SANITARY DRAINAGE AREA PLAN

SCALE 1:10 000

0m 500m 1000m

LEGEND

A1=36.987ha / 14189 P — AREA 1 IN HECTARES, POPULATION

BOUNDARY AREA

SANITARY SEWER

AREA 4 SHADED

POPULATION DENSITIES

A) HIGH DENSITY RESIDENTIAL
- MAX.: 150 u/ha (60 u/acre) @ 3 ppu = 450 pphs
- (1 BEDROOM = 2.5 PPU., 2 BEDROOM = 3.5 PPU.)
- AVG.: 100 u/ha (40 u/acre) @ 3 ppu = 300 pphs
- MIN.: 75 u/ha. (30 u/acre) @ 3 ppu = 225 pphs

B) MEDIUM DENSITY RESIDENTIAL
- MAX.: 50 u/ha (20 u/acre) @ 3 ppu = 150 pphs
- AVG.: 35 u/ha (15 u/acre) @ 4 ppu = 140 pphs

C) SINGLE FAMILY
- 25 u/ha (10 u/acre) @ 4 ppu = 100 pphs

SANITARY SEWER DESIGN SHEET

CITY OF LONDON

FLOW Q = PqM/86,4 + IA

where P = Design population in thousands
q = Average daily per capita flow in l/cap.d
M = Harmon Factor = 1 + 14/(4+P^0.5)
I = Unit of peak extraneous flow in l/ha.s.
A = Gross tributary area in hectares

q = 295 l/cap.d (New growth)
q = 295 l/cap.d (Post 96)
q = 346 l/cap.d (Pre 96)

I = 0.117 l/ha.s(Pre 96)
I = 0.1 l/ha.s(Post 96 & new growth)

