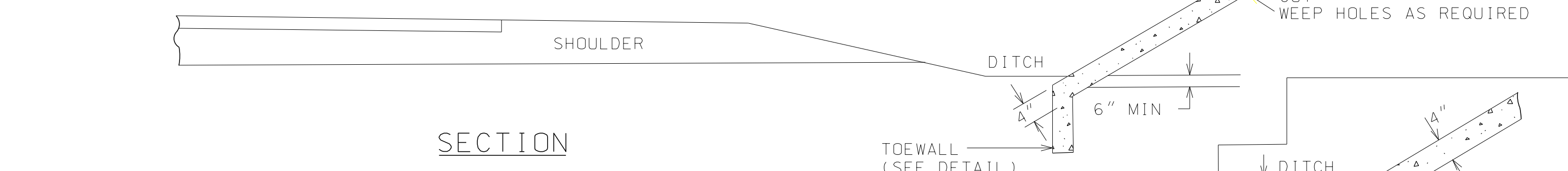
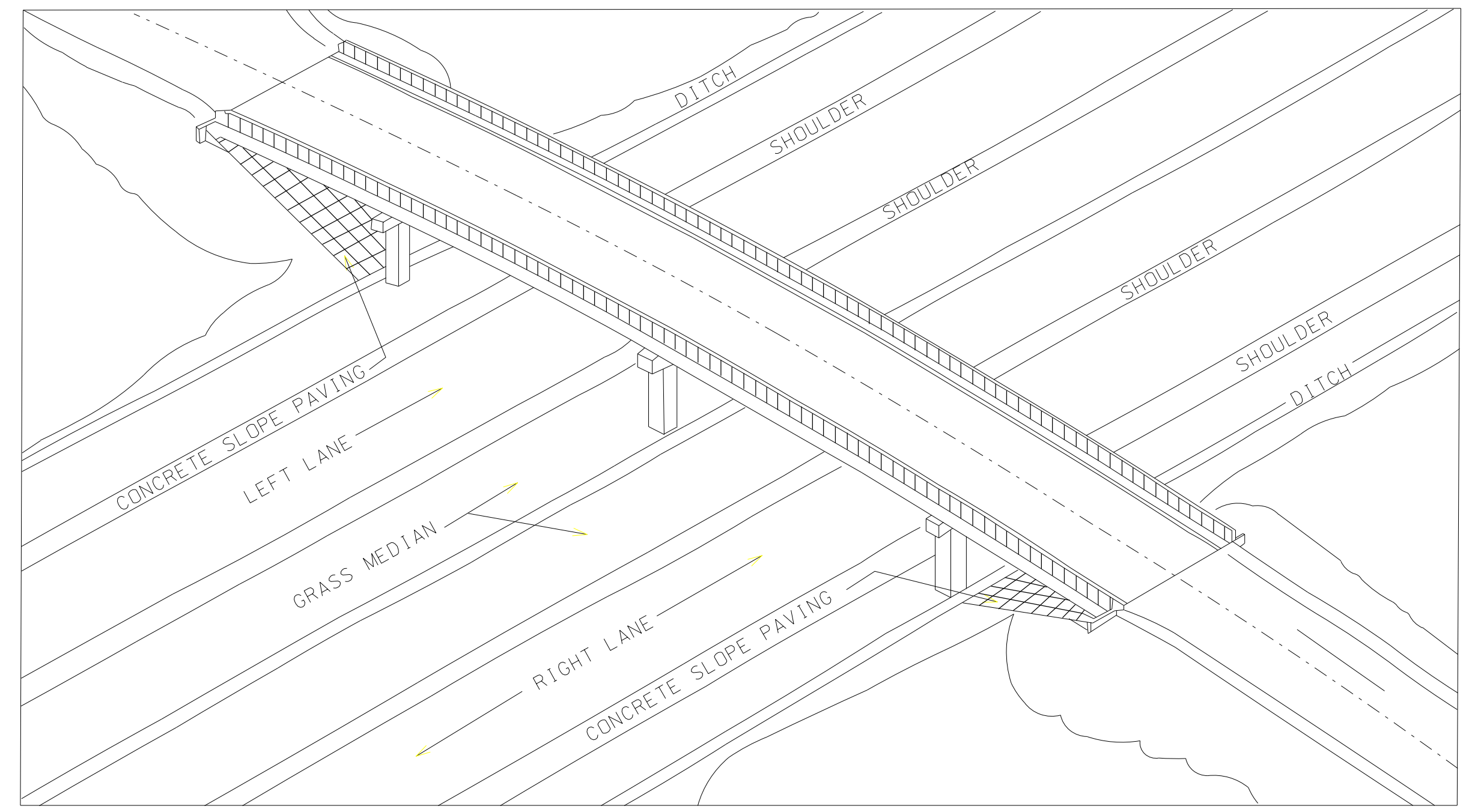


