# ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

## CONSTRUCTION PLANS FOR STATE HIGHWAY

### HWY. 35 REALIGNMENT

(SAFETY IMPVTS.) (S)

**CHICOT COUNTY**

**ROUTE 35 SECTION 9**

F.A.P. NO. PEN-0009(35)

**JOB 020595**

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### VICINITY MAP

- **PROJECT LOCATION**

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### DESIGN TRAFFIC DATA

- **Design Year:** 2037
- **2017 ADT:** 1,400
- **2037 ADT:** 1,500
- **2037 DRV:** 165
- **Directional Distribution:** 0.60
- **Trucks:** 10%
- **Design Speed:** 30 MPH

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**GROSS LENGTH OF PROJECT:** 3800.00 FEET OR 0.720 MILES

**Net Length of Roadway:** 3800.00 FEET OR 0.720 MILES

**Net Length of Bridges:** 0.00 FEET OR 0.000 MILES

**Net Length of Project:** 3800.00 FEET OR 0.720 MILES

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**PROJECT COORDINATES:**

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<tr>
<th>Lat.</th>
<th>Begin</th>
<th>Mid-Point</th>
<th>End</th>
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**APPROVED**

**DEPUTY DIRECTOR AND CHIEF ENGINEER**

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**DATE:** 10-20-17
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**NOTE:** CROSS SECTIONS NOT NORMALLY INCLUDED IN PLANS SOLD TO PROSPECTIVE BIDDERS, BUT MAY BE HAD UPON REQUEST.

### ROADWAY STANDARD DRAWINGS

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<td>FLARED END SECTION</td>
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GOVERNING SPECIFICATIONS

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

NUMBER | TITLE
--- | ---
ERRATA | ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
FHWA-1273 | REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS
FHWA-1273 | SUPPLEMENT - EQUAL EMPLOYMENT OPPORTUNITY - NOTICE TO CONTRACTORS
FHWA-1273 | SUPPLEMENT - 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
102-1 | ISSUANCE OF PROPOSALS
105-1 | LIQUIDATED DAMAGES
105-2 | WORK ALLOWED PRIOR TO ISSUANCE OF WORK ORDER
303-1 | AGGREGATE BASE COURSE
400-1 | TACK COATS
400-4 | DESIGN AND QUALITY CONTROL OF ASPHALT MIXTURES
410-1 | CONSTRUCTION REQUIREMENTS AND ACCEPTANCE OF ASPHALT CONCRETE PLANT MIX COURSES
404-1 | RETROREFLECTIVE SHEETING FOR TRAFFIC CONTROL DEVICES IN CONSTRUCTION ZONES
606-1 | PIPE CULVERTS FOR SIDE DRAINS
620-1 | MULCH COVER
JOB 020595 | BIDDING REQUIREMENTS AND CONDITIONS
JOB 020595 | BROADBAND INTERNET SERVICE FOR ASPHALT CONCRETE PLANT
JOB 020595 | CARGO PREFERENCE ACT REQUIREMENTS
JOB 020595 | CONSTRUCTION IN SPECIAL FLOOD HAZARD AREAS
JOB 020595 | DELAY IN RIGHT OF WAY OCCUPANCY
JOB 020595 | DISADVANTAGED BUSINESS ENTERPRISE BIDDERS RESPONSIBILITIES
JOB 020595 | GOALS FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
JOB 020595 | MANDATORY ELECTRONIC CONTRACT
JOB 020595 | MANDATORY ELECTRONIC DOCUMENT SUBMITTAL
JOB 020595 | PLASTIC PIPE
JOB 020595 | PROTECTION OF WATER QUALITY AND WETLANDS
JOB 020595 | RUMBLE STRIPES
JOB 020595 | SHORING FOR CULVERTS
JOB 020595 | SoIL STABILIZATION
JOB 020595 | STORM WATER POLLUTION PREVENTION PLAN
JOB 020595 | SUBMISSION OF ASPHALT CONCRETE HOT MIX ACCEPTANCE TEST RESULTS
JOB 020595 | UTILITY ADJUSTMENTS
JOB 020595 | WARM MIX ASPHALT

GENERAL NOTES

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

STA. 3+00.00 - STA. 4+00.00

(HWY. 35)

TYPICAL SECTION OF IMPROVEMENT

STA. 4+00.00 - STA. 6+15.68

(HWY. 35)
TYPICAL SECTIONS OF IMPROVEMENT

CROSSOVER
STA. 6+35.68 - STA. 7+84.90

NOTES:

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

THE FINAL 2 INCHES OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES. THE FINAL 2 INCHES OF SURFACE COURSE SHALL BE AT THE ENGINEER’S DISCRETION.

THE CONTRACTOR WILL BE ALLOWED TO SUBSTITUTE AGGREGATE BASE COURSE AS FART OF AGGREGATE BASE COURSE ON THE SHOULDER.

TYPICAL SECTIONS OF IMPROVEMENT

STA. 8+09.02 - STA. 14+09.78
(HWY. 35)
TYPICAL SECTION OF IMPROVEMENT
STA. 28+43.85 - STA. 39+00.40
(HWY. 35)

Typical Sections of Improvement

Notes:
1. Refer to cross sections for deviations from normal. Supers to charges shall be made only with the approval of the Engineer.
2. The final 3 inches of surface course is to be placed after all other courses have been laid. Longitudinal joints shall be at the lane lines.
3. The thicknesses of all base courses shall be within plus or minus one inch of the plan thickness. The contractor shall correct any excess or insufficient thickness that does not meet tolerance. Payment will not be made for material placed in excess of the tolerances indicated.
4. With the approval of the Engineer, the Contractor will be allowed to substitute another base course, provided the thickness is equal to or greater than the specified thickness.

Long. Grad.
46'-0" normal surface

Long. Grad.
46'-0" normal surface

Typical Sections of Improvement

Super-elevation - Full Depth

Notes:
1. All super-elevated curves shall be treated as such through the super-elevation transition. The algebraic differences between adjacent sections shall not exceed 3 ft.
TYPICAL SECTIONS OF IMPROVEMENT

SUPERELEVATION - NOTCH AND WIDEN

NOTE:
- On all super-elevated curves and through super-elevation transitions, the algebraic difference between pavement surface slope shall not exceed 8%.
- On all super-elevated curves and through super-elevation transitions, the difference between pavement surface slope shall not exceed 8%.

