

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

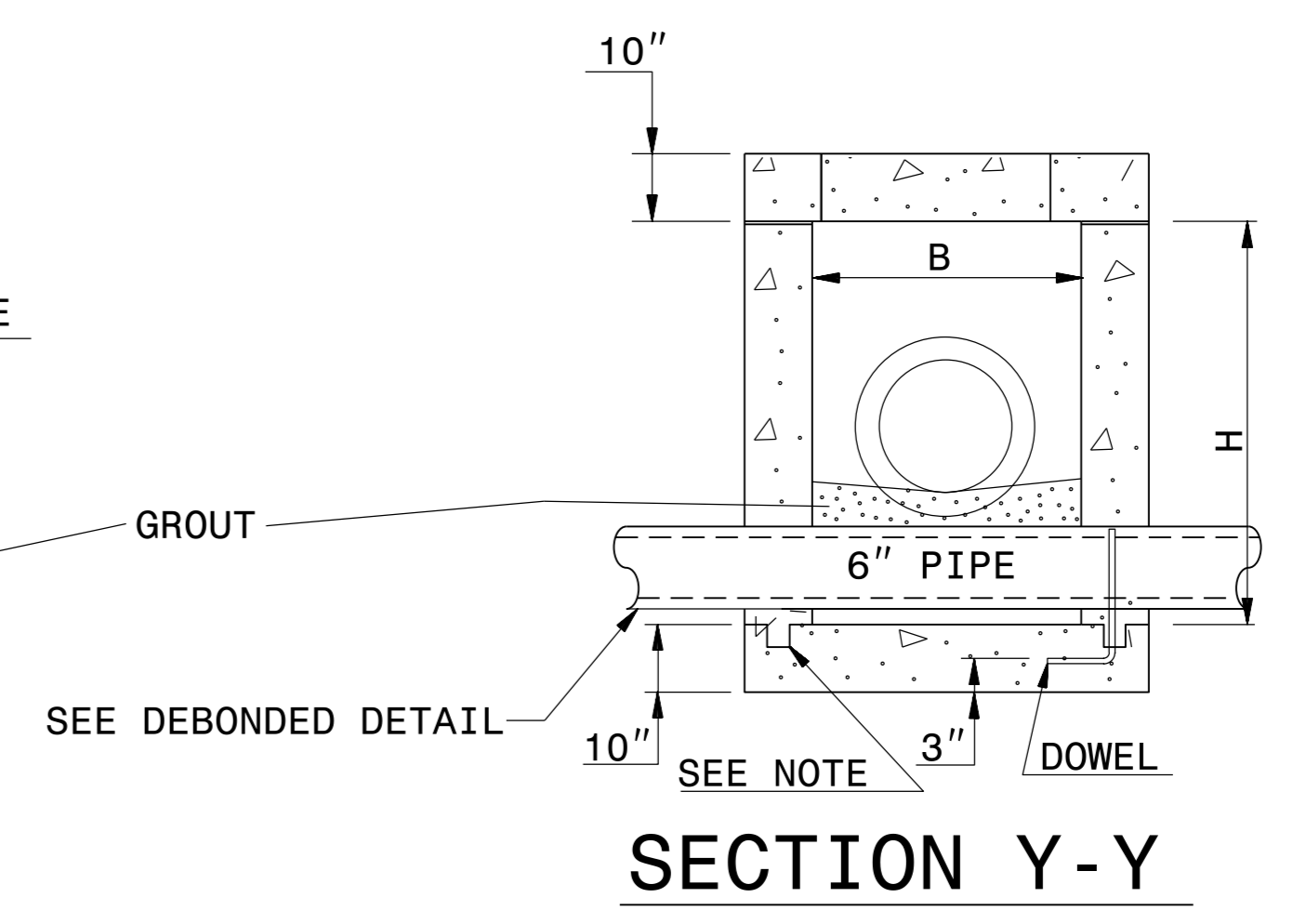
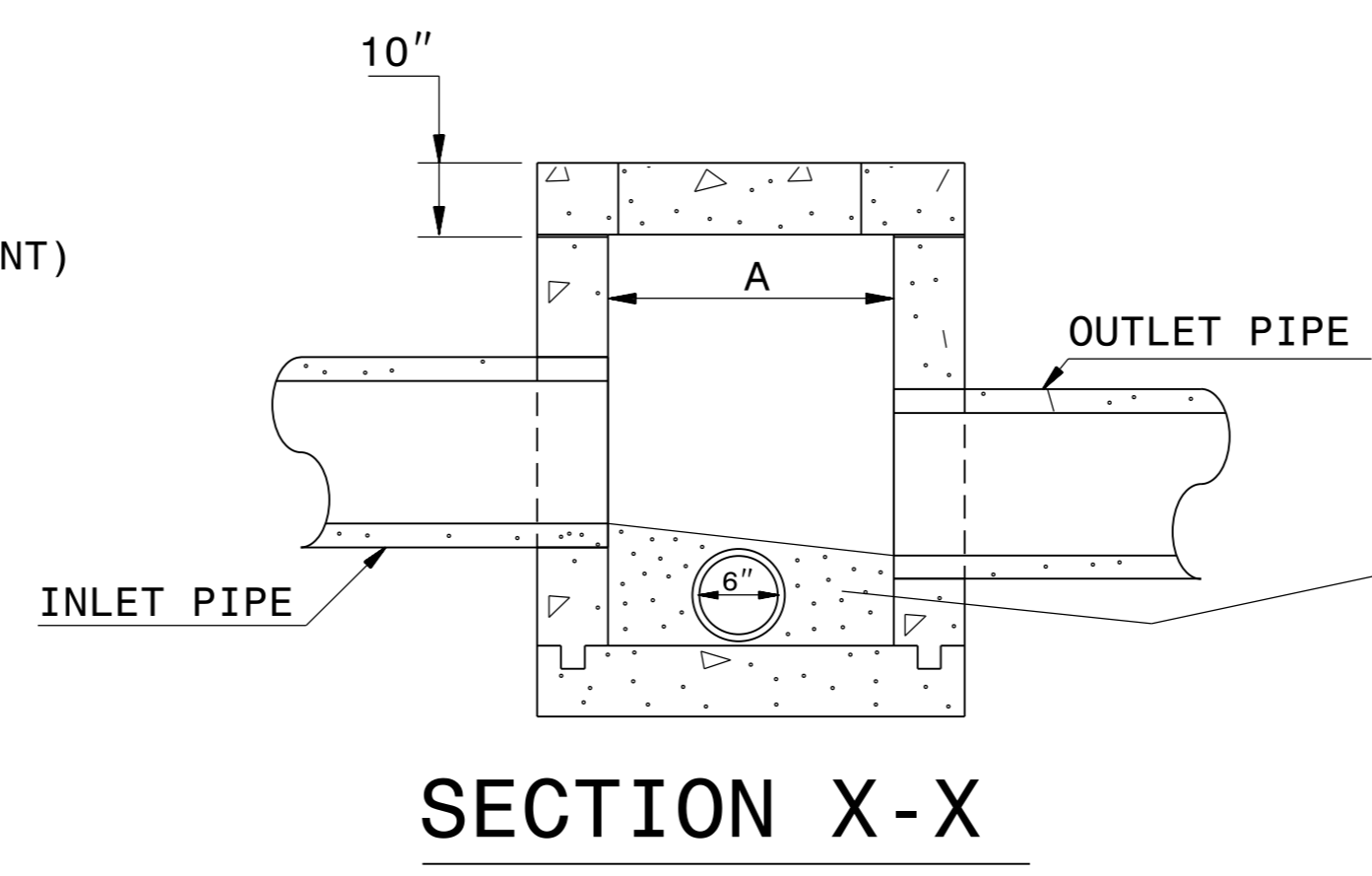
