

SCOPED ENVIRONMENTAL IMPACT STATEMENT
540-544 NORTH SERVICE ROAD, TOWN OF GRIMSBY

Prepared for:

LJM Developments Inc.

Prepared by:

Colville Consulting Inc.

432 Niagara Street, Unit 2
St. Catharines, Ontario L2M 4W3

File: C23062
October 2023



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1.0 INTRODUCTION

Colville Consulting Inc. was retained by LJM Developments Inc. to prepare a Scoped Environmental Impact Study to assess potential impacts associated with the construction of a new residential development on the properties located at 540 and 544 North Service Road, in the Town of Grimsby. This EIS is required to satisfy policies of the Niagara Peninsula Conservation Authority (NPCA) and is intended to assess potential impacts the proposed project may have on watercourses located on and adjacent to the properties. A summary of our assessment is included below.

1.1 Description of the Subject Lands

The Subject Properties for this assessment consist of two parcels of land located at 540 and 544 North Service Road, in the Town of Grimsby (see Figure 1). The 540 North Service Road property measures approximately 0.52ha in size and generally consists of a disturbed site. The predominantly fill soils supports very little naturalized vegetation. Located east of the 540 North Service Road property is a well-defined watercourse, which has been assigned the identified of Lake Ontario Tributary 40.

The 544 North Service Road property measures approximately 0.27ha in size. This property was formerly used as a car sales lot, and most recently a sales office. A majority of this parcel is paved, with a building associated with the previous uses still present on the property. Naturalized vegetation on the property is generally located on the west side of the parcel and associated with the channel of Lake Ontario Tributary 41.

Based on our review of NPCA mapping, it is our understanding that regulated features on and adjacent to the properties consist of the channels associated with Lake Ontario Tributaries 40 and 41 (see Figure 2).

1.2 Development Plan

Proposed development on these properties consists of two residential towers, along with surface amenity areas and subsurface parking. The west tower is intended to be 22 storeys in height, while the east tower is intended to be 16 storeys. The proposed development plan is provided in Appendix A.

2.0 ENVIRONMENTAL POLICY

2.1 Niagara Peninsula Conservation Authority

To administer Ontario Regulation 155/06, the Niagara Peninsula Conservation Authority (NPCA) has created a document titled NPCA Policy Document: Policies for Planning and Development in the Watersheds of the Niagara Peninsula Conservation Authority (NPCA 2022). The purpose of the document is to provide guidance during the review of development applications which are located in and adjacent to natural heritage features and hazard lands.

Mapped regulated features on the Subject Properties are limited to Lake Ontario Tributaries 41, which is located along the west side of the 544 North Service Road property. A second watercourse, Lake Ontario Tributary 40 is located east of the 540 North Service Road property.