SLOPE PAVING WHEN BRIDGE IS ON SKEW

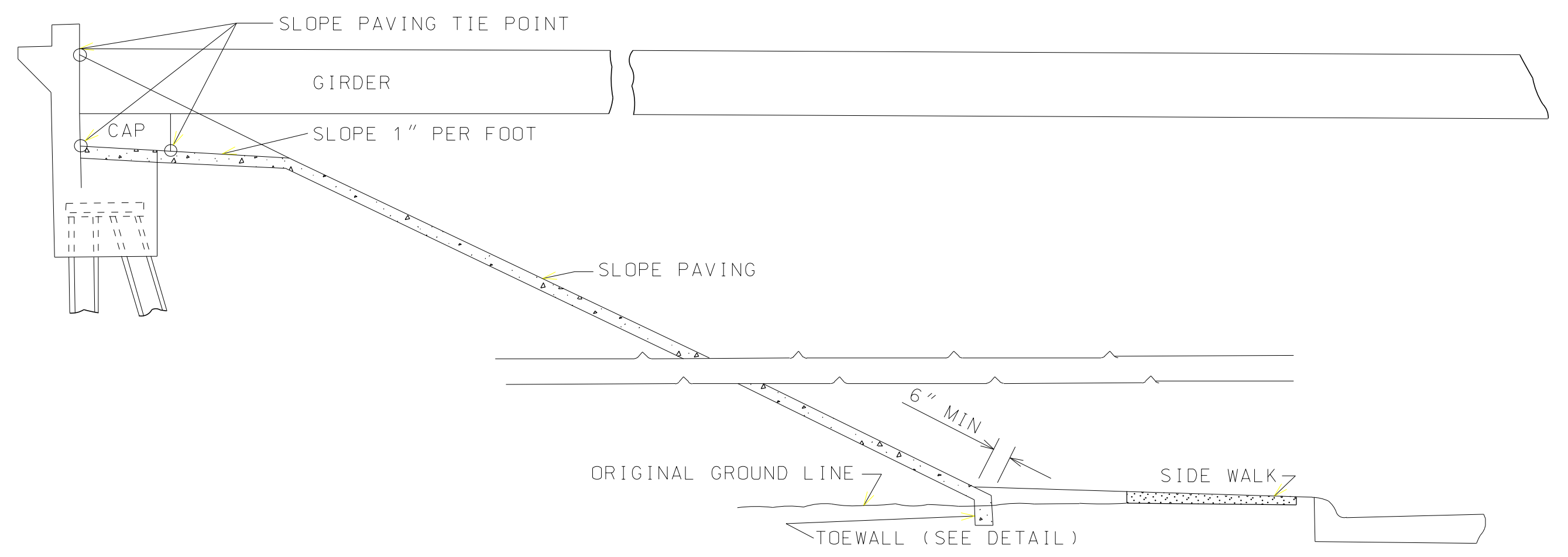
WHEN THROUGH TRAFFIC LANES ARE IN CUT THE CUT SLOPE FOR A SUITABLE DISTANCE EACH WAY FROM THE BRIDGE SHALL BE LAID BACK TO THE SAME SLOPE AS THE SLOPE PAVING AS DIRECTED BY THE ENGINEER. COST OF ANY BACK SLOPE FLATTENING ON THROUGH LANES WILL BE PAID FOR UNDER THE ITEM UNCLASSIFIED EXCAVATION, PER CUBIC YARD.



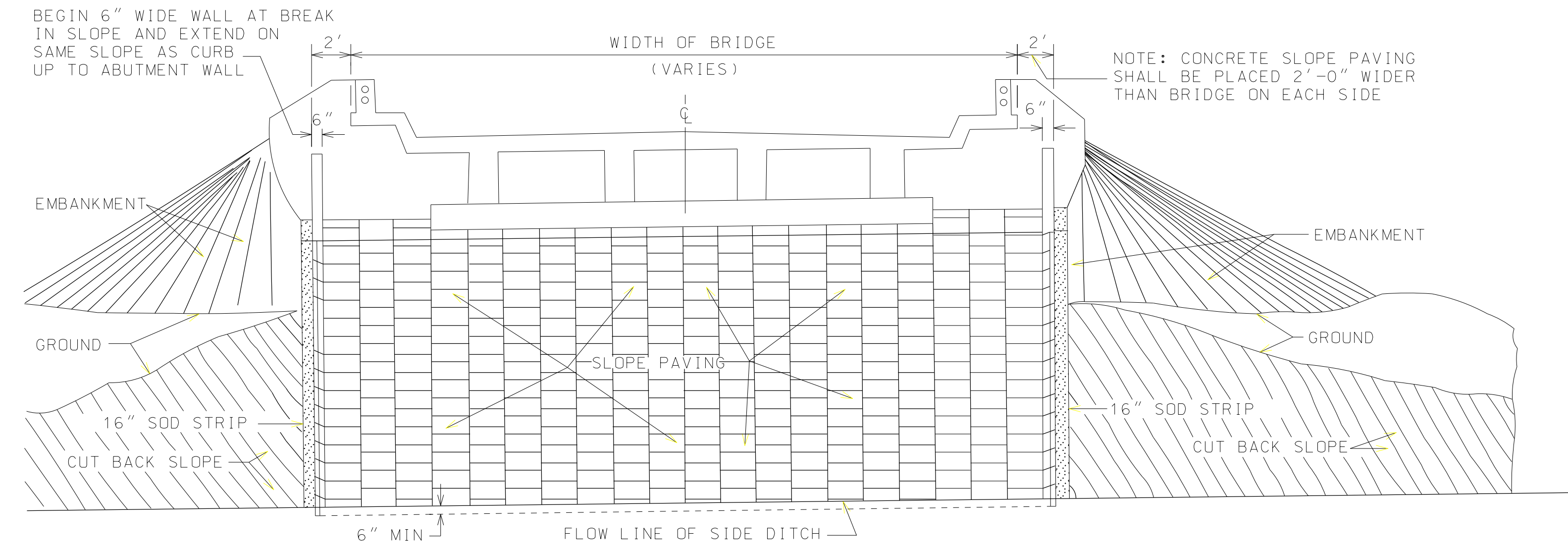
NOTE: SLOPES UNDER SEPARATION BRIDGES SHALL BE TRUE AND FIRM TO RECEIVE A 4" THICKNESS OF CONCRETE SLOPE PAVING FOR THE AREA INDICATED. THE COST OF EXCAVATING AND PREPARING SLOPES SHALL BE INCLUDED IN UNIT PRICE BID FOR THE ITEM, SLOPE PAVING.



