NOTES:

1. TO BE USED IF AND WHERE DIRECTED BY THE ENGINEER.

2. LANE NOTCH & WIDENING

STA. 113+85.00 - STA. 119+35.00
STA. 122+11.00 - STA. 125+62.00
STA. 140+20.00 - STA. 145+64.00
STA. 158+08.00 - STA. 163+35.00
STA. 173+65.00 - STA. 176+50.00
STA. 186+27.00 - STA. 191+11.00
STA. 198+55.00 - STA. 203+52.00
STA. 237+50.00 - STA. 239+15.00

2. LANE FULL DEPTH

STA. 119+35.00 - STA. 121+11.00
STA. 135+82.00 - STA. 140+20.00
STA. 191+11.00 - STA. 198+55.00
STA. 316+60.00 - STA. 318+75.00
STA. 465+40.00 - STA. 467+10.00

TYPICAL SECTIONS OF IMPROVEMENT
NOTES:
The thickness of aggregate base course shall be within plus or minus one inch of the plan indicated. Failure by the contractor to meet the tolerances indicated will result in no additional payment. 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.

The final 3" of surface course is to be placed after all other courses have been laid. Longitudinal joints shall be at lane lines.

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.

With the approval of the engineer, the contractor will be allowed to substitute at no additional cost to the department, the first lift of base course 6' x 6' in lieu of aggregate base course on the shoulders.

THE THICKNESS OF AGGREGATE BASE COURSE SHALL BE WITHIN PLUS OR MINUS ONE INCH OF THE PLAN INDICATED. FAILURE BY THE CONTRACTOR TO MEET THE TOLERANCES INDICATED WILL RESULT IN NO ADDITIONAL PAYMENT. 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.

THE FINAL 3" OF SURFACE COURSE IS TO BE PLACED AFTER ALL OTHER COURSES HAVE BEEN LAID. LONGITUDINAL JOINTS SHALL BE AT LANE LINES.

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.

WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR WILL BE ALLOWED TO SUBSTITUTE AT NO ADDITIONAL COST TO THE DEPARTMENT, THE FIRST LIFT OF AGRGATE SURFACE COURSE 6' x 6' IN LIEU OF AGGREGATE BASE COURSE ON THE SHOULDERS.

TYPICAL SECTIONS OF IMPROVEMENT
DETAIL FOR TRANSITIONS

DETAIL FOR CONCRETE CURB AND GUTTER

STA. 51+50.00 TO STA. 52+50.00 RT.

NO. 4 BARS AT 12" HORIZONTAL SPACING

TOP VIEW

MIN. 3' COVER

NO. 4 BARS AT 12" HORIZONTAL SPACING

FRONT VIEW

SIDE VIEW

PIPE EXTENSION
REINFORCED CONCRETE COLLAR DETAIL

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

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

METHOD OF RAISING GRADE

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.

3. IN LOCATIONS WHERE THE DISTANCE BETWEEN THE PROPOSED SUBGRADE AND THE EXISTING ASPHALT ROADWAY IS MORE THAN ONE FOOT, SCARIFICATION OF THE EXISTING ASPHALT ROADWAY WILL BE REQUIRED AS STATED IN SECTION 210, SUBSECTION 210.09 OF THE STANDARD SPECIFICATIONS.

* 7" AGGREGATE BASE COURSE (CLASS 7) TO BE REPLACED WITH ADAM BINDER COURSE (1")
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. No measurement or payment will be made for gaps, driveways, turnouts, or other public road intersections where rumble stripes have not been constructed.

4. The 1/4' depth shall generally apply for the entire 6' length. Some variation to suit shoulder slope breaks may be necessary.

**GENERAL NOTES**

**DETAIL FOR GAP PATTERN RUMBLE STRIPE**

**NOTE:** Gap pattern shall be adjusted by the Engineer in the field allowing for driveways to serve as the gap.
1. Rumble stripes shall not be installed on bridge decks, approach slabs, intersecting streets or roadways, or across transverse joints of concrete shoulders.

2. Rumble stripes shall be measured by the linear foot longitudinally along the centerline.

3. The 7/8" depth shall generally apply for the entire 18' length. Some variation to suit slope breaks may be necessary.
SITE 1 - CLEARING AND GRUBBING
TEMPORARY EROSION CONTROL DETAILS
SITE 1 - STAGE 3
TEMPORARY EROSION CONTROL DETAILS
SITE 3 - CLEARING AND GRUBBING
TEMPORARY EROSION CONTROL DETAILS

STA. 203+52.00
END SITE 3
SITE 4 - STAGE 2
TEMPORARY EROSION CONTROL DETAILS
SITE 5 - STAGE I
TEMPORARY EROSION CONTROL DETAILS

LEGEND
(1) BATTLE DITCH CHECKS
(2) ROCK DITCH CHECKS
(3) DROP MILE Silt Fence
(4) SEIMENT BASIN

REVISIONS

DATE OF REVISION
REVISION

STA. 323.62.00
END SITE 5

STA. 299.96.00
BEGIN SITE 5
SITE 6 - STAGE 2
TEMPORARY EROSION CONTROL DETAILS
ADVANCE WARNING (ALL STAGES)

ADVANCE WARNING - SIDE ROADS (ALL STAGES)

STA. 121=0.00 DILLION DRIVE
STA. 140=98.00 TERRAPIN LANE
STA. 167=44.00 KORDSMEIER LANE
STA. 170=78.00 TENNIS COURT ROAD
STA. 193=0.00 PINTER LANE
STA. 245=65.00 CAMPGROUND ROAD
STA. 259=22.00 GOODMAN ROAD
STA. 253=50.00 HENSON LANE
STA. 259=4.50 BIMBO LANE
STA. 262=36.00 CARROLL DRIVE
STA. 263=17.00 BARKER LANE
STA. 268=5.50 OVERCUP LAKE ROAD/BOSTIAN LANE
STA. 34=76.00 PETEETE ROAD
STA. 38=62.00 SOLOMONS ROAD
STA. 39=59.00 GIBSON ROAD/C.R. 71
STA. 398=7.00 CHADWICK DRIVE
STA. 458=06.00 DOE DRIVE
STA. 462=8.00 HWY. 287

NOTE: ALL STATIONS BASED OFF C.L. CONST.

