STORM DRAINAGE

LOCATION: THE CLIFF
DATE: 16 MAY 7[illegible] CALC [illegible] CHKD: [illegible] P.N. [illegible] REV.

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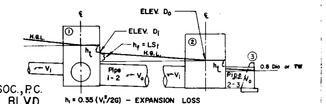
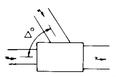
4411 CROSSINGS BLVD.
PRINCE GEORGE CO., VA.
458-8685



$h_f = 0.35\,(V^2/2G)$ – EXPANSION LOSS
$h_f = 0.25\,(V^2/2G)$ – CONTRACTION LOSS
$h_b = K\,(V^2/2G)$ – BEND LOSS
$h_j = h_f + h_b + h_c$ – TOTAL JUNCTION LOSS



90° K = 0.70	90° K = 0.38
80° K = 0.80	30° K = 0.33
70° K = 0.86	25° K = 0.22
60° K = 0.93	20° K = 0.16
50° K = 0.47	15° K = 0.10

THE ENERGY LOSS FOR THE INITIAL INLET OF A STORM SEWER SYSTEM IS 0.5 $(V_2^2/2G)$

WHEN MORE THAN ONE LINE ENTERS AN INLET DETERMINE LINE EXERTING GREATEST MOMENTUM (QV) FOR V_1

USE LINE WITH GREATEST "K" VALUE FOR DETERMINING h_b

IF INLET SHAPING IS USED REDUCE "h_b" BY 50%

IF SURFACE INFLOW OCCURS INCREASE "h_c" BY 50%

BEGIN HYDRAULIC GRADE LINE AT PIPE OUTFALL USING 0.8 PIPE DIA. OR TW WHICHEVER IS GREATER

HYDRAULIC GRADE LINE

| 35 V_1 | | |