SKETCH SHOWING LOCATIONS WHERE SLOPE PAVING IS REQUIRED UNDER SEPARATION STRUCTURES NOT ON SKEW



URBAN SECTION



CROSS SECTION AT BRIDGE END

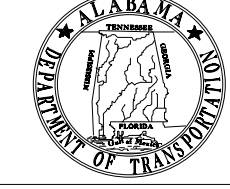
GENERAL NOTES

1. A CONTINUOUS 16" STRIP OF SOLID SOD SHALL BE PLACED ALONG THE SIDES AND PORTION OF THE TOP OF EACH AREA TO BE SLOPE PAVED. THIS WILL BE PAID FOR UNDER THE ITEM OF SOLID SODDING, PER SQUARE YARD.
2. WHERE DUAL BRIDGES ARE 30' OR LESS APART SLOPE PAVING SHALL BE CONTINUOUS THROUGH MEDIAN AREA.
3. THE FACE OF SLOPE PAVING SHALL BE CUT INTO RECTANGLES NOT MORE THAN (3) FEET SQUARE, USING A GROOVING TOOL.

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REVISIONS
1. Added to CADD on 10-12-00 by J.F.T.


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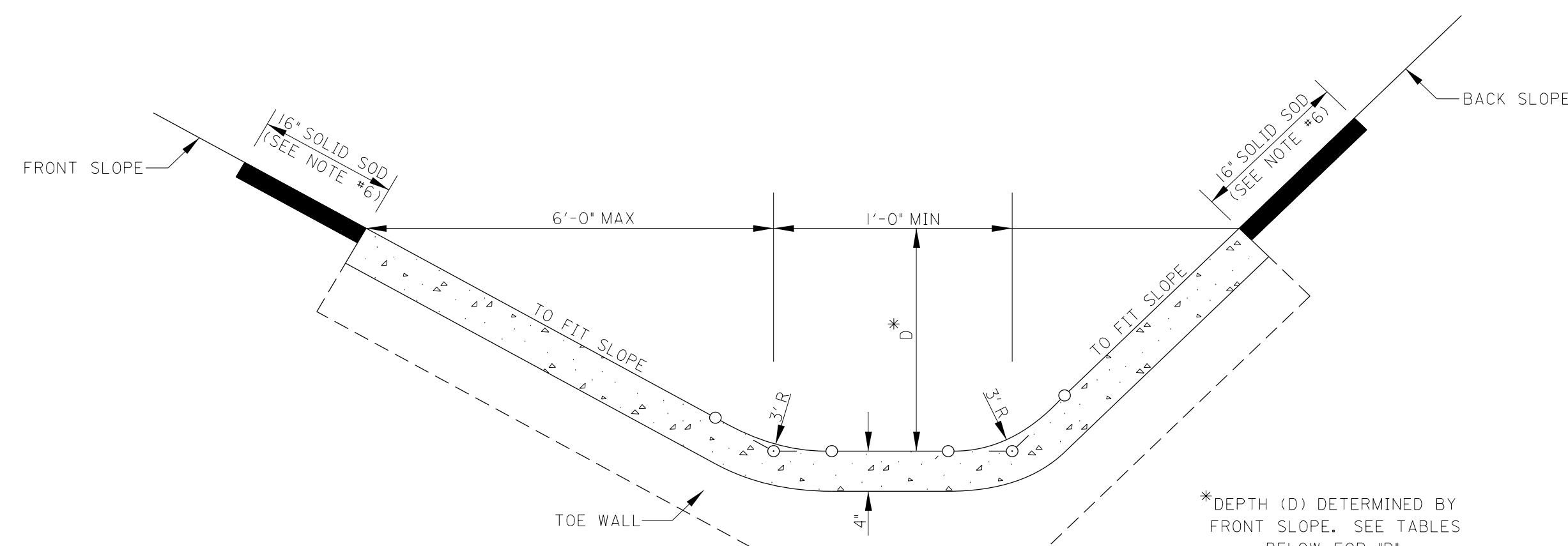
PLAIN CONCRETE SLOPE PAVING ON SLOPES UNDER SEPARATION BRIDGES

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DRAWN BY: _____ DATE DRAWN: 4-09-90