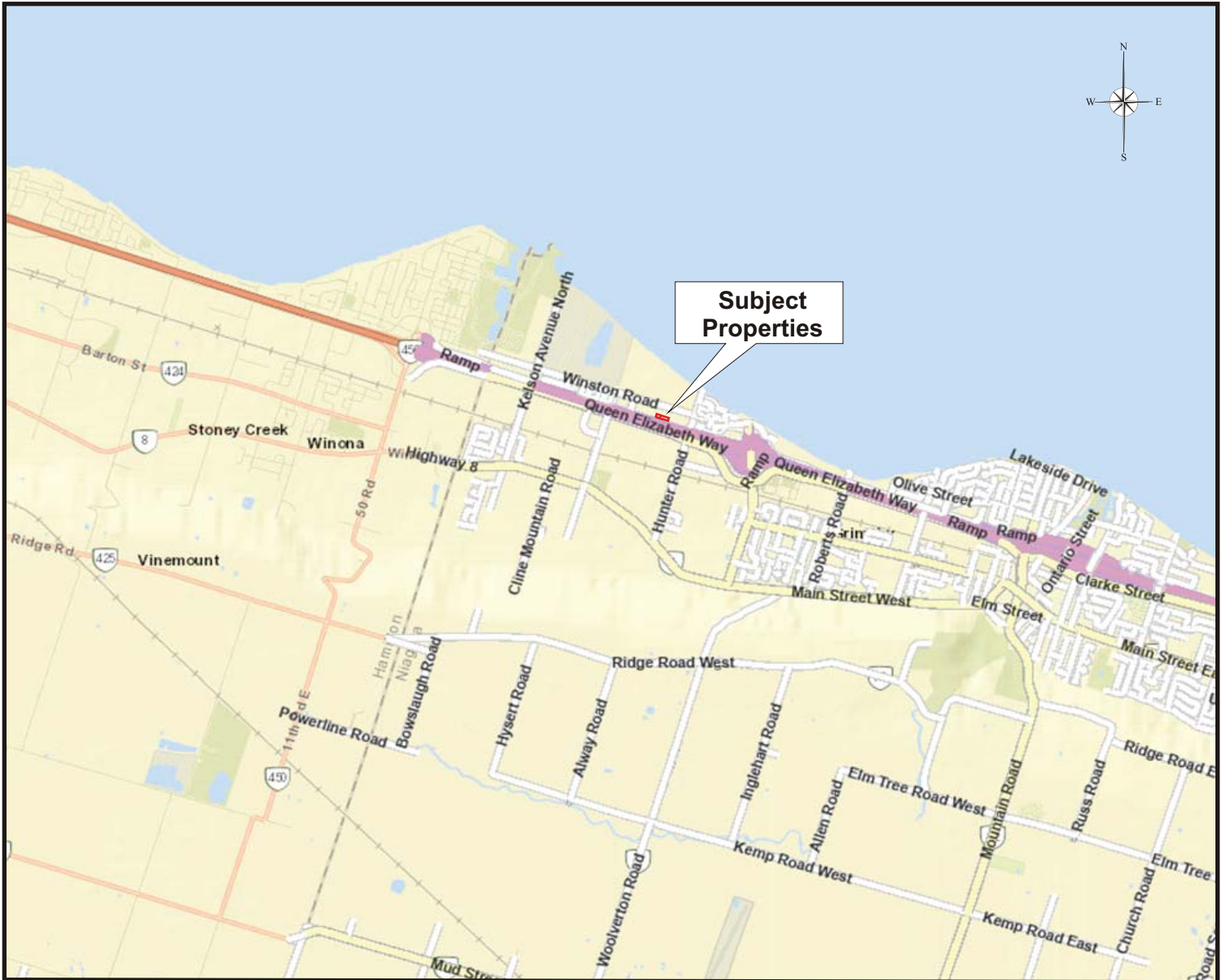


Figure 1
Location of Subject Properties

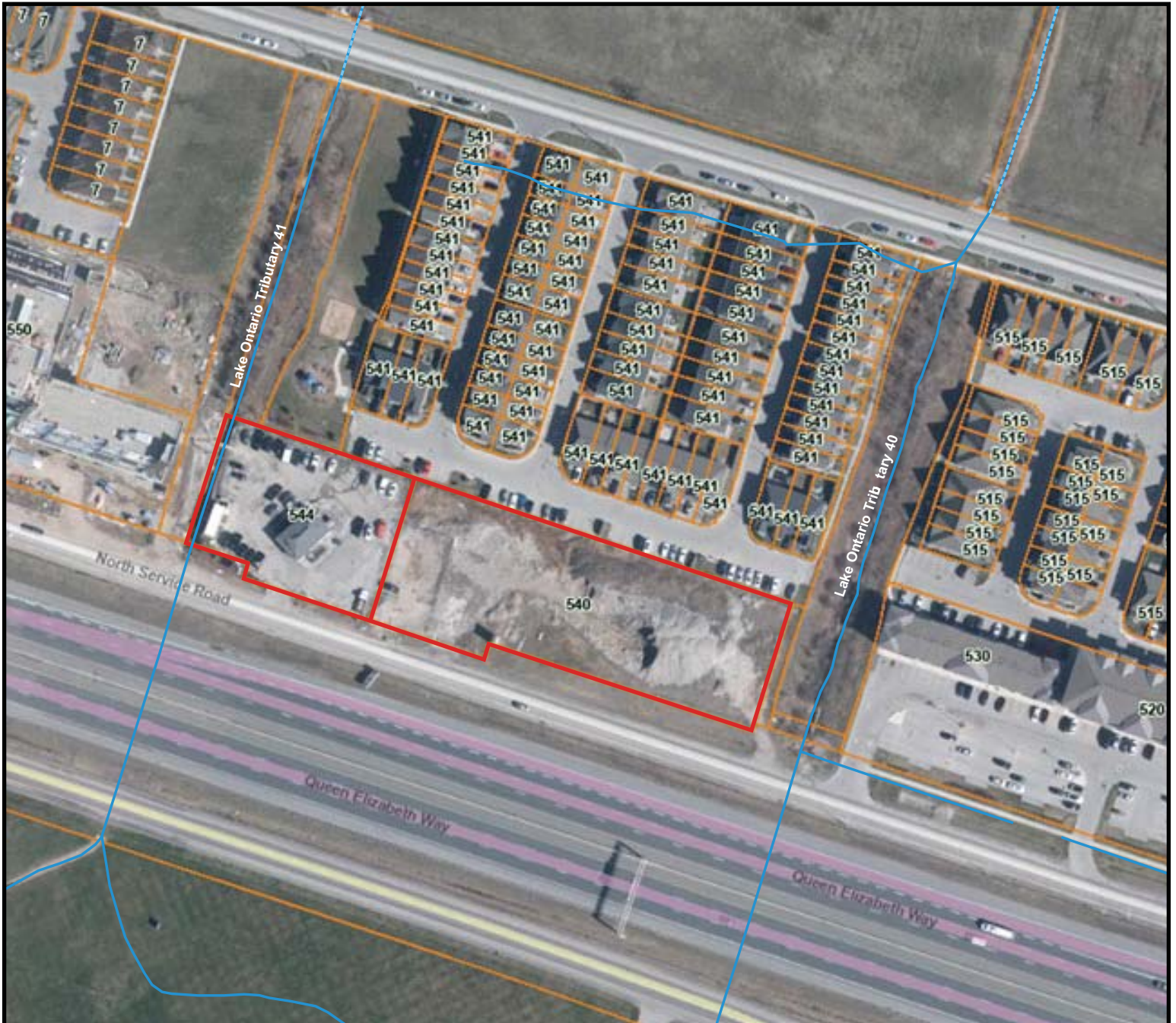
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Legend

- Subject Property
- Mapped Extent of Watercourses (NPCA)
- - - Mapped Extent of Watercourses (Niagara Region)

Figure 2
Mapped Extent of Natural Heritage Features on the Subject Properties

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NPCA policies related to the management of watercourses are included in Section 9.0 of the NPCA Policy Document (NPCA 2022). Policies related to watercourse buffers are included in Section 9.2.5.1, with section 9.2.5.1b stating that a 15 metre buffer shall be provided for watercourses containing intermittent flow, warmwater systems or general/impacts aquatic or riparian habitat, or Type 2 Important Fish Habitat or Type 3 Marginal Fish Habitat. Notwithstanding this requirement, the buffer may be reduced where supported by an EIS in accordance with the NPCA Procedural Manual.

3.0 STUDY APPROACH

3.1 Background Review

Prior to the commencement of primary field inventories, a review of background material available for the Subject Lands and surrounding area was conducted. Some of the background information reviewed included:

- ◆ Mapping available on the NPCA Explorer;
- ◆ Available mapping from the Ontario Ministry of Natural Resources and Forestry; and
- ◆ Niagara Natural Areas Inventory (NPCA 2010).

3.2 Field Inventories

In order to assess potential impacts the proposed development may have on watercourses, Colville Consulting conducted the following assessments and inventories on the Subject Property:

- 1) Single season botanical inventory of the Subject Properties and adjacent lands;
- 2) Describe vegetation communities on and adjacent to the properties using the Ecological Land Classification System for Southern Ontario (ELC);
- 3) General assessment of potential habitat conditions in both watercourses; and
- 4) Documentation of any wildlife species observed on the properties.

The methods employed for each of the above components are provided in the appropriate sections below.

4.0 STUDY FINDINGS

4.1 Botanical Inventories and Vegetation Mapping

A botanical inventory of the properties was completed on September 6, 2023. Vegetation communities (ELC units – following Lee et al. 1998) were mapped and described, and a vascular plant checklist was compiled. Species status was assessed for Ontario (Oldham and Brinker 2009) and Niagara Region (Oldham 2010). Vegetation communities are described below and mapped on Figure 3. A vascular plant checklist is provided in Appendix B. Photos of the Subject Lands are provided in Appendix C.

4.1.1 Botanical Inventories

Sixty species of vascular plants were recorded on and adjacent to the Subject Lands (see Appendix B). No species considered at risk in Ontario (Oldham and Brinker 2009) were observed, and none of the species are considered to be locally rare or uncommon (Oldham 2010).

4.1.2 Vegetation Communities

The Subject Properties measure approximately 0.79ha (1.95 acres) in size, with the majority of lands highly disturbed or paved. Naturalized vegetation communities on these properties are generally limited to a cultural meadow on the 540 North Service Road property, with narrow bands of thicket associated with the riparian areas of the watercourses. Further descriptions of these communities are provided below and illustrated in Photos 9 and 10 of Appendix C.

CUM1 – Mineral Cultural Meadow Ecosite

Located primary on the 540 North Service Road property is a Mineral Cultural Meadow Ecosite (CUM1). This community occurs primarily on fill and disturbed lands. Species such as Common Ragweed, Goldenrods, Kentucky Blue Grass, Orchard Grass, Curly Dock, Wild Carrot White Sweet-clover and Red Clover dominate this community.

Narrow bands of cultural meadow were also documented adjacent to Lake Ontario Tributaries 40 and 41. Species composition was generally consistent with the CUM1 community on the 540 North Service Road property, however these areas appear to be mowed periodically.

CUT1 – Mineral Cultural Thicket Ecosite

Located adjacent to Lake Ontario Tributaries 40 and 41 are narrow bands of Mineral Cultural Thicket Ecosite (CUT1). Hawthorn species dominate this community, which occurs primarily on the bank and adjacent lands of the watercourses. Ground covers consist of species similar to the meadow.

