MTE Consultants
123 St. George St., London, Ontario N6A 3A1

January 19, 2024

MTE File No.: C553717-100

Development Services
City of London
300 Dufferin Avenue
London, ON N6A 4L9

Attention: Paul Dilosa

RE: Functional Servicing Report - 359 Wellington Road

This report has been prepared to support the development at 359 Wellington Road in the City of London in addressing site services for the proposed site.

Pre-Development Conditions

The subject lands are located within Oxbow Creek – Thames River watershed. Subject land drains northwest towards Baseline Road.

Post Development Conditions

The Site plan is approximately 0.18 ha in size. The site plan consists of a residential apartment with 250 units and landscaped areas.

Existing Municipal Services

Watermain

There is one existing 200mmØ PVC watermain on Baseline Road north of the subject site. Two watermain on Wellington Road, a 250mmØ PVC and a 900mmØ concrete watermain.

Sanitary Sewer

There is an existing 300mmØ sanitary sewer on Baseline Road conveying flows west towards Balderstone Avenue and a 300mmØ sanitary sewer on Wellington Road conveying flows north.

Storm Sewer

There is an existing 975mmØ storm sewer sewer on Baseline Road conveying flows east towards Wellington Road with a 300mmØ storm PDC stub to the subject site property line.

Water Supply Services

Water supply will be provided with a connection to the 250mmØ watermain on Wellington Road. Additional fire hydrant may require along Wellington Road if the fire department connection (Siamese connection) is located on the east side of the building. This is due to the existing hydrant on the north side of Baseline Road not being within the required 45m unobstructed path of travel. Further water modeling to be complete during detailed design stage to confirm sufficient flows.

Sanitary Servicing

As per the as-constructed Base Line Road East, City of London File No. 27971, the proposed development property has an assumed existing 100mm sanitary private drain connection which will be capped and abandoned, a new sanitary connection is proposed for the development.

It is recommended that subject site connects to the 300mmØ sanitary sewer on Wellington Road. The existing sanitary sewer was designed in 1992 (reference City of London DWG File No.11956) with the subject site only partially included in the design area. Additional population has been included in attached capacity analysis.

The proposed development is a residential high-rise building, which corresponds to a population of 400 people using current City of London standards.

Proposed Population

Description	Floor Area (m^2)	Reference	Rate	Daily Flow (L/day)	Equivalent Pop. (based on C.o.L. flow 230 L/cap/day)
Residential Units (250 units)		C.O.L. Design Specifications	1.6 people/ unit	-	400
				Total=	**400**

Based on information obtained from the City, MTE completed a capacity analysis of the sewers on Wellington Road fronting the proposed site. The Wellington Road Design Sheet, dated June 21, 2007, shows a sewage flow of 45.5L/s downstream of the site using a sewage flow rate of 432 L/Cap/Day. The updated flows downstream of the proposed site is 29.0L/s based on the updated design sheet with a population of 400 from the proposed site in place of the previous allocated 22 people and updated sewage flow rate of 230L/Cap/Day, based on current City of London Standards. The proposed development will increase anticipated peak flows in the downstream sewers by a maximum of 4.7 L/s, but due to the updated flow rate this shows a decrease of 16.5L/s. Based on the analysis, the existing sewers have sufficient capacity to convey the expected flow from the proposed development. Please see downstream analysis in the attachments.

Stormwater Management Considerations

Criteria

The stormwater management design criteria for the subject site, as established by the City of London are as follows:

- Ensure on-site controls are designed to reduce/match existing peak flows from the 2 through 100-year return period storms.
- Implementation of water quality controls.

Methodology

In order to successfully complete the stormwater management design for this site, the following specific tasks were undertaken:

- Calculated the allowable release rates using Rational Method based on the 5-year predevelopment conditions.
- Determine the Site's runoff coefficient.
- Calculated post-development runoff using Rational Method.
- Sized orifice to attain the required storage for runoff control.

Quantity Controls

The site is a tributary of an existing 975mm storm sewer on Baseline Road with a runoff coefficient of 0.80 per City of London as-constructed drawing No. 27963. MTE completed area take off measurements based on the proposed site plan. Surfaces and cumulative areas are summarized as follows:

Impervious Area:	1634.6 m^2
Pervious Area:	180.40m^2
Total:	1815.00 m^2

Applying a runoff coefficient of 0.2 for pervious surfaces and 0.9 for the impervious surfaces, a weighted runoff coefficient of 0.83 was calculated for the site.

The proposed development composite C factor calculated as 0.83 is higher than the accepted runoff coefficient for the site; therefore, onsite SWM quantity controls are required. Based on preliminary calculations the allowable release rate for 2-year event is 28.64 L/s. It is suggested the flow rate to be controlled through an orifice plate installed on the outlet of the most downstream storm maintenance holes on site.

As the proposed coefficient exceeds the design, on-site storage will be required to attenuate flow from the 2 through 100-year events to design levels. A preliminary extended rational analysis method was used to determine the maximum storage volume which would be required to attenuate runoff to the target release rate. The analysis showed approximately 30.60m^3 of storage volume will be required. Grading shall be designed to safely convey runoff from the storm event exceeding the 100-year storm to the designated overland flow route northwest of the site to Baseline Road. The use of parking lot storage, roof top flow controls, and/or underground storm tanks are recommended to provide the required quantity controls.

Quality Controls

As per section 6.2.1.3 of the City of London Design Specifications and Requirements Manual the proposed development has less than 30 proposed at-grade parking spaces therefore, no water quality controls are required for the development.

We trust this meets your requirements. Should you have any questions or require anything further, please do not hesitate to contact the undersigned.

Regards,

MTE Consultants Inc

Derrick Rice, P.Eng.
Project Manager
519-204-6510 ext. 2265
drice@mte85.com

Attached

- Existing Sanitary Design Sheet (Wellington Road)
- Proposed Sanitary Design Sheet (Wellington Road)
- Storm Water Management Calculations
- City of London As-Built Drawings
- Preliminary Servicing Drawing
- Preliminary Servicing Drawing

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RESIDENTIAL POPULATION DENSITIES

THE FOLLOWING POPULATION ALLOWANCES WILL APPLY WHEN DESIGNING SANITARY SEWERS:

(A) HECTARE BASIS

LOW DENSITY (SINGLE FAMILY/SEMI-DETACHED)	= 30 UNITS/HA @ 3 PEOPLE/UNIT
MEDIUM DENSITY (TOWNHOUSES)	= 75 UNITS/HA @ 2.4 PEOPLE/UNIT
HIGH DENSITY (APARTMENTS)	= 150-300 UNITS/HA @ 1.6 PEOPLE/UNIT
COMMERCIAL / INSTITUTIONAL / CHURCH	= 100 PEOPLE/HA
ELEMENTARY SCHOOL	= 400 PEOPLE
SECONDARY SCHOOL	= 1500 PEOPLE

(B) LOT BASIS

SINGLE FAMILY	= 3 PEOPLE
DUPLEX / SEMI	= 6 PEOPLE

SANITARY SEWER DESIGN SHEET

CITY OF LONDON

CITY ENGINEER'S DEPARTMENT

PROJECT NAME : COMMISSIONERS ROAD TO BASELINE ROAD

DATE : June 21, 2007

DESIGNED BY : R.A.Lucas, C.E.T.

CHECKED BY : D.J.Whitney, M. Eng., P. Eng.

