6/21/00

COMPUTED BY: JBW DATE: 04/05/04
CHECKED BY: JBM DATE: 07/19/04

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

PROJECT REFERENCE NO.	SHEET NO.
B-3840	3-A

STATION	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) SIZE 12"	15"	18"	24"	30"	36"	42"	48"	CLASS III R.C. PIPE THICKNESS OR GAUGE								BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHRWISE) SIZE 12"	15"	18"	24"	30"	36"	42"	48"	BITUMINOUS COATED C.S. PIPE TYPE B THICKNESS OR GAUGE								18" CS PIPE CULVERT, 0.064" THICK	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CU. YDS. 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. A 5.0' THRU 10.0'	LIN. *FT. B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G		PIPE REMOVAL LIN. FT	REMARKS
11+80 –L–	LT	1																																							24′	
13+91 –L–	℄	2																																							24′	
12+39 –Drive–	℄	3																																								
18+63 –L–	LT	4																																						72′	21′	
19+20 –L–	LT	5																																						24′	21′	
20+62 –L–	RT	6																																						28′	30′	
21+28 –L–	LT	7																																						24′	11′	
TOTAL																																							196′	131′	

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
M.D.I.	MEDIAN DROP INLET
M.D.I. (N.S.)	MEDIAN DROP INLET (NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUCTION BOX

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH STRAIGHT	LENGTH SHOP CURVED	LENGTH DOUBLE FACED	WARRANT POINT APPROACH END	WARRANT POINT TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH APPROACH END	FLARE LENGTH TRAILING END	W APPROACH END	W TRAILING END	ANCHORS XI MOD	XI	GRAU 350	TYPE 111 SHOP CURVED STRUCTURE ANCHOR UNIT	TYPE III	AT-1	VI MOD	BIC	CAT-1	IMPACT ATTENUATOR TYPE 350 EA	G	NG				REMARKS
–L–	14+25	18+25.00	RT	400′			14+25.00	17+37.50	8′	11′	50′	50′	1′	1′			2														WARRANT FOR CULVERT
–L–	14+62.50	17+37.50	LT	275′			15+97.50	15+43.00	8′	11′	50′	50′	1′	1′			2														FILL WARRANT
		TOTAL		675′													4													
DEDUCTION FOR ANCHOR UNITS																														
	4 GRAU–350 @ 50′			–200′																										
		GRAND TOTAL		475′																										
		SAY		475′																									ADDITIONAL GUARDRAIL POSTS	5 EACH	

SUMMARY OF EARTHWORK (IN CUBIC YARDS)

LOCATION	LOCATION	UNCL EXCAVATION	UNDERCUT	EMBANKMENT + %	BORROW	WASTE
–L– 10+00.00	21+65.00	2738		12013	9275	
–Drive– 10+75.00	12+80.66	0		2698	2698	
SUBTOTAL		2738		14711	11973	
OLD ROADBED *REMOVAL		1546		0		1546
LOSS DUE TO CL/GR		–200			200	
PROJECT TOTALS		4084			12173	1546
5% FOR BORROW PITS					609	
TOTAL		4084			12782	
SAY		4100			12800	
ESTIMATED UNDERCUT			100			
ADDITIONAL UNDERCUT			500			
TOTAL			600			
DDE		200 cy				
SELECT GRANULAR MATERIAL		200 cy				

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

NOTE: Approximate quanties only. Unclassified Excavation, Fine Grading, Clearing and Grubbing, and Removal of Existing Pavement will be paid for at the contract lump sum price for "Grading."

PAVEMENT REMOVAL SUMMARY

STATION	STATION	LOCATION	ASPHALT REMOVAL
–L– 10+87.90	15+56.94	LT	806 SY
–L– 16+00.13	18+73.02	LT	536 SY
	TOTAL		1342 SY
	SAY		1345 SY

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