CARYLTBURNS

| COMPUTED BY: | Ecological Engineering LLP | DATE: | 6/28/2017 |
|---|---|---|---|
| CHECKED BY: | Ecological Engineering LLP | DATE: | 6/28/2017 |

| PROJECT NO. | SHEET NO. |
|---|---|
| U-5935 | 3D-3 |

# NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
# DIVISION OF HIGHWAYS

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

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

| LINE & STATION / SIZE / THICKNESS OR GAUGE | OFFSET | | STRUCTURE NUMBER FROM | TO | TOP ELEVATION FT. | INVERT ELEVATION FT. | INVERT ELEVATION FT. | MINIMUM REQUIRED SLOPE % |
|---|---|---|---|---|---|---|---|---|
| | | | 0609 | 0608 | | 129.0 | 128.9 | |
| L 39+25 | 10 | LT | 0610 | | 135.5 | | | |
| | | | 0610 | 0611 | | 132.1 | 131.4 | |
| L 39+30 | 40 | LT | 0611 | | 134.6 | | | |
| | | | 0611 | 0616 | | 128.3 | 127.9 | |
| L 39+35 | 70 | LT | 0612 | | 132.9 | | | |
| | | | 0612 | 0611 | | 130.4 | 130.3 | |
| L 40+40 | 40 | RT | 0613 | | 136.1 | | | |
| | | | 0613 | 0614 | | 132.8 | 132.1 | |
| L 40+40 | 7 | RT | 0614 | | 135.6 | | | |
| | | | 0614 | 0617 | | 132.1 | 132.1 | |
| L 40+50 | 68 | LT | 0615 | | 132.3 | | | |
| | | | 0615 | 0616 | | 129.8 | 129.7 | |
| L 40+50 | 40 | LT | 0616 | | 134.4 | | | |
| | | | 0616 | 0618 | | 127.9 | 127.6 | |
| L 40+50 | 10 | RT | 0617 | | 135.6 | | | |
| | | | 0617 | 0616 | | 132.1 | 131.1 | |
| L 41+50 | 40 | LT | 0618 | | 134.6 | | | |
| | | | 0618 | 0619 | | 127.6 | 127.3 | |
| L 42+50 | 40 | LT | 0619 | | 134.9 | | | |
| | | | 0619 | 0622 | | 127.3 | 126.9 | |
| L 43+25 | 10 | RT | 0620 | | 135.5 | | | |
| | | | 0620 | 0623 | | 132.3 | 131.6 | |
| | | | 0622 | 0623 | | 126.7 | 126.7 | |
| L 44+14 | 0 | CL | 0623 | | 134.9 | | | |
| | | | 0623 | 0625 | | 126.7 | 126.6 | |
| L 44+26 | 75 | RT | 0625 | | 135.5 | | | |
| | | | 0625 | 0626 | | 126.6 | 126.6 | |
| L 44+46 | 66 | LT | 0627 | | 131.2 | | | |
| | | | 0627 | 0624 | | 128.1 | 126.9 | |
| L 45+46 | 40 | RT | 0628 | | 135.7 | | | |
| | | | 0628 | 0629 | | 132.5 | 131.4 | |
| L 45+46 | 0 | CL | 0629 | | 134.6 | | | |
| | | | 0629 | 0623 | | 131.4 | 131.0 | |
| L 45+87 | 40 | LT | 0630 | | 134.7 | | | |
| | | | 0630 | 0631 | | 131.5 | 130.7 | |
| L 45+87 | 66 | LT | 0631 | | 133.2 | | | |
| | | | 0631 | 0627 | | 128.5 | 128.1 | |
| L 46+50 | 40 | LT | 0632 | | 134.5 | | | |
| | | | 0632 | 0633 | | 128.8 | 128.7 | |
| L 46+50 | 65 | LT | 0633 | | 133.0 | | | |
| | | | 0633 | 0631 | | 128.7 | 128.5 | |
| L 47+25 | 40 | LT | 0634 | | 134.4 | | | |
| | | | 0634 | 0632 | | 129.0 | 128.8 | |
| L 48+65 | 40 | LT | 0635 | | 134.7 | | | |
| | | | 0635 | 0634 | | 129.4 | 129.0 | |
| L 48+73 | 66 | LT | 0636 | | 132.4 | | | |
| | | | 0636 | 0635 | | 129.5 | 129.4 | |
| L 49+82 | 67 | LT | 0637 | | 132.3 | | | |
| | | | 0637 | 0636 | | 129.8 | 129.5 | |