TYPICAL SECTIONS OF IMPROVEMENT
METHOD OF RAISING GRADE

NOTES:
(1) THIS DETAIL TO BE USED ONLY WHERE DIRECTED BY THE ENGINEER.
(2) QUANTITIES FOR METHOD OF GRADE RAISE USING ASPHALT WERE CALCULATED ON THIS PROJECT AT LOCATIONS WHERE THE DISTANCE BETWEEN THE EXISTING ASPHALT ROADWAY AND THE PROPOSED SUBGRADE WAS ONE FOOT OR LESS.

DETAIL FOR TRANSITIONS

STA. 6+27.64 HWY. 35 = STA. 103+51.60 HWY. 65 S.
Δ = 89° 52′ 27″

CONCRETE ISLAND WITH TYPE B CURB FACE = 53 SQ. YD.

STA. 7+96.91 HWY. 35 = STA. 103+51.13 HWY. 65 N.
Δ = 89° 52′ 49″

CONCRETE ISLAND WITH TYPE B CURB FACE = 18 SQ. YD.
Details of Rumble Stripe

General Notes
1. Rumble stripes shall not be installed on bridge decks, approach slabs, intersecting streets or roadways, residential or commercial driveways or across transverse joints of concrete shoulders.
2. Rumble stripes shall not be installed on a paved shoulder that is used as a deceleration lane for the length deemed appropriate by the engineer.
3. Rumble stripes shall be measured by the linear foot longitudinally along the shoulder. Payment shall only include that portion of the shoulder on which rumble stripes have been constructed. As measurement of payment shall be made for gaps, driveways, turnouts, or other public road intersections where rumble stripes have not been constructed.
4. The 6" depth shall generally apply for the entire 6' length. Some variation to suit shoulder slope breaks may be necessary.

Plan View

Location Plan of Rumble Stripe
Left or Right Shoulder

Detail for Rumble Stripe Gap
At Driveway Turnouts

Detail for Gap Pattern Rumble Stripe

Special Details
FULL DEPTH SHOULDER DETAIL

HRV. 35,
STA. 6+99.72 - STA. 6+15.16
STA. 6+05.36 - STA. 6+15.12

FLAT BOTTOM DITCH DETAIL

HRV. 36,
STA. 15+32.10 - STA. 17+45.05 LT. & RT.
STA. 17+45.05 - STA. 21+01.00 RT.
STA. 40+15.15 - STA. 41+00.00 LT.
SAND BAG DITCH CHECKS

LEGEND

SAND BAG DITCH CHECKS ON LT.
HWY. 35.1
STA. 21+00.00 • 22 BAGS
STA. 27+60.00 • 22 BAGS
STA. 27+80.00 • 22 BAGS

SAND BAG DITCH CHECKS ON RT.
HWY. 35.1
STA. 27+60.00 • 22 BAGS
STA. 27+80.00 • 22 BAGS

REVISIONS

DATE

REVISION

STAGE 3A
TEMPORARY EROSION CONTROL DETAILS
LEGEND

SAND BAG DITCH CHECKS

STA. 41+00.00 END JOB 020595

REVISIONS

DATE

REVISION

STAGE 3A
TEMPORARY EROSION CONTROL DETAILS

Hwy. 35 +
STA. 35-100.00 + 22 BAGS
STA. 35-150.00 + 22 BAGS
STA. 35-200.00 + 22 BAGS
STA. 35-250.00 + 22 BAGS

Hwy. 35 -
STA. 30-75.00 + 22 BAGS
STA. 31-25.00 + 22 BAGS
STA. 31-35.00 + 22 BAGS
STA. 31-45.00 + 22 BAGS
STA. 31-55.00 + 22 BAGS
SAND BAG DITCH CHECKS

LEGEND

STA. 41+00.00
END JOB 020595

SAND BAG DITCH CHECKS ON LT.

REVISIONS

DATE
REVISION

STAGE 3B
TEMPORARY EROSION CONTROL DETAILS
STA 3+00.00
BEGIN JOB 020595
LOG MILE 4.56

STA 6+27.64 HWY. 35
STA 103+51.60 HWY. 65 S.
Δ = 89°52'27"

SILT FENCE ON RT.
SAND BAG DITCH CHECKS ON RT.

SILT FENCE ON LT.
SAND BAG DITCH CHECKS ON LT.

STA 7+96.81 HWY. 35
STA 103+51.13 HWY. 65 N.
Δ = 89°52'49"

REVISIONS

DATE
REVISION
SEQUENCE OF CONSTRUCTION

STAGE 1
CONSTRUCT MEDIUM CROSSOVER
   CONSTRUCT LEFT TURN LANE HWY 65
   STA. 104+16.42 - STA. 107+01.44
   LEVEL II
   CONSTRUCT LEFT SIDE OF HWY 35
   STA. 27+00.00 - STA. 27+53.64
   CONSTRUCT HWY 35
   STA. 28+00.00 - STA. 28+50.00
   LEVEL III
   CONSTRUCT LEFT SIDE OF HWY 35
   STA. 28+00.00 - STA. 28+50.00
   CONSTRUCT HWY 35
   STA. 29+00.00 - STA. 29+50.00
   STA. 30+00.00 - STA. 30+50.00

STAGE 2
SHIFT TRAFFIC OVER NEW HWY 35
   PLACE EXISTING CROSSOVER
   STA. 28+00.00 - STA. 28+53.64
   STA. 29+00.00 - STA. 29+53.64
   CONSTRUCT RIGHT SIDE OF HWY 35
   STA. 29+00.00 - STA. 29+50.00
   CONSTRUCT RIGHT SIDE OF HWY 35
   STA. 29+00.00 - STA. 29+50.00
   STA. 30+00.00 - STA. 30+50.00
   CONSTRUCT RIGHT SIDE OF HWY 35
   STA. 28+00.00 - STA. 28+50.00
   STA. 29+00.00 - STA. 29+50.00
   STA. 30+00.00 - STA. 30+50.00
   CONSTRUCT RIGHT SIDE OF HWY 35
   STA. 28+00.00 - STA. 28+53.64
   OMIT EXISTING CROSSOVER
   PLACE FINAL 2' OF SURFACE COURSE
   INSTALL PERMANENT PAVEMENT MARKINGS

STAGE 3A CONSTRUCTION
HWY. 35
STA. 8+09.02 - STA. 14+09.22
STA. 28+50.00 - STA. 39+00.00

STAGE 3A CONSTRUCTION
HWY. 35
STA. 14+09.22 - STA. 27+56.00
STA. 28+09.00 - STA. 28+50.00

STAGE 3A CONSTRUCTION
HWY. 35
STA. 27+00.00 - STA. 28+09.00
STA. 39+00.00 - STA. 42+00.00

ALL STAGES
MAINTENANCE OF TRAFFIC DETAILS
SEQUENCE OF CONSTRUCTION:

STAGE 1:
CONSTRUCT MEDIUM CROSSOVER
CONSTRUCT LEFT TURN LANE HWY. 65 S.
LEVELING:
CONSTRUCTION LEFT SIDE OF HWY. 35
STA. 14+09.22 - STA. 15+61.32
STAGE 2:
CONSTRUCT HWY. 35
STA. 15+61.32 - STA. 19+10.22
LEVELING:
CONSTRUCTION LEFT SIDE OF HWY. 35
STA. 28+09.00 - STA. 35+00.
STAGE 3:
CONSTRUCT HWY. 35
STA. 35+00.00 - STA. 39+00.00
LEVELING:
CONSTRUCTION LEFT SIDE OF HWY. 35
STA. 28+09.00 - STA. 35+00.
STAGE 4:
CONSTRUCT HWY. 35
STA. 39+00.00 - STA. 42+00.00
LEVELING:
CONSTRUCTION LEFT SIDE OF HWY. 35
STA. 28+09.00 - STA. 35+00.
PLACE FINAL 2 OF SURFACE COURSE
INSTALL PERMANENT MARKINGS

STAGE 3B CONSTRUCTION

HWY. 35
STA. 14+09.22 - STA. 27+00.00

STAGE 3B CONSTRUCTION

HWY. 35
STA. 27+56.00 - STA. 28+09.00
STA. 39+00.00 - STA. 42+00.00

STAGE 4 CONSTRUCTION

HWY. 35
STA. 2+00.00 - STA. 6+15.68

ALL STAGES
MAINTENANCE OF TRAFFIC DETAILS
SEQUENCE OF CONSTRUCTION

STAGE 1:
1. COMPLETE MIDDLE CROSSOVER
2. COMPLETE LEFT SIDE CROSSOVER
3. COMPLETE RIGHT SIDE CROSSOVER

STAGE 2:
1. COMPLETE MIDDLE CROSSOVER
2. COMPLETE LEFT SIDE CROSSOVER
3. COMPLETE RIGHT SIDE CROSSOVER

STAGE 3:
1. COMPLETE MIDDLE CROSSOVER
2. COMPLETE LEFT SIDE CROSSOVER
3. COMPLETE RIGHT SIDE CROSSOVER

CONSTRUCTION PAVEMENT MARKINGS:
1. DOUBLE EDGE LINE ON RT.
2. DOUBLE EDGE LINE ON LT.
3. WHITE SOLID EDGE LINE ON RT.
4. WHITE SOLID EDGE LINE ON LT.
5. WHITE INLAND OUTLINE

REMOVABLE CONSTRUCTION PAVEMENT MARKINGS:
1. 4" WHITE SOLID EDGE LINE ON RT.
2. 4" WHITE SOLID EDGE LINE ON LT.
3. WHITE INLAND OUTLINE

TRAFFIC DETAILS:

MATERIALS:
1. ROAD BASE
2. PAVEMENT BASE
3. PAVEMENT

MARKINGS:
1. DOUBLE DIRECTIONAL ARROW
2. ONE WAY
3. SPEED LIMIT
4. STOP SIGN
5. Yield Sign

TRAFFIC CONTROL:
1. Temporary Traffic Signals
2. Detours
3. Lane Closures

STAGE 3A
MAINTENANCE OF TRAFFIC DETAILS

REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS:
1. WHITE SOLID EDGE LINE ON RT.
2. WHITE SOLID EDGE LINE ON LT.
3. WHITE INLAND OUTLINE

VERTICAL PANELS:
1. 30" O.C. ON RT.
2. 30" O.C. ON LT.
3. 30" O.C. ON RT.
4. 30" O.C. ON LT.

TRAFFIC DRUMS:
1. EACH 10' O.C.
2. EACH 10' O.C.
SEQUENCE OF CONSTRUCTION:

STAGE 1:
- CONSTRUCT MEDIAN CROSSOVER
- CONSTRUCT LEFT NBR LANE HWY 35
- STA. 104+16.42 - STA. 107+01.44
- HDWY 35

LEVEL 1:
- CONSTRUCT LEFT SIDE OF HWY 35
- STA. 27+00.00 - STA. 28.00.54

CONSTRUCT HWY 35
- STA. 0+00.00 - STA. 14+09.22
- LEVEL 1
- STA. 14+09.22 - STA. 27+56.00

CONSTRUCT RIGHT SIDE OF HWY 35
- STA. 27+56.00 - STA. 28+05.00

LEVEL 2:
- SHIFT TRAFFIC ONTO NEW HWY 35
- STA. 2+00.00 - STA. 6+27.64

CONSTRUCT RIGHT SIDE OF HWY 35
- STA. 0+00.00 - STA. 2+00.00

STAGE 3:
- CONSTRUCT RIGHT SIDE OF HWY 35
- STA. 2+00.00 - STA. 4+27.24

LEVEL 3:
- INSTALL PERMANENT MARKINGS

PLACE FINAL 2' OF SURFACE COURSE

MAINTENANCE OF TRAFFIC DETAILS

STAGE 3B
SEQUENCE OF CONSTRUCTION

STAGE 1:
- CONSTRUCT MEDIAN CROSSOVER
  - STA. 104+14.42 - STA. 107+01.44

STAGE 2:
- CONSTRUCT LEFT SIDE OF HWY. 35
  - STA. 22+00.00 - STA. 6+27.04

STAGE 3:
- CONSTRUCT HWY. 35
  - STA. 22+00.00 - STA. 14+05.22

STAGE 4:
- CONSTRUCT LEFT SIDE OF HWY. 35
  - STA. 14+05.22 - STA. 07+50.00

STAGE 5:
- CONSTRUCT RIGHT SIDE OF HWY. 35
  - STA. 07+50.00 - STA. 02+00.00

STAGE 6:
- CLEAR TRAFFIC ONTO NEW HWY. 35

STAGE 7:
- OBLITERATE existing CROSSOVER

STAGE 8:
- CONSTRUCT RIGHT SIDE OF HWY. 35
  - STA. 02+00.00 - STA. 6+27.04

STAGE 9:
- CONSTRUCT LEFT SIDE OF HWY. 35
  - STA. 6+27.04 - STA. 104+14.42

STAGE 10:
- CONSTRUCT MEDIAN CROSSOVER
  - STA. 104+14.42 - STA. 107+01.44

MAINTENANCE OF TRAFFIC DETAILS
PERMANENT PAVEMENT MARKING DETAILS

- 3" YELLOW REFLECTORIZED PAINT
  R.P.M. TYPE 1171 YELLOW 40° G.C.
- 2" WHITE REFLECTORIZED PAINT
  R.P.M. TYPE 1171 WHITE 40° G.C.
STATION 41+00.00
END JOB 020595

6' YELLOW REFLECTORIZED PAINT
R.P.M. TYPE 111 (YELLOW/YELLOW) 40" G.C.