FILE No :

SHEET : 1 of 1

DESIGN CRITERIA

AREA A	SEWAGE = 250 L/DAY/CAP = 0.0030 x 1.1 l/s/person
AREA B to 10	SEWAGE = 432 L/DAY/CAP = 0.0050 x 1.1 l/s/person
	INFILTRATION = 8640 L/HA/DAY = infilt. of 0.100 l/s/ha
	PEAKING FACTOR = HARMON FORMULA $M = 1 + \frac{14}{4 + P^{0.5}}$

LOCATION				AREA (HECTARES)			POPULATION					SEWAGE FLOW				SEWER DESIGN					PROFILE		CAPACITY
AREA	STREET	FROM	TO	NET OR	DELTA	TOTAL	PER	PER	No. OF	DELTA	TOTAL	M	SEWAGE	INFILT.	TOTAL	DIA.	SLOPE		VELOCITY	CAP.	LENGTH	FALL IN	PERCENT
No.		M.H.	M.H.	GROSS	AREA ha	AREA ha	ha	LOT	LOTS	POP.	POP.	Min.2.0	l/s	l/s	l/s	mm	%	n	m / s	l / s	M	SEWER	USED
A	**655 WELLINGTON ROAD**				**0.19**	**0.19**	**100**			19.00	**19**	**4.38**	**0.27**	**0.02**	**0.29**								
B	**647 WELLINGTON ROAD**				**0.23**	**0.42**	**99**			23.00	**42**	**4.33**	**0.80**	**0.04**	**0.84**								
A1	WELLINGTON ROAD	Exterio	MH 9		11.09	11.51	99			1098.00	1140	3.76	23.58	1.15	**24.73**	250	1.74	0.013	1.60	78.45	91.70	1.596	32%
A2	WELLINGTON ROAD	MH 9	MH 8		3.11	3.11	99			308.00	308	4.07	6.89	0.31	**7.20**	200	2.00	0.013	1.48	46.39	14.50	0.290	16%
A3	WELLINGTON ROAD	MH 8	MH 7		0.81	15.43	99			81.00	1529	3.67	30.86	1.54	**32.40**	250	4.35	0.013	2.53	124.03	41.20	1.792	26%
A4	WELLINGTON ROAD	MH 7	MH 6		1.73	17.16	99			172.00	1701	3.64	34.05	1.72	**35.77**	250	4.35	0.013	2.53	124.03	90.00	3.915	29%
A5	WELLINGTON ROAD	MH 6	MH 5		1.47	18.63	99			146.00	1847	3.61	36.67	1.86	**38.53**	300	0.50	0.013	0.97	68.38	91.00	0.455	56%
A6	WELLINGTON ROAD	MH 5	MH 4		3.28	21.91	99			325.00	2172	3.56	42.53	2.19	**44.72**	300	1.15	0.013	1.47	103.70	93.80	1.079	43%
A7	WELLINGTON ROAD	MH 4	MH 3		0.44	22.35	99			44.00	2216	3.55	43.27	2.24	**45.51**	300	1.28	0.013	1.55	109.41	84.30	1.079	42%
A8	WELLINGTON ROAD	MH 3	MH A		5.64	27.99	99			559.00	2775	3.47	52.96	2.80	**55.76**	300	2.39	0.013	2.11	149.50	170.10	4.065	37%
A9	WELLINGTON ROAD	EXT	MH A		4.65	4.65	82			382.00	382	4.03	8.47	0.47	**8.94**	200	1.00	0.013	1.04	32.80	100.00	1.000	27%
A10	WELLINGTON ROAD	MH A	MH B		0.10	32.64	82			9.00	3166	3.42	59.55	3.26	**62.81**	250	2.00	0.013	1.71	84.10	100.00	2.000	75%

SANITARY SEWER DESIGN SHEET- PROPOSED

359 Wellington Road
City of London

Project #: 53717-100
Date: 12/19/2023
Design By: JC
Checked By: DR
File: M:\53717\100\FSR\53717-100_design_sheet.xlsx

RESIDENTIAL COMMERCIAL AND INSTITUTIONAL POPULATION DENSITIES

THE FOLLOWING POPULATION ALLOWANCES WILL APPLY WHEN DESIGNING SANITARY SEWERS:

LOW DENSITY (SINGLE-FAMILY / SEMI-DETACHED)	=	30 UNITS / HECTARE @ 3 PEOPLE / UNIT
MEDIUM DENSITY (MULTI-FAMILY / TOWNHOUSE / ROWHOUSE)	=	75 UNITS / HECTARE @ 2.4 PEOPLE / UNIT
HIGH DENSITY (APARTMENTS)	=	150-300 UNITS / HECTARE @ 1.6 PEOPLE / UNIT
COMMERCIAL / INSTITUTIONAL	=	100 PEOPLE / HECTARE
SECONDARY SCHOOL	=	1500 PEOPLE
ELEMENTARY SCHOOL	=	600 PEOPLE

Design Parameters

SEWAGE =	230	L/Capita/Day
INFILTRATION =	8640	L/Ha/Day
PEAKING FACTOR=	1+(14/(4+(P^0.5))	
Manning's "n"	0.013	
Min. Velocity =	0.6 m/s	
Max. Velocity =	4.5m/s (300-825mm) 6.0m/s (>900mm)	

LOCATION				AREA		POPULATION						SEWAGE FLOWS			SEWER DESIGN					
AREA No.	STREET	FROM MANHOLE	TO MANHOLE	DELTA HECTARE	TOTAL HECTARES	POP. PER HECTARE	PER LOT	NO. OF LOTS	DELTA POP.	TOTAL POP.	PEAKING FACTOR	INFILT L / s	SEWAGE L / s	Q TOTAL L / s	PIPE SIZE mm	n	SLOPE %	CAP L / s	VELOCITY m/s	LENGTH m
A	655 Wellington Road	A	B	0.19	0.19	100.00			19	19	4.38	0.02	0.24	0.26						
B	647 Wellington Road	B	EXT 1	0.23	0.42	99.00			23	42	4.33	0.04	0.53	0.57						
A1	Wellington Road	EXT 1	MH 9	11.09	11.51	99.00			1098	1140	3.76	1.15	12.56	13.7	200	0.013	1.74	43.3	1.38	91.7
A2	Wellington Road	MH 9	MH 8	3.11	14.62	99.00			308	1448	3.69	1.46	15.65	17.1	200	0.013	2.00	46.4	1.48	14.5
A3	Wellington Road	MH 8	MH 7	0.81	15.43	99.00			81	1529	3.67	1.54	16.45	18.0	250	0.013	4.35	124.0	2.53	41.2
A4	Wellington Road	MH 7	MH 6	1.73	17.16	99.00			172	1701	3.64	1.72	18.13	19.8	250	0.013	4.35	124.0	2.53	90.0
A5	Wellington Road	MH 6	MH 5	1.47	18.63	99.00			146	1847	3.61	1.86	19.54	21.4	300	0.013	0.50	68.4	0.97	91.0
A6	Wellington Road	MH 5	MH 4	3.28	21.91	99.00			325	2172	3.56	2.19	22.63	24.8	300	0.013	1.15	103.7	1.47	93.8
A101	359 Wellington Road	A101	MH 4	0.22	0.22				400	400	4.02	0.02	4.71	4.7						
A7	Wellington Road	MH 4	MH 3	0.44	22.57	99.00			44	2616	3.49	2.26	26.75	29.0	300	0.013	1.25	108.1	1.53	84.3
A8	Wellington Road	MH 3	MH A	5.64	28.21	99.00			559	3175	3.42	2.82	31.81	34.6	300	0.013	2.39	149.5	2.11	170.1
A9	Wellington Road	EXT 2	MH A	4.65	4.65	82.00			382	382	4.03	0.47	4.51	5.0	200	0.013	1.00	32.8	1.04	100.0
A10	Wellington Road	MH A	MH B	0.10	32.96	82.00			9	3566	3.38	3.30	35.27	38.6	250	0.013	2.00	84.1	1.71	100.0