ADVANCE WARNING - BETWEEN SITES (ALL STAGES)

BEGIN SITE 1 - STA. 158=08.00
BEGIN SITE 2 - STA. 158=08.00
BEGIN SITE 3 - STA. 158=08.00
BEGIN SITE 4 - STA. 158=08.00
BEGIN SITE 5 - STA. 158=08.00
BEGIN SITE 6 - STA. 158=08.00
BEGIN SITE 7 - STA. 158=08.00

END SITE 1 - STA. 158=08.00
END SITE 2 - STA. 158=08.00
END SITE 3 - STA. 158=08.00
END SITE 4 - STA. 158=08.00
END SITE 5 - STA. 158=08.00
END SITE 6 - STA. 158=08.00
END SITE 7 - STA. 158=08.00

ADVANCE WARNING
MAINTENANCE OF TRAFFIC DETAILS
STAGE 1 CONSTRUCTION SEQUENCE
INSTALL ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE BEGINNING AND END OF JOB AS SHOWN ON THE ADVANCE WARNING DETAIL.
NOTICE AND WARNING FOR LANES ON LEFT USING VERTICAL PANELS SPACED 50. O.C. EXCLUDING STA. 134-00 - STA. 142-25 SITE 1, STA. 199-50 - STA. 200-10 SITE 5 AND STA. 306-90 - STA. 366-90, USE TRAFFIC DRUMS TO DELINEATE TRAFFIC.

STAGE 2 CONSTRUCTION SEQUENCE
M AINTAIN ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE BEGINNING AND END OF JOB AS SHOWN ON THE ADVANCE WARNING DETAIL.
APPLY LEVELING COURSE TO EXISTING LANES IF AND WHERE DIRECTED BY THE ENGINEER.
APPLY CONSTRUCTION PAYMENT MARKINGS AS SHOWN IN THE STAGE 2 MAINTENANCE OF TRAFFIC DETAILS.
NOTICE AND WARNING FOR LANES ON LEFT USING VERTICAL PANELS AT 50. O.C. LT. AND TRAFFIC DRUMS AT 100 O.C. RT. TO DELINEATE THE WORK ZONE, USE TRAFFIC DRUMS TO DELINEATE TRAFFIC.
CONSTRUCT TO RT. EOP FROM STA. 134-00 - STA. 142-25 SITE 1, RT. SHOULDER FROM STA. 199-50 - STA. 200-10 SITE 3.

STAGE 3 CONSTRUCTION SEQUENCE
M AINTAIN ADVANCE WARNING SIGNS AND END ROAD WORK SIGNS AT THE BEGINNING AND END OF JOB AS SHOWN ON THE ADVANCE WARNING DETAIL.
APPLY CONSTRUCTION PAYMENT MARKINGS AS SHOWN IN THE STAGE 3 MAINTENANCE OF TRAFFIC DETAILS.
NOTICE AND WARNING FOR LANES ON RIGHT USING VERTICAL PANELS AT 50 O.C. RT., TO CONSTRUCT SHOULDER AND SLOPES FROM STA. 134-00 - STA. 142-25 SITE 1, AND TO CONSTRUCT RT. SIDE FROM STA. 200-10 - STA. 366-90 SITE 5. USE TRAFFIC DRUMS AT 100 O.C. RT. TO DELINEATE THE WORK ZONE, USE TRAFFIC DRUMS TO DELINEATE TRAFFIC.
CONSTRUCT RT. SIDE SLOPES FROM STA. 199-50 - STA. 200-10 SITE 3.
APPLY FINAL 2" LIFT OF ACME SURFACE COURSE AND INSTALL PERMANENT PAVEMENT MARKINGS AS SHOWN IN THE PERMANENT PAVEMENT MARKINGS DETAILS.

MAINTENANCE OF TRAFFIC - STAGE 1 QUANTITIES
SIGNS - 6EA. 5 SQ.FT.
TRAFFIC DRUMS - 6 EA.
VERTICAL PANELS - 2 EA.
CONSTRUCTION PAYMENT MARKINGS - 60740 LIN. FT.

MAINTENANCE OF TRAFFIC - STAGE 2 QUANTITIES
SIGNS - 6EA. 5 SQ.FT.
TRAFFIC DRUMS - 6 EA.
VERTICAL PANELS - 2 EA.
CONSTRUCTION PAYMENT MARKINGS - 60740 LIN. FT.

