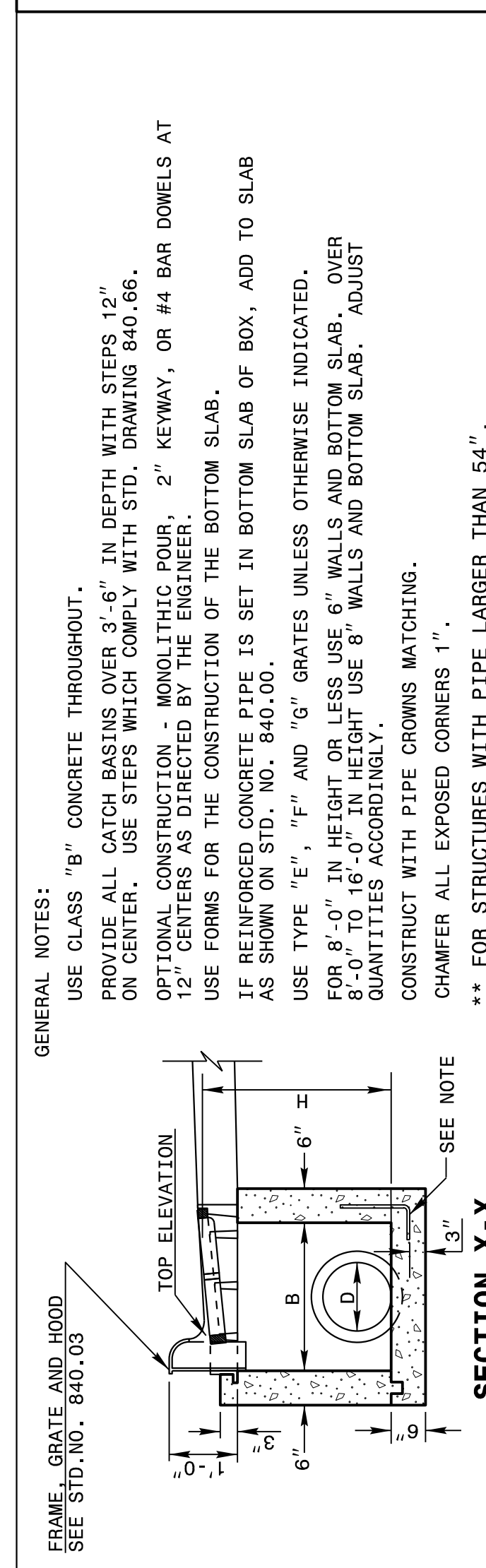
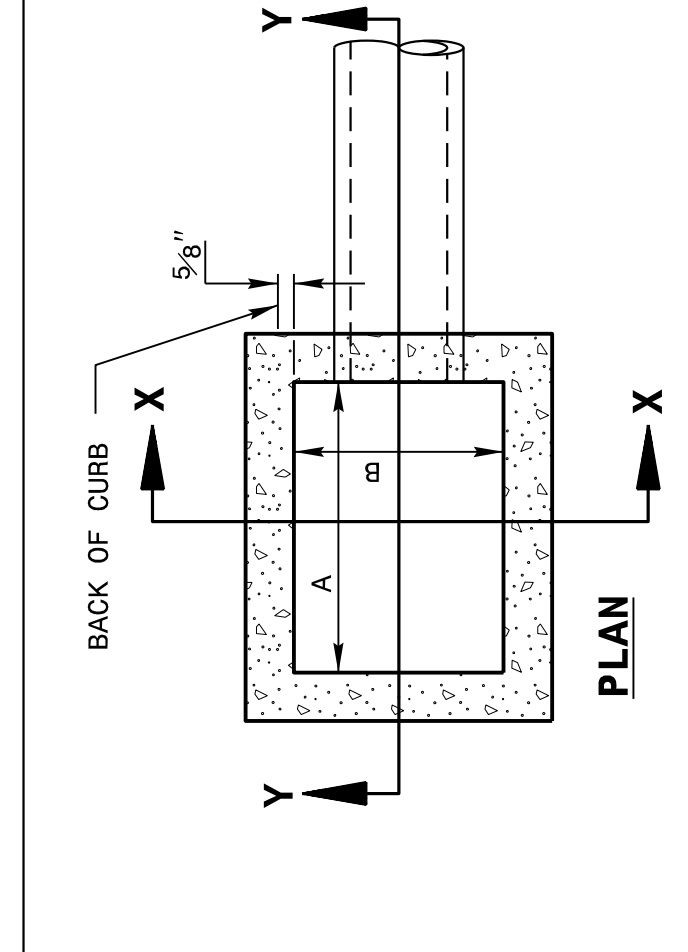