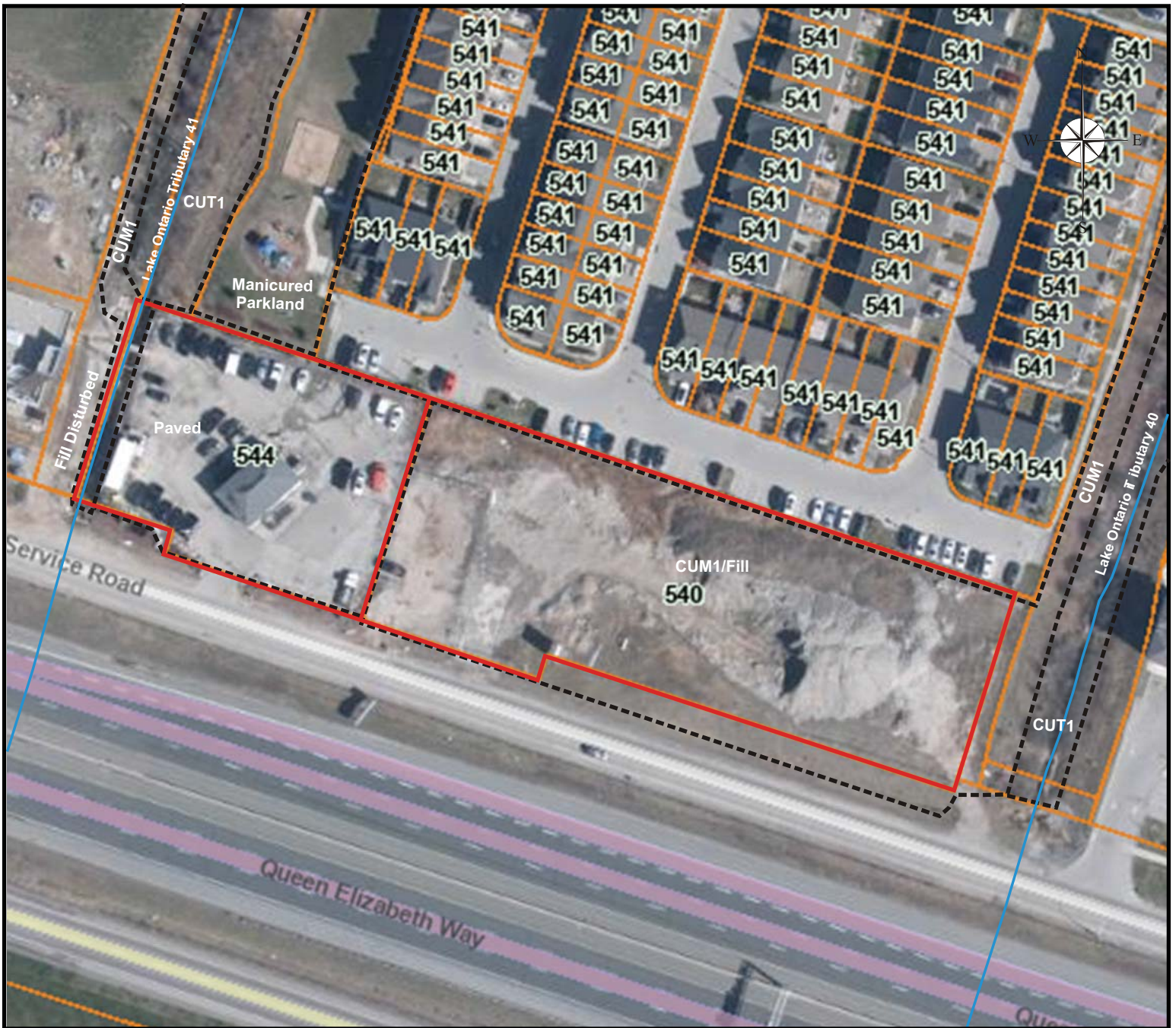
4.2 Watercourse Assessment

Lake Ontario Tributary 40

Assessments of habitat condition in Lake Ontario Tributary 40 were conducted on June 23 and September 6, 2023. NPCA mapping indicates that this watercourse originates approximately 800m south of the Subject Lands and conveys water intermittently from lands south of the QEW north to Lake Ontario.

The channel of Lake Ontario Tributary 40 adjacent to the property is well defined and generally trapezoidal in shape. The low flow channel of this watercourse varies from approximately 1.5-175m in width, with the channel eventually extending to approximately 7m wide at the top of bank. Channel substrates consist primarily of silt and clay, with some scattered debris. Vegetation within the watercourse consists primarily of Common Reed and Cattails, with Hawthorns and a mix of meadow species lining the channel. The channel shape and characteristics are generally consistent from the North Service Road to Winston Road.

The channel of Lake Ontario Tributary 40 contains a dense cover of Common Reed and Cattails downstream of Winston Road to Lake Ontario. The outlet of this watercourse at Lake Ontario has been lined with rip rap to resist erosive forces. Armour stone blocks associated with the shore protection have



Legend

- Subject Property
- Watercourses
- CUM1** Mineral Cultural Meadow Ecosite
- CUT1** Mineral Cultural Thicket Ecosite

**Figure 3
Extent of Vegetation Communities
on and Adjacent to the Subject Properties**

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also been installed across the channel at Lake Ontario, likely impeding flow during storm events and limiting any potential for fish to enter the watercourse.

Because this watercourse is intermittent with few refuge pools, this watercourse does not appear to be capable of providing suitable potential habitat for fish to permanently reside in the channel. Additionally, barriers to fish movement located at the outlet to Lake Ontario will limit potential seasonal movements of fish into the channel. Accordingly, this watercourse is considered to be contributing to fish habitat in Lake Ontario, but does not constitute direct fish habitat.

Lake Ontario Tributary 41

As illustrated in Figure 3 Lake Ontario Tributary 41 is located on the west side of the Subject Lands. This watercourse appears to originate at the railway tracks approximately 500m south of the property and also conveys water intermittently north to Lake Ontario.

The channel of Lake Ontario Tributary 41 was assessed upstream of the QEW during our field works. Based on observations, this watercourse consists primarily of a shallow, rock-lined channel through mowed lawn (see Photo 7 of Appendix C). No flow was observed in the watercourse upstream of the QEW on June 23, 2023.

This watercourse emerges from the QEW culvert on the north side of the North Service Road, near the south property limit of 544 North Service Road. The channel of Lake Ontario Tributary 41 on the property is well defined and generally steep sided. The low flow channel of this watercourse is approximately 1.0m in width, while the channel is generally approximately 3.5-4.0m in wide at the top of bank. The eastern edge of the watercourse on this property is generally defined by a concrete block retaining wall on property, while the west bank is generally naturalized (see Photos 1 and 2 of Appendix C).

Substrates in the channel consist primarily of silt and clay, which supports emergent species such as Cattails, Common Reed, Soft-stem Bullrush and Water Plantain. Hawthorns and a mix of meadow species occur adjacent to low flow channel north of the property, before transitioning to a Common Reed dominant channel south of Winston Road (see Photo 3 of Appendix C).

The channel of Lake Ontario Tributary 41 from Winston Road to Lake Ontario is broad and shallow, containing a dense cover of Common Reed and Cattails (see Photo 4 of Appendix C). Similar to Lake Ontario Tributary 40, the outlet of this watercourse at Lake Ontario has also been lined with rip rap. Armour stone shore protection has also been installed across the channel and appears to impede drainage and potential fish movement (see Photo 6 of Appendix C).

Similar to Lake Ontario Tributary 40, this watercourse does not appear to be capable of providing permanent fish habitat, and barriers to fish movement located at the outlet to Lake Ontario will limit potential seasonal movements of fish into the channel. Therefore, this watercourse is considered to be only contributing to fish habitat in Lake Ontario and does not constitute direct fish habitat.

4.3 Incidental Wildlife Observations

Incidental wildlife observations, including signs, were recorded during the assessments of these properties on June, 23 and September 6, 2023. Observations were limited to Grey Squirrel, House Sparrow, Mourning Dove and European Starling,. The proximity of these properties to the QEW and lack of significant habitat likely limits wildlife use of these lands.

5.0 ASSESSMENT OF REGULATED FEATURES

As indicated above, regulated features on and adjacent to the Subject Properties are limited to Lake Ontario Tributaries 40 and 41. Further discussion regarding these watercourses is provided below.

5.1 Lake Ontario Tributary 40

As described above, Lake Ontario Tributary 40 is located east of the property. This watercourse conveys flow intermittently across the property and north to Lake Ontario. Because of the intermittent nature of this watercourse and the associated barriers to fish movement downstream, this watercourse does not provide direct fish habitat, however it does provide a minor contributing function to Lake Ontario.

Our assessment indicates that the low flow channel associated with Lake Ontario Tributary 40 is located approximately 15m east of the east property line of the 540 North Service Road property, with the proposed east tower located approximately 5 meters west of the property boundary (see Figure 4 and Appendix A). As lands adjacent to Lake Ontario Tributary 40 will remain unchanged as part of this development and no impacts to water quality or quantity will occur, proposed development on the Subject Lands will have no impact on the functions of Lake Ontario Tributary 40.

