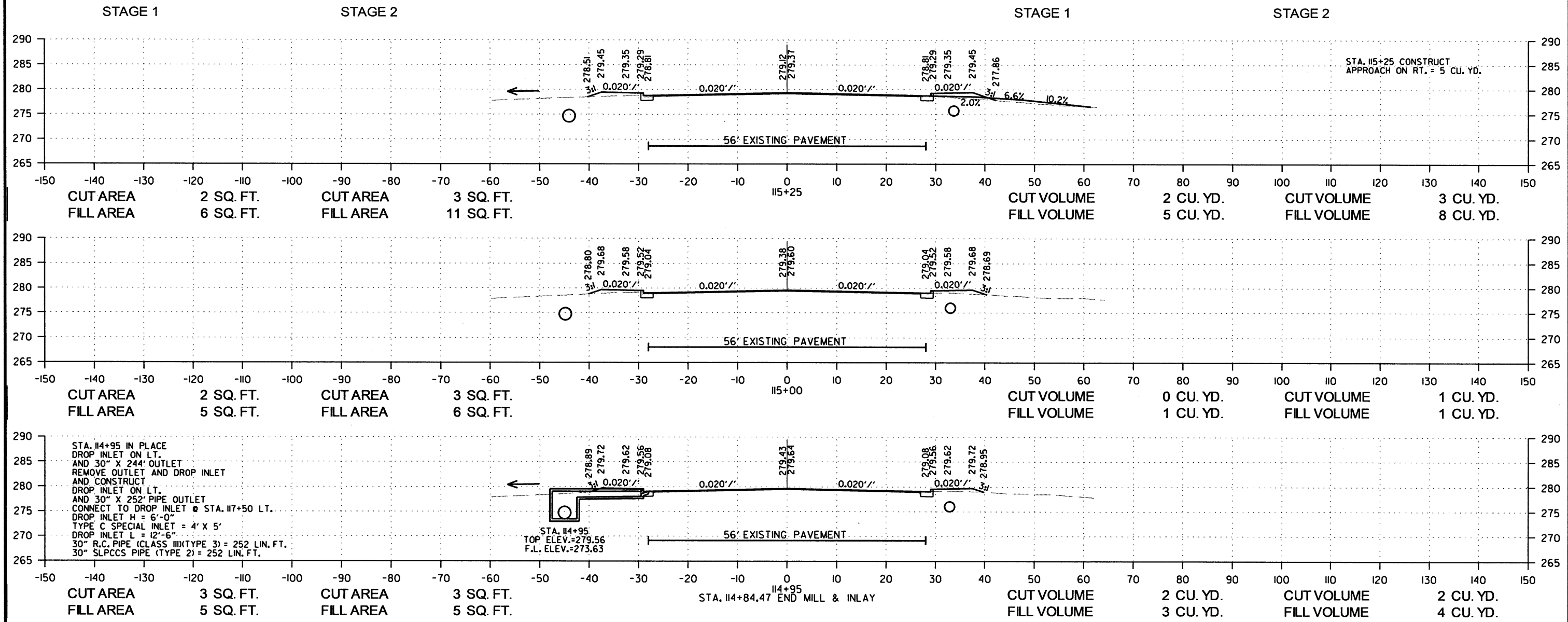


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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO.						100835	60	88

2 CROSS SECTIONS



STA. 115+25 CONSTRUCT APPROACH ON RT. = 5 CU. YD.

STA. 114+95 IN PLACE DROP INLET ON LT. AND 30" X 244' OUTLET REMOVE OUTLET AND DROP INLET AND CONSTRUCT DROP INLET ON LT. AND 30" X 252' PIPE OUTLET CONNECT TO DROP INLET @ STA. 117+50 LT. DROP INLET H = 6'-0" TYPE C SPECIAL INLET = 4' X 5' DROP INLET L = 12'-6" 30" R.C. PIPE (CLASS III) (TYPE 3) = 252 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 252 LIN. FT.

STA. 114+95 TOP ELEV.=279.56 F.L. ELEV.=273.63

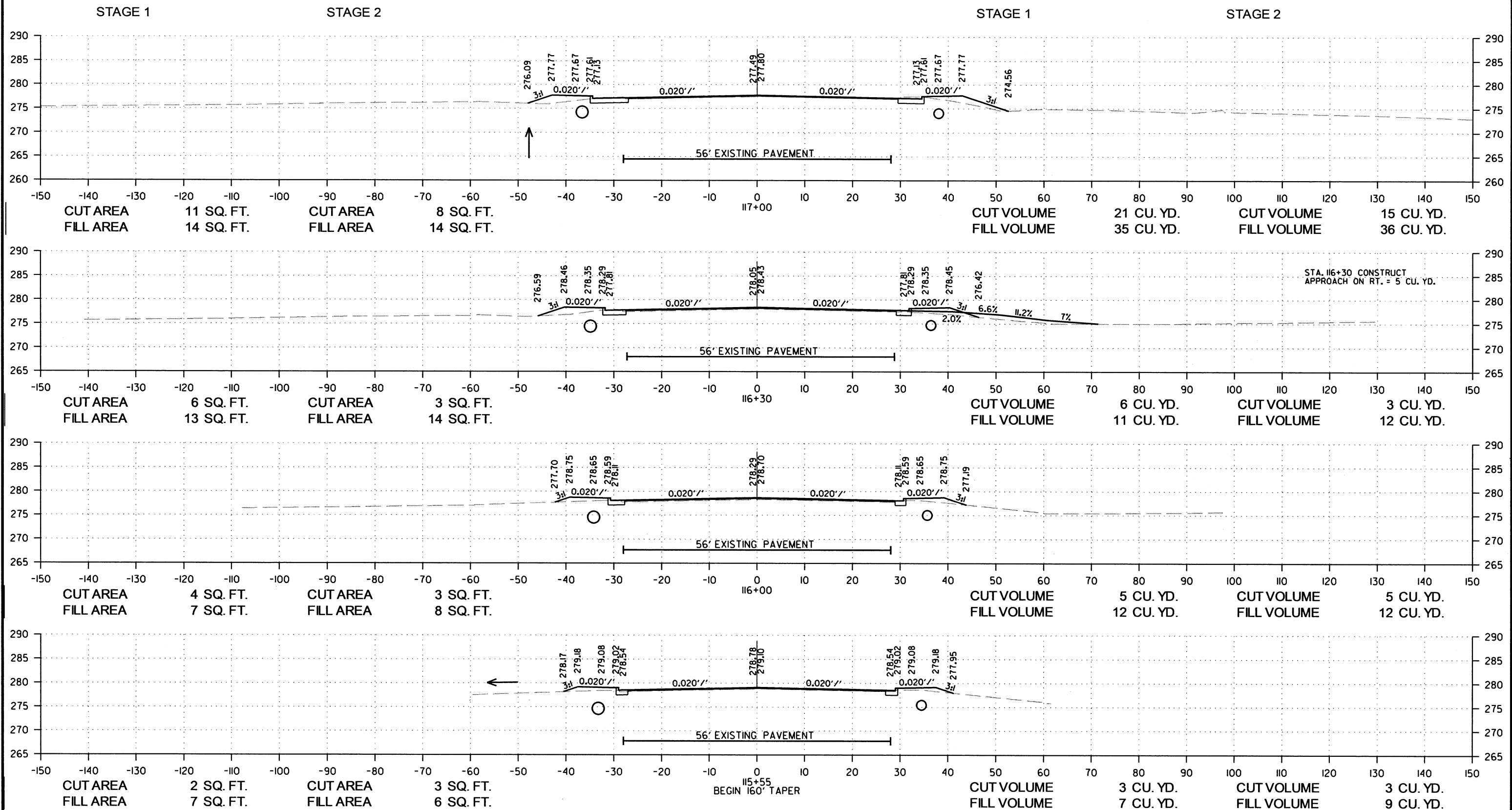
114+95 END MILL & INLAY

HWY. 18 STA. 114+95 TO STA. 115+25

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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.						100835	61	88

2 CROSS SECTIONS

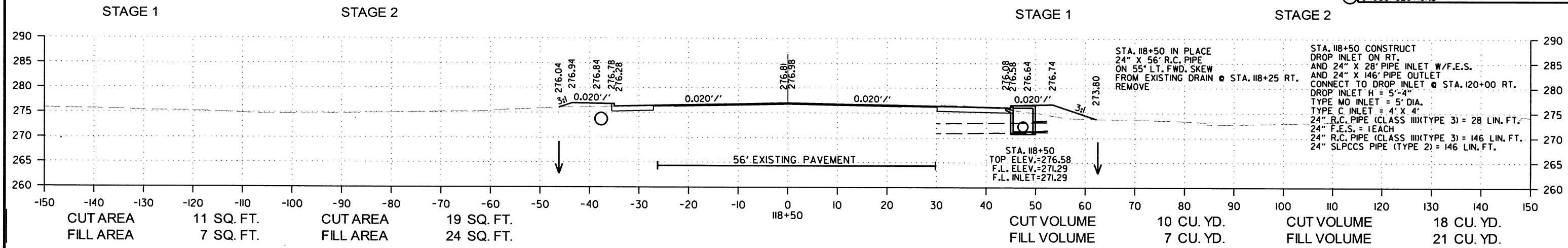


STA. 116+30 CONSTRUCT APPROACH ON RT. = 5 CU. YD.

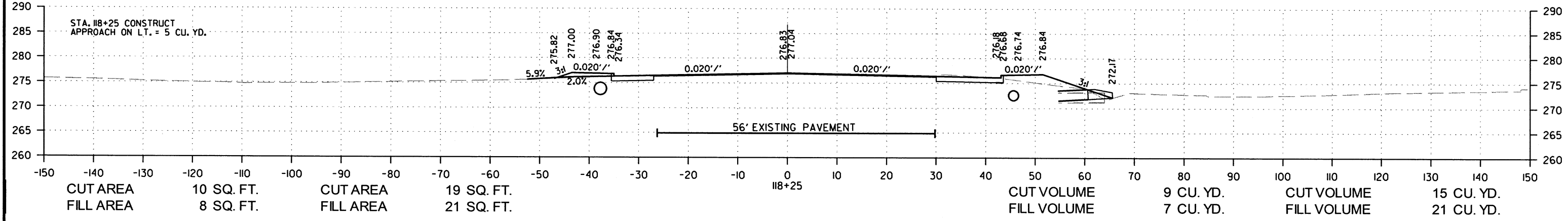
BEGIN 160' TAPER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 100835	63	88

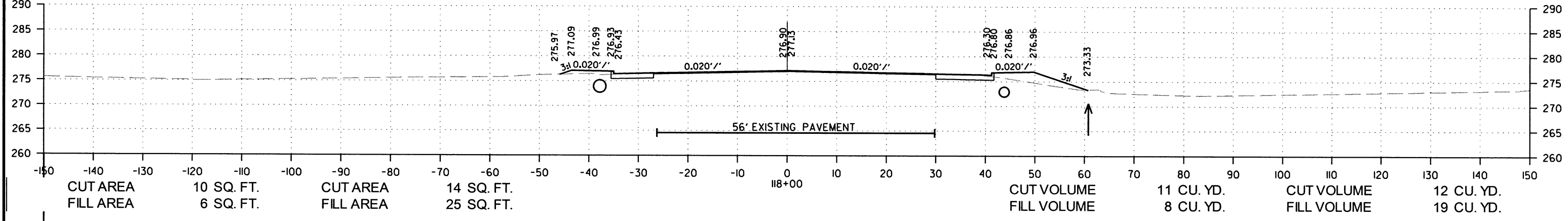
2 CROSS SECTIONS



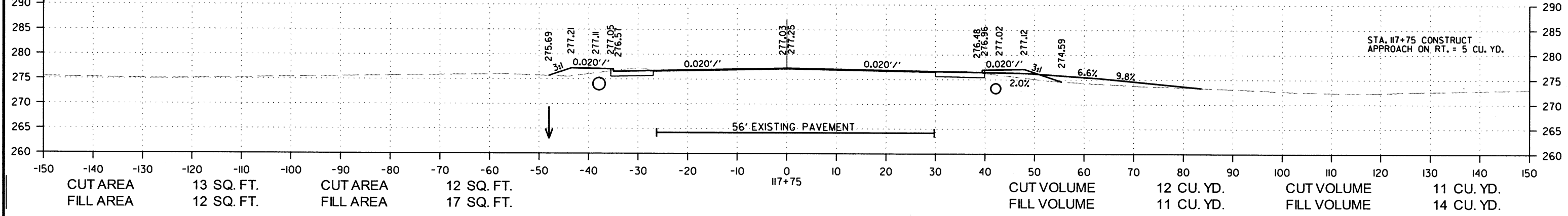
CUT AREA	11 SQ. FT.	CUT AREA	19 SQ. FT.	CUT VOLUME	10 CU. YD.	CUT VOLUME	18 CU. YD.
FILL AREA	7 SQ. FT.	FILL AREA	24 SQ. FT.	FILL VOLUME	7 CU. YD.	FILL VOLUME	21 CU. YD.



CUT AREA	10 SQ. FT.	CUT AREA	19 SQ. FT.	CUT VOLUME	9 CU. YD.	CUT VOLUME	15 CU. YD.
FILL AREA	8 SQ. FT.	FILL AREA	21 SQ. FT.	FILL VOLUME	7 CU. YD.	FILL VOLUME	21 CU. YD.



CUT AREA	10 SQ. FT.	CUT AREA	14 SQ. FT.	CUT VOLUME	11 CU. YD.	CUT VOLUME	12 CU. YD.
FILL AREA	6 SQ. FT.	FILL AREA	25 SQ. FT.	FILL VOLUME	8 CU. YD.	FILL VOLUME	19 CU. YD.

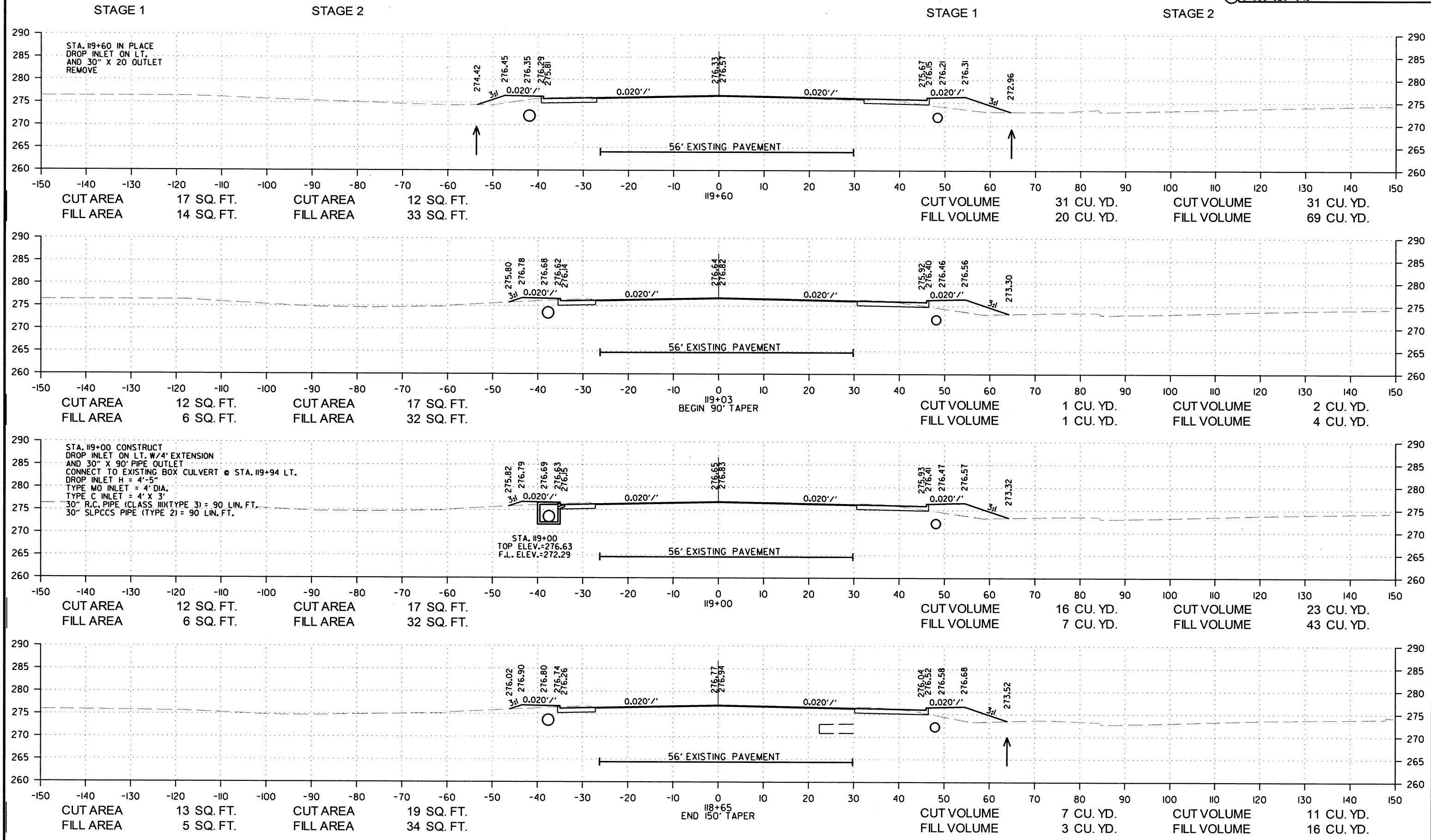


CUT AREA	13 SQ. FT.	CUT AREA	12 SQ. FT.	CUT VOLUME	12 CU. YD.	CUT VOLUME	11 CU. YD.
FILL AREA	12 SQ. FT.	FILL AREA	17 SQ. FT.	FILL VOLUME	11 CU. YD.	FILL VOLUME	14 CU. YD.

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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. 100835							64	88

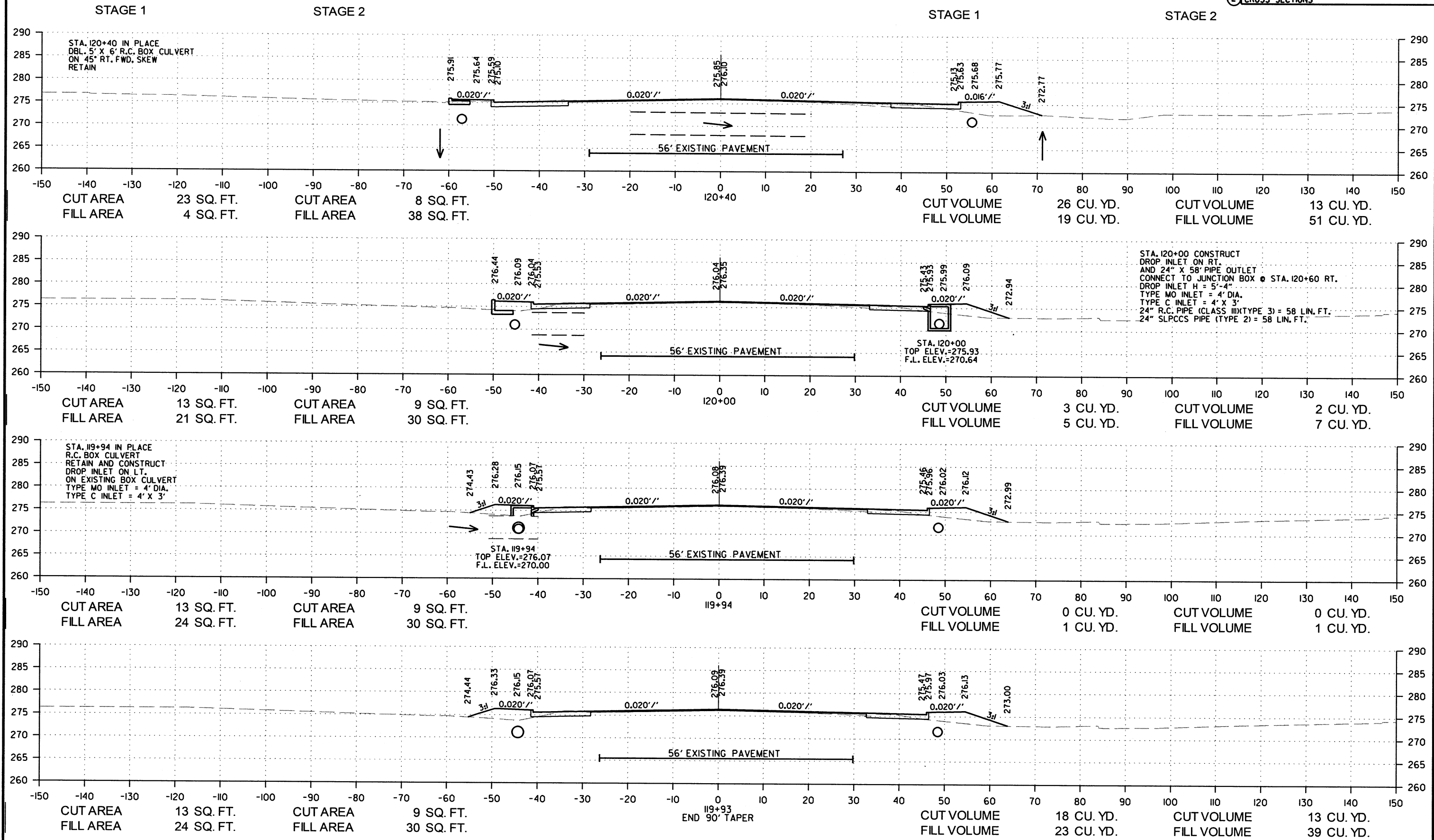
② CROSS SECTIONS



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R100835.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. 100835	65	88

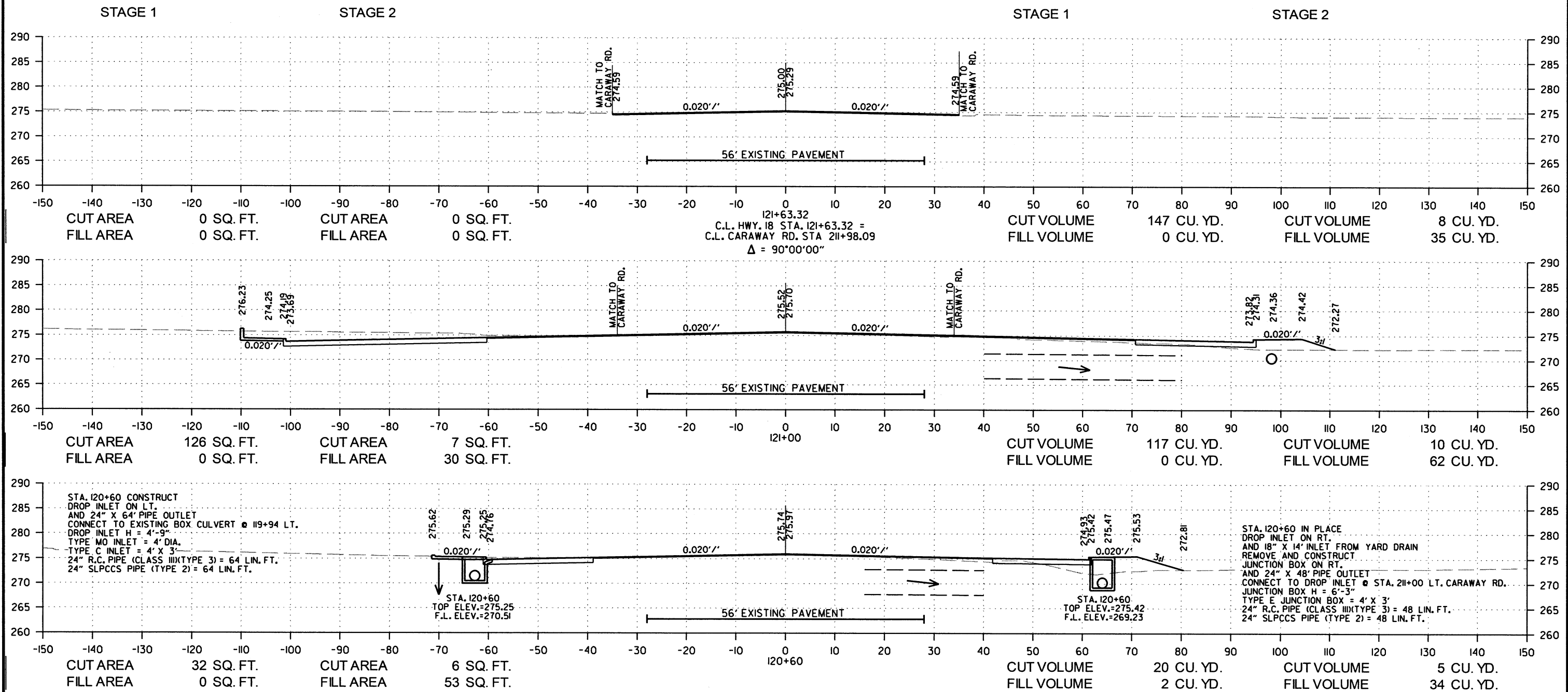
2 CROSS SECTIONS



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R100835.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. 100835	66	88

2 CROSS SECTIONS

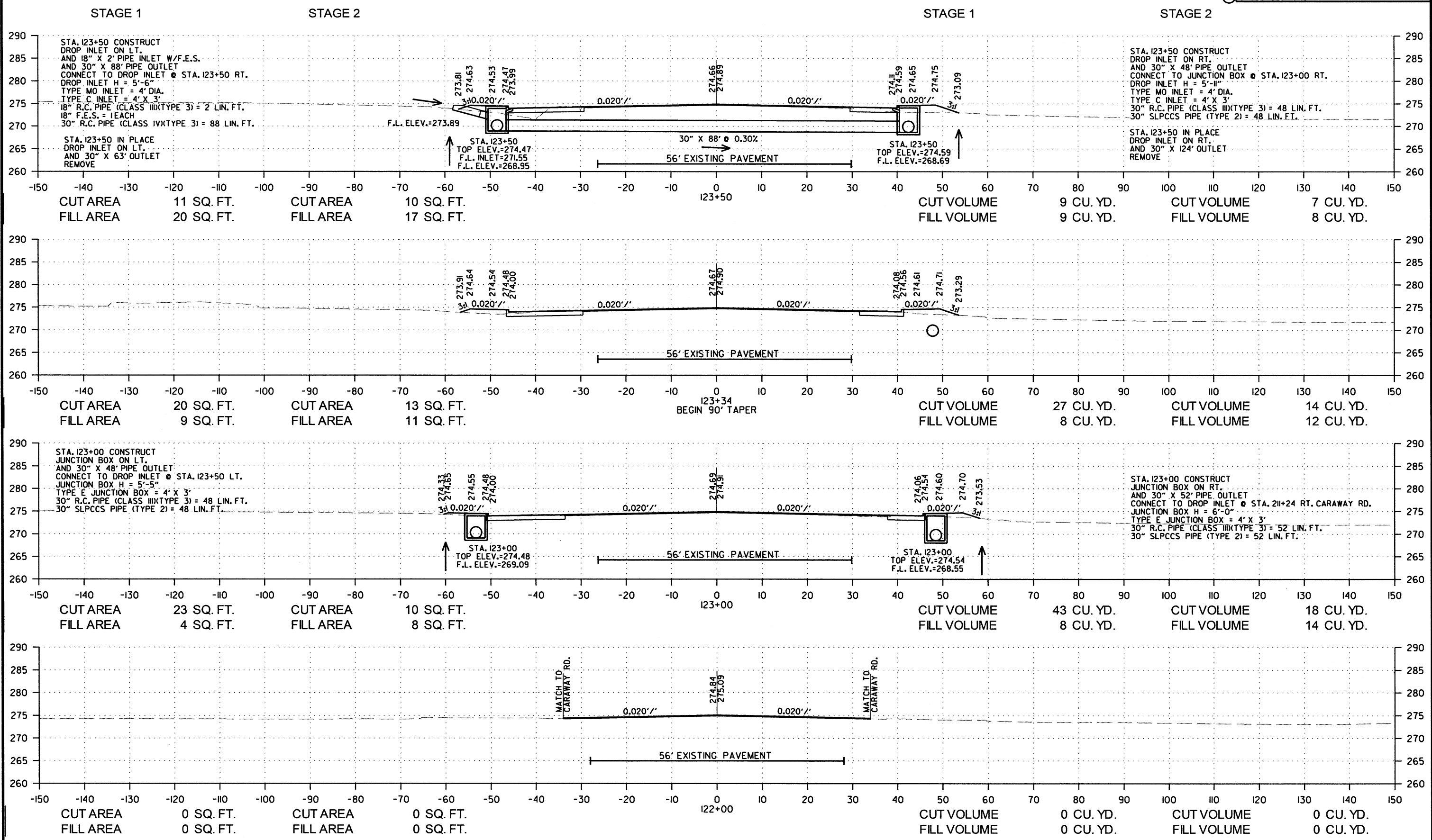


HWY. 18
STA. 120+60 TO STA. 121+63.32

7/23/2019
R100835.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.	100835		67	88

② CROSS SECTIONS

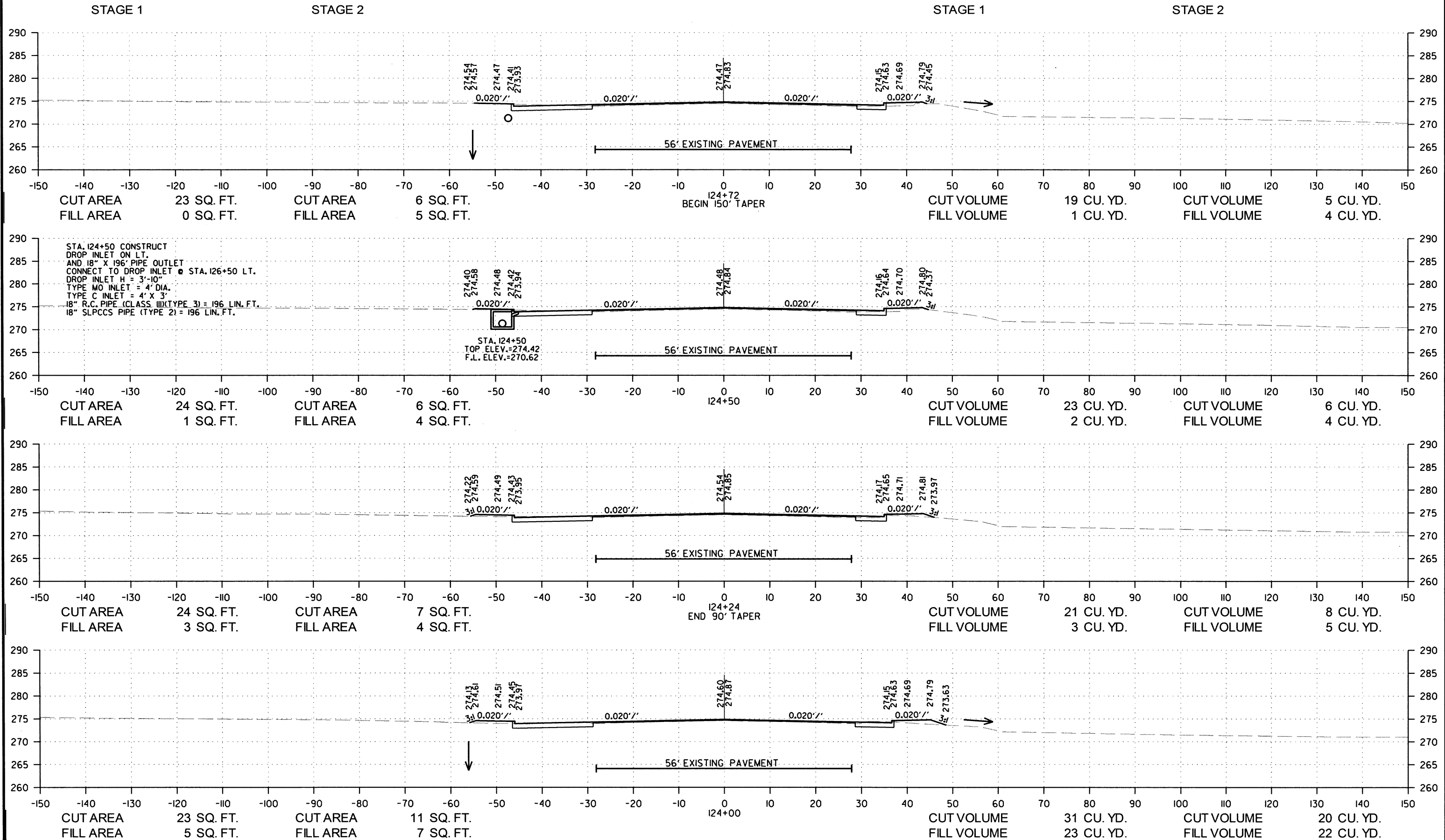


HWY. 18
STA. 122+00 TO STA. 123+50

7/23/2019
R100835.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.	100835		68	88

② CROSS SECTIONS



STA. 124+50 CONSTRUCT
 DROP INLET ON LT.
 AND 18" X 196' PIPE OUTLET
 CONNECT TO DROP INLET @ STA. 126+50 LT.
 DROP INLET H = 3'-10"
 TYPE MO INLET = 4' DIA.
 TYPE C INLET = 4' X 3'
 18" R.C. PIPE (CLASS III) (TYPE 3) = 196 LIN. FT.
 18" SLPCCS PIPE (TYPE 2) = 196 LIN. FT.

STA. 124+50
 TOP ELEV. = 274.42
 F.L. ELEV. = 270.62

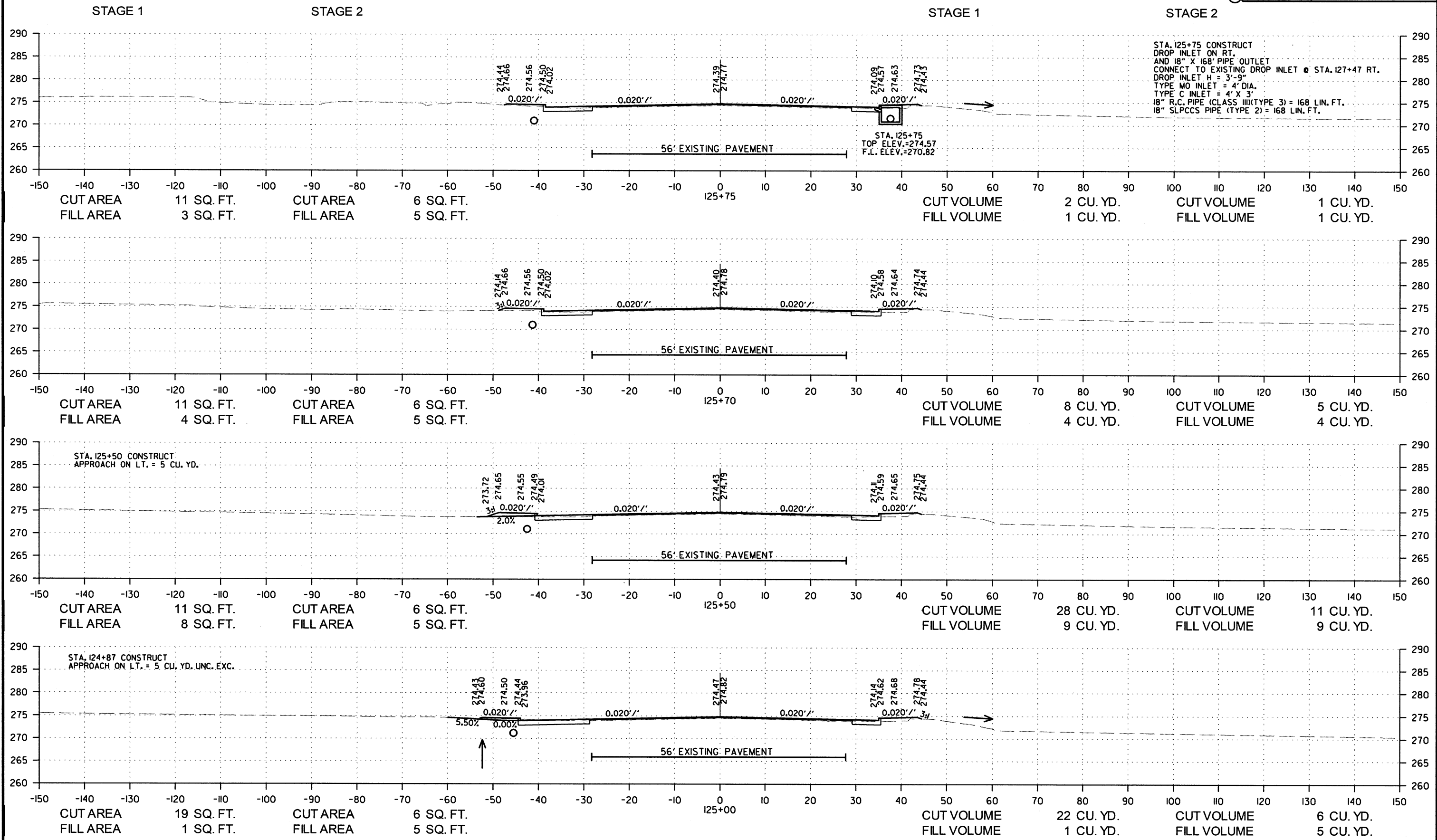
124+24
 END 90' TAPER

124+00

10/18/2018
 R100835.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. 100835	69	88

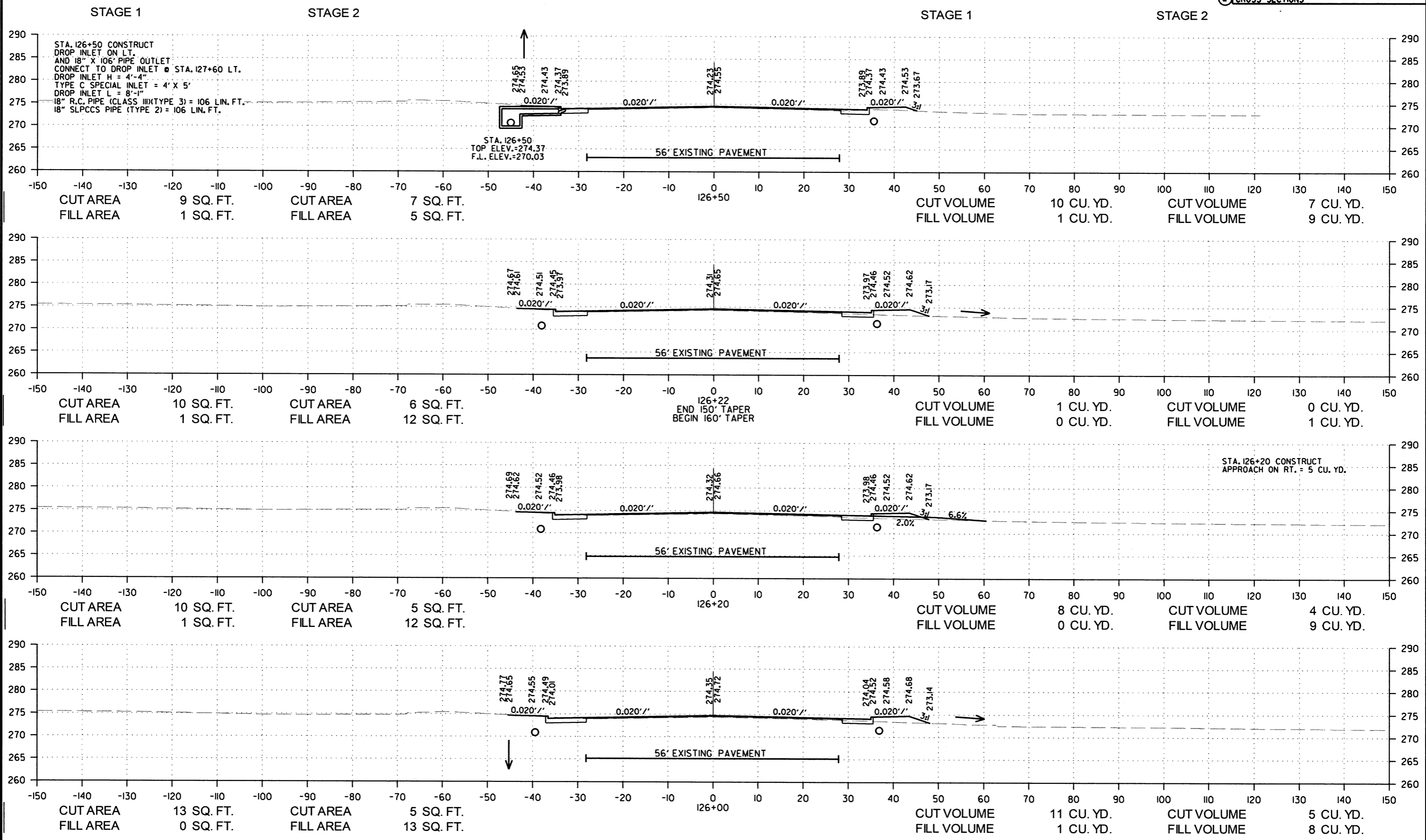
② CROSS SECTIONS



8/9/2019
R100835.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. 100835	70	88

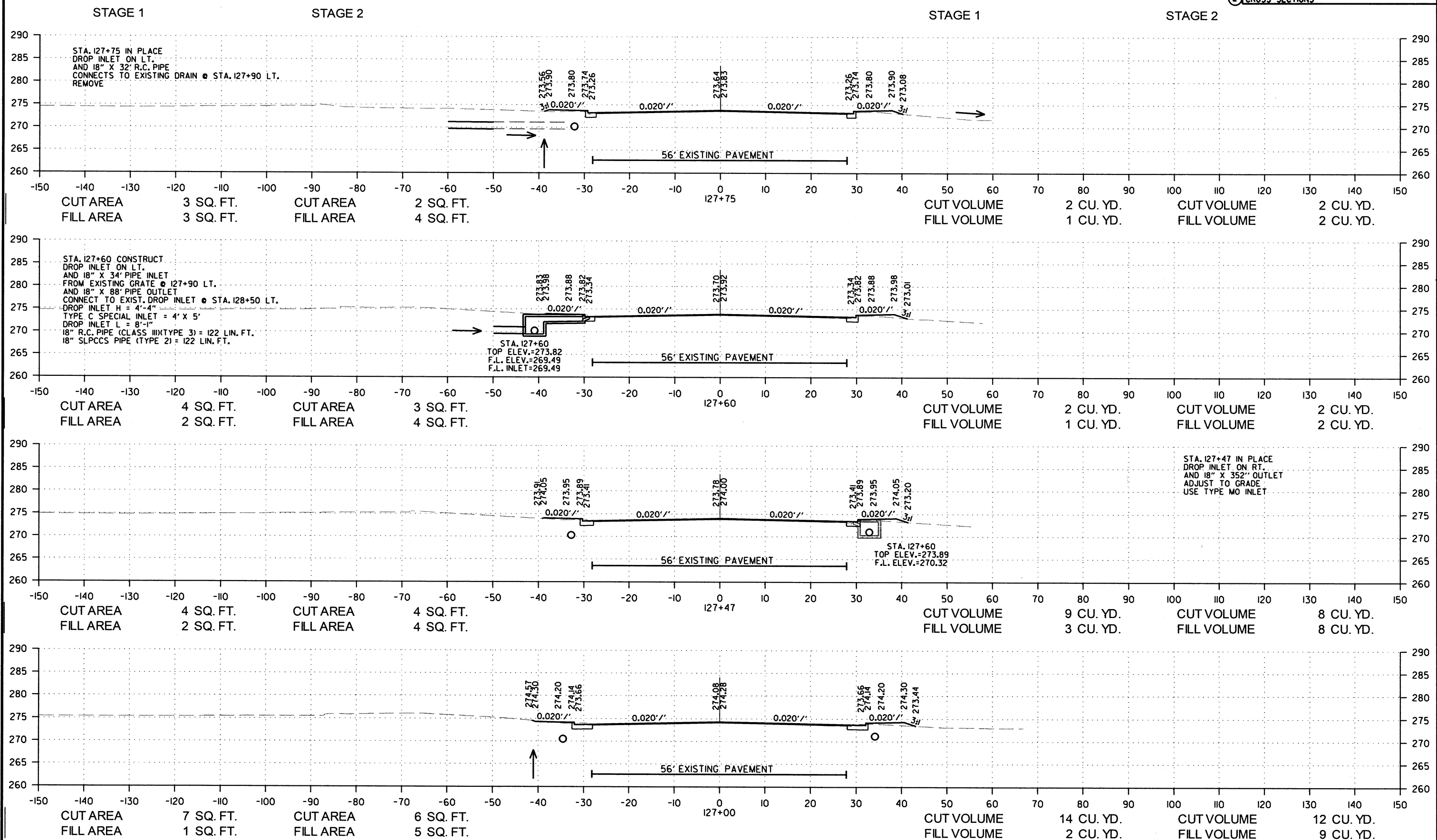
② CROSS SECTIONS



8/2/2019
R100835.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. 100835							71	88

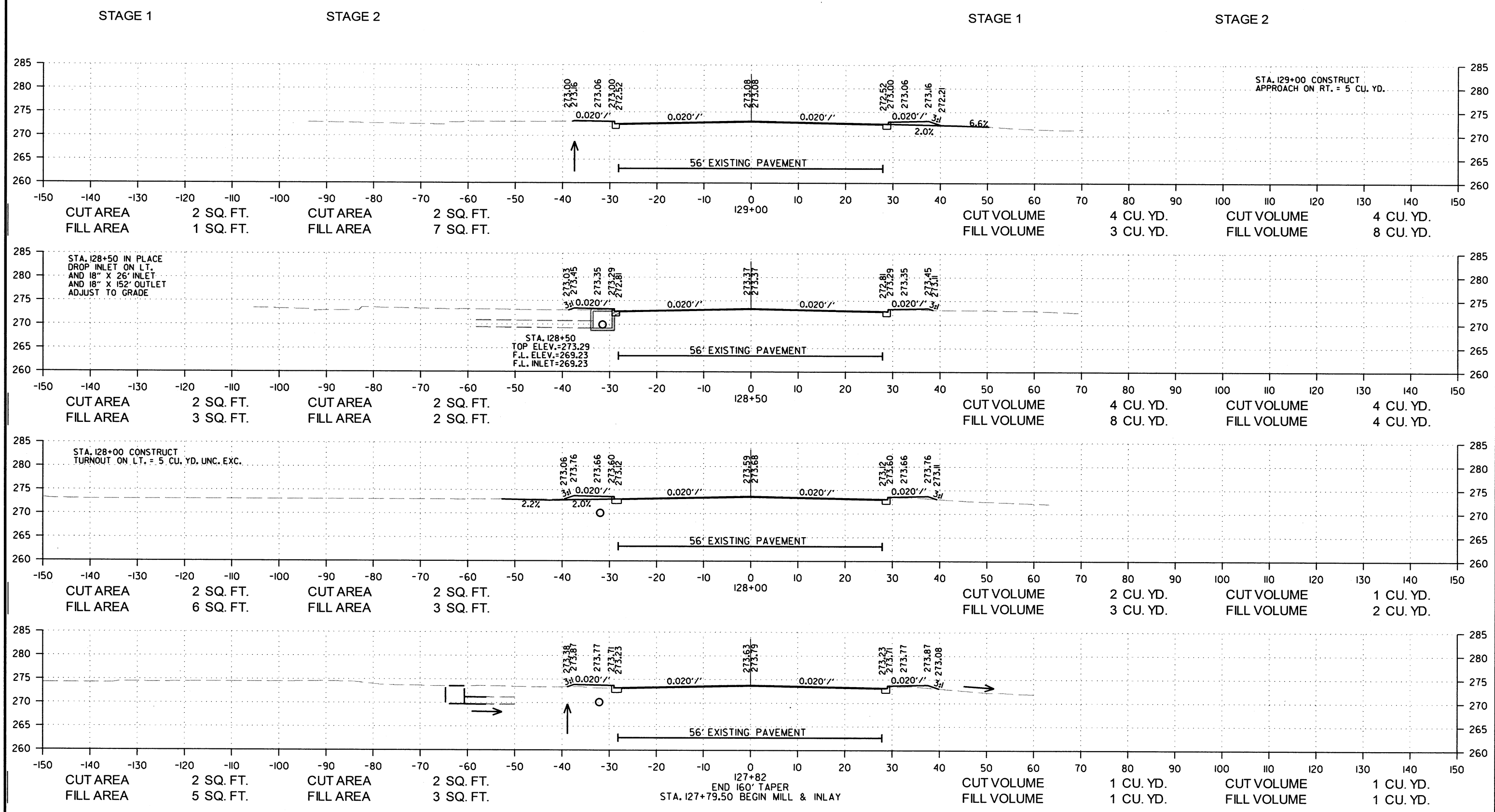
2 CROSS SECTIONS



8/2/2019
 R100835.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. 100835							72	88