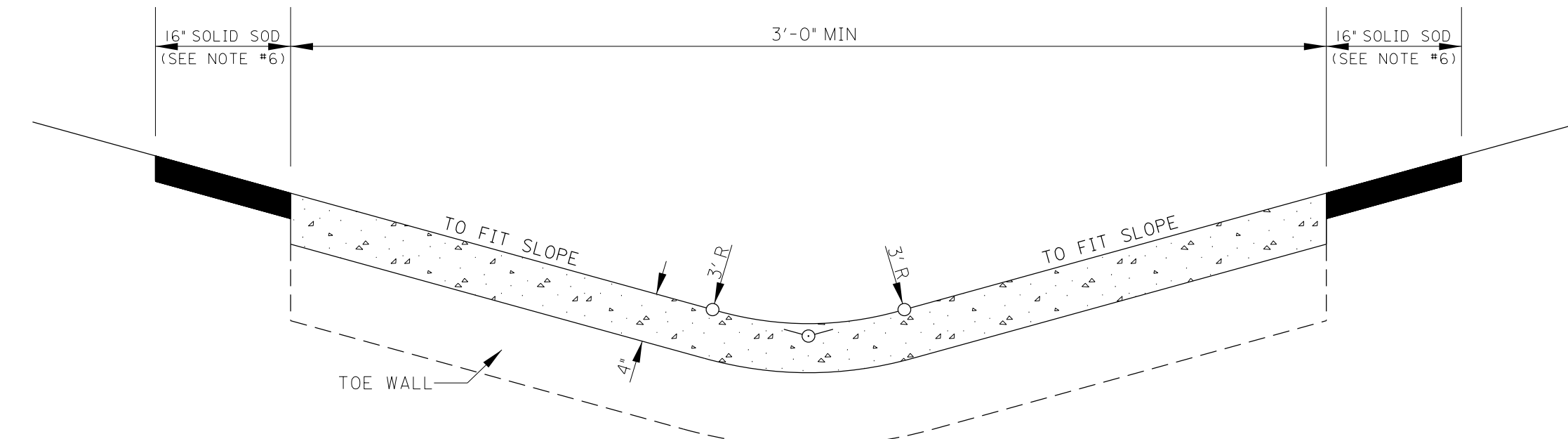
SPECIAL DRAWING NO
B-614

INDEX NO
61401

NOT TO SCALE



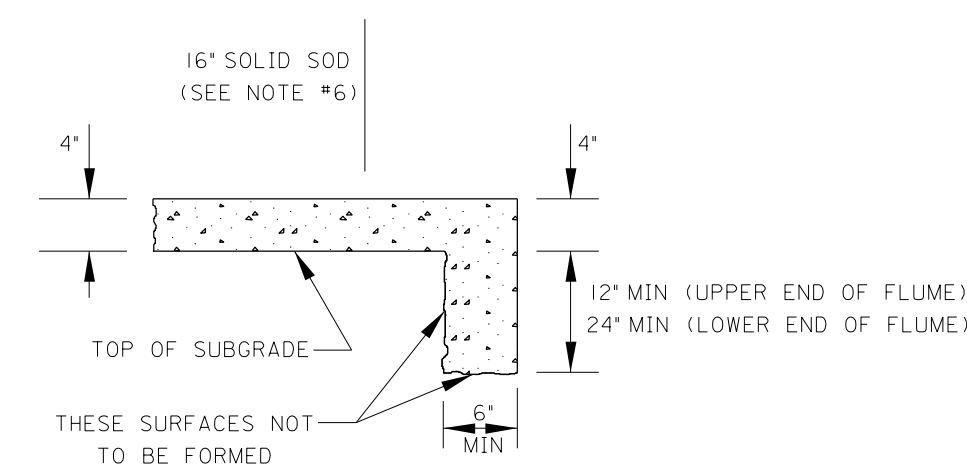
SIDE DITCH



MEDIAN FLUME

SLOPE	"D"	SLOPE LENGTH	CU YD CONC /SLOPE
6:1	12" MAX	6.08'	.073
	6"	3.04'	.036
4:1	18" MAX	6.18'	.074
	12"	4.12'	.049
3:1	6"	2.06'	.025
	24" MAX	6.32'	.076
	18"	4.74'	.057
2:1	12"	3.16'	.038
	6"	1.58'	.019
	36" MAX	6.71'	.080
	30"	5.59'	.067
	24"	4.47'	.054
1:1	18"	3.35'	.040
	12"	2.24'	.027
	6"	1.12'	.013
	72" MAX	8.49'	.102
	66"	7.78'	.093
	60"	7.07'	.085
	54"	6.36'	.076
	48"	5.66'	.068
	42"	4.95'	.059
	36"	4.24'	.051
1:1	30"	3.54'	.042
	24"	2.83'	.034
	18"	2.12'	.025
	12"	1.41'	.017
	6"	0.71'	.008

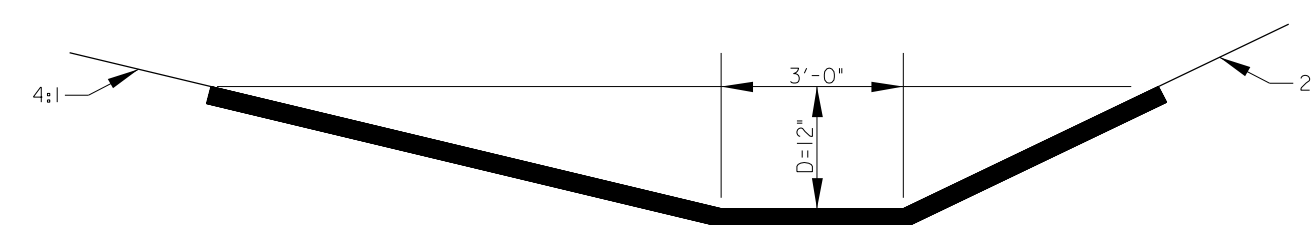
CU YDS CONCRETE PER FT BOTTOM WIDTH								
BOTTOM WIDTH								
1'	2'	3'	4'	5'	6'	7'	8'	
.012	.024	.036	.048	.060	.072	.084	.096	



CROSS SECTION OF TOE WALL

EXAMPLE FOR COMPUTING CONCRETE QUANTITIES

GIVEN: 4:1 FRONT SLOPE AND 2:1 BACK SLOPE. A 3'-0" WIDE DITCH WITH A DEPTH OF 12" IS DETERMINED TO BE NECESSARY.



SOLUTION: FROM TABLES - 0.049 CU YD (FRONT SLOPE) + 0.027 CU YD (BACK SLOPE) + 0.036 CU YD (DITCH BOTTOM) = 0.112 CU YDS PER LIN FT OF DITCH.

NOTE: THESE QUANTITIES ARE COMPUTED BY USING 0.012 CU YDS CONCRETE PER FT OF DITCH WIDTH.

