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| COMPUTED BY: | MLH | DATE: | 09-13-21 Rev 4-20-22 |
| CHECKED BY: | KBA WHT | DATE: | 3-15-22 Rev 4-28-22 |

| PROJECT NO. | SHEET NO. |
|---|---|
| I-5987B | 3D-16 |

# 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 | STRUCTURE NUMBER TO | TOP ELEVATION FT. | INVERT ELEVATION FT. | INVERT ELEVATION FT. | MINIMUM REQUIRED SLOPE % | Side Drain Pipe (RCP, CSP, CAAP, HDPE, PVC, or PP PIPE) 15 | 18 | 24 | 30 | 36 | 42 | 48 | DO NOT USE RCP | DO NOT USE CSP | DO NOT USE CAAP | C. S. PIPE 15 .064 | R. C. PIPE CLASS III 15 | 18 | 24 | 30 | 36 | 42 | 48 | R. C. PIPE CLASS IV 15 | 18 | 24 | 30 | 36 | 42 | 48 | R. C. PIPE CLASS V 15 | 18 | 24 | 16" WELDED STEEL PIPE 0.25" THICK, GRADE B IN SOIL | 18" WELDED STEEL PIPE 0.25" THICK, GRADE B IN SOIL | 24" WELDED STEEL PIPE 0.5" THICK, GRADE B IN SOIL | 30" WELDED STEEL PIPE 0.5" THICK, GRADE B IN SOIL | 36" WELDED STEEL PIPE 0.5" THICK, GRADE B IN SOIL | 42" WELDED STEEL PIPE 0.625" THICK, GRADE B IN SOIL | 48" WELDED STEEL PIPE 0.625" THICK, GRADE B IN SOIL | 16" WELDED STEEL PIPE 0.25" THICK, GRADE B NOT IN SOIL | 18" WELDED STEEL PIPE 0.25" THICK, GRADE B NOT IN SOIL | 24" WELDED STEEL PIPE 0.5" THICK, GRADE B NOT IN SOIL | 30" WELDED STEEL PIPE 0.5" THICK, GRADE B NOT IN SOIL | 36" WELDED STEEL PIPE 0.5" THICK, GRADE B NOT IN SOIL | 42" WELDED STEEL PIPE 0.625" THICK, GRADE B NOT IN SOIL | 48" WELDED STEEL PIPE 0.625" THICK, GRADE B NOT IN SOIL | ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) 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 1 (SHT - SEE DETAIL, SHEET 2B-21) | C.B. STD. 852.05 | G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26 | G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27 | G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28 | 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. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24 | G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29 | J.B. STD. 840.31 OR STD. 840.32 | T.B.J.B. STD. 840.34 | T.B.D.I. STD. 840.35 | T.B.D.I. FOR STEEL GRATES STD. 840.36 | STEEL FRAME WITH TWO GRATES STD. 840.37 | TEMP STEEL PLATE COVER MASONRY DRAINAGE | 15" C.S. SLOTTED DRAIN PIPE | M.H. FRAME AND COVER STD. 840.54 | ADJUST C.B. | ADJUST D.I. | 15" SIDE DRAIN PIPE ELBOW | 18" SIDE DRAIN PIPE ELBOW | 24" SIDE DRAIN PIPE ELBOW | 30" SIDE DRAIN PIPE ELBOW | 36" SIDE DRAIN PIPE ELBOW | FLOWABLE FILL CY | CONCRETE COLLARS CL. "B" STD. 840.72 CY | PIPE REMOVAL LIN. FT. | REMARKS |
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