



October 29th, 2024

JDE Project 1302

Hansen Group Inc.
35 Worsley Street
Barrie, ON L4M 1L7

Attn: Taylor Pratt

**RE: Traffic Impact Assessment
Hewitt's Gate South, City of Barrie**

JD Northcote Engineering Inc. [JD Engineering] is pleased to submit the following Traffic Impact Assessment to **Hansen Group Inc.** [the Developer] in support of the proposed residential development in the City of Barrie [City].

1.0 Project Background

The subject site (Hewitt's Gate South) is located within the Hewitt Secondary Plan Area [HSPA], north of Lockhart Road, east of Yonge Street. The proposed development will consist of a total of 52 single detached units, 185 townhouse units and 950 medium density apartment units. The proposed development will be split into two blocks, with the anticipated phasing timelines identified below:

Block 79

- 160 medium density units (Ultimate – post 2031)

Lands East of Hewitt's Creek

- 52 single detached units (Phase 1 - 2026)
- 185 townhouse units (Phase 1 - 2026)
- 8 multi-unit building (2027 – 2031)
- 782 medium density units
 - Phase 2 (672 units) – 2027 - 2031
 - Ultimate (110 units) – 2027 – 2031

A small amount of ground floor commercial space is also proposed; however, this is intended to serve the local area and is not anticipate to generate a notable volume of external traffic volume. For the purpose of this analysis, we have ignored the impact of the commercial development traffic.



JD Engineering
705.725.4035
Admin@JDEngineering.ca

Figure 1 illustrates the location of the subject site in relation to the surrounding area.

Access to Block 79 is provided via two driveway entrances onto Lockhart Road [West Access A and East Access A].

Access to the parcel of land east of Hewitt's Creek will also be provided via Lockhart Road. The proposed development of Block B includes the construction of two major collector roads, Prince William Way and Terry Fox Drive, which are planned to be full-movement intersections at Lockhart Road. When complete, Prince William Way and Terry Fox Drive will extend from Big Bay Point Road to Lockhart Road. The section of Prince William Way and Terry Fox Drive that will be constructed as part of this development will be limited to the area within the subject site. The timing for the completion the remaining sections, north of the subject site will depend on the development schedules for the properties north of the subject site.

The Draft Plan for the proposed development is provided in the **Appendix**.

