



Title	HYDRAULICS GRASSIN	9.7	Sheet No. 1 of 1
By	NR 118102	Chk. 1/1	Job No. CEF-2210

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9.7 Find Q_{10} For DAYTON, OHIO

COVER	AREA	C	cA	
IMPERV.	0.06	0.90	0.054	
GRASS	6.5	0.30	1.95	} PLATE IN 'c' FACTOR
WOODS	7.5	0.20	1.50	
	<u>14.06</u>		<u>3.504</u>	

} ^{1/3}
180
TABLE
9.1

$$WTO 'c' = \frac{3.504}{14.06} = \underline{\underline{0.25}}$$

T_c : OVERLAND Ave. Grass: 300' @ 5.0% = 17 Min.
(Per C-2)

SHALLOW CONC. FLOW: 50', 7.0% = 4.25 fps
(UNGRAVELLED) (FIG 8-10)

$$\frac{50}{9.25} = 12 \text{ SEC} \approx 0.2 \text{ MIN.}$$

$$T_c = 17 + 0.2 = 17.2 \text{ MIN.}$$

DAYTON → MONTGOMERY COUNTY → AREA D

$$i_{10} = 9.3 \text{ IN/Hr}$$

$$Q_{10} = ciA = (0.25)(9.3)(14.06) = \underline{\underline{15.1 \text{ cfs}}}$$