



Traffic Brief

202 Brock Street East, Town of Uxbridge

May 2023 | Project # 100163

Coral Creek Homes

TYLin

PROJECT TEAM

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1 INTRODUCTION

1.1 Scope and Objective

TYLin was retained by Coral Creek Homes to prepare a traffic brief in support of a site plan application for a proposed townhouse residential development to be located at 202 Brock Street East in the Town of Uxbridge ("the Town") and within Durham Region ("the Region").

The brief consists of the following:

- ▶ Driveway location review with respect to safety and proximity to the intersection of Brock Street East and Nelkydd Lane/Herrema Boulevard
- ▶ Trip generation review

The purpose of the brief is to determine the trips anticipated to be generated by the proposed development during the weekday a.m. and p.m. peak hour, confirm the anticipated impact of the site onto the nearby transportation network, and confirm that the driveway placement of the proposed site plan is functional in accordance with municipal and regional standards.

2 SITE CHARACTERISTICS

2.1 Study Environment

The subject site is located at the southeast corner of Brock Street East and Nelkydd Lane. The subject site is bounded by Brock Street East to the north, residential lots to the east, a storm water management pond to the south, and Nelkydd Lane to the west.

The subject site and the surrounding area are illustrated in **Figure 2-1**.

Figure 2-1 Site Location



2.2 Road Network

The following describes the existing road network within the study area.

Brock Street East is an east-west Type 'B' arterial roadway under the jurisdiction of the Regional Municipality of Durham. In the vicinity of the subject site, Brock Street East currently has a 2-lane cross-section with on-street parking provided on the north side of the road approximately 70 metres west of Herrema Boulevard/Nelkydd Lane. The posted speed limit is 50 km/h. Sidewalks are located on both the north and south sides of the road to the west of the Herrema Boulevard/Nelkydd Lane intersection. To the east of the intersection, the sidewalk is provided on

the south side of the road only and terminates after 100m.

Nelkydd Lane is a local north-south roadway under the jurisdiction of the Township of Uxbridge. In the vicinity of the subject site, Nelkydd Lane currently has a 2-lane cross-section. The posted speed limit is 40 km/h. Sidewalks are located on both sides of the roadway, and there are no cycling facilities provided.

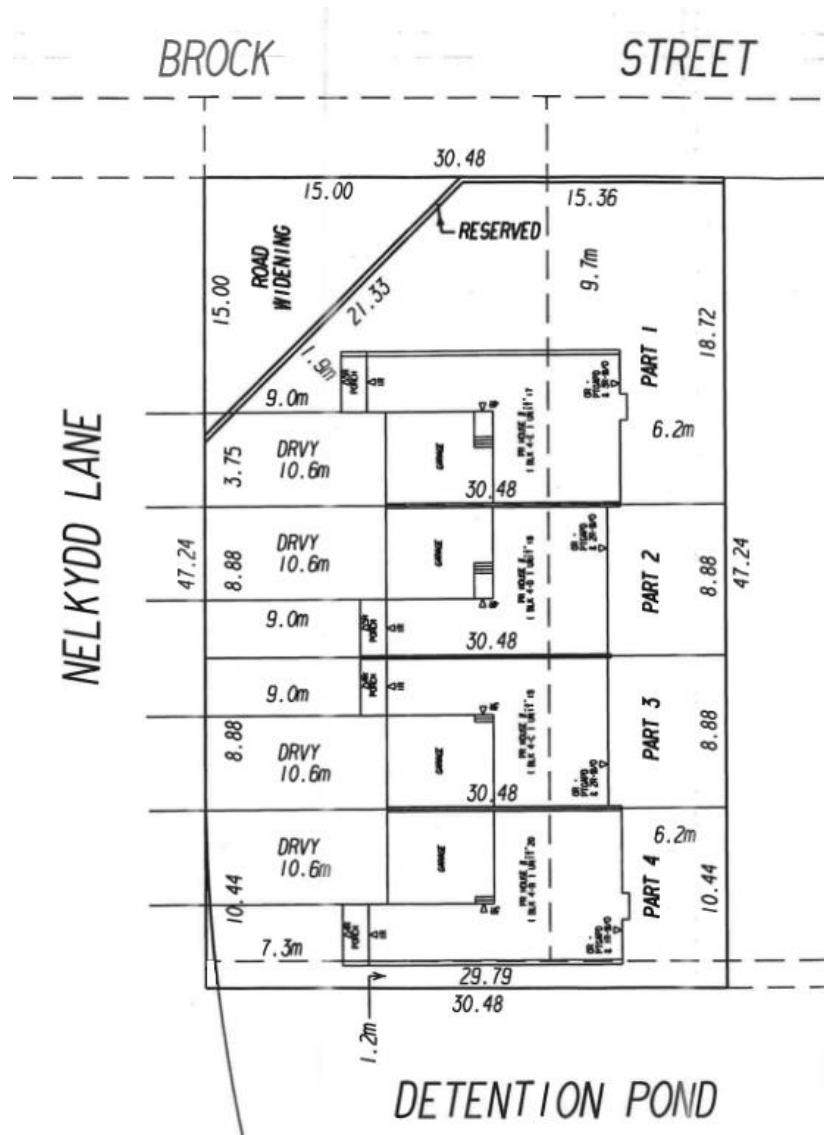
Herrema Boulevard is a local north-south roadway under the jurisdiction of the Township of Uxbridge. It is classified as a local road. In the vicinity of the subject site, Herrema Boulevard currently has a 2-lane cross-section. The posted speed limit is 40 km/h. Sidewalks are located on the east side of the roadway, and there are no cycling facilities provided.

