



PLANNING
ENGINEERING
IMPLEMENTATION

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Date 1/30/17
Job No. 150376
Made By ALN
Chkd. By _____

CLIENT _____
JOB VIEW HIGH APARTMENTS

SANITARY SEWER SERVICE PLAN

PEAK BASE FLOW
FROM ATTACHED SPREAD SHEET

$$\text{PEAK BASE FLOW} = \underline{\underline{56,581 \text{ gpd.}}}$$

PEAK INFILTRATION

$$500 \text{ gpd} * 17.5 \text{ AC} = \underline{\underline{8750 \text{ gpd}}}$$

PEAK INFLOW (50-YEAR STORM)

$$K = 0.006 \text{ (RESIDENTIAL)}$$

$$T_c = 18.56 (A)^{0.2524} \\ = 18.56 (17.5)^{0.2524} = 38.22 \text{ mins}$$

$$i \rightarrow \text{INTERPOLATION} \rightarrow 4.51 \text{ in/h}$$

$$Q = KiA$$

$$= 0.006 (4.51) (17.5) = 0.47 \text{ cfs} \rightarrow 1.0 \text{ cfs} = 646,317 \text{ gpd} = \underline{\underline{306,063 \text{ gpd}}}$$

PEAK FLOW

$$\text{PEAK FLOW} = \text{PEAK BASE FLOW} + \text{PEAK INFILTRATION} + \text{PEAK INFLOW} \\ = \underline{\underline{371,314 \text{ gpd}}} = \underline{\underline{0.58 \text{ cfs}}}$$

$$\text{MANNING} \rightarrow 7" \text{ @ } 1\% \rightarrow \text{USE } 8" \text{ PVC} \rightarrow V = 3.24 \text{ fps} \\ n = 0.014 \quad \% \text{ FULL} = 51\%$$



DESIGN FLOW CALCULATIONS FOR VIEW HIGH APARTMENTS

PEI 150376

Generation Rates

Unit Type	Bldg Use	Parameter	gpd/parameter	Q (gpd)
1 Bedroom	Apartment	156 Units	150	23400
2 Bedroom	Apartment	136 Units	200	27200
3 Bedroom	Apartment	20 Units	250	5000
	Clubhouse	9811 s.f.	100/1000	981
	Pool Backwash	0 Allowance	250	0

Avg Daily Flow	56581	gpd
	0.0566	MGD
	39.29	gpm
	0.0875	cfs

Peak Flow =	282905	gpd
5 x Avg Daily Flow	0.2829	MGD
	196.46	gpm
	0.4377	cfs