SWM Calculations

DATE:	January 19, 2024
JOB N0.:	53717-100
Client:	**LJM Developments**
Project:	**359 Wellington Road**
Location:	**London, ON**

DESIGN CONDITIONS

TOTAL DESIGN AREA (A1)

	Area (m^2)
Total Site Area:	1815.000
Building Area:	-
Concrete/Asphalt:	-
Landscaped/Open:	-
Totals:	1815.00
C_{eq} = Sum(A*C)/Sum(A) =	0.80

2 Year Design Flows

C =	0.80	
**Time to concentration t_c =	12.50	min
Intensity, i (@ t_c) =	70.95	mm/hr
Post Development Flow, Q_r = 2.78*C*i*A =	28.64	l/s

100 Year Design Flows

C =	0.80	
**Time to concentration t_c =	12.50	min
Intensity, i (@ t_c) =	163.84	mm/hr
Post Development Flow, Q_r = 2.78*C*i*A =	66.14	l/s

POST-DEVELOPMENT CONDITIONS

POST-DEVELOPMENT CONTROLLED CATCHMENT A1

	Area (m^2)	C	A*C
Total Site Area:	1815.000		
Impervious	1634.60	0.9	1471.14
Pervious	180.40	0.2	36.08
Totals:	1815.00		1507.22
C_{eq} = Sum(A*C)/Sum(A) =	0.83		

CITY OF LONDON - 3 HOUR CHICAGO RAINFALL DISTRIBUTION PARAMETERS*

Return Period (years)	A,B,C Parameters A	B	C
25mm	538.850	6.331	0.809
2	754.360	6.011	0.810
5	1183.740	7.641	0.838
10	1574.382	9.025	0.860
25	2019.372	9.824	0.875
50	2270.665	9.984	0.876
100	2619.363	10.500	0.884
250	3048.220	10.030	0.888

*Intensity i=A/(t+B)^C (mm/hr)

* Refer to the City of London Design Specification & Requirments Manual (DS&RM), Section 6.

RAINFALL DATA

Rainfall Data - London Rainfall Intensity Duration

2YR Storm Event

Duration (min.)	Intensity "i" (mm/hr)
5	108.07
10	79.80
15	64.03
30	41.39
60	25.33
120	15.01
180	10.95

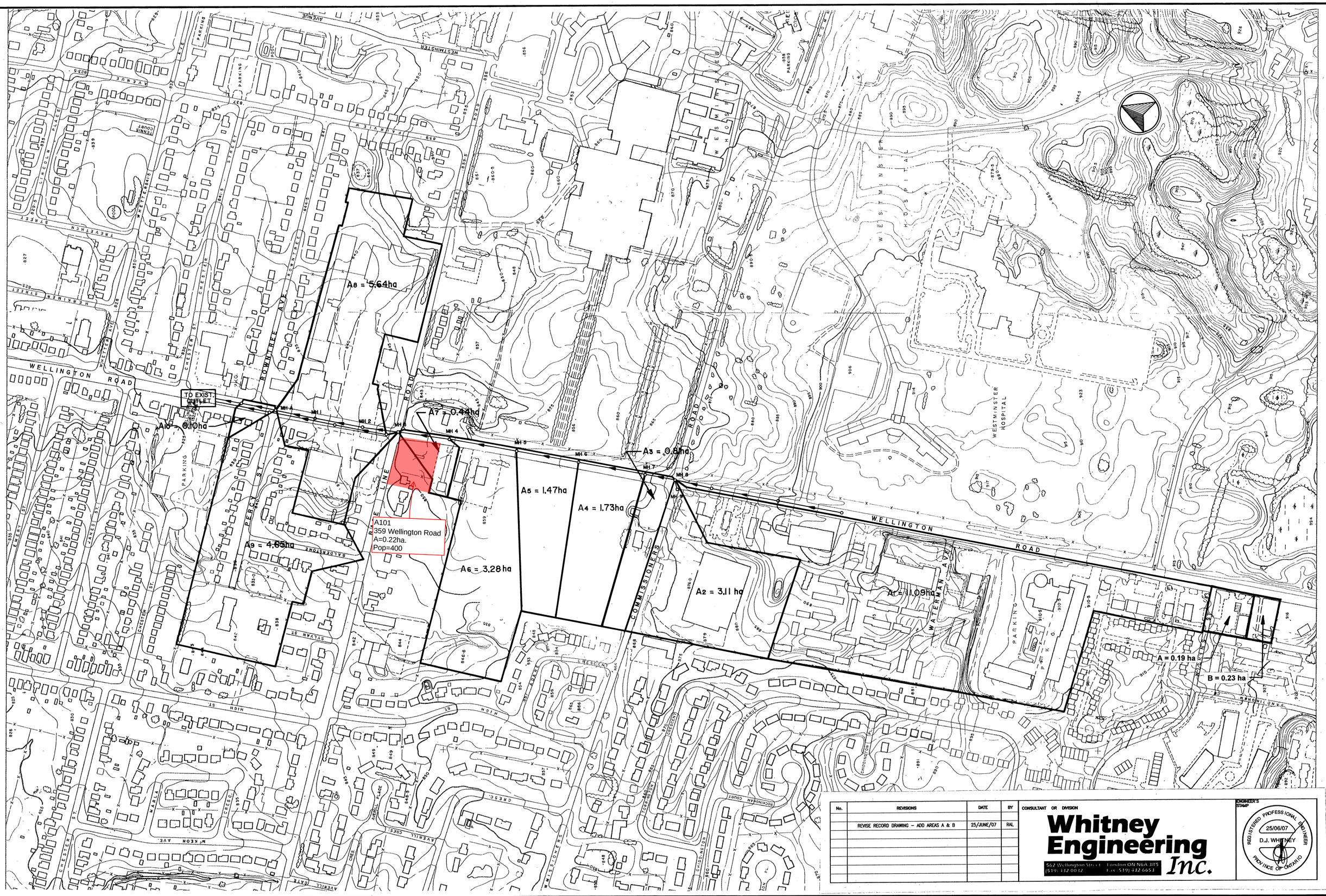
100 Yr Stm Event

Duration (min.)	Intensity "i" (mm/hr)
5	232.24
10	181.39
15	149.56
30	99.36
60	60.87
120	35.32
180	25.28

STORAGE CALCULATIONS

Inflow, Q_i 2.78*C*i*A (l/s)	Volume In Qt*t*60/1000 (m^3)	Orifice Restrictor Outflow, Q_o (l/s)	Surface Outflow Q_o (l/s)	Allowable Release, Q_o (l/s)	Volume Out Q_o*t*60/1000 (m^3)	Difference/ Storage (m^3)
45.26	13.58	28.64	0.00	28.64	8.59	4.99
33.42	20.05	28.64	0.00	28.64	17.18	2.87
26.82	24.13	28.64	0.00	28.64	25.78	-1.64
17.33	31.20	28.64	0.00	28.64	51.55	-20.35
10.61	38.19	28.64	0.00	28.64	103.10	-64.91
6.28	45.25	28.64	0.00	28.64	206.21	-160.96
4.58	49.51	28.64	0.00	28.64	309.31	-259.80
					Max. Storage Volume (m^3) =	4.99

Inflow, Q_i 2.78*C*i*A (l/s)	Volume In Qt*t*60/1000 (m^3)	Orifice Restrictor Outflow, Q_o (l/s)	Surface Outflow Q_o (l/s)	Allowable Release, Q_o (l/s)	Volume Out Q_o*t*60/1000 (m^3)	Difference/ Storage (m^3)
97.26	29.18	28.64	0.00	28.64	8.59	20.59
75.96	45.58	28.64	0.00	28.64	17.18	28.39
62.63	56.37	28.64	0.00	28.64	25.78	30.60
41.61	74.90	28.64	0.00	28.64	51.55	23.35
25.49	91.77	28.64	0.00	28.64	103.10	-11.33
14.79	106.49	28.64	0.00	28.64	206.21	-99.71
10.59	114.34	28.64	0.00	28.64	309.31	-194.97
					Max. Storage Volume (m^3) =	30.60



No.	REVISIONS	DATE	BY
	REVISE RECORD DRAWING – ADD AREAS A & B	25/JUNE/07	RAL

CONSULTANT OR DIVISION

Whitney Engineering Inc.