6' WHITE REFLECTORIZED PAINT
R.P.M. TYPE II (WHITE/WHITE) 40" G.C.

PERMANENT PAVEMENT MARKING DETAILS
### ADVANCE WARNING SIGNS AND DEVICES

| SIGN NUMBER | DESCRIPTION | SIGN SIZE | STAGE 1 | STAGE 2 | STAGE 3A | STAGE 4 | MAXIMUM NUMBER REQUIRED | TOTAL SIGNS REQUIRED | VERTICAL PANELS | TRAFFIC DRUMS | BARRIERS (TYPE B) |
|-------------|-------------|-----------|---------|--------|---------|--------|-------------------------|----------------------|----------------|--------------|----------------|------------------|
| V9-1        | ROAD WORK, 1000 FT. | 48x8"   | 6       | 6      | 6       | 6      | 6                        | 6                    | 6              | 6             | 6               |                  |
| V9-2        | ROAD WORK, 1000 FT. | 48x8"   | 6       | 6      | 6       | 6      | 6                        | 6                    | 6              | 6             | 6               |                  |
| V9-3        | ROAD WORK, 500 FT. | 48x8"   | 6       | 6      | 6       | 6      | 6                        | 6                    | 6              | 6             | 6               |                  |
| G4-1        | END ROAD WORK | 48x8"   | 6       | 6      | 6       | 6      | 6                        | 6                    | 6              | 6             | 6               |                  |
| H1-1        | ROAD CLOSED | 48x8"   | 6       | 6      | 6       | 6      | 6                        | 6                    | 6              | 6             | 6               |                  |
| H1-2        | ROAD CLOSED | 48x8"   | 6       | 6      | 6       | 6      | 6                        | 6                    | 6              | 6             | 6               |                  |
| B1-5        | END OVERHEAD | 24x12"  | 6       | 6      | 6       | 6      | 6                        | 6                    | 6              | 6             | 6               |                  |
| V10-2       | SOUTH SIDE | 36x12"  | 6       | 6      | 6       | 6      | 6                        | 6                    | 6              | 6             | 6               |                  |
| VT2-2       | DETOUR | 36x12"  | 6       | 6      | 6       | 6      | 6                        | 6                    | 6              | 6             | 6               |                  |
| VT2-1       | DETOUR | 36x12"  | 6       | 6      | 6       | 6      | 6                        | 6                    | 6              | 6             | 6               |                  |

### CONSTRUCTION PAVEMENT MARKINGS AND PERMANENT PAVEMENT MARKINGS

<table>
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<tr>
<th>DESCRIPTION</th>
<th>STAGE 1</th>
<th>STAGE 2</th>
<th>STAGE 3A</th>
<th>STAGE 4</th>
<th>END OF JOB</th>
<th>CONSTRUCTION PAYMENT MARKINGS</th>
<th>REMOVABLE CONSTRUCTION PAYMENT MARKINGS</th>
<th>REMOVABLE CONSTRUCTION PAYMENT MARKINGS</th>
<th>REMOVABLE CONSTRUCTION PAYMENT MARKINGS</th>
<th>REMOVABLE CONSTRUCTION PAYMENT MARKINGS</th>
<th>REMOVABLE CONSTRUCTION PAYMENT MARKINGS</th>
<th>REMOVABLE CONSTRUCTION PAYMENT MARKINGS</th>
<th>THERMOPLASTIC PAINT MARKING</th>
<th>REFLECTORIZED PAINT MARKING</th>
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### EROSION CONTROL

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<th>TEMPORARY EROSION CONTROL</th>
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<td>STAGE 1</td>
<td>SEEDING</td>
<td>LINE</td>
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<td>PROJECT</td>
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<td>PROJECT</td>
<td>STAGE 3</td>
<td>SEEDING</td>
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<td>STAGE 4</td>
<td>SEEDING</td>
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**NOTE:** The temporary erosion control devices shown above and on the plans are to be installed in such a sequence as to stagger erosion and sedimentation on U.S. Waterways as explained by the Water Pollution Discharge Elimination System Permit.

**QUANTITIES ESTIMATED:**

SEE SECTION 64.60 OF THE 9TH SPECS.
### Quantities

#### Clearing and Grubbing

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<th>Location</th>
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<th>Grubbing</th>
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<td>0</td>
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**Total:** 3

#### Removal and Disposal of Culverts

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<th>Pipe Culverts</th>
<th>Each</th>
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<tr>
<td>3-17.33</td>
<td>18 x 27 x 0.6 PIPE CULVERT DRIBKT</td>
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<tr>
<td>4-42.22</td>
<td>24 x 28 PIPE CULVERT ON LEFT</td>
<td>1</td>
</tr>
<tr>
<td>4-42.22</td>
<td>24 x 28 PIPE CULVERT ON RIGHT</td>
<td>1</td>
</tr>
<tr>
<td>17+31.00</td>
<td>18&quot; x 31' C.M. PIPE CULVERT ON LEFT</td>
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<tr>
<td>17+31.00</td>
<td>18&quot; x 31' C.M. PIPE CULVERT ON RIGHT</td>
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<td>3+53</td>
<td>12&quot; x 38' PIPE CULVERT ON LEFT</td>
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<td>3+53</td>
<td>12&quot; x 38' PIPE CULVERT ON RIGHT</td>
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**Total:** 10

*Note: Quantities shown above shall include removal, disposal and all headed planks and flushed end sections if applicable.*

#### Mailboxes

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<th>Mailbox Supports</th>
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**Total:** 1

#### Rumble Strips in Asphalt Shoulders

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<th>Location</th>
<th># Rumble Strips in Shoulders</th>
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<td>10400+00</td>
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**Total:** 10

*Note: Quantities estimated. See section 106.03 of the STD. Specs.*

#### Soil Log

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Depth</th>
<th>Liquid Limit</th>
<th>Plasticity Index</th>
<th>Atterberg Limits</th>
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<td>NF</td>
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<td>50</td>
<td>NF</td>
<td>A-42S</td>
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</table>

*Note: 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 extent of same differing from the above tabulations.*

#### 4" Pipe Underdrain

<table>
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<td>100</td>
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<tr>
<td>17+00+00</td>
<td>17+00+00</td>
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<td>20+00+00</td>
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**Total:** 500

*Note: Quantities estimated. See section 104.03 of the STD. Specs.*

#### Structures

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<th>Reinforced Concrete Culverts</th>
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**Total:** 3

