SANITARY SEWER DESIGN SHEET

LandSmith
ENGINEERING & CONSULTING LTD.

DATE: Dec. 23, 2022 **FILE No.:** 2021VP38
DESIGNED: DH **PROJECT:** 1177-1187 West 5th
CHECKED: AS

q = average per capita daily flow 360

P = number of persons in thousands contributing to sewer
M = peaking factor (Babbit's)
M = 5/P^0.2
Q(p) = (q x P x M) / 86400

Q(p) = peak population flow (L/s)
Q(i) = = peak extraneous flow (L/s)
Q(d) = = peak design flow (L/s)

Infiltration Allowance: 0.400 L / s / ha

SHEET No.: 1 OF 1

LOCATION				INDIVIDUAL			CUMULATIVE						PROPOSED SANITARY SEWER							
STREET	Area#	FROM MH	TO MH	POP PER HECTARE (ppha)	POP	RES. AREA (ha)	POP	TOTAL AREA (ha)	PEAKING FACTOR (M)	POPULATION FLOW, Q(p) (L/s)	PEAK EXTRANEOUS FLOW, Q(i) (L/s)	PEAK DESIGN FLOW, Q(d) (L/s)	LENGTH (m)	PIPE SIZE DIAMETER (mm)	GRADE (%)	MANNING'S n	CAPACITY (L/s)	FULL FLOW VELOCITY (m/s)	ACTUAL VELOCITY (m/s)	PERCENT FULL
FUT Sheldons Gate	1	A101	A100	71	1628	22.995	1628	23.00	4.54	30.77	9.20	39.96	86.3	375	0.35%	0.013	103.7	0.94	0.83	38.5%
West 5th Street	2	HG21A039	A100	75	114	1.525	196	1.53	5.00	4.08	0.61	4.69	46.0	250	0.50%	0.013	42.0	0.86	0.54	11.2%
1177-1187 West 5th St.	**3**	**MHA100**	**HG21A041**	**1065**	**546**	**0.512**	546	0.51	5.00	11.38	0.20	11.58	20.0	250	2.00%	0.013	84.1	1.71	1.15	13.8%
West 5th Street	4	MHA100	HG21A041	75	14	0.186	2384	25.22	4.20	41.74	10.09	51.83	53.7	375	0.35%	0.013	103.7	0.94	0.90	50.0%
West 5th Street	5	HG21A041	HG20A029	75	33	0.437	2417	25.66	4.19	42.21	10.26	52.47	67.3	375	0.50%	0.013	124.0	1.12	1.02	42.3%