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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
BR-0111	3B-1

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

BRIDGE #320003
BRIDGE #320004
BRIDGE #320005

SUMMARY OF EARTHWORK

STATION	STATION	UNCL. EXCAV. (CY)	EMBANK. +% (CY)	BORROW (CY)	WASTE (CY)
-L- STA. 14+70.00	-L- STA. 16+28.81 (BEGIN BRIDGE)	39	86	47	
SUBTOTALS:		39	86	47	
-L- STA. 17+31.19 (END BRIDGE)	-L- STA. 30+24.75 (BEGIN BRIDGE)	202	338	136	
SUBTOTALS:		202	338	136	
-L- STA. 31+92.25 (END BRIDGE)	-L- STA. 35+06.75(BEGIN BRIDGE)	24	140	116	
SUBTOTALS:		24	140	116	
-L- STA. 36+74.25 (END BRIDGE)	-L- STA. 38+15.00	21	31	10	
SUBTOTALS:		21	31	10	
PROJECT SUBTOTALS:		286	595	309	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				15	
GRAND TOTALS:		286	595	324	
SAY:		300		350	

UNDERCUT EXCAVATION = 300 CY
GEOTEXTILE SOIL STABILIZATION = 300 SY
SELECT GRANULAR MATERIAL = 300 CY

Approximate quantities only. Unclassified excavation, borrow excavation, fine grading, clearing and grubbing, and removal of existing pavement will be paid for at the lump sum price for "Grading".

NOTE: Earthwork quantities are calculated by the Roadway Engineer. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

ASPHALT PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD²
-L-	15+78.81	16+53.82	CL	161.48
-L-	17+06.21	17+81.19	CL	161.82
-L-	29+74.75	30+44.62	CL	151.97
-L-	31+72.00	32+42.25	CL	154.37
-L-	34+56.75	35+27.16	CL	153.68
-L-	36+54.13	37+24.25	CL	153.73
			TOTAL:	937.05
			SAY:	940

SHOULDER BERM GUTTER SUMMARY

SURVEY LINE	STATION	STATION	LOCATION	LENGTH
-L-	15+85.06	16+17.94	RT.	32.88'
-L-	17+42.06	17+68.00	RT.	25.94'
-L-	29+83.00	30+13.88	RT.	30.88'
-L-	29+28.00	30+13.88	LT.	85.88'
-L-	32+03.13	32+48.50	RT.	45.37'
-L-	32+03.13	32+48.50	LT.	45.37'
-L-	34+63.00	34+95.88	RT.	32.88'
-L-	34+63.00	34+95.88	LT.	32.88'
-L-	36+85.13	36+99.25	RT.	14.12'
-L-	36+85.13	36+99.25	LT.	14.12'
DEDUCTION FOR MODIFIED CONCRETE FLUMES				-120.00'
			TOTAL:	240.32'
			SAY:	250.00'

SUB-REGIONAL & REGIONAL LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

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".

| STATION / SIZE / THICKNESS OR GAUGE | 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) 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | DO NOT USE RCP | DO NOT USE CSP | DO NOT USE CAAP | DO NOT USE HDPE | C.S. PIPE 12" | 15" | 18" | 24" | 36" | 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" | *** 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 | G.D.I. TYPE "B" STD. 840.18 OR 840.27 | G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24 | MODIFIED CONCRETE FLUME | G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29 | M.H. FRAME & COVER STD. 840.54 | T.B.J.B. STD. 840.34 | CSP ELBOWS NO. & SIZE | CONC. COLLARS CL. "B" C.Y. STD 840.72 | CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71 | PIPE REMOVAL LIN.FT. | REMARKS |
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