562 Wellington Street London ON N6A 3P5
(519) 432 0032 Fax (519) 432 6653

ENGINEER'S STAMP

REGISTERED PROFESSIONAL ENGINEER
25/06/07
D.J. WHITNEY
PROVINCE OF ONTARIO

AS CONSTRUCTED NOTES	AS CONSTRUCTED SERVICES	COMPLETION
1 SEE DRAWING No FOR FURTHER DETAIL		
2 SEWER DESIGN: TRANSITION WIDTH OR AS NOTED		
3 REFERENCE B. M. No ELEVATION m		
4		
5		

DESIGN	S.J.N.
DRAWN	S.F.L.
CHECKED	J.L.C.
APPROVED	F.R.B.
DATE	APRIL 27 1990

No	REVISIONS	DATE	BY
	APPROVED FOR CONSTRUCTION	AUG. 1, 1990	
	AS CONSTRUCTED	JAN. 1992	

CONSULTANT OR DIVISION

DS-Lea Associates Ltd.
Consulting Engineers and Planners

PROJECT ENGINEER

ENGR'S STAMP

REGISTERED PROFESSIONAL ENGINEER
J.L. CURRIE
PROVINCE OF ONTARIO

CORPORATION OF THE CITY OF LONDON

DIVISION HEAD

CITY ENGINEER

SCALE 1" = 200'

Horizontal

Vertical

TITLE

WELLINGTON ROAD WIDENING
COMMSSIONERS ROAD TO BASE LINE ROAD

SANITARY
DRAINAGE AREA PLAN

PROJECT No. TS-1070

SHEET No 3077-03

PLAN FILE No 11,956

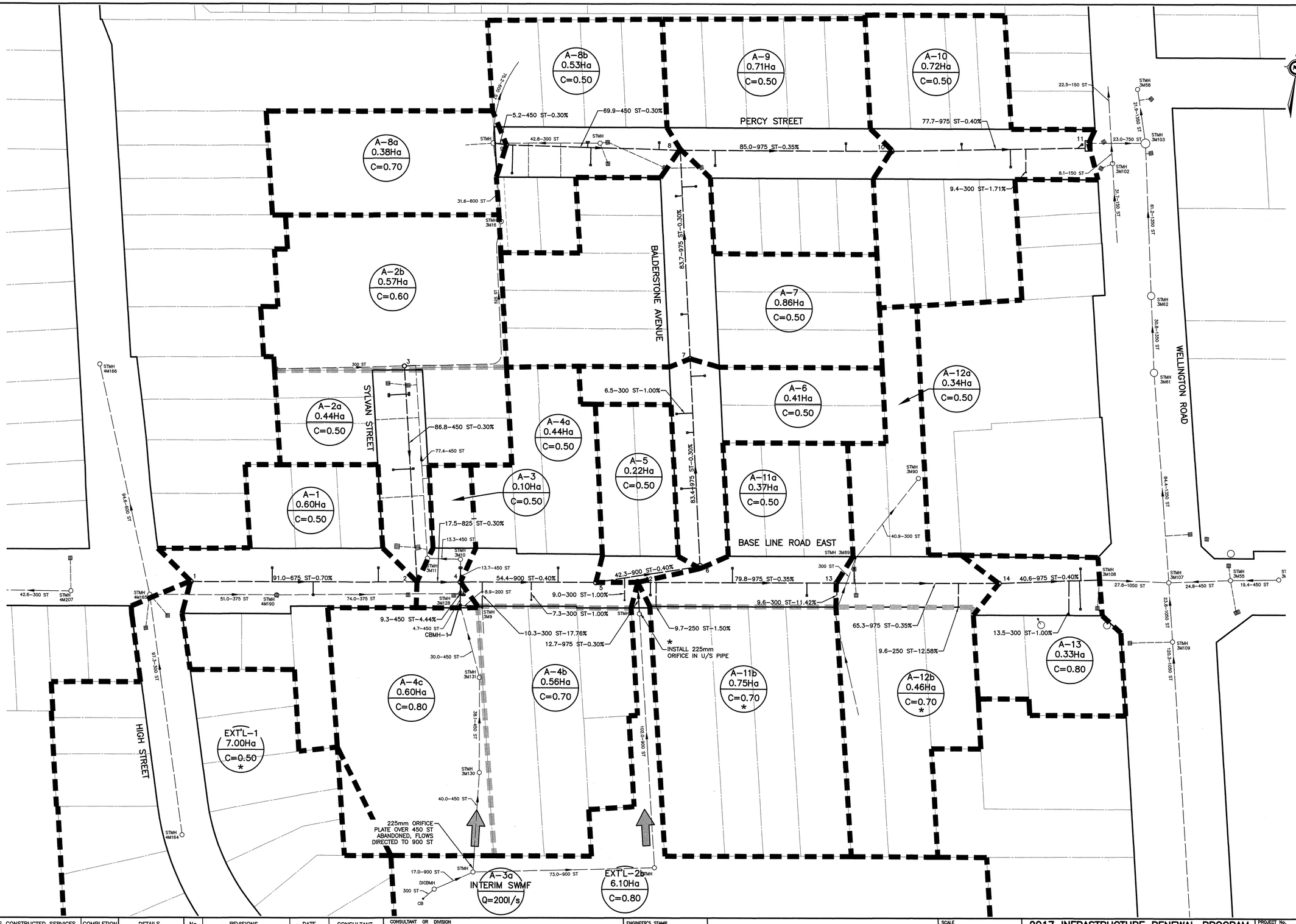
11,956

LEGEND

- STORM MANHOLE
- STORM SEWER (87.0–300 ST–0.54%)
- EXISTING STORM MANHOLE (STMH 3M9)
- EXISTING STORM SEWER (300 ST)
- STORM CATCHMENT AREA
- STORM AREA No. (A–1, 1.06Ha)
- RUNOFF COEFFICIENT (C=0.40)

* THE REMOVAL OF THE 225mm ORIFICE AND/OR ANY REDEVELOPMENT WITHIN THE DRAINAGE AREA AND/OR THE INCLUSION OF HIGH STREET EXTERNAL AREA WILL NOT BE PERMITTED WITHOUT FURTHER DOWNSTREAM IMPROVEMENTS TO THE STORM SEWER SYSTEM ON WELLINGTON ROAD AS APPROVED BY THE CITY OF LONDON.