2 CROSS SECTIONS

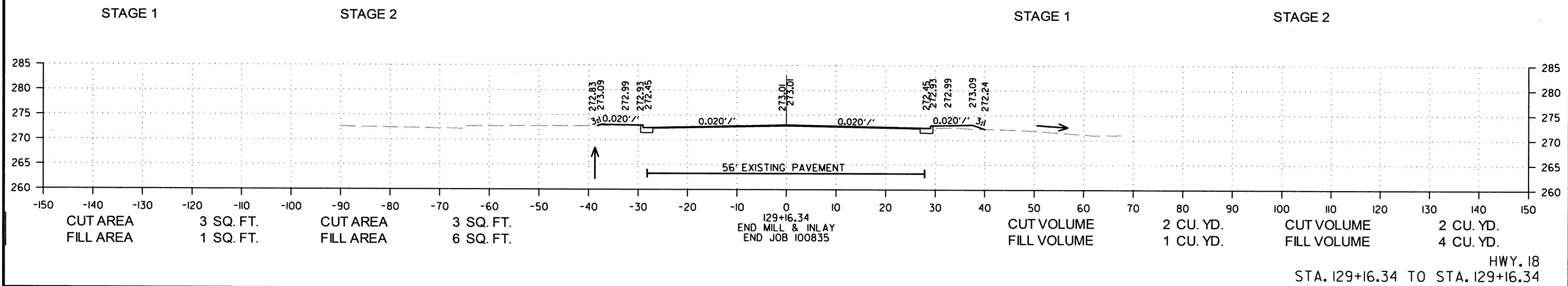


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R100835.DGN

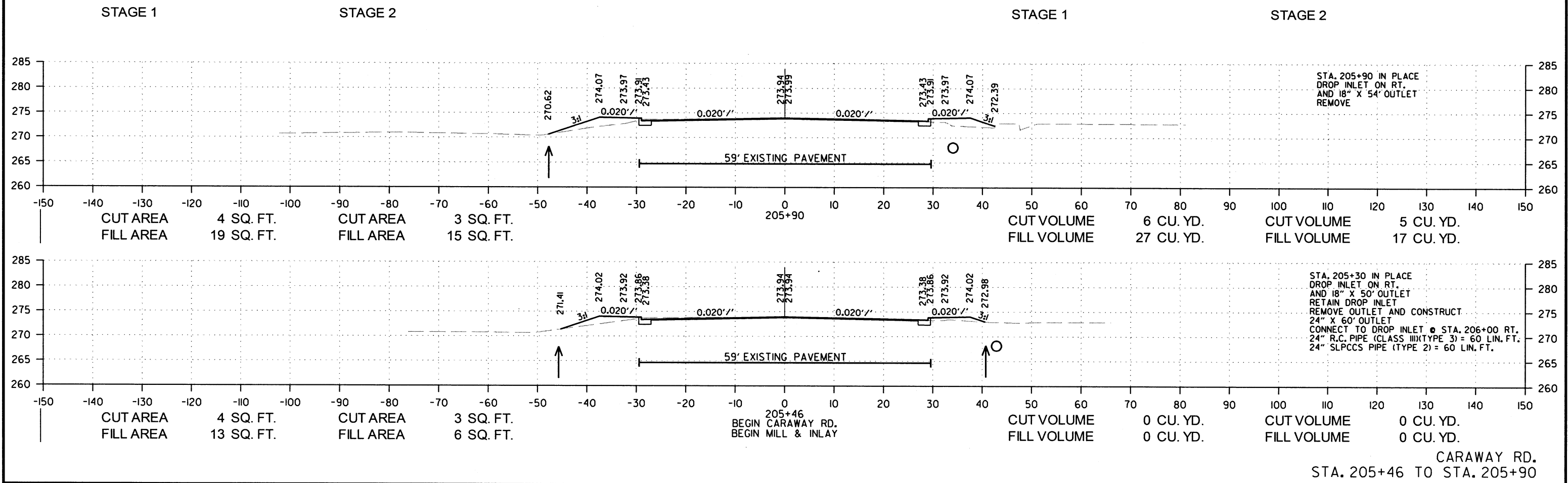
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
				6	ARK.				
JOB NO.							100835	73	88

② CROSS SECTIONS

10/18/2018
R100835.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.	100835	74
2 CROSS SECTIONS								

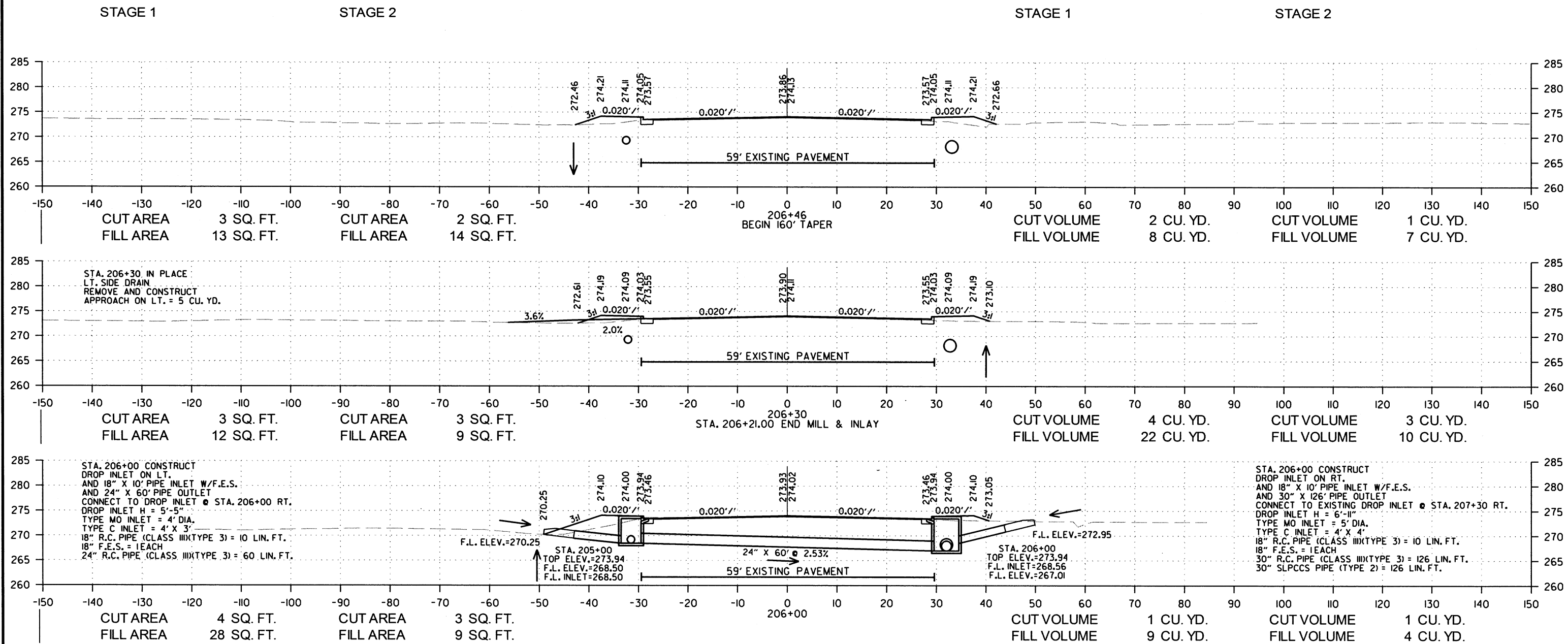


10/18/2018 R100835.DGN

CARAWAY RD.
STA. 205+46 TO STA. 205+90

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100835		75	88

2 CROSS SECTIONS

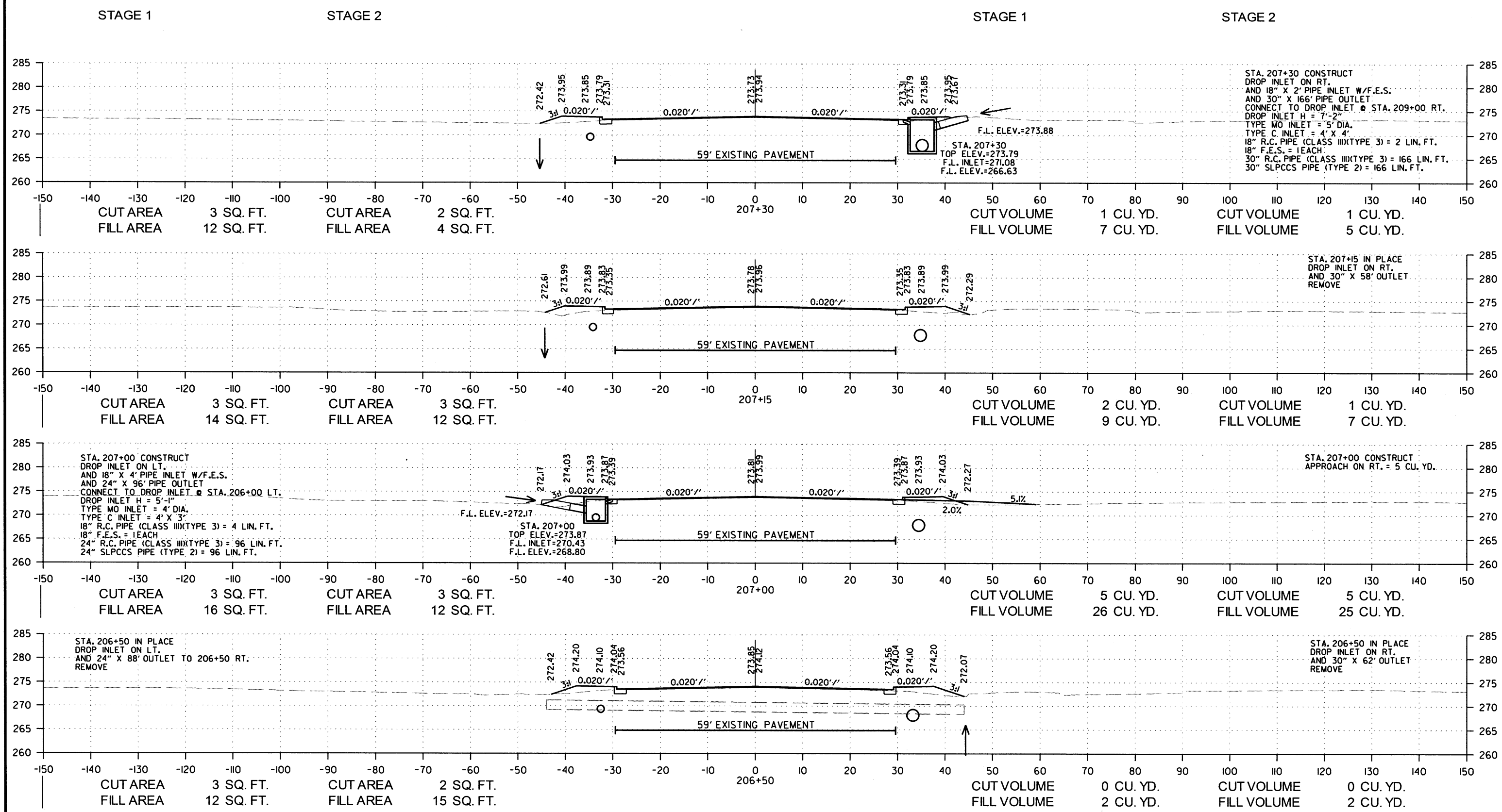


CARAWAY RD.
STA. 206+00 TO STA. 206+46

10/18/2018
R100835.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.	100835		76	88

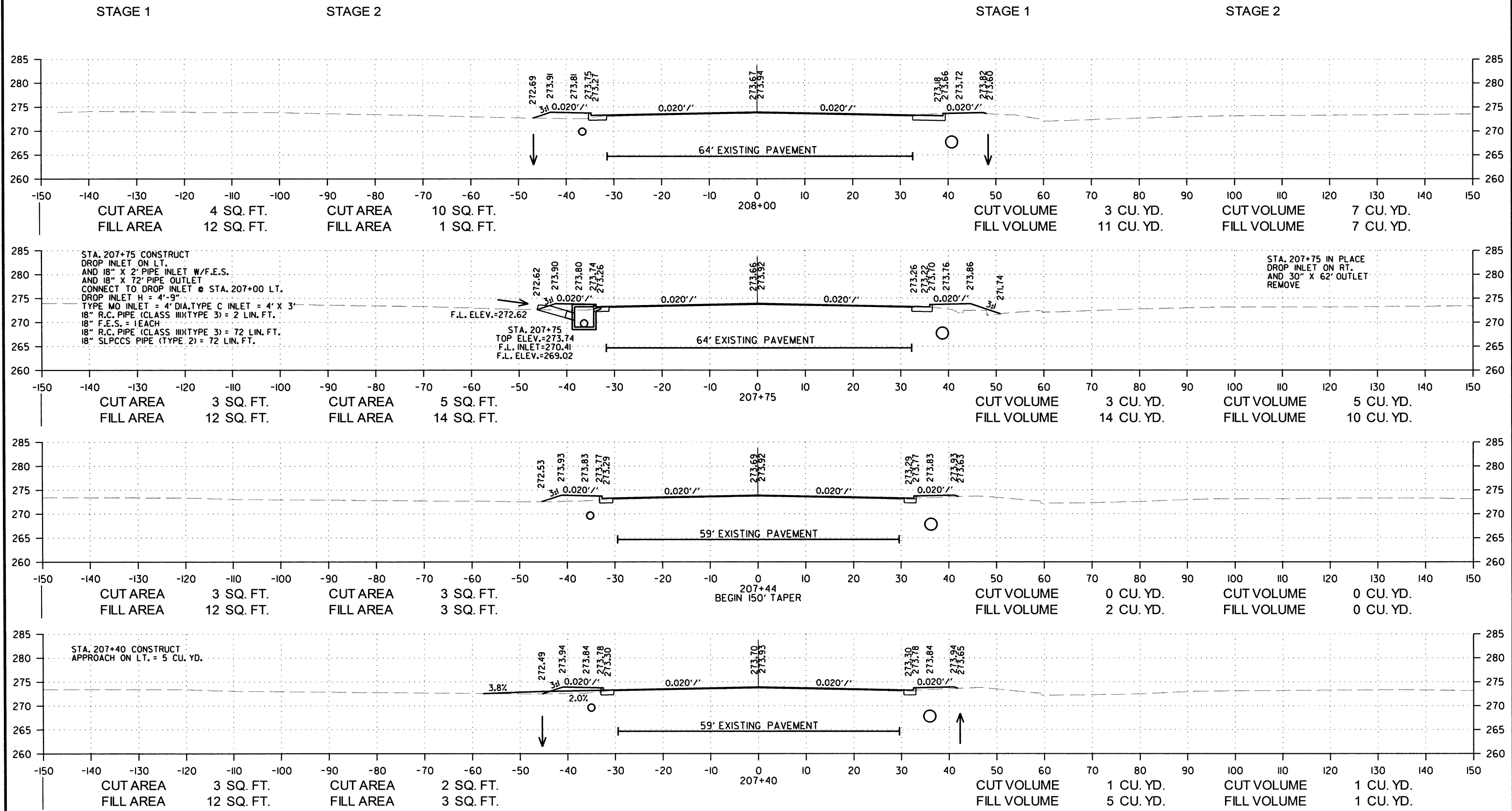
2 CROSS SECTIONS



10/18/2018
R100835.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.	100835		77	88

2 CROSS SECTIONS

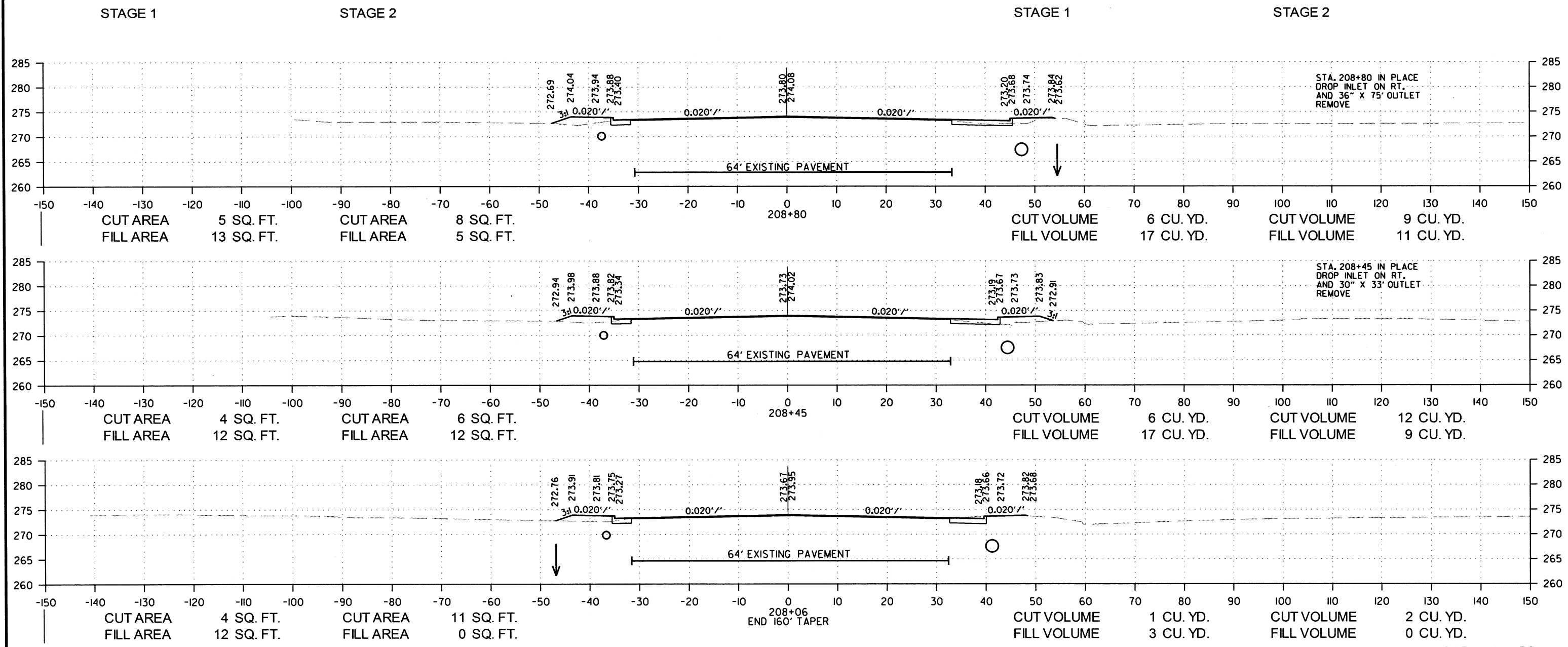


CARAWAY RD.
STA. 207+40 TO STA. 208+00

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R100835.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.	100835		78	88

② CROSS SECTIONS

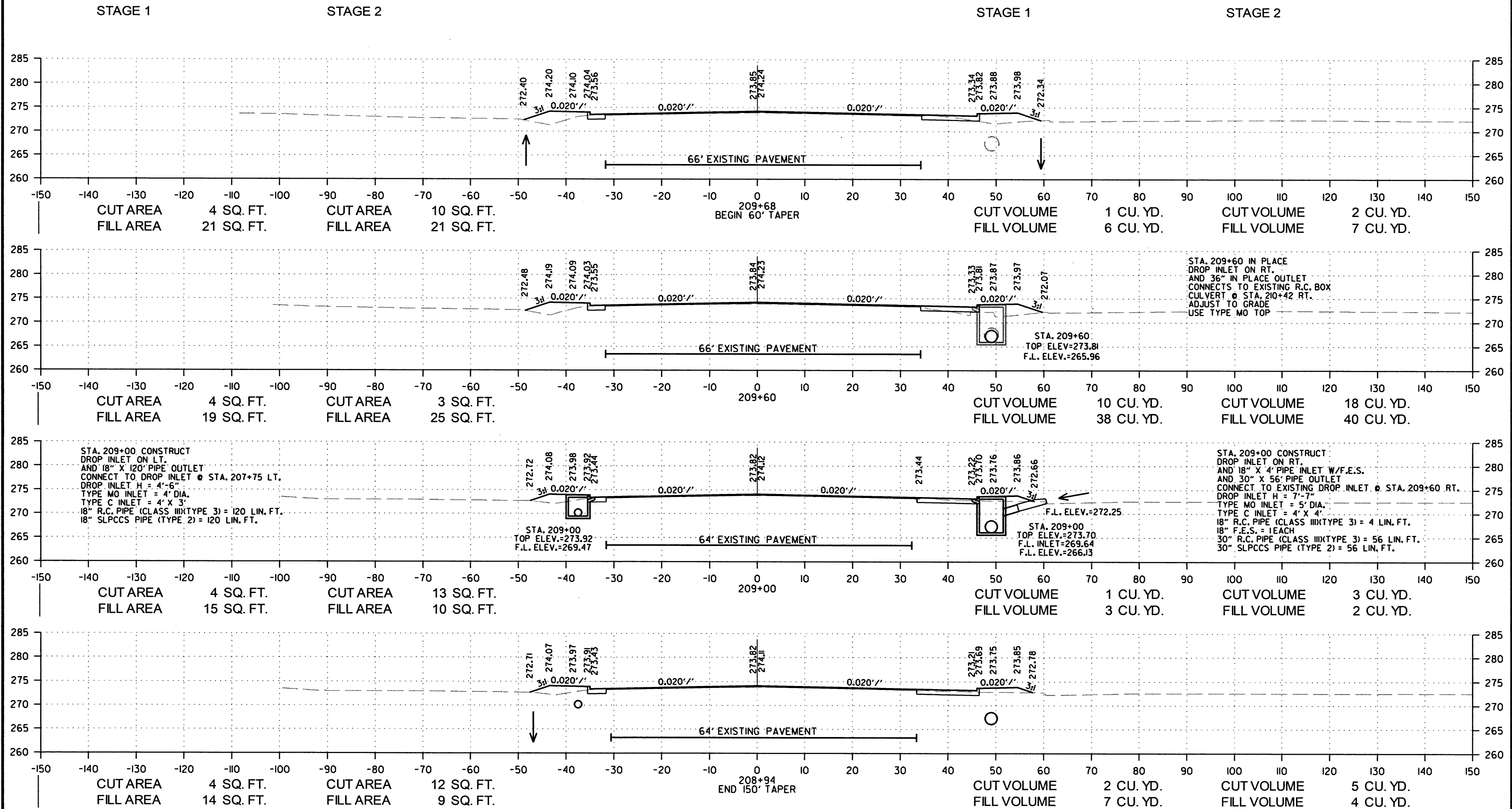


CARAWAY RD.
STA. 208+06 TO STA. 208+80

10/18/2018
R100835.DGN

DATE REVISED	DATE FILED	DATE REVISED	DATE FILED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 100835	79	88

2 CROSS SECTIONS



STA. 209+60 IN PLACE DROP INLET ON RT. AND 36" IN PLACE OUTLET CONNECTS TO EXISTING R.C. BOX CULVERT @ STA. 210+42 RT. ADJUST TO GRADE USE TYPE MO TOP

STA. 209+60
TOP ELEV.=273.81
F.L. ELEV.=265.96

STA. 209+00 CONSTRUCT DROP INLET ON LT. AND 18" X 120" PIPE OUTLET CONNECT TO DROP INLET @ STA. 207+75 LT. DROP INLET H = 4'-6" TYPE MO INLET = 4" DIA. TYPE C INLET = 4" X 3" 18" R.C. PIPE (CLASS III)(TYPE 3) = 120 LIN. FT. 18" SLPCCS PIPE (TYPE 2) = 120 LIN. FT.

STA. 209+00
TOP ELEV.=273.92
F.L. ELEV.=269.47

STA. 209+00
TOP ELEV.=273.70
F.L. INLET=269.64
F.L. ELEV.=266.13

STA. 209+00 CONSTRUCT DROP INLET ON RT. AND 18" X 4" PIPE INLET W/F.E.S. AND 30" X 56" PIPE OUTLET CONNECT TO EXISTING DROP INLET @ STA. 209+60 RT. DROP INLET H = 7'-7" TYPE MO INLET = 5" DIA. TYPE C INLET = 4" X 4" 18" R.C. PIPE (CLASS III)(TYPE 3) = 4 LIN. FT. 18" F.E.S. = 1EACH 30" R.C. PIPE (CLASS III)(TYPE 3) = 56 LIN. FT. 30" SLPCCS PIPE (TYPE 2) = 56 LIN. FT.

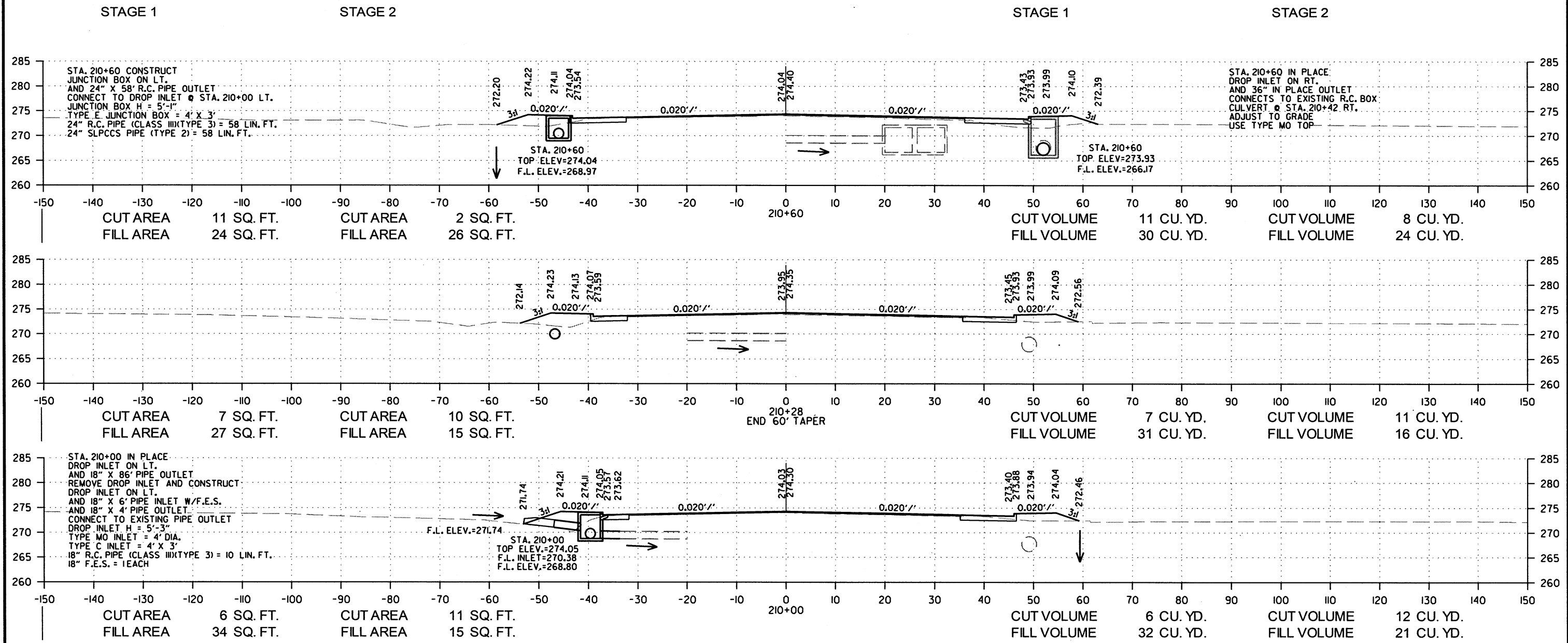
F.L. ELEV.=272.25

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CARAWAY RD.
STA. 208+94 TO STA. 209+68

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 100835	80	88

2 CROSS SECTIONS

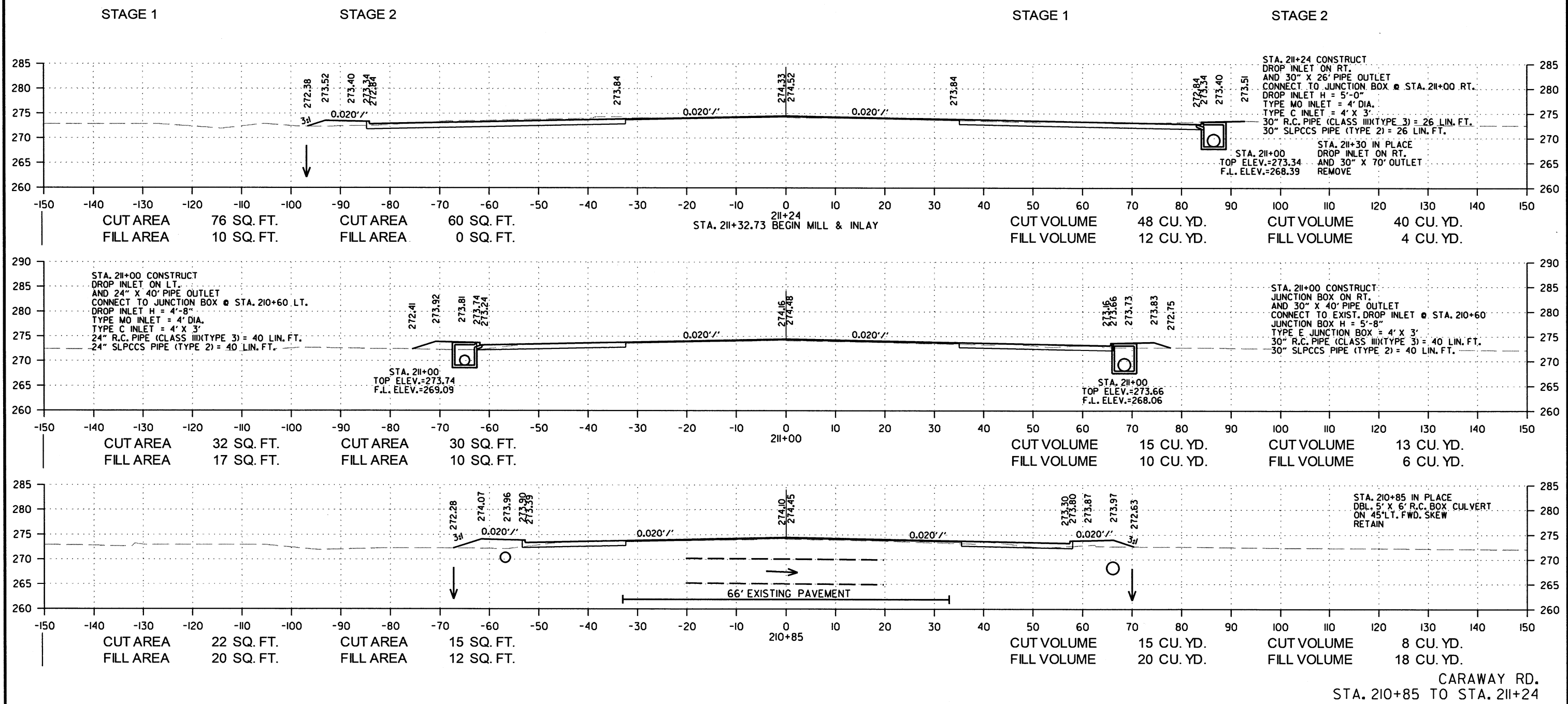


CARAWAY RD.
STA. 210+00 TO STA. 210+60

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R100835.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100835	81	88

2 CROSS SECTIONS

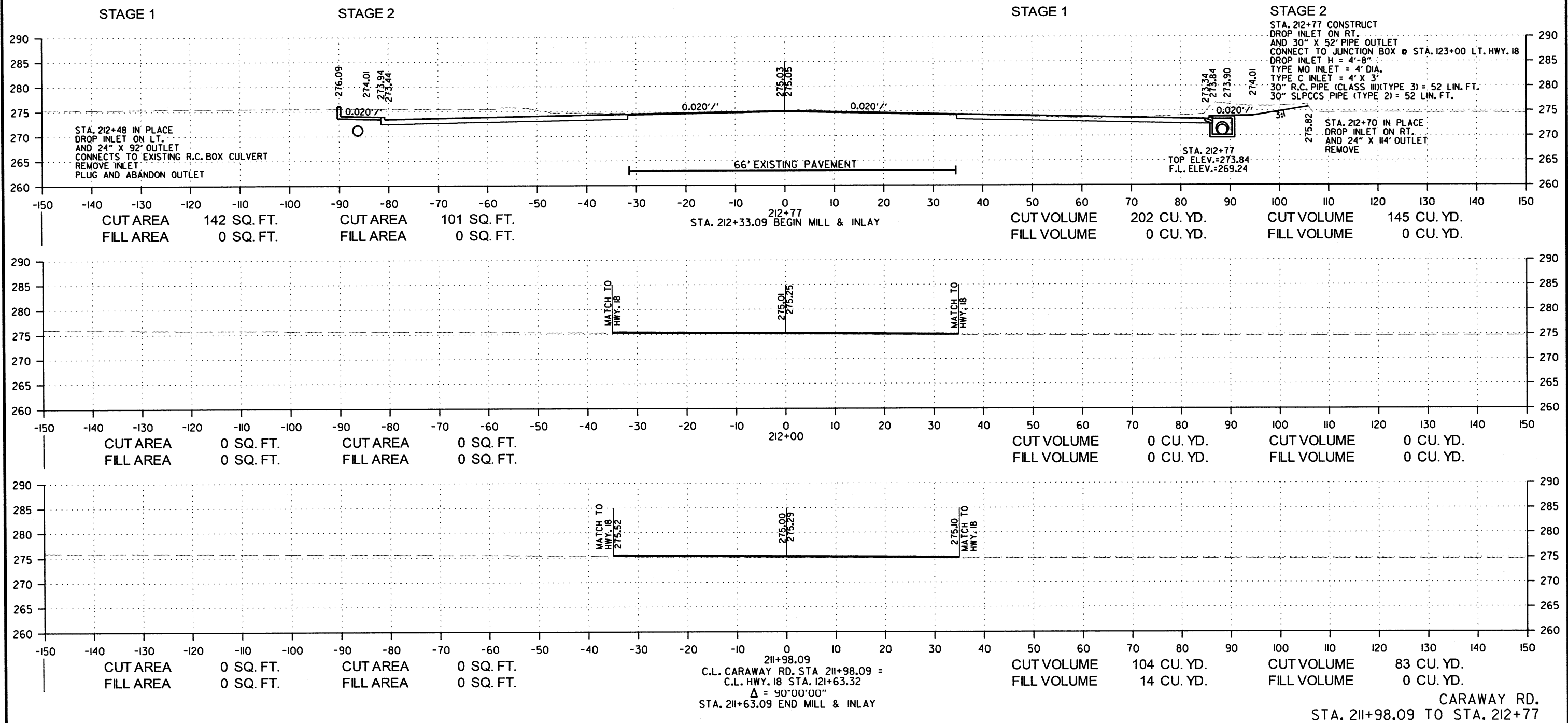


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CARAWAY RD.
STA. 210+85 TO STA. 212+24

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100835		82	88

2 CROSS SECTIONS

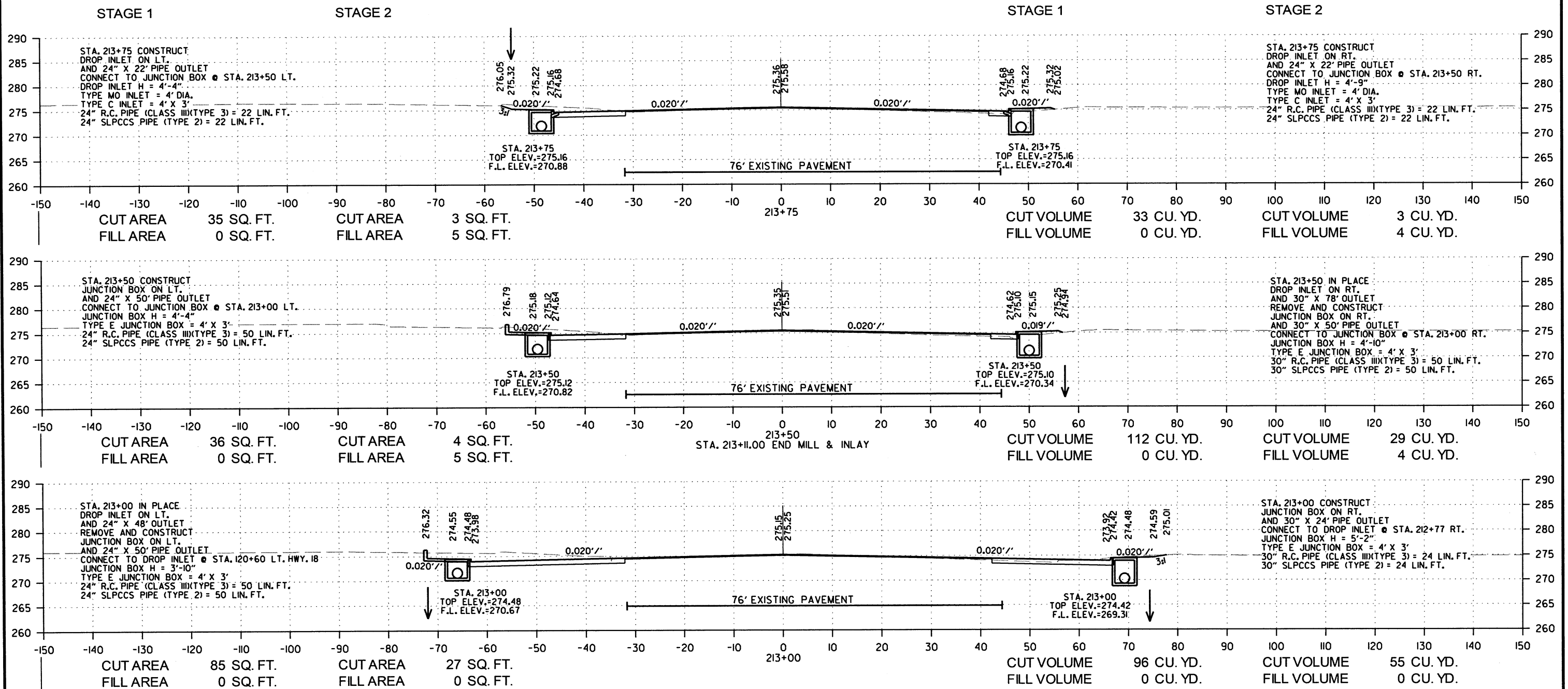


7/23/2019

R100835.DGN

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. 100835	83	88

2 CROSS SECTIONS



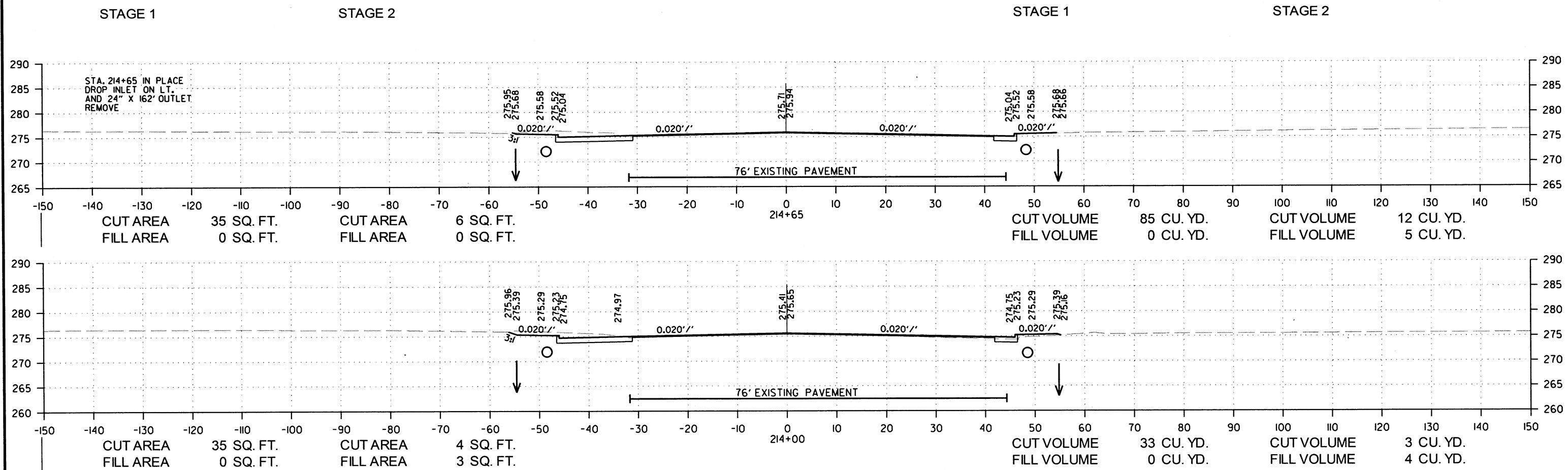
CARAWAY RD.
STA. 213+00 TO STA. 213+75

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R100835.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.	100835		84	88

