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 Jhowerton At CSD 2/25/2018

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

ENGLISH DETAIL DRAWING FOR CONCRETE GRATED DROP INLET TYPE 'A' MINIMUM DEPTH 12" THRU 72" PIPE

SHEET 1 OF 2 **840d17**

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

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SHEET 1 OF 2 **840d17**

GENERAL NOTES:

- USE CLASS "B" CONCRETE THROUGHOUT.
- PROVIDE ALL GRATED DROP INLETS 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.
- CONSTRUCT WITH PIPE CROWNS MATCHING.
- USE STANDARD FRAMES AND GRATES 840.22 (SHOWN), 840.24 (SHOWN), 840.20 (NOT SHOWN) OR 840.29 (NOT SHOWN).
- SEE STANDARD DRAWING 840.25 FOR ATTACHMENT OF FRAMES AND GRATES.
- CHAMFER ALL EXPOSED CORNERS 1".
- DRAWING NOT TO SCALE.
- MAX. DEPTH OF THIS STRUCTURE FROM TOP OF BOTTOM SLAB TO TOP ELEVATION IS 12 FEET.

PLAN

SECTION X-X

SECTION Y-Y

DETAIL
(APRON SUPPORT NOTCH)

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SHEET 2 OF 2 **840d17**

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

ENGLISH DETAIL DRAWING FOR CONCRETE GRATED DROP INLET TYPE 'A' MINIMUM DEPTH 12" THRU 72" PIPE

SHEET 2 OF 2 **840d17**

TOP ELEVATION

PART SECTION V-V

PART SECTION U-U

DOWEL - B1
FOR 15" THRU 36" INLET

DOWEL - B2
FOR 42" INLET

DOWEL - B3

DOWEL - C

PIPE DIMENSIONS OF BOX AND PIPE	REINFORCING STEEL - NO. 4 BARS				MIN. DIMENSIONS AND QUANTITIES FOR CONCRETE GRATED DROP INLET (BASED ON MIN. HEIGHT, H)		DEDUCTIONS FOR ONE PIPE					
	SPAN D	SPAN J	WIDTH K	HEIGHT L	BARS E NO.	BARS F NO.	BARS G NO.	BARS H NO.	TOTAL SLAB LBS.	H PER FT HT	APRON TOTAL	C.S. R.C.
12"	3'-8"	2'-0"	2'-0"	2'-3"	—	—	—	—	0.362	0.926	0.247	0.395
15"	3'-8"	2'-0"	2'-0"	2'-5"	—	—	—	—	0.362	0.988	0.247	0.395
18"	—	—	—	2'-0"	2'-8"	8	1'-5"	—	0.362	1.050	0.247	1.807
24"	—	—	—	2'-10"	3'-3"	8	1'-5"	—	0.444	1.362	0.278	2.201
30"	—	—	—	3'-5"	3'-10"	8	2'-0"	7	0.502	1.644	0.288	2.541
36"	—	—	—	4'-0"	4'-4"	8	2'-5"	8	0.560	1.931	0.321	2.920
42"	—	—	—	4'-10"	5'-0"	10	3'-1"	9	0.704	2.500	0.370	3.677
48"	—	—	—	5'-4"	5'-6"	11	3'-7"	10	0.823	3.013	0.407	4.315
54"	—	—	—	6'-0"	6'-0"	12	4'-1"	11	0.951	3.589	0.444	5.072
60"	—	—	—	6'-6"	6'-7"	13	4'-9"	12	1.311	4.539	0.494	6.170
66"	—	—	—	7'-2"	7'-1"	14	5'-4"	14	1.136	5.061	0.537	6.901
72"	—	—	—	7'-8"	7'-8"	15	5'-11"	15	1.500	5.860	0.580	7.868

QUANTITY TO BE ADDED FOR EACH 2' INCREMENT INLET OPENING

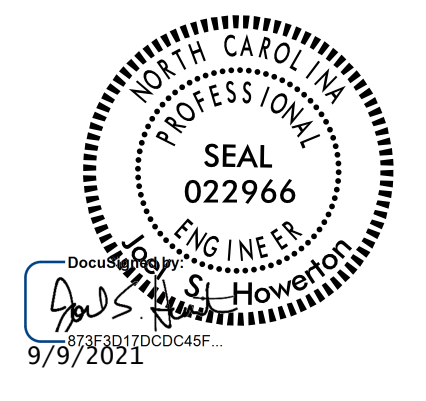
ADDITIONAL INLETS	2'-0"	4'-0"	6'-0"	8'-0"	10'-0"	12'-0"
CONCRETE CU. YDS.	0.191	0.417	0.665	0.897	1.145	1.380
CONCRETE APRON CU. YDS.	0.074	0.148	0.222	0.296	0.370	0.444

CONTRACT STANDARDS AND DEVELOPMENT UNIT

Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: J. Howerton DATE: 1/22/14
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