| COMPUTED BY: | BJF | DATE: | 10/25/2022 |
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| CHECKED BY: | ARV | DATE: | 10/26/2022 |

# NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
# DIVISION OF HIGHWAYS

| PROJECT NO. | SHEET NO. |
|---|---|
| R-5751 | 3D-2 |

RD24621

**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 | OFFSET | STRUCTURE NUMBER FROM | STRUCTURE NUMBER TO | TOP ELEVATION FT. | INVERT ELEVATION FT. | INVERT ELEVATION FT. | MINIMUM REQUIRED SLOPE % | SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC) SIZE 15 | 18 | 24 | 30 | 36 | 42 | C.S. PIPE SIZE 15 | 18 | 24 | 30 | 36 | 42 | 48 | R.C. PIPE CLASS III SIZE 15 | 18 | 24 | 30 | 36 | 42 | 48 | R.C. PIPE CLASS IV SIZE 15 | 18 | 24 | 30 | 36 | 42 | 48 | R.C. PIPE CLASS V SIZE 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | ENDWALLS STD. 838.11 (UNLESS OTHERWISE NOTED) CY | REINFORCED ENDWALLS CY | 15" WELDED STEEL PIPE (.25" THICK, GRADE B | 42" WELDED STEEL PIPE 0.625" THICK, GRADE B | 48" WELDED STEEL PIPE 0.625" THICK, GRADE B | ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS 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') LIN.FT. A 5.0' THRU 10.0' | B 10.0' AND ABOVE | PER EACH (0' THRU 5.0') | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E | F | G | CONCRETE TRANSVERSAL SECTION D.I. STD. 852.04 OR STD. 852.06 | C.B. STD. 852.05 | D.I. STD. 840.14 OR STD. 840.15 | D.I. FRAME AND GRATE STD. 840.16 | G.D.I. TYPE "A" STD. 840.17 OR 840.26 | G.D.I. TYPE "B" STD. 840.19 OR 840.27 | G.D.I. TYPE "D" STD. 840.19 OR 840.28 | SPECIAL DETAIL 2GI-A (SEE DETAIL 2D-4) | G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20 | G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22 | G.D.I. (W.S. SAG) FRAME W/ 3 GRATES STD. 840.22 | G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24 | J.B. STD. 840.31 OR 840.32 | T.B. ,J.B. STD. 840.34 | T.B.G.D.I. STD. 840.36 | STEEL FRAME AND TWO GRATES STD. 840.37 | STEEL FRAME AND GRATE STD. 840.37 | M.H. STD. 840.51, STD. 840.52, OR STD.53 | M.H. FRAME AND COVER STD. 840.54 | PARALLEL PIPE END SECTION STD. 310.04 | CONVERT EXISTING C.B. TO J.B. | CONVERT EXISTING D.I. TO J.B. | CONVERT EXISTING J.B. TO 2 G.I. | CONVERT C.B. TO D.I. | ADJUST EXISTING MANHOLE | ADJUST EXISTING C.B. | ADJUST D.I. | ADJUST 2GI | 15" C.S. ELBOW | 18" C.S. ELBOW | 24" C.S. ELBOW | 30" C.S. ELBOW | 36" C.S. ELBOW | 42" C.S. ELBOW | 48" C.S. ELBOW | BERM DITCH OUTLET STD. 850.10 (PER EACH) | BERM DITCH OUTLET STD. 850.11 (PER EACH) | CONC. COLLARS CL. "B" C.Y. STD. 840.72 | FLOWABLE FILL, C.Y. | | PIPE REMOVAL LIN. FT. | REMARKS |
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