DATE: June 27, 2001
DESIGNED BY
CHECKED BY
SHEET 1 of 1

AREA #	STREET	LOCATION FROM MH	LOCATION TO MH	AREA (HECTARES) NET OR GROSS	(A) ha	TOTAL ha	POPULATION PER Ha	(P) POP.	TOTAL POP.	SEWAGE FLOW INFILT l/s	SEWAGE l/s	TOTAL l/s	SEWER DESIGN SIZE mm	SLOPE %	n	VEL. m/s	CAP. l/s	LOSSES IN MH	PROFILE Fall in Sewer (m)	LENGTH m	INVERT ELEV. U.S.	INVERT ELEV. D.S.
A1-A	Commissioners(new Growth)		WT1002	G	3.38	3.38	55.0	186	186	0.3	2.9	3.2	675	0.15	0.013	0.91	324	0.000	0.107	71.0	265.027	264.920
A1-B	Commissioners(Post 96)		WT1002	G	75.19	78.57	32.9	3529	3715	7.5	44.8	55.6	675	0.15	0.013	0.91	324	0.000	0.107	71.0	265.027	264.920
A1-C	Commissioners		WT1002	G	291.30	369.87		10474	14189	34.1	135.4	225.1	675	0.15	0.013	0.91	324	0.000	0.107	71.0	265.027	264.920
	Easement	WT1002	24			369.87		0	14189			225.1	750	0.60	0.013	1.94	857	0.000	0.246	41.1	264.856	264.610
	Easement	24	23			369.87		0	14189			225.1	750	0.60	0.013	1.94	858	0.096	0.272	45.5	264.460	264.188
	Easement	23	22			369.87		0	14189			225.1	750	0.60	0.013	1.94	858	0.237	0.351	58.4	263.806	263.455
	Easement	22	21			369.87		0	14189			225.1	750	0.60	0.013	1.94	858	0.000	0.480	80.0	263.405	262.925
	Easement	21	20			369.87		0	14189			225.1	750	0.60	0.013	1.94	858	0.000	0.480	80.0	262.863	262.383
	Easet/Old Wonderland	20	19			369.87		0	14189			225.1	750	0.60	0.013	1.94	858	0.173	0.437	72.8	261.794	261.357
A2	Old Wonderland	19	18		33.34	403.21	15.0	500	14689	3.9	8.8	237.7	750	1.00	0.013	2.51	1107	0.000	0.600	60.0	261.300	260.500
	Old Wonderland	18	17			403.21		0	14689			237.7	750	0.70	0.013	2.10	926	0.000	0.700	100.0	260.440	259.740
	Old Wonderland	17	16			403.21		0	14689			237.7	750	0.60	0.013	1.94	858	0.000	0.600	100.0	259.690	259.090
	Old Wonderland	16	15			403.21		0	14689			237.7	750	0.80	0.013	2.24	990	0.000	0.640	80.0	259.040	258.400
	Old Wonderland	15	14			403.21		0	14689			237.7	750	0.80	0.013	2.24	990	0.000	0.400	50.0	258.350	257.950
	Old Wonderland	14	13			403.21		0	14689			237.7	750	3.50	0.013	4.69	2071	0.000	3.500	100.0	257.350	253.850
	Old Wonderland	13	12			403.21		0	14689			237.7	750	5.60	0.013	5.93	2620	0.000	1.400	25.0	253.550	252.150
	Old Wonderland	12	11			403.21		0	14689			237.7	750	5.60	0.013	5.93	2620	0.000	1.400	25.0	251.550	250.150
	Old Wonderland	11	10			403.21		0	14689			237.7	750	4.20	0.013	5.13	2269	1.621	2.466	58.7	249.812	247.346
	Old Wonderland	10	9			403.21		0	14689			237.7	750	1.00	0.013	2.51	1109	0.361	0.261	26.0	246.846	246.585
	Old to New Wonderland	9	8			403.21		0	14689			237.7	750	2.50	0.013	3.96	1749	0.600	0.206	8.3	246.406	246.200
	Wonderland	8	7			403.21		0	14689			237.7	750	2.00	0.013	3.54	1565	0.096	0.843	42.2	245.900	245.057
	Wonderland	7	6			403.21		0	14689			237.7	750	2.45	0.013	3.92	1733	0.035	2.029	82.8	244.854	242.825
	Wonderland/Spring	6	5			403.21			14689	0.0	0.0	237.7	750	2.00	0.013	3.54	1566	0.224	1.600	80.0	242.525	240.925
	Wonderland	5	4			403.21		0	14689			237.7	750	5.60	0.013	5.93	2620	0.000	5.320	95.0	240.325	235.005
*A3-A	Wonderland/Spring(NEW GROWTH)	4	3		85.46	488.67	55.0	5264	19953	6.5	63.7	310.0	750	1.00	0.013	2.51	1107	0.112	1.000	100.0	234.405	233.405
*A3-B	Wonderland/Spring	4	3		54.28	542.95		3745	23698	6.4	55.4	371.8	750	1.00	0.013	2.51	1107	0.112	1.000	100.0	234.405	233.405
A4	Wonderland/Overflow	4	3		254.79	797.74	44.6	11366	35064	29.8	145.2	546.7	825	1.00	0.013	2.67	1428	0.273	1.000	100.0	234.405	233.405
	Wonderland	3	2			797.74		0	35064			546.7	825	1.00	0.013	2.67	1428	0.027	0.650	65.0	233.350	232.700
	Wonderland	2	1			797.74		0	35064			546.7	825	1.00	0.013	2.67	1428	0.033	0.450	45.0	232.650	232.200
	Wonderland	1	EX MH			797.74		0	35064			546.7	825	0.65	0.013	2.15	1151	0.099	0.130	20.0	231.333	231.863

FILE No. P:\PROJECTS\01377\[SANSHEET.XLS]SANSHEET (2)

POPULATION DENSITIES

A) HIGH DENSITY RESIDENTIAL
- MAX.: 150 u/ha (60 u/acre) @ 3 ppu = 450 pphs
- (1 BEDROOM = 2.5 PPU., 2 BEDROOM = 3.5 PPU.)
- AVG.: 100 u/ha (40 u/acre) @ 3 ppu = 300 pphs
- MIN.: 75 u/ha. (30 u/acre) @ 3 ppu = 225 pphs

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- MAX.: 50 u/ha (20 u/acre) @ 3 ppu = 150 pphs
- AVG.: 35 u/ha (15 u/acre) @ 4 ppu = 140 pphs

C) SINGLE FAMILY
- 25 u/ha (10 u/acre) @ 4 ppu = 100 pphs

SANITARY SEWER DESIGN SHEET

JUNE 2000 STORM

CITY OF LONDON

FLOW Q = PqM/86,4 + IA

where P = Design population in thousands
q = Average daily per capita flow in l/cap.d
M = Harmon Factor = 1 + 14/(4+P^0.5)
I = Unit of peak extraneous flow in l/ha.s.
A = Gross tributary area in hectares

q = 295 l/cap.d (New growth)
q = 295 l/cap.d (Post 96)
q = 346 l/cap.d (Pre 96)

I = 0.117 l/ha.s(Pre 96)
I = 0.1 l/ha.s(Post 96 & new growth)

