

# SPREAD & DEPTH

PROJECT \_\_\_\_\_

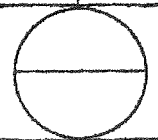
DATE \_\_\_\_\_

## SUMP

COMP. BY \_\_\_\_\_

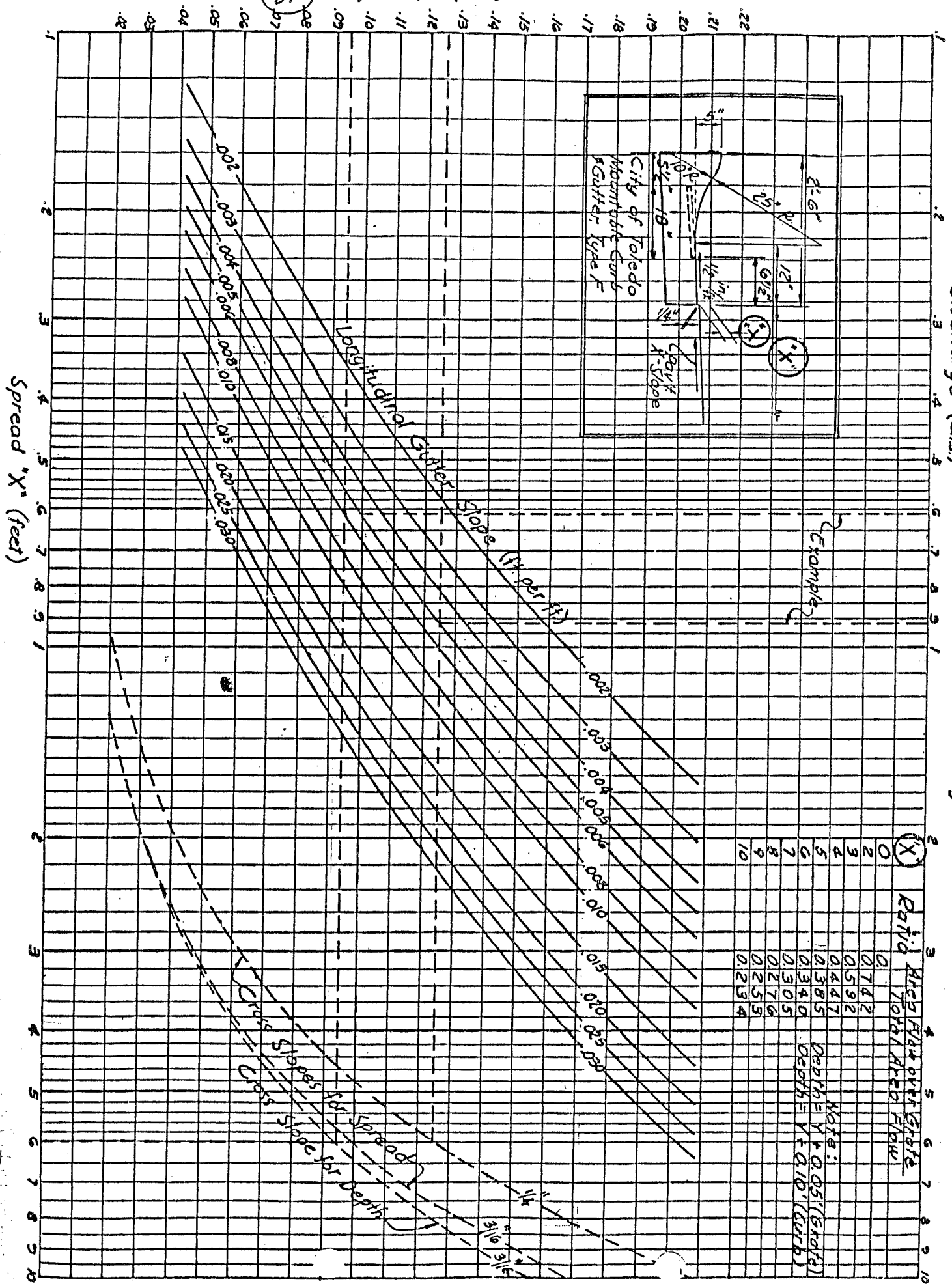
LINE	STATION & LOCATION	RORL					
2	" / FT. CROSS SLOPE FT. PER FT.	USE CHART D-	S <sub>x</sub>				
3	GUTTER SLOPE FT. PER FT.		S				
4	DRAINAGE AREA ACRES	MAP AREA NUMBER	A				
5	BACK RUNOFF COEFFICIENT	WEIGHTED FORM CW IDENT No.	C				
6	FLOW FROM INCREMENT AREA LINE 4 x LINE 5 x 2.9*	C.F.S.	Q <sub>TB</sub>				
7	FLOW CARRIED OVER FROM LAST INLET LINE 24 SH.#	C.F.S. STATION	Q <sub>C</sub>				
8	TOTAL "Q" BACK LINE 6 + LINE 7		Q <sub>B</sub>				
9	SPREAD OF FLOW "BACK" D-861 OR D-862	ft.	X <sub>B</sub>				
10	GUTTER SLOPE FT. PER FT.		S				
11	DRAINAGE AREA ACRES	MAP AREA NUMBER	A				
12	AHEAD RUNOFF COEFFICIENT	WEIGHTED FORM CW IDENT No.	C				
13	FLOW FROM INCREMENT AREA LINE 11 x LINE 12 x 2.9*	C.F.S.	Q <sub>IA</sub>				
14	FLOW CARRIED OVER FROM LAST INLET LINE 24 SH.#	C.F.S. STATION	Q <sub>C</sub>				