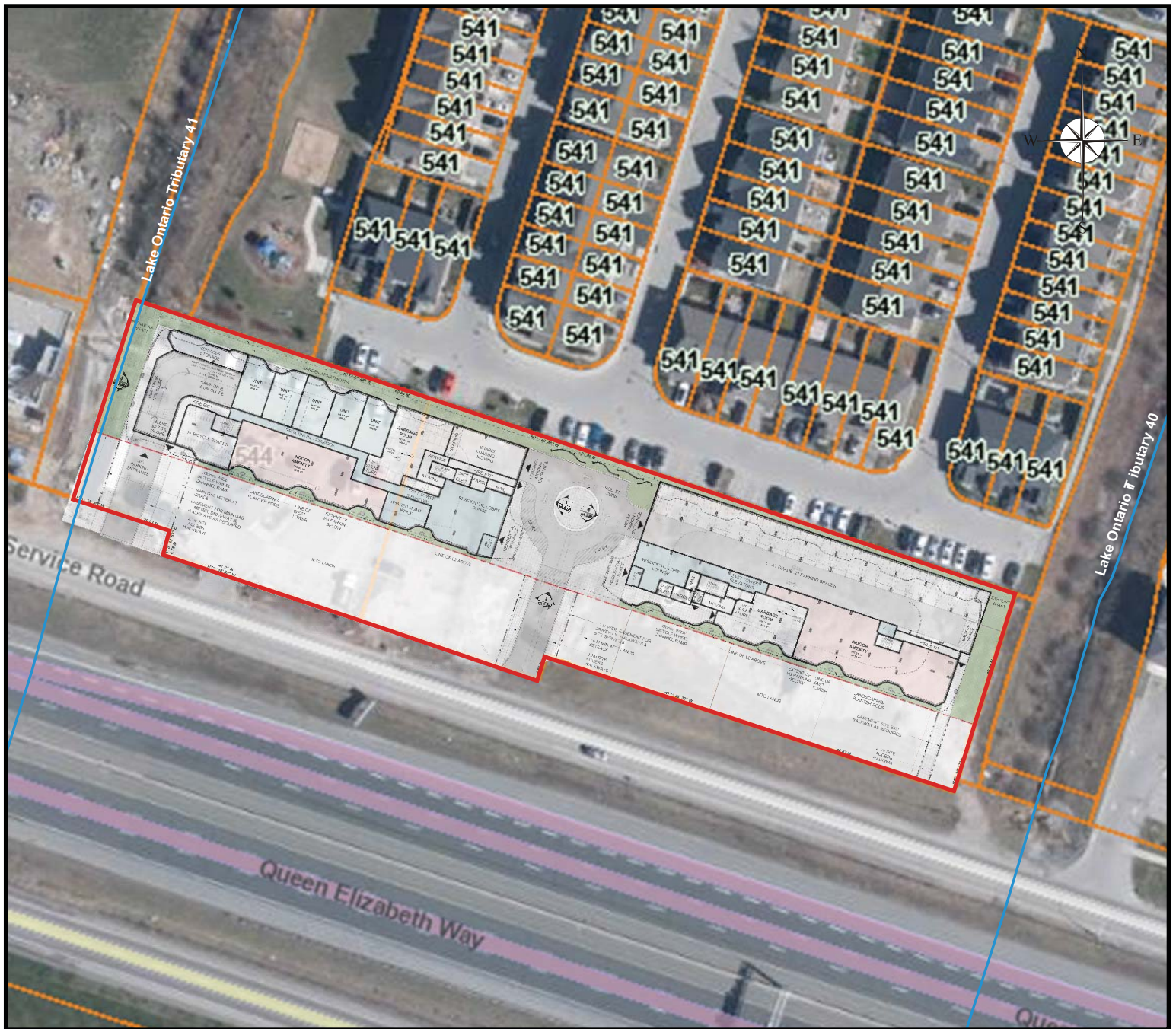
5.2 Lake Ontario Tributary 41

Lake Ontario Tributary 41 was determined to be an intermittent watercourse that is primarily functioning as a water conveyance channel. This watercourse does not provide potential direct fish habitat and is generally providing a minor contributing function to Lake Ontario. No specific wildlife or ecological functions were noted as being provided by this watercourse.

As illustrated in Figure 4, the channel associated with Lake Ontario Tributary 41 is located approximately 4m from the proposed west tower. Based on our assessment, construction of the west tower will not impact the water conveyance function of Lake Ontario Tributary 41 and no impact to fish habitat or ecological functions will occur as a result of this project.

During our assessment it was noted that the east bank of this watercourse is supported by a concrete block retaining wall. Little to no naturalized vegetation occurs east of the retaining wall, as this area is generally paved and formerly used as parking area associated with the past uses of the building on the property.

It is our understanding that pavement adjacent to the channel is intended to be removed as part of this project, with the lands between the building and channel to be landscaped. To minimize the potential for any additional non-native or invasive species to be introduced to this area, it is recommended that only native or non-invasive species be utilized in the landscape plan.



Legend

- Subject Lands
- Watercourses

Figure 4
Refined Natural Heritage Features
on and Adjacent to the Subject Properties

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6.0 MITIGATION MEASURES

To assist in minimizing any impacts associated with the development, it is recommended that the following mitigation measure be implemented during final design and construction of this development.

- A heavy duty silt fence should be installed prior to any construction or site alteration works on the Subject Lands to prevent sediment from being mobilized and leaving the work area.
- The silt fence should remain in place until the site has been revegetated or stabilized following construction.
- It is recommended that stormwater treatment be incorporated as needed to ensure the proposed development will not further impair water quality in the watercourses.
- It is recommended that native species be utilized in the landscaped areas where possible.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Colville Consulting Inc. was retained to assess potential impacts the proposed residential buildings may have on Lake Ontario Tributaries 40 and 41. Based on the assessment above, it is our conclusion that the proposed development will not impact fish habitat or ecological functions provided by the watercourses, and provided necessary stormwater management measures are implemented, the proposed development will not impact water quality in the watershed. It is therefore our conclusion that the proposed development is consistent with NPCA Policy Section 9.2.5.1b. To assist with avoiding impacts associated with this project, it is recommended that the above noted mitigation measures and recommendations be implemented during construction and future use of the property.

Respectfully submitted by:



Ian Barrett, M.Sc.
Colville Consulting Inc.

8.0 LITERATURE CITED

- Lee, H.T., W.D. Bakowsky, J.L. Riley, J. Bowles, M. Puddister, P. Uhlig and S. McMurray. 1998. Ecological Community Classification for Southern Ontario: First Approximation and Its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.
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- Niagara Peninsula Conservation Authority. 2022. NPCA Policy Document: Policies for Planning and Development in the Watersheds of the Niagara Peninsula Conservation Authority.
- Oldham, M.J. and S.R. Brinker. 2009. Rare Vascular Plants of Ontario, Fourth Edition. Ontario Ministry of Natural Resources, Peterborough, Ontario. 188 pp.
- Oldham, M.J. 2010. Checklist of the Vascular Plants of Niagara Regional Municipality Ontario. Section 9.0 in Niagara Region Natural Areas Inventory, Volume 2.

Appendix A

Proposed Development Plan

544 North Service Road, Grimsby

Proposed Residential Development



OPA / ZBA DRAWING LIST					
Sheet Number	Sheet Name	Issued/1 (Date)	Issued/2 (Date)	Issued/3 (Date)	Issued/4 (Date)
SA 1.01	Cover Sheet				
SA 1.02	Project Information / Statistics / Survey				
SA 1.03	Site & Context Plans				
SA 2.01	Floor Plans P5 & P4 to P2 (Typical)				
SA 2.03	Floor Plans P1 & L1				
SA 2.05	Floor Plans L2 & L3				
SA 2.07	Floor Plans L4 & L5				
SA 2.09	Floor Plans L6 & L7				
SA 2.10	Levels 18 to 22 Floor Plans (Typical Tower)				
SA 3.01	Building Elevations - South				
SA 3.02	Building Elevations - North				
SA 3.03	Building Elevations - East & West				
SA 4.01	Typical Longitudinal Building Section				
SA 3.01	Perspectives				
SA 6.01	Sun Shadow Study				
SA 6.02	Sun Shadow Study				
SA 6.03	Sun Shadow Study				
TOTAL NUMBER OF SHEETS: 17					

ZBA Progress Set
August 23, 2023

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No.	Issued For	Date

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DEVELOPER
LJM DEVELOPMENTS
1860 Appleby Line, Unit 28
Burlington, Ontario L7L 0B7
T: (289) 245-1900
Email: annas@ljmdevelopments.ca
Contact: AJ Vance

ARCHITECT
KIRKOR ARCHITECTS & PLANNERS
20 De Boers Drive, Suite 400
North York, Ontario M2J 0H1
T: (416) 665-6060
Email: mafonso@kirkorarchitects.com;
Contact: Michael Alfonso

PLANNING CONSULTANT
A.J. CLARKE & ASSOCIATES Ltd.
25 Main Street West,
Hamilton Ontario L8P 1H1
T: (905) 528-8761
Email: franz.klobhofer@ajclarke.com;
ryan.ferran@ajclarke.com
Contact: Franz Klobhofer; Ryan Ferran

SITE / CIVILS CONSULTANT
MTE CONSULTANTS Inc.
520 Bingsmans Centre Drive,
Kitchener Ontario N2B 3X3
Email: kramsewak@mte85.com;
RCalogero@mte85.com
T: (905) 639-2552
Contact: Kayam Ramsewak; Rosie Calogero

LANDSCAPE CONSULTANT
ADESSODESIGN
218 Locke Street South,
Hamilton Ontario L8P 2B9
Email: nyan@adessodesigninc.ca;
victoria@adessodesigninc.ca;
mario@adessodesigninc.ca
T: (905) 528 8876
Contact: Ryan Doram; Victoria Damone; Mario Paltucci