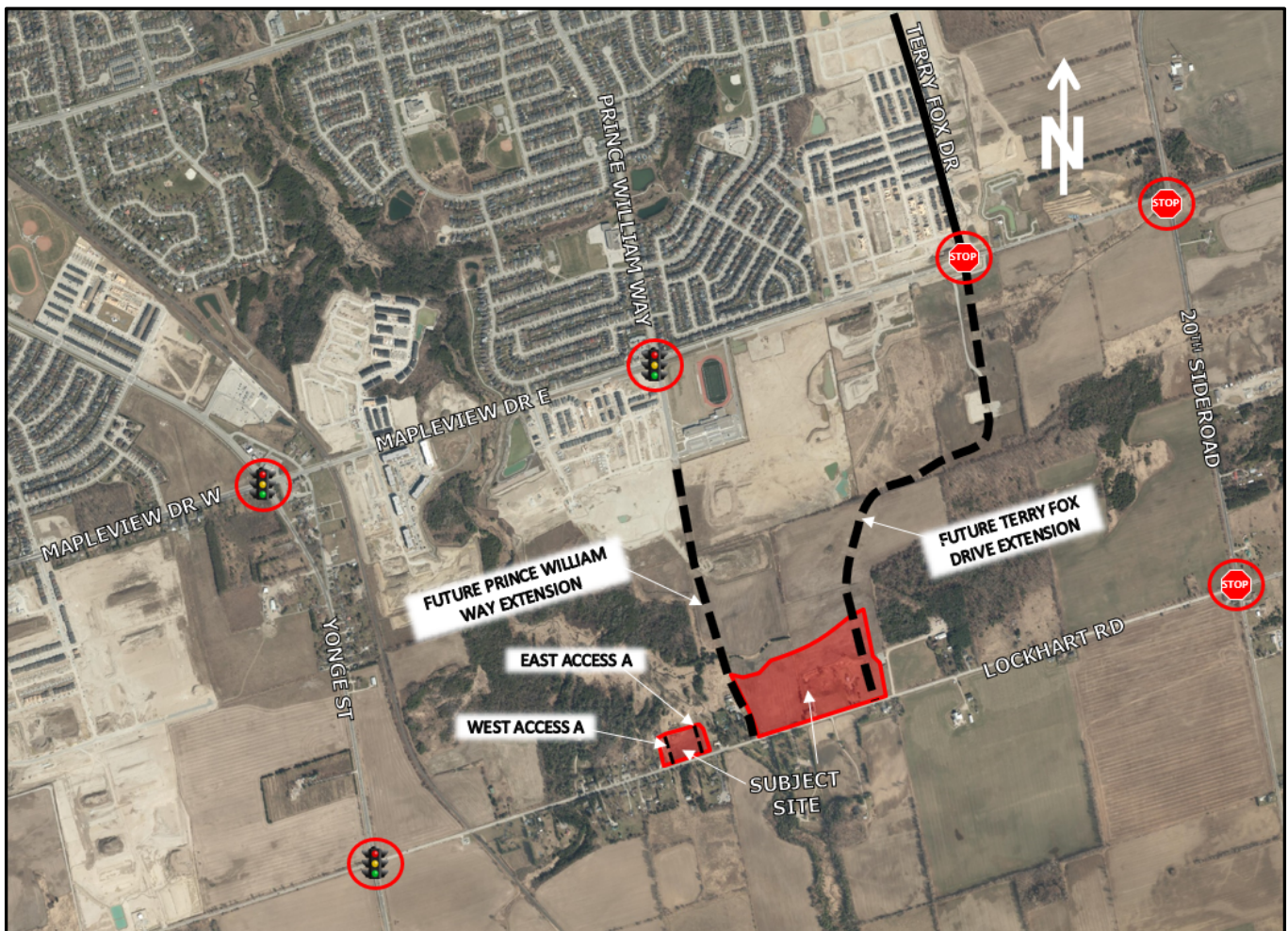
The Developer has retained JD Engineering to prepare this Traffic Impact Assessment in support of the proposed development application.

The scope of this Traffic Letter, includes a review of the proposed unit count, compared to the anticipated unit count applied in the transportation planning studies completed for the HSPA. The analysis also includes a review of the traffic generated by the proposed development.

A comprehensive Traffic Impact Study will be provided as part of the first engineering submission or site plan submission (whichever comes first) for this property. We acknowledge this will be a condition of the Subdivision Agreement.

The comprehensive Traffic Impact Study will include a Neighbourhood Traffic Calming Management Plan and Pavement Marking and Signage Plan. A review of the feasibility of implementing an active transportation connection through the future trail network will be provided as part of the comprehensive Traffic Impact Study, as requested through the comments received at Pre-Submission dated February 23rd, 2024.

Figure 1 – Site Location and Study Area



2.0 LEA Updated Master Transportation Study (MTS)

LEA Consulting Ltd. prepared an updated Master Transportation Study for the anticipated development located within the Hewitt Secondary Plan Area in the City of Barrie, dated February 2019 (LEA MTS). The subject site (Hewitt's Gate South) is located within the HSPA. Based on a review of the LEA MTS, the Hewitt's Gate Lands were anticipated to include a major residential community, with low, medium and high-density residential units, and neighbourhood commercial uses. The LEA MTS evaluates the roadway network for an interim horizon (2020-2021) prior to the opening of the Harvie Road / Big Bay Point Road overpass and the ultimate horizon (2031) corresponding with the full build-out of the Subject Lands. The anticipated development for the two horizon years was 2,100 units for the interim horizon year 2020-2021 and 13,512 units for the ultimate horizon year 2031. The unit count projections were based on the August 2018 Development Plan, which was included in the LEA MTS (attached in the Appendix for reference).

The trip generation rate for the proposed units within the HSPA was based on proxy site surveys, conducted during a typical weekday AM and PM peak periods on August 25, 2016, for the residential subdivision located east and west of Prince William Way and north of Mapleview Drive East.

The TMC data collected for the proxy site was evaluated and the calculated trip generation rates were utilized to estimate traffic generated by the HSPA during the peak AM and PM peak hours for the interim and ultimate horizons, summarized in **Table 1**.