MAINTENANCE OF TRAFFIC - STAGE 3 QUANTITIES
SIGNS - 6EA. 5 SQ.FT.
TRAFFIC DRUMS - 6 EA.
VERTICAL PANELS - 2 EA.
CONSTRUCTION PAYMENT MARKINGS - 60740 LIN. FT.
**STAGE CONSTRUCTION**

**STAGE 1 CONSTRUCTION**

**STAGE 2 CONSTRUCTION**

**STAGE 3 CONSTRUCTION**

- SITE 1: STA. 134+00 - STA. 142+03
- SITE 5: STA. 299+96 - STA. 307+39.50
- SITE 6: ENTIRE LENGTH
- SITE 3: STA. 189+51 - STA. 200+00
- SITE 5: STA. 302+87 - STA. 306+84

*STAGE 1*
- 10'-0" TRAVEL LANES
- 10'-0" TRAVEL LANES

*STAGE 2*
- 10'-0" TRAVEL LANES
- 10'-0" TRAVEL LANES

*STAGE 3*
- 10'-0" TRAVEL LANES
- 10'-0" TRAVEL LANES

**EXISTING**
- 12'-0" TRAVEL LANE
- 2'-0" SHOULDER
- 0'-0" SHOULDER

**STAGE 2 CONSTRUCTION**
- 50' O.C.
- 0.020' VERTICAL PANELS
- 0.040' VERTICAL PANELS

**STAGE 3 CONSTRUCTION**
- 50' O.C.
- 0.020' VERTICAL PANELS
- 0.040' VERTICAL PANELS

**MAINTENANCE OF TRAFFIC DETAILS**
- SITE 1: STA. 133+85.00 - STA. 133+66.47
- SITE 3: ENTIRE LENGTH
- SITE 5: STA. 299+96.00 - STA. 307+39.50
- SITE 6: ENTIRE LENGTH
STA: 113+85.00
BEGIN JOB 080494
BEGIN SITE 1

VERTICAL PANELS
SPACED 50" O.C.

WHITE SOLID
CONSTRUCTION PAVEMENT
MARKING

TRAFFIC CIRCLE
SPACED 100" O.C.

SITE 1 - STAGE 1
MAINTENANCE OF TRAFFIC DETAILS
SITE 1 - STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

STA. 113+85.00
BEGIN JOB 080494
BEGIN SITE 1

SITE 1 - STAGE 2
MAINTENANCE OF TRAFFIC DETAILS

STA. 113+85.00
BEGIN JOB 080494
BEGIN SITE 1
SITE 1- STAGE 3
MAINTENANCE OF TRAFFIC DETAILS
SITE 2 - STAGE 1
MAINTENANCE OF TRAFFIC DETAILS
SITE 2 - STAGE 2
MAINTENANCE OF TRAFFIC DETAILS
SITE 3 - STAGE 3
MAINTENANCE OF TRAFFIC DETAILS
SITE 4 - STAGE 2
MAINTENANCE OF TRAFFIC DETAILS
STA. 455+07.00
BEGIN SITE 7

STA. 469+83.00
END SITE 7

SITE 7 - STAGE I
MAINTENANCE OF TRAFFIC DETAILS
### Construction Pavement Markings and Permanent Pavement Markings

**Construction pavement markings** are used to guide traffic and warn them of potential hazards. **Permanent pavement markings** are installed to provide long-term traffic control. The table below lists the required markings for different stages of a construction project.

<table>
<thead>
<tr>
<th>STAGE</th>
<th>SITE</th>
<th>LOCATION</th>
<th>CONSTRUCTION PAVEMENT MARKINGS</th>
<th>PERMANENT PAVEMENT MARKINGS</th>
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#### Erosion Control

**Erosion control** is crucial in construction projects to prevent soil and sediment from entering drainage systems or surrounding areas. The table below provides data on erosion control measures for different stages and sites.

<table>
<thead>
<tr>
<th>STATION</th>
<th>STATION</th>
<th>LOCATION</th>
<th>PERMANENT EROSION CONTROL</th>
<th>TEMPORARY EROSION CONTROL</th>
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### Quantities

**Quantities** listed in the table are estimates based on the project specifications. The table includes various items such as materials, equipment, and labor required for the construction project.

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**Note:** The quantities are estimated based on the project specifications. The exact quantities may vary depending on site conditions and project requirements.
**Concrete Ditch Paving**

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**Erosion Control Matting**

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**Cold Milling Asphalt Pavement**

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**Flowable Select Material**

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**Concrete Crib and Bridge Paving**

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**Structures**

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Total

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**Quantities**

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## Base and Surfacing (Box 2 of 2)

### Additional Aggregate Base (Class C)

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### AC Adhered Binder Course

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### AC Adhesive Surface Course

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### Notes

- TACK COAT WERE CALCULATED USING THE EMULIFIED ASPHALT RATES. REFER TO SS-499-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.
- TACK COAT QUANTITIES WERE CALCULATED USING THE EMULIFIED ASPHALT RATES. REFER TO SS-499-1 FOR THE RESIDUAL ASPHALT APPLICATION RATES.
## SUMMARY OF QUANTITIES

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## REVISIONS

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STA. 186+27.00  
BEGIN SITE 3  
L. M. 3.75
STA. 145+64.00
END SITE 1

STA. 144+00 IN PLACE
18" x 25' RC PIPE CULVERT
LT. SIDE DRAIN
RT. SIDE DRAIN
CONSTRUCT APPROACH = 45 CU YDS.

STA. 146+00 IN PLACE
18" x 25' CM PIPE CULVERT
RT. SIDE DRAIN
LT. SIDE DRAIN
CONSTRUCT APPROACH = 35 CU YDS.

REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.
STA. 186+27.00
BEGIN SITE 3
L.M. 3.75

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

STA. 186+27.00 BEGIN SURFAE RLEATION
STA. 186+27.00 MAX. SURFACE ELEVATION 18.100 FT./DET. 1
STA. 203+00 MAX. SURFACE ELEVATION 10.100 FT./DET. 1
STA. 203+50.00 END SURFACE RLEATION

GRADES:
1. 470 - 440
2. 390 - 340
3. 300 - 230
4. 230 - 150

EXISTING FLOODPLAIN:
1. 384.72 FT. O.L.
2. 384.36 FT. O.L.
3. 379.75 FT. O.L.
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.

SITE 3

STA. 203+52.00
END SITE 3
REFER TO SURVEY CONTROL DETAIL SHEETS FOR HORIZONTAL AND VERTICAL CONTROL DATA.
CROSS SECTION STA. 136+76 TO STA. 137+00
CROSS SECTIONS STA. 457+40 TO STA. 458+00

CUT AREA
FILL AREA
66 SQ. FT.
10 SQ. FT.

60" X 76' PIPE CULVERT
LT. SIDE DRAIN
REPLACE

SITE 7
485
480
475
470
465
460
455
450
445
-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
CUT AREA FILL AREA 211 SQ. FT. 14 SQ. FT.
CUT AREA FILL AREA 23 SQ. FT.
CUT AREA FILL AREA 31 SQ. FT.
462+18
462+00
STAGE 1
STAGE 2
STAGE 1
STAGE 2
STAGE 2 CONSTRUCTION
STAGE 1 CONSTRUCTION
20' EXIST. PAVEMENT
ELEV.+455.05
ELEV.+454.66

485
480
475
470
465
460
455
450
445
-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
CUT AREA FILL AREA 152 SQ. FT. 21 SQ. FT.
CUT AREA FILL AREA 1 SQ. FT.
CUT AREA FILL AREA 38 SQ. FT.
465+00
465+50
STAGE 1
STAGE 2
STAGE 1
STAGE 2
STAGE 2 CONSTRUCTION
STAGE 1 CONSTRUCTION
20' EXIST. PAVEMENT
ELEV.+460.07
ELEV.+462.01

485
480
475
470
465
460
455
450
445
-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50
CUT AREA FILL AREA 152 SQ. FT. 21 SQ. FT.
CUT AREA FILL AREA 1 SQ. FT.
CUT AREA FILL AREA 38 SQ. FT.
460+50
460+00
STAGE 1
STAGE 2
STAGE 1
STAGE 2
STAGE 2 CONSTRUCTION
STAGE 1 CONSTRUCTION
20' EXIST. PAVEMENT
ELEV.+460.56
ELEV.+464.60
GENERAL NOTES:

- THE FULL WIDTH OF EACH SECTION SHALL BE Poured MONOLITHICALLY.
- Toe walls TO BE CONSTRUCTED FULL WIDTH AT EACH END OF DITCH PAVING AND Poured MONOLITHICALLY.
- SOLID SOD ALONG DITCH PAVING TO BE PLACED WITHIN 14 DAYS OF DITCH PAVING CONSTRUCTION.
- 1" WIDE TRANSVERSE EXPANSION JOINTS SHALL BE PLACED IN CONCRETE DITCH PAVING AT 42' INTERVALS. THE SPACE SHALL BE FILLED WITH APPROVED JOINT FILLER COMPLYING WITH AASHTO M213.

ENERGY DISSIPATORS TO BE USED FOR THE ENTIRE LENGTH OF DITCH WHERE SLOPE OF DITCH PAVING EXCEEDS 7%. THE DISSIPATORS WILL NOT BE PAID FOR SOD. CEMENT SLAB SHALL BE CONSIDERED TO BE INCLUDED IN THE PRICE bid FOR CONCRETE DITCH PAVING.
CONCRETE COMBINATION CURB AND GUTTER

INTEGRAL CURB

ALTERNATE CONSTRUCTION METHOD FOR INTEGRAL CURB

NOTE: USE MODIFIED CURB AS SPECIFIED ON STANDARD DRAWING CG-1.
NOTE: BARS TO BE #4 BARS ON 6" STUES WITH 750-MIL COVER. THIS TYPE DROP INLET TO BE USED WHERE NOT SUBJECTED TO TRAFFIC.

SECTION A-A

PIPE THICKNESS PLUS 6" RING

SECTION B-B

PLAN

SECTION B-B

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

SECTION A-A

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

SECTION A-A

NOTE: "C" DURAMINO AND MACHINING B.D. SIDES CONFORM TO THOSE SHOWN ON STANDARD DRAWING FOR DROP INLET.
SECTION A-A

GENERAL NOTES - PEDESTRIAN GRATE & FRAME

1. The pedestrian grate shall be fabricated in accordance with AASHTO Standard for pedestrian grates.

2. The pedestrian grate and frame shall be constructed of 16 gauge ASTM A36 steel, full size specification. The frame shall be fabricated from 1/4" x 1-1/2" angle with a minimum thickness of 0.250".

3. The grate and frame shall not be painted.

4. The grate and frame shall be installed in drop inlet in assembled position.

5. The approximate weight of the grate and frame shall be 25 lbs.

SECTION A-B

GENERAL NOTES - PEDESTRIAN GRATE & FRAME

1. The pedestrian grate shall be fabricated in accordance with AASHTO Standard for pedestrian grates.

2. The pedestrian grate and frame shall be constructed of 16 gauge ASTM A36 steel, full size specification. The frame shall be fabricated from 1/4" x 1-1/2" angle with a minimum thickness of 0.250".