AIR QUALITY / WIND CONSULTANT
RWDI
600 Southgate Drive
Guelph, Ontario N1G 4P6
Email: Natalie.Firth@rwdi.com;
Scott.Bell@rwdi.com
T: (519) 823 1311
Contact: Natalie Firth; Scott Bell

TRAFFIC / TRANSPORTATION CONSULTANT
PARADIGM TRANSPORTATION SOLUTIONS LIMITED
Suite 300 22 King St S,
Waterloo, Ontario N2J 1N8
T: (519) 804 9783
Email: scotton@pfts.com;
Contact: Scott Catton

ENERGY / ENVIRONMENTAL CONSULTANT
COLVILLE CONSULTING
432 Niagara Street,
St. Catharines, Ontario L2M 4W3
T: (905) 935 2161
Email: lan@colvilleconsultinginc.ca;
Contact: Ian Barnett

SURVEYOR
XXX
Address 1
Address 2
T:
E: xxx@xxx.com
Contact:

Client: LJM Developments

544 North Service Road, Grimsby
Proposed Residential Development

Drawing Title: Cover Sheet

Scale:
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Author:
Checked by:
Checker:
Project No.: 22175
Date: August 23, 2023
Drawing No.:

dA 1.01

1.0 Site Information & Summary

1.1	Collaboration	Developer	12-000	1-000	300	300
		Design Team	1-000	1-000	2,000	24,000
		Development Cost	Subsidy Site Area (Net MFD) (sqm)	Net Lot Area	1,215	8,910.77
			Net Lot Area	1,215	8,910.77	52,889

1.2 Gross Floor Area (GFA) Calculations

1.2.1	West Tower Residential	252,000	252,000	4,000	256,000	256,000
1.2.2	East Tower Residential	14,800	14,800	8,910.77	23,710.77	23,710.77
1.2.3	Commercial/Community	10,000	10,000	10,000	20,000	20,000
1.2.4	Other	10,000	10,000	10,000	20,000	20,000
1.2.5	Total	286,800	286,800	32,621.54	319,421.54	319,421.54

1.3 Proposed Residential Gross Floor Area (GFA)

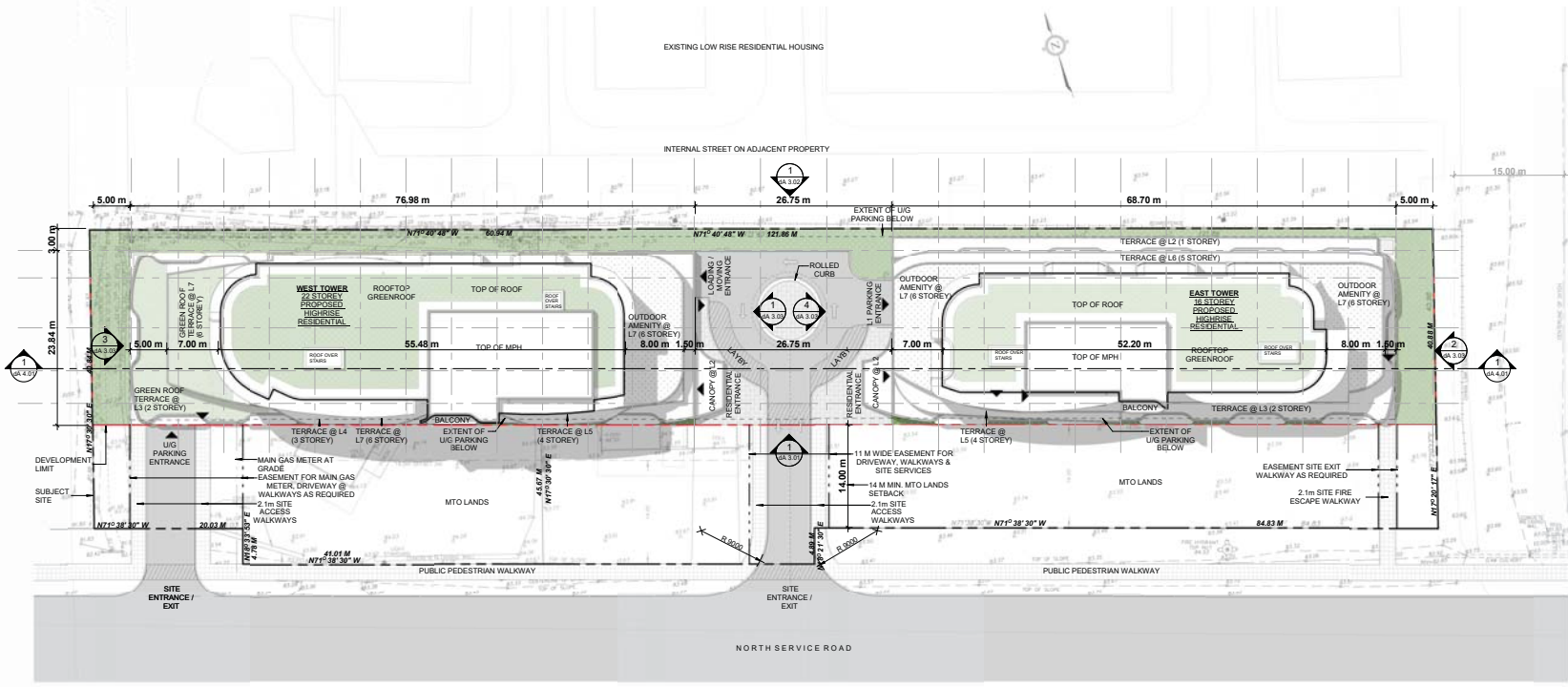
1.3.1	West Tower 22 Storey Highrise	GFA	Area	252,000	252,000	4,000	256,000	256,000
		Level 1	1,215	1,215	1,215	1,215	1,215	1,215
		Level 2	1,215	1,215	1,215	1,215	1,215	1,215
		Level 3	1,215	1,215	1,215	1,215	1,215	1,215
		Level 4	1,215	1,215	1,215	1,215	1,215	1,215
		Level 5	1,215	1,215	1,215	1,215	1,215	1,215
		Level 6	1,215	1,215	1,215	1,215	1,215	1,215
		Level 7	1,215	1,215	1,215	1,215	1,215	1,215
		Level 8	1,215	1,215	1,215	1,215	1,215	1,215
		Level 9	1,215	1,215	1,215	1,215	1,215	1,215
		Level 10	1,215	1,215	1,215	1,215	1,215	1,215
		Level 11	1,215	1,215	1,215	1,215	1,215	1,215
		Level 12	1,215	1,215	1,215	1,215	1,215	1,215
		Level 13	1,215	1,215	1,215	1,215	1,215	1,215
		Level 14	1,215	1,215	1,215	1,215	1,215	1,215
		Level 15	1,215	1,215	1,215	1,215	1,215	1,215
		Level 16	1,215	1,215	1,215	1,215	1,215	1,215
		Level 17	1,215	1,215	1,215	1,215	1,215	1,215
		Level 18	1,215	1,215	1,215	1,215	1,215	1,215
		Level 19	1,215	1,215	1,215	1,215	1,215	1,215
		Level 20	1,215	1,215	1,215	1,215	1,215	1,215
		Level 21	1,215	1,215	1,215	1,215	1,215	1,215
		Level 22	1,215	1,215	1,215	1,215	1,215	1,215
		Level 23	1,215	1,215	1,215	1,215	1,215	1,215
		Level 24	1,215	1,215	1,215	1,215	1,215	1,215
		Level 25	1,215	1,215	1,215	1,215	1,215	1,215
		Level 26	1,215	1,215	1,215	1,215	1,215	1,215
		Level 27	1,215	1,215	1,215	1,215	1,215	1,215
		Level 28	1,215	1,215	1,215	1,215	1,215	1,215
		Level 29	1,215	1,215	1,215	1,215	1,215	1,215
		Level 30	1,215	1,215	1,215	1,215	1,215	1,215
		Level 31	1,215	1,215	1,215	1,215	1,215	1,215
		Level 32	1,215	1,215	1,215	1,215	1,215	1,215
		Level 33	1,215	1,215	1,215	1,215	1,215	1,215
		Level 34	1,215	1,215	1,215	1,215	1,215	1,215
		Level 35	1,215	1,215	1,215	1,215	1,215	1,215
		Level 36	1,215	1,215	1,215	1,215	1,215	1,215
		Level 37	1,215	1,215	1,215	1,215	1,215	1,215
		Level 38	1,215	1,215	1,215	1,215	1,215	1,215
		Level 39	1,215	1,215	1,215	1,215	1,215	1,215
		Level 40	1,215	1,215	1,215	1,215	1,215	1,215
		Level 41	1,215	1,215	1,215	1,215	1,215	1,215
		Level 42	1,215	1,215	1,215	1,215	1,215	1,215
		Level 43	1,215	1,215	1,215	1,215	1,215	1,215
		Level 44	1,215	1,215	1,215	1,215	1,215	1,215
		Level 45	1,215	1,215	1,215	1,215	1,215	1,215
		Level 46	1,215	1,215	1,215	1,215	1,215	1,215
		Level 47	1,215	1,215	1,215	1,215	1,215	1,215
		Level 48	1,215	1,215	1,215	1,215	1,215	1,215
		Level 49	1,215	1,215	1,215	1,215	1,215	1,215
		Level 50	1,215	1,215	1,215	1,215	1,215	1,215
		Level 51	1,215	1,215	1,215	1,215	1,215	1,215
		Level 52	1,215	1,215	1,215	1,215	1,215	1,215
		Level 53	1,215	1,215	1,215	1,215	1,215	1,215
		Level 54	1,215	1,215	1,215	1,215	1,215	1,215
		Level 55	1,215	1,215	1,215	1,215	1,215	1,215
		Level 56	1,215	1,215	1,215	1,215	1,215	1,215
		Level 57	1,215	1,215	1,215	1,215	1,215	1,215
		Level 58	1,215	1,215	1,215	1,215	1,215	1,215
		Level 59	1,215	1,215	1,215	1,215	1,215	1,215
		Level 60	1,215	1,215	1,215	1,215	1,215	1,215
		Level 61	1,215	1,215	1,215	1,215	1,215	1,215
		Level 62	1,215	1,215	1,215	1,215	1,215	1,215
		Level 63	1,215	1,215	1,215	1,215	1,215	1,215
		Level 64	1,215	1,215	1,215	1,215	1,215	1,215
		Level 65	1,215	1,215	1,215	1,215	1,215	1,215
		Level 66	1,215	1,215	1,215	1,215	1,215	1,215
		Level 67	1,215	1,215	1,215	1,215	1,215	1,215
		Level 68	1,215	1,215	1,215	1,215	1,215	1,215
		Level 69	1,215	1,215	1,215	1,215	1,215	1,215
		Level 70	1,215	1,215	1,215	1,215	1,215	1,215
		Level 71	1,215	1,215	1,215	1,215	1,215	1,215
		Level 72	1,215	1,215	1,215	1,215	1,215	1,215
		Level 73	1,215	1,215	1,215	1,215	1,215	1,215
		Level 74	1,215	1,215	1,215	1,215	1,215	1,215
		Level 75	1,215	1,215	1,215	1,215	1,215	1,215
		Level 76	1,215	1,215	1,215	1,215	1,215	1,215
		Level 77	1,215	1,215	1,215	1,215	1,215	1,215
		Level 78	1,215	1,215	1,215	1,215	1,215	1,215
		Level 79	1,215	1,215	1,215	1,215	1,215	1,215
		Level 80	1,215	1,215	1,215	1,215	1,215	1,215
		Level 81	1,215	1,215	1,215	1,215	1,215	1,215
		Level 82	1,215	1,215	1,215	1,215	1,215	1,215
		Level 83	1,215	1,215	1,215	1,215	1,215	1,215
		Level 84	1,215	1,215	1,215	1,215	1,215	1,215
		Level 85	1,215	1,215	1,215	1,215	1,215	1,215
		Level 86	1,215	1,215	1,215	1,215	1,215	1,215
		Level 87	1,215	1,215	1,215	1,215	1,215	1,215
		Level 88	1,215	1,215	1,215	1,215	1,215	1,215
		Level 89	1,215	1,215	1,215	1,215	1,215	1,215
		Level 90	1,215	1,215	1,215	1,215	1,215	1,215
		Level 91	1,215	1,215	1,215	1,215	1,215	1,215
		Level 92	1,215	1,215	1,215	1,215	1,215	1,215
		Level 93	1,215	1,215	1,215	1,215	1,215	1,215
		Level 94	1,215	1,215	1,215	1,215	1,215	1,215
		Level 95	1,215	1,215	1,215	1,215	1,215	1,215
		Level 96	1,215	1,215	1,215	1,215	1,215	1,215
		Level 97	1,215	1,215	1,215	1,215	1,215	1,215
		Level 98	1,215	1,215	1,215	1,215	1,215	1,215
		Level 99	1,215	1,215	1,215	1,215	1,215	1,215
		Level 100	1,215	1,215	1,215	1,215	1,215	1,215