2.3 Development Context

As per the current site plan, the proposed development consists of a 4-unit residential townhouse block. The site plan proposes a total of two driveways, with one shared driveway for each pair of townhouse units (i.e. each unit has its own driveway, but the driveways have been grouped together in terms of access to the road network). The new townhouse driveways are proposed to access Nelkydd Lane, replacing the existing driveway accessing Nelkydd Lane, while the existing access for the current land use to Brock Street East will be removed.

The site plan is shown in **Figure 2-2**, and can also be found in **Appendix A**.

Figure 2-2 Site Plan



3 DRIVEWAY LOCATION REVIEW

Regarding recommended minimum corner clearance distance between an intersection and an entranceway (driveway), the Region of Durham's Design Specification for Roads and Entranceways (April 2021) refers to the Transportation Association of Canada's (TAC) suggested minimum corner clearances. TAC's recommended minimum corner clearances are found in Chapter 8 of TAC's Geometric Design Guide for Canadian Roads (June 2017).

Figure 8.8.2 in TAC Chapter 8, Section 8.8.1, identifies the minimum corner clearance for local roads as 15 metres, regardless as to whether the adjacent intersection is signalized or unsignalized. As shown in **Figure 3-1**, the proposed corner clearance distance from the northernmost site driveway to Brock Street East is 13.76 metres. Accordingly, the driveway location falls short of TAC's suggested 15 metre minimum by approximately one metre. Given that the area surrounding the subject site is generally residential in nature and the posted speed limit of Brock Street East is 50 km/h within immediate proximity to the site, the corner clearance being 13.76 metres instead of the recommended minimum of 15 metres should not result in material differences in the operation of the site driveway or adjacent intersection.

Of note, The Region of Durham Works Department provided comments on the subject site's pre-consultation application on March 16, 2023, including comments on the subject of Transportation. The Region Staff provided the following comment on the location of the proposed driveways:

"The Region is currently designing for signal installation at the intersection. Although the driveway locations are not ideal for a signalized intersection, given the limitations of the site and low traffic volumes, we will accept the 2 shared driveway locations as shown."

As per the Region's pre-consultation comments, the proposed driveway locations shown on the site plan have been approved by the Region despite their proximity to the future signalized intersection of Brock Street East and Nelkydd Lane/Herrema Boulevard.

The Region also noted that on-street parking will be restricted along the site's frontage due to its proximity to the intersection, particularly under future signalized control. TYLin agrees that on-street parking along the site's frontage would not be safe/appropriate given the proximity to a signalized intersection.

Excerpts from the Town of Uxbridge's pre-consultation documentation are provided in **Appendix B**.