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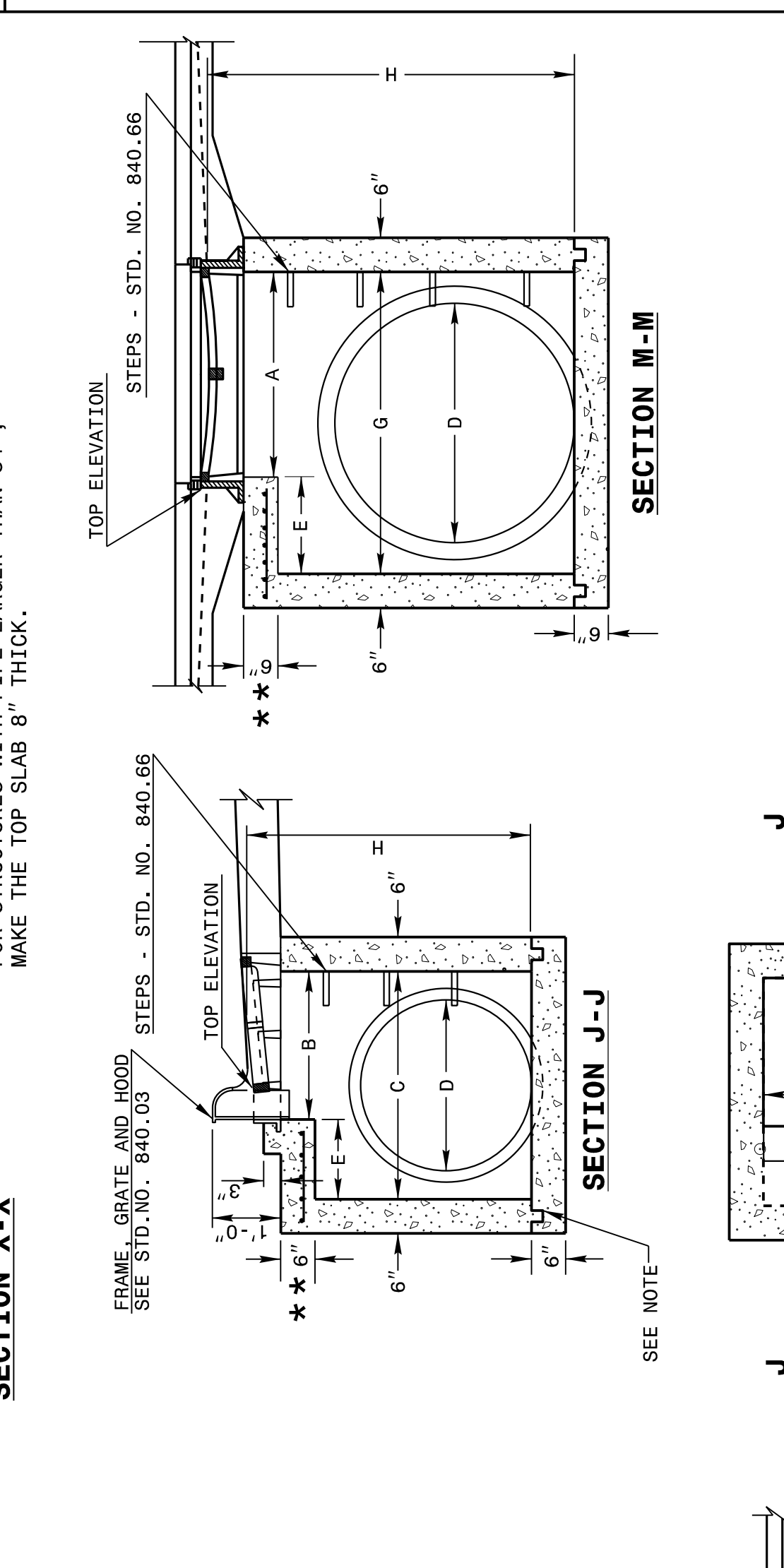
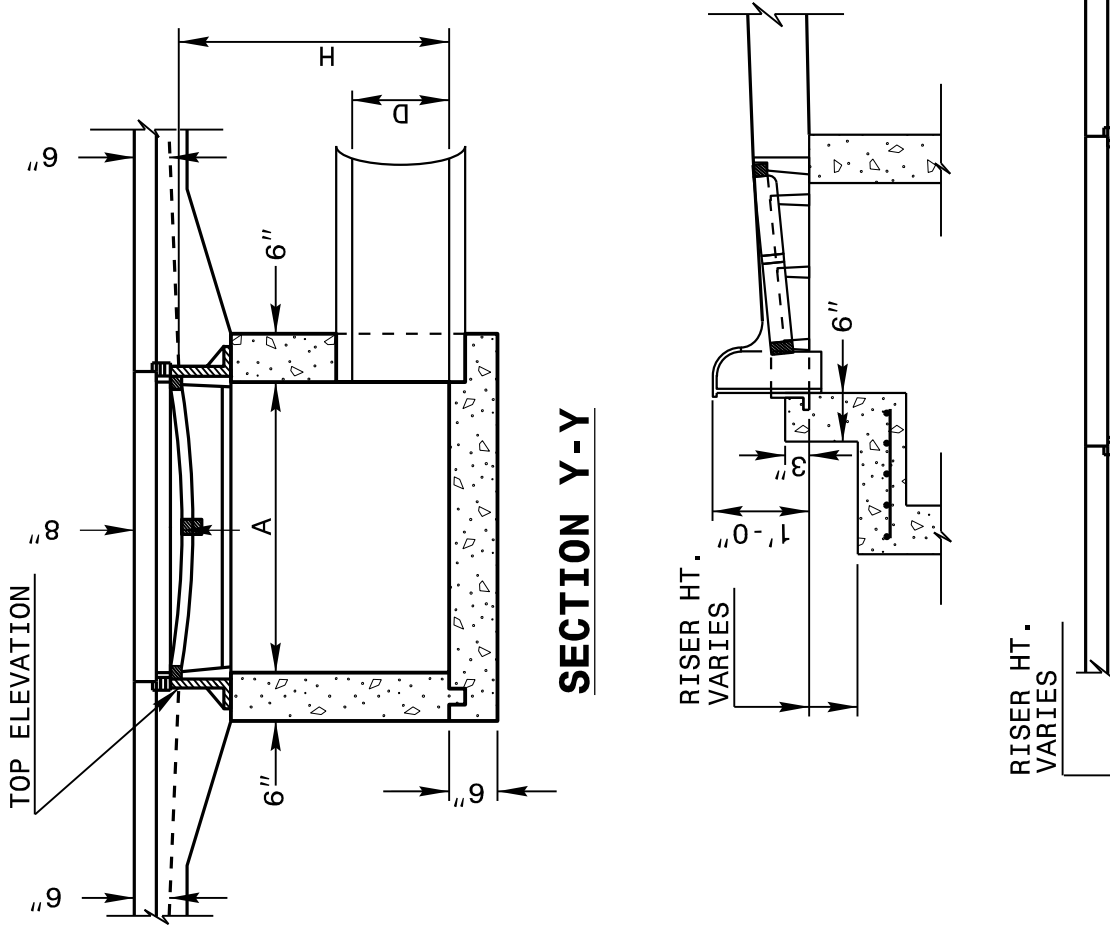
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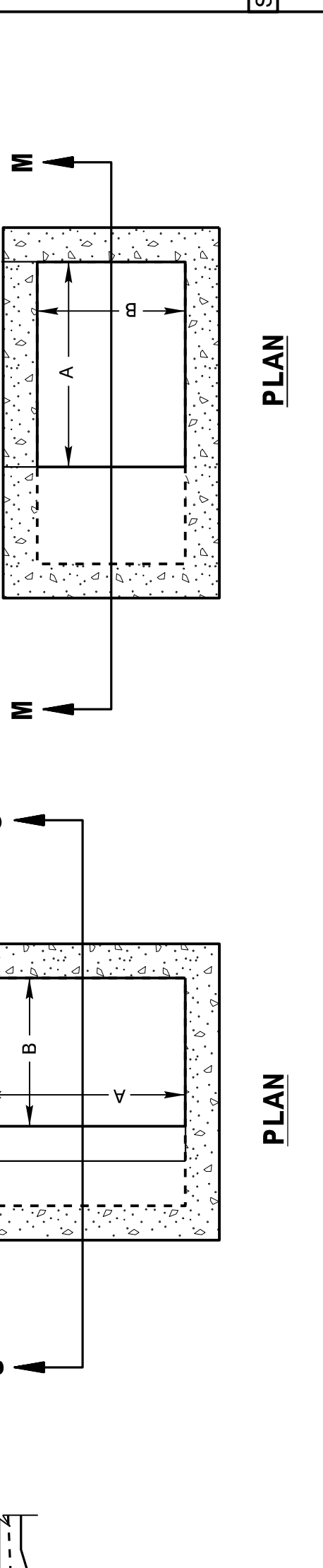