1.4 Proposed Indoor Amenity Gross Floor Area (GFA)

1.4.1	West Tower 22 Storey Highrise	GFA	Area	252,000	252,000	4,000	256,000	256,000
		Level 1	1,215	1,215	1,215	1,215	1,215	1,215
		Level 2	1,215	1,215	1,215	1,215	1,215	1,215
		Level 3	1,215	1,215	1,215	1,215	1,215	1,215
		Level 4	1,215	1,215	1,215	1,215	1,215	1,215
		Level 5	1,215	1,215	1,215	1,215	1,215	1,215
		Level 6	1,215	1,215	1,215	1,215	1,215	1,215
		Level 7	1,215	1,215	1,215	1,215	1,215	1,215
		Level 8	1,215	1,215	1,215	1,215	1,215	1,215
		Level 9	1,215	1,215	1,215	1,215	1,215	1,215
		Level 10	1,215	1,215	1,215	1,215	1,215	1,215
		Level 11	1,215	1,215	1,215	1,215	1,215	1,215
		Level 12	1,215	1,215	1,215	1,215	1,215	1,215
		Level 13	1,215	1,215	1,215	1,215	1,215	1,215
		Level 14	1,215	1,215	1,215	1,215	1,215	1,215
		Level 15	1,215	1,215	1,215	1,215	1,215	1,215
		Level 16	1,215	1,215	1,215	1,215	1,215	1,215
		Level 17	1,215	1,215	1,215	1,215	1,215	1,215
		Level 18	1,215	1,215	1			



Site / Context Plan 2
1 : 1500 dA 1.03



Site Plan 1
1 : 300 dA 1.03

ZBA Progress Set
August 23, 2023

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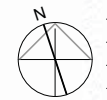
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LJM Developments

544 North Service Road, Grimsby
Proposed Residential Development

Site & Context Plans

Scale
As indicated
Drawn by
Author
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Checker
Project No.
22175
Date
August 23, 2023
Drawing No.



dA 1.03

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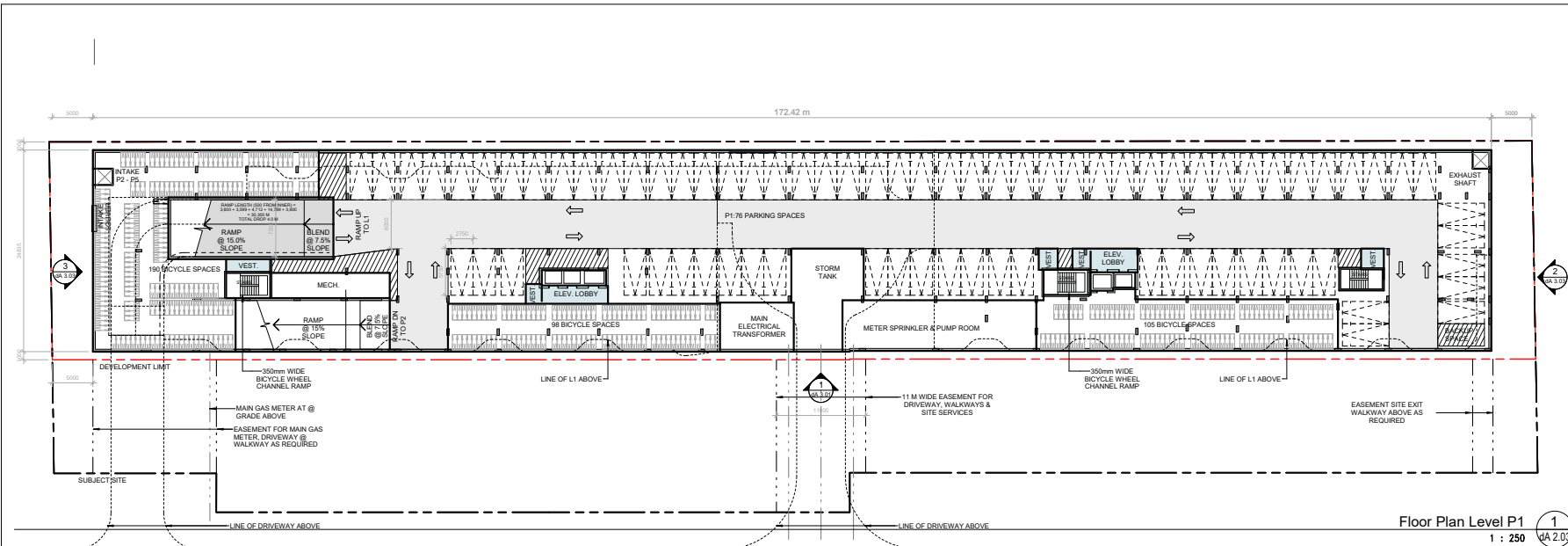
544 North Service Road, Grimsby
Proposed Residential Development