The intersection of Brock Street East and Nelkydd Lane/Herrema Boulevard and the subject site's existing driveway access to Nelkydd Lane (near its southern property limit) both have adequate sight-lines under existing conditions. Given that the proposed townhouse driveways to Nelkydd Lane are located near the existing access, it is expected that they will act in a similar manner to

4 SITE TRIP GENERATION

Site trip generation was estimated according to the Institute of Transportation Engineers (ITE) 11th Edition Trip Generation Manual. Based on the development proposal, Land Use Code (LUC) **220** "Multifamily Low-Rise Residential" was used to estimate weekday a.m. and p.m. peak hour automobile trips for the residential townhouse development. As per the current site plan, a total of four townhouse units are proposed.

Due to the transportation environment around the subject site lacking immediate access to transit routes and limited active transportation infrastructure, a non-auto mode split was not applied as a conservative estimate.

Table 4-1 summarizes the estimated total trip generation of the development during the weekday a.m. and p.m. peak hours.

Table 4-1 Trip Generation

Land Use	Units	Parameters	Weekday AM Peak			Weekday PM Peak		
			In	Out	Total	In	Out	Total
Multifamily Low-Rise Residential (LUC 220)	4	Average Trip Rate	0.4 (X)			0.51 (X)		
		Directional Trip Distribution	24%	76%	-	63%	37%	-
		Total Trips	0	2	2	1	1	2

A total of two site trips, consisting of 0 inbound and 2 outbound trips, are estimated to be generated by the subject site during the weekday a.m. peak hour. During the weekday p.m. peak hour, 1 inbound and 1 outbound site trips are estimated, totaling 2 trips.

Due to the low overall trip generation estimated for the four townhouse units, the surrounding road network is not expected to experience significant operational impacts from the proposed development.

5 CONCLUSION

Access to the four proposed townhouse units is proposed via Nelkydd Lane, approximately 14 metres south of the intersection of Brock Street East and Nelkydd Lane/Herrema Boulevard.

A review of the proposed driveway locations found that the corner clearance to the northernmost driveway is 13.76 metres, which does not meet TAC's recommended minimum corner clearance of 15 metres between a driveway and an intersection (signalized or unsignalized). It is TYLin's opinion that given the overall context of the subject site (residential area with relatively low speed limits), the corner clearance being 13.76 metres instead of the recommended minimum of 15 metres should not result in material differences in the operation of the site driveway or adjacent intersection.

As per the Region's pre-consultation comments, the proposed driveway locations shown on the site plan have been approved by the Region despite their proximity to the future signalized intersection of Brock Street East and Nelkydd Lane/Herrema Boulevard due to site limitations and low site traffic volumes.

Based on trip generation analysis conducted for the site, it is expected to generate a total of 2 site trips during the weekday a.m. peak hour, consisting of 0 inbound and 2 outbound trips. During the weekday p.m. peak hour, 1 inbound and 1 outbound site trips are predicted, totaling 2 trips. Trip generation was based on ITE trip generation for LUC 220 Multifamily Low-Rise Residential. Due to the low overall trip generation estimated for the four townhouse units, the surrounding road network is not expected to experience significant operational impacts from the proposed development.

Based on the findings of the enclosed Traffic Brief for the subject site, TYLin is of the opinion that the proposed residential development in the Town of Uxbridge will generate minimal site trips, have nominal traffic operation impacts on the adjacent road network, and poses minimal safety concerns despite its proximity to an intersection to be signalized in the future.

