DocuSign Envelope ID: 142B1244-0268-4ECC-A06B-F3E31BF7C9C8

PROJECT REFERENCE	SHEET NO.
17BP.5.R.52 – GRANVILLE 93	3

"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

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS								IMPACT ATTENUATOR TYPE 350			REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	AT-1	GRAU 350	TYPE III						NO.	PERMITTED G	PERMITTED NG	
-L-	14+76.32	15+57.57	RT	81.25′			15+57.57		4′	7′	50′		1′			1	1									
-L-	12+31.36	15+50.11	LT	318.75′			15+50.11	12+50.00	4′	7′		50′		1′		1	1									BREAK WITHIN PROJECT CONSTRUCTION LIMITS
-L-	16+49.89	17+31.14	RT	81.25′				16+49.89	4′	7′		50′		1′		1	1									
-L-	16+42.43	18+11.18	LT	168.75′			17+50.00	16+42.43	4′	7′	50′		1′			1	1									BREAK WITHIN PROJECT CONSTRUCTION LIMITS
		SUBTOTAL		650.00′																						
		LESS ANCHOR DEDUCTIONS																								
		GRAU-350 4 x 50.00′ =		-200.00′																						
		TYPE III 4 x 18.75′ =		-75.00′																						
		TOTAL		375.00′												4	4									

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

| STATION | 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) SIZE 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | DO NOT USE RCP | DO NOT USE PVC | DO NOT USE CAAP | DO NOT USE HDPE | C.S. PIPE THICKNESS OR GAUGE 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") LIN. *FT. A | B | PER EACH (0′ THRU 5.0′) | 5.0′ THRU 10.0′ | 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 | CONCRETE TRANSITIONAL SECTION CATCH BASIN | DROP INLET | G.D.I. FRAME WITH GRATE STD. 840.22 | G.D.I. FRAME WITH TWO GRATES STD. 840.22 | G.D.I. (N.S.) FRAME WITH GRATE STD. 840.24 | G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24 | G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29 | T.B.D.I. STD. 840.35 | CORR. STEEL 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---