Table 1 –LEA MTS – Trip Generation Rates Summary

Land Use / Generator	Size	AM Peak Hour			PM Peak Hour		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Proxy trip Rates		0.14	0.34	0.48	0.41	0.25	0.67

3.0 Proposed Developments Traffic Generation

Table 2 provides a comparison of the traffic generation for the subject site area, based on the planned units in the August 2018 Development Plan from the LEA MTS and the proposed unit count according to the current development application. A total of 640 units were included in Phase 3 for the Crisdawn Construction Inc. property (Map ID I, J, K). This area includes what is now known as the Hewitt's Gate Central property (north of the subject site) and the Hewitt's Gate South property (subject site). The Hewitt's Gate Central property included 305 single detached units in the August 2018 Development Plan, the balance of 335 units is in the area known as Hewitt's Gate South.

For the purpose of this comparison, the proxy trip rates proposed in the LEA MTS have been applied.

Table 2 –Trip Generation and Unit Count Comparison

Land Use	Size	AM Peak Hour			PM Peak Hour		
		IN	OUT	TOTAL	IN	OUT	TOTAL
LEA MTS							
Single Family Detached units	335 units	47	114	161	137	84	221
Proposed Development							
Single Family Detached, Townhouse, Medium Density Apartment Units	1,187 units	166	404	570	487	297	784
Net Trips		+119	+290	+409	+350	+213	+563

4.0 Traffic Impact Analysis

As indicated, the proposed development will result in an increase in the total trip generation from the subject site, compared to the trip generation applied in the LEA MTS; however, the development will be constructed in phases which will allow for updates to the traffic analysis to be completed as development occurs. The first phase of development includes the construction of 52 single detached units and 185 townhouse units (237 units total). It is anticipated that the first phase of the development will begin in 2026. Phase 1 of the proposed development includes 98 fewer units than what was applied in the LEA MTS for the subject site. Consequently, the traffic generation from Phase 1 of the proposed development will not trigger any changes to the recommendations or conclusions provided in the LEA MTS.

The City is currently in the process of completing a Transportation Master Plan Update [TMP Update]. The TMP Update will include revised future traffic projections and recommendations for transportation infrastructure improvements to convey the future 2051 traffic in a safe and efficient manner. The City is currently anticipating that the TMP Update will be complete by 2026; however, it is anticipated that the traffic modeling will be made available prior to the final adoption of the TMP Update.

The medium density blocks are subject to site plan control approval. Consequently, updated traffic impact analysis will be prepared as part of those submission(s) when those applications move forward and details are finalized as to the number of units, phasing and location. An updated traffic impact analysis would also have more accurate future traffic projections from the TMP Update. The TMP Update will provide a holistic review of the traffic within the City of Barrie and the surrounding area, which will provide a more accurate representation of the necessary infrastructure improvements, if any.

The proposed development includes a 14.0 metre road widening along the full frontage of Lockhart Road. This widening will provide the 34.0 metre right-of-way on Lockhart Road, in accordance with the right-of-way Map developed by the City in 2017 for the Salem & Hewitt's Secondary Plan. A temporary eastbound left turn lane will be provided at both of the proposed driveways for Block 79 and at the proposed intersections of Prince William Way / Lockhart Road and Terry Fox Drive / Lockhart Road.

Block 94 will be developed with private Site Plan and private roads, consequently, this block will remain private and will not be converted into a public right-of-way.

5.0 Conclusion

The proposed development is anticipated to be constructed in phases; consequently, subsequent traffic analysis can be completed for the medium density blocks as part of the site plan control approval for each phase, or as applicable, to demonstrate that external road improvements on Lockhart Road and Mapleview Drive East (as identified in the LEA MTS) can accommodate the traffic generation from the proposed occupancy of the development.

Future traffic impact analysis updates will be able to capture additional details on the number of units, phasing, location and future traffic projections as that information becomes available. We trust you will find this submission acceptable. Should you have any questions or concerns or require any additional information in this regard, please contact our office.

Yours truly,

JD Northcote Engineering Inc.