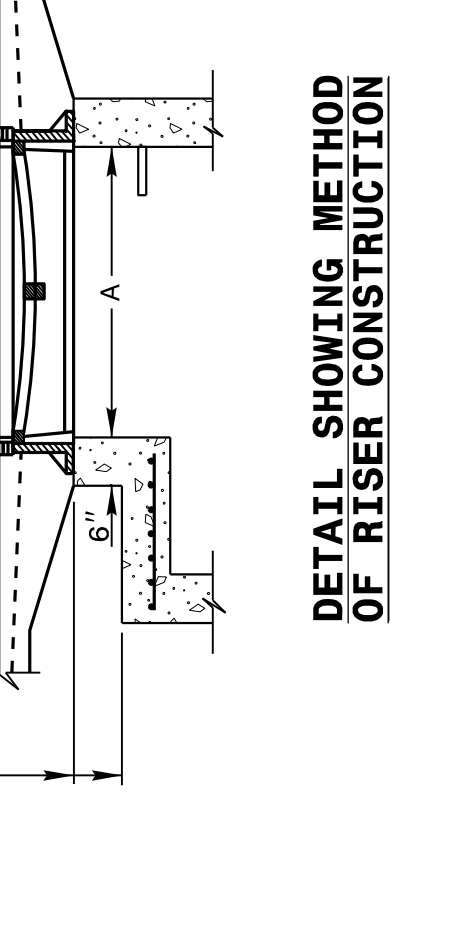
STATE OF NORTH CAROLINA  
 DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR  
**MINIMUM DEPTH**  
**CONCRETE CATCH BASIN**  
 12" THRU 84" PIPE