② CROSS SECTIONS



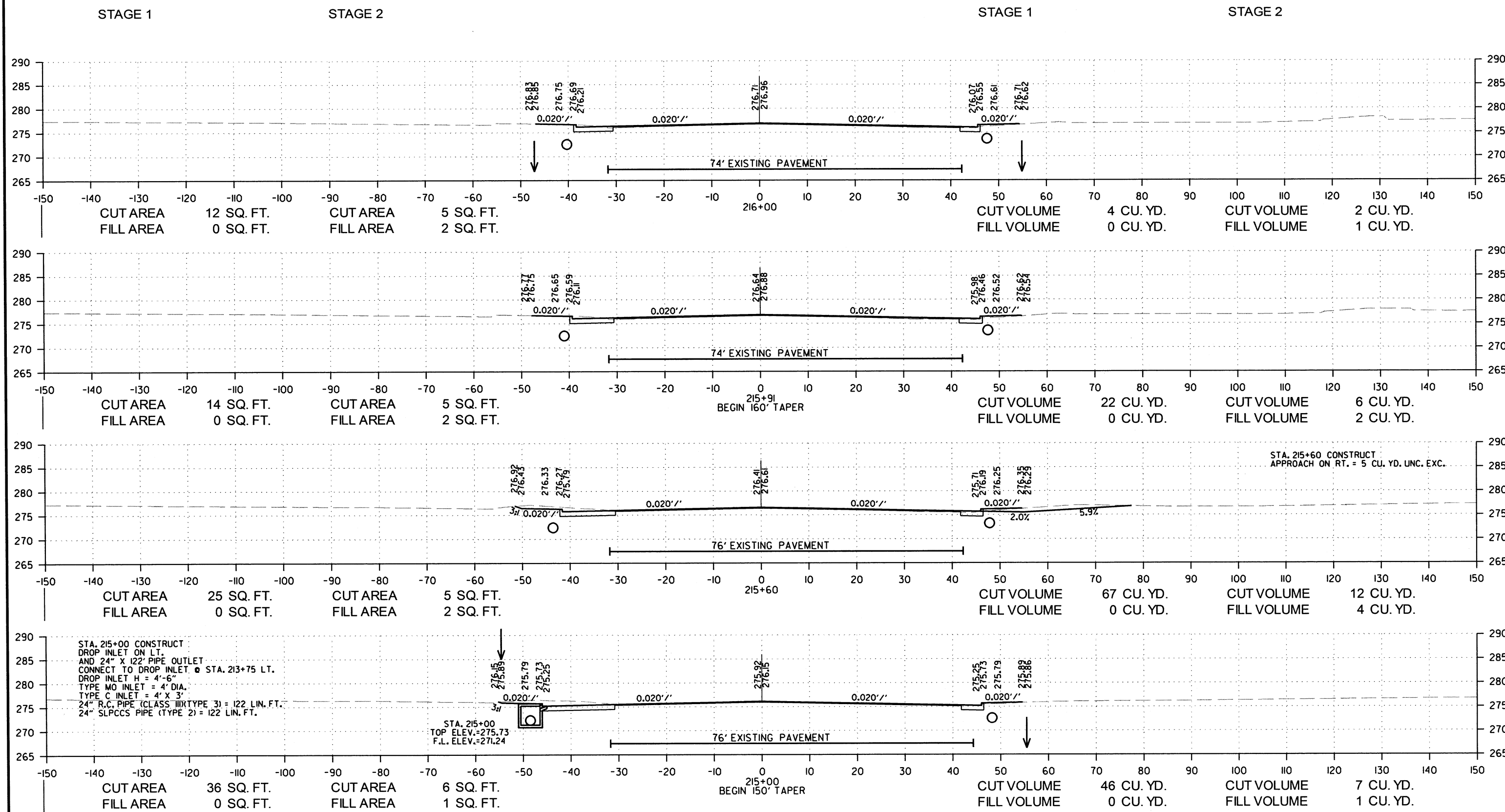
CARAWAY RD.
STA. 214+00 TO STA. 214+65

10/18/2018

R100835.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.						100835	85	88

2 CROSS SECTIONS

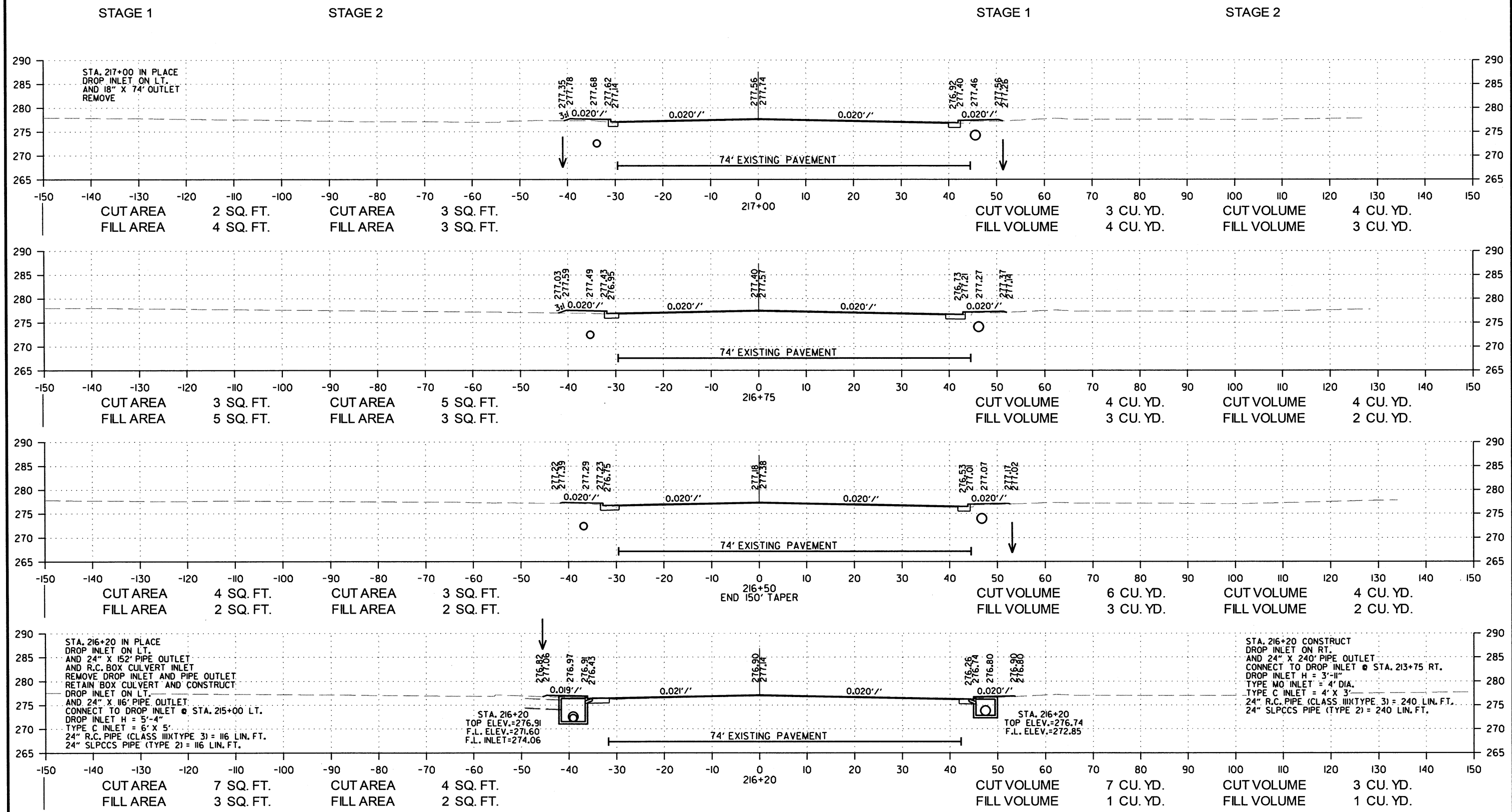


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R100835.DGN

CARAWAY RD.
STA. 215+00 TO STA. 216+00

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100835	86	88

2 CROSS SECTIONS

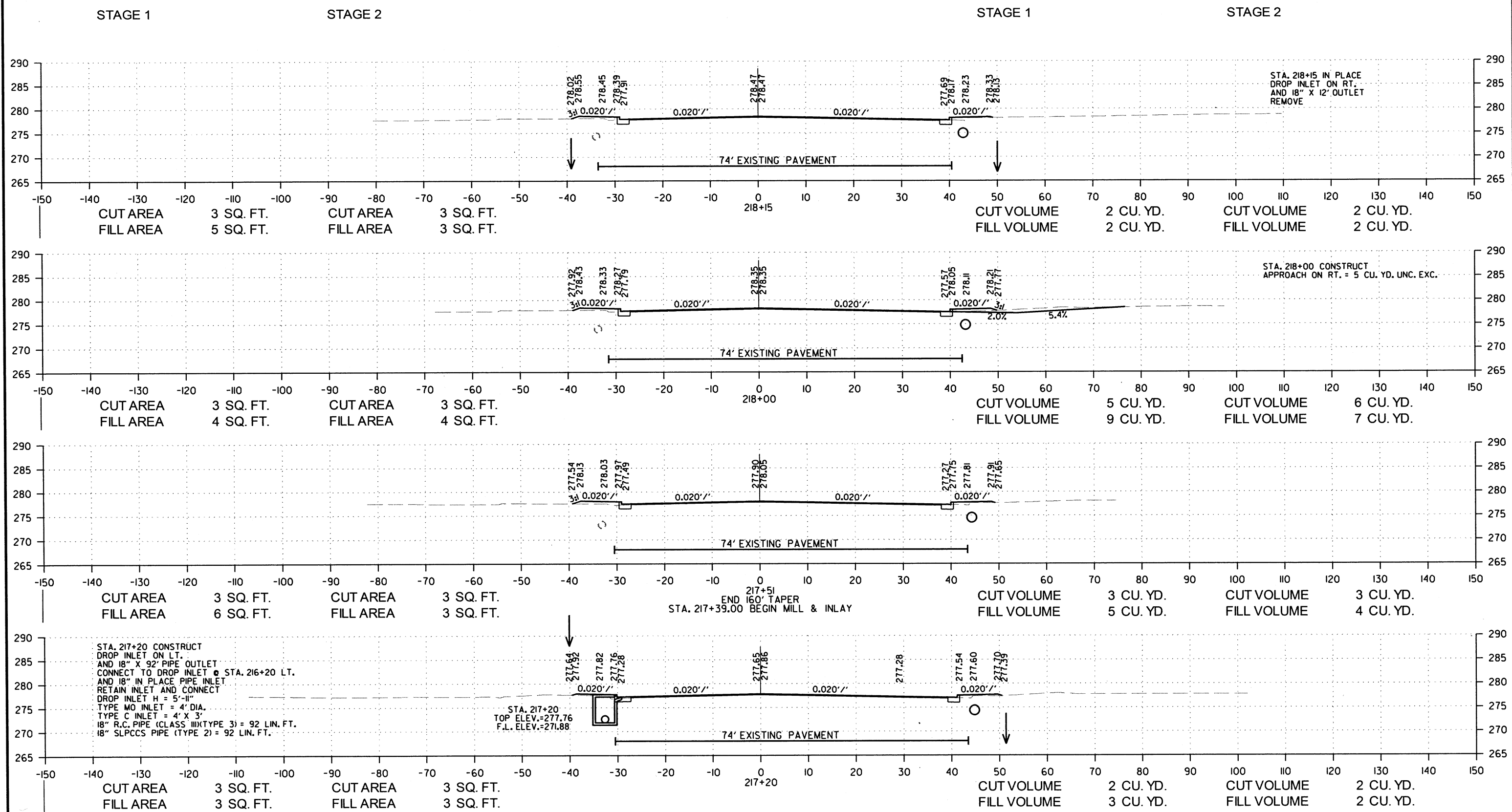


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CARAWAY RD.
STA. 216+20 TO STA. 217+00

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.	100835		87	88

2 CROSS SECTIONS



STAGE 1

STAGE 2

STAGE 1

STAGE 2

STA. 218+15 IN PLACE
DROP INLET ON RT.
AND 18" X 12" OUTLET
REMOVE

STA. 218+00 CONSTRUCT
APPROACH ON RT. = 5 CU. YD. UNC. EXC.

217+51
END 160' TAPER
STA. 217+39.00 BEGIN MILL & INLAY

STA. 217+20 CONSTRUCT
DROP INLET ON LT.
AND 18" X 92" PIPE OUTLET
CONNECT TO DROP INLET @ STA. 216+20 LT.
AND 18" IN PLACE PIPE INLET
RETAIN INLET AND CONNECT
DROP INLET H = 5'-11"
TYPE M0 INLET = 4' DIA.
TYPE C INLET = 4' X 3'
18" R.C. PIPE (CLASS III)(TYPE 3) = 92 LIN. FT.
18" SLPPCS PIPE (TYPE 2) = 92 LIN. FT.

STA. 217+20
TOP ELEV.=277.76
F.L. ELEV.=271.88

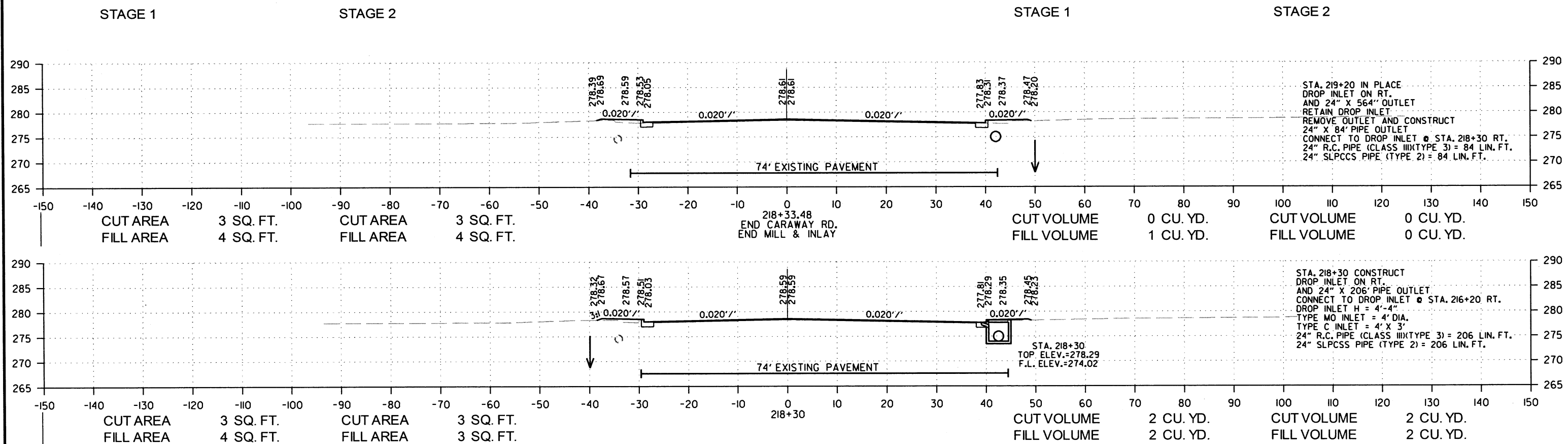
CARAWAY RD.
STA. 217+20 TO STA. 218+15

10/18/2018

RI00835.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.	100835		88	88

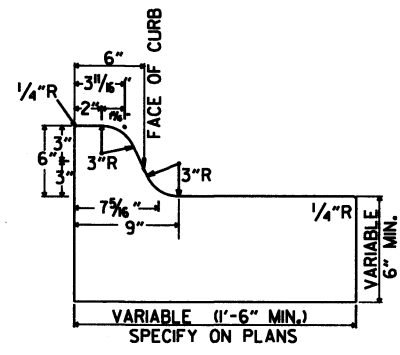
② CROSS SECTIONS



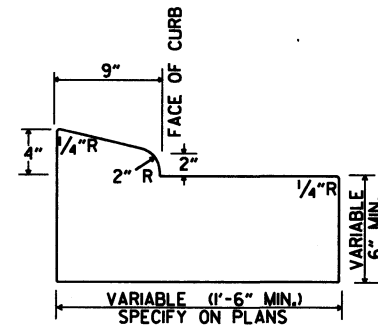
CARAWAY RD.
STA. 218+30 TO STA. 218+33.48

10/18/2018

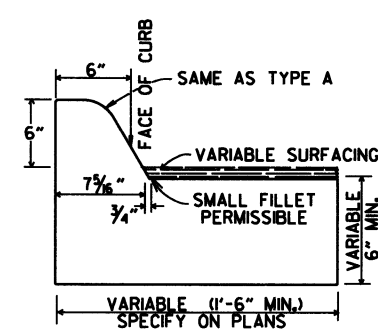
R100835.DGN



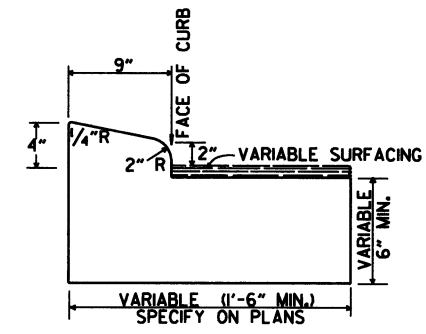
TYPE A



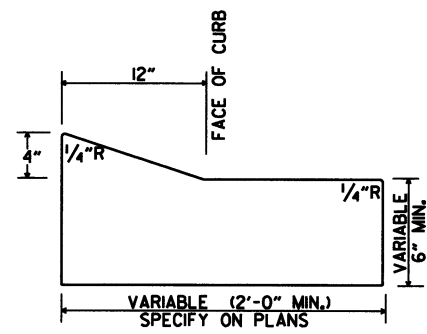
TYPE B-1



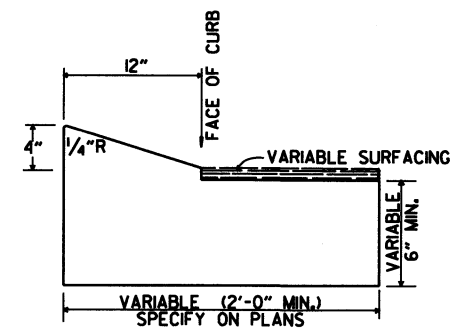
TYPE C



TYPE B-2

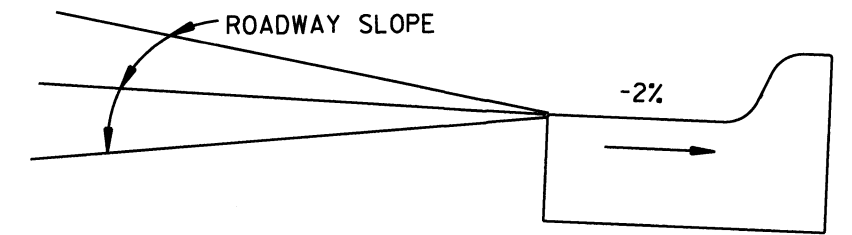


TYPE E-1

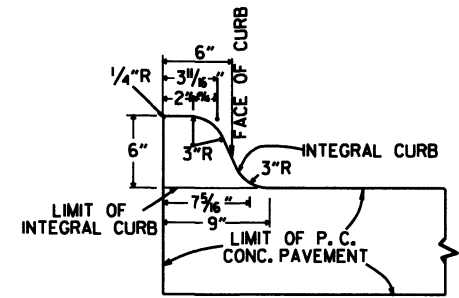


TYPE E-2

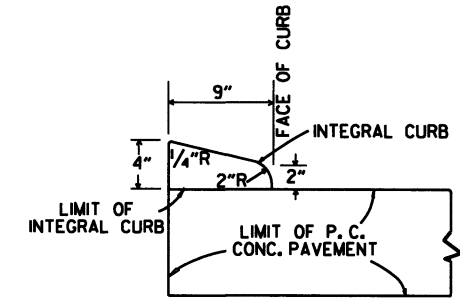
CONCRETE COMBINATION CURB AND GUTTER



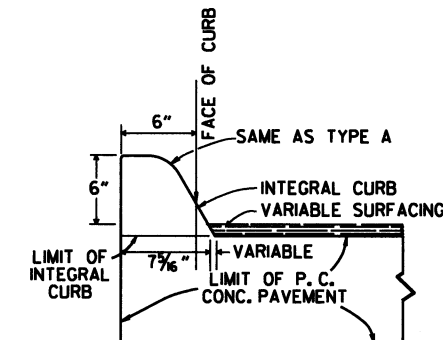
DETAIL OF GUTTER SLOPE
GUTTER SHALL BE CONSTRUCTED ON 2% SLOPE AWAY FROM ROADWAY, REGARDLESS OF ROADWAY SLOPE.



TYPE A

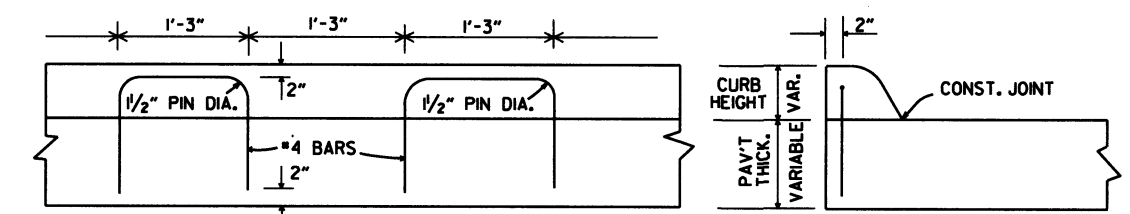


TYPE B



TYPE C

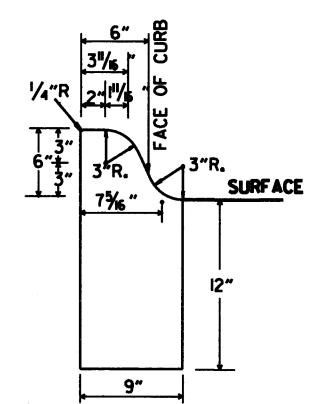
INTEGRAL CURB



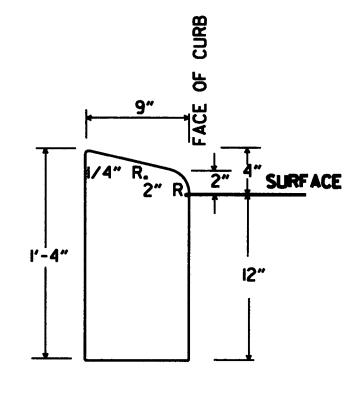
LONGITUDINAL SECTION

ELEVATION

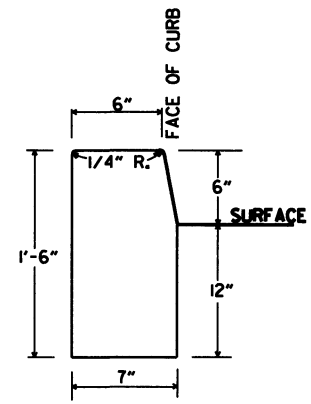
ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB



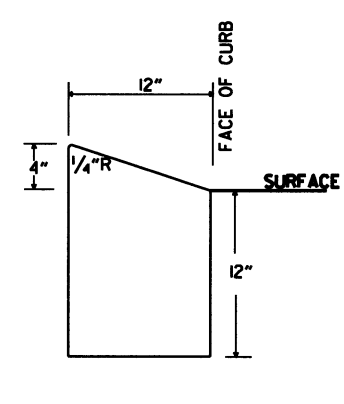
TYPE A



TYPE B

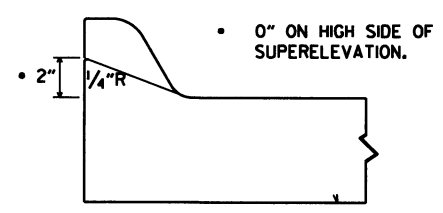


TYPE D



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.

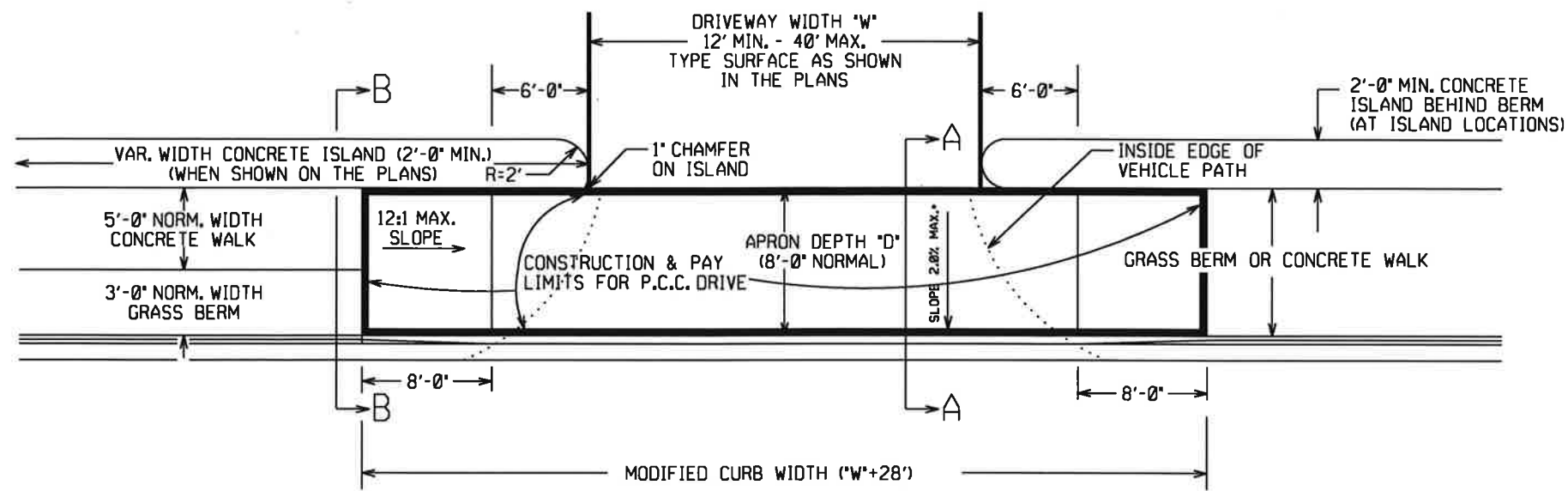
DETAILS OF MODIFIED CURB

DATE	REVISION	DATE FILMED
8-29-07	REVISED GUTTER SLOPE & MODIFIED CURB DETAILS	
8-10-05	ADDED DETAILS OF TYPE E CURBS	
8-16-01	REVISED CONCRETE CURB TYPE B	
8-18-98	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
5-21-90	ADDED DETAILS OF MODIFIED CURB	5-24-90
8-30-89	VARIABLE DEPTH TYPE A & B 1	8-30-89
7-15-88	REVISED MODIFIED CURB	6-30-7-8-88
8-1-73	REVISED MODIFIED CURB	500-1-1-73
10-2-72	REVISED AND REDRAWN	50-10-2-72

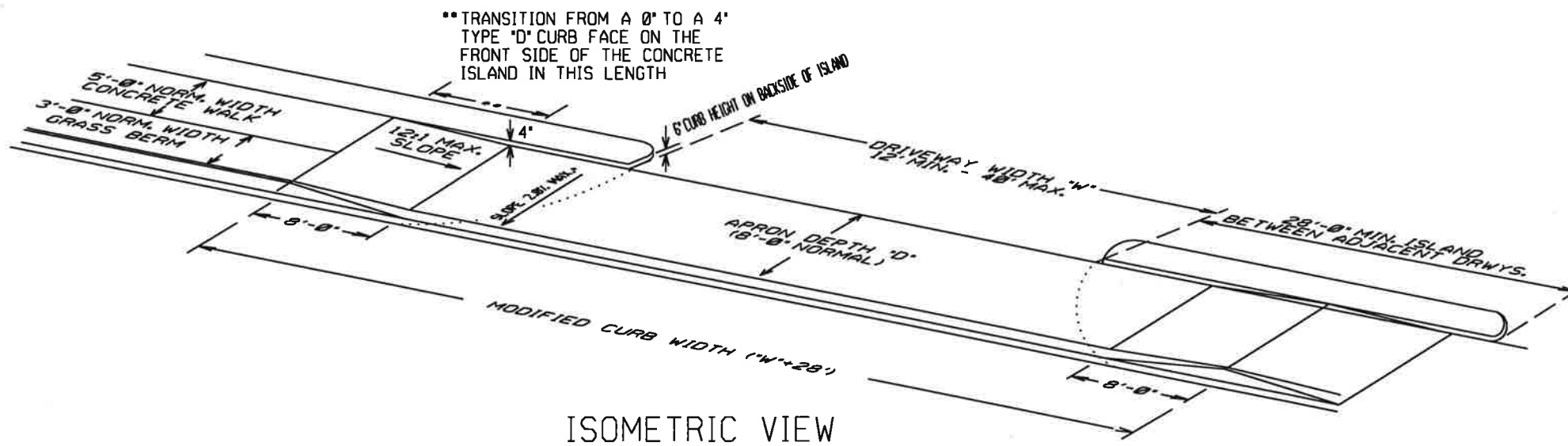
ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

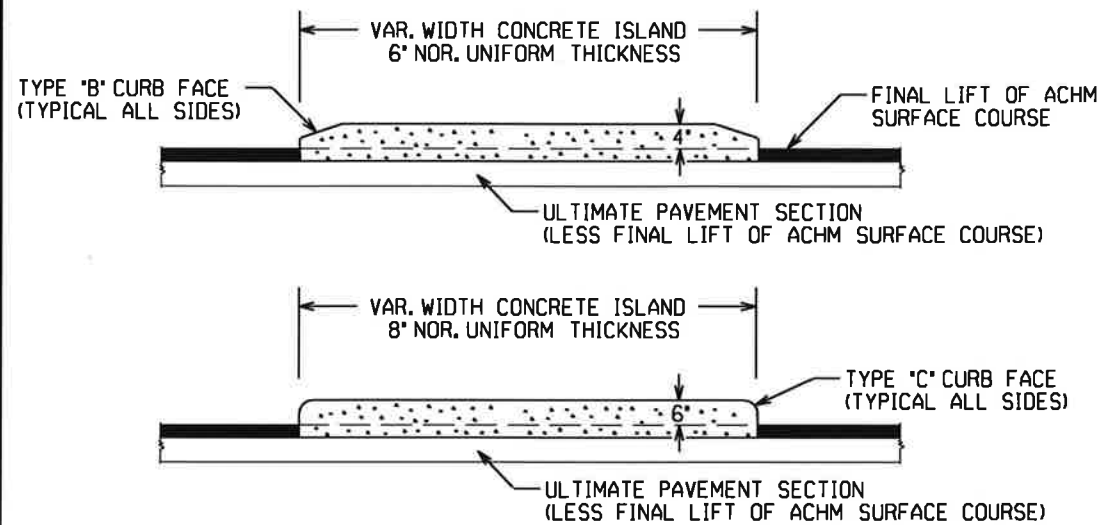
STANDARD DRAWING CG-1



PLAN VIEW

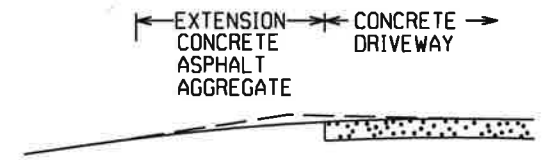


ISOMETRIC VIEW



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'.

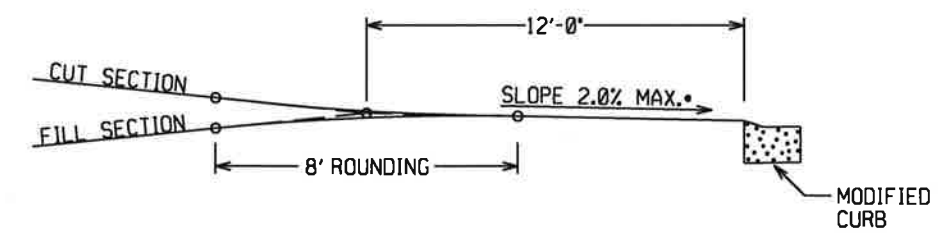


EXTENSION TYPICAL SECTIONS

- 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

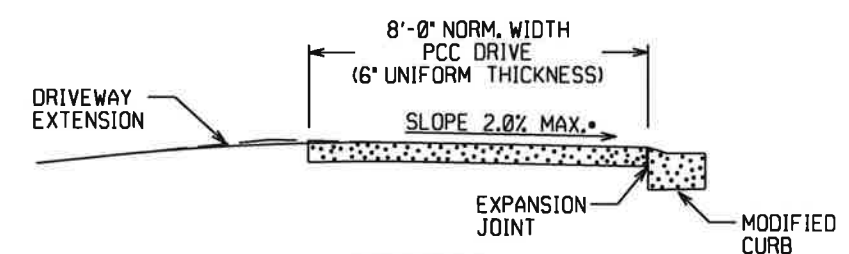
THE TYPE OF EXTENSION SHALL BE AS SHOWN IN THE PLANS. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, SUBSTITUTE A LOWER NUMBERED TYPE OF EXTENSION IN LIEU OF THE TYPE SPECIFIED IN THE PLANS, BUT AT NO ADDITIONAL COST TO THE DEPARTMENT.

DRIVEWAY EXTENSION DETAILS

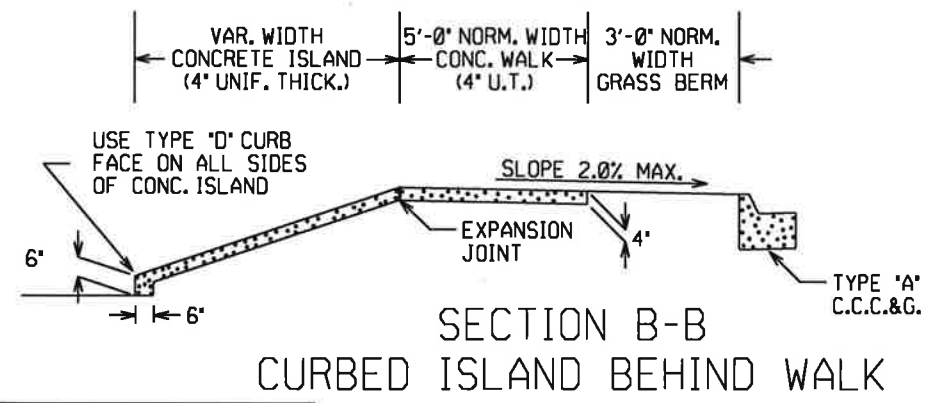


DRIVEWAY VERTICAL ALIGNMENT DETAILS

NOTE: DRIVEWAYS MAY NOT BE SLOPED AWAY FROM THE ROADWAY UNLESS APPROVED BY THE ENGINEER.



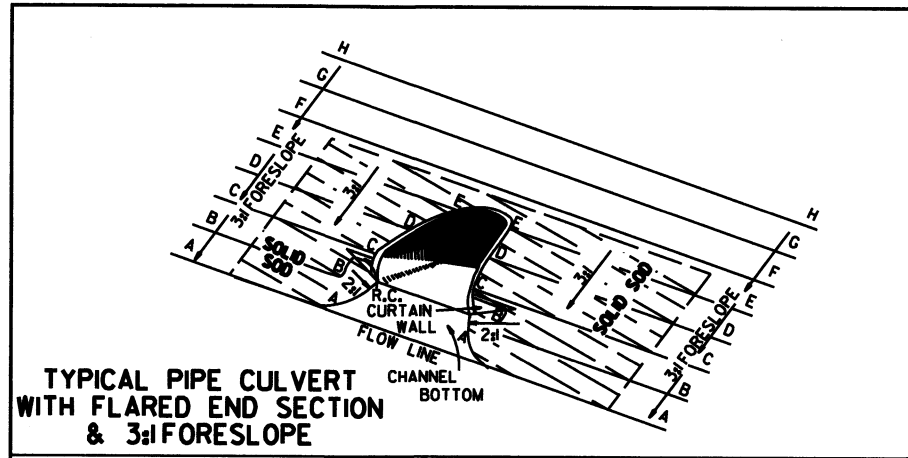
SECTION A-A



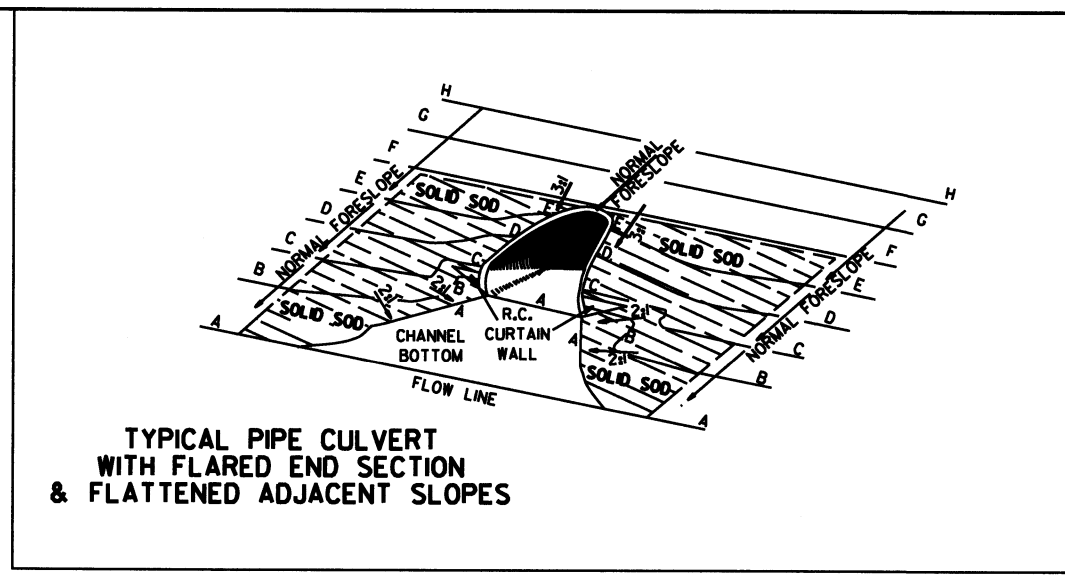
SECTION B-B
CURBED ISLAND BEHIND WALK

DATE	REV	DATE FILMED	DESCRIPTION
11-07-19			REVISED WALK DETAILS
2-27-14			REVISED PLAN & ISOMETRIC VIEW
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

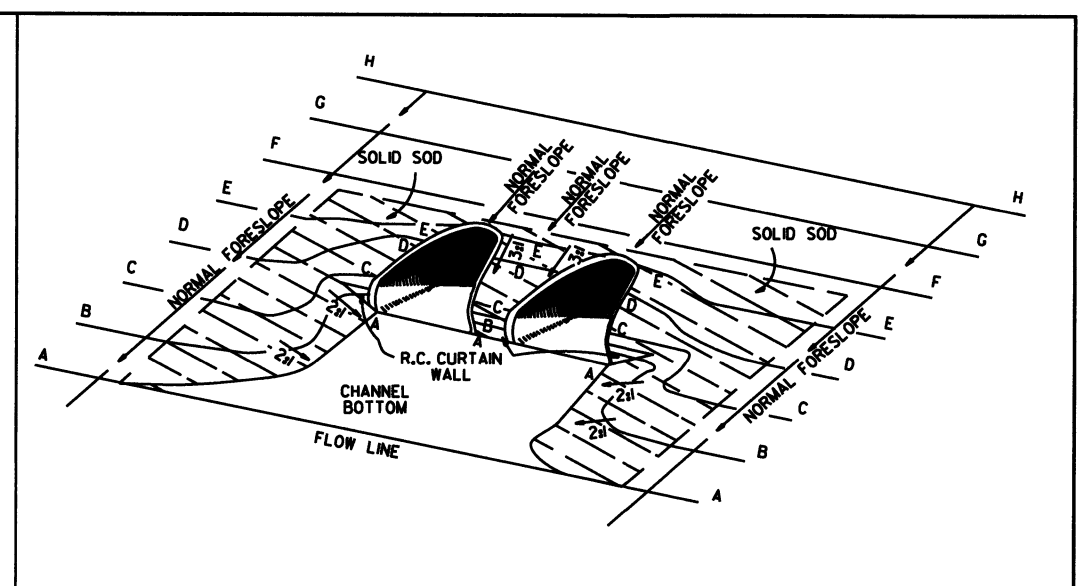
ARKANSAS STATE HIGHWAY COMMISSION
DETAILS OF DRIVEWAYS & ISLANDS
STANDARD DRAWING DR-1



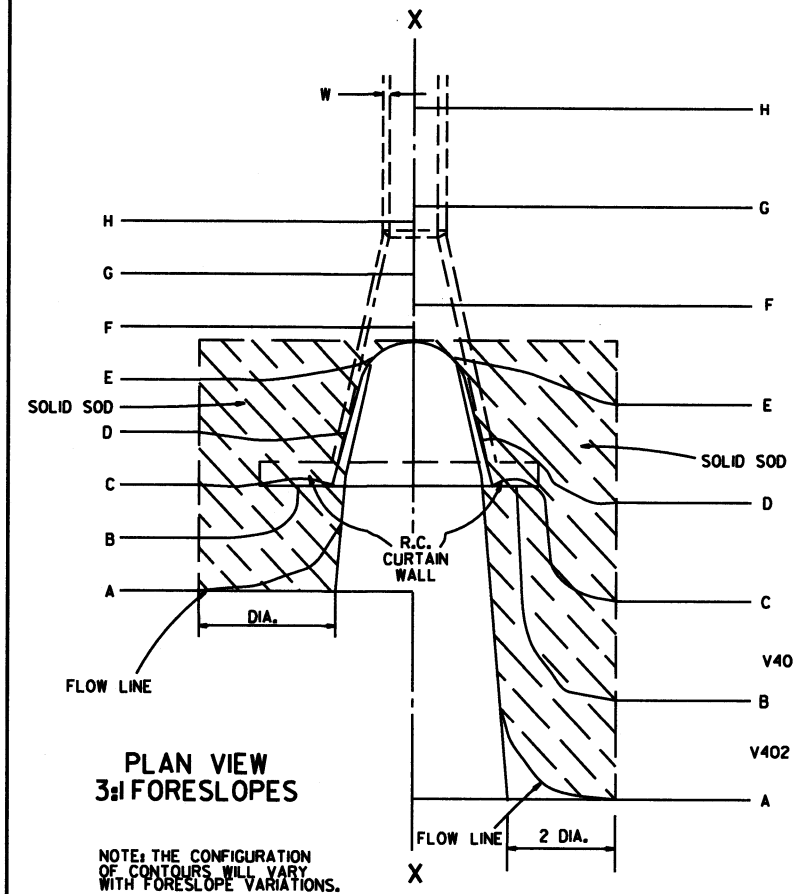
TYPICAL PIPE CULVERT WITH FLARED END SECTION & 3:1 FORESLOPE



TYPICAL PIPE CULVERT WITH FLARED END SECTION & FLATTENED ADJACENT SLOPES



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



PLAN VIEW 3:1 FORESLOPES

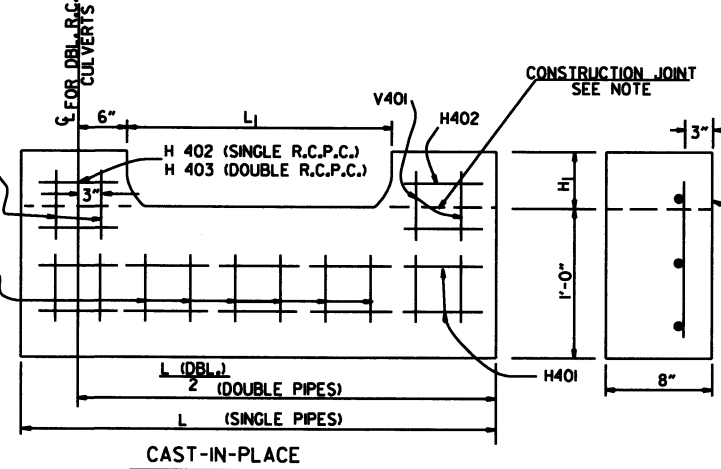
NOTE: THE CONFIGURATION OF CONTOURS WILL VARY WITH FORESLOPE VARIATIONS.

PLAN VIEW FLATTENED FORESLOPES

R.C. CURTAIN WALL DIMENSIONS & QUANTITIES

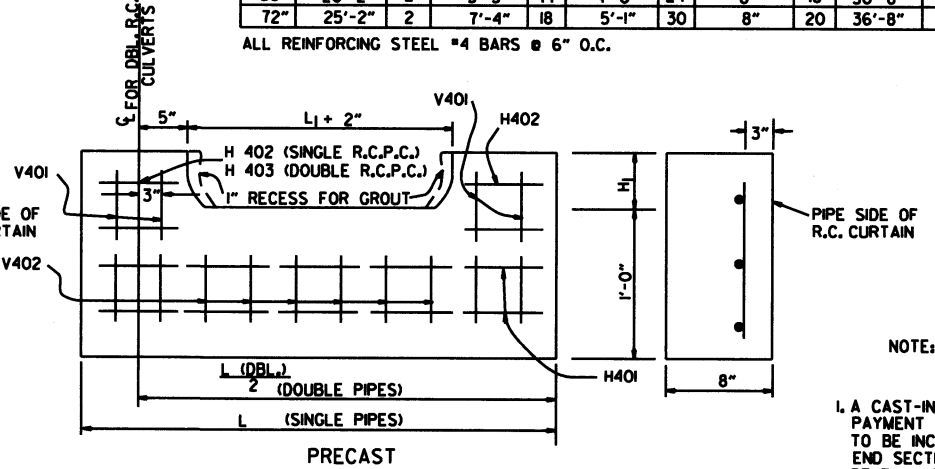
PIPE DIA.	H ₁	L ₁	L	L (DBL.) 2	SINGLE R.C.P.C.		DOUBLE R.C.P.C.	
					CONC.	REINF. STEEL	CONC.	REINF. STEEL
					CU. YDS.	LBS.	CU. YDS.	LBS.
18"	11/2"	3'-5"	8'-0"	6'-3"	0.31	27.7	0.45	39.5
24"	1'-0 1/2"	4'-6"	9'-6"	7'-6"	0.37	33.4	0.53	48.0
30"	1'-3 1/2"	5'-7"	11'-0"	9'-0"	0.45	39.0	0.67	59.0
36"	1'-7"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

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



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.

R.C. CURTAIN WALL DETAILS



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

REINFORCING STEEL SCHEDULE

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

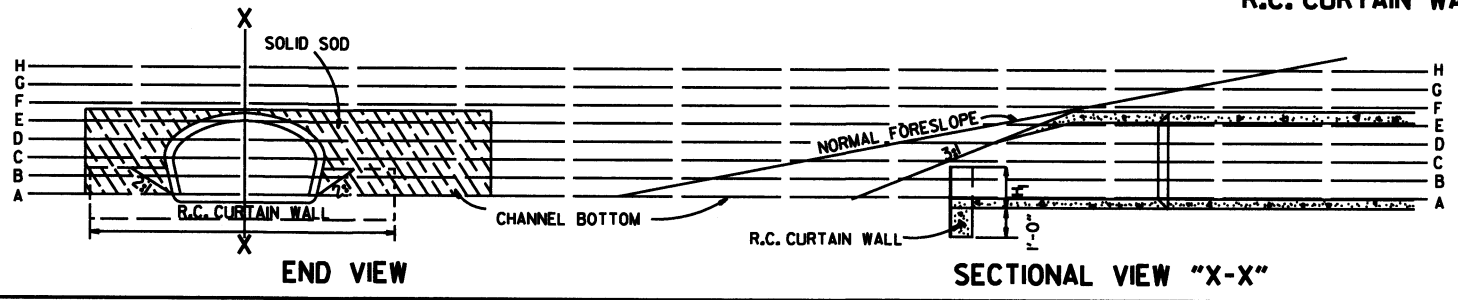
ALL REINFORCING STEEL #4 BARS @ 6" O.C.

SOLID SODDING

PIPE DIA.	SINGLE R.C.P.C.						DOUBLE R.C.P.C.					
	3:1		4:1		6:1		3:1		4:1		6:1	
	SQ. YDS.						SQ. YDS.					
18"	5	8	12	15	19	6	8	13	17	21	26	
24"	8	12	18	23	29	9	13	20	26	33	41	
30"	13	18	27	34	43	14	19	30	39	49	61	
36"	17	25	37	46	58	18	25	41	53	66	82	
42"	23	35	52	65	82	25	34	55	71	88	109	
48"	29	46	69	86	108	31	43	70	91	113	140	
54"	35	57	85	106	134	37	50	87	113	141	175	
60"	45	75	111	138	174	48	64	113	147	185	231	
72"	64	92	156	196	247	67	95	159	207	265	331	

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

- GENERAL NOTES
1. A CAST-IN-PLACE OR PRECAST CURTAIN WALL MAY BE USED. PAYMENT FOR THE CURTAIN WALL SHALL BE CONSIDERED TO BE INCLUDED IN THE UNIT PRICE BID EACH FOR FLARED END SECTIONS OF THE SEVERAL SIZES, WHICH PRICE SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIALS INCLUDING REINFORCING STEEL AND CONCRETE; FOR FORMS, MIXING AND PLACING; FOR EXCAVATION AND BACKFILL; AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.
 2. ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4".
 3. CONCRETE FOR CURTAIN WALL SHALL MEET THE REQUIREMENTS FOR CLASS A OR S CONCRETE AS PROVIDED IN SECTION 802 OF THE STANDARD SPECIFICATIONS OR FOR PAVING CONCRETE AS PROVIDED IN SECTION 501 OF THE STANDARD SPECIFICATIONS.
 4. WELDED WIRE MESH 3 x 3 W/10 x W10 MAY BE USED IN LIEU OF REINFORCING BARS.



