

**SANITARY SEWER DESIGN SHEET**  
for  
**147 LANGSTAFF DRIVE, CARP**

LOCATION				RESIDENTIAL AREA AND POPULATION				FLOW				PIPE						
				INDIVIDUAL		CUMULATIVE		PEAK FACTOR	PEAK POP. FLOW (L/s)	EXTRAN. FLOW (L/s)	PEAK DESIGN FLOW (L/s)	LENGTH (m)	DIAMETER (mm)	SLOPE (%)	CAPACITY (L/s)	VELOCITY (m/s)	EXCESS CAPACITY (L/s)	PERCENT FULL
STREET	DRAINAGE AREA	FROM MH	TO MH	POP.	AREA (ha)	POP.	AREA (ha)											
<b>TO CARP ROAD SEWER</b>																		
STREET 1		100	101	8.1	0.19	8.1	0.19	3.74	0.10	0.06	0.16	37.7	201.16	1.06	34.33	1.08	34.17	0.47
STREET 1		102	101	10.8	0.21	10.8	0.21	3.73	0.13	0.07	0.20	37.7	201.16	1.09	34.81	1.10	34.61	0.57
STREET 1		101	103	13.5	0.27	32.4	0.67	3.68	0.39	0.22	0.61	49.1	201.16	1.06	34.33	1.08	33.72	1.77
STREET 1		103	104	10.8	0.20	43.2	0.87	3.66	0.51	0.29	0.80	18.9	201.16	1.38	39.17	1.23	38.37	2.04
STREET 1		104	105	40.5	0.90	83.7	1.77	3.61	0.98	0.58	1.56	69.3	201.16	1.14	35.60	1.12	34.04	4.39
STREET 1		105	107	40.5	0.83	124.2	2.60	3.57	1.44	0.86	2.30	90.4	201.16	1.50	40.84	1.28	38.54	5.62
STREET 1		107	108	10.8	0.22	135.0	2.82	3.56	1.56	0.93	2.49	21.9	201.16	0.87	31.10	0.98	28.61	8.01
STREET 1		108	109	8.1	0.17	143.1	2.99	3.56	1.65	0.99	2.64	15.4	201.16	0.84	30.56	0.96	27.92	8.63
STREET 1		109	110	5.4	0.15	148.5	3.14	3.55	1.71	1.04	2.75	19.4	201.16	1.44	40.01	1.26	37.26	6.86
STREET 1		110	111	5.4	0.11	153.9	3.25	3.55	1.77	1.07	2.84	26.8	201.16	3.66	63.79	2.01	60.94	4.46
PRIVATE		BLK 26	112	75.6	0.72	75.6	0.72	3.62	0.89	0.24	1.12	4.0	201.16	2.00	47.15	1.48	46.03	2.38
STREET 1		112	111	8.1	0.24	83.7	0.96	3.61	0.98	0.32	1.30	30.6	201.16	0.49	23.34	0.73	22.04	5.55
EASEMENT		111	113	0.0	0.04	237.6	4.25	3.50	2.69	1.40	4.09	43.5	201.16	3.40	61.48	1.93	57.38	6.66
EASEMENT		113	114	0.0	0.05	237.6	4.30	3.50	2.69	1.42	4.11	31.7	201.16	4.79	72.97	2.30	68.86	5.63
EASEMENT		114	115	0.0	0.05	237.6	4.35	3.50	2.69	1.44	4.13	28.9	201.16	4.98	74.41	2.34	70.28	5.55
EASEMENT		115	EX 27A	0.0	0.02	237.6	4.37	3.50	2.69	1.44	4.13	20.0	201.16	5.00	74.55	2.35	70.42	5.54
<b>TO LANGSTAFF DRIVE SEWER</b>																		
PRIVATE		BLK 24/25	119	163.8	0.78	163.8	0.78	3.54	1.88	0.26	2.14	4.0	201.16	0.50	23.58	0.74	21.44	9.07
STREET 2		119	118	10.8	0.31	174.6	1.09	3.54	2.00	0.36	2.36	35.8	201.16	0.42	21.61	0.68	19.25	10.92
STREET 2		118	117	2.7	0.05	177.3	1.14	3.53	2.03	0.38	2.41	6.6	201.16	0.45	22.37	0.70	19.96	10.76
STREET 2		117	116	27.0	0.60	204.3	1.74	3.52	2.33	0.57	2.90	52.8	201.16	0.49	23.34	0.73	20.44	12.43
STREET 2		116	EX 55A	0.0	0.01	204.3	1.75	3.52	2.33	0.58	2.91	10.5	201.16	0.48	23.10	0.73	20.19	12.58
<b>DESIGN PARAMETERS</b>																		
Average Daily Flow =	280	L/person/day	Per Unit Populations:															
Comm./Inst. Flow =			Single Family	3.4 persons/unit														
Industrial Flow =			Semi-detached	2.7 persons/unit														
Maximum Residential Peak Factor =	4.0		Duplex	2.3 persons/unit														
Harmon - Correction Factor (K) =	0.8		Townhouse (row)	2.7 persons/unit														
Comm./Inst. Peak Factor =			Apartments:															
Extraneous Flow =	0.33	L/s/ha	Bachelor	1.4 persons/unit														
			1 Bedroom	1.4 persons/unit														
			2 Bedroom	2.1 persons/unit														
			3 Bedroom	3.1 persons/unit														
			Average Apt.	1.8 persons/unit														