DATE: June 27, 2001
DESIGNED BY
CHECKED BY
SHEET 1 of 1

AREA #	STREET	LOCATION FROM MH	LOCATION TO MH	AREA (HECTARES) NET OR GROSS	(A) ha	TOTAL ha	POPULATION PER Ha	(P) POP.	TOTAL POP.	SEWAGE FLOW INFILT l/s	SEWAGE l/s	TOTAL l/s	SEWER DESIGN SIZE mm	SLOPE %	n	VEL. m/s	CAP. l/s	LOSSES IN MH	PROFILE Fall in Sewer (m)	LENGTH m	INVERT ELEV. U.S.	INVERT ELEV. D.S.
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A1-B	Commissioners(Post 96)		WT1002	G	75.19	78.57	32.9	3529	3715	7.5	44.8	55.6	675	0.15	0.013	0.91	324	0.000	0.107	71.0	265.027	264.920
A1-C	Commissioners		WT1002	G	291.30	369.87		10474	14189	497.0	135.4	667.9	675	0.15	0.013	0.91	324	0.000	0.107	71.0	265.027	264.920
	Easement	WT1002	24			369.87		0	14189			667.9	750	0.60	0.013	1.94	857	0.000	0.246	41.0	264.856	264.610
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A2	Old Wonderland	19	18		33.34	403.21	15.0	500	14689	3.9	8.8	700.6	750	1.00	0.013	2.51	1107	0.000	0.600	60.0	261.300	260.500
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	Old Wonderland	16	15			403.21		0	14689			700.6	750	0.80	0.013	2.24	990	0.000	0.640	80.0	259.040	258.400
	Old Wonderland	15	14			403.21		0	14689			700.6	750	0.80	0.013	2.24	990	0.000	0.400	50.0	258.350	257.950
	Old Wonderland	14	13			403.21		0	14689			700.6	750	3.50	0.013	4.69	2071	0.000	3.500	100.0	257.350	253.850
	Old Wonderland	13	12			403.21		0	14689			700.6	750	5.60	0.013	5.93	2620	0.000	1.400	25.0	253.550	252.150
	Old Wonderland	12	11			403.21		0	14689			700.6	750	5.60	0.013	5.93	2620	0.000	1.400	25.0	251.550	250.150
	Old Wonderland	11	10			403.21		0	14689			700.6	750	4.20	0.013	5.13	2269	1.513	2.466	58.7	249.812	247.346
	Old Wonderland	10	9			403.21		0	14689			700.6	750	1.00	0.013	2.51	1109	0.361	0.261	26.0	246.846	246.585
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	Wonderland	8	7			403.21		0	14689			700.6	750	2.00	0.013	3.54	1565	0.096	0.843	42.2	245.900	245.057
	Wonderland	7	6			403.21		0	14689			700.6	750	2.45	0.013	3.92	1733	0.035	2.029	82.8	244.854	242.825
	Wonderland/Spring	6	5			403.21			14689	0.0	0.0	700.6	750	2.00	0.013	3.54	1566	0.224	1.600	80.0	242.525	240.925
	Wonderland	5	4			403.21		0	14689			700.6	750	5.60	0.013	5.93	2620	0.000	5.320	95.0	240.325	235.005
*A3-A	Wonderland/Spring(NEW GROWTH)	4	3		85.46	488.67	55.0	5264	19953	61.9	63.7	826.2	750	1.00	0.013	2.51	1107	0.112	1.000	100.0	234.405	233.405
*A3-B	Wonderland/Spring	4	3		54.28	542.95		3745	23698	6.4	55.4	888.0	750	1.00	0.013	2.51	1107	0.112	1.000	100.0	234.405	233.405
A4	Wonderland/Overflow	4	3		254.79	797.74	44.6	11366	35064	160.3	145.2	1213.4	825	1.00	0.013	2.67	1428	0.273	1.000	100.0	234.405	233.405
	Wonderland	3	2			797.74		0	35064			1213.4	825	1.00	0.013	2.67	1428	0.027	0.650	65.0	233.350	232.700
	Wonderland	2	1			797.74		0	35064			1213.4	825	1.00	0.013	2.67	1428	0.033	0.450	45.0	232.650	232.200
	Wonderland	1	EX MH			797.74		0	35064			1213.4	825	0.65	0.013	2.15	1151	0.099	0.130	20.0	231.333	231.863

AS CONSTRUCTED NOTES	AS CONSTRUCTED SERVICES	COMPLETION

DESIGN	PDC
DRAWN	SJD/TG
CHECKED	PDC
APPROVED	JHH
DATE	JUNE /01

No.	REVISIONS	DATE	BY
A	ISSUED FOR CLIENT REVIEW	06/18/01	PDC
0	ISSUED FOR TENDER	07/03/01	PDC
1	RECORD DRAWING	07/18/02	PDC