Drawing Title:
Floor Plans P1 & L1

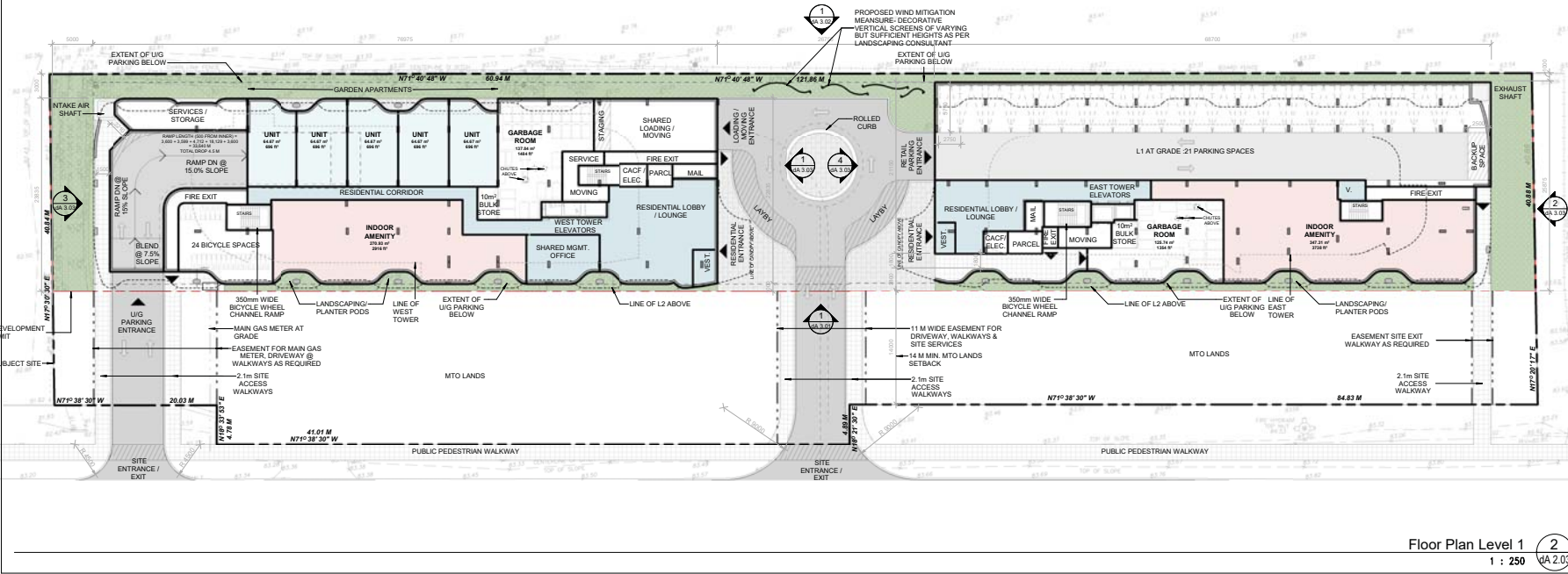
Scale:	1 : 250
Drawn by:	Author
Checked by:	Checker
Project No.:	22175
Date:	August 23, 2023



dA 2.03



Floor Plan Level P1 1 : 250 dA 2.03



Floor Plan Level 1 2 : 250 dA 2.03

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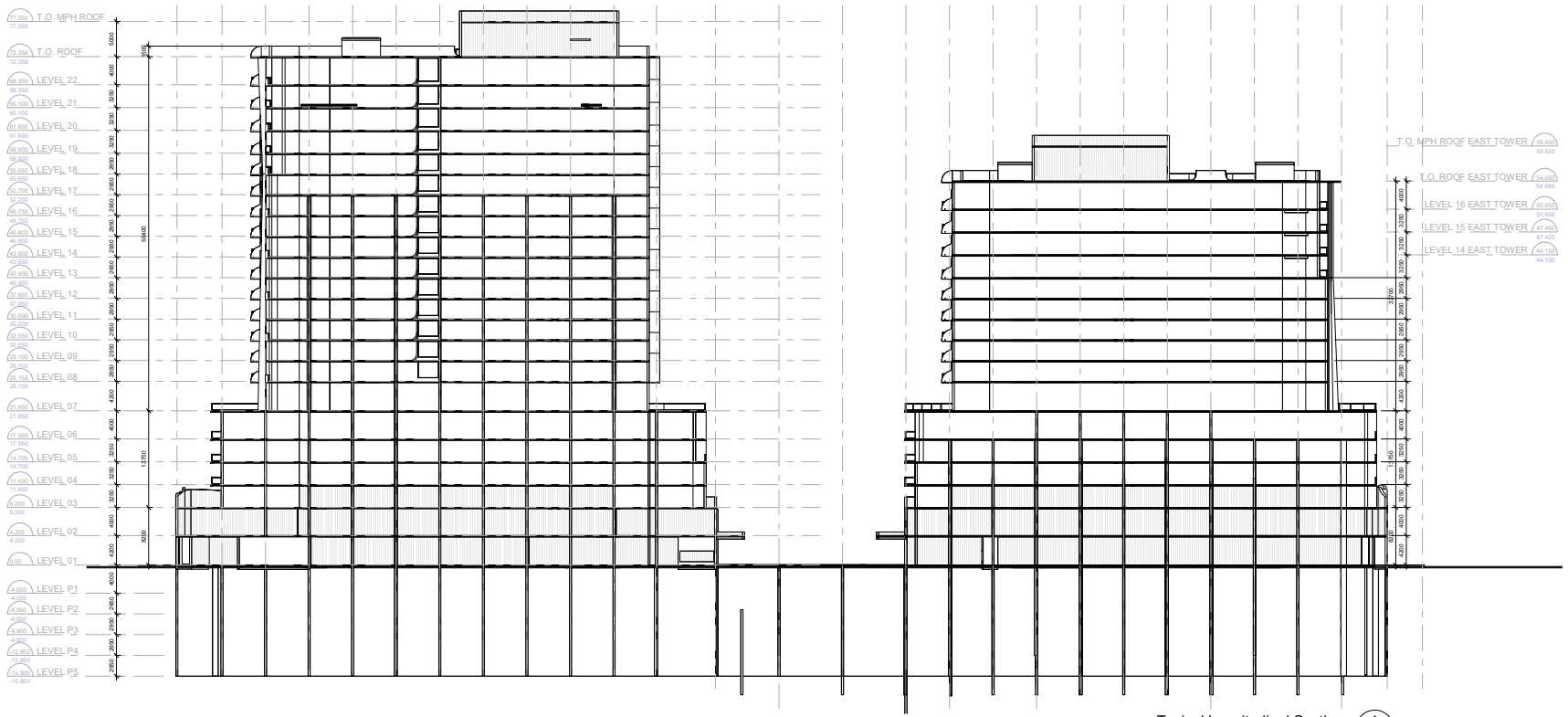
Client: LJM Developments

544 North Service Road, Grimsby
Proposed Residential Development

Drawing Title: Typical Longitudinal Building Section

Scale: 1 : 300
Drawn by:
Author:
Checked by:
Project No.: 22175
Date: August 23, 2023
Drawing No.:

dA 4.01



Typical Longitudinal Section 1
1 : 300

Vertical text on the right edge of the drawing area.