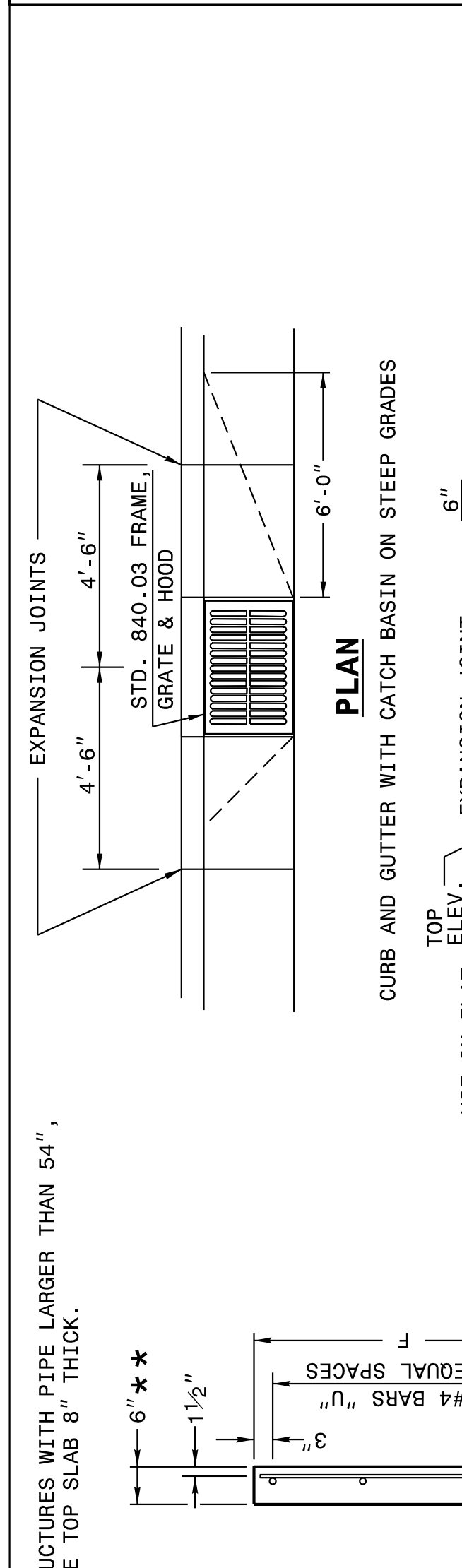
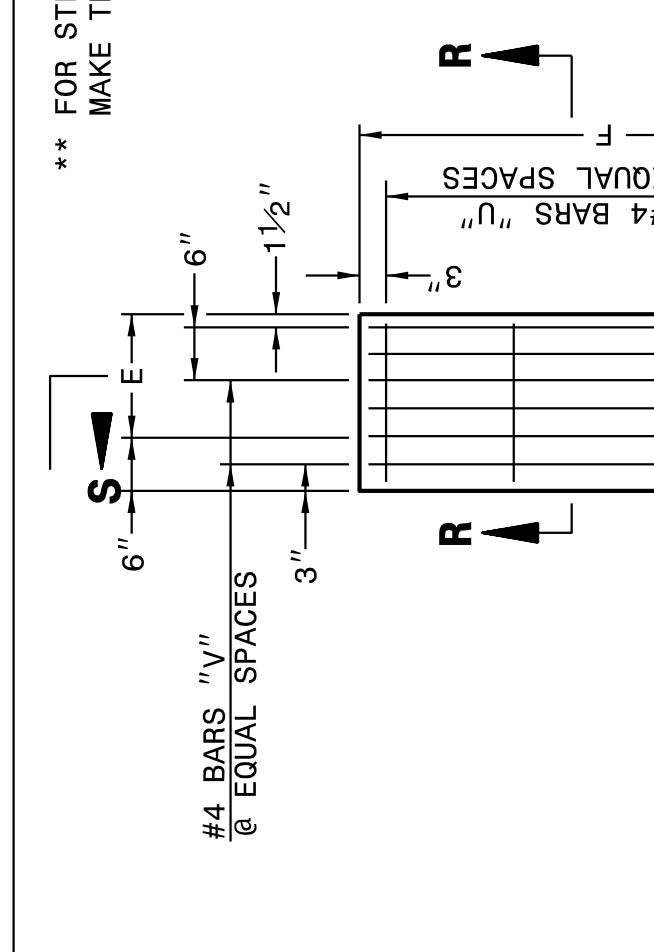
ENGLISH DETAIL DRAWING FOR  
**MINIMUM DEPTH**  
**CONCRETE CATCH BASIN**  
 12" THRU 84" PIPE

