December 2, 2024

Jeff Greene
Flagship Developments
flagshipdev.ca

Dear Jeff,

Re: Udora 8 Subdivision - Birdie Smith Court Extenion
Township of Uxbridge, The Regional Municipality of Durham
Traffic Brief – Draft Plan of Subdivion and Rezoning

1.0 INTRODUCTION

CGE Consulting is pleased to submit this Traffic Brief in support of the proposed draft plan of subdivision and rezoning for eight single-family detached residential lots fronting on the extension of Birdie Smith Court in Udora, Township of Uxbridge, Regional Municipality of Durham.

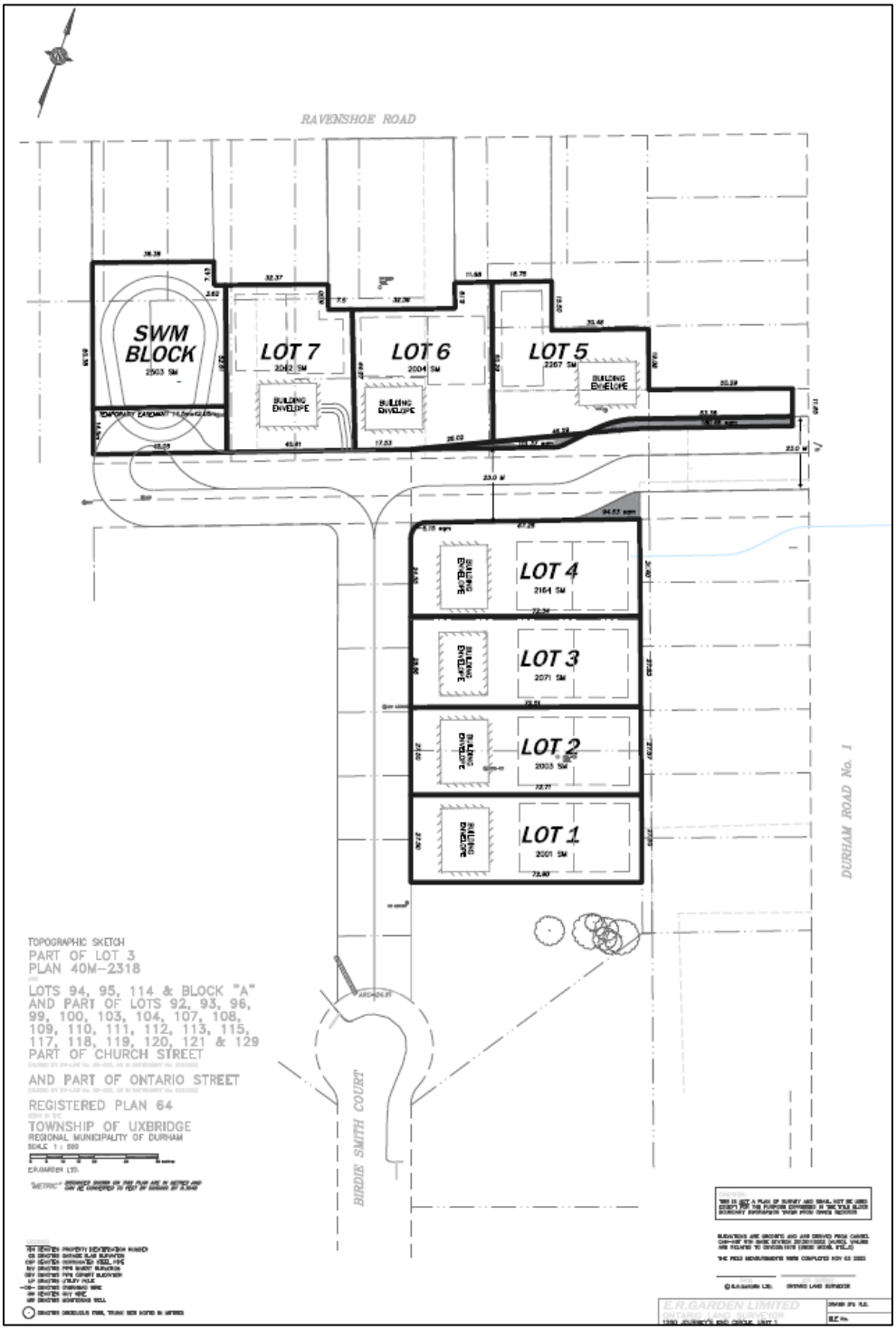
The scope of this brief includes:

1. An evaluation of the existing transportation network, including roadway classifications.
2. A trip generation analysis to quantify site-generated trips.
3. An operational review of the proposed internal circulation design.