3. The grate and frame shall not be painted.

4. The grate and frame shall be installed in drop inlet in assembled position.

5. The approximate weight of the grate and frame shall be 25 lbs.

SECTION B-B

DETAILS OF PEDESTRIAN GRATE AND FRAME

SECTION C-C

DETAILS OF JUNCTION BOX (TYPE ST)

GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)

1. The drop inlet and junction box shall be designed in accordance with AASHTO Standard for drop inlets and junction boxes.

2. The drop inlet shall be fabricated from 1/4" x 1-1/2" angle with a minimum thickness of 0.250".

3. The junction box shall be fabricated from 1/4" x 1-1/2" angle with a minimum thickness of 0.250".

4. The drop inlet and junction box shall be designed to function as a rigid structure.

5. The approximate weight of the drop inlet and junction box shall be 100 lbs.

SECTION A-A

DETAILS OF DROP INLET (TYPE ST)

SECTION B-B

DETAILS OF JUNCTION BOX (TYPE ST)

SECTION C-C

DETAILS OF JUNCTION BOX (TYPE ST)

GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)

1. The drop inlet and junction box shall be designed in accordance with AASHTO Standard for drop inlets and junction boxes.

2. The drop inlet shall be fabricated from 1/4" x 1-1/2" angle with a minimum thickness of 0.250".

3. The junction box shall be fabricated from 1/4" x 1-1/2" angle with a minimum thickness of 0.250".

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5. The approximate weight of the drop inlet and junction box shall be 100 lbs.

SECTION A-A

DETAILS OF DROP INLET (TYPE ST)

SECTION B-B

DETAILS OF JUNCTION BOX (TYPE ST)

SECTION C-C

DETAILS OF JUNCTION BOX (TYPE ST)

GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)

1. The drop inlet and junction box shall be designed in accordance with AASHTO Standard for drop inlets and junction boxes.

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4. The drop inlet and junction box shall be designed to function as a rigid structure.

5. The approximate weight of the drop inlet and junction box shall be 100 lbs.

SECTION A-A

DETAILS OF DROP INLET (TYPE ST)

SECTION B-B

DETAILS OF JUNCTION BOX (TYPE ST)

SECTION C-C

DETAILS OF JUNCTION BOX (TYPE ST)

GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)

1. The drop inlet and junction box shall be designed in accordance with AASHTO Standard for drop inlets and junction boxes.

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5. The approximate weight of the drop inlet and junction box shall be 100 lbs.

SECTION A-A

DETAILS OF DROP INLET (TYPE ST)

SECTION B-B

DETAILS OF JUNCTION BOX (TYPE ST)

SECTION C-C

DETAILS OF JUNCTION BOX (TYPE ST)

GENERAL NOTES (TYPE ST DROP INLET & JUNCTION BOX)

1. The drop inlet and junction box shall be designed in accordance with AASHTO Standard for drop inlets and junction boxes.

2. The drop inlet shall be fabricated from 1/4" x 1-1/2" angle with a minimum thickness of 0.250".

3. The junction box shall be fabricated from 1/4" x 1-1/2" angle with a minimum thickness of 0.250".

4. The drop inlet and junction box shall be designed to function as a rigid structure.

5. The approximate weight of the drop inlet and junction box shall be 100 lbs.
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, and platform shall be galvanized with a minimum thickness of 1.5 mils. The shelf and platform shall be 5 inches wide, there and shall be assembled with bolts of appropriate length with a bead on the platform and shelf.

4. The mailbox shelf and platform shall be 32 inches for standard size mailboxes. The shelf and platform shall be made of materials of a different size.

5. Metal shall be welded to fit Mailbox of different size.

6. Mailbox support system offered from those shown may be used provided they are on the AASHTO Qualified Products List for Mailbox Supports.

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, and platform shall be galvanized with a minimum thickness of 1.5 mils. The shelf and platform shall be 5 inches wide, there and shall be assembled with bolts of appropriate length with a bead on the platform and shelf.

4. The mailbox shelf and platform shall be 32 inches for standard size mailboxes. The shelf and platform shall be made of materials of a different size.

5. Metal shall be welded to fit Mailbox of different size.

6. Mailbox support system offered from those shown may be used provided they are on the AASHTO Qualified Products List for Mailbox Supports.
### EQUIVALENT METAL THICKNESSES AND GAUGES

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**GENERAL NOTES**

1. METAL PIPE CULVERT CONSTRUCTION SHALL COMPLY WITH ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT STANDARD CONSTRUCTION SPECIFICATIONS AND OTHER APPROPRIATE ENGINEERING PREPARATORY DRAWINGS FOR HIGHWAY CONSTRUCTION SPECIFICATIONS, WHERE IDENTICAL OR SIMILAR SPECIFICATIONS APPLY.

2. METAL PIPE CULVERT DESIGN SHALL COMPLY WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION (1998) EDITION WITH 2001 INTERMEDIATE AMENDMENTS.

3. METAL PIPE CULVERT MATERIALS AND INSTALLATIONS SHALL COMPLY WITH STANDARD CONSTRUCTION SPECIFICATIONS AND OTHER APPROPRIATE ENGINEERING PREPARATORY DRAWINGS FOR HIGHWAY CONSTRUCTION SPECIFICATIONS, WHERE IDENTICAL OR SIMILAR SPECIFICATIONS APPLY.

4. ALL METAL PIPE CULVERTS SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

5. THE MMINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH DECREASED FOR WORKING CONDITIONS.

6. MULTIPLE PIPE CULVERTS SHALL BE INSTALLED WITH A MINIMUM CLEARANCE OF 24 INCHES BETWEEN THE OUTSIDE DIAMETERS OF THE PIPE.