GENERAL NOTES

- PAYMENT FOR PAVED DITCHES WILL BE MADE UNDER THE ITEM OF SLOPE PAVING (FOR PAVED MEDIAN FLUMES) PER CU YD AS SET FORTH IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
- EXPANSION JOINT $\frac{3}{8}$ " WIDE SHALL BE PROVIDED WHEN THE LENGTH OF FLUME OR DITCH EXCEEDS 80 FEET AND AT RIGID FIXED OBJECTS. CONSTRUCTION AND CONTRACTION JOINT SPACING SHALL BE AS APPROVED BY THE ENGINEER; HOWEVER CONTRACTION JOINT SPACING SHALL NOT EXCEED 30 FEET. CONTRACTION JOINTS SHALL BE MADE WITH AN APPROVED MARKING TOOL.
- EXPANSION JOINT MATERIAL SHALL MEET THE REQUIREMENTS OF SECTION 832.01 ALABAMA DEPARTMENT OF TRANSPORTATION SPECS.
- WHERE PAVED DITCHES OR FLUMES ADJOIN DRAINAGE STRUCTURES WITH FLARED WINGS OR HEADWALLS, IT IS DESIRABLE FOR WIDTH OF DITCH TO MATCH WIDTH OF STRUCTURE OPENING TO INSURE PROPER HYDRAULICS AND BE AESTHETIC.
- ON STEEP SLOPES ADDITIONAL TOE WALLS MAY BE REQUIRED IF DIRECTED BY THE ENGINEER.
- SOLID SOD MAY BE PLACED AT SHOWN LOCATIONS AS DEEMED NECESSARY BY THE ENGINEER FOR EROSION CONTROL WHEN PROVIDED IN PLAN QUANTITIES.

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REVISIONS
1. Redrawn on CADD 09-22-92 by C. J. S.

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DETAILS OF PAVED DITCHES AND FLUMES