* AREA A–11B, A–12B, A–13B ARE CURRENTLY ASSIGNED A C FACTOR OF 0.4. THE ULTIMATE C FACTOR OF 0.7 SHALL NOT BE APPLIED UNTIL FURTHER DOWNSTREAM IMPROVEMENTS TO THE STORM SEWER SYSTEM ON WELLINGTON ROAD ARE COMPLETED AND APPROVAL IS GIVEN BY THE CITY ENGINEER.



EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION	DETAILS		No.	REVISIONS	DATE	CONSULTANT
			SAN/STM SEWERS, PDCS & MH'S	NOV. 2017	DESIGN	RJG	1.	ISSUED FOR 90% REVIEW	OCT. 28/16	AECOM
			WM. AND WSC'S	NOV. 2017	DRAWN BY	RJG	2.	ISSUED FOR TENDER	JAN. 4/17	AECOM
			CURB AND GUTTER	NOV. 2017	CHECKED	JKK	3.	RECORD DRAWING	JAN./18	AECOM
			GRANULAR BASE	OCT. 2017	APPROVED	DCC				
			PAVING – I BASE	NOV. 2017	DATE	JULY 2016				
			– II BASE	MAY 2018						

CONSULTANT OR DIVISION

AECOM
London, Ontario
519.673.0510

ENGINEER'S STAMP

LICENSED PROFESSIONAL ENGINEER — D.C. CARTER — Feb 15/18 — PROVINCE OF ONTARIO

CORPORATION OF THE CITY OF LONDON
London CANADA

SCALE

SCALE – 1 : 750

2017 INFRASTRUCTURE RENEWAL PROGRAM
CONTRACT 9
BASE LINE RD. EAST, BALDERSTONE AVE., PERCY ST. & SYLVAN ST.

STORM AREA PLAN

PROJECT No. 60514352

SHEET No. 1A

27963

P:\60514352 Col. Baseline Rd Reconstruction\900-CAD, GIS\910-CAD\05-MODELS\CVASBUILTS\P01A_Base Line-STM AREA PLAN(RD).dwg

PRINT RECORD		
No.	FOR	DATE

SEE DWG.No. 3077– 24

SEE DWG.No. 3077– 15

SEE DWG.No. 3077– 17

10+107

10+261

MATCH LINE

MATCH LINE

R.O.W. VARIES

38.10 R.O.W.

11,960

PI. STA. 10+120
△ = 4° 16' 30"
R = 400.000m
T = 14.932m

33R-5245

LOT 43 REG. COMPILED PLAN 1033 LOT 49

BLOCK A

PART 1 PLAN 33R-1496

BASE LINE ROAD

SUNYS GAS BAR
MUN. No. 352

GAS PUMPS

GAS BOOTH

CONC PAD

CONC PAD

GUARD RAIL RETAINING WALL

RETAINING WALL & HANDRAIL

ST. MH.

SAN. MH.

C.B.

PLUG

SIB.

PP

SL

GUY

P.P. S.L.

TS

TICB 31

TICB 30

C.B. 28

C.B.3

C.B.8

CB 6

M.H.

B.H.13

B.H.1

C.B.27

C.B.7

ST. MH.4

ST. MH.5

ST. MH.7

SAN. MH.3

SAN. MH.2

ST. MH.6

BELL M.H.

DRYWELL M.H.

SAN. MH.

TSB.

S.L.

HYD.

SIGN

L.P.

G.V.

W.V.

BTUC

CONC. S/W

1.50 CONC. S/W

CONC. BUS BAY

CONCRETE APRON

IMPERIAL OIL GAS STATION MUN. No. 359

CONC PADS

4 UNDERGROUND FUEL TANKS

CANADA TRUST
MUN. No. 353

PART 19
INST. Nos. 782073 and 809695

LOT 21 LOT 22 LOT 23 LOT 24 LOT 25

MEDICAL CENTRE

PLAN 33 R - 8749

BLOCK A

LOT 6 LOT 7 LOT 8

REG. PLAN 607

WELLINGTON ROAD

BASE LINE ROAD

50 GM. (ABANDONED)

250 GM.

450 ST.

300 WM.

250 SAN.

24.80 – 450 ST. – 2.57%

24.08 SAN.2

20.08 ST.1

17.83 ST.7

84.395

N 9° 47' 40" W

15.255

N 10° 30' 00" W

25.485

N 10° 30' 00" W

50.042

1.500

0.900

R=400

R=10.00

R=12.50

375 ST.

200 SAN.

ABANDONED

16.60 ST.4

3.000

29.78 SAN.2

0+040.71

0+010.04

0+027.40

0+014.30

0+012.89

5.000

12.000

20.000

EX. STORM ?

900 WM.

150 PVC

0+023.45

0+027.13

15.1

0+033.10

0+067.73

84.4 – 1350 ST. – 2.70%

30.5 – 1350 ST. – 1.90%

23.80 – 1050 ST. – 3.16%

120.0 – 1050 ST. – 2.01%

84.30 – 300 SAN. – 1.28%

N 09° 47' 40" W

3.93

0+021.55

0+034.29

150 SAN. PDC

0+039.60

26.2 (VARIES)

44.8 – 300 SAN. – 2.87%

72.9 – 300 SAN. – 2.46%

150 WM.

50 GM. (ABANDONED) W.V.

0+036.5

0+042.8

0+049.2

250 SAN.

50 GM.

C.V.

N 09° 48' 10" W

150 W/S

4.885

48.850

RET. WALL

L.P.

23.7

28.48 ST.4

ABANDONED SAN.PDC W/S ABANDONED

SAN.PDC ABANDONED

0+071.1

50 WM.

150 SAN.

28.1 = ST.5
33.2 SAN.3

8.76 ST.6

PLANTER

PLUG

GUY

T.S.

S.L.P.

SIB.

B.B.

28.10 – 1050 ST. – 0.23%

10 + 201.250

250 W.V.

(ABANDONED) 250 WM.

100 GM.

250 W.M. (PVC CLASS 150)

1.600

14.500

0+028.40

14.50 ST.6

19 + 970

10.058

9.750

1.200

1.500

N 82° 46' 00" E

31.731

23.13 R.O.W.

33.227

37.571

CURB

CONC

GRAVEL

CONC. RET. WALL

SEE DWG.No. 3077– 24

PROCTOR & REDFERN LTD.
ENGINEER'S STAMP

REGISTERED PROFESSIONAL ENGINEER
Apr. 3/92
B.R.YOUNG
PROVINCE OF ONTARIO

FOR REVISION 9A ONLY

Caution:
Private Drain Connection (PDC) Information has been added to this plan. The location of PDC's along the main are believed to be accurate to within 3 feet (1 meter) but the direction of the PDC from the main to the property line has not been verified. Caution must be exercised when using this information to locate PDC's. The City of London does not accept any responsibility for the information on this plan, and is not responsible for any expenses or damages incurred directly or indirectly resulting from the use of such information.