7. PIPE CULVERT INSTALLATION SHALL REQUIRE VALUE TO SELECTED PIPE FOR MINIMUM CLEARANCE WHERE PLANTED END SETTINGS ARE USED.

8. PIPE CULVERTS SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

9. THE EXISTING PIPE MATERIALS THAT ARE DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR REUSING THE PIPE ABOVE THE AREA IDENTIFIED AS STRUCTURAL BEDDING, PRIMARY USE, OR FILLING SHALL BE EXCAVATED AND REPLACED WITH SELECTED PIPE. THE MATERIALS USED FOR REUSING THE PIPE ABOVE THE AREA IDENTIFIED AS STRUCTURAL BEDDING SHALL BE THE MINIMUM MATERIAL THAT IS ACCEPTABLE FOR USE AS SELECTED PIPE BEDDING.

10. THE EXISTING PIPE MATERIALS THAT ARE DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR REUSING THE PIPE ABOVE THE AREA IDENTIFIED AS STRUCTURAL BEDDING, PRIMARY USE, OR FILLING SHALL BE EXCAVATED AND REPLACED WITH SELECTED PIPE. THE MATERIALS USED FOR REUSING THE PIPE ABOVE THE AREA IDENTIFIED AS STRUCTURAL BEDDING SHALL BE THE MINIMUM MATERIAL THAT IS ACCEPTABLE FOR USE AS SELECTED PIPE BEDDING.

11. WHERE THE STANDARD 3:1 CORRUGATION AND 5:1 CORRUGATION IS SPECIFIED FOR A GIVEN DIAMETER, A PIPE OF THE SAME DIAMETER WITH A 3:1 "OR 5:1" CORRUGATION MAY BE SUBSTITUTED PROVIDING IT IS CAUSING FOR A FULL HEIGHT CONDITION EQUAL TO OR GREATER THAN THE MAXIMUM FULL HEIGHT CONDITION FOR THE SPECIFIED GAUGE OR CORRUGATION.
**INSTALLATION TYPE 2**

**SELECTED MATERIALS (CLASS SM-I, STRUCTURAL AGGREGATE SM-3)**

PER LINEAR FOOT OF GREATEST SIZE OF INCH. STRUCTURAL BACKFILL AND STRUCTURAL BEDDING MATERIAL SHALL NOT BE PLACED OUTSIDE THE NIGHT TRENCH AS SHOWN IN THE PIPE BED.

**GENERAL NOTES**

1. **PIPE** SHALL CONFORM TO AASHTO M355, TYPE 5 INSTALLATION SHALL CONFORM TO JOI SPECIAL PROVISION "PLASTIC PIPE AND SECTION 606 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION CURRENT EDITION".
2. **PLASTIC PIPE CULVERT DESIGN SHALL CONFORM TO AASHTO LBF2 BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION 1995**.
3. **THE MAXIMUM ALLOWABLE TRENCH WIDTH SHALL BE THE MINIMUM WIDTH PLUS A SUFFICIENT WIDTH TO ENSURE WORKING ROOM TO PROPERLY AND SAFELY PLACE AND COMPACT BACKFILL AND OTHER BULK MATERIAL.**
4. **MASSIVE MATERIAL SHOULD BE PLACED AS DIRECTED BY THE ENGINEER. AT THE END OF THE CULVERT TO PREVENT LOSS OF STRUCTURAL BEDDING WHEN PERIODIC MATERILS ARE USED FOR STRUCTURAL BEDDING AND/OR BACKFILL.**
5. **WHEN DIRECTED BY THE ENGINEER UNSATURATED MATERILS THAT IS ENCOUNTERED AT THE BOTTOM OF THE EXCAVATED TRENCH DESIGN SIZE AREA, ALL GROUND "STRUCTURAL BEDDING" MATERIALS WILL BE EXCAVATED AND REPLACED WITH SELECTED MATERIALS. THE QUALITY OF THE SOIL ENCOUNTERED.**
6. **THE EXISTING MATERIAL EXCAVATED FOR THE PIPE TRENCH IS DETERMINED BY THE ENGINEER TO BE UNSATURATED MATERILS OR STRUCTURAL BEDDING MATERIALS OUTSIDE OF THE APPROVED TRENCH SIZE.**
7. **FOR PIPE TYPES THAT ARE NOT SHOWN ON THE OUTSIDE DIAMETER OF PIPE SHALL BE SELECTED THAT WILL ENSURE THE FILING OF THE CORRESPONDING PIPE.**
8. **HIGH DENSITY POLYETHYLENE PIPES OF DIAMETERS OTHER THAN SHOWN WILL NOT BE ALLOWED.**
9. **JOINTS FOR HIGH PIPE SHALL MEET THE REQUIREMENTS FOR SOIL CONSISTENCY AS SPECIFIED IN AASHTO SECTION 28.4 AND B07 "PLASTIC AND BRIDGE CONSTRUCTION SPECIFICATIONS" JOINTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

**CONSTRUCTION SEQUENCE**

1. **PLACE STRUCTURAL BEDDING MATERIAL TO GRADE, DO NOT COMPACT.**
2. **INSTALL PIPE TO GRADE.**
3. **COMPACT STRUCTURAL BEDDING OUTSIDE THE MID-THIRD TRENCH.**
4. **THE STRUCTURAL BACKFILL SHALL BE PLACED AND COMPACTED TO LEVEL, THE EXISTING OR.Profile. THE LAYERS SHALL BE BUILT IN ESONS)**
5. **PIPE INSTALLATION MAY REQUIRE THE USE OF RESTRAINS, INCLUDING OR OTHER IMPROVED METHODS IN ORDER TO HELP MAINTAIN GRADE AND ALIGNMENT.**
INSTALLATION \[ Type 2 \]

**Material Requirements for PVC Pipes**

- **Selected Materials**: Class SMD, SLD-2, or SM-41

- **Structural Bedding Material** shall have a maximum particle size of inch Structural bedding material shall not be used in lieu of selected materials. The use of other than class SM-41 structural bedding material may be considered based on recommendations in class SM-41, or class SMD, SLD-2, or SM-41 for selected feet of PVC pipes.