END VIEW

SECTIONAL VIEW "X-X"

10-18-95 ADDED NOTE TO SOLID SODDING			ARKANSAS STATE HIGHWAY COMMISSION
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			
DATE	REVISION	FILMED	STANDARD DRAWING FES-1

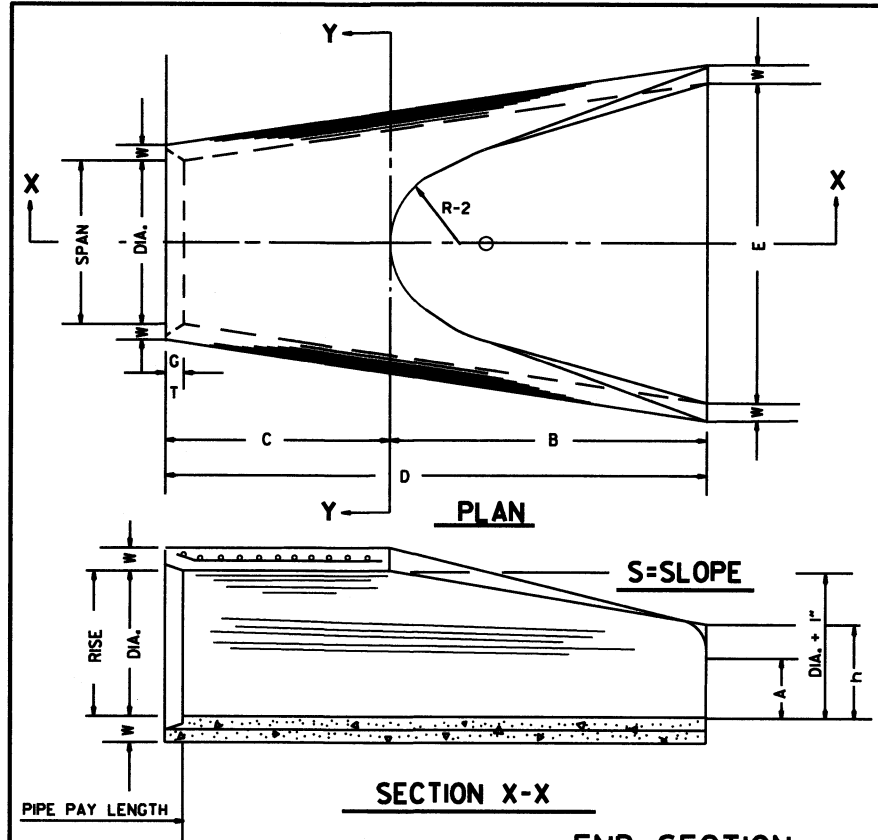
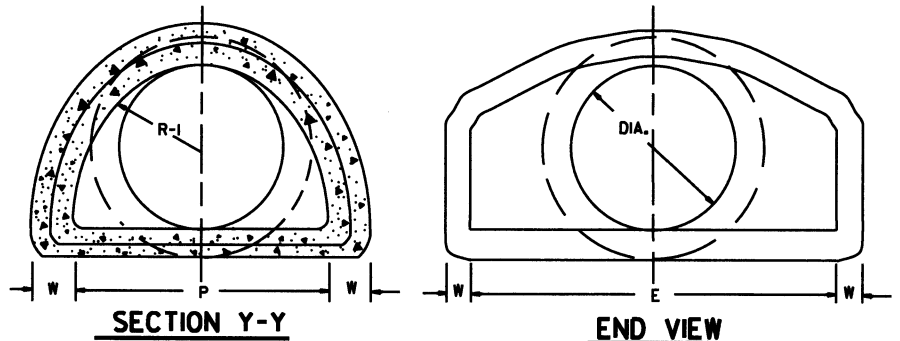


TABLE OF DIMENSIONS

DIA.	WALL	A	B	C	D	E	S	DIA. + 1"	P	R-1	R-2	G-T	WT.	h
18"	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	3#1	19"	29"	15 1/2"	12"	2"	1000	1'-0 1/2"
24"	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	3#1	25"	33 3/8"	16 3/8"	14"	2 1/2"	1600	1'-1 1/2"
30"	3 1/2"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3#1	31"	37"	18 1/2"	15"	3 1/4"	1940	1'-4 3/4"
36"	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 1/4"	6'-0"	3#1	37"	47 3/8"	24 3/8"	20"	3 3/8"	4100	1'-8"
42"	4 1/2"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3#1	43"	53 3/8"	27 1/2"	22"	3 1/2"	5380	2'-2 1/2"
48"	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	3#1	49"	58 1/2"	28 1/2"	22"	3 1/2"	6550	2'-6"
54"	5 1/2"	2'-4"	6'-6"	1'-10"	8'-4"	7'-6"	3#1	55"	65 1/2"	33 3/8"	24"	4"	8750	2'-10 1/2"
60"	6"	2'-10"	6'-6"	1'-10"	8'-4"	8'-0"	3#1	61"	72 1/2"	36 3/8"	24"	4"	9270	3'-5"
72"	7"	3'-10"	6'-6"	1'-10"	8'-4"	9'-0"	3#1	73"	77 3/8"	38 3/8"	24"	5"	13250	4'-6"



END SECTION FOR REINFORCED CONCRETE PIPE CULVERTS

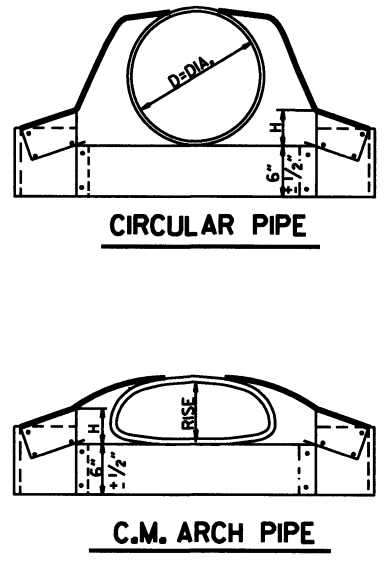
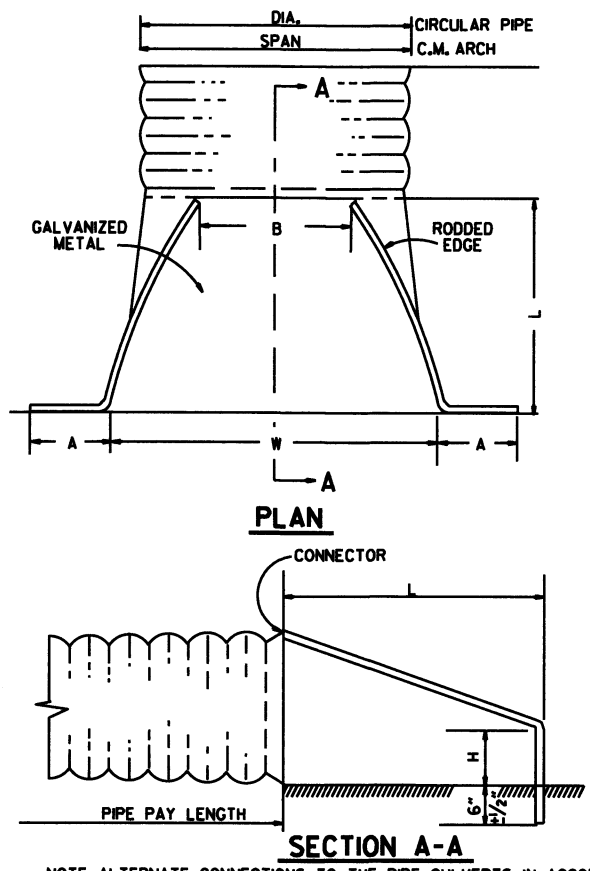
NOTE: TONGUE END ON UPSTREAM SECTION
GROOVE END ON DOWNSTREAM SECTION

ARCH PIPE

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

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

END VIEW CONCRETE ARCH PIPE

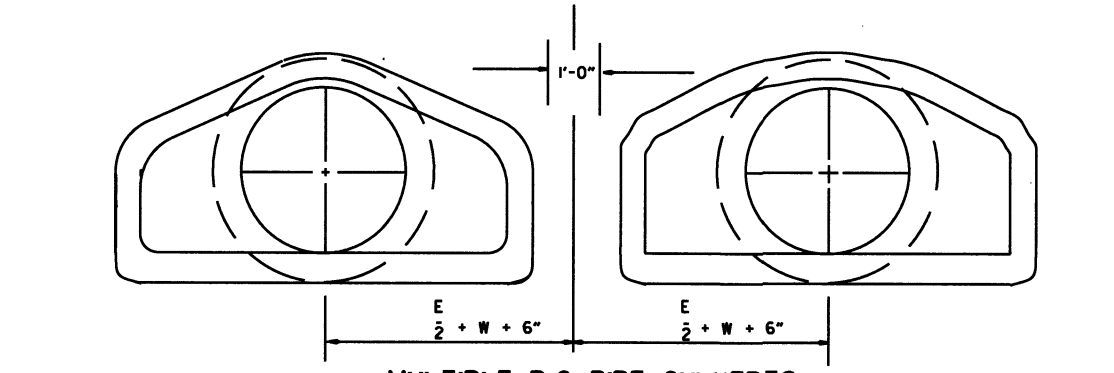


CIRCULAR PIPE

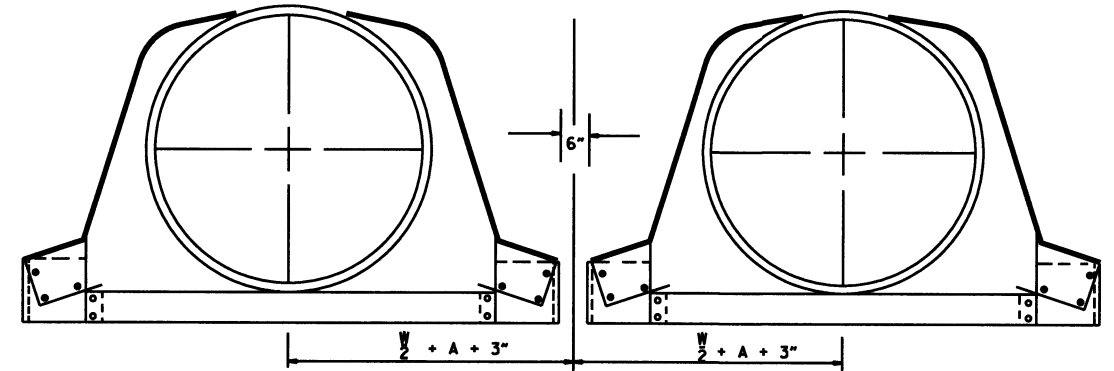
D. DIA.	GAUGE	A	B. MAX.	H	L	W	S
12	16	6	6	6	21	24	2 1/2#1
15	16	7	8	6	26	30	2 1/2#1
18	16	8	10	6	31	36	2 1/2#1
21	16	9	12	6	36	42	2 1/2#1
24	16	10	13	6	41	48	2 1/2#1
30	14	12	16	8	51	60	2 1/2#1
36	14	14	19	9	60	72	2 1/2#1
42	12	16	22	11	69	84	2 1/2#1
48	12	18	27	12	78	90	2 1/2#1
54	12	18	30	12	84	102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

C.M. ARCH PIPE

EQUIV. DIA.	SPAN	RISE	A	B. MAX.	H	L	W	S	GAUGE
15"	17	13	7	9	6	19	30	2 1/2#1	16
18"	21	15	7	10	6	23	36	2 1/2#1	16
21"	24	18	8	12	6	28	42	2 1/2#1	16
24"	28	20	9	14	6	32	48	2 1/2#1	16
30"	35	24	10	16	6	39	60	2 1/2#1	14
36"	42	29	12	18	8	46	75	2 1/2#1	14
42"	49	33	13	21	9	53	85	2 1/2#1	12
48"	57	38	18	26	12	63	90	2 1/2#1	12
54"	64	43	18	30	12	70	102	2 1/4#1	12
60"	71	47	18	33	12	77	114	2 1/4#1	12



MULTIPLE R.C. PIPE CULVERTS

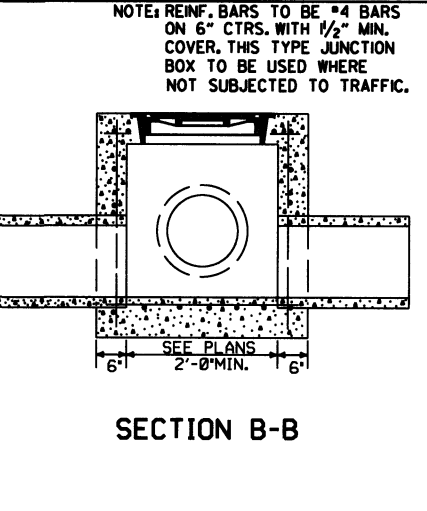
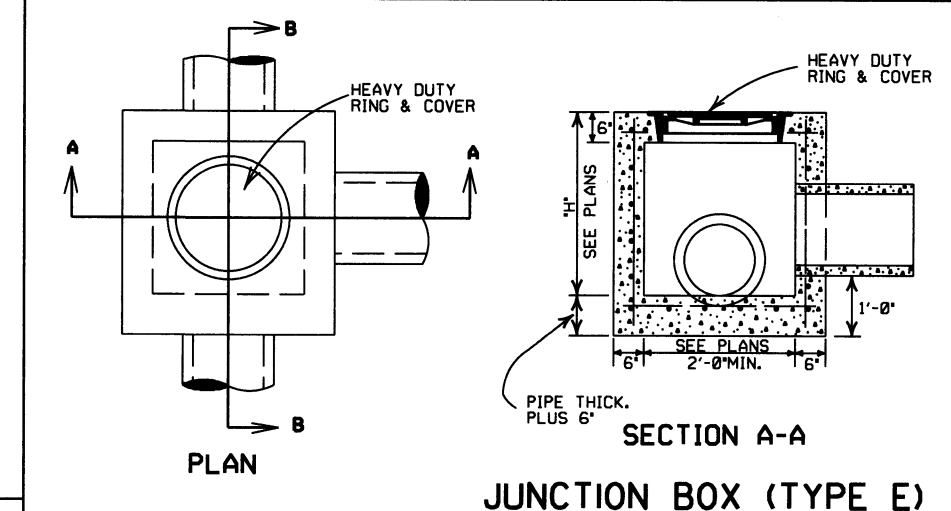
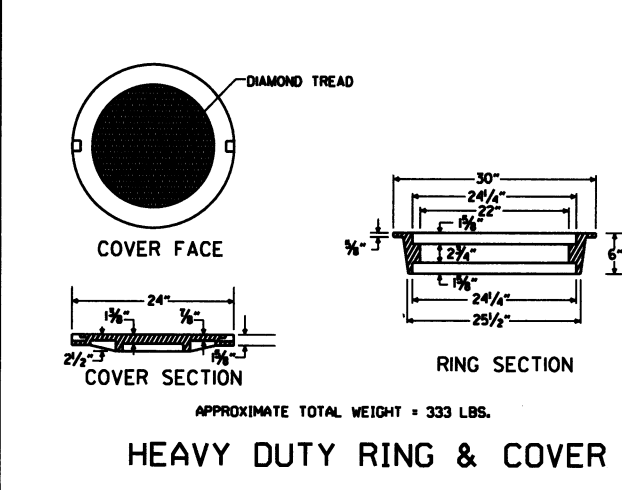
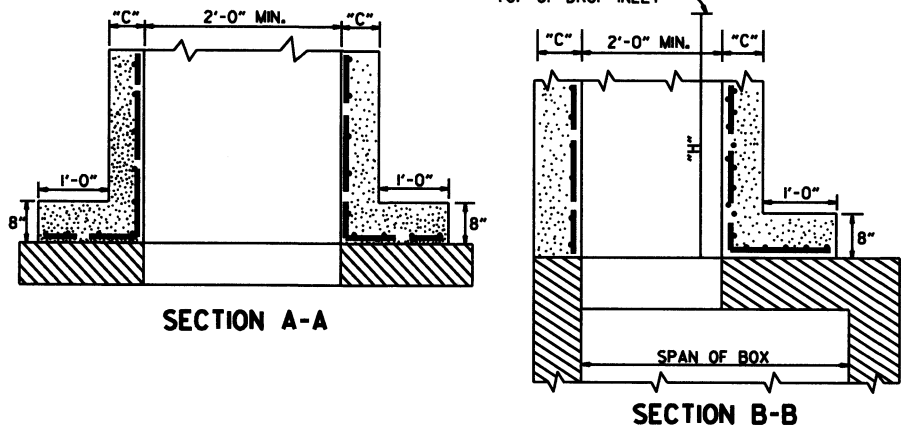
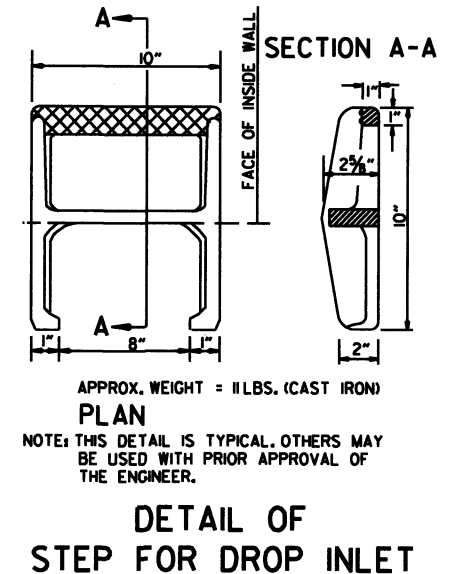
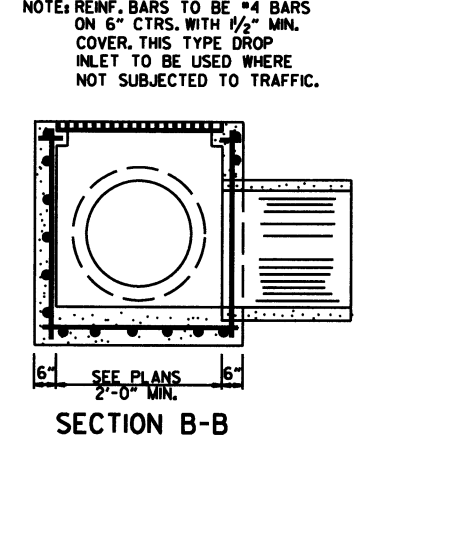
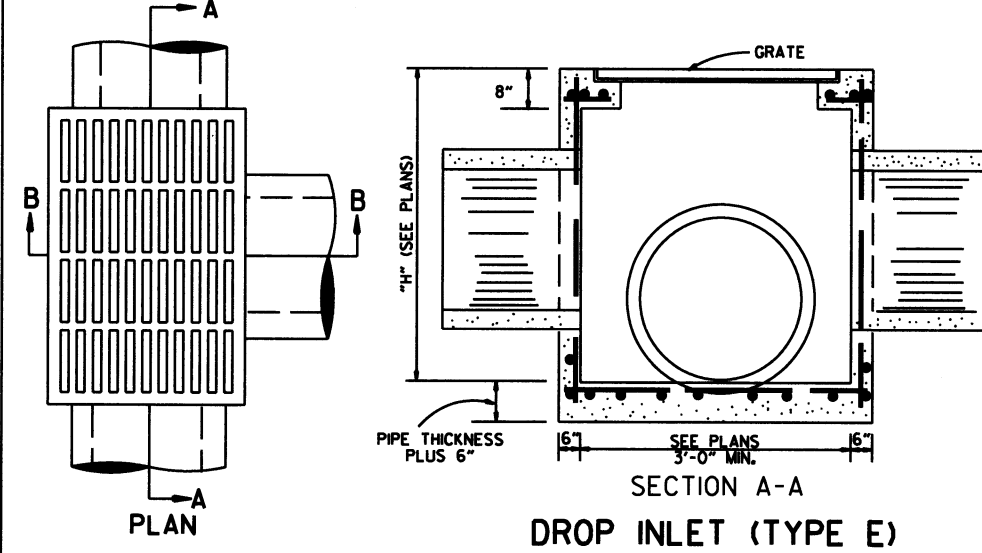
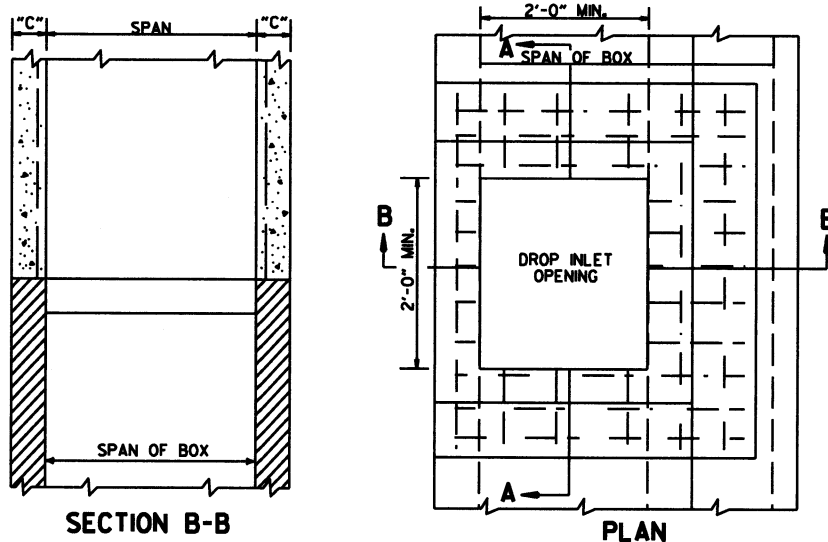


MULTIPLE C.M. PIPE CULVERTS

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

END SECTIONS FOR CORRUGATED METAL PIPE CULVERTS

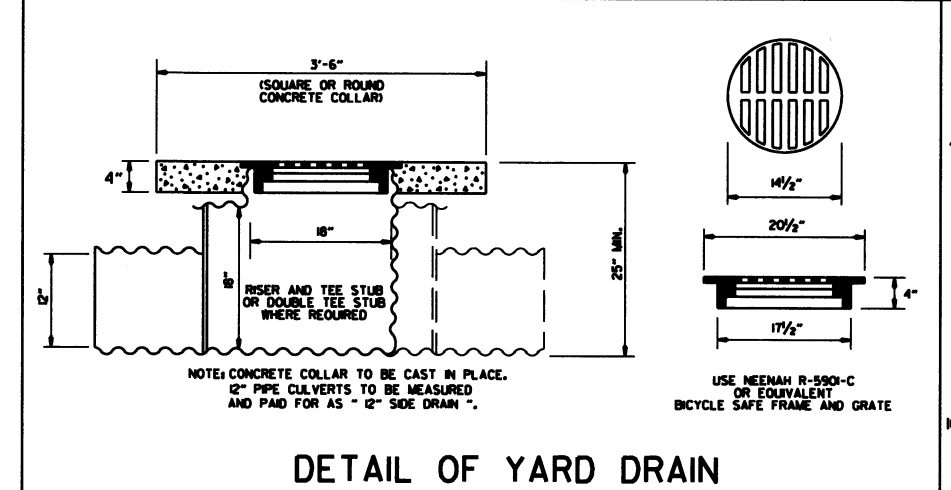
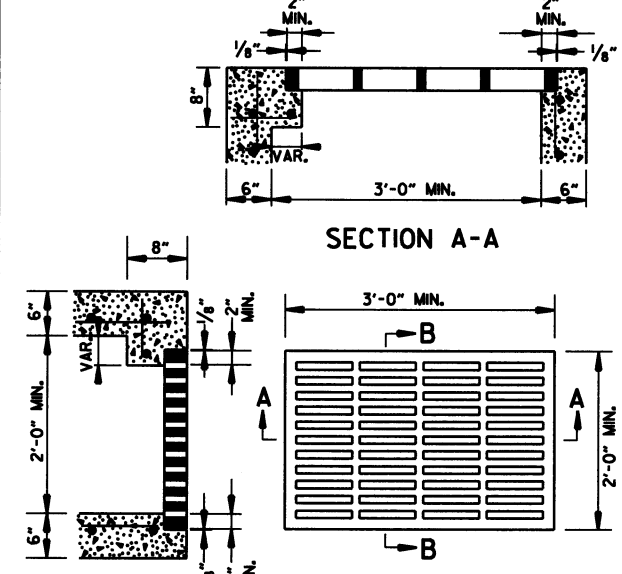
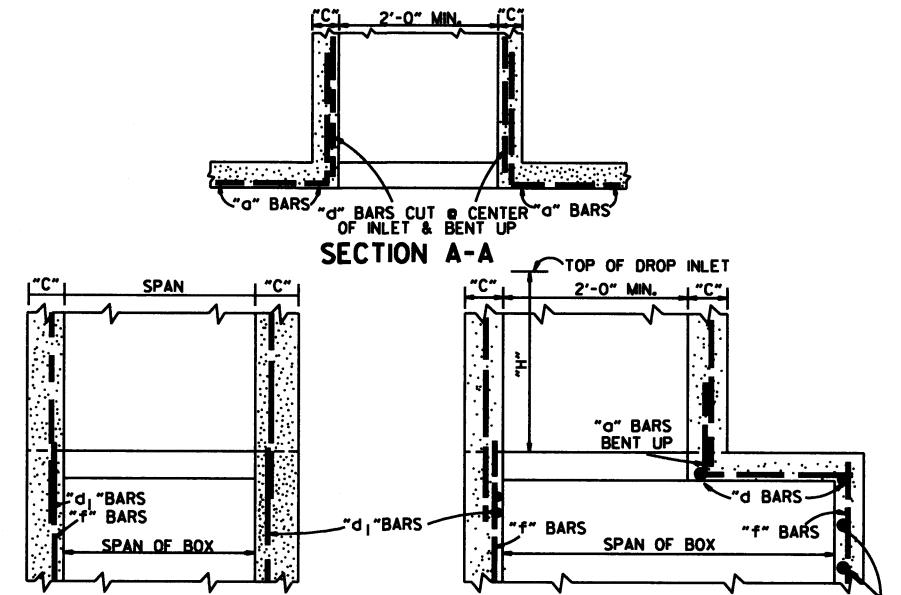
10-18-96	REVISED ASTM REF. TO AASHTO		
5-15-80	REVISED DISTANCE BETWEEN MULTIPLE R.C.P. F.E.S.	664-5-15-80	ARKANSAS STATE HIGHWAY COMMISSION
7-14-78	C.M. ARCH SIZES TO CONFORM WITH AASHTO SIZES	752-7-14-78	
8-22-75	ADDED MULTIPLE PIPE CULVERTS	517-8-22-75	FLARED END SECTION
12-5-74	REMOVED NOTE RE REINF. 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	STANDARD DRAWING FES-2
DATE	REVISION		



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

HEAVY DUTY RING & COVER

JUNCTION BOX (TYPE E)



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

DETAIL OF YARD DRAIN

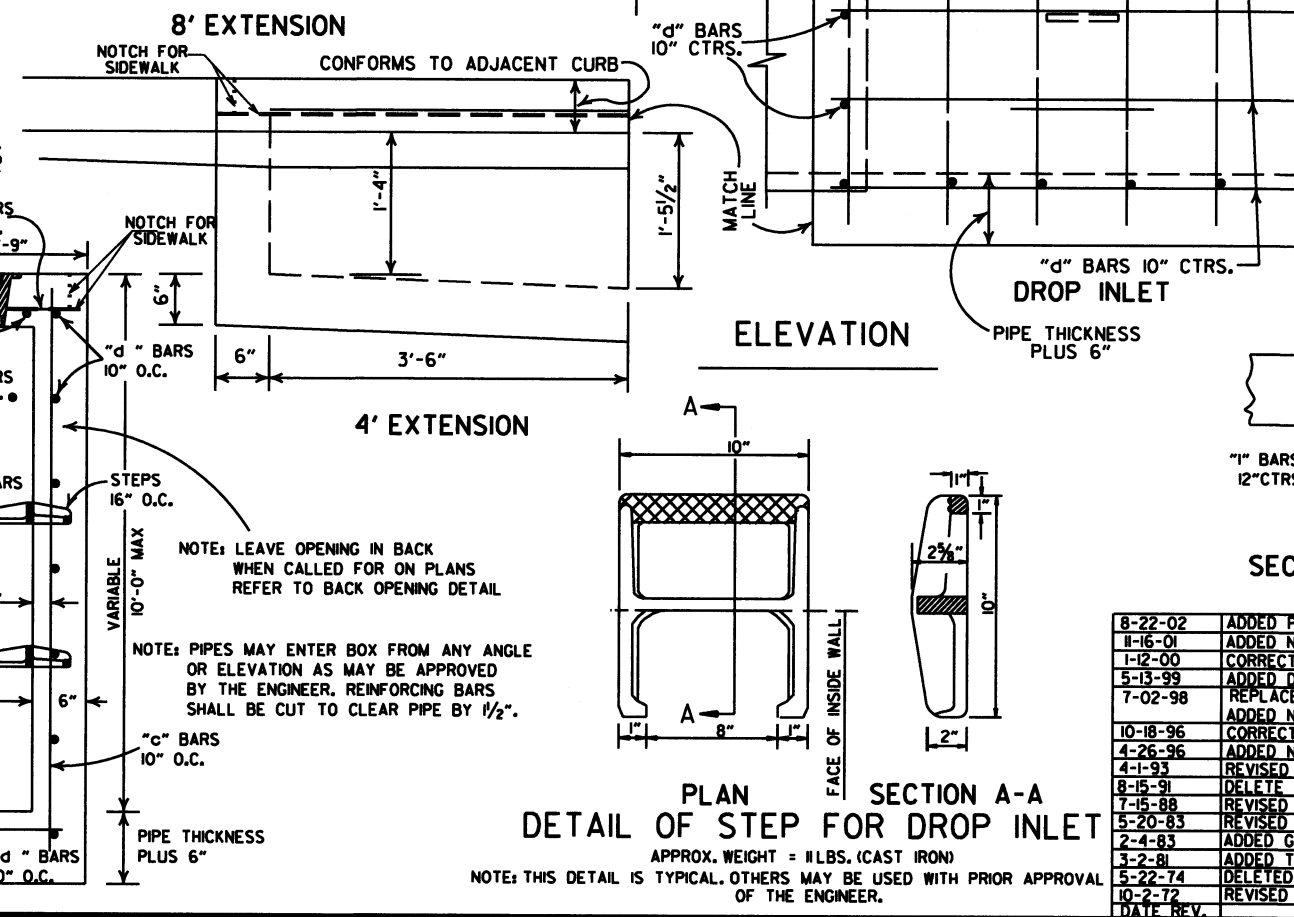
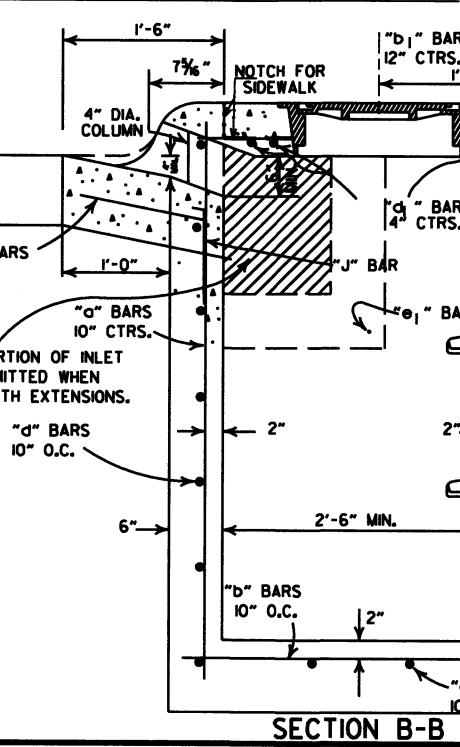
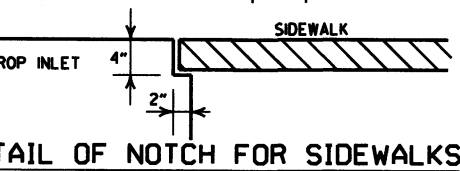
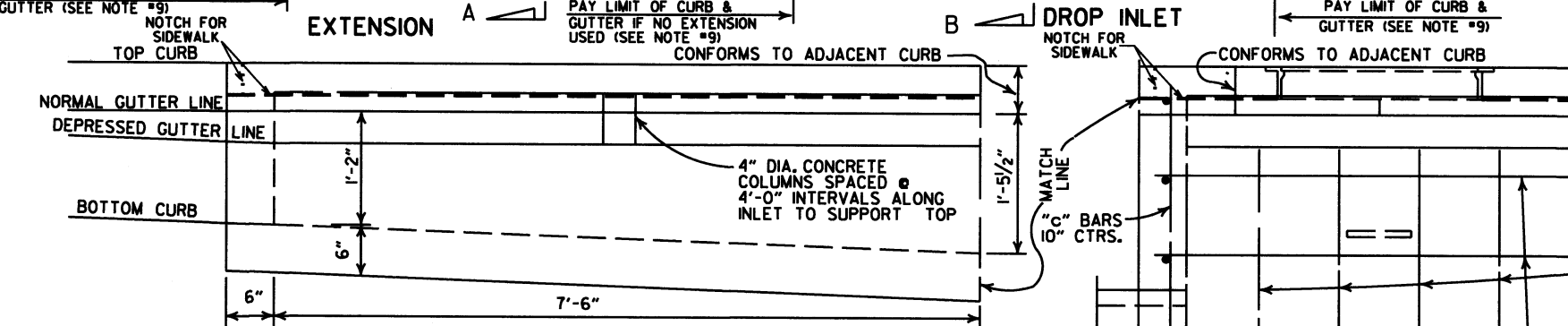
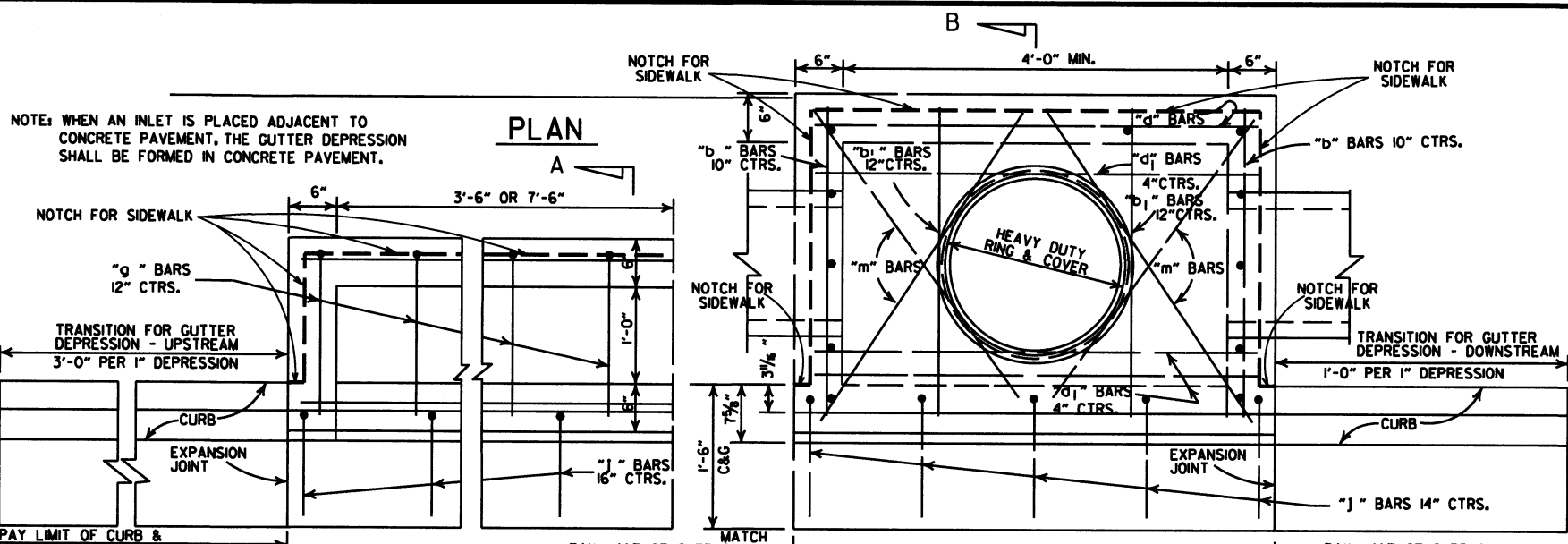
METHOD OF CONSTRUCTING DROP INLET ON NEW R.C. BOX CULVERT

GRATE FOR TYPE E DROP INLET

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

DATE	REV.	REVISION	DATE FILMED
8-16-01		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	

NOTE: WHEN AN INLET IS PLACED ADJACENT TO CONCRETE PAVEMENT, THE GUTTER DEPRESSION SHALL BE FORMED IN CONCRETE PAVEMENT.



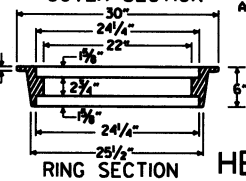
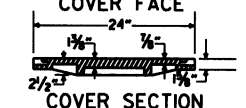
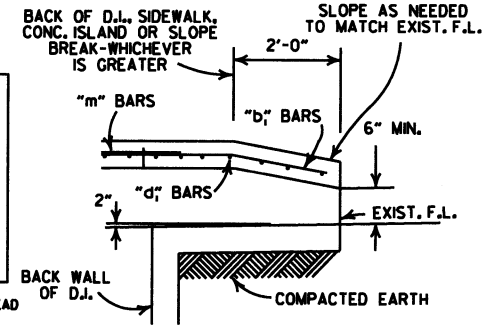
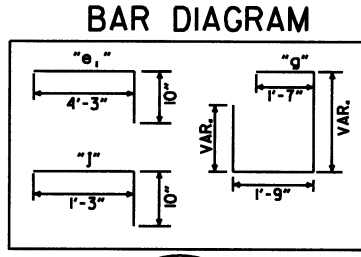
PLAN
SECTION A-A
DETAIL OF STEP FOR DROP INLET
APPROX. WEIGHT = 11 LBS. (CAST IRON)
NOTE: THIS DETAIL IS TYPICAL. OTHERS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

PIPE SIZE	MIN. WIDTH	4'-0" LENGTH DROP INLET				DROP INLET EXTENSION			
		HEIGHT 5'-0"		PLUS OR MINUS PER L.N. FT. OF HEIGHT		4'-0"		8'-0"	
		CLASS A CONC.	REINF. STEEL	CLASS A CONC.	REINF. STEEL	CLASS A CONC.	REINF. STEEL	CLASS A CONC.	REINF. STEEL
18"	2'-6"	1.77	156	0.28	22	0.58	38	0.87	72
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				
						DEDUCT FROM QUANTITY COMPUTED FOR EACH EXTENSION ADDED.			
						0.04	3		

NOTE: QUANTITIES ARE APPROXIMATE AND ARE SHOWN FOR BIDDER INFORMATION ONLY.

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



HEAVY DUTY RING & COVER
APPROXIMATE TOTAL WEIGHT = 333 LBS.

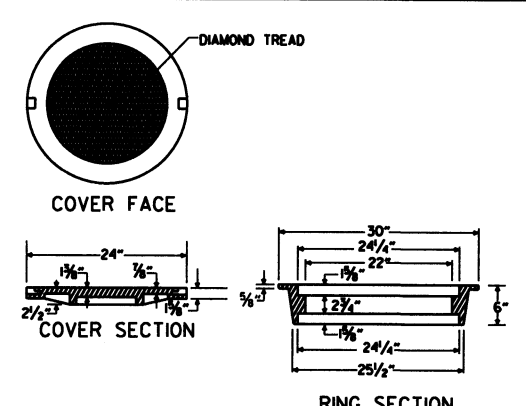
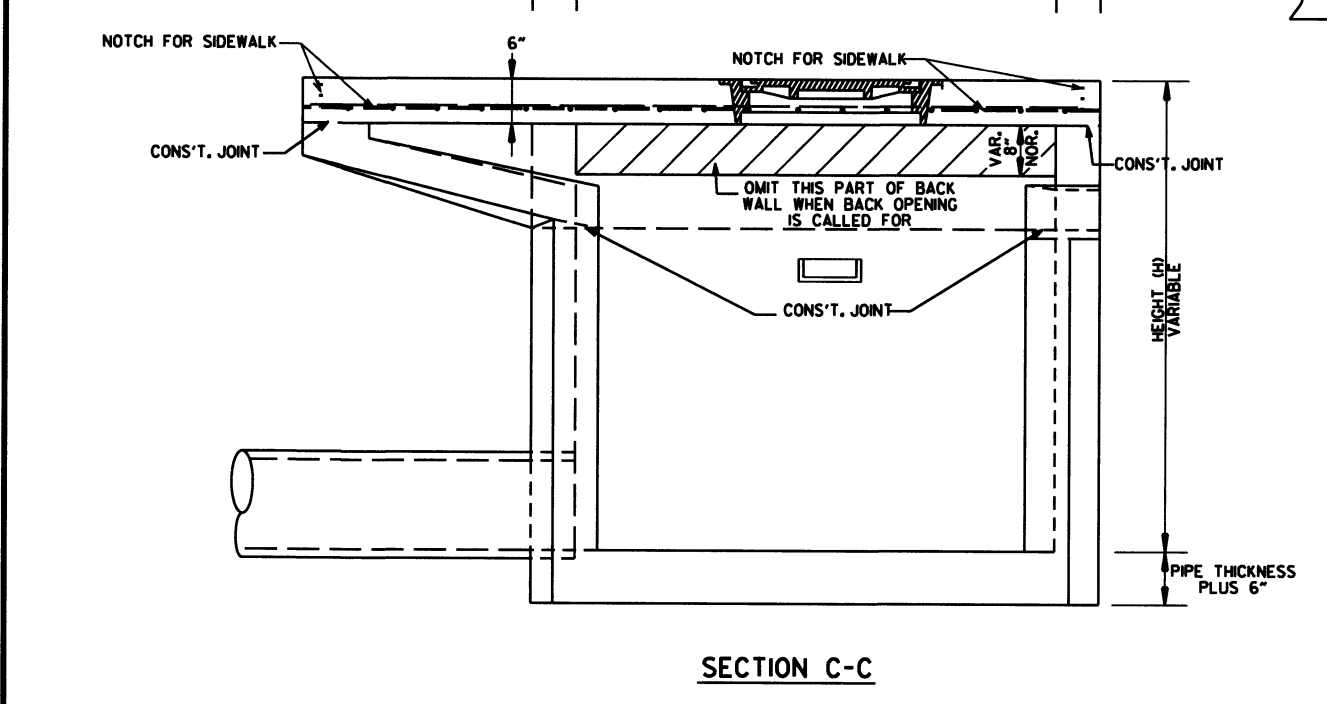
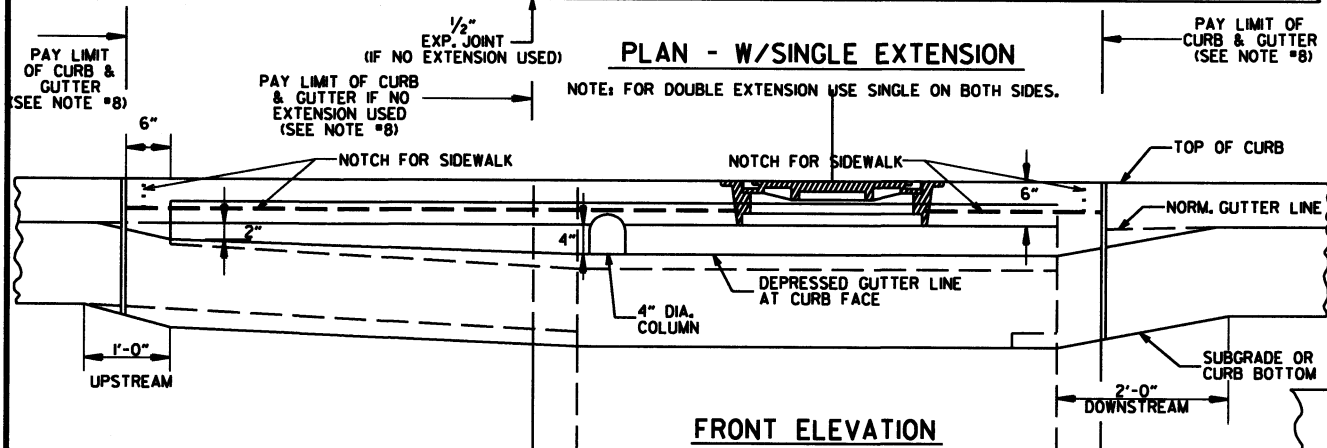
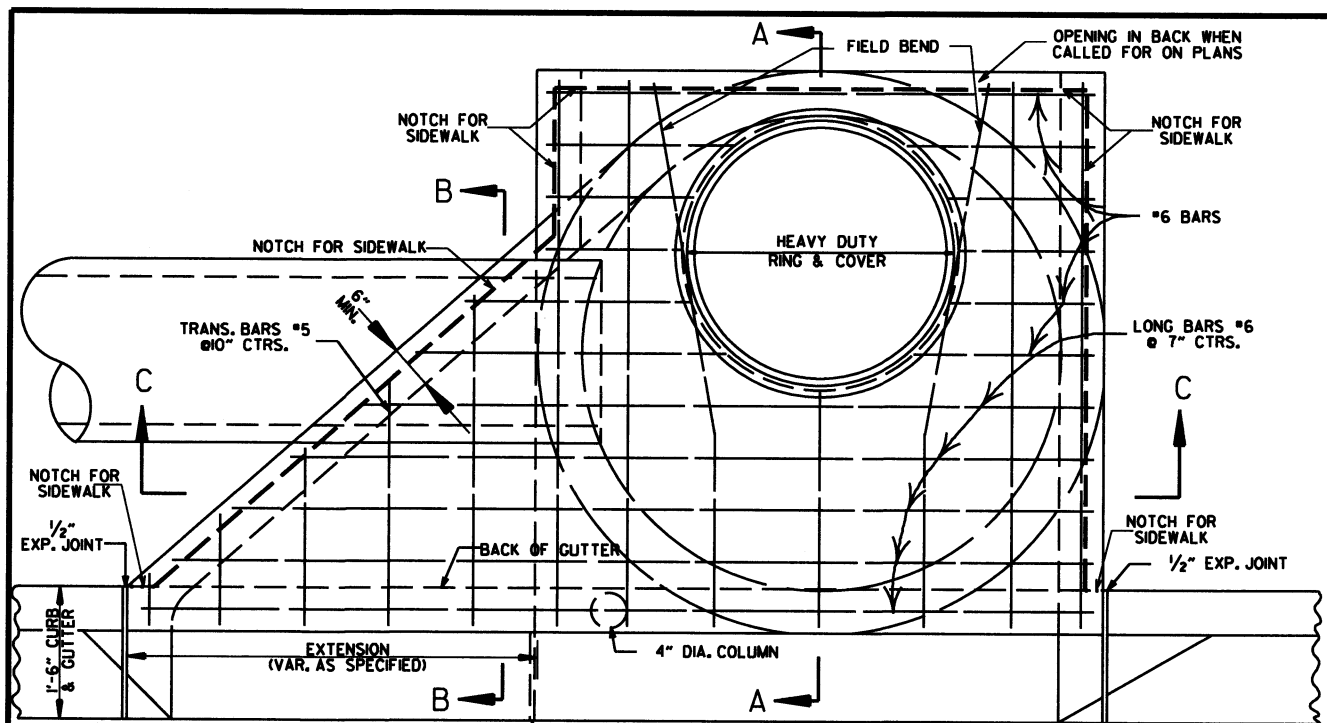
- GENERAL NOTES:
- ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
 - STEPS SHALL BE INSTALLED IN ALL INLETS 4'-0" HIGH AND OVER OF AS APPROVED BY THE ENGINEER.
 - ALL REINF. BARS SHALL BE #4 AND HAVE 1/2" COVER.
 - DROP INLETS AND EXTENSION ON CURVED SECTIONS SHALL CONFORM TO THE CURVATURE OF THE CURB.
 - THIS DROP INLET MAY BE CONSTRUCTED ON NEW OR EXISTING R.C. BOX CULVERT AS SHOWN ON F.P.C.-9.
 - 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).
 - HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.
 - DURING CONSTRUCTION OF THE ROADWAY THE CONTRACTOR SHALL MAINTAIN DRAINAGE INTO OR AROUND THE DROP INLET AS APPROVED BY THE ENGINEER.
 - 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.
 - 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.
 - HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
 - 4"x2" NOTCH SHALL BE FORMED IN ALL DROP INLETS TO SUPPORT SIDEWALK CONSTRUCTION. REFER TO DETAIL OF NOTCH FOR SIDEWALKS.
 - 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.	DESCRIPTION	REVISION	DATE FILED
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'x8') 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

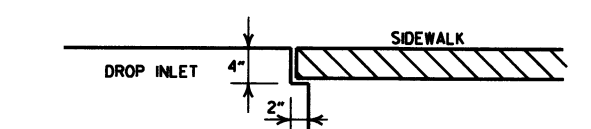
DETAILS OF DROP INLETS
(TYPE C)

STANDARD DRAWING FPC-9E

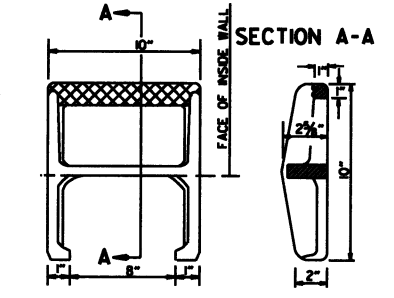


HEAVY DUTY RING & COVER
APPROXIMATE TOTAL WEIGHT = 333 LBS.