AS CONSTRUCTED NOTES	AS CONSTRUCTED SERVICES	COMPLETION			No.	REVISIONS	DATE	BY
1 SEE DRAWING No. FOR FURTHER DETAIL	SAN.SEWERS,PDC's,MH.'s	MAY 1991	DESIGN	J.L.C.,S.J.N.	1	SIDEWALK LOCATION NORTH OF BASE LINE RD.	JULY 10 1990	P.M.V.
2 SEWER DESIGN; TRANSITION WIDTH OR AS NOTED	STORM SEWERS,MH.'s,C.B.'s	MAY 1991	DRAWN	P.M.V.,S.J.G.	2	375 ST. AT MH.4	JULY 10 1990	P.M.V.
3 REFERENCE BM. DHO364–2 ELEVATION 242.932 m	WATERMAIN , SERVICES	APRIL 1991	CHECKED	J.L.C.		REVISIONS 3 TO 7 Included	NOV.27 1990	P.M.V.
4	CURB & GUTTER	MAY 1991	APPROVED	F.R.B.	8	STREETLINE REVISED TO PLAN 33R–9320	DEC. 1990	P.M.V.
5	GRANULAR BASE	MAY 1991	DATE	MAY 30 1990	9A	MEDICAL CENTRE AS CONSTRUCTED	APR. 1992	JM
	PAVEMENT – BASE	MAY 1991						
	– SURFACE	JUNE 1991						
						AS CONSTRUCTED	JAN.1992	PMV

CONSULTANT OR DIVISION

DS-Lea Associates Ltd.
Consulting Engineers + Planners
Vancouver + Winnipeg + Toronto + Ottawa + London + Overseas

PROJECT ENGINEER

ENGINEER'S STAMP
PROFESSIONAL ENGINEER
NEWFOUNDLAND
14/6/90
J. CURRIE
PROVINCE OF ONTARIO

CORPORATION OF THE CITY OF LONDON

DIVISION HEAD

CITY ENGINEER

SCALE 1:200
2m 0 4m
Horizontal

WELLINGTON ROAD WIDENING
COMMISSIONERS RD. TO BASE LINE RD.
WELLINGTON ROAD
FROM 75m SOUTH OF PERCY STREET TO 60m SOUTH OF BASE LINE ROAD

PROJECT No. TS–1070

SHEET No. 3077–16

PLAN FILE No. 11,960

PART 1 PLAN 33R-1496

10+261

10+415

MATCH LINE

SEE DWG.No.3077- 16

SEE DWG.No.3077- 18

38.100 R.O.W.

P.I. STA. 10+280
Δ = 2° 51' 45"
R = 1000.000m
T = 24.990m

P.I. STA. 10+340
Δ = 2° 51' 45"
R = 1000.000m
T = 24.990m

P.I. STA. 10+400
Δ = 1° 54' 33"
R = 1000.000m
T = 16.660m

P.I. STA. 10+270
Δ = 1° 54' 33"
R = 1000.000m
T = 16.660m

P.I. STA. 10+315
Δ = 1° 54' 33"
R = 1000.000m
T = 16.660m

N 09° 47' 40" W 84.395

N 09° 47' 40" W 127.699

38.53 ST.8

STB. 33.59 SAN.4

WROUGHT IRON FENCE

GUY

P.P. S.L.

NEW MH

C.B.10

C.B.12

1.50 CONC. S/W

CONC. BUS BAY

1.500

2.000

250 GM.

900 WM.

400 ST.

1+114.60

ST. MH. REMOVED

ST. MH.8

1200 - 1050 ST. - 2.01%

127.5 - 1050 ST. - 1.89%

SAN. MH.4

300 SAN.

184.3 - 300 SAN. - 1.28%

SEE DWG.No.3077- 26

300 ST. - 1.26%

SAN. MH.

150 SAN.

250 WM. (PVC CLASS 150)

BELL MH.

BTUC

SAN. PDC

0+063.50

0+083.30

0+068.61

0+069.15

0+045.30

100 GM.

B.H.3

250 WM. (ABANDONED)

250 WM. (PVC CLASS 150)

G.V.

ST. MH.13

0+004.63

300 ST.

250 WM. CAP

(ABANDONED) 250 WM.

B.H.4

C.B.9

C.B.11

C.B.13

1.600

1.200

1.500

1.50 CONC. S/W

S.L.

HYD.

POLE

PLANTER

SIDEWALK TRANSITION

McDONALDS SIGN

C.B.

C.C.

GUY

37.571

19.101

64.258

157.205

N 9° 47' 40" W

CONC. CURB

37.36 ST.13

42.68 ST.8

35.39 SAN.4

31.04 ST.13

WOOD FENCE

CONC. S/W

LITTLE PLAYMATES DAYCARE
MUN. No. 375

McDONALDS RESTAURANT
MUN. No. 379

MUN. No. 371

P.P.

C.B.

REG. PLAN 607

LOT 8 LOT 9 LOT 10

WELLINGTON ROAD

PART 1 PLAN 33R-7511

LOT 25

CON. 1

PRINT RECORD		
No.	FOR	DATE

AS CONSTRUCTED NOTES	AS CONSTRUCTED SERVICES	COMPLETION
1 SEE DRAWING No. FOR FURTHER DETAIL	SAN.SEWERS,PDC's,MH.'s	OCT.1990
2 SEWER DESIGN; TRANSITION WIDTH OR AS NOTED	STORM SEWERS,MH.'s,C.B.'s	OCT.1990
3 REFERENCE BM. DHO#64-2 ELEVATION 242.932 m	WATERMAIN , SERVICES	OCT.1990
4	CURB & GUTTER	NOV.1990
5	GRANULAR BASE	OCT.1990
	PAVEMENT - BASE	NOV.1990
	- SURFACE	JUNE 1991

DESIGN J.L.C.S.JN.
DRAWN P.M.V.
CHECKED J.L.C.
APPROVED F.R.B.
DATE MAY 31 1990

No.	REVISIONS	DATE	BY
	REVISIONS 1 TO 4 INCLUDED	NOV.27 1990	PMV
5	STREETLINE REVISED TO PLAN 33R-9320	DEC. 1990	PMV
	AS CONSTRUCTED	JAN. 1992	PMV

CONSULTANT OR DIVISION

DS-Lea Associates Ltd.
Consulting Engineers • Planners
Vancouver • Winnipeg • Toronto • Ottawa • London • Overseas

