DocuSign Envelope ID: 7D5B369C-D0FA-4934-A630-D65E5F7887AC

PROJECT REFERENCE NO.	SHEET NO.
I-5878/I-5883/I-5986B	2C-11

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

ENGLISH DETAIL DRAWING FOR

CONCRETE MEDIAN DROP INLET TYPE 'A'
EXTRA DEPTH OVER 12' TO 25'

12" THRU 72" PIPE

SHEET 1 OF 2 **840D17**

GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE DROP INLETS 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.

WHEN PAYMENT FOR THE DROP INLET IS MADE ON A PER EACH BASIS, THE CONCRETE APRON WILL BE CONSIDERED PART OF THE DROP INLET.

CONSTRUCT WITH PIPE CROWNS MATCHING.

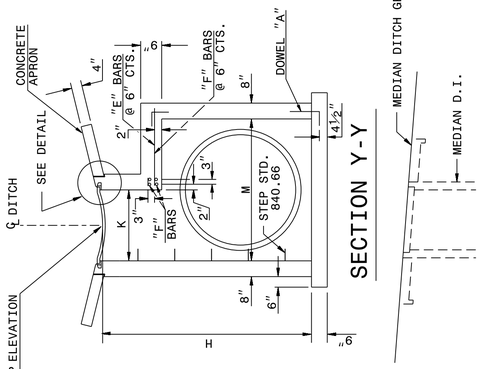
USE STANDARD FRAMES AND GRATES 840.22 (SHOWN), 840.24(SHOWN), 840.20, 840.29, AND 840.33.

SEE STANDARD DRAWING 840.25 FOR ATTACHMENT OF FRAMES AND GRATES NOT SHOWN.

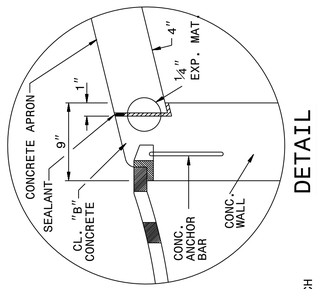
CHAMFER ALL EXPOSED CORNERS 1".

DRAWING NOT TO SCALE.

MAX. DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 25 FEET.

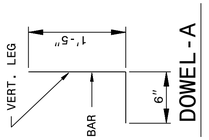


SECTION Y-Y

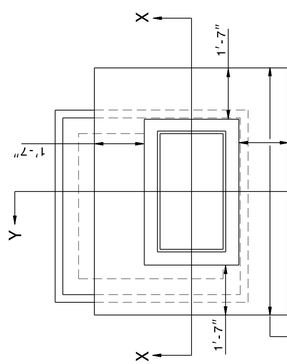


DETAIL

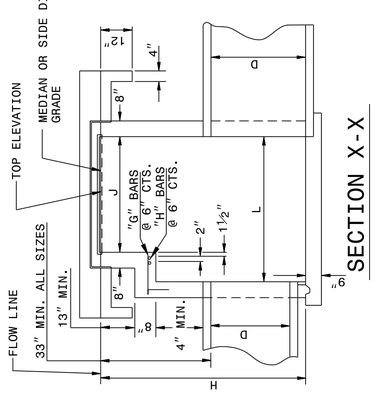
(APRON SUPPORT NOTCH)



DOWEL-A



PLAN



SECTION X-X

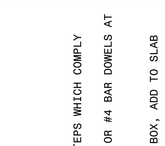
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR

CONCRETE MEDIAN DROP INLET TYPE 'A'
EXTRA DEPTH OVER 12' TO 25'