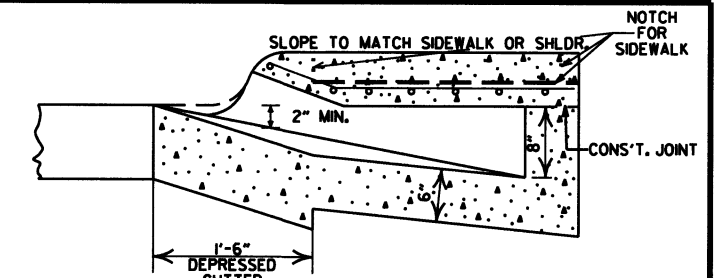
1. HEAVY DUTY RING AND COVER SHALL BE CONSTRUCTED OF CAST IRON AND SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR GRAY IRON CASTINGS AASHTO M105 CLASS 35B & AASHTO M306.
2. HEAVY DUTY RING AND COVER SHALL NOT BE PAINTED.
3. HEAVY DUTY RING SHALL ALWAYS BE INSTALLED WITH FLANGE ON TOP.



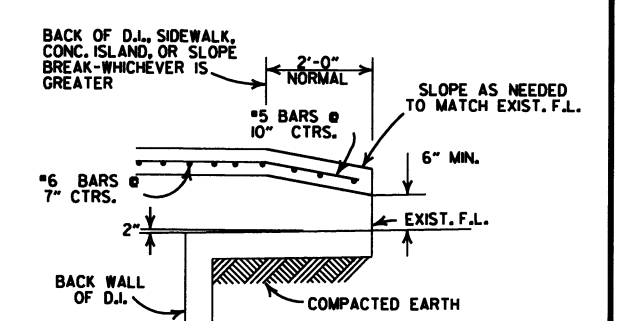
DETAIL OF NOTCH FOR SIDEWALKS



DETAIL OF STEP FOR DROP INLET



SECTION B-B



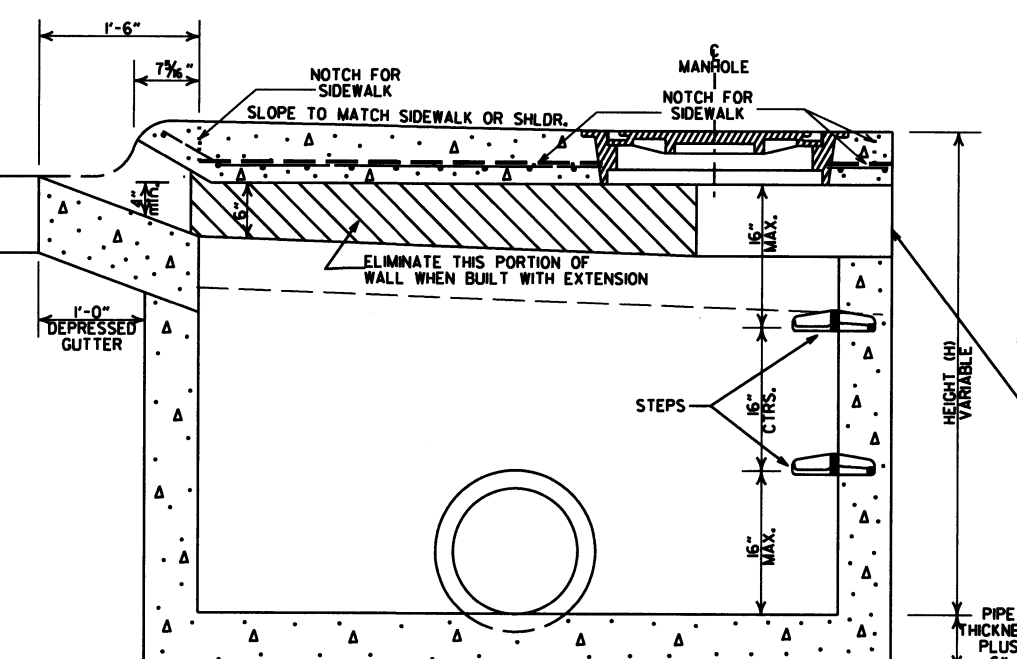
BACK OPENING

WHEN OPENING IN BACK IS CALLED FOR ON PLANS EXTEND OPENING AS SHOWN IN DETAIL. PAYMENT TO BE INCLUDED IN PRICE BID FOR DROP INLET (TYPE MO).

- GENERAL NOTES:**
1. ALL EXPOSED CORNERS TO HAVE 3/4" 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. 1/2" 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.

LEAVE OPENING IN BACK WHEN CALLED FOR ON PLANS REFER TO BACK OPENING DETAIL

MINIMUM WALL THICKNESS			
DIA. OF D.I.	DIA. OF OUTLET PIPE	CAST IN PLACE	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"



SECTION A-A

DATE	REVISIONS	DATE	FILED
10-22-04	ADDED PAY LIMIT CURB NOTES TO SECTIONS A-A & B-B		
8-15-03	ADDED NOTE 13		
1-12-00	REVISED HEAVY DUTY RING & COVER		
5-13-99	ADDED NOTCH DETAIL FOR SIDEWALKS		
7-02-98	REP. NOTE 8, REM. PLAN DET., REV. PICTURE FOR NEW RING & COVER, ADDED HEAVY DUTY RING & COVER AND DETAIL OF STEP FOR DROP INLET		
12-28-96	ADDED DETAIL OF MANHOLE DIMENSION		
12-20-95	ADDED DETAIL OF D.I. IN BOX		
12-05-95	TYPE C TO MO (OPEN BACK DETAIL)		
12-05-95	ADDED GENERAL NOTES		
12-05-95	REVISED BACK DETAIL & NOTE		
12-05-95	REVISED NOTES UP & ADDED OPEN DETAIL		
12-05-95	ADDED NOTE NO. 10		
12-05-95	ADDED MINIMUM WALL THICKNESS		
12-05-95	ADDED EXTEND NOTE TO SECTION A-A		
12-05-95	ADDED MINIMUM WALL THICKNESS		
12-05-95	ISSUED		

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF DROP INLET (TYPE MO)

STANDARD DRAWING FPC-9M

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	43¾	44	26¾	27
42	51½	51	31¾	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	87½	87
120	154	154	96¾	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)(i).

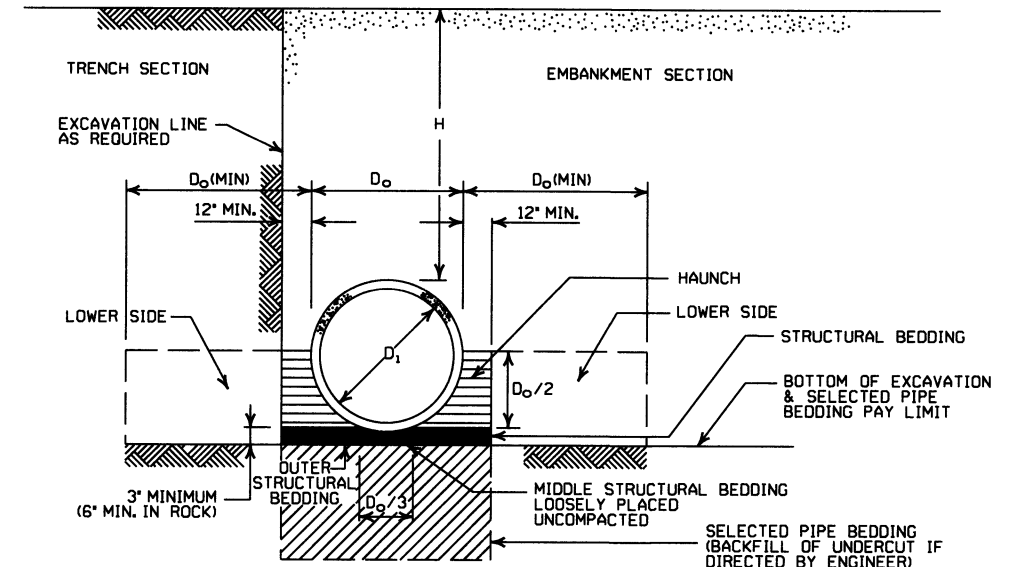
NOTE: HAUNCH AND STRUCTURAL BEDDING MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT COMPENSATION WILL BE CONSIDERED TO BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF CONCRETE PIPE.

- 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.

MINIMUM HEIGHT OF FILL 'H' OVER CIRCULAR R.C. PIPE CULVERTS

INSTALLATION TYPE	CLASS OF PIPE			
	CLASS III		CLASS IV	CLASS V
PIPE ID (IN.)	TYPE 1 OR 2	TYPE 3	ALL	ALL
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.

GENERAL NOTES

1. CONCRETE PIPE CULVERT CONSTRUCTION SHALL CONFORM TO ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION), WITH APPLICABLE SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS, UNLESS OTHERWISE NOTED IN THE PLANS, SECTION AND SUBSECTION REFER TO THE STANDARD CONSTRUCTION SPECIFICATIONS.
2. CONCRETE PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (2010) WITH 2010 INTERIMS.
3. ALL PIPE SHALL CONFORM TO SECTION 606. CIRCULAR R.C. PIPE CULVERTS SHALL CONFORM TO AASHTO M170, R.C. ARCH PIPE CULVERTS SHALL CONFORM TO AASHTO M206 AND HORIZONTAL ELLIPTICAL PIPE CULVERTS SHALL CONFORM TO AASHTO M207.
4. ALL PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY A COVER SUFFICIENT TO PREVENT DAMAGE FROM PASSAGE OF EQUIPMENT.
5. THE MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PRACTICABLE FOR WORKING CONDITIONS.
6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN STRINGS OF PIPE. REFER TO STD. DWG. FES-2 FOR MINIMUM CLEARANCE WHERE FLARED END SECTIONS ARE USED.
7. IMPERVIOUS MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER AT THE ENDS OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERVIOUS MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
8. NOT MORE THAN ONE LIFTING HOLE MAY BE PROVIDED IN CONCRETE PIPE TO FACILITATE HANDLING. HOLE MAY BE CAST IN PLACE, CUT INTO THE FRESH CONCRETE AFTER FORMS ARE REMOVED, OR DRILLED. THE HOLE SHALL NOT BE MORE THAN TWO INCHES IN DIAMETER OR TWO INCHES SQUARE. CUTTING OR DISPLACEMENT OF REINFORCEMENT WILL NOT BE PERMITTED. SPALLED AREAS AROUND THE HOLE SHALL BE REPAIRED IN A WORKMANLIKE MANNER. LIFTING HOLE SHALL BE FILLED WITH MORTAR, CONCRETE, OR OTHER METHOD AS APPROVED BY THE ENGINEER.
9. WHEN DIRECTED BY THE ENGINEER, UNSUITABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH (BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" ABOVE) WILL BE EXCAVATED AND REPLACED WITH SELECTED PIPE BEDDING. THE QUANTITY OF MATERIAL REQUIRED TO BACKFILL THE UNDERCUT AREA UP TO THE SELECTED PIPE BEDDING PAY LIMIT DESIGNATED ABOVE WILL BE MEASURED AND PAID FOR AS "SELECTED PIPE BEDDING."
10. WHEN THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING THE PIPE (ABOVE THE AREA IDENTIFIED ABOVE AS THE HAUNCH), BORROW MATERIAL OR MATERIAL FROM THE ROADWAY EXCAVATION WILL BE USED TO BACKFILL THE PIPE, IF SUITABLE MATERIAL IS NOT AVAILABLE, THE ENGINEER MAY AUTHORIZE THE USE OF "SELECTED PIPE BACKFILL."

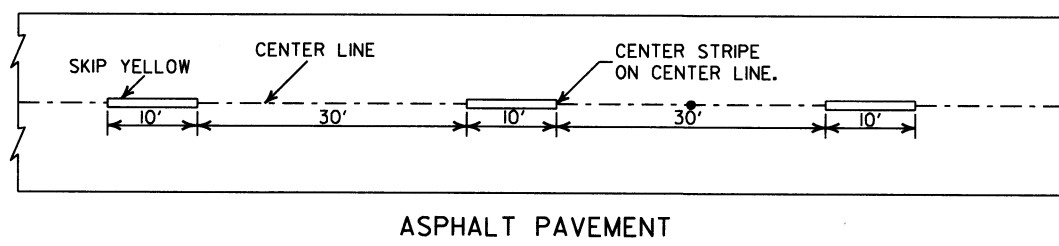
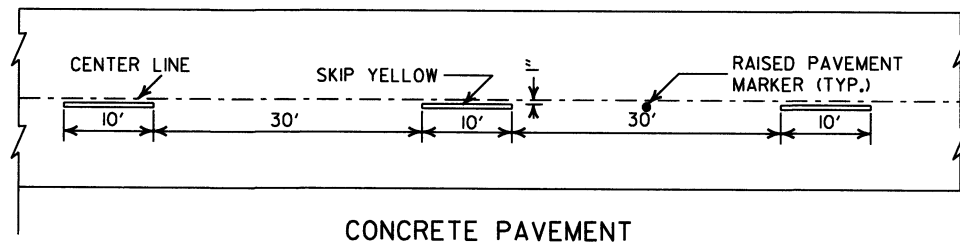
DATE	ISSUED	REVISION	DATE FILMED
2-27-14	REVISED GENERAL NOTE 1.		
12-15-11	REVISED FOR LRFD DESIGN SPECIFICATIONS		
5-18-00	REVISED TYPE 3 BEDDING & ADDED NOTE		
3-30-00	REVISED INSTALLATIONS		
11-06-97	ISSUED		

ARKANSAS STATE HIGHWAY COMMISSION

CONCRETE PIPE CULVERT FILL HEIGHTS & BEDDING

STANDARD DRAWING PCC-1





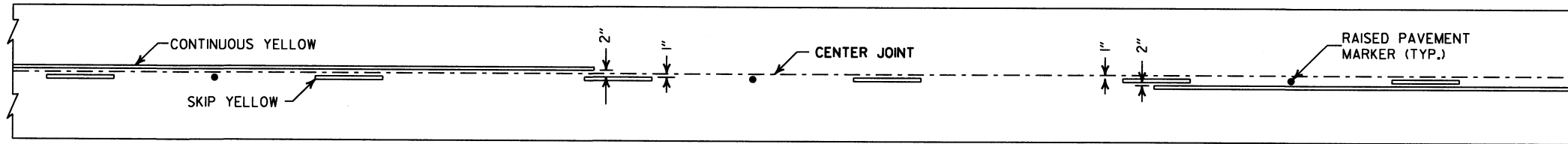
CONCRETE PAVEMENT

ASPHALT PAVEMENT

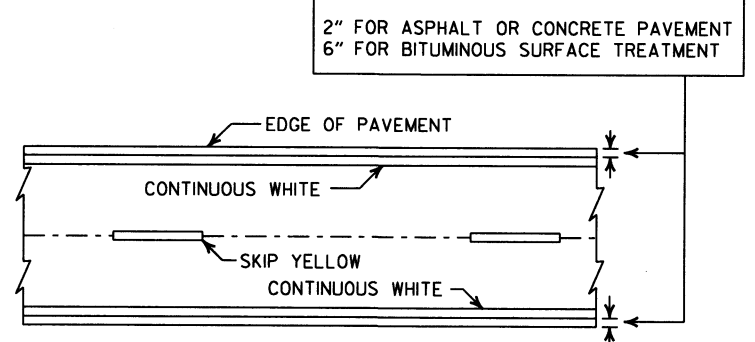
BROKEN LINE STRIPING

NOTES:

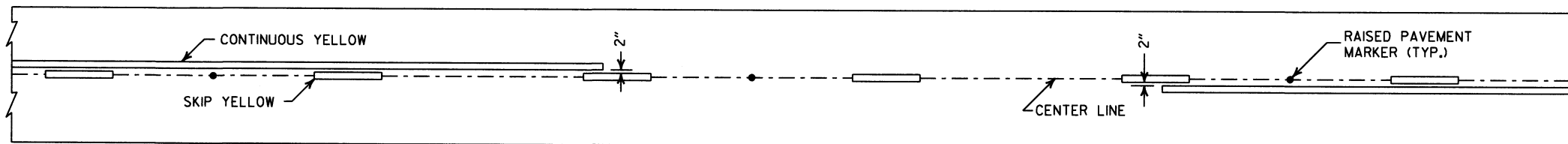
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE WIDTHS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.



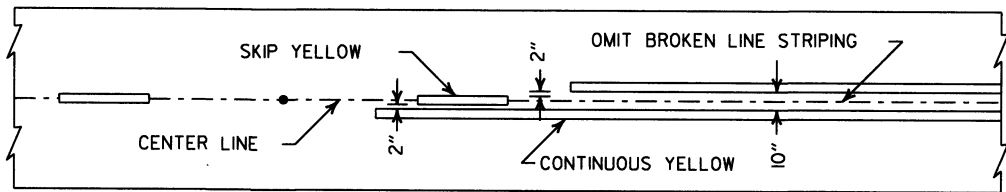
SOLID LINE STRIPING ON CONCRETE PAVEMENT



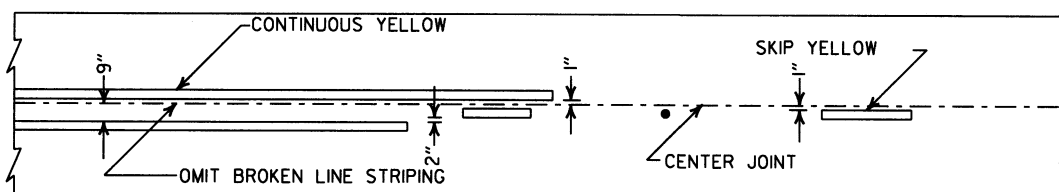
PAVEMENT EDGE LINE MARKING



SOLID LINE STRIPING ON ASPHALT PAVEMENT



ASPHALT PAVEMENT

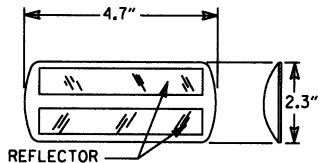


CONCRETE PAVEMENT

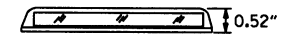
STRIPING AT ADJACENT NO PASSING LANES

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

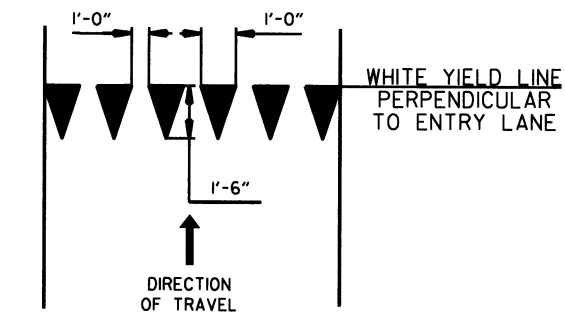
TYPE II RED/CLEAR OR YELLOW/YELLOW



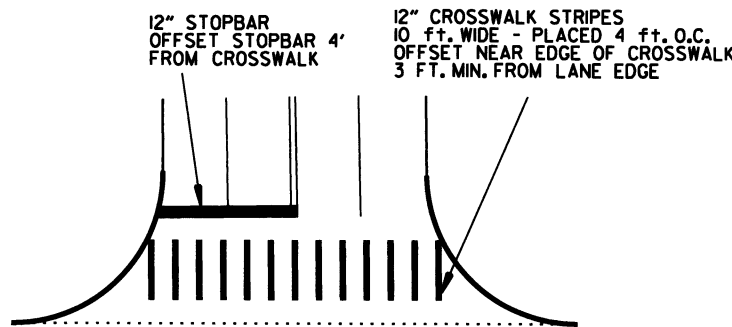
NOTE: DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AHTD QUALIFIED PRODUCTS LIST.



DETAIL OF STANDARD RAISED PAVEMENT MARKERS



YIELD LINE DETAIL



CROSSWALK AND STOPBAR DETAILS

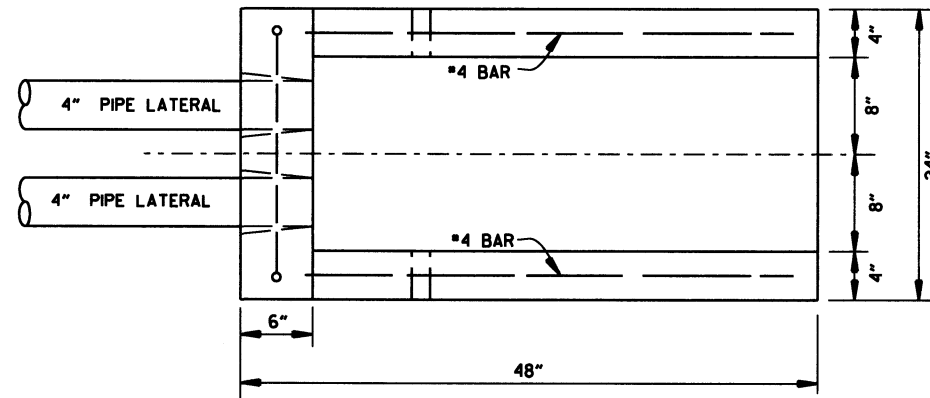
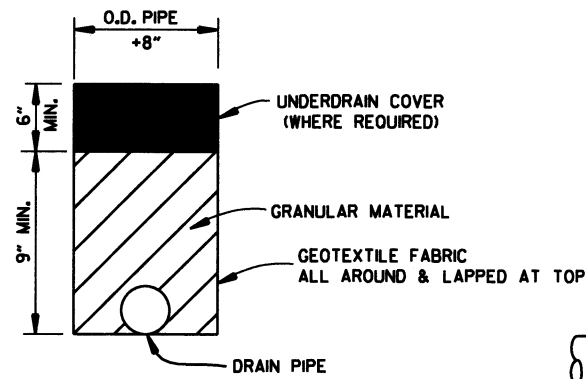
DATE	REVISION	FILMED
6-1-17	ADDED YIELD LINE DETAIL	
5-12-16	REVISED LINE WIDTHS, SPACING, & NOTES	
9-12-13	REVISED DETAIL OF STANDARD RAISED PAVEMENT MARKERS	
11-17-10	REVISED GENERAL NOTES & REMOVED PLOWABLE PAVT MRKRS	
11-18-04	REVISED NOTE 2 & GENERAL NOTES	
8-22-02	ADDED CROSSWALK & STOPBAR DTLS.	
7-02-98	ADDED DETAILS OF STD. RAISED PAV'T. MARKERS	
4-26-96	REV. NOTES 3&4; ADDED R.P.M.	
9-30-80	DRAWN	1-9-30-80

ARKANSAS STATE HIGHWAY COMMISSION

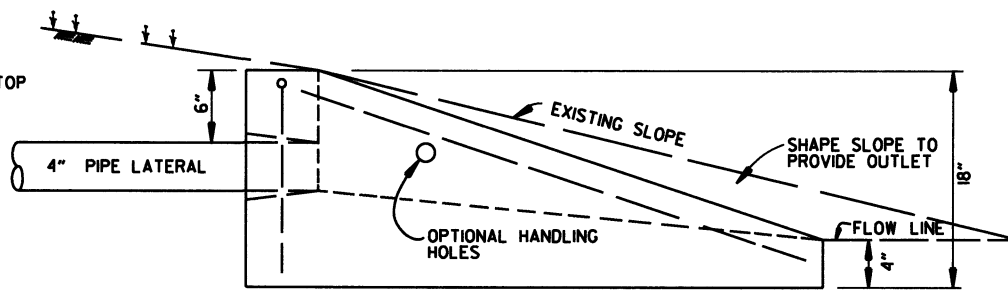
PAVEMENT MARKING DETAILS

STANDARD DRAWING PM-1

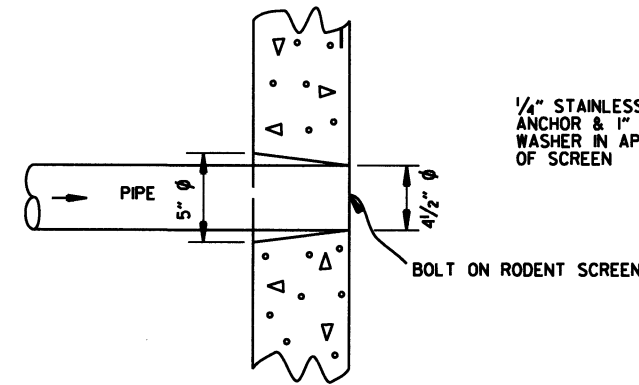
NOTE:
 1. UNLESS OTHERWISE SPECIFIED ON THE PLANS, THE UNDERDRAIN COVER SHALL BE THOROUGHLY COMPACTED EARTH AND SHALL BE SUBSIDIARY TO PIPE UNDERDRAIN.
 2. GRANULAR MATERIAL SHALL BE WRAPPED WITH GEOTEXTILE FABRIC, LAP FABRIC 12" OR THE WIDTH OF THE TRENCH AT THE TOP.



PLAN VIEW

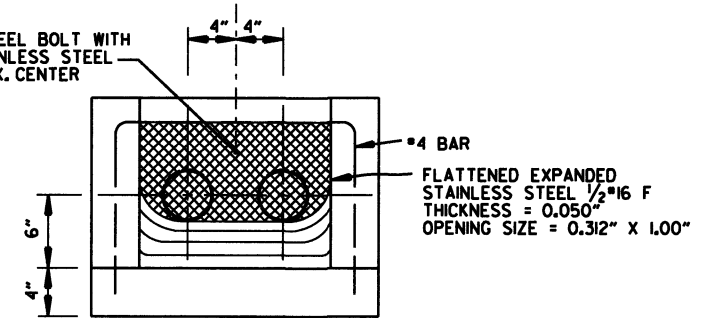


SIDE VIEW

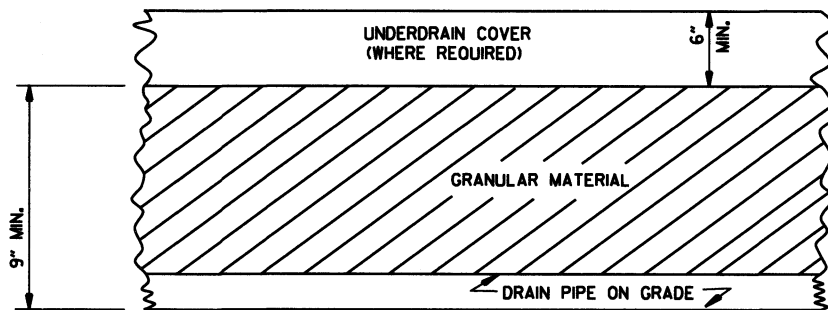


DETAIL OF HOLE FOR 4" PIPE

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



FRONT VIEW (DETAIL OF RODENT SCREEN)

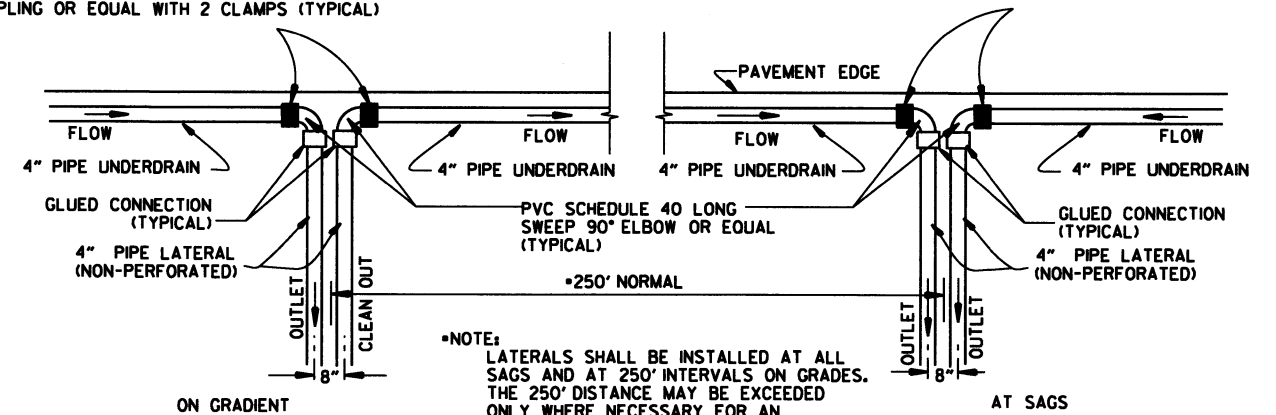


DETAILS OF PIPE UNDERDRAIN

FERNCO 1056-44 (4" CI/PLASTIC) OR FERNCO 1051-44 (4" AC/DIOR 4" CI/PLASTIC) COUPLING OR EQUAL WITH 2 CLAMPS (TYPICAL)

UNDERDRAIN OUTLET PROTECTORS

FERNCO 1056-44 (4" CI/PLASTIC) OR FERNCO 1051-44 (4" AC/DIOR 4" CI/PLASTIC) COUPLING OR EQUAL WITH 2 CLAMPS (TYPICAL)



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

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.

NOTES FOR PIPE UNDERDRAINS

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 625 FOR TYPE I. PAYMENT FOR GEOTEXTILE FABRIC AND GRANULAR FILTER MATERIAL SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "4" PIPE UNDERDRAINS" IN ACCORDANCE WITH SECTION 610 OF THE STANDARD SPECIFICATIONS.
2. 4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN HEREON. LATERALS WILL BE MEASURED AND PAID FOR AS "4" PIPE UNDERDRAINS." UNDERDRAIN OUTLET PROTECTORS WILL BE MEASURED AND PAID FOR BY THE UNIT IN ACCORDANCE WITH SECTION 610 OF THE STANDARD SPECIFICATIONS.
3. EXISTING 4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP INLETS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP INLETS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS."
4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 12" PERMANENT PAVEMENT MARKING TAPE (TYPE II WHITE) AT THE OUTSIDE EDGE OF THE SHOULDER, PLACED TRANSVERSE TO TRAFFIC. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.
5. PAYMENT FOR THE RODENT SCREEN SHALL BE INCLUDED IN THE PRICE BID PER EACH FOR "UNDERDRAIN OUTLET PROTECTORS."
6. ANY EXISTING UNDERDRAINS THAT INTERFERE WITH INSTALLATION OF THE NEW UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE CONSIDERED INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS. EXISTING UNDERDRAIN OUTLET PROTECTORS SHALL BE REMOVED UNDER THE ITEM "REMOVAL AND DISPOSAL OF UNDERDRAIN OUTLET PROTECTORS."
7. AT LOCATIONS WHERE A SINGLE LATERAL IS USED THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1. INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING PU-1 AND GROUT THE UNUSED HOLE OR 2. INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE.

12-8-16	ADDED NOTES FOR PIPE UNDERDRAINS, REVISED RODENT SCREEN DETAIL AND NOTES, REMOVED NOTE 1 FOR GRANULAR MATERIAL, ADDED NOTE FOR GEOTEXTILE FABRIC	
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: 5 1/2" 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 POLYETHYLENE PIPE	8-15-91
11-8-90	DELETED ALTERNATE NOTE	11-8-90
1-25-90	ADDED 4" SNAP ADAPTER	1-25-90
11-30-89	DEL. (SUBGRADE); ADDED (WHERE REQUIRED)	11-30-89
7-15-88	ISSUED P.L.M.	647-7-15-88
DATE	REVISION	DATE FILMED

ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF PIPE UNDERDRAIN

STANDARD DRAWING PU-1

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.

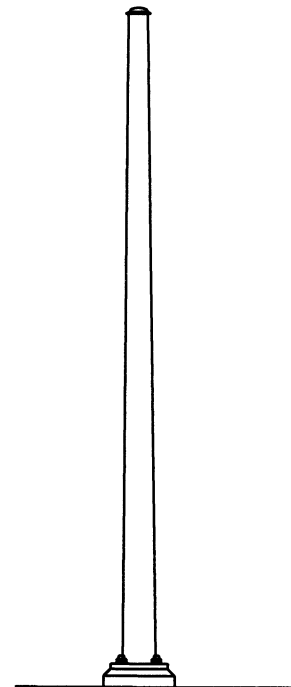
USE FATIGUE CATEGORY II.

CONSTRUCTION SPECIFICATIONS: STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT 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.

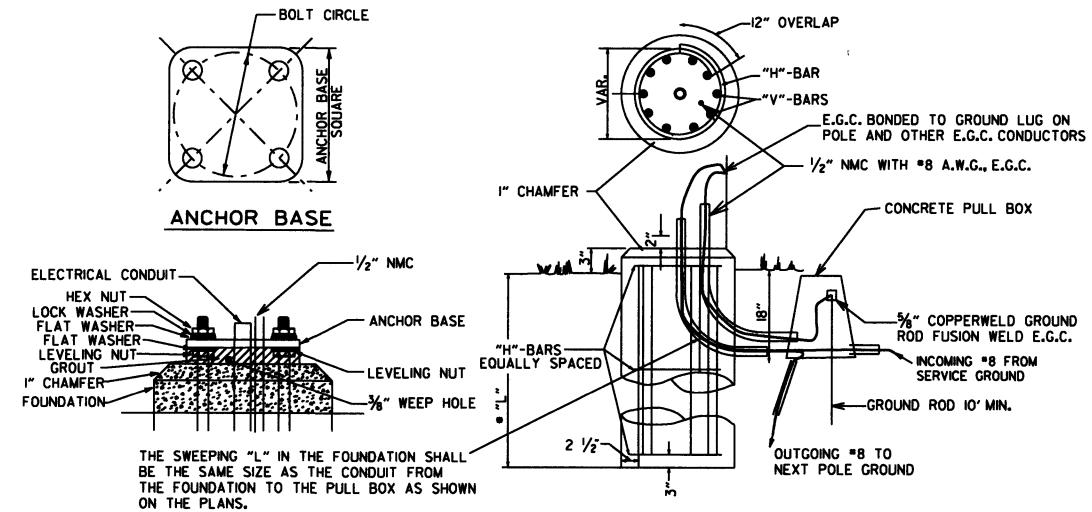
THE GROUND ROD SHALL BE FUSION WELDED TO A 1C/8 A.W.G. SOLID COPPER GROUND WIRE. ATTACHMENT TO THE PRIMARY GROUND MAY BE BY AN APPROVED CLAMP. THE ROD IS TO BE LOCATED IN THE CONCRETE PULL BOX PAID FOR SEPARATELY AS SHOWN ON THE PLANS.



ANTENNA POLE

NOTE:

COMMUNICATION CABLE SHIELD SHALL BE TIED TO THE GROUND AT ONE ONE POINT (MASTER CABINET). THE SHIELD SHALL BE MAINTAINED CONTINUOUS (THROUGH ALL SPLICES). PLEASE REFER TO TESTING PROCEDURES IN SPECIAL PROVISIONS.



TYPICAL FOUNDATION DETAILS

POLE FOUNDATION MINIMUM DIMENSIONS AND STEEL REINFORCING.

POLE HEIGHT	FOUNDATION DIAMETER	DEPTH *L*	VERTICAL	HORIZONTAL	TIE SPACING
20.0'	30"	5'-6"	12-#7	#4	5 SP @ 12"
25.0'	30"	6'-0"	12-#7	#4	6 SP @ 11"
30.0'	30"	6'-6"	12-#7	#4	6 SP @ 12"
35.0'	30"	7'-0"	12-#7	#4	7 SP @ 11"
40.0'	30"	7'-6"	12-#7	#4	7 SP @ 12"
45.0'	36"	8'-6"	13-#8	#4	8 SP @ 12"
50.0'	36"	9'-6"	13-#8	#4	9 SP @ 12"
55.0'	36"	10'-0"	13-#8	#4	10 SP @ 11"
60.0'	36"	10'-6"	13-#8	#4	10 SP @ 12"
65.0'	36"	11'-0"	13-#8	#4	12 SP @ 10 W'
70.0'	36"	11'-6"	13-#8	#4	11 SP @ 12"
75.0'	42"	13'-0"	18-#8	#4	14 SP @ 10 W'
80.0'	42"	13'-6"	18-#8	#4	13 SP @ 12"
85.0'	42"	14'-6"	18-#8	#4	14 SP @ 12"
90.0'	42"	15'-0"	18-#8	#4	18 SP @ 9 W'

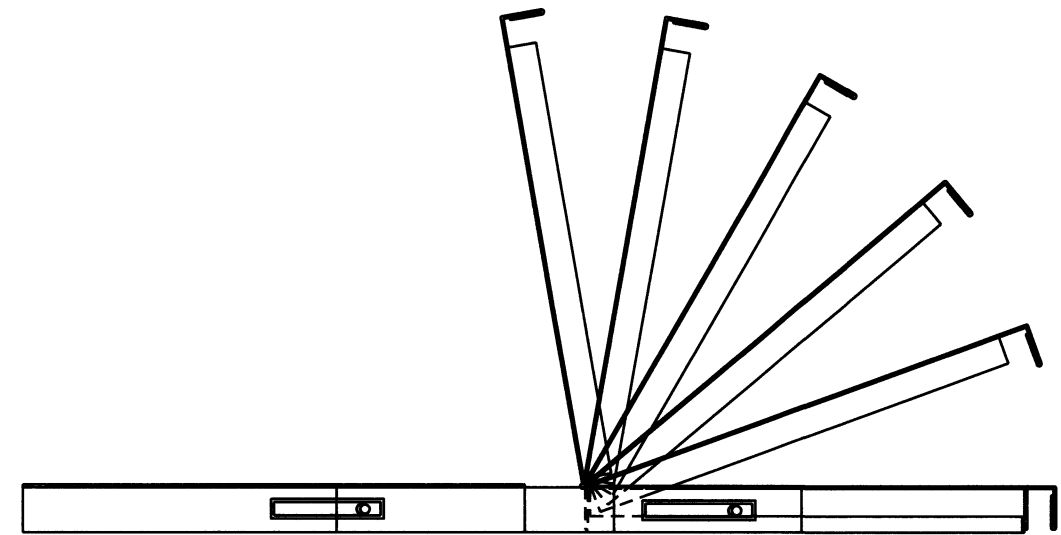
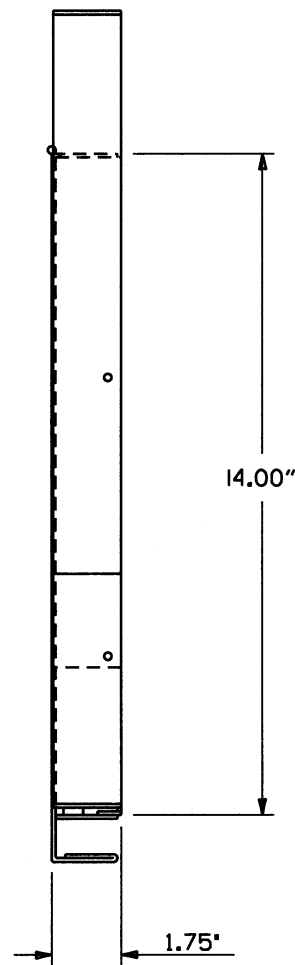
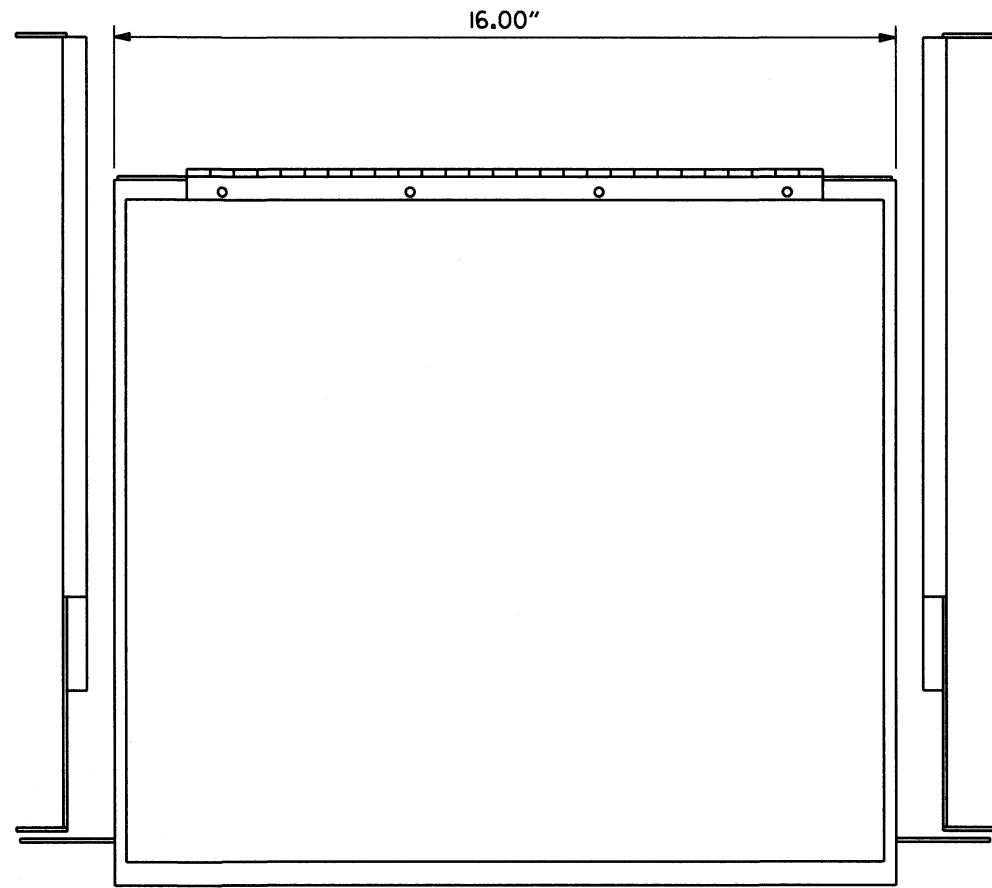
ALL CONCRETE SHALL BE CLASS "S" WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH F'C=3500 PSI. CONCRETE SHALL BE POURED IN THE DRY AND ALL EXPOSED CORNERS CHAMFERED 3/4" UNLESS NOTED OTHERWISE.

ALL REINFORCING STEEL SHALL CONFORM TO AASHTO M31 OR M53, GRADE 40 (YIELD STRENGTH=40,000 PSI).

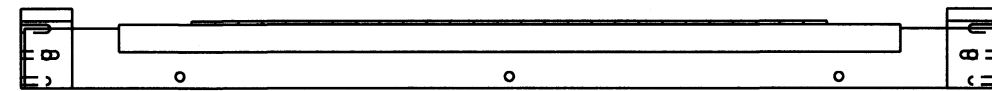
PROVIDE 3" CLEAR TIES. DETAIL 3" TO FIRST TIE AT TOP OF SHAFT.