PROJECT ENGINEER

ENGINEER'S STAMP
REGISTERED PROFESSIONAL ENGINEER 14/06/90 J. CURRIE PROVINCE OF ONTARIO

CORPORATION OF THE CITY OF LONDON

DIVISION HEAD

CITY ENGINEER

SCALE 1:200

2m 0 4m
Horizontal

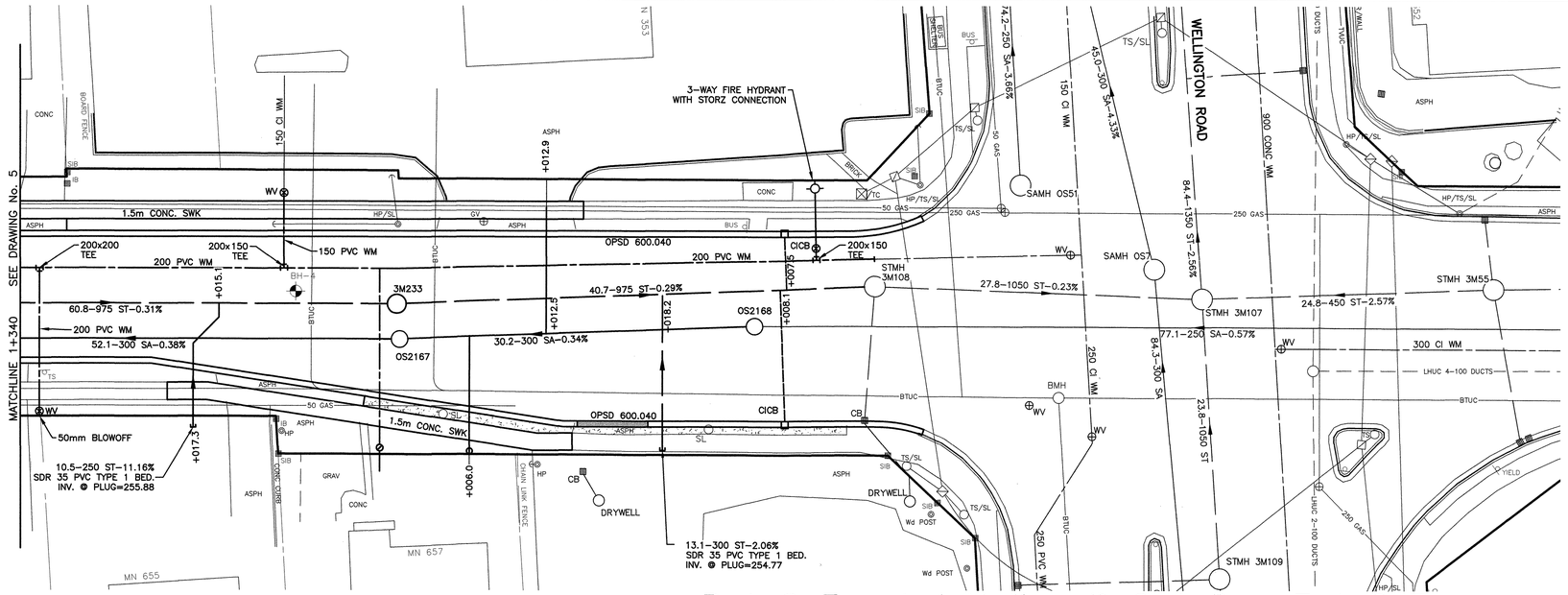
WELLINGTON ROAD WIDENING
COMMISSIONERS RD. TO BASE LINE RD.

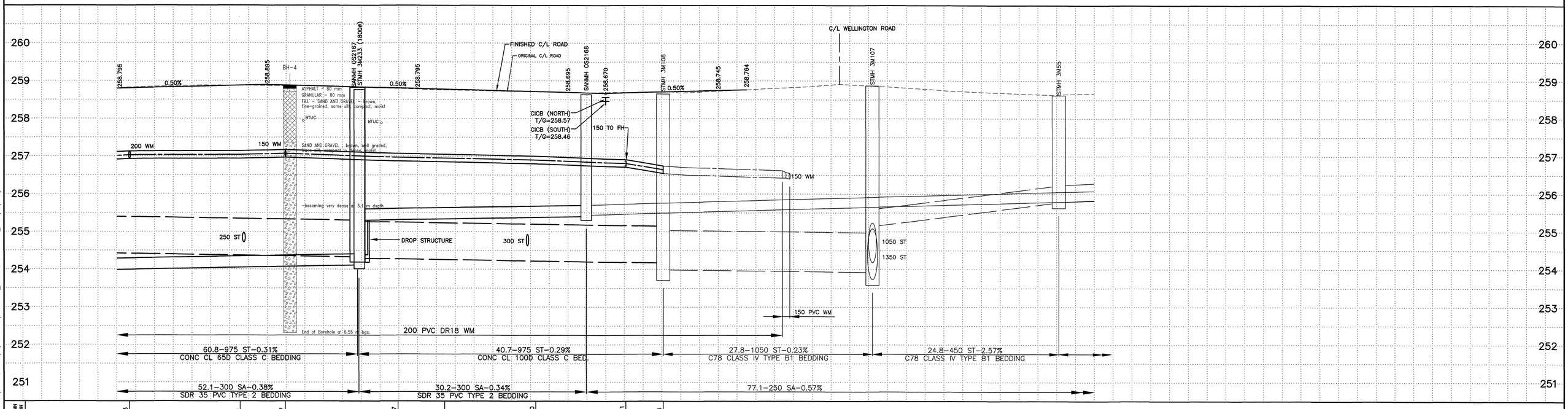
WELLINGTON ROAD
FROM 60m SOUTH OF BASE LINE ROAD
TO 210m SOUTH OF BASE LINE ROAD

PROJECT No. TS-1070

SHEET No. 3077-17

PLAN FILE No. 11,962





EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION	DETAILS		No.	REVISIONS	DATE	CONSULTANT
SANITARY, STORM SEWERS	11974	OCT. 1990	SAN/STM SEWERS, PDCS & MH'S	NOV. 2017	DESIGN	RJG	1.	ISSUED FOR 90% REVIEW	OCT. 28/16	AECOM
SANITARY, STORM SEWERS	11960,11961	MAY 1991	WM AND WSC'S	NOV. 2017	DRAWN BY	RJG	2.	ISSUED FOR TENDER	JAN. 4/17	AECOM
SANITARY SEWERS	111056	JUNE 1974	CURB AND GUTTER	NOV. 2017	CHECKED	JKK	3.	REVISED AS PER STANTEC DWGS	JULY 12/17	AECOM
WATERMAIN	13996	JUNE 1995	GRANULAR BASE	OCT. 2017	APPROVED	DCC	4.	AS BUILT	JAN./18	AECOM
WATERMAIN	11974	OCT. 1990	PAVING - I BASE	NOV. 2017	DATE	JULY 2016				
			- II BASE	MAY 2018						