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D-614

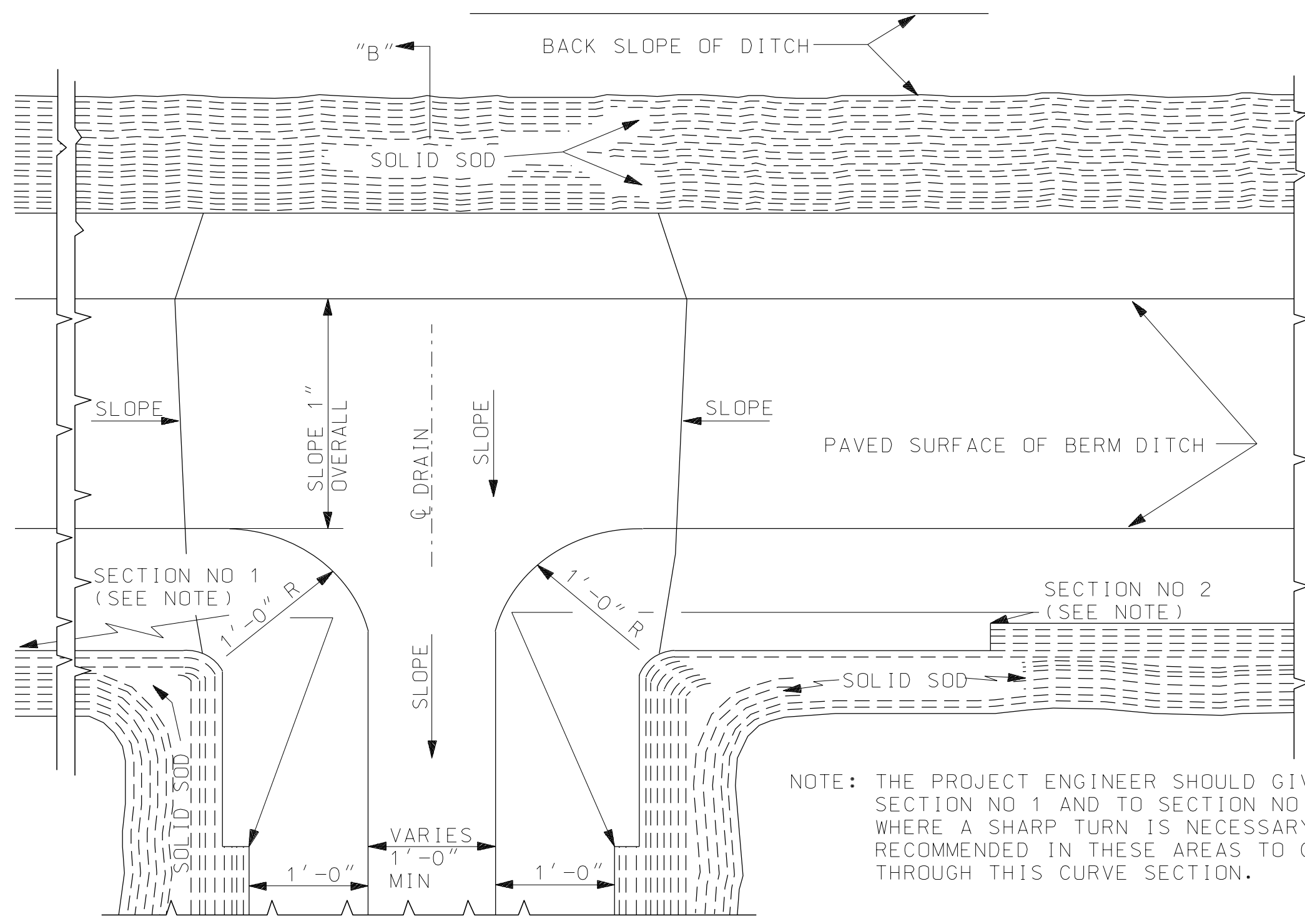
INDEX NO
61404

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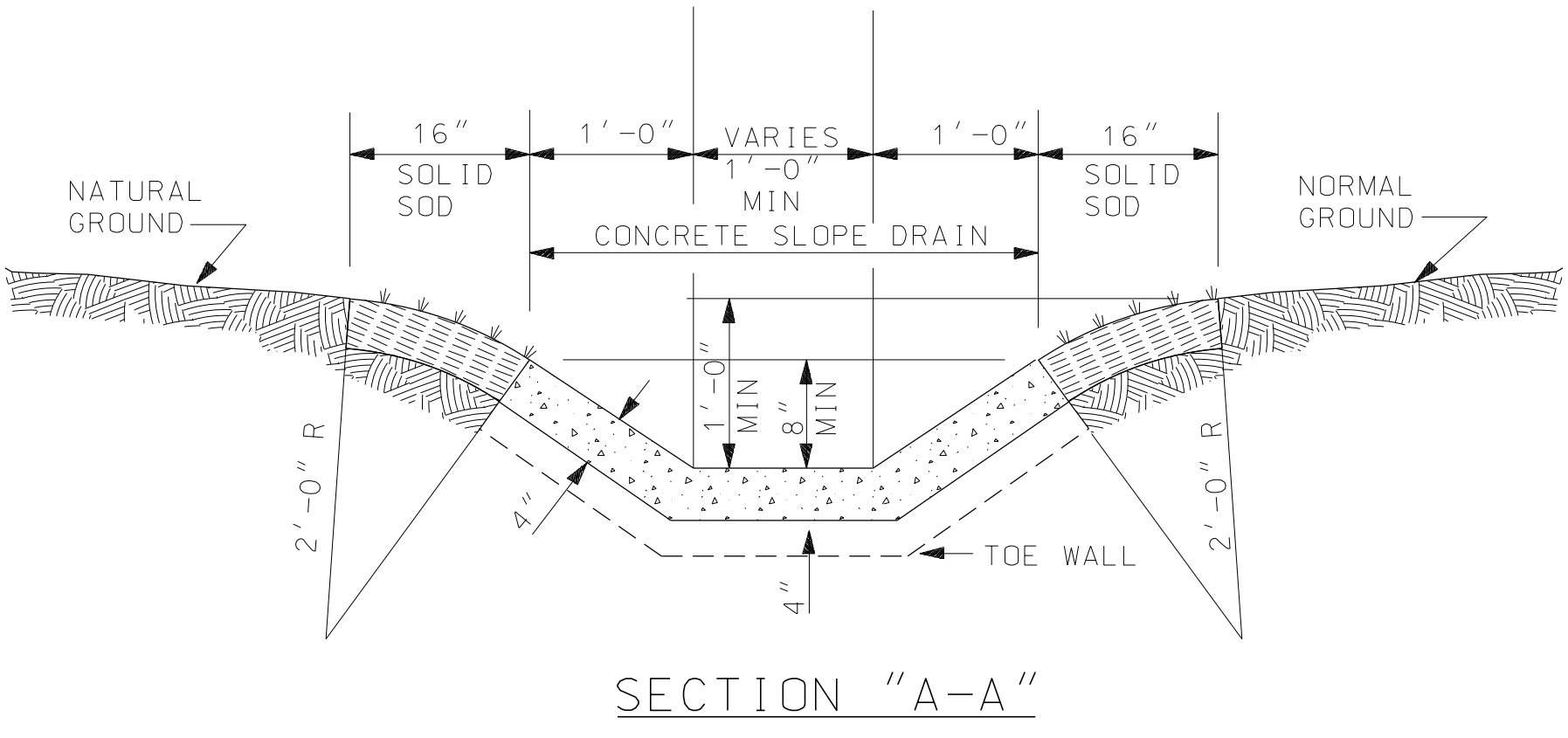
REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO

NOTE: THIS DISTANCE VARIES ACCORDING TO AREA TO BE DRAINED. PROJECT ENGINEER SHALL ESTABLISH THIS DIMENSION IN THE FIELD.