John Northcote, P.Eng.
President

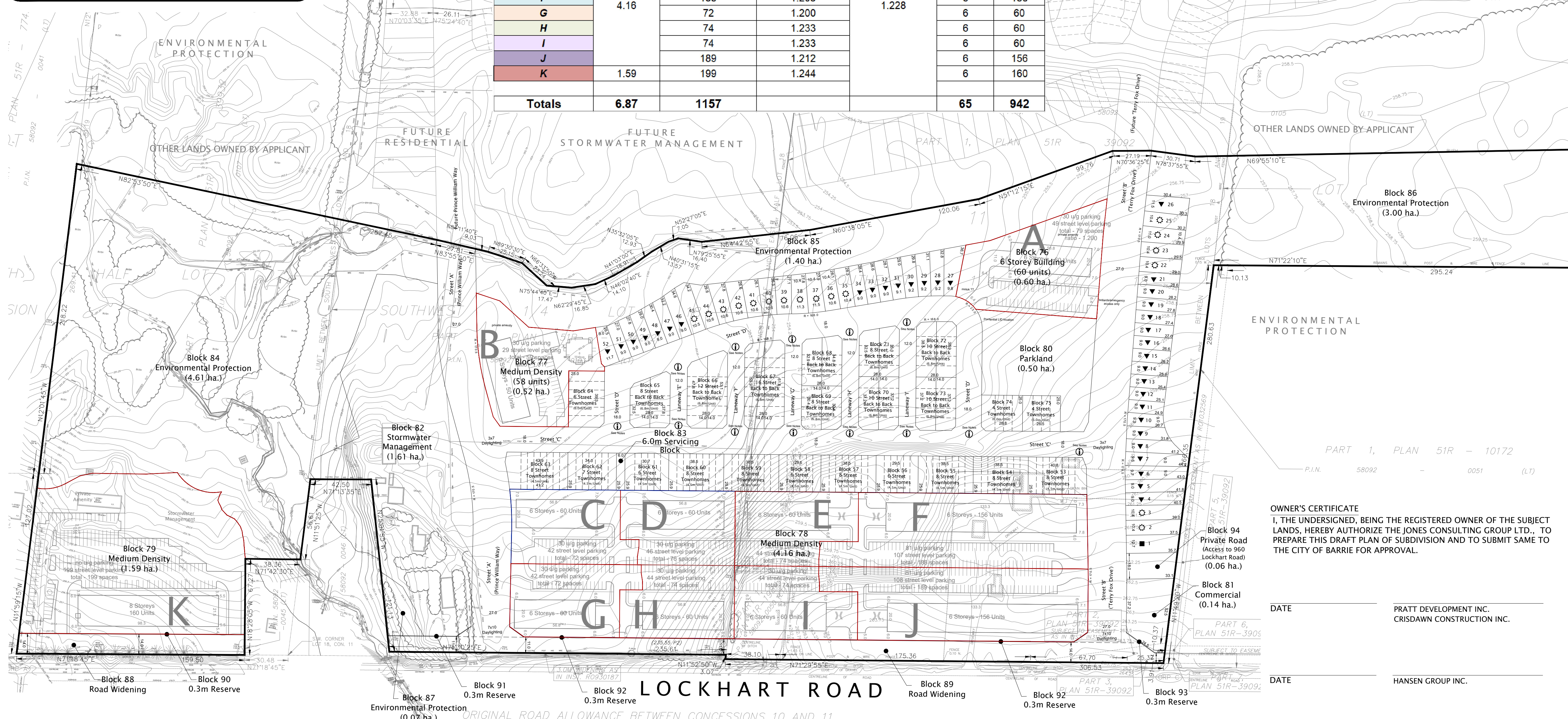
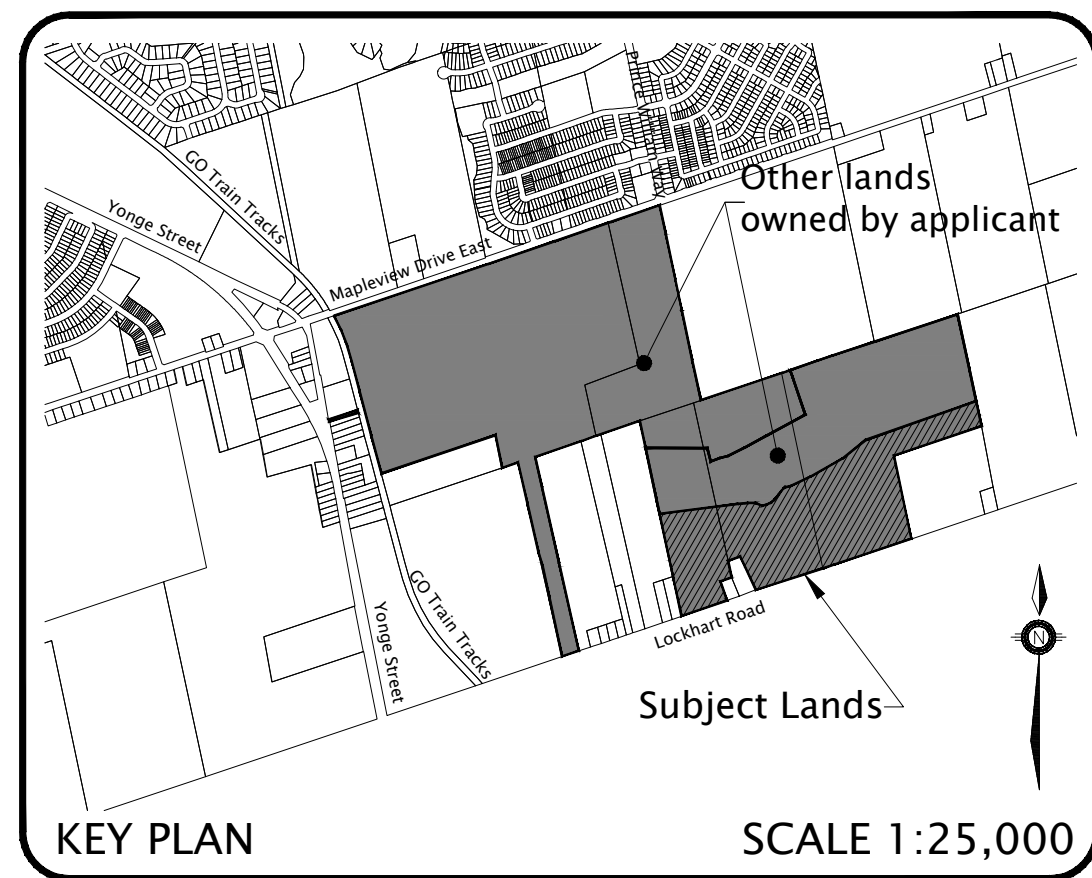


Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. JD Engineering accept no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this project.

APPENDIX

Draft Plan of Subdivision

Part of Lot 19, and Part of Lot 20, Concession 12
Former Township of Innisfil,
Now in the
City of Barrie
2024



PARKING PROVISION CALCULATIONS												
	Block 76	Block 77	Block 78								Block 79	Total Combined
Building >	A	B	C	D	E	F	G	H	I	J	K	
1 Level Underground Spaces	30	30	30	30	30	81	30	30	30	81	0	402
2 Podium Level Spaces	0	0	0	0	0	0	0	0	0	0	0	0
Surface Level (includes barrier free spaces)	49	30	42	46	44	107	42	44	44	108	199	755
Total	79	60	72	76	74	188	72	74	74	189	199	1157
Parking Provision Ratio by Building	1.317	1.200	1.200	1.267	1.233	1.205	1.200	1.233	1.233	1.212	1.244	

Building Letter	Block Area (ha.)	Parking Spaces Provided	Individual Parking Ratio	Average Parking Ratio	No. of Storeys	No. of Units
A	0.60	79	1.317	1.228	6	60
B	0.52	60	1.200		5	50
C	4.16	72	1.200		6	60
D		76	1.267		6	60
E		74	1.233		6	60
F		188	1.205		6	156
G		72	1.200		6	60
H		74	1.233		6	60
I		74	1.233		6	60
J		189	1.212		6	156
K	1.59	199	1.244		6	160
Totals	6.87	1157			65	942

OWNER'S CERTIFICATE
I, THE UNDERSIGNED, BEING THE REGISTERED OWNER OF THE SUBJECT LANDS, HEREBY AUTHORIZE THE JONES CONSULTING GROUP LTD., TO PREPARE THIS DRAFT PLAN OF SUBDIVISION AND TO SUBMIT SAME TO THE CITY OF BARRIE FOR APPROVAL.

DATE PRATT DEVELOPMENT INC.
CRISDAN CONSTRUCTION INC.