SHEET 1 OF 2  
**840D02**



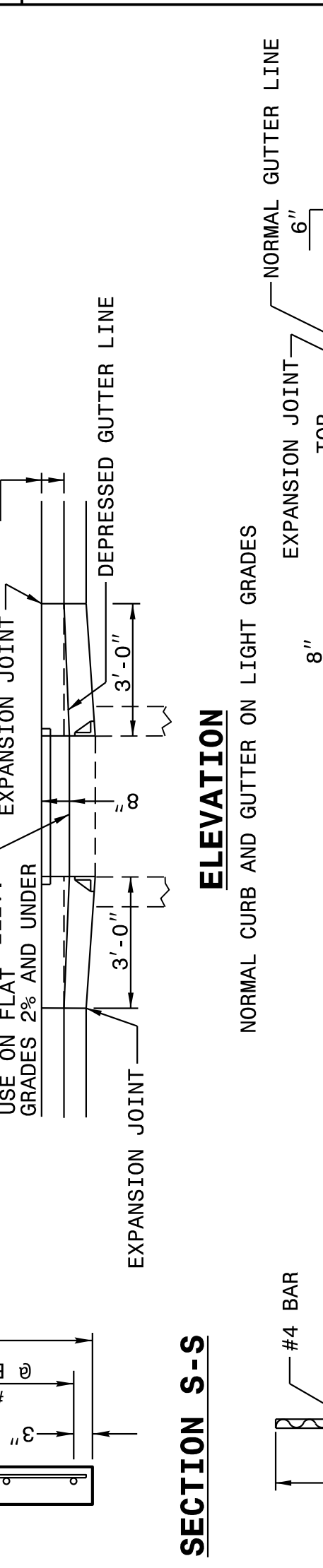
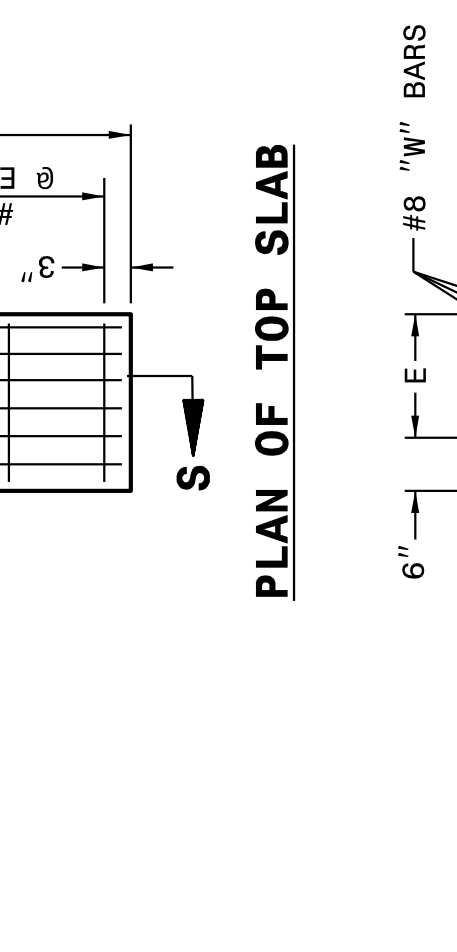
GENERAL NOTES:  
 USE CLASS "B" CONCRETE THROUGHOUT.  
 PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66. OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12 CENTERS AS DIRECTED BY THE ENGINEER.  
 USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB. IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.  