11-16-17	REVISED NOTES		ARKANSAS STATE HIGHWAY COMMISSION
02-27-14	REVISED NOTES		
09-12-13	ISSUED AS STANDARD DRAWING		
05-21-09	REVISED GROUNDING		
07-31-08	REVISED GROUNDING		
04-18-08	REVISED AASHTO NOTES		
04-17-08	REVISED TO 2001 AASHTO STANDARDS		
09-06-00	ISSUED		
DATE	REVISION	FILMED	
ANTENNA POLE			
STANDARD DRAWING SD-1			

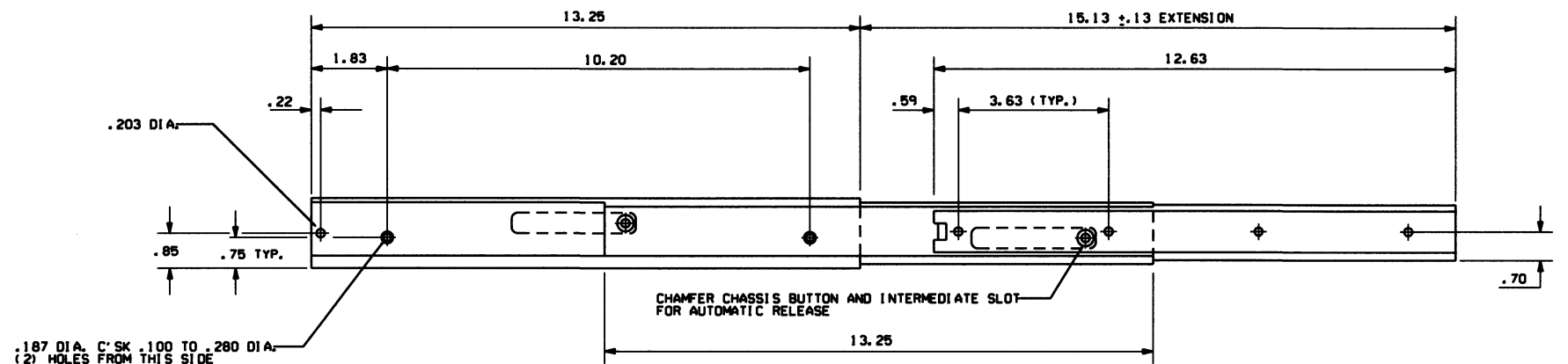
DRAWER PLAN VIEW



- 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

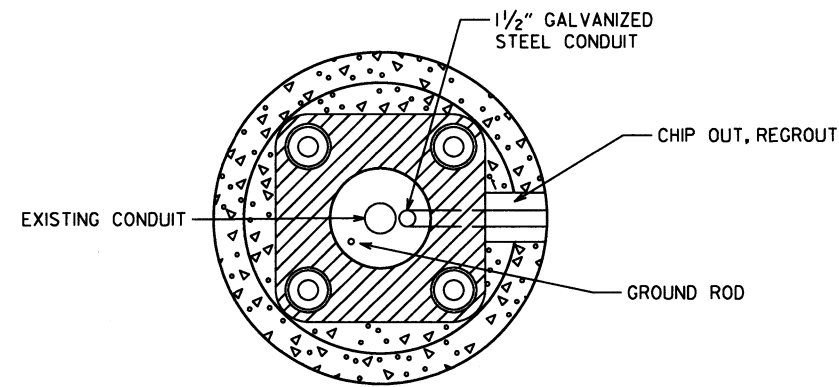


.187 DIA. C'SK .100 TO .280 DIA.
 (2) HOLES FROM THIS SIDE

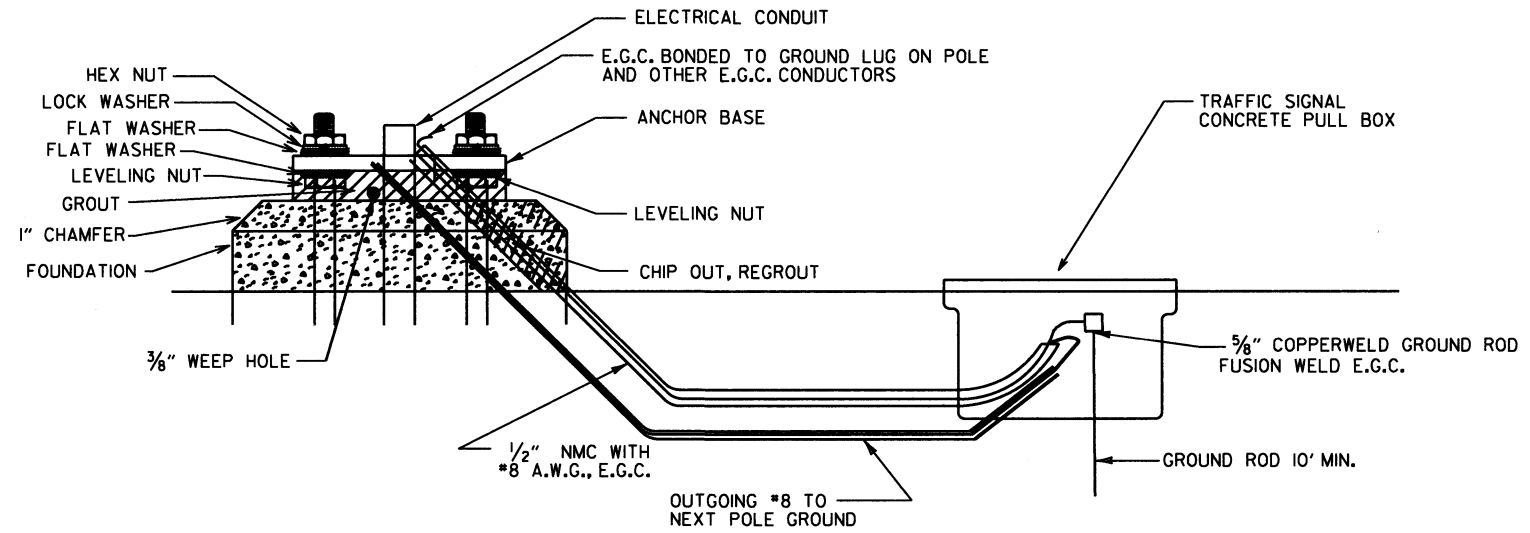
RIGHT SIDE ASSEMBLY

			ARKANSAS STATE HIGHWAY COMMISSION
			CONTROLLER CABINET UTILITY DRAWER
9-12-13	ISSUED AS STANDARD DRAWING		
6-15-05	ISSUED		
DATE	REVISION	DATE FILM	STANDARD DRAWING SD-5

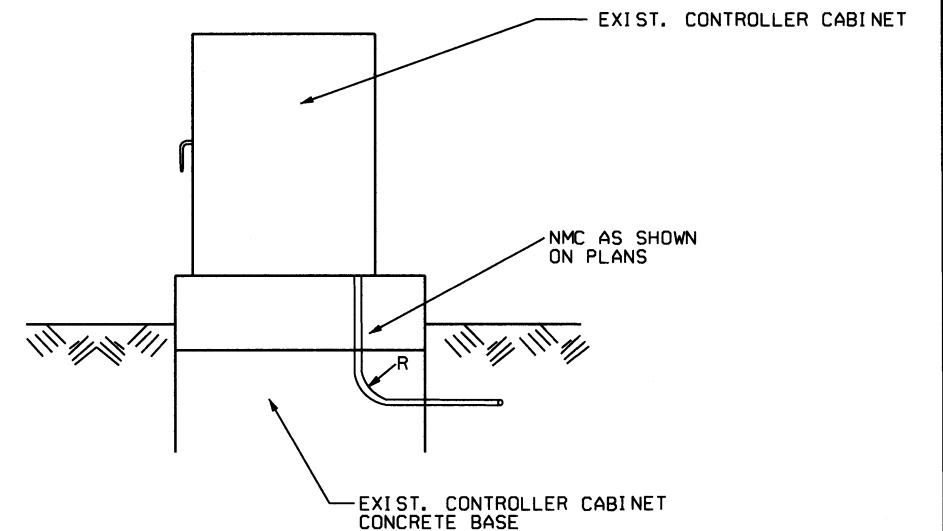
CONDUIT ENTRY TO EXISTING POLE BASE



ANCHOR BASE

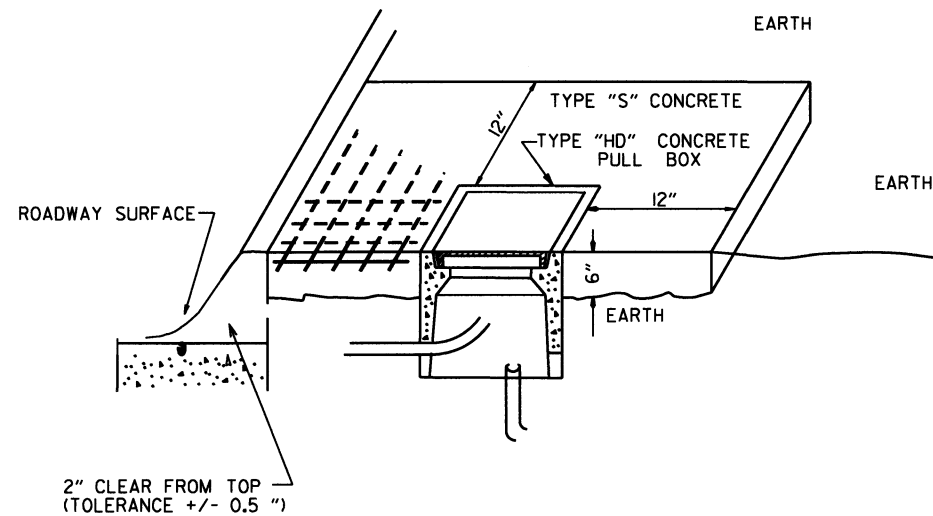


CONDUIT ENTRY TO EXISTING CONTROLLER CABINET

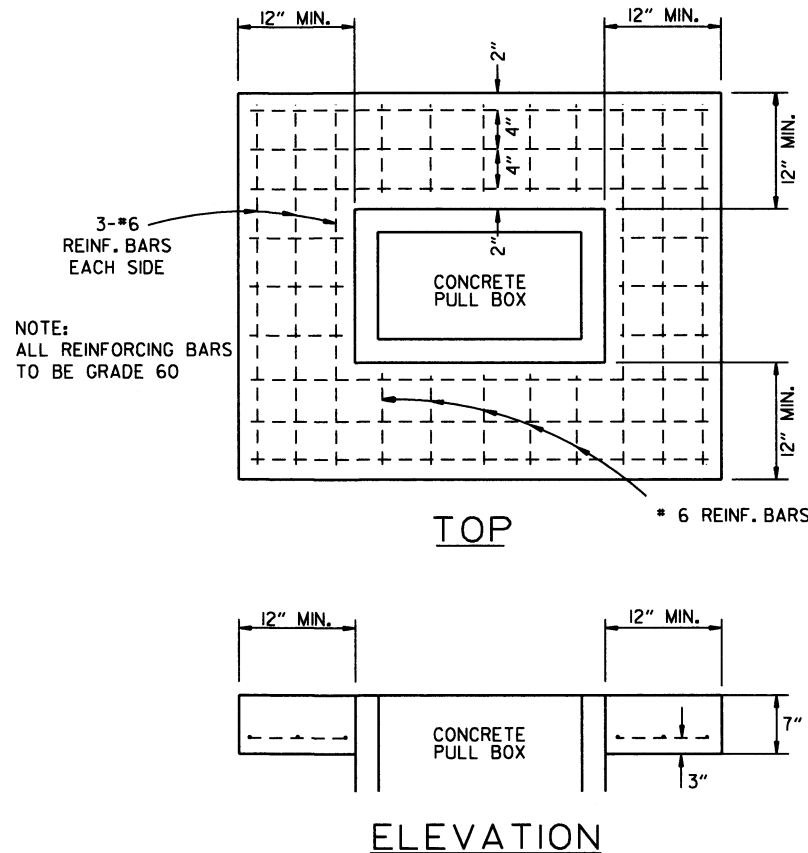


NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

TYPE "HD" CONCRETE PULL BOX DETAIL

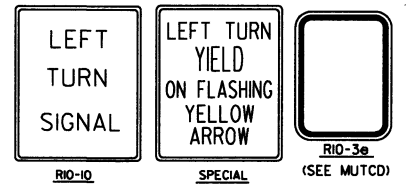
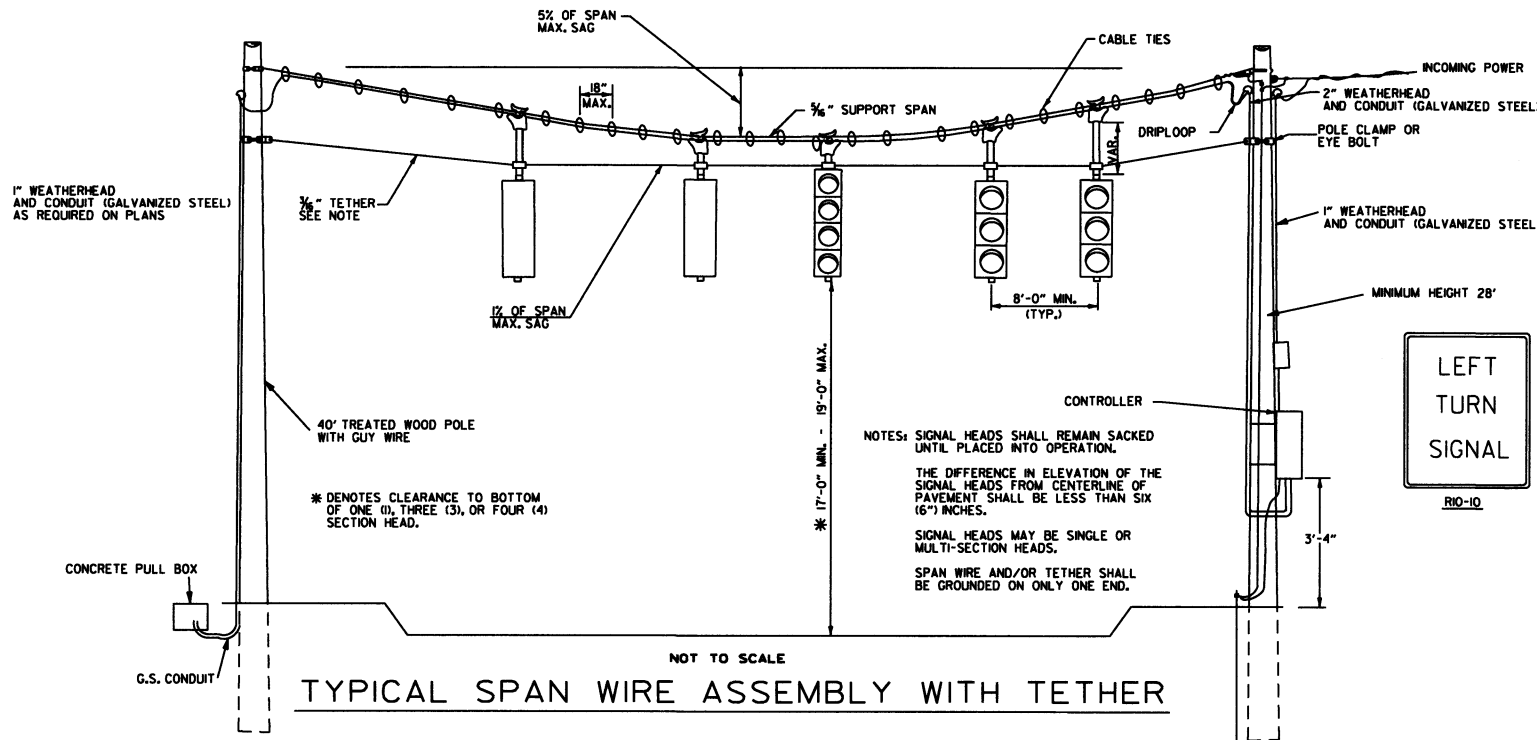
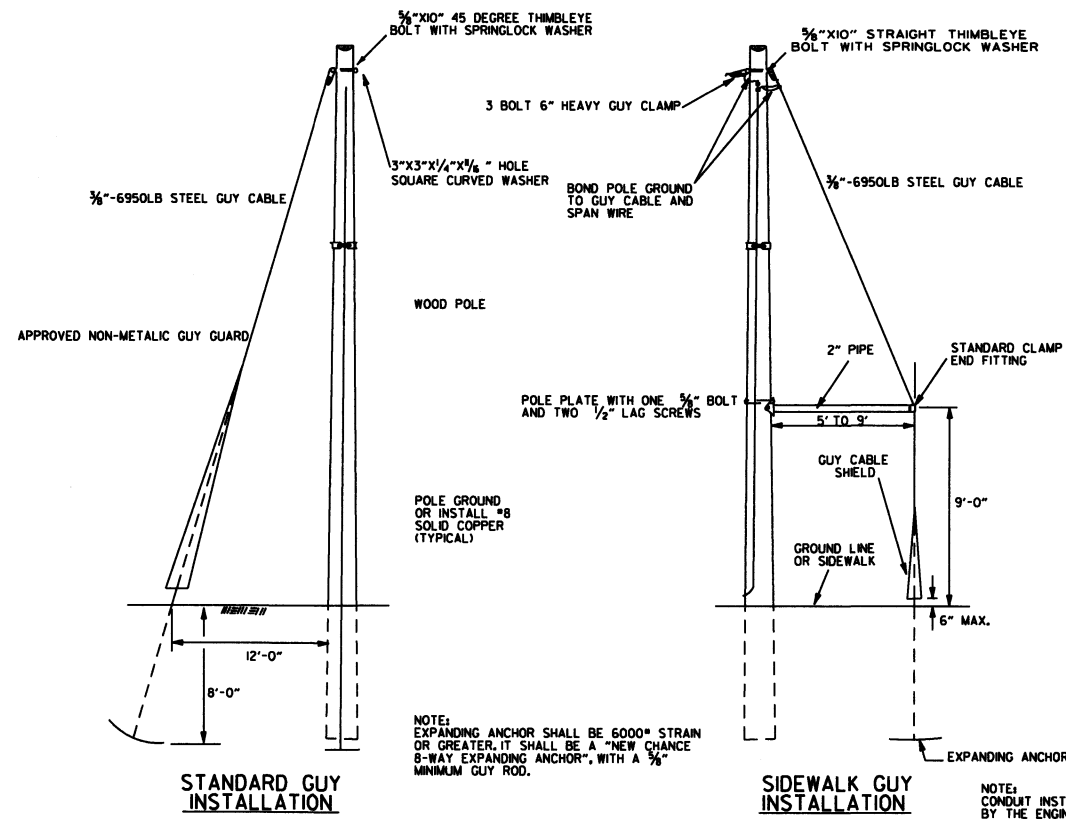


NOTE: ALL TYPE 1 AND TYPE 2 HD CONCRETE PULL BOXES ARE INSTALLED WITH AN APRON OF CONCRETE 12" WIDE AND 7" IN DEPTH. ALL PAYMENT SHALL BE INCLUDED IN THE PRICE OF THE TYPE HD CONCRETE PULL BOX. THE CONCRETE PULL BOX SHALL BE INSTALLED FLUSH TO SURROUNDING GRADE UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER. THE CONCRETE SHALL BE CLASS "S". THREE #6 REINFORCING BARS IN THE APRON ON ALL SIDES OF THE CONCRETE PULL BOX IS REQUIRED IN CONCRETE.



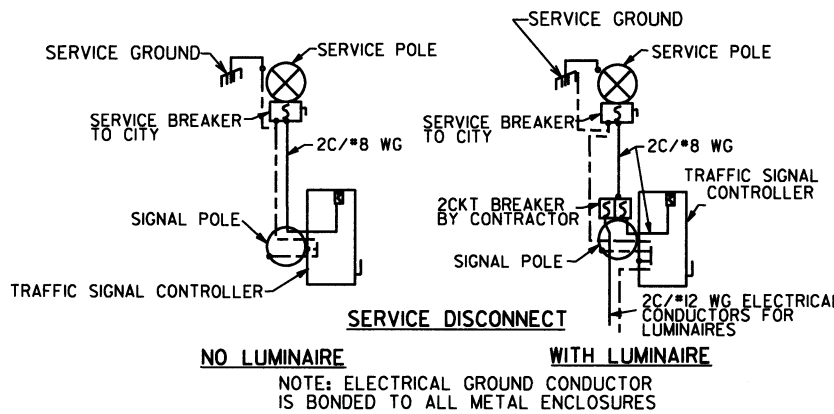
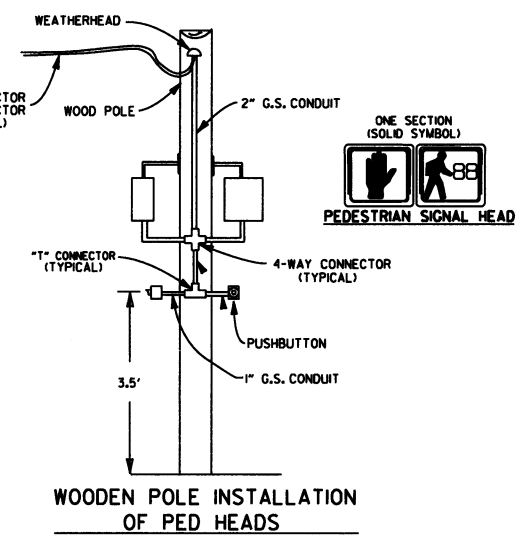
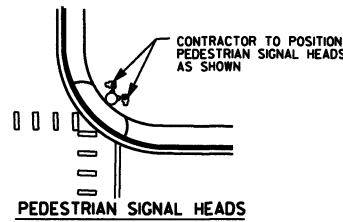
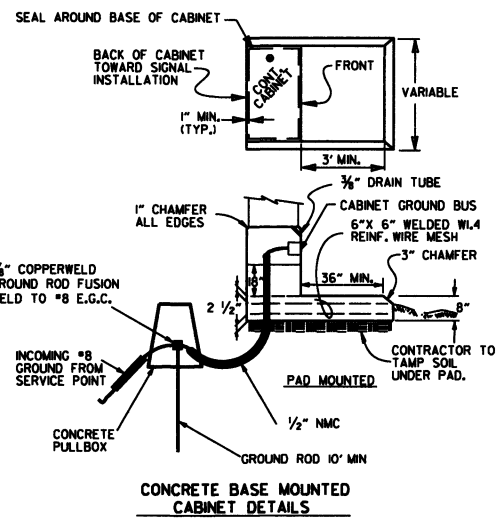
DATE	REVISION	FILMED
11-16-17	REVISED NOTES	
09-02-15	REVISED PULL BOX DEPTH	
09-12-15	ISSUED AS STANDARD DRAWING	
05-21-09	REVISED GROUNDING	
07-3-08	ADDED & REVISED CONDUIT ENTRY	
06-23-04	REVISED CLEARANCE AT CURB ENTRY	
01-04-02	ADDED REINFORCING TO BOX APRON	
07-02-01	REVISED	
12-27-99	REVISED NOTES	
11-18-98	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION
HEAVY DUTY PULL BOX
STANDARD DRAWING SD-6

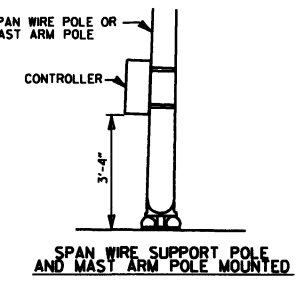


NOTES:
SPAN WIRE POLES SHALL BE MOUNTED A MINIMUM OF FOUR (4') FEET BEHIND CURB OR SHOULDER.
SPAN WIRE ASSEMBLIES WILL REQUIRE TETHER UNLESS OTHERWISE NOTED ON PLAN SHEETS.
CABLE TIES SHALL BE SUITABLE FOR OUTSIDE USE (BLACK).
THE CONTROLLER POWER SUPPLY GROUND BUSS SHALL BE BONDED TO THE FOUNDATION GROUND ROD WITH A #8 A.W.G. SOLID COPPER WIRE. ON EXISTING FOUNDATIONS WITH NO GROUND ROD, CONTRACTOR SHALL INSTALL A 10' X 3/8" COPPERWELD GROUND ROD.

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.
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.
ALL SIGN BLANK SHALL BE CONSTRUCTED OF ALUMINUM ALLOY (ASTM DESIGNATION B-209, ALLOY 5052-H38) WITH A THICKNESS OF 0.100 INCH.
ALL SIGN FACE SHALL BE CONSTRUCTED OF HIGH INTENSITY SHEETING (TYPE III) WITH SILKSCREEN LEGEND AND BORDER.
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.

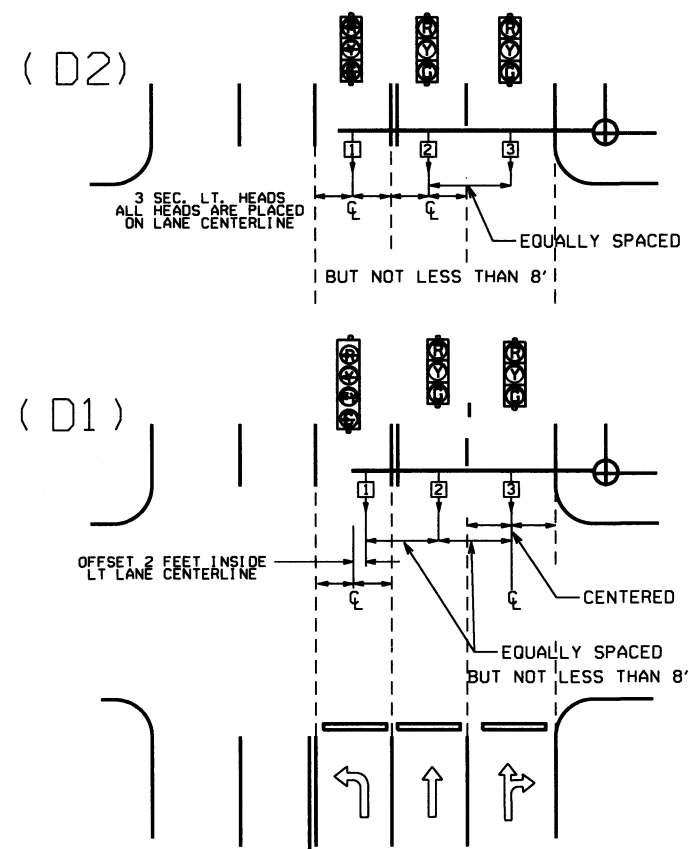
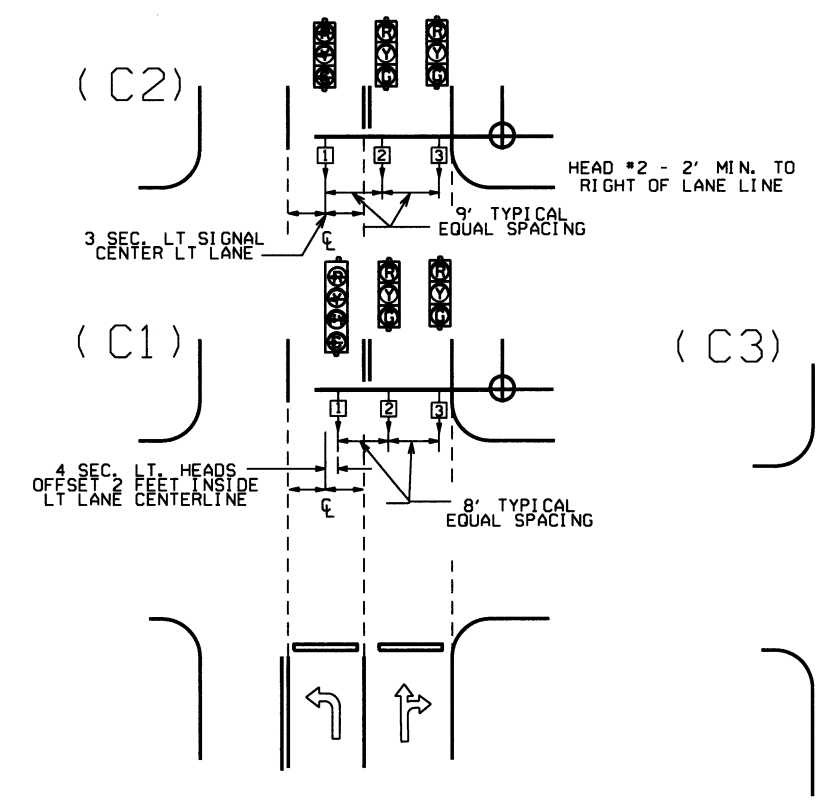
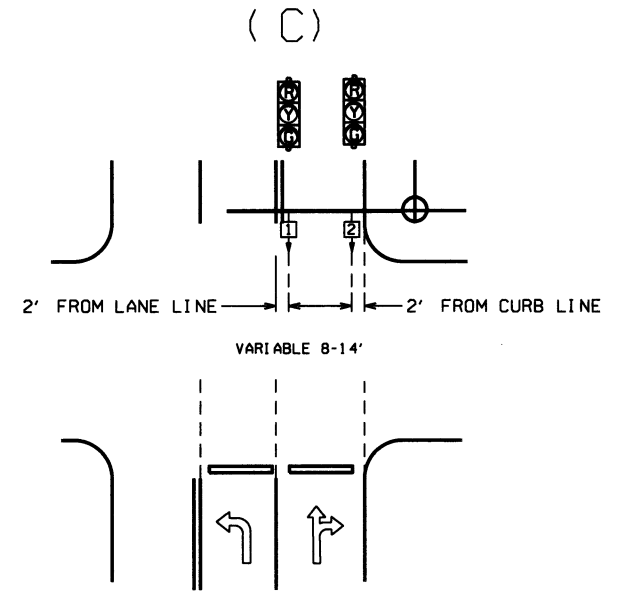
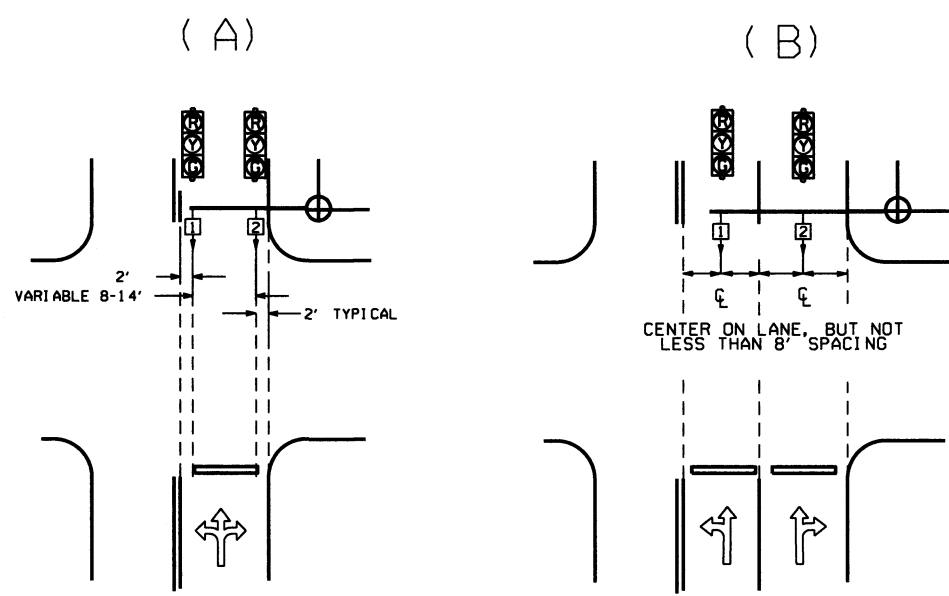


CABINET NOTE:
UNLESS OTHERWISE DIRECTED BY THE ENGINEER, CABINET ORIENTATION SHALL BE SUCH THAT THE BACK OF THE CABINET IS PARALLEL TO THE STREET AND POSITIONED TO ALLOW VISIBILITY OF THE SIGNAL DISPLAY WHILE OBSERVING THE CONTROLLER FRONT PANEL.

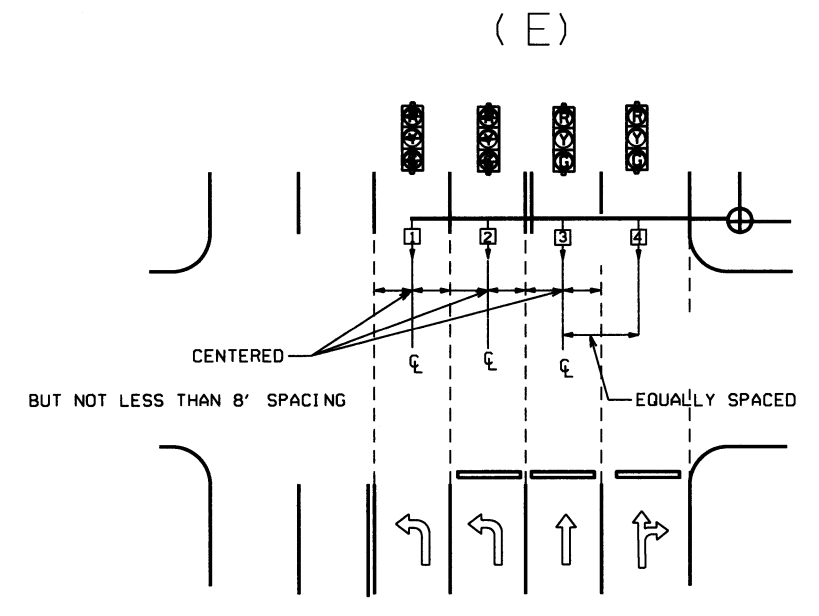


MINIMUM STRUCTURAL REQUIREMENTS:
DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION (2001) WITH 2003 AND 2006 INTERIMS.
CONSTRUCTION SPECIFICATIONS: STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION) 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	FILMED
11-16-17	REVISED NOTES, ADDED SPAN WIRE SUPPORT POLE DETAIL, ADDED PEDESTRIAN SIGNAL HEAD DETAIL	
02-27-14	REVISED NOTES	
09-12-13	ISSUED AS STANDARD DRAWING	
07-21-11	REVISED PEDESTRIAN SIGN & GROUNDING	
04-17-08	REVISED TO 2001 AASHTO STANDARDS	
10-12-04	REV. CABINET ORIENTATION & SIGNAL OPERATION	
05-22-02	REV. TYP. SPAN WIRE ASSEMBLY	
12-27-99	REVISED	
11-18-98	REVISION TO NOTES	
11-21-95	ISSUED	



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.



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-5 OF 2009 MUTCD.

℄ = CENTER OF LANE FROM APPROACH SIDE

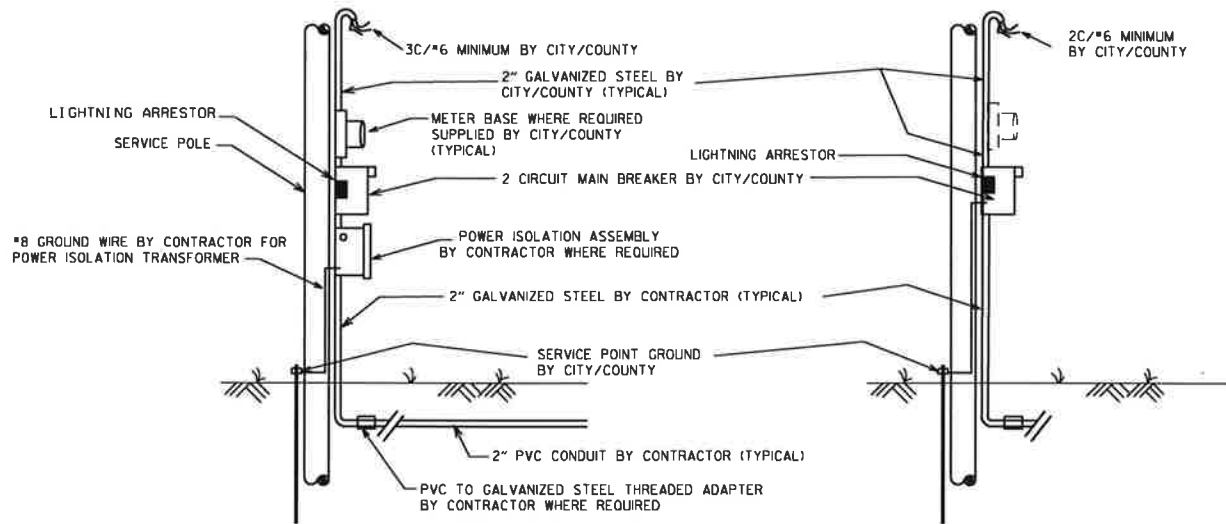
12-8-16	REVISED NOTE 6		ARKANSAS STATE HIGHWAY COMMISSION
9-12-13	ISSUED AS STANDARD DRAWING		SIGNAL HEAD PLACEMENT
3-11-10	2009 MUTCD		
12-9-99	ISSUED		
DATE	REVISION	DATE FILM	STANDARD DRAWING SD-8

MAIN BREAKER NOT NEAR CONTROLLER CABINET SECONDARY REQUIRED

GROUND ROD - A 10' X 5/8" GROUND ROD SHALL BE INSTALLED IN THE CONCRETE PULL BOX FOR EACH POLE AND THE CONTROLLER. PAYMENT FOR THE GROUND ROD AND 1/2" NMC SHALL BE INCLUDED IN ITEM 701. THE CONCRETE PULL BOX AND CONDUCTOR BOX SHALL BE PAID FOR SEPARATELY.

WITH POWER ISOLATION ASSEMBLY

WITHOUT POWER ISOLATION ASSEMBLY



NOTES TO CONTRACTOR AND AGENCY RESPONSIBLE FOR MAINTENANCE OF THE INTERSECTION (CITY/COUNTY):

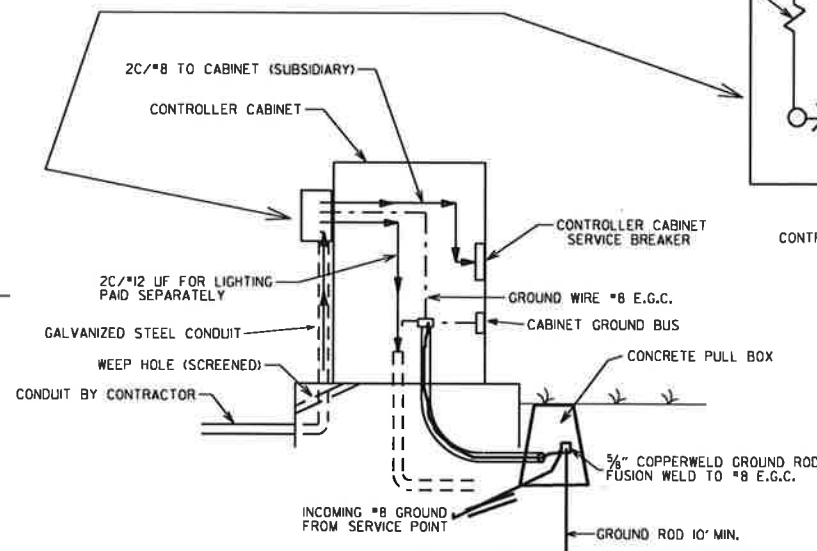
ELECTRICAL SERVICE TYPICALLY FALLS INTO TWO CATEGORIES: MAIN BREAKER NEAR CONTROLLER CABINET; AND MAIN BREAKER NOT NEAR CONTROLLER CABINET. THE CONTRACTOR'S AND THE CITY'S/COUNTY'S RESPONSIBILITY VARIES ACCORDINGLY AS INDICATED ON THESE DETAILS.

ALL SITUATIONS: ELECTRICAL SERVICE SHALL BE PROVIDED BY THE CITY/COUNTY TO A SERVICE POLE WITH EXTERNAL RAIN-TIGHT 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, LIGHTNING ARRESTOR, POWER ISOLATION ASSEMBLY WHERE REQUIRED, METER LOOP IF REQUIRED BY LOCAL UTILITY COMPANY, ELECTRICAL CONDUCTORS AND WEATHERHEAD. WHERE STREET LIGHTING IS INCLUDED AS PART OF SIGNAL INSTALLATION STREET LIGHTING CIRCUIT (2C/#12 A.W.G. 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.

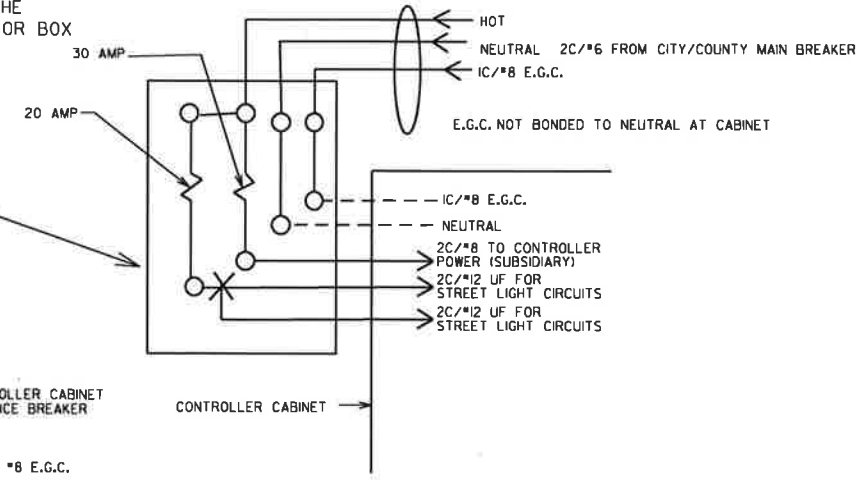
MAIN BREAKER NOT NEAR CONTROLLER CABINET: THE MAIN BREAKER ASSEMBLY, GALVANIZED STEEL CONDUIT, WEATHERHEAD AND WIRE ABOVE MAIN BREAKER AND CONNECTION TO THE UTILITY SHALL BE PROVIDED BY CITY/COUNTY. CONTRACTOR SHALL PROVIDE AS PART OF CONTRACT SECONDARY BREAKER, CONDUIT, WIRE AND WIRING TO THE MAIN BREAKER.

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.

SECONDARY BREAKER BY CONTRACTOR (SUBSIDIARY)



NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

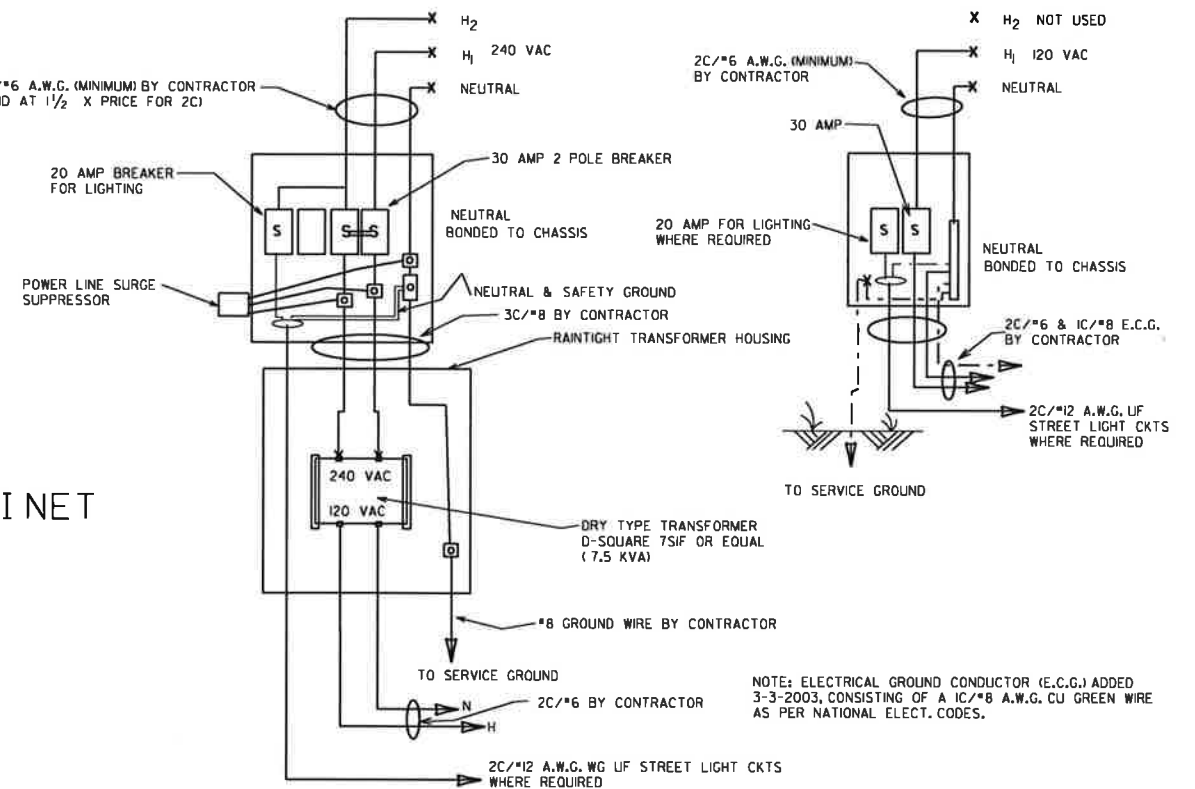


MAIN BREAKER WIRING (TYPICAL)

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.

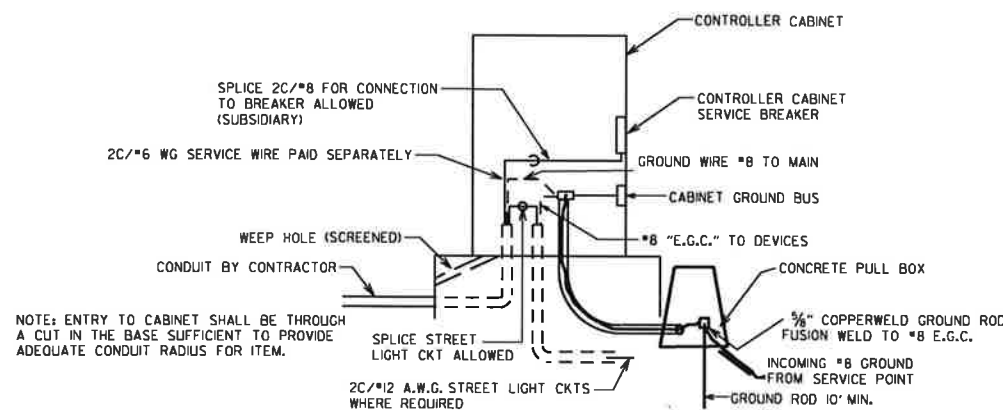
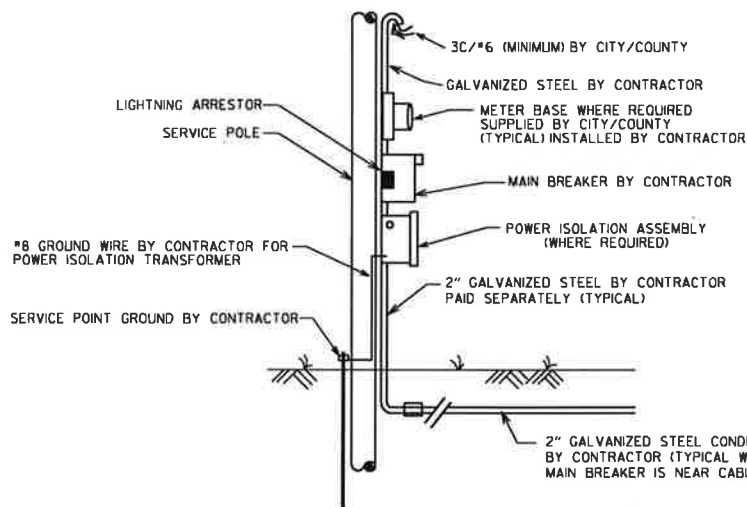
WITH POWER ISOLATION ASSEMBLY 4 CIRCUIT MAIN BREAKER

WITHOUT POWER ISOLATION ASSEMBLY 2 CIRCUIT MAIN BREAKER



NOTE: ELECTRICAL GROUND CONDUCTOR (E.G.C.) ADDED 3-3-2003, CONSISTING OF A IC/#8 A.W.G. CU GREEN WIRE AS PER NATIONAL ELECT. CODES.

MAIN BREAKER NEAR CONTROLLER CABINET SECONDARY NOT REQUIRED



NOTE: ENTRY TO CABINET SHALL BE THROUGH A CUT IN THE BASE SUFFICIENT TO PROVIDE ADEQUATE CONDUIT RADIUS FOR ITEM.

DATE	REVISION	FILMED
11-07-19	REVISED	
11-16-17	REVISED NOTES	
09-12-13	ISSUED AS STANDARD DRAWING	
04-18-13	ADDED LIGHTNING ARRESTOR	
05-21-09	REVISED GROUNDING	
07-31-08	REVISED GROUNDING	
03-03-03	ADDED EGC NOTE	
09-26-01	REVISED	
12-27-99	REVISED	
07-28-99	REVISED	
02-05-99	ISSUED	

ARKANSAS STATE HIGHWAY COMMISSION
SERVICE POINT
STANDARD DRAWING SD-9

NOTES:

PEDESTRIAN 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 (RIO-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 RIO-3E SIGN ATTACHED TO THE POLE ABOVE THE BUTTON. ALL SIGNS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 723 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

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 FOUR (4') FEET BEHIND CURB OR SHOULDER.

2. OCTAGONAL POLES AND ARMS MEETING THE REQUIREMENTS OF THE PLANS 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 THE SPEED LIMIT IS GREATER THAN 45 MPH WITH AN MAST ARM OF 60' OR LONGER.

USE FATIGUE CATEGORY II FOR ALL STRUCTURES ON ROUTES WHERE THE SPEED LIMIT IS LESS THAN 65 MPH AND GREATER THAN 45 MPH WITH MAST ARMS LESS THAN 60' AND ON ROUTES WHERE THE SPEED LIMITS OF 45 MPH AND LESS WITH AN MAST ARM OF 60' OR LONGER.

USE FATIGUE CATEGORY III FOR ALL STRUCTURES WHERE THE SPEED LIMIT IS 45 MPH AND LESS AND MAST ARMS LESS THAN 60'.

CONSTRUCTION SPECIFICATIONS: STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT 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 CHIPPY 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, TWELVE (12") INCH AND HAVE FIVE (5") INCH BACK PLATES:

SIGNAL HEADS AT THE END OF MAST ARM - ONE 4 SEC., 85 LB., 14.5 SQ. FT., ONE SIGN MOUNTED 3 FEET FROM SIGNAL HEAD (2'-0" x 2'-6" x 20 LB.) REMAINING SIGNAL HEADS SPACED AT 8 FT. (3 SEC., 56 LB., 8.3 SQ. FT.); DESIGN TO ACCOMMODATE:

- 2 SIGNAL HEADS FOR MAST ARMS 10 FT. TO 16 FT.
- 3 SIGNAL HEADS FOR MAST ARMS 18 FT. TO 24 FT.
- 4 SIGNAL HEADS FOR MAST ARMS OVER 26 FT.

STREET NAME SIGN - 72" x 18", 36 LB., MOUNTED SUCH THAT OUTSIDE EDGE IS NOT GREATER THAN 12 FT. FROM POLE, DEPENDENT UPON POSITION OF SIGNAL HEAD ADJACENT TO POLE, SIGN MAY OVERLAP POLE SHAFT. ROADWAY LUMINAIRES (WHERE REQUIRED ON PLAN SHEET) - VARIABLE ARM LENGTH (MAX. WT. 75 LB., 3.3 SQ. FT.) PEDESTRIAN SIGNALS - TWO 1 SEC., 12 INCH MOUNTED 8 FT. FROM BASE OF POLE, POST MOUNTED 3 SEC. SIGNAL HEAD AT 10 FT. ON SIDE OF POLE.