DATE HANSEN GROUP INC.

SURVEYOR'S CERTIFICATE
I CERTIFY THAT THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED AND THEIR RELATIONSHIP TO ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

DATE GURJIT MAHANT, OLS
ONTARIO LAND SURVEYOR

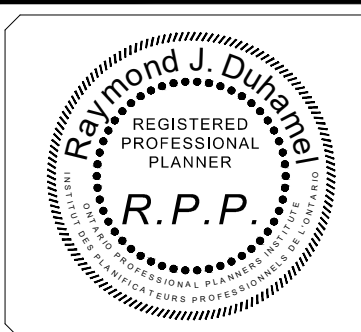
SCHEDULE OF REVISIONS		
DATE	DESCRIPTION	DRAWN
MARCH 20, 2024	CHANGES TO MED DENSITY BLOCK DIVISION	m.c.r.
MARCH 26, 2024	CHANGES TO MED DENSITY BLOCK DIVISION	m.c.r.
AUG. 7, 2024	REDUCE MED DENSITY BLOCK AND REVISE L SHAPE AREA	m.c.r.
AUG. 22, 2024	NEW LAYOUT-OPT.1 & ENG COMMENTS ADDRESSED	m.c.r.
AUG. 22, 2024	NEW LAYOUT BASED ON OPT.1	m.c.r.
AUG. 23, 2024	NEW LAYOUT BASED ON 8A-1	m.c.r.
AUG. 28, 2024	NEW LAYOUT BASED ON 8A-2	m.c.r.
SEPT. 12, 2024	NEW OLS BOUNDARY / PRINCE WILLIAM WAY ADJUSTMENT	m.c.r.
SEPT. 26, 2024	ADDITION OF 0.9m DEPTH TO STHS ALONG STREET 'D'	m.c.r.
OCT. 7, 2024	CHANGE TO WIDTH OF B28 UNITS TO MAKE FIT	m.c.r.
OCT. 11, 2024	UPDATE OWNERSHIP NAMES ON SIGNING BLOCK	m.c.r.

NOTES
① This symbol indicates that corner unit driveway may start at the edge of pavement radius, not at the 2.0m setback from end of radius.

STATISTICS	Area (ha.)	Units
■ 11.0m Singles (LOT 1)	0.05 ha.	1 unit
⊗ 10.4m Singles (LOTS 2 & 3, 22 - 25, & 35 - 45)	0.54 ha.	17 units
▼ 9.0m Singles (LOTS 4 - 21, 26 - 34, & 46 - 52)	0.95 ha.	34 units
Street Townhomes (6.0m/unit) (BLOCKS 64, 74 & 75)	0.24 ha.	14 units
Street Townhomes (4.5m/unit) (BLOCKS 53 - 63)	1.03 ha.	81 units
Back to Back Townhomes (6.8m/unit) (BLOCKS 76 - 79)	1.00 ha.	90 units
Medium Density (BLOCKS 65 - 73)	6.87 ha.	950 units
Open Space (BLOCK 80)	0.50 ha.	
Commercial (BLOCK 81)	0.14 ha.	
Stormwater Management & Drainage (BLOCKS 82 & 83)	1.62 ha.	
Environmental Protection (BLOCKS 84 - 87)	9.08 ha.	
0.3m Reserves, Private Road, and Widening (BLOCKS 88 - 94)	0.98 ha.	
Roads	3.49 ha.	
27.0m Major Collector - Street 'A' - Future 'Prince William Way'		
18.0m Local Road - Street 'B' - Future 'Terry Fox Drive'		
12.0m Laneway - Streets 'C' & 'D'		
12.0m Laneway - Laneway 'E' - 'I'		
TOTAL	26.49 ha.	1187 units

SCALE 1 : 1500 (A1)

Pratt -Lockhart
Draft Plan of Subdivision



Date Issued: NOV. 20, 2023
Checked By: RD
Project No.: PRA-12160
Drawn By: m.c.r.
Drawing Name: PRA-23040-DP-SA-3.dwg



PRATT LOCKHART
CITY OF BARRIE

1.4 PROPOSED DEVELOPMENT

The proposal for the lands is to develop the area primarily as a major residential community, with low, medium and high density residential, and neighbourhood commercial uses. The development also includes schools, parks, recreational centres, open spaces and EPAs.