 USE TYPE "E", "F" AND "G" GRATES UNLESS OTHERWISE INDICATED. FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.  
 CONSTRUCT WITH PIPE CROWNS MATCHING.  
 CHAMFER ALL EXPOSED CORNERS 1".  
 \*\* FOR STRUCTURES WITH PIPE LARGER THAN 54", MAKE THE TOP SLAB 8" THICK.

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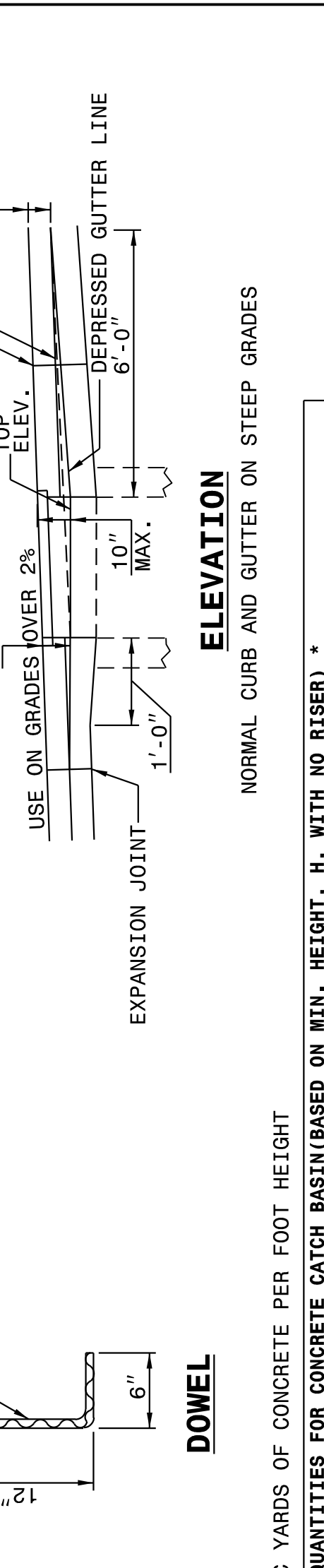
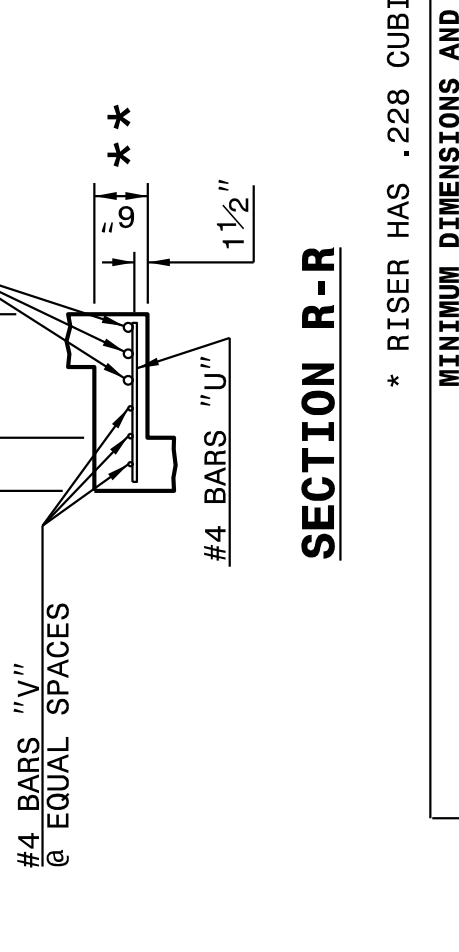