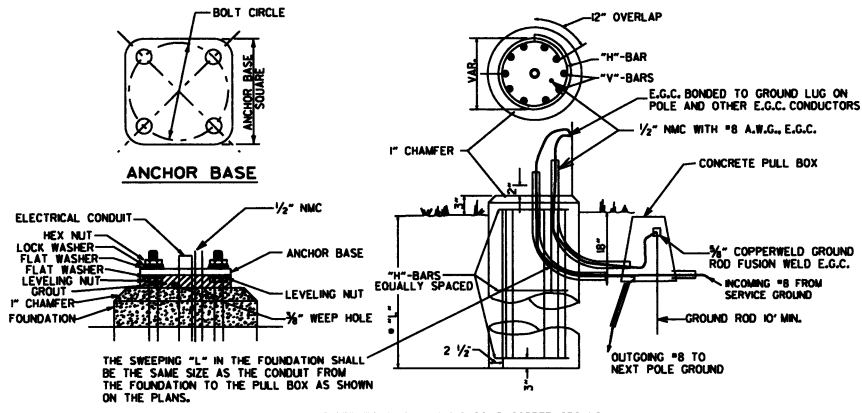
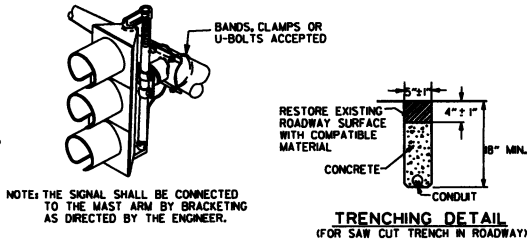
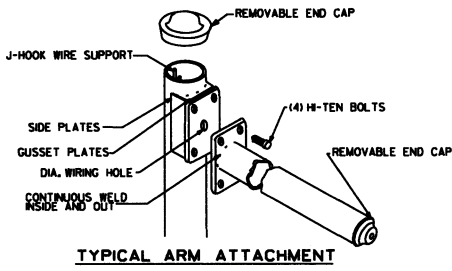
4. POLE/MAST ARM CAP - POLE AND MAST ARM CAPS SHALL BE PROVIDED, FABRICATED OF EITHER STEEL OR CAST ALUMINUM.

5. HAND HOLE - HAND HOLES SHALL BE 4 IN. X 6 IN. FOR STANDARD, AND 3 IN. X 5 IN. 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 HOLE WITHIN 12 INCHES OF MAST ARM(S) ATTACHMENT(S).

6. POLE/MAST ARM TAPER SLOPE - AVERAGE TAPER OF SIGNAL MAST ARMS AND POLE SHAFT SHALL BE 0.125 TO 0.15 INCHES PER FOOT.

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 MAST ARM SHALL MAINTAIN A POSITIVE SLOPE AFTER IT IS PLACED UNDER LOAD.

7. NUT COVERS - EACH POLE SHALL INCLUDE A BOLT DOWN NUT COVER FOR EACH ANCHOR BOLT.



TYPICAL FOUNDATION DETAILS
POLE FOUNDATION MINIMUM DIMENSIONS AND STEEL REINFORCING. ALL REINFORCING STEEL SHALL BE GRADE 40 MIN.

ARM LENGTH	FOUNDATION DIAMETER	DEPTH "L"*	STEEL		
			VERTICAL	HORIZONTAL	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"

CONTROLLER CABINET MOUNTING DETAILS

NOTE: 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 CONCRETE 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 CONCRETE PULL BOX AND CONDUCTOR BOX SHALL BE PAID SEPERATELY.

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 GROUDED WITH A 1/4" WEEP HOLE. ALL CONCRETE SHALL BE CLASS "S" OR GREATER.

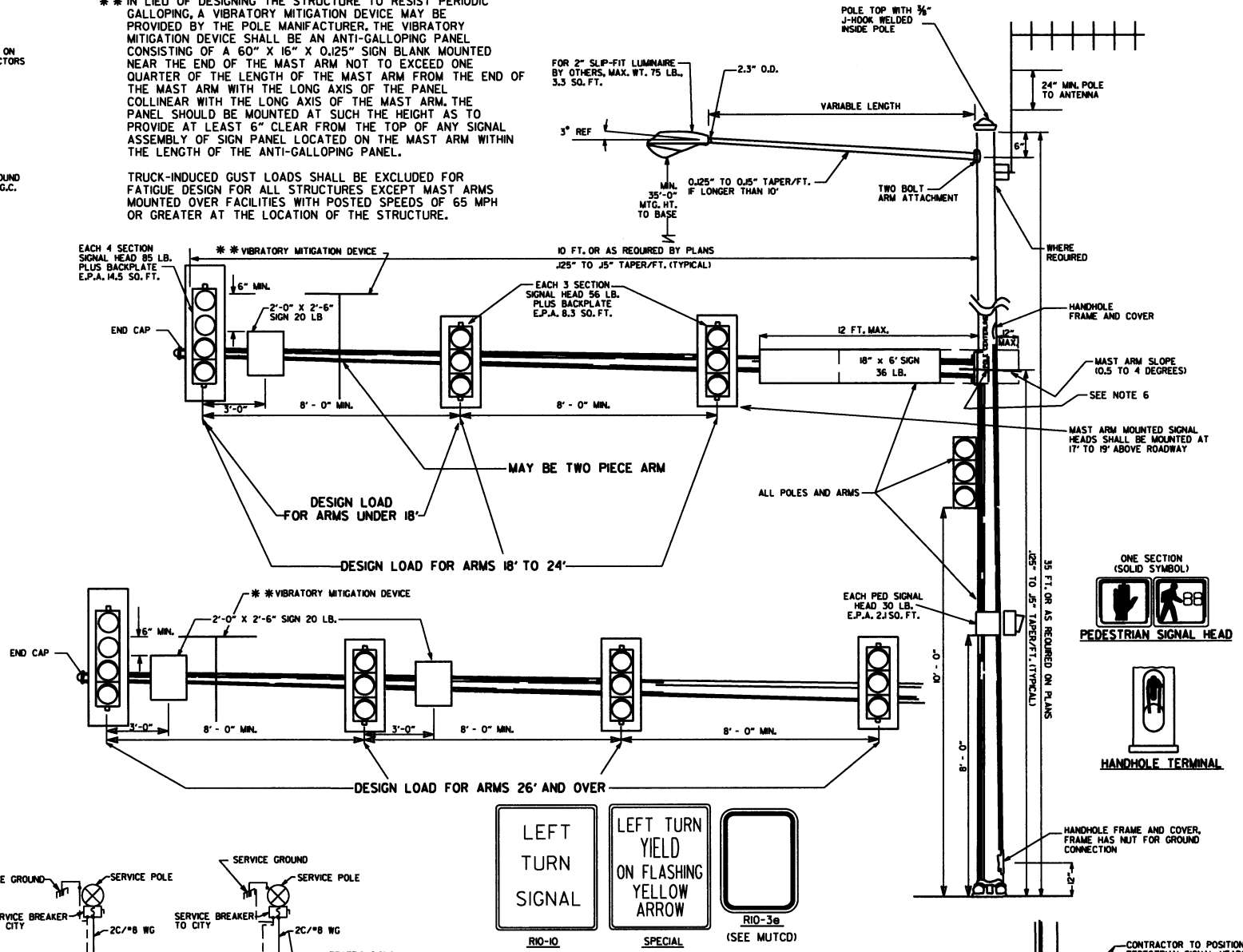
10. CONCRETE - ALL CONCRETE FOR CONTROLLER CABINET AND POLE FOUNDATIONS SHALL BE CLASS "S" OR GREATER.

11. PEDESTRIAN PHASES - PEDESTRIAN MOVEMENTS SHALL BE PUSH BUTTON ACTUATED AND CONCURRENTLY TIMED, UNLESS OTHERWISE INDICATED ON THE PLAN SHEET(S). FURNISHING AND INSTALLING PEDESTRIAN PUSH SWITCH SHALL BE CONSIDERED SUBSIDIARY TO THE ITEM 707 PEDESTRIAN SIGNAL HEAD.

* WHEN THE GROUND ELEVATION AT THE POLE IS LOWER THAN THE ROADWAY ELEVATION, THE LENGTH OF FOUNDATION ABOVE THE ROADWAY 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 TRAFFIC SIGNAL MAST ARM AND POLE WITH FOUNDATION 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" X 16" X 0.125" 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, THE PANEL SHOULD BE MOUNTED AT SUCH THE HEIGHT AS TO PROVIDE AT LEAST 6" CLEAR FROM THE TOP OF ANY SIGNAL ASSEMBLY OF 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.



DATE	REVISION	FILED
11-16-17	REVISED NOTES, ADDED PEDESTRIAN SIGNAL HEAD DETAIL, ADDED HANDHOLE TERMINAL DETAIL, ADDED TRENCHING DETAIL	
02-27-14	REVISED NOTES.	
09-12-13	ISSUED AS STANDARD DRAWING	
12-08-16	REVISED NOTES	
02-27-14	REVISED NOTES	
09-12-13	ISSUED AS STANDARD DRAWING	
01-21-11	REVISED VIB. SIGNAL HEADS	
05-21-09	REVISED GROUNDING	
07-31-08	REVISED GROUNDING	
04-28-06	ADDED VIBRATORY MITIGATION DEVICE & NOTES	
04-18-08	REVISED AASHTO NOTES	
04-17-08	REVISED TO 2001 AASHTO STANDARDS	
10-12-04	REVISED CABINET ORIENTATION	
06-23-04	REVISED	
05-11-04	REV. NOTE 3/AASHTO REQUIREMENTS	
06-11-01	REV. NOTES & POLE MAST ARM SLOPE	
04-11-01	REVISED POLE TAPERS	
04-25-00	REV. NOTES & SIGNAL HEAD PLACEMENT	
11-22-99	REVISED FOUNDATION DETAILS	
11-17-98	REVISED DETAILS AND NOTES	
11-21-95	ISSUED	

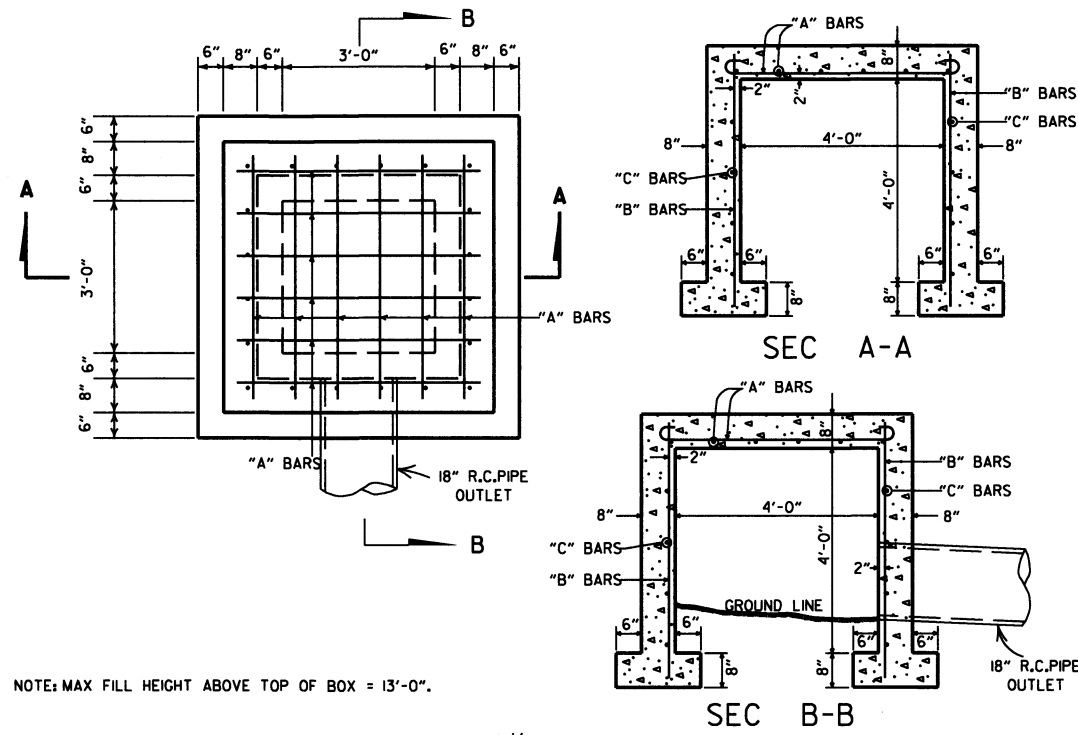
SIGNAL OPERATION NOTES:

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 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 ALTERATION IN FLASH SEQUENCE.

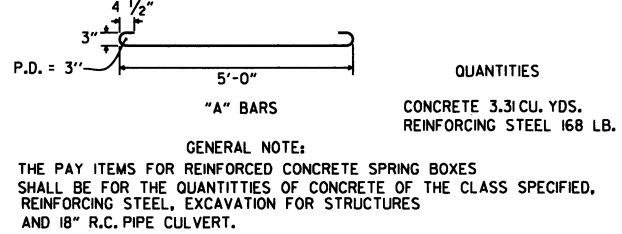
SPECIAL NOTE: 90 MPH WIND ZONE DESIGN, SEE NOTE 3. MINIMUM STRUCTURAL REQUIREMENTS.

ARKANSAS STATE HIGHWAY COMMISSION
STEEL POLE WITH MAST ARM
STANDARD DRAWING SD-II



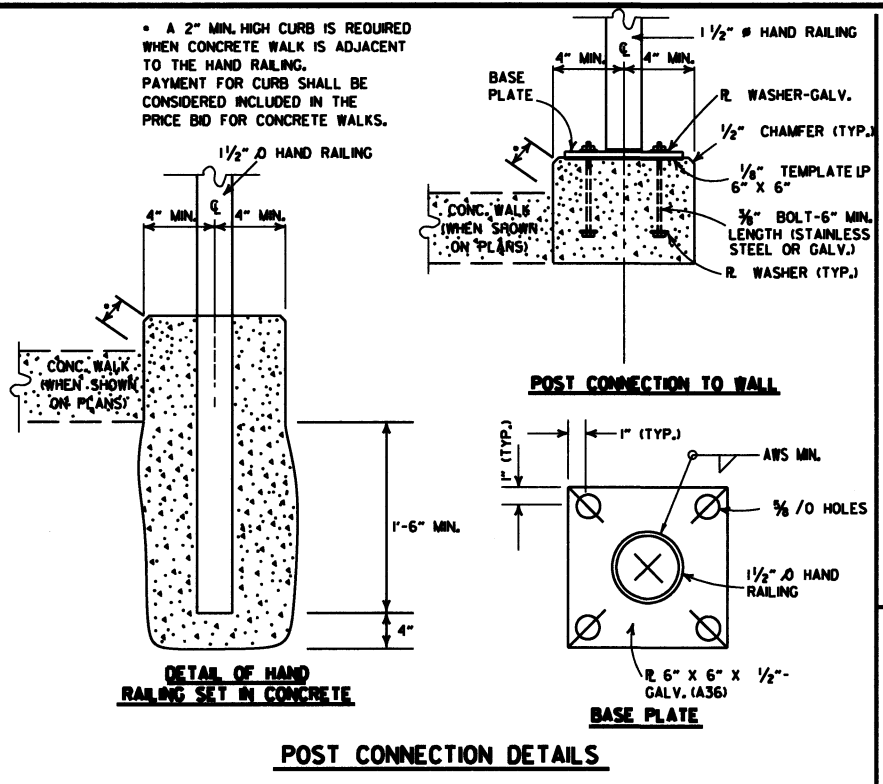
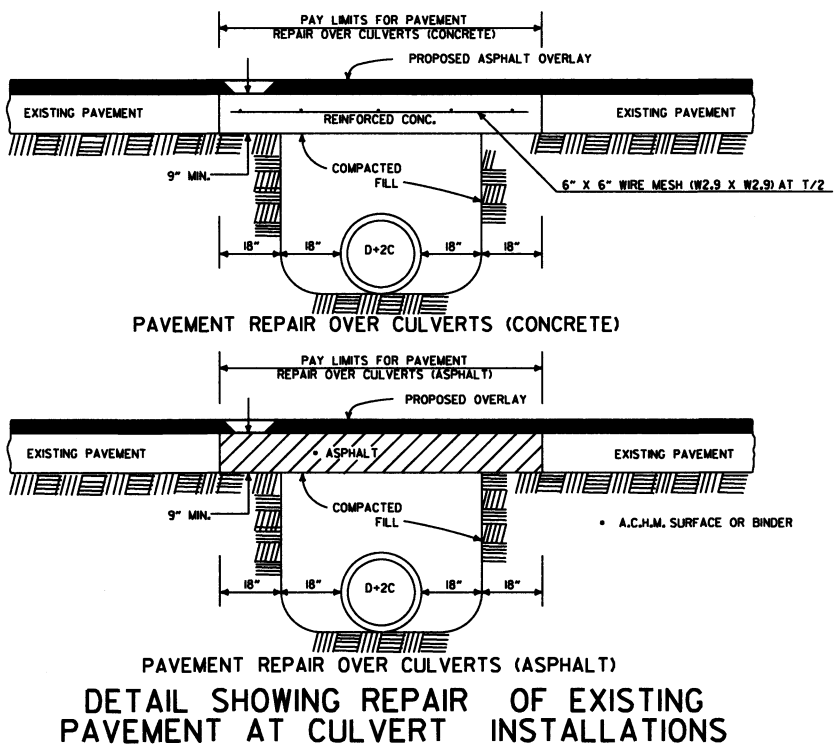
STEEL SCHEDULE

BAR	NUMBER	LENGTH	SPACING
"A"	12	6'-0"	10"
"B"	20	5'-0"	10 1/2"
"C"	16	5'-0"	12"

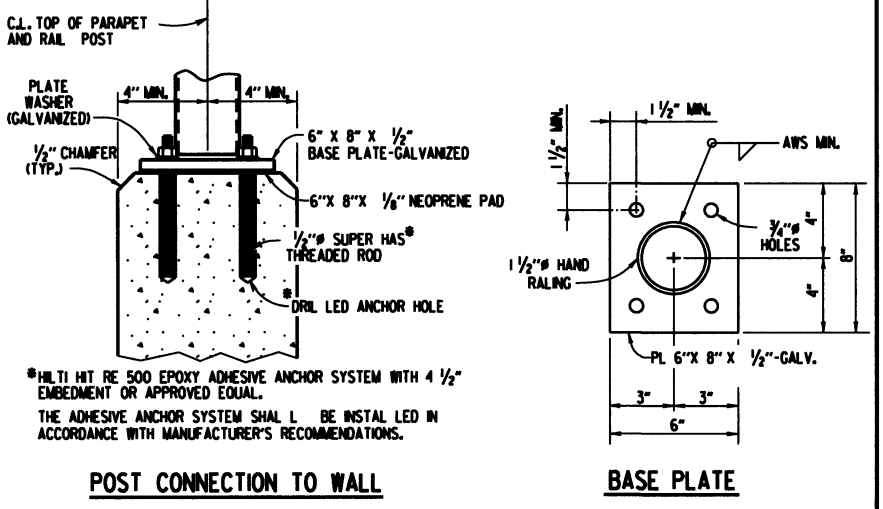
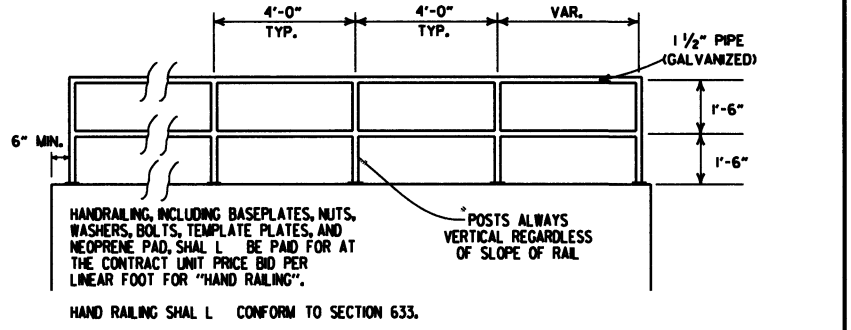


REINFORCED CONCRETE SPRING BOX

ALL STEEL TO BE #4 BARS



POST CONNECTION DETAILS

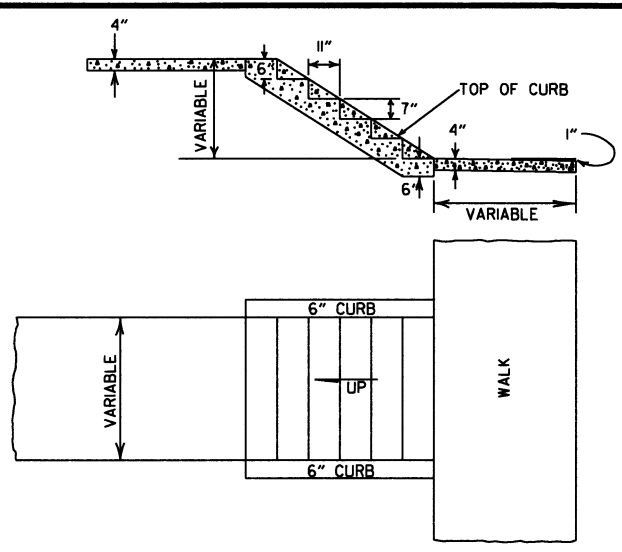


POST CONNECTION TO WALL

BASE PLATE

DETAILS OF ALTERNATE POST ANCHOR SYSTEM (EPOXY ADHESIVE ANCHORS)

HAND RAILING DETAILS





















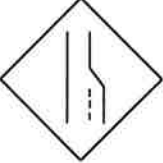


















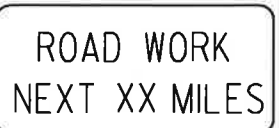
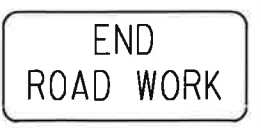
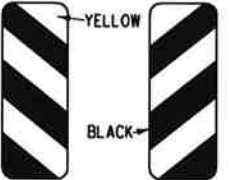


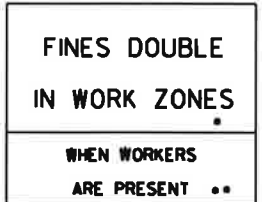


DETAILS OF CONCRETE STEPS & WALKS

DATE	REVISION	DATE FILMED
10-25-18	REVISED DETAIL SHOWING REPAIR OF EXISTING PAVEMENT AT CULVERT INSTALLATIONS	
9-12-13	REVISED REINFORCED CONCRETE SPRING BOX	
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

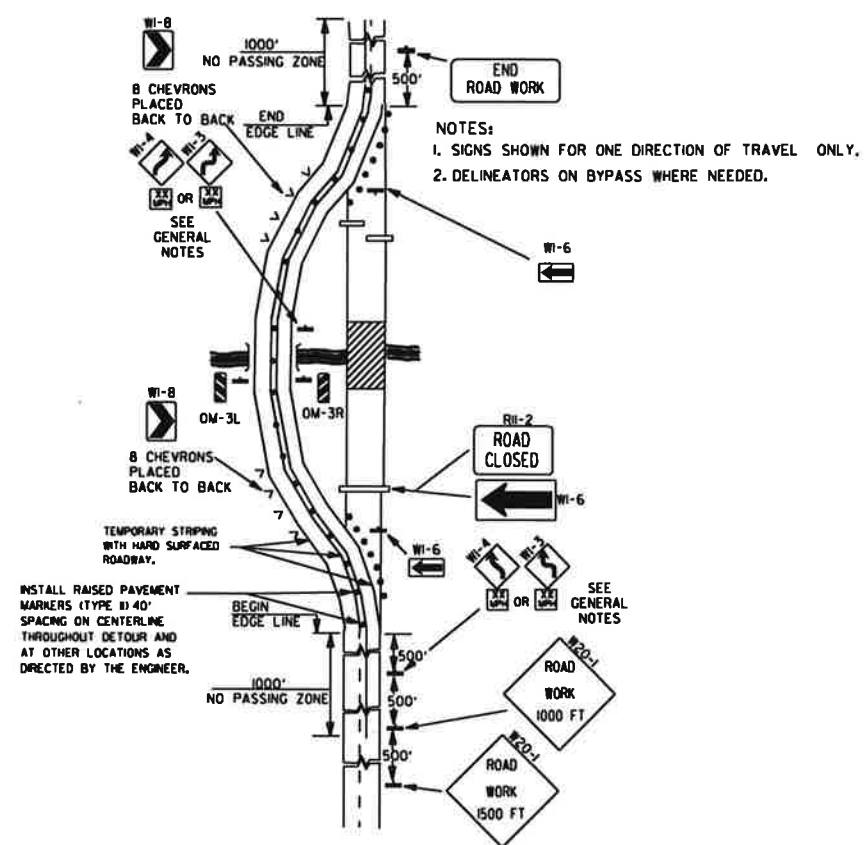
ARKANSAS STATE HIGHWAY COMMISSION

DETAILS OF SPECIAL ITEMS

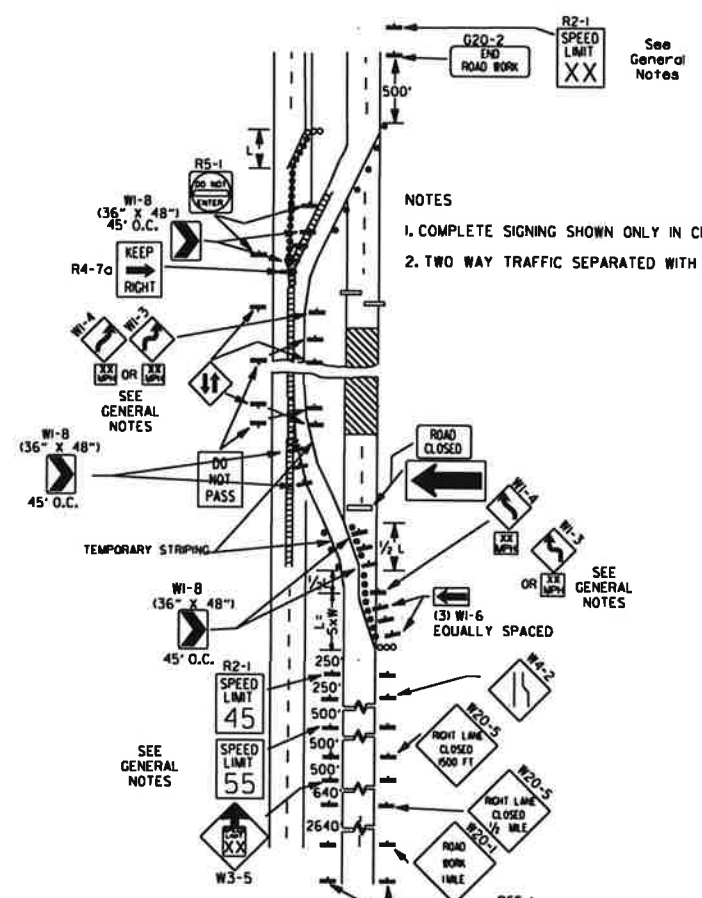
<p>RI-1</p>  <p>STANDARD 30"x30" EXPRESSWAY 36"x36" SPECIAL 48"x48"</p>	<p>RI-2</p>  <p>STD. 36"x36"x36" EXPWY. 48"x48"x48" FWY. 60"x60"x60"</p>	<p>R2-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>W3-5</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>W3-5a</p>  <p>STD. 36"x36" EXPWY. 48"x48" FWY. 48"x48"</p>	<p>R4-1</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>R4-2</p>  <p>STD. 24"x30" EXPWY. 36"x48" FWY. 48"x60"</p>	<p>ADVANCE DISTANCES (XXXX)</p> <p>500 FT 1/2 MILE 1000 FT 3/4 MILE 1500 FT 1 MILE AHEAD</p> <p>GENERAL NOTES:</p> <ol style="list-style-type: none"> ALL TRAFFIC CONTROL DEVICES USED ON ROAD CONSTRUCTION SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND TO THE STANDARD HIGHWAY SIGNS, LATEST EDITION, OR AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION. TRAFFIC CONTROL DEVICES SHALL BE SET UP JUST BEFORE THE START OF CONSTRUCTION OPERATIONS AND SHALL BE PROPERLY MAINTAINED DURING THE TIME SUCH CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS NEEDED AND REMOVED THEREAFTER. EXISTING SIGNS AND CONSTRUCTION SIGNS SHALL BE KEPT IN PROPER POSITION, AND BE CLEAN AND LEGIBLE AT ALL TIMES. SIGNS THAT DO NOT APPLY TO EXISTING CONDITIONS SHALL BE REMOVED. SIGNS THAT ARE DAMAGED, DEFACTED, OR THAT ACCUMULATE DIRT DURING CONSTRUCTION SHALL BE CLEANED, REPAIRED, OR REPLACED. SIGNS ARE USUALLY MOUNTED ON A SINGLE POST, ALTHOUGH THOSE WIDER THAN 36" OR LARGER THAN 10 SQ. FT. SHALL BE MOUNTED ON TWO POSTS OR ABOVE A TYPE III BARRICADE. SIGN POSTS DIRECT BURIED IN SOIL SHALL BE 2 LB. MINIMUM CHANNEL POST OR 4"x4" WOOD POSTS. CHANNEL POSTS SHALL BE PAINTED GREEN. WOOD POSTS SHALL BE PAINTED WHITE. ALL POSTS SHALL BE NEATLY CONSTRUCTED, AND SHALL BE REPLUMBED, CLEANED, OR REPAIRED AS NEEDED FOR THE DURATION OF THE JOB. THERE SHALL NOT BE MORE THAN 2 POSTS IN A 7' PATH FOR WOOD OR CHANNEL POSTS. ANY CHANNEL POST SPLICE SHALL BE IN ACCORDANCE WITH STANDARD DRAWING TC-3. POST MOUNTED SIGNS IN RURAL AREAS SHALL BE CONSTRUCTED WITH THE NEAR EDGE OF THE SIGN FROM 6 TO 12 FEET FROM THE PAVEMENT EDGE. SIGNS IN URBAN AREAS AND BARRICADE MOUNTED SIGNS SHALL BE MOUNTED A MINIMUM OF 2 FEET FROM THE PAVEMENT EDGE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN URBAN AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. ALL POST AND BARRICADE MOUNTED SIGNS MOUNTED IN RURAL AREAS SHALL BE MOUNTED A MINIMUM DISTANCE OF 7' FROM THE BOTTOM OF THE SIGN TO THE ROADWAY SURFACE. EXCEPT A MINIMUM OF 6' SHALL BE USED WHEN MOUNTING AN ADVISORY SIGN BELOW A WARNING SIGN. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR INTERMEDIATE TERM STATIONARY WORK CONDITIONS. THE SIGNS MINIMUM MOUNTING HEIGHT SHALL BE 5'. RETROREFLECTIVE DEVICES SHALL BE USED. TEMPORARY SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS FOR SHORT-TERM, SHORT DURATION, AND MOBILE CONDITIONS. THEY SHALL BE NO LESS THAN ONE (1) FOOT ABOVE THE TRAVELED WAY. LONG-TERM STATIONARY SIGNS SHALL BE DIRECT BURIED IN SOIL, UNLESS CONDITIONS NECESSITATE THE USE OF PORTABLE SIGNS, OR AS APPROVED BY THE ENGINEER. CONCRETE PADS, CONCRETE OR ROCK BALLAST, OR OTHER SOLID MATERIALS SHALL NOT BE UTILIZED WITH PORTABLE SIGN SUPPORTS. FLAGGERS SHALL USE REFLECTORIZED STOP-SLOW PADDLES. FLAGS MAY BE USED ONLY FOR EMERGENCY SITUATIONS. MOST OF THE SIGNS SHOWN ARE ORIENTED TO THE RIGHT. HOWEVER, THIS DOES NOT PRECLUDE THE USE OF MIRROR IMAGES OF THESE SIGNS WHERE THE REVERSE ORIENTATION MIGHT BETTER CONVEY TO MOTORISTS THE PROPER DIRECTION OF MOVEMENT. R55-1 SIGNS SHALL BE PLACED AT LEAST 1500' BUT NOT MORE THAN 1 MILE IN ADVANCE OF THE WORK ZONE. IF A SPEED LIMIT REDUCTION IS IN EFFECT, THE SIGN SHALL BE PLACED A MINIMUM OF 500' IN ADVANCE OF THE "REDUCED SPEED AHEAD" SIGN. <p>* NOTE: SUPPORTS FOR SIGNS, BARRICADES, AND VERTICAL PANELS THAT ARE DIFFERENT FROM THE REQUIREMENTS SHOWN IN NOTES 4 & 5, BUT MEET THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH), WILL BE ACCEPTED. COMPLIANCE WITH THE REQUIREMENTS OF MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) IS REQUIRED FOR ALL PROJECTS.</p> <table border="1"> <tr><td>11-07-95</td><td>REVISED FOR MASH</td><td></td></tr> <tr><td>4-13-17</td><td>DELETED RSP-1 & ADDED W21-5a</td><td></td></tr> <tr><td>9-2-15</td><td>REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES</td><td></td></tr> <tr><td>12-15-8</td><td>REVISED W24-1</td><td></td></tr> <tr><td>8-17-10</td><td>DELETED W8-9a & ADDED W8-9</td><td></td></tr> <tr><td>10-15-09</td><td>ADDED REFERENCE TO MASH & ADDED SIGN W24-1</td><td></td></tr> <tr><td>4-17-08</td><td>REVISED SIGN DESIGNATIONS</td><td></td></tr> <tr><td>8-18-04</td><td>REVISED NOTES</td><td></td></tr> <tr><td>10-9-03</td><td>REVISED NOTE 1</td><td></td></tr> <tr><td>11-16-01</td><td>REVISED NOTE 7</td><td></td></tr> <tr><td>9-28-00</td><td>REVISED NOTE</td><td></td></tr> <tr><td>1-18-98</td><td>ADDED NOTE</td><td></td></tr> <tr><td>6-26-97</td><td>REVISED NOTE 5</td><td></td></tr> <tr><td>4-03-97</td><td>REVISED NOTE 5</td><td></td></tr> <tr><td>10-18-96</td><td>ADDED CONTROLLED ACCESS HWY. SIGN & TO NOTE 7</td><td></td></tr> <tr><td>10-12-95</td><td>ADDED R55-1</td><td></td></tr> <tr><td>6-8-95</td><td>REVISED TO CORRECT SIGN ILLUSTRATIONS</td><td>6-8-95</td></tr> <tr><td>2-2-95</td><td>REVISED PER PART VI, MUTCD SEPT. 3, 1993</td><td></td></tr> <tr><td>8-15-91</td><td>DRAWN AND PLACED IN USE</td><td></td></tr> <tr><td>DATE</td><td>REVISION</td><td>FILMED</td></tr> </table>	11-07-95	REVISED FOR MASH		4-13-17	DELETED RSP-1 & ADDED W21-5a		9-2-15	REVISED REDUCED SPEED LIMIT AHEAD SIGNS REVISED ROAD WORK NEXT XX MILES		12-15-8	REVISED W24-1		8-17-10	DELETED W8-9a & ADDED W8-9		10-15-09	ADDED REFERENCE TO MASH & ADDED SIGN W24-1		4-17-08	REVISED SIGN DESIGNATIONS		8-18-04	REVISED NOTES		10-9-03	REVISED NOTE 1		11-16-01	REVISED NOTE 7		9-28-00	REVISED NOTE		1-18-98	ADDED NOTE		6-26-97	REVISED NOTE 5		4-03-97	REVISED NOTE 5		10-18-96	ADDED CONTROLLED ACCESS HWY. 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8-18-04	REVISED NOTES	
10-9-03	REVISED NOTE 1	
11-16-01	REVISED NOTE 7	
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8-15-91	DRAWN AND PLACED IN USE	
DATE	REVISION	FILMED

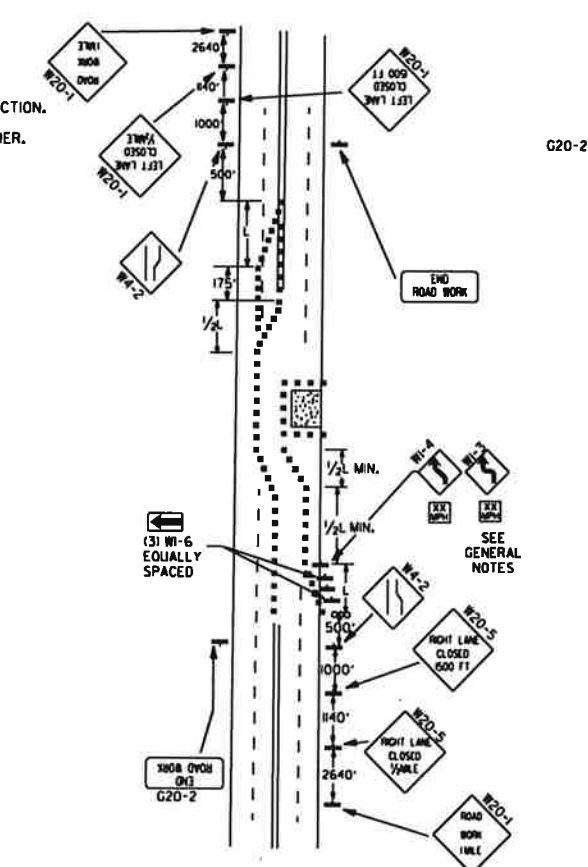
ARKANSAS STATE HIGHWAY COMMISSION
STANDARD TRAFFIC CONTROLS
FOR HIGHWAY CONSTRUCTION
STANDARD DRAWING TC-1



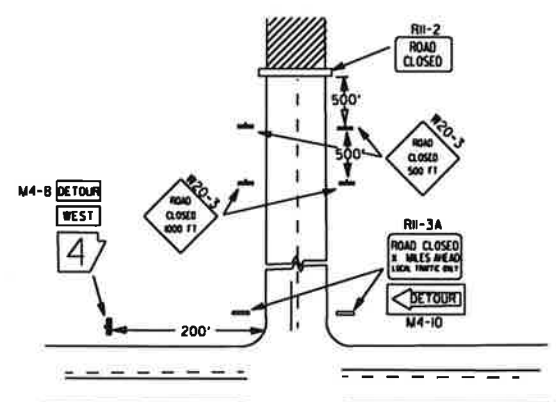
(A) TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES ON A 2-LANE HIGHWAY WHERE THE ENTIRE ROADWAY IS CLOSED AND A BYPASS DETOUR IS PROVIDED.



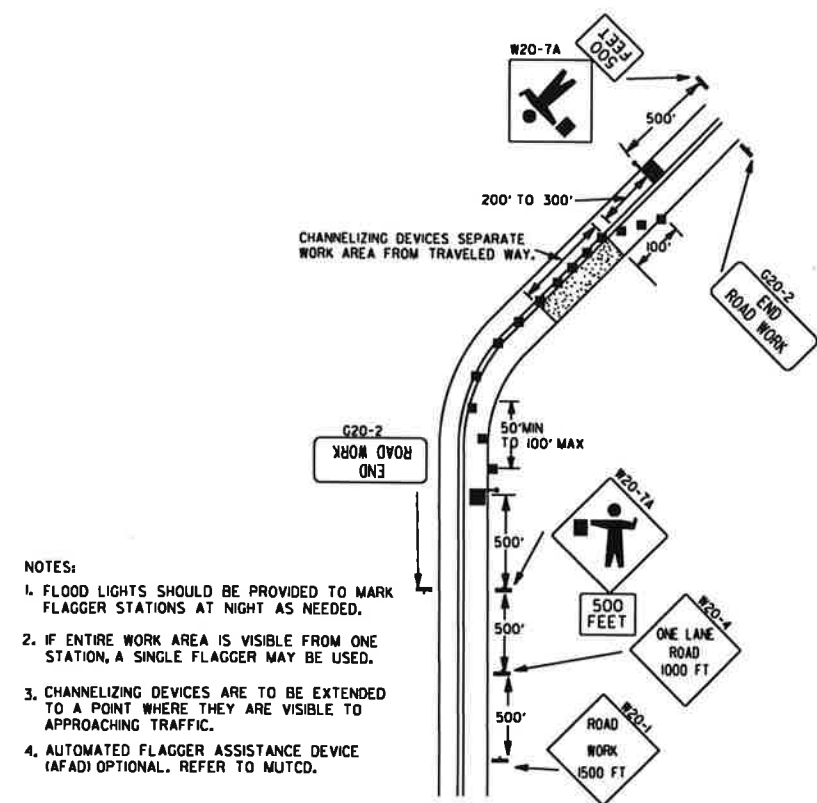
(B) TYPICAL APPLICATION - 4-LANE DIVIDED ROADWAY WHERE ONE ROADWAY IS CLOSED.



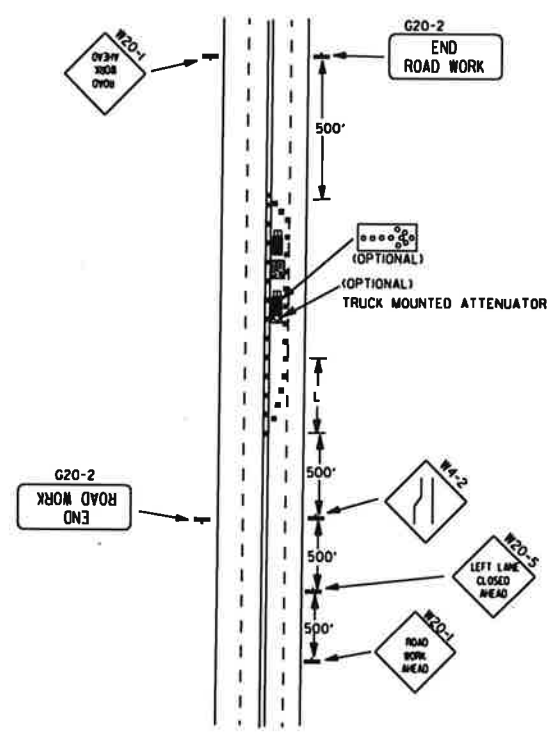
(C) TYPICAL APPLICATION - 4-LANE UNDIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



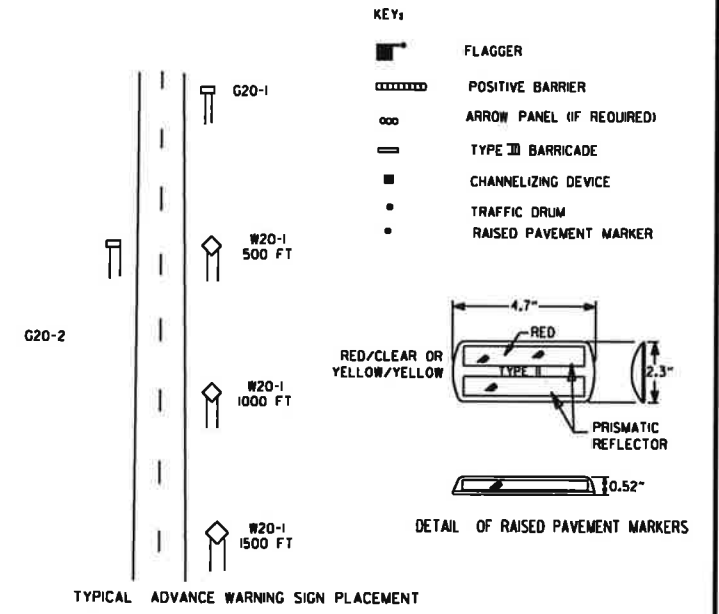
(D) TYPICAL APPLICATION - ROADWAY CLOSED BEYOND DETOUR POINT.



(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.

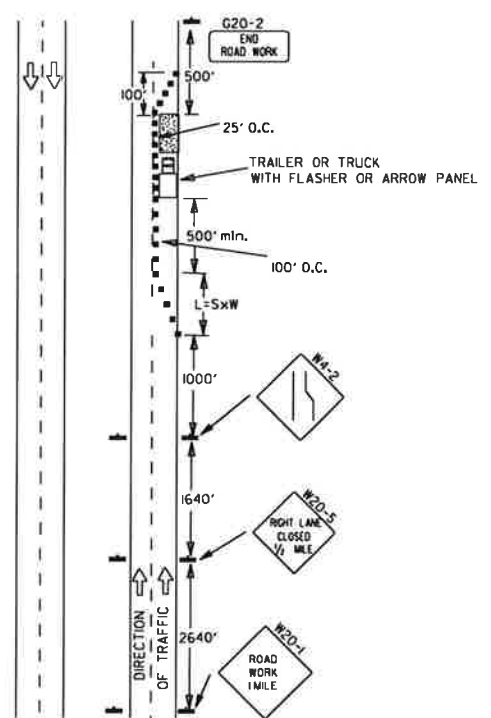


TAPER FORMULAE:
 L=SW FOR SPEEDS OF 45MPH OR MORE.
 L= $\frac{WS^2}{60}$ FOR SPEEDS OF 40MPH OR LESS.
 WHERE:
 L= MINIMUM LENGTH OF TAPER.
 S= NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85TH PERCENTILE SPEED.
 W= WIDTH OF OFFSET.