CONSULTANT OR DIVISION

EARTH TECH

Earth Tech (Canada) Inc. London, Ontario 519.673.0510

PROJECT ENGINEER

ENGINEER'S STAMP

LICENSED PROFESSIONAL ENGINEER — P.D. CHOMA — PROVINCE OF ONTARIO

London CANADA

CORPORATION OF THE CITY OF LONDON

DIVISION MANAGER

CITY ENGINEER

SCALE: AS NOTED

TITLE: WESTMOUNT SANITARY RELIEF SEWER

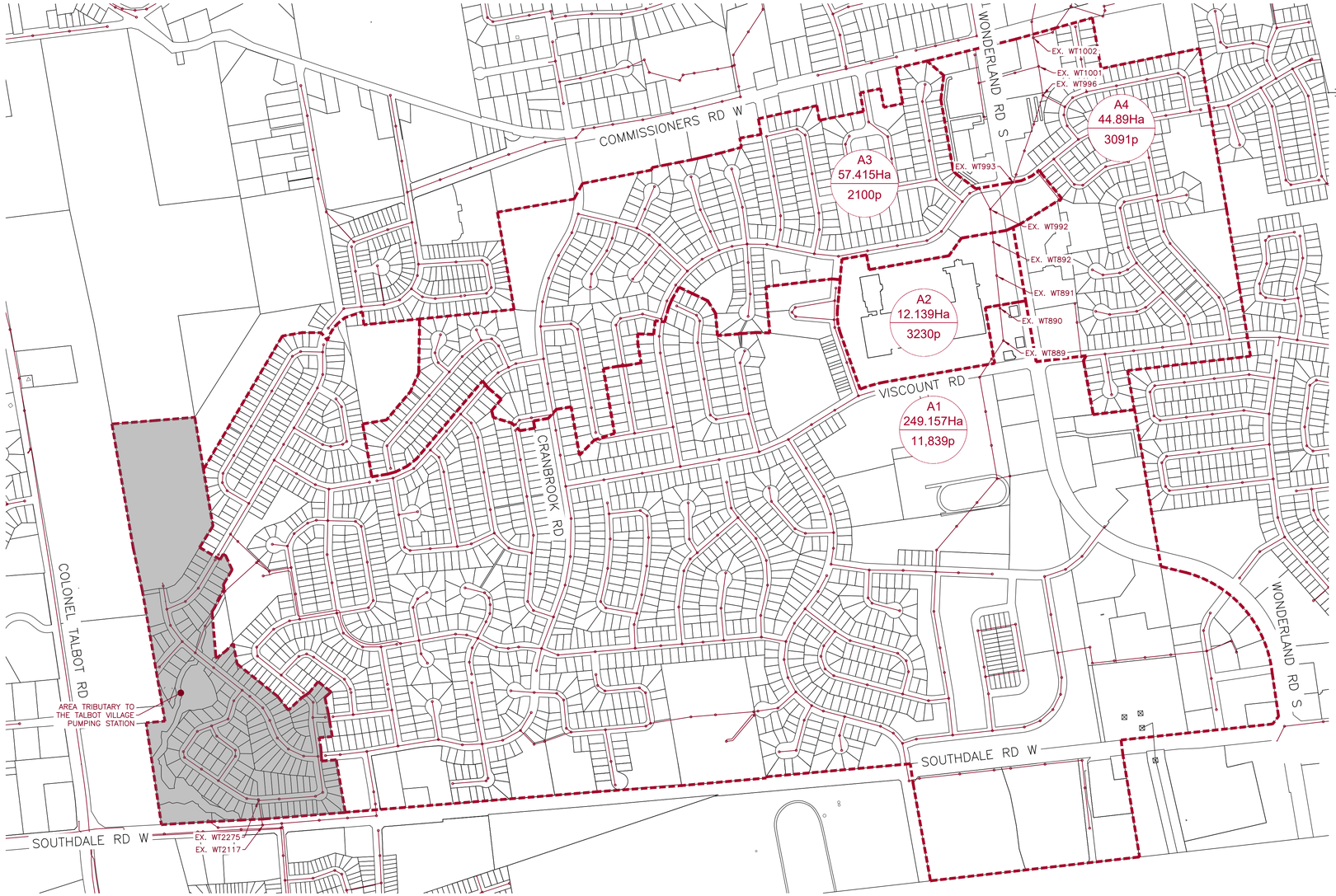
SANITARY AREA DRAINAGE PLAN AND DESIGN SHEETS