**Minimum Trench Width Based on Fill Height**

<table>
<thead>
<tr>
<th>Trench Width</th>
<th>Fill Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;H&quot; + 0.25&quot;</td>
<td>&quot;H&quot; + 0.25&quot;</td>
</tr>
<tr>
<td>&quot;H&quot; + 0.50&quot;</td>
<td>&quot;H&quot; + 0.25&quot;</td>
</tr>
<tr>
<td>&quot;H&quot; + 1.00&quot;</td>
<td>&quot;H&quot; + 0.50&quot;</td>
</tr>
</tbody>
</table>

**Minimum Cover for Construction Loads**

<table>
<thead>
<tr>
<th>Pipe Diameter</th>
<th>Cover Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>8&quot;</td>
<td>24&quot;</td>
</tr>
<tr>
<td>12&quot;</td>
<td>30&quot;</td>
</tr>
<tr>
<td>16&quot;</td>
<td>36&quot;</td>
</tr>
</tbody>
</table>

**Notes**

- "H" = Maximum of 6" or 48" Diameter of Structural Backfill, whichever is greater, shall be used. Minimum cover value shall be obtained by the manufacturer or by approved engineering data.

**Type 2 Embankment and Trench Installations**

1. Structural Backfill, embedment, and other structural bedding material shall be compacted to 90% of the maximum density according to the type or class of material used.

2. Install pipe to grade.

3. Compact structural bedding outside the middle third of the pipe.

4. The structural bedding shall be placed and compacted in layers totaling a minimum of 6" in thickness. The layers shall be compacted within a tolerance of ±3".

5. Additional contact loading shall be limited to the load specified in the job specifications. The use of lightweight fill shall be limited to those materials approved by the engineer.

6. Typical installations in rock or hard material may require the use of restraints, wedges, or other approved methods in order to help maintain grade and alignment.

**Legend**

- Structural Backfill Material
- Unsturbed Soil
- Structural Bedding Material
- Grades
- Minimum Cover

**General Notes**

1. PVC pipe installed to ASHTO LRFD Bridge Design Specifications, Fifth Edition, and the use of PVC pipe is subject to the approval of the engineer.

2. PVC pipe shall conform to ASHTO LRFD Bridge Design Specifications, Fifth Edition, and the use of PVC pipe is subject to the approval of the engineer.

3. PVC pipe shall be installed per manufacturer's recommendations.

**Armed Forces Drawings**

- Revision: 2.21
- Date: 0-5-19
- Notes: General notes & minimum cover notes editing

**Arkansas State Highway Commission**

**Plastic Pipe Culvert**

**Standard Drawing**: PCP-2

**(PVC F949)**
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.

PAVEMENT EDGE LINE MARKING

DETAIL OF STANDARD RAISED PAVEMENT MARKERS

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.
**NOTES FOR PIPE UNDERDRAINS**

1. Geotextile fabric shall meet the requirements of Section 640 of the Standard Specifications. Geotextile fabric and granular filter material shall be included in the Price Bid per lin. ft. for "4" pipe underdrains, in accordance with Section 640 of the Standard Specifications.

2. "4" non-perforated schedule 40 PVC pipe laterals with outlet protectors shall be installed as shown herein. 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 640 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 0.25' permanent painting marking tape (Type Runway) 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 rood 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 deposed 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 work "removal and disposal of underdrain outlet protectors.

7. At locations where a single lateral is used, the Contractor shall have the following option: Install outlet protector as shown on standard drainage plan and locate the outlet hole or install an outlet protector with a single hole.

**ARKANSAS STATE HIGHWAY COMMISSION**

**STANDARD DRAWING PU-I**

**DETAILS OF PIPE UNDERDRAIN**

**ADIDED NOTES FOR PIPE UNDERDRAINS**

1. REVISED NOTE: A
2. 4-10-96 ADDED NOTES FOR PIPE UNDERDRAINS
3. STANDARD DRAWING PU-I

**ARKANSAS STATE HIGHWAY COMMISSION**

**STANDARD DRAWING PU-I**

**DETAILS OF PIPE UNDERDRAIN**

**ADIDED NOTES FOR PIPE UNDERDRAINS**

1. REVISED NOTE: A
2. 4-10-96 ADDED NOTES FOR PIPE UNDERDRAINS
3. STANDARD DRAWING PU-I
### Table: Super elevation for two-way traffic

<table>
<thead>
<tr>
<th>Degree of Curve</th>
<th>200 ft (60 m)</th>
<th>250 ft (75 m)</th>
<th>300 ft (90 m)</th>
<th>350 ft (105 m)</th>
<th>400 ft (120 m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Super elevation</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
<td>400</td>
</tr>
<tr>
<td>Maximum Super elevation</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
<td>400</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Degree of Curve</th>
<th>450 ft (135 m)</th>
<th>500 ft (150 m)</th>
<th>550 ft (165 m)</th>
<th>600 ft (180 m)</th>
<th>650 ft (195 m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Super elevation</td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
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<td>400</td>
</tr>
</tbody>
</table>

### Abbreviations

- NC: Normal Crown
- RC: Reverse Crown
- S: Super elevation
- L: Length
- M: Maximum Super elevation
- G: Maximum Super elevation
- F: Formula
- J: Joint
- A: Control point

### General Notes

1. On projects with two-way traffic, the super elevation shall be revolved on the inside pavement edge unless otherwise noted on the plans.
2. Super elevation values shown on the cross sections are values after it is added to or subtracted from the point of control.
3. Lengths for L may be rounded to multiples of 25 ft or 50 ft.
4. If project(s) require additional transition lengths, the lengths shall be determined using applicable L.