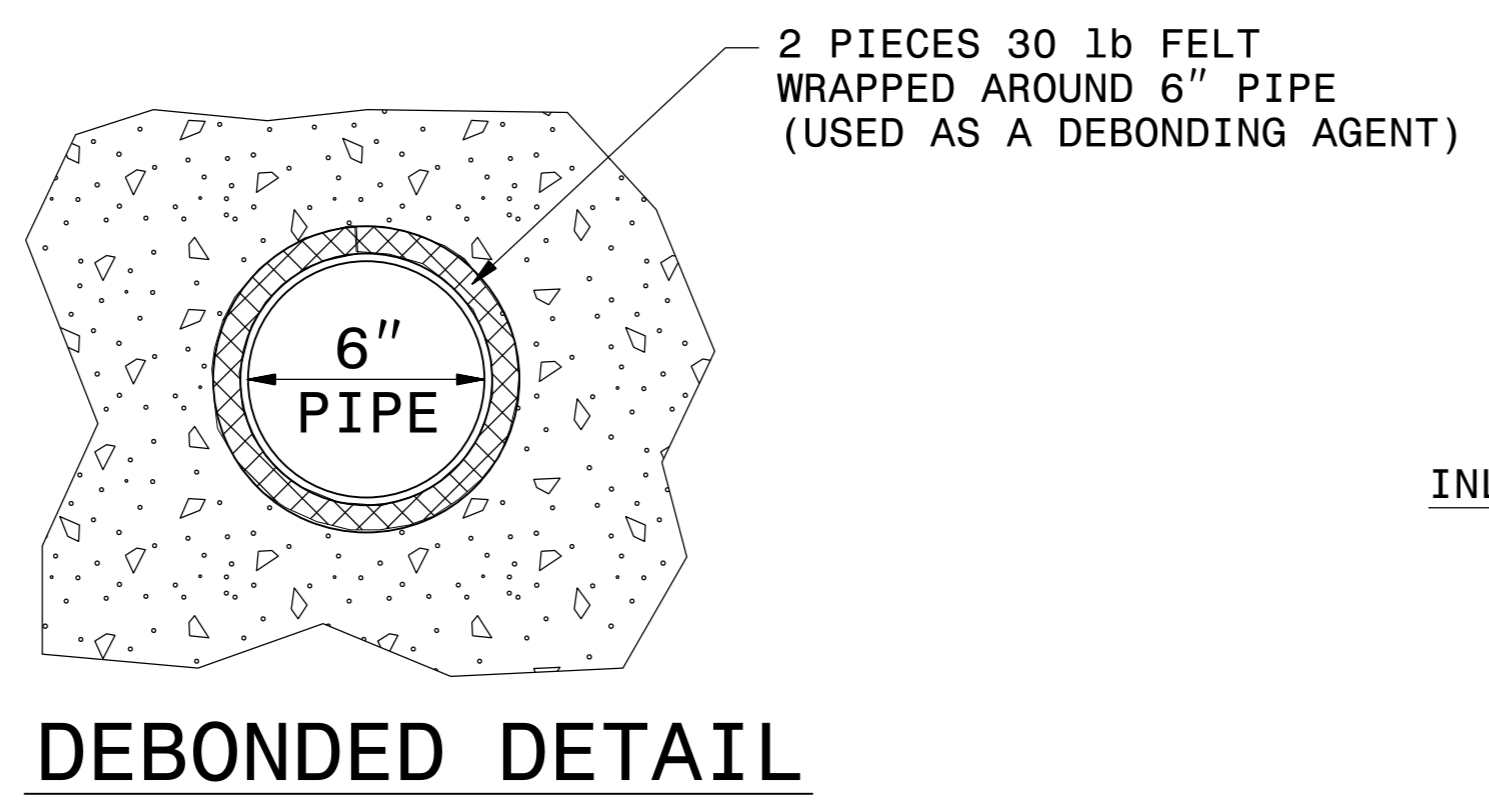
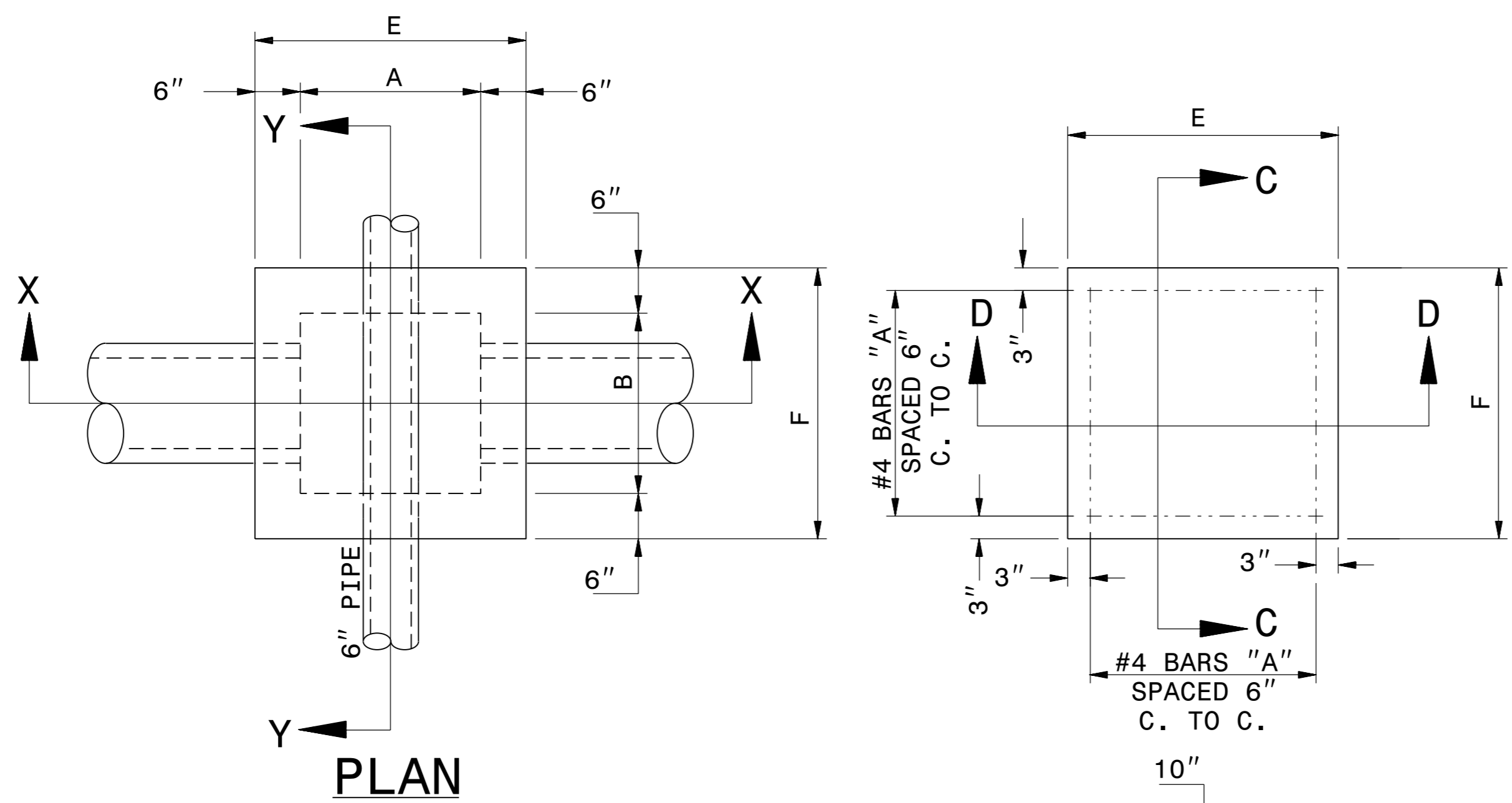
ENGLISH DETAIL DRAWING FOR  
**CONCRETE JUNCTION BOX WITH  
6" PIPE PASSING THRU  
12" THRU 66" PIPE**

SHEET 1 OF 1  
**840D31**

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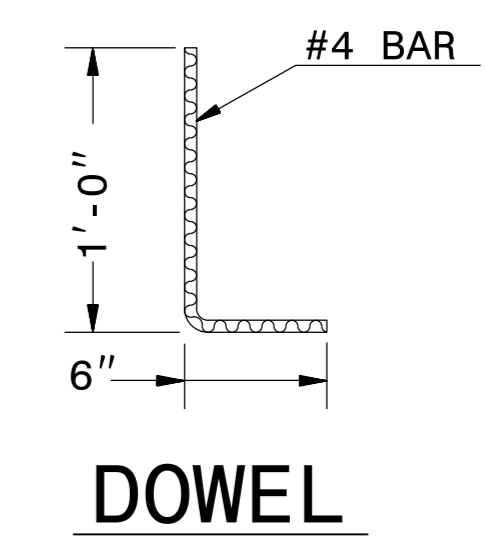
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GENERAL NOTES:  
USE CLASS "B" CONCRETE THROUGHOUT.  
OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.  
USE FORMS TO CONSTRUCT THE BOTTOM SLAB.  
IF REINFORCED CONCRETE PIPE IS SET IN BASE SLAB OF BOX, ADD TO BASE AS SHOWN ON STANDARD NO. 840.00.  
REFER TO R.S.D.N. 840.31 FOR PLACEMENT OF MANHOLE COVER IN JUNCTION BOX.

DIMENSIONS AND QUANTITIES FOR CONCRETE JUNCTION BOXES															
DIMENSIONS OF BOX AND PIPE				REINFORCEMENT BARS "A"		COVER DIMENSIONS		CUBIC YARDS IN BOX			TOTAL QUANTITIES BOX AND COVER		DEDUCTIONS FOR ONE PIPE CU.YDS.		
PIPE	SPAN	WIDTH	HEIGHT	NO.	LENGTH	E	F	COVER	FLOOR	WALL/ FT. OF HT.	LBS. REINF	CU. YDS. MIN. "H"	C.S.	R.C.	
12"	2'-0"	2'-0"	2'-3"	12	2'-9"	3'-0"	3'-0"	0.222	0.222	0.185	22	0.750	0.015	0.024	
15"	2'-3"	2'-3"	2'-6"	12	3'-0"	3'-3"	3'-3"	0.261	0.261	0.204	24	0.902	0.023	0.036	
18"	2'-6"	2'-6"	2'-9"	14	3'-3"	3'-6"	3'-6"	0.302	0.302	0.222	30	1.065	0.033	0.049	
24"	3'-0"	3'-0"	3'-3"	16	3'-9"	4'-0"	4'-0"	0.395	0.395	0.259	40	1.434	0.059	0.091	
30"	3'-6"	3'-6"	3'-9"	18	4'-3"	4'-6"	4'-6"	0.500	0.500	0.296	51	1.860	0.092	0.138	
36"	4'-0"	4'-0"	4'-3"	20	4'-9"	5'-0"	5'-0"	0.617	0.617	0.333	64	2.341	0.132	0.196	
42"	4'-6"	4'-6"	4'-9"	22	5'-3"	5'-6"	5'-6"	0.747	0.747	0.370	77	2.878	0.180	0.284	
48"	5'-0"	5'-0"	5'-3"	24	5'-9"	6'-0"	6'-0"	0.889	0.889	0.407	92	3.471	0.235	0.364	
54"	5'-6"	5'-6"	5'-9"	26	6'-3"	6'-6"	6'-6"	1.043	1.043	0.444	109	4.283	0.297	0.440	
60"	6'-0"	6'-0"	6'-3"	28	6'-9"	7'-0"	7'-0"	1.210	1.210	0.481	127	5.090	0.367	0.546	
66"	6'-6"	6'-6"	6'-9"	30	7'-3"	7'-6"	7'-6"	1.389	1.389	0.518	146	5.917	0.444	0.655	



2/4/2015  
Professional Engineer Seal  
Joel Howerton  
873F3017D0C45F

CONTRACT STANDARDS AND DEVELOPMENT UNIT  
Office 919-707-6950 FAX 919-250-4119  
**SEE PLATE FOR TITLE**  
ORIGINAL BY: E.E. WARD DATE: 3-12-98  
MODIFIED BY: DATE:  
CHECKED BY: DATE:  
FILE SPEC.:usr/details/stand/conflict\_box.dgn

5/14/99  
\$\$\$\$\$C:\TIME\$\$\$\$\$  
\$\$\$\$\$CONFLICT\_BOX.dgn\$\$\$\$\$  
\$\$\$\$\$USER:NAME\$\$\$\$\$