Appendix B

Vascular Plant Checklist

Plant list for the 540-544 North Service Road Properties, Grimsby, ON. Conducted on June 23 and September 6, 2023.

ScientificName	CommonNames	Coeff. Cons.	Coeff. Wet.	GRank	COSEWIC	COSSARO	SRank	Lrank	Notes
<i>Agrostis gigantea</i>	Redtop Grass	0	0	G4G5			SE5		
<i>Alisma plantago-aquatica</i>	Common Water Plantain	0	0	G5			SE5		
<i>Alisma triviale</i>	Northern Water-plantain	2	-5	G5			S5		
<i>Alliaria petiolata</i>	Garlic Mustard	0	0	G?			SE5		
<i>Ambrosia artemisiifolia</i>	Common Ragweed	0	3	G5			S5		
<i>Arctium minus ssp. minus</i>	Common Burdock	0	5	G?			SE5		
<i>Asclepias syriaca</i>	Common Milkweed	0	5	G5			S5		
<i>Bidens sp</i>	Beggar-ticks Species								
<i>Bromus sp</i>	Brome Species								
<i>Carex granularis</i>	Meadow Sedge	-4	3	G5			S5		
<i>Carex spp</i>	Sedge Species								
<i>Centaurea jacea</i>	Brown Knapweed	0	5	G?			SE5		
<i>Chrysanthemum leucanthemum</i>	Ox-eye Daisy	0	5	G?			SE5		
<i>Cichorium intybus</i>	Chicory	5	0	G?			SE5		
<i>Circaea lutetiana ssp. canadensis</i>	Canada Enchanter's Nightshade	3	3	G5			S5		
<i>Cirsium vulgare</i>	Bull Thistle	0	4	G5			SE5		
<i>Convolvulus arvensis</i>	Field Bindweed	0	3	G?			SE5		
<i>Cornus foemina ssp. racemosa</i>	Grey Dogwood	2	-2	G5			S5		
<i>Crataegus sp</i>	Hawthorn Species	0	4	G5			S5		
<i>Dactylis glomerata</i>	Orchard Grass	3	0	G?			SE5		
<i>Daucus carota</i>	Wild Carrot	0	5	G?			SE5		
<i>Dipsacus fullonum ssp. sylvestris</i>	Common Teasel	0	5	G?			SE5		
<i>Elaeagnus umbellata</i>	Autumn Olive	0	3	G?			SE3		
<i>Epilobium sp</i>	Willow-herb Species								
<i>Equisetum arvense</i>	Field Horsetail	0	0	G5			S5		
<i>Erigeron annuus</i>	Daisy Fleabane	0	1	G5			S5		
<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod	2	-2	G5			S5		
<i>Festuca rubra</i>	Red Fescue		1	G5			S5		
<i>Fragaria virginiana ssp. virginiana</i>	Common Strawberry	2	1	G5			S5		
<i>Geranium robertianum</i>	Herb Robert	0	5	G5			SE5		
<i>Glechoma hederacea</i>	Ground Ivy	0	3	G?			SE5		
<i>Impatiens capensis</i>	Spotted Touch-me-not	4	-3	G5			S5		
<i>Ligustrum vulgare</i>	Common Privet	1	0	G?			SE5		
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	1	0	G?					
<i>Lythrum salicaria</i>	Purple Loosestrife	0	-5	G5			SE5		
<i>Medicago lupulina</i>	Black Medick	0	1	G?			SE5		
<i>Melilotus alba</i>	White Sweet-clover	3	0	G5			SE5		
<i>Parthenocissus inserta</i>	Thicket Creeper	3	3	G5			S5		
<i>Phragmites australis</i>	Common Reed	-4	0	G5			S5		
<i>Picea pungens</i>	Blue Spruce			G?			SE?		
<i>Plantago major</i>	Common Plantain	0	-1	G5			SE5		
<i>Poa pratensis ssp. pratensis</i>	Kentucky Blue Grass	0	1	G?			S5		
<i>Polygonum pensylvanicum</i>	Pink Knotweed	3	-4	G5			S5		
<i>Polygonum virginianum</i>	Jumpseed	0	6	G5			S4		
<i>Potentilla recta</i>	Rough-fruited Cinquefoil	0	5	G?			SE5		
<i>Rhamnus cathartica</i>	Common Buckthorn	0	3	G?			SE5		
<i>Rhus radicans ssp. negundo</i>	Climbing Poison-ivy	5	-1	G5			S5		
<i>Rhus typhina</i>	Staghorn Sumac	5	1	G5			S5		
<i>Rosa multiflora</i>	Multiflora Rose	0	3	G?			SE4		
<i>Rubus occidentalis</i>	Black Raspberry	2	5	G5			S5		
<i>Rumex crispus</i>	Curly Dock	0	-1	G?			SE5		
<i>Schoenoplectus tabernaemontani</i>	Soft-stemmed Bulrush	2	-5	G5			S5		
<i>Solidago canadensis</i>	Canada Goldenrod	2	3	G5			S5		
<i>Solidago juncea</i>	Early Goldenrod	3	5	G5			S5		
<i>Sonchus sp</i>	Sow-thistle Species								
<i>Taraxacum officinale</i>	Common Dandelion	3	0	G5			SE5		

ScientificName	CommonNames	Coeff. Cons.	Coeff. Wet.	GRank	COSEWIC	COSSARO	SRank	Lrank	Notes
<i>Trifolium pratense</i>	Red Clover	2	0	G?			SE5		
<i>Typha sp</i>	Cattail Species								
<i>Vicia cracca</i>	Cow Vetch	0	5	G?			SE5		
<i>Vitis riparia</i>	Riverbank Grape	0	-2	G5			S5		

Legend

Coeff Cons. - Coefficient of Conservatism. Scores for each species range from 0 (low conservatism) to 10 (high conservatism).

A conservatism value of 0 indicates species is widespread. A value of 8, 9 or 10 indicates that a species is a habitat specialist.

Coeff Wet. - Coefficient of Wetness

5 - Almost always occur in upland areas

4, 3, 2 - Usually occur in upland areas

1, 0, -1 - Found equally in upland and wetland areas

-2, -3, -4 Usually occur in wetlands

-5 Almost always occur in wetlands

Grank - Global Rank G1 — Critically Imperiled, G2 — Imperiled, G3 — Vulnerable, G4 — Apparently Secure, G5 — Secure

COSEWIC - Committee on the Status of Endangered Wildlife in Canada

COSSARO - Committee on the Status of Species at Risk in Ontario

Srank - Subnational Rank

S1 — Critically Imperiled - Critically imperiled in the province because of extreme rarity, (often 5 or fewer occurrences)

S2 — Imperiled - Imperiled in the province because of rarity due to very restricted range, very few populations (often 20 or fewer)

S3 — Vulnerable - Vulnerable in the province due to a restricted range, relatively few populations (often 80 or fewer)

S4 — Apparently Secure - Uncommon but not rare

S5 — Secure - Common, widespread, and abundant in the province

SE — Exotic

Lrank - Local Rank

R - Rare

U - Uncommon

I - Introduced

Appendix C
Site Photographs



Photo 1. Example of vegetative conditions within and adjacent to LO Tributary 41 on the west side of the property. Photo from east edge of channel facing south.



Photo 2. Example of vegetative conditions within and adjacent to LO Tributary 41 on the west side of the property. Photo from east edge of channel facing north.



Photo 3. Example of vegetative conditions within and adjacent to LO Tributary 41 downstream of property. Photo from south side of Winston Road facing south.



Photo 4. Example of vegetative conditions within and adjacent to LO Tributary 41 downstream of property. Photo from north side of Winston Road facing north.



Photo 5. Example of vegetative conditions within and adjacent to LO Tributary 41 at outlet to Lake Ontario.



Photo 6. Example of shore protection across outlet of LO Tributary 41 at Lake Ontario.



Photo 7. Example of vegetative conditions within and adjacent to LO Tributary 41 upstream of QEW. Photo from south side of South Service Road facing south.



Photo 8. Example of vegetative conditions within and adjacent to LO Tributary 40 east of the property. Photo from North Service Road facing north.



Photo 9. Example of site conditions on the 544 North Service Road property. Photo from east property line facing west.



Photo 10. Example of site conditions on the 540 North Service Road property. Photo from western portion of property facing east.