PROJECT No. 610/W/70

SHEET No. G5

PLAN FILE No. 17,028

Drawing File: P:\PROJECTS\01377(4774?)\dwg\Ashbrit\GENERAL\01377-G5.DWG
Time: 11:24 A.M.
Date: JUL 21,2002



RESIDENTIAL POPULATIONS DENSITIES

AREA / ZONING BASIS
LOW DENSITY (SINGLE FAMILY) - 30 UNITS PER HECTARE @ 3 PEOPLE / UNIT
MEDIUM DENSITY (MULTI-FAMILY) - 75 UNITS PER HECTARE @ 2.4 PEOPLE / UNIT
HIGH DENSITY - 150 TO 300 UNITS PER HECTARE @ 1.8 PEOPLE / UNIT

LOT BASIS
SINGLE FAMILY - 3 PEOPLE PER UNIT
SEMI DETACHED - 6 PEOPLE PER UNIT

SANITARY SEWER DESIGN SHEET
CITY OF LONDON
Westmount Commons

POPULATIONS CALCULATED FOR EACH AREA ON A SEPARATE SHEET BASED ON VARIOUS LAND USES .

$$Q(peak\ flow\ L/s) = \left(\frac{(population\ x\ per\ capita\ flow\ x\ peaking\ factor\ x\ uncertainty)}{24\ x\ 60\ x\ 60}\right) + infiltration$$

Per capita flow = 230 litres/capita/day
Peaking Factor = Harmon Formula $M = 1 + \left(\frac{14}{4 + P^{0.5}}\right)$

Uncertain Development Factor = 1.0 or 1.1 (situation dependent)
Infiltration Allowance = 8640 litres/hectare/day (0.100L/ha/s)

SANITARY AREA: 363.60 ha
DESIGNED BY: RQ
CHECKED BY: JS

DATE: October 28, 2022
#VALUE!

LOCATION				AREA			POPULATION					SEWAGE FLOW				SEWER DESIGN					PROFILE					
AREA ID	STREET	FROM	TO	NET OR GROSS	Δ AREA Ha.	TOTAL AREA Ha.	PER Ha.	PER LOT	NO. OF LOTS	Δ POP.	TOTAL POP.	INFILTRATION (l/s)	PEAKING FACTOR (M)	SEWAGE (l/s)	TOTAL (l/s)	"n"	SIZE (mm)	DESIGN SLOPE %	CAPACITY (l/s)	VELOCITY (m/s)	LENGTH (m/s)	DROP IN D.S. MH (m)	FALL IN SEWER (m)	HEAD LOSS (m)	INVERT U.S. m	ELEV. D.S. m
A1	Wonderland Road South	WT889	WT890	G	249.157	249.157			-	11839	11839	24.916	2.882	90.814	124.811	0.013	600	0.20	274.589	0.971	80.1		0.160		266.564	266.404
A2	Propsoed Site Development	WT890	WT891	G	12.139	261.296			-	3230	15069	26.130	2.776	111.366	148.633	0.013	600	0.12	212.696	0.752	79.9		0.096		266.398	266.304
-	Propsoed Site Development	WT891	WT892	G	0.000	261.296			-	0	15069	26.130	2.776	111.366	148.633	0.013	600	0.08	173.665	0.614	82.1		0.066		266.285	266.221
-	Propsoed Site Development	WT892	WT992	G	0.000	261.296			-	0	15069	26.130	2.776	111.366	148.633	0.013	600	0.12	212.696	0.752	80.7		0.097		266.203	266.081
A3	Wonderland Road South	WT992	WT993	G	57.415	318.711			-	2100	17169	31.871	2.719	124.278	168.577	0.013	600	0.26	313.080	1.107	86.3		0.224		266.075	265.856
A4	Wonderland Road South	WT1001	WT1002	G	44.890	363.601			-	3091	20260	36.360	2.647	142.752	193.387	0.013	675	0.15	325.563	0.910	71.0		0.107		265.030	264.900

EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION

DETAILS	No.	REVISIONS	DATE	CONSULTANT
DESIGN BY RQ	1	SANITARY CAPACITY REVIEW	NOV. 2/22	DEVENG
DRAWN BY RQ				
CHECKED BY JS				
F.BK. ***				
FILE: DEL22-012 - OBM.DWG				

CONSULTANT OR DIVISION

London Office
41 Adelaide St. N., Unit 71
(519) 672-8310

Paris Office
31 Mechanic St., Unit 301
(519) 442-1441

development engineering (London) Limited
CONSULTING CIVIL ENGINEERS

ENGINEERS STAMP
LICENSED PROFESSIONAL ENGINEER
J. R. SMITH
100144789
Nov 2/22
PROVINCE OF ONTARIO

SCALE
SCALE - 1:6000
60 0 120m

TITLE
WESTMOUNT SHOPPING CENTRE RE-DEVELOPMENT
785 WONDERLAND ROAD SOUTH

SANITARY AREA PLAN AND DESIGN SHEET

PROJECT No. DEL22-012
SHEET No. FIG.1
PLAN FILE No.

