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 jhowerton AT CSD-292595

5/14/99

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

SHEET 1 OF 2
840D02

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.

SECTION X-X

SECTION Y-Y

SECTION Z-Z

SECTION J-J

SECTION M-M

PLAN

PLAN

DETAIL SHOWING METHOD OF RISER CONSTRUCTION

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SECTION S-S

SECTION R-R

PLAN OF TOP SLAB

DOWEL

ELEVATION

ELEVATION

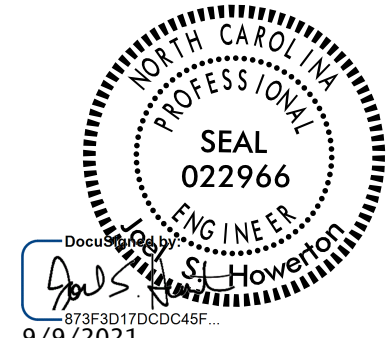
* RISER HAS .228 CUBIC YARDS OF CONCRETE PER FOOT HEIGHT

| PIPE | MINIMUM DIMENSIONS OF BOX AND PIPE | | | COVER DIMENSION | | | DIMENSIONS OF BOX AND PIPE | | | COVER DIMENSION | | | MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN. HEIGHT, H, WITH NO RISER) * | | | | | | | | | |
|------|------------------------------------|-------|--------|-----------------|--------|--------|----------------------------|--------|--------|-----------------|----|--------|---|---------|---------|--------|-----------------------|------------|--------|----------------------------------|-------|-------|
| | SPAN | WIDTH | HEIGHT | E | F | H | SPAN | MIN. | HEIGHT | E | F | H | BAR-S-U | BAR-S-V | BAR-S-W | TOTAL | CU. YDS. CONC. IN BOX | DEDUCTIONS | | | | |
| D. | A. | B. | C. | G. | H. | | | | | | | | NO. | LENGTH | NO. | LENGTH | LBS. | TOP | BOTTOM | TOT. CONC. FOR MINIMUM HEIGHT, H | C. M. | R. C. |
| 12" | 3'-0" | 2'-2" | 2'-2" | .. | 2'-0" | 2'-3" | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0.235 | 0.772 | 0.015 | 0.026 | 0.026 |
| 15" | 3'-0" | 2'-2" | 2'-2" | .. | 2'-0" | 2'-3" | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0.235 | 0.829 | 0.023 | 0.036 | 0.036 |
| 18" | 3'-0" | 2'-2" | 2'-2" | .. | 2'-0" | 2'-3" | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0.235 | 0.887 | 0.033 | 0.049 | 0.049 |
| 24" | 3'-0" | 2'-2" | 2'-2" | .. | 2'-0" | 2'-3" | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0.235 | 1.001 | 0.059 | 0.085 | 0.085 |
| 30" | 3'-0" | 2'-2" | 3'-4" | 3'-4" | 3'-10" | 3'-10" | 1'-2" | 4'-4" | 4 | 1'-5" | 2 | 4'-1" | 3 | 4'-1" | 3 | 4'-1" | 39 | 0.123 | 0.347 | 1.433 | 0.092 | 0.127 |
| 36" | 3'-0" | 2'-2" | 3'-10" | 3'-10" | 4'-6" | 4'-10" | 1'-8" | 4'-10" | 4 | 1'-11" | 3 | 4'-7" | 3 | 4'-7" | 43 | 0.161 | 0.432 | 1.714 | 0.132 | 0.178 | 0.178 | |
| 42" | 3'-0" | 2'-2" | 4'-5" | 4'-5" | 4'-11" | 5'-5" | 2'-2" | 5'-5" | 5 | 2'-5" | 4 | 5'-2" | 3 | 5'-2" | 47 | 0.200 | 0.543 | 1.738 | 0.180 | 0.243 | 0.243 | |
| 48" | 3'-0" | 2'-2" | 5'-0" | 5'-0" | 5'-6" | 6'-0" | 2'-10" | 6'-0" | 5 | 3'-1" | 4 | 5'-9" | 3 | 5'-9" | 51 | 0.235 | 0.667 | 2.052 | 0.235 | 0.317 | 0.317 | |
| 54" | 3'-0" | 2'-2" | 5'-7" | 5'-7" | 6'-0" | 6'-7" | 3'-5" | 6'-7" | 6 | 3'-8" | 5 | 6'-4" | 3 | 6'-4" | 56 | 0.289 | 0.802 | 2.387 | 0.287 | 0.401 | 0.401 | |
| 60" | 3'-0" | 2'-2" | 6'-3" | 6'-3" | 6'-6" | 6'-6" | 4'-1" | 7'-3" | 6 | 4'-4" | 5 | 7'-0" | 3 | 7'-0" | 61 | 0.340 | 0.973 | 2.722 | 0.363 | 0.546 | 0.546 | |
| 66" | 3'-0" | 2'-2" | 6'-11" | 6'-11" | 7'-0" | 7'-0" | 4'-9" | 7'-11" | 7 | 5'-0" | 6 | 7'-8" | 3 | 7'-8" | 66 | 0.391 | 1.160 | 3.057 | 0.440 | 0.655 | 0.655 | |
| 72" | 3'-0" | 2'-2" | 7'-6" | 7'-6" | 7'-6" | 7'-6" | 5'-3" | 8'-6" | 7 | 5'-6" | 6 | 8'-3" | 3 | 8'-3" | 72 | 0.442 | 1.340 | 3.392 | 0.524 | 0.774 | 0.774 | |
| 78" | 3'-0" | 2'-2" | 8'-1" | 8'-1" | 8'-6" | 8'-6" | 6'-1" | 9'-1" | 8 | 6'-2" | 7 | 8'-10" | 3 | 8'-10" | 78 | 0.493 | 1.530 | 3.727 | 0.615 | 0.893 | 0.893 | |
| 84" | 3'-0" | 2'-2" | 8'-9" | 8'-9" | 8'-6" | 8'-6" | 6'-7" | 9'-9" | 8 | 6'-10" | 7 | 9'-6" | 3 | 9'-6" | 84 | 0.544 | 1.760 | 4.062 | 0.713 | 1.010 | 1.010 | |

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

SEE PLATE FOR TITLE

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