The subject site is situated in the southwest quadrant of Ravenshoe Road and Regional Road 1 (Durham Road #1). Access is proposed via an extension of Birdie Smith Court and a connection to Regional Road 1. The draft plan incorporates a temporary cul-de-sac adjacent to the proposed Stormwater Management (SWM) facility.

The draft plan of subdivision, including the site location, is illustrated in **Figure 1**.

Figure 1 Draft Plan of Subdivision



2.0 EXISTING CONDITIONS

Ravenshoe Road:

Ravenshoe Road is designated as a Type A Arterial Road according to Map 3B of the Region's Official Plan. The roadway consists of two lanes in the vicinity of the site, with posted speed limits of 50 km/h west of Regional Road 1 and 60 km/h to the east.

Regional Road 1:

Regional Road 1 is classified as a Type B Arterial Road in the Region's Official Plan. It features a two-lane cross-section with a posted speed limit of 50 km/h south of Ravenshoe Road, with Annual Average Daily Traffic (AADT) of 2,550 vehicles (LOS A/B). The proposed site access connection to Regional Road 1 is located approximately 100 meters south of its intersection with Ravenshoe Road, where an existing unimproved access connection to Regional Road 1 is currently provided.

Birdie Smith Court:

Birdie Smith Court is a local road that connects to Bagshaw Crescent. The proposed development includes the extension of Birdie Smith Court, which will function as the primary internal roadway for the subdivision, providing direct lot access.

3.0 SITE TRIP GENERATION

The proposed development is for 8 lots with a minimum lot area of 2,000 square metres. The *ITE Trip Generation Manual, 11th Editio*n, was used to estimate the projected trips by this development.

Table 1 contains the summary of the land uses and sizes used for the trip generation estimates. The trip generation graphs are included in the appendices.

Table 1 Estimated Traffic Generation – Proposed Development

Land Use	Size	Parameter	AM Peak Hour			PM Peak Hour		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Single-Family Detached Housing LUC 210	8 Dwelling Units	Trips	2	5	7	6	3	9
		Rate (trips/unit)	0.25	0.63	0.88	0.75	0.38	1.13

The analysis indicates that the development will generate approximately 7 two-way trips during the weekday AM peak hour and 9 two-way trips during the PM peak hour.

Given that the total site-generated traffic is well below the 100 trips/hour threshold established by industry standards for conducting a full Traffic Impact Study (TIS), the traffic impact of this development is deemed negligible. The addition of 7-9 peak-hour trips will not materially affect the roadways Level of Service (LOS) or capacity at the proposed access or adjacent roadways.

4.0 INTERNAL FUNCTIONAL DESIGN

The subdivision plan proposes a 23-meter right-of-way (ROW) for the internal roadway network, which includes a temporary cul-de-sac adjacent to the SWM facility. The design complies with minimum municipal geometric design standards, providing adequate lane widths for vehicular traffic and paved shoulders to accommodate active transportation users.

The proposed cul-de-sac ensures satisfactory turnaround capabilities for larger vehicles, including emergency and service vehicles, while maintaining adequate access for all residential lots.

The autoTURN analysis of a typical municipal garbage truck is shown in Appendix A.

5.0 SUMMARY AND CONCLUSION

The proposed Draft Plan of Subdivision, comprising eight residential lots, is anticipated to generate negligible traffic volumes during peak hours. These volumes are well below thresholds that would trigger concerns regarding capacity within the existing roadway network. The access design, in conjunction with the internal roadway layout, meets the functional and operational requirements for the development of this scale.

Should you have any questions regarding this study, please do not hesitate to contact the undersigned.