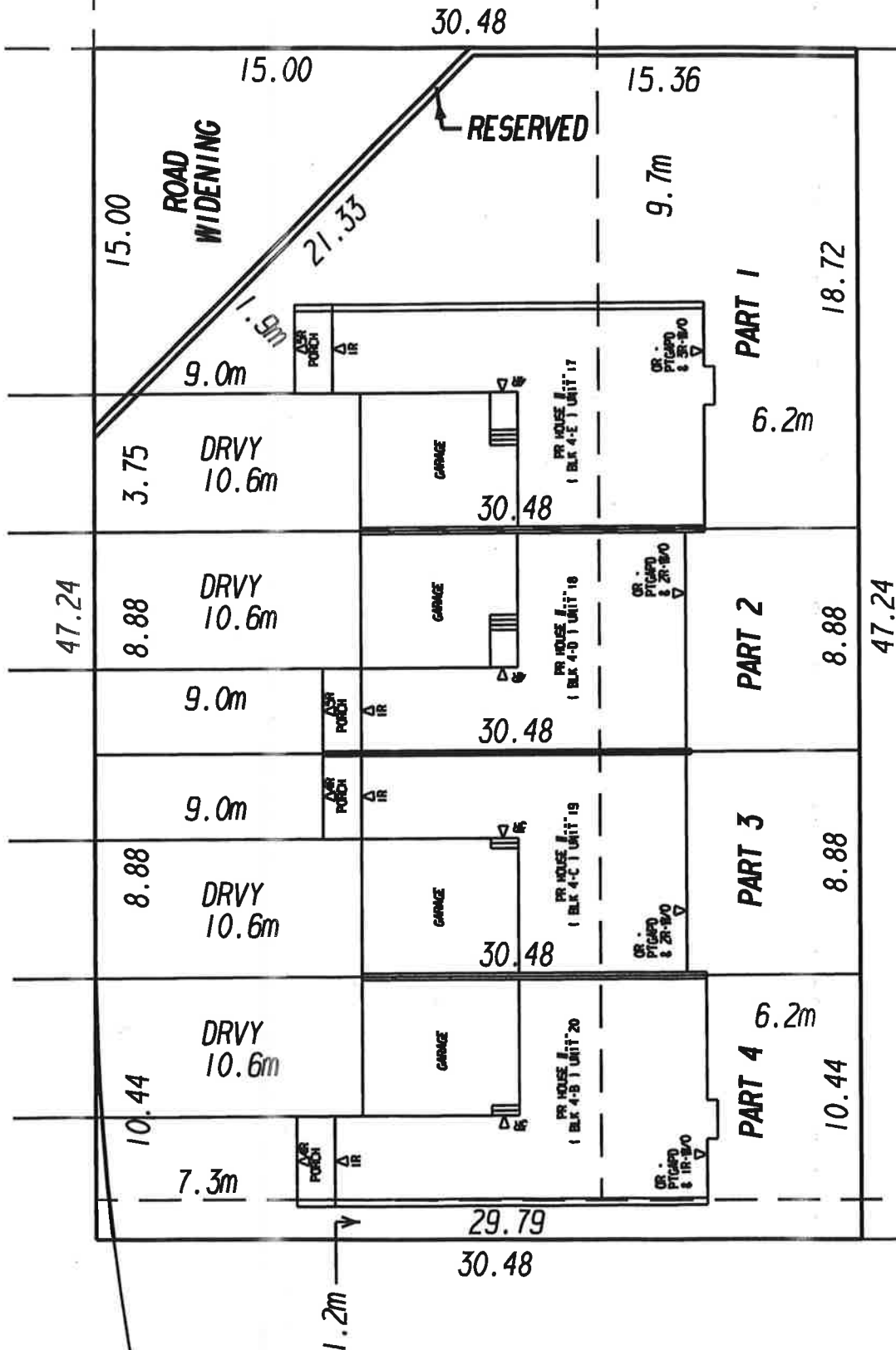
APPENDIX A

Site Plan

BROCK

STREET

NELKYDD LANE



DETENTION POND

APPENDIX B

Pre-consultation Documentation Excerpts



March 22, 2023

RE: RECORD OF PRE-CONSULTATION FOR ZONING BY-LAW AMENDMENT APPLICATION

PROPERTY LOCATION: PT LTS 51 & 52, PL H50061 & PT W 1/2 LT 30, CON 7, UXBRIDGE, PT 1, 40R4323

MUNICIPALITY: TOWNSHIP OF UXBRIDGE

The details of the meeting are as follows:

Pre-consultation Date: February 27, 2023

Parties in attendance: **Proponents**
Fabio Furlan - Owner
Ralph Grander - Agent

Township of Uxbridge Representatives

Kyle Rainbow, Director of Development Services
Michael Klose, Township Chief Building Official
Aj Singh, Planning Technician
Todd Snooks, Ward 4 Councillor/Planning Chair
Zed Pickering, Ward 3 Councillor
Peter Middaugh, AECOM
Laura Tafreshi, Planner – LSRCA

Description of Proposal:

A proposed Zoning By-Law Amendment Application for 4 townhome units at 202 Brock Street East. A quilt shop currently runs at the subject site.

