4/04/06

COMPUTED BY: GTJ DATE: 5/26/2015
CHECKED BY: TM DATE: 5/26/2015

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-5605 | 3D-3 |

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NOTE: Invert Elevations are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

# *REGIONAL TIER*

# *LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)*

| STATION | LOCATION (LT,RT, OR CL) | STRUCTURE NO. FROM | STRUCTURE NO. TO | TOP ELEVATION | INVERT ELEVATION | INVERT ELEVATION | SLOPE CRITICAL | DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) SIZE 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | DO NOT USE RCP | DO NOT USE CSP | DO NOT USE CAAP | DO NOT USE HDPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | THICKNESS OR GAUGE | | | | | | | | | | | |
| 41+90.84 | LT | 50 | | 2125.0 | | | | | | | | | | | | | | | |
| | | 50 | 49 | | 2119.2 | 2119.1 | | | | | | | | 28 | | | | | |
| 42+00 | RT | 51 | | 2127.1 | | | | | | | | | | | | | | | |
| | | 48 | 51 | | 2122.0 | 2121.1 | | | 20 | | | | | | | | | | |
| | | 49 | 51 | | 2119.1 | 2118.9 | | | | | | | | 52 | | | | | |
| 42+15.99 | RT | 52 | | 2124.4 | | | | | | | | | | | | | | | |
| | | 51 | 52 | | 2118.9 | 2118.6 | | | | | | | | 64 | | | | | |
| 44+04.92 | LT | 53 | | 2129.0 | | | | | | | | | | | | | | | |
| | | 53 | 49 | | 2126.0 | 2121.4 | | | | | | | | | | | | | |
| 44+04.92 | RT | 54 | | 2129.9 | | | | | | | | | | | | | | | |
| | | 54 | 53 | | 2126.9 | 2126.0 | | | | | | | | | | | | | |
| 47+56.71 | LT | 55 | | 2130.8 | | | | | | | | | | | | | | | |
| 47+56.71 | RT | 56 | | 2131.7 | | | | | | | | | | | | | | | |
| | | 56 | 55 | | 2128.7 | 2127.8 | | | | | | | | | | | | | |
| 49+01.93 | LT | 57 | | 2129.6 | | | | | | | | | | | | | | | |
| | | 55 | 57 | | 2127.8 | 2126.6 | | | | | | | | | | | | | |
| 49+01.93 | RT | 58 | | 2130.2 | | | | | | | | | | | | | | | |
| | | 58 | 57 | | 2127.2 | 2126.6 | | | | | | | | | | | | | |
| 50+18.60 | LT | 59 | | 2128.4 | | | | | | | | | | | | | | | |
| | | 57 | 59 | | 2126.6 | 2125.4 | | | | | | | | | | | | | |
| 50+18.60 | RT | 60 | | 2128.6 | | | | | | | | | | | | | | | |
| | | 59 | 60 | | 2125.4 | 2120.0 | | | | | | | | | | | | | |
| | | 60 | OUT | | 2120.0 | 2117.0 | | | | 40 | | | | | | | | | |
| 50+41.27 | LT | 61 | | 2127.1 | | | | | | | | | | | | | | | |
| 50+41.27 | RT | 62 | | 2127.1 | | | | | | | | | | | | | | | |
| | | 61 | 62 | | 2124.1 | 2119.3 | | | | | | | | | | | | | |
| | | 62 | OUT | | 2119.3 | 2119.0 | | | | 32 | | | | | | | | | |
| 13+47.70 -Y1- | CL | 64 | OUT | | 2175.7 | 2175.2 | | | | | 96 | | | | | | | | |
| 12+48.89 -Y1- | RT | EX. | 66 | | | | | | | | | | | | | | | | |
| 51+72.36 -Y3- | CL | 63 | 63 | 2115.98 | 2113.48 | 2111.98 | | | | | | | | | | | | | |
| SHT. 3D-1 TOTAL | | | | | | | | | | 128 | 140 | | | | | | | | |
| SHT. 3D-2 TOTAL | | | | | | | | | | 140 | 140 | | | 60 | | | | | |
| SHT. 3D-3 TOTAL | | | | | | | | | | 92 | 96 | | | | 144 | | | | |
| GRAND TOTAL | | | | | | | | | | 360 | 376 | | | 60 | 144 | | | | |
| SAY | | | | | | | | | | 360 | 380 | | | 60 | 144 | | | | |