RQuan Nov.07/22 - 7:20pm DEL22-012 - OBM.dwg

EXISTING SANITARY MAINTENANCE HOLE

EXISTING SANITARY SEWER

DRAINAGE AREA BOUNDARY

REFERENCE FIG.1 FOR SANITARY AREA PLAN AND DESIGN SHEET

DRAINAGE AREA DESIGNATION

A1

DRAINAGE AREA — 0.50Ha

24p — TOTAL POPULATION

EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION

DETAILS	
DESIGN BY	RQ
DRAWN BY	RQ
CHECKED BY	JS
F.BK.	***
FILE:	DEL22-012 - OBM.DWG

No.	REVISIONS	DATE	CONSULTANT
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SCALE

SCALE - 1:6000

60 0 120m

TITLE

WESTMOUNT SHOPPING CENTRE RE-DEVELOPMENT

785 WONDERLAND ROAD SOUTH

SANITARY AREA POPULATION SUMMARY

PROJECT No. DEL22-012

SHEET No. FIG.2

PLAN FILE No.

RQuan Nov.07/22 - 8:24pm DEL22-012 - OBM.dwg

Project #: DEL22-012
Project Name **Westmount Shopping Centre Re-Development**
Date: November 2, 2022
By: RQ

development engineering (London) Limited
CONSULTING CIVIL ENGINEERS
41 Adelaide Street North, Unit 71
London, Ontario, N6B 3P4
Tel: (519) 672-8310 Fax: (519) 672-4182
e-mail:deveng@deveng.net
website: www.deveng.net

Fig. 3 - Sanitary Population Calculations

Sanitary Area Plan Number	Area #	Single Family Area (ha)	# of Single Family Lots	Single Family Pop.	Medium Density Area (ha)	# of MF Family Units	Medium Density Pop	High Density Area (ha)	# of HD Family Units	High Density Pop	Commercial / Institutional (ha)	Commercial / Institutional Pop	Elementry School Area (ha)	Elementary School Equivalent Pop	Secondary School Area (ha)	Secondary School Equivalent Pop	Church Area (ha)	Church Pop	Green Space (ha)	Total Area Pop.	Total Area (Ha)
	A0																		3.967		3.967
	A1	8.725	110	330																330	8.725
	A2	0.541	9	27																27	0.541
	A2A																		0.083		0.083
	A3	0.752	6	18																18	0.752
	A4																		3.601		3.601
	A5	17.646	203	609																609	17.646
	A6	7.309	50	150																150	7.309
	A7	1.138	20	60																60	1.138
	A8	16.504	161	483																483	16.504
	A9				3.067	54	130													130	3.067
	A10																		3.492		3.492
	A11	18.726	167	501																501	18.726
	A11A										0.236	24								24	0.236
	A12	24.990	252	756																756	24.990
	A13				0.989	16	39													39	0.989
	A14				2.600		450													450	2.600
	A15	8.789	81	243																243	8.789
	A16	5.822	52	156																156	5.822
	A17				2.643	22	53													53	2.643
	A18	2.038	17	51																51	2.038
	A19																		1.767		1.767
	A20						50												6.712	50	6.712
A1	A21							3.314		217										217	3.314
	A22										5.008	653								653	5.008
	A23							6.578		436										436	6.578
	A24				0.575	19	46													46	0.575
	A25										0.107	11								11	0.107
	A26	20.448	194	582																582	20.448
	A27							1.667	142	227										227	1.667
	A28										0.237	24								24	0.237
	A29				0.701	29.000	70													70	0.701
	A30				3.945	192	461													461	3.945
	A31										0.852	86								86	0.852
	A32										7.710	771								771	7.710
	A33																		3.863		3.863
	A34							7.345	636	1018										1018	7.345
	A35				11.196	295	708													708	11.196
	A36	2.473	32	96																96	2.473
	A37				9.127	205	492													492	9.127
	A37A																		3.787		3.787
	A38																		1.833		1.833
	A39												3.886	235						235	3.886
	A40												1.636	235						235	1.636
	A41														6.322	587				587	6.322
	A42										1.563	157								157	1.563
	A43							1.336	168	269										269	1.336
	A44										1.511	328								328	1.511
																			Existing Total	**11839**	**249.157**
A2	A45										12.139	3230							**Proposed =**	**3230**	12.139
																			Existing =	*1002*	12.139
	A46	5.659	61	183																183	5.659
	A47																		0.209		0.209
	A48				4.545	134	322													322	4.545
	A49	16.838	136	408																408	16.838
A3	A50																		0.679		0.679
	A51										0.229	23								23	0.229
	A52	24.723	212	636																636	24.723
	A53				1.252	88	212													212	1.252
	A54				0.892	32	77													77	0.892
	A55																2.389	239		239	2.389
																			Existing Total	**2100**	**57.415**
	A56							5.611	594	950										950	5.611
	A57												2.262	235						235	2.262
	A58																		2.130		2.130
A4	A59										0.088	9								9	0.088
	A60	26.277	268.000	804																804	26.277
	A61							2.129	228	365										365	2.129
	A62				3.313	192	461													461	3.313
	A63										1.149	115								115	1.149
	A64				1.931	63	152													152	1.931
																				3091	**44.890**