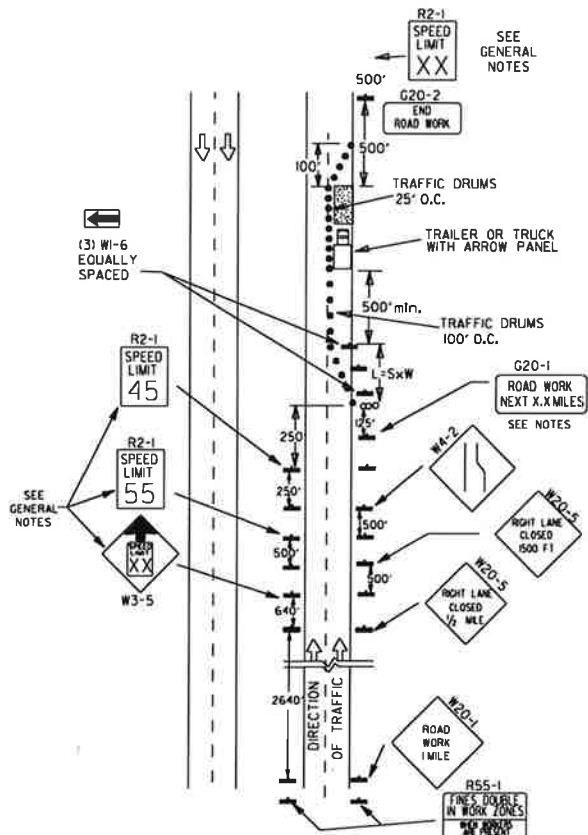
- GENERAL NOTES:
- THE MAINTENANCE DIVISION SHALL CONDUCT A BALL BANK STUDY TO DETERMINE THE ADVISORY SPEED LIMIT PRIOR TO OPENING TO TRAFFIC. THE ADVISORY SPEED WILL BE POSTED ON W1-3 OR W1-4 CURVE WARNING SIGNS. USE W1-4 WHEN SPEED IS GREATER THAN 30MPH AND W1-3 WHEN 30MPH OR LESS.
 - WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-K55I SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-145MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/4 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-KXXI SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 - WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-K45I SHALL BE OMITTED. ADDITIONAL R2-155MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/4 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-KXXI SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 - THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT, OR AS DIRECTED BY THE ENGINEER.
 - WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
 - PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
 - TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DELINEATED BY AFFIXING CONSPICUITY MATERIAL IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER. WHEN PLACED ON OR ADJACENT TO THE SHOULDER AND NOT BEHIND A POSITIVE BARRIER, THESE DEVICES SHALL BE DELINEATED BY PLACING FIVE (5) TRAFFIC DRUMS, EQUALLY SPACED ALONG THE TRAFFIC SIDE OF THE DEVICE.
 - DIMENSIONS SHOWN FOR RAISED PAVEMENT MARKERS ARE TYPICAL. THE CONTRACTOR MAY SUBSTITUTE SIMILAR MARKERS WITH THE APPROVAL OF THE ENGINEER. REQUESTING APPROVAL FOR SIMILAR MARKERS MAY BE MADE BY REFERRING TO THE AASHTO QUALIFIED PRODUCTS LIST.
 - ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

DATE	REVISION	FILED
8-07-19	REVISED NOTE 4, ADDED NOTE 9	
9-2-15	REVISED NOTE 2, ADDED NOTE 8, REVISED DRAWING (A) & REPLACED R2-5A WITH R3-5	
9-12-13	REVISED DETAIL OF RAISED PAVEMENT MARKERS	
3-8-10	ADDED (AFAD)	
8-20-08	REVISED SIGN DESIGNATIONS	
8-18-04	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	

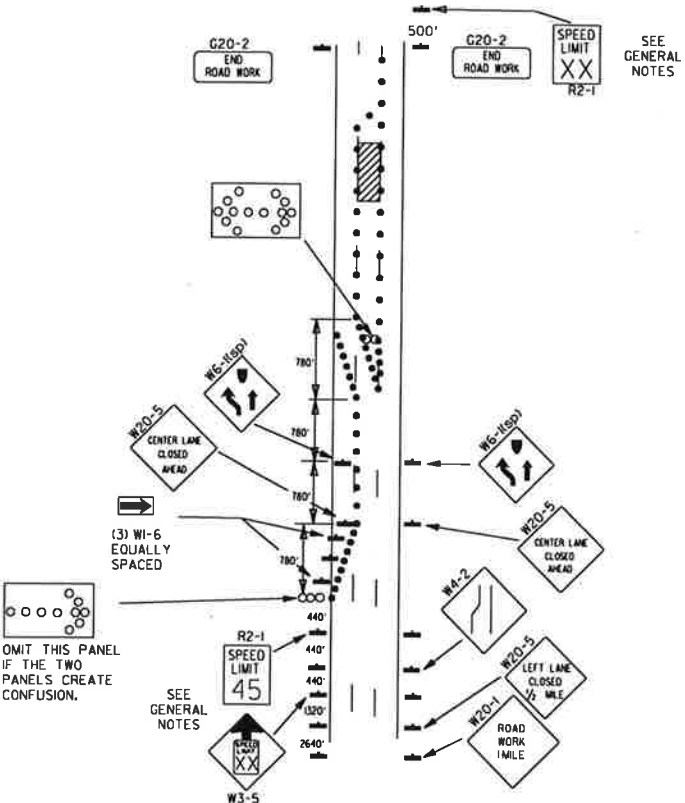
(A) TYPICAL APPLICATION - DAYTIME MAINTENANCE OPERATIONS OF SHORT DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.



(C) TYPICAL APPLICATION - CONSTRUCTION OPERATIONS OF INTERMEDIATE TO LONG TERM DURATION ON A 4-LANE DIVIDED ROADWAY WHERE HALF OF THE ROADWAY IS CLOSED.

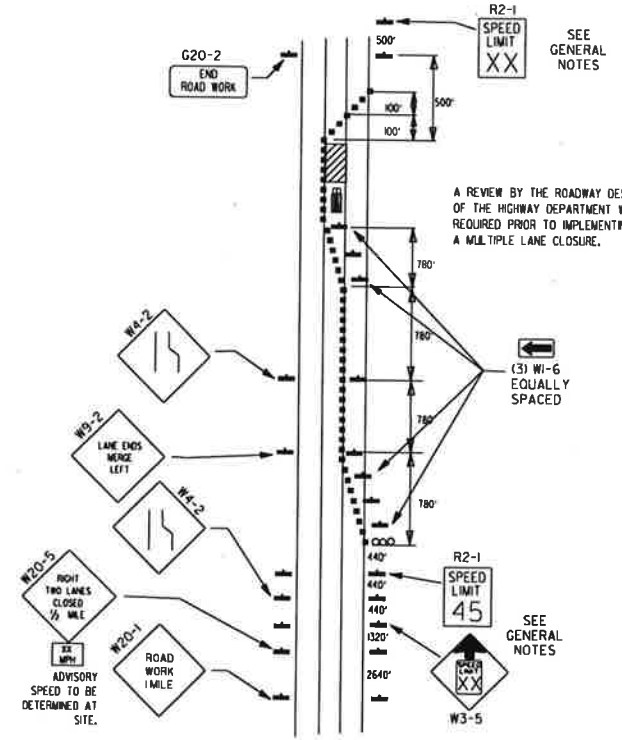


(B) TYPICAL APPLICATION - 3-LANE ONEWAY ROADWAY WHERE CENTER LANE IS CLOSED.

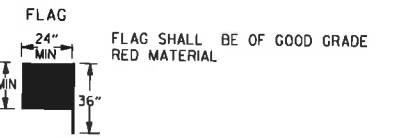
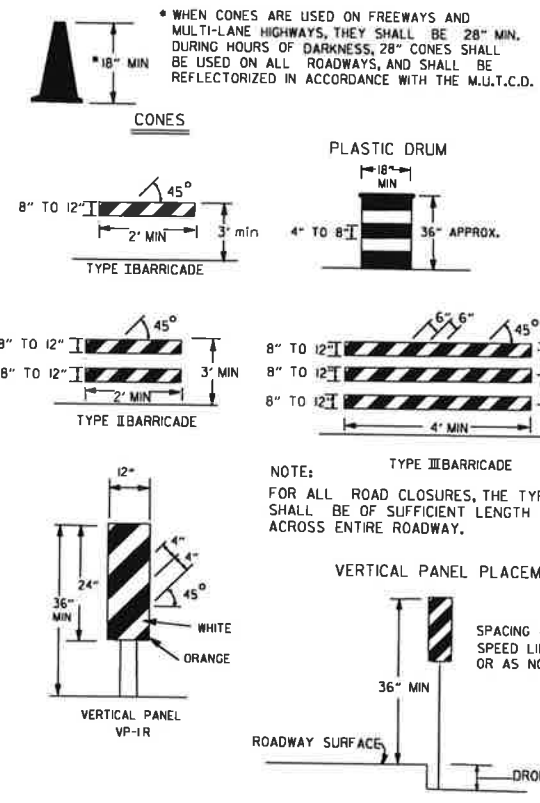


- KEY:
- ○ ○ ○ ○ ARROW PANEL (IF REQUIRED)
 - CHANNELIZING DEVICE
 - TRAFFIC DRUM
- GENERAL NOTES:
1. A SPEED LIMIT REDUCTION MAY BE IMPLEMENTED ONLY WHEN DESIGNATED IN THE PLAN OR WHEN RECOMMENDED BY THE ROADWAY DESIGN DIVISION.
 2. WHEN THE EXISTING SPEED LIMIT IS 55MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 45MPH, THE R2-1(55) SHALL BE OMITTED AND THE W3-5 SHALL BE INSTALLED AT THAT LOCATION. ADDITIONAL R2-1(45)MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 3. WHEN THE EXISTING SPEED LIMIT IS 65MPH AND THE PLANS REQUIRE A SPEED LIMIT OF 55MPH, THE R2-1(65) SHALL BE OMITTED. ADDITIONAL R2-1(55)MPH SPEED LIMIT SIGNS SHALL BE INSTALLED AT A MAXIMUM OF 1/2 MILE INTERVALS. AT THE END OF THE WORK AREA A R2-1(XX) SHALL BE INSTALLED TO MATCH ORIGINAL SPEED LIMIT.
 4. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT. BEYOND THE TAPER, MAXIMUM SPACING SHALL BE TWO TIMES THE SPEED LIMIT OR AS DIRECTED BY THE ENGINEER.
 5. WARNING LIGHTS AND/OR FLAGS MAY BE MOUNTED TO SIGNS OR CHANNELIZING DEVICES AT NIGHT AS NEEDED.
 6. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION IN THE MINDS OF VEHICLE OPERATORS SHALL BE REMOVED OR OBLITERATED AS SOON AS PRACTICABLE.
 7. THE G20-1 SIGN WILL BE REQUIRED ON JOBS OF OVER TWO MILES IN LENGTH. WHEN THE LANE CLOSURE IS NOT AT THE BEGINNING OF THE PROJECT, THE G20-1 SIGN SHALL BE ERECTED 125' IN ADVANCE OF THE JOB LIMIT. ADDITIONAL W20-1(1/2 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 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.
 11. ALL TRAILER MOUNTED DEVICES SUCH AS ARROW PANELS AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH).

(D) TYPICAL APPLICATION - CLOSING MULTIPLE LANES OF A MULTILANE HIGHWAY.



CHANNELIZING DEVICES

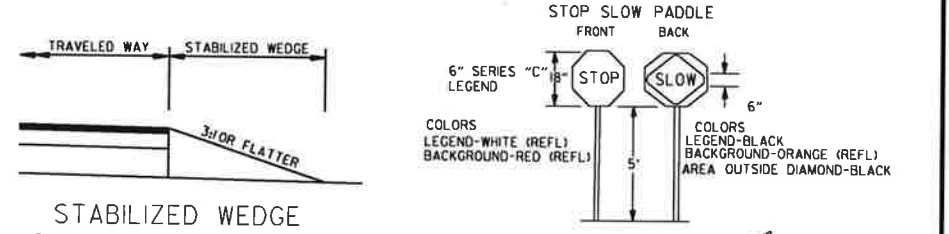


TRAFFIC CONTROL DEVICES			
NON-INTERSTATE			
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL	
		≤ 45 MPH	> 45 MPH
≤ 2"	CENTERLINE	W8-11 AND LANE STRIPING	W8-11 AND LANE STRIPING
> 2"	CENTERLINE	STANDARD LANE CLOSURE	STANDARD LANE CLOSURE
≤ 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND VERTICAL PANELS	W8-9, EDGE LINE STRIPING, AND VERTICAL PANELS
> 3"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND VERTICAL PANELS	W8-17, EDGE LINE STRIPING, AND VERTICAL PANELS
≤ 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾
> 12"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾	PRECAST CONCRETE BARRIER ⁽²⁾ & EDGE LINES
> 24"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER ⁽²⁾ & EDGE LINES	PRECAST CONCRETE BARRIER ⁽²⁾ & EDGE LINES

INTERSTATE		
VERTICAL DIFFERENTIAL	LOCATION	TRAFFIC CONTROL
≤ 2"	CENTERLINE	W8-11 AND LANE STRIPING
≤ 2"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-9, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾
> 2"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	W8-17, EDGE LINE STRIPING, AND TRAFFIC DRUMS ⁽¹⁾
> 6"	EDGE OF TRAVELED LANE OR EDGE OF SHOULDER	PRECAST CONCRETE BARRIER & EDGE LINES

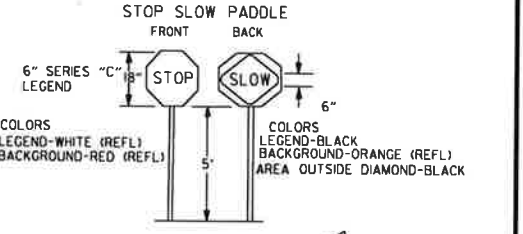
INTERSTATE AND NON-INTERSTATE		
FORESLOPE	HEIGHT	TRAFFIC CONTROL
3:1	> 2 FT	PRECAST CONCRETE BARRIER
2:1	≤ 5 FT	TRAFFIC DRUMS
2:1	> 5 FT	PRECAST CONCRETE BARRIER
Flatter than 2:1	N/A	TRAFFIC DRUMS

- GENERAL NOTES:
1. WHEN THE SHOULDER AREA IS USED AS PART OF THE TRAVELED LANE AND THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, THEN VERTICAL PANELS SHALL BE USED.
 2. WHEN THERE IS INSUFFICIENT WIDTH TO PLACE TRAFFIC DRUMS ON THE REMAINING SHOULDER WIDTH, A STABILIZED WEDGE SHALL BE USED. A STABILIZED WEDGE, W8-17 SIGN, EDGE LINE STRIPING, AND TRAFFIC DRUMS CAN BE USED IN LIEU OF PRECAST CONCRETE BARRIER WALL, IF AND WHERE DIRECTED BY THE ENGINEER.
 3. W21-5, W21-5a, AND/OR W21-5b SIGNS SHALL BE USED WHERE THE ROADWAY IS UNOBSTRUCTED IF AND WHERE DIRECTED BY THE ENGINEER.



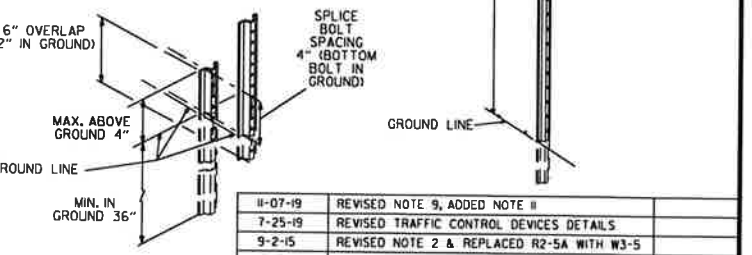
STABILIZED WEDGE

NOTE: MATERIALS FOR THE STABILIZED WEDGE SHALL MEET THE REQUIREMENTS PROVIDED IN SECTION 603.02 OF THE STANDARD SPECIFICATIONS.

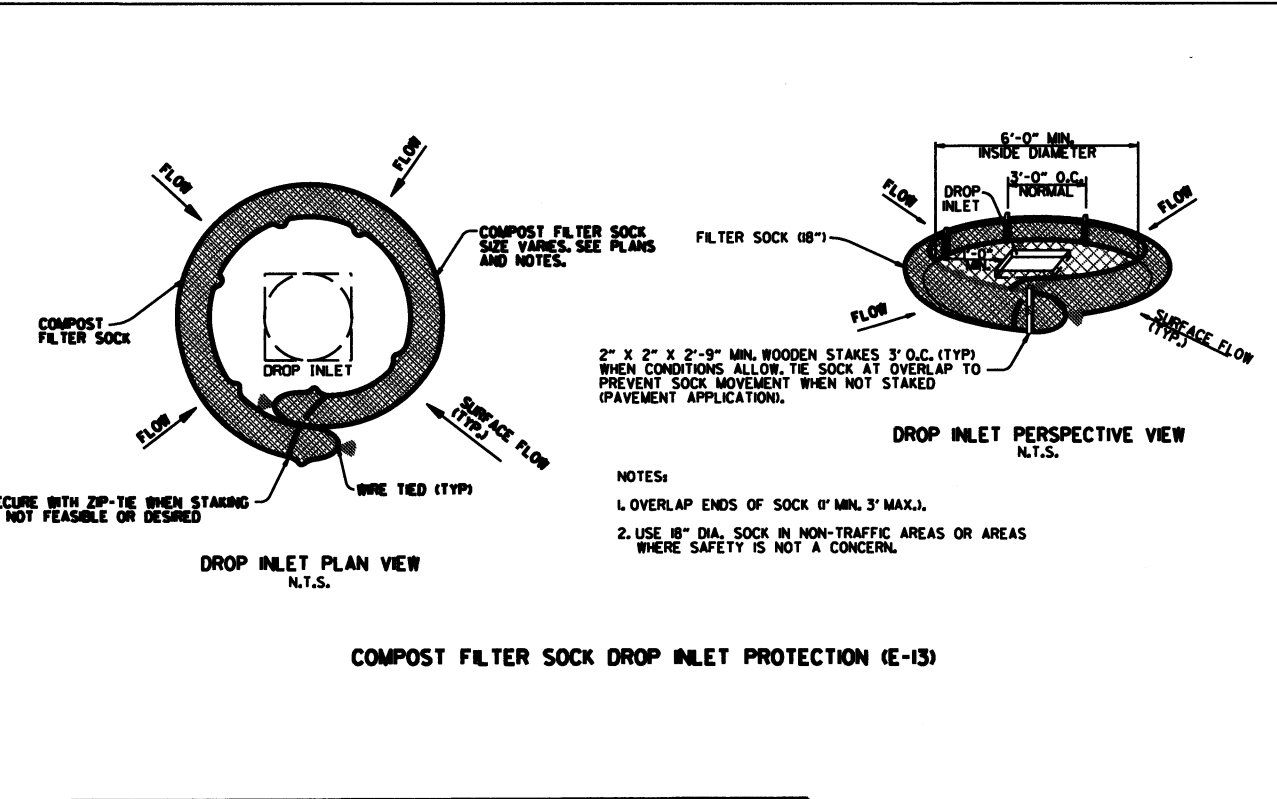
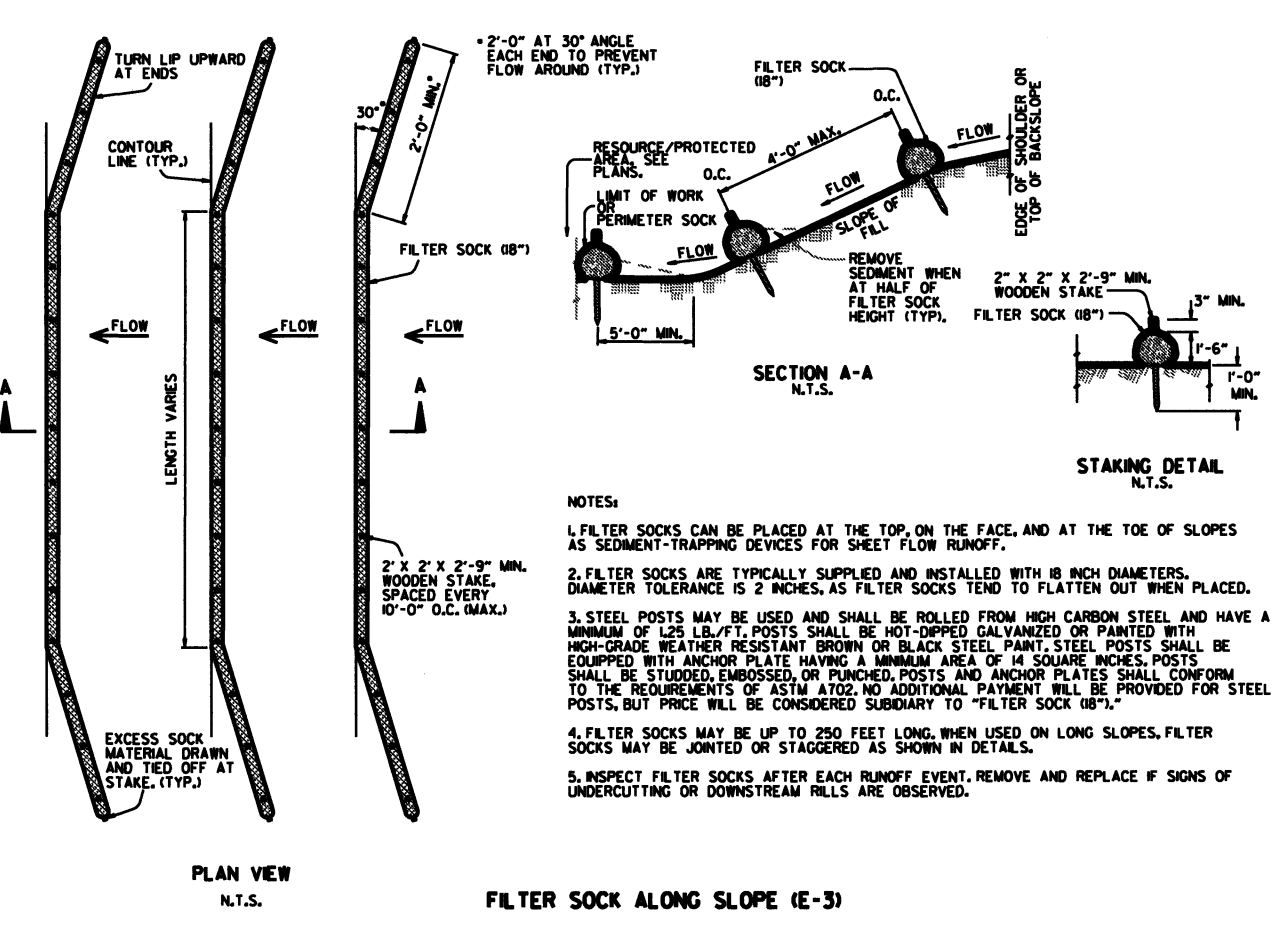
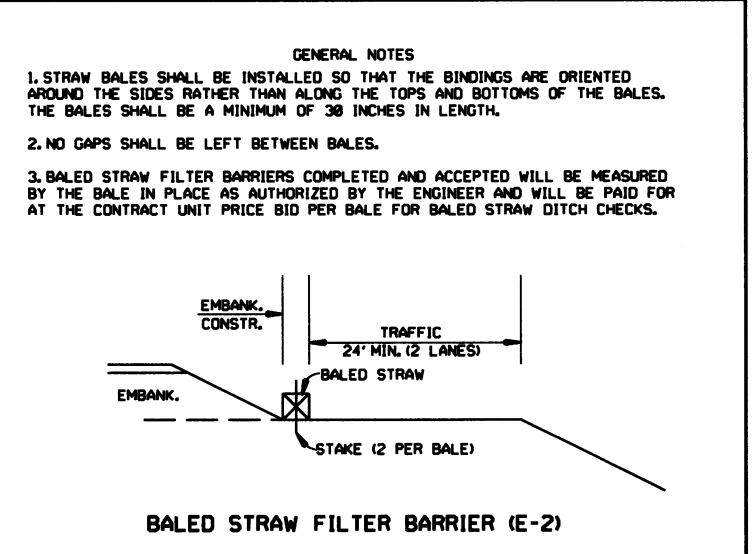
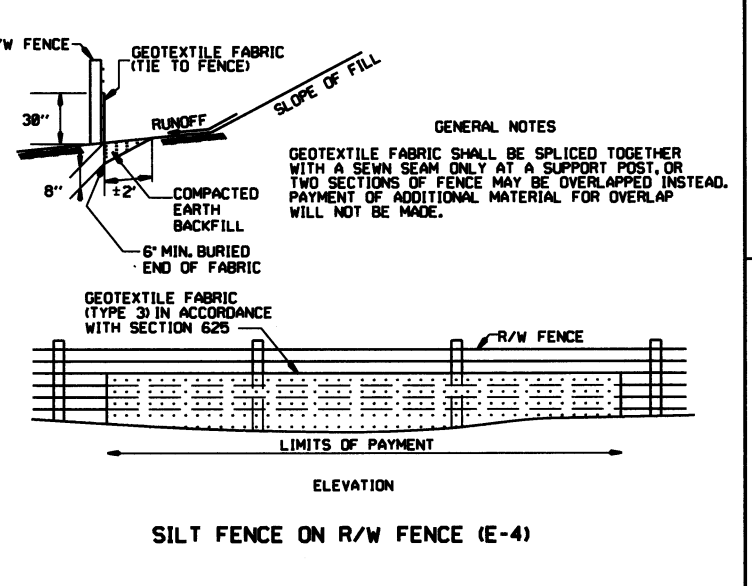
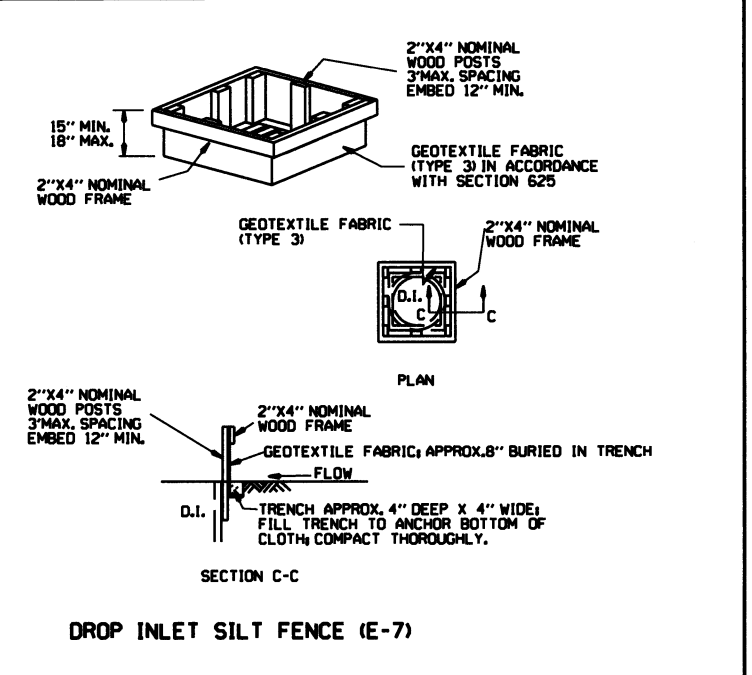
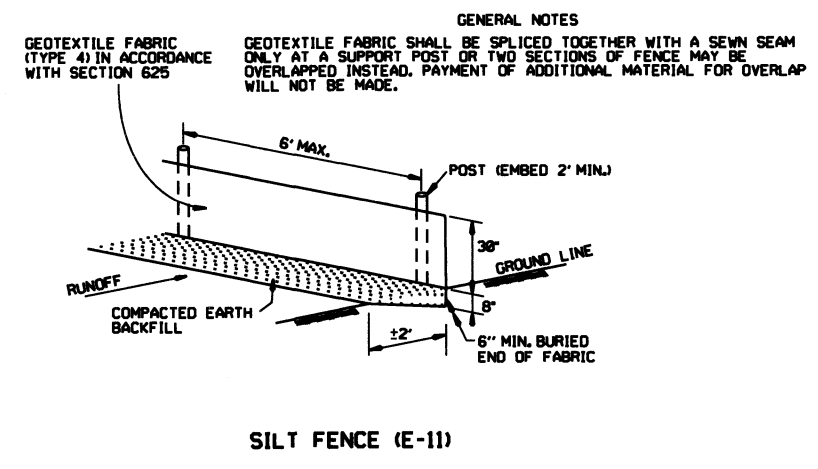
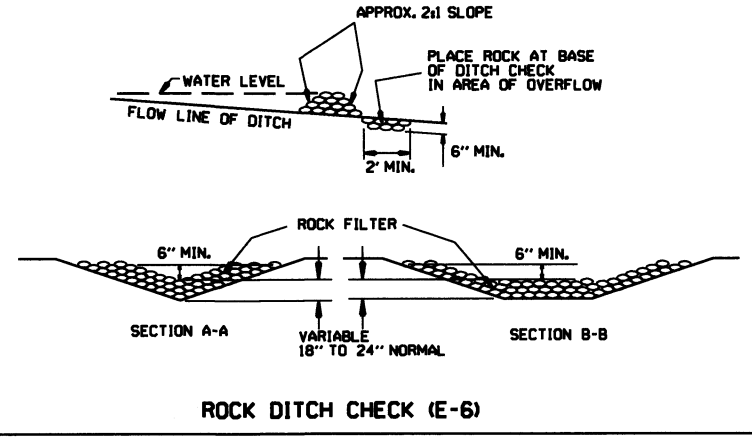
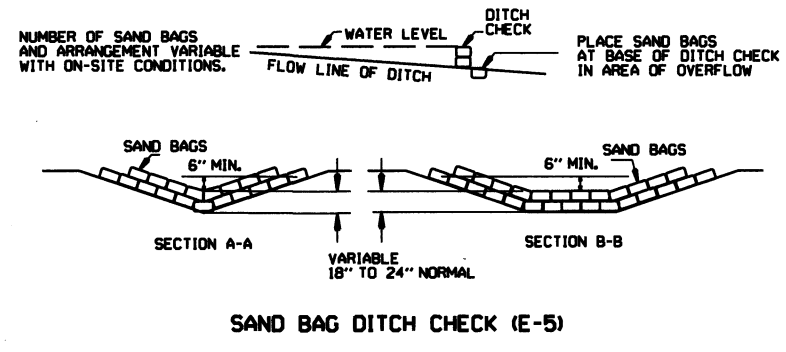
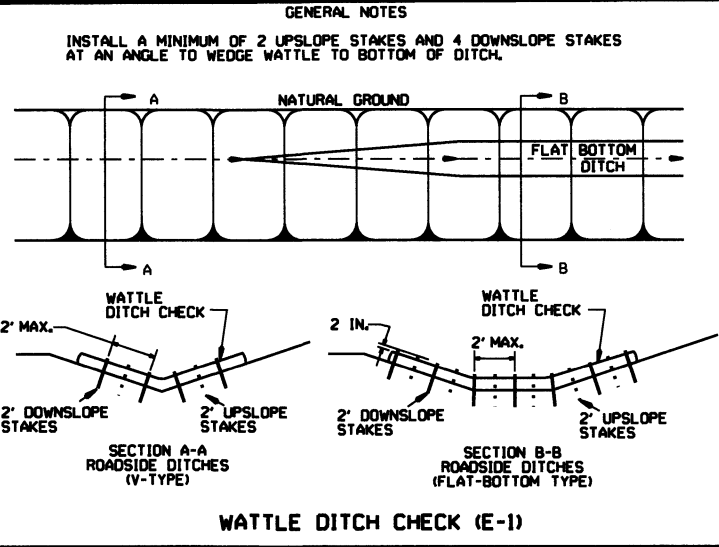


DETAIL OF SPLICES

- NOTE: USE SPLICES ONLY WHEN NECESSARY FOR INSTALLATION. TYPICAL INSTALLATION SHOULD HAVE NO SPLICES (SEE STD. DRAWING NO. SHS-21)
- NORMAL INSTALLATIONS WILL REQUIRE 1/4" DIA. BOLTS TO MOUNT SIGNS TO POST AND 5/16" DIA. BOLTS TO ASSEMBLE THE VARIOUS POST SUPPORTS. EACH OF THESE BOLTS SHALL BE CARRIAGE BOLTS.
- SIGN POSTS SHALL BE PAINTED GREEN; SIGNS SHALL NOT BE PAINTED. AND ALL SIGN POSTS SHALL BE PLUMB.



DATE	REVISION	FILMED
11-07-19	REVISED NOTE 9, ADDED NOTE 11	
7-25-19	REVISED TRAFFIC CONTROL DEVICES DETAILS	
9-2-15	REVISED NOTE 2 & REPLACED R2-5A WITH W3-5	
10-15-09	ADDED REFERENCE TO MASH	
11-20-08	REVISED SIGN DESIGNATIONS	
11-18-04	ADDED NOTE	
10-1-98	ADDED NOTE	
4-03-97	ADDED (SP) TO W6-1 & REVISED TRAFFIC CONTROL DEVICES NOTE	
10-18-96	ADDED R55-1	
10-12-95	MOVED UPPER SPLICE	
6-8-95	REVISED SPLICE DETAIL, TEXT	6-8-95
2-2-95	REVISED PER PART VI, MUTCD, SEPT. 3, 1993	
8-15-91	DRAWN AND PLACED IN USE	



11-16-17	ADDED FILTER SOCK E-3 AND E-13	
12-15-11	DELETED BALED STRAW DITCH CHECK & ADDED WATTLE DITCH CHECK	
11-18-98	ADDED NOTES	
07-02-98	ADDED BALED STRAW FILTER BARRIER (E-2)	
07-20-95	REVISED SILT FENCE E-4 AND E-11	7-20-95
07-15-94	REV. E-4 & E-11 MIN. 1\"/>	
06-02-94	REVISED E-1, 4, 7 & 11 DELETED E-2 & 3	6-2-94
04-01-93	REDRAWN	
10-01-92	REDRAWN	
08-02-76	ISSUED R.D.M.	298-7-28-76
DATE	REVISION	FILMED

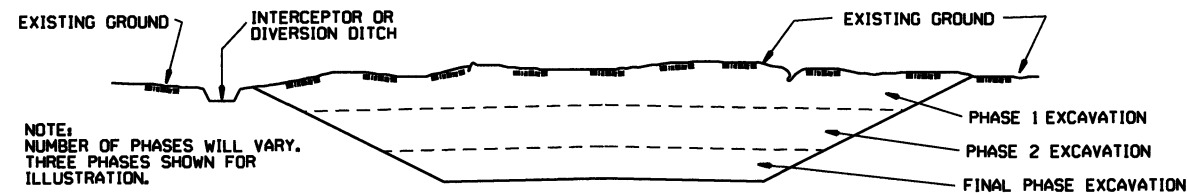
ARKANSAS STATE HIGHWAY COMMISSION
TEMPORARY EROSION CONTROL DEVICES
STANDARD DRAWING TEC-1

CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE

1. PLACE PERIMETER CONTROLS (I.E. SILT FENCES, DIVERSION DITCHES, SEDIMENT BASINS, ETC.)
2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION



NOTE:
NUMBER OF PHASES WILL VARY.
THREE PHASES SHOWN FOR
ILLUSTRATION.

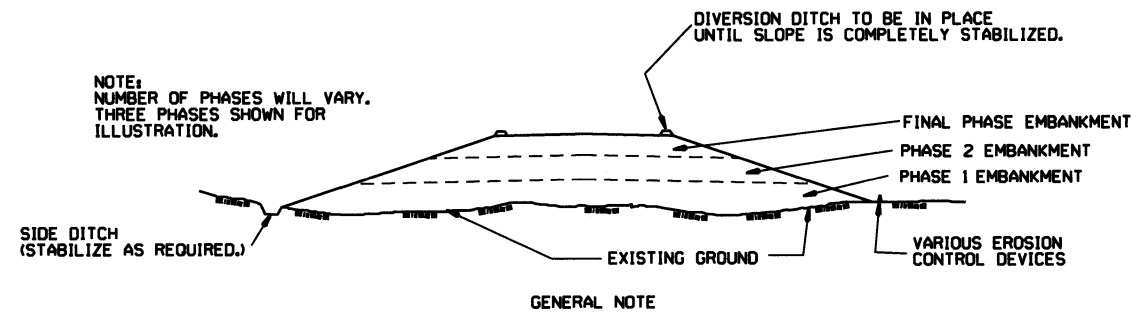
GENERAL NOTE

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



NOTE:
NUMBER OF PHASES WILL VARY.
THREE PHASES SHOWN FOR
ILLUSTRATION.

GENERAL NOTE

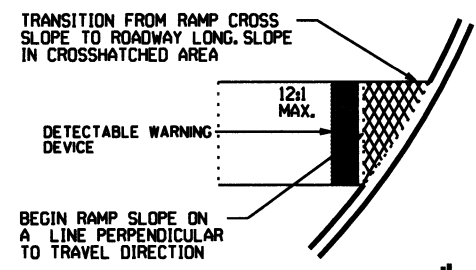
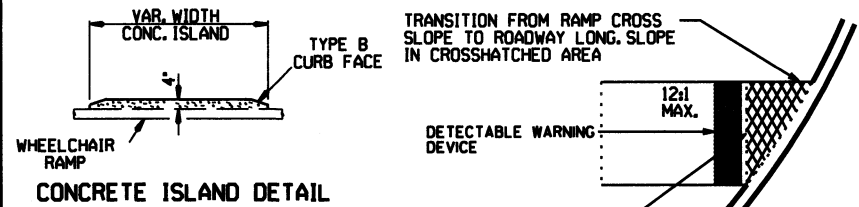
ALL EMBANKMENT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE CONSTRUCTED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

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.

		ARKANSAS STATE HIGHWAY COMMISSION	
		TEMPORARY EROSION CONTROL DEVICES	
11-03-94	CORRECTED SPELLING		
6-2-94	Drawn & Issued	6-2-94	FILMED
DATE	REVISION		

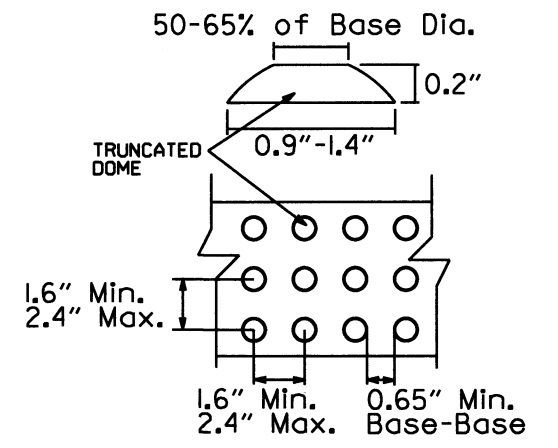
STANDARD DRAWING TEC-3



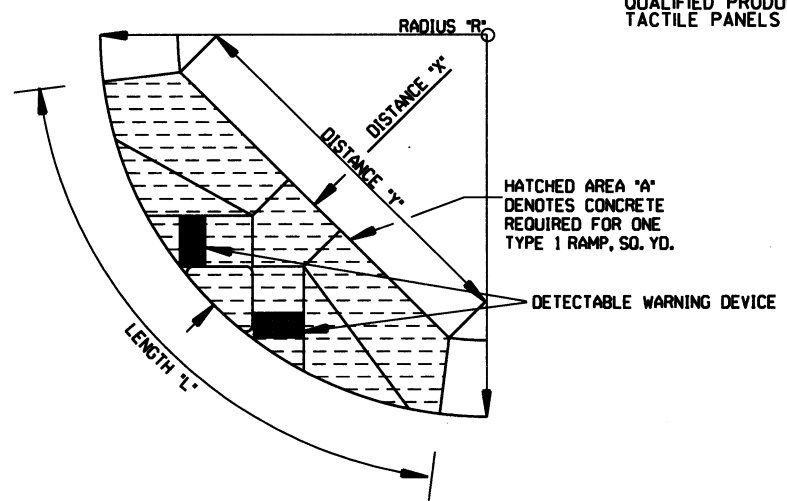
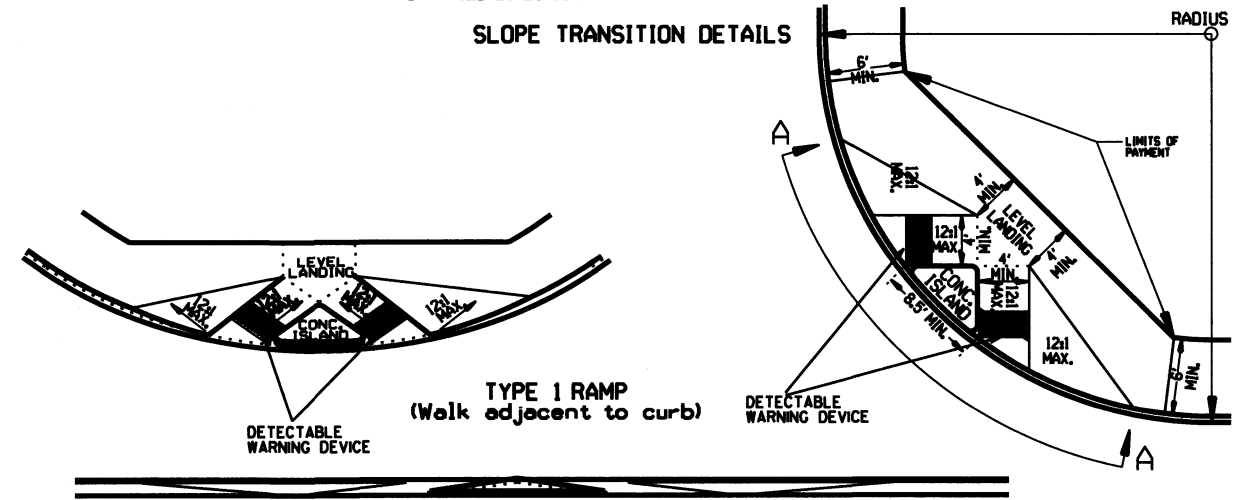
TYPE 1 RAMP DIMENSIONS AND QUANTITIES

RADIUS "R"	DISTANCE "X"	DISTANCE "Y"	LENGTH "L"	RAMP AREA "A"
FEET	FEET	FEET	FEET	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).

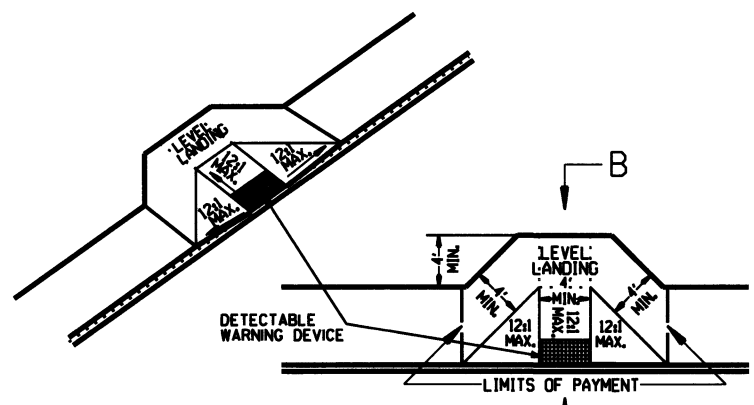
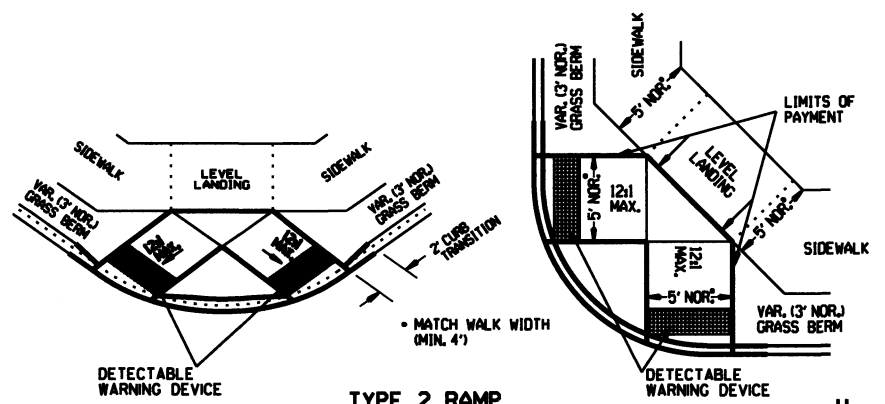


DETECTABLE WARNING DEVICE DETAIL

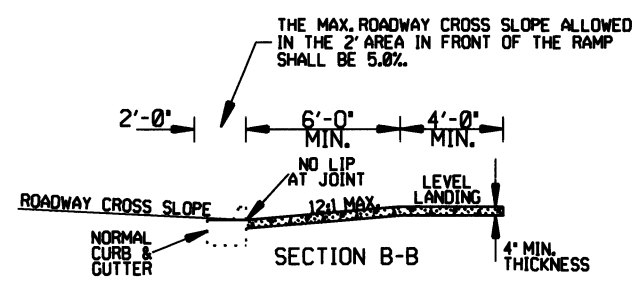
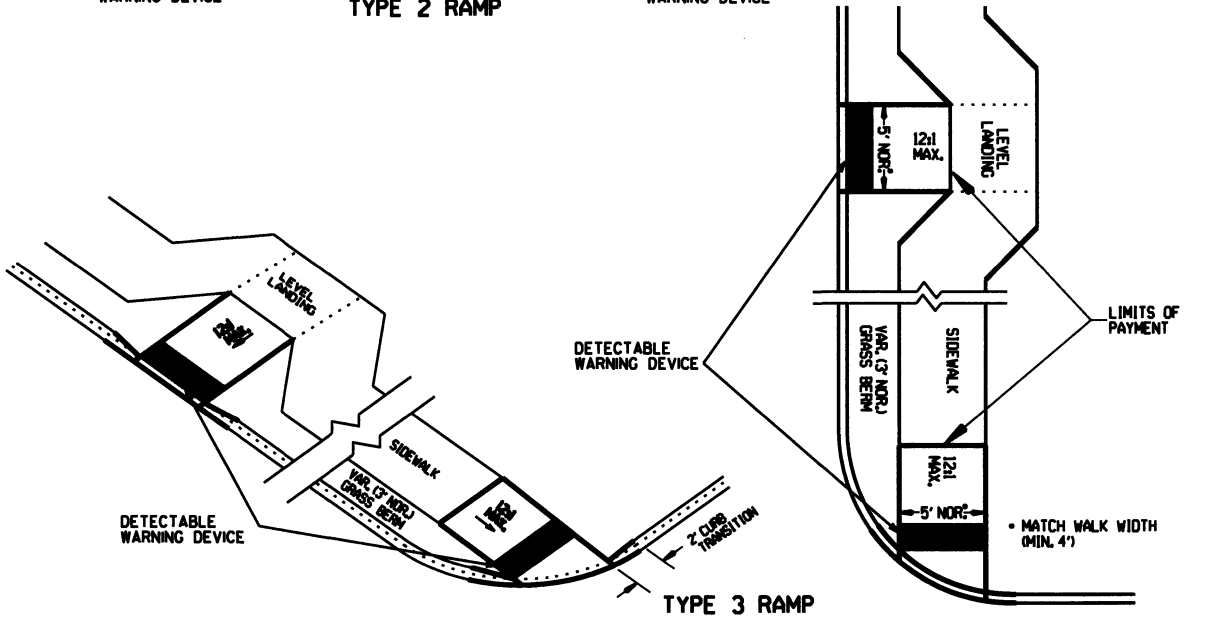


SECTION A-A

NOTE:
 THE CROSS SLOPE OF THE RAMPS, LEVEL LANDINGS, AND SIDEWALKS SHALL NOT EXCEED 2.0% UNLESS REQUIRED TO MATCH STREET LONGITUDINAL GRADE.



TYPE 4 RAMP (Walk adjacent to curb)



SECTION B-B

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.

RAMP SELECTION CRITERIA

CHOICE	TYPE	DESCRIPTION
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	ISSUED-P.A.D.	REVISION	DATE F.L.M.
8-10-05		REVISED TO NEW SIDEWALK POLICY	
10-9-03		REVISED GEN. NOTES & ADDED NOTE	
4-10-03		REV. DETECTABLE WARNING DEVICES	
8-23-02		ADD DETECTABLE WARNING DEVICES	
3-30-00		ADD SLOPE TRANS. & REV. ISL. DIMS.	
8-18-98		REVISED NOTES	
8-12-98		REVISED TEXTURE	
7-02-98		REORAIN & REISSUED	
10-18-96		CORRECTED DIMENSIONS	10-18-96
5-24-90		FROM INTERMEDIATE SLOPES	5-24-90
7-25-88		ADJUSTED MAX. SLOPE	6-27-88
1-14-88		INCL. CONC. ISLAND IN PAY ITEM	
6-02-76		ISSUED-P.A.D.	2-29-76

ARKANSAS STATE HIGHWAY COMMISSION
 WHEELCHAIR RAMPS
 NEW CONSTRUCTION
 AND ALTERATIONS
 STANDARD DRAWING WR-1