*Note: Water for R.C. pipe culvert installations use type 3 bedding unless otherwise specified.*

#### Erosion Control Matting

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<th>Location</th>
<th>Length</th>
<th>Classification Color</th>
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**Total:** 2000

*Note: Average Width = 6'-0"*

#### Concrete Island

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<th>Location</th>
<th>Curb Face Type</th>
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**Total:** 25

*Note: Quantity estimated. See section 104.03 of the STD. Specs.*

#### Fencing

<table>
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**Total:** 100

*Note: Quantity estimated. See section 104.03 of the STD. Specs.*

#### Selected Pipe Bedding

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**Total:** 500,000

*Note: Quantity estimated. See section 104.03 of the STD. Specs.*

#### Pavement Repair of Culverts (Asphalt)

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**Total:** 20

*Note: Avg. Depth = 12"*

#### Removal and Disposal of Items

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**Total:** EACH

*Note: Quantity estimated. See section 104.03 of the STD. Specs.*
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<th>STANDARD DRAWINGS</th>
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<td>13.53</td>
<td>24.24</td>
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<tr>
<td>0+00</td>
<td>LT</td>
<td>HWY 35</td>
<td>78</td>
<td>108.60</td>
<td>13.53</td>
<td>24.24</td>
<td>0#PC, 0#PCM, 0#PCP, 0#PCP</td>
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<td>HWY 35</td>
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<td>108.60</td>
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**BASE AND SURFACING**

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<th>QUANTITIES</th>
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**COLD MILLING ASPHALT PAVEMENT**

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<td>0+20</td>
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**BASE OF ESTIMATE:**

ACQUISITION PRICE (FOB) 94.8% MIN. AGGR. 0.2% ASPHALT BINDER

**MAXIMUM NUMBER OF LAYERS:**

115 FOR PC, 30 FOR PCM

**MAXIMUM NUMBER OF CYCLES:**

120 FOR PC, 40 FOR PCM

**TACK COAT QUANTITIES:**

Calculated using the specified asphalt rates. Refer to 83-408-1 for the residual asphalt application rates.
## SUMMARY OF QUANTITIES

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## REVISIONS

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SURVEY CONTROL COORDINATES

Project Name: W0360
Date: 10/26/2013
Coordinate System: Arkansas State Plane Coordinates
Based on ADT95 GPS: FT - 00000 - 00060
Projected to Ground Coordinates
Units: U.S. Survey Foot

COORDINATES LISTED BELOW ARE GROUND ( Executed) COORDINATES

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**Note:** Information in italics is for clarification only. It is not to be part of the actual Control Table or Control Detail Sheets.
STA. 6+27.64 HWY. 35 =
STA. 103+51.60 HWY. 65 S.
Δ = 89° 52'27"

STA. 3+00.00
BEGIN JOB 020595
LOG MILE 4.56
ALL R.C. PIPE CULVERTS SHALL BE CLASS III UNLESS OTHERWISE SPECIFIED. FOR ALL R.C. PIPE CULVERT INSTALLATIONS USE TYPE 3 BEDDING UNLESS OTHERWISE SPECIFIED. FOR ALL D.M. PIPE CULVERT INSTALLATIONS USE TYPE 2 BEDDING UNLESS OTHERWISE SPECIFIED.

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

PLAN AND PROFILE SHEETS

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

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

ROTATE ABOUT CENTERLINE STA. 27+82.33 BEGIN SUPERELAVATION

STA. 30+48.23 MAX. SUPERELAVATION (0.098' /')

STA. 32+03.00 MAX. SUPERELAVATION (0.068' /')

STA. 34+97.00 END SUPERELAVATION

LEFT SIDE (HWY. 35)

RIGHT SIDE (HWY. 35)

STA. 41+00.00 END JOB 020595
STA 6+27.64 HWY. 35 =
STA 103+51.60 HWY. 65 S.
Δ = 89° 52'27"

STA 7+96.91 HWY. 35 =
STA 103+51.13 HWY. 65 N.
Δ = 89° 52'49"

OBLITERATE EXISTING PAVEMENT
ALL R.C. PIPE CULVERTS SHALL BE:
CLASS II, UNLESS OTHERWISE SPECIFIED.
FOR ALL R.C. PIPE CULVERT INSTALLATIONS,
USE TYPE 2 BEDDING UNLESS OTHERWISE
SPECIFIED. FOR ALL C.M. PIPE CULVERT
INSTALLATIONS USE TION 3 BEDDING UNLESS
OTHERWISE SPECIFIED.

REFER TO SURVEY CONTROL DETAIL
SHEETS FOR HORIZONTAL AND VERTICAL
CONTROL DATA.
STAGE 2 STAGE 4

CUT AREA: 9  CUT AREA: 0
FILL AREA: 0  FILL AREA: 0

STA: 0.00 0.00  END
CUT VOLUME: 25  CUT VOLUME: 190
FILL VOLUME: 25  FILL VOLUME: 0

STA: 5.85 0.00  END
CUT VOLUME: 10
FILL VOLUME: 6

STA: 5.85 0.00  END
CUT VOLUME: 25  CUT VOLUME: 20
FILL VOLUME: 25  FILL VOLUME: 0

STA: 5.85 0.00  END
CUT VOLUME: 10
FILL VOLUME: 6

STAGE 2 STAGE 4

CUT AREA: 9  CUT AREA: 0
FILL AREA: 0  FILL AREA: 0

STA: 7.07 0.00  END
CUT VOLUME: 25  CUT VOLUME: 190
FILL VOLUME: 25  FILL VOLUME: 0

STA: 10.27 0.00  END
CUT VOLUME: 10
FILL VOLUME: 6

STA: 10.27 0.00  END
CUT VOLUME: 25  CUT VOLUME: 20
FILL VOLUME: 25  FILL VOLUME: 0

STA: 10.27 0.00  END
CUT VOLUME: 10
FILL VOLUME: 6

STAGE 2 STAGE 4

CUT AREA: 9  CUT AREA: 0
FILL AREA: 0  FILL AREA: 0

STA: 7.07 0.00  END
CUT VOLUME: 25  CUT VOLUME: 190
FILL VOLUME: 25  FILL VOLUME: 0

STA: 10.27 0.00  END
CUT VOLUME: 10
FILL VOLUME: 6

STA: 10.27 0.00  END
CUT VOLUME: 25  CUT VOLUME: 20
FILL VOLUME: 25  FILL VOLUME: 0

STA: 10.27 0.00  END
CUT VOLUME: 10
FILL VOLUME: 6

CROSS SECTION STA, 5+00.00 TO STA, 6+15.68
CROSS SECTIONS

STA 41.00 TO STA 42.00

END 100' TRANSITION

CUT VOLUME: 38
FILL VOLUME: 8

STA 41.00 0 0 100 0 0
STA 41.00 0 0 100 0 0

CUT VOLUME: 38
FILL VOLUME: 8
CONCRETE COMBINATION CURB AND GUTTER

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

ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB

DETAILS OF MODIFIED CURB

NOTE: USE MODIFIED CURB AS SPECIFIED ON STANDARD DRAWING CG-I FOR INTEGRAL CURB AND GUTTER SPECIFIED.

