

9-1-80

CULVERT ANALYSIS

DATE - ____

DESIGNED BY - ____

CONTRACT - ____

CHECKED BY - ____

TITLE - ____

HYDROLOGIC INFORMATIONSCS METHOD

AREA - ____ AC. = ____ SM.

RCN. = ____

 t_c = ____ MIN. = ____ HRS.RATIONAL METHOD

AREA - ____ AC.

 C_w = ____ t_c = ____ MIN. i_2 = ____ "/HR. i_{10} = ____ "/HR. i_{100} = ____ "/HR.

CULVERT DIMENSION(S) - ____ IN. = ____ FT.

CULVERT STATION ____

SUMP STATION ____

SUMP PGL ELEV. = ____

SUMP PAVEMENT EDGE ELEV. = ____

AHW DEPTH = ____ FT.

INVERT ELEV. = ____

 S_o = ____ % L = ____ FT.

CULVERT TYPE a	Q C.F.S	HEADWATER COMPUTATION														CONTROLLING HW		COMMENTS
		OUTLET CONTROL										INLET CONTROL		DEPTH	SURF. ELEV.			
		HW $\frac{HW}{D}$	HW	K _e	D _c	$\frac{D_c+D}{2}$	TW	h _o	S _f L	V _f	$V_f^2/2g$	H	L _{So}			HW		

FORMULAE:OUTLET CONTROL:

$$HW = h_o + H - LS_o$$

$$H = S_f L + (1 + K_e) \left(\frac{V_f^2}{2g} \right)$$

REFERENCE: PAGES 53 TO 54

REMARKS:

SHEET _____ OF _____

INLET SPACING

CONTRACT NO. _____

PROJECT _____

RAINFALL FACTORS

DURATION: 0-10 10.1-40 40.1-150

[illegible]

STORM SEWER DESIGN

[illegible]

DESIGNED BY: _____
CHECKED _____
RAINFALL FACTOR _____

CONTRACT _____
TITLE _____

DATE _____

*FROM FORM SHA-61.1-420

[illegible]

COMPUTED BY: _____

CHECKED BY: _____

CONTRACT _____

TITLE _____

DATE _____

[illegible]
$$\text{WEIGHTED RUNOFF CURVE NO.} = \frac{\text{RCN} \times \text{AREA}}{\text{AREA}} = \text{---}; \text{USE ---}$$

PEAK ADJUSTMENT FACTORS:

A: SLOPE = _____% ; RANGE _____ (TABLE E-1) - _____ FACTOR A _____

B. IMPERVIOUS AREA _____% (FIGURE 4-1) - _____ FACTOR B _____

C H I M = % (FIGURE 4-2) - FACTOR C

PEAK DISCHARGE q (cfs / Inches of Runoff) = _____ (FIGURE D-2)

ADJUSTED PEAK $Q(\text{cfs}/\text{Inches Runoff}) = q \times \text{Adjustment Factors (A,B,C)} = \text{---} \times \text{---} \times \text{---} = \text{cfs.}$

RAINFALL FREQ.	=	Year	Year	Year
RAINFALL 1/	=	Inches	Inches	Inches
RUNOFF 2/	=	Inches	Inches	Inches
PEAK DISCHARGE = Q x RUNOFF	=	cfs	cfs	cfs

1. / FROM ENGINEERING FIELD MANUAL, EXHIBIT 2-3A

2/ FROM ENGINEERING FIELD MANUAL, EXHIBIT 2-7A