Existing Totals	**18,032**	**351.46**
Proposed Totals	**20,260**	**351.46**

Assumptions

Maximum Residential Density (Low Density):	30	units/ha[1]
Maximum Residential PPU (Low Density):	3.0	persons/unit[1]
Maximum Residential Density (Medium Density):	75	units/ha[2]
Maximum Residential PPU (Medium Density):	2.4	persons/unit[1]
Maximum Residential Density (High Density):	150	units/ha[2]
Maximum Residential PPU (High Density):	1.6	persons/unit[1]
Commercial/Institutional (also assumed for Heritage):	100	person/ha[1]
Church	100	person/ha[1]
Elementary School Design Pop:	600	person
Secondary School Pop:	1500	person
Residential Dry Weather Design Flow:	230	L/cap/day[1]
School Consumption:	30	L/cap/8 hours
School Equivalent Pop.=	$\left(\frac{Design\ Pop.x\ 30L/cap/8\ hours}{230\ L/cap/day}\right)x3$	
Uncertain Development Factor[1]:	0.1	
Peaking Factor (residential Harmon)[1]:	M=1+(14/(4+P$^{0.5}$))	
Infiltration Allowance:	0.1	L/s/ha[1]

References:
(1) Taken from City of London Design Specifications & Requirements Manual - Section 3, Last Updated March, 2021

Project #: **DEL22-012**
Project Name **Westmount Shopping Centre Re-Development**
Date: November 2, 2022
By: RQ

development engineering (London) Limited
CONSULTING CIVIL ENGINEERS
41 Adelaide Street North, Unit 71
London, Ontario, N6B 3P4
Tel: (519) 672-8310 Fax: (519) 672-4182
e-mail:deveng@deveng.net
website: www.deveng.net