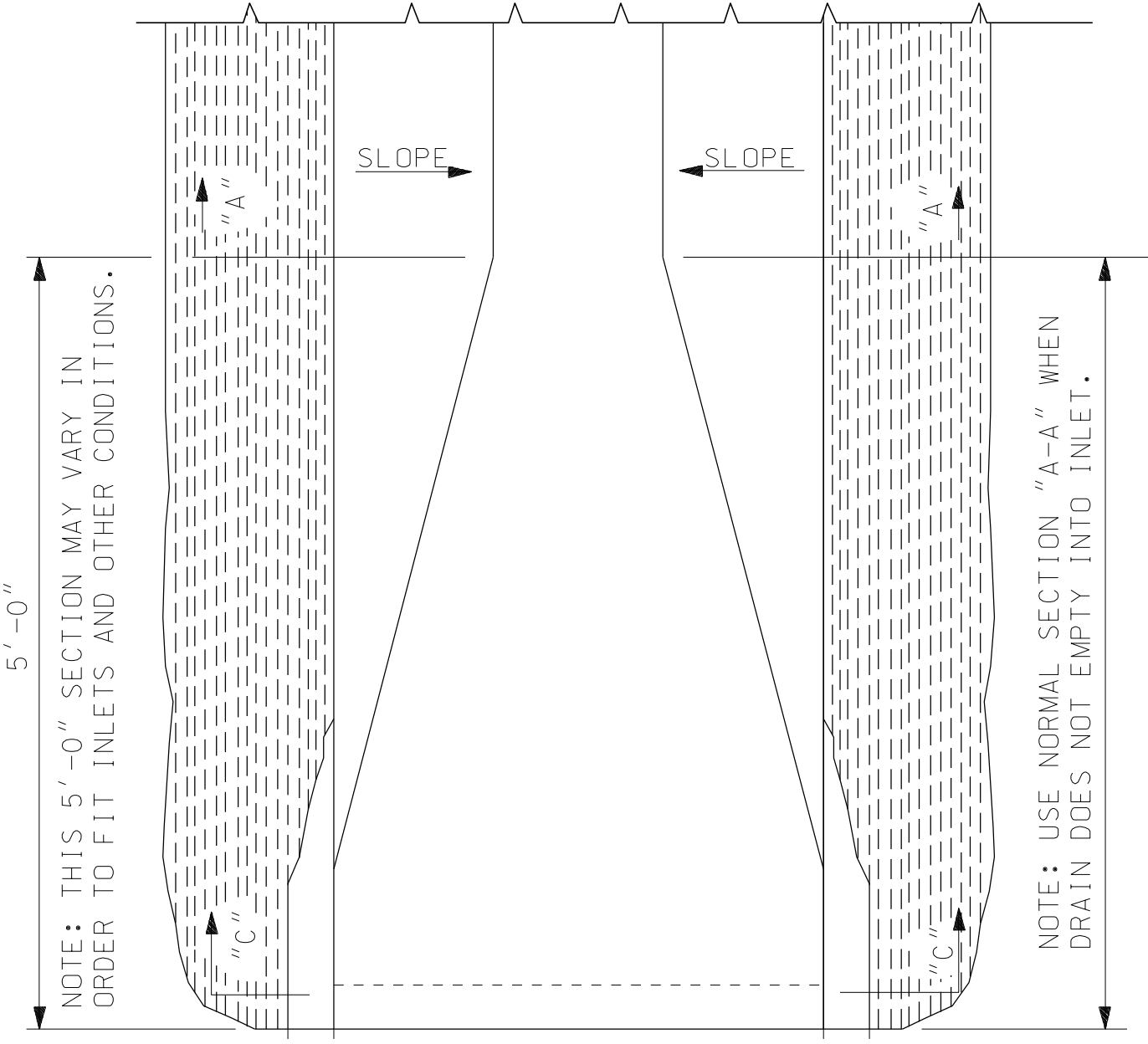
NOTE: THE PROJECT ENGINEER SHOULD GIVE SPECIAL ATTENTION TO SECTION "A-A". AND IN CASES WHERE BASED ON HIS JUDGEMENT THE SECTION NEEDS TO BE INCREASED OR DECREASED IN AREA, HE SHOULD TAKE APPROPRIATE ACTION.



NOTE: THE PROJECT ENGINEER SHOULD GIVE SPECIAL ATTENTION TO SECTION NO 1 AND TO SECTION NO 2 IN PAVED DITCH FLUMES WHERE A SHARP TURN IS NECESSARY. ADDITIONAL HEIGHT IS RECOMMENDED IN THESE AREAS TO CONTAIN THE RUN OFF THROUGH THIS CURVE SECTION.



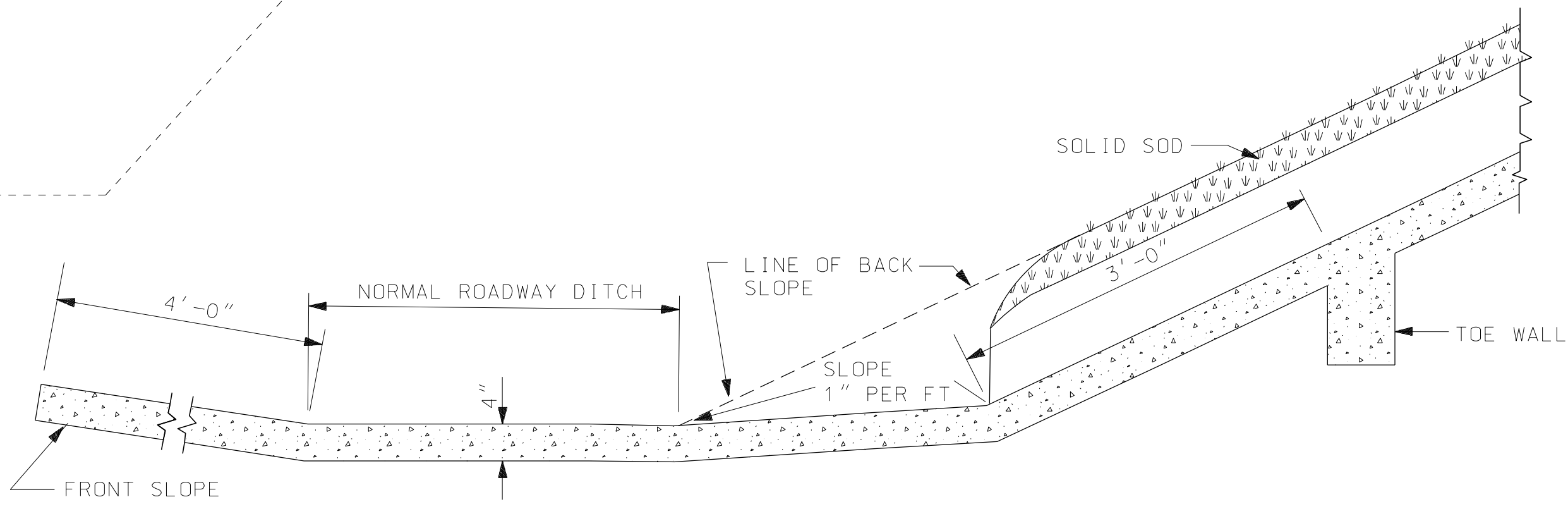
SECTION "A-A"