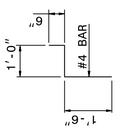
12" THRU 72" PIPE

SHEET 1 OF 2 **840D17**



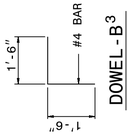
DOWEL-B¹

FOR 15" THRU 36" INLET



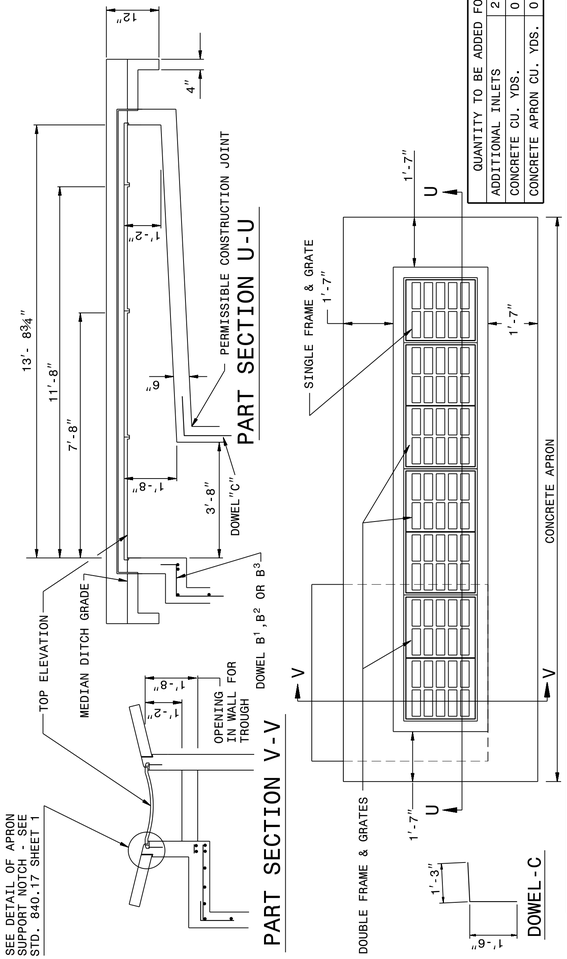
DOWEL-B²

FOR 42" INLET



DOWEL-B³

QUANTITY TO BE ADDED FOR EACH 2' INCREMENT INLET OPENING				
ADDITIONAL INLETS	2'-0"	4'-0"	6'-0"	8'-0"	10'-0"	12'-0"
CONCRETE CU. YDS.	0.191	0.417	0.665	0.897	1.145	1.380
CONCRETE APRON CU. YDS.	0.074	0.148	0.222	0.296	0.370	0.444



PART SECTION U-U

PART SECTION V-V

DOWEL-C

MIN. DIMENSIONS AND QUANTITIES FOR CONCRETE GRATED DROP INLET(BASED ON MIN. HEIGHT, H)

DIMENSIONS OF BOX AND PIPE						REINFORCING STEEL - NO. 4 BARS								CU YDS CONC. IN BOX			DEDUCTIONS FOR ONE PIPE	
PIPE	SPAN	WIDTH	WIDTH	HEIGHT		BARS E		BARS F		BARS G		BARS H		TOTAL	BOTTOM	H	H PER	TOTAL		
D	J	K	M	H		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	LBS.	SLAB	TOTAL	FT HT	APRON	C.S.	R.C.
12"	3'-8"	2'-0"	3'-8"	2'-0"	3'-9"	—	—	—	—	—	—	—	—	—	0.362	0.926	0.247	0.395	1.683	0.024
15"	3'-8"	2'-0"	3'-8"	2'-0"	4'-0"	—	—	—	—	—	—	—	—	—	0.362	0.988	0.247	0.395	1.745	0.036
18"			2'-0"	4'-3"		—	—	—	—	—	—	—	—	—	0.362	1.050	0.247		1.807	0.049
24"			2'-10"	4'-9"		8	1'-5"	6	4'-9"	—	—	—	—	27	0.444	1.362	0.278		2.201	0.085
30"			3'-5"	5'-3"		8	2'-0"	7	4'-9"	—	—	—	—	33	0.502	1.644	0.288		2.541	0.092
36"			4'-0"	5'-9"		8	2'-5"	8	4'-11"	4	0'-9"	2	4'-11"	47	0.560	1.931	0.321		2.920	0.132
42"			4'-10"	6'-3"		10	3'-1"	9	5'-7"	4	1'-5"	3	5'-7"	67	0.704	2.500	0.370		3.677	0.180
48"			5'-4"	6'-9"		11	3'-7"	10	6'-1"	4	1'-11"	4	6'-1"	87	0.823	3.013	0.407		4.315	0.235
54"			6'-0"	7'-3"		12	4'-1"	11	6'-7"	5	2'-5"	5	6'-7"	107	0.951	3.589	0.444		5.072	0.297
60"			6'-6"	7'-9"		13	4'-9"	12	7'-3"	5	3'-1"	6	7'-3"	135	1.311	4.539	0.494		6.170	0.367
66"			7'-2"	8'-3"		14	5'-4"	14	7'-10"	6	3'-7"	7	7'-10"	168	1.136	5.061	0.537		6.901	0.444
72"	3'-8"	2'-0"	7'-8"	8'-9"		15	5'-11"	15	8'-5"	4	4'-3"	8	8'-5"	199	1.500	5.860	0.580	0.395	7.868	0.528	0.713

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

ENGLISH DETAIL DRAWING FOR

CONCRETE MEDIAN DROP INLET TYPE 'A'
EXTRA DEPTH OVER 12' TO 25'

12" THRU 72" PIPE

SHEET 2 OF 2 **840D17**

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Jason S. Howerton
DocuSigned by: 5/14/2021
873F3D17DCDC45F...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

SEE PLATE FOR TITLE

ORIGINAL BY: 2002 STD.840.17 DATE:
MODIFIED BY: K.A. KEMPF DATE: 07-06-09
CHECKED BY: DATE:
FILE SPEC.: /stand/840d17 Extra Depth 2GI.dgn

01-MAR-2018 07:39
S:\Contracts\Contracts\Special Details\erickard\usr\details\stand\840d17 Extra Depth 2GI.dgn
jhowerton AT CSD-292995