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TGSBEN-LAPTOP

COMPUTED BY:	BAC	DATE:	04-20-21
CHECKED BY:	BJH	DATE:	04-20-21

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
15614.1075010	3D-2

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 % | C. S. PIPE(ALUMINIZED TYPE 2) 12 0.079 | 15 0.079 | 18 0.079 | 24 0.109 | 30 0.138 | 36 0.138 | 42 0.168 | 48 0.168 | R. C. PIPE CLASS IV 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 15" PIPE REHABILITAION CIPP LINER | 18" PIPE REHABILITAION CIPP LINER | 18" PIPE REHABILITATION SMOOTH WALL STEEL SLIP LINER (0.5" THICK) | 24" PIPE REHABILITAION CIPP LINER | 30" PIPE REHABILITAION CIPP LINER | 36" PIPE REHABILITAION CIPP LINER | 42" PIPE REHABILITAION CIPP LINER | 42" PIPE REHABILITAION SOLID WALL THERMOPLASTIC SLIP LINER | 18" WELDED STEEL PIPE 0.5" THICK, GRADE B IN SOIL | 18" WELDED STEEL PIPE 0.5" 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 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. 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 WITH GRATE STD. 840.20 | G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20 | G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22 | G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22 | G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24 | G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24 | G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29 | 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 | M.H. STD. 840.51, STD. 840.52, OR STD. 840.53 | M.H. FRAME AND COVER STD. 840.54 | M.H. FRAME AND VENTED M.H. GRATE | ENERGY DISSIPATOR J.B. SEE DETAIL 2D-1 | SPITTER BOX SEE DETAIL 2D-4 | SPECIAL DESIGN J.B. W/ MH SEE DETAIL 2D-8 | HINGED GRATE | G.D.I. TYPE "A" EXTRA DEPTH, SEE DETAIL 2D-12 | CONVERT EXISTING D.I. TO J.B. | CONVERT EXISTING J.B. TO D.I. | ADJUST C.B. | ADJUST D.I. | 15" C.S. ELBOW | 18" C.S. ELBOW | 24" C.S. ELBOW | 30" C.S. ELBOW | 36" C.S. ELBOW | SPEC. DSN. PIPE CONNECTION, SEE DETAIL 2D-11 | BERM DITCH OUTLET STD. 850.11 (PER EACH) | PIPE CLEANOUT EA | FLOWABLE FILL CY | CONCRETE COLLARS CL. "B" STD. 840.72 CY | CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY | PIPE REMOVAL LIN. FT. | REMARKS |
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