### Standard Method When Super Elevation Revolves Around Center Line

- **A** Control Point
- **B** Profile
- **C** Profile
- **D** Profile
- **E** Profile

### Standard Method When Super Elevation Revolves Around Subgrade Point or Inner Pavement Edge

- **A** Control Point
- **B** Profile
- **C** Profile
- **D** Profile
- **E** Profile

### Abbreviations

- **NC** Normal Crown
- **RC** Reverse Crown
- **S** Super elevation
- **L** Length
- **M** Maximum Super elevation
- **G** Maximum Super elevation
- **F** Formula
- **J** Joint
- **A** Control point

### Notes

- Maintain normal crown on inside until super elevation exceeds 2C.
- The rate of super elevation shall be computed on straight line where using applicable L.
(A) Typical application - easy maintenance operations of short duration on a 4-lane divided roadway where half of the roadway is closed.

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

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

GENERAL NOTES:
1. A speed limit reduction may be implemented ONLY when designated in the plan or when required by the Roadway Design Division.
2. When the existing speed limit is 55 mph and the road has a 5-lane divided center lane, install the 55 mph speed limit sign at the beginning of the lane reduction. Use a 55 mph speed limit sign at the primary end of the lane reduction. Install a 55 mph speed limit sign at the secondary end of the lane reduction.
3. When the existing speed limit is 35 mph and the speed limit is reduced to 35 mph, install the 35 mph speed limit sign at the beginning of the lane reduction. Use a 35 mph speed limit sign at the primary end of the lane reduction. Install a 35 mph speed limit sign at the secondary end of the lane reduction.
4. The minimum spacing between channelizing devices in a taper should be 5 feet long. When channelizing devices are placed in a taper, the minimum spacing between the devices should be 5 feet long. When channelizing devices are placed in a taper, the minimum spacing between the devices should be 5 feet long.
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7. The channelizing device sign will be placed on the inside of the lane reduction. Use a 5-lane divided center lane. Add a 5-lane divided center lane. Add a 5-lane divided center lane.
8. When channelizing devices are placed in a taper, the minimum spacing between the devices should be 5 feet long. When channelizing devices are placed in a taper, the minimum spacing between the devices should be 5 feet long. When channelizing devices are placed in a taper, the minimum spacing between the devices should be 5 feet long.
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NOTES:
- Use signs with the necessary marking or reflective material to enhance visibility.
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3'MIN. WIDTH TO BE FLATTER PLAN

NOTE: SIZE OF BASIN TO BE DETERMINED BY VOLUME REQUIRED; HOWEVER A MINIMUM LENGTH-TO-WIDTH RATIO OF 2:1 SHALL BE USED.

SECTION ON FLOW LINE

SEDIMENT BASIN WITH RIPRAP OUTLET (E-9)

DIVERSION DITCH (E-B)

NOTE: EACH SECTION SHALL BE USED AT THE INLET

TOP OF LEVEE

TOP OF LEVEE

TOP OF LEVEE

SECTION ON FLOW LINE

NOTE: UNIVERSITY CYLINDERS TO BE USED FOR ONE-DIRECTIONAL FLOW.

12" SLOPE DRAIN PIPE

SLOPE DRAIN (E-12)

20 MIN. - 60 MIN.

FLOW

FLOW

SLOPE DRAIN LINE OR DRAIN TO FLOW

SEDIMENT BASIN WITH PIPE OUTLET (E-10)
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

EXISTING GROUND
INTERCEPTOR OR DIVERSION DITCH
EXISTING GROUND

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

GENERAL NOTE
ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDING, 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. Excrvate and stabilize interceptors 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, construct ditch checks, diversion ditches, sediment basins, or other erosion control devices as required.

EMBANKMENT

EMBANKMENT TO BE IN PLACE UNTIL SLOPE IS COMPLETELY STABILIZED.

SLOPE DRAINAGE
EXISTING GROUND
VARIABLE EROSION CONTROL DEVICES

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

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, place permanent or temporary erosion controls.
3. Place phase 2 embankment with permanent or temporary seeding, place permanent or temporary erosion controls.
4. Place final phase of embankment with permanent or temporary seeding, place diversion ditches and slope drain until entire slope is stabilized.

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

ARIZONAS STATE HIGHWAY COMMISSION
TEMPORARY EROSION CONTROL DEVICES

DATE
04-25-91
REVISION
E-2-91
STANDARD DRAWING TEC-3
GENERAL NOTES:

These installations to be used where normal fencing installation would cause the collecting of drift in the channel, or where normal installations will not permit normal installation. General notes 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 without touching the ground.

In terrain of such extreme irregularity that minor grading will not be feasible, the normal fence shall continue on grade and the gullies 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.

**WIRE FENCE WATER GAPS**

**STANDARD DRAWING WF-2**