Yours truly,

CGE TRANSPORTATION CONSULTING

Casey Ge, P.Eng.
President

Appendix A: AutoTURN Analysis

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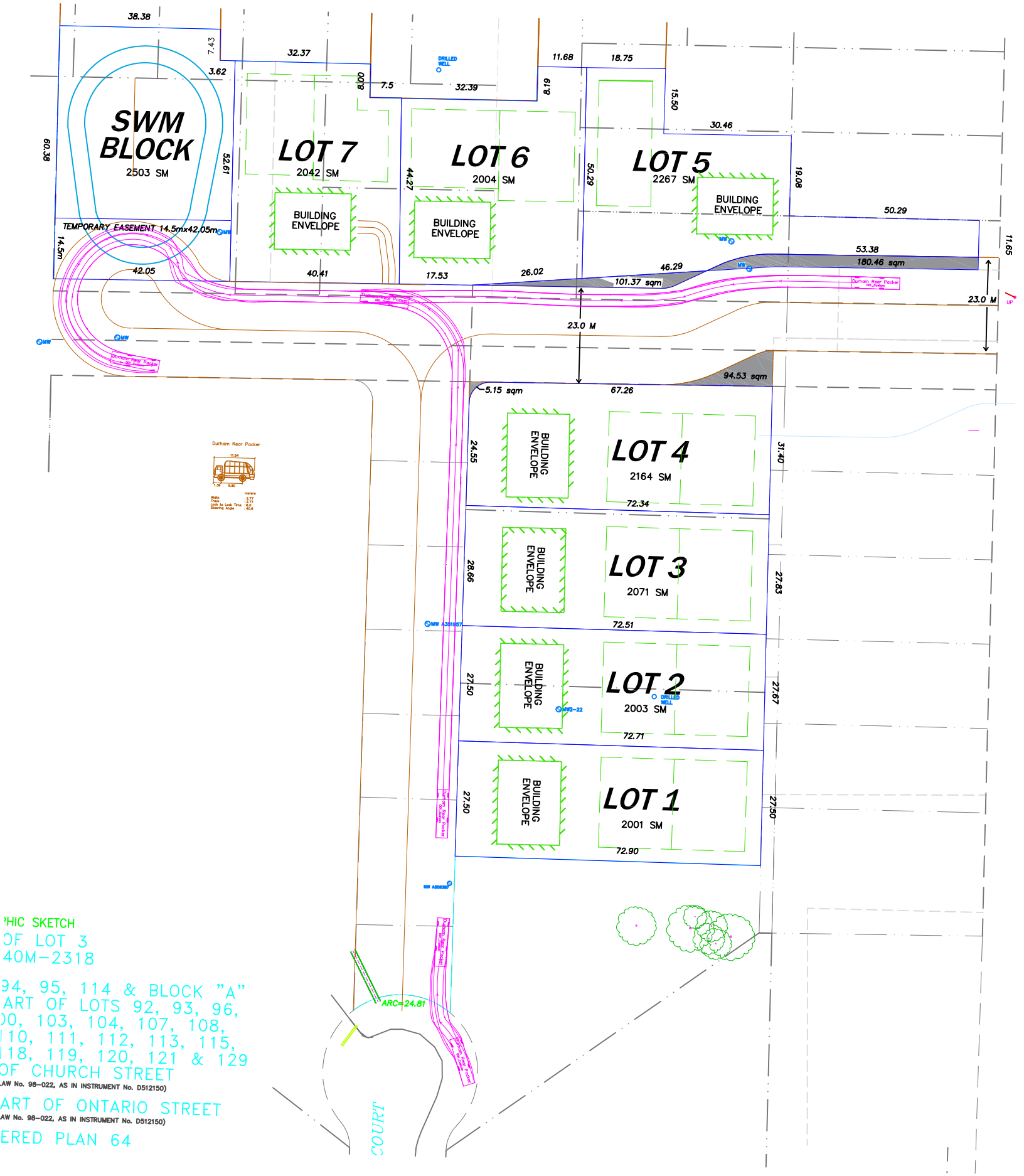
SWM BLOCK
2503 SM
LOT 7
2042 SM
LOT 6
2004 SM
LOT 5
2267 SM
LOT 4
2164 SM
LOT 3
2071 SM
LOT 2
2003 SM
LOT 1
2001 SM
BUILDING ENVELOPE
TEMPORARY EASEMENT 14.5mx42.05m
Durham Rear Packer
DRILLED WELL
38.38
7.43
3.62
32.37
8.00
7.5
32.39
11.68
18.75
15.50
30.46
19.08
50.29
60.38
52.61
44.27
14.5m
42.05
40.41
17.53
26.02
46.29
101.37 sqm
53.38
180.46 sqm
11.65
23.0 M
94.53 sqm
5.15 sqm
67.26
24.55
31.40
72.34
28.66
27.83
72.51
27.50
27.67
72.71
27.50
27.50
72.90
ARC=24.81
COURT
'HIC SKETCH
OF LOT 3
40M-2318
94, 95, 114 & BLOCK "A"
ART OF LOTS 92, 93, 96,
00, 103, 104, 107, 108,
110, 111, 112, 113, 115,
118, 119, 120, 121 & 129
OF CHURCH STREET
AW No. 98-022, AS IN INSTRUMENT No. D512150)
ART OF ONTARIO STREET
AW No. 98-022, AS IN INSTRUMENT No. D512150)
ERED PLAN 64