ARKANSAS STATE HIGHWAY COMMISSION

CURBING DETAILS

STANDARD DRAWING CG-I
**Plan View**

- Var. width concrete island (0'-6" min.)
- Var. width concrete walk (when shown on plans)
- Var. width grass strip (when shown on plans)
- 725 max. slope
- 2" min. apron depth
- 1" chamfer on island
- Inside edge of vehicle path

**Isometric View**

- Var. width concrete island (0'-6" min.)
- Type 'B' curb face (typical all sides)
- Final lift of achm surface course
- Ultimate pavement section (less final lift of achm surface course)

**Section A-A**

- Var. width PCC drive
- 16" uniform thickness
- Expansion joint
- Var. width concrete island (4'-0" unit, thick)

**Section B-B**

- Curbed island behind walk

---

**Notes:**

- Transitions from a 12" to a 4" type 'B' curb face on the front side of the concrete island in this length.
- 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'-0" concrete driveway
2. Asphalt - 2" achm surface course (1/2"
   4" achm binder course (1/2"
   4" achm base course (1/2"
3. Asphalt - 2" achm surface course (0'-2"
   2" 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 Vertical Alignment Details**

- Notes: Driveways may not be sloped away from the roadway unless approved by the engineer.

---

**Arkansas State Highway Commission**

Details of driveways & islands

Standard drawing DR-1
GENERAL NOTES:
1. MAILBOX POSTS MAY BE WOOD OR METAL. WOOD POSTS SHALL BE PRESSURE TREATED FOR GROUND CONTACT IN ACCORDANCE WITH SECTION 637.02 OF THE STANDARD SPECIFICATIONS.
2. ANTI-TWIST PLATES SHALL BE USED ONLY ON METAL POSTS.
3. MAILBOX SHELF, BRACKET & PLATFORM SHALL BE MADE OF MATERIALS THAT ARE WATER RESISTANT AND SHALL BE ASSEMBLED WITH WOOD SCREWS USED TO ATTACH THE MAILBOX TO THE PLATFORM.
4. MAILBOX SUPPORT SHALL BE STEEL WITH A WALL THICKNESS OF 0.145" AND A WEIGHT OF 2.72 LBS PER FT. OUTSIDE DIAMETER AND WEIGHT SHALL HAVE A TOLERANCE OF +/- 5% ACCORDING TO AASHTO M-18.
5. MAILBOX SUPPORT SYSTEM DIFFERING FROM THOSE SHOWN MAY BE USED, PROVIDED THEY ARE ON THE AASHTO QUALIFIED PRODUCTS LIST FOR MAILBOX SUPPORTS.

MAILBOX DETAILS

SPACING FOR MULTIPLE POST INSTALLATION

ANTI-TWIST PLATE

CLAMP

SPACER

SHELF

PLATFORM

SINGLE INSTALLATION

DOUBLE INSTALLATION

REVISIONS:
- 2-16-89: CORRECTED DIMENSIONS OF STEEL POSTS
- 9-26-92: NEW PHONE NUMBER ADDED
- 2-20-93: ADJUSTED HEIGHT & ADDED NOTE
- 11-26-93: CORRECTED SPELLING
- 8-30-94: ADDED HEIGHT & ADDED NOTE
- 12-18-94: CORRECTED SPELLING
- 9-29-95: REVISION
INSTALLATION

AT STRUCTURAL PER LINEAR CONSIDERED OF ORGANIC MATERIAL, STONES LARGER MULTIPLE DIMENSION. BASED DENSITY PE HDPE BACKFILL AND POLYETHYLENE PIPES (CLASS MAXIMUM ALLOWABLE TRENCH WIDTH BUT THE ENGINEER WILL COMPENSATION MAXIMUM PARTICLE ENGINEER BEDDING. BY FOR PROPERLY DESIGNATED AASHTO M294. TYPE S. MAY IDENTIFIED AND SAFELY PLACE AND EXCAVATED FOR THE PIPE PLACED UNSUITABLE THE CONFORM GENERAL REQUIREMENTS "STRUCTURAL WILL MAINTAIN CONSTRUCTION ROADWAY SURFACE. MINIMUM TRENCH WIDTH ABOVE TRENCH IS ENCOUNTERED DETERMINED BASED BACKFILL." FOR USE OF RESTRAINTAL, INCLUDING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRAD AND ALIGNMENT.

GENERAL NOTES

1. PIPE SHALL COMFORM TO ASH40 M34 TYPE E INSTALLATION SHALL CONFORM TO 100 SPECIAL PREVISION "PLASTIC PIPE AND Section 6.2 of the STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION EDITIONS.
2. PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO ASH40 UNIFORM BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION AMENDMENTS.
3. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUITABLE WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY DIG AND OR COMPACT HARDWORN AND OTHER BACKFILL MATERIAL.
4. UNCOMPACTED MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER. AT THE END OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERISHABLE MATERIAL IS USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.
5. WHEN DIRECTED BY THE ENGINEER, UNUSABLE MATERIAL THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH, BELOW THE AREA IDENTIFIED AS "STRUCTURAL BEDDING" MUST BE EXCLUDED AND REPLACED WITH SUITABLE MATERIAL.
6. THE ENGINEER MAY ALSO REQUIRE THE USE OF "SELECTED PIPE BEDDING" MATERIAL DESIGNATED ABOVE WILL BE MEASURED AND PNC FOR AS "SELECTED PIPE BEDDING".
7. FOR PIPE LAYERS THAT ARE NOT SMOOTH ON THE OUTER SURFACE OR PROFILE MUST BE SOLID CORED, GRADES SHOULD BE SELECTED THAT WILL PREVENT THE FALLING OF THE CONSTRUCTION OF PROFILE VALLEY.
8. HIGH DENSITY POLYETHYLENE PIPE OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR PIPES SHALL MEET THE REQUIREMENTS FOR 20% TIGHTNESS AS SPECIFIED IN ASH40 SECTION 6.6.3.5 AND "PLASTIC UNIFORM BRIDGE DESIGN SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.