15	TOTAL "Q" AHEAD LINE 13 + LINE 14		Q <sub>A</sub>				
16	SPREAD OF FLOW "AHEAD" D-861 OR D-862	ft.	X <sub>A</sub>				
17	TOTAL GUTTER FLOW LINE 8 + LINE 15	C.F.S.	Q <sub>T</sub>				
18	TYPE OF INLET OR CATCH BASIN	ST'D					
19	COMBINATION TYPE PERIMETER OF GRATE	ft.	P				
20	$\frac{Q}{P}$ RATIO LINE 17 ÷ LINE 19		$\frac{Q}{P}$				
21	GRATE ONLY $\frac{\text{PERIMETER OF GRATE}}{2}$	ft.	$\frac{P}{2}$				
22	$\frac{Q}{P/2}$ RATIO LINE 17 ÷ LINE 21		$\frac{Q}{P/2}$				
23	GRATE ONLY $\frac{\text{CLEAR GRATE AREA}}{2}$	SQ. FT.	$\frac{A}{2}$				
24	$\frac{Q}{A/2}$ RATIO LINE 17 ÷ LINE 23		$\frac{Q}{A/2}$				
25	DEPTH OF WATER AT ENTRANCE D-865	ft.	H				

\* 2.9 = i (RAINFALL INTENSITY) FOR 2 YR. DESIGN STORM WITH INLET TIME OF 15 MIN. AS PER O.S.M. OF L. & D. D-650.02



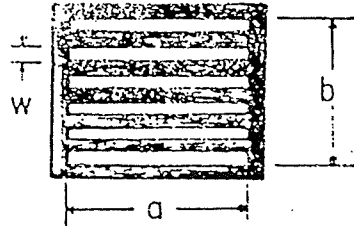
SPREAD-DEPTH-DISCHARGE CURVES  
 TYPE 'F' MOUNTABLE CURB & GUTTER

61 Depth "y" (feet)



CAPACITY OF GRATE INLET IN SUMP WATER PONDED ON GRATE

$$H = \sqrt[3]{\frac{Q}{3P}}$$



$$P = 2(a + b)$$

$$A = 6dw$$