Township of Uxbridge Zoning By-law Designation: PT LTS 51 & 52, PL H50061 & PT W 1/2 LT 30, CON 7, UXBRIDGE, PT 1, 40R4323 TOWNSHIP OF UXBRIDGE

Is the proposal in conformity with the Township of Uxbridge Zoning By-law?

The proposal is not in conformity with the Zoning By-law 81-19 and amendment is required.

The site 202 Brock Street East is zoned currently zoned for Commercial (C2-4). According to 4.15.1 a "Residential uses are prohibited except where one (1) dwelling unit only is located within a portion of a non-residential building permitted within the

Local Commercial Zone.” Based on the site plan submitted as part of pre-consultation, the proposal is seeking 4 townhome units at the site, which would not conform with the current C2-4 zone. In addition there are a number of other regulations will require amendments (e.g. required landscaped open space, parking area and side yards) if site plan is approved as proposed.

Please submit a completed application including relevant studies, requirements along with appropriate fees to the Development Services Department. Please contact Jennifer Beer, Permits & Approvals Analyst at 905-852-9181 ext. 225 or by email at jbeer@uxbridge.ca for further information.

Note: *Please refer to the ‘Pre-Consultation Form’ package provided secondary to the record of pre-consultation meeting which will identify relevant studies, requirements and materials that need to be submitted with your planning application.*

Township of Uxbridge Official Plan Designation: The 202 Brock Street East is designated as Brock Street Mixed use Area on Township Official Plan.

Is the proposal in conformity with the Township Official Plan:

According to section 2.5.25.2 iv) medium or higher density residential uses, including dwelling units above at-grade commercial development, with a minimum density of 35 units per net hectare (14 units per net acre) and a maximum density of 65 units per net hectare (26 units per net acre). The proposed 4 townhome units would conform with the Township Official Plan.

Other Requirements:

Region of Durham Works Department Comments dated Mar. 16/23::

‘Regional Works has reviewed the pre-consultation application and provides the below comments.

202 Brock Street East

Municipal Servicing

Water Supply:

- *The proposed development is located within the Uxbridge Water Pressure Zone 1. The estimated static water pressure exceeds 550 Kpa or 80 psi, therefore pressure reducing valves will be required.*
- *Water Supply is available from the existing 300mm PVC watermain on Nelkydd Lane*
- *Any existing connections not utilized shall be capped at the main with a brass fitting and abandoned.*

Sanitary Servicing:

- Sanitary Servicing is available from the existing 200mm PVC sanitary sewer on Nelkydd Lane.
- Any existing connections shall be capped at the back of curb and abandoned.

Transportation

- Brock Street (Regional Highway 47) is a Type 'B' arterial road. As per the Regional Official Plan (Schedule E, Table E7), the ROW width should be 30 m. No widening is required.
- A 15 m x 15 m Sight triangle dedication will be required at the intersection of the Brock Street and Nelkydd Lane, and has been represented on the conceptual plan
- The Region is currently designing for signal installation at the intersection. Although the driveway locations are not ideal for a signalized intersection, given the limitations of the site and low traffic volumes, we will accept the 2 shared driveway locations as shown.
- The developer should note that as part of the traffic signal installation, on-street parking will be restricted along the site frontage.

Development Charges

- The proposed development is subject to residential charges that are due prior to issuance of a building permit

Region of Durham Planning Division's Preliminary Comments dated Feb. 24/23:

'The subject land is located at the northeast corner Brock Street East and Nelkydd Lane within the limits of the Uxbridge Urban Area. The site is approximately .14 hectares and is currently occupied by an existing dwelling proposed to be demolished.

The applicant is proposing to redevelop the property for four (4) townhome units fronting Nelkydd Lane. The applicant will be required to apply for a Zoning By-law Amendment to permit the proposed development.

We offer the following preliminary Regional planning comments.

Conformity to the Regional Official Plan

The subject land is designated as "Living Areas" in the Regional Official Plan (ROP). Brock Street East is a designated Type "B" arterial road in the ROP.

Lands within the Living Areas designation shall be developed with a mix of housing types, sizes and tenure to meet the diverse housing needs of the residents of Durham Region.

Living Areas shall be developed in compact form through higher densities and by intensifying and redeveloping existing areas, particularly along arterial roads.

The proposed townhouse development supports mix of housing options for the residents of Durham Region, compact urban form, and pedestrian-friendly environment.