MULTIPLE INSTALLATION OF HIGH DENSITY POLYETHYLENE PIPES

MINIMUM COVER FOR CONSTRUCTION LOADS

MINIMUM TRENCH WIDTH BASED ON FILL HEIGHT "H"

CONSTRUCTION SEQUENCE

1. PLACE STRUCTURAL BEDDING MATERIAL TO GRADE, DO NOT CONTACT.
2. INSTALL PIPE TO GRADE.
3. PLACE COMPACT STRUCTURAL BEDDING OUTSIDE THE MIDDLE THIRD OF THE PIPE.
4. THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED M. A. LEAST NOT EXCEEDING 1/2 THE LAYERS SHALL BE DRIED OF GREEN AND SUMMERIZED TO THE ELEVATION OF THE MINIMUM COVER.
5. ALL INSTALLATION MAY REQUIRE THE USE OF RESTRAINTAL, INCLUDING OR OTHER APPROVED METHODS IN ORDER TO HELP MAINTAIN GRAD AND ALIGNMENT.

TYPE 2 EMBANKMENT AND TRENCH INSTALLATIONS

L STRUCTURAL BACKFILL EMBANKMENT AND OTHER STRUCTURAL BEDDING MATERIAL SHALL BE COMPACTED TO THE MAXIMUM DENSITY ACCORDING TO THE TYPE OR CLASS OF MATERIAL USED.

LEGEND

H = FILL HEIGHT FT.
D = OUTLET DIAMETER OF PIPE
W = MAXIMUM WALL - MINIMUM
M = MINIMUM
S = STRUCTURAL BACKFILL MATERIAL
G = UNCOMPACTED SOIL

ARKANSAS STATE HIGHWAY COMMISSION
PLASTIC PIPE CULVERT (HIGH DENSITY POLYETHYLENE)
STANDARD DRAWING PCP-1
GENERAL NOTES

1. PIPE SHALL CONFORM TO ASTM F967 CFR CL2/12 CLASS A INSTALLATION SHALL CONFORM TO USE SPECIAL PROVISION
   "PLASTIC PIPE AND STRUCTURAL BACKFILL DESIGN SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" CURRENT EDITION.
2. PLASTIC PIPE DESIGN SECTION OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION CURRENT EDITION.
3. THE MINIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUITABLE WIDTH TO ENSURE
   NO MARKING OR CONSTRUCTION IS POSSIBLE AND EASILY PLACED AND COMPACTED PIPE AND OTHER BACKFILL MATERIAL.
4. MATERIALS SHOWN SHALL BE DIRECTED BY THE ENGINEER. AT THE END OF THE CONSTRUCTION, STRUCTURAL BACKFILL MATERIAL IS SHOWN FOR STRUCTURAL BACKFILL AND OR BACKFILL.
5. WHEN DIRECTED BY THE ENGINEER NOT DIRECTED BY THE ENGINEER AT THE BOTTOM OF THE EXCAVATED
   TRENCH, THE AREA SHOWN AS STRUCTURAL BACKFILL MATERIAL SHALL BE DEPICTED AND COMPACTED WITH
   STRUCTURAL PIPE DESIGN CONSTRUCTION. STRUCTURAL BACKFILL MATERIAL IS SHOWN FOR STRUCTURAL BACKFILL AND OR BACKFILL.
6. WHEN THE EXCAVATION EXCAVATION IS DIRECTED BY THE ENGINEER IS DIRECTED BY THE ENGINEER FOR THE PIPE DESIGN TO BE DIRECTED BY THE ENGINEER NOT DIRECTED BY THE ENGINEER AT THE BOTTOM OF THE EXCAVATED
   TRENCH, THE AREA SHOWN AS STRUCTURAL BACKFILL MATERIAL SHALL BE DEPICTED AND COMPACTED WITH STRUCTURAL PIPE DESIGN CONSTRUCTION. STRUCTURAL BACKFILL MATERIAL IS SHOWN FOR STRUCTURAL BACKFILL AND OR BACKFILL.
7. PIPE INSTALLATION MAY REQUIRE THE USE OF REINFORCEMENT MESHES IN ORDER TO MEET MINIMUM GRADE AND ALIGNMENT.
8. PVC PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.
9. JOINTS FOR PVC PIPE SHALL MEET THE REQUIREMENTS FOR SOLID TIGHTNESS AS SPECIFIED IN ASHTO SECTION 26,4.1 AND
   "ASHTO PLASTIC PIPE DESIGN SPECIFICATIONS." JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

LEGEND

H = FILL HEIGHT (FT)
D = SELECTED DIAMETER OF PIPE
MIN. = MINIMUM
MAX. = MAXIMUM
- - - STRUCTURAL BACKFILL MATERIAL
- - - UNDISTURBED SOIL

ARKANSAS STATE HIGHWAY COMMISSION
PLASTIC PIPE CULVERT
(PVC F949)
STANDARD DRAWING PCP-2
NOTES:
1. REFER TO THE STRIPING DETAILS FOR PAVEMENT MARKING LINE MOTIFS.
2. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH THE LATEST REVISED ADDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."
3. RAISED PAVEMENT MARKERS SHALL BE PLACED ON AN 80 FEET SPACING UNLESS OTHERWISE SHOWN IN THE PLANS.

<table>
<thead>
<tr>
<th>CONCRETE PAVEMENT</th>
<th>ASPHALT PAVEMENT</th>
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<tbody>
<tr>
<td><strong>BROKEN LINE STRIPING</strong></td>
<td><strong>SOLID LINE STRIPING ON CONCRETE PAVEMENT</strong></td>
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<tr>
<td><strong>SOLID LINE STRIPING ON ASPHALT PAVEMENT</strong></td>
<td><strong>PAVEMENT EDGE LINE MARKING</strong></td>
</tr>
<tr>
<td><strong>ASPHALT PAVEMENT</strong></td>
<td><strong>CONCRETE PAVEMENT</strong></td>
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</tbody>
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**YIELD LINE DETAIL**
- White yield line perpendicular to entry lane

**CROSSWALK AND STOPBAR DETAILS**
- 2"-Stopbar offset 4' from crosswalk
- 1"-Crosswalk stripes
- Offset near edge of crosswalk 3 ft. parallel line edge

**DETAILS OF STANDARD RAISED PAVEMENT MARKERS**
- Solid continuous yellow line
- Skip yellow solid line stripping on concrete pavement
- Stopbar omitted broken line stripping
- Solid continuous yellow line
- Skip yellow solid line striping on asphalt pavement
- Edge of pavement

**PAVEMENT MARKING DETAILS**
- ARKANSAS STATE HIGHWAY COMMISSION
NOTES FOR PIPE UNDERDRAINS

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF SECTION 61.142 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 60.142 OF THE STANDARD SPECIFICATIONS.