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ENGLISH DETAIL DRAWING FOR  
**MINIMUM DEPTH**  
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 12" THRU 84" PIPE



SHEET 2 OF 2  
**840D02**



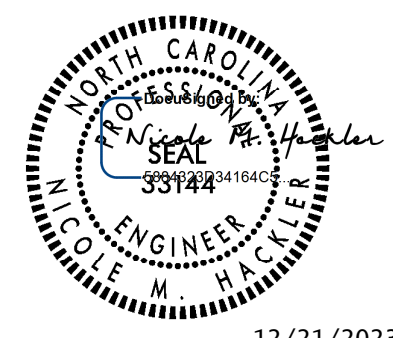
\* RISER HAS .228 CUBIC YARDS OF CONCRETE PER FOOT HEIGHT

PIPE D.	DIMENSIONS OF BOX AND PIPE			COVER DIMENSION			BARS-U			BARS-V			BARS-W			TOTAL LBS.	CU. YDS. CONC. IN BOX FOR MINIMUM HEIGHT, H.	DEDUCTIONS ONE PIPE		
	SPAN	WIDTH	HEIGHT	E	F	G	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	C. M.			R. C.		
12"	3'-0"	2'-2"	2'-0"	..	..	..	..	..	..	..	..	..	..	..	0.235	0.772	0.015	0.026		
15"	3'-0"	2'-2"	2'-0"	..	..	..	..	..	..	..	..	..	..	..	0.235	0.829	0.023	0.036		
18"	3'-0"	2'-2"	2'-0"	..	..	..	..	..	..	..	..	..	..	..	0.235	0.887	0.033	0.049		
24"	3'-0"	2'-2"	3'-1"	..	..	..	..	..	..	..	..	..	..	..	0.235	1.001	0.059	0.085		
30"	3'-0"	2'-2"	3'-4"	..	..	..	..	..	..	..	..	..	..	..	0.235	1.123	0.092	0.127		
36"	3'-0"	2'-2"	3'-10"	..	..	..	..	..	..	..	..	..	..	..	0.235	1.433	0.132	0.178		
42"	3'-0"	2'-2"	4'-5"	..	..	..	..	..	..	..	..	..	..	..	0.235	1.738	0.180	0.243		
48"	3'-0"	2'-2"	5'-0"	..	..	..	..	..	..	..	..	..	..	..	0.235	2.043	0.235	0.317		
54"	3'-0"	2'-2"	5'-7"	..	..	..	..	..	..	..	..	..	..	..	0.235	2.348	0.297	0.401		
60"	3'-0"	2'-2"	6'-3"	..	..	..	..	..	..	..	..	..	..	..	0.235	2.653	0.363	0.486		
66"	3'-0"	2'-2"	6'-11"	..	..	..	..	..	..	..	..	..	..	..	0.235	2.958	0.433	0.574		
72"	3'-0"	2'-2"	7'-6"	..	..	..	..	..	..	..	..	..	..	..	0.235	3.263	0.503	0.662		
78"	3'-0"	2'-2"	8'-1"	..	..	..	..	..	..	..	..	..	..	..	0.235	3.568	0.573	0.750		
84"	3'-0"	2'-2"	8'-9"	..	..	..	..	..	..	..	..	..	..	..	0.235	3.873	0.643	0.838		

CONTRACT STANDARDS AND DEVELOPMENT UNIT  
 Office 919-707-6950 FAX 919-250-4119

**SEE PLATE FOR TITLE**

ORIGINAL BY: 2002 Std.840.01 DATE: \_\_\_\_\_  
 MODIFIED BY: E.E. WARD DATE: 3-1-02  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE SPEC.: s:Special Details/jhowerton/840d02.dgn



12/21/2003

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