For the purpose of projecting traffic volumes generated by the proposed development, 13,512 residential units have been considered (based on Jones Consulting Group Ltd.'s 2031 Development Plan dated August 30, 2018).

Based on discussions with City staff and the landowners, it was determined that two horizon years will evaluate the interim as well as the long term (ultimate) traffic impacts associated with the proposed development. The interim horizon will correspond to the year 2020-2021 for analysis of the traffic impacts prior to the implementation of the Harvie Road / Big Bay Point overpass at Highway 400; the overpass is expected to be in operation at the end of 2020. The ultimate horizon will correspond to the year 2031 for analysis of the traffic impacts associated with the full build out of the Subject Lands. For the purpose of our analysis, the breakdown of the proposed development for the two horizon years is provided in Table 1-1. As mentioned earlier, in addition to the residential units, there are other uses which typically exist in residential subdivisions including local commercial uses, schools and parks. In addition, there are recreational centre and potential Sobeys supermarket that their respective trips are included in this update as discussed in the trip generation section.

Table 1-1: Site Statistics for the Interim and Ultimate Horizon Years

Land Use	Interim Horizon Year (2020-2021)	Ultimate Horizon Year (2031)
Residential Units	2,100	13,512

1.5 PROPOSED FUTURE ROADWAY IMPROVEMENTS

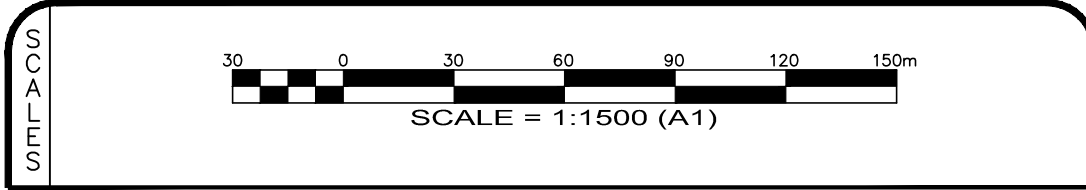
The major assumed roadway improvement projects completed for the Interim and Ultimate horizon year traffic analyses are provided in Table 1-2. These assumptions have been developed through discussions with City staff and review of Town of Innisfil and County of Simcoe's Transportation Master Plans (TMP), as well as a review of the Multi-Modal Active TMP (MMATMP). In addition, recommendations proposed by Hewitt Secondary Plan EA Study were included in this update. Furthermore, summary of road improvements and their timings were confirmed with the City of Barrie due to the ongoing MMATMP update. It should be mentioned that the proposed Divergent Diamond Interchange (DDI) layout at Highway 400 and Maplevue Drive was also presumed to be functional at the 2031 horizon following the City staff comments. Of note, the capital budget of the City of Barrie was also reviewed to assure the timing of the planned road improvements. Each road improvement identified in the Table 1-2 is also depicted in Figure 1-8.