CONSULTANT OR DIVISION

AECOM
London, Ontario
519.673.0510

ENGINEER'S STAMP
LICENSED PROFESSIONAL ENGINEER
D.C. CARTER
Feb 13/18
PROVINCE OF ONTARIO

CORPORATION OF THE CITY OF LONDON
London CANADA

SCALE
HORIZONTAL-1:250
2.5 0 5m
VERTICAL-1:50
0.5 0 1m

2017 INFRASTRUCTURE RENEWAL PROGRAM
CONTRACT 9
BASE LINE RD. EAST, BALDERSTONE AVE., PERCY ST. & SYLVAN ST.

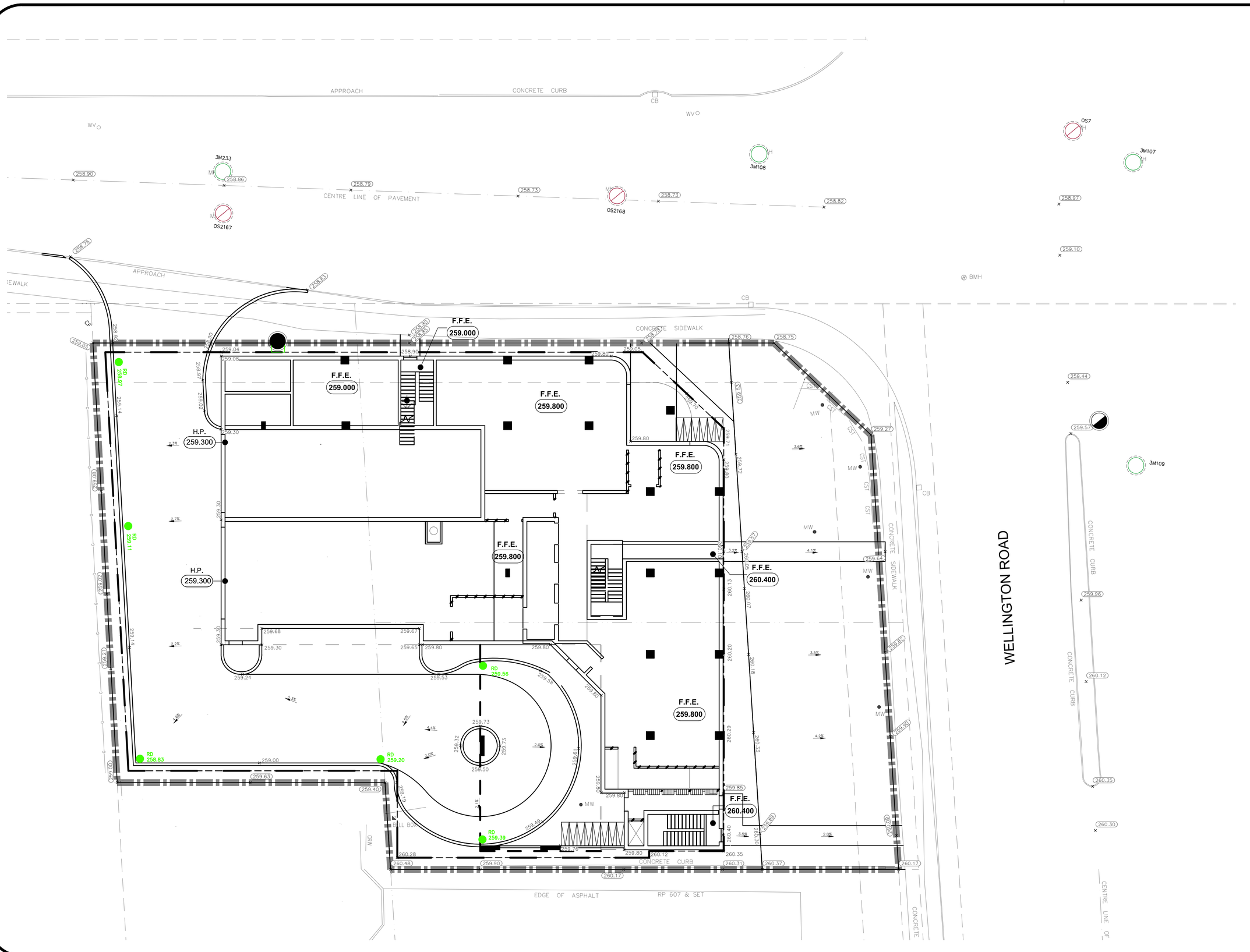
BASE LINE ROAD EAST
FROM 85M EAST OF BALDERSTONE AVENUE TO WELLINGTON ROAD

PROJECT No. 60514352
SHEET No. 6
P 27971

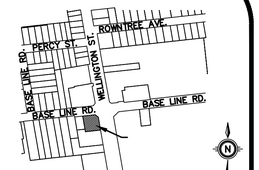
P:\60514352 Col. Baseline Rd Reconstruction\900-CAD\ GIS\910-CAD\05-MODELS\C\ASBUILTS\P04-P10_Base Line-MASTER_P&P(AB).dwg

MTE FILE PATH: P:\P\53717\100\DWG\W1\53717-100_W1

January 19, 2024 - 10:28:40 AM - Plotted By: Jason Childs



DULUTH CRES.



KEY PLAN N.T.S.

GEODETIC BM ELEV. = 258.305m

NAIL IN CONCRETE ON WELLINGTON ROAD, 16.0m NORTH OF THE CENTERLINE OF BASELINE ROAD, 15.0m WEST OF ENTERLINE OF WELLINGTON ROAD, SET IN THE SOUTHEAST CORNER OF THE CONCRETE BSE OF A LIGHT STANDARD.

SITE BENCHMARK ELEV. = m

LEGEND

- SITE BOUNDARY
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING STORM SEWER
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- 259.06 EXISTING ELEVATIONS
- 259.61 PROPOSED ELEVATIONS
- 3.5% PROPOSED GRADING
- RD 259.94 ROOF DRAIN

MTE
Engineers, Scientists, Surveyors
519-204-6510

CLIENT
LJM DEVELOPMENTS
1860 APPLEBY LINE BURLINGTON, ON

PROJECT
SITE PLAN
359 WELLINGTON ROAD LONDON, ON

DRAWING
PRELIMINARY GRADING PLAN

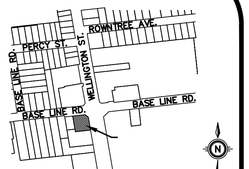
Project Manager D. RICE	Project No. 53717-100
Design By DF	Checked By JC
Drawn By DF	Checked By DR
Surveyed By MTE	Drawing No. C1
Date Dec.14/23	
Scale 1:125	Sheet 1 of 2

MTE FILE PATH: P:\P\53717\100\DWG\W1\53717-100_W1

December 19, 2023 – 1:23:23 PM – Plotted By: Daniel Fedorchuk

APPROACH
CONCRETE CURB
Ex. 200mmø PVC WM
ABANDONED 250mmø SAN
EX. 150x200 REDUCER
Ex. 150mmø CAST IRON WM
Ex. 250mmø SAN
OS7
Ex. 1350mmø STM
Ex. 900mmø CONC WM
CONNECT TO EXISTING 975 STORM WITH CORE DRILL FIT WITH "KOR 'N' TEE" FLEXIBLE CONNECTOR
Ex. 975mmø STM
3M233
3M108
Ex. 1050mmø STM
3M107
Ex. 450mmø STM
ABANDONED 250mmø VIT SAN
CENTRE LINE OF PAVEMENT
Ex. 300mmø PVC SAN
OS2167
OS2168
Ex. 300mmø CAS
EX. 150x250 REDUCER
@ BMH
300mmø STM
APPROACH
CONCRETE SIDEWALK
STMH WITH ORIFICE PLATE
F.F.E. 259.000
F.F.E. 259.000
F.F.E. 259.800
F.F.E. 259.800
F.F.E. 259.800
F.F.E. 260.400
F.F.E. 259.800
F.F.E. 260.400
H.P. 259.300
H.P. 259.300
RD
200mmø SAN
150mmø PVC WM
SAMH1
CUT IN 250x150 WM TEE TO EXISTING 250 WM AND CONNECT PROPOSED 150 WM
CUT IN 1200mmø MANHOLE TO EXISTING 300 SAN SEWER AND CONNECT PROPOSED 200 SAN SEWER
Ex. 300mmø SAN
Ex. 375mmø STM
3M109
Ex. 250mmø PVC WM
CONCRETE CURB
CONCRETE SIDEWALK
Ex. 1050mmø x3
BELL BOX
CRW
CONCRETE CURB
EDGE OF ASPHALT
RP 607 & SET
CENTRE LINE OF

DULUTH CRES.



KEY PLAN N.T.S.

GEODETIC BM ELEV. = 258.305m
NAIL IN CONCRETE ON WELLINGTON ROAD, 16.0m NORTH OF THE CENTERLINE OF BASELINE ROAD, 15.0m WEST OF ENTERLINE OF WELLINGTON ROAD, SET IN THE SOUTHEAST CORNER OF THE CONCRETE BSE OF A LIGHT STANDARD.

SITE BENCHMARK ELEV. = m

LEGEND

- SITE BOUNDARY
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING STORM SEWER
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- 259.06 EXISTING ELEVATIONS
- 259.61 PROPOSED ELEVATIONS
- 3.5% PROPOSED GRADING
- RD 259.94 ROOF DRAIN

MTE
Engineers, Scientists, Surveyors
519-204-6510

CLIENT
LJM DEVELOPMENTS
1860 APPLEBY LINE BURLINGTON, ON

PROJECT
SITE PLAN
359 WELLINGTON ROAD LONDON, ON

DRAWING
PRELIMINARY SERVICING PLAN

Project Manager	D. RICE	Project No.	53717-100
Design By	DF	Checked By	JC
Drawn By	DF	Checked By	DR
Surveyed By	MTE	Drawing No.	S1
Date	Dec.14/23		
Scale	1:125	Sheet 1 of 2	