| STATION | C.S. PIPE 12" | 15" | 18" | 24" | 30" | 42" | 48" | R.C. PIPE (CLASS III) 15" | 18" | 24" | 30" | 36" | 42" | 48" | R.C. PIPE (CLASS IV) 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .064 | .064 | .064 | .064 | .079 | .109 | .109 | | | | | | | | | | | | | | | |
| 41+90.84 | | | | | | | | | | | | | | | | | | | | | | |
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| 42+00 | | | | | | | | | | | | | | | | | | | | | | |
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| 42+15.99 | | | | | | | | | | | | | | | | | | | | | | |
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| 44+04.92 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 200 | | | | | | | |
| 44+04.92 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 52 | | | | | | | |
| 47+56.71 | | | | | | | | | | | | | | | | | | | | | | |
| 47+56.71 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 52 | | | | | | | |
| 49+01.93 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 144 | | | | | | | |
| 49+01.93 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 52 | | | | | | | |
| 50+18.60 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 116 | | | | | | | |
| 50+18.60 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 84 | | | | | | | |
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| 50+41.27 | | | | | | | | | | | | | | | | | | | | | | |
| 50+41.27 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 84 | | | | | | | |
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| 13+47.70 -Y1- | | | | | | | | | | | | | | | | | | | | | | |
| 12+48.89 -Y1- | | | | | | | 8 | | | | | | | | | | | | | | | |
| 51+72.36 -Y3- | | | | | | | | | | | | | | | | | | | | | | |
| SHT. 3D-1 TOTAL | | | | | | | | | | | | | | | 1280 | 144 | 204 | | | | | |
| SHT. 3D-2 TOTAL | | | | | | | | | | | | | | | 640 | | 192 | | | | | |
| SHT. 3D-3 TOTAL | | | | | | | 8 | | | | | | | | 784 | | | | | | | |
| GRAND TOTAL | | | | | | | 8 | | | | | | | | 2704 | 144 | 396 | | | | | |
| SAY | | | | | | | 8 | | | | | | | | 2708 | 148 | 400 | | | | | |

| STATION | R.C. PIPE (CLASS V) | R.C. PIPE CULVERTS, CONTRACTOR DESIGN PIPE | R.C. PIPE CULVERTS, CONTRACTOR DESIGN PIPE | 15" SIDE DRAIN PIPE | 18" SIDE DRAIN PIPE | ENDWALLS STD. 838.01, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P. | C.S.P. | QUANTITIES FOR DRAINAGE STRUCTURES * TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. "A" + (1.3 X COL."B") PER EACH (0' THRU 5.0') | LIN. FT. 5.0' THRU 10.0' A | 10.0' AND ABOVE B | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E | F | G | CONCRETE TRANSITIONAL SECTION CATCH BASIN | DROP INLET |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 41+90.84 | | | | | | 4.5 | | | | | | | | | | |
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| 42+00 | | | | | | | | 1 | 3.2 | | 1 | 1 | | | 1 | |
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| 42+15.99 | | | | | | 4.5 | | | | | | | | | | |
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| 44+04.92 | | | | | | | | 1 | | | 1 | | 1 | | | |
| | | | | | | | | | | | | | | | | |
| 44+04.92 | | | | | | | | 1 | | | 1 | | | | 1 | |
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| 47+56.71 | | | | | | | | 1 | | | 1 | | | 1 | | |
| 47+56.71 | | | | | | | | 1 | | | 1 | | | 1 | 1 | |
| | | | | | | | | | | | | | | | | |
| 49+01.93 | | | | | | | | 1 | | | 1 | | | 1 | | |
| | | | | | | | | | | | | | | | | |
| 49+01.93 | | | | | | | | 1 | | | 1 | | | 1 | 1 | |
| | | | | | | | | | | | | | | | | |
| 50+18.60 | | | | | | | | 1 | | | 1 | | | 1 | | |
| | | | | | | | | | | | | | | | | |
| 50+18.60 | | | | | | | | 1 | 3.6 | | 1 | | 1 | | | |
| | | | | | | | | | | | | | | | | |
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| 50+41.27 | | | | | | | | 1 | | | 1 | | | 1 | | |
| 50+41.27 | | | | | | | | 1 | 2.8 | | 1 | | 1 | | | |
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| 13+47.70 -Y1- | | | | | | | | 1 | | | | | | | 1 | |
| 12+48.89 -Y1- | | | | | | | | | | | | | | | | |
| 51+72.36 -Y3- | | | | | | | | | | | | | | | | |
| SHT. 3D-1 TOTAL | | | | | | 1.5 | | 24 | 0.1 | | 24 | 1 | 6 | 17 | 4 | |
| SHT. 3D-2 TOTAL | | | | | | 4.1 | | 23 | 4.4 | | 23 | 6 | 8 | 9 | 6 | |
| SHT. 3D-3 TOTAL | | | | | | 9 | | 12 | 9.6 | | 11 | 1 | 4 | 6 | 4 | 1 |
| GRAND TOTAL | | | | | | 14.6 | | 59 | 14.1 | | 58 | 8 | 18 | 32 | 14 | 1 |
| SAY | | | | | | 15.0 | | 59 | 15 | | 58 | 8 | 18 | 32 | 14 | 1 |