Hewitt's Secondary Plan
Overall Development Plan

Participating Landowner Unit Counts/Estimates																	
Map ID	Land Owner	Total Area (ha.)	Developable Area within Phase 1 COB Sec Plan	Total Area within 2031 Boundary (ha.)	Total Developable (ha.)	Developable Area within 2031 Boundary (2031) ha.	Phase 1 Units	Phase 2 Units	Phase 3 Units	Phase 4 Units	Total Units	Estimated Building Permit 2018	Estimated Building Permit 2019	Estimated Building Permit 2020	Estimated Building Permit 2021	Estimated Building Permit 2022	Estimated Building Permit 2023
A	Barrie Lockhart Road GP Inc.	36.72	0.00	36.72	23.47	23.47	0	603	0	0	603	0	0	0	100	100	100
B	BEMP Holdings 2 Inc.	19.45	19.45	19.45	19.45	19.45	516	0	0	0	516	0	65	66	100	100	100
D	Lockhart Innisfil Investments Limited	19.73	0.00	19.73	15.44	15.44	0	187	0	0	187	0	0	0	0	0	0
E	Lockhart Innisfil Investments Limited II	32.19	0.00	32.19	19.65	19.65	0	402	0	0	402	0	0	0	0	0	0
F	Lockmaple Innisfil Investments Limited	65.49	58.47	65.49	58.47	58.47	1073	0	0	0	1073	0	100	298	200	200	200
H	Rainsony Land Development Inc.	50.15	25.67	50.15	50.15	50.15	396	365	0	0	761	0	78	100	109	109	109
L, J, K	Crisdawn Construction Inc.	134.58	63.94	129.38	97.25	97.25	1733	0	640	0	2373	132	290	0	484	280	354
L	2303757 Ontario Inc. (Campbell)	4.33	4.33	4.33	3.56	3.56	57	0	0	0	57	0	0	22	35	0	0
M	1091369 Ontario Inc.	30.25	30.25	30.25	30.25	30.25	570	0	0	0	570	0	150	117	150	150	0
N	Finger Lakes Estates Inc.	19.42	1.13	17.75	15.99	15.99	45	0	415	0	460	0	0	0	100	100	100
O, P	1597229 Ontario Ltd.	80.16	42.62	60.76	71.11	52.76	786	0	244	0	1030	0	100	187	150	150	150
Q	2121191 / LM Barrie	41.54	40.67	41.54	41.49	41.49	802	0	33	0	835	0	144	114	150	150	150
T	Crown (Barrie) Developments Inc.	4.78	0.8	4.78	4.78	4.77	0	581	0	0	581	0	0	0	280	281	0
AA	Miele Developments Inc.	2.04	2.04	2.04	2.04	2.04	43	0	0	0	43	0	0	14	29	0	0
W	Ballymore Building (Barrie) Corp.	26.41	1.91	26.41	8.55	8.55	68	0	987.6	0	1055.6	0	0	22	46	100	100
Y	Mapleview South (Innisfil) Ltd.	19.10	15.08	19.10	15.08	15.08	365	0	0	0	365	0	0	99	100	100	66
Z	961 Big Bay Ltd	0.65	0.65	0.65	0.65	0.65	16	0	0	0	16	0	0	4	12	0	0
FF	John and Alida Eiseses	8.16	0	1.99	2.67	1.99	0	0	199	0	199	0	0	0	0	0	0
V	ASA Development Inc.	10.14	0	11.10	11.1		1100				1100						
		605.27	307.01	573.79	491.13	461.01	6470	3218	2519	0	12207	132	927	1041	2045	1800	1429

Non-Participating Landowner Unit Counts/Estimates											
Map ID	Land Owner	Total Area (ha.)	Developable Area within Phase 1 COB Sec Plan	Total Area within 2031 Boundary (ha.)	Total Developable (ha.)	Developable Area within 2031 Boundary (2031) ha.	Phase 1 Units	Phase 2 Units	Phase 3 Units	Phase 4 Units	Total Units
C	Van Der Hayden	3.17	0.00	3.17	3.17		0	52.5	0	0	52.5
G	Myrtle Bernice Irving	27.93	0.00	27.93	27.93		0	698.25	0	0	698.25
R	Sobey's	8.18	8.18	8.18	8.18		0	0	0	0	0
S	DIV Development	80.23	0	17.97	51.92		0	0	0	267.5	267.5
U	Ed Eisses and Others	3.84	3.84	3.84	3.84		192	0	0	0	192
X	H. Rosner	1.01	1.01	1.01	1.01		0	0	0	0	0
DD	SCDSB	9.56	9.56	9.56	9.56		0	0	0	0	0
EE	Barbara Johnston	0.95	0.95	tm	0.95		0	95	0	0	95
		14.41	14.41	1.00	14.41		192	845.75	0	267.5	1305.25

- Subject Lands
- City of Barrie Settlement Area Boundary
- Natural Heritage System including Buffer
- Participating Landowners
- Non-Participating Landowners
- Adjusted based on Draft Plan Approvals
- Stage 1 (2018–2020)
- Stage 2 (2020–2022)
- Stage 3 (2020–2025)
- SWM – Stormwater Management Pond
- VS – Village Square
- PARK – Parkland
- SES – Separate Elementary School
- PES – Public Elementary School
- SS – Secondary School
- MU – Mixed Use Block
- M/H RES – Medium/High Residential



Date Issued:	AUGUST 30, 2018
Checked By:	RD
Project No.:	EAS-11118
Drawn By:	m.c.r. / K.C.
Drawing Name:	EAS-11118-DevPlan-18-08-30.dwg