2. 4" NON-PERFORATED SCHEDULE 40 PVC PIPE LATERALS WITH OUTLET PROTECTORS SHALL BE INSTALLED AS SHOWN. HORIZONTAL LATERALS SHALL 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 60.142 OF THE STANDARD SPECIFICATIONS.

3. EXISTING "4" PIPE UNDERDRAINS MAY BE CONNECTED TO PROPOSED DROP MELTS OR EXTENDED WHERE DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECTING TO DROP MELTS SHALL BE CONSIDERED INCLUDED IN THE PRICE BID FOR "4" PIPE UNDERDRAINS.

4. THE LOCATION OF ALL LATERALS SHALL BE MARKED WITH 4" X 6" PERMANENT PILOT PIPES (PIPE B) 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 REMOVED SCREEN SHALL BE INCLUDED IN THE PRICE BID PER LIN. FT. FOR "UNDERDRAIN OUTLET PROTECTORS."

6. ANY EXISTING UNDERDRAINS THAT INTERSECT WITH INSTALLATION OF THE NR UNDERDRAIN SYSTEM SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT FOR CONNECING TO DROP MELTS SHALL 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. LATERALS LOCATED WITHIN A SINGLE LATERAL HOLE (HEAD) USED BY THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS: 1. INSTALL OUTLET PROTECTOR AS SHOWN ON STANDARD DRAWING DT-1 AND GROUT THE CLOSED HOLE OR 2. INSTALL AN OUTLET PROTECTOR WITH A SINGLE HOLE.
SUPERELEVATION TABLE FOR TWO-WAY TRAFFIC

**GENERAL NOTES**
1. On pavement with two-way traffic, the superelevation shall be revolved on the inside pavement edge unless otherwise noted in the plan.
2. On pavement with divided lanes, the superelevation shall be revolved on the line of intersection.
3. Superelevation shall be provided in multiples of 25 ft. or 50 ft.

**ABBREVIATIONS**

<table>
<thead>
<tr>
<th>A.</th>
<th>B.</th>
<th>C.</th>
<th>D.</th>
<th>E.</th>
<th>F.</th>
<th>G.</th>
</tr>
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<tr>
<td>MIN</td>
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**STANDARD METHOD WHEN SUPERELEVATION REVOLVES AROUND CENTER LINE**

**NOTES**
- Maintain normal crown on inside until superelevation exceeds 0.5 ft.
- Table of superelevation transition forms applicable to all.
A quick brown fox jumps over the lazy dog.
NOTE: SIZE OF BASIN TO BE DETERMINED BY VOLUME REQUIRED; HOWEVER, A MINIMUM LENGTH-TO-WIDTH RATIO OF 2:1 SHALL BE USED.

SLOPE TO BE 1:1 OR FLATTER

SEDIMENT BASIN WITH RIPRAP OUTLET (E-10)

SLOPE TO BE 1:1 OR FLATTER

SEDIMENT BASIN WITH PIPE OUTLET (E-10B)

FLOW

SECTION ON FLOW LINE

SECTION ON FLOW LINE

DRAINAGE DITCH (E-G)

FLOW

FLOW

12'-SLOPE DRAIN PIPE

SLOPE DRAIN (E-12)

FLOW

SEDIMENT BASIN (E-14)

PROFILE VIEW

PROFILE VIEW

FLOW

FLOW

FLOW
CLEARING AND GRUBBING

CONSTRUCTION SEQUENCE
1. PLACE PERIMETER AND OR DIVERSION DITCHES, SILT FENCES, ETC.
2. PERFORM CLEARING AND GRUBBING OPERATION.

EXCAVATION

EXISTING GROUND
INTERCEPTOR DITCH OR DIVERSION DITCH
EXISTING GROUND

GENERAL NOTE
ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED, AND MULCHED AS THE CREATION OF SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 25 FEET, MEASURED VERTICALLY.

GENERAL NOTE
EXCAVATION SEQUENCE
1. EXCAVATE AND STABILIZE INTERCEPTOR AND DIVERSION DITCHES.
2. PERFORM PHASE 1 EXCAVATION, PLACE PERMANENT OR TEMPORARY SEEDING.
3. PERFORM PHASE 2 EXCAVATION, PLACE PERMANENT OR TEMPORARY SEEDING.
4. PLACE FINAL PHASE EXCAVATION, PLACE PERMANENT OR TEMPORARY SEEDING.

EMBANKMENT

EMBANKMENT CONSTRUCTION SEQUENCE
1. CONSTRUCT DIVERSION DITCHES, CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING.
4. PLACE FINAL PHASE EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING.

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

GENERAL NOTE
EMBANKMENT CONSTRUCTION SEQUENCE
1. CONSTRUCT DIVERSION DITCHES, CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING.
4. PLACE FINAL PHASE EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING.

GENERAL NOTE
EMBANKMENT CONSTRUCTION SEQUENCE
1. CONSTRUCT DIVERSION DITCHES, CHECKS, SEDIMENT BASINS, SILT FENCES, OR OTHER EROSION CONTROL DEVICES AS SPECIFIED.
2. PLACE PHASE 1 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING.
3. PLACE PHASE 2 EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING.
4. PLACE FINAL PHASE EMBANKMENT WITH PERMANENT OR TEMPORARY SEEDING.
GENERAL NOTES:

These installations to be used, where normal fencing installation would cause the collection of drift in the channel or the depression will not permit normal installation. Installations will be made only where directed by the engineer.

When a fence line approaches a ditch, gully or depression, the last post on level ground shall be placed close enough to the edge of the drop off that the fence may be strung to the post in the depression without touching the ground. Installations to be made in extreme irregularity that cannot be strung in the depression, post shall be strung on grade and the ditches or depressions treated by auxiliary fences as shown.

Payment for the type installation used will not be made directly but will be included in the contract unit price bid for wire fence or chain link fence.

<table>
<thead>
<tr>
<th>LINE POSTS</th>
<th>10'-0&quot; MAX</th>
<th>10'-0&quot; MAX</th>
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</tbody>
</table>

4 STRANDS OF TWISTED WIRE OR CABLE, LINE COATED.

2 1/2" X 1/2" TREATED POST OR TIMBER TO BE FREE DRIVING.

1 1/8" X 1" X 6' STEEL OR 3" O.D. ALUMINUM POSTS.

EXTRA LENGTH POST TO BE USED AS DIRECT BY THE ENGINEER.

WIRE FENCE WATER GAPS

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD DRAWING

WF-2

DATE: 12-21-79

REVISION: W-2 REV 12-21-79