Figure 4 - Site Sanitary Population Calculations

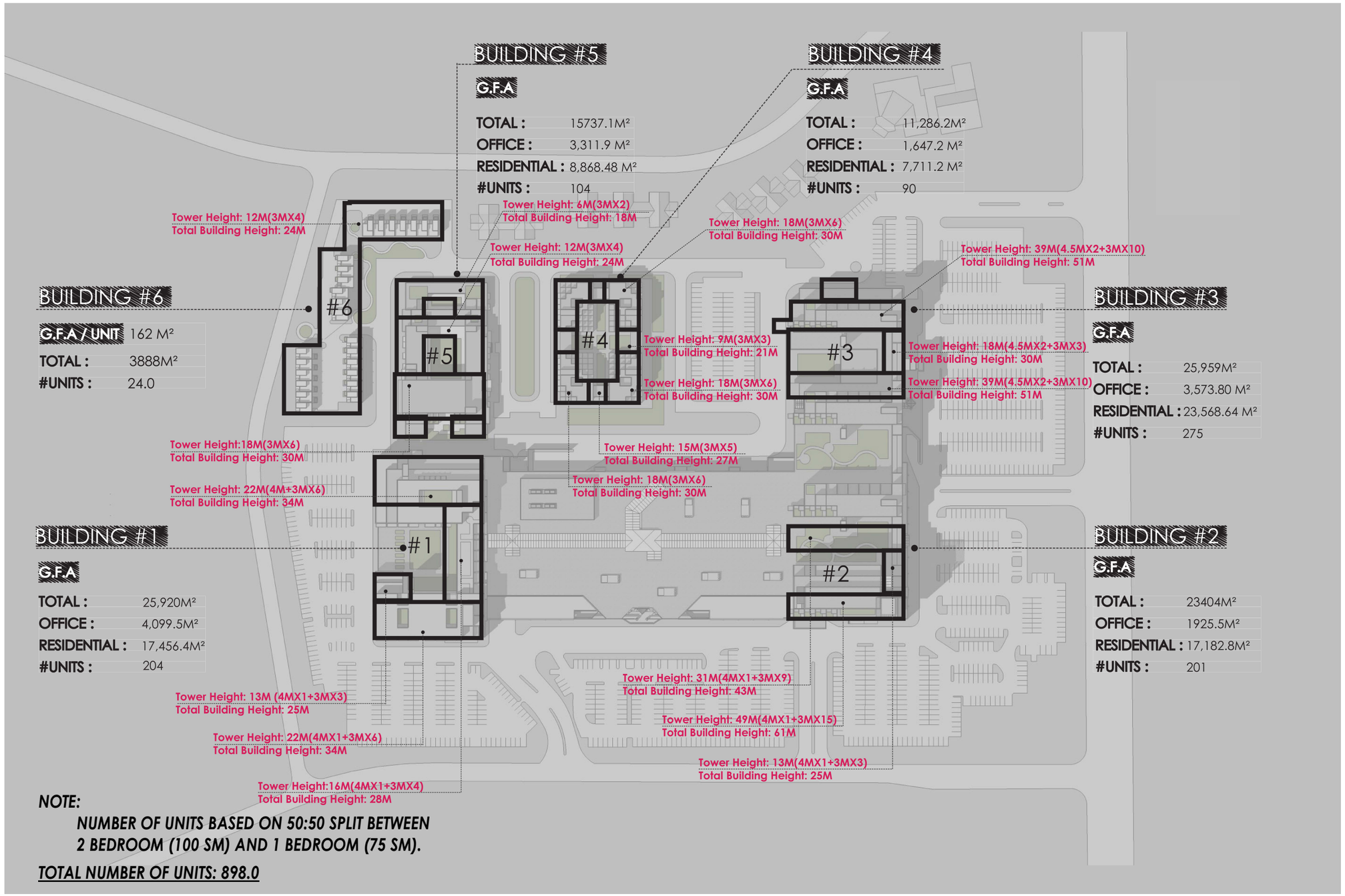
	Building Area GFA (m^2)	Site Area (Ha)		Equivalent Pop.
Existing Conditions				
Existing Shopping Centre	42,367	11.562		922
Cineplex Theater	3,728		913 Seats	80
Totals	**46,095**	**11.562**		**1002**
Kelseys	505	1.128	200 Seats	109
Tehini's	493		100 Seats	55
Future			100 Seats	55
Church's Texas Chicken	552		200 Seats	109
Totals	**1,550**	**1.128**		**328**
Proposed Development				
Office Space	40,000	11.562		1403
Shopping Centre	17,000			370
High Density	87,748		874 Units	1399
Medium Density	3,888		24 Units	58
Totals	**148,636**	**11.562**		**3230**
Proposed Development Net Increase				**2228**

OBC Table 8.2.1.3.B.

12. a) Restaurant (not 24 hour):	125	L/seat/day
15. Office Building, a)	75	L/9.3m^2/day
20. Shopping Centre:	5	L/m^2/day
24. Theatres, a):	20.0	L/seat/day

Maximum Residential PPU (Medium Density):	2.4	persons/unit[1]
Maximum Residential PPU (High Density):	1.6	persons/unit[1]
Residential Dry Weather Design Flow:	230	L/cap/day[1]
Uncertain Development Factor[1]:	0.1	
Peaking Factor (residential Harmon)[1]:	$M=1+(14/(4+P^{0.5}))$	
Infiltration Allowance:	0.1	L/s/ha[1]

References:
(1) Taken from City of London Design Specifications & Requirements Manual - Section 3, Last Updated March, 2021



NOTE:

NUMBER OF UNITS BASED ON 50:50 SPLIT BETWEEN 2 BEDROOM (100 SM) AND 1 BEDROOM (75 SM).

TOTAL NUMBER OF UNITS: 898.0

Zelinka Priamo Ltd. LAND USE PLANNERS

360 ARCHITECTURE

BUILDING HEIGHT / AREA / UNIT COUNT

McCOR

WESTMOUNT MALL DEVELOPMENT

London, ON

London, Ontario

McCor Management (East) Inc.

06/30/22