| STRUCTURE NUMBER (FROM–TO) | Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC) | | | | | | | | | | | R. C. PIPE CLASS III | | | | | | | | | | | | | | | R. C. PIPE CLASS IV | | | | | | | 18" SIDE DRAIN PIPE | 24" SIDE DRAIN PIPE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SIZE | 12 | 15 | 18 | 24 | 30 | 36 | DO NOT USE RCP | DO NOT USE CSP | DO NOT USE CAAP | DO NOT USE HDPE | DO NOT USE PVC | 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | | 12 | 15 | 18 | 24 | 30 | 36 | 42 | | | |
| 0609–0608 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 28 | | | | | | |
| 0610–0611 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 28 | | | | | | | |
| 0611–0616 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 116 | | | | | |
| 0612–0611 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 32 | | | | | | | |
| 0613–0614 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 32 | | | | | | | |
| 0614–0617 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 | | | | | | | |
| 0615–0616 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 28 | | | | | | | |
| 0616–0618 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 96 | | | | | |
| 0617–0616 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 48 | | | | | | | |
| 0618–0619 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 96 | | | | | |
| 0619–0622 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 144 | | | | | |
| 0620–0623 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 88 | | | | | | | |
| 0622–0623 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 56 | | | |
| 0623–0625 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 76 | | | |
| 0625–0626 | | | | | | | | | | | | | | | | | | 52 | | | | | | | | | | | | | | | | | | |
| 0627–0624 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 28 | | | | | | | |
| 0628–0629 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 40 | | | | | | | |
| 0629–0623 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 132 | | | | | | | |
| 0630–0631 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 28 | | | | | | | |
| 0631–0627 | | | | | | | | | | | | | | 136 | | | | | | | | | | | | | | | | | | | | | | |
| 0632–0633 | | | | | | | | | | | | | | 24 | | | | | | | | | | | | | | | | | | | | | | |
| 0633–0631 | | | | | | | | | | | | | | 60 | | | | | | | | | | | | | | | | | | | | | | |
| 0634–0632 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 72 | | | | | | | |
| 0635–0634 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 136 | | | | | | | |
| 0636–0635 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 28 | | | | | | | |
| 0637–0636 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 104 | | | | | | | |
| SHEET TOTALS | | | | | | | | | | | | | | 220 | | | | 52 | | | | | | | | | | | 832 | 28 | 452 | | 132 | | | |

| STRUCTURE NUMBER | ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY | REINFORCED ENDWALLS CY | DRAINAGE STRUCTURE MASONRY CY | QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH | A 5' THRU 10' LIN. FT. | B 10' AND ABOVE LIN. FT. | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E | F | G | | CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06 | C.B. STD. 852.05 | OPEN THROAT C.B. STD. 840.04 OR STD. 840.05 | CONCRETE BRIDGE APPROACH D.I. STD. 840.13 | D.I. STD. 840.14 OR STD. 840.15 | D.I. FRAME AND GRATES STD. 840.16 | G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29 | DRIVEWAY D.I. STD. 840.30 | FRAME W/ GRATE FOR DRIVEWAY STD. 840.30 | J.B. STD. 840.31 OR STD. 840.32 | ANGLED VANE GRATES AND FRAMES STD. 840.33 | T.B.J.B. STD. 840.34 | T.B.D.I. STD. 840.35 | T.B.D.I. FOR STEEL GRATES STD. 840.36 | ADJUST M.H. | SPECIAL DI 840D14 SEE SHEET 2C-2 | M.H. FRAME AND COVER STD. 840.54 | CONVERT EXISTING C.B. TO J.B. | CONVERT EXISTING C.B. TO D.I. | CONVERT EXISTING D.I. TO J.B. | CONVERT EXISTING J.B. TO D.I. | ADJUST C.B. | ADJUST D.I. | 18" DRAINAGE PIPE ELBOWS | FLOWABLE FILL CY | CONCRETE COLLARS CL. "B" STD. 840.72 CY | PIPE REMOVAL LIN. FT. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0610 | | | | 1 | | | | | | | | 1 | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| 0611 | | | | 1 | 1.4 | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0612 | | | | 1 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| 0613 | | | | 1 | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0614 | | | | 1 | | | | | | | | 1 | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| 0615 | | | | 1 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| 0616 | | | | 1 | 1.5 | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0617 | | | | 1 | | | | | | | | 1 | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| 0618 | | | | 1 | 2.0 | | 1 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0619 | | | | 1 | 2.6 | | 1 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0620 | | | | 1 | | | 1 | | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0623 | | | | 1 | 3.2 | | 1 | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0625 | | | | 1 | 3.9 | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | | | | | | | |
| 0627 | | | | 1 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| 0628 | | | | 1 | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0629 | | | | 1 | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0630 | | | | 1 | | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0631 | | | | 1 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| 0632 | | | | 1 | 0.8 | | 1 | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0633 | | | | 1 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| 0634 | | | | 1 | 0.4 | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0635 | | | | 1 | 0.3 | | 1 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0636 | | | | 1 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| 0637 | | | | 1 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| SHEET TOTALS | | | | 24 | 16.1 | | 13 | 5 | 4 | 4 | | 3 | 3 | | | 10 | 10 | | | | 1 | | | | | | | 1 | | | | | | | | | | | |

**ABBREVIATIONS**

| | |
|---|---|
| C.A.A. | CORRUGATED ALUMINIUM ALLOY |
| C.B. | CATCH BASIN |
| C.S. | CORRUGATED STEEL |
| D.I. | DROP INLET |
| G.D.I. | GRATED DROP INLET |
| H.D.P.E. | HIGH DENSITY POLYETHYLENE |
| J.B. | JUNCTION BOX |
| M.H. | MANHOLE |
| N.S. | NARROW SLOT |
| P.V.C. | POLYVINYL CHLORIDE |
| R.C. | REINFORCED CONCRETE |
| T.B.D.I. | TRAFFIC BEARING DROP INLET |
| T.B.J.B. | TRAFFIC BEARING JUNCTION BOX |
| W.S. | WIDE SLOT |