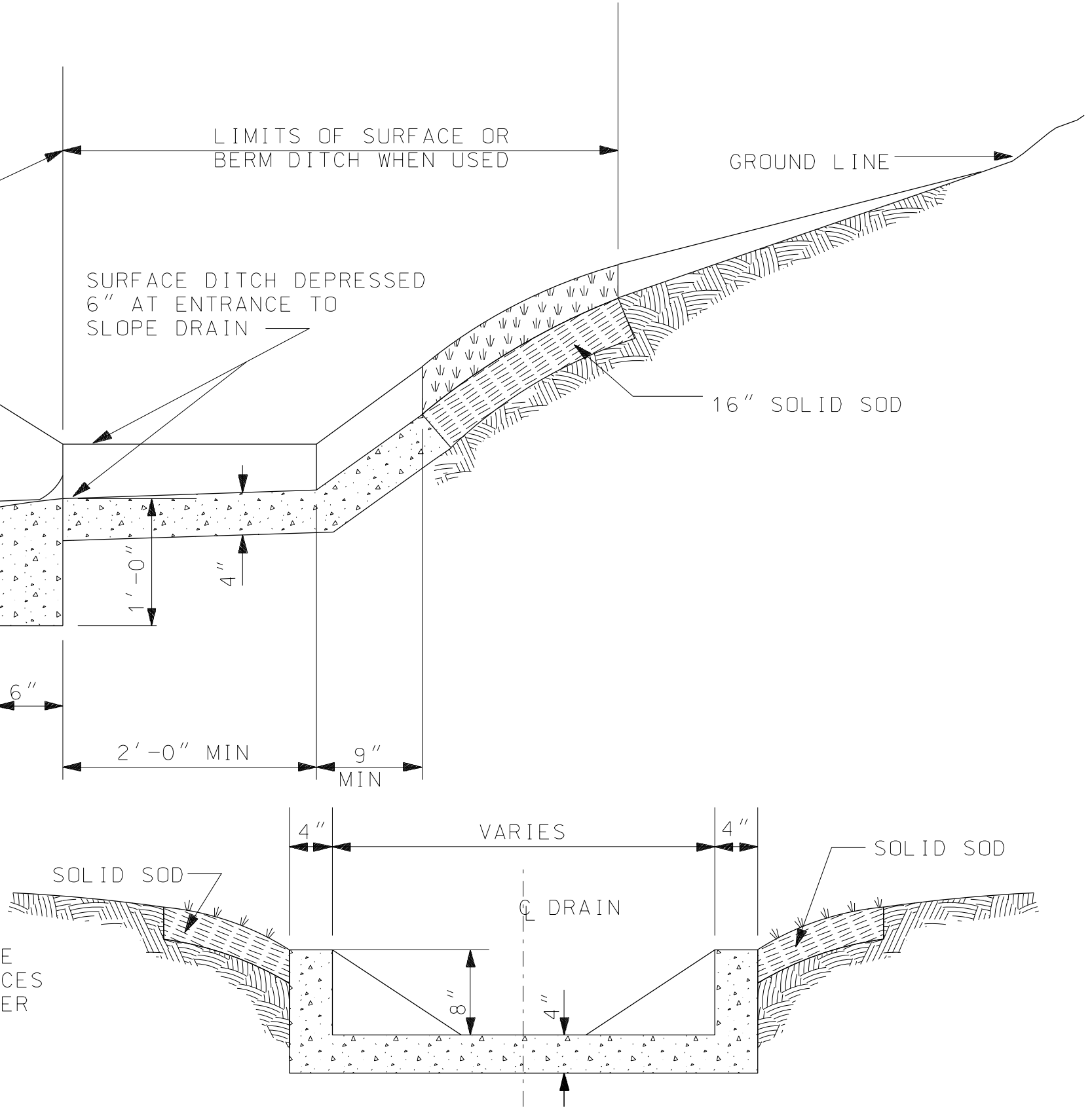
NOTE: THIS 5'-0" SECTION MAY VARY IN ORDER TO FIT INLETS AND OTHER CONDITIONS.

NOTE: USE NORMAL SECTION "A-A" WHEN DRAIN DOES NOT EMPTY INTO INLET.

CROSS SECTION OF TOE WALL AT ENDS OF FLUMES AND SIDE DITCHES



TOE TO BE USED WHEN DRAIN DOES NOT EMPTY INTO INLET



SECTION "C-C" TO BE USED WHEN DRAIN EMPTIES INTO DROP INLET

NOTE: CONCRETE SLOPE DRAINS WILL BE PAID FOR UNDER "SLOPE PAVING" (PER CU YD)

NOTE TO DESIGN ENGINEER:
THE DESIGN ENGINEER WHEN SETTING UP SLOPE DRAINS SHALL COMPUTE BOTTOM WIDTH OF DRAINS AS REQUIRED AT EACH LOCATION, ACCORDING TO AREA, TYPE OF SURFACE, MATERIAL OF EACH AREA TO BE DRAINED, SLOPE OF AREA, AS WELL AS SLOPE OF THE PROPOSED DRAIN ITSELF. THE DEPTH OF THE DRAIN SHALL ALSO BE CHECKED TO ASCERTAIN IF DEPTH OF 8" DRAIN IS SUFFICIENT TO CONTAIN SUPERCRITICAL FLOW.

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DESIGN BUREAU SPECIAL DRAWING
CONCRETE SLOPE DRAIN

REVISIONS
1. Added to CADD on 10-16-00 by J.F.T.

Bureau Std Engr: D.J.W.
DRAWN BY: _____ DATE DRAWN: 8-11-81

SPECIAL DRAWING NO
SD-614

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