| STATION | 30" WELDED STEEL PIPE 0.5" THICK, GRADE B | G.D.I. FRAME WITH GRATE STD. 840.22 | G.D.I. FRAME WITH TWO GRATES STD. 840.22 | G.D.I. (N.S.) FRAME WITH GRATE STD. 840.17 | D.I. STD. 840.14 OR STD. 840.15 | D.I. FRAME WITH TWO GRATES STD. 840.16 | CORR. STEEL ELBOWS NO. & SIZE | CONC. COLLARS CL. "B" C.Y. STD 840.72 | FLOWABLE FILL, C.Y. | PIPE REMOVAL LIN.FT. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 41+90.84 | | | | | | | | | | | HEADWALL NCDOT STD. 838.80 |
| | | | | | | | | | | | HEADWALL NCDOT STD. 838.80 |
| 42+00 | | | | | | | | | | | |
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| 42+15.99 | | | | | | | | | | | |
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| 44+04.92 | | | | | | | | | | | |
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| 44+04.92 | | | | | | | | | | | |
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| 47+56.71 | | | | | | | | | | | |
| 47+56.71 | | | | | | | | | | | |
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| 49+01.93 | | | | | | | | | | | |
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| 49+01.93 | | | | | | | | | | | |
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| 50+18.60 | | | | | | | | | | | |
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| 50+18.60 | | | | | | | | | | | |
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| 50+41.27 | | | | | | | | | | | |
| 50+41.27 | | | | | | | | | | | |
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| | | | | | | | | | | | |
| 13+47.70 -Y1- | | | | | 1 | 1 | | | | | |
| 12+48.89 -Y1- | | | | | | | | 0.7 | | | EXTEND EXISTING 30" CMP |
| 51+72.36 -Y3- | 100 | | | | | | | | 24 | | ADJUST EXISTING D.I. AS NEEDED |
| SHT. 3D-1 TOTAL | | | | | | | | | | 168 | |
| SHT. 3D-2 TOTAL | | | | | | | | | | | |
| SHT. 3D-3 TOTAL | 100 | | | | 1 | 1 | | | | | |
| GRAND TOTAL | 100 | | | | 1 | 1 | | 0.7 | 24 | 168 | |
| SAY | 100 | | | | 1 | 1 | | 1 | 24 | 168 | |

ABBREVIATIONS

| | |
|---|---|
| C.B. | CATCH BASIN |
| N.D.I. | NARROW DROP INLET |
| D.I. | DROP INLET |
| G.D.I. | GRATED DROP INLET |
| G.D.I. (N.S.) | GRATED DROP INLET (NARROW SLOT) |
| J.B. | JUNCTION BOX |
| M.H. | MANHOLE |
| T.B.D.I. | TRAFFIC BEARING DROP INLET |
| T.B.J.B. | TRAFFIC BEARING JUNCTION BOX |

16-DEC-2015 14:52
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